Meeting Date: 10-28-08

AGENDA REPORT

City of Santa Clara, California

Agenda Item # 6C

Santa Clara All-America City 2001

Date: October 9, 2008

To: City Manager for Council Action

From: Director of Planning and Inspection

Subject: Recommendation to Deny Appeal and Adopt Resolution of Findings that Proposed Roller Coaster at California's Great America is Exempt from CEQA and Approve Height Variance, Subject to Conditions

EXECUTIVE SUMMARY:

At the regular meeting of September 16, 2008, the Council conducted a public hearing on the Great America roller coaster variance application and accepted the additional written reports prepared by the City's consultants. Following the staff presentation and public input, the Council closed the hearing and again continued the matter following Council discussion. They referred the issue to the City Manager to work with all parties involved, to consider the environmental review options and to report back to Council on October 28, 2008. Also on September 16th, Steve Van Dorn, the President of the Santa Clara Chamber of Commerce & Convention-Visitors Bureau, volunteered to try to bring the parties together outside of the public forum to find a mutually agreeable solution to the conflict. Mr. Van Dorn has provided a report on his efforts.

Since September 16th, staff has researched CEQA regulations and guidelines, examined previously certified City environmental documents and practices and has conferred with the City's environmental consultant on this matter, David J. Powers and Associates. Detailed information on staff's research effort is provided in the DISCUSSION section of this report. Both the City's environmental consultant and the consultant who prepared the technical peer-review acoustical report, Wilson Ihrig Associates, will be available at the Council meeting to answer questions. The agenda materials provided at the September 16th and July 8th Council meetings have been provided to the Council for review in the Council offices, and are available for the public in the offices of the City Clerk and the Planning Division. Because the item was continued to a date certain, no notice of this continued hearing has been posted.

The staff conclusion is that the acoustical studies prepared by the applicant and by the appellant, as well as the peer review report conducted by Wilson Ihrig, all agree that the potential acoustical effect from the operation of the coaster will result in an office interior sound level of approximately 36 dBA during "events." This level is below the City's threshold of significance for noise impacts that are established in the General Plan and/or that have been applied historically to commercial or residential projects. In addition, staff has examined the claim that was brought forward that the proposed siting of the coaster would have a detrimental visual effect upon the appellant's property. Neither the CEQA Environmental Checklist form nor the General Plan support a claim that the structure, at about 400 feet from the office windows, would have an adverse aesthetic effect upon the property or the neighborhood.

Based upon the conclusions of the voluntary studies that have already been done and the peer review analysis, staff believes that there are less than significant noise and visual effects resulting from the project

when utilizing the CEQA thresholds of significance that have been previously applied in the City. Staff's recommendation to the Council is to adopt the resolution applying the categorical exemption and approving the height variance for the proposal, subject to conditions presented on September 16, with a 50 dBA interior testing condition.

Options:

The options for a CEQA determination that are available to the Council include, but may not be limited to:

1. Accept the Wilson Ihrig findings and the staff analysis and determine that no exceptions apply that would disallow the Class 23 Categorical Exemption (Section 15323 of the CEQA Guidelines) as presented and therefore find that the project is exempt; or
2. Accept the recommendation of Wilson Ihrig's report and impose a noise level standard related to the new coaster attraction at either 35 or 40, with a requirement that a noise measurement, mitigation and monitoring plan be established for the opening of the ride; or
3. Determine that further analysis is required in the form of an Initial Study, which may lead to the preparation of a mitigated negative declaration (MND) or an environmental impact report (EIR).

ADVANTAGES AND DISADVANTAGES OF ISSUE:

The theme park opened in 1976 and has operated continuously under the original zoning and use permit approvals, with a variety of rides and attractions that have been changed annually during its operations. The peer review process provides the City an analytical basis to consider noise conditions related to the operation of the theme park and its effects on nearby properties. In light of the nature of the theme park as an outdoor entertainment facility, it is expected that there will be noise from typical park attractions and the visitors enjoying those attractions during the park's season. Placing severe limitations on acceptable noise levels that are human generated, and that define more restrictive environmental thresholds than have been applied historically, could have implications not only on the theme park, but on other City facilities where outdoor activities occur that include screaming, such as parks and ball fields, most of which are in residential areas, and which are not contemplated in the City's General Plan or ordinance as adverse noise effects.

ECONOMIC/FISCAL IMPACT:

There is no cost to the City other than administrative staff time and expense.

RECOMMENDATION:

That the Council find that there is not a significant noise intrusion within or adverse aesthetic impacts upon the nearby office buildings as a result of the proposed roller coaster project at California's Great America, and therefore deny the appeal and adopt the resolution of findings that determines that the project is exempt from CEQA and that approves the height variance for a 111-foot high roller coaster as proposed, subject to conditions of approval.

Kevin L. Riley, AICP
Director of Planning and Inspection

APPROVED:

for Jennifer Sparacino
City Manager

Documents Related to this Report:

1) Resolution

2) ***Letter from Steve Van Dorn, dated October 17, 2008***
3) ***Council materials from the meeting of July 8 and September 16, 2008 (in Council offices)***

DISCUSSION:

On September 16, 2008, staff presented the independent peer review acoustical analysis that examined the voluntary acoustical analyses prepared by the applicant and the appellant during the course of City review of the proposed project. When the Council first continued the matter after the close of the hearing on July 8, 2008, they asked staff for an evaluation of the two reports to determine which was a more accurate representation of the effects of the coaster noise upon the office buildings immediately west of the Park. The technical consultant, Wilson Irhig & Associates, concluded that both sides reached essentially the same study result – that the interior noise environment would be approximately 36 dBA when the coaster ride and the Park would be operating.

Wilson Ihrig, based upon their understanding of the highlighted conflict, went on to voluntarily make a recommendation that the Council could apply the findings of the studies and set a monitoring and mitigation threshold at 35 or at 40 dBA that would seem to satisfy both parties to some degree. The report noted that this was a conservative approach and that the 35 dBA environment was typical of a library noise setting. Staff provided this as an option to Council, but recommended a second option that treated the situation in a manner consistent with our typical approach to project analysis and to CEQA evaluations, which Wilson Ihrig acknowledged was not their underlying purpose. Staff recommended that the Council apply the General Plan standard of up to 50 dBA as a suitable office noise environment and impose a requirement for a noise measurement to be conducted within the Prudential office building upon completion and initiation of the operation of the coaster to verify this level of compliance. The Council acknowledged the distinction of the two options and asked that staff look more closely at the CEQA issue.

In cases where a project is subject to CEQA, if a statutory or categorical exemption is not be found to be applicable, an Initial Study would then be conducted to determine what potential environmental effects might be significant due to the project. An Initial Study could lead back to justification of an exemption if no adverse effects are found, or to the preparation of a Negative Declaration or a Mitigated Negative Declaration if there may be some effect. Where there may be found to be potential effects that cannot be mitigated, an EIR would then typically be required. With the studies that have been done to date, it is not expected that new analysis would result in significantly different acoustical impact findings. Were the City to proceed with CEQA review beyond the finding of an exemption, the next step would involve the applicant securing an environmental consultant to prepare an Initial Study. That study should apply accepted thresholds for each potential environmental effect to determine if an adverse impact may occur.

The categorical exemption that has been applied to the project per Section 15323 of the CEQA Guidelines defines as exempt "*normal operations of existing facilities for public gatherings for which the facilities were designed, where there is a past history of the facility being used for the same or similar kind of purpose. For the purposes of this section, "past history" shall mean that the same or similar kind of activity has been occurring for at least three years and that there is a reasonable expectation that the future occurrence of the activity would not represent a change in the operation of the facility. Facilities included within this exemption include, but are not limited to, racetracks, stadiums, convention centers, auditoriums, amphitheaters, planetariums, swimming pools, and* <u>*amusement parks*</u>." (emphasis added). There are other coasters and other attractions of similar size throughout the park, which have been approved over the life of

the Park. It is expected, based on past practice and the testimony of Park representatives, that the installation of new rides will continue.

Reliance upon a categorical exemption may not occur where an exception to the exemption may apply. The CEQA Guidelines Section 15300.2.c. Significant Effect, states: "A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances" (emphasis added). The presence of the Park since the mid 1970's, with its outdoor thrill rides and attractions has established a generally accepted seasonal environment in this vicinity. The addition of a new coaster, where a half-dozen exist currently in the normal operations of this Park, does not create an unusual circumstance. The condition that is created with the new coaster within the current boundaries of the Park does not result in a significant noise effect according to the acoustical reports that have been produced that show office interiors would be subject to occasional noise levels that would not exceed 40 dBA, where 50 dBA has been established as an interior standard.

As stated in the agenda report of September 16, the City's General Plan Environmental Quality Element identifies common noise levels for the "Average Office" to be at 50 decibels and a "Living Room" at 40 decibels, with the typical Speech Range in the 50-70 decibel level (CSC General Plan, Fig. 5-H, p. 205). The applicable General Plan policy for this issue is "Establish a noise and land use compatibility chart as the basic City noise standard" (CSC General Plan, Sec. 5.13.2-27, p. 231). That chart is incorporated in the General Plan as Exhibit 5-G, which identifies averaged (CNEL) and day-night weighted-factor (L_{dn}) exterior noise levels for various uses at a receptor site. Exterior noise conditions at the "Incompatible" level on the chart warrant mitigation of interior noise levels to 45 dBA (L_{dn}).

The L_{dn} and CNEL standards assume calculated measurements that are weighted for evening/nighttime conditions and averaged over the 24 hour period. These terms have been applied somewhat interchangeably in EIRs and to commercial and residential projects, except that sleeping rooms have been held to a stricter 40 L_{dn} standard. In EIRs evaluating impacts from aircraft noise, for example, including the recognition of single event impacts (flyovers), the Countywide airport standard that we apply is that residential uses be mitigated to 45 dBA for general living areas and 40 dBA for sleeping areas (in CNEL terms, per the Caltrans California Airport Land Use Planning Handbook, January 2002).

The following EIR's represent a fairly consistent City approach in applying noise mitigation:

- HP/Agilent Campus Master Plan (Offices) : Interior mitigation to meet GP standard (45 L_{dn})
- Informix/Tishman-Speyer (Offices): Interior mitigation to meet 45 dBA L_{dn} standard
- Nortel Networks (Offices): Applied threshold of interior office "optimum" level of 50 dBA L_{max} and "acceptable" level of 60 dBA L_{max} with interior mitigation to fall within that range
- Sobrato Lawson Lane (Office/R&D): Interior mitigation to meet GP standard (45 L_{dn})
- Rivermark mixed use (Offices/Commercial, Hotel, Fire Station, Library, School, Residential): All required to meet minimum 45 L_{dn} interiors / 40 L_{dn} for sleeping areas.

Given the standards that have been applied consistently, staff's concern relates to creating and applying a more rigorous standard that could affect future projects. The completed studies for this project, demonstrating an interior noise level of 36 dBA, would meet the standards we have used and would not require further analysis or mitigation. These studies identified the maximum impact, including screaming, at

36 dBA; this is essentially consistent with the background noise level of the office and lower than the CEQA standard that has been applied to other projects.

With respect to the claim of visual impacts, the CEQA Initial Study checklist items that might be considered include: *Would the project have a substantial adverse effect on a scenic vista?* and *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?* CEQA analysis that has typically been done that is related to relatively massive structures has dealt with public views of the project. The ride site is approximately 400 feet from the Prudential office buildings, and only four of the six floors in this building may see some portion of the new ride or out to the surrounding area above the 45-foot high parking garages on the office site. The three individual peaks of the new ride all fall within an approximately 60-degree segment of the 180-degree view from the upper office windows. Easterly views from the upper windows of the building currently look into the Park where several of the taller rides are visible; the new ride is consistent with the character of structures presently visible in the Park.

For comparison, other certified City EIR's have done visual impact analyses that considered the construction of large structures on vacant areas or replacing other structures, such as the Nortel buildings, the Tishman-Speyer office complex on Freedom Circle and the Lawson Lane Campus Project.

- The Nortel (Prudential) 6-story office building project, at approximately 100 feet in height and stretching about 1,100 feet from north to south and sitting approximately 80 feet from the street, was deemed to have a "Less than Significant" effect as it was evaluated in its spatial relationship to neighboring uses and in its visual aspects of mass, scale and height to the degree that it would visually contrast with the area.
- The Tishman-Speyer project analysis of 11 and 12 story buildings (200 feet tall) was evaluated in the context of the surrounding area and was deemed to have a "Less than Significant" effect.
- The Lawson Lane 6-story, 100-foot tall (maximum of 3 buildings), visible from two expressways and in close proximity to other existing buildings on nearby properties, was analyzed as not affecting a scenic vista or scenic views and therefore would not degrade the visual quality of the site or surrounding area and therefore was deemed to have a "Less than Significant" effect.

Given that the project represents a compatible addition to the existing environment of the theme park generally and that the coaster site within the Park is approximately 400 feet from the office buildings and is partially shielded by the parking structure, each of the Checklist questions above would be answered as a "Less than Significant" impact.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF SANTA CLARA, CALIFORNIA, FINDING THAT A PROJECT IS EXEMPT FROM CEQA AND APPROVING A VARIANCE FOR A 111-FOOT HIGH ROLLER COASTER IN A THOROUGHFARE COMMERCIAL ZONING DISTRICT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

WHEREAS, the Site is currently zoned Commercial Thoroughfare ("CT") and has a 35-foot height limit; and,

WHEREAS, there has been a theme park approved and operating on the Site since 1973, with constant improvement and replacement of rides and attractions, and it is anticipated that the theme park use will continue; and,

WHEREAS, on January 10, 2008, the Applicant submitted an application for a variance to the CT height restriction to install a 111-foot high roller coaster on the Site; and,

WHEREAS, Cedar Fair ("Applicant") is the current lessee and operator of the Great America Theme Park ("Park") located at 1 Great America Parkway, Santa Clara, California ("Site"); and,

WHEREAS, since its inception the Park annually changes existing rides, or installs new rides in order to enhance economic and operational vitality; and,

WHEREAS, the Park is included in the 1973 Bayshore North Redevelopment Plan and the environmental impacts of the Park were analyzed in the Final Environmental Impact Report for the Bayshore North Redevelopment Plan and the August 1999 Bayshore North Redevelopment Projects Final Environmental Impact Report; and,

WHEREAS, this matter was originally set for hearing before the City of Santa Clara's Planning Commission ("Commission") on February 13, 2008, and was continued to March 12, 2008, then April 23, 2008; and was continued again by the Planning Commission to May 28, 2008; and,

WHEREAS, in response to public comments during the March 12, 2008 hearing on the variance application the Applicant amended its application to relocate the roller coaster within the Park; and,

WHEREAS, after attempting negotiation of a different location with adjacent property owners, the Applicant requested that the City consider the original Application at the May 28, 2008 Planning Commission meeting; and,

WHEREAS, the City re-noticed a public hearing for the variance application, setting the matter for the Commission's consideration on May 28, 2008; and,

WHEREAS, the Planning Commission held a public hearing on the variance application on May 28, 2008, taking public testimony, and considering all evidence before it approved the request for the variance; and,

WHEREAS, the Planning Commission's action was appealed by a petitioner opposed to the action, and Council set a public hearing for July 8, 2008 to consider the appeal. The July 8, 2008 public hearing was noticed in the time and manner required by law.

WHEREAS, the Council held a public hearing on July 8, 2008 to consider the appeal, considered the staff presentation, accepted public testimony, closed the hearing and thereafter continued the closed hearing solely for further staff analysis of the analyses prepared and submitted by both parties prior to and during the public hearing.

WHEREAS, the City Manager secured consultants to conduct peer review of the noise analyses presented during the public hearing and the consultants prepared this review and concluded that

no adverse effects would likely occur at the anticipated noise levels inside the nearby office buildings that could result from the proposed ride.

WHEREAS, the General Plan identifies common sound levels for land uses, including offices at 50 decibels, and that the City noise ordinance (Chapter 9.10 of the City Code of the City of Santa Clara) addresses fixed noise sources and provides criteria for evaluating noise effects, including consideration of ambient noise levels and limitations on effects related to human speech whereby short duration screams in this setting do not "convey informational content."

WHEREAS, the findings of the peer review conclude that the noise levels within the office buildings would be at or around 36 dBA, and that this noise level is consistent with the noise standards identified in the General Plan is consistent with the standards set forth in the City's noise ordinance.

NOW THEREFORE, BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

1. CEQA Compliance and Findings.

A. California's Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.*, requires a public agency to evaluate the environmental impacts of a proposed project. CEQA contains a list of categorical exemptions for projects that are not required to undergo environmental evaluation. CEQA Guideline section 15323 establishes a "Class 23" exemption, and provides in pertinent part that:

> "normal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility being used for the same or similar kind of purpose [are exempt]. For purposes of this section 'past history' shall mean the same or similar kind of activity has been occurring for

at least three years and that there is a reasonable expectation that the future occurrence of the activity would not represent a change in the operation of the facility. Facilities included in this exemption include, but are not limited to . . . amusement parks."

B. The Council hereby finds that approving a variance for the roller coaster falls within the Class 23 CEQA exemption created by CEQA Guideline section 15323 because: (i) the roller coaster is part of the normal operation of the current facility and that there are eight roller coasters in the park; (ii) the amusement park is a public gathering place and the facility was designed for such gatherings; (iii) the Site has been used as an amusement park for at least thirty-two years, with multiple roller coasters and other attractions and the Applicant represents that the theme park use will continue; (iv) the Park historically updates the attractions by adding and removing rides annually; (v) adding a roller coaster is not a change in the operation of the Park because the Park already has eight coasters; (vi) further analysis requested by the Council does not demonstrate a potential significant impact to nearby properties.

2. Variance Approval, Subject to Conditions and Findings.

A. Chapter 18.108 of the City Code of the City of Santa Clara governs approval of variances in the City. Section 18.108.040 requires the Council to make the following findings in order to grant a variance:

(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.

(b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.

(c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.

(d) That the granting of the variance is in keeping with the purpose and intent of this title.

B. The Council, pursuant to Section 18.108.040, based upon all evidence oral and written before it, finds that:

(a) there are unusual conditions applying to the land or building which do not generally apply in the same district because:

(i) the land has a theme park use, which is not a common or typical use in the district. Such a use requires structures which vary from the specific zoning requirements in order to allow the Park to have a variety of ride design to enhance customer experience;

(ii) the 35-foot height limit of the CT zoning district is not appropriate when applied to the unique collection of rides, attractions and structures that comprise the Park, and which are needed to enable the Park to remain a viable use and to support tourist and recreational oriented uses;

(iii) the Park operates on a seasonal basis, and only on weekends in non-peak seasons, creating an additional unique feature about the use of the land which distinguishes it from other land and buildings in the same zoning district in other places in the City;

(iv) unlike other properties in CT districts, e.g., those along El Camino Real, the theme park is located next to taller structures making allowance of greater height limits appropriate.

(b) the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the Applicant because:

(i) the Applicant has made a substantial investment in the Park, and has significant ongoing costs and installation of new rides and attractions is necessary to the continued economic vitality of the Park because customers expect new rides on an annual basis;

(ii) strict compliance with the 35 foot height limit would prevent the creation and installation of virtually any new or significant rides at the Park, and it is necessary to periodically add new attractions such as the requested roller coaster in order to keep the Park economically viable by attracting new and returning patrons;

(iii) addition of new rides and attractions, such as the requested roller coaster, is essential to preserve the owner's existing substantial investment in the Park as well as to allow growth in revenues to keep the Park economically feasible.

(c) granting a variance shall not, under the circumstances of this particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the Applicant's property and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood because:

(i) the Park, already includes rides which generate noise and activity and are highly visible structures. Such potential impacts on the neighborhood were analyzed when

the Park was opened, and in later environmental review, and were found not to be detrimental to the health, comfort and general welfare of the neighborhood surrounding the Site. The proposed roller coaster is consistent with the types of uses and potential impacts previously analyzed, including potential height and visual impacts;

(ii) the addition of the proposed roller coaster will add a complementary use to the existing theme park, of a type and kind that would typically be expected to be constructed at a theme park. The coaster is lower than many current park features and is not excessive relative to the overall Park;

(iii) the Applicant has voluntarily conducted noise studies which confirm that the new coaster will not create noise impacts any greater than those allowed by City standards, or any other applicable standards and guidelines for the measurement of noise at both exterior and interior commercial and residential receptors;

(iv) the projected noise from the coaster, based upon peer review of two divergent noise studies, is no greater than noise impacts from the Park than were predicted and analyzed in the environmental review process for the adjacent office building uses at 4555-4559 and 4655-4659 Great America Parkway and is consistent with the standards of the General Plan and the City noise ordinance;

(v) commercial properties developed after the theme park opened were required to incorporation mitigation measures to attenuate noise from the Park.

(d) granting of the variance is in keeping with the purpose and intent of this ordinance because, applied strictly, the 35-foot height limit would be detrimental to the success of the theme park and the related tourist and recreational uses, and would be inconsistent

with the Tourist Commercial General Plan designation for the theme park. Granting the variance would facilitate consistency with the General Plan, which is one of the objectives of the zoning ordinance.

C. Based on the foregoing findings, the evidence before it, and all oral and written testimony, the Council hereby approves a variance for one 111-foot high roller coaster in the CT zoned Park. The roller coaster shall be within fifteen (15) feet of the location depicted in the map attached hereto as Exhibit A and is subject to the conditions attached hereto as Exhibit B.

3. Incorporation of Exhibits. All exhibits identified in this resolution are incorporated as if fully set forth herein by this reference.

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4. Constitutionality, severability. If any section, subsection, sentence, clause, phrase, or word of this resolution is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portions of the resolution. The City Council of the City of Santa Clara hereby declares that it would have passed this resolution and each section, subsection, sentence, clause, phrase, and word thereof, irrespective of the fact that any one or more section(s), subsection(s), sentence(s), clause(s), phrase(s), or word(s) be declared invalid.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE ___ DAY OF _____, 200__, BY THE FOLLOWING VOTE:

AYES: COUNCILORS:

NOES: COUNCILORS:

ABSENT: COUNCILORS

ABSTAINED: COUNCILORS:

ATTEST: _____
ROD DIRIDON, JR.
CITY CLERK
CITY OF SANTA CLARA

Attachments Incorporated by Reference:
1. Exhibit A: Location Map
2. Exhibit B: Conditions of Approval

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Exhibit A

Roller Coaster Location Map

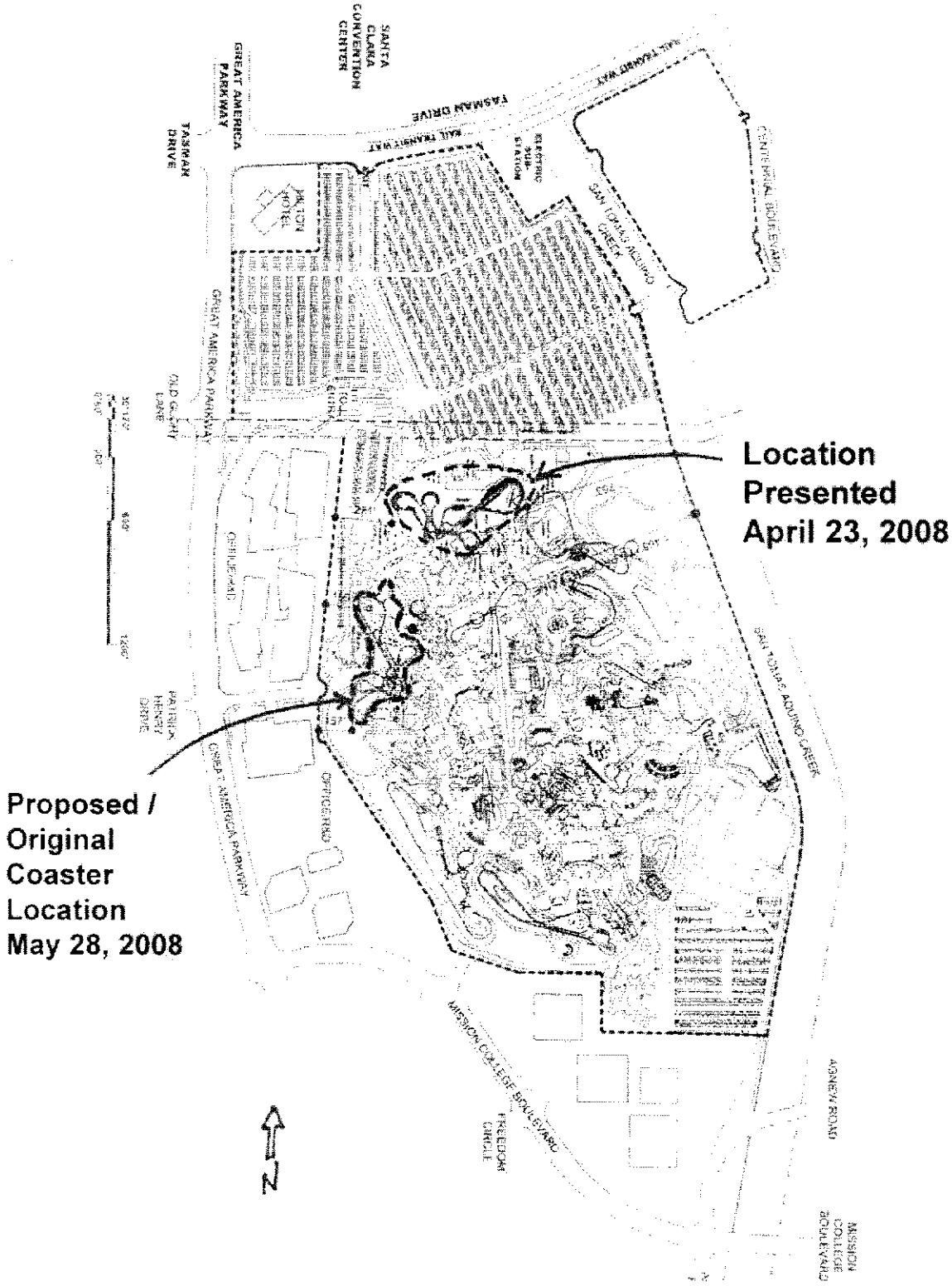

Exhibit B

Conditions of Variance Approval

GENERAL

1. If relocation of an existing public facility becomes necessary due to a conflict with the developer's new improvements, then the cost of said relocation shall be borne by the developer.

ENGINEERING

2. Obtain site clearance through Engineering Department prior to issuance of building permit. Site clearance will require payment of applicable development fees. Other requirements may be identified for compliance during the site clearance process.

3. If any work is proposed within the public right-of-way and/or public easement, which is to be performed by the Developer/Owner, the general contractor, and all subcontractors, it shall be included within a **Single Street Opening Permit** issued by the City Engineering Department. Issuance of the Street Opening Permit and payment of all appropriate fees shall be completed prior to commencement of work, and all work under the permit shall be completed prior to issuance of occupancy permit.

FIRE

Occupancy Classifications:

4. State the occupancy classification in accordance with the International Building Code for each building or areas.

Fire Department Emergency Access:

5. Approved fire apparatus access roads (public/private) shall be established and maintained to within 150 feet of all exterior walls of any building.

6. Approved fire apparatus access roads shall have a minimum 20-foot width, have a minimum 13 ½-foot vertical clearances and have a minimum 36-foot inside turning radius.

7. Dead-end fire apparatus access roads that exceed 150-feet in length shall be provided with a 75-foot diameter vehicle turnaround or an approved hammerhead turnaround (incorporating the minimum 36-foot inside turning radius).

Water Supply:

8. Private fire hydrants and mains capable of supplying the required fire flow shall be installed when any portion of the building protected is in excess of 150 feet from a water supply, as measured by an approved route around the exterior of the facility or building. On-site fire hydrants and mains capable of supplying the required fire flow shall be provided. Fire flow for hydrants shall be in accordance with Appendix B and C of the 2007 CFC. At time of permit application, show on the drawings both the existing fire hydrants and any new proposed fire hydrants.

9. When underground fire service mains are required, submit separate plans, fees and fire flow calculations to the Fire Department for separate review and permit. Each parcel or building may require separate fire service. (NOTE: Stamped and wet signed Civil drawings shall be submitted in conjunction with shop quality drawings by the installing "A" or "C-16" licensed contractor).

10. The FDC shall be located within 50 feet of a fire hydrant, plus on the same side of the road as the fire hydrant(s).

11. In private underground piping systems, any dead end pipe, which supplies both sprinkler and hydrants, shall be not less than eight (8) inches in diameter.

Required Fire Protections/ Detection Systems and Equipment:

12. An automatic fire sprinkler system shall be provided for GROUP A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 1,000 square feet. Sprinkler main drain test valves shall discharge to the sanitary sewer system (via an indirect connection) or shall discharge onto a landscape area of sufficient size. Apply directly to the Fire Department for a separate sprinkler permit.

Fire Safety During Construction:

13. At the time of permit application, submit a construction "Fire Safety Plan" to the Fire Department for review and approval. The "Fire Safety Plan" shall address fire protection (i.e., access roads, water mains, on-site fire hydrants, fire extinguishers and standpipes) be installed and made serviceable prior to the time of construction. Include in the safety plan the location of fire extinguishers, fire hydrants (public and private), storage of combustible construction materials, propane tanks, and "NO SMOKING" signs. Plus the Safety plan shall address the how the following items will be used: temporary heating devices, temporary electrical wiring, cutting/welding and other open-flame devices. See "Standards for Construction site fire Safety" handout or website at www.unidocs.org/fire

Fire Department Notes (Required on plans/ drawings at the time of application)

14. At the time of Building Permit application, submit Civil Drawings that denote existing and proposed locations of fire hydrants, underground sectional valves, fire department connections and post indicator valves for fire department review and approval.

15. Prior to combustible materials being brought onto the site, approved fire apparatus access roads shall be constructed. These shall be capable of supporting the imposed fire apparatus load (70,000 lbs.) and have a FD approved all-weather driving surface.

16. Construction materials shall not obstruct access roads, access to buildings, hydrants or fire appliances.

17. Combustible construction in excess of 100 feet from the street shall not commence until emergency access roads; underground fire service lines and permanent on-site hydrants are in service and have been tested, flushed and approved by the Fire Department.

18. During construction of a building and until permanent fire-extinguishers have been installed, portable fire extinguishers are required within 50 feet travel distance to any part of the building in accordance with California Fire Code and the Santa Clara Municipal Fire and Environmental Code.

19. General Permit Storm Water Discharges Associated with Construction Activity-Water Quality through the State (order 99-08-DWQ) shall be adhered to regarding non-point source issues on construction sites (i.e., prevention of paints, debris, etc. from going down storm drains). The Permit is issued by the State Water Resources Control Board. Information regarding the permit can be found at www.waterboards.ca.gov/stormwtr/index.html.

20. Internal-combustion-powered construction equipment shall be used as follows:
    a. Equipment shall not be refueled while in operation.
    b. Exhausts shall be piped to the outside of the building.

PLANNING AND INSPECTION

21. Obtain required permits and inspections from the Building Official and comply with the conditions thereof.

22. Submit plans for final architectural review to the Planning Division and obtain architectural approval prior to issuance of building permits.

23. Conduct interior noise measurements within the office buildings at 4555-4655 Great America Parkway (Prudential office buildings) upon the completion and initiation of operation of the coaster. Noise measurements should ascertain whether mechanical noise from the new coaster create exceedance of 50 dBA sound levels, and if so provide mitigation of this noise to the 50 dBA standard, to the satisfaction of the City.

ATTACHMENT 2

SANTA CLARA
SILICON VALLEY CENTRAL
CHAMBER OF COMMERCE & CONVENTION-VISITORS BUREAU

October 17, 2008

Carol McCarthy
Deputy City Manager
City of Santa Clara
1500 Warburton Ave.
Santa Clara, CA 95050

RECEIVED
City of Santa Clara
Planning Division

Subject: Proposed Roller Coaster Project at Great America

Dear Carol,

At the September 16, 2008 Santa Clara Council Meeting, the Santa Clara Chamber of Commerce and Convention-Visitors Bureau offered to contact Cedar Fair and Prudential Commercial Real Estate to help broker a meeting between the two parties with the goal of coming up with a negotiated agreement that both would find satisfactory regarding the proposed roller coaster at Great America.

Another goal of mine was to hold the meeting without the organizations' respective lawyers, hoping this would bring about a speedy agreement. Unfortunately, Prudential communicated to me they would be unable to meet without legal representation. On the other hand, Cedar Fair was willing to meet without their legal representation.

During this process, Council Member Pat Kolstad received calls from both parties. Mr. Kolstad and I had been in communication as well so he was aware of the legal representation requirement but invited both parties to meet anyway. After several discussions, Mr. Kolstad learned that both parties were not willing to consider alternatives or concessions so a meeting was not scheduled.

I am sorry to report that both Council Member Kolstad and I were unable to broker a meeting between Cedar Fair and Prudential Commercial Real Estate regarding the roller coaster project.

Sincerely,

Steve Van Dorn
President & CEO

CC: Council Member Pat Kolstad

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Telephone: (408) 244-8244 • Chamber of Commerce Fax: (408) 244-7830 • Convention-Visitors Bureau Fax: (408) 244-9202

Meeting Date: 9/16/08

AGENDA REPORT

City of Santa Clara, California

Agenda Item # 6B

Santa Clara All-America City 2001

Date: September 11, 2008

To: City Manager for Council Action

From: Director of Planning and Inspection

Subject: Follow-up Information Requested by City Council on California's Great America Coaster Height Variance Appeal Hearing held on July 8, 2008, Presentation of Acoustical Analysis Peer Review by Wilson, Ihrig & Associates

EXECUTIVE SUMMARY:

On July 8, 2008, the Council held an appeal hearing for the variance request approved by the Planning Commission regarding the proposed new roller coaster for California's Great America Theme Park. The Planning Commission, on May 28, 2008, had considered and approved a variance to allow the installation of a 111-foot high roller coaster at the theme park, as requested by the owner/operator, Cedar Fair. That approval was then appealed by Luce Forward, Attorneys at Law, on behalf of their client, Prudential Real Estate Investors. Upon closing that hearing on July 8, Council asked that staff conduct an independent and comparative evaluation of the analyses presented by the acoustical consultants of both Great America and Prudential Real Estate. Staff indicated that they would need a qualified acoustical consultant to properly conduct a peer review of these technical reports.

Staff took a recommendation from the two parties, who agreed that the well respected firm of Wilson, Ihrig & Associates (Wilson Ihrig) in Oakland would be an appropriate resource, and prepared the materials from Council for the consultant's use. In fact, the City engaged a separate firm to enter into and oversee the contract with Wilson Ihrig, to provide them the information, to direct them in their work and to evaluate the results of the technical work that would come from them. This second firm, David J. Powers and Associates, typically conducts complete environmental reports on projects, and so is skilled in translating technical results from a variety of specialized consultants into layperson's terms.

The Wilson Ihrig report and the Powers overview report are both attached. The Wilson Ihrig report was provided to both parties on September 11, but the complete packet for this item was made available upon the conclusion of the preparation of the full agenda packet on Friday afternoon. All of the materials from the July 8 report are provided in the Council offices and are available in the City Clerk's office and the Planning Division office. As this was a continued closed hearing to a date certain, no additional noticing has been provided. It is the Council's decision to reopen the hearing or not at this time to take additional testimony.

The conclusions of the technical report are that the anticipated 36 dBA of the subject noise is not a significant intrusion in the office setting and that the psychoacoustic effect of screaming from the rides is not significant within the office building at the measured levels for the average worker. The report identifies a 35 dBA noise level as typical of a library environment, as noted in the City's General Plan. In fact, the City's General Plan Environmental Quality Element does identify common noise levels for the "Average Office" to be at 50 decibels, with the Speech Range in the 50-70 decibel level (CSC General Plan, Fig. 5-H,

p. 205). The consultant's findings would not trigger further CEQA review based upon the General Plan or Noise Ordinance factors.

Options:
The consultant has voluntarily provided a recommendation that the Council accept the 35 or 40 dBA level as a standard for this application and apply it to the coaster project with monitoring and mitigation, as necessary, upon opening the attraction. While this would address this specific situation, staff is concerned that this could set a standard for interior space noise levels in other based upon human generated noise situations that would effectively be more restrictive than or in conflict with the General Plan. This noise level measured for the project is well within the 50 dBA level established and accepted by the City for the office uses in both the General Plan and in the 2000 Nortel EIR.

Council options include:
1. Accept the recommendation of Wilson Ihrig's report and impose a noise level standard related to the new coaster attraction at either 35 or 40, with a requirement that a noise measurement, mitigation and monitoring plan be established for the opening of the ride.
2. Maintain current standards based upon the General Plan that accept up to 50 dBA as a suitable office noise environment, and require that a noise measurement be conducted within the Prudential office building upon completion and initiation of the operation of the coaster to verify this level of compliance, per condition #23 in the attached resolution.

ADVANTAGES AND DISADVANTAGES OF ISSUE:

The theme park opened in 1976 and has operated continuously under the original zoning and use permit approvals, with a variety of rides and attractions that have been changed annually during its operations. The peer review process provides the City an analytical basis to consider noise conditions related to the operation of the theme park and its effects on nearby properties. In light of the nature of the theme park as an outdoor entertainment facility, it is expected that there will be noise from typical park attractions and the visitors enjoying those attractions during the park's season. Placing severe limitations on acceptable noise levels that are human generated could have implications not only on the theme park, but on other City facilities where outdoor activities occur that include screaming, such as parks and ball fields, most of which are in residential areas, and which are not contemplated in the City's General Plan or ordinance as adverse noise effects.

ECONOMIC/FISCAL IMPACT:

There is no cost to the City other than administrative staff time and expense.

RECOMMENDATION:

That the Council accept the peer review conducted by Wilson, Ihrig & Associates of the noise analyses submitted by the opposing parties for the proposed new roller coaster at California's Great America Theme Park and its conclusions that there is not a significant noise intrusion within the nearby office buildings, and therefore deny the appeal and adopt the resolution of findings that determines that the project is exempt from CEQA and that approves the height variance for a 111-foot high roller coaster as proposed and in accordance with Option #2 above and subject to conditions of approval.

Kevin L. Riley

Kevin L. Riley, AICP
Director of Planning and Inspection

APPROVED:

Jennifer Sparacino

Jennifer Sparacino
City Manager

Documents Related to this Report:

1) ***David J. Powers& Associates letter, dated September 8, 2008***
2) ***Wilson Ihrig Acoustical Peer Review Report, dated September 4, 2008***
3) ***Council Resolution***
4) ***Prior Agenda Report of July 8, 2008, w/ attachments (in Council offices)***

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Exhibit 1

DAVID J. POWERS & ASSOCIATES, INC.

September 11, 2007

ROLLER COAST NOISE ISSUES

Purpose of this Report

David J. Powers & Associates was retained by the City to evaluate materials prepared by others on the noise effects from a proposed roller coaster at Great America, to determine whether a new CEQA document was required and to advise the City on the sufficiency of the analyses done to date. We, in turn, retained Wilson, Ihrig & Associates, Inc., an acoustical consulting firm found acceptable by all parties in the process. Below is a summary of Wilson, Ihrig's findings and our evaluation of the CEQA and land use implications.

The direction given to Wilson, Ihrig was to review all of the written material and the Council hearing tape generated by the proposed roller coaster and to advise us and the City as to which of the positions taken on the likely noise impacts was correct. Their conclusion was that neither consultant made an overt attempt to deceive or misrepresent the situation. But each consultant's interpretation of the assumptions was influenced by the interests of his particular client. Even so, their conclusions were "not as far apart as they appear".

The noise evaluation prepared by Wilson, Ihrig evaluates all of the technical analysis provided, identifies the conditions and identifies the choices available to the City. It also included recording the noise levels inside and outside the office building. After their review, they concluded that the central issue of the controversy was screaming noise and how it might effect occupants of the offices in the Nortel building Other points of contention (such as noise at the property line) were peripheral since there are no receptors outdoors at the property line.

Applicability of the Noise Ordinance

The report from Wilson, Ihrig includes an evaluation of existing conditions outside the office building and a discussion of the City's noise ordinance. The discussion of the noise levels likely at the property line and their consistency with the noise ordinance starts on page two of the report. It identifies likely ranges for each of the factors and suggests interpretations for each. Since the City typically incorporates frequent aircraft noise as part of the ambient, the ambient at this location would typically be identified as 75 dBA. If the City Council agrees that screaming on a roller coaster in an amusement park is equivalent to speech or music under the City's ordinance (which triggers a five decibel penalty), the standard required by the noise ordinance at the property line would probably be exceeded by the proposed coaster by 5 dBA. If that penalty is not assessed, the Ordinance standard at the property line for a property zoned *Light Industrial* would not be exceeded.

With regard to the nature of the screaming and the likelihood that another roller coaster in the amusement park would create a "psycho acoustic impact", the report concludes that screaming is already occurring and is perceptible inside the offices, that likely everyone in the area knows there is an amusement park at Great America, and the screaming is not now and will not in the future be sufficiently loud as to cause a "startle" effect inside the offices.

Applicability of CEQA

The information discussed in the Wilson, Ihrig report does not appear to support a CEQA determination of the project resulting in a significant environmental impact.

CEQA thresholds of significance for noise are generally expressed in terms of adopted guidelines or policies about what overall level of noise might be incompatible with a particular land use. The City of Santa Clara mostly uses averages expressed as DNL (or L_{dn})or CNEL to evaluate the suitability of a particular noise environment for a particular land use. For a particularly intrusive noise (like a train whistle), the CEQA analysis will occasionally identify the impact of a "peak event" or L_{max} on a noise sensitive land use (such as the bedrooms of a residence). CEQA analysis looks at both the predicted noise level and the sensitivity of the receptors. Nothing in Santa Clara's General Plan or noise ordinance identifies a business office as a sensitive receptor to which special consideration should be given in identifying acceptable noise levels and the General Plan does not specifically identify an acceptable level for noise inside an office.1

Previously Prepared EIR

The EIR done in 2000 for the Nortel office buildings adjacent to Great America identified L_{max} levels of between 50 and 60 dBA as generally acceptable for office noise environments. The developer of the office buildings did not object to or disagree with that standard. The EIR concluded that, due to noise from Great America, typical construction would not ensure interior noise levels within that range without mitigation provided by STC rated window assemblies. The EIR identified a range of possible window assemblies that would provide a range of noise reduction. Apparently the window assemblies chosen by the developer were the minimum identified by the EIR (STC of 32 providing 28 dB of noise reduction).

Wilson Ihrig focused on identifying the typical maximum noise level that screaming from the proposed roller coaster is likely to reach inside those offices with a direct line of sight to the coaster. The report found that the typical maximum noise from Great America currently does not exceed 35 dBA inside the Nortel building offices on the upper floors (which are the floors with a direct line of sight to the proposed coaster and will be the most effected). The Wilson Ihrig report also points out that the written materials from the noise consultant for Prudential (owner of the office buildings) identified a typical maximum noise level of 36 as likely to occur from the proposed roller coaster. The City's General Plan identifies 35 decibels as the

1 The Noise Ordinance identifies 70 dBA DNL as the maximum noise level at the property line of an industrial property. With typical building attenuation, the interior levels would be 50 dBA DNL.

equivalent of sound levels in a library. [General Plan Figure 5-H] To restate this, the loudest the noise from the screaming on the roller coaster will likely ever be inside these office buildings is 36 dBA, which is the equivalent of the sound levels typically found inside a library.

CEQA thresholds are designed to identify significant environmental impacts. The relevant thresholds in the EIR prepared in 2000 for the Nortel buildings identified significant impacts as occurring from noise levels that conflicted "with established plans and policies", or exposed "people to noise levels in excess of established standards".

Since the noise levels from the proposed roller coast that are likely to be experienced inside the existing offices would not exceed the levels identified in the FEIR previously prepared for those office buildings, the noise levels from the roller coaster would not trigger the need for further CEQA review. Should the Council identify a new standard for office interiors in the context of this project, it might have implications for future CEQA documents for similar projects.

Land Use Compatability

As described in the Wilson Ihrig report the screaming noise which is the subject of the current controversy will often occur for 1-2 seconds about every 2 ½ minutes during the time the proposed roller coaster is operating. The roller coaster would operate seven days a week during the summer, and on weekends during spring and fall. The noise would be perceptible to the occupants of those three floors of offices that are within sight distance of the roller coaster, and that are near the windows (*i.e.*, not behind partitions). The screaming noise may not be as loud on every trip and, if the receptors are near air conditioning vents or the coffee maker, they may not hear the screaming noise every time it does occur.

The Wilson Ihrig report identifies two possible standards which the City of Santa Clara might apply to the proposed roller coaster. Since the project as proposed would be consistent with the analysis in the previously prepared EIR and would not exceed the CEQA threshold, the standard is not related to a CEQA threshold.

The City could require that the roller coast not generate noise levels that would cause a typical maximum noise level inside the adjacent office buildings greater than 35 dBA. This standard would ensure that virtually no one (other than a few highly sensitive people) inside the office would be annoyed or would likely even notice the new source of noise. That standard is characterized as "very conservative". It could also establish an assumption that the City Council of Santa Clara considers the noise impacts from outside an office building should be mitigated to 35 dBA, which is about the same level typically found in a library.

The other standard would require that the roller coast not generate noise levels that would cause a typical maximum noise level inside the adjacent office buildings greater than 40 dBA. Since background noise levels in the Nortel offices are between 35 and 40 dBA now, this is less rigorous. If the screaming ever did actually reach 40 dBA inside the office, more reaction from more people in the offices might be expected. The Prudential noise consultant predicted a maximum level of only 36 dBA. The Wilson Ihrig consultant does not believe that the noise

level from the roller coaster will likely reach 36 dBA, or 40 dBA at the work station of any person inside the office building (see page 7 of the report).

Should the City Council determine that the roller coaster be held to a 35 dBA standard for maximum noise impact, verifying compliance will itself require a very careful protocol.

To verify compliance with the more rigorous standard (35 dBA), it would be necessary to: (1) first exclude all other noise sources in the office (air conditioning, coffee machines, fluorescent lights, etc.) probably by taking the noise readings on a weekend with all HVAC, lights and appliances/office equipment turned off, and (2) use a spotter in the amusement park to identify which roller coasters were operating and under what conditions (how many passengers) during the sound level recording, in order to evaluate the recorded sound levels.

Exhibit 2

WILSON, IHRIG & ASSOCIATES, INC.
ACOUSTICAL CONSULTANTS

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4 September 2008

Ms. Michelle Yesney
Vice President
David J. Powers & Associates, Inc.
1885 The Alameda, Suite 204
San Jose, California 95126

Subject: **Advising the Santa Clara City Council on Noise Issues Related to the Proposed Great America Wooden Roller Coaster**

Dear Ms. Yesney:

The issue of noise and potential noise impacts from the proposed roller coaster at Great America has been the subject of much technical and legal debate since early this year. Approval for this project will soon be before the Santa Clara City Council, and they have requested our assistance in assessing and understanding the conflicting, highly technical information that has been produced on this matter.

We have reviewed the myriad of technical and legal documents produced to date for completeness, but our comments to the Council will be strictly limited to issues related to noise level prediction and assessment. We will not be addressing any issue related to CEQA or the application thereof to this situation.

Our most fundamental conclusion and recommendation to the Council has to do with the standard for acceptability. We think that screaming noise will <u>not</u> be intrusive or disturbing inside the Nortel offices if kept to a typical maximum sound level of 35 dBA or lower. As we establish in the attached technical report, this noise criterion may be characterized as *very conservative*, and we suggest it only because of the existing ambient noise levels in the Nortel offices. We believe one could also argue that a criterion of 40 dBA is reasonable, but we would expect there to be a somewhat negative response by some people in the Nortel building if this level came to pass.

At a 35 dBA screaming noise level, the scenario would be something like this: About every 2½ minutes, screaming noise would be audible for a second or two. The maximum noise level of the screaming would increase the total A-weighted noise level in the office by 2 dB or less, and probably would not increase it at all for many of the rides. As now, the screaming noise would build up somewhat slowly because not everyone begins screaming at once or initially with

maximum effort. It is very unlikely anyone would ever be startled by this noise, and most people would probably just tune it out. A few, highly sensitive people might find that the noise "gets on their nerves." This scenario would occur on weekdays only during the summer months; the park is open only on weekends during the other seasons.

As the Prudential acoustical consultant is predicting an interior sound level of 36 dBA, we think that the project should be approved without further technical studies. One condition of approval should be that once the coaster is open to the public, the applicant should verify through measurements inside the Nortel offices that the 35 dBA limit is be met. If not, Great America should add noise control measures to the ride to achieve the limit.

In the more technical report which is enclosed, we have kept our comments concise and only address what we consider the major points of the matter. We believe that to do otherwise would be a disservice to the Council who need to be elucidated sufficiently to make a decision, not educated to become noise experts. That said, we have tried to give reasonably complete descriptions and explanation of the information we present so that the Council and others can understand the basis for that information.

Part of our charge was to declare which of the opposing consultants that have worked on behalf of Great America and Prudential was "closer to reality ('the truth')." We believe that both consultants have worked within reasonable bounds of professional judgment and that there has been no overt attempt to deceive or misrepresent the situation. To be sure, each consultant was more conservative on matters favorable to his client and less conservative on the others, but, in truth, their methods and predictions are not as far apart as they may appear.

We also wanted to comment briefly on data collected by GMH Engineering. For reasons that are not clear to us, the two GMH reports on their acoustic measurements were never provided to the Prudential team, however, they were given to us through Great America. Because the Prudential team did not have the benefit of seeing the reports, the competence of GMH's engineer, Charles Monson, Ph.D., P.E., has been called into question, as were his results. For the record, we believe that Dr. Monson's measurements were properly calibrated and reasonably made. One factor that is not documented clearly is the level of screaming noise during the measurements with riders. For this reason and because Great America's acoustical consultant did not rely on the GMH data in the end, we do not incorporate it further into our comments.

* * * * *

If you or the City of Santa Clara have any questions on the information we present in this report, please do not hesitate to call upon us. We will do all we can to help the City Council resolve this matter.

Very truly yours,

WILSON, IHRIG & ASSOCIATES, INC.

Derek L. Watry
Associate Principal

Steven L. Wolfe
President and Principal

Encl.

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COMMENTARY ON NOISE FROM THE PROPOSED WOODEN ROLLER COASTER AT CALIFORNIA'S GREAT AMERICA

2 September 2008

Prepared For:

The City of Santa Clara
City Council

Under Contract To:

David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, California 95126

INTRODUCTION

Since January of this year, a number of claims and issues related to noise from the proposed, 110 ft wooden roller coaster at Great America have been produced. This project will soon be before the City of Santa Clara City Council for final approval, and this document has been prepared to help the Council make an informed decision

We believe it would be counter-productive to try to explain to the Council every issue and technical disagreement that has been raised over the roller coaster noise. Instead, we are providing a limited analysis that puts sharp focus on the most controversial noise issue: screaming noise as it may impact the Nortel office building. We posit that as goes the decision regarding this potential impact, so goes the decision for all impacts.

We are specifically going to focus on noise from screaming riders and not on the inherent mechanical noise produced by the coaster trains. The reason for this is that the mechanical noise from roller coasters has a similar frequency content to the noise produced by jets from San Jose International Airport, and the technical documents from all parties indicate that jet noise is louder than coaster mechanical noise will be.[1] The key point of controversy regarding coaster noise has been the potential reaction to screaming noise.[2]

Given the lengthy technical and legal debate over screaming noise, it should come as no surprise to the Council that this is a "borderline" issue. If the screaming noise were clearly acceptable or

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[1] The frequency content similarity may be verified by anyone who visits the Nortel offices by simply listening to the sound produced by existing roller coasters and jets.

[2] Even though we are focusing on screaming noise, the roller coaster noise data from Christopher Menge that is being utilized by both sides and by us includes both screaming and mechanical noise. However, the screaming frequencies dominate the single-number A-weighted sound level. We will not be analyzing coaster noise from empty trains, i.e., without screaming.

clearly unacceptable, the situation would not have engendered such a belabored interchange. We have tried to lay out the pertinent information in a simple and straightforward manner that the Council may easily understand and act upon, and, at the end of this report, we recommend an action that we believe adequately addresses the concerns of all involved.

We believe there are three valid approaches by which the potential for screaming noise impact can be examined, and the main body of this document is organized along these lines.[3]

1. Assessing noise *levels* at the property line using limits in the Noise Ordinance,
2. Assessing noise *levels* inside the Nortel offices using recommended criteria, and
3. Assessing noise inside the Nortel offices using Noise Ordinance "Evaluation Criteria."

We leave it to the individual Council members to decide which method or methods of assessment best inform their decision regarding potential noise impacts.

Some of the information pertinent to the latter approaches presented below builds upon information presented in previous approaches, so the reader is advised to read all three approaches in the order in which they are presented.

THREE APPROACHES OF ASSESSMENT

1. Assess Noise Levels at Property Line Using Noise Ordinance Limits

This approach requires two pieces of information: the predicted noise level at the property line and the applicable noise ordinance limit. Both of these require some consideration to establish.

Predicted Screaming Noise Levels at Property Line. Acoustical consultants for both Great America and Prudential (owner of the Nortel building) have both used data from a technical paper published by Christopher Menge in 1999 entitled "Noise from amusement park attractions: Sound level data and abatement strategies."[4,5] Both consultants have also used a standard assumption regarding the rate at which sound levels attenuate with distance – an assumption we

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[3] Technical jargon: In acoustics, the word *level* denotes a numerical value in decibels. Thus, assessing a noise *level* means comparing a predicted number to a numerical criteria. Noise assessment can also include non-numerical factors. Appended to this report is a scale with typical noise levels for reference.

[4] The primary consultant for Great America has been Ballard George (working with Marc Papineau), and the primary consultant for Prudential has been Charles M. Salter Associates.

[5] Menge, C., "Noise from amusement park attractions: Sound level data and abatement strategies," Noise Control Eng. J. **47** (5), 1999 Sep-Oct.

believe might be incorrect for the property line measurement. The primary difference between the Prudential and Great America consultants' analyses appears to be the application or not of a factor to account for the fact that the riders will be facing away from the Nortel building during the first major drop (Curve 1).[6]

Our analysis:

- A graph in Menge's paper clearly shows that "much (or enthusiastic) screaming" generates a maximum noise level of 91 dBA at 50 ft for measurements made "above" the tracks, so that the riders are facing the microphone during this measurement.

- Another graph in the Menge paper clearly shows that maximum sound levels in the screaming frequency range are 5 dBA lower when measured "below" the tracks because the microphone is "shielded from the screaming guests by the car bodies." Given the slope and orientation of the Curve 1 drop, the Nortel building will effectively be "below" the coaster during part, but not all, of this curve.

  Further support for a directivity factor with respect to screaming is provided by a 1939 study on directivity patterns for the human voice.[7] At screaming frequencies, the sound pressure levels to the side are approximately 5 dB lower than those in front, while directly behind the levels are approximately 10 dB lower. This study was conducted at normal voice levels, but some directionality should also be seen for screaming voice levels.

  Bottom line: We suggest a factor of 2 to 4 dB for shielding.

- The standard attenuation rate for noise emanating from a single point is 6 dB per doubling of distance (dB/dd), and this is the rate both consultants have used for this project to date. However, the rate should be less for distributed sources, so the question becomes at what distance from the coaster train may it be considered a point source? The train is about 50 ft long, only one third of the distance to the property line, so we believe a more conservative rate of 4.5 dB per doubling of distance might be appropriate. Using the 6 dB/dd and the 4.5 dB/dd rates to establish a reasonable range, we estimate that sound levels will attenuate 7 to 10 dB between the closest point of Curve 1 and the property line (159 ft away).

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[6] Curve 1 is the closest curve to the Nortel building, and this is the scenario that has been analyzed extensively by both sides. Accordingly, we focus our attention on this curve, as well.

[7] Dunn and Farnsworth, "Directivity Patterns for the Human Voice," J. Acous. Soc. Amer., **10** 184-199 (1939).

- Summary

Reference noise level for screaming (maximum)	91 dBA
Shielding/Directionality	-2 to -4 dBA
Attenuation with distance	-7 to -10 dBA
Reasonable upper estimate at property line	77 to 82 dBA [8]

This is the estimated range of the "worst case." If there is only "some screaming" as opposed to "much screaming," the Menge data indicates that the noise levels would be approximately 4 dBA lower, 73 to 78 dBA. Altogether, 75 to 80 dBA seems a reasonable range for the majority of screaming noise levels at the property line.

Applicable Noise Limit at Property Line. Both sides have cited the City of Santa Clara Municipal Code Chapter 9.10 (Regulation of Noise and Vibration), commonly referred to as the "Noise Ordinance."[9] As far as the numerical decibel limit that applies at the property line is concerned, there are three main components: the base limit, a potential adjustment for the existing conditions, and a potential adjustment for the nature of the noise.

Our analysis:

- Our understanding is that the entire area is currently zoned "Light Industrial", so, per Schedule A of Section 9.10.040, the baseline noise limit at the property line is 70 dBA applicable at all hours of the day.

- Section 9.10.060(c) of the Noise Ordinance states

> If the measured ambient noise level at any given location differs from those levels set forth in SCCC 9.10.040, Schedule A, the allowable noise exposure standard shall be adjusted in five dBA increments in each category as appropriate to encompass or reflect said ambient noise level.

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[8] On July 2, 2008, Mr. Menge himself provided a letter to Prudential's attorneys that said property line noise levels could be up to 83 dBA. Mr. Menge's analysis was based on the loudest data he has ever recorded for roller coasters of all types, so should be regard as the "worst case."

[9] While we are acousticians and not lawyers or planners, we are aware that variances to the Noise Ordinance limits are granted by cities. In many projects, we are asked to ascertain the appropriateness of applying the Noise Ordinance limits as strictly written. In this case, we do not believe that noise level exceeding the property line noise limits are particularly relevant to the question of noise impact on the Prudential property because the users of the property spend nearly all of their time inside the buildings. We believe that the truly relevant issue in this case is the potential effect of screaming noise on people working in the offices.

There have been conflicting claims as to what adjustment, if any, should be applied. To help resolve this, we conducted noise measurements outside the Nortel building for six days – four weekdays and one weekend.

A sign on the door of the Nortel building states that the doors are unlocked from 6 A.M. to 6 P.M., so we believe the weekday noise environment during these hours is the relevant one for applying this section of the code.

Next, we present two different interpretations of this provision and leave it to the Council to decide which they think is more appropriate. The crux of the issue is whether or not one considers intermittent noise sources, i.e., aircraft, to be part of the "ambient."

1. *"Ambient" Includes Aircraft Noise.* In this interpretation, "ambient" denotes "existing," and, as such, includes all existing noise sources. Since the roller coaster will be traversing Curve 1 about 1% of the time each hour, this interpretation asks, "What is the existing noise level exceeded 1% of the time each hour?" Our measurements show that this is typically between 70 and 75 dBA and exceeds 75 dBA in one out of every four hours. Therefore, under this interpretation, the property line limit under the Noise Ordinance should be increased to at least 75 dBA (and we think that is all it should be increased).

2. *"Ambient" Does Not Include Aircraft Noise.* In this interpretation, "ambient" denotes "background," and excludes individually identifiable, intermittent sources, in this case, aircraft. If you take aircraft noise out of the picture, there should be no upward adjustment of the property line limit. It should remain at 70 dBA.

In conclusion on this point, we leave it to the City Council to decide if the applicable noise limit at the property line should remain at 70 dBA or adjusted to 75 dBA to "encompass or reflect" the existing conditions.

- Section 9.10.060(d) of the Noise Ordinance states:

  > In the event the alleged offensive sound or noise contains music or speech conveying informational content, the limits for the applicable zoning category set forth in SCCC 9.10.040, Schedule A, shall be reduced by five dBA.

The two sides have differed on whether or not this provision applies to screaming noise.

Although screaming may not be "speech" in the strict sense of the word, it is a distinctive sound, and we believe the 5 dBA downward adjustment should be applied.

- Summary

Baseline limit at property line	70 dBA
Adjustment for existing conditions	0 or +5 dBA
Adjustment for nature of source	-5 dBA
Applicable limit at property line	65 or 70 dBA

Discussion. It seems that regardless of which noise limit the Council decides to apply under the Noise Ordinance, the screaming noise from the proposed coaster will exceed the limit. If the lower limit of 65 dBA is chosen, the noise would exceed it by 10 to 15 dBA. If the higher limit of 70 dBA is chosen, the noise would exceed it by 5 to 10 dBA.

2. Assess Noise Levels inside Nortel Office Building using Recommended Limits

This again requires two pieces of information: the predicted noise level inside the offices and an appropriate noise level limit.

Predicted Screaming Noise Levels inside Nortel Building. There are two new technical considerations to predict noise inside the building:

1. the noise transmission loss provided by the window of the building, and
2. the attenuation with distance away from the window.

The other factors are similar to those used above.

Our analysis:

- References and shielding factors the same as above.

- Since the building facade is beyond the property line, the attenuation of the outdoor sound with distance will be different than the property line assessment, but the consultants for Great America and Prudential agree on the value for that factor. At the standard attenuation rate of 6 dB per doubling of distance, sound levels will attenuate 19 dB between the closest point of Curve 1 and the building facade (450 ft away).[10]

- Prudential's acoustical consultant has been using a transmission loss value for the window of 35 dBA, and we have independently confirmed that this is a reasonable value at scream frequencies. In fairness, the value used by Great America's consultant was only slightly higher, but we believe it is prudent to use the slightly more conservative number.

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[10] At this distance, 450 ft from Curve 1, the train may be treated simply as a point source, so an attenuation rate of 6 dB/dd is appropriate.

- The great majority of cubicles we saw are set up so that there is a cubicle wall between the workspace and the window. Even in those few cubicles that did not have an intervening wall, the primary work area, i.e., computer keyboard and screen, were more than 5 ft away from the window. As noise propagates into the office space, it will be partially absorbed and continue to spread. A 5 dB attenuation is reasonable for people who are directly exposed to the window; the attenuation would be greater for people farther away or behind cubicle walls.

- Summary

Reference noise level for screaming	91 dBA
Shielding/Directionality	-2 to -4 dBA
Attenuation with distance	-19 dBA
Window Transmission Loss	-35 dBA
Reasonable upper estimate at window	33 to 35 dBA
Room Absorption/Spreading	-5 dBA
Reasonable upper estimate at desks	28 to 30 dBA

If there is only "some screaming" as opposed to "much screaming," the Menge data indicates that the noise levels would be approximately 4 dBA lower, so 31 to 33 dBA is a reasonable range to use for the expected screaming noise levels just inside the windows and 26 to 28 dBA is a reasonable range in most work cubicles.

Recommended Evaluation Criteria inside Nortel Offices. The Santa Clara Noise Ordinance does not have a specified maximum noise limit for office interiors. The Noise Element of the General Plan indicates that noise levels in the "average office" range up to 50 dBA, and the Nortel DEIR utilized 50 dBA maximum as the "optimum" threshold of significance and 60 dBA maximum as the "acceptable" threshold. Given this, one could certainly conclude that 50 dBA is a reasonable baseline limit. As discussed above, we believe a 5 dBA penalty should be applied to the baseline limit to account for the vocal nature of screaming noise, so 45 dBA is one defensible choice for an interior limit.

Another interesting perspective may be gained by considering the single-train noise impact criteria used by the Federal Transit Administration when assessing rapid transit projects.[11] Although these criteria are normally applied to the ground-borne noise from subway trains, they are well suited for this situation because (i) they apply to brief, recurrent events, (ii) they are cast in terms of a single-event noise limit, and (iii) criteria applicable to "quiet offices" are given.

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[11] U. S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Report No. FTA-VA-90-1003-6, May 2006.

The relevant FTA impact criteria for quiet offices is 40 dBA.[12] As before, we believe a 5 dBA downward adjustment for the vocal nature of the noise is appropriate, which would result in an interior maximum noise level limit of 35 dBA for screaming noise.

Discussion. We believe the *very conservative* 35 dBA limit would virtually assure that there is little or no reaction to the screaming noise from people working in the Nortel offices. The existing noise levels inside the Nortel offices are discussed in detail below, but here we simply say that 35 dBA is below the existing background levels. If screaming noise is less than 35 dBA in the Nortel offices, as our analysis indicates it will be, we believe the great majority of people will find it acceptable.

An alternative noise criterion that would be less conservative, but reasonable nonetheless, would be 40 dBA. This criterion could be rationalized as the Nortel DEIR "optimal" criterion of 50 dBA less 10 dBA to account for nature of screaming (the Noise Ordinance only suggests a 5 dBA adjustment, so a 10 dBA adjustment would be extra conservative). Given that the background levels in the Nortel offices are between 35 and 40 dBA, however, if screaming noise levels actually reached 40 dBA, some reaction from some employees at Nortel could be expected. The highest prediction of screaming noise, however, is 36 dBA made by Prudential's acoustical consultant.

3. Assess Noise inside Nortel Office Building using Noise Ordinance "Evaluation Criteria"

Section 9.10.060(a) of the Noise Ordinance states:

> The characteristics and conditions which will be considered in determining whether a violation of the provisions of this chapter exists shall include, but not be limited to the following:
> (1) The volume level of the noise or amplitude of the vibration;
> (2) Whether the nature of the noise is usual or unusual;
> (3) Whether the origin of the noise or vibration is from a natural source or mechanical source;
> (4) The level of the ambient noise;
> (5) The proximity of the noise or vibration to sleeping facilities;
> (6) The nature and zoning of the area from which the noise or vibration emanates and the area where it is received;
> (7) The time of day or night the noise or vibration occurs;
> (8) The duration of the noise or vibration; and
> (9) Whether the noise or vibration is recurrent, intermittent, or constant.

This section implies that the City of Santa Clara has some discretion when evaluating whether or

[12] Technical detail: FTA GBN Criteria for Frequent Events at Category 3 Land Use.

not a noise complies with the Noise Ordinance, i.e., that compliance is not just a matter of decibel levels. In this section, we lay out for the Council the considerations enumerated above with respect to the Nortel office environment. Prior to summary of the key points, we discuss each criteria point in some detail.

The volume level of the noise or amplitude of the vibration. As developed above, we believe a reasonable upper estimates of the screaming noise level inside the Nortel offices are 35 dBA near the window and 30 dBA in the work cubicles. These are levels that should be considered "quiet."

Whether the nature of the noise is usual or unusual. Prudential has argued that screaming is unusual and has suggested that there might be a "psychological impact" to the office workers or that they will suffer from "psycho-acoustic annoyance." Great America has argued that screams from roller coaster riders have been a usual noise along Great America Parkway since the 1970s and was a known noise source in 2000 when the Nortel offices were designed and built.

While we leave it to each Council member to make their own judgment on this, we offer the following observations:

- Screaming noise from the proposed coaster would be audible in the Nortel offices, just as screaming noise from existing rides is already audible on the 5th and 6th floors, at least. The term "audible" in this context refers to sound that is noticeable with careful listening, in not intrusive, and would normally be ignored by most people involved in other tasks. Human hearing is capable of discerning different sounds based on both their frequency content and their sound level. That is why one can hear a piccolo in a symphony orchestra even though its relative contribution to the sound level is negligible.

- The screaming sound level would both build up somewhat gradually as not everyone would begin screaming at once or initially with maximum effort. By the time the screaming reached its loudest, the coaster would already be well down the hill and the riders would be facing away from the Nortel building.

- It is typical for noise ordinances to apply a 5 dB "penalty" to music, speech, and tonal sounds because these are known to be potentially more annoying to some people than nondescript sounds. We believe that it is prudent to think of screaming in this same vein because of its vocal nature and somewhat tonal content.

- We do not believe much weight should be given to the notion of *psycho-acoustic annoyance*. First, at an estimated noise level of 30 to 35 dBA, the screaming noise will simply not be loud and will be less than the existing noise levels in the offices. There will be no "startle" effect at these noise levels. Second, anyone who works in the Nortel building and even most visitors will be well aware that Great America is right next door. Any scream sound that is audible should be quickly and subconsciously recognized as coming from amusement park

patrons.

- While most workers would probably "tune out" any audible screaming noise, it is possible, even likely, that a few, highly noise-sensitive people might find the repetitive screaming noise annoying. We are not in a position to quantify the number of such people. We did note during our visit to Nortel that screaming noise from existing rides is already audible on the 5th and 6th floors. It would be interesting to know if any office worker has complained to date about existing audible screams. We did not find any mention of such complaints in the documents we reviewed.

- While on site, we asked one worker who sits near a window if he ever noticed audible screams from the park. He replied, "I hear them, but they don't bother me." This statement cannot be used to assess the future coaster noise which would be somewhat louder than the existing noise, but it does make the point that hearing low level screaming noise does not automatically induce annoyance.

Whether the origin of the noise or vibration is from a natural source or mechanical source. We leave it to the Council to ascertain for itself the characterization and relevance of this criteria.

The level of the ambient noise. Much has been made in the technical and legal interchange on noise from the proposed roller coaster about the existing "ambient" noise levels inside the Nortel offices. Points of contention include whether the offices were "empty" or "operational" during previous noise measurements and Prudential's consultant's choice of noise metric to characterize the ambient environment. We would add that, once again, one should consider what sound level constitutes the relevant "ambient" for a noise that will only be present 1% of the time.

To help elucidate this issue, we conducted independent noise measurements in 5th and 6th floor Nortel offices for six days – four weekdays and one weekend. The measurements were made approximately 2 ft from the window.

Based on both the measurements and our observations, a fair characterization of the offices is that HVAC system noise determines the noise environment at least 50% of the time and that worker generated noise, mostly talking, is sparse and fairly quiet. On the 6th floor near the kitchen, milk frothing from the latte machine was clearly audible. Jet noise is audible, as are occasional screams from Great America. Existing roller coaster mechanical noise, to the extent that it is audible (barely), sounds like quiet jets.

The "Background" Ambient. The background noise levels on both floors were very consistent on work days between 6 A.M. and 6 P.M. During this time, statistical noise metrics that quantify the *minimum* noise level, the *typical background* noise level, and even the *median* noise level all varied only about 2 dB.[13] The spread between the minimum noise level and the median noise

[13] Technical detail: The L_{50}, L_{90}, and L_{min} all varied about 2 dB from 6 A.M. to 6 P.M.

level each hour was also about 2 dB.[14] This environment is a consequence of the constant HVAC noise and relatively infrequent noises from other sources.

In acoustics, the noise level exceeded 90% of the time is widely regarded as the appropriate metric to characterize background noise levels. In this instance, that metric is consistently only 1 dB higher than the minimum noise level, so there can be little dispute to its use. The measured noise levels exceeded 90% of the time between 6 A.M. and 6 P.M. on weekdays are:

5th floor: 36 – 38 dBA
6th floor: 39 – 41 dBA

The difference between the two floors could be due to the inherent noise produced by the HVAC systems on the two floors or the proximity of microphones to the HVAC ducts.

The "Existing" Ambient. This interpretation looks at the existing noise level exceeded about 1% of the time since roller coaster screaming at Curve 1 would last about 1% of the time. The measured noise levels exceeded 1% of the time between 6 A.M. and 6 P.M. on weekdays are:

5th & 6th floors: 45 – 50 dBA

<u>The proximity of the noise or vibration to sleeping facilities</u>. Not applicable to an analysis of the Nortel office building.

<u>The nature and zoning of the area from which the noise or vibration emanates and the area where it is received</u>. Our understanding is that the entire area is zoned Light Industrial. In this section, however, we are discussing these evaluation criteria in the context of interior noise levels. The zoning is irrelevant to this discussion.

<u>The time of day or night the noise or vibration occurs</u>. From Memorial Day until Labor Day, Great America is open on weekdays from 10 A.M. until 6 P.M.

<u>The duration of the noise or vibration</u>. In Curve 1 of the proposed coaster, screaming would persist for about 1 to 2 seconds per ride and there will be roughly 23 rides per hour. Therefore, screaming would be audible around 1% of the time every hour.

<u>Whether the noise or vibration is recurrent, intermittent, or constant</u>. Screaming noise would be recurrent.

Summary:

(1)	Sound level of the noise	30 – 35 dBA
(2)	Nature of the noise (usual or unusual)	Council's judgment

[14] Technical detail: The L_{50} was consistently about 2 dB higher than the L_{min}.

(3)	Origin of the noise (natural or mechanical)	Council's judgment
(4)	Sound level of ambient noise	Exceeded 90%: 36 – 41 dBA Exceeded 1%: 45 –50 dBA
(5)	Proximity to sleeping facilities	Not applicable
(6)	Zoning of the area	Light Industrial
(7)	Time noise occurs	10 A.M. – 6 P.M. (summer weekdays)
(8)	Duration of the noise	1-2 sec/ride; 23 rides/hr (1%)
(9)	Recurrent, intermittent, or constant	Recurrent

In words, the scenario would be something like this: About every 2½ minutes, screaming noise would be audible for a second or two. The maximum noise level of the screaming would increase the total A-weighted noise level in the office by 2 dB or less, and probably would not increase it at all for many of the rides. As now, the screaming noise would build up somewhat slowly because not everyone begins screaming at once or initially with maximum effort. It is very unlikely anyone would ever be startled by this noise, and most people would probably just tune it out. A few, highly sensitive people might find that the noise "gets on their nerves."

In closing on this method of assessment, we would like to point out that "audibility" by itself is not typically used as a noise assessment criterion for several reasons. First, it can be somewhat subjective with very low level sounds, but we think that in this case everyone should agree that the coaster screams would be audible with careful listening. Second, audibility does not correlate with annoyance. Almost everyone hears noise not of their own making while working be it from traffic, airplanes, HVAC systems, office machines, co-workers, etc. The vast majority of people mentally filter out those sounds which they know are not important to them.

CLOSING COMMENTS

None of the screaming noise estimates made for this project by any party, including ourselves, has factored in roller-coaster-based noise control measures. As Christopher Menge states in his seminal 1999 paper, "Tunnels, partial enclosures, or building walls can reduce scream sounds and rolling noise." We suggest that if the Council does approve this project, it include a noise standard that Great America be required to meet. We further suggest that an interior maximum noise level limit of 35 dBA would be an appropriate, though unusually conservative, standard. Choosing this standard puts an emphasis on preserving the existing, background, ambient noise levels and virtually assuring that no one in the Nortel offices will be distracted from their tasks. An alternative, less conservative standard that the Council might choose is 40 dBA. Choosing this standard recognizes that the screaming noise will only be present about 1% of the time, only during the summer months, and will only last 1 to 2 seconds each time. Most people would not be disturbed by this noise level, and our analysis indicates that screaming noise will not attain this level. We do not recommend adopting a standard of 45 dBA even though it may be justified based on the Nortel DEIR noise impact significance threshold.

Before our site visit to make noise measurements, it was not known to us that existing screaming noise is already audible inside the Nortel offices. The measurements we made were intended to characterize the indoor and outdoor ambient noise levels, but we did capture about a dozen screams on tape. We analyzed these carefully, but we were not able to distill the screaming noise levels from the background noise levels with certainty. Even if we had, we would not have known from which coaster the screams came or how full the coaster was. However, we now believe that a well designed measurement effort could successfully measure noise inside the Nortel building to add a reality check to all of the noise prediction work that has taken place. In short, the measurements should be made on a weekend with as many building noise sources as possible turned off (HVAC, computers, fluorescent lights, etc.). Meanwhile, one or more spotters should determine where the screams are coming from and assess the level of screaming. These data could then be used to either verify the various assumptions in the prediction methodology or simply be scaled for distance to get a firmer estimate of future screaming noise levels inside the Nortel offices. If the project is approved with a condition of approval regarding the allowable interior noise level, this methodology should be used to verify compliance. Finally, because the maximum noise level of screaming will vary from train to train, we recommend that the City establish or approve a technically rigorous procedure to minimize future disputes about measured noise levels inside the Nortel offices.

SUMMARY RECOMMENDATION

We recommend approving the proposed roller coaster project with the following stipulations:

1. After operation begins, the applicant must verify through measurement that screaming noise levels inside the Nortel offices do not exceed 35 dBA (or, alternatively, 40 dBA).

2. If necessary, Great America must add noise control measures to the coaster to achieve the noise limit established in #1 above.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF SANTA CLARA, CALIFORNIA, FINDING THAT A PROJECT IS EXEMPT FROM CEQA AND APPROVING A VARIANCE FOR A 111-FOOT HIGH ROLLER COASTER IN A THOROUGHFARE COMMERCIAL ZONING DISTRICT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

WHEREAS, the Site is currently zoned Commercial Thoroughfare ("CT") and has a 35-foot height limit; and,

WHEREAS, there has been a theme park approved and operating on the Site since 1973, with constant improvement and replacement of rides and attractions, and it is anticipated that the theme park use will continue; and,

WHEREAS, on January 10, 2008, the Applicant submitted an application for a variance to the CT height restriction to install a 111-foot high roller coaster on the Site; and,

WHEREAS, Cedar Fair ("Applicant") is the current lessee and operator of the Great America Theme Park ("Park") located at 1 Great America Parkway, Santa Clara, California ("Site"); and,

WHEREAS, since its inception the Park annually changes existing rides, or installs new rides in order to enhance economic and operational vitality; and,

WHEREAS, the Park is included in the 1973 Bayshore North Redevelopment Plan and the environmental impacts of the Park were analyzed in the Final Environmental Impact Report for the Bayshore North Redevelopment Plan and the August 1999 Bayshore North Redevelopment Projects Final Environmental Impact Report; and,

WHEREAS, this matter was originally set for hearing before the City of Santa Clara's Planning Commission ("Commission") on February 13, 2008, and was continued to March 12, 2008, then April 23, 2008; and was continued again by the Planning Commission to May 28, 2008; and,

WHEREAS, in response to public comments during the March 12, 2008 hearing on the variance application the Applicant amended its application to relocate the roller coaster within the Park; and,

WHEREAS, after attempting negotiation of a different location with adjacent property owners, the Applicant requested that the City consider the original Application at the May 28, 2008 Planning Commission meeting; and,

WHEREAS, the City re-noticed a public hearing for the variance application, setting the matter for the Commission's consideration on May 28, 2008; and,

WHEREAS, the Planning Commission held a public hearing on the variance application on May 28, 2008, taking public testimony, and considering all evidence before it approved the request for the variance; and,

WHEREAS, the Planning Commission's action was appealed by a petitioner opposed to the action, and Council set a public hearing for July 8, 2008 to consider the appeal. The July 8, 2008 public hearing was noticed in the time and manner required by law.

WHEREAS, the Council held a public hearing on July 8, 2008 to consider the appeal, considered the staff presentation, accepted public testimony, closed the hearing and thereafter continued the closed hearing solely for further staff analysis of the analyses prepared and submitted by both parties prior to and during the public hearing.

WHEREAS, the City Manager secured consultants to conduct peer review of the noise analyses presented during the public hearing and the consultants prepared this review and concluded that

no adverse effects would likely occur at the anticipated noise levels inside the nearby office buildings that could result from the proposed ride.

WHEREAS, the General Plan identifies common sound levels for land uses, including offices at 50 decibels, and that the City noise ordinance (Chapter 9.10 of the City Code of the City of Santa Clara) addresses fixed noise sources and provides criteria for evaluating noise effects, including consideration of ambient noise levels and limitations on effects related to human speech whereby short duration screams in this setting do not "convey informational content."

WHEREAS, the findings of the peer review conclude that the noise levels within the office buildings would be at or around 36 dBA, and that this noise level is consistent with the noise standards identified in the General Plan is consistent with the standards set forth in the City's noise ordinance.

NOW THEREFORE, BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

1. CEQA Compliance and Findings.

A. California's Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.*, requires a public agency to evaluate the environmental impacts of a proposed project. CEQA contains a list of categorical exemptions for projects that are not required to undergo environmental evaluation. CEQA Guideline section 15323 establishes a "Class 23" exemption, and provides in pertinent part that:

> "normal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility being used for the same or similar kind of purpose [are exempt]. For purposes of this section 'past history' shall mean the same or similar kind of activity has been occurring for

at least three years and that there is a reasonable expectation that the future occurrence of the activity would not represent a change in the operation of the facility. Facilities included in this exemption include, but are not limited to . . . amusement parks."

B. The Council hereby finds that approving a variance for the roller coaster falls within the Class 23 CEQA exemption created by CEQA Guideline section 15323 because: (i) the roller coaster is part of the normal operation of the current facility and that there are eight roller coasters in the park; (ii) the amusement park is a public gathering place and the facility was designed for such gatherings; (iii) the Site has been used as an amusement park for at least thirty-two years, with multiple roller coasters and other attractions and the Applicant represents that the theme park use will continue; (iv) the Park historically updates the attractions by adding and removing rides annually; (v) adding a roller coaster is not a change in the operation of the Park because the Park already has eight coasters; (vi) further analysis requested by the Council does not demonstrate a potential significant impact to nearby properties.

2. Variance Approval, Subject to Conditions and Findings.

A. Chapter 18.108 of the City Code of the City of Santa Clara governs approval of variances in the City. Section 18.108.040 requires the Council to make the following findings in order to grant a variance:

(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.

(b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.

(c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.

(d) That the granting of the variance is in keeping with the purpose and intent of this title.

B. The Council, pursuant to Section 18.108.040, based upon all evidence oral and written before it, finds that:

(a) there are unusual conditions applying to the land or building which do not generally apply in the same district because:

(i) the land has a theme park use, which is not a common or typical use in the district. Such a use requires structures which vary from the specific zoning requirements in order to allow the Park to have a variety of ride design to enhance customer experience;

(ii) the 35-foot height limit of the CT zoning district is not appropriate when applied to the unique collection of rides, attractions and structures that comprise the Park, and which are needed to enable the Park to remain a viable use and to support tourist and recreational oriented uses;

(iii) the Park operates on a seasonal basis, and only on weekends in non-peak seasons, creating an additional unique feature about the use of the land which distinguishes it from other land and buildings in the same zoning district in other places in the City;

(iv) unlike other properties in CT districts, e.g., those along El Camino Real, the theme park is located next to taller structures making allowance of greater height limits appropriate.

(b) the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the Applicant because:

(i) the Applicant has made a substantial investment in the Park, and has significant ongoing costs and installation of new rides and attractions is necessary to the continued economic vitality of the Park because customers expect new rides on an annual basis;

(ii) strict compliance with the 35 foot height limit would prevent the creation and installation of virtually any new or significant rides at the Park, and it is necessary to periodically add new attractions such as the requested roller coaster in order to keep the Park economically viable by attracting new and returning patrons;

(iii) addition of new rides and attractions, such as the requested roller coaster, is essential to preserve the owner's existing substantial investment in the Park as well as to allow growth in revenues to keep the Park economically feasible.

(c) granting a variance shall not, under the circumstances of this particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the Applicant's property and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood because:

(i) the Park, already includes rides which generate noise and activity and are highly visible structures. Such potential impacts on the neighborhood were analyzed when

the Park was opened, and in later environmental review, and were found not to be detrimental to the health, comfort and general welfare of the neighborhood surrounding the Site. The proposed roller coaster is consistent with the types of uses and potential impacts previously analyzed, including potential height and visual impacts;

(ii) the addition of the proposed roller coaster will add a complementary use to the existing theme park, of a type and kind that would typically be expected to be constructed at a theme park. The coaster is lower than many current park features and is not excessive relative to the overall Park;

(iii) the Applicant has voluntarily conducted noise studies which confirm that the new coaster will not create noise impacts any greater than those allowed by City standards, or any other applicable standards and guidelines for the measurement of noise at both exterior and interior commercial and residential receptors;

(iv) the projected noise from the coaster, based upon peer review of two divergent noise studies, is no greater than noise impacts from the Park than were predicted and analyzed in the environmental review process for the adjacent office building uses at 4555-4559 and 4655-4659 Great America Parkway and is consistent with the standards of the General Plan and the City noise ordinance;

(v) commercial properties developed after the theme park opened were required to incorporation mitigation measures to attenuate noise from the Park.

(d) granting of the variance is in keeping with the purpose and intent of this ordinance because, applied strictly, the 35-foot height limit would be detrimental to the success of the theme park and the related tourist and recreational uses, and would be inconsistent

with the Tourist Commercial General Plan designation for the theme park. Granting the variance would facilitate consistency with the General Plan, which is one of the objectives of the zoning ordinance.

C. Based on the foregoing findings, the evidence before it, and all oral and written testimony, the Council hereby approves a variance for one 111-foot high roller coaster in the CT zoned Park. The roller coaster shall be within fifteen (15) feet of the location depicted in the map attached hereto as Exhibit A and is subject to the conditions attached hereto as Exhibit B.

3. Incorporation of Exhibits. All exhibits identified in this resolution are incorporated as if fully set forth herein by this reference.

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4. Constitutionality, severability. If any section, subsection, sentence, clause, phrase, or word of this resolution is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portions of the resolution. The City Council of the City of Santa Clara hereby declares that it would have passed this resolution and each section, subsection, sentence, clause, phrase, and word thereof, irrespective of the fact that any one or more section(s), subsection(s), sentence(s), clause(s), phrase(s), or word(s) be declared invalid.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE ___ DAY OF _____, 200__, BY THE FOLLOWING VOTE:

AYES: COUNCILORS:

NOES: COUNCILORS:

ABSENT: COUNCILORS

ABSTAINED: COUNCILORS:

ATTEST: _____
ROD DIRIDON, JR.
CITY CLERK
CITY OF SANTA CLARA

Attachments Incorporated by Reference:
1. Exhibit A: Location Map
2. Exhibit B: Conditions of Approval

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Exhibit A

Roller Coaster Location Map

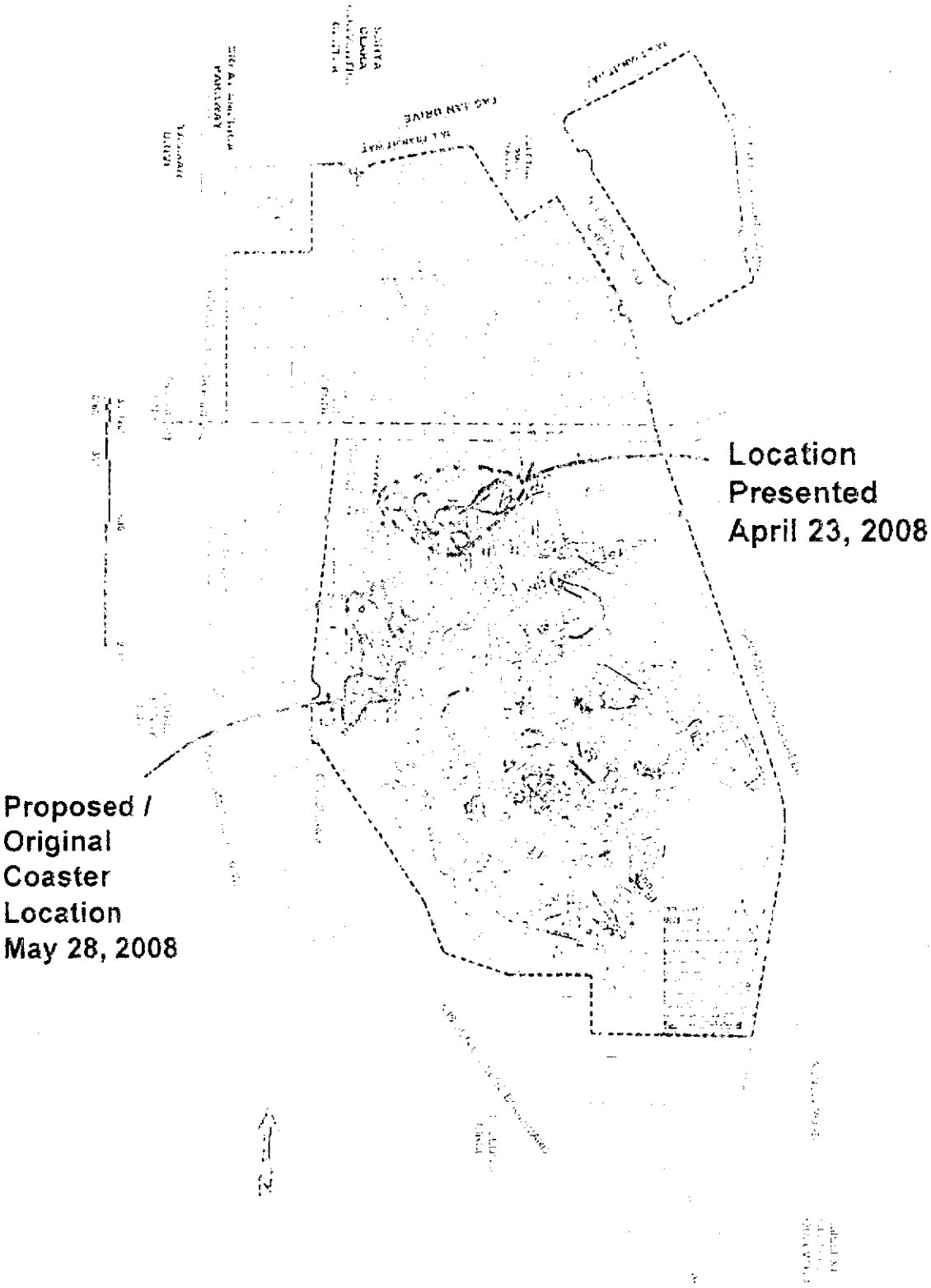
Location
Presented
April 23, 2008
Proposed /
Original
Coaster
Location
May 28, 2008

Exhibit B

Conditions of Variance Approval

GENERAL

1. If relocation of an existing public facility becomes necessary due to a conflict with the developer's new improvements, then the cost of said relocation shall be borne by the developer.

ENGINEERING

2. Obtain site clearance through Engineering Department prior to issuance of building permit. Site clearance will require payment of applicable development fees. Other requirements may be identified for compliance during the site clearance process.

3. If any work is proposed within the public right-of-way and/or public easement, which is to be performed by the Developer/Owner, the general contractor, and all subcontractors, it shall be included within a **Single Street Opening Permit** issued by the City Engineering Department. Issuance of the Street Opening Permit and payment of all appropriate fees shall be completed prior to commencement of work, and all work under the permit shall be completed prior to issuance of occupancy permit.

FIRE

Occupancy Classifications:

4. State the occupancy classification in accordance with the International Building Code for each building or areas.

Fire Department Emergency Access:

5. Approved fire apparatus access roads (public/private) shall be established and maintained to within 150 feet of all exterior walls of any building.

6. Approved fire apparatus access roads shall have a minimum 20-foot width, have a minimum 13 ½-foot vertical clearances and have a minimum 36-foot inside turning radius.

7. Dead-end fire apparatus access roads that exceed 150-feet in length shall be provided with a 75-foot diameter vehicle turnaround or an approved hammerhead turnaround (incorporating the minimum 36-foot inside turning radius).

Water Supply:

8. Private fire hydrants and mains capable of supplying the required fire flow shall be installed when any portion of the building protected is in excess of 150 feet from a water supply, as measured by an approved route around the exterior of the facility or building. On-site fire hydrants and mains capable of supplying the required fire flow shall be provided. Fire flow for hydrants shall be in accordance with Appendix B and C of the 2007 CFC. At time of permit application, show on the drawings both the existing fire hydrants and any new proposed fire hydrants.

9. When underground fire service mains are required, submit separate plans, fees and fire flow calculations to the Fire Department for separate review and permit. Each parcel or building may require separate fire service. (NOTE: Stamped and wet signed Civil drawings shall be submitted in conjunction with shop quality drawings by the installing "A" or "C-16" licensed contractor).

10. The FDC shall be located within 50 feet of a fire hydrant, plus on the same side of the road as the fire hydrant(s).

11. In private underground piping systems, any dead end pipe, which supplies both sprinkler and hydrants, shall be not less than eight (8) inches in diameter.

Required Fire Protections/ Detection Systems and Equipment:

12. An automatic fire sprinkler system shall be provided for GROUP A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 1,000 square feet. Sprinkler main drain test valves shall discharge to the sanitary sewer system (via an indirect connection) or shall discharge onto a landscape area of sufficient size. Apply directly to the Fire Department for a separate sprinkler permit.

Fire Safety During Construction:

13. At the time of permit application, submit a construction "Fire Safety Plan" to the Fire Department for review and approval. The "Fire Safety Plan" shall address fire protection (i.e., access roads, water mains, on-site fire hydrants, fire extinguishers and standpipes) be installed and made serviceable prior to the time of construction. Include in the safety plan the location of fire extinguishers, fire hydrants (public and private), storage of combustible construction materials, propane tanks, and "NO SMOKING" signs. Plus the Safety plan shall address the how the following items will be used: temporary heating devices, temporary electrical wiring, cutting/welding and other open-flame devices. See "Standards for Construction site fire Safety" handout or website at www.unidocs.org/fire

Fire Department Notes (Required on plans/ drawings at the time of application)

14. At the time of Building Permit application, submit Civil Drawings that denote existing and proposed locations of fire hydrants, underground sectional valves, fire department connections and post indicator valves for fire department review and approval.

15. Prior to combustible materials being brought onto the site, approved fire apparatus access roads shall be constructed. These shall be capable of supporting the imposed fire apparatus load (70,000 lbs.) and have a FD approved all-weather driving surface.

16. Construction materials shall not obstruct access roads, access to buildings, hydrants or fire appliances.

17. Combustible construction in excess of 100 feet from the street shall not commence until emergency access roads; underground fire service lines and permanent on-site hydrants are in service and have been tested, flushed and approved by the Fire Department.

18. During construction of a building and until permanent fire-extinguishers have been installed, portable fire extinguishers are required within 50 feet travel distance to any part of the building in accordance with California Fire Code and the Santa Clara Municipal Fire and Environmental Code.

19. General Permit Storm Water Discharges Associated with Construction Activity-Water Quality through the State (order 99-08-DWQ) shall be adhered to regarding non-point source issues on construction sites (i.e., prevention of paints, debris, etc. from going down storm drains). The Permit is issued by the State Water Resources Control Board. Information regarding the permit can be found at www.waterboards.ca.gov/stormwtr/index.html.

20. Internal-combustion-powered construction equipment shall be used as follows:
    a. Equipment shall not be refueled while in operation.
    b. Exhausts shall be piped to the outside of the building.

PLANNING AND INSPECTION

21. Obtain required permits and inspections from the Building Official and comply with the conditions thereof.

22. Submit plans for final architectural review to the Planning Division and obtain architectural approval prior to issuance of building permits.

23. Conduct interior noise measurements within the office buildings at 4555-4655 Great America Parkway (Prudential office buildings) upon the completion and initiation of operation of the coaster. Noise measurements should ascertain whether mechanical noise from the new coaster create exceedance of 50 dBA sound levels, and if so provide mitigation of this noise to the 50 dBA standard, to the satisfaction of the City.

CITY OF SANTA CLARA

AGENDA MATERIAL ROUTE SHEET

Council Date: 9/16/08

SUBJECT: Variance - Great America Roller Coaster

CERTIFICATION

The proposed Resolution
Regarding CEQA Exemption + Variance - Great America roller coaster
has been reviewed and is hereby certified.

PUBLICATION REQUIRED:

The attached Notice/Resolution/Ordinance is to be published _____ time(s) at least _____ days before the scheduled meeting/public hearing/bid opening/etc., which is scheduled for _____, 200__.

AUTHORITY SOURCE FOR PUBLICATION REQUIREMENT:

Federal Codes:
Title _____ *U.S.C. §* _____
(Titles run 1 through 50)

Federal Regulations:
Title _____ *C.F.R. §* _____
(Titles run 1 through 50)

California Codes:
Code _____ *§* _____
(i.e., Government, Street and Highway, Public Resources)

California Regulations:
Title _____ *California Code of Regulations §* _____
(Titles run 1 through 28)

City
City Charter § _____ *(i.e., 1310. Public Works Contracts. Notice published at least once at least ten days before bid opening)*
City Code § _____

1. As to City Functions, by [signature]
Department Head

2. As to Legality, by [signature]
City Attorney's Office / CAO Assignment No 08.0946

3. As to Environmental Impact Requirements, by [signature]
Director of Planning and Inspection

4. As to Substance, by [signature]
City Manager

Revision Date June 7, 2005

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Meeting Date: 7/8/08

AGENDA REPORT

City of Santa Clara, California

Agenda Item # 8B

Santa Clara All-America City 2001

Date: July 3, 2008

To: City Manager for Council Action

From: Director of Planning and Inspection

Subject: Appeal of Planning Commission Approval of Height Variance for New Roller Coaster Ride at Great America Theme Park

EXECUTIVE SUMMARY:

On May 28, 2008, the Planning Commission considered and approved a variance to allow the installation of a 111-foot high roller coaster at California's Great America theme park, as requested by the owner/operator, Cedar Fair. That approval has been appealed by Luce Forward, Attorneys at Law, on behalf of their client, Prudential Real Estate Investors, and on June 10, 2008, the City Council set the appeal hearing for July 8, 2008. Notices of hearing for this appeal were distributed in accordance with City and State regulations.

Further discussion of the Commission's consideration are provided in the DISCUSSION section of this report. A substantial amount of written material was provided during the course of the hearings; additional information has been received since the initial preparation of this Council report, is referenced on the agenda and included in the Council packets, and is available for review in the office of the City Clerk. The materials provided by the applicant and the opposition, as well as the compiled Planning Commission staff reports and minutes and Commission resolution, are attached to this report along with the resolution of findings prepared by staff for Council approval of the variance request. Following the May 28 Planning Commission staff report, all materials provided here, as of the preparation of this report, are in reverse chronological order since the January application date. A complete record of all materials related to this application are available for review in the Planning Division office in City Hall during normal business hours.

ADVANTAGES AND DISADVANTAGES OF ISSUE:

The theme park opened in 1976 and has operated continuously under the original zoning and use permit approvals. Denial of the appeal and upholding the Planning Commission's action to approve the variance, will allow the theme park operators to provide a major new attraction as part of the operator's endeavor to continue regular updates to the theme park, in order to maintain the vitality of this important local and regional tourist attraction. To grant the appeal and overturn the variance would diminish the opportunities to attract repeat and new visitors to the theme park business operations.

ECONOMIC/FISCAL IMPACT:

There is no cost to the City other than administrative staff time and expense.

RECOMMENDATION:

That the Council Deny the Appeal of the Planning Commission's Approval of a Height Variance for the New Roller Coaster Ride at Great America Theme Park and Adopt the Resolution of Findings to Uphold the Approval granting the Variance Request.

Kevin L. Riley

Kevin L. Riley, AICP
Director of Planning and Inspection

APPROVED:

Jennifer Sparacino

Jennifer Sparacino
City Manager

Documents Related to this Report:

1) *Luce Forward Appeal letter, dated June 3, 2008*
2) *Resolution of Findings for Council Approval of the Variance*
3) *Planning Commission Minutes, May 28, 2008, with Commission resolution, and prior minutes of February 13, March 12 and April 23, 2008*
4) *Planning Commission Staff Report, May 28, 2008, with project plans dated January 16, 2008*
5) *Materials provided in Support and Opposition of the Variance Request, presented in reverse chronological order*
6) *Materials provided in Support and Opposition of the Variance Appeal, presented in reverse chronological order*

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DISCUSSION:

The variance hearing before the Commission was continued several times:

- The initial hearing of February 13, 2008 was continued at the request of Prudential and the public hearing was not opened.
- The hearing of March 12 was again continued, this time at the recommendation of staff, due to the volume of information presented by the opposition.
- On April 23, the hearing was continued once again, at the applicant's request, to allow time to consider alternatives. In response to the neighbor's concern, the applicant first adjusted the location and orientation of the coaster, then considered a plan to move the coaster to a location near the park entrance, but ultimately rejected this when discussions between the parties failed to reach a mutually agreeable resolution.
- The hearing was conducted and concluded on May 28, 2008 with an approval of the variance with the coaster located essentially in the original location. The (corrected) minutes of May 28 indicate that the Commission vote on the resolution was five in favor, with one opposed and one excused.

The appeal by Prudential of this project approval cited two reasons, per the attached letter dated June 3, 2008. These are that the project should not be seen as categorically exempt and that there are not sufficient findings to support the variance request. Evidence and testimony was presented at the Planning Commission hearing on May 28 that provided the Commission a foundation for reliance on the CEQA determination and for their action on the findings to support the variance application.

The application of a categorical exemption to the project is allowed by the Public Resources Code (Sec. 21000, et seq). Section 15323 of the CEQA Guidelines specifically recognizes as exempt "*normal operations of existing facilities for public gatherings for which the facilities were designed, where there is a past history of the facility being used for the same or similar kind of purpose. For the purposes of this section, "past history" shall mean that the same or similar kind of activity has been occurring for at least three years and that there is a reasonable expectation that the future occurrence of the activity would not represent a change in the operation of the facility. Facilities included within this exemption include, but are not limited to, racetracks, stadiums, convention centers, auditoriums, amphitheaters, planetariums, swimming pools, and amusement parks*." (emphasis added). There are other coasters and other attractions of similar size throughout the park, which have been approved over the life of the Park. It is expected, based on past practice and the testimony of Park representatives, that the installation of new rides will continue.

With regard to the variance, furthermore, the City Code provides that "(w)here practical difficulties, unnecessary hardships and effects inconsistent with the general purpose of this title may result from the strict application of certain provisions, variances may be granted". (Sec. 18.108.010). The Commission examined and deliberated on each of the findings required by Chapter 18.108 (Variances) of the Code, and found that the evidence provided to support the findings was sufficient to approve the request.

A highlight of these findings is that "there are unusual conditions applying to the land or building which do not apply generally in the same district" [Sec. 18.108.040(a)]. Evidence submitted at the Planning Commission hearing noted that the theme park was approved in 1973 with a Council legislative action that approved rezoning of the property to CT commercial because, according to the staff report at the time, "it is the only zone that allows retail stores and hotels as a right and a theme park with a use permit." The Council concurrently approved a use permit, specifically recognizing the outdoor activity and attractions contemplated in this type of use. The surrounding land was planned to become industrial, office and other tourist serving uses with the concurrent adoption of the supporting General Plan Amendment #7 (Resolution No. 3012). Of the 566 acres covered by this General Plan Amendment, this is the only site approved for theme park use by the zoning and use permit actions.

The CT zoning district designation is primarily found along El Camino Real and Stevens Creek Boulevard, where commercial properties generally abut residential properties. A 35-foot height limit is reasonable for compatibility in those areas, but is not suitable for all attractions that may come and go within the theme park, especially given its proximity to much taller buildings. A variance process provides a public hearing format to consider any new and unique attraction in the theme park that may exceed the height limitations.

The resolution of findings provided for Council approval of the project recognizes the CEQA compliance and presents the variance findings required by the City Code.

CITY OF SANTA CLARA

AGENDA MATERIAL ROUTE SHEET

Council Date: July 8

SUBJECT: APPEAL OF PLANNING COMMISSION APPROVAL OF HEIGHT VARIANCE FOR NEW ROLLER COASTER RIDE AT GREAT AMERICA THEME PARK

CERTIFICATION

The proposed APPEAL - NEW ROLLER COASTER RIDE
Regarding AT GREAT AMERICA THEME PARK & ADOPT THE RESOLUTION
has been reviewed and is hereby certified.

PUBLICATION REQUIRED:

The attached Notice/Resolution/Ordinance is to be published _____ time(s) at least _____ days before the scheduled meeting/public hearing/bid opening/etc., which is scheduled for _____, 200__.

AUTHORITY SOURCE FOR PUBLICATION REQUIREMENT:

Federal Codes:
Title _____ *U.S.C.* § _____
(Titles run 1 through 50)

California Codes:
Code _____ § _____
(i.e., Government, Street and Highway, Public Resources)

Federal Regulations:
Title _____ *C.F.R.* § _____
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California Regulations:
Title _____ *California Code of Regulations* § _____
(Titles run 1 through 28)

City
City Charter § _____ *(i.e., 1310. Public Works Contracts. Notice published at least once at least ten days before bid opening)*
City Code § _____

1. As to City Functions, by — Kevin L. Riley, Department Head

2. As to Legality, by — Helene Leichter, City Attorney's Office / CAO Assignment No 07._____

3. As to Environmental Impact Requirements, by — Kevin L. Riley, Director of Planning and Inspection

4. As to Substance, by — J. Sparacino, City Manager

Revision Date June 7, 2005

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RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF SANTA CLARA, CALIFORNIA, FINDING THAT A PROJECT IS EXEMPT FROM CEQA AND APPROVING A VARIANCE FOR A 111-FOOT HIGH ROLLER COASTER IN A THOROUGHFARE COMMERCIAL ZONING DISTRICT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

WHEREAS, the Site is currently zoned Commercial Thoroughfare ("CT") and has a 35-foot height limit; and,

WHEREAS, there has been a theme park approved and operating on the Site since 1973, with constant improvement and replacement of rides and attractions, and it is anticipated that the theme park use will continue; and,

WHEREAS, on January 10, 2008, the Applicant submitted an application for a variance to the CT height restriction to install a 111-foot high roller coaster on the Site; and,

WHEREAS, Cedar Fair ("Applicant") is the current lessee and operator of the Great America Theme Park ("Park") located at 1 Great America Parkway, Santa Clara, California ("Site"); and,

WHEREAS, since its inception the Park annually changes existing rides, or installs new rides in order to enhance economic and operational vitality; and,

WHEREAS, the Park is included in the 1973 Bayshore North Redevelopment Plan and the environmental impacts of the Park were analyzed in the Final Environmental Impact Report for the Bayshore North Redevelopment Plan and the August 1999 Bayshore North Redevelopment Projects Final Environmental Impact Report; and,

WHEREAS, this matter was originally set for hearing before the City of Santa Clara's Planning Commission ("Commission") on February 13, 2008, and was continued to March 12, 2008, then April 23, 2008; and was continued again by the Planning Commission to May 28, 2008; and,

WHEREAS, in response to public comments during the March 12, 2008 hearing on the variance application the Applicant amended its application to relocate the roller coaster within the Park; and,

WHEREAS, after attempting negotiation of a different location with adjacent property owners, the Applicant requested that the City consider the original Application at the May 28, 2008 Planning Commission meeting; and,

WHEREAS, the City re-noticed a public hearing for the variance application, setting the matter for the Commission's consideration on May 28, 2008; and,

WHEREAS, the Planning Commission held a public hearing on the variance application on May 28, 2008, taking public testimony, and considering all evidence before it approved the request for the variance; and,

WHEREAS, the Planning Commission's action was appealed by a petitioner opposed to the action, and Council set a public hearing for July 8, 2008 to consider the appeal. The July 8, 2008 public hearing was noticed in the time and manner required by law.

NOW THEREFORE, BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

1. CEQA Compliance and Findings.

A. California's Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.*, requires a public agency to evaluate the environmental impacts of a proposed project. CEQA contains a list of categorical exemptions for projects that are not required to

undergo environmental evaluation. CEQA Guideline section 15323 establishes a "Class 23" exemption, and provides in pertinent part that:

> "normal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility being used for the same or similar kind of purpose [are exempt]. For purposes of this section 'past history' shall mean the same or similar kind of activity has been occurring for at least three years and that there is a reasonable expectation that the future occurrence of the activity would not represent a change in the operation of the facility. Facilities included in this exemption include, but are not limited to . . . amusement parks."

B. The Council hereby finds that approving a variance for the roller coaster falls within the Class 23 CEQA exemption created by CEQA Guideline section 15323 because: (i) the roller coaster is part of the normal operation of the current facility and that there are eight roller coasters in the park; (ii) the amusement park is a public gathering place and the facility was designed for such gatherings; (iii) the Site has been used as an amusement park for at least thirty-two years, with multiple roller coasters and other attractions and the Applicant represents that the theme park use will continue; (iv) the Park historically updates the attractions by adding and removing rides annually; (v) adding a roller coaster is not a change in the operation of the Park because the Park already has eight coasters.

2. <u>Variance Approval, Subject to Conditions and Findings</u>.

A. Chapter 18.108 of the City Code of the City of Santa Clara governs approval of variances in the City. Section 18.108.040 requires the Council to make the following findings in order to grant a variance:

(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.

(b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.

(c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.

(d) That the granting of the variance is in keeping with the purpose and intent of this title.

B. The Council, pursuant to Section 18.108.040, based upon all evidence oral and written before it, finds that:

(a) there are unusual conditions applying to the land or building which do not generally apply in the same district because:

(i) the land has a theme park use, which is not a common or typical use in the district. Such a use requires structures which vary from the specific zoning requirements in order to allow the Park to have a variety of ride design to enhance customer experience;

(ii) the 35-foot height limit of the CT zoning district is not appropriate when applied to the unique collection of rides, attractions and structures that comprise the Park, and which are needed to enable the Park to remain a viable use and to support tourist and recreational oriented uses;

(iii) the Park operates on a seasonal basis, and only on weekends in non-peak seasons, creating an additional unique feature about the use of the land which distinguishes it from other land and buildings in the same zoning district in other places in the City;

(iv) unlike other properties in CT districts, e.g., those along El Camino Real, the theme park is located next to taller structures making allowance of greater height limits appropriate.

(b) the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the Applicant because:

(i) the Applicant has made a substantial investment in the Park, and has significant ongoing costs and installation of new rides and attractions is necessary to the continued economic vitality of the Park because customers expect new rides on an annual basis;

(ii) strict compliance with the 35 foot height limit would prevent the creation and installation of virtually any new or significant rides at the Park, and it is necessary to periodically add new attractions such as the requested roller coaster in order to keep the Park economically viable by attracting new and returning patrons;

(iii) addition of new rides and attractions, such as the requested roller coaster, is essential to preserve the owner's existing substantial investment in the Park as well as to allow growth in revenues to keep the Park economically feasible.

(c) granting a variance shall not, under the circumstances of this particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the Applicant's property and will not

be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood because:

(i) the Park, already includes rides which generate noise and activity and are highly visible structures. Such potential impacts on the neighborhood were analyzed when the Park was opened, and in later environmental review, and were found not to be detrimental to the health, comfort and general welfare of the neighborhood surrounding the Site. The proposed roller coaster is consistent with the types of uses and potential impacts previously analyzed, including potential height and visual impacts;

(ii) the addition of the proposed roller coaster will add a complementary use to the existing theme park, of a type and kind that would typically be expected to be constructed at a theme park. The coaster is lower than many current park features and is not excessive relative to the overall Park;

(iii) the Applicant has voluntarily conducted noise studies which confirm that the new coaster will not create noise impacts any greater than those allowed by City standards, or any other applicable standards and guidelines for the measurement of noise at both exterior and interior commercial and residential receptors;

(iv) the projected noise from the coaster is no greater than noise impacts from the Park that were predicted and analyzed in the environmental review process for the adjacent office building uses at 4555-4559 and 4655-4659 Great America Parkway;

(v) commercial properties developed after the theme park opened were required to incorporation mitigation measures to attenuate noise from the Park.

(d) granting of the variance is in keeping with the purpose and intent of this ordinance because, applied strictly, the 35-foot height limit would be detrimental to the success of the theme park and the related tourist and recreational uses, and would be inconsistent with the Tourist Commercial General Plan designation for the theme park. Granting the variance would facilitate consistency with the General Plan, which is one of the objectives of the zoning ordinance.

C. Based on the foregoing findings, the evidence before it, and all oral and written testimony, the Council hereby approves a variance for one 111-foot high roller coaster in the CT zoned Park. The roller coaster shall be within fifteen (15) feet of the location depicted in the map attached hereto as Exhibit A and is subject to the conditions attached hereto as Exhibit B.

3. Incorporation of Exhibits. All exhibits identified in this resolution are incorporated as if fully set forth herein by this reference.

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4. Constitutionality, severability. If any section, subsection, sentence, clause, phrase, or word of this resolution is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portions of the resolution. The City Council of the City of Santa Clara hereby declares that it would have passed this resolution and each section, subsection, sentence, clause, phrase, and word thereof, irrespective of the fact that any one or more section(s), subsection(s), sentence(s), clause(s), phrase(s), or word(s) be declared invalid.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE ___ DAY OF _____, 200__, BY THE FOLLOWING VOTE:

AYES: COUNCILORS:

NOES: COUNCILORS:

ABSENT: COUNCILORS

ABSTAINED: COUNCILORS:

ATTEST: _____

ROD DIRIDON, JR.
CITY CLERK
CITY OF SANTA CLARA

Attachments Incorporated by Reference:
1. Exhibit A: Location Map
2. Exhibit B: Conditions of Approval

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Exhibit A

Roller Coaster Location Map

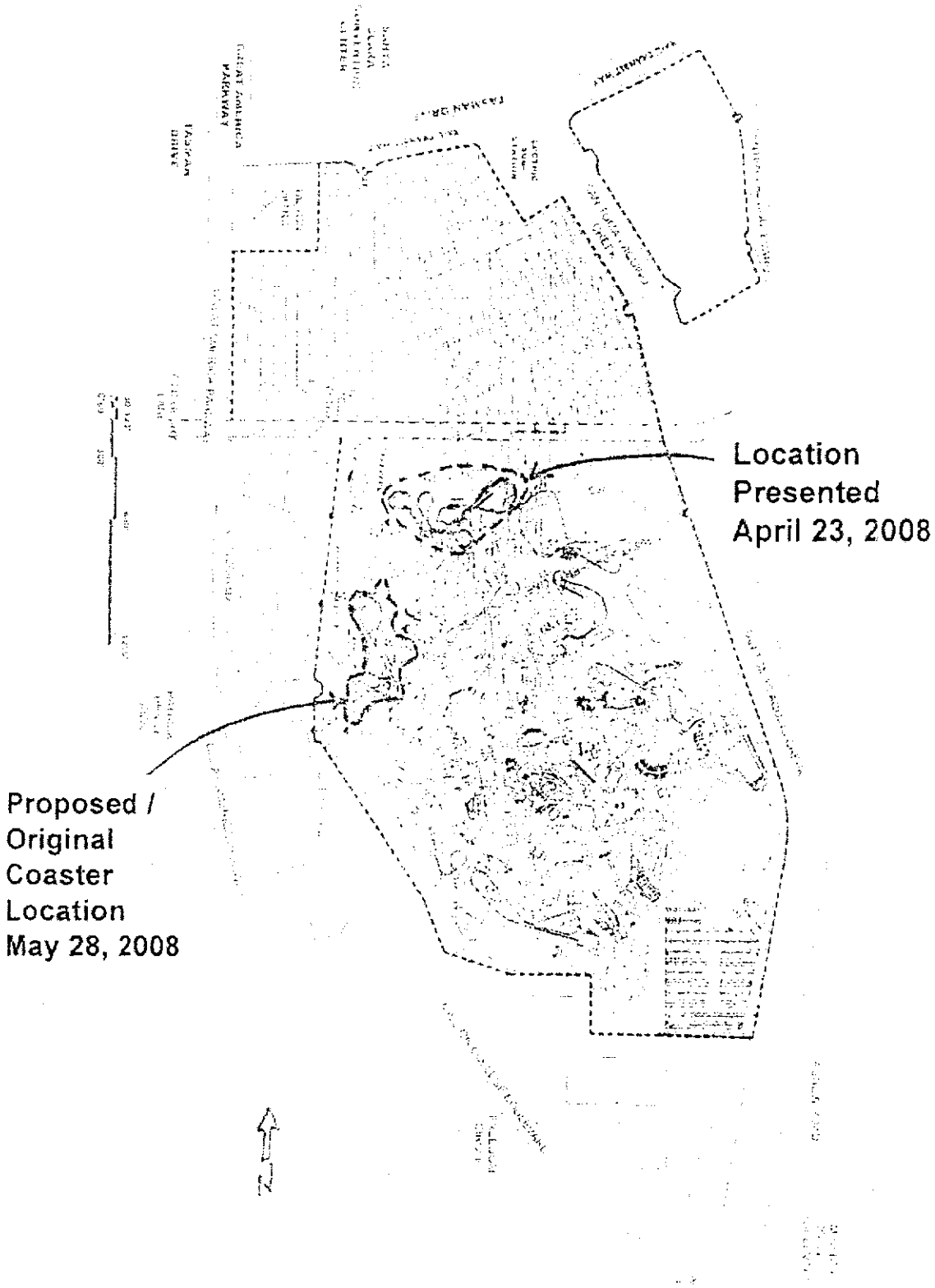

Exhibit B

Conditions of Variance Approval

GENERAL

1. If relocation of an existing public facility becomes necessary due to a conflict with the developer's new improvements, then the cost of said relocation shall be borne by the developer.

ENGINEERING

2. Obtain site clearance through Engineering Department prior to issuance of building permit. Site clearance will require payment of applicable development fees. Other requirements may be identified for compliance during the site clearance process.

3. If any work is proposed within the public right-of-way and/or public easement, which is to be performed by the Developer/Owner, the general contractor, and all subcontractors, it shall be included within a **Single Street Opening Permit** issued by the City Engineering Department. Issuance of the Street Opening Permit and payment of all appropriate fees shall be completed prior to commencement of work, and all work under the permit shall be completed prior to issuance of occupancy permit.

FIRE

Occupancy Classifications:

4. State the occupancy classification in accordance with the International Building Code for each building or areas.

Fire Department Emergency Access:

5. Approved fire apparatus access roads (public/private) shall be established and maintained to within 150 feet of all exterior walls of any building.

6. Approved fire apparatus access roads shall have a minimum 20-foot width, have a minimum 13 ½-foot vertical clearances and have a minimum 36-foot inside turning radius.

7. Dead-end fire apparatus access roads that exceed 150-feet in length shall be provided with a 75-foot diameter vehicle turnaround or an approved hammerhead turnaround (incorporating the minimum 36-foot inside turning radius).

Water Supply:

8. Private fire hydrants and mains capable of supplying the required fire flow shall be installed when any portion of the building protected is in excess of 150 feet from a water supply, as measured by an approved route around the exterior of the facility or building. On-site fire hydrants and mains capable of supplying the required fire flow shall be provided. Fire flow for hydrants shall be in accordance with Appendix B and C of the 2007 CFC. At time of permit application, show on the drawings both the existing fire hydrants and any new proposed fire hydrants.

9. When underground fire service mains are required, submit separate plans, fees and fire flow calculations to the Fire Department for separate review and permit. Each parcel or building may require separate fire service. (NOTE: Stamped and wet signed Civil drawings shall be submitted in conjunction with shop quality drawings by the installing "A" or "C-16" licensed contractor).

10. The FDC shall be located within 50 feet of a fire hydrant, plus on the same side of the road as the fire hydrant(s).

11. In private underground piping systems, any dead end pipe, which supplies both sprinkler and hydrants, shall be not less than eight (8) inches in diameter.

Required Fire Protections/ Detection Systems and Equipment:

12. An automatic fire sprinkler system shall be provided for GROUP A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 1,000 square feet. Sprinkler main drain test valves shall discharge to the sanitary sewer system (via an indirect connection) or shall discharge onto a landscape area of sufficient size. Apply directly to the Fire Department for a separate sprinkler permit.

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13. At the time of permit application, submit a construction "Fire Safety Plan" to the Fire Department for review and approval. The "Fire Safety Plan" shall address fire protection (i.e., access roads, water mains, on-site fire hydrants, fire extinguishers and standpipes) be installed and made serviceable prior to the time of construction. Include in the safety plan the location of fire extinguishers, fire hydrants (public and private), storage of combustible construction materials, propane tanks, and "NO SMOKING" signs. Plus the Safety plan shall address the how the following items will be used: temporary heating devices, temporary electrical wiring, cutting/welding and other open-flame devices. See "Standards for Construction site fire Safety" handout or website at www.unidocs.org/fire

Fire Department Notes (Required on plans/ drawings at the time of application)

14. At the time of Building Permit application, submit Civil Drawings that denote existing and proposed locations of fire hydrants, underground sectional valves, fire department connections and post indicator valves for fire department review and approval.

15. Prior to combustible materials being brought onto the site, approved fire apparatus access roads shall be constructed. These shall be capable of supporting the imposed fire apparatus load (70,000 lbs.) and have a FD approved all-weather driving surface.

16. Construction materials shall not obstruct access roads, access to buildings, hydrants or fire appliances.

17. Combustible construction in excess of 100 feet from the street shall not commence until emergency access roads; underground fire service lines and permanent on-site hydrants are in service and have been tested, flushed and approved by the Fire Department.

18. During construction of a building and until permanent fire-extinguishers have been installed, portable fire extinguishers are required within 50 feet travel distance to any part of the building in accordance with California Fire Code and the Santa Clara Municipal Fire and Environmental Code.

19. General Permit Storm Water Discharges Associated with Construction Activity-Water Quality through the State (order 99-08-DWQ) shall be adhered to regarding non-point source issues on construction sites (i.e., prevention of paints, debris, etc. from going down storm drains). The Permit is issued by the State Water Resources Control Board. Information regarding the permit can be found at www.waterboards.ca.gov/stormwtr/index.html.

20. Internal-combustion-powered construction equipment shall be used as follows:
    a. Equipment shall not be refueled while in operation.
    b. Exhausts shall be piped to the outside of the building.

PLANNING AND INSPECTION

21. Obtain required permits and inspections from the Building Official and comply with the conditions thereof.

22. Submit plans for final architectural review to the Planning Division and obtain architectural approval prior to issuance of building permits.

City of Santa Clara
PLANNING COMMISSION
Wednesday, May 28, 2008
7:00 P.M.
CITY COUNCIL CHAMBERS
MINUTES

Please refer to the Planning Commission Procedural Items coversheet for information on all procedural matters.

REGULAR ITEMS – 7:00 p.m.

1. PLEDGE OF ALLEGIANCE and INVOCATION
Chairperson Champeny initiated the Pledge of Allegiance and the Invocation was read.

2. ROLL CALL
The following Commissioners responded to roll call: Chairperson Ian Champeny, Vice-Chairperson Todd Fitch, Commissioners Tony Marine, Teresa O'Neill, Mohammed Sarodi, and Keith Stattenfield.

Commissioner Frank Barcells was excused.

3. DISTRIBUTION OF AGENDA AND STAFF REPORTS
Ms. Painter advised those present that copies of current agendas and staff reports for each of the items on the agenda are available from the Planning Division Office on the Friday afternoon preceding the meeting and are available at the Commission meeting at the time of the hearing.

4. DECLARATION OF COMMISSION PROCEDURES
Chairperson Champeny reviewed Planning Commission procedures for those present.

5. REQUESTS FOR EXCEPTIONS, WITHDRAWALS AND CONTINUANCES
Agenda Item #11. File: PLN2007-06419/CEQ2007-01047 Location: 2585 El Camino Real

6. ITEMS FOR COUNCIL ACTION
The following items will be sent forward to the City Council following the conclusion of hearings and recommendations by the Planning Commission:
Agenda Item #10. File: PLN2007-06781: Location: 1575 Pomeroy Avenue
Agenda Item #13. File: CEQ2007-01043 Location: City-wide (08/09 CIP)

7. ORAL PETITIONS/ ANNOUNCEMENTS AND COMMUNICATIONS
There were none.

8. CONSENT CALENDAR
The following items routine and public hearing items were approved under the Consent Calendar unless otherwise noted.

Routine Items/Consent Calendar
8.A. Planning Commission Minutes of April 23, 2008
Commission Action: Approved as Submitted

Public Hearing Items/Consent Calendar

8.B.	File:	**PLN2007-06788**
	Location:	1998 Homestead Road, a 0.73 acre lot located on the southeast corner of Homestead Road and Scott Boulevard (APN 269-24-043). Property is zoned CN (Neighborhood Commercial).
	Applicant/Owners:	Jinhie Lee and Hakwoo Lee
	Request:	**Use Permit** to allow beer and wine service requested for a new restaurant.
	Project Planner:	Judith Silva, Associate Planner and Marge Sung, Assistant Planner I
Commission Action:		**Approved, subject to conditions**
8.C.	File:	**PLN2008-06861**
	Location:	2735 Scott Blvd. (APN 224-57-008), a 0.72 acre lot located on the northeast corner of Scott Boulevard and Walsh Avenue. Property is zoned ML (Light Industrial).
	Applicant/Owner:	Qing Gan/Peter & Anna Silberstein
	Request:	**Use Permit** for a new 7,113 square foot retail commercial building.
	Project Planner:	Daniel Vanwie, Assistant Planner I
Commission Action:		**Approved, subject to conditions**
8.D.	File:	**PLN2003-04079, PLN2006-05534, and CEQ2003-01015**
	Location:	3610 and 3700 El Camino Real, two lots totaling 12.59 acres at the southwest corner of El Camino Real and Lawrence Expressway (APNs: 313-06-002 & 004). Property is zoned CC (Community Commercial)
	Applicant/Owner:	Santa Clara Square, LLC
	Request:	**Status report only regarding the continuance of the following request: Certify Environmental Impact Report (EIR) (SCH2003122002)** **Rezone** from Community Commercial (CC) to PD (Planned Development) for Mixed Use development of up to 490 residential condominium units, up to 12,300 square feet of office and up to 171,000 sq. ft. of retail **Tentative Subdivision Map** of the site into five parcels with air space condominiums above; **Variance** for a reduction in parking from 1,876 to 1,762 spaces; and **Development Agreement**
	Project Planner:	Debby Fernandez, Assistant Planner II
Commission Action:		**Noted and Filed status report**
8.E.	File:	**PLN2008-07014**
	Location:	642 Enright Avenue, a 5,661 square foot lot on the west side of Enright Avenue, approximately 355 feet north of Forbes Avenue (APN: 294-07-012). Property is zoned R1-6L (Single Family Residential).
	Applicant/Owner:	Everth and Kyoko Ramirez
	Request:	**Variance** to allow one (1) car garage where two (2) covered parking spaces are required in conjunction with converting the hobby room back to garage and a rear addition to an existing single family residence.
	Project Planner:	Marge Sung, Assistant Planner I
Commission Action:		**Approved, subject to conditions**

**********End of Consent Calendar**********

CONTINUED ITEMS

9.	File:	**PLN2008-06835**
	Location:	1 Great America Parkway, a portion of the Great America Theme Park, generally located on the east side of Great America Parkway, south of Tasman Drive (APN 104-41-019).
	Applicant:	CA Great America/Cedar Fair
	Owner:	City of Santa Clara
	Request:	**Variance** for ride height in conjunction with the construction of a 111-foot high wooden coaster.
	Project Planner:	Jeff Schwilk, AICP – Associate Planner

Mr. Schwilk announced that a March 31, 2008 letter prepared by Prudential's attorney, Tim Tosta, was included in the Commission packet and that a power point presentation will be provided by Cedar Fair and a representative for the adjacent property owner Prudential Real Estate, as part of the public hearing. Mr. Riley added that public comment has been received and is included with the staff report. Mr. Riley provided a power point presentation and outlined the development history of the project site; evolution of property development surrounding the site; and historical perspective of Council's vision for development of the area. Mr. Riley identified existing land uses and noise levels that produce noise impacts and require mitigation by development to attenuate outside noise. Mr. Riley then provided an overview of the development applications, environmental clearance, and entitlements related to the project site; including variances granted over time to exceed height limitations of the assigned CT (Thoroughfare Commercial) zoning for the site.

Mr. Riley presented the project and identified the proposed location for the roller coaster, separation distances from neighboring residences and office buildings, and view sheds into the theme park. Mr. Riley stated that noise studies were prepared by consultants for both the applicant and Prudential Real Estate to assess noise impacts on the surrounding environment relative to height and location of the proposed ride. Mr. Riley noted that the ride will be visible from adjacent properties and that the projected noise will meet City standards. Mr. Riley concluded with a summation of the Resolution findings to support the project request.

Following the staff presentation, the Commission discussed the appropriateness of continued variance requests and entitlements to exceed the height limit established by the zoning district, versus rezoning of the property to PD (Planned Development). Mr. Riley explained that past variance approvals for the site were appropriate as each was evaluated on a case-by-case basis within the theme park. Mr. Riley noted that rezoning the property to PD would provide a mechanism to streamline the process, so that every application for a new ride/attraction that is within the parameters defined by the PD would not require a public hearing, although they would be subject to CEQA(the California Environmental Quality Act). In response to a question from Commissioner Fitch regarding State law, Assistant City Attorney Tina Wallis clarified that the City must comply with the regulations of the City Code for variance applications.

A discussion then followed reviewing code compliance of existing buildings for noise attenuation; compliance of the project with the City's noise standards; CEQA thresholds for noise impacts; and applicability of CEQA exemption Section 15323 to the project.

Mr. Bill Lentz, project applicant, then addressed the Commission with a power point presentation of the project and discussion of investments in park attractions. He noted the park regularly adds rides and attractions in order to maintain its customer base. Mr. Lentz detailed the proposed design of the rollercoaster, site location, ride mechanics, sound analysis, site lighting, landscaping and park's project timeline.

Mr. Les Hausrath, attorney for the applicant, then addressed the Commission with an explanation of the CEQA exemption for amusement parks as provided by the State. Mr. Hausrath stated that the project meets the City's noise standards and that the exemption would only be inapplicable if the

project produced unusual noise conditions for an amusement park, adding that in this case it would not; and, he then reviewed the required variance findings.

Mr. Tim Tosta, attorney for Prudential, presented aerial photos from previous years and discussed the historical record of development in the project area to be entered into the record. Mr. Tosta stated that the City's Code does not address "screaming noise" for sound or measurement and that Prudential has conducted interior noise measurements that revealed a 5 dBA (decibel) to 8 dBA increase in noise above ride background sound levels with screaming. Mr. Tosta stated that the existing glass in the building is adequate and that there have been no noise complaints over the last five years by Prudential regarding existing theme park noise levels. Mr. Tosta stated that the proposed ride would create a visual impact on adjacent structures and spoke to the required findings for project approval, countering that the use verses the land is unusual; that disruptive noise and visual intrusion would create an adverse impact; that the number of variances and variance applications demonstrate inconsistency with the property's zoning; and that a comprehensive land use strategy needs to be applied.

Commissioner O'Neill asked whether Prudential's objection is to screaming or to the roller coaster. Mr. Tosta stated the concern is the noise that enters the building and the length of time it may take the City to remedy a noise complainant as well as enforcement. He stated that there is a need to study the impacts, mitigations, remedies, and enforcement for noise.

Commissioner Stattenfield asked whether there is a process for dealing with noise complaints. Mr. Riley answered with an explanation of the City's procedure for responding to noise complaints and the noise attenuation practices to mitigate both new and existing noise sources, citing airport noise and the window replacement program as examples. Mr. Lentz addressed the question with an explanation of the mechanisms employed to reduce noise from rides. Mr. Tosta noted that screaming noise is different and it is harder to measure the psychological impacts.

The Commission then opened the public hearing.

Chris Stampolis stated that the Commission is required to apply existing law and make all of the findings to approve the project; and that the variance is inappropriate and legally indefensible.

Kevin Park, resident, expressed his opposition to the variance request for height and stated that there are problems with noise, screaming and frequency.

A nearby resident stated that screaming noise is audible across the San Tomas Aquino Creek in the adjoining residential area and that additional sound barriers are needed along the park's east property line. He also expressed his concern for the noise that the new ride would create and noted that there is an expectation that rides in the park will change.

In rebuttal of Mr. Stampolis' comment, Mr. Hausrath explained why the CEQA exemption is applicable and appropriate; further discussed the noise levels measured and projected with the project for the exterior and interior of the Prudential buildings; and concluded with a summation of the negotiation and settlement discussions between Cedar Fair and Prudential. Commissioner Marine inquired as to why the negotiations failed and Mr. Hausrath responded that a number of items such as unpaid rents, lost revenues, ride location and type of future rides could not be agreed upon, which resulted in the breakdown of negotiations.

The Commission then closed the public hearing. A discussion of the variance request, noise, CEQA, findings for approval, and rezoning of the property followed.

Commission Recommendation – May 28, 2008

The Commission then made the necessary findings and determined that the variance application is appropriate; that noise is not an issue as it is a known and existing condition, as set forth in the Commission's Resolution; and that the project is, as set forth in the Commission's Resolution,

categorically exempt per Section 15323 of CEQA. Commissioner Marine made the motion to adopt the Resolution and approve the Variance request, subject to conditions. The motion was seconded and unanimously approved by the Commission (Barcells excused).

Mr. Riley noted that this action is final, unless appealed within 7 days.

10.	File:	**PLN2007-06781**
	Location:	1575 Pomeroy Avenue, a 12,423 square foot lot, located on the east side of Pomeroy Avenue, approximately 350 feet south of El Camino Real (APN 290-03-089). Property is zoned R1-6L (Single Family Residential).
	Applicant:	Kurt Anderson of Anderson Architects
	Owner:	ERN Speno LLC
	Request:	**Rezone from R1-6L to PD** (Planned Development/R3-18D) to demolish an existing residence and construct three detached townhomes.
	Project Planner:	Doug Handerson, AICP, Associate Planner

Summary of Discussion – May 28, 2008
Ms. Sciara provided a background on past hearings for this project, as well as General Plan and zoning designations for the property which would allow up to 5 units.

Kurt Anderson, applicant, addressed the Commission and stated they had worked on alternate plans and now they are back to the original plan. He noted there are increased front setbacks from Pomeroy Avenue, increased landscaping and reduced building height.

Eddie Souza of 1525 Pomeroy Avenue then addressed the Commission. He noted he is still not getting correct mailing and that the property was not entitled to 5 units. Mr. Souza stated that one guest parking space is not enough; that the drawings are incorrect; that more than 2 parking spaces per unit should be provided and that City Council has already turned down three projects for this property. He then stated that this project does not blend in with the community and that other PDs and variance approvals stick out like a sore thumb.

James Rowen then stated that the applicant is asking for a Rezoning, which is much more than a Variance. He stated that the project will have a negative impact and that there was significant neighborhood opposition.

Robert Fitch, residence of Rosita Drive, then addressed the Commission noting some of his concerns about the project, such as driveway location (on wrong side), private yard locations and that he felt the proposal should deal with sensitivity to avoid negative impacts.

Chris Stampolis of 1000 Kiely Boulevard #46, then addressed the Commission. Mr. Stampolis questioned the recommended findings regarding the housing stock in the staff report. He talked of Pomeroy Elementary School being the second largest in the district

Kevin Park of Peppertree Court then addressed the Commission. Mr. Park noted that the property is valuable as a larger property and noted the concerns of the neighborhood.

Mr. Anderson, applicant/architect, noted the elevation Mr. Souza had presented was incorrect and that the project has been revised at the direction of the Planning Commission, while noting the driveway was proposed to distance the new units from the existing single family residence.

The public hearing was closed.

Chairperson Champeny stated that although some changes have been made, he still cannot make the findings to support the request. Commissioner O'Neill stated she had met with Mr. Souza last

RESOLUTION NO. 08-005

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SANTA CLARA, CALIFORNIA, FINDING THAT A VARIANCE IS EXEMPT FROM CEQA AND APPROVING A VARIANCE FOR A 111' HIGH ROLLER COASTER IN THE THOROUGHFARE COMMERCIAL DISTRICT

BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

WHEREAS, Cedar Fair ("the Applicant") is the current lessee and operator of the Great America Theme Park ("the Park") located at 1 Great America Parkway, Santa Clara, California ("the Site");

WHEREAS, there has been a theme park on the Site, with no change in use since 1976, with various rides and attractions, and there is no anticipation that the theme park use will cease;

WHEREAS, since its inception, the Park annually refreshes itself by changing existing rides, or installing new rides annually;

WHEREAS, the Park is included in the 1973 Bayshore North Redevelopment Plan and the environmental impacts of the Park were analyzed in the Final Environmental Impact Report for the Bayshore North Redevelopment Plan and the August 1999 Bayshore North Redevelopment Projects Final Environmental Impact Report;

WHEREAS, the Site is currently zoned CT or Commercial Thoroughfare, which has a 35' height limit;

WHEREAS, on January 10, 2008, the Applicant submitted an application for a variance to the height restriction to install a 111' high roller coaster on the Site;

WHEREAS, this matter was originally set for hearing before the City of Santa Clara's Planning Commission ("Commission") on February 13, 2008, which was continued to March 12, 2008,

which was then continued to April 23, 2008; and was continued again by the Planning Commission to May 28, 2008;

WHEREAS, in response to public comments during the March 12, 2008 hearing on the variance application, the Applicant amended its application to relocate the roller coaster within the Park;

WHEREAS, after trying to negotiate a location with adjacent property owners, the Applicant requested that the City consider the Application at a May 28, 2008 Planning Commission meeting, for the roller coaster's original location in the theme park, as submitted to the City on January 10, 2008; and,

WHEREAS, the City has re-noticed a public hearing for the variance application, setting the matter for the Commission's consideration on May 28, 2008.

NOW THEREFORE, BE IT FURTHER RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF SANTA CLARA, CALIFORNIA, AS FOLLOWS:

1. CEQA Compliance and Findings.

A. California's Environmental Quality Act ("CEQA") requires a public agency to evaluate the environmental impacts of a proposed project. CEQA also contains a list of categorical exemptions for projects that are not required to undergo environmental evaluation. CEQA Guideline section 15323 establishes a "Class 23" exemption, providing in pertinent part that:

> "normal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility being used for the same or similar kind of purpose [are exempt]. For purposes of this section 'past history' shall mean the same or similar kind of activity has been occurring for at least three years and that there is a

reasonable expectation that the future occurrence of the activity would not represent a change in the operation of the facility. Facilities included in this exemption include, but are not limited to . . . amusement parks."

B. The Commission hereby finds that approving a variance for the roller coaster falls within the Class 23 CEQA exemption created by CEQA Guideline section 15323 because: (i) the Park is a public gathering place; (ii) the Site has been used as a theme park for at least thirty-two years, with multiple roller coasters and other attractions and the Applicant represents that the theme park use will continue; (iii) the Park historically updates its venue by adding and removing rides annually; (iv) adding a roller coaster is not a change in the operation of the Park because the Park already has six roller coasters.

2. Variance Approval, Subject to Conditions and Findings.

A. The City Code of the City of Santa Clara, Chapter 18.108, governs approval of variances in the City and requires the Commission to make specific findings in order to grant a variance.

B. The Commission finds that:

(i) there are unusual conditions applying to the land or building which do not generally apply in the same district because the land has a theme park use, which is not a common or typical use in the district that has primarily office parks, industrial sites or residential uses. And such a use, which is unique in the City, requires structures which vary from the specific zoning requirements in order to allow the Park to function and flourish;

(ii) the 35-foot height limit of the CT zoning district is not appropriate when applied to the unique collection of rides, attractions and structures that comprise the Park, and

which are needed to enable the Park to flourish and to support tourist and recreational oriented uses;

(iii) the Park operates on a seasonal basis, and only on weekends in non-peak seasons, creating an additional unique feature about the use of the land which distinguishes it from other land and buildings in the same district;

(iv) the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the Applicant because the Applicant has made a substantial investment in the Park, and has significant ongoing costs and installation of new rides and attractions is necessary to the economic vitality of the Park;

(v) granting of the variance is necessary to preserve the substantial property rights of the applicant because strict compliance with the 35 foot height limit would prevent the creation and installation of virtually any new or significant rides at the Park, and it is necessary to periodically add new attractions such as the requested roller coaster in order to keep the Park economically viable by attracting new and returning patrons;

(vi) addition of new rides and attractions, such as the requested roller coaster, is essential to preserve the owner's existing substantial investment in the Park as well as to allow growth in revenues to keep the Park economically feasible;

(vii) granting a variance shall not, under the circumstances of this particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the Applicant's property and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood because the Park, by its nature, includes rides which involve noise, activity and highly visible structures. Such potential impacts on the neighborhood were

analyzed when the Park was opened, and in later environmental review, and were found not to be detrimental to the health, comfort and general welfare of the neighborhood surrounding the Site. The proposed roller coaster is consistent with the types of uses and potential impacts previously analyzed, including potential height and visual impacts;

(viii) the addition of the proposed roller coaster will add a complementary and incremental use to the existing theme park, of a type and kind that would typically be expected to be constructed at a theme park of this type. In terms of height, the coaster is lower than many park features and not excessive relative to the overall Park;

(ix) the Applicant has conducted substantial noise studies utilizing outside consultants to confirm that the new coaster will not create noise impacts any greater than allowed by City standards or any greater than other applicable standards and guidelines for the measurement of noise at both exterior and interior commercial and residential receptors;

(x) the projected noise from the coaster is no greater than noise impacts from the Park that were predicted and analyzed in the environmental review process for the adjacent office building uses at 4555-4559 and 4655-4659 Great America Parkway;

(xi) commercial properties developed after the theme park opened were required to incorporation mitigation measures to attenuate noise from the Park;

(xii) granting of the variance is in keeping with the purpose and intent of this ordinance because, applied strictly, the 35-foot height limit would be detrimental to the success of the theme park and the related tourist and recreational uses, which would be inconsistent with the Tourist Commercial General Plan designation for the theme park. Granting the variance would facilitate consistency with the General Plan, which is one of the objectives of the zoning ordinance.

C. The Commission hereby approves a variance for one 111' high roller coaster in the CT zoned Park. The roller coaster shall be within fifteen (15) feet of the location depicted in the map attached hereto as Exhibit A and is subject to the conditions attached hereto as Exhibit B.

3. Incorporation of Exhibits. All exhibits identified in this resolution are incorporated as if fully set forth herein by this reference.

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4. Constitutionality, severability. If any section, subsection, sentence, clause, phrase, or word of this resolution is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portions of the resolution. The Planning Commission of the City of Santa Clara hereby declares that it would have passed this resolution and each section, subsection, sentence, clause, phrase, and word thereof, irrespective of the fact that any one or more section(s), subsection(s), sentence(s), clause(s), phrase(s), or word(s) be declared invalid.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE PLANNING COMMISSION OF THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 28th DAY OF MAY, 2008, BY THE FOLLOWING VOTE:

AYES: COMMISSIONERS: Ian Champeny, Teresa O'Neill, Tony Marine, Mohamed Sarodi, Keith Stattenfield

NOES: COMMISSIONERS: Todd Fitch

ABSENT: COMMISSIONERS: Frank Barcells

ABSTAINED: COMMISSIONERS:

ATTEST: _____
KEVIN RILEY, DIRECTOR
PLANNING & INSPECTION DEPARTMENT
CITY OF SANTA CLARA

Attachments Incorporated by Reference:
1. Exhibit A: Location Map
2. Exhibit B: Conditions of Approval

I:\PLANNING\2008\Project Files Active\PLN2008-06835 1 Great America Parkway\PC Reso GA Roller Coaster 062308rev.doc
I:\PLANNING\2008\Project Files Active\PLN2008-06835 1 Great America Parkway\PC Reso GA Roller Coaster 062308rev.doc

Exhibit A

Roller Coaster Location Map

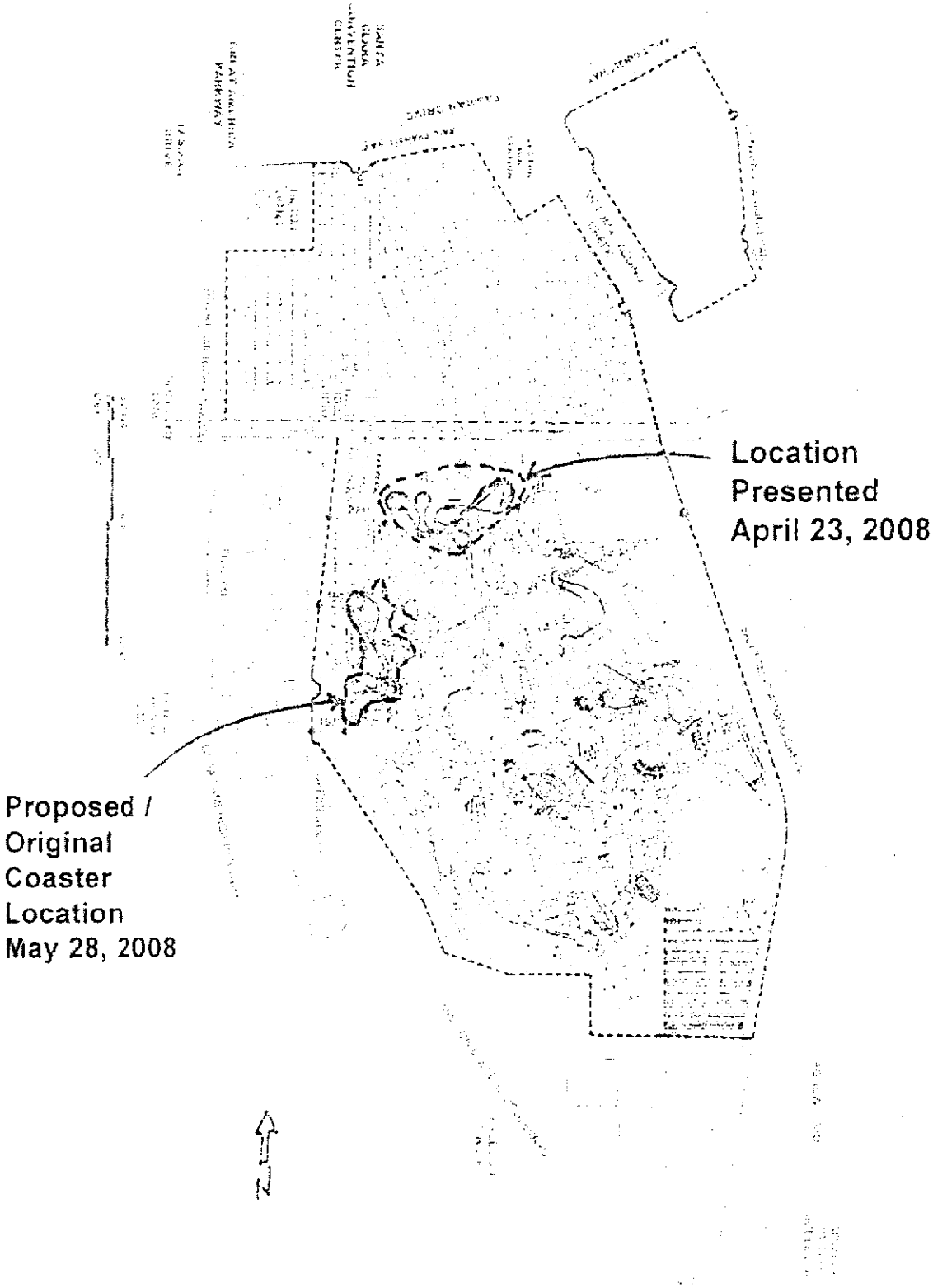


Exhibit B

Conditions of Variance Approval

GENERAL

1. If relocation of an existing public facility becomes necessary due to a conflict with the developer's new improvements, then the cost of said relocation shall be borne by the developer.

ENGINEERING

2. Obtain site clearance through Engineering Department prior to issuance of building permit. Site clearance will require payment of applicable development fees. Other requirements may be identified for compliance during the site clearance process.

3. If any work is proposed within the public right-of-way and/or public easement, which is to be performed by the Developer/Owner, the general contractor, and all subcontractors, it shall be included within a **Single Street Opening Permit** issued by the City Engineering Department. Issuance of the Street Opening Permit and payment of all appropriate fees shall be completed prior to commencement of work, and all work under the permit shall be completed prior to issuance of occupancy permit.

FIRE

Occupancy Classifications:

4. State the occupancy classification in accordance with the International Building Code for each building or areas.

Fire Department Emergency Access:

5. Approved fire apparatus access roads (public/private) shall be established and maintained to within 150 feet of all exterior walls of any building.

6. Approved fire apparatus access roads shall have a minimum 20-foot width, have a minimum 13 ½-foot vertical clearances and have a minimum 36-foot inside turning radius.

7. Dead-end fire apparatus access roads that exceed 150-feet in length shall be provided with a 75-foot diameter vehicle turnaround or an approved hammerhead turnaround (incorporating the minimum 36-foot inside turning radius).

Water Supply:

8. Private fire hydrants and mains capable of supplying the required fire flow shall be installed when any portion of the building protected is in excess of 150 feet from a water supply, as measured by an approved route around the exterior of the facility or building. On-site fire hydrants and mains capable of supplying the required fire flow shall be provided. Fire flow for hydrants shall be in accordance with Appendix B and C of the 2007 CFC. At time of permit application, show on the drawings both the existing fire hydrants and any new proposed fire hydrants.

9. When underground fire service mains are required, submit separate plans, fees and fire flow calculations to the Fire Department for separate review and permit. Each parcel or building may require separate fire service. (NOTE: Stamped and wet signed Civil drawings shall be submitted in conjunction with shop quality drawings by the installing "A" or "C-16" licensed contractor).

10. The FDC shall be located within 50 feet of a fire hydrant, plus on the same side of the road as the fire hydrant(s).

11. In private underground piping systems, any dead end pipe, which supplies both sprinkler and hydrants, shall be not less than eight (8) inches in diameter.

Required Fire Protections/ Detection Systems and Equipment:

12. An automatic fire sprinkler system shall be provided for GROUP A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 1,000 square feet. Sprinkler main drain test valves shall discharge to the sanitary sewer system (via an indirect connection) or shall discharge onto a landscape area of sufficient size. Apply directly to the Fire Department for a separate sprinkler permit.

Fire Safety During Construction:

13. At the time of permit application, submit a construction "Fire Safety Plan" to the Fire Department for review and approval. The "Fire Safety Plan" shall address fire protection (i.e., access roads, water mains, on-site fire hydrants, fire extinguishers and standpipes) be installed and made serviceable prior to the time of construction. Include in the safety plan the location of fire extinguishers, fire hydrants (public and private), storage of combustible construction materials, propane tanks, and "NO SMOKING" signs. Plus the Safety plan shall address the how the following items will be used: temporary heating devices, temporary electrical wiring, cutting/welding and other open-flame devices. See "Standards for Construction site fire Safety" handout or website at www.unidocs.org/fire

Fire Department Notes (Required on plans/ drawings at the time of application)

14. At the time of Building Permit application, submit Civil Drawings that denote existing and proposed locations of fire hydrants, underground sectional valves, fire department connections and post indicator valves for fire department review and approval.

15. Prior to combustible materials being brought onto the site, approved fire apparatus access roads shall be constructed. These shall be capable of supporting the imposed fire apparatus load (70,000 lbs.) and have a FD approved all-weather driving surface.

16. Construction materials shall not obstruct access roads, access to buildings, hydrants or fire appliances.

17. Combustible construction in excess of 100 feet from the street shall not commence until emergency access roads; underground fire service lines and permanent on-site hydrants are in service and have been tested, flushed and approved by the Fire Department.

18. During construction of a building and until permanent fire-extinguishers have been installed, portable fire extinguishers are required within 50 feet travel distance to any part of the building in accordance with California Fire Code and the Santa Clara Municipal Fire and Environmental Code.

19. General Permit Storm Water Discharges Associated with Construction Activity-Water Quality through the State (order 99-08-DWQ) shall be adhered to regarding non-point source issues on construction sites (i.e., prevention of paints, debris, etc. from going down storm drains). The Permit is issued by the State Water Resources Control Board. Information regarding the permit can be found at www.waterboards.ca.gov/stormwtr/index.html.

20. Internal-combustion-powered construction equipment shall be used as follows:
    a. Equipment shall not be refueled while in operation.
    b. Exhausts shall be piped to the outside of the building.

PLANNING AND INSPECTION

21. Obtain required permits and inspections from the Building Official and comply with the conditions thereof.

22. Submit plans for final architectural review to the Planning Division and obtain architectural approval prior to issuance of building permits.

Planning Commission Staff Report May 28, 2008
Agenda Item # 9

File:	**PLN2008-06835**
Location:	1 Great America Parkway, a portion of the Great America Theme Park, generally located on the east side of Great America Parkway, south of Tasman Drive (APN 104-42-019).
Applicant:	CA Great America
Owner:	City of Santa Clara
Request:	**Variance** for ride height in conjunction with the construction of a 111-foot high wooden coaster.
Project Planner:	Jeff Schwilk, AICP – Associate Planner
Staff Recommendation:	**Approve, subject to conditions**

PROJECT DESCRIPTION

The applicant requests a variance approval to construct a new 111-foot tall roller coaster structure, toward the west edge of the theme park. A Variance is required in order to allow the structure to exceed the 35-foot height standard for properties located in CT (Thoroughfare Commercial) zoning districts.

To summarize the project review to date:

1. On January 10, 2008, the applicant filed an application for a height variance to construct a 111-foot tall roller coaster on the site.
2. On February 13, 2008, the Planning Commission granted a continuance at the request of Tim Tosta, Attorney for the adjoining property owner of the office buildings at 4555 and 4559 Great America Parkway.
3. On March 12, 2008, the Planning Commission continued the project for up to 90 days, given a significant amount of information submitted by Mr. Tosta, late in the afternoon the day of March 12th, and a lack of sufficient amount of time by members of the Commission to review the information.
4. On April 23, 2008, unable to reach agreement prior to the meeting, both the applicant and the adjoining property owner requested a continuance. After trying to negotiate a location with the adjacent property owners, the applicant requested that the City continue the project to the May 28, 2008 Planning Commission meeting, for the roller coaster's original proposed location in the theme park, approximately 157 from the west property line, as submitted to the City on January 10, 2008.

The issue before the Planning Commission is a Variance for a new 111-foot tall, wooden roller coaster, at the originally proposed location(See Site Plan on page 8 of this report).

PRIOR ACTIONS (Prior Commission minutes follow the current report)

01/10/08:	Application received
01/22/08:	Application deemed complete by Project Clearance Committee
02/13/08:	Planning Commission granted a continuance to March 12, 2008, upon a request by Tim Tosta, Attorney for the property owner of 4555 and 4559 Great America Parkway, who noted his clients were requesting a continuance to allow time for additional noise research.
03/12/08:	Planning Commission continued the project review for up to 90 days
04/23/08:	Planning Commission continued the project to May 28, 2008

CURRENT USE / ZONING / GENERAL PLAN

Current Use:	Theme Park
Current Zoning:	CT (Thoroughfare Commercial)
General Plan Designation:	This property is designated for Tourist Commercial uses.

NEARBY PROPERTIES Land Use and Zoning

North: City Convention Center, Zoned PD (Planned Development)

East: San Tomas Aquino Creek and Single Family Residences beyond, zoned R1-6L (Single Family Residential)

South: Office and R&D buildings, zoned MP (Planned Industrial)

West: Industrial Office and R&D buildings, zoned MP, and PD(MP) Planned Development

ENVIRONMENTAL DETERMINATION

Categorically exempt per Section 15323 of the CEQA Guidelines.

CONSISTENCY WITH DESIGN GUIDELINES

This project is consistent with the City of Santa Clara's Design Guidelines.

STAFF REPORT - May 28, 2008

Public Input: *The notice of public hearing for this item was posted within 300 feet of the site and was mailed to property owners within 300 feet. The following comments have been received as of the preparation of this report:*

- The applicant has submitted an updated statement, dated May 16, 2008, along with accompanying documentation to support the request.
- Also submitted on behalf of the applicant by Les Hausrath, Attorney for Cedar Fair, L.P., d.b.a. California's Great America, is a letter dated May 14, 2008, along with accompanying documentation to support the request.
- As the applicant now requests approval to place the ride back at the original location as presented for the February 13, 2008 and March 12, 2008 Planning Commission Meetings, previous public input documents provided by the applicant and by representatives for the adjoining property owner, Prudential Real Estate Investors, of 4555-4559 Great America Parkway, are included for consideration with this report. Also attached is a letter dated March 31, 2008, addressed to City Attorney Helene Leichter and Assistant City Attorney Tina Wallis, received from Luce Forward representing Prudential Real Estate Investors, of 4555-4559 Great America Parkway.
- Other documents that are part of the administrative file record for this project, but which are not included with this staff report, include the following:
    1. Planning Commission Staff Reports for the meetings of February 13, 2008, March 12, 2008, and April 23, 2008.
    2. Chapter 9.10 of the Santa Clara Municipal Code, entitled "Regulation Of Noise And Vibration."
    3. The Final Environmental Impact Report for the Nortel Networks Great America Parkway Project (Ref. State Clearinghouse Number 1999092044).
    4. Public input documents submitted for the April 23rd Planning Commission Meeting, by both representatives for the application, and by representatives for Prudential Real Estate Investors. This information was applicable to the alternate location.

The record of this matter is available for public review at City Hall, Office of the Planning Division, 1500 Warburton Avenue, Santa Clara, during regular business hours, and will also be made available for public review at the May 28th Planning Commission Meeting.

Considerations: *The following general factors may be considered in evaluating this request. Some of these factors may represent evidence or facts that may directly support or refute the findings necessary to support this request:*

- The proposed roller coaster support structure would be constructed of wood.
- The proposed maximum track height is 107-feet, 6-inches, not including a 3-foot maintenance rail. With this railing, overall height would be 111 feet.
- The tallest point of the structure would be located at the top of the lift hill of the ride, located toward the northern-most end of the ride, near the Gyro Star Tower.
- Just after this highpoint of the proposed ride, the coaster begins to loop around the north end of the existing taller 206-foot Gyro Star Tower ride.
- The proposed ride would be located approximately 157-feet into the park from the west and southwest property lines, near the cul-de-sac for Patrick Henry Drive.
- The proposed ride would be located approximately 1,465 square feet from the east property line, bordering the San Tomas Aquino Creek Channel and the single-family residential neighborhood beyond.
- Near the highest point of the proposed ride structure, the closest existing nearby multi-story parking structures to the west are approximately 45 feet in height. The office buildings beyond this are approximately 93 feet in height.
- Both the FAA clearance and the Acoustical Impact studies, submitted by the applicant, are attached at the end of this report.
- The Acoustical Impact Assessment projects that the maximum sound levels of the ride would be 75 decibels(dBA) at the west property line, consistent with allowable City Noise Ordinance Standards. This maximum projected sound level was adjusted up by 5 decibels (dBA), as prescribed in City Code section 9.10.060, to account for ambient noise levels.
- The City's Noise Ordinance applies to fixed noise sources, including the mechanical noise created by the ride structures and accompanying equipment at the park, and including any related sound systems, and has not been applied to the screams of individuals who ride the park attractions.
- The developer of the adjoining office buildings at 4555 and 4559 Great America Parkway, should have incorporated noise mitigation measures into the design and construction of these buildings, in order to reduce interior noise levels. Noise mitigation measures to reduce interior noise levels, were identified in the Environmental Impact Report (titled Nortel Networks Inc. Great America Parkway Project) prepared for the development at 4555 and 4559 Great America Parkway, prior to the construction of the office buildings.
- The ride has cleared FAA review.
- Since the applicant is proposing the ride back at the original location, and the coaster would again be situated a substantial distance from the east property line closer to residential neighborhoods, staff has omitted Condition #24 from the April 23rd meeting calling for a 10:00 p.m. closing time.

Alternatives to the Proposal: *The following alternative measures or possible changes to the project may achieve the project goals to some degree and/or result in a lesser impact than the project proposal, and may be but are not necessarily recommended by staff.*

- None proposed

FINDINGS REQUIRED TO SUPPORT THE REQUEST

Findings provide a means to link the available evidence with the decision to approve or deny the application. If this request is favorably considered, the preponderance of evidence should support the following or similar findings to approve the ***variance*** *request. The following evidence and facts provide a basis for the recommendation/action on this request:*

a) That there are unusual conditions applying to the land or building which do not generally apply in the same district;
b) that the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner;
c) that the granting of such variance shall not, under the circumstances of this particular case,

materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood; and,

d) that the granting of the variance is in keeping with the purpose and intent of this ordinance.

- **The proposed findings, along with a Resolution, are attached at the end of this report.**

STAFF RECOMMENDATION – May 28, 2008

Recommend that the Planning Commission make the necessary findings, based upon the evidence articulated above and as may be provided through the public hearing, to **approve** this request, subject to conditions.

RECOMMENDED CONDITIONS OF APPROVAL

In the event that this request is favorably considered, it is recommended that the Planning Commission apply the following recommended conditions of approval. In addition to complying with all applicable codes, regulations, ordinances and resolutions, the following conditions of approval are recommended:

GENERAL

1. If relocation of an existing public facility becomes necessary due to a conflict with the developer's new improvements, then the cost of said relocation shall be borne by the developer.

ENGINEERING

2. Obtain site clearance through Engineering Department prior to issuance of building permit. Site clearance will require payment of applicable development fees. Other requirements may be identified for compliance during the site clearance process.

3. If any work is proposed within the public right-of-way and/or public easement, which is to be performed by the Developer/Owner, the general contractor, and all subcontractors, it shall be included within a **Single Street Opening Permit** issued by the City Engineering Department. Issuance of the Street Opening Permit and payment of all appropriate fees shall be completed prior to commencement of work, and all work under the permit shall be completed prior to issuance of occupancy permit.

FIRE

Occupancy Classifications:

4. State the occupancy classification in accordance with the International Building Code for each structure or areas.

Fire Department Emergency Access:

5. Approved fire apparatus access roads (public/private) shall be established and maintained to within 150 feet of all exterior walls of any building.

6. Approved fire apparatus access roads shall have a minimum 20-foot width, have a minimum 13 ½-foot vertical clearances and have a minimum 36-foot inside turning radius.

7. Dead-end fire apparatus access roads that exceed 150-feet in length shall be provided with a 75-foot diameter vehicle turnaround or an approved hammerhead turnaround (incorporating the minimum 36-foot inside turning radius).

Water Supply:

8. Private fire hydrants and mains capable of supplying the required fire flow shall be installed when any portion of the building protected is in excess of 150 feet from a water supply, as measured by an approved route around the exterior of the facility or building. On-site fire hydrants and mains capable of supplying the required fire flow shall be provided. Fire flow for hydrants shall be in accordance with Appendix B and C of the 2007 CFC. At time of permit application, show on the drawings both the existing fire hydrants and any new proposed fire hydrants.

9. When underground fire service mains are required, submit separate plans, fees and fire flow calculations to the Fire Department for separate review and permit. Each parcel or building may require separate fire service. (NOTE: Stamped and wet signed Civil drawings shall be submitted in conjunction with shop quality drawings by the installing "A" or "C-16" licensed contractor).

10. The FDC shall be located within 50 feet of a fire hydrant, plus on the same side of the road as the fire hydrant(s).

11. In private underground piping systems, any dead end pipe, which supplies both sprinkler and hydrants, shall be not less than eight (8) inches in diameter.

Required Fire Protections/ Detection Systems and Equipment:

12. An automatic fire sprinkler system shall be provided for GROUP A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 1,000 square feet. Sprinkler main drain test valves shall discharge to the sanitary sewer system (via an indirect connection) or shall discharge onto a landscape area of sufficient size. Apply directly to the Fire Department for a separate sprinkler permit.

Fire Safety During Construction:

13. At the time of permit application, submit a construction "Fire Safety Plan" to the Fire Department for review and approval. The "Fire Safety Plan" shall address fire protection (i.e., access roads, water mains, on-site fire hydrants, fire extinguishers and standpipes) be installed and made serviceable prior to the time of construction. Include in the safety plan the location of fire extinguishers, fire hydrants (public and private), storage of combustible construction materials, propane tanks, and "NO SMOKING" signs. Plus the Safety plan shall address the how the following items will be used: temporary heating devices, temporary electrical wiring, cutting/welding and other open-flame devices. See "Standards for Construction site fire Safety" handout or website at www.unidocs.org/fire

Fire Department Notes (Required on plans/ drawings at the time of application)

14. At the time of Building Permit application, submit Civil Drawings that denote existing and proposed locations of fire hydrants, underground sectional valves, fire department connections and post indicator valves for fire department review and approval.

15. Prior to combustible materials being brought onto the site, approved fire apparatus access roads shall be constructed. These shall be capable of supporting the imposed fire apparatus load (70,000 lbs.) and have a FD approved all-weather driving surface.

16. Construction materials shall not obstruct access roads, access to buildings, hydrants or fire appliances.

17. Combustible construction in excess of 100 feet from the street shall not commence until emergency access roads; underground fire service lines and permanent on-site hydrants are in service and have been tested, flushed and approved by the Fire Department.

18. During construction of a building and until permanent fire-extinguishers have been installed, portable fire extinguishers are required within 50 feet travel distance to any part of the building in accordance with California Fire Code and the Santa Clara Municipal Fire and Environmental Code.

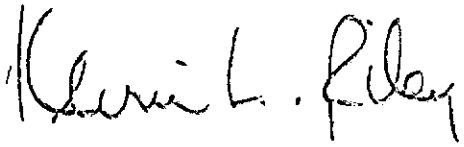
19. General Permit Storm Water Discharges Associated with Construction Activity-Water Quality through the State (order 99-08-DWQ) shall be adhered to regarding non-point source issues on construction sites (i.e., prevention of paints, debris, etc. from going down storm drains). The Permit is issued by the State Water Resources Control Board. Information regarding the permit can be found at www.waterboards.ca.gov/stormwtr/index.html.

20. Internal-combustion-powered construction equipment shall be used as follows:
    a. Equipment shall not be refueled while in operation.
    b. Exhausts shall be piped to the outside of the building.

