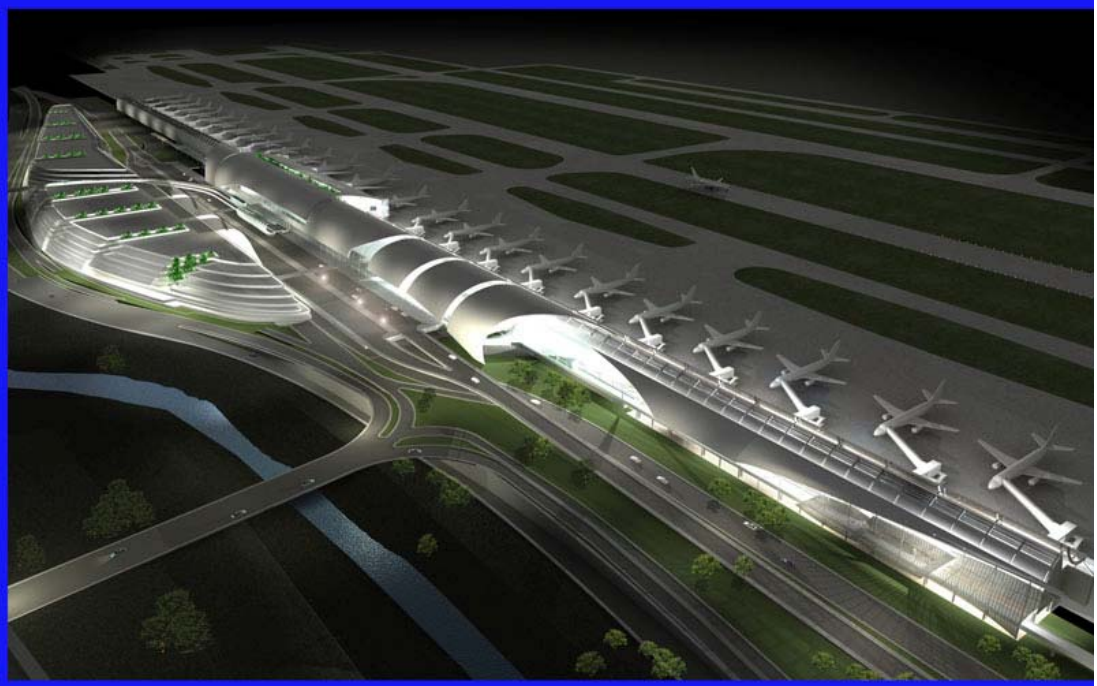
ARCHITECTURAL DESIGN GUIDELINES

Norman Y. Mineta San Jose International Airport



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ARCHITECTURAL DESIGN GUIDELINES

Norman Y. Mineta San Jose International Airport

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OVERVIEW

The mission of the Architectural Design Guidelines for Norman Y. Mineta San Jose International Airport (SJC) is to provide a framework of design criteria for future development on the Airport site. The Guidelines will inform and influence all new construction and serve as a set of principles to enhance the airport's image and maintain a cohesive campus experience.

Hierarchy of design must be maintained on the Airport grounds. The Airport Senior Staff, in collaboration with the San Jose City Council, has reserved "Icon" status for the Central Terminal Building and Concourse, thus preserving the highest visibility and architectural detail for this building. All other development at the Airport shall reinforce the project type hierarchy outlined in Chapter 5, *Project Type Definitions*.

The process by which the Architectural Design Guidelines are to be administered and implemented is flexible enough to encourage innovation, but prescriptive enough to ensure continuity of the Airport built environment.

This document provides definitive and prescriptive information for design professionals as well as City and Airport staff who may be involved in future Airport development projects. Use of the process outlined in subsequent sections of this document will ensure that future built elements compliment and support the aesthetic philosophy of the Airport through the use of a common vocabulary of forms, modules, materials, palettes, and performance criteria.

1. PROCESS FOR IMPLEMENTATION

Administration Checklist for Site and Architectural Review Committee (SARC)

- Review design concepts for tenant and Airport construction/rehabilitation projects and advise the project engineer / architect with recommendations.
- Establish a project specific review structure based on the project size and budget.
- Schedule and budget for project review milestones.
- Ensure a consistent design quality in all improvements; yet encourage individual identity and expression of the tenant spaces.

Implementation Checklist for Designers

• Understand Process for Design Review	Chapter 1
• Commit to Airport Master Plan Vision Statement	Chapter 2
• Support Master Plan Concept	Chapter 3
• Reinforce Airport Experience Values	Chapter 4
• Define the Project Type	Chapter 5
• Determine project inspiration, philosophy, & form	Chapter 6 & 7
• Determine building enclosure using guidelines parameters	Chapter 6
• Determine materials & palette using guidelines parameters	Chapter 8 & 9
• Address Airport Special Conditions	Chapter 10

Design Review Process

The Airport Site and Architectural Review Committee (SARC) shall review adherence to Architectural Guidelines. The review process occurs at various points of building development regardless of the number of Architects or type of contract. Whether the Executive Architect, Bridging Architect, or Design/Build Contractor, the presentation/review, and appeals schedule is linked to the design process rather than the typical end of phase milestones.

Care should be taken to include review/comment sessions to SARC and Airport Senior Staff throughout the design timeline. Further presentations to City Council and City of San Jose via Community Outreach forum may also be required for specific cases as deemed appropriate by City Council.

SARC as well as the Airport Senior Staff should not be considered a design jury. The purpose of the following reviews is to confirm compliance within the parameters of these guidelines. Expected discussion points should therefore be focused on addressing each review's application materials towards communicating a rationale for the design solution as well as possible alternate solutions.

Presentations and Appeals

The Architectural Design Guidelines allow for the progression of building science and architectural practice by remaining flexible in its administration. Appeals for each of the design review processes shall allow the design team to appeal a disapproved recommendation in an open forum discussion. Once again, the purpose of the SARC, Senior Staff and these guidelines is not to design by committee, but rather to administer compliance to an accepted vocabulary of architectural criteria, provide a background of design philosophy, and inspire sustainable and quality design practices. As such, arbitration presentations for an appealed project will focus on:

- Stated Design Goals and Design response
- An understanding of the project's place within the Airport Experience Map (see Chapter 4), as well as it's project type (see Chapter 5)
- Design concept and material selection approach
- In the case of appeal; detailed analyses of building life cycle costs, maintenance systems, erection costs, repair/replacement information or other such pertinent information in order to fully assess the viability of any departure or amendment of these guidelines.

Arbitration shall occur with the SARC and a quorum of the Senior Staff in attendance. Mandatory attendance is required of those members representing these areas of responsibility: operations and maintenance, materials handling and security, public relations. The Director of the airport or Assistant Director will be in attendance. Approval or disapproval will be determined following a presentation, discussion and debate by means of a ballot. No person may vote more than once, each vote shall be weighed as equal. In the event of a tie vote, the Director of the airport or the Assistant Director will make the final determination.

Design Review Timeline

First Review
Site design, building massing, building footprint, and parking plan shall not be finalized without review, comment, and re-submission to SARC. In typical design/bid/build contracts, early to midway through schematic design coincides with a finalized building program, site plan and building massing on which schematic architecture is based. An examination of the site plan, building footprint, and building massing will be made by the SARC.

Requirements: This review shall utilize plans, parking and massing model (digital or physical) to describe height relationship to surrounding airport buildings. Provide person height perspectives from the major approach roadways as well as views from elevated I-87 or US101 if applicable.

Approval: The committee will provide comments in an open forum discussion format, and either approve, or disapprove with recommendations. Topics may include (but not be limited to) design concept, relationship to the airport experience map, relationship to the City of San Jose, building image and relationship to the Master Plan, public interface and visibility, proximity to hazards. If the First Project Review results in a disapproved verdict, further reviews must be placed in the project schedule until the First Project Review results in an approved rating for the these items: Site Plan, Building massing.

Secondary Project Review
Building elevations shall not be finalized without SARC review. In typical design/bid/build contracts, midway to 75% completion of schematic design typically generates the building envelope ideology and structural form. An examination of the site plan, building footprint, and building massing, material choices, building elevations will be made by the SARC.

Requirements: This review shall utilize plans, parking and massing model (digital or physical) to describe height relationship to surrounding airport buildings. The presentation materials shall describe window and door openings, building envelope materials and colors. Material palette and maintenance requirements to be discussed and approved by Airport Maintenance representative(s). A schematic section detailing ladders, lifts, and access catwalks should be provided and discussed at this meeting. Provide person height perspectives from the major approach roadways as well as views from elevated I-87 or US101 if applicable.

Approval: The committee will provide comments in an open forum discussion format and either approve or disapprove with recommendations. If the Second Project Review results in a disapproved verdict, further reviews must be placed in the project schedule until the Second Project Review results in an approved rating for Building Envelope materials and colors as well as window and door design.

Final Project Review
Building materials and colors shall not be finalized without SARC review. In typical design/bid/build contracts completion of schematic design typically finalizes the building envelope

material selection. An examination of the site plan, building footprint, building massing, material choices, and building elevations will be made by the SARC.

Requirements: This review shall utilize plans, parking and massing model (digital or physical) to describe height relationship to surrounding airport buildings. The presentation materials shall describe window and door openings, building envelope materials and colors. Site elements such as signage, lighting, and site furniture shall be described as well. Provide person height perspectives from the major approach roadways as well as views from elevated I-87 or US101 if applicable.

