



SFMTA
Municipal Transportation Agency

SAN FRANCISCO
**PUBLIC
WORKS**



CASTRO STATION ACCESSIBILITY IMPROVEMENTS

CIVIC DESIGN REVIEW MARCH 2020

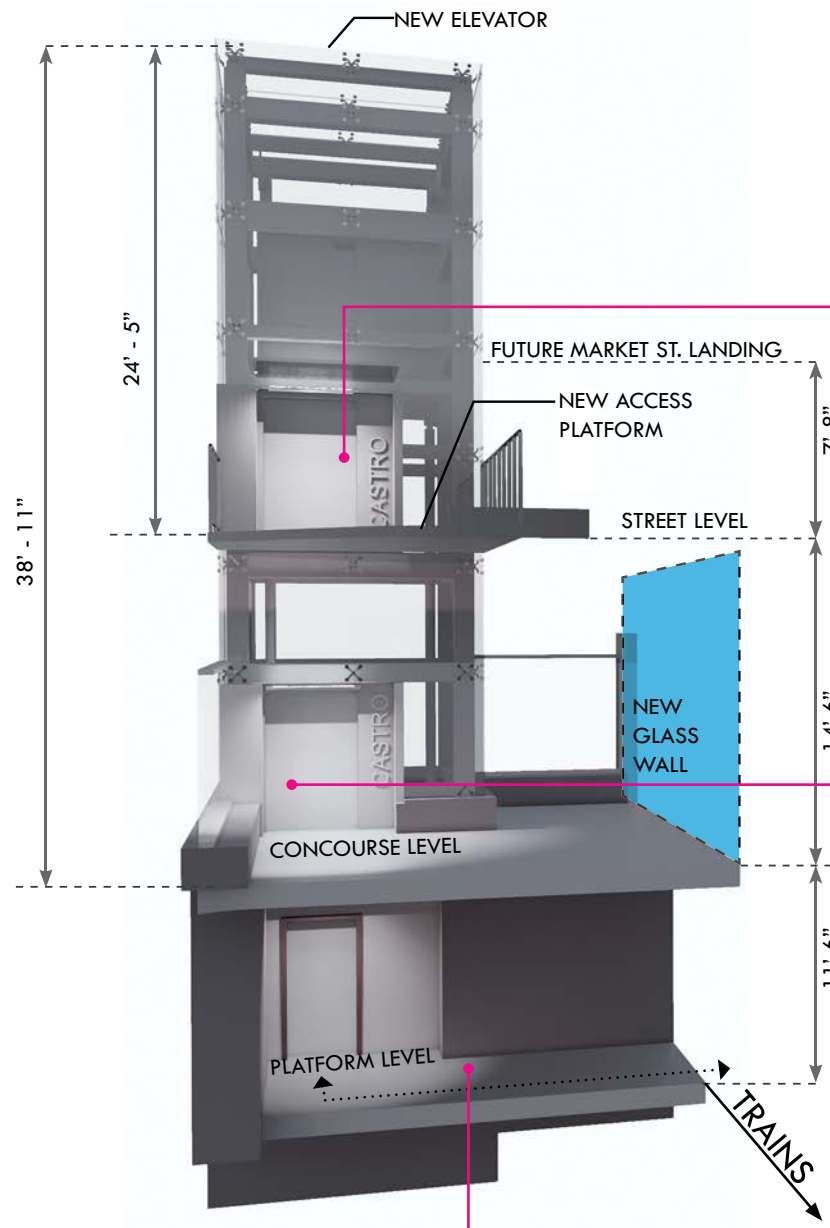
CONTENTS

- 1. REVISIONS MADE BASED ON SEPTEMBER 2019 CDR PHASE 2 REVIEW COMMENTS

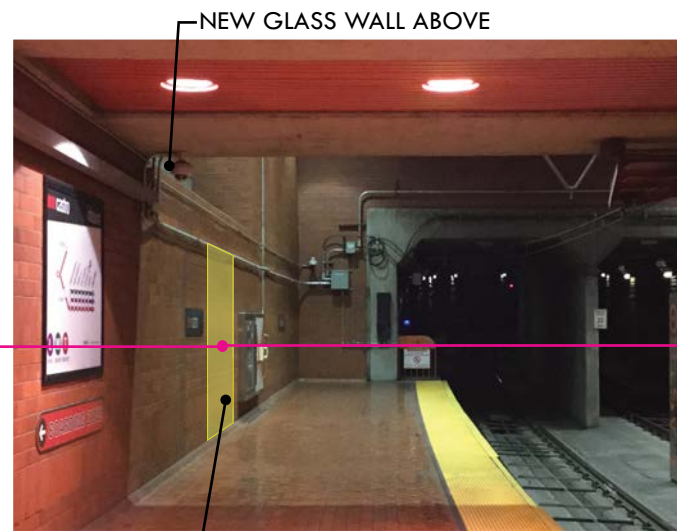


PROPOSED IMPROVEMENTS

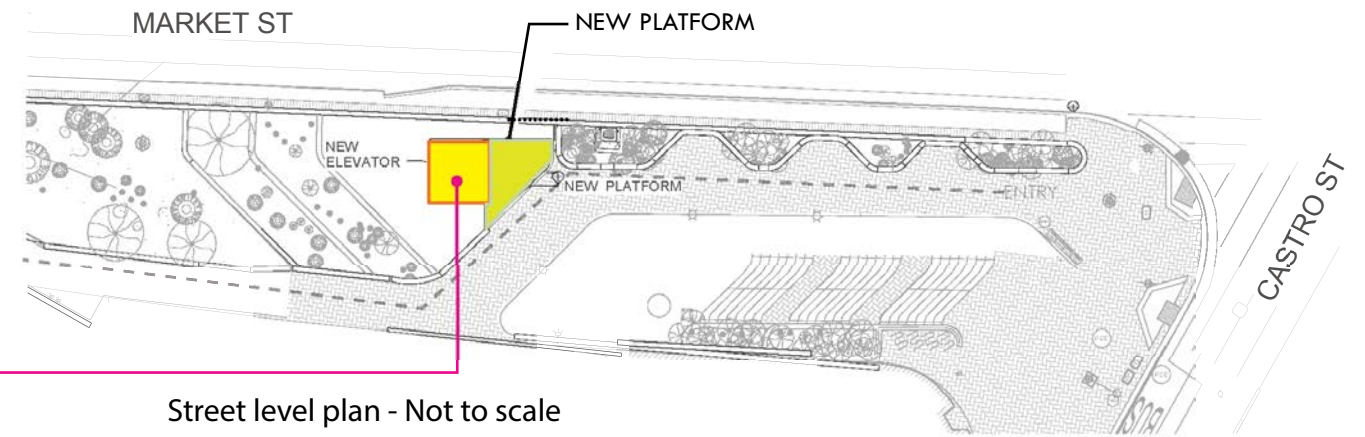
PROJECT OVERVIEW - PRESENTED AT CDR INFORMAL MEETING APRIL 2019
STREET LEVEL



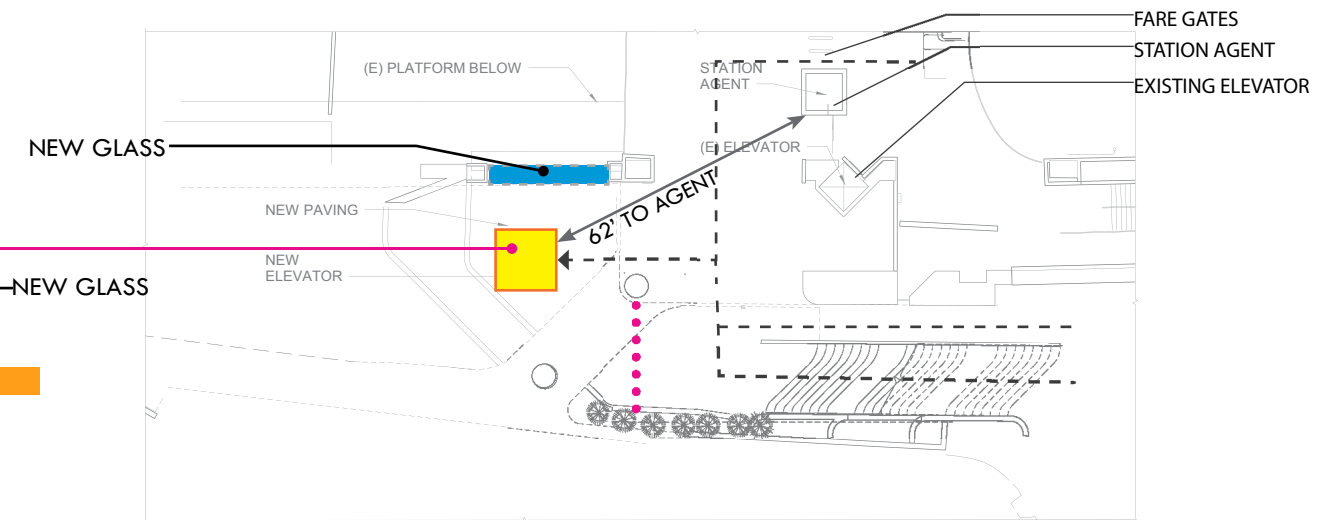
CONCOURSE LEVEL



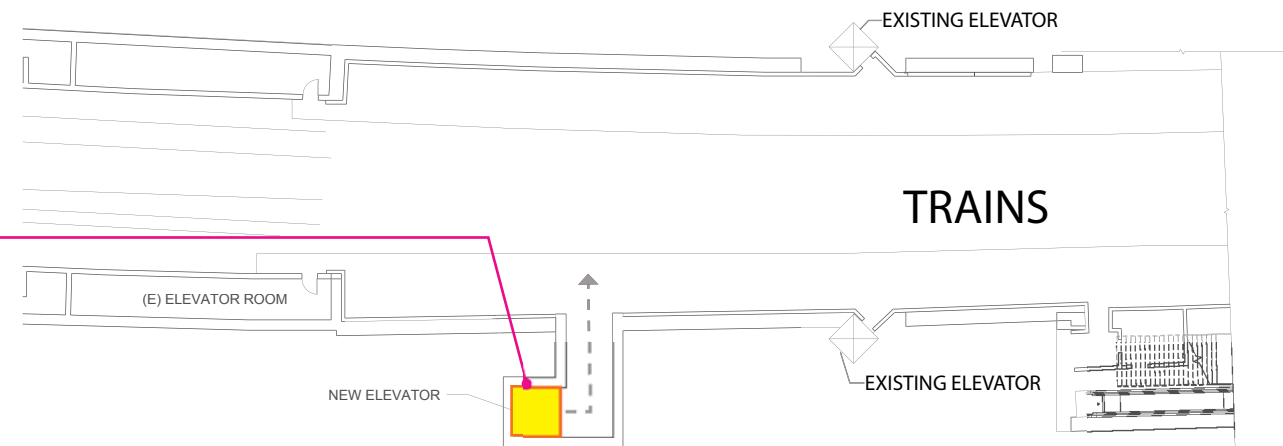
PLATFORM LEVEL



Street level plan - Not to scale



Concourse level plan - Not to scale



Platform level plan - Not to scale

CDR PHASE 2 (09/16/2019) COMMENTS

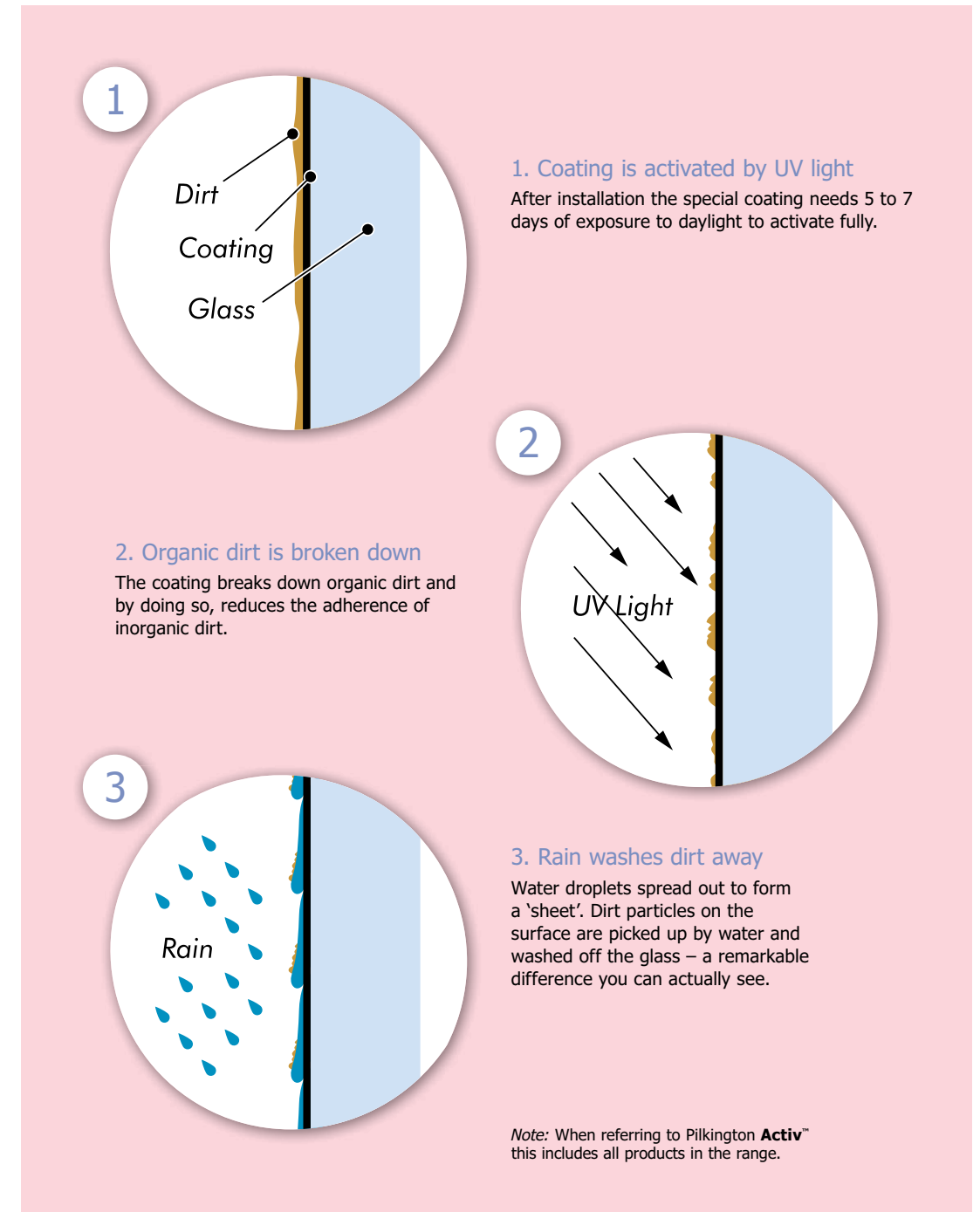
1. Further Investigate the self-cleaning nanotechnology solutions that clean glass.
2. Provide supplemental information regarding maintenance and cleaning schedule of the elevator.
