



3215 PORTER DRIVE
ARB SUBMITTAL FOR MAJOR PROJECT

07/15/2019



Stanford
RESEARCH PARK

STUDIOS
architecture



THE
GUZZARDO
PARTNERSHIP INC.

VICINITY MAP



3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

07/15/2019

SHEET INDEX

PLANNING & DESIGN OVERVIEW

- A1.1 AERIAL CONTEXT - EXISTING
- A1.2 AERIAL CONTEXT - PROPOSED
- A1.3 TRANSPORTATION
- A1.4 SITE CONTEXT - ELEVATION
- A1.5 SITE CONTEXT - SECTION
- A1.6 PHOTOS - ADJACENT BUILDINGS
- A1.7 SITE PLAN
- A1.8 AREA ANALYSIS
- A1.9 CROSSING PORTER DRIVE
- A1.10 DRIVE AISLE
- A1.11 FRONT PLAZA
- A1.12 REAR PLAZA
- A1.13 FREE BIKE REPAIR

ARCHITECTURAL DESIGN

- A2.1 FLOOR PLAN - PARKING GARAGE
- A2.2 FLOOR PLAN - LEVEL 1
- A2.3 FLOOR PLAN - LEVEL 2
- A2.4 ROOF PLAN
- A2.5 BUILDING ELEVATION - SOUTH & EAST
- A2.6 BUILDING ELEVATION - NORTH & WEST
- A2.7 BUILDING SECTIONS
- A2.8 BUILDING SECTIONS
- A2.9 WALL SECTION
- A2.10 WALL SECTION
- A2.11 MATERIAL PALETTE
- A2.12 CODE SUMMARY
- A2.13 PRELIMINARY CAL GREEN CHECKLIST

SITE - LANDSCAPE / CIVIL / LIGHTING

- L1.1 LANDSCAPE PLAN
- L1.2 LANDSCAPE MATERIALS
- L1.3 LANDSCAPE SECTIONS
- L1.4 LANDSCAPE SECTIONS
- L1.5 GRADING PLAN
- L1.6 PLANTING PLAN
- L1.7 PLANT LIST & IMAGERY
- L1.8 LANDSCAPE WATER USE
- L1.9 PARKING LOT SHADE
- L1.10 TREE CANOPY
- L1.11 LIGHTING PLAN
- L1.12 PHOTOMETRIC PLAN
- L1.13 CIRCULATION DIAGRAM
- L1.14 TREE DISPOSITION PLAN
- L1.15 TREE PROTECTION T-1
- L1.16 ARBORIST REPORT
- L1.17 ARBORIST REPORT
- L1.18 ARBORIST REPORT
- L1.19 ARBORIST REPORT
- L1.20 ARBORIST REPORT

- C1.0 TITLE SHEET
- C2.0 EXISTING CONDITIONS
- C3.0 HORIZONTAL CONTROL PLAN
- C3.1 TRUCK ACCESS
- C4.0 GRADING PLAN
- C5.0 UTILITY PLAN
- C6.0 STORMWATER TREATMENT PLAN
- C7.0 CONSTRUCTION DETAILS
- C8.0 BMP PLAN

CONSTRUCTION PLANNING

- TR1.1 TRUCK ROUTE



3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

07/15/2019

PLANNING & DESIGN OVERVIEW

AERIAL CONTEXT - EXISTING

A1.1



3215 PORTER DRIVE

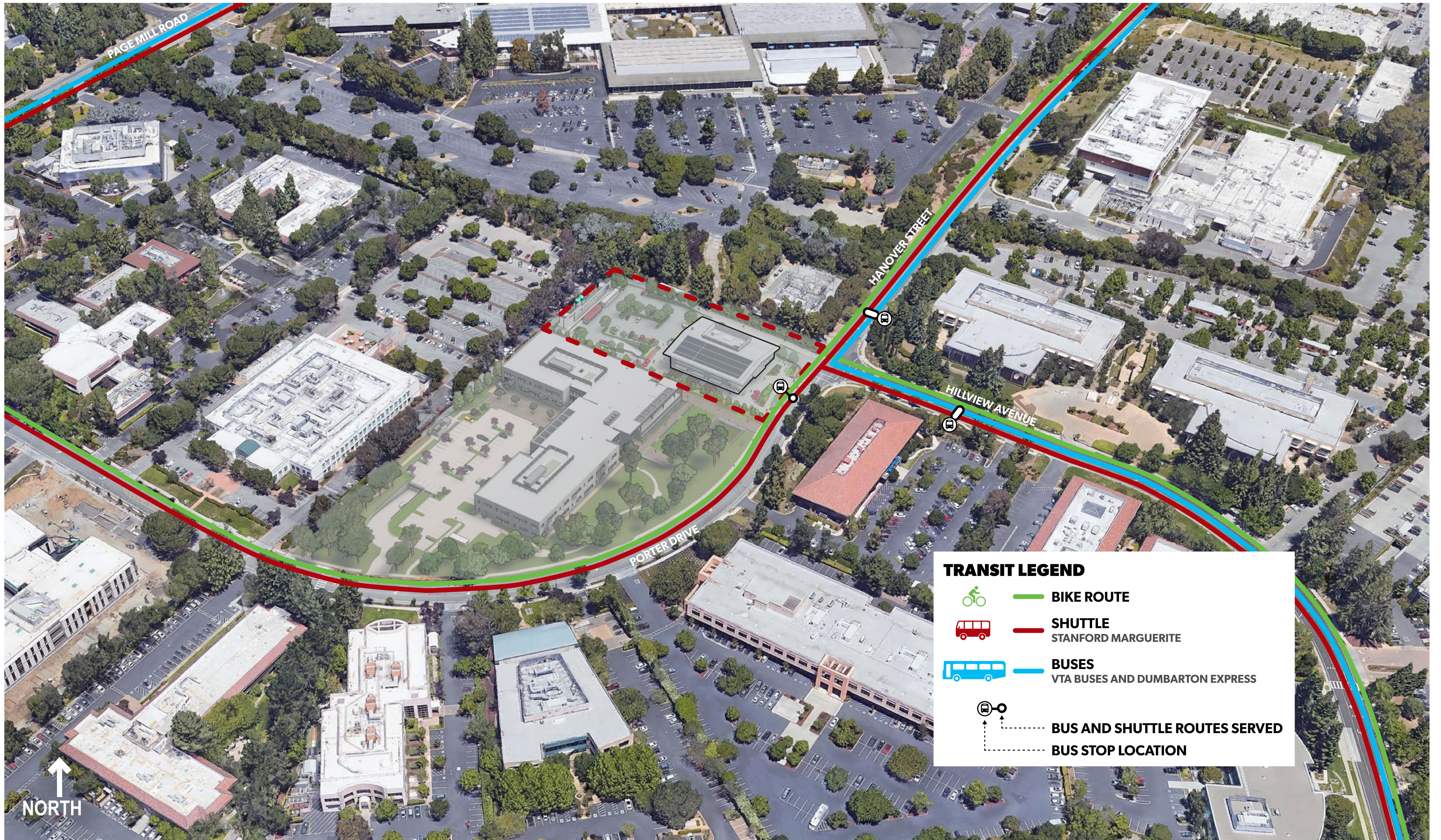
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PLANNING & DESIGN OVERVIEW

AERIAL CONTEXT - PROPOSED

A1.2



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07/15/2019

PLANNING & DESIGN OVERVIEW

TRANSPORTATION

A1.3



3181 PORTER DRIVE

3215 PORTER DRIVE

HANOVER SUBSTATION

PROPERTY LINE

PROPERTY LINE

0 16 32 64 96

SCALE: 1/64"=1'-0"

3215 PORTER DRIVE

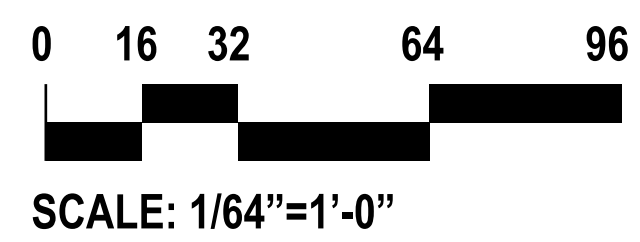
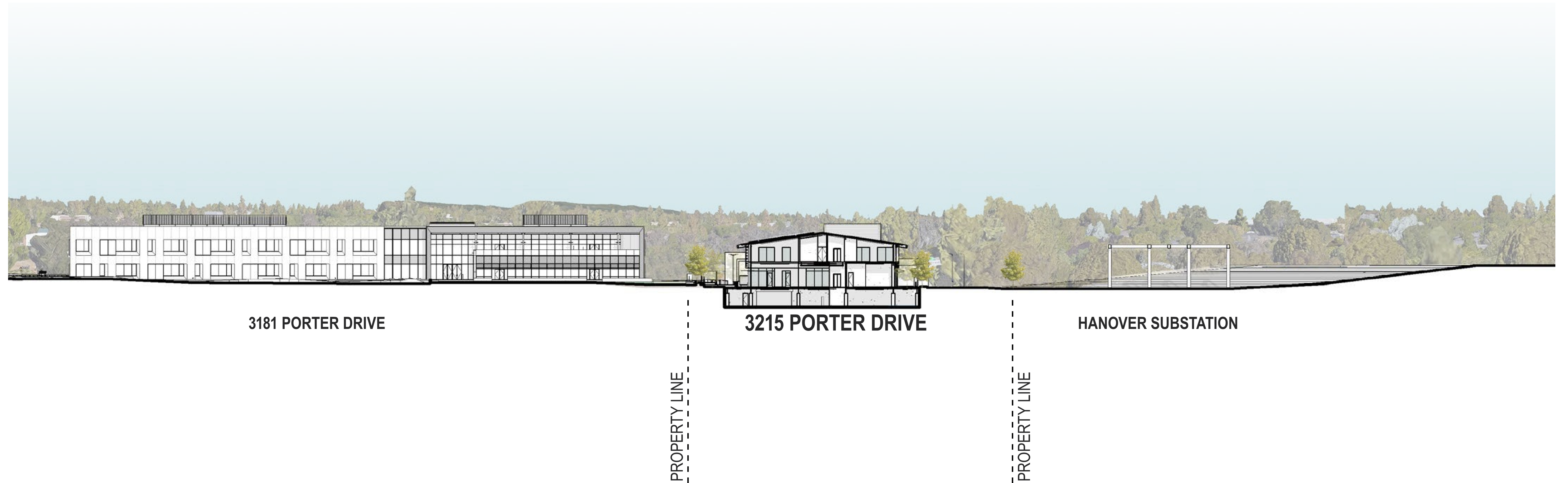
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SITE CONTEXT - ELEVATION

A1.4



3215 PORTER DRIVE

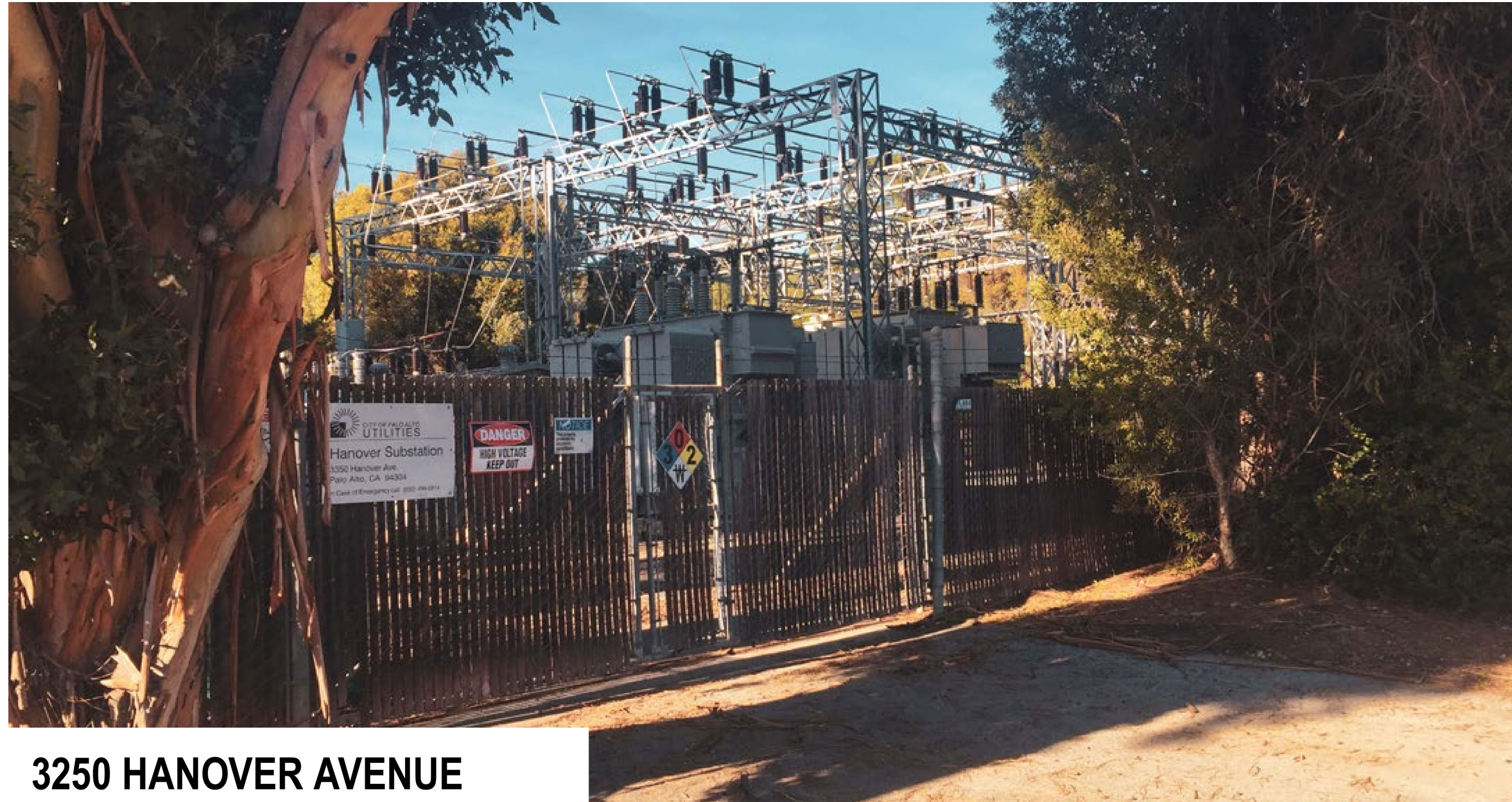
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SITE CONTEXT - SECTION

A1.5



**3250 HANOVER AVENUE
HANOVER SUBSTATION**



 **3181 PORTER DRIVE
JAZZ PHARMACEUTICALS**



 **3200 HILLVIEW AVENUE
LYFT**



 **3251 HILLVIEW AVENUE
FORD GREENFIELD LABS**

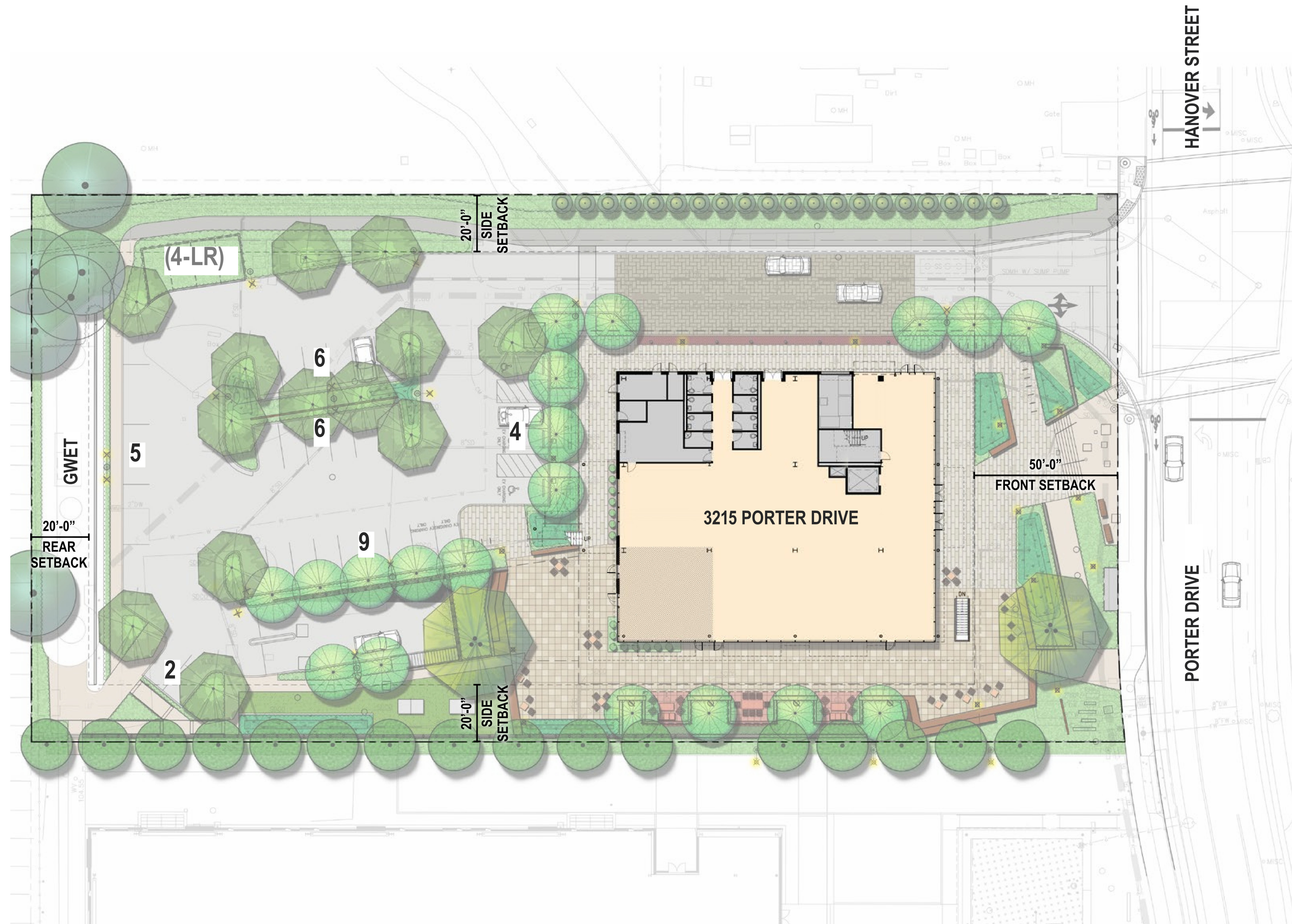
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PLANNING & DESIGN OVERVIEW

PHOTOS - ADJACENT BUILDINGS



SITE SUMMARY

TOTAL SITE AREA 1.671 ACRES = 72,790 SF

SITE COVERAGE

Site Coverage Allowable Area (25%)18,197 SF
Site Coverage Proposed (14.9%)10,881 SF

BUILDING SUMMARY

Allowable FAR (40%).....29,116 SF

PROPOSED FAR

Total Planning Area (28.6%).....20,833 SF
Traffic Mitigating Amenity Area1,100 SF
Total Proposed Building Area21,933 SF

PARKING

Required Parking (20,833 SF x 1:300).....70 Spaces

PROPOSED

	STD	EV	
Surface	28	-	28 Spaces
Surface Accessible	2	2	4 Spaces
			32 Spaces
	STD	EV	
Garage	34	-	34 Spaces
Garage Accessible	2	2	4 Spaces
			38 Spaces

Total Proposed Parking70 Spaces
Landscape Reserve Parking4 Spaces

BIKE STORAGE

Required Bike Storage (20,833 SF x 1:3000).....7 Spaces

PROPOSED

Surface Short Term Racks.....40 Spaces
Garage Long Term Lockers.....10 Spaces

Total Proposed Bike Storage.....50 Spaces

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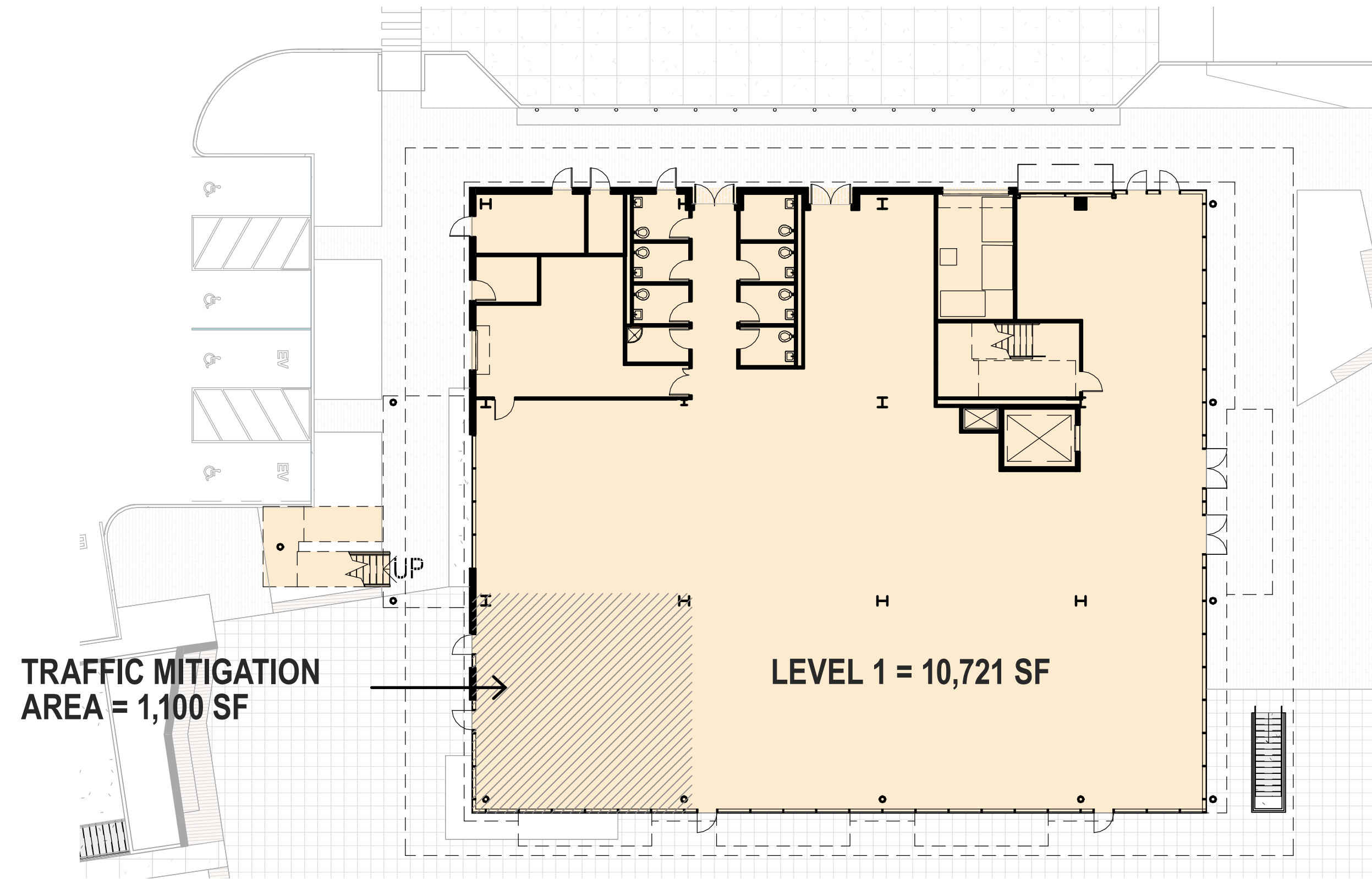
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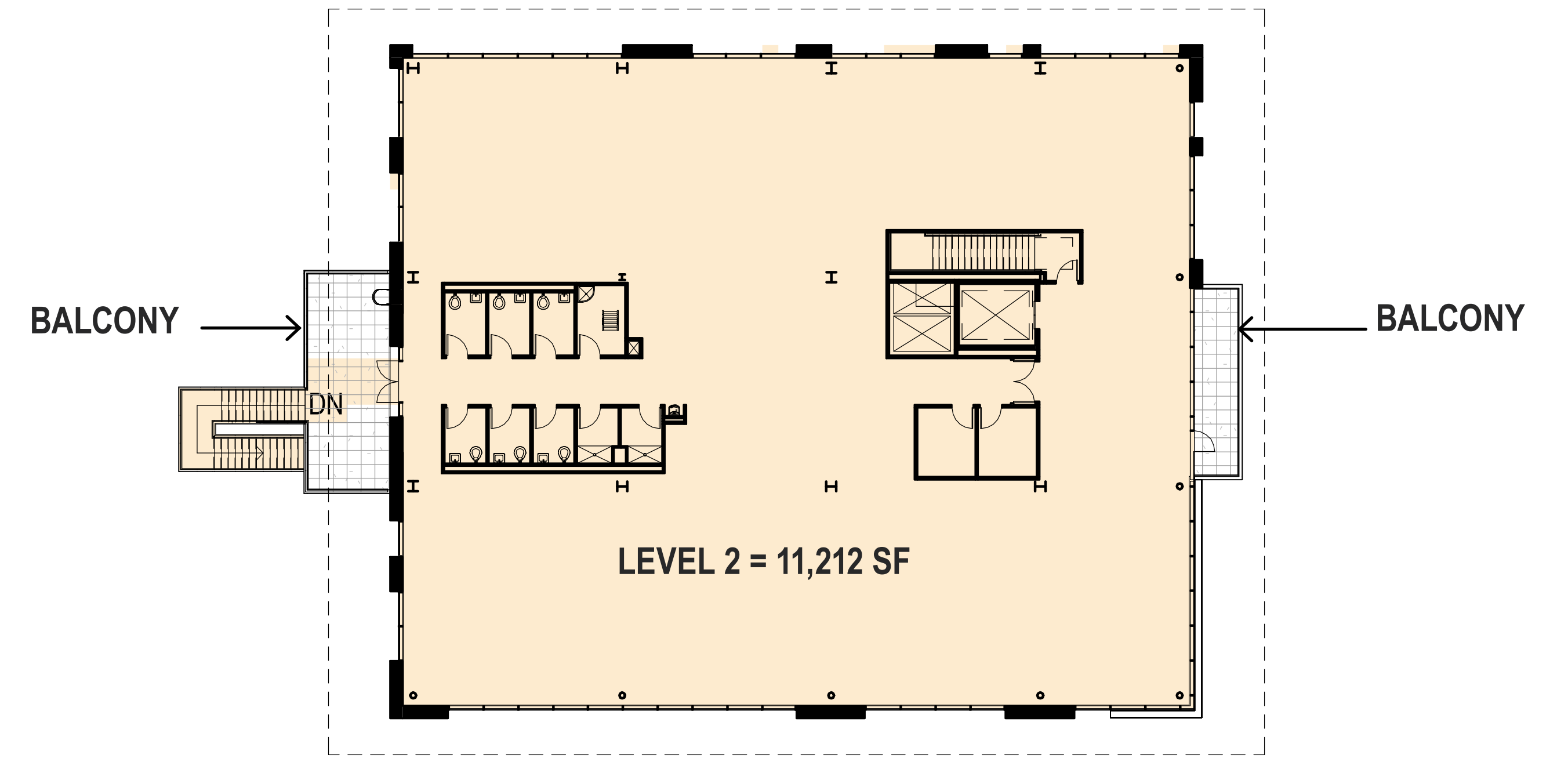
PLANNING & DESIGN OVERVIEW

SITE PLAN

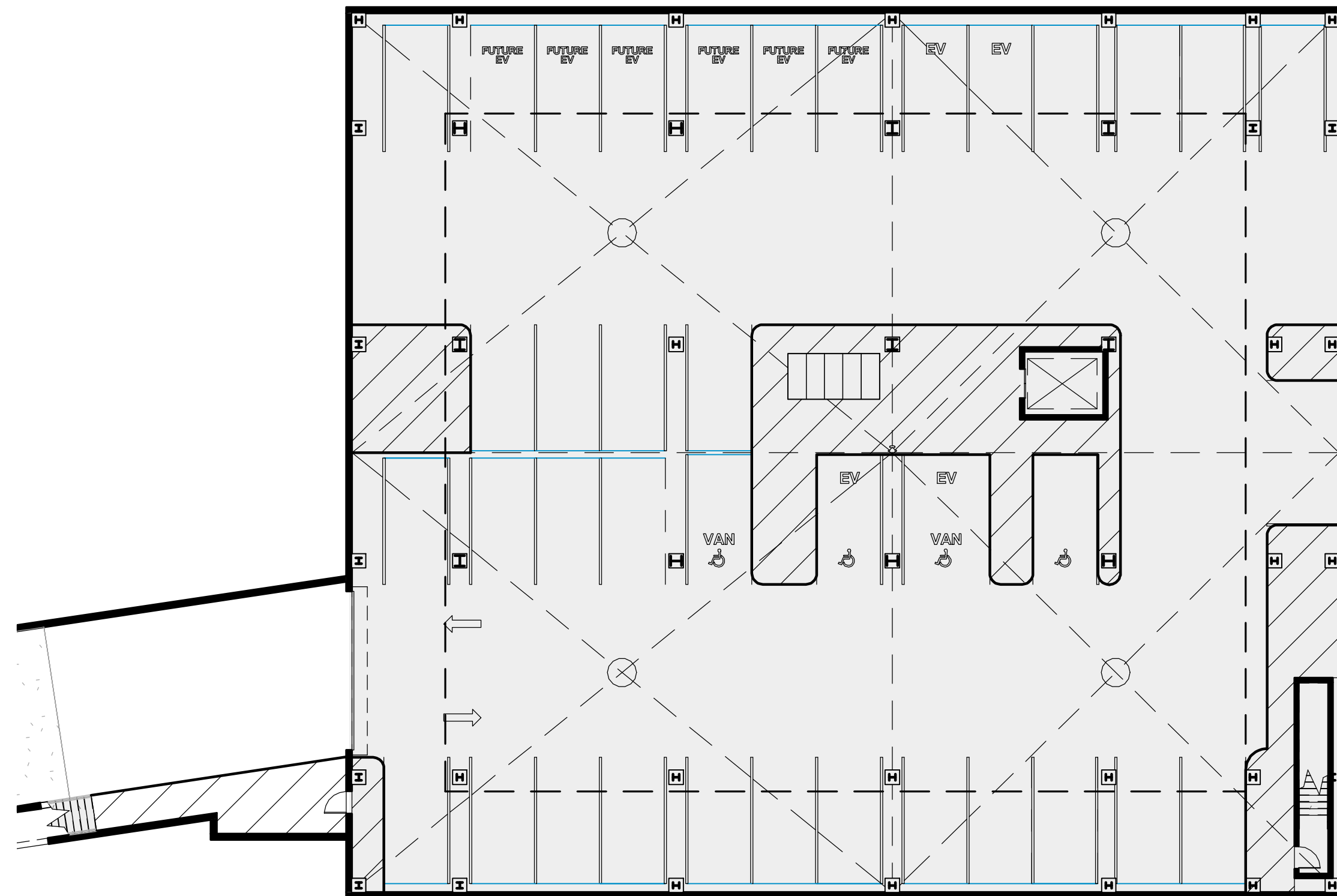
A1.7



LEVEL 1



LEVEL 2



PARKING

BUILDING AREA

Level 2	11,212 SF
Level 1	10,721 SF
Garage	0 SF
Total Building Area	21,933 SF



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PLANNING & DESIGN OVERVIEW

CROSSING PORTER DRIVE

A1.9



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DRIVE AISLE **A1.10**



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FRONT PLAZA **A1.11**



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REAR PLAZA A1.12



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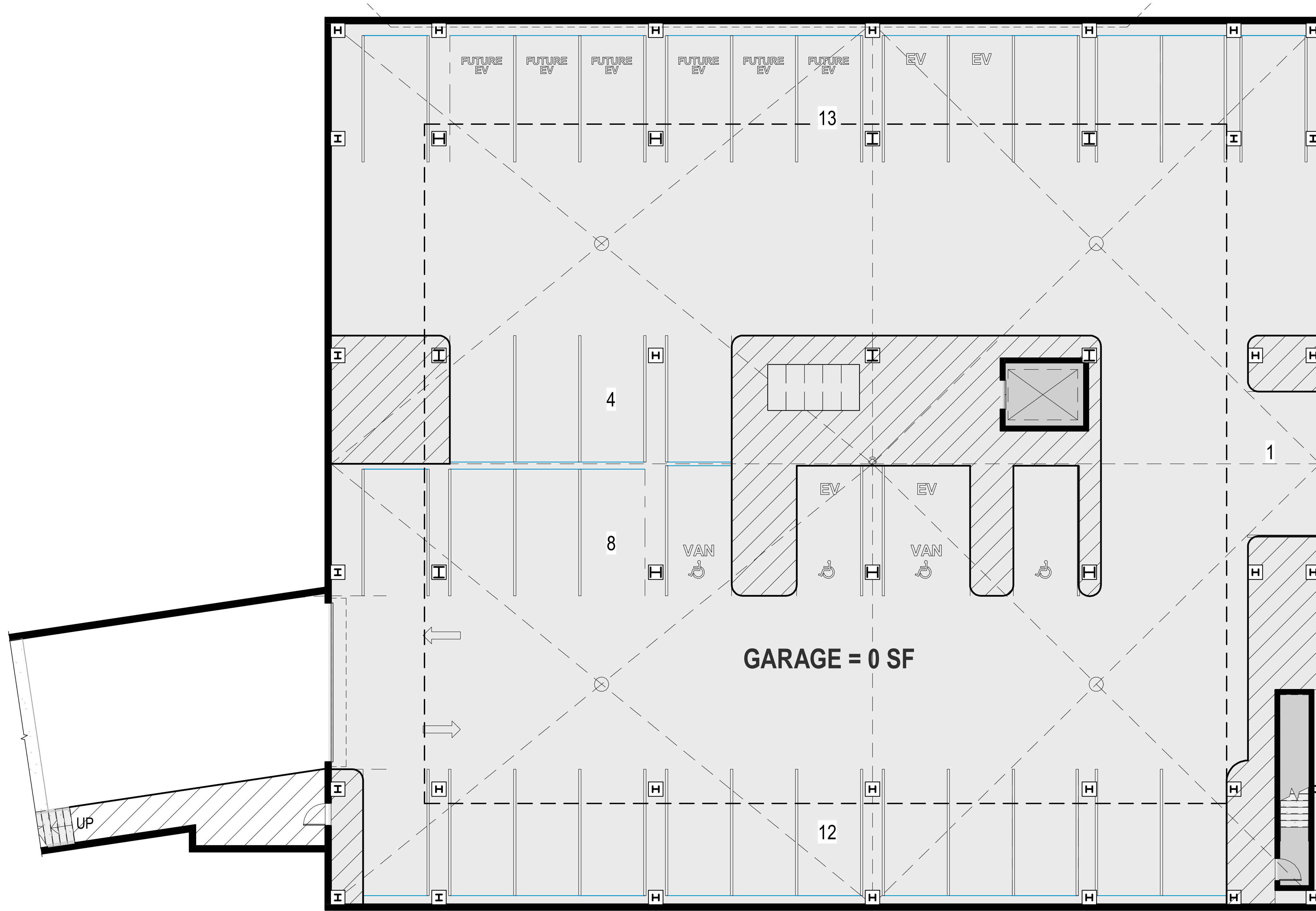
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PLANNING & DESIGN OVERVIEW

FREE BIKE REPAIR

A1.13



BUILDING AREA

Level 2.....	11,212 SF
Level 1.....	10,721 SF
Garage.....	0 SF
Total Building Area.....	21,933 SF

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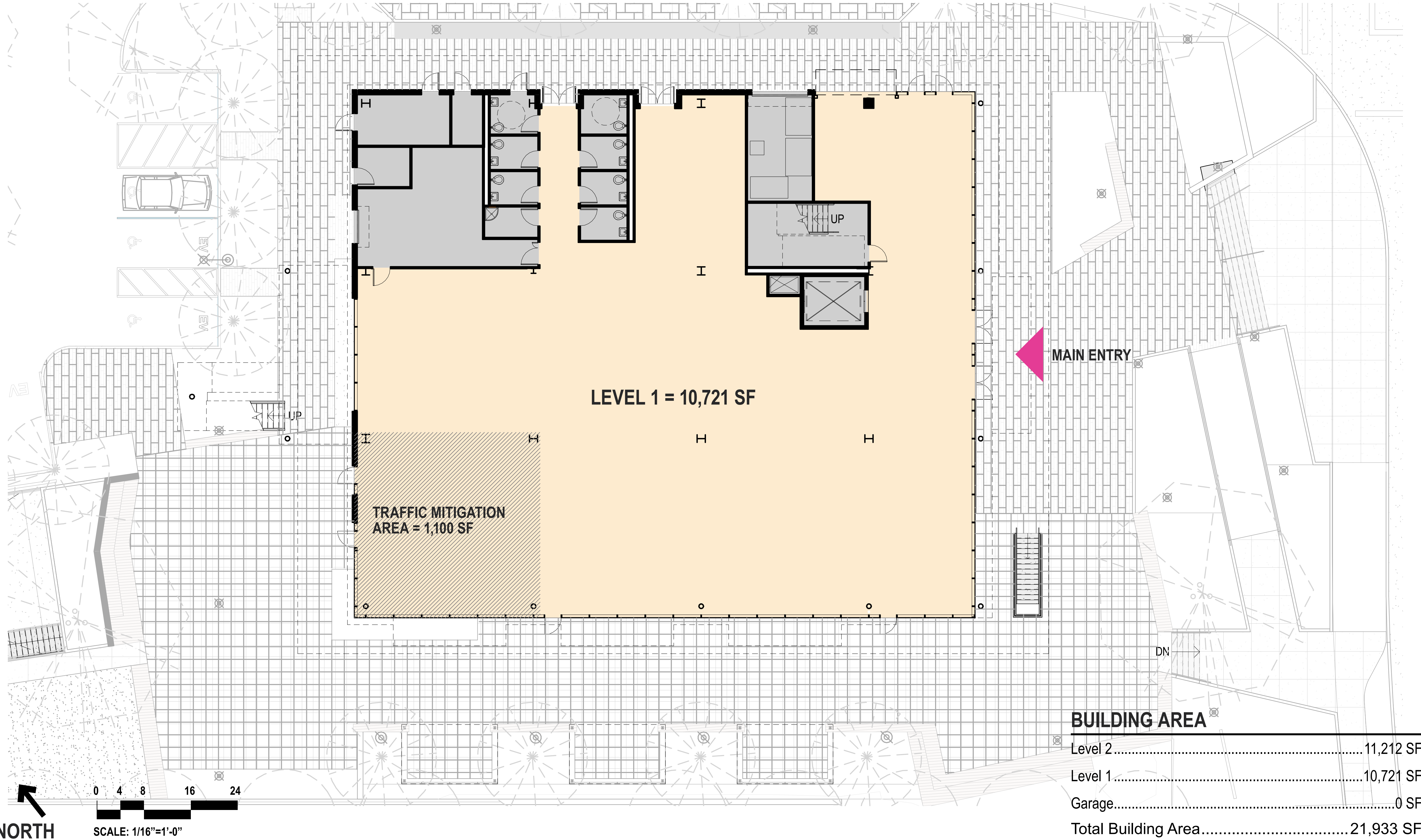
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ARCHITECTURAL DESIGN

FLOOR PLAN - PARKING GARAGE

A2.1



BUILDING AREA	
Level 2.....	11,212 SF
Level 1.....	10,721 SF
Garage.....	0 SF
Total Building Area.....	21,933 SF

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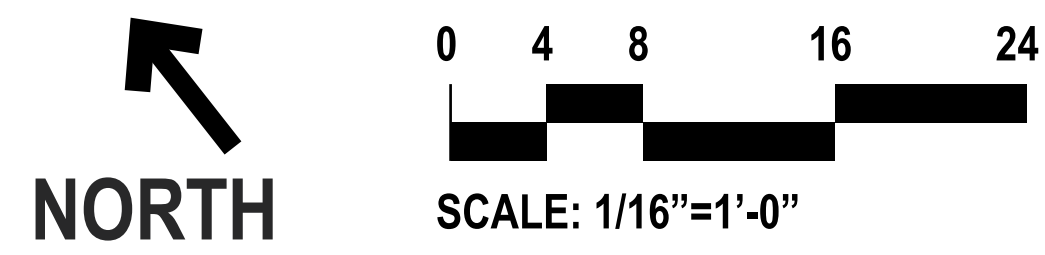
ARCHITECTURAL DESIGN

FLOOR PLAN - LEVEL 1

A2.2



BUILDING AREA	
Level 2.....	11,212 SF
Level 1.....	10,721 SF
Garage.....	0 SF
Total Building Area.....	21,933 SF



