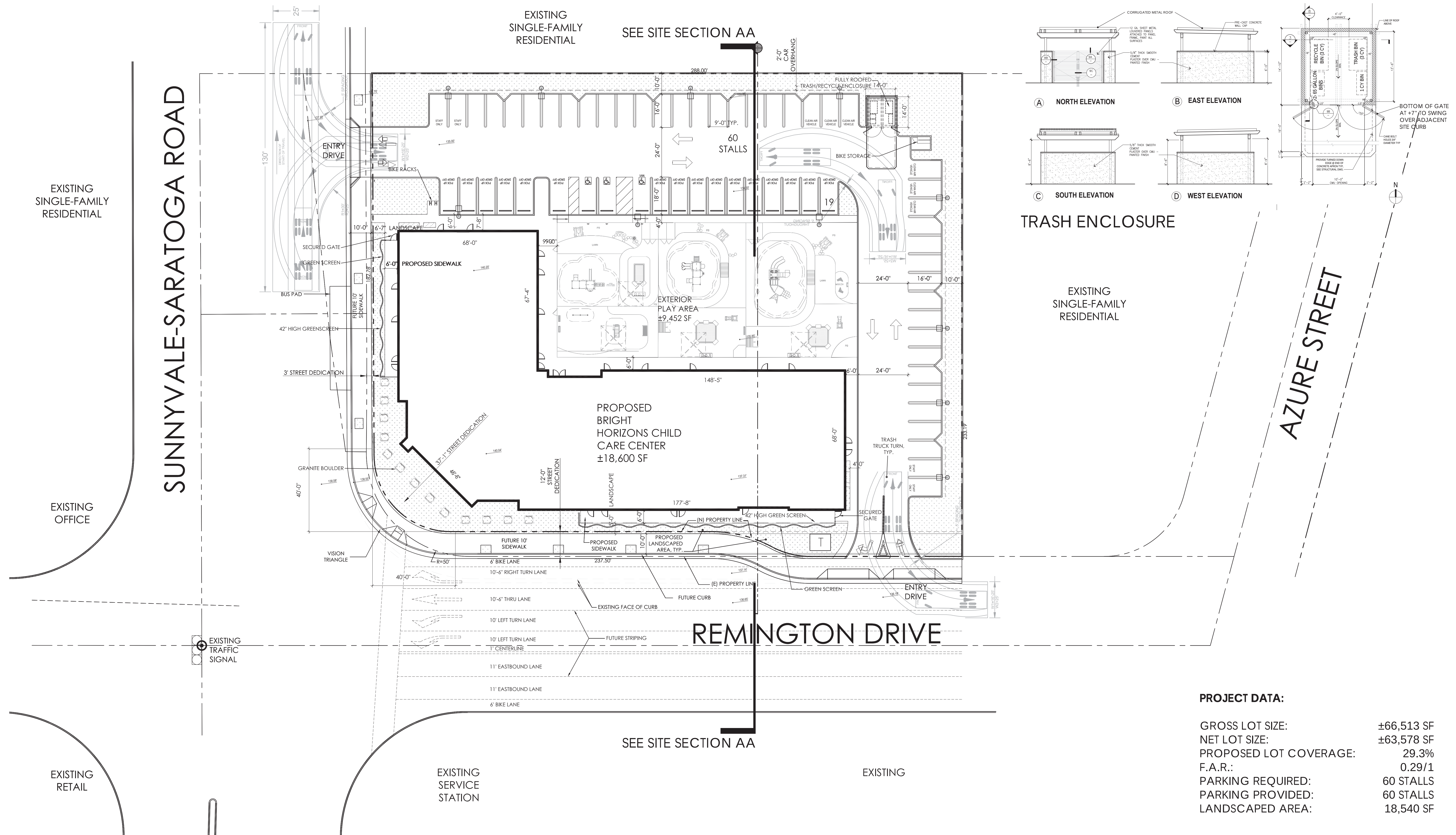
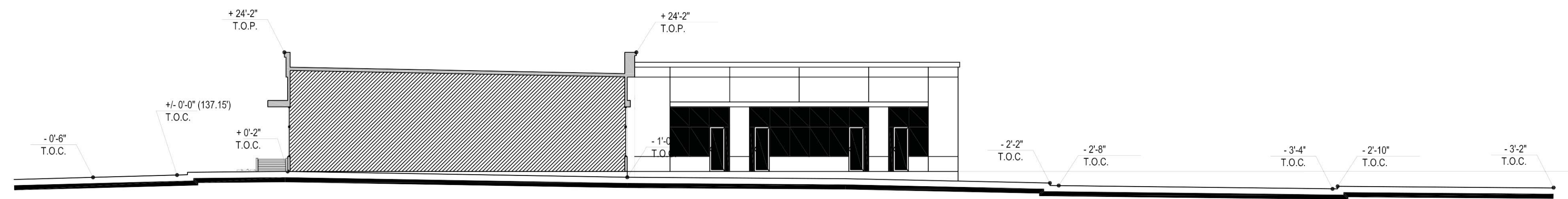