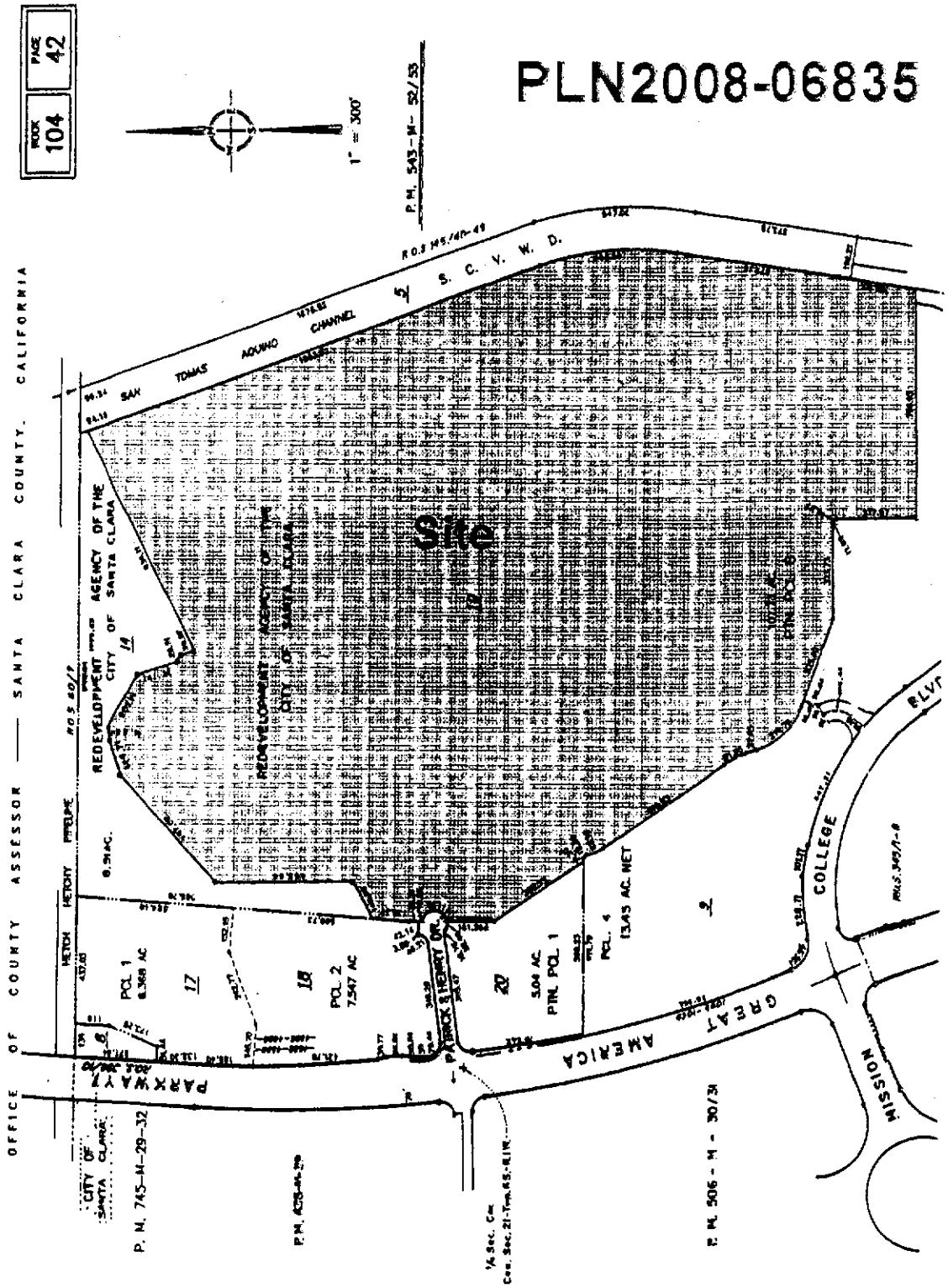
PLANNING AND INSPECTION

21. Obtain required permits and inspections from the Building Official and comply with the conditions thereof.

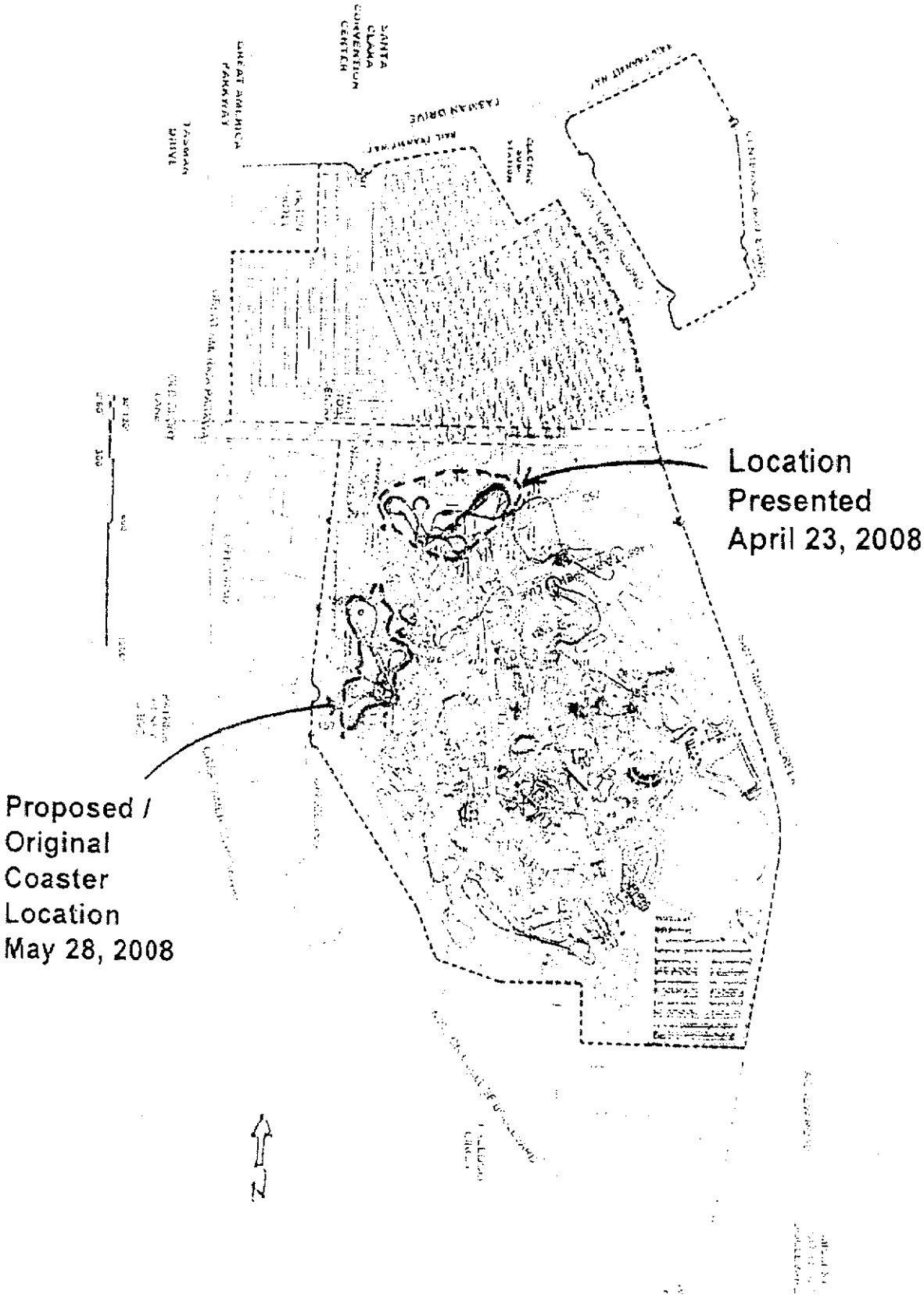
22. Submit plans for final architectural review to the Planning Division and obtain architectural approval prior to issuance of building permits.



PLN2008-06835



Site Plan


Location
Presented
April 23, 2008
Proposed /
Original
Coaster
Location
May 28, 2008

2009 PROPOSED
WOODEN ROLLER COASTER

California's
Great America
Cedar Fair Entertainment Company

DATE: JANUARY 16, 2008

RECEIVED
JAN 25 2008
City of Santa Clara
Planning Division
PL2008-06835

California's
Great America

(408) 988-1776
P.O. Box 1776 Santa Clara, CA 95052
2401 Agnew Road Santa Clara, CA 95054

January 16, 2008

RECEIVED
JAN 25 2008
City of Santa Clara
Planning Division

City of Santa Clara
Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050

Attn: Jeff Schwilk
Re: Proposed Coaster - 2009

Dear Jeff,

California's Great America requests a height variance for a proposed coaster attraction that would open in the Spring of 2009. The coaster structure would be constructed of wood. At a maximum height of 110'-6" (track height at 107'-6"), this attraction will exceed the maximum allowable height restriction of 35-feet set by the City. The tallest point of the coaster structure is located at the top of the lift hill of the ride. California's Great America is categorized in a CT-zoning district within the northern section of the City of Santa Clara.

Due to the type of business conducted at the park, California's Great America integrates various structures and attractions that are unique in nature, such as several steel roller coasters and two ride towers that are 200-feet in height. It is with the development of these attractions, in conjunction with the ongoing support from the City, which contributes to the image and overall success of the park.

If you have any further questions or concerns, please feel free to contact me at (408) 986-5874.

Sincerely,

Lowell Esposo
Construction Manager

Cc: Greg Sanders, Maintenance Director

PROPOSED WOODEN ROLLER COASTER

RIDE SPECIFICATIONS

• Maximum Ride Height.	110 feet (Top of Maintenance railing)
• Ride Track Length	approx. 3,100 feet
• Power requirements (ride)	460 volts (200 amps)
• Seating Capacity	28 Riders per train - two trains
• Load/Unload/Cycle Time	approx. 2 minutes
• Theoretical hourly capacity	approx. 800 to 850 people per hour
• Rider Height Restrictionminimum	48" tall
• Manufacturer: Great Coaster International, Inc.	

RIDE DESCRIPTION

The ride begins with climbing up the lift hill approximately 108 feet then immediately sends the train whirling into a one-of-a-kind direction-changing, twisting first drop that surrounds the Star Tower Ride with a stunning wood lattice structure. The ride consists of a series of twists and turns with multiple direction changes, Zero-G camelbacks and small bunnyhops, extreme banking and incredibly quick but smooth transitions over a course of 3,100 feet.

PHYSICAL RIDE DESCRIPTION

Ride is composed of wood members that are anchored to a concrete mat foundation. The structure consist of vertical / diagonal bents, chords, batter braces, longitudinal bracing and ledger boards. The track structure is wood with a steel plate running track on top.

NOISE LEVELS

Noise levels for the lift hill will be dampened with sound deadening material mounted to the train and between lift hill tracks to reduce ratcheting noise coming from ARB dogs mounted on trains. Other sound prevention methods will be to add berming along property lines with dense landscaping.

LIGHTING

Project Lighting will consist of indirect lighting mounted at grade to illuminate the lift hill structure of the ride and various lower lying ride track areas. Area lighting will consist of direct illuminated pole lights for midways plazas and queue areas with sharp cutoff lines.

HEIGHT

The maximum ride height is located at the Lift Hill of 110 feet. See sheet RP-1 for the ride profile.

LANDSCAPING

Several existing trees will remain around the perimeter of the ride with deciduous shade trees, shrubs and low plantings filling in voids. The planting scheme is planned to allow maximum views from the main midway to the ride, while undesirable views to service areas will be mostly blocked. (Refer to Concept Planting Plan)

EASEMENT LOCATIONS

Public easements are not effected by this project. See set backs from Ride to property lines on sheet OP-1.

RECEIVED
JAN 25 2008
City of Santa Clara
Planning Division

SCALE AS NOTED
DATE 1-16-08
DRAWN
FILE

California's Great America
Cedar Fair Entertainment Company

TITLE PROJECT NARRATIVE FOR PURPOSES OF PLANNING APPROVAL
PROJECT PROPOSED WOODEN ROLLER COASTER

SHEET NO.
PN-1

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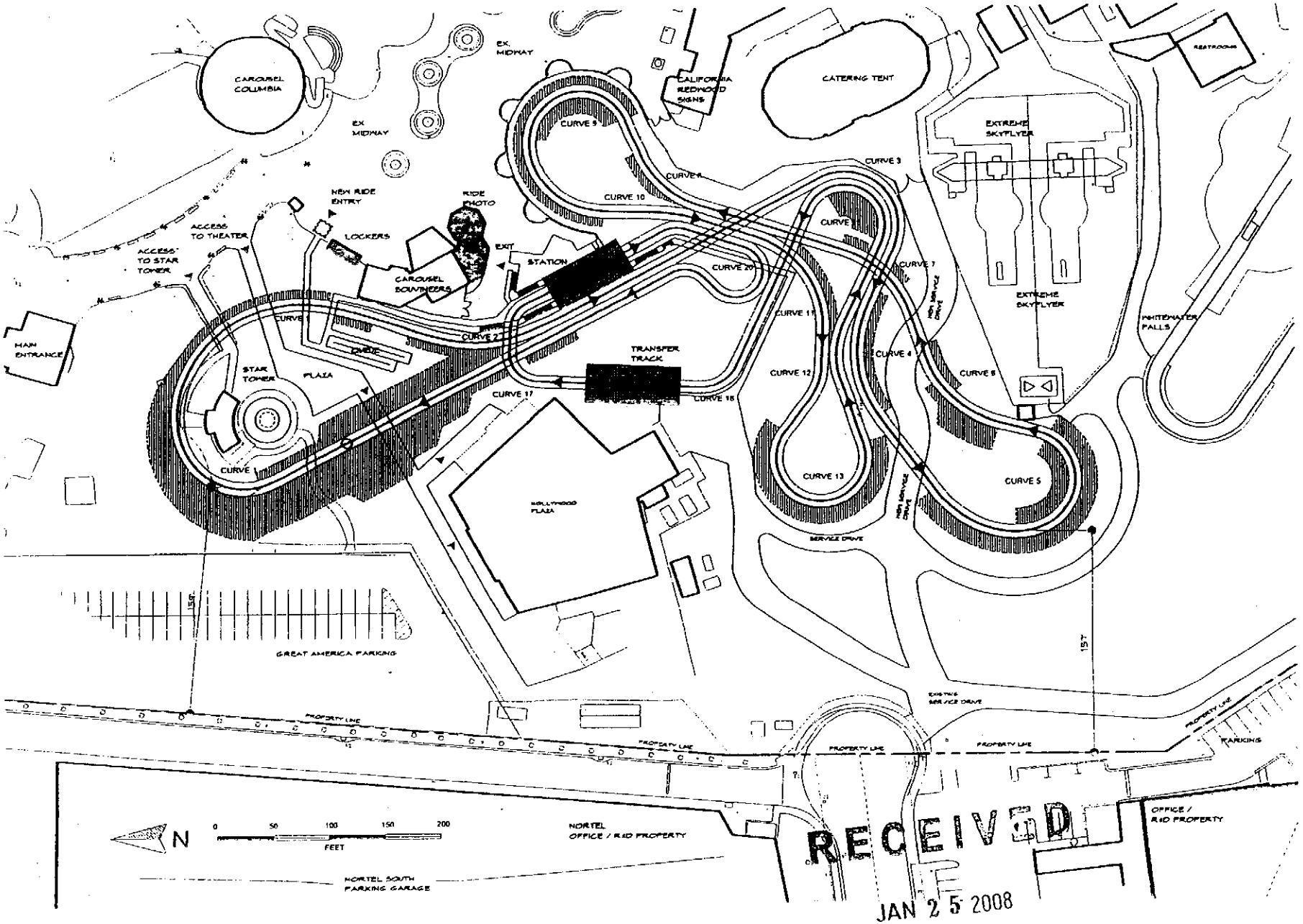
JAN 2 5 2008
City of Santa Clara
Planning Division

SHEET NO.	OP-1
TITLE	OVERALL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL
PROJECT	PROPOSED COASTER
	California's Great America — Cedar Fair Entertainment Company
SCALE	AS NOTED
DATE	1-16-08
DRAWN	SNS
FILE	



SCALE	AS NOTED
DATE	1-16-08
DRAWN	SKG
FILE	

California's Great America
Cedar Fair Entertainment Company

TITLE: CONCEPTUAL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL

PROJECT: PROPOSED COASTER

SHEET NO. SD-1

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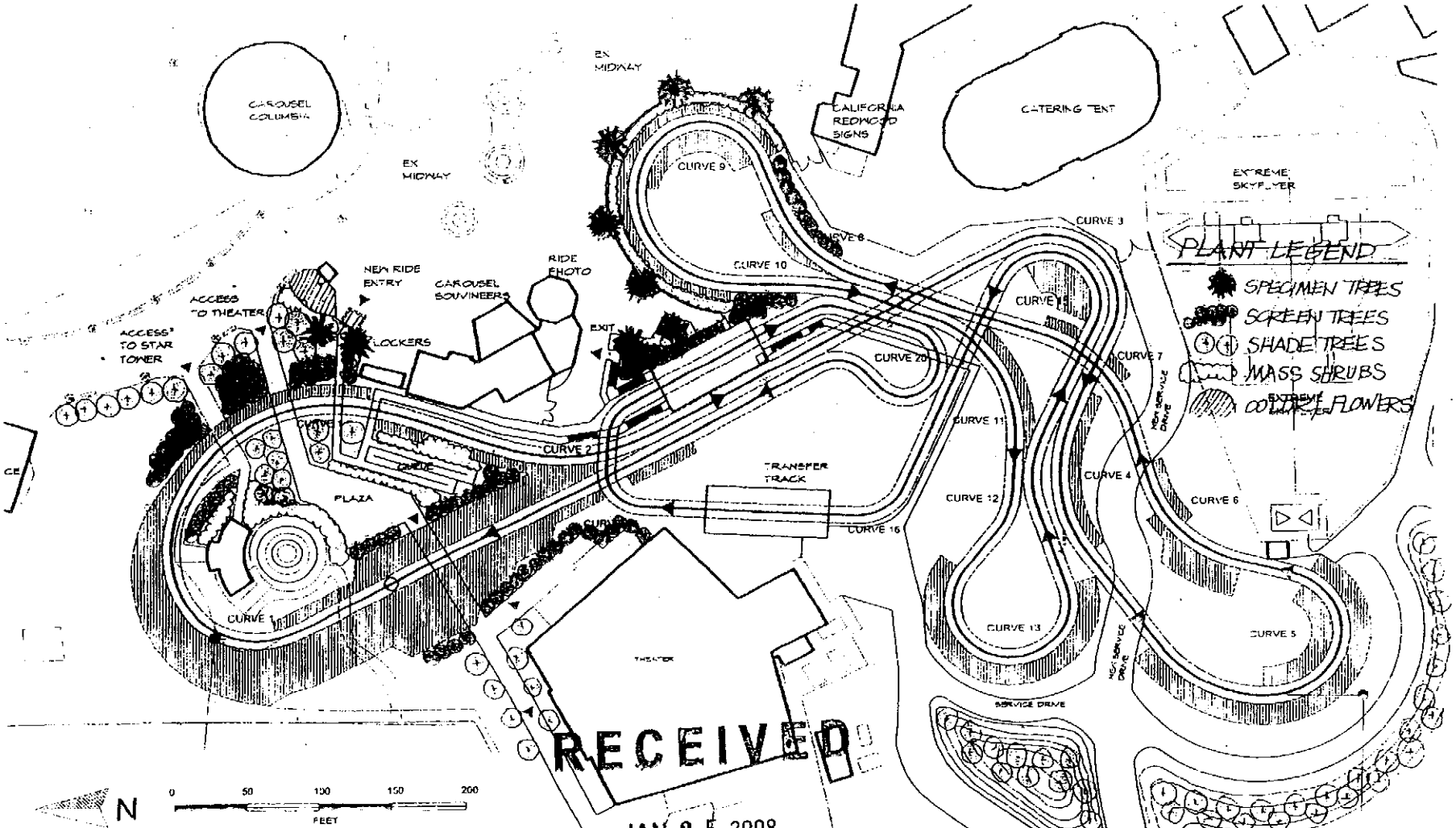
JAN 25 2008
City of Santa Clara
Planning Division



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JAN 25 2008
City of Santa Clara
Planning Division

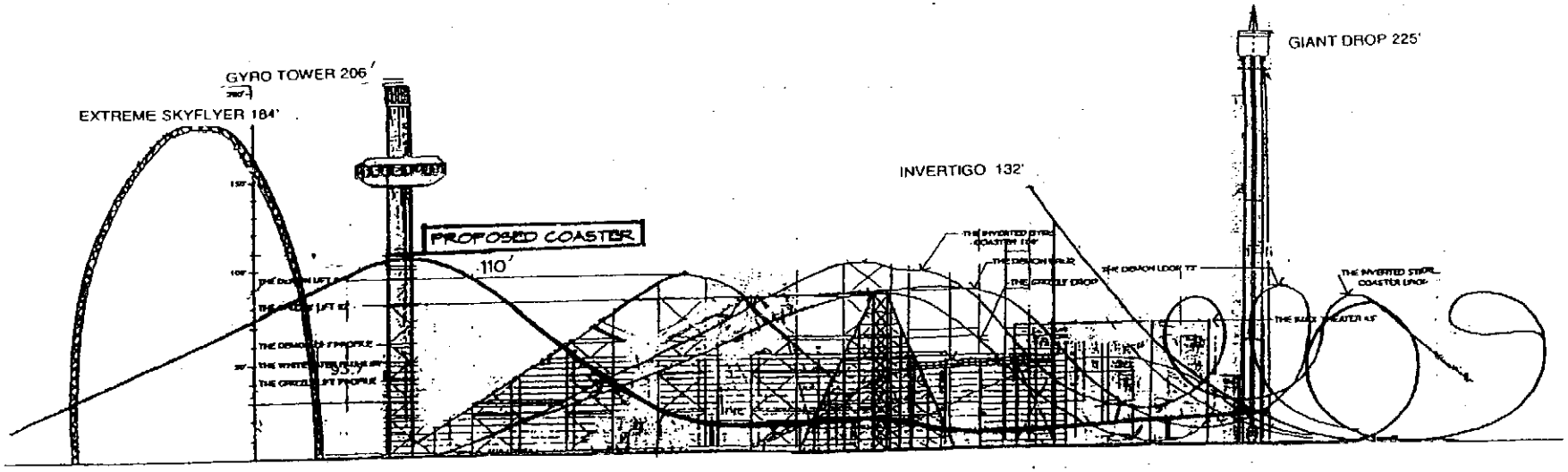
California's Great America
Cedar Fair Entertainment Company

SCALE: AS NOTED
DATE: 1-16-08
DRAWN: SMG
FILE:

TITLE: CONCEPTUAL PLANTING PLAN FOR PURPOSES OF PLANNING APPROVAL

PROJECT: PROPOSED WOODEN ROLLER COASTER

SHEET NO. LP-1



EXISTING PARK - HEIGHT ELEVATIONS

RECEIVED
JAN 25 2008
City of Santa Clara
Planning Division

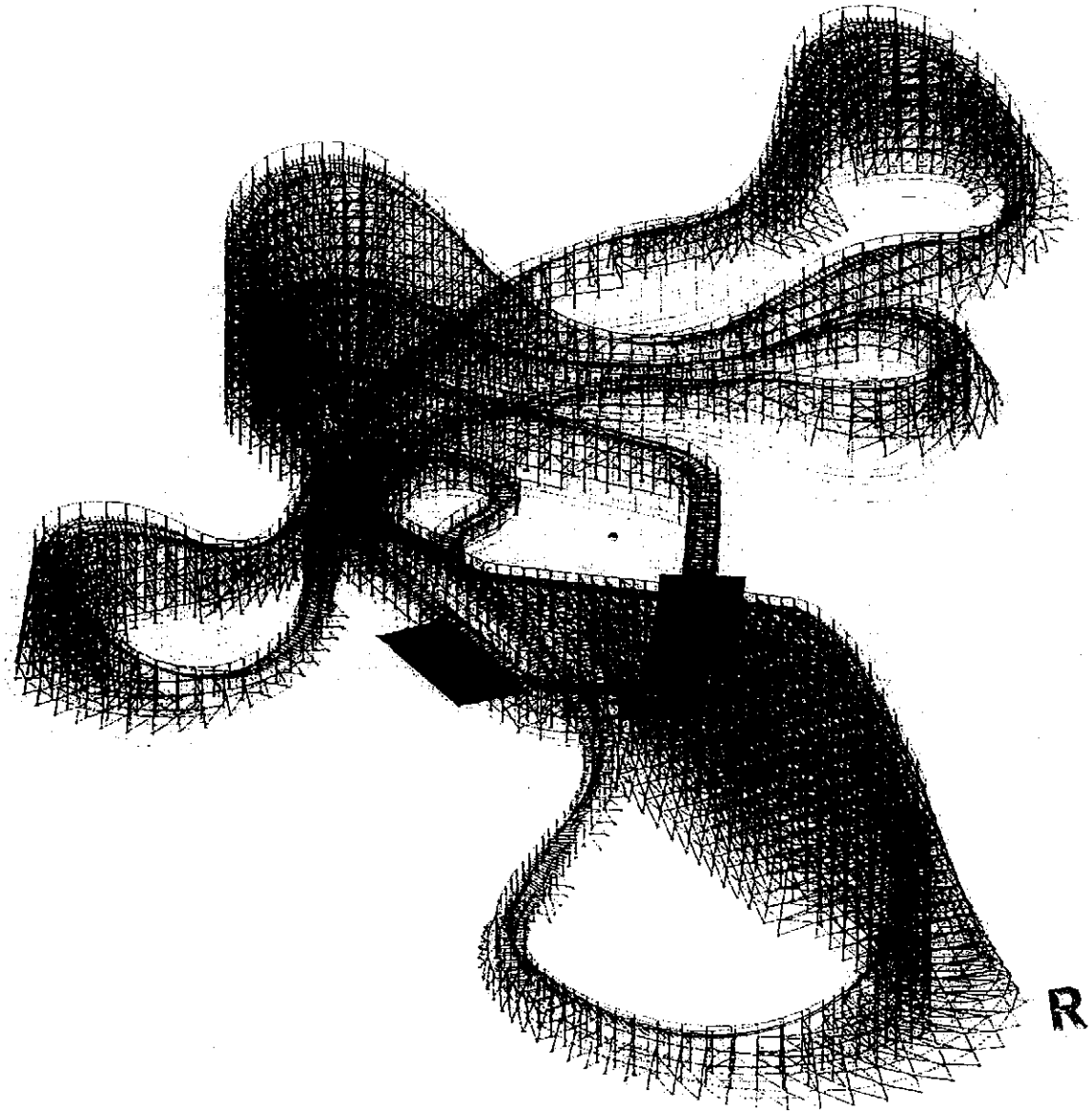
SCALE AS NOTED
DATE 1-16-08
DRAWN SKG
FILE

California Great America

TITLE ELEVATION OF RIDE HEIGHT COMPARISON FOR PURPOSES OF PLANNING APPROVAL

PROJECT PROPOSED WOODEN ROLLER COASTER

SHEET NO. RH-1



RECEIVED

JAN 2 5 2008

City of Santa Clara
Planning Division

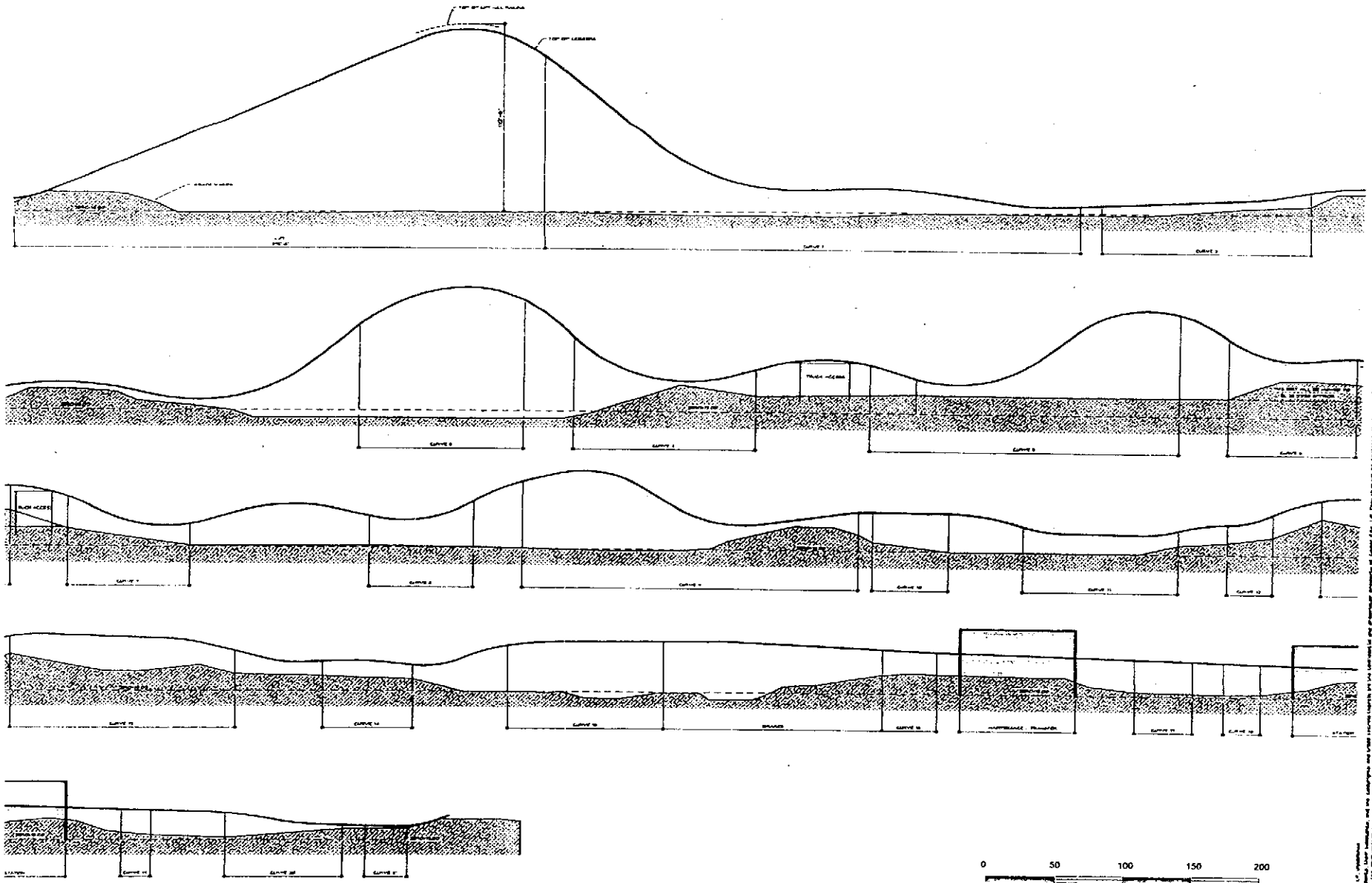
California's Great America
Cedar Fair Entertainment Company

SCALE AS NOTED
DATE 1-18-08
DRAWN SMG
FILE

TITLE 3D RIDE IMAGE FOR PURPOSES OF PLANNING APPROVAL

PROJECT PROPOSED COASTER

SHEET NO.
3D-1



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FEET

SCALE AS NOTED
DATE 1-16-06
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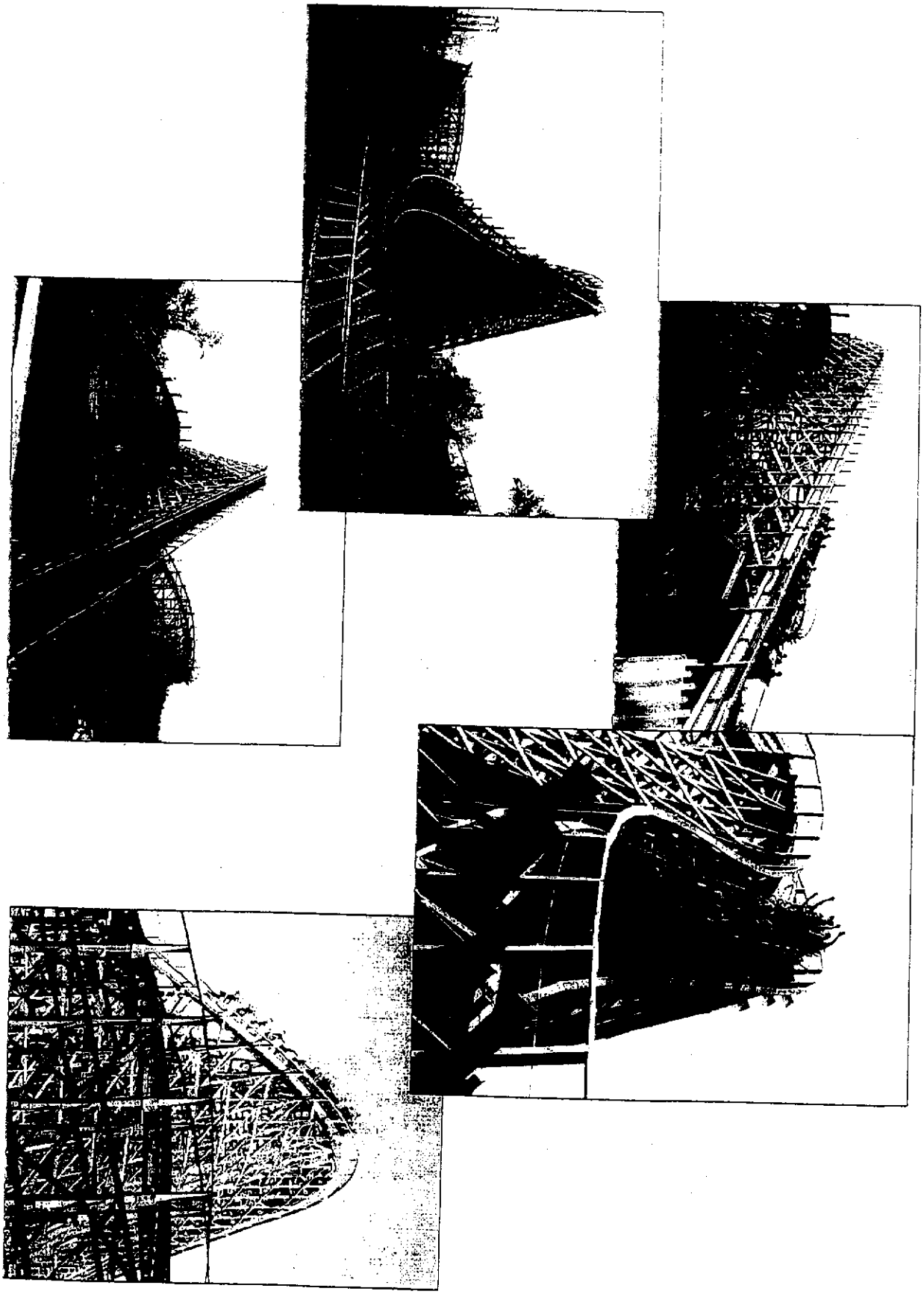
FILE

California Great America

TITLE CONCEPTUAL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL

PROJECT PROPOSED COASTER

SHEET NO.
RP-1



SHEET NO.	PH-1
TITLE	RIDE PHOTOS FOR PURPOSES OF PLANNING APPROVAL
PROJECT	PROPOSED COASTER

California's Great America
Cedar Fair Entertainment Company

SCALE	AS NOTED
DATE	1-16-06
DRAWN	SHG
FILE	

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2007-AWP-7297-OE

PLN2008-06835

Issued Date: 01/07/2008

Lowell Esposo
Great America
2401 Agnew Road
Santa Clara, CA 95054

** DETERMINATION OF NO HAZARD TO AIR NAVIGATION **

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	GCI Wood Coaster
Location:	San Jose, CA
Latitude:	37-23-50.25N NAD 83
Longitude:	121-58-30.76W
Heights:	110 feet above ground level (AGL) 128 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 07/07/2009 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will

void this determination. Any fut construction or alteration, including inc. se to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2007-AWP-7297-OE.

Signature Control No: 551471-101481848 (DNE)
Karen McDonald
Specialist

Attachment(s)
Map(s)

Presentation to:

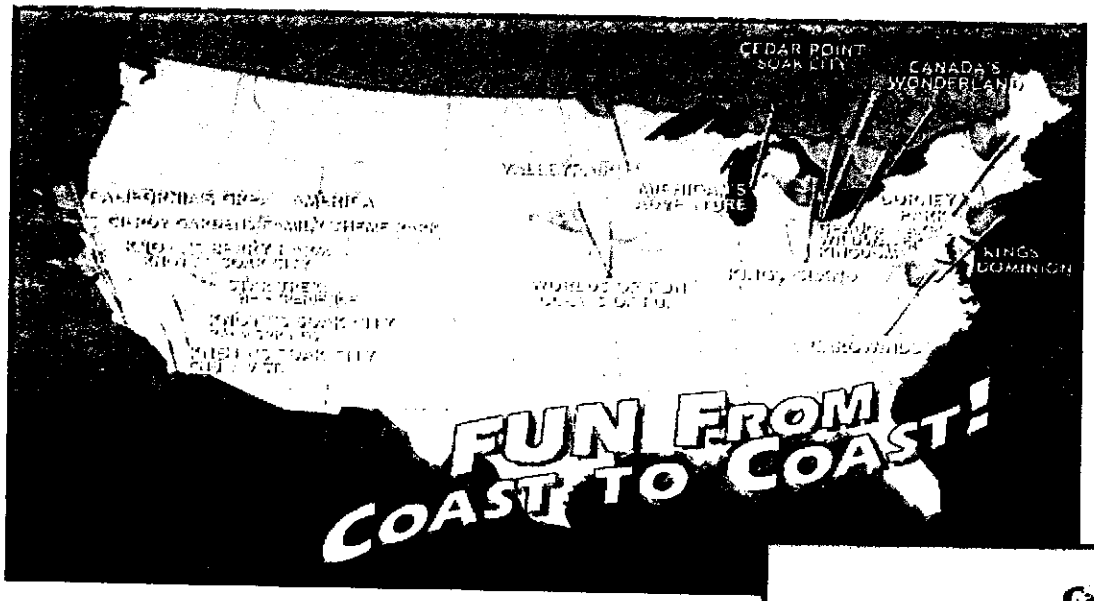
The City of Santa Clara

PLANNING COMMISSION

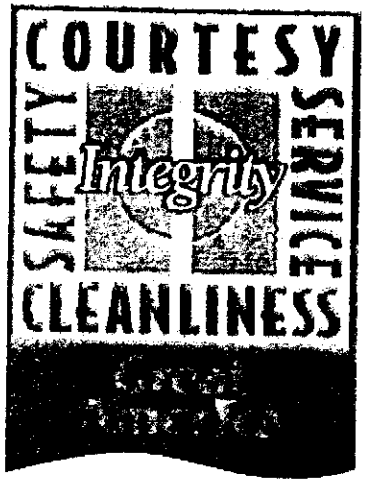
May 28, 2008

California's Great America

Cedar Fair Entertainment Company™



Cedar Fair operates 11 amusement parks, 6 outdoor water parks, 1 indoor water park and 5 hotels.



2008

Cedar Fair
Entertainment Company

New for 2008...

FIRE FALL

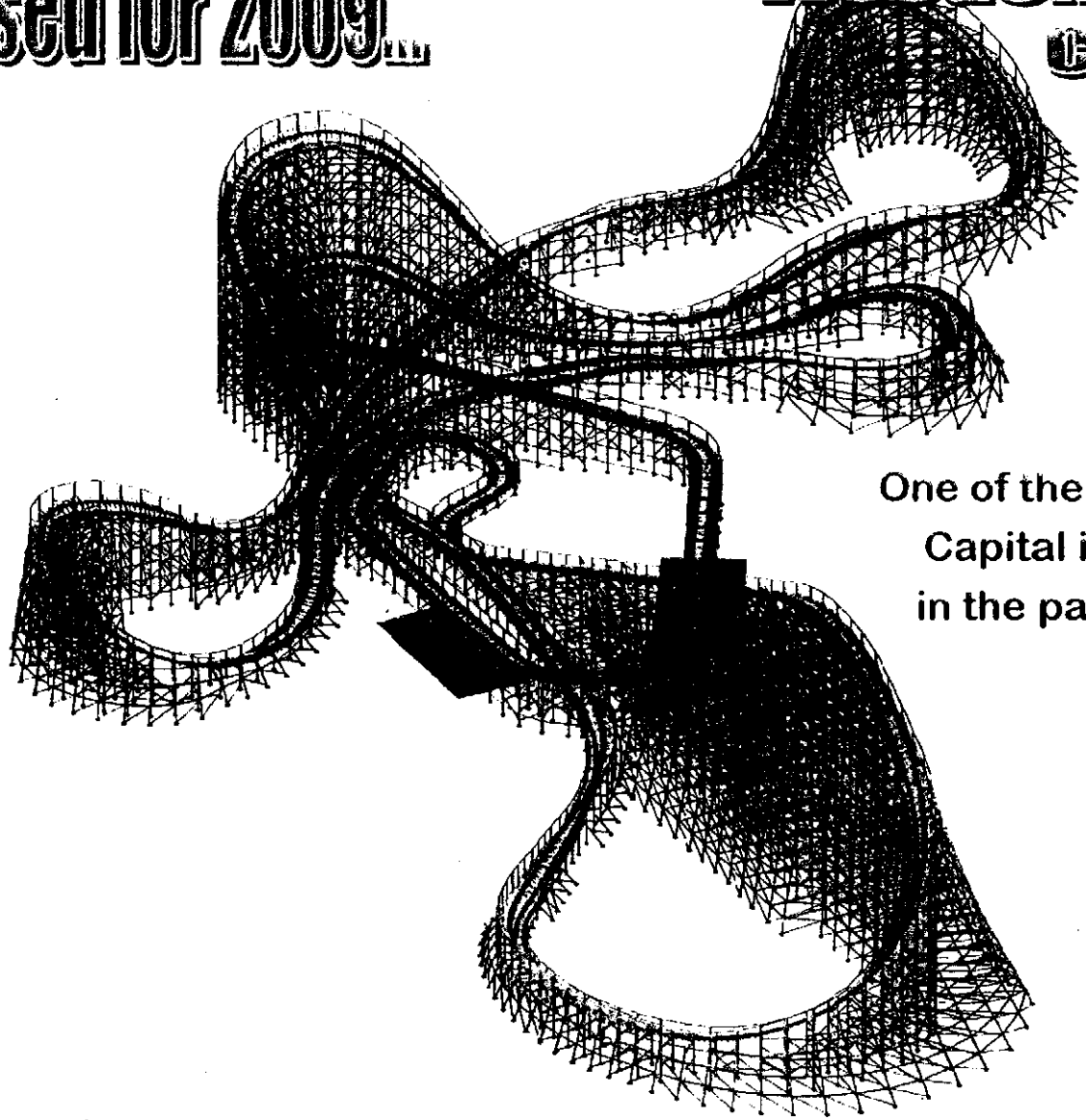
ENDLESS SUMMER ON ICE

HALLOWEEN HAUNT

California's Great America

Proposed for 2009...

Wooden Roller Coaster



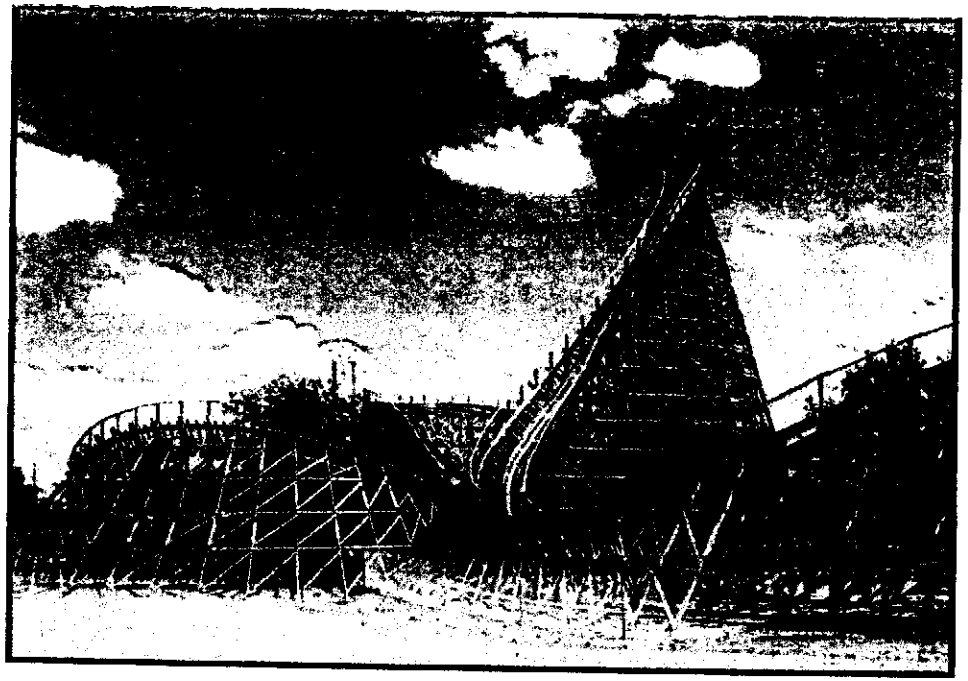
One of the largest single Capital investments in the park's history!

Cedar Fair Entertainment Company

California's Great America

General Ride Description

- Climbs up lift hill which is over 100-feet tall
- First Drop immediately sends the train whirling into a one-of-a-kind twist that surrounds the existing Star Tower ride
- Multiple direction changes
- Zero-G camelbacks and bunnyhops
- Extreme banking and smooth transitions



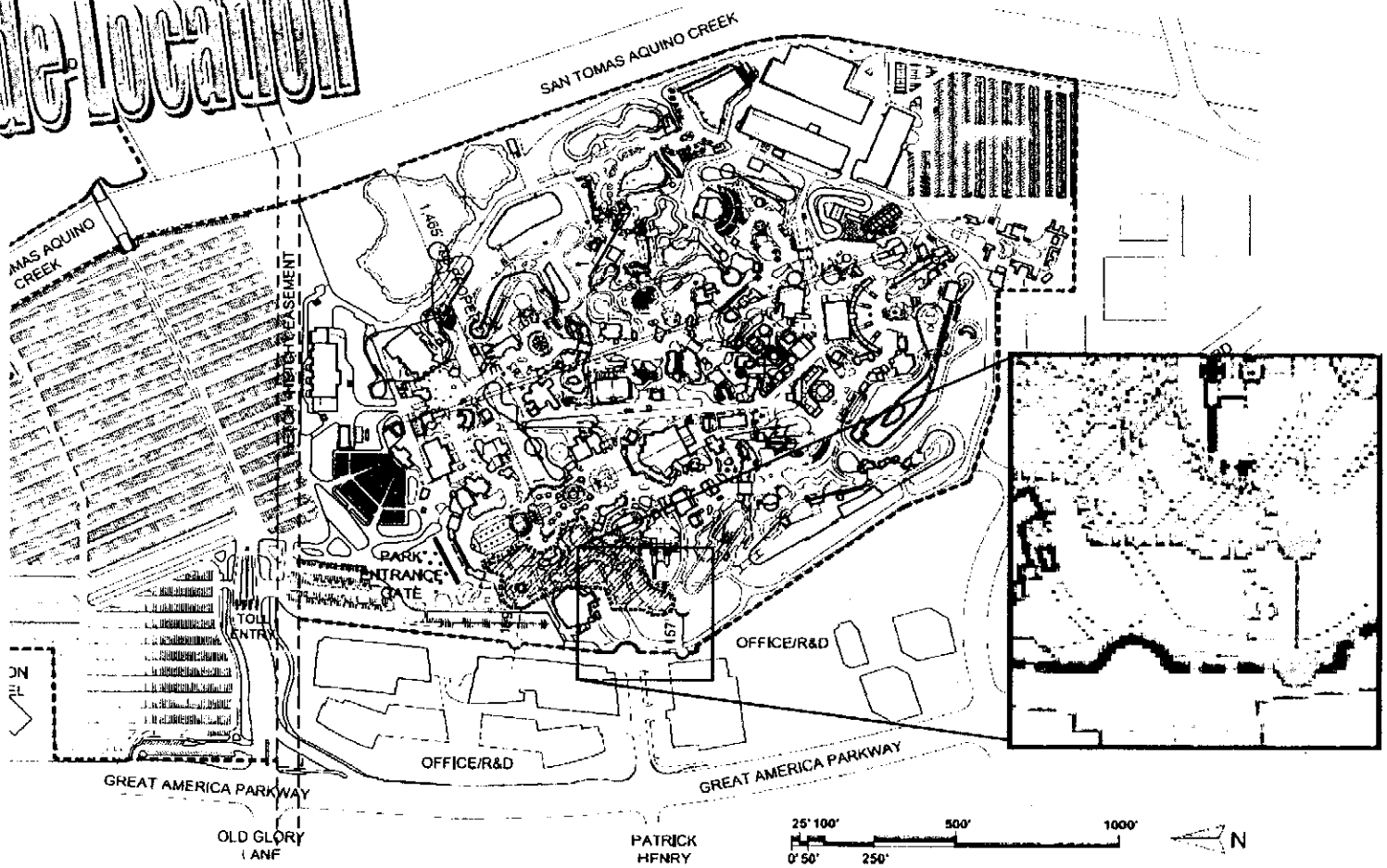
Cedar Fair Entertainment Company

California's Great America

Ride Specifications

Maximum Coaster Height	110 feet (top of railing)
Ride Track Length	Approx. 3,100 feet
Power Requirements (ride)	460 volts (200 amps)
Seating Capacity	28 riders per train – Two trains
Load/Unload/Cycle Time	Approx. 2 to 2-1/2 minutes
Theoretical hourly capacity	Approx. 800 to 850 people / hour
Rider Height Restriction	48-inches minimum
Ride Manufacture	Great Coasters International, Inc.

Ride Location

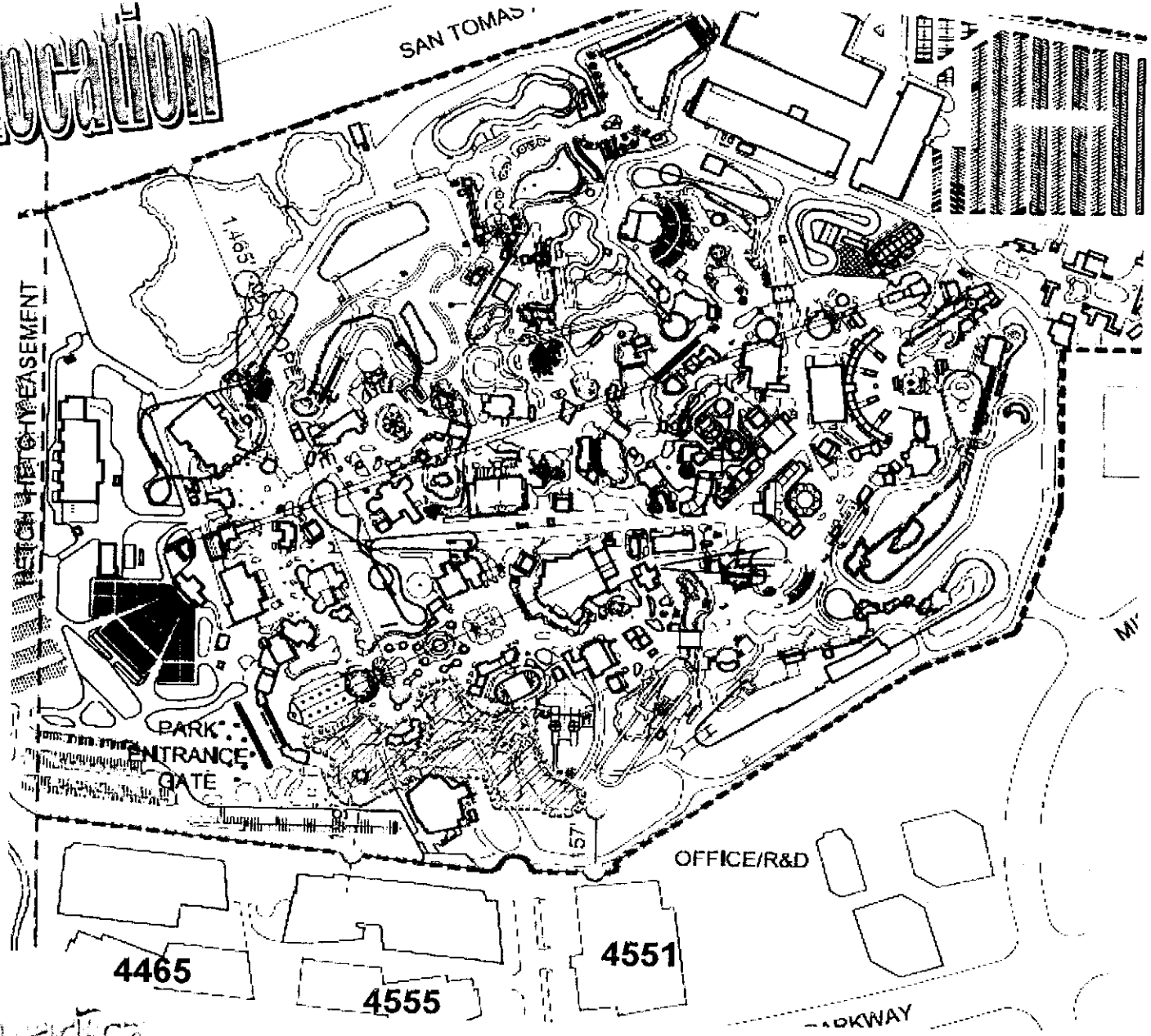


- Site currently largest undeveloped area in the park
- Front Gate presence = WOW! factor
- Wood structure characteristics = Unique & Elegant

Cedar Fair Entertainment Company

California's Great America

Ride location



Cedar Fair Entertainment Company

California's Great America

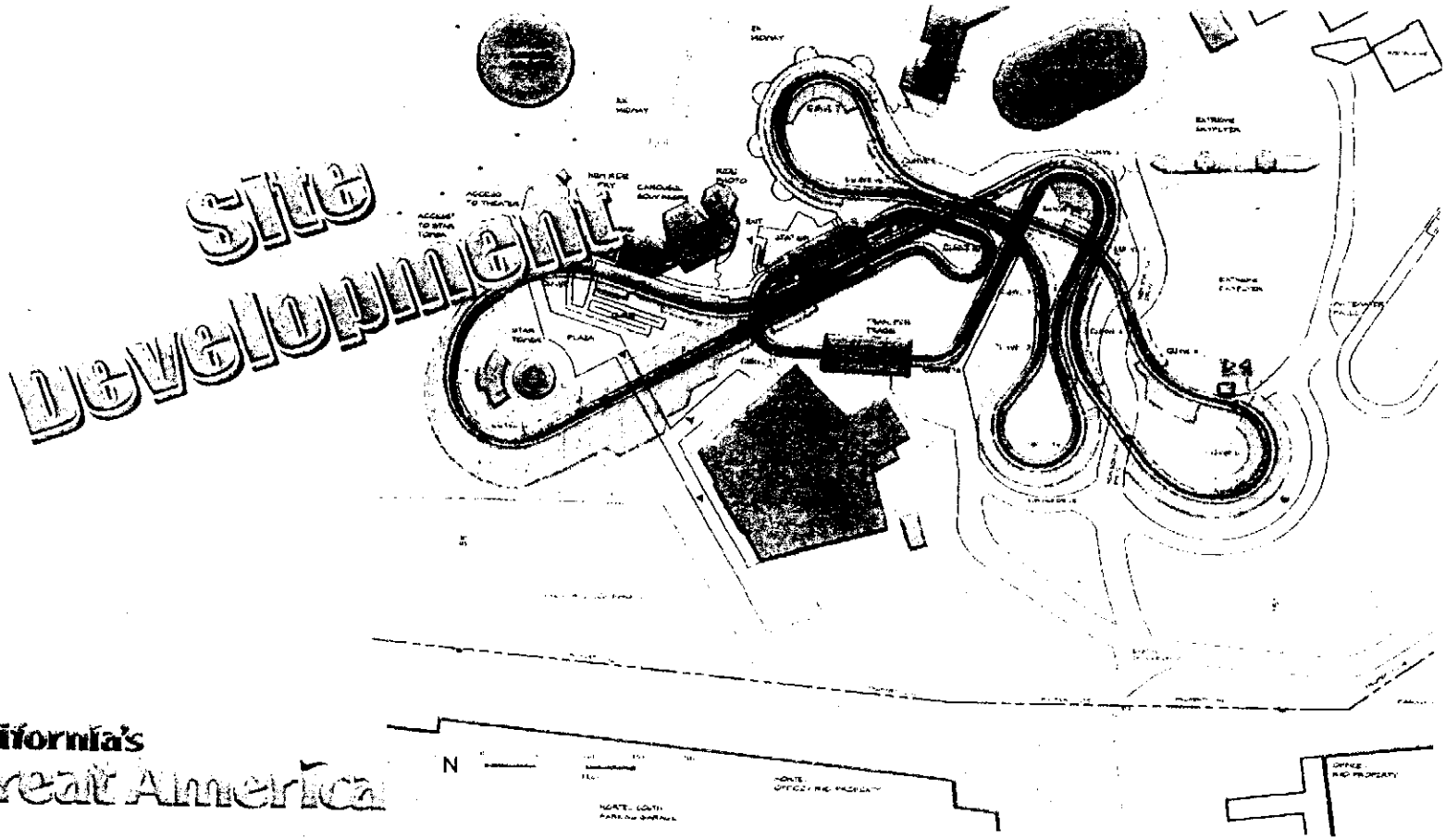
Cedar Fair Entertainment Company

Landscaping

- Some existing trees to remain
- Shrubs and low plantings strategically placed

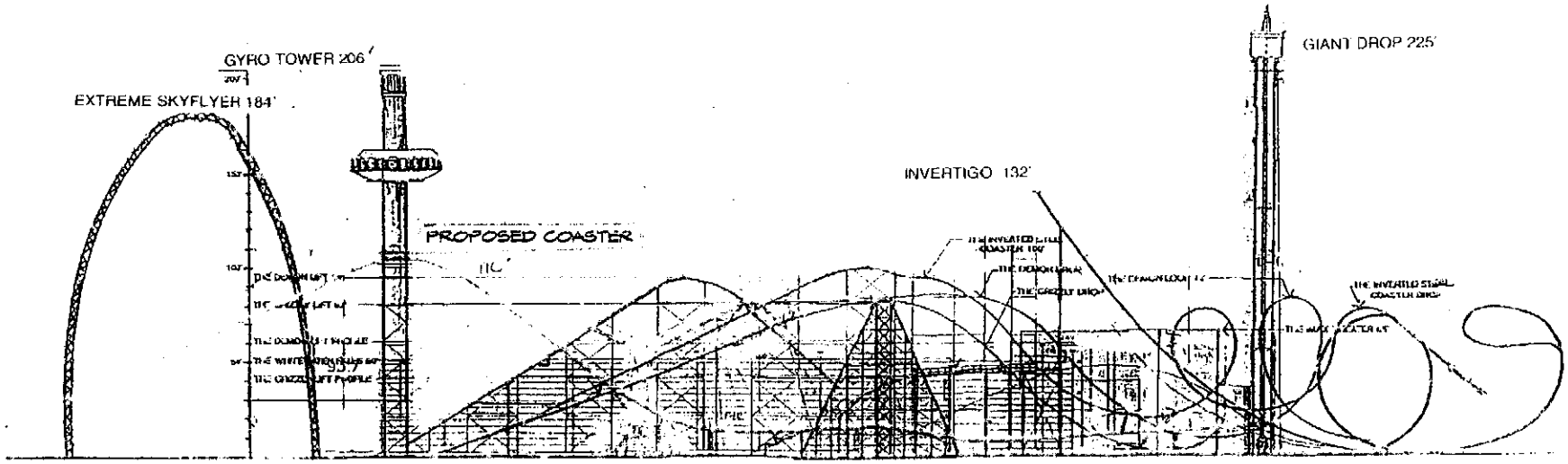
Lighting

- Indirect lighting to illuminate the lift hill structure and low track areas
- Area lighting for midway plazas and queue areas



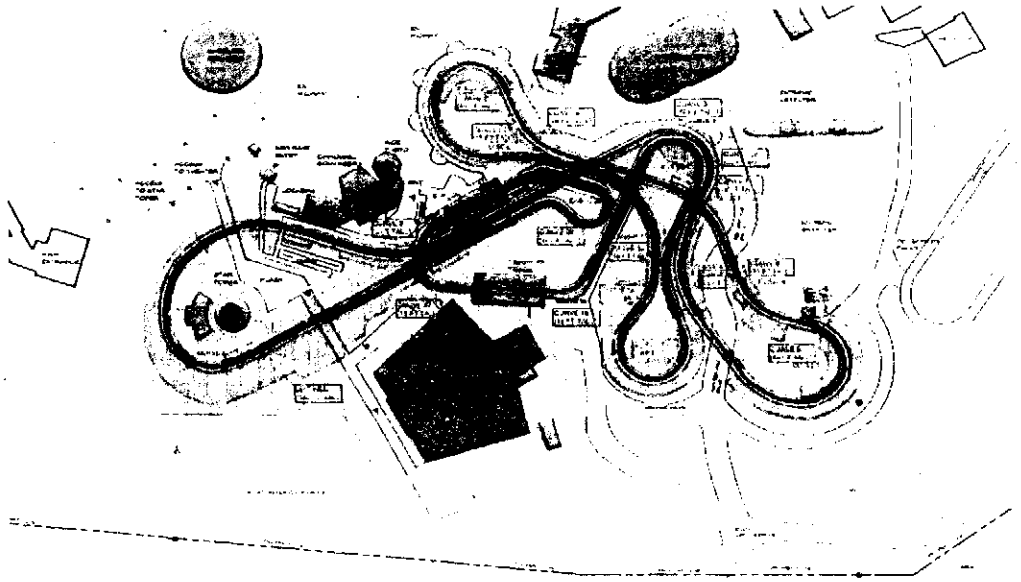
California's Great America

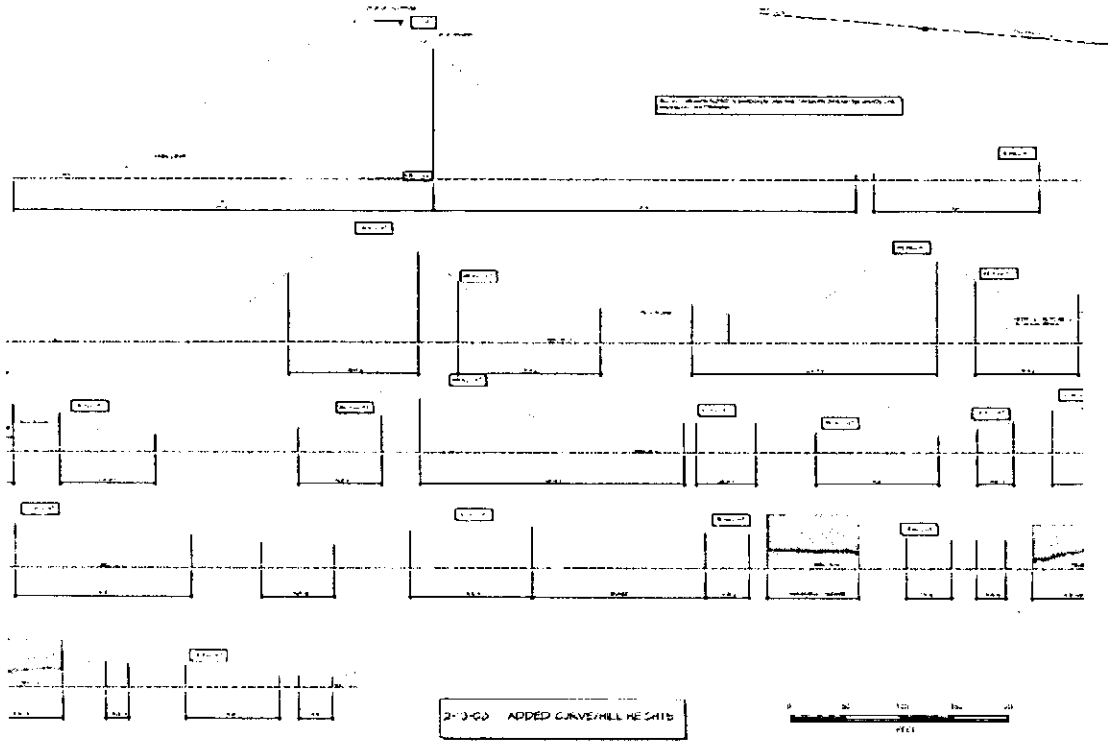
Ride Height



- Max. Height of Coaster = 110-feet
- Proposed coaster will be 2nd-tallest in the park

Ride Height

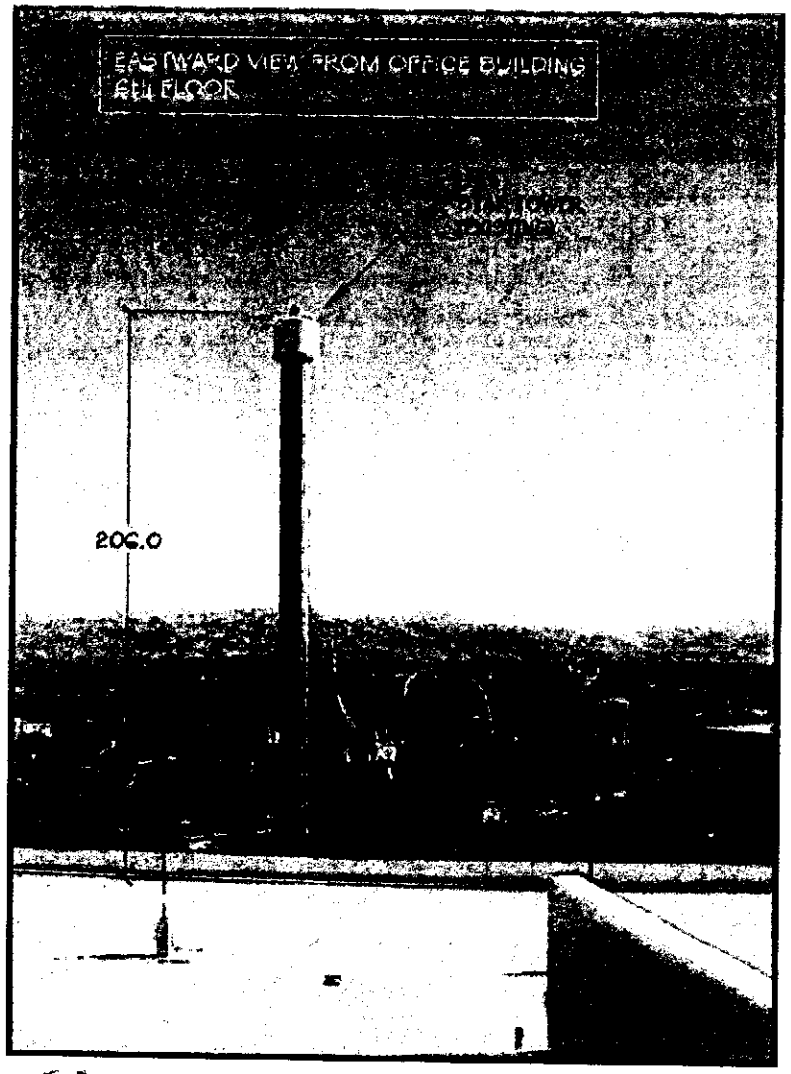


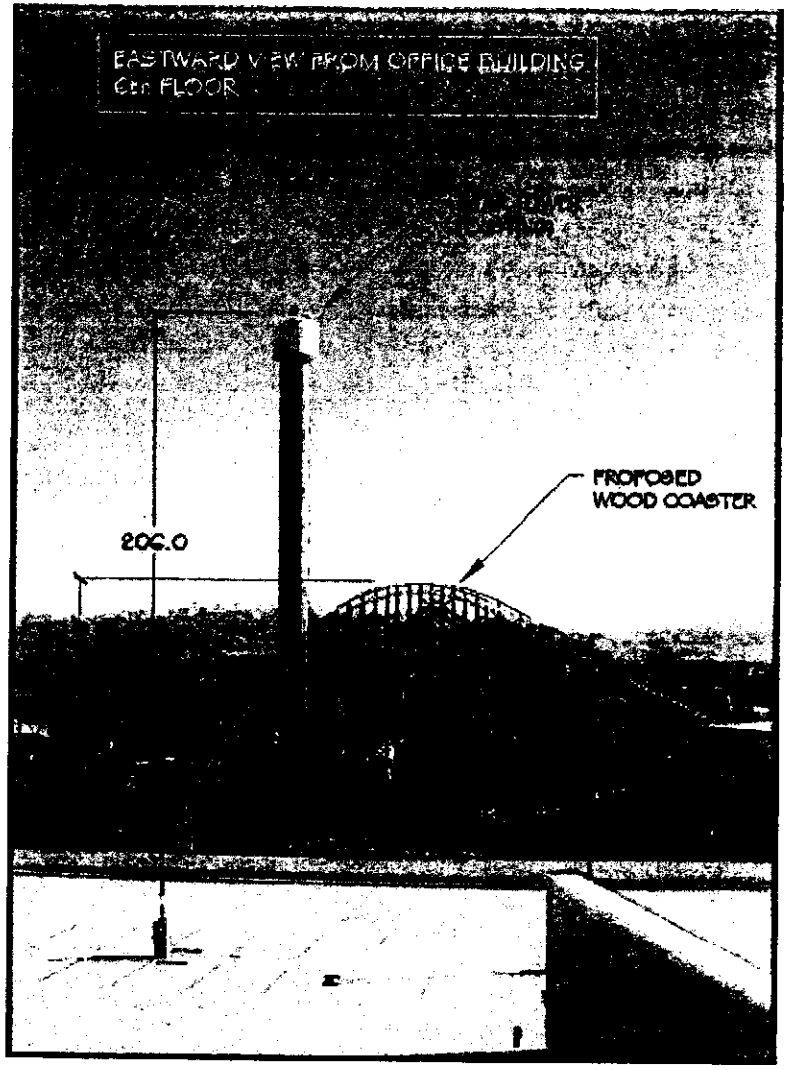


Cedar Fair Entertainment Company

California's Great America

Sight Impacts



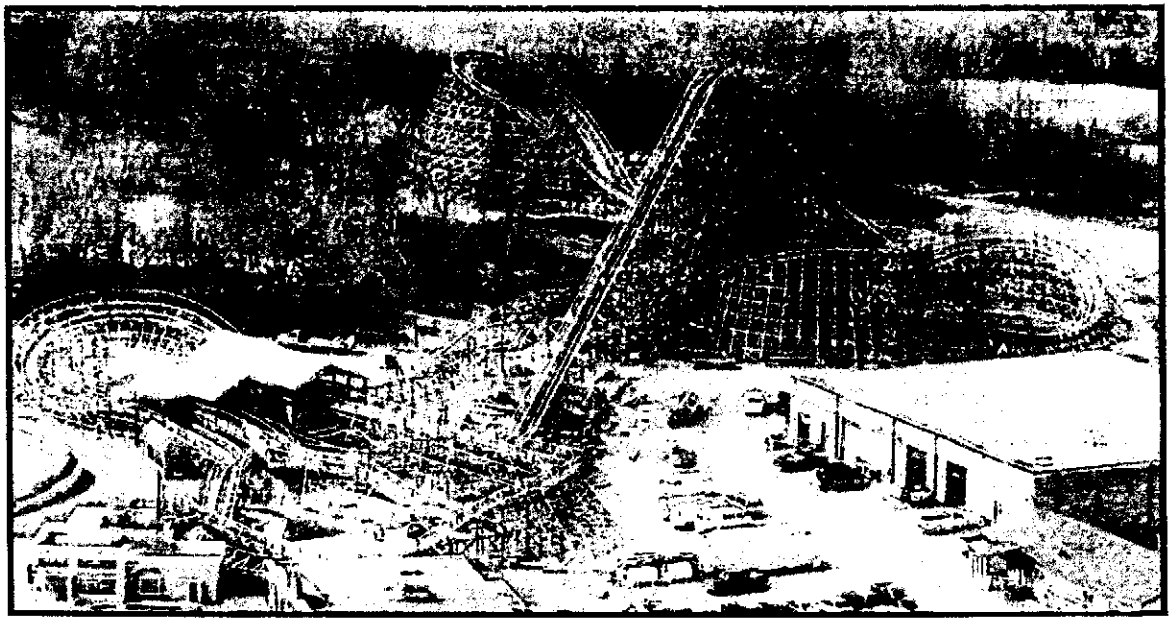


Cedar Fair Entertainment Company

California's Great America

Sound Analysis

- Sound analysis prepared by Ballard George (Sound Engineer) and Marc Papineau (Project Manager)
- Raw sound data used as baseline for report
- Raw sound data from similar rides--
  1) "Ozark Wildcat", Branson, MO
  2) "Kentucky Rumbler", Bowling Green, KY

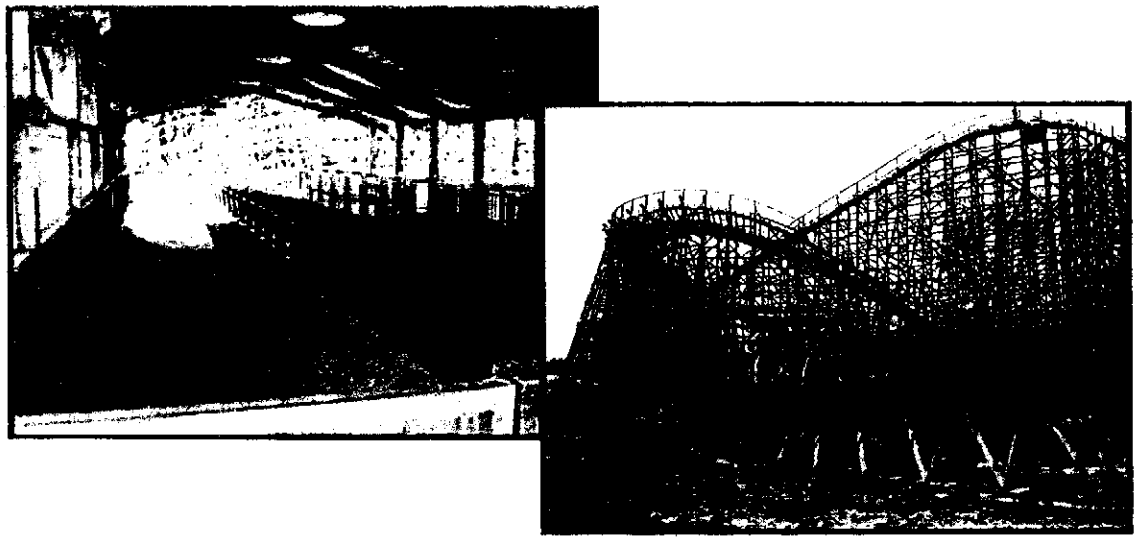


Cedar Fair Entertainment Company

California's Great America

Sound Analysis

- Graphical Overlay Method for sound contours around proposed ride
- Based on background noise readings, L_{max} = 75 dB – 80 dB
- Allowable noise at the property line, L_{max} = 75 dB (with 5 dB increase, per Sub-chapter 9.10.060)

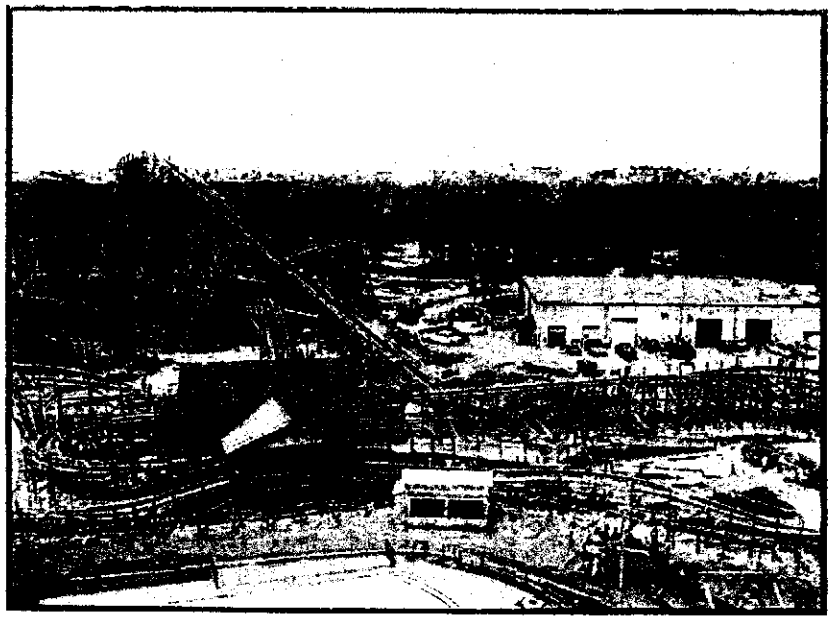


Cedar Fair Entertainment Company

California's Great America

Sound Analysis

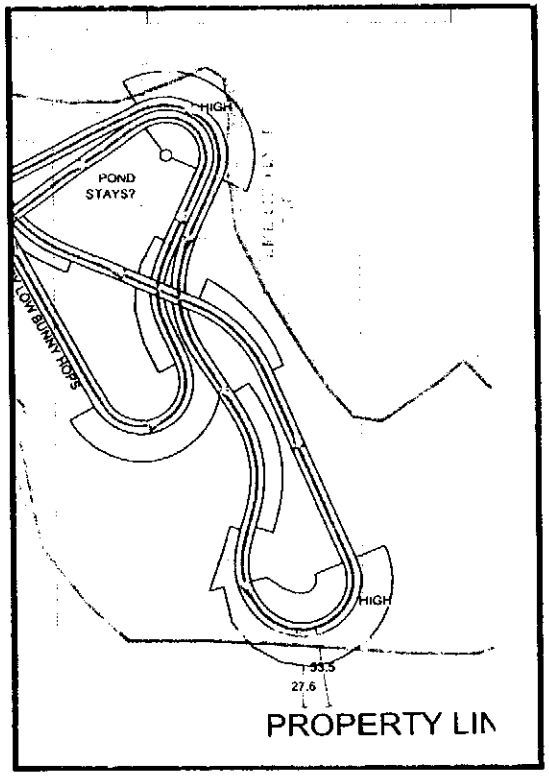
- Anticipated sound emission from coaster to property line, $L_{max} \leq 75$ dB
- Ambient sound levels measured at property line, $L_{max} \geq 85$ dB
  - Higher than anticipated levels from coaster
- Average projected sound from coaster will be within same range as currently measured sound levels in close proximity to park (60 dB – 64 dB)



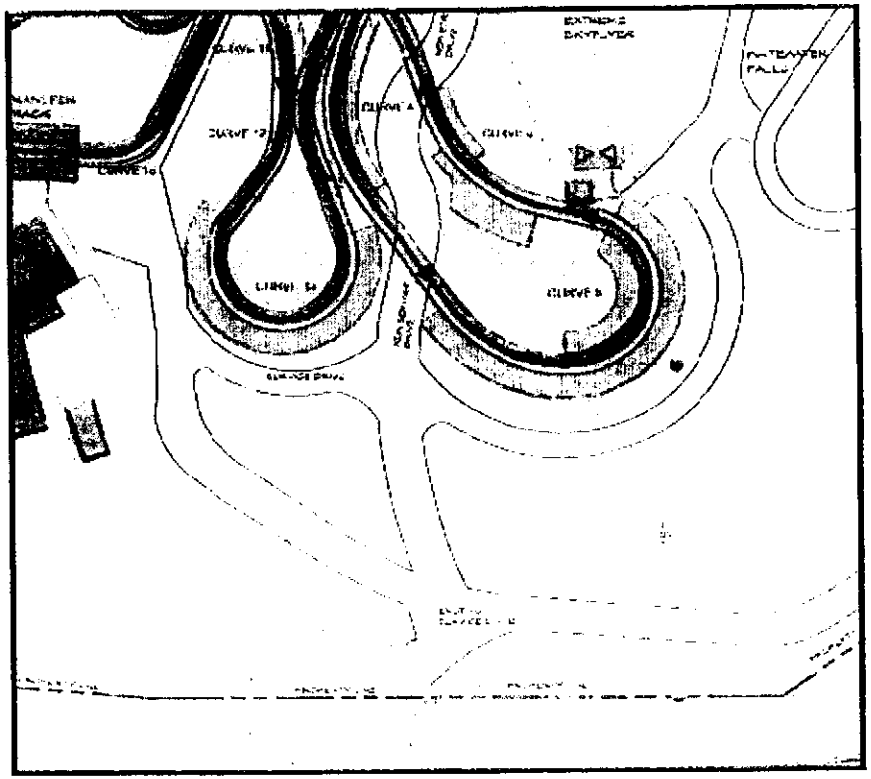
Cedar Fair Entertainment Company

California's Great America

Sound Mitigation Measures



Nov. 26, 2007 - 53.5' to property line



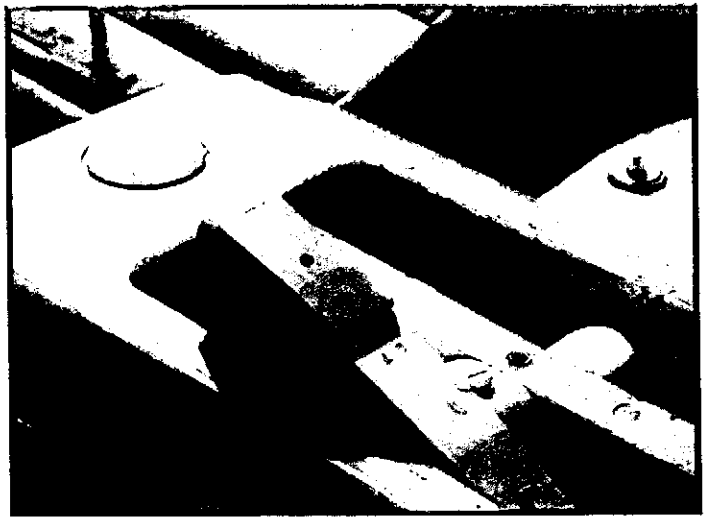
Revised Layout – 157' to property line

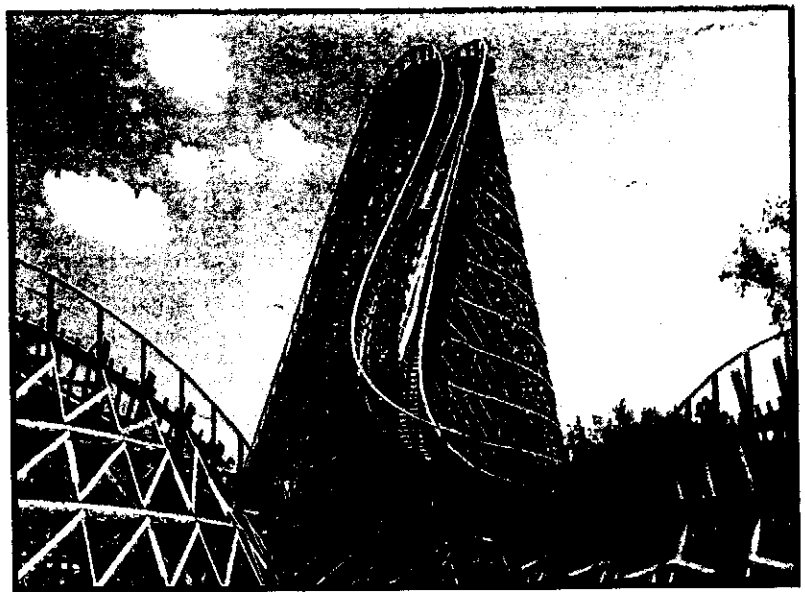
Track section pulled back approx. 100-feet, in order to achieve lower L_{max} along property line

Sound Mitigation Measures

- First drop turns eastward toward the park, directing rider noise away from property line

- Coaster trains outfitted with urethane noise dampeners on anti-rollback ratchets
  - Similar system used on "Flight Deck" coaster (aka – Top Gun)





Cedar Fair Entertainment Company

California's Great America

Legal Analysis

CEQA

- CEQA Categorical Exemption Applies: Section 15323 exempts the "normal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility's use for the same kind of purpose..." Facilities within this exemption include "amusement parks."

- This exemption is inapplicable **only** if the project creates an "unusual circumstance," **and** this circumstance creates a reasonable possibility of a significant environmental impact. It is clearly not unusual to construct a roller coaster within an amusement park, and no significant environmental impacts are triggered by an unusual circumstance.

Thus, the project is categorically exempt from CEQA.

No Significant Impacts

Noise

Although no noise analysis was required because of the CEQA exemption, exhaustive acoustical studies were performed, which support the following:

1. The coaster meets all City noise standards.
2. The noise projected from the coaster (60-74 dBA) is the same level projected by, and analyzed in, the EIR for the Prudential buildings when they were built.
3. When the Prudential buildings were constructed, the owners voluntarily elected to mitigate noise from adjacent uses such as the park only to the "acceptable" 60 dBA; optimum noise reduction features as recommended by the EIR would have provided greater soundshielding.
4. Prudential claims a possible interior dBA of only 36 from the coaster, far below accepted and recognized interior noise standards of 50-60 dBA.

Visual

Private views from or to adjoining private property are not protected by CEQA.

Variance Findings

The variance is for height only; thus, noise is not an issue relative to the variance request. Further, the evidence supports findings that:

a) There are unusual conditions applying to the land not generally applicable in the district because of the amusement park use, which is unique.

b) Granting the variance is necessary to preserve and enjoy the substantial property rights of Great America because it is essential for the park to add new features to attract new and returning visitors.

c) Granting the variance will not materially, adversely affect the health, safety and welfare of surrounding uses, because the interior noise will be well below accepted standards and below the projected noise for the Prudential buildings, and the visual impact is not significant.

d) The purpose and intent of the City's zoning ordinance will be furthered, because this project will enhance tourist-related businesses and uses, and Great America has successfully operated near its neighbors for 32 years, consistent with overall City zoning.

The fact that variances have been granted in the past does not render this request inappropriate. Rather, the City has consistently reviewed new features at Great America under the zoning ordinance in the same manner, with no controversy.

Cedar Fair
Entertainment Company

California's
Great America

ATTACHMENT TO MAY 28, 2008 STAFF REPORT
EXCERPT OF PRIOR ACTIONS

PLANNING COMMISSION MINUTES - FEBRUARY 13, 2008:
This item was heard under Agenda Item #5 Requests for Continuances.

Summary of Discussion – February 13, 2008
Prior to the continuance Tim Tosta, Attorney for the property at 455-59 and 4559 Great American noted his clients were requested a continuance for an interior noise study. He stated there was concern with noise and distraction of the 2,000 employees in the buildings, as well as aesthetic concerns.

Commissioner Marine stated continuances are always granted on a one-time basis. Commissioner Fitch stated he was in support of a continuance.

Bill Lentz, represented the theme park, stated there are time issues and any delay could jeopardized the ride from going up this year.

Mr. James Rowen stated he felt a continuance was appropriate.

Mr. Riley then noted staff's concerns have been met and the project meets the standards. He noted the ambient noise levels won't be complete without the park being opened and that any denial could be appealed to City Council.

Commission Action – February 13, 2008
It was then moved by Commissioner Marine, seconded by Commissioner Barcells to continue this item to the March 12, 2008 meeting.

PLANNING COMMISSION MINUTES – MARCH 12, 2008:
This item was Continued under Agenda Item 5. Requests for Withdrawals and Continuances without a Hearing.

Summary of Discussion – March 12, 2008
Assistant City Attorney, Tina Wallis, advised those present that a significant amount of information had been received from the adjacent property owner's attorney late this afternoon. She then noted that the Planning Commission had not had time to review the last minute information.

Bill Lentz of Great America addressed the Commission and stated any additional delays will prohibit the project from going forward in 2009 and asked that the item be heard. Mr. Lentz stated the park is sensitive to their neighbors and have experts available to answer questions. He stated adequate time had been allowed the opposition to submit their information before today and felt it was a delay tactic and the information did not contain anything new. Mr. Lentz then reviewed that theme parks are constantly doing upgrades to attract both new and returning attendees, while noting the investment was approximately 10 million dollars which was good for the City and local businesses.

Commission Fitch stated he could not review the additional information submitted this evening and felt a continuance was appropriate. He then questioned whether a zoning of the property was appropriate. Commissioners Marine and Barcells also stated they

felt a continuance was appropriate. Mr. Riley stated he felt a Variance was the correct process.

Tina Wallis then advised the Commission and those present that the adjacent office buildings were built after the theme park with sound attenuation measures.

Commission Action – March 12, 2008
It was moved by Commissioner Marine, seconded by Commissioner Fitch and unanimously carried to **continue this item up to 90 days**.

PLANNING COMMISSION MINUTES – APRIL 23, 2008:
This item was Continued under Agenda Item 5. Requests for Withdrawals and Continuances without a Hearing.

The Commission received letter, dated April 23, 2008, from Luce Forward, Attorneys at Law representing Prudential Real Estate Investors, the owners of property at 4555-4559 and 4655-4659 Great America Parkway requesting the item be continued. Bill Lentz of Great America addressed the Commission and requested item to be continued.

Commission Action:
It was moved by Commissioner Barcells, seconded by Commissioner Sarodil and unanimously carried to **continue this item to the May 28, 2008 Planning Commission.**

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RECEIVED
JUN 03 2008
PLANNING DIVISION
PLN2008-06835

June 3, 2008

36043-0002

HAND-DELIVERED

Rod Diridon
City Clerk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Kevin Riley
Planning Director
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of Great America Variance Approval--File No. PLN2008-06835**

Dear Mr. Diridon and Mr. Riley:

We represent Prudential Real Estate Investors ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). In accordance with Section 18.108.060 of the City of Santa Clara's Municipal Code, we hereby appeal the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of a 111-foot high wooden rollercoaster on May 28, 2008 ("Project").

We appeal the Planning Commission's decision for the following reasons:

- The Planning Commission could not exempt the Project from the California Environmental Quality Act by way of a categorical exemption;
- The Planning Commission lacked the necessary evidence to make the variance findings.

We intend to supplement the record with supporting documentation for this appeal prior to the City Council's hearing.

Attached please find a check in the amount of $120 for the appeal fee. Thank you for your consideration.

Sincerely,

Jennifer E. Renk
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc: Gregory Shanklin
JoLynn Miller
Tina Wallis

Enclosure

301039390.1

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May 22, 2008

VIA HAND DELIVERY

Ian Champeny, Chair
and Members of the Planning Commission
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Variance for Great America Roller Coaster Ride**

Dear Chair Champeny and Members of the Planning Commission:

As you know, we represent Prudential Real Estate Investors ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). This letter provides the Planning Commission with **an update as to matters that have transpired since the March 12th hearing** between Prudential and Great America relative to the proposed roller coaster ride, which Great America has moved back to the original location adjacent to the Nortel Site ("Original Ride"). (See Exhibit A.)

I. Executive Summary

After the March 12th Planning Commission hearing, Prudential and Great America made inroads towards a settlement that would memorialize mutually agreeable terms around an alternative location with lesser aesthetic and acoustical impacts ("Revised Ride"). Great America, without explanation, withdrew from this effort. Consequently, this letter emphasizes the differences in impacts between the Original Ride and the Revised Ride so that the Planning Commission can appreciate that it is being asked to **approve a project with more environmental impacts**. To highlight:

- The Revised Ride **reduces the visual and noise impacts** and is the environmentally superior alternative—knowing this and the acoustic and aesthetic information generated by Prudential, the City may not exempt the Original Ride from the California Environmental Quality Act ("CEQA");

- **"One last variance" for Great America remains unsupported** by relevant evidence in the record;

- The City's findings confirm the **need for a comprehensive rezoning** of the Great America site.

II. Background

Shortly after the hearing on March 12, 2008, at which the Planning Commission granted a continuance for the Great America variance application, we met with staff from the Planning department and the City Attorney's office and were advised to work with Great America to resolve differences as to the roller coaster proposal. We proceeded as staff recommended and met with Great America in early April. Great America proposed the Revised Ride, which moved the rollercoaster roughly 270 feet away from the Nortel Site and shifted its orientation by 90 degrees. (See Exhibit B.) In conjunction with its consultants, Prudential analyzed the ramifications of this relocation and determined that **both the aesthetic and noise impacts would be minimized** to acceptable levels.

The parties agreed to **memorialize certain terms of an agreement** that would: 1) commit Great America to the new location as set forth in Exhibit B; 2) commit Prudential to not raising any objections; and 3) establish dispute resolution protocols. (See Exhibit C.) Prudential then attempted in good faith to finalize an agreement prior to the April 23rd Planning Commission hearing. In the days leading up to the April 23rd hearing, certain technical complexities arose as to the terms of a settlement, so it became apparent that an agreement would not be executed by the April 23rd date, but rather shortly thereafter. We were surprised and disappointed, however, when **Great America abruptly abandoned the settlement negotiations** and informed the City on April 22nd that it had chosen to pursue approval of the Original Ride instead.

In the meantime, staff had prepared a staff report and resolution for the April 23rd Planning Commission hearing that addressed the Revised Ride. The staff report indicated that the **relocation of the Revised Ride** to the northwest edge of the theme park **responded to Prudential's concerns** relative to acoustic and aesthetic quality - **confirming that the Revised Ride would have lesser impacts than the Original Ride.**

Even though Great America ended communications after the April 23rd hearing, Prudential persisted in its effort to reach a settlement with Great America and sent a revised draft agreement and protocols on May 5th. Regrettably, we received an email on May 9th from Les Hausrath, Great America's counsel, stating "...my client has advised me that they intend to proceed with the application to the City for the roller coaster in the original location, which we understand will be heard at the next Planning Commission meeting (May 28). So we are not going to make further comments on the proposed resolution/protocol." **Great America's**

objections to the settlement agreement **remain a mystery**. We suspect that Great America balked at the agreement because it would have binding consequences if, in fact, the rollercoaster noise proved excessive.

Needless to say, we are greatly **disappointed by Great America's response** to the pursuit of this settlement agreement. We also are sorry that so much of staff and the Planning Commission's time continues to be expended on this **missed opportunity**. Great America's reversion to the original location causes even more wasted time and resources for the City because Great America has been on notice since February that **Prudential will challenge any approval of the Original Ride.**[1] In other words, the City will find itself in litigation because **Great America wants the outcome "its way,"** irrespective of the fact that the theme park site will be the subject of a forthcoming comprehensive zoning exercise.

Consequently, due to Great America's obstinacy, we all find ourselves back at "square one" and again we will raise the same legal infirmities for the original variance application (which have not been cured by the passage of time) as we did on February 13th and March 12th, respectively. (See Exhibit D and Exhibit E.)

III. Differences between the Original Ride and the Revised Ride

We believe it is important that the Planning Commission understand the differences between the Original Ride and the Revised Ride.

A. Aesthetics

As you know, we engaged D.I.S. to prepare visual simulations that show the extent to which the Original Ride would change the visual conditions for the Nortel Site. (See Exhibit F and Exhibit G.) We then asked D.I.S. to prepare similar photo composites for the Revised Ride. (See Exhibit H and Exhibit I.) As you can see, **the Revised Ride profoundly improves the visual impact** of the rollercoaster on the Nortel Site. That is, **the primary visual impact is contained within the theme park itself and not visited upon its neighbors**. Such a stark contrast in the aesthetic impacts makes Great America's abandonment of the Revised Ride all the more perplexing.

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[1] It should be noted here that Great America twice has relocated rides at the behest of the Sobrato Development Companies—once in 1997 and then again with the Original Ride, which Great America shifted closer to the Nortel Site away from the Sobrato property to the south.

B. Noise

On March 3rd, Charles M. Salter Associates ("Salter") conducted acoustical measurements inside the two Nortel buildings and prepared a letter documenting their findings on March 7th. (See Exhibit J.) For the Original Ride, Salter calculated the exterior screaming noise level at the façades to be 71 dBA.[2] The ¼" glass on the Nortel buildings attenuate screaming noise by approximately 35 dBA, resulting in an interior screaming noise level of 36 dBA. The result is **an exceedance of the 31 dBA ambient background noise by 5 dBA, a significant interior noise level increase.**

Alternatively, **the Revised Ride would reduce the screaming noise impacts** on the Nortel buildings **to a less than significant level.** That is, the Revised Ride increases the distance of the rollercoaster to the façade of the Nortel buildings from approximately 450 feet to 600 feet (northern building) and 700 feet (southern building), respectively. This additional distance results in a reduction in the noise level at the façades from 71 dBA to 68.5 dBA at the northern building and 71 dBA to 67 dBA at the southern building. Any noise intrusion from the Revised Ride into the Nortel buildings, therefore, would be reduced to approximately 33.5 dBA and 32 dBA for each building. As a result, the screaming noise would exceed ambient noise levels by only 1 dBA to 2.5 dBA, because like the visual impacts, **the screaming noise is attentuated inside the theme park.**

For your reference, the generally accepted threshold of significance for noise impacts is 3 dBA. A noise increase of 3 dBA is clearly audible, often triggering disruption, stress, and widespread complaints, whereas lesser noise changes generate either no reaction or only occasional complaints. Consequently, **the 5 dBA increase triggered by the Original Ride would generate a significant impact, whereas the 1 to 2.5 dBA increase triggered by the Revised Ride would be less than significant.**

The City and Great America likely will argue that the Nortel buildings were constructed with inadequate noise-attenuating glass when, in fact, **the glass installed on the Nortel buildings complies with the "acceptable" 60 dBA standard** (average maximum daytime noise level) cited in the Nortel EIR.[3]

---

[2] One of Great America's consultants, Marc Papineau, provided analysis of the Revised Ride to the City on April 14, 2008. The letter posited that screaming noise levels are less than noise levels generated by roller coaster cars themselves. Both Prudential and Great America's acoustical consultants agreed to rely upon a 2002 study ("Menge Report") that contradicts this proposition. (See Exhibit K.) This resulting disagreement between experts underscores the need for CEQA analysis that will allow decision-makers to weigh the differing opinions.

[3] Please refer to Exhibit L for our discussion of this issue.

Regardless, **this position has no relevant legal basis.** Neither Nortel nor Prudential bears the burden of installing additional noise-attenuating features in anticipation of future roller coaster development on the Great America site. CEQA requires that an EIR assess and mitigate against significant environmental impacts **as of the time of its preparation,** taking into account existing environmental conditions plus foreseeable future projects. **Since the Nortel EIR identified no foreseeable projects on the Great America site,** the EIR, quite appropriately, could not require the Nortel building to contain extra noise attenuation features in anticipation of noise from any new rides. Consequently, **the City bears the burden of analyzing any proposed roller coaster impacts and implementing measures to mitigate its potential effects.** No such analysis has been done here.

IV. Variance Findings

Given the legal infirmities that already exist and the fact that **Great America and the City recognize that the Revised Ride causes fewer impacts to the Nortel Site,** we are astonished that the City has agreed to bring the Original Ride forward. Indeed, it appears that the City endorses Great America's effort to obtain **a variance "just one more time"** before the City embarks on the long delinquent zoning exercise for the Great America site. However, "one last variance" for Great America continues to be wholly **unsupported by substantial evidence** in the record. Moreover, the City's staff report for the April 23rd Planning Commission hearing confirms Prudential's position that the **Revised Ride is better** than the Original Ride. Consequently, the current variance request before the Planning Commission is even more awkward than before.

We anticipate that the findings for the Original Ride before the Planning Commission on May 28th will be similar to those in the Resolution attached to the April 23rd staff report, even though the location has changed. We have attached a matrix that compares the earlier findings to the April 23rd findings for your ease of reference. (See Exhibit M.) For purposes of discussion here, we generally address the issues that emerge from the findings.

A. No evidence exists in the record to support the notion that the Original Ride is necessary to preserve Great America's substantial property rights.

The April 23rd findings attempt to make the case that the rollercoaster is somehow critical to Great America's economic success without offering any kind of supporting evidence. For example:

- (iv) New rides are "**necessary to the economic vitality** of the Park."

- (v) The rollercoaster is needed to "keep the Park **economically viable.**"

- (vi) Addition of new rides is "essential to **preserve the owner's existing substantial investment** in the Park as well as to allow growth in revenues to keep the Park economically feasible."

First and foremost, **Great America's economic success is legally irrelevant** in the variance context, because Great America's "success" is not a substantial property right worthy of protection, nor is it the City's responsibility to keep Great America in business. So, even if there was economic evidence in the record, it would support a point that is legally irrelevant to any variance proceeding. (*See e.g. Broadway, Laguna, Vallejo Assn. v. Board of Permit Appeals* (1967) 66 Cal. 2d 767, 774-775.)

Second, the findings **offer absolutely no evidence to substantiate these claims,** nor is there any supporting documentation to be found in the record. Prudential finds it somewhat hard to believe that Great America's economic fate is tied to the success of one additional rollercoaster ride, as the findings suggest. Had the economics been so critical to the approval of this variance, one would have expected an extensive economic analysis from Great America.

B. **The City's findings only support denial of the variance.**

The findings acknowledge that the theme park is an anomalous land use for the Commercial Thoroughfare ("CT") zoning district. Ironically, this "inappropriate" CT zoning has governed the Great America site at least **since 1973** when the theme park first was entitled. Thirty-five (35) years of this ill-suited zoning category demands a comprehensive zoning exercise for the theme park site. For example:

- (i) The land has a "theme park use, **which is not a common or typical use in the district** that has primarily office parks, industrial sites or residential uses." Such a unique use "requires structures which **vary from the specific zoning requirements** in order to allow the Park to function and flourish." (emphasis added.)

- (ii) The CT zone's **35-foot height limit "is not appropriate" when applied to the Park,** as various rides are "needed to enable the Park to flourish and to support tourist and recreational oriented uses." (emphasis added.)

- (iii) The Park operates seasonally, which creates a **unique feature that "distinguishes it** from other land and buildings in the same district." (emphasis added.)

- (xiii) The granting of the variance is in keeping with the purpose and intent of the City's zoning ordinance because "applied strictly, **the 35-foot height limit** would be **detrimental to the success of the theme park**." (emphasis added.)

These findings do not support the approval of a variance rather they support the rezoning of the Great America site so that uses and development standards can be applied that actually are "appropriate." Staff and Great America both wisely have recognized the need for a rezoning exercise, yet staff still recommends that **one more ad hoc variance** warrants approval by the Planning Commission. The impropriety of the CT zoning district does not provide justification for the granting of a variance it **justifies denial of the variance and a complete rezoning** of the site.

C. **The Original Ride will materially adversely affect the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the theme park.**

As we have demonstrated repeatedly with visual simulations and expert opinion, **the Original Ride will be detrimental to the Nortel Site's occupants and its visitors.** The City cannot dismiss such impacts by inaccurately claiming in its findings that:

- (vii) "[s]uch potential impacts on the neighborhood were analyzed when the Park was opened [35 years ago], and in later environmental review, and were found not to be detrimental to the health, comfort and general welfare of the neighborhood surrounding the Site."

We want to be very clear here: the theme park was opened in **1973**. It is now **2008**. The notion that potential impacts to neighbors analyzed in 1973 are relevant 35 years later widely misses the mark. The theme park had almost **no neighboring uses in the 1970s**. Nothing shows this better than the historic aerials that Prudential acquired. (See Exhibit N.) The growth that has occurred around the Great America site over the decades actually shows **the theme park as a remnant land use in the neighborhood**, a neighborhood that has been **encouraged to grow and evolve by the City** through its own planning process. This context confirms that the **antiquated EIR**, used to approve Great America some thirty-five (35) years ago, is completely irrelevant. Neither CEQA nor the variance process allows Great America to disregard impacting its neighbors, nor does it allow the City to evade its environmental responsibilities. Lastly, it most certainly does not provide Great America with a "carte blanche" right to expand wherever and whenever it chooses, **irrespective of the environmental consequences.**

D. **The April 23rd findings show that the Revised Ride is environmentally superior to the Original Ride.**

Finally, **the April 23rd findings** concerning the Revised Ride **confirm** that the City recognizes that **the relocation of the ride** away from the Nortel Site and the **re-orientation of the rollercoaster successfully internalizes, and therefore, minimizes the noise and visual impacts of the rollercoaster**. For example:

- (ix) "The proposed new roller coaster has been re-located from the originally desired location and re-oriented physically (including directing the sound of riders away from an adjacent office use) in order to reduce both the potential noise and the visual impacts of the coaster on neighboring land uses."

- (x) Noise studies have been conducted that "confirm that the new coaster will not create noise impacts ... at both exterior and interior commercial and residential receptors."

Now, however, the City and Great America seek to **"unring the bell"** after confirming that the Revised Ride would have fewer environmental consequences than the Original Ride. The City may attempt to justify this "switch" by suggesting that the mitigation burden rests with Prudential based upon the City's environmental review for the Nortel Site. Nonetheless, such a justification fails because CEQA does not require a project sponsor to protect itself from the unforeseeable impacts of an adjacent owner's future development. So, the fact remains that **an environmentally superior alternative has been abandoned** in favor of the inferior Original Ride. Consequently, the City cannot shift the burden of environmental review, nor can it hide behind a 35-year old EIR to support a categorical exemption from CEQA. The variance for the Original Ride must be rejected.

V. **Conclusion**

Based on the foregoing, it is clear that the Planning Commission must reject this Great America variance in favor of the long-overdue, comprehensive rezoning of the Great America site.

Thank you for your consideration.

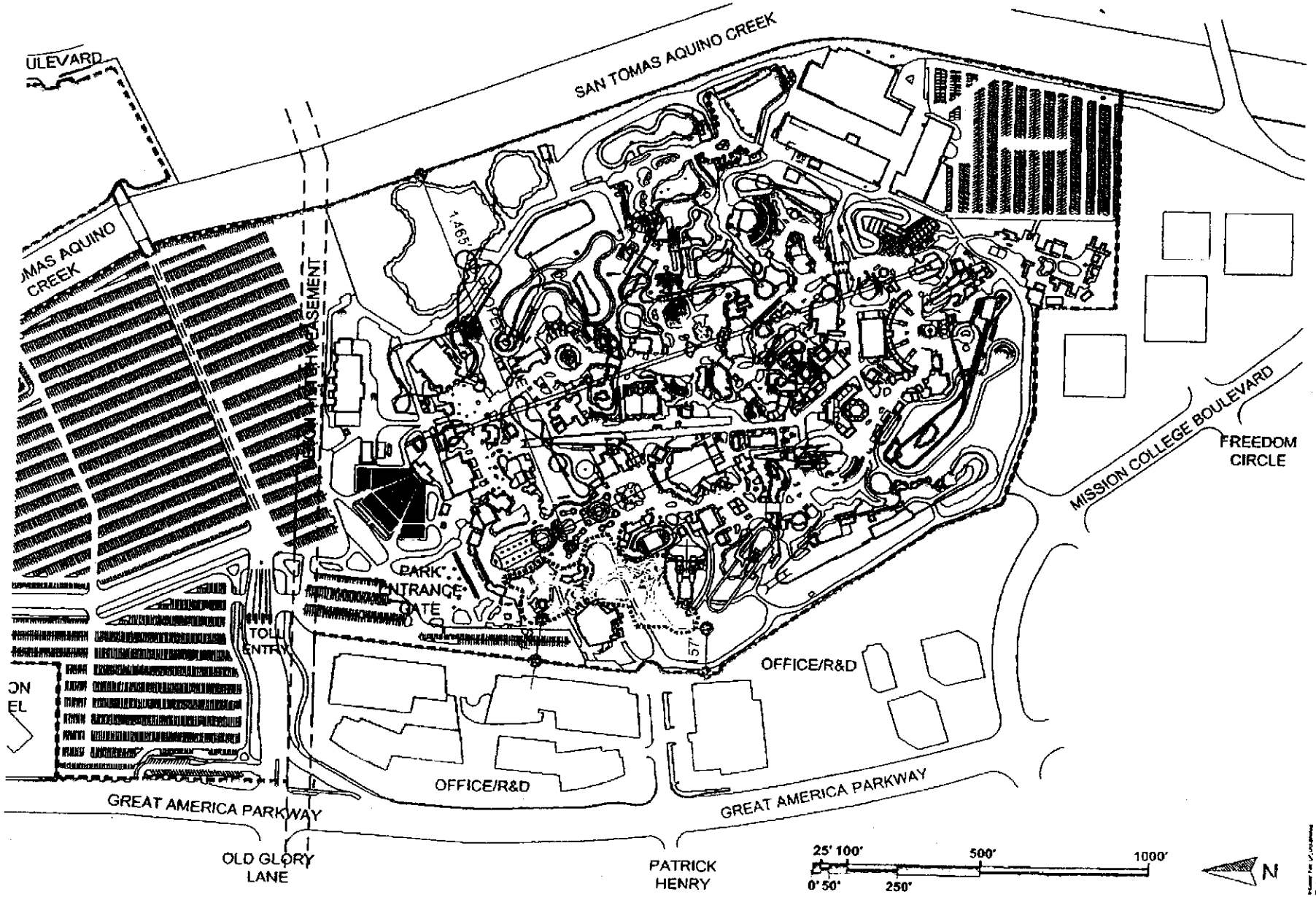
Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Carol Ann Painter
Tina Wallis

3010382768.6

EXHIBIT A



SCALE AS NOTED
DATE 1-14-06
DRAWN SKS

TITLE OVERALL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL

PROJECT PROPOSED WOODEN

SHEET NO OP-1

EXHIBIT B

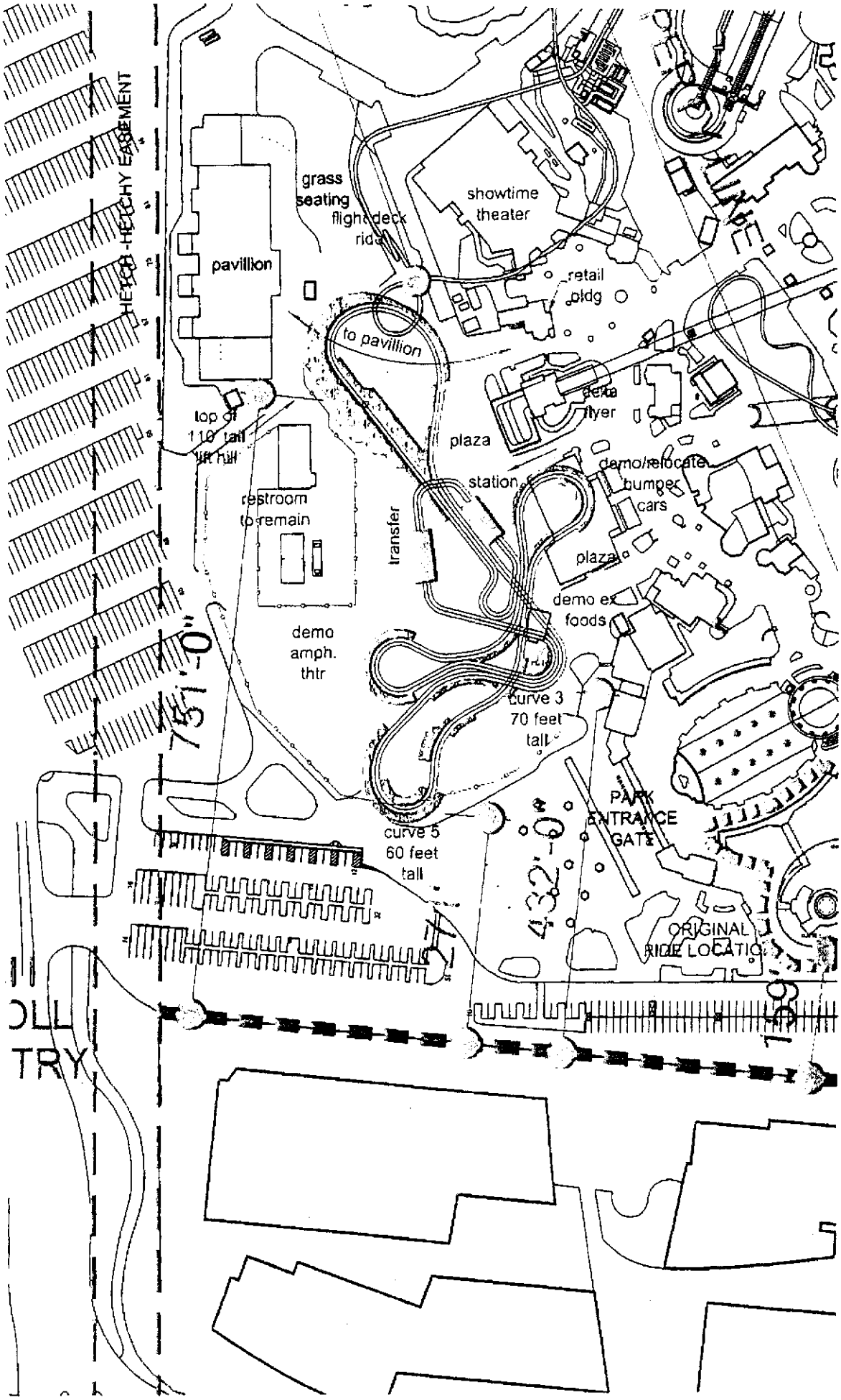

HETCH-HETCHY EASEMENT
grass seating
flight deck ride
showtime theater
pavillion
retail bldg
to pavillion
delta flyer
top of 110' tall lift hill
plaza
station
demo/relocate bumper cars
restroom to remain
transfer
plaza
demo ex foods
demo amph. thtr
curve 3 70 feet tall
PARK ENTRANCE GATE
curve 5 60 feet tall
ORIGINAL RIDE LOCATIO
751'-0"
432'-0"
159'
OLL
TRY

EXHIBIT C

SUMMARY OF DISPUTE RESOLUTION EFFORTS

This document summarizes the efforts between the Prudential Real Estate Investors ("Prudential") and California's Great America Theme Park ("Great America"), whereby the parties sought to resolve acoustical and visual intrusion from a new roller coaster ("Revised Ride") next to Prudential's office building ("Nortel Buildings") prior the April 23rd Planning Commission hearing.

The following steps were taken by the parties, at the suggestion of City staff, to reach mutually acceptable terms of an agreement:

1. Prudential hired Charles M. Salter Associates and Great America used Papineau and Ballard to study potential noise impacts from the Revised Ride.

2. Great America agreed to redesign the ride ("Original Ride"), relocating it further from the Prudential property line and realigning it so that the mass of the structure turned 90 degrees away from the Nortel Buildings.

3. Acoustical Consultants jointly agree that the Revised Ride should reduce noise levels.

4. Acoustical Consultants agree that the acceptable noise level is 70 decibels. Should any Prudential tenant or other interested party object, the parties agree to follow the procedure outlined in the Inspection and Remediation Protocols ("IRP") agreement for noise complaint validation, monitoring and remediation, as necessary.

The parties drafted two documents outlining their respective obligations:

(i) Prudential drafted an agreement ("Agreement") that outlined the overall proposed resolution between the parties:

- Great America would agree to construct and operate the Revised Ride away from the Nortel Buildings, as detailed on specific plan drawings;
- In return, Prudential would agree not to object to Great America's variance application for the Revised Ride;
- The parties would agree to a certain dispute resolution process in the event that the Nortel Buildings experienced noise intrusion from the Revised Ride.

(ii) Great America drafted and Prudential revised the more detailed IRP to deal with specific criteria for identifying and resolving potential noise complaints. As set forth in Prudential's revised IRP:

1. The parties would conduct noise monitoring on three separate occasions when the Revised Ride first opens to the public to ensure initial compliance with acceptable noise standards and to demonstrate good faith and proactivity to Prudential's tenants.

2. A specific process would be followed should a tenant file a noise complaint. A form of the complaint would solicit information necessary to determine whether the complaint is valid.

3. The noise complaint would be jointly reviewed by agreed upon acoustical consultants.

4. If the consultants were to agree that the complaint is prima facie valid, the consultants would take certain measurements of noise levels, according to predetermined protocols in the IRP. Based on the noise monitoring results, the parties would agree to take certain remedial measures.

5. If the noise intrusion were within acceptable levels (70 decibels or below), Prudential would have the responsibility for designing a noise dampening system within its own building, at its sole cost and expense;

a) If the noise intrusion were to exceed acceptable standards (over 70 decibels), the parties should attempt to jointly fix the problem through both interior work within the Prudential office building and by monitoring the Revised Ride's mechanics and activity within the theme park, all at Great America's sole cost and expense;

b) If the noise were still unacceptable, Great America would be required to fix the Revised Ride or modify the Prudential property to mask the noise, at Great America's sole cost and expense.

6. The parties would agree to acceptable timeframes from the receipt of a noise complaint to final remediation. The outside date for resolving a noise complaint would be 32 days.

Prudential sent revised documents for Great America's review on May 5th. On May 9th, Great America's counsel advised Prudential that Great America it intends to proceed with the Original Ride and, therefore, no further comments would be forthcoming on the proposed Agreement or the IRP.

Prudential remains available to resume settlement negotiations. Given the nature of the draft documents, little time would be required to bring this matter to a close.

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Timothy A. Tosta, Esq.
Luce, Forward, Hamilton & Scripps LLP
121 Spear Street, Suite 200
San Francisco, CA 94105

[Space Above For Recorder's Use Only] **[Discuss – Santa Clara would have to consent to recording this or short form memorandum of this agreement.]**

AGREEMENT

This Agreement ("Agreement") is made and entered into effective April ___ 2008, by and among THE PRUDENTIAL INSURANCE COMPANY OF AMERICA, a New Jersey corporation ("Prudential") on the one hand; and GREAT AMERICA [entity name?] ("Great America"), on the other.

Great America and Prudential from time to time individually shall be referred to as a "Party" and collectively shall be referred to as the "Parties."

RECITALS

A. WHEREAS, Great America operates the Great America Theme Park (the "Park") on property leased from the City of Santa Clara (the "City") located on [address?] Great America Parkway in Santa Clara, California (the "Great America Property").

B. WHEREAS, Prudential owns certain real property located at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, California (the "Prudential Property"), immediately adjacent to the Park on its western property line. The Prudential Property consists of two buildings with approximately, 636,000 square feet of office, electronic laboratory space, employee amenities, and associated parking and the buildings accommodate up to approximately 2,400 employees when at maximum capacity.

C. WHEREAS, Great America is seeking approvals from the City for a variance to build a new roller coaster (the " Original Project") approximately 159 feet from the western property line of the Park, directly adjacent to the Prudential Property as more fully shown in Exhibit A. The City has determined that the Original Project is categorically exempt from environmental review pursuant to section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. The City set the Original Project for hearing before the Planning Commission on February 13, 2008, but at the request of Prudential, first, and the City, second, the hearing on the Original Project has been continued.

D. WHEREAS, Prudential objected to the Original Project because it was concerned about the interactive, cumulative impact of the noise and visual intrusions of the Original Project,

and procedurally about the propriety of the CEQA categorical exemption and the variance process.

E. WHEREAS, Prudential's acoustical consultant, Charles M. Salter Associates Inc. ("CMSA"), conducted acoustical measurements at the Prudential Property in conjunction with Great America's consultants, Marc Papineau and Ballard George. Based on these measurements and the screaming noise level established in "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Christopher W. Menge, Harris Miller Miller & Hanson, Inc. Internoise 2002 August 19-21 (the "Menge Report"), CMSA concluded that the calculated screaming noise level from the Original Project at the closest façade of the Prudential Property office building would result in an unacceptable interior screaming noise level.

F. WHEREAS, Prudential's visual consultant, Digital Imaging Studio ("DIS"), conducted visual analysis that showed the Original Project would cause a negative change to the visual conditions for the Prudential Property.

G. WHEREAS, in response to Prudential's objections, Great America redesigned the Original Project and moved it to a location farther away from the Prudential Property, as depicted in Exhibit B ("Revised Project"). The Revised Project proposes to locate the roller coaster approximately 271 feet from the Prudential Property line with the highest crest of the ride being the furthest point away at approximately 751 feet and turned to an approximate 90 degree angle counterclockwise from the Original Project configuration.

H. WHEREAS, Great America's consultants believe (and based on their letter dated January 15, 2008, "Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America", p. 5) that because the crest of the roller coaster, which produces the greatest amount of screaming noise, has been moved and turned away from the Prudential Property, the Revised Project likely will reduce internal noise intrusion to acceptable levels, assuming the Menge Report is correct.

I. WHEREAS, because under the Revised Project the roller coaster has been moved to approximately a 90 degree angle counterclockwise from the Original Project configuration, with the majority of the structure's massing furthest away from the Prudential Property, the visual intrusion under the Revised Project also has been decreased to an acceptable level.

J. WHEREAS, even though the Prudential Property buildings successfully attenuate the existing exterior noise conditions, if any screaming, noise from metal on metal contact or mechanical noises prove to be louder than the Parties' assumptions premised on the accuracy of the measurements contained in the Menge Report, the resulting noise conditions could be damaging to the interior environment of the Prudential Property.

K. The parties, through their respective counsel, have pursued discussions concerning the Great America Property, the Prudential Property, the Original Project, and the Revised Project and as a result of such discussions, have reached mutually agreeable terms for the resolution of said matters.

AGREEMENT

Therefore, in consideration of the foregoing mutual covenants and conditions hereafter set forth, and other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. The Recitals of this Agreement are set forth herein by this reference.

2. Great America shall construct the Revised Project in substantial conformance with Exhibit B and Exhibit C attached hereto, which identify the location and heights of the roller coaster. Great America shall not deviate from the Revised Project as incorporated herein, except for any de minimus shift in height or location of no more than five (5) feet.

3. Great America agrees not to construct any other amusement facility or structure in the location of the Original Project that exceeds the height of the parking structures on the Prudential Property or generates noise, individually or cumulatively, that would exceed the standard set forth in paragraph 6 below.

4. Upon the mutual execution of this Agreement, Prudential shall notify the City of Santa Clara in writing of its withdrawal of any and all objections to the Revised Project. Prudential further agrees not to pursue an appeal of the Revised Project or challenge the City's approval of the Revised Project in a court of law.

5. Great America shall not subsequently alter the Revised Project without Prudential's prior written consent, which consent may be withheld in its sole discretion. If the City requests material changes to the Revised Project, Prudential reserves the right to pursue any and all objections, claims and remedies to the proposed Revised Project as materially modified, notwithstanding any contrary provision herein.

ENFORCEMENT

6. The Parties and their respective consultants have met and agreed upon acceptable tolerance for noise from the operation of the Revised Project, unacceptable noise levels, the investigation and monitoring complaints concerning noise by Prudential's tenants and parties in possession of the Prudential Property, remediation of noise disturbances, and the responsibility among the Parties for paying for such remediation and/or other remedies, all as more specifically set forth in the Inspection and Remediation Protocols ("IRP"), attached hereto as Exhibit D and incorporated herein by this reference.

7. In the event Prudential receives any complaints from any party in possession of the Prudential Property that the Revised Project is generating Unacceptable Noise Levels (as defined in the IRP), the Parties' respective Consultants shall, with 48 hours of written notice, jointly determine whether the noise complaint(s) is or are valid pursuant to the procedures set forth in the IRP and, if necessary, jointly conduct acoustical measurements and other field tests in accordance with the Noise Monitoring Protocol to determine whether, in fact, the Acceptable Noise Level has been exceeded (as such capitalized terms are defined in the IRP). For the

purposes of this Agreement, Prudential designates CMSA as its Consultant; Great America designates **[Marc Papineau or Ballard George?]** as its Consultant. Should Great America fail to produce its Consultant for joint validation and testing within the prescribed time under this IRP, Prudential shall commence testing using only its Consultant and the findings of such Consultant shall be binding on the Parties. The respective Consultants for the Parties shall make all reasonable good faith efforts to cooperate with each other to validate or otherwise explain the Noise Complaint and to produce collaborative noise monitoring measurements and tests; however, if despite such good faith efforts, the respective Consultants are not able to agree on the level of noise disruption to within 1.5 decibels then the Parties agree to utilize the services of a third party Consultant ("Outside Consultant") who will, utilizing the methodology set forth in the IRP, undertake his own measurement and analysis of the noise levels. The findings of the Outside Consultant shall be binding on the Parties and shall be deemed conclusive for all purposes under the IRP. The Parties agree that the Outside Consultant shall be _____ **[Marc or Ballard, please provide acceptable candidates]**. The costs, fees and expenses of the Outside Consultant shall be borne by the party requesting his services except, however, if the Consultants for the respective Parties differ in their calculation of noise levels by 2.5 decibels or more, the party whose noise level measurement is furthest from that obtained by the Outside Consultant shall be solely responsible for the fees, costs and expenses of the Outside Consultant.

8. In the event the Consultants conclude that there are unacceptable noise levels originating from the Revised Project, the Parties shall remedy the situation as provided for in Section III C (Implementation of Interim Measures) of the IRP. In the event Great America elects to address the acoustical problems by making changes to the Prudential Property, Great America agrees to effectuate such changes promptly, but in no event later than 30 days after written notice by Prudential that it requests and authorizes such work. All work will be done by Prudential's contractors and/or licensees in conformance with all applicable codes, regulations and ordinances including Title 24 CFR and _____. Great America will reimburse Prudential for all such fees and costs within 30 days of Prudential's written demand, with accompanying invoices and reasonable backup documentation, as necessary. Fees and costs incurred by Prudential and fully reimbursable pursuant to this paragraph 8 include, without limitation, all fees and costs attributable to mitigation of the unacceptable Revised Project noise levels including, without limitation, materials, labor, permitting fees, fees incurred by architects, acoustical consultants, structural engineers, mechanical engineers and any and all valid claims by Prudential tenants for rent abatement or business losses which are attributable to the Revised Project and, in the latter event, are authorized or permitted under the applicable lease with Prudential.

MISCELLANEOUS

9. All rights acquired by any lender or leasehold mortgagee pursuant to a deed of trust, mortgage or other security instrument (a "Leasehold Mortgage") shall be subject to each and all of the terms, covenants, conditions and restrictions set forth in this Agreement and to all the rights and remedies of Prudential hereunder, none of which conditions is or shall be waived by the Parties as a result of entering into any such Leasehold Mortgage.

10. Any lender shall be required to give Prudential notice of any default by Great America or its assignees under the Leasehold Mortgage. Immediately after recordation of any Leasehold Mortgage executed by Great America and containing a power of sale as defined by California law, Great America shall, at Great America's sole cost and expense, record in the Office of the County Recorder of Santa Clara, California, a written request executed and acknowledged by Great America for a copy of any notice of default and a copy of any notice of sale under such deed of trust or mortgage to be mailed to Prudential at the address specified in this Agreement.

11. The term "Lender" as used in this Agreement, shall mean not only the person, persons or entity that loaned money to Great America and is named as beneficiary, mortgagee, secured party or security holder in the instrument creating any encumbrance incurred by Great America, but also all subsequent assignees and holders of the security interest created by such instrument.

12. Great America currently has a leasehold interest with the City of Santa Clara for the Great America Property. In the event Great America or its successor in interest acquires fee simple title to the Great America Property, the provisions of this Agreement shall not be defeated or otherwise terminated due to a merger of the leasehold estate; rather, the provisions of this Agreement shall, at Prudential's option, be recorded in the Office of the County Recorder for Santa Clara County so that the covenants contained herein will run with the land pursuant to California Civil Code Section 1468. The Parties agree to amend this Agreement, if necessary, to create a recordable document which complies with the provisions of California Civil Code Section 1468.

13. Each person signing this Agreement represents and warrants that he, she or it has the right and authority to execute this Agreement on behalf of the Party upon whose behalf he, she or it has signed. Each Party to this Agreement represents and warrants that he, she, or it has had the opportunity to and has consulted with his, her, or its own independent counsel concerning this Agreement and the advisability of resolving the controversies between the Parties in accordance with the terms set forth in this Agreement and that he, she, or it has entered into this Agreement with full understanding of the Agreement's terms and conditions.

14. This Agreement shall be binding on, and inure to the benefit of the successors, heirs, issue and assigns of the parties hereto. Nothing in this Agreement, express or implied, is intended to confer upon any person or entity other than the parties hereto or their respective successors, heirs, issue and assigns, any rights or benefits under or by reason of this Agreement. This Agreement shall not be assignable by any party hereto without the prior written consent of the other party.

15. The Parties declare that, prior to entry into this Agreement, they each apprised themselves of sufficient relevant data that they might intelligently exercise their own judgments in deciding on the content of and in deciding whether to execute this Agreement. Each Party has read this Agreement and understands all of its terms. Each Party further states that this Agreement has been entered into voluntarily and with full knowledge of its significance.

16. Notices. All notices required shall be in writing, and delivered in person of sent by United States mail, postage prepaid.

Notices to Great America shall be addressed as follows:

[Insert contact information]

Notices to The Prudential Insurance Company of America shall be addressed as follows:

[Insert contact information]

17. Provided that any party may change such address by notice in writing to the other party and, thereafter, notices shall be addressed and transmitted to the new address.

18. This Agreement may be amended or modified only by a written instrument signed by or on behalf of all Parties affected thereby or by their successors in interest.

19. The terms and conditions of this Agreement shall be construed and enforced in accordance with, and governed by, the laws of the State of California.

20. The Parties acknowledge that this Agreement reflects the resolution of disputed claims, and that by entering into this Agreement, no Party admits fault or liability, but rather has entered into this compromise in order to bring the disputes to a close.

21. Each Party shall take all actions and do all things, and execute, with acknowledgement or affidavit if required, any and all documents and writings that may be necessary or proper to achieve the purposes and objectives of this Agreement.

22. This Agreement contains the entire agreement among the Parties and supersedes any prior agreements or understandings between Plaintiffs, on the one hand, and Defendants, on the other. All terms of this Agreement are contractual and shall be construed as if drafted by all Parties. All provisions of this Agreement are and shall be binding upon each of the Parties, their agents, attorneys, employees, successors and assigns.

23. Subject to equitable adjustment in order to achieve the essential purposes of this Agreement, if any term, provision, right or duty of this Agreement is deemed void or unenforceable, the remaining terms, provisions, rights and duties shall not be impaired, but shall remain valid and enforceable.

24. In the event that either of the Parties reasonably incurs legal expenses to enforce or interpret any of the provisions of this Agreement, or on account of the failure or refusal of a

Party to comply with any said provisions, the prevailing party shall be entitled to reimbursement of said expenses (including reasonable expert witness expenses) from the nonprevailing party, whether or not said legal expenses are incurred in connection with an action which proceeds to judgment. In the event that a judgment is entered to enforce or interpret any of the provisions of this Agreement, such reimbursement of expenses shall be made a part of the judgment.

25. The section headings appearing in this Agreement are inserted only as a matter of convenience and in no way define or limit the scope of any section.

The undersigned have read the foregoing Agreement and accept and agree to the provisions it contains and hereby execute this Agreement voluntarily with full understanding of its consequences.

Dated: _____, 2008

The Prudential Insurance Company of America
A New Jersey Corporation

By: _____
Jolynn Miller
Second Vice President

Dated: _____, 2008

California's Great America

By: _____
Bill Lentz

Acknowledged [for purposes of recordation]

City of Santa Clara

By:_____
Its:_____

301035896 7

STATE OF CALIFORNIA)
)
COUNTY OF_____)

On _____, before me,_____, Notary Public,

personally appeared_____
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature (Seal)

STATE OF CALIFORNIA)
)
COUNTY OF_____)

On _____, before me,_____, Notary Public,

personally appeared_____
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature (Seal)

INSPECTION AND REMEDIATION PROTOCOLS

Great America and Prudential, or the "Parties," have agreed that it is their mutual interest to adopt the following Inspection and Remediation Protocols ("IRP") to address future roller coaster noise at the Great America Theme Park in Santa Clara, California. If a term is not specifically defined in this IRP, it shall have the same definition as set forth in the Agreement between the Parties dated _____, 2008.

I. OBJECTIVE

To implement a scientific process for investigating potential future complaints related to rider and/or train noise caused by the wooden roller coaster ("Ride Noise").

II. PROCEDURE FOR FILING & INVESTIGATING NOISE COMPLAINTS

A. Noise Complaint Form

In the event that Prudential receives a complaint regarding noise in one of the buildings identified herein, Prudential will request that the complaining party fill out a Noise Complaint Form, in form substantially similar to the one attached hereto as Schedule 1 ("Noise Complaint Form"). Complainants will be asked to complete the Noise Complaint Form, as thoroughly as possible, to identify the date, time, circumstances (e.g., employee name, company affiliation, office location by floor and other detail, activity such as reading a report, word-processing, entering data, teleconferencing, client meeting), and noise quality (e.g., intermittent, steady, high pitch, horn, rider scream, clatter, other description). Building Maintenance staff, will attempt to determine the operation mode for the HVAC system in the Prudential Building and include this information, if available, in the Noise Complaint Form. Noise Complaint Forms will be generated on an as needed basis.

B. Filing a Noise Complaint

Complaints shall be e-mailed or faxed to Prudential's designated representative, as more fully provided in Prudential's office leases, and the complainant will be required to follow up with a telephone call to Prudential to confirm receipt.

C. Follow-Up Investigation

In the event Prudential receives any complaints from any party in possession of the Prudential Property that the Revised Project is generating Unacceptable Noise Levels (as defined herein), the Parties' respective Consultants shall, with 48 hours of written notice pursuant to Article IV herein, jointly determine whether the Complaint(s) is or are valid pursuant to Section II D herein and, if necessary, jointly conduct acoustical measurements and other field tests in accordance with the Noise Monitoring Protocol (defined herein) to determine whether, in fact, the Acceptable Noise Level (defined in Section III B) has been exceeded. For the purposes of this Agreement, Prudential designates CMSA as its Consultant; Great America designates **[Marc Papineau or Ballard George?]** as its Consultant. Should Great America fail to produce its Consultant for joint validation and testing within the prescribed time under this IRP, Prudential shall commence testing using its

Consultant and the findings of such Consultant shall be binding on the Parties. The respective Consultants for the Parties shall make all reasonable good faith efforts to cooperate with each other to validate or otherwise explain the Noise Complaint and to produce collaborative noise monitoring measurements and tests; however, if despite such good faith efforts, the respective Consultants cannot agree on the level of noise disruption to within 1.5 decibels then the Parties agree to utilize the services of a third party Consultant ("Outside Consultant") who will, utilizing the methodology set forth herein, undertake his own measurement and analysis of the noise levels. The findings of the Outside Consultant shall be binding on the Parties and shall be deemed conclusive for all purposes under this IRP. The Parties agree that the Outside Consultant shall be _____ **[Marc or Ballard, please provide acceptable candidates]**. The costs, fees and expenses of the Outside Consultant shall be borne by the party requesting his services except, however, if the Consultants for the respective Parties differ in their calculation of noise levels by 2.5 decibels or more, the party whose noise level measurement is furthest from that obtained by the Outside Consultant shall be solely responsible for the fees, costs and expenses of the Outside Consultant.

The Consultants may ask limited questions of the complainant or Building Maintenance to assure accuracy and completeness as long as the process does not unduly interfere with the ability of the Prudential tenants to conduct business operations in the Prudential Property or otherwise violate any provision or covenant of Prudential's lease agreements for the tenant(s) or complainant(s) in question. At a minimum the following information shall be compiled as part of the investigation:

1. Did the nuisance or disturbing noise continue following the complaint?

2. Is the disturbance ongoing?

3. Follow up to the information contained in the Noise Complaint, as necessary.

D. Validation & Contingency for Noise Monitoring

1. Validation

Validation is the process of attributing noise to the target source. The Ride Noise is either the likely cause of the complaint or else can be excluded as the likely cause, based on the Consultants' review of the Noise Complaint and interviews.

2. Contingency for Noise Monitoring

In the event that the noise disturbance is validated and is attributable to the Ride Noise and is unabated at the time of follow-up, Noise Monitoring may, upon the recommendation of the Consultants, be undertaken in accordance with the Noise Monitoring Protocol, defined in Section H herein. The purpose of Noise Monitoring is to obtain measurement data for comparison with the standard.

E. Noise Incident Reporting

Prudential's Consultant, with input from Great America's Consultant as feasible and appropriate, shall complete a written report ("Noise Incident Investigation Report"), within forty-eight hours of the filing of the initial Noise Complaint to determine whether further action and investigation under this IRP is necessary.

F. Record Keeping

All Noise Complaint Forms and Noise Incident Investigation Reports shall be maintained for a period of not less than 4 years. Noise Complaints validated as attributable to Ride Noise shall be maintained for not less than 5 years.

G. Validation Procedure for Noise Complaints

While all Noise Complaints may be legitimate in the sense that noise was perceived by complainant who felt annoyance, disturbance, or interference with concentration at work, not all Noise Complaints necessarily will be attributed to Ride Noise. In the validation process both the interior building operations as well as the wooden roller coaster operations will be considered. The investigation of a Noise Complaint could show that conditions are recurring in nature and likely attributable to Ride Noise; could show that conditions are attributable to another source (not the target); or, could show conditions are non-recurring and attributable to an unusual circumstance such as abnormal building operation (e.g., shutdown of building ventilation). All suspected sources and causes, in addition to the target, shall be considered depending on the Noise Complaint Form and judgment of the Consultants.

H. Noise Monitoring Protocol

The Noise Monitoring Protocol shall consist of the i) acoustical measurement requirements and ii) data processing requirements set forth below ("Noise Monitoring Protocol").

I. Acoustical Measurement

The minimum requirements of the Noise Monitoring Protocol include the following:

- Measurements shall be performed using a Type 1 sound level meter or real time analyzer.

- Calibration of the instrument shall be performed before and after the measurements using a portable acoustical calibrator.

- Measurements shall be performed at a roof location, at the façade setback, and as close to directly above the complainant's office area as allowable. The microphone should be at an elevation no lower than 15-feet above the roof deck.

- Measurements shall be performed initially outdoors, to record A-weighted Lmax and Lmax in 1/3-octave bands over a minimum of 30 minute duration (equivalent to approximately 17-18 cycles of the coaster trains).

- Analysis of the 30 minutes of measurements during the 30 minutes shall be programmed over 1 minute: 42 second -(102 second) periods. (Lmax and 1/3-octave band levels reset each 1 minute: 42 seconds).

- The above measurements shall be repeated indoors as described above or, alternatively, could be performed simultaneously indoors and outdoors by using a double instrument set-up.

J. Data Processing

Measured outdoor Lmax shall be compared to 70 dBA. If necessary, noise level corrections shall be applied to correct the measured noise to the noise at actual distance of the complainant from the source.

III. STANDARD

A. PURPOSE

The purpose of this section is to set forth and describe a standard. The standard shall be invoked based solely on the criteria and procedures described herein, based on the factual record of Noise Complaints.

B. STANDARD DEFINITION

The allowable Lmax noise level at a location equivalent to the building face of 4555 or 4655 Great America Parkway generated form the wooden roller coaster shall be 70 dBA, which for the purpose of the standard includes up to 70.4 dBA ("Acceptable Noise Level"). Any noise levels exceeding this standard shall be referred to as an "Unacceptable Noise Level").

1. Initial Study

Prudential's Consultant, at Great America's sole cost and expense, shall conduct acoustical measurements and data processing pursuant to the Noise Monitoring Protocol at the following times and intervals to determine whether the Ride Noise exceeds the Acceptable Noise Level:

a. Anytime during the 4 weeks prior to opening the Revised Project to the public (i.e., during test runs and safety drills);

b. For ___ continuous days during the first two weeks that the Revised Project is open to the public; and

c. During the first "peak season" of the first calendar year in which the Revised Project is operable and open to the public, i.e., Memorial Day

weekend, 4th of July, or Labor Day, as the case may be. For the purposes of this subsection (c), Prudential's Consultant shall endeavor to conduct its tests during business hours when the occupancy rate for the Prudential Property is the highest.

2. Other Triggers

Receipt of one (1) or more validated Noise Complaints shall trigger a review of potential violation of the Acceptable Noise Level.

3. Notice

Consultant shall notify the Parties that he or they, as the case may be, have validated the Noise Complaint(s) and intend to compile a Summary Review, defined below.

4. Consultant's Summary Review

Consultant shall assemble the monitoring data in a summary format such as an Excel spreadsheet. Consultant shall review the data and determine whether the wooden coaster has exceeded the Acceptable Noise Level ("Summary Review").

5. Filing

Consultant shall submit the Summary Review to the Parties for review within 3-business days after notification of Summary Review set forth in Section 3, above.

6. Initial Meeting of the Parties

The Parties shall have 5-business days from receipt of Summary Review to conduct meetings to discuss potential remedies for the Noise Complaint(s) ("Initial Meeting").

7. Initial Meeting Outcomes

The Parties shall have seven (7) calendar days from the date of the Initial Meeting either to i) file a joint determination of "no further action" or else ii) commence interim or remediation measures to reduce the Ride Noise as set forth in Section C herein. Interim measures may include white noise generators, park "policing" controls **[explain]**, car or wheel repair or replacement, or other appropriate measures.

8. Suspension of Noise Complaints

The Parties acknowledge that it will not be necessary to pursue separate investigation measures for parallel Noise Complaints stemming from the same incident or series of incidents until the conclusion of the pending investigation.

C. IMPLEMENTATION OF INTERIM OR REMEDIATION MEASURES

1. Interior Sound Masking & Other Measures

In the event that wooden coaster Lmax during validated Noise Complaints does not exceed Acceptable Noise Levels, Prudential will focus efforts on interior sound mitigation, at its sole cost and expense.

2. Joint Implemented Measures

In the event that wooden coaster Lmax during validated Noise Complaints does exceed Acceptable Noise Levels, Prudential will attempt to achieve Acceptable Noise Levels by interior sound mitigation, such as sound masking or the generation of "white noise", at Great America's sole cost and expense and, concurrently, Great America will immediately implement noise policing measures **[define and provide details]** at Great America's facility, at its sole cost and expense.

3. Coaster Noise Reduction Measures or Interior Remediation

In the event that wooden coaster Lmax during validated Noise Complaints exceeds Acceptable Noise Levels, and the joint efforts referred to above are unsatisfactory, Great America will focus efforts on coaster sound mitigation within the Great America Property to reduce the noise to an Acceptable Noise Level. In the event that Great America's efforts at mitigation in its facility fail to achieve such an Acceptable Noise Level, then Great America will be required to pay the cost of modifications to the Prudential Property necessary to reduce the effective interior impact of the sound to an Acceptable Noise Level. The Parties shall effectuate all such repairs as soon as possible; however, in no event later than thirty (30) days after the validation of the Noise Complaint(s).

IV. MISCELLANEOUS

A. Notices

For all purposes under this IRP, the Parties and their Consultants shall be contacted at the following addresses, in the following manner:

Notices to Great America shall be addressed as follows:

[Insert contact information]

and

[add consultant contact information]

Notices to The Prudential Insurance Company of America shall be addressed as follows:

Jolynn Miller
Director

Prudential Financial Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111

and

Charles M. Salter
President
Charles M. Salter Associates Inc.
130 Sutter Street, 5th Floor
San Francisco, CA 94104

B. Inconsistencies

In the event of any inconsistencies between this IRP and the Agreement, the former shall control.

The undersigned have read the foregoing IRP and accept and agree to the provisions it contains and hereby execute this IRP voluntarily with full understanding of its consequences.

Dated: _____ _____, 2008

The Prudential Insurance Company of America
A New Jersey Corporation

By: _____
Jolynn Miller
Second Vice President

Dated: _____, 2008

California's Great America

By: _____
Bill Lentz

EXHIBIT D

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February 13, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Agenda Item #12--Variance for Great America Roller Coaster Ride ("Project")**

Dear Chair Champeny and Members of the Planning Commission:

We represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

We understand that the Planning Commission will consider an application tonight for a new rollercoaster ride at California's Great America. As we have expressed to both representatives from Great America and the Planning staff, we have serious concerns about this proposal and believe that the **Planning Commission should continue this item to provide the City with the time to adequately assess the new rollercoaster's potential impacts to adjacent landowners.**

The following summarizes our concerns that are set forth below:

- City may not exempt itself from CEQA by way of a categorical exemption;
- Great America's "here first" position does not insulate the Project from the City's CEQA obligations;
- The City lacks the necessary evidence to make the variance findings;
- The City should undertake the rezoning of the entire Great America site in order to establish consistent and compatible development standards for the area.

Should the Planning Commission decide to move forward with this item and approve the application, we will have no choice but to appeal the decision to the City Council based upon the legal infirmities discussed below.

I. Environmental Review

The Staff Report for the above-referenced Agenda Item makes the Environmental Determination that the Project is categorically exempt pursuant to Section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. It states further that a noise study was conducted to "assure that no significant effects would occur." The City's reliance on Section 15323 and the Acoustical Impact Assessment is misplaced for the following reasons.

First, Section 15300.2(c) of the CEQA Guidelines states that a categorical exemption should "not be issued for an activity where there is a **reasonable possibility** that the activity will have a significant effect on the environment due to **unusual circumstances**" (emphasis added). Here, the Project - involving the construction and operation of a rollercoaster over 100 feet tall adjacent to office buildings constitutes "unusual circumstances" that require the City to examine whether the proximity of the rollercoaster to these office buildings creates the potential for a significant noise impact based on **the audibility of screaming** that could have a negative effect on the human environment within the office setting. This circumstance rises to the level of "unusual" because of the adjacency of the office buildings to the proposed location of the roller coaster along the western property line. For example, unlike other noise sources such as airplanes and vehicular traffic, the intrusion of noise associated with people screaming into the Nortel Site is not an anticipated or accepted phenomena and could prove to be seriously disruptive to the individuals in the workplace. Consequently, the categorical exemption for "Normal Operations of Facilities for Public Gatherings" is inapplicable and the City abuses its discretion if it approves the Great America application subject to Section 15323 of the CEQA Guidelines.

Second, the attached letter from Charles Salter of Charles M. Salter Associates, Inc. demonstrates that we can establish with substantial evidence "a reasonable possibility" that the project will "have a significant effect on the environment due to unusual circumstances." It is Mr. Salter's professional opinion that the Acoustical Impact Assessment prepared by Marc Papineau and Ballard W. George Acoustics fails to address the potential audibility of roller coaster noise within the buildings on the Nortel Site. Representatives from Great America and its consultants even admitted during our site visit on February 11th that they undertook no such analysis. This failure is a fatal oversight.

Mr. Salter emphasizes that it is critical to acoustically analyze the audibility of screaming noise within the office buildings prior to the Project's approval not merely at the property line or the ground level -- because only then can appropriate mitigation measures be incorporated into the Project. This inadequacy can be overcome by a simple noise study that measures the intrusion of the screaming noise as offset by the minimum background noise in the office. Therefore, the City's reliance on a categorical exemption runs afoul of CEQA's basic tenet that a lead agency's determination must be supported by evidence in the record showing that the agency fully considered a project's potential environmental effects. Again, the City is failing this most basic of CEQA tests, which creates unnecessary legal exposure for both the City and the applicant.

Based on the foregoing, it is evident that additional acoustical analysis is necessary so that: (1) the impacts of the Project are evaluated and analyzed, and (2) if necessary, the appropriate mitigation measures are incorporated into the Project to lessen the potential significant environmental impacts. Accordingly, the City cannot exempt itself from CEQA in this instance -- the "unusual circumstance" of a massive wooden rollercoaster locating next to an office setting, combined with Mr. Salter's professional opinion that a "reasonable possibility" exists that this Project could create a significant effect on the environment, demands further inquiry. We would add that similar analysis must be done for potential aesthetic impacts, as well.

Regrettably, Great America has advanced the position that it was "here first" and that, therefore, it enjoys the right to grow, intensify and change irrespective of its interface with the surrounding community. However, Great America's refusal to conduct additional, simple noise analysis does not absolve the City from its obligations under CEQA (and State Planning and Zoning laws). Accordingly, if, after further inquiry, the City determines that the Project will have no significant effect on the environment, it may file a negative declaration otherwise, the City must prepare an Environmental Impact Report ("EIR").

II. Variance

The item before the Planning Commission tonight is the approval of a height variance that would allow the construction of a 110-foot high roller coaster within the Commercial Thoroughfare District ("CT"), which has a 35-foot height limit -- amounting to a 75-foot difference or more than three times what the CT zoning allows. The Planning Commission must make certain, specific findings before granting a variance, which is a mechanism that allows agencies to grant relief under extraordinary circumstances. While the Staff Report recommends approval of the variance and sets forth Staff's justifications, we believe that these findings fall woefully short of the rationale necessary to legally support such a granting of special relief for the reasons set forth below.

A. There is no evidence of unusual conditions that would warrant the height variance.

Variances may be granted where "practical difficulties" or "unnecessary hardships" would result from strict application of a Zoning Ordinance requirement, due to "unusual conditions." Zoning Ordinance § 18.108.010; 18.108.040(a). Pursuant to Section 65906 of the California Government Code, "variances . . . shall be granted only when, **because of special circumstances applicable to the property**, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification." Cal. Gov. Code § 65906 (emphasis added).

The Staff Report states that the "unusual condition" that warrants approval of the roller coaster is the "unique nature of the theme park use." That is, the City appears to argue that the proposed height of the roller coaster is justified merely because the theme park is "unique," yet offers no explanation as to what "unusual condition" exists to justify the request for an additional 75 feet. The City cannot rely on circular logic to support a variance finding in other words, the structure that is the subject of the variance cannot be the "unusual condition" that justifies the variance approval. Instead, the property, upon which the subject of the proposed variance is to be built, must have an "unusual condition," such that adherence to the 35-foot height limit would result in a "practical difficulty" or "unnecessary hardship" for the applicant. The Staff Report fails to establish that any such condition exists.

The Staff Report also offers that the theme park operates only on a seasonal basis presumably as some sort of justification for the theme park's "unusual condition." However, the seasonal operation of the theme park has no relevance to this finding, which needs to appropriately justify the roller coaster's height variance. Indeed, the seasonal operation does nothing to minimize the roller coaster's potential noise and aesthetic impacts because the theme park would still operate during weekday, daytime hours and the structure would exist in the built environment year-round. Consequently, the City's rationale fails to establish a nexus between the need for a 75-foot height increase and the seasonal operation of the ride.

The Staff Report then suggests that the 35-foot height limit of the CT zoning district "does not apply well to the unique context of rides, structures, and attractions within the theme park setting." This statement begs a larger question. That is, if the 35-foot height limit in the CT zoning does not apply well to the theme park, then the City should explore rezoning the entire

Great America property. Such a planning exercise would establish clear development standards for the City, Great America, and its neighbors. It also would avoid the piecemeal approvals and variances sought by the applicant that historically have avoided CEQA review.

B. The height variance is not necessary for the preservation or enjoyment of substantial property rights by the applicant.

The Planning Commission also must find that granting the variance here is "necessary for preservation and enjoyment of substantial property rights." Zoning Ordinance § 18.108.040(b). The Staff Report argues that this height variance is necessary "to attract new and return patrons" and "to keep the [theme] park vital." First, we seriously question whether this particular roller coaster in this particular location is necessary to preserve the economic vitality of the theme park and the Staff Report offers no support whatsoever for this assertion. Second, and more importantly, economic vitality is not the issue here. The issue is whether strict adherence to the 35-foot height limit would erode or interfere with the enjoyment of the applicant's substantial property rights. The applicant clearly enjoys the substantial use of its property as evidenced by the thriving operation of the theme park. So the question becomes would Great America prefer a taller roller coaster structure? Of course. But then, does Great America enjoy an unfettered right to build wherever and whenever because it came first and is a substantial source of revenue for the City? Absolutely not. The City must rely on evidence for the notion that the absence of a height variance will result in some sort of degradation to Great America's property rights which does not appear to exist. At minimum, the City has an obligation to require the applicant to explore design alternatives that might reduce the height or mitigate any potential visual impacts to surrounding neighbors.

C. The Planning Commission does not have sufficient evidence to determine whether the height variance would have an adverse effect on the health or general welfare of the community.

The third finding required by the Zoning Ordinance is "that the granting of such variance **shall not**, under the circumstances of the particular case, **materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood** of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood." Zoning Ordinance § 18.108.040(c) (emphasis added). As previously discussed, we have serious concerns about how noise from the roller coaster, particularly people screaming, will impact the health or general welfare of the people who work at the Nortel Site. The applicant's Acoustical Impact Assessment fails to examine this concern, and despite our efforts to undertake additional analysis with the applicant, the applicant has decided to move forward with the variance application without any further evaluation of this potential impact. As a result, the Planning Commission

cannot fully ascertain whether the roller coaster would have a material adverse noise impact and, therefore, lacks the evidence necessary to adopt this finding.

As noted above, we also have serious concerns about the visual impact of the roller coaster. Neither the City nor the applicant has evaluated the visual or aesthetic impact of the proposed roller coaster. Due to its wooden latticework construction, we believe that the roller coaster would create a large wall effect along the edge of the Nortel Site that would tower over the adjacent office buildings. Moreover, the height and mass of the structure would be inconsistent and out of character with the existing visual context of the western edge of the theme park and the Nortel Site. Consequently, absent any analysis of these potential aesthetic impacts, the Planning Commission does not have the requisite information to support a finding that the roller coaster would not have a materially adverse aesthetic impact on the community.

Lastly, the Staff Report states that the roller coaster would not have an adverse impact on the theme park's neighbors because it would be a complementary and incremental addition to the park, which by its nature involves auditory and aesthetic impacts. The Staff Report fails to recognize, however, that the proximity of the roller coaster on the western edge of the park to the Nortel Site does create potential for adverse impacts. These potential impacts cannot be dismissed by staff's erroneous assumption that any noise attenuation incorporated into the Nortel Site would insulate office workers from the sounds of people screaming on the new roller coaster ride no evidence exists in the record to support such an assumption. Accordingly, the Planning Commission lacks the evidence necessary to make a finding that the roller coaster will not have a material adverse affect on the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property.

D. The height variance would result in a 110-foot high structure that would be grossly disproportionate to the 35-foot high height limit.

Finally, the Planning Commission is required to find that the variance is in keeping with the purpose and intent of the Zoning Ordinance. Zoning Ordinance § 18.108.040(d). For any newly proposed project, the Zoning Ordinance establishes the standards by which the project is evaluated. A basic principle of zoning is that all properties in a given zone should be subject to the same restrictions. Public agencies cannot use the variance process to grant special privileges to one property over other nearby properties in the same zone. Cal. Gov. Code § 65906. The record contains no evidence of any other structure on any other property in a CT District exceeding the 35-foot height limit, much less reaching a height of 110 feet. Consequently, if the Planning Commission approves this variance, it would run the risk of granting Great America a special privilege to build at three times the permitted height, a privilege not available to any other similarly situated property.

Furthermore, the City's Zoning Ordinance establishes development standards, including height limits, partly for the purpose of making adjacent land uses and buildings more compatible with one another. Zoning Ordinance § 18.02.020(a)(5). By zoning the theme park CT and establishing a 35-foot height limit therein, the City has made a policy decision that 35 feet is the appropriate height limit in this particular area of Santa Clara in the context of the surrounding land uses. At 110 feet (again more than three times the height limit), the proposed roller coaster would be wildly incompatible with the low-rise pattern of development established in the CT District. If the Planning Commission decides to grant this variance even when the proposed roller coaster would exceed the height limit by three times and absent any support for the required findings the decision would thwart the fundamental purpose of the Zoning Ordinance that promotes land use compatibility. Such a dramatic deviation from the Zoning Ordinance, without sufficient justification, simply will not withstand judicial scrutiny.

Again, the Staff Report states that "[a]pplied strictly, this 35-foot height limit would be detrimental to the success of the theme park and surrounding area in attracting visitors in a manner contemplated by the Tourist Commercial General Plan Designation." This incongruity, as noted above, suggests that the City explore the rezoning of the entire Great America site so that it can assess the overall needs of the park within a larger planning context. This proposal then should be considered as part of that rezoning effort accompanied by appropriate CEQA review.

III. Conclusion

Based on the foregoing, we again respectfully request that the Planning Commission not rush to judgment on this application and continue this item so that the City can properly analyze the Project's potential impacts to adjacent landowners.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachment
cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Members of the City Council

701030235.1

Charles M Salter Associates Inc

12 February 2008

Jolynn Chow Miller
Prudential Investment Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111
E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise Study**
CSA Project No. 08-0052

Dear Jolynn:

This letter follows up from our meeting this morning with personnel from Great America, and Mark Papineau and Ballard George, the preparers of the subject noise study. As discussed in the meeting, we are concerned about the audibility of roller coaster noise in the adjacent office buildings.

This is an unusual noise assessment in that the client's concern is due to the audibility of screaming noise. The audibility of other sources of noise at the site such as aircraft flyovers and vehicular traffic are accepted phenomena. However, the psychological impact of hearing screaming in ones office could clearly be a "significant impact". In our professional opinion, this source of noise must be adequately analyzed.

To the extent that the screaming noise intrusion into office buildings was a problem, then it could be expensive and difficult to mitigate the noise after operation has begun. To mitigate the noise problem in the office buildings would require adding additional glass or changing out the window glass. Controlling noise at the roller coaster would require noise barriers or enclosures that could have adverse structural and wind loading effects.

Thus, it is important to acoustically analyze the audibility of screaming noise in the office buildings prior to project approval pursuant to CEQA. To conduct this audibility noise analysis would require a simple noise study. First we would measure the minimum background noise in the office areas that face the proposed roller coaster. We would then measure the noise reduction of the windows to quantify their ability to block screaming noise. We would then determine the level of screaming noise that would impinge on the facade of the office buildings based on acoustical testing at a similar roller coaster.

This completes my current comments on the subject matter.

Sincerely yours,

CHARLES M. SALTER ASSOCIATES, INC.

Charles M. Salter, P.E.
President

cc: Timothy Tosta
Luce, Forward, Hamilton & Scripps, LLP
E-mail:TTosta@LUCE.com

Jennifer Renk
Luce, Forward, Hamilton & Scripps, LLP
E-mail: JRenk@LUCE.com

CMS/dg
P: 08Feb12 CMS Great America Roller Coaster Noise Study

EXHIBIT E

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March 12, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Agenda Item #10--Variance for Great America Roller Coaster Ride ("Project")**

Dear Chair Champeny and Members of the Planning Commission:

As you know, we represent Prudential Real Estate Investors ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara ("Nortel Site").[1] On February 13th, the Planning Commission continued, at our request, its consideration of the Great America variance application to provide time for additional analysis so that the City could better understand the Project's potential impacts to neighboring landowners. This letter follows on our letter dated February 13, 2008, which we attach as Exhibit A, and addresses the acoustical analysis and visual simulations undertaken since the February 13th hearing. You also should have received a letter in your packets dated March 6, 2008 attached as Exhibit B that discusses our observations relative to the City's variance history for the Great America site.

Based on the findings from the noise analysis and visual simulations discussed below, we reiterate the concerns we set forth in our February 13th letter:

- The City **may not exempt itself from CEQA** by way of a categorical exemption;
- The City **lacks the necessary evidence** to make the variance findings to support the proposed project;
- The City **should undertake the rezoning** of the entire Great America site in order to establish consistent and compatible development standards for the area.

Remarkably, Prudential has had to carry the laboring oar in demonstrating the Project's impacts. This burden properly resides with the Project sponsor. Having not made sufficient, appropriate information available to this Commission or staff, the Project sponsor has

[1] The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

complained to Prudential that Prudential is somehow a "spoiler." We disagree. Rather, Prudential, in raising its objections, only seeks to thoroughly understand the Project and its impacts and to ensure that an informed decision on the Project is made. Such an informed review may result in a decision which satisfies all concerned.

I. Environmental Review

The March 12th Staff Report for the Project again makes the Environmental Determination that the Project is categorically exempt pursuant to Section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. It also states again that a noise study was conducted to "assure that no significant effects would occur." In light of the conclusions by Charles M. Salter Associates and the visual analysis conducted by Digital Imaging Studio ("D.I.S."), the **City's continued reliance on Section 15323 of the CEQA Guidelines for CEQA compliance is misplaced** for the reasons discussed below.

As noted in our February 13th letter, Section 15300.2(c) of the CEQA Guidelines states that a categorical exemption should "**not be issued** for an activity where there is a **reasonable possibility** that the activity will have a significant effect on the environment due to **unusual circumstances**" (emphasis added). Here, the Project—involving the construction and operation of a rollercoaster over 100 feet tall adjacent to office buildings—constitutes "unusual circumstances" that require the City to examine whether the proximity of the rollercoaster to these office buildings creates the potential for significant noise and visual impacts.[2] As discussed below, because the Salter noise analysis and the D.I.S. visual analysis show that a reasonable possibility exists that the Project will have a significant effect on the environment, the categorical exemption for "Normal Operations of Facilities for Public Gatherings" is inapplicable and **the City abuses its discretion if it approves the Great America application subject to Section 15323 of the CEQA Guidelines.**

A. Noise

On March 3, 2008, Prudential's acoustical consultant, Charles M. Salter Associates, a recognized expert in acoustical analysis, assessed the acoustical impact of the proposed roller coaster on the interior environment of the Nortel Site office buildings. The Salter noise assessment ("Salter Study") is attached as Exhibit C. The Salter Study concludes that the

[2] This circumstance rises to the level of "unusual" because of the adjacency of the office buildings to the proposed location of the roller coaster along the western property line. For example, unlike other noise sources such as airplanes and vehicular traffic, the intrusion of noise associated with people screaming into the Nortel Site is not an anticipated or accepted phenomena and could prove to be seriously disruptive to the individuals in the workplace.

proposed rollercoaster would result in **a highly audible screaming noise inside the office suites**, which would recur every two minutes, throughout the course of the business day during the summer months. Even though the Nortel office buildings were properly designed to attenuate exterior noise of the then-existing environment, the calculated screaming noise level at the façade of 71 dBA would result in an interior screaming noise level of 36 dBA. Because the background noise levels in office areas were measured as low as 31 dBA,[3] the screaming noise would exceed ambient noise levels by up to 5 dBA. The Salter Study concludes that this noise level of 5 dBA above the background would be **very audible** to building occupants, which could result in **workplace disruption** and **unnecessary stress**.

Consequently, based on this Salter Study, there is **substantial evidence of a reasonable possibility that the Project would result in a significant noise impact**. It is imperative, therefore, that the City undertake appropriate environmental review of the Project so that: (1) the impacts of the Project are fully evaluated and analyzed, and (2) the appropriate mitigation measures are incorporated into the Project to lessen any potential significant environmental impacts. Accordingly, the City cannot exempt itself from CEQA in this instance—the "unusual circumstance" of a massive wooden rollercoaster locating next to an office setting, combined with Mr. Salter's finding of an increase in interior noise levels, demands that the City complete the environmental review required by CEQA.

---

[3] Mr. Jeff Lenkov, counsel to Cedar Fair, sent us a fax on March 5, 2008 calling into question the methodology of the background measurements for the noise analysis. Mr. Salter offers the following response:

The purpose of our measurements was not to quantify the change in noise level for "average" condition. The purpose of our measurements was to quantify the background noise levels and potential for screaming noise intrusion in private/executive offices and conference rooms. During our noise measurements, we were informed by the building engineer that the HVAC systems were operating under normal conditions. Our analysis indicates that the HVAC systems were controlling the background noise levels - although there was some traffic noise intrusion at locations with higher exposure to the roadway. Noise levels in these measured office spaces are not uncommon to private offices and conference rooms we find at other similar projects. The additional noise generated by say, a laptop, in a private office or conference room can be considered negligible.

We are evaluating with the potential for screaming noise intrusion to tenants in private offices or conference rooms that could create adverse effects such as annoyance, distraction, and complaints. Screaming noise is not typical to office noise environments. It is therefore necessary as engineers to determine the "worst case scenario". We would like to note that our exterior noise estimate at the façade (71 dBA) is nearly the same as that provided in Mr. Papineau's report (73 dBA). In fact, Mr. Papineau's report predicts noise levels (40 - 45 dBA) exceeding our estimate (36 dBA).

B. **Aesthetics**

Similarly, the visual simulations, attached as Exhibit D, which were prepared by D.I.S., a highly recognized visual simulations firm, show that the proposed wooden rollercoaster would **cause a change to the visual conditions for the Nortel Site**. Currently, the offices that overlook Great America enjoy views that stretch to the East Bay hills and the only visual intrusions from the theme park, previously granted variances from the site's 35-foot height limit, are relatively unobtrusive in nature, not blocking any views of the open sky. The height and massing of the proposed wooden rollercoaster in such close proximity to the Nortel Site will block views of the hills and will intrude on the vastness of the current views enjoyed by the Nortel Site occupants.

Consequently, based on this visual analysis, there is substantial evidence of a reasonable possibility that the Project would result in a **significant aesthetic impact**. It is imperative here too that the City undertake appropriate environmental review of the Project so that: (1) the impacts of the Project are fully evaluated and analyzed, and (2) the appropriate mitigation measures are incorporated into the Project to lessen the potential significant environmental impacts. The City cannot exempt itself from CEQA —the "unusual circumstance" of a massive wooden rollercoaster locating next to an office setting, combined with the D.I.S. analysis showing that a visual impact could result, require that the City **comply with CEQA** and undertake appropriate environmental review.

In sum, the City's reliance on a **categorical exemption here runs afoul of CEQA's basic tenet** that a lead agency's determination must be supported by evidence in the record showing that the agency fully considered a project's potential environmental effects. If, after further inquiry, the City determines that the Project will have no significant effect on the environment, it may file a negative declaration—otherwise, the City must prepare an Environmental Impact Report ("EIR").

II. **Variance**

The item before the Planning Commission tonight, again, is the approval of a height variance that would allow the construction of a 110-foot high roller coaster. The proposed roller coaster would be located within the Commercial Thoroughfare ("CT") district, which has a 35-foot height limit. Granting the variance would amount to a 75-foot difference, or more than three times what the CT zoning allows.

The Planning Commission must **make certain, specific findings before granting a variance**, which is a mechanism that allows agencies to grant relief under extraordinary

circumstances. The findings must be supported by **substantial evidence** that shows whether the findings support the conclusion that the variance requirements have been satisfied. (*See, e.g. Topanga Assn for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 514; *Orinda Assn v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1160-1161.)

The February 13th Staff Report set forth **proposed findings**, which **fell woefully short of the substantial evidence necessary** to support the granting of the variance. The March 12th Staff Report now proposes identical findings, which **continue to suffer the same infirmities**. As discussed at length in our February 13, 2008 letter: (a) there is no evidence of unusual conditions that would warrant the height variance; (b) the height variance is not necessary for the preservation or enjoyment of substantial property rights by the applicant; and (d) the findings fail to explain how the variance would be consistent with the purpose and intent of the Zoning Ordinance, when the proposed 110-foot height of the roller coaster would be grossly disproportionate to the 35-foot high height limit.

Importantly, based on the new information stemming from the Salter Study and the D.I.S. visual analysis, the Planning Commission now has substantial evidence that makes it impossible to conclude that the height variance would not "**materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood** of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood"—the third required prong of the variance findings. Zoning Ordinance § 18.108.040(c) (emphasis added).

A. **Noise**

The **Project sponsor's Acoustical Impact Assessment failed to evaluate the rollercoaster's potential impacts on the interior noise environment** of the Nortel office buildings—an analytical gap that the Salter Study has attempted to fill. Based on the Salter Study, the screaming noise from proposed roller coaster would be clearly audible inside the Nortel Site office buildings. The screaming noise would not be continuous, but it would occur regularly, once every two minutes, starting at 10:00 a.m. each day of the week from Memorial Day through Labor Day.

Whereas continuous noise, like car traffic, fades into the background ambient noise environment, the periodic repetitive pattern of screaming would be disruptive and distracting to office workers, interfering with concentration and creating stress—a phenomenon known as psychoacoustic annoyance. Moreover, screaming often causes a psycho-somatic startle effect, as the listener experiences fear or anticipates danger. If the proposed Project were approved, we

would **anticipate an increase** in the number of **complaints by Nortel employees** and other building occupants about noise conditions.