3215 PORTER DRIVE

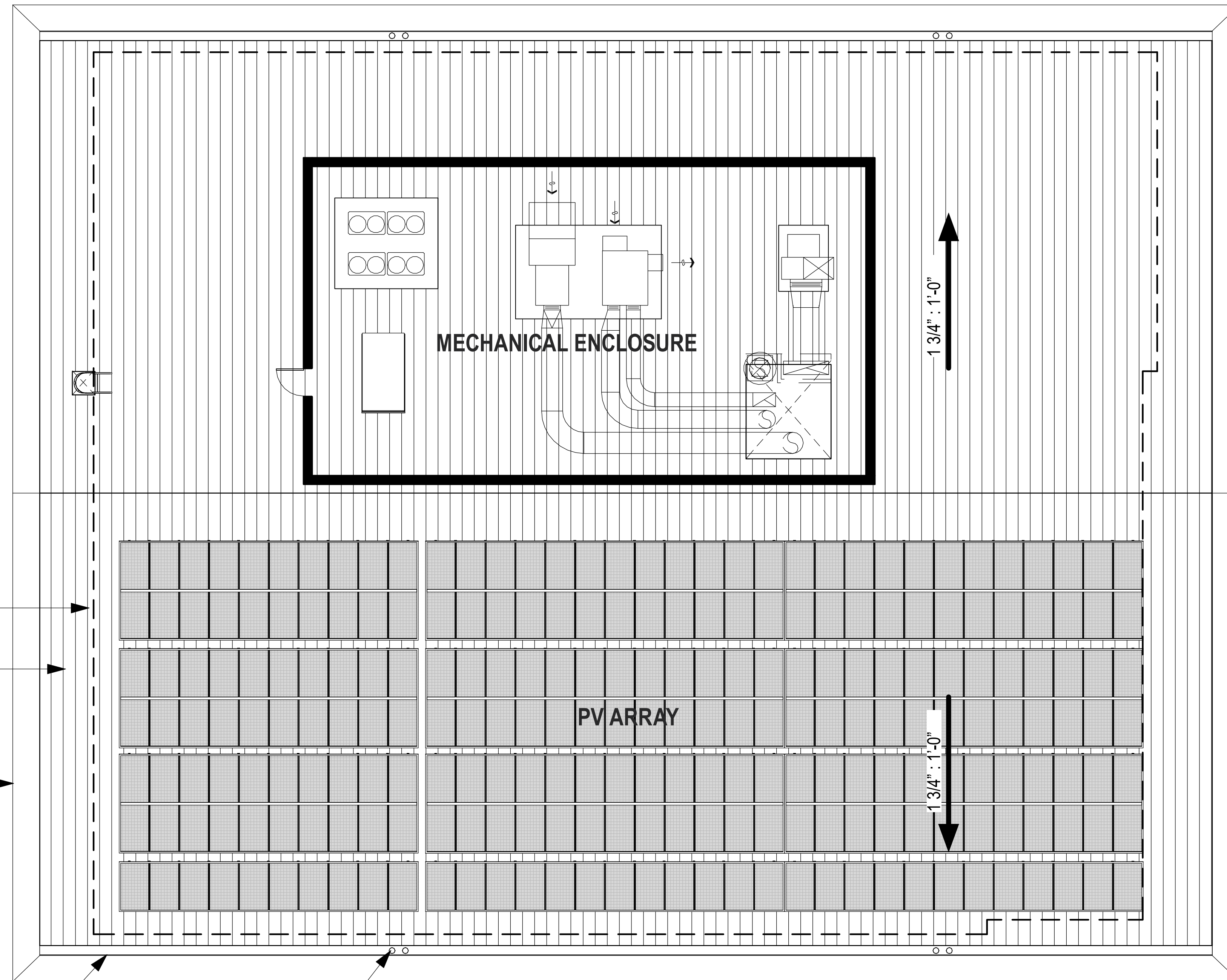
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ARCHITECTURAL DESIGN

FLOOR PLAN - LEVEL 2

A2.3



FACE OF BUILDING BELOW

STANDING SEAM METAL ROOF

PAINTED METAL FASCIA
W/ BUILT-IN SLOPE

CONCEALED GUTTER

ROOF DRAIN AND
OVERFLOW

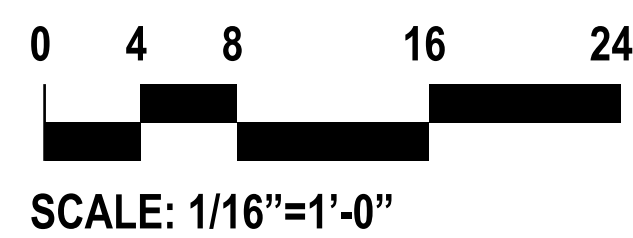
MECHANICAL ENCLOSURE

PV ARRAY

1 3/4" : 1'-0"

1 3/4" : 1'-0"

NORTH



BUILDING AREA

Level 2.....	11,212 SF
Level 1.....	10,721 SF
Garage.....	0 SF
Total Building Area.....	21,933 SF

3215 PORTER DRIVE

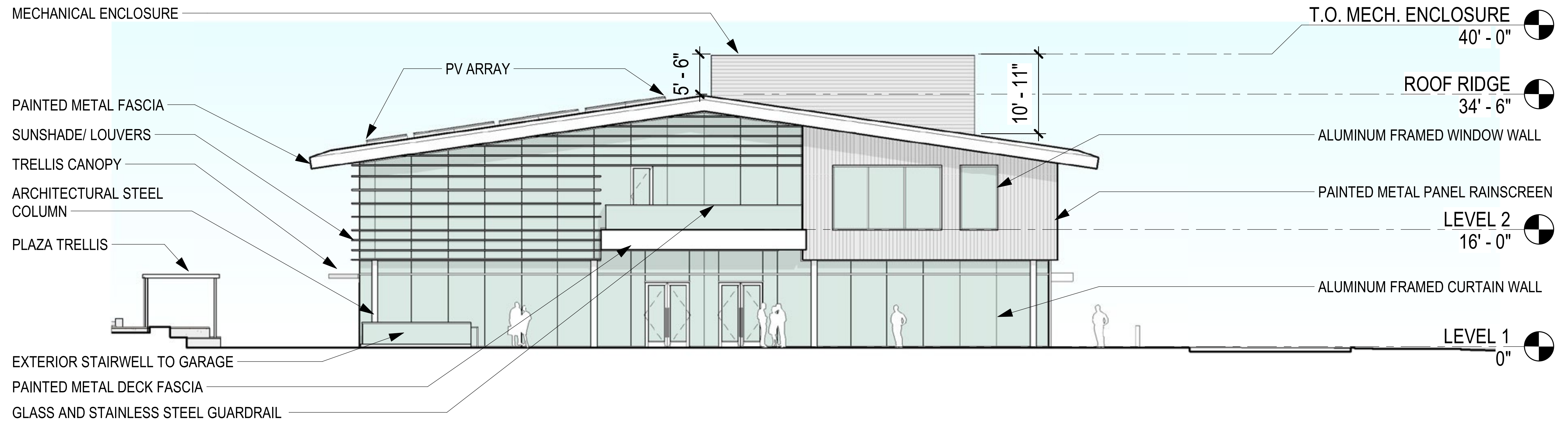
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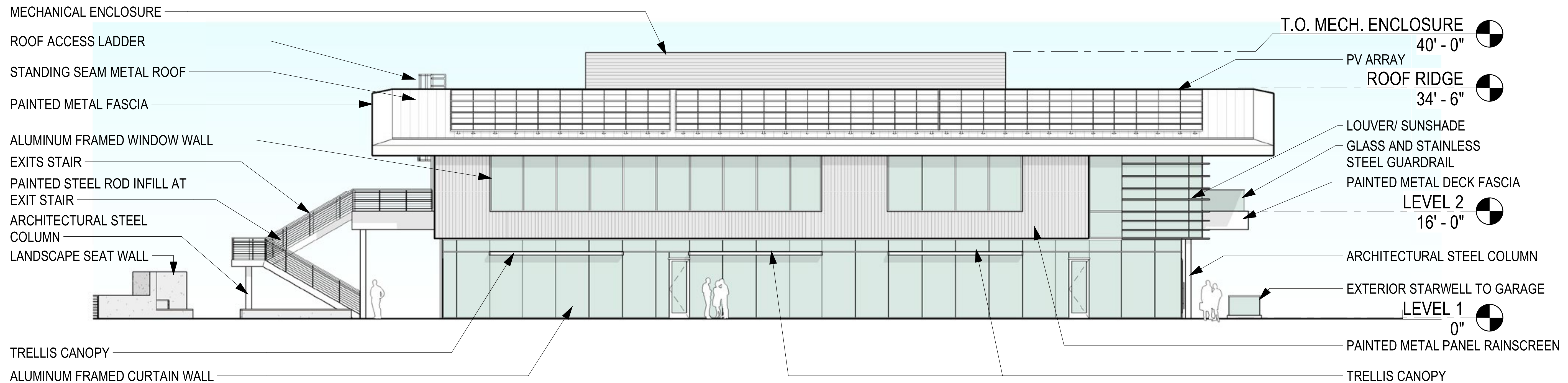
ARCHITECTURAL DESIGN

ROOF PLAN

A2.4

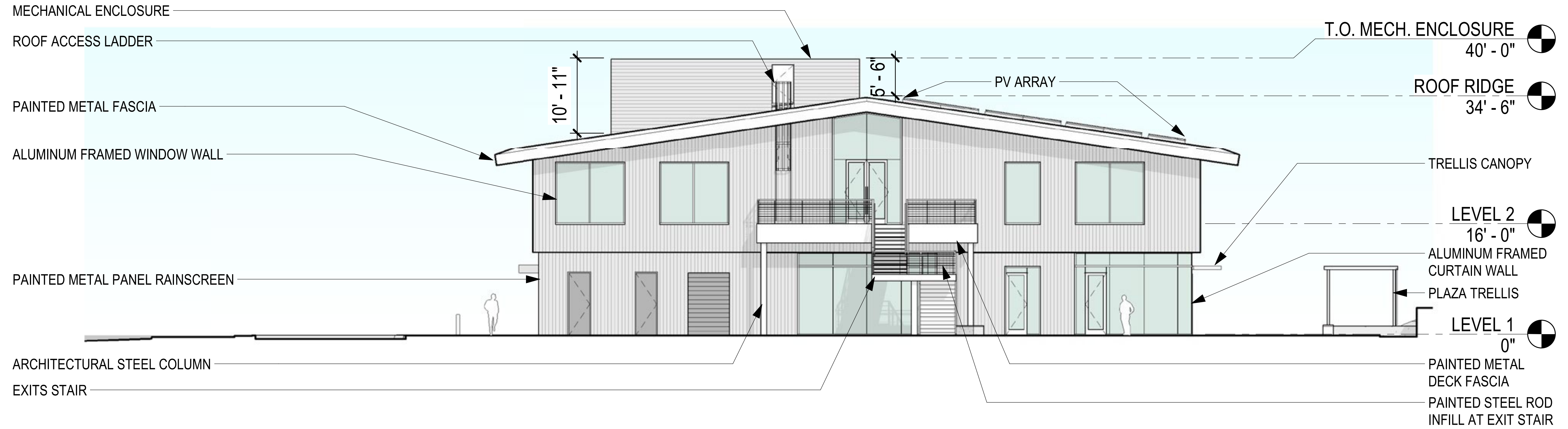


EAST ELEVATION

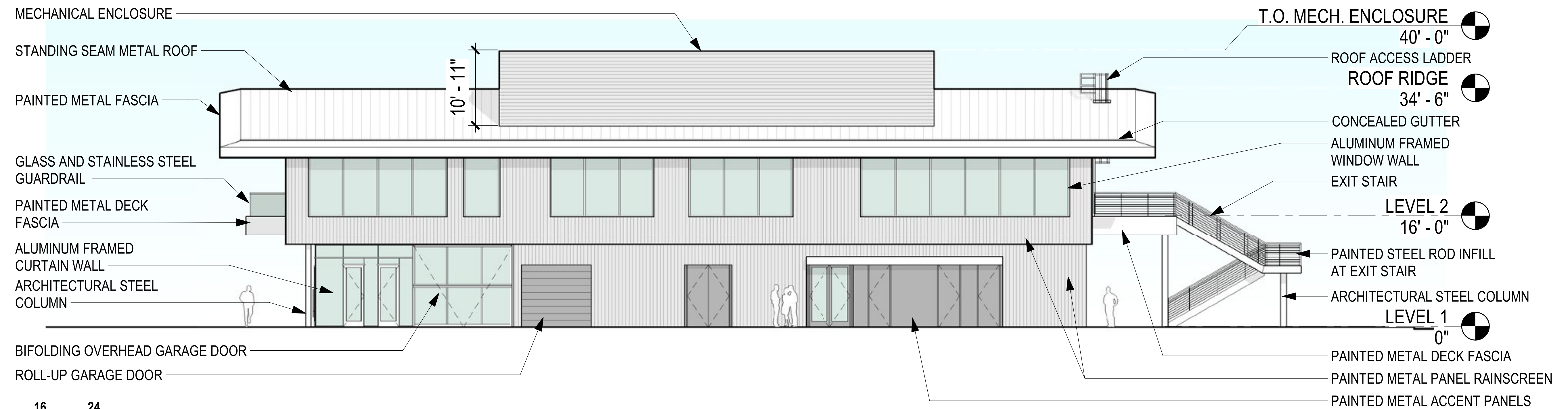


SOUTH ELEVATION

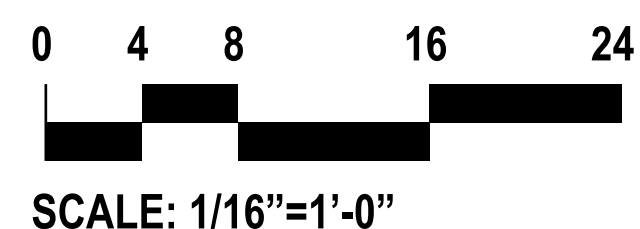
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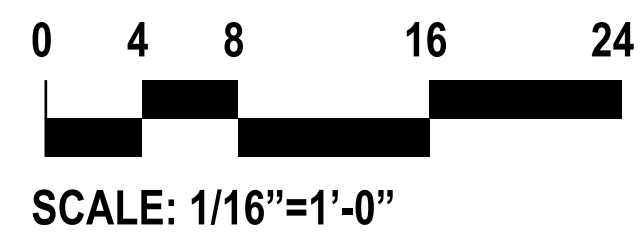
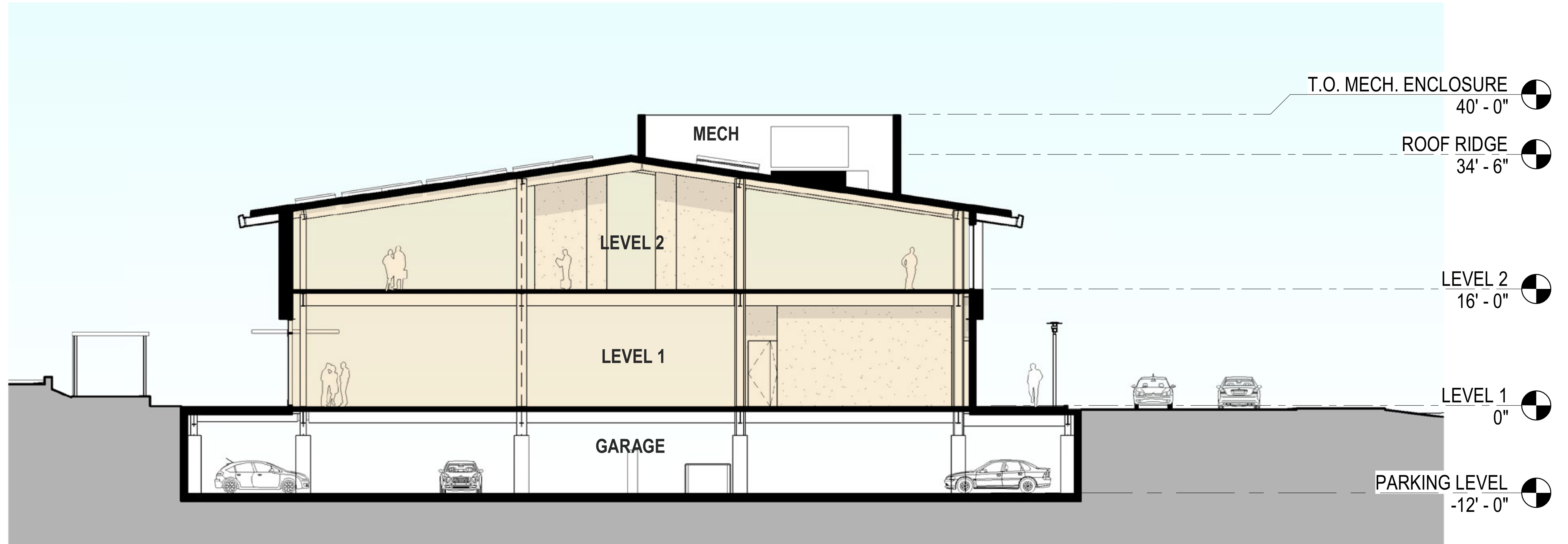


WEST ELEVATION



NORTH ELEVATION





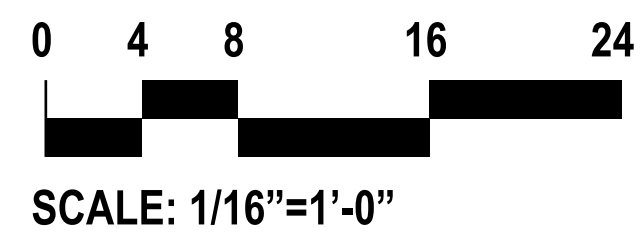
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ARB SUBMITTAL - MAJOR

07/15/2019

ARCHITECTURAL DESIGN
BUILDING SECTIONS

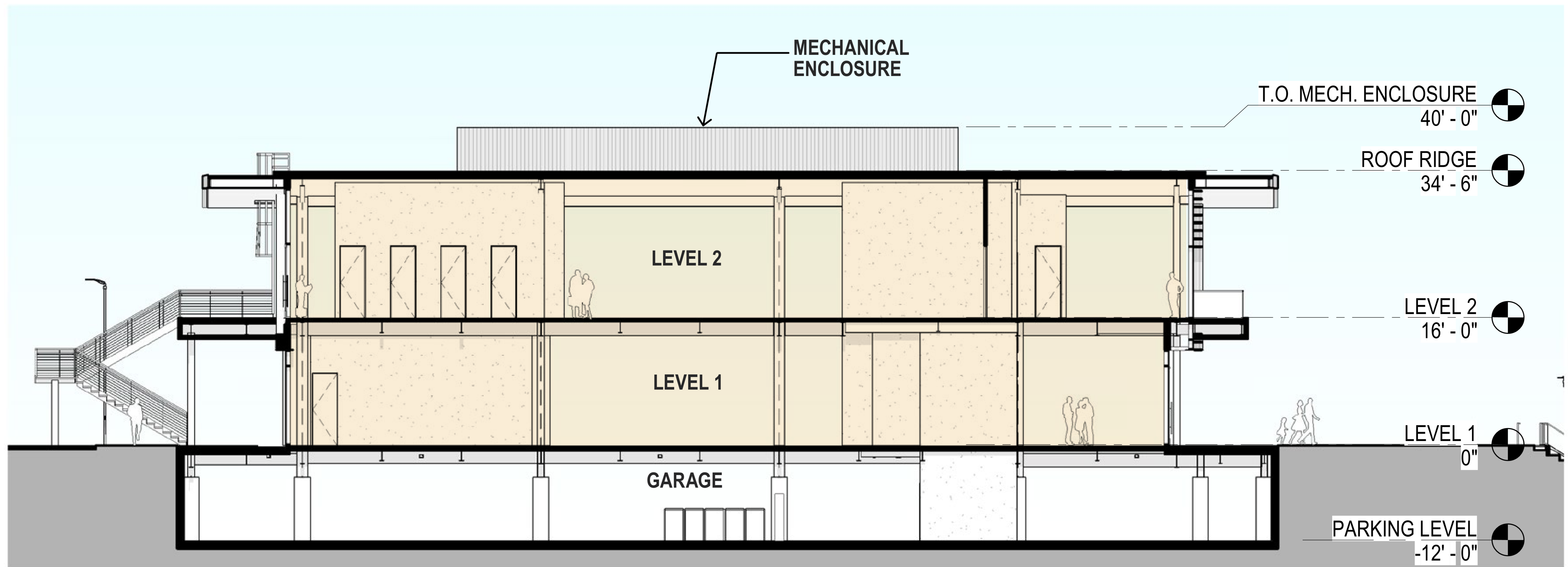
A2.7



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ARCHITECTURAL DESIGN

BUILDING SECTIONS

A2.8

ROOF RIDGE
34' - 6"

PV ARRAY

STANDING SEAM ROOFING

CONCEALED GUTTER

PAINTED METAL FASCIA WITH BUILT-IN SLOPE

WOOD SLAT SOFFIT

CONCEALED RAIN LEADER

ALUMINUM FRAMED WINDOW WALL

LEVEL 2
16' - 0"

CANOPY TRELLIS

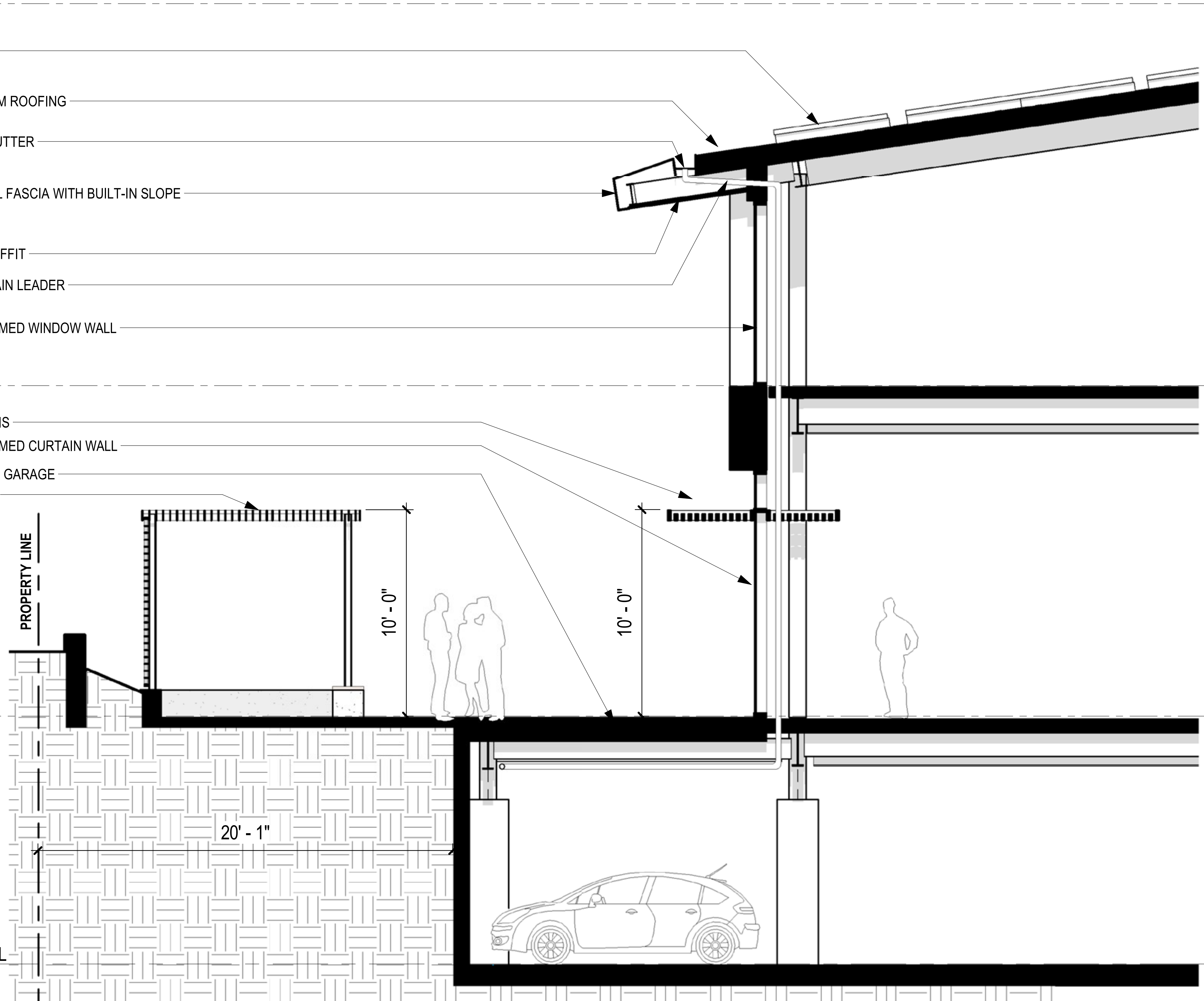
ALUMINUM FRAMED CURTAIN WALL

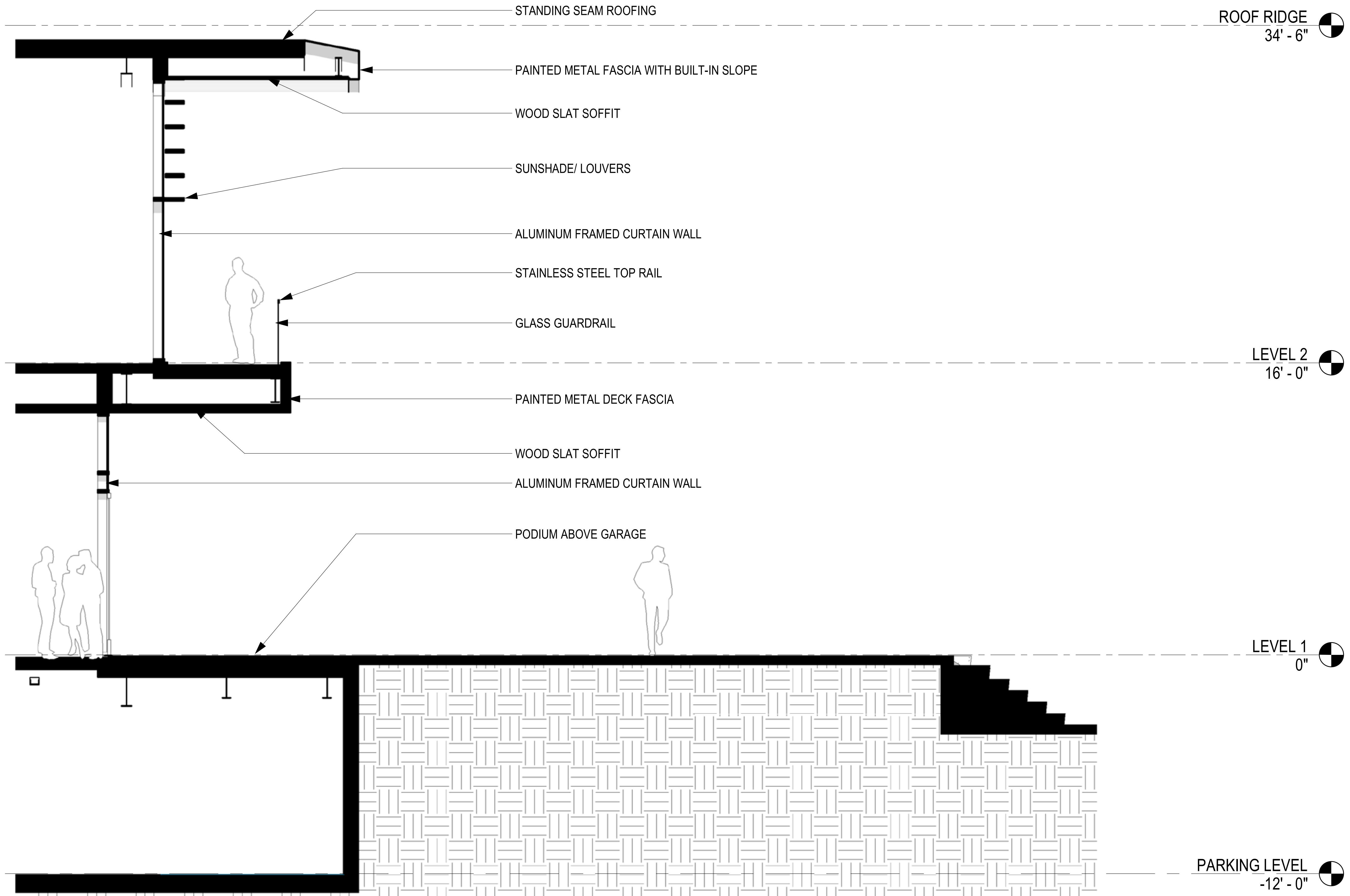
PODIUM ABOVE GARAGE

PLAZA TRELLIS

LEVEL 1
0"

PARKING LEVEL
-12' - 0"





3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

07/15/2019

ARCHITECTURAL DESIGN
WALL SECTION

A2.10



SILVER METAL PANEL



PAVERS AT BALCONY



WOOD SLAT SOFFIT



GLASS



PEDESTRIAN TILE SEE SHEET L1.2



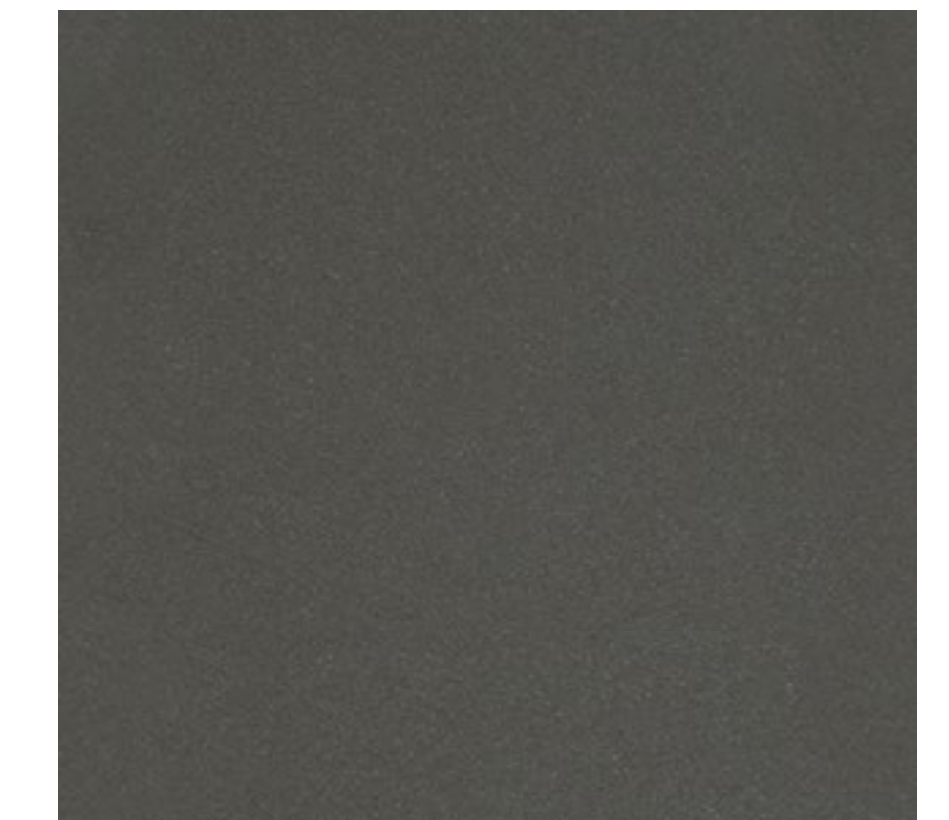
VEHICULAR ACCENT PAVING SEE SHEET L1.2
PEDESTRIAN ACCENT PAVING



**WHITE STRUCTURAL
& ACCENT METAL**



**SILVER METAL
MULLION**



GREY METAL ACCENT

PORTER HUB		PLANNING/ZONING ANALYSIS	
SITE SUMMARY		PALO ALTO MUNICIPAL CODE (PAMC)	
Site Area	1,671	72,790 SF	
Zone	RP - Research Park District	PAMC, Chapter 18.20.030, Table 1; Zone Map/Page 11; Chapter 18.82	
Planning District:	LM Limited Industrial/Research Park District	PAMC - Chapter 18.20.030, Table 1; Zone Map/Page 11; Chapter 18.82	
Minimum Site Area	1 Acre	PAMC, Chapter 18.20.040, Table 2	
Minimum Site Width	100 Feet	PAMC, Chapter 18.20.040, Table 3	
Minimum Site Depth	150 Feet	PAMC, Chapter 18.20.040, Table 4	
Minimum Front Yard Setback	50 Feet	Porter Drive Special Setback	
Minimum Rear Yard Setback	20 Feet	PAMC, Chapter 18.20.040, Table 2	
Minimum Side Yard Setback	20 Feet	PAMC, Chapter 18.20.040, Table 2	
ALLOWABLE AREA + HEIGHT			
Maximum Site Coverage	25%	18,197 SF	PAMC, Chapter 18.20.040, Table 2
Maximum Floor Area Ratio (FAR)	0.4 : 1	29,116 SF	PAMC, Chapter 18.20.040, Table 2
Maximum Height	35 Feet		PAMC, Chapter 18.20.040, Table 2
PARKING REQUIREMENTS			
1 Space for each 300 gross square feet	20,833		
Parking Spaces Required	70 Cars		PAMC, Chapter 18.52.040, Table 1
Accessible Parking Stalls			PAMC, Chapter 18.83.070
No paved areas within 5 feet of property lines			
Min 1 Carpool / Vanpool space			
Bike Parking (10%) 1 per 3000 sf	7 Spaces		
EV Charging (5% min; 25% future)	4 Spaces		
Service Areas	Screened from view		PAMC, Chapter 18.52.040, Table 1; SRPH Site Planning Table
Surface Drainage	Must be contained on site		SRPH
Utilities	Lines Underground; equipment screened from view		SRPH
Rooftop Equipment	Screened, with screen appearing as an integral part of the building design		SRPH
	Maximum 15 feet above roof, min 20 feet from building edge closest to residential site or min 100 feet from residential property line		PAMC, Chapter 18.20.040, Table 2 € (3)
Bicycle Circulation and Parking:	Must be incorporated into site design		SRPH
	7 Spaces (Min 10% of Auto Parking)		
	80% Class I Parking (long term parking)		
	20% Class II Parking (short term parking)		
Pedestrian Circulation	5 foot wide; required at street frontage and from street to buildings		SRPH PAMC, Chapter 18.83.050 - Table 1
Fences	None permitted in street-side setback; 8 feet maximum other places; 6 feet maximum at refuse areas		SRPH

3215 PORTER DRIVE		BUILDING CODE ANALYSIS		CBC 2016	
BUILDING CLASSIFICATIONS		SECTION 302.1			
Occupancy Group	A / S2		1-hour separation betw. Garage and office building		
A (office with assembly)	A / B	Section 303.4	Mixed Use / Non-Separated Occupancies (Section 508.3.3		
S-2 (Basement parking garage, enclosed)		Section 311.3			
Construction Type	II-B	Section 603.1			
Non High Rise	< 75 feet to top occupied Floor	Section 202 Definitions			
Fully Sprinklered					
ALLOWABLE AREA		CHAPTER 5			
Max # Stories	3	Table 504.4	2 stories over 1 level basement garage proposed		
Max Height	55	Table 504.3	34'-6" proposed		
ACTUAL AREA					
Level 1	10,721				
Level 2	11,212				
Basement Garage	0				
	21,933				
REQUIRED SEPARATION / OCC GROUPS		TABLE 508.4			
A / S2	1 Hr - S	Table 508.4	A separation from S-2 parking, fully sprinklered		
FIRE RESISTIVE REQUIREMENTS		TABLE 601			
Structural Frame	NR	Rating required at supporting structure of shaft walls, etc.			
Exterior and Interior Bearing Walls	NR				
Nonbearing Interior Partitions	NR				
Shaft Enclosures	1 Hr	Section 713.4			
Floor Construction	NR	Rating required at supporting structure of shaft walls, etc.			
Roof Construction	NR				
Stairway Construction	NC				
EXTERIOR WALL FIRE RESISTANCE RATING		TABLE 602			
Less than 5 feet	1 Hr	A-2			
Between 5 and 10 feet	1 Hr	A-2			
Between 10 and 30 feet	NR	A-2			
Greater than 30 feet	NR	A-2	Proposed face of building is greater than 30' all sides.		
EXITS AND TRAVEL DISTANCE					
Enclosed Parking Garage	Two exits required below 500 occupants. S-2 = 200sf/occ. = approx. 200 occupants.	Section 406.5 Section 406.6 Table 1004.1.2			
Travel Distance	A3 with sprinkler: 250' S2 with sprinkler: 400'	Table 1017.2			
Exit Separation	1/3 maximum diagonal distance	Section 1007.1.1			

PLUMBING FIXTURE SUMMARY (PER CPC TABLE 422.1)													
Total Building		17642 SF	Occupants per CPC chap		Men	Women	M-WC	M-U	W-WC	M-L	W-L		
A-2 OCC - Dining/Conference	6945 SF	1:30	232	142	142	3	2	8	3	3	TOTAL FIXTURES REQUIRED		
A-2 OCC - Kitchen	2665 SF	1:200	13										
A-2 OCC - Storage	471 SF	1:300	2										
B OCC	7561 SF	1:200	38										
			Total Occupants									Total M/F Fixtures Provided	
			Men									8	
			Women									7	
											8		
											8		
											TOTAL FIXTURES PROVIDED		
											TOTAL FIXTURES PROVIDED - TOTAL FIXTURES REQUIRED		

3215 PORTER DRIVE

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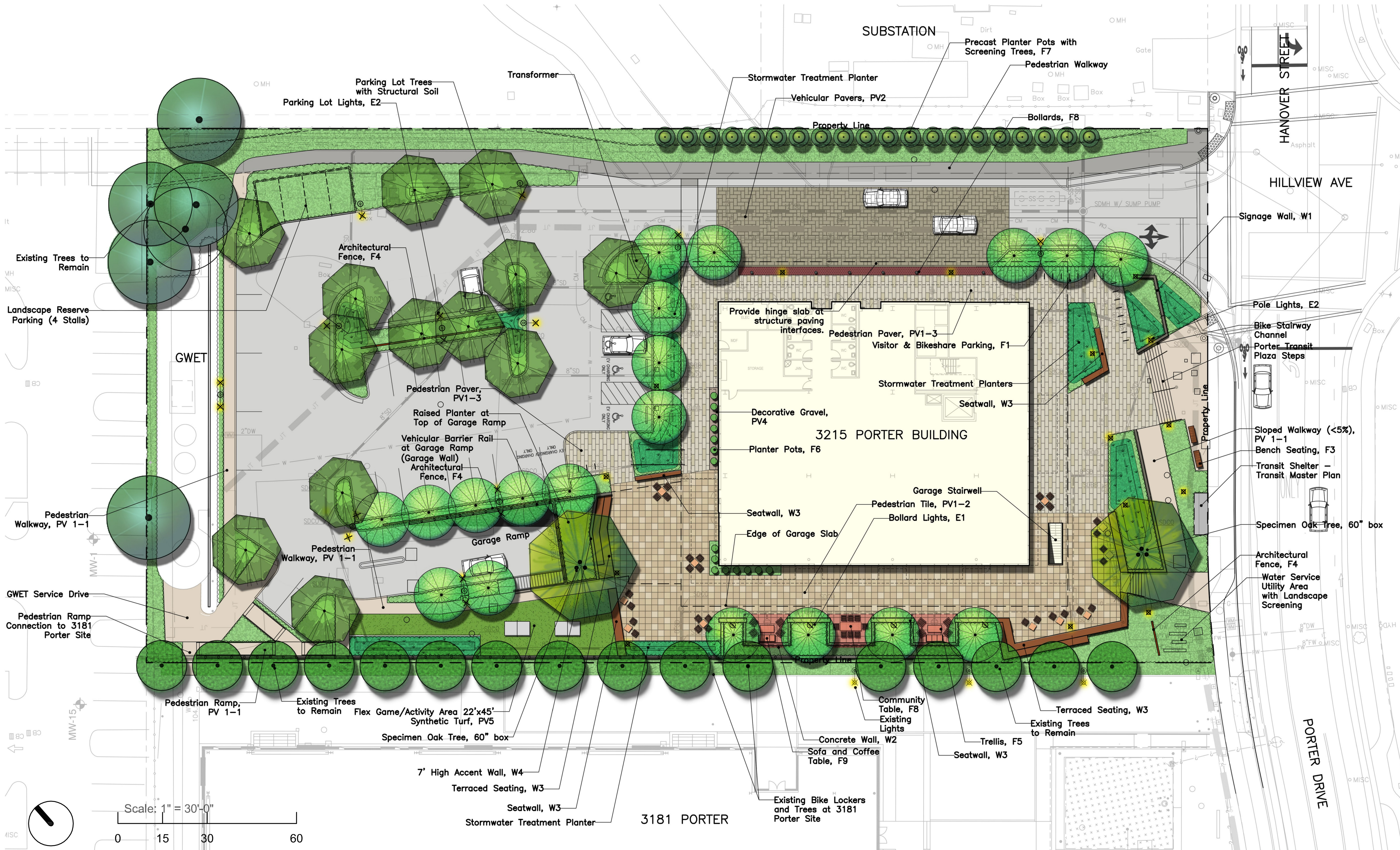
ARCHITECTURAL DESIGN