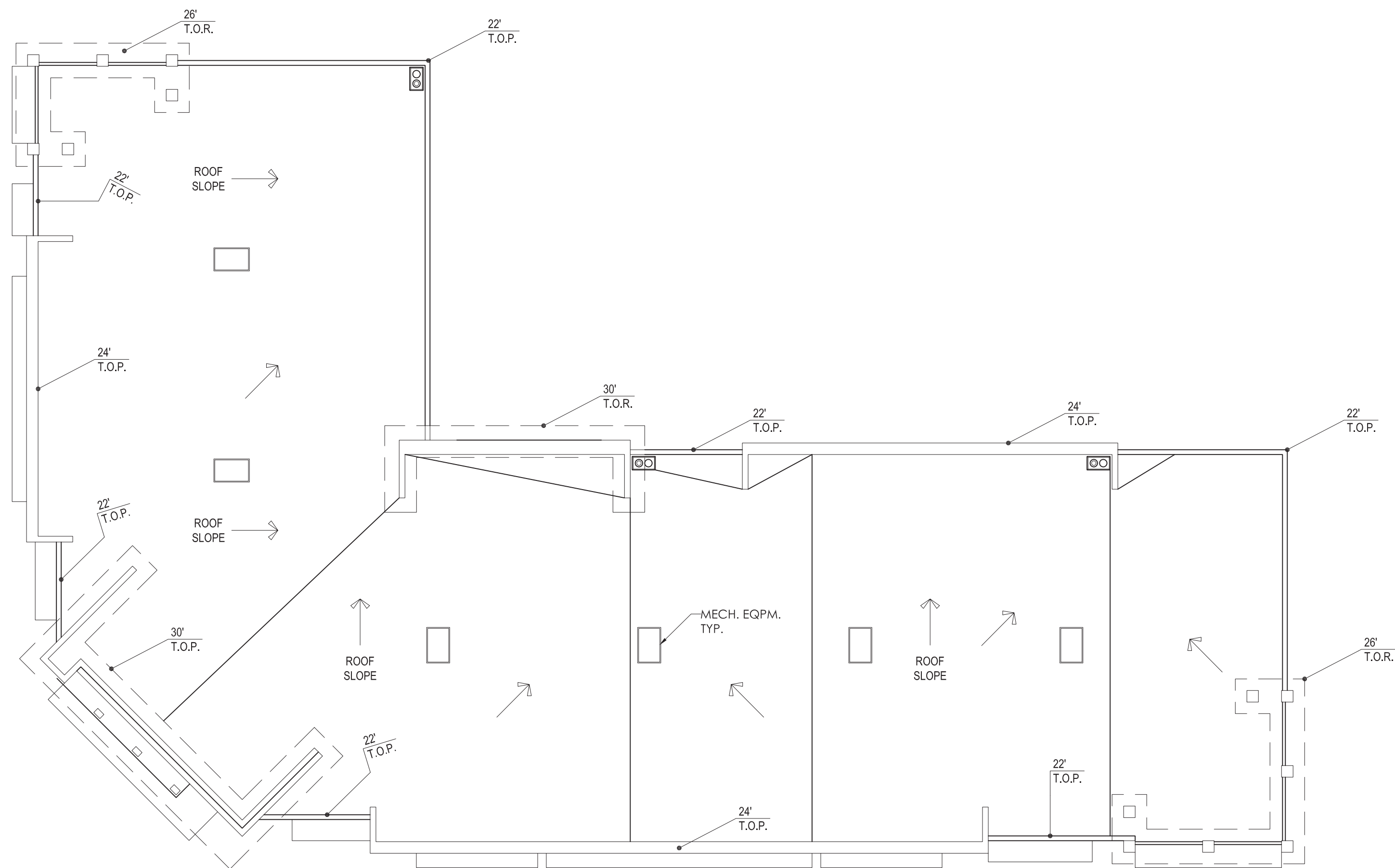