According to Randall Bell, Prudential's real estate damages consultant, noise impacts can have a "negative and measurable impact on property values" (see Exhibit E). By subjecting building occupants to a material, adverse noise impact, the proposed roller coaster would make the Nortel office space less desirable, reducing the future lease rates that the space can command, which would directly diminish the building's property value.

Based on the Salter Study, which is **the only evidence in the record** of the Project's impacts on interior noise, the Planning Commission cannot reasonably conclude that the roller coaster **would not have a material, adverse impact on the health, peace, and comfort of people working in the Nortel office buildings.**

B. Aesthetics

Also, **the applicant has provided no evidence** relating to the Project's potential visual impacts. The proposed rollercoaster would rise 110 feet with a wooden latticework construction and would be located within 160 feet of the Nortel Site's property line. The D.I.S. visual analysis shows a simulation of the roller coaster from the vantage point of the Nortel offices (see Exhibit D). We believe, based on these simulations, that the height and mass of the structure would be inconsistent and out of character with the existing visual context of the western edge of the theme park and the Nortel Site. Moreover, the proposed rollercoaster would be **visually distinct** from any of Great America's other tall, metal-frame rides and structures, some of which are of similar or taller height but have **significantly less mass**. The City must fully evaluate this impact.

C. Need for Broader Planning and Zoning Framework

The issue of aesthetic compatibility begs a larger question: **what planning and zoning framework should govern the Great America site?** The proposed findings in the March 12th Staff Report suggest that the 35-foot height limit of the CT zoning district "does not apply well to the unique context of rides, structures, and attractions within the theme park setting." If the 35-foot height limit in the CT zoning does not apply well to the theme park, then the City should develop a new planning and zoning framework for the entire Great America site, instead of repeatedly using the variance process to grant **special height privileges** to Great America. A comprehensive, consistent framework would give members of the community advance notice of the land uses and structures that can be developed there.

As we discussed in our March 6th letter (see Exhibit B), we suggest that the City take the initiative to reconcile the planning policies and zoning regulations for the Great America site with the established and future development patterns on the site, particularly with reference to the surrounding developed environment. The City has several planning and zoning tools already at its disposal. First, the City can adopt a Specific Plan, in order to clarify the intended long-term development program for Great America and its surroundings and establish development standards for better land use compatibility. Second, the Great America site should be rezoned, so that the zoning will harmonize with existing development patterns and is consistent with the General Plan. Finally, in addition to adopting a specific plan and rezoning the site, the City should adopt a policy requiring entities with large campuses, including Great America, to prepare and submit to the city a Campus Master Plan, which would identify and describe any planned facility expansions or alterations.

III. Conclusion

Based on the evidence submitted into the record by way of this letter, the Planning Commission may not excuse itself from CEQA by way of a categorical exemption nor can it reasonably conclude that the Great America application meets the required variance findings of the Zoning Ordinance. Lastly, now is the time for the City to seize the opportunity to reevaluate the planning and zoning framework for the Great America site in a comprehensive manner.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachments
cc: JoLynn Miller
Gregory Shanklin
Kevin Riley

301033314 4

EXHIBIT A

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February 13, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Agenda Item #12--Variance for Great America Roller Coaster Ride ("Project")**

Dear Chair Champeny and Members of the Planning Commission:

We represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

We understand that the Planning Commission will consider an application tonight for a new rollercoaster ride at California's Great America. As we have expressed to both representatives from Great America and the Planning staff, we have serious concerns about this proposal and believe that the **Planning Commission should continue this item to provide the City with the time to adequately assess the new rollercoaster's potential impacts to adjacent landowners.**

The following summarizes our concerns that are set forth below:

- City may not exempt itself from CEQA by way of a categorical exemption;
- Great America's "here first" position does not insulate the Project from the City's CEQA obligations;
- The City lacks the necessary evidence to make the variance findings;
- The City should undertake the rezoning of the entire Great America site in order to establish consistent and compatible development standards for the area.

Should the Planning Commission decide to move forward with this item and approve the application, we will have no choice but to appeal the decision to the City Council based upon the legal infirmities discussed below.

I. Environmental Review

The Staff Report for the above-referenced Agenda Item makes the Environmental Determination that the Project is categorically exempt pursuant to Section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. It states further that a noise study was conducted to "assure that no significant effects would occur." The City's reliance on Section 15323 and the Acoustical Impact Assessment is misplaced for the following reasons.

First, Section 15300.2(c) of the CEQA Guidelines states that a categorical exemption should "not be issued for an activity where there is a **reasonable possibility** that the activity will have a significant effect on the environment due to **unusual circumstances**" (emphasis added). Here, the Project - involving the construction and operation of a rollercoaster over 100 feet tall adjacent to office buildings constitutes "unusual circumstances" that require the City to examine whether the proximity of the rollercoaster to these office buildings creates the potential for a significant noise impact based on **the audibility of screaming** that could have a negative effect on the human environment within the office setting. This circumstance rises to the level of "unusual" because of the adjacency of the office buildings to the proposed location of the roller coaster along the western property line. For example, unlike other noise sources such as airplanes and vehicular traffic, the intrusion of noise associated with people screaming into the Nortel Site is not an anticipated or accepted phenomena and could prove to be seriously disruptive to the individuals in the workplace. Consequently, the categorical exemption for "Normal Operations of Facilities for Public Gatherings" is inapplicable and the City abuses its discretion if it approves the Great America application subject to Section 15323 of the CEQA Guidelines.

Second, the attached letter from Charles Salter of Charles M. Salter Associates, Inc. demonstrates that we can establish with substantial evidence "a reasonable possibility" that the project will "have a significant effect on the environment due to unusual circumstances." It is Mr. Salter's professional opinion that the Acoustical Impact Assessment prepared by Marc Papineau and Ballard W. George Acoustics fails to address the potential audibility of roller coaster noise within the buildings on the Nortel Site. Representatives from Great America and its consultants even admitted during our site visit on February 11th that they undertook no such analysis. This failure is a fatal oversight.

Mr. Salter emphasizes that it is critical to acoustically analyze the audibility of screaming noise within the office buildings prior to the Project's approval not merely at the property line or the ground level because only then can appropriate mitigation measures be incorporated into the Project. This inadequacy can be overcome by a simple noise study that measures the intrusion of the screaming noise as offset by the minimum background noise in the office. Therefore, the City's reliance on a categorical exemption runs afoul of CEQA's basic tenet that a lead agency's determination must be supported by evidence in the record showing that the agency fully considered a project's potential environmental effects. Again, the City is failing this most basic of CEQA tests, which creates unnecessary legal exposure for both the City and the applicant.

Based on the foregoing, it is evident that additional acoustical analysis is necessary so that: (1) the impacts of the Project are evaluated and analyzed, and (2) if necessary, the appropriate mitigation measures are incorporated into the Project to lessen the potential significant environmental impacts. Accordingly, the City cannot exempt itself from CEQA in this instance the "unusual circumstance" of a massive wooden rollercoaster locating next to an office setting, combined with Mr. Salter's professional opinion that a "reasonable possibility" exists that this Project could create a significant effect on the environment, demands further inquiry. We would add that similar analysis must be done for potential aesthetic impacts, as well.

Regrettably, Great America has advanced the position that it was "here first" and that, therefore, it enjoys the right to grow, intensify and change irrespective of its interface with the surrounding community. However, Great America's refusal to conduct additional, simple noise analysis does not absolve the City from its obligations under CEQA (and State Planning and Zoning laws). Accordingly, if, after further inquiry, the City determines that the Project will have no significant effect on the environment, it may file a negative declaration otherwise, the City must prepare an Environmental Impact Report ("EIR").

II. Variance

The item before the Planning Commission tonight is the approval of a height variance that would allow the construction of a 110-foot high roller coaster within the Commercial Thoroughfare District ("CT"), which has a 35-foot height limit amounting to a 75-foot difference or more than three times what the CT zoning allows. The Planning Commission must make certain, specific findings before granting a variance, which is a mechanism that allows agencies to grant relief under extraordinary circumstances. While the Staff Report recommends approval of the variance and sets forth Staff's justifications, we believe that these findings fall woefully short of the rationale necessary to legally support such a granting of special relief for the reasons set forth below.

A. There is no evidence of unusual conditions that would warrant the height variance.

Variances may be granted where "practical difficulties" or "unnecessary hardships" would result from strict application of a Zoning Ordinance requirement, due to "unusual conditions." Zoning Ordinance § 18.108.010; 18.108.040(a). Pursuant to Section 65906 of the California Government Code, "variances . . . shall be granted only when, **because of special circumstances applicable to the property**, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification." Cal. Gov. Code § 65906 (emphasis added).

The Staff Report states that the "unusual condition" that warrants approval of the roller coaster is the "unique nature of the theme park use." That is, the City appears to argue that the proposed height of the roller coaster is justified merely because the theme park is "unique," yet offers no explanation as to what "unusual condition" exists to justify the request for an additional 75 feet. The City cannot rely on circular logic to support a variance finding in other words, the structure that is the subject of the variance cannot be the "unusual condition" that justifies the variance approval. Instead, the property, upon which the subject of the proposed variance is to be built, must have an "unusual condition," such that adherence to the 35-foot height limit would result in a "practical difficulty" or "unnecessary hardship" for the applicant. The Staff Report fails to establish that any such condition exists.

The Staff Report also offers that the theme park operates only on a seasonal basis presumably as some sort of justification for the theme park's "unusual condition." However, the seasonal operation of the theme park has no relevance to this finding, which needs to appropriately justify the roller coaster's height variance. Indeed, the seasonal operation does nothing to minimize the roller coaster's potential noise and aesthetic impacts because the theme park would still operate during weekday, daytime hours and the structure would exist in the built environment year-round. Consequently, the City's rationale fails to establish a nexus between the need for a 75-foot height increase and the seasonal operation of the ride.

The Staff Report then suggests that the 35-foot height limit of the CT zoning district "does not apply well to the unique context of rides, structures, and attractions within the theme park setting." This statement begs a larger question. That is, if the 35-foot height limit in the CT zoning does not apply well to the theme park, then the City should explore re-zoning the entire

Great America property. Such a planning exercise would establish clear development standards for the City, Great America, and its neigkbors. It also would avoid the piecemeal approvals and variances sought by the applicant that historically have avoided CEQA review.

B. The height variance is not necessary for the preservation or enjoyment of substantial property rights by the applicant.

The Planning Commission also must find that granting the variance here is "necessary for preservation and enjoyment of substantial property rights." Zoning Ordinance § 18.108.040(b). The Staff Report argues that this height variance is necessary "to attract new and return patrons" and "to keep the [theme] park vital." First, we seriously question whether this particular roller coaster in this particular location is necessary to preserve the economic vitality of the theme park and the Staff Report offers no support whatsoever for this assertion. Second, and more importantly, economic vitality is not the issue here. The issue is whether strict adherence to the 35-foot height limit would erode or interfere with the enjoyment of the applicant's substantial property rights. The applicant clearly enjoys the substantial use of its property as evidenced by the thriving operation of the theme park. So the question becomes would Great America prefer a taller roller coaster structure? Of course. But then, does Great America enjoy an unfettered right to build wherever and whenever because it came first and is a substantial source of revenue for the City? Absolutely not. The City must rely on evidence for the notion that the absence of a height variance will result in some sort of degradation to Great America's property rights which does not appear to exist. At minimum, the City has an obligation to require the applicant to explore design alternatives that might reduce the height or mitigate any potential visual impacts to surrounding neighbors.

C. The Planning Commission does not have sufficient evidence to determine whether the height variance would have an adverse effect on the health or general welfare of the community.

The third finding required by the Zoning Ordinance is "that the granting of such variance **shall not**, under the circumstances of the particular case, **materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood** of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood." Zoning Ordinance § 18.108.040(c) (emphasis added). As previously discussed, we have serious concerns about how noise from the roller coaster, particularly people screaming, will impact the health or general welfare of the people who work at the Nortel Site. The applicant's Acoustical Impact Assessment fails to examine this concern, and despite our efforts to undertake additional analysis with the applicant, the applicant has decided to move forward with the variance application without any further evaluation of this potential impact. As a result, the Planning Commission

cannot fully ascertain whether the roller coaster would have a material adverse noise impact and, therefore, lacks the evidence necessary to adopt this finding.

As noted above, we also have serious concerns about the visual impact of the roller coaster. Neither the City nor the applicant has evaluated the visual or aesthetic impact of the proposed roller coaster. Due to its wooden latticework construction, we believe that the roller coaster would create a large wall effect along the edge of the Nortel Site that would tower over the adjacent office buildings. Moreover, the height and mass of the structure would be inconsistent and out of character with the existing visual context of the western edge of the theme park and the Nortel Site. Consequently, absent any analysis of these potential aesthetic impacts, the Planning Commission does not have the requisite information to support a finding that the roller coaster would not have a materially adverse aesthetic impact on the community.

Lastly, the Staff Report states that the roller coaster would not have an adverse impact on the theme park's neighbors because it would be a complementary and incremental addition to the park, which by its nature involves auditory and aesthetic impacts. The Staff Report fails to recognize, however, that the proximity of the roller coaster on the western edge of the park to the Nortel Site does create potential for adverse impacts. These potential impacts cannot be dismissed by staff's erroneous assumption that any noise attenuation incorporated into the Nortel Site would insulate office workers from the sounds of people screaming on the new roller coaster ride no evidence exists in the record to support such an assumption. Accordingly, the Planning Commission lacks the evidence necessary to make a finding that the roller coaster will not have a material adverse affect on the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property.

D. The height variance would result in a 110-foot high structure that would be grossly disproportionate to the 35-foot high height limit.

Finally, the Planning Commission is required to find that the variance is in keeping with the purpose and intent of the Zoning Ordinance. Zoning Ordinance § 18.108.040(d). For any newly proposed project, the Zoning Ordinance establishes the standards by which the project is evaluated. A basic principle of zoning is that all properties in a given zone should be subject to the same restrictions. Public agencies cannot use the variance process to grant special privileges to one property over other nearby properties in the same zone. Cal. Gov. Code § 65906. The record contains no evidence of any other structure on any other property in a CT District exceeding the 35-foot height limit, much less reaching a height of 110 feet. Consequently, if the Planning Commission approves this variance, it would run the risk of granting Great America a special privilege to build at three times the permitted height, a privilege not available to any other similarly situated property.

Furthermore, the City's Zoning Ordinance establishes development standards, including height limits, partly for the purpose of making adjacent land uses and buildings more compatible with one another. Zoning Ordinance § 18.02.020(a)(5). By zoning the theme park CT and establishing a 35-foot height limit therein, the City has made a policy decision that 35 feet is the appropriate height limit in this particular area of Santa Clara in the context of the surrounding land uses. At 110 feet (again more than three times the height limit), the proposed roller coaster would be wildly incompatible with the low-rise pattern of development established in the CT District. If the Planning Commission decides to grant this variance even when the proposed roller coaster would exceed the height limit by three times and absent any support for the required findings the decision would thwart the fundamental purpose of the Zoning Ordinance that promotes land use compatibility. Such a dramatic deviation from the Zoning Ordinance, without sufficient justification, simply will not withstand judicial scrutiny.

Again, the Staff Report states that "[a]pplied strictly, this 35-foot height limit would be detrimental to the success of the theme park and surrounding area in attracting visitors in a manner contemplated by the Tourist Commercial General Plan Designation." This incongruity, as noted above, suggests that the City explore the rezoning of the entire Great America site so that it can assess the overall needs of the park within a larger planning context. This proposal then should be considered as part of that rezoning effort accompanied by appropriate CEQA review.

III. Conclusion

Based on the foregoing, we again respectfully request that the Planning Commission not rush to judgment on this application and continue this item so that the City can properly analyze the Project's potential impacts to adjacent landowners.

Thank you for your consideration.

Sincerely,

Timothy A. Tosh
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachment
cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Members of the City Council

EXHIBIT B

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March 6, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Variance for Great America Roller Coaster Ride**

Dear Chair Champeny and Members of the Planning Commission:

As you know, we represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

On February 13, 2008, the Planning Commission continued its consideration of Great America's variance request for a 111-foot tall roller coaster structure located on the western edge of the property line ("the Project") until March 12, 2008, so that the parties could undertake additional analysis to better understand what potential impacts the Project might have on the Nortel Site. The results of this analysis will be available shortly before the March 12th Planning Commission hearing.

In the meantime, we have had the opportunity to review the City's record for the Great America theme park dating back to the early 1970s. We were astonished to discover that the City has relied on the variance process for height exceptions at Great America for over 30 years without ever considering a comprehensive land use policy for the site that would obviate the need for these ad hoc height exceptions. Accordingly, we believe it is time for the City to abandon this piecemeal approach to zoning and establish a land use regime for the site that promotes informed decision-making by the City, appropriate environmental review, and meaningful participation by the public.

I. Variance Overview

It is well-settled California law that the granting of a variance should be the exception, not the rule, based on the equitable notion that a property owner should be allowed to use his/her property in a manner consistent with the established zoning, but with minor variations that will place him or her in parity with other property owners in the same zone. (Longtin's California Land Use, 2nd edition (1987), 3.70[1]). As such, a variance is a mechanism that should be used sparingly by agencies to grant relief under only truly extraordinary circumstances.

It appears from our review of the Great America file that the City's variance process as applied to the Great America site has morphed away from this axiomatic rule and now bears no resemblance to variance procedures as required by state law. The City has shifted its emphasis to the unique nature of the Great America use as justification for these height exceptions, instead of appropriately focusing on the unique nature of the property. In other words, the City's treatment of the Great America site as a "unique use" over the years has resulted in the granting of unique privileges afforded to no other adjacent , code-complying property owners. We offer the following overview to ground the Planning Commission in the proper, legal variance procedures.

A. Statutory Framework

The State Legislature has enumerated the circumstances under which variances should be granted:

> Variances from the terms of the zoning ordinances shall be granted only when, because of special circumstances applicable to the property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

Cal. Gov. Code § 65906.

B Standards

c Special Circumstance

The establishment of "special circumstances" is a fact-driven exercise that hinges on an applicant's need for some sort of "extraordinary" relief from an existing zoning regime. That is, absent this relief, the applicant would suffer from undue or unnecessary hardship by complying

with the regulations as enacted. (*See, e.g. Stolman v. City of Los Angeles* (2003) 114 Cal. App. 4th 916.)

- Hardship

An applicant also must demonstrate the existence of a sufficient hardship based on a burden to the subject property compared to other parcels in the same zoning district that would justify the issuance of a variance. This requires evidence that strict application of the zoning ordinance deprives the property of privileges enjoyed by other property under identical zoning classifications. In other words, the hardship must derive from disparities between the affected property and other property in the vicinity under the same zoning rules this hardship cannot be established with the affected property's characteristics in isolation. (*Orinda Assn. v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1166.) Note that mere economic hardship is an insufficient foundation for a variance, as variances should not be sought to insure against financial disappointments or to ensure a financial gain. (*Broadway, Laguna, Vallejo Assn. v. Board of Permit Appeals* (1967) 66 Cal. 2d 767, 774-775.)

- No Special Privilege

A variance must advance parity, not privilege. Section 65906 of the California Government Code expressly provides that variances "shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated." Courts have held that the granting of privilege and not parity seriously undermines a city's effort to regulate uses through comprehensive zoning codes. (*See e.g., Broadway, Laguna*, at 781.)

II. City of Santa Clara's Great America Variance Record

After a thorough review of the Great America files made available to us by the City, we compiled a list of all of the variances that the City has granted to Great America and its predecessors for rides at the theme park since it was first entitled in 1973.

- **February 1973** Variance to increase height limit from the 35 foot height limit of the CT zone to 100 feet (+65 feet) for entire areas to be annexed from the County (valid until February 28, 1976)[1]

[1] We note here that there is no procedure available under California law that allows for such a "blanket" variance.

- **December 1977** Variance to increase height limit from 35 feet to 210 feet (+175 feet) for the Sky Trek Tower

- **January 1983**—Variance to increase height limit from 35 feet to 131 feet (+96 feet) for The Edge (aka Freefall)

- **February 1985**—Variance to increase height limit from 35 feet to 80 (+45 feet) feet for Falling Star

- **July 1985**—Variance to increase height limit from 35 feet to 83 feet (+48 feet) for The Grizzly[2]

- **October 1985**—Variance to reduce parking dimensions

- **October 1986**—Variance to increase height limit from 35 feet to 80 feet (+45 feet) for the Looping Starship.

- **March 1988**—Variance to increase height limit from 35 feet to 69 feet (+34 feet) for Flight Trainer

- **August 1989** Variance to increase height limit from 35 feet to 95 feet (+60 feet) (65 feet) for a steel roller coaster ride

- **May 1991**- Variance to increase height limit from 35 feet to 100 feet (+65 feet) for inverted steel coaster

- **July 1992** Variance to increase height from 35 feet to 65 feet (+30 feet) for new water ride

- **August 1995**- Variance to increase height from 35 feet to 240 feet (+205 feet) for the Giant Drop

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[2] The Staff Report for July 24, 1985 states that "exceptional and extraordinary circumstances are that the 35 foot height limit established for the CT zone is inappropriate for a roller coaster. Were the property zoned Commercial Park, the height limit would be 150 feet and a variance request would not be required."

- October 1996—Variance to increase height from 35 feet to 200 feet (+165 feet) for Skycoaster
- April 1997 - Variance to increase height from 35 feet to 131 feet (+96 feet) for The Demon[3]
- May 1997—Variance to increase height from 35 feet to 200 feet (+165 feet) for Morgan Coaster[4]

We bring this historical perspective to your attention to underscore the reality that, since 1973, the City of Santa Clara has approved roughly 1,300 extra feet of structure above the 35 foot height limit set forth in the CT zoning. Consequently, this improper and abusive use of the variance process has resulted in very real cumulative, physical impacts to Great America's neighbors that cannot and should not be dismissed as "incremental activity" as the City has been doing for decades. Indeed, the 15 variances noted above (and there may be more) suggest that the 35 foot height limit, as it pertains to the Great America site, is not an occasional burden to Great America but rather is an unduly restrictive limitation that should be legislatively adjusted to comport with the park's programmatic realities. Indeed, even though the City seems to recognize that the site is improperly zoned, this reality does not justify the long-standing ad hoc approach, which has undermined the City's ability to effectively regulate land uses for Great America and has eroded the public's confidence in the City's neutrality in the planning process. Consequently, it is time for the City to rezone the Great America site so that the City can undertake informed decision-making, conduct appropriate environmental review, and provide proper notice to the public.

III. Judicial Standard of Review for Findings

California courts have long-established that an administrative grant of a variance must be **accompanied by administrative findings supported by substantial evidence** that shows whether the findings support the conclusion that the variance requirements have been satisfied. (*See, e.g. Topanga Assn for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 514; *Orinda Assn v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1160-1161.) The

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[3] This variance was withdrawn by Great America because the Architectural Review Committee granted Great America permission to utilize the existing variance in place for The Edge, which was approved in 1983.

[4] In April 1997, Sobrato Development and Bay Networks opposed the variance proposal for a roller coaster on the southwesterly periphery of the park because of aesthetic and noise issues and the Planning Commission rejected the variance. Accordingly, Great America moved the ride to a more internal location on the east side of The Demon.

intended effect of this findings requirement is to ensure orderly analysis and to minimize the likelihood than an agency will randomly leap to conclusions. (*Topanga*, at 516.) The Supreme Court in *Topanga* established this standard of judicial review so that courts could understand whether findings issued in connection with a variance approval **bridge the analytic gap between the evidence and the ultimate decision.** (*Id.* at 515.)

The applicant bears the burden of providing evidence to prove the existence of a sufficient hardship that supports an agency's granting of a variance. Importantly, the Supreme Court in *Topanga* declared that courts must meaningfully review grants of variances in order to protect the interests of property owners in the vicinity of the parcel for which a variance is sought. (*Id.* at 517.) The Supreme Court stated further that "[a] zoning scheme, after all, is similar in some respects to a contract; each party foregoes rights to use its land as it wishes in return for the assurance that the use of neighboring property will be similarly restricted, the rationale being that such mutual restriction can enhance total community welfare. If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be the **subversion of the critical reciprocity upon which zoning regulation rests.**" (*Id.* at 517-18 [citations omitted].)

We believe that this reciprocity has been destroyed by the City's longstanding reliance on ad hoc variance approvals. A review of past variances granted by the City suggests a constant disregard not only of applicable law but also of residential neighbors' concerns. Past variance actions suggest a rubberstamp approach to practically anything and everything that Great America proposes simply because the theme park was "there first," a fact not relevant to the variance determination. Thus, the City's variance process for the Great America site has become so flawed that no actual facts exist that would support findings to justify the granting of a variance. Consequently, the City must repair this broken system and bring informed decision-making and public participation back to the planning process.

IV. Suggested Remedies

As discussed above, the zoning of a site provides members of the community advance notice as to the land uses and structures that can be developed there. As such, this zoning shapes property owners' expectations of how they can use and enjoy their property relative to their neighbors, and this reciprocity affects property values. Variances necessarily provide for relief from strict zoning application in extraordinary circumstances, so when the variance process is abused, neighboring property owners are deprived of any certainty as to their land use expectations. Consequently, the City's long-standing reliance on variances for the Great America site amounts not only to ad hoc decision-making but also a "back-door" rezoning, which undermines neighbors' legitimate, investment-backed expectations in their real estate.

We suggest, therefore, that, rather than continuing to allow major deviations from the Commercial Thoroughfare zoning by way of the variance process, the City should reconcile the planning policies and zoning regulations for the Great America site with the established and future development patterns on the site. This long-overdue exercise would make the City's regulations more transparent and consistent, benefiting all members of the community.

We recommend that the City utilize the planning and zoning tools it already has available to it to remedy the situation, such as:

- Adopt a Specific Plan

No further discretionary entitlements should be granted to Great America until the City adopts a specific plan for the site. A specific plan establishes a city's land use policy framework for a particular geographical area. (Curtin & Talbert, California Land Use and Planning Law (2005), 37; Cal. Gov. Code § 65450.) Specific plans must be consistent with the general plan and must include a land use plan, a facilities/infrastructure plan, development standards/criteria, and an implementation program. (Curtin & Talbert, at 37; Cal. Gov. Code § 65451.) Specific plans are appropriate for, and are typically used for, areas with unique or challenging land use issues. (Fulton, Guide to California Planning (1991), 103-105.) Given Great America's pattern of adding new thrill rides every few years, the City should have policies and regulations in place that promote compatibility with surrounding office and residential uses. A specific plan would clarify the intended long-term development program for Great America and its surroundings and establish development standards for better land use compatibility.

- Rezone the Site

Before Great America files for any future entitlements, the Great America site should be rezoned. The existing Commercial Thoroughfare zoning is clearly inappropriate for the Great America site. The zone is intended for relatively small-scale commercial development along major streets, such as El Camino Real and Stevens Creek Road, that require individual automobile access, as opposed to shopping center development. In light of the variances granted for the past 30+ years, the Great America site does not comport with the land uses envisioned for the Commercial Thoroughfare zone.

Moreover, the zoning is inconsistent with the General Plan. The City's current General Plan designates the Great America site for Tourist Commercial use, which calls for hotel, recreation, and tourist-oriented uses and allows structures up to 150 feet in height. Ever since the General Plan was adopted in July 2002, however, the Great America site has remained zoned Commercial Thoroughfare, which does not allow amusement parks and has a height limit of 35

feet.[5] It is well established under California law that a municipality's zoning must be consistent with its General Plan. (Curtin & Talbert, at 44-46.) Consequently, the City should rezone the Great America site to bring it consistent with the Tourist Commercial designation. The City has available options for such a rezoning exercise:

- Commercial Park Zoning. The Commercial Park zone allows tourist-service commercial development, such as hotels, restaurants, and recreational facilities, in locations with highway access; structures up to 150 feet tall are permitted. (Santa Clara Zoning Ordinance §§ 18.42.030, 18.42.040, 18.42.070.) As noted above, in the findings adopted for a 1985 Great America height variance approval, the City stated, "Were the property zoned Commercial Park, the height limit would be 150 feet and a variance request would not be required." This statement suggests that the City may have previously contemplated rezoning the site to Commercial Park. Although the Commercial Park zone does not specifically allow amusement park uses, a simple text amendment could overcome this problem. (*Id.* §§ 18.42.030, 18.42.040.)

- Commercial Recreation Zoning. The Commercial Recreation zoning, which permits amusement park uses without any height limit, appears in the zoning ordinance but does not currently appear anywhere on the City's zoning map. (*Id.* §§ 18.44.030, 18.44.040.) This zoning designation is an obvious choice for the Great America site, although the City might want to establish a height limitation in order to ensure compatibility with surrounding office and residential uses.

- Planned Development Zoning. As an alternative to generic zoning, Great America could submit an application to rezone the site for Planned Development Master Community. (*Id.* §§ 18.56.) As noted in the Zoning Ordinance, the PD-MC designation is appropriate for large-scale development sites with a mix of uses that will be developed in phases. (*Id.* § 18.56.020.) As part of the application process, the property owner would have to prepare and submit a master community plan that would specify the permitted land uses and the development program.

[5] Elsewhere in Santa Clara, the Commercial Thoroughfare zone appears on small commercial parcels fronting on El Camino Real and Stevens Creek Boulevard; thus it is peculiar that the Great America site is categorized with such dissimilar commercial parcels.

- Require a Campus Master Plan

In addition to adopting a specific plan and rezoning the site, the City could adopt a policy requiring entities with large campuses, including Great America, to prepare and submit to the city a Campus Master Plan. The campus master plan requirement could be closely modeled after the City of San Francisco's Institutional Master Plan requirement, which was adopted in the 1970's to place residents on notice of the expansion plans of major institutional facilities. (San Francisco Planning Code § 304.5.) In the plan, Great America would be required to identify and describe any facility expansions or alterations being planned for the next 10 to 20 years, and since facility plans may evolve over time, regular updates would have to be submitted.

V. Conclusion

Based on the foregoing, we believe that the City has useful tools at its disposal to create a comprehensive, transparent land use framework for the Great America site. The time is ripe for this thorough review because of the dramatic changes to the environment since the site opened in the 1970s and especially in light of future development proposals on the horizon in the vicinity.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta /JR

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Members of the City Council

301032567.3

EXHIBIT C

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Michael D Tew, PE
Peter J Jensen
Jason R Ellis
Christopher J Menge
James G Dalton
Eric A Neu
Joshua M Brown
Greg Kamer
Christopher J Kaiser
Robert W Wallace
Jennifer Smith
Derek Ellis
Young S Brown
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Bryan Salter
Diane Kamen
Christopher Smith
Jennifer G Dalton
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7 March 2008

JoLynn Chow Miller
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San Francisco, CA 94111
E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise Study – Santa Clara, CA**
CSA Project No. 08-0052

Dear JoLynn:

We are writing to inform you that our measurements and analysis indicate that noise from the proposed roller coaster is expected to be highly audible inside of the Nortel buildings, which is likely to cause a significant impact to the tenants on the site. This letter summarizes our efforts.

On 3 March 2008, we conducted acoustical measurements at Prudential's two buildings to quantify existing interior noise levels, and the exterior to interior noise reduction provided by the building facades. Our measurements were conducted alongside Ballard George and Marc Papineau, Great America's consultants. In addition, we used available data[1] provided to us by Mr. Papineau to assess screaming noise associated with amusement park roller coaster operations, so that we could calculate the anticipated noise levels inside the buildings.

Our measurement results indicate that the noise reduction performance of the building façade is typical of ¼-inch glazing. Screaming noise would be reduced by approximately 35 dBA. Our calculated screaming noise level at the façade of 71 dBA would result in an interior screaming noise level of 36 dBA. The screaming noise intrusion would be most significant in the 1 kHz to 2.5 kHz range, the region of speech frequencies for which the ear is most sensitive.

The screaming noise is not continuous, but rather varying in time, making it a type of noise that is more difficult to ignore than continuous noise. This contributes to psychoacoustic annoyance – the subjective or perceived noise level greater than the measured level for the equivalent continuous sound. Humans associate specific sounds based on memory and

[1] Menge, Christopher W., Harris Miller Miller & Hanson Inc. "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise." Internoise 2002.

experience. However, screaming can cause a startle effect associated with physiological change. Humans are environmentally conditioned to pay particular attention to screams, as they are a signal that is often associated with pain or human calamity. Such a reaction causes distraction and annoyance, and interferes with work efficiency.

Since background noise levels in office areas were measured as low as 31 dBA, screaming noise would exceed background noise levels (i.e., L_{eq}) in office areas with line-of-sight to the proposed roller coaster by up to 5 dBA. This noise level of 5 dBA above the background would be very audible to occupants, which could result in workplace disruption and unnecessary stress, thereby sparking workplace complaints.

City noise planning policies are generally provided to assess and mitigate anticipated noise sources for various land uses. Commercial developments are commonly exposed to vehicular, aircraft, equipment, and ventilation noise, all of which can be considered typical interior noise sources in a professional office environment. Screaming however, would not be considered typical, has the potential to be upsetting and disrupting to tenants who are trying to conduct business, and could therefore be significantly more difficult to mitigate effectively. Consequently, based on our findings, we conclude that the proximity of the proposed roller coaster will cause a potentially significant and/or adverse impact to the employees at the Nortel site.

* * *

This concludes our current comments. Please do not hesitate to call us with any questions.

Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.

Timothy G. Brown
Principal Consultant

Charles M. Salter, P.E.
President

cc: Timothy Tosta
Luce, Forward, Hamilton & Scripps, LLP
E-mail: ttosta@luce.com

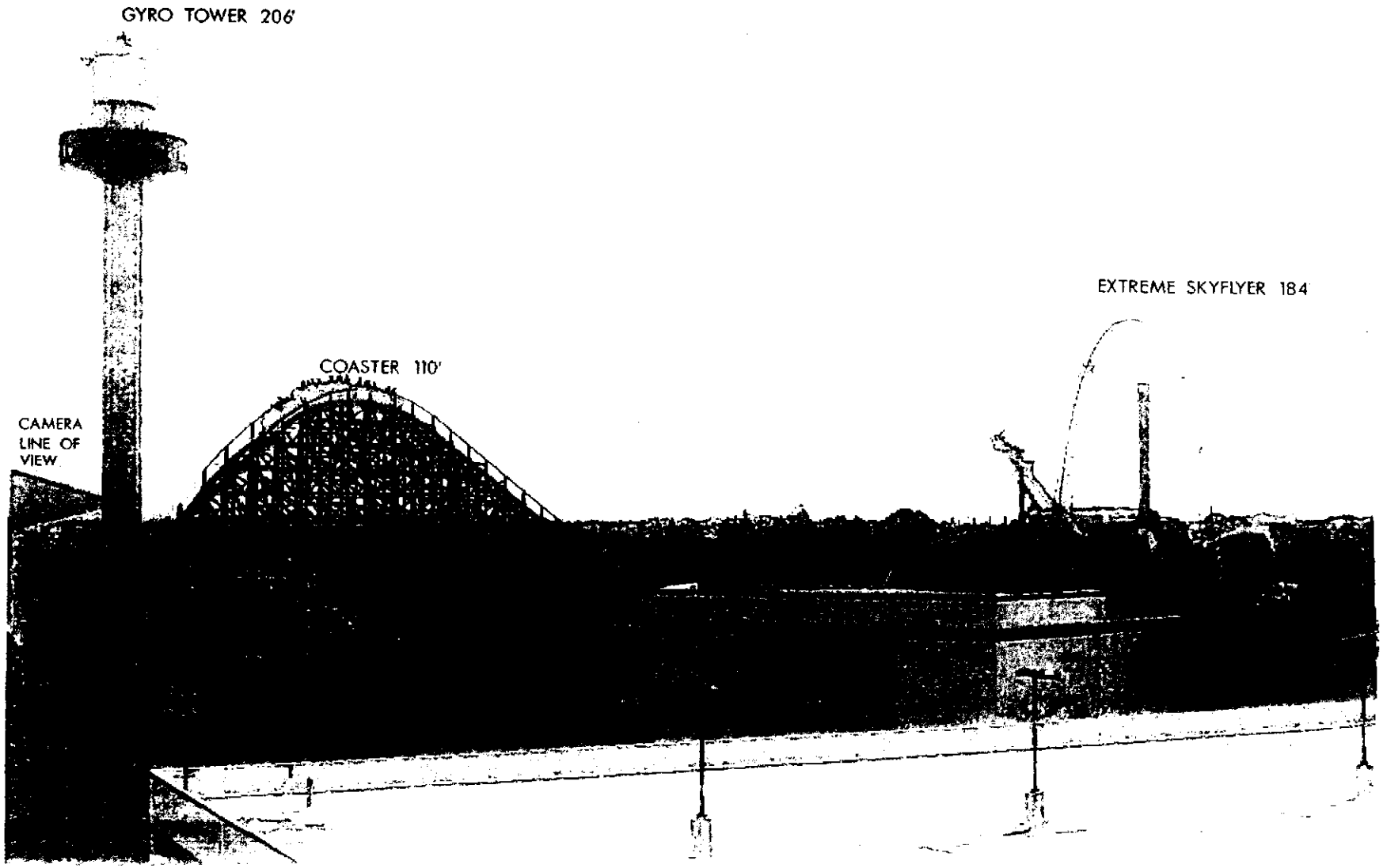
Jennifer Renk
Luce, Forward, Hamilton & Scripps, LLP
E-mail: jrenk@luce.com

EXHIBIT A

Measurement and Analysis Methodology:

1) Background noise level data were obtained from 30-second duration calibrated spatially averaged continuous equivalent sound pressure level (L_{eq}) measurements at selected office areas.
2) Noise level reduction data were obtained by calculating the difference between simultaneously measured exterior and interior one-third octave 10-second L_{eq} spectra during jet aircraft flyovers at the project site. Interior measurements were conducted so that hard surfaces were not within approximately 3-feet of the microphone. Exterior measurements were conducted approximately 25-feet above grade, and not within near proximity to building facades.
3) The resulting noise reduction spectra were averaged to determine a "typical" noise reduction spectrum. Ambient noise levels within 5 dB to 10 dB of the aircraft intrusion noise levels were subtracted in accordance with methodologies detailed in American Society of Testing and Materials (ASTM) acoustical standards. Jet intrusion noise not exceeding 5 dB of the ambient noise levels were discarded and offset from adjacent one-third octave bands by comparison of available acoustical laboratory test data for similar window assemblies.
4) The "much screaming" noise spectrum detailed in the Menge paper was evaluated at a setback distance of 450-feet, using an attenuation rate of 6 dB per doubling of distance. In addition, atmospheric noise reduction for this setback distance as provided in an e-mail from Marc Papineau was also applied. The noise reduction spectrum was subtracted from the screaming spectrum to determine the approximate interior noise spectrum. The resulting A-weighted sound pressure level (i.e., with screaming) was then calculated and compared to existing measured background interior A-weighted sound pressure levels.

EXHIBIT F

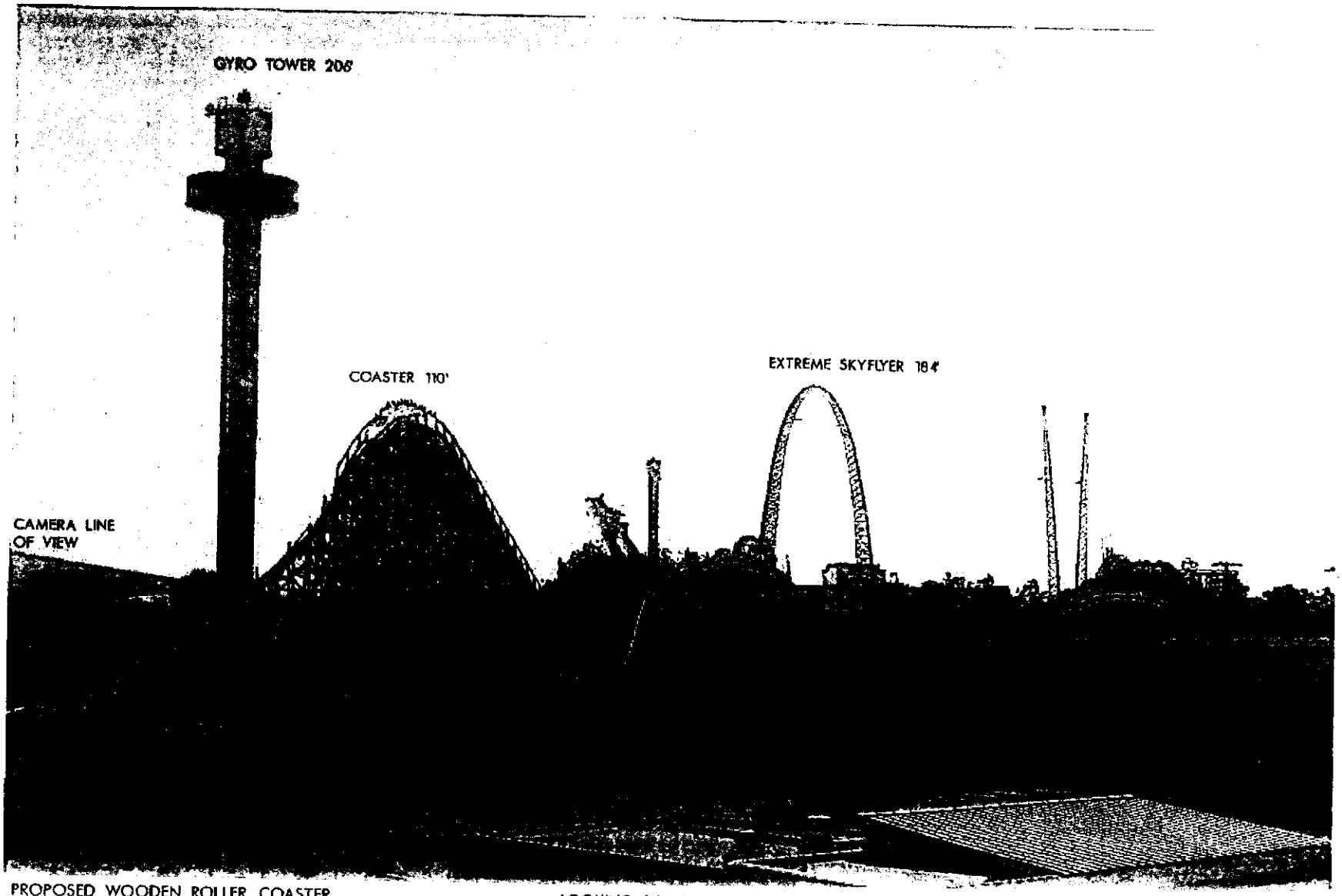


PROPOSED WOODEN ROLLER COASTER
FROM AMD OFFICE FLOOR SIX VIEW-02

LOOKING EAST 50mm LENS
502' FROM CAMERA TO GYRO TOWER
PROPOSED CONDITION 02/28/2008

DIGITAL IMAGING STUDIO AT DAHLIN GROUP

EXHIBIT G



PROPOSED WOODEN ROLLER COASTER
FROM NORTEL OFFICE BUILDING FOURTH FLOOR VIEW-03

LOOKING SOUTH-EAST 50mm LENS
580' FROM CAMERA TO GYRO TOWER
PROPOSED CONDITION 02/28/2008

DIGITAL IMAGING STUDIO AT DAHLIN GROUP

EXHIBIT H

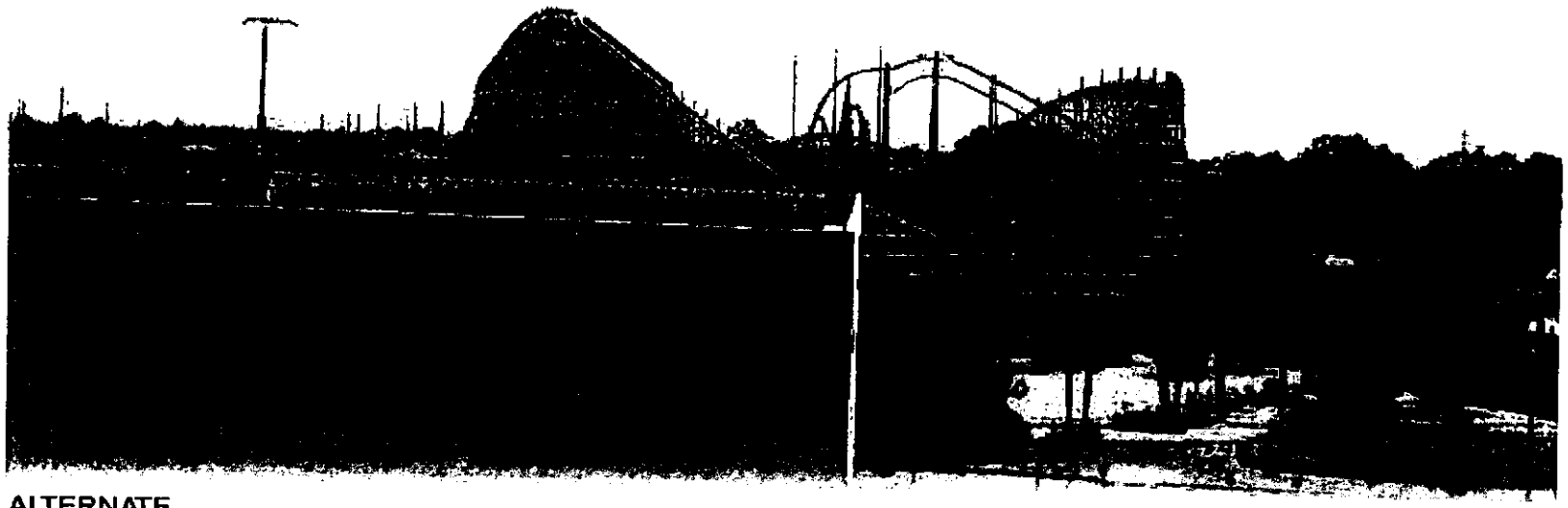
ALTERNATE

PROPOSED WOODEN ROLLER COASTER
FROM AMD OFFICE FLOOR SIX

DIGITAL IMAGING STUDIO 05/19/2008

LOOKING EAST VIEW-02

EXHIBIT I



ALTERNATE
PROPOSED WOODEN ROLLER COASTER
FROM NORTEL OFFICE BUILDING FOURTH FLOOR

DIGITAL IMAGING STUDIO 05/19/2008

LOOKING EAST VIEW-03

EXHIBIT J

Charles M Salter Associates Inc

7 March 2008

JoLynn Chow Miller
Prudential Investment Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111
E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise Study – Santa Clara, CA**
CSA Project No. 08-0052

Dear JoLynn:

We are writing to inform you that our measurements and analysis indicate that noise from the proposed roller coaster is expected to be highly audible inside of the Nortel buildings, which is likely to cause a significant impact to the tenants on the site. This letter summarizes our efforts.

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* * *

This concludes our current comments. Please do not hesitate to call us with any questions.

Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.

Timothy G. Brown
Principal Consultant

Charles M. Salter, P.E.
President

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Jennifer Renk
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EXHIBIT A

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EXHIBIT K

Charles M Salter Associates Inc

22 May 2008

JoLynn Chow Miller
Prudential Investment Management, Inc.
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E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise Study – Santa Clara, CA**
CSA Project No. 08-0052

Dear JoLynn:

We have reviewed Marc Papineau's 14 April 2008 letter discussing noise impacts associated with the relocation of the proposed roller coaster. The relocation would place the noise approximately 570-feet from the nearest façade at 4655 Great America Parkway. Subsequently, we understand that Great America is now considering constructing the roller coaster at the originally planned location, which would be approximately 450-feet from the nearest façade at 4555 Great America Parkway.

Based on our measurements and data provided by Mr. Papineau, we are concerned that constructing the roller coaster at the 450-foot setback location would result in a **significant impact** on occupants of the Prudential buildings. Therefore, it would be prudent to recommend that the roller coaster be located at the proposed 570-foot setback location, and that the 70 dBA maximum noise level as stated in the "Good Neighbor Agreement" be incorporated into the project.

Discussion

Based on our acoustical measurements and analysis of the roller coaster noise data provided by Mr. Papineau (Menge 2002[1]), we find that the 570-feet setback location would not cause a significant impact assuming the proposed roller coaster did not exceed the noise levels published in the Menge study. However, at the 450-feet setback location, noise levels would result in a significant impact for some occupants in the Prudential buildings. As you know, we have been assisting with the preparation of the "Good Neighbor Agreement" form that would limit the roller coaster exterior noise level to 70 dBA. Our calculations indicate that this condition would not be met with the Menge report data at the 450-feet setback.

[1] Menge, Christopher W., Harris Miller Miller & Hanson Inc. "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise." Internoise 2002.

Mr. Papineau's report includes a discussion of roller coaster noise associated with the Kentucky Rumbler and Ozark Wildcat rides as measured by GMH Engineering. The report does not address the data contained in the Menge report, even though it was Mr. Papineau who originally presented the Menge data. The data contained in the Menge study was based on comprehensive testing of roller coaster noise and published for an international noise control conference. Furthermore, the GMH data indicates screaming noise levels to be approximately 6 dBA less than the level generated by the roller coaster itself, while the Menge study indicates screaming noise **exceeds** roller coaster noise by approximately 8 dBA. While we understand weather condition, measurement location, and other extraneous environmental factors can affect acoustical measurements, a discrepancy of 14 dBA with respect to screaming versus roller coaster noise must not be disregarded.

* * *

This concludes our current comments. Please do not hesitate to call us with any questions.

Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.

Timothy G. Brown
Principal Consultant

Charles M. Salter, P.E.
President

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EXHIBIT L

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MEMORANDUM

36043-00002

TO: Santa Clara Planning Commission

FROM: Tim Tosta, Jen Renk, Joseph Ferrucci

RE: Noise Attenuation

DATE: May 22, 2008

SUMMARY

City staff has raised the question of whether the installed noise-attenuating windows on the façade of the Nortel buildings fulfill the conditions of approval for the Nortel project. This memorandum concludes that the windows substantially comply with the 60 dBA noise standard set forth in the Draft EIR. The conditions of approval were meant to mitigate against significant interior noise impacts from airplane traffic and Great America rides existing at the time of the approval, and the windows installed on the Nortel buildings satisfy that purpose. The Nortel buildings were not, and could not be, required to mitigate against noise generated by future projects. Projects built subsequent to the Nortel buildings must undergo their own environmental review process to assess and mitigate against any potential for significant noise impacts.

ANALYSIS

1. The windows on the Nortel buildings substantially comply with the "acceptable" 60 dBA noise standard established in the Draft EIR.

The Draft EIR on the Nortel buildings concluded that existing environmental noise levels would result in a significant impact on the interior noise levels of the buildings. *Draft EIR*, at 66. The Draft EIR sets forth an average maximum daytime noise level[1] of 60 dBA as an "acceptable" noise standard.[2] *Id.* at 67. According to the Draft EIR, two types of windows would comply

[1] The average maximum daytime noise level represents the average of single-event noises throughout a given day during daylight hours.

[2] Oddly enough, the Draft EIR also references a second noise standard of 50 dBA, which is characterized as "optimum," and states that the windows could comply with either standard. Draft EIR, at 67. This reference to an "optimum" standard makes the noise analysis in the Draft EIR somewhat unclear. According to the Draft EIR, if the "acceptable" windows are employed, "sensitive noise spaces" such as executive offices and conference rooms "may need to be limited" to areas of the building facing away from noise generators, but this is a mere suggestion. *Id.* By characterizing the 60 dBA standard as "acceptable," the 60 dBA standard must be the minimum requirement for the windows. On June 27, 2000, the City Council adopted Resolution No. 6718, which certified the EIR for the project.

with the 60 dBA standard: the 1/4" single-pane laminated window, or 3/16" dual-pane window. *Id.* at 67. The Nortel buildings have 1/4" single-pane unlaminated windows. According to Prudential's noise consultants, Charles M. Salter Associates, these windows have nearly identical noise-attenuating characteristics as the 3/16" dual-pane windows listed as an "acceptable" option in the Draft EIR, the acceptability of which is confirmed by the absence of any noise complaints by Nortel employees or visitors to the facility. Thus, the windows comply with the "acceptable" mitigation noise standard.

2. The project was required to mitigate against noise impacts from the existing noise environment as of June 1998, not noise impacts from future projects.

"In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area *as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.*" CEQA Guidelines § 15126.2(a) (2008) (emphasis added). The noise analysis in the Draft EIR was based on the existing noise environment as of June 1998, taking into consideration the then-existing noise from the Great America rides as well as flyover jet noise.

Although an EIR must consider the cumulative impacts of the project along with other nearby "foreseeable" future projects, the Draft EIR on the Nortel buildings identified no foreseeable future projects at the Great America Theme Park. *Remy, Thomas, et. al., Guide to CEQA*, 471-472 (2007); *Draft EIR*, at 79-80. Thus, the noise mitigation measures set forth in the Draft EIR accurately reflected the then-existing and foreseeable noise environment. Rather than require the Nortel project to mitigate against unforeseeable future projects on the Great America site, the City must require the currently proposed roller coaster project to undergo its own independent environmental review. That review must identify the project's significant environmental impacts and set forth any necessary mitigation measures.

CONCLUSION

The glass installed on the Nortel buildings meets the "acceptable" 60 dBA standard established in the Draft EIR. The Nortel project was not legally required to be built to a standard that would mitigate all potential future interior noise impacts. Rather, the project only had to mitigate against the significant noise impacts that existed at the time of the drafting of the EIR. New projects like the proposed roller coaster must undergo their own environmental review and implement their own mitigation measures for any identified significant impacts.

While the Resolution directly references only the 50 dBA standard, it also references the analysis in the EIR and requires the installation of either "optimum" windows (associated with a 50 dBA standard) or "acceptable" windows (associated with a 60 dBA standard). Thus, the Resolution does not clarify the ambiguity in the Draft EIR and leads to same conclusion that the 60 dBA standard must be the minimum requirement.

EXHIBIT M

Great America Roller Coaster -- Comparison of Draft Findings		
ORIGINAL RIDE -- FEBRUARY 13, 2008	**REVISED RIDE--APRIL 23, 2008**	**ANALYSIS**
a) That there are unusual conditions applying to the land or building which do not generally apply in the same district: • The extraordinary condition is the unique nature of the theme park use and its relationship to other uses in the City. • The theme park operates on a seasonal basis from March through November, but only on weekends at the beginning and end of the season. • The 35-foot height limit of the CT zoning district does not apply well to the unique context of rides, structures and attractions within the theme park setting.	(i) there are unusual conditions applying to the land or building which do not generally apply in the same district because the land has a theme park use, which is not a common or typical use in the district that has primarily office parks, industrial sites or residential uses. And such a use, which is unique in the City, requires structures which vary from the specific zoning requirements in order to allow the Park to function and flourish; (ii) the 35-foot height limit of the CT zoning district is not appropriate when applied to the unique collection of rides, attractions and structures that comprise the Park, and which are needed to enable the Park to flourish and to support tourist and recreational oriented uses; (iii) the Park operates on a seasonal basis, and only on weekends in non-peak seasons, creating an additional unique feature about the use of the land which distinguishes it from other land and buildings in the same district;	• **Supports denial of the variance and need for rezoning** • **Supports denial of the variance and need for rezoning** • **Supports denial of the variance and need for rezoning**
b) that the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner:	(iv) the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the Applicant	• **No substantial evidence**

Great America Roller Coaster -- Comparison of Draft Findings		
ORIGINAL RIDE -- FEBRUARY 13, 2008	**REVISED RIDE--APRIL 23, 2008**	**ANALYSIS**
• The granting of the variance is necessary for the substantial property rights of the petitioner, in that, by developing new attractions such as this, the theme park is able to attract new and return patrons to visit the park. • Each year, one or more significant new rides, and many minor rides and activities, are added to keep the park vital.	because the Applicant has made a substantial investment in the Park, and has significant ongoing costs and installation of new rides and attractions is necessary to the economic vitality of the Park; (v) granting of the variance is necessary to preserve the substantial property rights of the applicant because strict compliance with the 35 foot height limit would prevent the creation and installation of virtually any new or significant rides at the Park, and it is necessary to periodically add new attractions such as the requested roller coaster in order to keep the Park economically viable by attracting new and returning patrons; (vi) addition of new rides and attractions, such as the requested roller coaster, is essential to preserve the owner's existing substantial investment in the Park as well as to allow growth in revenues to keep the Park economically feasible;	• **No substantial evidence** • **No substantial evidence**
c) that the granting of such variance shall not, under the circumstances of this particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the	(vii) granting a variance shall not, under the circumstances of this particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the	• **Evidence in record shows that Original Ride will be detrimental to Nortel's occupants**

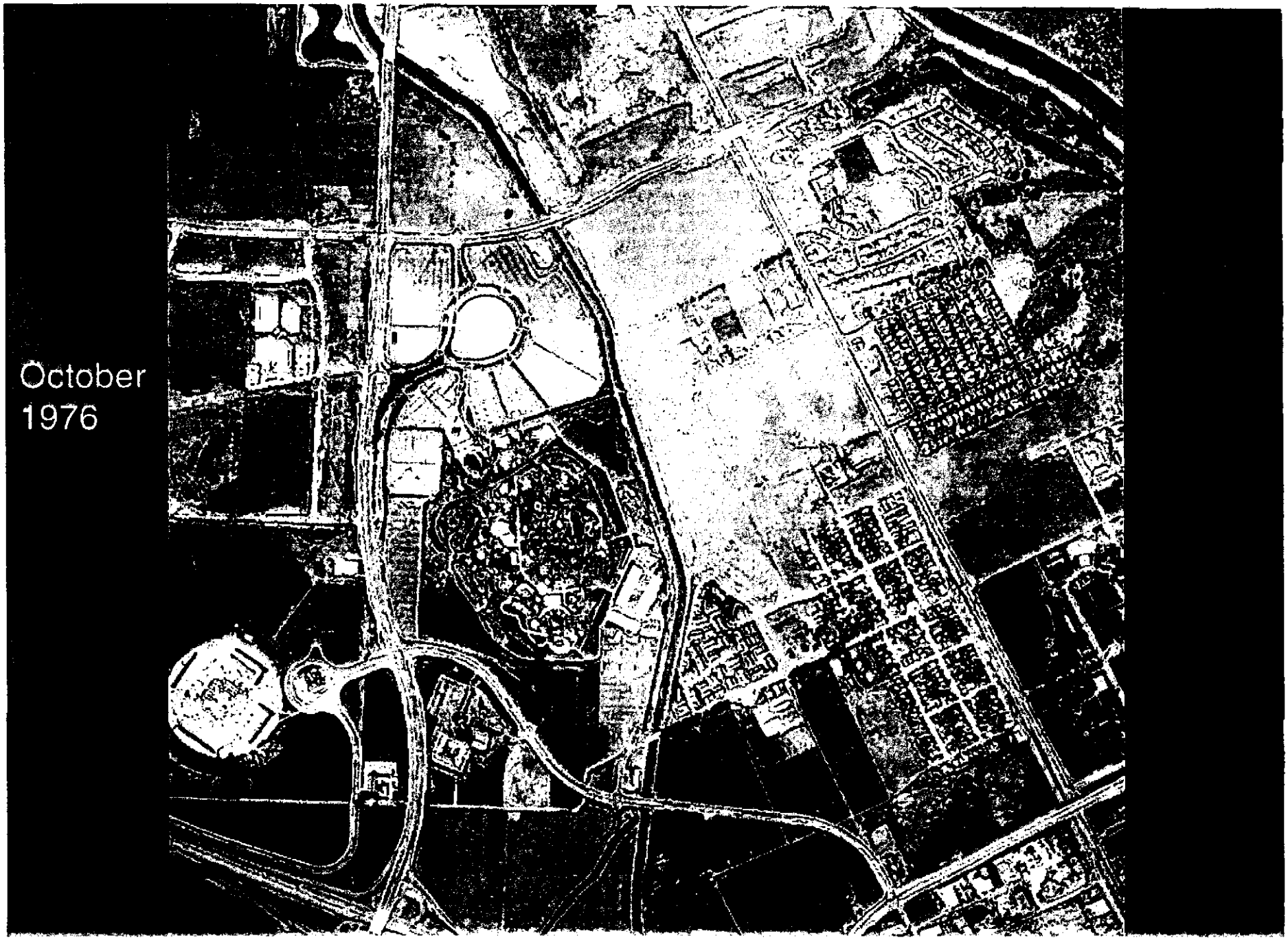
Great America Roller Coaster -- Comparison of Draft Findings		
ORIGINAL RIDE -- FEBRUARY 13, 2008	**REVISED RIDE--APRIL 23, 2008**	**ANALYSIS**
neighborhood of the applicant's property and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood: • The theme park, by its nature, involves noise and activity and highly visible structures. • Newer commercial properties developed after the theme park came into being have been constructed to attenuate noise from the theme park and nearby airport aircraft flyover. • The granting of this variance will not impair the integrity of property or improvements in the neighborhood, in that the new ride represents a complementary and incremental addition to the character of the park.	Applicant's property and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood because the Park, by its nature, includes rides which involve noise, activity and highly visible structures. Such potential impacts on the neighborhood were analyzed when the Park was opened, and in later environmental review, and were found not to be detrimental to the health, comfort and general welfare of the neighborhood surrounding the Site. The proposed roller coaster is consistent with the types of uses and potential impacts previously analyzed, including potential height and visual impacts; (viii) the addition of the proposed roller coaster will add a complementary and incremental use to the existing theme park, of a type and kind that would typically be expected to be constructed at a theme park of this type. In terms of height, the coaster is lower than many park features and not excessive relative to the overall Park; (ix) the proposed new roller coaster has been re-located from the originally desired location and re-oriented physically (including directing the sound of riders away from an adjacent office use) in order to reduce both the potential	**and visitors** • **Legally irrelevant** • **Revised Ride is environmentally superior to Original Ride**

Great America Roller Coaster -- Comparison of Draft Findings		
ORIGINAL RIDE -- FEBRUARY 13, 2008	**REVISED RIDE--APRIL 23, 2008**	**ANALYSIS**
	noise and the visual impacts of the coaster on neighboring land uses, in response to concerns raised by the owners of an adjacent office building; (x) the Applicant has conducted substantial noise studies utilizing outside consultants to confirm that the new coaster will not create noise impacts any greater than allowed by City standards or any greater than other applicable standards and guidelines for the measurement of noise at both exterior and interior commercial and residential receptors; (xi) the projected noise from the coaster is no greater than noise impacts from the Park that were predicted and analyzed in the environmental review process for the adjacent office building uses at 4655 and 4555 Great America Parkway; (xii) commercial properties developed after the theme park opened were required to incorporation [sic] mitigation measures to attenuate noise from the Park;	• **Revised Ride is environmentally superior to Original Ride** • **Revised Ride is environmentally superior to Original Ride** • **Revised Ride is environmentally superior to Original Ride**
d) that the granting of the variance is in keeping with the purpose and intent of this	(xiii) granting of the variance is in keeping with the purpose and intent of this ordinance because, applied strictly, the 35-foot height	• **Supports denial of the variance and need for**

Great America Roller Coaster -- Comparison of Draft Findings		
ORIGINAL RIDE -- FEBRUARY 13, 2008	**REVISED RIDE--APRIL 23, 2008**	**ANALYSIS**
ordinance: • Applied strictly, this 35-foot height limit would be detrimental to the success of the theme park and surrounding area in attracting visitors in a manner contemplated by the Tourist Commercial General Plan Designation.	limit would be detrimental to the success of the theme park and the related tourist and recreational uses, which would be inconsistent with the Tourist Commercial General Plan designation for the theme park. Granting the variance would facilitate consistency with the General Plan, which is one of the objectives of the zoning ordinance.	**rezoning**

EXHIBIT N

August
1971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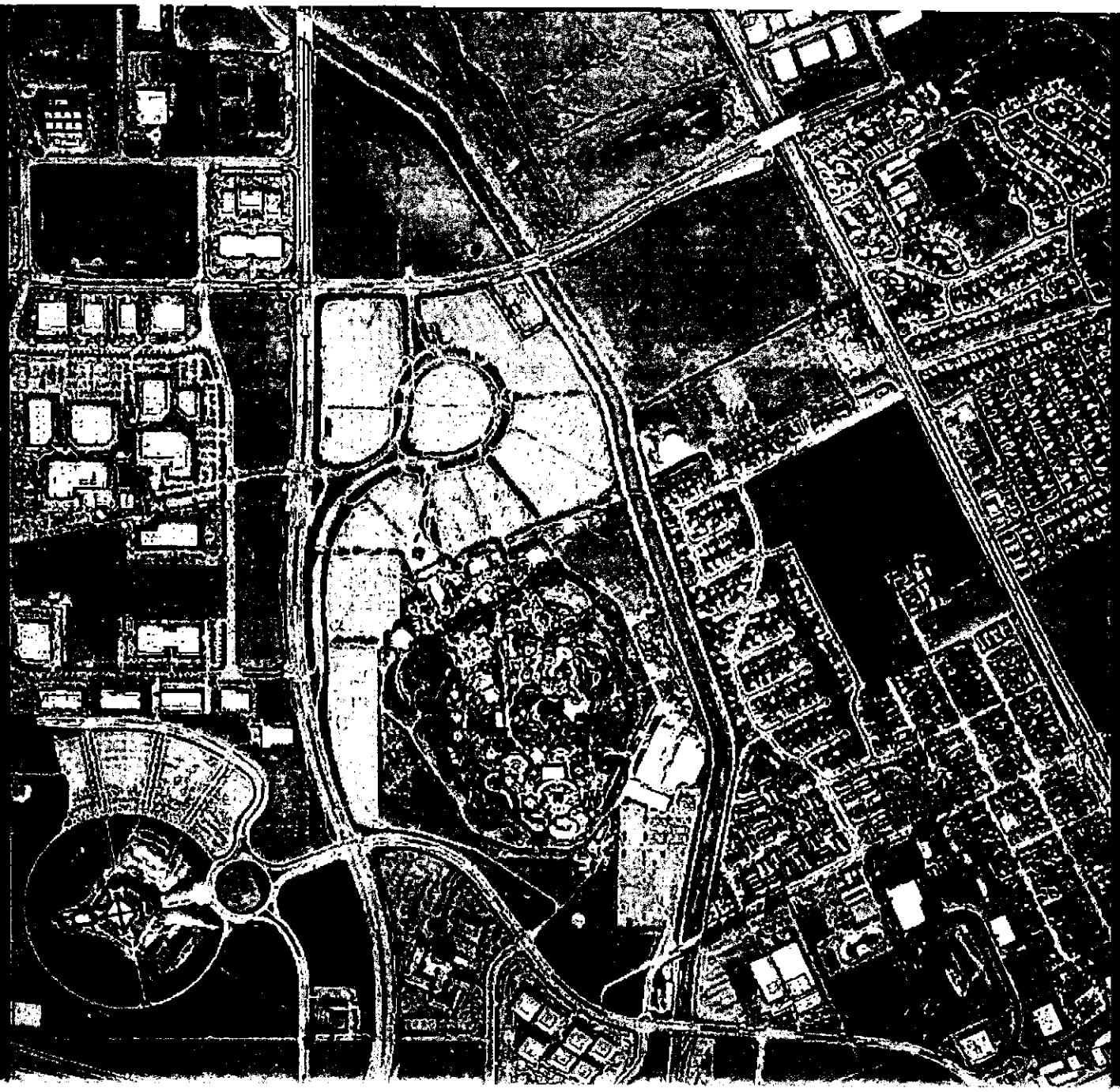

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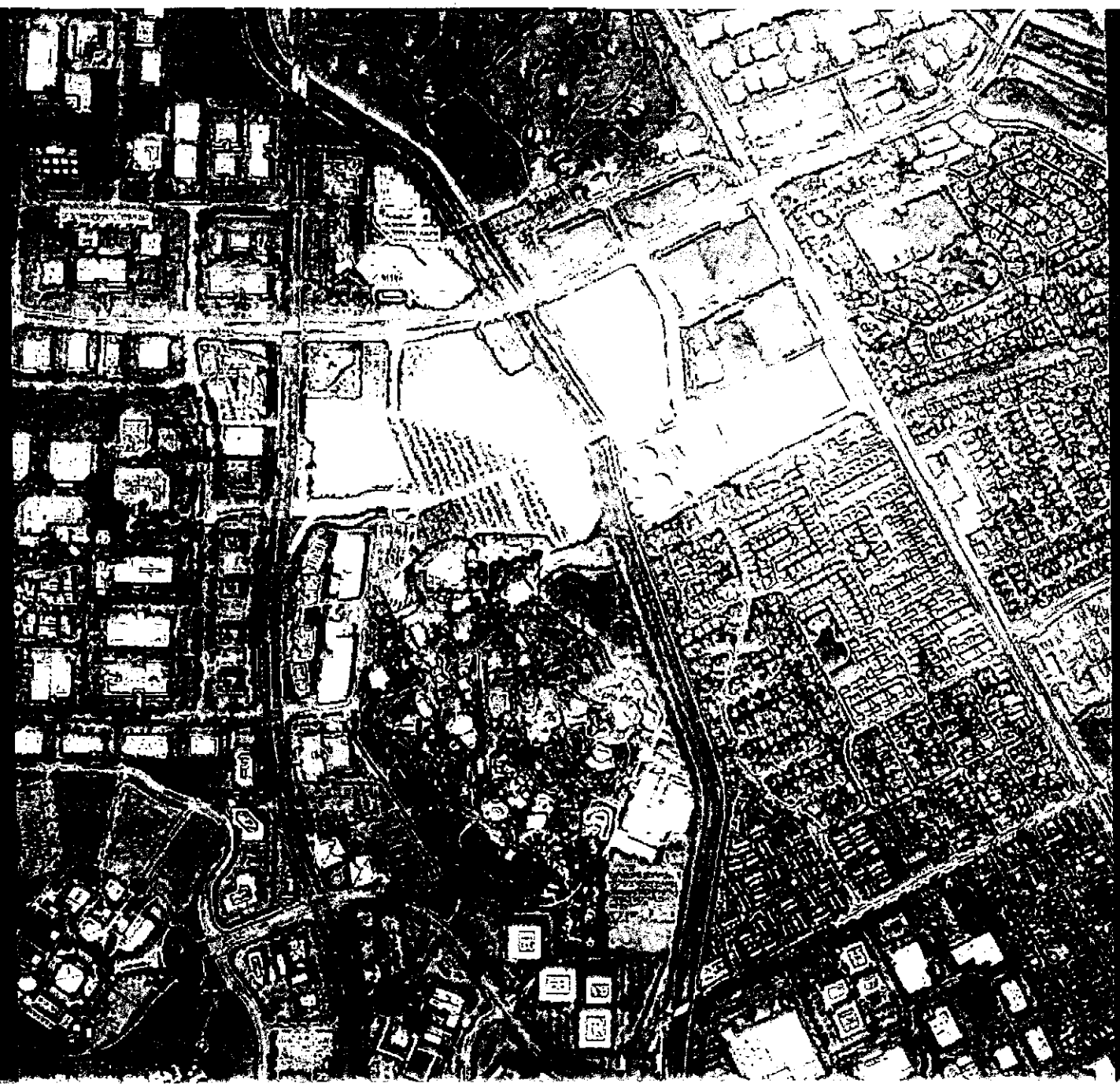

March
2005

WENDEL
ROSEN
BLACK
& DEAN
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RECEIVED
MAY 2 2 2008
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May 22, 2008

VIA HAND DELIVERY

Mr. Ian Champeny
Chair of the Planning Commission
Planning Department
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: Great America Variance Application; File No. PLN2008-06835

Dear Mr. Champeny and Members of the Planning Commission:

We represent Cedar Fair, L.P., d.b.a. California's Great America ("Great America") with respect to the above-referenced application. This letter is submitted in support of Great America's application to construct a sixth roller coaster at the park, and is intended also to rebut the contents of the letters and various other supplementary materials provided by Prudential Real Estate Investors ("Prudential") and its counsel Timothy Tosta to the City of Santa Clara over the past few months.

I. Introduction

As you are likely aware, the Great America theme park has operated at its present location, 1 Great America Parkway, continuously since 1976. During the past 32 years, there has not been any change in use with respect to the park. The park periodically changes and refreshes its rides and attractions and/or adds new rides and attractions, in an effort to maintain its competitive position within its industry. The periodic addition, subtraction and alteration of rides and attractions is typical within the industry. The subject application is reflective of that effort; Great America seeks to add a new attraction within its existing park boundary.

II. Analysis of Application and Response to Prudential Comments

In its March 12, 2008 Staff Report, the City's Staff, following a thorough review and analysis of the application, recommended that the application be found by the Planning Commission to be categorically exempt from review under the California Environmental Quality Act ("CEQA") pursuant to Section 15323 of the CEQA Guidelines. That Section exempts the "(n)ormal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility's use for the same kind of

purpose....Facilities within this exemption include, but are not limited to...amusement parks." Moreover, Staff recommended that the Planning Commission approve the application, subject to conditions described in the aforementioned Staff Report. Notwithstanding Prudential's protests to the contrary, Staff's determinations in the March 12, 2008 Staff Report are entirely appropriate in the context of the subject application.

A. CEQA Categorical Exemption

As noted, in the Staff Report, City Staff recommended Great America's application be found to be categorically exempt from CEQA pursuant to Section 15323 of the CEQA Guidelines.

Prudential has argued that Section 15300.2(c) of the Guidelines prevents the City from applying the aforementioned categorical exemption to Great America's application, on the basis that the placement of a tall roller coaster near an office building constitutes an "unusual circumstance" creating a reasonable possibility that the activity will have a significant effect on the environment (within the meaning of Section 15300.2(c)). For this section to apply, the City must find **both** that there is an "unusual circumstance" **and** that this circumstance creates the likelihood of significant environmental impacts.

The roller coaster that Great America seeks to construct will be contained wholly within the existing borders of the amusement park, and will be otherwise consistent with the existing use of the park. Prudential's contention ignores that there are already a number of roller coasters (five) and other attractions on the park's property, including several that are taller then the proposed coaster. How can it be "unusual" to place a roller coaster on the park's property when there are already a number of other coasters (including a number of coasters of similar size to the proposed new coaster) on the site? Whether a circumstance is "unusual" is judged relative to the typical circumstances related to an otherwise typically exempt project. (*Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 801; *Fairbanks v. City of Mill Valley* (1999) 75 Cal.App. 4th 1243, 1259-60 (opponent must show that the project is distinguishable from similar existing features within the exempt category to remove from exemption)). Here, the categorical exemption specifically covers amusement parks, and includes facilities normally seen or found in such a venue. A roller coaster, particularly a sixth coaster at an existing amusement park, is hardly "unusual," and is the very type of activity contemplated by the exemption. Prudential attempts to turn the standard on its head and argue what is unusual is for an office building to be near an amusement park.

Prudential has urged the City to conduct additional unnecessary environmental review of the noise and visual impacts of the roller coaster. CEQA does not require such additional review. In fact, the applicability of a categorical exemption to Great America's application obviates the need for any such additional review (see Guidelines Section 15300). As indicated in the Staff Report, Great America went to the extra length of conducting a noise study to ensure

that there would be no significant noise effects experienced by Prudential and other neighbors. That analysis was a precaution, not review that was required by CEQA.[1]

Prudential's contention that the City's reliance runs afoul of CEQA completely ignores how it is that there came to be categorical exemptions to CEQA. The exemptions describe projects that, by their very nature, do not have significant impacts upon the environment (see Guidelines Section 15300). The extensive analytical work that Great America has done, while not required by CEQA, nevertheless reinforces both the applicability of Section 15323 to its application and the underlying reason for the existence of categorical exemptions in the first place. The additional analysis sought by Prudential simply is not required by CEQA, nor would it be fruitful if it were conducted. The applicability of a categorical exemption ends the need for further environmental analysis.

Prudential engaged the services of a consultant who performed some additional work with respect to noise analysis over and above Great America's study. As more fully explained below, and contrary to Prudential's contentions, their noise consultant has failed to demonstrate that there is any reasonable possibility of a significant environment effect upon Prudential's tenants with respect to noise. If anything, the work of Prudential's consultant has demonstrated that Staff was correct in its application of the categorical exemption.

Prudential has provided the City with renderings that are intended to demonstrate that the construction of the coaster will create a significant visual impact. As more fully explained below, the renderings tend to show only that there was no environmentally significant viewshed to consider in the first place, or alternatively, that any effects upon Prudential's views are insignificant.

Lastly, Prudential has glossed over dismissively the idea that Great America's amusement park has operated continuously on the same site since 1976. That stretch includes well over two decades of operation prior to the construction of Prudential's office buildings. Prudential's predecessor elected to build its office buildings literally at the doorstep of the existing park, and now Prudential claims it is "unusual" to have such an attraction close to office buildings! The addition of a new roller coaster to Great America's park will not materially alter the existing operation of the park. To the extent that Prudential believes there are any significant environmental impacts associated with the ongoing operation of the park, those impacts were considered by Prudential's predecessors in interest at the time the office buildings were constructed. They were found to be practically and economically insignificant (at least by the developer of the office buildings) such that the developer elected to construct the office buildings as they are currently constituted, with less than optimum sound insulation. To the extent that Prudential believes the buildings to be insufficient in terms of their protections against interior

[1] We have attached, for your consideration, a compilation of the noise analysis conducted on behalf of Great America. This subject has been studied exhaustively, and will be summarized in Section B, below. We do not anticipate that you will want or need to review these exhaustive materials, although we welcome you to do so. Rather, we include them so that the Commission can appreciate the lengths to which Great America has gone to assess this situation and determine there is no possible noise impact.

noise, those conditions exist currently and are most properly corrected by Prudential making alterations to its own buildings.

B. Noise Impacts

As indicated above, it was not incumbent upon Great America to conduct any sort of noise analysis with respect to its application because of the applicability of a CEQA categorical exemption to its application. Nevertheless, Great America took the added extra step of conducting a thorough, complete noise analysis as a precaution to ensure that there would be no significant noise impacts upon its neighbors. Great America's studies found, correctly, that there would be no such significant noise impacts.

The letters from Prudential's noise consultants, Charles Salter and Timothy Brown, dated February 12, February 13 and March 7, 2008, do nothing to refute any of the findings made by Great America's studies. Contrary to Prudential's assertion, if the new roller coaster will not cause a significant increase in noise at the common property line shared by Great America and Prudential (as it will not), it stands to reason that the coaster will not significantly increase noise inside of a building that is even further away from the coaster than the property line. The March 7 letter notes that noise levels inside of the building were measured "as low as" 31 dBA. The park was closed when the measurements were taken by Salter and Brown, and they do not inform us as to the "baseline" for noise while the park is operating, and what increase, if any, over that baseline will occur once the new coaster is operating.

The essential argument made by Prudential's consultants is that interior noise levels from the new coaster could reach 36 dBA. Prudential then suggests that in entirely empty offices (i.e., vacant and unoccupied with no background or ambient office noises), the interior sound level could be as low as 31 dBA, and that this possible differential of 5 dBA would disturb persons in such offices and cause "unnecessary stress." Several points must be made in response:

1. Prudential's predecessors (Nortel) built the office buildings almost 25 years after Great America opened. The buildings were constructed very close to the property line of the park with several roller coasters and other park features in place.

2. The level of exterior noise projected from the new coaster is no greater than the level of noise (60 – 74 dBA) that the EIR for the Nortel buildings projected would be heard from the adjacent amusement park roller coasters.[2] In other words, the new coaster will produce **the same noise** as predicted by the Nortel EIR for Great America attractions when those buildings were constructed. Thus, there is no issue whatsoever about noise at the exterior of the buildings.

3. The anticipated noise from aircraft in the office buildings was projected at 82 – 95 dBA.

[2] Relevant portions of the noise analysis conducted as part of the 2000 EIR for the Nortel (Prudential) site are attached hereto for your consideration.

4. The Nortel EIR projected that maximum interior noise levels in the office buildings from all sources would be 52.5 – 69.9 dBA, with an average of 60.9 dBA. 50 dBA as an interior noise level was considered "optimum," and 60 dBA interior noise level was considered "acceptable."

5. The EIR for the Nortel buildings recommended mitigation in terms of window treatment to account for the already existing and anticipated continuing sound from the adjacent amusement park and other sources, such as aircraft. There were four levels of mitigation recommended, two of which were "optimum," to reduce anticipated interior noise levels to the maximum, and two lesser, or "acceptable" mitigations, which would provide a lower degree of sound protection. The owners of the Nortel building voluntarily choose the 3rd of the 4 options, which was projected to provide 10 dBA **less** sound insulation than either of the "optimum" levels.

6. The Nortel EIR indicated that commonly accepted noise standards consider 50 dBA as optimum for interior office uses and 50 dBA is the average for offices under the City's Environmental Quality Element. Further, uses may be considered incompatible under that Element only if an interior noise level of 45Ldn cannot be achieved. Here, Prudential is complaining about a possible interior maximum dBA of only 36, which is far below the applicable standards.

7. Great America's consultants have concluded that the March 7 Salter and Brown analysis is flawed in many respects, and project an interior dBA from coaster screaming at only 28 to 29 dBA, which is clearly not a problem. (See March 19, 2008 Papineau and George Rebuttal to March 7, 2008 letter, contained in Attachment 1).

8. The proposed roller coaster meets **all** applicable City noise standards under the City's Noise Element and any other applicable criteria, including acceptable noise levels at the property line.

As noted above, the testing done inside the empty Prudential offices suggested a possible interior noise level of 36 dBA, which is well below accepted standards, and well below the levels of noise from Great America projected for the Nortel buildings by the EIR. Further, it should be emphasized that the City standards measure noise at the property line (a standard met here by Great America), which avoids the very subjective type of complaint lodged by Prudential. The exterior property line standard is objective and measurable, and avoids speculation. The projected potential issue or problem associated with possible interior noise from the new coaster is so speculative, and so far below accepted and normal standards for interior office buildings, that Prudential's "concerns" must not be given undue credence. Further, it should be noted that Great America's acoustical consultants have prepared exhaustive analyses, including both letter reports and email responses to issues raised by Prudential's acoustical consultants. (See the enclosure referenced above in footnote 1).

It bears repeating that Prudential's predecessors elected to build their office buildings immediately adjacent to the existing amusement park with projected levels of noise up to 74

dBA, and then elected to install very thin windows which offer less sound insulation than recommended as optimum by the EIR for that very project. This was predicted to provide only "average" protection from amusement park sound. Yet Prudential complains about a possible interior dBA of 36, when 50 dBA is the accepted standard for interior offices, and Prudential's predecessors elected only to shield noise down to 50 dBA. Further, Great America's consultants project an interior dBA of less than 30, which is below the typical background noise for an office, and they provide a through explanation of their analysis.

C. Visual Impacts

California law generally does not afford landowners any sort of automatic right to an easement for air, light or view. See, e.g., California Real Property Remedies and Damages, Continuing Education of the Bar, Section 11.11.

Prudential has not demonstrated that it currently has any sort of viewshed that is susceptible to protection. The renderings submitted by Prudential show only that is has unremarkable views of the surrounding urban landscape and, as Prudential puts it, the "open sky." Prudential is not automatically entitled to any view of the open sky, and the renderings Prudential provided to the City do not show that its view of the open sky will be materially diminished.

Furthermore, even if we assume that Prudential had some view worth protecting, the limited scope of the impact created by the construction of the roller coaster in this instance would render any such impact insignificant. The obstruction of a few private views is not a significant environmental impact. (See, e.g., *Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego,* (2006) 139 Cal.App.4th 249). "Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons." (*Mira Mar Mobile Community v. City of Oceanside,* (2004) 119 Cal. App. 4th 477, 492-93).

Moreover, all discussion of significance aside, as is the case with noise, the applicability of a categorical exemption ends the discussion of views as far as CEQA is concerned. With respect to the City's consideration of the variance application generally, contrary to Prudential's assertions, the proposed new roller coaster is consistent with the other coasters and attractions currently located within the park. Prudential has cited no authority that entitles it to impose upon the City the obligation to conduct additional analysis of any perceived visual impact created by Great America's application, whether with respect to CEQA or otherwise.

D. Variance

As an initial matter, Prudential's February 13, 2008 and March 6, 2008 letters to the Planning Commission make repeated references to Government Code Section 65906, and Prudential asserts that Section 65906 imposes requirements upon, or otherwise restricts the City's ability to, approve variances. On the contrary, **Section 65906 is not applicable to charter cities**, and Santa Clara is a charter city (see Government Code Section 65803; see also

Topanga Ass'n for a Scenic Community v. County of Los Angeles, 11 Cal.3d 506, 511). **Thus, the arguments made by Prudential in its letters with respect to concepts embodied within Section 65906 are irrelevant to the City's consideration of Great America's variance application.** Moreover, Section 65906 reads much differently from the controlling City ordinance on the subject (Section 18.108.040, discussed below). While Prudential cites a number of cases in advancing their arguments against Great America's request for a variance, none of those authorities involved the interpretation of a charter city's variance ordinance that is similar to Santa Clara's ordinance. In fact, the terms of Santa Clara's variance ordinance afford the City a much broader degree of flexibility than the charter city ordinances considered in the cases cited by Prudential (see, e.g., *Stolman v. City of Los Angeles*, (2003) 114 Cal.App.4th 916). Prudential cites no authority that requires the City to adopt its interpretation of the City's variance ordinance and cites to cases involving charter city ordinances that are far more restrictive than Santa Clara's.

The grant of variances by the City is governed by Chapter 18.108 of the Municipal Code. Section 18.108.040 of the Municipal Code requires the City to make four findings in order to grant Great America the variance it seeks. Those findings include:

> "(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.
>
> (b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.
>
> (c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.
>
> (d) That the granting of the variance is in keeping with the purpose and intent of this title."

Rather than addressing the evidence contained within the Staff Report for the application, Prudential's letters ignore that evidence and focus instead on its own incomplete analysis. As suggested in the Staff Report, for purposes of the City's consideration of Great America's variance application, the "unusual conditions" that are applicable to this applicable include the uniqueness of Great America's amusement park use in Santa Clara (it is the only amusement park operation within the City), and the unique compatibility of the type of structure for which Great America seeks this variance with the remainder of its existing amusement park use. As the City has consistently recognized over the years, tall structures are uniquely compatible with Great America's amusement park use, whereas office or residential structures of the same height

would not be compatible with the CT (Thoroughfare Commercial) zoning district. For example, the massing, intensity and other aspects of a 110-foot tall office project would be an entirely different proposition from a 110-foot tall roller coaster. The roller coaster is a relatively docile use when compared to the intensity and consumption generated by an office tower of the same height. Prudential mischaracterizes the variances granted to Great America over the years as some sort of "ad hoc" piecemeal pattern of development that was designed to avoid environmental review. On the contrary, the City has consistently recognized that Great America's amusement park use is entirely unique within the City, and the structures erected by Great America are not readily comparable to any other type of use.[3] The City has cooperated with Great America's variance requests over the years, in part, because the City has recognized that tall structures are uniquely compatible with Great America's use, and also because the City has understood that the structures erected by Great America are unique in their ability to assimilate into the amusement park without unreasonably disturbing activities taking place on neighboring properties. The roller coaster that Great America seeks to build in this instance is no different. The proposed new structure is unique in that no other type of structure of the same height could be made to be compatible with the other uses in the CT zone. An office or a residential tower of the same height would not share the same unique ability to be made compatible with the other uses in the CT zone.

The City's grant of the variance sought by Great America would preserve for Great America the enjoyment of substantial property rights. As indicated above, the amusement park business is unique in that it is fundamentally necessary to continuously evolve the nature and layout of the rides and attractions within an amusement park in order for the park to continue to operate competitively. That need to evolve is inherent in the amusement park use. If, as Prudential urges, the City became unnecessarily rigid in its application of the zoning code to Great America's (inconsistent with the City's prior practices over the past 35 years), the City might administrate the park right out of existence. In that event, the City would cease to realize the variety of benefits it currently realizes from the park's existence in the City.

As more fully described above, Prudential has not even remotely demonstrated that the new roller coaster sought by Great America would be injurious the health, safety, peace, morals, comfort or general welfare of any of its neighbors. Prudential's noise analysis is incomplete (and therefore not relevant), and Prudential attempts to narrowly construe the results of its analysis in the only possible way to serve its purpose. Not only is the potential increase in noise noted by Prudential's consultant insignificant and speculative, even if the increase came to pass, the cumulative noise heard within Prudential's buildings would be far less than what was considered acceptable by Prudential's predecessor in interest when it designed and constructed the office buildings now owned by Prudential and would be far less than well established and accepted interior noise standards. Prudential's viewshed concerns are similarly unfounded. Prudential's

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[3] Further, as discussed above, since the addition of normal attractions to amusement parks are specifically exempt from CEQA under Section 15323, the argument cannot be fairly made that the variance mechanism is being utilized to avoid environmental review. The Legislature has concluded that this very type of use is exempt from such review.

renderings not only fail to demonstrate that Prudential would be losing a significant view corridor, they actually demonstrate that Prudential did not have a significant view corridor to begin with. The new roller coaster that Great America seeks to build is entirely consistent with the other existing attractions within the park. The new coaster will not represent a significant expansion in use that will dramatically adversely affect any of Great America's neighbors. The new coaster is reflective only of the necessary evolution of any amusement park, and in this case the evolution is taking place within the park's existing borders and without any noticeable increased intensity in use.

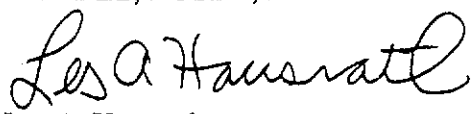
Lastly, Great America's request for a variance is entirely in keeping with the purpose and intent of the zoning ordinance. The object of the zoning ordinance is to ensure the compatibility of uses within particular zoning districts. As demonstrated by the park's peaceful co-existence with its neighbors over the past 32 years, there is no question that Great America's amusement park has been, and continues to be, consistent with the neighboring commercial uses. Further, one of the purposes of the City's zoning ordinance is to support and enhance tourist-related businesses and uses, and allowing the park to add compatible attractions which will attract new or returning patrons is fully consistent with this portion of the City's ordinance. The variance requested here by Great America does not represent an expansion in use, or a significant increase in the intensity of Great America's use. Quite simply, there is nothing about Great America's variance request that will markedly change the function of the park. The compatibility of uses sought by the zoning ordinance will be unaffected by the addition of the new roller coaster.

III. Conclusion

In sum, the City has conducted the proper analysis of Great America's application. Prudential has not provided the City with any information of consequence that should lead the City to a different conclusion. The construction of a new roller coaster within the existing boundaries of Great America's park is wholly consistent with the existing use of the park and will not create any significant additional environmental or other impacts. We request that the variance application be granted.

Very truly yours,

WENDEL, ROSEN, BLACK & DEAN LLP



Les A. Hausrath

LAH:mmj
Enclosures

cc: Duffield E. Milkie, Esq. (w/enclosures)
Bill Lentz (w/enclosures)

California's Great America
Cedar Fair Entertainment Company

(408) 988-1776
P.O. Box 1776 Santa Clara, CA 95052
2401 Agnew Road Santa Clara, CA 95054

May 16, 2008

RECEIVED

MAY 1 6 2008

City of Santa Clara
Planning Division

City of Santa Clara
Mr. Jeff Schwilk
Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050

Re: Wooden Coaster - PLN2008-06835

Dear Jeff,

In regards to the proposed wooden coaster project (PLN2008-06835) for California's Great America, located at 1 Great America Parkway, this letter is to serve as notice of our intent to pursue the project in its original location, as proposed in the initial submittal presented to the Planning Commission on February 13, 2008. Since that time, the project has been under continuance until more information could be provided to the Planning Commission.

In an effort to find a way to expedite the project's schedule, and get the coaster moving forward, we had explored several options for the project including re-locating the coaster structure several hundred feet away from its initial location. The process of looking at alternatives unfortunately did not help move us in a forward direction in regards to ultimately building the coaster. This delay has served only to further compromise the scheduling and projected completion of the project, compelling us to seek to continue the project in the originally intended location. We feel that the original location better serves the long term needs of the Park.

If you have any further questions or concerns, please feel free to contact me at (408) 986-5867.

Sincerely,

Greg Sanders
Director - California's Great America

10 Years
1995 - 2005
environmental service
by Papineau, R.E.A. 791

January 15, 2008

RECEIVED
MAY 1 6 2008
City of Santa Clara
Planning Division

Mr. Lowell Esposo
California's Great America
P. O. Box 1776
Santa Clara, CA 95052

Subject: **Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.01)**

Dear Mr. Esposo:

This letter presents the results of an acoustical impact assessment for a proposed new wooden coaster at California's Great America in Santa Clara, California.

SUMMARY

Existing ambient noise levels were reviewed for comparison with projected noise levels generated by the proposed new wooden coaster. Based on this review, existing ambient noise levels at the amusement park's western boundary are approximately 65 Leq (5-6 PM), 65 Ldn, and 75-80 Lmax (dBA). See "Glossary" on the following page for definitions.

California's Great America amusement park is adjoined by developed parcels in the Planned Industrial (MP) zoning district (APN 104-42-20) and Planned Development (PD-MP) combining district (APN 104-42-017 and -18). The parcel at 4551 Great America Parkway, in the MP zoning district, has a warehouse or manufacturing building adjacent to the park's western property line, which is attached to 2-story offices along Great America Parkway. The parcels at 4555-4559 and 4655-4659 Great America Parkway, in the PD (MP) zoning district, are improved with two (2) 4-story parking structures adjacent to the park's western property line and two (2) 6-story office buildings along Great America Parkway. Pursuant to Sub-Chapter 9.10.060 of the *Santa Clara Municipal Code*, the allowable noise exposure standards are 70 Leq, 70 Ldn, and 75 Lmax, all at the property line. The Lmax standard was adjusted up by 5 decibels (dBA), as prescribed in Sub-Chapter 9.10.060, to encompass or reflect ambient noise levels.

The proposed new wooden coaster is assessed to generate Leq and Ldn sound levels at 4551 and 4555 Great America Parkway that are consistent with the City's allowable noise exposure standards (see Figure 1, p. 8). The Lmax at the property line would equal, but would not exceed, 75 dBA, and would be comparable to the existing Lmax during a jet flyover. Ldn and Leq at the property line would not exceed 70 dBA. Off-site to the east, the proposed new wooden coaster would not have any impact on the nearest residential land uses, which include the houses on Gillmor Street, Lakeshore Drive, Rambo Court and other local streets.

This acoustical impact assessment is based upon the proposed ride's location, sound qualities of a comparable wooden coaster, and a graphical overlay method. Projected Lmax noise levels at specific off-site receptor locations are presented in Table 1 (p. 5). An evaluation summary is provided in Table 2 (p. 6) and details are provided on the following pages.

GLOSSARY OF TERMS

dBA an A-weighted decibel, which is a unit of sound amplitude or loudness.

Lmax maximum sound level during a specified measurement period. The maximum sound level during a 24-hour period usually exceeds the Ldn and Leq.

Leq an average sound level defined as the level of steady sound having the equivalent sound energy as the actual time-varying sound over a specified period.

Ldn a day-night average of 24 Leq sound levels measured consecutively during a 24-hour period, and including +10 dBA penalties for each hour during the nighttime period of 10 PM to 7 AM.

CNEL similar to Ldn and penalizes noise not only during nighttime but also during the evening period. Ldn and CNEL are used interchangeably here, as the values are expected to be nearly the same, within 1 dBA.

METHODS

Maximum (Lmax) and energy-averaged (Leq) sound levels that will originate from the proposed coaster were assessed by graphical overlay of reference sound level contours over the Plan View or "footprint" of the proposed new ride. Reference sound level measurements were provided by GMH Engineering for the "Ozark Wildcat," an existing wooden coaster in Celebration City, Branson, Missouri, manufactured by Great Coasters Inc. (GCI). "Ozark Wildcat" coaster was selected because it has similar, but not identical, characteristics to those of the proposed coaster. Preliminary results of a recent December 2007 sound level survey of the "Kentucky Rumbler," another wooden coaster in Beech Bend Park, Bowling Green, Kentucky, also were considered for the graphical presentation of Lmax contours.

Measured Lmax and Leq sound levels for an existing wooden coaster were evaluated and then presented graphically as contours showing lines of equal sound level on-site and off-site around the proposed new wooden coaster. In comparison, the existing background sound environment was assessed from available sources including previous measurements, San Jose International Airport noise monitoring and contours, and the City's General Plan. Acoustical impact assessment was performed by Mr. Ballard W. George, who is a board-certified Acoustical Consultant certified by the Institute of Noise Control Engineering (INCE).

Zoning districts were obtained from the City's published Zoning Map. Existing land uses near Great America Parkway and the park's western property line were obtained by reconnaissance on November 23, 2007.

DESCRIPTION OF THE PROPOSED COASTER

The location of the proposed coaster is in the northwest corner of California's Great America theme park. The proposed lift would be located at the north end of the proposed coaster, near the existing Sky Tower. The footprint of the proposed wooden coaster is approximately 600 feet long north-south, and 400 feet northeast-southwest. The layout is a hybrid with out-and-back and twister elements, with a total track length of about 3,100 lineal feet.

Currently, there are eight coaster rides at California's Great America, built during 1976 to 2001. The one existing wooden coaster is "Grizzly," which was built in 1986, with a maximum height of 91feet, track length of 3,250 lineal feet, and maximum car speed of 50 mph, and ride duration of

2 minutes 40 seconds. The proposed new wooden coaster would have similar operating characteristics. The proposed coaster's trains would convey about 850 passengers per hour.

ADJACENT LAND USES

The nearest off-site land uses are located west of the proposed new wooden coaster. North of Patrick Henry Drive off-site uses include a pair of 4-story parking garages and 6-story office buildings (4555-59 and 4655-59 Great America Parkway). South of Patrick Henry Drive there is a 1-story warehouse or manufacturing building with attached 2-story offices (4551 Great America Parkway).

The offices at 4555 and 4655 Great America Parkway are used by Nortel Networks, AMD, NAMCO BANDAI Games America, Inc., and possibly other tenants. A driveway, pair of 4-story parking structures, and a cafeteria building are located between the amusement park and the offices. Garage G101 is located at 4559 Great America Parkway, and garage G100 is located at 4569 Great America Parkway. These are concrete structures and appear as long rectangles in Figure 1. The separation distance between the proposed coaster's nearest approach and the 6-story offices is about 400 feet. The parking structures are separated from the park's western property line by only a driveway/fire lane.

The cafeteria building, with Café Luminous and conference rooms, is located between the 6-story offices, at 4557 Great America Parkway. The cafeteria building was observed from the outside on November 23, 2007. There was audible noise from a fixed refrigeration source. There is an outdoor seating area behind a low wall.

The office and warehouse/manufacturing space at 4551 Great America Parkway appear to be vacant. The 1-story warehouse and loading dock portion of the building is located between the amusement park and the 2-story offices. The separation distance between the proposed coaster's nearest approach and the 2-story offices is about 250 feet.

The nearest residential back yards are located at great distance form the proposed new wooden coaster, east on Gillmor Street and Lakeshore Drive. These are so far away as to be outside the zone of potential noise influence of the proposed coaster.

AMBIENT SOUND LEVELS

The City of Santa Clara's General Plan, Chapter 5, *Environmental Quality Element*, Figure 5-J (p. 30) illustrates traffic noise contours, and Great America Parkway's 65 Ldn (CNEL) noise contour generally falls near the amusement park's western boundary.

The General Plan Chapter 5, *Environmental Quality Element*, Figure 5-I (p. 26) also illustrates the airport's 65 Ldn (CNEL) contour; however, more recent and detailed information is available from San Jose International Airport Noise Monitoring Center (SJO/NMC). The Noise Monitoring Center submits monthly and quarterly noise monitoring reports to the Airport Commission, Airport Noise Advisory Committee, and San Jose City Council. Noise monitoring sites are operated remotely at off-airport locations.

SJO/NMC's Noise Monitoring Location #11 is representative of aircraft noise conditions at the eastern property line of California's Great America. SJO/NMC's Noise Monitoring Location #14 is representative of aircraft noise conditions near Tasman Drive and Lafayette Street. Aircraft noise at the western property line of California's Great America is interpreted to be represented by noise levels monitored at SJO/NMC's Noise Monitoring Locations #11 and #14. The airport's 65

Ldn noise contour is shown in 2006-2007 noise monitoring reports to be located over the amusement park's eastern property line and the residential area to the east of the park. The existing Ldn noise level at Noise Monitoring Location #11 is 64.0 ± 1 dBA. The existing Ldn noise level at Noise Monitoring Location #14 is 59.5.± 1.5 dBA. These levels are for the annual period June 30, 2006, to June 30, 2007.

Short-term sound level measurements were performed on December 4, 2007, and previously on August 29, 2000, and June 3, 2002. Measurements were made using a Bruel & Kjaer, Type 1, Model 2230, Precision Integrating Sound Level Meter. Measured sound levels were approximately as follows:

- **Site A**: 75 Lmax (dBA) at the office building at 4655 Great America Parkway;
- **Site B**: 63 Leq (dBA) in the office area west of the employee parking lot;
- **Site C**: 66 Leq (dBA) at the southeast corner of Regina Court and Lakeshore Drive; and,
- **Site D**: 67 Leq (dBA) at the northeast corner of Rambo Court and Lakeshore Drive.

Measurement Site A was located near ground level at the southeast corner of the building at 4655 Great America Parkway (see Figure 1). Measurement Site B was located in the office area along the north side of Mission College Boulevard. Measurement Sites A and B are both outside the airport's 65 Ldn noise contour. Measurement Sites C and D, in the residential area east of the park, are located on the airport's 65 Ldn noise contour. Measured Lmax sound levels from individual aircraft "overflights" at Site A in 2007 were 69 dBA,74 dBA, and 85 dBA. As newer, quieter stage 3 aircraft have entered the fleet, aircraft overflight sound levels generally have decreased since 2000.

Two non-fixed sources of noise dominate the local community noise environment. These sources are: 1) aircraft departing from the San Jose International Airport and 2) traffic on Great America Parkway, Mission College Boulevard, and Agnew Road. Along the park's western property line, ambient noise from traffic is relatively more significant. Along the park's eastern property line, ambient noise from aircraft is relatively more significant. The estimated background Ldn sound level at the park's perimeter is approximately 65 Ldn (dBA) on the east and west, at the park's property line.

COMMUNITY NOISE STANDARDS AND GUIDELINES

Santa Clara Municipal Code, Title 9, Chapter 9.10, Regulation of Noise and Vibration, Sub-Chapter 9.10.040 (Schedule A) states that for light industrial (MP zoning district) the maximum allowable noise level from a fixed noise source is 70 decibels (dBA) at anytime of day or night. Rides within California's Great America are considered by the City Santa Clara Planning Department staff to be "fixed sources."

Pursuant to Sub-Chapter 9.10.060 (c), the allowable exposure standard shall be adjusted to encompass or reflect the ambient noise level. If the ambient noise level at any given location differs from the level set forth in 9.10.040 (Schedule A), "the allowable noise exposure standard shall be adjusted in five dBA increments in each land use category as appropriate to encompass or reflect said ambient noise level." In view of the ambient conditions at the park's western property line, allowable noise exposure standards are 70 Ldn, 70 Leq, and 75 Lmax (dBA).

The City of Santa Clara's *General Plan*, Chapter 5, *Environmental Quality Element* (July 23, 2002) identifies an exterior sound level of up to 70 Ldn (dBA) as the community sound level that is

compatible for light industrial land uses without mitigation. An Ldn of 70-75 dBA with design and insulation to reduce interior noise levels is potentially compatible for light industrial land uses.

In the *General Plan*, community noise includes noise from fixed and mobile sources, for example, aircraft departures and landings; street traffic; steady, intermittent, and peak sounds from the neighborhood; and steady, intermittent and peak noise from California's America theme park. The *Santa Clara Municipal Code*, Title 9, Chapter 9.10 addresses allowable noise from fixed sources.

EVALUATION

Lmax levels projected at actual developed uses are presented in Table 1. The projected 75 Lmax at the park's western property line would equal, but would not exceed, the allowable noise exposure of 75 Lmax.

This evaluation of sound impact addresses all nine criteria of *Santa Clara Municipal Code*, Title 9, Sub-Chapter 9.10.060. Table 2 (next page) lists these criteria and findings.

TABLE 1

PROJECTED Lmax AT SPECIFIED RECEPTORS

ID	Address	Actual Developed Use	Lmax (dBA)
1	4559 Great America Pkwy	Parking garage	74
2	4557 Great America Pkwy	Outdoor lunch/seating area	70
3	4555 Great America Pkwy	Office building (walkway)	70
4	4551 Great America Pkwy	Loading dock	74
A	4655 Great America Pkwy	Office building (walkway)	70[4]

NOTES:
1. Receptor locations #1-4 are shown in Figure 1.
2. Lmax projections are worst-case without corrections for shielding by intervening walls or structures.
3. Other receptor locations, not shown, could have reduced noise exposure owing to shielding by structures.
4. Measured Lmax 69-85 dBA for individual aircraft on December 4, 2007 generally equals or exceeds projected 70 Lmax (dBA).

The projected 75 Lmax is a recurring maximum noise level having relatively short duration. A 75 Lmax would not be inconsistent with existing parking garages and loading dock, which are the actual developed uses on the adjoining parcels. At the offices themselves, the projected Lmax would be 70 dBA, which does not exceed or approach the allowable 75 dBA (see Figure 1).

The projected 70 Leq at the park's western property line would equal, but would not exceed, the allowable noise exposure of 70 Leq. Leq is not the noise metric of primary concern, which instead is Lmax. Leq is related to Ldn which is a metric used in the City's *General Plan*.

Ride-generated noise levels include mechanical lift noise, wheel-rail noise, and rider noise. All sources of noise were included based on noise measurements of actual operating coasters, "Ozark Wildcat" and "Kentucky Rumbler," by GMH Engineering.

LAYOUT MODIFCATIONS

The proposed coaster layout has been refined iteratively with the objective of reducing Lmax noise at the property line. The initial layout was adjusted by shifting the lift hill and first turn southward and eastward toward the Sky Tower. This change increased separation distance from off-site receptor locations #1, 2, and 3, and increased shielding by the existing parking structure. The southwest-northeast axis was rotated counterclockwise, shifting the outer turn southwards, and the turn's elevation was dropped to near ground level. These changes increased separation distance from off-site location #4 and provided opportunity for an on-site landscaped buffer treatment.

TABLE 2

NOISE IMPACT EVALUATION SUMMARY

Item	Chapter 9.10.060 Noise Evaluation Criteria	Evaluation
1	**Noise level at the property line compared to the allowable level: 75 Lmax.** **Noise level at the property line compared to *General Plan* guidance levels: 70 Ldn**	75 Lmax (dBA)[a] 70 Leq (daytime), 70 Ldn
2	**Nature of the noise**	Wheel-track noise and mechanical noise. Human noise.
3	**Natural or mechanical source**	Mechanical
4	**Ambient noise**	75 Lmax, 65 Leq, 65 Ldn (dBA)[b]
5	**Proximity of the noise to sleeping facilities**	Remote
6a	**Nature and zoning of the area where noise is generated**	Amusement park in Thoroughfare Commercial (CT) zoning district
6b	**Nature and zoning of the area where noise is received**	Planned Industrial Zoning Districts: MP, PD (MP)
7	**Time of day or night the noise occurs**	Park hours, seasonal
8	**Duration of the noise**	each noise event is about 12 seconds[c]
9	**Is the noise recurrent, intermittent, or constant?**	Recurrent, 20 times per hour[d]

NOTES:

(a) Evaluation based on graphical overlay of noise contours developed from noise measurements of a similar operating coaster.

(b) Based on *General Plan* Chapter 5 Environmental Element Noise Contours and San Jose International Airport Noise Monitoring Center's aircraft noise monitoring outside the park. Traffic noise is about 65 Leq in the 5-6 PM hour. Lmax exceeds this Leq during individual events such as car passbys and aircraft flyovers.

(c) Based on estimated 10 dBA drop-off time of -6 seconds on the approach and +6 seconds on the departure.

(d) Based on conservative ride cycle time ("headway") of 3 minutes.

SOURCE: Ballard W. George Acoustics, December 2007 and January 2008

REFERENCES

GMH Engineering, August 18, 2005. Ozark Wildcat - Sound Level Survey, 6 pp.

GMH Engineering, December 2007. Kentucky Rumbler - Sound Level Survey (Preliminary), 20 pp.

Santa Clara, City of, July 23, 2002. General Plan 1990 – 2005, Chapter 5, *Environmental Quality Element*. http://www.ci.santa-clara.ca.us/pdf/collateral/3081-GeneralPlan-Chapter5.pdf

Santa Clara, City, 2007 (or most current). *Santa Clara Municipal Code*, Title 9, Chapter 9.10, Regulation of Noise and Vibration. http://www.codepublishing.com/ca/santaclara/frameless/code.pl?cite=9.10#9.10

Santa Clara, City, 2005 (or most current). *Santa Clara Zoning Map*. http://www.ci.santa-clara.ca.us/pdf/plans_ord_pdf/zoning2005.pdf

San Jose International Airport, September 13, 2007. Noise Monitoring Data–Quarterly Report Second Quarter 2007. http://www.sjc.org/community/reports/2q07.pdf

San Jose International Airport, May 30, 2007. Noise Monitoring Data–Quarterly Report First Quarter 2007. http://www.sjc.org/community/reports/1q07.pdf

San Jose International Airport, March 2, 2007. Noise Monitoring Data–Quarterly Report Fourth Quarter 2006. http://www.sjc.org/community/reports/4q06report.pdf

San Jose International Airport, November 27, 2006. Noise Monitoring Data–Quarterly Report Third Quarter 2006. http://www.sjc.org/community/reports/3q06report.pdf

Thank you for this opportunity to serve California's Great America. If you have any questions or require further information, please contact me at (510) 881-8574 or Mr. Ballard George at (408) 736-7182.

Sincerely,
FOR AND ON BEHALF OF ENVIRONMENTAL SERVICE
AND
BALLARD W. GEORGE ACOUSTICS

Marc Papineau

Marc Papineau
California Registered Environmental Assessor 791
Project Manager

Enclosures: Figure 1, Community Noise Contours for the Proposed Coaster, page 8
Figure 2, Reference Lmax Noise Contours for Ozark Wildcat, page 9
Attachment A, Background Information on Wooden Coasters
Attachment B, Qualifications of the Report Preparers

10 Years 1995 - 2005

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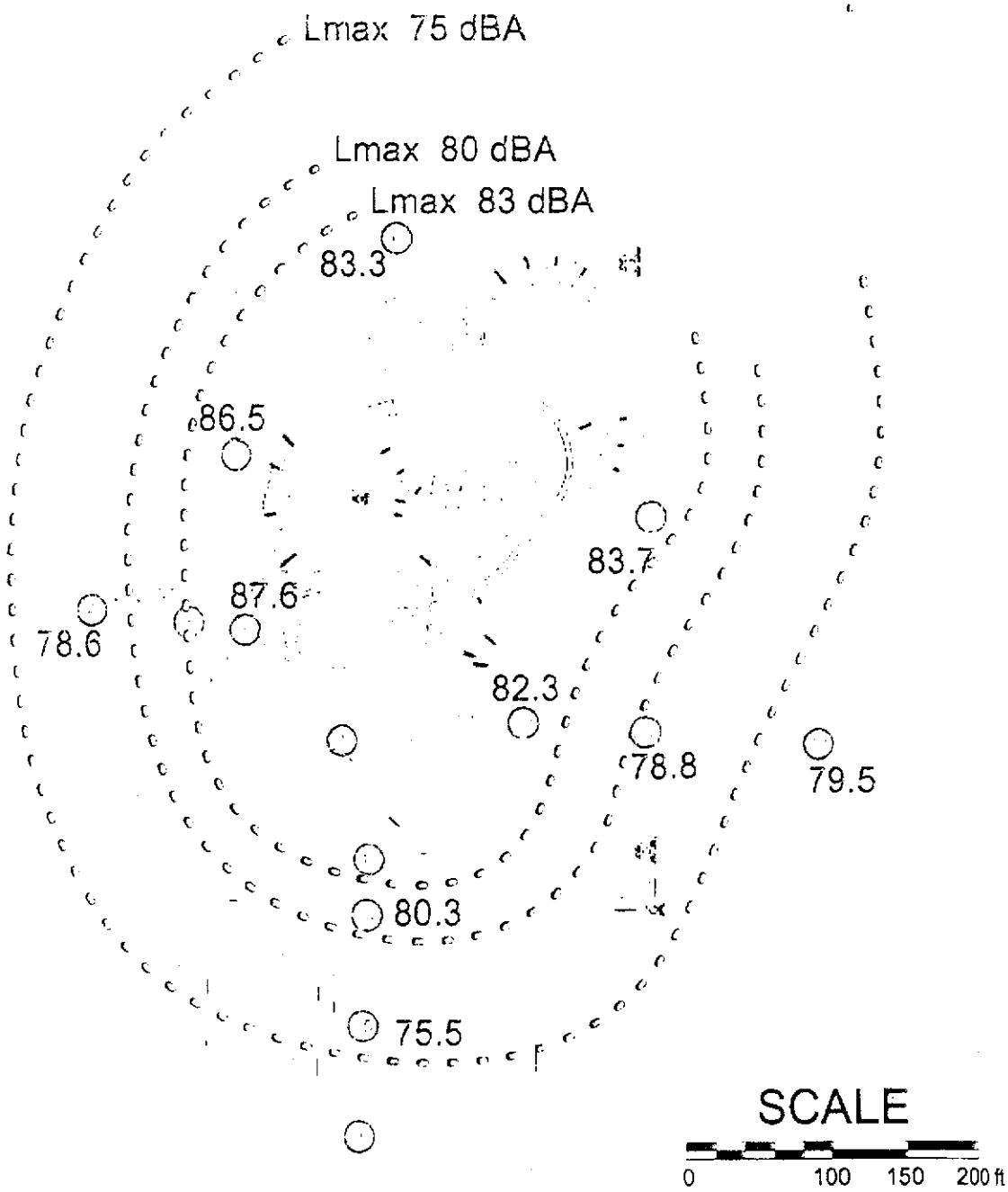
Figure 1

Lmax Noise Contours for the Proposed Coaster



10 Years 1995 - 2005 environmental service in association with BALLARD W. GEORGE	N	**Figure 2** **Reference Lmax Noise Contours**

ATTACHMENT A

GENERAL BACKGROUND INFORMATION ON WOODEN COASTERS

There are two basic families of roller coasters: steel and wooden. The kind of track, or "rail," is the feature which places a coaster into the steel or wooden family. Steel roller coasters run on tubular steel rails. Usually hollow, the rails may also be filled with sand or another dense material to help dampen the sound, especially in metropolitan areas with restrictions on noise level. Steel coasters typically have a steel support structure, but the construction of the support structure does not affect whether a coaster is in the family of steel or wooden coasters. There are coasters with steel rails and have wooden supports structures, and these are still steel coasters.

Steel coasters have greater design flexibility than wooden coasters. Steel is more durable than wood, can withstand greater stresses, and span greater unsupported distances. Steel coasters, therefore, can have tighter turns, steeper hills, and even go upside down. Steel coasters come in many forms, including inverted (cars run beneath the track with riders' legs dangling), floorless (cars run above the track but there is no bottom and riders' feet still dangle), stand up (riders use a bicycle style seat), and suspended (enclosed cars run beneath the steel track).

The running rail of a wooden coaster consists of strips of laminated wood topped with a steel strap. The most common types of wood used for coaster rail construction are Douglas fir and southern yellow pine because they readily accept the pressure treatment necessary to make the wood more durable. Most wooden coasters have a wooden support structure; however, a coaster constructed using a steel support structure and wooden rails would still be in the family of wooden coasters.

Wooden coasters cannot have such tight turns or steep hills as steel coasters. One hybrid wooden-steel coaster, Son of Beast at Paramount's Kings Island in Ohio, has an inversion – a vertical loop constructed out of steel. No pure wooden coaster can have an inversion. So why are they built still? Wooden coasters have a unique appeal due to the shaky, out-of-control feel of the ride.

Owing to the relatively limited design flexibility of wooden coasters compared to steel coasters, wooden coasters have two basic layouts: out-and-back and twister. An out-and-back coaster travels along its course, makes a one-hundred-eighty degree turn, and returns to the station parallel to the outbound course. In the twister layout, tracks weave throughout the support structure, sometimes traveling above and below other segments of track.

Existing Coasters

at Great America in Santa Clara, California

Name	Year opened	Type	Track length (feet)	Height (feet)	Top speed (mph)	Designer
Demon	1976	Steel	2,130	102	50	Arrow Dynamics
Grizzly	1986	Wood	3,250	91	50	Curtis D. Summers
Runaway Reptar	1987	Steel	1,300	36	25	Intamin AG
Vortex	1991	Steel	2,260	91	45	Bolliger and Mabillard
Top Gun	1993	Steel	2,260	102	50	Bolliger and Mabillard
Invertigo	1998	Steel	985	161	50	Vekoma
Taxi Jam	1999	Steel	288	8	na	Miler Coaster, Inc.
Psycho Mouse	2001	Steel	1,257	58	30	Arrow Dyanmics

ATTACHMENT B

QUALIFICATIONS OF REPORT PREPARERS

B.S., Mathematics and Physics, Haverford College, 1976
M.B.A., Finance, UC Berkeley, 1981

MARC PAPINEAU, R.E.A. 791, has engaged in the environmental sciences since 1977. At Environmental Research & Technology (Westlake Village) Mr. Papineau performed mathematical evaluations of air pollution transport data for a research project funded by the American Petroleum Institute. At Earth Metrics Incorporated (1978-1990), Mr. Papineau was an environmental scientist and technical writer for environmental impact statement (EIS) and report (EIR) documentation pursuant to the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). At Earth Metrics Incorporated, and later at Certified Engineering & Testing Company, Inc. (1990-1994), Mr. Papineau managed EIRs, performed special studies including risk assessments, air quality assessments and monitoring; prepared Phase I environmental site assessments; and managed special services including software application and development for air pollution and acoustics, liquid spills, nonvolatile liquid evaporation, and contaminant releases to soil. These services were provided in support of the programs of cities, school districts and utility districts, developers, and the banking and real estate communities.

In total, Mr. Papineau has provided professional environmental services for 24 years. Mr. Papineau has been a California registered environmental assessor since 1988.

Mr. Papineau's academic and management experience includes physics and mathematics baccalaureate, management of a Physical Sciences Department, management of multidisciplinary teams engaged in the preparation of EIRs and EISs, and graduate business degree. He has managed Phase I, Phase II, and Site Mitigation projects for the JSM Enterprises, Pinn Brothers Construction, Inc., Resources for Community Development, City of Fremont, and many other clients.

Mr. Papineau has prepared Phase I assessments, EIRs, Negative Declarations, and special studies for high schools, middle schools, and elementary schools, not-for-profit housing developers, and city governments. Mr. Papineau has previously prepared Phase I assessments, Negative Declarations or EIRs, or related services, for Ecumenical Association for Housing; Mountain View-Los Altos High School District, Antioch Unified School District, Cotati-Rohnert Park Unified School District, and Los Rios Community College District; and also for the cities of San Bruno, Belmont, Pleasanton Hill, and Walnut Creek, which engaged in land acquisition for road improvements. Mr. Papineau is knowledgeable in the particular requirements of California Education Code, Section 39003, which requires consideration of potential risks posed by hazardous materials, wastes, and toxic air emissions.

In 1995 Mr. Papineau founded Environmental Service. The firm performs environmental services for cities, counties, and private sector clients and has introduced specialty services for the real estate brokerage and industrial communities. Phase I environmental site assessment services entail detailed research of archived city records, reverse directories, inspection and planning records, building permits, and other information sources, to ascertain past tenants and chemical usage at industrial properties. The firm specializes in environmental documentation of commercial sites, industrial reuses, and urban land conversions. Currently, Mr. Papineau is assisting the County of Alameda Planning Department with the Draft EIR for the Proposed PD Re-Zoning for the Marriot/Fairfield Inn & Suites hotel) and the City of Novato Engineering (EA and Project Study report for the proposed Novato Boulevard Improvements - Diablo to Grant).

BALLARD W. GEORGE

B.S., Physics, University of Texas, Austin
M.S., Engineering, University of Texas, Austin

Ballard George is a consulting acoustical engineer and full member of the prestigious Institute of Noise Control Engineers (INCE). He is an expert in community noise monitoring and mitigation. Mr. George has created Noise Elements for the General Plans of California communities including the Town of Hillsborough and City of Riverside. Representative highway, aircraft, and rail noise assessment projects include Highway 880 overcrossing at Aladdin/Fairway; Harbor Bay Isle in the City of Alameda; and trackage along Highway 50 for the Sacramento Regional Transit Agency. Mr. George is an expert in compliance with California Administrative Code, Title 24, upon whose expertise architects and contractors regularly rely.

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by Papineau, R.E.A. 791

RECEIVED

MAY 1 6 2008

City of Santa Clara
Planning Division

February 7, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Supplemental Response to Additional Comment on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to address one additional comment regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3

The comment states that the Report needs to be updated to analyze a salient concern--the potential change to the acoustical environment within the adjacent buildings located at 4555 and 4655 Great America Parkway. The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.*, most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property.

Response to C3: The assessment was performed to evaluate the addition of noise from the proposed coaster. The Report's conclusions are based on a conservative assessment of noise impact, with consideration of both the existing sound environment and forecast noise from the proposed coaster including the riders.

The existing sound environment is monitored continuously by the San Jose International Airport Noise Monitoring Center. The existing Community Noise Equivalent Level (CNEL) or Day-Night Average Noise Level (Ldn) is about 60-62 dBA in the vicinity of 4555 and 4655 Great America Parkway. The CNEL range actually monitored for 2006-2007 is 60-64 dBA, depending on location in the community and distance off the runway centerline.

Measured Lmax outside the offices varies. In any working hour, morning, midday, or afternoon, aircraft overflights generate Lmax noise levels between 69 and 85 dBA. CNEL and Ldn represent noise level averages as opposed to maximum noise levels (Lmax); therefore, from practical considerations, CNEL and Ldn will always be lower than Lmax.

But, as a conservative approach to the assessment, and to test the consistency of the proposed action with the City's Municipal Code, the Report documents Lmax. The Report and responses show forecast zones of Lmax 76-79 dBA and Lmax 80 dBA, or higher, are located

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on Great America theme park land. Forecast zones of Lmax 75 dBA, or lower, are located on off-site land including the property at 4555 and 4655 Great America Parkway.
The Report and Response C2 address the Lmax forecast for the 5th or 6th stories of the office buildings at 4555 and 4655 Great America Parkway. Lmax from the proposed coaster is forecast to be about 73 dBA outside the upper stories. Lmax from the proposed coaster is forecast to be about 70 dBA at near-ground receptors outside the offices. Outdoor-to-indoor sound reduction for normal commercial office construction would be expected to reduce indoor noise at the offices to the 40-45 dBA range, which is not any different from the existing.

The frequency of 70-73 Lmax generated by the proposed coaster outside the offices is 20 to 40 per hour. The duration would be short because Lmax levels are not averages but "peaks" and are not, therefore, sustained over time. Another way of considering noise is based on hypothetical average levels sustained over time. This is the approach of Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Caltrans, and many communities in their General Plan Noise Elements.

The energy-equivalent sound level (Leq) is the sustained noise level that carries the same sound energy as actual time-varying noise. The Leq conveyed by proposed coaster noise events has been measured at comparable wooden coasters. Based on the field studies, the proposed coaster is expected to generate a 1-hour Leq of 57 dBA outdoors at the eastern façade of the office buildings (or, 60 dBA outside the upper stories). Averaged with the local ambient or "background" Leq, which is near 60-62 dBA, the combined CNEL and Ldn would remain within 2-3 decibels of the existing level and less than 65 dBA. A 2 decibel change is just barely perceptible.

The forecast CNEL and Ldn of 63 dBA outside the upper stories is within the range currently being monitored in the community. The City of Santa Clara's *General Plan 2000-2010*, Environmental Quality Elements, Noise, presents a CNEL and Ldn compatibility chart for commercial uses which include offices. The acceptable noise level for an office use, without special construction or other mitigation measures, is 65 dBA. In view of this fact, there cannot be a significant effect for the proposed coaster because exterior office building façades would not be exposed to CNEL or Ldn above 65 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,
Marc Papineau

Marc Papineau
Project Manager

environmental service

by Papineau, R.E.A. 791

RECEIVED

MAY 16 2008

City of Santa Clara
Planning Division

February 12, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Additional Response to Comment C3 on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to expand on a previous response to Comment C3 regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3

The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.*, most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property. This comment was further explained by Mr. Charles M. Salter, P.E., on February 11, 2008, as a specific concern about the potential audibility of passenger screams inside the buildings at 4555 and 4655 Great America Parkway.

> **Additional Response to C3:** Indoors at 4555 and 4655 Great America Parkway, passenger scream noise would not be audible. Potential audibility of passenger scream noise would be precluded by outdoor-to-indoor noise attenuation by the building skins and background noise of 36 dBA, or higher, inside the office spaces. For quiet private offices, interior background noise is typically 36-40 dBA. In comparison, noise levels in quiet courtrooms, libraries and conference rooms are typically 32-36 dBA.
>
> Conservatively estimated, passenger noise incident on the building faces could potentially reach 60-63 dBA outdoors near the ground floor and 63-66 dBA outdoors at the upper stories, but could not reasonably be expected to exceed the upper limits of these ranges. Passenger scream noise is directional. Its audibility and loudness at a given receptor depend on the way passengers are facing. At the eastern building façades of 4555 and 4655 Great America Parkway, the loudest passenger noise will be directed away from or obliquely relative to the building faces. The proposed lift hill is parallel to the building faces and the first turn banks away from the buildings. The slope after the peak is down toward the northeast and east, which is away from the buildings at 4555 and 4655 Great America Parkway .

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The building skins of 4555 and 4655 Great America Parkway are believed to reduce noise outdoor-to-indoor by -40 dBA or more. With outdoor-to-indoor noise reduction of -40 dBA, the projected interior Lmax from coaster passengers could be 20-23 dBA indoors on the ground floor or 23-26 dBA indoors on the upper stories.

On the upper stories, the 26 dBA Lmax from passenger screams would be -10 dBA lower than the background noise level for a quiet office, which is 36 dBA as noted on the previous page. On the ground floor, the 23 dBA Lmax from passenger screams would be -13 dBA lower than the background noise for a quiet office. The expected Lmax, therefore, would be so much lower than background office noise as not to be audible.

Passenger scream noise is included in the Lmax contours presented in the Report and responses. Passenger scream noise contributes to Lmax at certain measurement locations at certain times during the ride cycle, but not at all locations or all times during the ride cycle. During the Kentucky Rumbler sound tests, at ten (10) measurement locations, passenger noise did not increase the measured Lmax. At ten (10) other locations, mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone.

Passenger scream noise is secondary in magnitude compared to mechanically-generated ride noise. At measurement locations around the Ozark Wildcat and Kentucky Rumbler, where mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone, the difference was +0.3 to +1.7 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely, Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

environmental service

by Papineau, R.E.A. 791

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City of Santa Clara
Planning Division

March 4, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Sound Study Protocol for the Nortel Network Offices and Proposed New Wooden Coaster at California's Great America (Project 2007-045.03)

Dear Mr. Schwilk:

This letter was prepared to present the independent findings of Great America's consultants ("GA's consultants") in regard to the Sound Study Protocol implemented on March 3, 2008. The findings are preliminary and "independent" because they represent the work of GA's consultants only.

Background— GA's consultants began their Acoustical Impact Assessment in November 2007, and ultimately concluded their report dated January 15, 2008, after trying alternative coaster layouts. The currently proposed coaster was moved away from the property line to reduce off-site noise. The orientation of the proposed ride's northern lobe was designed to wrap around the Sky Tower and carry riders facing away from 4655 Great America Parkway in the first thrilling turn after the lift hill. The net result was a coaster layout that reduces maximum noise, called Lmax, to a level of 75 dBA, or lower, at the property line. The proposed ride, therefore, was assessed to be fully compliant with the City's Municipal Code.

After submittal of GA's Acoustical Impact Assessment, GA's Nortel Network neighbor expressed concern in regard to indoor noise inside the offices. GA and GA's consultants participated in an attempt to define and implement a Sound Study Protocol to evaluate indoor noise and, thereby, to address this concern. Agreement was reached in part but not on every detail of the Protocol.

Sound Study Protocol (the "Protocol")—The Protocol was established to identify 1) existing indoor noise levels at the east-side offices located at 4555 and 4655 Great America Parkway; 2) evaluate the outdoor-to-indoor noise reduction through the building skins; and, 3) estimate potential indoor noise caused by from coaster riders on the proposed new coaster. Measurements were performed on March 3, 2008, both outdoors and indoors in unoccupied and, in some instances, unfurnished office spaces .

To evaluate the building skin GA and GA's consultants independently made inquiries to confirm the detail of the window glass called "vision glass" on the east-facing facades. Initially unsuccessful in obtaining Plans & Specifications at the Building Department, GA's consultants ultimately confirmed the ¼-inch thick vision glass windows were supplied by VIRACON and installed by Harmon Ltd.

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Concurrently, GA's consultants worked with Charles Salter Associates to draft the Sound Study Protocol. Although GA's consultants and Charles Salters Associates did not agree on every aspect of the Protocol, some aspects of the analysis were shared including rider scream noise and VIRACON product data.

City Planning Department Staff did provide a year-2000 Draft Environmental Impact Report for the Nortel Great America Parkway Project. The Draft EIR for the Nortel Networks Project includes its own independent noise impact evaluation. The Draft EIR sets forth noise conditions affecting the Nortel project site in 2000 including San Jose International Airport (SJIA) operations and GA Theme Park operations. It characterizes Lmax noise on the Nortel Networks Project sites in terms of ranges of Lmax noise from specific sources: 60-74 Lmax from theme park coaster riders, 80 Lmax from theme park train horn, and 82-95 Lmax from jet flyovers. The Draft EIR evaluates the levels at the faces of the then-proposed office buildings and on the roofs of the then-proposed buildings (Draft EIR, page 64). The Acoustical Impact Assessment dated January 2008 also characterizes the proposed coaster rider noise in the same range as did the Draft EIR for coaster rides in the GA theme park in 2000.

The Draft EIR recommended optional mitigation measures for jet flyover and GA Theme Park noise on the Nortel Office project site. These were categorized as Tier 1, to achieve an interior Lmax lower than 50 dBA, or optionally as Tier 2, to achieve an Lmax lower than 60 dBA. The Draft EIR described noise resulting from Tier 2 mitigation as a somewhat noisy for offices. Higher Tier 1 level of mitigation required insulating glass or insulating laminated glass windows with higher Sound Transmission Class (STC) rating. Lower Tier 2 level of mitigation required 1/4-inch thick or 3/16-inch thick glass, which has an STC of about 31.

What We Learned from the Protocol—The following aspects were clarified by the additional inquiries and Protocol.

- The vision glass around the perimeter offices is ¼-inch thick glass but is not one of the Tier 1 glasses.
- Minimum indoor background noise (Lmin) inside the open plan, unoccupied offices is about 37-38 dBA. Office background noise is steady except during jet aircraft flyovers.
- Jet flyovers currently impact the indoor noise inside the offices, generating Lmax noise levels above 50 dBA on about 25 percent of commercial jet flyovers.
- The vision glass provides an outdoor-to-indoor noise reduction of about 27-29 dBA for jet noise and about 32-33 dBA for rider scream noise
- Maximum rider noise (Lmax) inside the upper-story, east-side offices is estimated to be about 32-33 dBA. This is the Lmax that would be attained along the east-side perimeter. The Lmax in interior spaces and private offices or conference rooms without east-side exposure would have a reduced Lmax.
- Rider noise would be muffled by the windows and non-disturbing relative to background.

Conclusion—The Nortel Network offices are affected by intermittent jet flyovers from SJIA. The measured Lmax during the noisiest jet flyovers exceeds 50 dBA. The noisiest 25 percent of jet flyovers have Lmax of 77.5 dBA, or above. The office interiors at 4555 and 4655 Great America Parkway are impacted by and will continue to be impacted by some jet flyovers, independent of GA's operations.

The proposed coaster would not alter or substantially increase the theme park's noise above the 60-74 dBA range, which is the range incident on the building skins, as presented in 2000 in the Draft EIR for Nortel Networks Great America Parkway Project. GA's January 2008 Acoustical Impact Assessment independently forecast Lmax from the proposed coaster in exactly the same range and not exceeding. All of the noise protection sought by Nortel Networks in 2000, therefore, would be equally effective for GA's proposed coaster. Maximum rider noise (Lmax) inside the upper-story, east-side offices, estimated to be about 32-33 dBA, would be muffled and non-disturbing in the background noise of open plan offices.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau
Project Manager

Enclosures: none

Marc Papineau

Why do GA's consultants believe the maximum rider scream noise asserted by CMS Associates (71 dBA) is exaggerated and not credible?

GMH Engineering measured the Ozark Wildcat and Kentucky Rumbler at several passes and multiple locations around these coasters. Lmax obviously depends on the measurement location, including among other factors the microphone's (or, receptor's) distance from the track. Lmax also depends, not so obviously, on the direction and orientation of the ride relative to the microphone or noise receptor. Other researchers have studied coaster rider screaming and the conditions conducive to the highest levels of rider scream noise. GA's consultants have reviewed this information and offer the following summaries and their conclusion:.

Ozark Wildcat

Highest values of Lmax (approximately 88 dBA) were measured at locations #2, 5, and 13 during Test Series A (without riders) and B (with riders). Locations #2, 5, and 13 are reported by GMH Engineering to be located 11 feet to 36 feet from the track centerline.

Hypothetically, if all 88 dBA were attributed to rider screaming, the hypothetical scream Lmax at 450 feet would be 65-66 dBA outdoors. This is found by adding geometric spreading and atmospheric absorption losses from 36 feet to 450 feet.

Riders did not consistently increase Lmax compared to the case without riders. The maximum increase was 1.2 dBA to 88.1 dBA from 86.9 dBA at location #5. The implied rider scream Lmax, about 83 dBA at location #5 which is 36 feet from the track, is found by decibel addition. At 450 feet, the rider scream Lmax would reduce to 60-61 dBA outdoors, which is again found by adding geometric spreading and atmospheric absorption losses.

(*NOTE: Lmax in this review is the maximum that could potentially be incident on the upper floors of the Nortel Networks buildings. At ground level, soft ground would provide additional noise reduction beyond the reduction by geometric spreading and atmospheric absorption.*)

Kentucky Rumbler

Highest values of Lmax (93-95 dBA) were reported at measurement locations #7, 20, 21 and 24 during Test Series A. Of these locations only location #7 is outboard from the coaster footprint at a plotted distance of 25 feet from the tracks. Location #7 receives directed "face-on" rider scream noise on the descent after the lift hill and first curve. Locations #20, 21,and 24 are inboard to the coaster's footprint, locations #20 and 24 being located near the ride boarding/departing platform and location #22 being located at the beginning of the lift hill, as illustrated by GMH Engineering.

Other high values of Lmax (approximately 88 dBA) were measured at location #8 during Test Series D (with riders) and also at locations #1, 8, and 18 during Test Series A (without riders). Locations #1, 8, and 18 are plotted by GMH Engineering to be located 30 feet to 50 feet from the track centerline.

Hypothetically, if all 95 dBA at location #7 were attributed to rider screaming, the hypothetical scream Lmax at 450 feet would be 70 dBA outdoors. Hypothetically, if all 88 dBA measured at location #1 were attributed to rider screaming, the hypothetical scream Lmax at 450 feet would be 65 dBA outdoors.

Riders did not consistently increase Lmax compared to the case without passengers. The maximum increase was 1.7 dBA to 86 dBA from 84.3 dBA at location #16 at a distance of 50

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feet from the tracks. At location #8 the increase was insignificant compared to the case without riders. The implied rider scream Lmax at location #8 is about 78 dBA at 50 feet, which is found by decibel addition. At 450 feet, the rider scream Lmax would reduce to 59 dBA outdoors, which is found by adding geometric spreading and atmospheric absorption losses.

(NOTE: Lmax in this review is the maximum that could potentially be incident on the upper floors of the Nortel Networks buildings. At ground level, soft ground would provide additional noise reduction beyond the reduction by geometric spreading and atmospheric absorption.)

InterNoise2002 Paper by C. Menge

The paper addresses coaster rider scream noise and levels from directed "face-on" or "overhead" screaming. The paper acknowledges that screaming is variable depending on coaster and rider orientation and other factors such as the age of the riders, with teenagers being acknowledged as the loudest.

Using C. Menge's paper, GA's consultants resolved that rider scream noise "face-on" can attain an Lmax of 91 dBA at a distance of 50 feet from the source. This reconciles well with the Lmax of 95 dBA reported by GMH Engineering for the Kentucky Rumbler at "face-on" location #7, which is plotted about 25 feet from the tracks.

Conclusion

Based on their review of the above information, GA's consultants conclude that proposed coaster rider scream Lmax cannot reasonably be expected to exceed 65-66 dBA at the Nortel Networks buildings and typically could be expected in a much lower range of 59-62 Lmax during many ride cycles. The evaluation prepared by GA's consultants has built in conservatism by considering a rider scream Lmax of 65-66 dBA outdoors incident on the upper floors. This is the worst-case.

In the Sound Study Protocol preliminary findings (letter to Mr. Jeff Schwilk, March 4, 2008), GA's consultants evaluated the worst-case condition for the open plan office strip nearest the east-facing windows on the upper floors. For the ground floors, the rider scream Lmax would be relatively lower because soft ground, landscaping and intervening structures provide additional noise reduction at ground-level locations.

Conditions necessary for even higher rider scream noise levels are well understood based on the measurement data and another expert's published paper. Face-on screaming by enthusiastic riders could potentially produce 91 Lmax at 50 feet and 71 Lmax at 450 feet. GA's consultants have evaluated the conditions necessary for higher rider scream Lmax, and they have determined the conditions would not be present given the proposed coaster's configuration. The proposed configuration has a north-south orientation, with a south-to-north lift hill and a first turn that directs trains and riders away from the Nortel Networks buildings.

CMS Associates has assumed either 1) face-on rider screaming or else 2) a margin of +5 dBA added to the worst-case of 65-66 Lmax expected for oblique rider screaming. Either assumption tends to exaggerate rider scream noise beyond a reasonable or credible expectation in view of the proposed coaster's distance and configuration.

CEQA

Location and acoustical elements of the proposed coaster are not unusual relative to the year 2000 Draft EIR and then-described acoustical conditions. Theme park ride noise, characterized as 60-74 dBA in the Draft EIR, was the range of noise levels prevailing and incident on the proposed building skins in year 2000. Maximum noise from the proposed coaster would not exceed 73 decibels (dBA) incident on the building skins or 75 dBA at the property line.

Maximum rider scream noise would not exceed 65-66 dBA on the building skins. This is a conservative level founded on actual measurements of operating coasters. The Charles M. Salter Associates ("CMS Associates") analysis adds an additional margin of 5 dBA to the conservatively founded scream level of 65-66 dBA outdoors. The CMS Associates scream noise assumption is incredible in view of the measurement data, proposed north-south orientation of the coaster's northern lobe, and proposed direction of the first turn of the ride away from the Nortel buildings.

The location of a ride on theme park grounds is not unusual. In regard to "proximity" of the proposed coaster to the Nortel buildings, the coaster footprint has been held away from the shared property line. The buffer strip on theme park land assists in minimizing noise at the property line and noise incident on the building skins. The orientation of the lift hill and northern lobe of the proposed coaster would direct rider scream noise north, northeast and east, away from the Nortel buildings.

ACOUSTICS

1. Rider scream maximum noise incident on the Nortel building skins is forecast by GA's consultants to be 65-66 dBA .

This level is substantially lower than the level assumed by CMS Associates (71 dBA) for its "worst-case" evaluation. GA's consultants believe the CMS Associates assumption to be highly exaggerated, and not credible, based on review of actual measurements of wooden coasters and the proposed coaster layout.

2. True background noise levels in the offices are not well represented by a single number and especially not by a minimum value.

True background baseline noise levels vary, depending on internal sources such as air conditioning and ventilation, for example, and were measured to be in the range of 31-38 dBA on February 28 and March 3. During ninety percent of the time, background noise actually exceeded these levels.

Interior office noise measured in unoccupied and unfurnished spaces represents the lowest possible baseline of indoor noise. The minimum reported by CMS Associates, 31 dBA, is not representative of occupied office spaces.

Operating minimum baseline noise levels in the Nortel buildings will increase as the unoccupied spaces are furnished and occupied. Telephones, printers, computers, and other utilities or equipment all add to the baseline or background. Audibility in an unoccupied office room is a purely hypothetical consideration. With no human observer present, there can be no chance for disturbance.

3. In combination with the transmission loss (TL) through the window glass, the total noise reduction could be -36 to -38 dBA at the outer perimeter offices or cubicles nearest the east facing windows.

The additional reduction by room absorption would increase with increased distance from the east-facing windows. GA's consultants, therefore, nearly agree with CMS Associates that outdoor noise incident on the buildings skins would be reduced by about -35 dBA. GA's consultants also agree with CMS Associates that outdoor-to-indoor noise reduction by the windows is typical for 1/4-inch thick glass. In the open plan offices, room absorption by ceiling tiles, carpet, cubicle partitions, and furnishings will provide an additional noise reduction, in addition to transmission loss through the window glass, which GA's consultants estimate to be in the range of -4 to -5 dBA.

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4. The CMS Associates measurement results corroborate that even near the east-facing windows in the unfurnished open offices, sound absorptive materials (*e.g.*, carpet and ceiling tiles) provide about -4 dBA more noise reduction than could be expected from 1/4-inch thick window glass alone.

GA's consultants in their March 4, 2008 letter, wrote that maximum scream noise could fall in a range of 32-33 dBA indoors. At that date GA's consultants included only the outdoor-to-indoor noise reduction called "transmission loss" through the windows in their estimate, without the additional noise reduction by room absorption.

5. The revised range of maximum expected scream noise indoors is 28 to 29 dBA.

This is the range which GA's consultants have estimated based on the additional noise reduction corroborated by CMS Associates. The range found by adding the maximum outdoor scream noise (65-66 dBA) and total noise reduction (-36 to -37 dBA) is 28-29 dBA.

Reconciliation of Independent Analyses by GA's Consultants and CMS Associates

The difference in the independent findings of the two consultants results mainly from the magnitude of outdoor rider scream noise and level of indoor noise represented as "background." The maximum rider scream level of 71 dBA used by CMS Associates is much higher than 65-66 dBA used by GA's consultants. GA's consultants believe the higher level is unfounded, have based their maximum rider scream value on measurements performed by GMH Engineering of the Kentucky Rumbler and Ozark Wildcat wooden coasters, have reconciled their coaster noise measurement data with other data published by C. Menge in InterNoise2002, and also have reconciled the rider scream level with practical considerations of the proposed coaster's layout.

Human voice is directional. If a speaker turns away from an audience the volume decreases. The proposed coaster's layout is north-south, which is parallel to the east face (long axis) of the Nortel buildings, and its first turn would turn riders away from the Nortel buildings. The scream level assumed in CMS Associates analysis could possibly be consistent with a 'head-on" or "overhead" rider orientation, but it is unrealistic for the proposed orientation and is inconsistent with measurements performed by GMH Engineering of the Kentucky Rumbler and Ozark Wildcat coasters.

Basic methods used by both consultant groups are similar. Indoor rider scream noise is the sum of outdoor scream noise incident on the building skins and total noise reduction by transmission loss (TL) through the window glass and room absorption. CMS Associates measured total noise reduction and empirically determined it is about -35 dBA. GA's consultants refined this empirical finding into its two components: TL and room absorption.

The difference between the consultants' independent findings in regard to total noise reduction (-35 dBA *versus* -36 to -37 dBA) is relatively minor. GA's consultant's have pointed out that interior office spaces located inboard to the outer perimeter east-facing windows and perimeter office spaces could have more reduction by room absorption or shielding compared to the perimeter office spaces.

GA's consultants do not agree that 31 dBA is representative of prevailing background noise inside the occupied space of the Nortel buildings. The 31 dBA level represents a minimum sound level attained in a given period in an unoccupied, unfurnished office space. The 31 dBA level may represent a minimum at certain cycles of the ventilation and air conditioning in unoccupied and unfurnished open plan offices. It is certainly not the level at all times and will not be the background level in the spaces once furnished and occupied.

Offices surveyed on February 28 and March 3 did not have any workers; all lacked operating fax machines, scanners, printers, and desktop computers with power switched ON; and some lacked cubicle partitions and furniture. Even in those unoccupied and unfurnished spaces that were measured on February 28 and March 3, the minimum (Lmin) and LA90 noise levels at times were measured to be 37-38 dBA.

Audibility and disturbance depend on a comparison between rider scream noise indoors and background noise indoors. CMS Associates characterizes the potential indoor scream noise as "very audible to [office] occupants" because the CMS Associates assumed scream noise (36 dBA) could be 5 dBA above the minimum level (31 dBA) measured on site indoors on March 3. In contrast, GA's consultants describe the resulting rider scream noise as muffled and non-disturbing, because at the lower level (28-29 dBA) rider scream noise would be about 10 dBA, or more, below the typical background in one of the occupied and furnished perimeter offices.

Their divergent conclusions follow mainly from different outdoor rider scream level and different indoor background, not from a difference of methods. CMS Associates asserts a higher indoor scream level and, concurrently, asserts that the minimum noise level measured at certain times indoors represents a meaningful background condition. GA's consultants note that there cannot possibly be any disturbance in the absence of workers; therefore, a meaningful background level should be considered for the long-term occupied condition with office furnishings and equipment. This level will trend toward 37-40 dBA.

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May 14, 2008

VIA HAND DELIVERY

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Carol Anne Painter
Planning Department
City of Santa Clara
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Re: Great America Variance Application; File No. PLN2008-06835

Dear Ms. Wallis and Ms. Painter:

As you know, we represent Cedar Fair, L.P., d.b.a. California's Great America ("Great America") with respect to the above-referenced application. This letter shall serve to rebut the contents of the letters and various other supplementary materials provided by Prudential Real Estate Investors ("Prudential") to the City of Santa Clara over the past few months. Much of Prudential's analysis is contained in letters from its counsel, Timothy A. Tosta, dated February 13, 2008, March 6, 2008 and March 12, 2008. This information is provided to assist the City in assessing Great America's application in light of the information received from Prudential. We submit that the record strongly supports the granting of the requested variance. We will also be submitting a letter to the Planning Commission next week for inclusion in the Commission packets.

I. Introduction

As you are likely aware, the Great America theme park has operated at its present location, 1 Great America Parkway, continuously since 1973. During the past 35 years, there has not been any change in use with respect to the park. The park periodically changes and refreshes its rides and attractions and/or adds new rides and attractions, in an effort to maintain its competitive position within its industry. The periodic addition, subtraction and alteration of rides and attractions is typical within the industry. The subject application is reflective of that effort; Great America seeks to add a new attraction within its existing park boundary.

II. Analysis of Application and Response to Prudential Comments

The City's Staff has conducted an analysis and review of the subject application, and has recommended that the application be found by the Planning Commission to be categorically exempt from review under the California Environmental Quality Act ("CEQA") pursuant to Section 15323 of the CEQA Guidelines. That Section exempts the "(n)ormal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility's use for the same kind of purpose....Facilities within this exemption include, but are not limited to...amusement parks." Moreover, Staff has recommended that the Planning Commission approve the application, subject to conditions described in the aforementioned Staff Report. Notwithstanding Prudential's protests to the contrary, Staff's determinations are entirely appropriate in the context of the subject application. What follows is a summary of the areas in which Prudential's protests and analysis miss the mark.

A. CEQA Categorical Exemption

The Staff Report states that City Staff recommended Great America's application be found to be categorically exempt from CEQA pursuant to Section 15323 of the CEQA Guidelines.

Prudential does not contend that Section 15323 is inapplicable to Great America's application. Instead, Prudential has argued that Section 15300.2(c) of the Guidelines prevents the City from applying the aforementioned categorical exemption to Great America's application, on the basis that the placement of a tall roller coaster near an office building constitutes an "unusual circumstance" creating a reasonable possibility that the activity will have a significant effect on the environment (within the meaning of Section 15300.2(c)).

The roller coaster that Great America seeks to construct will be contained wholly within the existing borders of the amusement park, and will be otherwise consistent with the existing use of the park. Prudential's contention ignores that there are already a number of roller coasters (five) and other attractions on the park's property, including several that are taller then the proposed coaster. How can it be "unusual" to place a roller coaster on the park's property when there are already a number of other coasters (including a number of coasters of similar size to the proposed new coaster) on the site? *See, e.g. Fairbanks v. City of Mill Valley* (1999) 75 Cal.App.4th 1243, 1259-60 (burden is an opponent to establish the project is <u>not</u> exempt, opponent also must show that the project is distinguishable from similar existing projects or features within the exempt category.)

Prudential has urged the City to conduct additional unnecessary environmental review of the noise and visual impacts of the roller coaster. CEQA does not require such additional review. In fact, the applicability of a categorical exemption to Great America's application obviates the need for any such additional review (see Guidelines Section 15300). As indicated in the Staff Report, Great America went to the extra length of conducting a noise study to ensure

that there would no significant noise effects experienced by Prudential. That study was a precaution, not review that was required by CEQA. [1]

In its March 12, 2008 letter, Prudential contends that, "the City's reliance on a **categorical exemption here runs afoul of CEQA's basic tenet** that a lead agency's determination must be supported by evidence on the record showing that the agency fully considered a project's potential environmental effects" (emphasis in original). This contention completely ignores how it is that there came to be categorical exemptions to CEQA. The exemptions describe projects that, by their very nature, do not have significant impacts upon the environment (see Guidelines Section 15300). The precautionary analytical work that Great America has done, while not required by CEQA, nevertheless reinforces both the applicability of Section 15323 to its application and the underlying reason for the existence of categorical exemptions in the first place. The additional analysis sought by Prudential simply is not required by CEQA, nor would it be fruitful if it were conducted. The applicability of a categorical exemption ends the need for further environmental analysis.

Prudential engaged the services of a consultant who performed some additional work with respect to noise analysis over and above Great America's study. As more fully explained below, and contrary to Prudential's contentions, their noise consultant has failed to demonstrate that there is any reasonable possibility of a significant environment effect upon Prudential's tenants with respect to noise. If anything, the work of Prudential's consultant has demonstrated that Staff was correct in its application of the categorical exemption.

Prudential has provided the City with renderings that are intended to demonstrate that the construction of the coaster will create a significant visual impact. As more fully explained below, the renderings tend to show only that there was no environmentally significant viewshed to consider in the first place, or alternatively, that any effects upon Prudential's views are insignificant.

Lastly, Prudential has glossed over dismissively the idea that Great America's amusement park has operated continuously on the same site since 1973. That stretch includes well over two decades of operation prior to the construction of Prudential's office buildings. Prudential's predecessor elected to build its office buildings literally at the doorstep of the existing park, and now Prudential claims it is "unusual" to have such an attraction close to office buildings! The addition of a new roller coaster to Great America's park will not materially alter the existing operation of the park. To the extent that Prudential believes there are any significant environmental impacts associated with the ongoing operation of the park, those impacts were considered by Prudential's predecessors in interest at the time the office buildings were constructed. They were found to be practically and economically insignificant (at least by the

[1] We have attached, for your consideration, a compilation of the noise analysis conducted on behalf of Great America. This subject has been studied exhaustively, and will be summarized in Section B, below. We do not anticipate that you will want or need to review these exhaustive materials, although we welcome you to do so. Rather, we include them so that the City can appreciate the lengths to which Great America has gone to assess this situation and determine there is no possible noise impact.

developer of the office buildings) such that the developer elected to construct the office buildings as they are currently constituted, with less than optimum sound insulation. To the extent that Prudential believes the buildings to be insufficient in terms of their protections against interior noise, those conditions exist currently and are most properly corrected by Prudential making alterations to its buildings.

B. Noise Impacts

As indicated above, it was not incumbent upon Great America to conduct any sort of thorough noise analysis with respect to its application because of the applicability of a CEQA categorical exemption to its application. Nevertheless, Great America took the added extra step of conducting a thorough, complete noise analysis as a precaution to ensure that there would be no significant noise impacts upon its neighbors. Great America's studies found, correctly, that there would be no such significant noise impacts.

The letters from Prudential's noise consultant, Charles Salter and Timothy Brown, dated February 12, February 13 and March 7, 2008, do nothing to refute any of the findings made by Great America's studies. Contrary to Prudential's assertion, if the new roller coaster will not cause a significant increase in noise at the common property line shared by Great America and Prudential, it stands to reason that the coaster will not significantly increase noise inside of a building that is even further away from the coaster than the property line. The March 7 letter notes that noise levels inside of the building were measured "as low as" 31 dBA. The park was closed when the measurements were taken by Salter and Brown, and they do not inform us as to the "baseline" for noise while the park is operating, and what increase, if any, over that baseline will occur once the new coaster is operating.

The essential argument made by Prudential's consultants is that interior noise levels from the new coaster **could** reach 36 dBA. Prudential then suggests that in entirely empty offices (i.e., vacant and unoccupied with no background or ambient office noises), the interior sound level could be as low as 31 dBA. Prudential then suggests that this possible differential of 5 dBA could disturb persons in such offices. Several points must be made in response:

1. Prudential's predecessors (Nortel) built the office buildings over 25 years after Great America opened. The buildings were constructed very close to the property line of the park.

2. The level of noise projected from the new coaster is no greater than the level of noise (60 – 74 dBA) that the EIR for the Nortel buildings projected would be heard from the adjacent amusement park roller coasters.[2] In other words, the new coaster will produce **exactly the same noise** as predicted by the Nortel EIR.

[2] Relevant portions of the noise analysis conducted as part of the 2000 EIR for the Nortel (Prudential) site are attached hereto for your consideration.

3. The anticipated noise from aircraft in the office buildings was projected at 82 – 95 dBA.

4. The Nortel EIR projected that maximum interior noise levels in the office buildings from all sources would be 52.5 – 69.9 dBA, with an average of 60.9 dBA. 50 dBA as an interior noise level was considered "optimum," and 60 dBA interior noise level was considered "acceptable."

5. The EIR for the Nortel buildings recommended mitigation in terms of window treatment to account for the already existing and anticipated continuing sound from the adjacent amusement park and other sources, such as aircraft. There were four levels of mitigation recommended, two of which were "optimum," to reduce anticipated interior noise levels to the maximum, and two lesser, or "acceptable" mitigations, which would provide a lower degree of sound protection. The owners of the Nortel building voluntarily choose the 3rd of the 4 options, which was projected to provide 10 dBA **less** sound insulation than either of the "optimum" levels.

6. The City noise standards consider 50 dBA as optimum for interior office uses. Here, Prudential is complaining about a possible interior dBA of 36.

7. The proposed roller coaster meets all applicable City noise standards under the City's Noise Element and any other applicable criteria.

As noted above, the testing done inside the empty Prudential offices suggested a possible interior noise level of 36 dBA, which is well below the City standards, and well below the projected levels of noise by the EIR for the Nortel Buildings. Further, it should be emphasized that the City standards measure noise at the property line (a standard met here by Great America), which avoids the very subjective type of complaint lodged by Prudential. The exterior property line standard is objective and measurable, and avoids speculation. The projected potential issue or problem associated with possible noise from the new coaster is so speculative, and so far below accepted and normal standards for interior office buildings, that Prudential's "concerns" must not be given undue credence. Further, it should be noted that Great America's acoustical consultants have prepared no less than exhaustive analyses, including both formal analyses in the form of letter reports and email responses to issues raised by Prudential's acoustical consultants. (See the enclosure referenced above in footnote 1).

It should be remembered also that the possible noise issue arises in two possible contexts: (1) whether there exists a reasonable possibility of significant environmental effects due to unusual circumstances such that the categorical exemption under CEQA does not apply; and (2) whether the impacts relating to potential noise impacts are sufficiently severe such that the City determines that a variance cannot be granted because of a potential adverse impacts upon the surrounding neighborhood. Under the first issue, the City must find **both** that the project raises the reasonable possibility that a significant impact on the environment may occur **and** that this possibility is due to "unusual circumstances." Neither conclusion can be drawn here,

because: (1) the overwhelming weight of the acoustical analysis demonstrates that the proposed coaster will not cause significant environmental impacts in terms of noise; and (2) there are no "unusual circumstances" here that would trigger the exception to the categorical exemption in the first place. Whether a circumstance is "unusual" is judged relative to the typical circumstances related to an otherwise typically exempt project. (*Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 801.) Here, the categorical exemption specifically covers amusement parks, and includes facilities normally seen or found in such a venue. A roller coaster, particularly a sixth coaster at an existing amusement park, is hardly "unusual," and is the very type of activity contemplated by the exemption. Prudential attempts to turn the standard on its head and argue what is unusual is for an office building to be near an amusement park. Yet, Prudential's predecessor elects to build its office buildings immediately adjacent to the existing amusement park, and then elected to install very thin windows which offer less sound insulation than recommended as optimum by the EIR for that very project. This was predicted to provide only "average" protection from amusement park sound. Yet Prudential complains about a possible interior dBA of 36, when 50 dBA is clearly the standard for interior offices, and its predecessors elected only to shield noise above dBA (the "average" described in the EIR).

Under the second possible relevance of the excessive noise (potential adverse impacts on the surrounding uses in connection with the variance application) it should be noted the requested variance is only for height, nothing else. Noise should not even be a consideration. However, the exhaustive sound analysis demonstrates clearly that there can be no significant impact on adjoining uses such that health, comfort or welfare are affected.

Prudential also retained a real estate consultant who proffered the opinion that noise impacts can adversely affect property values. Not only has Prudential failed to demonstrate that there will be any significant additional noise after the construction of the proposed new roller coaster, but the consultant's opinion as to property value is otherwise wholly irrelevant to the consideration of Great America's variance application and/or the CEQA review thereof.

Essentially, Prudential urges the City to require additional unnecessary study of supposed noise impacts so that it can delay the approval of Great America's variance application. Because a CEQA exemption is applicable to Great America's application, there is no requirement upon the City or Great America to conduct any of the analysis that Prudential demands. The study already conducted by Great America further illustrates the lack of necessity for additional review. In fact, Prudential's own study also indicates that further review would not be productive.

C. Visual Impacts

California law generally does not afford landowners any sort of automatic right to an easement for air, light or view. See, e.g., California Real Property Remedies and Damages, Continuing Education of the Bar, Section 11.11.

Prudential has not demonstrated that it currently has any sort of viewshed that is susceptible to protection. The renderings submitted by Prudential show only that is has unremarkable views of the surrounding urban landscape and, as Prudential puts it, the "open sky." Prudential is not automatically entitled to any view of the open sky, and the renderings Prudential provided to the City do not show that its view of the open sky will be materially diminished.

Furthermore, even if we assume that Prudential had some view worth protecting, the limited scope of the impact created by the construction of the roller coaster in this instance would render any such impact insignificant. The obstruction of a few private views is not a significant environmental impact. (See, e.g., *Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego,* (2006) 139 Cal.App.4th 249). "Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons." (*Mira Mar Mobile Community v. City of Oceanside,* (2004) 119 Cal. App. 4th 477, 492-93).

Moreover, all discussion of significance aside, as is the case with noise, the applicability of a categorical exemption ends the discussion of views as far as CEQA is concerned. With respect to the City's consideration of the variance application generally, contrary to Prudential's assertions, the proposed new roller coaster is consistent with the other coasters and attractions currently located within the park. Prudential has cited no authority that entitles it to impose upon the City the obligation to conduct additional analysis of any perceived visual impact created by Great America's application, whether with respect to CEQA or otherwise.

D. Variance

As an initial matter, Prudential's February 13, 2008 and March 6, 2008 letters to the Planning Commission make repeated references to Government Code Section 65906, and Prudential asserts that Section 65906 imposes requirements upon, or otherwise restricts the City's ability to, approve variances. On the contrary, Section 65906 is not applicable to charter cities, and Santa Clara is a charter city (see Government Code Section 65803; see also *Topanga Ass'n for a Scenic Community v. County of Los Angeles,* 11 Cal.3d 506, 511). The arguments made by Prudential in its letters with respect to concepts embodied within Section 65906 are irrelevant to the City's consideration of Great America's variance application. Moreover, Section 65906 reads much differently from the controlling City ordinance on the subject (Section 18.108.040, discussed below). While Prudential cites a number of cases in advancing their arguments against Great America's request for a variance, none of those authorities involved the interpretation of a charter city's variance ordinance that is similar to Santa Clara's ordinance. In fact, the terms of Santa Clara's variance ordinance afford the City a much broader degree of flexibility than the charter city ordinances considered in the cases cited by Prudential (see, e.g., *Stolman v. City of Los Angeles*, (2003) 114 Cal.App.4th 916). Prudential cites no authority that requires the City to adopt its interpretation of the City's variance ordinance and cites to cases involving charter city ordinances that are far more restrictive than Santa Clara's.

The grant of variances by the City is governed by Chapter 18.108 of the Municipal Code. Section 18.108.040 of the Municipal Code requires the City to make four findings in order to grant Great America the variance it seeks. Those findings include:

> "(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.
>
> (b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.
>
> (c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.
>
> (d) That the granting of the variance is in keeping with the purpose and intent of this title."[3]

Rather than addressing the evidence contained within the staff report for the application, Prudential's letters ignore that evidence and focus instead on its own incomplete analysis. As suggested in the staff report, for purposes of the City's consideration of Great America's variance application, the "unusual conditions" that are applicable to this applicable include the uniqueness of Great America's amusement park use in Santa Clara (it is the only amusement park operation within the City), and the unique compatibility of the type of structure for which Great America seeks this variance with the remainder of its existing amusement park use. As the City has consistently recognized over the years, tall structures are uniquely compatible with Great America's amusement park use, whereas office or residential structures of the same height would not be compatible with the CT (Thoroughfare Commercial) zoning district. For example, the massing, intensity and other aspects of a 110-foot tall office project would be an entirely different proposition from a 110-foot tall roller coaster. The roller coaster is a relatively docile use when compared to the intensity and consumption generated by an office tower of the same height. Prudential mischaracterizes the variances granted to Great America over the years as some sort of "ad hoc" piecemeal pattern of development that was designed to avoid environmental review. On the contrary, the City has consistently recognized that Great America's amusement park use is entirely unique within the City, and the structures erected by

[3] The specific findings prepared in connection with the proposed relocated coaster (deleting of course the finding that the coaster has been relocated to accommodate adjoining owner concerns) contain sufficient detail to comply with the City's variance ordinance, and Great America would suggest that such findings are applicable and be utilized here. Please contact us if additional input or analysis is desired.

Great America are not readily comparable to any other type of use.[4] The City has cooperated with Great America's variance requests over the years, in part, because the City has recognized that tall structures are uniquely compatible with Great America's use, and also because the City has understood that the structures erected by Great America are unique in their ability to assimilate into the amusement park without unreasonably disturbing activities taking place on neighboring properties. The roller coaster that Great America seeks to build in this instance is no different. The proposed new structure is unique in that no other type of structure of the same height could be made to be compatible with the other uses in the CT zone. An office or a residential tower of the same height would not share the same unique ability to be made compatible with the other uses in the CT zone.

The City's grant of the variance sought by Great America would preserve for Great America the enjoyment of substantial property rights. As indicated above, the amusement park business is unique in that it is fundamentally necessary to continuously evolve the nature and layout of the rides and attractions within an amusement park in order for the park to continue to operate competitively. That need to evolve is inherent in the amusement park use. If, as Prudential urges, the City became unnecessarily rigid in its application of the zoning code to Great America's (inconsistent with the City's prior practices over the past 35 years), the City might administrate the park right out of existence. In that event, the City would cease to realize the variety of benefits it currently realizes from the park's existence in the City.

As more fully described above, Prudential has not even remotely demonstrated that the new roller coaster sought by Great America would be injurious the health, safety, peace, morals, comfort or general welfare of any of its neighbors. Prudential's noise analysis is incomplete (and therefore not relevant), and Prudential attempts to narrowly construe the results of its analysis in the only possible way to serve its purpose. Not only is the potential increase in noise noted by Prudential's consultant insignificant and speculative, even if the increase came to pass, the cumulative noise heard within Prudential's buildings would be far less than what was considered acceptable by Prudential's predecessor in interest when it designed and constructed the office buildings now owned by Prudential and would be far less than well established and accepted interior noise standards. Prudential's viewshed concerns are similarly unfounded. Prudential's renderings not only fail to demonstrate that Prudential would be losing a significant view corridor, they actually demonstrate that Prudential did not have a significant view corridor to begin with. The new roller coaster that Great America seeks to build is entirely consistent with the other existing attractions within the park. The new coaster will not represent a significant expansion in use that will dramatically adversely affect any of Great America's neighbors. The new coaster is reflective only of the necessary evolution of any amusement park, and in this case the evolution is taking place within the park's existing borders and without any noticeable increased intensity in use.

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[4] Further, as discussed above, since the addition of normal attractions to amusement parks are specifically exempt from CEQA under Section 15323, the argument cannot be fairly made that the variance mechanism is being utilized to avoid environmental review. The legislature has concluded that this very type of use is exempt from such review.

Lastly, Great America's request for a variance is entirely in keeping with the purpose and intent of the zoning ordinance. The object of the zoning ordinance is to ensure the compatibility of uses within particular zoning districts. As demonstrated by the park's peaceful co-existence with its neighbors over the past 35 years, there is no question that Great America's amusement park has been, and continues to be, consistent with the neighboring commercial uses. Further, one of the purposes of the City's zoning ordinance is to support and enhance tourist-related businesses and uses, and allowing the park to add compatible attractions which will attract new or returning patrons is fully consistent with this portion of the City's ordinance. The variance requested here by Great America does not represent an expansion in use, or a significant increase in the intensity of Great America's use. Quite simply, there is nothing about Great America's variance request that will markedly change the function of the park. The compatibility of uses sought by the zoning ordinance will be unaffected by the addition of the new roller coaster.