CODE SUMMARY

A2.12

Code Section	Y	Plan Sheet, Spec or Attachment Reference	Compliance Path Verification					
			Plan Check		Rough GB Inspection I/R # 152		Final Inspection I/R # 153	
			CCRR	INITIAL	CCRR	INITIAL	CCRR	INITIAL
5.1 Planning and Design								
Mandatory	Storm water pollution prevention	5.106.1 X	BKF					
Mandatory	Local storm water pollution prevention	PAMC 16.14.290/ 5.106.1.1 X	BKF					
Mandatory	Best management practices	5.106.1.2 X	BKF					
Mandatory	Bicycle parking	PAMC 16.14.060/ 5.106.4 X	Studios					
Mandatory	Short term bicycle parking	5.106.4.1 X	Studios					
Mandatory	Long term bicycle parking	5.106.4.1.2 X	Studios					
Mandatory	(Bicycle) Parking stall markings	5.106.5.2.1 X	Studios					
Tier 2 Mand.	Designated parking - 12% of Parking Capacity	AS.106.5.1.2 X	Studios					
Tier 2 Mand.	Electric Vehicle (EV) Charging for Non-Residential Structures (EVSE) N]- New Construction. Shall provide Conduit Only, EVSE-Ready Outlet, or EVSE Installed for at least 25% of parking spaces, among which at least 5% (and no fewer than one) shall be EVSE Installed.	PAMC 16.14.430/ AS.106.5.3.2 X	Mazzetti					
Mandatory	Light pollution reduction	PAMC 16.14.295/ 5.106.8 X	Mazzetti					
Mandatory	Grading and paving (exception for additions and alterations not altering the drainage path)	5.106.10 X	BKF					
Tier 2 Mand.	Cool roof for reduction of heat island effect: SRI of 82 ≤ 2.12 and SRI of 27 + 2.12	AS.106.11.2 X	Studios					
Electives	Community connectivity	AS.103.1 X	Studios/Mazzetti					
Electives	Brownfield or greyfield site redevelopment or infill area development	AS.103.2 X	Studios/Mazzetti					
Electives	Reduce development footprint and optimize open space	AS.104.1 X	Studios/Mazzetti					
Electives	Existing building structure (75%)	AS.105.1.1 X	Studios					
Electives	Existing non-structure elements (50%)	AS.105.1.2 X	Studios					
Electives	Salvage	AS.105.1.3 X	Studios					
Electives	Storm water runoff rate and quantity	AS.106.2.1 X	BKF					
Electives	Storm water runoff quality	AS.106.2.2 X	BKF					
Electives	Low impact development (LID)	AS.106.3 X	BKF/Guzzardo					
Electives	Greyfield or infill site	AS.106.3.2 X	Studios					
Electives	Changing rooms	AS.106.4.3 X	Studios					
Electives	Parking capacity	AS.106.6 X	Studios					
Electives	Reduce parking capacity	AS.106.6.1 X	Studios					
Electives	Exterior wall shading: Fenestration- East and west walls	AS.106.7.1 X	Studios					
Electives	Exterior wall shading: Fenestration- South walls	AS.106.7.2 X	Studios					
Electives	Exterior wall shading: Opaque wall areas	AS.106.7.2 X	Studios					
Electives	Heat island effect: Hardscape alternatives and cool roof reduction	AS.106.11.1 X	Studios					
Electives	Heat island effect: Cool roof for reduction of heat island	AS.106.11.2 X	Studios					
Electives	Heat island effect: Solar reflectance	AS.106.11.2.1 X	Studios					
Electives	Heat island effect: Thermal emittance	AS.106.11.2.2 X	Studios					
Electives	Heat island effect: Solar reflectance index alternative	AS.106.11.2.3 X	Studios					
PAMC 16.17 Energy Reach Code								
Mandatory	Option 1: Performance approach specified within the 2016 California Energy Code shall be used to demonstrate that the TDV Energy of proposed non-residential construction is at least: Ten percent less than TDV energy of the Standard Design if the proposed building does not include a photovoltaic system or includes a photovoltaic system smaller than that of the Standard Design.	PAMC 16.17.050/ Title 24, Part 6	Palo Alto Building Inspector will verify Title 24 Energy Compliance in the Field.				See Energy Ace Checklist	
Mandatory	Option 2: Performance approach specified within the 2016 California Energy Code shall be used to demonstrate that the TDV Energy of proposed non-residential construction is at least: Equal to the TDV Energy of the Standard Design if the proposed building includes a PV or greater photovoltaic system.	PAMC 16.17.050/ Title 24, Part 6	Palo Alto Building Inspector will verify Title 24 Energy Compliance in the Field.				See Energy Ace Checklist	
Mandatory	All Electric Exemption: Non-residential construction designed to be all-electric shall be exempt from the Local Energy Efficiency Reach Code. Electricity shall be the only permanent source of energy for water-heating, space-heating, cooking and clothes drying. Compliance to all other requirements of the 2016 California Energy Code shall not be relieved.	PAMC 16.17.060/ Section 100.4 / Title 24, Part 6	Palo Alto Building Inspector will verify Title 24 Energy Compliance in the Field.				See Energy Ace Checklist	
Mandatory	Energy Star portfolio manager- All new construction or renovation projects greater than \$100,000 in value	PAMC 16.14.390/ 5.410.4.8 X	Stanford					
Mandatory	Performance Review- For projects over 10,000 SF	PAMC 16.14.390/ 5.410.4.7 X	Beyond Efficiency/Mazzetti					
5.3 Water Efficiency and Conservation								
Mandatory	Meters	5.303.1 X	Steve Reade					
Mandatory	New buildings or additions in excess of 50,000 square feet	5.303.1.1 X	Steve Reade					
Mandatory	Excess consumption (Submitters for additions that consume over 1,000 gal/ day)	5.303.1.2 X	Steve Reade					
Tier 2 Mand.	Water Reduction- 20% savings over the "water use baseline" Table AS.303.2.3.1	AS.303.2.3 X	Steve Reade					
Mandatory	Indoor Water Use: Water closets (shall not exceed 1.28 gallons per flush)	5.303.3.1 X	Steve Reade					
Mandatory	Indoor Water Use: Walk-mounted urinals (0.125gpf)	5.303.3.2.1 X	Steve Reade					
Mandatory	Indoor Water Use: Floor-mounted urinals (0.5 gpf)	5.303.3.2.2 X	Steve Reade					
Mandatory	Indoor Water Use: Single showerhead (1.8 gpm at 80 psi)	5.303.3.3.1 X	Steve Reade					
Mandatory	Indoor Water Use: Multiple showerheads serving one shower (flow rate of 1.8 gpm at 80 psi)	5.303.3.3.2 X	Steve Reade					
Mandatory	Indoor Water Use: Nonresidential lavatory faucets (0.5 gpm at 60 psi)	5.303.3.4.1 X	Steve Reade					
Mandatory	Indoor Water Use: Kitchen faucets (1.8 gpm at 60 psi)	5.303.3.4.2 X	Steve Reade					
Mandatory	Indoor Water Use: Wash fountains (1.8 gpm at 60 psi)	5.303.3.4.3 X	Steve Reade					
Mandatory	Indoor Water Use: Metering faucets (0.2 gallons/ cycle)	5.303.3.4.4 X	Steve Reade					
Mandatory	Indoor Water Use: Metering faucets for wash fountains (0.2 gallons/ cycle)	5.303.3.4.5 X	Steve Reade					
Mandatory	Commercial kitchen equipment	5.303.4 X	Steve Reade					
Mandatory	Food waste disposers	5.303.4.1 X	Steve Reade					
Mandatory	Indoor water use: Areas of addition or alteration	5.303.5 X	Steve Reade					
Mandatory	Dual plumbing	PAMC 16.14.300/ 5.303.5 X	Steve Reade					
Mandatory	Indoor Water Use: Standards for plumbing fixtures and fittings (2016 Cal Plumbing Code)	5.303.6 X	Steve Reade					
Mandatory	Outdoor Water Use: Landscaped areas ≥ 500 SF	Title 23, Chapter 2.7/ 5.304.1 X	Guzzardo					
Mandatory	Outdoor Water Use : Rehabilitated landscape projects ≥ 2,500 SF	Title 23, Chapter 2.7/ 5.304.3 X	Guzzardo					
Mandatory	Outdoor Water Use : Landscaped areas of ≤ 2,500 SF	5.304.4 X	Landscape					
Mandatory	Outdoor Water Use: Graywater or Rainwater Use: Landscaped areas ≤ 2,500 SF	5.304.5 X	Landscape					
Mandatory	Potable water elimination	PAMC 16.14.350/ 5.304.5 X	Steve Reade/Guzzardo					
Mandatory	New construction; recycled water use for irrigation (See recycled water ordinance # 5002, of PAMC 16.12)	PAMC 16.12.030 X	Steve Reade/Guzzardo					
Mandatory	Invasive species prohibited	PAMC 16.14.360/ 5.304.6 X	Landscape					
Mandatory	Non-residential enhanced water budget	5.303.3 X	Steve Reade					
Electives	Indoor water use: 25% reduction	AS.303.2.3 X	Steve Reade					
Electives	Nonpotable water systems for indoor water use	AS.303.2.3.4 X	Steve Reade					
Electives	Appliances and fixtures for commercial application	AS.303.3 X	Studios					
Electives	Nonwater supplied urinals	AS.303.4.1 X	Studios					
Electives	Outdoor Water Use: Restoration of areas disturbed by construction	AS.304.6 X	Landscape					
Electives	Outdoor Water Use: Previously developed sites: restore or protect 50 % of site area	AS.304.7 X	Landscape					
Electives	Outdoor Water Use: Graywater irrigation system	AS.304.8 X	Landscape					
Electives	Nonpotable water systems	AS.305.1 X	Landscape					
Electives	Irrigation system	AS.305.2 X	Landscape					
5.4 Material Conservation and Resource Efficiency								
Tier 2 Mand.	Recycled content. Use materials with a total recycled content of 15%	AS.405.4 X	Devcon/Studios					
Mandatory	Weather protection	5.407.1 X	Studios					
Mandatory	Moisture control: Sprinklers	5.407.2.1 X	Landscape					
Mandatory	Moisture control: Entries + Openings	5.407.2.2 X	Studios					
Mandatory	Moisture control: Exterior door protection	5.407.2.2.1 X	Studios					
Mandatory	Moisture control: Flashing	5.407.2.2.2 X	Studios					
Mandatory	Construction waste management	5.408.1 X	Devcon					
Mandatory	Construction waste management plan	5.408.1.1 X	Devcon					
Mandatory	Waste management company	5.408.1.2 X	Devcon					
Mandatory	Waste stream reduction alternative	5.408.1.3 X	Devcon					
Mandatory	Documentation: Construction waste management plan, waste management company, waste stream reduction alternative	5.408.1.4 X	BKF					
Mandatory	Excavated soil and land clearing debris (100% reuse or recycle)	5.408.3 X	BKF/Devcon					
Tier 2 Mand.	Enhanced construction waste reduction (80% diversion rate for projects exceeding \$25,000 in value; 65% diversion rate for projects less than \$25,000)	PAMC 16.14.370 X	Devcon					
Mandatory	Recycling by occupants	5.410.1 X	Arch					
Mandatory	Commissioning (≥ 10,000 SF) [N]	5.410.2 X	CA					
Mandatory	Commissioning plan [N]	5.410.2.3 X	CA					
Mandatory	Functional performance testing [N]	5.410.2.4 X	CA					
Mandatory	Documentation and Training: Systems manual	5.410.2.5 X	CA					
Mandatory	Documentation and Training: Systems operations training [N]	5.410.2.5.2 X	CA					
Mandatory	Commissioning report [N]	5.410.2.5.3 X	CA					
Mandatory	Testing and adjusting for [N] buildings < 10,000 SF or new systems that serve additions or alterations [AA]	5.410.4 X	CA					
Mandatory	Testing and adjusting for systems: HVAC, lighting, water heating, renewable energy, landscape irrigation, and water	5.410.4.2 X	CA					
Mandatory	Testing and adjusting: Procedures	5.410.4.3 X	CA					
Mandatory	Testing and adjusting: HVAC balancing	5.410.4.3.1 X	CA					
Mandatory	Testing, adjusting and balancing: Reporting for HVAC balancing	5.410.4.4 X	CA					
Mandatory	Operation and maintenance (O&M) manual	5.410.4.5 X	CA					
Mandatory	Performance reviews- Water (sites > 1 acre)	PAMC 16.14.400/ 5.410.4.8 X	Guzzardo					
Mandatory	Inspection and reports [AA] + [N] < 10,000 SF	5.410.4.5.1 X	CA					

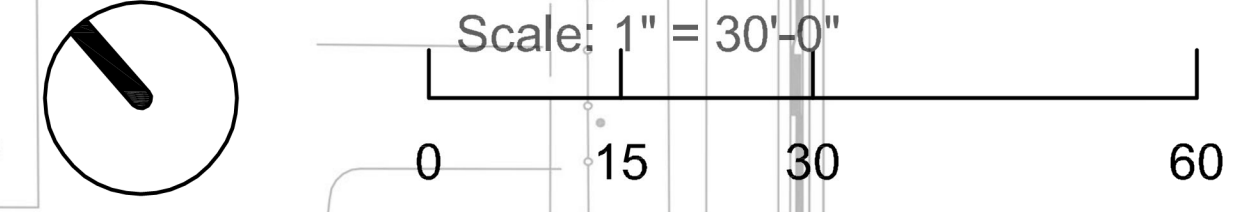
Code Section	Y	Plan Sheet, Spec or Attachment Reference	Compliance Path Verification					
			Plan Check		Rough GB Inspection I/R # 152		Final Inspection I/R # 153	
			CCRR	INITIAL	CCRR	INITIAL	CCRR	INITIAL
5.4 Material Conservation and Resource Efficiency, continued								
Electives	Wood Framing: Structural or fire-resistance integrity	AS.404.1.1 X						
Electives	Wood Framing: Framing specifications	AS.404.1.2 X						
Electives	Regional materials	AS.405.1 X	Devcon					
Electives	Bio-based materials: Certified wood	AS.405.2.1 X	Studios/Devcon					
Electives	Bio-based materials: Rapidly renewable materials	AS.405.2.2 X						
Electives	Reused materials	AS.405.3 X						
Electives	Alternate method for concrete	AS.405.4.5 X						
Electives	Cement and concrete: Cement	AS.405.5.1 X						
Electives	Cement and concrete: Concrete	AS.405.5.2 X						
Electives	Additional means of compliance- Cement: Alternative fuels	AS.405.5.3.1 X						
Electives	Additional means of compliance- Cement: Alternative power	AS.405.5.3.2 X						
Electives	Additional means of compliance- Concrete: Alternative energy	AS.405.5.3.2.1 X						
Electives	Additional means of compliance- Concrete: Recycled aggregate	AS.405.5.3.2.2 X	Devcon					
Electives	Additional means of compliance- Concrete: Mixing water	AS.405.5.3.2.3 X						
Electives	Additional means of compliance- Concrete: High strength concrete	AS.405.5.3.2.4 X						
Electives	Choice of materials: Service life	AS.406.1.1 X	Studios					
Electives	Choice of materials: Reduced maintenance	AS.406.1.2 X	Studios					
Electives	Choice of materials: Recyclability	AS.406.1.3 X						
Electives	Life Cycle Assessment shall be ISO 14044 compliant	AS.409.1 X						
Electives	Whole building life cycle assessment	AS.409.2 X						
Electives	Materials and system assemblies	AS.409.3 X						
Electives	Substitution of prescriptive standards	AS.409.4 X						
Electives	Verification of compliance	AS.409.5 X						
5.5 Environmental Quality								
Mandatory	Fireplaces	5.503.1 X	n/a					
Mandatory	Temporary ventilation (MERV 8)	5.504.3 X	Steve Reade					
Mandatory	Covering of duct openings and protection of mechanical equipment during construction	5.504.3 X	Devcon					
Mandatory	Adhesives, sealants and caulks: Comply with VOC limits (Table 5.504.4.1 and 5.504.4.2)	5.504.4.1 X	Specifications/Devcon					
Mandatory	Paints and Coatings: Comply with VOC Limits (Table 5.504.4.3)	5.504.4.3 X	Specifications/Devcon					
Mandatory	Aerosol paints and coatings	5.504.4.3.1 X	Specifications/Devcon					
Mandatory	Verification, for paints and coatings	5.504.4.3.2 X						
Mandatory	Carpet systems: Carpet cushion	5.504.4.4.1 X	Studios					
Mandatory	Carpet systems: Carpet adhesive	5.504.4.4.2 X	Studios					
Mandatory	Composite wood products: Formaldehyde limits (Table 5.504.4.5)	5.504.4.5 X	All team for applicable materials					
Mandatory	Composite wood products: Documentation	5.504.4.5.1 X	All team for applicable materials					
Tier 2 Mand.	Realized Flooring system, 100%	AS.504.4.7.1 X	Studios					
Tier 2 Mand.	No added formaldehyde- Tier 2 level	AS.504.4.8.1 X	Studios					
Tier 2 Mand.	Thermal Insulation	AS.504.4.8.1 X	Studios					
Tier 2 Mand.	Filters (MERV 13)	AS.504.5.3.1.1 X	Steve Reade					
Mandatory	Environmental tobacco smoke (ETS) control	5.504.7 X	Steve Reade					
Mandatory	Outside air delivery (For Indoor Air Quality)							



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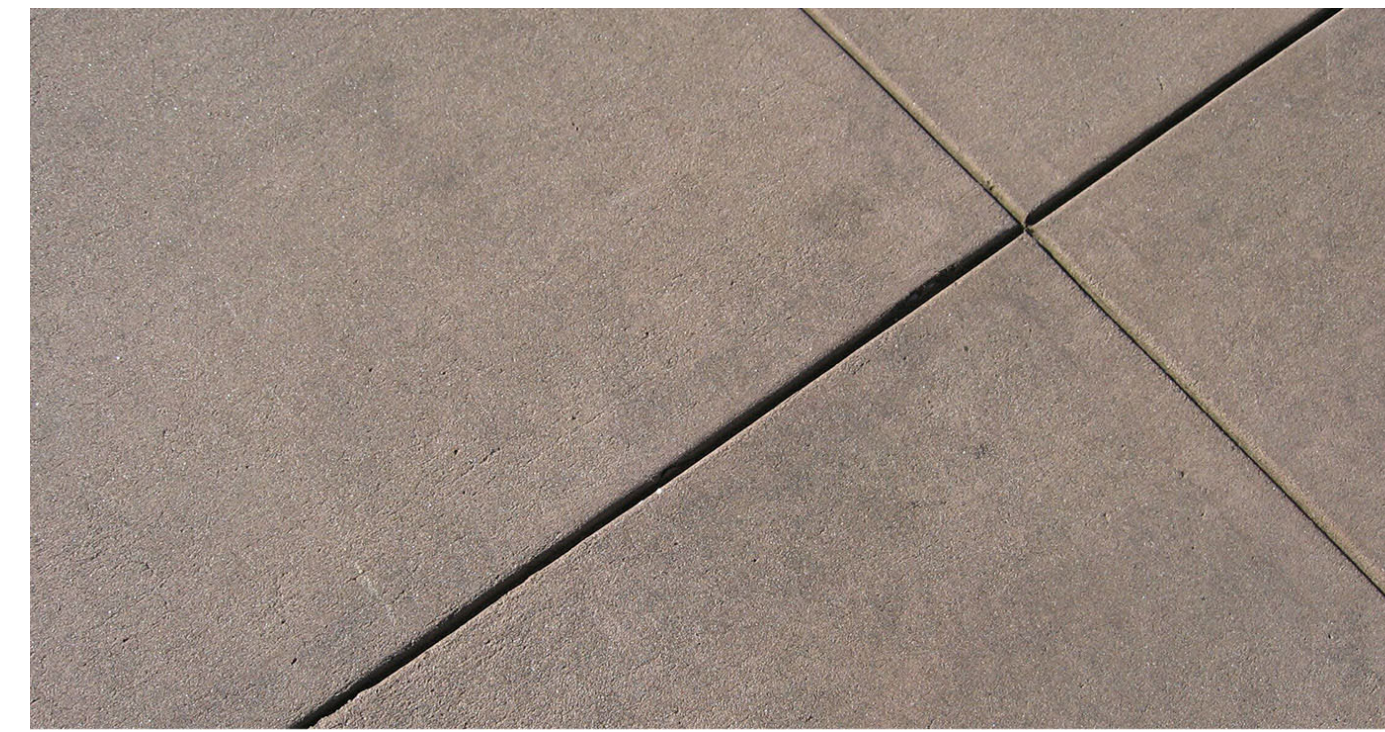


3215 PORTER DRIVE
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07.15.19

LANDSCAPE PLAN L1.1

KEY	DESCRIPTION	SIZE/COLOR/FINISH	MANUFACTURER
PAVING			
PV 1-1	PEDESTRIAN CONCRETE	Natural Gray w/ Broom Finish	
PV 1-2	PEDESTRIAN TILE	24"x24" Porcelain paver, Mortar on concrete subslab	Belgard
PV 1-3	PEDESTRIAN PAVER	6"x12", 8cm thick pavers, two colors, running bond pattern	Ackerstone
PV 2	VEHICULAR PAVER	6"x12", 10cm thick pavers, two colors, herringbone pattern	Ackerstone
PV 3	PEDESTRIAN STAIR AND RAMP	Natural Gray w/ Topcast Finish	
PV 4	DECORATIVE GRAVEL	2"x3", Black La Paz Pebble	Lyngso Garden Materials
PV 5	SYNTHETIC TURF	Nutmeg Lush	Available from Heavenly Greens
WALLS			
W 1	SIGNAGE WALL	Cast in place concrete, with integral color.	
W 2	CONCRETE WALL	Cast in place concrete, with integral color.	
W 3	SEAT WALL	Cast in place concrete, with integral color, with IPE slat wood top	
W 4	ACCENT WALL	Cast in place concrete, with integral color, with mosaic tile finish	
FIXTURES			
F 1	BIKE RACK	Edgetyre STE310 by mmcite	Available from Modern Design Furnishing Company
F 3	BENCH	Nu Bench 102" with arm	Landscape Forms
F 4	ARCHIECTURAL FENCE	Decorative metal tube and bar fence, 8' high	
F 5	TRELLIS	Metal posts and beams with aluminum louvered panels and glass panels	Landscape Forms Upfit
F 6	PLANTER POT - SMALL	Kyoto 35" x 28" High, Color Anthracite	Yard Art
F 7	PLANTER POT - LARGE	60" Dia x 42" high, custom banding finish	Quickcrete
F 8	BOLLARDS	6" Dia x 36" high, Baseplate Mounted Stainless Steel	1-800-BOLLARDS
LIGHTS			
E 1	BOLLARD LIGHT	Hess Linea S LED, Color Silver Gray	Hess
E 2	PARKING LOT LIGHT	Gullwing LED, 16' high pole, black	Gardco
E 3	POLE LIGHT	Avalon LED, 12' High, Color: Silver Gray	Hess



Integral Color Concrete Paving



Vehicular Accent Paving - Herringbone Pattern
Pedestrian Accent Paving - Running Bond Pattern



Pedestrian Tile



Flex Game Area



Planter Pot



Pot at Substation



Bollards



Concrete Retaining Wall & Guardrail

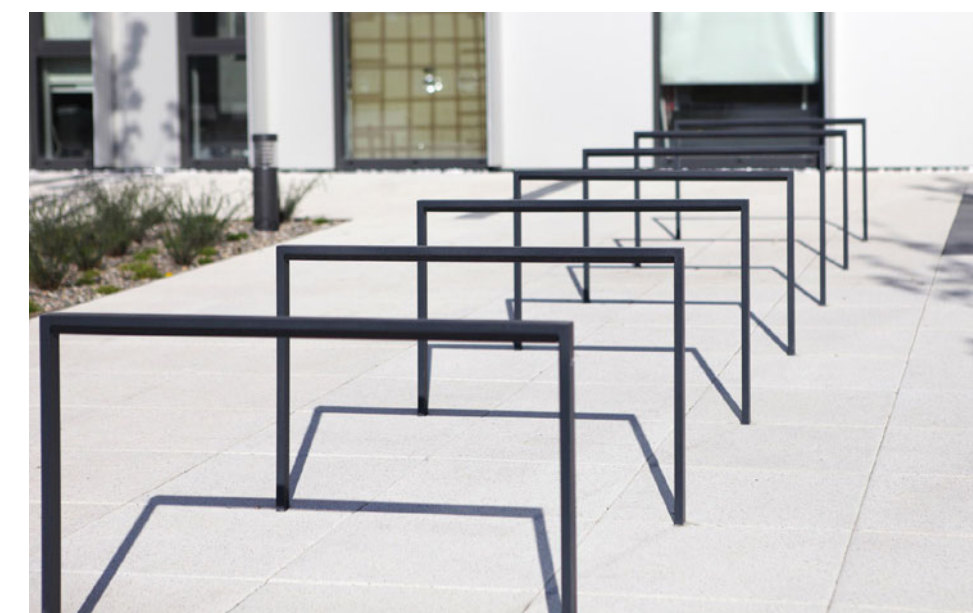


Flush Curb/ Truncated Domes

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Bike Rack



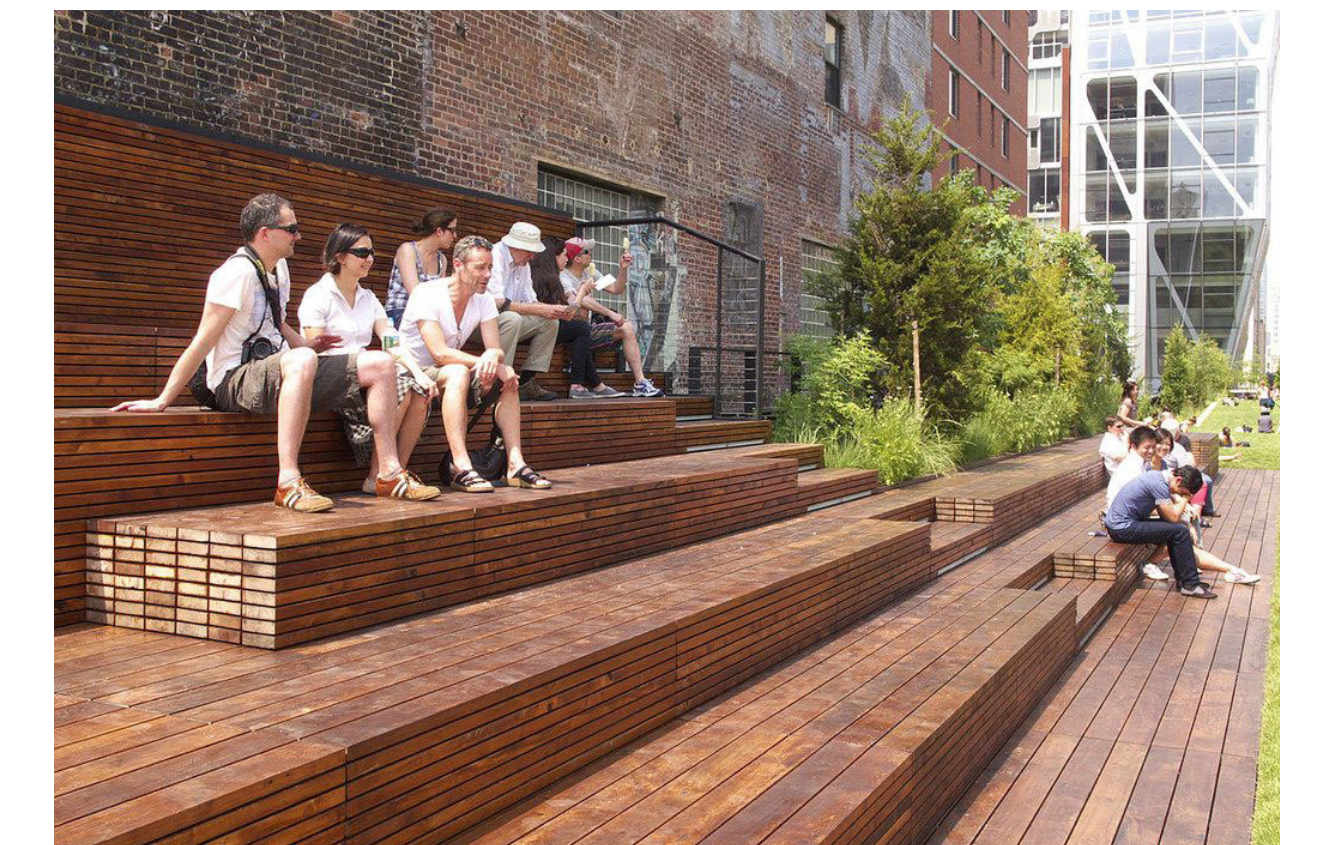
Bench Seating



Stormwater Treatment Area



Trellis



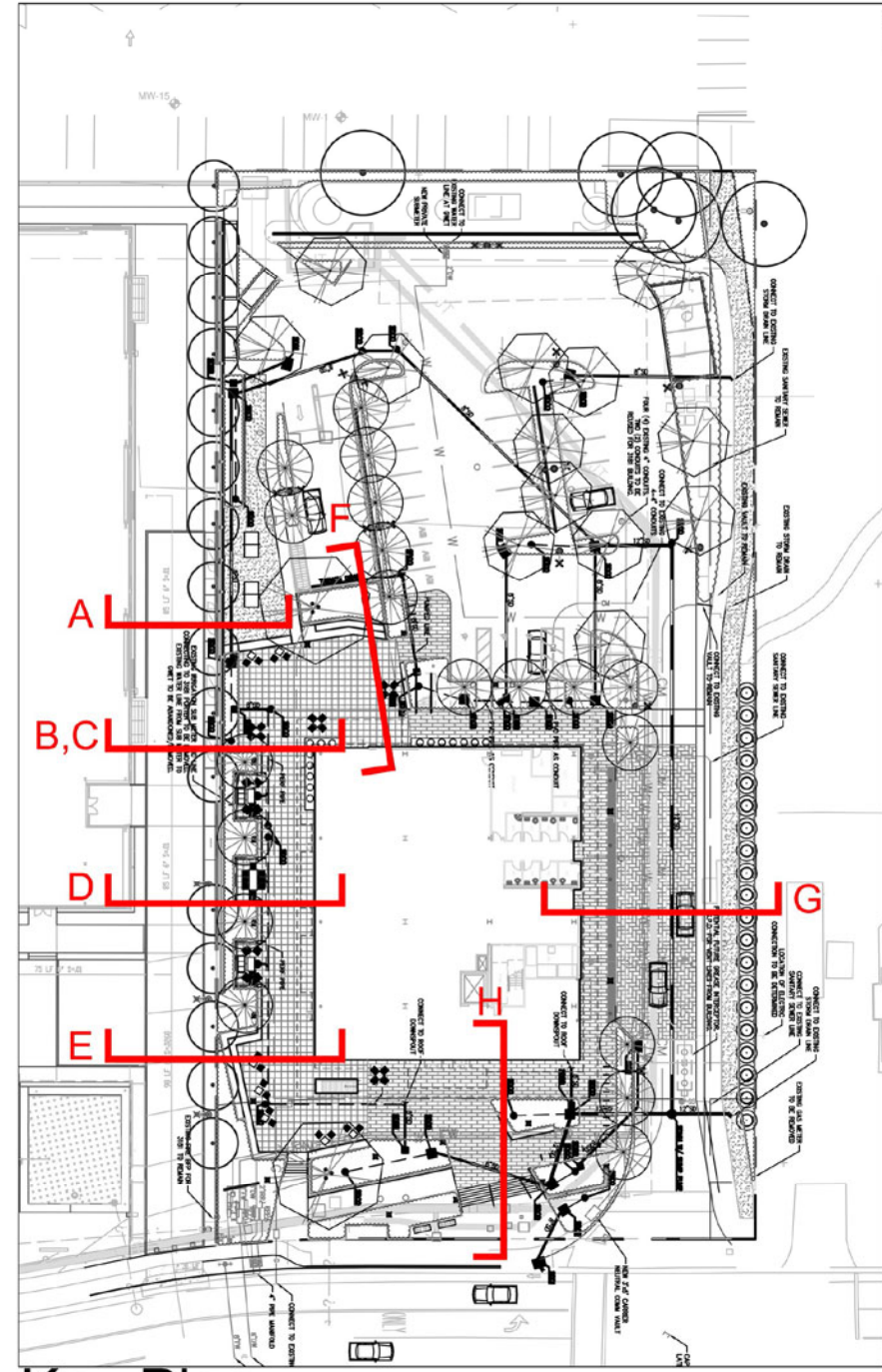
Terraced Seat Wall

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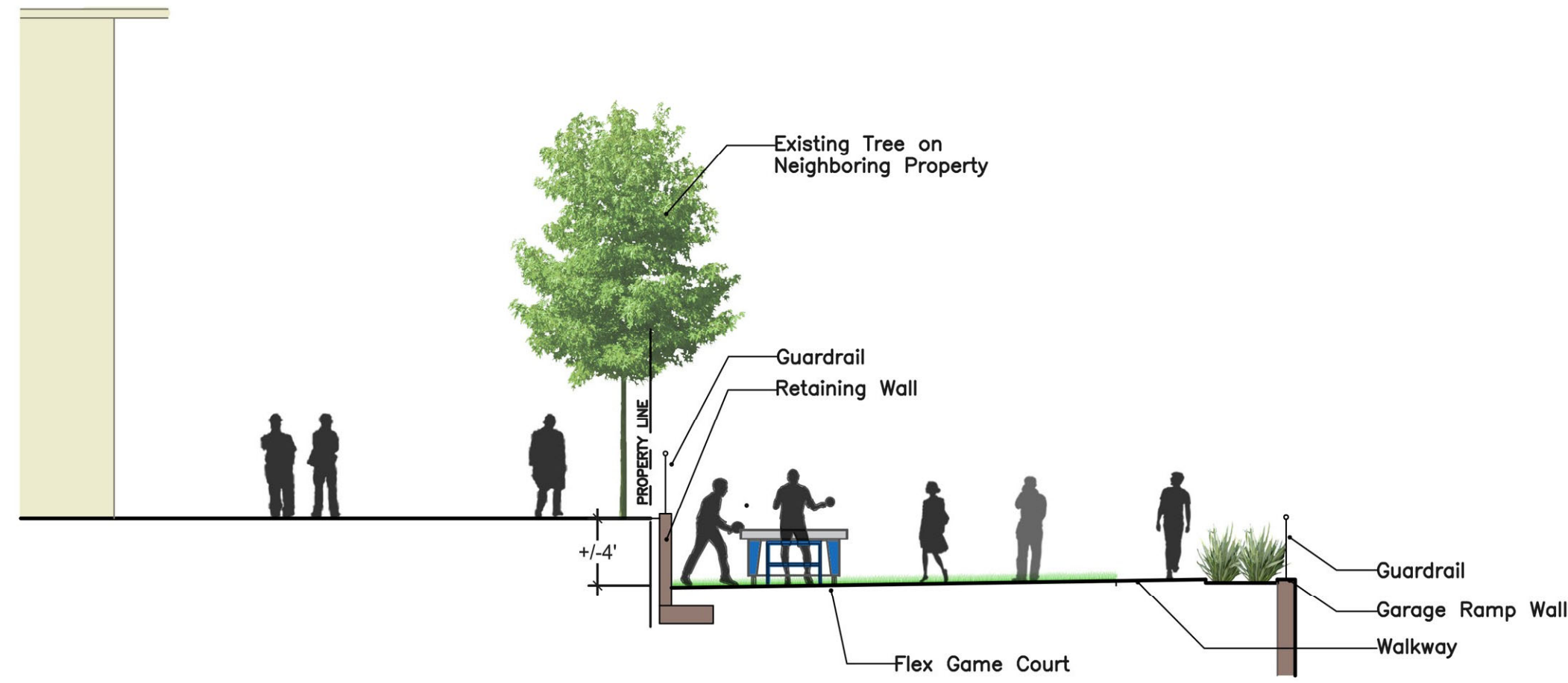
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LANDSCAPE MATERIALS

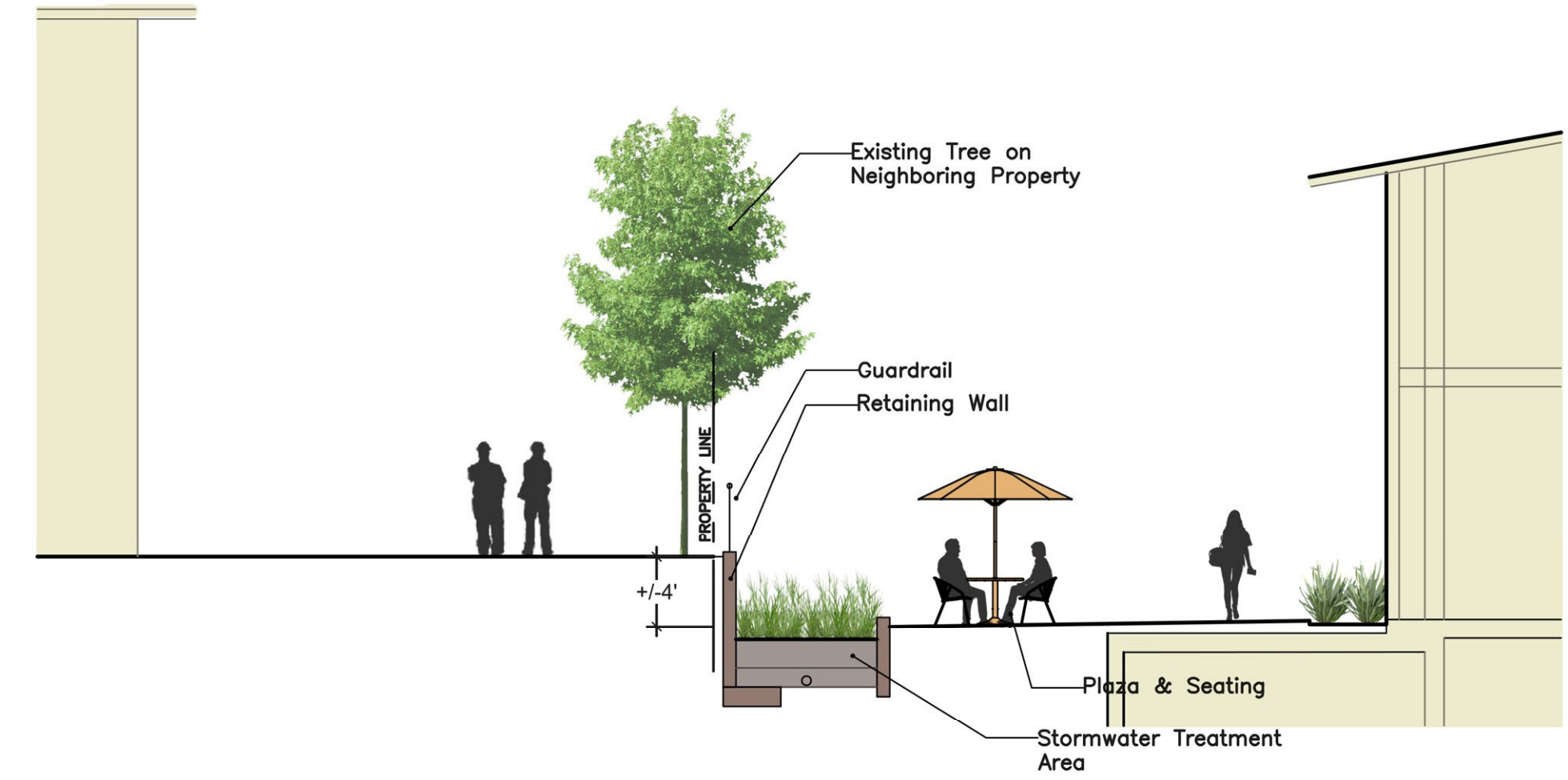
L1.2



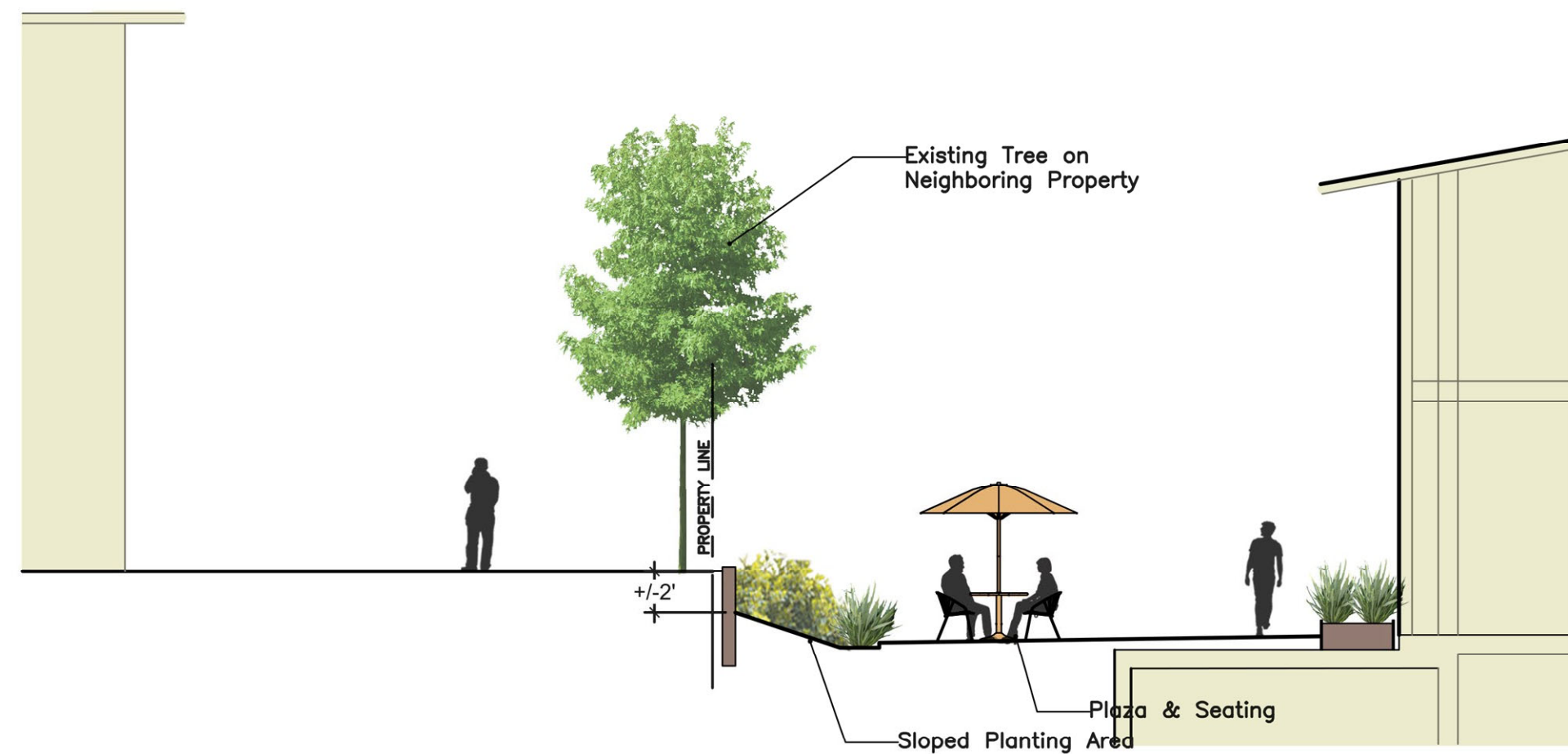
Key Plan
Not To Scale



A South Property Line Section
Scale: 1/16"=1'-0"