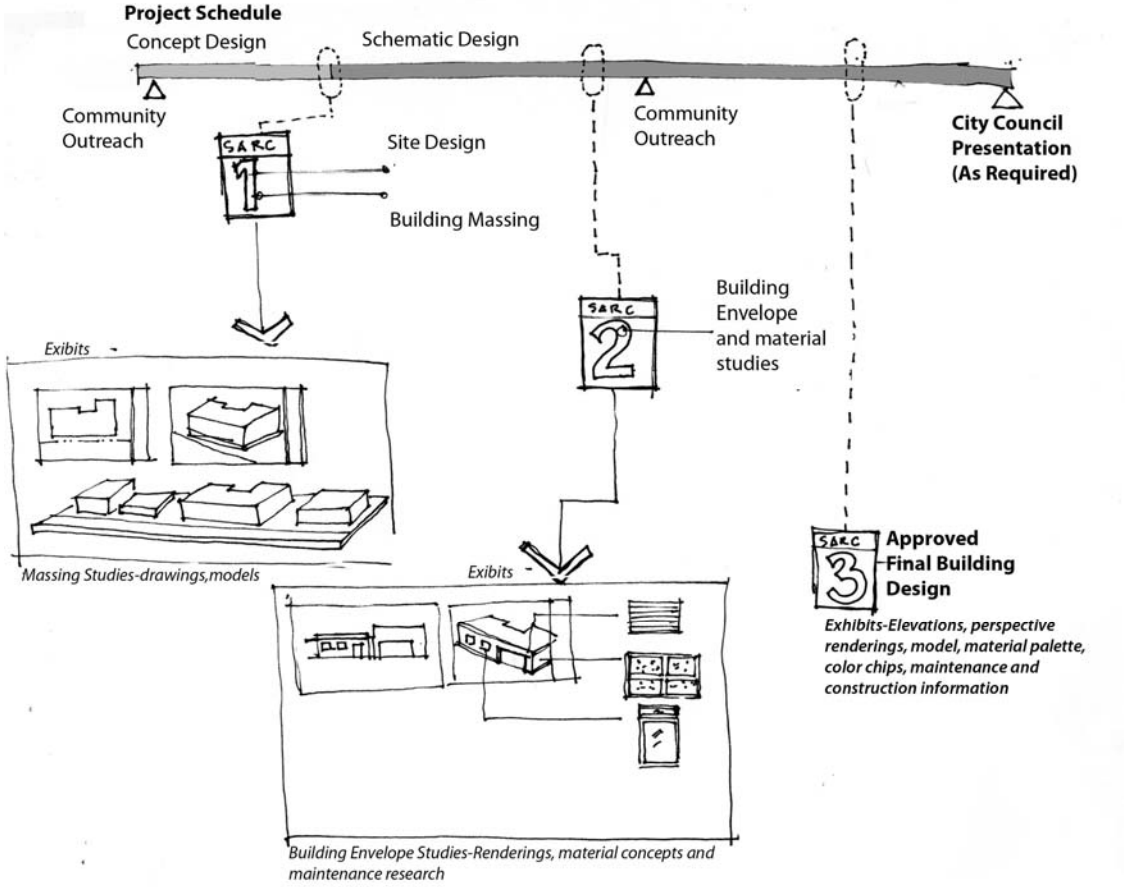
Approval: The committee will provide comments in an open forum discussion format, and either approve or disapprove with recommendations. If the Final Project Review results in a disapproved verdict, further reviews must be placed in the project schedule until the Final Project Review results in an approved rating for the following items: Building Envelope materials and colors, window and door design, landscape materials, signage and lighting.

Auxiliary Approvals

A collaborative and community based design process for the airport requires the design team to be sensitive to issues of the community while deftly navigating the wide range of public opinion that is usually associated with public commissions.

During the design review process, the SARC may require additional review and comment prior to finalizing a project's design. These additional reviews are deemed important to solicit comments from concerned parties when projects are particularly visible or controversial. Auxiliary approvals shall be identified as necessary during the First Review in order to allow sufficient schedule and fee to accommodate these additional reviews. See example on following page.

For example: a project may be awarded for design, but due to it's position along and proximity to the Central Terminal, the SARC has determined that the final design must be presented to the San Jose City Council. Prior to such a presentation, it is prudent to solicit comments from the public in one or several community outreach forums designed to connect the design team to the concerns and comments of the public. The design team will provide presentation materials. These comments shall be recorded and presented with the final design. The review schedule of this project might be:

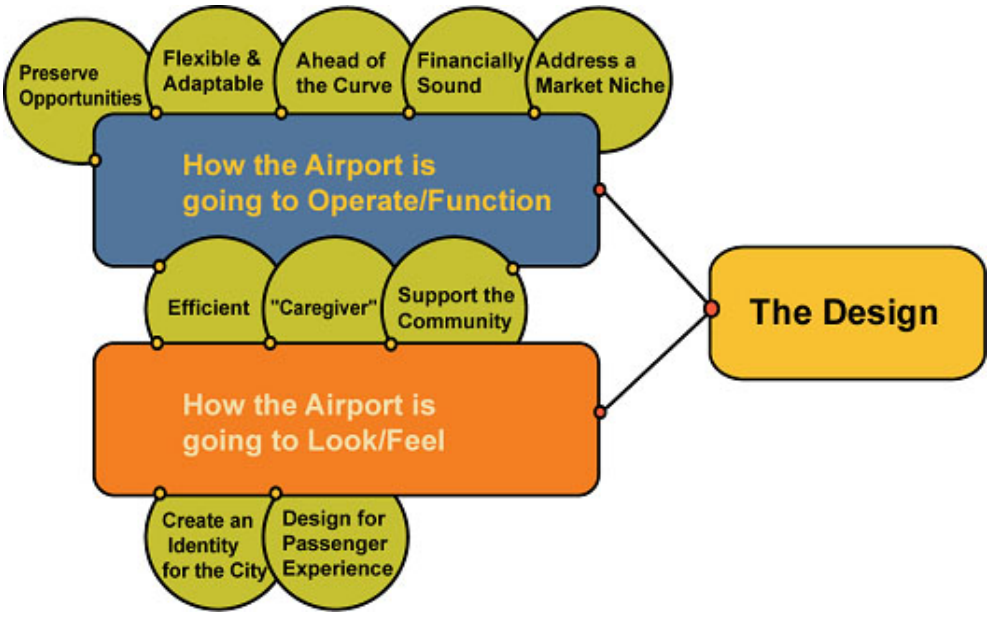


1. **Concept Design Start:** Site design, Massing and Concept design of building
2. **First Review: Site and Architectural Review Committee (SARC).** Review of schematic design proposals, and determination whether or not to seek San Jose City Council approval. If so, provide public outreach forums to gather data and comments to be addressed in subsequent reviews. Public outreach design review sessions may require more than one session. Senior staff to advise on number of sessions taking into account design schedule impact, possible design impact, and City Council presentation schedule.
3. **Public review and comment** (as required)
4. **Second Review: Site and Architectural Review Committee (SARC)**. Building concept, material palette, (requires maintenance staff participation) and elevations.
5. **Final review: Site and Architectural Review Committee (SARC)**. Final building envelope design, landscape coordination, signage and graphics, building lighting
6. **City Council Presentation and approval (as required)**
7. **Project design approval**.

2. AIRPORT MASTER PLAN VISION STATEMENT

As determined in the 2000 Central Terminal Design Session, the following goals provide a philosophical basis for physical, technological, and service developments at the Airport. Architects responsible for ongoing development projects shall commit to the Airport Master Plan Vision Statement objectives and design with the following goals in mind.

- **Preserve Opportunities –** Planned for Long Term Growth
- **Flexible and Adaptable –** Easy to Change
- **Ahead of the Curve –** State of the Art Systems and Technology
- **Financially Sound –** Maximization of Revenue Potential
- **Address a Market Niche –** High-End / Full Fare Business Passenger
- **Efficient –** Functionally Simple, Adequate in Size and Flow
- **"Caregiver" –** Proactive Support for all Affected Parties
- **Support the Community –** Sensitive to its Surroundings
- **Create an Identity for the City –** Gateway to the Silicon Valley
- **Passenger Experience –** Intuitive, Reliable, Seamless, Convenient, and Safe



3. AIRPORT MASTER PLAN CONCEPT

The City of San Jose envisions an international transportation facility that mirrors the city's dominance in the realm of technology, information systems, computer software and hardware development as well as its cultural history. In creating the Norman Y. Mineta San Jose International Airport, a signature profile and structural system are envisioned that speak of advanced building technologies, flexibility for growth and security requirements, environmental sensitivity and sustainability.

The Master Plan Design was a result of a high level of user group sensitivity incorporating community outreach activities, and culling program desires and design concerns during 500 meetings. The result is a Master Plan, which will be phased into three major construction efforts, the first which began August 22, 2004.

The Master Plan calls for the maximum use of a tightly packed site which is hemmed in from the north by the US101 freeway, the south by the city center of San Jose, the West by the City of Santa Clara, and the East by a protected riparian corridor, the Guadalupe River, which winds through the City on its way North to the ocean.

The new Central Terminal consolidates existing separate terminal facilities into a common use facility simplifying both international and domestic travel to the region. A projected 17 million travelers will arrive to the Central Terminal using Bay Area Transportation (BART), light rail from central San Jose, city bus, taxi or private car using a new grade separated roadway serving departures above and arrivals below.

A new parking facility, including the entire rental car stock and maintenance facility, supports the airport's projected 60% business traveler target market.

A new concourse will serve domestic gates and international gates with continuous retail, food and beverage, entertainment and business comfort support along a single loaded concourse. These gates will be made accessible by use of a carefully prescribed combination of moving walkways and an "express" intra-concourse automated people mover (APM) train to limit pedestrian walking distances to less than 800 feet. International travelers arrive on an elevated platform giving expansive views to the valley and are met by their greeters on a separate international arrivals platform within the garage. Domestic travelers find their families and associates in clearly marked meeting areas supported by generous food and beverage opportunities.

The Concourse reflects the relaxed, inventive and playful attitude of San Jose, while making full use of its over 350 days of sunshine. The concourse is filled with soft daylight through a layered translucent ceiling with baffles that mimic the dappled light found in a Mexican paseo, respectfully bowing to the region's heritage.

Located throughout the concourse are exciting and thought provoking arrangements of public art fully incorporated into the architecture and interior program.