3. Study proportion percentages and gradation of the frit pattern on the glass and provide specifications.
4. Provide elevations and further details of the bridge support.



PROJECT MATERIALS

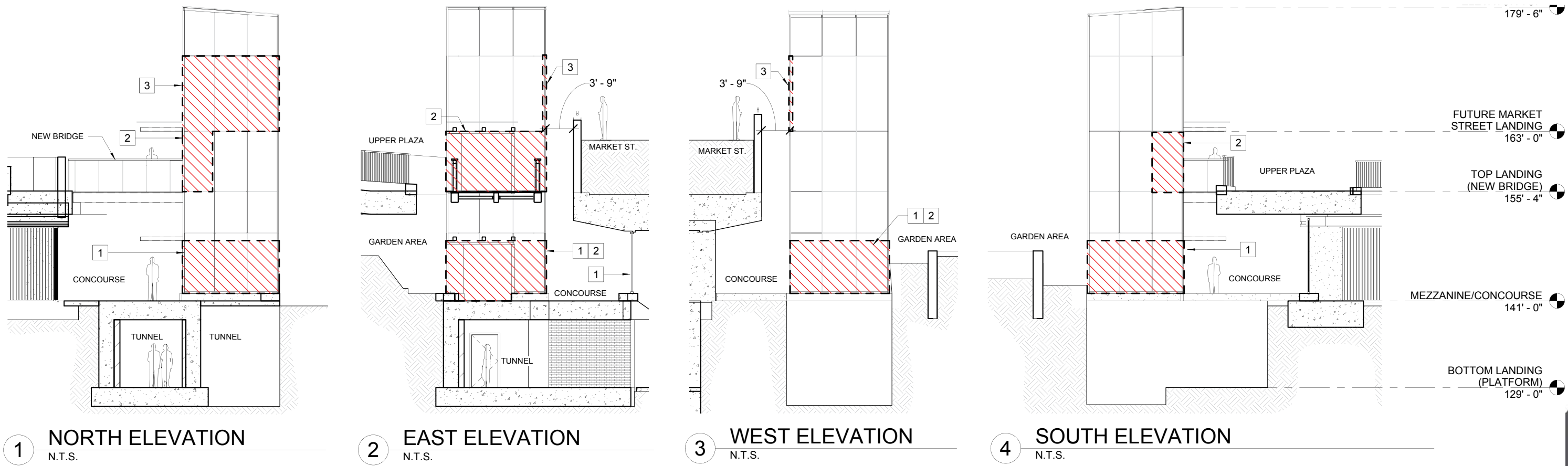
1. FURTHER INVESTIGATION OF THE SELF-CLEANING NANOTECHNOLOGY SOLUTIONS THAT CLEAN GLASS

1. Apply a self-cleaning coating on the outside surface of glass (#1 surface)
2. The outside layer of the laminated glazing unit is of clear Pilkington Activ glass or a similar glass product. The a self-cleaning glass is 6mm thick and has a clear thin-film pyrolytic coating. The coating reacts with ultra-violet rays present in natural daylight to break down and disintegrate dirt.
3. The second stage occurs when rainwater hits the glass. The glass is hydrophilic which spreads water evenly over the surface and as it runs off takes the dirt with it.



