



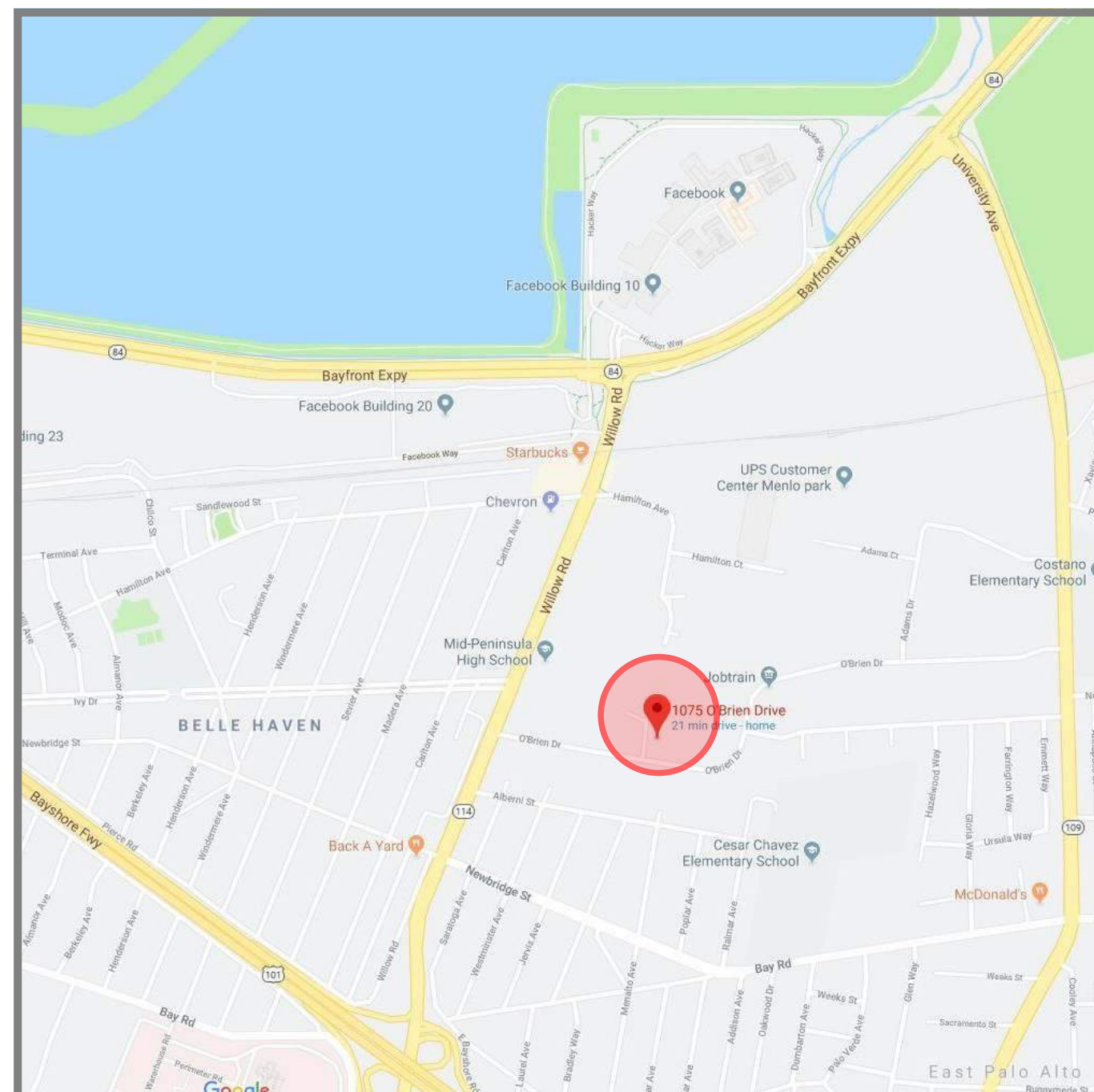
CSBio Expansion



DGA planning | architecture | interiors

1075 O'Brien Drive and 20 Kelly Court, Menlo Park, CA 94025
 RESPONSE TO COMMENTS - MAY 2023

VICINITY MAP



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**1075 O'Brien
Project Data**

CSBio owns two properties at 1075 O'Brien Drive and 20 Kelly Court in Menlo Park, CA. They are seeking Entitlements which would allow the construction of a new Class-A Building for Office, Research & Development and/or Technology and a Parking Structure. In order to do so, the existing Two-Story Building at 20 Kelly Court will be demolished to allow space for the proposed Parking Structure.

Existing Buildings

Address	Parcel	APN	Parcel Area (Sq. Ft.)	Building Area (Sq. Ft.)	Building Type
20 Kelly Court	1	055-433-340	35,911	12,192	Two-Story Lab/Office
20 Kelly Court	1	055-433-340	32,321	25,236	Three-Story Lab/Office
1075 O'Brien	2	055-433-250	30,464	14,523	Two-Story Warehouse/Office
TOTAL EXISTING AREAS			98,696	51,951	

Proposed Project

CSBio wishes to develop a Seven-Story Building with an approximate area of 100,000 Sq. Ft. The high-quality design of the Building and Site will contribute to the redevelopment occurring along O'Brien Drive. CSBio also proposes to provide a Parking Structure at the end of the cul-de-sac on Kelly Drive, and a Pedestrian Walkway (Bridge) to connect the Parking Structure to the new 1075 O'Brien Building.

Project Data

Building	Gross Area	Footprint
1075 O'Brien Dr. (Lab/Office Use)	89,191 Sq. Ft.	16,948 Sq. Ft.
1075 O'Brien Dr. (Commercial Use)	9,869 Sq. Ft.	
20 Kelly Ct. (Lab/Office Use)	25,236 Sq. Ft.	11,532 Sq. Ft.
Utility Yard (Enclosed)	1,750 Sq. Ft.	1,750 Sq. Ft.
Hazardous Material Storage (Enclosed)	1,750 Sq. Ft.	1,750 Sq. Ft.
Parking Garage	1,926 Sq. Ft.	19,166 Sq. Ft.
	129,722 Sq. Ft.	51,146 Sq. Ft.
Base Floor Area Ratio	1.214	1.250 Max.
Bonus Floor Area Ratio	0.100	0.100 Max.
TOTALS	1.314	1.350 Max.
Site Coverage	51,148 / 98,696	0.5264 = 52.64%
Open Space	20,232 / 98,696	0.2050 = 20.50%
Publicly Accessible Open Space	9,908 / 98,696	0.1004 = 10.04%

Approvals Requested

	Allowed	Proposed
Floor Area Ratio – Lab/Office Use	1.250	1.214
Floor Area Ratio – Commercial Use	0.100	0.100
Allowable Height	120 Feet	119.75 Feet

Concurrent Approvals

- Lot Merger of existing two (2) Parcels

16.44.050 – Development Regulations

	Bonus Level	Proposed
Minimum Lot Area	25,000 Sq. Ft.	98,696 Sq. Ft.
Minimum Lot Dimensions	Width 100 Ft. Depth 100 Ft.	130 Ft. 185 Ft.
Minimum Setback @ Street	5 Feet	5 Ft.
Minimum Interior Side & Rear Setbacks	10 Feet	10 Ft.
Maximum Floor Area Ratio (FAR)	125% + 10%	1.315
Height	Avg. 67.5 Ft. 110 Ft. + 10 Ft.	67.48 Ft. 117 Ft.
Minimum Open Space Requirement	20%	20%
Minimum Public Open Space Requirement	10%	10%

16.44.070 Community Amenities Required for Bonus Development

Bonus level development allows a project to develop at a greater level of intensity with an increased floor area ratio and/or increased height. There is a reasonable relationship between the increased intensity of development and the increased effects on the surrounding community. The required community amenities are intended to address identified community needs that result from the effect of the increased development intensity on the surrounding community. To be eligible for bonus level development, an applicant shall provide one (1) or more community amenities. Construction of the amenity is preferable to the payment of a fee.

Proposed Community Amenity:

Project will consider one, or more, of the following Amenities, depending on the required value of the Amenities to be determined through a future Appraisal.

Community Servicing Retail

Restaurant

Jobs and Training

Job opportunities for residents

Education and enrichment programs for young adults

Job Training & Education Center

Paid internships and scholarships for young adults

Social Service Improvements

Education improvements in Belle Haven

Energy, Technology and Utilities Infrastructure

Underground power lines

16.44.120 Design Standards

(4) Open Space:

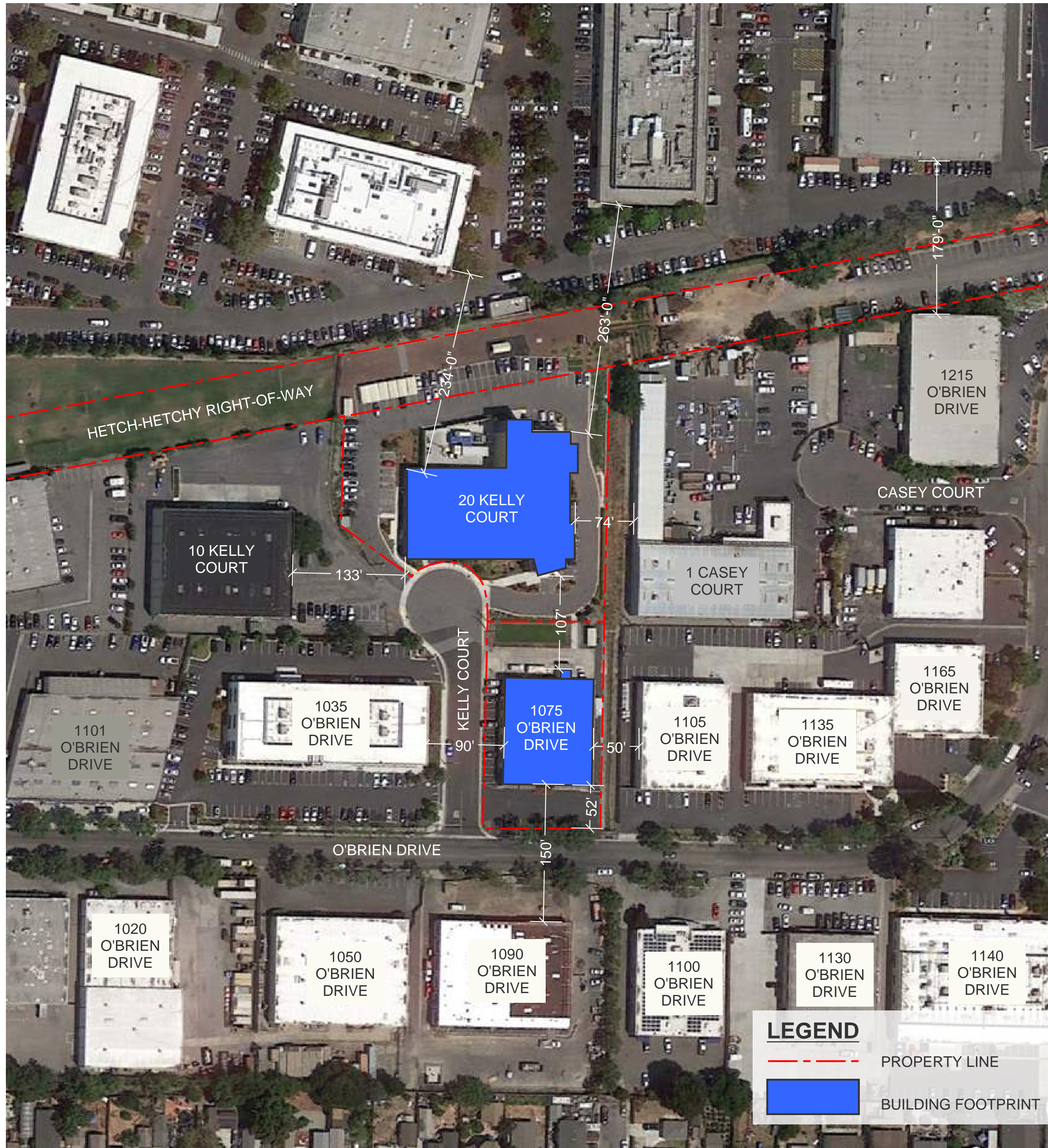
A minimum of 20% of the lot area will be provided as "Open Space", with 50% of that space "Publicly Accessible" with a mixture of landscaping and hardscape with seating.

16.44.130 Green and Sustainable Building

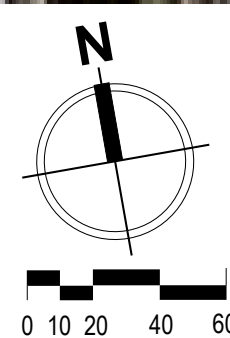
In addition to meeting all applicable regulations specified in Title 12 (Buildings and Construction):

- Green Building
New Construction – Building will be Designed to meet LEED Silver BD+C
- Energy
Project will meet 100% of energy demand through alternate measures, as required.
- Water Use Efficiency
Project will comply.
- Hazard Mitigation and Sea Level Rise Resiliency
Project will comply.
- Waste Management
Project will comply.
- Bird-Friendly Design
No more than 10% of façade surface area shall have non-bird-friendly glazing.

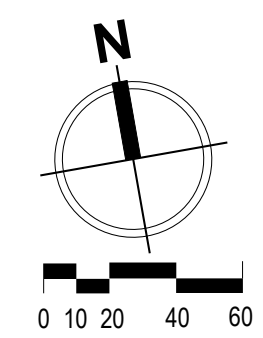




EXISTING SITE



PROPOSED SITE



PARCEL AREAS

20 KELLY COURT	68,232 SQ. FT.
1075 O'BRIEN	30,464 SQ. FT.
TOTAL	98,696 SQ. FT.

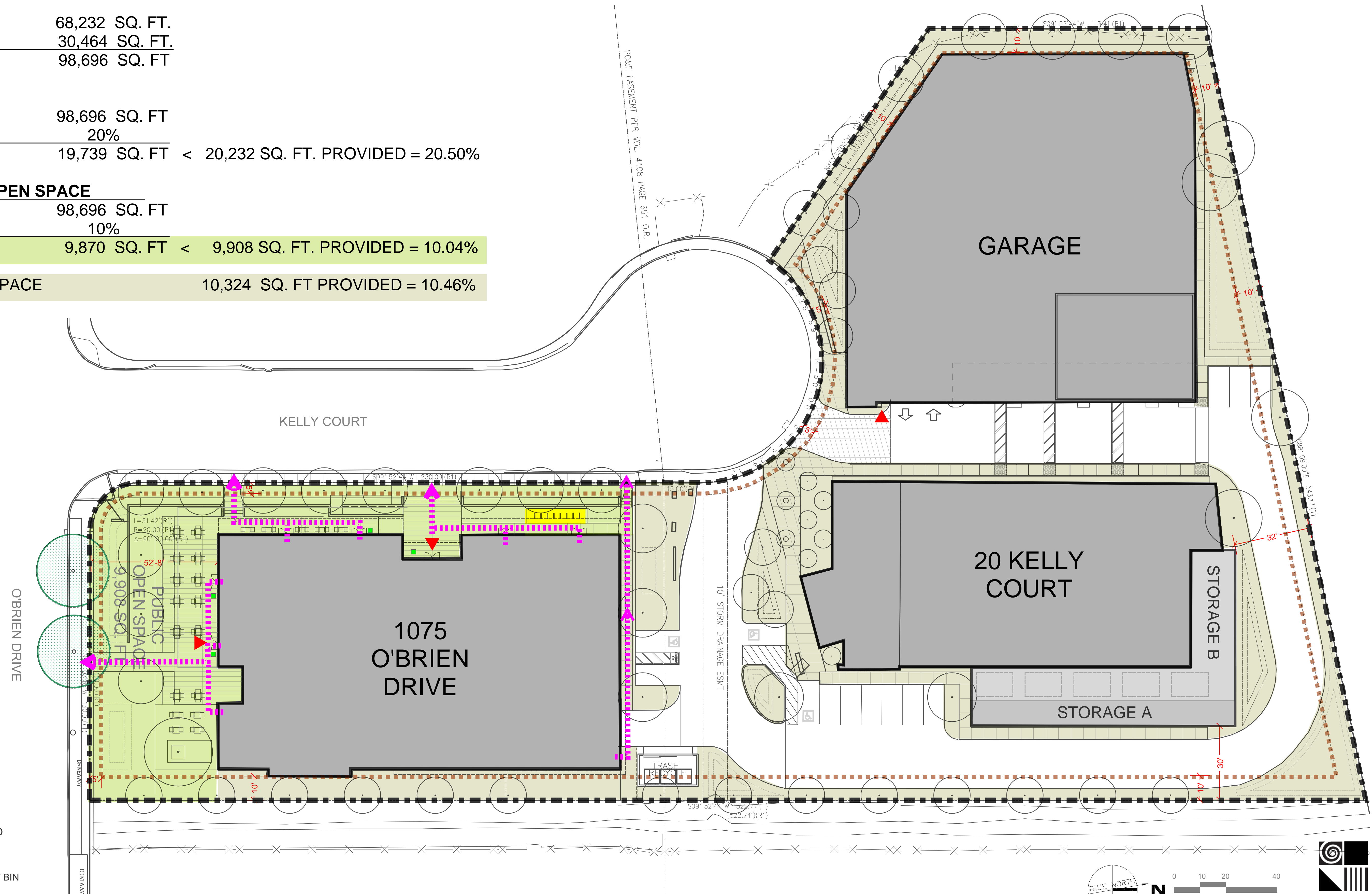
OPEN SPACE

PARCEL AREA	98,696 SQ. FT.
REQUIRED	20%
REQUIRED OPEN SPACE	19,739 SQ. FT. < 20,232 SQ. FT. PROVIDED = 20.50%

PUBLICLY ACCESSIBLE OPEN SPACE

PARCEL AREA	98,696 SQ. FT.
REQUIRED	10%
ACCESSIBLE OPEN SPACE	9,870 SQ. FT. < 9,908 SQ. FT. PROVIDED = 10.04%

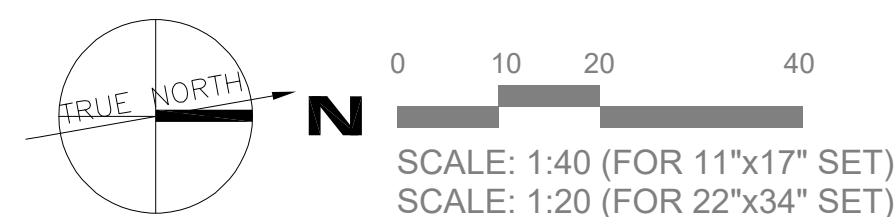
NON-ACCESSIBLE OPEN SPACE	10,324 SQ. FT PROVIDED = 10.46%
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LEGEND:

- BUILDING
- SUPPORT BUILDING
- PUBLICLY ACCESSIBLE OPEN SPACE
- ADDITIONAL OPEN SPACE
- BICYCLE RACK
- PROPERTY LINE
- REQUIRED SETBACK LINE
- PEDESTRIAN ENTRY
- ACCESSIBLE ROUTES AND EXIT DISCHARGE TO PUBLIC WAY
- TRASH/RECYCLE/COMPOST BIN

SITE PLAN - PUBLIC OPEN SPACE



16.44.080 – Parking Standards

Development in the Life Sciences District shall meet the following Parking Requirements:

Land Use	Minimum Spaces Per 1,000 SF	Maximum Spaces Per 1,000 SF	Building Area SF	Minimum	Provided	Maximum
Garage R&D	1.5	2.5	1,926	3	3	5
20 Kelly Ct. Office R&D	2.0 1.5	3.0 2.5	13,874 11,362	28 17	28 17	42 28
1075 O'Brien Dr. Office R&D	2.0 1.5	3.0 2.5	15,855 73,336	32 110	32 110	48 183
Restaurant	2.5	3.3	9,869	25	26	33
TOTALS			124,296	215	216	338

Bicycle Parking

Land Use	Spaces Required Per 5,000 SF	Building Area SF	Spaces Required	Spaces Provided
Garage R&D	1	1,926	1	1
20 Kelly Ct. Office R&D	1	13,874 11,362	3 3	3 3
1075 O'Brien Dr. Office R&D	1	15,855 73,336	4 15	4 15
Restaurant	1	9,869	2	2
TOTALS			28	28*

* 28 Spaces = 22 Long-Term Spaces + 6 Short-Term Spaces

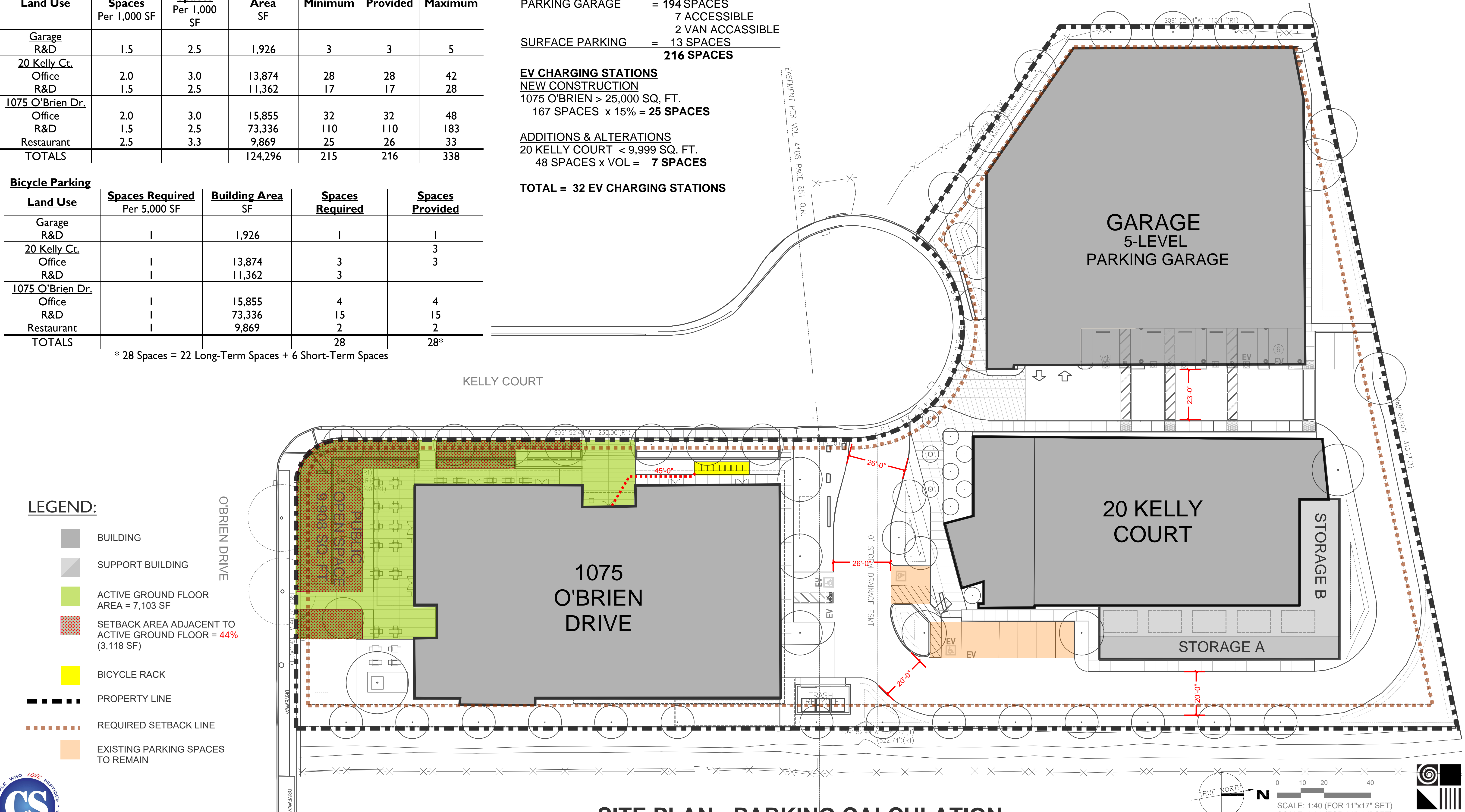
SEE SHEETS 13 & 14 FOR PARKING PLANS

PARKING COUNT
 PARKING GARAGE = 194 SPACES
 7 ACCESSIBLE
 2 VAN ACCESSIBLE
 SURFACE PARKING = 13 SPACES
216 SPACES

EV CHARGING STATIONS
 NEW CONSTRUCTION
 1075 O'BRIEN > 25,000 SQ. FT.
 167 SPACES x 15% = **25 SPACES**

ADDITIONS & ALTERATIONS
 20 KELLY COURT < 9,999 SQ. FT.
 48 SPACES x VOL = **7 SPACES**

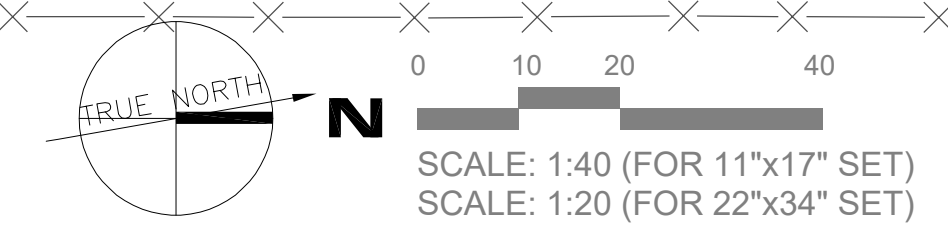
TOTAL = 32 EV CHARGING STATIONS







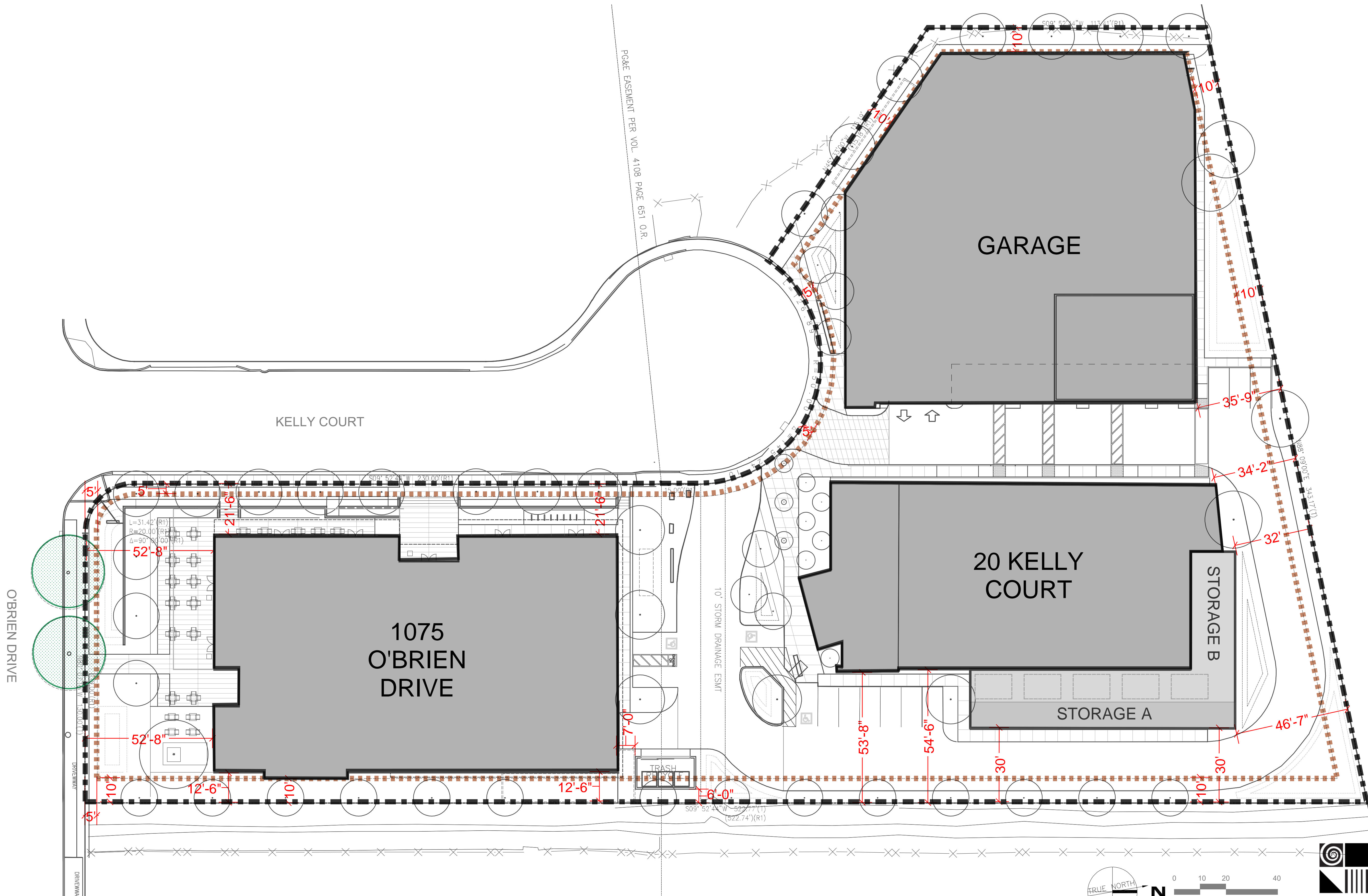
LEGEND:

- BUILDING
- SUPPORT BUILDING
- ACTIVE GROUND FLOOR AREA = 7,103 SF
- SETBACK AREA ADJACENT TO ACTIVE GROUND FLOOR = 44% (3,118 SF)
- BICYCLE RACK
- PROPERTY LINE
- REQUIRED SETBACK LINE
- EXISTING PARKING SPACES TO REMAIN

SITE PLAN - PARKING CALCULATION



- LEGEND:**
-  BUILDING
 -  SUPPORT BUILDING
 -  PROPERTY LINE
 -  REQUIRED SETBACK LINE



SITE PLAN -SETBACKS

TRUE NORTH
 N
 0 10 20 40
 SCALE: 1:40 (FOR 11"x17" SET)
 SCALE: 1:20 (FOR 22"x34" SET)



BUILDING AREA SUMMARY (EXISTING & PROPOSED) | 1075 O'BRIEN DRIVE AND 20 KELLY COURT, MENLO PARK

<u>Level</u>	<u>Gross Area</u> (Sq. Ft.)	<u>Unconditioned</u> <u>No Windows</u> (Sq. Ft.)	<u>Noise</u> <u>Generating</u> <u>Equipment</u>	<u>Vent</u> <u>Shafts</u> (Sq. Ft.)	<u>GFA</u> (Sq. Ft.)	<u>USE</u>	<u>Floor</u> %	<u>Building Totals</u> <u>Use</u> <u>Area</u> (Sq. Ft.)	
20 Kelly Court (Two-Story) - to be Demolished									
<u>Level</u>	<u>Gross Area</u>	<u>Unconditioned</u>	<u>Noise</u>	<u>Vent</u>	<u>GFA</u>	<u>USE</u>	<u>Floor</u>	<u>Building Totals</u>	
1st	2,299	-		-	2,299	Office	22.99%		
	3,322				3,322	R&D	33.22%	R&D	3,322
	2,037				2,037	Manufact	20.37%	Manufact	2,037
	2,342				2,342	Warehouse	23.42%	Warehouse	2,342
2nd	2,192	-	-	-	2,192	Office	100.00%	Office	4,491
	12,192	-	-	-	12,192	Mixed	100.00%	Mixed	12,192

20 Kelly Court (Three-Story) - to Remain									
<u>Level</u>	<u>Gross Area</u>	<u>Unconditioned</u>	<u>Noise</u>	<u>Vent</u>	<u>GFA</u>	<u>USE</u>	<u>Floor</u>	<u>Building Totals</u>	
1st	1,201	46	3.8%	-	-	1,155	Office	10.30%	
	10,331	271	2.6%	-	-	10,060	R&D, LI	89.70%	
2nd	9,773	256	2.6%	-	183	1.9%	9,334	Office	87.76%
	1,402	56	4.0%	-	44	3.1%	1,302	R&D, LI	12.24%
3rd	3,416	-	-	-	31	0.9%	3,385	Office	100.00%
	26,123	629	-	258	1.0%	25,236	Mixed	100.00%	Mixed 25,236

20 Kelly Court - Proposed HazMat Storage									
<u>Level</u>	<u>Gross Area</u>	<u>Unconditioned</u>	<u>Noise</u>	<u>Vent</u>	<u>GFA</u>	<u>USE</u>	<u>Floor</u>	<u>Building Totals</u>	
Utility Yard	1,750	-	0.0%	-	-	1,750	R&D, LI	100.00%	R&D, LI 3,500
HazMat Storage*	1,750	-	-	-	0.0%	1,750	R&D, LI	100.00%	
	3,500	-	-	-	0.0%	3,500	R&D, LI	100.00%	R&D, LI 3,500

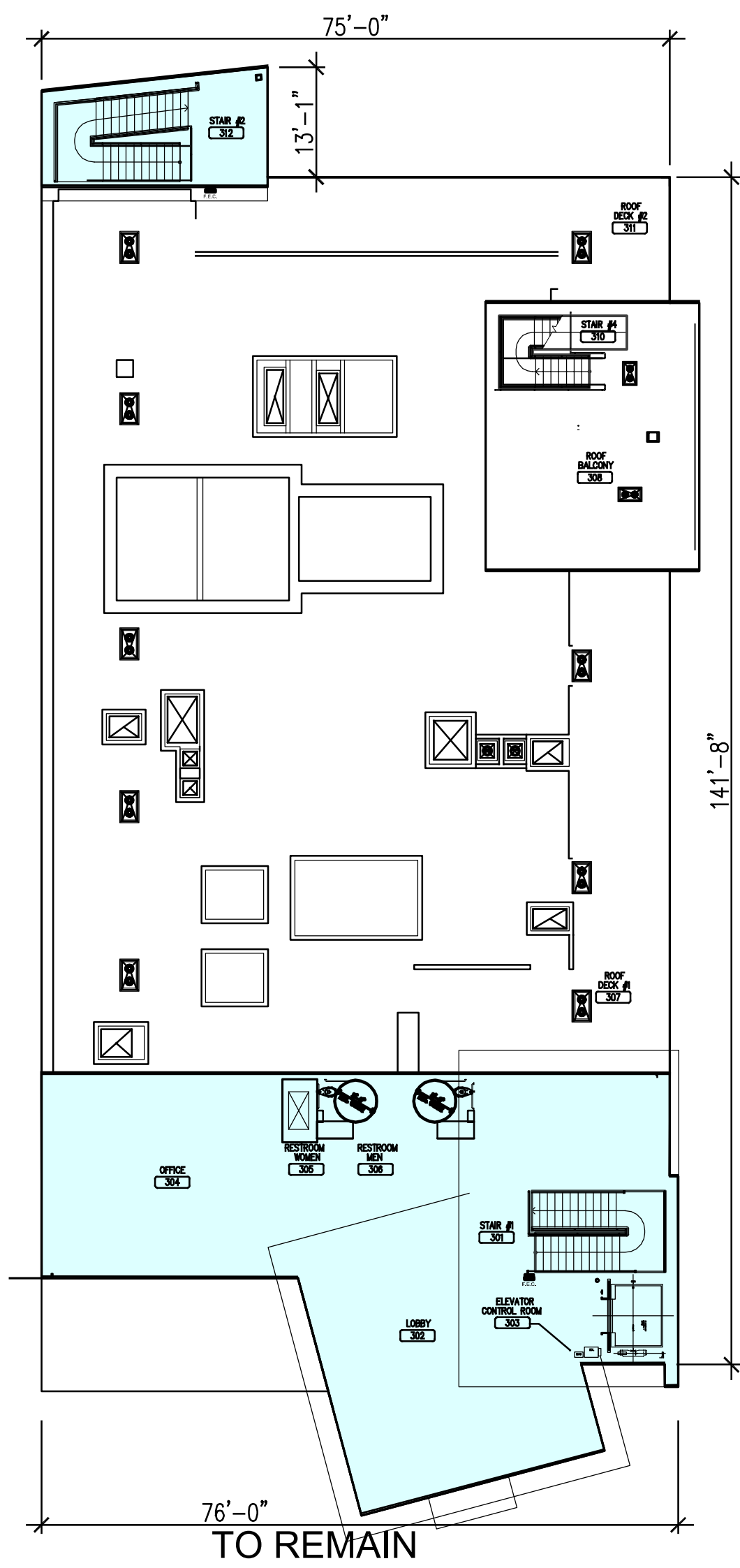
* Prefabricated Hazmat Storage Buildings

1075 O'Brien Drive - to be Demolished									
<u>Level</u>	<u>Gross Area</u>	<u>Unconditioned</u>	<u>Noise</u>	<u>Vent</u>	<u>GFA</u>	<u>USE</u>	<u>Floor</u>	<u>Building Totals</u>	
1st	14,523	-	-	-	-	14,523	Warehouse	100.00%	Warehouse 14,523
	14,523	-	-	-	-	14,523	Warehouse	100.00%	Warehouse 14,523

Proposed Parking Garage									
<u>Level</u>	<u>Gross Area</u>	<u>Unconditioned</u>	<u>Noise</u>	<u>Vent</u>	<u>GFA</u>	<u>USE</u>	<u>Floor</u>	<u>Building Totals</u>	
4th	1,926	-	0.0%	-	0.0%	-	0.0%	1,926	R&D, LI 100.00% 1,926

1075 O'Brien Drive - Proposed New Building									
<u>Level</u>	<u>Gross Area</u>	<u>Unconditioned</u>	<u>Noise</u>	<u>Vent</u>	<u>GFA</u>	<u>USE</u>	<u>Floor</u>	<u>Building Totals</u>	
1st	15,004	450	3.0%	150	1.0%	-	0.0%	5,037	Bldg. Supt. 34.97%
						9,367	Restaurant	65.03%	Restaurant 9,869
2nd	16,948	100	0.6%	-	300	1.8%	16,548	R&D, LI 100.00%	
3rd	16,948	100	0.6%	-	300	1.8%	16,548	R&D, LI 100.00%	
4th	15,004	100	0.7%	-	300	2.0%	14,604	R&D, LI 100.00%	R&D, LI 73,336
5th	15,004	100	0.7%	-	300	2.0%	14,604	R&D, LI 100.00%	
6th	15,004	100	0.7%	-	300	2.0%	7,302	R&D, LI 50.00%	
6th						7,302	Office	50.00%	Office 15,855
7th	8,148	100	1.2%	-	300	3.7%	7,748	Office 100.00%	
	102,060	1,050	1.0%	150	1,800	1.8%	99,060	Mixed	100.00% Mixed 99,060

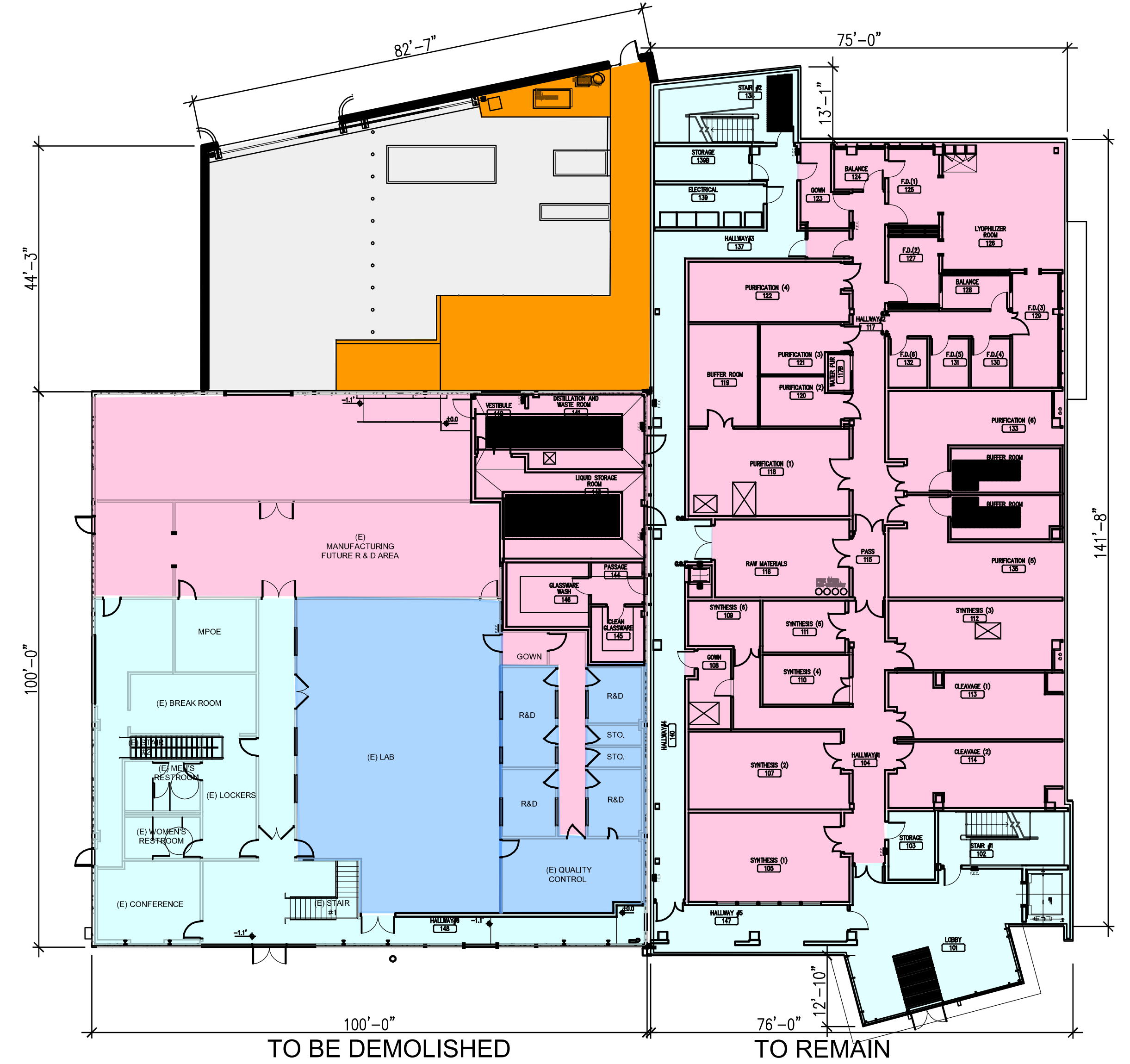




**20 KELLY COURT -
THIRD FLOOR PLAN
EXISTING**



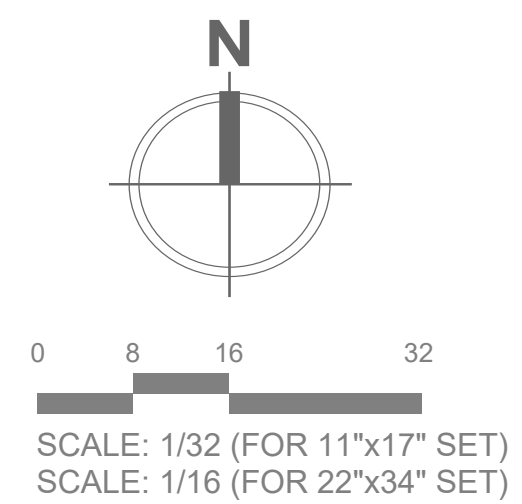
**20 KELLY COURT -
SECOND FLOOR PLAN
EXISTING**

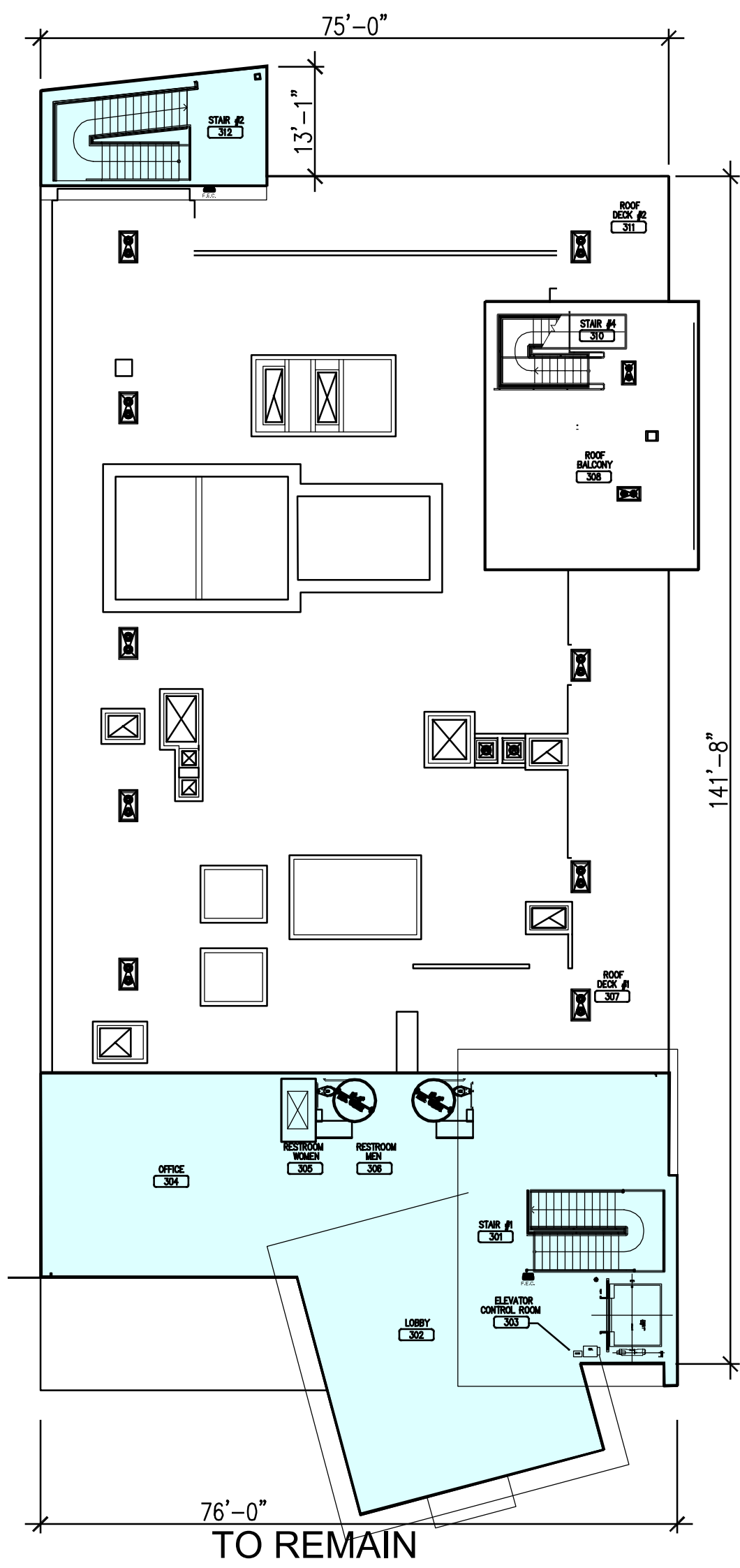


**20 KELLY COURT -
FIRST FLOOR PLAN
EXISTING**

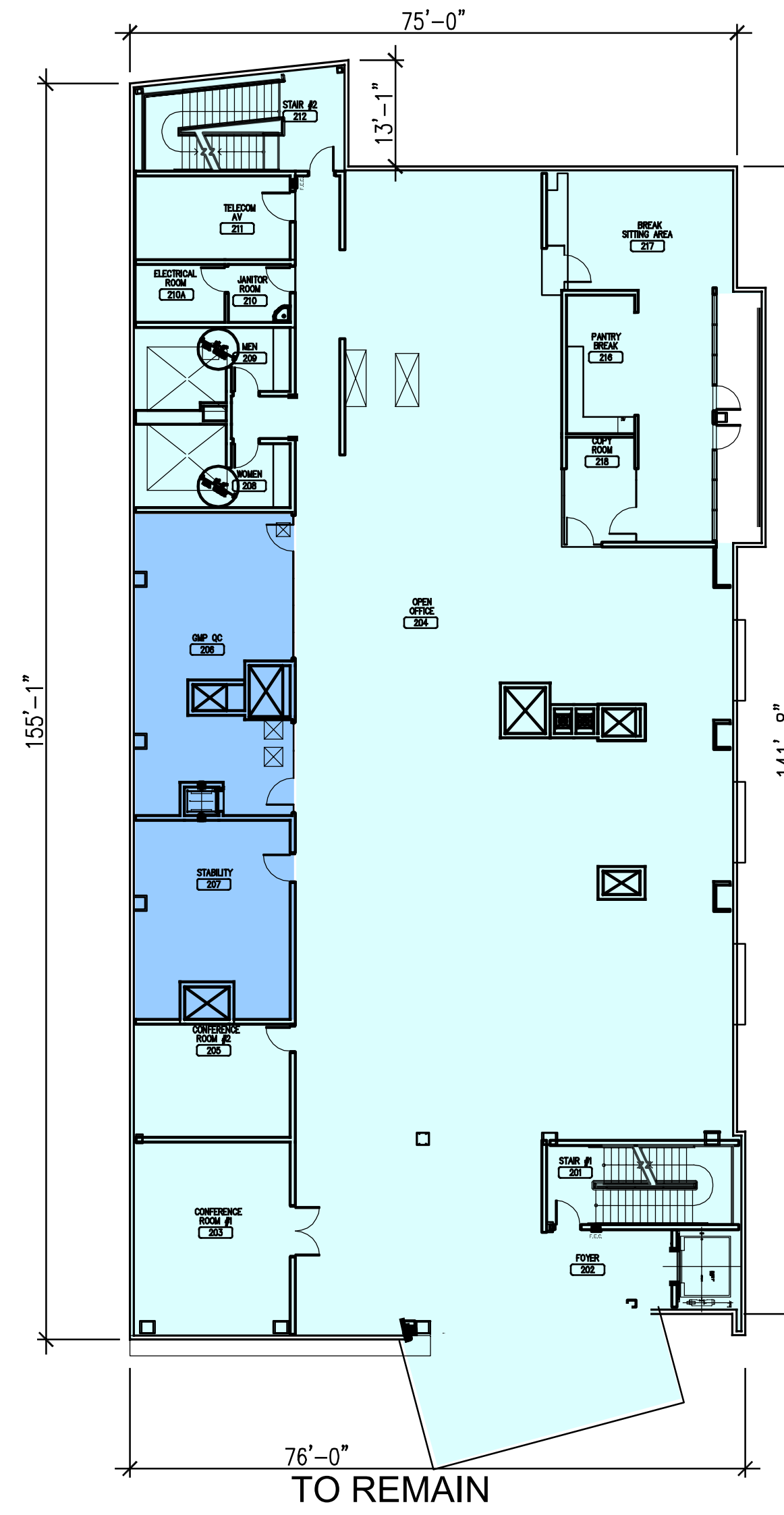
	OFFICE	18,365 SF
	R&D	4,624 SF
	MANUFACTURING	12,097 SF
	WAREHOUSING	2,342 SF