Along the entire project, a concern for the environment and a connection to the City's concern for sustainability and conservation are apparent. From the diffuse air distribution system, the natural day lighting, links to both public and non-traditional transportation systems such as light rail and bicycles, efficient use of structure and energy are central themes to the architecture

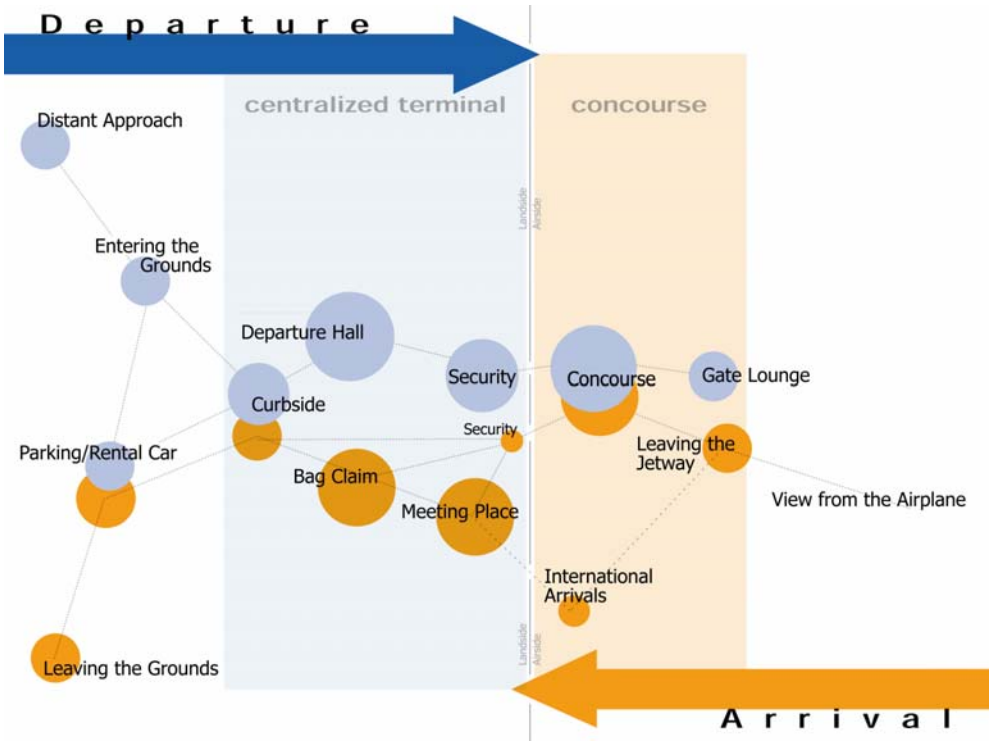
4. AIRPORT EXPERIENCE VALUES

The Norman Y. Mineta San Jose International Airport will be:

- A Civic Icon for the City of San Jose
- A Transformed / Phenomenal Coherent Whole
- A good neighbor that has a positive effect on its surroundings
- A safe and secure environment
- A streamlined and easy to use, no-hassle travel experience
- An entertaining and relaxed experience
- An atmosphere that generates “pride of place”

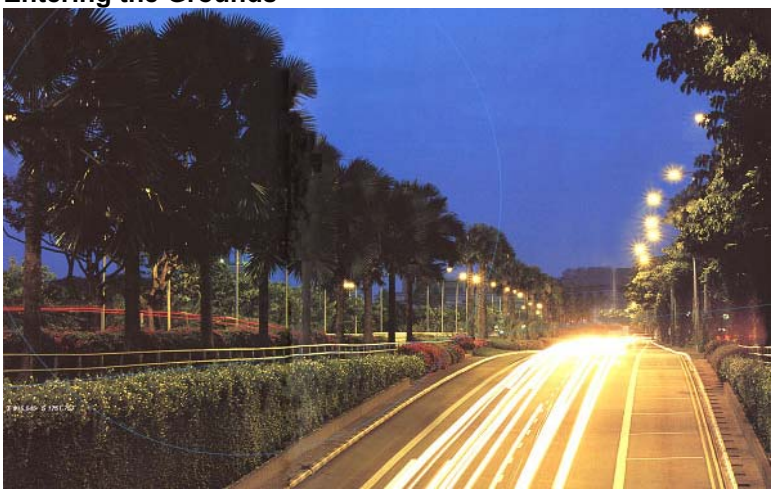
The above Values are the result of extensive User Group analysis carried out by the Airport Master Plan Team and consultant architects for the purpose of understanding the expectations associated with a diverse community of San Jose International Airport users. Narratives, or stories, were developed for various categories of Airport Users in order to identify their priorities and expectations related to a positive airport experience. The following overview of the “Experience” analysis is provided to equip future architects with design criteria that support the Experience Goals of the Airport Master Plan.

Architecture can be perceived as a set of experiences in sequence.



Similarly the journey to the Terminal can also be perceived as a sequence of experiences that create an impression on the visitor. The **Airport Image** is therefore the sum of a series of images or experiences taken from different points, and at different scales. Future developments on the Airport Site shall support and reinforce the Experience Values developed for Terminal Design. The following images and bullet points highlight concepts incorporated in the Airport Master Plan that are based on the Experience Values. Future developments shall consider these key concepts as an approach to supporting the established Experience Values and reinforcing the Airport Image.

Entering the Grounds



- Regional Expression
- Agrarian Identity
- Link to the River
- Hierarchy
- Soft edges

Terminal From a Distance

- Silhouette
- Icon
- Civic Marker

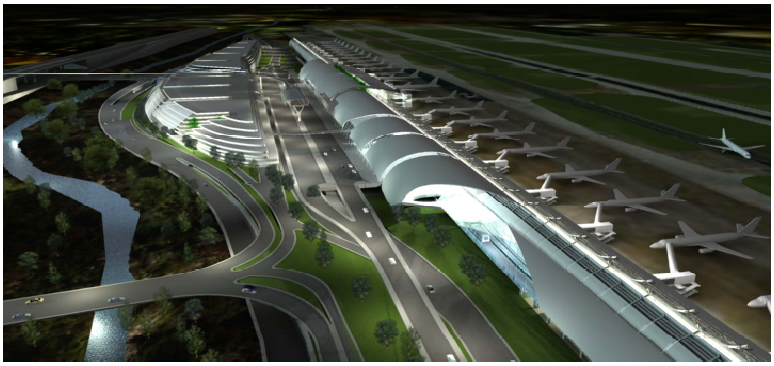
Approach

- Visible Destination
- Clear circulation

Curbside

- Signage – way finding
- Sense of order
- Weather protection
- Room to maneuver

Aerial



- Impressive
- Cohesive whole
- International Scale
- Agrarian Past
- Technological Future

5. PROJECT TYPE DEFINITIONS

The Airport Land Use Plan provides a comprehensive list of existing and proposed buildings on the Airport Site. Buildings are listed below in order of visual prominence, representing a hierarchy of architectural significance. The hierarchy does not imply that any category is of lesser quality or value. Its purpose is to facilitate design that differentiates facilities visually through the use of scale, materials, and textures. The objective is to provide visual cues that enable visitors to differentiate support facilities from public access buildings and ultimately the Terminal.

A. Public Buildings: Structures accessible by all visitors to the airport; passengers, meeters and greeters, and airport personnel.

Terminal, Arrivals, Departures, Concourse
Parking Garages

B. Private Development Buildings: Developed and owned by entities other than the Airport with limited access. (Some examples listed below)

HP (Hewlett Packard)
San Jose Jet Center
FAA ATCT (Federal Aviation Administration Air Traffic Control Tower)
Flight Kitchen
ARFF Station (Aircraft Rescue Fire Fighting)

C. Airport Support / Maintenance Buildings: Utilitarian buildings housing equipment and service personnel for airport operations.

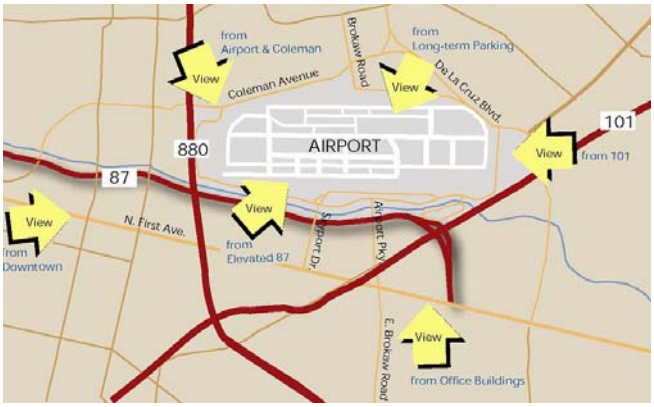
Airport Maintenance
Small General Aviation
AV Base
San Jose Police
Air Cargo
North Waste Collection Center
Structural Employee Parking
San Jose Police & Airport Support Space
Airport Administration
South Waste Collection Center
Belly Freight
GSE Warehouse

D. Un-occupied Support Buildings & Structures: Buildings housing equipment only, and rarely occupied.

Airfield Electrical Vault
RTR Antenna (Remote Transmitter/Receiver)
Fuel Truck Staging
Fuel Farm
Co-Generation Plant
Vehicle Fuel Station

E. Other Site Elements: Sound and/or screen walls, overpasses, canopies, ground transportation shelters, transportation guide ways, blast fences and site furniture.

6. GUIDELINES FOR SITE PLANNING



Site planning guidelines are presented in order to help in the design of new development projects, and additions and rehabilitations of existing structures within the airport property as well as temporary structures or interim buildings during phased developments.

General Guidelines

1. Reinforce the Airport Central Terminal Master Plan and its associated Landscape Master Plan. Development should contribute to a "garden estate" model - a campus of buildings within a planned landscaped property. This landscape / architecture interface should highlight the City's agricultural traditions, as well as sustainable design initiatives and philosophy. Refer to the Landscape Master Plan for specific landscape material design direction. In general, the Landscape design philosophy is described below:

Link to something that was here before – Agrarian Identity.