2. ELEVATOR MAINTENANCE AND CLEANING SCHEDULE

1. Exterior: SFMTA maintenance team to provide quarterly scheduled maintenance of the exterior of the elevator and is available to clean on an as-needed basis. All glass surfaces will be hand-cleaned, and surroundings will be steam-cleaned.
2. Interior: All exposed surfaces of the cab is of glass and stainless steel for the ease of cleaning. Cleaning will be done on an as-need basis. SFMTA will contract with a certified elevator contractor to service the elevator equipment and to maintain cleanliness inside the glass hoistway.
3. Planting maintenance: Planting inside the fenced terraces will continue to be maintained by the Castro CBD. Public Works will maintain the public-right-of-way.
4. All vandal sensitive areas within reach will receive an anti-graffiti and acid attack coating (Coval Molecular Anti-Graffiti Coating)



VANDAL RISK FACTORS

1. DIRECT ACCESS FROM CONCOURSE LEVEL
2. ELEVATOR ENTRY POINTS
3. REACHABLE FROM MARKET STREET

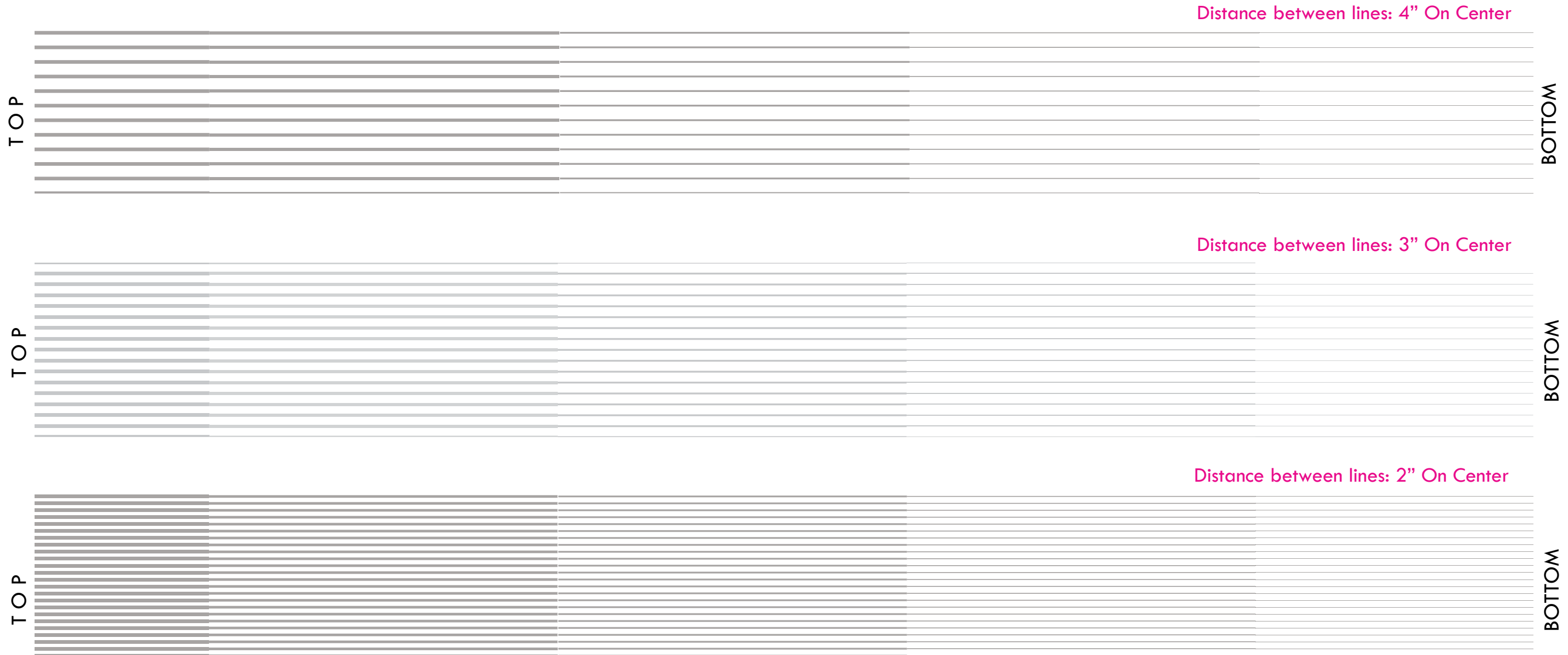
VANDAL SENSITIVE AREA

3. PROPORTION AND GRADATION OF THE FRIT PATTERN ON THE GLASS

- 1. The density of the frit pattern lines were studied at: 2" o.c., 3" o.c., and 4" o.c. spacing.
- 2. The frit is applied to the #2 surface of the 6mm self-cleaning coated laminated glass.
- 3. The frit is a custom, translucent simulated acid etch ceramic frit silk-screened line pattern

MEET BIRD-SAFE REQUIREMENTS

CLEAR GLASS WITH CERAMIC FRIT PATTERN OF GRADIENT LINES
LINE SIZE: VARIES, THICKER AT TOP
LINE SPACING: 2.5" ON CENTER
STRUCTURAL STEEL SUPPORT COLOR: GRAY



3. PROPORTION AND GRADATION OF THE FRIT PATTERN ON THE GLASS

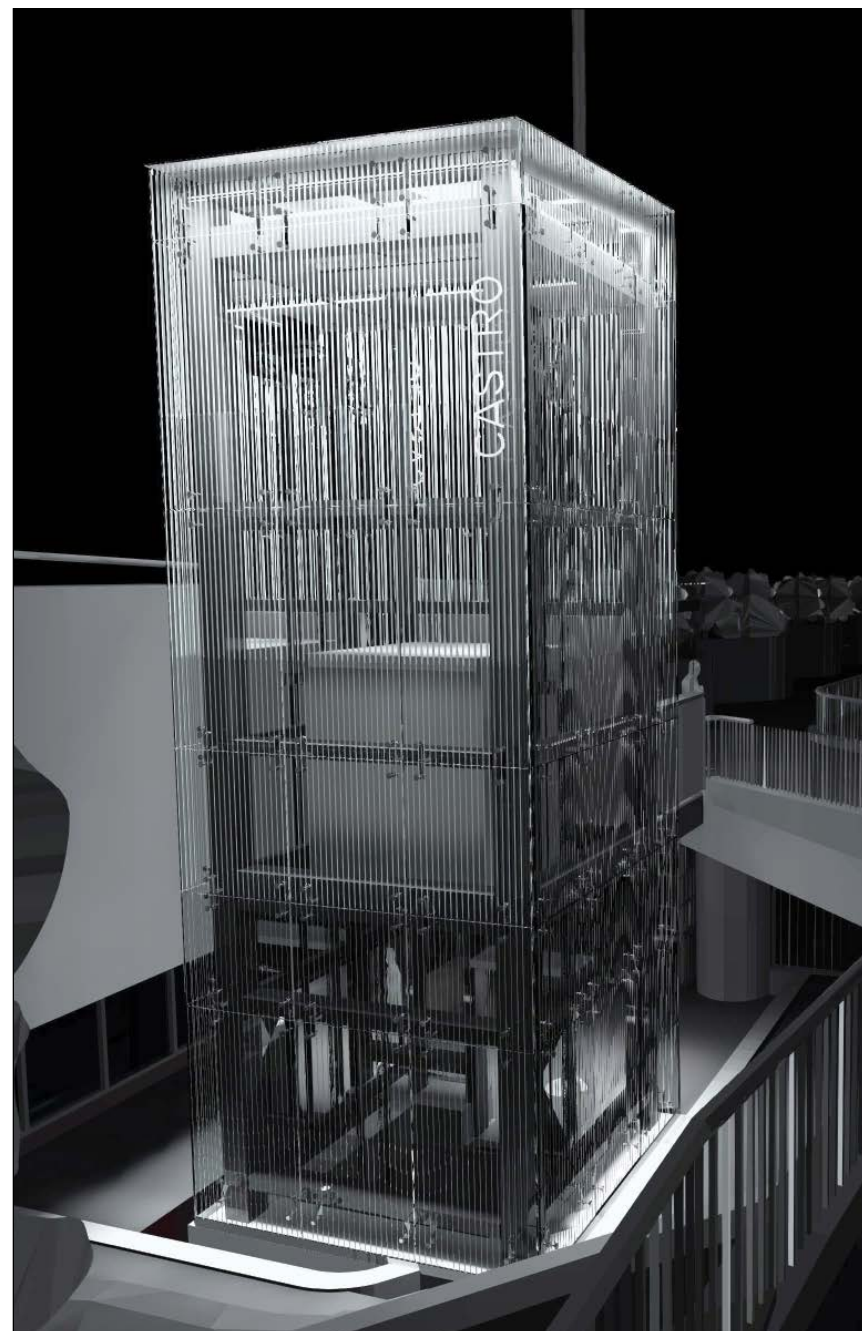
Castro Station Elevator

Scheme B High Output— Full Grazing & Top Glowing (11ft and 12ft Surface-Mounted Grazers on Highest Beams & 8ft Surface-Mounted Wide-Flood)