TOTAL EXISTING BUILDING SF = 37,428 SF

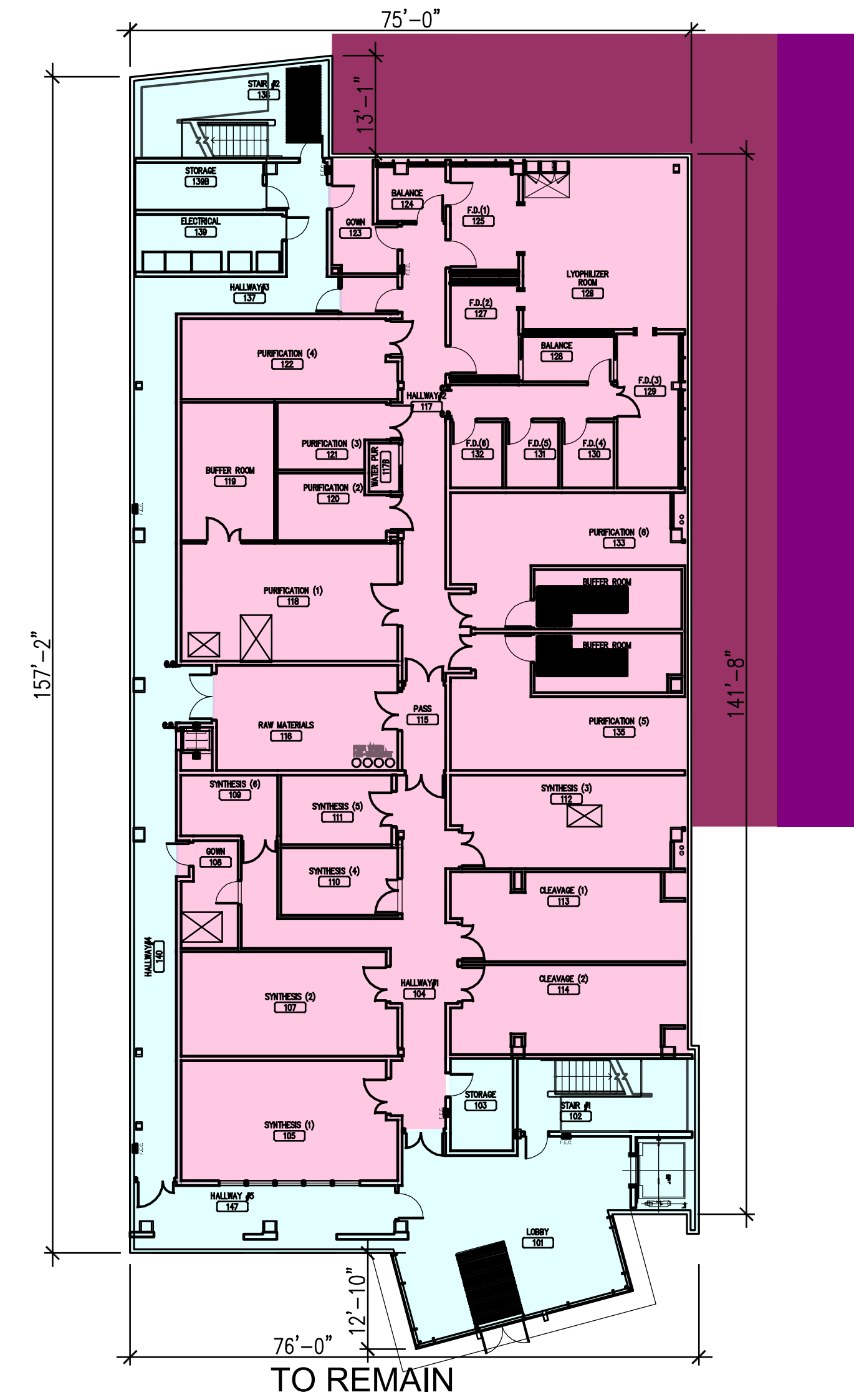




**20 KELLY COURT -
THIRD FLOOR PLAN
PROPOSED**



**20 KELLY COURT -
SECOND FLOOR PLAN
PROPOSED**



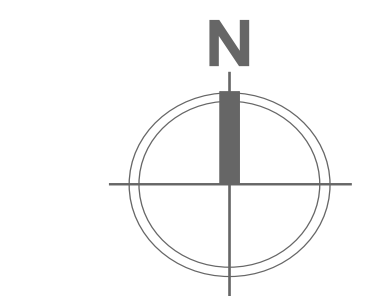
**20 KELLY COURT -
FIRST FLOOR PLAN
PROPOSED**

TO BE DEMOLISHED FROM PREVIOUS -12,192 SF

■	OFFICE	15,516 SF
■	R&D	1,302 SF
■	MANUFACTURING	8,418 SF
■	WAREHOUSING	0 SF

■ PROPOSED UTILITY YARD & HAZARDOUS MATERIAL STORAGE 3,500 SF

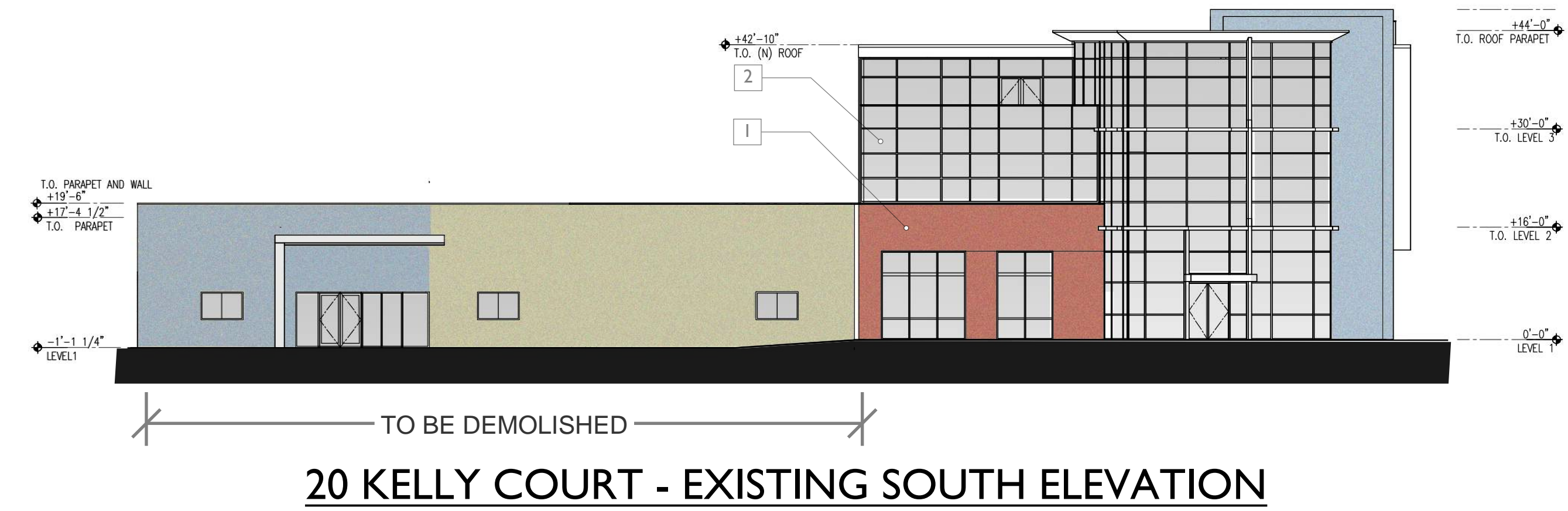
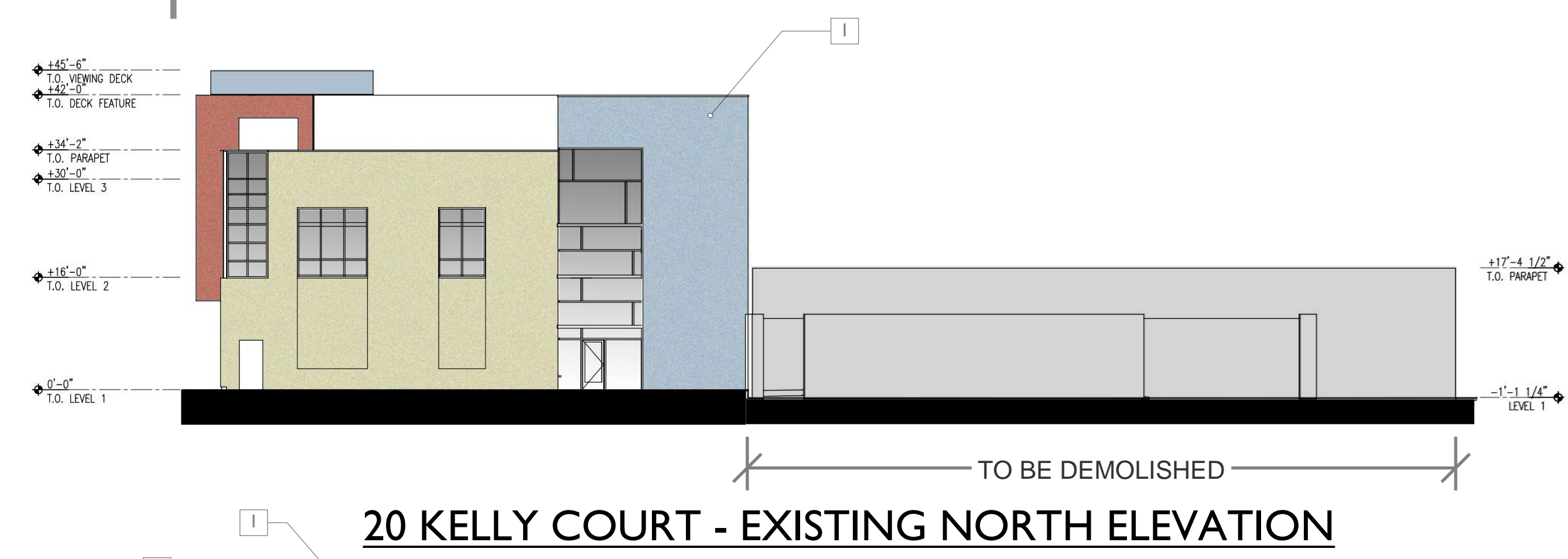
TOTAL BUILDING TO REMAIN = 25,236 SF



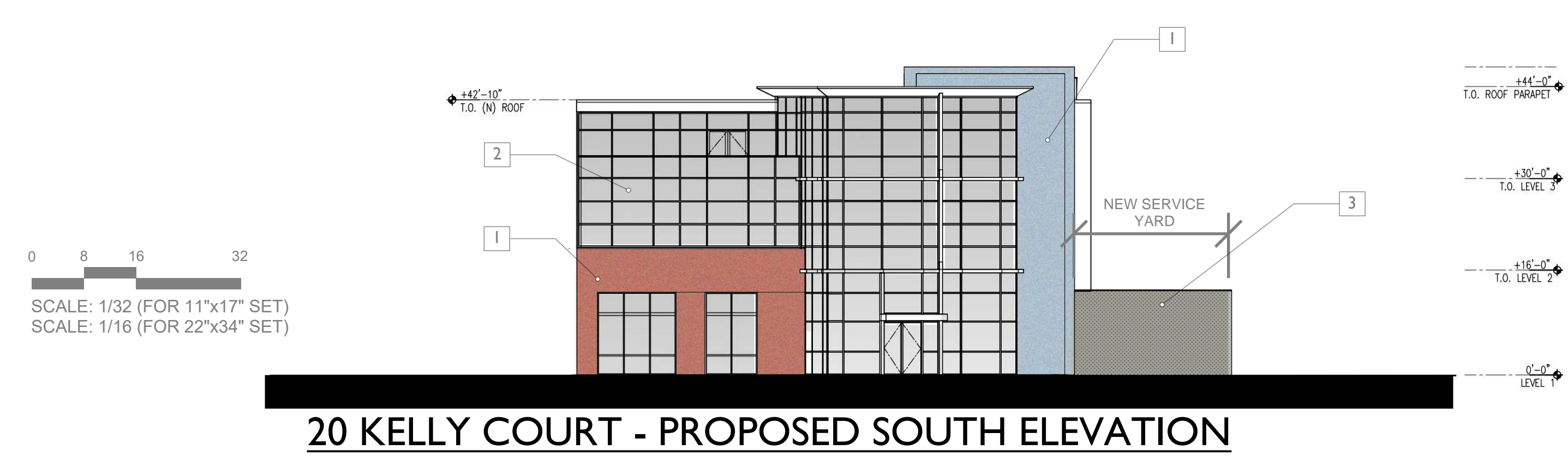
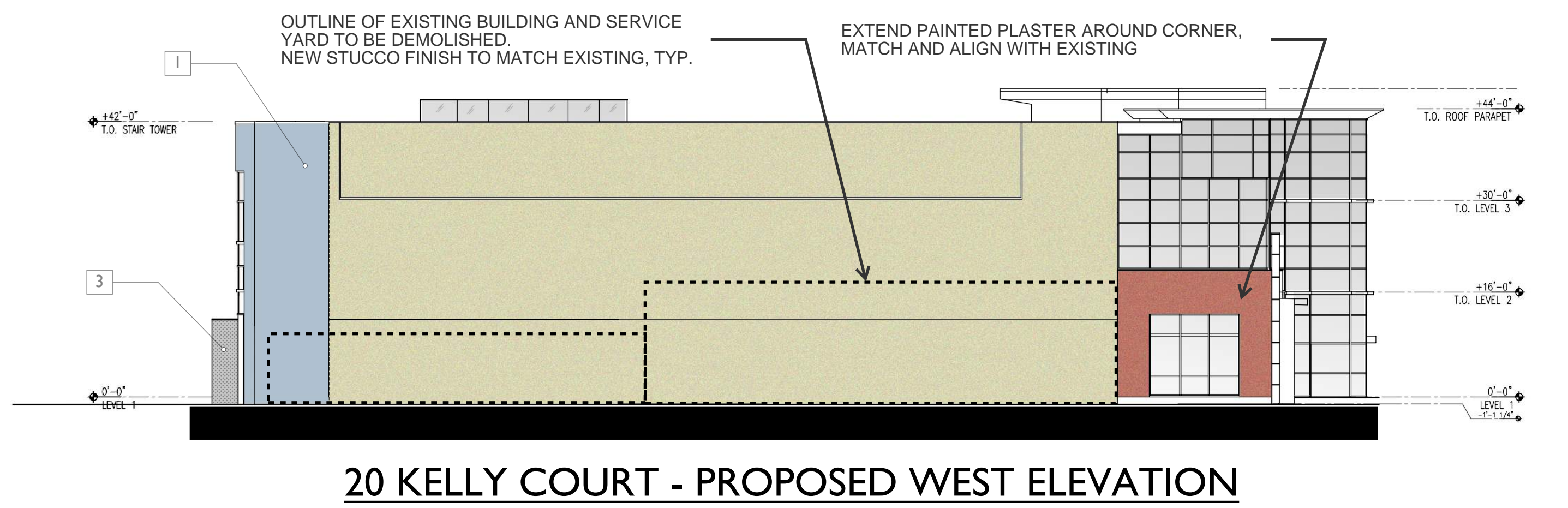
0 8 16 32

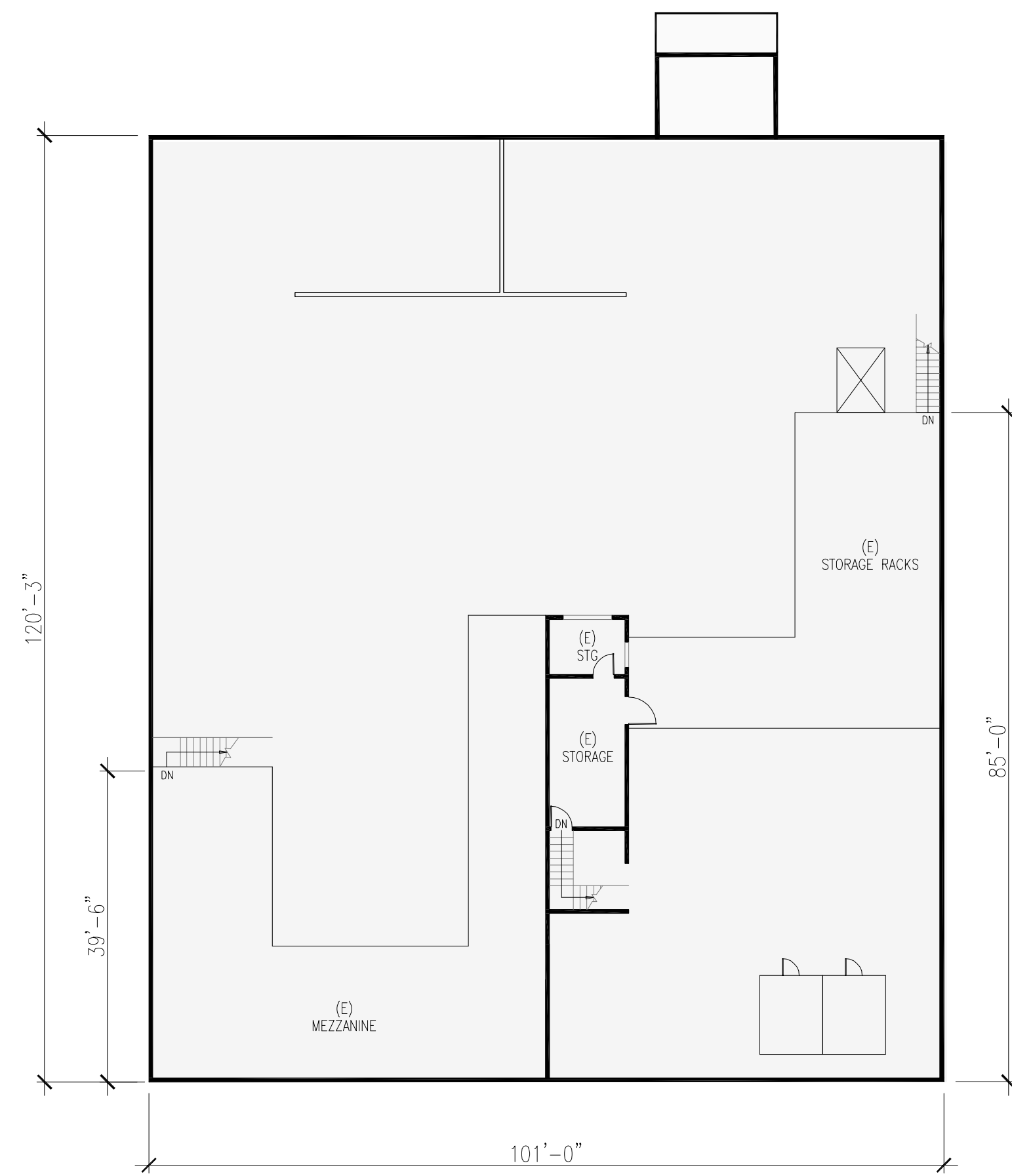
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SCALE: 1/16 (FOR 22"x34" SET)



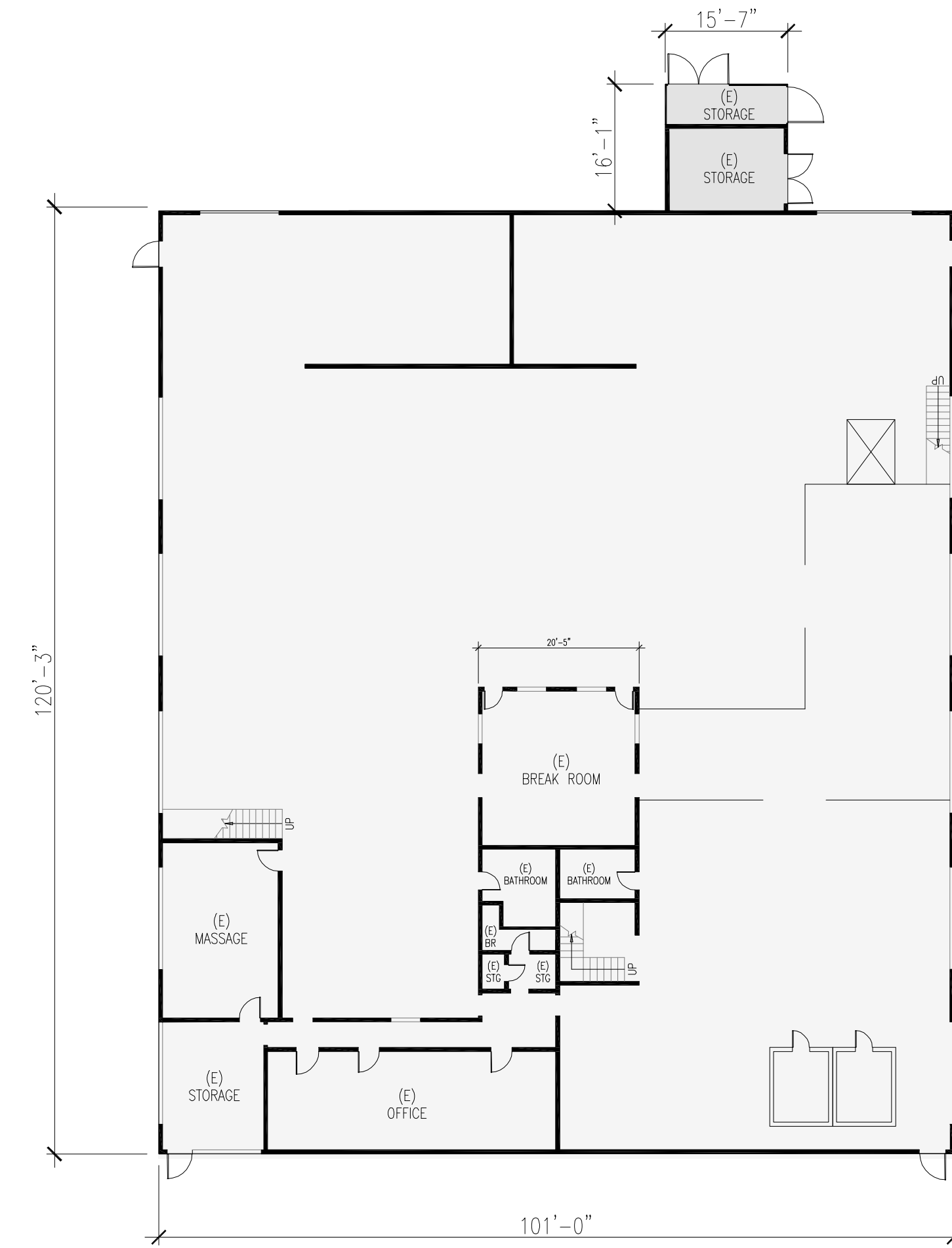


- MATERIALS LEGEND:**
- 1 PAINTED PLASTER
 - 2 GLAZING - TINTED GLASS
 - 3 SPLIT-FACE CONCRETE MASONRY UNIT



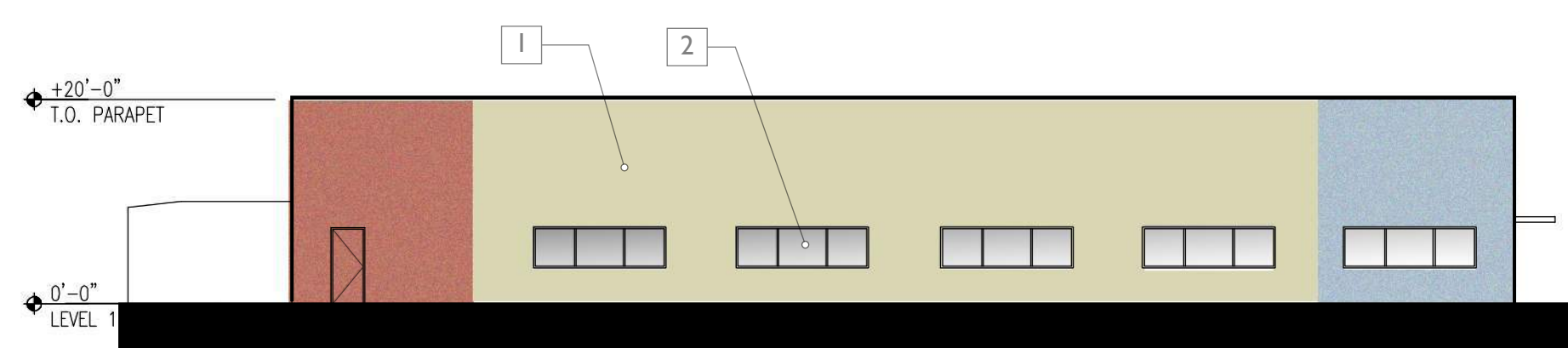


**1075 O'BRIEN DRIVE - (EXISTING)
MEZZANINE FLOOR PLAN**

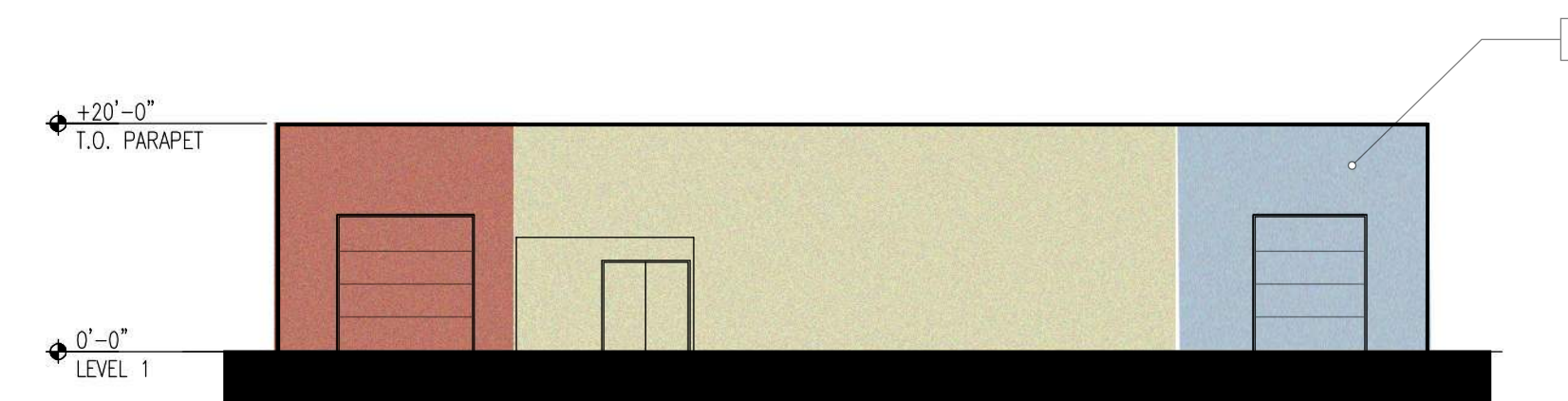


**1075 O'BRIEN DRIVE - (EXISTING)
FIRST FLOOR PLAN**

**NOTE: BUILDING TO
BE DEMOLISHED**



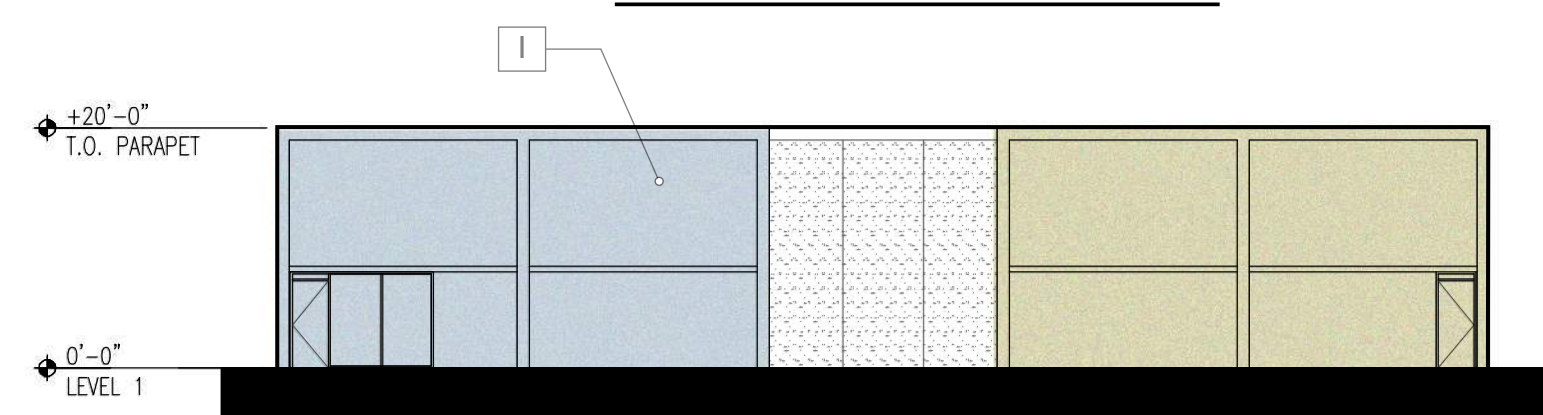
**1075 O'BRIEN DRIVE - (EXISTING)
WEST ELEVATION**



**1075 O'BRIEN DRIVE - (EXISTING)
NORTH ELEVATION**

MATERIALS LEGEND:

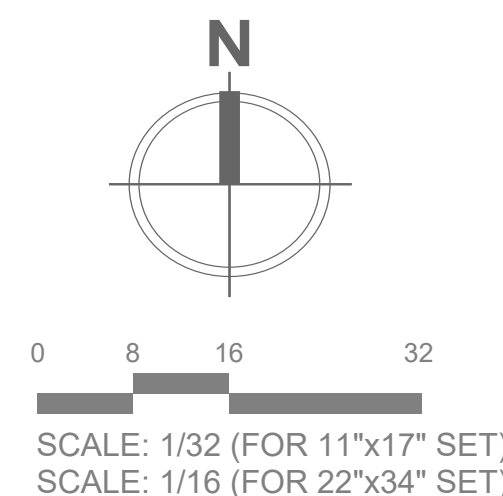
- 1 PAINTED TILT-UP CONCRETE PANEL
- 2 GLAZING - TINTED GLASS

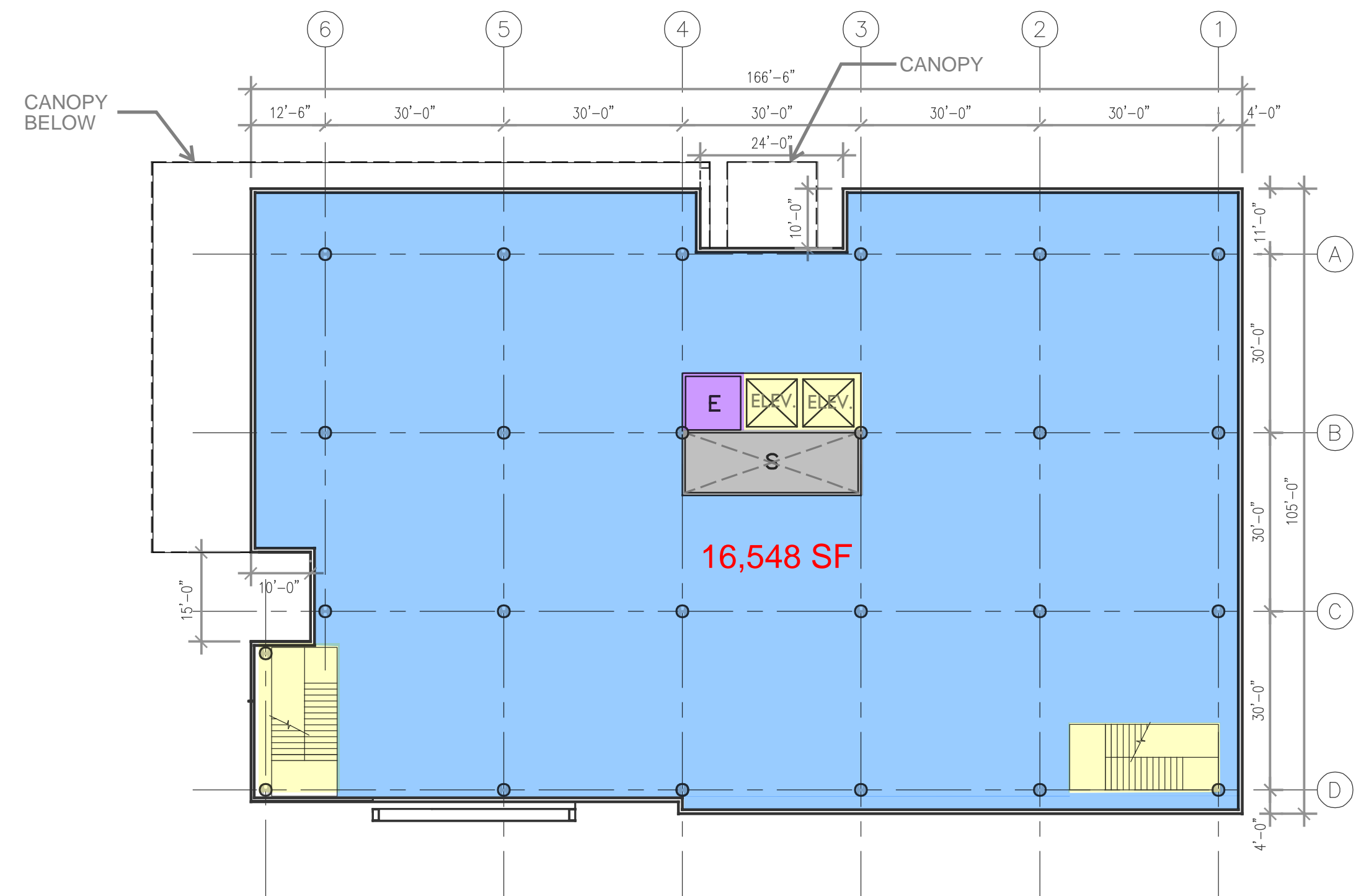


**1075 O'BRIEN DRIVE - (EXISTING)
SOUTH ELEVATION**

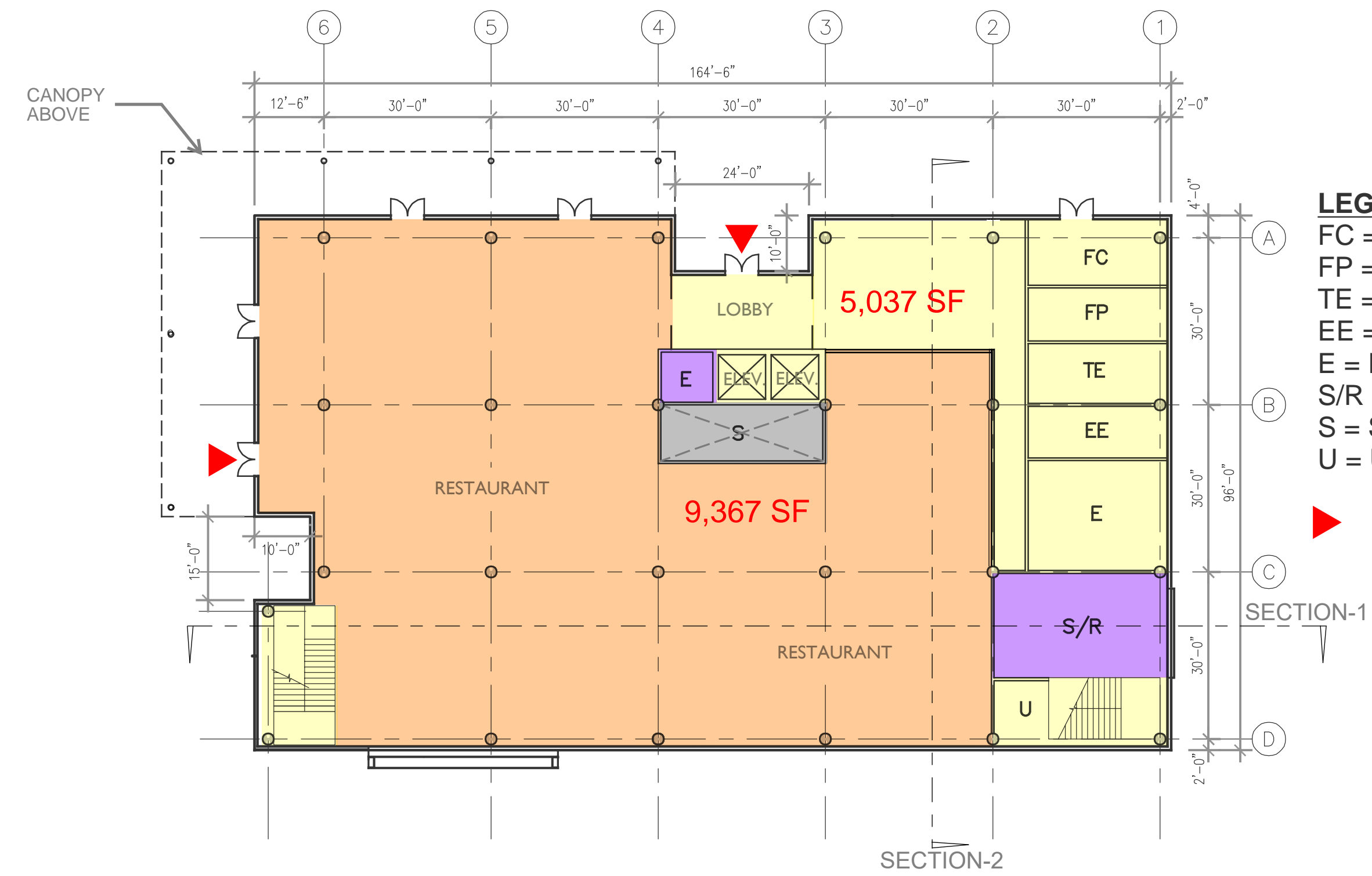


**1075 O'BRIEN DRIVE - (EXISTING)
EAST ELEVATION**



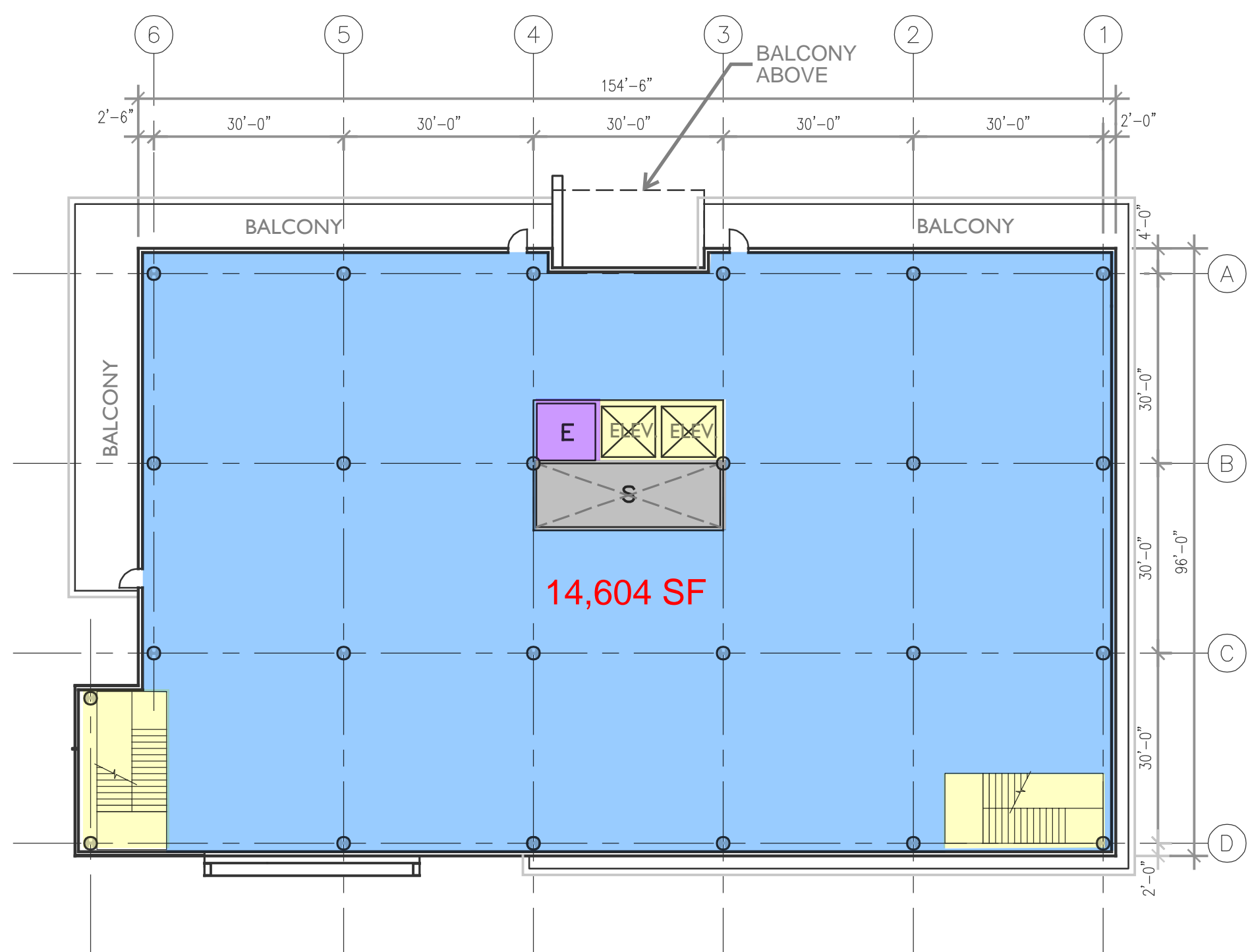


1075 O'BRIEN DRIVE - 2ND FLOOR PLAN

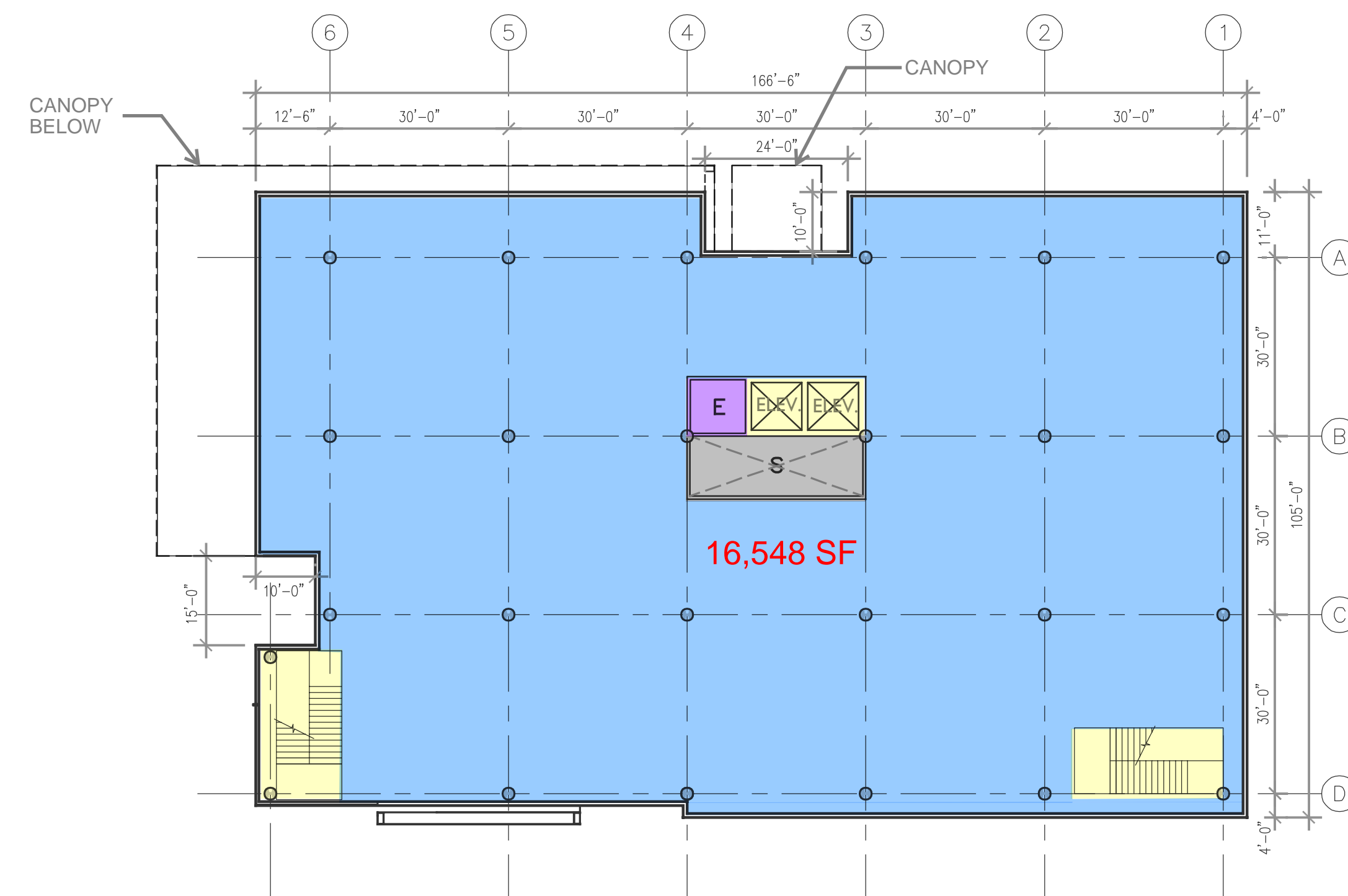


1075 O'BRIEN DRIVE - 1ST FLOOR PLAN

- LEGEND**
- FC = FIRE COMMAND
 - FP = FIRE PUMP
 - TE = TELEPHONE
 - EE = EMERG. ELECTRICAL
 - E = ELECTRICAL
 - S/R = SHIPPING/RECEIVING
 - S = SHAFT
 - U = UTILITIES
- ▶ PEDESTRAIN ENTRY



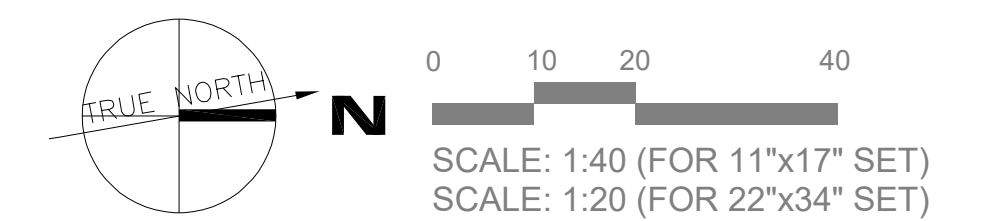
1075 O'BRIEN DRIVE - 4TH FLOOR PLAN

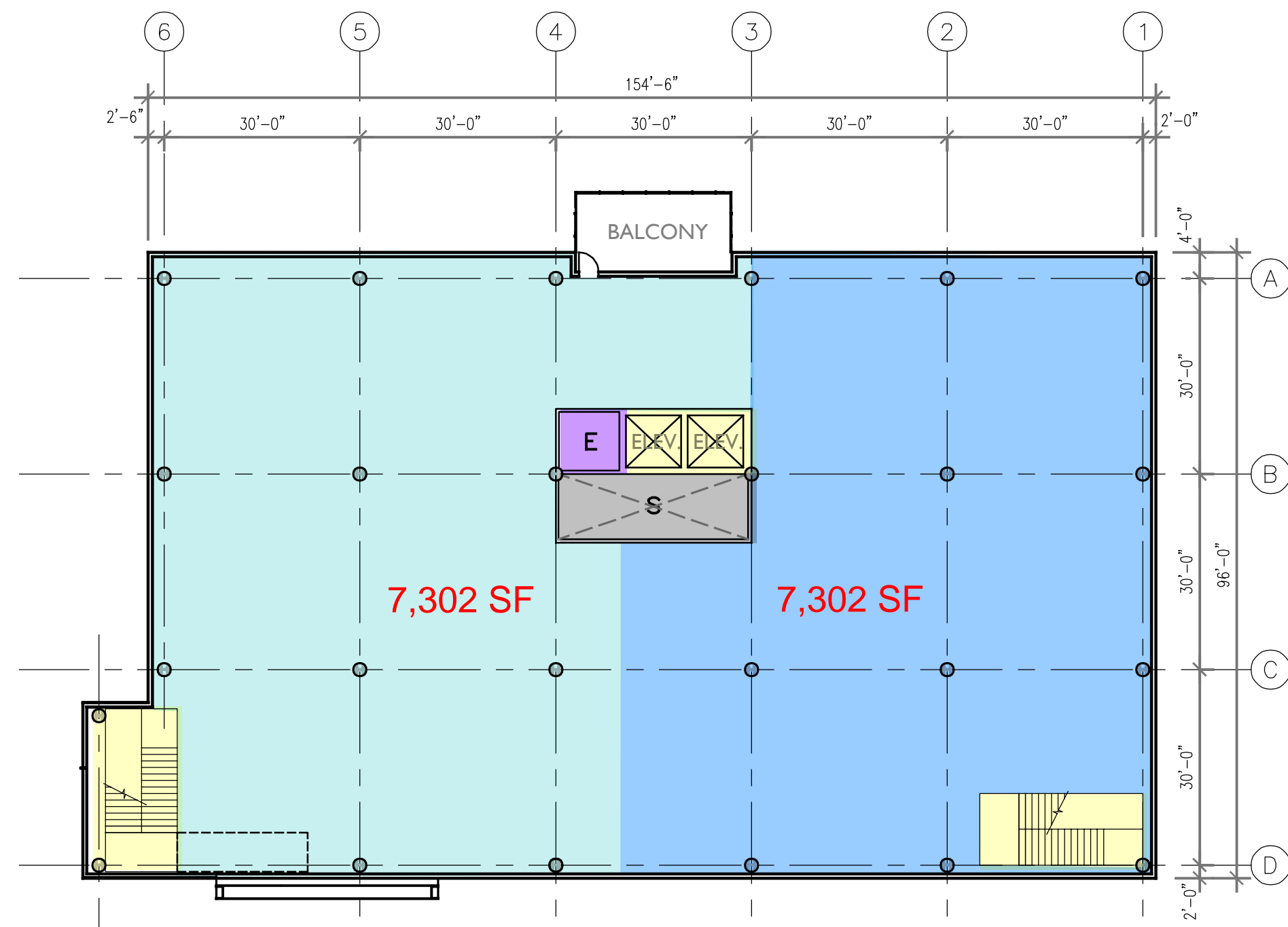


1075 O'BRIEN DRIVE - 3RD FLOOR PLAN

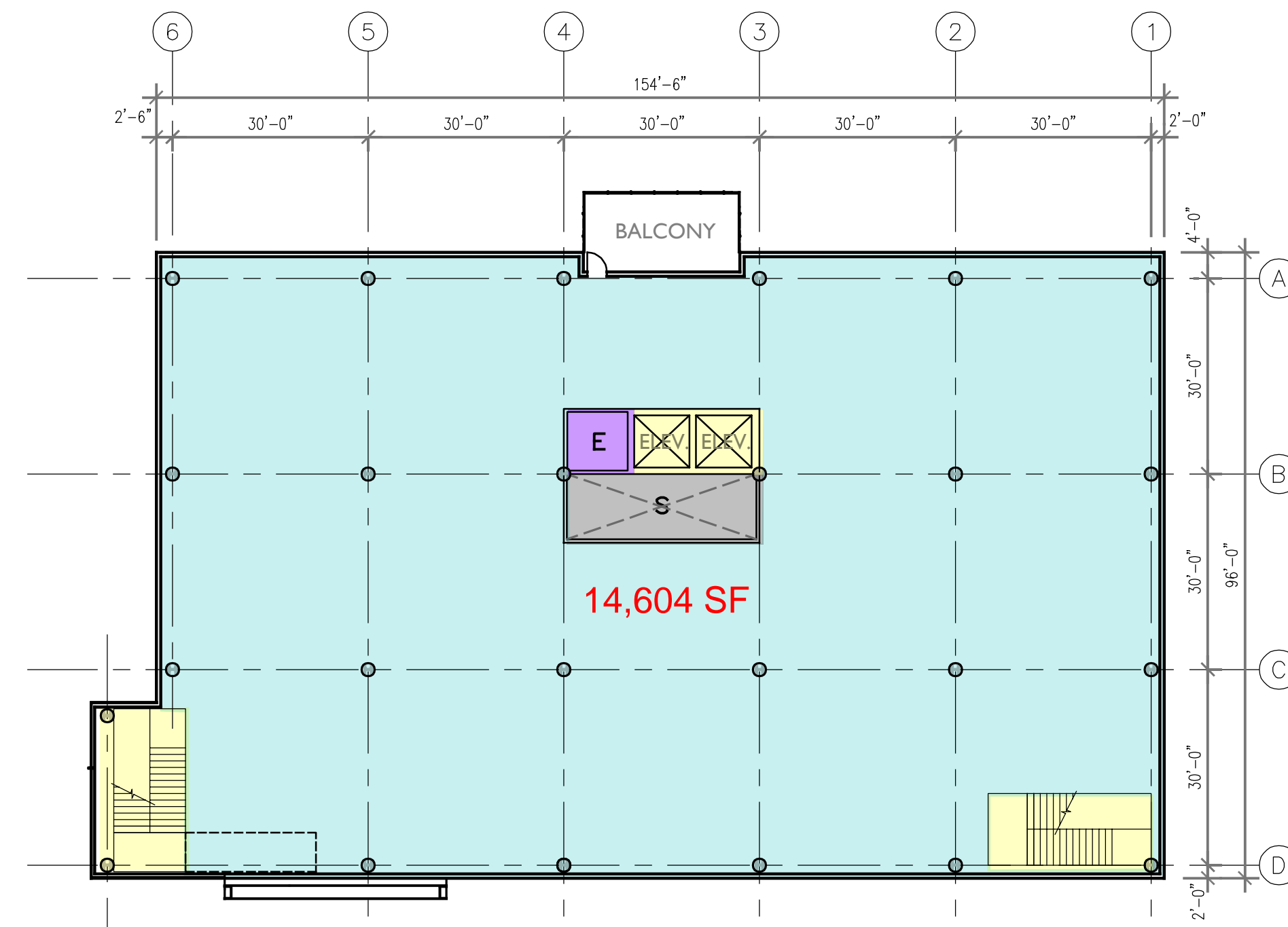
USES WITHIN BUILDING

- RESTAURANT
- R&D
- OFFICE
- ROOF GARDEN
- BUILDING SUPPORT
- UNCONDITIONED, NO WINDOWS
- NOISE GENERATING EQUIPMENT
- VENT SHAFTS