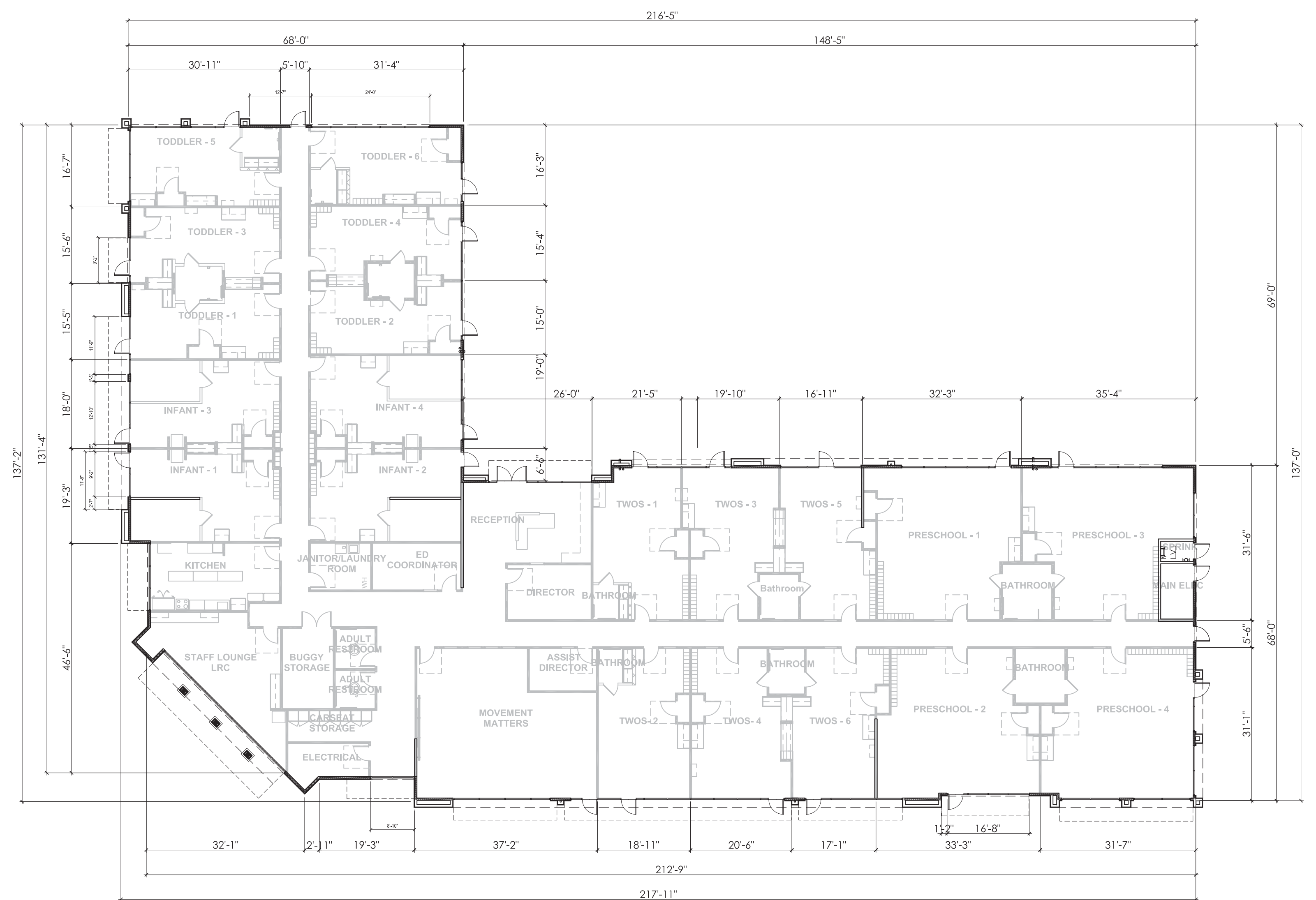




SITE SECTION AA



ROOF PLAN



FLOOR PLAN

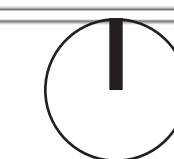
BRIGHT HORIZONS, Sunnyvale, CA

FLOOR PLAN, ROOF PLAN, & SITE SECTION



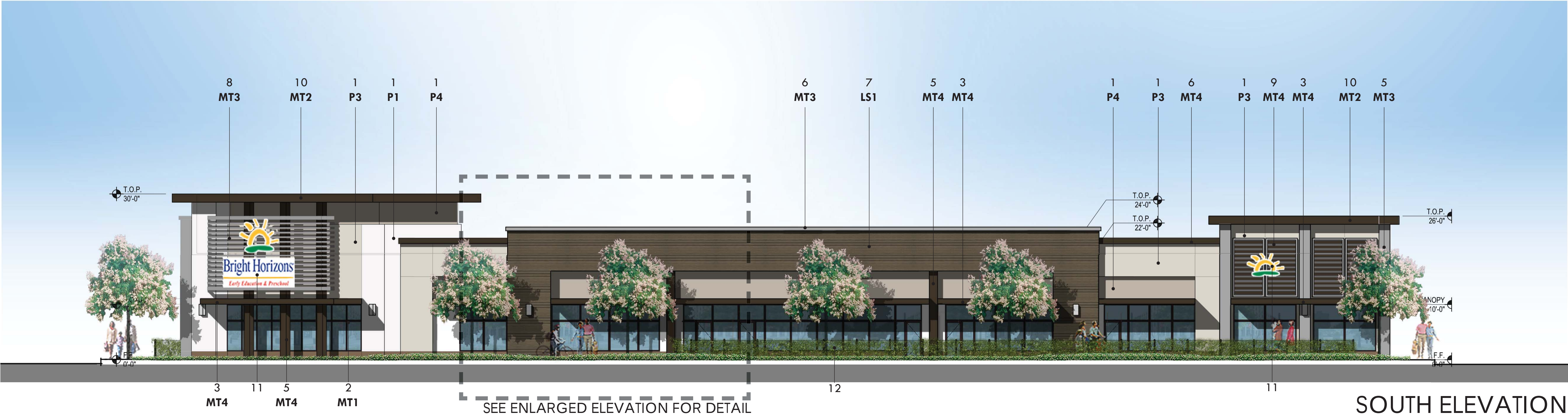
PROJECT NO: 2017-322

11 10 2017



SCALE: 1/16" = 1'-0"





- MATERIALS**

 - 1. STUCCO
 - 2. GLAZING
 - 3. CANOPY
 - 4. METAL DOOR
 - 5. METAL COLUMN / CLADING
 - 6. METAL TRIM
 - 7. FIBER CEMENT SIDING
 - 8. DECORATIVE METAL TUBE SLATS
 - 9. DECORATIVE METAL LOUVER SYSTEM
 - 10. METAL ROOF
 - 11. TENANT SIGNAGE/LOGO
 - 12. 42" GREEN SCREEN FENCE SYSTEM
 - 13. 6' IRON FENCE
- COLORS**

 - P1** CASCADE WHITE - DEW394, BY DUNN EDWARDS PAINTS
 - P2** NOT USED
 - P3** SHADY - DEC774, BY DUNN EDWARDS PAINTS
 - P4** DRIFTING - DEC770, BY DUNN EDWARDS PAINTS
 - P5** STOCKHORSE - DE6126, BY DUNN EDWARDS PAINTS
 - MT1** MEDIUM BRONZE - AB-5, BY ARCADIA
 - MT2** LINEN WHITE (81) BY METAL SALES
 - MT3** METALLIC SILVER (K7) BY METAL SALES