III. Conclusion

In sum, the City has conducted the proper analysis of Great America's application. Prudential has not provided the City with any information of consequence that should lead the City to a different conclusion. The construction of a new roller coaster within the existing boundaries of Great America's park is wholly consistent with the existing use of the park and will not create any significant additional environmental or other impacts. As we have previously discussed, it is our intention to supplement the contents of this letter with additional materials prior to the Planning Commission hearing on this item on May 28, 2008. Please ensure that this letter is placed into the administrative record in this matter.

Very truly yours,

WENDEL, ROSEN, BLACK & DEAN LLP

FOR

Les A. Hausrath

LAH:mmj

Enclosures

cc: Duffield E. Milkie, Esq. (w/enclosures)
Bill Lentz (w/enclosures)

FROM NORTEL NETWORKS DEIR
Feb 2000

- Sweep daily (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

Conclusion: The use of watering alone for dust control is estimated to reduce dust emissions by about 50 percent. The combined effect of the above measures, including the use of a dust suppressant, would have a dust control efficiency of 70 to 80 percent, which would reduce construction-related air quality impacts to a less-than-significant level. Implementation of the above mitigation measures would reduce potential construction related air quality impacts to a less than significant level. **(Less than Significant Impact)**

Significant Unavoidable Impact

There is no feasible mitigation availability that would completely avoid causing significant impacts to long-term local (CO) and regional air quality, should the project be developed as proposed.

C. NOISE

The following discussion of the project site's existing noise environment is based, in part, upon a noise impact analysis conducted by *Edward L. Pack Associates, Inc.*, for the Great America Corporate Center Project, located immediately south of the site, in July 1998.

1. Existing Setting

Noise is generally identified as unwanted sound. The DNL is a 24-hour time-weighted average noise descriptor commonly used to describe community noise environments that penalizes noise at night, as people are more sensitive to noise during nighttime hours. The DNL rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The decibel measure of the sound level utilizing the "A" weighted network of a sound level meter is referred to as "dBA". The "A" weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlated well with the response of the human ear.

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The 24-hour day is divided into two subperiods for the DNL index, i.e., the daytime period from 7:00 am to 10:00 pm, and the nighttime period from 10:00 PM to 7:00 AM. A 10 dBA weighting factor is applied to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours.

The City of Santa Clara Noise Element identifies land use guidelines which specify a Day-Night Level (DNL) of up to 55 dB as a compatible environment for residential land uses. When the exterior level exceeds 55 dB DNL, design and sound insulation are required to maintain noise levels in living spaces at or below 45 dB DNL. Commercial land use is limited to 65 dB DNL, and industrial land uses are limited to 70 dB DNL.

The City of Santa Clara Noise Element does not contain standards for commercial or industrial interiors. However, commonly accepted criteria for office interior noise levels include: 50 dBA L_{max} as an "optimum" interior noise level and 60dBA L_{max} as an "acceptable" interior noise level.

Existing Noise Conditions

The project site is bound by Great America Parkway to the west, Patrick Henry Drive to the south, and Paramount's Great America theme park to the west. The primary sources of noise at the site are aircraft flyovers from San Jose International Airport (SJIA) and activities at the adjacent Paramount's Great America theme park. Traffic on Great America Parkway is a secondary source of noise. It should be noted that the Theme Park is only open for part of the year and for limited hours.

To determine the noise levels at the site, measurements of aircraft flyovers and of activities at Paramount's Great America were made on June 11-13, 1998. The measurements were made on the roof of Building SC 2 of Bay Networks, closest to Paramount's Great America and aircraft flyovers. The weather conditions were warm and sunny. School was out of session and it was assumed that activities at Great America were indicative of a busy summertime day. The measurements were made for a total period of 48 hours and included recordings of the noise levels during the daytime and nighttime periods of the DNL index.

The results of the measurement calculations show that the existing noise exposure on the roof of Building SC2 is 65 dB DNL on a Friday and 64 dB DNL on a Saturday. Due to the distances from the sources (i.e. Great America and aircraft flyovers), the noise exposures at the proposed project site would be similar.

- Maximum noise levels from Paramount's Great America ranged from 60-74 dBA from roller coaster riders and up to 80 dBA from the theme park train horn.

- Maximum noise levels from aircraft flyovers ranged from 82-95 dBA.

The exterior noise exposures were evaluated against the City of Santa Clara Noise Element, which utilizes the Day-Night Level (DNL) noise descriptor and specifies a land use compatibility limit of 65 dB DNL for commercial uses.

As shown on Table 16, the existing exterior noise exposure conforms with the standards of the City of Santa Clara Noise Element. Future noise exposures from SJIA have been predicted to decrease due to quieter aircraft engines.

Table 16 Exterior Noise Levels and Projected Office Interior Noise Levels		
	Existing Exterior Noise Level	Projected Interior Noise Level
Day 1 (Friday)	65 dB DNL 55-95 dBA L_{max} average (6:00-8:00pm) 86 dBA L_{max}	40 dB DNL 20-70 dBA L_{max} 61 dBA L_{max}
Day 2 (Saturday)	64 dB DNL 59-90 dBA L_{max} average (6:00am - 8:00 pm) 77 dBA L_{max}	39 dB DNL 34-65 dBA L_{max} 52 dBA L_{max}

2. Noise Impacts

Thresholds of Significance

For the purposes of this project, a noise impact is considered significant if it would:

- result in a substantial change in the ambient noise levels; or
- result in a conflict with established plans and policies; or
- expose people to noise levels in excess of established standards; or
- expose people to a vibration which would be strongly noticeable.

Impacts to the Project

The Paramount's Great America theme park and aircraft overflights are the primary noise sources at the site. The proposed office buildings would be exposed to an outdoor noise level ranging from 55-95 dBA L_{max} and a 65 dB DNL. These noise levels meet a land use compatibility limit of 65 dB DNL for commercial uses specified in the City of Santa Clara Noise Element.

To determine the interior noise levels, a 25 dB reduction was applied to the exterior noise levels to represent the attenuation provided by a typical building shell, which assumes that the building will have windows of single-pane 3/16" glass fixed in the frames. Therefore, the maximum interior noise levels during business hours 6:00 AM to 8:00 PM. weekdays will range from 52.5 to 69.9 dBA, with an average of 60.9 dBA. During Saturday hours of 6:00 a.m. to 8:00 p.m., the maximum noise levels will range from 40.2 to 59.7 dBA, with an average of 52.3 dBA.

Commonly accepted criteria include the following: 50 dBA L_{max} as "optimum" and 60dBA L_{max} as "acceptable" indoor noise levels. The average maximum noise levels therefore, would be up to 11 dBA in excess of the "optimum" noise criterion and 1 dBA in excess of the "acceptable" noise criterion.

- **With construction using standard building materials, the proposed office building would experience interior noise levels 1 dBA in excess of "acceptable" noise levels and 11dBA in excess of "optimum" noise levels. (Significant Impact)**

Impacts from the Project

The project would cause increases in traffic on streets serving the site. The highest increases in noise levels from project traffic would occur on Great America Parkway. Traffic volumes must double in order to result in a 3 decibel (perceptible) noise increase. Since the project traffic would not double existing traffic volumes on Great America Parkway, project traffic is not anticipated to create significant noise impacts.

- **Project-generated traffic noise would not increase ambient noise levels for any sensitive receptors. (Less than Significant Impact)**

Construction Related Noise Impacts

During construction of the project, noise levels would temporarily increase for surrounding land uses. Construction equipment generates noise levels in the range of 70 to 90 dBA at a distance of 50 feet from the source, and has the potential for disturbing surrounding land uses during both site preparation and building construction. In addition to the noise sources with typical construction projects, which generally consist of grading equipment, hammering, nail gun, and engine noise, the project proposes to use piles in building foundation construction.

Pile driving can generate extremely loud noise levels with peak noise levels from the hammer striking the pile cap often registering about 100 decibels at a distance of 100 feet, and is accompanied by strong vibration impacts. Ground vibrations associated with pile driving are caused by the force applied against the soil by pile driver blows. The vibrations travel through the soil to nearby buildings. Although pile driving would be a temporary activity, it is of sufficient intensity to constitute a significant source of noise and vibration impacts for nearby land uses including the office buildings adjacent to the project site. Pile driving equipment could be on the site for approximately six to eight weeks.

Noise from construction and pile driving on the project site would result in significant short term noise impacts.

- **Noise associated with the construction of the office building could temporarily increase noise levels on the project site and in the project vicinity. Pile driving could create significant noise or vibration impacts to adjacent land uses. (Significant Impact)**

3. Mitigation Measures

Mitigation for Noise Impacts to the Project

One of the following design features would be included in the project to reduce interior noise levels to an acceptable level.

- Installation of fixed windows consisting of a single pane of ½" laminated glass in all windows with a view of Paramount's Great America or aircraft flyovers. This assembly is rated Sound Transmission Class (STC) 38 and will provide 38 dB of noise reduction.

[or]

- Installation of fixed windows consisting of dual pane glass configuration of 1/4" laminated - 1" air space - 1/4" laminated glass. This assembly is rated Sound Transmission Class 38 and will provide 37 dB of noise reduction.

[or]

- Installation of fixed windows consisting of a single pane of 1/4" laminated glass in all windows with a view of Paramount's Great America or aircraft flyovers. This assembly is rated STC 32 and will provide 28 dB of noise reduction.

[or]

- Installation of fixed windows consisting of a dual pane glass configuration of 3/16" glass - 3/8" air space - 3/16" glass. This assembly is rated Sound Transmission Class 32 and will provide 28 dB of noise reduction.

Conclusion: The installation of the "optimum" (single ½" or dual ¼" pane) windows would reduce average maximum daytime noise levels in the office interiors to below 50 dBA. Any portion of the office interior would be quiet enough for executive offices and conference rooms.

[or]

The installation of the "acceptable" (single 1/4 or dual 3/6" pane) windows would reduce average maximum daytime noise levels to below 60 dBA, which may be considered somewhat noisy for executive offices and conference rooms. These noise sensitive spaces may then need to be limited to west facing areas of the building or in spaces with no view to Paramount's Great America or aircraft flyovers. **(Less than Significant Impact)**

Mitigation for Construction Noise

The following mitigation measures will reduce short-term exterior noise and vibration impacts:

- The pile driving schedule could be expedited to the extent feasible.

- In order to reduce the overall length of time noise and vibration from pile driving would impact surrounding land uses, two pile drivers could be operated on the site at the same time.

- Noise control for pile drivers could be employed. Shrouding pile drivers could be used to reduce the amount of noise emitted by 5 to 10 dBA.

- Measures such as pre-drilling holes could be implemented during project construction to reduce the time and noise generated by pile driving.

Conclusion: Even with implementation of the above described mitigation measures, the project would result in significant, short-term noise and vibration impacts during construction. (Significant Unavoidable Impact)

D. VISUAL

1. Existing Setting

Visual and Aesthetic Character of the Project Site

The project site is currently an unused, paved parking lot. The only vegetation on the site are mature landscaping trees that are located along Great America Parkway and on parking medians within the site. The site is bordered on two sides by public streets, with Great America Parkway to the west and Patrick Henry Drive to the south. The Paramount's Great America Theme Park and its driveway and parking lots are located to the north and east of the site. Photo 1 shows the existing condition and character of the project site.

Surrounding Visual Context

The area surrounding the project site can be generally characterized as a modern, developed urban area with landscaped setbacks and parking areas. An aerial view of the project site and surrounding land uses is presented on Figure 3. The primary land use in the project vicinity is Office/R&D. An existing Nortel office/R&D facility is located adjacent to the project site to the south. East of the project site is the Paramount's Great America Theme Park, with associated parking located north of the project site. North of the Paramount's Great America parking lot is the Santa Clara Convention Center, the 15-story Westin Hotel, and the 8-story Hilton Hotel. Parkway Plaza, a 4-story office building, is located directly west of the project site, across Great America Parkway. Parkway Plaza is bound on the north and south sides by the 4-story Marriott Business Park and a 3-story office building, respectively. North of the Marriott Business Park is the Tasman Corporate Center and a Verifone office/R&D facility, which are both 5-story buildings.

Views of the project site are generally limited to the surrounding roadways and immediate foreground of adjacent development. This limited visibility is due to the flatness of the project site and the presence of surrounding development.

2. Visual Impacts

Thresholds of Significance

For the purposes of this project, an aesthetic or visual impact is considered significant if the project would:

- substantially block existing views of scenic vistas or resources;
- produce substantial light or glare, such that is poses a hazard or nuisance; or
- introduce new development that would substantially detract from the integrity, character and/or aesthetic character of the neighborhood.

Aesthetic values are largely subjective. Individual taste may vary significantly, particularly with regard to architectural style. Particular viewpoints as to what constitutes an adverse visual impact also differ among individuals. The discussion below, therefore, focuses on *change* in visual perception and views, without placing value on the aesthetic quality of a particular condition.

The assessment of a project's visual impact is dependent upon an evaluation of the character and design of the proposed development and the degree to which the project is visually compatible with the surrounding community. The primary criteria that are considered in this assessment include: 1) the spatial relationship of the proposed structures within the site to neighboring land uses; 2) the mass, scale, and height of the proposed structures and their visibility from the surrounding area; 3) the degree to which the project would visually contrast with the surrounding development in design and materials.

Impacts from Project Development

The proposed project would introduce large new structures on what is now a vacant parking lot. The project proposes the development of two 7 to 9-story office buildings that would comprise 636,000 square feet of office uses and two 4-level parking structures. The site would look like an urban office complex, similar to other developments in north Santa Clara. Conceptual elevations of the development's building massing and scale are illustrated on Figures 5, 6 and 7.

One of the main concerns that has been identified in terms of visual impacts of the project is the preservation of views of the Paramount's Great America Theme Park from Great America Parkway. Development of the proposed project would slightly reduce the visibility of the adjacent Theme Park from Great America Parkway. It should be noted that a number of new rides have been approved in recent years that are over 100 feet tall that can be seen from a distance, including from U.S. 101. The project would maintain a 100-foot view corridor of the Theme Park from Great America Parkway, between the two proposed office buildings. Figures 4 and 5 illustrate the view corridor of the theme park.

The project would provide outdoor lighting, including low level pedestrian light fixtures and downward focused sodium luminaries for the surface parking lots. All new outdoor lighting for the proposed structures would meet the City of Santa Clara's outdoor lighting requirements. Outside lighting would generally increase the level of illumination in the area, but because the surrounding area is of similar land use, the outside lighting would not be a significant source of light or glare. Low-pressure sodium bulbs would be used in exterior light fixtures to prevent potential lighting impacts to Lick Observatory. No light source would be directed skyward.

The project is located in an area that is developed with buildings of similar size, use, mass, scale, and height of the proposed structures and would maintain the required view corridor of the Paramount's Great America Theme Park. In order to ensure that the design of the building complements the character of the surrounding area, the proposed design and site configuration would be subject to the City's Design Review approval, prior to issuance of building permits. For these reasons, the project would not substantially degrade the existing visual character or quality of the site or its surroundings.

E Visual and aesthetic changes resulting from development of the project would not constitute a significant environmental impact. (Less Than Significant Impact)

3. Mitigation Measures for Visual Resource Impacts

The project includes the following measures to reduce the visual impacts of the proposed project:

- The project would include a landscaping plan to provide screening vegetation around the perimeter of the site, around the buildings, and in the common open areas.

- The project plans would be reviewed by the City Architectural Committee for compliance with the City's design and architectural regulations.

Conclusion: Implementation of the above measures would ensure that the project does not result in significant visual impacts. **(Less than Significant Impact)**

E. UTILITIES AND SERVICE SYSTEMS

The following discussion of utilities and service systems is based upon a Due Diligence Report of Civil Engineering Issues prepared for the project applicant by *Brian Kangas Foulk* in December 1998. A copy of this report is included as Appendix D of this EIR.

1. Existing Setting

Sanitary Sewer/Wastewater Treatment

Wastewater treatment service for the area is provided by the City of Santa Clara. The Santa Clara/San Jose Wastewater Pollution and Control Plant (WPCP) is located in Alviso. The WPCP is currently operating under a 120 million gallon per day (dry weather) flow trigger. This requirement is based upon the State Water Resources Board and the Regional Water Quality Control Board (RWQCB) concerns over the effects of additional freshwater discharges to the saltwater marsh habitat and pollutant loading in the South San Francisco Bay from the WPCP. In response to these issues, a South Bay Action Plan has been prepared to prevent degradation of the salt water marshland habitat and study the discharge of metals from the WPCP in excess of RWQCB standards. In addition, a Clean Bay Strategy has been developed to address water conservation and the pollutant loading to the Bay. The Clean Bay Strategy has identified numerous programs and projects in the areas of increased education and awareness, pollutant source detection, and greater regulatory requirements to reduce pollutant levels. The imposition of additional regulatory requirements as a result of the flow triggers has not yet occurred due to the City's good faith efforts in implementation of the Clean Bay Strategy. However, the RWQCB may require additional control measures to be implemented at any time it deems necessary.

There are two sanitary sewer mains, 33" and 36" in diameter, located along Great America Parkway and a 18" sewer line along Patrick Henry Drive. The existing 6-inch sanitary sewer line on the site conveys wastewater from the Theme Park's I-Max theater to City collection facilities in Great America Parkway. The sanitary sewer line currently on the project site does not have an easement.

From: Marc Papineau [mailto:marc_p@sbcglobal.net]
Sent: Thursday, March 13, 2008 11:41 AM
To: Sanders, Greg
Cc: Ballard George

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3/19/2008

Based on their review of the above information, GA's consultant's conclude that proposed coaster rider screaming Lmax cannot reasonably be expected to exceed 65-66 dBA at the Nortel Networks buildings and could be in a much lower range of 59-62 Lmax. The conditions necessary for higher scream noise levels are well understood based on the measurement data and published paper. Face-on screaming by enthusiastic riders could potentially produce 91 Lmax at 50 feet and 71 Lmax at 450 feet. CMS Associates has assumed either 1) face-on rider screaming or else 2) a margin of +5 dBA added to the 65-66 Lmax expected for oblique rider screaming. Either assumption tends to exaggerate rider screaming noise beyond a reasonable or credible expectation in view of the proposed coaster's orientation with north-south lift hill and first turn direction away from the Nortel Networks buildings.

From: Marc Papineau [mailto:marc_p@sbcglobal.net]
Sent: Wednesday, March 12, 2008 4:29 PM
To: Sanders, Greg
Cc: Ballard George
Subject: GA rebuttal

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Rebuttal:

CEQA

Location and acoustical elements of the proposed coaster are not unusual relative to the year 2000 Draft EIR and then-described acoustical conditions. Theme park ride noise, characterized as 60-74 dBA in the Draft EIR, was the level prevailing and incident on the proposed building skins in year 2000. Maximum noise from the proposed coaster would not exceed 73 decibels (dBA) on the building skins or 75 dBA at the property line.

Maximum scream noise would not exceed 65-66 dBA on the building skins. This is a conservative level founded on actual measurements of operating coasters. The CMS Associates analysis adds an additional margin of 5 dBA to the conservatively founded scream level of 65-66 dBA outdoors. The CMS Associates scream noise assumption is incredible in view of the measurement data, proposed north-south orientation of the coaster's northern lobe, and proposed direction of the first turn of the ride away from the Nortel buildings.

The location of a ride on theme park grounds is not unusual. In regard to "proximity" of the proposed coaster to the Nortel buildings, the coaster footprint has been held away from the shared property line. The buffer strip on theme park land assists in minimizing noise at the property line and noise incident on the building skins. The orientation of the lift hill and northern lobe of the proposed coaster would direct rider scream noise north, northeast and east, away from the Nortel buildings.

ACOUSTICS

1. **Rider scream maximum noise incident on the Nortel building skins is forecast by GA's consultants to be 65-66 dBA .**

This level is substantially lower than the level assumed by CMS Associates (71 dBA) for its "worst-case" evaluation. GA's consultants believe the CMS Associates assumption to be highly exaggerated, and not credible, based on review of actual measurements of wooden coasters and the proposed coaster layout.

2. **True background noise levels in the offices are not well represented by a single number and especially not by a minimum value.** True background baseline noise levels vary, depending on internal sources such as air conditioning and ventilation, for example, and were measured to be in the range of 31-38 dBA on February 28 and March 3. During ninety percent of the time, background noise actually exceeded these levels.

Interior office noise measured in unoccupied and unfurnished spaces represents the lowest possible baseline of indoor noise. The minimum reported by CMS Associates, 31 dBA, is not representative of occupied office spaces.

Operating minimum baseline noise levels in the Nortel buildings will increase as the unoccupied spaces are furnished and occupied. Telephones, printers, computers, and other utilities or equipment all add to the baseline or background. Audibility in an unoccupied office room is a hypothetical consideration. With no human observer present there can be absolutely no chance for disturbance.

3. **In combination with the transmission loss (TL) through the window glass, the total noise reduction could be -36 to -38 dBA at the outer perimeter offices or cubicles nearest the east facing windows.** The additional reduction by room absorption would increase with increased distance from the east-facing windows. GA's consultants, therefore, nearly agree with CMS Associates analysis that outdoor noise incident on the buildings skins would be reduced by about -35 dBA. GA's consultants also agree with CMS Associates that outdoor-to-indoor noise reduction by the windows is typical for 1/4-inch thick glass. In the open plan offices, room absorption by ceiling tiles, carpet, cubicle partitions, and furnishings will provide an additional reduction, in addition to transmission loss through the window glass, which GA's consultants estimate to be in the range of -4 to -5 dBA.

4. **The CMS Associates measurement results corroborate that even near the east-facing windows in the unfurnished open offices, sound absorptive materials (*e.g.*, carpet and ceiling tiles) provide about -4 dBA more noise reduction than could be expected from 1/4-inch thick window glass alone.** GA's consultants in their March 3, 2008 letter, wrote that maximum scream noise indoors could fall in a range of 32-33 dBA indoors. At that date GA's consultants included only the outdoor-to-indoor noise reduction called "transmission loss" through the windows in their estimate, without the additional noise reduction by room absorption.

5. **The revised range of maximum expected scream noise indoors is 28 to 29 dBA.** This is the range which GA's consultants have estimated based on the additional noise reduction corroborated by CMS Associates. The range found by adding the maximum outdoor scream noise (65-66 dBA) and total noise reduction (-36 to -37 dBA).

Reconciliation of Independent Analyses by GA's Consultants and CMS Associates

The difference in the independent findings of the two consultants results mainly from the magnitude of outdoor rider scream noise and level of indoor noise represented as "background." The maximum scream level of 71 dBA used by CMS Associates is much higher than 65-66 dBA used by GA's consultants. GA's consultants believe the higher level is unfounded, have based their maximum scream value on measurements performed by GMH Engineering of the Kentucky Rumbler and Ozark Wildcat wooden coasters, have reconciled their coaster noise measurment data with other data published by C. Menge in Internoise 2002, and also have reconciled the rider scream level with practical considerations of the proposed coaster's layout.

Human voice is directional. If a speaker turns away from an audience the perceived volume decreases. The proposed coaster's layout is north-south, which is parallel to the east face (long axis) of the Nortel buildings, and its first turn would turn riders away from the Nortel buildings. The scream level assumed in CMS Associates analysis could possibly be consistent with a 'head-on" or "overhead" rider orientation, but it is unrealistic for the proposed orientation and is inconsistent with measurements performed of the Kentucky Rumbler and Ozark Wildcat coasters.

Basic methods used by both groups are similar. Indoor rider scream noise is the sum of outdoor scream noise incident on the building skins and total noise reduction by transmission loss (TL) through the window glass and room absorption. CMS Associates measured total noise reduction and empirically determined it is about -35 dBA. GA's consultants refined this empirical finding into its two components: TL and room absorption.

The difference between the consultants' independent findings in regard to total noise reduction (-35 dBA versus -36 to -37 dBA) is relatively minor. GA's consultant's have pointed out that interior office spaces located inboard to the outer perimeter east-facing windows and perimeter office spaces could have more reduction by room absorption or shielding compared to the perimeter office spaces.

GA's consultants do not agree that 31 dBA is representative of prevailing background noise inside the occupied space of the Nortel buildings. That level may represent a minimum sound level attained in a given period in an unoccupied, unfurnished office space. That level may represent a minimum at certain cycles of the ventilation and air conditioning in unoccupied and unfurnished open plan offices. It is certainly not the level at all times and will not be the background level in the spaces once furnished and occupied.

Offices surveyed on February 28 and March 3 did not have any workers; all lacked operating fax machines, scanners, printers, and desktop computers with power switched ON; and some lacked cubicle partitions and furniture. Even in those unoccupied and unfurnished spaces that were measured on February 28 and March 3, the minimum (Lmin) and LA90 noise levels at times were measured to be 37-38 dBA.

Audibility and disturbance depend on a comparison between rider scream noise indoors and background noise indoors. CMS Associates characterizes the potential indoor scream noise as "very audible to [office] occupants" because the CMS Associates assumed scream noise (36 dBA) could be 5 dBA above the minimum level (31 dBA) measured on site indoors on March 3. In contrast, GA's consultants describe the resulting rider scream noise as muffled and non-disturbing, because at the lower level (28-29 dBA) rider scream noise would be about 10 dBA, or more, below the typical background in one of the occupied and furnished perimeter offices.

Their divergent conclusions follow mainly from the assumed outdoor scream level and prevailing indoor background, not from a difference of methods. CMS Associates concludes a higher indoor scream level and, concurrently, asserts that the minimum noise level measured at certain times indoors represents a meaningful background condition. GA's consultants note that there cannot possibly be any disturbance in the absence of workers; therefore, a meaningful background level should be considered for the long-term occupied condition with office furnishings and equipment. This level will trend toward 37-40 dBA.

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by Papineau, R.E.A. 791

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March 4, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Sound Study Protocol for the Nortel Network Offices and Proposed New Wooden Coaster at California's Great America (Project 2007-045.03)

Dear Mr. Schwilk:

This letter was prepared to present the independent findings of Great America's consultants ("GA's consultants") in regard to the Sound Study Protocol implemented on March 3, 2008. The findings are preliminary and "independent" because they represent the work of GA's consultants only.

Background— GA's consultants began their Acoustical Impact Assessment in November 2007, and ultimately concluded their report dated January 15, 2008, after trying alternative coaster layouts. The currently proposed coaster was moved away from the property line to reduce off-site noise. The orientation of the proposed ride's northern lobe was designed to wrap around the Sky Tower and carry riders facing away from 4655 Great America Parkway in the first thrilling turn after the lift hill. The net result was a coaster layout that reduces maximum noise, called Lmax, to a level of 75 dBA, or lower, at the property line. The proposed ride, therefore, was assessed to be fully compliant with the City's Municipal Code.

After submittal of GA's Acoustical Impact Assessment, GA's Nortel Network neighbor expressed concern in regard to indoor noise inside the offices. GA and GA's consultants participated in an attempt to define and implement a Sound Study Protocol to evaluate indoor noise and, thereby, to address this concern. Agreement was reached in part but not on every detail of the Protocol.

Sound Study Protocol (the "Protocol")—The Protocol was established to identify 1) existing indoor noise levels at the east-side offices located at 4555 and 4655 Great America Parkway; 2) evaluate the outdoor-to-indoor noise reduction through the building skins; and, 3) estimate potential indoor noise caused by from coaster riders on the proposed new coaster. Measurements were performed on March 3, 2008, both outdoors and indoors in unoccupied and, in some instances, unfurnished office spaces .

To evaluate the building skin GA and GA's consultants independently made inquiries to confirm the detail of the window glass called "vision glass" on the east-facing facades. Initially unsuccessful in obtaining Plans & Specifications at the Building Department, GA's consultants ultimately confirmed the ¼-inch thick vision glass windows were supplied by VIRACON and installed by Harmon Ltd.

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Concurrently, GA's consultants worked with Charles Salter Associates to draft the Sound Study Protocol. Although GA's consultants and Charles Salters Associates did not agree on every aspect of the Protocol, some aspects of the analysis were shared including rider scream noise and VIRACON product data.

City Planning Department Staff did provide a year-2000 Draft Environmental Impact Report for the Nortel Great America Parkway Project. The Draft EIR for the Nortel Networks Project includes its own independent noise impact evaluation. The Draft EIR sets forth noise conditions affecting the Nortel project site in 2000 including San Jose International Airport (SJIA) operations and GA Theme Park operations. It characterizes Lmax noise on the Nortel Networks Project sites in terms of ranges of Lmax noise from specific sources: 60-74 Lmax from theme park coaster riders, 80 Lmax from theme park train horn, and 82-95 Lmax from jet flyovers. The Draft EIR evaluates the levels at the faces of the then-proposed office buildings and on the roofs of the then-proposed buildings (Draft EIR, page 64). The Acoustical Impact Assessment dated January 2008 also characterizes the proposed coaster rider noise in the same range as did the Draft EIR for coaster rides in the GA theme park in 2000.

The Draft EIR recommended optional mitigation measures for jet flyover and GA Theme Park noise on the Nortel Office project site. These were categorized as Tier 1, to achieve an interior Lmax lower than 50 dBA, or optionally as Tier 2, to achieve an Lmax lower than 60 dBA. The Draft EIR described noise resulting from Tier 2 mitigation as a somewhat noisy for offices. Higher Tier 1 level of mitigation required insulating glass or insulating laminated glass windows with higher Sound Transmission Class (STC) rating. Lower Tier 2 level of mitigation required 1/4-inch thick or 3/16-inch thick glass, which has an STC of about 31.

What We Learned from the Protocol—The following aspects were clarified by the additional inquiries and Protocol.

- The vision glass around the perimeter offices is ¼-inch thick glass but is not one of the Tier 1 glasses.
- Minimum indoor background noise (Lmin) inside the open plan, unoccupied offices is about 37-38 dBA. Office background noise is steady except during jet aircraft flyovers.
- Jet flyovers currently impact the indoor noise inside the offices, generating Lmax noise levels above 50 dBA on about 25 percent of commercial jet flyovers.
- The vision glass provides an outdoor-to-indoor noise reduction of about 27-29 dBA for jet noise and about 32-33 dBA for rider scream noise
- Maximum rider noise (Lmax) inside the upper-story, east-side offices is estimated to be about 32-33 dBA. This is the Lmax that would be attained along the east-side perimeter. The Lmax in interior spaces and private offices or conference rooms without east-side exposure would have a reduced Lmax.
- Rider noise would be muffled by the windows and non-disturbing relative to background.

Conclusion—The Nortel Network offices are affected by intermittent jet flyovers from SJIA. The measured Lmax during the noisiest jet flyovers exceeds 50 dBA. The noisiest 25 percent of jet flyovers have Lmax of 77.5 dBA, or above. The office interiors at 4555 and 4655 Great America Parkway are impacted by and will continue to be impacted by some jet flyovers, independent of GA's operations.

The proposed coaster would not alter or substantially increase the theme park's noise above the 60-74 dBA range, which is the range incident on the building skins, as presented in 2000 in the Draft EIR for Nortel Networks Great America Parkway Project. GA's January 2008 Acoustical Impact Assessment independently forecast Lmax from the proposed coaster in exactly the same range and not exceeding. All of the noise protection sought by Nortel Networks in 2000, therefore, would be equally effective for GA's proposed coaster. Maximum rider noise (Lmax) inside the upper-story, east-side offices, estimated to be about 32-33 dBA, would be muffled and non-disturbing in the background noise of open plan offices.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau
Project Manager

Enclosures: none

Marc Papineau

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Planning Division

February 7, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Supplemental Response to Additional Comment on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to address one additional comment regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3
The comment states that the Report needs to be updated to analyze a salient concern--the potential change to the acoustical environment within the adjacent buildings located at 4555 and 4655 Great America Parkway. The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.,* most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property.

Response to C3: The assessment was performed to evaluate the addition of noise from the proposed coaster. The Report's conclusions are based on a conservative assessment of noise impact, with consideration of both the existing sound environment and forecast noise from the proposed coaster including the riders.

The existing sound environment is monitored continuously by the San Jose International Airport Noise Monitoring Center. The existing Community Noise Equivalent Level (CNEL) or Day-Night Average Noise Level (Ldn) is about 60-62 dBA in the vicinity of 4555 and 4655 Great America Parkway. The CNEL range actually monitored for 2006-2007 is 60-64 dBA, depending on location in the community and distance off the runway centerline.

Measured Lmax outside the offices varies. In any working hour, morning, midday, or afternoon, aircraft overflights generate Lmax noise levels between 69 and 85 dBA. CNEL and Ldn represent noise level averages as opposed to maximum noise levels (Lmax); therefore, from practical considerations, CNEL and Ldn will always be lower than Lmax.

But, as a conservative approach to the assessment, and to test the consistency of the proposed action with the City's Municipal Code, the Report documents Lmax. The Report and responses show forecast zones of Lmax 76-79 dBA and Lmax 80 dBA, or higher, are

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located on Great America theme park land. Forecast zones of Lmax 75 dBA, or lower, are located on off-site land including the property at 4555 and 4655 Great America Parkway. The Report and Response C2 address the Lmax forecast for the 5th or 6th stories of the office buildings at 4555 and 4655 Great America Parkway. Lmax from the proposed coaster is forecast to be about 73 dBA outside the upper stories. Lmax from the proposed coaster is forecast to be about 70 dBA at near-ground receptors outside the offices. Outdoor-to-indoor sound reduction for normal commercial office construction would be expected to reduce indoor noise at the offices to the 40-45 dBA range, which is not any different from the existing.

The frequency of 70-73 Lmax generated by the proposed coaster outside the offices is 20 to 40 per hour. The duration would be short because Lmax levels are not averages but "peaks" and are not, therefore, sustained over time. Another way of considering noise is based on hypothetical average levels sustained over time. This is the approach of Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Caltrans, and many communities in their General Plan Noise Elements.

The energy-equivalent sound level (Leq) is the sustained noise level that carries the same sound energy as actual time-varying noise. The Leq conveyed by proposed coaster noise events has been measured at comparable wooden coasters. Based on the field studies, the proposed coaster is expected to generate a 1-hour Leq of 57 dBA outdoors at the eastern façade of the office buildings (or, 60 dBA outside the upper stories). Averaged with the local ambient or "background" Leq, which is near 60-62 dBA, the combined CNEL and Ldn would remain within 2-3 decibels of the existing level and less than 65 dBA. A 2 decibel change is just barely perceptible.

The forecast CNEL and Ldn of 63 dBA outside the upper stories is within the range currently being monitored in the community. The City of Santa Clara's *General Plan 2000-2010*, Environmental Quality Elements, Noise, presents a CNEL and Ldn compatibility chart for commercial uses which include offices. The acceptable noise level for an office use, without special construction or other mitigation measures, is 65 dBA. In view of this fact, there cannot be a significant effect for the proposed coaster because exterior office building façades would not be exposed to CNEL or Ldn above 65 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

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City of Santa Clara
Planning Division

February 12, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Additional Response to Comment C3 on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to expand on a previous response to Comment C3 regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3
The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.*, most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property. This comment was further explained by Mr. Charles M. Salter, P.E., on February 11, 2008, as a specific concern about the potential audibility of passenger screams inside the buildings at 4555 and 4655 Great America Parkway.

Additional Response to C3: Indoors at 4555 and 4655 Great America Parkway, passenger scream noise would not be audible. Potential audibility of passenger scream noise would be precluded by outdoor-to-indoor noise attenuation by the building skins and background noise of 36 dBA, or higher, inside the office spaces. For quiet private offices, interior background noise is typically 36-40 dBA. In comparison, noise levels in quiet courtrooms, libraries and conference rooms are typically 32-36 dBA.

Conservatively estimated, passenger noise incident on the building faces could potentially reach 60-63 dBA outdoors near the ground floor and 63-66 dBA outdoors at the upper stories, but could not reasonably be expected to exceed the upper limits of these ranges. Passenger scream noise is directional. Its audibility and loudness at a given receptor depend on the way passengers are facing. At the eastern building façades of 4555 and 4655 Great America Parkway, the loudest passenger noise will be directed away from or obliquely relative to the building faces. The proposed lift hill is parallel to the building faces and the first turn banks away from the buildings. The slope after the peak is down toward the northeast and east, which is away from the buildings at 4555 and 4655 Great America Parkway .

The building skins of 4555 and 4655 Great America Parkway are believed to reduce noise outdoor-to-indoor by -40 dBA or more. With outdoor-to-indoor noise reduction of -40 dBA,

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the projected interior Lmax from coaster passengers could be 20-23 dBA indoors on the ground floor or 23-26 dBA indoors on the upper stories.

On the upper stories, the 26 dBA Lmax from passenger screams would be -10 dBA lower than the background noise level for a quiet office, which is 36 dBA as noted on the previous page. On the ground floor, the 23 dBA Lmax from passenger screams would be -13 dBA lower than the background noise for a quiet office. The expected Lmax, therefore, would be so much lower than background office noise as not to be audible.

Passenger scream noise is included in the Lmax contours presented in the Report and responses. Passenger scream noise contributes to Lmax at certain measurement locations at certain times during the ride cycle, but not at all locations or all times during the ride cycle. During the Kentucky Rumbler sound tests, at ten (10) measurement locations, passenger noise did not increase the measured Lmax. At ten (10) other locations, mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone.

Passenger scream noise is secondary in magnitude compared to mechanically-generated ride noise. At measurement locations around the Ozark Wildcat and Kentucky Rumbler, where mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone, the difference was +0.3 to +1.7 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

California's
Great America

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City of Santa Clara
Planning Division

Date: 3/4/08

To: Jeff Schwilk

From: Greg Sanders

California's Great America Wood Coaster Proposal

Jeff,

Attached is some additional sound study information on the Nortel Building that our sound consultant has produced since the last Commission meeting. Attempts were made to agree with Prudential's sound consultants on the study.

We feel that the information attached adds support to our position that the proposed Wood Coaster will have no disruptive impact on the Nortel buildings.

We would like to point out that we have made efforts to provide Prudential with information and communication even prior to the last Commission meeting. We have responded and provided all information that has been requested by Prudential. We do not believe that Prudential has shown the same level of cooperation. For example, on February 29th, a meeting was set up between the sound consultants by Prudential's consultant. While the Great America consultants went to the Nortel building at the scheduled time, the Prudential side did not show up. A call was made to find out why the meeting did not take place and the consultant said that the Prudential attorney's had not agreed/approved for the meeting to take place that day. The meeting was subsequently rescheduled for March 3rd, hindering the schedule to collect and analyze data.

Great America stands committed to continue to work with Prudential to try and resolve any questions in order to proceed with the project.

Greg Sanders

Greg Sanders

2401 Agnew Road | Santa Clara, CA 95054 | (408) 988-1776 | cagreatamerica.com

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January 15, 2008

Mr. Lowell Esposo
California's Great America
P. O. Box 1776
Santa Clara, CA 95052

Subject: **Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.01)**

Dear Mr. Esposo:

This letter presents the results of an acoustical impact assessment for a proposed new wooden coaster at California's Great America in Santa Clara, California.

SUMMARY

Existing ambient noise levels were reviewed for comparison with projected noise levels generated by the proposed new wooden coaster. Based on this review, existing ambient noise levels at the amusement park's western boundary are approximately 65 Leq (5-6 PM), 65 Ldn, and 75-80 Lmax (dBA). See "Glossary" on the following page for definitions.

California's Great America amusement park is adjoined by developed parcels in the Planned Industrial (MP) zoning district (APN 104-42-20) and Planned Development (PD-MP) combining district (APN 104-42-017 and -18). The parcel at 4551 Great America Parkway, in the MP zoning district, has a warehouse or manufacturing building adjacent to the park's western property line, which is attached to 2-story offices along Great America Parkway. The parcels at 4555-4559 and 4655-4659 Great America Parkway, in the PD (MP) zoning district, are improved with two (2) 4-story parking structures adjacent to the park's western property line and two (2) 6-story office buildings along Great America Parkway. Pursuant to Sub-Chapter 9.10.060 of the *Santa Clara Municipal Code*, the allowable noise exposure standards are 70 Leq, 70 Ldn, and 75 Lmax, all at the property line. The Lmax standard was adjusted up by 5 decibels (dBA), as prescribed in Sub-Chapter 9.10.060, to encompass or reflect ambient noise levels.

The proposed new wooden coaster is assessed to generate Leq and Ldn sound levels at 4551 and 4555 Great America Parkway that are consistent with the City's allowable noise exposure standards (see Figure 1, p. 8). The Lmax at the property line would equal, but would not exceed, 75 dBA, and would be comparable to the existing Lmax during a jet flyover. Ldn and Leq at the property line would not exceed 70 dBA. Off-site to the east, the proposed new wooden coaster would not have any impact on the nearest residential land uses, which include the houses on Gillmor Street, Lakeshore Drive, Rambo Court and other local streets.

This acoustical impact assessment is based upon the proposed ride's location, sound qualities of a comparable wooden coaster, and a graphical overlay method. Projected Lmax noise levels at specific off-site receptor locations are presented in Table 1 (p. 5). An evaluation summary is provided in Table 2 (p. 6) and details are provided on the following pages.

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GLOSSARY OF TERMS

dBA an A-weighted decibel, which is a unit of sound amplitude or loudness.

Lmax maximum sound level during a specified measurement period. The maximum sound level during a 24-hour period usually exceeds the Ldn and Leq.

Leq an average sound level defined as the level of steady sound having the equivalent sound energy as the actual time-varying sound over a specified period.

Ldn a day-night average of 24 Leq sound levels measured consecutively during a 24-hour period, and including +10 dBA penalties for each hour during the nighttime period of 10 PM to 7 AM.

CNEL similar to Ldn and penalizes noise not only during nighttime but also during the evening period. Ldn and CNEL are used interchangeably here, as the values are expected to be nearly the same, within 1 dBA.

METHODS

Maximum (Lmax) and energy-averaged (Leq) sound levels that will originate from the proposed coaster were assessed by graphical overlay of reference sound level contours over the Plan View or "footprint" of the proposed new ride. Reference sound level measurements were provided by GMH Engineering for the "Ozark Wildcat," an existing wooden coaster in Celebration City, Branson, Missouri, manufactured by Great Coasters Inc. (GCI). "Ozark Wildcat" coaster was selected because it has similar, but not identical, characteristics to those of the proposed coaster. Preliminary results of a recent December 2007 sound level survey of the "Kentucky Rumbler," another wooden coaster in Beech Bend Park, Bowling Green, Kentucky, also were considered for the graphical presentation of Lmax contours.

Measured Lmax and Leq sound levels for an existing wooden coaster were evaluated and then presented graphically as contours showing lines of equal sound level on-site and off-site around the proposed new wooden coaster. In comparison, the existing background sound environment was assessed from available sources including previous measurements, San Jose International Airport noise monitoring and contours, and the City's General Plan. Acoustical impact assessment was performed by Mr. Ballard W. George, who is a board-certified Acoustical Consultant certified by the Institute of Noise Control Engineering (INCE).

Zoning districts were obtained from the City's published Zoning Map. Existing land uses near Great America Parkway and the park's western property line were obtained by reconnaissance on November 23, 2007.

DESCRIPTION OF THE PROPOSED COASTER

The location of the proposed coaster is in the northwest corner of California's Great America theme park. The proposed lift would be located at the north end of the proposed coaster, near the existing Sky Tower. The footprint of the proposed wooden coaster is approximately 600 feet long north-south, and 400 feet northeast-southwest. The layout is a hybrid with out-and-back and twister elements, with a total track length of about 3,100 lineal feet.

Currently, there are eight coaster rides at California's Great America, built during 1976 to 2001. The one existing wooden coaster is "Grizzly," which was built in 1986, with a maximum height of 91 feet, track length of 3,250 lineal feet, and maximum car speed of 50 mph, and ride duration of

2 minutes 40 seconds. The proposed new wooden coaster would have similar operating characteristics. The proposed coaster's trains would convey about 850 passengers per hour.

ADJACENT LAND USES

The nearest off-site land uses are located west of the proposed new wooden coaster. North of Patrick Henry Drive off-site uses include a pair of 4-story parking garages and 6-story office buildings (4555-59 and 4655-59 Great America Parkway). South of Patrick Henry Drive there is a 1-story warehouse or manufacturing building with attached 2-story offices (4551 Great America Parkway).

The offices at 4555 and 4655 Great America Parkway are used by Nortel Networks, AMD, NAMCO BANDAI Games America, Inc., and possibly other tenants. A driveway, pair of 4-story parking structures, and a cafeteria building are located between the amusement park and the offices. Garage G101 is located at 4559 Great America Parkway, and garage G100 is located at 4569 Great America Parkway. These are concrete structures and appear as long rectangles in Figure 1. The separation distance between the proposed coaster's nearest approach and the 6-story offices is about 400 feet. The parking structures are separated from the park's western property line by only a driveway/fire lane.

The cafeteria building, with Café Luminous and conference rooms, is located between the 6-story offices, at 4557 Great America Parkway. The cafeteria building was observed from the outside on November 23, 2007. There was audible noise from a fixed refrigeration source. There is an outdoor seating area behind a low wall.

The office and warehouse/manufacturing space at 4551 Great America Parkway appear to be vacant. The 1-story warehouse and loading dock portion of the building is located between the amusement park and the 2-story offices. The separation distance between the proposed coaster's nearest approach and the 2-story offices is about 250 feet.

The nearest residential back yards are located at great distance form the proposed new wooden coaster, east on Gillmor Street and Lakeshore Drive. These are so far away as to be outside the zone of potential noise influence of the proposed coaster.

AMBIENT SOUND LEVELS

The City of Santa Clara's General Plan, Chapter 5, *Environmental Quality Element*, Figure 5-J (p. 30) illustrates traffic noise contours, and Great America Parkway's 65 Ldn (CNEL) noise contour generally falls near the amusement park's western boundary.

The General Plan Chapter 5, *Environmental Quality Element*, Figure 5-I (p. 26) also illustrates the airport's 65 Ldn (CNEL) contour; however, more recent and detailed information is available from San Jose International Airport Noise Monitoring Center (SJO/NMC). The Noise Monitoring Center submits monthly and quarterly noise monitoring reports to the Airport Commission, Airport Noise Advisory Committee, and San Jose City Council. Noise monitoring sites are operated remotely at off-airport locations.

SJO/NMC's Noise Monitoring Location #11 is representative of aircraft noise conditions at the eastern property line of California's Great America. SJO/NMC's Noise Monitoring Location #14 is representative of aircraft noise conditions near Tasman Drive and Lafayette Street. Aircraft noise at the western property line of California's Great America is interpreted to be represented by noise levels monitored at SJO/NMC's Noise Monitoring Locations #11 and #14. The airport's 65

Ldn noise contour is shown in 2006-2007 noise monitoring reports to be located over the amusement park's eastern property line and the residential area to the east of the park. The existing Ldn noise level at Noise Monitoring Location #11 is 64.0 ± 1 dBA. The existing Ldn noise level at Noise Monitoring Location #14 is 59.5.± 1.5 dBA. These levels are for the annual period June 30, 2006, to June 30, 2007.

Short-term sound level measurements were performed on December 4, 2007, and previously on August 29, 2000, and June 3, 2002. Measurements were made using a Bruel & Kjaer, Type 1, Model 2230, Precision Integrating Sound Level Meter. Measured sound levels were approximately as follows:

- **Site A**: 75 Lmax (dBA) at the office building at 4655 Great America Parkway;
- **Site B**: 63 Leq (dBA) in the office area west of the employee parking lot;
- **Site C**: 66 Leq (dBA) at the southeast corner of Regina Court and Lakeshore Drive; and,
- **Site D**: 67 Leq (dBA) at the northeast corner of Rambo Court and Lakeshore Drive.

Measurement Site A was located near ground level at the southeast corner of the building at 4655 Great America Parkway (see Figure 1). Measurement Site B was located in the office area along the north side of Mission College Boulevard. Measurement Sites A and B are both outside the airport's 65 Ldn noise contour. Measurement Sites C and D, in the residential area east of the park, are located on the airport's 65 Ldn noise contour. Measured Lmax sound levels from individual aircraft "overflights" at Site A in 2007 were 69 dBA,74 dBA, and 85 dBA. As newer, quieter stage 3 aircraft have entered the fleet, aircraft overflight sound levels generally have decreased since 2000.

Two non-fixed sources of noise dominate the local community noise environment. These sources are: 1) aircraft departing from the San Jose International Airport and 2) traffic on Great America Parkway, Mission College Boulevard, and Agnew Road. Along the park's western property line, ambient noise from traffic is relatively more significant. Along the park's eastern property line, ambient noise from aircraft is relatively more significant. The estimated background Ldn sound level at the park's perimeter is approximately 65 Ldn (dBA) on the east and west, at the park's property line.

COMMUNITY NOISE STANDARDS AND GUIDELINES

Santa Clara Municipal Code, Title 9, Chapter 9.10, Regulation of Noise and Vibration, Sub-Chapter 9.10.040 (Schedule A) states that for light industrial (MP zoning district) the maximum allowable noise level from a fixed noise source is 70 decibels (dBA) at anytime of day or night. Rides within California's Great America are considered by the City Santa Clara Planning Department staff to be "fixed sources."

Pursuant to Sub-Chapter 9.10.060 (c), the allowable exposure standard shall be adjusted to encompass or reflect the ambient noise level. If the ambient noise level at any given location differs from the level set forth in 9.10.040 (Schedule A), "the allowable noise exposure standard shall be adjusted in five dBA increments in each land use category as appropriate to encompass or reflect said ambient noise level." In view of the ambient conditions at the park's western property line, allowable noise exposure standards are 70 Ldn, 70 Leq, and 75 Lmax (dBA).

The City of Santa Clara's *General Plan*, Chapter 5, *Environmental Quality Element* (July 23, 2002) identifies an exterior sound level of up to 70 Ldn (dBA) as the community sound level that is

compatible for light industrial land uses without mitigation. An Ldn of 70-75 dBA with design and insulation to reduce interior noise levels is potentially compatible for light industrial land uses.

In the *General Plan*, community noise includes noise from fixed and mobile sources, for example, aircraft departures and landings; street traffic; steady, intermittent, and peak sounds from the neighborhood; and steady, intermittent and peak noise from California's America theme park. The *Santa Clara Municipal Code*, Title 9, Chapter 9.10 addresses allowable noise from fixed sources.

EVALUATION

Lmax levels projected at actual developed uses are presented in Table 1. The projected 75 Lmax at the park's western property line would equal, but would not exceed, the allowable noise exposure of 75 Lmax.

This evaluation of sound impact addresses all nine criteria of *Santa Clara Municipal Code*, Title 9, Sub-Chapter 9.10.060. Table 2 (next page) lists these criteria and findings.

TABLE 1

PROJECTED Lmax AT SPECIFIED RECEPTORS

ID	Address	Actual Developed Use	Lmax (dBA)
1	4559 Great America Pkwy	Parking garage	74
2	4557 Great America Pkwy	Outdoor lunch/seating area	70
3	4555 Great America Pkwy	Office building (walkway)	70
4	4551 Great America Pkwy	Loading dock	74
A	4655 Great America Pkwy	Office building (walkway)	70[4]

NOTES:
1. Receptor locations #1-4 are shown in Figure 1.
2. Lmax projections are worst-case without corrections for shielding by intervening walls or structures.
3. Other receptor locations, not shown, could have reduced noise exposure owing to shielding by structures.
4. Measured Lmax 69-85 dBA for individual aircraft on December 4, 2007 generally equals or exceeds projected 70 Lmax (dBA).

The projected 75 Lmax is a recurring maximum noise level having relatively short duration. A 75 Lmax would not be inconsistent with existing parking garages and loading dock, which are the actual developed uses on the adjoining parcels. At the offices themselves, the projected Lmax would be 70 dBA, which does not exceed or approach the allowable 75 dBA (see Figure 1).

The projected 70 Leq at the park's western property line would equal, but would not exceed, the allowable noise exposure of 70 Leq. Leq is not the noise metric of primary concern, which instead is Lmax. Leq is related to Ldn which is a metric used in the City's *General Plan*.

Ride-generated noise levels include mechanical lift noise, wheel-rail noise, and rider noise. All sources of noise were included based on noise measurements of actual operating coasters, "Ozark Wildcat" and "Kentucky Rumbler," by GMH Engineering.

LAYOUT MODIFCATIONS

The proposed coaster layout has been refined iteratively with the objective of reducing Lmax noise at the property line. The initial layout was adjusted by shifting the lift hill and first turn southward and eastward toward the Sky Tower. This change increased separation distance from off-site receptor locations #1, 2, and 3, and increased shielding by the existing parking structure. The southwest-northeast axis was rotated counterclockwise, shifting the outer turn southwards, and the turn's elevation was dropped to near ground level. These changes increased separation distance from off-site location #4 and provided opportunity for an on-site landscaped buffer treatment.

TABLE 2

NOISE IMPACT EVALUATION SUMMARY

Item	Chapter 9.10.060 Noise Evaluation Criteria	Evaluation
1	**Noise level at the property line compared to the allowable level: 75 Lmax** **Noise level at the property line compared to *General Plan* guidance levels: 70 Ldn**	75 Lmax (dBA)[a] 70 Leq (daytime), 70 Ldn
2	**Nature of the noise**	Wheel-track noise and mechanical noise. Human noise.
3	**Natural or mechanical source**	Mechanical
4	**Ambient noise**	75 Lmax, 65 Leq, 65 Ldn (dBA)[b]
5	**Proximity of the noise to sleeping facilities**	Remote
6a	**Nature and zoning of the area where noise is generated**	Amusement park in Thoroughfare Commercial (CT) zoning district
6b	**Nature and zoning of the area where noise is received**	Planned Industrial Zoning Districts: MP, PD (MP)
7	**Time of day or night the noise occurs**	Park hours, seasonal
8	**Duration of the noise**	each noise event is about 12 seconds[c]
9	**Is the noise recurrent, intermittent, or constant?**	Recurrent, 20 times per hour[d]

NOTES:

(a) Evaluation based on graphical overlay of noise contours developed from noise measurements of a similar operating coaster.

(b) Based on *General Plan* Chapter 5 Environmental Element Noise Contours and San Jose International Airport Noise Monitoring Center's aircraft noise monitoring outside the park. Traffic noise is about 65 Leq in the 5-6 PM hour. Lmax exceeds this Leq during individual events such as car passbys and aircraft flyovers.

(c) Based on estimated 10 dBA drop-off time of -6 seconds on the approach and +6 seconds on the departure.

(d) Based on conservative ride cycle time ("headway") of 3 minutes.

SOURCE: Ballard W. George Acoustics, December 2007 and January 2008

REFERENCES

GMH Engineering, August 18, 2005. Ozark Wildcat - Sound Level Survey, 6 pp.

GMH Engineering, December 2007. Kentucky Rumbler - Sound Level Survey (Preliminary), 20 pp.

Santa Clara, City of, July 23, 2002. General Plan 1990 – 2005, Chapter 5, *Environmental Quality Element*. http://www.ci.santa-clara.ca.us/pdf/collateral/3081-GeneralPlan-Chapter5.pdf

Santa Clara, City, 2007 (or most current). *Santa Clara Municipal Code*, Title 9, Chapter 9.10, Regulation of Noise and Vibration. http://www.codepublishing.com/ca/santaclara/frameless/code.pl?cite=9.10#9.10

Santa Clara, City, 2005 (or most current). *Santa Clara Zoning Map*. http://www.ci.santa-clara.ca.us/pdf/plans_ord_pdf/zoning2005.pdf

San Jose International Airport, September 13, 2007. Noise Monitoring Data–Quarterly Report Second Quarter 2007. http://www.sjc.org/community/reports/2q07.pdf

San Jose International Airport, May 30, 2007. Noise Monitoring Data–Quarterly Report First Quarter 2007. http://www.sjc.org/community/reports/1q07.pdf

San Jose International Airport, March 2, 2007. Noise Monitoring Data–Quarterly Report Fourth Quarter 2006. http://www.sjc.org/community/reports/4q06report.pdf

San Jose International Airport, November 27, 2006. Noise Monitoring Data–Quarterly Report Third Quarter 2006. http://www.sjc.org/community/reports/3q06report.pdf

Thank you for this opportunity to serve California's Great America. If you have any questions or require further information, please contact me at (510) 881-8574 or Mr. Ballard George at (408) 736-7182.

Sincerely,
FOR AND ON BEHALF OF ENVIRONMENTAL SERVICE
AND
BALLARD W. GEORGE ACOUSTICS

Marc Papineau

Marc Papineau
California Registered Environmental Assessor 791
Project Manager

Enclosures: Figure 1, Community Noise Contours for the Proposed Coaster, page 8
Figure 2, Reference Lmax Noise Contours for Ozark Wildcat, page 9
Attachment A, Background Information on Wooden Coasters
Attachment B, Qualifications of the Report Preparers

environmental service
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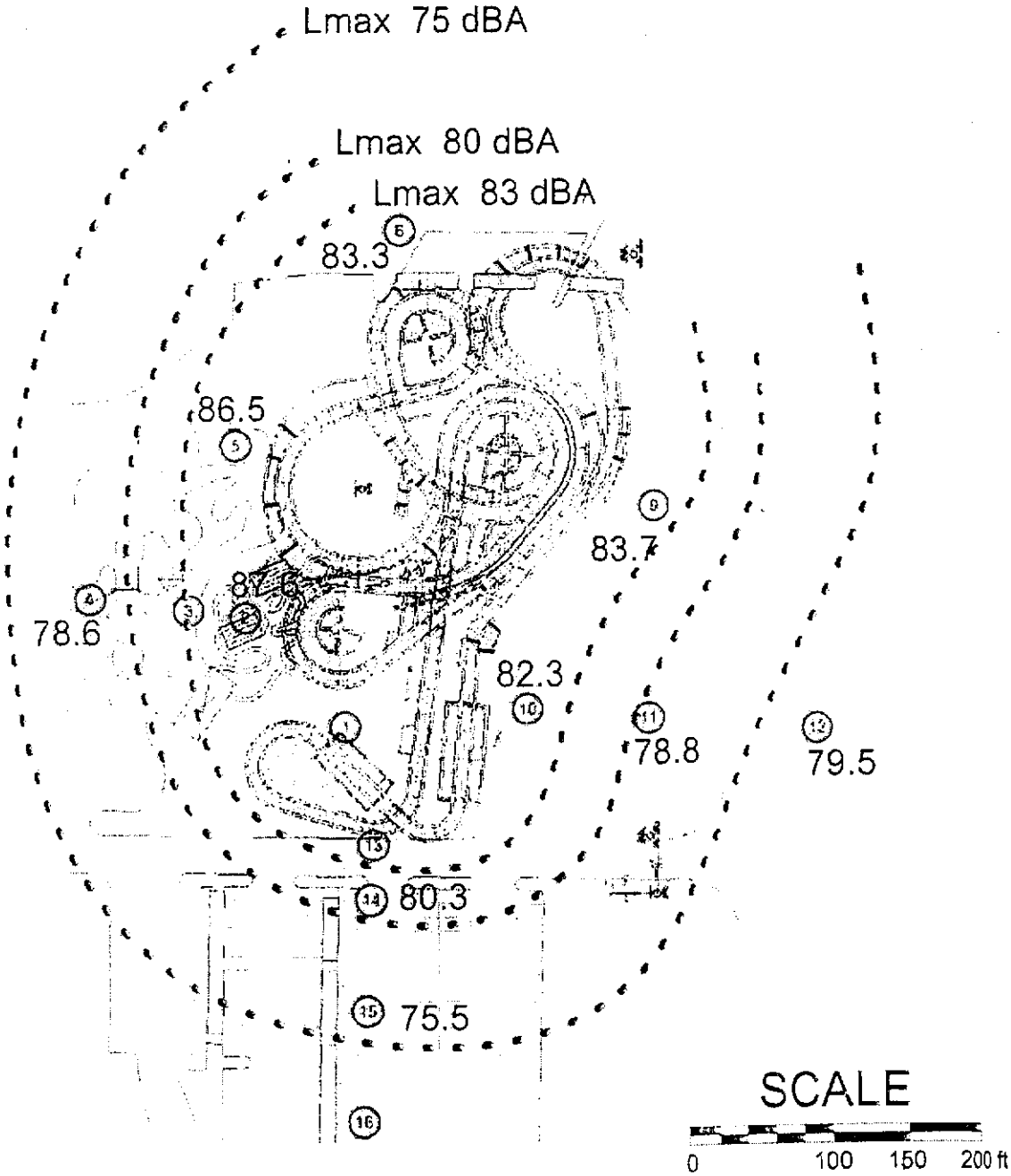
Figure 1

Lmax Noise Contours
for the Proposed Coaster



10 Years 1995 - 2005 environmental service in association with BALLARD W. GEORGE	N	**Figure 2** **Reference Lmax Noise Contours**

ATTACHMENT A

GENERAL BACKGROUND INFORMATION ON WOODEN COASTERS

There are two basic families of roller coasters: steel and wooden. The kind of track, or "rail," is the feature which places a coaster into the steel or wooden family. Steel roller coasters run on tubular steel rails. Usually hollow, the rails may also be filled with sand or another dense material to help dampen the sound, especially in metropolitan areas with restrictions on noise level. Steel coasters typically have a steel support structure, but the construction of the support structure does not affect whether a coaster is in the family of steel or wooden coasters. There are coasters with steel rails and have wooden supports structures, and these are still steel coasters.

Steel coasters have greater design flexibility than wooden coasters. Steel is more durable than wood, can withstand greater stresses, and span greater unsupported distances. Steel coasters, therefore, can have tighter turns, steeper hills, and even go upside down. Steel coasters come in many forms, including inverted (cars run beneath the track with riders' legs dangling), floorless (cars run above the track but there is no bottom and riders' feet still dangle), stand up (riders use a bicycle style seat), and suspended (enclosed cars run beneath the steel track).

The running rail of a wooden coaster consists of strips of laminated wood topped with a steel strap. The most common types of wood used for coaster rail construction are Douglas fir and southern yellow pine because they readily accept the pressure treatment necessary to make the wood more durable. Most wooden coasters have a wooden support structure; however, a coaster constructed using a steel support structure and wooden rails would still be in the family of wooden coasters.

Wooden coasters cannot have such tight turns or steep hills as steel coasters. One hybrid wooden-steel coaster, Son of Beast at Paramount's Kings Island in Ohio, has an inversion – a vertical loop constructed out of steel. No pure wooden coaster can have an inversion. So why are they built still? Wooden coasters have a unique appeal due to the shaky, out-of-control feel of the ride.

Owing to the relatively limited design flexibility of wooden coasters compared to steel coasters, wooden coasters have two basic layouts: out-and-back and twister. An out-and-back coaster travels along its course, makes a one-hundred-eighty degree turn, and returns to the station parallel to the outbound course. In the twister layout, tracks weave throughout the support structure, sometimes traveling above and below other segments of track.

Existing Coasters

at Great America in Santa Clara, California

Name	Year opened	Type	Track length (feet)	Height (feet)	Top speed (mph)	Designer
Demon	1976	Steel	2,130	102	50	Arrow Dynamics
Grizzly	1986	Wood	3,250	91	50	Curtis D. Summers
Runaway Reptar	1987	Steel	1,300	36	25	Intamin AG
Vortex	1991	Steel	2,260	91	45	Bolliger and Mabillard
Top Gun	1993	Steel	2,260	102	50	Bolliger and Mabillard
Invertigo	1998	Steel	985	161	50	Vekoma
Taxi Jam	1999	Steel	288	8	na	Miler Coaster, Inc.
Psycho Mouse	2001	Steel	1,257	58	30	Arrow Dyanmics

ATTACHMENT B

QUALIFICATIONS OF REPORT PREPARERS

B.S., Mathematics and Physics, Haverford College, 1976
M.B.A., Finance, UC Berkeley, 1981

MARC PAPINEAU, R.E.A. 791, has engaged in the environmental sciences since 1977. At Environmental Research & Technology (Westlake Village) Mr. Papineau performed mathematical evaluations of air pollution transport data for a research project funded by the American Petroleum Institute. At Earth Metrics Incorporated (1978-1990), Mr. Papineau was an environmental scientist and technical writer for environmental impact statement (EIS) and report (EIR) documentation pursuant to the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). At Earth Metrics Incorporated, and later at Certified Engineering & Testing Company, Inc. (1990-1994), Mr. Papineau managed EIRs, performed special studies including risk assessments, air quality assessments and monitoring; prepared Phase I environmental site assessments; and managed special services including software application and development for air pollution and acoustics, liquid spills, nonvolatile liquid evaporation, and contaminant releases to soil. These services were provided in support of the programs of cities, school districts and utility districts, developers, and the banking and real estate communities.

In total, Mr. Papineau has provided professional environmental services for 24 years. Mr. Papineau has been a California registered environmental assessor since 1988.

Mr. Papineau's academic and management experience includes physics and mathematics baccalaureate, management of a Physical Sciences Department, management of multidisciplinary teams engaged in the preparation of EIRs and EISs, and graduate business degree. He has managed Phase I, Phase II, and Site Mitigation projects for the JSM Enterprises, Pinn Brothers Construction, Inc., Resources for Community Development, City of Fremont, and many other clients.

Mr. Papineau has prepared Phase I assessments, EIRs, Negative Declarations, and special studies for high schools, middle schools, and elementary schools, not-for-profit housing developers, and city governments. Mr. Papineau has previously prepared Phase I assessments, Negative Declarations or EIRs, or related services, for Ecumenical Association for Housing; Mountain View-Los Altos High School District, Antioch Unified School District, Cotati-Rohnert Park Unified School District, and Los Rios Community College District; and also for the cities of San Bruno, Belmont, Pleasanton Hill, and Walnut Creek, which engaged in land acquisition for road improvements. Mr. Papineau is knowledgeable in the particular requirements of California Education Code, Section 39003, which requires consideration of potential risks posed by hazardous materials, wastes, and toxic air emissions.

In 1995 Mr. Papineau founded Environmental Service. The firm performs environmental services for cities, counties, and private sector clients and has introduced specialty services for the real estate brokerage and industrial communities. Phase I environmental site assessment services entail detailed research of archived city records, reverse directories, inspection and planning records, building permits, and other information sources, to ascertain past tenants and chemical usage at industrial properties. The firm specializes in environmental documentation of commercial sites, industrial reuses, and urban land conversions. Currently, Mr. Papineau is assisting the County of Alameda Planning Department with the Draft EIR for the Proposed PD Re-Zoning for the Marriot/Fairfield Inn & Suites hotel) and the City of Novato Engineering (EA and Project Study report for the proposed Novato Boulevard Improvements - Diablo to Grant).

B.S., Physics, University of Texas, Austin
M.S., Engineering, University of Texas, Austin

Ballard George is a consulting acoustical engineer and full member of the prestigious Institute of Noise Control Engineers (INCE). He is an expert in community noise monitoring and mitigation. Mr. George has created Noise Elements for the General Plans of California communities including the Town of Hillsborough and City of Riverside. Representative highway, aircraft, and rail noise assessment projects include Highway 880 overcrossing at Aladdin/Fairway; Harbor Bay Isle in the City of Alameda; and trackage along Highway 50 for the Sacramento Regional Transit Agency. Mr. George is an expert in compliance with California Administrative Code, Title 24, upon whose expertise architects and contractors regularly rely.

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March 31, 2008

36043-00002

VIA E-MAIL

Helene Leichter, City Attorney
Tina Wallis, Assistant City Attorney
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: Law Relating to Variance Approvals for Charter Cities

Dear Ms. Leichter and Ms. Wallis:

On March 6th, our office submitted a letter to the Chair and Members of the Santa Clara Planning Commission regarding the variance application recently submitted for the Great America Roller Coaster Ride. In that letter, we outlined the applicable statutory framework and legal standards for variance applications in general law cities. At the March 12th Planning Commission hearing, Ms. Wallis reminded me that Santa Clara is a charter law city and, therefore, section 65906 does not apply. Cal. Gov. Code § 65700(a), 65803 (2008).

We submit this supplemental letter in order to address the City of Santa Clara's ("City") statutory authority for variances as established in the City's charter. While we regret this prior oversight, since the City's Charter provision and section 65906 are based on the same legal principles and antecedents, the fundamental conclusions set forth in our letters dated February 13th, March 6th, and March 12th remain unchanged.

I. Statutory Framework

The City's Charter grants the City Council plenary powers not otherwise prohibited by the California Constitution or the Charter itself.[1] Santa Clara Charter § 400 (2008). Pursuant to

[1] Under Article XI of the California Constitution, a city may frame a charter for its own government, the provisions of which may prevail over state law with respect to matters that are strictly of municipal concern. Longtin, California Land Use § 1.74 (1987); Cal. Const. Art. XI, §§ 3, 5 (2008). The exercise of the zoning power has traditionally been deemed by the courts to be a municipal affair. Longtin, § 1.22; *CEEED v. California Coastal Zone Conservation Commission*, 43 Cal. App. 3d 306 (1974).

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this authority, the City Council adopted the City's Zoning Ordinance, and specifically, Chapter 18.108 of the Zoning Ordinance, which contains the City's variance provisions. Section 18.108.040 governs the granting of variances in Santa Clara. This section reads as follows:

> "In order to grant any variance, the findings of the Planning Commission shall be:
> (a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.
> (b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.
> (c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.
> (d) That the granting of the variance is in keeping with the purpose and intent of this title."

Santa Clara Zoning Ordinance § 18.108.040 (2008).

II. Legal Standards

A. Findings Requirement

In our March 6th letter, we discussed *Topanga Assn. For a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506 (1974). *Topanga* establishes the rule that the administrative agency granting a variance must set forth findings, and the findings must support the decision to grant the variance. *Id.* at 514. In other words, the findings must "bridge the analytic gap between the raw evidence and the ultimate decision or order." *Id.* at 515.

The *Topanga* decision is based upon an interpretation of section 1094.5 of the California Code of Civil Procedure, which provides for judicial review of agency administrative decisions.[2]

[2] Section 1094.5(a) of the Code of Civil Procedure allows a writ to be filed to "inquir[e] into the validity of any final administrative order or decision made as the result of a proceeding in which by law a hearing is required to be given, evidence is required to be taken, and discretion in the determination of facts is vested in the inferior tribunal, corporation, board, or officer, the case shall be heard by the court sitting without a jury."

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Id. at 515. The making of administrative findings is essential to judicial review, because the findings "apprise a reviewing court of the basis for the board's action" and "enable the reviewing court to trace and examine the agency's mode of analysis." *Id.* at 514, 516. Section 1094.5 applies to all agencies, regardless of their state or local character.[3] *Id.* at 514-515. Section 18.108.040 of the Santa Clara Zoning Ordinance, which requires that the Planning Commission adopt findings in support of the variance, is consistent with the holding of *Topanga*.

B. Substantial Evidence Rule

Both statutory and case law require that findings be supported by substantial evidence. Section 1094.5 of the Code of Civil Procedure states that in reviewing an administrative grant of a variance, a reviewing court must determine "whether there was any prejudicial abuse of discretion." Cal. Code Civ. Pro. § 1094.5(b) (2008). Abuse of discretion in a variance case "is established if the court determines that the findings are not supported by substantial evidence in light of the whole record." *Id.* § 1094.5(c).

In *Cow Hollow Improvement Club v. Board of Permit Appeals of the City and County of San Francisco*, which involved a variance decision in San Francisco, a charter law city, the Court of Appeal held that the substantial evidence rule was the proper standard of review. *Cow Hollow Improvement Club v. Board of Permit Appeals of the City and County of San Francisco* 245 Cal. App. 2d 160, 171 (1966). In *Broadway Laguna Vallejo Assn. v. Board of Permit Appeals of the City and County of San Francisco*, also a variance case, the Supreme Court applied this same standard. *Broadway Laguna Vallejo Assn. v. Board of Permit Appeals of the City and County of San Francisco* 66 Cal. 2d 767, 773 (1967). In reliance on section 1094.5, *Cow Hollow*, and *Broadway Laguna*, the *Topanga* court again confirmed that, in variance cases, **the findings must be supported by substantial evidence**. *Topanga,* 11 Cal. 3d at 512-515.

C. Unusual Conditions

In our February 13th letter, we analyzed the findings in the staff report for the approval of the roller coaster variance, based upon section 18.108.040 of the Zoning Ordinance. The Zoning

[3] In Santa Clara, because the variance application process requires a public hearing, the taking of evidence, and the exercise of discretion by the Planning Commission, pursuant to Chapter 18.108 of the Zoning Ordinance, section 1094.5 of the California Code of Civil Procedure clearly applies.

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Ordinance requires, among other findings, a finding of "unusual conditions." We drew a parallel between the "special circumstances" standard in section 65906 of the California Government Code and the "unusual conditions" standard in the Zoning Ordinance. Based on both the Zoning Ordinance and section 65906, we articulated the rule that the "unusual condition" at issue in a variance application must be grounded in **the existing physical property** itself—not in the use or the proposed structure.

Even though section 65906 does not apply to charter law cities, section 18.108.040 of the City's Zoning Ordinance clearly states that the Planning Commission must find "unusual conditions *applying to the land or building*[4] *which do not apply generally in the same district*." Santa Clara Zoning Ordinance § 18.108.040 (emphasis added). Notably, this clause omits any reference to unusual "use" conditions. Therefore, even when our analysis is restricted to section 18.108.040, the conclusion in our February 13th letter—that **the draft findings were deficient because they failed to identify an unusual condition in the property**—remains sound.

D. Necessary to Preserve Enjoyment of Substantial Property Right

The Zoning Ordinance does not specifically require a finding of "unnecessary hardship,"[5] but instead articulates a similar standard—that the Planning Commission must find the variance is necessary for the preservation and enjoyment of a substantial property right. In *Broadway Laguna*, the San Francisco Planning Code required the same finding. *Broadway Laguna*, 66 Cal. 2d at 780. The San Francisco Board of Permit Appeals justified its finding by stating "without the variance [the developer] cannot economically proceed with this attractive building." *Id.* The evidence, however, showed that strict adherence to the zoning regulations would make the project only "somewhat less profitable" than similar development on other lots in the same zoning district. *Id.* at 781. Because "variances were never meant to insure against financial disappointments," the court held that the finding requirement was not met. *Id.*

---

[4] An unusual "building" condition must refer, logically, to an existing building condition. If a variance could be granted for an unusual condition in a proposed building, then variances could be granted for any building that deviates from Zoning Ordinance requirements. This result would undermine the zoning regulations and subvert the contract-like "critical reciprocity upon which zoning regulation rests." *Topanga*, 11 Cal. 3d at 517-518 (1974).

[5] As part of the purpose statement of Chapter 18.108, the Zoning Ordinance states that variances may be granted in order to avoid "unnecessary hardships." Santa Clara Zoning Ordinance § 18.108.010.

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The *Broadway Laguna* case involved a variance granted by a charter law city. Consequently, the foregoing legal principle must apply to Santa Clara as well. The Staff Report for the Great America height variance argues that the variance is necessary to "attract new and return patrons" and to "keep the park vital." The fact that the applicant's theme park might be somewhat less profitable without the variance, however, does not justify the finding that the granting of the height variance is necessary to preserve Great America's enjoyment of its substantial property right. We reiterate the point made in our February 13th letter—**the record does not offer any evidence that Great America's property rights would be degraded if the height variance were denied.**

E. No Special Privilege

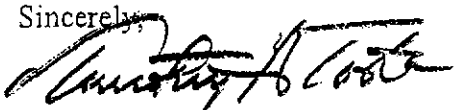
While Section 65906 of the California Government Code, which sets forth a "no special privilege" rule, does not apply to charter law cities like Santa Clara, the *Broadway Laguna* decision contains the same principle: **variances should be used to grant parity, not privilege,** among properties in the same zoning district. *Id.* at 781. Granting special privileges to one property owner would undermine efforts to regulate uses through comprehensive zoning. *Id.* Again, because the *Broadway Laguna* case involved a charter law city, this same rule must apply to the granting of variances in Santa Clara.

III. Conclusion

We appreciate the opportunity to supplement our earlier correspondence to the City. We believe that our prior letters articulated the supportable conclusion that the record does not contain the evidence necessary to support the granting of the variance application for the Great America Roller Coaster Ride.

We look forward to meeting with you tomorrow to discuss this matter further. Please do not hesitate to contact us with any questions or concerns.

Sincerely,



Timothy A. Tosta, of
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June 26, 2008

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OFFICE OF THE MAYOR
CITY OF SANTA CLARA

VIA HAND DELIVERY

Ms. Patricia M. Mahan
Mayor, City of Santa Clara
Members of the City Council
1500 Warburton Avenue
Santa Clara, CA 95050

Re: Great America Variance Application; File No. PLN2008-06835

Dear Mayor Mahan and Members of the Council:

We represent Cedar Fair, L.P., d.b.a. California's Great America ("Great America") with respect to the above-referenced application. On May 28, 2008, the Planning Commission approved, by a 5-1 vote, Great America's application to construct a sixth roller coaster at Great America. Neighboring property owner Prudential Real Estate Investors ("Prudential") has filed an appeal of that decision. This letter is submitted in support of Great America's coaster application and in opposition to Prudential's appeal.

I. Introduction

As you are likely aware, the Great America theme park has operated at its present location, 1 Great America Parkway, continuously since 1976. During the past 32 years, there has not been any change in use with respect to the park. The park periodically changes and refreshes its rides and attractions and/or adds new rides and attractions, in an effort to maintain its competitive position within its industry. The periodic addition, subtraction and alteration of rides and attractions is typical within the industry. The subject application is reflective of that effort; Great America seeks to add a new attraction within its existing park boundary.

Prudential, owners of two neighboring office buildings which were constructed some 25 years after the Great America amusement park, objects to the installation of an additional roller coaster at the park, primarily on the grounds that sounds from the coaster might be audible to tenants of the office buildings. Specifically, Prudential suggests that the screaming of riders, at a projected sound level of no greater than 36 dBA, could be "startling" to office users and cause a "psycho-acoustical effect." Prudential also has suggested that construction of the coaster could have visual impacts upon its building. Prudential has couched these objections in terms of claimed violations of CEQA and the City's variance ordinance.

Staff recommended approval of Great America's application, which was considered by the Planning Commission along with Prudential's objections. After a comprehensive evaluation of the application, including substantial testimony and the consideration of extensive written materials, the Commission voted 5-1 to approve the application and this appeal followed.

II. Analysis of Application and Response to Prudential Comments

In its May 28, 2008 Staff Report, the City's Staff, following a thorough review and analysis of the application, recommended that the application be granted. The Planning Commission approved the application and found the project to be categorically exempt from review under the California Environmental Quality Act ("CEQA") pursuant to Section 15323 of the CEQA Guidelines. That Section exempts the "(n)ormal operations of existing facilities for public gatherings for which the facilities were designed, when there is a past history of the facility's use for the same kind of purpose . . . Facilities within this exemption include, but are not limited to . . . amusement parks."

A. CEQA Categorical Exemption

Prudential argued that Section 15300.2(c) of the Guidelines prevents the City from applying the referenced categorical exemption to Great America's application, on the basis that the placement of a tall roller coaster near an office building constitutes an "unusual circumstance" creating a reasonable possibility that the activity will have a significant effect on the environment (within the meaning of Section 15300.2(c)). However, for this section to apply, the City must find **both** that there is an "unusual circumstance" **and** that this circumstance creates the likelihood of significant environmental impacts.

The roller coaster that Great America seeks to construct will be contained wholly within the existing borders of the amusement park, and will be otherwise consistent with the existing use of the park. Prudential's contention ignores that there are already a number of roller coasters (five) and other attractions on the park's property, including several that are taller then the proposed coaster. How can it be "unusual" to place a roller coaster on the park's property when there are already a number of other coasters (including a number of coasters of similar size to the proposed new coaster) on the site? Whether a circumstance is "unusual" is judged relative to the typical circumstances related to an otherwise normally exempt project. (*Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 801; *Fairbanks v. City of Mill Valley* (1999) 75 Cal.App. 4th 1243, 1259-60 (opponent must show that the project is distinguishable from similar existing features within the exempt category to remove from exemption)). Here, the categorical exemption specifically covers amusement parks, and includes the operation of attractions normally seen or found in such a venue. A roller coaster, particularly a sixth coaster at an existing amusement park, is hardly "unusual," and is the very type of activity contemplated by the exemption. Prudential attempts to turn the standard on its head and argue what is unusual is for an office building to be near an amusement park.

Prudential has urged the City to conduct additional unnecessary environmental review of the noise and visual impacts of the roller coaster, which would be superfluous. CEQA does not

require such additional review. In fact, the applicability of a categorical exemption to Great America's application obviates the need for any such additional review (see Guidelines Section 15300). Further, as indicated in the Staff Report, and discussed at length and in detail at the Planning Commission hearing, Great America went to the extra length of conducting a comprehensive noise study to ensure that there would be no significant noise effects experienced by Prudential and other neighbors. That analysis was a precaution, not review that was required by CEQA. [1]

Prudential's contention that the City's use of this exemption runs afoul of CEQA completely ignores how it is that there came to be categorical exemptions to CEQA. The exemptions describe projects that, by their very definition, are determined to not have significant impacts upon the environment (see Guidelines Section 15300). The extensive analytical work that Great America has done, while not required by CEQA, nevertheless reinforces both the applicability of Section 15323 to its application and the underlying reason for the existence of categorical exemptions in the first place. The additional analysis sought by Prudential simply is not required by CEQA. The applicability of a categorical exemption ends the need for further environmental analysis.

Prudential engaged the services of a consultant who performed some additional work with respect to noise analysis over and above Great America's study. As more fully explained below, and contrary to Prudential's contentions, their noise consultant has failed to demonstrate that there is any reasonable possibility of a significant environmental effect upon Prudential's tenants with respect to noise. If anything, the work of Prudential's consultant has demonstrated that Staff was correct in its application of the categorical exemption and the Planning Commission's decision was properly made.

Prudential has also provided the City with renderings that are intended to demonstrate that the construction of the coaster will create a significant visual impact. As more fully explained below, the renderings tend to show only that there is no environmentally significant viewshed to consider in the first place, or alternatively, that any effects upon Prudential's views are insignificant.

Lastly, Prudential has glossed over dismissively the idea that Great America's amusement park has operated continuously on the same site since 1976. That stretch includes well over two decades of operation prior to the construction of Prudential's office buildings. Prudential's predecessor elected to build its office buildings literally at the doorstep of the existing park, and now Prudential claims it is "unusual" to have such an attraction close to office buildings. The addition of a new roller coaster to Great America's park will not materially alter the existing operation of the park. To the extent that Prudential believes there are any significant environmental impacts associated with the ongoing operation of the park, those impacts were

[1] We have attached, for your consideration, a compilation of the noise analysis conducted on behalf of Great America. This subject has been studied exhaustively, and will be summarized in Section B, below. We do not anticipate that you will want or need to review these exhaustive materials, although we welcome you to do so. Rather, we include them so that the Council can appreciate the lengths to which Great America has gone to assess this situation and determine there is no possible noise impact.

specifically considered by Prudential's predecessors in interest prior to the time the office buildings were constructed. They were found to be practically and economically insignificant (at least by the developer of the office buildings) such that the developer elected to construct the office buildings as they are currently constituted, with less than optimum sound insulation. To the extent that Prudential believes the buildings to be insufficient in terms of their protections against interior noise, those conditions exist currently and are most properly corrected by Prudential making alterations to its own buildings.

B. Noise Impacts

Prudential's primary objection to the coaster application is based on possible screaming noise from roller coaster patrons. In connection with its application, Great America took the added extra step of conducting a thorough, complete noise analysis as a precaution to ensure that there would be no significant noise impacts upon its neighbors. Great America's studies found, correctly, that there would be no such significant noise impacts.

The letters from Prudential's noise consultants, Charles Salter and Timothy Brown, dated February 12, February 13, March 7, 2008, and May 22, 2008, and arguments raised by Prudential's counsel, Tim Tosta, at the May 28th hearing, do nothing to refute any of the findings made by Great America's studies. Contrary to Prudential's assertion, if the new roller coaster will not cause a significant increase in noise at the common property line shared by Great America and Prudential (as it will not), it stands to reason that the coaster will not significantly increase noise inside of a building that is even further away from the coaster than the property line. The March 7 letter notes that noise levels inside of the building were measured "as low as" 31 dBA. The park was closed when the measurements were taken by Salter and Brown, and they do not inform us as to the "baseline" for noise while the park is operating, and what increase, if any, over that baseline will occur once the new coaster is operating.

The essential argument made by Prudential's consultants is that interior sound levels from the new coaster could reach 36 dBA, particularly from rider screaming. Prudential suggests that in entirely empty offices (i.e., vacant and unoccupied with no background or ambient office noises), the interior sound level could be as low as 31 dBA, and that this possible differential of 5 dBA would disturb persons in such offices and cause "unnecessary stress" because screaming by roller coaster patrons can be startling and cause "psycho-acoustical effects." Prudential has also suggested that Great America's consultants misled the City in analyzing industry data and projecting rider scream noise from the new coaster. Several points must be made in response:

1. Prudential's predecessors (Nortel) built the office buildings almost 25 years after Great America opened. The buildings were constructed very close to the property line of the park with several roller coasters and other loud park features in place.

2. **The level of exterior noise projected from the new coaster is no greater than the level of noise (60 – 74 dBA) that the EIR for the Nortel buildings projected**

would be heard from the adjacent amusement park roller coasters.[2] In other words, the new coaster will produce **the same noise level** as predicted by the Nortel EIR for Great America attractions when those buildings were constructed. Thus, there is no issue whatsoever about higher or unanticipated noise at the exterior of the buildings.

3. The anticipated noise level from aircraft in the office buildings was projected at 82 – 95 dBA.

4. The Nortel EIR projected that maximum interior noise levels in the office buildings from all sources would be 52.5 – 69.9 dBA, with an average of 60.9 dBA. 50 dBA as an interior noise level was considered "optimum," and 60 dBA interior noise level was considered "acceptable."

5. The EIR for the Nortel buildings recommended mitigation in terms of window treatment to account for the already existing and anticipated continuing sound from the adjacent amusement park and other sources, such as aircraft. There were four levels of mitigation recommended, two of which were "optimum," to reduce anticipated interior noise levels to the maximum, and two lesser, or "acceptable" mitigations, which would provide a lower degree of sound protection. The owners of the Nortel building voluntarily choose the 3rd of the 4 options, which was projected to provide 10 dBA **less** sound insulation than either of the "optimum" levels.

6. The Nortel EIR indicated that commonly accepted noise standards consider 50 dBA as optimum for interior office uses and 50 dBA is also the average noise level for offices under the City's Environmental Quality Element. Further, uses may be considered incompatible under that Element only if an interior noise level of 45Ldn cannot be achieved. Here, Prudential is complaining about a possible interior maximum sound level of only 36 dBA, which is far below the applicable standards.

7. Great America's consultants have concluded that the March 7 Salter and Brown analysis is flawed in many respects, and they project an interior sound level from coaster screaming at only 28 to 29 dBA, and combined rider scream plus mechanical noise at 30-31 dBA, which is clearly not a problem. (See March 19, 2008 Papineau and George Rebuttal to March 7, 2008 letter, contained in Attachment 1). Further, even if this noise level from coaster screaming was 5 dBA higher, 34 dBA is only louder than a whisper, similar to background noise in an unoccupied building and **less** than background noise in an occupied building. In any event, noise levels of 28-36 dBA are not "startling." Rifle shots or unexpected screams can be startling. Periodic noise from an amusement ride in a park adjacent to, and visible from, an office cannot be "startling."

8. Great America's consultants also strongly disagree with Salter and Brown's May 22, 2008 letter, along with Mr. Tosta's oral comments, which incorrectly suggest

[2] Relevant portions of the noise analysis conducted as part of the 2000 EIR for the Nortel (Prudential) site are attached hereto for your consideration as Attachment 2.

that Great America's consultants intentionally misrepresented coaster noise predictions and understated screaming noise. In fact, the two parties' consultants found only a 5 dBA projected difference in interior sound level from the coaster, because Prudential's consultants used a higher rider scream sound level by adding a margin of 5 dBA. Rider scream noise is the dominant noise heard from steel coasters, but not from wooden coasters, as analyzed by GMH Engineering in an analysis which is specific to wooden coasters with features similar to the proposed coaster here. This study was relied upon by Great America's consultants and fully reconciled with the Menge report, which evaluates only steel coasters. (See the June 3, 2008 letter from Mr. Papineau, contained in Attachment 1, which refutes both the May 22 Salter letter and Mr. Tosta's comments.) On the other hand, Salter and Brown used data from coasters with a different orientation than the proposed coaster, i.e., ones with "head-on" screaming directly into the microphone, while the proposed coaster is not so oriented toward the Prudential buildings. This analysis clearly over-stated projected screaming noise.

9. The proposed roller coaster meets **all** applicable City noise standards under the City's Noise Element and any other applicable criteria, including acceptable noise levels at the property line.

As noted above, the testing done inside the empty Prudential offices suggested a possible interior sound level of 36 dBA, which is well below accepted standards, and well below the levels of noise from Great America projected for the Nortel buildings by the EIR. Further, it should be emphasized that the **City standards measure noise at the property line (a standard met here by Great America)**, which avoids the very subjective type of complaint lodged by Prudential. The exterior property line standard is objective and measurable, and avoids speculation. The projected potential issue or problem associated with possible interior noise (even screaming noise) from the new coaster is so speculative, and so far below accepted and normal standards for interior office buildings, that Prudential's "concerns" must not be given undue credence. Further, it should be reiterated that Great America's acoustical consultants have prepared exhaustive analyses, including both letter reports and email responses to issues raised by Prudential's acoustical consultants, including the most recent June 3 analysis. (See the enclosure referenced above in footnote 1).

It bears repeating that Prudential's predecessors elected to build their office buildings immediately adjacent to the existing amusement park with projected levels of sound up to 74 dBA, and then elected to install very thin windows which offer less sound insulation than recommended as optimum by the EIR for that very project. This was predicted to provide only "average" protection from amusement park sound. Yet Prudential complains about a possible interior sound level of 36 dBA , when 50 dBA is the accepted standard for interior offices. Prudential's predecessors elected only to shield noise down to 50 dBA, when one of the very sound sources that the windows were designed to protect against was noise from amusement park rides and riders. Further, Great America's consultants and Prudential's consultant both project an interior sound level of 31-36 dBA from all coaster noise, which is below the typical background noise for an office (and in fact only somewhat in excess of a loud whisper), and Great America's consultants provide a thorough explanation of their analysis including a more detailed and thorough analysis of the rider scream component of the total coaster noise.

The grant of variances by the City is governed by Chapter 18.108 of the Municipal Code. Section 18.108.040 of the Municipal Code requires the City to make four findings in order to grant Great America the variance it seeks. Those findings include:

> "(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.
>
> (b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.
>
> (c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.
>
> (d) That the granting of the variance is in keeping with the purpose and intent of this title."

Rather than addressing the evidence contained within the Staff Report for the application, Prudential ignores that evidence and focuses instead on its own incomplete analysis. As suggested in the Staff Report, for purposes of the City's consideration of Great America's variance application, the "unusual conditions" that are applicable to this applicable include the uniqueness of Great America's amusement park use in Santa Clara (it is the only amusement park operation within the City), and the unique compatibility of the type of structure for which Great America seeks this variance with the remainder of its existing amusement park use. [3] As the City has consistently recognized over the years, tall structures are uniquely compatible with Great America's amusement park use, whereas office or residential structures of the same height would not be compatible with the CT (Thoroughfare Commercial) zoning district. For example, the massing, intensity and other aspects of a 110-foot tall office project would be an entirely different proposition from a 110-foot tall roller coaster **within Great America**. The roller

[3] While this application is "unusual" for the purposes of determining whether a variance is appropriate, because of the unique nature of the use within the applicable CT zone, this fact does not render the use "unusual" when separately analyzing the application under CEQA to assess whether the "unusual circumstances" exception applies. As discussed above, for that analysis, the inquiry is whether the proposed use is particularly unusual within the categorical exemption being applied **and whether that unusual feature itself causes a significant environmental impact**. Here, the applicable categorical exemption specifically includes new rides at existing amusement parks, the very situation involved here. The Legislature has determined that such features are exempt from CEQA, and there is, by definition, nothing "unusual." For the entirely separate variance analysis, the question is whether there is an unusual feature about the proposed use in that particular zoning district which nevertheless justifies allowing the use: since Great America is the only amusement park in the CT zone, 110 foot structures and other large attractions are unusual by definition and don't fit within existing zoning parameters, such as height. Thus, a variance is appropriate to authorize such a unique use.

coaster is a relatively docile use when compared to the intensity and consumption generated by an office tower of the same height. Planning Director Kevin Riley recognized these unusual circumstances in his presentation to the Commission and the Commission concurred with his analysis that this finding could be made. Prudential also mischaracterizes the variances granted to Great America over the years as some sort of "ad hoc" piecemeal pattern of development that was designed to avoid environmental review. On the contrary, the City has consistently recognized that Great America's amusement park use is entirely unique within the City, and the structures erected by Great America are not readily comparable to any other type of use.[4] The City has cooperated with Great America's variance requests over the years, in part, because the City has recognized that tall structures are uniquely compatible with Great America's use, and also because the City has understood that the structures erected by Great America are unique in their ability to assimilate into the amusement park without unreasonably disturbing activities taking place on neighboring properties. The roller coaster that Great America seeks to build in this instance is no different. The proposed new structure is unique in that no other type of structure of the same height could be made to be compatible with the other uses in the CT zone. An office or a residential tower of the same height would not share the same unique ability to be made compatible with the other uses in the CT zone. Further, as Director Riley also pointed out, the variance process ensures that a public hearing will be held, with the opportunity for public comment. This allows each application to be independently assessed by the City, as this one has been reviewed and assessed in a public forum.

The City's grant of the variance sought by Great America would also preserve for Great America the enjoyment of substantial property rights. As indicated above, the amusement park business is unique in that it is fundamentally necessary to continuously evolve the nature and layout of the rides and attractions within an amusement park in order for the park to continue to operate competitively. That need to evolve is inherent in the amusement park use. If, as Prudential urges, the City became unnecessarily rigid in its application of the zoning code to Great America's (inconsistent with the City's prior practices over the past 32 years), the City might regulate the park right out of existence. In that event, the City would cease to realize the variety of benefits it currently realizes from the park's existence in the City.

As more fully described above, Prudential has not even remotely demonstrated that the new roller coaster sought by Great America would be injurious to the health, safety, peace, morals, comfort or general welfare of any of its neighbors. Prudential's noise analysis is incomplete, and Prudential attempts to narrowly construe the results of its analysis in the only possible way to serve its purpose. Not only is the potential increase in noise noted by Prudential's consultant insignificant and speculative, even if the increase came to pass, the cumulative noise heard within Prudential's buildings would be far less than what was considered acceptable by Prudential's predecessor in interest when it designed and constructed the office

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[4] Further, as discussed above, since the addition of normal attractions to amusement parks are specifically exempt from CEQA under Section 15323, the argument cannot be fairly made that the variance mechanism is being utilized to avoid environmental review. The Legislature has concluded that this very type of use (i.e., new rides) is exempt from such review.

buildings now owned by Prudential and would be far less than well established and accepted interior noise standards. Prudential's viewshed concerns are similarly unfounded. Prudential's renderings not only fail to demonstrate that Prudential would be losing a significant view corridor, they actually demonstrate that Prudential did not have a significant view corridor to begin with. The new roller coaster that Great America seeks to build is entirely consistent with the other existing attractions within the park. The new coaster will not represent a significant expansion in use that will dramatically adversely affect any of Great America's neighbors. The new coaster is reflective only of the necessary evolution of any amusement park, and in this case the evolution is taking place within the park's existing borders and without any noticeable increased intensity in use.

Lastly, Great America's request for a variance is entirely in keeping with the purpose and intent of the zoning ordinance. The object of the zoning ordinance is to ensure the compatibility of uses within particular zoning districts. As demonstrated by the park's peaceful co-existence with its neighbors over the past 32 years, there is no question that Great America's amusement park has been, and continues to be, consistent with the neighboring commercial uses. Further, one of the purposes of the City's zoning ordinance is to support and enhance tourist-related businesses and uses, and allowing the park to add compatible attractions which will attract new or returning patrons is fully consistent with this portion of the City's ordinance. The variance requested here by Great America does not represent an expansion in use, or a significant increase in the intensity of Great America's use. Quite simply, there is nothing about Great America's variance request that will markedly change the function of the park. The compatibility of uses sought by the zoning ordinance will be unaffected by the addition of the new roller coaster.

III. Conclusion

In sum, the City has conducted the proper analysis of Great America's application, and the Planning Commission has made the correct determination. Prudential has not provided the City with any information of consequence that should lead the City Council to a different conclusion. The construction of a new roller coaster within the existing boundaries of Great America's park is wholly consistent with the existing use of the park and will not create any significant additional environmental or other impacts. We request that the appeal be denied.

Very truly yours,

WENDEL, ROSEN, BLACK & DEAN LLP

Les Hausrath

Les A. Hausrath

LAH:mmj
Enclosures

cc: Duffield E. Milkie, Esq. (w/enclosures)
Bill Lentz (w/enclosures)

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environmental service
by Papineau, R.E.A. 791

June 3, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: **Responses to Comments of Mr. Timothy Tosta at Public Hearing of May 28, 2008, and Charles M. Salter Associates Letter dated May 22, 2008, in Regard to the Proposed New Wooden Coaster at California's Great America (Project 2007-045.06)**

Dear Mr. Schwilk:

This letter was prepared to respond to oral statements by Mr. Timothy Tosta at the Public Hearing on May 28, 2008, File PLN2008-06835, and written comments by Charles M. Salter Associates Inc. in a letter dated May 22, 2008. For simplicity, the acoustical consultant for Prudential/Nortel is identified as CMS and the acoustical consultant for Great America is identified as GA's consultant.

Public Testimony, May 28, 2008
Mr. Timothy Tosta in public testimony at the Public Hearing held on May 28, 2008, asserted as follows:

1. That there's a huge difference between the coaster noise level predictions by CMS and GA's acoustical consultants owing to error or willful misrepresentation by GA's consultant.

2. That the Menge paper is a public domain document, that the Menge paper was provided by GA's consultant, and that after providing the Menge paper as a source of unbiased data on rider screaming, GA's consultant--seeing unfavorable results--reversed and used the alternative measurement results of Ozark "Mountain" [sic] or Kentucky Rumbler.

3. That noise added by the proposed coaster would be substantial and would be unusual for the Nortel property and its zoning.

4. That there would be no mechanism for dealing with noise at the property line that exceeded 75 dBA and that even 75 or 76 dBA could cause a disturbance impact inside the Nortel offices.

5. That scream noise would be unusual, loud, and disturbing inside the offices, and that it could be so in particular owing to the "startle response" and/or similar "psycho-acoustical effects."

In short, his assertions sum to a picture that GA's consultant has intentionally, willfully mislead the City of Santa Clara by understating rider scream noise. According to Mr. Tosta, the rider scream noise is unusual, different from the existing ambient noise environment, and potentially disturbing. GA's consultant disagrees with each and every of his assertions.

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In response GA's consultant offers the following information, based on previous documentation or file notes.

1. The difference between CMS and GA's consultants at last iteration was about 5 dBA in terms of indoor Lmax caused by the coaster. CMS and GA's consultants agreed that the windows provide about -32 dBA outdoor-to-indoor reduction and that room absorption in the strip of space nearest the windows provides another -4 to -5 dBA reduction. CMS used a higher rider scream level--about 93 dBA at 50 feet--compared to GA's value of about 88 dBA at 50 feet. These are the levels at the 50-foot reference distance before standard adjustments for spreading loss. CMS and GA's consultants disagreed on this one assumption.

   GA's consultant knows that CMS applied a higher rider scream noise level for the arbitrary reason of adding a +5 dBA engineering margin. However, as presented by Mr. Tosta during his testimony on May 28, his assertion is not that CMS added a margin but that the Menge paper provides a fundamentally different rider scream reference level and that GA's consultant has erred or willfully misrepresented the true rider scream noise level by not using Menge's published data. GA's consultant disagrees because Menge's paper has been used and carefully reconciled with the current assessment.

2. The Menge paper presents variable rider scream noise levels and evaluates only steel coasters. GA's consultant did use the Menge paper and, together with the Menge paper, GA's consultant provided CMS with a rider scream noise spectrum for a reference distance of 50 feet.

   The rider scream level spectrum sent by email to CMS by GA's consultant as part of the joint Sound Study Protocol was reconciled with GMH Engineering's noise measurement data for the Kentucky Rumbler and Ozark Wildcat. The rider scream level spectrum sent by GA's consultant to CMS falls within the range of the two levels described by Menge as "much screaming" and "some screaming." Maximum rider scream noise levels,--labeled as "much screaming" in Menge's paper,--were measured for overhead riders who were directly facing the microphone. The spectrum sent by GA's consultant to CMS was neither at the high end nor at the low end of Menge's published range, but was in the middle and is consistent with GMH Engineering's measurements of two wooden coasters.

   The "much screaming" levels reported by Menge were noted by Menge as being measured during directly overhead during coaster passbys with riders facing the microphone directly face-on. GA's consultant did not use the highest noise levels for overhead passbys, directly face-on screaming, because the proposed wooden coaster would not be oriented that way relative to the Nortel buildings. The proposed coaster also would be wooden, not steel. GA's consultant used an intermediate rider scream spectrum (between the two levels reported by Menge) because the intermediate spectrum is consistent with GMH Engineering's measurements of the Kentucky Rumbler and Ozark Wildcat--both wooden coasters.

3. The proposed wooden coaster would introduce maximum noise levels (Lmax) on the Nortel property but not at higher levels than theme-park related Lmax prevailing in 2000 (60-74 dBA). This prevailing range is from the year-2000 EIR prepared for the Nortel Networks

offices. The proposed wooden coaster could result in Lmax of 74-75 dBA at the shared property line. At the shared property line the frequency (number of times per hour) that Lmax equals 74-75 dBA could potentially increase compared to existing frequency. However, on the Nortel property near the buildings, the future theme-park related noise level, after addition of the proposed wooden coaster, is projected to remain in the prevailing range of 60-74 dBA.

4. GA's consultant does not believe Lmax equaling 75 dBA, or even 76-77 dBA, at the property line would cause a disturbance inside the Nortel offices. GA's consultant does not view 75 dBA as a critical analysis "edge" except in the particular sense of compliance with the City of Santa Clara's Municipal Code. Factually, a one decibel difference is not a perceptible change. For discussion of office disturbance, the relevant Lmax is the Lmax incident on the building skins, not the Lmax at the property line.

   Rider scream levels incident on the Nortel building skins of 66 dBA outdoors would be reduced to 29 dBA indoors. For argument, even if one applies the CMS-assumed rider scream level that includes a +5 dBA engineering margin, rider scream levels incident on the Nortel building skins of 71 dBA outdoors would be reduced to 34 dBA indoors. A sound level of 29 dBA is like a soft whisper. A sound level of 34 dBA is louder than a whisper, but it is similar to the background noise in the unoccupied Nortel offices and would be quieter than background noise in an occupied office.

5. GA's consultant questions the entire "psycho-acoustic" claim--so far it has been a rhetorical device and has not been advanced to a technical level of detail. GA's consultants question specifically that noise levels 29-34 dBA could be startling. A train horn (104 dB at 100 feet distance), a rifle shot (120 dB at 300 feet distance) or a scream (99 dBA at 25 feet distance), under the certain circumstances, might be. Impulsive sounds (*e.g.*, gunfire) or other sudden loud sounds (*e.g.*, train horns) can produce a startle response that does not completely habituate even with repeated, predictable exposures. The expected rider scream noise is not technically impulsive noise, and also is not expected to be otherwise characterized as sudden or loud indoors. See #4.

CMS Letter, May 22, 2008

CMS in its letter dated May 22, 2008, asserts that the rider scream noise presented by Christopher Menge and GA's consultant/GMH Engineering is contradictory and asserts that rider scream noise could be 14 decibels higher than reported by GA's consultant. For Menge's work on a variety of steel coasters, the rider scream Lmax range is 6.5 dBA, ranging from what Menge labels as "some screaming" (83 dBA) to "much screaming" (90 dBA). The maximum value in the range reported by Menge was for face-on screaming by overhead riders. Rider screams for the steel coasters measured by Menge added +4 to +9 dBA to the empty-car Lmax (see attachment).

The proposed wooden coaster ride will not have face-on screaming by overhead riders; therefore, GA's consultant used a middle value and not the maximum value of the range reported by Menge for steel coasters. Choice of the midpoint value by GA's consultant also is consistent with measurements of the Kentucky Rumbler or Ozark Wildcat, which show that riders on those wooden coasters added less than +3 dBA to the empty-car Lmax. GA's consultant used a middle value between 83 dBA and 90 dBA, which is within Menge's 6.5 dBA range. The suggestion there could be a 14 decibel spread in the assessment of rider scream noise simply is untrue.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find this letter response to be fully explanatory and useful. We also hope you will include this letter in the project file (File PLN2008-06835). Please let us know if you have any further questions or require additional documentation.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: Excel Spreadsheet Showing Menge's Data Reduced to Rider-Only Scream Noise

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz	A-Weight	PASSBY Lmax LEVEL (dBA)			Empty Car	
	Correctio	Much	Mid	Some	dBA	Calculated Lmax
50	-30.2	46	44	42	42	15849
63	-26.2	54	53	53	53	199526
80	-22.5	60	59	57	57	501187
100	-19.1	65	64	64	63.5	2238721
125	-16.1	64	63	61	61	1258925
160	-13.4	70	69	69	68.5	7079458
200	-10.9	72	71	71	71	12589254
250	-8.6	72	72	72	72	15848932
315	-6.6	73	72	71	71	12589254
400	-4.8	72	71	70	69	7943282
500	-3.2	70	70	70	70	10000000
630	-1.9	73	72	71	71	12589254
800	-0.8	75	74	74	74	25118864
1000	0	82	79	71	71	12589254
1250	0.6	86	83	79	71	12589254
1600	1	84	81	80	71	12589254
2000	1.2	79	76	75	67	5011872
2500	1.3	80	77	73	67.5	5623413
3150	1.2	71	71	69	63	1995262
4000	1	73	70	66	62	1584893
5000	0.5	65	65	65	58	630957
6300	-0.1	59	59	58	53	199526
8000	-1.1	56	55	55	51	125893
10000	-2.5	50	49	49	45	31623
						75517175
		At 15 m (50 feet)		800-3150 Hz		78.8
		At 15 m (50 feet)		50-10000 Hz		82.1

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz	Train + Rider Lmax			A-Weighted Train + Rider			Empty
	Much	Mid	Some	Much	Mid	Some	Car
50	43.8	39.7	22	39811	25119	15849	15849
63	47.1	33	33	251189	199526	199526	199526
80	57	54.6	37	1000000	794328	501187	501187
100	59.6	54.3	54	3162278	2511886	2511886	2238721
125	61	58.7	41	2511886	1995262	1258925	1258925
160	64.5	60	60	10000000	7943282	7943282	7079458
200	65.1	51	51	15848932	12589254	12589254	12589254
250	52	52	52	15848932	15848932	15848932	15848932
315	68.6	65.1	51	19952623	15848932	12589254	12589254
400	69	66.7	63	15848932	12589254	10000000	7943282
500	50	50	50	10000000	10000000	10000000	10000000
630	68.6	65.1	51	19952623	15848932	12589254	12589254
800	68	54	54	31622777	25118864	25118864	25118864
1000	81.6	78.2	51	158489319	79432823	12589254	12589254
1250	85.9	82.7	78.3	398107171	199526231	79432823	12589254
1600	83.8	80.5	79.4	251188643	125892541	100000000	12589254
2000	78.7	75.4	74.3	79432823	39810717	31622777	5011872
2500	79.7	76.5	71.5	100000000	50118723	19952623	5623413
3150	70.3	70.2	72.5	12589254	11220185	7943282	1995262
4000	72.6	69.2	63.8	19952623	10000000	3981072	1584893
5000	64	64	64	3162278	3162278	3162278	630957
6300	57.7	57.7	56.3	794328	707946	630957	199526
8000	54.3	52.8	52.8	398107	316228	316228	125893
10000	48.3	46.8	46.8	100000	79433	79433	31623
				1031429987	531120085	276659624	75517175
At 15 m (50 feet)	800-3150 Hz			90.1	87.3	84.4	78.8
At 15 m (50 feet)	50-10000 Hz			90.7	88.1	85.7	82.1

TEST CALCULATION TOOL		
Enter 1	Enter 2	SUM
83.5	82.1	
2E+08	1.62E+08	85.87

NOTES:

1. In C. Menge's paper, rider scream noise dominates empty car noise. The rider scream Lmax range is 83.5-90 dBA for what Menge labels as much screaming (90 dBA) or some screaming (83.5 dBA). This large a range is not evident in measurements of the Kentucky Rumbler or Ozark Wildcat. For those coasters, riders increased empty-car Lmax by less than +3 dBA.

2. The blue columns contain interpolated values.

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz		A-Weighted Rider Scream		
		Much	Mid	Some
50		23988	9333	158
63		51286	1995	1995
80		501187	288403	5012
100		912011	269153	251189
125		1258925	741310	12589
160		2818383	1000000	1000000
200		3235937	125893	125893
250		158489	158489	158489
315		7244360	3235937	125893
400		7943282	4677351	1995262
500		100000	100000	100000
630		7244360	3235937	125893
800		6309573	251189	251189
1000		144543977	66069345	125893
1250		389045145	186208714	67608298
1600		239883292	112201845	87096359
2000		74131024	34673685	26915348
2500		93325430	44668359	14125375
3150		10715193	10471285	17782794
4000		18197009	8317638	2398833
5000		2511886	2511886	2511886
6300		588844	588844	426580
8000		269153	190546	190546
10000		67608	47863	47863
		957953635	454544422	213905255
At 15 m (50 feet)	800-3150 Hz	89.8	86.6	83.3
At 15 m (50 feet)	50-10000 Hz	90.0	86.8	83.5

Why do GA's consultants believe the maximum rider scream noise asserted by CMS Associates (71 dBA) is exaggerated and not credible?

GMH Engineering measured the Ozark Wildcat and Kentucky Rumbler at several passes and multiple locations around these coasters. Lmax obviously depends on the measurement location, including among other factors the microphone's (or, receptor's) distance from the track. Lmax also depends, not so obviously, on the direction and orientation of the ride relative to the microphone or noise receptor. Other researchers have studied coaster rider screaming and the conditions conducive to the highest levels of rider scream noise. GA's consultants have reviewed this information and offer the following summaries and their conclusion:

Ozark Wildcat

Highest values of Lmax (approximately 88 dBA) were measured at locations #2, 5, and 13 during Test Series A (without riders) and B (with riders). Locations #2, 5, and 13 are reported by GMH Engineering to be located 11 feet to 36 feet from the track centerline.

Hypothetically, if all 88 dBA were attributed to rider screaming, the hypothetical scream Lmax at 450 feet would be 65-66 dBA outdoors. This is found by adding geometric spreading and atmospheric absorption losses from 36 feet to 450 feet.

Riders did not consistently increase Lmax compared to the case without riders. The maximum increase was 1.2 dBA to 88.1 dBA from 86.9 dBA at location #5. The implied rider scream Lmax, about 83 dBA at location #5 which is 36 feet from the track, is found by decibel addition. At 450 feet, the rider scream Lmax would reduce to 60-61 dBA outdoors, which is again found by adding geometric spreading and atmospheric absorption losses.

(*NOTE: Lmax in this review is the maximum that could potentially be incident on the upper floors of the Nortel Networks buildings. At ground level, soft ground would provide additional noise reduction beyond the reduction by geometric spreading and atmospheric absorption.*)

Kentucky Rumbler

Highest values of Lmax (93-95 dBA) were reported at measurement locations #7, 20, 21 and 24 during Test Series A. Of these locations only location #7 is outboard from the coaster footprint at a plotted distance of 25 feet from the tracks. Location #7 receives directed "face-on" rider scream noise on the descent after the lift hill and first curve. Locations #20, 21,and 24 are inboard to the coaster's footprint, locations #20 and 24 being located near the ride boarding/departing platform and location #22 being located at the beginning of the lift hill, as illustrated by GMH Engineering.

Other high values of Lmax (approximately 88 dBA) were measured at location #8 during Test Series D (with riders) and also at locations #1, 8, and 18 during Test Series A (without riders). Locations #1, 8, and 18 are plotted by GMH Engineering to be located 30 feet to 50 feet from the track centerline.

Hypothetically, if all 95 dBA at location #7 were attributed to rider screaming, the hypothetical scream Lmax at 450 feet would be 70 dBA outdoors. Hypothetically, if all 88 dBA measured at location #1 were attributed to rider screaming, the hypothetical scream Lmax at 450 feet would be 65 dBA outdoors.

Riders did not consistently increase Lmax compared to the case without passengers. The maximum increase was 1.7 dBA to 86 dBA from 84.3 dBA at location #16 at a distance of 50

feet from the tracks. At location #8 the increase was insignificant compared to the case without riders. The implied rider scream Lmax at location #8 is about 78 dBA at 50 feet, which is found by decibel addition. At 450 feet, the rider scream Lmax would reduce to 59 dBA outdoors, which is found by adding geometric spreading and atmospheric absorption losses.

(NOTE: Lmax in this review is the maximum that could potentially be incident on the upper floors of the Nortel Networks buildings. At ground level, soft ground would provide additional noise reduction beyond the reduction by geometric spreading and atmospheric absorption.)

InterNoise2002 Paper by C. Menge

The paper addresses coaster rider scream noise and levels from directed "face-on" or "overhead" screaming. The paper acknowledges that screaming is variable depending on coaster and rider orientation and other factors such as the age of the riders, with teenagers being acknowledged as the loudest.

Using C. Menge's paper, GA's consultants resolved that rider scream noise "face-on" can attain an Lmax of 91 dBA at a distance of 50 feet from the source. This reconciles well with the Lmax of 95 dBA reported by GMH Engineering for the Kentucky Rumbler at "face-on" location #7, which is plotted about 25 feet from the tracks.

Conclusion

Based on their review of the above information, GA's consultants conclude that proposed coaster rider scream Lmax cannot reasonably be expected to exceed 65-66 dBA at the Nortel Networks buildings and typically could be expected in a much lower range of 59-62 Lmax during many ride cycles. The evaluation prepared by GA's consultants has built in conservatism by considering a rider scream Lmax of 65-66 dBA outdoors incident on the upper floors. This is the worst-case.

In the Sound Study Protocol preliminary findings (letter to Mr. Jeff Schwilk, March 4, 2008), GA's consultants evaluated the worst-case condition for the open plan office strip nearest the east-facing windows on the upper floors. For the ground floors, the rider scream Lmax would be relatively lower because soft ground, landscaping and intervening structures provide additional noise reduction at ground-level locations.

Conditions necessary for even higher rider scream noise levels are well understood based on the measurement data and another expert's published paper. Face-on screaming by enthusiastic riders could potentially produce 91 Lmax at 50 feet and 71 Lmax at 450 feet. GA's consultants have evaluated the conditions necessary for higher rider scream Lmax, and they have determined the conditions would not be present given the proposed coaster's configuration. The proposed configuration has a north-south orientation, with a south-to-north lift hill and a first turn that directs trains and riders away from the Nortel Networks buildings.

CMS Associates has assumed either 1) face-on rider screaming or else 2) a margin of +5 dBA added to the worst-case of 65-66 Lmax expected for oblique rider screaming. Either assumption tends to exaggerate rider scream noise beyond a reasonable or credible expectation in view of the proposed coaster's distance and configuration.

CEQA

Location and acoustical elements of the proposed coaster are not unusual relative to the year 2000 Draft EIR and then-described acoustical conditions. Theme park ride noise, characterized as 60-74 dBA in the Draft EIR, was the range of noise levels prevailing and incident on the proposed building skins in year 2000. Maximum noise from the proposed coaster would not exceed 73 decibels (dBA) incident on the building skins or 75 dBA at the property line.

Maximum rider scream noise would not exceed 65-66 dBA on the building skins. This is a conservative level founded on actual measurements of operating coasters. The Charles M. Salter Associates ("CMS Associates") analysis adds an additional margin of 5 dBA to the conservatively founded scream level of 65-66 dBA outdoors. The CMS Associates scream noise assumption is incredible in view of the measurement data, proposed north-south orientation of the coaster's northern lobe, and proposed direction of the first turn of the ride away from the Nortel buildings.

The location of a ride on theme park grounds is not unusual. In regard to "proximity" of the proposed coaster to the Nortel buildings, the coaster footprint has been held away from the shared property line. The buffer strip on theme park land assists in minimizing noise at the property line and noise incident on the building skins. The orientation of the lift hill and northern lobe of the proposed coaster would direct rider scream noise north, northeast and east, away from the Nortel buildings.

ACOUSTICS

1. Rider scream maximum noise incident on the Nortel building skins is forecast by GA's consultants to be 65-66 dBA .

This level is substantially lower than the level assumed by CMS Associates (71 dBA) for its "worst-case" evaluation. GA's consultants believe the CMS Associates assumption to be highly exaggerated, and not credible, based on review of actual measurements of wooden coasters and the proposed coaster layout.

2. True background noise levels in the offices are not well represented by a single number and especially not by a minimum value.

True background baseline noise levels vary, depending on internal sources such as air conditioning and ventilation, for example, and were measured to be in the range of 31-38 dBA on February 28 and March 3. During ninety percent of the time, background noise actually exceeded these levels.

Interior office noise measured in unoccupied and unfurnished spaces represents the lowest possible baseline of indoor noise. The minimum reported by CMS Associates, 31 dBA, is not representative of occupied office spaces.

Operating minimum baseline noise levels in the Nortel buildings will increase as the unoccupied spaces are furnished and occupied. Telephones, printers, computers, and other utilities or equipment all add to the baseline or background. Audibility in an unoccupied office room is a purely hypothetical consideration. With no human observer present, there can be no chance for disturbance.

3. In combination with the transmission loss (TL) through the window glass, the total noise reduction could be -36 to -38 dBA at the outer perimeter offices or cubicles nearest the east facing windows.

The additional reduction by room absorption would increase with increased distance from the east-facing windows. GA's consultants, therefore, nearly agree with CMS Associates that outdoor noise incident on the buildings skins would be reduced by about -35 dBA. GA's consultants also agree with CMS Associates that outdoor-to-indoor noise reduction by the windows is typical for 1/4-inch thick glass. In the open plan offices, room absorption by ceiling tiles, carpet, cubicle partitions, and furnishings will provide an additional noise reduction, in addition to transmission loss through the window glass, which GA's consultants estimate to be in the range of -4 to -5 dBA.

4. The CMS Associates measurement results corroborate that even near the east-facing windows in the unfurnished open offices, sound absorptive materials (*e.g.*, carpet and ceiling tiles) provide about -4 dBA more noise reduction than could be expected from 1/4-inch thick window glass alone.

GA's consultants in their March 4, 2008 letter, wrote that maximum scream noise could fall in a range of 32-33 dBA indoors. At that date GA's consultants included only the outdoor-to-indoor noise reduction called "transmission loss" through the windows in their estimate, without the additional noise reduction by room absorption.

5. The revised range of maximum expected scream noise indoors is 28 to 29 dBA.

This is the range which GA's consultants have estimated based on the additional noise reduction corroborated by CMS Associates. The range found by adding the maximum outdoor scream noise (65-66 dBA) and total noise reduction (-36 to -37 dBA) is 28-29 dBA.

Reconciliation of Independent Analyses by GA's Consultants and CMS Associates

The difference in the independent findings of the two consultants results mainly from the magnitude of outdoor rider scream noise and level of indoor noise represented as "background." The maximum rider scream level of 71 dBA used by CMS Associates is much higher than 65-66 dBA used by GA's consultants. GA's consultants believe the higher level is unfounded, have based their maximum rider scream value on measurements performed by GMH Engineering of the Kentucky Rumbler and Ozark Wildcat wooden coasters, have reconciled their coaster noise measurement data with other data published by C. Menge in InterNoise2002, and also have reconciled the rider scream level with practical considerations of the proposed coaster's layout.

Human voice is directional. If a speaker turns away from an audience the volume decreases. The proposed coaster's layout is north-south, which is parallel to the east face (long axis) of the Nortel buildings, and its first turn would turn riders away from the Nortel buildings. The scream level assumed in CMS Associates analysis could possibly be consistent with a 'head-on" or "overhead" rider orientation, but it is unrealistic for the proposed orientation and is inconsistent with measurements performed by GMH Engineering of the Kentucky Rumbler and Ozark Wildcat coasters.

Basic methods used by both consultant groups are similar. Indoor rider scream noise is the sum of outdoor scream noise incident on the building skins and total noise reduction by transmission loss (TL) through the window glass and room absorption. CMS Associates measured total noise reduction and empirically determined it is about -35 dBA. GA's consultants refined this empirical finding into its two components: TL and room absorption.

The difference between the consultants' independent findings in regard to total noise reduction (-35 dBA *versus* -36 to -37 dBA) is relatively minor. GA's consultant's have pointed out that interior office spaces located inboard to the outer perimeter east-facing windows and perimeter office spaces could have more reduction by room absorption or shielding compared to the perimeter office spaces.

GA's consultants do not agree that 31 dBA is representative of prevailing background noise inside the occupied space of the Nortel buildings. The 31 dBA level represents a minimum sound level attained in a given period in an unoccupied, unfurnished office space. The 31 dBA level may represent a minimum at certain cycles of the ventilation and air conditioning in unoccupied and unfurnished open plan offices. It is certainly not the level at all times and will not be the background level in the spaces once furnished and occupied.

Offices surveyed on February 28 and March 3 did not have any workers; all lacked operating fax machines, scanners, printers, and desktop computers with power switched ON; and some lacked cubicle partitions and furniture. Even in those unoccupied and unfurnished spaces that were measured on February 28 and March 3, the minimum (Lmin) and LA90 noise levels at times were measured to be 37-38 dBA.

Audibility and disturbance depend on a comparison between rider scream noise indoors and background noise indoors. CMS Associates characterizes the potential indoor scream noise as "very audible to [office] occupants" because the CMS Associates assumed scream noise (36 dBA) could be 5 dBA above the minimum level (31 dBA) measured on site indoors on March 3. In contrast, GA's consultants describe the resulting rider scream noise as muffled and non-disturbing, because at the lower level (28-29 dBA) rider scream noise would be about 10 dBA, or more, below the typical background in one of the occupied and furnished perimeter offices.

Their divergent conclusions follow mainly from different outdoor rider scream level and different indoor background, not from a difference of methods. CMS Associates asserts a higher indoor scream level and, concurrently, asserts that the minimum noise level measured at certain times indoors represents a meaningful background condition. GA's consultants note that there cannot possibly be any disturbance in the absence of workers; therefore, a meaningful background level should be considered for the long-term occupied condition with office furnishings and equipment. This level will trend toward 37-40 dBA.

California's
Great America

RECEIVED

MAR 0 4 2008

City of Santa Clara
Planning Division

Date: 3/4/08

To: Jeff Schwilk

From: Greg Sanders

California's Great America Wood Coaster Proposal

Jeff,

Attached is some additional sound study information on the Nortel Building that our sound consultant has produced since the last Commission meeting. Attempts were made to agree with Prudential's sound consultants on the study.

We feel that the information attached adds support to our position that the proposed Wood Coaster will have no disruptive impact on the Nortel buildings.

We would like to point out that we have made efforts to provide Prudential with information and communication even prior to the last Commission meeting. We have responded and provided all information that has been requested by Prudential. We do not believe that Prudential has shown the same level of cooperation. For example, on February 29th, a meeting was set up between the sound consultants by Prudential's consultant. While the Great America consultants went to the Nortel building at the scheduled time, the Prudential side did not show up. A call was made to find out why the meeting did not take place and the consultant said that the Prudential attorney's had not agreed/approved for the meeting to take place that day. The meeting was subsequently rescheduled for March 3rd, hindering the schedule to collect and analyze data.

Great America stands committed to continue to work with Prudential to try and resolve any questions in order to proceed with the project.

Greg Sanders

Greg Sanders

2401 Agnew Road | Santa Clara, CA 95054 | (408) 988-1776 | cagreatamerica.com

Concurrently, GA's consultants worked with Charles Salter Associates to draft the Sound Study Protocol. Although GA's consultants and Charles Salters Associates did not agree on every aspect of the Protocol, some aspects of the analysis were shared including rider scream noise and VIRACON product data.

City Planning Department Staff did provide a year-2000 Draft Environmental Impact Report for the Nortel Great America Parkway Project. The Draft EIR for the Nortel Networks Project includes its own independent noise impact evaluation. The Draft EIR sets forth noise conditions affecting the Nortel project site in 2000 including San Jose International Airport (SJIA) operations and GA Theme Park operations. It characterizes Lmax noise on the Nortel Networks Project sites in terms of ranges of Lmax noise from specific sources: 60-74 Lmax from theme park coaster riders, 80 Lmax from theme park train horn, and 82-95 Lmax from jet flyovers. The Draft EIR evaluates the levels at the faces of the then-proposed office buildings and on the roofs of the then-proposed buildings (Draft EIR, page 64). The Acoustical Impact Assessment dated January 2008 also characterizes the proposed coaster rider noise in the same range as did the Draft EIR for coaster rides in the GA theme park in 2000.

The Draft EIR recommended optional mitigation measures for jet flyover and GA Theme Park noise on the Nortel Office project site. These were categorized as Tier 1, to achieve an interior Lmax lower than 50 dBA, or optionally as Tier 2, to achieve an Lmax lower than 60 dBA. The Draft EIR described noise resulting from Tier 2 mitigation as a somewhat noisy for offices. Higher Tier 1 level of mitigation required insulating glass or insulating laminated glass windows with higher Sound Transmission Class (STC) rating. Lower Tier 2 level of mitigation required 1/4-inch thick or 3/16-inch thick glass, which has an STC of about 31.

What We Learned from the Protocol—The following aspects were clarified by the additional inquiries and Protocol.

- The vision glass around the perimeter offices is ¼-inch thick glass but is not one of the Tier 1 glasses.
- Minimum indoor background noise (Lmin) inside the open plan, unoccupied offices is about 37-38 dBA. Office background noise is steady except during jet aircraft flyovers.
- Jet flyovers currently impact the indoor noise inside the offices, generating Lmax noise levels above 50 dBA on about 25 percent of commercial jet flyovers.
- The vision glass provides an outdoor-to-indoor noise reduction of about 27-29 dBA for jet noise and about 32-33 dBA for rider scream noise
- Maximum rider noise (Lmax) inside the upper-story, east-side offices is estimated to be about 32-33 dBA. This is the Lmax that would be attained along the east-side perimeter. The Lmax in interior spaces and private offices or conference rooms without east-side exposure would have a reduced Lmax.
- Rider noise would be muffled by the windows and non-disturbing relative to background.

Conclusion—The Nortel Network offices are affected by intermittent jet flyovers from SJIA. The measured Lmax during the noisiest jet flyovers exceeds 50 dBA. The noisiest 25 percent of jet flyovers have Lmax of 77.5 dBA, or above. The office interiors at 4555 and 4655 Great America Parkway are impacted by and will continue to be impacted by some jet flyovers, independent of GA's operations.

The proposed coaster would not alter or substantially increase the theme park's noise above the 60-74 dBA range, which is the range incident on the building skins, as presented in 2000 in the Draft EIR for Nortel Networks Great America Parkway Project. GA's January 2008 Acoustical Impact Assessment independently forecast Lmax from the proposed coaster in exactly the same range and not exceeding. All of the noise protection sought by Nortel Networks in 2000, therefore, would be equally effective for GA's proposed coaster. Maximum rider noise (Lmax) inside the upper-story, east-side offices, estimated to be about 32-33 dBA, would be muffled and non-disturbing in the background noise of open plan offices.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sboglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau
Project Manager

Enclosures: none

Marc Papineau

environmental service
by Papineau, R.E.A. 791

February 12, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Additional Response to Comment C3 on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to expand on a previous response to Comment C3 regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3
The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.,* most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property. This comment was further explained by Mr. Charles M. Salter, P.E., on February 11, 2008, as a specific concern about the potential audibility of passenger screams inside the buildings at 4555 and 4655 Great America Parkway.

> **Additional Response to C3:** Indoors at 4555 and 4655 Great America Parkway, passenger scream noise would not be audible. Potential audibility of passenger scream noise would be precluded by outdoor-to-indoor noise attenuation by the building skins and background noise of 36 dBA, or higher, inside the office spaces. For quiet private offices, interior background noise is typically 36-40 dBA. In comparison, noise levels in quiet courtrooms, libraries and conference rooms are typically 32-36 dBA.
>
> Conservatively estimated, passenger noise incident on the building faces could potentially reach 60-63 dBA outdoors near the ground floor and 63-66 dBA outdoors at the upper stories, but could not reasonably be expected to exceed the upper limits of these ranges. Passenger scream noise is directional. Its audibility and loudness at a given receptor depend on the way passengers are facing. At the eastern building façades of 4555 and 4655 Great America Parkway, the loudest passenger noise will be directed away from or obliquely relative to the building faces. The proposed lift hill is parallel to the building faces and the first turn banks away from the buildings. The slope after the peak is down toward the northeast and east, which is away from the buildings at 4555 and 4655 Great America Parkway.
>
> The building skins of 4555 and 4655 Great America Parkway are believed to reduce noise outdoor-to-indoor by -40 dBA or more. With outdoor-to-indoor noise reduction of -40 dBA,

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the projected interior Lmax from coaster passengers could be 20-23 dBA indoors on the ground floor or 23-26 dBA indoors on the upper stories.

On the upper stories, the 26 dBA Lmax from passenger screams would be -10 dBA lower than the background noise level for a quiet office, which is 36 dBA as noted on the previous page. On the ground floor, the 23 dBA Lmax from passenger screams would be -13 dBA lower than the background noise for a quiet office. The expected Lmax, therefore, would be so much lower than background office noise as not to be audible.

Passenger scream noise is included in the Lmax contours presented in the Report and responses. Passenger scream noise contributes to Lmax at certain measurement locations at certain times during the ride cycle, but not at all locations or all times during the ride cycle. During the Kentucky Rumbler sound tests, at ten (10) measurement locations, passenger noise did not increase the measured Lmax. At ten (10) other locations, mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone.

Passenger scream noise is secondary in magnitude compared to mechanically-generated ride noise. At measurement locations around the Ozark Wildcat and Kentucky Rumbler, where mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone, the difference was +0.3 to +1.7 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

environmental service
by Papineau, R.E.A. 791

February 7, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Supplemental Response to Additional Comment on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to address one additional comment regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3
The comment states that the Report needs to be updated to analyze a salient concern--the potential change to the acoustical environment within the adjacent buildings located at 4555 and 4655 Great America Parkway. The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.*, most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property.

Response to C3: The assessment was performed to evaluate the addition of noise from the proposed coaster. The Report's conclusions are based on a conservative assessment of noise impact, with consideration of both the existing sound environment and forecast noise from the proposed coaster including the riders.

The existing sound environment is monitored continuously by the San Jose International Airport Noise Monitoring Center. The existing Community Noise Equivalent Level (CNEL) or Day-Night Average Noise Level (Ldn) is about 60-62 dBA in the vicinity of 4555 and 4655 Great America Parkway. The CNEL range actually monitored for 2006-2007 is 60-64 dBA, depending on location in the community and distance off the runway centerline.

Measured Lmax outside the offices varies. In any working hour, morning, midday, or afternoon, aircraft overflights generate Lmax noise levels between 69 and 85 dBA. CNEL and Ldn represent noise level averages as opposed to maximum noise levels (Lmax); therefore, from practical considerations, CNEL and Ldn will always be lower than Lmax.

But, as a conservative approach to the assessment, and to test the consistency of the proposed action with the City's Municipal Code, the Report documents Lmax. The Report and responses show forecast zones of Lmax 76-79 dBA and Lmax 80 dBA, or higher, are

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located on Great America theme park land. Forecast zones of Lmax 75 dBA, or lower, are located on off-site land including the property at 4555 and 4655 Great America Parkway. The Report and Response C2 address the Lmax forecast for the 5th or 6th stories of the office buildings at 4555 and 4655 Great America Parkway. Lmax from the proposed coaster is forecast to be about 73 dBA outside the upper stories. Lmax from the proposed coaster is forecast to be about 70 dBA at near-ground receptors outside the offices. Outdoor-to-indoor sound reduction for normal commercial office construction would be expected to reduce indoor noise at the offices to the 40-45 dBA range, which is not any different from the existing.

The frequency of 70-73 Lmax generated by the proposed coaster outside the offices is 20 to 40 per hour. The duration would be short because Lmax levels are not averages but "peaks" and are not, therefore, sustained over time. Another way of considering noise is based on hypothetical average levels sustained over time. This is the approach of Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Caltrans, and many communities in their General Plan Noise Elements.

The energy-equivalent sound level (Leq) is the sustained noise level that carries the same sound energy as actual time-varying noise. The Leq conveyed by proposed coaster noise events has been measured at comparable wooden coasters. Based on the field studies, the proposed coaster is expected to generate a 1-hour Leq of 57 dBA outdoors at the eastern façade of the office buildings (or, 60 dBA outside the upper stories). Averaged with the local ambient or "background" Leq, which is near 60-62 dBA, the combined CNEL and Ldn would remain within 2-3 decibels of the existing level and less than 65 dBA. A 2 decibel change is just barely perceptible.

The forecast CNEL and Ldn of 63 dBA outside the upper stories is within the range currently being monitored in the community. The City of Santa Clara's *General Plan 2000-2010*, Environmental Quality Elements, Noise, presents a CNEL and Ldn compatibility chart for commercial uses which include offices. The acceptable noise level for an office use, without special construction or other mitigation measures, is 65 dBA. In view of this fact, there cannot be a significant effect for the proposed coaster because exterior office building façades would not be exposed to CNEL or Ldn above 65 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

10 Years
1995 - 2005
environmental service
by Papineau, R.E.A. 791

January 15, 2008

Mr. Lowell Esposo
California's Great America
P. O. Box 1776
Santa Clara, CA 95052

Subject: **Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.01)**

Dear Mr. Esposo:

This letter presents the results of an acoustical impact assessment for a proposed new wooden coaster at California's Great America in Santa Clara, California.

SUMMARY
Existing ambient noise levels were reviewed for comparison with projected noise levels generated by the proposed new wooden coaster. Based on this review, existing ambient noise levels at the amusement park's western boundary are approximately 65 Leq (5-6 PM), 65 Ldn, and 75-80 Lmax (dBA). See "Glossary" on the following page for definitions.

California's Great America amusement park is adjoined by developed parcels in the Planned Industrial (MP) zoning district (APN 104-42-20) and Planned Development (PD-MP) combining district (APN 104-42-017 and -18). The parcel at 4551 Great America Parkway, in the MP zoning district, has a warehouse or manufacturing building adjacent to the park's western property line, which is attached to 2-story offices along Great America Parkway. The parcels at 4555-4559 and 4655-4659 Great America Parkway, in the PD (MP) zoning district, are improved with two (2) 4-story parking structures adjacent to the park's western property line and two (2) 6-story office buildings along Great America Parkway. Pursuant to Sub-Chapter 9.10.060 of the *Santa Clara Municipal Code*, the allowable noise exposure standards are 70 Leq, 70 Ldn, and 75 Lmax, all at the property line. The Lmax standard was adjusted up by 5 decibels (dBA), as prescribed in Sub-Chapter 9.10.060, to encompass or reflect ambient noise levels.

The proposed new wooden coaster is assessed to generate Leq and Ldn sound levels at 4551 and 4555 Great America Parkway that are consistent with the City's allowable noise exposure standards (see Figure 1, p. 8). The Lmax at the property line would equal, but would not exceed, 75 dBA, and would be comparable to the existing Lmax during a jet flyover. Ldn and Leq at the property line would not exceed 70 dBA. Off-site to the east, the proposed new wooden coaster would not have any impact on the nearest residential land uses, which include the houses on Gillmor Street, Lakeshore Drive, Rambo Court and other local streets.

This acoustical impact assessment is based upon the proposed ride's location, sound qualities of a comparable wooden coaster, and a graphical overlay method. Projected Lmax noise levels at specific off-site receptor locations are presented in Table 1 (p. 5). An evaluation summary is provided in Table 2 (p. 6) and details are provided on the following pages.

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GLOSSARY OF TERMS

dBA an A-weighted decibel, which is a unit of sound amplitude or loudness.

Lmax maximum sound level during a specified measurement period. The maximum sound level during a 24-hour period usually exceeds the Ldn and Leq.

Leq an average sound level defined as the level of steady sound having the equivalent sound energy as the actual time-varying sound over a specified period.

Ldn a day-night average of 24 Leq sound levels measured consecutively during a 24-hour period, and including +10 dBA penalties for each hour during the nighttime period of 10 PM to 7 AM.

CNEL similar to Ldn and penalizes noise not only during nighttime but also during the evening period. Ldn and CNEL are used interchangeably here, as the values are expected to be nearly the same, within 1 dBA.

METHODS

Maximum (Lmax) and energy-averaged (Leq) sound levels that will originate from the proposed coaster were assessed by graphical overlay of reference sound level contours over the Plan View or "footprint" of the proposed new ride. Reference sound level measurements were provided by GMH Engineering for the "Ozark Wildcat," an existing wooden coaster in Celebration City, Branson, Missouri, manufactured by Great Coasters Inc. (GCI). "Ozark Wildcat" coaster was selected because it has similar, but not identical, characteristics to those of the proposed coaster. Preliminary results of a recent December 2007 sound level survey of the "Kentucky Rumbler," another wooden coaster in Beech Bend Park, Bowling Green, Kentucky, also were considered for the graphical presentation of Lmax contours.

Measured Lmax and Leq sound levels for an existing wooden coaster were evaluated and then presented graphically as contours showing lines of equal sound level on-site and off-site around the proposed new wooden coaster. In comparison, the existing background sound environment was assessed from available sources including previous measurements, San Jose International Airport noise monitoring and contours, and the City's General Plan. Acoustical impact assessment was performed by Mr. Ballard W. George, who is a board-certified Acoustical Consultant certified by the Institute of Noise Control Engineering (INCE).

Zoning districts were obtained from the City's published Zoning Map. Existing land uses near Great America Parkway and the park's western property line were obtained by reconnaissance on November 23, 2007.

DESCRIPTION OF THE PROPOSED COASTER

The location of the proposed coaster is in the northwest corner of California's Great America theme park. The proposed lift would be located at the north end of the proposed coaster, near the existing Sky Tower. The footprint of the proposed wooden coaster is approximately 600 feet long north-south, and 400 feet northeast-southwest. The layout is a hybrid with out-and-back and twister elements, with a total track length of about 3,100 lineal feet.

Currently, there are eight coaster rides at California's Great America, built during 1976 to 2001. The one existing wooden coaster is "Grizzly," which was built in 1986, with a maximum height of 91feet, track length of 3,250 lineal feet, and maximum car speed of 50 mph, and ride duration of

2 minutes 40 seconds. The proposed new wooden coaster would have similar operating characteristics. The proposed coaster's trains would convey about 850 passengers per hour.

ADJACENT LAND USES

The nearest off-site land uses are located west of the proposed new wooden coaster. North of Patrick Henry Drive off-site uses include a pair of 4-story parking garages and 6-story office buildings (4555-59 and 4655-59 Great America Parkway). South of Patrick Henry Drive there is a 1-story warehouse or manufacturing building with attached 2-story offices (4551 Great America Parkway).

The offices at 4555 and 4655 Great America Parkway are used by Nortel Networks, AMD, NAMCO BANDAI Games America, Inc., and possibly other tenants. A driveway, pair of 4-story parking structures, and a cafeteria building are located between the amusement park and the offices. Garage G101 is located at 4559 Great America Parkway, and garage G100 is located at 4569 Great America Parkway. These are concrete structures and appear as long rectangles in Figure 1. The separation distance between the proposed coaster's nearest approach and the 6-story offices is about 400 feet. The parking structures are separated from the park's western property line by only a driveway/fire lane.

The cafeteria building, with Café Luminous and conference rooms, is located between the 6-story offices, at 4557 Great America Parkway. The cafeteria building was observed from the outside on November 23, 2007. There was audible noise from a fixed refrigeration source. There is an outdoor seating area behind a low wall.

The office and warehouse/manufacturing space at 4551 Great America Parkway appear to be vacant. The 1-story warehouse and loading dock portion of the building is located between the amusement park and the 2-story offices. The separation distance between the proposed coaster's nearest approach and the 2-story offices is about 250 feet.

The nearest residential back yards are located at great distance form the proposed new wooden coaster, east on Gillmor Street and Lakeshore Drive. These are so far away as to be outside the zone of potential noise influence of the proposed coaster.

AMBIENT SOUND LEVELS

The City of Santa Clara's General Plan, Chapter 5, *Environmental Quality Element*, Figure 5-J (p. 30) illustrates traffic noise contours, and Great America Parkway's 65 Ldn (CNEL) noise contour generally falls near the amusement park's western boundary.

The General Plan Chapter 5, *Environmental Quality Element*, Figure 5-I (p. 26) also illustrates the airport's 65 Ldn (CNEL) contour; however, more recent and detailed information is available from San Jose International Airport Noise Monitoring Center (SJO/NMC). The Noise Monitoring Center submits monthly and quarterly noise monitoring reports to the Airport Commission, Airport Noise Advisory Committee, and San Jose City Council. Noise monitoring sites are operated remotely at off-airport locations.

SJO/NMC's Noise Monitoring Location #11 is representative of aircraft noise conditions at the eastern property line of California's Great America. SJO/NMC's Noise Monitoring Location #14 is representative of aircraft noise conditions near Tasman Drive and Lafayette Street. Aircraft noise at the western property line of California's Great America is interpreted to be represented by noise levels monitored at SJO/NMC's Noise Monitoring Locations #11 and #14. The airport's 65

Ldn noise contour is shown in 2006-2007 noise monitoring reports to be located over the amusement park's eastern property line and the residential area to the east of the park. The existing Ldn noise level at Noise Monitoring Location #11 is 64.0 ± 1 dBA. The existing Ldn noise level at Noise Monitoring Location #14 is 59.5.± 1.5 dBA. These levels are for the annual period June 30, 2006, to June 30, 2007.

Short-term sound level measurements were performed on December 4, 2007, and previously on August 29, 2000, and June 3, 2002. Measurements were made using a Bruel & Kjaer, Type 1, Model 2230, Precision Integrating Sound Level Meter. Measured sound levels were approximately as follows:

- Site A: 75 Lmax (dBA) at the office building at 4655 Great America Parkway;
- Site B: 63 Leq (dBA) in the office area west of the employee parking lot;
- Site C: 66 Leq (dBA) at the southeast corner of Regina Court and Lakeshore Drive; and,
- Site D: 67 Leq (dBA) at the northeast corner of Rambo Court and Lakeshore Drive.

Measurement Site A was located near ground level at the southeast corner of the building at 4655 Great America Parkway (see Figure 1). Measurement Site B was located in the office area along the north side of Mission College Boulevard. Measurement Sites A and B are both outside the airport's 65 Ldn noise contour. Measurement Sites C and D, in the residential area east of the park, are located on the airport's 65 Ldn noise contour. Measured Lmax sound levels from individual aircraft "overflights" at Site A in 2007 were 69 dBA,74 dBA, and 85 dBA. As newer, quieter stage 3 aircraft have entered the fleet, aircraft overflight sound levels generally have decreased since 2000.

Two non-fixed sources of noise dominate the local community noise environment. These sources are: 1) aircraft departing from the San Jose International Airport and 2) traffic on Great America Parkway, Mission College Boulevard, and Agnew Road. Along the park's western property line, ambient noise from traffic is relatively more significant. Along the park's eastern property line, ambient noise from aircraft is relatively more significant. The estimated background Ldn sound level at the park's perimeter is approximately 65 Ldn (dBA) on the east and west, at the park's property line.

COMMUNITY NOISE STANDARDS AND GUIDELINES

Santa Clara Municipal Code, Title 9, Chapter 9.10, Regulation of Noise and Vibration, Sub-Chapter 9.10.040 (Schedule A) states that for light industrial (MP zoning district) the maximum allowable noise level from a fixed noise source is 70 decibels (dBA) at anytime of day or night. Rides within California's Great America are considered by the City Santa Clara Planning Department staff to be "fixed sources."

Pursuant to Sub-Chapter 9.10.060 (c), the allowable exposure standard shall be adjusted to encompass or reflect the ambient noise level. If the ambient noise level at any given location differs from the level set forth in 9.10.040 (Schedule A), "the allowable noise exposure standard shall be adjusted in five dBA increments in each land use category as appropriate to encompass or reflect said ambient noise level." In view of the ambient conditions at the park's western property line, allowable noise exposure standards are 70 Ldn, 70 Leq, and 75 Lmax (dBA).

The City of Santa Clara's *General Plan*, Chapter 5, *Environmental Quality Element* (July 23, 2002) identifies an exterior sound level of up to 70 Ldn (dBA) as the community sound level that is

compatible for light industrial land uses without mitigation. An Ldn of 70-75 dBA with design and insulation to reduce interior noise levels is potentially compatible for light industrial land uses.

In the *General Plan*, community noise includes noise from fixed and mobile sources, for example, aircraft departures and landings; street traffic; steady, intermittent, and peak sounds from the neighborhood; and steady, intermittent and peak noise from California's America theme park. The *Santa Clara Municipal Code*, Title 9, Chapter 9.10 addresses allowable noise from fixed sources.

EVALUATION

Lmax levels projected at actual developed uses are presented in Table 1. The projected 75 Lmax at the park's western property line would equal, but would not exceed, the allowable noise exposure of 75 Lmax.

This evaluation of sound impact addresses all nine criteria of *Santa Clara Municipal Code*, Title 9, Sub-Chapter 9.10.060. Table 2 (next page) lists these criteria and findings.

TABLE 1

PROJECTED Lmax AT SPECIFIED RECEPTORS

ID	Address	Actual Developed Use	Lmax (dBA)
1	4559 Great America Pkwy	Parking garage	74
2	4557 Great America Pkwy	Outdoor lunch/seating area	70
3	4555 Great America Pkwy	Office building (walkway)	70
4	4551 Great America Pkwy	Loading dock	74
A	4655 Great America Pkwy	Office building (walkway)	70[4]

NOTES:
1. Receptor locations #1-4 are shown in Figure 1.
2. Lmax projections are worst-case without corrections for shielding by intervening walls or structures.
3. Other receptor locations, not shown, could have reduced noise exposure owing to shielding by structures.
4. Measured Lmax 69-85 dBA for individual aircraft on December 4, 2007 generally equals or exceeds projected 70 Lmax (dBA).

The projected 75 Lmax is a recurring maximum noise level having relatively short duration. A 75 Lmax would not be inconsistent with existing parking garages and loading dock, which are the actual developed uses on the adjoining parcels. At the offices themselves, the projected Lmax would be 70 dBA, which does not exceed or approach the allowable 75 dBA (see Figure 1).

The projected 70 Leq at the park's western property line would equal, but would not exceed, the allowable noise exposure of 70 Leq. Leq is not the noise metric of primary concern, which instead is Lmax. Leq is related to Ldn which is a metric used in the City's *General Plan*.

Ride-generated noise levels include mechanical lift noise, wheel-rail noise, and rider noise. All sources of noise were included based on noise measurements of actual operating coasters, "Ozark Wildcat" and "Kentucky Rumbler," by GMH Engineering.

LAYOUT MODIFCATIONS

The proposed coaster layout has been refined iteratively with the objective of reducing Lmax noise at the property line. The initial layout was adjusted by shifting the lift hill and first turn southward and eastward toward the Sky Tower. This change increased separation distance from off-site receptor locations #1, 2, and 3, and increased shielding by the existing parking structure. The southwest-northeast axis was rotated counterclockwise, shifting the outer turn southwards, and the turn's elevation was dropped to near ground level. These changes increased separation distance from off-site location #4 and provided opportunity for an on-site landscaped buffer treatment.

TABLE 2

NOISE IMPACT EVALUATION SUMMARY

Item	Chapter 9.10.060 Noise Evaluation Criteria	Evaluation
1	**Noise level at the property line compared to the allowable level: 75 Lmax** **Noise level at the property line compared to *General Plan* guidance levels: 70 Ldn**	75 Lmax (dBA)[a] 70 Leq (daytime), 70 Ldn
2	**Nature of the noise**	Wheel-track noise and mechanical noise. Human noise.
3	**Natural or mechanical source**	Mechanical
4	**Ambient noise**	75 Lmax, 65 Leq, 65 Ldn (dBA)[b]
5	**Proximity of the noise to sleeping facilities**	Remote
6a	**Nature and zoning of the area where noise is generated**	Amusement park in Thoroughfare Commercial (CT) zoning district
6b	**Nature and zoning of the area where noise is received**	Planned Industrial Zoning Districts: MP, PD (MP)
7	**Time of day or night the noise occurs**	Park hours, seasonal
8	**Duration of the noise**	each noise event is about 12 seconds[c]
9	**Is the noise recurrent, intermittent, or constant?**	Recurrent, 20 times per hour[d]

NOTES:

(a) Evaluation based on graphical overlay of noise contours developed from noise measurements of a similar operating coaster.

(b) Based on *General Plan* Chapter 5 Environmental Element Noise Contours and San Jose International Airport Noise Monitoring Center's aircraft noise monitoring outside the park. Traffic noise is about 65 Leq in the 5-6 PM hour. Lmax exceeds this Leq during individual events such as car passbys and aircraft flyovers.

(c) Based on estimated 10 dBA drop-off time of -6 seconds on the approach and +6 seconds on the departure.

(d) Based on conservative ride cycle time ("headway") of 3 minutes.

SOURCE: Ballard W. George Acoustics, December 2007 and January 2008

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San Jose International Airport, March 2, 2007. Noise Monitoring Data–Quarterly Report Fourth Quarter 2006. http://www.sjc.org/community/reports/4q06report.pdf

San Jose International Airport, November 27, 2006. Noise Monitoring Data–Quarterly Report Third Quarter 2006. http://www.sjc.org/community/reports/3q06report.pdf

Thank you for this opportunity to serve California's Great America. If you have any questions or require further information, please contact me at (510) 881-8574 or Mr. Ballard George at (408) 736-7182.

Sincerely,
FOR AND ON BEHALF OF ENVIRONMENTAL SERVICE
AND
BALLARD W. GEORGE ACOUSTICS

Marc Papineau

Marc Papineau
California Registered Environmental Assessor 791
Project Manager

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Attachment A, Background Information on Wooden Coasters
Attachment B, Qualifications of the Report Preparers

10 Years 1995 - 2005

environmental service
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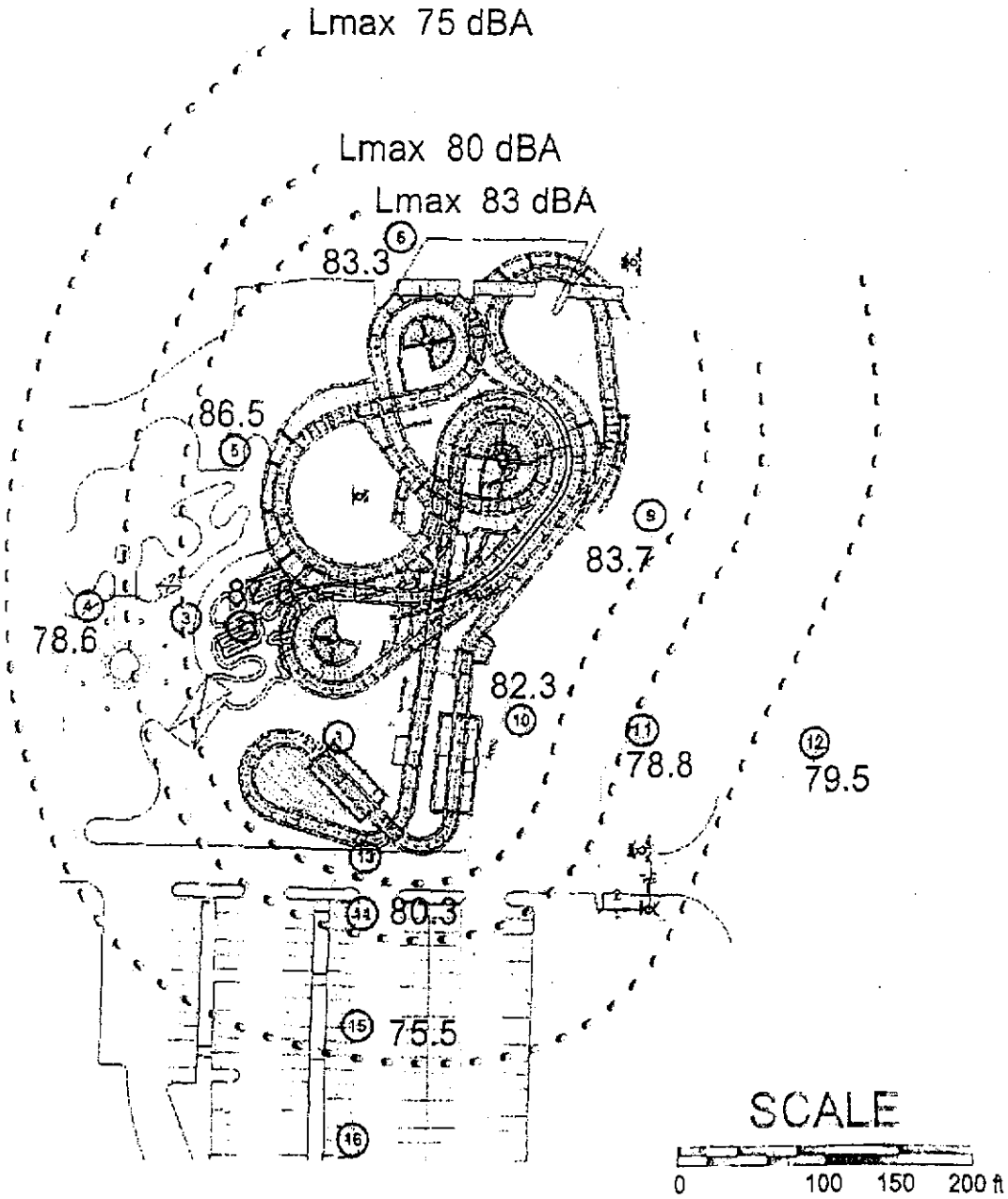
Figure 1

Lmax Noise Contours
for the Proposed Coaster



10 Years 1995 - 2005 environmental service in association with BALLARD W. GEORGE	N	Figure 2 Reference Lmax Noise Contours

GENERAL BACKGROUND INFORMATION ON WOODEN COASTERS

There are two basic families of roller coasters: steel and wooden. The kind of track, or "rail," is the feature which places a coaster into the steel or wooden family. Steel roller coasters run on tubular steel rails. Usually hollow, the rails may also be filled with sand or another dense material to help dampen the sound, especially in metropolitan areas with restrictions on noise level. Steel coasters typically have a steel support structure, but the construction of the support structure does not affect whether a coaster is in the family of steel or wooden coasters. There are coasters with steel rails and have wooden supports structures, and these are still steel coasters.

Steel coasters have greater design flexibility than wooden coasters. Steel is more durable than wood, can withstand greater stresses, and span greater unsupported distances. Steel coasters, therefore, can have tighter turns, steeper hills, and even go upside down. Steel coasters come in many forms, including inverted (cars run beneath the track with riders' legs dangling), floorless (cars run above the track but there is no bottom and riders' feet still dangle), stand up (riders use a bicycle style seat), and suspended (enclosed cars run beneath the steel track).

The running rail of a wooden coaster consists of strips of laminated wood topped with a steel strap. The most common types of wood used for coaster rail construction are Douglas fir and southern yellow pine because they readily accept the pressure treatment necessary to make the wood more durable. Most wooden coasters have a wooden support structure; however, a coaster constructed using a steel support structure and wooden rails would still be in the family of wooden coasters.

Wooden coasters cannot have such tight turns or steep hills as steel coasters. One hybrid wooden-steel coaster, Son of Beast at Paramount's Kings Island in Ohio, has an inversion – a vertical loop constructed out of steel. No pure wooden coaster can have an inversion. So why are they built still? Wooden coasters have a unique appeal due to the shaky, out-of-control feel of the ride.

Owing to the relatively limited design flexibility of wooden coasters compared to steel coasters, wooden coasters have two basic layouts: out-and-back and twister. An out-and-back coaster travels along its course, makes a one-hundred-eighty degree turn, and returns to the station parallel to the outbound course. In the twister layout, tracks weave throughout the support structure, sometimes traveling above and below other segments of track.

Existing Coasters
at Great America in Santa Clara, California

Name	Year opened	Type	Track length (feet)	Height (feet)	Top speed (mph)	Designer
Demon	1976	Steel	2,130	102	50	Arrow Dynamics
Grizzly	1986	Wood	3,250	91	50	Curtis D. Summers
Runaway Reptar	1987	Steel	1,300	36	25	Intamin AG
Vortex	1991	Steel	2,260	91	45	Bolliger and Mabillard
Top Gun	1993	Steel	2,260	102	50	Bolliger and Mabillard
Invertigo	1998	Steel	985	161	50	Vekoma
Taxi Jam	1999	Steel	288	8	na	Miler Coaster, Inc.
Psycho Mouse	2001	Steel	1,257	58	30	Arrow Dyanmics

ATTACHMENT B

QUALIFICATIONS OF REPORT PREPARERS

B.S., Mathematics and Physics, Haverford College, 1976
M.B.A., Finance, UC Berkeley, 1981

MARC PAPINEAU, R.E.A. 791, has engaged in the environmental sciences since 1977. At Environmental Research & Technology (Westlake Village) Mr. Papineau performed mathematical evaluations of air pollution transport data for a research project funded by the American Petroleum Institute. At Earth Metrics Incorporated (1978-1990), Mr. Papineau was an environmental scientist and technical writer for environmental impact statement (EIS) and report (EIR) documentation pursuant to the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). At Earth Metrics Incorporated, and later at Certified Engineering & Testing Company, Inc. (1990-1994), Mr. Papineau managed EIRs, performed special studies including risk assessments, air quality assessments and monitoring; prepared Phase I environmental site assessments; and managed special services including software application and development for air pollution and acoustics, liquid spills, nonvolatile liquid evaporation, and contaminant releases to soil. These services were provided in support of the programs of cities, school districts and utility districts, developers, and the banking and real estate communities.

In total, Mr. Papineau has provided professional environmental services for 24 years. Mr. Papineau has been a California registered environmental assessor since 1988.

Mr. Papineau's academic and management experience includes physics and mathematics baccalaureate, management of a Physical Sciences Department, management of multidisciplinary teams engaged in the preparation of EIRs and EISs, and graduate business degree. He has managed Phase I, Phase II, and Site Mitigation projects for the JSM Enterprises, Pinn Brothers Construction, Inc., Resources for Community Development, City of Fremont, and many other clients.

Mr. Papineau has prepared Phase I assessments, EIRs, Negative Declarations, and special studies for high schools, middle schools, and elementary schools, not-for-profit housing developers, and city governments. Mr. Papineau has previously prepared Phase I assessments, Negative Declarations or EIRs, or related services, for Ecumenical Association for Housing; Mountain View-Los Altos High School District, Antioch Unified School District, Cotati-Rohnert Park Unified School District, and Los Rios Community College District; and also for the cities of San Bruno, Belmont, Pleasanton Hill, and Walnut Creek, which engaged in land acquisition for road improvements. Mr. Papineau is knowledgeable in the particular requirements of California Education Code, Section 39003, which requires consideration of potential risks posed by hazardous materials, wastes, and toxic air emissions.

In 1995 Mr. Papineau founded Environmental Service. The firm performs environmental services for cities, counties, and private sector clients and has introduced specialty services for the real estate brokerage and industrial communities. Phase I environmental site assessment services entail detailed research of archived city records, reverse directories, inspection and planning records, building permits, and other information sources, to ascertain past tenants and chemical usage at industrial properties. The firm specializes in environmental documentation of commercial sites, industrial reuses, and urban land conversions. Currently, Mr. Papineau is assisting the County of Alameda Planning Department with the Draft EIR for the Proposed PD Re-Zoning for the Marriot/Fairfield Inn & Suites hotel) and the City of Novato Engineering (EA and Project Study report for the proposed Novato Boulevard Improvements - Diablo to Grant).

BALLARD W. GEORGE

B.S., Physics, University of Texas, Austin
M.S., Engineering, University of Texas, Austin

Ballard George is a consulting acoustical engineer and full member of the prestigious Institute of Noise Control Engineers (INCE). He is an expert in community noise monitoring and mitigation. Mr. George has created Noise Elements for the General Plans of California communities including the Town of Hillsborough and City of Riverside. Representative highway, aircraft, and rail noise assessment projects include Highway 880 overcrossing at Aladdin/Fairway; Harbor Bay Isle in the City of Alameda; and trackage along Highway 50 for the Sacramento Regional Transit Agency. Mr. George is an expert in compliance with California Administrative Code, Title 24, upon whose expertise architects and contractors regularly rely.

EXCERPT FROM NORTEL NETWORKS DEIR
Feb 2000

- Sweep daily (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

Conclusion: The use of watering alone for dust control is estimated to reduce dust emissions by about 50 percent. The combined effect of the above measures, including the use of a dust suppressant, would have a dust control efficiency of 70 to 80 percent, which would reduce construction-related air quality impacts to a less-than-significant level. Implementation of the above mitigation measures would reduce potential construction related air quality impacts to a less than significant level. (Less than Significant Impact)

Significant Unavoidable Impact

There is no feasible mitigation availability that would completely avoid causing significant impacts to long-term local (CO) and regional air quality, should the project be developed as proposed.

C. NOISE

The following discussion of the project site's existing noise environment is based, in part, upon a noise impact analysis conducted by *Edward L. Pack Associates, Inc.*, for the Great America Corporate Center Project, located immediately south of the site, in July 1998.

1. Existing Setting

Noise is generally identified as unwanted sound. The DNL is a 24-hour time-weighted average noise descriptor commonly used to describe community noise environments that penalizes noise at night, as people are more sensitive to noise during nighttime hours. The DNL rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The decibel measure of the sound level utilizing the "A" weighted network of a sound level meter is referred to as "dBA". The "A" weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlated well with the response of the human ear.

The 24-hour day is divided into two subperiods for the DNL index, i.e., the daytime period from 7:00 am to 10:00 pm, and the nighttime period from 10:00 PM to 7:00 AM. A 10 dBA weighting factor is applied to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours.

The City of Santa Clara Noise Element identifies land use guidelines which specify a Day-Night Level (DNL) of up to 55 dB as a compatible environment for residential land uses. When the exterior level exceeds 55 dB DNL, design and sound insulation are required to maintain noise levels in living spaces at or below 45 dB DNL. Commercial land use is limited to 65 dB DNL, and industrial land uses are limited to 70 dB DNL.

The City of Santa Clara Noise Element does not contain standards for commercial or industrial interiors. However, commonly accepted criteria for office interior noise levels include: 50 dBA L_{max} as an "optimum" interior noise level and 60dBA L_{max} as an "acceptable" interior noise level.

Existing Noise Conditions

The project site is bound by Great America Parkway to the west, Patrick Henry Drive to the south, and Paramount's Great America theme park to the west. The primary sources of noise at the site are aircraft flyovers from San Jose International Airport (SJIA) and activities at the adjacent Paramount's Great America theme park. Traffic on Great America Parkway is a secondary source of noise.. It should be noted that the Theme Park is only open for part of the year and for limited hours.

To determine the noise levels at the site, measurements of aircraft flyovers and of activities at Paramount's Great America were made on June 11-13, 1998. The measurements were made on the roof of Building SC 2 of Bay Networks, closest to Paramount's Great America and aircraft flyovers. The weather conditions were warm and sunny. School was out of session and it was assumed that activities at Great America were indicative of a busy summertime day. The measurements were made for a total period of 48 hours and included recordings of the noise levels during the daytime and nighttime periods of the DNL index.

The results of the measurement calculations show that the existing noise exposure on the roof of Building SC2 is 65 dB DNL on a Friday and 64 dB DNL on a Saturday. Due to the distances from the sources (i.e. Great America and aircraft flyovers), the noise exposures at the proposed project site would be similar.

- Maximum noise levels from Paramount's Great America ranged from 60-74 dBA from roller coaster riders and up to 80 dBA from the theme park train horn.

- Maximum noise levels from aircraft flyovers ranged from 82-95 dBA.

The exterior noise exposures were evaluated against the City of Santa Clara Noise Element, which utilizes the Day-Night Level (DNL) noise descriptor and specifies a land use compatibility limit of 65 dB DNL for commercial uses.

As shown on Table 16, the existing exterior noise exposure conforms with the standards of the City of Santa Clara Noise Element. Future noise exposures from SJIA have been predicted to decrease due to quieter aircraft engines.

Table 16 Exterior Noise Levels and Projected Office Interior Noise Levels		
	Existing Exterior Noise Level	Projected Interior Noise Level
Day 1 (Friday)	65 dB DNL 55-95 dBA L_{max} average (6:00-8:00pm) 86 dBA L_{max}	40 dB DNL 20-70 dBA L_{max} 61 dBA L_{max}
Day 2 (Saturday)	64 dB DNL 59-90 dBA L_{max} average (6:00am - 8:00 pm) 77 dBA L_{max}	39 dB DNL 34-65 dBA L_{max} 52 dBA L_{max}

2. Noise Impacts

Thresholds of Significance

For the purposes of this project, a noise impact is considered significant if it would:

- result in a substantial change in the ambient noise levels; or
- result in a conflict with established plans and policies; or
- expose people to noise levels in excess of established standards; or
- expose people to a vibration which would be strongly noticeable.

Impacts to the Project

The Paramount's Great America theme park and aircraft overflights are the primary noise sources at the site. The proposed office buildings would be exposed to an outdoor noise level ranging from 55-95 dBA L_{max} and a 65 dB DNL. These noise levels meet a land use compatibility limit of 65 dB DNL for commercial uses specified in the City of Santa Clara Noise Element.

To determine the interior noise levels, a 25 dB reduction was applied to the exterior noise levels to represent the attenuation provided by a typical building shell, which assumes that the building will have windows of single-pane 3/16" glass fixed in the frames. Therefore, the maximum interior noise levels during business hours 6:00 AM to 8:00 PM. weekdays will range from 52.5 to 69.9 dBA, with an average of 60.9 dBA. During Saturday hours of 6:00 a.m. to 8:00 p.m., the maximum noise levels will range from 40.2 to 59.7 dBA, with an average of 52.3 dBA.