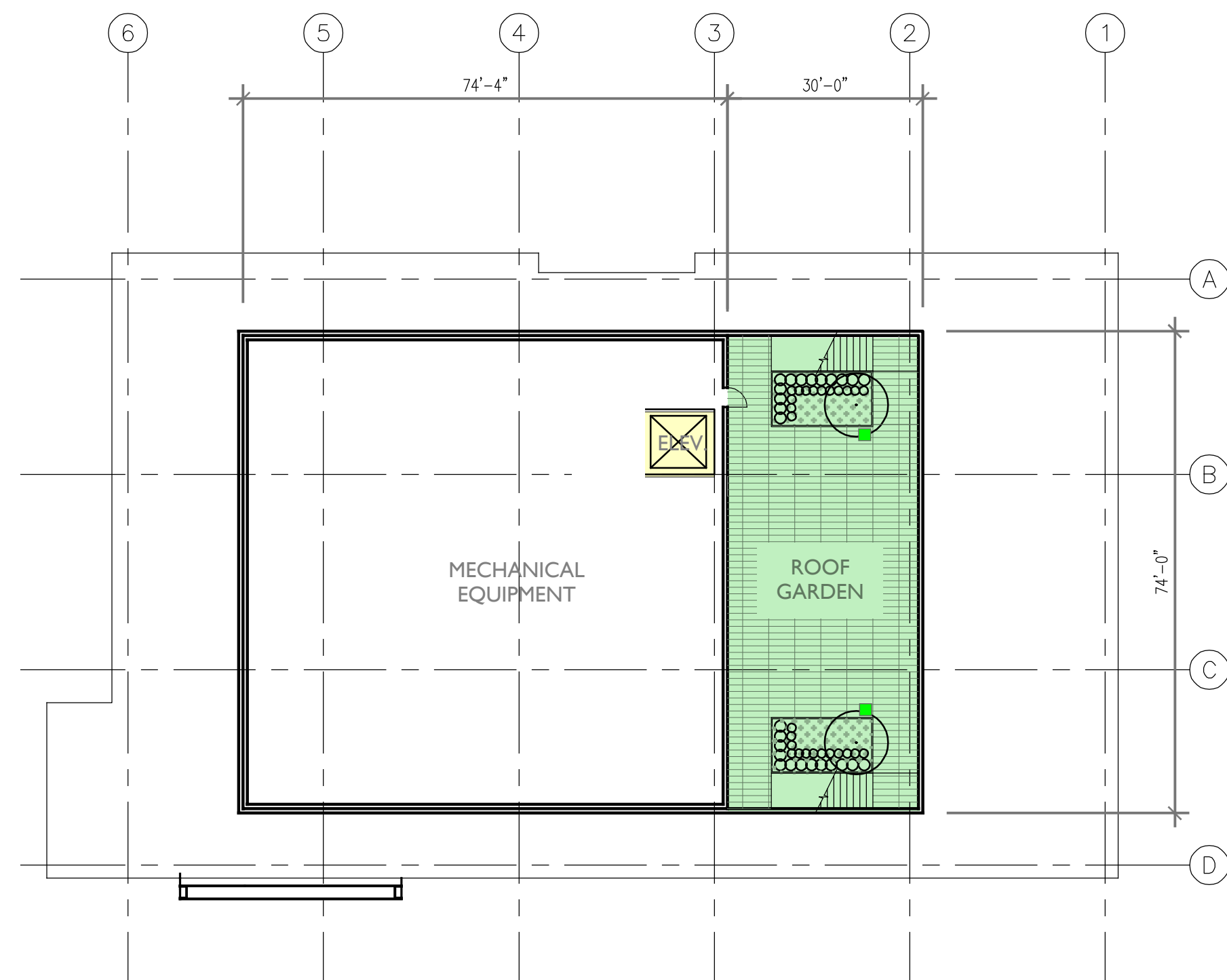


1075 O'BRIEN DRIVE - 6TH FLOOR PLAN

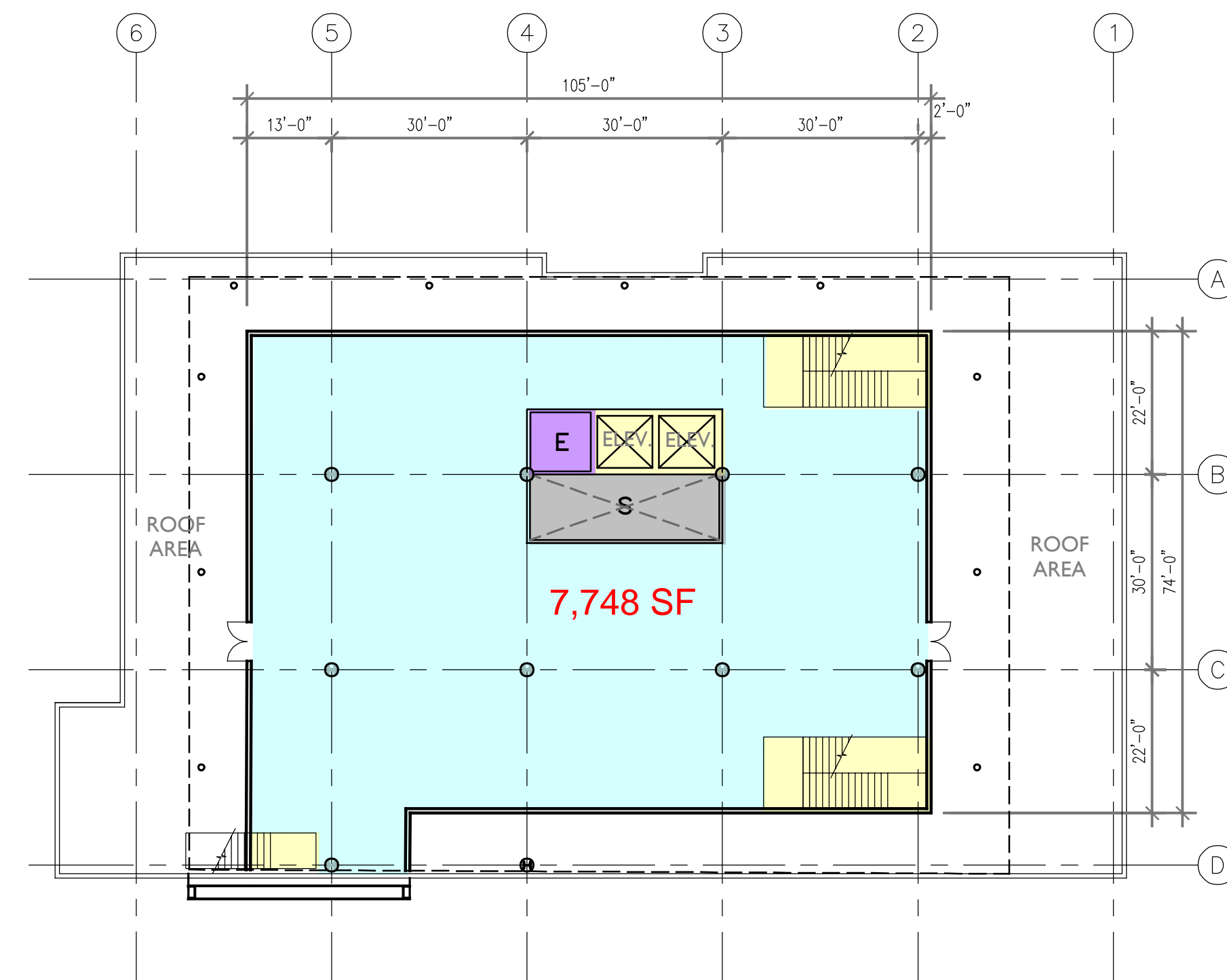


1075 O'BRIEN DRIVE - 5TH FLOOR PLAN

LEGEND
E = ELECTRICAL
S = SHAFT



1075 O'BRIEN DRIVE - ROOF PLAN

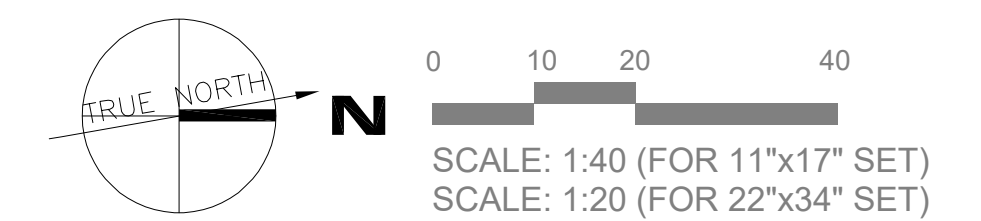


1075 O'BRIEN DRIVE - 7TH FLOOR PLAN

USES WITHIN BUILDING

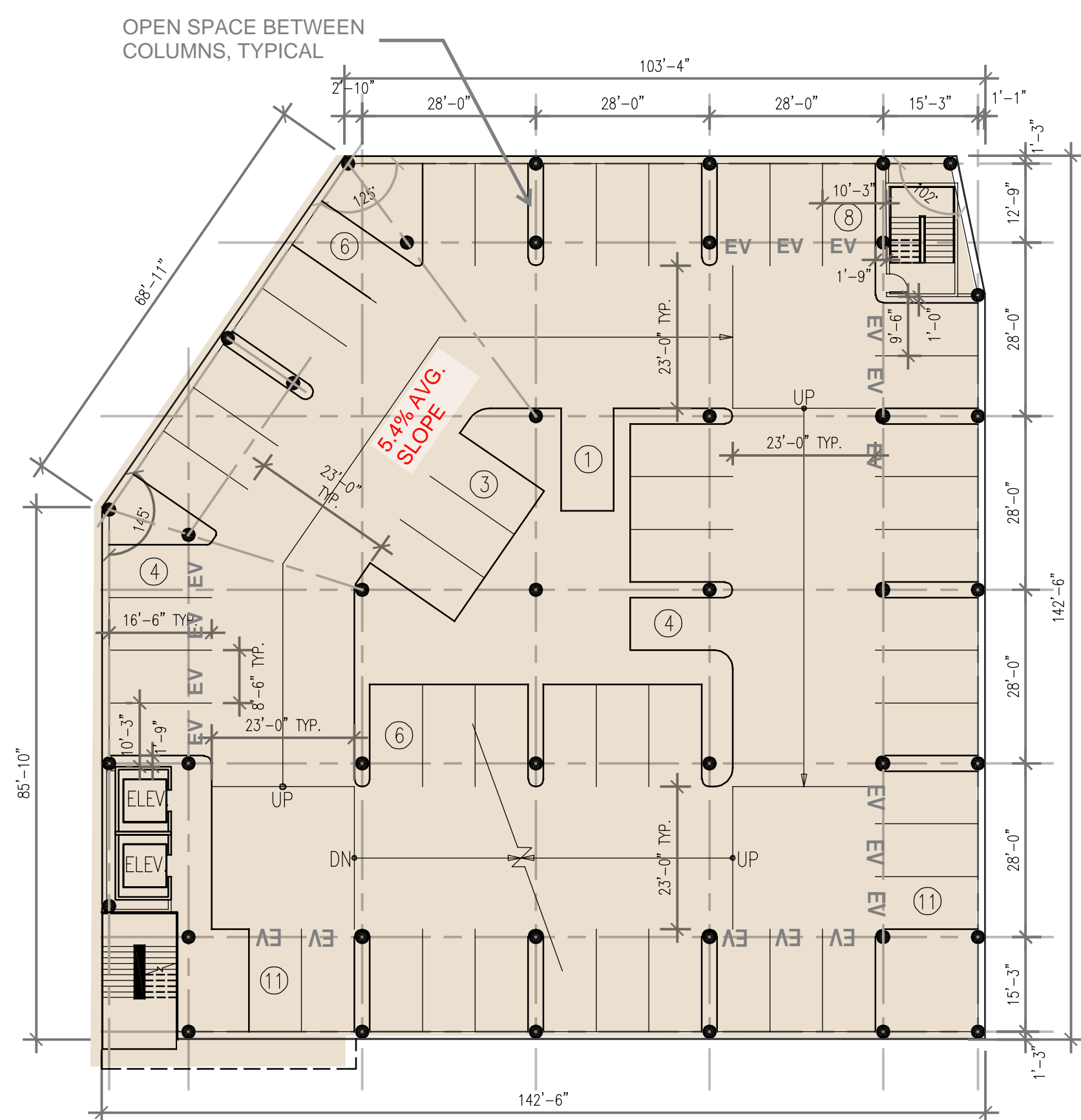
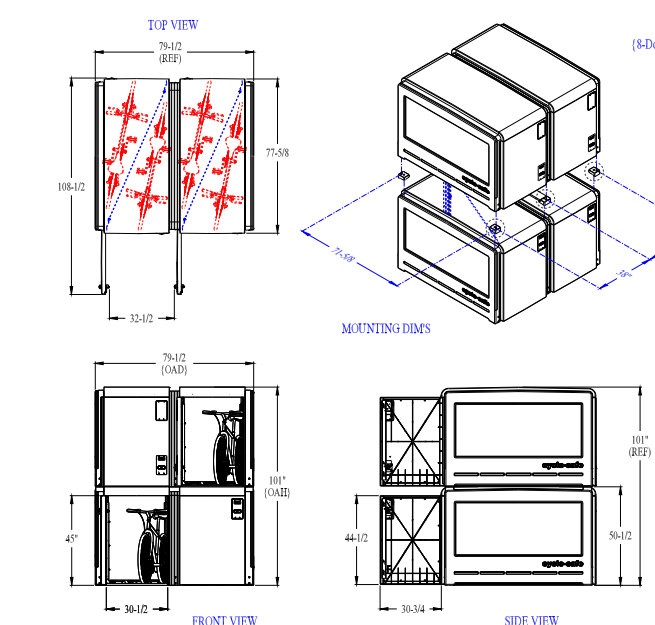
- RESTAURANT
- R&D
- OFFICE
- ROOF GARDEN
- BUILDING SUPPORT
- UNCONDITIONED, NO WINDOWS
- NOISE GENERATING EQUIPMENT
- VENT SHAFTS

■ TRASH/RECYCLE/COMPOST BIN



LONG-TERM BIKE STORAGE

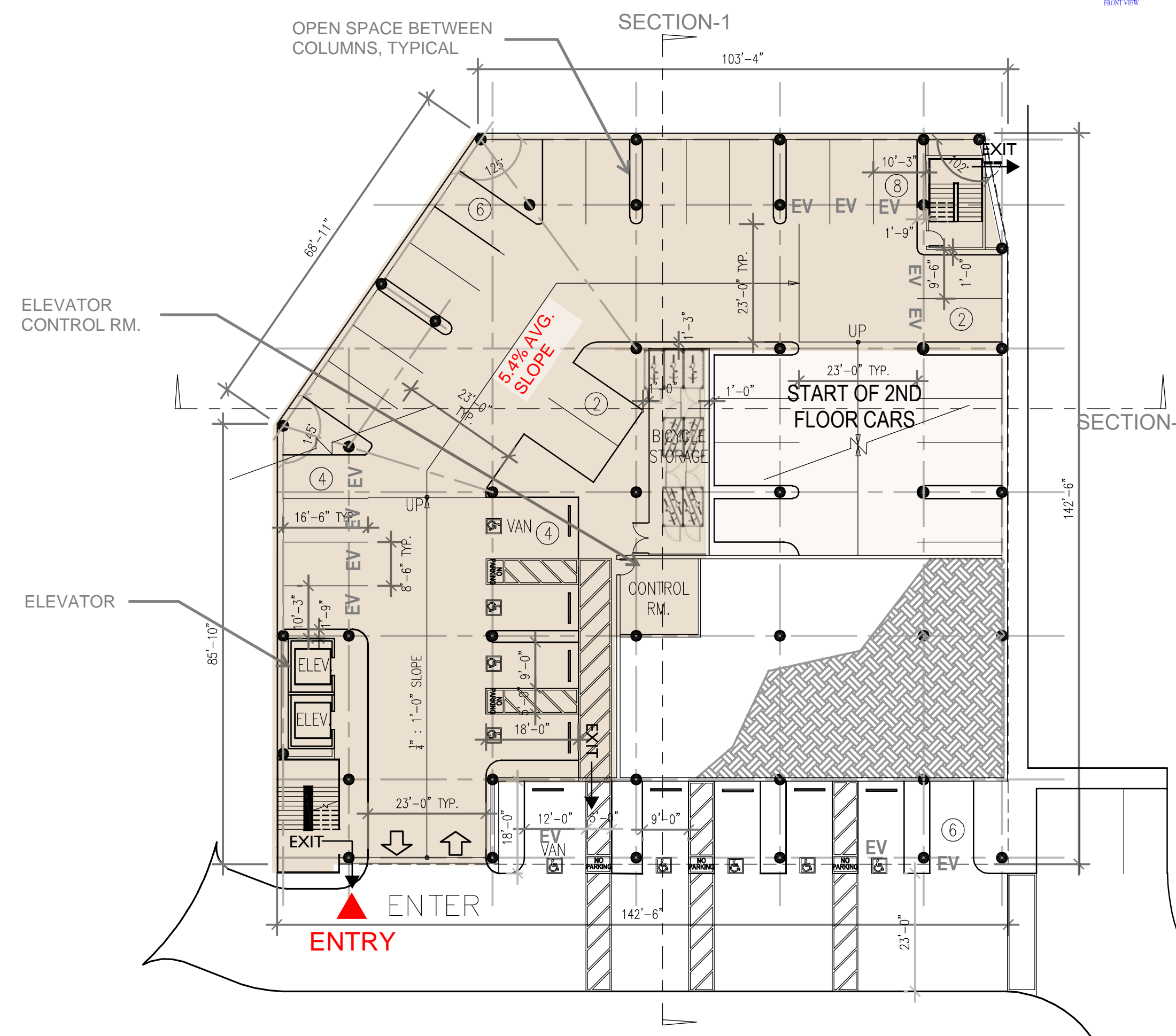
GARAGE
22 SPACES (INDICATED BELOW)
IN A STACKED STORAGE SYSTEM



GARAGE 2ND FLOOR PLAN

54 Parking Spaces

19,166 SF



GARAGE 1ST FLOOR PLAN

32 Parking Spaces

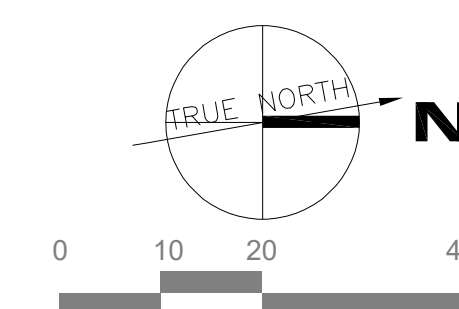
19,166 SF

TOTAL PARKING COUNT

FOUR LEVELS	196 SPACES
	5 STANDARD ACCESSIBLE SPACES
	2 VAN ACCESSIBLE SPACES
<u>SURFACE PARKING</u>	<u>13 SPACES</u>
	216 SPACES

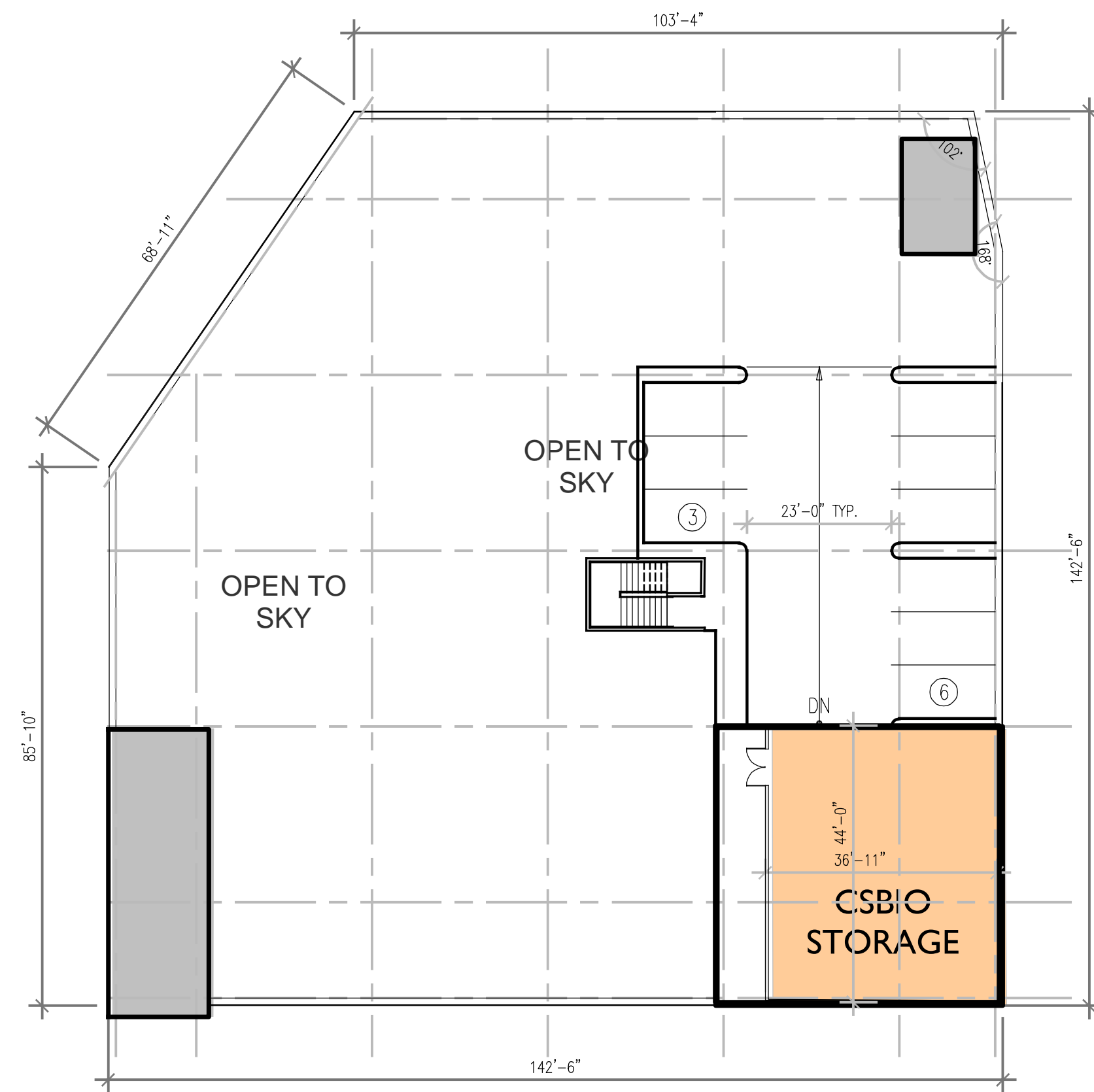
EV PARKING COUNT

GARAGE	
1st FLOOR	12 SPACES (INDICATED ABOVE)
2nd FLOOR	16 SPACES (INDICATED ABOVE)
<u>SURFACE PARKING</u>	<u>4 SPACES (SEE SHEET 05)</u>
	32 SPACES = 1 VAN ACCESSIBLE
	1 AMBULATORY
	29 STANDARD

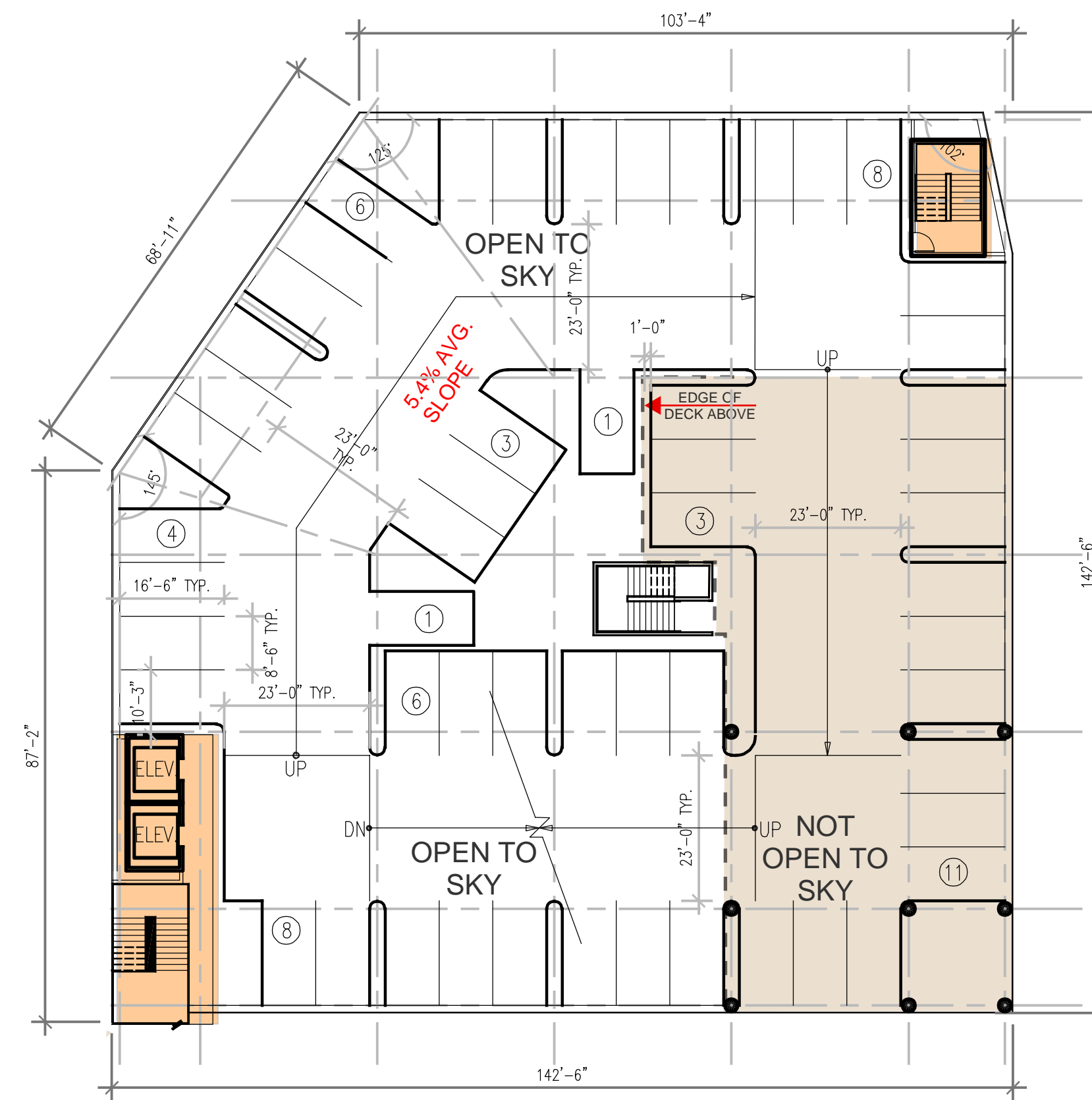


SCALE: 1:40 (FOR 11"x17" SET)
SCALE: 1:20 (FOR 22"x34" SET)

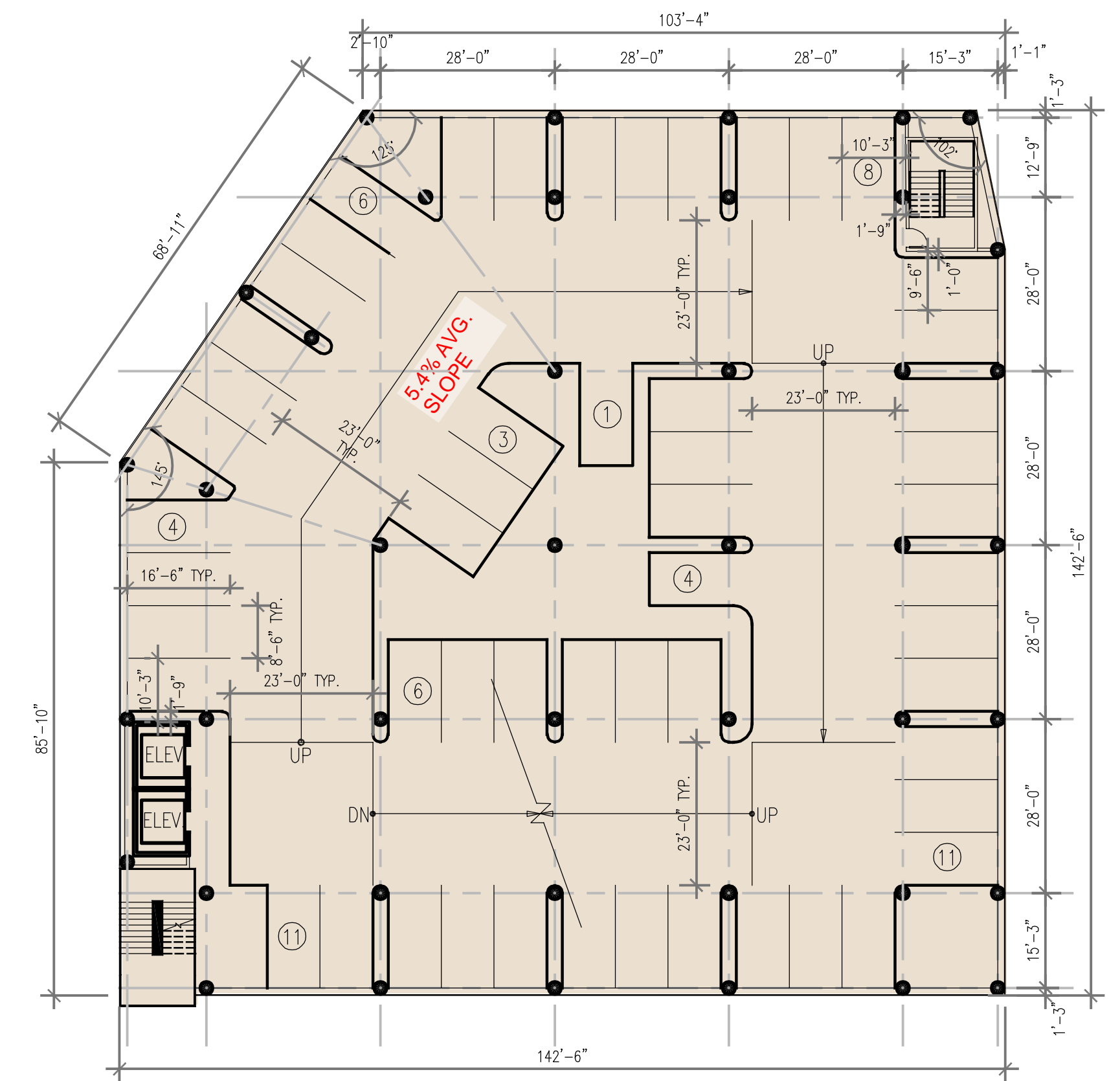




GARAGE ROOF PLAN (OPEN TO SKY)
 9 Parking Spaces
 2,475 SF



GARAGE 4TH FLOOR PLAN (OPEN TO SKY)
 54 Parking Spaces
 19,166 SF



GARAGE 3RD FLOOR PLAN
 54 Parking Spaces
 19,166 SF

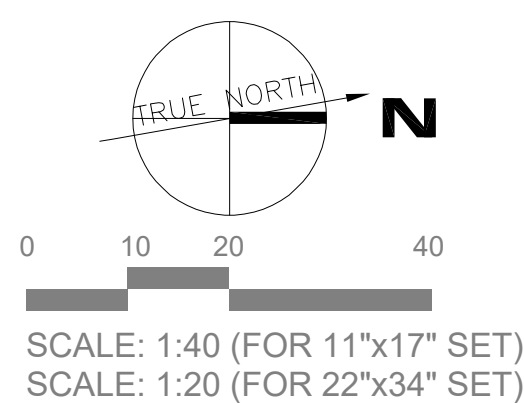
PARKING GARAGE

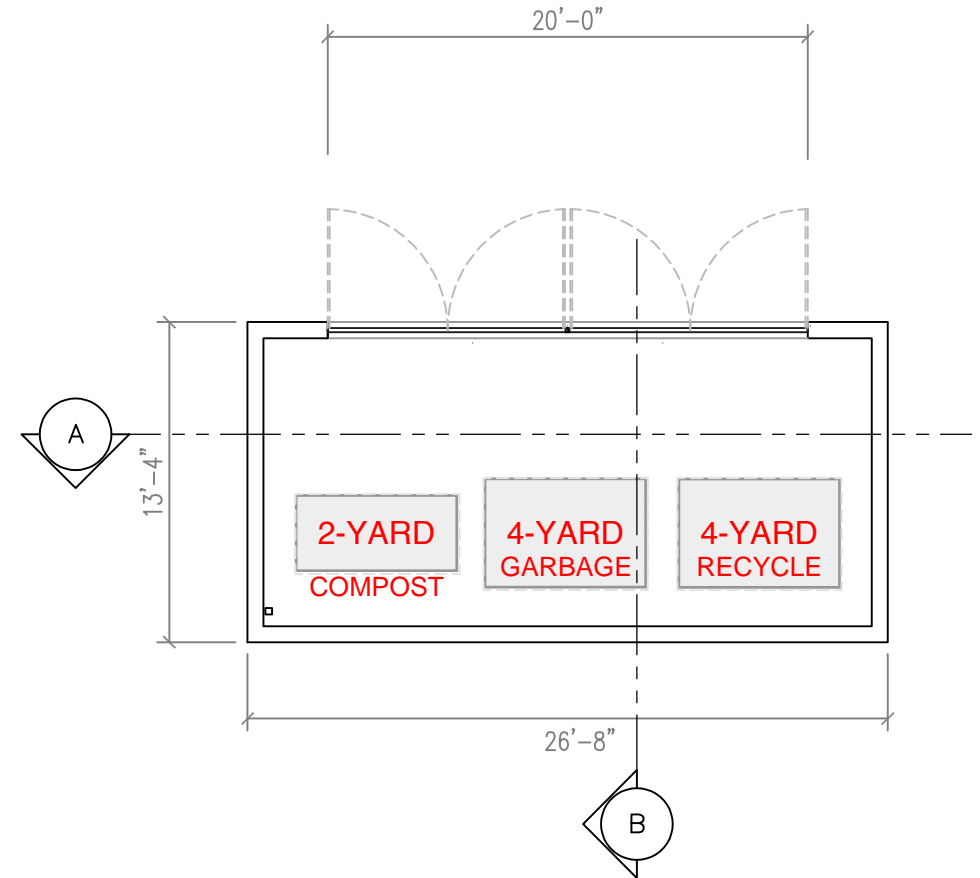
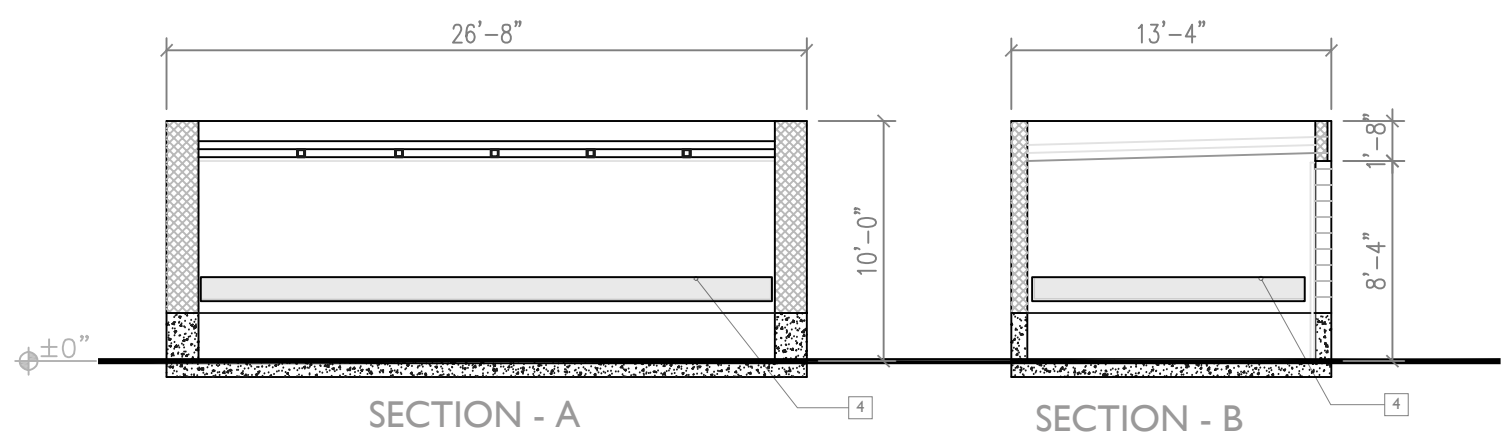
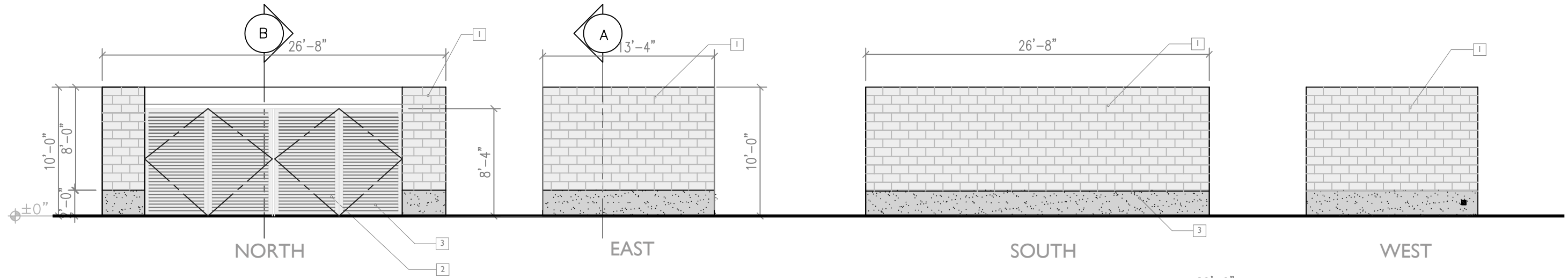
- PARKING GARAGE 93,904 SF
- CSBio STORAGE 1,926 SF

TOTAL PARKING GARAGE = 95,830 SF

LEGEND:

- PARKING GARAGE
- COVERED AREA
- OPEN TO SKY
- ROOF OVER COVERED AREA

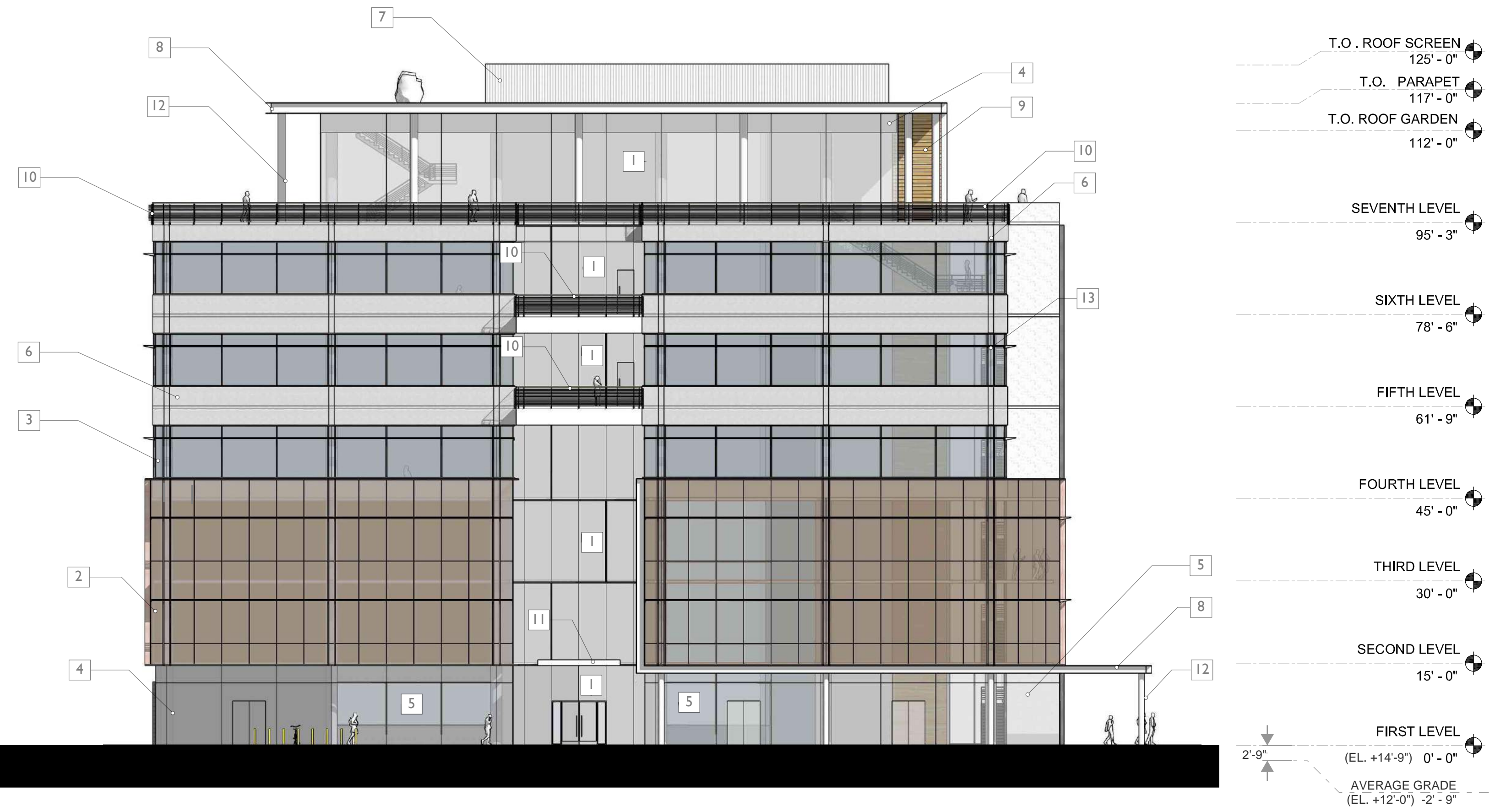




MATERIALS LEGEND:

- 1 CMU BLOCK
- 2 CORRUGATED METAL GATE
- 3 CONCRETE STEM WALL
- 4 2 X 12 WOOD BUMBER @ INTERIOR WALLS



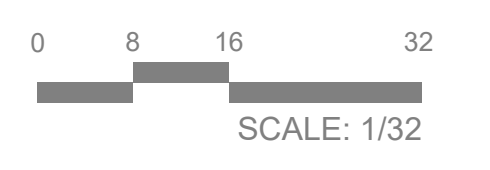


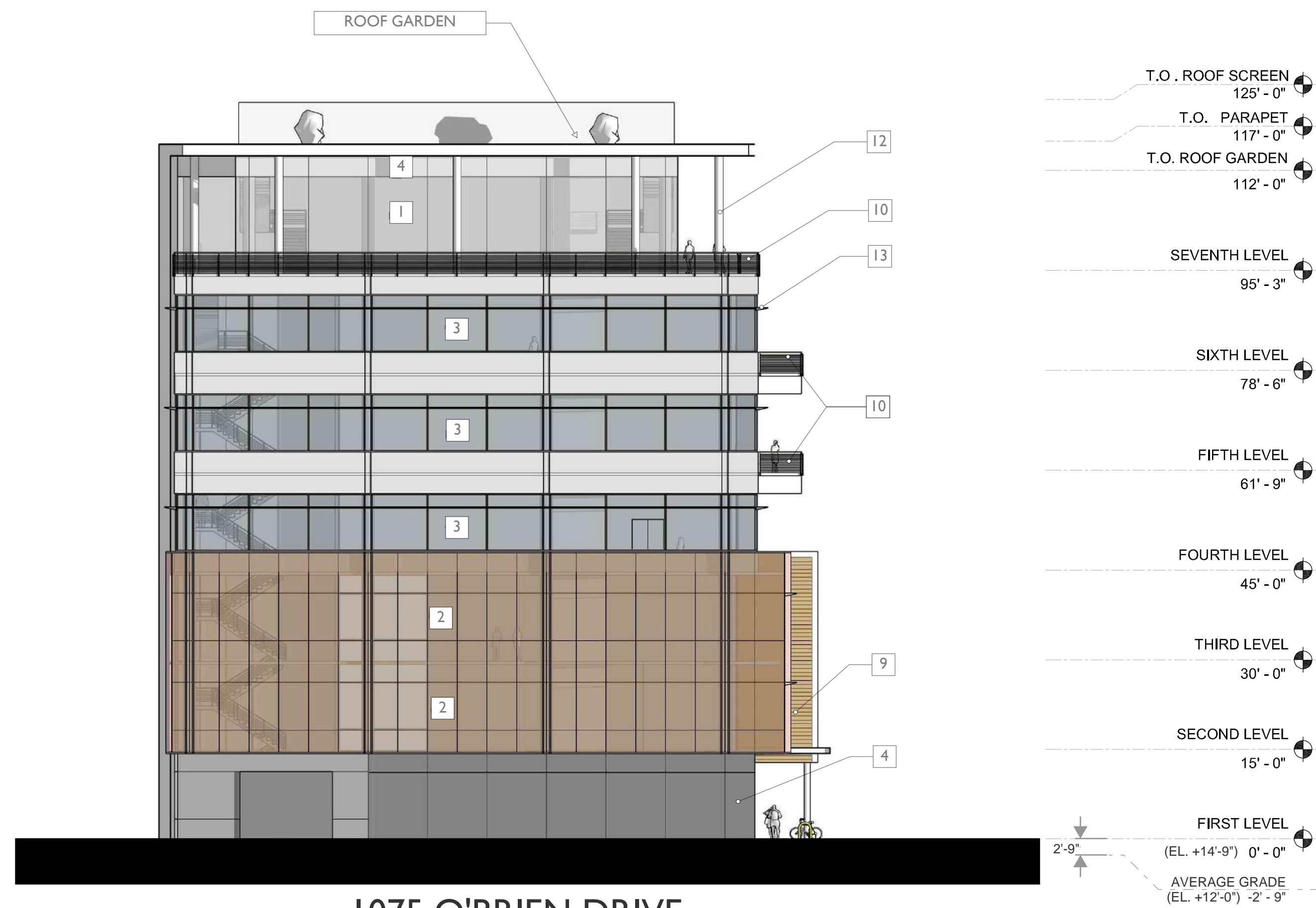
1075 O'BRIEN DRIVE
WEST ELEVATION
FACING KELLY COURT

MATERIALS LEGEND:

- 1 GLAZING - TYPE 1 CLEAR VISION GLASS
- 2 GLAZING - TYPE 2 TINTED VISION GLASS
- 3 GLAZING - TYPE 3 TINTED VISION GLASS
- 4 GLAZING - TYPE 4 SPANDREL GLASS
- 5 GLAZING - TYPE 5 CLEAR VISION GLASS NON BIRD-FRIENDLY
- 6 STUCCO - SMOOTH FINISHED
- 7 PROFILED METAL PANEL
- 8 C-SHAPED METAL TRIM
- 9 METAL PANEL, WOOD-LOOK
ALTERNATE: TRESPA WOOD GRAIN PANEL
- 10 METAL GUARDRAIL
- 11 METAL PANEL CANOPY
- 12 <12" DIAMETER ALUMINUM COLUMN COVER
- 13 METAL SUNSHADE