B South Property Line Section
Scale: 1/16"=1'-0"

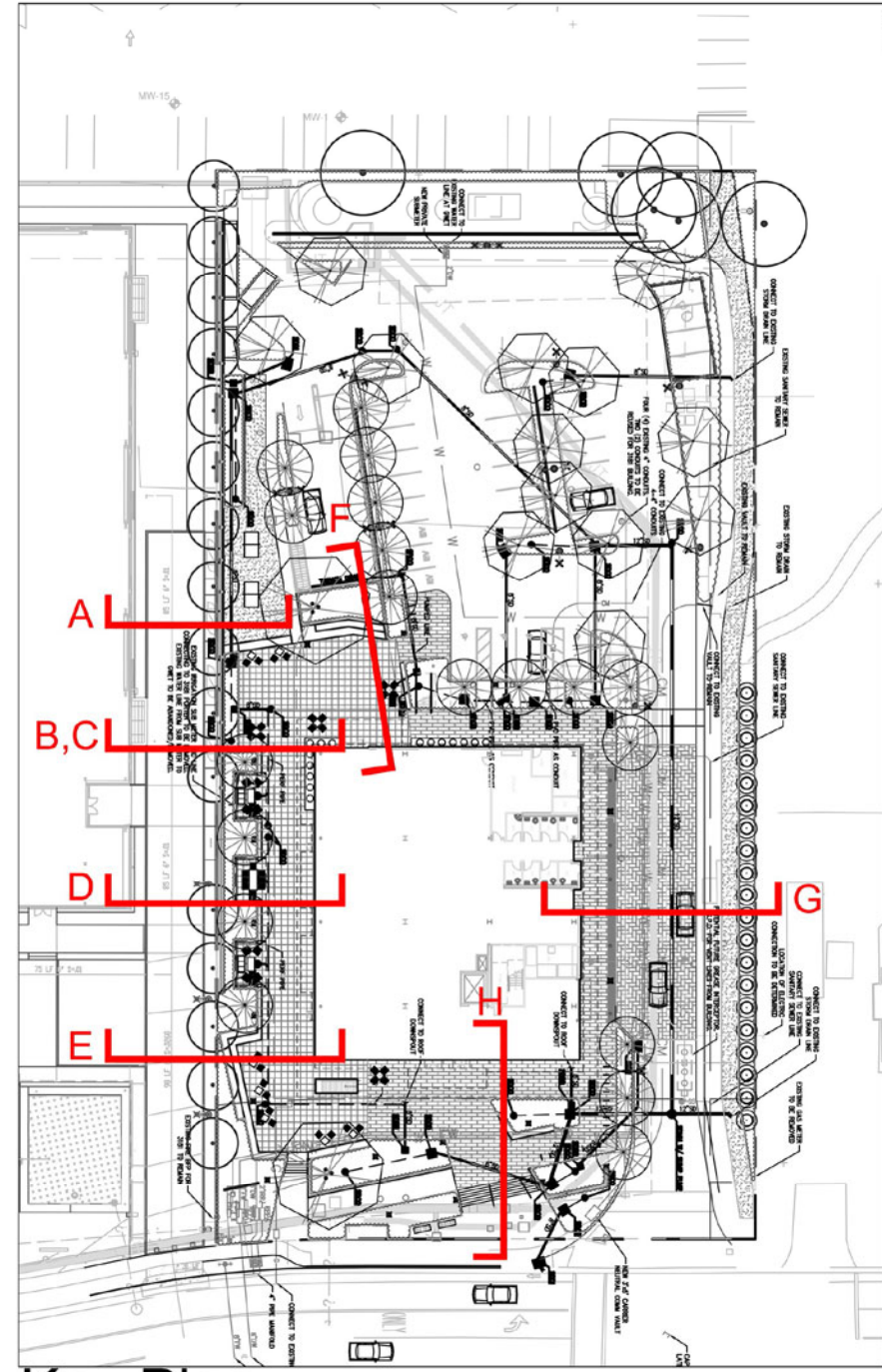


C South Property Line Section
Scale: 1/16"=1'-0"

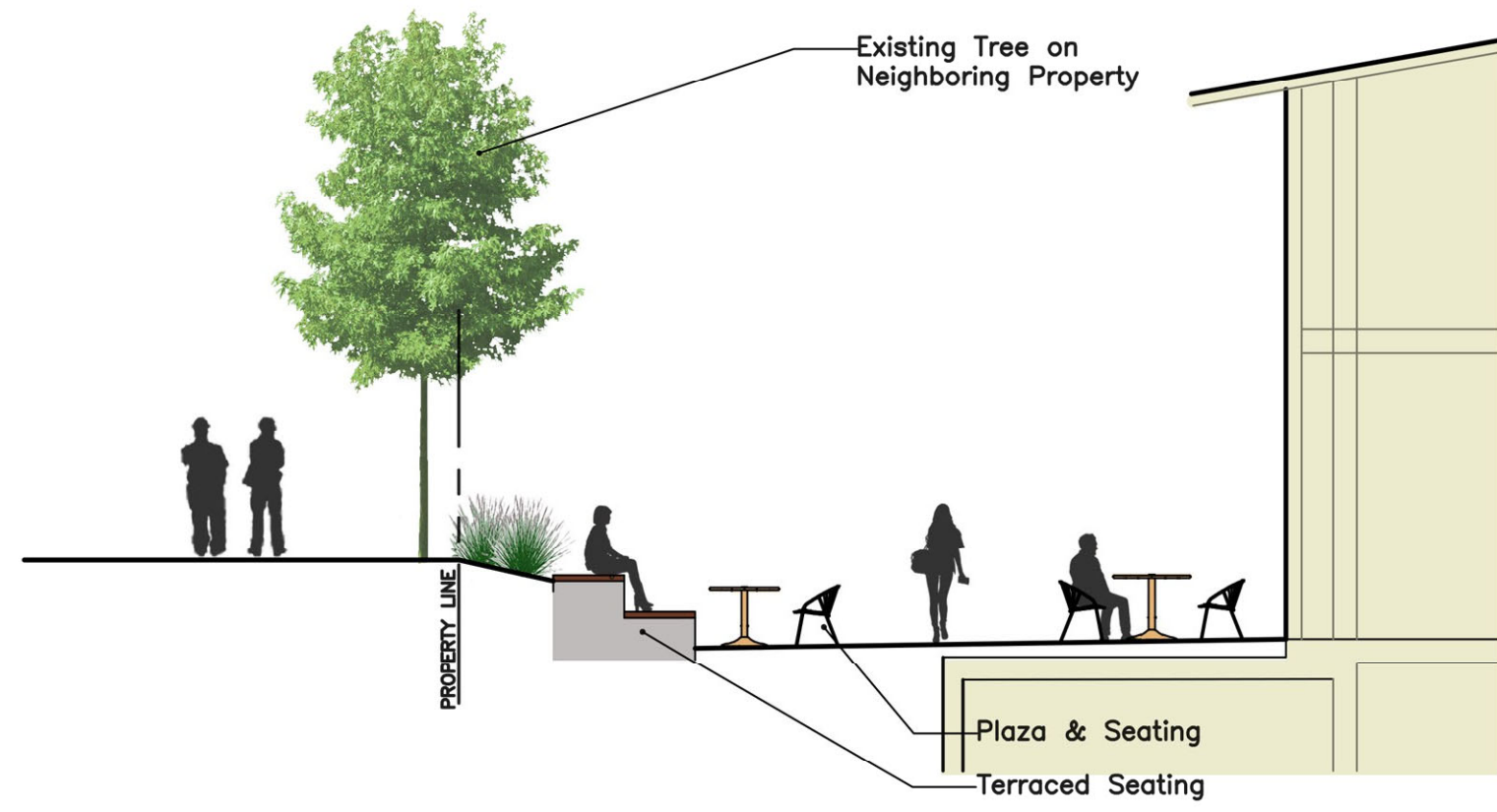


D South Property Line Section
Scale: 1/16"=1'-0"

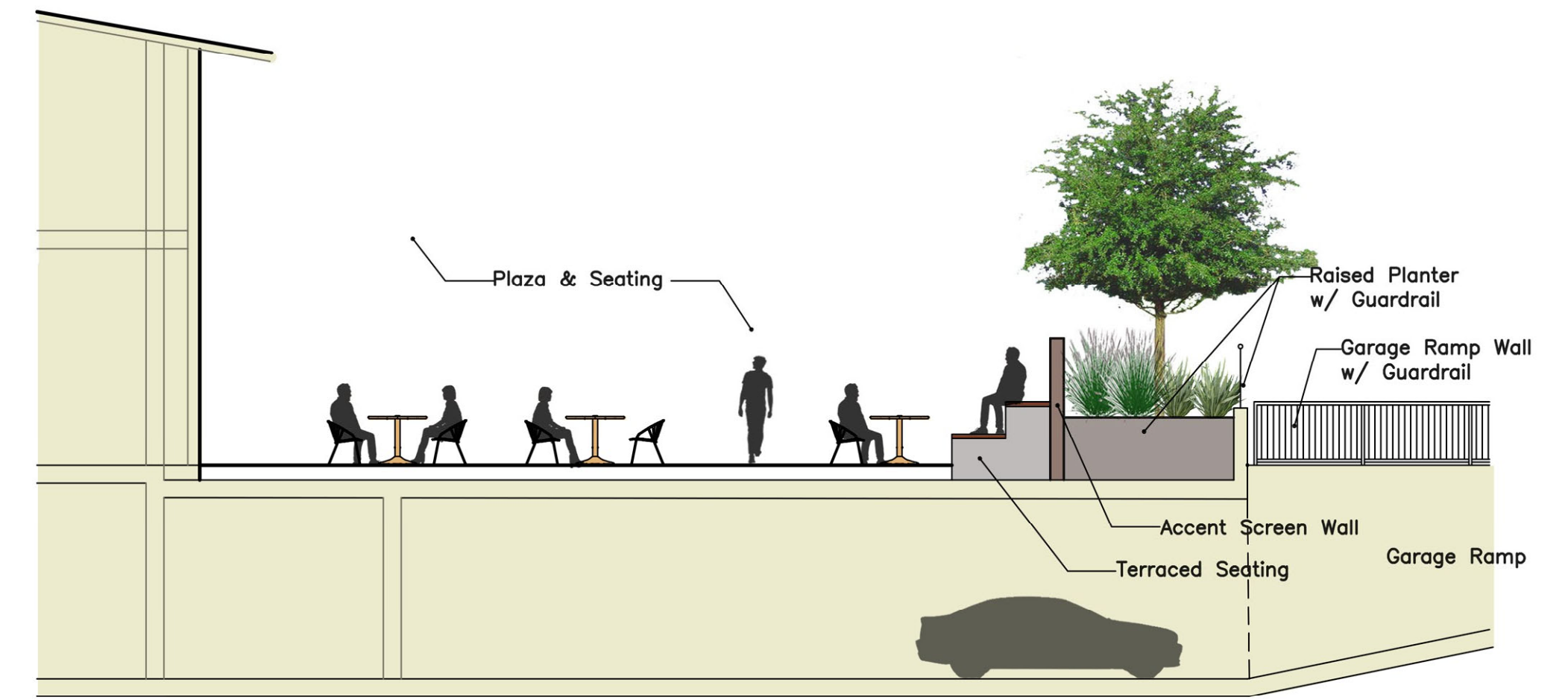




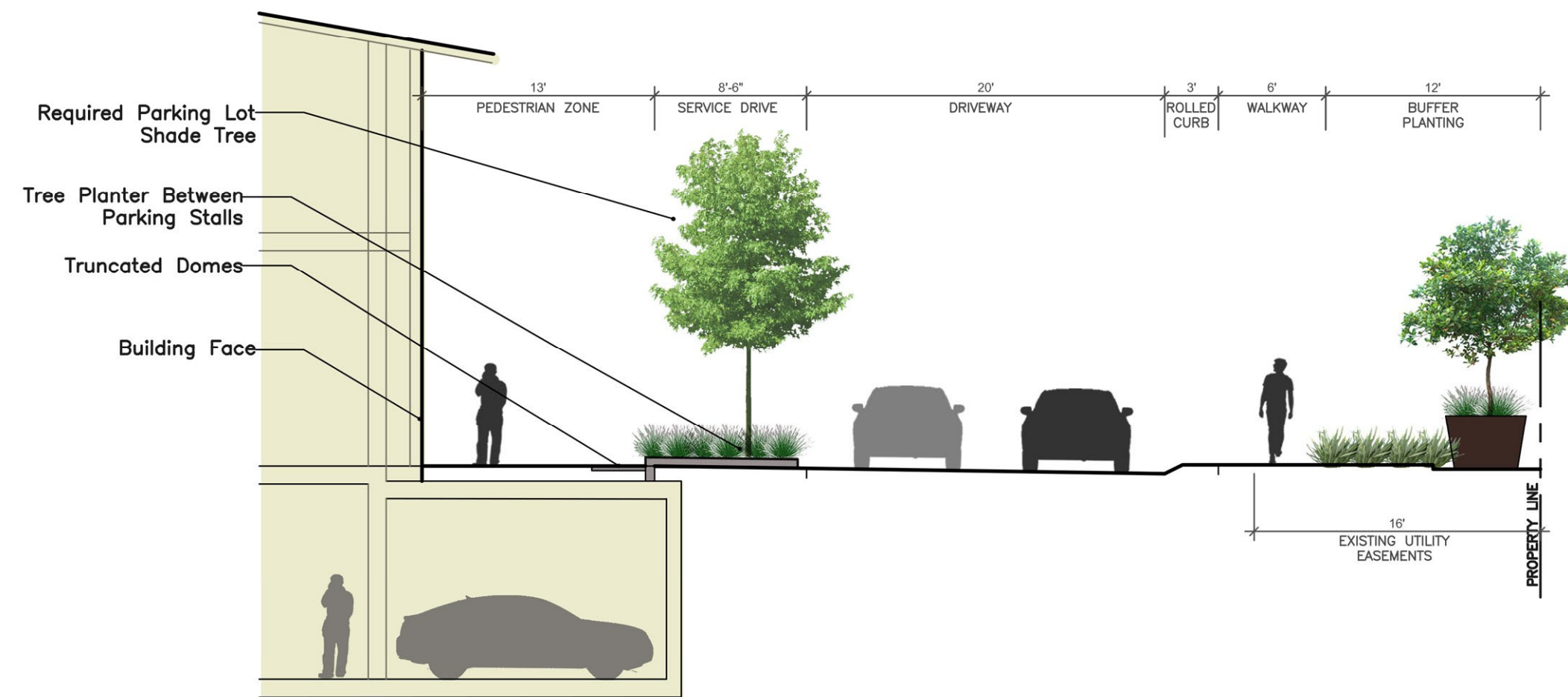
Key Plan
Not To Scale



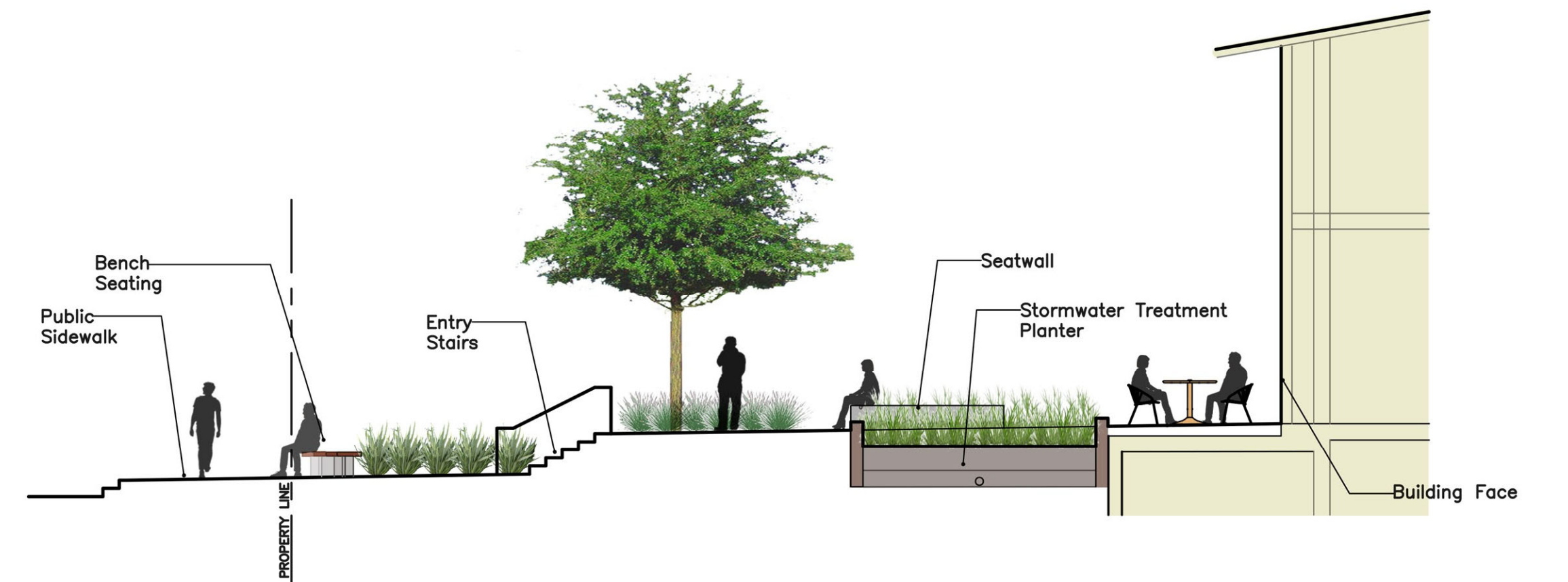
E South Property Line Section
Scale: 1/16"=1'-0"



F West Plaza Section
Scale: 1/16"=1'-0"

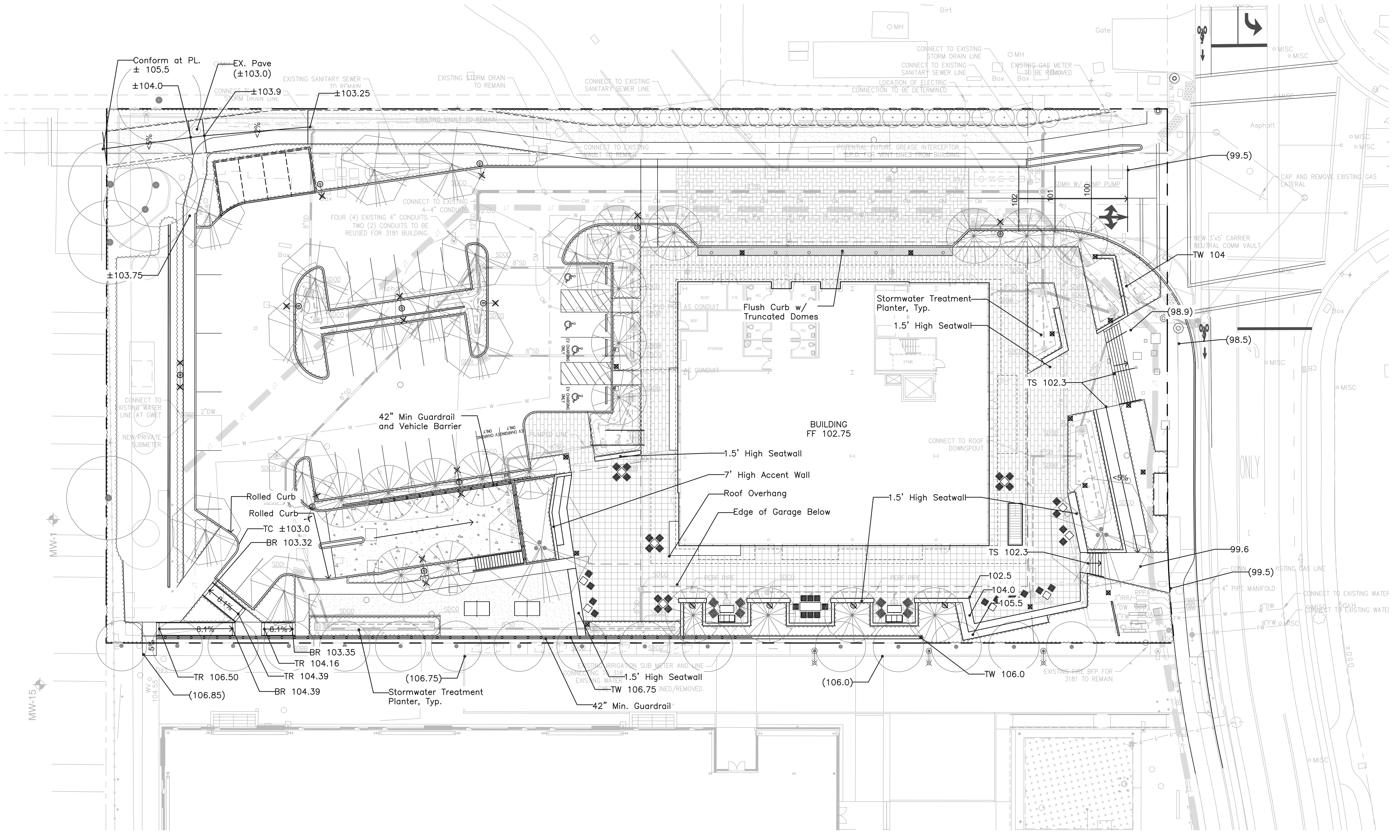


G Entry Drive Section
Scale: 1/16"=1'-0"



H Entry Plaza Section
Scale: 1/16"=1'-0"





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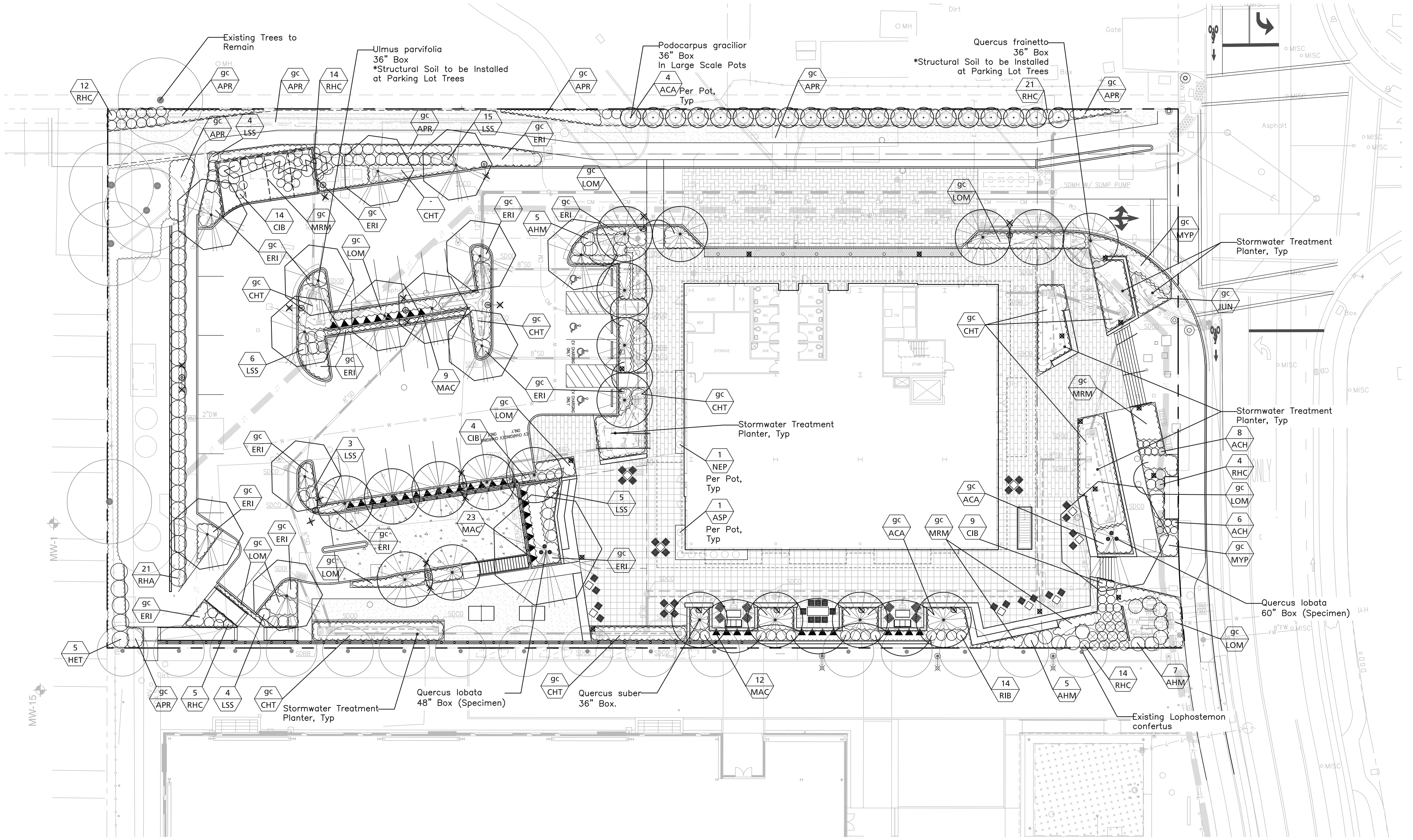
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GRADING PLAN L1.5



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PLANTING PLAN L1.6



Ulmus parvifolia



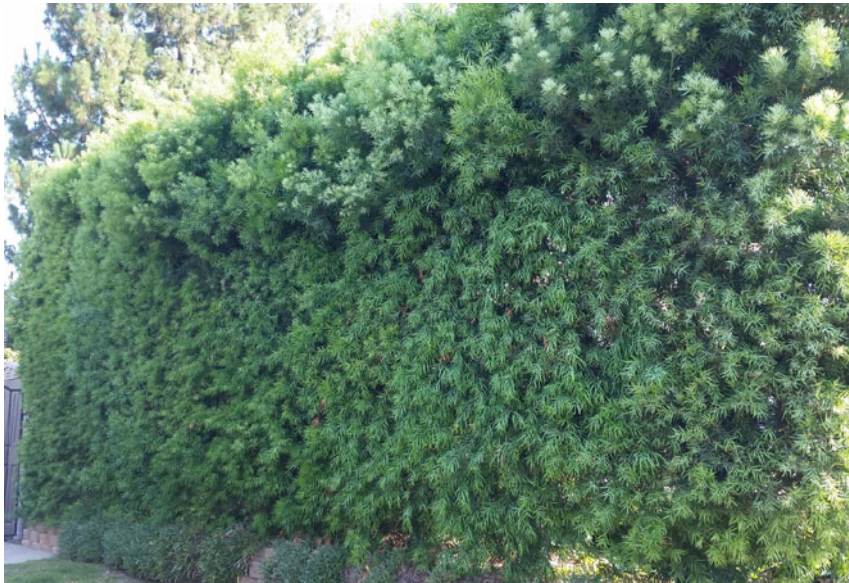
Quercus suber



Quercus lobata



Quercus frainetto



Podocarpus gracilior



Ribes s. 'Claremont'



Arctostaphylos 'Howard McMinn'



Heteromeles arbutifolia



Muhlenbergia 'Regal Mist'



Leucadendron 'Safari Sunset'



Asparagus densiflorus 'Meyersii'



Acacia c. 'Cousin Itt'



Stipa arundinacea



Rhamnus alaternus 'John Edwards'



Juncus patens 'Elk Blue'



Nephrolepis cordifolia



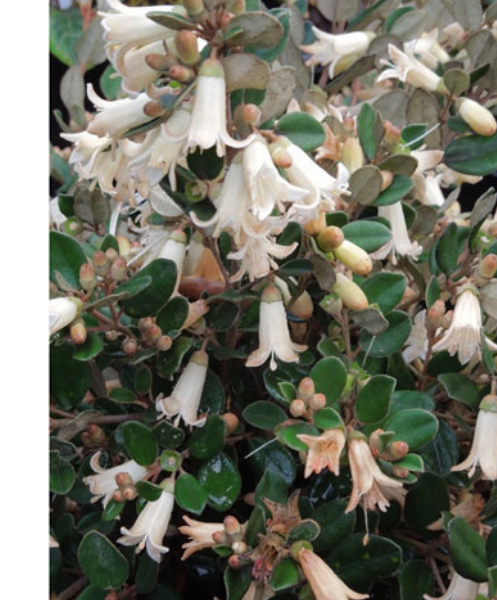
Chondropetalum tectorum



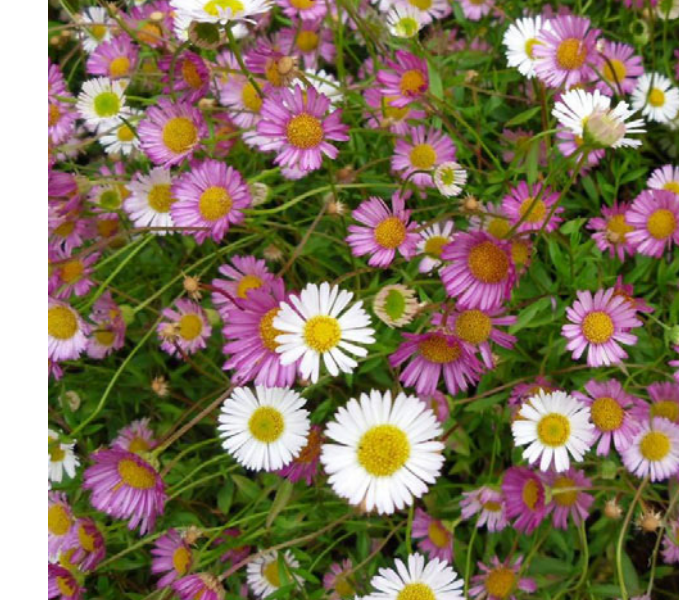
Rhamnus alaternus 'John Edwards'



Achillea millefolium californica



Correa 'Ivory Bells'



Erigeron karvinskianus



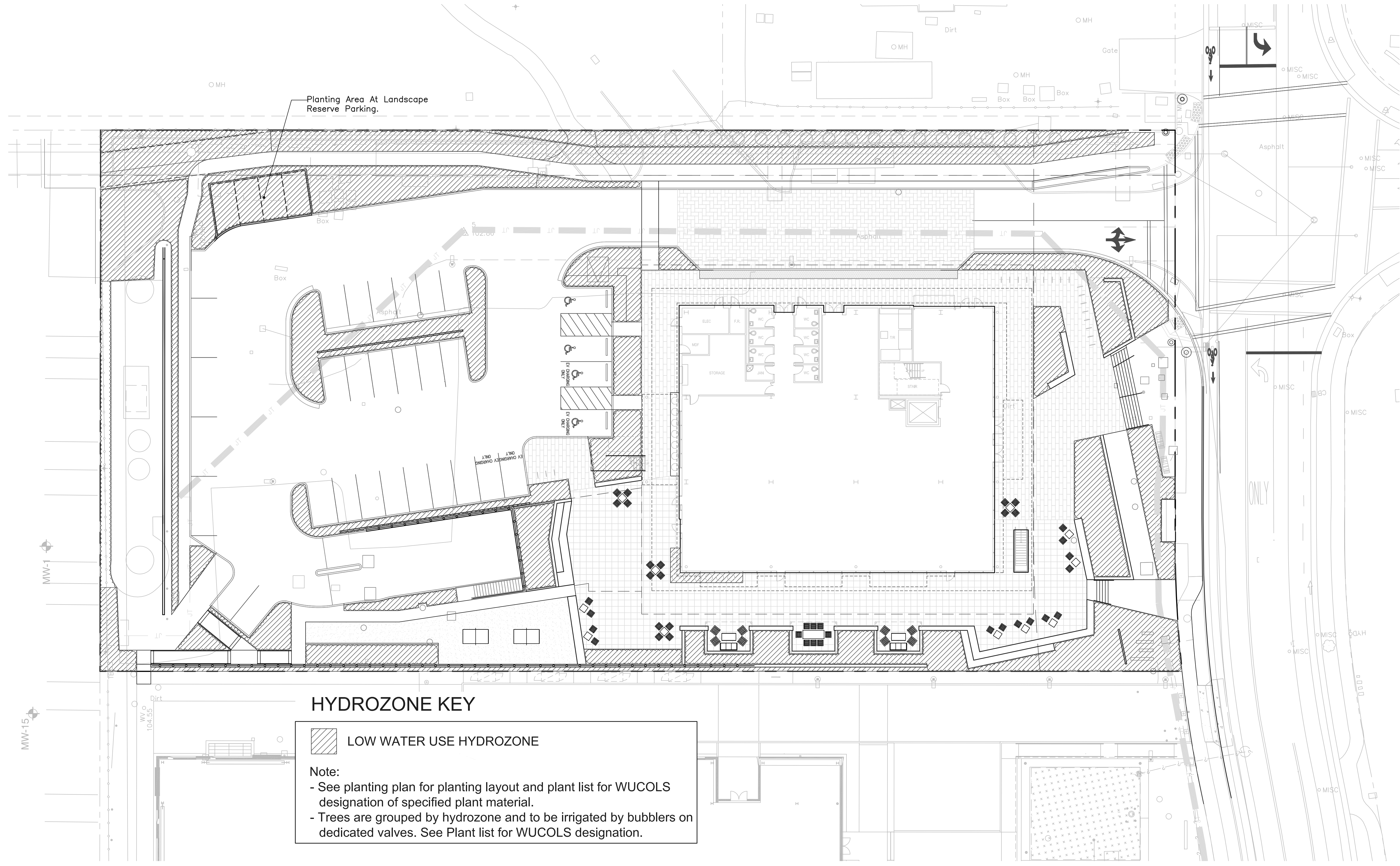
Myoporum parvifolium



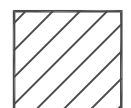
Macfadyena unguis-cati

PLANT PALETTE

KEY	BOTANICAL NAME	COMMON NAME		SIZE	QTY	WUCOLS
TREES						
PG	Podocarpus gracilior	Fern Pine		36" Box		M
QF	Quercus frainetto	Hungarian Oak		24" Box		
QL	Quercus lobata	Valley Oak	Native	60" Box		L
QS	Quercus suber	Cork Oak		36" Box		L
UP	Ulmus parvifolia	Chinese Elm		36" Box		L
SHRUBS						
ACA	Acacia c. 'Cousin Itt'	Cousin Itt Plant		5 Gal	30" o.c.	L
AHM	Arctostaphylos 'Howard McMinn'	Manzanita	Native	5 Gal	60" o.c.	L
ASP	Asparagus densiflorus 'Meyersii'	Foxtail Fern		1 Gal	24" o.c.	M
CIB	Correa 'Ivory Bells'	White Australian Fushcia		5 Gal	36" o.c.	L
HET	Heteromeles arbutifolia	Toyon	Native	5 Gal	72" o.c.	L
LSS	Leucadendron 'Safari Sunset'	Conebush		5 Gal	48" o.c.	L
NEP	Nephrolepis cordifolia	Sword Fern		5 Gal	30" o.c.	M
RHC	Rhamnus californica	Coffeeberry	Native	5 Gal	42" o.c.	L
RIB	Ribes s. 'Claremont'	Pink Flowering Currant	Native	5 Gal	42" o.c.	L
RHA	Rhamnus alaternus 'John Edwards'	Italian Buckthorn		5 Gal	72" o.c.	L
PERENNIALS						
ACH	Achillea millefolium californica	Yarrow	Native	1 Gal	30" o.c.	L
GRASSES						
CHT	Chondropetalum tectorum	Cape Rush		1 Gal	36" o.c.	L
JUN	Juncus patens 'Elk Blue'	California Gray Rush	Native	1 Gal	18" o.c.	L
LEY	Leymus c. 'Canyon Prince'	Canyon Prince Wild Rye	Native	1 Gal	30" o.c.	L
LOM	Lomandra 'Lime Tuff'	Dwarf Mat Rush		1 Gal	30" o.c.	L
MRM	Muhlenbergia 'Regal Mist'	Pink Muhly Grass	Native	5 Gal	30" o.c.	L
STI	Stipa arundinacea	New Zealand Wind Grass		1 Gal	30" o.c.	L
GROUNDCOVERS						
APR	Arctostaphylos uu. 'Point Reyes'	Manzanita	Native	5 Gal	36" o.c.	L
ERI	Erigeron karvinskianus	Santa Barbara Daisy	Native	1 Gal	24" o.c.	L
MYP	Myoporum parvifolium	Creeping Myoporum		1 Gal	48" o.c.	L
VINES						
MAC	Macfadyena unguis-cati	Cat's Claw Creeper		5 Gal		L



HYDROZONE KEY

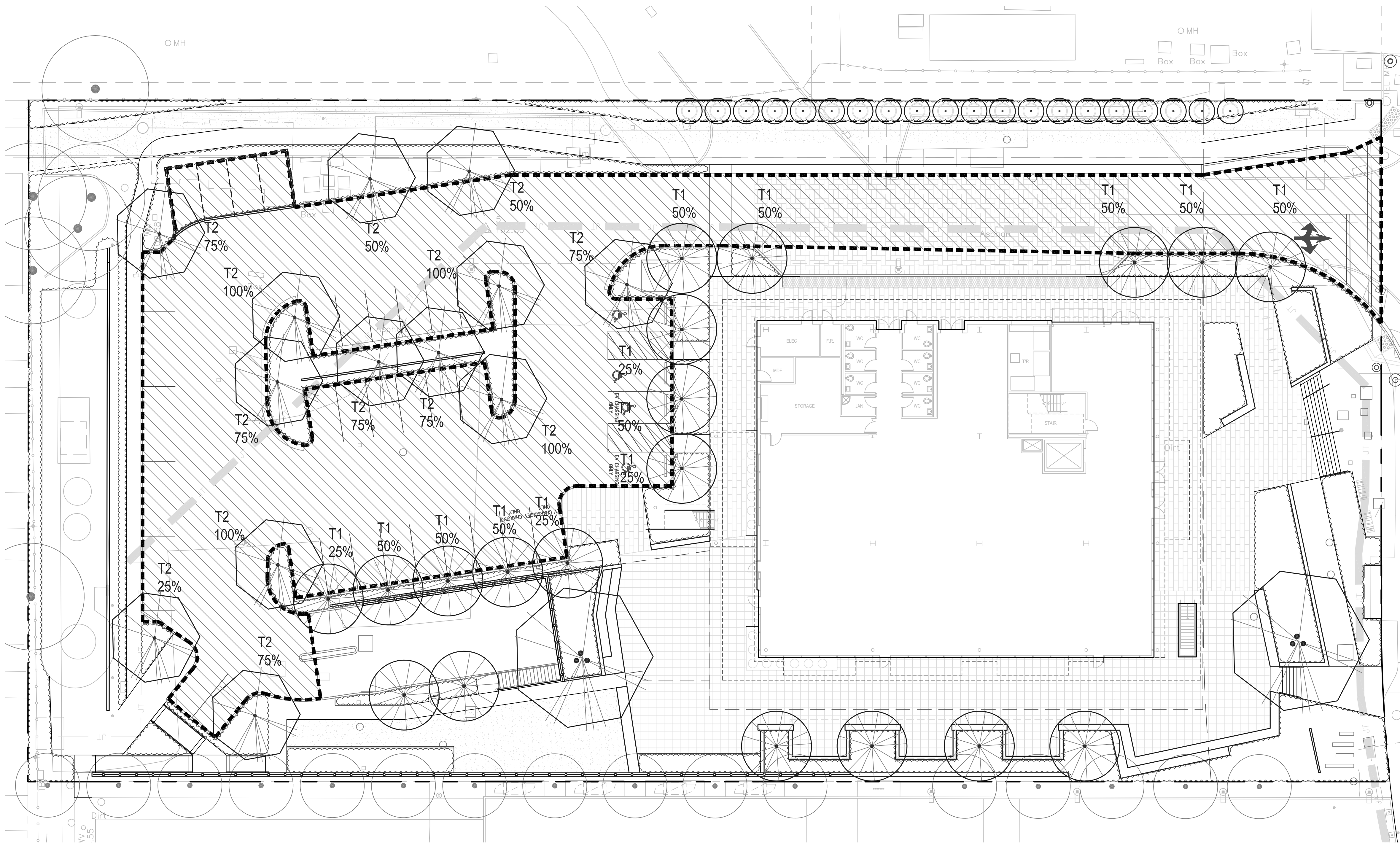
 **LOW WATER USE HYDROZONE**

Note:
 - See planting plan for planting layout and plant list for WUCOLS designation of specified plant material.
 - Trees are grouped by hydrozone and to be irrigated by bubblers on dedicated valves. See Plant list for WUCOLS designation.