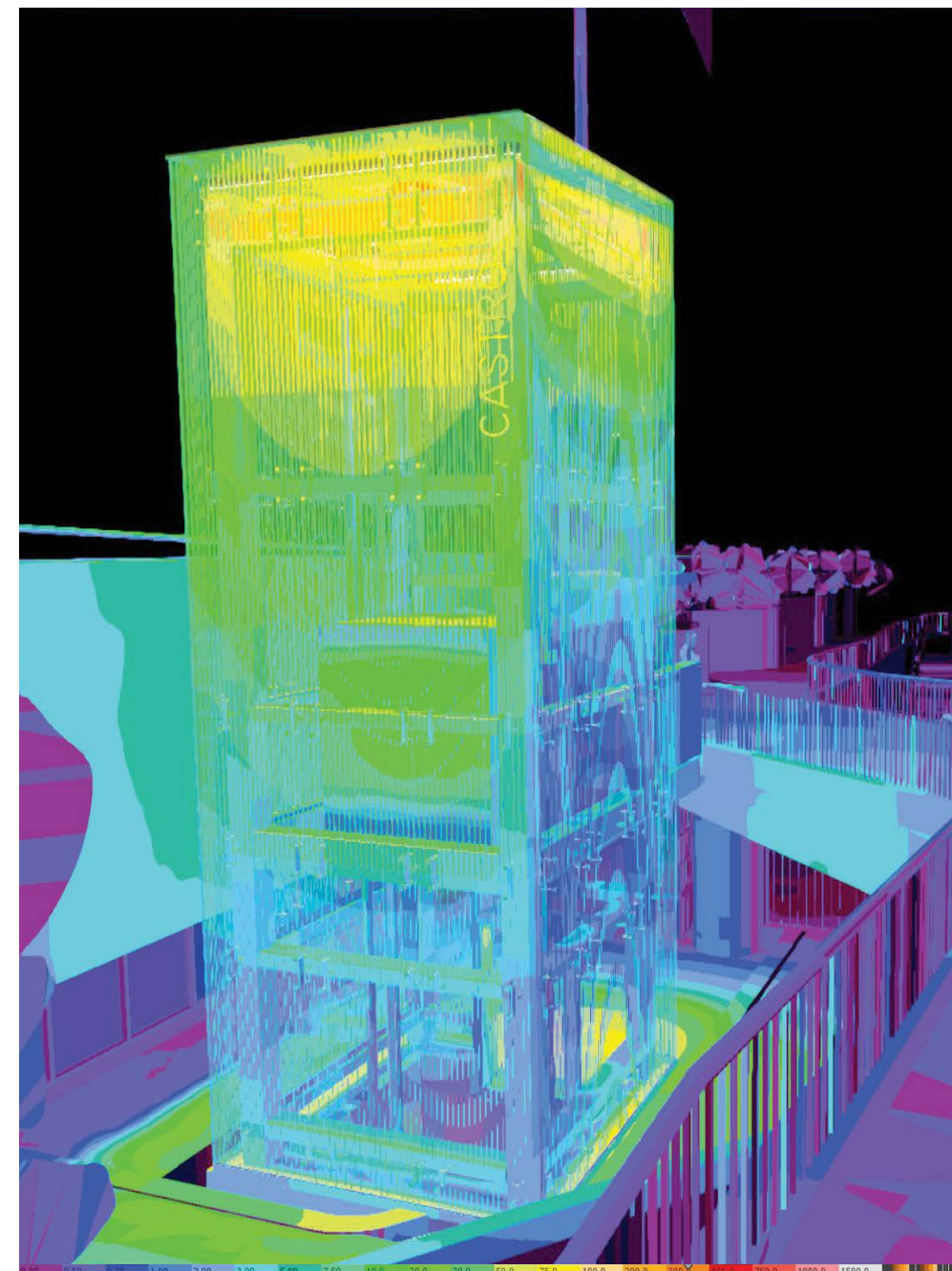
Lighting implementation was tested to determine the appropriate fixtures/placement to the desired visual affect.



Front View - Grayscale Render



Rear view - Grayscale Render



Rear View Overall Photometric Study

3. PROPORTION AND GRADATION OF THE FRIT PATTERN ON THE GLASS

The frit translucency was determined by comparing light conditions and their affect on the overall appearance. The frit needed to be opaque enough to capture light at night while allowing for transparency during the day.