**1,454 SF = TYPE 5 CLEAR VISION GLASS
NON BIRD-FRIENDLY (8%)**
18,598 SF = FACADE SURFACE AREA





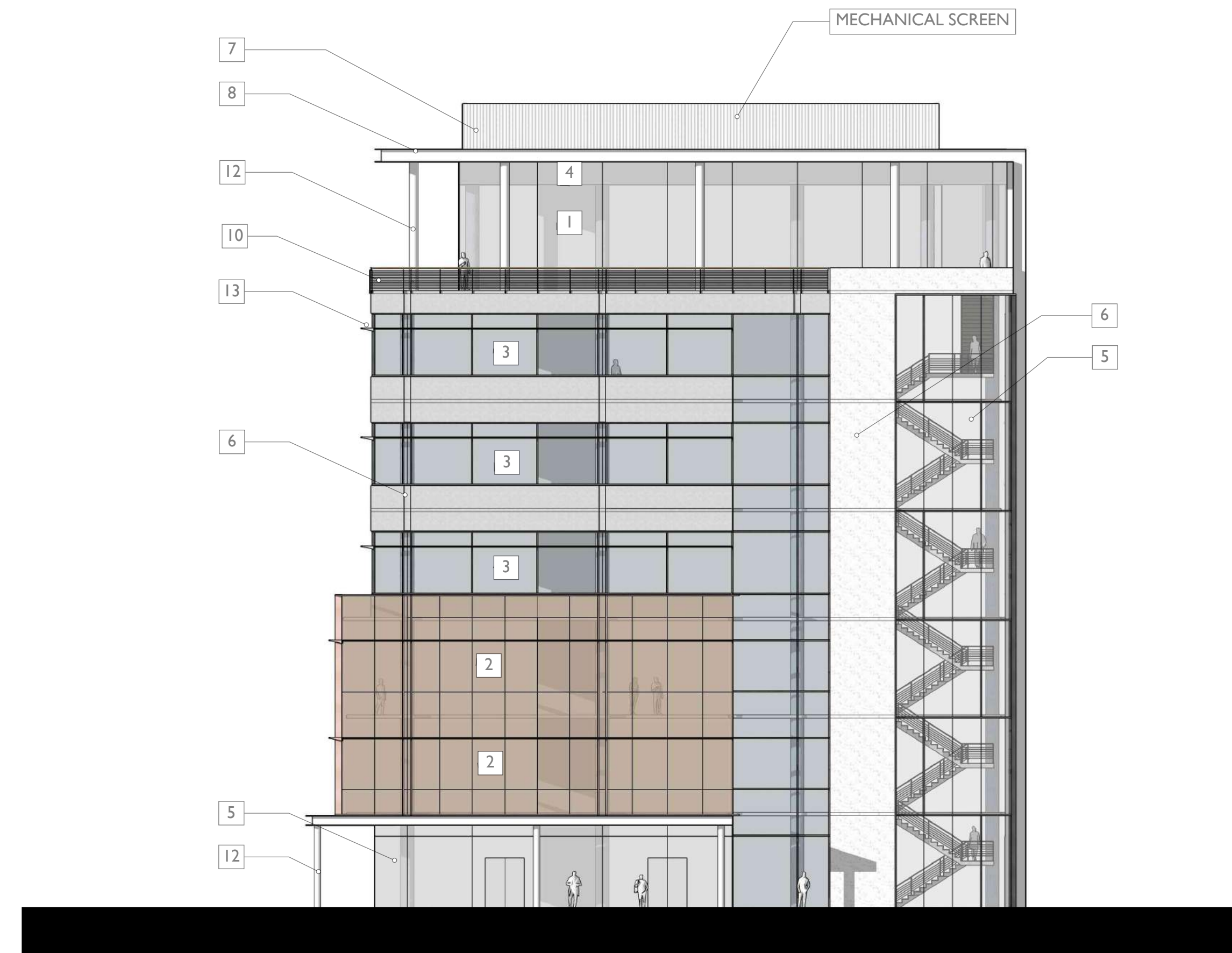
1075 O'BRIEN DRIVE
NORTH ELEVATION
FACING NORTH

MATERIALS LEGEND:

- 1 GLAZING - TYPE 1 CLEAR VISION GLASS
- 2 GLAZING - TYPE 2 TINTED VISION GLASS
- 3 GLAZING - TYPE 3 TINTED VISION GLASS
- 4 GLAZING - TYPE 4 SPANDREL GLASS
- 5 GLAZING - TYPE 5 CLEAR VISION GLASS NON BIRD-FRIENDLY
- 6 STUCCO - SMOOTH FINISHED
- 7 PROFILED METAL PANEL
- 8 C-SHAPED METAL TRIM
- 9 METAL PANEL, WOOD-LOOK
ALTERNATE: TRESPA WOOD GRAIN PANEL
- 10 METAL GUARDRAIL
- 11 METAL PANEL CANOPY
- 12 <12" DIAMETER ALUMINUM COLUMN COVER
- 13 METAL SUNSHADE

NORTH ELEVATION

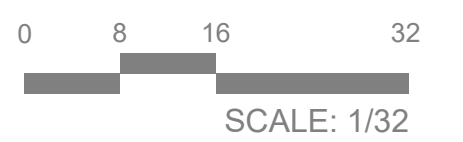
**0 SF = TYPE 5 CLEAR VISION GLASS
NON BIRD-FRIENDLY (0%)**
11,654 SF = FACADE SURFACE AREA

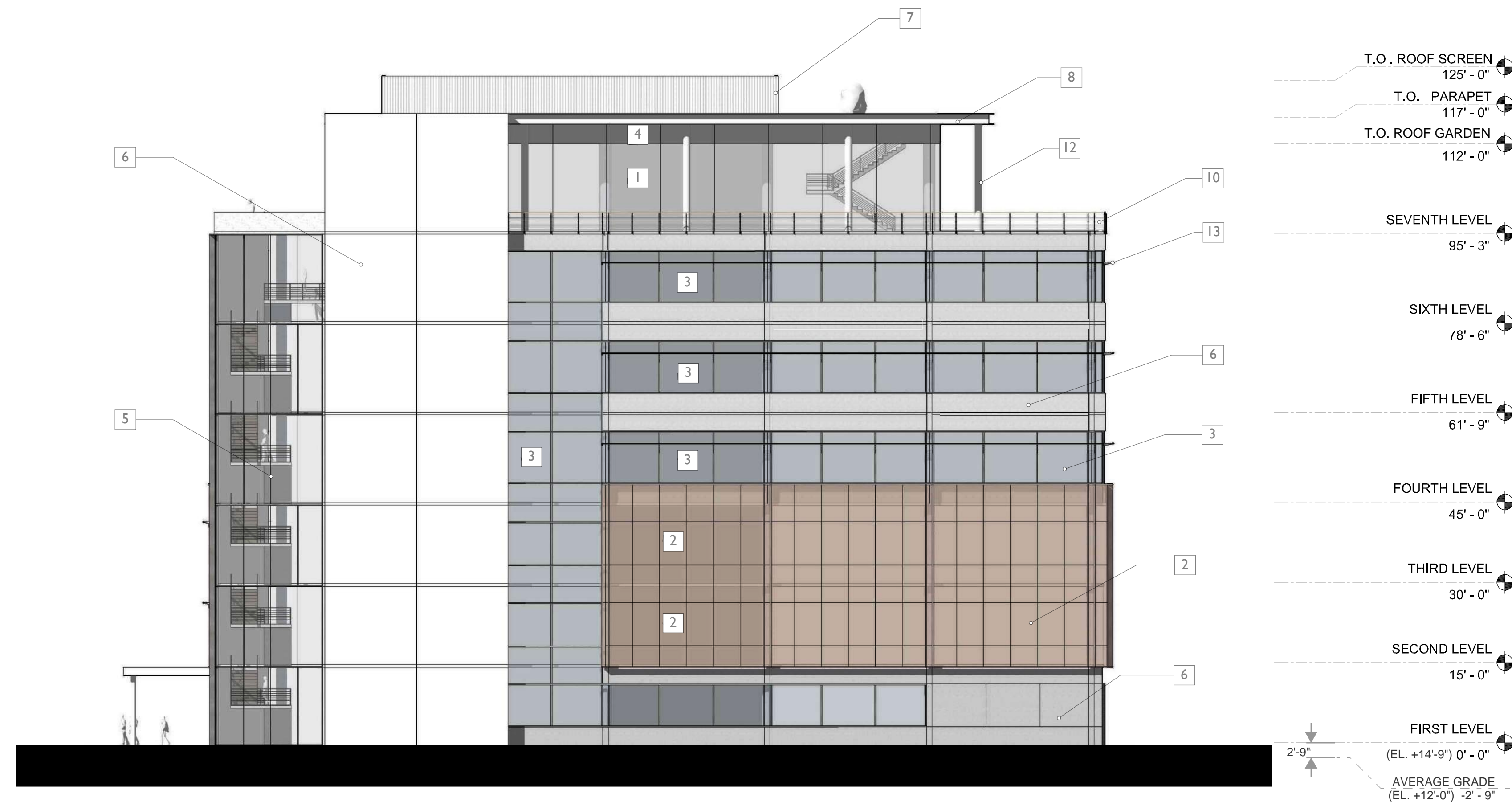


1075 O'BRIEN DRIVE
SOUTH ELEVATION
FACING O'BRIEN DRIVE

SOUTH ELEVATION

**2,342 SF = TYPE 5 CLEAR VISION GLASS
NON BIRD-FRIENDLY (20%)**
11,693 SF = FACADE SURFACE AREA





1075 O'BRIEN DRIVE
EAST ELEVATION
FACING EAST

MATERIALS LEGEND:

- 1 GLAZING - TYPE 1 CLEAR VISION GLASS
- 2 GLAZING - TYPE 2 TINTED VISION GLASS
- 3 GLAZING - TYPE 3 TINTED VISION GLASS
- 4 GLAZING - TYPE 4 SPANDREL GLASS
- 5 GLAZING - TYPE 5 CLEAR VISION GLASS NON BIRD-FRIENDLY
- 6 STUCCO - SMOOTH FINISHED
- 7 PROFILED METAL PANEL
- 8 C-SHAPED METAL TRIM
- 9 METAL PANEL, WOOD-LOOK
ALTERNATE: TRESPA WOOD GRAIN PANEL
- 10 METAL GUARDRAIL
- 11 METAL PANEL CANOPY
- 12 <12" DIAMETER ALUMINUM COLUMN COVER
- 13 METAL SUNSHADE

1,835 SF = TYPE 5 CLEAR VISION GLASS
NON BIRD-FRIENDLY (10%)
18,210 SF = FACADE SURFACE AREA





GLAZING LEGEND:

1	GLAZING - TYPE 1 CLEAR VISION GLASS	= 7,720 sf
2	GLAZING - TYPE 2 TINTED VISION GLASS	= 9,035 sf
3	GLAZING - TYPE 3 TINTED VISION GLASS	= 13,361 sf
4	GLAZING - TYPE 4 SPANDREL GLASS	= 6,918 sf
5	GLAZING - TYPE 5 CLEAR VISION GLASS NON BIRD-FRIENDLY	= 5,631 sf
TOTAL GLAZING =		42,665 sf

GLAZING TYPES 1, 2, 3 WILL BE "BIRD FRIENDLY" GLASS WITH ULTRA VIOLET STRIPS

GLAZING TYPE 4 WILL BE SPANDREL GLASS WHICH IS INHERENTLY "BIRD FRIENDLY"

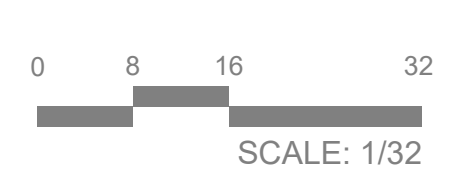
GLAZING TYPE 5 WILL NOT BE BIRD FREINDLY

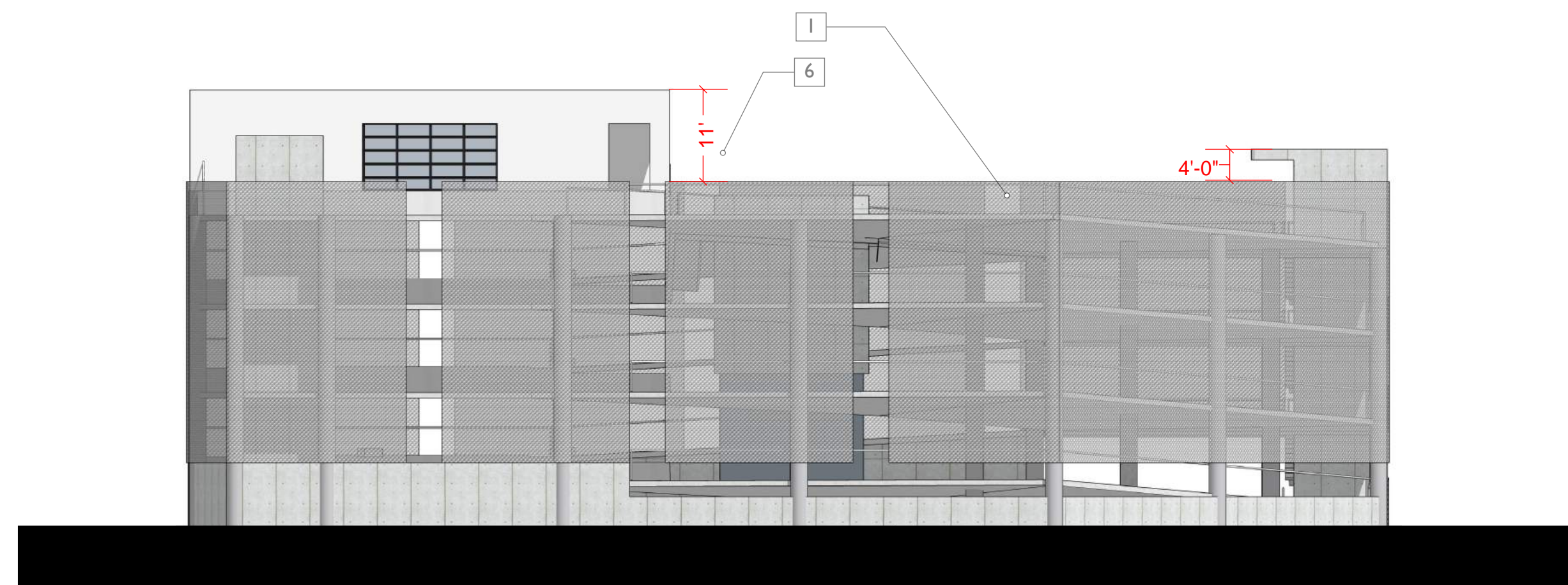
**5,631 SF = TYPE 5 CLEAR VISION GLASS
NON BIRD-FRIENDLY**

60,155 SF = TOTAL FACADE SURFACE AREA = 9.4%

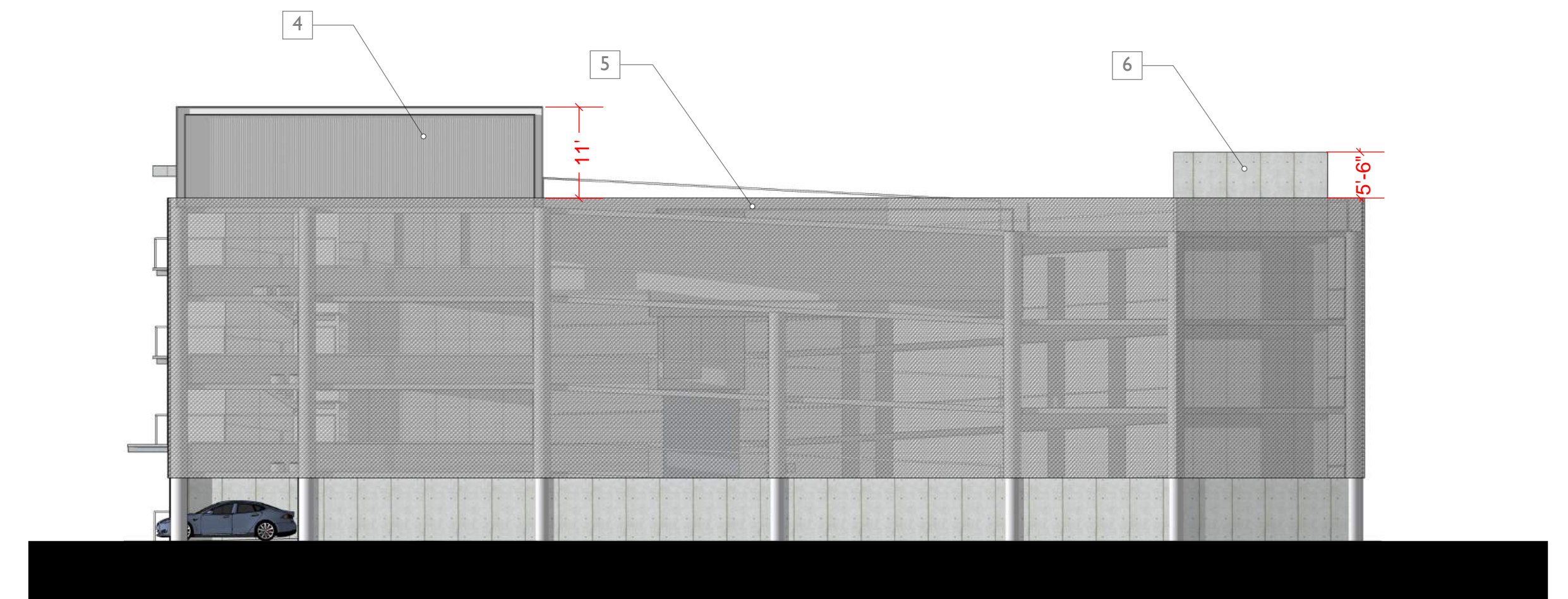
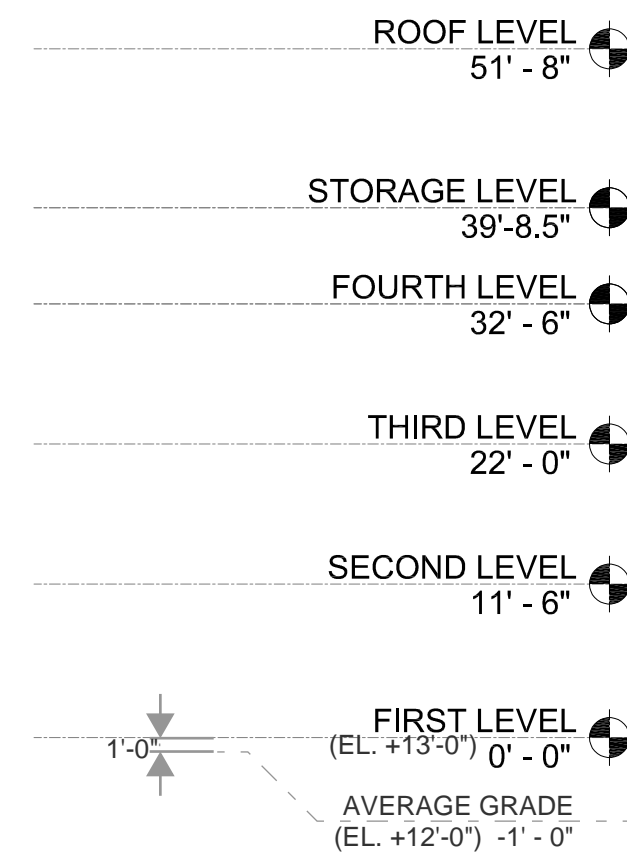
NOTE:

OCCUPANCY SENSORS OR OTHER SWITCH CONTROL DEVICES SHALL BE INSTALLED ON NON EMERGENCY LIGHTS AND SHALL BE PROGRAMMED TO SHUT OFF DURING NONWORK HOURS AND AND BETWEEN TEN (10) P.M. AND SUNRISE.

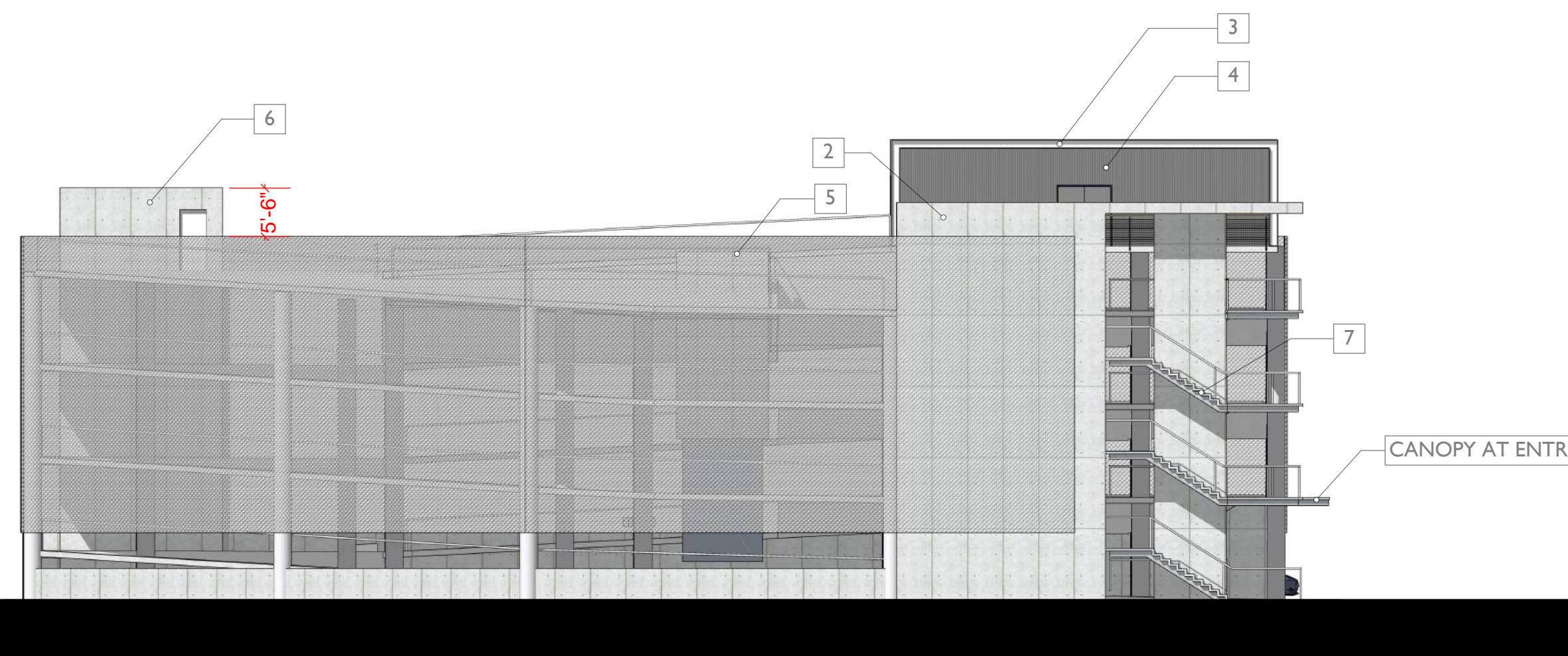




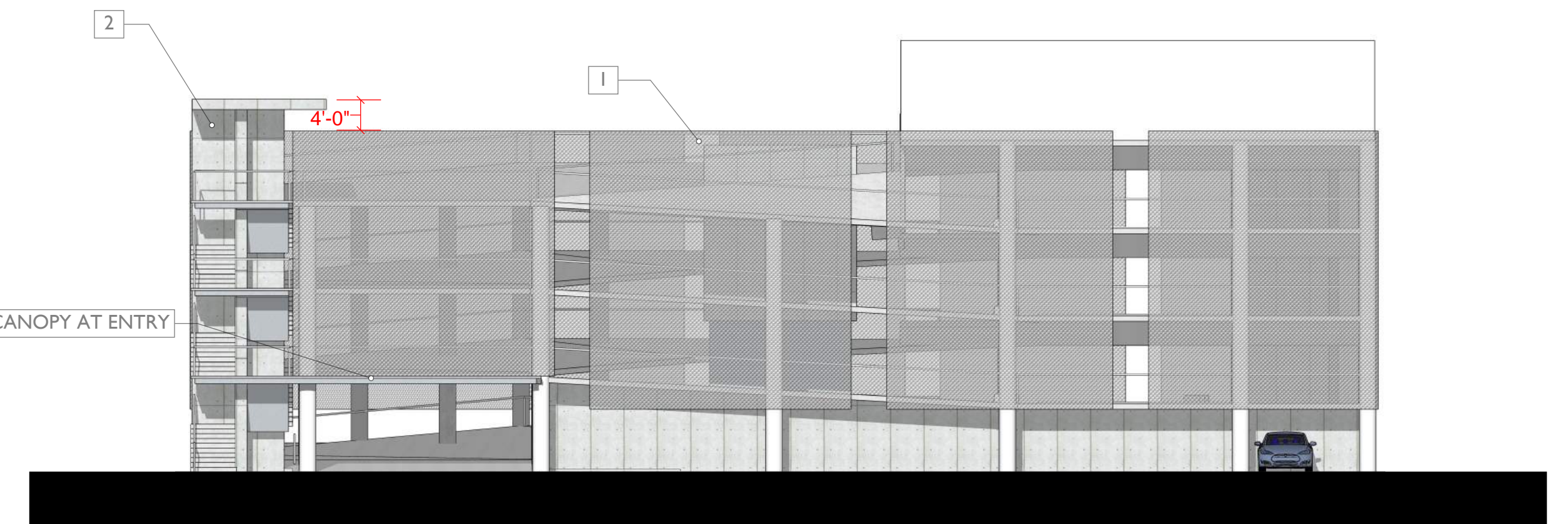
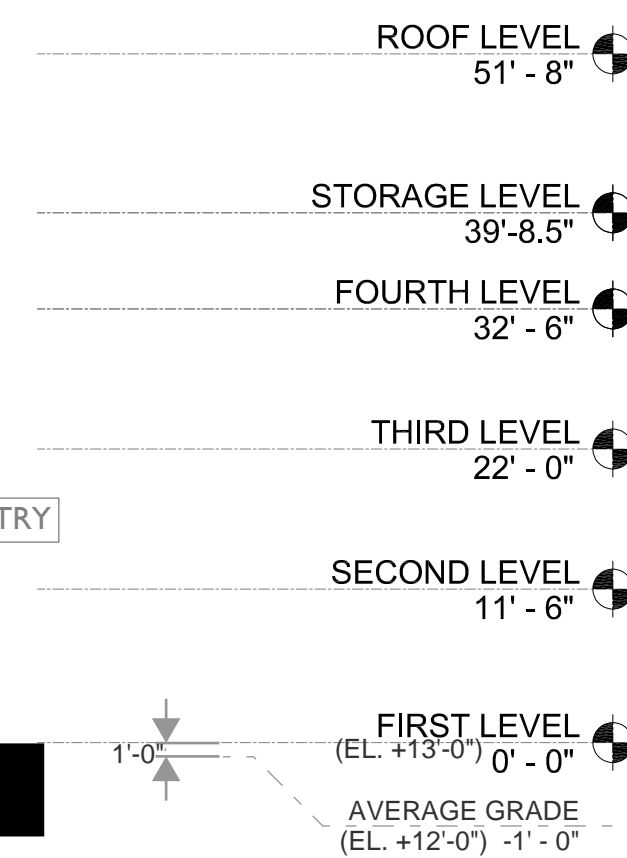
WEST ELEVATION
FACING WEST



NORTH ELEVATION
FACING NORTH



SOUTH ELEVATION
FACING KELLY COURT

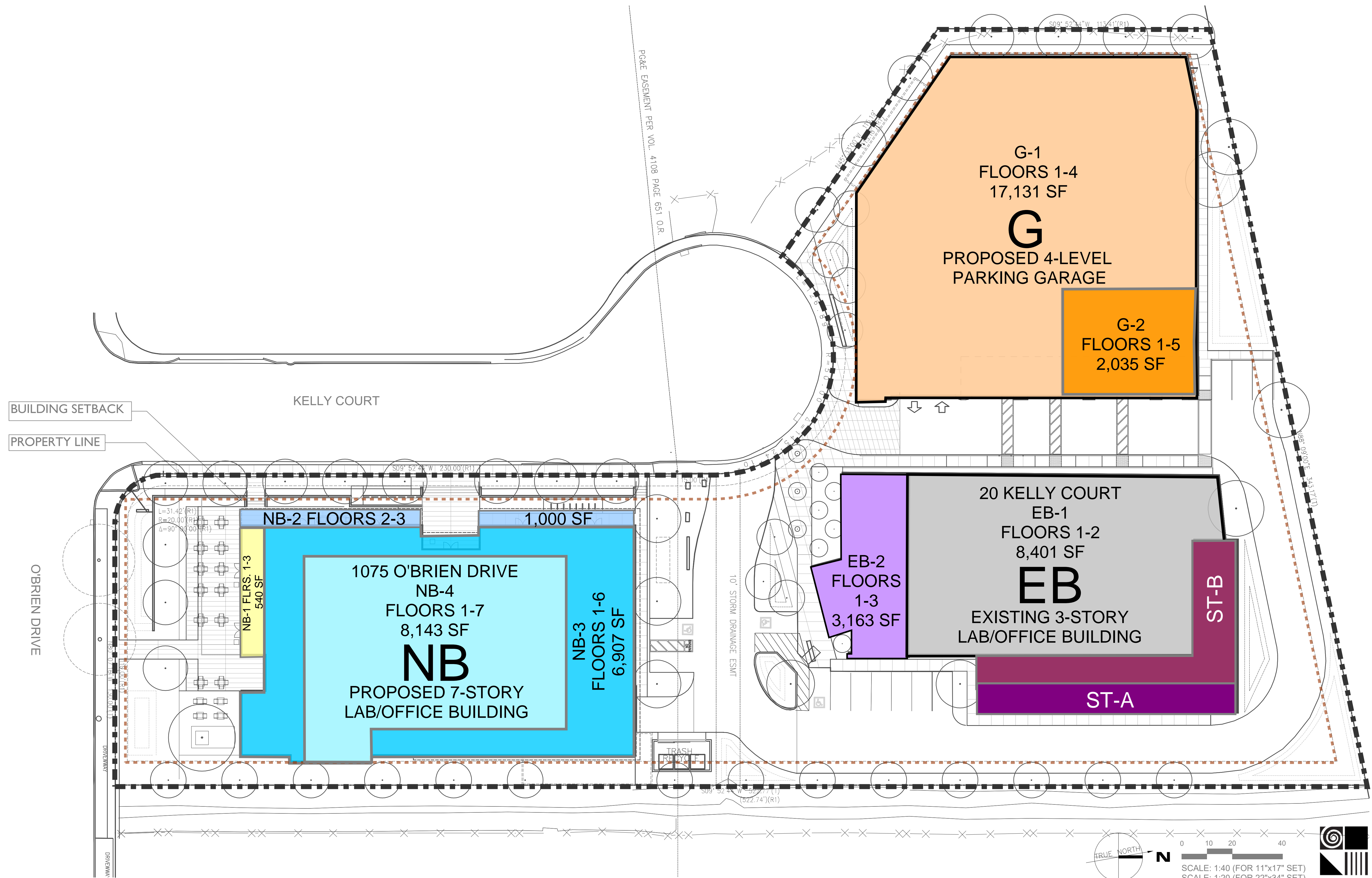


EAST ELEVATION
FACING EAST

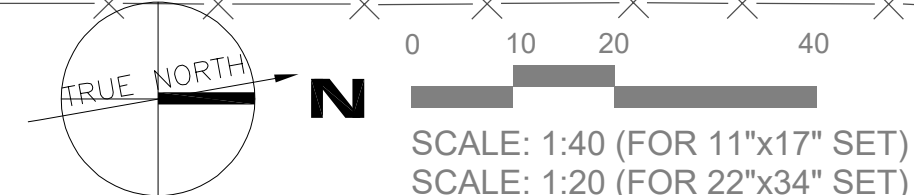
MATERIALS LEGEND:

- 1 METAL SCREEN MESH
- 2 CEMENTITIOUS PRODUCT
- 3 C-SHAPED METAL TRIM
- 4 PROFILED METAL PANEL
- 5 METAL SCREEN MESH WITH ARTWORK (ARTWORK, T.B.D.)
- 6 STAIR ENCLOSURE
- 7 CONCRETE STAIRS W/ METAL STRINGER





SITE PLAN - BUILDING HEIGHTS



Average Building Height - Volumetric Weighted - Calculation

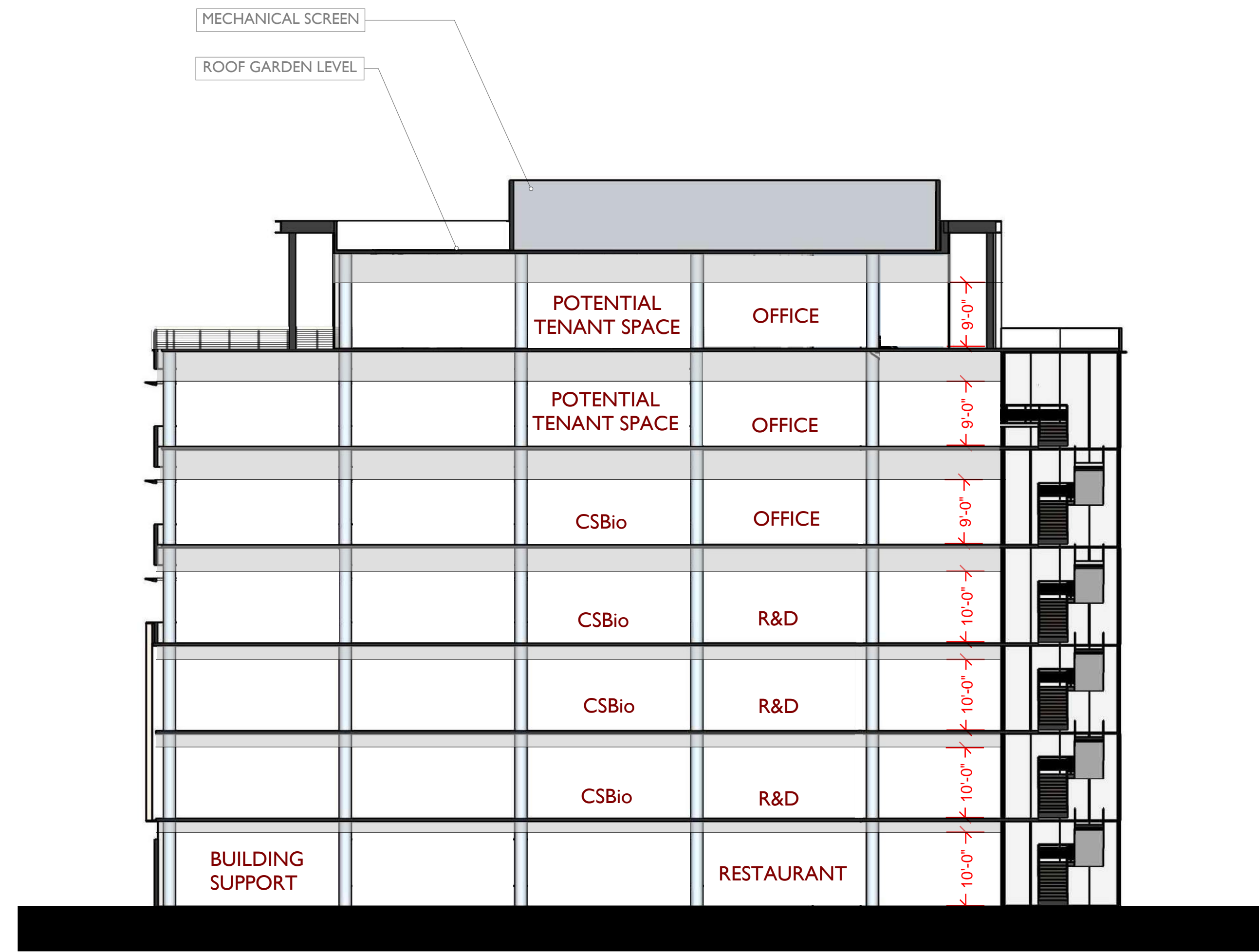
	Garage	Height + 0.5 Feet	Floors	Area	Height	Notes
G-1	Height	44.17 Feet	4	10.50 Ft.	10'-6" @ 2nd - 4th Floor	
	Area	68,524 Sq. Ft.	4	17,131 Sq. Ft.	11'-6" @ 1st Floor	Per Floor
G-2	Height	52.17 Feet	5	12.00 Ft.	12'-0" To Roof	
	Area	10,175 Sq. Ft.	5	2,035 Sq. Ft.		Per Floor
G Total Area		78,699		15,096		
20 Kelly Court		Height + 1.0 Feet				
EB-1	Height	31.00 Feet	2	15.00 Ft.	Floor-to-Floor	
	Area	16,802 Sq. Ft.	2	8,401 Sq. Ft.		Avg. Per Floor
EB-2	Height	45.00 Feet	3	14.67 Ft.	Floor-to-Floor	
	Area	9,489 Sq. Ft.	3	3,163 Sq. Ft.		Avg. Per Floor
EB Total Area		26,291				
ST-A	Covered Storage &	ST-B HazMat Bunker				
	Height	13.50 Feet	1	12.50 Ft.	Floor-to-Floor	
ST Total Area		3,500 Sq. Ft.	1	3,500 Sq. Ft.		Avg. Per Floor

	1075 O'Brien	Height + 2.75 Feet			
NB-1	Base Height	47.75 Feet	3	15.00 Ft.	Floor-to-Floor
	Base Area	1,620 Sq. Ft.	3	540 Sq. Ft.	Avg. Per Floor
				16,354	
NB-2	Base Height	47.75 Feet	3	15.00 Ft.	Floor-to-Floor
	Base Area	3,000 Sq. Ft.	3	1,000 Sq. Ft.	Avg. Per Floor
				16,354	
		Parapet + 3.5 Feet			
NB-3	Base Height	101.50 Feet	6	15.88 Ft.	Avg. Floor-to-Floor
	Base Area	41,442 Sq. Ft.	6	6,907 Sq. Ft.	Avg. Per Floor
				14,823	
NB-4	Tower Height	112.75 Feet			
	+ Bonus	10.00 Feet			
		Max + Bonus		122.75 Feet	
		Proposed		119.75 Feet	To Top of Parapet
		- Parapet		4.00 Feet	
		Roof		115.75 Feet	
	Tower Area	57,001 Sq. Ft.	7	8,143 Sq. Ft.	Avg. Floor-to-Floor
NB Total Area		103,063 Sq. Ft.			

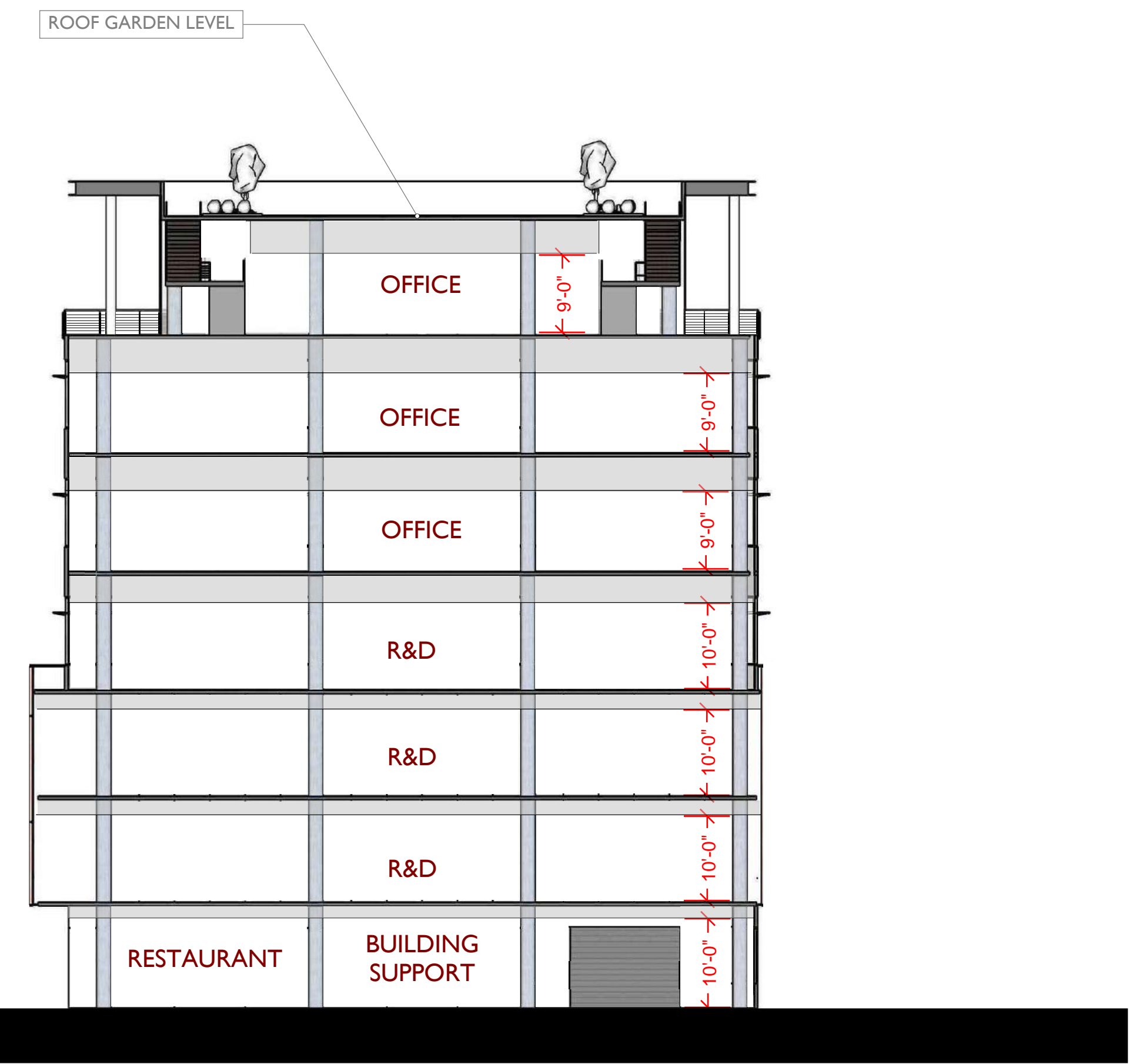
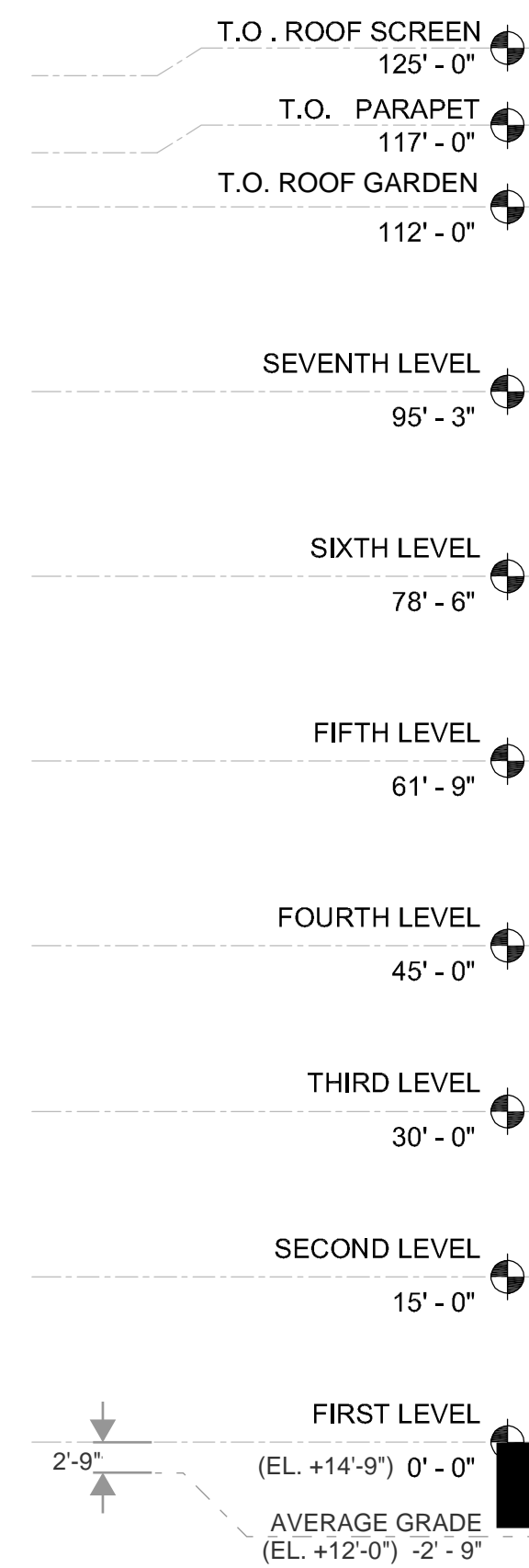
SEE SHEET 19 FOR FOOTPRINTS OF BUILDING VOLUMES

Volume	X Building Footprint (SF)	x	Y Building Height (FT)	=	Z Floors (Not in Calc) Z = (X x Y)	
G-1	17,131		44.17		4	756,618
G-2	2,035		52.17		5	106,159
EB-1	8,401		31.00		2	260,431
EB-2	3,163		45.00		3	142,335
ST-A + ST-B	3,500		13.50		1	47,250
NB-1	540		47.75		3	25,785
NB-2	1,000		47.75		3	47,750
NB-3	6,907		101.50		6	701,061
NB-4	8,143		119.75		7	975,124
TOTAL	50,820					3,062,513
AVERAGE HEIGHT (TOTAL Z / TOTAL X) - Average Height is Less than Allowed: 60.26						
Maximum Average Height Allowed: 67.50 + Flood Zone Bonus 10.00 = 77.50						

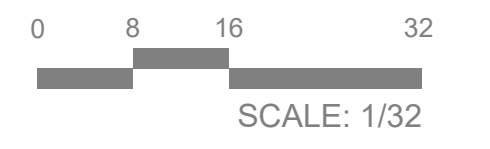


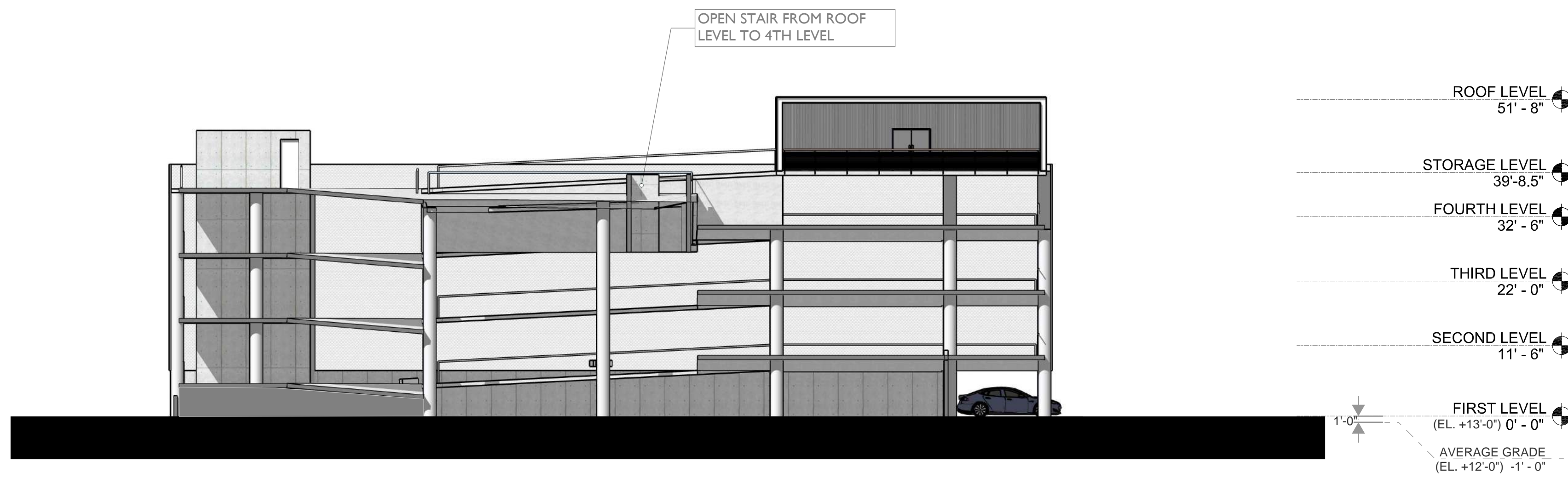


1075 O'BRIEN DRIVE
LONGITUDINAL SECTION - LOOKING EAST

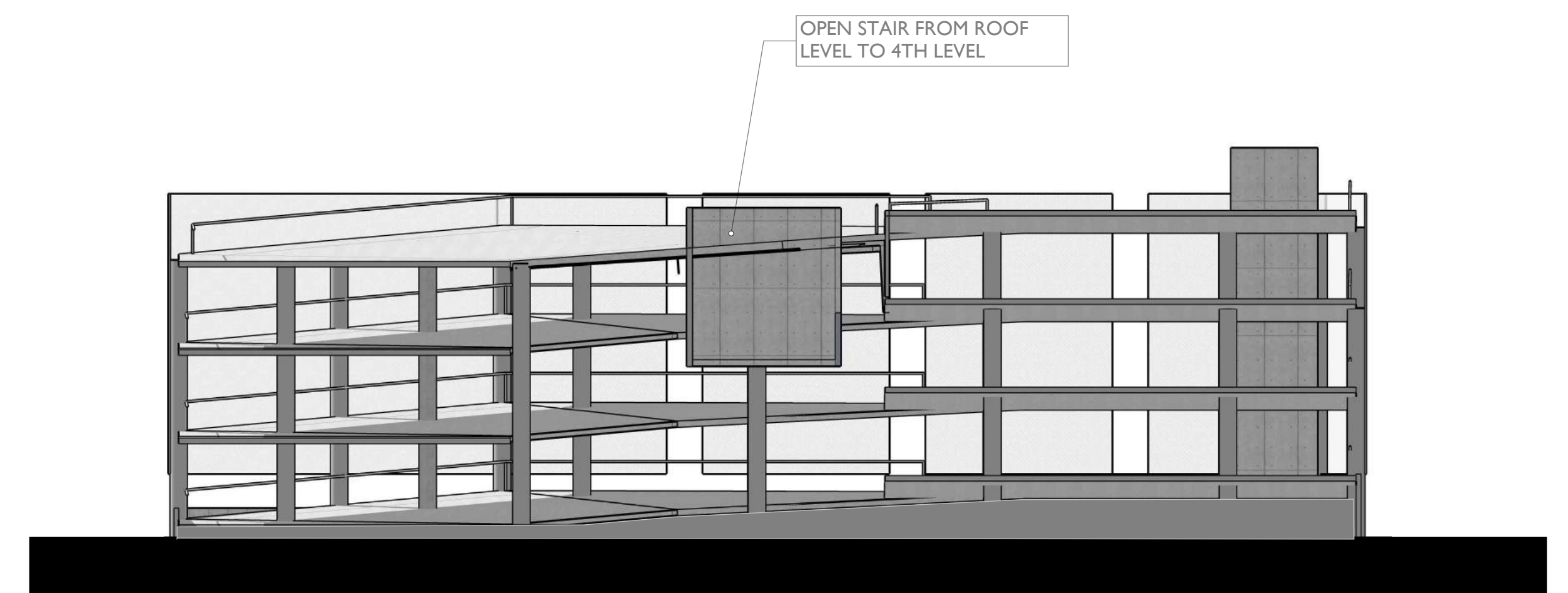


1075 O'BRIEN DRIVE
CROSS SECTION - LOOKING SOUTH





PARKING GARAGE
CROSS SECTION - LOOKING NORTH



PARKING GARAGE
CROSS SECTION - LOOKING WEST

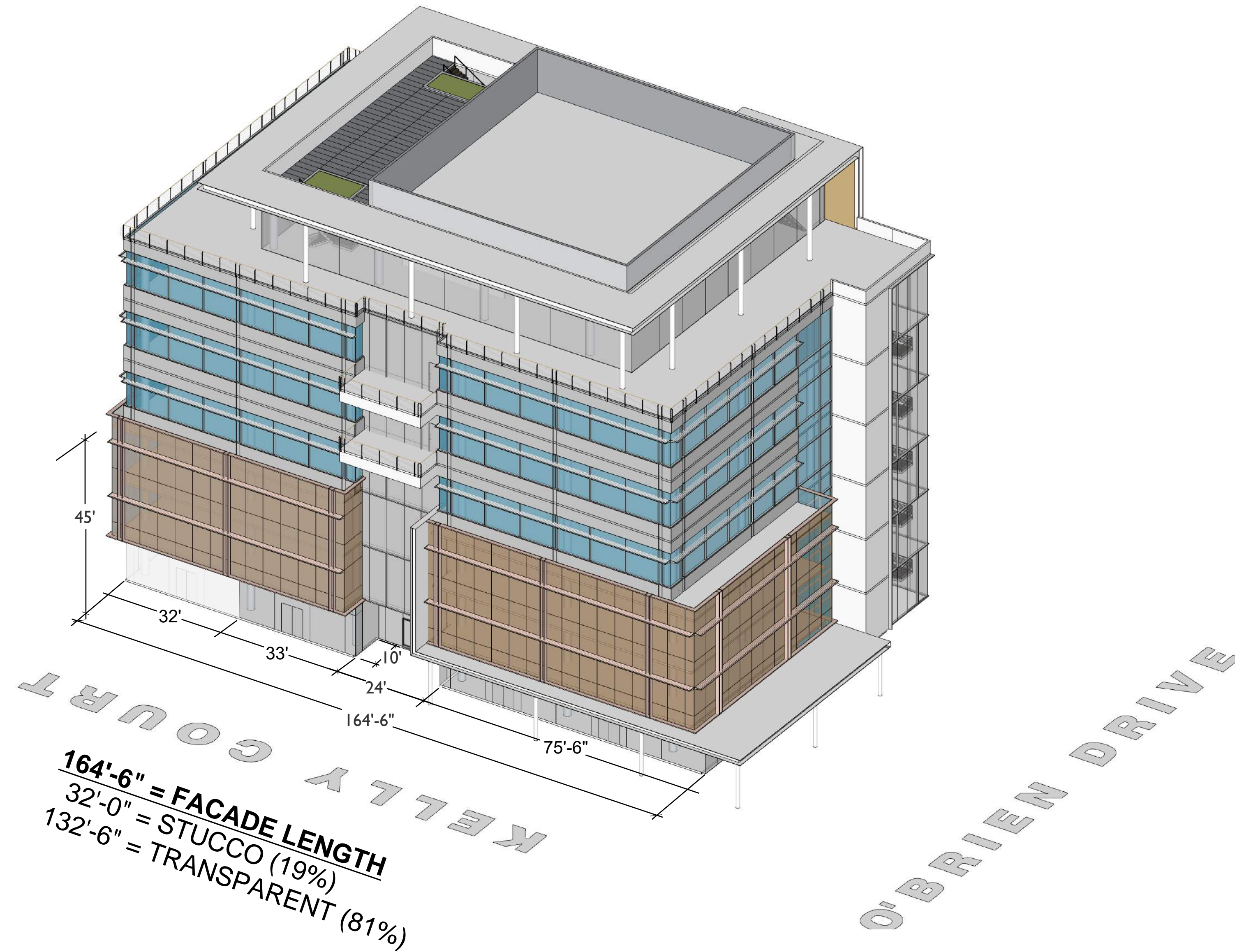


MENLO PARK MUNICIPAL CODE: SECTION 16.44.120 DESIGN STANDARDS - BUILDING MODULATION
 MINIMUM OF ONE RECESS OF 15 FEET WIDE BY 10 FEET DEEP PER 200 FEET OF FACADE LENGTH