- A perceivable whole made up of many pieces.
- Tapestry within a structured grid

- Large scale – soft edges – non-manicured.

2. Design elements that emphasize view corridors from outside the site to the Central Terminal icon buildings, views to the valley hills and the airports' relationship to Downtown San Jose.
3. Preserve and incorporate natural amenities unique to the site and to the project development proposal.
4. Refer to the Airport Public Art Master Plan and the Signage Master Plan for guidance on these items.

Site Elements - Lighting and Signage, Furniture and Borders

1. Landscape interface: Incorporate landscape elements found within the Landscape Master Plan into the site plan of new developments.
2. Exterior Signage and Graphics: Conform to signage guidelines regarding size, text styles, placement, materials and colors and signage lighting.
3. Exterior Lighting: Consider exterior building lighting fixtures that highlight building features such as entry, canopy, landscaping. No building shall be considerably more highly illuminated than the Central Terminal. All building accent lighting is to be designed to stress the horizontality of the Airport Master Plan.

4. Street/sidewalk lighting and roadway lighting: Choose white spectrum colored lights (metal halide or similar spectrum.) Use gray/silver color spectrum for light poles. Architectural site lighting should reflect a light metal colored aesthetic, either simple tube design (see Kim Lighting fixture below) to reflect the central terminal building, or a winged aesthetic inspired by flight (see Louis Poulsen fixture below). Explore opportunities to introduce linear site lighting concepts that reinforce the horizontal nature of travel. See examples on following page.

Site Lighting Examples:

Louis Poulsen-Dual Wing Pole Fixture

Kim Lighting-Tube Fixture

Bega Fixture-Model 8124 Metal halide Bollard

Lighting emphasizes horizontal direction

5. Site furniture: Bench seats should reflect simple modern geometries that reflect curving winged imagery. The inspiration for the family of furniture, exterior accessories such as freestanding shading devices, fences, bike racks etc, shall be the sculptural qualities of aircraft assembly. The casting of aluminum structures, the gentle curving of thin sheathing materials, and the highly machined nature of aluminum shall be the point of conceptual departure for all such landscape furniture items. Materials shall be limited to aluminum or aluminum with wood. See examples of design direction below. Café type seating and tables should follow the same conceptual guidelines.

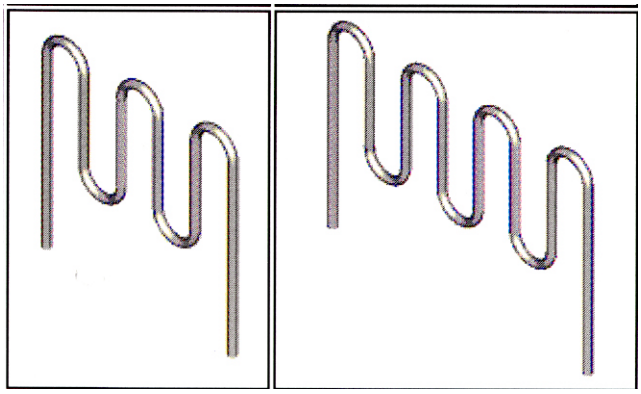
6. Retaining walls: Replicate the guardrail detail at the Skyport/Airport interchange. The blue tiles are placed in the walls to replicate the aircraft approach experience. Any departure from the blue tile design shall be conceptually tied to the blue lights lining the airplane runway and taxiways.

7. Trash receptacles and recyclables
   receptacles: Trash containers and recycling containers shall represent a family of related container shapes to simplify their arrangement within a variety of site locations. Two manufacturers represented below supply metal clad containers with appropriately designed lids to accept litter, recyclable cans, or mixed papers. The manufacturers shown are Forms + Surfaces and United Receptacle. They are shown to provide design guidance.

Forms + Surfaces

United Receptacle

8. Bike Racks: Use Loop style bicycle racks. Finish shall be in the silver/grey range of color.



9. Planters: Simple geometric forms that recall the design of traditional terracotta pots may be of stone, plastic, or metal.

Planters pictured are from Design within Reach (www.dwr.com)

10. Ash receptacles: Simple polished stainless steel tubes located in appropriate areas will help eliminate unsightly cigarette litter. One such manufacturer is illustrated below.

gilmore-kramer COMPANY

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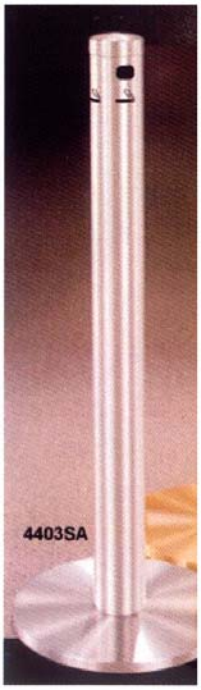
WASTE RECEPTACLES

SMOKER'S POST - ASH RECEPTACLES



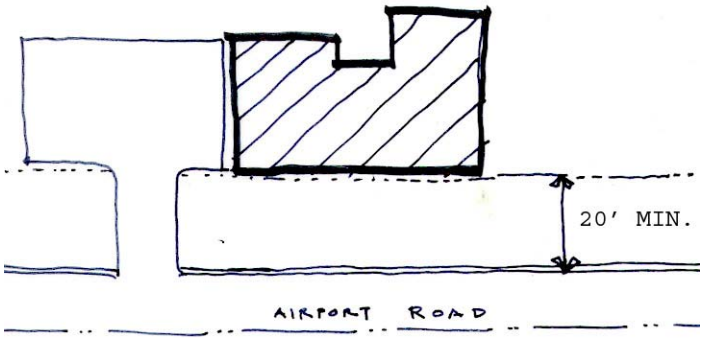
INDOOR / OUTDOOR SMOKER'S POST

At last! A sleek, modern, and durable solution for cigarette disposal. Completely weatherproof and fireproof, this collection of solid 1/8" thick seamless aluminum receptacles has a large capacity and is easy to empty due to its smartly designed security locking device. Satin brass models cannot tarnish and, therefore, never ne polishing. In-ground and wall models are complete with all mounting hardware. Fl models have a heavy weighted base for extra stability. All models have an internal cigarette snuffer panel to extinguish cigarettes and cigars .

7. GUIDELINES FOR BUILDING PLANNING

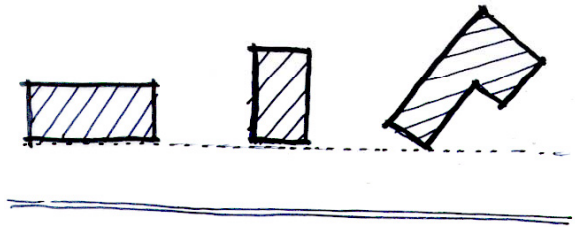
Building Setback

1. Site buildings to provide a minimum 20' landscape area adjacent to the street. Maximum setback to be 30'-0" unless approved by the Senior Staff.



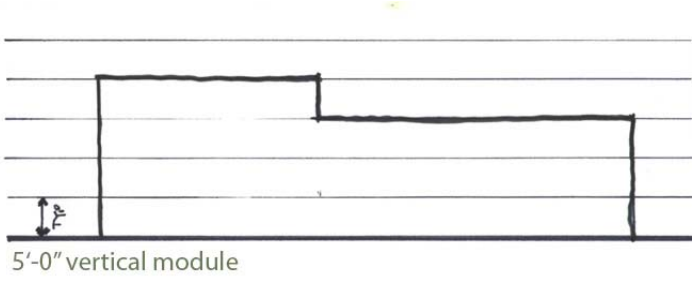
Orientation

1. Orient buildings to address the street edge parallel to the main facade.

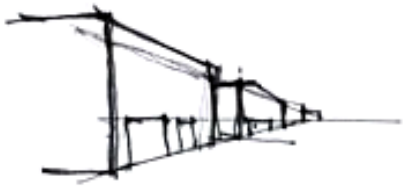


Building Mass/Scale

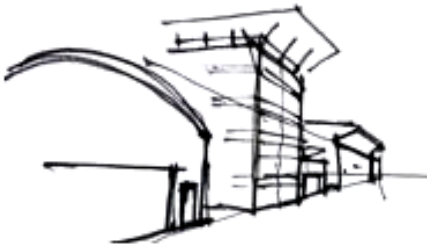
1. Vertical massing to conform to a vertical module of 5'-0" as measured from building grade. A cohesive relationship between scales53050 of building elements should be considered when designing buildings that integrate different program elements. That is to say, the proportions between different building programs (ie, occupied office space and warehouse storage space) are to be designed so as to simultaneously unify and differentiate these program spaces.



2. Roof conditions shall conform to either gabled roof with a maximum roof slope of 6:1, or flat parapet type roof. The airport will strive to create a cohesive language of roof forms.