 - MT4** MEDIUM BRONZE (H4) BY METAL SALES
 - LS1** TIMBER BARK - HARDIE PARK CEDARMILL - BY JAMES HARDIE
 - LS2** CHESTNUT BROWN - HARDIE PARK CEDARMILL - BY JAMES HARDIE



EAST ELEVATION



NORTH ELEVATION

MATERIALS

- 1. STUCCO
- 2. GLAZING
- 3. CANOPY
- 4. METAL DOOR
- 5. METAL COLUMN / CLADING
- 6. METAL TRIM
- 7. FIBER CEMENT SIDING
- 8. DECORATIVE METAL TUBE SLATS
- 9. DECORATIVE METAL LOUVER SYSTEM
- 10. METAL ROOF
- 11. TENANT SIGNAGE/LOGO
- 12. 42" GREEN SCREEN FENCE SYSTEM
- 13. 6' IRON FENCE

COLORS

- P1 CASCADE WHITE - DEW394, BY DUNN EDWARDS PAINTS
- P2 NOT USED
- P3 SHADY - DEC774, BY DUNN EDWARDS PAINTS
- P4 DRIFTING - DEC770, BY DUNN EDWARDS PAINTS
- P5 STOCKHORSE - DE6126, BY DUNN EDWARDS PAINTS
- MT1 MEDIUM BRONZE - AB-5, BY ARCADIA
- MT2 LINEN WHITE (81) BY METAL SALES
- MT3 METALLIC SILVER (K7) BY METAL SALES
- MT4 MEDIUM BRONZE (H4) BY METAL SALES
- LS1 TIMBER BARK - HARDIE PARK CEDARMILL - BY JAMES HARDIE
- LS2 CHESTNUT BROWN - HARDIE PARK CEDARMILL - BY JAMES HARDIE