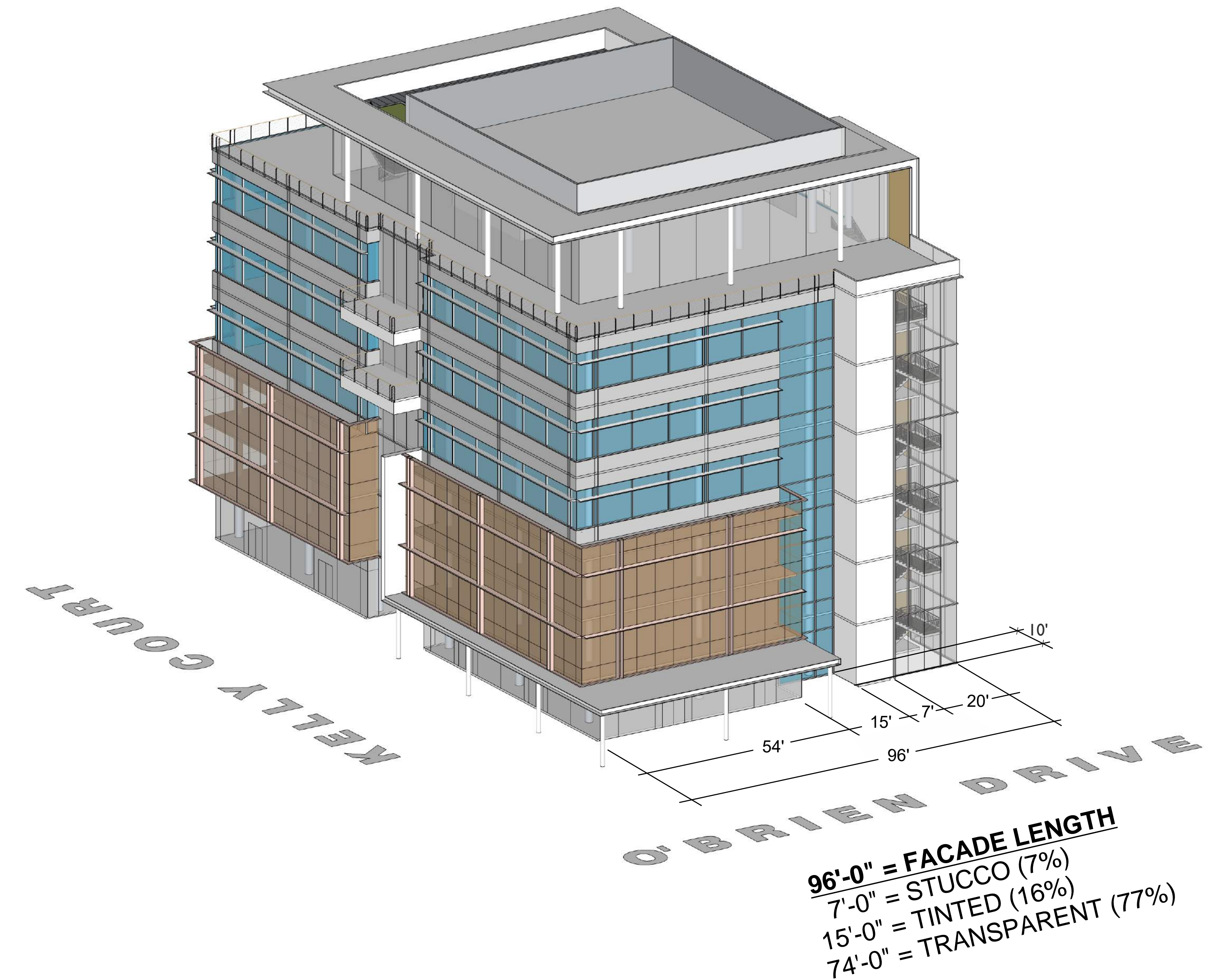
SECTION 16.44.120 DESIGN STANDARDS - GROUND FLOOR TRANSPARENCY
 BONUS LEVEL FRONTING A LOCAL STREET = 25%, 50% FOR COMMERCIAL USES

FACADES ALONG KELLY COURT AND O'BRIEN DRIVE COMPLY

FACADES ALONG KELLY COURT AND O'BRIEN DRIVE COMPLY



BUILDING MODULATION
 ALONG KELLY COURT

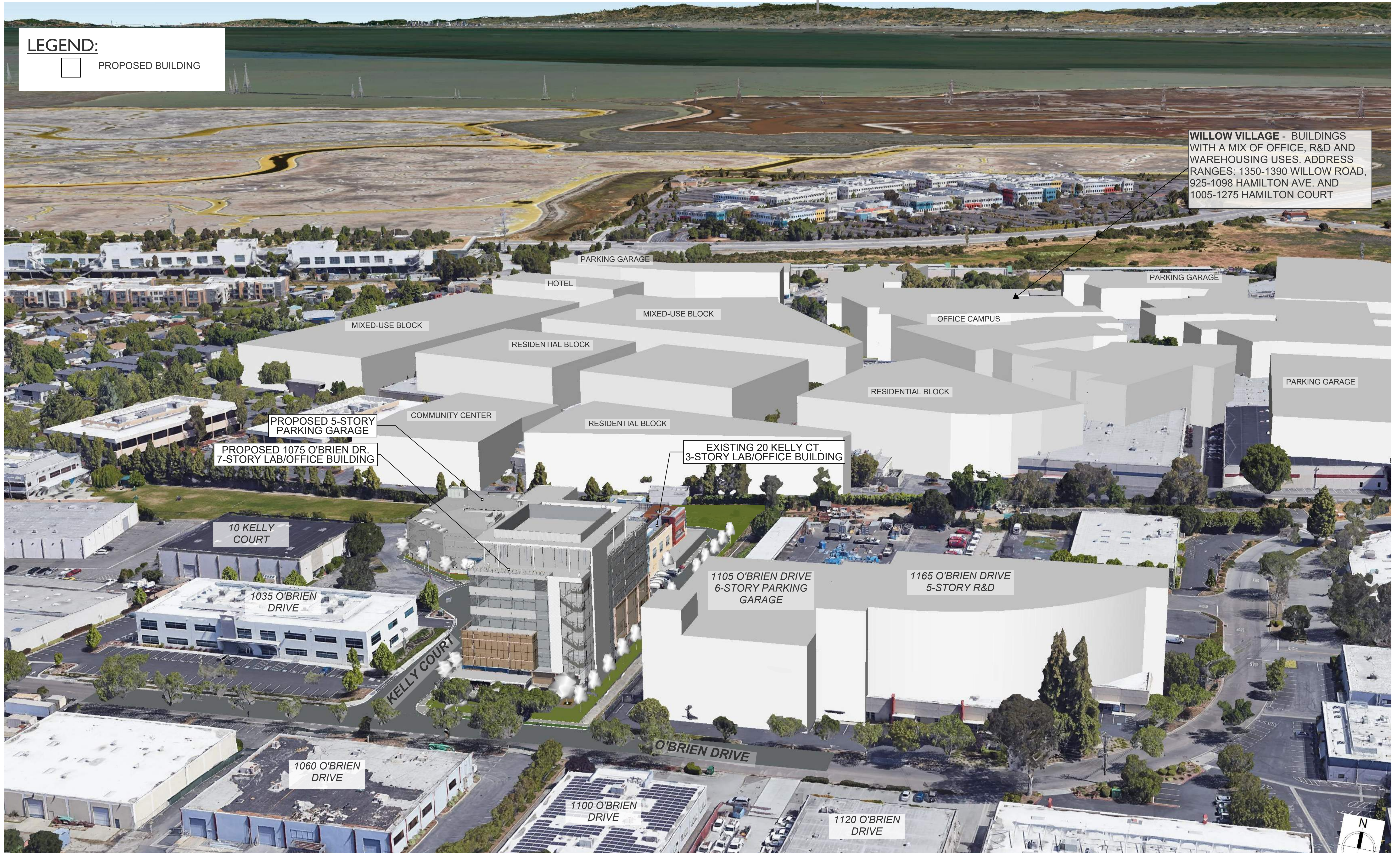


BUILDING MODULATION
 ALONG O'BRIEN DRIVE

LEGEND:

□ PROPOSED BUILDING

WILLOW VILLAGE - BUILDINGS WITH A MIX OF OFFICE, R&D AND WAREHOUSING USES. ADDRESS RANGES: 1350-1390 WILLOW ROAD, 925-1098 HAMILTON AVE. AND 1005-1275 HAMILTON COURT







I075 O'BRIEN DRIVE MASSING VIEW OF SOUTH



I075 O'BRIEN DRIVE, 20 KELLY COURT & GARAGE
MASSING VIEW OF SOUTHWEST



1075 O'BRIEN DRIVE & 20 KELLY COURT
MASSING VIEW VIEW OF EAST



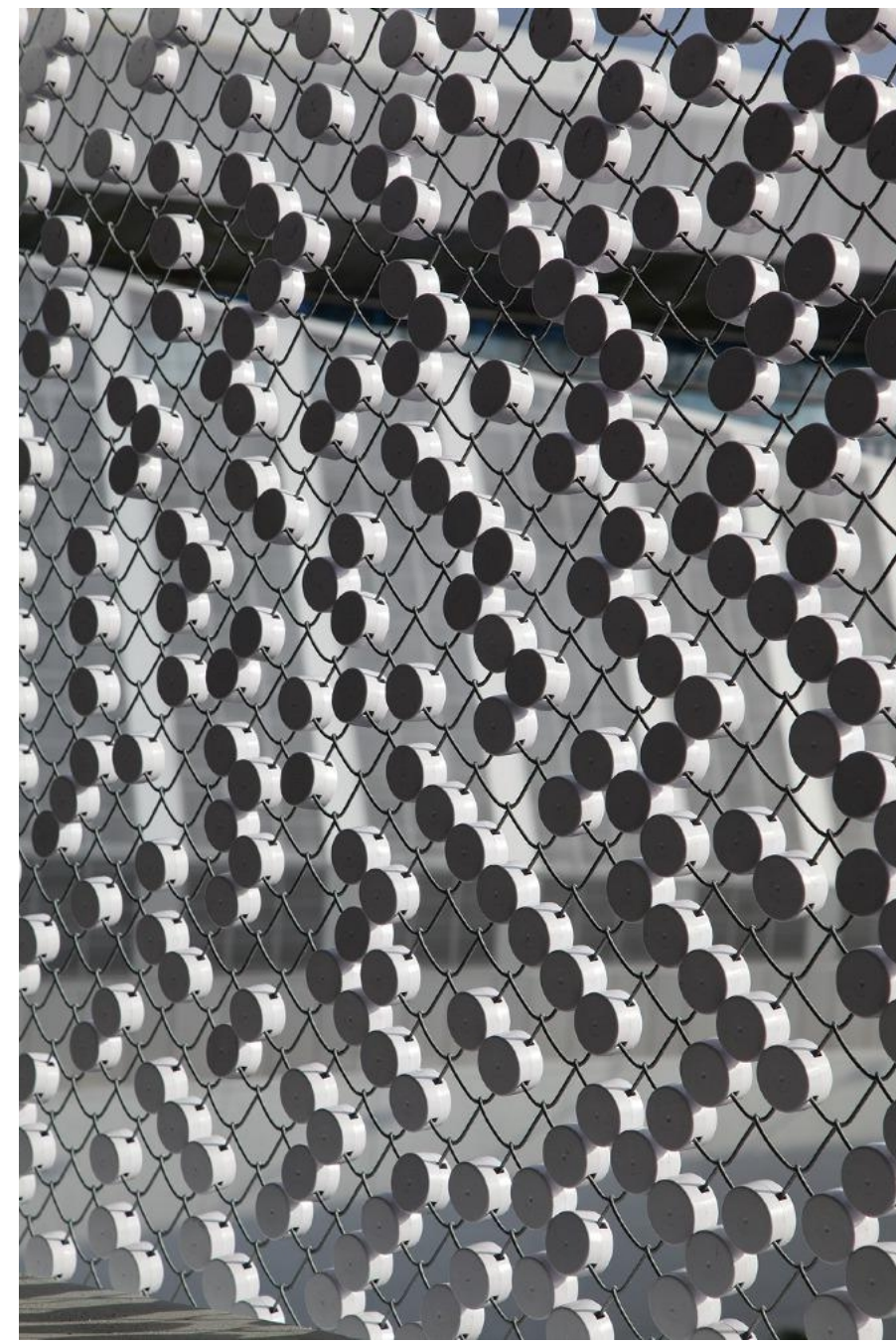


1075 O'BRIEN DRIVE MASSING VIEW OF WEST





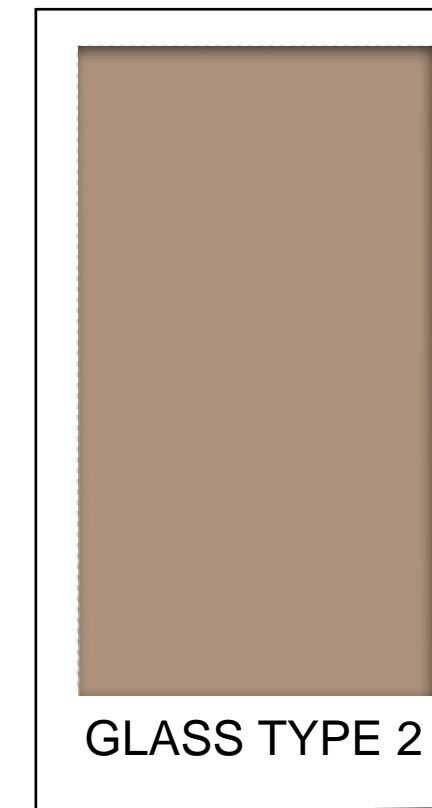
ARTWORK FOR REFERENCE ONLY



CHAIN-LINK FENCE WITH INJECTION-MOLDED VINYL CHIPS TO CREATE ARTWORK



GLASS TYPE 3



GLASS TYPE 2



GLASS TYPE 4
SPANDREL GLASS



GLASS TYPE 1



GLASS TYPE 5
NON-BIRD-FRIENDLY GLASS



PAINT
OVER SMOOTH CEMENT PLASTER



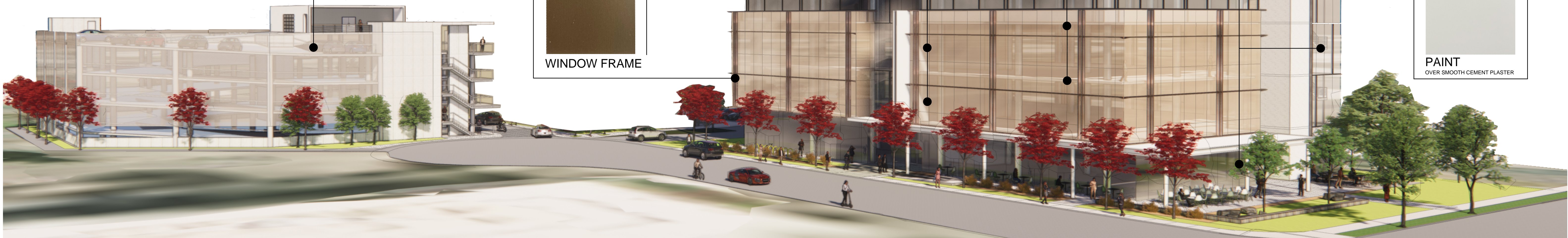
WINDOW FRAME



METAL PANEL
WOOD-LOOK



PAINT
OVER SMOOTH CEMENT PLASTER



KEY NOTES

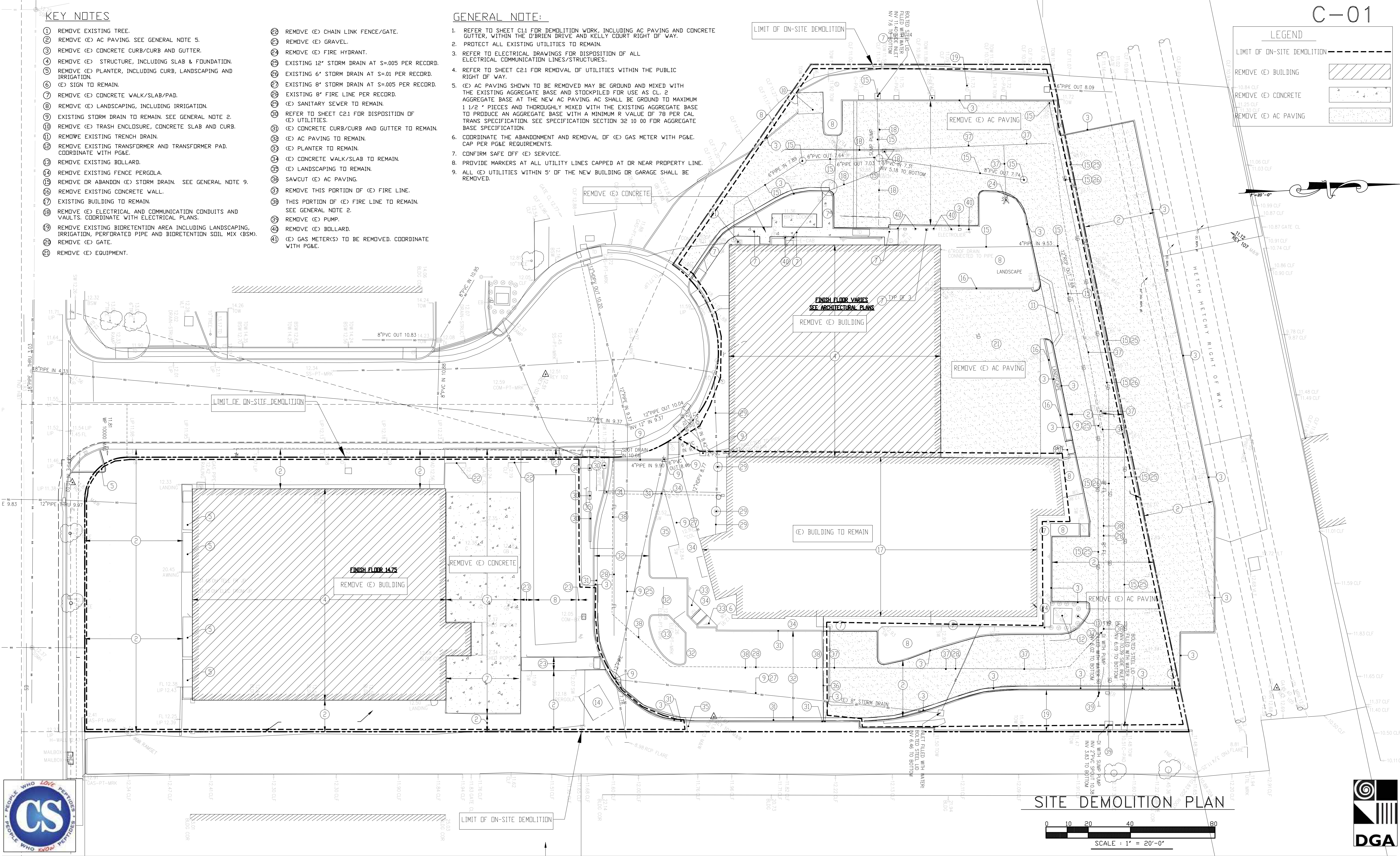
- 1 REMOVE EXISTING TREE.
- 2 REMOVE (E) AC PAVING. SEE GENERAL NOTE 5.
- 3 REMOVE (E) CONCRETE CURB/CURB AND GUTTER.
- 4 REMOVE (E) STRUCTURE, INCLUDING SLAB & FOUNDATION.
- 5 REMOVE (E) PLANTER, INCLUDING CURB, LANDSCAPING AND IRRIGATION.
- 6 (E) SIGN TO REMAIN.
- 7 REMOVE (E) CONCRETE WALK/SLAB/PAD.
- 8 REMOVE (E) LANDSCAPING, INCLUDING IRRIGATION.
- 9 EXISTING STORM DRAIN TO REMAIN. SEE GENERAL NOTE 2.
- 10 REMOVE (E) TRASH ENCLOSURE, CONCRETE SLAB AND CURB.
- 11 REMOVE EXISTING TRENCH DRAIN.
- 12 REMOVE EXISTING TRANSFORMER AND TRANSFORMER PAD. COORDINATE WITH PG&E.
- 13 REMOVE EXISTING BOLLARD.
- 14 REMOVE EXISTING FENCE PERGOLA.
- 15 REMOVE OR ABANDON (E) STORM DRAIN. SEE GENERAL NOTE 9.
- 16 REMOVE EXISTING CONCRETE WALL.
- 17 EXISTING BUILDING TO REMAIN.
- 18 REMOVE (E) ELECTRICAL AND COMMUNICATION CONDUITS AND VAULTS. COORDINATE WITH ELECTRICAL PLANS.
- 19 REMOVE EXISTING BIoretention AREA INCLUDING LANDSCAPING, IRRIGATION, PERFORATED PIPE AND BIoretention SOIL MIX (BSM).
- 20 REMOVE (E) GATE.
- 21 REMOVE (E) EQUIPMENT.
- 22 REMOVE (E) CHAIN LINK FENCE/GATE.
- 23 REMOVE (E) GRAVEL.
- 24 REMOVE (E) FIRE HYDRANT.
- 25 EXISTING 12" STORM DRAIN AT S=.005 PER RECORD.
- 26 EXISTING 6" STORM DRAIN AT S=.01 PER RECORD.
- 27 EXISTING 8" STORM DRAIN AT S=.005 PER RECORD.
- 28 EXISTING 8" FIRE LINE PER RECORD.
- 29 (E) SANITARY SEWER TO REMAIN.
- 30 REFER TO SHEET C2.1 FOR DISPOSITION OF (E) UTILITIES.
- 31 (E) CONCRETE CURB/CURB AND GUTTER TO REMAIN.
- 32 (E) AC PAVING TO REMAIN.
- 33 (E) PLANTER TO REMAIN.
- 34 (E) CONCRETE WALK/SLAB TO REMAIN.
- 35 (E) LANDSCAPING TO REMAIN.
- 36 SAWCUT (E) AC PAVING.
- 37 REMOVE THIS PORTION OF (E) FIRE LINE.
- 38 THIS PORTION OF (E) FIRE LINE TO REMAIN. SEE GENERAL NOTE 2.
- 39 REMOVE (E) PUMP.
- 40 REMOVE (E) BOLLARD.
- 41 (E) GAS METER(S) TO BE REMOVED. COORDINATE WITH PG&E.

GENERAL NOTE:

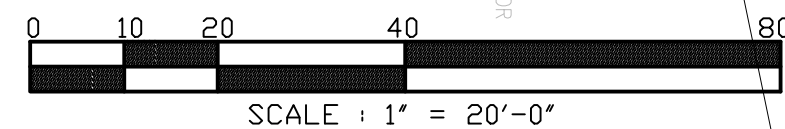
- 1. REFER TO SHEET C2.1 FOR DEMOLITION WORK, INCLUDING AC PAVING AND CONCRETE GUTTER, WITHIN THE O'BRIEN DRIVE AND KELLY COURT RIGHT OF WAY.
- 2. PROTECT ALL EXISTING UTILITIES TO REMAIN.
- 3. REFER TO ELECTRICAL DRAWINGS FOR DISPOSITION OF ALL ELECTRICAL COMMUNICATION LINES/STRUCTURES.
- 4. REFER TO SHEET C2.1 FOR REMOVAL OF UTILITIES WITHIN THE PUBLIC RIGHT OF WAY.
- 5. (E) AC PAVING SHOWN TO BE REMOVED MAY BE GROUND AND MIXED WITH THE EXISTING AGGREGATE BASE AND STOCKPILED FOR USE AS CL. 2 AGGREGATE BASE AT THE NEW AC PAVING. AC SHALL BE GROUND TO MAXIMUM 1 1/2" PIECES AND THOROUGHLY MIXED WITH THE EXISTING AGGREGATE BASE TO PRODUCE AN AGGREGATE BASE WITH A MINIMUM R VALUE OF 78 PER CAL TRANS SPECIFICATION. SEE SPECIFICATION SECTION 32 10 00 FOR AGGREGATE BASE SPECIFICATION.
- 6. COORDINATE THE ABANDONMENT AND REMOVAL OF (E) GAS METER WITH PG&E. CAP PER PG&E REQUIREMENTS.
- 7. CONFIRM SAFE OFF (E) SERVICE.
- 8. PROVIDE MARKERS AT ALL UTILITY LINES CAPPED AT OR NEAR PROPERTY LINE.
- 9. ALL (E) UTILITIES WITHIN 5' OF THE NEW BUILDING OR GARAGE SHALL BE REMOVED.

LEGEND

LIMIT OF ON-SITE DEMOLITION	---
REMOVE (E) BUILDING	[Hatched Box]
REMOVE (E) CONCRETE	[Dotted Box]
REMOVE (E) AC PAVING	[Stippled Box]



SITE DEMOLITION PLAN



KEY NOTES

- 1 CONCRETE SLAB-SEE STRUCTURAL FOR THICKNESS AND REINFORCING, OVER 2" SAND, 10 MIL MEMBRANE OVER 4" DRAIN ROCK.
- 2 PROVIDE NEW CONCRETE CURB & GUTTER. SEE 6/C3.1.
- 3 PROVIDE NEW WALK WITH MAXIMUM 2% CROSS-SLOPE AND SLOPE AND SLOPE IN THE DIRECTION OF TRAVEL LESS THAN 1:20. SEE LANDSCAPE AND ARCHITECTURAL PLAN FOR WALK MATERIAL.
- 4 PROVIDE WALK/LANDING WITH MAXIMUM 2% SLOPE IN ANY DIRECTION. SEE LANDSCAPE PLAN FOR WALK MATERIAL.
- 5 END VERTICAL CURB. BEGIN FLUSH CURB.
- 6 PROVIDE FLUSH CURB.
- 7 PROVIDE NEW PAVING WITH MAXIMUM SLOPE IN ALL DIRECTIONS OF 2% AT ALL ACCESSIBLE PARKING SPACES AND ACCESS AISLES. VERIFY LOCATION WITH ARCHITECTURAL DRAWINGS.
- 8 PROVIDE CONCRETE CURB RAMP WITH MAXIMUM 1/2 SLOPE. SEE ARCH. DWG. FOR DETAILS.
- 9 PROVIDE 6" CONCRETE SLAB W/ #3 @ 18" OCEV OVER 6" CL. 2 AGG. BASE.
- 10 PROVIDE 18" WIDE CURB CUT AT CURB OR CURB AND GUTTER. PROVIDE MINIMUM 2" DROP FROM FL OF GUTTER TO LANDSCAPE GRADE.
- 11 NEW BUBBLER. PROVIDE 18" ROUND CATCH BASIN OR AREA DRAIN WITH GRATE ELEVATION 7" ABOVE FLOW LINE OF BI-DRETENTION BASIN.
- 12 END VERTICAL CURB WITH 45° BEVEL.
- 13 PROVIDE CONCRETE GUTTER. SEE 15/C3.1.
- 14 NEW OVERFLOW DRAIN. PROVIDE 18" ROUND CATCH BASIN WITH GRATE ELEVATION 6" ABOVE FLOW LINE OF BI-DRETENTION AREA/FLOW THRU PLANTER.
- 15 MATCH (E) CONCRETE WALK GRADE.
- 16 PROVIDE 3" WIDE CONCRETE GUTTER.
- 17 NEW CONCRETE CURB. SEE 1/C3.1.
- 18 NEW CONCRETE CURB. SEE 2/C3.1.
- 19 PROVIDE NEW ACCESSIBLE PATH WITH MAX. 2% CROSS-SLOPE AND SLOPE IN THE DIRECTION OF TRAVEL LESS THAN 1:20.

- 20 PROVIDE DEEP CURB AT BI-DRETENTION BASIN.
- 21 PROVIDE CURB, GUTTER AND RETAINING WALL.
- 22 NOT USED.
- 23 PROVIDE FLUSH CURB AND GUTTER WITH 1/2" LIP.
- 24 MATCH (E) TC, FL AND LIP GRADES.
- 25 MATCH (E) TC AND PAVING GRADE. V.I.F.
- 26 PROVIDE 2 1/2" AC OVER 9" CL.2 AGGREGATE BASE.
- 27 PROVIDE 3" AC OVER 10" CL.2 AGGREGATE BASE.
- 28 PROVIDE FLOOR DRAIN WITH TRAP AND VENT.
- 29 PROVIDE SIDEWALK UNDERDRAIN. SEE 5/C3.1.
- 30 MATCH (E) AC PAVING GRADE. V.I.F.
- 31 PROVIDE RETAINING WALLS. SEE STRUCTURAL DRAWINGS.
- 32 DAYLIGHT RWL AT CONCRETE GUTTER OR FLOW THRU PLANTER.
- 33 (E) WALL TO REMAIN.

KEY FOR WORK ON PUBLIC R/W

- 40 SAWCUT (E) AC PAVING 2" FROM LIP OF CONCRETE GUTTER AND REMOVE.
- 41 PROVIDE AC PATCH. PROVIDE 6" DEEP LIFT ASPHALT OVER (E) AGGREGATE BASE.
- 42 PROVIDE CURB, GUTTER AND SIDEWALK PER CITY STANDARDS.
- 43 (E) CURB, GUTTER AND WALK TO REMAIN.
- 44 (E) DRIVEWAY TO REMAIN.
- 45 SAWCUT AND REMOVE (E) CONCRETE DRIVEWAY AND PROVIDE CURB, GUTTER AND SIDEWALK PER CITY STANDARDS.

KEY FOR WORK ON PUBLIC R/W (CONT.)

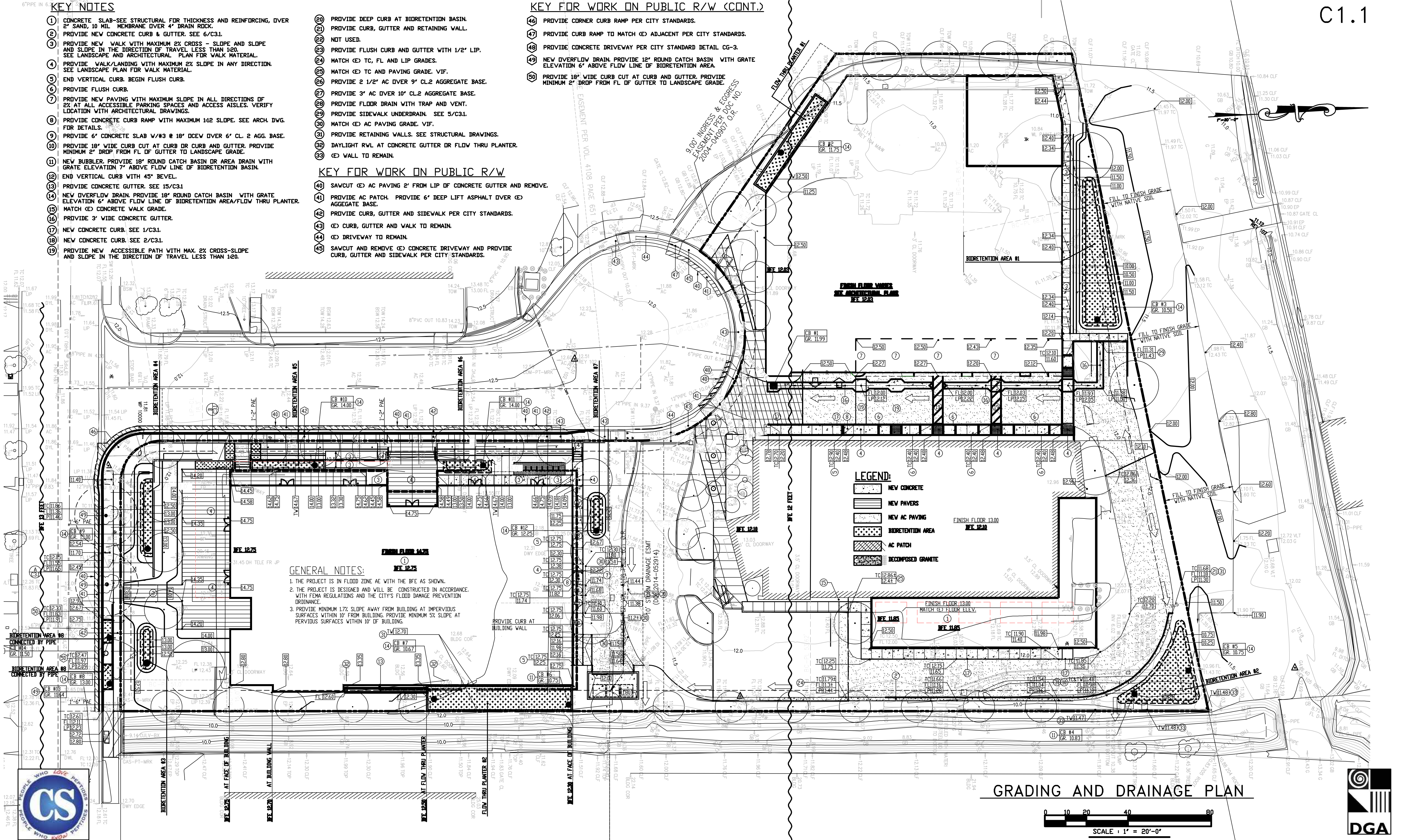
- 46 PROVIDE CORNER CURB RAMP PER CITY STANDARDS.
- 47 PROVIDE CURB RAMP TO MATCH (E) ADJACENT PER CITY STANDARDS.
- 48 PROVIDE CONCRETE DRIVEWAY PER CITY STANDARD DETAIL CG-3.
- 49 NEW OVERFLOW DRAIN. PROVIDE 18" ROUND CATCH BASIN WITH GRATE ELEVATION 6" ABOVE FLOW LINE OF BI-DRETENTION AREA.
- 50 PROVIDE 18" WIDE CURB CUT AT CURB AND GUTTER. PROVIDE MINIMUM 2" DROP FROM FL OF GUTTER TO LANDSCAPE GRADE.

GENERAL NOTES:

- 1. THE PROJECT IS IN FLOOD ZONE AE WITH THE BFE AS SHOWN.
- 2. THE PROJECT IS DESIGNED AND WILL BE CONSTRUCTED IN ACCORDANCE WITH FEMA REGULATIONS AND THE CITY'S FLOOD DAMAGE PREVENTION ORDINANCE.
- 3. PROVIDE MINIMUM 1.7% SLOPE AWAY FROM BUILDING AT IMPERVIOUS SURFACES WITHIN 10' FROM BUILDING. PROVIDE MINIMUM 5% SLOPE AT PERVIOUS SURFACES WITHIN 10' OF BUILDING.

LEGEND:

- NEW CONCRETE
- NEW PAVERS
- NEW AC PAVING
- BI-DRETENTION AREA
- AC PATCH
- REINFORCED GRANITE



GRADING AND DRAINAGE PLAN

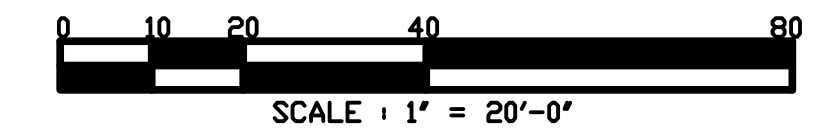


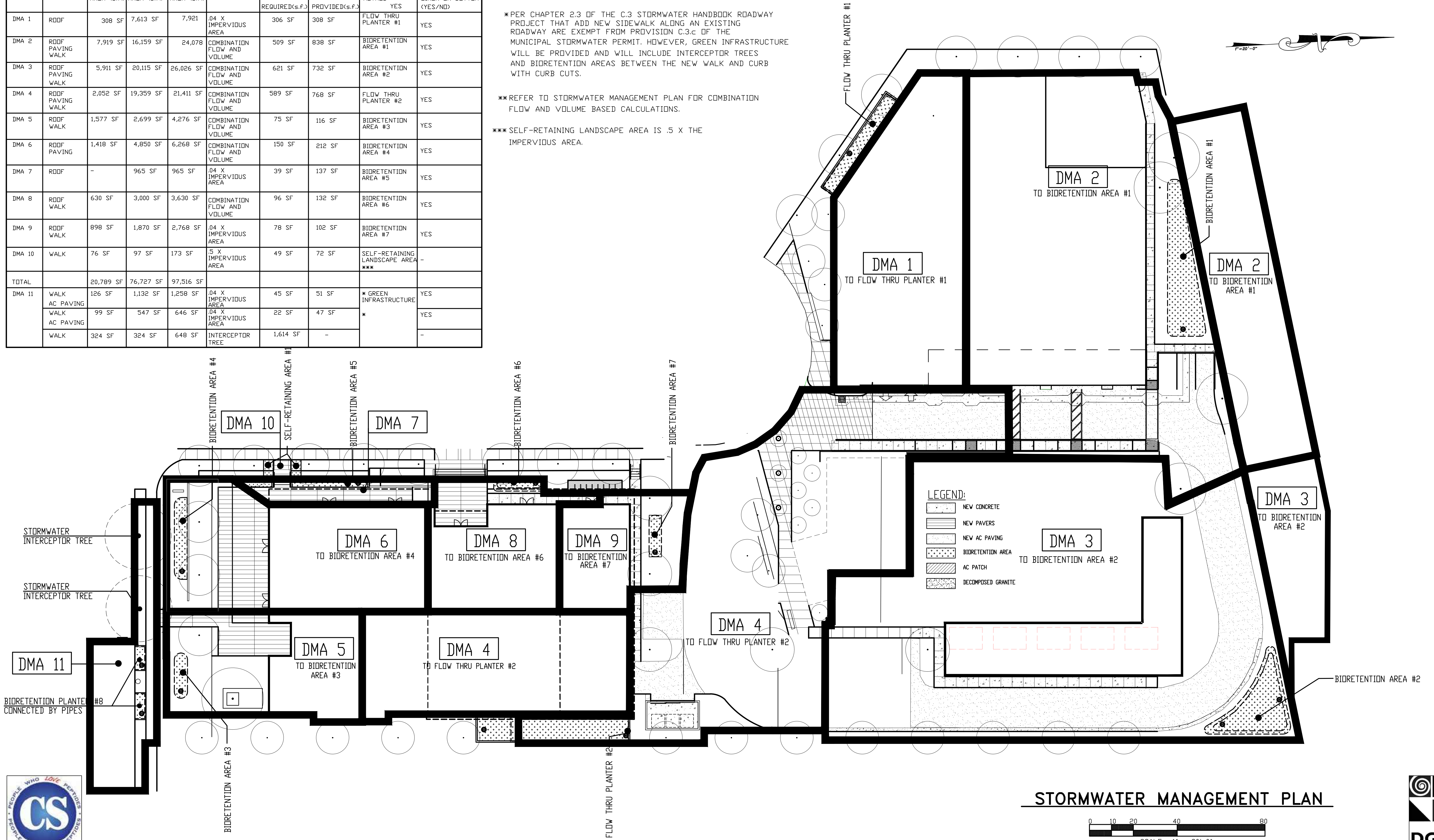
TABLE 1-TREATMENT CONTROL MEASURE (TCM) SUMMARY TABLE AREA*

AREA ID	SURFACE	PERVIOUS AREA (s.f.)	IMPERVIOUS AREA (s.f.)	TOTAL AREA (s.f.)	SIZING ** FACTOR	BIORETENTION AREA REQUIRED(s.f.)	BIORETENTION AREA PROVIDED(s.f.)	TREATMENT METHOD YES	IMPERMEABLE LINER ON BOTTOM (YES/NO)
DMA 1	ROOF	308 SF	7,613 SF	7,921	.04 X IMPERVIOUS AREA	306 SF	308 SF	FLOW THRU PLANTER #1	YES
DMA 2	ROOF PAVING WALK	7,919 SF	16,159 SF	24,078	COMBINATION FLOW AND VOLUME	509 SF	838 SF	BIORETENTION AREA #1	YES
DMA 3	ROOF PAVING WALK	5,911 SF	20,115 SF	26,026 SF	COMBINATION FLOW AND VOLUME	621 SF	732 SF	BIORETENTION AREA #2	YES
DMA 4	ROOF PAVING WALK	2,052 SF	19,359 SF	21,411 SF	COMBINATION FLOW AND VOLUME	589 SF	768 SF	FLOW THRU PLANTER #2	YES
DMA 5	ROOF WALK	1,577 SF	2,699 SF	4,276 SF	COMBINATION FLOW AND VOLUME	75 SF	116 SF	BIORETENTION AREA #3	YES
DMA 6	ROOF PAVING	1,418 SF	4,850 SF	6,268 SF	COMBINATION FLOW AND VOLUME	150 SF	212 SF	BIORETENTION AREA #4	YES
DMA 7	ROOF	-	965 SF	965 SF	.04 X IMPERVIOUS AREA	39 SF	137 SF	BIORETENTION AREA #5	YES
DMA 8	ROOF WALK	630 SF	3,000 SF	3,630 SF	COMBINATION FLOW AND VOLUME	96 SF	132 SF	BIORETENTION AREA #6	YES
DMA 9	ROOF WALK	898 SF	1,870 SF	2,768 SF	.04 X IMPERVIOUS AREA	78 SF	102 SF	BIORETENTION AREA #7	YES
DMA 10	WALK	76 SF	97 SF	173 SF	.5 X IMPERVIOUS AREA	49 SF	72 SF	SELF-RETAINING LANDSCAPE AREA ***	-
TOTAL		20,789 SF	76,727 SF	97,516 SF					
DMA 11	WALK	126 SF	1,132 SF	1,258 SF	.04 X IMPERVIOUS AREA	45 SF	51 SF	* GREEN INFRASTRUCTURE	YES
	AC PAVING	99 SF	547 SF	646 SF	.04 X IMPERVIOUS AREA	22 SF	47 SF	*	YES
	WALK	324 SF	324 SF	648 SF	INTERCEPTOR TREE	1,614 SF	-		-

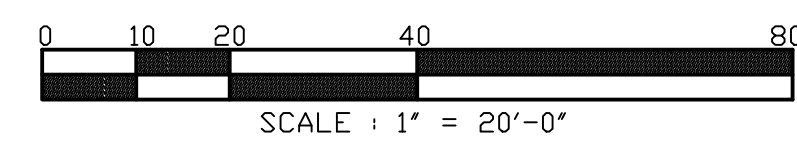
*PER CHAPTER 2.3 OF THE C.3 STORMWATER HANDBOOK ROADWAY PROJECT THAT ADD NEW SIDEWALK ALONG AN EXISTING ROADWAY ARE EXEMPT FROM PROVISION C.3.c OF THE MUNICIPAL STORMWATER PERMIT. HOWEVER, GREEN INFRASTRUCTURE WILL BE PROVIDED AND WILL INCLUDE INTERCEPTOR TREES AND BIORETENTION AREAS BETWEEN THE NEW WALK AND CURB WITH CURB CUTS.

**REFER TO STORMWATER MANAGEMENT PLAN FOR COMBINATION FLOW AND VOLUME BASED CALCULATIONS.

*** SELF-RETAINING LANDSCAPE AREA IS .5 X THE IMPERVIOUS AREA.



STORMWATER MANAGEMENT PLAN



SUMMARY OF MAINTENANCE REQUIREMENTS

ENTITY RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER CONTROL MEASURES:

JASON CHANG
CCS MANAGEMENT, LLC
20 KELLY COURT, MENLO PARK, CA. 94025
CELL:
E-MAIL: jchang@csbio.com

BIORETENTION AREAS AND FLOW THRU PLANTERS REMOVE POLLUTANTS PRIMARILY BY FILTERING RUNOFF SLOWLY THROUGH AN ACTIVE LAYER OF SOIL. ROUTINE MAINTENANCE IS NEEDED TO INSURE THAT FLOW IS UNOBSTRUCTED, THAT EROSION IS PREVENTED, AND THAT SOILS ARE HELD TOGETHER BY PLANT ROOTS AND ARE BIOLOGICALLY ACTIVE. TYPICAL ROUTINE MAINTENANCE CONSISTS OF THE FOLLOWING:

- INSPECT INLETS, EXPOSURE OF SOILS, OR OTHER EVIDENCE OF EROSION. CLEAR ANY OBSTRUCTIONS AND REMOVE ANY ACCUMULATION OF SEDIMENT. EXAMINE ROCK OR OTHER MATERIAL USED AS A SPLASH PAD AND REPLENISH IF NECESSARY.
- INSPECT OUTLETS FOR EROSION OR UNPLUGGING.
- INSPECT SIDE SLOPES FOR EVIDENCE OF INSTABILITY OR EROSION AND CORRECT AS NECESSARY.
- OBSERVE SOIL IN THE BASINS FOR UNIFORM PERCOLATION THROUGHOUT. IF PORTIONS OF THE SWALE OR FILTER DO NOT DRAIN WITHIN 48 HOURS AFTER THE END OF A STORM, THE SOIL SHOULD BE TILLED AND REPLANTED. REMOVE ANY DERBIS OR ACCUMULATIONS OF SEDIMENT.
- EXAMINE THE VEGETATION TO INSURE THAT IT IS HEALTHY AND DENSE ENOUGH TO PROVIDE FILTERING AND TO PROTECT SOILS FROM EROSION. REPLENISH MUCH AS NECESSARY. REMOVE FALLEN LEAVES AND DEBRIS, PRUNE LARGE SHRUBS OR TREES, AND MOW TURF AREAS. CONFIRM THAT IRRIGATION IS ADEQUATE AND NOT EXCESSIVE. REPLACE DEAD PLANTS AND REMOVE INVASIVE VEGETATION.
- ABATE ANY POTENTIAL VECTORS BY FILLING HOLES IN THE GROUND IN AND AROUND THE SWALE AND BY INSURING THAT THERE ARE NOT AREAS WHERE WATER STANDS LONGER THAN 48 HOURS FOLLOWING A STORM. IF MOSQUITO LARVAE ARE PRESENT AND PERSISTENT, CONTACT THE SANTA CLARA COUNTY VECTOR CONTROL DISTRICT FOR INFORMATION AND ADVICE. MOSQUITO LARVICIDES SHOULD BE APPLIED ONLY WHEN ABSOLUTELY NECESSARY AND THEN ONLY BY A LICENSED INDIVIDUAL OR CONTRACTOR.
- WHERE BUBBLERS ARE USED CLEAN THE STORM DRAIN PRIOR TO THE RAINY SEASON AND AFTER THE RAINY SEASON.

2. PROJECT DATA:

PERVIOUS AND IMPERVIOUS SURFACES COMPARISON TABLE			
A. PROJECT PHASE NUMBER (N/A, 1, 2, 3, ETC.):	N/A	B. TOTAL SITE (ACRES):	2.27
C. TOTAL SITE EXISTING IMPERVIOUS SURFACES (SQUARE FEET):	83,996	D. TOTAL AREA OF SITE DISTURBED (ACRES):	1.81

E. IMPERVIOUS SURFACES	EXISTING CONDITION OF SITE AREA DISTURBED (SQUARE FEET):	PROPOSED CONDITION OF SITE AREA DISTURBED (SQUARE FEET)	
		REPLACED	NEW
ROOF AREA(S)	33,911	33,906	4,756
PARKING	7,998	422	443
SIDEWALKS, PATIOS, DRIVEWAYS, ETC.	42,087	13,915	2,332
-	-	-	-
-	-	-	-
TOTAL IMPERVIOUS SURFACES:	E.1: 83,996	E.2: 48,243	E.3: 7,531

F. PERVIOUS SURFACES			
LANDSCAPED AREAS	14,700	6,122	15,437
PERVIOUS PAVING	-	-	1,154
OTHER PERVIOUS SURFACES (GREEN ROOF, ETC)	-	-	-
TOTAL PERVIOUS SURFACES:	F.1: 14,700	F.2: 6,122	F.3: 16,591

G. TOTAL PROPOSED REPLACED + NEW IMPERVIOUS SURFACES (E.2+E.3):	55,774
H. TOTAL PROPOSED REPLACED + NEW PERVIOUS SURFACES (F.2+F.3):	22,713

I. PERCENT OF REPLACEMENT OF IMPERVIOUS AREA IN REDEVELOPMENT PROJECTS (E.2÷C X 100):	57.4%
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STORMWATER CONTROL MEASURES USED

<u>SITE DESIGN</u>	<u>STORMWATER TREATMENT</u>	<u>SOURCE CONTROLS</u>
ROOF DRAINS DIRECTED TO BIORETENTION AREAS	1. BIORETENSION AREAS 2. FLOW THRU PLANTERS	1. BENEFICIAL LANDSCAPING (MINIMIZES IRRIGATION, RUNOFF, PESTICIDES & FERTILLIZERS); PROMOTES TREATMENT) 2. MAINTENANCE (STREET SWEEPING, CATCH BASIN CLEANING) 3. STORM DRAIN SIGNAGE

FLOOD ZONE:

THIS SITE IS IN FLOOD ZONE "AE".