Yes



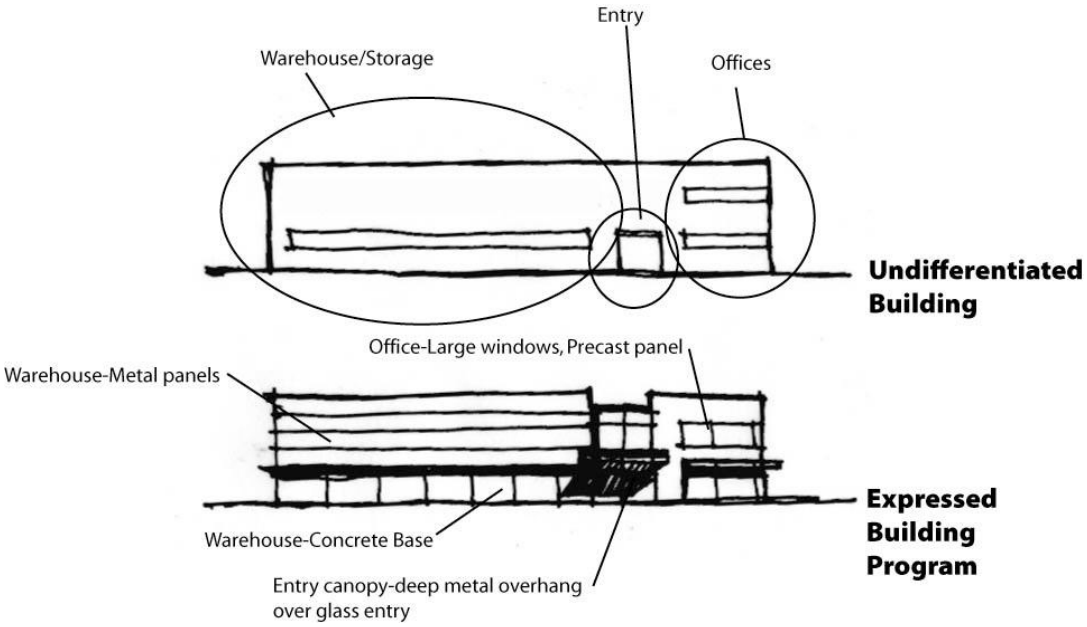
No

The airport Master Plan goal is to conform to a family of related forms rather than individual roof expressions competing with one another. Refer to the color chart and material sections for further criteria. (Chapter 9)

8. GUIDELINES FOR BUILDING ENCLOSURE

Facade Concepts and General Notes

1. Overall, the airport is a campus of buildings surrounding a wide, horizontal plain of open space. With some exceptions, the accompanying buildings on this campus should reinforce the overwhelming horizontal expression. Facades must convey a sense of order through the interplay of light and shadow, texture and materials. Avoid monotony on long buildings by establishing rhythm in fenestration or form and avoiding flush windows and doors. Consider expressing different programmatic areas of a building by changes in mass or by using contrasting materials.
   A typical building typology for this airport houses offices as well as large storage or warehouse areas. Address this typology in the following manner:
   - Emphasize main entry to the building.
   - Distinguish between separate functions of office (occupied) and warehouse (unoccupied).
   - Use industrial materials at warehouse functions.



2. Continuous strip windows can be useful as long as they are well articulated. Create interest and scale by considering shading devices, variation of glass color, horizontal module or other articulation. The building below displays a simple curtain wall horizontally articulated by operable windows, various glass colors and opacities, and conforms to a rigorous vertical alignment with an envelope system of stone and metal panels.

The Gap Inc. headquarters

3. Align fenestration with established horizontal and vertical coursing elements.
4. Avoid inappropriate styles/references: historical, residential, and themed design solutions.

Window Size and Type

1. Window units must conform to header height of 10'-0" above grade for a single story building. Incremental height additions are to be accomplished in 6" modules.
2. The width of individual units is unrestricted, however a strong composition to the proportions of the overall building mass and a reinforcement of the envelope coursing is encouraged.
3. Glass curtain wall mullions shall align vertically with established vertical coursing dimensions and/or building floor heights.
4. Allow building orientation to help inform window placement and size. For example, North-facing windows in public buildings might allow views into and from the building without creating a high solar gain situation, whereas shaded smaller windows on the southern and western facades could create a strong composition when designed with the canopies or light reflectors.

5. Window openings should carefully consider ornamentation or extraneous details that do not function as shading devices, contribute to the performance of the envelope, or reference inappropriate historic or residential details.
6. Consider operable windows that promote natural ventilation. Be aware of prevailing winds that may introduce airside equipment fumes or landside roadway exhaust.

9. GUIDELINES FOR MATERIALS & COLOR PALETTES

The airport campus should express the horizontal nature of the site and reinforce the extended views of the central terminal view corridor. The selection of building envelope materials will reflect this overall design concept. Use materials to highlight design elements and the interplay of different portions of the building program. Reinforce the continuing transformation of the airport to reflect progressive architectural values.

Evaluation Criteria for Exterior Building Materials

1. Durability: Building within the public sector for any airport environment carries its own challenges unique to this type of building. Stressful building patrons, intense traffic congestion, exposure to a variety of engine exhaust material, heavy baggage handling machinery impacts, jet blast or an explosive event are all building material considerations. Consider only materials that are recognized as having an established record of impact resistance, scratch resistance and graffiti resistance in areas susceptible to such considerations. Resistance to fading due to intense solar exposure as exhibited by this region, pitting and degradation due to exposure to jet fuels and engine exhaust particulate shall be considered.

2. Maintenance: Consider materials and configurations which are reachable by standard ladder heights or mechanical lifts to provide cleaning / replacement using standard, non-proprietary cleaning methods and solvents. Replacement storage, replacement or repair, and color matching shall also be considered. A review by the Airport Maintenance staff at the Schematic Design phase as well as the Design Development phase is required (see the “Administration” section).

3. Sustainability: Where possible, embody the principles of Materials section of LEED. Consider using sustainable materials that are rapidly renewable, locally or regionally procured (within a 500 miles radius of the City of San Jose). Recycled content, both post industrial and post consumer, low VOC emitting sealants and adhesives, should also be considered.

4. Palette: The following information is provided to spark innovation and constancy to the airport development. The family of color and material finish is meant to inspire as well as guide material choices as new materials emerge from the building industry. In general, the nature of building materials is to be exploited for color inspiration: for example, metals to be assigned colors ranging from cool silver to gray, while concrete and other masonry to be colors of the earth and warm in tone. Color shall be inspired by the nature of the material: *E.g.*: metal -cool silvers, grey and white, Concrete and Stucco-warm earth tones-possible accents of red/yellow and orange.

Accepted Exterior Building Materials

1. **Metal:**
   Overall, the panel configuration shall stress a horizontal (landscape) stack bond joint pattern with panel joints no greater than 1/2” wide. Joints shall be either filled or recessed.
   Consider hybrid metal panels that may have superior performance in caustic conditions than traditional steel. Consider engineered panels that incorporate a thermal layer into increase building energy performance.

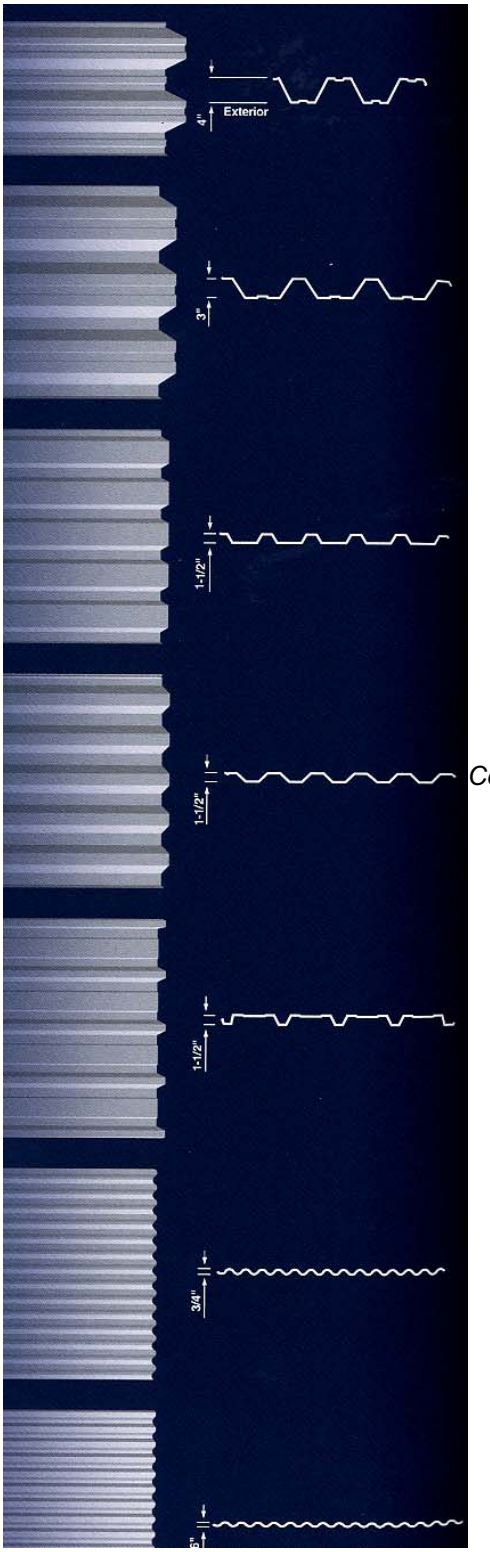
   Size and Orientation: Square to Landscape orientation.

Corrugated Metal: Maintain a horizontal orientation of the material. Consider utilizing different scales of corrugation to emphasize changes in building program. Refer to the sample profiles on the following page for approved corrugation types and sizes. Color shall conform to the material color list.

MWA, Michael Willis Architects

Bernard Tschumi

Two examples of horizontally applied corrugated metal materials used in a variety of surfaces and textural scales.



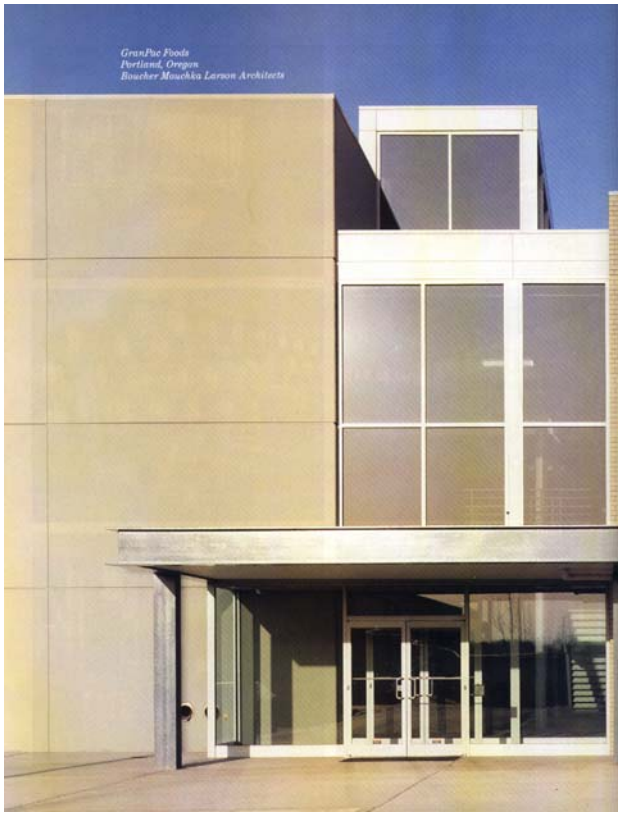
Corrugation profiles shall be placed horizontally

2. Concrete

Concrete is solid, impact resistant, and has the added benefit of established maintenance and repair systems. Consider concrete material for high impact / abuse areas adjacent to equipment storage and airside operations.