BRIGHT HORIZONS, Sunnyvale, CA

ELEVATIONS



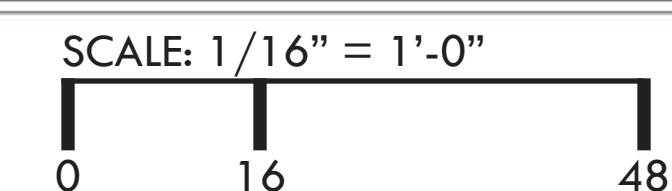
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RENDERING VIEW 1



PROJECT NO: 2017-322

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RENDERING VIEW 2



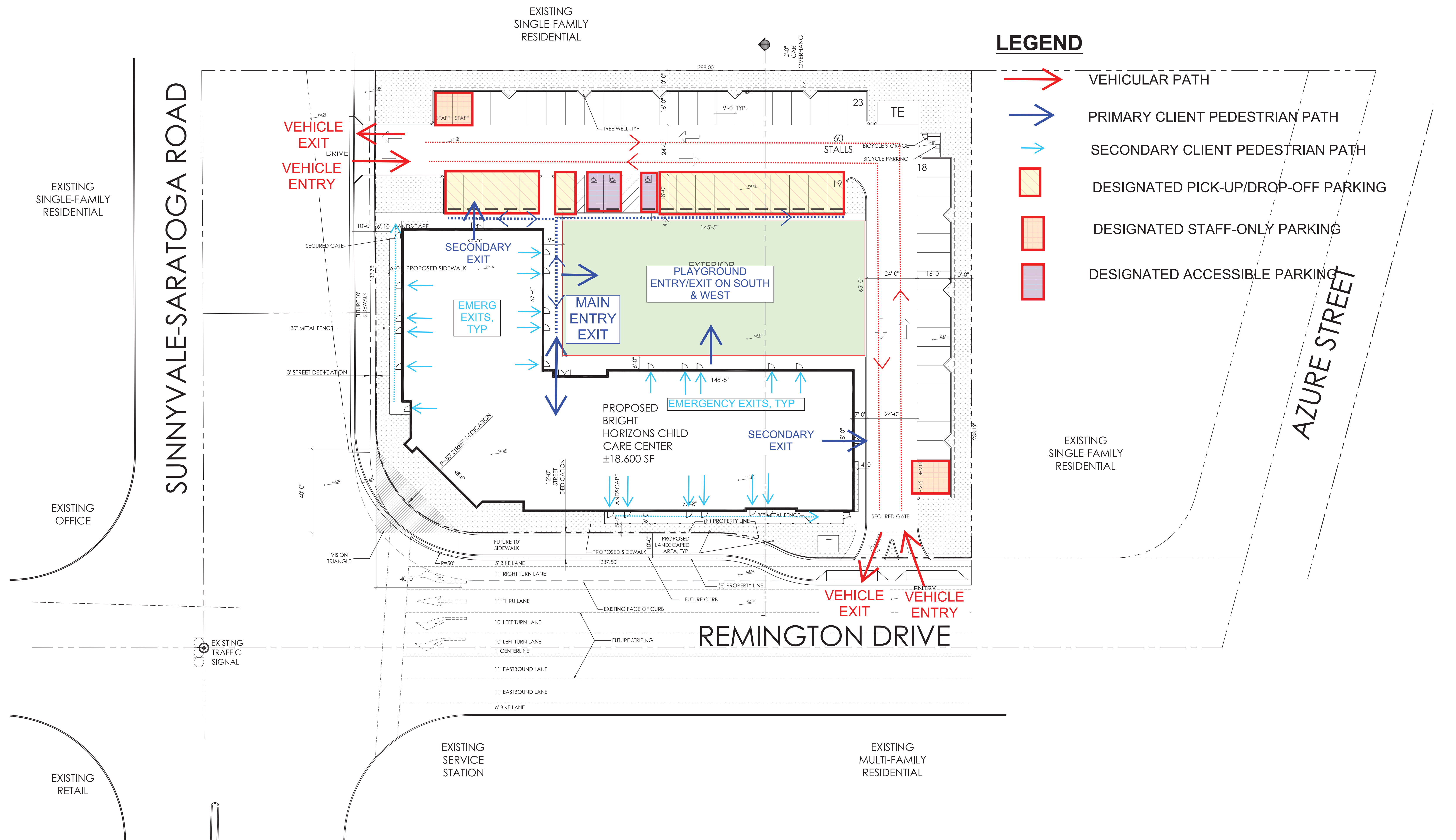
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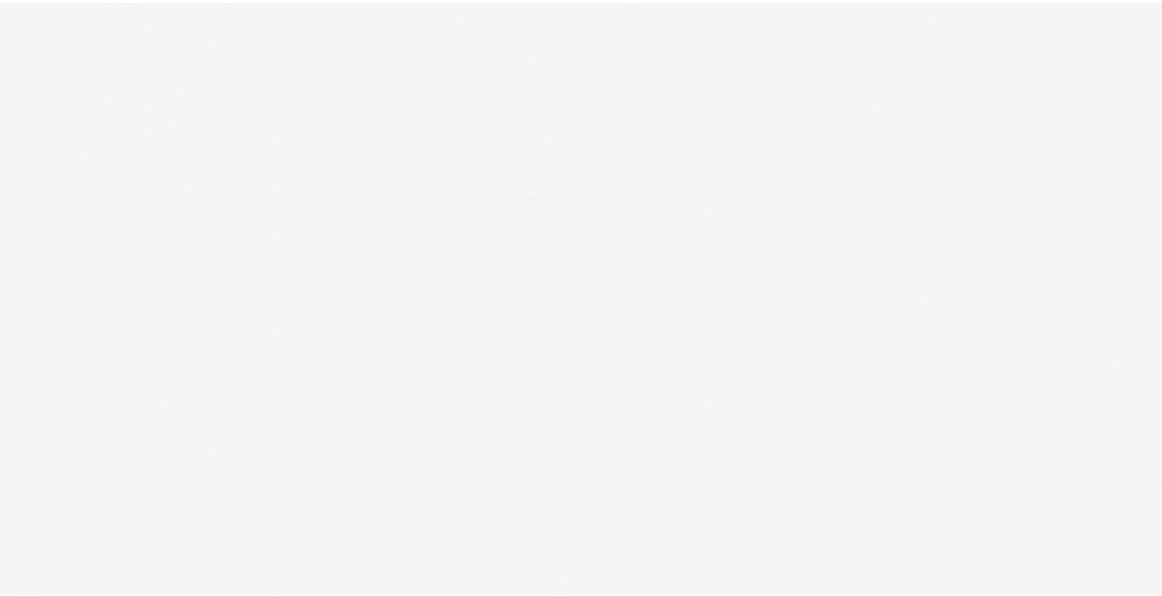
SCALE: 1/16" = 1'-0"