PARKING LOT SHADE CALCULATION TABLE

* Tree sizes Based on City of Sunnyvale Parking Lot Shade Requirements

KEY	Species	Canopy Size @ 15yrs	Full Canopy @ 15yrs		75% Canopy @ 15yrs		50% Canopy @ 15yrs		25% Canopy @ 15yrs		TOTAL TREES	TOTAL SHADE
			QTY	SIZE	QTY	SIZE	QTY	SIZE	QTY	SIZE		
T1	Quercus frainetto	30' Dia	0	@ 706	0	@ 530	9	@ 353	4	@ 177	13	3,883
T2	Ulmus parvifolia	30' Dia	4	@ 706	6	@ 530	2	@ 353	1	@ 177	13	6,884
											26	10,767



TOTAL PARKING LOT AREA (sq. ft.)	20,325
TOTAL TREE SHADE (sq. ft.)	10,767
PERCENT SHADE	52.97%

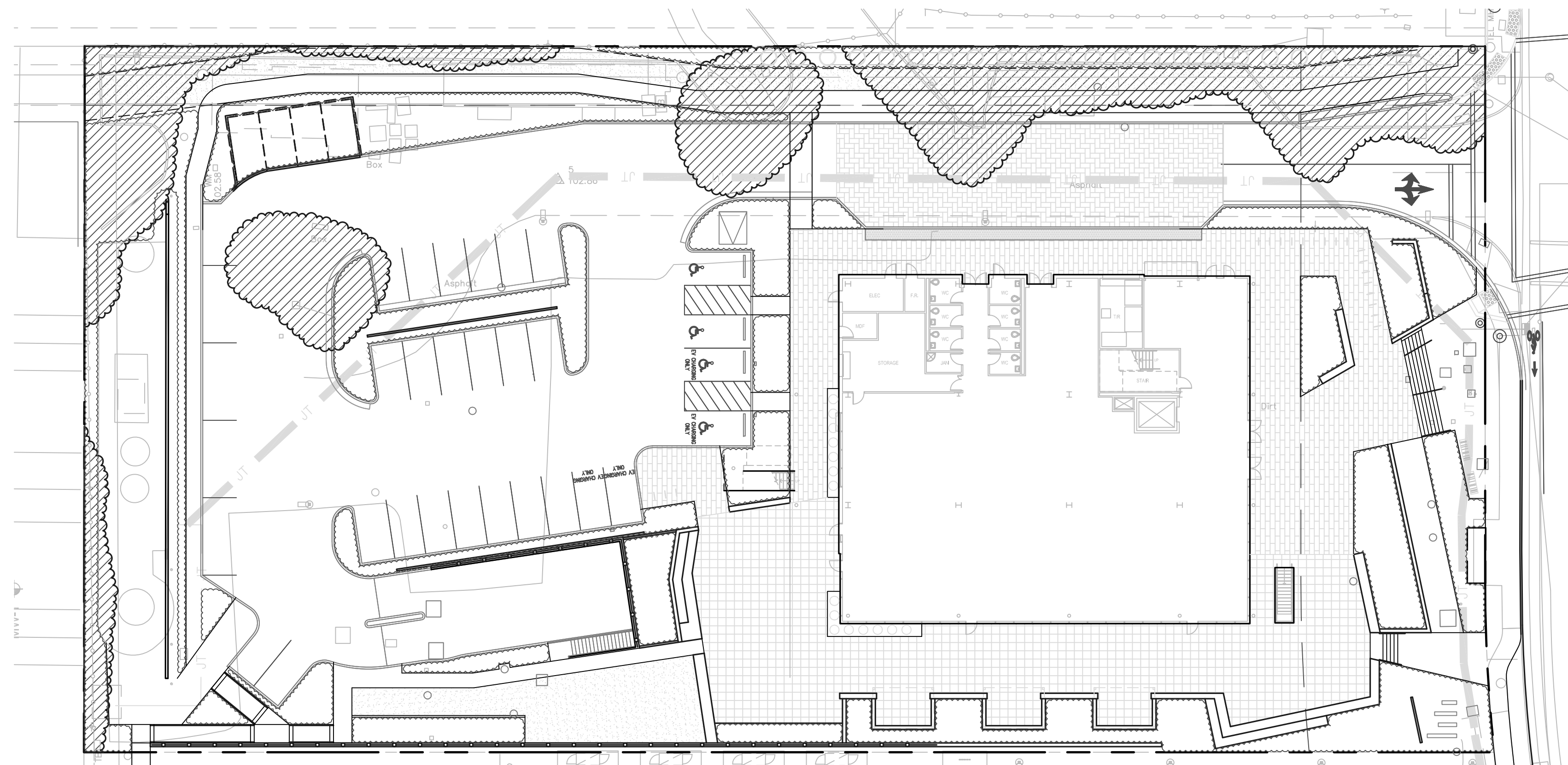


3215 PORTER DRIVE
 STANFORD REAL ESTATE
 ARB SUBMITTAL - MAJOR

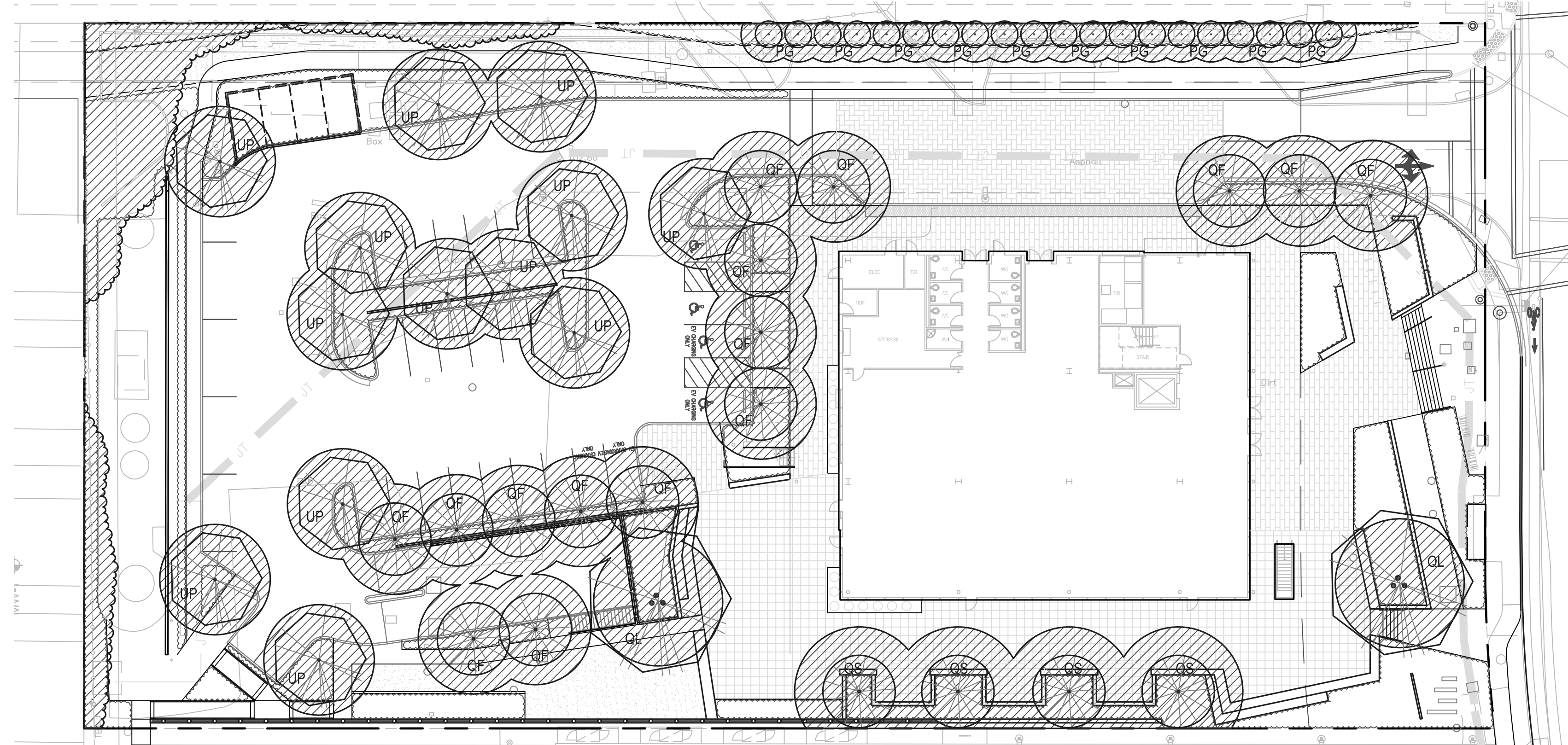
07.15.19

PARKING LOT SHADE

L1.9



EXISTING TREE CANOPY: 8,946 sf



PROPOSED TREE CANOPY AT 15 YEARS: 25,495 sf

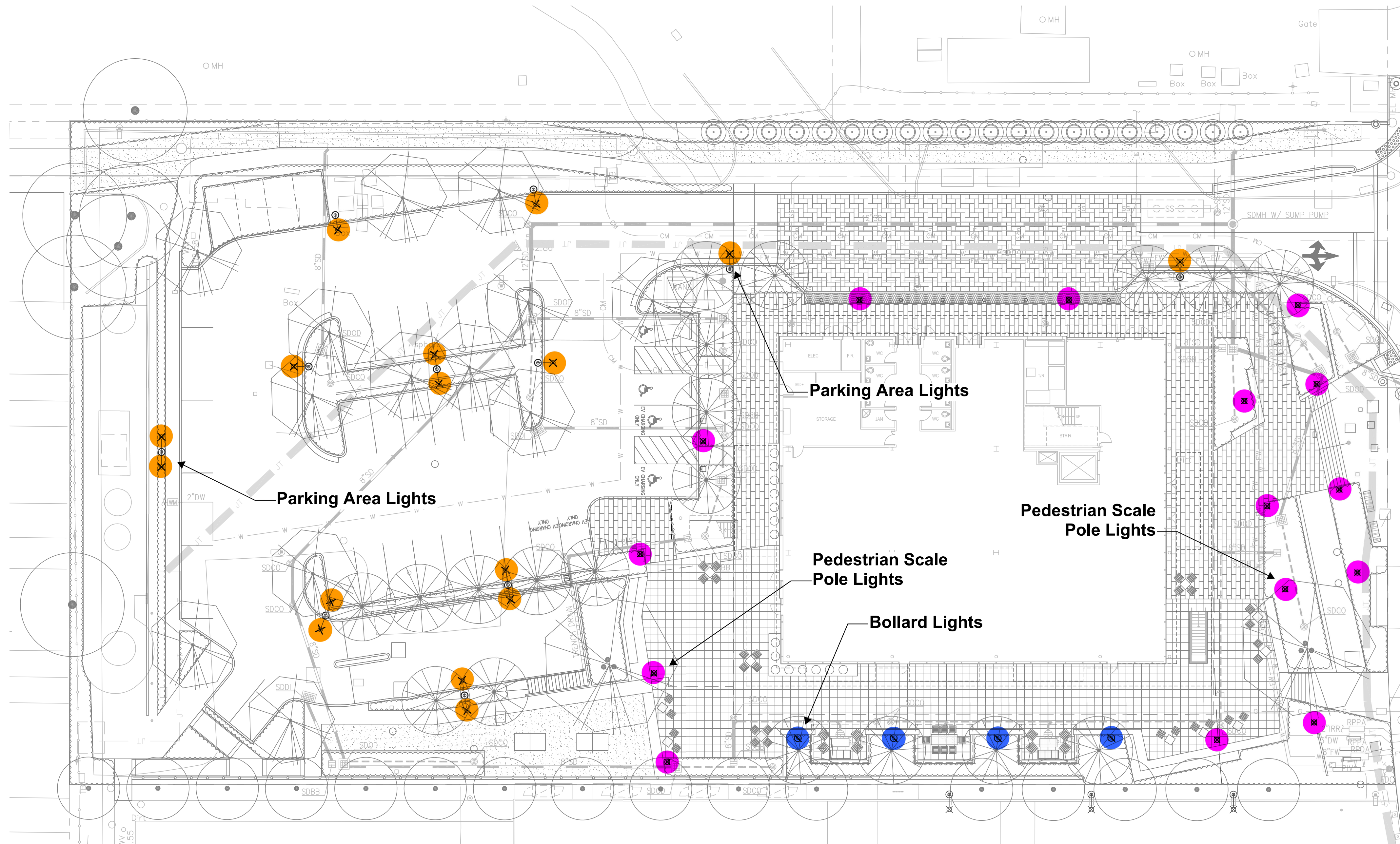
PARKING LOT SHADING LEGEND

TREE KEY	BOTANICAL NAME	COMMON NAME	SIZE	15 Year Canopy
PG	Podocarpus gracilior	Fern Pine	36" Box	15' **
QF	Quercus frainetto	Hungarian Oak	24" Box	30' *
QL	Quercus lobata	Valley Oak	60" Box	35' *
QS	Quercus suber	Cork Oak	36" Box	35' *
UP	Ulmus parvifolia	Chinese Elm	36" Box	30' *

Note:

* Shade Diameter from City of Sacramento Parking Lot Tree Shading Design and Maintenance Guidelines, June 17, 2003.

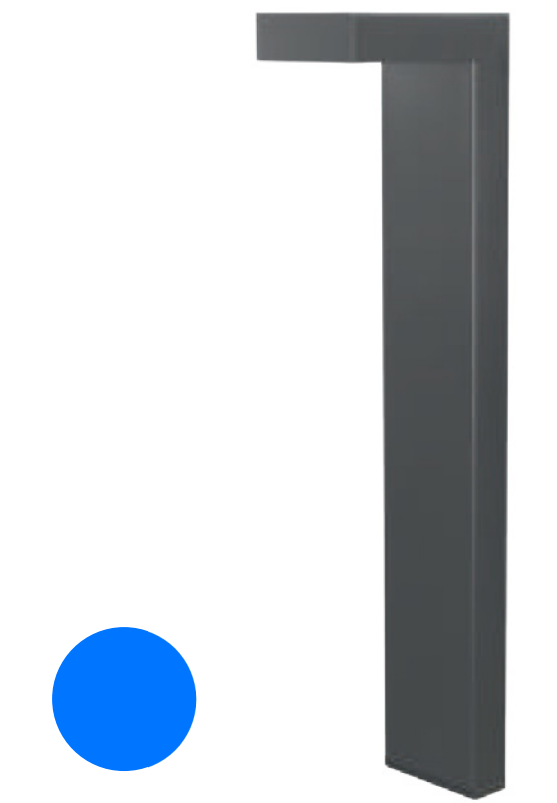
** Shade Diameter from typical tree size.



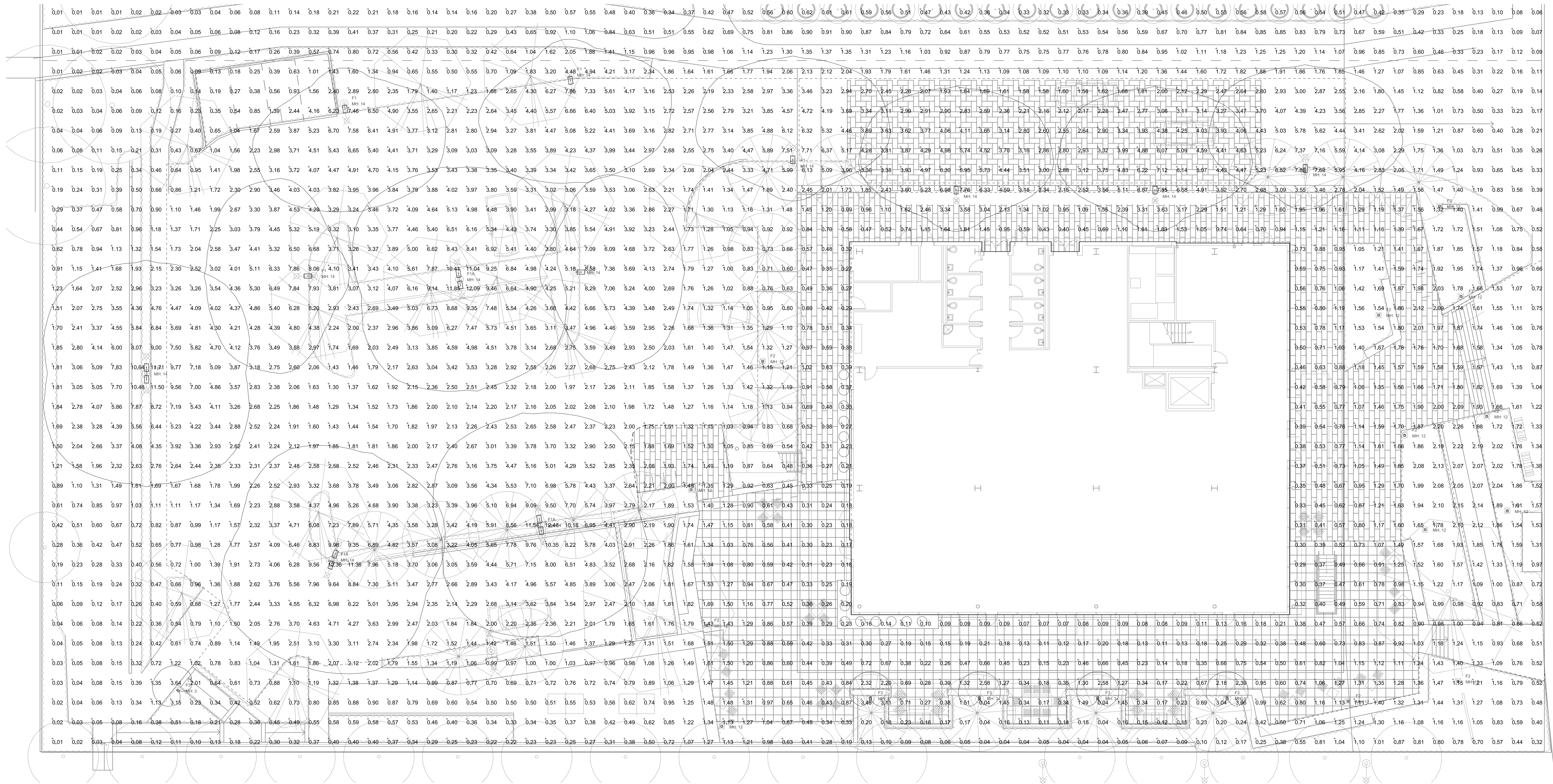
Pedestrian Pole Light
Hess Avalon - 12'H
Color: Silver Gray



Parking Lot Light
Gardco Gullwing 16'H
Color: Black



Bollard Light
Hess Linea S
Color: Silver Gray



Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	Grid Z
Building Front Driveway	Illuminance	Fc	3.94	7.9	1.6	2.46	4.94	IES RP-8-14: Driveway - 4fc Avg, Avg to Min < 4:1	0
Parking Area	Illuminance	Fc	3.59	12.5	0.2	17.95	62.50	IES RP-20-14: Asphalt Parking Lot - 0.5fc Min, Max to Min < 15:1	0
Pedestrian Area	Illuminance	Fc	0.94	3.6	0.1	9.40	36.00	IES 10E 4.33: Pedestrian Walkway - 1fc Average	0

THE GUZZARDO PARTNERSHIP INC

Stanford RESEARCH PARK

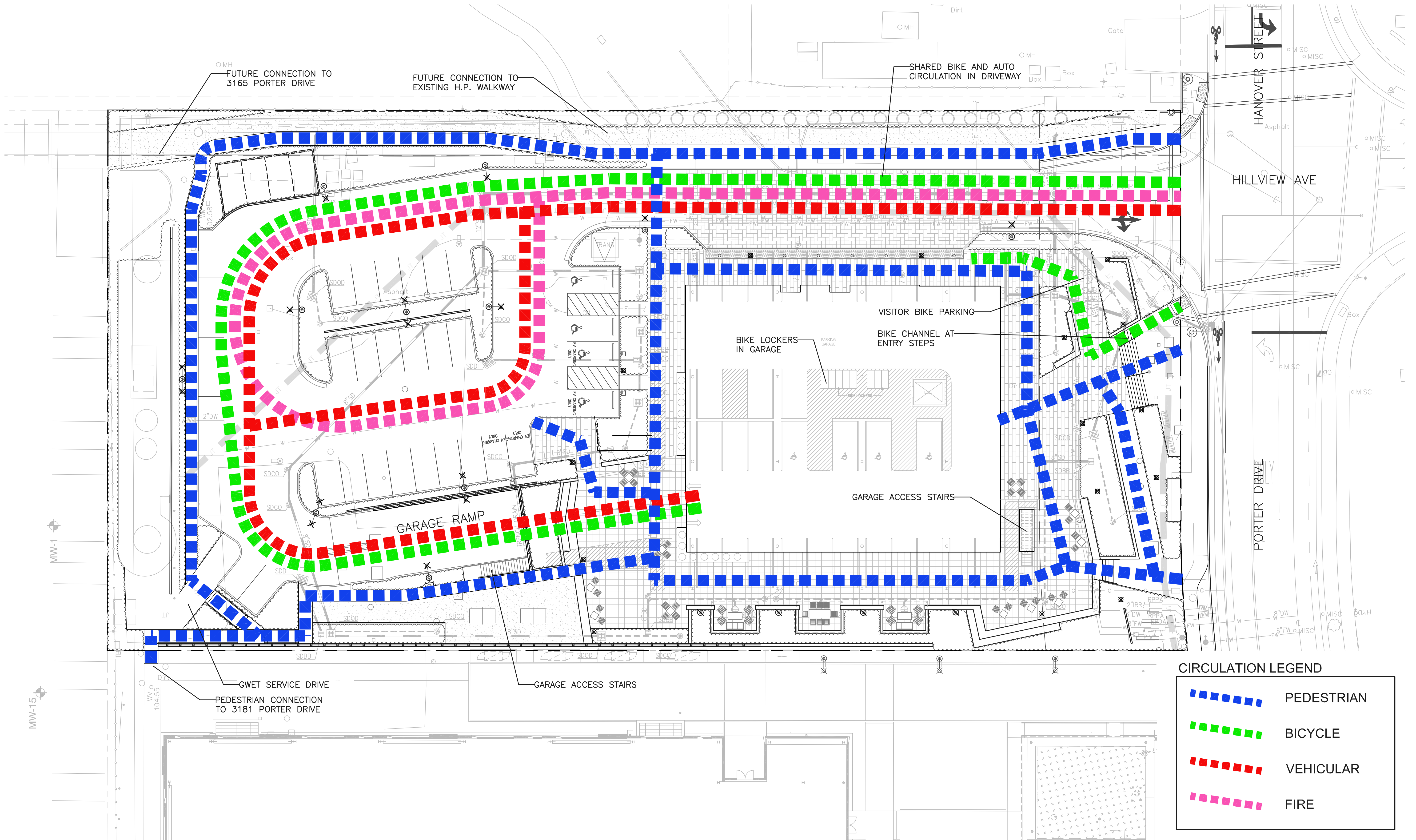


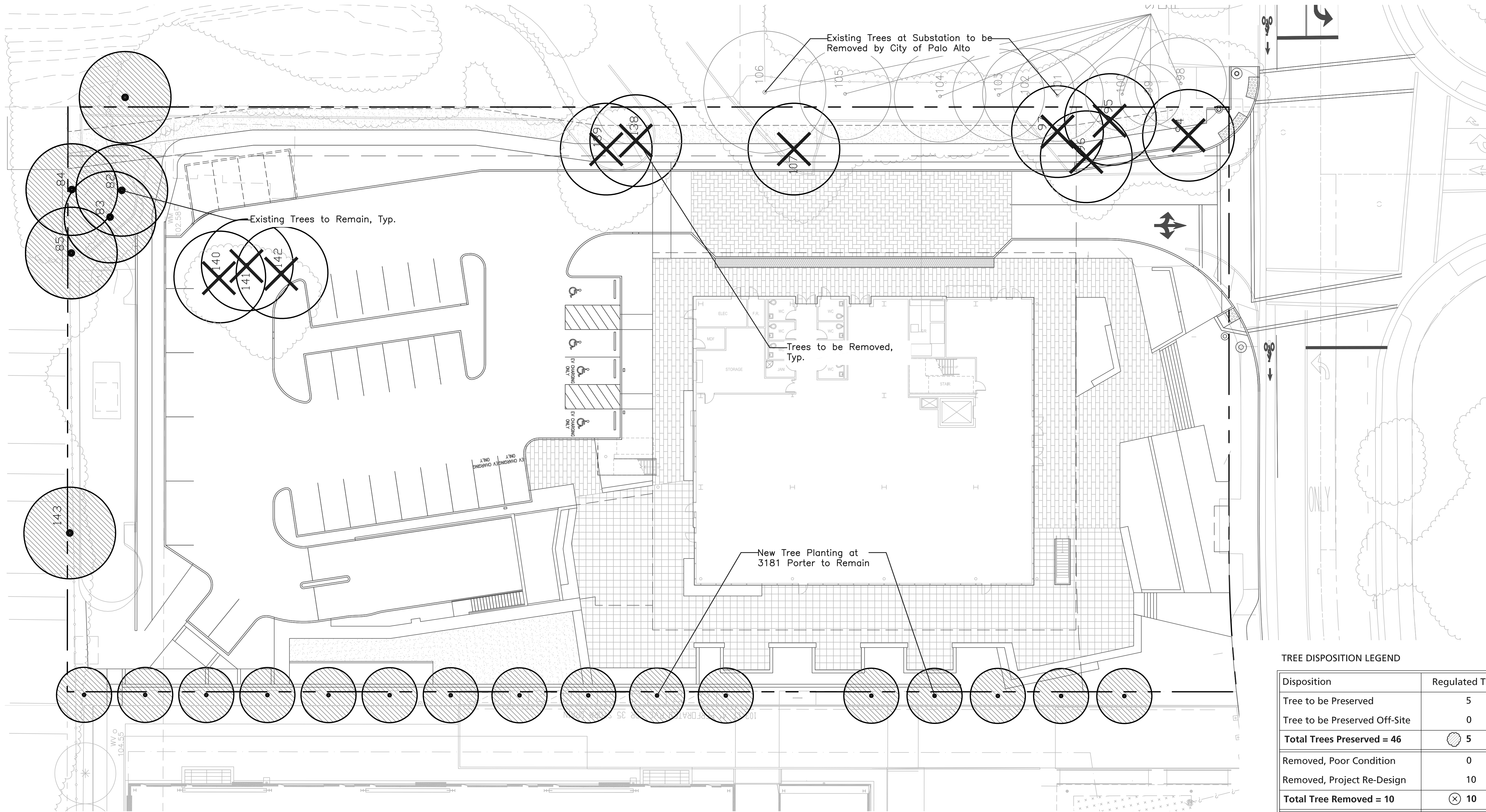
STUDIOS architecture

3215 PORTER DRIVE
STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

07.15.19

PHOTOMETRIC PLAN L1.12





TREE DISPOSITION LEGEND

Disposition	Regulated Trees
Tree to be Preserved	5
Tree to be Preserved Off-Site	0
Total Trees Preserved = 46	5
Removed, Poor Condition	0
Removed, Project Re-Design	10
Total Tree Removed = 10	10
Total Proposed Trees	54
Total Trees on Future Site	59

Note:
 - See Arborist Report by Hort Science dated April 4, 2019 for specific information about existing trees.

City of Palo Alto Tree Protection - It's Part of the Plan!

Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. **An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree.**

For detailed information on Palo Alto's regulated trees and protection during development, review the **City Tree Technical Manual (TTM)** found at www.cityofpaloalto.org/trees/.

TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 328-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on submitted and approved site plans. A completed **tree disclosure statement** must accompany all permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: **3215 PORTER DRIVE**

Are there Regulated trees on or adjacent to the property? **YES** NO (If no, proceed to Section 4)

[Sections 1-4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. (Plans must be submitted showing all trees over 4" diameter)

On the property
 On adjacent property overhanging the project site
 In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification Form. Contact Public Works Operations at (650) 496-5953 for inspection of Type I, II or III fencing (see attached Detail #605) required for all street trees.

2. Are there any Protected or Designated Trees? **YES** (Check where applicable) **NO**

Protected Tree (s)
 Designated Tree (s)
 On or overhanging the property

3. Is there activity or grading within the dripline? (radius 10 times the trunk diameter) of these trees? **YES** **NO**

If Yes, a **Tree Preservation Report** must be prepared by an ISA certified arborist and submitted for staff review (see TTM - Section 6.25). Attach this report to Sheet T-1, Tree Protection, as Part of the Plan! per Site Plan Requirements.

4. Are the Site Plan Requirements** completed? **YES** **NO**

**Plans: Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy dripline; (2) Plans must denote, as a bold dashed line, a fenced enclosure area out to the dripline, per Sheet T-1 and Detail #605 - <http://www.cityofpaloalto.org/trees/forms.htm>. (See also TTM, Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: **JAMES WINSTEAD** Print: **JAMES WINSTEAD** Date: **07.15.19**
(Prop. Owner or Agent)

FOR STAFF USE:

Protective Fencing
Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees: The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. **YES** **NO**
(N/A if there are no protected trees, check here)

6. Street Trees: A signed Public Works Street Tree Protection Verification form is attached. **YES** **NO**
(N/A if there are no street trees, check here)

Regulated Trees - a) Street trees - trees on public property; b) Protected trees - Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 34" above natural grade; and Heritage trees are trees designated by City Council; and c) Designated Trees - commercial or non-residential property trees, which are part of an approved landscape plan.

* Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at www.cityofpaloalto.org/trees/technical-manual.htm

City of Palo Alto
250 Hamilton Avenue, Palo Alto, CA 94301

Search: [] Advanced [] Browse By Topic []

Home > Planning & Community Environment

Tree Technical Manual

To purchase the Tree Technical Manual

June, 2001 First Edition

View by section:

- Table of Contents (PDF, 87KB)
- Intent and Purpose (PDF, 1.05MB)
- Introduction - Use of Manual (PDF, 1.05MB)
- Section 1.0 - Definitions (PDF, 94KB)
- Section 2.0 - Protection of Trees During Construction (PDF, 259KB)
- Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 117KB)
- Section 4.0 - Hazardous Trees (PDF, 100KB)
- Section 5.0 - Tree Maintenance Guidelines (PDF, 1.0KB)
- Section 6.0 - Tree Reports (PDF, 84KB)

View ALL sections:

- Tree Technical Manual - Full (PDF, 1.84MB)

APPENDICES

- A: Palo Alto Municipal Code Chapter 8.10, Tree Preservation & Management Regulations
- B: Tree City - USA
- C: ISA - Hazard Evaluation Form
- D: List of Interest Failure Patterns for Selected Species (Reference source)
- E: ISA Tree Pruning Guidelines (PDF, 1.85MB)
- F: Tree Care Safety Standards, ANSI Z133.1-1994 (Reference source)
- G: Pruning Performance Standards, ANSI A30-1995 (Reference source) H:
- Tree Planting Details, Diagram 504 & 505
- I: Tree Disclosure Statement
- J: Palo Alto Standard Tree Protection Instructions

For written specifications associated with illustrations below, see Public Works Specifications Section 31. Detailed specifications are found in the Palo Alto Tree Technical Manual (TTM) (www.cityofpaloalto.org/trees/)

Tree Protection Zone (TPZ) shown in gray (radius of TPZ equals 10 times the diameter of the tree or 10 feet, whichever is greater).

- * Protected activity area - see Tree Technical Manual Sec 2.10(E).
- * Restricted trenching area - see Tree Technical Manual Sec 2.20(C-D), any proposed trench or form work within TPZ of a protected tree requires approval from Public Works Operations. Call 650-496-5953.

Type I Tree Protection

For all Ordinance Protected and Designated trees, as defined in the site specific tree preservation report (TPR) prepared by the applicant's project arborist as diagrammed on the plan.

Note: Ordinance Protected and Designated Trees: Issuance of a permit requires applicant's project arborist written verification Type I fence installed correctly according to the plans and Tree Preservation Report

Type II Tree Protection

Note: Street Trees: Issuance of a permit requires Public Works Operations inspection and signed approval on the Street Tree Verification (STV) form provided.

Type III Tree Protection

To be used only with approval of Public Works Operations

Tree fencing is required and shall be erected before demolition, grading or construction begins.

Rev	By	Date
01	09/18	12/14/02
02	03/10	08/04/04
03	03/10	08/10/06

Scale: NTS

Tree Protection During Construction

City of Palo Alto Standard

Approved by: **Dave Dockett**
FE No. _____
Date: **2006**
Draw No. **605**

**PALO ALTO
STREET TREE PROTECTION INSTRUCTIONS
-SECTION 31-**

31-1 General

a. Tree protection has three primary functions: 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state; and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.

b. The Tree Protection Zone (TPZ) is a restricted area around the base of the tree with a radius of ten times the diameter of the tree's trunk or ten feet, whichever is greater, encircling the tree.

31-2 Reference Documents

a. Detail 605 - Illustration of stations described below.

b. Tree Technical Manual (TTM) Form (<http://www.cityofpaloalto.org/trees/>)

1. Trenching Protection Zones (TPZ) Section 2.20(C)

2. Arborist Reporting Protocol (TPM, Section 6.23)

3. Site Plan Requirements (TTM, Section 6.25)

4. Tree Disclosure Statement (TTM, Appendix J)

c. Street Tree Verification (STV) Form (<http://www.cityofpaloalto.org/trees/forms>)

31-3 Execution

a. **Type I Tree Protection:** The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved by Public Works Operations.

b. **Type II Tree Protection:** For trees situated within a planter strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.

c. **Type III Tree Protection:** To be used only with approval of Public Works Operations. Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slat board securely (slat shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major limbs may also require plastic fencing as directed by the City Arborist.

d. **Size, type and areas to be fenced:** All trees to be protected shall be protected with six (6) foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2 feet at no more than 10-foot spacing, "string" shall extend to the outer boundary, unless specifically approved on the STV form.

e. **"Warning" signs:** A warning sign shall be weather proof and prominently displayed on each fence at 20-foot intervals. The sign shall be minimum 8 1/2 inches x 11 inches and clearly state: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PALO ALTO SECTION 8.10.110".

f. **Duration:** Tree fencing shall be erected before demolition, grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil disturbance in the TPZ requires approval by the project arborist or City Arborist in the case of work around Street Trees. Excavations within the public right of way require a Street Work Permit from Public Works.

31-4 During construction

1. All neighbors' trees that overhang the project site shall be protected from impact of any kind.

2. The applicant shall be responsible for the repair or replacement plus penalty of any publicly-owned trees that are damaged during the course of construction, pursuant to Section 8.0407(b) of the Palo Alto Municipal Code.

3. The following tree preservation measures apply to all trees in the TPZ:

- a. No storage of materials, equipment or vehicles shall be permitted within the TPZ.
- b. The ground under and around the tree canopy area shall not be altered.
- c. Trees to be retained shall be irrigated, mulched and maintained as necessary to ensure survival.

END OF SECTION
City of Palo Alto 2004 Standard Drawings and Specifications
Street Tree Verification of Protection, P.W.E., section 31
Revised 08/16

Table 2-2 Palo Alto Tree Technical Manual

CONTRACTOR & ARBORIST INSPECTION SCHEDULE

Reference: the Palo Alto Tree Technical Manual is available at www.cityofpaloalto.org/transportation/

ALL CHECKED ITEMS APPLY TO THIS PROJECT:

1. Inspection of Protective Tree Fencing. For Public Trees, the Street Tree Verification Form shall be signed by the City Arborist. For Protected Trees, the project site arborist shall provide an initial Monthly Tree Activity Report form with a photograph verifying that he has conducted a field inspection of the trees and that the correct type of protective fencing is in place around the designated tree protection zone (TPZ) prior to issuance of a demolition, grading, or building permit. (See TTM, Verification of Tree Protection, Section 1.39)

2. Pre-Construction Meeting. Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading operators, project site arborist, City Arborist, and, if a city maintained irrigation system is involved, the Park Manager (Contact 650-496-6923).

3. Inspection of Rough Grading or Trenching. Contractor shall ensure the project site arborist performs an inspection during the course of rough grading or trenching adjacent to or within the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect irrigation systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 24 hours advance notice of such activity.

4. Monthly Tree Activity Report: Inspection. The project site arborist shall perform a minimum monthly activity inspection to monitor and advise on conditions, tree health and retention or, immediately if there are any revisions to the approved plans or protection measures. The Tree Technical Manual Monthly Tree Activity Report format shall be used and sent to the Planning Dept. landscape review staff no later than 14 days after issuance of building permit date. Fax to (650) 328-2154 (See TTM, Monthly Tree Activity Inspection Report, Addendum 11 & section 1.1).

5. Special activity within the Tree Protection Zone. Work in the TPZ area (see also #7 below) requires the direct onsite supervision of the project arborist (see TTM, Trenching, Excavation & Equipment, Section 2.20C).

6. Landscape Architect Inspection. For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see TTM, Planting Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The Planning Dept. landscape review staff shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.

7. List Other (please describe as called out in the site Tree Preservation Report, Sheet T-1, T-2, etc.)

**City of Palo Alto
Tree Department
Public Works Operations
PO Box 10250 Palo Alto, CA 94303
(650)496-5953 FAX: (650)652-0289
treeprotection@CityOfPaloAlto.org**

Verification of Street Tree Protection

Applicant Instructions: Complete upper portion of this form. Mail or FAX this form along with signed Tree Disclosure Statement to Public Works Dept. Public Works Tree Staff will inspect and notify applicant.

APPLICATION DATE: _____

ADDRESS LOCATION OF STREET TREES TO BE PROTECTED: _____

APPLICANT'S NAME: _____

APPLICANT'S ADDRESS: _____

APPLICANT'S TELEPHONE & FAX NUMBERS: _____

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is: _____

YES NO

* If NO, go to #2 below

Inspected by: _____

Date of Inspection: _____

2. The Street Trees at the above address are NOT adequately protected. The following modifications are required: _____

Indicate how the required modifications were communicated to the applicant.

Subsequent Inspection

Street trees at above address were found to be adequately protected. YES NO

* If NO, indicate in "Notes" below the disposition of case.

Inspected by: _____

Date of Inspection: _____

Notes: List City street trees by species, size, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.