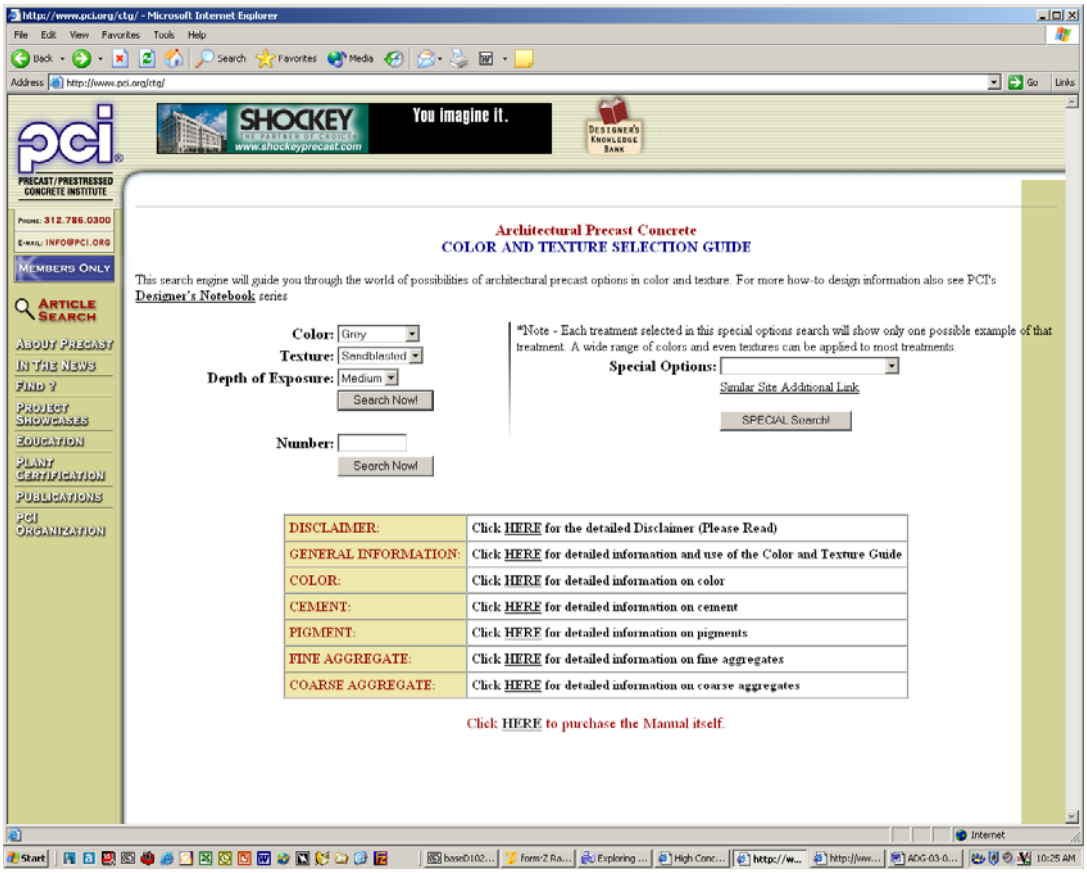
Cast in place: Consider the surface pattern, joint location, texture and color.

- Textures shall reinforce the horizontal coursing and relate to other building materials (such as panel joints or block coursing.)
- Design joint locations that reinforce the horizontal nature of the airport campus.
- Design details and edge conditions to portray the solid planar, cast nature of the material.

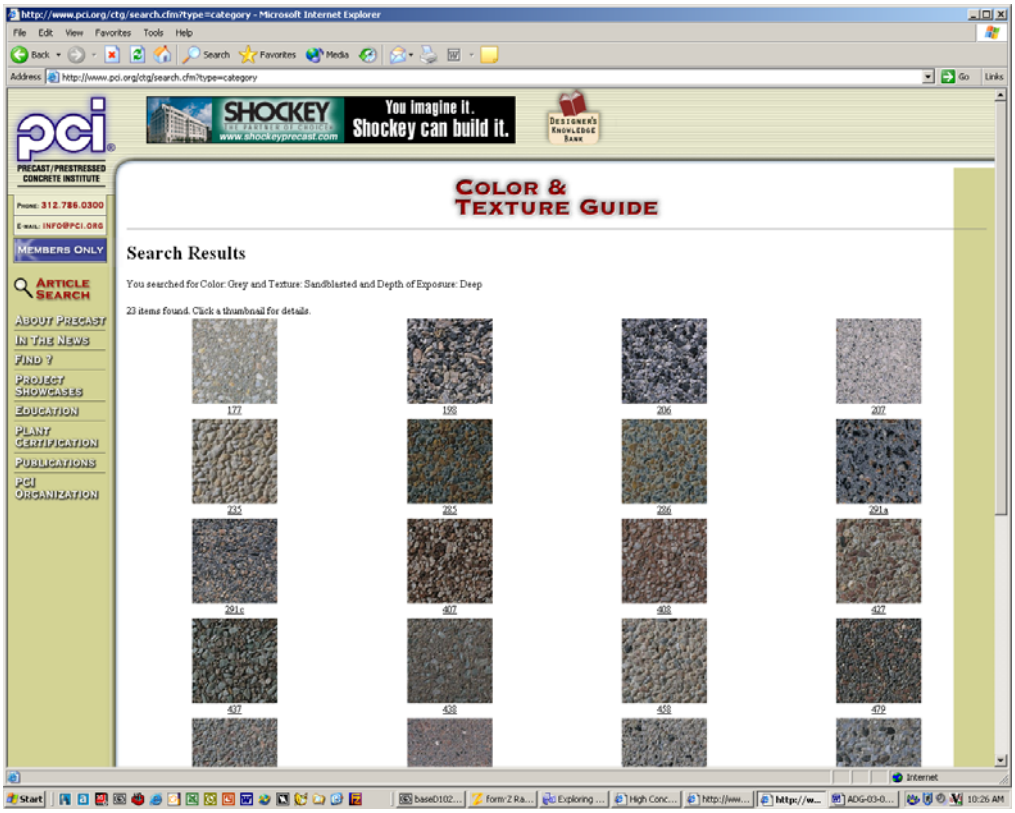


- Choose colors that fall within the general range of the color chart. Concrete aesthetics are determined by the cement matrix, color, size and exposure of the aggregates,
- For general color interpretations, see the Precast/Prestressed Concrete Institute Color and Texture guide (www.pci.org/dtg/), or order the manual from PCI by calling 312.786.0300 or contacting INFO@PC.org. From this website, search the color field for the desired general color. Do not use red, green, yellow, pink, blue or multicolored.
- Under the texture box, specify either sandblasted or acid etched.

- Under the exposure box, choose either light, medium or deep exposure. Architecturally smooth finished concrete is extremely difficult to achieve given the public contracts involved in the airport. Reflect the sack-rubbed finish of the temporary FIS building, if not the level of construction technique as a minimum of concrete textural smoothness. Do not expose aggregates, rusticate or sculpt



The Precast/Prestressed Concrete Institute web-based color and texture guide can be found at www.pci.org or their manual may be purchased by contacting INFO@pci.org or by calling 312.786-0300.



Above is an example of the interactive color and texture search interface. The search results displayed are derived from the constraints: gray, sandblasted, deep exposure.

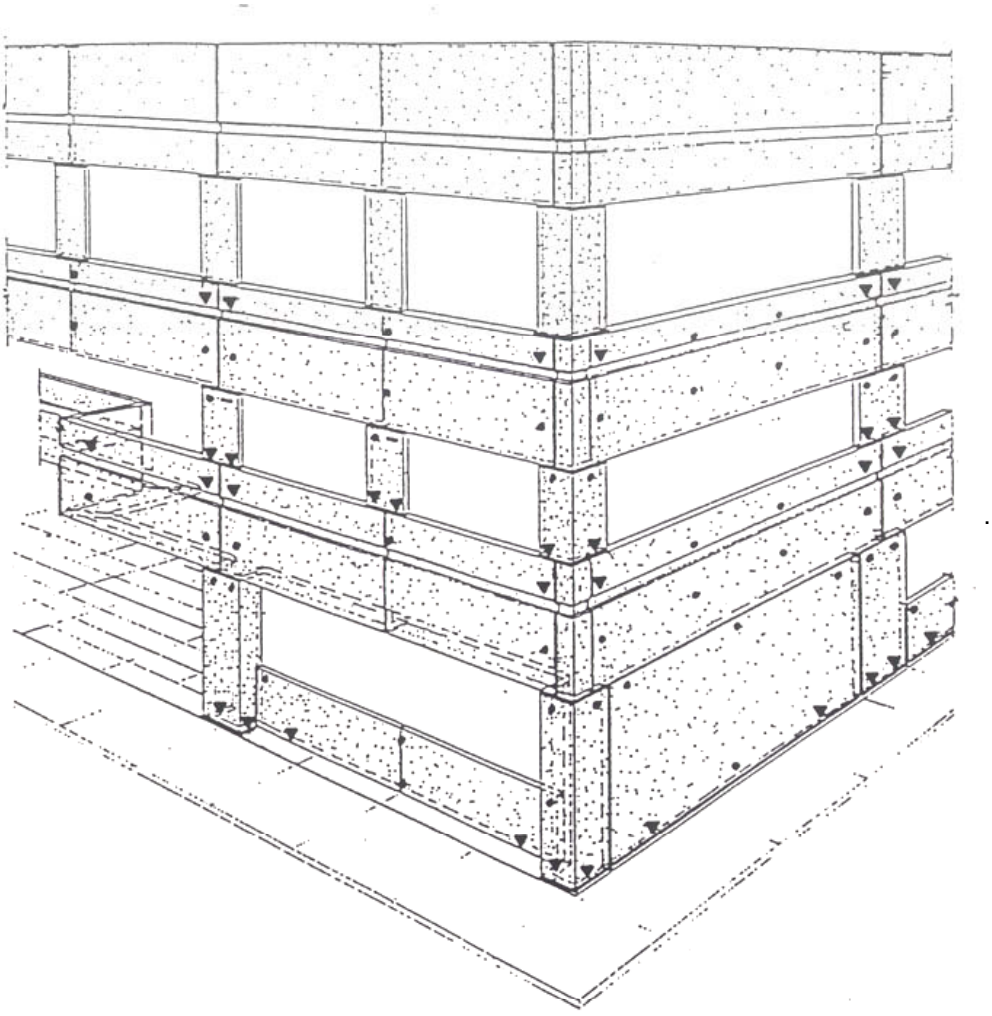
Precast: The nature of concrete allows the architect to specify a variety of textures and surface shapes. The selection of aggregate color and size, matrix color, shape and detail of form, surface finish and depth of exposure of the aggregate will determine the final appearance.