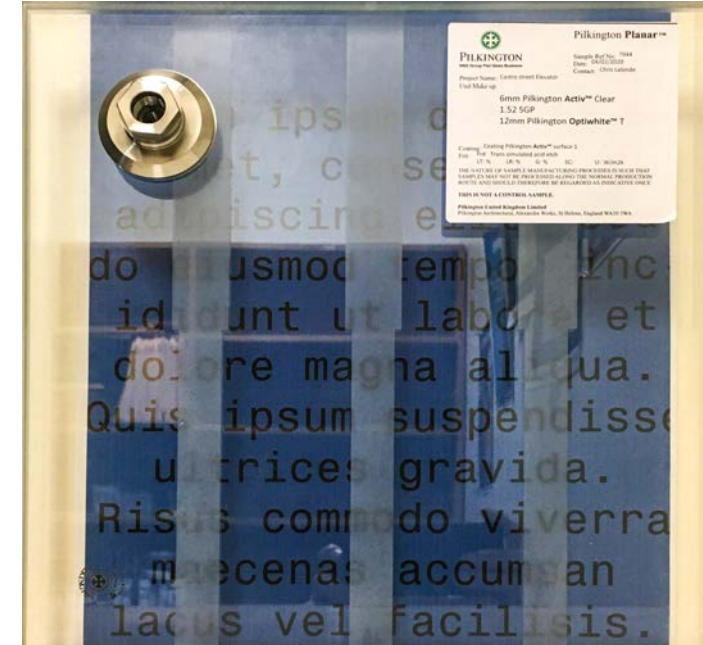


SIMILAR TRANSLUCENT FRIT USE - INSTALLED

OPAQUE FRIT - DAYLIT



TRANSLUCENT FRIT - DAYLIT



OPAQUE FRIT - NIGHT-LIT

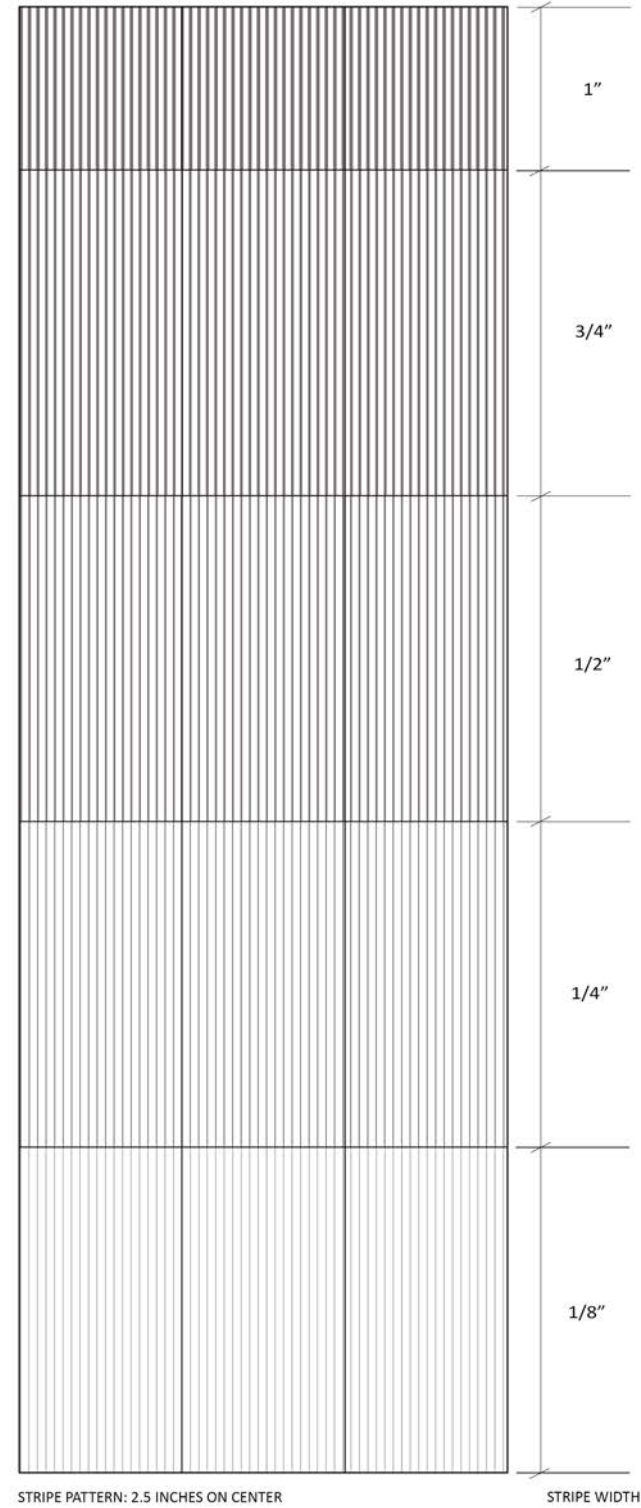


TRANSLUCENT FRIT - NIGHT-LIT



3. PROPORTION AND GRADATION OF THE FRIT PATTERN

2.5" o.c. Glass Pattern At West Elevation



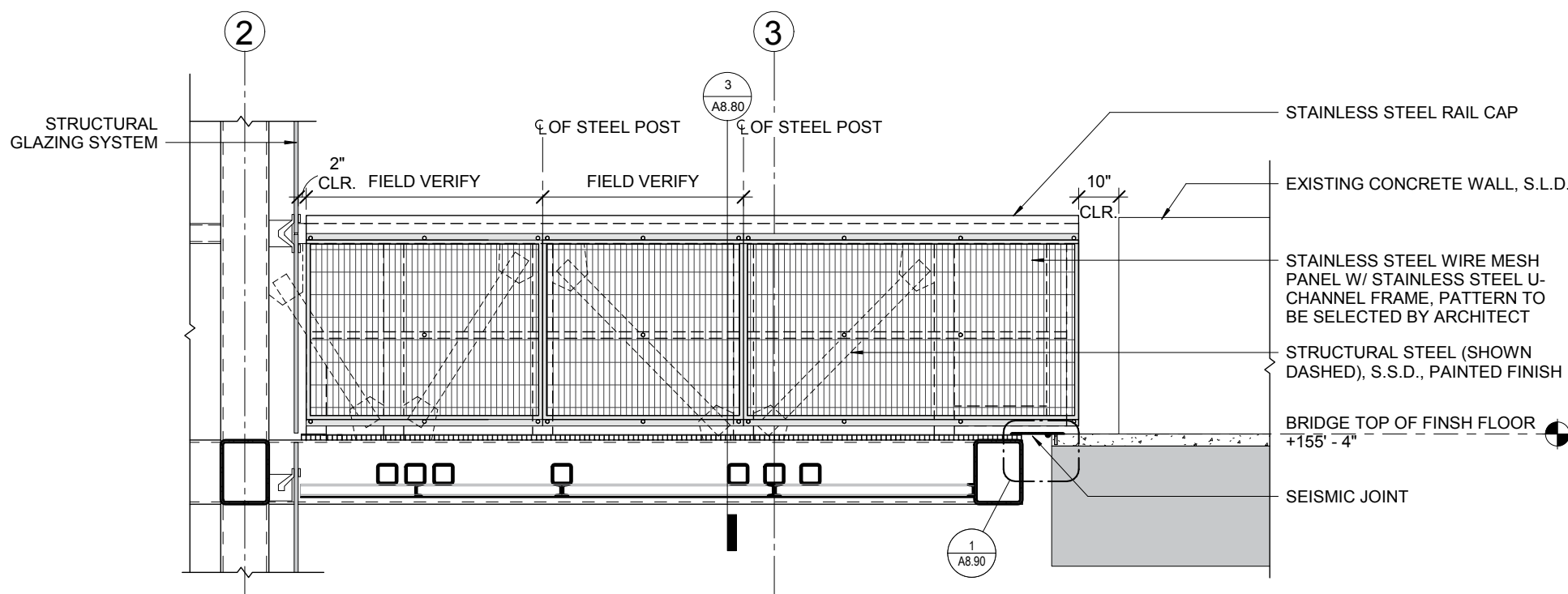
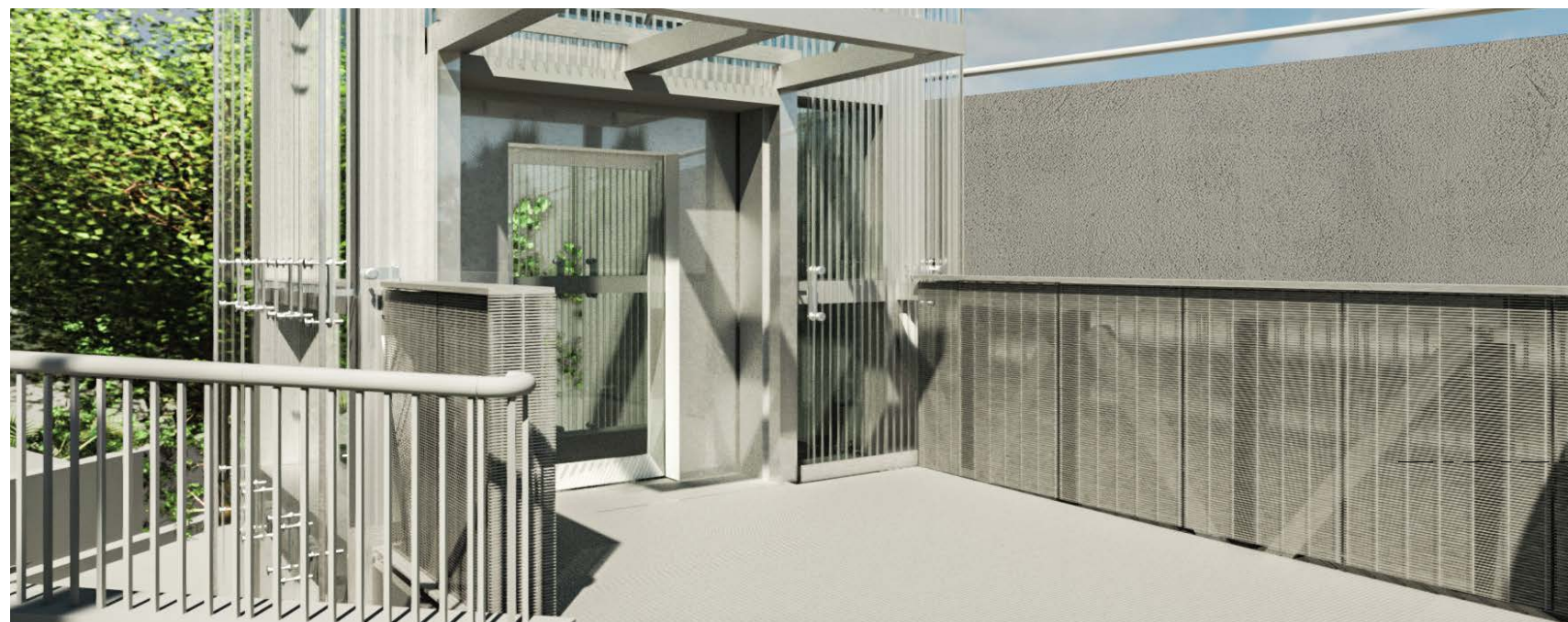
STRIPE PATTERN: 2.5 INCHES ON CENTER