Return approved sheet to Applicant for demolition or building permit issuance.
650/650/Tree/0576/TreeProtect 5/17/06

Arborist Firm Data Here City of Palo Alto Tree Technical Manual ADDENDUM 11
E.C.A.T.A. Certified Arborist #WLE-090 Contact Call #

Monthly Tree Activity Report- Construction Site

Inspection Date:	Site address:	Contractor- Main Site Contact Information	#1: job site superintendent Company: Email: Job site Office: Cell: Mail:
	Palo Alto, CA		

Also present: _____

Distribution: 1. City of Palo Alto 2. Others

Attn: Dave Dockett
Dave.dockett@cityofpaloalto.org
650-328-2410

Provide the requested minimum information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

1. Assignment Activity (Demolition/grading/sewer/trenching/foundation/list relevant visits)

- Pre-construction meeting requirement with sub-contractor
- Inspect to verify that tree protection measures are in place
- Determine if field adjustments, watering or plan revisions may be needed

2. Field Observations (general site-wide and list by individual tree number)

- Tree Protection Fences (TPF) are ...
- Trenching has/will occur ...

3. Action Items (list site-wide, by tree number and date to be satisfied) and Date Due

- Tree Protection Fence (TPF) needs adjusting (tree #, x, x)
- Root zone buffer material (wood chips) can be installed next
- Schedule sewer trench, foundation dig with ...

4. Photographs (see often)

5. Tree Location Map (mandatory 11.5 x 11 sheet)

6. Recommendations, notes or monitor items for project/staff/schedule

7. Past visits (list carry-over items satisfied/still outstanding)

Respectfully submitted,

Project site arborist
Consultant contact information (include email, cell#, and mailing)
CC: _____

Enter Date: _____ CPA Monthly Tree Activity Report: Type site address here Page #1 of 1

---WARNING---

Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953)

Removal without permission is subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at <http://www.cityofpaloalto.org/trees/technical-manual.htm>

SPECIAL INSPECTIONS

PLANNING DEPARTMENT
TREE PROTECTION INSPECTIONS MANDATORY

PALM 8.10 PROTECTED TREES. CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 4 DAYS AFTER BUILDING PERMIT ISSUANCE.

BUILDING PERMIT DATE: _____

DATE OF 1ST TREE ACTIVITY REPORT: _____

CITY STAFF: _____

REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1, FORMAT, VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLEMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PALM 8.10.080. REFERENCE: PALO ALTO TREE TECHNICAL MANUAL, SECTION 6.00 AND ADDENDUM 11.

Apply Tree Protection Report on sheet(s) T-2

Use additional "T" sheets as needed

Project Data

T-1

All other tree-related reports shall be added to the space provided on this sheet (adding as needed) Include this sheet(s) on Project Sheet Index or Legend Page. A copy of T-1 can be downloaded at <http://www.cityofpaloalto.org/civica/filebank/blobdownload.asp?BlobID=6460>

Special Tree Protection Instruction Sheet
City of Palo Alto

T-1

3215 PORTER DRIVE
STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

07.15.19

TREE PROTECTION T-1 L1.15

THE GUZZARDO PARTNERSHIP INC
STANFORD RESEARCH PARK
STUDIOS architecture

Arborist Report
3215 Porter Dr.
Palo Alto, CA

Table of Contents

	Page
Introduction and Overview	1
Tree Assessment Methods	1
Description of Trees	2
Suitability for Preservation	3
Evaluation of Impacts and Recommendations	4
Tree Preservation Guidelines	5

List of Tables

Table 1. Tree condition and frequency of occurrence	2
Table 2. Tree suitability for preservation	4

Exhibits

Tree Inventory Map

Tree Assessment

Introduction and Overview

Stanford Real Estate is planning to redevelop the site at 3215 Porter Dr. in Palo Alto, CA. The building on the site was demolished for development of the adjacent site; the parking area and landscaping remain. HortScience | Bartlett Consulting was asked to prepare an **Arborist Report** for the site as part of the development application to the City of Palo Alto.

This report provides the following information:

1. An evaluation of the health and structural condition of the trees within the proposed project area based on a visual inspection from the ground.
2. An assessment of trees that will be preserved and removed based on plans provided by the client.
3. Guidelines for tree preservation during the design, construction, and maintenance phases of development.

Tree Assessment Methods

Trees were assessed on March 22, 2019. The assessment included all trees located within the proposed project area and with canopies overhanging the site. The assessment procedure consisted of the following steps:

1. Identifying the tree species;
2. Verifying tree tag numbers, which were previously attached to trees in 2016.
3. Measuring the trunk diameter at a point 54" above grade;
4. Evaluating the health and structural condition using a scale of 1 to 5:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age, and structural condition of the tree species and its potential to remain an asset to the site.

- High:** Trees with good health and structural stability that have the potential for longevity at the site.
- Moderate:** Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in "high" category.
- Low:** Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual tree may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

HortScience reevaluated 24 trees. Based on the survey, nine blue gums along the north property line are located off site. Only three species were represented in the assessment (Table 1), with blue gum and Canary Island pine representing the most trees. Descriptions of each tree are found in the **Tree Assessment** and approximate locations are plotted on the **Tree Inventory Map** (see Exhibits).

Table 1. Condition ratings and frequency of occurrence of trees
3215 Porter Dr., Palo Alto CA

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
Blue gum	<i>Eucalyptus globulus</i>	2	7	-	9
Red ironbark	<i>Eucalyptus sideroxylon</i>	-	1	-	1
Canary Island pine	<i>Pinus canariensis</i>	-	3	11	14
Total		2	11	11	24

Canary Island pine comprised most of the trees on site, with 14 trees. Trees were mature, with trunk diameters ranging from 13 to 29 inches. Canary Island pines were mostly in good condition with good form and structure and dense crowns (Photo 1). Two trees in fair condition (#95, 140) had slightly thin crowns.

Red ironbark (#143) was the only other on-site tree located along the west property line against the fence. It had multiple trunks of 20, 20, and 18 inches and was in fair condition with a thinning crown (Photo 2).

The remaining nine trees were located just off site along the north property line and consisted of mature blue gums, with trunk diameters ranging from 10 to 36 inches. All trees had codominant or multiple trunks, and all but two trees were in fair condition. Trees had been previously topped and had multiple branches growing from the pruning locations. Two trees in poor condition (#99, 100)

Photo 1 (right): Canary Island pines #94-97 were in good and fair conditions.

Photo 2 (far right): Red ironbark #143 was in fair condition with a thinning crown and fair structure.



had small crowns and crowded form.

The City of Palo Alto regulates all trees associated with a development project; therefore all 24 trees are considered protected.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment, and perform well in the landscape.

Each tree was rated for suitability for preservation based upon its age, health, structural condition, and ability to safely coexist within a development environment (see **Tree Assessment** in Exhibits, and Table 2). We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes. Off-site trees were not rated.

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. For example, blue gum # 104, with decay in pruning cuts on the lower trunk, has a higher likelihood of failure and should be removed or monitored.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. For instance, Canary Island pine is relatively tolerant of construction impacts.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Species invasiveness**
Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<http://www.cal-ipc.org/paf/>) lists species identified as being invasive. Palo Alto is part of the Central West Floristic Province. Blue Gum is listed as "limited."

**Table 2. Tree suitability for preservation
3215 Porter Dr., Palo Alto CA**

High	Trees in this category are in good health and structural stability and have the potential for longevity at the site. Ten Canary Island pines were in this category.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. These trees require more intense management and monitoring, and may have shorter life-spans than those in the "high" category. Eight trees had a moderate suitability for preservation.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Six off-site blue gums were in this category.

Evaluation of Impacts and Recommendations

The *Tree Assessment* was the reference point for tree health, condition, and suitability for preservation. I used the Tree Disposition and Landscape plans (The Guzzardo Partnership, 5/31/19) to estimate impacts to trees.

The plan shows a new building near the front of the site surrounded by patio, parking, and landscaping. A pedestrian pathway transects the north side of the site adjacent to the Palo Alto Hanover utility substation.

Improvements to the substation by the City will result in removal of blue gums #98-106, which are located on the 3350 Hanover site. Trees #94-97, 107, 138 and 139 are within the path alignment and will need to be removed for grading and construction. Canary Island pines #140-142, located within a small parking lot planter, will be removed to accommodate the new parking lot layout, which includes a ramp leading to a subterranean garage.

Based on my evaluation of the plans:

- Ten (10) on-site trees will be removed, all Canary Island pines;
- Nine off-site blue gums will be removed (by the City) for substation improvements;
- Four Canary Island pines (#82-85) at the northwest corner of the site will be preserved, two of the trees will experience minor to moderate impacts from path construction;
- One red ironbark at the northwest property line will remain undisturbed.

Excavation near trees #82-85 should be done carefully to avoid damaging roots. Guidelines for protection and preservation of these trees are included in the following section.

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are either subject to extensive injury during construction or are inadequately maintained become a liability rather than an asset. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods. Coordinating any construction activity inside the **TREE PROTECTION ZONE** can minimize these impacts.

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

Tree Protection Zone

1. A **TREE PROTECTION ZONE** shall be identified for each tree to be preserved on the Tree Protection Plan prepared by the Project Arborist.
 - a. Fence trees #82-85 to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing, or grading. Fences shall be 6 ft. chain link with posts sunk into the ground or equivalent as approved by the City.
 - b. **TREE PROTECTION ZONE** shall extend to the edge of proposed pedestrian walkways to the north and east and to tree driplines in all other directions.
 - c. Fences must be installed prior to beginning demolition and must remain until construction is complete.
 - d. No grading, excavation, construction or storage or dumping of materials shall occur within the **TREE PROTECTION ZONE**. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**.

Design recommendations

1. All plans affecting trees shall be reviewed by the Project Arborist with regard to tree impacts. These include, but are not limited to, demolition plans, grading and utility plans, landscape, and irrigation plans.
2. Underground services including utilities, sub-drains, water or sewer shall be routed around the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.
3. **Tree Preservation Guidelines**, prepared by the Project Arborist, should be included on all plans.
4. Do not lime within 25' of any tree. Lime is toxic to tree roots.
5. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
6. Irrigation systems must be designed so that no trenching will occur not within the **TREE PROTECTION ZONE**.

Pre-construction treatments and recommendations

1. The construction superintendent shall meet with the Project Arborist before beginning work to discuss work procedures and tree protection.
2. Pruning trees to provide construction and access clearance may be required.

3. Prune trees to be preserved to clean the crown and to provide clearance. All pruning shall be done by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
4. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent possible, tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Recommendations for tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Project Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the Project Arborist. Roots should be cut with a saw to provide a flat and smooth cut. Removal of roots larger than 2" in diameter should be avoided.
3. If roots 2" and greater in diameter are encountered during site work and must be cut to complete the construction, the Project Arborist must be consulted to evaluate effects on the health and stability of the tree and recommend treatment.
4. No grading, construction, demolition, or other work shall occur within the **TREE PROTECTION ZONE**. Any modifications must be approved and monitored by the Project Arborist.
5. Fences have been erected to protect trees to be preserved. Fences define a specific **TREE PROTECTION ZONE** for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Project Arborist.
6. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.
7. Prior to grading, pad preparation, excavation for foundations/footings/walls, trenching, trees may require root pruning outside the **TREE PROTECTION ZONE**. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Project Arborist.
8. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Project Arborist so that appropriate treatments can be applied.
9. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.
10. Any additional tree pruning needed for clearance during construction must be performed by a Project Arborist and not by construction personnel.

Maintenance of impacted trees

Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority.

Inspect trees annually and following major storms to identify conditions requiring treatment to manage risk associated with tree failure.

Our procedures included assessing trees for observable defects in structure. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. As trees age, the likelihood of failure of branches or entire trees increases. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the client and/or tree owner.

HortScience | Bartlett Consulting

Deanne Ecklund
Registered Consulting Arborist #647

Tree Inventory Map

3215 Porter Dr.
Palo Alto, CA

Prepared for:
Stanford Real Estate

April 2019

No Scale

Notes

Aerial Image provided by Google Maps.

Tree locations are approximate.



Tree Assessment

3215 Porter Dr
 Palo Alto, California
 January 2016
 Updated March 2019



TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	Regulated?	SUITABILITY FOR PRESERVATION	COMMENTS
82	Canary Island pine	18	3	Yes	Moderate	Codominant trunks at 13' with narrow attachment; fair form; in parking lot planter.
83	Canary Island pine	13	4	Yes	High	Group of trees; slightly crowded form; in parking lot planter.
84	Canary Island pine	19	4	Yes	High	Good form and structure; slightly crowded form; on fence line.
85	Canary Island pine	14	4	Yes	High	Good form and structure; slightly crowded form; on fence line.
94	Canary Island pine	19	4	Yes	High	Good form and structure; lower crown one-sided to south.
95	Canary Island pine	16	3	Yes	Moderate	Good form and structure; lower crown one-sided to south; slightly thin crown.
96	Canary Island pine	17	4	Yes	High	Good form and structure; lower crown one-sided to south.
97	Canary Island pine	17	4	Yes	High	Good form and structure; lower crown one-sided to west.
98	Blue gum	36,19,10	3	Yes	Moderate	Multiple attachments at 3'; slightly thin crown; tortoise beetle foliage damage.
99	Blue gum	14,10	2	Yes	Low	Codominant trunks at 2'; previously topped at 20'; small crown.
100	Blue gum	13,11	2	Yes	Low	Codominant trunks at 2'; large pruning cut at attachment; previously topped at 20'; small crown.
101	Blue gum	18,16	3	Yes	Low	Codominant trunks at 2'; large pruning cut with decay at attachment; previously topped at 20'; dense crown.
102	Blue gum	14	3	Yes	Low	Multiple attachments at 7'; previously topped at 20'; small crown.
103	Blue gum	11,7,8	3	Yes	Moderate	Multiple attachments at 3'; slight lean west; pruning cut at base of 8" stem; previously topped at 20'.
104	Blue gum	20,15,12	3	Yes	Low	Multiple attachments at 4'; large pruning cut with decay on lower trunk; high crown.



Tree Assessment

3215 Porter Dr
 Palo Alto, California
 January 2016
 Updated March 2019



TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	Regulated?	SUITABILITY FOR PRESERVATION	COMMENTS
105	Blue gum	29	3	Yes	Moderate	Multiple attachments at 15'; high crown; tortoise beetle damage.
106	Blue gum	20,18,14,13	3	Yes	Low	Multiple attachments at 4' with narrow attachments; pruning cut with sulfur fungus on lower trunk; previously topped at 20'.
107	Canary Island pine	18	4	Yes	High	Good form and structure; in 6' planter in parking lot.
138	Canary Island pine	23	4	Yes	High	Group of 2 trees; narrow, slightly crowded form.
139	Canary Island pine	29	4	Yes	High	Group of 2 trees; lifting pavers path; good form; lower trunk
140	Canary Island pine	16	3	Yes	Moderate	Group of 3 trees; codominant trunks high in crown; slightly thin crown.
141	Canary Island pine	13	4	Yes	High	Group of 3 trees; good form and structure; slightly thin crown.
142	Canary Island pine	22	4	Yes	Moderate	Group of 3 trees; correct lean south; roots lifting curb and asphalt.
143	Red ironbark	20,20,18	3	Yes	Moderate	Multiple attachments at base; on fence line between fence and round structure; fair structure; slightly thin crown.



3215 PORTER DRIVE PALO ALTO, CALIFORNIA

GENERAL NOTES

- CITY'S APPROVAL OF PLANS DOES NOT RELIEVE THE OWNER OF THE RESPONSIBILITY FOR THE CORRECTION OF MISTAKES, ERRORS OR OMISSIONS CONTAINED THEREIN.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PALO ALTO STANDARD SPECIFICATIONS AND STANDARD PLAN DETAILS UNLESS NOTED OTHERWISE.
- ALL CONTRACTORS WILL BE RESPONSIBLE FOR THE VERIFICATION OF LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD. ALL CONTRACTORS SHALL CALL U.S.A. (CA. 1-800-277-2600) 48 HOURS BEFORE DIGGING. EXCAVATION FOR UNDERGROUND FACILITIES SHALL NOT BE PERMITTED PRIOR TO CONTACTING UNDERGROUND SERVICE ALERT. UNDER NO CIRCUMSTANCES WILL EXCAVATION COMMENCE BEFORE BEING ISSUED AN IDENTIFICATION NUMBER FROM U.S.A. (SECTION 4210.1 OF THE GOVERNMENT CODE).
- HAZARDOUS MATERIALS:**
UPON DISCOVERY OF HAZARDOUS MATERIAL, THE CONTRACTOR SHALL STOP THE WORK PROMPTLY AND NOTIFY THE FIRE DEPARTMENT, DEPARTMENT OF ENVIRONMENTAL SERVICES AND PUBLIC WORKS INSPECTION FOLLOWED BY WRITTEN NOTICE OF ANY:
 - MATERIAL THAT THE CONTRACTOR BELIEVES MAY BE HAZARDOUS WASTE, AS DEFINED IN SECTION 25117 OF THE HEALTH AND SAFETY CODE, THAT IS REQUIRED TO BE REMOVED TO A CLASS I, CLASS II, OF CLASS III DISPOSAL SITE IN ACCORDANCE WITH PROVISIONS OF EXISTING LAW.
 - SUBSURFACE OR LATENT PHYSICAL CONDITIONS AT THE SITE DIFFERING FROM THOSE INDICATED ON THE PLANS, NOTES, OR SOILS REPORT.
 - UNKNOWN PHYSICAL CONDITIONS AT THE SITE OF ANY UNUSUAL NATURE, DIFFERING MATERIALLY FROM THOSE ORDINARILY ENCOUNTERED AND GENERALLY RECOGNIZED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE CONTRACT. THE DEVELOPER'S AGENT SHALL PROMPTLY INVESTIGATE THE SUSPECTED CONDITION AND, AS NECESSARY, INITIATE FURTHER ANALYSIS OF THE PROBLEM. IF REMEDIATION IS REQUIRED, THE OWNER SHALL SUBMIT A REMEDIATION PLAN TO THE DIRECTOR OF PUBLIC WORKS AND, UPON APPROVAL BY THE DIRECTOR, SHALL IMPLEMENT THE PLAN AT THE DEVELOPER'S SOLE EXPENSE.
- IN THE EVENT THAT HUMAN REMAINS AND/OR CULTURAL MATERIALS ARE FOUND, ALL PROJECT-RELATED CONSTRUCTION SHALL CEASE WITHIN A 100-FOOT RADIUS. THE CONTRACTOR SHALL, PURSUANT TO SECTION 7050.5 OF THE HEALTH AND SAFETY CODE, AND SECTION 5097.94 OF THE PUBLIC RESOURCES CODE OF THE STATE OF CALIFORNIA, NOTIFY THE SANTA CLARA COUNTY CORONER IMMEDIATELY.
- CONTRACTOR SHALL STENCIL AND MARK ALL NEW STORM DRAIN INLETS AND CATCH BASINS WITH "NO DUMPING - FLOWS TO MATADERO CREEK" MARKING ON THE FACE OF THE CURB ADJACENT TO THE CATCH BASIN OR THE CATCH BASIN ITSELF. THE STENCILS MAY BE OBTAINED THROUGH THE CITY OF PALO ALTO PUBLIC WORKS INSPECTOR.
- ALL PCC PAVEMENT SECTION THICKNESS SHOWN SHALL BE BASED ON NET THICKNESS WHICH EXCLUDES INDENTATION FOR ARCHITECTURAL PURPOSES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY TO PERFORM THE IMPROVEMENTS IN THESE PLANS FROM THE APPROPRIATE AGENCIES AND TO COMPLY WITH THE AGENCIES' REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL LAWS.
- WHEN IT IS FOUND THAT FIELD CONDITIONS ARE NOT AS SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO FURTHER CONSTRUCTION.
- CONTRACTOR SHALL CAREFULLY PRESERVE THE SURROUNDING PROPERTY BY CONFINING OPERATION WITHIN THE LIMITS OF WORK AREA. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER.

TITLE 24 / ADA NOTES

- ALL SITE WORK SHALL BE IN CONFORMANCE WITH TITLE 24 OF THE CALIFORNIA ADMINISTRATIVE CODE AND WITH THE AMERICANS WITH DISABILITIES ACT.
- CURB RAMPS SHALL NOT EXCEED A SLOPE OF 1:12 (8.33%).
- ENTRANCE RAMPS TO BUILDINGS SHALL NOT EXCEED A SLOPE OF 1:20 (5%) UNLESS RAILINGS ARE SHOWN ON ARCHITECTURAL PLANS, IN WHICH CASE THE SLOPE SHALL NOT EXCEED 1:12 (8.33%).
- A 2% MAXIMUM SLOPE LANDING SHALL BE PROVIDED AT PRIMARY ENTRANCES TO BUILDINGS.
- RAMPS ARE DEFINED AS ANY WALKWAY BETWEEN SLOPES OF 1:20 (5%) AND 1:12 (8.33%), AND SHALL HAVE A MINIMUM WIDTH OF 48" AND A MAXIMUM CROSS-SLOPE OF 2%. RAMPS EXCEEDING 2"-6" VERTICAL DROP SHALL HAVE INTERMEDIATE (2% MAXIMUM SLOPE) LANDINGS HAVING A MINIMUM LENGTH IN THE DIRECTION OF TRAVEL OF 60". BOTTOM LANDINGS AT CHANGES IN RAMP DIRECTION SHALL HAVE A MINIMUM LENGTH OF 72".
- MAXIMUM CROSS-SLOPE ON ANY SIDEWALK OR RAMP SHALL BE 2%.
- SEE ARCHITECTURAL AND/OR LANDSCAPE PLANS FOR RAMP DETAILS.

GRADING AND PAVING NOTES

- PAVEMENT EXCAVATION SHALL INCLUDE REMOVAL AND DISPOSAL OF EXISTING A.C. PAVEMENT AND PCC CURB REQUIRED FOR THE CONSTRUCTION OF NEW SURFACE IMPROVEMENTS. THE CONTRACTOR SHALL SHUT-OUT EXISTING PAVEMENT AT LOCATIONS AS SHOWN ON THE PLANS PRIOR TO REMOVAL OF EXISTING PAVEMENT. ALL EXCAVATED MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE AND PROPERLY DISPOSED OF IN AN AREA PROVIDED BY THE CONTRACTOR.
- CONTRACTOR SHALL GRADE TO THE LINE AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION AS INDICATED.

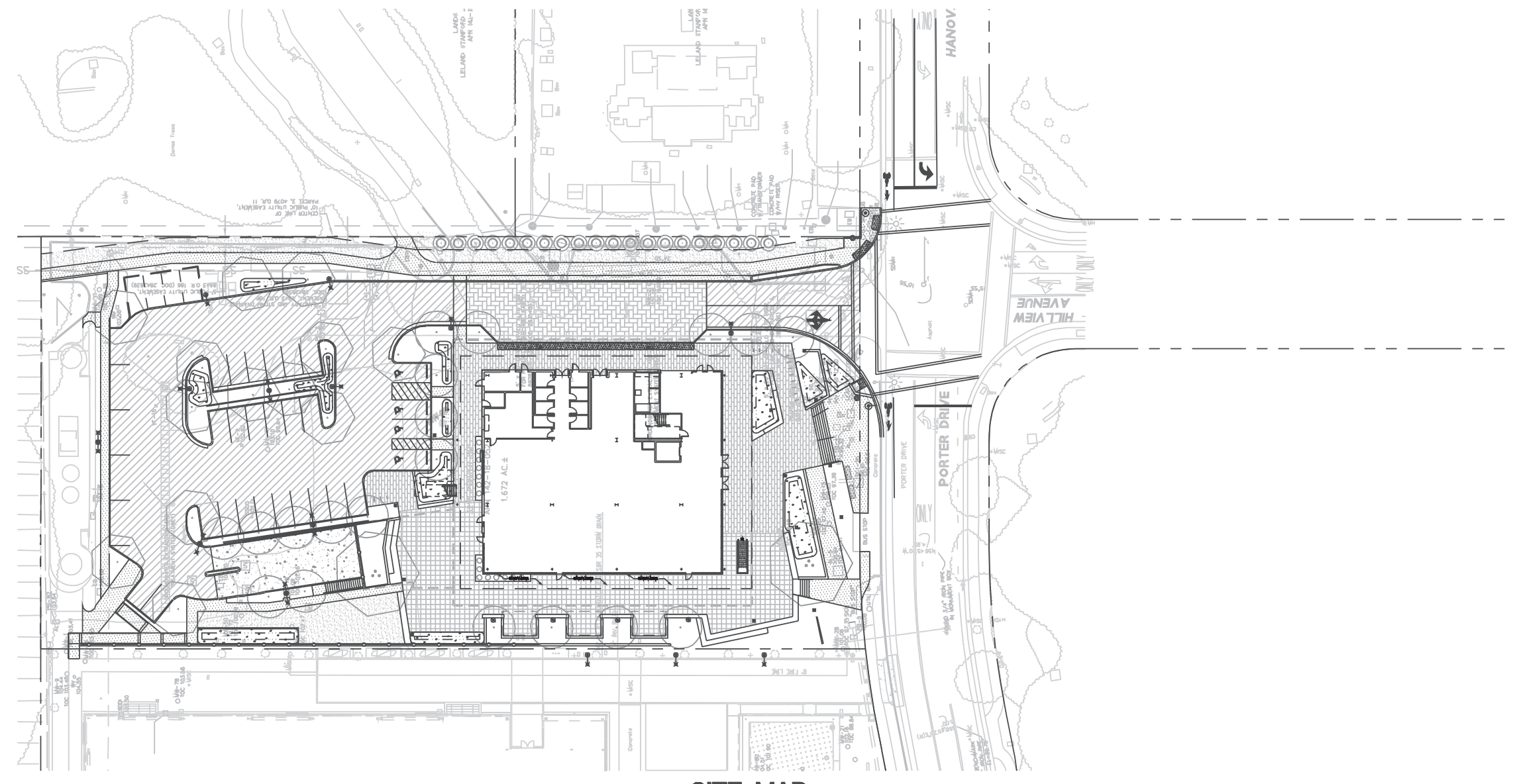
	HORIZONTAL	VERTICAL	COMPACTION
PAVEMENT SUBGRADE	0.1"	+0.1' TO -0.1'	95%
- NOT USED.
- CONTRACTOR SHALL ADJUST ALL NEW INLETS, VALVE BOXES, AND OTHER UTILITY STRUCTURES, AND ALL EXISTING UTILITY STRUCTURES WHICH ARE TO REMAIN, TO THE NEW FINISH GRADE.
- THE CIVIL ENGINEER, BKF ENGINEERS, 1730, NORTH FIRST STREET, SAN JOSE, CALIFORNIA 95112, HAS DESIGNED THIS PROJECT TO COMPLY WITH THE GRADING RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PREPARED BY IF ANY DISCREPANCIES ARE FOUND BETWEEN THE PLANS/SPECS AND THE GEOTECHNICAL REPORT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO FURTHER CONSTRUCTION.
- ALL GRADING SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON OR ATTACHED HERETO. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- DO NOT USE CHEMICALS FERTILIZERS, PESTICIDES, HERBICIDES OR COMMERCIAL SOIL AMENDMENT. USE ORGANIC MATERIALS REVIEW INSTITUTE (OMRI) MATERIALS AND COMPOST. REFER TO THE BAY-FRIENDLY LANDSCAPE GUIDELINES: [HTTP://WWW.STOPWASTE.ORG/RESOURCE/BROCHURES/BAY-FRIENDLY-LANDSCAPE-GUIDELINES-SUSTAINABLE-PRACTICES-LANDSCAPE-PROFESSIONAL-FOR-GUIDANCE](http://www.stopwaste.org/resource/brochures/bay-friendly-landscape-guidelines-sustainable-practices-landscape-professional-for-guidance).
- AVOID COMPACTING SOIL IN AREAS THAT WILL BE UNPAVED.

SURFACE IMPROVEMENT NOTES

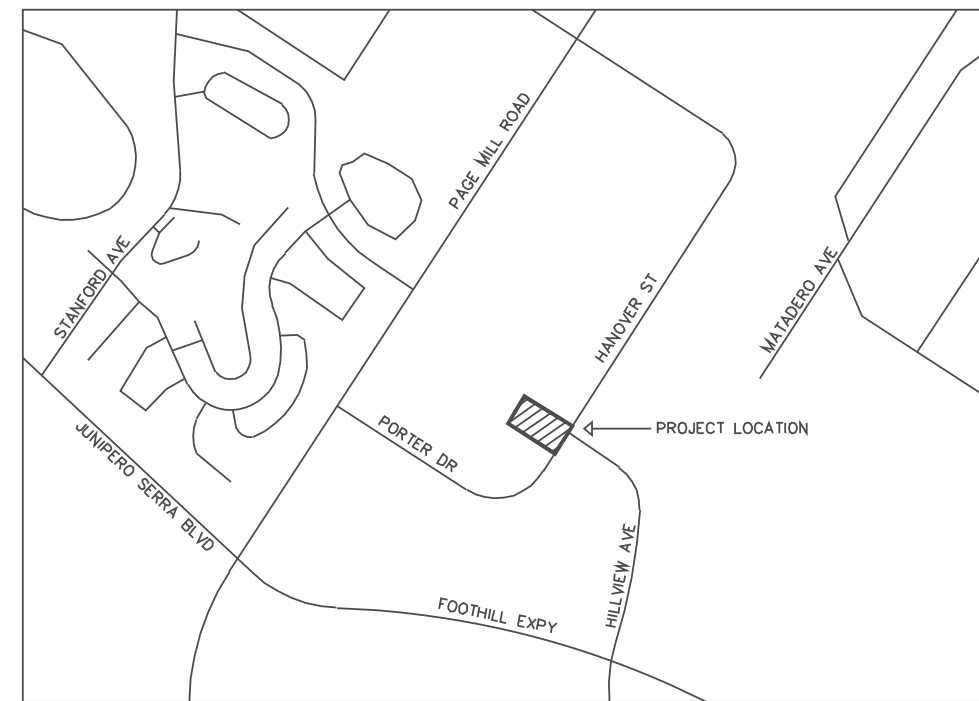
- ALL PAVING SHALL CONFORM TO THE GEOTECHNICAL INVESTIGATION PREPARED BY _____.
- AGGREGATE BASE SHALL CONFORM TO CLASS 2 AGGREGATE BASE, PER SECTION 26 OF THE STATE STANDARD SPECIFICATIONS, AND SHALL HAVE A MINIMUM COMPACTION OF 95% RELATIVE FOR ASPHALT CONCRETE PAVEMENT AND 90% RELATIVE FOR EXTERIOR CONCRETE FLATWORK, UNLESS OTHERWISE NOTED OR DIRECTED BY GEOTECHNICAL ENGINEER.
- THE TOP 6" OF CURB AND GUTTER SUBGRADE SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION, INCLUDING EXPANSIVE ON-SITE SOILS.
- ASPHALT CONCRETE SHALL CONFORM TO TYPE B, 3/4" MAXIMUM, MEDIUM GRADING, PER SECTION 39 OF THE STATE STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED.
- PORTLAND CEMENT CONCRETE SHALL CONFORM TO THE CITY OF PALO ALTO SPECIFICATIONS.
- SURFACE STRUCTURES INCLUDING, BUT NOT LIMITED TO, MANHOLES, WATER VALVE BOXES, CLEAN OUT FRAMES AND COVERS, ETC., SHALL BE BROUGHT TO FINISHED GRADE BY THE CONTRACTOR AFTER PAVING IS COMPLETED.

NOTE TO CONTRACTOR:

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



SITE MAP
SCALE: 1"=40'



VICINITY MAP
SCALE: NTS

ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AB	AGGREGATE BASE	FG	FINISHED GRADE	RF	RAISED FLOOR
AC	ASPHALT CONCRETE	FH	FIRE HYDRANT	RT	RIGHT
AD	AREA DRAIN	FL	FLOW LINE	R/W	RIGHT OF WAY
AGC	AGGREGATE	G	GAS	S	SLOPE
BC	BEGINNING OF CURVE	GB	GRADE BREAK	SD	STORM DRAIN
BHD	BOTTOM OF HEADER	HP	HIGH POINT	SDMH	STORM DRAIN MANHOLE
BM	BENCH MARK	INV	INVERT	SL	STREET LIGHT
BOW	BOTTOM OF WALL	IRR	IRRIGATION	SS	SANITARY SEWER
C	CABLE	JT	JOINT TRENCH	S.A.D.	SEE ARCHITECTURAL DRAWINGS
CA	CATCH BASIN	LF	LINEAR FEET	S.E.D.	SEE ELECTRICAL DRAWINGS
C&G	CURB & GUTTER	LG	LIP OF GUTTER	S.L.D.	SEE LANDSCAPE DRAWINGS
CL	CENTERLINE	LP	LOW POINT	S.M.D.	SEE MECHANICAL DRAWINGS
CLP	CORRUGATED METAL PIPE	LS	LANDSCAPE	S.P.D.	SEE PLUMBING DRAWINGS
CO	CONCRETE	M	METER	S.P.P.	SEE PLUMBING DRAWINGS
CPA	CITY OF PALO ALTO	M.E.P.	MECHANICAL/ELECTRICAL/PLUMBING	S.S.D.	SEE STRUCTURAL DRAWINGS
DI	DROP INLET	MH	MANHOLE	STA	STATION
DI	DUCTILE IRON PIPE	MON	MONUMENT	S/W	SIDEWALK
DWC	DOMESTIC WATER	NTS	NOT TO SCALE	T OR TELE	TELEPHONE
D/W	DRIVEWAY	PCC	PORTLAND CEMENT CONCRETE	TC	TOP OF CURB
EC	EDGE OF CURVE	PG&E	PACIFIC GAS AND ELECTRIC	TH	TOP OF HEADER
EL	ELEVATION	PL	PROPERTY LINE	TOW, TW	TOP OF WALL
EV	EDGE OF PAVEMENT	P.O.C.	POINT OF CONNECTION	TP	TOP OF PAVEMENT
EV	EDGE VERTICAL CURVE	PRC	POINT OF REVERSE CURVE	TS	TOP OF SLAB (S.S.D.)
(E), EX	EXISTING	PT	POINT	UCD	UNDERGROUND TRANSFORMER
FC	FACE OF CURB	PV	PAVEMENT ELEVATION	VC	VERTICAL CURVE
FDC	FIRE DEPARTMENT CONNECTION	PVC	POLYVINYL CHLORIDE	VCP	VITRIFIED CLAY PIPE
FF	FINISHED FLOOR ELEVATION	PI	POINT OF VERTICAL INTERSECTION	W	WATER
		R	RADIUS	WM	WATER METER
		RC	RELATIVE COMPACTION	WV	WATER VALVE
		RCP	REINFORCED CONCRETE PIPE		
		RESID	RESIDENTIAL		
		RET	RETAIL		

BASIS OF BEARINGS

VERTICAL DATUM

ALL ELEVATIONS SHALL BE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

SWPPP/NOI NOTE

AN NOI WILL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD FOR COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. NDD # _____

UNDERGROUND CONSTRUCTION NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH STANDARD SPECIFICATIONS, CONSTRUCTION DETAILS, AND STANDARD DRAWINGS OF THE CITY OF PALO ALTO UNLESS OTHERWISE NOTED.
- ACCURATE VERIFICATION AS TO SIZE, LOCATION, AND DEPTH OF EXISTING UNDERGROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE LOCATION AND DEPTHS OF EXISTING UNDERGROUND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE POSITIONS BASED UPON THE INFORMATION AVAILABLE TO THE ENGINEER. ANY ADDED COST TO THE CONTRACTOR AS A RESULT OF THE ACTUAL LOCATIONS OF EXISTING UTILITIES BEING DIFFERENT FROM THAT SHOWN ON THE PLANS SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICES.
- CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND LOCATIONS OF EXISTING PIPES AND UTILITIES BY POTHOLES BEFORE EXCAVATION WORK OR MAKING CONNECTIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING LOCATE SERVICES FOR THOSE FACILITIES INSTALLED BY THE CONTRACTOR UNTIL SUCH TIME AS THE WORK HAS BEEN OFFICIALLY ACCEPTED BY THE OWNER AND CITY OF PALO ALTO. THE MARKING AND LABELING OF SUCH LOCATIONS SHALL BE IN CONFORMANCE WITH UNDERGROUND SERVICE ALERT REQUIREMENTS.
- IN THE EVENT OF WET UNSTABLE TRENCH BOTTOM OR IF GROUND WATER IS ENCOUNTERED, DEWATERING WILL BE REQUIRED AND ALL UNDERGROUND CONSTRUCTION WORK SHALL STOP IMMEDIATELY UNTIL THESE DEWATERING REQUIREMENTS ARE MET. CONTRACTOR SHALL CONTACT PUBLIC WORKS ENGINEERING FOR DEWATERING RECOMMENDATIONS. CONTRACTOR SHALL COMPLY WITH ALL CITY DEWATERING REQUIREMENTS.
- SANITARY SEWER LATERALS SHALL BE A MINIMUM OF 1' BELOW WATER LATERALS.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE REMOVAL AND/OR RELOCATION OF ANY EXISTING GAS LINES, METERS, AND ASSOCIATED APPURTENANCES WITH THE CITY OF PALO ALTO AND/OR APPROPRIATE UTILITY AGENCY HAVING JURISDICTION.
- PROPOSED UTILITY LINES AND EXISTING UTILITY LINES TO REMAIN WITHIN THE PROPOSED FOOTING INFLUENCE LINE (AS DETERMINED BY THE STRUCTURAL AND/OR GEOTECHNICAL ENGINEER) SHALL BE PROTECTED WITH CONTROLLED DENSITY FILL (LEAN CONCRETE FILL) OR OTHER MEANS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- JOINT TRENCH LINES (ELECTRICAL, GENERATOR, DATA, STREET LIGHT, GAS, ETC.) ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL REFERENCE ELECTRICAL AND MECHANICAL PLANS FOR INFORMATION PERTAINING TO THESE FACILITIES.