Commonly accepted criteria include the following: 50 dBA L_{max} as "optimum" and 60dBA L_{max} as "acceptable" indoor noise levels. The average maximum noise levels therefore, would be up to 11 dBA in excess of the "optimum" noise criterion and 1 dBA in excess of the "acceptable" noise criterion.

With construction using standard building materials, the proposed office building would experience interior noise levels 1 dBA in excess of "acceptable" noise levels and 11dBA in excess of "optimum" noise levels. (Significant Impact)

Impacts from the Project

The project would cause increases in traffic on streets serving the site. The highest increases in noise levels from project traffic would occur on Great America Parkway. Traffic volumes must double in order to result in a 3 decibel (perceptible) noise increase. Since the project traffic would not double existing traffic volumes on Great America Parkway, project traffic is not anticipated to create significant noise impacts.

Project-generated traffic noise would not increase ambient noise levels for any sensitive receptors. (Less than Significant Impact)

Construction Related Noise Impacts

During construction of the project, noise levels would temporarily increase for surrounding land uses. Construction equipment generates noise levels in the range of 70 to 90 dBA at a distance of 50 feet from the source, and has the potential for disturbing surrounding land uses during both site preparation and building construction. In addition to the noise sources with typical construction projects, which generally consist of grading equipment, hammering, nail gun, and engine noise, the project proposes to use piles in building foundation construction.

Pile driving can generate extremely loud noise levels with peak noise levels from the hammer striking the pile cap often registering about 100 decibels at a distance of 100 feet, and is accompanied by strong vibration impacts. Ground vibrations associated with pile driving are caused by the force applied against the soil by pile driver blows. The vibrations travel through the soil to nearby buildings. Although pile driving would be a temporary activity, it is of sufficient intensity to constitute a significant source of noise and vibration impacts for nearby land uses including the office buildings adjacent to the project site. Pile driving equipment could be on the site for approximately six to eight weeks.

Noise from construction and pile driving on the project site would result in significant short term noise impacts.

Noise associated with the construction of the office building could temporarily increase noise levels on the project site and in the project vicinity. Pile driving could create significant noise or vibration impacts to adjacent land uses. (Significant Impact)

3. Mitigation Measures

Mitigation for Noise Impacts to the Project

One of the following design features would be included in the project to reduce interior noise levels to an acceptable level.

- Installation of fixed windows consisting of a single pane of ½" laminated glass in all windows with a view of Paramount's Great America or aircraft flyovers. This assembly is rated Sound Transmission Class (STC) 38 and will provide 38 dB of noise reduction.

[or]

- Installation of fixed windows consisting of dual pane glass configuration of 1/4" laminated - 1" air space - 1/4" laminated glass. This assembly is rated Sound Transmission Class 38 and will provide 37 dB of noise reduction.

[or]

- Installation of fixed windows consisting of a single pane of 1/4" laminated glass in all windows with a view of Paramount's Great America or aircraft flyovers. This assembly is rated STC 32 and will provide 28 dB of noise reduction.

[or]

- Installation of fixed windows consisting of a dual pane glass configuration of 3/16" glass - 3/8" air space - 3/16" glass. This assembly is rated Sound Transmission Class 32 and will provide 28 dB of noise reduction.

Conclusion: The installation of the "optimum" (single ½" or dual ¼" pane) windows would reduce average maximum daytime noise levels in the office interiors to below 50 dBA. Any portion of the office interior would be quiet enough for executive offices and conference rooms.

[or]

The installation of the "acceptable" (single 1/4 or dual 3/6" pane) windows would reduce average maximum daytime noise levels to below 60 dBA, which may be considered somewhat noisy for executive offices and conference rooms. These noise sensitive spaces may then need to be limited to west facing areas of the building or in spaces with no view to Paramount's Great America or aircraft flyovers. **(Less than Significant Impact)**

Mitigation for Construction Noise

The following mitigation measures will reduce short-term exterior noise and vibration impacts:

- The pile driving schedule could be expedited to the extent feasible.

- In order to reduce the overall length of time noise and vibration from pile driving would impact surrounding land uses, two pile drivers could be operated on the site at the same time.

- Noise control for pile drivers could be employed. Shrouding pile drivers could be used to reduce the amount of noise emitted by 5 to 10 dBA.

- Measures such as pre-drilling holes could be implemented during project construction to reduce the time and noise generated by pile driving.

Conclusion: Even with implementation of the above described mitigation measures, the project would result in significant, short-term noise and vibration impacts during construction. (Significant Unavoidable Impact)

D. VISUAL

1. Existing Setting

Visual and Aesthetic Character of the Project Site

The project site is currently an unused, paved parking lot. The only vegetation on the site are mature landscaping trees that are located along Great America Parkway and on parking medians within the site. The site is bordered on two sides by public streets, with Great America Parkway to the west and Patrick Henry Drive to the south. The Paramount's Great America Theme Park and its driveway and parking lots are located to the north and east of the site. Photo 1 shows the existing condition and character of the project site.

Surrounding Visual Context

The area surrounding the project site can be generally characterized as a modern, developed urban area with landscaped setbacks and parking areas. An aerial view of the project site and surrounding land uses is presented on Figure 3. The primary land use in the project vicinity is Office/R&D. An existing Nortel office/R&D facility is located adjacent to the project site to the south. East of the project site is the Paramount's Great America Theme Park, with associated parking located north of the project site. North of the Paramount's Great America parking lot is the Santa Clara Convention Center, the 15-story Westin Hotel, and the 8-story Hilton Hotel. Parkway Plaza, a 4-story office building, is located directly west of the project site, across Great America Parkway. Parkway Plaza is bound on the north and south sides by the 4-story Marriott Business Park and a 3-story office building, respectively. North of the Marriott Business Park is the Tasman Corporate Center and a Verifone office/R&D facility, which are both 5-story buildings.

Views of the project site are generally limited to the surrounding roadways and immediate foreground of adjacent development. This limited visibility is due to the flatness of the project site and the presence of surrounding development.

2. Visual Impacts

Thresholds of Significance

For the purposes of this project, an aesthetic or visual impact is considered significant if the project would:

- substantially block existing views of scenic vistas or resources;
- produce substantial light or glare, such that is poses a hazard or nuisance; or
- introduce new development that would substantially detract from the integrity, character and/or aesthetic character of the neighborhood.

Aesthetic values are largely subjective. Individual taste may vary significantly, particularly with regard to architectural style. Particular viewpoints as to what constitutes an adverse visual impact also differ among individuals. The discussion below, therefore, focuses on *change* in visual perception and views, without placing value on the aesthetic quality of a particular condition.

The assessment of a project's visual impact is dependent upon an evaluation of the character and design of the proposed development and the degree to which the project is visually compatible with the surrounding community. The primary criteria that are considered in this assessment include: 1) the spatial relationship of the proposed structures within the site to neighboring land uses; 2) the mass, scale, and height of the proposed structures and their visibility from the surrounding area; 3) the degree to which the project would visually contrast with the surrounding development in design and materials.

Impacts from Project Development

The proposed project would introduce large new structures on what is now a vacant parking lot. The project proposes the development of two 7 to 9-story office buildings that would comprise 636,000 square feet of office uses and two 4-level parking structures. The site would look like an urban office complex, similar to other developments in north Santa Clara. Conceptual elevations of the development's building massing and scale are illustrated on Figures 5, 6 and 7.

One of the main concerns that has been identified in terms of visual impacts of the project is the preservation of views of the Paramount's Great America Theme Park from Great America Parkway. Development of the proposed project would slightly reduce the visibility of the adjacent Theme Park from Great America Parkway. It should be noted that a number of new rides have been approved in recent years that are over 100 feet tall that can be seen from a distance, including from U.S. 101. The project would maintain a 100-foot view corridor of the Theme Park from Great America Parkway, between the two proposed office buildings. Figures 4 and 5 illustrate the view corridor of the theme park.

The project would provide outdoor lighting, including low level pedestrian light fixtures and downward focused sodium luminaries for the surface parking lots. All new outdoor lighting for the proposed structures would meet the City of Santa Clara's outdoor lighting requirements. Outside lighting would generally increase the level of illumination in the area, but because the surrounding area is of similar land use, the outside lighting would not be a significant source of light or glare. Low-pressure sodium bulbs would be used in exterior light fixtures to prevent potential lighting impacts to Lick Observatory. No light source would be directed skyward.

The project is located in an area that is developed with buildings of similar size, use, mass, scale, and height of the proposed structures and would maintain the required view corridor of the Paramount's Great America Theme Park. In order to ensure that the design of the building complements the character of the surrounding area, the proposed design and site configuration would be subject to the City's Design Review approval, prior to issuance of building permits. For these reasons, the project would not substantially degrade the existing visual character or quality of the site or its surroundings.

F. Visual and aesthetic changes resulting from development of the project would not constitute a significant environmental impact. (Less Than Significant Impact)

3. Mitigation Measures for Visual Resource Impacts

The project includes the following measures to reduce the visual impacts of the proposed project:

- The project would include a landscaping plan to provide screening vegetation around the perimeter of the site, around the buildings, and in the common open areas.

- The project plans would be reviewed by the City Architectural Committee for compliance with the City's design and architectural regulations.

Conclusion: Implementation of the above measures would ensure that the project does not result in significant visual impacts. (Less than Significant Impact)

E. UTILITIES AND SERVICE SYSTEMS

The following discussion of utilities and service systems is based upon a Due Diligence Report of Civil Engineering Issues prepared for the project applicant by *Brian Kangas Foulk* in December 1998. A copy of this report is included as Appendix D of this EIR.

1. Existing Setting

Sanitary Sewer/Wastewater Treatment

Wastewater treatment service for the area is provided by the City of Santa Clara. The Santa Clara/San Jose Wastewater Pollution and Control Plant (WPCP) is located in Alviso. The WPCP is currently operating under a 120 million gallon per day (dry weather) flow trigger. This requirement is based upon the State Water Resources Board and the Regional Water Quality Control Board (RWQCB) concerns over the effects of additional freshwater discharges to the saltwater marsh habitat and pollutant loading in the South San Francisco Bay from the WPCP. In response to these issues, a South Bay Action Plan has been prepared to prevent degradation of the salt water marshland habitat and study the discharge of metals from the WPCP in excess of RWQCB standards. In addition, a Clean Bay Strategy has been developed to address water conservation and the pollutant loading to the Bay. The Clean Bay Strategy has identified numerous programs and projects in the areas of increased education and awareness, pollutant source detection, and greater regulatory requirements to reduce pollutant levels. The imposition of additional regulatory requirements as a result of the flow triggers has not yet occurred due to the City's good faith efforts in implementation of the Clean Bay Strategy. However, the RWQCB may require additional control measures to be implemented at any time it deems necessary.

There are two sanitary sewer mains, 33" and 36" in diameter, located along Great America Parkway and a 18" sewer line along Patrick Henry Drive. The existing 6-inch sanitary sewer line on the site conveys wastewater from the Theme Park's I-Max theater to City collection facilities in Great America Parkway. The sanitary sewer line currently on the project site does not have an easement.

California's
Great America

RECEIVED

MAR 0 4 2008

City of Santa Clara
Planning Division

Date: 2/4/08

To: Jeff Schwilk

From: Greg Sanders

California's Great America Wood Coaster Proposal

Jeff,

Attached is some additional sound study information on the Nortel Building that our sound consultant has produced since the last Commission meeting. Attempts were made to agree with Prudential's sound consultants on the study.

We feel that the information attached adds support to our position that the proposed Wood Coaster will have no disruptive impact on the Nortel buildings.

We would like to point out that we have made efforts to provide Prudential with information and communication even prior to the last Commission meeting. We have responded and provided all information that has been requested by Prudential. We do not believe that Prudential has shown the same level of cooperation. For example, on February 29th, a meeting was set up between the sound consultants by Prudential's consultant. While the Great America consultants went to the Nortel building at the scheduled time, the Prudential side did not show up. A call was made to find out why the meeting did not take place and the consultant said that the Prudential attorney's had not agreed/approved for the meeting to take place that day. The meeting was subsequently rescheduled for March 3rd, hindering the schedule to collect and analyze data.

Great America stands committed to continue to work with Prudential to try and resolve any questions in order to proceed with the project.

Greg Sanders

Greg Sanders

2401 Agnew Road | Santa Clara, CA 95054 | (408) 988-1776 | cagreatamerica.com

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environmental service

by Papineau, R.E.A. 791

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MAR 0 4 2008

City of Santa Clara
Planning Division

March 4, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Sound Study Protocol for the Nortel Network Offices and Proposed New Wooden Coaster at California's Great America (Project 2007-045.03)

Dear Mr. Schwilk:

This letter was prepared to present the independent findings of Great America's consultants ("GA's consultants") in regard to the Sound Study Protocol implemented on March 3, 2008. The findings are preliminary and "independent" because they represent the work of GA's consultants only.

Background— GA's consultants began their Acoustical Impact Assessment in November 2007, and ultimately concluded their report dated January 15, 2008, after trying alternative coaster layouts. The currently proposed coaster was moved away from the property line to reduce off-site noise. The orientation of the proposed ride's northern lobe was designed to wrap around the Sky Tower and carry riders facing away from 4655 Great America Parkway in the first thrilling turn after the lift hill. The net result was a coaster layout that reduces maximum noise, called Lmax, to a level of 75 dBA, or lower, at the property line. The proposed ride, therefore, was assessed to be fully compliant with the City's Municipal Code.

After submittal of GA's Acoustical Impact Assessment, GA's Nortel Network neighbor expressed concern in regard to indoor noise inside the offices. GA and GA's consultants participated in an attempt to define and implement a Sound Study Protocol to evaluate indoor noise and, thereby, to address this concern. Agreement was reached in part but not on every detail of the Protocol.

Sound Study Protocol (the "Protocol")—The Protocol was established to identify 1) existing indoor noise levels at the east-side offices located at 4555 and 4655 Great America Parkway; 2) evaluate the outdoor-to-indoor noise reduction through the building skins; and, 3) estimate potential indoor noise caused by from coaster riders on the proposed new coaster. Measurements were performed on March 3, 2008, both outdoors and indoors in unoccupied and, in some instances, unfurnished office spaces .

To evaluate the building skin GA and GA's consultants independently made inquiries to confirm the detail of the window glass called "vision glass" on the east-facing facades. Initially unsuccessful in obtaining Plans & Specifications at the Building Department, GA's consultants ultimately confirmed the ¼-inch thick vision glass windows were supplied by VIRACON and installed by Harmon Ltd.

5789 Gold Creek Drive Castro Valley, California 94552 T (510) 881-8574 F (510) 581-7204

Concurrently, GA's consultants worked with Charles Salter Associates to draft the Sound Study Protocol. Although GA's consultants and Charles Salters Associates did not agree on every aspect of the Protocol, some aspects of the analysis were shared including rider scream noise and VIRACON product data.

City Planning Department Staff did provide a year-2000 Draft Environmental Impact Report for the Nortel Great America Parkway Project. The Draft EIR for the Nortel Networks Project includes its own independent noise impact evaluation. The Draft EIR sets forth noise conditions affecting the Nortel project site in 2000 including San Jose International Airport (SJIA) operations and GA Theme Park operations. It characterizes Lmax noise on the Nortel Networks Project sites in terms of ranges of Lmax noise from specific sources: 60-74 Lmax from theme park coaster riders, 80 Lmax from theme park train horn, and 82-95 Lmax from jet flyovers. The Draft EIR evaluates the levels at the faces of the then-proposed office buildings and on the roofs of the then-proposed buildings (Draft EIR, page 64). The Acoustical Impact Assessment dated January 2008 also characterizes the proposed coaster rider noise in the same range as did the Draft EIR for coaster rides in the GA theme park in 2000.

The Draft EIR recommended optional mitigation measures for jet flyover and GA Theme Park noise on the Nortel Office project site. These were categorized as Tier 1, to achieve an interior Lmax lower than 50 dBA, or optionally as Tier 2, to achieve an Lmax lower than 60 dBA. The Draft EIR described noise resulting from Tier 2 mitigation as a somewhat noisy for offices. Higher Tier 1 level of mitigation required insulating glass or insulating laminated glass windows with higher Sound Transmission Class (STC) rating. Lower Tier 2 level of mitigation required 1/4-inch thick or 3/16-inch thick glass, which has an STC of about 31.

What We Learned from the Protocol—The following aspects were clarified by the additional inquiries and Protocol.

- The vision glass around the perimeter offices is ¼-inch thick glass but is not one of the Tier 1 glasses.
- Minimum indoor background noise (Lmin) inside the open plan, unoccupied offices is about 37-38 dBA. Office background noise is steady except during jet aircraft flyovers.
- Jet flyovers currently impact the indoor noise inside the offices, generating Lmax noise levels above 50 dBA on about 25 percent of commercial jet flyovers.
- The vision glass provides an outdoor-to-indoor noise reduction of about 27-29 dBA for jet noise and about 32-33 dBA for rider scream noise
- Maximum rider noise (Lmax) inside the upper-story, east-side offices is estimated to be about 32-33 dBA. This is the Lmax that would be attained along the east-side perimeter. The Lmax in interior spaces and private offices or conference rooms without east-side exposure would have a reduced Lmax.
- Rider noise would be muffled by the windows and non-disturbing relative to background.

Conclusion—The Nortel Network offices are affected by intermittent jet flyovers from SJIA. The measured Lmax during the noisiest jet flyovers exceeds 50 dBA. The noisiest 25 percent of jet flyovers have Lmax of 77.5 dBA, or above. The office interiors at 4555 and 4655 Great America Parkway are impacted by and will continue to be impacted by some jet flyovers, independent of GA's operations.

From: Jennifer Renk
To: Kevin Riley
Date: 2/5/08 1:46PM
Subject: Great America Roller Coaster Proposal

RECEIVED

FEB 05 2008

City of Santa Clara
Planning Division

Mr. Riley, we represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA. We understand that the Planning Commission will consider an application on February 13, 2008 for a new rollercoaster ride at Great America. We have concerns about this application for a number of reasons and believe that the Planning staff should take more time to adequately address the new rollercoaster's potential impacts to adjacent landowners before the matter comes before the Planning Commission.

First, we seriously question the adequacy of the applicant's Acoustical Impact Assessment and believe that it needs to be updated to analyze our client's most salient concern--the change to the acoustical environment within the adjacent buildings due to the addition of noise from the rollercoaster ride (i.e. most notably people screaming) and the resulting impacts to both humans working within the buildings and the value of the property. These noise issues must be taken extremely seriously by the City because if a noise impact does exist that the City fails to analyze and mitigate, Prudential and other neighbors will be left to bear the consequences of the damage, contrary to CEQA.

Second, our client is concerned about the aesthetics of the rollercoaster ride, as the proposed wooden frame design will result in a looming structure that will have the effect of creating a wall between the Nortel buildings and Great America park. Consequently, we believe that the applicant must either 1) revisit the design of the structure so as to make it appear less massive and more in scale with its surroundings; or 2) locate the rollercoaster to another part of the park.

For the foregoing reasons, we believe it is in City's best interest to continue the February 13th Planning Commission agenda item and take more time to analyze the potential impacts of the new Great America rollercoaster proposal. We are anxious to sit down with the applicant to discuss our concerns and think that all of the parties would benefit from this extra time.

Thank you for your consideration.

Sincerely,

Jennifer Renk

Jennifer E. Renk
Associate
Luce, Forward, Hamilton & Scripps LLP
Rincon Center II
121 Spear Street, Suite 200
San Francisco, CA 94105
(415) 356-4600
D. 415.356.4619

The proposed coaster would not alter or substantially increase the theme park's noise above the 60-74 dBA range, which is the range incident on the building skins, as presented in 2000 in the Draft EIR for Nortel Networks Great America Parkway Project. GA's January 2008 Acoustical Impact Assessment independently forecast Lmax from the proposed coaster in exactly the same range and not exceeding. All of the noise protection sought by Nortel Networks in 2000, therefore, would be equally effective for GA's proposed coaster. Maximum rider noise (Lmax) inside the upper-story, east-side offices, estimated to be about 32-33 dBA, would be muffled and non-disturbing in the background noise of open plan offices.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau
Project Manager

Enclosures: none

Marc Papineau

C: 510.541.5829
F: 415.356.3867
E: jrenk@luce.com

****

CONFIDENTIAL

This e-mail is sent by a law firm and may contain information that is privileged or confidential. If you are not the intended recipient, please delete the e-mail and any attachments without reading, printing, copying or forwarding it, and please notify us.

CC: Jeff Schwilk;'Greg.Sanders@cagreatamerica.com';'Lowell.Esposo@cagreatamerica.com';gregory.shanklin@prudential.com;'jolynn.miller@prudential.com';Timothy Tosta;Joseph Ferrucci;'charles.salter@cmsalter.com'

2009 PROPOSED
WOODEN ROLLER COASTER

California's
Great America
Cedar Fair Entertainment Company

DATE: JANUARY 16, 2008

RECEIVED
JAN 2 5 2008
City of Santa Clara
Planning Division
PL2008-06835

California's
Great America

(408) 988-1776
P.O. Box 1776 Santa Clara, CA 95052
2401 Agnew Road Santa Clara, CA 95054

January 16, 2008

City of Santa Clara
Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050

RECEIVED
JAN 25 2008
City of Santa Clara
Planning Division

Attn: Jeff Schwilk
Re: Proposed Coaster - 2009

Dear Jeff,

California's Great America requests a height variance for a proposed coaster attraction that would open in the Spring of 2009. The coaster structure would be constructed of wood. At a maximum height of 110'-6" (track height at 107'-6"), this attraction will exceed the maximum allowable height restriction of 35-feet set by the City. The tallest point of the coaster structure is located at the top of the lift hill of the ride. California's Great America is categorized in a CT-zoning district within the northern section of the City of Santa Clara.

Due to the type of business conducted at the park, California's Great America integrates various structures and attractions that are unique in nature, such as several steel roller coasters and two ride towers that are 200-feet in height. It is with the development of these attractions, in conjunction with the ongoing support from the City, which contributes to the image and overall success of the park.

If you have any further questions or concerns, please feel free to contact me at (408) 986-5874.

Sincerely,

Lowell Esposo
Construction Manager

Cc: Greg Sanders, Maintenance Director

PROPOSED WOODEN ROLLER COASTER

RIDE SPECIFICATIONS

• Maximum Ride Height.	110 feet (Top of Maintenance railing)
• Ride Track Length	approx. 3,100 feet
• Power requirements (ride)	460 volts (200 amps)
• Seating Capacity	28 Riders per train - two trains
• Load/Unload/Cycle Time	approx. 2 minutes
• Theoretical hourly capacity	approx. 800 to 850 people per hour
• Rider Height Restrictionminimum	48" tall
• Manufacturer: Great Coaster International, Inc.	

RIDE DESCRIPTION

The ride begins with climbing up the lift hill approximately 108 feet then immediately sends the train whirling into a one-of-a-kind direction-changing, twisting first drop that surrounds the Star Tower Ride with a stunning wood lattice structure. The ride consists of a series of twists and turns with multiple direction changes, Zero-G camelbacks and small bunnyhops, extreme banking and incredibly quick but smooth transitions over a course of 3,100 feet.

PHYSICAL RIDE DESCRIPTION

Ride is composed of wood members that are anchored to a concrete mat foundation. The structure consist of vertical / diagonal bents, chords, batter braces, longitudinal bracing and ledger boards. The track structure is wood with a steel plate running track on top.

NOISE LEVELS

Noise levels for the lift hill will be dampened with sound deadening material mounted to the train and between lift hill tracks to reduce ratcheting noise coming from ARB dogs mounted on trains. Other sound prevention methods will be to add berming along property lines with dense landscaping.

LIGHTING

Project Lighting will consist of indirect lighting mounted at grade to illuminate the lift hill structure of the ride and various lower lying ride track areas. Area lighting will consist of direct illuminated pole lights for midways plazas and queue areas with sharp cutoff lines.

HEIGHT

The maximum ride height is located at the Lift Hill of 110 feet. See sheet RP-1 for the ride profile.

LANDSCAPING

Several existing trees will remain around the perimeter of the ride with deciduous shade trees, shrubs and low plantings filling in voids. The planting scheme is planned to allow maximum views from the main midway to the ride, while undesirable views to service areas will be mostly blocked. (Refer to Concept Planting Plan)

EASEMENT LOCATIONS

Public easements are not effected by this project. See set backs from Ride to property lines on sheet OP-1.

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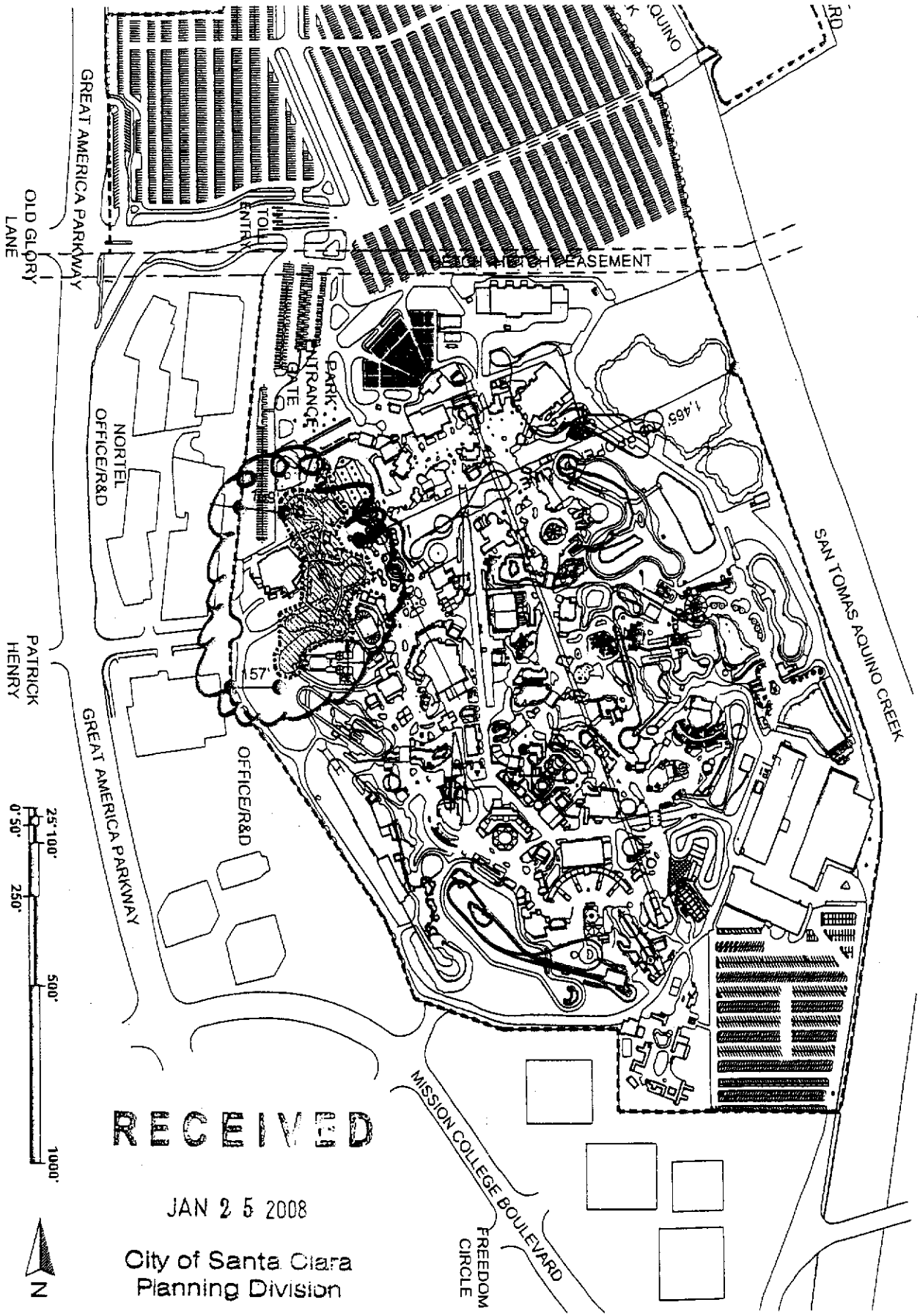
JAN 25 2008
City of Santa Clara
Planning Division

SCALE AS NOTED
DATE 1-16-08
DRAWN
FILE

California's Great America
Cedar Fair Entertainment Company

TITLE PROJECT NARRATIVE FOR PURPOSES OF PLANNING APPROVAL
PROJECT PROPOSED WOODEN ROLLER COASTER

SHEET NO
PN-1



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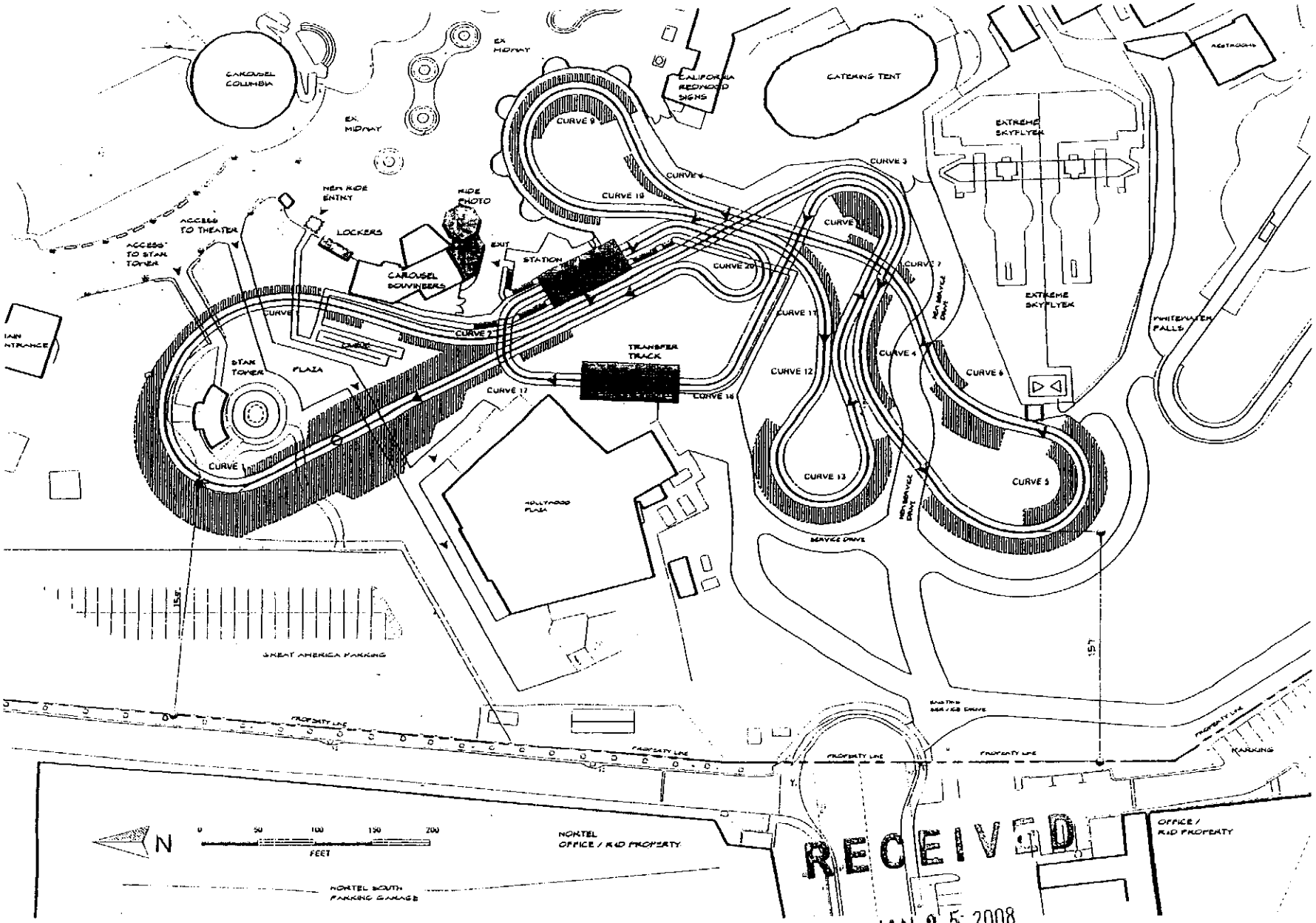
JAN 2 5 2008

City of Santa Clara
Planning Division

SHEET NO. OP-1	TITLE: OVERALL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL	California's Great America, Cedar Fair Entertainment Company	SCALE AS NOTED
	PROJECT: PROPOSED COASTER		DATE 1-16-08
			DRAWN SMG
			FILE



SCALE	AS NOTED
DATE	1-16-08
DRAWN	SPC
FILE	

California's Great America

TITLE: CONCEPTUAL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL

PROJECT: PROPOSED COASTER

SHEET NO. SD-1

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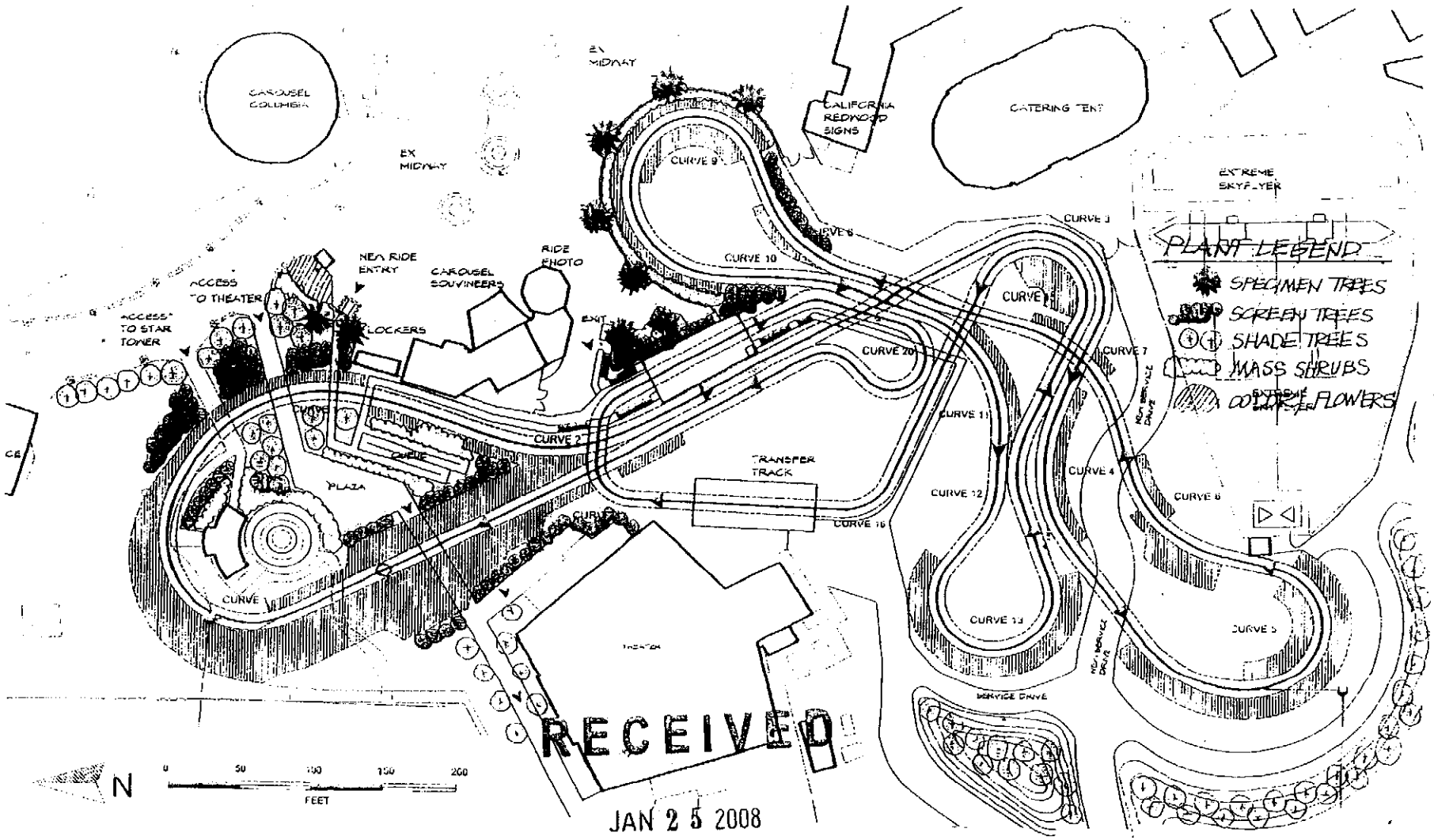
JAN 25 2008
City of Santa Clara
Planning Division



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JAN 25 2008
City of Santa Clara
Planning Division

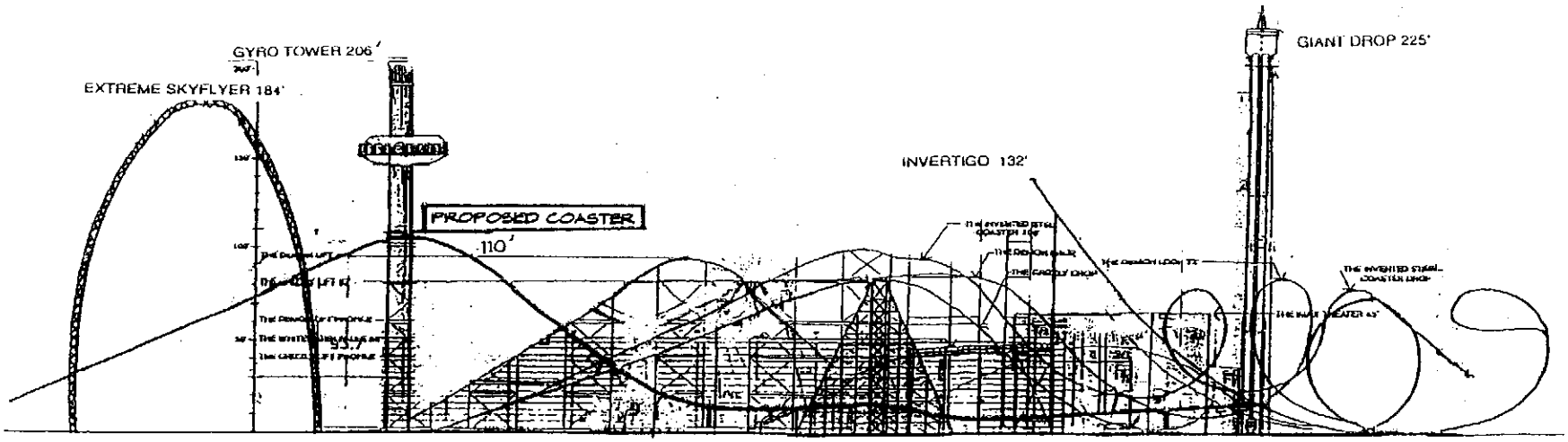
California's Great America
Cedar Fair Entertainment Company

SCALE: AS NOTED
DATE: 1-16-08
DRAWN: SPG
FILE:

TITLE: CONCEPTUAL PLANTING PLAN FOR PURPOSES OF PLANNING APPROVAL

PROJECT: PROPOSED WOODEN ROLLER COASTER

SHEET NO
LP-1



EXISTING PARK - HEIGHT ELEVATIONS

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JAN 25 2008
City of Santa Clara
Planning Division

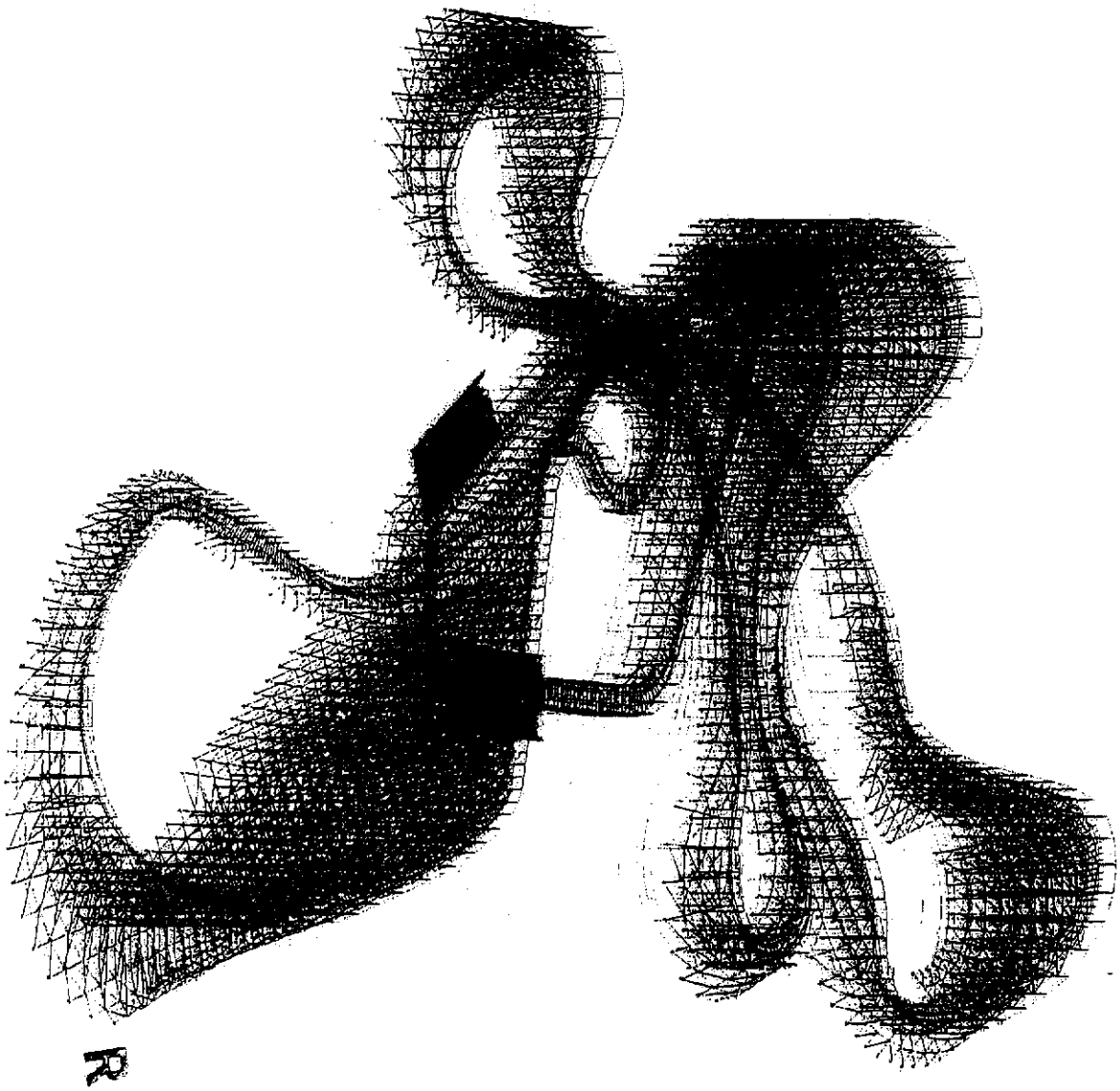
California Great America

SCALE	AS NOTED
DATE	1-15-08
DRAWN	SKG
FILE	

TITLE ELEVATION OF RIDE HEIGHT COMPARISON FOR PURPOSES OF PLANNING APPROVAL

PROJECT PROPOSED WOODEN ROLLER COASTER

SHEET NO. RH-1



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City of Santa Clara
Planning Division

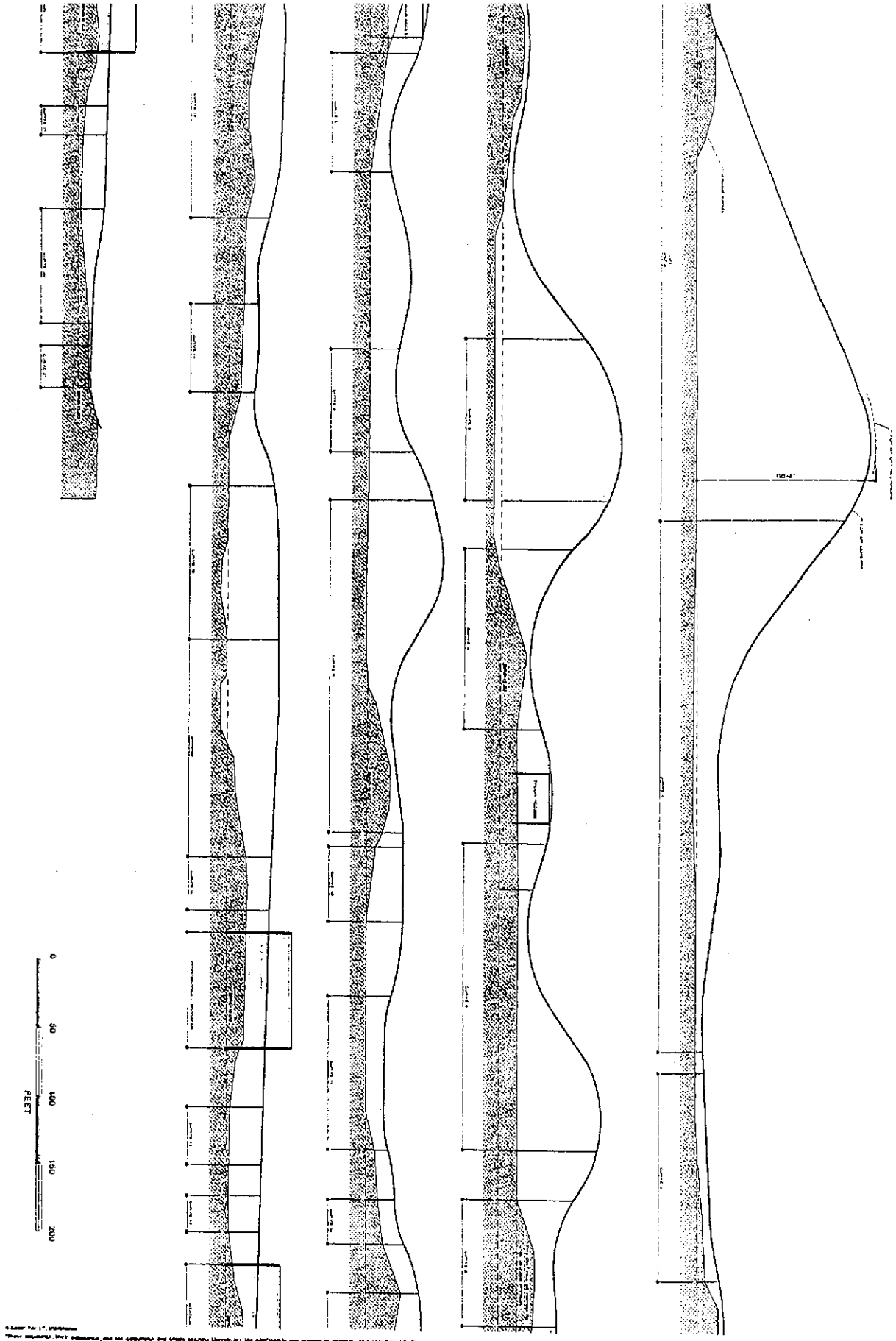
SHEET NO. 3D-1

TITLE 3D RIDE IMAGE FOR PURPOSES OF PLANNING APPROVAL

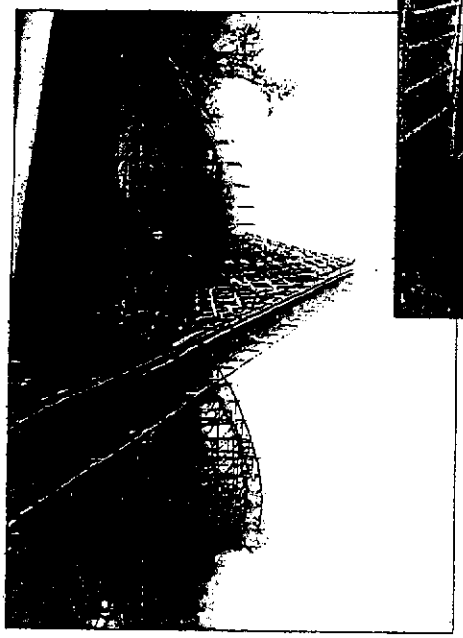
PROJECT PROPOSED COASTER

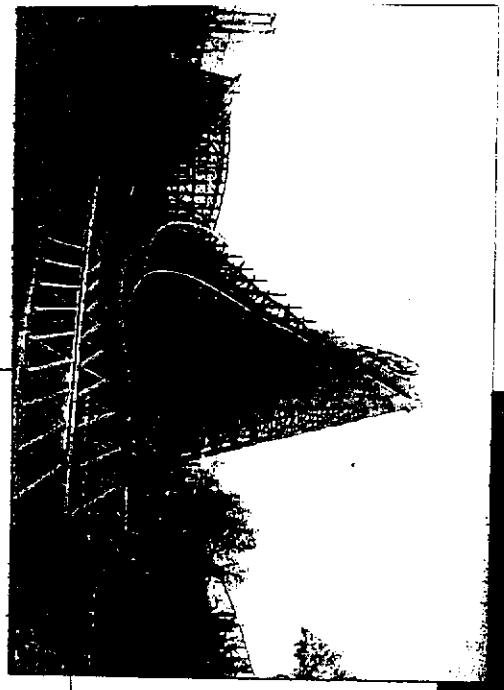
California's Great America
Cedar Fair Entertainment Company

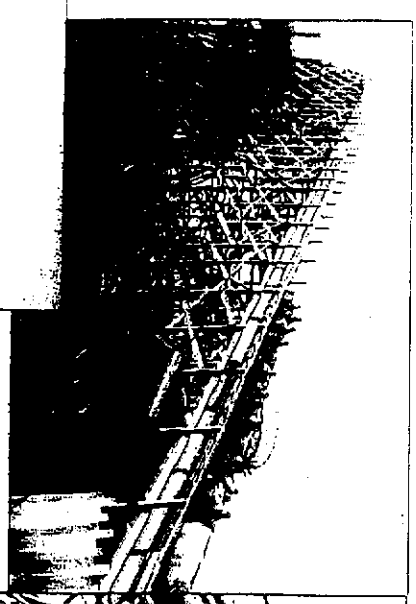
SCALE AS NOTED
DATE 1-16-08
DRAWN SNS
FILE

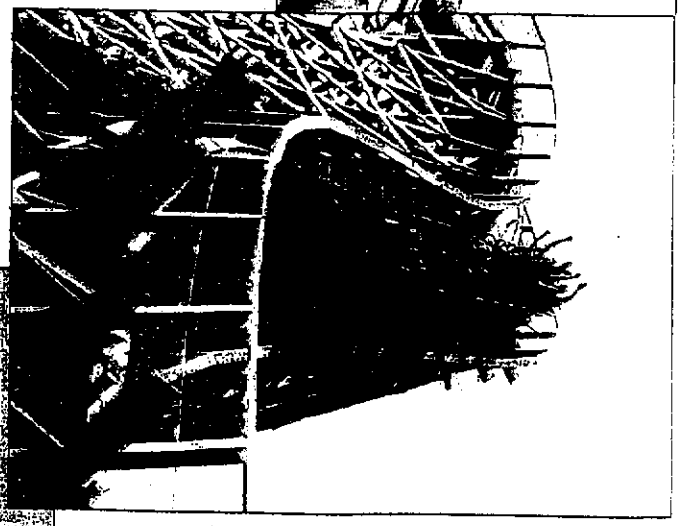


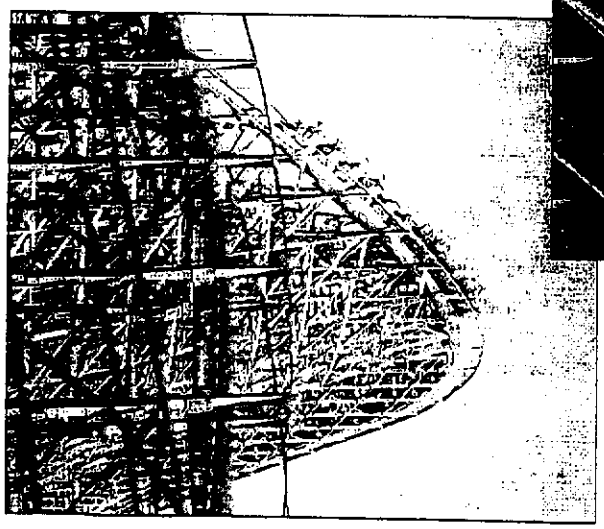
SHEET NO. RP-1	TITLE CONCEPTUAL DEVELOPMENT PLAN FOR PURPOSES OF PLANNING APPROVAL /	California's Great America Cedar Fair Entertainment Company	SCALE AS NOTED
	PROJECT PROPOSED COASTER		DATE 1-16-08
			DRAWN SNG
			FILE











SHEET NO	PH-1
TITLE	RIDE PHOTOS FOR PURPOSES OF PLANNING APPROVAL
PROJECT	PROPOSED COASTER

California's Great America
Cedar Fair Entertainment Company

SCALE	AS NOTED
DATE	1-16-08
DRAWN	SMG
FILE	

10 Years 1995-2005
environmental service
by Papineau, R.E.A. 791

RECEIVED
JAN 16 2008
City of Santa Clara
Planning Division
PLN2008-00835

January 15, 2008

Mr. Lowell Esposo
California's Great America
P. O. Box 1776
Santa Clara, CA 95052

Subject: **Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.01)**

Dear Mr. Esposo:

This letter presents the results of an acoustical impact assessment for a proposed new wooden coaster at California's Great America in Santa Clara, California.

SUMMARY

Existing ambient noise levels were reviewed for comparison with projected noise levels generated by the proposed new wooden coaster. Based on this review, existing ambient noise levels at the amusement park's western boundary are approximately 65 Leq (5-6 PM), 65 Ldn, and 75-80 Lmax (dBA). See "Glossary" on the following page for definitions.

California's Great America amusement park is adjoined by developed parcels in the Planned Industrial (MP) zoning district (APN 104-42-20) and Planned Development (PD-MP) combining district (APN 104-42-017 and -18). The parcel at 4551 Great America Parkway, in the MP zoning district, has a warehouse or manufacturing building adjacent to the park's western property line, which is attached to 2-story offices along Great America Parkway. The parcels at 4555-4559 and 4655-4659 Great America Parkway, in the PD (MP) zoning district, are improved with two (2) 4-story parking structures adjacent to the park's western property line and two (2) 6-story office buildings along Great America Parkway. Pursuant to Sub-Chapter 9.10.060 of the *Santa Clara Municipal Code*, the allowable noise exposure standards are 70 Leq, 70 Ldn, and 75 Lmax, all at the property line. The Lmax standard was adjusted up by 5 decibels (dBA), as prescribed in Sub-Chapter 9.10.060, to encompass or reflect ambient noise levels.

The proposed new wooden coaster is assessed to generate Leq and Ldn sound levels at 4551 and 4555 Great America Parkway that are consistent with the City's allowable noise exposure standards (see Figure 1, p. 8). The Lmax at the property line would equal, but would not exceed, 75 dBA, and would be comparable to the existing Lmax during a jet flyover. Ldn and Leq at the property line would not exceed 70 dBA. Off-site to the east, the proposed new wooden coaster would not have any impact on the nearest residential land uses, which include the houses on Gillmor Street, Lakeshore Drive, Rambo Court and other local streets.

This acoustical impact assessment is based upon the proposed ride's location, sound qualities of a comparable wooden coaster, and a graphical overlay method. Projected Lmax noise levels at specific off-site receptor locations are presented in Table 1 (p. 5). An evaluation summary is provided in Table 2 (p. 6) and details are provided on the following pages.

GLOSSARY OF TERMS

dBA an A-weighted decibel, which is a unit of sound amplitude or loudness.

Lmax maximum sound level during a specified measurement period. The maximum sound level during a 24-hour period usually exceeds the Ldn and Leq.

Leq an average sound level defined as the level of steady sound having the equivalent sound energy as the actual time-varying sound over a specified period.

Ldn a day-night average of 24 Leq sound levels measured consecutively during a 24-hour period, and including +10 dBA penalties for each hour during the nighttime period of 10 PM to 7 AM.

CNEL similar to Ldn and penalizes noise not only during nighttime but also during the evening period. Ldn and CNEL are used interchangeably here, as the values are expected to be nearly the same, within 1 dBA.

METHODS

Maximum (Lmax) and energy-averaged (Leq) sound levels that will originate from the proposed coaster were assessed by graphical overlay of reference sound level contours over the Plan View or "footprint" of the proposed new ride. Reference sound level measurements were provided by GMH Engineering for the "Ozark Wildcat," an existing wooden coaster in Celebration City, Branson, Missouri, manufactured by Great Coasters Inc. (GCI). "Ozark Wildcat" coaster was selected because it has similar, but not identical, characteristics to those of the proposed coaster. Preliminary results of a recent December 2007 sound level survey of the "Kentucky Rumbler," another wooden coaster in Beech Bend Park, Bowling Green, Kentucky, also were considered for the graphical presentation of Lmax contours.

Measured Lmax and Leq sound levels for an existing wooden coaster were evaluated and then presented graphically as contours showing lines of equal sound level on-site and off-site around the proposed new wooden coaster. In comparison, the existing background sound environment was assessed from available sources including previous measurements, San Jose International Airport noise monitoring and contours, and the City's General Plan. Acoustical impact assessment was performed by Mr. Ballard W. George, who is a board-certified Acoustical Consultant certified by the Institute of Noise Control Engineering (INCE).

Zoning districts were obtained from the City's published Zoning Map. Existing land uses near Great America Parkway and the park's western property line were obtained by reconnaissance on November 23, 2007.

DESCRIPTION OF THE PROPOSED COASTER

The location of the proposed coaster is in the northwest corner of California's Great America theme park. The proposed lift would be located at the north end of the proposed coaster, near the existing Sky Tower. The footprint of the proposed wooden coaster is approximately 600 feet long north-south, and 400 feet northeast-southwest. The layout is a hybrid with out-and-back and twister elements, with a total track length of about 3,100 lineal feet.

Currently, there are eight coaster rides at California's Great America, built during 1976 to 2001. The one existing wooden coaster is "Grizzly," which was built in 1986, with a maximum height of 91feet, track length of 3,250 lineal feet, and maximum car speed of 50 mph, and ride duration of

2 minutes 40 seconds. The proposed new wooden coaster would have similar operating characteristics. The proposed coaster's trains would convey about 850 passengers per hour.

ADJACENT LAND USES

The nearest off-site land uses are located west of the proposed new wooden coaster. North of Patrick Henry Drive off-site uses include a pair of 4-story parking garages and 6-story office buildings (4555-59 and 4655-59 Great America Parkway). South of Patrick Henry Drive there is a 1-story warehouse or manufacturing building with attached 2-story offices (4551 Great America Parkway).

The offices at 4555 and 4655 Great America Parkway are used by Nortel Networks, AMD, NAMCO BANDAI Games America, Inc., and possibly other tenants. A driveway, pair of 4-story parking structures, and a cafeteria building are located between the amusement park and the offices. Garage G101 is located at 4559 Great America Parkway, and garage G100 is located at 4569 Great America Parkway. These are concrete structures and appear as long rectangles in Figure 1. The separation distance between the proposed coaster's nearest approach and the 6-story offices is about 400 feet. The parking structures are separated from the park's western property line by only a driveway/fire lane.

The cafeteria building, with Café Luminous and conference rooms, is located between the 6-story offices, at 4557 Great America Parkway. The cafeteria building was observed from the outside on November 23, 2007. There was audible noise from a fixed refrigeration source. There is an outdoor seating area behind a low wall.

The office and warehouse/manufacturing space at 4551 Great America Parkway appear to be vacant. The 1-story warehouse and loading dock portion of the building is located between the amusement park and the 2-story offices. The separation distance between the proposed coaster's nearest approach and the 2-story offices is about 250 feet.

The nearest residential back yards are located at great distance form the proposed new wooden coaster, east on Gillmor Street and Lakeshore Drive. These are so far away as to be outside the zone of potential noise influence of the proposed coaster.

AMBIENT SOUND LEVELS

The City of Santa Clara's General Plan, Chapter 5, *Environmental Quality Element*, Figure 5-J (p. 30) illustrates traffic noise contours, and Great America Parkway's 65 Ldn (CNEL) noise contour generally falls near the amusement park's western boundary.

The General Plan Chapter 5, *Environmental Quality Element*, Figure 5-I (p. 26) also illustrates the airport's 65 Ldn (CNEL) contour; however, more recent and detailed information is available from San Jose International Airport Noise Monitoring Center (SJO/NMC). The Noise Monitoring Center submits monthly and quarterly noise monitoring reports to the Airport Commission, Airport Noise Advisory Committee, and San Jose City Council. Noise monitoring sites are operated remotely at off-airport locations.

SJO/NMC's Noise Monitoring Location #11 is representative of aircraft noise conditions at the eastern property line of California's Great America. SJO/NMC's Noise Monitoring Location #14 is representative of aircraft noise conditions near Tasman Drive and Lafayette Street. Aircraft noise at the western property line of California's Great America is interpreted to be represented by noise

levels monitored at SJO/NMC's Noise Monitoring Locations #11 and #14. The airport's 65 Ldn noise contour is shown in 2006-2007 noise monitoring reports to be located over the amusement park's eastern property line and the residential area to the east of the park. The existing Ldn noise level at Noise Monitoring Location #11 is 64.0 ± 1 dBA. The existing Ldn noise level at Noise Monitoring Location #14 is 59.5.± 1.5 dBA. These levels are for the annual period June 30, 2006, to June 30, 2007.

Short-term sound level measurements were performed on December 4, 2007, and previously on August 29, 2000, and June 3, 2002. Measurements were made using a Bruel & Kjaer, Type 1, Model 2230, Precision Integrating Sound Level Meter. Measured sound levels were approximately as follows:

- **Site A**: 75 Lmax (dBA) at the office building at 4655 Great America Parkway;
- **Site B**: 63 Leq (dBA) in the office area west of the employee parking lot;
- **Site C**: 66 Leq (dBA) at the southeast corner of Regina Court and Lakeshore Drive; and,
- **Site D**: 67 Leq (dBA) at the northeast corner of Rambo Court and Lakeshore Drive.

Measurement Site A was located near ground level at the southeast corner of the building at 4655 Great America Parkway (see Figure 1). Measurement Site B was located in the office area along the north side of Mission College Boulevard. Measurement Sites A and B are both outside the airport's 65 Ldn noise contour. Measurement Sites C and D, in the residential area east of the park, are located on the airport's 65 Ldn noise contour. Measured Lmax sound levels from individual aircraft "overflights" at Site A in 2007 were 69 dBA, 74 dBA, and 85 dBA. As newer, quieter stage 3 aircraft have entered the fleet, aircraft overflight sound levels generally have decreased since 2000.

Two non-fixed sources of noise dominate the local community noise environment. These sources are: 1) aircraft departing from the San Jose International Airport and 2) traffic on Great America Parkway, Mission College Boulevard, and Agnew Road. Along the park's western property line, ambient noise from traffic is relatively more significant. Along the park's eastern property line, ambient noise from aircraft is relatively more significant. The estimated background Ldn sound level at the park's perimeter is approximately 65 Ldn (dBA) on the east and west, at the park's property line.

COMMUNITY NOISE STANDARDS AND GUIDELINES

Santa Clara Municipal Code, Title 9, Chapter 9.10, Regulation of Noise and Vibration, Sub-Chapter 9.10.040 (Schedule A) states that for light industrial (MP zoning district) the maximum allowable noise level from a fixed noise source is 70 decibels (dBA) at anytime of day or night. Rides within California's Great America are considered by the City Santa Clara Planning Department staff to be "fixed sources."

Pursuant to Sub-Chapter 9.10.060 (c), the allowable exposure standard shall be adjusted to encompass or reflect the ambient noise level. If the ambient noise level at any given location differs from the level set forth in 9.10.040 (Schedule A), "the allowable noise exposure standard shall be adjusted in five dBA increments in each land use category as appropriate to encompass or reflect said ambient noise level." In view of the ambient conditions at the park's western property line, allowable noise exposure standards are 70 Ldn, 70 Leq, and 75 Lmax (dBA).

The City of Santa Clara's *General Plan*, Chapter 5, *Environmental Quality Element* (July 23, 2002) identifies an exterior sound level of up to 70 Ldn (dBA) as the community sound level that is

compatible for light industrial land uses without mitigation. An Ldn of 70-75 dBA with design and insulation to reduce interior noise levels is potentially compatible for light industrial land uses.

In the *General Plan*, community noise includes noise from fixed and mobile sources, for example, aircraft departures and landings; street traffic; steady, intermittent, and peak sounds from the neighborhood; and steady, intermittent and peak noise from California's America theme park. The *Santa Clara Municipal Code*, Title 9, Chapter 9.10 addresses allowable noise from fixed sources.

EVALUATION

Lmax levels projected at actual developed uses are presented in Table 1. The projected 75 Lmax at the park's western property line would equal, but would not exceed, the allowable noise exposure of 75 Lmax.

This evaluation of sound impact addresses all nine criteria of *Santa Clara Municipal Code*, Title 9, Sub-Chapter 9.10.060. Table 2 (next page) lists these criteria and findings.

TABLE 1

PROJECTED Lmax AT SPECIFIED RECEPTORS

ID	Address	Actual Developed Use	Lmax (dBA)
1	4559 Great America Pkwy	Parking garage	74
2	4557 Great America Pkwy	Outdoor lunch/seating area	70
3	4555 Great America Pkwy	Office building (walkway)	70
4	4551 Great America Pkwy	Loading dock	74
A	4655 Great America Pkwy	Office building (walkway)	70[4]

NOTES:
1. Receptor locations #1-4 are shown in Figure 1.
2. Lmax projections are worst-case without corrections for shielding by intervening walls or structures.

The projected 75 Lmax is a recurring maximum noise level having relatively short duration. A 75 Lmax would not be inconsistent with existing parking garages and loading dock, which are the actual developed uses on the adjoining parcels. At the offices themselves, the projected Lmax would be 70 dBA, which does not exceed or approach the allowable 75 dBA (see Figure 1).

The projected 70 Leq at the park's western property line would equal, but would not exceed, the allowable noise exposure of 70 Leq. Leq is not the noise metric of primary concern, which instead is Lmax. Leq is related to Ldn which is a metric used in the City's *General Plan*.

Ride-generated noise levels include mechanical lift noise, wheel-rail noise, and rider noise. All sources of noise were included based on noise measurements of actual operating coasters, "Ozark Wildcat" and "Kentucky Rumbler," by GMH Engineering.

LAYOUT MODIFCATIONS

The proposed coaster layout has been refined iteratively with the objective of reducing Lmax noise at the property line. The initial layout was adjusted by shifting the lift hill and first turn southward and eastward toward the Sky Tower. This change increased separation distance from off-site receptor locations #1, 2, and 3, and increased shielding by the existing parking structure. The southwest-northeast axis was rotated counterclockwise, shifting the outer turn southwards, and the turn's elevation was dropped to near ground level. These changes increased separation distance from off-site location #4 and provided opportunity for an on-site landscaped buffer treatment.

TABLE 2

NOISE IMPACT EVALUATION SUMMARY

Item	Chapter 9.10.060 Noise Evaluation Criteria	Evaluation
1	Noise level at the property line compared to the allowable level: 75 Lmax Noise level at the property line compared to *General Plan* guidance levels: 70 Ldn	75 Lmax (dBA)[a] 70 Leq (daytime), 70 Ldn
2	Nature of the noise	Wheel-track noise and mechanical noise. Human noise.
3	Natural or mechanical source	Mechanical
4	Ambient noise	75 Lmax, 65 Leq, 65 Ldn (dBA)[b]
5	Proximity of the noise to sleeping facilities	Remote
6a	Nature and zoning of the area where noise is generated	Amusement park in Thoroughfare Commercial (CT) zoning district
6b	Nature and zoning of the area where noise is received	Planned Industrial Zoning Districts: MP, PD (MP)
7	Time of day or night the noise occurs	Park hours, seasonal
8	Duration of the noise	each noise event is about 12 seconds[c]
9	Is the noise recurrent, intermittent, or constant?	Recurrent, 20 times per hour[d]

NOTES:

(a) Evaluation based on graphical overlay of noise contours developed from noise measurements of a similar operating coaster.

(b) Based on *General Plan* Chapter 5 Environmental Element Noise Contours and San Jose International Airport Noise Monitoring Center's aircraft noise monitoring outside the park. Traffic noise is about 65 Leq in the 5-6 PM hour. Lmax exceeds this Leq during individual events such as car passbys and aircraft flyovers.

(c) Based on estimated 10 dBA drop-off time of -6 seconds on the approach and +6 seconds on the departure.

(d) Based on conservative ride cycle time ("headway") of 3 minutes.

SOURCE: Ballard W. George Acoustics, December 2007 and January 2008

REFERENCES

GMH Engineering, August 18, 2005. Ozark Wildcat - Sound Level Survey, 6 pp.

GMH Engineering, December 2007. Kentucky Rumbler - Sound Level Survey (Preliminary), 20 pp.

Santa Clara, City of, July 23, 2002. General Plan 1990 – 2005, Chapter 5, *Environmental Quality Element*. http://www.ci.santa-clara.ca.us/pdf/collateral/3081-GeneralPlan-Chapter5.pdf

Santa Clara, City, 2007 (or most current). *Santa Clara Municipal Code*, Title 9, Chapter 9.10, Regulation of Noise and Vibration. http://www.codepublishing.com/ca/santaclara/frameless/code.pl?cite=9.10#9.10

Santa Clara, City, 2005 (or most current). *Santa Clara Zoning Map*. http://www.ci.santa-clara.ca.us/pdf/plans_ord_pdf/zoning2005.pdf

San Jose International Airport, September 13, 2007. Noise Monitoring Data–Quarterly Report Second Quarter 2007. http://www.sjc.org/community/reports/2q07.pdf

San Jose International Airport, May 30, 2007. Noise Monitoring Data–Quarterly Report First Quarter 2007. http://www.sjc.org/community/reports/1q07.pdf

San Jose International Airport, March 2, 2007. Noise Monitoring Data–Quarterly Report Fourth Quarter 2006. http://www.sjc.org/community/reports/4q06report.pdf

San Jose International Airport, November 27, 2006. Noise Monitoring Data–Quarterly Report Third Quarter 2006. http://www.sjc.org/community/reports/3q06report.pdf

Thank you for this opportunity to serve California's Great America. If you have any questions or require further information, please contact me at (510) 881-8574 or Mr. Ballard George at (408) 736-7182.

Sincerely,
FOR AND ON BEHALF OF ENVIRONMENTAL SERVICE
AND
BALLARD W. GEORGE ACOUSTICS

Marc Papineau

Marc Papineau
California Registered Environmental Assessor 791
Project Manager

Enclosures: Figure 1, Community Noise Contours for the Proposed Coaster, page 8
Figure 2, Reference Lmax Noise Contours for Ozark Wildcat, page 9

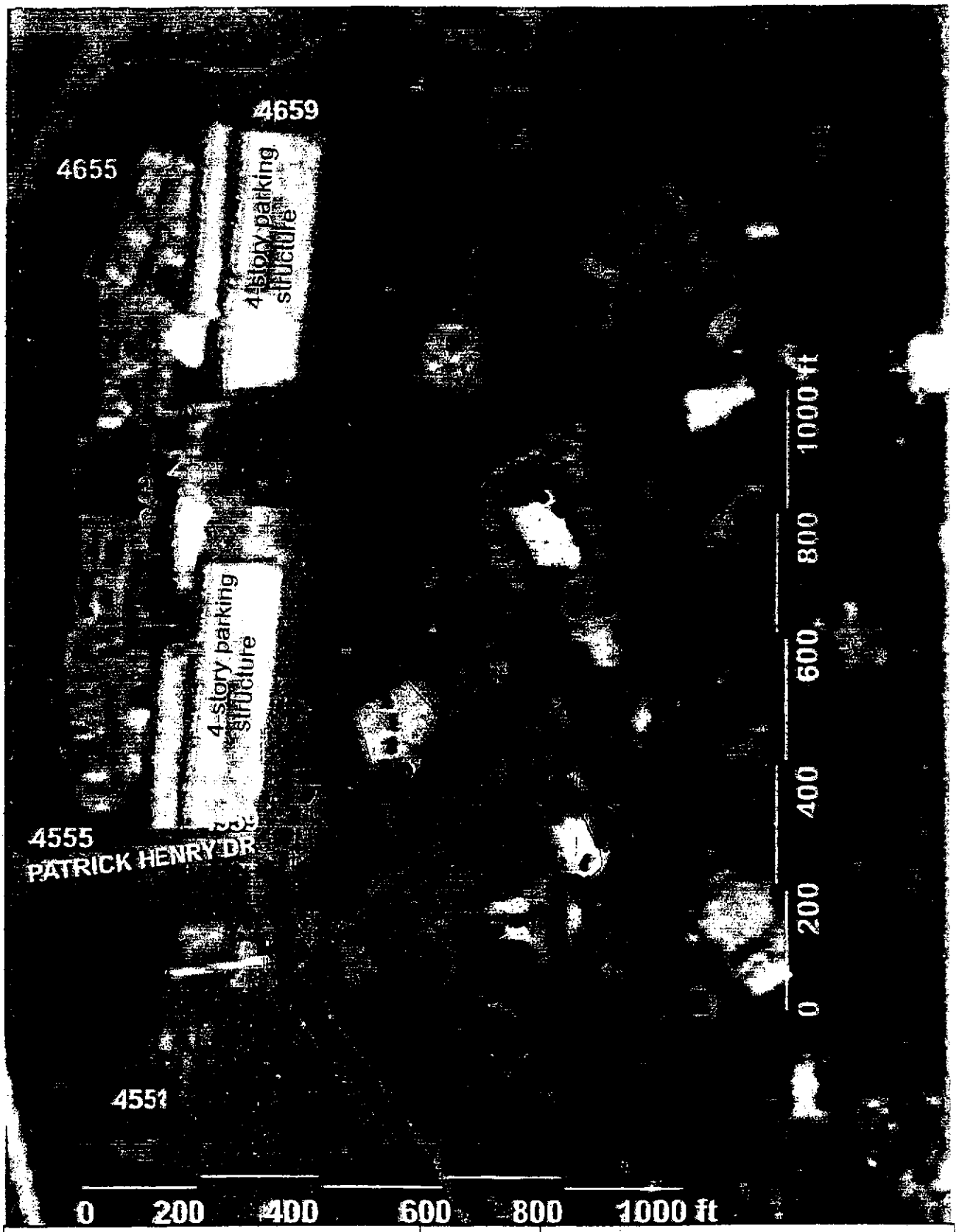


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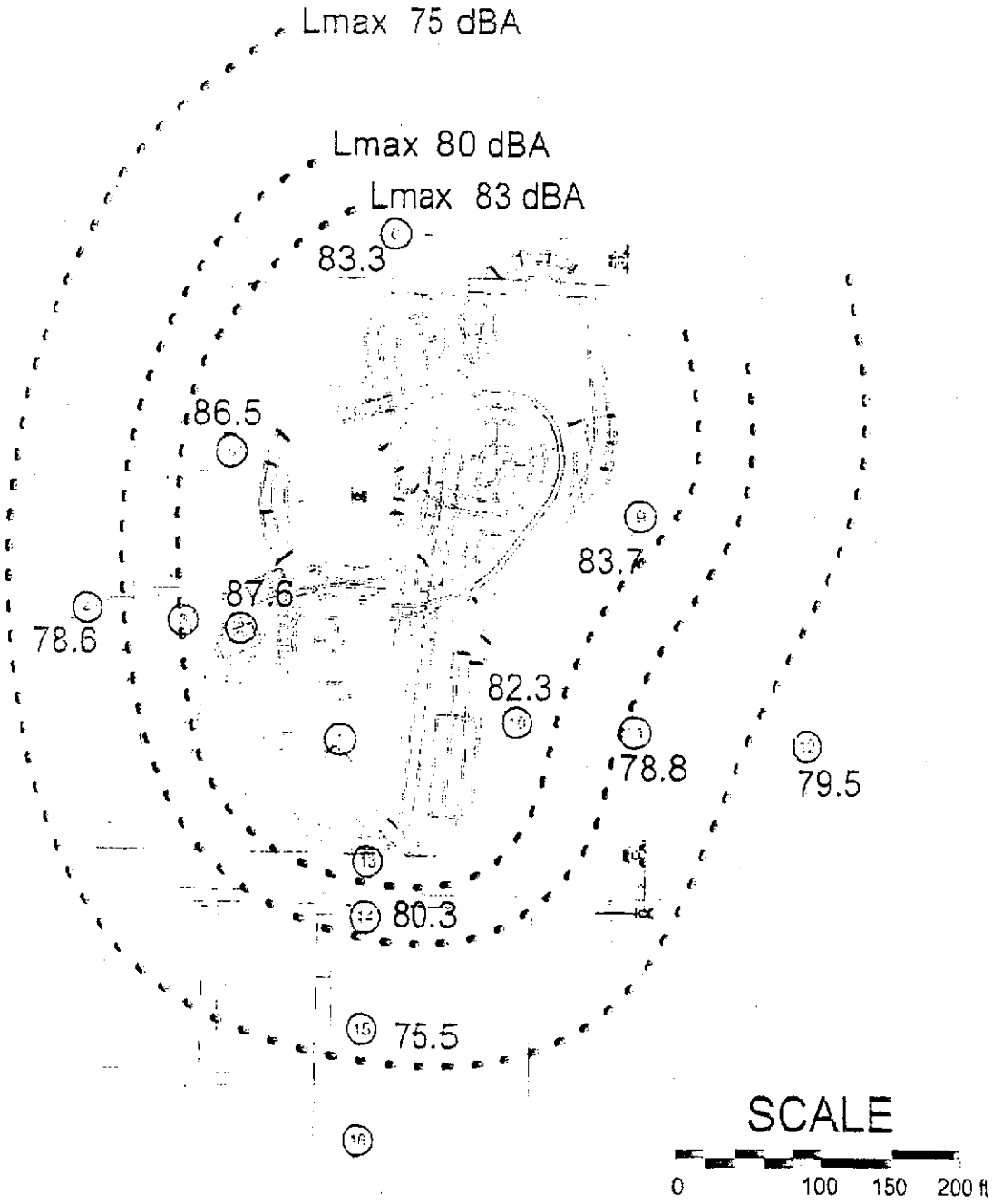
Figure 1

Lmax Noise Contours
for the Proposed Coaster



10 Years 1995 - 2005 environmental service in association with BALLARD W. GEORGE	N	**Figure 2** **Reference Lmax Noise Contours**

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2007-AWP-7297-OE

PLN2008-06835

Issued Date: 01/07/2008

Lowell Esposo
Great America
2401 Agnew Road
Santa Clara, CA 95054

** DETERMINATION OF NO HAZARD TO AIR NAVIGATION **

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	GCI Wood Coaster
Location:	San Jose, CA
Latitude:	37-23-50.25N NAD 83
Longitude:	121-58-30.76W
Heights:	110 feet above ground level (AGL)
	128 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 07/07/2009 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will

addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2007-AWP-7297-OE.

Signature Control No: 551471-101481848 (DNE)
Karen McDonald
Specialist

Attachment(s)
Map(s)

Planning Commission
February 13, 2008

PLN2008-06835

Supplemental Information

- February 5, 2008 Letter from Mark Papineau Of Environmental Service
- February 7, 2008 Letter from Mark Papineau Of Environmental Service
- February 12, 2008 from Mark Papineau Of Environmental Service

- February 13, 2008 Letter of concern and request for continuance from Timothy Tosta of Luce Forward, for Prudential Real Estate Investors
- February 12, 2008 Letter From Charles M. Salter, P.E. of Charles M. Salter Associates, Inc.
- February 13, 2008 Letter From Charles M. Salter, P.E. of Charles M. Salter Associates, Inc.

10 Years 1995 - 2005

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by Papineau, R.E.A. 791

February 5, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Responses to Comments on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to address two comments regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this response have been prepared in association with Ballard W. George Acoustics.

Comment C1
The comment is a question about the distance of Lmax 75 dBA from the western property line of Great America theme park.

Response to C1: Figure 1 in the Report illustrates the forecast Lmax contour for the proposed wooden coaster. As shown, there is a variable distance between the forecast Lmax 75 dBA ("75 Lmax") and the property line.

A contour line is an idealized and abstract representation of noise in the real-world. Lmax can be more scientifically illustrated as a zone or band. Figure A, therefore, was drawn to illustrate forecast Lmax zones: 1) the green zone having a forecast Lmax of 75 dBA, 2) the yellow zone having a forecast Lmax from 76 to 79 dBA, and 3) the red zone having a forecast Lmax of 80 dBA or higher.

It is evident from Figure A that an Lmax equal to 75 dBA is attained along two segments of the property line. These segments are located adjacent to a parking garage driveway and near the Patrick Henry Drive cul-de-sac bulb. Forecast zones of Lmax 76-79 dBA and Lmax 80 dBA, or higher, are located on Great America theme park land.

Comment C2
The comment states that the Report addresses coaster Lmax sound levels near the ground, but does not address Lmax at upper story offices.

Response to C2: Lmax outside the upper story offices could be about +3 dBA higher than Lmax at the corresponding near-ground location #3 and Site A, which are shown in Figure 1 and Figure A. The Report presents information including forecast Lmax levels for receptors near the ground.

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Table 1 in the Report presents forecast Lmax levels. At receptor location #3 and Site A, the forecast Lmax is 70 dBA when the proposed coaster is operating. The forecasts are for near-ground receptors. At the 5th or 6th stories of the office buildings at 4555 and 4655 Great America Parkway, directly above the corresponding near-ground receptors at location #3 and Site A, the exterior Lmax is forecast to be about 73 dBA.

Existing Lmax noise levels from individual aircraft "overflights" were measured at Site A in 2007 to be 69 dBA, 74 dBA, and 85 dBA. Forecast Lmax levels at near-ground receptors and upper-story exterior office facades, therefore, would be similar to, or lower than, existing Lmax levels.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures:

Figure A, Lmax Noise Zones
Attachment A, Elevated Sources and Receptors

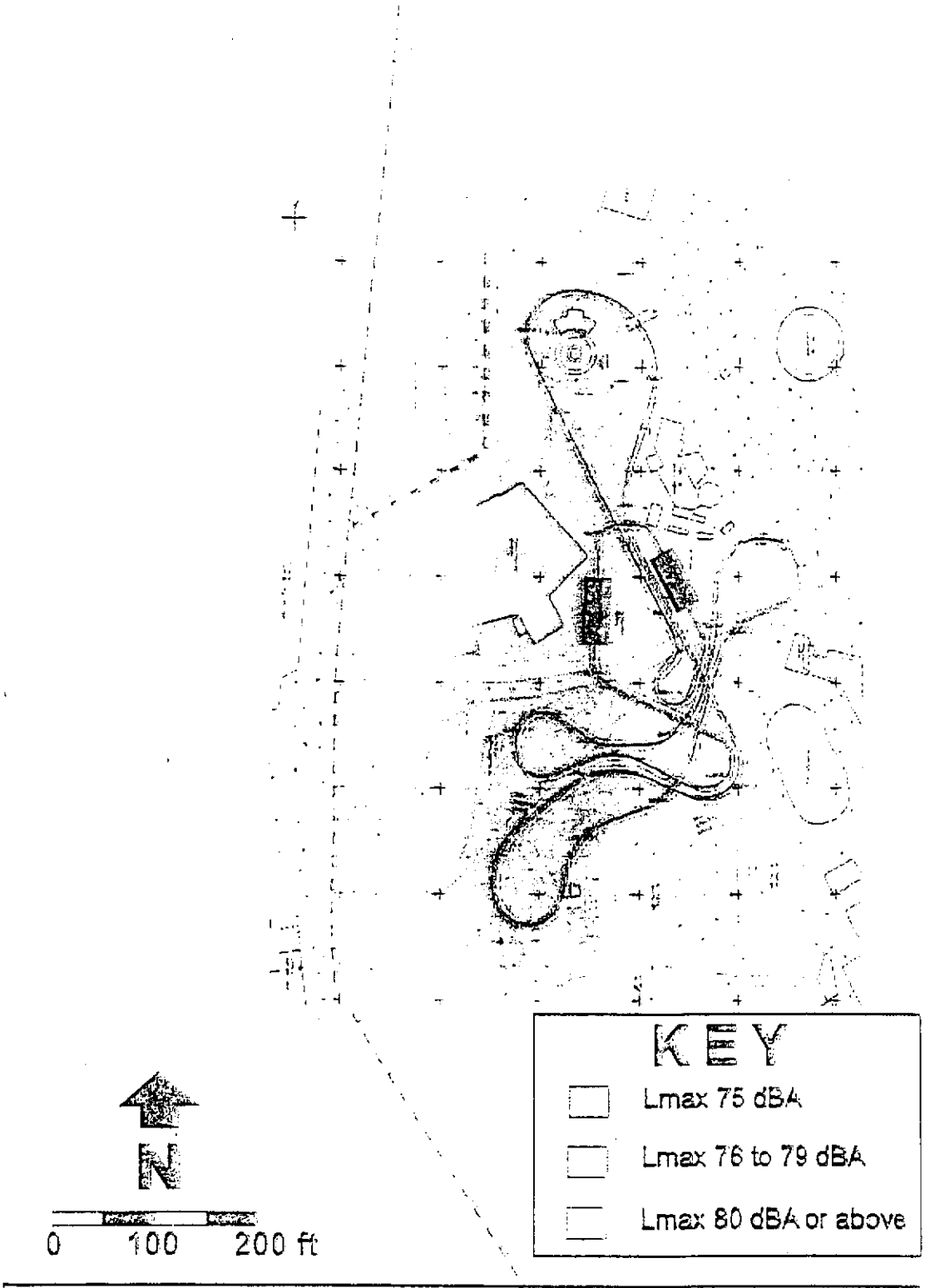

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Figure A

Lmax Noise Zones
for the Proposed Coaster

ATTACHMENT A
ELEVATED SOURCES AND RECEPTORS

Question/Comment
The comment states that *Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America*, dated January 15, 2008, addresses coaster Lmax sound levels at receptors near the ground, but does not address Lmax at upper story offices.

Issue Synopsis
The issue is whether elevated receptors would be exposed to higher noise levels than shown in the acoustical impact assessment. Noise traveling over ground is attenuated by the ground surface and also by intervening objects, including structures, located between the sound source and the receptor. The effect of various attenuation mechanisms, including near-ground excess attenuation, is implicit in the Lmax contours which were drawn based on actual field measurements.

Noise Propagation Basics
Sound from a small localized source (*i.e.*, a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates or drops-off at a rate of -6 dBA for each doubling of the distance from a point source but only -3 dBA for each doubling of the distance from a "moving point" or "line source."

The sum of the geometric spreading attenuation and the excess ground attenuation is referred to as the *attenuation rate, or drop-off rate*. Sites with an absorptive ground surface such as soft dirt, grass or scattered bushes and trees have an excess ground attenuation value of -1.5 dBA per doubling of the distance, based on the California Department of Transportation (Caltrans). When added to the geometric spreading, the overall drop-off is -4.5 dBA per doubling of distance from a line source and -7.5 dBA per doubling of distance from a point source.

Forecast for Elevated Above-Ground Receptors
At elevated receptors, excess noise attenuation caused by ground absorption would not apply. In this case, the approximate noise drop-off rate from the coaster would be -3 dBA per doubling of distance. To the upper story offices (approximately 450 feet from the proposed coaster), the estimated noise drop-off would be -6 dBA rather than -9 dBA. Exterior Lmax outside the upper story offices, therefore, could be approximately +3 dBA higher than the Lmax forecast for receptors near the ground.

Table 1 in *Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America* presents forecast Lmax levels. At receptor location #3 and Site A, the forecast Lmax is 70 dBA when the proposed coaster is operating. The forecasts are for near-ground receptors. At the 5th or 6th stories of the office buildings at 4555 and 4655 Great America Parkway, directly above the corresponding near-ground receptors at location #3 and Site A, the exterior Lmax is forecast to be about 73 dBA.

Existing Lmax noise levels from individual aircraft "overflights" were measured at Site A in 2007 to be 69 dBA, 74 dBA, and 85 dBA. Lmax levels at near-ground receptors and upper-story exterior office facades would be similar to, or lower than, measured existing Lmax levels.

Coaster Measurements

Measurements of wooden coaster sound levels were performed by GMH Engineering Inc., generally between 50 and 400 feet from two active wooden coasters. For the Kentucky Rumbler, Lmax *versus* distance was plotted. The plot of recent measurements in December 2007-January 2008 show approximately -4.5 dBA to -5 dBA drop-off per doubling of distance measured along the ground-plane, for the interval of 120 to 400 feet from the coaster. By nature of the measurements, various attenuation, reflection and refraction effects were included.

Published Guidance & Research

Federal Transit Administration has published its second edition of *Transit Noise and Vibration Impact Assessment* manual, in which elevated sources and excess ground attenuation are addressed. Figure 2-7 (Figure 2-4 in the 1995 edition) illustrate how excess ground attenuation varies depending on the noise path elevation above ground.

Caltrans noise propagation research shows that differences between excess attenuation rates for noise generated by elevated sources (*e.g.*, truck stacks, noise diffracted over a noise barrier) and noise generated by sources close to the ground (*e.g.*, tire noise) diminish after approximately 300 feet. The Caltrans findings can be applied to elevated noise sources. The difference between the elevated-source noise attenuation rate and near-ground source noise attenuation rate attains a maximum at about 200 feet to 300 feet from the source. At greater distance beyond 300 feet the difference between elevated and near-ground noise attenuation rates decreases until the difference is near zero beyond 400 feet.

References

Hendriks, R.W., "Traffic Noise Attenuation as a Function of Ground and Vegetation (Final Report)", Report No. FHWA/CA/TL-95/23, California Department of Transportation, Engineering Service Center, Office of Materials Engineering and Testing Services, Testing and Technology Services Branch, Sacramento, CA, June 1995.

Hendriks, R.W., "Technical Noise Supplement," California Department of Transportation, Environmental Engineering-Noise, Air Quality, and Hazardous Waste Management Office, October 1998.

U.S. Department of Transportation, Federal Transit Administration Transit Noise and Vibration Impact Assessment, Report No. FTA-VA-90-1003-06, prepared by Harris Miller Miller & Hanson Inc., May 2006.
http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf

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by Papineau, R.E.A. 791

February 7, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: **Supplemental Response to Additional Comment on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)**

Dear Mr. Schwilk:

This letter was prepared to address one additional comment regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3

The comment states that the Report needs to be updated to analyze a salient concern--the potential change to the acoustical environment within the adjacent buildings located at 4555 and 4655 Great America Parkway. The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.*, most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property.

Response to C3: The assessment was performed to evaluate the addition of noise from the proposed coaster. The Report's conclusions are based on a conservative assessment of noise impact, with consideration of both the existing sound environment and forecast noise from the proposed coaster including the riders.

The existing sound environment is monitored continuously by the San Jose International Airport Noise Monitoring Center. The existing Community Noise Equivalent Level (CNEL) or Day-Night Average Noise Level (Ldn) is about 60-62 dBA in the vicinity of 4555 and 4655 Great America Parkway. The CNEL range actually monitored for 2006-2007 is 60-64 dBA, depending on location in the community and distance off the runway centerline.

Measured Lmax outside the offices varies. In any working hour, morning, midday, or afternoon, aircraft overflights generate Lmax noise levels between 69 and 85 dBA. CNEL and Ldn represent noise level averages as opposed to maximum noise levels (Lmax); therefore, from practical considerations, CNEL and Ldn will always be lower than Lmax.

But, as a conservative approach to the assessment, and to test the consistency of the proposed action with the City's Municipal Code, the Report documents Lmax. The Report and responses show forecast zones of Lmax 76-79 dBA and Lmax 80 dBA, or higher, are

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located on Great America theme park land. Forecast zones of Lmax 75 dBA, or lower, are located on off-site land including the property at 4555 and 4655 Great America Parkway. The Report and Response C2 address the Lmax forecast for the 5th or 6th stories of the office buildings at 4555 and 4655 Great America Parkway. Lmax from the proposed coaster is forecast to be about 73 dBA outside the upper stories. Lmax from the proposed coaster is forecast to be about 70 dBA at near-ground receptors outside the offices. Outdoor-to-indoor sound reduction for normal commercial office construction would be expected to reduce indoor noise at the offices to the 40-45 dBA range, which is not any different from the existing.

The frequency of 70-73 Lmax generated by the proposed coaster outside the offices is 20 to 40 per hour. The duration would be short because Lmax levels are not averages but "peaks" and are not, therefore, sustained over time. Another way of considering noise is based on hypothetical average levels sustained over time. This is the approach of Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Caltrans, and many communities in their General Plan Noise Elements.

The energy-equivalent sound level (Leq) is the sustained noise level that carries the same sound energy as actual time-varying noise. The Leq conveyed by proposed coaster noise events has been measured at comparable wooden coasters. Based on the field studies, the proposed coaster is expected to generate a 1-hour Leq of 57 dBA outdoors at the eastern façade of the office buildings (or, 60 dBA outside the upper stories). Averaged with the local ambient or "background" Leq, which is near 60-62 dBA, the combined CNEL and Ldn would remain within 2-3 decibels of the existing level and less than 65 dBA. A 2 decibel change is just barely perceptible.

The forecast CNEL and Ldn of 63 dBA outside the upper stories is within the range currently being monitored in the community. The City of Santa Clara's *General Plan 2000-2010*, Environmental Quality Elements, Noise, presents a CNEL and Ldn compatibility chart for commercial uses which include offices. The acceptable noise level for an office use, without special construction or other mitigation measures, is 65 dBA. In view of this fact, there cannot be a significant effect for the proposed coaster because exterior office building façades would not be exposed to CNEL or Ldn above 65 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Cerified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

environmental service

by Papineau, R.E.A. 791

February 12, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: Additional Response to Comment C3 on Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America (Project 2007-045.02)

Dear Mr. Schwilk:

This letter was prepared to expand on a previous response to Comment C3 regarding the Acoustical Impact Assessment (the "Report"), which is dated January 15, 2008. Both the Report and this supplemental response have been prepared in association with Ballard W. George Acoustics.

Comment C3

The comment asserts that change could be due to the addition of noise from the roller coaster ride (*i.e.*, most notably people screaming), resulting in impacts to both humans working within the buildings and the value of the property. This comment was further explained by Mr. Charles M. Salter, P.E., on February 11, 2008, as a specific concern about the potential audibility of passenger screams inside the buildings at 4555 and 4655 Great America Parkway.

> Additional Response to C3: Indoors at 4555 and 4655 Great America Parkway, passenger scream noise would not be audible. Potential audibility of passenger scream noise would be precluded by outdoor-to-indoor noise attenuation by the building skins and background noise of 36 dBA, or higher, inside the office spaces. For quiet private offices, interior background noise is typically 36-40 dBA. In comparison, noise levels in quiet courtrooms, libraries and conference rooms are typically 32-36 dBA.
>
> Conservatively estimated, passenger noise incident on the building faces could potentially reach 60-63 dBA outdoors near the ground floor and 63-66 dBA outdoors at the upper stories, but could not reasonably be expected to exceed the upper limits of these ranges. Passenger scream noise is directional. Its audibility and loudness at a given receptor depend on the way passengers are facing. At the eastern building façades of 4555 and 4655 Great America Parkway, the loudest passenger noise will be directed away from or obliquely relative to the building faces. The proposed lift hill is parallel to the building faces and the first turn banks away from the buildings. The slope after the peak is down toward the northeast and east, which is away from the buildings at 4555 and 4655 Great America Parkway.
>
> The building skins of 4555 and 4655 Great America Parkway are believed to reduce noise outdoor-to-indoor by -40 dBA or more. With outdoor-to-indoor noise reduction of -40 dBA,

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the projected interior Lmax from coaster passengers could be 20-23 dBA indoors on the ground floor or 23-26 dBA indoors on the upper stories.

On the upper stories, the 26 dBA Lmax from passenger screams would be -10 dBA lower than the background noise level for a quiet office, which is 36 dBA as noted on the previous page. On the ground floor, the 23 dBA Lmax from passenger screams would be -13 dBA lower than the background noise for a quiet office. The expected Lmax, therefore, would be so much lower than background office noise as not to be audible.

Passenger scream noise is included in the Lmax contours presented in the Report and responses. Passenger scream noise contributes to Lmax at certain measurement locations at certain times during the ride cycle, but not at all locations or all times during the ride cycle. During the Kentucky Rumbler sound tests, at ten (10) measurement locations, passenger noise did not increase the measured Lmax. At ten (10) other locations, mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone.

Passenger scream noise is secondary in magnitude compared to mechanically-generated ride noise. At measurement locations around the Ozark Wildcat and Kentucky Rumbler, where mechanical and passenger noise components combined generated an Lmax that was higher than mechanically-generated Lmax alone, the difference was +0.3 to +1.7 dBA.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find the information in the responses fully explanatory and useful. Please let us know if you have any further questions or require additional information.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: none

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FEB 13 2008
City of Santa Clara
Planning Division

February 13, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: Agenda Item #12--Variance for Great America Roller Coaster Ride ("Project")

Dear Chair Champeny and Members of the Planning Commission:

We represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

We understand that the Planning Commission will consider an application tonight for a new rollercoaster ride at California's Great America. As we have expressed to both representatives from Great America and the Planning staff, we have serious concerns about this proposal and believe that the **Planning Commission should continue this item to provide the City with the time to adequately assess the new rollercoaster's potential impacts to adjacent landowners.**

The following summarizes our concerns that are set forth below:

- City may not exempt itself from CEQA by way of a categorical exemption;
- Great America's "here first" position does not insulate the Project from the City's CEQA obligations;
- The City lacks the necessary evidence to make the variance findings;
- The City should undertake the rezoning of the entire Great America site in order to establish consistent and compatible development standards for the area.

Should the Planning Commission decide to move forward with this item and approve the application, we will have no choice but to appeal the decision to the City Council based upon the legal infirmities discussed below.

I. Environmental Review

The Staff Report for the above-referenced Agenda Item makes the Environmental Determination that the Project is categorically exempt pursuant to Section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. It states further that a noise study was conducted to "assure that no significant effects would occur." The City's reliance on Section 15323 and the Acoustical Impact Assessment is misplaced for the following reasons.

First, Section 15300.2(c) of the CEQA Guidelines states that a categorical exemption should "not be issued for an activity where there is a **reasonable possibility** that the activity will have a significant effect on the environment due to **unusual circumstances**" (emphasis added). Here, the Project - involving the construction and operation of a rollercoaster over 100 feet tall adjacent to office buildings constitutes "unusual circumstances" that require the City to examine whether the proximity of the rollercoaster to these office buildings creates the potential for a significant noise impact based on **the audibility of screaming** that could have a negative effect on the human environment within the office setting. This circumstance rises to the level of "unusual" because of the adjacency of the office buildings to the proposed location of the roller coaster along the western property line. For example, unlike other noise sources such as airplanes and vehicular traffic, the intrusion of noise associated with people screaming into the Nortel Site is not an anticipated or accepted phenomena and could prove to be seriously disruptive to the individuals in the workplace. Consequently, the categorical exemption for "Normal Operations of Facilities for Public Gatherings" is inapplicable and the City abuses its discretion if it approves the Great America application subject to Section 15323 of the CEQA Guidelines.

Second, the attached letter from Charles Salter of Charles M. Salter Associates, Inc. demonstrates that we can establish with substantial evidence "a reasonable possibility" that the project will "have a significant effect on the environment due to unusual circumstances." It is Mr. Salter's professional opinion that the Acoustical Impact Assessment prepared by Marc Papineau and Ballard W. George Acoustics fails to address the potential audibility of roller coaster noise within the buildings on the Nortel Site. Representatives from Great America and its consultants even admitted during our site visit on February 11th that they undertook no such analysis. This failure is a fatal oversight.

Mr. Salter emphasizes that it is critical to acoustically analyze the audibility of screaming noise **within** the office buildings prior to the Project's approval not merely at the property line or the ground level—because only then can appropriate mitigation measures be incorporated into the Project. This inadequacy can be overcome by a simple noise study that measures the intrusion of the screaming noise as offset by the minimum background noise in the office. Therefore, the City's reliance on a categorical exemption runs afoul of CEQA's basic tenet that a lead agency's determination must be supported by evidence in the record showing that the agency fully considered a project's potential environmental effects. Again, the City is failing this most basic of CEQA tests, which creates unnecessary legal exposure for both the City and the applicant.

Based on the foregoing, it is evident that additional acoustical analysis is necessary so that: (1) the impacts of the Project are evaluated and analyzed, and (2) if necessary, the appropriate mitigation measures are incorporated into the Project to lessen the potential significant environmental impacts. Accordingly, the City cannot exempt itself from CEQA in this instance—the "unusual circumstance" of a massive wooden rollercoaster locating next to an office setting, combined with Mr. Salter's professional opinion that a "reasonable possibility" exists that this Project could create a significant effect on the environment, demands further inquiry. We would add that similar analysis must be done for potential aesthetic impacts, as well.

Regrettably, Great America has advanced the position that it was "here first" and that, therefore, it enjoys the right to grow, intensify and change irrespective of its interface with the surrounding community. However, Great America's refusal to conduct additional, simple noise analysis does not absolve the City from its obligations under CEQA (and State Planning and Zoning laws). Accordingly, if, after further inquiry, the City determines that the Project will have no significant effect on the environment, it may file a negative declaration otherwise, the City must prepare an Environmental Impact Report ("EIR").

II. Variance

The item before the Planning Commission tonight is the approval of a height variance that would allow the construction of a 110-foot high roller coaster within the Commercial Thoroughfare District ("CT"), which has a 35-foot height limit—amounting to a 75-foot difference or more than three times what the CT zoning allows. The Planning Commission must make certain, specific findings before granting a variance, which is a mechanism that allows agencies to grant relief under extraordinary circumstances. While the Staff Report recommends approval of the variance and sets forth Staff's justifications, we believe that these findings fall woefully short of the rationale necessary to legally support such a granting of special relief for the reasons set forth below.

A. There is no evidence of unusual conditions that would warrant the height variance.

Variances may be granted where "practical difficulties" or "unnecessary hardships" would result from strict application of a Zoning Ordinance requirement, due to "unusual conditions." Zoning Ordinance § 18.108.010; 18.108.040(a). Pursuant to Section 65906 of the California Government Code, "variances . . . shall be granted only when, **because of special circumstances applicable to the property**, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification." Cal. Gov. Code § 65906 (emphasis added).

The Staff Report states that the "unusual condition" that warrants approval of the roller coaster is the "unique nature of the theme park use." That is, the City appears to argue that the proposed height of the roller coaster is justified merely because the theme park is "unique," yet offers no explanation as to what "unusual condition" exists to justify the request for an additional 75 feet. The City cannot rely on circular logic to support a variance finding—in other words, the structure that is the subject of the variance cannot be the "unusual condition" that justifies the variance approval. Instead, the property, upon which the subject of the proposed variance is to be built, must have an "unusual condition," such that adherence to the 35-foot height limit would result in a "practical difficulty" or "unnecessary hardship" for the applicant. The Staff Report fails to establish that any such condition exists.

The Staff Report also offers that the theme park operates only on a seasonal basis presumably as some sort of justification for the theme park's "unusual condition." However, the seasonal operation of the theme park has no relevance to this finding, which needs to appropriately justify the roller coaster's height variance. Indeed, the seasonal operation does nothing to minimize the roller coaster's potential noise and aesthetic impacts because the theme park would still operate during weekday, daytime hours and the structure would exist in the built environment year-round. Consequently, the City's rationale fails to establish a nexus between the need for a 75-foot height increase and the seasonal operation of the ride.

The Staff Report then suggests that the 35-foot height limit of the CT zoning district "does not apply well to the unique context of rides, structures, and attractions within the theme park setting." This statement begs a larger question. That is, if the 35-foot height limit in the CT zoning does not apply well to the theme park, then the City should explore rezoning the entire

Great America property. Such a planning exercise would establish clear development standards for the City, Great America, and its neighbors. It also would avoid the piecemeal approvals and variances sought by the applicant that historically have avoided CEQA review.

B. The height variance is not necessary for the preservation or enjoyment of substantial property rights by the applicant.

The Planning Commission also must find that granting the variance here is "necessary for preservation and enjoyment of substantial property rights." Zoning Ordinance § 18.108.040(b). The Staff Report argues that this height variance is necessary "to attract new and return patrons" and "to keep the [theme] park vital." First, we seriously question whether this particular roller coaster in this particular location is necessary to preserve the economic vitality of the theme park and the Staff Report offers no support whatsoever for this assertion. Second, and more importantly, economic vitality is not the issue here. The issue is whether strict adherence to the 35-foot height limit would erode or interfere with the enjoyment of the applicant's substantial property rights. The applicant clearly enjoys the substantial use of its property as evidenced by the thriving operation of the theme park. So the question becomes would Great America prefer a taller roller coaster structure? Of course. But then, does Great America enjoy an unfettered right to build wherever and whenever because it came first and is a substantial source of revenue for the City? Absolutely not. The City must rely on evidence for the notion that the absence of a height variance will result in some sort of degradation to Great America's property rights which does not appear to exist. At minimum, the City has an obligation to require the applicant to explore design alternatives that might reduce the height or mitigate any potential visual impacts to surrounding neighbors.

C. The Planning Commission does not have sufficient evidence to determine whether the height variance would have an adverse effect on the health or general welfare of the community.

The third finding required by the Zoning Ordinance is "that the granting of such variance **shall not**, under the circumstances of the particular case, **materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood** of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood." Zoning Ordinance § 18.108.040(c) (emphasis added). As previously discussed, we have serious concerns about how noise from the roller coaster, particularly people screaming, will impact the health or general welfare of the people who work at the Nortel Site. The applicant's Acoustical Impact Assessment fails to examine this concern, and despite our efforts to undertake additional analysis with the applicant, the applicant has decided to move forward with the variance application without any further evaluation of this potential impact. As a result, the Planning Commission

cannot fully ascertain whether the roller coaster would have a material adverse noise impact and, therefore, lacks the evidence necessary to adopt this finding.

As noted above, we also have serious concerns about the visual impact of the roller coaster. Neither the City nor the applicant has evaluated the visual or aesthetic impact of the proposed roller coaster. Due to its wooden latticework construction, we believe that the roller coaster would create a large wall effect along the edge of the Nortel Site that would tower over the adjacent office buildings. Moreover, the height and mass of the structure would be inconsistent and out of character with the existing visual context of the western edge of the theme park and the Nortel Site. Consequently, absent any analysis of these potential aesthetic impacts, the Planning Commission does not have the requisite information to support a finding that the roller coaster would not have a materially adverse aesthetic impact on the community.

Lastly, the Staff Report states that the roller coaster would not have an adverse impact on the theme park's neighbors because it would be a complementary and incremental addition to the park, which by its nature involves auditory and aesthetic impacts. The Staff Report fails to recognize, however, that the proximity of the roller coaster on the western edge of the park to the Nortel Site does create potential for adverse impacts. These potential impacts cannot be dismissed by staff's erroneous assumption that any noise attenuation incorporated into the Nortel Site would insulate office workers from the sounds of people screaming on the new roller coaster ride no evidence exists in the record to support such an assumption. Accordingly, the Planning Commission lacks the evidence necessary to make a finding that the roller coaster will not have a material adverse affect on the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property.

D. The height variance would result in a 110-foot high structure that would be grossly disproportionate to the 35-foot high height limit.

Finally, the Planning Commission is required to find that the variance is in keeping with the purpose and intent of the Zoning Ordinance. Zoning Ordinance § 18.108.040(d). For any newly proposed project, the Zoning Ordinance establishes the standards by which the project is evaluated. A basic principle of zoning is that all properties in a given zone should be subject to the same restrictions. Public agencies cannot use the variance process to grant special privileges to one property over other nearby properties in the same zone. Cal. Gov. Code § 65906. The record contains no evidence of any other structure on any other property in a CT District exceeding the 35-foot height limit, much less reaching a height of 110 feet. Consequently, if the Planning Commission approves this variance, it would run the risk of granting Great America a special privilege to build at three times the permitted height, a privilege not available to any other similarly situated property.

Furthermore, the City's Zoning Ordinance establishes development standards, including height limits, partly for the purpose of making adjacent land uses and buildings more compatible with one another. Zoning Ordinance § 18.02.020(a)(5). By zoning the theme park CT and establishing a 35-foot height limit therein, the City has made a policy decision that 35 feet is the appropriate height limit in this particular area of Santa Clara in the context of the surrounding land uses. At 110 feet (again more than three times the height limit), the proposed roller coaster would be wildly incompatible with the low-rise pattern of development established in the CT District. If the Planning Commission decides to grant this variance — even when the proposed roller coaster would exceed the height limit by three times and absent any support for the required findings—the decision would thwart the fundamental purpose of the Zoning Ordinance that promotes land use compatibility. Such a dramatic deviation from the Zoning Ordinance, without sufficient justification, simply will not withstand judicial scrutiny.

Again, the Staff Report states that "[a]pplied strictly, this 35-foot height limit would be detrimental to the success of the theme park and surrounding area in attracting visitors in a manner contemplated by the Tourist Commercial General Plan Designation." This incongruity, as noted above, suggests that the City explore the rezoning of the entire Great America site so that it can assess the overall needs of the park within a larger planning context. This proposal then should be considered as part of that rezoning effort accompanied by appropriate CEQA review.

III. Conclusion

Based on the foregoing, we again respectfully request that the Planning Commission not rush to judgment on this application and continue this item so that the City can properly analyze the Project's potential impacts to adjacent landowners.

Charles M. Salter Associates Inc

12 February 2008

Jolynn Chow Miller
Prudential Investment Management, Inc.
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Subject: Great America Roller Coaster Noise Study
CSA Project No. 08-0052

Dear Jolynn:

This letter follows up from our meeting this morning with personnel from Great America and Mark Papineau and Ballard George, the preparers of the subject noise study. As discussed in the meeting, we are concerned about the audibility of roller coaster noise in the adjacent office buildings.

This is an unusual noise assessment in that the client's concern is due to the audibility of screaming noise. The audibility of other sources of noise at the site such as aircraft flyovers and vehicular traffic are accepted phenomena. However, the psychological impact of hearing screaming in ones office could clearly be a "significant impact". In our professional opinion, this source of noise must be adequately analyzed.

To the extent that the screaming noise intrusion into office buildings was a problem, then it could be expensive and difficult to mitigate the noise after operation has begun. To mitigate the noise problem in the office buildings would require adding additional glass or changing out the window glass. Controlling noise at the roller coaster would require noise barriers or enclosures that could have adverse structural and wind loading effects.

Thus, it is important to acoustically analyze the audibility of screaming noise in the office buildings prior to project approval pursuant to CEQA. To conduct this audibility noise analysis would require a simple noise study. First we would measure the minimum background noise in the office areas that face the proposed roller coaster. We would then measure the noise reduction of the windows to quantify their ability to block screaming noise. We would then determine the level of screaming noise that would impinge on the facade of the office buildings based on acoustical testing at a similar roller coaster.

This completes my current comments on the subject matter.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachment
cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Members of the City Council

[illegible]

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PLANNING DIVISION

13 February 2008

Jolynn Chow Miller
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E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise Study**
CSA Project No. 08-0052

Dear Jolynn:

Thank you for providing a copy of the Nortel Networks Inc, Great America Parkway Project EIR dated February 2000 and the 11 February 2008 letter from Environmental Service. This e-mail discusses the relevance of this information.

1. At our meeting on Monday with personnel from Great America, they mentioned that the Prudential office buildings were built after the Great America Amusement Park. Therefore, the Great America Amusement Park noise impacts, including future possible impacts, should have been fully considered by the project environmental noise assessment.

The environmental noise assessment for the subject office buildings only addressed the existing amusement park noise and the existing aircraft noise. There was no acknowledgement that the Great America Amusement Park noise could increase. Therefore, the proposed future noise impact of the new roller coaster was not acknowledged nor addressed in the project EIR. Increase in Great America noise impinging on the subject office buildings should be assessed along the lines of what we suggested in our letter to you on 11 February 2008.

2. With respect to screaming noise impact addressed in my letter to you dated 11 February 2008, we received a copy of a letter prepared by Mark Papineau of Environmental Service. In this letter he addresses the audibility of screaming noise. However, he makes two assumptions that could be seriously erroneous. First, he assumes that the minimum background noise in the private offices in the subject buildings are 36 to 40 dBA. He then assumes that the facade noise reduction is 40 dBA or more.

If his assumptions are correct, then one would expect that there would be a low level of screaming audibility in the office buildings. However, if his assumptions are far off the mark then there could be a very serious problem. Rather then basing a noise analysis on speculation, we recommend that acoustical tests be conducted on the actual buildings. There is a lot at stake. It is therefore prudent to quantify the manners at hand rather than potentially make a big mistake.

This completes my current comments on the subject matter.

Sincerely yours,

CHARLES M. SALTER ASSOCIATES, INC.

Charles M. Salter, P.E.
President

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Luce, Forward, Hamilton & Scripps, LLP
E-mail:TTosta@LUCE.com

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CMS/dg
[illegible] CMS, Great America Roller Coaster Noise Study

Sincerely yours,

CHARLES M. SALTER ASSOCIATES, INC.

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July 2, 2008

VIA ELECTRONIC MAIL

Patricia M. Mahan, Mayor
and Members of the City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride—File No. PLN2008-06835**

Dear Mayor Mahan and Members of the City Council:

As you now know, we represent The Prudential Insurance Company of America ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). On June 3, 2008, we appealed the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of an 111-foot high wooden rollercoaster on May 28, 2008 ("Project"). On June 27, 2008, we submitted a letter to the City Council in support of our appeal. That same day, we received a copy of Les Hausrath's letter on behalf of Great America opposing our appeal, as well as Marc Papineau's "Responses to Comments of Mr. Timothy Tosta" dated June 3, 2008.

We provide this supplemental letter to respond to certain points raised by both Mr. Hausrath and Mr. Papineau.

Briefly, a categorical exemption for the Project is inappropriate:

1. The addition of a new 111-foot tall rollercoaster to the last remaining undeveloped area is an **expansion and intensification** of the park's use, **falling outside of the categorical exemption**, which limits itself to "normal operations."

2. The **screaming noise** from the rollercoaster is so unique that it rises to an "**unusual circumstance**" relative to its immediate environment—rendering a categorical exemption legally unsupportable.

3. Christopher Menge, the author of the much-discussed "Menge Report," has reviewed the Great America acoustical analysis submitted for the Project and concludes that the **screaming noise will be significantly higher than predicted** by Great America's consultants—thereby establishing a "reasonable possibility" of a significant noise impact on the environment. (See Exhibit A.)

Finally, we remind the City Council that the four **variance findings** set forth in the City's Municipal Code **must be supported by substantial evidence**, which still does not exist in this record.

Accordingly, we respectfully request that the City Council uphold our appeal and overturn the Planning Commission's approval of the Great America variance.

I. Categorical Exemption

The California Environmental Quality Act ("CEQA") requires that all expansions of existing uses and facilities undergo environmental review—except for negligible expansions. Great America seeks to construct a 111-foot tall rollercoaster in its last remaining undeveloped area of the theme park. Great America and City staff maintain that this addition to the park is a "normal operation" for purposes of the Class 23 categorical exemption. We stress here, however, **a significant expansion** of existing uses **cannot fall within the ambit of "normal operations"** and is not exempted from environmental review. Indeed, as depicted in the aerials attached to our June 27th letter, the Great America site has been allowed to expand by over 30% since it was approved in 1973 with no additional environmental review. Great America now seeks to expand again. Its proposal for such a significant addition in close proximity to its neighbors is not "negligible." Nor can it be justified by the fact that the park has evaded environmental scrutiny in past expansions.

A. **Noise Impacts**[1]

Christopher Menge of Harris Miller Miller & Hanson Inc., the author of the Menge Report published for Inter-Noise 2002,[2] is the nation's leading acoustical expert on noise generated by entertainment and amusement facilities. Prudential retained Mr. Menge to review the acoustical assessments provided by Great America, particularly since Great America relied on Mr. Menge's work, in part, in reaching its conclusions. Mr. Menge provides critical insight into the reliability of the Great America noise assessments. Mr. Menge finds:

- The **Great America analysis is unsupported by documentation**, which renders the noise measurements **unreliable** and the **conclusions vulnerable** to **significant error.**

- Because Great America chose to report notably lower noise levels than Menge's published levels, **the actual rollercoaster noise from the Project could exceed the City's maximum noise limits** at both the **residential property line** to the east and the **commercial property line** to the west. The result:

  - Rollercoaster **noise would be very audible outdoor at adjacent residences**, particularly on quiet evenings.

  - **The impact of the coaster operation within the offices** on the Nortel Site **could be audible and intrusive.**

- By choosing an average rather than the highest sound levels from rider screams, the **Great America approach does not account for the potential that the property line noise limit could be exceeded regularly.**

- The June 3, 2008 **Papineau letter does not state the correct noise levels** that are provided in Menge's Inter-Noise paper.

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[1] In Section II.A. of his letter, Mr. Hausrath continues to mischaracterize the basis upon which Prudential claims an exception to the categorical exemption applies to the Project: "... the placement of a tall rollercoaster near an office building constitutes an 'unusual circumstance.'" In fact, as seen on Page 2 of our June 27th letter, we contend that "**the proximity between the Project and the Nortel Site gives rise to an unusual circumstance because of the psycho-acoustical impacts associated with screaming.**" It is the proximity and the unique nature of screaming that makes the exception to the exemption stand.

[2] "Residential impact criteria and abatement for roller coaster noise," paper no. 598, proceedings of Inter-Noise 2002, International Congress and Exposition on Noise Control Engineering, Dearborn, MI, USA, August 19-21, 2002.

- **Great America underestimates total noise level** and potential Lmax at the property line;

- Consequently, Great America's analysis **incorrectly computes low levels for the screaming condition**.

- Great America provides **no basis for the assumption** that **scream sounds would be significantly lower from a wooden coaster** than from a steel coaster.

The nation's leading expert in the field of entertainment acoustics is advising this Council that the acoustical analysis provided by Great America is seriously flawed and unreliable. He confirms not only Mr. Salter's predicted disruption from the rollercoaster's screaming noise to Nortel office occupants, but also points out that disruptive noise likely will reach residents on the east side of the park. Finally, he predicts that the screaming may well exceed the City's noise standards on both sides of the park. Based on the unique quality and impact of human screaming and the combined Salter/Menge findings of this potentially significant impact, the categorical exemption is legally unsupportable.

B. **Visual Impacts**

In Section II.C. of his letter, Mr. Hausrath dismisses Prudential's concerns about visual impacts to the Nortel Site based on views. The fact, however, that Great America is located in a CT zone with a 35-foot height limit creates certain expectations about the proximity of large and imposing structures next to its neighbors. Visual impacts are **not limited to views**. Here, Great America proposes to locate an **imposing and peculiar structure** immediately adjacent to the Nortel Site. Based upon the **35-foot height limit in the CT zone**, Prudential has every right to expect that it will not be physically encroached upon by massive structures. Moreover, the imposition of this odd and looming structure is further animated by moving parts and accompanied by disruptive screams. This Project is a **visual disruption**. It creates a visual environmental impact.

II. **Variance Findings**

In Section II.D. of his letter, Mr. Hausrath contends that the Planning Commission's variance determination and related findings are "fully supported both legally and factually." He then suggests that the City's variance ordinance somehow affords a broad degree of flexibility in the grant of variances. Mr. Hausrath errs on two counts. First, the City's variance ordinance parallels State law and, by extension, California case law. Its differences reflect no divergence in policy from State law, but rather choices of similar, but not identical, words. Second, Mr.

Hausrath ignores the reality that the City still must strictly adhere to the variance rules set forth in its own Municipal Code. In other words, this "flexibility" does not excuse the City of its obligation to make the four findings set forth in Section 18.108.040. Moreover, a grant of a variance must be accompanied by **findings supported by substantial evidence that shows whether the findings actually support the conclusion that the variance requirements have been satisfied.** (See Topanga Assn. for a Scenic Community v. County of Los Angeles (1974) 11 Cal. 3d 506, 517-18 ("Topanga")). We briefly discuss each finding in turn.

A. **Unusual Conditions**

Mr. Hausrath argues in a circle. He contends that tall structures are unique to the park (even though all are a consequence of prior variance approvals); therefore, there is an unusual condition. Stated differently, the logic is "the more variances, the more unusual the condition." But you cannot sustain an "unusual condition" on the foundation of variances from zoning standards.

Rather, the City must find that the **property**, upon which the Project is to be built (not its improvements), has an "unusual condition" such that adherence to the 35-foot height limit would result in a hardship for Great America. That evidence simply does not exist.

B. **Substantial Property Rights**

This finding rests on the determination of whether strict adherence to the 35-foot height limit would interfere with Great America's enjoyment of a substantial property right. There is no evidence anywhere in this record that supports the notion that, absent this particular variance, Great America will suffer any degradation of its property rights. Again, Mr. Hausrath argues in circles. Because Great America has been granted so many variances, it has sustained its economic viability. By his logic, these variances have somehow evolved into a "right" that gives rise to justification for even more variances. Nonsense. Great America has not earned a "right" to a competitive edge in the marketplace by imposing multiple looming projects on its neighbors.

C. **Adverse Effect**

Here, the City must have credible evidence that supports the finding that the variance will not adversely affect the peace and comfort of persons residing or working in the neighborhood. Both Charles M. Salter Associates and Christopher Menge have suggested quite the opposite. Their work substantiates that the Project could result in a material, adverse effect to neighbors. No credible, independent, or reliable evidence exists in the record to support a finding to the contrary.

D. **Consistency with Zoning**

Mr. Hausrath is correct here when he says that "the object of the zoning ordinance is to ensure the compatibility of uses within particular zoning districts." But his argument becomes creative when he suggests that the park has co-existed peacefully with its neighbors over the past 32 years and that, therefore, the use is consistent with the neighboring uses. Compatibility with surrounding uses is grounded in **conformity with the existing zoning**—not on a pattern of multiple variances. In fact, Mr. Hausrath's argument here shows how both the City and Great America have come to perceive the variance process as zoning itself, disregarding the basic CT zoning, which actually binds the use relationships in the area.

III. **Conclusion**

At some point, the "mind" is aided by the "gut" in decision making. It is helpful to have the facts supporting you. And, you have them here. This Project should be stopped. It has not been well thought out. It has been rushed through the process. Stopping the Project now means that the City will avoid costly litigation from the community and the need to fix something that never should have been built in the first place. We trust you will overturn the variance and send Great America back to do a better job.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachments

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Carol Anne Painter
Helene Leichter
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Privileged and Confidential Communication – Attorney-Client Work Product

MEMORANDUM

To: Timothy Tosta, Esq., Luce, Forward, Hamilton & Scripps LLP
From: Christopher Menge
Subject: Review of Cedar Fair's Great America roller coaster proposal noise issues
Reference: HMMH No. 302960
Date: July 2, 2008

Harris Miller Miller & Hanson Inc. (HMMH) was retained by Luce, Forward, Hamilton & Scripps LLP to review noise-related documents pertaining to the potential for noise intrusion by roller coaster noise onto the property and into the interior office spaces of the buildings at 4555 and 4655 Great America Parkway, also known as the Nortel buildings. This memorandum summarizes our opinions regarding the noise analyses conducted and reported by Papineau, R.E.A. ("Papineau"), and by Charles M Salter Associates Inc. ("Salter"). We have reviewed noise-related reports and letters dated between Jan. 15, 2008 and May 22, 2008, as well as excerpts of the Nortel Networks Inc. Great America Parkway Project Draft EIR, dated Feb. 2000. At the end of this memo, we provide comments on the Papineau letter dated June 3, 2008.

Summary conclusion

A primary concern about the conclusions of the Papineau analysis is that the projected noise levels are based on roller coaster reference noise data that 1) are unsupported by documentation, and 2) report notably lower levels than the reference data acquired by HMMH and published in our 2002 Inter-noise paper.[1] Should the actual noise emissions of the proposed roller-coaster be equal to the average of the roller-coaster pass-by noise levels published in the Inter-noise paper, the (ambient-increased) maximum limits in the Santa Clara Municipal Code would be exceeded by several decibels at both the commercial property line at the west and the residential property line to the east of the site. Also, maximum roller coaster noise events inside the nearest offices at the upper floors of 4555 and 4655 Great America Parkway could exceed the quiet background of those offices by up to 10 dBA or more, representing frequent, clearly audible and potentially distracting events. For reference, an increase of 10 dBA is generally heard as a doubling in loudness.

We conclude that it is likely that the negative impact of noise from the proposed roller coaster, rider screaming in particular, will be more significant that it is predicted to be and characterized in the Papineau analyses. We further conclude that there is potential for the

[1] "Residential impact criteria and abatement strategies for roller coaster noise," paper no. 598, proceedings of Inter-Noise 2002, International Congress and Exposition on Noise Control Engineering, Dearborn, MI, USA, August 19-21, 2002.

noise impact to be much more significant than reported, depending on the reliability of the unsupported GMH reference data.

Roller coaster reference noise levels

The April 14, 2008 Papineau letter report states that the reference total pass-by noise emission level used in the noise study was 89.3 dBA at 50 ft. This total included both mechanical and human scream sounds. The energy-average[2] total noise emission level from many pass-bys of four different roller coasters shown in our 2002 paper was 94 dBA at 50 ft; the arithmetic average of the sound levels was 93 dBA. The average pass-by level of the loudest roller coaster we measured was 97 dBA. The energy-average pass-by noise emission level was 91 dBA at 50 ft measured from a roller coaster at a point with an unobstructed path to the riders' faces where the riders were screaming enthusiastically, and where the car bodies and riders shielded the mechanical noise somewhat. These reference measurements were conducted by HMMH staff trained in appropriate noise data collection techniques, using recently-calibrated precision (Type I) noise measurement instruments with calibration records traceable to the National Institute of Standards and Technology. Since we were not provided with information that suggests the reference measurements cited in the Papineau report were also conducted with such a degree of precision, we conclude that it is possible that the results of those measurements are not reliable. We understand that the firm that conducted the reference pass-by measurements is not primarily an acoustical consulting firm, so it is possible that their technicians are not sufficiently trained and that their instruments are not sufficiently precise. Many factors can affect the precision of noise measurements, including insufficient frequency of instrument calibration by a certified laboratory, neglected or improper field calibration, improper instrument orientation, nearby objects or surfaces (including the operator) causing shielding or reflections, imprecise distance measurement, limited sample size (number of pass-bys), among other factors. These various factors can add up to errors in noise measurement that can amount to many decibels.

Implications of higher roller-coaster noise emissions

To evaluate the potential for noise impact around the project site based on the roller coaster noise emissions in our files, we examined the projected noise levels at the property line locations and in the interior office space. All of the projected noise levels in the community from the roller coaster shown in the Papineau report would increase by the same amount as the amount the source level is increased by. For example, if we use the quiet coaster with enthusiastic screaming, which has a source level of 91 dBA, then all projected levels in the Papineau report would be 2 dBA higher than shown, since that report assumed an 89 dBA reference level. If the energy-average roller coaster in our measurements is assumed, then all projected noise levels would increase by 94 minus 89 = 5 dBA. And, if the average of the loudest coaster we measured is used, then the projected noise levels in the report would increase by 97 – 89 = 8 dBA.

[2] The "energy average" represents an average of the sound *energy* values (the anti logarithm of the sound *level*), rather than an average of the sound *level* values. Energy-averages of measured noise emissions are commonly used for incorporation into models that compute sound energy-based metrics, such as Leq and Ldn.

The implications of roller coaster noise that is 2 to 8 dBA higher than estimated in the Papineau report are significant. The property-line Lmax noise limit of 75 dBA on the western boundary would be exceeded with Lmax values ranging from 76 dBA to 83 dBA, depending on what reference coaster type is assumed, and on which of the two proposed roller coaster locations is assumed. On the eastern side residential property lines, Lmax values for the northerly coaster location would be projected in the range of 63 dBA to 71 dBA, exceeding the ambient-increased 65 dBA limit of the Santa-Clara Municipal Code. The loudest of these events would be very audible outdoors at these residences, particularly on otherwise quiet evenings.

The higher roller coaster noise emissions would also increase the audibility of coaster events inside of the offices at 4555 and 4655 Great America Parkway. We are most inclined to adopt Salter's measurement of 35 dBA as an appropriate value for the outdoor-to-indoor noise reduction of the office buildings. Using that value and the closest distances of the two coaster locations under consideration (450 ft and 570 ft), we estimate that maximum coaster event noise levels inside those offices would be between 35 and 43 dBA, depending on the assumptions of the type of roller coaster and the location. With a quiet background in the private offices in the low 30's dBA, as measured by Salter, these events could be very audible and potentially intrusive.

Potential noise abatement measures

A number of noise abatement measures can and have been successfully employed to reduce the transmission of roller-coaster noise to surrounding properties. Noise barriers can be effective in reducing much roller coaster noise, since the coaster spends much of its time near the ground. Universal Studios employed a tall noise barrier to shield a roller coaster that was located at the corner of their Islands of Adventure park in Orlando. Both residential and educational land uses are nearby. The wall is up to 55 ft high, and was themed to look like a forest from a distance. (See photo below taken during construction. The coaster track can be seen behind the frame for the wall panels.)

At upper elevations such as the initial drop, shielding elements such as enclosing tubes, partial tubes or panels can be attached to the coaster to block direct sound paths to nearby noise-sensitive areas.

Coaster orientation can make a significant difference in radiated noise in certain directions. Initial drops should be faced away from noise-sensitive areas to take advantage of the shielding provided by car bodies and coaster structural elements.

Comments on Papineau letter dated June 3, 2008

The letter characterizes the rider scream level as falling within the range of the two levels published in the Inter-noise paper. We have two concerns about that, one with the approach, and one with the accuracy of the analysis and therefore the validity of the statement:

1. With regard to the approach, the Santa Clara Municipal Code specifies an Lmax value at the receiving property line. In my experience, such limits are considered to be maximum allowable sound levels, and are not usually given plus/minus tolerances or thought to be advisory. By choosing a reference sound level from rider screams that is not representative of the highest levels that could occur on a regular basis, but instead is an average of many measured maximums, the approach sets up the potential that the property line noise limit could be exceeded quite regularly.

2. With regard to the accuracy, the Papineau letter does not state the correct noise levels that are given in the Inter-noise paper. The letter states the range of scream maximum levels is from 83 dBA for "some screaming" to 90 dBA for "much screaming." In fact, the correct values are 87 dBA for "some screaming" and 91 dBA for "much screaming." This can be seen easily in the paper on the graphs in Figure 4. There are apparently two sources for this discrepancy. One is the approach of subtracting the "empty car" spectrum from the total passby noise to estimate scream-only sound levels. This approach underestimates total noise level and potential Lmax at the property line, and therefore is not appropriately conservative. The second source of discrepancy is the use of erroneous values for the "some screaming" spectrum in the

630, 800 and 1000 Hz one-third octave bands, using the lower "empty car" data instead of the correct values. This causes the analysis to compute incorrectly low levels for the "some screaming" condition.

The letter characterizes the location of the scream measurements in the Inter-noise paper as possibly being not characteristic of what the wooden coaster would produce. The measurements of screaming noise that we conducted for the steel roller coaster were also conducted at the side of the riders along a different portion of the ride as well as overhead. The average maximum pass-by level at 50 ft to the side with much screaming was 91 dBA for this condition as well. The average for the lower amount of screaming at that location was 89 dBA. Therefore, we do not believe that it is appropriately conservative to assume that scream sounds would be significantly lower from a wooden coaster. One would expect that some sections of nearly any coaster ride would have orientations to various property-line locations that would favor good lines sight to the riders' faces, thereby allowing for maximum scream sound levels.

In conclusion, reference roller coaster noise levels for evaluating a maximum allowable property-line noise limit should be at least 91 dBA at 50 ft, based on our measurements and observations. Further, depending on the reliability of the GMH measurements of wooden coasters, and the comparability of the coasters they measured to the proposed coaster at Great America, maximum pass-by noise levels could be considerably higher.

HARRIS MILLER MILLER & HANSON INC.

Christopher Menge

Senior Vice President

Experience

HMMH, 1983-present

Bolt Beranek and Newman Inc, 1972-1983

Education

B.S., Physics, University of New Hampshire, Durham, NH, 1972

Graduate study, Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, MA, 1974, and Northeastern University, 1975 1977

Affiliations

Board of Directors, Institute of Noise Control Engineering (INCE), since 2006

Member/Affiliate, INCE, since 1978

Member, Acoustical Society of America, since 1978

Transportation Research Board Committee on Transportation-related Noise and Vibration, since 1978

Since 1972, Chris Menge's career has focused on the analysis and control of noise from a variety of transportation, industrial and entertainment sources. His most extensive experience encompasses highway noise prediction and barrier design, outdoor entertainment sources such as race tracks and theme parks, and ground-based noise sources at industrial sites, airports and national parks.

For the Federal Highway Administration, Mr. Menge developed the acoustical algorithms and finalized the Traffic Noise Model (TNM), FHWA's state-of-the-art highway noise prediction software. Mr. Menge has also extended the TNM's propagation algorithms for use with other ground-based noise sources in theme parks, airports and national parks.

Mr. Menge was the U.S. representative and a primary author of the Technical Assessment of the Effectiveness of Noise Walls, for the International Institute of Noise Control Engineering's Working Party on the Effectiveness of Noise Walls.

Representative Projects

Highway Projects

- Noise Barrier Feasibility and Design Studies in Newton, Woburn, Danvers and Fall River, MA (2004 to present), *Project Manager*
- Interstate 495 (Capital Beltway) Improvements Noise Analysis and Barrier Design, Fairfax Co., VA (1997-present), *Project Manager*
- FDR Drive Temporary Detour Noise Barrier Evaluation, New York, NY (2006), *Project Manager*
- Tri-County Parkway Location Study Noise Analysis and Preliminary Abatement Design, Loudoun, Fairfax and Prince William Counties, VA (2002-2005), *Project Manager*
- Route 3 North Noise Analysis and Abatement Design, Bedford, Billerica, Lowell, Chelmsford, Tyngsboro, MA (1993, 1998, 2002-2003), *Project Manager*
- Massachusetts Turnpike Noise Barrier Design Studies, Newton, Natick, Ludlow, MA (1992-1995), *Project Manager*
- U.S. Route 101 Quiet Pavement and Absorptive Barrier Evaluation, Marin County, CA (2001), *Senior Technical Advisor*
- Springfield Interchange Final Noise Abatement Design, Springfield, VA (1997-2000), *Project Manager*
- Dallas North Tollway System-wide Noise Barrier Policy and Acoustical Design, TX (1993, 1999, 2002), *Project Manager*
- Hampton Roads Crossing Study Noise and Vibration Analysis for EIS, Hampton, Norfolk and Newport News, VA (1996-1999), *Project Manager*
- Brooklyn-Queens Expressway Noise Analysis for Design Study, Queens, NY (1990-1991), *Project Manager*
- I-25 Widening Noise Analysis for EA and Final Barrier Design, Colorado Springs, CO (1991-1993), *Project Manager*
- Massachusetts Turnpike System-wide Noise Barrier Priority Program, Boston to NY State, MA (1991-1992), *Project Manager*

"Chris Menge of HMMH has given us excellent expert advice regarding noise issues ... He has managed to translate the complicated science of noise into understandable terms, as he effectively assessed and explained the expected noise impacts residents in the area would experience. He is a highly competent professional, an effective advocate, and a pleasure to work with."

Sherityn Burnett Young, Esq., Rath, Young & Pignatelli, P.A.

- Southwest Freeway/Transitway (US 59) Final Noise Barrier Design, Houston, TX (1985-1988), *Project Manager*
- Dulles Toll Road Widening and Extension EIS Noise Analysis and Barrier Design, Fairfax and Loudoun Counties, VA (1987-1989), *Project Manager*
- Woodrow Wilson Bridge Improvement Study Noise Analysis and Abatement Design, I-95 in VA, DC, and MD (1991), *Project Manager*

Aviation Projects

- Many ground-operations noise studies at Boston-Logan International Airport including Southwest Service Area, Centerfield Taxiway, International Gateway, and Terminal A area noise mitigation design, Boston, MA (1978-2008), *Project Manager*
- Ground Run-up Enclosure Design and Testing, Portland International, Portland, OR (2001), *Senior Technical Advisor*
- Engine Run-up Enclosure Design/Testing, Pease International Jetport, Portsmouth, NH (1997), *Project Manager*
- Noise Barrier Effectiveness Study, Miami International, Miami, FL (1996), *Project Manager*
- Noise Barrier Feasibility Study, Syracuse Hancock International, Syracuse, NY (1992), *Senior Technical Advisor*
- Start-of-Takeoff Roll Noise Abatement Study, Baltimore-Washington International, Baltimore, MD (1991), *Project Investigator*
- Western Boundary Noise Barrier Design, LaGuardia, New York, NY (1987), Project Manager
- Noise Control Assessment of Ground-based Sources, Dallas Love Field, Dallas, TX (1988), *Project Manager*
- Ground Run-up Enclosure Design, Stapleton International, Denver, CO (1986), *Project Investigator*
- Start-of-Takeoff Roll Noise Barrier Design Study, L.G. Hansom Field, Bedford, MA (1984), *Project Manager*

Industrial

- Sheffield Wind Farm Noise Analysis, UPC Wind Management, Sheffield, VT (2005-2006), *Senior Technical Advisor*
- High-pressure Venting Noise Abatement, Philip Morris Company, Cabarrus, NC (2002), *Project Manager*
- Air Conditioning Noise Litigation, Hingham, MA (2002), *Project Manager*
- Truck-mounted Refrigeration Unit Noise Abatement, Martin-Brower Co., Ayer, MA (1985-1991), *Project Manager*

Race Tracks

- Shenandoah Speedway Noise Study and Abatement Analysis, Shenandoah, VA (2005-2008), *Project Manager*
- California Motocross Park Noise Study for Permitting, Placer County, CA (2004-2007), *Project Manager*
- Club Race Track Noise Study and Ordinance Recommendations, Tamworth, NH (2003-2007), *Project Manager*
- Racetrack Noise Intrusion and Soundscape Analysis, Appalachian Trail, PA (2003), *Project Manager*

Entertainment

- Universal Studios Islands of Adventure - Park-wide Acoustical Modeling and Noise Abatement Design and Implementation, Orlando, FL (1998-2000), *Project Manager*
- Black Dog Amphitheater - Sound Propagation and Background Measurement and Analysis, Bloomington, MN (2000-2002), *Project Manager*
- Q Prime Amphitheater Noise Intrusion Analysis, Wildlife Refuge, Scott County, MN (2004), *Project Manager*
- Wolf Trap Pavilion, Noise Intrusion Analysis and Abatement Design, Vienna, VA (1981), *Project Manager*

National Parks

- Winter Use Plan EIS on Over-snow Vehicle Noise – Measurement, Propagation, Noise and Audibility Prediction, Yellowstone and Grand Teton National Parks, WY (2000-2002), *Project Manager*
- Watercraft Noise Studies, Glen Canyon National Recreation Area, AZ & UT (2002), *Project Manager*
- Development of National Park Soundscape Management Plan, NPS, USDOI (year), Project investigator

Representative Publications and Presentations

Highway/Barrier/TNM Related

- "Absorptive Sound Barriers: Effect of Three Potential Changes to Current Design Standards of Virginia Department of Transportation," Transportation Research Record No. 1859, Transportation Research Board of the National Academies (2003).
- "Experiences with USDOT's Traffic Noise Model (TNM)," paper no. 493, proceedings of Inter-Noise (2001), International Congress and Exposition on Noise Control Engineering, The Hague, The Netherlands (August 27-30, 2001).
- "Technical Assessment of the Effectiveness of Noise Walls," International Institute of Noise Control Engineering Working Party on the Effectiveness of Noise Walls, I-INCE publication 99-1, Noise/News International, 7 (5) (1999 Sept.), pp.137-161.
- FHWA Traffic Noise Model, Technical Manual, Federal Highway Administration Report No. FHWA-PD-96-010 (February 1998).
- "Barrier Diffraction and Sound Propagation in USDOT's new Traffic Noise Model," Proceedings of Inter-noise 96, the 1996 International Congress on Noise Control Engineering, Liverpool, U.K. (July, 1996).
- "Traffic Noise Model Propagation Algorithms: Some Interesting Characteristics," presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1995).
- "Barrier Priority Program for the Massachusetts Turnpike," presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1993).
- "Fairness in Noise Barrier Policy and Design: A Case Study on the Dulles Toll Road," presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1991).
- "Noise Barrier Cost Reduction Procedure, STAMINA 2.0/OPTIMA:

User's Manual," Federal Highway Administration Report NO. FHWA-DP-58-1 (April 1982).

- "Highway Noise: Sloped Barriers as an Alternative to Absorptive Barriers," Noise Control Engineering Journal, 14:74, (March April 1980).
- "Barrier Cost Reduction Program: A Supplement to FHWA's STAMINA Program," Transportation Research Record 740, Transportation Research Board, National Research Council (1980).
- "Sound-Absorption Treatments for Highway Noise Barriers," Transportation Research Record 740, Transportation Research Board, National Research Council, 1980.
- "Highway Construction Noise: A Prediction Method and Recommendations for Control," Proceedings of the Conference of the Southeastern Association of State Highway and Transportation Officials, Louisville, Kentucky, 1974.

Entertainment/Recreation Related

- "Assessment of Community Reaction to Proposed Club Racetrack," paper no. 3PNCa3, proceedings of Noise-con 2005, Congress on Noise Control Engineering, Minneapolis, MN, October 17-21, 2005.
- "Noise Data from Snowmobile Pass-bys: The Significance of Frequency Content," Society of Automotive Engineers paper no. 2002-01-2765, SAE International Publication SP-1726, 2002.
- "Residential impact criteria and abatement strategies for roller coaster noise," paper no. 598, proceedings of Inter-Noise 2002, International Congress and Exposition on Noise Control Engineering, Dearborn, MI, USA, August 19-21, 2002.
- "Status of the International-INCE Initiative on Recreational Noise and Progress on Quantifying Noise Intrusions in Parks," paper no. 61, proceedings of Noise-Con 2001, Congress on Noise Control Engineering, Portland, ME (October 2001).
- "Measurement and Modeling of Snowmobile Noise and Audibility at Yellowstone and Grand Teton National Parks," paper no. 2aNSa8, proceedings of Noise-Con 2000, Congress on Noise Control Engineering, Newport Beach, CA, Dec. 2000.
- Noise from amusement park attractions: Sound level data and abatement strategies, *Noise Control Engineering Journal*, 47 (5) 1999 Sep-Oct.

Aviation Related

- "La Guardia Airport Ground-Noise Abatement Study," Transportation Research Record 1444, Transportation Research Board, National Research Council (1994).
- "Wind Effects on an Airport Noise Barrier," presented at the Summer Meeting of the Transportation Research Board Committee on Noise and Vibration (AIFO4), Princeton, New Jersey, (July 1987).

Noise Measurement Related

- "Low-Noise Windscreen Design and Performance," Proceedings of National Conference on Noise Control Engineering, Ft. Lauderdale, FL (May 1994).
- "The One-Minute Leq Measurement Method", Transportation Research Record 1033, Transportation Research Board, 1986.

Christopher Menge, Senior Vice President

- "Scale Model Optimization of a Railroad Platform Canopy as a Community Noise Barrier," Proceedings of 1980 International Conference on Noise Control Engineering, Miami, FL, December 1980.

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PLANNING DIVISION

July 3, 2008

BY HAND DELIVERY

Patricia M. Mahan, Mayor
and Members of the City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, California 95050

Re: Appeal of Great America Variance Application:
File No. PLN 2008-06835

Dear Mayor Mahan and Members of the City Council:

Prudential, in its submittal to the City Council in support of its appeal, raises a number of contentions which merit response, so that the Council has a clear picture of the facts and circumstances surrounding Great America's application to install a new roller coaster.

Prudential suggests that screaming noise from the proposed roller coaster is so unique that the existence of such noise rises to an "unusual circumstance" that will cause a significant adverse environmental impact such that the categorical exemption under CEQA for the normal operations of an amusement park does not apply. This contention, however, does not bear scrutiny.

I. Anecdotal Newspaper Accounts Of Other Amusement Park Attractions Are Hearsay And Irrelevant.

Prudential submits anecdotal information about other amusement park attractions throughout the world to suggest that rider screaming is such a nuisance to neighbors that it must be unusual. For the record, Great America objects to the consideration of such admittedly anecdotal information, because it is just that: anecdotal and based largely upon unsubstantiated newspaper accounts of circumstances very unlike those before this Council here. It is hearsay and should not be relied upon by the City at all in considering **this** application. Further, what Prudential fails to point out is that in most, if not all, of the anecdotal instances cited, the rides in question were very different from the roller coaster proposed here, and the proximity and orientation of the ride to the neighbors was different. For example, the Scandia Screamer is not a roller coaster, and is very close to residential neighborhoods, almost hanging over one in particular. Other of the rides are either taller, closer to residential neighborhoods, include inverse loops or G-force features, etc. It is the classic comparing of "apples and oranges" and

the anecdotal newspaper information about such rides has no bearing or relevance to this application. In some cases it is also suggested that the rides closed due to noise complaints, but this is not accurate. For example, Bell Amusement Park lost its lease and the roller coaster was dismantled. This application must be assessed on its own merits, with its own set of facts and circumstances, including the nature, size and orientation of the ride, the projected sound level within the offices of complaining owner Prudential, etc. Here, for example, the proposed coaster was re-designed to be oriented away from neighboring uses, and also further from the property line. As discussed below, the party claiming that a categorical exemption does not apply under CEQA must produce **substantial evidence** that an "unusual circumstance" exists **and** that this circumstance is likely to cause a significant adverse environmental impact. That challenging party also has the burden of demonstrating that the claimed exemption does not apply. *Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 796. Anecdotes are not evidence of anything.[1]

II. Rider Screaming at Amusement Parks is Expected, Not Startling or Terrifying, and This Is Not Unusual.

Prudential and its consultant also make a repeated point about the alleged "psycho-acoustic" impacts of screaming. The description of human screaming in Timothy Tosta's letter of June 27, 2008 describes isolated, piercing screams, but certainly does not describe periodic screaming from a roller coaster or similar amusement park ride. When one approaches an amusement park, just about the first thing you hear is the riders on various attractions. It is exactly what you expect to hear. If you don't hear it, the park sounds empty and certainly not very inviting. To characterize such normal and in fact anticipated rider screaming from an amusement park as a "distress signal" that "humans are cognitively wired to recognize" as a "calamity" is simply preposterous.

Moreover, if you elect to build an office building adjacent to an amusement park, you can certainly anticipate that rider noise will emanate from that park and will potentially reach your building. What else could a sophisticated developer possibly expect? That is exactly what occurred here. Prior to construction of the Nortel (now Prudential) buildings, an Environmental Impact Report was prepared to analyze the existing setting, and there was an extensive discussion of existing noise from the adjacent Great America park. (See Attachment 2 to the June 26, 2008 letter of Les A. Hausrath to Mayor Mahan.) One existing condition identified in 2000 was anticipated noise "from 60-74 dBA **from roller coaster riders**". This is a significant point, as Nortel knew – before building its buildings – that rider **noise** (i.e., screaming) would be audible from the park, in the specified decibel range. Nortel not only elected to build those office buildings in the very location anticipated to hear such screaming noise, it also elected to install less than optimum sound insulation (windows) which would screen outside noises, including rider noise, to only 50 dBA.

The rider screaming projected to be heard from the latest Great America coaster is not unique or unusual, and it is not made so by the mere juxtaposition of the park to an office

[1] Ironically, Prudential attempts to rely on these anecdotal newspaper articles, then suggests that the unpublished engineering reports relied upon by Great America's consultants for one element of its analysis are "mere hearsay."

building. To constitute substantial evidence, expert opinion must be "supported by facts" and cannot be argument, or unsubstantiated opinion. *Apartment Ass'n of Greater Los Angeles v. City of Los Angeles* (2001) 90 Cal.App.4th 1162, 1176. This supposed "psycho-acoustic" impact suggested by Prudential's consultants is mere opinion. There is no study, no analysis, no article attached or even referenced which documents that any such effect (even should one exist) has ever been attributed to screaming from amusement park patrons. Papineau and Ballard's analysis (*see*, in particular, the June 3 and July 2 letter submitted herewith) absolutely refute the unfounded "psycho-acoustic" effect argument and demonstrate why it is incorrect.

III. Prudential's Own Consultants Project An Interior dBA From Rider Screaming Of Only 36 dBA, Which Is Similar To A Quiet Conference Room Or Library.

Further, and of great significance, Prudential simply glosses over the sound level of rider noise that is anticipated to be heard at the relevant receptor, **inside the Prudential offices**. Not surprisingly, nowhere in Timothy Brown's letter of June 27, 2008 does he repeat what Salter and Brown had earlier reported, that the rider (screaming) noise audible inside the offices is anticipated to be only 36 dBA (Salter & Brown letter of March 7, 2008). Great America's consultants believe that the interior level for rider screaming will be 29 dBA. However, as demonstrated in the earlier June 26 Hausrath letter submitted on behalf of Great America, a sound level of even 36 dBA is far below any possible standard for interior sound that could be considered to be substantially intrusive or disruptive so as to constitute a "significant environmental impact". Salter and Brown make the case that ambient noise was measured "as low as 31 dBA" in the offices measured. However, measurements were taken in empty offices, with none of the normal ambient sounds of an office. The entire premise for Prudential's concern is that rider screaming of 36 dBA **might** be audible in empty offices that are as low as 31 dBA and for that this reason alone, the proposed coaster poses a potential significant environmental impact which is caused by "unusual circumstances." For comparison sake, 32-36 dBA is the normal noise level for quiet courtrooms, libraries and conference rooms. (Papineau's February 12, 2008 letter, Attachment 1 to June 26, 2008 letter.) Occupied offices would be above this range (or higher). See the July 2, 2008 letter of Papineau and George, submitted herewith, which documents **empty** office dBA as 34-40, and higher than 40 for occupied offices. The 31 dBA is an aberration, and a distortion of what sound to expect in occupied offices. Thus, the whole Prudential premise that screaming noise, even at 36 dBA (Prudential's figure), will startle tenants, cause stress and "psycho-acoustic" effects is exaggerated, unfounded and unsupported. It does not constitute evidence sufficient to make the categorical exemption inapplicable, nor does it suffice to demonstrate a potential adverse environmental impact.

IV. CEQA Protects The Environment In General Not Particular Persons.

CEQA cannot be read as narrowly as Prudential suggests, and has not been so read by the California courts, in terms of how CEQA is interpreted. For example, to even qualify under CEQA, the potential significant environmental impact must be on the **environment of persons in general**, and not, as here, potential adverse impacts on particular persons. *Association for Protection, etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 734. Here, the entire concern is about the particular occupants of a limited number of offices in a particular location of the

Prudential buildings closest to the coaster. Even if such persons were adversely affected by the coaster, (which they clearly will not be), this is not a significant adverse impact on the environment in general as defined by CEQA.

V. The "Unusual Circumstances" Exception Does Not Apply Because A Roller Coaster Is The Type Of Normal Facility Anticipated By The Exemption.

In examining if the "unusual circumstances" exception to the categorical exemption applies, the standard is whether the circumstances of a particular project differ from the general circumstances of projects covered by a particular exemption **and** whether those unusual circumstances create an environmental risk that does not exist for the general class of exempt projects. *Santa Monica Chamber of Commerce, supra,* 101 Cal.App.4th 786, 802. Here, the projects covered by categorical exemption 15323 specifically include the normal operations of amusement parks, which obviously includes roller coasters. Roller coasters produce, among other things, rider noise and that is normal. Thus, there is nothing "unusual" about the circumstances of adding a sixth roller coaster to Great America, which is why such facilities are considered by the Legislature to be exempt from further environmental review. This position is bolstered by the fact that the EIR for the Prudential (Nortel) buildings analyzed the very issue at the heart of this controversy – **rider noise from adjacent amusement park attractions.** The projected decibel range for the new coaster (60 -74 dBA) is exactly that documented as the **existing** noise condition in the EIR for the Prudential (formerly Nortel) buildings. Thus, the question is: will a new ride produce any different or greater noise than what was previously studied? The answer is clearly no, based on the 2000 Nortel EIR. This further dilutes the suggestion that projected rider screaming is unusual or unique, because such noise was both analyzed and projected in the very range of the new coaster. Prudential also asserts – without any authority – that the Section 15323 exemption for amusement park operations is limited to existing rides, not new ones. The Section contains no such limitation (unlike, for example, Section 15301). There would have been no point in including the operations of amusement parks in the categorical exemption if it did not apply to "normal" facilities of a kind "where there is a past history of the facility being used for the same **or similar** kind of purpose," (emphasis added), including similar attractions to the existing ones. Thus, the exemption applies, and both the **type** of ride (roller coaster) and the **potential impact** of the ride (noise) are the very thing already studied and there is nothing "unusual" or unique about it.

VI. Great America's Consultants Exhaustively Analyzed Rider Screaming And Its Effect Inside The Prudential Offices.

Prudential's submittal also states, incorrectly, that Great America's consultants have not analyzed potential impacts of rider noise or screaming, and that they have distorted or misrepresented such information in an effort to downplay this aspect of the coaster's features. An analysis of the submittals from Great America's consultants refutes these suggestions completely. For example, Attachment 1 to the June 26, 2008 Hausrath letter contain relevant portions of the analysis provided by Marc Papineau and Ballard George, Great America's consultants. Rider screaming is specifically discussed, at length, in the following documents: March 19, 2008 Further Rebuttal to Salter Analysis; March 19, 2008 Rebuttal to March 7, 2008

Salter letter; March 4, 2008 Papineau letter; February 12, 2008 Papineau letter. In addition, the June 3 letter from Marc Papineau submitted with Great America's June 26 submittal further refutes the allegations made by Prudential, and analyzes rider screaming in great detail. See also the July 2, 2008 letter of Marc Papineau and Ballard George, submitted herewith, which refutes – on a technical basis – the latest claims made by Prudential's consultants and Mr. Tosta and addresses rider screaming. In short, the specific issue of potential rider screaming, and the impact of such screaming in terms of the sound that it might generate inside the Prudential office buildings, has been extensively analyzed and studied by Papineau and George. Collectively, this thorough analysis provides more than sufficient evidence that the noise from the new coaster will not produce any significant adverse impacts on the Prudential tenants.

VII. Great America's Inability To Produce Proprietary Data From GMH Does Not Weaken Its Acoustical Analysis.

Much is made also of the fact by Prudential that Great America has not made available a background study on wooden roller coaster noise prepared by GMH Engineering. The suggestion is made that Great America or its consultants are trying to hide something. In fact, as Great America's counsel informed Prudential's counsel, this background information is considered proprietary and neither Great America nor its consultants are at liberty to make it available to third parties. **That** is why it wasn't made available, not some nefarious scheme to hide information. It should be noted also that Prudential never asked for this information until well after the Planning Commission hearing, right before submittal of its June 27 packet to the Council. Neither Prudential nor its consultants ever requested this information at any time in the several month period that they first learned of its existence, nor, to Great America's knowledge did they attempt to get it from the source. (They not only know the source [GMH Engineering] but in fact discuss the qualifications of GMH and talk about the contents of its website in their submittal.) Great America is hiding nothing.

Further, the GMH background information supports one piece of the overall acoustical analysis. As documented in the June 3, 2008 Papineau letter, p.1, ¶2, Great America's consultants used, in their analysis, an intermediate rider scream level between the two numbers suggested by Menge in the report everyone has, and this number was consistent with the unpublished GMH noise reports on wooden coasters. Thus, GMH data was used to double-check one data point in the Great America analysis. Yet Prudential's counsel makes the absurd and unfounded statement that Great America's inability to produce the proprietary GMH back-up "completely undermines Great America's conclusions that the Project will result in no screaming impacts." Obviously counsel has no understanding of the limited scope and use of the GMH data. Nor do they have any understanding of the extensive scope of Great America's acoustical analysis, including extensive analysis of rider screaming.

Also, Prudential has had its own acoustical experts on board since early February (i.e., 5 months) and they conducted their own analyses. In addition, the parties' consultants conducted joint studies of the projected interior noise levels back in March of this year, and the results were remarkably similar (only a few decibels difference, based on minor interpretation differences). See March 4, 2007 Papineau letter, contained on Attachment 1. These results were interpreted

by Prudential's consultants and their findings made known. The underlying GMH information (which pertains simply to noise testing done on two wooden roller coasters) never became an issue , because it was not the foundation of Papineau and Ballard's analysis. The parties both referred to the study by Menge, which is in the public domain. Only when Prudential failed in its attempt to stop the application at the Planning Commission stage did it suddenly decide that this background information – which has, by the way, also been fully explained by Great America's consultants – was critical.

VIII. There Is No Significant Adverse Environmental Impact Under CEQA.

The City is also accused of failing to "independently verify" all of the engineering data and analysis relied upon by Great America. If this standard is accepted, projects would routinely fail under CEQA, as public entities would be unable to meet the enormous burden of verifying all information submitted by applicants. Further, the burden is on Prudential, not Great America (or the City), to "produce substantial evidence that the project has the potential for a substantial adverse environmental impact". *Apartment Assn., supra,* 90 Cal.App.4th 1162, 1175; *Santa Monica Chamber of Commerce, supra,* 101 Cal.App.4th 786, 797 (". . . [a]rgument, speculation, unsubstantiated, opinion . . . does not constitute substantial evidence.' (Guidelines §15384(a). Substantial evidence shall include facts, reasonable assumptions predicated upon fact, and expert opinion supported by facts. Guidelines, §15384(b)." Prudential's consultants claim – without any evidence, back-up, study or technical analysis whatsoever – that rider screaming will terrify the office occupants. Using their own data, a dBA of 36 from screaming cannot cause such terror or disruption. Stated simply, there is no evidence of a potential significant environmental impact **as defined by CEQA**, which is the standard that the City must follow. Prudential submits that they must just show a possibility of a significant effect on the environment, but a "significant effect" is defined as "substantial or potentially substantial **adverse change** in any of the physical conditions within the area affected by the project" (CEQA Guidelines, Section 15382, emphasis added). Salter's opinion about possible "psycho-acoustical" effects which "**could** interfere with concentration, interrupt conversations, and cause detrimental psycho-acoustic impacts upon possibly hundreds of office occupants and visitors" (June 27, 2008 memo to Santa Clara City Council, Exhibit B to Prudential submittal) is mere speculation and conjecture. As noted above, speculative or possible impacts are not sufficient to constitute substantial evidence. *Association for Protection, etc. Values, supra,* 2 Cal.App.4th 720, 735-736. And there is no change in the noise level.

IX. Ample Evidence Supports The Planning Commission's Variance Findings.

With respect to the variance requested by Great America, Prudential suggests that the City cannot make the necessary findings, and further suggests that because the City has granted variances in the past, it cannot do so here because the history of granting variances is improper. As noted in our correspondence of June 26, 2008, the Planning Director pointed out to the Planning Commission that, while an overall re-zoning is another vehicle that could be pursued, variance application allows the matter to be fully vetted in the public forum. New park features consistent with some different zone might be permitted, but would not have an independent public forum. So the variance procedure here has allowed a healthy public dialogue. Further, it

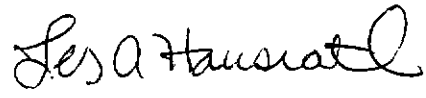
should be pointed out that the only reason a variance is needed is for the height of the coaster. While a passing argument has been made about potential visual impacts, the argument has been over potential noise, not height. Yet Great America has gone to great lengths to address that concern, producing analysis after analysis to demonstrate that the coaster will not, in fact, produce sound within the Prudential offices that will be disruptive or cause an adverse effect. It also bears repeating that the proposed coaster **will comply with all applicable City noise standards**. Prudential observes that like other cities, Santa Clara does not regulate screaming noise. Of course it doesn't regulate screaming noise, as why would it? Noise is measured more in absolutes, and ordinances typically state that noise can't exceed a certain level. Noise is also typically measured at the property line, to avoid this very kind of subjective, conjectural supposition about what might happen inside an office (or other structure) that is beyond the property line.

X. Conclusion.

After a long and vigorous debate, the Planning Commission determined that there was sufficient evidence to in the record to make the variance findings and the CEQA determination, and the record clearly supports that determination. Despite Prudential's efforts to suggest to the contrary, the record here is replete with evidence, facts and information that support what should be a very simple and unremarkable decision, to add a sixth roller coaster to an amusement park that has been in existence for some 32 years in Santa Clara. Great America respectfully requests that this Council uphold the decision of its Planning Commission.

Very truly yours,

WENDEL, ROSEN, BLACK & DEAN LLP



Les A. Hausrath

LES/mw
Enclosures

cc: Duffield E. Milkie, Esq. (w/enclosures)
Bill Lentz (w/enclosures)

environmental service
by Papineau, R.E.A. 791

July 2, 2008

Mr. Les Hausrath
Wendel, Rosen, Black & Dean LLP
1111 Broadway, 24th Floor
Oakland, CA 94607

Subject: Response to Information provided by Charles M. Salter Associates and Mr. Timothy Tosta in Regard to the Proposed New Wooden Coaster at California's Great America (Project 2007-045.07)

Dear Les:

This note addresses only the technical aspects of the discussion of rider scream noise and reconciles the discussion, GA's consultants findings, CMS's findings, and Chris Menge's paper published in InterNoise 2002.

In all of the discussions one must distinguish among rider scream noise, train mechanical noise, and the combination of the two. If the subject is potential disturbance from rider screams, the relevant noise level is rider scream Lmax.

Using the C. Menger paper, rider scream Lmax is 84 dBA (some screaming) up to 90 dBA (much screaming) at a distance of 50 feet when the enthusiastic riders are facing directly onto the microphone. "Some screaming" and "much screaming" are the labels C. Menge himself applied in his paper. The maximum spread in rider scream levels is 6 decibels based on C. Menge's paper, not 16 dBA from low to high.

Per C. Menge's paper, the range is about 6 dBA. Using C. Menge's paper, if we assume 84 dBA at 50 feet or 90 dBA at 50 feet, and the resulting rider scream noise at 450 feet is still about 64-70 dBA. Indoors, with -37 dBA reduction through the windows and by absorbing materials in the room (*e.g.*, carpet, ceiling tile, upholstered chairs), the Lmax for just-the-riders would be 27-33 dBA. *Note: The combined Lmax train mechanical noise and rider screams for a wooden coaster is about 32-35 dBA indoors based on train only noise of 87-88 dBA at 50 feet*

While the scream noise level could be audible in an empty office it will not be audible in most occupied office spaces. CMS reported background, 31 dBA, in terms of Lmin in the unoccupied unfurnished spaces measured by CMS. An Lmin noise level (the lowest recorded level in any measurement period) is not representative of any portion of an hour and an empty, unfurnished office is not representative of occupied space. Our own measurements, which were performed concurrently with the CMS measurements, found the background noise level exceeded 90 percent of the time in the empty spaces is 34-37 dBA, and the level exceeded 50 percent of the time is 37-40 dBA . Those background levels will increase to the 40s of decibels in the same office spaces once occupied.

5789 Gold Creek Drive Castro Valley, California 94552 T (510) 881-8574 F (510) 581-7204

GA's consultants have forecast both a lower indoor rider scream level and a higher background masking noise level. But, even using the upper end of rider scream volume supported by Menge's study of steel roller coasters, our work would conclude that the scream level indoors (27-33 dBA) would be inaudible in the occupied office spaces and the combined train and rider scream noise Lmax (32-35 dBA) would barely be audible depending on the background noise level in the occupied space. The noise indoors would be muffled, would sound like train mechanical noise and not like a scream, and could not elicit startle responses or other psychoacoustic effects.

Please call if you have any questions about this reconciliation of the various reports and public hearing statements.