STRIPE WIDTH

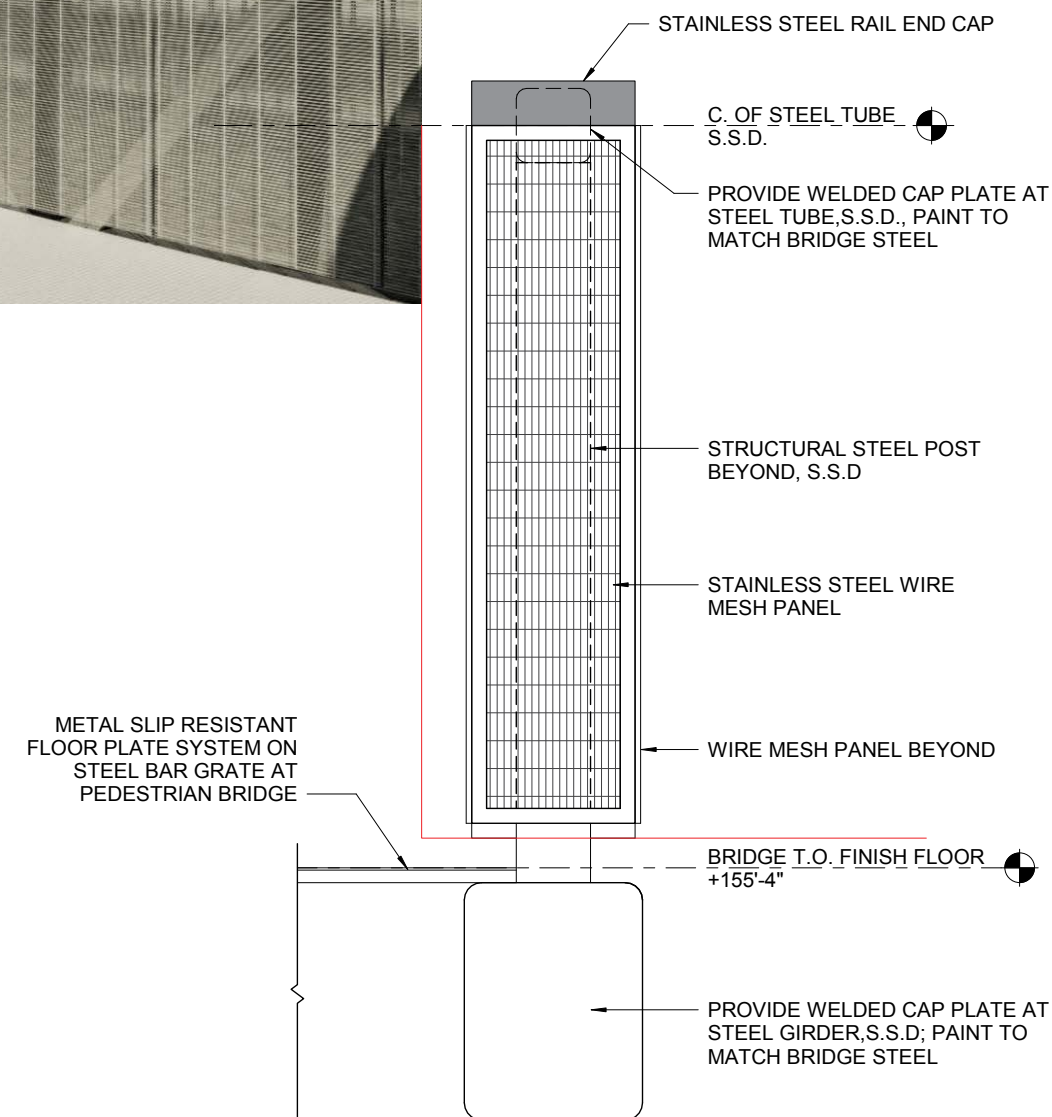


4. PROVIDE ELEVATIONS AND FURTHER DETAILS OF THE BRIDGE SUPPORT

Painted structural steel bridge support with wire mesh pattern stainless steel infill panels at guardrails, and solid stainless steel floor plate.



1 BRIDGE - GUARDRAIL ELEVATION
1/2" = 1'-0"



4 BRIDGE - GUARDRAIL END ELEVATION
1 1/2" = 1'-0"

4. PROVIDE ELEVATIONS AND FURTHER DETAILS OF THE BRIDGE SUPPORT

Percent of open area (POA) in guardrail panel pattern: 0.0% to 31.3%

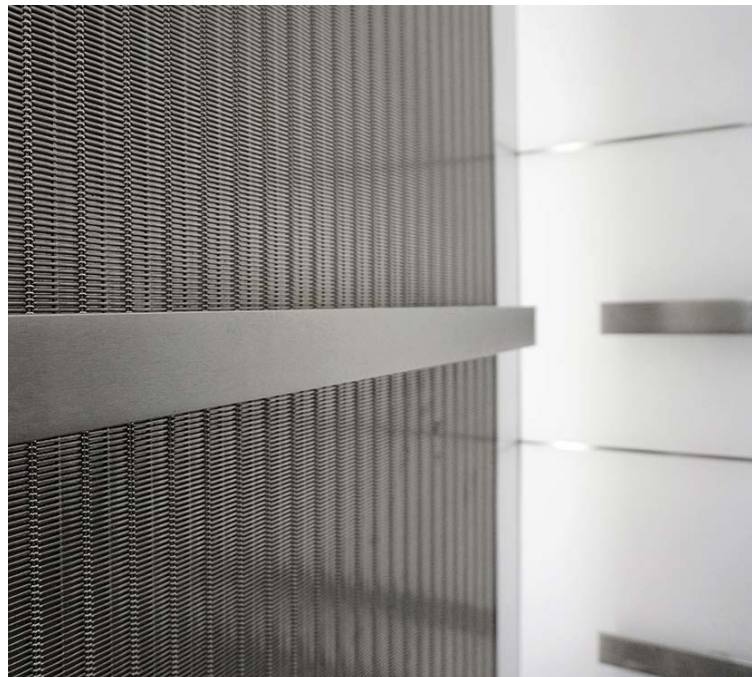
TRANSPARENCY MODEL DF-6

PERCENT OPEN AREA (POA)
0.0%

ABOUT THE TRANSPARENCY MODEL
Banker Wire's Transparency Model is used to demonstrate the design transparency characteristics of our wire mesh. Each mesh pattern is calculated to provide a Percent Open Area (POA) value that helps in comparing the ability of our wire mesh to provide a given level of transparency. POA is defined as the ratio of open area to total screen area in a mesh product, expressed as a percentage. The equivalent open area of the wire mesh will vary depending upon the angle at which it is viewed. Therefore, published POA is calculated at a 90° angle of incidence of the mesh. It is important to note that while the angle may not be visible behind opaque mesh in this format, if an opaque pattern is backlit the light will be seen through the minuscule space between the wires.

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TOLL FREE 800-623-4772 | T 262-363-4020 | F 262-363-8702 | WWW.BANKERWIRE.COM

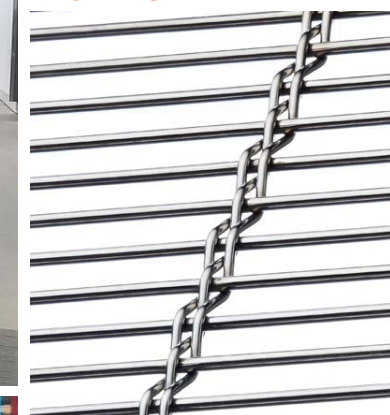
BANKER+



SAN FRANCISCO ART INSTITUTE, FORT MASON

Interior Railing
San Francisco, California USA

M13Z-145



The San Francisco Art Institute is a non-profit art college founded in 1871 and has held the reputation of being one of the nation's oldest and most prestigious schools of higher education in contemporary art. Recently, SFAI moved its graduate campus of 15 years from Dogpatch on Thrid Street, to Pier 2 in Fort Mason. The grand opening of the new graduate campus is scheduled for mid-November, 2017. The new graduate campus hosts 160+ artist studios, over 4000 square feet of gallery and performance space, digital media suites, student lounge, and a seminar room.

SFAI's Fort Mason building consists of two floors, with the upper floor being exposed to the lower level. The stairs and the railing around the upper level feature Banker Wire's M13Z-145 wire mesh pattern in stainless steel as infill panels. The simplicity and openness of M13Z-145 allows for limited distractions in an environment intended to cultivate an artist's personal creativity. This decorative mesh is also incredibly strong and able to withstand the rigors of high traffic areas.

BANKER+WIRE
600 PERKINS DRIVE | MUKWONAGO WI 53149 USA

PFZ-43 BANKER+

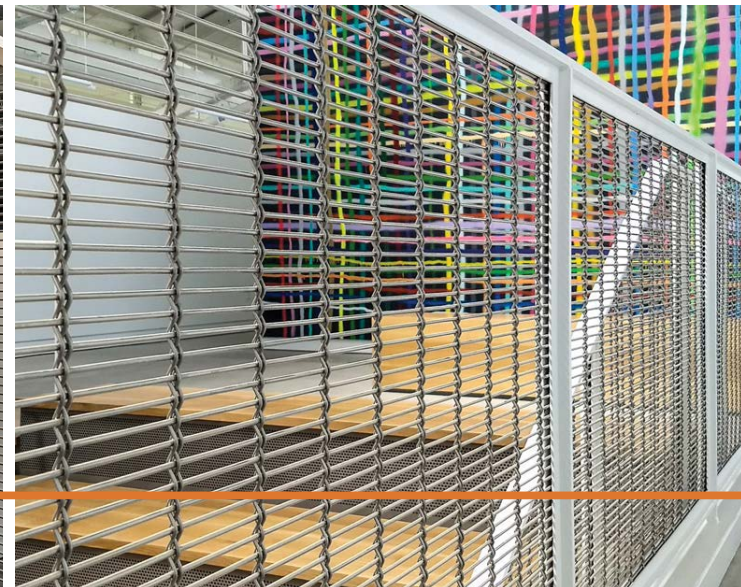
PATTERN DETAILS
PERCENT OPEN: 31.3%
ASPECT RATIO: 7.00:1
WEIGHT: 1.67 lbs./sq. ft.
OVERALL THICKNESS: 0.143 in.
CRIMP STYLE: PSFTZ

WHAT ARE YOUR DIMENSIONS?
We manufacture every job to size. List the dimensions and any addition details of your job.