PAVING MATERIALS:

ASPHALT AND CONCRETE

ENGINEERS CERTIFICATION

THE SELECTION, SIZING, AND PRELIMINARY DESIGN TREATMENT BMP'S AND OTHER CONTROL MEASURES IN THIS PLAN MEET THE REQUIREMENTS OF REGIONAL WATER QUALITY CONTROL BOARD ORDER

RECEIVING BODY OF WATER:

RAVENSWOOD SLOUGH TO SAN FRANCISCO BAY.

BIOTREATMENT SOIL REQUIREMENTS

PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.

CERTIFYING ENGINEER
STEVAN NAKASHIMA
1420 HOLLY AVE.
LOS ALTOS, CA. 94024



COMBINATION FLOW AND VOLUME DESIGN
BASIS CALCULATIONS

PALO ALTO
FIGURE 1, APPENDIX C
CRITERIA REGION 4
PALO ALTO MAP = 14.6'
100 IMPERVIOUS = .64
SITE MAP = 16.5
MAP ADJUSTMENT CORRECTION FACTOR = 16.5/14.6 = 1.13
TABLE 5.3 UNIT BASIN STORAGE VOLUME FOR PALO ALTO = .64
ADJUSTED UNIT BASIN STORAGE VOLUME X MAP ADJUSTMENT FACTOR
1.13 X .64 = .723 INCHES
DURATION RAIN EVENT .723/0.2 = 3.615 HOURS

BIDRETENTION #1
PERVIOUS AREA 7,919 SF
IMPERVIOUS AREA 16,159 SF
TOTAL AREA 24,078 SF
EFFECTIVE IMPERVIOUS AREA = (16,159)(1)+(7,919)(.1) = 16,951 SF
ASSUME BASIN SIZE = 16,951 X .04 = 678 SF
VOLUME OF TREATED RUNOFF = 678 X 5/12 X 3.615 = 1,021 CF
ASSUME BASIN SIZE 16,951 X .04 X .75 = 509 SF
VOLUME OF TREATED RUNOFF = 509 X 5/12 X 3.615 = 767 CF
DIFFERENCE IN VOLUME 1,021 - 767 = 254 CF
PONDING DEPTH 254/509 = .499 FT = 6'
MINIMUM BASIN SIZE 509 SF

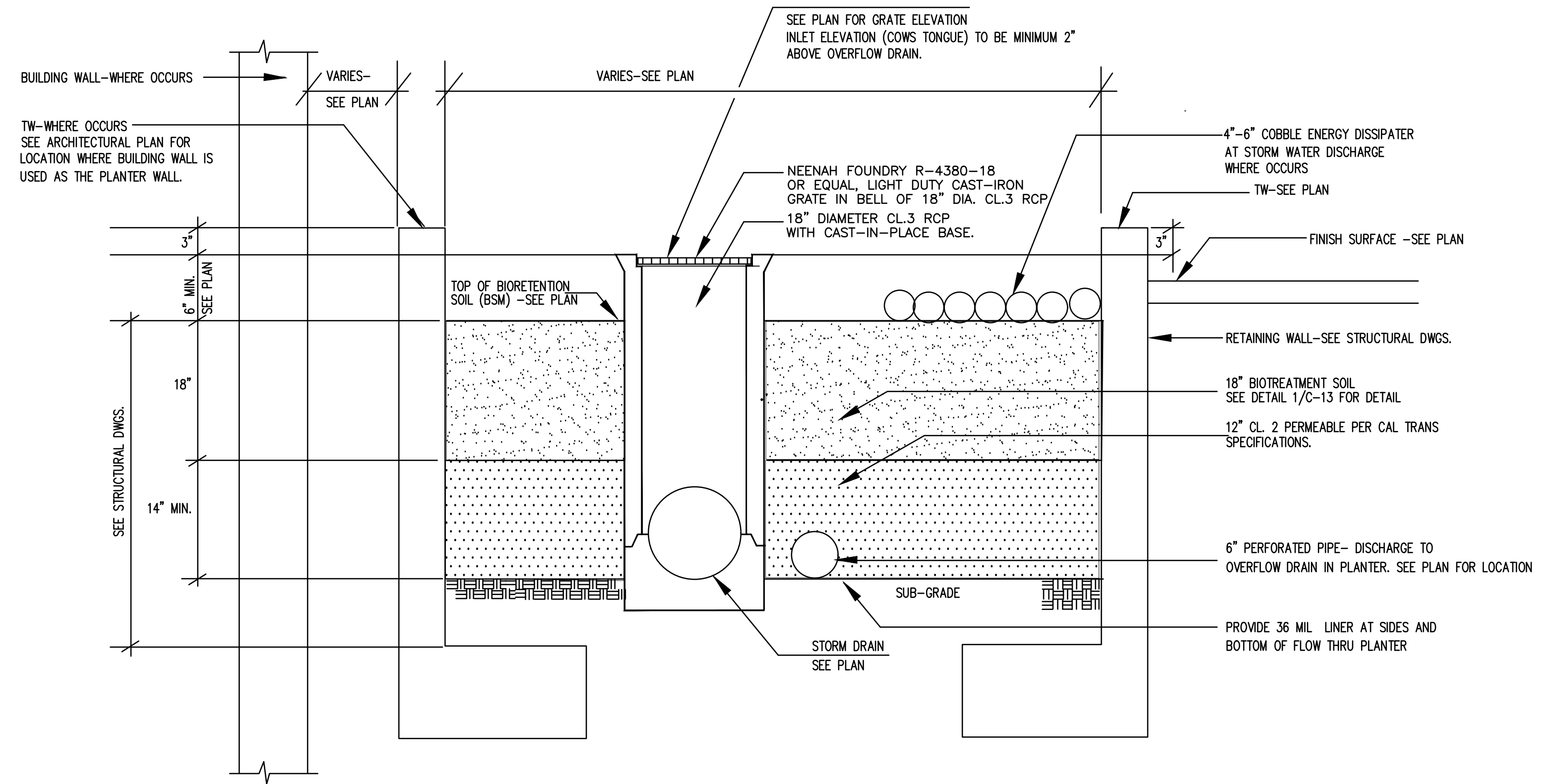
BIDRETENTION #2
PERVIOUS AREA 5,911 SF
IMPERVIOUS AREA 20,115 SF
TOTAL AREA 26,026 SF
EFFECTIVE IMPERVIOUS AREA = (20,115)(1)+(5,911)(.1) = 20,706 SF
ASSUME BASIN SIZE = 20,706 X .04 = 828 SF
VOLUME OF TREATED RUNOFF = 828 X 5/12 X 3.615 = 1,247 CF
ASSUME BASIN SIZE 20,706 X .04 X .75 = 621 SF
VOLUME OF TREATED RUNOFF = 621 X 5/12 X 3.615 = 935 CF
DIFFERENCE IN VOLUME 1,247 - 935 = 312 CF
PONDING DEPTH 312/621 = .502 FT = 6'
MINIMUM BASIN SIZE 621 SF

FLOW THRU PLANTER #2
PERVIOUS AREA 2,052 SF
IMPERVIOUS AREA 19,359 SF
TOTAL AREA 21,411 SF
EFFECTIVE IMPERVIOUS AREA = (19,359)(1)+(2,052)(.1) = 19,564 SF
ASSUME BASIN SIZE = 19,564 X .04 = 783 SF
VOLUME OF TREATED RUNOFF = 783 X 5/12 X 3.615 = 1,179 CF
ASSUME BASIN SIZE 19,564 X .04 X .75 = 589 SF
VOLUME OF TREATED RUNOFF = 589 X 5/12 X 3.615 = 884 CF
DIFFERENCE IN VOLUME 1,179 - 884 = 295 CF
PONDING DEPTH 295/587 = .502 FT = 6'
MINIMUM BASIN SIZE 589 SF

BIDRETENTION #3
PERVIOUS AREA 1,577 SF
IMPERVIOUS AREA 2,699 SF
TOTAL AREA 4,276 SF
EFFECTIVE IMPERVIOUS AREA = (2,699)(1)+(1,577)(.1) = 2,857 SF
ASSUME BASIN SIZE = 2,857 X .04 = 114 SF
VOLUME OF TREATED RUNOFF = 114 X 5/12 X 3.615 = 172 CF
ASSUME BASIN SIZE 2,857 X .04 X .75 = 86 SF
VOLUME OF TREATED RUNOFF = 86 X 5/12 X 3.615 = 130 CF
DIFFERENCE IN VOLUME 172 - 130 = 42 CF
PONDING DEPTH 42/86 = .49 FT = 6'
MINIMUM BASIN SIZE 86 SF

BIDRETENTION #4
PERVIOUS AREA 1,418 SF
IMPERVIOUS AREA 4,850 SF
TOTAL AREA 6,268 SF
EFFECTIVE IMPERVIOUS AREA = (4,850)(1)+(1,418)(.1) = 4,992 SF
ASSUME BASIN SIZE = 4,992 X .04 = 200 SF
VOLUME OF TREATED RUNOFF = 200 X 5/12 X 3.615 = 301 CF
ASSUME BASIN SIZE 4,992 X .04 X .75 = 150 SF
VOLUME OF TREATED RUNOFF = 150 X 5/12 X 3.615 = 226 CF
DIFFERENCE IN VOLUME 301 - 226 = 75 CF
PONDING DEPTH 75/150 = .50 FT = 6'
MINIMUM BASIN SIZE 150 SF

BIDRETENTION #6
PERVIOUS AREA 630 SF
IMPERVIOUS AREA 3,000 SF
TOTAL AREA 3,630 SF
EFFECTIVE IMPERVIOUS AREA = (3,000)(1)+(630)(.1) = 3,063 SF
ASSUME BASIN SIZE = 3,063 X .04 = 123 SF
VOLUME OF TREATED RUNOFF = 123 X 5/12 X 3.615 = 185 CF
ASSUME BASIN SIZE 3,063 X .04 X .75 = 92 SF
VOLUME OF TREATED RUNOFF = 92 X 5/12 X 3.615 = 139 CF
DIFFERENCE IN VOLUME 185 - 139 = 46 CF
PONDING DEPTH 46/92 = .5 FT = 6'
MINIMUM BASIN SIZE 92 SF

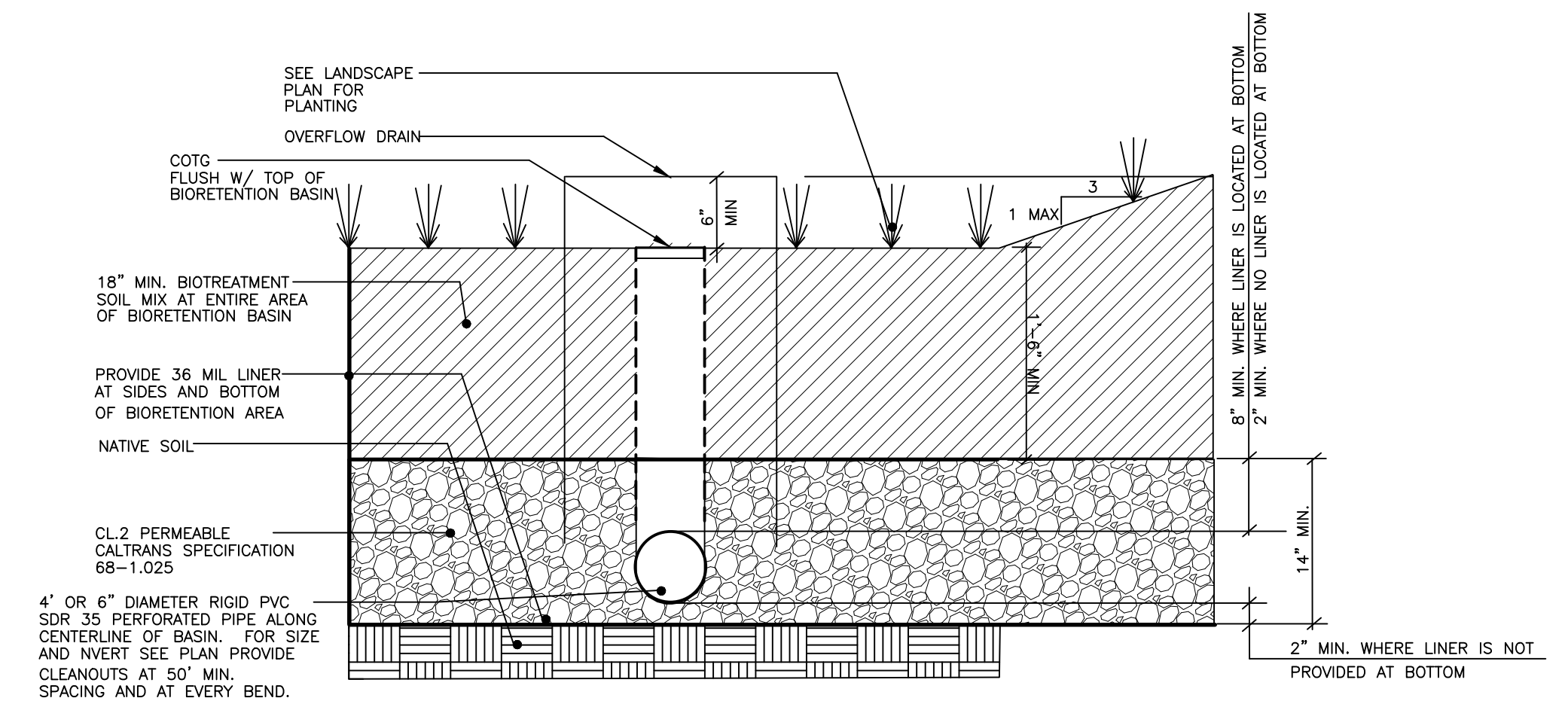


FLOW THROUGH PLANTER @ GRADE

SCALE: NONE

206106C

1



NOTE:
BIORETENTION SOIL MIX SHALL CONSIST OF 60-70% SAND AND 30-40% COMPOST. THE BIORETENTION SOIL MIX MUST BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO THE PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. SOIL MIXTURE PERCOLATION RATE SHALL BE 5 INCHES PER HOUR MINIMUM AND 10 INCHES PER HOUR MAXIMUM SUSTAINED. BIORETENTION SOIL MIX SHALL MEET THE SPECIFICATIONS OF APPENDIX C OF THE C.3 STORMWATER CONTROL HANDBOOK. BIORETENTION SOIL MIX SHALL BE SUBMITTED TO AND APPROVED BY THE CITY.

BIORETENTION BASIN WITH SUBDRAIN

NTS

206102B

2



KEY NOTES

- 1 EXISTING 6" SANITARY SEWER AND CLEANDOUTS TO REMAIN. REFER TO GENERAL NOTE 2.
- 2 SSSD TO REMAIN.
- 3 4" SANITARY SEWER TO REMAIN.
- 4 8" FIRE SERVICE AND BACKFLOW TO REMAIN.
- 5 8" FIRE LINE PER RECORD TO REMAIN. SEE GENERAL NOTE 1.
- 6 EXISTING 3" DOMESTIC WATER METER, METER BOX AND BACKFLOW TO REMAIN. SEE GENERAL NOTE 1.
- 7 3" WATER LINE TO BUILDING PER RECORD. SEE GENERAL NOTE 1.
- 8 EXISTING 3" IRRIGATION WATER METER, METER BOX AND BACKFLOW TO REMAIN. SEE GENERAL NOTE 1.
- 9 GAS SERVICE AND METER TO REMAIN.
- 10 4" GAS TO BUILDING PER RECORD TO REMAIN. SEE GENERAL NOTE 1.
- 11 REMOVE 4" STORM DRAIN.
- 12 6" SD PER RECORD. SEE GENERAL NOTE 1.
- 13 PROVIDE CATCH BASIN/BUBBLER DRAIN 7' ABOVE BIODETENTION GRADE. PROVIDE 2' WIDE X 12" DEEP COBBLE BAND AROUND CB. PROVIDE 4" TO 6" COBBLE.
- 14 PROVIDE CATCH BASIN/OVERFLOW DRAIN 6' ABOVE BIODETENTION GRADE. PROVIDE 2' WIDE X 12" DEEP COBBLE BAND AROUND CB. PROVIDE 4" TO 6" COBBLE.
- 15 PROVIDE COTG AT PERFORATED PIPE. SEE 14/C3.1.
- 16 PROVIDE PERFORATED 6" PVC SDR 35 STORM DRAIN @ S=0.1.
- 17 PDC TO BLDG. STORM DRAIN. SEE PLUMBING PLANS FOR CONTINUATION.
- 18 DAYLIGHT STORM DRAIN THRU WALL.
- 19 PROVIDE PVC SDR 35 STORM DRAIN.
- 20 PROVIDE MINIMUM 12" VERTICAL CLEARANCE BETWEEN WATER SERVICES AND CROSSING UTILITIES.
- 21 CONNECT TO (E) FIRE LINE. VIF.

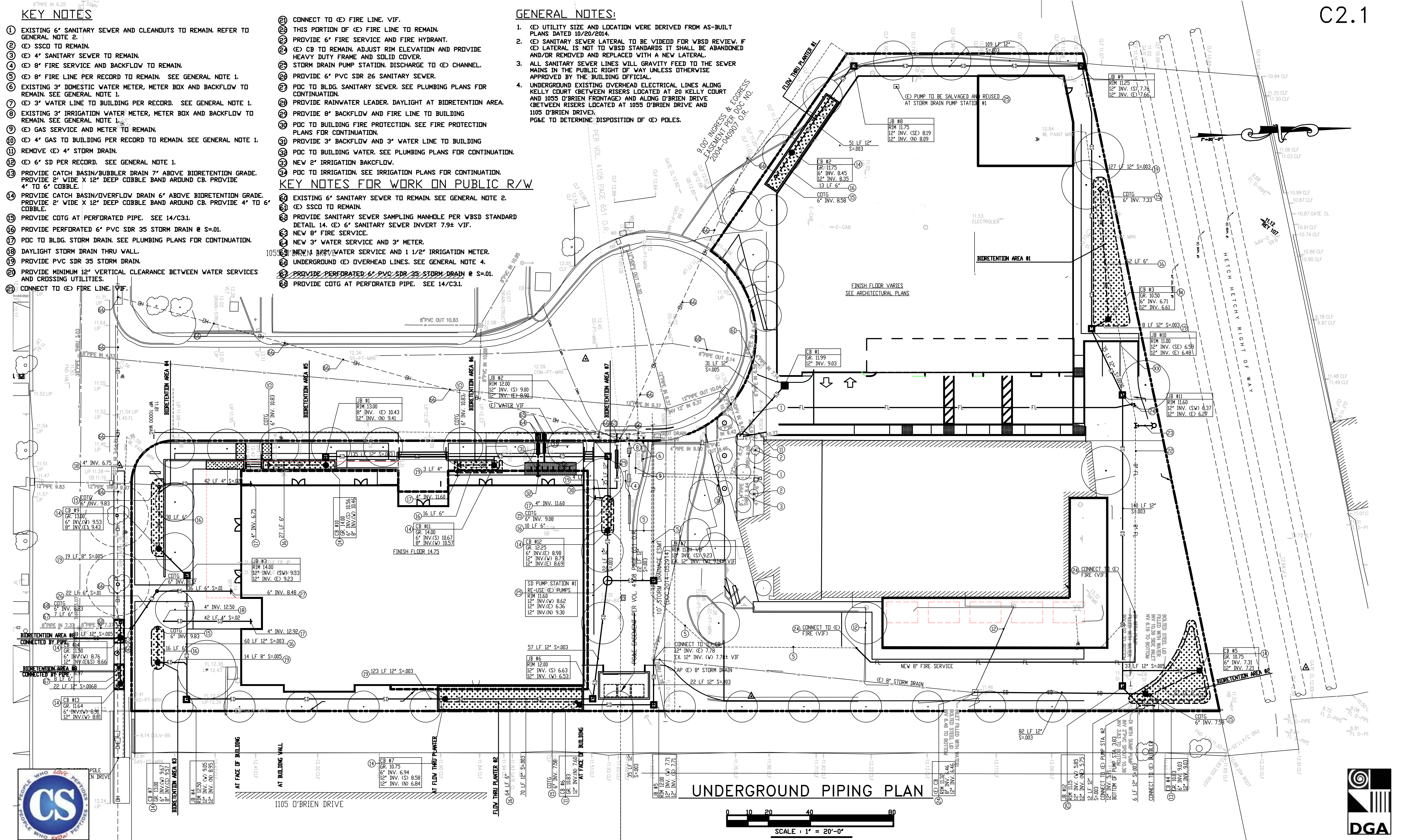
- 22 CONNECT TO (E) FIRE LINE. VIF.
- 23 THIS PORTION OF (E) FIRE LINE TO REMAIN.
- 24 PROVIDE 6" FIRE SERVICE AND FIRE HYDRANT.
- 25 CB TO REMAIN. ADJUST RIM ELEVATION AND PROVIDE HEAVY DUTY FRAME AND SOLID COVER.
- 26 STORM DRAIN PUMP STATION. DISCHARGE TO (E) CHANNEL.
- 27 PROVIDE 6" PVC SDR 26 SANITARY SEWER.
- 28 PDC TO BLDG. SANITARY SEWER. SEE PLUMBING PLANS FOR CONTINUATION.
- 29 PROVIDE RAINWATER LEADER. DAYLIGHT AT BIODETENTION AREA.
- 30 PROVIDE 8" BACKFLOW AND FIRE LINE TO BUILDING
- 31 PDC TO BUILDING FIRE PROTECTION. SEE FIRE PROTECTION PLANS FOR CONTINUATION.
- 32 PROVIDE 3" BACKFLOW AND 3" WATER LINE TO BUILDING
- 33 PDC TO BUILDING WATER. SEE PLUMBING PLANS FOR CONTINUATION.
- 34 NEW 2" IRRIGATION BACKFLOW.
- 35 PDC TO IRRIGATION. SEE IRRIGATION PLANS FOR CONTINUATION.

GENERAL NOTES:

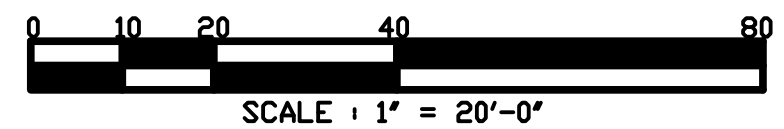
- 1 (E) UTILITY SIZE AND LOCATION WERE DERIVED FROM AS-BUILT PLANS DATED 10/20/2014.
- 2 (E) SANITARY SEWER LATERAL TO BE VIDEOED FOR WBSD REVIEW. IF (E) LATERAL IS NOT TO WBSD STANDARDS IT SHALL BE ABANDONED AND/OR REMOVED AND REPLACED WITH A NEW LATERAL.
- 3 ALL SANITARY SEWER LINES WILL GRAVITY FEED TO THE SEWER MAINS IN THE PUBLIC RIGHT OF WAY UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL.
- 4 UNDERGROUND EXISTING OVERHEAD ELECTRICAL LINES ALONG KELLY COURT (BETWEEN RISERS LOCATED AT 20 KELLY COURT AND 1055 O'BRIEN FRONTAGE) AND ALONG O'BRIEN DRIVE (BETWEEN RISERS LOCATED AT 1055 O'BRIEN DRIVE AND 1105 O'BRIEN DRIVE).

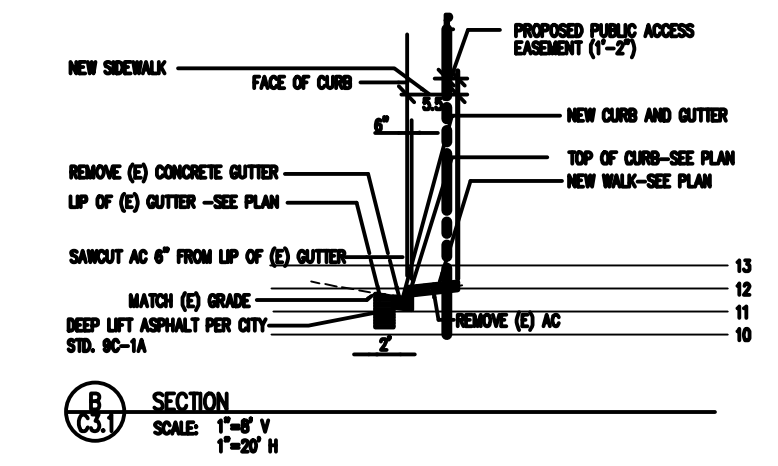
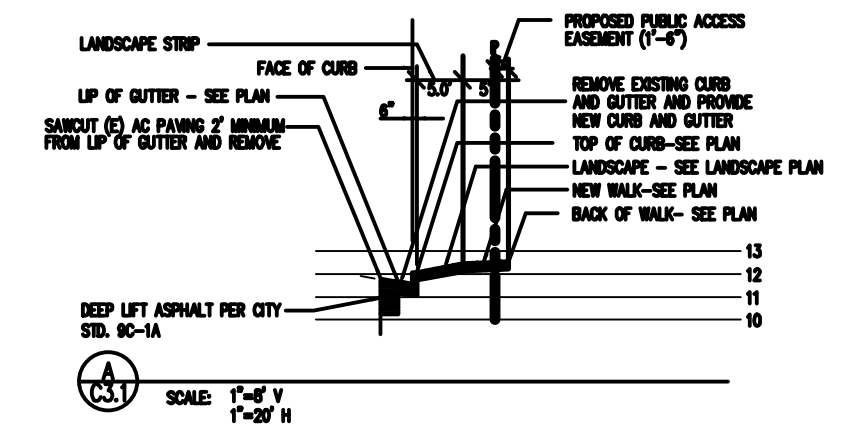
KEY NOTES FOR WORK ON PUBLIC R/W

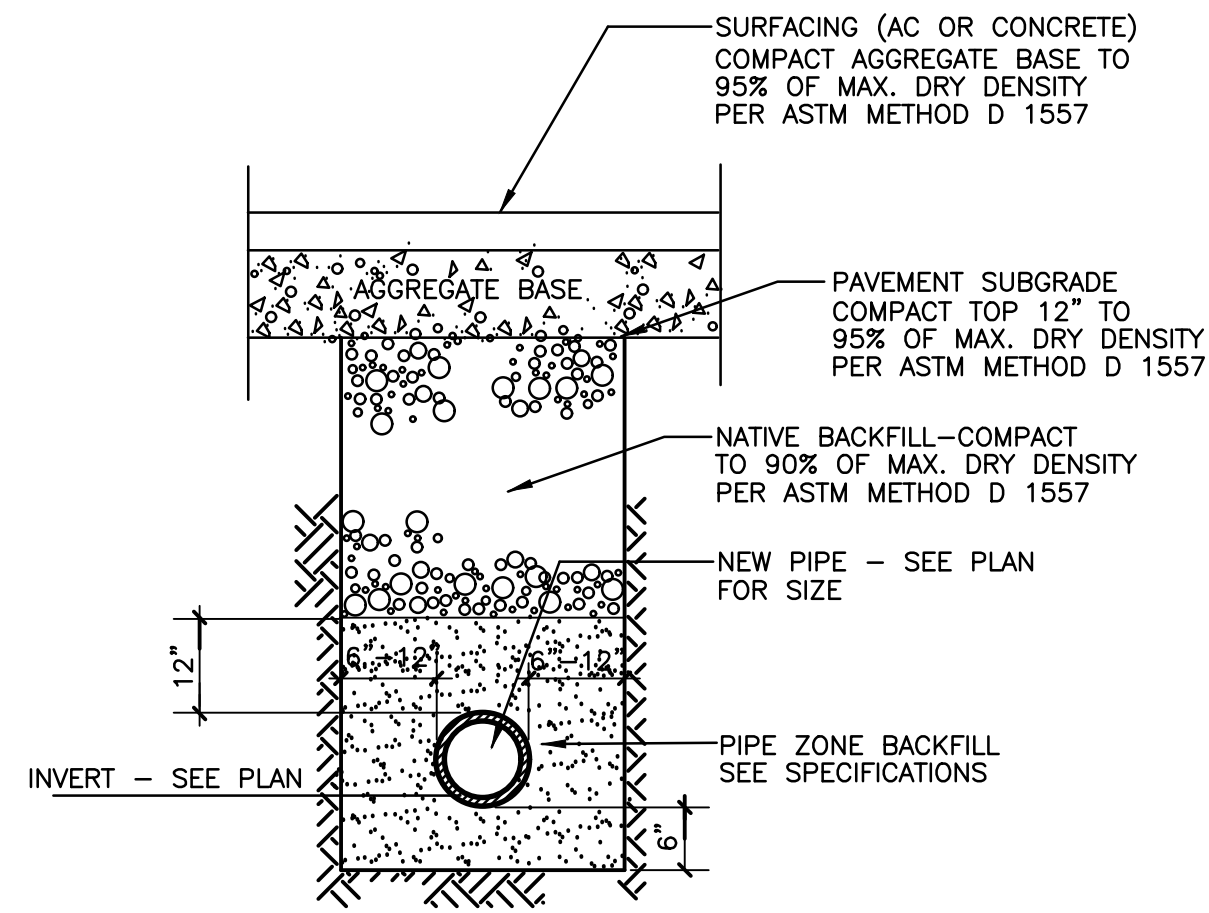
- 36 EXISTING 6" SANITARY SEWER TO REMAIN. SEE GENERAL NOTE 2.
- 37 (E) SSSD TO REMAIN.
- 38 PROVIDE SANITARY SEWER SAMPLING MANHOLE PER WBSD STANDARD DETAIL 14. (E) 6" SANITARY SEWER INVERT 7.9± VIF.
- 39 NEW 8" FIRE SERVICE.
- 40 NEW 3" WATER SERVICE AND 3" METER.
- 41 NEW 1 1/2" WATER SERVICE AND 1 1/2" IRRIGATION METER.
- 42 UNDERGROUND (E) OVERHEAD LINES. SEE GENERAL NOTE 4.
- 43 PROVIDE PERFORATED 6" PVC SDR 35 STORM DRAIN @ S=0.1.
- 44 PROVIDE COTG AT PERFORATED PIPE. SEE 14/C3.1.



UNDERGROUND PIPING PLAN



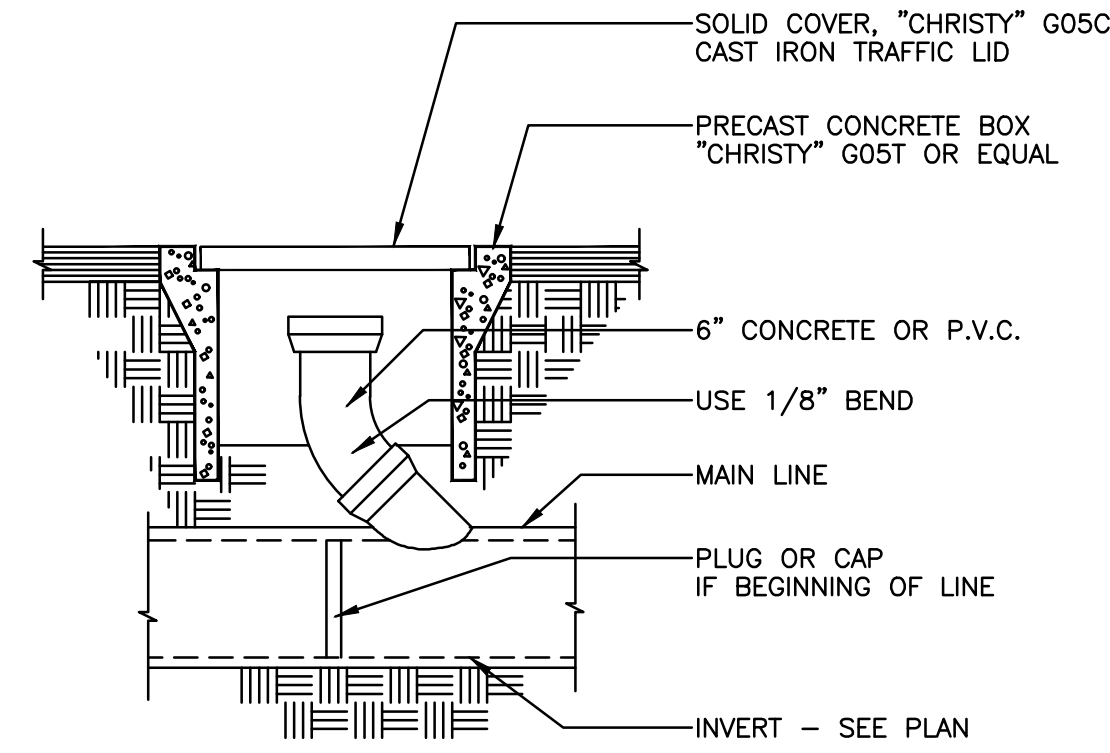




TYPICAL TRENCH DETAIL

SCALE: NONE

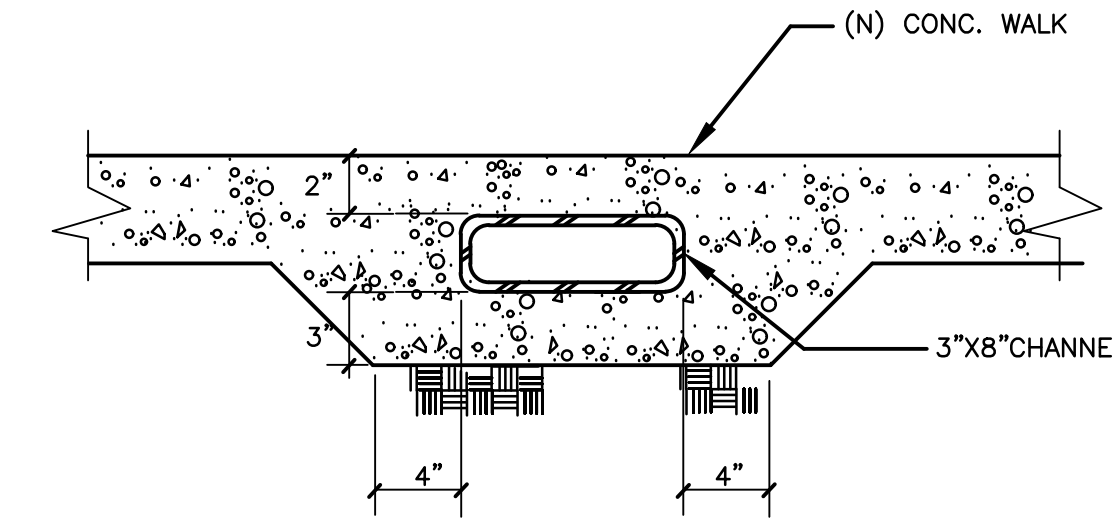
13



CLEANOUT TO GRADE @ STORM DRAIN

SCALE: 3/4" = 1'-0"

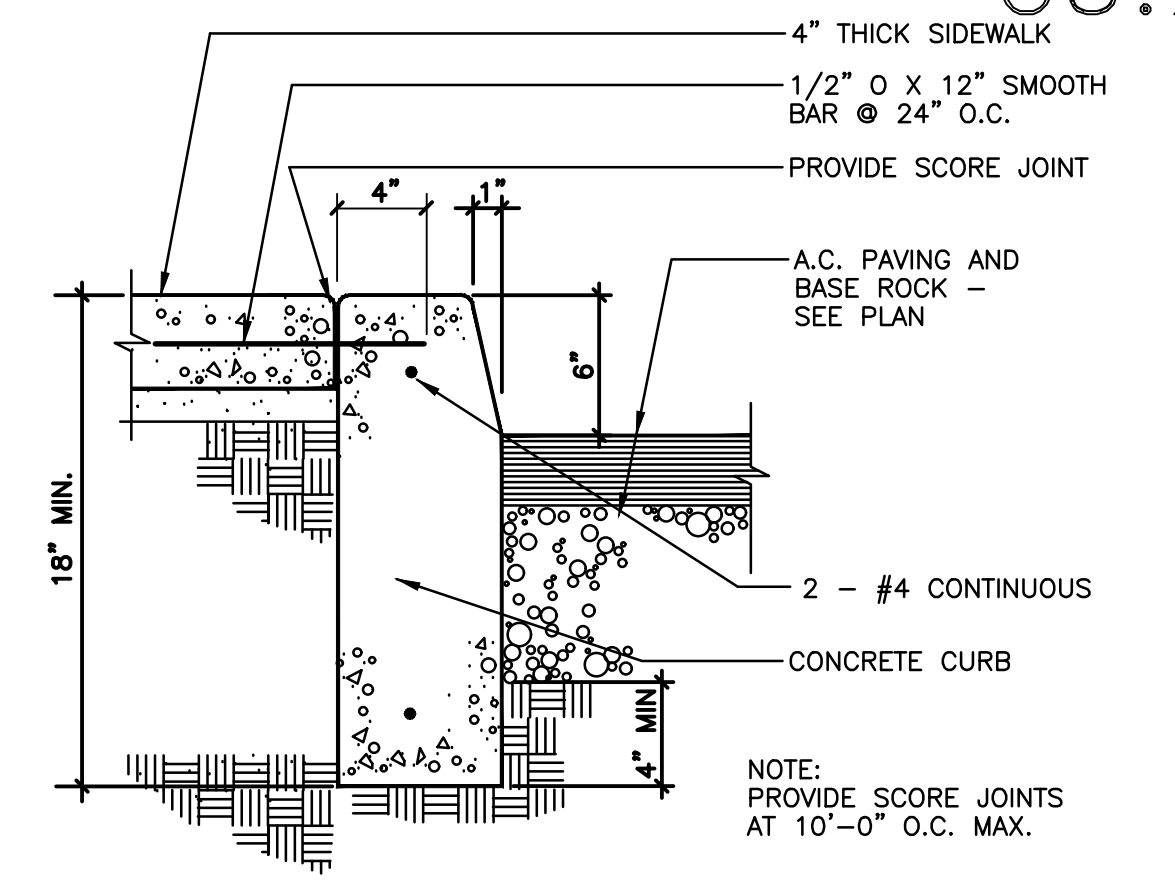
9



SIDEWALK UNDERDRAIN

SCALE: NONE

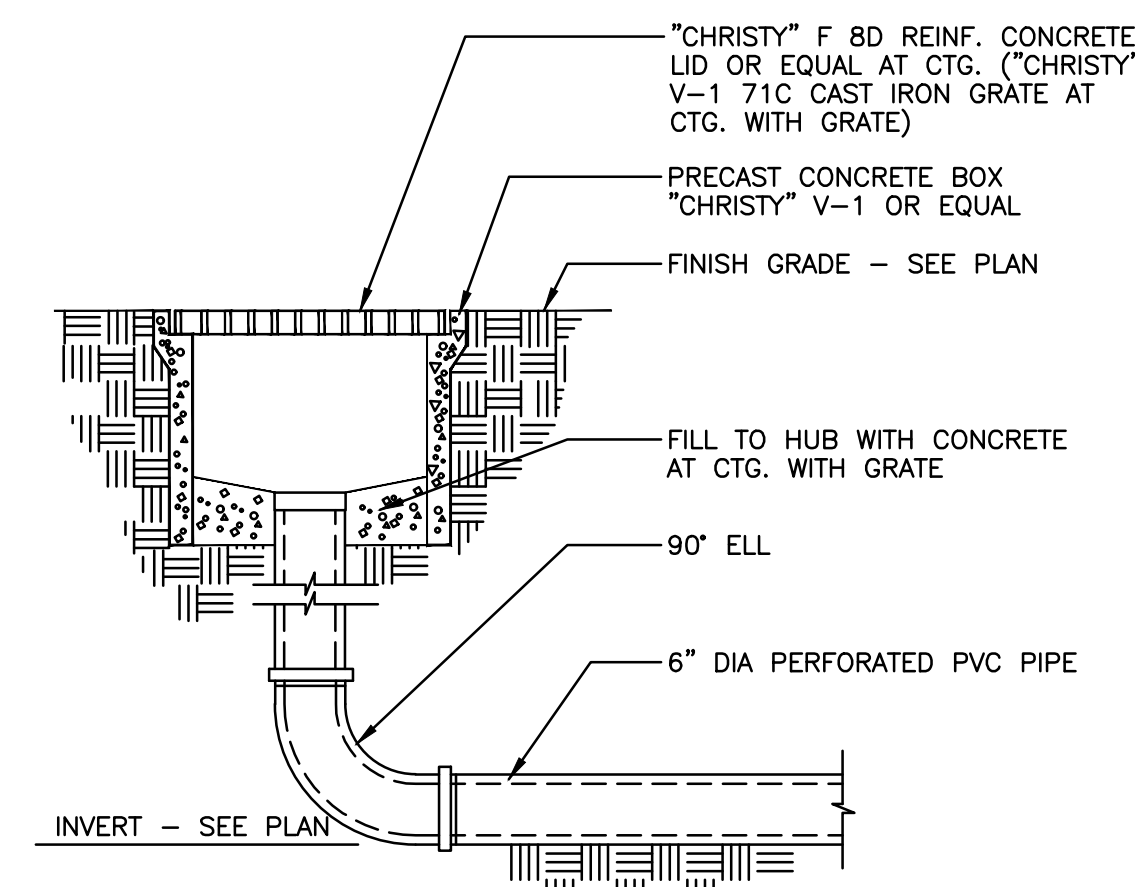
5



CONCRETE CURB AT SIDEWALK

SCALE: 1 1/2" = 1'-0"

1

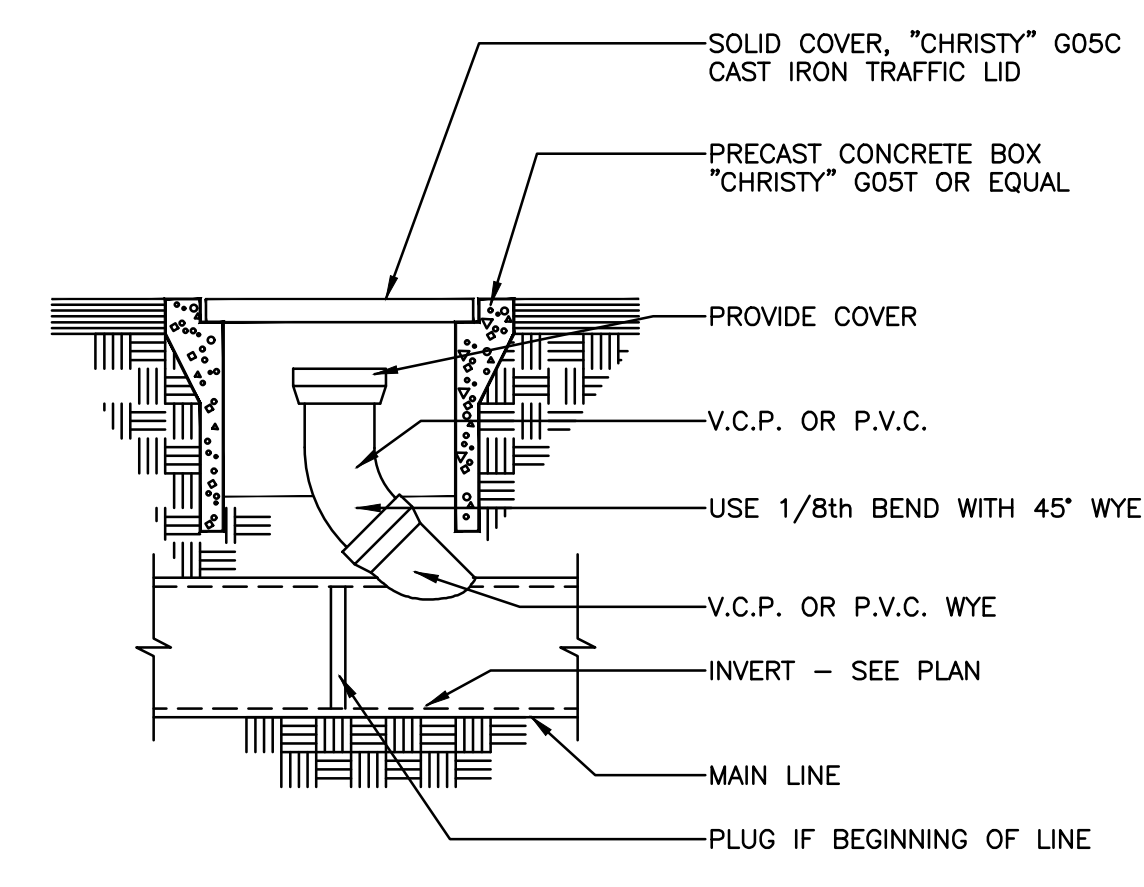


COTG AT PERFORATED PIPE

SCALE: 1 1/2" = 1'-0"

CIVIL202203

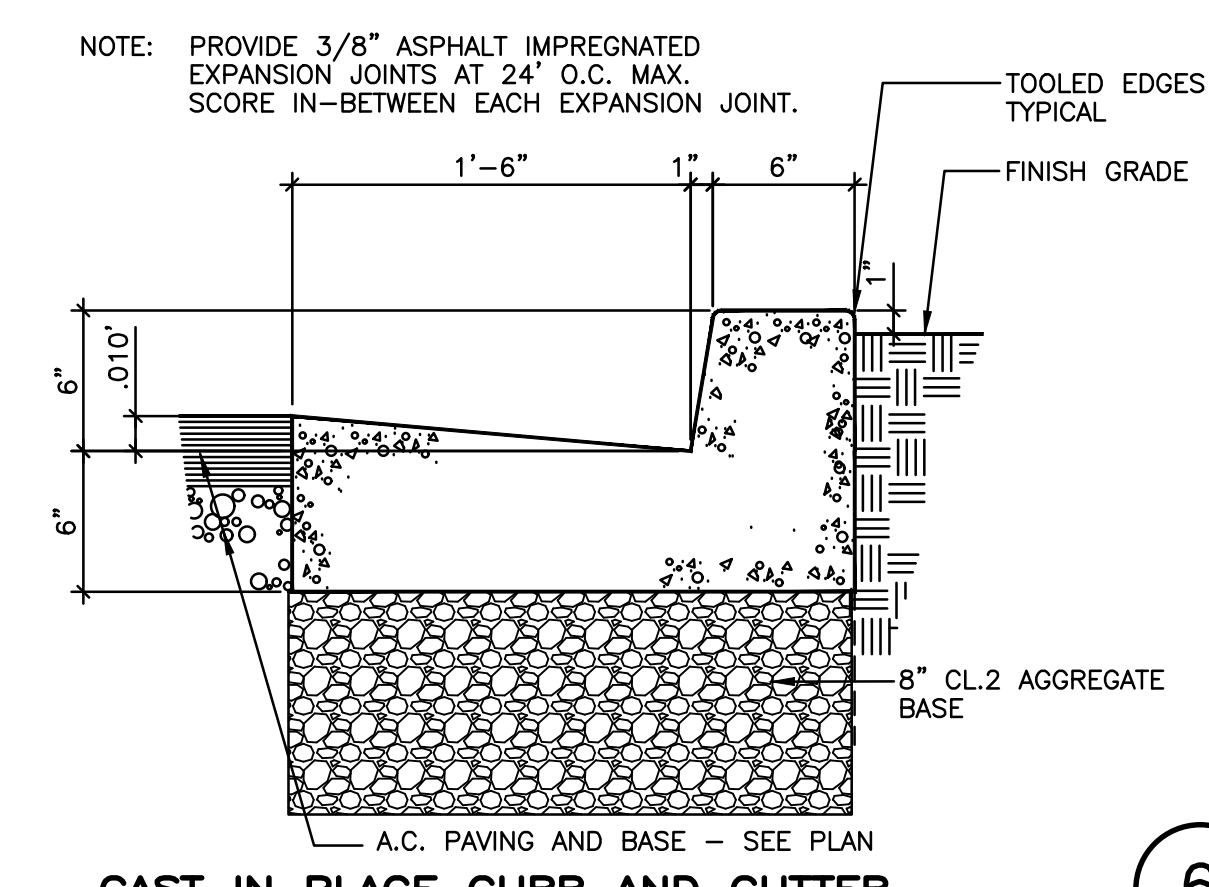
14



COTG AT SANITARY SEWER

SCALE: NONE

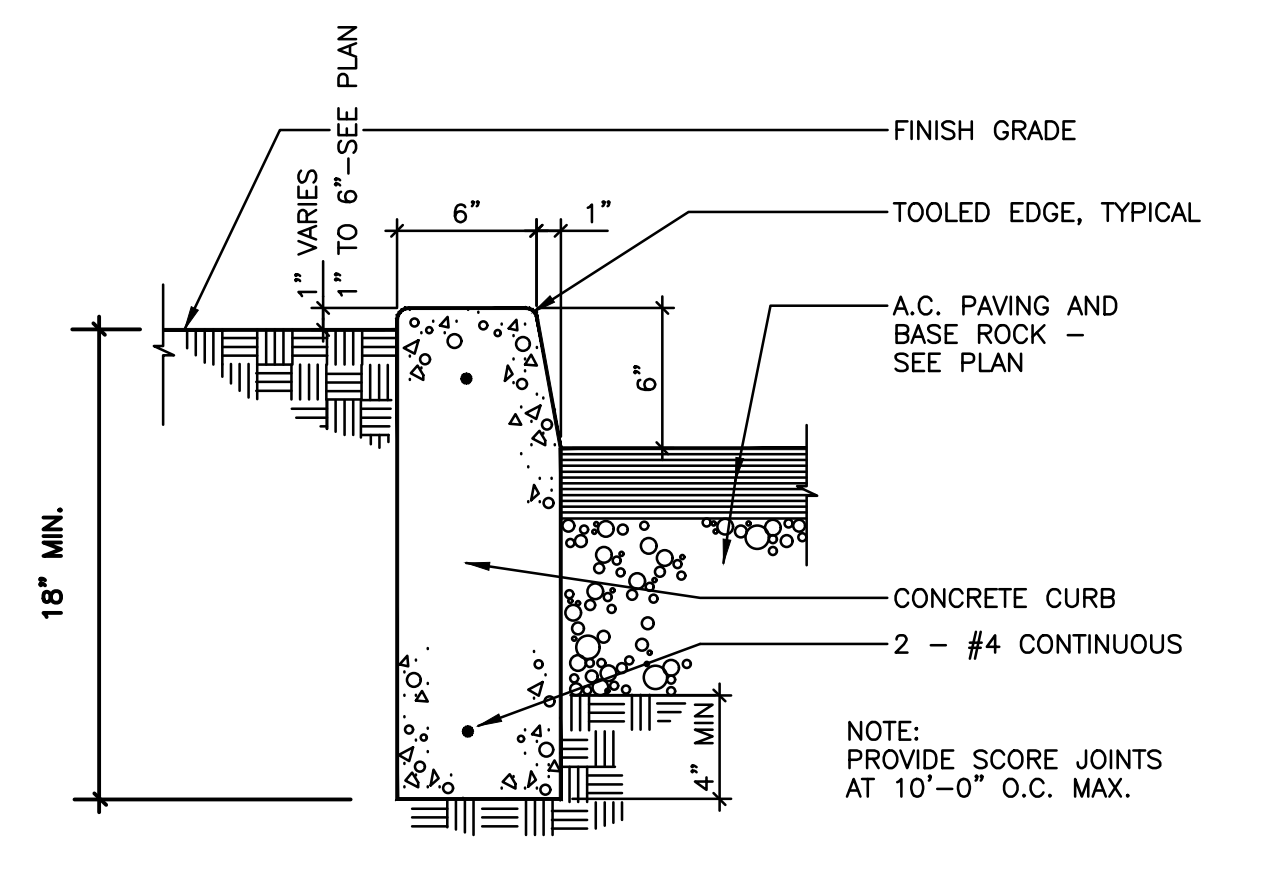
10



CAST IN PLACE CURB AND GUTTER

SCALE: 1 1/2" = 1'-0"