Sincerely,

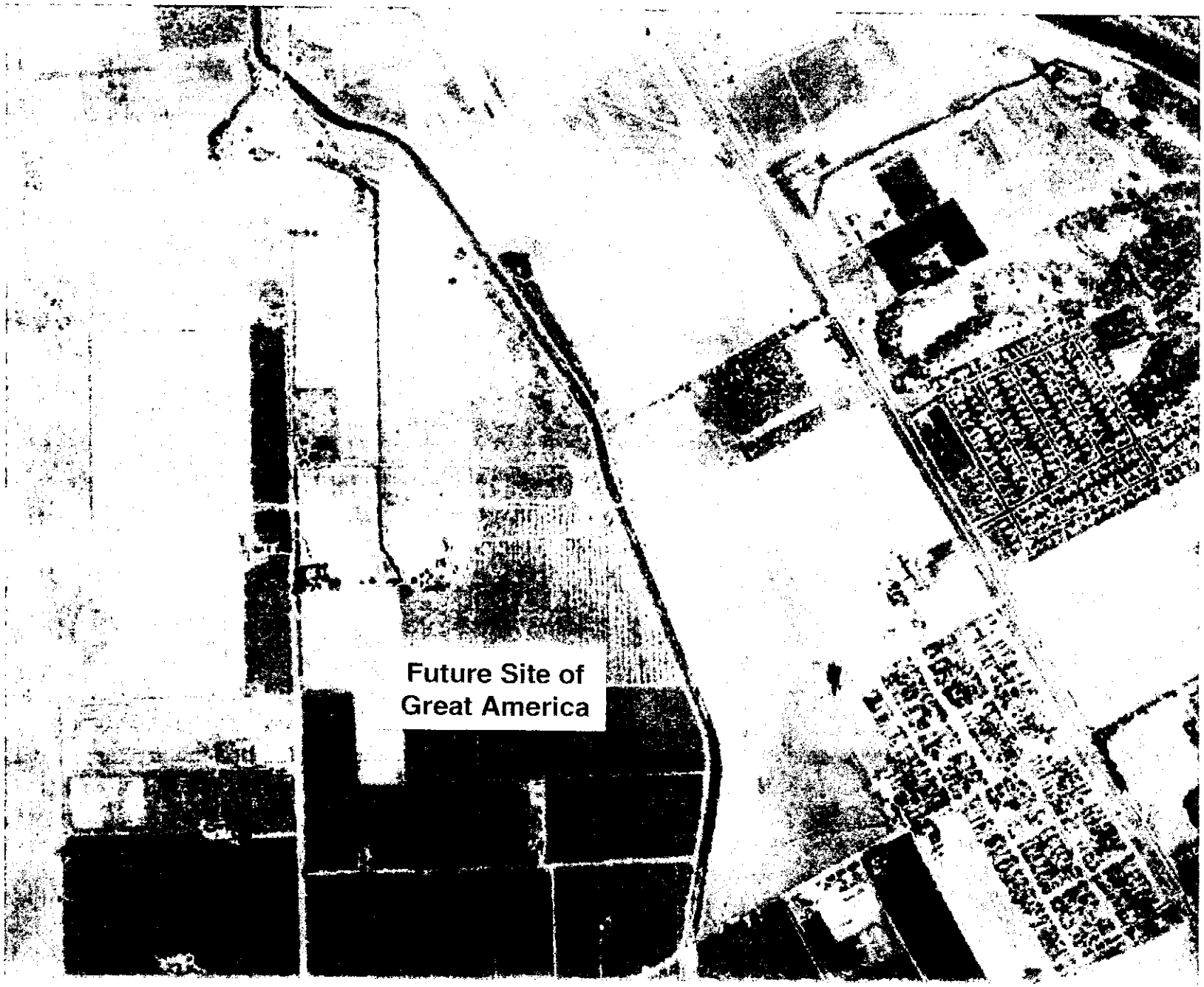
Marc Papineau

Marc Papineau
Project Manager

Ballard George

Ballard George
INCE Board Certified Acoustical Consultant

August
1971



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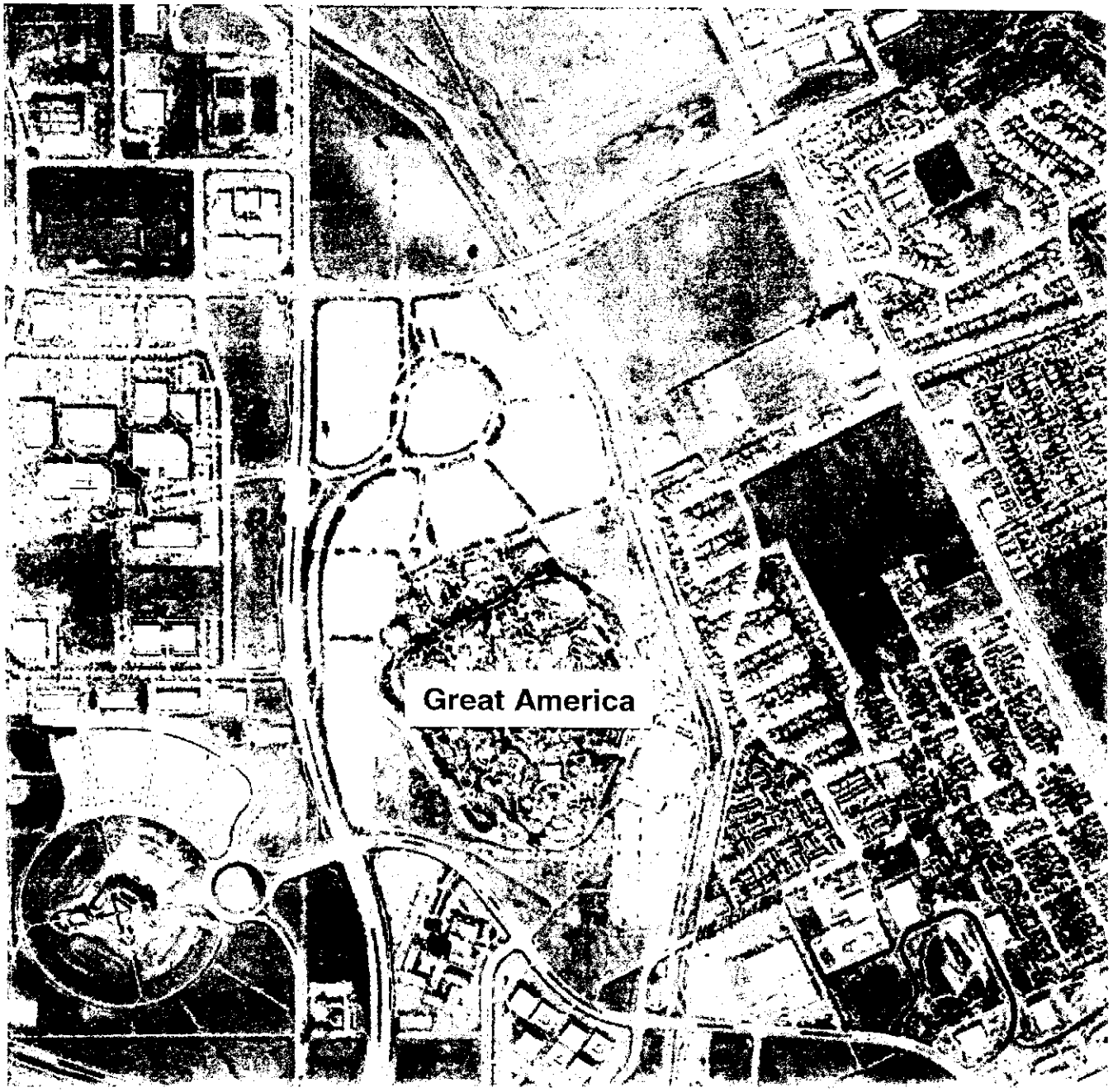

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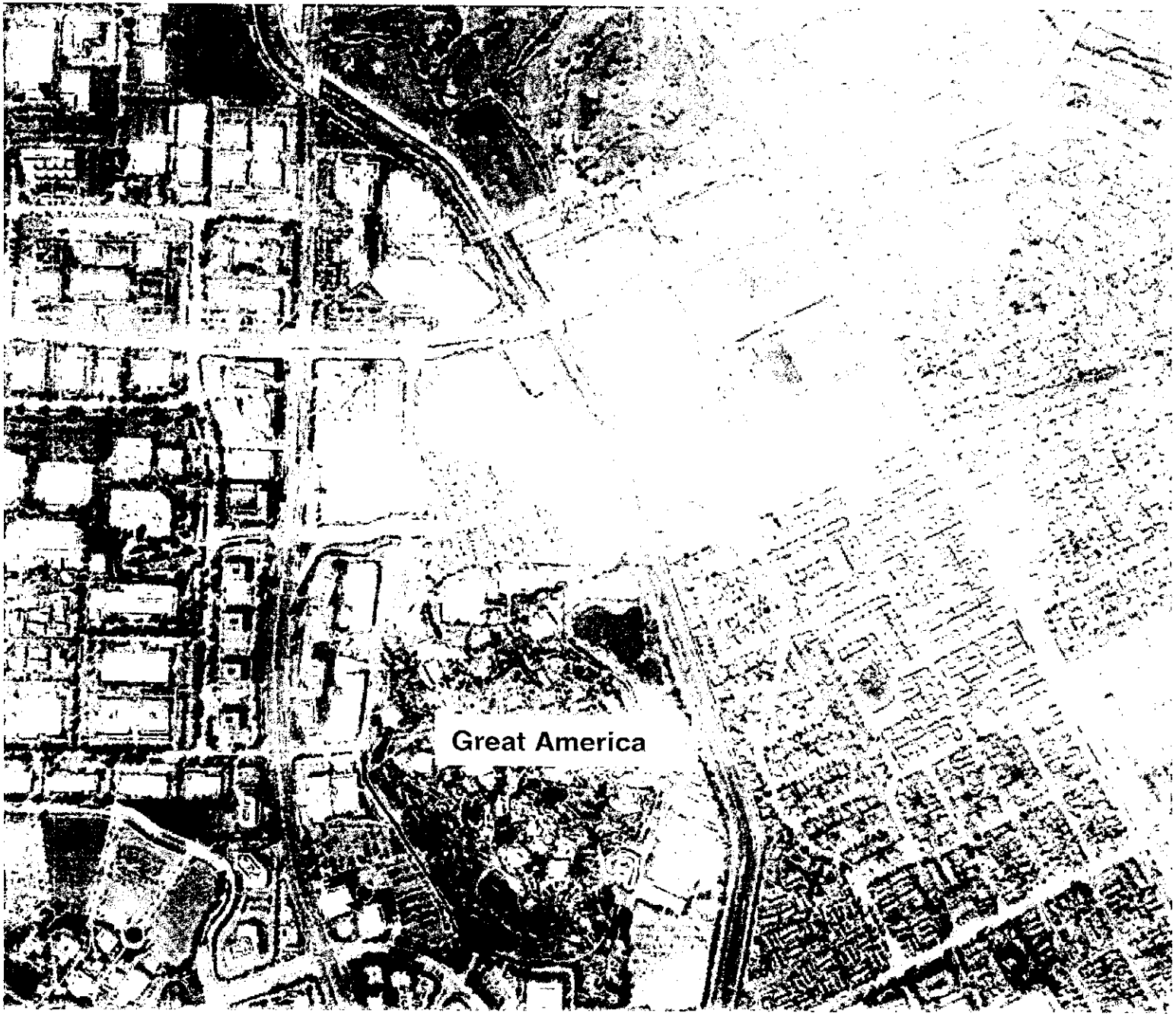
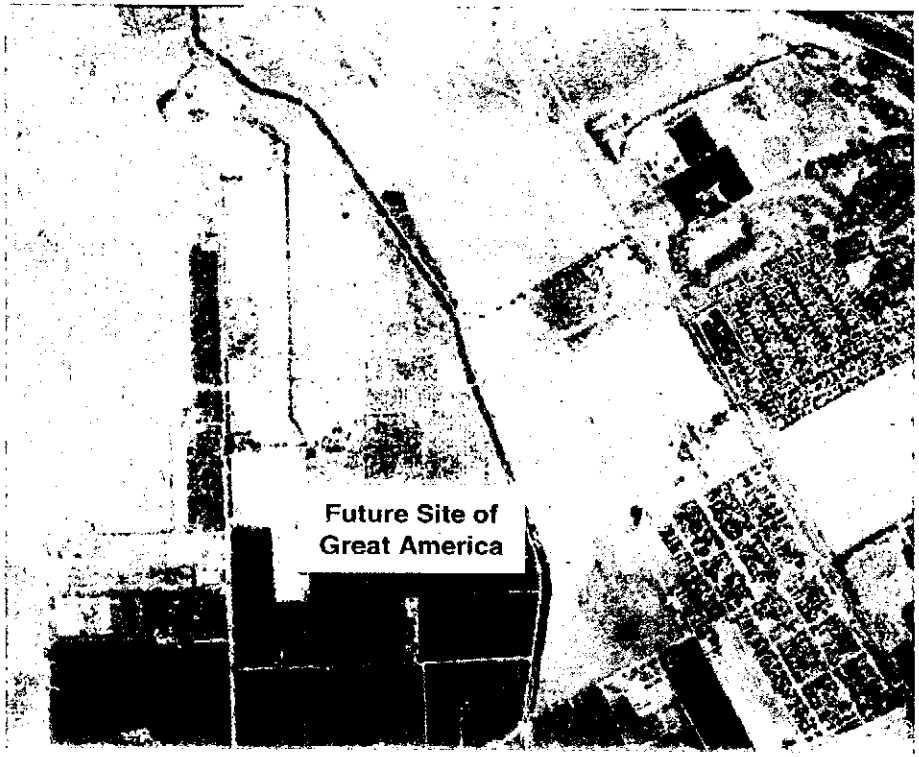
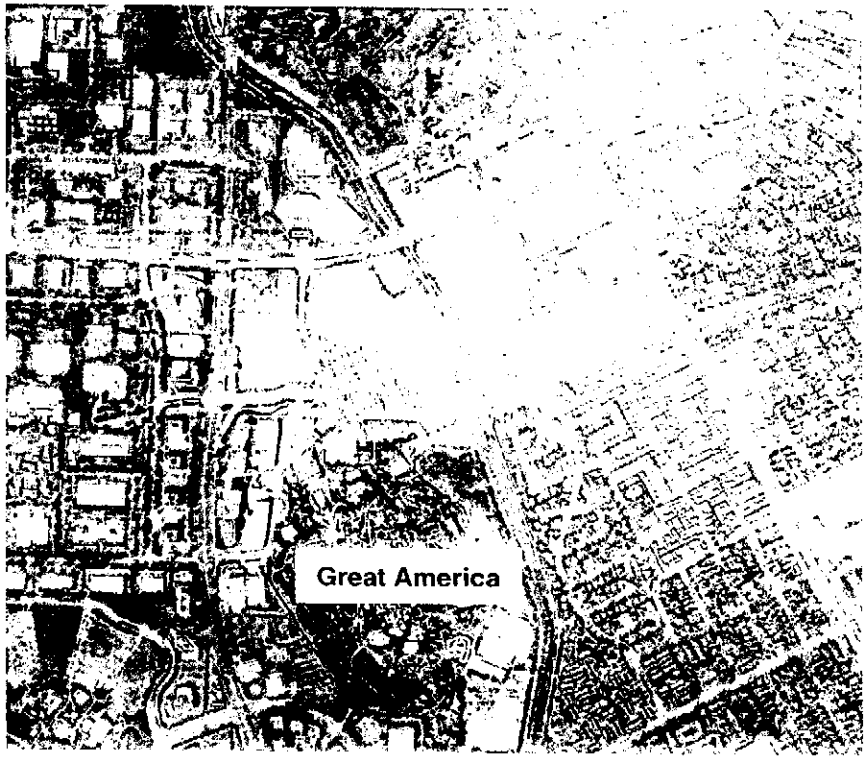




August 1971



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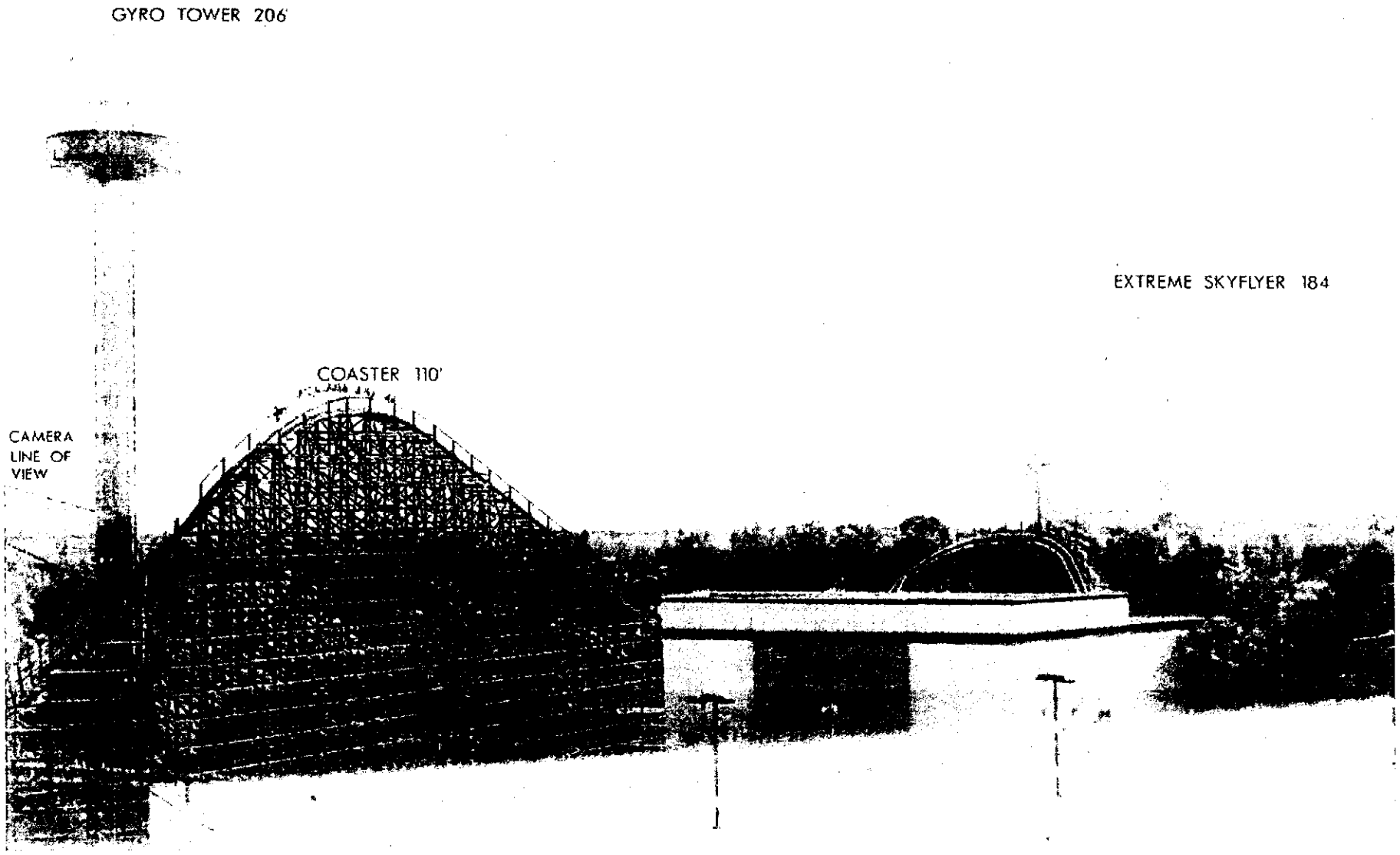
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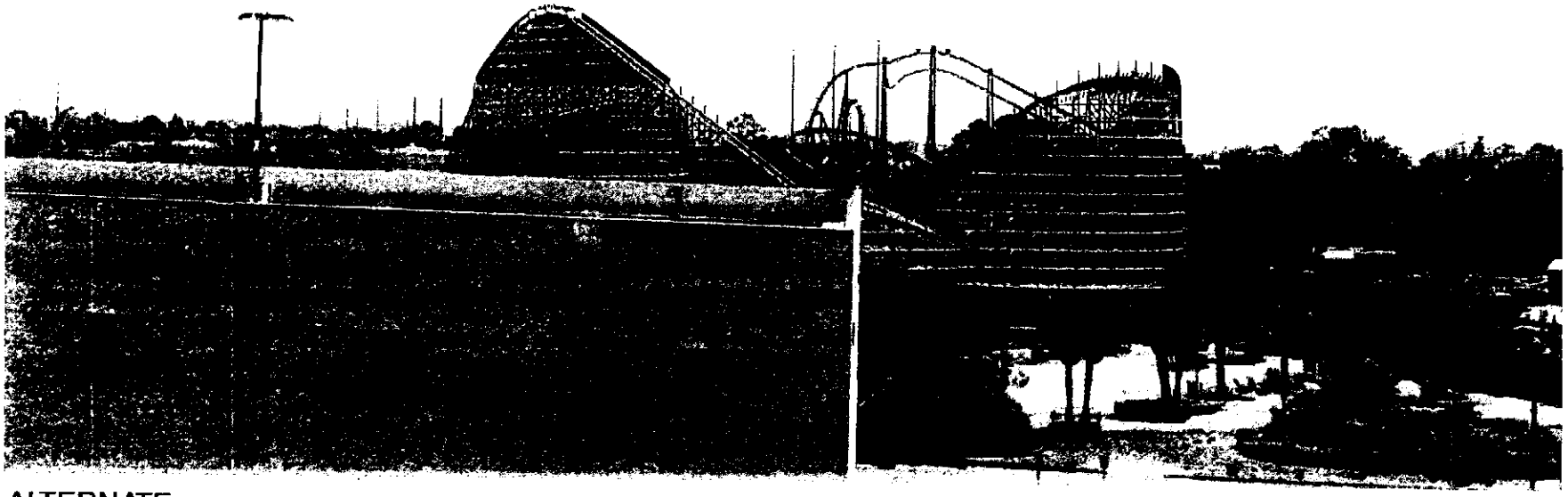
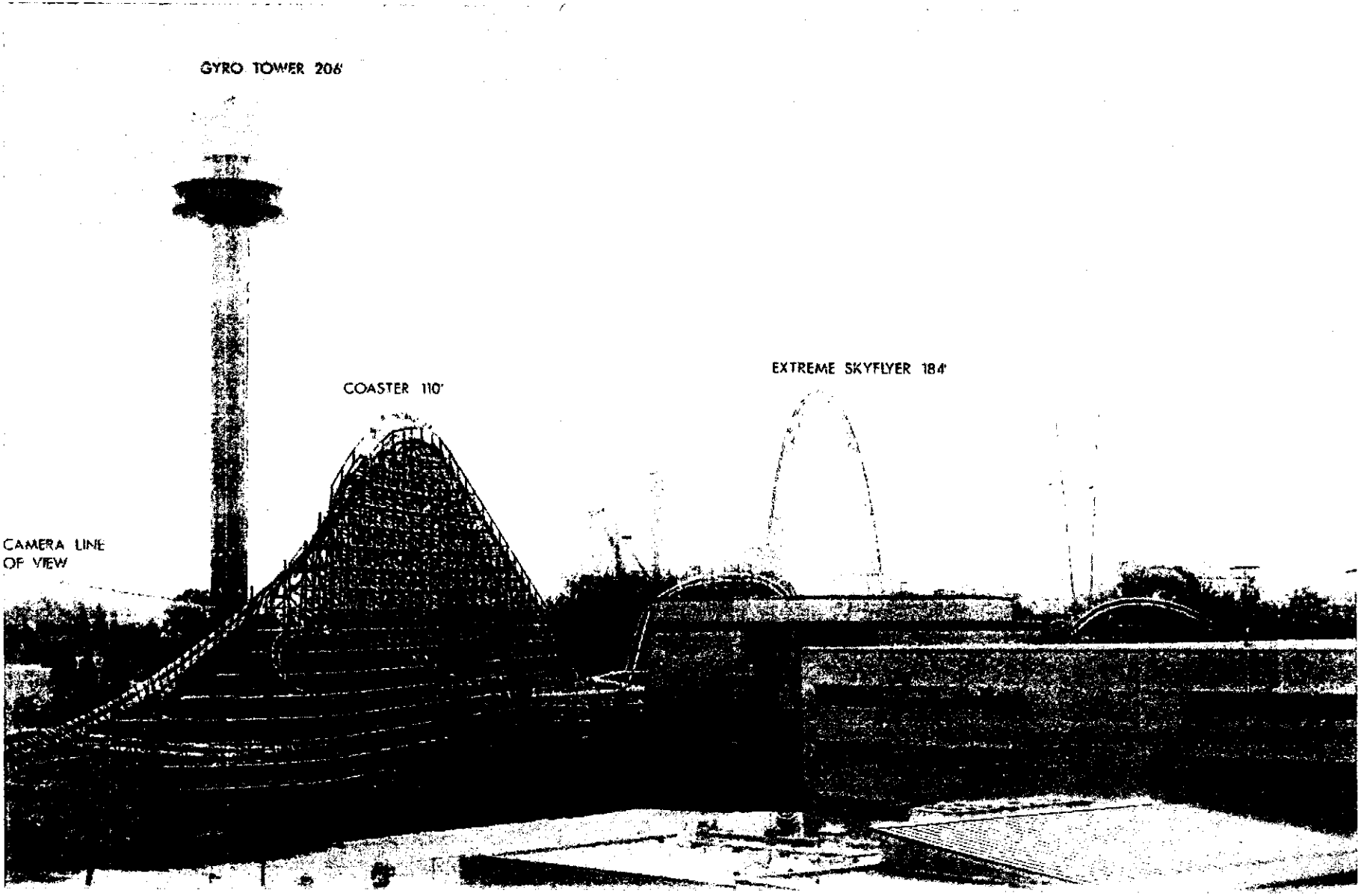
EXTREME SKYFLYER 184
COASTER 110'
CAMERA
LINE OF
VIEW



ALTERNATE
PROPOSED WOODEN ROLLER COASTER
FROM NORTEL OFFICE BUILDING FOURTH FLOOR

DIGITAL IMAGING STUDIO 05/19/2008

LOOKING EAST VIEW-03


GYRO TOWER 206'
COASTER 110'
EXTREME SKYFLYER 184'
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OF VIEW

ALTERNATE

PROPOSED WOODEN ROLLER COASTER
FROM AMD OFFICE FLOOR SIX

DIGITAL IMAGING STUDIO 05/19/2008

LOOKING EAST VIEW-02

Planning Commission
March 12, 2008

PLN2008-06835

Supplemental Information

- March 6, 2008 Letter from Timothy Tosta of Luce, Forward, Hamilton & Scripps LLP, for Prudential Real Estate Investors

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RECEIVED

MAR 07 2008

City of Santa Clara
Planning Division
PLN2008-06835

March 6, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Variance for Great America Roller Coaster Ride**

Dear Chair Champeny and Members of the Planning Commission:

As you know, we represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

On February 13, 2008, the Planning Commission continued its consideration of Great America's variance request for a 111-foot tall roller coaster structure located on the western edge of the property line ("the Project") until March 12, 2008, so that the parties could undertake additional analysis to better understand what potential impacts the Project might have on the Nortel Site. The results of this analysis will be available shortly before the March 12th Planning Commission hearing.

In the meantime, we have had the opportunity to review the City's record for the Great America theme park dating back to the early 1970s. We were astonished to discover that the City has relied on the variance process for height exceptions at Great America for over 30 years without ever considering a comprehensive land use policy for the site that would obviate the need for these ad hoc height exceptions. Accordingly, we believe it is time for the City to abandon this piecemeal approach to zoning and establish a land use regime for the site that promotes informed decision-making by the City, appropriate environmental review, and meaningful participation by the public.

I. Variance Overview

It is well-settled California law that the granting of a variance should be the exception, not the rule, based on the equitable notion that a property owner should be allowed to use his/her property in a manner consistent with the established zoning, but with minor variations that will place him or her in parity with other property owners in the same zone. (Longtin's California Land Use, 2nd edition (1987), 3.70[1]). As such, a variance is a mechanism that should be used **sparingly** by agencies to grant relief under **only truly extraordinary circumstances**.

It appears from our review of the Great America file that the City's variance process as applied to the Great America site has morphed away from this axiomatic rule and now bears no resemblance to variance procedures as required by state law. The City has shifted its emphasis to the unique nature of the Great America **use** as justification for these height exceptions, instead of appropriately focusing on the unique nature of the **property**. In other words, the City's treatment of the Great America site as a "unique use" over the years has resulted in the granting of unique privileges afforded to no other adjacent , code-complying property owners. We offer the following overview to ground the Planning Commission in the proper, legal variance procedures.

A. Statutory Framework

The State Legislature has enumerated the circumstances under which variances should be granted:

> Variances from the terms of the zoning ordinances shall be granted only when, because of special circumstances applicable to the property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

Cal. Gov. Code § 65906.

B. Standards

- Special Circumstance

The establishment of "special circumstances" is a fact-driven exercise that hinges on an applicant's need for some sort of "extraordinary" relief from an existing zoning regime. That is, absent this relief, the applicant would suffer from undue or unnecessary hardship by complying

with the regulations as enacted. (*See, e.g. Stolman v. City of Los Angeles* (2003) 114 Cal. App. 4th 916.)

- Hardship

An applicant also must demonstrate the existence of a sufficient hardship based on a burden to the subject property compared to other parcels in the same zoning district that would justify the issuance of a variance. This requires evidence that strict application of the zoning ordinance deprives the property of privileges enjoyed by other property under identical zoning classifications. In other words, the hardship must derive from disparities between the affected property and other property in the vicinity under the same zoning rules—this hardship cannot be established with the affected property's characteristics in isolation. (*Orinda Assn. v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1166.) Note that mere economic hardship is an insufficient foundation for a variance, as variances should not be sought to insure against financial disappointments or to ensure a financial gain. (*Broadway, Laguna, Vallejo Assn. v. Board of Permit Appeals* (1967) 66 Cal. 2d 767, 774-775.)

- No Special Privilege

A variance must advance parity, not privilege. Section 65906 of the California Government Code expressly provides that variances "shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated." Courts have held that the granting of privilege and not parity seriously undermines a city's effort to regulate uses through comprehensive zoning codes. (*See e.g., Broadway, Laguna*, at 781.)

II. City of Santa Clara's Great America Variance Record

After a thorough review of the Great America files made available to us by the City, we compiled a list of all of the variances that the City has granted to Great America and its predecessors for rides at the theme park since it was first entitled in 1973.

- **February 1973**—Variance to increase height limit from the 35 foot height limit of the CT zone to 100 feet (+65 feet) for entire areas to be annexed from the County (valid until February 28, 1976)[1]

[1] We note here that there is no procedure available under California law that allows for such a "blanket" variance.

- **December 1977**—Variance to increase height limit from 35 feet to 210 feet (+175 feet) for the Sky Trek Tower

- **January 1983**—Variance to increase height limit from 35 feet to 131 feet (+96 feet) for The Edge (aka Freefall)

- **February 1985**—Variance to increase height limit from 35 feet to 80 (+45 feet) feet for Falling Star

- **July 1985**—Variance to increase height limit from 35 feet to 83 feet (+48 feet) for The Grizzly[2]

- **October 1985**—Variance to reduce parking dimensions

- **October 1986**—Variance to increase height limit from 35 feet to 80 feet (+45 feet) for the Looping Starship.

- **March 1988**—Variance to increase height limit from 35 feet to 69 feet (+34 feet) for Flight Trainer

- **August 1989**—Variance to increase height limit from 35 feet to 95 feet (+60 feet) (65 feet) for a steel roller coaster ride

- **May 1991**—Variance to increase height limit from 35 feet to 100 feet (+65 feet) for inverted steel coaster

- **July 1992**—Variance to increase height from 35 feet to 65 feet (+30 feet) for new water ride

- **August 1995**—Variance to increase height from 35 feet to 240 feet (+205 feet) for the Giant Drop

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[2] The Staff Report for July 24, 1985 states that "exceptional and extraordinary circumstances are that the 35 foot height limit established for the CT zone is inappropriate for a roller coaster. Were the property zoned Commercial Park, the height limit would be 150 feet and a variance request would not be required."

- **October 1996**—Variance to increase height from 35 feet to 200 feet (+165 feet) for Skycoaster

- **April 1997**—Variance to increase height from 35 feet to 131 feet (+96 feet) for The Demon[3]

- **May 1997**—Variance to increase height from 35 feet to 200 feet (+165 feet) for Morgan Coaster[4]

We bring this historical perspective to your attention to underscore the reality that, since 1973, the City of Santa Clara has approved roughly 1,300 extra feet of structure above the 35 foot height limit set forth in the CT zoning. Consequently, this improper and abusive use of the variance process has resulted in very real cumulative, physical impacts to Great America's neighbors that cannot and should not be dismissed as "incremental activity" as the City has been doing for decades. Indeed, the 15 variances noted above (and there may be more) suggest that the 35 foot height limit, as it pertains to the Great America site, is not an occasional burden to Great America but rather is an unduly restrictive limitation that should be legislatively adjusted to comport with the park's programmatic realities. Indeed, even though the City seems to recognize that the site is improperly zoned, this reality does not justify the long-standing ad hoc approach, which has undermined the City's ability to effectively regulate land uses for Great America and has eroded the public's confidence in the City's neutrality in the planning process. Consequently, it is time for the City to rezone the Great America site so that the City can undertake informed decision-making, conduct appropriate environmental review, and provide proper notice to the public.

III. Judicial Standard of Review for Findings

California courts have long-established that an administrative grant of a variance must be **accompanied by administrative findings supported by substantial evidence** that shows whether the findings support the conclusion that the variance requirements have been satisfied. (*See, e.g. Topanga Assn for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 514; *Orinda Assn v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1160-1161.) The

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[3] This variance was withdrawn by Great America because the Architectural Review Committee granted Great America permission to utilize the existing variance in place for The Edge, which was approved in 1983.

[4] In April 1997, Sobrato Development and Bay Networks opposed the variance proposal for a roller coaster on the southwesterly periphery of the park because of aesthetic and noise issues and the Planning Commission rejected the variance. Accordingly, Great America moved the ride to a more internal location on the east side of The Demon.

intended effect of this findings requirement is to ensure orderly analysis and to minimize the likelihood than an agency will randomly leap to conclusions. (*Topanga*, at 516.) The Supreme Court in *Topanga* established this standard of judicial review so that courts could understand whether findings issued in connection with a variance approval **bridge the analytic gap between the evidence and the ultimate decision**. (*Id.* at 515.)

The applicant bears the burden of providing evidence to prove the existence of a sufficient hardship that supports an agency's granting of a variance. Importantly, the Supreme Court in *Topanga* declared that courts must meaningfully review grants of variances in order to protect the interests of property owners in the vicinity of the parcel for which a variance is sought. (*Id.* at 517.) The Supreme Court stated further that "[a] zoning scheme, after all, is similar in some respects to a contract; each party foregoes rights to use its land as it wishes in return for the assurance that the use of neighboring property will be similarly restricted, the rationale being that such mutual restriction can enhance total community welfare. If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be the **subversion of the critical reciprocity upon which zoning regulation rests**." (*Id.* at 517-18 [citations omitted].)

We believe that this reciprocity has been destroyed by the City's longstanding reliance on ad hoc variance approvals. A review of past variances granted by the City suggests a constant disregard not only of applicable law but also of residential neighbors' concerns. Past variance actions suggest a rubberstamp approach to practically anything and everything that Great America proposes --simply because the theme park was "there first," a fact not relevant to the variance determination. Thus, the City's variance process for the Great America site has become so flawed that no actual facts exist that would support findings to justify the granting of a variance. Consequently, the City must repair this broken system and bring informed decision-making and public participation back to the planning process.

IV. Suggested Remedies

As discussed above, the zoning of a site provides members of the community advance notice as to the land uses and structures that can be developed there. As such, this zoning shapes property owners' expectations of how they can use and enjoy their property relative to their neighbors, and this reciprocity affects property values. Variances necessarily provide for relief from strict zoning application in extraordinary circumstances, so when the variance process is abused, neighboring property owners are deprived of any certainty as to their land use expectations. Consequently, the City's long-standing reliance on variances for the Great America site amounts not only to ad hoc decision-making but also a "back-door" rezoning, which undermines neighbors' legitimate, investment-backed expectations in their real estate.

We suggest, therefore, that, rather than continuing to allow major deviations from the Commercial Thoroughfare zoning by way of the variance process, the City should reconcile the planning policies and zoning regulations for the Great America site with the established and future development patterns on the site. This long-overdue exercise would make the City's regulations more transparent and consistent, benefiting all members of the community.

We recommend that the City utilize the planning and zoning tools it already has available to it to remedy the situation, such as:

- Adopt a Specific Plan

No further discretionary entitlements should be granted to Great America until the City adopts a specific plan for the site. A specific plan establishes a city's land use policy framework for a particular geographical area. (Curtin & Talbert, California Land Use and Planning Law (2005), 37; Cal. Gov. Code § 65450.) Specific plans must be consistent with the general plan and must include a land use plan, a facilities/infrastructure plan, development standards/criteria, and an implementation program. (Curtin & Talbert, at 37; Cal. Gov. Code § 65451.) Specific plans are appropriate for, and are typically used for, areas with unique or challenging land use issues. (Fulton, Guide to California Planning (1991), 103-105.) Given Great America's pattern of adding new thrill rides every few years, the City should have policies and regulations in place that promote compatibility with surrounding office and residential uses. A specific plan would clarify the intended long-term development program for Great America and its surroundings and establish development standards for better land use compatibility.

- Rezone the Site

Before Great America files for any future entitlements, the Great America site should be rezoned. The existing Commercial Thoroughfare zoning is clearly inappropriate for the Great America site. The zone is intended for relatively small-scale commercial development along major streets, such as El Camino Real and Stevens Creek Road, that require individual automobile access, as opposed to shopping center development. In light of the variances granted for the past 30+ years, the Great America site does not comport with the land uses envisioned for the Commercial Thoroughfare zone.

Moreover, the zoning is inconsistent with the General Plan. The City's current General Plan designates the Great America site for Tourist Commercial use, which calls for hotel, recreation, and tourist-oriented uses and allows structures up to 150 feet in height. Ever since the General Plan was adopted in July 2002, however, the Great America site has remained zoned Commercial Thoroughfare, which does not allow amusement parks and has a height limit of 35

feet.[5] It is well established under California law that a municipality's zoning must be consistent with its General Plan. (Curtin & Talbert, at 44-46.) Consequently, the City should rezone the Great America site to bring it consistent with the Tourist Commercial designation. The City has available options for such a rezoning exercise:

- Commercial Park Zoning. The Commercial Park zone allows tourist-service commercial development, such as hotels, restaurants, and recreational facilities, in locations with highway access; structures up to 150 feet tall are permitted. (Santa Clara Zoning Ordinance §§ 18.42.030, 18.42.040, 18.42.070.) As noted above, in the findings adopted for a 1985 Great America height variance approval, the City stated, "Were the property zoned Commercial Park, the height limit would be 150 feet and a variance request would not be required." This statement suggests that the City may have previously contemplated rezoning the site to Commercial Park. Although the Commercial Park zone does not specifically allow amusement park uses, a simple text amendment could overcome this problem. (*Id.* §§ 18.42.030, 18.42.040.)

- Commercial Recreation Zoning. The Commercial Recreation zoning, which permits amusement park uses without any height limit, appears in the zoning ordinance but does not currently appear anywhere on the City's zoning map. (*Id.* §§ 18.44.030, 18.44.040.) This zoning designation is an obvious choice for the Great America site, although the City might want to establish a height limitation in order to ensure compatibility with surrounding office and residential uses.

- Planned Development Zoning. As an alternative to generic zoning, Great America could submit an application to rezone the site for Planned Development - Master Community. (*Id.* §§ 18.56.) As noted in the Zoning Ordinance, the PD-MC designation is appropriate for large-scale development sites with a mix of uses that will be developed in phases. (*Id.* § 18.56.020.) As part of the application process, the property owner would have to prepare and submit a master community plan that would specify the permitted land uses and the development program.

[5] Elsewhere in Santa Clara, the Commercial Thoroughfare zone appears on small commercial parcels fronting on El Camino Real and Stevens Creek Boulevard; thus it is peculiar that the Great America site is categorized with such dissimilar commercial parcels.

- Require a Campus Master Plan

In addition to adopting a specific plan and rezoning the site, the City could adopt a policy requiring entities with large campuses, including Great America, to prepare and submit to the city a Campus Master Plan. The campus master plan requirement could be closely modeled after the City of San Francisco's Institutional Master Plan requirement, which was adopted in the 1970's to place residents on notice of the expansion plans of major institutional facilities. (San Francisco Planning Code § 304.5.) In the plan, Great America would be required to identify and describe any facility expansions or alterations being planned for the next 10 to 20 years, and since facility plans may evolve over time, regular updates would have to be submitted.

V. Conclusion

Based on the foregoing, we believe that the City has useful tools at its disposal to create a comprehensive, transparent land use framework for the Great America site. The time is ripe for this thorough review because of the dramatic changes to the environment since the site opened in the 1970s and especially in light of future development proposals on the horizon in the vicinity.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta /JR

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Members of the City Council

301032567.3

CITY COUNCIL MEETING OF JULY 8, 2008

ADDITIONAL ITEMS RECEIVED FOR THE
NEW ROLLER COASTER RIDE AT
GREAT AMERICA THEME PARK
PLN2008-06835

1. June 3, 2008 – Letter and attachments from Marc Papineau Re: Responses to Comments of Mr. Timothy Toasta at Public Hearing of May 28, 2008

2. June 26, 2008 – Letter and attachments from Wendel, Rosen, Black and Dean, LLP (Les Hausrath) addressed to the Mayor, City of Santa Clara, Re: Great America Variance Application

3. June 27, 2008 – Letter and attachments from Luce Forward, Re: Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride – File No. PLN2008-068935

4. July 2, 2008 – Letter and attachment from Luce Forward, Re: Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride – File No. PLN2008-06835

5. July 3, 2008 – Letter and attachment from Wendel, Rosen, Black and Dean, LLP (Les Hausrath) addressed to the Mayor City of Santa Clara, Re: Appeal of Great America Variance Application

10 Years 1995 - 2005

environmental service

by Papineau, R.E.A. 791

June 3, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: **Responses to Comments of Mr. Timothy Tosta at Public Hearing of May 28, 2008, and Charles M. Salter Associates Letter dated May 22, 2008, in Regard to the Proposed New Wooden Coaster at California's Great America (Project 2007-045.06)**

Dear Mr. Schwilk:

This letter was prepared to respond to oral statements by Mr. Timothy Tosta at the Public Hearing on May 28, 2008, File PLN2008-06835, and written comments by Charles M. Salter Associates Inc. in a letter dated May 22, 2008. For simplicity, the acoustical consultant for Prudential/Nortel is identified as CMS and the acoustical consultant for Great America is identified as GA's consultant.

Public Testimony, May 28, 2008

Mr. Timothy Tosta in public testimony at the Public Hearing held on May 28, 2008, asserted as follows:

1. That there's a huge difference between the coaster noise level predictions by CMS and GA's acoustical consultants owing to error or willful misrepresentation by GA's consultant.

2. That the Menge paper is a public domain document, that the Menge paper was provided by GA's consultant, and that after providing the Menge paper as a source of unbiased data on rider screaming, GA's consultant--seeing unfavorable results--reversed and used the alternative measurement results of Ozark "Mountain" [sic] or Kentucky Rumbler.

3. That noise added by the proposed coaster would be substantial and would be unusual for the Nortel property and its zoning.

4. That there would be no mechanism for dealing with noise at the property line that exceeded 75 dBA and that even 75 or 76 dBA could cause a disturbance impact inside the Nortel offices.

5. That scream noise would be unusual, loud, and disturbing inside the offices, and that it could be so in particular owing to the "startle response" and/or similar "psycho-acoustical effects."

In short, his assertions sum to a picture that GA's consultant has intentionally, willfully mislead the City of Santa Clara by understating rider scream noise. According to Mr. Tosta, the rider scream noise is unusual, different from the existing ambient noise environment, and potentially disturbing. GA's consultant disagrees with each and every of his assertions.

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In response GA's consultant offers the following information, based on previous documentation or file notes.

1. The difference between CMS and GA's consultants at last iteration was about 5 dBA in terms of indoor Lmax caused by the coaster. CMS and GA's consultants agreed that the windows provide about -32 dBA outdoor-to-indoor reduction and that room absorption in the strip of space nearest the windows provides another -4 to -5 dBA reduction. CMS used a higher rider scream level--about 93 dBA at 50 feet--compared to GA's value of about 88 dBA at 50 feet. These are the levels at the 50-foot reference distance before standard adjustments for spreading loss. CMS and GA's consultants disagreed on this one assumption.

   GA's consultant knows that CMS applied a higher rider scream noise level for the arbitrary reason of adding a +5 dBA engineering margin. However, as presented by Mr. Tosta during his testimony on May 28, his assertion is not that CMS added a margin but that the Menge paper provides a fundamentally different rider scream reference level and that GA's consultant has erred or willfully misrepresented the true rider scream noise level by not using Menge's published data. GA's consultant disagrees because Menge's paper has been used and carefully reconciled with the current assessment.

2. The Menge paper presents variable rider scream noise levels and evaluates only steel coasters. GA's consultant did use the Menge paper and, together with the Menge paper, GA's consultant provided CMS with a rider scream noise spectrum for a reference distance of 50 feet.

   The rider scream level spectrum sent by email to CMS by GA's consultant as part of the joint Sound Study Protocol was reconciled with GMH Engineering's noise measurement data for the Kentucky Rumbler and Ozark Wildcat. The rider scream level spectrum sent by GA's consultant to CMS falls within the range of the two levels described by Menge as "much screaming" and "some screaming." Maximum rider scream noise levels,--labeled as "much screaming" in Menge's paper,--were measured for overhead riders who were directly facing the microphone. The spectrum sent by GA's consultant to CMS was neither at the high end nor at the low end of Menge's published range, but was in the middle and is consistent with GMH Engineering's measurements of two wooden coasters.

   The "much screaming" levels reported by Menge were noted by Menge as being measured during directly overhead during coaster passbys with riders facing the microphone directly face-on. GA's consultant did not use the highest noise levels for overhead passbys, directly face-on screaming, because the proposed wooden coaster would not be oriented that way relative to the Nortel buildings. The proposed coaster also would be wooden, not steel. GA's consultant used an intermediate rider scream spectrum (between the two levels reported by Menge) because the intermediate spectrum is consistent with GMH Engineering's measurements of the Kentucky Rumbler and Ozark Wildcat--both wooden coasters.

3. The proposed wooden coaster would introduce maximum noise levels (Lmax) on the Nortel property but not at higher levels than theme-park related Lmax prevailing in 2000 (60-74 dBA). This prevailing range is from the year-2000 EIR prepared for the Nortel Networks

offices. The proposed wooden coaster could result in Lmax of 74-75 dBA at the shared property line. At the shared property line the frequency (number of times per hour) that Lmax equals 74-75 dBA could potentially increase compared to existing frequency. However, on the Nortel property near the buildings, the future theme-park related noise level, after addition of the proposed wooden coaster, is projected to remain in the prevailing range of 60-74 dBA.

4. GA's consultant does not believe Lmax equaling 75 dBA, or even 76-77 dBA, at the property line would cause a disturbance inside the Nortel offices. GA's consultant does not view 75 dBA as a critical analysis "edge" except in the particular sense of compliance with the City of Santa Clara's Municipal Code. Factually, a one decibel difference is not a perceptible change. For discussion of office disturbance, the relevant Lmax is the Lmax incident on the building skins, not the Lmax at the property line.

   Rider scream levels incident on the Nortel building skins of 66 dBA outdoors would be reduced to 29 dBA indoors. For argument, even if one applies the CMS-assumed rider scream level that includes a +5 dBA engineering margin, rider scream levels incident on the Nortel building skins of 71 dBA outdoors would be reduced to 34 dBA indoors. A sound level of 29 dBA is like a soft whisper. A sound level of 34 dBA is louder than a whisper, but it is similar to the background noise in the unoccupied Nortel offices and would be quieter than background noise in an occupied office.

5. GA's consultant questions the entire "psycho-acoustic" claim--so far it has been a rhetorical device and has not been advanced to a technical level of detail. GA's consultants question specifically that noise levels 29-34 dBA could be startling. A train horn (104 dB at 100 feet distance), a rifle shot (120 dB at 300 feet distance) or a scream (99 dBA at 25 feet distance), under the certain circumstances, might be. Impulsive sounds (*e.g.*, gunfire) or other sudden loud sounds (*e.g.*, train horns) can produce a startle response that does not completely habituate even with repeated, predictable exposures. The expected rider scream noise is not technically impulsive noise, and also is not expected to be otherwise characterized as sudden or loud indoors. See #4.

CMS Letter, May 22, 2008

CMS in its letter dated May 22, 2008, asserts that the rider scream noise presented by Christopher Menge and GA's consultant/GMH Engineering is contradictory and asserts that rider scream noise could be 14 decibels higher than reported by GA's consultant. For Menge's work on a variety of steel coasters, the rider scream Lmax range is 6.5 dBA, ranging from what Menge labels as "some screaming" (83 dBA) to "much screaming" (90 dBA). The maximum value in the range reported by Menge was for face-on screaming by overhead riders. Rider screams for the steel coasters measured by Menge added +4 to +9 dBA to the empty-car Lmax (see attachment).

The proposed wooden coaster ride will not have face-on screaming by overhead riders; therefore, GA's consultant used a middle value and not the maximum value of the range reported by Menge for steel coasters. Choice of the midpoint value by GA's consultant also is consistent with measurements of the Kentucky Rumbler or Ozark Wildcat, which show that riders on those wooden coasters added less than +3 dBA to the empty-car Lmax. GA's consultant used a middle value between 83 dBA and 90 dBA, which is within Menge's 6.5 dBA range. The suggestion there could be a 14 decibel spread in the assessment of rider scream noise simply is untrue.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find this letter response to be fully explanatory and useful. We also hope you will include this letter in the project file (File PLN2008-06835). Please let us know if you have any further questions or require additional documentation.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: Excel Spreadsheet Showing Menge's Data Reduced to Rider-Only Scream Noise

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz	A-Weight Correction	PASSBY Lmax LEVEL (dBA) Much	Mid	Some	Empty Car dBA	Calculated Lmax
50	-30.2	46	44	42	42	15849
63	-26.2	54	53	53	53	199526
80	-22.5	60	59	57	57	501187
100	-19.1	65	64	64	63.5	2238721
125	-16.1	64	63	61	61	1258925
160	-13.4	70	69	69	68.5	7079458
200	-10.9	72	71	71	71	12589254
250	-8.6	72	72	72	72	15848932
315	-6.6	73	72	71	71	12589254
400	-4.8	72	71	70	69	7943282
500	-3.2	70	70	70	70	10000000
630	-1.9	73	72	71	71	12589254
800	-0.8	75	74	74	74	25118864
1000	0	82	79	71	71	12589254
1250	0.6	86	83	79	71	12589254
1600	1	84	81	80	71	12589254
2000	1.2	79	76	75	67	5011872
2500	1.3	80	77	73	67.5	5623413
3150	1.2	71	71	69	63	1995262
4000	1	73	70	66	62	1584893
5000	0.5	65	65	65	58	630957
6300	-0.1	59	59	58	53	199526
8000	-1.1	56	55	55	51	125893
10000	-2.5	50	49	49	45	31623
						75517175
		At 15 m (50 feet)		800-3150 Hz		78.8
		At 15 m (50 feet)		50-10000 Hz		82.1

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz	Train + Rider Lmax			A-Weighted Train + Rider			Empty
	Much	Mid	Some	Much	Mid	Some	Car
50	43.8	39.7	22	39811	25119	15849	15849
63	47.1	33	33	251189	199526	199526	199526
80	57	54.6	37	1000000	794328	501187	501187
100	59.6	54.3	54	3162278	2511886	2511886	2238721
125	61	58.7	41	2511886	1995262	1258925	1258925
160	64.5	60	60	10000000	7943282	7943282	7079458
200	65.1	51	51	15848932	12589254	12589254	12589254
250	52	52	52	15848932	15848932	15848932	15848932
315	68.6	65.1	51	19952623	15848932	12589254	12589254
400	69	66.7	63	15848932	12589254	10000000	7943282
500	50	50	50	10000000	10000000	10000000	10000000
630	68.6	65.1	51	19952623	15848932	12589254	12589254
800	68	54	54	31622777	25118864	25118864	25118864
1000	81.6	78.2	51	158489319	79432823	12589254	12589254
1250	85.9	82.7	78.3	398107171	199526231	79432823	12589254
1600	83.8	80.5	79.4	251188643	125892541	100000000	12589254
2000	78.7	75.4	74.3	79432823	39810717	31622777	5011872
2500	79.7	76.5	71.5	100000000	50118723	19952623	5623413
3150	70.3	70.2	72.5	12589254	11220185	7943282	1995262
4000	72.6	69.2	63.8	19952623	10000000	3981072	1584893
5000	64	64	64	3162278	3162278	3162278	630957
6300	57.7	57.7	56.3	794328	707946	630957	199526
8000	54.3	52.8	52.8	398107	316228	316228	125893
10000	48.3	46.8	46.8	100000	79433	79433	31623
				1031429987	531320085	276659624	75517175
At 15 m (50 feet)	800-3150 Hz			90.1	87.3	84.4	78.8
At 15 m (50 feet)	50-10000 Hz			90.7	88.1	85.7	82.1

TEST CALCULATION TOOL		
Enter 1	Enter 2	SUM
83.5	82.1	
2E+08	1.62E+08	85.87

NOTES:

1. In C. Menge's paper, rider scream noise dominates empty car noise. The rider scream Lmax range is 83.5-90 dBA for what Menge labels as much screaming (90 dBA) or some screaming (83.5 dBA). This large a range is not evident in measurements of the Kentucky Rumbler or Ozark Wildcat. For those coasters, riders increased empty-car Lmax by less than +3 dBA.

2. The blue columns contain interpolated values.

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002
APPLICABLE TO STEEL COASTERS

Hz		A-Weighted Rider Scream		
		Much	Mid	Some
50		23988	9333	158
63		51286	1995	1995
80		501187	288403	5012
100		912011	269153	251189
125		1258925	741310	12589
160		2818383	1000000	1000000
200		3235937	125893	125893
250		158489	158489	158489
315		7244360	3235937	125893
400		7943282	4677351	1995262
500		100000	100000	100000
630		7244360	3235937	125893
800		6309573	251189	251189
1000		144543977	66069345	125893
1250		389045145	186208714	67608298
1600		239883292	112201845	87096359
2000		74131024	34673685	26915348
2500		93325430	44668359	14125375
3150		10715193	10471285	17782794
4000		18197009	8317638	2398833
5000		2511886	2511886	2511886
6300		588844	588844	426580
8000		269153	190546	190546
10000		67608	47863	47863
		957953635	454544422	213905255
At 15 m (50 feet)	800-3150 Hz	89.8	86.6	83.3
At 15 m (50 feet)	50-10000 Hz	90.0	86.8	83.5

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July 2, 2008

VIA ELECTRONIC MAIL

Patricia M. Mahan, Mayor
and Members of the City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride—File No. PLN2008-06835**

Dear Mayor Mahan and Members of the City Council:

As you now know, we represent The Prudential Insurance Company of America ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). On June 3, 2008, we appealed the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of an 111-foot high wooden rollercoaster on May 28, 2008 ("Project"). On June 27, 2008, we submitted a letter to the City Council in support of our appeal. That same day, we received a copy of Les Hausrath's letter on behalf of Great America opposing our appeal, as well as Marc Papineau's "Responses to Comments of Mr. Timothy Tosta" dated June 3, 2008.

We provide this supplemental letter to respond to certain points raised by both Mr. Hausrath and Mr. Papineau.

Briefly, a categorical exemption for the Project is inappropriate:

1. The addition of a new 111-foot tall rollercoaster to the last remaining undeveloped area is an **expansion and intensification** of the park's use, **falling outside of the categorical exemption**, which limits itself to "normal operations."

2. The **screaming noise** from the rollercoaster is so unique that it rises to an "**unusual circumstance**" relative to its immediate environment—rendering a categorical exemption legally unsupportable.

3. Christopher Menge, the author of the much-discussed "Menge Report," has reviewed the Great America acoustical analysis submitted for the Project and concludes that the **screaming noise will be significantly higher than predicted** by Great America's consultants—thereby establishing a "reasonable possibility" of a significant noise impact on the environment. (See Exhibit A.)

Finally, we remind the City Council that the four **variance findings** set forth in the City's Municipal Code **must be supported by substantial evidence**, which still does not exist in this record.

Accordingly, we respectfully request that the City Council uphold our appeal and overturn the Planning Commission's approval of the Great America variance.

I. **Categorical Exemption**

The California Environmental Quality Act ("CEQA") requires that all expansions of existing uses and facilities undergo environmental review—except for negligible expansions. Great America seeks to construct a 111-foot tall rollercoaster in its last remaining undeveloped area of the theme park. Great America and City staff maintain that this addition to the park is a "normal operation" for purposes of the Class 23 categorical exemption. We stress here, however, **a significant expansion** of existing uses **cannot fall within the ambit of "normal operations"** and is not exempted from environmental review. Indeed, as depicted in the aerials attached to our June 27th letter, the Great America site has been allowed to expand by over 30% since it was approved in 1973 with no additional environmental review. Great America now seeks to expand again. Its proposal for such a significant addition in close proximity to its neighbors is not "negligible." Nor can it be justified by the fact that the park has evaded environmental scrutiny in past expansions.

A. **Noise Impacts**[1]

Christopher Menge of Harris Miller Miller & Hanson Inc., the author of the Menge Report published for Inter-Noise 2002,[2] is the nation's leading acoustical expert on noise generated by entertainment and amusement facilities. Prudential retained Mr. Menge to review the acoustical assessments provided by Great America, particularly since Great America relied on Mr. Menge's work, in part, in reaching its conclusions. Mr. Menge provides critical insight into the reliability of the Great America noise assessments. Mr. Menge finds:

- The **Great America analysis is unsupported by documentation**, which renders the noise measurements **unreliable** and the **conclusions vulnerable** to **significant error.**

- Because Great America chose to report notably lower noise levels than Menge's published levels, **the actual rollercoaster noise from the Project could exceed the City's maximum noise limits** at both the **residential property line** to the east and the **commercial property line** to the west. The result:

  - Rollercoaster **noise would be very audible outdoor at adjacent residences**, particularly on quiet evenings.

  - **The impact of the coaster operation within the offices** on the Nortel Site **could be audible and intrusive.**

- By choosing an average rather than the highest sound levels from rider screams, the **Great America approach does not account for the potential that the property line noise limit could be exceeded regularly.**

- The June 3, 2008 **Papineau letter does not state the correct noise levels** that are provided in Menge's Inter-Noise paper.

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[1] In Section II.A. of his letter, Mr. Hausrath continues to mischaracterize the basis upon which Prudential claims an exception to the categorical exemption applies to the Project: "... the placement of a tall rollercoaster near an office building constitutes an 'unusual circumstance.'" In fact, as seen on Page 2 of our June 27th letter, we contend that "**the proximity between the Project and the Nortel Site gives rise to an unusual circumstance because of the psycho-acoustical impacts associated with screaming.**" It is the proximity and the unique nature of screaming that makes the exception to the exemption stand.

[2] "Residential impact criteria and abatement for roller coaster noise," paper no. 598, proceedings of Inter-Noise 2002, International Congress and Exposition on Noise Control Engineering, Dearborn, MI, USA, August 19-21, 2002.

- **Great America underestimates total noise level** and potential Lmax at the property line;

- Consequently, Great America's analysis **incorrectly computes low levels for the screaming condition.**

- Great America provides **no basis for the assumption** that **scream sounds would be significantly lower from a wooden coaster** than from a steel coaster.

The nation's leading expert in the field of entertainment acoustics is advising this Council that the acoustical analysis provided by Great America is seriously flawed and unreliable. He confirms not only Mr. Salter's predicted disruption from the rollercoaster's screaming noise to Nortel office occupants, but also points out that disruptive noise likely will reach residents on the east side of the park. Finally, he predicts that the screaming may well exceed the City's noise standards on both sides of the park. Based on the unique quality and impact of human screaming and the combined Salter/Menge findings of this potentially significant impact, the categorical exemption is legally unsupportable.

B. **Visual Impacts**

In Section II.C. of his letter, Mr. Hausrath dismisses Prudential's concerns about visual impacts to the Nortel Site based on views. The fact, however, that Great America is located in a CT zone with a 35-foot height limit creates certain expectations about the proximity of large and imposing structures next to its neighbors. Visual impacts are **not limited to views**. Here, Great America proposes to locate an **imposing and peculiar structure** immediately adjacent to the Nortel Site. Based upon the **35-foot height limit in the CT zone**, Prudential has every right to expect that it will not be physically encroached upon by massive structures. Moreover, the imposition of this odd and looming structure is further animated by moving parts and accompanied by disruptive screams. This Project is a **visual disruption**. It creates a visual environmental impact.

II. <u>Variance Findings</u>

In Section II.D. of his letter, Mr. Hausrath contends that the Planning Commission's variance determination and related findings are "fully supported both legally and factually." He then suggests that the City's variance ordinance somehow affords a broad degree of flexibility in the grant of variances. Mr. Hausrath errs on two counts. First, the City's variance ordinance parallels State law and, by extension, California case law. Its differences reflect no divergence in policy from State law, but rather choices of similar, but not identical, words. Second, Mr.

Hausrath ignores the reality that the City still must strictly adhere to the variance rules set forth in its own Municipal Code. In other words, this "flexibility" does not excuse the City of its obligation to make the four findings set forth in Section 18.108.040. Moreover, a grant of a variance must be accompanied by **findings supported by substantial evidence that shows whether the findings actually support the conclusion that the variance requirements have been satisfied**. (See Topanga Assn. for a Scenic Community v. County of Los Angeles (1974) 11 Cal. 3d 506, 517-18 ("Topanga")). We briefly discuss each finding in turn.

A. **Unusual Conditions**

Mr. Hausrath argues in a circle. He contends that tall structures are unique to the park (even though all are a consequence of prior variance approvals); therefore, there is an unusual condition. Stated differently, the logic is "the more variances, the more unusual the condition." But you cannot sustain an "unusual condition" on the foundation of variances from zoning standards.

Rather, the City must find that the **property**, upon which the Project is to be built (not its improvements), has an "unusual condition" such that adherence to the 35-foot height limit would result in a hardship for Great America. That evidence simply does not exist.

B. **Substantial Property Rights**

This finding rests on the determination of whether strict adherence to the 35-foot height limit would interfere with Great America's enjoyment of a substantial property right. There is no evidence anywhere in this record that supports the notion that, absent this particular variance, Great America will suffer any degradation of its property rights. Again, Mr. Hausrath argues in circles. Because Great America has been granted so many variances, it has sustained its economic viability. By his logic, these variances have somehow evolved into a "right" that gives rise to justification for even more variances. Nonsense. Great America has not earned a "right" to a competitive edge in the marketplace by imposing multiple looming projects on its neighbors.

C. **Adverse Effect**

Here, the City must have credible evidence that supports the finding that the variance will not adversely affect the peace and comfort of persons residing or working in the neighborhood. Both Charles M. Salter Associates and Christopher Menge have suggested quite the opposite. Their work substantiates that the Project could result in a material, adverse effect to neighbors. No credible, independent, or reliable evidence exists in the record to support a finding to the contrary.

D. **Consistency with Zoning**

Mr. Hausrath is correct here when he says that "the object of the zoning ordinance is to ensure the compatibility of uses within particular zoning districts." But his argument becomes creative when he suggests that the park has co-existed peacefully with its neighbors over the past 32 years and that, therefore, the use is consistent with the neighboring uses. Compatibility with surrounding uses is grounded in **conformity with the existing zoning**—not on a pattern of multiple variances. In fact, Mr. Hausrath's argument here shows how both the City and Great America have come to perceive the variance process as zoning itself, disregarding the basic CT zoning, which actually binds the use relationships in the area.

III. **Conclusion**

At some point, the "mind" is aided by the "gut" in decision making. It is helpful to have the facts supporting you. And, you have them here. This Project should be stopped. It has not been well thought out. It has been rushed through the process. Stopping the Project now means that the City will avoid costly litigation from the community and the need to fix something that never should have been built in the first place. We trust you will overturn the variance and send Great America back to do a better job.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachments

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Carol Anne Painter
Helene Leichter
Tina Wallis

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Privileged and Confidential Communication – Attorney-Client Work Product

MEMORANDUM

To: Timothy Tosta, Esq., Luce, Forward, Hamilton & Scripps LLP
From: Christopher Menge
Subject: Review of Cedar Fair's Great America roller coaster proposal noise issues
Reference: HMMH No. 302960
Date: July 2, 2008

Harris Miller Miller & Hanson Inc. (HMMH) was retained by Luce, Forward, Hamilton & Scripps LLP to review noise-related documents pertaining to the potential for noise intrusion by roller coaster noise onto the property and into the interior office spaces of the buildings at 4555 and 4655 Great America Parkway, also known as the Nortel buildings. This memorandum summarizes our opinions regarding the noise analyses conducted and reported by Papineau, R.E.A. ("Papineau"), and by Charles M Salter Associates Inc. ("Salter"). We have reviewed noise-related reports and letters dated between Jan. 15, 2008 and May 22, 2008, as well as excerpts of the Nortel Networks Inc. Great America Parkway Project Draft EIR, dated Feb. 2000. At the end of this memo, we provide comments on the Papineau letter dated June 3, 2008.

Summary conclusion

A primary concern about the conclusions of the Papineau analysis is that the projected noise levels are based on roller coaster reference noise data that 1) are unsupported by documentation, and 2) report notably lower levels than the reference data acquired by HMMH and published in our 2002 Inter-noise paper.[1] Should the actual noise emissions of the proposed roller-coaster be equal to the average of the roller-coaster pass-by noise levels published in the Inter-noise paper, the (ambient-increased) maximum limits in the Santa Clara Municipal Code would be exceeded by several decibels at both the commercial property line at the west and the residential property line to the east of the site. Also, maximum roller coaster noise events inside the nearest offices at the upper floors of 4555 and 4655 Great America Parkway could exceed the quiet background of those offices by up to 10 dBA or more, representing frequent, clearly audible and potentially distracting events. For reference, an increase of 10 dBA is generally heard as a doubling in loudness.

We conclude that it is likely that the negative impact of noise from the proposed roller coaster, rider screaming in particular, will be more significant that it is predicted to be and characterized in the Papineau analyses. We further conclude that there is potential for the

[1] "Residential impact criteria and abatement strategies for roller coaster noise," paper no. 598, proceedings of Inter-Noise 2002, International Congress and Exposition on Noise Control Engineering, Dearborn, MI, USA, August 19-21, 2002.

noise impact to be much more significant than reported, depending on the reliability of the unsupported GMH reference data.

Roller coaster reference noise levels

The April 14, 2008 Papineau letter report states that the reference total pass-by noise emission level used in the noise study was 89.3 dBA at 50 ft. This total included both mechanical and human scream sounds. The energy-average[2] total noise emission level from many pass-bys of four different roller coasters shown in our 2002 paper was 94 dBA at 50 ft; the arithmetic average of the sound levels was 93 dBA. The average pass-by level of the loudest roller coaster we measured was 97 dBA. The energy-average pass-by noise emission level was 91 dBA at 50 ft measured from a roller coaster at a point with an unobstructed path to the riders' faces where the riders were screaming enthusiastically, and where the car bodies and riders shielded the mechanical noise somewhat. These reference measurements were conducted by HMMH staff trained in appropriate noise data collection techniques, using recently-calibrated precision (Type I) noise measurement instruments with calibration records traceable to the National Institute of Standards and Technology. Since we were not provided with information that suggests the reference measurements cited in the Papineau report were also conducted with such a degree of precision, we conclude that it is possible that the results of those measurements are not reliable. We understand that the firm that conducted the reference pass-by measurements is not primarily an acoustical consulting firm, so it is possible that their technicians are not sufficiently trained and that their instruments are not sufficiently precise. Many factors can affect the precision of noise measurements, including insufficient frequency of instrument calibration by a certified laboratory, neglected or improper field calibration, improper instrument orientation, nearby objects or surfaces (including the operator) causing shielding or reflections, imprecise distance measurement, limited sample size (number of pass-bys), among other factors. These various factors can add up to errors in noise measurement that can amount to many decibels.

Implications of higher roller-coaster noise emissions

To evaluate the potential for noise impact around the project site based on the roller coaster noise emissions in our files, we examined the projected noise levels at the property line locations and in the interior office space. All of the projected noise levels in the community from the roller coaster shown in the Papineau report would increase by the same amount as the amount the source level is increased by. For example, if we use the quiet coaster with enthusiastic screaming, which has a source level of 91 dBA, then all projected levels in the Papineau report would be 2 dBA higher than shown, since that report assumed an 89 dBA reference level. If the energy-average roller coaster in our measurements is assumed, then all projected noise levels would increase by 94 minus 89 = 5 dBA. And, if the average of the loudest coaster we measured is used, then the projected noise levels in the report would increase by 97 – 89 = 8 dBA.

[2] The "energy average" represents an average of the sound *energy* values (the anti logarithm of the sound *level*), rather than an average of the sound *level* values. Energy-averages of measured noise emissions are commonly used for incorporation into models that compute sound energy-based metrics, such as Leq and Ldn.

The implications of roller coaster noise that is 2 to 8 dBA higher than estimated in the Papineau report are significant. The property-line Lmax noise limit of 75 dBA on the western boundary would be exceeded with Lmax values ranging from 76 dBA to 83 dBA, depending on what reference coaster type is assumed, and on which of the two proposed roller coaster locations is assumed. On the eastern side residential property lines, Lmax values for the northerly coaster location would be projected in the range of 63 dBA to 71 dBA, exceeding the ambient-increased 65 dBA limit of the Santa-Clara Municipal Code. The loudest of these events would be very audible outdoors at these residences, particularly on otherwise quiet evenings.

The higher roller coaster noise emissions would also increase the audibility of coaster events inside of the offices at 4555 and 4655 Great America Parkway. We are most inclined to adopt Salter's measurement of 35 dBA as an appropriate value for the outdoor-to-indoor noise reduction of the office buildings. Using that value and the closest distances of the two coaster locations under consideration (450 ft and 570 ft), we estimate that maximum coaster event noise levels inside those offices would be between 35 and 43 dBA, depending on the assumptions of the type of roller coaster and the location. With a quiet background in the private offices in the low 30's dBA, as measured by Salter, these events could be very audible and potentially intrusive.

Potential noise abatement measures

A number of noise abatement measures can and have been successfully employed to reduce the transmission of roller-coaster noise to surrounding properties. Noise barriers can be effective in reducing much roller coaster noise, since the coaster spends much of its time near the ground. Universal Studios employed a tall noise barrier to shield a roller coaster that was located at the corner of their Islands of Adventure park in Orlando. Both residential and educational land uses are nearby. The wall is up to 55 ft high, and was themed to look like a forest from a distance. (See photo below taken during construction. The coaster track can be seen behind the frame for the wall panels.)

At upper elevations such as the initial drop, shielding elements such as enclosing tubes, partial tubes or panels can be attached to the coaster to block direct sound paths to nearby noise-sensitive areas.

Coaster orientation can make a significant difference in radiated noise in certain directions. Initial drops should be faced away from noise-sensitive areas to take advantage of the shielding provided by car bodies and coaster structural elements.

Comments on Papineau letter dated June 3, 2008

The letter characterizes the rider scream level as falling within the range of the two levels published in the Inter-noise paper. We have two concerns about that, one with the approach, and one with the accuracy of the analysis and therefore the validity of the statement:

1. With regard to the approach, the Santa Clara Municipal Code specifies an Lmax value at the receiving property line. In my experience, such limits are considered to be maximum allowable sound levels, and are not usually given plus/minus tolerances or thought to be advisory. By choosing a reference sound level from rider screams that is not representative of the highest levels that could occur on a regular basis, but instead is an average of many measured maximums, the approach sets up the potential that the property line noise limit could be exceeded quite regularly.

2. With regard to the accuracy, the Papineau letter does not state the correct noise levels that are given in the Inter-noise paper. The letter states the range of scream maximum levels is from 83 dBA for "some screaming" to 90 dBA for "much screaming." In fact, the correct values are 87 dBA for "some screaming" and 91 dBA for "much screaming." This can be seen easily in the paper on the graphs in Figure 4. There are apparently two sources for this discrepancy. One is the approach of subtracting the "empty car" spectrum from the total passby noise to estimate scream-only sound levels. This approach underestimates total noise level and potential Lmax at the property line, and therefore is not appropriately conservative. The second source of discrepancy is the use of erroneous values for the "some screaming" spectrum in the

630, 800 and 1000 Hz one-third octave bands, using the lower "empty car" data instead of the correct values. This causes the analysis to compute incorrectly low levels for the "some screaming" condition.

The letter characterizes the location of the scream measurements in the Inter-noise paper as possibly being not characteristic of what the wooden coaster would produce. The measurements of screaming noise that we conducted for the steel roller coaster were also conducted at the side of the riders along a different portion of the ride as well as overhead. The average maximum pass-by level at 50 ft to the side with much screaming was 91 dBA for this condition as well. The average for the lower amount of screaming at that location was 89 dBA. Therefore, we do not believe that it is appropriately conservative to assume that scream sounds would be significantly lower from a wooden coaster. One would expect that some sections of nearly any coaster ride would have orientations to various property-line locations that would favor good lines sight to the riders' faces, thereby allowing for maximum scream sound levels.

In conclusion, reference roller coaster noise levels for evaluating a maximum allowable property-line noise limit should be at least 91 dBA at 50 ft, based on our measurements and observations. Further, depending on the reliability of the GMH measurements of wooden coasters, and the comparability of the coasters they measured to the proposed coaster at Great America, maximum pass-by noise levels could be considerably higher.

HARRIS MILLER MILLER & HANSON INC.

Christopher Menge

Senior Vice President

Experience

HMMH, 1983-present

Bolt Beranek and Newman Inc, 1972-1983

Education

B.S., Physics, University of New Hampshire, Durham, NH, 1972

Graduate study, Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, MA, 1974, and Northeastern University, 1975 1977

Affiliations

Board of Directors, Institute of Noise Control Engineering (INCE), since 2006

Member/Affiliate, INCE, since 1978

Member, Acoustical Society of America, since 1978

Transportation Research Board Committee on Transportation-related Noise and Vibration, since 1978

Since 1972, Chris Menge's career has focused on the analysis and control of noise from a variety of transportation, industrial and entertainment sources. His most extensive experience encompasses highway noise prediction and barrier design, outdoor entertainment sources such as race tracks and theme parks, and ground-based noise sources at industrial sites, airports and national parks.

For the Federal Highway Administration, Mr. Menge developed the acoustical algorithms and finalized the Traffic Noise Model (TNM), FHWA's state-of-the-art highway noise prediction software. Mr. Menge has also extended the TNM's propagation algorithms for use with other ground-based noise sources in theme parks, airports and national parks.

Mr. Menge was the U.S. representative and a primary author of the Technical Assessment of the Effectiveness of Noise Walls, for the International Institute of Noise Control Engineering's Working Party on the Effectiveness of Noise Walls.

Representative Projects

Highway Projects

- Noise Barrier Feasibility and Design Studies in Newton, Woburn, Danvers and Fall River, MA (2004 to present), *Project Manager*
- Interstate 495 (Capital Beltway) Improvements Noise Analysis and Barrier Design, Fairfax Co., VA (1997-present), *Project Manager*
- FDR Drive Temporary Detour Noise Barrier Evaluation, New York, NY (2006), *Project Manager*
- Tri-County Parkway Location Study Noise Analysis and Preliminary Abatement Design, Loudoun, Fairfax and Prince William Counties, VA (2002-2005), *Project Manager*
- Route 3 North Noise Analysis and Abatement Design, Bedford, Billerica, Lowell, Chelmsford, Tyngsboro, MA (1993, 1998, 2002-2003), *Project Manager*
- Massachusetts Turnpike Noise Barrier Design Studies, Newton, Natick, Ludlow, MA (1992-1995), *Project Manager*
- U.S. Route 101 Quiet Pavement and Absorptive Barrier Evaluation, Marin County, CA (2001), *Senior Technical Advisor*
- Springfield Interchange Final Noise Abatement Design, Springfield, VA (1997-2000), *Project Manager*
- Dallas North Tollway System-wide Noise Barrier Policy and Acoustical Design, TX (1993, 1999, 2002), *Project Manager*
- Hampton Roads Crossing Study Noise and Vibration Analysis for EIS, Hampton, Norfolk and Newport News, VA (1996-1999), *Project Manager*
- Brooklyn-Queens Expressway Noise Analysis for Design Study, Queens, NY (1990-1991), *Project Manager*
- I-25 Widening Noise Analysis for EA and Final Barrier Design, Colorado Springs, CO (1991-1993), *Project Manager*
- Massachusetts Turnpike System-wide Noise Barrier Priority Program, Boston to NY State, MA (1991-1992), *Project Manager*

"Chris Menge of HMMH has given us excellent expert advice regarding noise issues ... He has managed to translate the complicated science of noise into understandable terms, as he effectively assessed and explained the expected noise impacts residents in the area would experience. He is a highly competent professional, an effective advocate, and a pleasure to work with."

Sherilyn Burnett Young, Esq., Rath, Young & Pignatelli, P.A.

- Southwest Freeway/Transitway (US 59) Final Noise Barrier Design, Houston, TX (1985-1988), *Project Manager*
- Dulles Toll Road Widening and Extension EIS Noise Analysis and Barrier Design, Fairfax and Loudoun Counties, VA (1987-1989), *Project Manager*
- Woodrow Wilson Bridge Improvement Study Noise Analysis and Abatement Design, I-95 in VA, DC, and MD (1991), *Project Manager*

Aviation Projects

- Many ground-operations noise studies at Boston-Logan International Airport including Southwest Service Area, Centerfield Taxiway, International Gateway, and Terminal A area noise mitigation design, Boston, MA (1978-2008), *Project Manager*
- Ground Run-up Enclosure Design and Testing, Portland International, Portland, OR (2001), *Senior Technical Advisor*
- Engine Run-up Enclosure Design/Testing, Pease International Jetport, Portsmouth, NH (1997), *Project Manager*
- Noise Barrier Effectiveness Study, Miami International, Miami, FL (1996), *Project Manager*
- Noise Barrier Feasibility Study, Syracuse Hancock International, Syracuse, NY (1992), *Senior Technical Advisor*
- Start-of-Takeoff Roll Noise Abatement Study, Baltimore-Washington International, Baltimore, MD (1991), *Project Investigator*
- Western Boundary Noise Barrier Design, LaGuardia, New York, NY (1987), Project Manager
- Noise Control Assessment of Ground-based Sources, Dallas Love Field, Dallas, TX (1988), *Project Manager*
- Ground Run-up Enclosure Design, Stapleton International, Denver, CO (1986), *Project Investigator*
- Start-of-Takeoff Roll Noise Barrier Design Study, L.G. Hansom Field, Bedford, MA (1984), *Project Manager*

Industrial

- Sheffield Wind Farm Noise Analysis, UPC Wind Management, Sheffield, VT (2005-2006), *Senior Technical Advisor*
- High-pressure Venting Noise Abatement, Philip Morris Company, Cabarrus, NC (2002), *Project Manager*
- Air Conditioning Noise Litigation, Hingham, MA (2002), *Project Manager*
- Truck-mounted Refrigeration Unit Noise Abatement, Martin-Brower Co., Ayer, MA (1985-1991), *Project Manager*

Race Tracks

- Shenandoah Speedway Noise Study and Abatement Analysis, Shenandoah, VA (2005-2008), *Project Manager*
- California Motocross Park Noise Study for Permitting, Placer County, CA (2004-2007), *Project Manager*
- Club Race Track Noise Study and Ordinance Recommendations, Tamworth, NH (2003-2007), *Project Manager*
- Racetrack Noise Intrusion and Soundscape Analysis, Appalachian Trail, PA (2003), *Project Manager*

Christopher Menge, Senior Vice President

Entertainment

- Universal Studios Islands of Adventure - Park-wide Acoustical Modeling and Noise Abatement Design and Implementation, Orlando, FL (1998-2000), *Project Manager*
- Black Dog Amphitheater - Sound Propagation and Background Measurement and Analysis, Bloomington, MN (2000-2002), *Project Manager*
- Q Prime Amphitheater Noise Intrusion Analysis, Wildlife Refuge, Scott County, MN (2004), *Project Manager*
- Wolf Trap Pavilion, Noise Intrusion Analysis and Abatement Design, Vienna, VA (1981), *Project Manager*

National Parks

- Winter Use Plan EIS on Over-snow Vehicle Noise – Measurement, Propagation, Noise and Audibility Prediction, Yellowstone and Grand Teton National Parks, WY (2000-2002), *Project Manager*
- Watercraft Noise Studies, Glen Canyon National Recreation Area, AZ & UT (2002), *Project Manager*
- Development of National Park Soundscape Management Plan, NPS, USDOI (year), Project investigator

Representative Publications and Presentations

Highway/Barrier/TNM Related

- "Absorptive Sound Barriers: Effect of Three Potential Changes to Current Design Standards of Virginia Department of Transportation," Transportation Research Record No. 1859, Transportation Research Board of the National Academies (2003).
- "Experiences with USDOT's Traffic Noise Model (TNM)," paper no. 493, proceedings of Inter-Noise (2001), International Congress and Exposition on Noise Control Engineering, The Hague, The Netherlands (August 27-30, 2001).
- "Technical Assessment of the Effectiveness of Noise Walls," International Institute of Noise Control Engineering Working Party on the Effectiveness of Noise Walls, I-INCE publication 99-1, Noise/News International, 7 (5) (1999 Sept.), pp.137-161.
- FHWA Traffic Noise Model, Technical Manual, Federal Highway Administration Report No. FHWA-PD-96-010 (February 1998).
- "Barrier Diffraction and Sound Propagation in USDOT's new Traffic Noise Model," Proceedings of Inter-noise 96, the 1996 International Congress on Noise Control Engineering, Liverpool, U.K. (July, 1996).
- "Traffic Noise Model Propagation Algorithms: Some Interesting Characteristics," presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1995).
- "Barrier Priority Program for the Massachusetts Turnpike," presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1993).
- "Fairness in Noise Barrier Policy and Design: A Case Study on the Dulles Toll Road," presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1991).
- "Noise Barrier Cost Reduction Procedure, STAMINA 2.0/OPTIMA:

User's Manual," Federal Highway Administration Report NO. FHWA-DP-58-1 (April 1982).

- "Highway Noise: Sloped Barriers as an Alternative to Absorptive Barriers," Noise Control Engineering Journal, 14:74, (March April 1980).
- "Barrier Cost Reduction Program: A Supplement to FHWA's STAMINA Program," Transportation Research Record 740, Transportation Research Board, National Research Council (1980).
- "Sound-Absorption Treatments for Highway Noise Barriers," Transportation Research Record 740, Transportation Research Board, National Research Council, 1980.
- "Highway Construction Noise: A Prediction Method and Recommendations for Control," Proceedings of the Conference of the Southeastern Association of State Highway and Transportation Officials, Louisville, Kentucky, 1974.

Entertainment/Recreation Related

- "Assessment of Community Reaction to Proposed Club Racetrack," paper no. 3PNCa3, proceedings of Noise-con 2005, Congress on Noise Control Engineering, Minneapolis, MN, October 17-21, 2005.
- "Noise Data from Snowmobile Pass-bys: The Significance of Frequency Content," Society of Automotive Engineers paper no. 2002-01-2765, SAE International Publication SP-1726, 2002.
- "Residential impact criteria and abatement strategies for roller coaster noise," paper no. 598, proceedings of Inter-Noise 2002, International Congress and Exposition on Noise Control Engineering, Dearborn, MI, USA, August 19-21, 2002.
- "Status of the International-INCE Initiative on Recreational Noise and Progress on Quantifying Noise Intrusions in Parks," paper no. 61, proceedings of Noise-Con 2001, Congress on Noise Control Engineering, Portland, ME (October 2001).
- "Measurement and Modeling of Snowmobile Noise and Audibility at Yellowstone and Grand Teton National Parks," paper no. 2aNSa8, proceedings of Noise-Con 2000, Congress on Noise Control Engineering, Newport Beach, CA, Dec. 2000.
- Noise from amusement park attractions: Sound level data and abatement strategies, *Noise Control Engineering Journal*, 47 (5) 1999 Sep-Oct.

Aviation Related

- "La Guardia Airport Ground-Noise Abatement Study," Transportation Research Record 1444, Transportation Research Board, National Research Council (1994).
- "Wind Effects on an Airport Noise Barrier," presented at the Summer Meeting of the Transportation Research Board Committee on Noise and Vibration (AIFO4), Princeton, New Jersey, (July 1987).

Noise Measurement Related

- "Low-Noise Windscreen Design and Performance," Proceedings of National Conference on Noise Control Engineering, Ft. Lauderdale, FL (May 1994).
- "The One-Minute Leq Measurement Method", Transportation Research Record 1033, Transportation Research Board, 1986.

Christopher Menge, Senior Vice President

- "Scale Model Optimization of a Railroad Platform Canopy as a Community Noise Barrier," Proceedings of 1980 International Conference on Noise Control Engineering, Miami, FL, December 1980.

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July 3, 2008

BY HAND DELIVERY

Patricia M. Mahan, Mayor
and Members of the City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, California 95050

Re: Appeal of Great America Variance Application:
File No. PLN 2008-06835

Dear Mayor Mahan and Members of the City Council:

Prudential, in its submittal to the City Council in support of its appeal, raises a number of contentions which merit response, so that the Council has a clear picture of the facts and circumstances surrounding Great America's application to install a new roller coaster.

Prudential suggests that screaming noise from the proposed roller coaster is so unique that the existence of such noise rises to an "unusual circumstance" that will cause a significant adverse environmental impact such that the categorical exemption under CEQA for the normal operations of an amusement park does not apply. This contention, however, does not bear scrutiny.

I. Anecdotal Newspaper Accounts Of Other Amusement Park Attractions Are Hearsay And Irrelevant.

Prudential submits anecdotal information about other amusement park attractions throughout the world to suggest that rider screaming is such a nuisance to neighbors that it must be unusual. For the record, Great America objects to the consideration of such admittedly anecdotal information, because it is just that: anecdotal and based largely upon unsubstantiated newspaper accounts of circumstances very unlike those before this Council here. It is hearsay and should not be relied upon by the City at all in considering **this** application. Further, what Prudential fails to point out is that in most, if not all, of the anecdotal instances cited, the rides in question were very different from the roller coaster proposed here, and the proximity and orientation of the ride to the neighbors was different. For example, the Scandia Screamer is not a roller coaster, and is very close to residential neighborhoods, almost hanging over one in particular. Other of the rides are either taller, closer to residential neighborhoods, include inverse loops or G-force features, etc. It is the classic comparing of "apples and oranges" and

the anecdotal newspaper information about such rides has no bearing or relevance to this application. In some cases it is also suggested that the rides closed due to noise complaints, but this is not accurate. For example, Bell Amusement Park lost its lease and the roller coaster was dismantled. This application must be assessed on its own merits, with its own set of facts and circumstances, including the nature, size and orientation of the ride, the projected sound level within the offices of complaining owner Prudential, etc. Here, for example, the proposed coaster was re-designed to be oriented away from neighboring uses, and also further from the property line. As discussed below, the party claiming that a categorical exemption does not apply under CEQA must produce **substantial evidence** that an "unusual circumstance" exists **and** that this circumstance is likely to cause a significant adverse environmental impact. That challenging party also has the burden of demonstrating that the claimed exemption does not apply. *Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 796. Anecdotes are not evidence of anything.[1]

II. Rider Screaming at Amusement Parks is Expected, Not Startling or Terrifying, and This Is Not Unusual.

Prudential and its consultant also make a repeated point about the alleged "psycho-acoustic" impacts of screaming. The description of human screaming in Timothy Tosta's letter of June 27, 2008 describes isolated, piercing screams, but certainly does not describe periodic screaming from a roller coaster or similar amusement park ride. When one approaches an amusement park, just about the first thing you hear is the riders on various attractions. It is exactly what you expect to hear. If you don't hear it, the park sounds empty and certainly not very inviting. To characterize such normal and in fact anticipated rider screaming from an amusement park as a "distress signal" that "humans are cognitively wired to recognize" as a "calamity" is simply preposterous.

Moreover, if you elect to build an office building adjacent to an amusement park, you can certainly anticipate that rider noise will emanate from that park and will potentially reach your building. What else could a sophisticated developer possibly expect? That is exactly what occurred here. Prior to construction of the Nortel (now Prudential) buildings, an Environmental Impact Report was prepared to analyze the existing setting, and there was an extensive discussion of existing noise from the adjacent Great America park. (See Attachment 2 to the June 26, 2008 letter of Les A. Hausrath to Mayor Mahan.) One existing condition identified in 2000 was anticipated noise "from 60-74 dBA **from roller coaster riders**". This is a significant point, as Nortel knew – before building its buildings – that rider **noise** (i.e., screaming) would be audible from the park, in the specified decibel range. Nortel not only elected to build those office buildings in the very location anticipated to hear such screaming noise, it also elected to install less than optimum sound insulation (windows) which would screen outside noises, including rider noise, to only 50 dBA.

The rider screaming projected to be heard from the latest Great America coaster is not unique or unusual, and it is not made so by the mere juxtaposition of the park to an office

[1] Ironically, Prudential attempts to rely on these anecdotal newspaper articles, then suggests that the unpublished engineering reports relied upon by Great America's consultants for one element of its analysis are "mere hearsay."

building. To constitute substantial evidence, expert opinion must be "supported by facts" and cannot be argument, or unsubstantiated opinion. *Apartment Ass'n of Greater Los Angeles v. City of Los Angeles* (2001) 90 Cal.App.4th 1162, 1176. This supposed "psycho-acoustic" impact suggested by Prudential's consultants is mere opinion. There is no study, no analysis, no article attached or even referenced which documents that any such effect (even should one exist) has ever been attributed to screaming from amusement park patrons. Papineau and Ballard's analysis (*see*, in particular, the June 3 and July 2 letter submitted herewith) absolutely refute the unfounded "psycho-acoustic" effect argument and demonstrate why it is incorrect.

III. Prudential's Own Consultants Project An Interior dBA From Rider Screaming Of Only 36 dBA, Which Is Similar To A Quiet Conference Room Or Library.

Further, and of great significance, Prudential simply glosses over the sound level of rider noise that is anticipated to be heard at the relevant receptor, **inside the Prudential offices**. Not surprisingly, nowhere in Timothy Brown's letter of June 27, 2008 does he repeat what Salter and Brown had earlier reported, that the rider (screaming) noise audible inside the offices is anticipated to be only 36 dBA (Salter & Brown letter of March 7, 2008). Great America's consultants believe that the interior level for rider screaming will be 29 dBA. However, as demonstrated in the earlier June 26 Hausrath letter submitted on behalf of Great America, a sound level of even 36 dBA is far below any possible standard for interior sound that could be considered to be substantially intrusive or disruptive so as to constitute a "significant environmental impact". Salter and Brown make the case that ambient noise was measured "as low as 31 dBA" in the offices measured. However, measurements were taken in empty offices, with none of the normal ambient sounds of an office. The entire premise for Prudential's concern is that rider screaming of 36 dBA **might** be audible in empty offices that are as low as 31 dBA and for that this reason alone, the proposed coaster poses a potential significant environmental impact which is caused by "unusual circumstances." For comparison sake, 32-36 dBA is the normal noise level for quiet courtrooms, libraries and conference rooms. (Papineau's February 12, 2008 letter, Attachment 1 to June 26, 2008 letter.) Occupied offices would be above this range (or higher). See the July 2, 2008 letter of Papineau and George, submitted herewith, which documents **empty** office dBA as 34-40, and higher than 40 for occupied offices. The 31 dBA is an aberration, and a distortion of what sound to expect in occupied offices. Thus, the whole Prudential premise that screaming noise, even at 36 dBA (Prudential's figure), will startle tenants, cause stress and "psycho-acoustic" effects is exaggerated, unfounded and unsupported. It does not constitute evidence sufficient to make the categorical exemption inapplicable, nor does it suffice to demonstrate a potential adverse environmental impact.

IV. CEQA Protects The Environment In General Not Particular Persons.

CEQA cannot be read as narrowly as Prudential suggests, and has not been so read by the California courts, in terms of how CEQA is interpreted. For example, to even qualify under CEQA, the potential significant environmental impact must be on the **environment of persons in general**, and not, as here, potential adverse impacts on particular persons. *Association for Protection, etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 734. Here, the entire concern is about the particular occupants of a limited number of offices in a particular location of the

Prudential buildings closest to the coaster. Even if such persons were adversely affected by the coaster, (which they clearly will not be), this is not a significant adverse impact on the environment in general as defined by CEQA.

V. The "Unusual Circumstances" Exception Does Not Apply Because A Roller Coaster Is The Type Of Normal Facility Anticipated By The Exemption.

In examining if the "unusual circumstances" exception to the categorical exemption applies, the standard is whether the circumstances of a particular project differ from the general circumstances of projects covered by a particular exemption **and** whether those unusual circumstances create an environmental risk that does not exist for the general class of exempt projects. *Santa Monica Chamber of Commerce, supra,* 101 Cal.App.4th 786, 802. Here, the projects covered by categorical exemption 15323 specifically include the normal operations of amusement parks, which obviously includes roller coasters. Roller coasters produce, among other things, rider noise and that is normal. Thus, there is nothing "unusual" about the circumstances of adding a sixth roller coaster to Great America, which is why such facilities are considered by the Legislature to be exempt from further environmental review. This position is bolstered by the fact that the EIR for the Prudential (Nortel) buildings analyzed the very issue at the heart of this controversy – **rider noise from adjacent amusement park attractions.** The projected decibel range for the new coaster (60 -74 dBA) is exactly that documented as the **existing** noise condition in the EIR for the Prudential (formerly Nortel) buildings. Thus, the question is: will a new ride produce any different or greater noise than what was previously studied? The answer is clearly no, based on the 2000 Nortel EIR. This further dilutes the suggestion that projected rider screaming is unusual or unique, because such noise was both analyzed and projected in the very range of the new coaster. Prudential also asserts – without any authority – that the Section 15323 exemption for amusement park operations is limited to existing rides, not new ones. The Section contains no such limitation (unlike, for example, Section 15301). There would have been no point in including the operations of amusement parks in the categorical exemption if it did not apply to "normal" facilities of a kind "where there is a past history of the facility being used for the same **or similar** kind of purpose," (emphasis added), including similar attractions to the existing ones. Thus, the exemption applies, and both the **type** of ride (roller coaster) and the **potential impact** of the ride (noise) are the very thing already studied and there is nothing "unusual" or unique about it.

VI. Great America's Consultants Exhaustively Analyzed Rider Screaming And Its Effect Inside The Prudential Offices.

Prudential's submittal also states, incorrectly, that Great America's consultants have not analyzed potential impacts of rider noise or screaming, and that they have distorted or misrepresented such information in an effort to downplay this aspect of the coaster's features. An analysis of the submittals from Great America's consultants refutes these suggestions completely. For example, Attachment 1 to the June 26, 2008 Hausrath letter contain relevant portions of the analysis provided by Marc Papineau and Ballard George, Great America's consultants. Rider screaming is specifically discussed, at length, in the following documents: March 19, 2008 Further Rebuttal to Salter Analysis; March 19, 2008 Rebuttal to March 7, 2008

Salter letter; March 4, 2008 Papineau letter; February 12, 2008 Papineau letter. In addition, the June 3 letter from Marc Papineau submitted with Great America's June 26 submittal further refutes the allegations made by Prudential, and analyzes rider screaming in great detail. See also the July 2, 2008 letter of Marc Papineau and Ballard George, submitted herewith, which refutes – on a technical basis – the latest claims made by Prudential's consultants and Mr. Tosta and addresses rider screaming. In short, the specific issue of potential rider screaming, and the impact of such screaming in terms of the sound that it might generate inside the Prudential office buildings, has been extensively analyzed and studied by Papineau and George. Collectively, this thorough analysis provides more than sufficient evidence that the noise from the new coaster will not produce any significant adverse impacts on the Prudential tenants.

VII. Great America's Inability To Produce Proprietary Data From GMH Does Not Weaken Its Acoustical Analysis.

Much is made also of the fact by Prudential that Great America has not made available a background study on wooden roller coaster noise prepared by GMH Engineering. The suggestion is made that Great America or its consultants are trying to hide something. In fact, as Great America's counsel informed Prudential's counsel, this background information is considered proprietary and neither Great America nor its consultants are at liberty to make it available to third parties. **That** is why it wasn't made available, not some nefarious scheme to hide information. It should be noted also that Prudential never asked for this information until well after the Planning Commission hearing, right before submittal of its June 27 packet to the Council. Neither Prudential nor its consultants ever requested this information at any time in the several month period that they first learned of its existence, nor, to Great America's knowledge did they attempt to get it from the source. (They not only know the source [GMH Engineering] but in fact discuss the qualifications of GMH and talk about the contents of its website in their submittal.) Great America is hiding nothing.

Further, the GMH background information supports one piece of the overall acoustical analysis. As documented in the June 3, 2008 Papineau letter, p.1, ¶2, Great America's consultants used, in their analysis, an intermediate rider scream level between the two numbers suggested by Menge in the report everyone has, and this number was consistent with the unpublished GMH noise reports on wooden coasters. Thus, GMH data was used to double-check one data point in the Great America analysis. Yet Prudential's counsel makes the absurd and unfounded statement that Great America's inability to produce the proprietary GMH back-up "completely undermines Great America's conclusions that the Project will result in no screaming impacts." Obviously counsel has no understanding of the limited scope and use of the GMH data. Nor do they have any understanding of the extensive scope of Great America's acoustical analysis, including extensive analysis of rider screaming.

Also, Prudential has had its own acoustical experts on board since early February (i.e., 5 months) and they conducted their own analyses. In addition, the parties' consultants conducted joint studies of the projected interior noise levels back in March of this year, and the results were remarkably similar (only a few decibels difference, based on minor interpretation differences). See March 4, 2007 Papineau letter, contained on Attachment 1. These results were interpreted

by Prudential's consultants and their findings made known. The underlying GMH information (which pertains simply to noise testing done on two wooden roller coasters) never became an issue , because it was not the foundation of Papineau and Ballard's analysis. The parties both referred to the study by Menge, which is in the public domain. Only when Prudential failed in its attempt to stop the application at the Planning Commission stage did it suddenly decide that this background information – which has, by the way, also been fully explained by Great America's consultants – was critical.

VIII. There Is No Significant Adverse Environmental Impact Under CEQA.

The City is also accused of failing to "independently verify" all of the engineering data and analysis relied upon by Great America. If this standard is accepted, projects would routinely fail under CEQA, as public entities would be unable to meet the enormous burden of verifying all information submitted by applicants. Further, the burden is on Prudential, not Great America (or the City), to "produce substantial evidence that the project has the potential for a substantial adverse environmental impact". *Apartment Assn., supra,* 90 Cal.App.4th 1162, 1175; *Santa Monica Chamber of Commerce, supra,* 101 Cal.App.4th 786, 797 (". . . [a]rgument, speculation, unsubstantiated, opinion . . . does not constitute substantial evidence.' (Guidelines §15384(a). Substantial evidence shall include facts, reasonable assumptions predicated upon fact, and expert opinion supported by facts. Guidelines, §15384(b)." Prudential's consultants claim – without any evidence, back-up, study or technical analysis whatsoever – that rider screaming will terrify the office occupants. Using their own data, a dBA of 36 from screaming cannot cause such terror or disruption. Stated simply, there is no evidence of a potential significant environmental impact **as defined by CEQA**, which is the standard that the City must follow. Prudential submits that they must just show a possibility of a significant effect on the environment, but a "significant effect" is defined as "substantial or potentially substantial **adverse change** in any of the physical conditions within the area affected by the project" (CEQA Guidelines, Section 15382, emphasis added). Salter's opinion about possible "psycho-acoustical" effects which "**could** interfere with concentration, interrupt conversations, and cause detrimental psycho-acoustic impacts upon possibly hundreds of office occupants and visitors" (June 27, 2008 memo to Santa Clara City Council, Exhibit B to Prudential submittal) is mere speculation and conjecture. As noted above, speculative or possible impacts are not sufficient to constitute substantial evidence. *Association for Protection, etc. Values, supra,* 2 Cal.App.4th 720, 735-736. And there is no change in the noise level.

IX. Ample Evidence Supports The Planning Commission's Variance Findings.

With respect to the variance requested by Great America, Prudential suggests that the City cannot make the necessary findings, and further suggests that because the City has granted variances in the past, it cannot do so here because the history of granting variances is improper. As noted in our correspondence of June 26, 2008, the Planning Director pointed out to the Planning Commission that, while an overall re-zoning is another vehicle that could be pursued, variance application allows the matter to be fully vetted in the public forum. New park features consistent with some different zone might be permitted, but would not have an independent public forum. So the variance procedure here has allowed a healthy public dialogue. Further, it

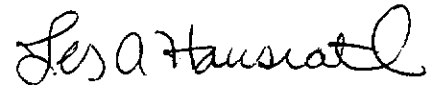
should be pointed out that the only reason a variance is needed is for the height of the coaster. While a passing argument has been made about potential visual impacts, the argument has been over potential noise, not height. Yet Great America has gone to great lengths to address that concern, producing analysis after analysis to demonstrate that the coaster will not, in fact, produce sound within the Prudential offices that will be disruptive or cause an adverse effect. It also bears repeating that the proposed coaster **will comply with all applicable City noise standards**. Prudential observes that like other cities, Santa Clara does not regulate screaming noise. Of course it doesn't regulate screaming noise, as why would it? Noise is measured more in absolutes, and ordinances typically state that noise can't exceed a certain level. Noise is also typically measured at the property line, to avoid this very kind of subjective, conjectural supposition about what might happen inside an office (or other structure) that is beyond the property line.

X. Conclusion.

After a long and vigorous debate, the Planning Commission determined that there was sufficient evidence to in the record to make the variance findings and the CEQA determination, and the record clearly supports that determination. Despite Prudential's efforts to suggest to the contrary, the record here is replete with evidence, facts and information that support what should be a very simple and unremarkable decision, to add a sixth roller coaster to an amusement park that has been in existence for some 32 years in Santa Clara. Great America respectfully requests that this Council uphold the decision of its Planning Commission.

Very truly yours,

WENDEL, ROSEN, BLACK & DEAN LLP



Les A. Hausrath

LES/mw
Enclosures

cc: Duffield E. Milkie, Esq. (w/enclosures)
Bill Lentz (w/enclosures)

environmental service
by Papineau, R.E.A. 791

July 2, 2008

Mr. Les Hausrath
Wendel, Rosen, Black & Dean LLP
1111 Broadway, 24th Floor
Oakland, CA 94607

Subject: Response to Information provided by Charles M. Salter Associates and Mr. Timothy Tosta in Regard to the Proposed New Wooden Coaster at California's Great America (Project 2007-045.07)

Dear Les:

This note addresses only the technical aspects of the discussion of rider scream noise and reconciles the discussion, GA's consultants findings, CMS's findings, and Chris Menge's paper published in InterNoise 2002.

In all of the discussions one must distinguish among rider scream noise, train mechanical noise, and the combination of the two. If the subject is potential disturbance from rider screams, the relevant noise level is rider scream Lmax.

Using the C. Menger paper, rider scream Lmax is 84 dBA (some screaming) up to 90 dBA (much screaming) at a distance of 50 feet when the enthusiastic riders are facing directly onto the microphone. "Some screaming" and "much screaming" are the labels C. Menge himself applied in his paper. The maximum spread in rider scream levels is 6 decibels based on C. Menge's paper, not 16 dBA from low to high.

Per C. Menge's paper, the range is about 6 dBA. Using C. Menge's paper, if we assume 84 dBA at 50 feet or 90 dBA at 50 feet, and the resulting rider scream noise at 450 feet is still about 64-70 dBA. Indoors, with -37 dBA reduction through the windows and by absorbing materials in the room (*e.g.*, carpet, ceiling tile, upholstered chairs), the Lmax for just-the-riders would be 27-33 dBA. *Note: The combined Lmax train mechanical noise and rider screams for a wooden coaster is about 32-35 dBA indoors based on train only noise of 87-88 dBA at 50 feet*

While the scream noise level could be audible in an empty office it will not be audible in most occupied office spaces. CMS reported background, 31 dBA, in terms of Lmin in the unoccupied unfurnished spaces measured by CMS. An Lmin noise level (the lowest recorded level in any measurement period) is not representative of any portion of an hour and an empty, unfurnished office is not representative of occupied space. Our own measurements, which were performed concurrently with the CMS measurements, found the background noise level exceeded 90 percent of the time in the empty spaces is 34-37 dBA, and the level exceeded 50 percent of the time is 37-40 dBA . Those background levels will increase to the 40s of decibels in the same office spaces once occupied.

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GA's consultants have forecast both a lower indoor rider scream level and a higher background masking noise level. But, even using the upper end of rider scream volume supported by Menge's study of steel roller coasters, our work would conclude that the scream level indoors (27-33 dBA) would be inaudible in the occupied office spaces and the combined train and rider scream noise Lmax (32-35 dBA) would barely be audible depending on the background noise level in the occupied space. The noise indoors would be muffled, would sound like train mechanical noise and not like a scream, and could not elicit startle responses or other psychoacoustic effects.

Please call if you have any questions about this reconciliation of the various reports and public hearing statements.

Sincerely,

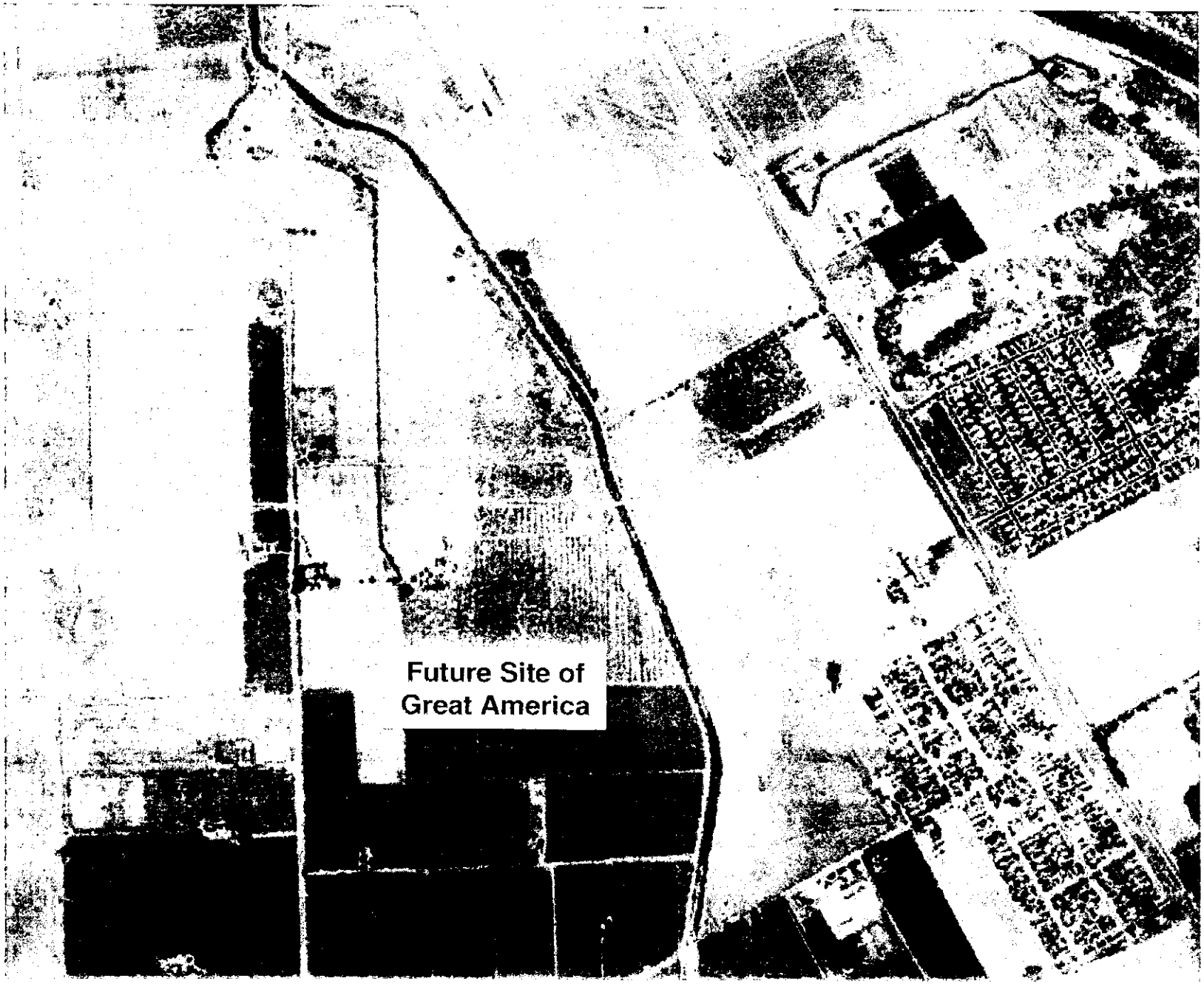
Marc Papineau

Marc Papineau
Project Manager

Ballard George

Ballard George
INCE Board Certified Acoustical Consultant

August
1971



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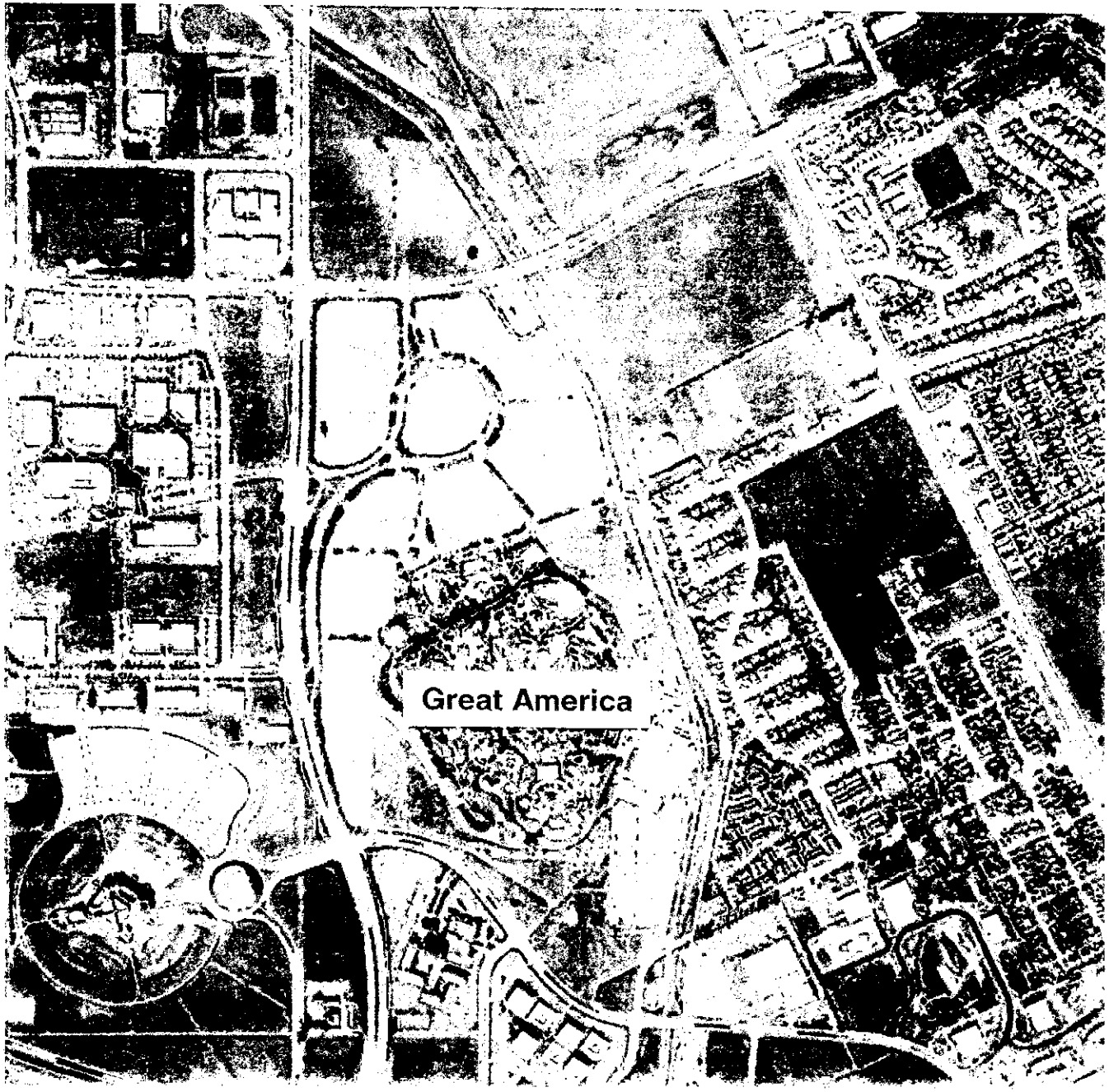

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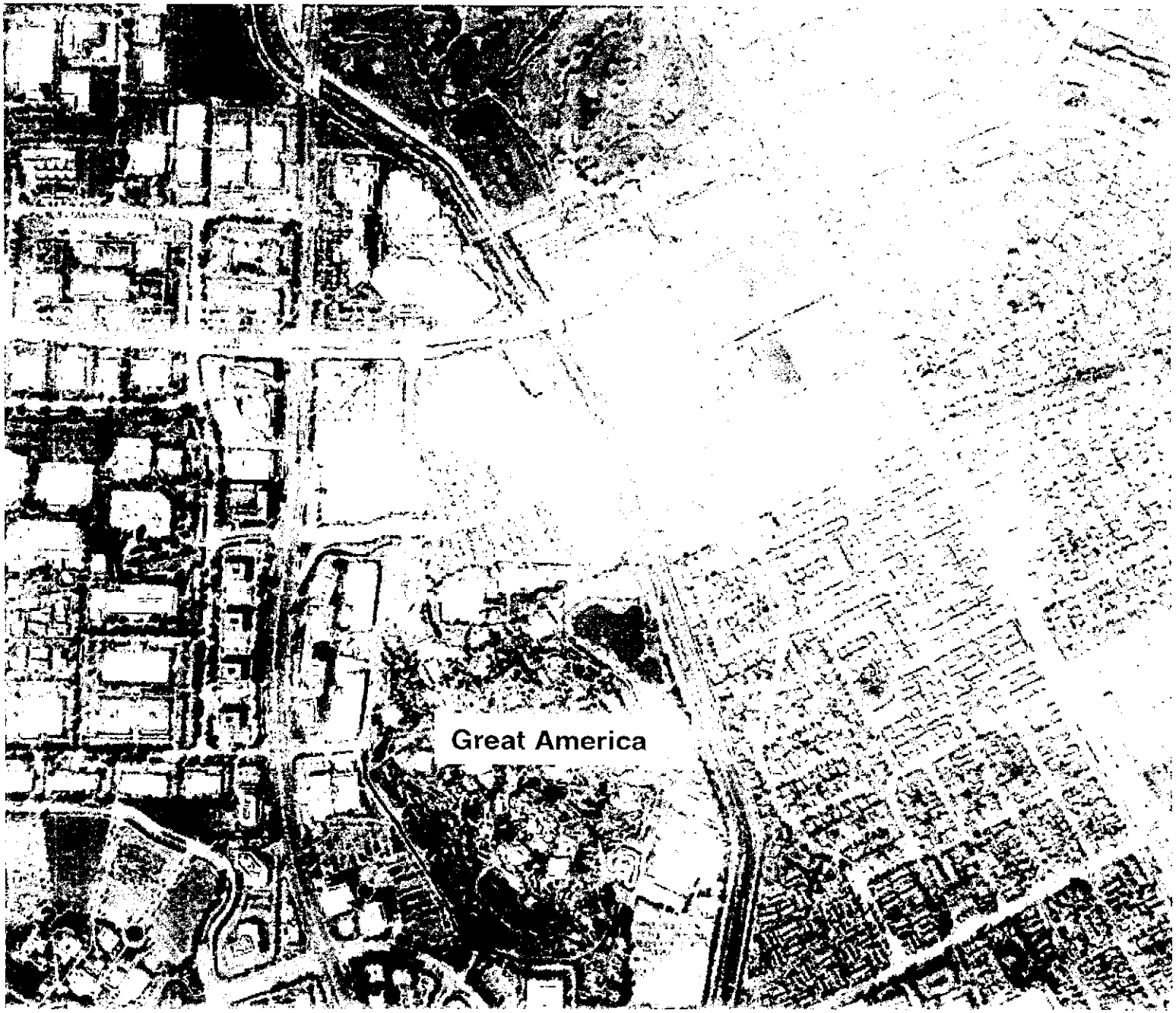

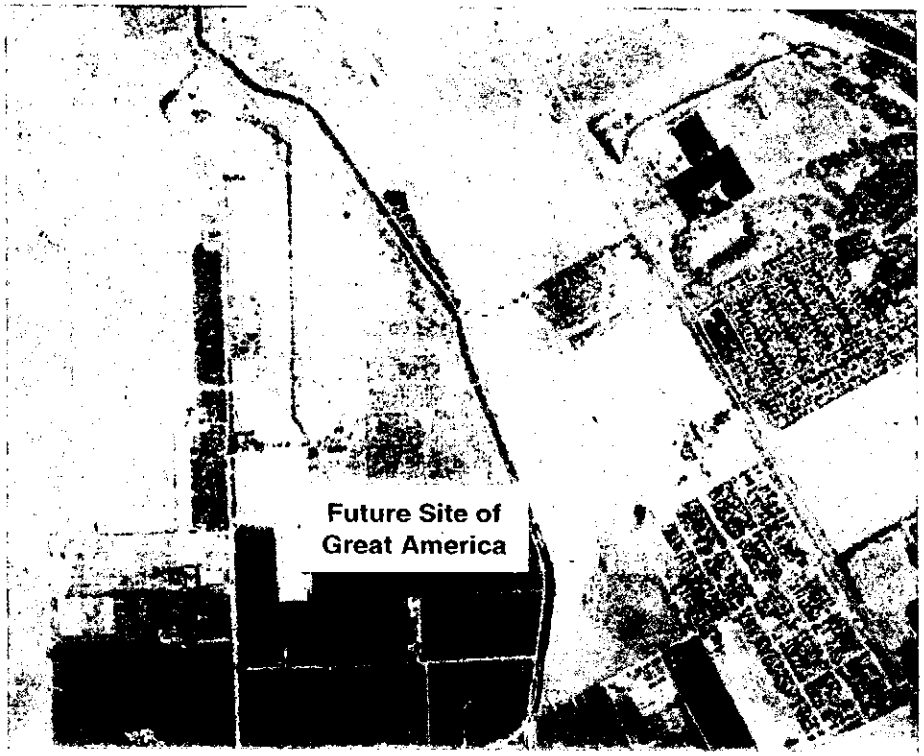

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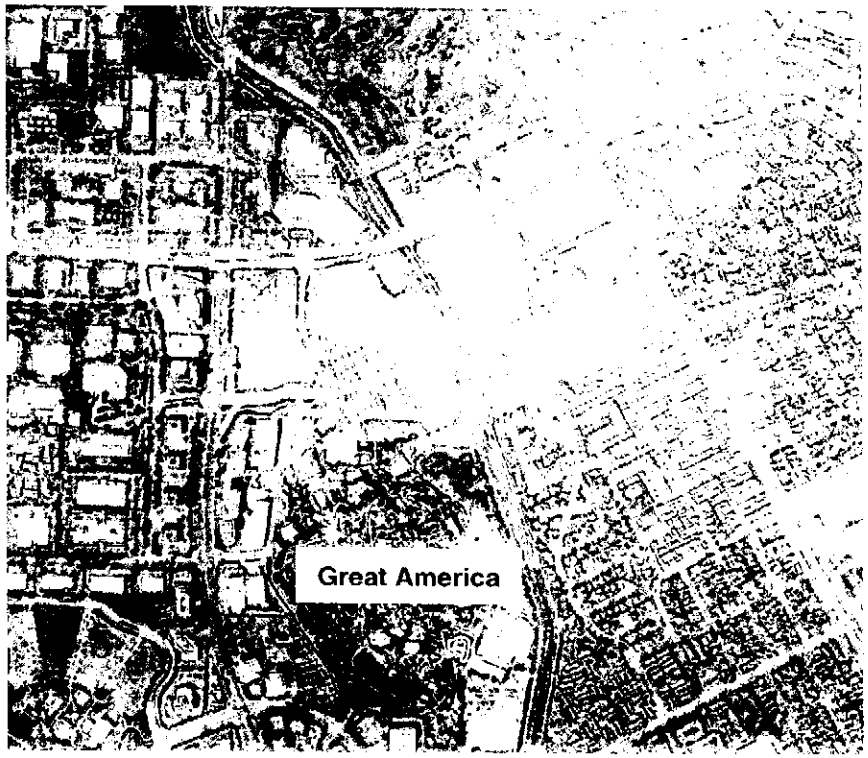

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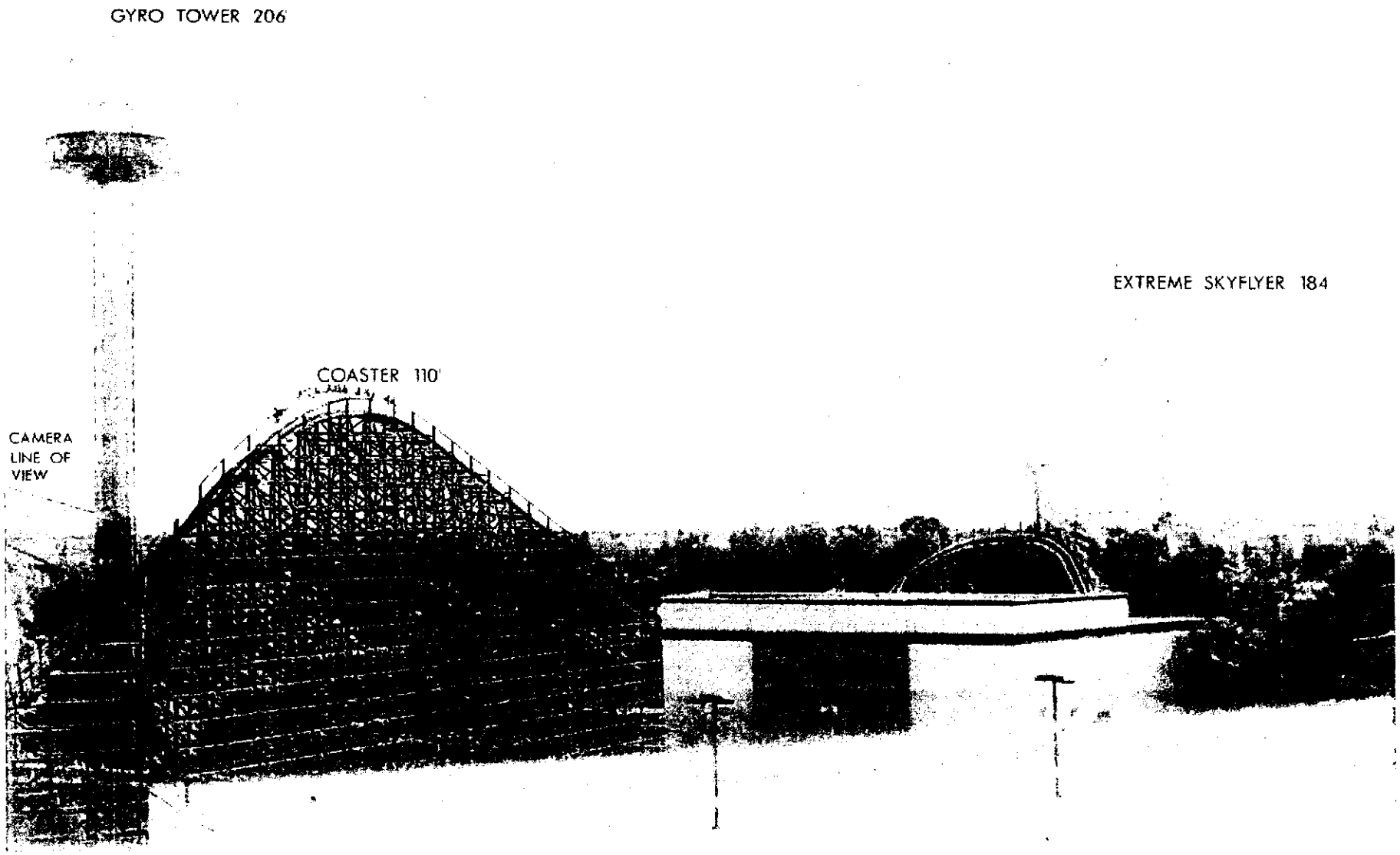
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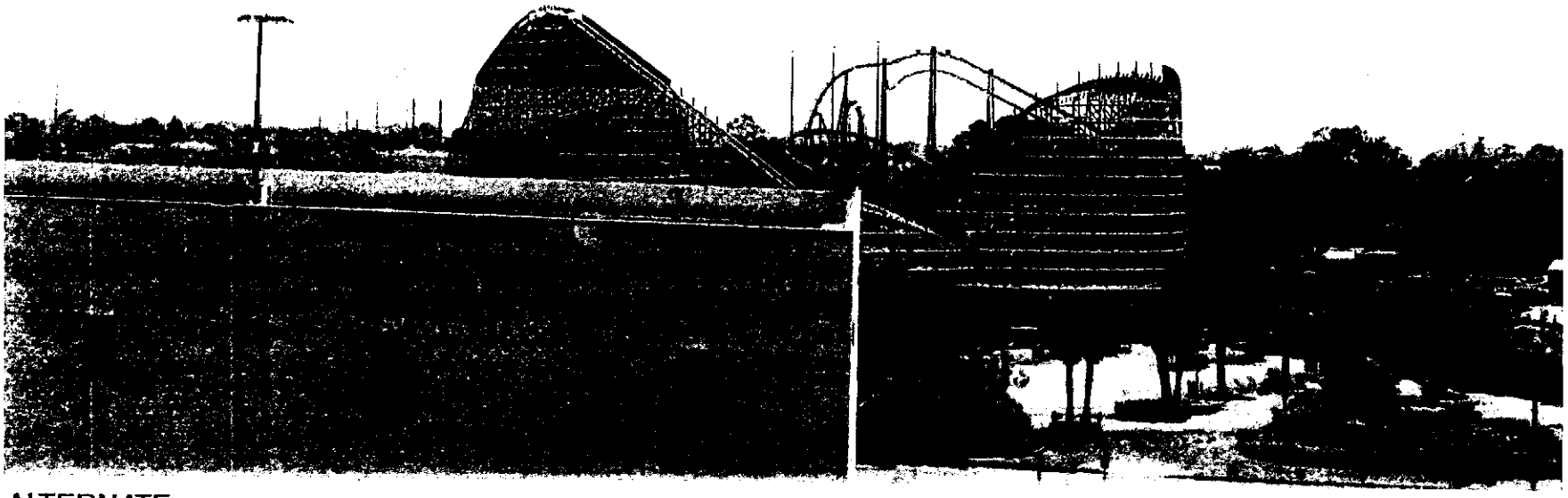
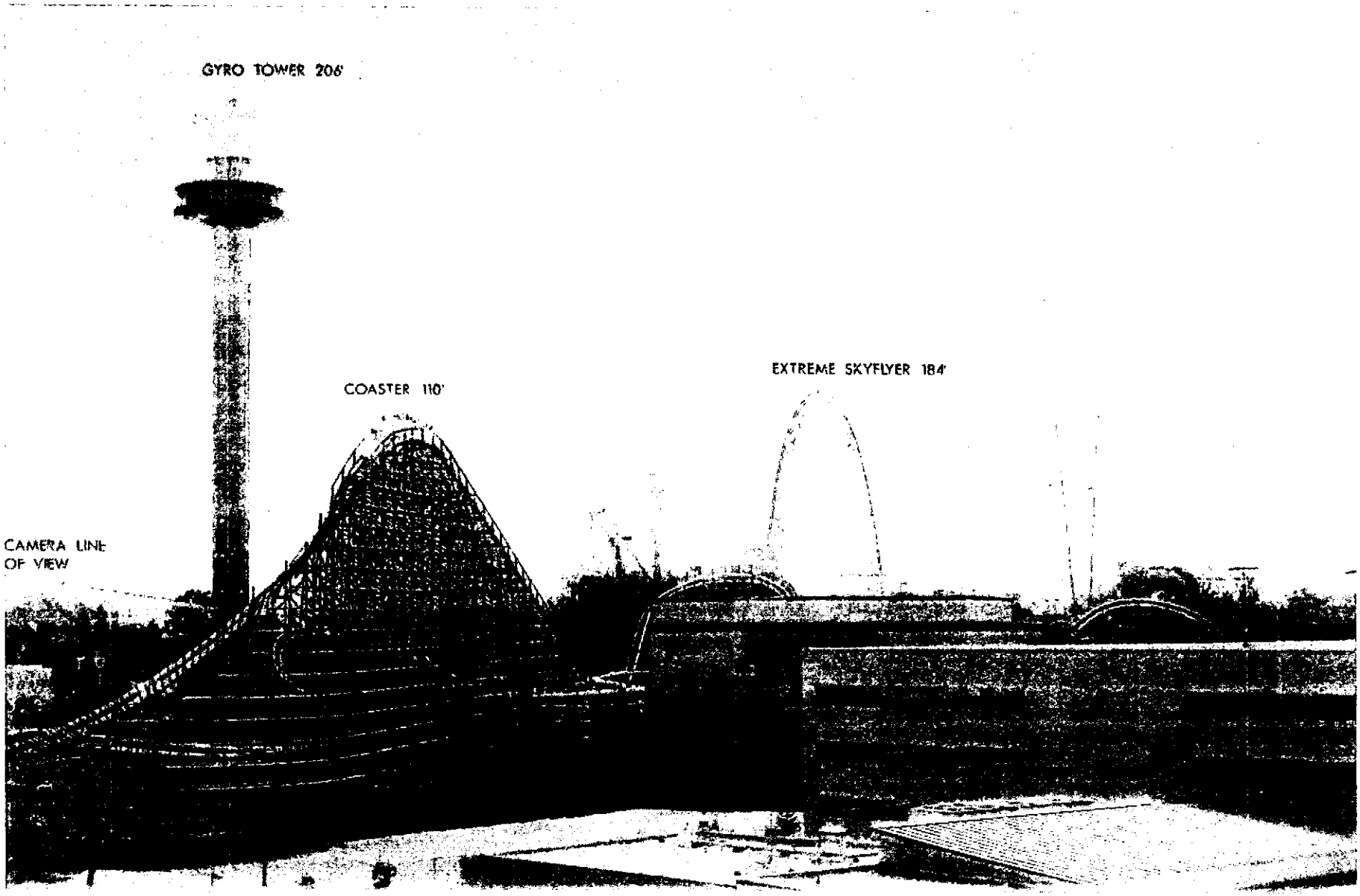
EXTREME SKYFLYER 184
COASTER 110'
CAMERA
LINE OF
VIEW



ALTERNATE
PROPOSED WOODEN ROLLER COASTER
FROM NORTEL OFFICE BUILDING FOURTH FLOOR

DIGITAL IMAGING STUDIO 05/19/2008

LOOKING EAST VIEW-03


GYRO TOWER 206'
COASTER 110'
EXTREME SKYFLYER 184'
CAMERA LINE
OF VIEW

ALTERNATE

PROPOSED WOODEN ROLLER COASTER
FROM AMD OFFICE FLOOR SIX

DIGITAL IMAGING STUDIO 05/19/2008

LOOKING EAST VIEW-02

Planning Commission
March 12, 2008

PLN2008-06835

Supplemental Information

- March 6, 2008 Letter from Timothy Tosta of Luce, Forward, Hamilton & Scripps LLP, for Prudential Real Estate Investors

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RECEIVED
MAR 07 2008
City of Santa Clara
Planning Division
PLN2008-06835

March 6, 2008

VIA E-MAIL

Ian Champeny, Chair
and Members of the Planning Commission
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Variance for Great America Roller Coaster Ride**

Dear Chair Champeny and Members of the Planning Commission:

As you know, we represent Prudential Real Estate Investors, the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). The Nortel Site consists of 636,000 square feet of office, electronic laboratory space, employees amenities, and associated parking and it was built to accommodate up to 2,400 employees when at maximum occupancy.

On February 13, 2008, the Planning Commission continued its consideration of Great America's variance request for a 111-foot tall roller coaster structure located on the western edge of the property line ("the Project") until March 12, 2008, so that the parties could undertake additional analysis to better understand what potential impacts the Project might have on the Nortel Site. The results of this analysis will be available shortly before the March 12th Planning Commission hearing.

In the meantime, we have had the opportunity to review the City's record for the Great America theme park dating back to the early 1970s. We were astonished to discover that the City has relied on the variance process for height exceptions at Great America for over 30 years without ever considering a comprehensive land use policy for the site that would obviate the need for these ad hoc height exceptions. Accordingly, we believe it is time for the City to abandon this piecemeal approach to zoning and establish a land use regime for the site that promotes informed decision-making by the City, appropriate environmental review, and meaningful participation by the public.

I. Variance Overview

It is well-settled California law that the granting of a variance should be the exception, not the rule, based on the equitable notion that a property owner should be allowed to use his/her property in a manner consistent with the established zoning, but with minor variations that will place him or her in parity with other property owners in the same zone. (Longtin's California Land Use, 2nd edition (1987), 3.70[1]). As such, a variance is a mechanism that should be used **sparingly** by agencies to grant relief under **only truly extraordinary circumstances**.

It appears from our review of the Great America file that the City's variance process as applied to the Great America site has morphed away from this axiomatic rule and now bears no resemblance to variance procedures as required by state law. The City has shifted its emphasis to the unique nature of the Great America **use** as justification for these height exceptions, instead of appropriately focusing on the unique nature of **the property**. In other words, the City's treatment of the Great America site as a "unique use" over the years has resulted in the granting of unique privileges afforded to no other adjacent , code-complying property owners. We offer the following overview to ground the Planning Commission in the proper, legal variance procedures.

A. Statutory Framework

The State Legislature has enumerated the circumstances under which variances should be granted:

> Variances from the terms of the zoning ordinances shall be granted only when, because of special circumstances applicable to the property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

Cal. Gov. Code § 65906.

B. Standards

- Special Circumstance

The establishment of "special circumstances" is a fact-driven exercise that hinges on an applicant's need for some sort of "extraordinary" relief from an existing zoning regime. That is, absent this relief, the applicant would suffer from undue or unnecessary hardship by complying

with the regulations as enacted. (*See, e.g. Stolman v. City of Los Angeles* (2003) 114 Cal. App. 4th 916.)

- Hardship

An applicant also must demonstrate the existence of a sufficient hardship based on a burden to the subject property compared to other parcels in the same zoning district that would justify the issuance of a variance. This requires evidence that strict application of the zoning ordinance deprives the property of privileges enjoyed by other property under identical zoning classifications. In other words, the hardship must derive from disparities between the affected property and other property in the vicinity under the same zoning rules—this hardship cannot be established with the affected property's characteristics in isolation. (*Orinda Assn. v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1166.) Note that mere economic hardship is an insufficient foundation for a variance, as variances should not be sought to insure against financial disappointments or to ensure a financial gain. (*Broadway, Laguna, Vallejo Assn. v. Board of Permit Appeals* (1967) 66 Cal. 2d 767, 774-775.)

- No Special Privilege

A variance must advance parity, not privilege. Section 65906 of the California Government Code expressly provides that variances "shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated." Courts have held that the granting of privilege and not parity seriously undermines a city's effort to regulate uses through comprehensive zoning codes. (*See e.g., Broadway, Laguna*, at 781.)

II. City of Santa Clara's Great America Variance Record

After a thorough review of the Great America files made available to us by the City, we compiled a list of all of the variances that the City has granted to Great America and its predecessors for rides at the theme park since it was first entitled in 1973.

- February 1973—Variance to increase height limit from the 35 foot height limit of the CT zone to 100 feet (+65 feet) for entire areas to be annexed from the County (valid until February 28, 1976)[1]

[1] We note here that there is no procedure available under California law that allows for such a "blanket" variance.

- **December 1977**—Variance to increase height limit from 35 feet to 210 feet (+175 feet) for the Sky Trek Tower

- **January 1983**—Variance to increase height limit from 35 feet to 131 feet (+96 feet) for The Edge (aka Freefall)

- **February 1985**—Variance to increase height limit from 35 feet to 80 (+45 feet) feet for Falling Star

- **July 1985**—Variance to increase height limit from 35 feet to 83 feet (+48 feet) for The Grizzly[2]

- **October 1985**—Variance to reduce parking dimensions

- **October 1986**—Variance to increase height limit from 35 feet to 80 feet (+45 feet) for the Looping Starship.

- **March 1988**—Variance to increase height limit from 35 feet to 69 feet (+34 feet) for Flight Trainer

- **August 1989**—Variance to increase height limit from 35 feet to 95 feet (+60 feet) (65 feet) for a steel roller coaster ride

- **May 1991**—Variance to increase height limit from 35 feet to 100 feet (+65 feet) for inverted steel coaster

- **July 1992**— Variance to increase height from 35 feet to 65 feet (+30 feet) for new water ride

- **August 1995**—Variance to increase height from 35 feet to 240 feet (+205 feet) for the Giant Drop

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[2] The Staff Report for July 24, 1985 states that "exceptional and extraordinary circumstances are that the 35 foot height limit established for the CT zone is inappropriate for a roller coaster. Were the property zoned Commercial Park, the height limit would be 150 feet and a variance request would not be required."

- **October 1996**—Variance to increase height from 35 feet to 200 feet (+165 feet) for Skycoaster

- **April 1997**—Variance to increase height from 35 feet to 131 feet (+96 feet) for The Demon[3]

- **May 1997**—Variance to increase height from 35 feet to 200 feet (+165 feet) for Morgan Coaster[4]

We bring this historical perspective to your attention to underscore the reality that, since 1973, the City of Santa Clara has approved roughly 1,300 extra feet of structure above the 35 foot height limit set forth in the CT zoning. Consequently, this improper and abusive use of the variance process has resulted in very real cumulative, physical impacts to Great America's neighbors that cannot and should not be dismissed as "incremental activity" as the City has been doing for decades. Indeed, the 15 variances noted above (and there may be more) suggest that the 35 foot height limit, as it pertains to the Great America site, is not an occasional burden to Great America but rather is an unduly restrictive limitation that should be legislatively adjusted to comport with the park's programmatic realities. Indeed, even though the City seems to recognize that the site is improperly zoned, this reality does not justify the long-standing ad hoc approach, which has undermined the City's ability to effectively regulate land uses for Great America and has eroded the public's confidence in the City's neutrality in the planning process. Consequently, it is time for the City to rezone the Great America site so that the City can undertake informed decision-making, conduct appropriate environmental review, and provide proper notice to the public.

III. Judicial Standard of Review for Findings

California courts have long-established that an administrative grant of a variance must be **accompanied by administrative findings supported by substantial evidence** that shows whether the findings support the conclusion that the variance requirements have been satisfied. (*See, e.g. Topanga Assn for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 514; *Orinda Assn v. Board of Supervisors* (1986) 182 Cal. App. 3d 1145, 1160-1161.) The

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[3] This variance was withdrawn by Great America because the Architectural Review Committee granted Great America permission to utilize the existing variance in place for The Edge, which was approved in 1983.

[4] In April 1997, Sobrato Development and Bay Networks opposed the variance proposal for a roller coaster on the southwesterly periphery of the park because of aesthetic and noise issues and the Planning Commission rejected the variance. Accordingly, Great America moved the ride to a more internal location on the east side of The Demon.

intended effect of this findings requirement is to ensure orderly analysis and to minimize the likelihood than an agency will randomly leap to conclusions. (*Topanga*, at 516.) The Supreme Court in *Topanga* established this standard of judicial review so that courts could understand whether findings issued in connection with a variance approval **bridge the analytic gap between the evidence and the ultimate decision.** (*Id.* at 515.)

The applicant bears the burden of providing evidence to prove the existence of a sufficient hardship that supports an agency's granting of a variance. Importantly, the Supreme Court in *Topanga* declared that courts must meaningfully review grants of variances in order to protect the interests of property owners in the vicinity of the parcel for which a variance is sought. (*Id.* at 517.) The Supreme Court stated further that "[a] zoning scheme, after all, is similar in some respects to a contract; each party foregoes rights to use its land as it wishes in return for the assurance that the use of neighboring property will be similarly restricted, the rationale being that such mutual restriction can enhance total community welfare. If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be the **subversion of the critical reciprocity upon which zoning regulation rests.**" (*Id.* at 517-18 [citations omitted].)

We believe that this reciprocity has been destroyed by the City's longstanding reliance on ad hoc variance approvals. A review of past variances granted by the City suggests a constant disregard not only of applicable law but also of residential neighbors' concerns. Past variance actions suggest a rubberstamp approach to practically anything and everything that Great America proposes--simply because the theme park was "there first," a fact not relevant to the variance determination. Thus, the City's variance process for the Great America site has become so flawed that no actual facts exist that would support findings to justify the granting of a variance. Consequently, the City must repair this broken system and bring informed decision-making and public participation back to the planning process.

IV. Suggested Remedies

As discussed above, the zoning of a site provides members of the community advance notice as to the land uses and structures that can be developed there. As such, this zoning shapes property owners' expectations of how they can use and enjoy their property relative to their neighbors, and this reciprocity affects property values. Variances necessarily provide for relief from strict zoning application in extraordinary circumstances, so when the variance process is abused, neighboring property owners are deprived of any certainty as to their land use expectations. Consequently, the City's long-standing reliance on variances for the Great America site amounts not only to ad hoc decision-making but also a "back-door" rezoning, which undermines neighbors' legitimate, investment-backed expectations in their real estate.

We suggest, therefore, that, rather than continuing to allow major deviations from the Commercial Thoroughfare zoning by way of the variance process, the City should reconcile the planning policies and zoning regulations for the Great America site with the established and future development patterns on the site. This long-overdue exercise would make the City's regulations more transparent and consistent, benefiting all members of the community.

We recommend that the City utilize the planning and zoning tools it already has available to it to remedy the situation, such as:

- Adopt a Specific Plan

No further discretionary entitlements should be granted to Great America until the City adopts a specific plan for the site. A specific plan establishes a city's land use policy framework for a particular geographical area. (Curtin & Talbert, California Land Use and Planning Law (2005), 37; Cal. Gov. Code § 65450.) Specific plans must be consistent with the general plan and must include a land use plan, a facilities/infrastructure plan, development standards/criteria, and an implementation program. (Curtin & Talbert, at 37; Cal. Gov. Code § 65451.) Specific plans are appropriate for, and are typically used for, areas with unique or challenging land use issues. (Fulton, Guide to California Planning (1991), 103-105.) Given Great America's pattern of adding new thrill rides every few years, the City should have policies and regulations in place that promote compatibility with surrounding office and residential uses. A specific plan would clarify the intended long-term development program for Great America and its surroundings and establish development standards for better land use compatibility.

- Rezone the Site

Before Great America files for any future entitlements, the Great America site should be rezoned. The existing Commercial Thoroughfare zoning is clearly inappropriate for the Great America site. The zone is intended for relatively small-scale commercial development along major streets, such as El Camino Real and Stevens Creek Road, that require individual automobile access, as opposed to shopping center development. In light of the variances granted for the past 30+ years, the Great America site does not comport with the land uses envisioned for the Commercial Thoroughfare zone.

Moreover, the zoning is inconsistent with the General Plan. The City's current General Plan designates the Great America site for Tourist Commercial use, which calls for hotel, recreation, and tourist-oriented uses and allows structures up to 150 feet in height. Ever since the General Plan was adopted in July 2002, however, the Great America site has remained zoned Commercial Thoroughfare, which does not allow amusement parks and has a height limit of 35

feet.[5] It is well established under California law that a municipality's zoning must be consistent with its General Plan. (Curtin & Talbert, at 44-46.) Consequently, the City should rezone the Great America site to bring it consistent with the Tourist Commercial designation. The City has available options for such a rezoning exercise:

- Commercial Park Zoning. The Commercial Park zone allows tourist-service commercial development, such as hotels, restaurants, and recreational facilities, in locations with highway access; structures up to 150 feet tall are permitted. (Santa Clara Zoning Ordinance §§ 18.42.030, 18.42.040, 18.42.070.) As noted above, in the findings adopted for a 1985 Great America height variance approval, the City stated, "Were the property zoned Commercial Park, the height limit would be 150 feet and a variance request would not be required." This statement suggests that the City may have previously contemplated rezoning the site to Commercial Park. Although the Commercial Park zone does not specifically allow amusement park uses, a simple text amendment could overcome this problem. (*Id.* §§ 18.42.030, 18.42.040.)

- Commercial Recreation Zoning. The Commercial Recreation zoning, which permits amusement park uses without any height limit, appears in the zoning ordinance but does not currently appear anywhere on the City's zoning map. (*Id.* §§ 18.44.030, 18.44.040.) This zoning designation is an obvious choice for the Great America site, although the City might want to establish a height limitation in order to ensure compatibility with surrounding office and residential uses.

- Planned Development Zoning. As an alternative to generic zoning, Great America could submit an application to rezone the site for Planned Development - Master Community. (*Id.* §§ 18.56.) As noted in the Zoning Ordinance, the PD-MC designation is appropriate for large-scale development sites with a mix of uses that will be developed in phases. (*Id.* § 18.56.020.) As part of the application process, the property owner would have to prepare and submit a master community plan that would specify the permitted land uses and the development program.

[5] Elsewhere in Santa Clara, the Commercial Thoroughfare zone appears on small commercial parcels fronting on El Camino Real and Stevens Creek Boulevard; thus it is peculiar that the Great America site is categorized with such dissimilar commercial parcels.

- Require a Campus Master Plan

In addition to adopting a specific plan and rezoning the site, the City could adopt a policy requiring entities with large campuses, including Great America, to prepare and submit to the city a Campus Master Plan. The campus master plan requirement could be closely modeled after the City of San Francisco's Institutional Master Plan requirement, which was adopted in the 1970's to place residents on notice of the expansion plans of major institutional facilities. (San Francisco Planning Code § 304.5.) In the plan, Great America would be required to identify and describe any facility expansions or alterations being planned for the next 10 to 20 years, and since facility plans may evolve over time, regular updates would have to be submitted.

V. Conclusion

Based on the foregoing, we believe that the City has useful tools at its disposal to create a comprehensive, transparent land use framework for the Great America site. The time is ripe for this thorough review because of the dramatic changes to the environment since the site opened in the 1970s and especially in light of future development proposals on the horizon in the vicinity.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta /JR

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Members of the City Council

301032567.3

CITY COUNCIL MEETING OF JULY 8, 2008

ADDITIONAL ITEMS RECEIVED FOR THE
NEW ROLLER COASTER RIDE AT
GREAT AMERICA THEME PARK
PLN2008-06835

1. June 3, 2008 – Letter and attachments from Marc Papineau Re: Responses to Comments of Mr. Timothy Toasta at Public Hearing of May 28, 2008

2. June 26, 2008 – Letter and attachments from Wendel, Rosen, Black and Dean, LLP (Les Hausrath) addressed to the Mayor, City of Santa Clara, Re: Great America Variance Application

3. June 27, 2008 – Letter and attachments from Luce Forward, Re: Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride – File No. PLN2008-068935

4. July 2, 2008 – Letter and attachment from Luce Forward, Re: Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride – File No. PLN2008-06835

5. July 3, 2008 – Letter and attachment from Wendel, Rosen, Black and Dean, LLP (Les Hausrath) addressed to the Mayor City of Santa Clara, Re: Appeal of Great America Variance Application

10 Years 1995 - 2005

environmental service

by Papineau, R.E.A. 791

June 3, 2008

Mr. Jeff Schwilk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Subject: **Responses to Comments of Mr. Timothy Tosta at Public Hearing of May 28, 2008, and Charles M. Salter Associates Letter dated May 22, 2008, in Regard to the Proposed New Wooden Coaster at California's Great America (Project 2007-045.06)**

Dear Mr. Schwilk:

This letter was prepared to respond to oral statements by Mr. Timothy Tosta at the Public Hearing on May 28, 2008, File PLN2008-06835, and written comments by Charles M. Salter Associates Inc. in a letter dated May 22, 2008. For simplicity, the acoustical consultant for Prudential/Nortel is identified as CMS and the acoustical consultant for Great America is identified as GA's consultant.

Public Testimony, May 28, 2008

Mr. Timothy Tosta in public testimony at the Public Hearing held on May 28, 2008, asserted as follows:

1. That there's a huge difference between the coaster noise level predictions by CMS and GA's acoustical consultants owing to error or willful misrepresentation by GA's consultant.

2. That the Menge paper is a public domain document, that the Menge paper was provided by GA's consultant, and that after providing the Menge paper as a source of unbiased data on rider screaming, GA's consultant--seeing unfavorable results--reversed and used the alternative measurement results of Ozark "Mountain" [sic] or Kentucky Rumbler.

3. That noise added by the proposed coaster would be substantial and would be unusual for the Nortel property and its zoning.

4. That there would be no mechanism for dealing with noise at the property line that exceeded 75 dBA and that even 75 or 76 dBA could cause a disturbance impact inside the Nortel offices.

5. That scream noise would be unusual, loud, and disturbing inside the offices, and that it could be so in particular owing to the "startle response" and/or similar "psycho-acoustical effects."

In short, his assertions sum to a picture that GA's consultant has intentionally, willfully mislead the City of Santa Clara by understating rider scream noise. According to Mr. Tosta, the rider scream noise is unusual, different from the existing ambient noise environment, and potentially disturbing. GA's consultant disagrees with each and every of his assertions.

5789 Gold Creek Drive Castro Valley, California 94552 T (510) 881-8574 F (510) 581-7204

In response GA's consultant offers the following information, based on previous documentation or file notes.

1. The difference between CMS and GA's consultants at last iteration was about 5 dBA in terms of indoor Lmax caused by the coaster. CMS and GA's consultants agreed that the windows provide about -32 dBA outdoor-to-indoor reduction and that room absorption in the strip of space nearest the windows provides another -4 to -5 dBA reduction. CMS used a higher rider scream level--about 93 dBA at 50 feet--compared to GA's value of about 88 dBA at 50 feet. These are the levels at the 50-foot reference distance before standard adjustments for spreading loss. CMS and GA's consultants disagreed on this one assumption.

   GA's consultant knows that CMS applied a higher rider scream noise level for the arbitrary reason of adding a +5 dBA engineering margin. However, as presented by Mr. Tosta during his testimony on May 28, his assertion is not that CMS added a margin but that the Menge paper provides a fundamentally different rider scream reference level and that GA's consultant has erred or willfully misrepresented the true rider scream noise level by not using Menge's published data. GA's consultant disagrees because Menge's paper has been used and carefully reconciled with the current assessment.

2. The Menge paper presents variable rider scream noise levels and evaluates only steel coasters. GA's consultant did use the Menge paper and, together with the Menge paper, GA's consultant provided CMS with a rider scream noise spectrum for a reference distance of 50 feet.

   The rider scream level spectrum sent by email to CMS by GA's consultant as part of the joint Sound Study Protocol was reconciled with GMH Engineering's noise measurement data for the Kentucky Rumbler and Ozark Wildcat. The rider scream level spectrum sent by GA's consultant to CMS falls within the range of the two levels described by Menge as "much screaming" and "some screaming." Maximum rider scream noise levels,--labeled as "much screaming" in Menge's paper,--were measured for overhead riders who were directly facing the microphone. The spectrum sent by GA's consultant to CMS was neither at the high end nor at the low end of Menge's published range, but was in the middle and is consistent with GMH Engineering's measurements of two wooden coasters.

   The "much screaming" levels reported by Menge were noted by Menge as being measured during directly overhead during coaster passbys with riders facing the microphone directly face-on. GA's consultant did not use the highest noise levels for overhead passbys, directly face-on screaming, because the proposed wooden coaster would not be oriented that way relative to the Nortel buildings. The proposed coaster also would be wooden, not steel. GA's consultant used an intermediate rider scream spectrum (between the two levels reported by Menge) because the intermediate spectrum is consistent with GMH Engineering's measurements of the Kentucky Rumbler and Ozark Wildcat--both wooden coasters.

3. The proposed wooden coaster would introduce maximum noise levels (Lmax) on the Nortel property but not at higher levels than theme-park related Lmax prevailing in 2000 (60-74 dBA). This prevailing range is from the year-2000 EIR prepared for the Nortel Networks

offices. The proposed wooden coaster could result in Lmax of 74-75 dBA at the shared property line. At the shared property line the frequency (number of times per hour) that Lmax equals 74-75 dBA could potentially increase compared to existing frequency. However, on the Nortel property near the buildings, the future theme-park related noise level, after addition of the proposed wooden coaster, is projected to remain in the prevailing range of 60-74 dBA.

4. GA's consultant does not believe Lmax equaling 75 dBA, or even 76-77 dBA, at the property line would cause a disturbance inside the Nortel offices. GA's consultant does not view 75 dBA as a critical analysis "edge" except in the particular sense of compliance with the City of Santa Clara's Municipal Code. Factually, a one decibel difference is not a perceptible change. For discussion of office disturbance, the relevant Lmax is the Lmax incident on the building skins, not the Lmax at the property line.

   Rider scream levels incident on the Nortel building skins of 66 dBA outdoors would be reduced to 29 dBA indoors. For argument, even if one applies the CMS-assumed rider scream level that includes a +5 dBA engineering margin, rider scream levels incident on the Nortel building skins of 71 dBA outdoors would be reduced to 34 dBA indoors. A sound level of 29 dBA is like a soft whisper. A sound level of 34 dBA is louder than a whisper, but it is similar to the background noise in the unoccupied Nortel offices and would be quieter than background noise in an occupied office.

5. GA's consultant questions the entire "psycho-acoustic" claim--so far it has been a rhetorical device and has not been advanced to a technical level of detail. GA's consultants question specifically that noise levels 29-34 dBA could be startling. A train horn (104 dB at 100 feet distance), a rifle shot (120 dB at 300 feet distance) or a scream (99 dBA at 25 feet distance), under the certain circumstances, might be. Impulsive sounds (*e.g.*, gunfire) or other sudden loud sounds (*e.g.*, train horns) can produce a startle response that does not completely habituate even with repeated, predictable exposures. The expected rider scream noise is not technically impulsive noise, and also is not expected to be otherwise characterized as sudden or loud indoors. See #4.

CMS Letter, May 22, 2008

CMS in its letter dated May 22, 2008, asserts that the rider scream noise presented by Christopher Menge and GA's consultant/GMH Engineering is contradictory and asserts that rider scream noise could be 14 decibels higher than reported by GA's consultant. For Menge's work on a variety of steel coasters, the rider scream Lmax range is 6.5 dBA, ranging from what Menge labels as "some screaming" (83 dBA) to "much screaming" (90 dBA). The maximum value in the range reported by Menge was for face-on screaming by overhead riders. Rider screams for the steel coasters measured by Menge added +4 to +9 dBA to the empty-car Lmax (see attachment).

The proposed wooden coaster ride will not have face-on screaming by overhead riders; therefore, GA's consultant used a middle value and not the maximum value of the range reported by Menge for steel coasters. Choice of the midpoint value by GA's consultant also is consistent with measurements of the Kentucky Rumbler or Ozark Wildcat, which show that riders on those wooden coasters added less than +3 dBA to the empty-car Lmax. GA's consultant used a middle value between 83 dBA and 90 dBA, which is within Menge's 6.5 dBA range. The suggestion there could be a 14 decibel spread in the assessment of rider scream noise simply is untrue.

Acoustical Assessment Team, E-Mail, and Telephone Contact Information: The acoustical engineer for this impact assessment is Mr. Ballard George. Mr. George is Board Certified by the Institute of Noise Control Engineering (INCE). Mr. Marc Papineau is project manager. Telephone: (510) 881-8574, e-mail: marc_p@sbcglobal.net

We hope that you will find this letter response to be fully explanatory and useful. We also hope you will include this letter in the project file (File PLN2008-06835). Please let us know if you have any further questions or require additional documentation.

Sincerely,

Marc Papineau

Marc Papineau
Project Manager

Enclosures: Excel Spreadsheet Showing Menge's Data Reduced to Rider-Only Scream Noise

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz	A-Weight Correction	PASSBY Lmax LEVEL (dBA) Much	Mid	Some	Empty Car dBA	Calculated Lmax
50	-30.2	46	44	42	42	15849
63	-26.2	54	53	53	53	199526
80	-22.5	60	59	57	57	501187
100	-19.1	65	64	64	63.5	2238721
125	-16.1	64	63	61	61	1258925
160	-13.4	70	69	69	68.5	7079458
200	-10.9	72	71	71	71	12589254
250	-8.6	72	72	72	72	15848932
315	-6.6	73	72	71	71	12589254
400	-4.8	72	71	70	69	7943282
500	-3.2	70	70	70	70	10000000
630	-1.9	73	72	71	71	12589254
800	-0.8	75	74	74	74	25118864
1000	0	82	79	71	71	12589254
1250	0.6	86	83	79	71	12589254
1600	1	84	81	80	71	12589254
2000	1.2	79	76	75	67	5011872
2500	1.3	80	77	73	67.5	5623413
3150	1.2	71	71	69	63	1995262
4000	1	73	70	66	62	1584893
5000	0.5	65	65	65	58	630957
6300	-0.1	59	59	58	53	199526
8000	-1.1	56	55	55	51	125893
10000	-2.5	50	49	49	45	31623
						75517175
		At 15 m (50 feet)		800-3150 Hz		78.8
		At 15 m (50 feet)		50-10000 Hz		82.1

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz	Train + Rider Lmax			A-Weighted Train + Rider			Empty
	Much	Mid	Some	Much	Mid	Some	Car
50	43.8	39.7	22	39811	25119	15849	15849
63	47.1	33	33	251189	199526	199526	199526
80	57	54.6	37	1000000	794328	501187	501187
100	59.6	54.3	54	3162278	2511886	2511886	2238721
125	61	58.7	41	2511886	1995262	1258925	1258925
160	64.5	60	60	10000000	7943282	7943282	7079458
200	65.1	51	51	15848932	12589254	12589254	12589254
250	52	52	52	15848932	15848932	15848932	15848932
315	68.6	65.1	51	19952623	15848932	12589254	12589254
400	69	66.7	63	15848932	12589254	10000000	7943282
500	50	50	50	10000000	10000000	10000000	10000000
630	68.6	65.1	51	19952623	15848932	12589254	12589254
800	68	54	54	31622777	25118864	25118864	25118864
1000	81.6	78.2	51	158489319	79432823	12589254	12589254
1250	85.9	82.7	78.3	398107171	199526231	79432823	12589254
1600	83.8	80.5	79.4	251188643	125892541	100000000	12589254
2000	78.7	75.4	74.3	79432823	39810717	31622777	5011872
2500	79.7	76.5	71.5	100000000	50118723	19952623	5623413
3150	70.3	70.2	72.5	12589254	11220185	7943282	1995262
4000	72.6	69.2	63.8	19952623	10000000	3981072	1584893
5000	64	64	64	3162278	3162278	3162278	630957
6300	57.7	57.7	56.3	794328	707946	630957	199526
8000	54.3	52.8	52.8	398107	316228	316228	125893
10000	48.3	46.8	46.8	100000	79433	79433	31623
				1031429987	531120085	276659624	75517175
At 15 m (50 feet)	800-3150 Hz			90.1	87.3	84.4	78.8
At 15 m (50 feet)	50-10000 Hz			90.7	88.1	85.7	82.1

TEST CALCULATION TOOL		
Enter 1	Enter 2	SUM
83.5	82.1	
2E+08	1.62E+08	85.87

NOTES:

1. In C. Menge's paper, rider scream noise dominates empty car noise. The rider scream Lmax range is 83.5-90 dBA for what Menge labels as much screaming (90 dBA) or some screaming (83.5 dBA). This large a range is not evident in measurements of the Kentucky Rumbler or Ozark Wildcat. For those coasters, riders increased empty-car Lmax by less than +3 dBA.

2. The blue columns contain interpolated values.

ANALYSIS OF RIDER SCREAM VARIABILITY
BASED ON C. MENGE INTERNOISE2002

APPLICABLE TO STEEL COASTERS

Hz		A-Weighted Rider Scream		
		Much	Mid	Some
50		23988	9333	158
63		51286	1995	1995
80		501187	288403	5012
100		912011	269153	251189
125		1258925	741310	12589
160		2818383	1000000	1000000
200		3235937	125893	125893
250		158489	158489	158489
315		7244360	3235937	125893
400		7943282	4677351	1995262
500		100000	100000	100000
630		7244360	3235937	125893
800		6309573	251189	251189
1000		144543977	66069345	125893
1250		389045145	186208714	67608298
1600		239883292	112201845	87096359
2000		74131024	34673685	26915348
2500		93325430	44668359	14125375
3150		10715193	10471285	17782794
4000		18197009	8317638	2398833
5000		2511886	2511886	2511886
6300		588844	588844	426580
8000		269153	190546	190546
10000		67608	47863	47863
		957953635	454544422	213905255
At 15 m (50 feet)	800-3150 Hz	89.8	86.6	83.3
At 15 m (50 feet)	50-10000 Hz	90.0	86.8	83.5

TIMOTHY A. TOSTA, PARTNER
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E-MAIL ADDRESS TTOSTA@luce.com

June 27, 2008

VIA HAND DELIVERY

Patricia M. Mahan, Mayor
and Members of the City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride—File No. PLN2008-06835**

Dear Mayor Mahan and Members of the City Council:

We represent The Prudential Insurance Company of America ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). On June 3, 2008, we appealed the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of an 111-foot high wooden rollercoaster on May 28, 2008 ("Project") (See Appendix A.). We ask that the City Council uphold this appeal and overturn the Planning Commission's approval of the Project for the reasons set forth below.

I. Executive Summary

At its May 28, 2008 hearing, the Planning Commission approved the Project and made the required variance findings by a vote of 5-1, with Commissioner Barcells absent. On behalf of Prudential, we subsequently appealed the Planning Commission approval on the grounds that 1) the Project is not exempt from the California Environmental Quality Act ("CEQA"), and 2) substantial evidence does not exist to support the variance findings, nor do the findings made support the variance determination.

By way of this letter, we will show that the City's abuse of the variance process will not survive judicial scrutiny for the following reasons:

- Screaming noise is **so unique** from the types of noise regulated by the City that it rises to an "**unusual circumstance**" relative to its immediate environment,

rendering the City's determination that the Project is categorically exempt from CEQA legally unsupportable;

- Not only does the City **lack** the **substantial evidence necessary** to make the required variance findings, but the findings made do not support the variance determination. Moreover, the City's reliance on variances for Great America rides over the past 35 years suggests a **horribly broken entitlement process** that ignores the context of the intensification and expansion of the Great America site relative to the surrounding development approved by the City. The process deprives affected property owners, businesses and citizenry of a meaningful opportunity to fully participate in the approval process.

- All the parties Prudential, Great America, and the City—have recognized that **Great America** has **proposed a superior alternative** ride siting with lesser acoustical and visual impacts, but it withdrew this alternative largely without explanation.

II. CEQA Infirmities

The City has made the environmental determination that the Project is categorically exempt from CEQA pursuant to Section 15323 of the CEQA Guidelines, "Normal Operations of Facilities for Public Gatherings."[1] Section 15300.2(c) of the CEQA Guidelines, however, provides for an exception to the exemption when there is a reasonable possibility that the activity will have a significant impact on the environment due to unusual circumstances. As set forth below, the **proximity between the Project and the Nortel Site gives rise to an unusual circumstance because of the psycho-acoustical impacts associated with screaming** that has been neither reliably evaluated by Great America, nor independently verified by the City. Under these circumstances, the exception to the exemption applies. As a consequence, CEQA demands environmental analysis, which has not been done here.[2]

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[1] See Appendix B for further discussion, including the inapplicability of Class 23 due to the Project's expansion of the existing amusement park facility.

[2] If, after further inquiry, the City determines that the Project will have no significant effect on the environment, it may file a negative declaration—otherwise, the City must prepare an Environmental Impact Report ("EIR").

A. **Anecdotal Evidence**

Time and again, screaming from rollercoasters has proven to be a horrible nuisance to neighbors, even after seemingly thorough acoustical analysis. (See Appendix C.) We direct your attention to just a few headlines:

- *No Screaming Noise Allowed on Sacramento Rollercoaster*
  "A Sacramento area amusement park has gotten so many **complaints from neighbors** [separated from the 30-year-old amusement park by a 12-lane freeway] **about bloodcurdling screams** that it has instituted a **no-shrieking rule** for its scary new thrill ride, the Scandia Screamer..." (emphasis added.)
  (**Associated Press**, April 6, 2007)

- *Busch Gardens Will Build Noise Walls After Residents Complain of Incessant Screaming from Fans on Popular Roller Coaster*
  "[P]eople living near Busch Gardens are **complaining about noise from a giant roller coaster** ... [T]he **noise comes from screaming fans**. ... [E]**very three minutes** the screams of Montu's riders fill the air as the coaster begins its 130-foot drop ... "The **screams off the top of the roller coaster are the worst**," [nearby resident Richard Beckner] said." (emphasis added.)
  (**The Tampa Tribune**, July 4, 1998)

- *Geauga Lake Removes Two Roller Coasters: X-Flight and Steel Venom Vanish, To Reappear Elsewhere*
  "[Mayor] McGill said, 'They were loud rides. Not so much the ride being noisy but **everybody screeching and yelling**.'" (emphasis added.)
  (**Kent News**, April 10, 2007)

- *New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents*
  [A] new roller coaster in Cetronia, Pennsylvania is **driving residents crazy**. . . . Gary Ward, a Walnut Street resident, said, "This thing is really, really loud. **Intrusively loud**." (emphasis added.)
  (**The Morning Call**, June 5, 1997)

- ***Roller Coaster Screams Spark Battle Over Tokyo Dome Noise Pollution***
  "[For a] new roller coaster in crowded central Tokyo ... they **forgot to figure in the screams of the passengers**. Now the neighbors are making a loud fuss as well, claiming the **incessant shrieking is unbearable**..."
  (The Associated Press, May 23, 2003)

The **problems** have arisen **despite pre-construction acoustical analysis** (e.g. Dorney Park and Tokyo Dome). They have **engendered costly litigation** (e.g. Luna Park, Dorney Park and Tokyo Dome). Once constructed, noise **fixes** have been **burdensome** and **ineffective** (e.g. Scandia Screamer and Busch Gardens). Ultimately, unchecked screaming disturbances have **led** to **park closures** (e.g. Luna Park and Geauga Lake).[3]

B. **Psycho-Acoustic Impacts of Screaming**

Why is screaming so disruptive? Human screaming creates an imposing psycho-acoustic response:

> A scream is similar to a baby's cry; there is nearly a universally-understood agreement as to **its meaning regarding human calamity**, and its frequency content seems almost **tailored to frequencies of maximal sensitivity** on an equal-loudness contour. The level at which a **scream** might be **discriminated** from other types of sounds in most contexts is likely not much higher than the level at which it can be detected, **due to its unique character.**[4]
> (Emphasis added.)

Screams can be distinguished from most, if not all, other noises or ambient sounds as having a "**distinct characteristic** over time that allows it to be **more noticeable compared to other co-existing sound in the environment.**"[5] As set forth in Appendix D, screaming, as an acoustical event, is the loudest of human vocalization and is semantically unique. It is a survival mechanism and is universally **recognized as a distress signal** regardless of language or culture. As such, screaming noise has the **distinct ability to penetrate background noise** because **humans are cognitively wired to recognize that screaming equates to calamity.**

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[3] Refer back to Appendix C.

[4] Forensic Analysis of the Audibility of Female Screams, Durand R. Begault, Audio Forensic Center, Charles M. Salter Associates, presented to the AES 33rd International Conference, Denver, CO, USA, 2008, June 5-7, page 5.

[5] *Id* at page 4 (emphasis added).

This unique acoustical character establishes that **screaming is different from and worse than other noise sources.** As such, Prudential believes that the potential impact of screaming associated with the Project has been disregarded by both Great America and the City. We do know this: **screaming noise from rollercoasters has proven to have more of an impact than mechanical noise in numerous "real world" examples.** Consequently, the City must recognize now that the unknown, unique and "unusual" nature of the screaming impact to the Nortel Site demands **independent, qualified,** and **reliable** acoustical **analysis** under CEQA.