As defined by the Precast/Prestressed Concrete Institute (web: www.pci.org) in the publication titled *Precast Concrete Color and Texture Selection Guide,* choose from these surface finish options:

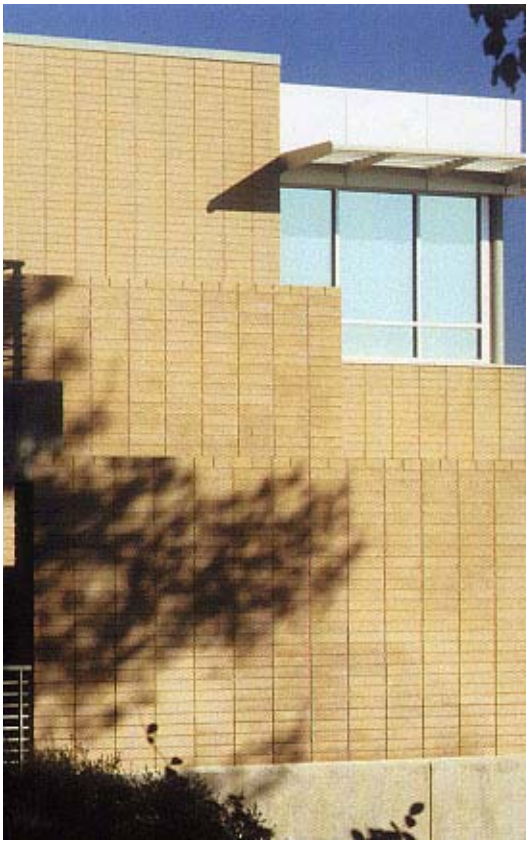
- Light Exposure -The surface skin of cement and sand is removed, just sufficiently to expose the tips of the closest coarse aggregate
- Medium Exposure- A further removal of cement and sand has caused the coarse aggregate to visually appear approximately equal in area to the matrix
- Surface Finish Exposures in this option may be of these categories:
    - Aggregates exposed by retarders or water washing
    - Formliners
    - Sandblasting or abrasive blasting
    - Honing or polishing
    - Horizontal Banding

Precast: Panel location and joint design is the critical design consideration when using precast panels.

- Emphasize horizontal joints and reveals. Each story shall have at least one horizontal joint continuous around the building.
- De-emphasize vertical joints.
- Panel intersections at corners shall be mitered.



Source: Precast/Prestressed Concrete Manufacturers' Association of California



Crafton Hills College, Thomas Blurock Architects

Concrete block: Use 4”, 6”, or 8” units in stack bond configuration. Units to be primarily fine machined surfaces. Do not use highly textured, slumped, rusticated finishes. CMU surfaces should express a smooth surface. Design joint lines that stress the horizontal direction. Included are sample manufacturer cut sheets with approved block proportions and opacity patterns. However, as the material develops additional patterns may become available. The SARC shall review submittal materials carefully to determine which patterns are within the spirit of this document.

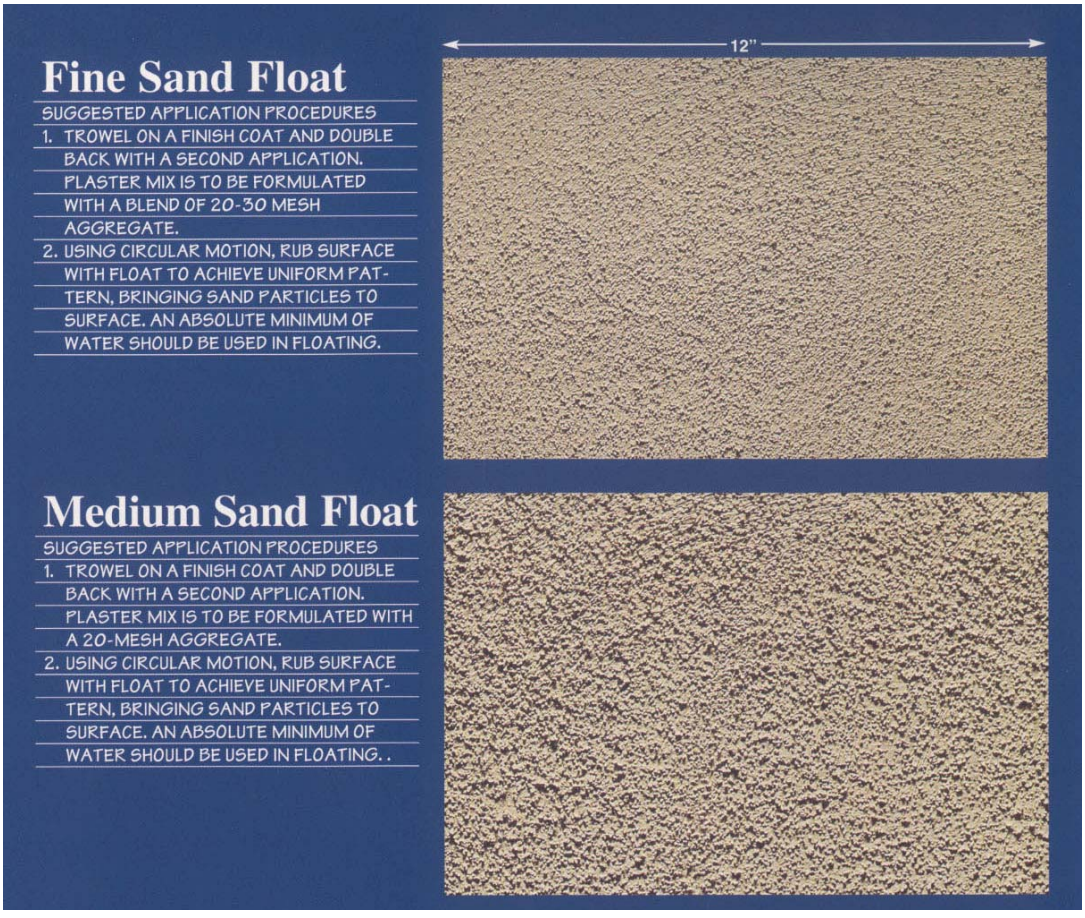
3. **Stucco**

A range of stucco finishes may be used, spanning from a hand-troweled smooth finish to a lightly textured finish. Do not use stucco finishes that provide repetitive figures, whirls or stamping marks, inappropriate residential / historical details or textures such as embossed stucco patterns.

Separate stucco panels using 3/4" aluminum reglets that align with the vertical coursing dimensions previously described in Chapter 7, Guidelines for Building Planning.

The approved stucco finishes below are defined in The Plaster Textures brochure published by the WWCCA/ Technical Services and Information Bureau, as part of the 1988 Plaster, Drywall Systems Manual. Website: www.tsib.org. Address: 2286 N. State College Blvd, Fullerton, CA 92831

Approved Stucco Texture



An example of regular vertical coursing using finely textured stucco surface.

4. Window Materials

Window frame materials and curtain wall support systems to be steel or aluminum.

- When specifying aluminum materials, use clear anodized aluminum finish.

Specifying actual glass colors is outside the scope of these guidelines that recognizes the continual advancement of glass technology, energy systems and the infinite variables of solar impact upon any architectural project. However, follow these general guidelines:

- Avoid glazing so dark as to appear opaque. For solar control, consider overhangs, louvers, fritted or translucent glass materials.
- Consider the color of the building envelope when selecting glass color and reflectivity characteristics.

Water's Edge Building 2, Playa Del Rey, CA. Gensler

Consider advanced technologies when designing window systems. Constant advancements in glazing technology as well as reflective coatings can allow for increased transparency without sacrificing heat gain considerations if such transparency supports the overall building concept. Consider curtain wall designs that portray simple, yet strong structural concept without much ornamentation. Glazing systems that incorporate energy systems such as Photovoltaic or integrated shading and reflecting light shelves are encouraged.

5. **Roofing Materials**

Metal Roofs
Standing seam or hidden seamed roofs are equally acceptable. Color to be within the range as outlined in the color chart. Do not use approved accent colors for the roof planes, nor are company logos, patterns or images to be expressed. Be aware of glare restrictions as mandated by the FAA as well as reflectance annoyance to the adjacent non-airport property communities. Reflectance modeling may be required by the SARC to determine acceptability.

Sheet or Membrane Roofing Materials
Choose light colored roofing materials to conform closely to the color guide. Do not design logos, messages or patterns onto the roofing material.