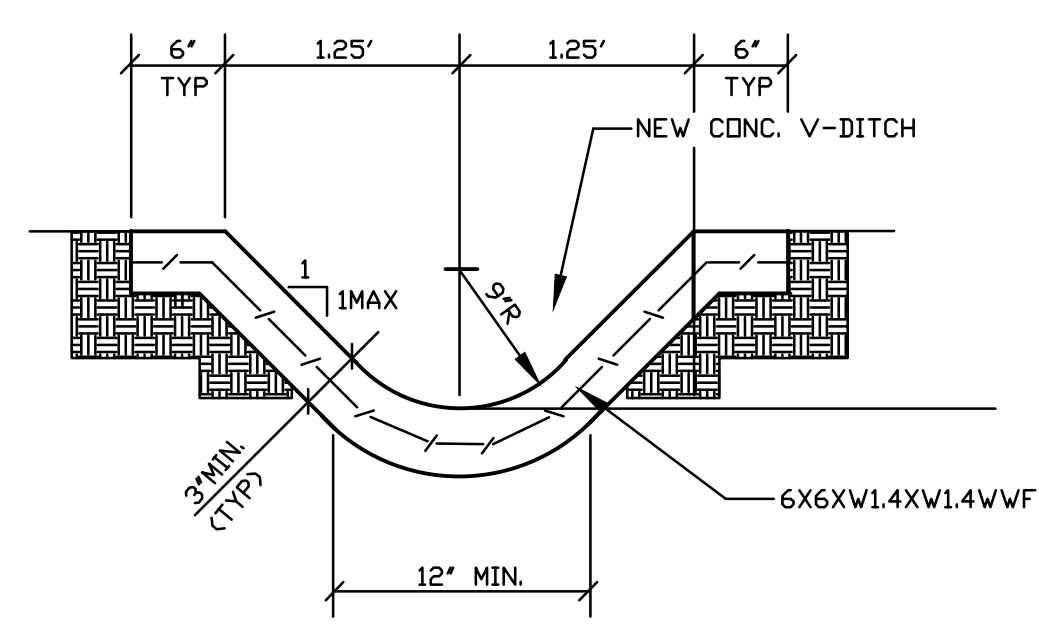
6



CONCRETE CURB AT PLANTING

SCALE: 1 1/2" = 1'-0"

2

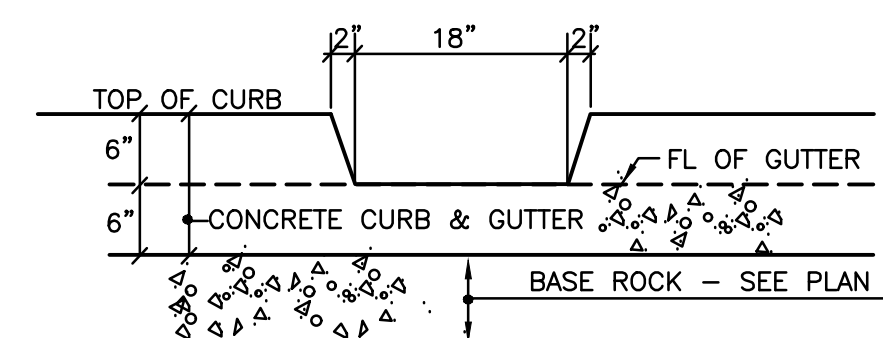


CONCRETE SWALE DETAIL

SCALE: 1" = 1'-0"

204423B

15

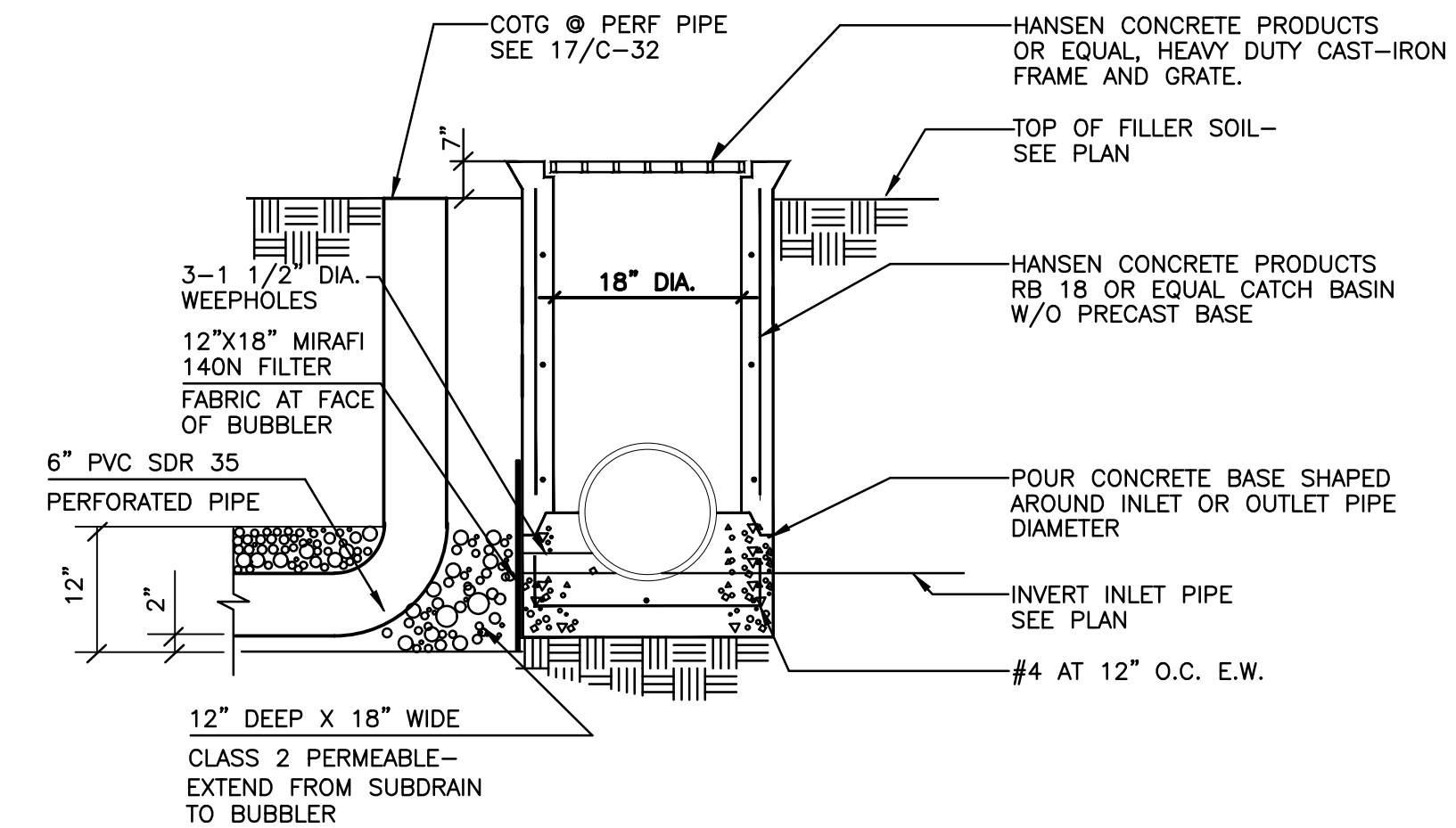


CONCRETE CURB & GUTTER CUT DETAIL

SCALE: 3/4" = 1'-0"

204450

11

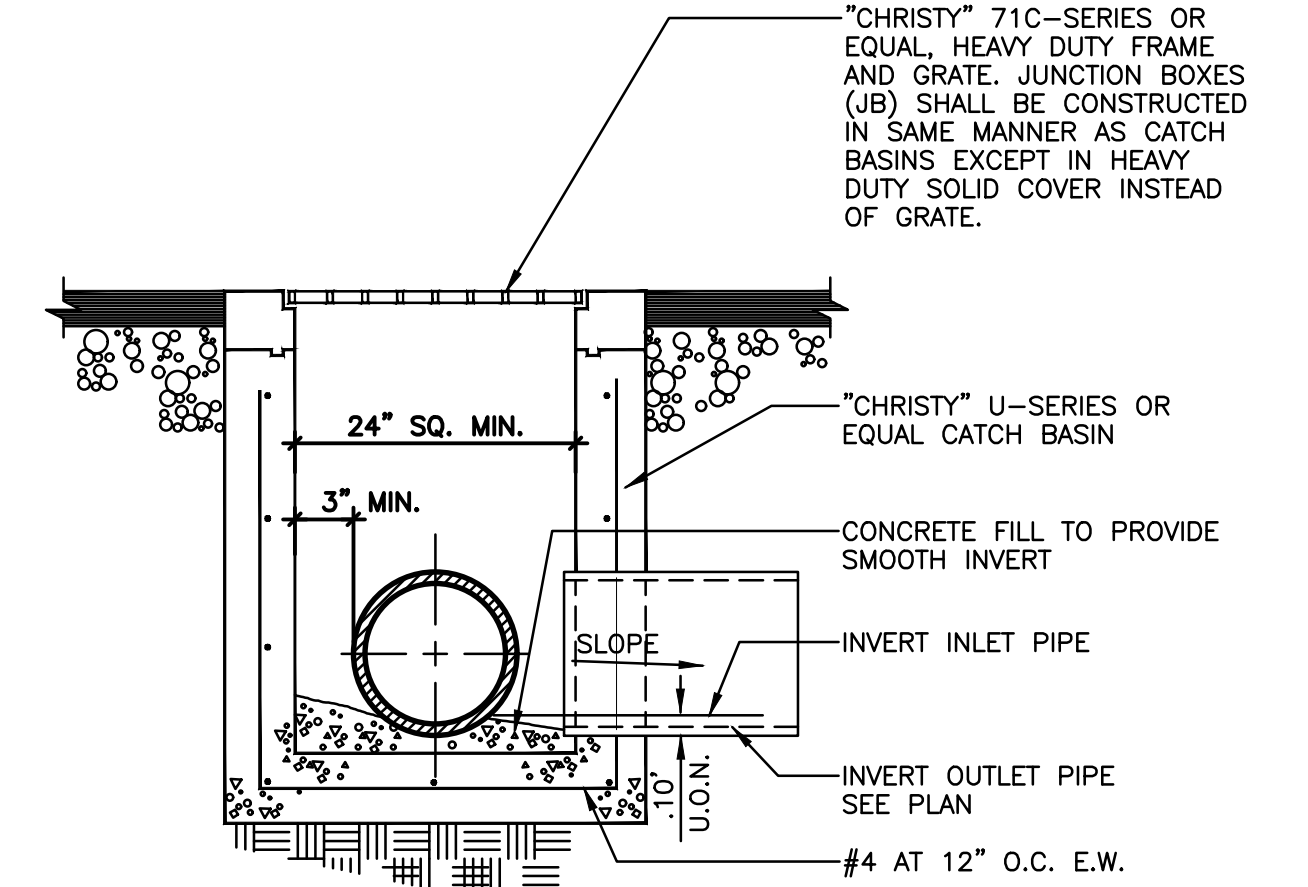


BUBBLER DETAIL

SCALE: 3/4" = 1'-0"

CIVIL202106B

7



CATCH BASIN DETAIL

SCALE: 3/4" = 1'-0"

3

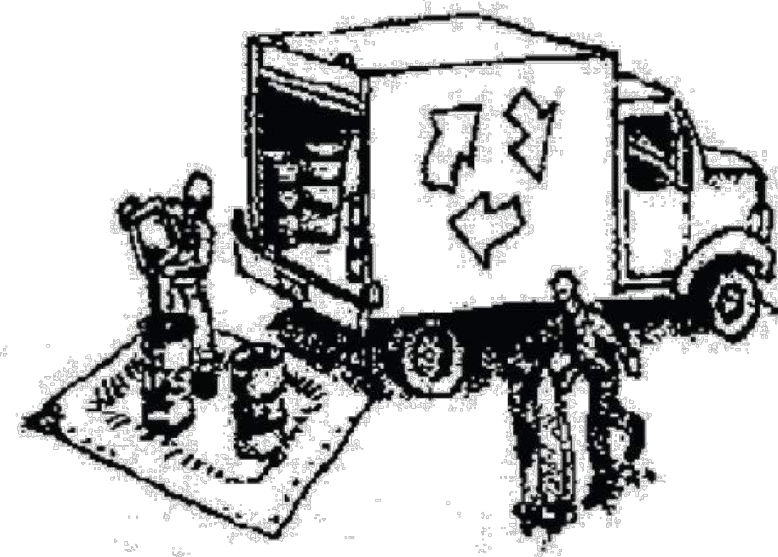




Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control.

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 be careful not to 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 waste disposal containers securely with tarps at the end of every work day and during wet weather.
- Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

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



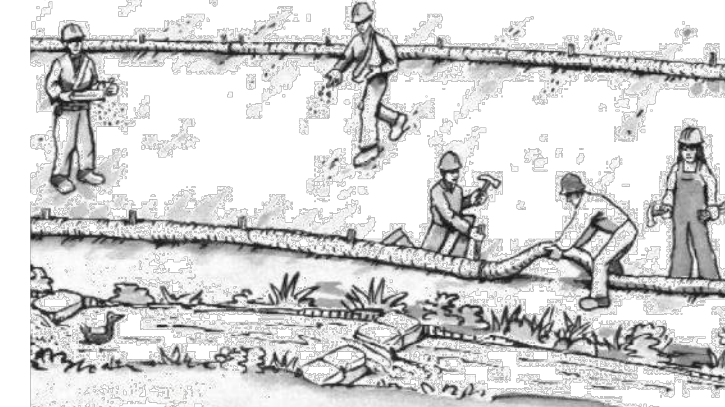
Maintenance and Parking

- Designate an area, fitted with appropriate BMPs, for vehicle 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.

Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- Clean up spills or leaks immediately and dispose of cleanup materials properly.
- Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try 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 significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- 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, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, 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.

Paving/Asphalt Work



- 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, tack coat, slurry seal, fog seal, etc.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

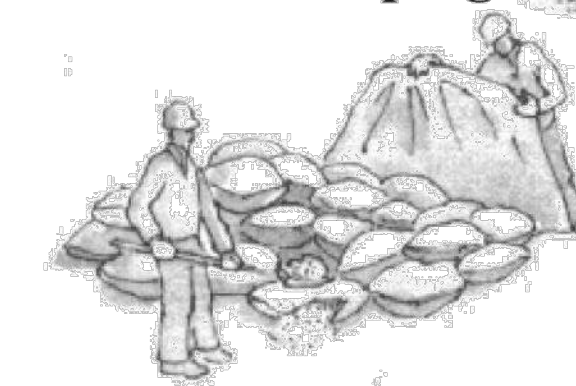
- Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application



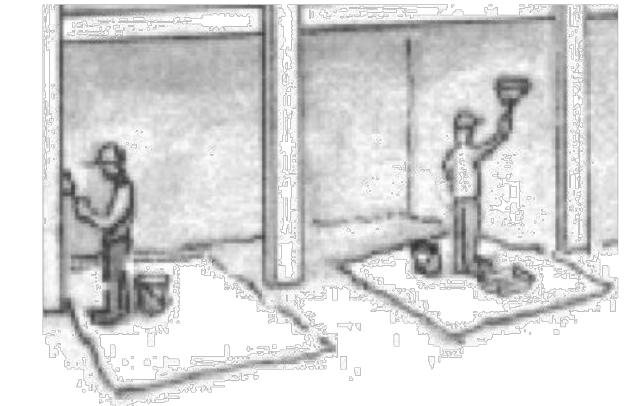
- Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

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.

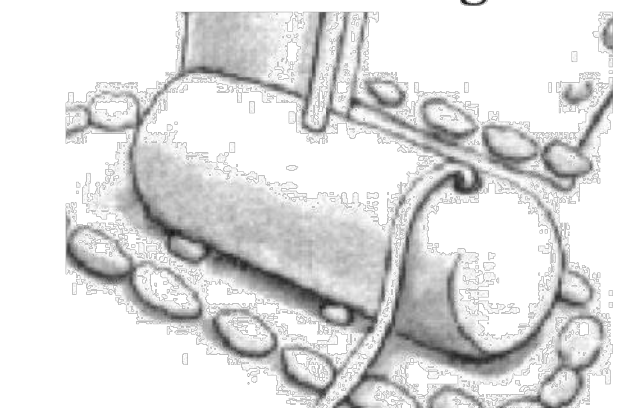
Painting & Paint Removal



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.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed 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.

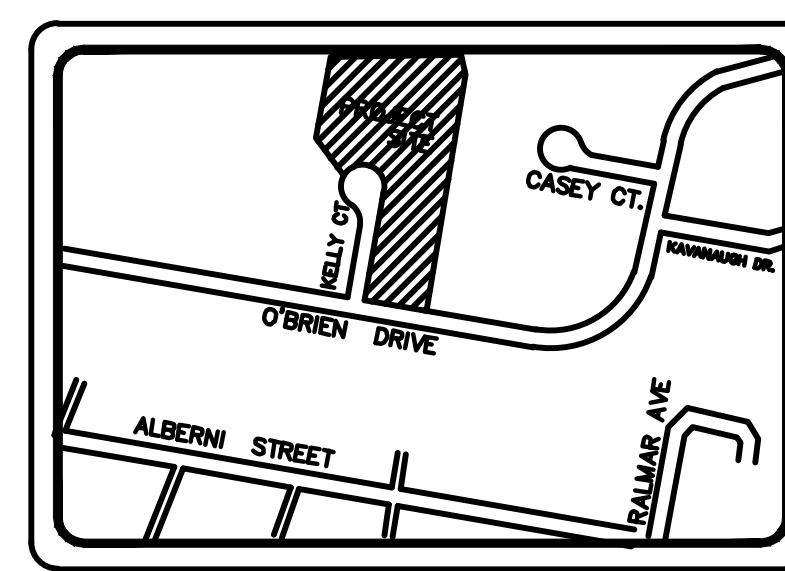
Dewatering



- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- Divert run-on water from offsite away from all disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.



Storm drain polluters may be liable for fines of up to \$10,000 per day!



VICINITY MAP
NO SCALE

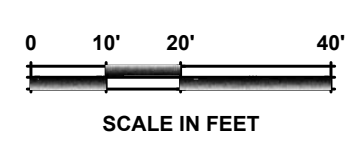
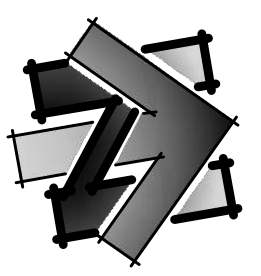
FEMA FLOOD ZONE:
FLOOD ZONE: ZONE AE
FEMA FLOOD INSURANCE RATE MAP
COMMUNITY PANEL NO: 06081C0307E
EFFECTIVE DATE: 10/16/2012

BASIS OF BEARINGS:

THE BEARING N80°07'16"W BETWEEN THE FOUND MONUMENTS ON CASEY COURT AS SHOWN ON THAT CERTAIN PARCEL MAP IN VOLUME 3 OF PARCEL MAPS OF PAGE 3 WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

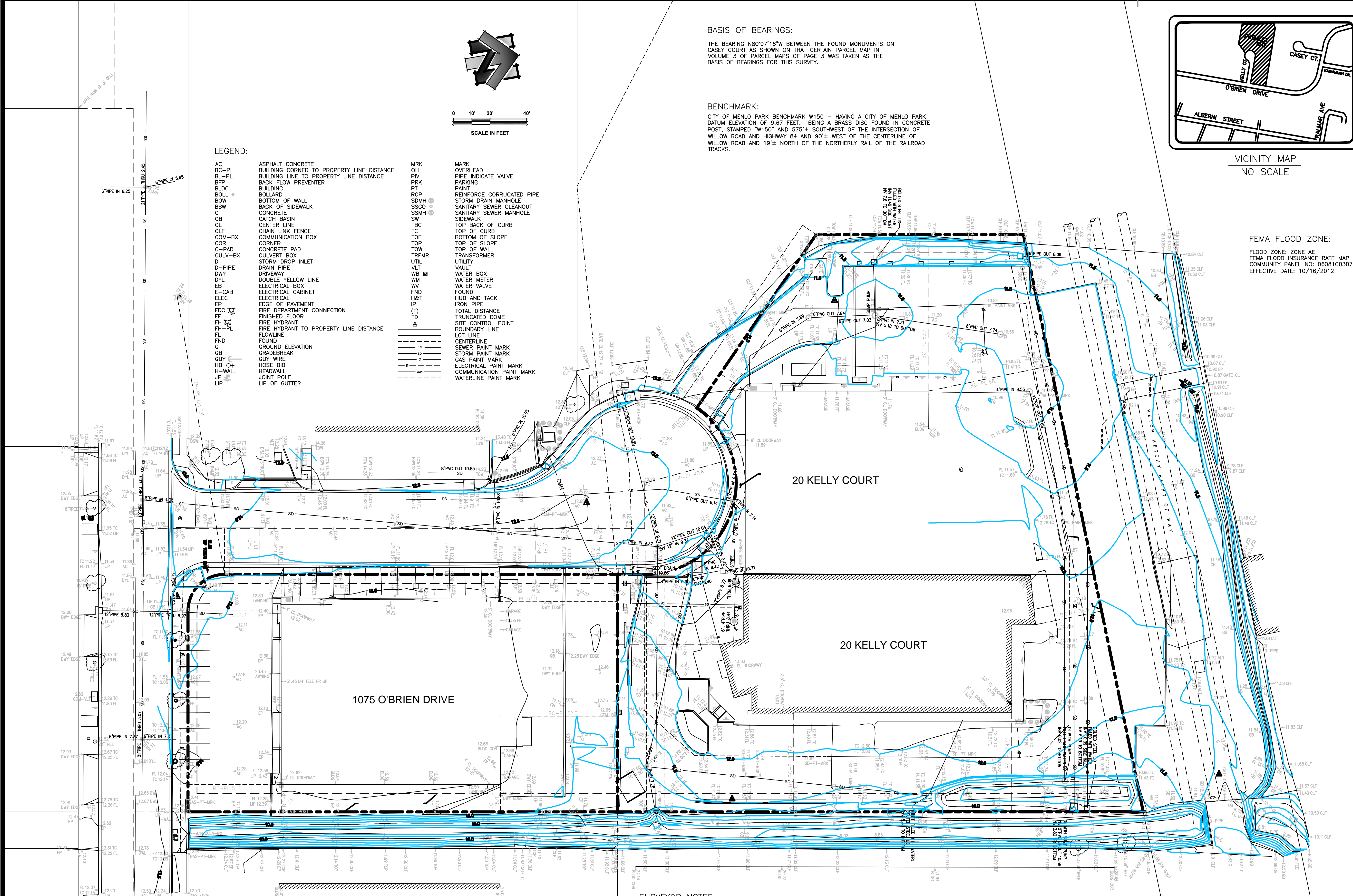
BENCHMARK:

CITY OF MENLO PARK BENCHMARK W150 - HAVING A CITY OF MENLO PARK DATUM ELEVATION OF 9.67 FEET. BEING A BRASS DISC FOUND IN CONCRETE POST, STAMPED "W150" AND 575'-3" SOUTHWEST OF THE INTERSECTION OF WILLOW ROAD AND HIGHWAY 84 AND 90'+ WEST OF THE CENTERLINE OF WILLOW ROAD AND 19'± NORTH OF THE NORTHERLY RAIL OF THE RAILROAD TRACKS.



LEGEND:

AC	ASPHALT CONCRETE	MRK	MARK
BC-PL	BUILDING CORNER TO PROPERTY LINE DISTANCE	OH	OVERHEAD
BL-PL	BUILDING LINE TO PROPERTY LINE DISTANCE	PIV	PIPE INDICATE VALVE
BFP	BACK FLOW PREVENTER	PRK	PARKING
BLDG	BUILDING	PT	PAINT
BOLL	BOLLARD	RCP	REINFORCE CORRUGATED PIPE
BOW	BOTTOM OF WALL	SDMH	STORM DRAIN MANHOLE
BSW	BACK OF SIDEWALK	SSCO	SANITARY SEWER CLEANOUT
C	CONCRETE	SSMH	SANITARY SEWER MANHOLE
CB	CATCH BASIN	SW	SIDEWALK
CL	CENTER LINE	TBC	TOP BACK OF CURB
CLF	CHAIN LINK FENCE	TC	TOP OF CURB
COM-BX	COMMUNICATION BOX	TOE	BOTTOM OF SLOPE
COR	CORNER	TOP	TOP OF SLOPE
C-PAD	CONCRETE PAD	TOW	TOP OF WALL
CULV-BX	CULVERT BOX	TRFMR	TRANSFORMER
DI	DRAIN PIPE	UTIL	UTILITY
D-PIPE	DRIVEWAY	VLT	VAULT
DWY	DOUBLE YELLOW LINE	WB	WATER BOX
DYL	ELECTRICAL BOX	WM	WATER METER
EB	ELECTRICAL CABINET	WV	WATER VALVE
E-CAB	ELECTRICAL	FND	FOUND
ELEC	EDGE OF PAVEMENT	H&T	HUB AND TACK
EP	FIRE DEPARTMENT CONNECTION	IP	IRON PIPE
FDC	FINISHED FLOOR	(T)	TOTAL DISTANCE
FH	FIRE HYDRANT	TD	TRUNCATED DOME
FH-PL	FIRE HYDRANT TO PROPERTY LINE DISTANCE	SC	SITE CONTROL POINT
FL	FLOWLINE	BL	BOUNDARY LINE
FND	FOUND	LOT	LOT LINE
G	GROUND ELEVATION	CS	CENTERLINE SEWER PAINT MARK
GB	GRADEBREAK	SM	STORM PAINT MARK
GUY	GUY WIRE	GP	GAS PAINT MARK
HB	HOSE BIB	EM	ELECTRICAL PAINT MARK
H-WALL	HEADWALL	CM	COMMUNICATION PAINT MARK
JP	JOINT POLE	WL	WATERLINE PAINT MARK
LIP	LIP OF GUTTER		



HORIZONTAL CONTROL

PNT	NORTHING	EASTING	ELEV	DESCRIPTION
101	9716.59	9320.39	11.81	REY 101 M&W
102	9946.10	9308.29	12.51	REY 102 M&W
103	9996.74	9481.73	11.67	REY 103 M&W
104	10098.73	9222.45	11.14	REY 104 M&W
105	10261.61	9513.96	12.40	REY 105 RBC



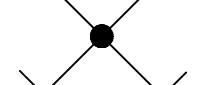
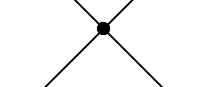

SURVEYOR NOTES:

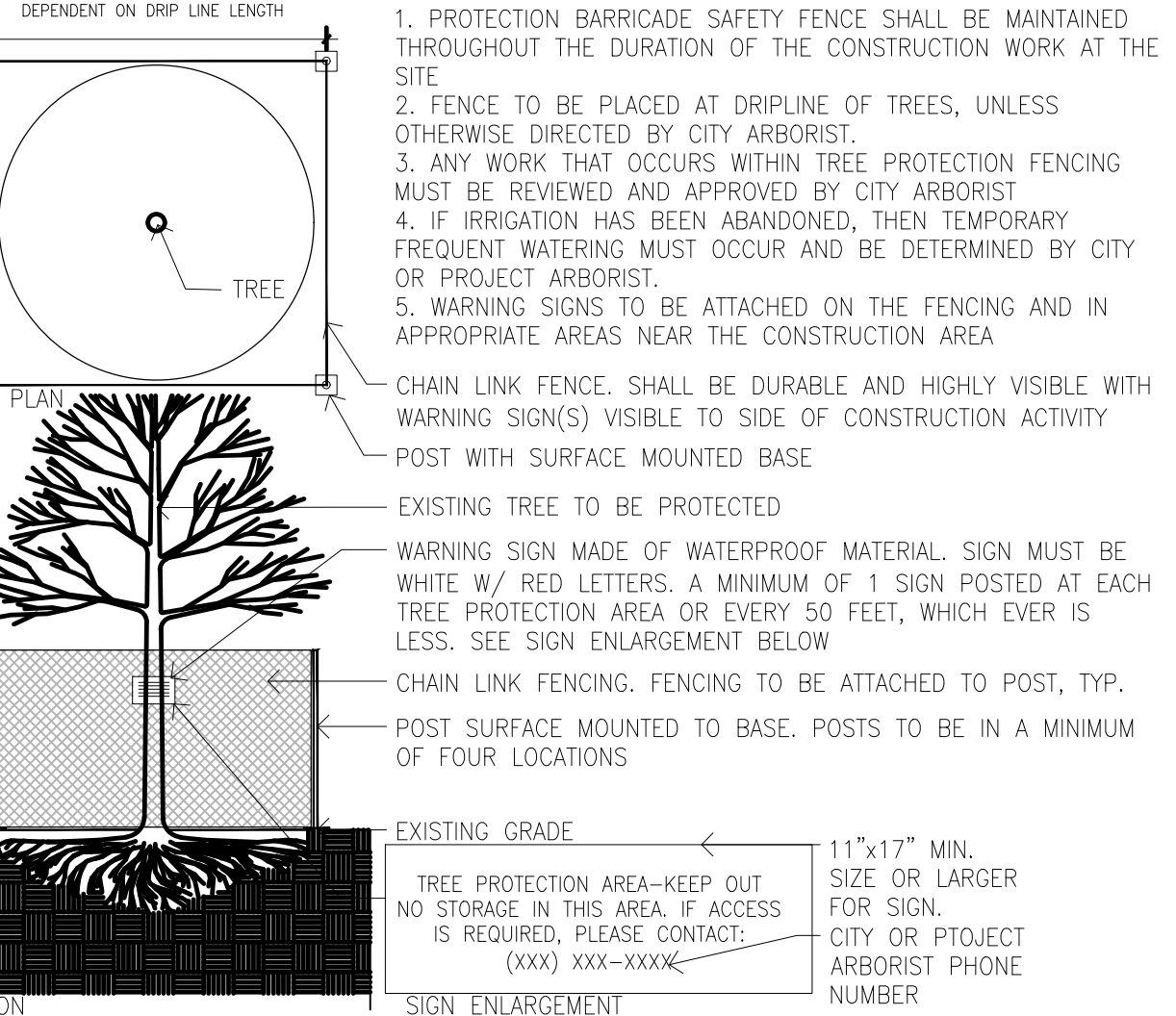
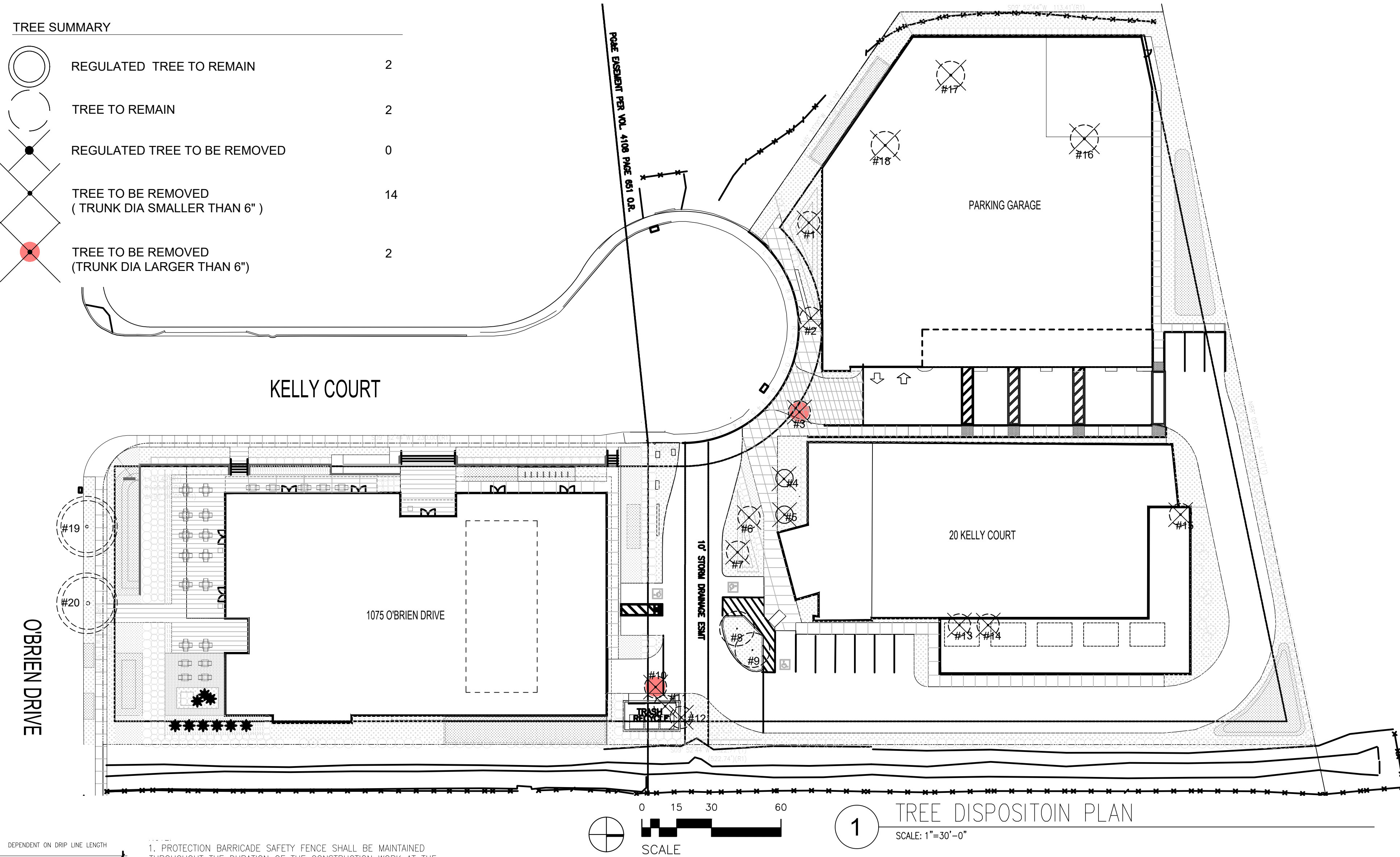
- ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF
- DATE OF FIELD SURVEY: JANUARY 2017 AND AUGUST 2019
- BUILDING DOWNSPOUTS CONNECTED TO UNDERGROUND PLASTIC PIPE
- HATCH HETCHY PIPES SHOWN HEREON BASED ON PREVIOUS DRAWING: C21-TOPODWG
- CALCULATED AREA OF ALL PAVING, CONCRETE AND BUILDINGS FOR
PARCEL 1: 27,754 S.F.±
PARCEL 2: 29,299 S.F.±
PARCEL 3: 27,109 S.F.±

BUILDING SETBACK LINE

- 1075 O'BRIEN DRIVE (LS-B ZONING DISTRICT)
- MINIMUM STREET SETBACK: 5 FEET. THIS SHALL BE MEASURED FROM THE PROPERTY LINE, BUT IN INSTANCES WHERE THERE IS A PUBLIC ACCESS EASEMENT, THE SETBACK SHALL BE MEASURED FROM THE BACK OF THE EASEMENT.
 - MINIMUM SIDE SETBACK: 10 FEET
 - MINIMUM REAR SETBACK: 10 FEET
- 20 KELLY COURT (LS-B ZONING DISTRICT)
- MINIMUM STREET SETBACK: 5 FEET. THIS SHALL BE MEASURED FROM THE PROPERTY LINE, BUT IN INSTANCES WHERE THERE IS A PUBLIC ACCESS EASEMENT, THE SETBACK SHALL BE MEASURED FROM THE BACK OF THE EASEMENT.
 - MINIMUM SIDE SETBACK: 10 FEET
 - MINIMUM REAR SETBACK: 10 FEET

TREE SUMMARY

-  REGULATED TREE TO REMAIN 2
-  TREE TO REMAIN 2
-  REGULATED TREE TO BE REMOVED 0
-  TREE TO BE REMOVED (TRUNK DIA SMALLER THAN 6") 14
-  TREE TO BE REMOVED (TRUNK DIA LARGER THAN 6") 2



2 TREE PROTECTION-CHAIN LINK FENCING
SCALE: 1/4" = 1'-0"

TREES TO BE REMOVED

TREE NO.	TREE SPECIES	TRUNK DIA.	24" BOX REPLACEMENT	36" BOX REPLACEMENT
1	Chinese Pistache (<i>Pistacia chinensis</i>)	4	-	-
2	Blue Spruce (<i>Picea pungens</i>)	4	-	-
3	Strawberry Tree (<i>Arbutus marina</i>)	7	1	-
4	Blue Spruce (<i>Picea pungens</i>)	4	-	-
5	Blue Spruce (<i>Picea pungens</i>)	4	-	-
6	Crape Myrtle (<i>Lagerstroemia indica</i>)	3	-	-
7	Crape Myrtle (<i>Lagerstroemia indica</i>)	3	-	-
10	Strawberry Tree (<i>Arbutus marina</i>)	6	1	-
11	Strawberry Tree (<i>Arbutus marina</i>)	4	-	-
12	Strawberry Tree (<i>Arbutus marina</i>)	5	-	-
13	Strawberry Tree (<i>Arbutus marina</i>)	4	-	-
14	Strawberry Tree (<i>Arbutus marina</i>)	4	-	-
15	Chinese Pistache (<i>Pistacia chinensis</i>)	3	-	-

TREE NO.	TREE SPECIES	TRUNK DIA.	24" BOX REPLACEMENT	36" BOX REPLACEMENT
16	Strawberry Tree (<i>Arbutus marina</i>)	5	-	-
17	Strawberry Tree (<i>Arbutus marina</i>)	5	-	-
18	Strawberry Tree (<i>Arbutus marina</i>)	4	-	-
TOTAL REPLACEMENT			2	0
TOTAL TREES TO BE REMOVED			16	

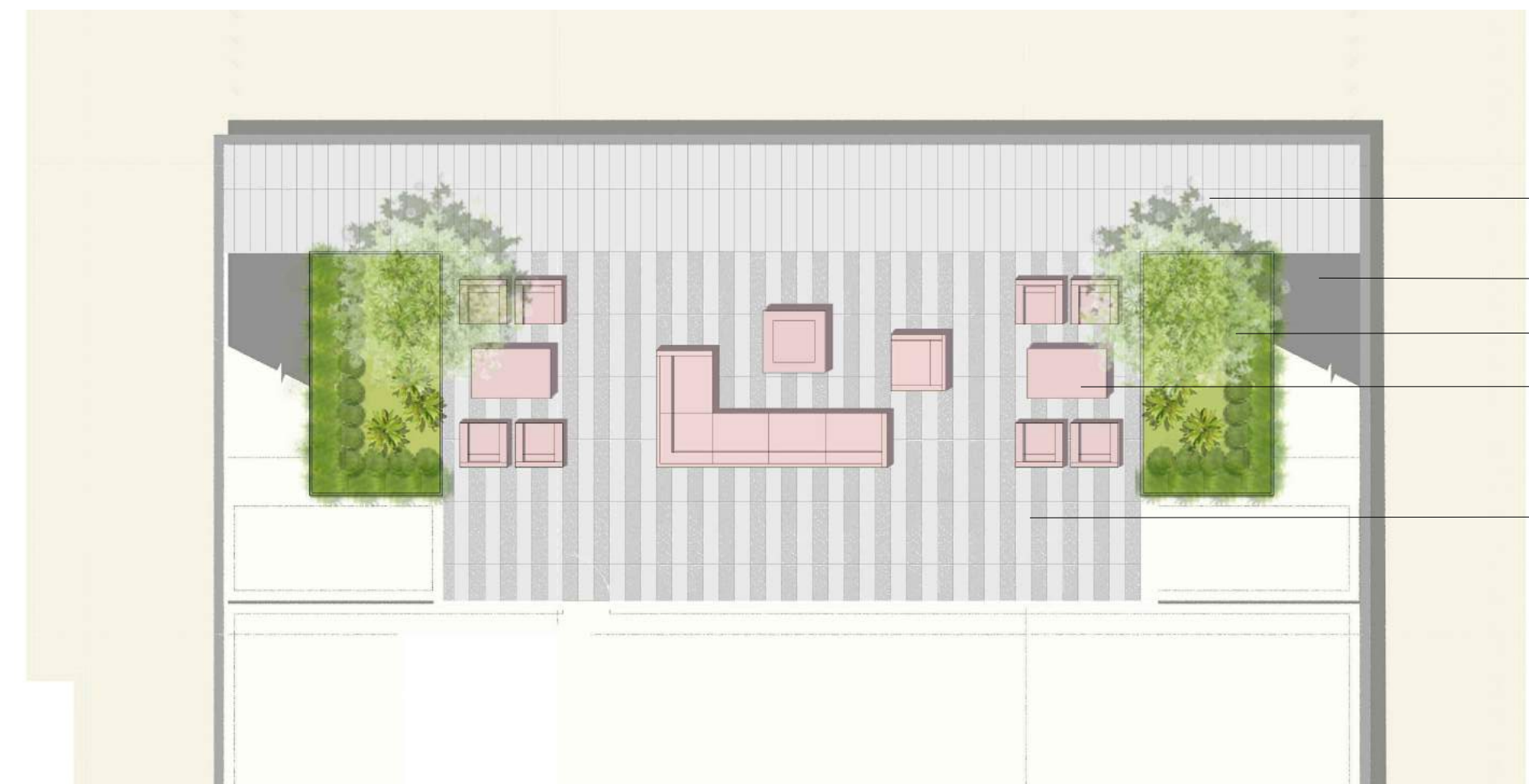
NOTE: REPLACEMENT TREES REQUIRE FOR 6" AND GREATER TRUNK DIAMETER ONLY. REMAINING TREES TO BE REMOVED SHOWN FOR REFERENCE ONLY.

TREE PROTECTION NOTES

- TREE PRESERVATION AND PROTECTION: IN PROVIDING RECOMMENDATIONS FOR TREE PRESERVATION, WE RECOGNIZE THAT INJURY TO TREES AS A RESULT OF CONSTRUCTION INCLUDE MECHANICAL INJURIES TO TRUNKS, ROOTS AND BRANCHES, AND INJURY AS A RESULT OF CHANGES THAT OCCUR IN THE GROWING ENVIRONMENT. TO MINIMIZE THESE INJURIES, WE RECOMMEND GRADING OPERATIONS ENCOACH NO CLOSER THAN FIVE TIMES THE TRUNK DIAMETER, (I.E. 30" DIAMETER TREE X 5=150" DISTANCE). AT THIS DISTANCE, BUTTRESS/ANCHORING ROOTS WOULD BE PRESERVED AND MINIMAL INJURY TO THE FUNCTIONAL ROOT AREA WOULD BE ANTICIPATED. SHOULD ENCOACHMENT WITHIN THE AREA BECOME NECESSARY, HAND DIGGING IS MANDATORY.
- BARRICADES: PRIOR TO INITIATION OF CONSTRUCTION ACTIVITY, TEMPORARY BARRICADES SHOULD BE INSTALLED AROUND ALL TREES IN THE CONSTRUCTION AREA. SIX-FOOT HIGH, CHAIN LINK FENCES ARE TO BE MOUNTED ON STEEL POSTS, DRIVEN 2 FEET INTO THE GROUND, AT NO MORE THAN 10-FOOT SPACING. THE FENCES SHALL ENCLOSE THE ENTIRE AREA UNDER THE DRIP LINE OF THE TREES OR AS CLOSE TO THE DRIP LINE AREA AS PRACTICAL. THESE BARRICADES WILL BE PLACED AROUND INDIVIDUAL TREES AND/OR GROUPS OF TREES AS THE EXISTING ENVIRONMENT DICTATES. THE TEMPORARY BARRICADES WILL SERVE TO PROTECT TRUNKS, ROOTS AND BRANCHES FROM MECHANICAL INJURIES, WILL INHIBIT STOCKPILING OF CONSTRUCTION MATERIALS OR DEBRIS WITHIN THE SENSITIVE "DRIP LINE" AREAS AND WILL PREVENT SOIL COMPACTION FROM INCREASED VEHICULAR/PEDESTRIAN TRAFFIC. NO STORAGE OF MATERIAL, TOPSOIL, VEHICLES OR EQUIPMENT SHALL BE PERMITTED WITHIN THE TREE ENCLOSURE AREA. THE GROUND AROUND THE TREE CANOPY SHALL NOT BE ALTERED. THESE BARRICADES SHOULD REMAIN IN PLACE UNTIL FINAL INSPECTION OF THE BUILDING PERMIT, EXCEPT FOR WORK SPECIFICALLY REQUIRED IN THE APPROVED PLANS TO BE DONE UNDER THE TREES TO BE PROTECTED. DESIGNATED AREAS BEYOND THE DRIP LINES OF ANY TREES SHOULD BE PROVIDED FOR CONSTRUCTION MATERIALS AND ONSITE PARKING. REFER TO TREE PROTECTION DETAIL THIS SHEET.
- ROOT PRUNING (IF NECESSARY): DURING AND UPON COMPLETION OF ANY TRENCHING/GRADING OPERATION WITHIN A TREE'S DRIP LINE, SHOULD ANY ROOTS GREATER THAN ONE INCH (1") IN DIAMETER BE DAMAGED, BROKEN OR SEVERED, ROOT PRUNING TO INCLUDE FLUSH CUTTING AND SEALING OF EXPOSED ROOTS SHOULD BE ACCOMPLISHED UNDER THE SUPERVISION OF THE PROJECT ARBORIST TO MINIMIZE ROOT DETRIORATION BEYOND THE SOIL LINE WITHIN TWENTY-FOUR (24) HOURS.
- PRUNING: PRUNING OF THE FOLIAR CANOPIES TO INCLUDE REMOVAL OF DEADWOOD IS RECOMMENDED AND SHOULD BE INITIATED PRIOR TO CONSTRUCTION OPERATIONS. SUCH PRUNING WILL PROVIDE ANY NECESSARY CONSTRUCTION CLEARANCE, WILL LESSEN THE LIKELIHOOD OR POTENTIAL FOR LIMB BREAKAGE, REDUCE "WINDSAIL" EFFECT AND PROVIDE AN ENVIRONMENT SUITABLE FOR HEALTHY AND VIGOROUS GROWTH.
- FERTILIZATION: A PROGRAM OF FERTILIZATION BY MEANS OF DEEP ROOT SOIL INJECTION IS RECOMMENDED WITH APPLICATIONS IN SPRING AND SUMMER FOR THOSE TREES TO BE IMPACTED BY CONSTRUCTION. SUCH FERTILIZATION WILL SERVE TO STIMULATE FEEDER ROOT DEVELOPMENT, OFFSET SHOCK/STRESS AS RELATED TO CONSTRUCTION AND/OR ENVIRONMENTAL FACTORS, ENCOURAGE VIGOR, ALLEVIATE SOIL COMPACTION AND COMPENSATE FOR ANY ENCOACHMENT OF NATURAL FEEDING ROOT AREAS. INCEPTION OF THIS FERTILIZING PROGRAM IS RECOMMENDED PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY.
- IRRIGATION: A SUPPLEMENTAL IRRIGATION PROGRAM IS RECOMMENDED FOR THE ALL TREES (EXCLUDING OAK SPECIES) AND SHOULD BE ACCOMPLISHED AT REGULAR THREE TO FOUR WEEK INTERVALS DURING THE PERIOD OF MAY 1ST THROUGH OCTOBER 31ST. IRRIGATION IS TO BE APPLIED AT OR ABOUT THE "DRIP LINE" IN AN AMOUNT SUFFICIENT TO SUPPLY APPROXIMATELY FIFTEEN (15) GALLONS OF WATER FOR EACH INCH IN TRUNK DIAMETER. IRRIGATION CAN BE PROVIDED BY MEANS OF A SOIL NEEDLE, 'SOAKER' OR PERMEABLE HOSE. WHEN USING 'SOAKER' OR PERMEABLE HOSES, WATER IS TO BE RUN AT LOW PRESSURE, AVOIDING RUNOFF/PUDDLING, ALLOWING THE NEEDED MOISTURE TO PENETRATE THE SOIL TO FEEDER ROOT DEPTHS.
- MULCH: MULCHING WITH WOOD CHIPS (MINIMUM DEPTH 2"-MAXIMUM DEPTH 3") WITHIN TREE ENVIRONMENTS (OUTER FOLIAR PERIMETER) WILL LESSEN MOISTURE EVAPORATION FROM SOIL, PROTECT AND ENCOURAGE ADVENTITIOUS ROOTS AND MINIMIZE POSSIBLE SOIL COMPACTION.
- INSPECTION: CONTRACTOR SHALL OBTAIN COPY OF THE PROJECT ARBORIST REPORT AND BE FAMILIAR AND CONFORM TO ALL REQUIREMENTS THEREIN. PERIODIC INSPECTIONS BY THE PROJECT ARBORIST ARE RECOMMENDED DURING CONSTRUCTION ACTIVITIES, PARTICULARLY AS TREES ARE IMPACTED BY TRENCHING/GRADING OPERATIONS. INSPECTIONS AT APPROXIMATE FOUR (4) WEEK INTERVALS WOULD BE SUFFICIENT TO ASSESS AND MONITOR THE EFFECTIVENESS OF THE TREE PRESERVATION PLAN AND TO PROVIDE RECOMMENDATIONS FOR ANY ADDITIONAL CARE OR TREATMENT.
- CONTRACTOR SHALL REVIEW DETAILS 1,2 AND 3 OF THIS SHEET PRIOR TO ACCOMPLISHING ANY WORK OR REMOVING ANY TREES.
- THE MATURE TREES SHALL BE IRRIGATED WITH EXISTING TREE IRRIGATION SYSTEM ON SITE THOROUGHLY ONE TIME EVERY 5 - 6 WEEKS ONCE THE WINTER RAINS STOP. ALL PARTS OF THE TREE TRUNK SHALL STAY DRY OR AS PROJECT ARBORIST DECIDES.
- TREES/ LARGE PLANTS TO BE REMOVED OR RELOCATED SHALL BE TAGGED IN THE FIELD BY THE LANDSCAPE ARCHITECT AND/OR THE PROJECT ARBORIST.
- REMOVE HEAVY VEGETATIVE GROWTH PRIOR TO SOIL STRIPPING. LEAVE SOIL IN PLACE WITHIN DRIP LINES OF TREES. STOCKPILE TOPSOIL IN AREAS DIRECTED BY LANDSCAPE ARCHITECT. COVER STOCKPILES TO PREVENT CONTAMINATION, WIND AND WATER EROSION IMMEDIATELY.
- CONTRACTOR SHALL OBTAIN COPY OF PROJECT ARBORIST REPORT BY HEARTWOOD CONSULTING ARBORISTS, DATED MAY 24, 2021, THE TREE SURVEY/TREE DISPOSITION PLAN PREPARED BY STUDIO FIVE DESIGN AND THE TREE PROTECTION/DISPOSITION DETAILS PREPARED BY STUDIO FIVE DESIGN AND BE FAMILIAR AND CONFORM TO ALL REQUIREMENTS THEREIN.
- FOR 'TREE NUMBER' INFORMATION, SEE ARBORIST'S REPORT, DATED MAY 24, 2021. AND TREE DISPOSITION PLANS BY STUDIO FIVE DESIGN.
- DO NOT LIME WITHIN 50' OF ANY TREE. LIME IS TOXIC TO TREE ROOTS.
- PRIOR TO GRADING, PAD PREPARATION, EXCAVATION FOR FOUNDATIONS/FOOTINGS/WALLS, TRENCHING, TREES MAY REQUIRE ROOT PRUNING OUTSIDE THE TREE PROTECTION ZONE BY CUTTING ALL ROOTS CLEANLY TO THE DEPTH OF THE EXCAVATION. ROOTS SHALL BE CUT BY MANUALLY DIGGING A TRENCH AND CUTTING EXPOSED ROOTS WITH SAW, VIBRATING KNIFE, ROCK SAW, OR OTHER APPROVED ROOT PRUNING EQUIPMENT. THE PROJECT ARBORIST WILL IDENTIFY WHERE ROOT PRUNING IS REQUIRED AND MONITOR ALL ROOT PRUNING.
- ALL UNDERGROUND UTILITIES, DRAIN LINES OR IRRIGATION LINES SHALL BE ROUTED OUTSIDE THE TREE PROTECTION ZONE. IF LINES MUST TRAVERSE THROUGH THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE AS DIRECTED BY THE PROJECT ARBORIST.
- TREES TO BE REMOVED SHALL BE CUT ONE FOOT ABOVE FINISHED GRADE AND THEN TREE STUMP SHALL BE GRIND 12" MIN. (OR DEEPER IF A PROPOSED TREE IS IN THE SAME LOCATION AND IS DEPENDENT ON PROPOSED BOX SIZE) BELOW FINISHED GRADE TO MINIMIZE IMPACT ON THE UNDER GROUND UTILITIES.
- NEED TO RUN A CAMERA THROUGH THE SANITARY SEWER MAIN TO VERIFY INTRUSION OF TREE ROOTS. ALL DAMAGED SANITARY SEWER LINES AND WATER MAINS SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO CONSTRUCTING FINISHED GRADE.
- NO EXISTING TREE(S) MAY BE TRIMMED OR PRUNED WITHOUT PRIOR APPROVAL BY THE PROJECT ARBORIST OR CITY ARBORIST.
- NO EQUIPMENT MAY BE STORED WITHIN OR BENEATH THE DRIP LINES OF THE EXISTING TREES TO BE SAVED.
- NO OIL, GASOLINE, CHEMICALS OR OTHER HARMFUL MATERIALS SHALL BE DEPOSITED OR DISPOSED WITHIN THE DRIP LINE OF THE TREES OR IN DRAINAGE CHANNELS, SWALES OR AREAS THAT MAY LEAD TO THE DRIP LINE.
- NO STOCKPILING/STORAGE OF FILL, ETC., SHALL TAKE PLACE UNDERNEATH OR WITHIN FIVE FEET OF THE DRIP LINE OF ALL EXISTING TREES.
- THE PROJECT DEVELOPER SHALL COMPLY WITH THE RECOMMENDATIONS OF THE TREE REPORTS PREPARED BY HEARTWOOD CONSULTING ARBORISTS, DATED MAY 24, 2021. A FINAL LIST OF THE TREE PRESERVATION MEASURES BY THE ARBORIST SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE DIRECTOR OF COMMUNITY DEVELOPMENT PRIOR TO BUILDING PERMIT ISSUANCE. NO TREE TRIMMING OR PRUNING OTHER THAN THAT SPECIFIED IN THE TREE REPORT SHALL OCCUR. THE PROJECT DEVELOPER SHALL ARRANGE FOR THE HORTICULTURAL CONSULTANT TO CONDUCT A FIELD INSPECTION PRIOR TO ISSUANCE OF CITY PERMITS TO ENSURE THAT ALL RECOMMENDATIONS HAVE BEEN PROPERLY IMPLEMENTED. THE CONSULTANT SHALL CERTIFY IN WRITING THAT SUCH RECOMMENDATIONS HAVE BEEN FOLLOWED.
- ALL INVENTORIED EX. TREES ON THE PLAN BY THE PROJECT ARBORIST SHALL USE THE LATEST VERSION OF THE 'GUIDE FOR PLANT APPRAISAL' PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA).