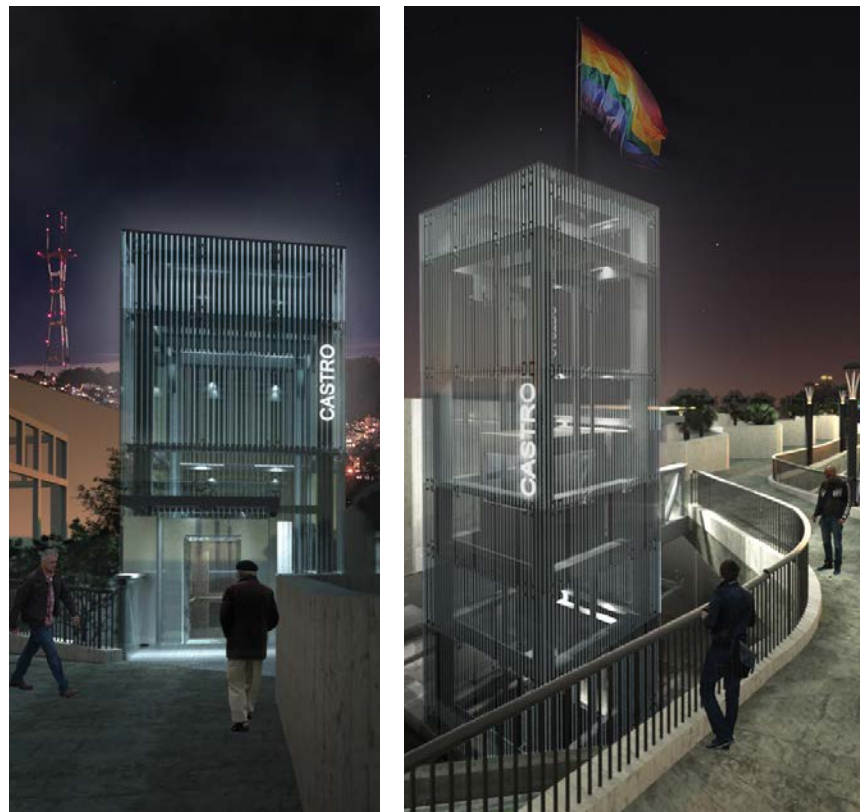
QTY	DIM. A	DIM. B	NOTES

***MAXIMUM* DIMENSIONS OF AVAILABLE RAW MATERIAL CONFIGURATIONS**

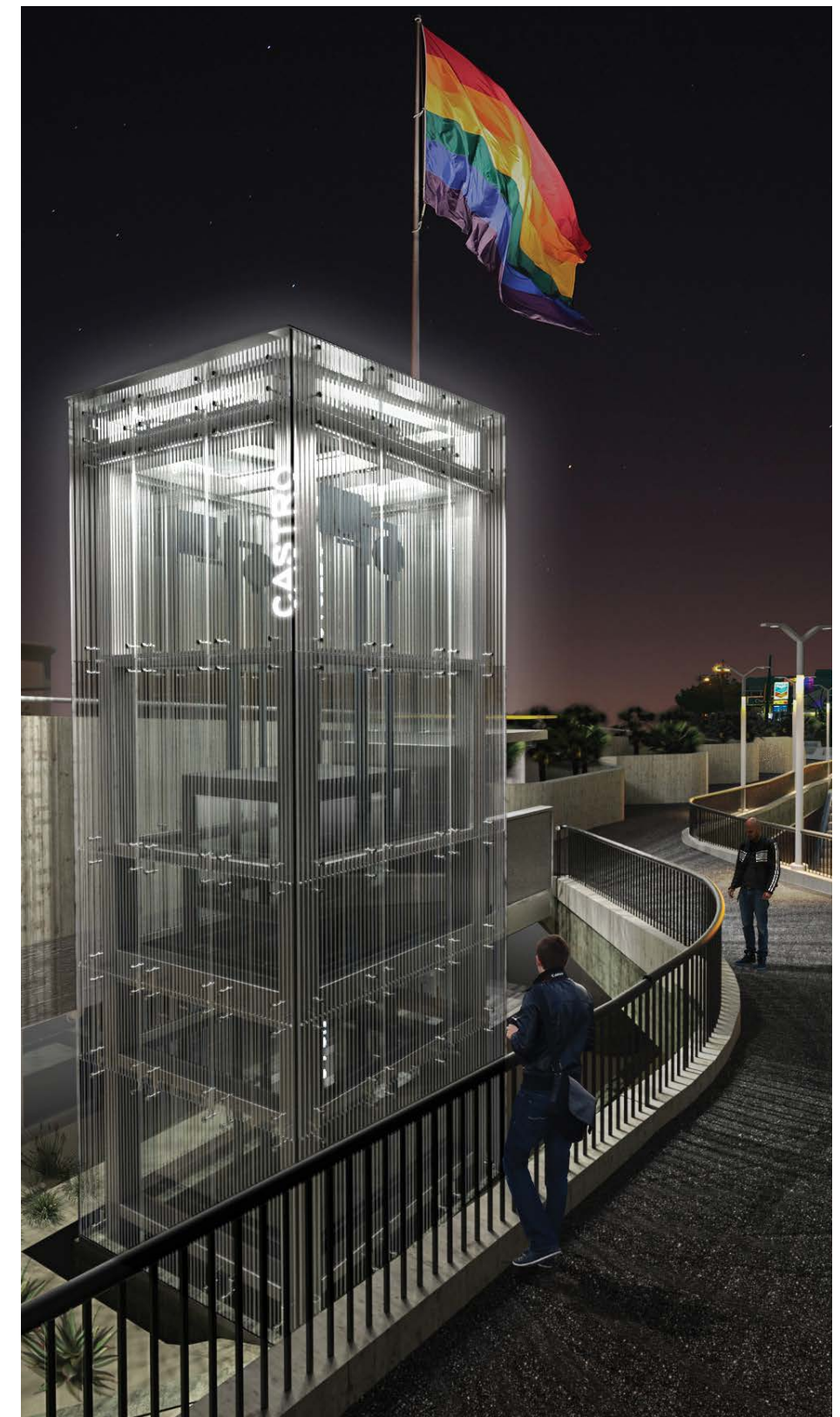
Max. A	Max. B	Raw Material Configuration
168	72	SS PL BR BZ 18 16 18 16

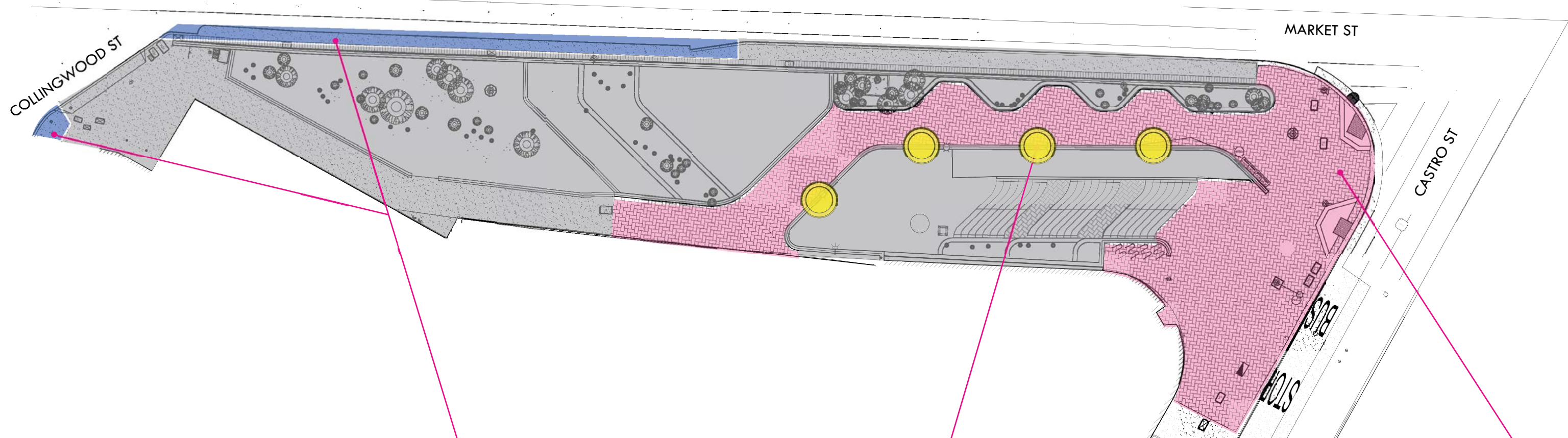


CLEAR GLASS WITH TRANSLUCENT SIMULATED ACID ETCH CERAMIC FRIT PATTERN TO CREATE "A BEACON OF LIGHT"



PREVIOUS - PRESENTED AT CDR PHASE 2 MEETING





1. WIDEN SIDEWALK/ ADD CURB RAMP



Add new curb ramp at intersection of Market and Collingwood. Widen Market Street Sidewalk east of Collingwood to match width of adjacent sidewalk.