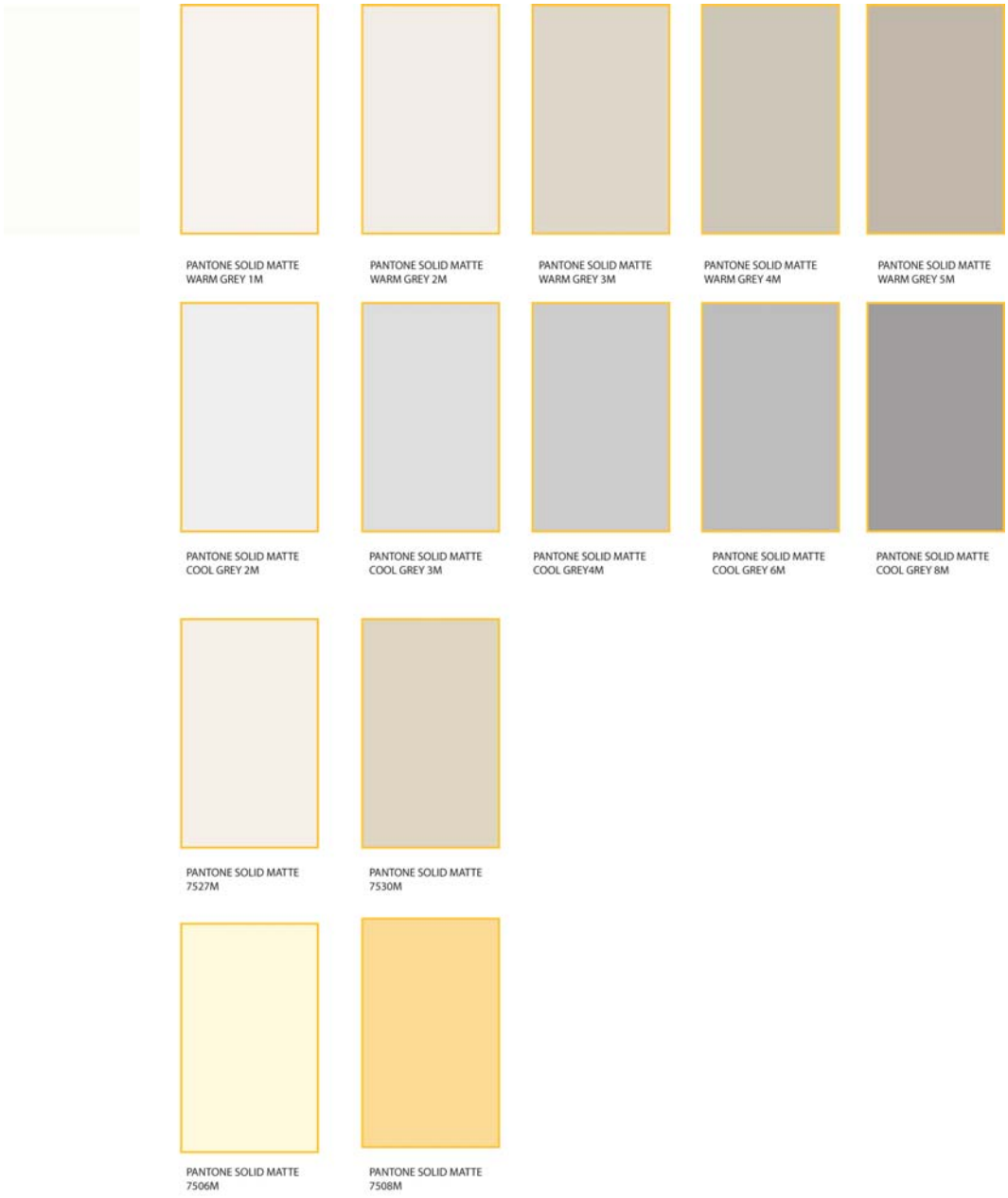
Color

The experience of travel to and from San Jose is the inspirational guide to color at the Airport. Although the buildings are modern and technologically advanced, the colors of the airport reflect the character of the region and the people. Color communicates either a welcome home to residents and weary travelers, or as a final parting glance to those departing the golden hills, blue sky and Spanish influence of the City of San Jose.

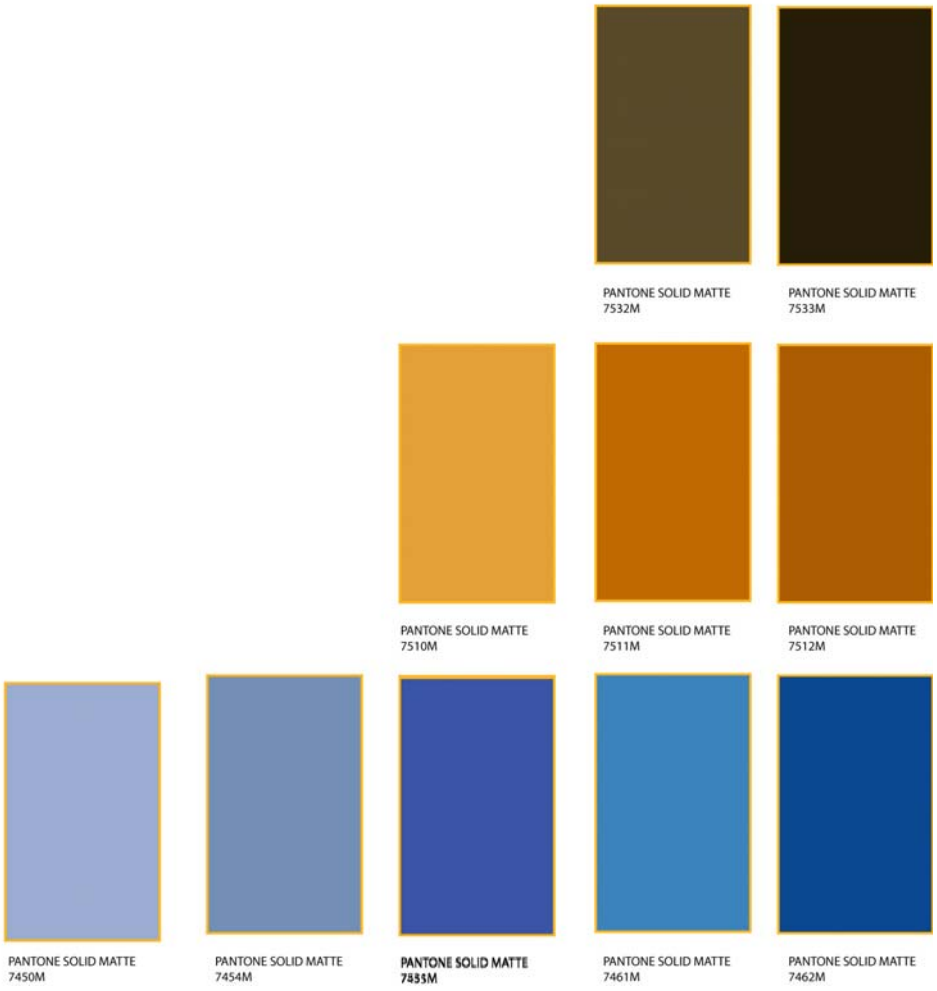
- Conceptually, utilize the nature of the material to guide in color selection.
- Use color and material to reinforce and express different program elements of the architecture.
- Be aware that materials with a high reflectance may cause glare to air traffic operations, controls or service. Highly polished materials should undergo rigorous solar reflectance modeling to determine hazard potentials and FAA compliance.
- The general color guide should be used as a reference tool. Pantone matte color numbers are illustrated below for reference.

Acceptable Roof Colors - Neutrals

Acceptable Wall Colors – Warm & Cool Grays



Acceptable Accent Colors – Earth, Golds, Blues



10. SPECIAL AIRPORT CONSIDERATIONS

Height Restrictions

1. The Federal Aviation Administration requires certain height restrictions that conform to apron operations visibility, control tower visibility and many imaginary surfaces. The FAR Part 77 1:7 height restriction is one such operational restriction. Any building, or portion of that building, is prohibited from penetrating the approach, transitional, horizontal, or conical surface zones of the airport for any existing or planned approaches as defined by FAR, Part 77.
2. Consider FAR height restrictions with regard to installation requirements for materials, systems and equipment. For instance, cranes that might penetrate the FAR Part 77 restrictions.
3. The purpose of these guidelines is not to fully encompass the FAA Airport Safety Overlay, nor be a comprehensive detailing of airport planning guides. Be familiar with general height restrictions surrounding the airport, and if required, access the information at http://www.faa.gov/arp/pdf/5190-4a.pdf

Environmental Hazards

1. Caustic Environment: The airport site is continually exposed to caustic substances. Jet blast and debris, high velocity exhausts from a variety of vehicles, solar and wind exposure and impact threats are continuous hazards to the continued well-being of buildings. Building materials shall be selected appropriately to combat these environmental hazards. Airport maintenance programs shall be coordinated to sustain the quality of the airport campus.
2. Glare hazard: Airplanes arriving, departing, and operating within the taxiways must maintain operating visibility. Reflections and glare that might hamper the safe operation of aircraft and ground service vehicles, or interrupt visibility from the air traffic control tower (FAA ATCT) shall be avoided. A diagram investigating the glare potential to the tower shall be presented when reflective materials are considered.

GLOSSARY OF TERMS

Curtain Wall: A nonbearing wall, often of glass and steel, fixed to the outside of a building and serving especially as cladding.

Facade: The front wall of a building, or the elevation in which the principal building entrance is located.

Fenestration: The arrangement, proportioning, and design of windows and doors in a building.

Icon: A building, that by nature of it's unique and recognizable form, represents the City of San Jose and the Norman Y. Mineta San Jose International Airport.

Mullion: A dividing piece that separates the individual panes of a multi-paned window, often taking on the characteristics of the style of the building.