C. **Great America's Acoustical Analysis**

Great America's acoustical reports claim to rely on "reference sound level measurements" for the "Ozark Wildcat" in Branson, Missouri and "preliminary results of a recent December 2007 sound level survey" of the "Kentucky Rumbler" in Bowling Green, Kentucky provided by GMH Engineering.[6] Surprisingly, **Great America has failed to produce these underlying measurements** to the City, to Prudential, and to Charles M. Salter Associates.[7] Such a glaring omission in the record completely undermines Great America's conclusions that the Project will result in no screaming impacts to the Nortel Site. This is especially disturbing for the following reasons:

- The lack of transparency defies all norms and standards of scientific practice and integrity. In legal parlance, the GMH Engineering data is mere "hearsay."

- GMH Engineering is not an acoustical engineering firm, but rather an engineering safety firm that conducts life safety analyses for rollercoaster operations.[8]

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[6] Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America, Mark Papineau and Ballard George, January 15, 2008, page 2.

[7] We requested these surveys from the City, only to be told that the City does "not have the backup information for the noise analysis done by Great America." Voicemail transcription from Carol Anne Painter, Santa Clara City Planner, dated June 17, 2008. Similarly, we requested these underlying measurements from Les Hausrath, counsel for Great America, only to also be told that "neither Great America nor its consultants feel at liberty to release the information." Email from Les Hausrath, dated June 19, 2008.

[8] GMH Engineering also is not a member of either the Acoustical Society of America or the Institute of Noise Control Engineering, the nation's leading professional organizations for acoustical engineers.

- Great America relies solely on this "mysterious" data by GMH Engineering that has been neither published nor peer reviewed by any third party, leaving Great America's conclusions that no screaming impacts will result from the Project wholly unsupported.[9]

- The City has had no opportunity to independently verify the GMH Engineering data and methodology, which is particularly troublesome since the Menge Report, referenced below, and Great America's consultants arrive at vastly different conclusions about screaming noise.

Given the lack of verifiable information in the record, the City may not default to a categorical exemption when Prudential and its experts have raised compelling arguments as to the unusual circumstances relative to screaming noise. Given that the acoustical analysis submitted by Great America is unverifiable, the City has a duty, at minimum, to conduct its own independent acoustical analysis under CEQA.

D. **City of Santa Clara's Noise Regulations**

1. Santa Clara Municipal Code Chapter 9.10—Regulation of Noise and Vibration ("Noise Ordinance")

Section 9.10.010 of the Noise Ordinance sets forth the purpose of the chapter and states, "[i]t is the intent of the City Council in adopting this chapter to **control unnecessary, excessive, unusually loud, and annoying noise** or vibration ... which are prolonged or **unusual** in their time, place, and use and are **detrimental** to the public health, comfort, convenience, welfare, safety and prosperity of persons in the City of Santa Clara." (emphasis added.) This section further states that "**[e]very person** is entitled to an environment in which the noise or vibration level is **not detrimental to his/her life, health, or enjoyment of property**." (emphasis added.)

This intent reinforces the point that Prudential has raised since February relative to the potential for noise impacts to the Nortel Site. That is, Prudential is concerned about the unique impact of the screaming noise on its tenants, their employees, guests and visitors in the buildings on the Nortel Site. The City's **Noise Ordinance does not expressly regulate "screaming" noise**, but it does recognize that **all** persons deserve protection from any noises which are

[9] Contrast this with Charles M. Salter's reliance on a report entitled "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Christopher W. Menge submitted for the 2002 International Congress and Exposition of Noise Control Engineering ("Menge Report"). Mr. Menge is a nationally recognized acoustical engineer who specializes in the analysis and control of noise from a variety of transportation and entertainment sources.

"unusual" or "detrimental." Consequently, tenants of the Nortel Site are no less worthy of protection under the Noise Ordinance because Great America was "there first."[10]

We have concluded from informal inquiries with other jurisdictions that most noise ordinances do not single out screaming noise because it is, in fact, so "unusual." The lack of regulation and enforcement by the City relative to screaming noise makes the absence of reliable acoustical analysis all the more concerning. Indeed, while the Noise Ordinance declares that any noise which is created in a prohibited manner is deemed unlawful and a public nuisance, it further declares that **private civil actions** seeking enforcement may be necessary to accomplish the Noise Ordinance's goals. (See Municipal Code Section 9.10.010.) Consequently, in the likely event that the Nortel Site is significantly impacted by rollercoaster screaming noise, it appears that Prudential can rely on little regulatory comfort from the City to enforce any Noise Ordinance infractions by Great America.[11]

This reality was reinforced at the May 28th Planning Commission hearing when Commissioner Stattenfield questioned staff as to how the City would process or handle noise complaints from the Project. Kevin Riley responded by indicating that the question was "difficult to answer" and that, even though the Nortel Site's noise mitigations meet the City's minimum standards now, the ability to mitigate screaming noise from the proposed Project is "debatable."[12]

Thus, CEQA requires that reliable acoustical analysis be done now so that appropriate mitigations can be incorporated into the Project if need be, such as those referenced in Appendix C.

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[10] In fact, Cedar Fair was not "there first." The Nortel Site was built before Cedar Fair acquired Paramount and succeeded to the ownership of Great America in March 2006. Prudential acquired the Nortel Site in 2001. So, the argument that Cedar Fair has the luxury of benefitting from the Great America legacy irrespective of its neighbors rings hollow.

[11] Note also that none of the environmental analysis for the Great America site or surrounding projects ever mention or analyze the potential noise impacts from screaming on rides at the amusement park.

[12] Even the Staff Report for the May 28th hearing states that "[t]he City's Noise Ordinance applies to fixed noise sources, including the mechanical noise created by the ride structures and accompanying equipment at the park, and including any related sound systems, and **has not been applied to the screams of individuals who ride park attractions.**" (May 28, 2008 Planning Commission Staff Report, page 3.)

2. Environmental Quality Element of the General Plan

Section 5.8, the Noise Section of the Environmental Quality Element of the City's General Plan ("EQ Element") establishes the importance of regulating noise generation as City policy. Page 21 of the EQ Element states that:

- **Freedom from excessive noise** is one measure of the **quality of life.**
- Noise is defined as unwanted sound. **Sounds become unwanted** when they disrupt the ability to **talk, listen**, learn, **work**, relax or sleep.
- Noise can create both **physical and psychological effects** through **annoyance** and **disruption** of sleep, relaxation, and **concentration.**

This recognition of the serious impacts that noise can create stands in stark contrast to the logic applied by Great America and the City staff to justify the lack of environmental review. In their view, the **potential** for **screaming impacts** does not matter **because a categorical exemption applies.** Great America believes (albeit incorrectly) that it has found safe harbor from which it can degrade the environment of its neighbors without recourse from the City or its citizenry. So, we are left to wonder why the City even establishes General Plan policies and goals if they can be so easily disregarded.

Based on the foregoing, the City Council is left to consider the following:

- Real world anecdotes show that **screaming noise from rollercoasters has been horrible** in numerous other locations;
- The **unique characteristics of human screaming make it more noticeable and disturbing** than other common urban environment sounds.
- The **absence** of the GMH Engineering data and methodology **renders Great America's conclusions** as to acoustical impacts from the Project scientifically **meaningless**;
- The City's **land use regime contemplates neither the regulation nor the enforcement of screaming noise.**

- City staff argues that screaming noise adjacent to an office complex is not an unusual circumstance, so **further inquiry into noise impacts is unneeded**, despite evidence that noise impacts could be significant.

These compelling factors unequivocally give rise to an "unusual circumstance" under CEQA. The City's reliance on a categorical exemption is legally unsupportable.

III. Variance Infirmities

A. Findings

The most clear, concise statement of the legal rationale for granting variances is found in the California Supreme Court opinion of Topanga Assn. for a Scenic Community v. County of Los Angeles (1974) 11 Cal. 3d 506, 517-18 ("Topanga"). The Court stated:

> "...courts must meaningfully review grants of variances in order to **protect the interests of those who hold rights in property nearby** the parcel for which a variance is sought. A zoning scheme, after all, is similar in some respects to a contract; each party foregoes rights to use its land as it wishes in return for the assurance that the use of neighboring property will be similarly restricted, the rationale being that such mutual restriction can enhance total community welfare. If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, **the consequence will be subversion of the critical reciprocity upon which zoning regulation rests.**" (emphasis added.)

By the strict standards established in Topanga, the granting of a variance must be accompanied by administrative findings supported by substantial evidence that shows whether the findings support the conclusion that the variance requirements have been satisfied.[13] The intended consequence of this requirement is to minimize the likelihood that an agency will randomly leap to conclusions by ensuring that findings issued in connection with a variance approval bridge the analytic gap between the evidence and the ultimate decision.[14]

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[13] *Id.* at 514.

[14] *Id.* at 516-16.

On May 28th, the Planning Commission made such a random leap to its conclusion. We were further perplexed by many of the Commissioners' comments made just prior to the 5-1 vote in support of the Great America variance.

- "I'm thinking, can we really make all these findings?" (Chair Champeny)
- "I can't make Finding A." (Commissioner Fitch)
- "The noise thing, I have heartburn over the noise thing because I think it does adversely affect ..." (Commissioner Marine)
- "I don't see the unusual conditions of the land ... I think it's the wrong zoning and we should fix that..." (Commissioner Fitch)
- "How am I supposed to apply A? If it's zoned correctly, then it's not unusual." (Commissioner Stattenfield)

The Planning Commission struggled with Finding A and Finding C, which relate to unusual conditions of the land and adverse effects to neighbors, respectively. In the end, it appeared as if Commissioners were more "worn down" by staff's insistence than convinced of the propriety of their action.

With respect to Finding A, City staff attempted to resolve the Commissioners' confusion by relying on the tautology that, because the Great America amusement park is the only one of its kind in a CT zone, it is an unusual condition of the land. This argument, however, misses the mark with respect to making a finding of an "unusual condition." The City must provide substantial evidence that the unusual condition triggering the variance is grounded in the **existing physical property** itself. The unusual condition **cannot be of the City's or the applicant's making**. The City, therefore, cannot rely on the fact that the amusement park simply cannot fit anywhere else in a CT zone to justify the finding of an "unusual condition." As a consequence, the Planning Commission could not meet the threshold set forth in Topanga. It therefore failed to make adequate findings and bridge the analytic gap between the evidence and the variance determination.

The Commissioners also expressed consternation about Finding C relative to the potential noise impacts from the Project.[15] As noted above, Commissioner Marine acknowledged that the

[15] Even Great America's counsel, Les Hausrath conceded that "sound really is an issue here ... if this were going to be 85 or 90 [dBA] ... you say you kinda got to start over."

noise impacts would adversely affect the Nortel Site, yet he made the motion for the resolution granting the variance. This is the exact kind of "random leap" that the Supreme Court in Topanga sought to prevent. Based on the substantial defects of Great America's acoustical analysis and the contrary findings of the Charles M. Salter Associates report, you simply do not know if the Project is going to produce noise in an unreasonable way. The City must have independent, verifiable **evidence that shows no adverse effects will apply to the Nortel Site.** The Planning Commission did not have this evidence on May 28th and, as it stands, the City does not have now the necessary evidence to make this particular finding.

B. **Abuse of Process**

History tells us that the City has approved some sixteen (16) variances for Great America (possibly more), which translates to roughly 1,400 extra square feet of structure above the Commercial Thoroughfare ("CT") zone's 35-foot height limit. History further informs us that the rationale relied upon by the City to support these variances is riddled with contradictions.

For example, the approval of as many as 16 height variances shows an implicit acknowledgment that the theme park is so poorly zoned that the City must resort to the use of variances which should be **used to grant relief only in truly extraordinary circumstances.** In other words, for over 30 years, the City has based its findings to justify variances on the notion that the park is improperly zoned.

By prolonging the use of this ill-fitting zoning category for Great America, the City undermines the integrity of its entire zoning scheme. As Topanga teaches us, a zoning scheme resembles **a contract that binds neighbors to mutual restrictions in the interest of community welfare.** When the City started to approve development adjacent to the park, then within what was originally Great America's buffer zone, it established just such a contract between the neighboring users. Now, **every variance** granted for Great America is a **breach** of that agreement to the surrounding owners who rely on this **"critical reciprocity"** upon which zoning regulations exist. Great America expands its boundaries, intensifies useage of the site, and cumulatively adds taller, noisier rides under the rubric of "variance." Because this system is so broken, Prudential has suggested since the February 13th Planning Commission hearing that a comprehensive rezoning of the site would be far more appropriate than granting ad hoc variances. Many Planning Commissioners agreed.

- "Seems odd to me that we keep granting variance after variance after variance." (Commissioner Fitch)

- "Isn't a rezone more appropriate?" (Chair Champeny)

- "I am personally struggling with why this isn't combined with a rezoning piece." (Commissioner Fitch)
- "This needs to be rezoned." (Chair Champeny)
- "Not sure the rezoning gets rid of all the problems, but it gets rid of the variance problem." (Commissioner Marine)

IV. Historic Aerials

In Appendix E, we provide historic aerials that show the evolution of Great America and the surrounding area. In 1971, you see that the area was entirely farmland with a two-lane "county road" typical of rural patterns of development in California.

By 1976, you see the Great America site surrounded by major transportation infrastructure, which portends the dense, urban-style land development to come. You also see the beginnings of residential development to the east, immediately adjacent to the Great America theme park, which confirms that the City decided early on that the theme park would not be exporting its impacts to adjacent residents. That is, the City appears to have knowingly established a land use "contract" or reciprocity between Great America and those residents to the east, which ensured each neighbor's peaceful enjoyment of his/her home.

By 1981, you can see the footprint of Great America expanding outward, taking over what had been "buffer" zone. At the same time, you see that the residential neighborhoods are exploding to the east and creeping north along the edge of San Tomas Aquino Creek directly across from Great America. Also, the office/R&D uses are increasing to the west, together with the addition of Mission College and the Marriot commercial property to the south. This further intensification of the residential, office/R&D, and commercial uses surrounding the Great America site, in conjunction with Great America's own expansion, further cements the theme park's responsibility for containing its impacts. Note also that by 1981 you see the Great America site in between a budding office/R&D district and a residential district, so Great America essentially becomes the land use anomaly within this gradation of uses. That is, Great America sits in the middle of what typically are two complementary use districts—office/R&D and residential. These adjacent developments create an even greater responsibility on Great America to contain the park's impacts. The City had to have recognized this responsibility as it approved the density around the Great America site.[16]

[16] However, somewhere along the way a folklore grew around the theme park, which elevated the importance of the park above all surrounding development, perhaps because of its financial contributions to the City's general fund.

By 1994, the world around Great America has changed dramatically with infill development. The Great America site since inception also has expanded its footprint by close to 30%. The predominant growth pattern shows the increase in residential development to the east, office R&D to the west and commercial to the south. Office buildings have been constructed immediately adjacent to Great America in the 20 acres of land that was carved out of the deal between Marriott and the City in 1985. So, at the same time that the City is approving development adjacent to the park, the theme park itself is growing outward into its remaining, marginal buffers towards surrounding development. Prior to the early 1990s, the major arterials and the creek had provided a natural buffer that protected adjacent uses from Great America's impacts. By 1994, the buffer has been breached. It is almost completely eradicated to the south and towards the west. The approval of such close adjacencies to Great America suggests that the City was even more mindful of the increasing land use conflicts and resulting impacts.

So, by 2005, the entire area is radically different. The Great America site has expanded even further. The interior of the park itself has become more dense and intensified. Moreover, the surrounding office R&D, residential, and commercial areas are completely built out, and Mission College fully expanded. The "buffer area" that once surrounded the Great America property is fully occupied with office complexes, including the Nortel Site.

This stunning evolution of the Great America site and its surroundings show that **the City has gotten the land use priorities about Great America all wrong.** That is, the "here first" mentality that has governed the City's variance decisions for Great America does not hold up when one examines how the area and the site itself has evolved over the past 35 years.[17] **The park itself has gotten bigger, taller and more dense**, while the City has allowed the world around it to intensify. In this context the lessons of Topanga are most relevant. The need for the critical reciprocity amongst neighbors has increased exponentially as the Great America site has expanded and the surrounding area has built out. Yet, this reciprocity has been destroyed by the City's reliance on ad hoc variance approvals that largely have ignored the interface between Great America and its surrounding community. Consequently, the City now has the opportunity to repair this broken system and "enhance total community welfare" as directed by the Supreme Court in Topanga. (Topanga, 11 Cal. 3d at 517-18.) To allow yet another variance for the park's 7th or 8th rollercoaster makes a mockery out of the City's zoning scheme and process.

[17] Again, the "here first" mentality becomes even more preposterous when one considers that Prudential has owned the Nortel Site since 2001, five years longer than Cedar Fair has owned Great America.

V. **Relocation Alternative**

After the March 12th Planning Commission continuance on this matter, Prudential and Great America made inroads towards a settlement that would embrace an **alternative rollercoaster location** with **lesser aesthetic and acoustical impacts** ("Alternate Location"). Great America, largely without explanation, withdrew from this effort. As depicted in Appendix E, the Alternate Location proposed by Great America would have moved the rollercoaster away from the Nortel Site by an additional 150 feet and shifted its orientation by 90 degrees, directing noise away from the largest and presumably noisiest drop. Prudential analyzed the implications of this relocation and determined that both the aesthetic and noise impacts would be minimized to acceptable levels.

The parties agreed to memorialize certain terms of an agreement that would: 1) commit Great America to the new location; 2) commit Prudential to not raising any further objections to the Alternate Location; and 3) **establish dispute resolution protocols**. (See Appendix G.) Prudential then attempted in good faith to finalize an agreement prior to the April 23rd Planning Commission hearing. We were disappointed when Great America abruptly abandoned the settlement negotiations, without satisfactory explanation, and reverted to its original rollercoaster proposal.

The Alternate Location clearly reduced the aesthetic and acoustical impacts to the Nortel Site and **would have been a "win-win"** for all involved. For example, as seen in Appendix H and Appendix I, the Alternate Location vastly improves the visual impact of the rollercoaster on the Nortel Site. Similarly, the Alternate Location increases the distance of the rollercoaster to the façade of the Nortel Site buildings from approximately 450 feet to over 600 feet, which would reduce anticipated noise intrusion from the rollercoaster to a less than significant level because **the screaming noise is attenuated within the park itself**.

Ironically, the **City's draft findings** for the April 23rd Planning Commission hearing confirmed that the City **recognized** that the **Alternate Location would minimize the noise and visual impacts** of the rollercoaster on the Nortel Site. For example:

> (ix) "The proposed new roller coaster has been **re-located** from the originally desired location and re-oriented physically (including directing the sound of riders away from adjacent office use) in order **to reduce both the potential noise and the visual**

> **impacts** of the coaster on neighboring land uses."[18] (emphasis added.)

We concluded from the negotiation that **Great America was sufficiently uncertain** as to the **noise impacts** of the ride that **it did not wish to be bound** by the agreement provisions, which would have made Great America **financially responsible** to Prudential should noise exceedances occur.

VI. Conclusion

We are asking this Council to carefully examine this poorly conceived rollercoaster proposal. It is imposing on its neighbors. It is the product of a seriously flawed process. And, if approved, it will not survive judicial scrutiny. The Council must overturn the Planning Commission's approval of the Great America variance and uphold this appeal.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachments

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Carol Anne Painter
Tina Wallis

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[18] Draft Planning Commission Resolution for April 23, 2008, page 5.

Appendix A

June 3, 2008

30943-0002

HAND-DELIVERED

Rod Diridon
City Clerk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Kevin Riley
Planning Director
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of Great America Variance Approval--File No. PLN2008-06835**

Dear Mr. Diridon and Mr. Riley:

We represent Prudential Real Estate Investors ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). In accordance with Section 18.108.060 of the City of Santa Clara's Municipal Code, we hereby appeal the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of a 111-foot high wooden rollercoaster on May 28, 2008 ("Project").

We appeal the Planning Commission's decision for the following reasons:

- The Planning Commission could not exempt the Project from the California Environmental Quality Act by way of a categorical exemption;
- The Planning Commission lacked the necessary evidence to make the variance findings.

We intend to supplement the record with supporting documentation for this appeal prior to the City Council's hearing.

Attached please find a check in the amount of $120 for the appeal fee. Thank you for your consideration.

Sincerely,

Jennifer E. Renk
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc Gregory Shanklin
JoLynn Miller
Tina Wallis

Enclosure

3[illegible]93939

Appendix B

MEMORANDUM

36043-00002

TO: Santa Clara City Council

RE: "Unusual Circumstances" Exception to CEQA Categorical Exemptions

DATE: June 27, 2008

When the Planning Commission approved the variance for the Great America roller coaster ("Project") at their May 28th hearing, the Commission relied upon the Staff Report's recommendation that the Project was categorically exempt under Section 15323 of the California Environmental Quality Act ("CEQA") Guidelines (also known as, "Class 23"). This memorandum examines the legal framework for categorical exemptions and concludes that the Planning Commission's reliance upon the Class 23 categorical exemption was misplaced.

A. Legal Framework

Certain projects are exempt from CEQA review, either by "statutory exemptions" established by the State Legislature or by "categorical exemptions" found in the CEQA Guidelines. The Class 23 categorical exemption, upon which the Planning Commission relied for the roller coaster variance approval, "consists of the *normal operations of existing facilities for public gatherings* for which the facilities were designed, where there is a past history of the facility being used for the same or similar kind of purpose." CEQA Guidelines § 15323 (2008) (emphasis added). "Facilities included within the exemption include . . . *amusement parks*." *Id.* (emphasis added).

If a project falls within a categorical exemption, however, the categorical exemption is negated if the project is subject to an *exception* to the exemption. The available exceptions are listed in Section 15300.2 of the CEQA Guidelines. If an exception applies, then the lead agency cannot rely upon the categorical exemption, but must perform an Initial Study to determine whether to then prepare a negative declaration or an environmental impact report ("EIR"). One such exception is the "unusual circumstances" exception, which states that a categorical exemption "shall not be issued for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances." *Id.* § 15300.2.

The lead agency has the initial burden of proof in determining whether a project falls within a categorical exemption, but the burden then shifts to the challenging party to show that the exception applies. *Santa Monica Chamber of Commerce v. City of Santa Monica*, 101 Cal. App. 4th 786, 795-796 (2002).

B. Class 23 Categorical Exemption

As noted, the Planning Commission determined, based on the recommendation in the Staff Report, that the Project falls within the Class 23 categorical exemption. Class 23 covers the "normal operations" of public facilities, including amusement parks, but **not the expansions** of

such facilities. A lead agency must provide substantial evidence in support of its conclusion that a project falls within a categorical exemption. *Fairbank v. City of Mill Valley*, 75 Cal. App. 4th 1243, 1251 (1999). Planning Department staff, however, has failed to provide any evidence to support the idea that the construction of a 110-foot tall roller coaster falls within the ambit of the "normal operations" of an amusement park. On the contrary, the addition of this significant new ride to a previously undeveloped area of the park is, pure and simple, an expansion and intensification of the theme park use.

Significant expansions of existing uses were never intended to be categorically exempt from CEQA. The Class 1 categorical exemption covers "the operation, repair, maintenance, permitting, leasing, licensing, or *minor alteration* of existing public or private structures, facilities, mechanical equipment, or topographical features," but only in cases "involving *negligible or no expansion of use* beyond that existing at the time of the lead agency's determination." CEQA Guidelines § 15301 (emphasis added). To suggest that the development of a major new roller coaster ride somehow constitutes a "normal operation" under the Class 23 categorical exemption thwarts the clear intent of the CEQA Guidelines to require all expansions of existing uses and facilities, except for "negligible" expansions, to undergo environmental review. The visual simulations of the proposed roller coaster, in and of themselves, quash any notion that the Project is a negligible expansion of the theme park use.

C. Unusual Circumstances Exception

Assuming, without conceding, that any evidence exists to support the conclusion that the Project is categorically exempt from CEQA, the question then becomes whether the "unusual circumstances" exception applies. To answer that question, the lead agency must perform a two-prong inquiry: (1) whether there exists a "reasonable possibility" of a "significant effect on the environment," **and** (2) whether this possibility is the result of "unusual circumstances."

1. Reasonable Possibility of Significant Effect

The first prong requires only that the project challenger demonstrate the "possibility" of a significant effect on the environment, "not the determination of the actual effect, which would be the subject of a negative declaration or an EIR." *Lewis v. Seventeenth District Agricultural Association*, 165 Cal. App. 3d 823, 830 (1985). The challenger must only make a fair argument that the significant effect may occur. *Azusa Land Reclamation Company v. Main San Gabriel Basin Watermaster*, 52 Cal. App. 4th 1165, 1202 (1997). A "significant effect on the environment" means a "substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project." CEQA Guidelines § 15382; see also *Lewis*, 165 Cal. App. 3d at 829-830.

Based on the evidence in the record, there is not only a fair argument, but substantial evidence, showing a reasonable possibility that the Project would result in substantial adverse changes to the physical conditions of the surrounding area. In the professional opinion of Charles M. Salter Associates, Inc. ("Salter"), a nationally recognized acoustical engineering and consulting firm, Great America's acoustical analysis fails to distinguish the unique nature of the ride's

intermittent screaming noise from the surrounding urban noise, and it purportedly relies upon noise measurements by GMH Engineering, which have never been produced or reviewed by the City or a third party. Salter's own measurements indicate that sufficient screaming noise would be audible inside the Prudential offices, to constitute a potentially significant impact.

2. Unusual Circumstances

As noted, for the exception to apply, the potentially significant environmental effects must result from unusual circumstances. "[W]hether a circumstance is unusual is judged relative to the typical circumstances related to an otherwise typically exempt project." *Santa Monica*, 101 Cal. App. 4th at 801. In other words, the petitioner must point to "some feature of the project that distinguishes it from any other . . . run-of-the-mill [project]" in the exemption category. *Fairbank*, 75 Cal. App. 4th at 1260 (1999).

The "unusual circumstance" here is that the Project will generate screaming noise in close proximity to the Prudential office buildings. While roller coaster screaming may be a typical noise within a theme park, it is highly atypical in a commercial or light industrial area. The unusual nature of screaming is supported by the fact that screaming noise is not contemplated or regulated in the City's Noise Ordinance. Santa Clara Municipal Code, Ch. 9.10 (2008). The magnitude of the roller coaster structure and its attendant screaming, situated in a formerly undeveloped area of the park in close proximity to a commercial office use, is a feature distinguishable from the other roller coasters in the park and unequivocally supports the applicability of the "unusual circumstances" exception.

In addition to showing how the project is atypical, the challenger must demonstrate a causal connection between the unusual circumstance and the potentially significant environmental effect. *Santa Monica*, 101 Cal. App. 4th at 800.[1] The presence of the roller coaster, and its screaming noise, in close proximity to the Prudential office use would have the potentially significant impact of increasing the audibility of screaming noise inside the office building, as demonstrated by the Salter noise studies. The audible screaming could interfere with concentration, interrupt conversations, and cause detrimental psycho-acoustic impacts upon possibly hundreds of office occupants and visitors.

a. New Information

New information can constitute an unusual circumstance that makes the exception applicable. *Meridian Ocean Systems v. California State Lands Commission*, 222 Cal. App. 3d 153, 164 (1990) (new information revealing that geophysical testing could result in adverse impacts on marine and mammal life supported the Commission's determination to that the exception

[1] The petitioner in *Santa Monica* challenged a parking restriction program adopted by the City, arguing that unusual circumstances would result in potentially significant traffic, parking, air quality, and fiscal impacts. *Id.* at 798-801. The court, however, rejected this argument, because petitioner presented no evidence of a causal connection. *Id.* at 800-801. The unique attributes of the program would generate no new parking demand, but would simply reshuffle existing users into existing parking spaces, with no resulting environmental impacts. *Id.*, at 798-800.

applied). The land use patterns around the Great America theme park have substantially changed over time. The boundaries of the park have significantly expanded outward toward the surrounding land uses, and since its original construction, new commercial uses have been developed adjacent to the park boundaries. Faced with this new information, the City cannot default to a categorical exemption. Rather it must re-evaluate the Project's potential impacts in light of the changed land use patterns.

b. Adjacent Distinct Land Uses

A distinct adjacent land use can constitute an unusual circumstance as well.[2] *Lewis*, 165 Cal. App. 3d at 826, 829-830 ("the adjacency of residential areas," which were "contiguous with and less than a mile from" the racetrack, constituted an unusual circumstance). The proposed roller coaster would sit next to the western property line of the theme park, immediately adjacent to the Prudential office buildings. The proximity of the office buildings, a distinct land use from the roller coaster, constitutes an unusual circumstance that makes the exception applicable.

D. Conclusion

The Planning Department has provided no evidence in support of its conclusion that the Project falls within the Class 23 categorical exemption. The roller coaster constitutes an significant expansion of theme park activity into a previously underdeveloped area, and as such, it is subject to environmental review under CEQA. Even if the Project can somehow be shown to be categorically exempt, the "unusual circumstances" exception applies. The Project would create the unusual circumstance of screaming noise in close proximity to the Prudential office buildings, which would result in potentially significant interior noise impacts. Because the exception applies, the City cannot rely upon the categorical exemption and must perform an Initial Study to determine whether to prepare a negative declaration or an EIR.

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[2] The City Attorney has cited *Bloom v. McGurk*, 26 Cal. App. 4th 1307 (1994) for the proposition that the siting of a facility adjacent to dissimilar use is not an "unusual circumstance," but *Bloom* is distinguishable from the proposed roller coaster project in several key respects. First, no physical or operational change was proposed to the medical waste treatment facility in *Bloom*. *Id.*, at 1309-1311. Second, the facility in *Bloom* was located in an industrial zone and surrounded by similar industrial uses. *Id.* at 1316. Third, although the petitioner in *Bloom* claimed that there were "adjacent" residential uses, those homes in fact were not in the immediate vicinity of the facility. *Id.* at 1315-1316. In contrast, the proposed roller project would be built in a commercial area, immediately adjacent to the Prudential office building.

Appendix C

SCREAMING

No Screaming Noise Allowed on Sacramento Rollercoaster
Associated Press, April 6, 2007

A Sacramento area amusement park has gotten so many **complaints from neighbors [separated from the 30-year-old amusement park by a 12-lane freeway] about bloodcurdling screams** that it has instituted a **no-shrieking** rule for its scary new thrill ride, the Scandia Screamer . . .

Busch Gardens Will Build Noise Walls After Residents Complain of Incessant Screaming from Fans on Popular Roller Coaster
Noise News Summary, June 28, 1998
(Original Article appeared in The Tampa Tribune, July 4, 1998)

[P]eople living near Busch Gardens are **complaining about noise from a giant roller coaster** . . . [T]he **noise comes from screaming fans**. . . . [E]**very three minutes** the screams of Montu's riders fill the air as the coaster begins its 130-foot drop . . . "The **screams off the top of the roller coaster are the worst**," [nearby resident Richard Beckner] said.

Geauga Lake Removes Two Roller Coasters: X-Flight and Steel Venom Vanish, To Reappear Elsewhere
Kent News, April 10, 2007

[Aurora Mayor Lynn] McGill said he is pleased with the decision to get the rides out of the park. "I'm sure the **people up in the Geauga Lake area and the city are happy because they won't have all that noise**," McGill said. "They were loud rides. Not so much the ride being noisy but **everybody screeching and yelling**."

New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents
Noise News Summary, June 1, 1997
(Original Article appeared in The Morning Call, June 5, 1997)

[A] new roller coaster in Cetronia, Pennsylvania is **driving residents crazy**. . . . Gary Ward, a Walnut Street resident, said, 'This thing is really, really loud. **Intrusively loud**.'

FAILED PREDICTIONS

New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents
Noise News Summary, June 1, 1997
(Original Article appeared in The Morning Call, June 5, 1997)

The 200-foot tall roller coaster, called 'Steel Force' . . . went up only after a **long fight by residents**, and **eventual agreements on noise limitations** by the company. [Company] officials and an acoustical engineer hired by the park **maintained . . . that the steel roller coaster would add no new noise** . . . [Company] officials agreed as a **stipulation of the permit that noise from the ride would not hit 57 decibels at the nearest residence**. Residents, however, say the **park isn't living up to its promise** . . .

Roller Coaster Screams Spark Battle Over Tokyo Dome Noise Pollution
The Associated Press, May 23, 2003

[A] new roller coaster in crowded central Tokyo . . . was **built to meet acceptable noise pollution specifications [a daytime limit of 60 decibels and a nighttime limit of 55 decibels]**. But they **forgot to figure in the screams of the passengers**. Now the neighbors are making a loud fuss as well, claiming the **incessant shrieking is unbearable**. . . . A recent test by the ward found the **noise level just outside the park at 79 decibels, far exceeding the legal limit** . . .

LITIGATION

Big Dipper Roller Coaster

Wikipedia (Cyclone), June 12, 2008

The Cyclone . . . was [originally] installed at Luna Park Sydney in 1994 under the name Big Dipper but operational restrictions following **legal action** by local residents **complaining about noise** pollution **resulted in the ride being shut down after 9 months** and contributed to the park's 1996 closure.

New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents

Noise News Summary, June 1, 1997
(Original Article appeared in The Morning Call, June 5, 1997)

Township solicitor Blake Marles said he would expect Dorney Park to **reduce the [roller coaster] noise level** if commissioners find that it violates the agreement. If Dorney Park does not comply, the township and the residents **could take them to court**, the article reports.

Roller Coaster Screams Spark Battle Over Tokyo Dome Noise Pollution

The Associated Press, May 23, 2003

Demanding further noise-reduction measures, a group of about 110 residents and tenants of a nearby apartment building are **seeking mediation** by the Tokyo Metropolitan Government's pollution screening committee. A Tokyo city official, Kazuhisa Yamauchi, said mediation over screaming from an amusement facility is **unprecedented**.

Tulsa Residents Not Happy Over Amusement Park's Proposed Expansion

Tulsa World, July 8, 1999

Scott Trizza is one resident who **plans to take Bell's Amusement Park to court**. He opposes the direction of the proposed expansion . . . Trizza and other residents near the amusement park won a **lawsuit several years ago**, challenging the amusement park owner's attempts to expand the evening hours of the Zingo roller coaster . . .

INEFFECTIVE FIXES

No Screaming Noise Allowed on Sacramento Rollercoaster
Associated Press, April 6, 2007

> The [no-shrieking] rule was imposed March 29, nearly three weeks after the ride opened. . . . [T]he operator recites this warning: "**We are required to remove you from this ride if you make any noise. . . . [P]lease remain silent and enjoy the Screamer.**" . . . Those who dared the ride this week said **keeping quiet was harder than it sounds.**

Busch Gardens Will Build Noise Walls After Residents Complain of Incessant Screaming from Fans on Popular Roller Coaster
Noise News Summary, June 28, 1998
(Original Article appeared in The Tampa Tribune, July 4, 1998)

> The **park plans to build a concrete wall** between 6 and 12 feet tall between the parking lots and the homes to the east of the park. . . . Busch Gardens will build a **second barrier wall** between the park and the road to help deaden the noise. . . . A **berm** will be pushed against the wall inside the park, and trees and bushes will be planted on it, extending the barrier higher. . . . [Executive Vice President of Busch Gardens Robin] Carson said, "**The screams? Well, I'm hoping we will be able to lessen that** with the two walls we are putting up there."

PARK CLOSURES

Geauga Lake Removes Two Roller Coasters: X-Flight and Steel Venom Vanish. To Reappear Elsewhere

Kent News, April 10, 2007

"It doesn't surprise me that they decided to remove two coasters, because **Six Flags overbuilt the park,**" [Jeff Putz, chief editor and Web master at the popular CoasterBuzz.com] said in an e-mail. "**Building big rides can score a temporary rise in attendance, but it doesn't give you any assurance that people will keep coming back.** That's a mistake the former executives at Six Flags made over and over."

(The park was closed in late 2007.)

Big Dipper Roller Coaster

Wikipedia (Cyclone), June 12, 2008

The new roller coaster became a point of contention with residents . . . After appeals to various courts . . ., it was **decreed that the roller coaster could only operate at certain times**, under strict conditions. These conditions **caused major shareholder Wittingslow Amusements to consider "walking out"** on the operating company. The park's administration was doubtful of Luna Park's survival under the restrictions and was proven correct when **Luna Park closed in February 1996**.

PLAN AHEAD

Alpengeist Roller Coaster

Website for Busch Gardens. Williamsburg, Virginia, June 12, 2008

Alpengeist was added to Busch Gardens in 1997 as the park's first large steel B&M coaster. . . . Due to **construction constraints** regarding height and noise regulations **in order to not disturb the theme park's neighbors**, Alpengeist was built in a **sunken area** of the park and **landscaped with trees and shrubbery** to prevent the spread of noise. The ride also includes special **noise-deadening features** in its design, including filling the box-beam track support structure with dampening material and specially designed 'quiet riding' wheels.

Appendix D

27 June 2008

JoLynn Chow Miller
Prudential Investment Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111
E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise – Santa Clara, CA**
CSA Project No. 08-0052

Dear JoLynn:

As you are aware, staff of the City of Santa Clara, in assessing the noise generated by the proposed Great America rollercoaster, relied exclusively on the work of Great America's consultants, Mark Papineau and George Ballard ("Papineau/Ballard"). The City did not conduct any independent noise analysis regarding the roller coaster noise.

We have had an opportunity to review the May 14, 2008 letter of Les Hausrath, attorney for Cedar Fair ("Great America"), and the Papineau/Ballard comments attached thereto. In this latest, and presumably most comprehensive response, Great America attempts to address the potentially significant noise impacts that would be generated by the proposed rollercoaster, but fails to accomplish its task for two principal reasons:

> (1) The Great America analysis fails to address the unique nature of the ride's intermittent screaming noise, which is readily distinguishable from surrounding urban noise such as is generated by freeway traffic, airport operations and mechanical noise.
>
> (2) Great America relies on purported noise measurements conducted by GMH Engineering ("GMH") for similar roller coasters. However, the GMH data never has been produced or reviewed by the City or any third party. In fact, Great America has refused to produce this data. Nor has GMH ever been established by Great America as a qualified noise consultant. As a result, the GMH data is of virtually no value, absent the establishment of the firm's qualifications, the methodology of its research, the data it generated, and the applicability of the study to this unique situation.

Screaming is a unique noise disturbance. Whereas people can become accustomed to a noise, such as continuous vehicular traffic along a freeway or the noise of mechanical equipment, screaming is qualitatively different. Screaming noise is the loudest of human vocalization, an effective acoustic generator of sound over long distances. The maximum sound energy generated by screams is focused in the region where human hearing is most sensitive. It is semantically unique in that it does not sound like other noise. In fact, screaming is used for alerting, survival, and communication for the purpose of gaining attention. It is independent of language and culture, and everyone can recognize a scream.

Screams can be distinguished from other noises or ambient sounds. Screaming is more noticeable compared to other co-existing sound in the environment. As a result, screaming noise has the distinct ability to penetrate background noise because humans are cognitively wired to recognize screaming. Because of its unique attributes, screaming noise generates frequent complaints as we have discovered in numerous press articles during our research. For example, riders of a Sacramento-area roller coaster—the Scandia Screamer--are instructed NOT to scream, because residents living across a 12-lane freeway complained about the screaming noise.

Great America argues that screaming noise would not be audible within the Nortel buildings. Yet Papineau/Ballard fail to consider screaming's unique acoustical properties. Moreover, their assertion is based on "reference sound level measurements" obtained by GMH Engineering from the Ozark Wildcat in Branson, Missouri, and the Kentucky Rumbler in Bowling Green, Kentucky, ("GMH Report") as well as acoustical measurements conducted by Papineau/Ballard on 3 March 2008 within the Nortel buildings. Significantly, Papineau/ Ballard reference a noise report entitled "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Chris Menge ("Menge Report"), which was submitted for the 2002 International Congress and Exposition of Noise Control Engineering, but appear to disregard its findings in favor of the GMH Engineering data..

A comparison of the GMH and Menge Reports reveal irreconcilable data. Based on the unpublished GMH Report, Papineau/Ballard calculated screaming noise as approximately 8 dBA less than the roller coaster mechanical noise at the setback distance between the proposed roller coaster and the Nortel façade (i.e., 73 dBA maximum roller coaster noise level at the building skins, 65 dBA from screaming noise). However, the published Menge Report shows that noise levels with an occupied roller coaster can actually exceed an empty roller coaster by up to approximately 8 dBA. A 16 dBA difference is considerable. For example, an increase in noise level of 16 dBA would be considered a tripling in loudness for human hearing.

The GMH Report, upon which Great America bases its conclusions, is unacceptable. First, the GMH Report has never been produced for City staff or peer review purposes. The unavailability of the measurement protocol and resulting noise data contained in the GMH Report invalidates its use in the Great America proposal. Moreover, Great America has

refused to produce the GMH Report, further undermining its credibility. Second, GMH Engineering does not appear to have a qualified acoustical consultant. According to its own website, GMH does not provide acoustical consulting services, and GMH Engineering is not a member of either the Acoustical Society of America or the Institute of Noise Control Engineering, the nation's leading professional organizations for acoustical engineers.

Great America argues that the roller coaster has been oriented to direct the screaming away from the Nortel facades. But according to the Menge Report, screaming noise levels to the side of the roller coaster were among the highest measured, even in comparison to face-on measurements. Thus, the orientation of the roller coaster results in no measureable improvement in the noise impact. The only proposal put forth by Great America, which would have measurably reduced the noise impact, was the proposal to move the entire roller coaster to another location in the north-central area of the park. Great America has, however, abandoned that proposal.

In conclusion, Great America has not adequately supported its claim that the roller coaster noise will result in a less-than-significant impact on the Nortel building. The GMH Report, which has not been made available or reviewed by a third party, is not reliable. The unique nature of screaming creates the potential for significant noise impacts inside the Nortel buildings.

* * *

This concludes our current comments. Please do not hesitate to call us with any questions.
Sincerely,

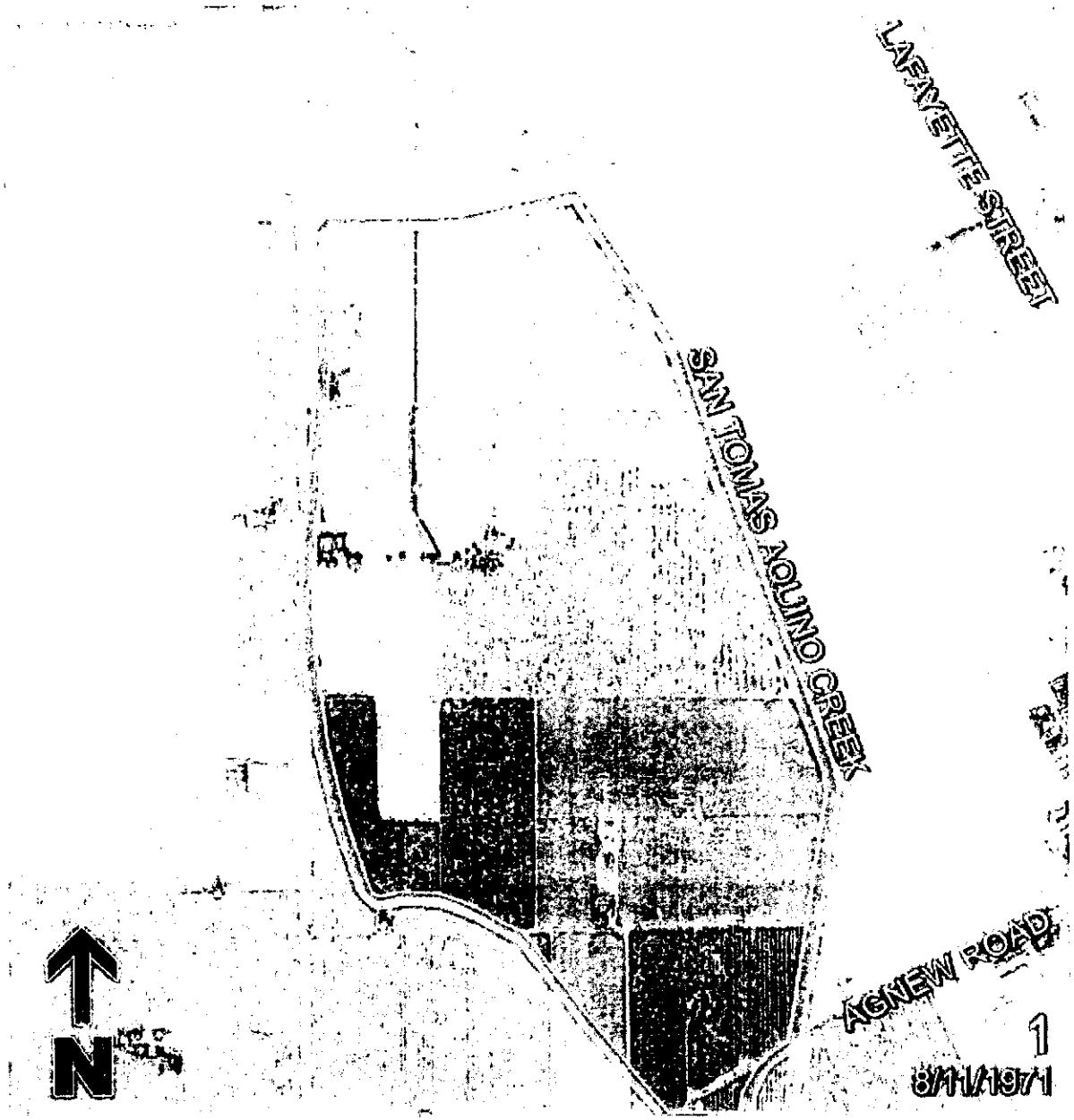
CHARLES M. SALTER ASSOCIATES, INC.

Timothy G. Brown
Principal Consultant

cc: Timothy Tosta
Luce, Forward, Hamilton & Scripps, LLP
E-mail: ttosta@luce.com

Jennifer Renk
Luce, Forward, Hamilton & Scripps, LLP
E-mail: jrenk@luce.com

Appendix E

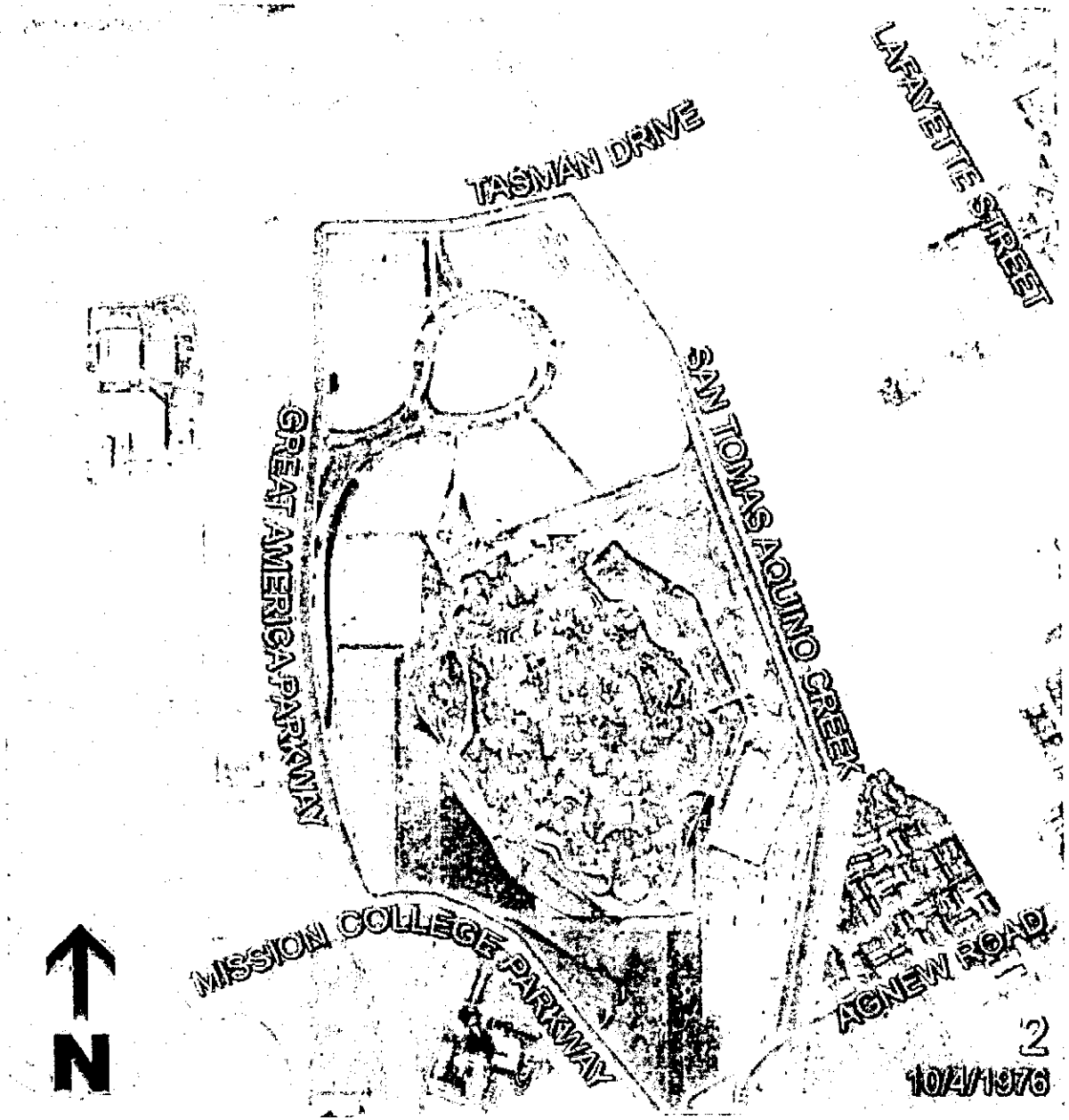


1

8/11/1971

VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

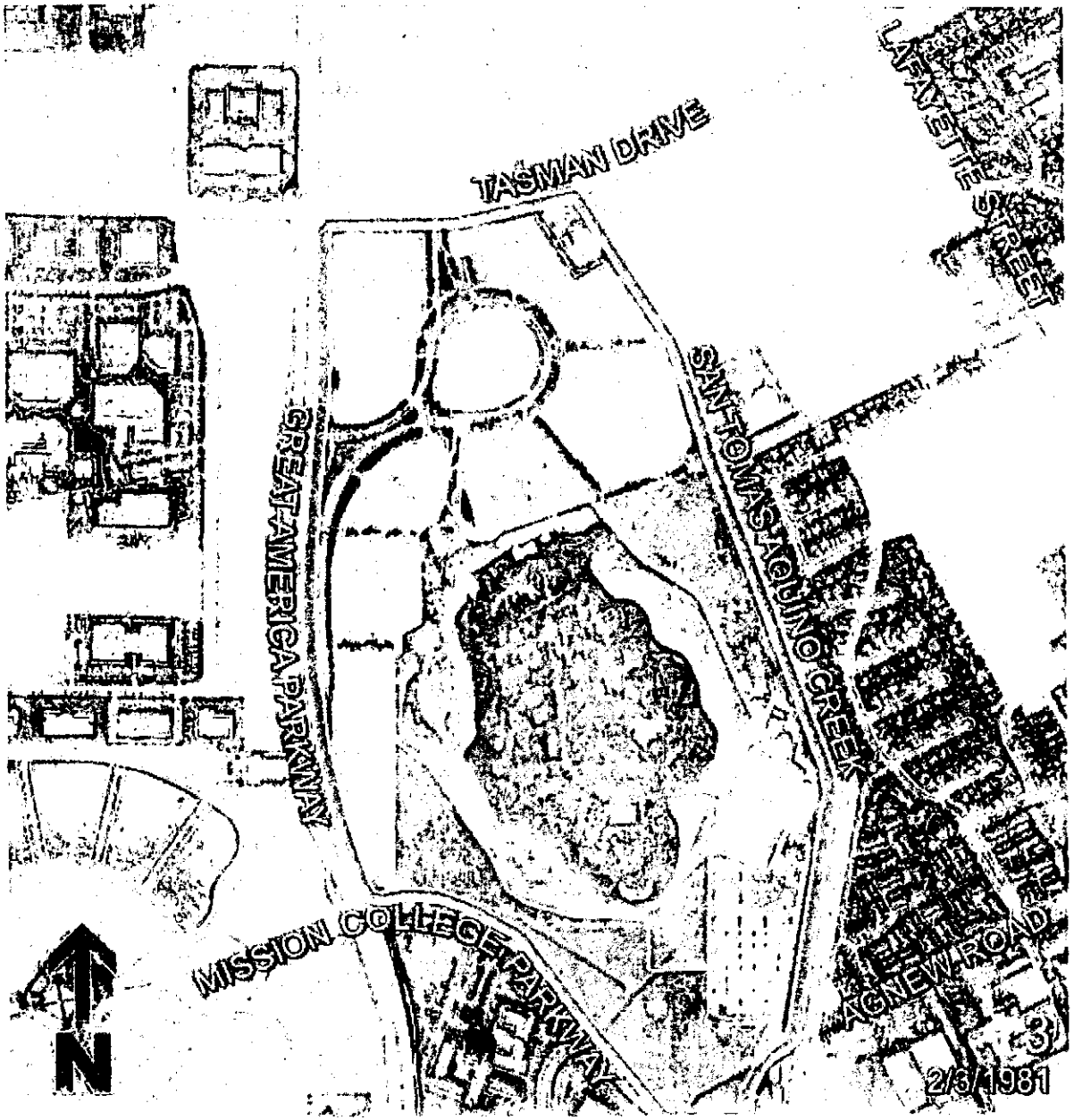


VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

1977

1981



VARIANCES

BLANKET VARIANCE
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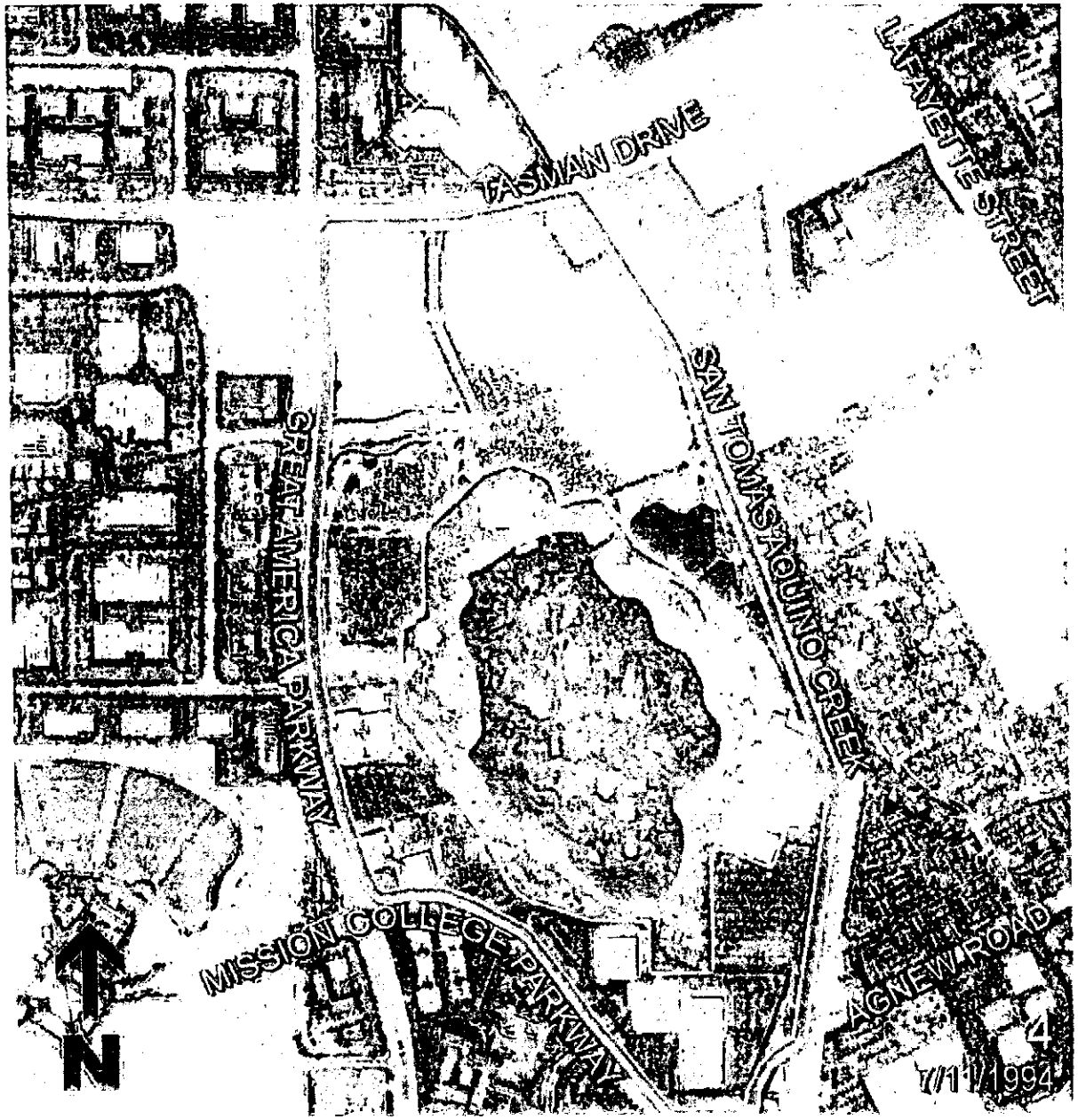
1977

1981

1994



VARIANCES

BLANKET VARIANCE
FOR HEIGHT
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(# granted unknown)

1977

1981

1994

1998

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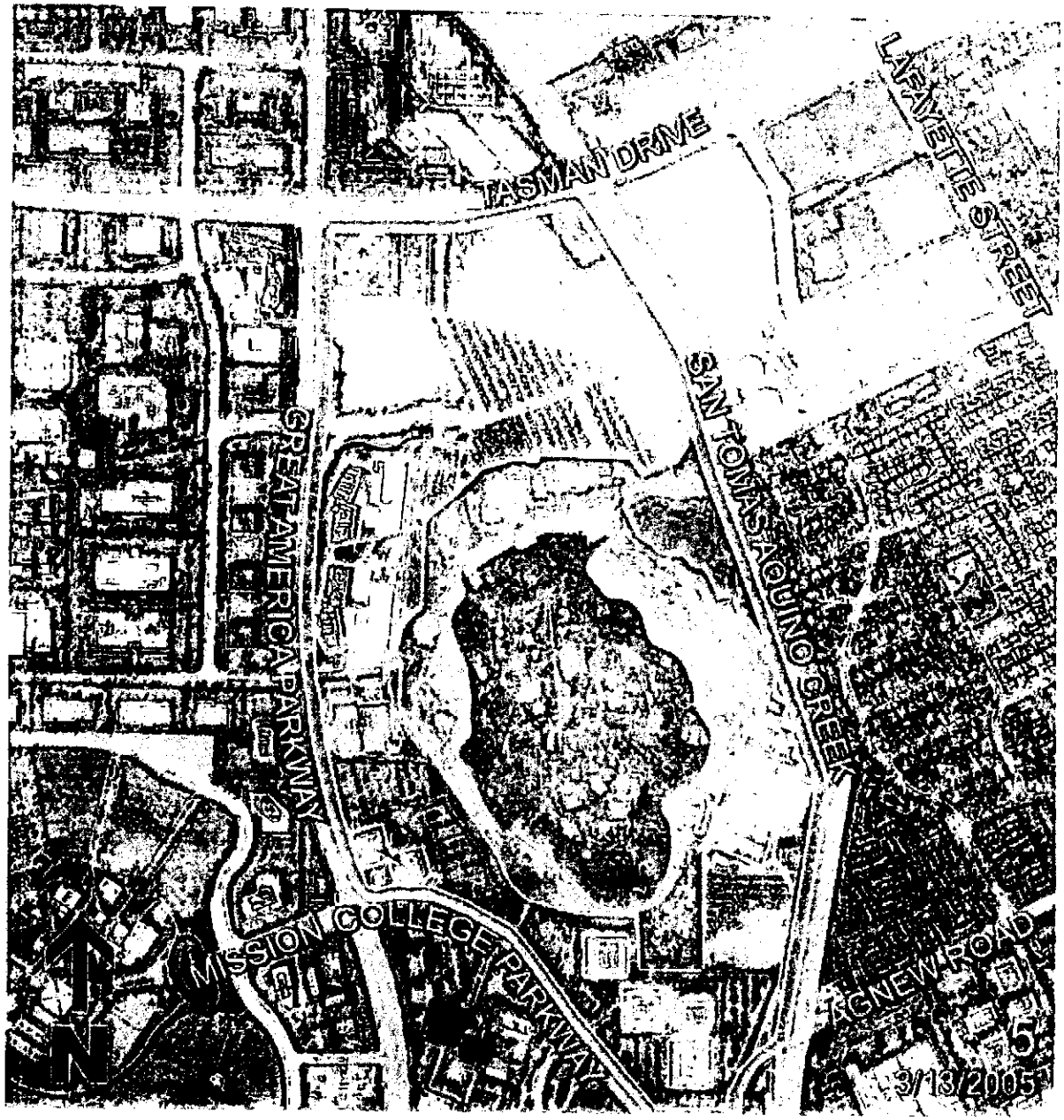
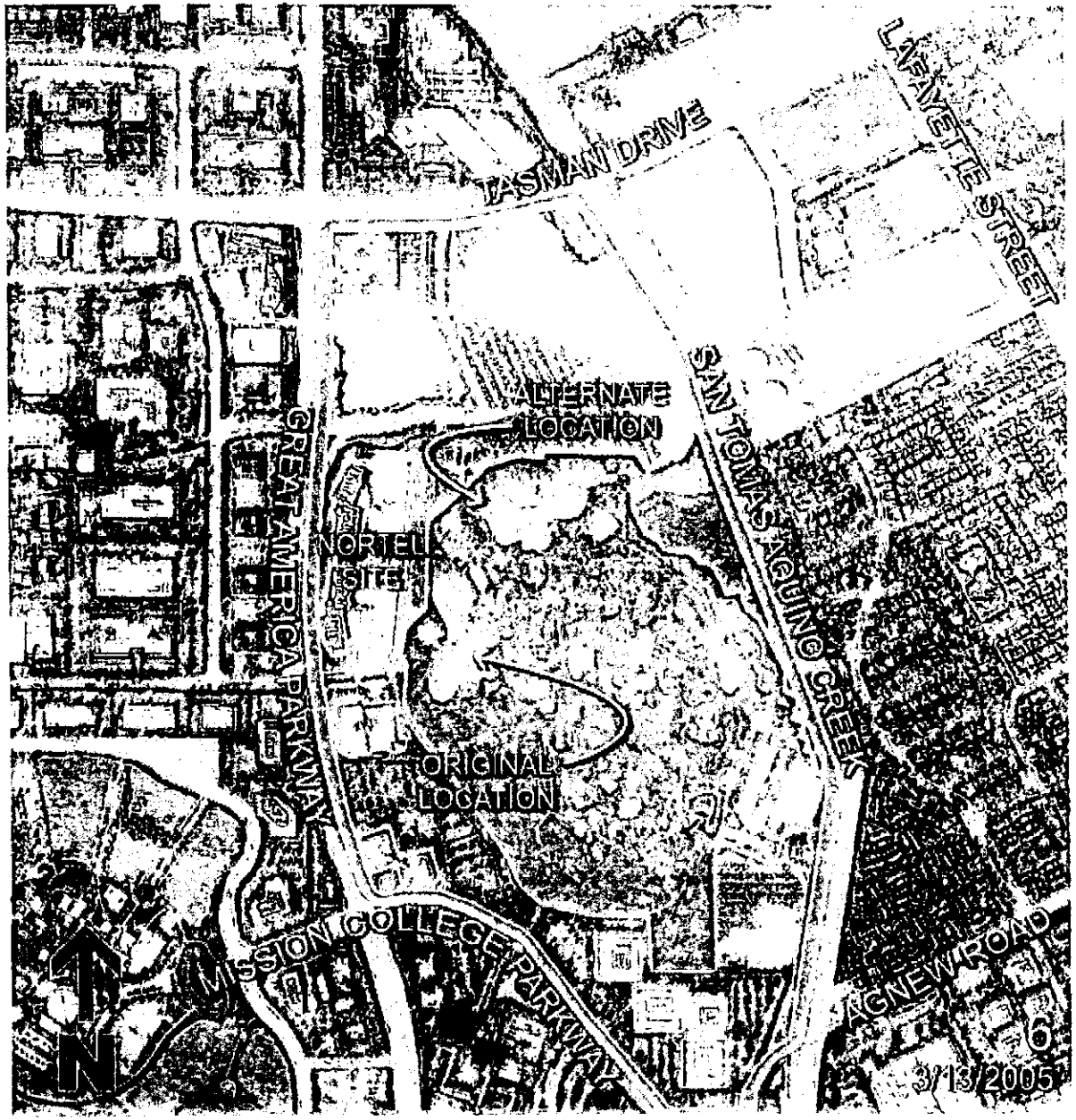
2008



Appendix F


TASMAN DRIVE
LAFAYETTE STREET
ALTERNATE LOCATION
SAN TOMAS AQUINO CREEK
GREAT AMERICA PARKWAY
NORTEL SITE
ORIGINAL LOCATION
MISSION COLLEGE PARKWAY
NEW ROAD
N
6
3/13/2005

Appendix G

SUMMARY OF DISPUTE RESOLUTION EFFORTS

This document summarizes the efforts between the Prudential Real Estate Investors ("Prudential") and California's Great America Theme Park ("Great America"), whereby the parties sought to resolve acoustical and visual intrusion from a new roller coaster ("Revised Ride") next to Prudential's office building ("Nortel Buildings") prior the April 23rd Planning Commission hearing.

The following steps were taken by the parties, at the suggestion of City staff, to reach mutually acceptable terms of an agreement:

1. Prudential hired Charles M. Salter Associates and Great America used Papineau and Ballard to study potential noise impacts from the Revised Ride.

2. Great America agreed to redesign the ride ("Original Ride"), relocating it further from the Prudential property line and realigning it so that the mass of the structure turned 90 degrees away from the Nortel Buildings.

3. Acoustical Consultants jointly agree that the Revised Ride should reduce noise levels.

4. Acoustical Consultants agree that the acceptable noise level is 70 decibels. Should any Prudential tenant or other interested party object, the parties agree to follow the procedure outlined in the Inspection and Remediation Protocols ("IRP") agreement for noise complaint validation, monitoring and remediation, as necessary.

The parties drafted two documents outlining their respective obligations:

(i) Prudential drafted an agreement ("Agreement") that outlined the overall proposed resolution between the parties:

- Great America would agree to construct and operate the Revised Ride away from the Nortel Buildings, as detailed on specific plan drawings;
- In return, Prudential would agree not to object to Great America's variance application for the Revised Ride;
- The parties would agree to a certain dispute resolution process in the event that the Nortel Buildings experienced noise intrusion from the Revised Ride.

(ii) Great America drafted and Prudential revised the more detailed IRP to deal with specific criteria for identifying and resolving potential noise complaints. As set forth in Prudential's revised IRP:

1. The parties would conduct noise monitoring on three separate occasions when the Revised Ride first opens to the public to ensure initial compliance with acceptable noise standards and to demonstrate good faith and proactivity to Prudential's tenants.

2. A specific process would be followed should a tenant file a noise complaint. A form of the complaint would solicit information necessary to determine whether the complaint is valid.

3. The noise complaint would be jointly reviewed by agreed upon acoustical consultants.

4. If the consultants were to agree that the complaint is prima facie valid, the consultants would take certain measurements of noise levels, according to predetermined protocols in the IRP. Based on the noise monitoring results, the parties would agree to take certain remedial measures.

5. If the noise intrusion were within acceptable levels (70 decibels or below), Prudential would have the responsibility for designing a noise dampening system within its own building, at its sole cost and expense;

a) If the noise intrusion were to exceed acceptable standards (over 70 decibels), the parties should attempt to jointly fix the problem through both interior work within the Prudential office building and by monitoring the Revised Ride's mechanics and activity within the theme park, all at Great America's sole cost and expense;

b) If the noise were still unacceptable, Great America would be required to fix the Revised Ride or modify the Prudential property to mask the noise, at Great America's sole cost and expense.

6. The parties would agree to acceptable timeframes from the receipt of a noise complaint to final remediation. The outside date for resolving a noise complaint would be 32 days.

Prudential sent revised documents for Great America's review on May 5th. On May 9th, Great America's counsel advised Prudential that Great America it intends to proceed with the Original Ride and, therefore, no further comments would be forthcoming on the proposed Agreement or the IRP.

Prudential remains available to resume settlement negotiations. Given the nature of the draft documents, little time would be required to bring this matter to a close.

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Timothy A. Tosta, Esq.
Luce, Forward, Hamilton & Scripps LLP
121 Spear Street, Suite 200
San Francisco, CA 94105

[Space Above For Recorder's Use Only] [**Discuss – Santa Clara would have to consent to recording this or short form memorandum of this agreement.**]

AGREEMENT

This Agreement ("Agreement") is made and entered into effective April 2008, by and among THE PRUDENTIAL INSURANCE COMPANY OF AMERICA, a New Jersey corporation ("Prudential") on the one hand; and GREAT AMERICA [entity name?] ("Great America"), on the other.

Great America and Prudential from time to time individually shall be referred to as a "Party" and collectively shall be referred to as the "Parties."

RECITALS

A. WHEREAS, Great America operates the Great America Theme Park (the "Park") on property leased from the City of Santa Clara (the "City") located on [address?] Great America Parkway in Santa Clara, California (the "Great America Property").

B. WHEREAS, Prudential owns certain real property located at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, California (the "Prudential Property"), immediately adjacent to the Park on its western property line. The Prudential Property consists of two buildings with approximately, 636,000 square feet of office, electronic laboratory space, employee amenities, and associated parking and the buildings accommodate up to approximately 2,400 employees when at maximum capacity.

C. WHEREAS, Great America is seeking approvals from the City for a variance to build a new roller coaster (the " Original Project") approximately 159 feet from the western property line of the Park, directly adjacent to the Prudential Property as more fully shown in Exhibit A. The City has determined that the Original Project is categorically exempt from environmental review pursuant to section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. The City set the Original Project for hearing before the Planning Commission on February 13, 2008, but at the request of Prudential, first, and the City, second, the hearing on the Original Project has been continued.

D. WHEREAS, Prudential objected to the Original Project because it was concerned about the interactive, cumulative impact of the noise and visual intrusions of the Original Project,

and procedurally about the propriety of the CEQA categorical exemption and the variance process.

E. WHEREAS, Prudential's acoustical consultant, Charles M. Salter Associates Inc. ("CMSA"), conducted acoustical measurements at the Prudential Property in conjunction with Great America's consultants, Marc Papineau and Ballard George. Based on these measurements and the screaming noise level established in "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Christopher W. Menge, Harris Miller Miller & Hanson, Inc. Internoise 2002 August 19-21 (the "Menge Report"), CMSA concluded that the calculated screaming noise level from the Original Project at the closest façade of the Prudential Property office building would result in an unacceptable interior screaming noise level.

F. WHEREAS, Prudential's visual consultant, Digital Imaging Studio ("DIS"), conducted visual analysis that showed the Original Project would cause a negative change to the visual conditions for the Prudential Property.

G. WHEREAS, in response to Prudential's objections, Great America redesigned the Original Project and moved it to a location farther away from the Prudential Property, as depicted in Exhibit B ("Revised Project"). The Revised Project proposes to locate the roller coaster approximately 271 feet from the Prudential Property line with the highest crest of the ride being the furthest point away at approximately 751 feet and turned to an approximate 90 degree angle counterclockwise from the Original Project configuration.

H. WHEREAS, Great America's consultants believe (and based on their letter dated January 15, 2008, "Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America", p. 5) that because the crest of the roller coaster, which produces the greatest amount of screaming noise, has been moved and turned away from the Prudential Property, the Revised Project likely will reduce internal noise intrusion to acceptable levels, assuming the Menge Report is correct.

I. WHEREAS, because under the Revised Project the roller coaster has been moved to approximately a 90 degree angle counterclockwise from the Original Project configuration, with the majority of the structure's massing furthest away from the Prudential Property, the visual intrusion under the Revised Project also has been decreased to an acceptable level.

J. WHEREAS, even though the Prudential Property buildings successfully attenuate the existing exterior noise conditions, if any screaming, noise from metal on metal contact or mechanical noises prove to be louder than the Parties' assumptions premised on the accuracy of the measurements contained in the Menge Report, the resulting noise conditions could be damaging to the interior environment of the Prudential Property.

K. The parties, through their respective counsel, have pursued discussions concerning the Great America Property, the Prudential Property, the Original Project, and the Revised Project and as a result of such discussions, have reached mutually agreeable terms for the resolution of said matters.

AGREEMENT

Therefore, in consideration of the foregoing mutual covenants and conditions hereafter set forth, and other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. The Recitals of this Agreement are set forth herein by this reference.

2. Great America shall construct the Revised Project in substantial conformance with Exhibit B and Exhibit C attached hereto, which identify the location and heights of the roller coaster. Great America shall not deviate from the Revised Project as incorporated herein, except for any de minimus shift in height or location of no more than five (5) feet.

3. Great America agrees not to construct any other amusement facility or structure in the location of the Original Project that exceeds the height of the parking structures on the Prudential Property or generates noise, individually or cumulatively, that would exceed the standard set forth in paragraph 6 below.

4. Upon the mutual execution of this Agreement, Prudential shall notify the City of Santa Clara in writing of its withdrawal of any and all objections to the Revised Project. Prudential further agrees not to pursue an appeal of the Revised Project or challenge the City's approval of the Revised Project in a court of law.

5. Great America shall not subsequently alter the Revised Project without Prudential's prior written consent, which consent may be withheld in its sole discretion. If the City requests material changes to the Revised Project, Prudential reserves the right to pursue any and all objections, claims and remedies to the proposed Revised Project as materially modified, notwithstanding any contrary provision herein.

ENFORCEMENT

6. The Parties and their respective consultants have met and agreed upon acceptable tolerance for noise from the operation of the Revised Project, unacceptable noise levels, the investigation and monitoring complaints concerning noise by Prudential's tenants and parties in possession of the Prudential Property, remediation of noise disturbances, and the responsibility among the Parties for paying for such remediation and/or other remedies, all as more specifically set forth in the Inspection and Remediation Protocols ("IRP"), attached hereto as Exhibit D and incorporated herein by this reference.

7. In the event Prudential receives any complaints from any party in possession of the Prudential Property that the Revised Project is generating Unacceptable Noise Levels (as defined in the IRP), the Parties' respective Consultants shall, with 48 hours of written notice, jointly determine whether the noise complaint(s) is or are valid pursuant to the procedures set forth in the IRP and, if necessary, jointly conduct acoustical measurements and other field tests in accordance with the Noise Monitoring Protocol to determine whether, in fact, the Acceptable Noise Level has been exceeded (as such capitalized terms are defined in the IRP). For the

purposes of this Agreement, Prudential designates CMSA as its Consultant; Great America designates **[Marc Papineau or Ballard George?]** as its Consultant. Should Great America fail to produce its Consultant for joint validation and testing within the prescribed time under this IRP, Prudential shall commence testing using only its Consultant and the findings of such Consultant shall be binding on the Parties. The respective Consultants for the Parties shall make all reasonable good faith efforts to cooperate with each other to validate or otherwise explain the Noise Complaint and to produce collaborative noise monitoring measurements and tests; however, if despite such good faith efforts, the respective Consultants are not able to agree on the level of noise disruption to within 1.5 decibels then the Parties agree to utilize the services of a third party Consultant ("Outside Consultant") who will, utilizing the methodology set forth in the IRP, undertake his own measurement and analysis of the noise levels. The findings of the Outside Consultant shall be binding on the Parties and shall be deemed conclusive for all purposes under the IRP. The Parties agree that the Outside Consultant shall be _____ **[Marc or Ballard, please provide acceptable candidates]**. The costs, fees and expenses of the Outside Consultant shall be borne by the party requesting his services except, however, if the Consultants for the respective Parties differ in their calculation of noise levels by 2.5 decibels or more, the party whose noise level measurement is furthest from that obtained by the Outside Consultant shall be solely responsible for the fees, costs and expenses of the Outside Consultant.

8. In the event the Consultants conclude that there are unacceptable noise levels originating from the Revised Project, the Parties shall remedy the situation as provided for in Section III C (Implementation of Interim Measures) of the IRP. In the event Great America elects to address the acoustical problems by making changes to the Prudential Property, Great America agrees to effectuate such changes promptly, but in no event later than 30 days after written notice by Prudential that it requests and authorizes such work. All work will be done by Prudential's contractors and or licensees in conformance with all applicable codes, regulations and ordinances including Title 24 CFR and _____. Great America will reimburse Prudential for all such fees and costs within 30 days of Prudential's written demand, with accompanying invoices and reasonable backup documentation, as necessary. Fees and costs incurred by Prudential and fully reimbursable pursuant to this paragraph 8 include, without limitation, all fees and costs attributable to mitigation of the unacceptable Revised Project noise levels including, without limitation, materials, labor, permitting fees, fees incurred by architects, acoustical consultants, structural engineers, mechanical engineers and any and all valid claims by Prudential tenants for rent abatement or business losses which are attributable to the Revised Project and, in the latter event, are authorized or permitted under the applicable lease with Prudential.

MISCELLANEOUS

9. All rights acquired by any lender or leasehold mortgagee pursuant to a deed of trust, mortgage or other security instrument (a "Leasehold Mortgage") shall be subject to each and all of the terms, covenants, conditions and restrictions set forth in this Agreement and to all the rights and remedies of Prudential hereunder, none of which conditions is or shall be waived by the Parties as a result of entering into any such Leasehold Mortgage.

10. Any lender shall be required to give Prudential notice of any default by Great America or its assignees under the Leasehold Mortgage. Immediately after recordation of any Leasehold Mortgage executed by Great America and containing a power of sale as defined by California law, Great America shall, at Great America's sole cost and expense, record in the Office of the County Recorder of Santa Clara, California, a written request executed and acknowledged by Great America for a copy of any notice of default and a copy of any notice of sale under such deed of trust or mortgage to be mailed to Prudential at the address specified in this Agreement.

11. The term "Lender" as used in this Agreement, shall mean not only the person, persons or entity that loaned money to Great America and is named as beneficiary, mortgagee, secured party or security holder in the instrument creating any encumbrance incurred by Great America, but also all subsequent assignees and holders of the security interest created by such instrument.

12. Great America currently has a leasehold interest with the City of Santa Clara for the Great America Property. In the event Great America or its successor in interest acquires fee simple title to the Great America Property, the provisions of this Agreement shall not be defeated or otherwise terminated due to a merger of the leasehold estate; rather, the provisions of this Agreement shall, at Prudential's option, be recorded in the Office of the County Recorder for Santa Clara County so that the covenants contained herein will run with the land pursuant to California Civil Code Section 1468. The Parties agree to amend this Agreement, if necessary, to create a recordable document which complies with the provisions of California Civil Code Section 1468.

13. Each person signing this Agreement represents and warrants that he, she or it has the right and authority to execute this Agreement on behalf of the Party upon whose behalf he, she or it has signed. Each Party to this Agreement represents and warrants that he, she, or it has had the opportunity to and has consulted with his, her, or its own independent counsel concerning this Agreement and the advisability of resolving the controversies between the Parties in accordance with the terms set forth in this Agreement and that he, she, or it has entered into this Agreement with full understanding of the Agreement's terms and conditions.

14. This Agreement shall be binding on, and inure to the benefit of the successors, heirs, issue and assigns of the parties hereto. Nothing in this Agreement, express or implied, is intended to confer upon any person or entity other than the parties hereto or their respective successors, heirs, issue and assigns, any rights or benefits under or by reason of this Agreement. This Agreement shall not be assignable by any party hereto without the prior written consent of the other party.

15. The Parties declare that, prior to entry into this Agreement, they each apprised themselves of sufficient relevant data that they might intelligently exercise their own judgments in deciding on the content of and in deciding whether to execute this Agreement. Each Party has read this Agreement and understands all of its terms. Each Party further states that this Agreement has been entered into voluntarily and with full knowledge of its significance.

16. Notices. All notices required shall be in writing, and delivered in person of sent by United States mail, postage prepaid.

Notices to Great America shall be addressed as follows:

[Insert contact information]

Notices to The Prudential Insurance Company of America shall be addressed as follows:

[Insert contact information]

17. Provided that any party may change such address by notice in writing to the other party and, thereafter, notices shall be addressed and transmitted to the new address.

18. This Agreement may be amended or modified only by a written instrument signed by or on behalf of all Parties affected thereby or by their successors in interest.

19. The terms and conditions of this Agreement shall be construed and enforced in accordance with, and governed by, the laws of the State of California.

20. The Parties acknowledge that this Agreement reflects the resolution of disputed claims, and that by entering into this Agreement, no Party admits fault or liability, but rather has entered into this compromise in order to bring the disputes to a close.

21. Each Party shall take all actions and do all things, and execute, with acknowledgement or affidavit if required, any and all documents and writings that may be necessary or proper to achieve the purposes and objectives of this Agreement.

22. This Agreement contains the entire agreement among the Parties and supersedes any prior agreements or understandings between Plaintiffs, on the one hand, and Defendants, on the other. All terms of this Agreement are contractual and shall be construed as if drafted by all Parties. All provisions of this Agreement are and shall be binding upon each of the Parties, their agents, attorneys, employees, successors and assigns.

23. Subject to equitable adjustment in order to achieve the essential purposes of this Agreement, if any term, provision, right or duty of this Agreement is deemed void or unenforceable, the remaining terms, provisions, rights and duties shall not be impaired, but shall remain valid and enforceable.

24. In the event that either of the Parties reasonably incurs legal expenses to enforce or interpret any of the provisions of this Agreement, or on account of the failure or refusal of a

Party to comply with any said provisions, the prevailing party shall be entitled to reimbursement of said expenses (including reasonable expert witness expenses) from the nonprevailing party, whether or not said legal expenses are incurred in connection with an action which proceeds to judgment. In the event that a judgment is entered to enforce or interpret any of the provisions of this Agreement, such reimbursement of expenses shall be made a part of the judgment.

25. The section headings appearing in this Agreement are inserted only as a matter of convenience and in no way define or limit the scope of any section.

The undersigned have read the foregoing Agreement and accept and agree to the provisions it contains and hereby execute this Agreement voluntarily with full understanding of its consequences.

Dated: _____, 2008

The Prudential Insurance Company of America
A New Jersey Corporation

By: _____
Jolynn Miller
Second Vice President

Dated: _____, 2008

California's Great America

By: _____
Bill Lentz

Acknowledged [for purposes of recordation]

City of Santa Clara

By: _____
Its: _____

301035896.7

STATE OF CALIFORNIA)
)
COUNTY OF)

On _____, before me,_____ , Notary Public,

personally appeared_____
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature (Seal)

STATE OF CALIFORNIA)
)
COUNTY OF_____)

On _____, before me,_____ _____, Notary Public,

personally appeared_____
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature (Seal)

INSPECTION AND REMEDIATION PROTOCOLS

Great America and Prudential, or the "Parties," have agreed that it is their mutual interest to adopt the following Inspection and Remediation Protocols ("IRP") to address future roller coaster noise at the Great America Theme Park in Santa Clara, California. If a term is not specifically defined in this IRP, it shall have the same definition as set forth in the Agreement between the Parties dated , 2008.

I. OBJECTIVE

To implement a scientific process for investigating potential future complaints related to rider and/or train noise caused by the wooden roller coaster ("Ride Noise").

II. PROCEDURE FOR FILING & INVESTIGATING NOISE COMPLAINTS

A. Noise Complaint Form

In the event that Prudential receives a complaint regarding noise in one of the buildings identified herein, Prudential will request that the complaining party fill out a Noise Complaint Form, in form substantially similar to the one attached hereto as Schedule 1 ("Noise Complaint Form"). Complainants will be asked to complete the Noise Complaint Form, as thoroughly as possible, to identify the date, time, circumstances (e.g., employee name, company affiliation, office location by floor and other detail, activity such as reading a report, word-processing, entering data, teleconferencing, client meeting), and noise quality (e.g., intermittent, steady, high pitch, horn, rider scream, clatter, other description). Building Maintenance staff, will attempt to determine the operation mode for the HVAC system in the Prudential Building and include this information, if available, in the Noise Complaint Form. Noise Complaint Forms will be generated on an as needed basis.

B. Filing a Noise Complaint

Complaints shall be e-mailed or faxed to Prudential's designated representative, as more fully provided in Prudential's office leases, and the complainant will be required to follow up with a telephone call to Prudential to confirm receipt.

C. Follow-Up Investigation

In the event Prudential receives any complaints from any party in possession of the Prudential Property that the Revised Project is generating Unacceptable Noise Levels (as defined herein), the Parties' respective Consultants shall, with 48 hours of written notice pursuant to Article IV herein, jointly determine whether the Complaint(s) is or are valid pursuant to Section II D herein and, if necessary, jointly conduct acoustical measurements and other field tests in accordance with the Noise Monitoring Protocol (defined herein) to determine whether, in fact, the Acceptable Noise Level (defined in Section III B) has been exceeded. For the purposes of this Agreement, Prudential designates CMSA as its Consultant; Great America designates **[Marc Papineau or Ballard George?]** as its Consultant. Should Great America fail to produce its Consultant for joint validation and testing within the prescribed time under this IRP, Prudential shall commence testing using its

Consultant and the findings of such Consultant shall be binding on the Parties. The respective Consultants for the Parties shall make all reasonable good faith efforts to cooperate with each other to validate or otherwise explain the Noise Complaint and to produce collaborative noise monitoring measurements and tests; however, if despite such good faith efforts, the respective Consultants cannot agree on the level of noise disruption to within 1.5 decibels then the Parties agree to utilize the services of a third party Consultant ("Outside Consultant") who will, utilizing the methodology set forth herein, undertake his own measurement and analysis of the noise levels. The findings of the Outside Consultant shall be binding on the Parties and shall be deemed conclusive for all purposes under this IRP. The Parties agree that the Outside Consultant shall be _____ **[Marc or Ballard, please provide acceptable candidates]**. The costs, fees and expenses of the Outside Consultant shall be borne by the party requesting his services except, however, if the Consultants for the respective Parties differ in their calculation of noise levels by 2.5 decibels or more, the party whose noise level measurement is furthest from that obtained by the Outside Consultant shall be solely responsible for the fees, costs and expenses of the Outside Consultant.

The Consultants may ask limited questions of the complainant or Building Maintenance to assure accuracy and completeness as long as the process does not unduly interfere with the ability of the Prudential tenants to conduct business operations in the Prudential Property or otherwise violate any provision or covenant of Prudential's lease agreements for the tenant(s) or complainant(s) in question. At a minimum the following information shall be compiled as part of the investigation:

1. Did the nuisance or disturbing noise continue following the complaint?

2. Is the disturbance ongoing?

3. Follow up to the information contained in the Noise Complaint, as necessary.

D. Validation & Contingency for Noise Monitoring

1. Validation

Validation is the process of attributing noise to the target source. The Ride Noise is either the likely cause of the complaint or else can be excluded as the likely cause, based on the Consultants' review of the Noise Complaint and interviews.

2. Contingency for Noise Monitoring

In the event that the noise disturbance is validated and is attributable to the Ride Noise and is unabated at the time of follow-up, Noise Monitoring may, upon the recommendation of the Consultants, be undertaken in accordance with the Noise Monitoring Protocol, defined in Section H herein. The purpose of Noise Monitoring is to obtain measurement data for comparison with the standard.

E. Noise Incident Reporting

Prudential's Consultant, with input from Great America's Consultant as feasible and appropriate, shall complete a written report ("Noise Incident Investigation Report"), within forty-eight hours of the filing of the initial Noise Complaint to determine whether further action and investigation under this IRP is necessary.

F. Record Keeping

All Noise Complaint Forms and Noise Incident Investigation Reports shall be maintained for a period of not less than 4 years. Noise Complaints validated as attributable to Ride Noise shall be maintained for not less than 5 years.

G. Validation Procedure for Noise Complaints

While all Noise Complaints may be legitimate in the sense that noise was perceived by complainant who felt annoyance, disturbance, or interference with concentration at work, not all Noise Complaints necessarily will be attributed to Ride Noise. In the validation process both the interior building operations as well as the wooden roller coaster operations will be considered. The investigation of a Noise Complaint could show that conditions are recurring in nature and likely attributable to Ride Noise; could show that conditions are attributable to another source (not the target); or, could show conditions are non-recurring and attributable to an unusual circumstance such as abnormal building operation (e.g., shutdown of building ventilation). All suspected sources and causes, in addition to the target, shall be considered depending on the Noise Complaint Form and judgment of the Consultants.

H. Noise Monitoring Protocol

The Noise Monitoring Protocol shall consist of the i) acoustical measurement requirements and ii) data processing requirements set forth below ("Noise Monitoring Protocol").

I. Acoustical Measurement

The minimum requirements of the Noise Monitoring Protocol include the following:

- Measurements shall be performed using a Type 1 sound level meter or real time analyzer.

- Calibration of the instrument shall be performed before and after the measurements using a portable acoustical calibrator.

- Measurements shall be performed at a roof location, at the façade setback, and as close to directly above the complainant's office area as allowable. The microphone should be at an elevation no lower than 15-feet above the roof deck.

- Measurements shall be performed initially outdoors, to record A-weighted Lmax and Lmax in 1 3-octave bands over a minimum of 30 minute duration (equivalent to approximately 17-18 cycles of the coaster trains).

- Analysis of the 30 minutes of measurements during the 30 minutes shall be programmed over 1 minute: 42 second -(102 second) periods. (Lmax and 1 3-octave band levels reset each 1 minute: 42 seconds).

- The above measurements shall be repeated indoors as described above or, alternatively, could be performed simultaneously indoors and outdoors by using a double instrument set-up.

J. Data Processing

Measured outdoor Lmax shall be compared to 70 dBA. If necessary, noise level corrections shall be applied to correct the measured noise to the noise at actual distance of the complainant from the source.

III. STANDARD

A. PURPOSE

The purpose of this section is to set forth and describe a standard. The standard shall be invoked based solely on the criteria and procedures described herein, based on the factual record of Noise Complaints.

B. STANDARD DEFINITION

The allowable Lmax noise level at a location equivalent to the building face of 4555 or 4655 Great America Parkway generated form the wooden roller coaster shall be 70 dBA, which for the purpose of the standard includes up to 70.4 dBA ("Acceptable Noise Level"). Any noise levels exceeding this standard shall be referred to as an "Unacceptable Noise Level").

1. Initial Study

Prudential's Consultant, at Great America's sole cost and expense, shall conduct acoustical measurements and data processing pursuant to the Noise Monitoring Protocol at the following times and intervals to determine whether the Ride Noise exceeds the Acceptable Noise Level:

a. Anytime during the 4 weeks prior to opening the Revised Project to the public (i.e., during test runs and safety drills);

b. For continuous days during the first two weeks that the Revised Project is open to the public; and

c. During the first "peak season" of the first calendar year in which the Revised Project is operable and open to the public, i.e., Memorial Day

weekend, 4th of July, or Labor Day, as the case may be. For the purposes of this subsection (c), Prudential's Consultant shall endeavor to conduct its tests during business hours when the occupancy rate for the Prudential Property is the highest.

2. **Other Triggers**

Receipt of one (1) or more validated Noise Complaints shall trigger a review of potential violation of the Acceptable Noise Level.

3. **Notice**

Consultant shall notify the Parties that he or they, as the case may be, have validated the Noise Complaint(s) and intend to compile a Summary Review, defined below.

4. **Consultant's Summary Review**

Consultant shall assemble the monitoring data in a summary format such as an Excel spreadsheet. Consultant shall review the data and determine whether the wooden coaster has exceeded the Acceptable Noise Level ("Summary Review").

5. **Filing**

Consultant shall submit the Summary Review to the Parties for review within 3-business days after notification of Summary Review set forth in Section 3, above.

6. **Initial Meeting of the Parties**

The Parties shall have 5-business days from receipt of Summary Review to conduct meetings to discuss potential remedies for the Noise Complaint(s) ("Initial Meeting").

7. **Initial Meeting Outcomes**

The Parties shall have seven (7) calendar days from the date of the Initial Meeting either to i) file a joint determination of "no further action" or else ii) commence interim or remediation measures to reduce the Ride Noise as set forth in Section C herein. Interim measures may include white noise generators, park "policing" controls **[explain]**, car or wheel repair or replacement, or other appropriate measures.

8. **Suspension of Noise Complaints**

The Parties acknowledge that it will not be necessary to pursue separate investigation measures for parallel Noise Complaints stemming from the same incident or series of incidents until the conclusion of the pending investigation.

C. IMPLEMENTATION OF INTERIM OR REMEDIATION MEASURES

1. **Interior Sound Masking & Other Measures**

In the event that wooden coaster Lmax during validated Noise Complaints does not exceed Acceptable Noise Levels, Prudential will focus efforts on interior sound mitigation, at its sole cost and expense.

2. Joint Implemented Measures

In the event that wooden coaster Lmax during validated Noise Complaints does exceed Acceptable Noise Levels, Prudential will attempt to achieve Acceptable Noise Levels by interior sound mitigation, such as sound masking or the generation of "white noise", at Great America's sole cost and expense and, concurrently, Great America will immediately implement noise policing measures **[define and provide details]** at Great America's facility, at its sole cost and expense.

3. Coaster Noise Reduction Measures or Interior Remediation

In the event that wooden coaster Lmax during validated Noise Complaints exceeds Acceptable Noise Levels, and the joint efforts referred to above are unsatisfactory, Great America will focus efforts on coaster sound mitigation within the Great America Property to reduce the noise to an Acceptable Noise Level. In the event that Great America's efforts at mitigation in its facility fail to achieve such an Acceptable Noise Level, then Great America will be required to pay the cost of modifications to the Prudential Property necessary to reduce the effective interior impact of the sound to an Acceptable Noise Level. The Parties shall effectuate all such repairs as soon as possible; however, in no event later than thirty (30) days after the validation of the Noise Complaint(s).

IV. MISCELLANEOUS

A. Notices

For all purposes under this IRP, the Parties and their Consultants shall be contacted at the following addresses, in the following manner:

Notices to Great America shall be addressed as follows:

[Insert contact information]

and

[add consultant contact information]

Notices to The Prudential Insurance Company of America shall be addressed as follows:

Jolynn Miller
Director

Prudential Financial Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111

and

Charles M. Salter
President
Charles M. Salter Associates Inc.
130 Sutter Street, 5th Floor
San Francisco, CA 94104

B. Inconsistencies

In the event of any inconsistencies between this IRP and the Agreement, the former shall control.

The undersigned have read the foregoing IRP and accept and agree to the provisions it contains and hereby execute this IRP voluntarily with full understanding of its consequences.

Dated: _____, 2008

The Prudential Insurance Company of America
A New Jersey Corporation

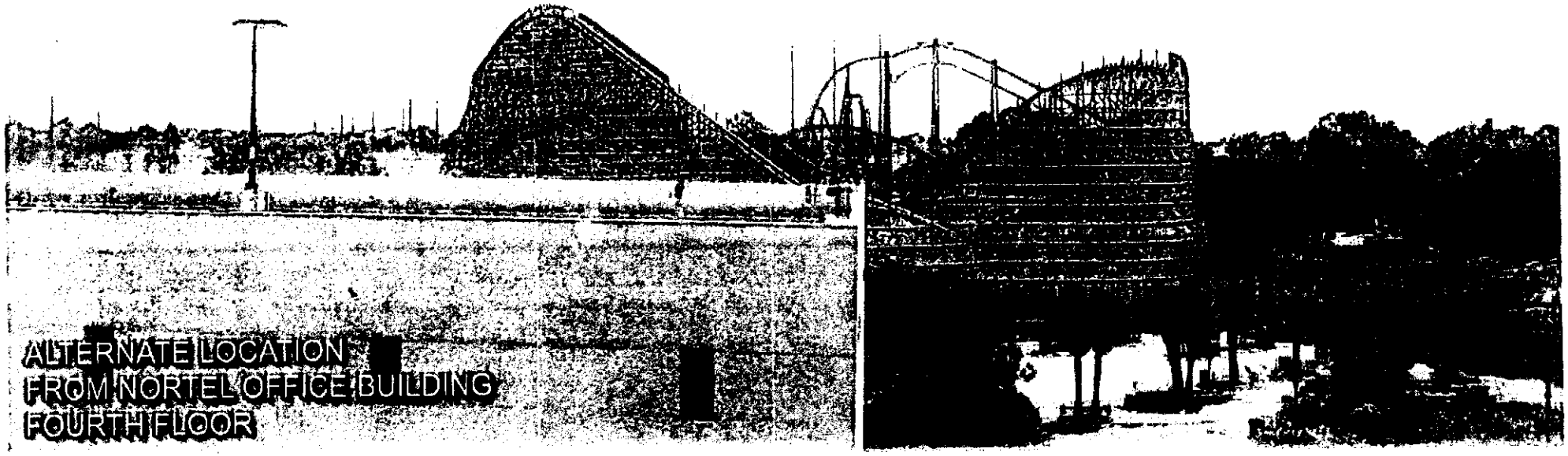
By: _____
Jolynn Miller
Second Vice President

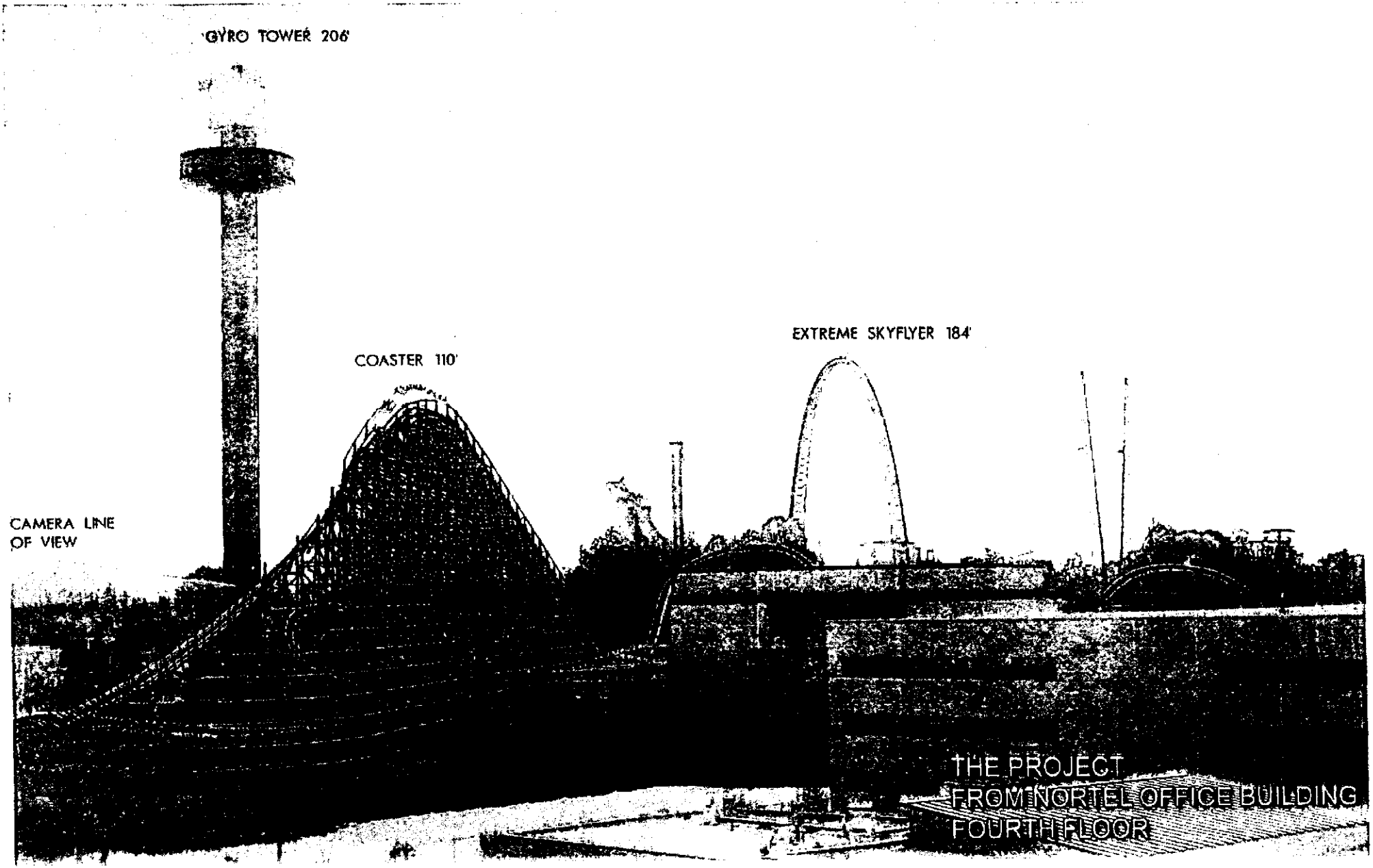
Dated: _____, 2008

California's Great America

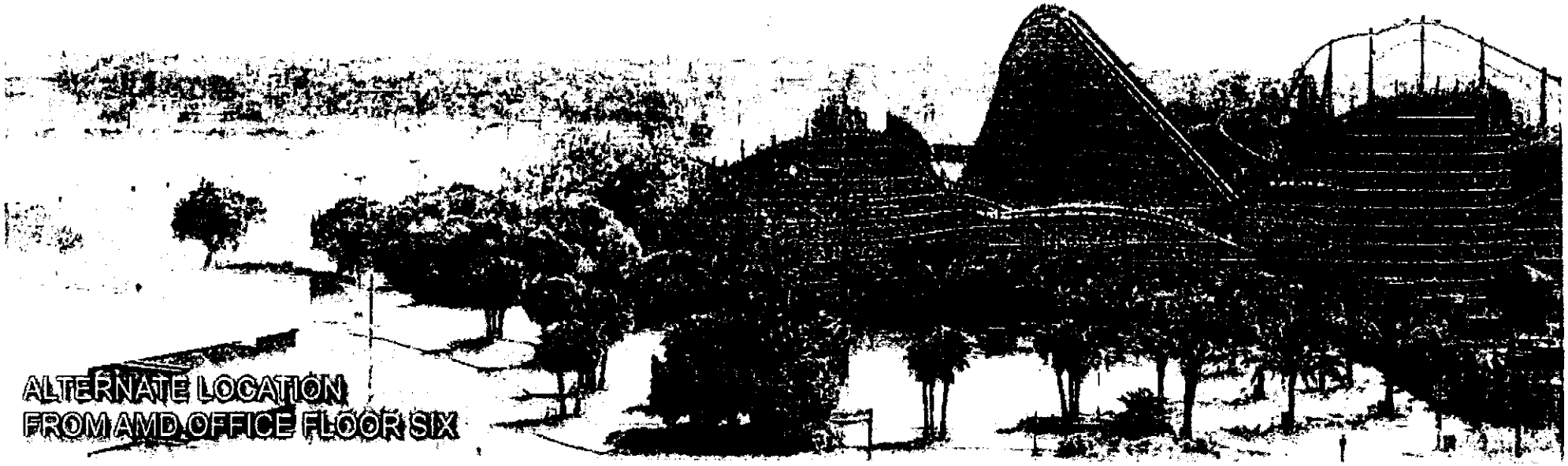
By: _____
Bill Lentz

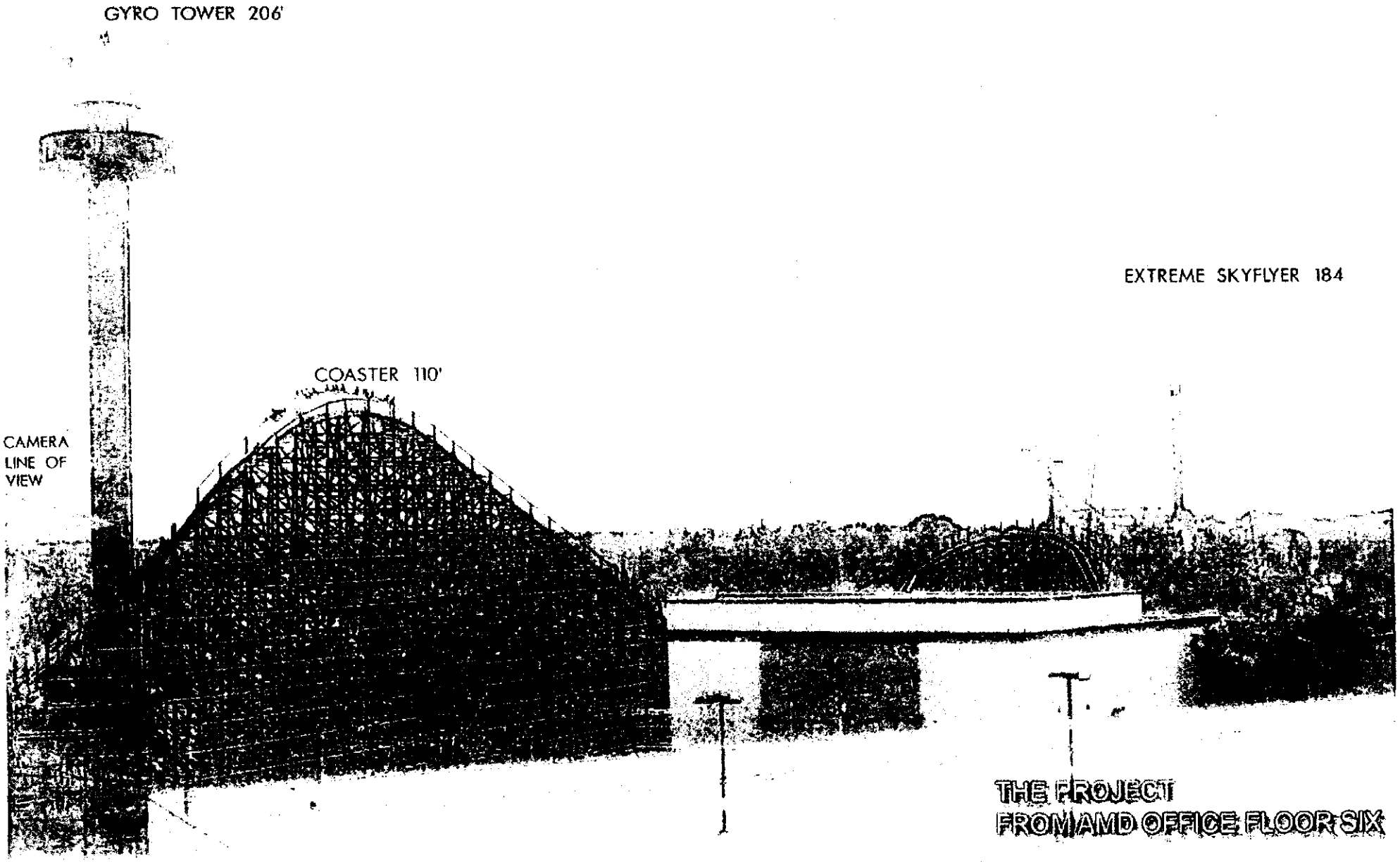
Appendix H


ALTERNATE LOCATION
FROM NORTEL OFFICE BUILDING
FOURTH FLOOR


GYRO TOWER 206'
COASTER 110'
EXTREME SKYFLYER 184'
CAMERA LINE
OF VIEW
THE PROJECT
FROM NORTEL OFFICE BUILDING
FOURTH FLOOR

Appendix I


ALTERNATE LOCATION
FROM AMD OFFICE FLOOR SIX


GYRO TOWER 206'
EXTREME SKYFLYER 184
COASTER 110'
CAMERA
LINE OF
VIEW
THE PROJECT
FROM AMD OFFICE FLOOR SIX

TIMOTHY A. TOSTA, PARTNER
DIRECT DIAL NUMBER 415.356.4612
DIRECT FAX NUMBER 415.356.3867
EMAIL ADDRESS TTOSTA@luce.com

June 27, 2008

VIA HAND DELIVERY

Patricia M. Mahan, Mayor
and Members of the City Council
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of the Planning Commission's Approval for a Variance for Great America Roller Coaster Ride—File No. PLN2008-06835**

Dear Mayor Mahan and Members of the City Council:

We represent The Prudential Insurance Company of America ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). On June 3, 2008, we appealed the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of an 111-foot high wooden rollercoaster on May 28, 2008 ("Project") (See Appendix A.). We ask that the City Council uphold this appeal and overturn the Planning Commission's approval of the Project for the reasons set forth below.

I. Executive Summary

At its May 28, 2008 hearing, the Planning Commission approved the Project and made the required variance findings by a vote of 5-1, with Commissioner Barcells absent. On behalf of Prudential, we subsequently appealed the Planning Commission approval on the grounds that 1) the Project is not exempt from the California Environmental Quality Act ("CEQA"), and 2) substantial evidence does not exist to support the variance findings, nor do the findings made support the variance determination.

By way of this letter, we will show that the City's abuse of the variance process will not survive judicial scrutiny for the following reasons:

- Screaming noise is **so unique** from the types of noise regulated by the City that it rises to an "**unusual circumstance**" relative to its immediate environment,

rendering the City's determination that the Project is categorically exempt from CEQA legally unsupportable;

- Not only does the City **lack the substantial evidence necessary** to make the required variance findings, but the findings made do not support the variance determination. Moreover, the City's reliance on variances for Great America rides over the past 35 years suggests a **horribly broken entitlement process** that ignores the context of the intensification and expansion of the Great America site relative to the surrounding development approved by the City. The process deprives affected property owners, businesses and citizenry of a meaningful opportunity to fully participate in the approval process.

- All the parties Prudential, Great America, and the City--have recognized that **Great America** has **proposed a superior alternative** ride siting with lesser acoustical and visual impacts, but it withdrew this alternative largely without explanation.

II. CEQA Infirmities

The City has made the environmental determination that the Project is categorically exempt from CEQA pursuant to Section 15323 of the CEQA Guidelines, "Normal Operations of Facilities for Public Gatherings."[1] Section 15300.2(c) of the CEQA Guidelines, however, provides for an exception to the exemption when there is a reasonable possibility that the activity will have a significant impact on the environment due to unusual circumstances. As set forth below, the **proximity between the Project and the Nortel Site gives rise to an unusual circumstance because of the psycho-acoustical impacts associated with screaming** that has been neither reliably evaluated by Great America, nor independently verified by the City. Under these circumstances, the exception to the exemption applies. As a consequence, CEQA demands environmental analysis, which has not been done here.[2]

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[1] See Appendix B for further discussion, including the inapplicability of Class 23 due to the Project's expansion of the existing amusement park facility.

[2] If, after further inquiry, the City determines that the Project will have no significant effect on the environment, it may file a negative declaration—otherwise, the City must prepare an Environmental Impact Report ("EIR").

A. **Anecdotal Evidence**

Time and again, screaming from rollercoasters has proven to be a horrible nuisance to neighbors, even after seemingly thorough acoustical analysis. (See Appendix C.) We direct your attention to just a few headlines:

- *No Screaming Noise Allowed on Sacramento Rollercoaster*
  "A Sacramento area amusement park has gotten so many **complaints from neighbors** [separated from the 30-year-old amusement park by a 12-lane freeway] **about bloodcurdling screams** that it has instituted a **no-shrieking rule** for its scary new thrill ride, the Scandia Screamer..." (emphasis added.)
  (**Associated Press**, April 6, 2007)

- *Busch Gardens Will Build Noise Walls After Residents Complain of Incessant Screaming from Fans on Popular Roller Coaster*
  "[P]eople living near Busch Gardens are **complaining about noise from a giant roller coaster** ... [T]he **noise comes from screaming fans**. ... [E]**very three minutes** the screams of Montu's riders fill the air as the coaster begins its 130-foot drop ... "The **screams off the top of the roller coaster are the worst**," [nearby resident Richard Beckner] said." (emphasis added.)
  (**The Tampa Tribune**, July 4, 1998)

- *Geauga Lake Removes Two Roller Coasters: X-Flight and Steel Venom Vanish, To Reappear Elsewhere*
  "[Mayor] McGill said, 'They were loud rides. Not so much the ride being noisy but **everybody screeching and yelling**.'" (emphasis added.)
  (**Kent News**, April 10, 2007)

- *New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents*
  [A] new roller coaster in Cetronia, Pennsylvania is **driving residents crazy**. . . . Gary Ward, a Walnut Street resident, said, "This thing is really, really loud. **Intrusively loud**." (emphasis added.)
  (**The Morning Call**, June 5, 1997)

- *Roller Coaster Screams Spark Battle Over Tokyo Dome Noise Pollution*
  "[For a] new roller coaster in crowded central Tokyo ... they **forgot to figure in the screams of the passengers**. Now the neighbors are making a loud fuss as well, claiming the **incessant shrieking is unbearable**..."
  (The Associated Press, May 23, 2003)

The **problems** have arisen **despite pre-construction acoustical analysis** (e.g. Dorney Park and Tokyo Dome). They have **engendered costly litigation** (e.g. Luna Park, Dorney Park and Tokyo Dome). Once constructed, noise **fixes** have been **burdensome** and **ineffective** (e.g. Scandia Screamer and Busch Gardens). Ultimately, unchecked screaming disturbances have **led** to **park closures** (e.g. Luna Park and Geauga Lake).[3]

B. **Psycho-Acoustic Impacts of Screaming**

Why is screaming so disruptive? Human screaming creates an imposing psycho-acoustic response:

> A scream is similar to a baby's cry; there is nearly a universally-understood agreement as to **its meaning regarding human calamity**, and its frequency content seems almost **tailored to frequencies of maximal sensitivity** on an equal-loudness contour. The level at which a **scream** might be **discriminated** from other types of sounds in most contexts is likely not much higher than the level at which it can be detected, **due to its unique character**.[4]
> (Emphasis added.)

Screams can be distinguished from most, if not all, other noises or ambient sounds as having a "**distinct characteristic** over time that allows it to be **more noticeable compared to other co-existing sound in the environment.**"[5] As set forth in Appendix D, screaming, as an acoustical event, is the loudest of human vocalization and is semantically unique. It is a survival mechanism and is universally **recognized as a distress signal** regardless of language or culture. As such, screaming noise has the **distinct ability to penetrate background noise** because **humans are cognitively wired to recognize that screaming equates to calamity.**

---

[3] Refer back to Appendix C.

[4] Forensic Analysis of the Audibility of Female Screams, Durand R. Begault, Audio Forensic Center, Charles M. Salter Associates, presented to the AES 33rd International Conference, Denver, CO, USA, 2008, June 5-7, page 5.

[5] *Id* at page 4 (emphasis added).

This unique acoustical character establishes that **screaming is different from and worse than other noise sources.** As such, Prudential believes that the potential impact of screaming associated with the Project has been disregarded by both Great America and the City. We do know this: **screaming noise from rollercoasters has proven to have more of an impact than mechanical noise in numerous "real world" examples.** Consequently, the City must recognize now that the unknown, unique and "unusual" nature of the screaming impact to the Nortel Site demands **independent, qualified,** and **reliable** acoustical **analysis** under CEQA.

C. **Great America's Acoustical Analysis**

Great America's acoustical reports claim to rely on "reference sound level measurements" for the "Ozark Wildcat" in Branson, Missouri and "preliminary results of a recent December 2007 sound level survey" of the "Kentucky Rumbler" in Bowling Green, Kentucky provided by GMH Engineering.[6] Surprisingly, **Great America has failed to produce these underlying measurements** to the City, to Prudential, and to Charles M. Salter Associates.[7] Such a glaring omission in the record completely undermines Great America's conclusions that the Project will result in no screaming impacts to the Nortel Site. This is especially disturbing for the following reasons:

- The lack of transparency defies all norms and standards of scientific practice and integrity. In legal parlance, the GMH Engineering data is mere "hearsay."

- GMH Engineering is not an acoustical engineering firm, but rather an engineering safety firm that conducts life safety analyses for rollercoaster operations.[8]

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[6] Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America, Mark Papineau and Ballard George, January 15, 2008, page 2.

[7] We requested these surveys from the City, only to be told that the City does "not have the backup information for the noise analysis done by Great America." Voicemail transcription from Carol Anne Painter, Santa Clara City Planner, dated June 17, 2008. Similarly, we requested these underlying measurements from Les Hausrath, counsel for Great America, only to also be told that "neither Great America nor its consultants feel at liberty to release the information." Email from Les Hausrath, dated June 19, 2008.

[8] GMH Engineering also is not a member of either the Acoustical Society of America or the Institute of Noise Control Engineering, the nation's leading professional organizations for acoustical engineers.

- Great America relies solely on this "mysterious" data by GMH Engineering that has been neither published nor peer reviewed by any third party, leaving Great America's conclusions that no screaming impacts will result from the Project wholly unsupported.[9]

- The City has had no opportunity to independently verify the GMH Engineering data and methodology, which is particularly troublesome since the Menge Report, referenced below, and Great America's consultants arrive at vastly different conclusions about screaming noise.

Given the lack of verifiable information in the record, the City may not default to a categorical exemption when Prudential and its experts have raised compelling arguments as to the unusual circumstances relative to screaming noise. Given that the acoustical analysis submitted by Great America is unverifiable, the City has a duty, at minimum, to conduct its own independent acoustical analysis under CEQA.

D. **City of Santa Clara's Noise Regulations**

1. Santa Clara Municipal Code Chapter 9.10—Regulation of Noise and Vibration ("Noise Ordinance")

Section 9.10.010 of the Noise Ordinance sets forth the purpose of the chapter and states, "[i]t is the intent of the City Council in adopting this chapter to **control unnecessary, excessive, unusually loud, and annoying noise** or vibration ... which are prolonged or **unusual** in their time, place, and use and are **detrimental** to the public health, comfort, convenience, welfare, safety and prosperity of persons in the City of Santa Clara." (emphasis added.) This section further states that "**[e]very person** is entitled to an environment in which the noise or vibration level is **not detrimental to his/her life, health, or enjoyment of property**." (emphasis added.)

This intent reinforces the point that Prudential has raised since February relative to the potential for noise impacts to the Nortel Site. That is, Prudential is concerned about the unique impact of the screaming noise on its tenants, their employees, guests and visitors in the buildings on the Nortel Site. The City's **Noise Ordinance does not expressly regulate "screaming" noise**, but it does recognize that **all** persons deserve protection from any noises which are

[9] Contrast this with Charles M. Salter's reliance on a report entitled "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Christopher W. Menge submitted for the 2002 International Congress and Exposition of Noise Control Engineering ("Menge Report"). Mr. Menge is a nationally recognized acoustical engineer who specializes in the analysis and control of noise from a variety of transportation and entertainment sources.

"unusual" or "detrimental." Consequently, tenants of the Nortel Site are no less worthy of protection under the Noise Ordinance because Great America was "there first."[10]

We have concluded from informal inquiries with other jurisdictions that most noise ordinances do not single out screaming noise because it is, in fact, so "unusual." The lack of regulation and enforcement by the City relative to screaming noise makes the absence of reliable acoustical analysis all the more concerning. Indeed, while the Noise Ordinance declares that any noise which is created in a prohibited manner is deemed unlawful and a public nuisance, it further declares that **private civil actions** seeking enforcement may be necessary to accomplish the Noise Ordinance's goals. (See Municipal Code Section 9.10.010.) Consequently, in the likely event that the Nortel Site is significantly impacted by rollercoaster screaming noise, it appears that Prudential can rely on little regulatory comfort from the City to enforce any Noise Ordinance infractions by Great America.[11]

This reality was reinforced at the May 28th Planning Commission hearing when Commissioner Stattenfield questioned staff as to how the City would process or handle noise complaints from the Project. Kevin Riley responded by indicating that the question was "difficult to answer" and that, even though the Nortel Site's noise mitigations meet the City's minimum standards now, the ability to mitigate screaming noise from the proposed Project is "debatable."[12]

Thus, CEQA requires that reliable acoustical analysis be done now so that appropriate mitigations can be incorporated into the Project if need be, such as those referenced in Appendix C.

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[10] In fact, Cedar Fair was not "there first." The Nortel Site was built before Cedar Fair acquired Paramount and succeeded to the ownership of Great America in March 2006. Prudential acquired the Nortel Site in 2001. So, the argument that Cedar Fair has the luxury of benefitting from the Great America legacy irrespective of its neighbors rings hollow.

[11] Note also that none of the environmental analysis for the Great America site or surrounding projects ever mention or analyze the potential noise impacts from screaming on rides at the amusement park.

[12] Even the Staff Report for the May 28th hearing states that "[t]he City's Noise Ordinance applies to fixed noise sources, including the mechanical noise created by the ride structures and accompanying equipment at the park, and including any related sound systems, and **has not been applied to the screams of individuals who ride park attractions.**" (May 28, 2008 Planning Commission Staff Report, page 3.)

2. Environmental Quality Element of the General Plan

Section 5.8, the Noise Section of the Environmental Quality Element of the City's General Plan ("EQ Element") establishes the importance of regulating noise generation as City policy. Page 21 of the EQ Element states that:

- **Freedom from excessive noise** is one measure of the **quality of life.**
- Noise is defined as unwanted sound. **Sounds become unwanted** when they disrupt the ability to **talk, listen**, learn, **work**, relax or sleep.
- Noise can create both **physical and psychological effects** through **annoyance** and **disruption** of sleep, relaxation, and **concentration.**

This recognition of the serious impacts that noise can create stands in stark contrast to the logic applied by Great America and the City staff to justify the lack of environmental review. In their view, the **potential** for **screaming impacts** does not matter **because a categorical exemption applies**. Great America believes (albeit incorrectly) that it has found safe harbor from which it can degrade the environment of its neighbors without recourse from the City or its citizenry. So, we are left to wonder why the City even establishes General Plan policies and goals if they can be so easily disregarded.

Based on the foregoing, the City Council is left to consider the following:

- Real world anecdotes show that **screaming noise from rollercoasters has been horrible** in numerous other locations;
- The **unique characteristics of human screaming make it more noticeable and disturbing** than other common urban environment sounds.
- The **absence** of the GMH Engineering data and methodology **renders Great America's conclusions** as to acoustical impacts from the Project scientifically **meaningless**;
- The City's **land use regime contemplates neither the regulation nor the enforcement of screaming noise.**

- City staff argues that screaming noise adjacent to an office complex is not an unusual circumstance, so **further inquiry into noise impacts is unneeded**, despite evidence that noise impacts could be significant.

These compelling factors unequivocally give rise to an "unusual circumstance" under CEQA. The City's reliance on a categorical exemption is legally unsupportable.

III. Variance Infirmities

A. Findings

The most clear, concise statement of the legal rationale for granting variances is found in the California Supreme Court opinion of Topanga Assn. for a Scenic Community v. County of Los Angeles (1974) 11 Cal. 3d 506, 517-18 ("Topanga"). The Court stated:

> "...courts must meaningfully review grants of variances in order to **protect the interests of those who hold rights in property nearby** the parcel for which a variance is sought. A zoning scheme, after all, is similar in some respects to a contract; each party foregoes rights to use its land as it wishes in return for the assurance that the use of neighboring property will be similarly restricted, the rationale being that such mutual restriction can enhance total community welfare. If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, **the consequence will be subversion of the critical reciprocity upon which zoning regulation rests."** (emphasis added.)

By the strict standards established in Topanga, the granting of a variance must be accompanied by administrative findings supported by substantial evidence that shows whether the findings support the conclusion that the variance requirements have been satisfied.[13] The intended consequence of this requirement is to minimize the likelihood that an agency will randomly leap to conclusions by ensuring that findings issued in connection with a variance approval bridge the analytic gap between the evidence and the ultimate decision.[14]

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[13] *Id.* at 514.

[14] *Id.* at 516-16.

On May 28th, the Planning Commission made such a random leap to its conclusion. We were further perplexed by many of the Commissioners' comments made just prior to the 5-1 vote in support of the Great America variance.

- "I'm thinking, can we really make all these findings?" (Chair Champeny)
- "I can't make Finding A." (Commissioner Fitch)
- "The noise thing, I have heartburn over the noise thing because I think it does adversely affect ..." (Commissioner Marine)
- "I don't see the unusual conditions of the land ... I think it's the wrong zoning and we should fix that..." (Commissioner Fitch)
- "How am I supposed to apply A? If it's zoned correctly, then it's not unusual." (Commissioner Stattenfield)

The Planning Commission struggled with Finding A and Finding C, which relate to unusual conditions of the land and adverse effects to neighbors, respectively. In the end, it appeared as if Commissioners were more "worn down" by staff's insistence than convinced of the propriety of their action.

With respect to Finding A, City staff attempted to resolve the Commissioners' confusion by relying on the tautology that, because the Great America amusement park is the only one of its kind in a CT zone, it is an unusual condition of the land. This argument, however, misses the mark with respect to making a finding of an "unusual condition." The City must provide substantial evidence that the unusual condition triggering the variance is grounded in the **existing physical property** itself. The unusual condition **cannot be of the City's or the applicant's making**. The City, therefore, cannot rely on the fact that the amusement park simply cannot fit anywhere else in a CT zone to justify the finding of an "unusual condition." As a consequence, the Planning Commission could not meet the threshold set forth in Topanga. It therefore failed to make adequate findings and bridge the analytic gap between the evidence and the variance determination.

The Commissioners also expressed consternation about Finding C relative to the potential noise impacts from the Project.[15] As noted above, Commissioner Marine acknowledged that the

[15] Even Great America's counsel, Les Hausrath conceded that "sound really is an issue here ... if this were going to be 85 or 90 [dBA] ... you say you kinda got to start over."

noise impacts would adversely affect the Nortel Site, yet he made the motion for the resolution granting the variance. This is the exact kind of "random leap" that the Supreme Court in Topanga sought to prevent. Based on the substantial defects of Great America's acoustical analysis and the contrary findings of the Charles M. Salter Associates report, you simply do not know if the Project is going to produce noise in an unreasonable way. The City must have independent, verifiable **evidence that shows no adverse effects will apply to the Nortel Site.** The Planning Commission did not have this evidence on May 28th and, as it stands, the City does not have now the necessary evidence to make this particular finding.

B. **Abuse of Process**

History tells us that the City has approved some sixteen (16) variances for Great America (possibly more), which translates to roughly 1,400 extra square feet of structure above the Commercial Thoroughfare ("CT") zone's 35-foot height limit. History further informs us that the rationale relied upon by the City to support these variances is riddled with contradictions.

For example, the approval of as many as 16 height variances shows an implicit acknowledgment that the theme park is so poorly zoned that the City must resort to the use of variances which should be **used to grant relief only in truly extraordinary circumstances.** In other words, for over 30 years, the City has based its findings to justify variances on the notion that the park is improperly zoned.

By prolonging the use of this ill-fitting zoning category for Great America, the City undermines the integrity of its entire zoning scheme. As Topanga teaches us, a zoning scheme resembles **a contract that binds neighbors to mutual restrictions in the interest of community welfare.** When the City started to approve development adjacent to the park, then within what was originally Great America's buffer zone, it established just such a contract between the neighboring users. Now, **every variance** granted for Great America is a **breach** of that agreement to the surrounding owners who rely on this "**critical reciprocity**" upon which zoning regulations exist. Great America expands its boundaries, intensifies useage of the site, and cumulatively adds taller, noisier rides under the rubric of "variance." Because this system is so broken, Prudential has suggested since the February 13th Planning Commission hearing that a comprehensive rezoning of the site would be far more appropriate than granting ad hoc variances. Many Planning Commissioners agreed.

- "Seems odd to me that we keep granting variance after variance after variance." (Commissioner Fitch)

- "Isn't a rezone more appropriate?" (Chair Champeny)

- "I am personally struggling with why this isn't combined with a rezoning piece." (Commissioner Fitch)
- "This needs to be rezoned." (Chair Champeny)
- "Not sure the rezoning gets rid of all the problems, but it gets rid of the variance problem." (Commissioner Marine)

IV. Historic Aerials

In Appendix E, we provide historic aerials that show the evolution of Great America and the surrounding area. In 1971, you see that the area was entirely farmland with a two-lane "county road" typical of rural patterns of development in California.

By 1976, you see the Great America site surrounded by major transportation infrastructure, which portends the dense, urban-style land development to come. You also see the beginnings of residential development to the east, immediately adjacent to the Great America theme park, which confirms that the City decided early on that the theme park would not be exporting its impacts to adjacent residents. That is, the City appears to have knowingly established a land use "contract" or reciprocity between Great America and those residents to the east, which ensured each neighbor's peaceful enjoyment of his/her home.

By 1981, you can see the footprint of Great America expanding outward, taking over what had been "buffer" zone. At the same time, you see that the residential neighborhoods are exploding to the east and creeping north along the edge of San Tomas Aquino Creek directly across from Great America. Also, the office/R&D uses are increasing to the west, together with the addition of Mission College and the Marriot commercial property to the south. This further intensification of the residential, office/R&D, and commercial uses surrounding the Great America site, in conjunction with Great America's own expansion, further cements the theme park's responsibility for containing its impacts. Note also that by 1981 you see the Great America site in between a budding office/R&D district and a residential district, so Great America essentially becomes the land use anomaly within this gradation of uses. That is, Great America sits in the middle of what typically are two complementary use districts—office/R&D and residential. These adjacent developments create an even greater responsibility on Great America to contain the park's impacts. The City had to have recognized this responsibility as it approved the density around the Great America site.[16]

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[16] However, somewhere along the way a folklore grew around the theme park, which elevated the importance of the park above all surrounding development, perhaps because of its financial contributions to the City's general fund.

By 1994, the world around Great America has changed dramatically with infill development. The Great America site since inception also has expanded its footprint by close to 30%. The predominant growth pattern shows the increase in residential development to the east, office R&D to the west and commercial to the south. Office buildings have been constructed immediately adjacent to Great America in the 20 acres of land that was carved out of the deal between Marriott and the City in 1985. So, at the same time that the City is approving development adjacent to the park, the theme park itself is growing outward into its remaining, marginal buffers towards surrounding development. Prior to the early 1990s, the major arterials and the creek had provided a natural buffer that protected adjacent uses from Great America's impacts. By 1994, the buffer has been breached. It is almost completely eradicated to the south and towards the west. The approval of such close adjacencies to Great America suggests that the City was even more mindful of the increasing land use conflicts and resulting impacts.

So, by 2005, the entire area is radically different. The Great America site has expanded even further. The interior of the park itself has become more dense and intensified. Moreover, the surrounding office R&D, residential, and commercial areas are completely built out, and Mission College fully expanded. The "buffer area" that once surrounded the Great America property is fully occupied with office complexes, including the Nortel Site.

This stunning evolution of the Great America site and its surroundings show that **the City has gotten the land use priorities about Great America all wrong.** That is, the "here first" mentality that has governed the City's variance decisions for Great America does not hold up when one examines how the area and the site itself has evolved over the past 35 years.[17] **The park itself has gotten bigger, taller and more dense**, while the City has allowed the world around it to intensify. In this context the lessons of Topanga are most relevant. The need for the critical reciprocity amongst neighbors has increased exponentially as the Great America site has expanded and the surrounding area has built out. Yet, this reciprocity has been destroyed by the City's reliance on ad hoc variance approvals that largely have ignored the interface between Great America and its surrounding community. Consequently, the City now has the opportunity to repair this broken system and "enhance total community welfare" as directed by the Supreme Court in Topanga. (Topanga, 11 Cal. 3d at 517-18.) To allow yet another variance for the park's 7th or 8th rollercoaster makes a mockery out of the City's zoning scheme and process.

[17] Again, the "here first" mentality becomes even more preposterous when one considers that Prudential has owned the Nortel Site since 2001, five years longer than Cedar Fair has owned Great America.

V. **Relocation Alternative**

After the March 12th Planning Commission continuance on this matter, Prudential and Great America made inroads towards a settlement that would embrace an **alternative rollercoaster location** with **lesser aesthetic and acoustical impacts** ("Alternate Location"). Great America, largely without explanation, withdrew from this effort. As depicted in Appendix F, the Alternate Location proposed by Great America would have moved the rollercoaster away from the Nortel Site by an additional 150 feet and shifted its orientation by 90 degrees, directing noise away from the largest and presumably noisiest drop. Prudential analyzed the implications of this relocation and determined that both the aesthetic and noise impacts would be minimized to acceptable levels.

The parties agreed to memorialize certain terms of an agreement that would: 1) commit Great America to the new location; 2) commit Prudential to not raising any further objections to the Alternate Location; and 3) **establish dispute resolution protocols**. (See Appendix G.) Prudential then attempted in good faith to finalize an agreement prior to the April 23rd Planning Commission hearing. We were disappointed when Great America abruptly abandoned the settlement negotiations, without satisfactory explanation, and reverted to its original rollercoaster proposal.

The Alternate Location clearly reduced the aesthetic and acoustical impacts to the Nortel Site and **would have been a "win-win"** for all involved. For example, as seen in Appendix H and Appendix I, the Alternate Location vastly improves the visual impact of the rollercoaster on the Nortel Site. Similarly, the Alternate Location increases the distance of the rollercoaster to the façade of the Nortel Site buildings from approximately 450 feet to over 600 feet, which would reduce anticipated noise intrusion from the rollercoaster to a less than significant level because **the screaming noise is attenuated within the park itself**.

Ironically, the **City's draft findings** for the April 23rd Planning Commission hearing confirmed that the City **recognized** that the **Alternate Location would minimize the noise and visual impacts** of the rollercoaster on the Nortel Site. For example:

> (ix) "The proposed new roller coaster has been **re-located** from the originally desired location and re-oriented physically (including directing the sound of riders away from adjacent office use) in order **to reduce both the potential noise and the visual**

> **impacts** of the coaster on neighboring land uses."[18] (emphasis added.)

We concluded from the negotiation that **Great America was sufficiently uncertain** as to the **noise impacts** of the ride that **it did not wish to be bound** by the agreement provisions, which would have made Great America **financially responsible** to Prudential should noise exceedances occur.

VI. Conclusion

We are asking this Council to carefully examine this poorly conceived rollercoaster proposal. It is imposing on its neighbors. It is the product of a seriously flawed process. And, if approved, it will not survive judicial scrutiny. The Council must overturn the Planning Commission's approval of the Great America variance and uphold this appeal.

Thank you for your consideration.

Sincerely,

Timothy A. Tosta
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

Attachments

cc: JoLynn Miller
Gregory Shanklin
Kevin Riley
Carol Anne Painter
Tina Wallis

301041223.6

[18] Draft Planning Commission Resolution for April 23, 2008, page 5.

Appendix A

June 3, 2008

HAND-DELIVERED

Rod Diridon
City Clerk
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Kevin Riley
Planning Director
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Re: **Appeal of Great America Variance Approval--File No. PLN2008-06835**

Dear Mr. Diridon and Mr. Riley:

We represent Prudential Real Estate Investors ("Prudential"), the owner of property at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, CA ("Nortel Site"). In accordance with Section 18.108.060 of the City of Santa Clara's Municipal Code, we hereby appeal the Planning Commission's approval of the Great America variance for ride height in conjunction with the construction of a 111-foot high wooden rollercoaster on May 28, 2008 ("Project").

We appeal the Planning Commission's decision for the following reasons:

- The Planning Commission could not exempt the Project from the California Environmental Quality Act by way of a categorical exemption;
- The Planning Commission lacked the necessary evidence to make the variance findings.

We intend to supplement the record with supporting documentation for this appeal prior to the City Council's hearing.

Attached please find a check in the amount of $120 for the appeal fee. Thank you for your consideration.

Sincerely,

Jennifer E. Renk
for
LUCE, FORWARD, HAMILTON & SCRIPPS LLP

cc: Gregory Shanklin
JoLynn Miller
Tina Wallis

Enclosure

3[illegible]

Appendix B

MEMORANDUM

36043-00002

TO: Santa Clara City Council

RE: "Unusual Circumstances" Exception to CEQA Categorical Exemptions

DATE: June 27, 2008

When the Planning Commission approved the variance for the Great America roller coaster ("Project") at their May 28th hearing, the Commission relied upon the Staff Report's recommendation that the Project was categorically exempt under Section 15323 of the California Environmental Quality Act ("CEQA") Guidelines (also known as, "Class 23"). This memorandum examines the legal framework for categorical exemptions and concludes that the Planning Commission's reliance upon the Class 23 categorical exemption was misplaced.

A. Legal Framework

Certain projects are exempt from CEQA review, either by "statutory exemptions" established by the State Legislature or by "categorical exemptions" found in the CEQA Guidelines. The Class 23 categorical exemption, upon which the Planning Commission relied for the roller coaster variance approval, "consists of the *normal operations of existing facilities for public gatherings* for which the facilities were designed, where there is a past history of the facility being used for the same or similar kind of purpose." CEQA Guidelines § 15323 (2008) (emphasis added). "Facilities included within the exemption include . . . *amusement parks*." *Id.* (emphasis added).

If a project falls within a categorical exemption, however, the categorical exemption is negated if the project is subject to an *exception* to the exemption. The available exceptions are listed in Section 15300.2 of the CEQA Guidelines. If an exception applies, then the lead agency cannot rely upon the categorical exemption, but must perform an Initial Study to determine whether to then prepare a negative declaration or an environmental impact report ("EIR"). One such exception is the "unusual circumstances" exception, which states that a categorical exemption "shall not be issued for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances." *Id.* § 15300.2.

The lead agency has the initial burden of proof in determining whether a project falls within a categorical exemption, but the burden then shifts to the challenging party to show that the exception applies. *Santa Monica Chamber of Commerce v. City of Santa Monica*, 101 Cal. App. 4th 786, 795-796 (2002).

B. Class 23 Categorical Exemption

As noted, the Planning Commission determined, based on the recommendation in the Staff Report, that the Project falls within the Class 23 categorical exemption. Class 23 covers the "normal operations" of public facilities, including amusement parks, but **not the expansions** of

such facilities. A lead agency must provide substantial evidence in support of its conclusion that a project falls within a categorical exemption. *Fairbank v. City of Mill Valley*, 75 Cal. App. 4th 1243, 1251 (1999). Planning Department staff, however, has failed to provide any evidence to support the idea that the construction of a 110-foot tall roller coaster falls within the ambit of the "normal operations" of an amusement park. On the contrary, the addition of this significant new ride to a previously undeveloped area of the park is, pure and simple, an expansion and intensification of the theme park use.

Significant expansions of existing uses were never intended to be categorically exempt from CEQA. The Class 1 categorical exemption covers "the operation, repair, maintenance, permitting, leasing, licensing, or *minor alteration* of existing public or private structures, facilities, mechanical equipment, or topographical features," but only in cases "involving *negligible or no expansion of use* beyond that existing at the time of the lead agency's determination." CEQA Guidelines § 15301 (emphasis added). To suggest that the development of a major new roller coaster ride somehow constitutes a "normal operation" under the Class 23 categorical exemption thwarts the clear intent of the CEQA Guidelines to require all expansions of existing uses and facilities, except for "negligible" expansions, to undergo environmental review. The visual simulations of the proposed roller coaster, in and of themselves, quash any notion that the Project is a negligible expansion of the theme park use.

C. Unusual Circumstances Exception

Assuming, without conceding, that any evidence exists to support the conclusion that the Project is categorically exempt from CEQA, the question then becomes whether the "unusual circumstances" exception applies. To answer that question, the lead agency must perform a two-prong inquiry: (1) whether there exists a "reasonable possibility" of a "significant effect on the environment," **and** (2) whether this possibility is the result of "unusual circumstances."

1. Reasonable Possibility of Significant Effect

The first prong requires only that the project challenger demonstrate the "possibility" of a significant effect on the environment, "not the determination of the actual effect, which would be the subject of a negative declaration or an EIR." *Lewis v. Seventeenth District Agricultural Association*, 165 Cal. App. 3d 823, 830 (1985). The challenger must only make a fair argument that the significant effect may occur. *Azusa Land Reclamation Company v. Main San Gabriel Basin Watermaster*, 52 Cal. App. 4th 1165, 1202 (1997). A "significant effect on the environment" means a "substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project." CEQA Guidelines § 15382; see also *Lewis*, 165 Cal. App. 3d at 829-830.

Based on the evidence in the record, there is not only a fair argument, but substantial evidence, showing a reasonable possibility that the Project would result in substantial adverse changes to the physical conditions of the surrounding area. In the professional opinion of Charles M. Salter Associates, Inc. ("Salter"), a nationally recognized acoustical engineering and consulting firm, Great America's acoustical analysis fails to distinguish the unique nature of the ride's

intermittent screaming noise from the surrounding urban noise, and it purportedly relies upon noise measurements by GMH Engineering, which have never been produced or reviewed by the City or a third party. Salter's own measurements indicate that sufficient screaming noise would be audible inside the Prudential offices, to constitute a potentially significant impact.

2. Unusual Circumstances

As noted, for the exception to apply, the potentially significant environmental effects must result from unusual circumstances. "[W]hether a circumstance is unusual is judged relative to the typical circumstances related to an otherwise typically exempt project." *Santa Monica*, 101 Cal. App. 4th at 801. In other words, the petitioner must point to "some feature of the project that distinguishes it from any other . . . run-of-the-mill [project]" in the exemption category. *Fairbank*, 75 Cal. App. 4th at 1260 (1999).

The "unusual circumstance" here is that the Project will generate screaming noise in close proximity to the Prudential office buildings. While roller coaster screaming may be a typical noise within a theme park, it is highly atypical in a commercial or light industrial area. The unusual nature of screaming is supported by the fact that screaming noise is not contemplated or regulated in the City's Noise Ordinance. Santa Clara Municipal Code, Ch. 9.10 (2008). The magnitude of the roller coaster structure and its attendant screaming, situated in a formerly undeveloped area of the park in close proximity to a commercial office use, is a feature distinguishable from the other roller coasters in the park and unequivocally supports the applicability of the "unusual circumstances" exception.

In addition to showing how the project is atypical, the challenger must demonstrate a causal connection between the unusual circumstance and the potentially significant environmental effect. *Santa Monica*, 101 Cal. App. 4th at 800.[1] The presence of the roller coaster, and its screaming noise, in close proximity to the Prudential office use would have the potentially significant impact of increasing the audibility of screaming noise inside the office building, as demonstrated by the Salter noise studies. The audible screaming could interfere with concentration, interrupt conversations, and cause detrimental psycho-acoustic impacts upon possibly hundreds of office occupants and visitors.

a. New Information

New information can constitute an unusual circumstance that makes the exception applicable. *Meridian Ocean Systems v. California State Lands Commission*, 222 Cal. App. 3d 153, 164 (1990) (new information revealing that geophysical testing could result in adverse impacts on marine and mammal life supported the Commission's determination to that the exception

[1] The petitioner in *Santa Monica* challenged a parking restriction program adopted by the City, arguing that unusual circumstances would result in potentially significant traffic, parking, air quality, and fiscal impacts. *Id.* at 798-801. The court, however, rejected this argument, because petitioner presented no evidence of a causal connection. *Id.* at 800-801. The unique attributes of the program would generate no new parking demand, but would simply reshuffle existing users into existing parking spaces, with no resulting environmental impacts. *Id.*, at 798-800.

applied). The land use patterns around the Great America theme park have substantially changed over time. The boundaries of the park have significantly expanded outward toward the surrounding land uses, and since its original construction, new commercial uses have been developed adjacent to the park boundaries. Faced with this new information, the City cannot default to a categorical exemption. Rather it must re-evaluate the Project's potential impacts in light of the changed land use patterns.

b. Adjacent Distinct Land Uses

A distinct adjacent land use can constitute an unusual circumstance as well.[2] *Lewis*, 165 Cal. App. 3d at 826, 829-830 ("the adjacency of residential areas," which were "contiguous with and less than a mile from" the racetrack, constituted an unusual circumstance). The proposed roller coaster would sit next to the western property line of the theme park, immediately adjacent to the Prudential office buildings. The proximity of the office buildings, a distinct land use from the roller coaster, constitutes an unusual circumstance that makes the exception applicable.

D. Conclusion

The Planning Department has provided no evidence in support of its conclusion that the Project falls within the Class 23 categorical exemption. The roller coaster constitutes an significant expansion of theme park activity into a previously underdeveloped area, and as such, it is subject to environmental review under CEQA. Even if the Project can somehow be shown to be categorically exempt, the "unusual circumstances" exception applies. The Project would create the unusual circumstance of screaming noise in close proximity to the Prudential office buildings, which would result in potentially significant interior noise impacts. Because the exception applies, the City cannot rely upon the categorical exemption and must perform an Initial Study to determine whether to prepare a negative declaration or an EIR.

301041404.3

[2] The City Attorney has cited *Bloom v. McGurk*, 26 Cal. App. 4th 1307 (1994) for the proposition that the siting of a facility adjacent to dissimilar use is not an "unusual circumstance," but *Bloom* is distinguishable from the proposed roller coaster project in several key respects. First, no physical or operational change was proposed to the medical waste treatment facility in *Bloom*. *Id.*, at 1309-1311. Second, the facility in *Bloom* was located in an industrial zone and surrounded by similar industrial uses. *Id.* at 1316. Third, although the petitioner in *Bloom* claimed that there were "adjacent" residential uses, those homes in fact were not in the immediate vicinity of the facility. *Id.* at 1315-1316. In contrast, the proposed roller project would be built in a commercial area, immediately adjacent to the Prudential office building.

Appendix C

SCREAMING

No Screaming Noise Allowed on Sacramento Rollercoaster
Associated Press, April 6, 2007

A Sacramento area amusement park has gotten so many **complaints from neighbors [separated from the 30-year-old amusement park by a 12-lane freeway] about bloodcurdling screams** that it has instituted a **no-shrieking rule** for its scary new thrill ride, the Scandia Screamer . . .

Busch Gardens Will Build Noise Walls After Residents Complain of Incessant Screaming from Fans on Popular Roller Coaster
Noise News Summary, June 28, 1998
(Original Article appeared in The Tampa Tribune, July 4, 1998)

[P]eople living near Busch Gardens are **complaining about noise from a giant roller coaster** . . . [T]he **noise comes from screaming fans**. . . . [E]**very three minutes** the screams of Montu's riders fill the air as the coaster begins its 130-foot drop . . . "The **screams off the top of the roller coaster are the worst**," [nearby resident Richard Beckner] said.

Geauga Lake Removes Two Roller Coasters: X-Flight and Steel Venom Vanish, To Reappear Elsewhere
Kent News, April 10, 2007

[Aurora Mayor Lynn] McGill said he is pleased with the decision to get the rides out of the park. "I'm sure the **people up in the Geauga Lake area and the city are happy because they won't have all that noise**," McGill said. "They were loud rides. Not so much the ride being noisy but **everybody screeching and yelling**."

New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents
Noise News Summary, June 1, 1997
(Original Article appeared in The Morning Call, June 5, 1997)

[A] new roller coaster in Cetronia, Pennsylvania is **driving residents crazy**. . . . Gary Ward, a Walnut Street resident, said, 'This thing is really, really loud. **Intrusively loud**.'

FAILED PREDICTIONS

New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents
Noise News Summary, June 1, 1997
(Original Article appeared in The Morning Call, June 5, 1997)

The 200-foot tall roller coaster, called 'Steel Force' . . . went up only after a **long fight by residents**, and **eventual agreements on noise limitations** by the company. [Company] officials and an acoustical engineer hired by the park **maintained . . . that the steel roller coaster would add no new noise** . . . [Company] officials agreed as a **stipulation of the permit that noise from the ride would not hit 57 decibels at the nearest residence**. Residents, however, say the **park isn't living up to its promise** . . .

Roller Coaster Screams Spark Battle Over Tokyo Dome Noise Pollution
The Associated Press, May 23, 2003

[A] new roller coaster in crowded central Tokyo . . . was **built to meet acceptable noise pollution specifications [a daytime limit of 60 decibels and a nighttime limit of 55 decibels]**. But they **forgot to figure in the screams of the passengers**. Now the neighbors are making a loud fuss as well, claiming the **incessant shrieking is unbearable**. . . . A recent test by the ward found the **noise level just outside the park at 79 decibels, far exceeding the legal limit** . . .

LITIGATION

Big Dipper Roller Coaster

Wikipedia (Cyclone), June 12, 2008

The Cyclone . . . was [originally] installed at Luna Park Sydney in 1994 under the name Big Dipper but operational restrictions following **legal action** by local residents **complaining about noise** pollution **resulted in the ride being shut down after 9 months** and contributed to the park's 1996 closure.

New, Massive Roller Coaster Causes Noise Problems for Pennsylvania Residents

Noise News Summary, June 1, 1997
(Original Article appeared in The Morning Call, June 5, 1997)

Township solicitor Blake Marles said he would expect Dorney Park to **reduce the [roller coaster] noise level** if commissioners find that it violates the agreement. If Dorney Park does not comply, the township and the residents **could take them to court**, the article reports.

Roller Coaster Screams Spark Battle Over Tokyo Dome Noise Pollution

The Associated Press, May 23, 2003

Demanding further noise-reduction measures, a group of about 110 residents and tenants of a nearby apartment building are **seeking mediation** by the Tokyo Metropolitan Government's pollution screening committee. A Tokyo city official, Kazuhisa Yamauchi, said mediation over screaming from an amusement facility is **unprecedented**.

Tulsa Residents Not Happy Over Amusement Park's Proposed Expansion

Tulsa World, July 8, 1999

Scott Trizza is one resident who **plans to take Bell's Amusement Park to court**. He opposes the direction of the proposed expansion . . . Trizza and other residents near the amusement park won a **lawsuit several years ago**, challenging the amusement park owner's attempts to expand the evening hours of the Zingo roller coaster . . .

INEFFECTIVE FIXES

No Screaming Noise Allowed on Sacramento Rollercoaster
Associated Press, April 6, 2007

> The [no-shrieking] rule was imposed March 29, nearly three weeks after the ride opened. . . . [T]he operator recites this warning: "**We are required to remove you from this ride if you make any noise. . . . [P]lease remain silent and enjoy the Screamer.**" . . . Those who dared the ride this week said **keeping quiet was harder than it sounds.**

Busch Gardens Will Build Noise Walls After Residents Complain of Incessant Screaming from Fans on Popular Roller Coaster
Noise News Summary, June 28, 1998
(Original Article appeared in The Tampa Tribune, July 4, 1998)

> The **park plans to build a concrete wall** between 6 and 12 feet tall between the parking lots and the homes to the east of the park. . . . Busch Gardens will build a **second barrier wall** between the park and the road to help deaden the noise. . . . A **berm** will be pushed against the wall inside the park, and trees and bushes will be planted on it, extending the barrier higher. . . . [Executive Vice President of Busch Gardens Robin] Carson said, "**The screams? Well, I'm hoping we will be able to lessen that** with the two walls we are putting up there."

PARK CLOSURES

Geauga Lake Removes Two Roller Coasters: X-Flight and Steel Venom Vanish, To Reappear Elsewhere

Kent News, April 10, 2007

"It doesn't surprise me that they decided to remove two coasters, because Six Flags **overbuilt the park,**" [Jeff Putz, chief editor and Web master at the popular CoasterBuzz.com] said in an e-mail. "**Building big rides can score a temporary rise in attendance, but it doesn't give you any assurance that people will keep coming back.** That's a mistake the former executives at Six Flags made over and over."

(The park was closed in late 2007.)

Big Dipper Roller Coaster

Wikipedia (Cyclone), June 12, 2008

The new roller coaster became a point of contention with residents . . . After appeals to various courts . . ., it was **decreed that the roller coaster could only operate at certain times**, under strict conditions. These conditions **caused major shareholder Wittingslow Amusements to consider "walking out"** on the operating company. The park's administration was doubtful of Luna Park's survival under the restrictions and was proven correct when **Luna Park closed in February 1996**.

PLAN AHEAD

Alpengeist Roller Coaster

Website for Busch Gardens, Williamsburg, Virginia, June 12, 2008

Alpengeist was added to Busch Gardens in 1997 as the park's first large steel B&M coaster. . . . Due to **construction constraints** regarding height and noise regulations **in order to not disturb the theme park's neighbors**, Alpengeist was built in a **sunken area** of the park and **landscaped with trees and shrubbery** to prevent the spread of noise. The ride also includes special **noise-deadening features** in its design, including filling the box-beam track support structure with dampening material and specially designed 'quiet riding' wheels.

Appendix D

27 June 2008

JoLynn Chow Miller
Prudential Investment Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111
E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise – Santa Clara, CA**
CSA Project No. 08-0052

Dear JoLynn:

As you are aware, staff of the City of Santa Clara, in assessing the noise generated by the proposed Great America rollercoaster, relied exclusively on the work of Great America's consultants, Mark Papineau and George Ballard ("Papineau/Ballard"). The City did not conduct any independent noise analysis regarding the roller coaster noise.

We have had an opportunity to review the May 14, 2008 letter of Les Hausrath, attorney for Cedar Fair ("Great America"), and the Papineau/Ballard comments attached thereto. In this latest, and presumably most comprehensive response, Great America attempts to address the potentially significant noise impacts that would be generated by the proposed rollercoaster, but fails to accomplish its task for two principal reasons:

> (1) The Great America analysis fails to address the unique nature of the ride's intermittent screaming noise, which is readily distinguishable from surrounding urban noise such as is generated by freeway traffic, airport operations and mechanical noise.
>
> (2) Great America relies on purported noise measurements conducted by GMH Engineering ("GMH") for similar roller coasters. However, the GMH data never has been produced or reviewed by the City or any third party. In fact, Great America has refused to produce this data. Nor has GMH ever been established by Great America as a qualified noise consultant. As a result, the GMH data is of virtually no value, absent the establishment of the firm's qualifications, the methodology of its research, the data it generated, and the applicability of the study to this unique situation.

Screaming is a unique noise disturbance. Whereas people can become accustomed to a noise, such as continuous vehicular traffic along a freeway or the noise of mechanical equipment, screaming is qualitatively different. Screaming noise is the loudest of human vocalization, an effective acoustic generator of sound over long distances. The maximum sound energy generated by screams is focused in the region where human hearing is most sensitive. It is semantically unique in that it does not sound like other noise. In fact, screaming is used for alerting, survival, and communication for the purpose of gaining attention. It is independent of language and culture, and everyone can recognize a scream.

Screams can be distinguished from other noises or ambient sounds. Screaming is more noticeable compared to other co-existing sound in the environment. As a result, screaming noise has the distinct ability to penetrate background noise because humans are cognitively wired to recognize screaming. Because of its unique attributes, screaming noise generates frequent complaints as we have discovered in numerous press articles during our research. For example, riders of a Sacramento-area roller coaster—the Scandia Screamer--are instructed NOT to scream, because residents living across a 12-lane freeway complained about the screaming noise.

Great America argues that screaming noise would not be audible within the Nortel buildings. Yet Papineau/Ballard fail to consider screaming's unique acoustical properties. Moreover, their assertion is based on "reference sound level measurements" obtained by GMH Engineering from the Ozark Wildcat in Branson, Missouri, and the Kentucky Rumbler in Bowling Green, Kentucky, ("GMH Report") as well as acoustical measurements conducted by Papineau/Ballard on 3 March 2008 within the Nortel buildings. Significantly, Papineau/ Ballard reference a noise report entitled "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Chris Menge ("Menge Report"), which was submitted for the 2002 International Congress and Exposition of Noise Control Engineering, but appear to disregard its findings in favor of the GMH Engineering data..

A comparison of the GMH and Menge Reports reveal irreconcilable data. Based on the unpublished GMH Report, Papineau/Ballard calculated screaming noise as approximately 8 dBA less than the roller coaster mechanical noise at the setback distance between the proposed roller coaster and the Nortel façade (i.e., 73 dBA maximum roller coaster noise level at the building skins, 65 dBA from screaming noise). However, the published Menge Report shows that noise levels with an occupied roller coaster can actually exceed an empty roller coaster by up to approximately 8 dBA. A 16 dBA difference is considerable. For example, an increase in noise level of 16 dBA would be considered a tripling in loudness for human hearing.

The GMH Report, upon which Great America bases its conclusions, is unacceptable. First, the GMH Report has never been produced for City staff or peer review purposes. The unavailability of the measurement protocol and resulting noise data contained in the GMH Report invalidates its use in the Great America proposal. Moreover, Great America has

refused to produce the GMH Report, further undermining its credibility. Second, GMH Engineering does not appear to have a qualified acoustical consultant. According to its own website, GMH does not provide acoustical consulting services, and GMH Engineering is not a member of either the Acoustical Society of America or the Institute of Noise Control Engineering, the nation's leading professional organizations for acoustical engineers.

Great America argues that the roller coaster has been oriented to direct the screaming away from the Nortel facades. But according to the Menge Report, screaming noise levels to the side of the roller coaster were among the highest measured, even in comparison to face-on measurements. Thus, the orientation of the roller coaster results in no measureable improvement in the noise impact. The only proposal put forth by Great America, which would have measurably reduced the noise impact, was the proposal to move the entire roller coaster to another location in the north-central area of the park. Great America has, however, abandoned that proposal.

In conclusion, Great America has not adequately supported its claim that the roller coaster noise will result in a less-than-significant impact on the Nortel building. The GMH Report, which has not been made available or reviewed by a third party, is not reliable. The unique nature of screaming creates the potential for significant noise impacts inside the Nortel buildings.

* * *

This concludes our current comments. Please do not hesitate to call us with any questions.
Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.