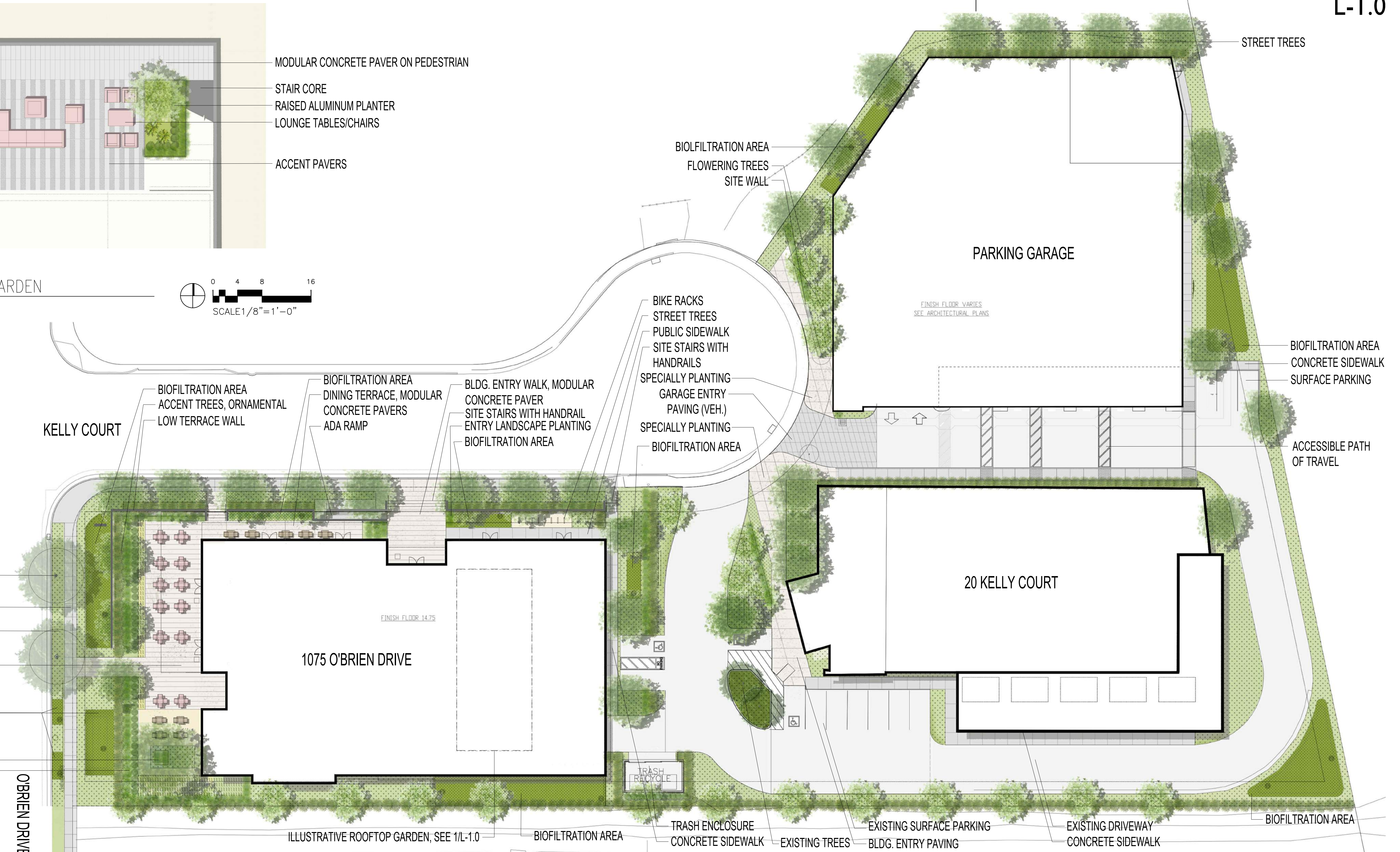
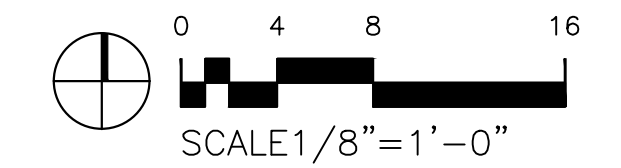
3 TREE PROTECTION NOTES & GUIDELINES
SCALE: 1/4" = 1'-0"



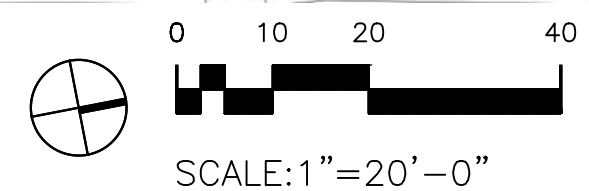


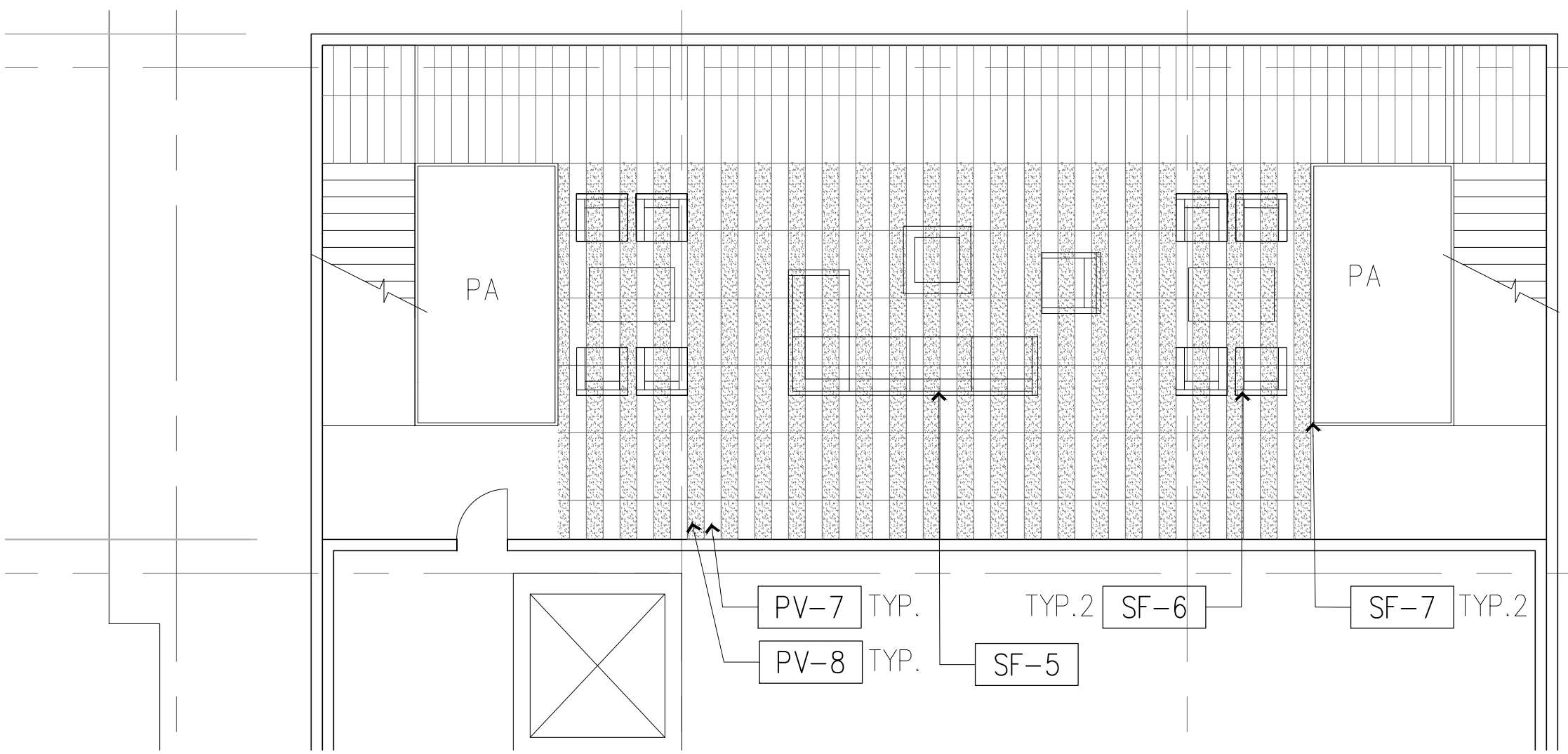
- MODULAR CONCRETE PAVER ON PEDESTRIAN
- STAIR CORE
- RAISED ALUMINUM PLANTER
- LOUNGE TABLES/CHAIRS
- ACCENT PAVERS

1 ILLUSTRATIVE ROOFTOP GARDEN
SCALE: 1"=20'-0"

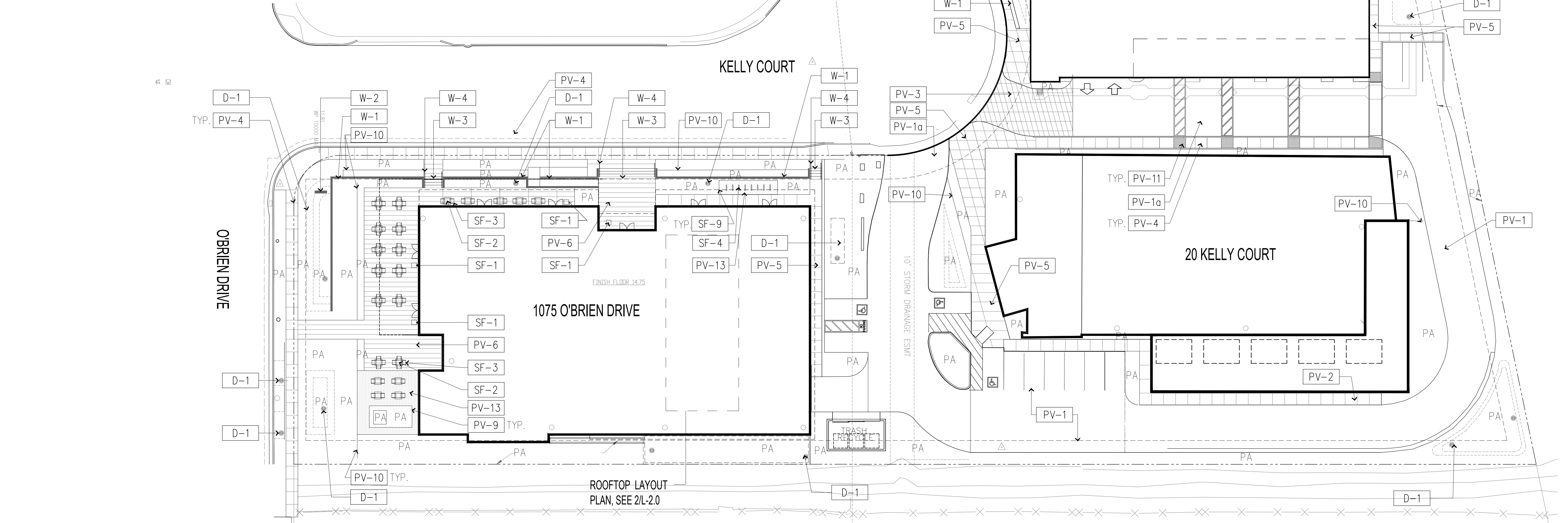
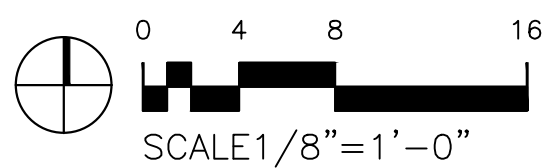


2 ILLUSTRATIVE SITE PLAN
SCALE: 1"=20'-0"

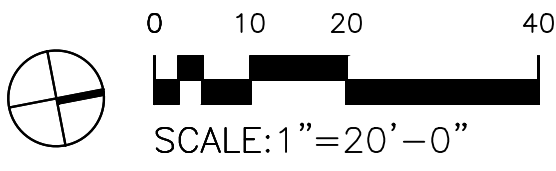




2 ROOFTOP LAYOUT PLAN
SCALE: 1/8"=1'-0"

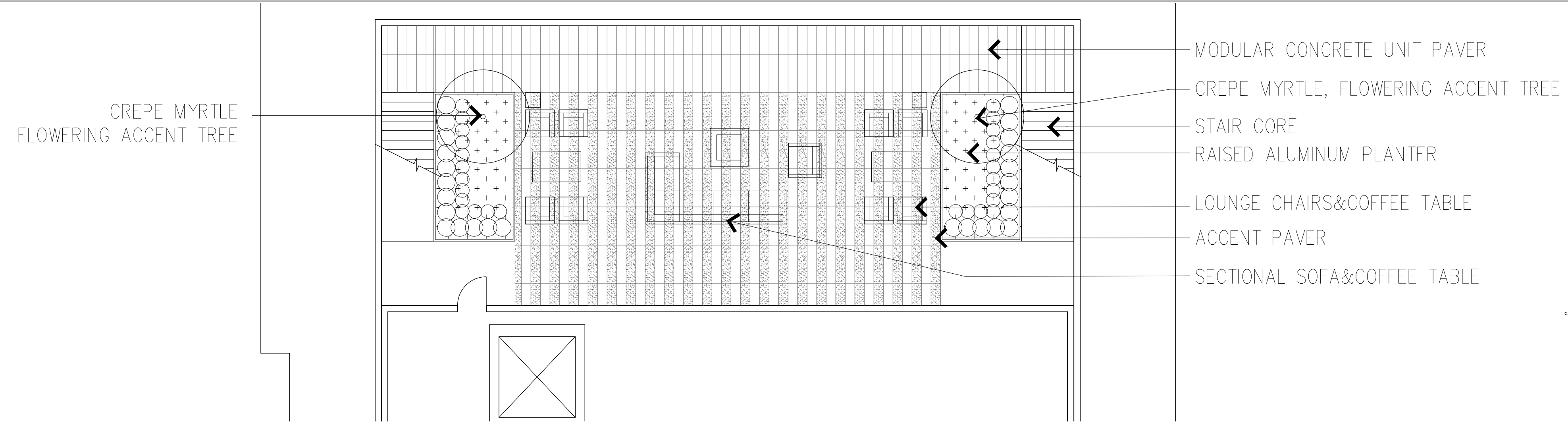


1 LAYOUT PLAN
SCALE: 1"=20'-0"

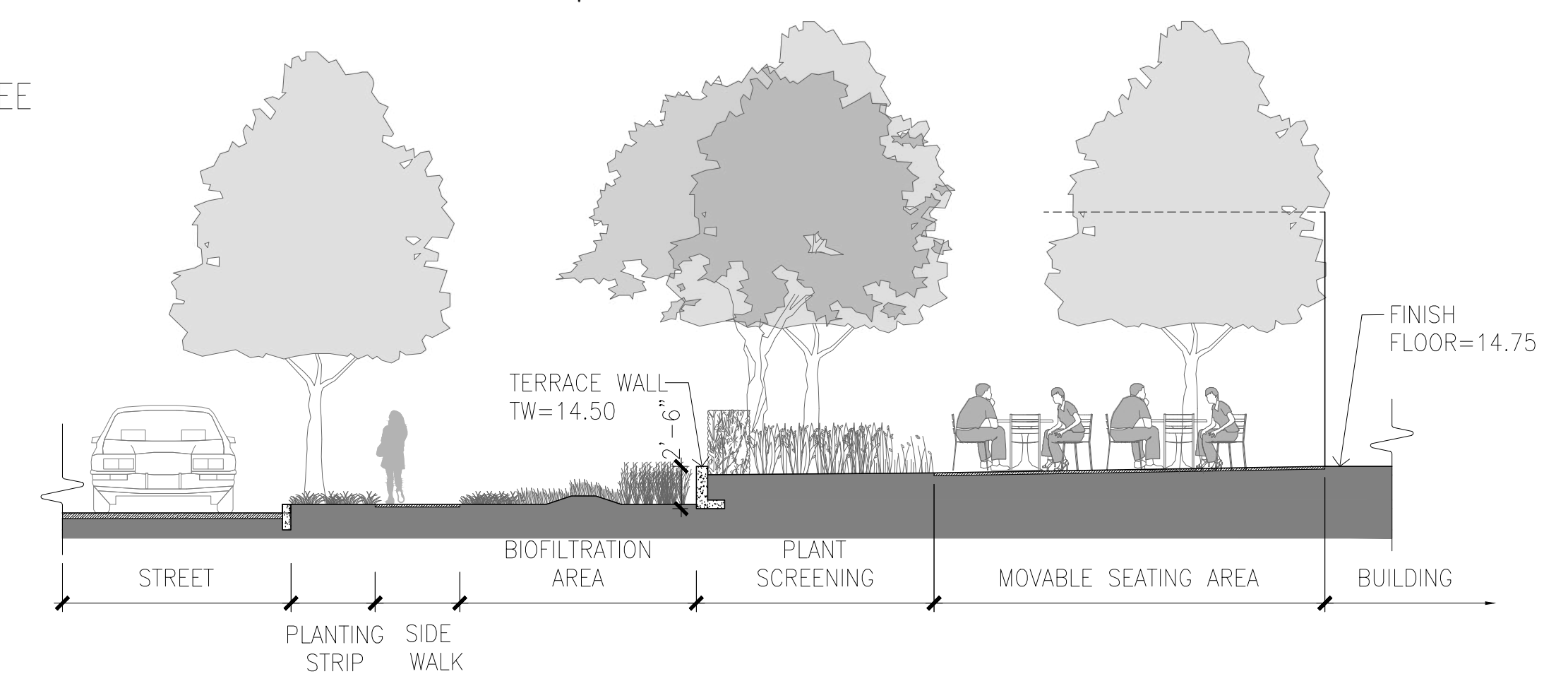


NOTE: REFERENCE SHEET L-5.0 FOR MATERIAL SCHEDULE.

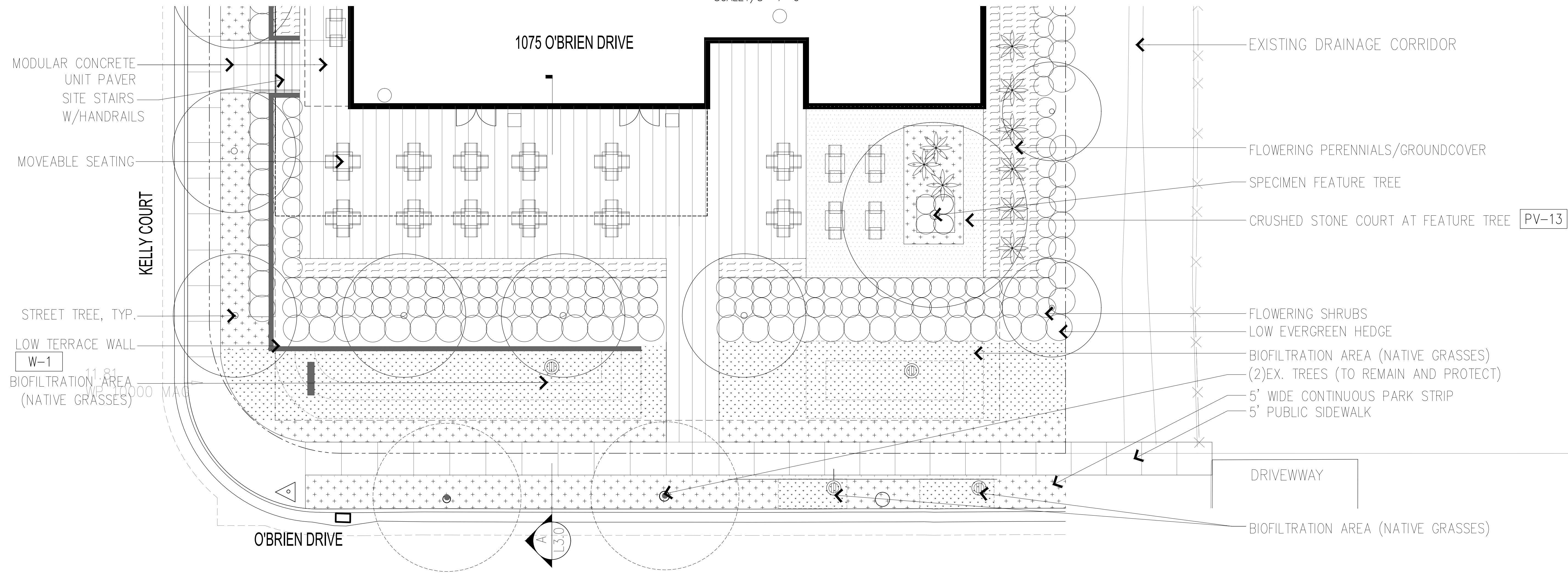




2 ENLARGEMENT ROOFTOP PLAN
SCALE: 1/8"=1'-0"
0 4 8 16
SCALE 1/8"=1'-0"

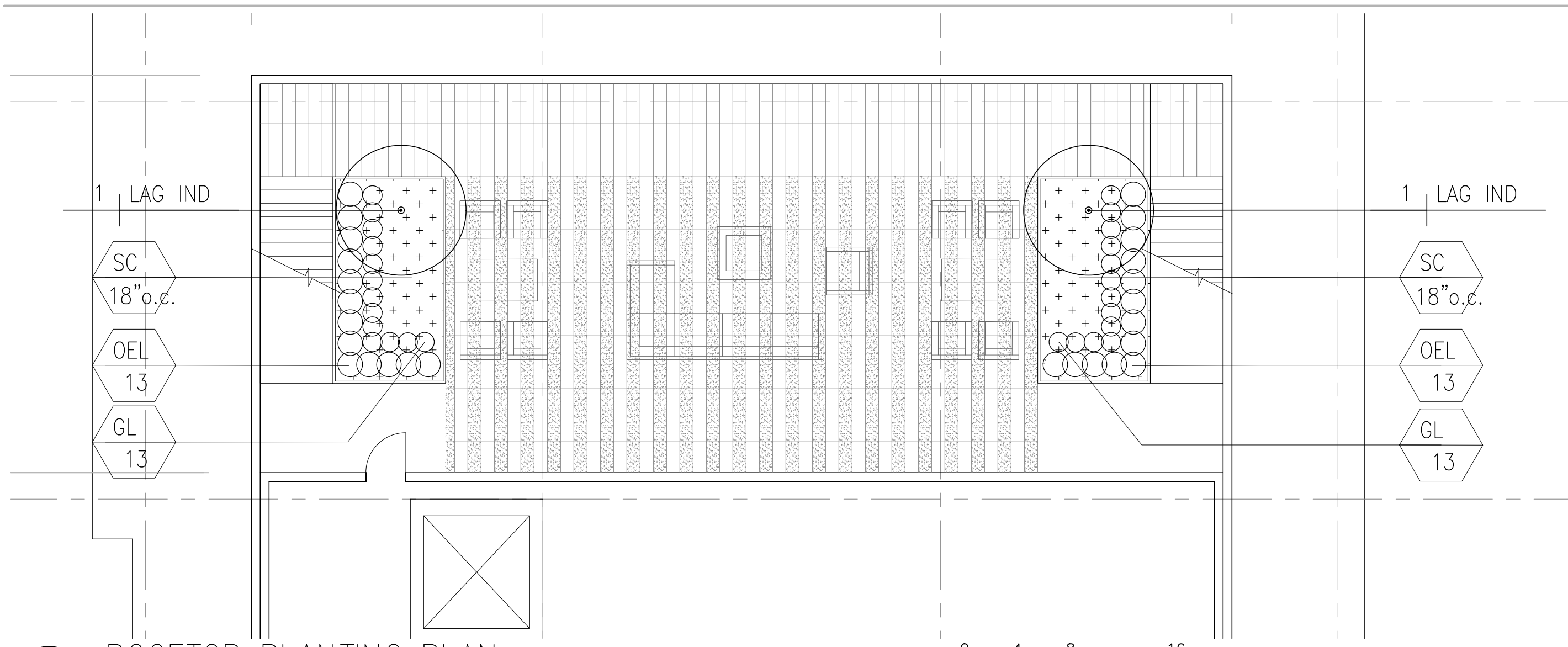


3 SECTION A
SCALE: 1/8" = 1'-0"

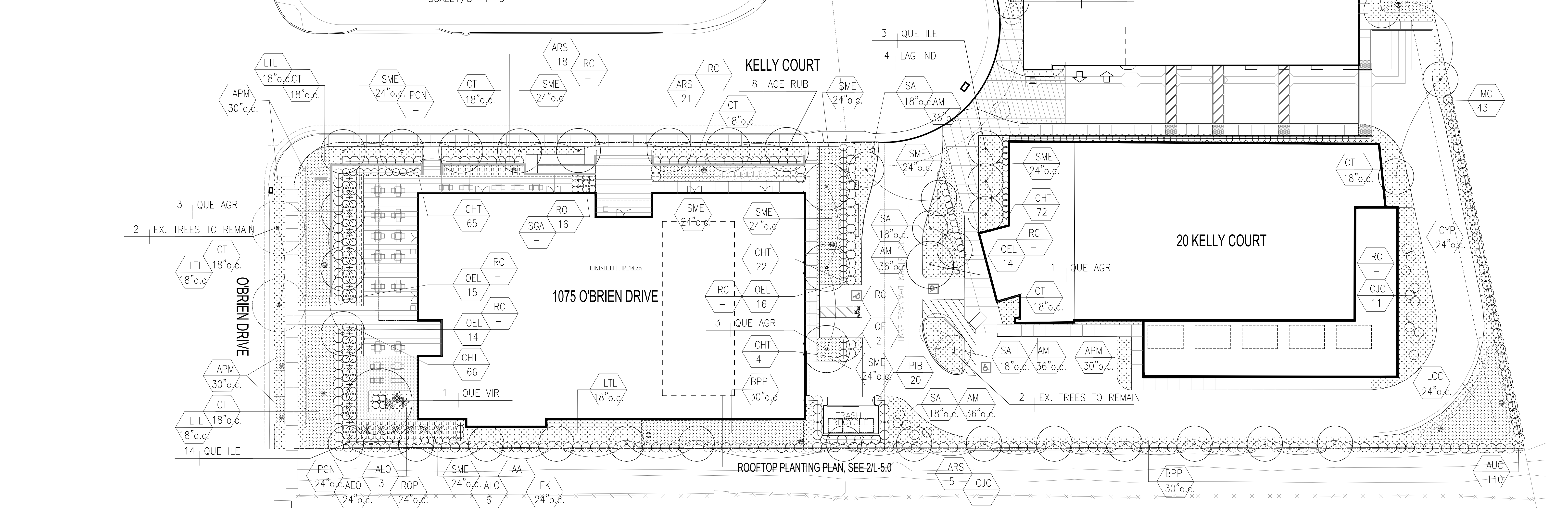


1 ENLARGEMENT PLAN
SCALE: 1/8"=1'-0"
0 4 8 16
SCALE 1/8"=1'-0"





2 ROOFTOP PLANTING PLAN



1 PLANTING PLAN

NOTE: REFERENCE SHEET L-5.0 FOR PLANT SCHEDULE.



MATERIALS SCHEDULE – CSBio

SYMBOL	DESCRIPTION	PRODUCT/ITEM#	FINISH/COLOR	SOURCE/COMMENT S
PAVING & HEADERS				
PV-1	ASPHALT (EXISTING)	S.C.D.	S.C.D.	S.C.D.
PV-1a	ASPHALT (NEW)	S.C.D.	S.C.D.	S.C.D.
PV-2	4" CONCRETE PAVING (EXISTING)	SEE CITY STANDARDS	NATURAL GREY	SEE CITY STANDARDS
PV-3	6" CONCRETE PAVING (VEH)	FEATHER EDGE, 1/8" MAX. TROWEL JOINT	COBBLESTONE, TOP CAST FINISH: LIGHT SANDBLAST	DAVIS COLOR
PV-4	4" CONCRETE PAVING (PED)	SEE CITY STANDARDS	NATURAL GREY	SEE CITY STANDARDS
PV-5	4" CONCRETE PAVING (ON GRADE)	FEATHER EDGE, 1/8" MAX. TROWEL JOINT	PEWTER, TOP CAST FINISH: LIGHT SANDBLAST	DAVIS COLOR
PV-6	CONCRETE UNIT PAVER (PED) – TYPE 1 (ON GRADE)	12"x48", 60MM THICK, FIELD PATTERN: STACKED BOND.	COLOR: GRANADA WHITE. FINISH: FACE MIX, SHOT BLAST, GRIND W/ BEVEL EDGE	STEPSTONE
PV-7	PERMEABLE CONCRETE UNIT PAVER (PED) – TYPE 2 (ON PODIUM)	12"x48", 60MM THICK, FIELD PATTERN: STACKED BOND.	COLOR: GRANADA WHITE. FINISH: FACE MIX, SHOT BLAST, GRIND W/ BEVEL EDGE	STEPSTONE
PV-8	CONCRETE UNIT PAVER (PED) – TYPE 3 (ON PODIUM)	12"x48", 60MM THICK, FIELD PATTERN: STACKED BOND.	COLOR: LIGHT SALTE, FINISH: FACE MIX, SHOT BLAST W/ BEVEL EDGE.	STEPSTONE
PV-9	PAVER EDGE RESTRAINT	3/8"x2 1/4" STRUCTUREDGE	MILL FINISH	PERMALOC.COM
PV-10	LANDSCAPE HEADER	3/8"x4" CLEANLINE, CONTRACTOR TO DETERMINE 8' OR 16' LENGTH	BRONZE FINISH	PERMALOC.COM
PV-11	TRUNCATED DOME PAVER	12"x12"	ONYX FM, SHOT BLASH, PTDSB-610	STEPSTONE
PV-12	SLATE CHIP TOP DRESSING	SIZE: 3-4" DIA.	GREY	SBI
PV-13	DECOMPOSED GRANITE W/ GRAVELPAVE2	3/8" CLEAN DG	YUMA TRINITY CRUSHED	SBI
SYMBOL	DESCRIPTION	PRODUCT/ITEM#	FINISH/COLOR	SOURCE/COMMENT S
STAIR, WALL, FENCE & CURB				
W-1	WALL-TYPE 1 (RETAINING)	P.I.P. CONCRETE, INTEGRAL COLOR, LIGHT SAND BLAST FINISH	OPT 1: PEWTER OPT 2: COBBLESTONE	DAVIS COLORS
W-2	PROJECT MONUMENT SIGN/ SITE SIGNAGE	CUSTOM	CUSTOM	BY OTHERS
W-3	SITE STAIRS	P.I.P. CONCRETE, INTEGRAL COLOR, TBD.	FINISH: ACID ETCH	DAVIS COLOR
W-4	HANDRAIL	S.S.TUBE STOCK, FLAT STOCK, BRUSHED METAL	CUSTOM	BY OTHERS
SYMBOL	DESCRIPTION	PRODUCT/ITEM#	FINISH/COLOR	SOURCE/COMMENT S
SITE FURNISHINGS				
SF-1	LITTER/RECYCLE RECEPTACLE	BOX LINE	TUBE-SILVER SABLE, FRAME: DK GREY	ID METALCO
SF-2	TABLE	ALLUX DINING TABLE (100X100)	TEAK, CUSTOM COLOR	MAMAGREEN
SF-3	CHAIR	ZIX STACKABLE CHAIR	TEAK, CUSTOM COLOR	MAMAGREEN
SF-4	BIKE RACK	BOLA BIKE RACK	STAINLESS STEEL	LANDSCAPE FORM
SF-5	SECTIONAL SOFA & COFFEE TABLE	-	-	-
SF-6	LOUNGE CHAIRS&COFFEE TABLE	-	-	-
SF-7	RECTANGULAR PLANTER	-	-	-
SYMBOL	DESCRIPTION	PRODUCT/ITEM#	FINISH/COLOR	SOURCE/COMMENT S
DRAINAGE				
D-1	BIOFILTRATION	S.C.D. FOR DRAINAGE PLANS	S.C.D	S.C.D

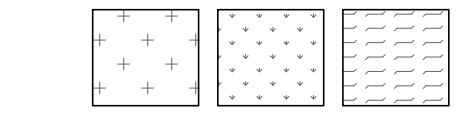
PLANT SCHEDULE – CSBio

SIZE	ID	BOTANICAL NAME	COMMON NAME	QUANTITY	SPACING	WUCOL	NATIVE
PROPOSED TREES							
36" Box	ACE RUB	Acer rubrum 'Armstrong'	'Armstrong' Red Maple	8	As Shown	M	N
36" Box	LAG IND	Lagerstroemia indica 'Natchez'	Crepe Myrtle	8	As Shown	L	N
24" Box	POP FRE	Populus fremontii	Fremont Cottonwood	7	As Shown	L	Y
36" BOX	QUE AGR	Quercus agrifolia	Coast Live Oak	13	As shown	L	Y
48" BOX	QUE VIR	Quercus virginiana	Southern Live Oak	1	As shown	L	Y
24" Box	QUE ILE	Quercus ilex	Holly Oak	17	As shown	M	Y
SHRUBS, PERENNIALS & SUCCULENTS							
5 Gal	AA	Agave attenuata 'Blue Nova'	Blue Nova Agave		As shown	L	Y
1 Gal	AEO	Aeonium canariensis	Aeonium		24" O.C.	L	Y
5 Gal	ARS	Arctostaphylos 'Sunset'	Sunset Manzanita		24" O.C.	L	Y
1 Gal	APM	Arctostaphylos 'Pacific Mist'	Pacific Mist Manzanita		30" O.C.	L	Y
5 Gal	ALO	Aloe arborescens	Aloe		As shown	L	N
1 Gal	AM	Achillea millefolium 'Sonoma Coast'	Yarrow		36" O.C.	L	Y
5 Gal	AUC	Arbutus unedo 'Compacta'	Dwarf strawberry tree		As shown	L	N
5 Gal	CJC	Ceanothus 'Joyce Coulter'	Lilac		As shown	L	Y
1 Gal	CYP	Ceanothus 'Yankee Point'	Yankee Point Ceanothus		As shown	L	Y
1 Gal	EK	Erigeron karvinskianus	Santa Barbara daisy		24" O.C.	L	N
1 Gal	GL	Gaura lindheimeri 'Whirling Butterflies'	Gaura		As shown	M	N
5 Gal	OEL	Olea europaea 'Little Ollie'	Dwarf Olive Shrub		As shown	VL	N
5 Gal	PCN	Pittosporum crassifolium 'Nana'	Dwarf Karo		24" O.C.	M	N
15 Gal	PIB	Podocarpus elongatus 'Icee Blue'	Blue Ice Yellowwood		As shown	M	N
5 Gal	RC	Rhamnus californica 'Mound San Bruno'	Mound San Bruno Coffeeberry		As shown	L	N
1 Gal	SME	Salvia mellifera 'Jade Carpet'	Jade Carpet Black Sage		24" O.C.	L	Y
1 Gal	ROP	Rosemary officinalis prostratus	Creeping Rosemary		24" O.C.	L	Y
5 Gal	SC	Salvia chamaedryoides	Germander Sage		18" O.C.	L	Y
5 Gal	MC	Myrica californica	California Myrtle		As shown	L	Y
ORNAMENTAL GRASSES, GROUNDCOVER, RUSHES							
1 Gal	BPP	Baccharis pilularis 'Pigeon Point'	Coyote Brush		30" O.C.	L	Y
1 Gal	CHT	Chondropetalum tectorum	Cape Reed		As shown	L	N
1 Gal	CT	Carex tumulicola	Berkeley Sedge		18" O.C.	L	Y
1 Gal	LCC	Leymus condensatus 'Canyon Prince'	Giant Wild Rye		24" O.C.	VL	Y
1 Gal	LTL	Leymus triticoides 'Lagunita'	Lagunita Wild Rye		18" O.C.	L	Y
1 Gal	SA	Sesleria autumnalis	Autumn Moor Grass		18" O.C.	M	N

* NATIVE PLANT SOURCE: SUNSET'S WESTERN GARDEN BOOK, THEODORE PAYNE FOUNDATION FOR WILD FLOWERS & NATIVE PLANTS,

XX-X	MATERIAL CALLOUT	R	RADIUS
300	TOPOGRAPHIC CONTOUR LINE	TYP	TYPICAL
---	PROPERTY LINE	TS	TOP OF STEP
---	SETBACK LINE	BS	BOTTOM OF STEP
---	CENTER LINE	TW	TOP OF WALL
---	LAYOUT LINE	BW	BOTTOM OF WALL
(EX.)	EXISTING	TC	TOP OF CURB
↔	ALIGN	BC	BOTTOM OF CURB
●	TREE TRUNK	HP	HIGH POINT
■	AREA DRAIN	LP	LOW POINT
↖	QUANTITY OR SPACING	TP	TOP OF PAVING
↘	BOTANICAL NAME	AD	AREA DRAIN ELEVATION
XX XXXX	PLANT CALLOUT	FG	FINISHED GRADE
XX XXXX	COMMON NAME	V.I.F.	VERIFY IN FIELD
XX XXXX	CONTAINER SIZE	S.A.D.	SEE ARCH. DWGS
XX XXXX	BOTANICAL NAME/ID	S.E.D.	SEE ELECTRICAL DWGS
XX XXXX	PLANT CALLOUT (SHRUB)	S.S.D.	SEE STRUCTURAL DWGS
XX XXXX	QUANTITY OR SPACING	S.C.D.	SEE CIVIL DWGS
XX XXXX	CONCRETE/CONCRETE PAVERS	S.P.D.	SEE PLUMBING DWGS
XX XXXX		S.M.D.	SEE MECHANICAL DWGS
XX XXXX		F.O.B.	FACE OF BLDG.
XX XXXX		CL	CENTER LINE
XX XXXX		CP	CENTER POINT
XX XXXX		SYM.	SYMMETRICAL
XX XXXX		U.O.N.	UNLESS OTHERWISE NOTED
XX XXXX		PA	PLANTING AREA
XX XXXX		EQ.	EQUAL
XX XXXX		FFE	FINISHED FLOOR ELEVATION
XX XXXX		EJ	EXPANSION JOINT
XX XXXX		NG	NATURAL GRADE
XX XXXX		STR	STRUCTURE
XX XXXX		N.I.C.	NOT IN CONTRACT
XX XXXX		P.O.B	POINT OF BEGINNING

SHRUB & UNDERSTORY PLANTING SYMBOLS



PROPOSED TREES



(ACE RUB) ARMSTRONG RED MAPLE



(LAG IND) CREPE MYRTLE



(POP FRE) COTTONWOOD



(QUE AGR) COAST LIVE OAK



(QUE VIR) SOUTHERN LIVE OAK



(QUE ILE) HOLLY OAK



PROPOSED SHRUBS, PERENNIALS, SUCCULENTS



AA



AEO



ARS



APM



ALO



AM



AUC



CJC



CYP



EK



GL



OEL



PCN



PIB



RC



SME



ROP



SC



MC

PROPOSED ORNAMENTAL GRASSES, GROUNDCOVER, RUSHES



BPP



CHT



CT



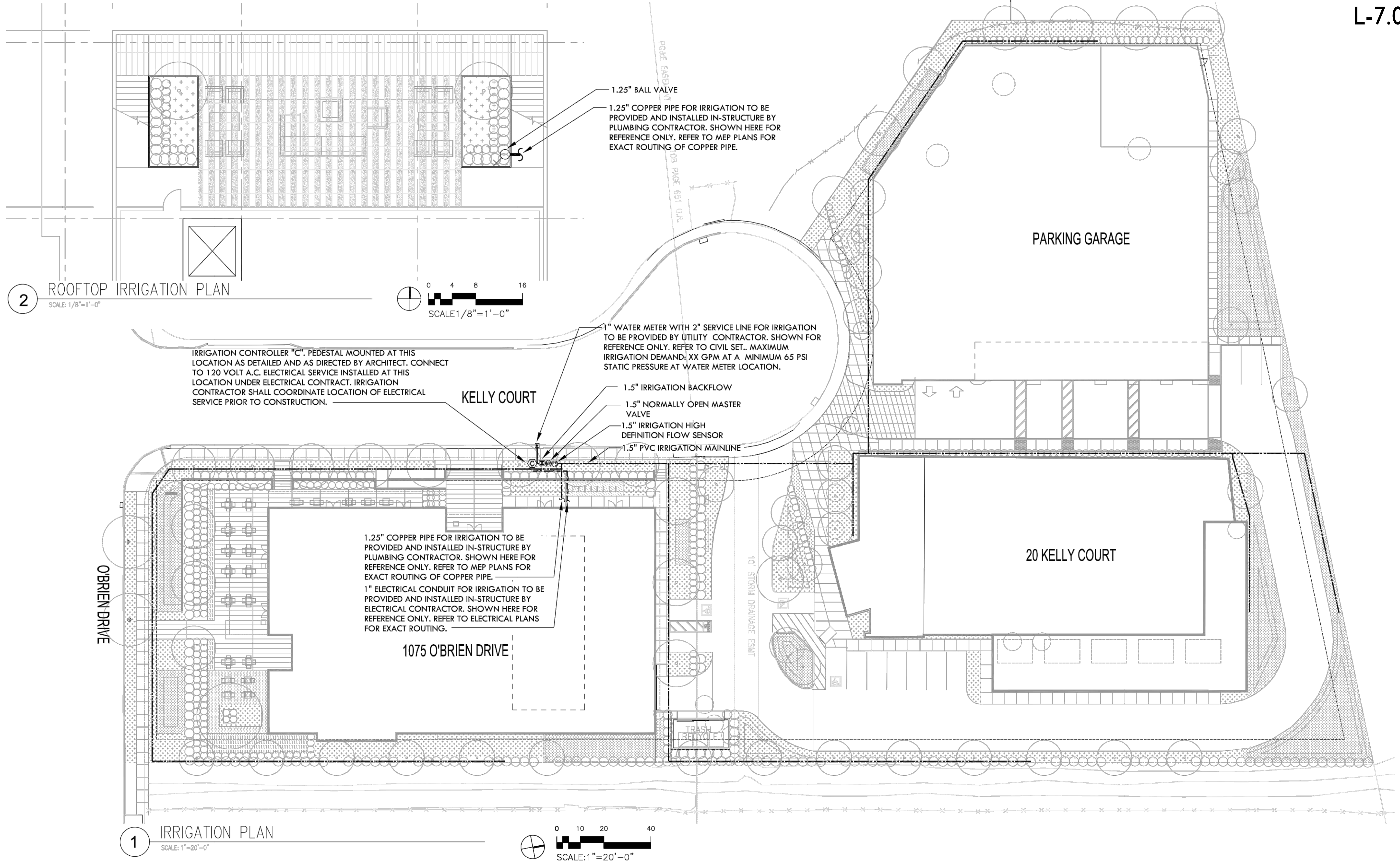
LCC



LTL



SA



Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
 2760 Camino Diablo
 Walnut Creek, CA 94597
 tel 925.939.3985 ♦ fax 925.932.5671
 www.rdmirrigation.com

STUDIO FIVE | DESIGN
 Landscape Architecture + Site Planning
 25 SAN ANSELMO AVE.
 SAN ANSELMO, CA 94960
 P 415.524.8517



WATER CALCULATION:

WATER USE ESTIMATION												
WATER TYPE	POTABLE											
SITE ETO=	43.1											
REGULAR LANDSCAPE AREAS												
HYDROZONE #	HYDROZONE NAME	PLANT WATER USE TYPE	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY	ETAF (PF/IE)	AREA (SQ. FT) (HA)	ETAF X AREA (HA)	ETWU (GAL/YR)	ACRE FEET/ YEAR	HCF/ YEAR	PERCENTAGE OF LANDSCAPE
1	BIORETENTION	MOD	0.4	SPRAY	0.75	0.533	4,693	2,503	66,883	0.21	89.42	20%
2	TREES	LOW	0.3	BUBBLER	0.81	0.370	5,200	1,926	51,465	0.16	68.80	22%
3	SHRUBS	LOW	0.3	DRIP	0.81	0.370	10,800	4,000	106,888	0.33	142.90	45%
4	SHRUBS	MOD	0.4	DRIP	0.81	0.494	3,285	1,622	43,349	0.13	57.95	14%
TOTALS							23,978	10,051	268,585	0.82	359.07	100%
SPECIAL LANDSCAPE AREAS												
HYDROZONE #	HYDROZONE NAME											
3						1						0%
TOTALS							0					0%
MAWA	GALLONS/YR	288,333					MAWA FORMULA			ETWU FORMULA		
	ACRE FEET/YR	0.88					MAXIMUM APPLIED WATER ALLOWANCE (MAWA) GALLONS PER YEAR			ESTIMATED TOTAL WATER USE (ETWU) GALLONS PER YEAR		
	HCF/YR	385.47					MAWA = ((ETO)(0.62))((LA x 0.45) + (0.55 x SLA))			ETWU = ((ETO)(.62)(ETAF x LA))		
ETWU	GALLONS/YR	268,585					ETo = REFERENCE EVAPOTRANSPIRATION			ETo = REFERENCE EVAPOTRANSPIRATION		
	ACRE FEET/YR	0.82					0.55= ET ADJUSTMENT FACTOR			PF = PLANT FACTOR FOR HYDROZONES		
	HCF/YR	359.07					LA=LANDSCAPED AREA (SQUARE FEET)			HA = HYDROZONE AREA (SQ. FT)		
							0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)			0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)		
SITE IRRIGATION EFFICIENCY	SITE PLANT FACTOR	MAWA COMPLIANT								IE = IRRIGATION EFFICIENCY (0.81)-BUBBLER/DRIP		
79.8%	0.33	YES								IE = IRRIGATION EFFICIENCY (0.75)-ROTORS/SPRAY		
ETAF Calculations												
REGULAR LANDSCAPE AREAS												
TOTAL ETAF x AREA	10,051											
TOTAL AREA	23,978											
AVG. ETAF	41.92%											

IRRIGATION DESIGN NARRATIVE

THE PROPOSED IRRIGATION SYSTEM FOR THIS SITE WILL BE DESIGNED WITH THE LATEST TECHNOLOGY IN WATER CONSERVATION AND EFFICIENCY. THE SYSTEM WILL CONSIST OF THE FOLLOWING TYPES OF IRRIGATION METHODS AND EQUIPMENT COMPLYING WITH THE STATE WATER ORDINANCE. ALL SMALL PLANTING BEDS WILL BE IRRIGATED WITH WATER CONSERVING AND HIGHLY EFFICIENT INLINE DRIP. ALL BIORETENTION AREAS WILL BE IRRIGATED WITH HIGH EFFICIENCY POP-UP PRESSURE COMPENSATING SPRINKLERS OR INLINE DRIP SPACED AT 12" O.C. THESE SPRINKLERS APPLY THE WATER AT A LOWER APPLICATION RATE TO REDUCE RUNOFF AND PONDING. ALL SPRINKLERS WILL INCLUDE BUILT IN CHECK VALVES AND PRESSURE REGULATORS TO PREVENT MISTING AND LOW HEAD DRAINAGE ON SLOPED AREAS. THE CONTROLLER THAT WILL MANAGE THIS SYSTEM USES LOCAL WEATHER TO ADJUST THE RUN TIMES OF THE VALVES BASED ON DAILY WEATHER CONDITIONS. UTILIZING THIS TYPE OF WEATHER-BASED SYSTEM WILL HELP THE LANDSCAPE MANAGER SAVE 25% MORE WATER THAN WITH A CONVENTIONAL CONTROLLER.

IRRIGATION ZONES

1. LOW AND MODERATE WATER-USE SHRUBS/GROUNDCOVER/FLOWERING PLANTS: TO BE IRRIGATED WITH INLINE DRIP
2. LARGE SHRUBS AND TREES: TO BE IRRIGATED USING POINT SOURCE BUBBLERS.
3. STORMWATER TREATMENT: TO BE IRRIGATED WITH HIGH-EFFICIENCY POP-UP PRESSURE COMPENSATING SPRINKLERS
4. TURF: TO BE IRRIGATED WITH HIGH-EFFICIENCY POP-UP PRESSURE COMPENSATING SPRINKLERS



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