SHEET INDEX

SHEET	DESCRIPTION
C1.0	EXISTING CONDITIONS
C2.0	HORIZONTAL CONTROL PLAN
C3.0	TRUCK ACCESS
C4.0	GRADING PLAN
C5.0	UTILITY PLAN
C6.0	STORMWATER TREATMENT PLAN
C7.0	CONSTRUCTION DETAILS
C8.0	BMP PLAN



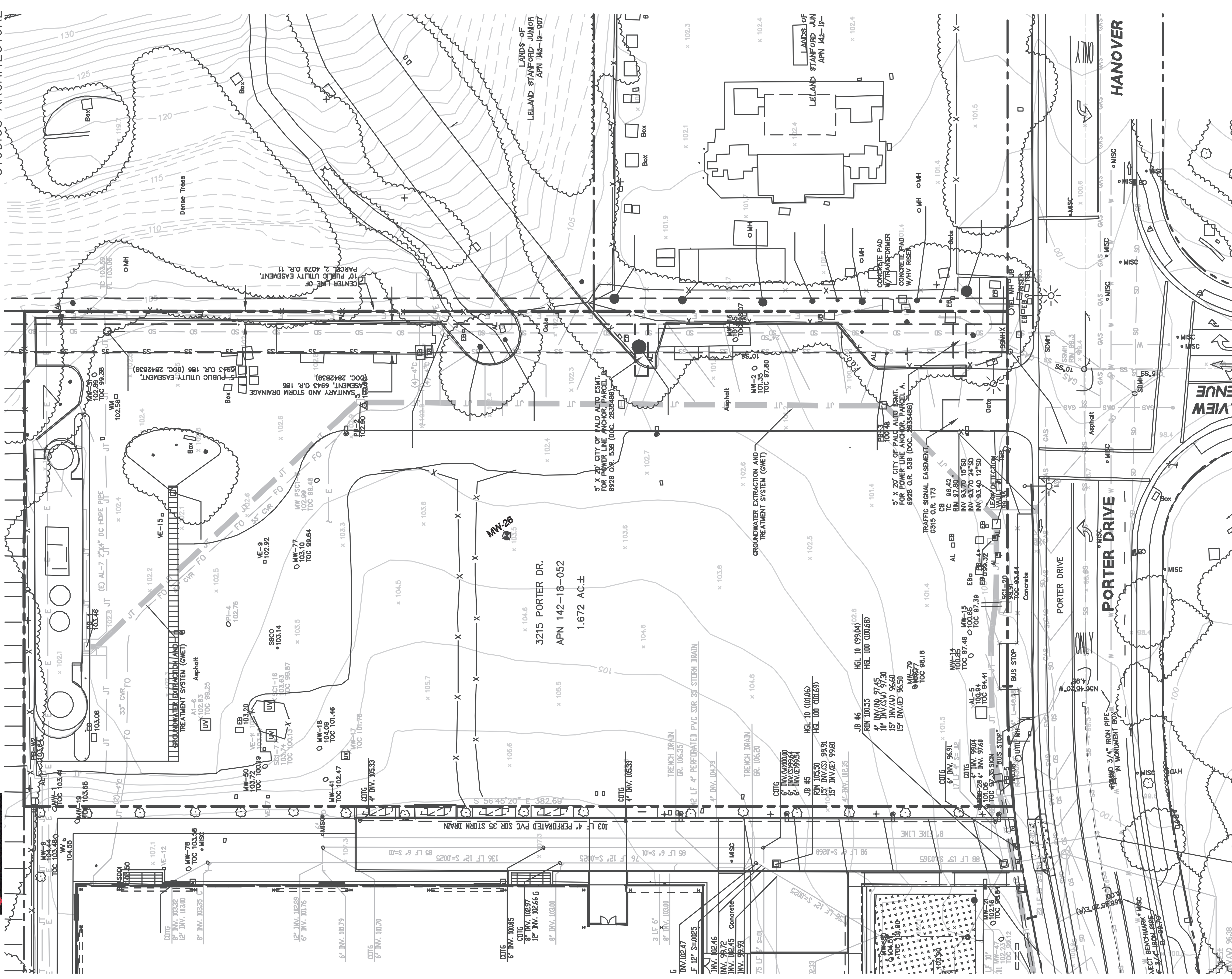
EROSION AND SEDIMENT CONTROL NOTES

- GENERAL CONTRACTOR: DEVCON CONSTRUCTION INCORPORATED
690 GIBRALTAR DRIVE
MILPITAS, CA 95035
(408) 942-8000

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN AND SWPPP. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES FOR THE LIFE OF THE CONSTRUCTION OPERATIONS AS REQUIRED BY THE CITY OF PALO ALTO AND/OR CROWCB.
- CIVIL ENGINEER: BKF ENGINEERS
1730 NORTH FIRST STREET, SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
- CONSTRUCTION SUPERINTENDENT: TBD ()
- THE EROSION AND SEDIMENT CONTROL PLAN IS INTENDED TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
- OWNER WILL ENSURE THAT ALL EROSION/SEDIMENT MEASURES IDENTIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP ARE IN PLACE. IF MEASURES ARE NOT IN PLACE, OWNER SHALL IMMEDIATELY CONTACT THE WATERSHED PROTECTION GROUP AT (650) 329-2122 AND EMAIL A.BOTE@BOWDOGLEG.COM@PALOALTO.CA.GOV
- ALL EROSION CONTROL FACILITIES MUST BE MONITORED AS REQUIRED BY THE CITY OF PALO ALTO AND/OR THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (CROWCB). ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
- EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE MAINTAINED, REPAIRED AND REPLACED WITHIN ONE BUSINESS DAY AFTER EACH SIGNIFICANT RAINFALL OR AS DIRECTED BY THE CITY ENGINEER AND/OR CROWCB. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE CITY ENGINEER AND/OR THE CROWCB BASED ON FIELD REVIEWS OF THE SITE. STORM DRAIN INLET PROTECTION THAT IS REMOVED BY CITY STAFF DURING A RAIN EVENT SHALL BE REPLACED BY THE CONTRACTOR WITHIN ONE BUSINESS DAY FOLLOWING THE RAIN EVENT.
- THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROADS CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP THIRTY DAILY (OR MORE OFTEN) OF ANY MATERIAL SPILLED ON ANY ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS THROUGHOUT THE LIFE OF THE PROJECT. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH, AS WELL AS THE CONSTRUCTION GENERAL PERMIT AND CITY OF PALO ALTO MUNICIPAL CODE.
- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT. FACILITIES ARE TO BE OPERABLE THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.
- THIS PLAN COVERS ONLY THE FIRST WINTER FOLLOWING GRADING WITH ASSUMED SITE CONDITIONS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. PRIOR TO SEPT. 15TH, THE COMPLETION OF SITE IMPROVEMENTS SHALL BE EVALUATED AND REVISIONS MADE TO THIS PLAN AS NECESSARY WITH THE APPROVAL OF THE CITY ENGINEER. PLANS ARE TO BE RESUBMITTED FOR CITY APPROVAL. IF THERE ARE ANY CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN, THE PLAN SHALL BE SENT TO THE WATERSHED PROTECTION GROUP FOR APPROVAL AS WELL.
- A CONSTRUCTION ENTRANCE AND CONSTRUCTION EXIT SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. DOWNSTREAM INLET PROTECTION AND OTHER BMPs SHALL BE IN PLACE BEFORE DEMOLITION. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE WAYS.
- CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE/EXIT AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY, OR MORE OFTEN IF SOIL HAULING CONTINUES, AND AS REQUIRED BY THE CITY. ALL TRUCK TIRES SHALL BE CLEANED WITH A TIRE WASH STATION PRIOR TO EXITING THE PROPERTY.
- GRAVEL BAGS SHALL BE USED IN PLACE OF SAND BAGS. REFER TO THE LATEST REVISION OF CASQA OR CALTRANS BMPs.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OPERABLE YEAR-ROUND. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY 10/10, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH.
- BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TRAPS, FIBER ROLLS, ETC.) THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
- ALL DRAINAGE INLETS WITHIN AND NEAR THE PROJECT SITE SHALL BE PROVIDED WITH SEDIMENT TRAPS OR SEDIMENT BARRIERS AS PER THIS PLAN. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOKED TO PREVENT ENTRY OF SEDIMENT. OFFSITE DOWNGRADE STORM DRAIN INLETS FROM THE PROJECT SITE SHALL ALSO HAVE STORM DRAIN INLET PROTECTION.
- DURING GRADING OPERATIONS THE SITE SHALL BE WATERED ON A DAILY BASIS TO MINIMIZE THE RELEASE OF DUST AND OTHER PARTICULATE MATTER. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- EARTHWORK SHALL NOT BE PERFORMED DURING UNFAVORABLE CONDITIONS. AFTER INTERRUPTION OF WORK DUE TO HEAVY RAIN, THE GEOTECHNICAL ENGINEER SHALL APPROVE EARTHWORK BEFORE RESUMPTION OF EARTHMOVING OPERATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PUTTING IN PLACE THE NECESSARY MEANS AND EXECUTE PROPER METHODS TO PROTECT EARTHWORK AGAINST UNFAVORABLE WEATHER CONDITIONS. CONTRACTOR SHALL NOT BE PAID FOR ANY DELAY OR ADDITIONAL WORK TO REMEDY PREVIOUS EARTHWORK RESULTING FROM THE CONTRACTOR'S NEGLIGENCE TO PROTECT ITS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED WITH ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURE MAINTENANCE THROUGHOUT THE DURATION OF THE PROJECT.

EROSION AND SEDIMENT CONTROL MAINTENANCE NOTES

- MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - REPAIR DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION AT THE END OF EACH WORKING DAY.
 - SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
 - SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
 - SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1 FOOT.
 - SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - RILLS AND GULLIES MUST BE REPAIRED.
 - STORM DRAIN INLET PROTECTION THAT IS REMOVED BY CITY STAFF DURING A RAIN EVENT SHALL BE REPLACED BY THE CONTRACTOR WITHIN ONE BUSINESS DAY FOLLOWING THE RAIN EVENT.
- GRAVEL BAGS SHALL BE USED IN PLACE OF SAND BAGS.
- SEDIMENT DAMS AND TRAPS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHALL BE REMOVED FROM THESE DEVICES WHEN IT HAS ACCUMULATED TO A DEPTH OF 1 FOOT.
- DAMAGED EROSION CONTROL DEVICES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN ONE BUSINESS DAY FOLLOWING THE RAIN EVENT.
- DURING PERIODS WHEN STORMS ARE FORECAST -
 - EXCAVATED SOILS SHOULD NOT BE PLACED ON STREETS OR ON PAVED AREAS.
 - ANY EXCAVATED SOILS SHOULD BE REMOVED FROM THE SITE BY THE END OF THE DAY.
 - WHERE STOCKPILING IS NECESSARY, USE A TARPULIN OR SURROUND THE STOCKPILED MATERIAL WITH FIBER ROLLS OR OTHER RUNOFF CONTROLS.
 - USE INLET CONTROLS (E.G. FILTER MAT) FOR STORM DRAINS THROUGHOUT THE CONSTRUCTION PROJECT SITE AND ON OFFSITE, DOWNGRADE INLETS FROM THE PROJECT SITE. ENSURE THAT THESE INLET CONTROLS ARE CLEANED AND IN PLACE.
 - THOROUGHLY SWEEP ALL PAVED AREAS EXPOSED TO SOIL EXCAVATION AND PLACEMENT.
- DURING PERIODS WHEN STORMS ARE NOT FORECAST -
 - PREVENT STOCKPILED MATERIAL FROM ENTERING THE STORM DRAIN SYSTEM.
 - THOROUGHLY REMOVE LOOSE SOIL VIA SWEEPING FOLLOWING REMOVAL OF DIRT.
- STREET SWEEPING, INLET MAINTENANCE, AND MAINTENANCE FOR CONSTRUCTION ENTRANCES/EXITS SHALL BE IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK LEVEL. IT IS RECOMMENDED THAT A MINIMUM BMPs BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.



LEGEND

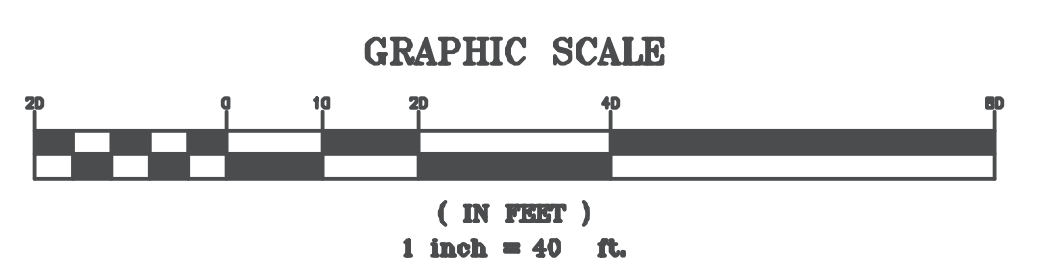
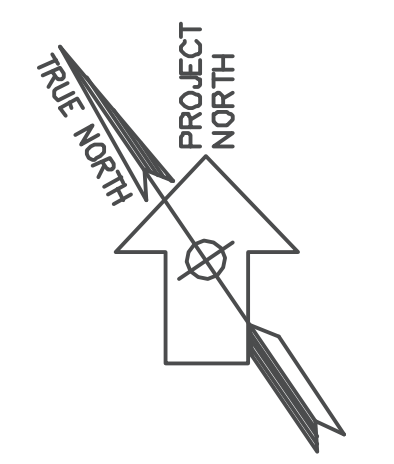
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	CENTERLINE
	EASEMENT
	ELECTRIC LINE
	GAS LINE
	STORM DRAIN LINE
	SANITARY SEWER LINE
	WATER LINE
	JOINT TRENCH LINE
	FENCE
	STREET LIGHT
	STORM DRAIN INLET
	SIGN
	MONUMENT
	28\"/>
	TREE

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
AL-5	GROUNDWATER EXTRACTION WELL
APN	ASSASSOR'S PARCEL NUMBER
ASV	ANTI-SIPHON VALVE
BLDG	BUILDING CORNER
CATV	CABLE TELEVISION UTILITY
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CONC	CONCRETE
D	DELTA
E	ELECTRIC
EB	ELECTRIC BOX
ENW	ENVIRONMENT MONITORING WELL
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EUC	EUCALYPTUS TREE
FL	FLOW LINE
FW	FIRE WATER
GM	GAS METER/BOX
GV	GATE VALVE
HYD	HYDRANT
INV	INVERT
JT	JOINT TRENCH
L	LENGTH
LG	LIP OF GUTTER
MW-15	GROUNDWATER MONITORING WELL
PB	PULL BOX
PI	PRESSURE INDICATOR
R	RADIUS
RIM	RIM ELEVATION
SD	STORM DRAIN
SDI	STORM DRAIN INLET
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
TC	TOP/FACE OF CURB
TEL	TELEPHONE
TSB	TRAFFIC SIGNAL BOX
UB	UTILITY BOX
UV	UTILITY VAULT
W	WATER
WM	WATER METER/BOX
WV	WATER VALVE

NOTES

1. THE UTILITY AND SERVICE LINES SHOWN ON THIS SURVEY ARE DERIVED FROM SURFACE OBSERVATION AND UTILITY REFERENCE MAP "CPA WGW UTILITIES INFORMATION" FROM CITY OF PALO ALTO. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION, SIZE OR PRESENCE OF ANY UTILITY AND SERVICE LINES NOT SHOWN ON THE SURVEY.
2. CALL TWO WORKING DAYS BEFORE YOU DIG. 1-800-277-2600/811 UNDERGROUND SERVICE ALERT - USA
3. EXISTING CONDITIONS PLAN BASED ON THE FOLLOWING:
 - 3.1. 3181, 3221 & 3215 PORTER DRIVE TOPOGRAPHIC SURVEY BY BKF ENGINEERS, 1/27/16 & 1/28/16
 - 3.2. 3181 PORTER DRIVE FOR CONSTRUCTION SET BY SNCE CONSULTING CIVIL ENGINEER, 6/30/17
 - 3.3. GROUNDWATER EXTRACTION AND TREATMENT (GWET) SYSTEM RECONFIGURATION RECORD DRAWINGS BY STANTEC, 2/24/17
 - 3.4. STANTEC REMEDIATION SYSTEM AS-BUILTS, 2/24/17
 - 3.5. 3215 PORTER DRIVE SITE VISIT BY BKF, 6/13/18
 - 3.6. 3215 PORTER DRIVE AERIAL SURVEY BY 360 AERIAL SURVEYS, 2/6/19



3215 PORTER DRIVE

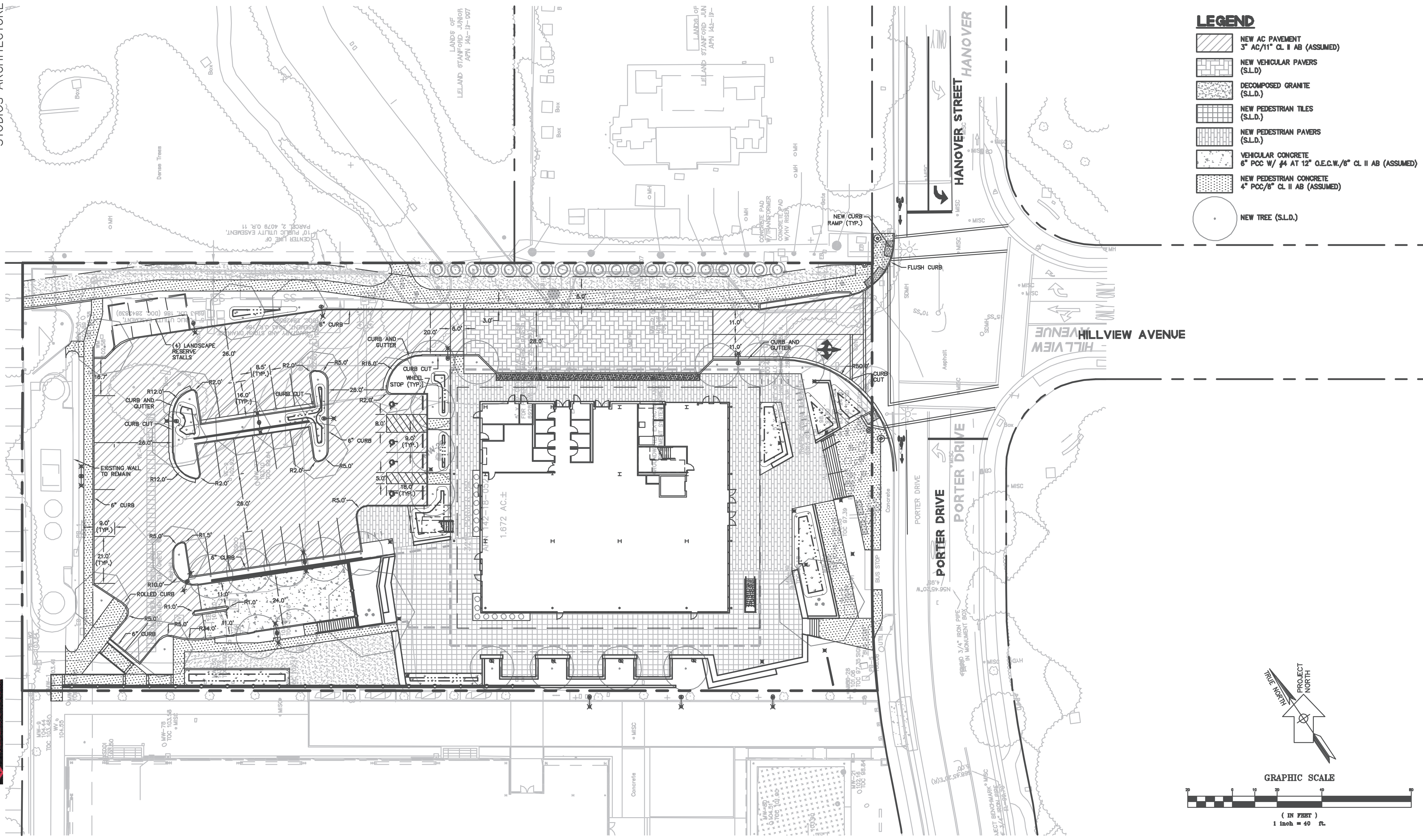
STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

7/15/2019

CIVIL DESIGN

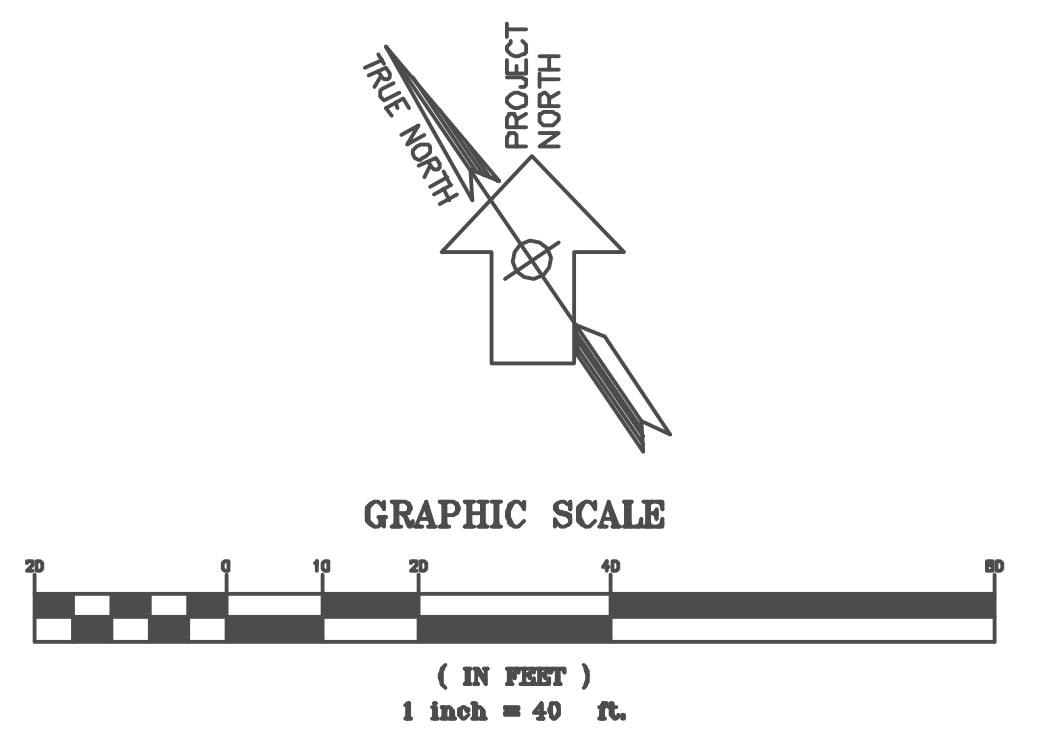
EXISTING CONDITIONS

C2.0



LEGEND

- NEW AC PAVEMENT
3" AC/11" CL II AB (ASSUMED)
- NEW VEHICULAR PAVERS (S.L.D.)
- DECOMPOSED GRANITE (S.L.D.)
- NEW PEDESTRIAN TILES (S.L.D.)
- NEW PEDESTRIAN PAVERS (S.L.D.)
- VEHICULAR CONCRETE
6" PCC W/ #4 AT 12" O.E.C.W./6" CL II AB (ASSUMED)
- NEW PEDESTRIAN CONCRETE
4" PCC/6" CL II AB (ASSUMED)
- NEW TREE (S.L.D.)



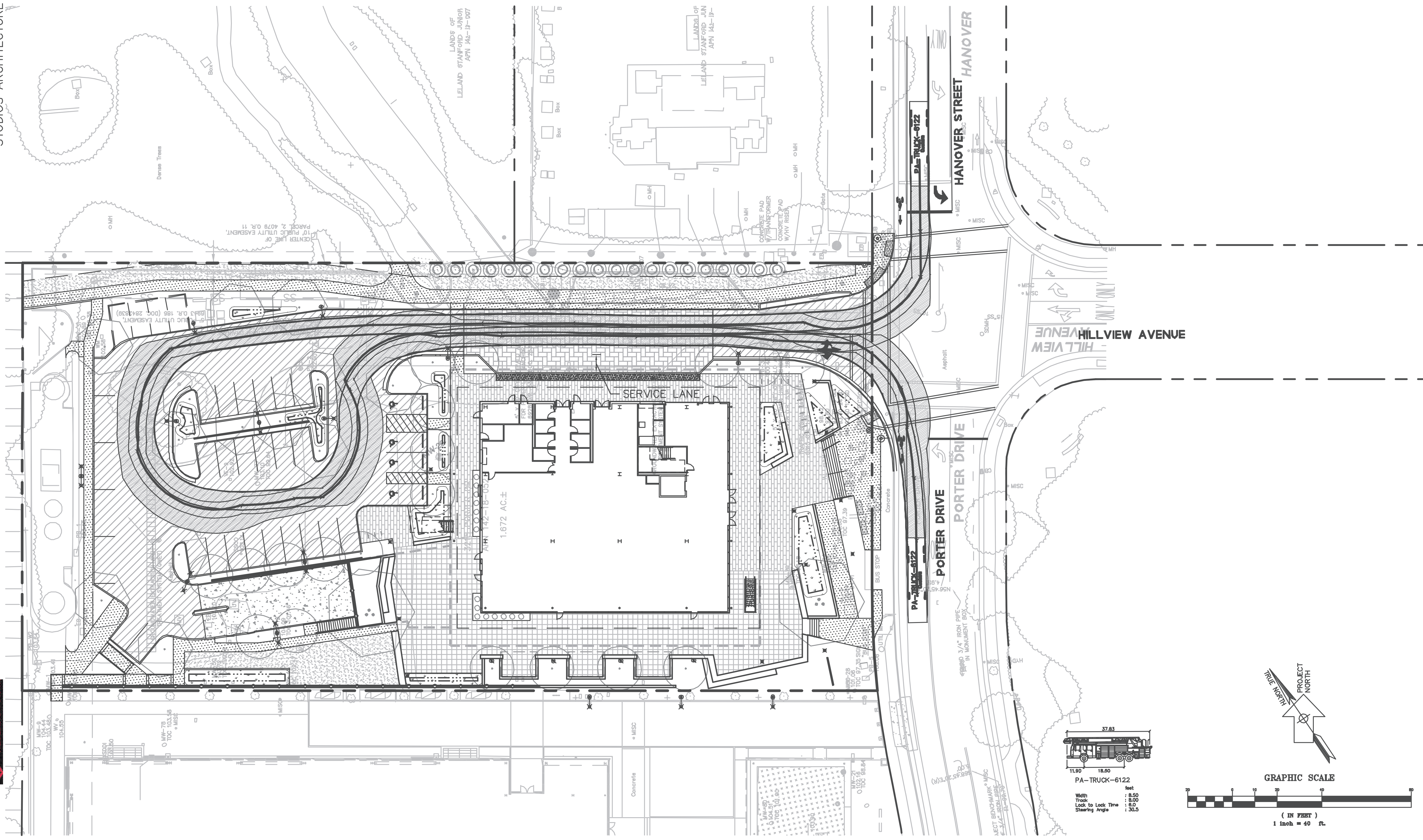
3215 PORTER DRIVE

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CIVIL DESIGN

HORIZONTAL CONTROL PLAN C3.0



3215 PORTER DRIVE

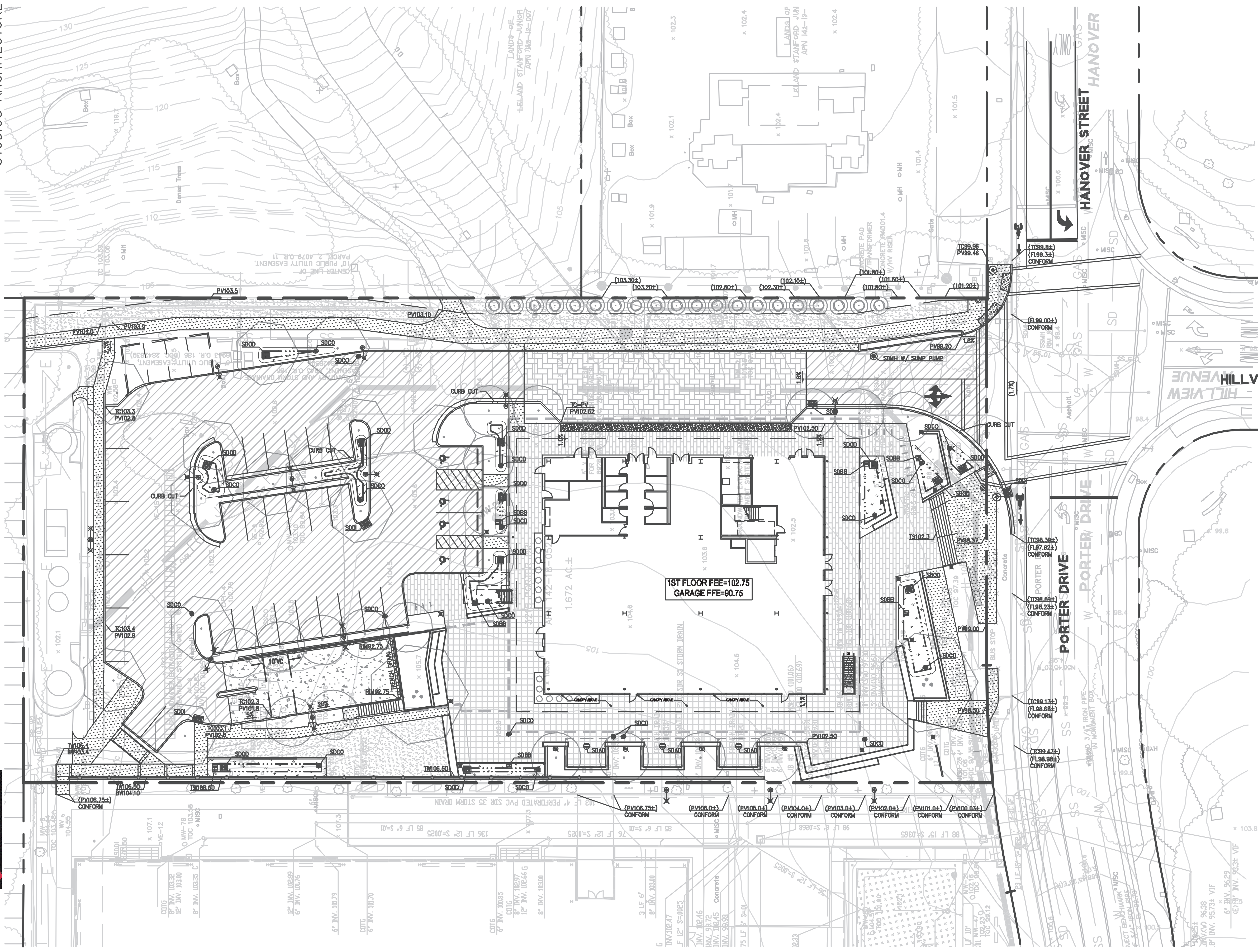
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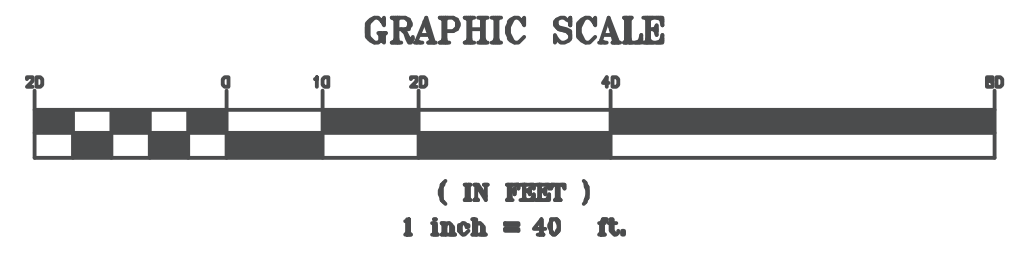
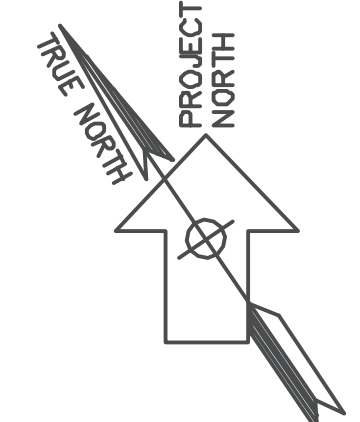
TRUCK ACCESS

C3.1



LEGEND

- TC 80.10 PROPOSED SPOT GRADE
- (TC 80.10a) EXISTING SPOT GRADE
- 270 CONTOUR LINE
- 1.5% DIRECTION OF FLOW
- SDCO ● STORM DRAIN CLEAN OUT
- SDDI ■ STORM DRAIN DROP INLET
- SDOD ■ STORM DRAIN OVERFLOW DRAIN
- SDDB ■ STORM DRAIN BUBBLER BOX
- SDAD ● STORM DRAIN AREA DRAIN
- SDMH ● STORM DRAIN MANHOLE
- TRENCH DRAIN TRENCH DRAIN (POLYDRAIN SYSTEM WITH H-20 SLOTTED GRATE AND FRAME OR APPROVED EQUAL)
- 1. II AB (ASSUMED) BIoretention AREA



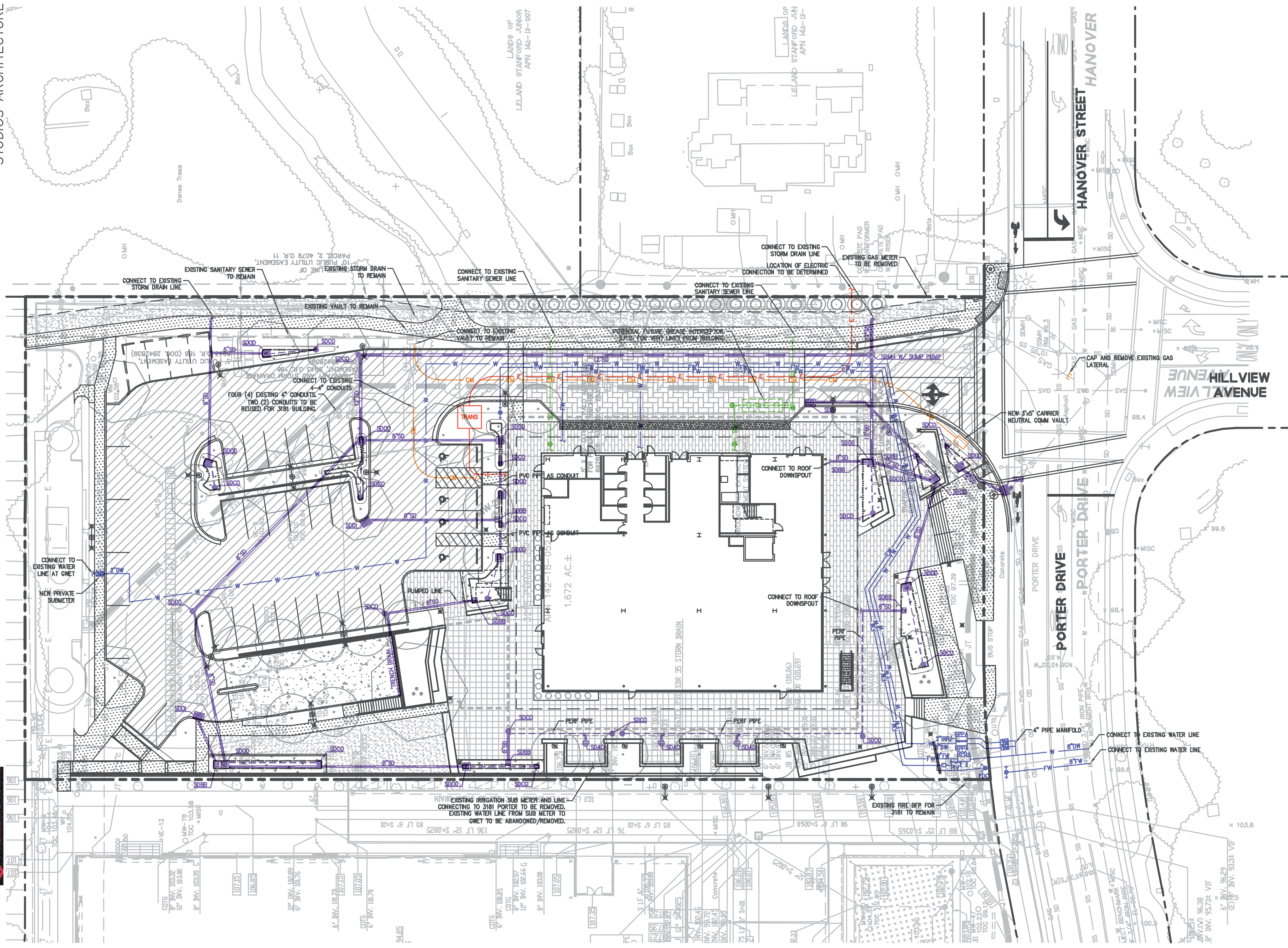
3215 PORTER DRIVE

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CIVIL DESIGN

GRADING PLAN C4.0



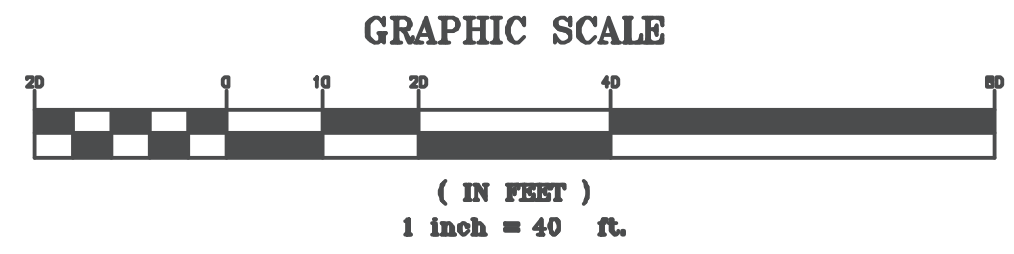
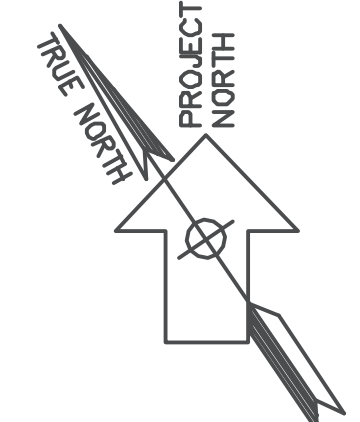
LEGEND

- STORM DRAIN LINE (PVC)
- PERFORATED STORM DRAIN LINE (PVC)
- SANITARY SEWER LINE (PVC)
- DOMESTIC WATER LINE (PVC 900)
- FIRE WATER LINE (PVC 900)
- ELECTRICAL LINE (S.E.D.)
- COMMUNICATIONS LINE (S.E.D.)
- TRENCH DRAIN (POLYDRAIN SYSTEM WITH H-20 SLOTTED GRATE AND FRAME OR APPROVED EQUAL)

- STORM DRAIN CLEAN OUT
- STORM DRAIN DROP INLET
- STORM DRAIN OVERFLOW DRAIN
- STORM DRAIN OVERFLOW DRAIN
- STORM DRAIN BUBBLER BOX
- STORM DRAIN AREA DRAIN
- STORM DRAIN MANHOLE
- SANITARY SEWER CLEAN OUT
- FIRE DEPARTMENT CONNECTION 6x4 WAY WITH CHECK VALVE AT VERTICAL PIPE
- FIRE HYDRANT CLOW RICH MODEL 76 W/ 2-2 1/2" OUTLETS AND 1-4 1/2" STEAMER
- BACKFLOW PREVENTOR (CPA STANDARD DETAIL WD-17A)
- BACKFLOW PREVENTOR (CPA STANDARD DETAIL WD-18A)
- WATER METER (CPA STANDARD DETAILS WD-01A & WD-02A)
- FUTURE GREASE INTERCEPTOR
- BIORETENTION AREA

NOTES

1. THE CONTRACTOR SHALL PAINT THE "NO DUMPING/FLOWS TO MATADERO CREEK" LOGO IN BLUE COLOR ON A WHITE BACKGROUND ADJACENT TO ALL ON-SITE STORM DRAIN INLETS. STENCILS OF THE LOGO ARE AVAILABLE FROM THE CITY OF PALO ALTO PUBLIC WORKS ENVIRONMENTAL COMPLIANCE DIVISION, WHICH MAY BE CONTACTED AT (650) 329-2598.
2. ALL OFF-SITE MATERIALS AND WORK TO BE PER CPA UTILITIES REQUIREMENTS.