Timothy G. Brown
Principal Consultant

cc: Timothy Tosta
Luce, Forward, Hamilton & Scripps, LLP
E-mail: ttosta@luce.com

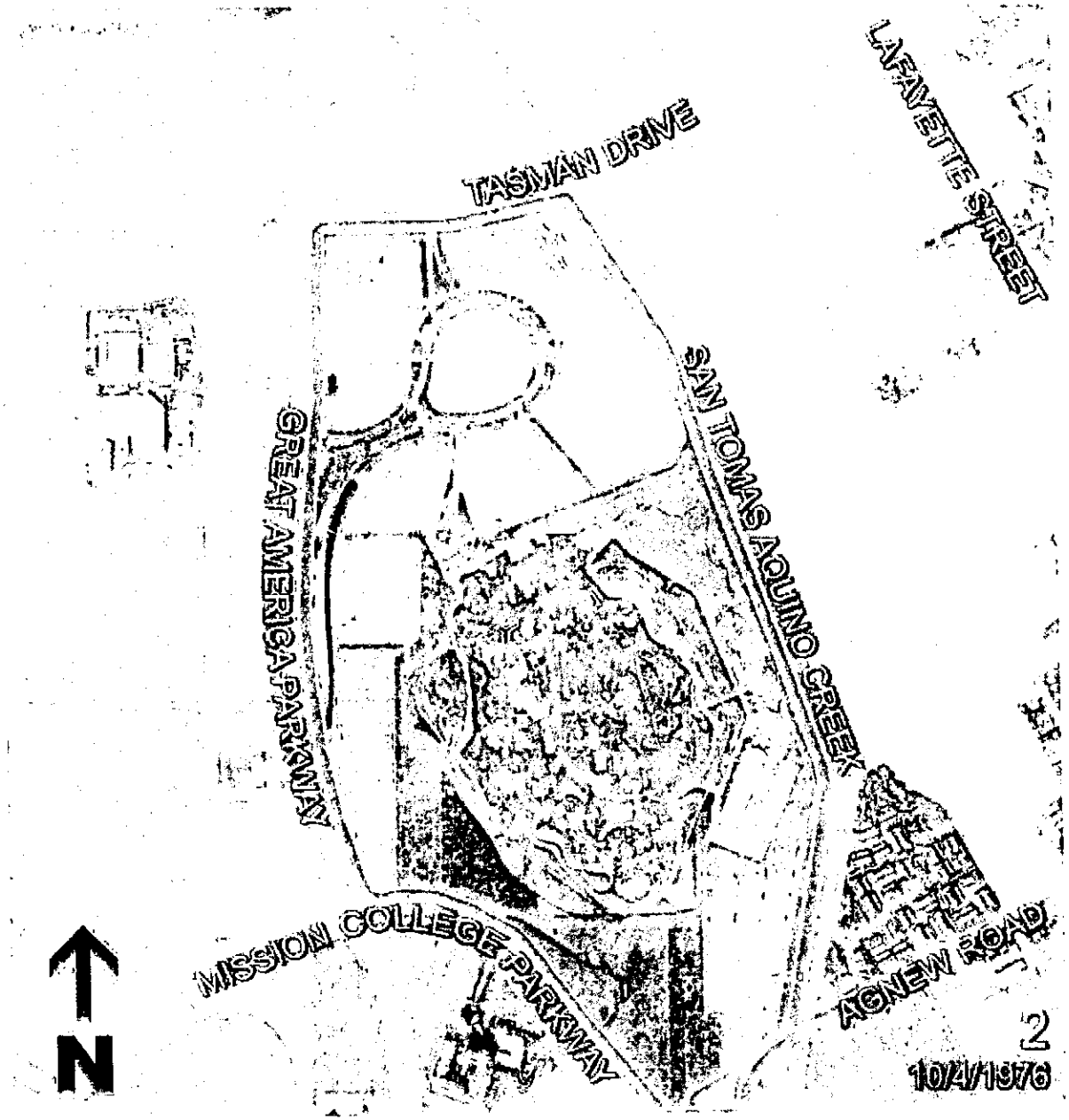
Jennifer Renk
Luce, Forward, Hamilton & Scripps, LLP
E-mail: jrenk@luce.com

Appendix E

1

VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

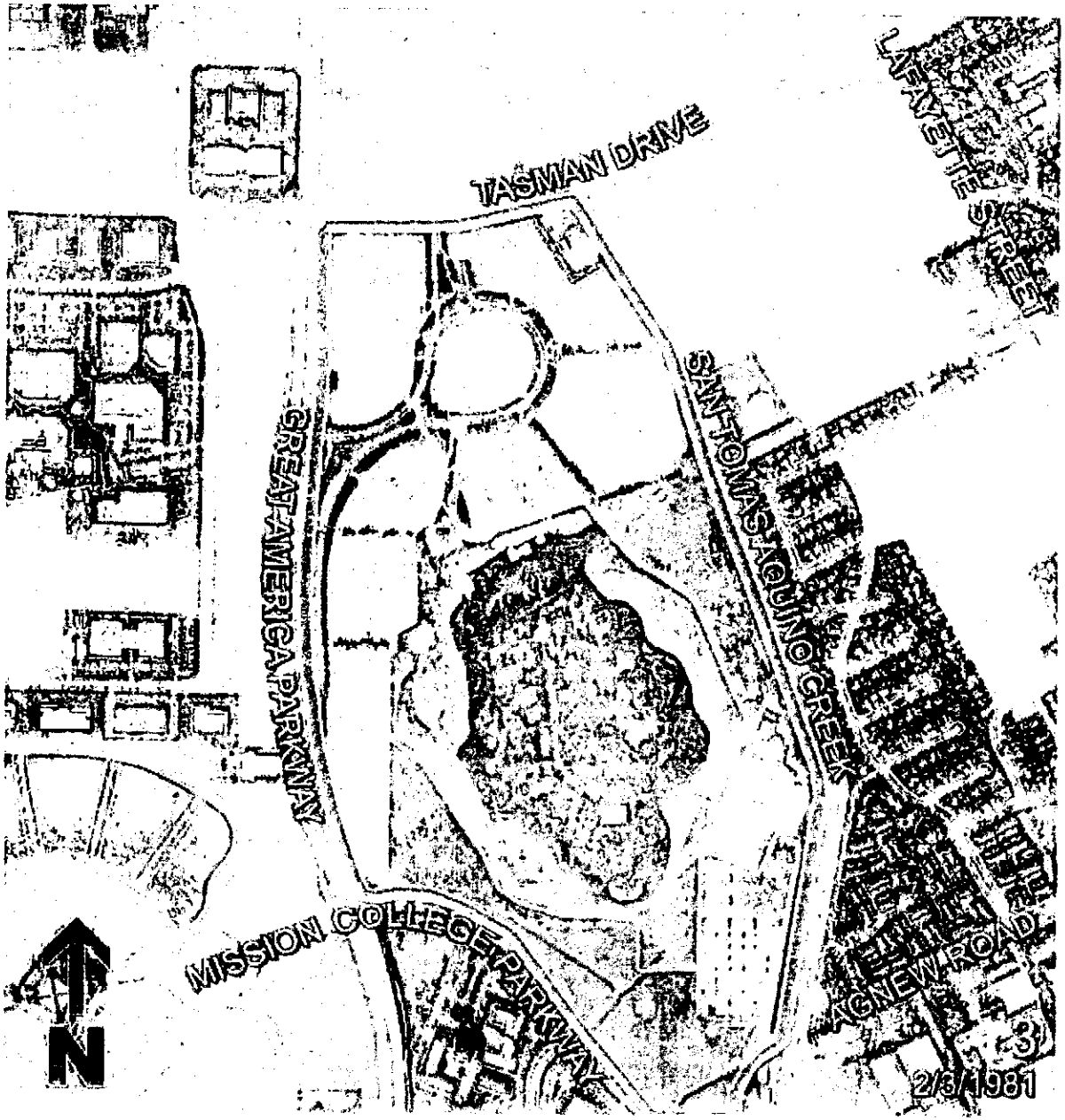


VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

1977

1981



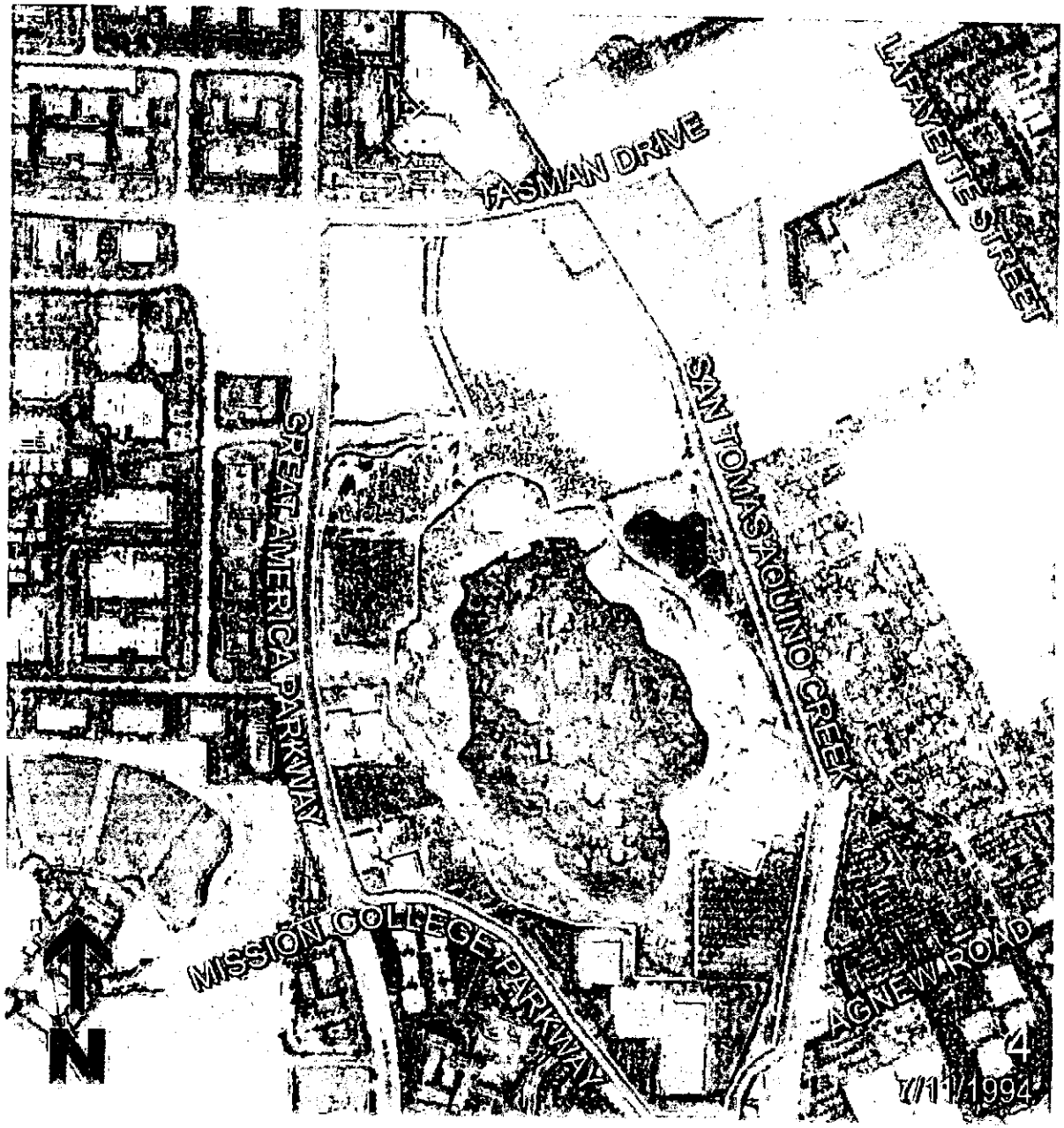
VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

1977

1981

1994



VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

1977

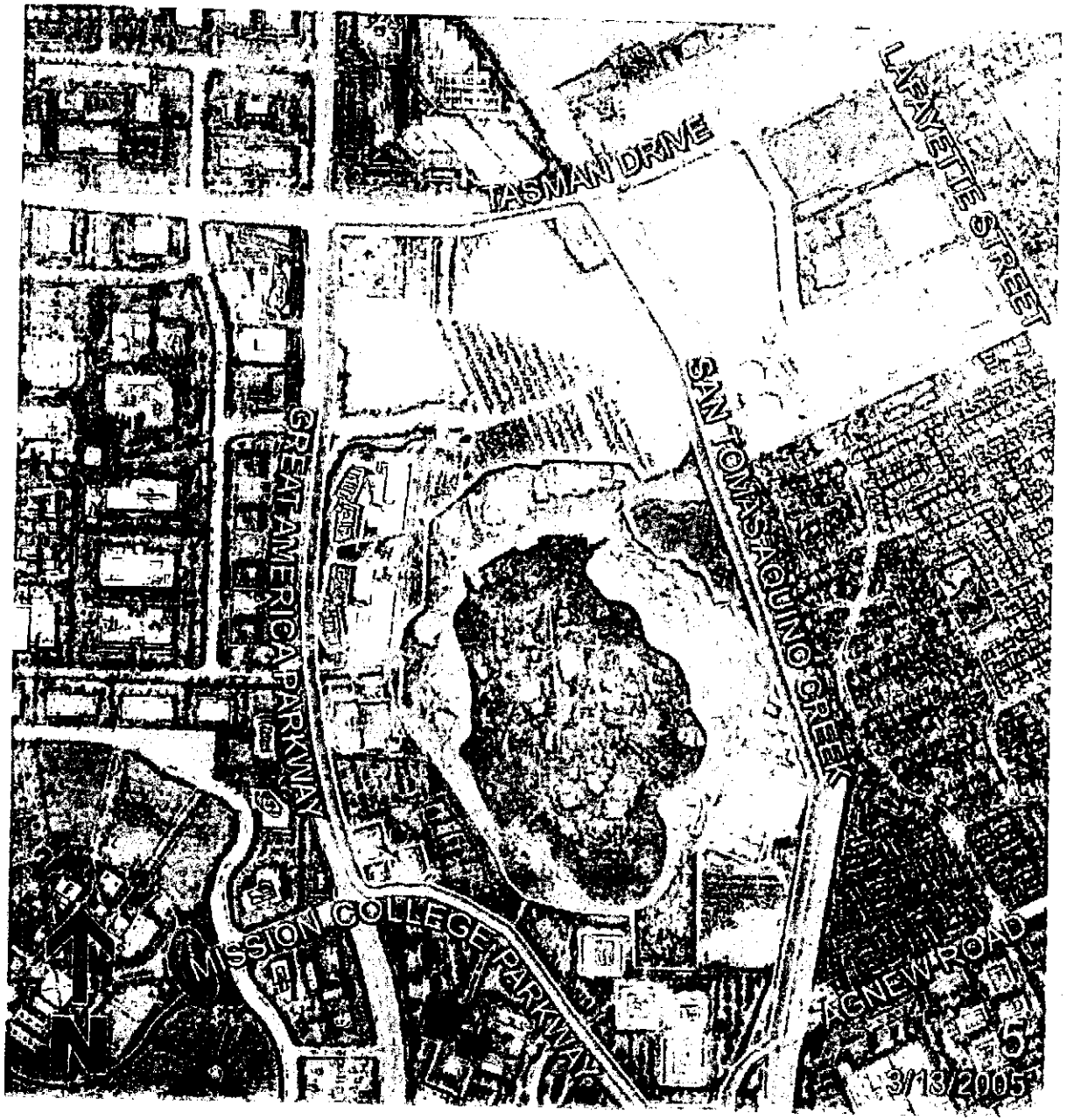
1981

1994

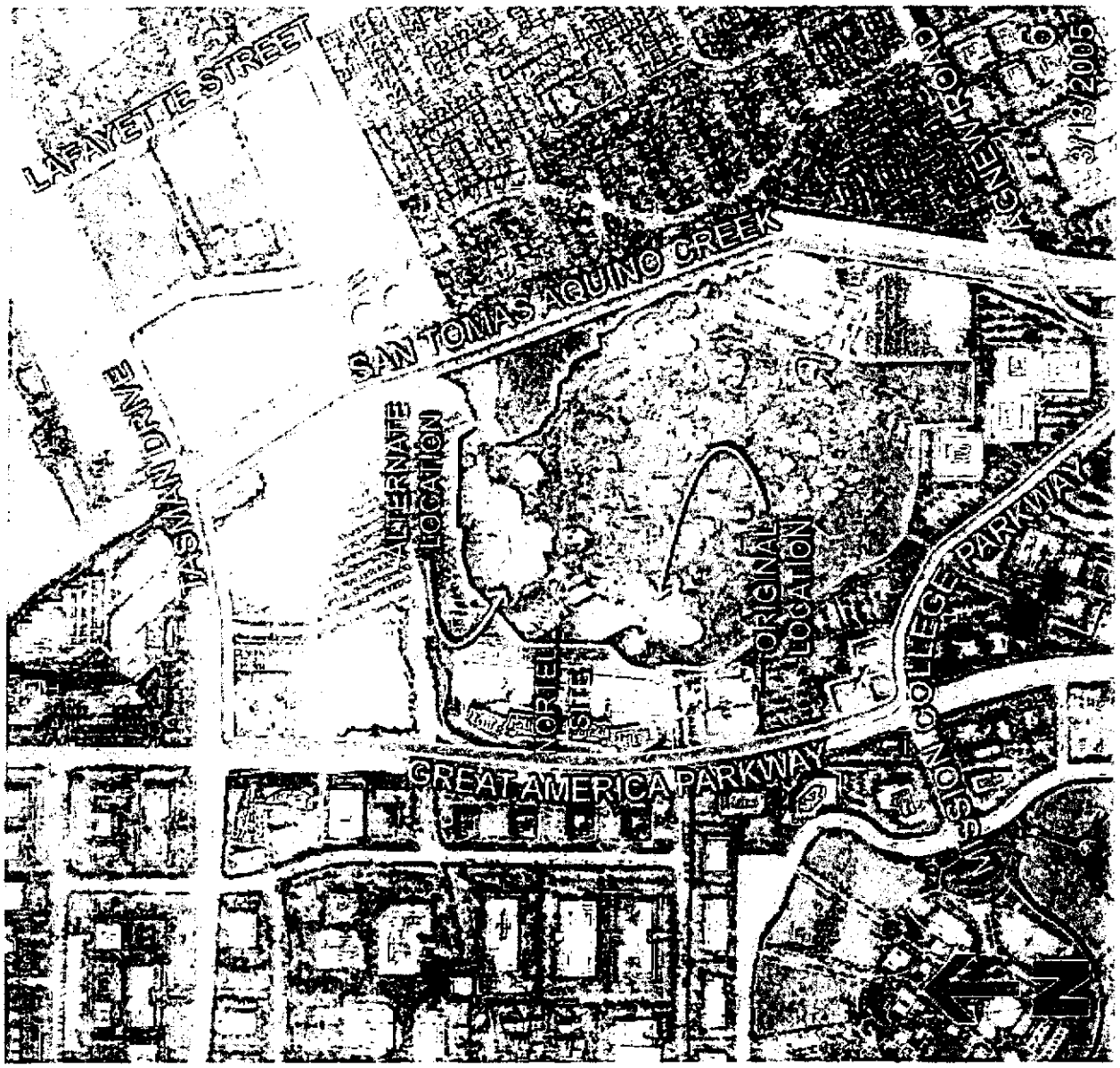
1998

?

2008



Appendix F


LAFAYETTE STREET
SAN TOMAS AQUINO CREEK
TASMAN DRIVE
ALTERNATE LOCATION
ORIGINAL LOCATION
NORTEL SITE
GREAT AMERICA PARKWAY
COLLEGE PARKWAY
N

Appendix G

SUMMARY OF DISPUTE RESOLUTION EFFORTS

This document summarizes the efforts between the Prudential Real Estate Investors ("Prudential") and California's Great America Theme Park ("Great America"), whereby the parties sought to resolve acoustical and visual intrusion from a new roller coaster ("Revised Ride") next to Prudential's office building ("Nortel Buildings") prior the April 23rd Planning Commission hearing.

The following steps were taken by the parties, at the suggestion of City staff, to reach mutually acceptable terms of an agreement:

1. Prudential hired Charles M. Salter Associates and Great America used Papineau and Ballard to study potential noise impacts from the Revised Ride.

2. Great America agreed to redesign the ride ("Original Ride"), relocating it further from the Prudential property line and realigning it so that the mass of the structure turned 90 degrees away from the Nortel Buildings.

3. Acoustical Consultants jointly agree that the Revised Ride should reduce noise levels.

4. Acoustical Consultants agree that the acceptable noise level is 70 decibels. Should any Prudential tenant or other interested party object, the parties agree to follow the procedure outlined in the Inspection and Remediation Protocols ("IRP") agreement for noise complaint validation, monitoring and remediation, as necessary.

The parties drafted two documents outlining their respective obligations:

(i) Prudential drafted an agreement ("Agreement") that outlined the overall proposed resolution between the parties:

- Great America would agree to construct and operate the Revised Ride away from the Nortel Buildings, as detailed on specific plan drawings;
- In return, Prudential would agree not to object to Great America's variance application for the Revised Ride;
- The parties would agree to a certain dispute resolution process in the event that the Nortel Buildings experienced noise intrusion from the Revised Ride.

(ii) Great America drafted and Prudential revised the more detailed IRP to deal with specific criteria for identifying and resolving potential noise complaints. As set forth in Prudential's revised IRP:

1. The parties would conduct noise monitoring on three separate occasions when the Revised Ride first opens to the public to ensure initial compliance with acceptable noise standards and to demonstrate good faith and proactivity to Prudential's tenants.

2. A specific process would be followed should a tenant file a noise complaint. A form of the complaint would solicit information necessary to determine whether the complaint is valid.

3. The noise complaint would be jointly reviewed by agreed upon acoustical consultants.

4. If the consultants were to agree that the complaint is prima facie valid, the consultants would take certain measurements of noise levels, according to predetermined protocols in the IRP. Based on the noise monitoring results, the parties would agree to take certain remedial measures.

5. If the noise intrusion were within acceptable levels (70 decibels or below), Prudential would have the responsibility for designing a noise dampening system within its own building, at its sole cost and expense;

a) If the noise intrusion were to exceed acceptable standards (over 70 decibels), the parties should attempt to jointly fix the problem through both interior work within the Prudential office building and by monitoring the Revised Ride's mechanics and activity within the theme park, all at Great America's sole cost and expense;

b) If the noise were still unacceptable, Great America would be required to fix the Revised Ride or modify the Prudential property to mask the noise, at Great America's sole cost and expense.

6. The parties would agree to acceptable timeframes from the receipt of a noise complaint to final remediation. The outside date for resolving a noise complaint would be 32 days.

Prudential sent revised documents for Great America's review on May 5th. On May 9th, Great America's counsel advised Prudential that Great America it intends to proceed with the Original Ride and, therefore, no further comments would be forthcoming on the proposed Agreement or the IRP.

Prudential remains available to resume settlement negotiations. Given the nature of the draft documents, little time would be required to bring this matter to a close.

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Timothy A. Tosta, Esq.
Luce, Forward, Hamilton & Scripps LLP
121 Spear Street, Suite 200
San Francisco, CA 94105

[Space Above For Recorder's Use Only] **[Discuss – Santa Clara would have to consent to recording this or short form memorandum of this agreement.]**

AGREEMENT

This Agreement ("Agreement") is made and entered into effective April 2008, by and among THE PRUDENTIAL INSURANCE COMPANY OF AMERICA, a New Jersey corporation ("Prudential") on the one hand; and GREAT AMERICA [entity name?] ("Great America"), on the other.

Great America and Prudential from time to time individually shall be referred to as a "Party" and collectively shall be referred to as the "Parties."

RECITALS

A. WHEREAS, Great America operates the Great America Theme Park (the "Park") on property leased from the City of Santa Clara (the "City") located on [address?] Great America Parkway in Santa Clara, California (the "Great America Property").

B. WHEREAS, Prudential owns certain real property located at 4555-4559 and 4655-4659 Great America Parkway in Santa Clara, California (the "Prudential Property"), immediately adjacent to the Park on its western property line. The Prudential Property consists of two buildings with approximately, 636,000 square feet of office, electronic laboratory space, employee amenities, and associated parking and the buildings accommodate up to approximately 2,400 employees when at maximum capacity.

C. WHEREAS, Great America is seeking approvals from the City for a variance to build a new roller coaster (the " Original Project") approximately 159 feet from the western property line of the Park, directly adjacent to the Prudential Property as more fully shown in Exhibit A. The City has determined that the Original Project is categorically exempt from environmental review pursuant to section 15323 of the California Environmental Quality Act ("CEQA") Guidelines. The City set the Original Project for hearing before the Planning Commission on February 13, 2008, but at the request of Prudential, first, and the City, second, the hearing on the Original Project has been continued.

D. WHEREAS, Prudential objected to the Original Project because it was concerned about the interactive, cumulative impact of the noise and visual intrusions of the Original Project,

and procedurally about the propriety of the CEQA categorical exemption and the variance process.

E. WHEREAS, Prudential's acoustical consultant, Charles M. Salter Associates Inc. ("CMSA"), conducted acoustical measurements at the Prudential Property in conjunction with Great America's consultants, Marc Papineau and Ballard George. Based on these measurements and the screaming noise level established in "Residential Impact Criteria and Abatement Strategies for Roller Coaster Noise" by Christopher W. Menge, Harris Miller Miller & Hanson, Inc. Internoise 2002 August 19-21 (the "Menge Report"), CMSA concluded that the calculated screaming noise level from the Original Project at the closest façade of the Prudential Property office building would result in an unacceptable interior screaming noise level.

F. WHEREAS, Prudential's visual consultant, Digital Imaging Studio ("DIS"), conducted visual analysis that showed the Original Project would cause a negative change to the visual conditions for the Prudential Property.

G. WHEREAS, in response to Prudential's objections, Great America redesigned the Original Project and moved it to a location farther away from the Prudential Property, as depicted in Exhibit B ("Revised Project"). The Revised Project proposes to locate the roller coaster approximately 271 feet from the Prudential Property line with the highest crest of the ride being the furthest point away at approximately 751 feet and turned to an approximate 90 degree angle counterclockwise from the Original Project configuration.

H. WHEREAS, Great America's consultants believe (and based on their letter dated January 15, 2008, "Acoustical Impact Assessment for the Proposed New Wooden Coaster at California's Great America", p. 5) that because the crest of the roller coaster, which produces the greatest amount of screaming noise, has been moved and turned away from the Prudential Property, the Revised Project likely will reduce internal noise intrusion to acceptable levels, assuming the Menge Report is correct.

I. WHEREAS, because under the Revised Project the roller coaster has been moved to approximately a 90 degree angle counterclockwise from the Original Project configuration, with the majority of the structure's massing furthest away from the Prudential Property, the visual intrusion under the Revised Project also has been decreased to an acceptable level.

J. WHEREAS, even though the Prudential Property buildings successfully attenuate the existing exterior noise conditions, if any screaming, noise from metal on metal contact or mechanical noises prove to be louder than the Parties' assumptions premised on the accuracy of the measurements contained in the Menge Report, the resulting noise conditions could be damaging to the interior environment of the Prudential Property.

K. The parties, through their respective counsel, have pursued discussions concerning the Great America Property, the Prudential Property, the Original Project, and the Revised Project and as a result of such discussions, have reached mutually agreeable terms for the resolution of said matters.

AGREEMENT

Therefore, in consideration of the foregoing mutual covenants and conditions hereafter set forth, and other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. The Recitals of this Agreement are set forth herein by this reference.

2. Great America shall construct the Revised Project in substantial conformance with Exhibit B and Exhibit C attached hereto, which identify the location and heights of the roller coaster. Great America shall not deviate from the Revised Project as incorporated herein, except for any de minimus shift in height or location of no more than five (5) feet.

3. Great America agrees not to construct any other amusement facility or structure in the location of the Original Project that exceeds the height of the parking structures on the Prudential Property or generates noise, individually or cumulatively, that would exceed the standard set forth in paragraph 6 below.

4. Upon the mutual execution of this Agreement, Prudential shall notify the City of Santa Clara in writing of its withdrawal of any and all objections to the Revised Project. Prudential further agrees not to pursue an appeal of the Revised Project or challenge the City's approval of the Revised Project in a court of law.

5. Great America shall not subsequently alter the Revised Project without Prudential's prior written consent, which consent may be withheld in its sole discretion. If the City requests material changes to the Revised Project, Prudential reserves the right to pursue any and all objections, claims and remedies to the proposed Revised Project as materially modified, notwithstanding any contrary provision herein.

ENFORCEMENT

6. The Parties and their respective consultants have met and agreed upon acceptable tolerance for noise from the operation of the Revised Project, unacceptable noise levels, the investigation and monitoring complaints concerning noise by Prudential's tenants and parties in possession of the Prudential Property, remediation of noise disturbances, and the responsibility among the Parties for paying for such remediation and/or other remedies, all as more specifically set forth in the Inspection and Remediation Protocols ("IRP"), attached hereto as Exhibit D and incorporated herein by this reference.

7. In the event Prudential receives any complaints from any party in possession of the Prudential Property that the Revised Project is generating Unacceptable Noise Levels (as defined in the IRP), the Parties' respective Consultants shall, with 48 hours of written notice, jointly determine whether the noise complaint(s) is or are valid pursuant to the procedures set forth in the IRP and, if necessary, jointly conduct acoustical measurements and other field tests in accordance with the Noise Monitoring Protocol to determine whether, in fact, the Acceptable Noise Level has been exceeded (as such capitalized terms are defined in the IRP). For the

purposes of this Agreement, Prudential designates CMSA as its Consultant; Great America designates **[Marc Papineau or Ballard George?]** as its Consultant. Should Great America fail to produce its Consultant for joint validation and testing within the prescribed time under this IRP, Prudential shall commence testing using only its Consultant and the findings of such Consultant shall be binding on the Parties. The respective Consultants for the Parties shall make all reasonable good faith efforts to cooperate with each other to validate or otherwise explain the Noise Complaint and to produce collaborative noise monitoring measurements and tests; however, if despite such good faith efforts, the respective Consultants are not able to agree on the level of noise disruption to within 1.5 decibels then the Parties agree to utilize the services of a third party Consultant ("Outside Consultant") who will, utilizing the methodology set forth in the IRP, undertake his own measurement and analysis of the noise levels. The findings of the Outside Consultant shall be binding on the Parties and shall be deemed conclusive for all purposes under the IRP. The Parties agree that the Outside Consultant shall be _____ **[Marc or Ballard, please provide acceptable candidates]**. The costs, fees and expenses of the Outside Consultant shall be borne by the party requesting his services except, however, if the Consultants for the respective Parties differ in their calculation of noise levels by 2.5 decibels or more, the party whose noise level measurement is furthest from that obtained by the Outside Consultant shall be solely responsible for the fees, costs and expenses of the Outside Consultant.

8. In the event the Consultants conclude that there are unacceptable noise levels originating from the Revised Project, the Parties shall remedy the situation as provided for in Section III C (Implementation of Interim Measures) of the IRP. In the event Great America elects to address the acoustical problems by making changes to the Prudential Property, Great America agrees to effectuate such changes promptly, but in no event later than 30 days after written notice by Prudential that it requests and authorizes such work. All work will be done by Prudential's contractors and or licensees in conformance with all applicable codes, regulations and ordinances including Title 24 CFR and _____. Great America will reimburse Prudential for all such fees and costs within 30 days of Prudential's written demand, with accompanying invoices and reasonable backup documentation, as necessary. Fees and costs incurred by Prudential and fully reimbursable pursuant to this paragraph 8 include, without limitation, all fees and costs attributable to mitigation of the unacceptable Revised Project noise levels including, without limitation, materials, labor, permitting fees, fees incurred by architects, acoustical consultants, structural engineers, mechanical engineers and any and all valid claims by Prudential tenants for rent abatement or business losses which are attributable to the Revised Project and, in the latter event, are authorized or permitted under the applicable lease with Prudential.

MISCELLANEOUS

9. All rights acquired by any lender or leasehold mortgagee pursuant to a deed of trust, mortgage or other security instrument (a "Leasehold Mortgage") shall be subject to each and all of the terms, covenants, conditions and restrictions set forth in this Agreement and to all the rights and remedies of Prudential hereunder, none of which conditions is or shall be waived by the Parties as a result of entering into any such Leasehold Mortgage.

10. Any lender shall be required to give Prudential notice of any default by Great America or its assignees under the Leasehold Mortgage. Immediately after recordation of any Leasehold Mortgage executed by Great America and containing a power of sale as defined by California law, Great America shall, at Great America's sole cost and expense, record in the Office of the County Recorder of Santa Clara, California, a written request executed and acknowledged by Great America for a copy of any notice of default and a copy of any notice of sale under such deed of trust or mortgage to be mailed to Prudential at the address specified in this Agreement.

11. The term "Lender" as used in this Agreement, shall mean not only the person, persons or entity that loaned money to Great America and is named as beneficiary, mortgagee, secured party or security holder in the instrument creating any encumbrance incurred by Great America, but also all subsequent assignees and holders of the security interest created by such instrument.

12. Great America currently has a leasehold interest with the City of Santa Clara for the Great America Property. In the event Great America or its successor in interest acquires fee simple title to the Great America Property, the provisions of this Agreement shall not be defeated or otherwise terminated due to a merger of the leasehold estate; rather, the provisions of this Agreement shall, at Prudential's option, be recorded in the Office of the County Recorder for Santa Clara County so that the covenants contained herein will run with the land pursuant to California Civil Code Section 1468. The Parties agree to amend this Agreement, if necessary, to create a recordable document which complies with the provisions of California Civil Code Section 1468.

13. Each person signing this Agreement represents and warrants that he, she or it has the right and authority to execute this Agreement on behalf of the Party upon whose behalf he, she or it has signed. Each Party to this Agreement represents and warrants that he, she, or it has had the opportunity to and has consulted with his, her, or its own independent counsel concerning this Agreement and the advisability of resolving the controversies between the Parties in accordance with the terms set forth in this Agreement and that he, she, or it has entered into this Agreement with full understanding of the Agreement's terms and conditions.

14. This Agreement shall be binding on, and inure to the benefit of the successors, heirs, issue and assigns of the parties hereto. Nothing in this Agreement, express or implied, is intended to confer upon any person or entity other than the parties hereto or their respective successors, heirs, issue and assigns, any rights or benefits under or by reason of this Agreement. This Agreement shall not be assignable by any party hereto without the prior written consent of the other party.

15. The Parties declare that, prior to entry into this Agreement, they each apprised themselves of sufficient relevant data that they might intelligently exercise their own judgments in deciding on the content of and in deciding whether to execute this Agreement. Each Party has read this Agreement and understands all of its terms. Each Party further states that this Agreement has been entered into voluntarily and with full knowledge of its significance.

16. Notices. All notices required shall be in writing, and delivered in person of sent by United States mail, postage prepaid.

Notices to Great America shall be addressed as follows:

[Insert contact information]

Notices to The Prudential Insurance Company of America shall be addressed as follows:

[Insert contact information]

17. Provided that any party may change such address by notice in writing to the other party and, thereafter, notices shall be addressed and transmitted to the new address.

18. This Agreement may be amended or modified only by a written instrument signed by or on behalf of all Parties affected thereby or by their successors in interest.

19. The terms and conditions of this Agreement shall be construed and enforced in accordance with, and governed by, the laws of the State of California.

20. The Parties acknowledge that this Agreement reflects the resolution of disputed claims, and that by entering into this Agreement, no Party admits fault or liability, but rather has entered into this compromise in order to bring the disputes to a close.

21. Each Party shall take all actions and do all things, and execute, with acknowledgement or affidavit if required, any and all documents and writings that may be necessary or proper to achieve the purposes and objectives of this Agreement.

22. This Agreement contains the entire agreement among the Parties and supersedes any prior agreements or understandings between Plaintiffs, on the one hand, and Defendants, on the other. All terms of this Agreement are contractual and shall be construed as if drafted by all Parties. All provisions of this Agreement are and shall be binding upon each of the Parties, their agents, attorneys, employees, successors and assigns.

23. Subject to equitable adjustment in order to achieve the essential purposes of this Agreement, if any term, provision, right or duty of this Agreement is deemed void or unenforceable, the remaining terms, provisions, rights and duties shall not be impaired, but shall remain valid and enforceable.

24. In the event that either of the Parties reasonably incurs legal expenses to enforce or interpret any of the provisions of this Agreement, or on account of the failure or refusal of a

Party to comply with any said provisions, the prevailing party shall be entitled to reimbursement of said expenses (including reasonable expert witness expenses) from the nonprevailing party, whether or not said legal expenses are incurred in connection with an action which proceeds to judgment. In the event that a judgment is entered to enforce or interpret any of the provisions of this Agreement, such reimbursement of expenses shall be made a part of the judgment.

25. The section headings appearing in this Agreement are inserted only as a matter of convenience and in no way define or limit the scope of any section.

The undersigned have read the foregoing Agreement and accept and agree to the provisions it contains and hereby execute this Agreement voluntarily with full understanding of its consequences.

Dated: _____, 2008

The Prudential Insurance Company of America
A New Jersey Corporation

By: _____
Jolynn Miller
Second Vice President

Dated: _____, 2008

California's Great America

By: _____
Bill Lentz

Acknowledged [for purposes of recordation]

City of Santa Clara

By: _____
Its: _____

301035896.7

STATE OF CALIFORNIA)
)
COUNTY OF)

On _____, before me,_____ , Notary Public,

personally appeared_____
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature (Seal)

STATE OF CALIFORNIA)
)
COUNTY OF_____)

On _____, before me,_____ _____, Notary Public,

personally appeared_____
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature (Seal)

INSPECTION AND REMEDIATION PROTOCOLS

Great America and Prudential, or the "Parties," have agreed that it is their mutual interest to adopt the following Inspection and Remediation Protocols ("IRP") to address future roller coaster noise at the Great America Theme Park in Santa Clara, California. If a term is not specifically defined in this IRP, it shall have the same definition as set forth in the Agreement between the Parties dated , 2008.

I. OBJECTIVE

To implement a scientific process for investigating potential future complaints related to rider and/or train noise caused by the wooden roller coaster ("Ride Noise").

II. PROCEDURE FOR FILING & INVESTIGATING NOISE COMPLAINTS

A. Noise Complaint Form

In the event that Prudential receives a complaint regarding noise in one of the buildings identified herein, Prudential will request that the complaining party fill out a Noise Complaint Form, in form substantially similar to the one attached hereto as Schedule I ("Noise Complaint Form"). Complainants will be asked to complete the Noise Complaint Form, as thoroughly as possible, to identify the date, time, circumstances (e.g., employee name, company affiliation, office location by floor and other detail, activity such as reading a report, word-processing, entering data, teleconferencing, client meeting), and noise quality (e.g., intermittent, steady, high pitch, horn, rider scream, clatter, other description). Building Maintenance staff, will attempt to determine the operation mode for the HVAC system in the Prudential Building and include this information, if available, in the Noise Complaint Form. Noise Complaint Forms will be generated on an as needed basis.

B. Filing a Noise Complaint

Complaints shall be e-mailed or faxed to Prudential's designated representative, as more fully provided in Prudential's office leases, and the complainant will be required to follow up with a telephone call to Prudential to confirm receipt.

C. Follow-Up Investigation

In the event Prudential receives any complaints from any party in possession of the Prudential Property that the Revised Project is generating Unacceptable Noise Levels (as defined herein), the Parties' respective Consultants shall, with 48 hours of written notice pursuant to Article IV herein, jointly determine whether the Complaint(s) is or are valid pursuant to Section II D herein and, if necessary, jointly conduct acoustical measurements and other field tests in accordance with the Noise Monitoring Protocol (defined herein) to determine whether, in fact, the Acceptable Noise Level (defined in Section III B) has been exceeded. For the purposes of this Agreement, Prudential designates CMSA as its Consultant; Great America designates **[Marc Papineau or Ballard George?]** as its Consultant. Should Great America fail to produce its Consultant for joint validation and testing within the prescribed time under this IRP, Prudential shall commence testing using its

Consultant and the findings of such Consultant shall be binding on the Parties. The respective Consultants for the Parties shall make all reasonable good faith efforts to cooperate with each other to validate or otherwise explain the Noise Complaint and to produce collaborative noise monitoring measurements and tests; however, if despite such good faith efforts, the respective Consultants cannot agree on the level of noise disruption to within 1.5 decibels then the Parties agree to utilize the services of a third party Consultant ("Outside Consultant") who will, utilizing the methodology set forth herein, undertake his own measurement and analysis of the noise levels. The findings of the Outside Consultant shall be binding on the Parties and shall be deemed conclusive for all purposes under this IRP. The Parties agree that the Outside Consultant shall be _____ **[Marc or Ballard, please provide acceptable candidates]**. The costs, fees and expenses of the Outside Consultant shall be borne by the party requesting his services except, however, if the Consultants for the respective Parties differ in their calculation of noise levels by 2.5 decibels or more, the party whose noise level measurement is furthest from that obtained by the Outside Consultant shall be solely responsible for the fees, costs and expenses of the Outside Consultant.

The Consultants may ask limited questions of the complainant or Building Maintenance to assure accuracy and completeness as long as the process does not unduly interfere with the ability of the Prudential tenants to conduct business operations in the Prudential Property or otherwise violate any provision or covenant of Prudential's lease agreements for the tenant(s) or complainant(s) in question. At a minimum the following information shall be compiled as part of the investigation:

1. Did the nuisance or disturbing noise continue following the complaint?

2. Is the disturbance ongoing?

3. Follow up to the information contained in the Noise Complaint, as necessary.

D. Validation & Contingency for Noise Monitoring

1. Validation

Validation is the process of attributing noise to the target source. The Ride Noise is either the likely cause of the complaint or else can be excluded as the likely cause, based on the Consultants' review of the Noise Complaint and interviews.

2. Contingency for Noise Monitoring

In the event that the noise disturbance is validated and is attributable to the Ride Noise and is unabated at the time of follow-up, Noise Monitoring may, upon the recommendation of the Consultants, be undertaken in accordance with the Noise Monitoring Protocol, defined in Section H herein. The purpose of Noise Monitoring is to obtain measurement data for comparison with the standard.

E. Noise Incident Reporting

Prudential's Consultant, with input from Great America's Consultant as feasible and appropriate, shall complete a written report ("Noise Incident Investigation Report"), within forty-eight hours of the filing of the initial Noise Complaint to determine whether further action and investigation under this IRP is necessary.

F. Record Keeping

All Noise Complaint Forms and Noise Incident Investigation Reports shall be maintained for a period of not less than 4 years. Noise Complaints validated as attributable to Ride Noise shall be maintained for not less than 5 years.

G. Validation Procedure for Noise Complaints

While all Noise Complaints may be legitimate in the sense that noise was perceived by complainant who felt annoyance, disturbance, or interference with concentration at work, not all Noise Complaints necessarily will be attributed to Ride Noise. In the validation process both the interior building operations as well as the wooden roller coaster operations will be considered. The investigation of a Noise Complaint could show that conditions are recurring in nature and likely attributable to Ride Noise; could show that conditions are attributable to another source (not the target); or, could show conditions are non-recurring and attributable to an unusual circumstance such as abnormal building operation (e.g., shutdown of building ventilation). All suspected sources and causes, in addition to the target, shall be considered depending on the Noise Complaint Form and judgment of the Consultants.

H. Noise Monitoring Protocol

The Noise Monitoring Protocol shall consist of the i) acoustical measurement requirements and ii) data processing requirements set forth below ("Noise Monitoring Protocol").

I. Acoustical Measurement

The minimum requirements of the Noise Monitoring Protocol include the following:

- Measurements shall be performed using a Type 1 sound level meter or real time analyzer.
- Calibration of the instrument shall be performed before and after the measurements using a portable acoustical calibrator.
- Measurements shall be performed at a roof location, at the façade setback, and as close to directly above the complainant's office area as allowable. The microphone should be at an elevation no lower than 15-feet above the roof deck.

- Measurements shall be performed initially outdoors, to record A-weighted Lmax and Lmax in 1 3-octave bands over a minimum of 30 minute duration (equivalent to approximately 17-18 cycles of the coaster trains).

- Analysis of the 30 minutes of measurements during the 30 minutes shall be programmed over 1 minute: 42 second -(102 second) periods. (Lmax and 1 3-octave band levels reset each 1 minute: 42 seconds).

- The above measurements shall be repeated indoors as described above or, alternatively, could be performed simultaneously indoors and outdoors by using a double instrument set-up.

J. Data Processing

Measured outdoor Lmax shall be compared to 70 dBA. If necessary, noise level corrections shall be applied to correct the measured noise to the noise at actual distance of the complainant from the source.

III. STANDARD

A. PURPOSE

The purpose of this section is to set forth and describe a standard. The standard shall be invoked based solely on the criteria and procedures described herein, based on the factual record of Noise Complaints.

B. STANDARD DEFINITION

The allowable Lmax noise level at a location equivalent to the building face of 4555 or 4655 Great America Parkway generated form the wooden roller coaster shall be 70 dBA, which for the purpose of the standard includes up to 70.4 dBA ("Acceptable Noise Level"). Any noise levels exceeding this standard shall be referred to as an "Unacceptable Noise Level").

1. Initial Study

Prudential's Consultant, at Great America's sole cost and expense, shall conduct acoustical measurements and data processing pursuant to the Noise Monitoring Protocol at the following times and intervals to determine whether the Ride Noise exceeds the Acceptable Noise Level:

a. Anytime during the 4 weeks prior to opening the Revised Project to the public (i.e., during test runs and safety drills);

b. For continuous days during the first two weeks that the Revised Project is open to the public; and

c. During the first "peak season" of the first calendar year in which the Revised Project is operable and open to the public, i.e., Memorial Day

weekend, 4th of July, or Labor Day, as the case may be. For the purposes of this subsection (c), Prudential's Consultant shall endeavor to conduct its tests during business hours when the occupancy rate for the Prudential Property is the highest.

2. **Other Triggers**

Receipt of one (1) or more validated Noise Complaints shall trigger a review of potential violation of the Acceptable Noise Level.

3. **Notice**

Consultant shall notify the Parties that he or they, as the case may be, have validated the Noise Complaint(s) and intend to compile a Summary Review, defined below.

4. **Consultant's Summary Review**

Consultant shall assemble the monitoring data in a summary format such as an Excel spreadsheet. Consultant shall review the data and determine whether the wooden coaster has exceeded the Acceptable Noise Level ("Summary Review").

5. **Filing**

Consultant shall submit the Summary Review to the Parties for review within 3-business days after notification of Summary Review set forth in Section 3, above.

6. **Initial Meeting of the Parties**

The Parties shall have 5-business days from receipt of Summary Review to conduct meetings to discuss potential remedies for the Noise Complaint(s) ("Initial Meeting").

7. **Initial Meeting Outcomes**

The Parties shall have seven (7) calendar days from the date of the Initial Meeting either to i) file a joint determination of "no further action" or else ii) commence interim or remediation measures to reduce the Ride Noise as set forth in Section C herein. Interim measures may include white noise generators, park "policing" controls [**explain**], car or wheel repair or replacement, or other appropriate measures.

8. **Suspension of Noise Complaints**

The Parties acknowledge that it will not be necessary to pursue separate investigation measures for parallel Noise Complaints stemming from the same incident or series of incidents until the conclusion of the pending investigation.

C. IMPLEMENTATION OF INTERIM OR REMEDIATION MEASURES

1. **Interior Sound Masking & Other Measures**

In the event that wooden coaster Lmax during validated Noise Complaints does not exceed Acceptable Noise Levels, Prudential will focus efforts on interior sound mitigation, at its sole cost and expense.

2. **Joint Implemented Measures**

In the event that wooden coaster Lmax during validated Noise Complaints does exceed Acceptable Noise Levels, Prudential will attempt to achieve Acceptable Noise Levels by interior sound mitigation, such as sound masking or the generation of "white noise", at Great America's sole cost and expense and, concurrently, Great America will immediately implement noise policing measures **[define and provide details]** at Great America's facility, at its sole cost and expense.

3. **Coaster Noise Reduction Measures or Interior Remediation**

In the event that wooden coaster Lmax during validated Noise Complaints exceeds Acceptable Noise Levels, and the joint efforts referred to above are unsatisfactory, Great America will focus efforts on coaster sound mitigation within the Great America Property to reduce the noise to an Acceptable Noise Level. In the event that Great America's efforts at mitigation in its facility fail to achieve such an Acceptable Noise Level, then Great America will be required to pay the cost of modifications to the Prudential Property necessary to reduce the effective interior impact of the sound to an Acceptable Noise Level. The Parties shall effectuate all such repairs as soon as possible; however, in no event later than thirty (30) days after the validation of the Noise Complaint(s).

IV. MISCELLANEOUS

A. Notices

For all purposes under this IRP, the Parties and their Consultants shall be contacted at the following addresses, in the following manner:

Notices to Great America shall be addressed as follows:

[Insert contact information]

and

[add consultant contact information]

Notices to The Prudential Insurance Company of America shall be addressed as follows:

Jolynn Miller
Director

Prudential Financial Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111

and

Charles M. Salter
President
Charles M. Salter Associates Inc.
130 Sutter Street, 5th Floor
San Francisco, CA 94104

B. Inconsistencies

In the event of any inconsistencies between this IRP and the Agreement, the former shall control.

The undersigned have read the foregoing IRP and accept and agree to the provisions it contains and hereby execute this IRP voluntarily with full understanding of its consequences.

Dated: _____, 2008

The Prudential Insurance Company of America
A New Jersey Corporation

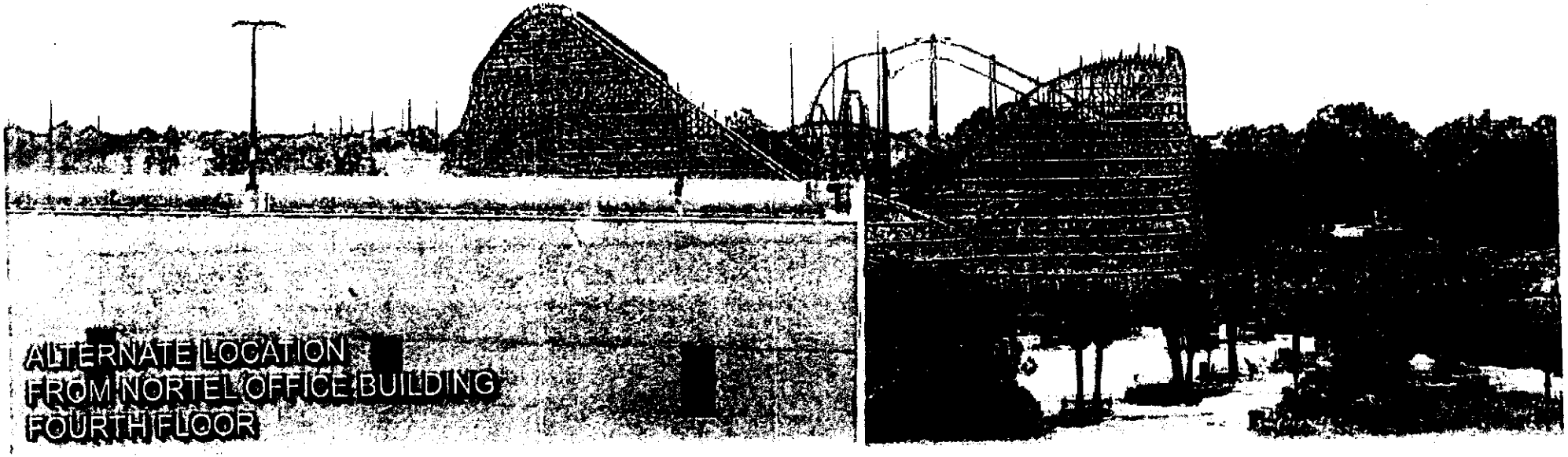
By: _____
Jolynn Miller
Second Vice President

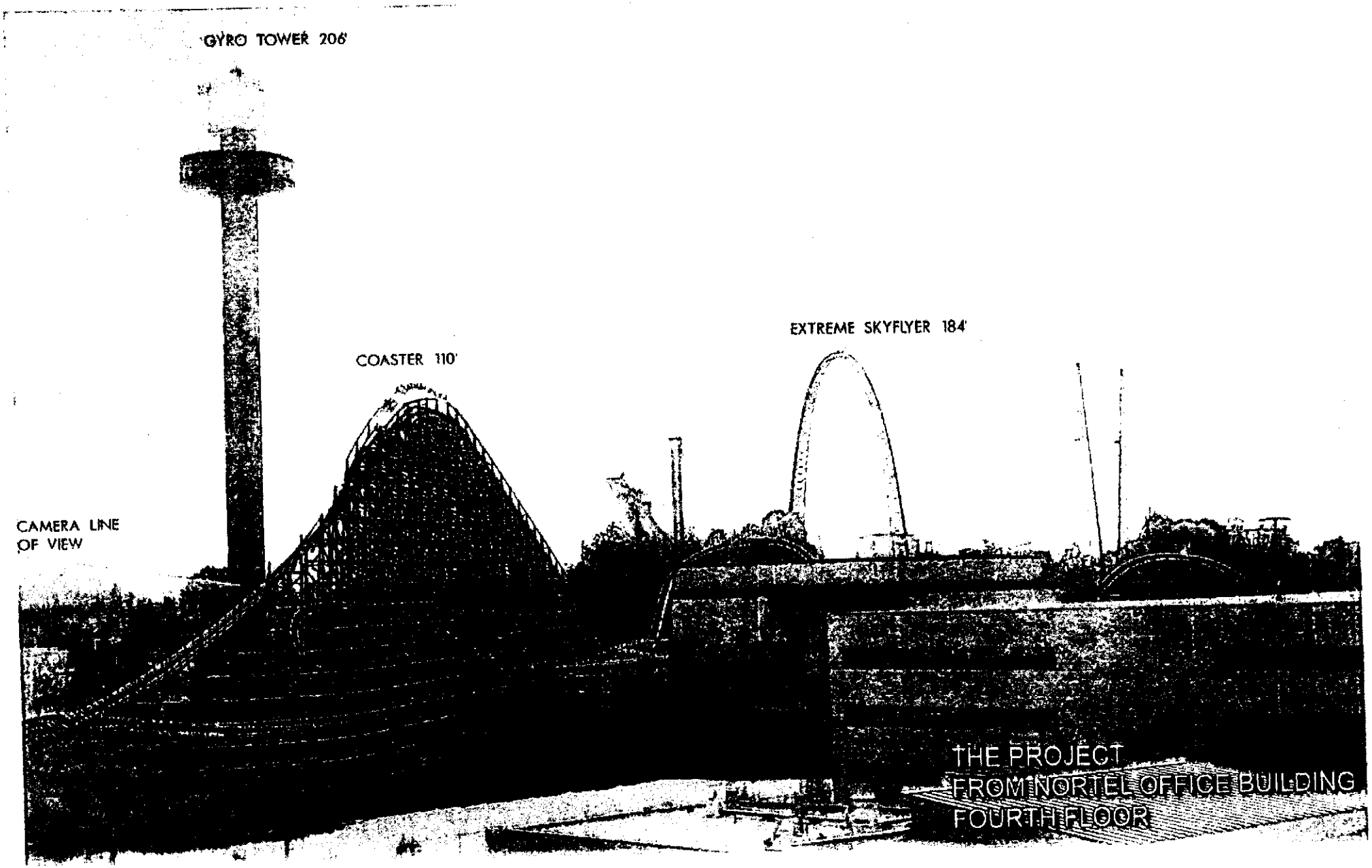
Dated: _____, 2008

California's Great America

By: _____
Bill Lentz

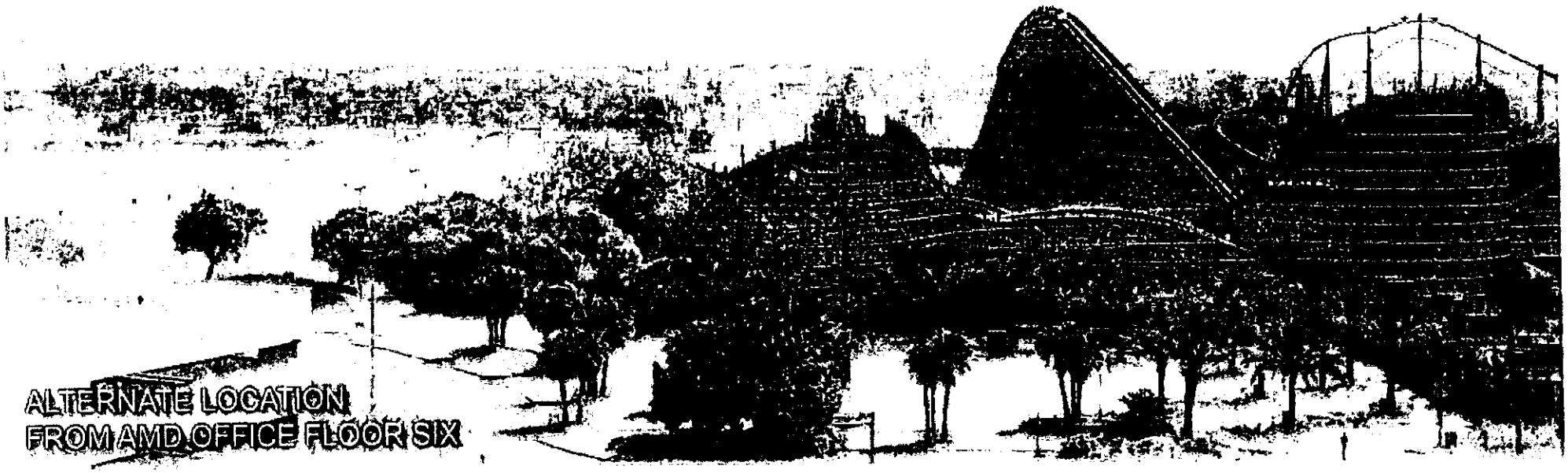
Appendix H

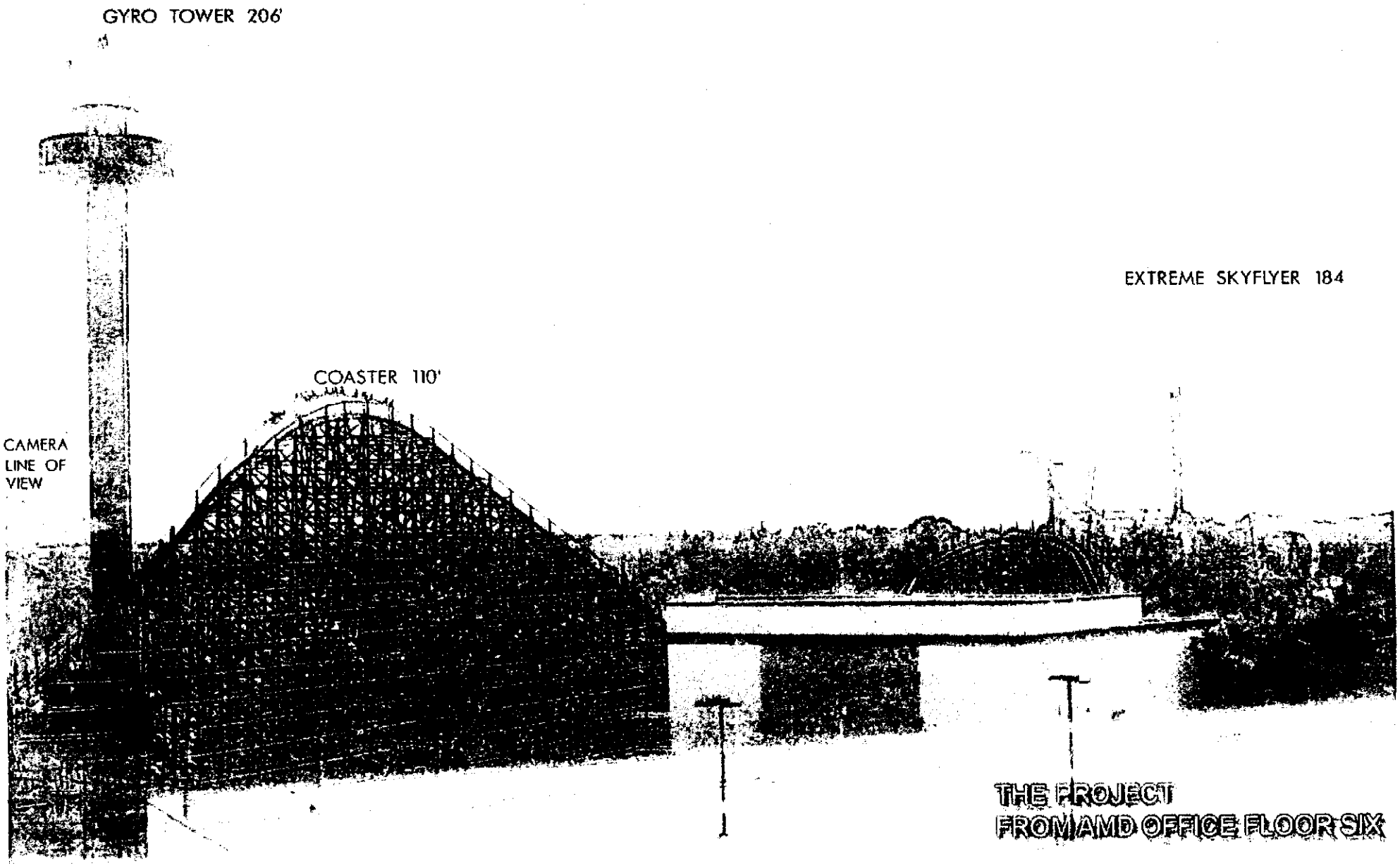

ALTERNATE LOCATION
FROM NORTEL OFFICE BUILDING
FOURTH FLOOR



THE PROJECT
FROM NORTEL OFFICE BUILDING
FOURTH FLOOR

Appendix I


ALTERNATE LOCATION
FROM AMD OFFICE FLOOR SIX


GYRO TOWER 206'
EXTREME SKYFLYER 184
COASTER 110'
CAMERA
LINE OF
VIEW
THE PROJECT
FROM AMD OFFICE FLOOR SIX

Noise from amusement park attractions: Sound level data and abatement strategies

Christopher W. Menge[a)]

Amusement park operators want to minimize noise radiating to surrounding communities and between attractions within a park. This paper presents measured sound level data from a number of the noisiest outdoor attractions in amusement (theme) parks, including roller coasters, water rides, and musical events. Source directivity characteristics and noise abatement strategies are discussed © *1999 Institute of Noise Control Engineering.*
[S0736-2501(99)00605-0]

Primary subject classification: 12.9.1; Secondary subject classification: 66.1

1. SOUND LEVEL DATA

Noise data from various amusement park attractions measured by Harris Miller Miller & Hanson Inc. (HMMH) are included in this section. To protect the confidentiality of the theme park operators, only generic information about the specific attractions is given.

Shows and parades with a primarily musical theme are becoming more common in theme parks. Figure 1 shows a 12-min averaged spectrum of a musical parade event normalized to a distance of 15 m from the center of the parade route. (Note that the spectral data are presented in terms of the *A-weighted* 1/3-octave band sound pressure levels. This serves to facilitate the identification of the frequency bands that contribute most significantly to the overall A-level.) The overall A-weighted level for the musical parade shown is 83 dB, which represents a relatively low-energy event. Other parades may operate at somewhat higher levels, but with similar spectra. While outdoor music concert events can produce average A-weighted sound levels over 110 dB, concert levels are usually kept below 100 dB at theme parks, to avoid interference with the listening conditions in other nearby attractions. Musical shows are often produced in covered theaters with open sides, allowing more uniform distribution of show audio to the audience, as well as partial containment of the sound radiated to the outside.

Free-fall rides are those where the guests are raised or propelled to heights up to 50 m on a guided car or seat and then released to fall weightless for a few seconds. Guideway noise and guest screaming are the predominant sources of sound. The noise events can occur at high elevation, with minimal shielding. Figure 2 shows the spectra of two such events, normalized to 15 m, with A-weighted L_{max} averaging about 85 dB.

Water/boat rides are very common at theme parks. The rides producing noticeable noise are those with a drop and splash, often accompanied by screams. Figure 3 shows measured spectra for the "drop and splash" zone of three different water rides. Different events for each ride are given to show the variation associated with the load of people in the boats and scream level. For example, Ride A, Event 1 had significant screams and resulted in a $L(A)_{max}$ of 91 dB at 15 m, whereas Event 2 had no screams and measured only 80 dB, even though Event 2 had significantly more low-frequency "boat-drop" energy. The scream energy for Event 1 occurred only in the 1250 and 1600 Hz 1/3-octave bands and dominated the A-weighted level. For Ride B, which had very consistent (and somewhat louder) event-to-event low-frequency noise, the scream component increased the A-weighted level by up to 7 dB. The energy-average spectrum for all water rides and events peaks at 85 dB in the 1250 Hz band, with an overall A-weighted energy-average level of 89 dB.

Roller coasters are perhaps the most significant noise sources at theme parks for three reasons: (1) the wheel-rail rolling noise can be very significant; (2) screaming is often frequent and high in level; and (3) the relatively high elevation of much of the ride allows sound propagation over long distances with limited attenuation from building shielding and ground effect.

Figure 4 shows the maximum sound-level spectra of 13 roller coaster pass-by events from five different coasters, as measured by HMMH, but normalized to 15 m distance. The wheel-rail component of roller coaster noise is usually in the 250 to 400 Hz range, and is often dominant for coasters with an under-damped rail support beam ("backbone"), such as Coaster "A" in Fig. 4. Figure 4 shows a wide variation in coaster noise emission levels—even in the lower frequencies not affected by screaming. Some of this variation is due to slight differences in speed and acceleration forces, but these differences do not fully explain the variation. In some coaster designs, the steel rail support beam is a very efficient acoustic radiator, others are better damped resulting in less radiation in the low frequencies. Coaster "E" produces an average of 10 to 15 dB less sound energy than Coaster "A" in the 315 to 630 Hz range, the range that dominates the A-weighted level for Coaster A.

Roller coasters are fairly directional noise sources, as the car bodies themselves can provide significant shielding. Figure 5 presents averaged spectra (several pass-bys) for three different orientations of Coaster "E" relative to the observer. Note that for the observer *above* the heads of the guests in a car-type coaster pass-by, the maximum (A-weighted) sound levels occur in the 1000 to 2000 Hz range, caused by guests screaming (they are upside-down in this position, and therefore tend to scream enthusiastically). Note also that the lower frequencies (160 to 630 Hz) are reduced, due to the shielding of the rails and support beam provided by the car bodies. Conversely, the position *below*

[a)] *Harris Miller Miller & Hanson Inc., 15 New England Executive Park, Burlington, MA 01803, USA.*

© 1999 Institute of Noise Control Engineering

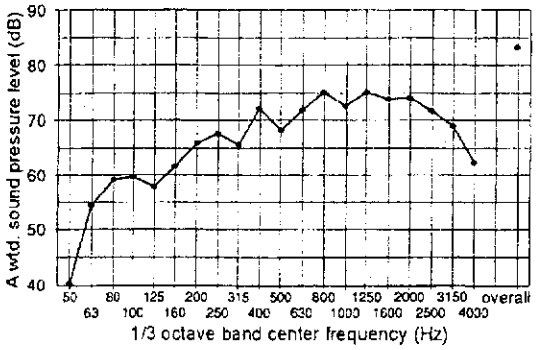


Fig. 1 – Musical parade event on 15 m; A-weighted spectrum—12-min avg.

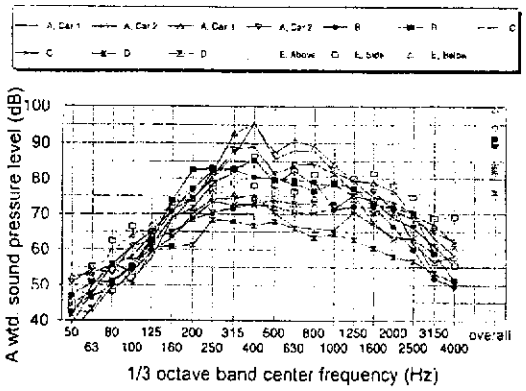


Fig. 4 – Roller coaster events at 15 m; A-weighted maximum pass-by spectra.

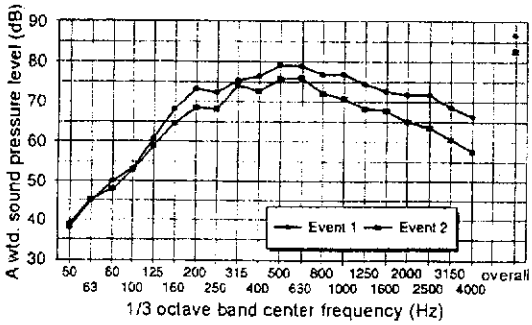


Fig. 2 – Free fall events; A-weighted spectra at 15 m.

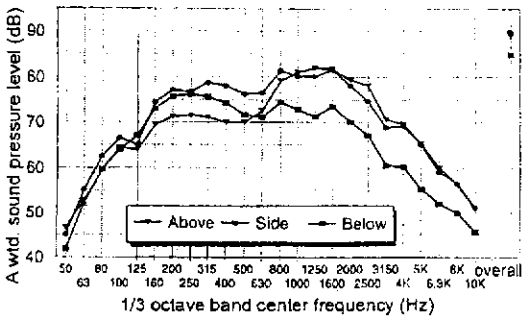


Fig. 5 – Car-type coaster; three directions; A-weighted maximum pass-by spectra at 15 m.

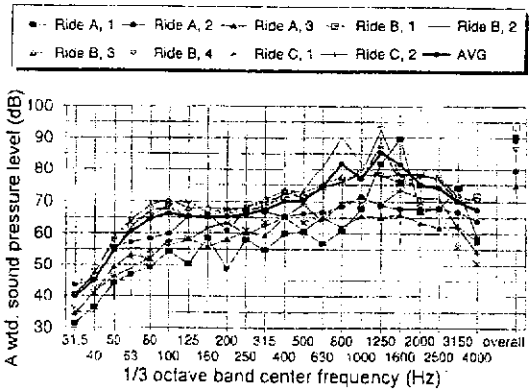


Fig. 3 – Water ride events; A-weighted spectra at 15 m.

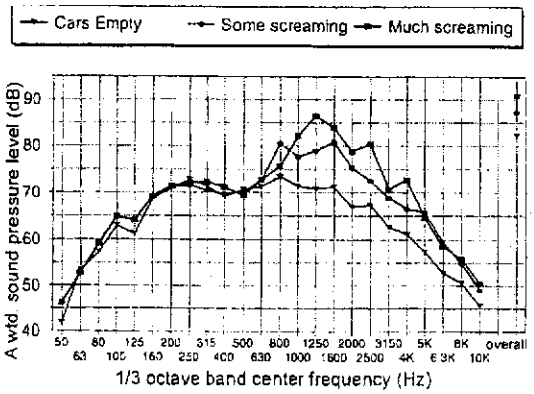


Fig. 6 – Coaster spectra by scream level; A-weighted maximum pass-by "above" at 15 m.

the coaster is shielded from the screaming guests by the car bodies, and therefore the high frequencies are reduced relative to the low frequencies. The position to the *side* of the coaster exhibits the highest noise levels in both frequency ranges, since little shielding exists from either the support beam and rails or the guests.

Figure 6 presents data from the *above* position from Coaster E pass-bys with different levels of screaming. One spectrum is given for an empty coaster pass-by. A second spectrum is an average of several pass-bys where screaming was judged to be only moderate ("some screaming"). The third spectrum is an average of pass-bys judged to have a high degree of enthusiastic screaming ("much screaming"). Note that up to approximately 630 Hz, the sound levels are essentially the same for the three different conditions. However, significant differences are seen for the frequency range above 800 Hz. For this coaster, the scream component dominates the A-weighted sound level in both the *side* and *above* positions, so significant differences are seen in the A-weighted level for the different levels of screaming. In Fig. 6, we see that "some screaming" is approximately 5 dB higher than an empty pass-by, and that "much screaming" is 8 to 9 dB higher than the empty coaster.

2. NOISE ABATEMENT STRATEGIES

In addition to the need for control of noise emanating to communities surrounding parks, operators often employ noise control inside the park to minimize interference between attractions. Noise shielding by barriers or buildings can effectively reduce noise from many attractions. Often, barriers can be "themed" or disguised so that guests are not aware of their presence or purpose. For music shows, temporary stages or shells can be oriented away from noise-sensitive areas, taking advantage of both the directivity of loudspeakers and shielding by a band shell, if present.

Roller coasters present a particular challenge due to their substantial height above ground and the limited ability to control the behavior of the guests. Barriers can be effective but may become very costly at the heights needed to provide substantial noise reduction. Experience has shown that damping the beam can substantially reduce acoustic radiation from an under-damped coaster rail support. A simple, relatively inexpensive and proven means of introducing the needed damping has been to fill the rail support beam with sand or pea stone. However, this approach increases the static load on the support columns, which therefore may require structural modifications. Another noise abatement strategy for roller coasters involves use of shielding structures near or attached to the coaster. Tunnels, partial enclosures, or building walls can reduce the scream sounds and rolling noise. The materials may need to be sound absorptive to function efficiently. Again, structural constraints may limit the applicability of such structures. Finally, the directionality of roller coasters can sometimes be used to advantage, by orienting the highest elevations of the coaster where screaming is expected away from the most noise-sensitive areas.

Appropriate noise modeling approaches will be discussed in a future paper.

inter-noise 2002

The 2002 International Congress and Exposition on Noise Control Engineering
Dearborn, MI, USA. August 19-21, 2002

Residential impact criteria and abatement strategies for roller coaster noise

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15 New England Executive Park
Burlington, Massachusetts, 01803, USA
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Abstract

Noise from roller coasters can represent significant annoyance in neighboring communities. This paper provides a description of the criteria used to predict community noise impact in a case where a major new roller coaster was planned and then constructed within 400 m of a gated residential community. Modeling methods are briefly discussed. Measured pass-by spectra are presented for different roller coasters, and contributions from various sources are discussed. Noise abatement strategies are presented, and pass-by spectra are given before and after the implementation of noise control options, including damping of support beams and rails. Significant noise abatement was achieved with both source and path controls, yielding a satisfactory noise environment in the community.

Introduction

The introduction of new noise sources adjacent to established residential communities often elicits negative reactions unless the potential for noise impact is addressed before the noise source is introduced. The new roller coaster associated with the subject project was part of a major new theme park, and the developers recognized the potential for noise impact in the park's planning stages. A park-wide noise impact analysis was undertaken, but this paper focuses on the large roller coaster at one end of the park, closest to an established community of single-family homes nearby. Roller coasters are perhaps the most significant sources of sound in communities adjacent to theme parks for several reasons: 1) the wheel-rail rolling noise can be very significant, 2) screaming may be frequent and high in level, 3) the relatively high elevation of some portions of the ride allows sound to propagate over long distances with limited attenuation from nearby building shielding and ground effect and 4) unlike some other significant sources at theme parks such as musical performances, roller coasters are often in operation nearly continuously from park opening to closing.

Community Noise Criteria

Two different sets of noise criteria were employed. The first was the local noise ordinance, which was needed to estimate compliance with the local code. The second was based on the EPA "Levels" document community reaction data [1]. The local noise ordinance, which sets a maximum allowable ($L_{8.3}$) sound level of 60 dBA, would allow sound levels from the new facility to exceed existing background levels by up to 15 dBA. While the park developers recognized that they would be able to meet their legal obligations by keeping facility sound levels below this limit, they also wanted to be good neighbors and not create a noise nuisance in the community.

To assist the developers in determining what levels of noise from the roller coaster would be perceived as acceptable in the community, Harris Miller Miller & Hanson Inc. (HMMH) evaluated the expected roller coaster noise using the methods of the EPA community reaction survey. Even today, this survey represents the most complete set of published community reaction data against which a new facility may be compared. The EPA method required us to project the "normalized" day-night sound level (L_{dn} or DNL) of the roller coaster noise into the community, to compare with the existing L_{dn}. Figure 1 presents a modified version of Figure D-7 as it appears in the Levels document. In this version of the figure, the existing background sound level has been subtracted from the sound level on the horizontal axis so that the axis represents the difference between the intruding and existing sound levels. Before this figure can be used,

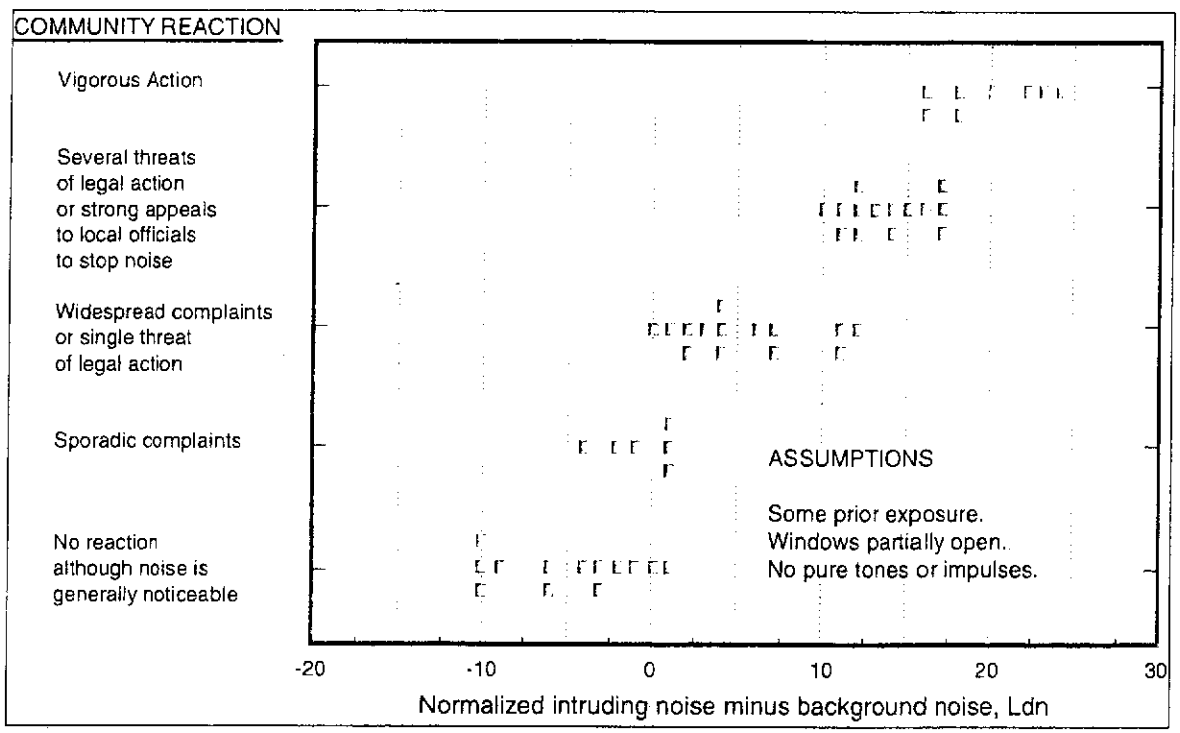

Figure 1. Community reaction to normalized intruding noise (L_{dn}) (modified from 1974 US EPA "Levels" Document)

the L_{dn} of the intruding noise must be normalized to certain factors, particularly the community's prior exposure to the noise and the presence of a tonal or impulsive character in the intruding noise. The normalization factors, taken from Table D-7 in the Levels document are reproduced in Table 1.

Table 1. Corrections to be added to the measured day-night sound level (L_{dn}) of intruding noise to obtain normalized L_{dn}

Type of Correction	Description	Amount to be added to intruding L_{dn} in dB
Previous exposure to the noise and community attitudes	No prior experience with the intruding noise	+ 5
	Community has had some previous exposure to intruding noise but little effort is being made to control the noise. This correction may also be applied in a situation where the community has not been exposed to the noise previously, but the people are aware that bona fide efforts are being made to control the noise.	0
	Community has had considerable previous exposure to the intruding noise and the noise maker's relations with the community are good	- 5
	Community is aware that the operation causing the noise is very necessary and it will not continue indefinitely. This correction can be applied for an operation of limited duration and under emergency circumstances.	- 10
Pure tone or impulsive character	No pure tone or impulsive character	0
	Pure tone or impulsive character present	+ 5

Roller Coaster Source Levels

Spectral data acquired from various roller coasters were reviewed to develop the expected noise signature from the proposed new coaster. Figure 2 shows the maximum sound level spectra of 13 roller-coaster pass-by events from 5 different coasters, as measured by HMMH, normalized to 15m distance [2]. The wheel-rail component of roller coaster noise is usually in the 250 Hz to 400 Hz region, and is often dominant for coasters with an under-damped rail support beam, such as Coaster "A" in Figure 2. The figure shows a wide variation in coaster noise emission levels - even in the lower frequencies not affected by screaming. Some of this variation is due to slight differences in speed and acceleration forces, but these differences do not explain very much of the variation. In some coaster designs, the steel rail support beam is of rectangular cross-section, and acts as a very efficient acoustic radiator. Other designs, some of circular cross-section, are less efficient radiators in the low frequencies. Coaster "E" (support of circular section) produces an average of 10 dB to 15 dB less sound energy than Coaster "A" (rectangular section) in the 315 Hz to 630 Hz region; this region dominates the A-weighted sound level for Coaster "A".

Roller coasters are fairly directional noise sources, as the car bodies themselves can provide significant shielding. Figure 3 presents averaged spectra of several pass-bys for three different orientations of Coaster "E" relative to the observer. Note that for the observer *above* the heads of the guests in a car-type coaster pass-by, the maximum A-weighted sound levels occur in the 1000 Hz to 2000 Hz range, caused by guests screaming (they are upside-down in this position,

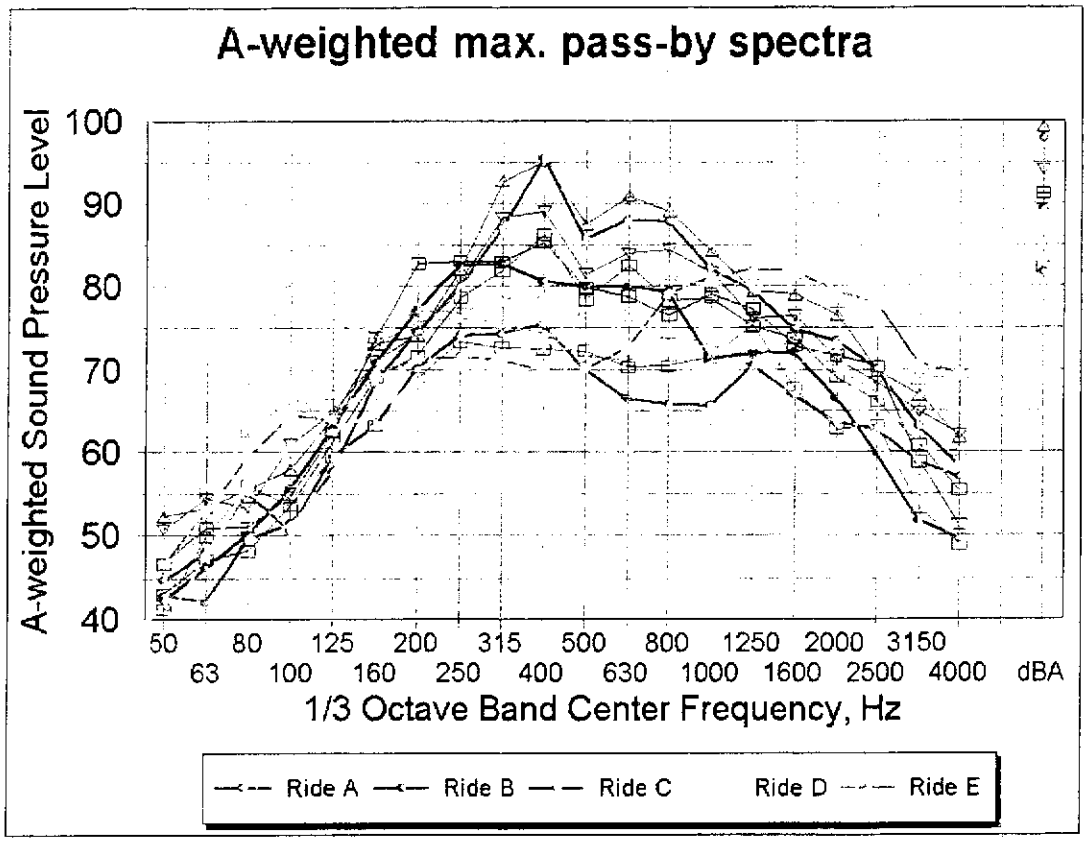

Figure 2. Roller coaster pass-by events at 15 m

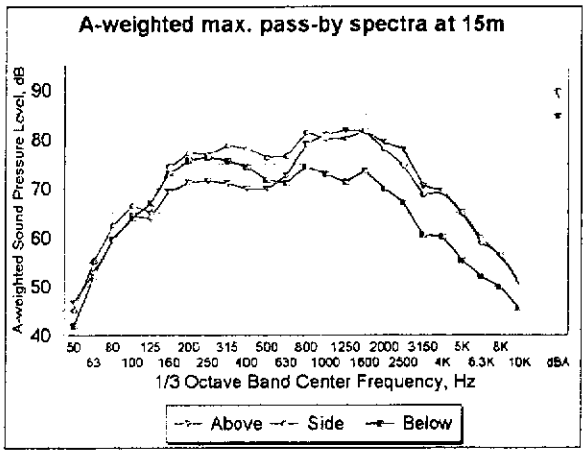

Figure 3. Car-type coaster pass-bys: 3 directions

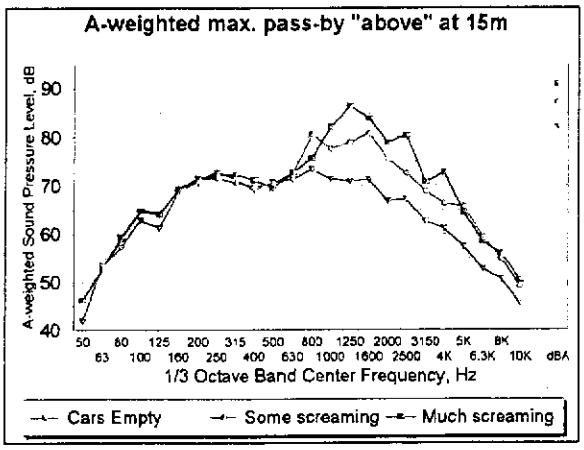

Figure 4. Coaster spectra by scream level

and therefore tend to scream enthusiastically). Note also that the lower frequencies (160 Hz to 630 Hz) are reduced, due to the shielding of the rails and support beam provided by the car bodies. Conversely, the position *below* the coaster is shielded from the screaming guests by the car bodies, and therefore the high frequencies are reduced relative to the low frequencies. The position to the *side* of the coaster exhibits the highest noise levels in both frequency regions, since little shielding exists from either the support beam and rails or the guests.

Figure 4 presents data from the *above* position from Coaster "E" pass-bys with different levels of screaming intensity. One spectrum is given for an empty coaster pass-by. A second spectrum is an average of several pass-bys where screaming was judged to be only moderate ("some screaming"). The third spectrum is an average of pass-bys judged to have a high degree of enthusiastic screaming ("much screaming"). Note that up to approximately 630 Hz, the sound levels are essentially the same for the three different conditions. However, significant differences are seen for the frequency region above 800 Hz. For this coaster, the scream component dominates the A-weighted sound level in both the *side* and *above* positions, so significant differences are seen in the A-level for the different levels of screaming. In Figure 4, we see that "some screaming" is approximately 5 dBA higher than an empty pass-by, and that "much screaming" is 8 to 9 dBA higher than the empty coaster. Since the nature of the ride that the roller coaster provides is very similar from one run to the next, the variation in scream intensity appears to be dependent primarily on the age of the guests on board. As a group, teen-aged riders are the most enthusiastic screamers.

Noise Modeling and Impact Assessment

In the case study, we modeled the noise from the proposed new roller coaster using pass-by measurements of a similar coaster with a rectangular support beam, as measured from the side with an average level of screaming. The computation model employed for sound propagation and source characterization was a modified version of the FHWA Traffic Noise Model (TNM) [3] that allows custom input of source spectra and variable source height above ground. The TNM computes diffraction around and reflection from surfaces with effective flow resistivity specified by the user. The model predicted L_{eq} from the roller coaster at various positions in the theme park and in the community. During the testing phase of the project's construction, it was found that the TNM computed sound levels within approximately 1000 ft with high accuracy. While the TNM allows accurate input of the spatial and temporal characteristics of the source, the propagation model is limited to neutral atmospheric conditions.

To better account for the potential effects of temperature inversions and wind, we employed the U.S. Army Construction Engineering Research Laboratory's SoundProp model [4] to adjust the TNM predictions at the longer distances. This allowed us to compute average sound levels for downward- and upward-refracting atmospheric conditions. As a relatively high elevation source, the roller coaster showed less variation in sound level under the different atmospheric conditions than did the lower-elevation sound sources. The range of sound level differences at a distance of 400m for the 20m high coaster was from +3 to −11 dB(A) for downward- to upward-refracting atmospheres, respectively, re a neutral atmosphere. For a water-ride spectrum 5m above the ground, for example, the range was much larger, from +10 to −15 dB(A).

Initial estimates of projected noise levels were compared to the 60 dBA $L_{8.3}$ limit specified in the local noise ordinance, and it was estimated that noise from the roller coaster would probably not exceed those criteria at the nearest homes. However, the park developer was concerned about the potential for negative community reaction, so we recommended an evaluation with respect to the EPA community reaction chart. Corrections to compute normalized L_{dn} were established first. The community had had some prior exposure to theme park noise because the new development was an expansion of the existing park, so that factor was 0 dB. We assessed the +5 dB correction factor for pure tones, since a component of the noise from roller coaster rides includes screaming guests. Combining the modeling of a coaster with undamped rectangular support beam and the corrections, the normalized L_{dn} was projected to be as much as 15 dB higher than the background, which would put the estimated community reaction in the category of "strong appeals to local officials and/or several threats of legal action." As a result, the developer authorized study of various noise abatement concepts for the coaster.

Noise Abatement Implementation

Damping of coaster structural elements

The noise abatement concept considered initially was to increase the damping of the coaster track and support elements. Other roller coaster noise studies had realized up to 10 dB reduction in A-weighted sound levels by filling the support beam (and in some cases, also the rails and support columns) with sand, thereby increasing the damping significantly, but also increasing the weight. Tests of the potential for noise reduction by damping of a 40-ft long test section of box beam and rail had been conducted by Kamperman Associates Inc. This study measured the reverberation time (RT60) of impact strikes to the rails with different combinations of sand filling in the support beam and rails. Figure 5 presents the spectral data for three conditions relative to the untreated beam and rails: rails only filled with sand, beam only half-filled with sand, and both beam and rails filled with sand. Over 10 dB reduction was found in the critical 250 and 500 Hz octave bands by half-filling the support beam, and by fully filling all elements. Filling only the rails provided less than 5 dB reduction in those bands.

During the tests, the sand was found to be difficult to handle, as it did not always flow well. Also, there was concern that the sand might become rigid over time, reducing its effectiveness as a damping material. Other materials with better handling characteristics, such as pea gravel and lead shot were suggested as potentially better alternatives. One suggestion that arose that would reduce the static weight load was to use glass beads under pressure. Another concept that was considered was tar. In the end, the developer chose pea gravel as a damping material, and both the support beam and rails were fully filled. The support columns were not filled, since the vibration levels in the support beam were reduced enough to prevent any significant energy from entering the support columns.

After the pea gravel was installed in the new coaster support beam and rails, we conducted spectral measurements of the coaster pass-by sound levels and compared them to those of a similar coaster without any damping materials in the support beam or rails. Differences of 8 to

15 dB or more were seen in all of the critical 1/3-octave bands except the 315 Hz band, where little difference was present.

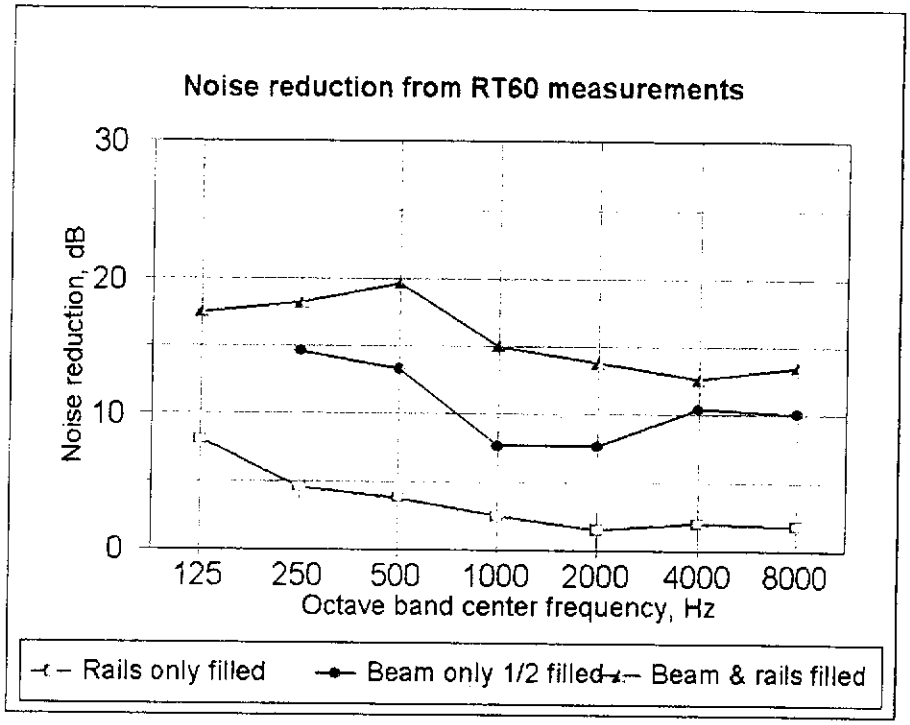

Figure 5. Noise reduction of support beam and rails from RT measurements

Noise barrier

Measurements and further modeling were then conducted at community locations during the several-month coaster testing phase to determine if additional noise reduction would be needed. Our earlier modeling of sound levels and comparison to the expected community response had suggested that a noise barrier would be needed in addition to the structural damping, particularly to reduce the mid- and high-frequency scream sounds that would not be affected by the increased damping. The initial testing, before riders were allowed on the coaster, involved running the coaster with loudspeakers strapped into some of the seats, with an on-board audio system playing recorded screaming sounds at realistic levels. Acoustic measurements were conducted both close-in (7.5m to 15m) and at community locations. The next test series involved measurements with volunteer coaster riders, who were prompted to scream enthusiastically to simulate a worst-case scenario. These measurements correlated very well with the previously modeled average sound levels in the community.

In the next step, HMMH revised the modeling of community noise levels and the noise barrier to incorporate the measurements of the new coaster with riders aboard. The results turned out to be very comparable to the previous modeling using other coasters. The model suggested the additional noise reduction provided by a tall barrier (up to 55 ft high) would reduce noise levels

to the point where the normalized intruding noise minus the background noise would be less than 0 dB (–6 to –1 dB) at all of the nearest residential locations (see Fig. 1). Achieving these sound levels would put the estimated community reaction in the middle of the "no reaction" category. Without the barrier, our model showed levels of normalized intruding noise minus background in the range of 0 to +8 dB, near the middle of the "widespread complaints" category. The proposed barrier's height ranged from 25 to 55 ft. Although even such a tall barrier would not shield the very highest part of the coaster ride, the barrier's net reduction of the coaster L_{eq} was computed to be 5 to 10 dBA, depending on location in the community. In addition to reducing the screaming sounds, the effect of the barrier was to substantially reduce other coaster noise generated closer to ground level. These sources included the rolling noise and also braking noise, which exhibited high-frequency "clacking" sounds.

As a result of the tests and the model results, the park developer decided to go forward with construction of the recommended tall barrier. The developer also chose to "theme" the barrier with paint and a shaped top profile to make it appear somewhat like a forest and to diminish its visibility. Due to this effective camouflage, this very tall barrier does not catch one's attention, as seen from a distance.

In conclusion, the noise abatement program for the new roller coaster has been very effective, and no significant community reaction has developed.

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FORENSIC ANALYSIS OF THE AUDIBILITY OF FEMALE SCREAMS

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Acoustical engineers and forensic acoustical experts are sometimes called upon to render opinions on the audibility of specific sounds at a given distance. Such sounds include speech, gunfire, warning signals such as fire alarms or locomotive horns, and in certain cases, human screaming. The audibility of female screaming has been questioned in several cases, where the expert can use both analytical and demonstrative techniques in order to form an opinion. The determination of audibility may be refined in terms of detection, discrimination and identification. This paper addresses measurement and typical levels of female screams, and reports on two different audibility analyses.

INTRODUCTION

"Voice projection" typically refers to a wilful emphasis of the speaking or singing voice to allow audibility at a great distance. It also refers to those techniques employed in public speaking to demand respect and attention, such as when a teacher is talking to the class, or simply to be heard clearly, as by actors in a theatre. Human screaming, particularly that which is effective in its role to alert others to a situation of calamity, shares characteristics with effective voice projection in singing. Voice projection is enhanced via air flowing from the expansion of the diaphragm, instead of air from the top of the lungs. Vocal resonance can be used to effect an increase in amplitude via the use of the 'head voice' by making use of the upper sinus cavities.

Acoustically, the scream is part of the vocal repertoire of many animals, and is differentiated between and even within one species. The exact acoustical mechanisms vary and can be quite complex, including the effect of large scale temporal patterns, turbulence and nonlinear acoustic effects, and complex spectral patterns including harmonic and inharmonic components (see for instance [1]). But for the acoustical engineer, the primary interest is in the over-all sound pressure level and its consequent implications for audibility.

Sometimes the question of audibility of a scream's sound pressure level relates to community disturbance and noise abatement; for example, reference [2] investigates 'pass-by' spectra of screams from multiple persons on a moving roller coaster. In forensic situations, the audibility of a scream is typically made with reference to the acoustics of sound production; sound propagation; and the psychoacoustics of a receiver who may have been a potential 'witness' to a crime [3]. In this paper, I will present data pertinent to each of these issues.

1 "HOW LOUD IS A SCREAM"

In acoustics, it is not unusual for someone from outside the field (e.g., an attorney) to question an expert about how 'loud' a particular sound source is, including screams. For instance, a world records book reportedly indicates 126.2 dB as the 'loudest scream'. After explaining the differences between loudness and sound pressure level, an expert must then attempt to explain the statistical variation and influence of the experimental design with respect to the measurement of a human-generated sound. One must also account for the means by which the level is measured, and for the specific frequency weighting and time averaging employed, since this can influence the outcome of any measurement [4]. Finally, care must be made for preventing distortion in the capture of these high-level signals.

Sound level measurements and recordings were made of female screaming at our parent firm Charles M. Salter Associates on two occasions. Calibrated 'Type 1' acoustical measurements were made in a sound-deadened room. Two sets of measurements from ten female subjects ranging in age from mid 20s to mid 40s were obtained. Each subject screamed three times, with instructions to "scream as loudly as possible, as if you had just been surprised by something very scary"; the data for the scream with the highest level was retained. The distance from the mouth of the subject to the microphone was 36 in.

In rank order, the data can be summarized for each participant in order from most to least intense: 123, 122, 122, 118, 115, 110, 109, 109, 108 and 102 decibels. The average level is 113.8 dB and the standard deviation is 7.3 dB. The values reported are the maximum A-weighted level using a fast (.125 ms) time integration ($L_{AF\text{-}MAX}$) to correspond to human perception.

A major source of variance involves individual physiology, the particular vocal characteristics of the subject, and subject ability to follow the experiment instructions. Another major source of variance is likely to be the inability of some subjects to "scream on demand" in a data-gathering exercise. It has been previously noted in studies of speech levels at various levels of effort, including shouting, that "the variability in voice level between talkers increased with voice effort" [5]. This is likely due to compound factors of experimental design (how well could the subject follow the 'instructions' of the experiment) as well as intra- and inter-speaker variability.

In these data, there was an apparent correlation of age and level; those subjects who produced the three screams with the highest levels were under 30 years of age. They also subjectively had the most 'convincing', or 'realistic' sound of a person screaming fearfully in accordance with the instructions to be 'surprised.' Additionally, the subject who produced the lowest-level 102 dB scream was the oldest subject, and later indicated having an 'allergy attack' during testing. Nevertheless, no attempt was made to exclude any of the data to prevent 'cherry picking' the results.

Figures 1-4 show data analysis of a 2.25 s specimen scream (the 'second highest' level scream). Figure 1 shows an overall downward frequency 'glide' with a diminished slope in the latter half of the time record. Comparing Figure 1 to Figure 4, the highest $L_{AF\text{-}MAX}$ level (121.8 B) correlates with greater frequency variance, and the average level corresponds to the steadier frequency components of the second half of the time record. Figure 2 shows a frequency 'warble' or vibrato that is coincident with the overall frequency glide.

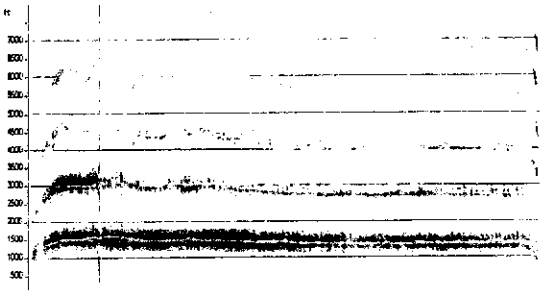

Figure 1. Spectrogram (0.5-8 kHz, 512 pt. FFT) of specimen scream (2.25 s). Energy is maximal in the first formant around 1.5 kHz. Note the overall downward glide in frequency.

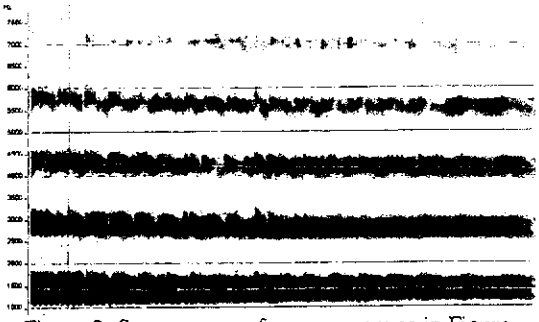

Figure 2. Spectrogram of same scream as in Figure 1, focusing on 1- 8 kHz over a period of 0.3 s. Note local frequency modulation ('warble' or 'vibrato').

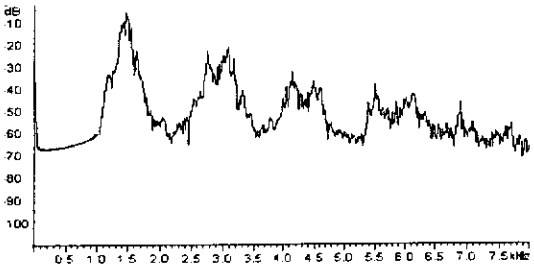

Figure 3. 4096-pt. Fast Fourier Transform: average across 2.25 s. "Smearing" of peaks results from the overall downward glide of frequency and warble effect.

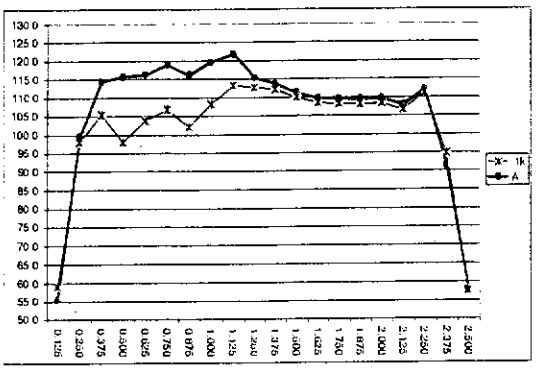

Figure 4. Overall A-weighted and 1 kHz octave band data for scream shown in Figure 1. The *x* axis indicates sound pressure level in dB; the *y* axis indicates time in 0.125 s increments. Note that the 1 kHz octave band drives the overall A-weighted level for the latter half of the scream. The average $L_{AF\text{-}MAX}$ is 121.8 dB, and the average A-weighted level is 115 dB.

2 FORENSIC ANALYSIS OF SCREAM AUDIBILITY: EXAMPLE CASE STUDY

The author was asked to determine audibility of human female screaming, from the location of an alleged incident (hereafter referred to as the 'source' location) to a residence in a nearby community ('receive' location). An acoustical testing protocol was developed involving loudspeaker playback of a recording of a human female screaming at a calibrated sound pressure level from the source location. This was felt to be more demonstrative than accomplishing the task via an acoustical model, with the advantage that the recordings could be played back for the Court. The specimen scream shown in Figures 1-4 was used for the testing.

Calibrated recordings and sound level measurements were made at potential locations outside the receive location (front, back and side yards) after calibrating a loudspeaker at the source position. The source-receiver distance was approximately 260-300 ft via a direct line-of-sight, depending on the specific receiver location. The source location was elevated relative to the receive location by approximately 50 feet, at a turn-off from a road located on the side of a hill. Between the source and receive location was a 25 foot wide river that provided a constant source of noise. Because of this configuration, there were no significant acoustical obstacles between the source and receive locations other than the residence itself.

An additional measurement was made inside the house with all windows and doors shut, under quiet indoor conditions. Both the screams and the background noise were recorded. The measurements occurred at the same time of day, the same day of the week, and with similar weather conditions (temperature, wind direction, wind speed (average and gusts) as on the date of the incident. No significant atmospheric absorption effects or wind direction effects would have resulted since the distance was less than 100 m [6].

Several factors are relevant to whether or not a resident in the vicinity of the receive location might have heard screaming from the source location. These include:

(1) the signal-noise ratio, both in terms of the overall frequency content and within a specific frequency band, the 2 kHz octave band;

(2) the duration of the signal;

(3) the degree to which the level of the test signal corresponds to other screams.

2.1 Signal-noise ratio

The signal-noise ratio refers to the measurement in decibels of the sound pressure of a signal (in this case, a scream) relative to the level of the background noise (in this case, traffic, wind in the trees, river noise, and other contributing community noises).

To determine the signal-noise ratio, the overall A-weighted and 2 kHz octave band levels were analyzed in a frequency region corresponding to the maximum acoustical energy of the scream. This was sensible since the frequency components of a scream have predominate energy in relatively higher frequencies whereas the background noise has its principal energy in low- and mid-band frequencies (1 kHz octave band and below).

The hypothesis tested by the measurement protocol was as follows: if a positive signal-noise ratio relative to the existing background noise at a particular receive location was measured (i.e., if the level of the signal was louder than the noise), the scream could have been audible at that location. A positive signal-noise ratio of 5 decibels can be considered a conservative estimate of audibility. This is a reasonable and scientific assumption based on the fact that noise can mask signals from being heard when the signal is lower in a concurrent frequency band. In addition, audibility can also be demonstrated empirically from playback of the recordings themselves.

Table I below summarizes the data from the measurements taken at receive location. The values reported are the maximum A-weighted level using a fast (.125 ms) time integration ($L_{AF\text{-}MAX}$) to correspond to human perception. (Similar signal-ratios were found by averaging over the duration of the sound).

LOCATION	Background level	Signal level	**Signal-noise ratio**
Back yard	**54.2** (46.9)	**79.4** (78.4)	**25.1** (31.5)
Side yard	**50.8** (41.2)	**77.5** (74.2)	**26.7** (33.0)
Front yard	**61.0** (53.9)	**68.6** (67.5)	**7.6** (13.6)
Indoors	**39.0** (30.2)	**43.1** (41.1)	**4.1** (11.0)

TABLE I. The A-weighted values for overall levels are indicated in **bold**. The levels within the 2 kHz octave band are indicated in parentheses.

The right column of Table I shows positive signal-noise ratios at all locations tested (all > 5 dB in the 2 kHz octave band). Indeed, the sound of the screams was clearly audible from all of the measurement positions, as well as at other more distant locations throughout the community. Police were summoned to investigate the test screams that were heard at two locations in town, one location indoors but with windows open, at approximately 500-700 feet distant, including on the opposite of a busy two-lane highway. Figure 5 indicates that the 2 kHz octave band frequency band of the scream was particularly effective at "penetrating" through background noise spectrum.

Table I also shows that with all doors and windows shut, the signal was audible inside of residence under quiet conditions with no household background noise present. With windows open towards the direction of the source, the level would *increase* the signal-noise ratio by at least 10 dB.

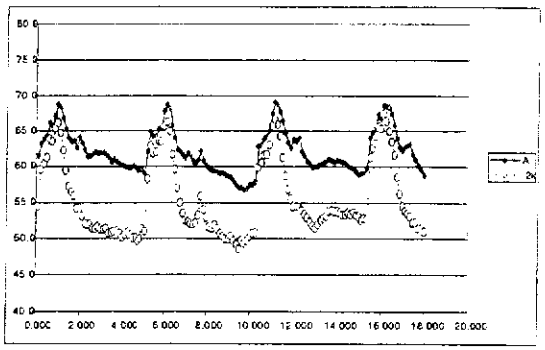

Figure 5. A-weighted (solid line, filled diamond) and 2 kHz octave band (dashed line, circles) sound pressure levels for four iterations of the scream, at the front yard of the residence (third row of Table I). The 2 kHz octave band level of the scream penetrates the *average* background noise level (indicated by the valleys) by about 14 dB.

2.2 Duration of the signal

The scream signal was 2.25 s duration, played four times with a brief interval of silence in-between. There were four iterations of this 8 second signal played for all of the receive locations, i.e., a total duration of 32 seconds of signal. The likelihood of audibility would increase as the duration of screaming over a given period of time increases, since there is greater statistical chance for persons to be outdoors, opening windows, or varying their background noise condition. The sound of screaming also has a distinct characteristic over time that allows it to be more noticeable compared to other co-existing sound in the environment. (During the incident, the screaming was alleged to have occurred repeatedly for close to an hour).

2.3 Correspondence of the test to other 'screams'

It is possible to adjust the signal-noise ratio to account for whether or not the *average* scream level of 114 dB found in Section I would have been heard, by lowering the signal level by 8 dB relative to the measured noise level. Table II indicates that the signal-noise ratio is positive in the 2 kHz octave band, where most of the acoustical energy of the scream is concentrated. For the least intense case, of a scream at 102 dB, the signal-noise ratio remains positive in the back and side yard locations, but is negative in the front yard location, due to the relative increase in the level of the background noise from the nearby highway. Note that the 102 dB level is outside of one standard deviation from the average and therefore is an "outlier" value relative to the other measured levels.

LOCATION	Signal-noise ratio for 122 dB Scream	Signal-noise ratio 114 dB Scream	Signal-noise ratio 102 dB Scream
Back yard	**25.1** (31.5)	**17.1** (23.5)	**5.1** (11.5)
Side yard	**26.7** (33.0)	**18.7** (25.0)	**6.7** (13.0)
Front yard	**7.6** (13.6)	**-0.4** (5.6)	**-12.4** (-6.4)
Indoors	**4.1** (11.0)	**-3.9** (3.0)	**-15.9** (-9.0)

TABLE II. The A-weighted values for overall levels are indicated in **bold.** The levels within the 2 kHz octave band are indicated in parentheses.

The directivity of the loudspeaker horn used in the testing roughly approximated the directionality of a human facing in the direction of the receiver locations. Had a person under 'worst case for audibility' conditions been facing 180 degrees relative to the direction tested, there would have been an overall drop in level of 3.5 dB [7]. The features of the location (dirt, rock) may act both as acoustic reflectors or absorbers. This reduction in level of 3.5 dB would not have been enough to eliminate audibility in the back and side yard locations at the 260-300 foot distances measured, for screaming at levels as low as 102 dB or as high as at 122 dB.

2.4 Outcome of the testing

Beyond the positive signal-noise ratios that have been presented so far, other factors increased the likelihood of audibility of a scream: (1) a large number of homes and other locations where people congregate, including a park, were proximate (300-500 feet) to the source location, (2) persons in the community have complained to the police about other noisy activities at this specific

location, such as teenagers having a party, and (3) the reported duration of screaming during the incident was far longer than that used in the tests. Nevertheless, any outcome such as this must be ultimately evaluated with respect to the characteristics of the actual person screaming during the incident (who could not be tested) and any other acoustically relevant factors that were unknown during the testing.

3 SUMMARY

A scream is similar to a baby's cry; there is nearly a universally-understood agreement as to its meaning regarding human calamity, and its frequency content seems almost tailored to frequencies of maximal sensitivity on an equal-loudness contour. The level at which a scream might be discriminated from other types of sounds in most contexts is likely not much higher than the level at which it can be detected, due to its unique character. Forensic investigations may benefit from the use of acoustical measurements and simulations, provided that calibration is performed carefully and that consideration of potential variability in results is accounted for.

REFERENCES

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[2] C. Menge, "Residential impact criteria and abatement strategies for roller coaster noise" *Proceedings of the 2002 International Congress and Exposition on Noise Control Engineering (Internoise 2002), Dearborn, MI* (2002).

[3] R. Peppin "The sounds of a murder" *Journal of the Acoustical Society of America*, vol. 114, no. 4, p. 2373 (2003).

[4] "Standard S1.4-1983 Specifications for Sound Level Meters." American National Standard ANSI Institute (1983).

[5] K. S. Pearsons, R. L. Bennett and S. Fidell, "Speech Levels in Various Noise Environments", United States Environmental Protection Agency report no. EPA-600/1-77-025 (1977).

[6] C. M. Harris, *Handbook of Acoustical Measurements and Noise Control* third edition McGraw Hill (1991).

[7] H. Fletcher, *Speech and Hearing in Communication* reprinted by the Acoustical Society of America (1995).

8 July 2008

JoLynn Chow Miller
Prudential Investment Management, Inc.
4 Embarcadero Center, Suite 2700
San Francisco, CA 94111
E-mail: jolynn.miller@prudential.com

Subject: **Great America Roller Coaster Noise**
4555-4655 Great America Parkway – Santa Clara, CA
CSA Project No. 08-0052

Dear JoLynn:

We have completed the analysis of our recent acoustical testing at the subject project. On 4 July 2008, we visited the project site to perform acoustical measurements of the noise environment at the vicinity of the property line separating the Nortel buildings from Great America. Our measurement data indicate that roller coaster noise levels currently exceed the City of Santa Clara noise ordinance, and the proposed roller coaster would further exceed the City's noise ordinance due to its increased proximity.

Discussion

In summary, our measurements, calculations, and findings are as follows:

- Existing roller coasters at Great America exceed the City's noise ordinance;
- Screaming from the proposed roller coaster at Great America would be equal to our previous estimate and would also exceed the City's noise ordinance;
- Music performances at Great America exceed the City's noise ordinance;
- Ambient noise levels do not exceed 70 dBA, and would not allow for a 5 dBA increase in allowable noise levels;
- Due to the nature of the noise sources at Great America, a 5 dBA reduction may be applicable, thereby limiting allowable noise to 65 dBA at the property line.

City of Santa Clara – Noise Ordinance

We understand the Nortel building is currently situated in a Light Industrial land-use zone. Chapter 9.10 – *Regulation of Noise and Vibration* contains section 40 – *Noise and Sound Regulation* which states the following:

It shall be unlawful for any person to operate or cause to allow to be operated, any fixed source of disturbing, excessive or offensive sound or noise on property owned, leased, occupied or otherwise controlled by such person, such that the sound or noise originating from that source causes the sound or noise level on any other property to exceed the maximum noise or sound levels which are set forth in Schedule A, as follows:

Schedule A – Exterior Sound Or Noise Limits

Receiving Zone/Zoning Category	Time Period	Noise Level
Category 4/Light Industrial (ML, MP)	Anytime	70 dBA

Except as otherwise provided in this chapter, the noise or sound standards for the various zone districts as presented in this Schedule A shall apply to all such properties within a specified zone, as designated on the most recent update of the official zoning map of the City. For planned development, agricultural or mixed zoning site, the most restrictive noise standard for the comparable zone district, as determined by the Director of Planning and Inspection, shall apply.

Section 60 – *Noise, Sound, or Vibration Evaluation Criteria* also states:

(a) The characteristics and conditions which will be considered in determining whether a violation of the provisions of this chapter exists shall include, but not be limited to the following:

(1) The volume level of the noise or amplitude of the vibration;
(2) Whether the nature of the noise or vibration is usual or unusual;
(3) Whether the origin of the noise or vibration is from a natural source or mechanical source;
(4) The level of the ambient noise;
(5) The proximity of the noise or vibration to sleeping facilities;
(6) The nature and zoning of the area from which the noise or vibration emanates and the area where it is received;
(7) The time of day or night the noise or vibration occurs;
(8) The duration of the noise or vibration; and
(9) Whether the noise or vibration is recurrent, intermittent, or constant.

(b) All sound, noise, or vibration measurements shall be taken at the closest point to the noise or vibration source on the adjacent real property, or on any other property, affected by the noise or vibration. The most restrictive exterior noise limits for the applicable zoning category, as established in SCCC 9.10.040, Schedule A, shall apply.
(c) If the measured ambient noise level at any given location differs from those levels set forth in SCCC 9.10.040, Schedule A, the allowable noise exposure standard shall be adjusted in five dBA increments in each category as appropriate to encompass or reflect said ambient noise level.
(d) In the event the alleged offensive sound or noise contains music or speech conveying informational content, the limits for the applicable zoning category set forth in SCCC 9.10.040, Schedule A, shall be reduced by five dBA.

On-Site Acoustical Measurements

Our measurements comprised two long-term 65-hour noise monitor measurements (LT1 and LT2) positioned approximately 12-feet above grade, and a short-term 30-minute attended recording (SE1) atop the parking structure, at the locations shown in the enclosed Figure 1. The long-term noise monitors were deployed to collect data that would allow us to quantify "ambient" noise levels. The short-term measurements were conducted to allow

us to quantify roller coaster and its associated screaming noise levels for the existing and proposed rides.

Since the City does not define a metric for "ambient" noise, we are assuming this could mean the average noise levels per hour of the day (i.e., hourly L_{eq}), or the daily average sound level (i.e., L_{dn}). The LT1 (i.e., property line) measurement data indicate that the maximum measured L_{eq} and L_{dn} for the entire duration of the measurement was 69.6 dBA and 68.2 dBA, respectively. It should be noted that these long-term measurements included evening firework and celebration activities during Great America's 4th of July events, and concert performances during on the 5th of July.

Since the "ambient" noise levels did not exceed the 70 dBA property line limit shown in Schedule A, above, noise levels from roller coaster should also not exceed the 70 dBA limit. Note (d) from section 60 further states that noise containing music or speech containing informal content should be reduced to 5 dBA below the level shown in Schedule A. This would correspond to a maximum allowable noise level of 65 dBA at the property line. Maximum levels generated by music and fan appreciation noise during the Great America concert performances ranged between 75 dBA and 82 dBA at the property line, exceeding the threshold of Schedule A.

At location SE1, we measured roller coaster noise. The roller coasters that emitted the highest levels of mechanical and screaming noise were located approximately 1,000-feet and 1,100-feet east of the measurement location. Maximum noise levels ranged between 65 dBA and 71 dBA. A noise level of 71 dBA would be considered an exceedence of the City's noise ordinance.

Screaming noise varied considerably between the different groups of riders. In some cases, it was not audible and in other cases it masked the roller coaster's mechanical noise. Our calculations indicate that screaming noise comprises approximately 64 dBA at the setbacks mentioned. This would correspond to a screaming noise level of approximately 71 dBA at the façade of the building, which is precisely the level we estimated in our previous 7 March 2008 letter. At a setback of 150-feet to 200-feet – the approximate distance between the proposed roller coaster and the property line – screaming noise would range between approximately 78 dBA and 81 dBA, also exceeding the noise ordinance.

* * *

This concludes our current comments. Please do not hesitate to call us with any questions.
Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.

Timothy G. Brown
Principal Consultant

Charles M. Salter, P.E.
President

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Luce, Forward, Hamilton & Scripps, LLP
E-mail: ttosta@luce.com

Jennifer Renk
Luce, Forward, Hamilton & Scripps, LLP
E-mail: jrenk@luce.com

= LONG-TERM 65-HOUR NOISE MEASUREMENT

= ATTENDED 30-MINUTE SOUND MEASUREMENT

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CHARLES M. SALTER ASSOCIATES, INC.
FOR ACOUSTICAL DESIGN INFORMATION ONLY

ON–SITE NOISE MEASUREMENTS

FIGURE 1

CSA # 08–0052

TGB 07.08.08

Charles M. Salter Associates Inc 130 Sutter Street San Francisco California 94104 Tel: 415 397 0442 Fax: 415 397 0454

1 Great America Parkway

PLN2008-06835

Appeal of Variance approval by Planning Commission of a proposed 111-foot high wooden roller coaster at California's Great America Theme Park

Appeal Statement

by Prudential Real Estate Investors

Assertion 1:

Commission cannot exempt project by categorical exemption

Assertion 2:

Commission lacked evidence to make required findings

CEQA Determination

Public Resources Code

Section 21084 of the Public Resources Code requires these Guidelines to include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA.

CEQA Determination

CEQA Guidelines

Categorical Exemptions

Class 23 consists of the normal operations of existing facilities:

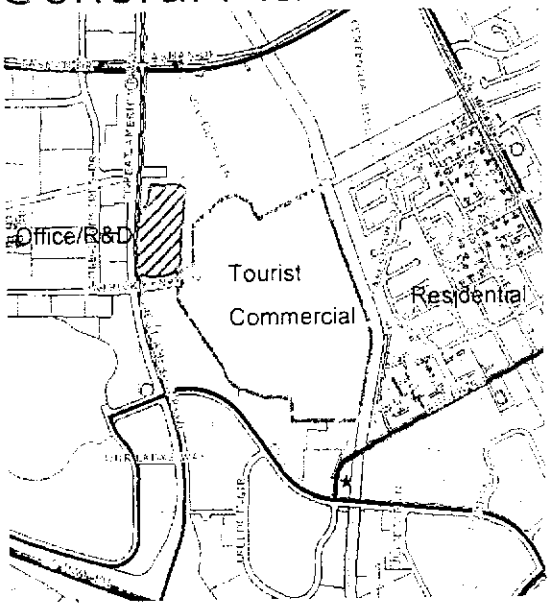
- For activities (large public gatherings) for which the facilities were designed;
- Where a past history of the same or similar kind of activity has been occurring for at least three years;
- Where there is a reasonable expectation that the future activity is not a change in the operation of the facility
- Facilities included within this exemption are ... stadiums, convention centers, auditoriums, amphitheaters, swimming pools, and amusement parks.

General Plan

Current Designation

1 Great America Parkway

Tourist Commercial

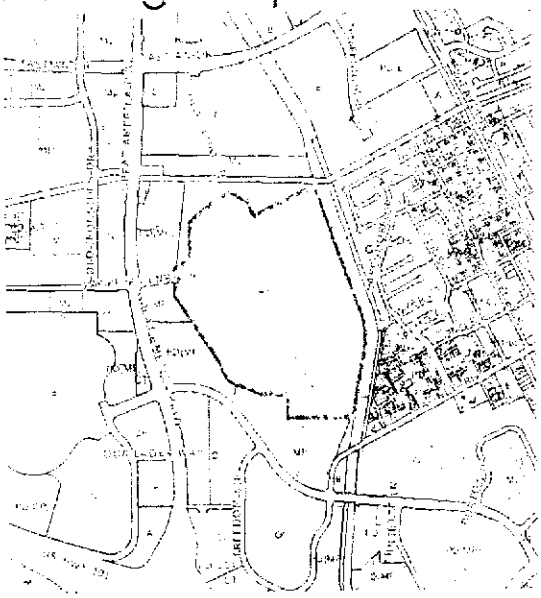


Zoning Map

Current Designation

1 Great America Parkway

CT - Thoroughfare Commercial



Theme Park Entitlements

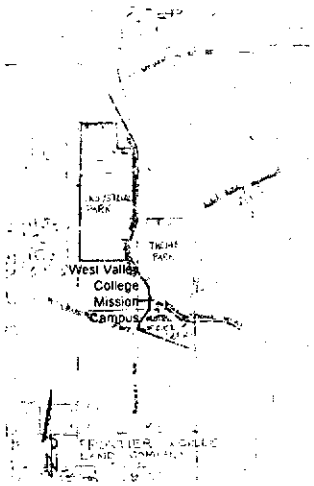
March 1973

General Plan Amendment #7 adopted by Resolution 3012 – March 27, 1973
566 acres for theme park, hotels and retail; industrial uses on west side of Coffin Road

Rezone to CT (Thoroughfare Commercial)
Only zone district permitting amusement park use, along with motels, retail

Use Permit for outdoor activity contemplated by amusement park

Variance to allow blanket increase in building heights to 100 feet in CT zones in this plan



Theme Park Entitlements

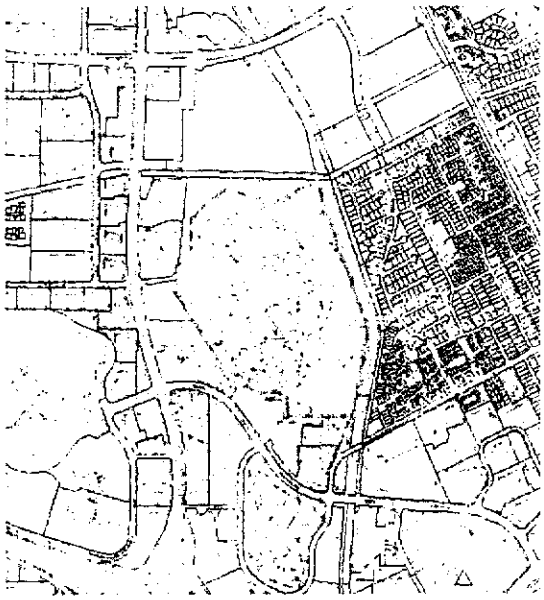
October 10, 1973

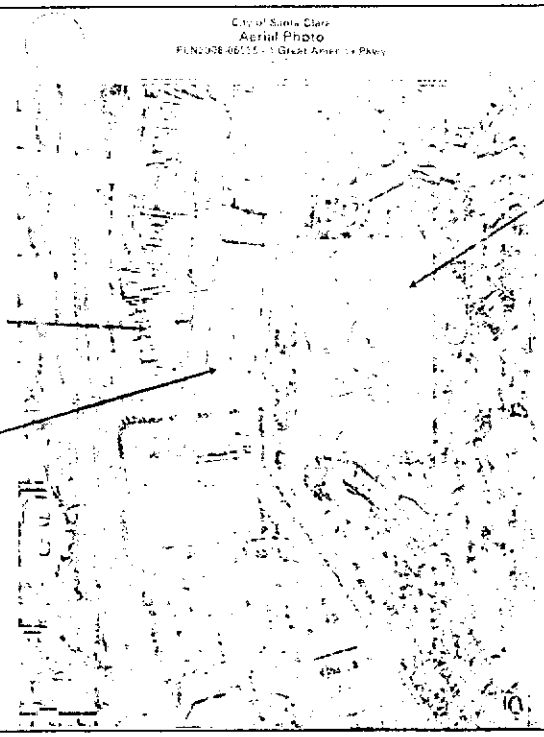
Site Plan for Theme Park submitted to satisfy condition of Use Permit approval to indicate attractions proposed in Park.

Staff report stated: "the concept for the proposed project is inherently flexible. To respond properly to public enjoyment of the facilities that comprise the theme park, new project elements will be added or substituted from time to time. This flexibility is recognized as being properly covered by the use permit, to allow the applicant the necessary latitude for continuous improvement."

Aerial Photo

1 Great America Parkway





Prudential/Nortel Development

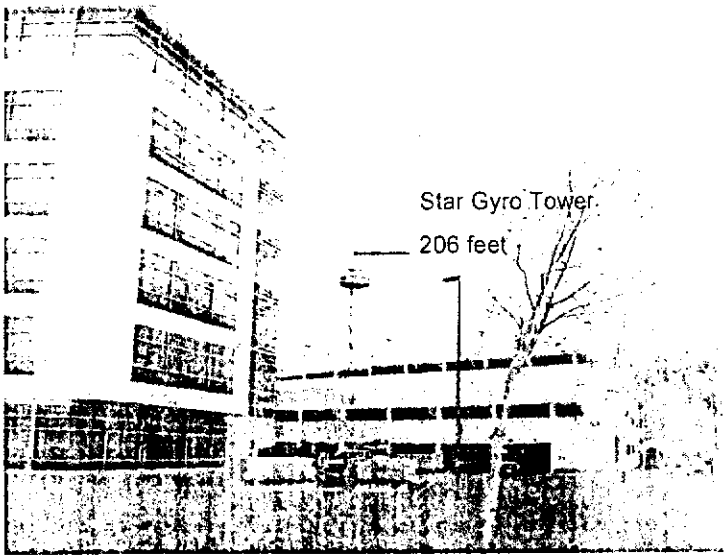
Two 6-story office buildings at 87-foot height

Two 5-level parking garages at 45-foot height

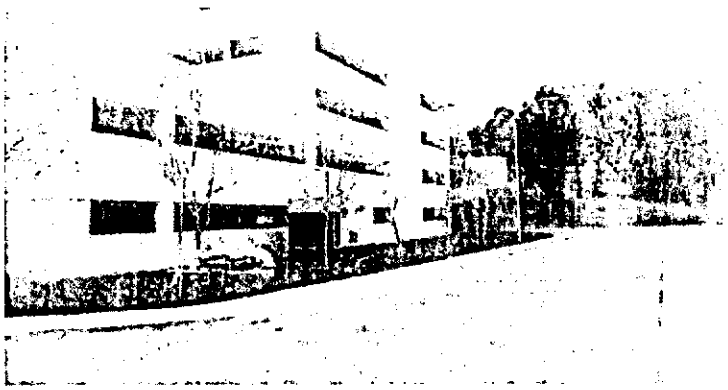
Theme Park

Proposed coaster location

View of existing Prudential/Nortel building and parking garage from Great America Parkway, with view of the Theme Park Star Gyro Tower beyond



View of existing Prudential/Nortel parking garage and the proposed coaster location beyond, from Patrick Henry Drive

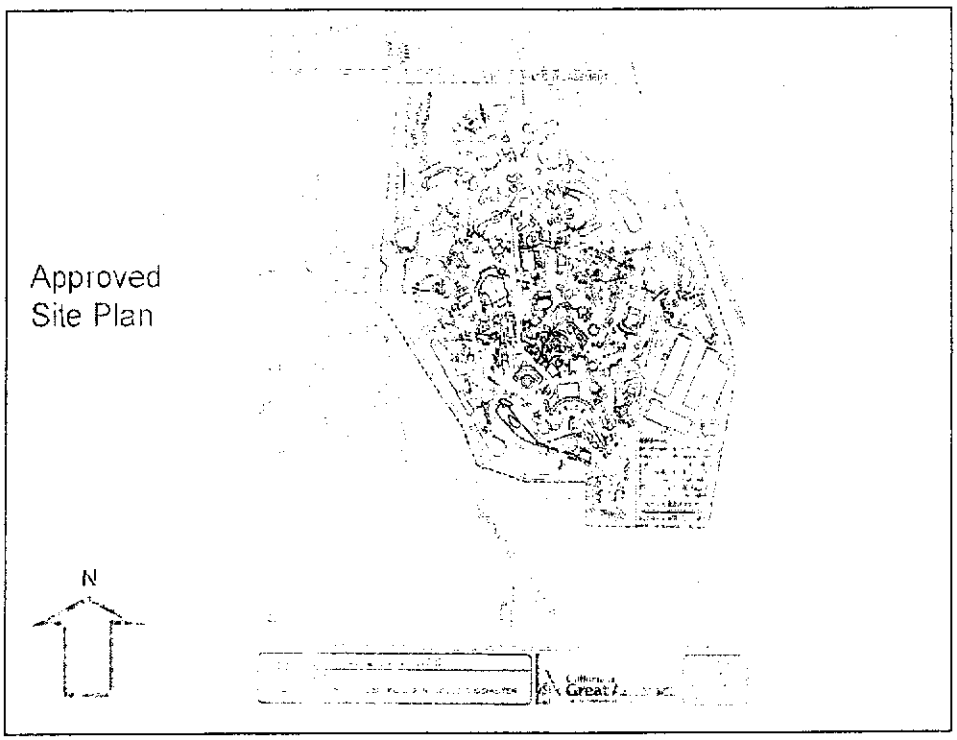


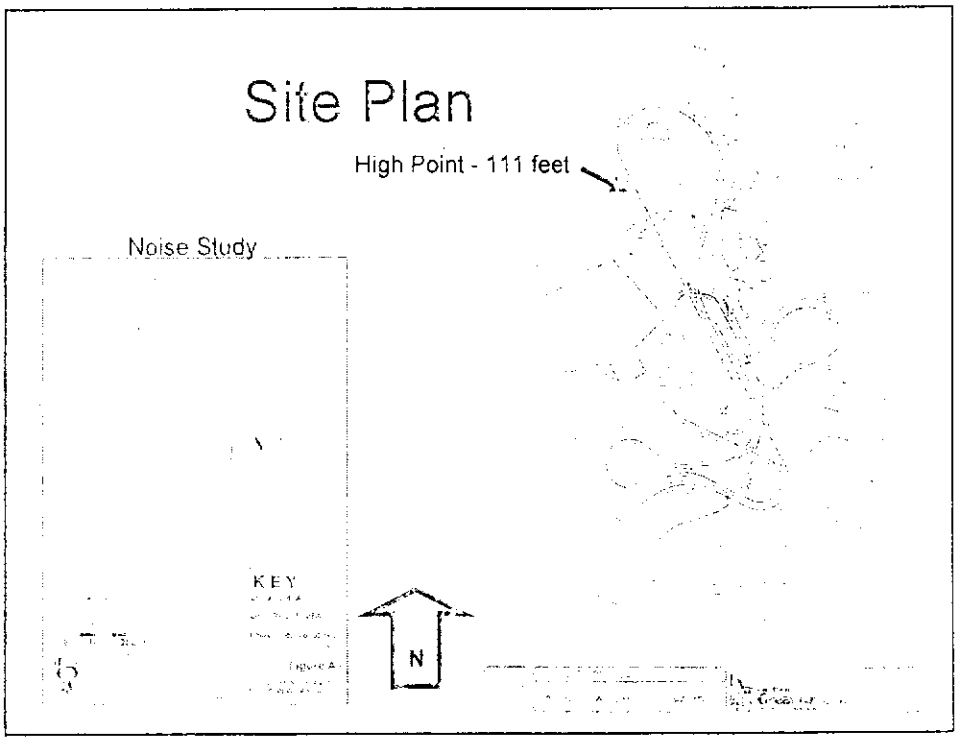
View of theme park west boundary and the proposed coaster location beyond, from the Patrick Henry Drive cul-de-sac

Extreme Skyflyer

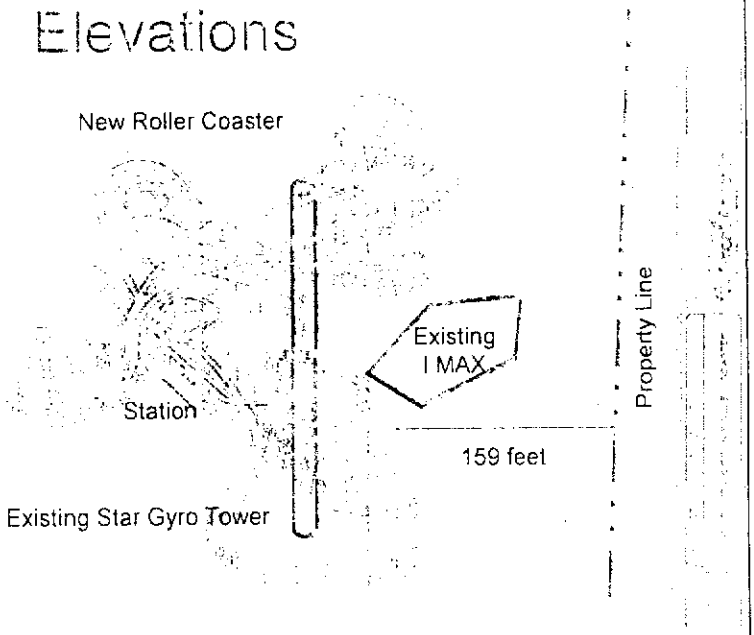
184 feet

Another view of a portion of the adjoining industrial/office building owned by Sobrato on the south side of Patrick Henry Drive, and the western edge of the theme park beyond

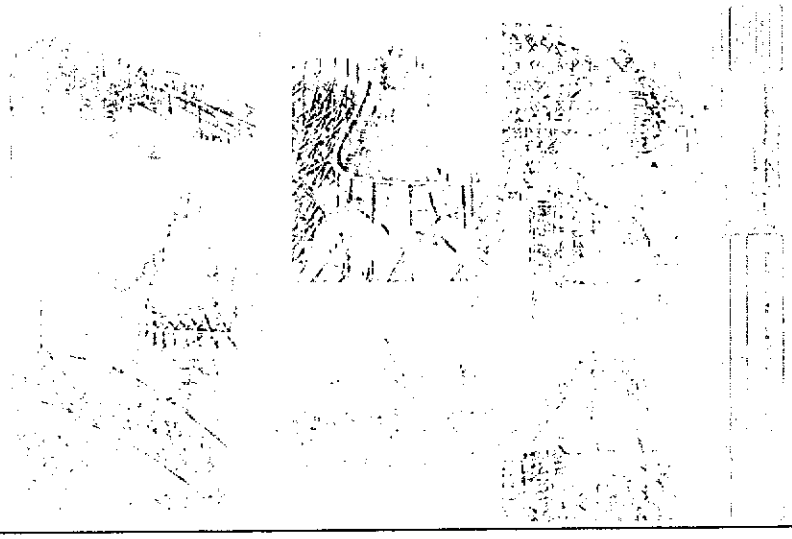

Approved
Site Plan
N


Site Plan
High Point - 111 feet
Noise Study
KEY
N

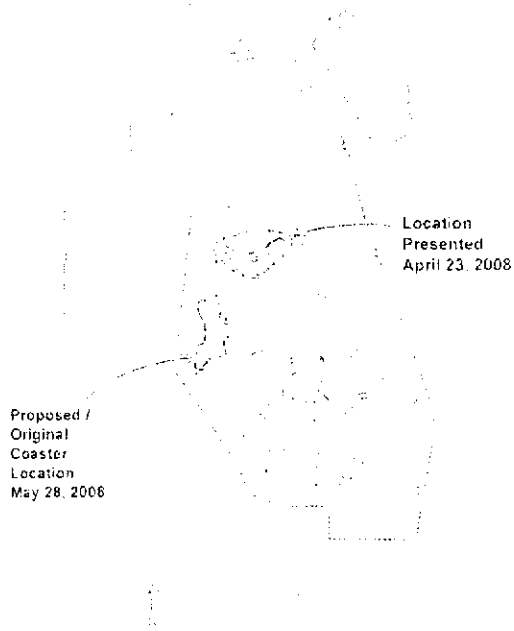
Elevations



Sample photos



Comparison Site Plan



Ride Comparisons

Variance Findings
per Sec. 18.108.040 of City Code

(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.

(b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.

(c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.

(d) That the granting of the variance is in keeping with the purpose and intent of this title.

Variance Findings
per Sec. 18.108.040 of City Code

(a) That there are unusual conditions applying to the land or building which do not apply generally in the same district.

i. Theme park not a common or typical use in the CT district, with structures not common in CT zone elsewhere in City

ii. 35-foot height limit appropriate control in typical commercial-residential relationship on thoroughfare arrangement, but not practicable for commonly expected theme park attractions

iii. Park operates on a seasonal basis, and only on weekends in non-peak seasons, a unique feature about the use of the land which distinguishes it from other land and buildings in the same zoning district in other places in the City

iv. Flexibility and change in theme park was contemplated in original underlying legislative entitlements for the Park as a CT zone

Variance Findings
per Sec. 18.108.040 of City Code

(b) That the granting of the variance is necessary for the preservation and enjoyment of substantial property rights of the petitioner.

i. Investment in Park enhances ongoing economic vitality of the Park because customers expect new rides on an periodic basis

ii. Strict compliance with 35 foot height would limit new rides, where periodic addition of new attractions are necessary

iii. Addition of new rides and attractions is essential to preserve the substantial investment in the Park to keep the Park economically feasible

iv. Flexibility and change in theme park was contemplated in original underlying legislative entitlements for the Park as a CT zone

Variance Findings
per Sec. 18.108.040 of City Code

(c) That the granting of such variance shall not, under the circumstances of the particular case, materially affect adversely the health, safety, peace, morals, comfort or general welfare of persons residing or working in the neighborhood of the applicant's property, and will not be materially detrimental to the public welfare or injurious to property or improvements in said neighborhood.

i. Park comprised of attractions that generate noise and activity and are highly visible structures; proposed coaster consistent with use

ii. Proposed roller coaster complements existing theme park, and is typical of a theme park; lower than many current park features

iii. Applicant voluntarily conducted noise studies that confirm no new noise impacts any greater than those allowed by City standards

iv. Projected noise from coaster no greater than impacts analyzed in the EIR for the adjacent office building

v. New projects in vicinity must attenuate noise from the Park

Variance Findings

per Sec. 18.108.040 of City Code

(d) That the granting of the variance is in keeping with the purpose and intent of this title.

Applied strictly, the 35-foot height limit would be detrimental to the success of the theme park and the related tourist and recreational uses, which would be inconsistent with the Tourist Commercial General Plan designation for the theme park. Granting the variance would facilitate consistency with the General Plan, which is one of the objectives of the zoning ordinance

Staff Recommendation

- Deny the Appeal
- Adopt Resolution to Affirm Planning Commission approval, subject to conditions

End

CEQA

- 111-foot **rollercoaster** in undeveloped area is an "expansion" not "**normal operations**"
- **Screaming** noise adjacent to office complex is "**unusual circumstance**"
- Salter/Menge findings confirm reasonable possibility of **significant noise impact**
- **Therefore,**
  - **Categorical exemption is legally unsupportable**

Acoustical Analysis

Combined Experience of Over 70 Years
Preeminent Figures on the National Stage

- Charles Salter
  - Author, *ACOUSTICS: Architecture, Engineering, the Environment*
  - Adjunct Professor of Acoustics, University of California, Berkeley
  - 2006, Fellow of the Society, Acoustical Society of America
  - Recognized as leading acoustics authority in Northern California
- Christopher Menge
  - Board of Directors, Institute of Noise Control Engineering
  - Author of leading acoustical analysis of rollercoaster screaming noise
  - Recognized nationally as leading authority on outdoor entertainment sources

SCREAMING NOISE

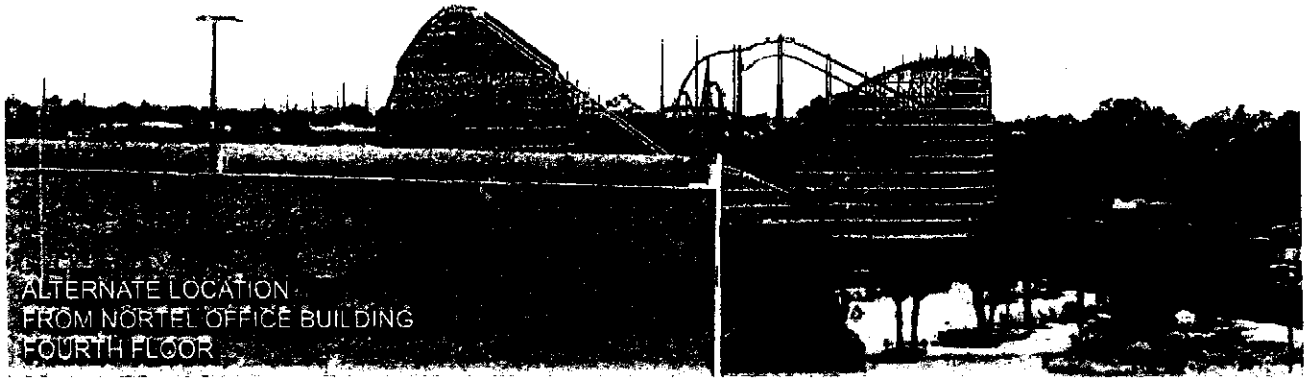
- Psycho-Acoustics
  - Universal Distress Signal
  - Equates to Human Calamity
  - Distinct Character
  - Penetrates Background Noise
- Impacts
  - Highly audible and intrusive
  - Creates stress
  - Detrimental to life, health, enjoyment of property
  - Disruptive to both **residential and commercial** neighbors

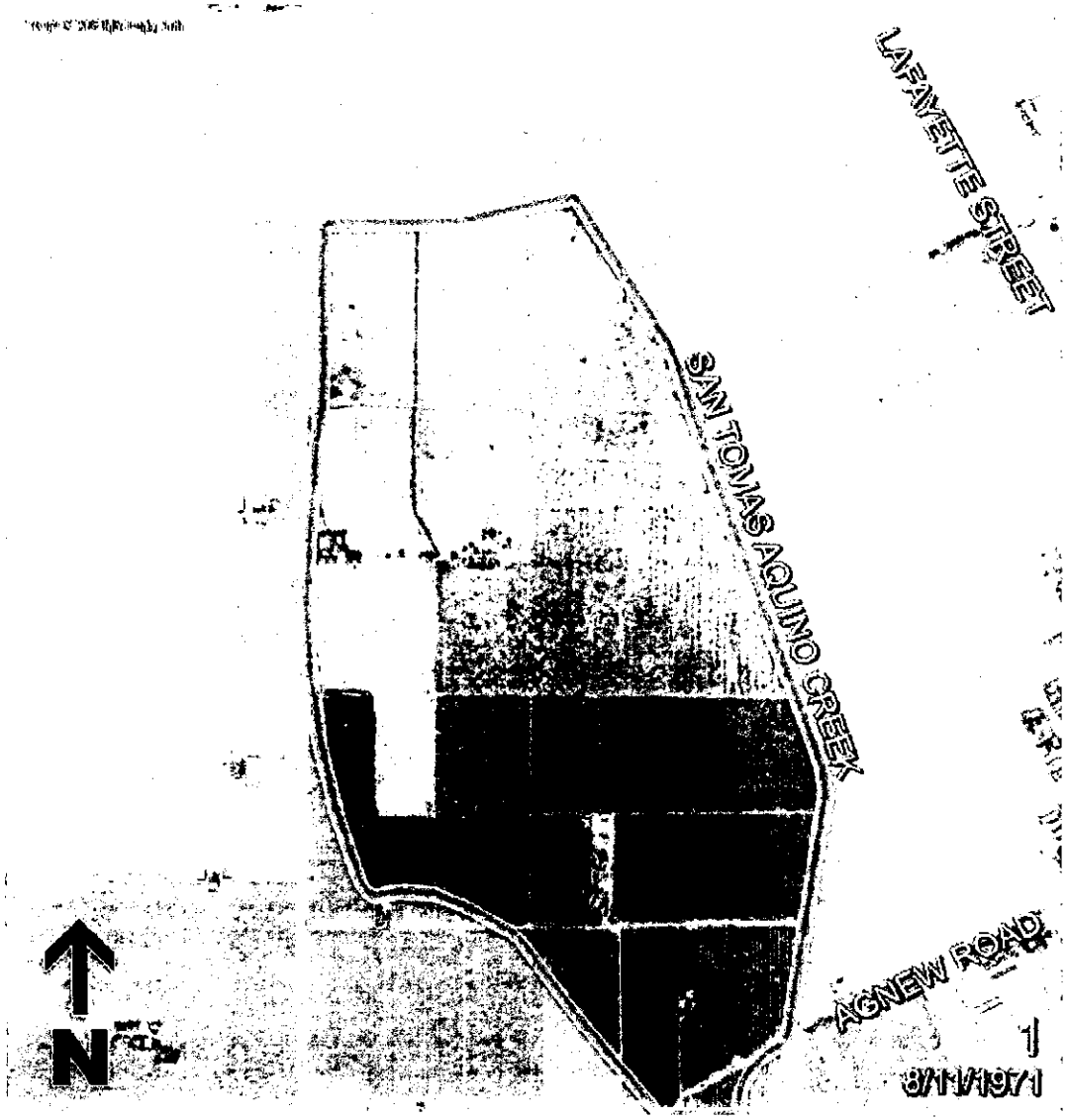
VISUAL IMPACTS

GYRO TOWER 206'
EXTREME SKYFLYER 184'
COASTER 110'
CAMERA LINE OF VIEW
THE PROJECT
FROM AMD OFFICE FLOOR SIX

GYRO TOWER 208'
COASTER 110'
EXTREME SKYFLYER 184'
CAMERA LINE OF VIEW
THE PROJECT
FROM NORTEL OFFICE BUILDING
FOURTH FLOOR

ALTERNATE LOCATION
FROM AMD OFFICE FLOOR SIX


ALTERNATE LOCATION
FROM NORTEL OFFICE BUILDING
FOURTH FLOOR


LAFAYETTE STREET
SAN TOMAS AQUINO CREEK
AGNEW ROAD
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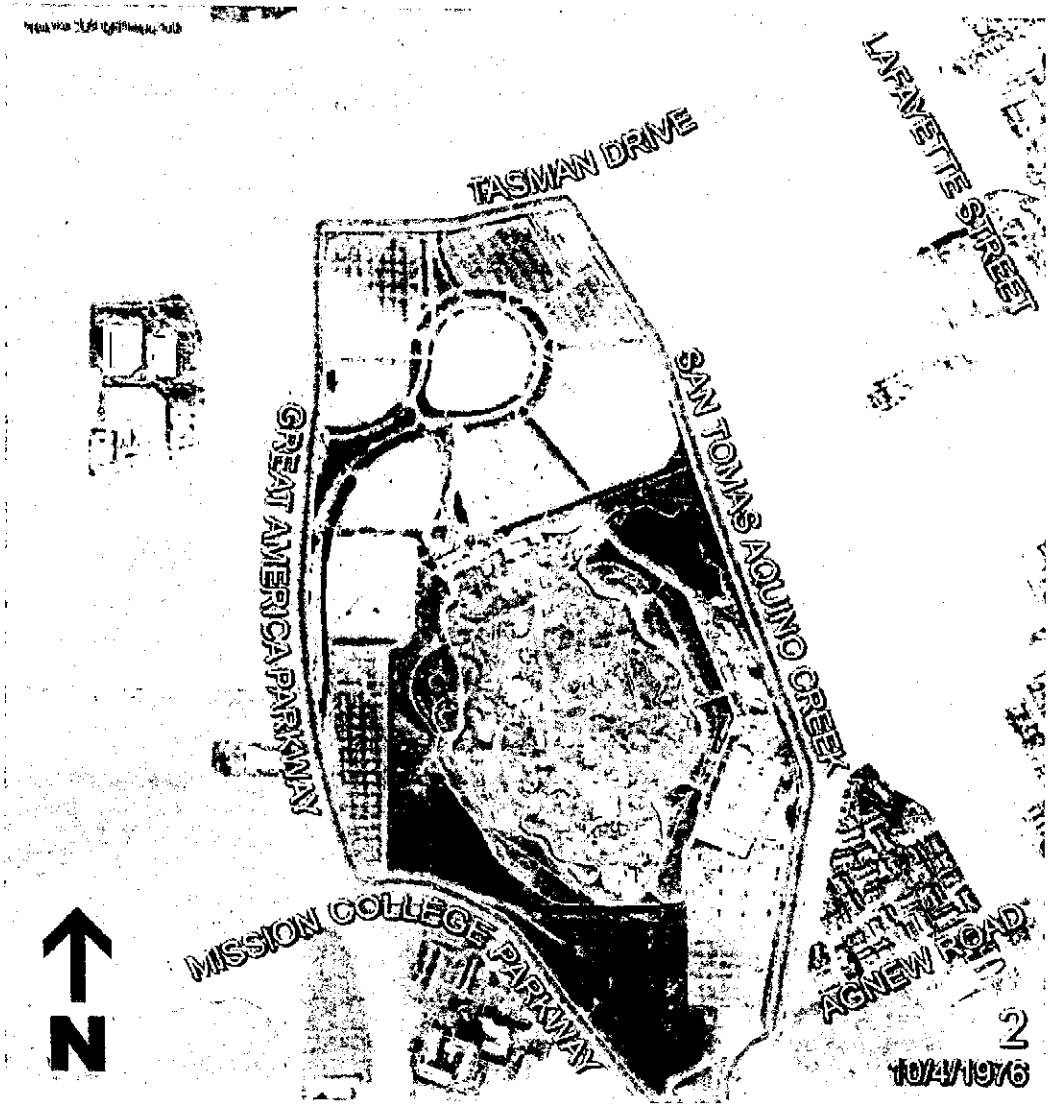
8/11/1971

VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

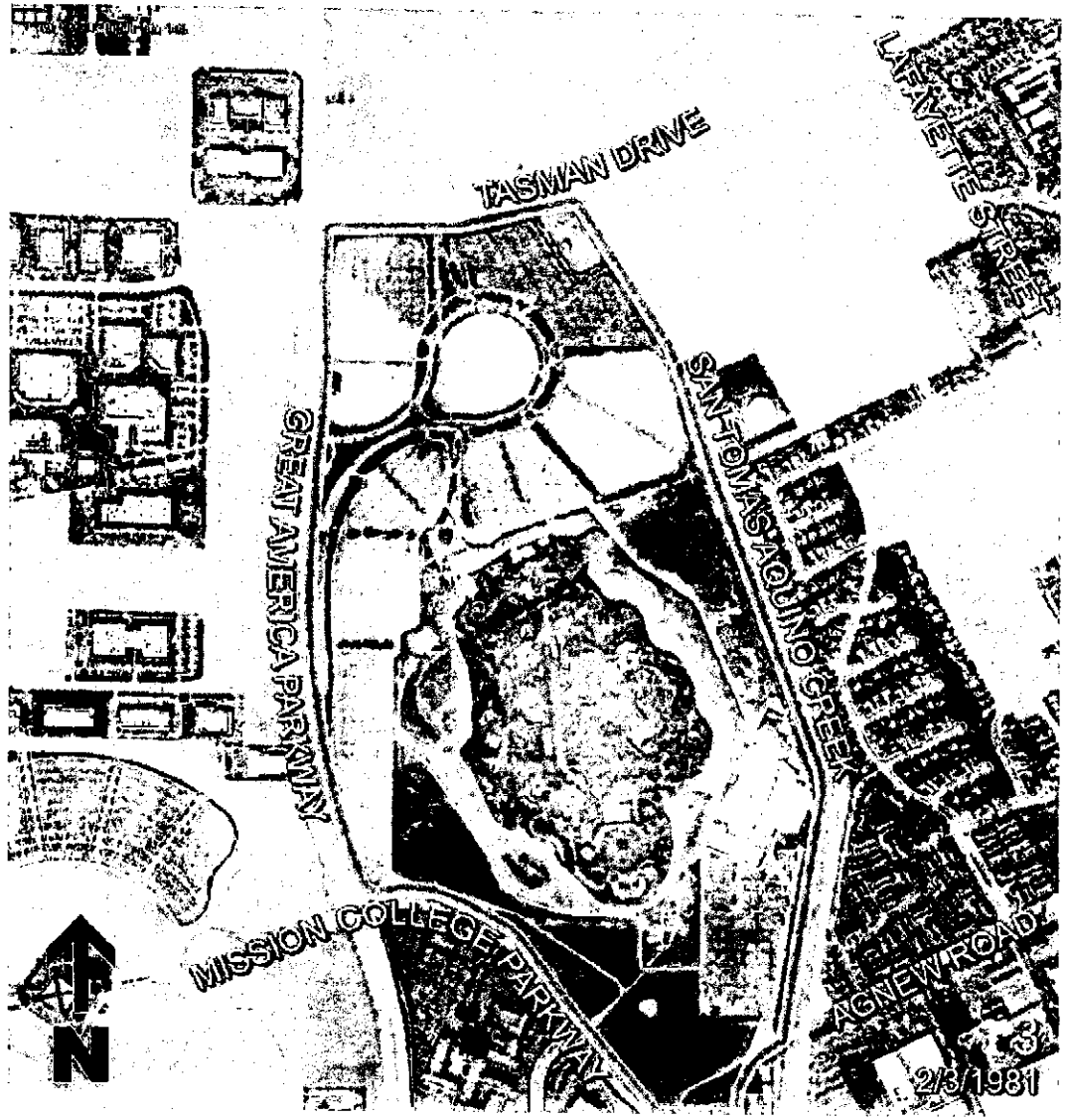


VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

——— 1977

——— 1981



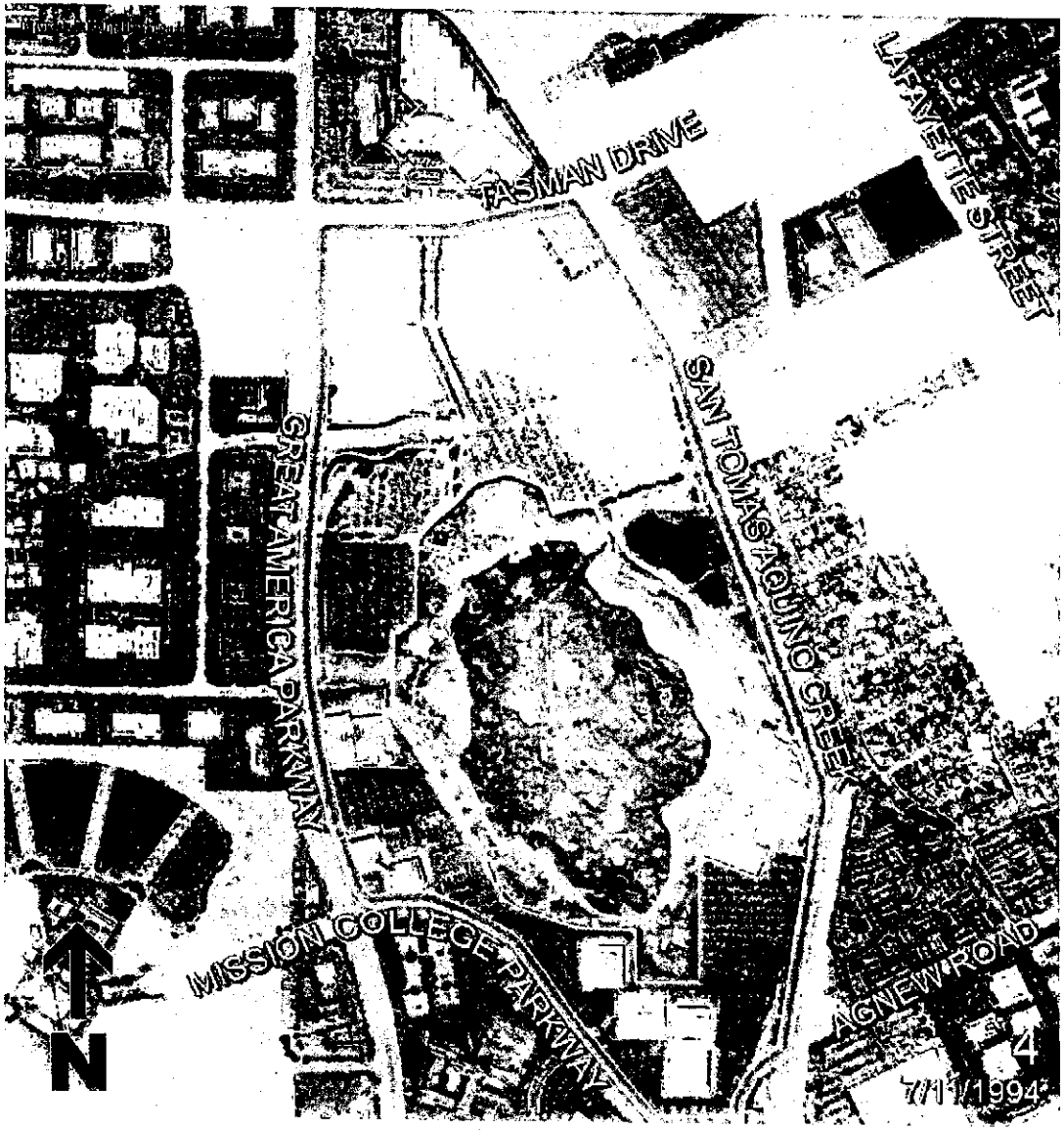
VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

1977

1981

1994



VARIANCES

BLANKET VARIANCE
FOR HEIGHT
1973-1976
(# granted unknown)

1977

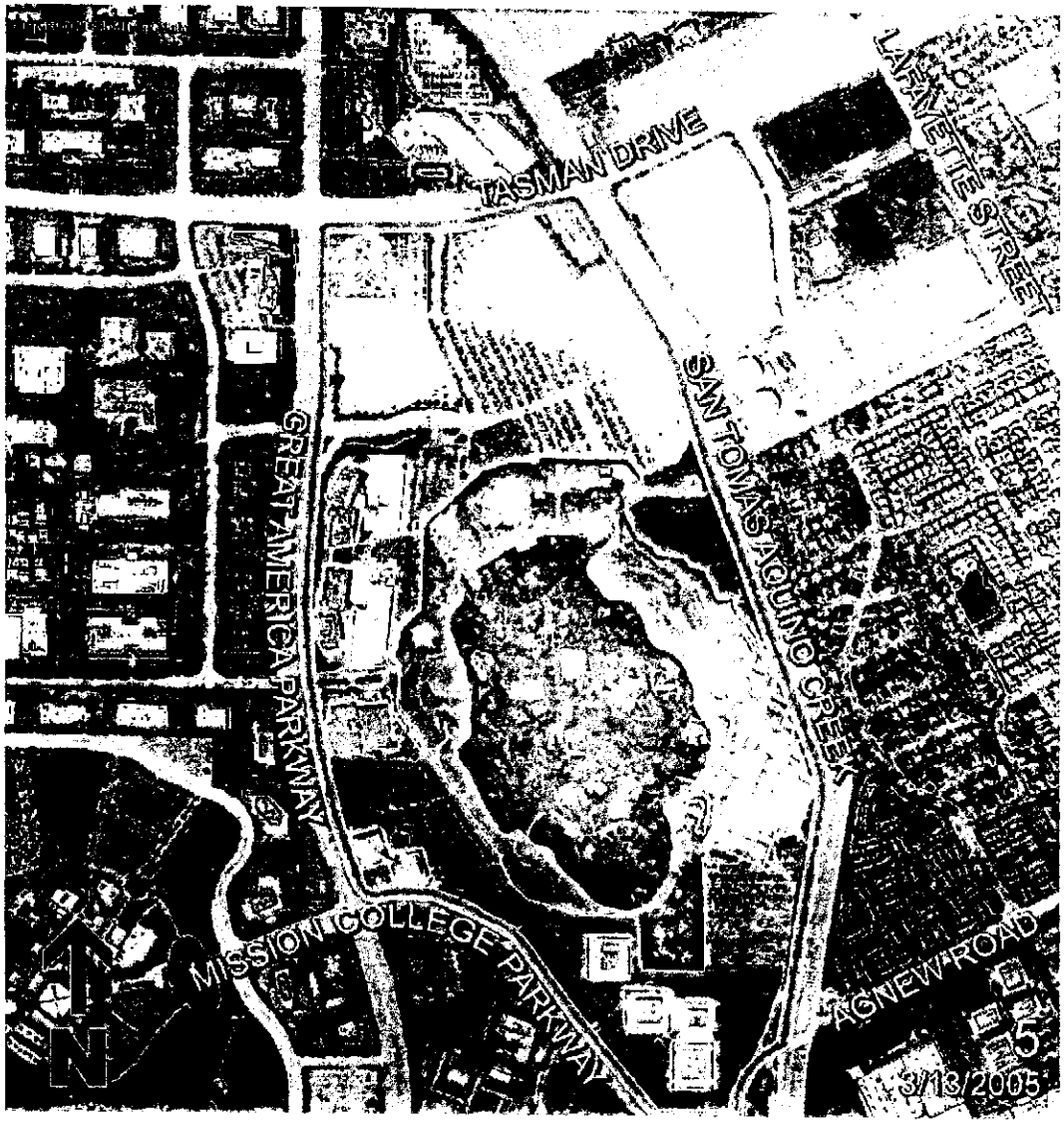
1981

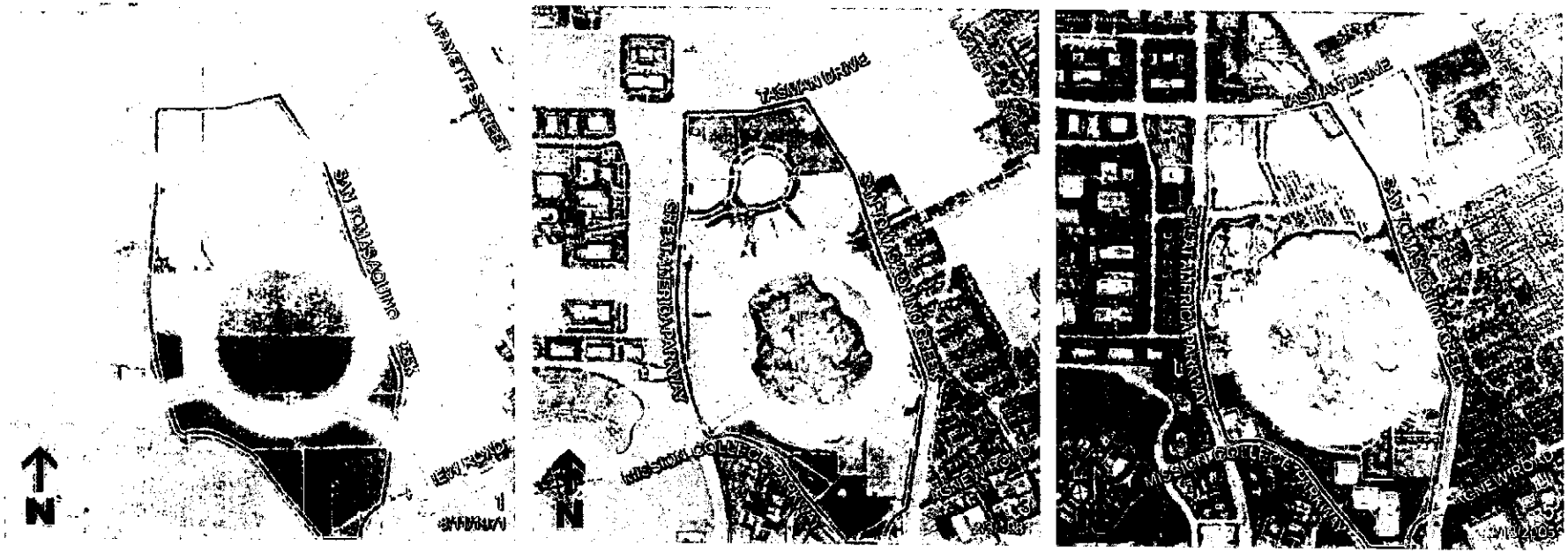
1994

1998

?

2008




LAFAYETTE STREET
SAN TOMAS AQUINO
N
TASMAN DRIVE
GREAT AMERICA PARKWAY
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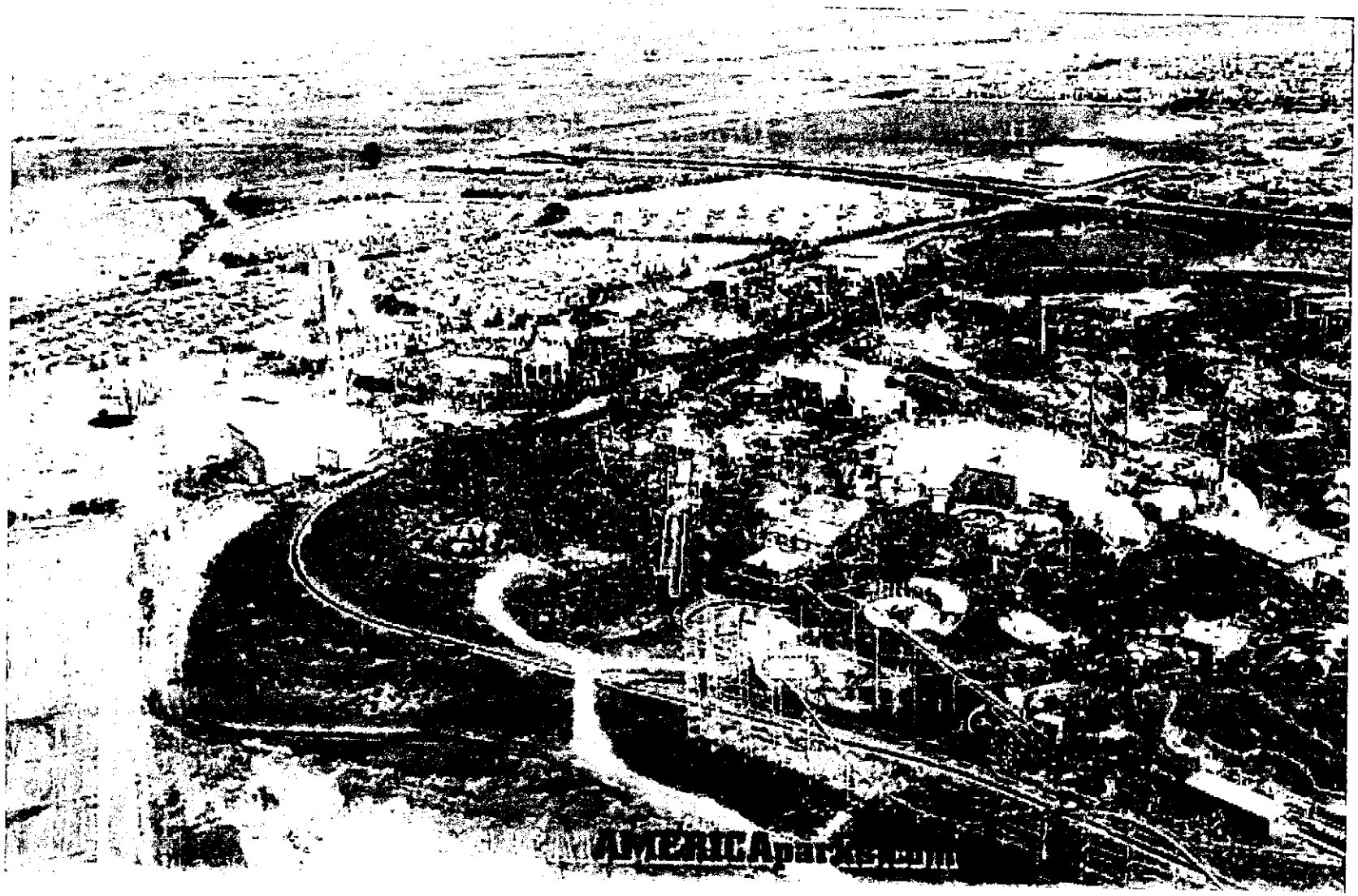
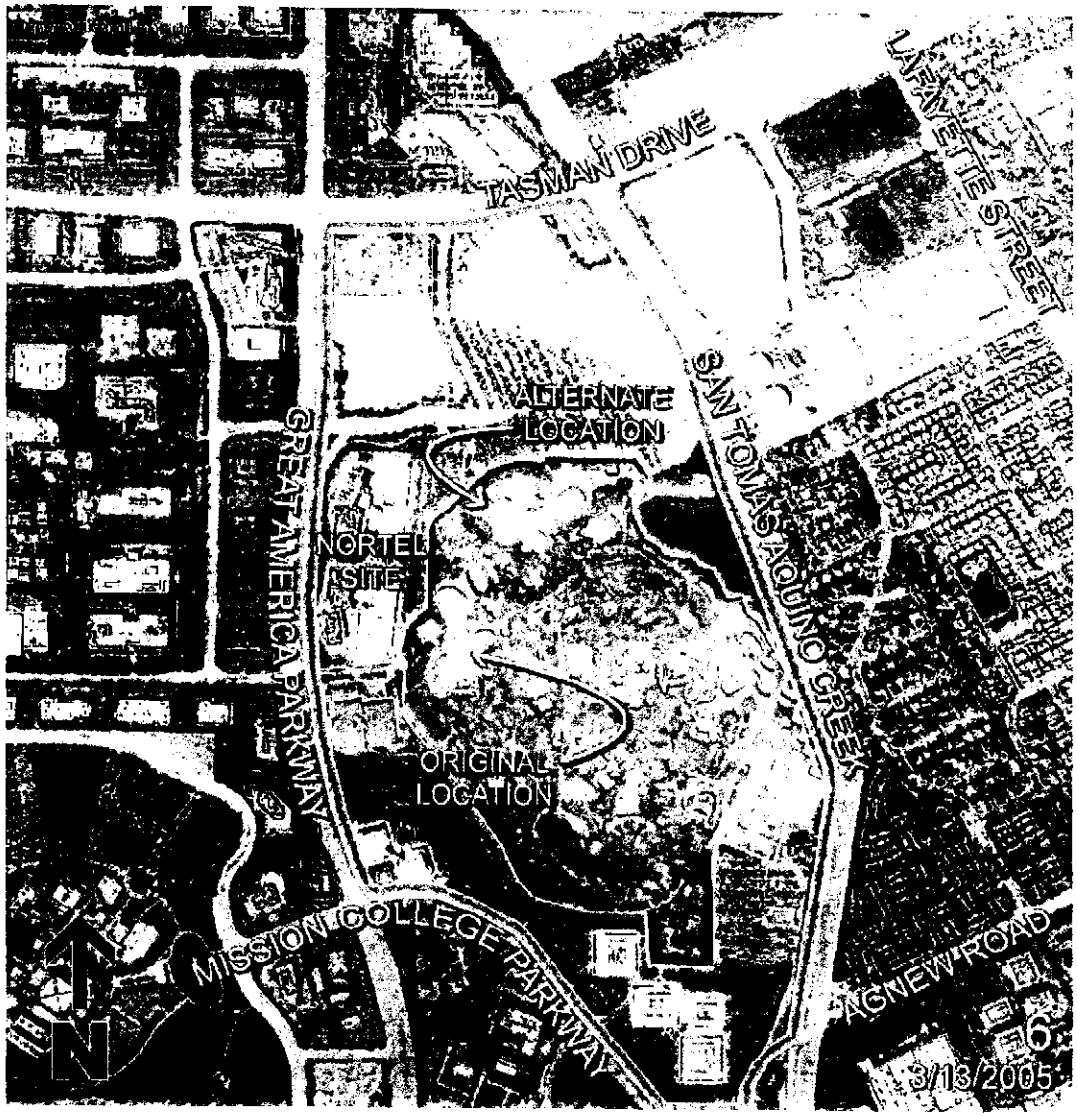
TASMAN DRIVE
GREAT AMERICA PARKWAY
SAN TOMAS AQUINO


AMERICAApartments.com

FINDINGS

- Council must make **all 4** findings:
  - Unusual Condition of Property
  - Substantial Property Right
  - Not Adversely Affect Persons Residing or Working in the Neighborhood
  - Zoning Consistency
- **Supported by substantial evidence**


LAFAYETTE STREET
SAN TOMAS AQUINO CREEK
ALTERNATE LOCATION
NORTEL SITE
ORIGINAL LOCATION
TASMAN DRIVE
GREAT AMERICA PARKWAY
MISSION COLLEGE PARKWAY
AGNEW ROAD
N
3/13/2005