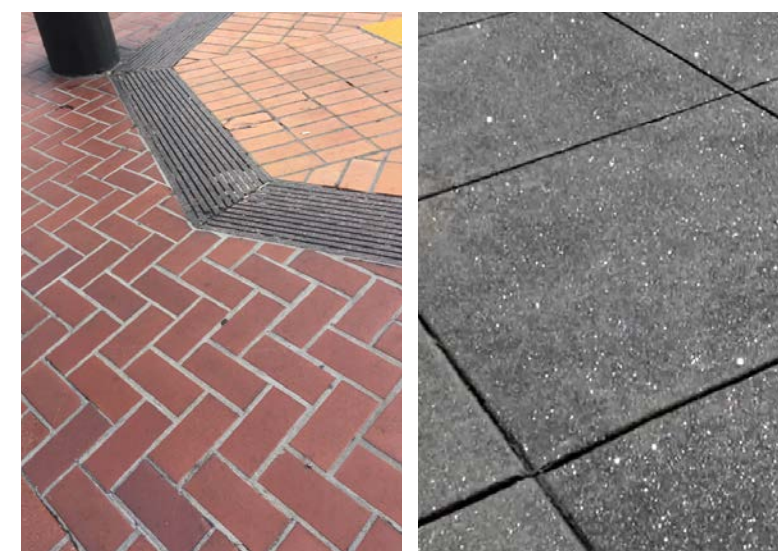
2. REPLACE PLAZA LIGHT FIXTURES



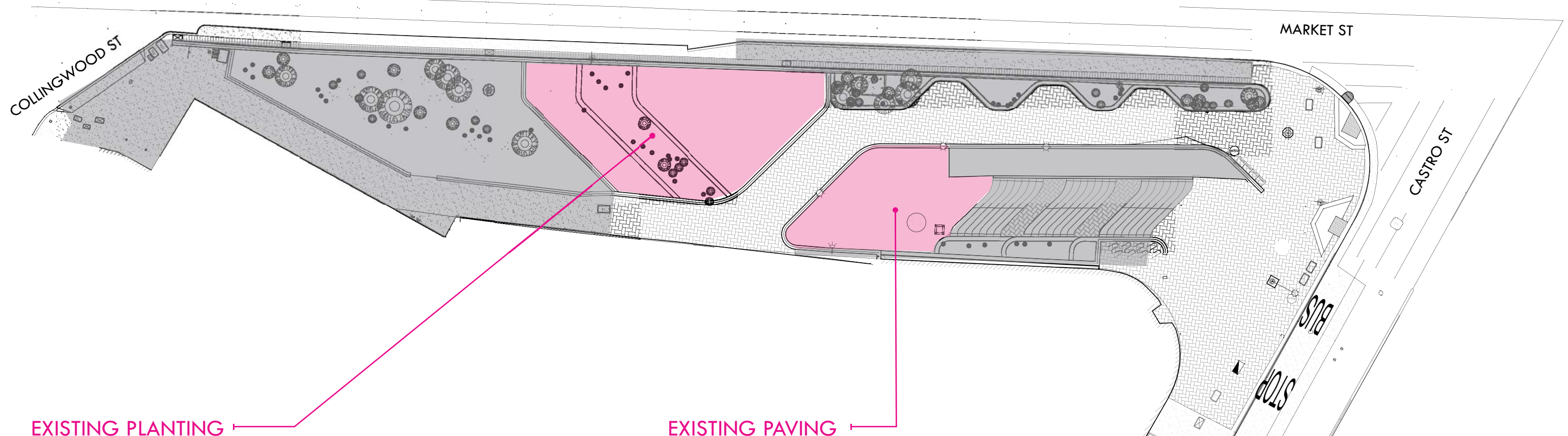
Replace existing pole top light fixtures with "Torres" fixtures by Landscape Forms.

Note: Previously presented torch lights are not feasible due to existing Rainbow Flag spotlights

3. REGRADE AND REPLACE PLAZA PAVING



Replace existing brick with sparkle grain integral color concrete to match Castro Streetscape paving



EXISTING PLANTING



EXISTING PAVING



2. REPLANT TERRACES AND CONCOURSE



Plant with drought tolerant and low maintenance species that tolerate a range of sun and shade. Swaying plants soften the station's structure, while strategically placed agaves provide bold focal points and improve security.

3. PROVIDE NEW PAVING



Replace existing paving at station entrance to correct drainage issues. Provide new paving at elevator "garden room." Paving to be a non-slip terrazzo style aggregate concrete paving in a warm tone to coordinate with interior station floor material

4. REPLACE FENCING AND INTERPRETIVE SIGNAGE



Porcelain example: Unity Plaza Stairs

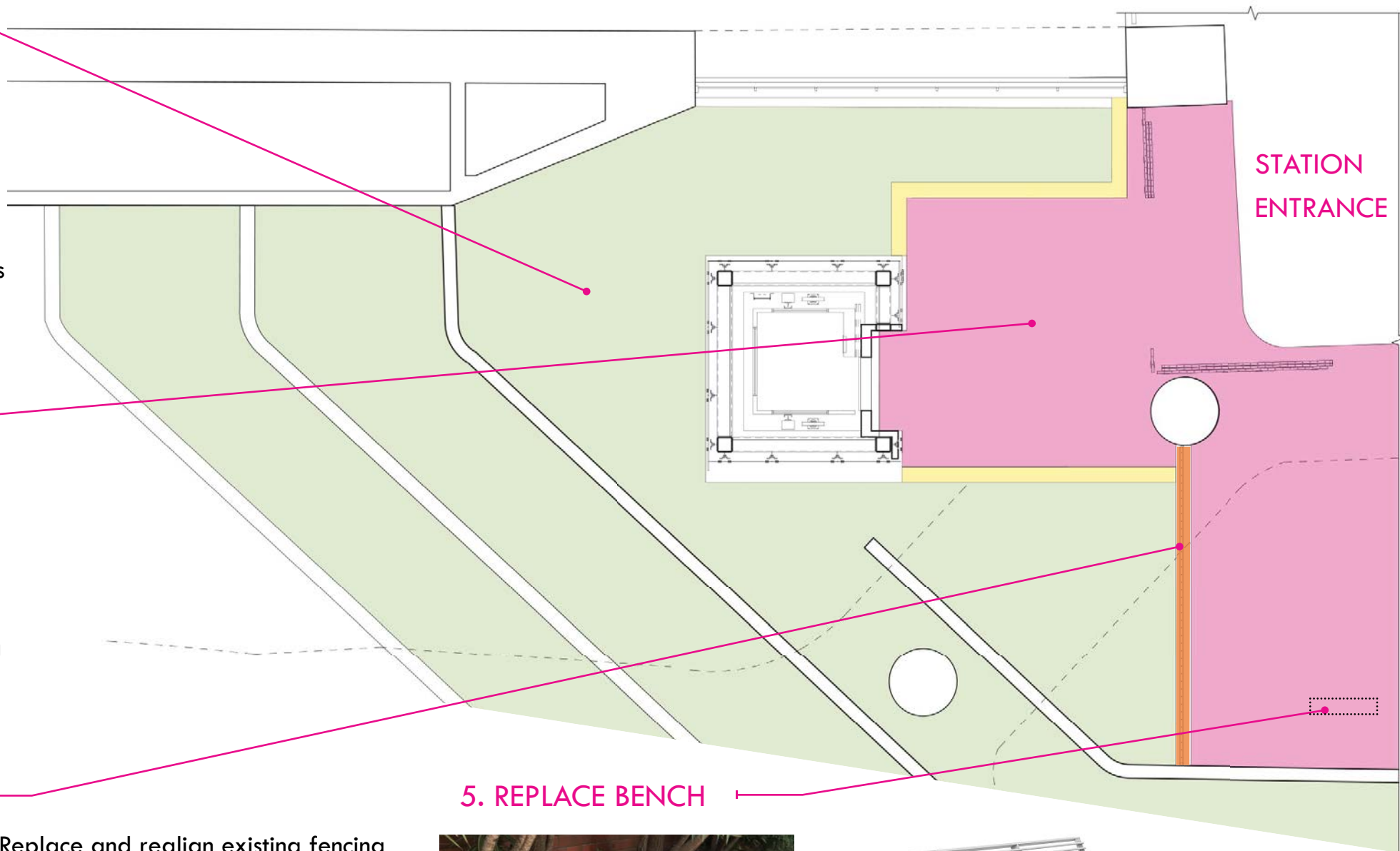
Replace and realign existing fencing to improve station security. Coordinate new fence detailing and material with existing station gate for a unified appearance.

Re-fabricate existing interpretive signage in durable photo-enamel porcelain. Mount at same height and location on new fence with custom metal frame for a more integrated appearance.

5. REPLACE BENCH



Replace existing damaged commemorative bench with a new metal bench.



STATION ENTRANCE

SOFT & SWAYING



SCULPTURAL SUCCULENTS



ACCENTS: FORM & COLOR



PROPOSED PLANT LIST

SOFT & SWAYING

- a. Pine Muhly Grass / *Muhlenbergia dubia*
- b. Crinkled Hairgrass / *Deschampsia flexuosa*
- c. Lomandra 'Platinum Beauty' / *Lomandra longifolia* 'Platinum Beauty'
- d. Liriope / *Liriope muscari*

SCULPTURAL SUCCULENTS

- e. Agave gentryi
- f. Agave 'Blue Glow'
- g. Agave ovatifolia
- h. Agave stricta

ACCENTS: VERTICAL FORM & COLOR

- i. Blue Mediterranean Fan Palm / *Chamaerops humilis* 'Cerifera'
- j. Aechmea blanchetiana 'Orangeade'
- k. Bush Lily / *Clivia miniata*