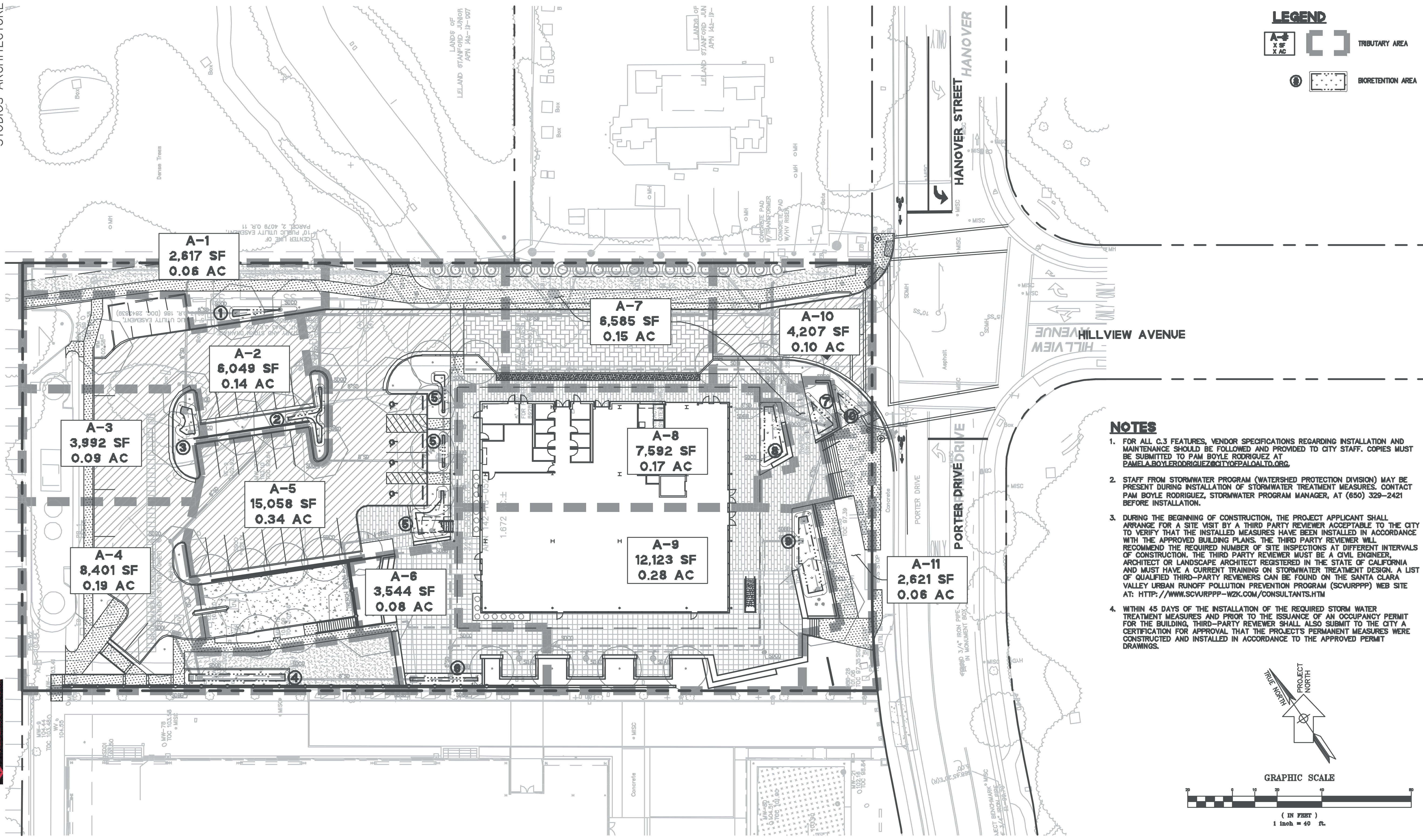
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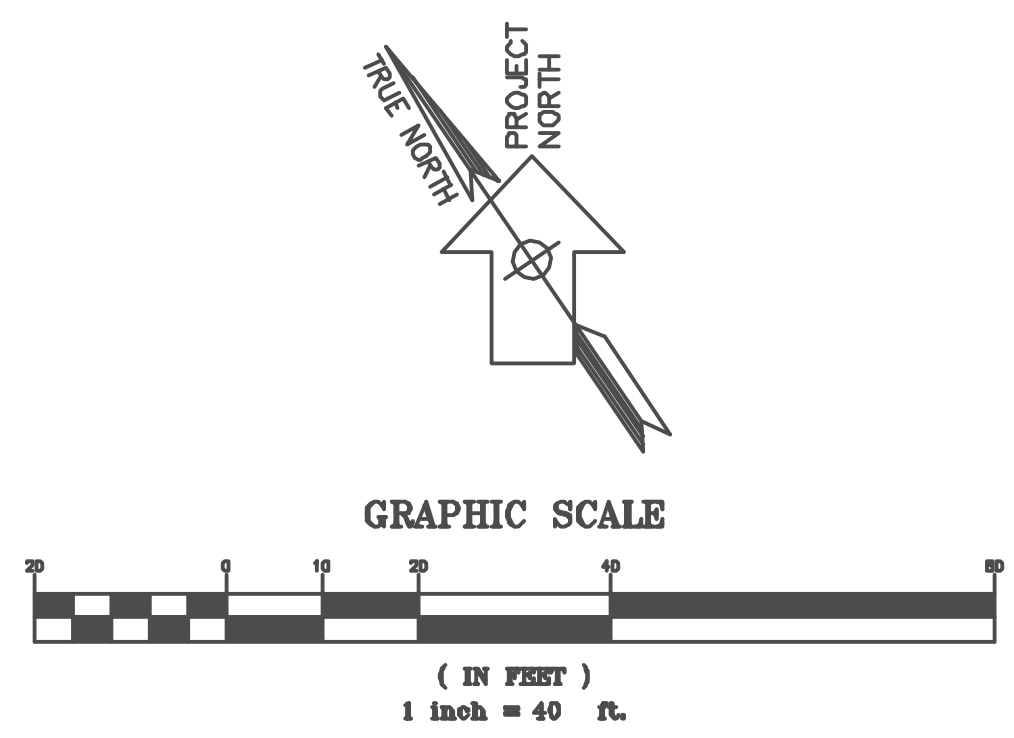
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CIVIL DESIGN

UTILITY PLAN C5.0



- NOTES**
- FOR ALL C.3 FEATURES, VENDOR SPECIFICATIONS REGARDING INSTALLATION AND MAINTENANCE SHOULD BE FOLLOWED AND PROVIDED TO CITY STAFF. COPIES MUST BE SUBMITTED TO PAM BOYLE RODRIGUEZ AT PAMELA.BOYLE@CITYOFPALOALTO.ORG.
 - STAFF FROM STORMWATER PROGRAM (WATERSHED PROTECTION DIVISION) MAY BE PRESENT DURING INSTALLATION OF STORMWATER TREATMENT MEASURES. CONTACT PAM BOYLE RODRIGUEZ, STORMWATER PROGRAM MANAGER, AT (650) 329-2421 BEFORE INSTALLATION.
 - DURING THE BEGINNING OF CONSTRUCTION, THE PROJECT APPLICANT SHALL ARRANGE FOR A SITE VISIT BY A THIRD PARTY REVIEWER ACCEPTABLE TO THE CITY TO VERIFY THAT THE INSTALLED MEASURES HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED BUILDING PLANS. THE THIRD PARTY REVIEWER WILL RECOMMEND THE REQUIRED NUMBER OF SITE INSPECTIONS AT DIFFERENT INTERVALS OF CONSTRUCTION. THE THIRD PARTY REVIEWER MUST BE A CIVIL ENGINEER, ARCHITECT OR LANDSCAPE ARCHITECT REGISTERED IN THE STATE OF CALIFORNIA AND MUST HAVE A CURRENT TRAINING ON STORMWATER TREATMENT DESIGN. A LIST OF QUALIFIED THIRD-PARTY REVIEWERS CAN BE FOUND ON THE SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM (SCVURPPP) WEB SITE AT: [HTTP://WWW.SCVURPPP-W2K.COM/CONSULTANTS.HTM](http://www.scvurppp-w2k.com/consultants.htm)
 - WITHIN 45 DAYS OF THE INSTALLATION OF THE REQUIRED STORM WATER TREATMENT MEASURES AND PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT FOR THE BUILDING, THIRD-PARTY REVIEWER SHALL ALSO SUBMIT TO THE CITY A CERTIFICATION FOR APPROVAL THAT THE PROJECT'S PERMANENT MEASURES WERE CONSTRUCTED AND INSTALLED IN ACCORDANCE TO THE APPROVED PERMIT DRAWINGS.



3215 PORTER DRIVE

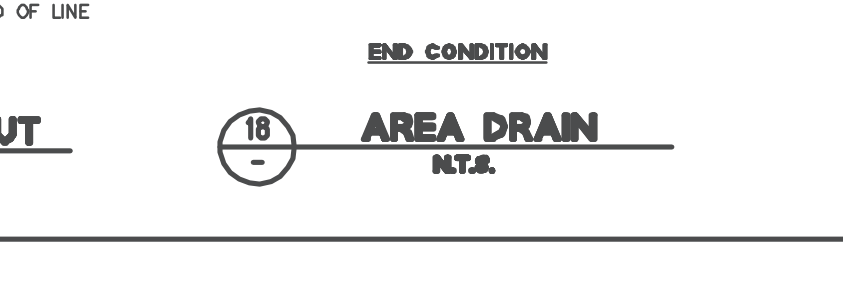
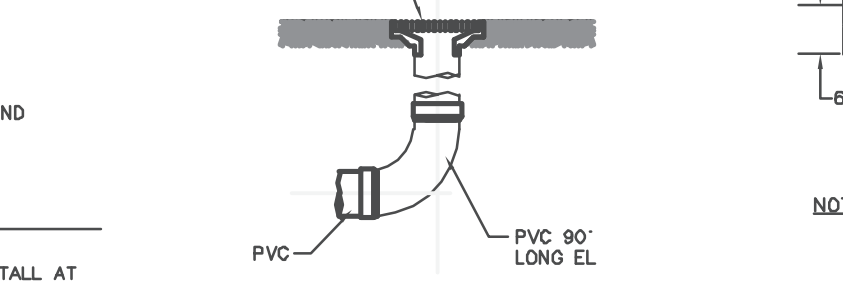
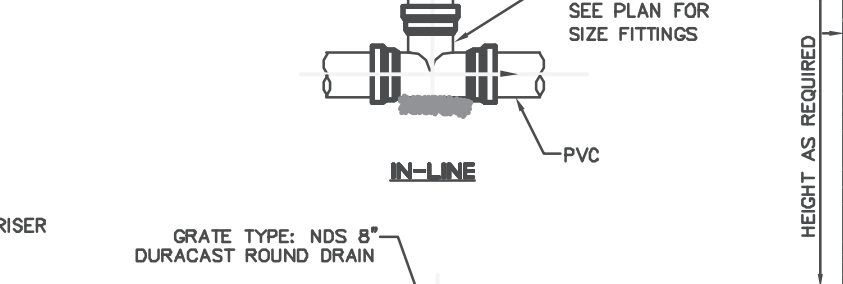
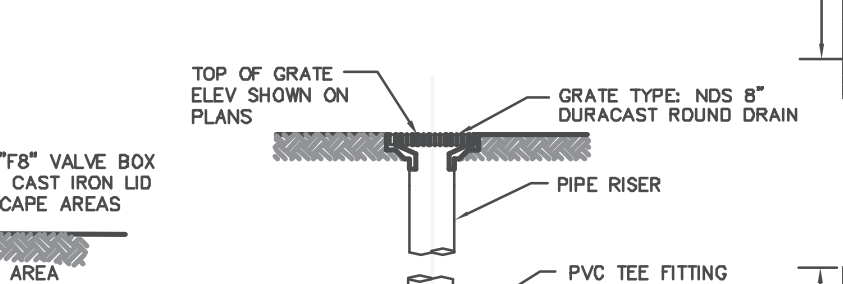
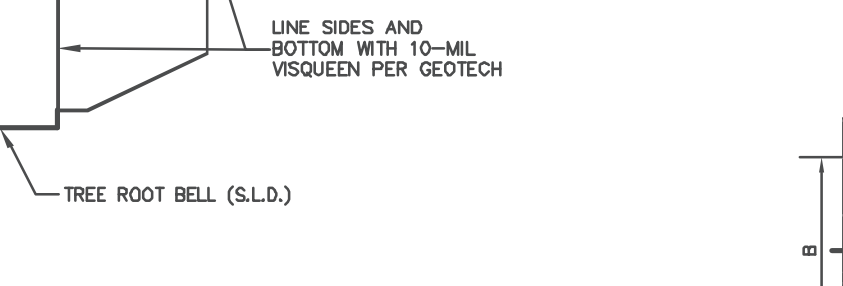
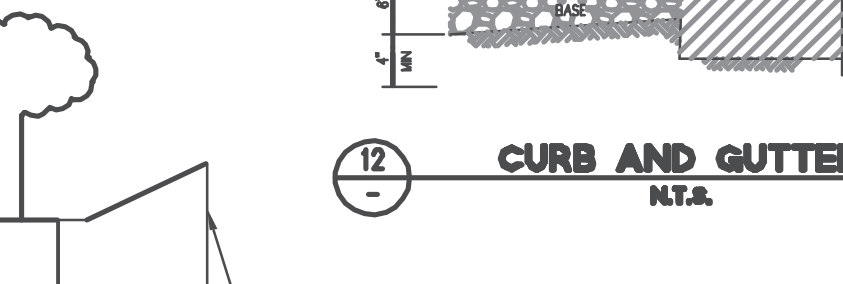
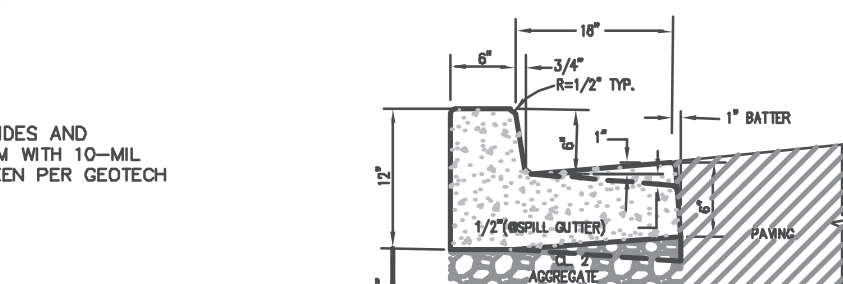
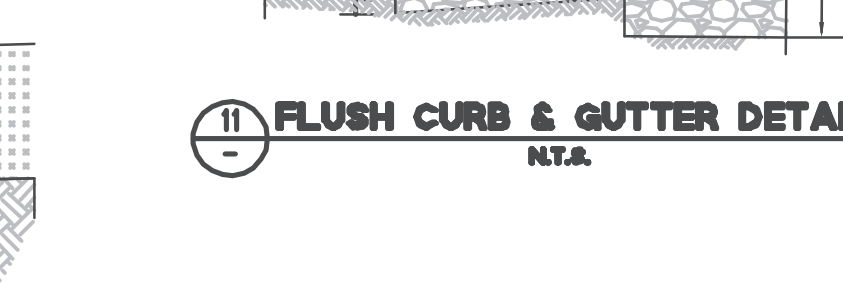
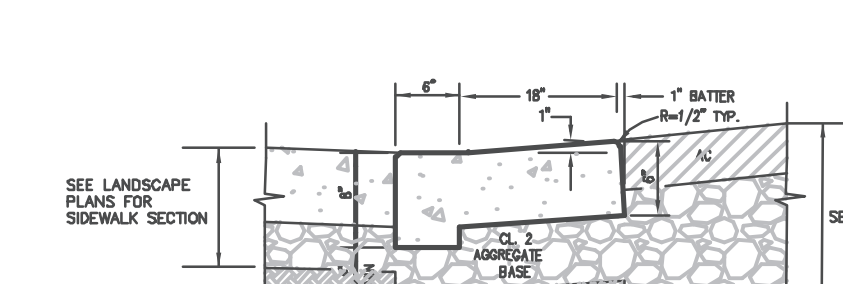
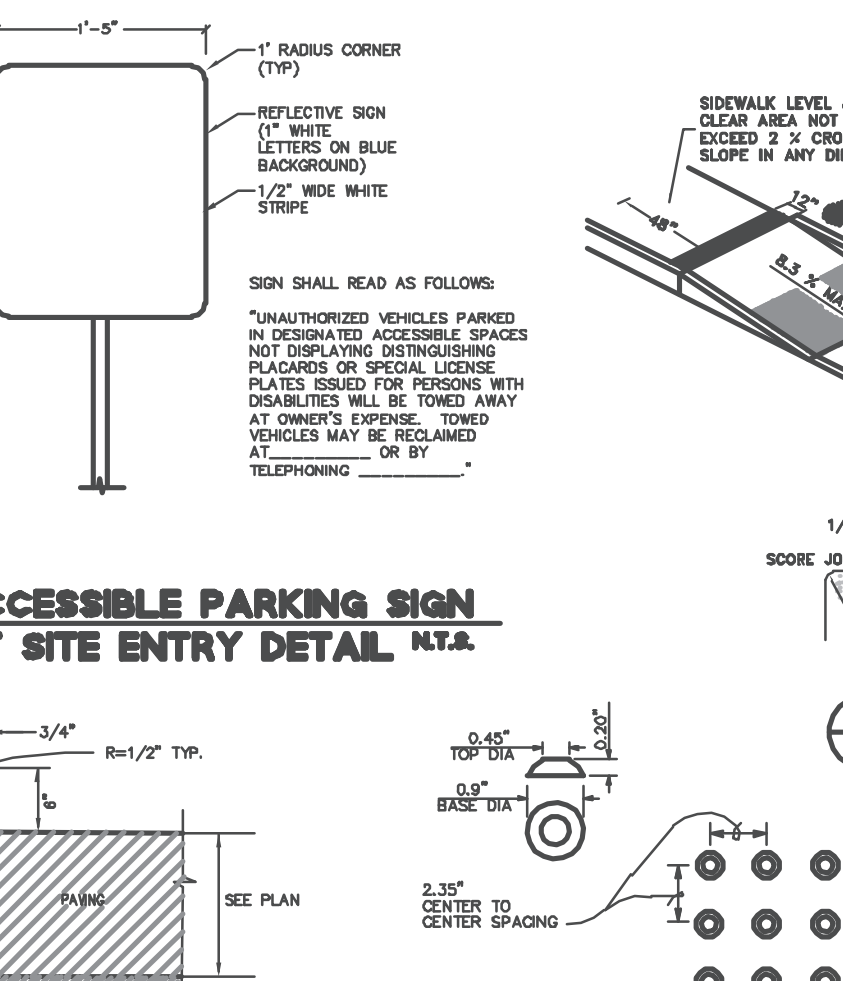
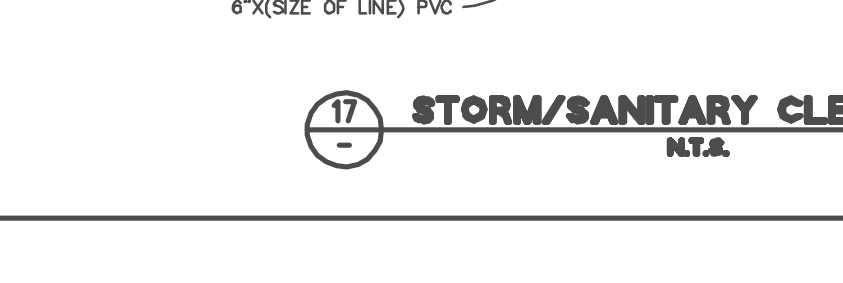
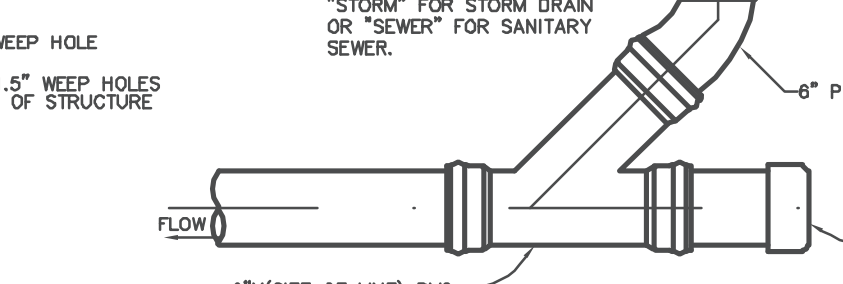
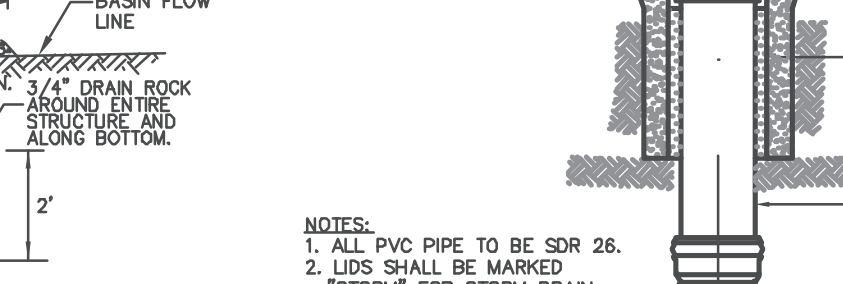
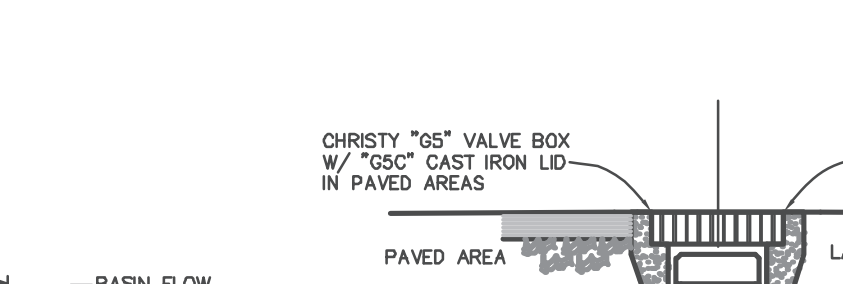
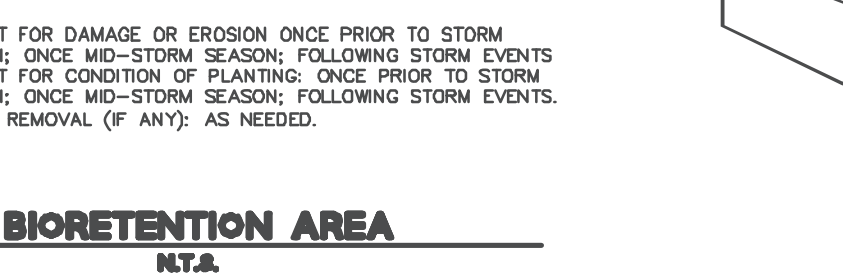
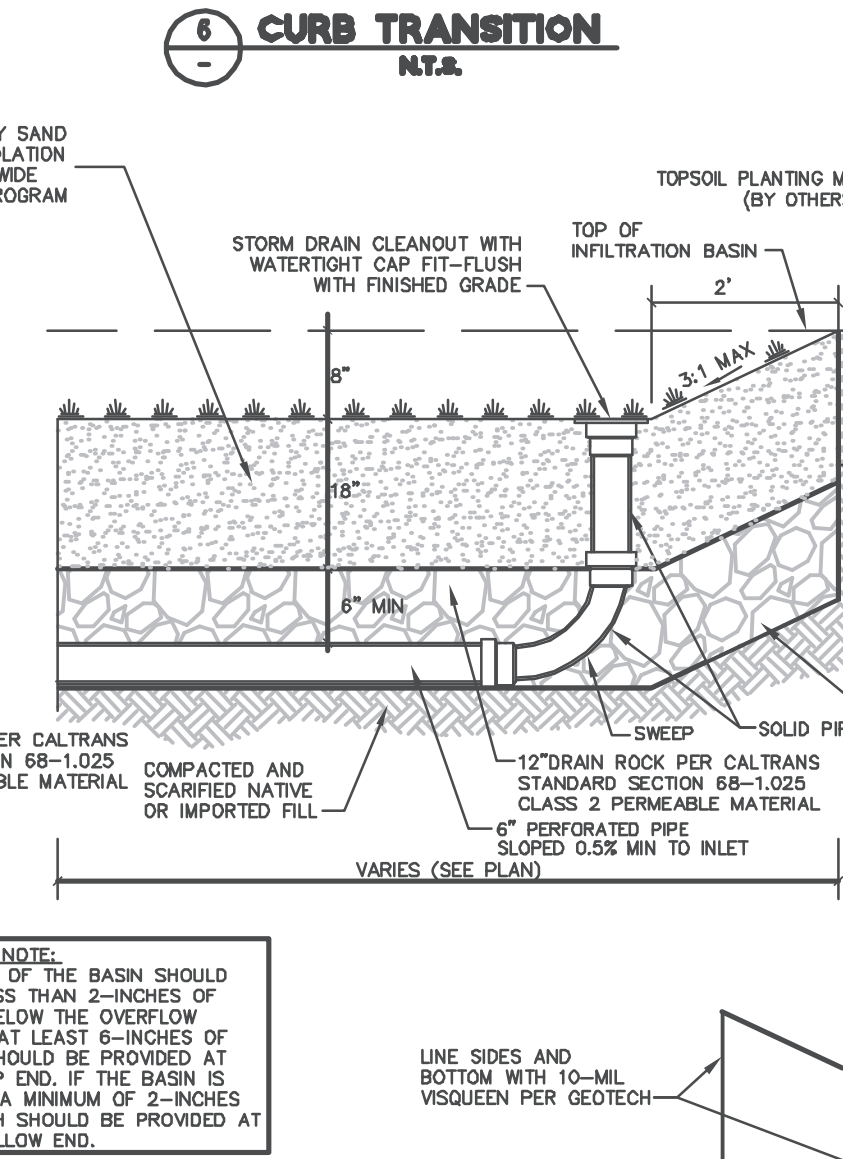
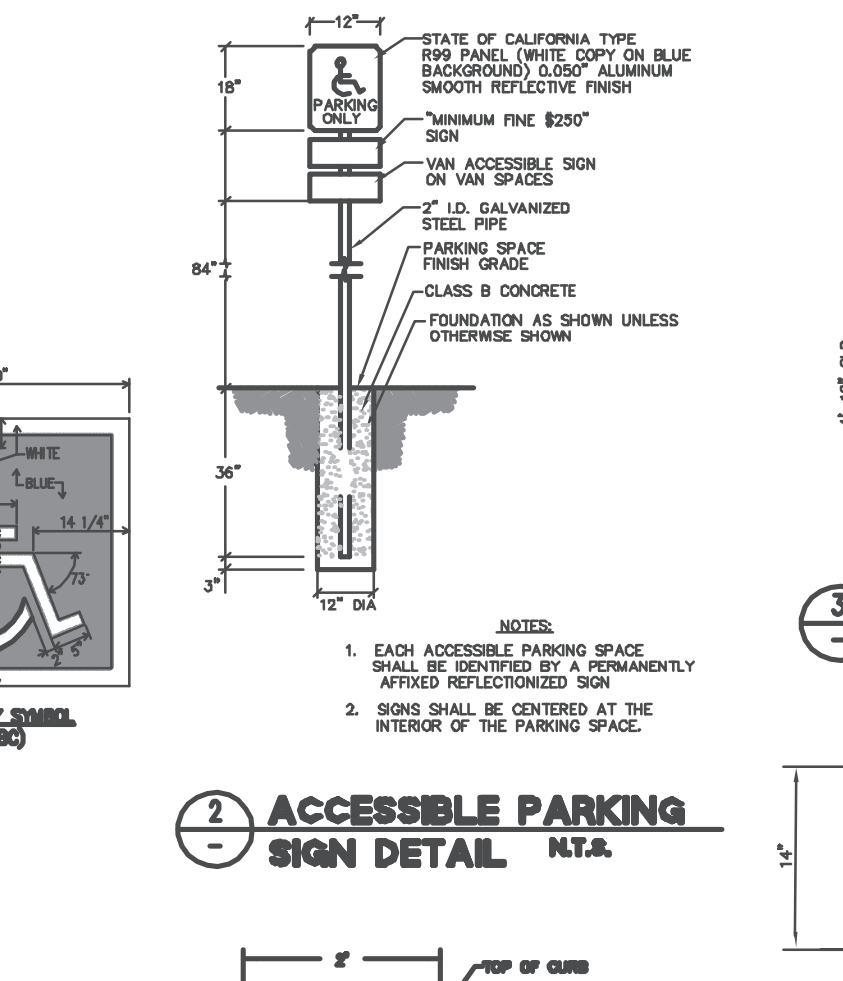
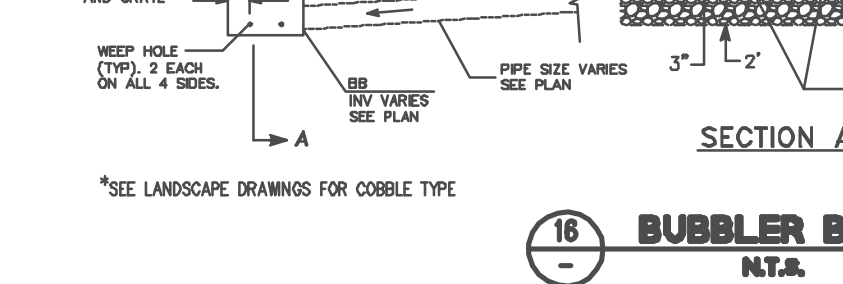
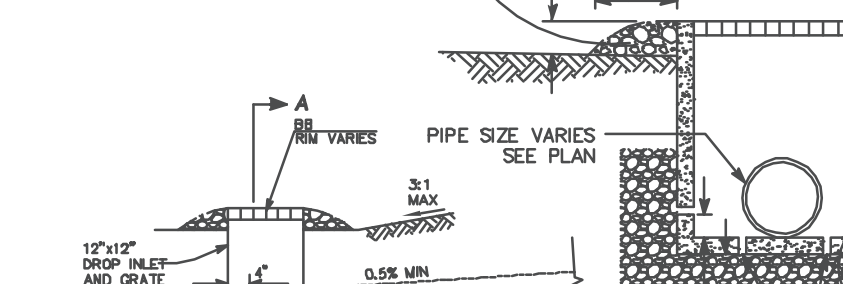
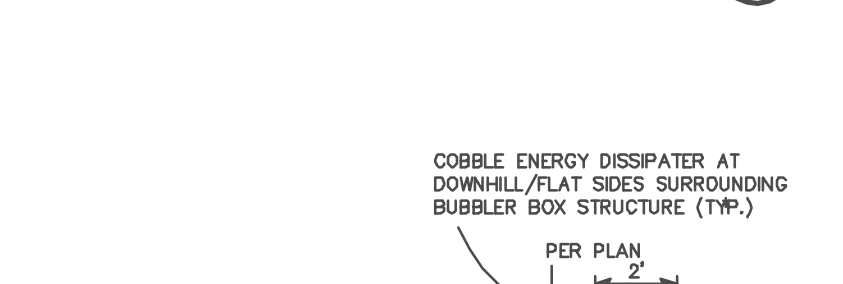
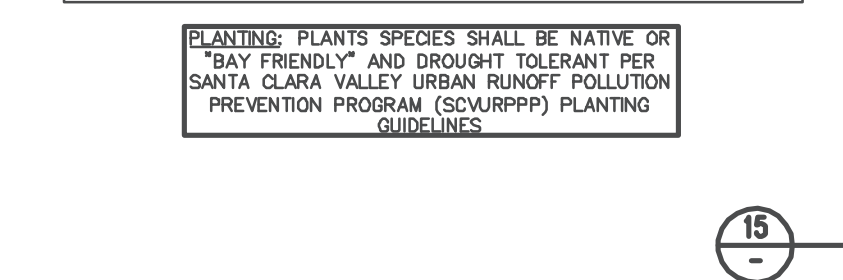
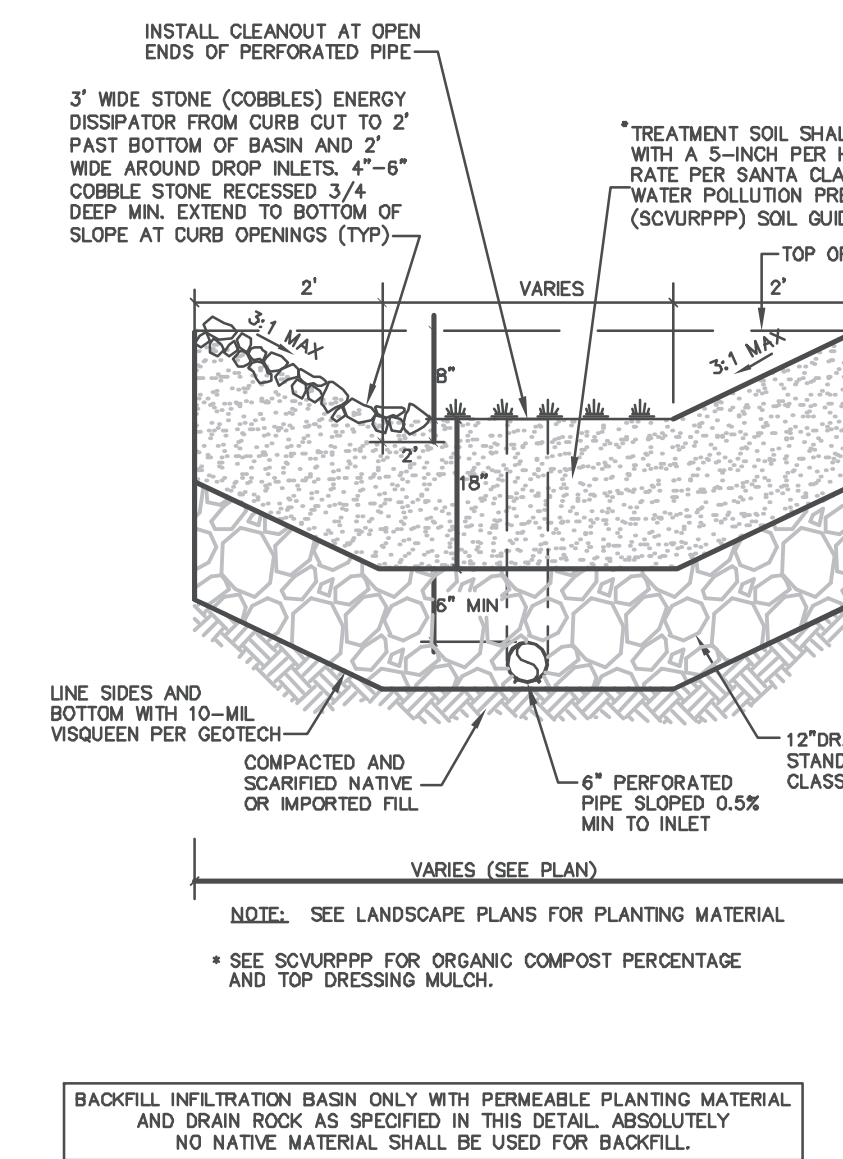
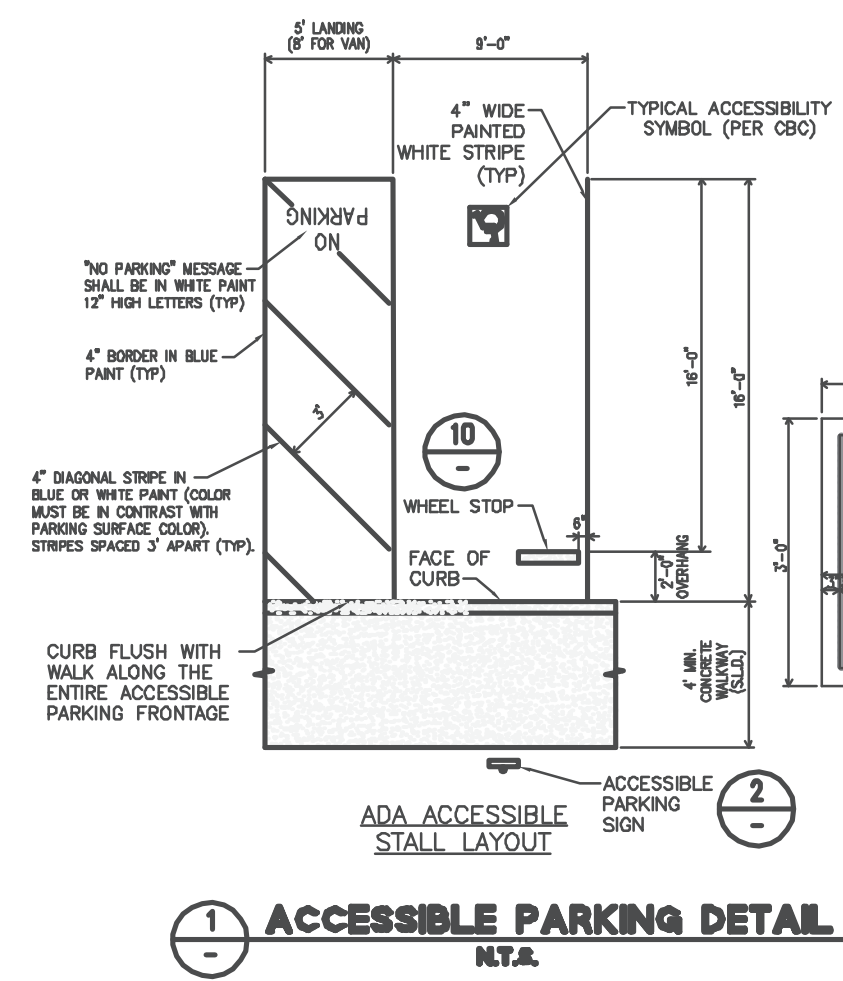
STANFORD REAL ESTATE
ARB SUBMITTAL - MAJOR

7/15/2019

CIVIL DESIGN

STORMWATER TREATMENT PLAN

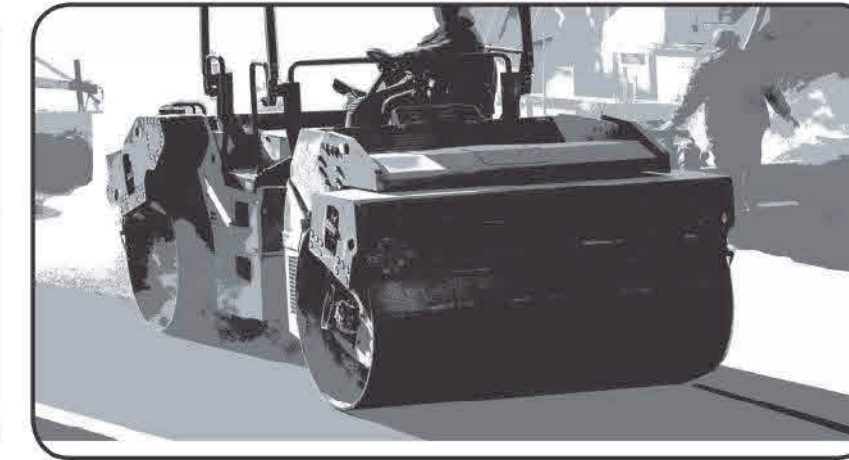
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POLLUTION PREVENTION — IT'S PART OF THE PLAN

Construction projects are required to implement year-round stormwater BMPs, as they apply to your project.

Runoff from streets and other paved areas is a major source of pollution to San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep construction dirt, debris, and other pollutants out of storm drains and local creeks. Following these guidelines will ensure your compliance with City of Palo Alto Ordinance requirements.



MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- Use (but don't overuse) reclaimed water for dust control.
- Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- Keep site clear of litter (e.g. lunch items, cigarette butts).
- Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

EQUIPMENT MANAGEMENT & SPILL CONTROL

Maintenance and Parking

- Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report any hazardous materials spills immediately! Call City of Palo Alto Communications, (650) 329-2413. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).

EARTHMOVING

Grading and Earthwork

- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (e.g., silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells.
 - Buried barrels, debris, or trash.
- If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not disturbed by construction activities.

Landscaping

- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

CONCRETE MANAGEMENT & DEWATERING

Concrete Management

- Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

- Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.
- Be sure to obtain a Permit for Construction in the Public Street from Public Works Engineering before discharging water to a street, gutter, or storm drain. Call the Regional Water Quality Control Plant (RWQCP) at (650) 329-2598 for an inspection prior to commencing discharge. Use filtration or diversion through a basin, tank, or sediment trap as required by the approved dewatering plan. Dewatering is not permitted from October to April.
- In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the City inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

PAVING/ASPHALT WORK

Paving

- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

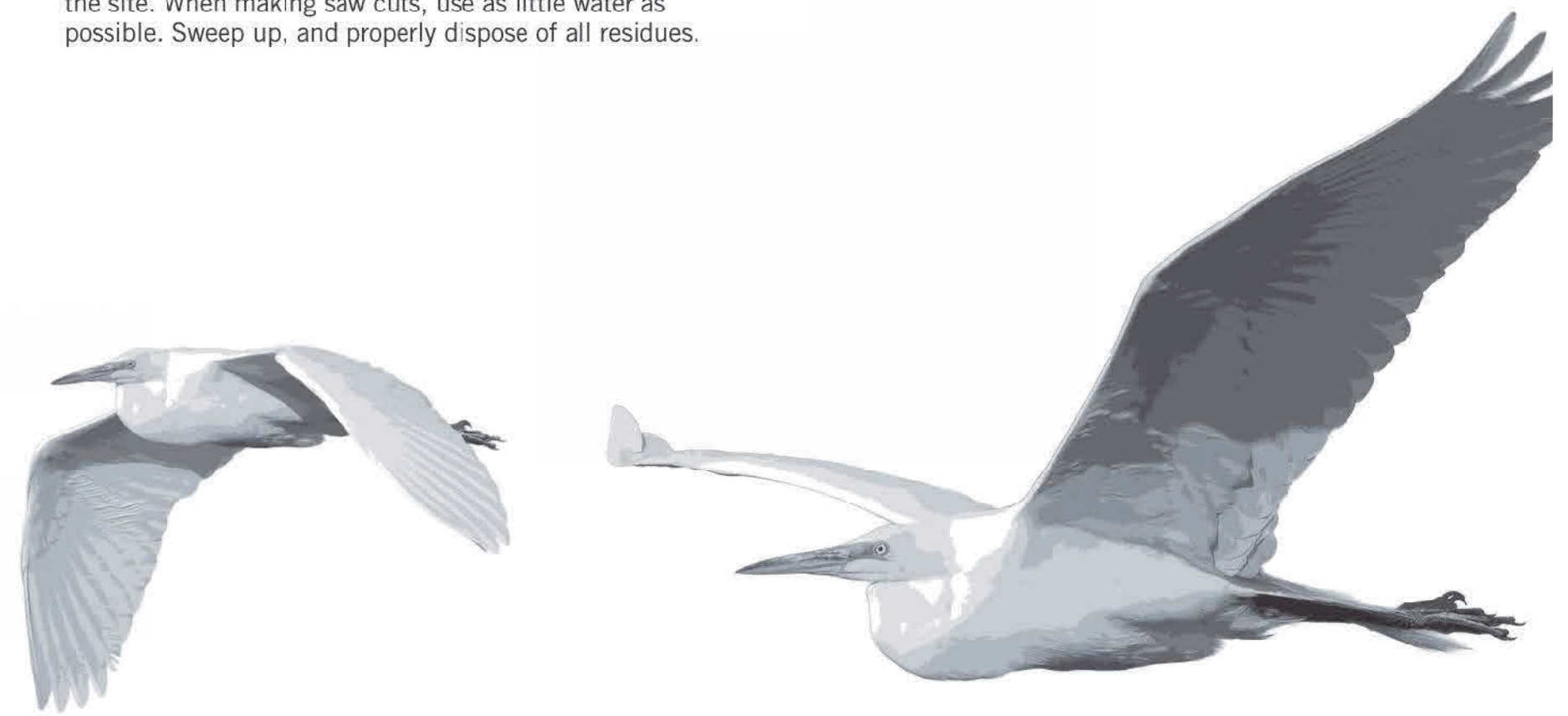
Sawcutting & Asphalt/Concrete Removal

- Protect storm drain inlets during saw cutting.
- If saw cut slurry enters a catch basin, clean it up immediately.
- Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

PAINTING & PAINT REMOVAL

Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.



STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO \$10,000 PER DAY!

250 Hamilton Avenue
Palo Alto, CA 94301
650.329.2211
cityofpaloalto.org



3215 Porter Drive Construction Truck Route