0 16 48





COLOR PAINT



P1: “Cascading White” - DEW394
By Dunn Edwards



P3: “Shady” - DEC774
By Dunn Edwards



P4: “Drifting” - DEC770
By Dunn Edwards

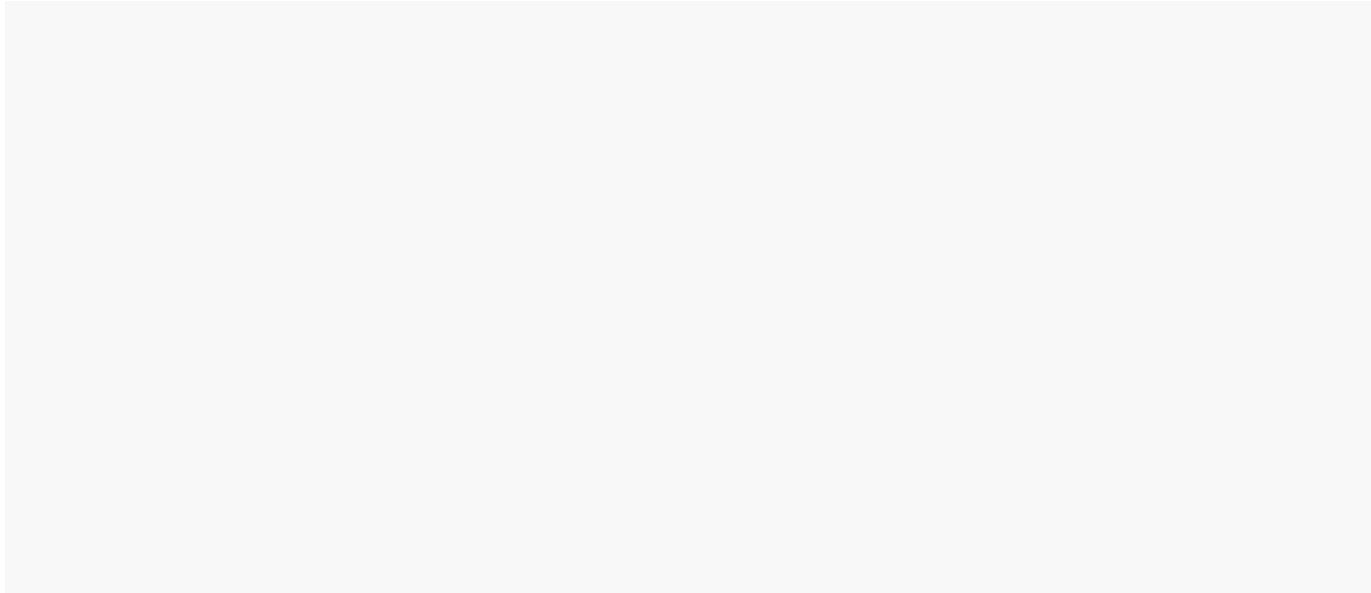


P5: “Stockhore” - DE6126
By Dunn Edwards

METAL



MT1: “Medium Bronze” - AB-4
By Arcadia



MT2: “Linen White” - (81)
By Metal Sales



MT3: “Metalic Silver” - (K7)
By Metal Sales



MT4: “Medium Bronze” - (H4)
By Metal Sales

LAP SIDING



LS1: “Timber Bark”
HardiePlank
By James Hardie



Lap Siding



Louvers



Metal Tube



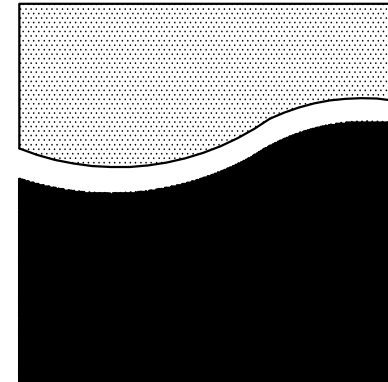
12
42”Green Screen Fence System



BOULDER



VERTICAL BOULDER

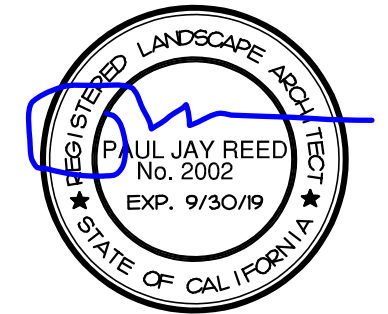


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BRIGHT HORIZONS
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Approved	PJR	Reviewed	PJR
Drawn	JH	Project No.	17.39
Scale	1"=16'	Issue Date	11-10-17

LANDSCAPE
PLANTING PLAN

L1.0

Sheet of

PLANT LIST:

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS	WUCOLS
TREES						
T1	STREET TREE	CHOSEN BY CITY ARBORIST	8	24"BOX	STANDARD	LOW
T2	PISTACIA CHINESE 'KEITH DAVEY'	FRUITLESS CHINESE PISTACHE	19	24"BOX	STANDARD	LOW
T3	-	-	---	-	-	-
T4	ALBIZIA JULIBRISSIN	SILK TREE	1	24"BOX	STANDARD	LOW
T5	CHIONANTHUS VIRGINICUS (male tree only)	MALE WHITE FRINGETREE	1	24"BOX	STANDARD	MEDIUM
SHRUBS						
S1	ARGOSTAPHYLOS D. 'HOWARD MCINN'	MCINN MANZANITA	5	5 GAL		LOW
S2	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	5	5 GAL		LOW
S3	JUNCUS PATENS	CALIFORNIA GREY RUSH	5	5 GAL		LOW
S4	CALLISTEMON V. 'LITTLE JOHN'	DWARF WEEPING BOTTLEBRUSH	5	5 GAL		LOW
S5	EUONYMUS J. 'SILVER PRINCESS'	SILVER PRINCESS EUONYMUS	5	5 GAL		LOW
S6	PENNISTEMUM M. 'RED BUNNY TAILS'	FOUNTAIN GRASS	5	5 GAL		LOW
S7	NANDINA D. 'GULF STREAM'	FRUITLESS HEAVENLY BAMBOO	5	5 GAL		LOW
S8	DIANELLA C. 'CASSA BLUE'	CASSA BLUE FLAX LILY	5	5 GAL		LOW
S9	PODOCARPUS MACROPHYLLUS	YEW PINE	15	5 GAL		LOW
S10	PHORITUM H. 'JESTER'	HYBRID FLAX	5	5 GAL		LOW
S11	PENSTEMON 'DARK TOWERS'	DARK TOWERS PENSTEMON	5	5 GAL		LOW
S12	BUDDLEIA D. 'ROYAL RED'	ROYAL RED BUTTERFLY BUSH	5	5 GAL		MEDIUM
S13	ECHINACEA P. 'MAGNUS'	PURPLE CONFLOWER	5	5 GAL		MEDIUM
S14	COREOPSIS V. 'MOONBEAM'	THREADEAF COREOPSIS	5	5 GAL		LOW
S15	ROSMARINUS OFFICINALIS	ROSEMARY	5	5 GAL		LOW
S16	LAVANDULA A. 'HIDCOTE'	ENGLISH LAVENDER	5	5 GAL		LOW
S17	PENNISTEMUM S. 'HAMMILL'	DWARF FOUNTAIN GRASS	5	5 GAL		LOW
S18	SALVIA OFFICINALIS	COMMON SAGE	5	5 GAL		LOW
S19	LEUCANTHEMUM S. 'BANANA CREAM'	SHASTA DAISY	5	5 GAL		MEDIUM
S20	ASCLEPIAS SPECIOSA	MILKWEED	5	5 GAL		LOW
GROUND COVERS						
G1	MAHONIA REPENS	CREeping MAHONIA	---	1 GAL	24" O.C.	LOW
G2	BULBINE FRUTESCENS	STALKED BULBINE	---	1 GAL	24" O.C.	LOW
G3	PELARGONIUM 'PINK'	IVY GERANIUM	---	1 GAL	24" O.C.	LOW
G4	STACHYS BYZANTINA 'BIG EARS'	BIG EARS LAMB'S EAR	---	1 GAL	24" O.C.	LOW
G5	OSTEOSPERMUM 'WHITE SYMPHONY'	CAPE DAISY	---	1 GAL	24" O.C.	LOW
VINES						
V1	ROSA B. 'ALBA FLENA'	LADY BANKS ROSE	15	5 GAL	10'-0" O.C.	LOW

PLANT NOTES:

- THE CONTRACTOR SHALL VERIFY PLANT QUANTITIES FROM THE PLANTING PLAN. QUANTITIES SHOWN IN THE LEGEND ARE FOR CONVENIENCE ONLY.
- NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND THE PLANTING PLAN.
- PLANT GROUNDCOVER IN SHRUB AREAS AS NOTED, USE TRIANGULAR SPACING.
- SEE DETAIL AND SPECIFICATION SHEETS FOR ADDITIONAL INFORMATION.
- THERE WILL BE NO MATERIALS OR PLANT MATERIALS SUBSTITUTIONS WITHOUT APPROVAL OF THE OWNER OR THE LANDSCAPE ARCHITECT.
- ALL SLOPES PLANTED WITH LAWN NOT TO EXCEED A 4H SLOPE. ALL SLOPES PLANTED WITH GROUND COVER NOT TO EXCEED A 2H SLOPE.
- PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS (5% MIN).
- IN THE EVENT OF ANY DISCREPANCIES BETWEEN THIS PLAN AND ACTUAL SITE CONDITIONS, THE LANDSCAPE ARCHITECT IS TO BE NOTIFIED IMMEDIATELY.
- ENTIRE SITE IS TO BE ROUGH GRADED BY THE GRADING CONTRACTOR TO WITHIN 1/8TH FOOT OF FINISH GRADE. LANDSCAPE CONTRACTOR IS TO FINE GRADE ALL LANDSCAPE AREAS.
- ALL SITE UTILITIES ARE TO BE PROTECTED DURING CONSTRUCTION. IN THE EVENT OF CONFLICT BETWEEN THE PLANS AND UTILITIES THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT. ANY DAMAGE TO UTILITIES, STRUCTURES, OR OTHER FEATURES TO REMAIN, AND CAUSED BY THE LANDSCAPE CONTRACTOR SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- THE WORK IN THESE DRAWINGS AND SPECIFICATIONS MAY RUN CONCURRENTLY WITH WORK BY OTHERS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS.
- PRIOR TO ANY DIGGING OR TRENCHING, CALL UNDERGROUND SERVICE ALERT -1.800.227.2600
- PROTECT EXISTING STORM DRAIN INLETS DRAIN INLETS, WITH FILTER FABRIC, FOR THE DURATION OF THE PROJECT.

PLANT SYMBOLS

- 5x2x4 INDICATES PLANT KEY
5x2x4 INDICATES PLANT QUANTITY

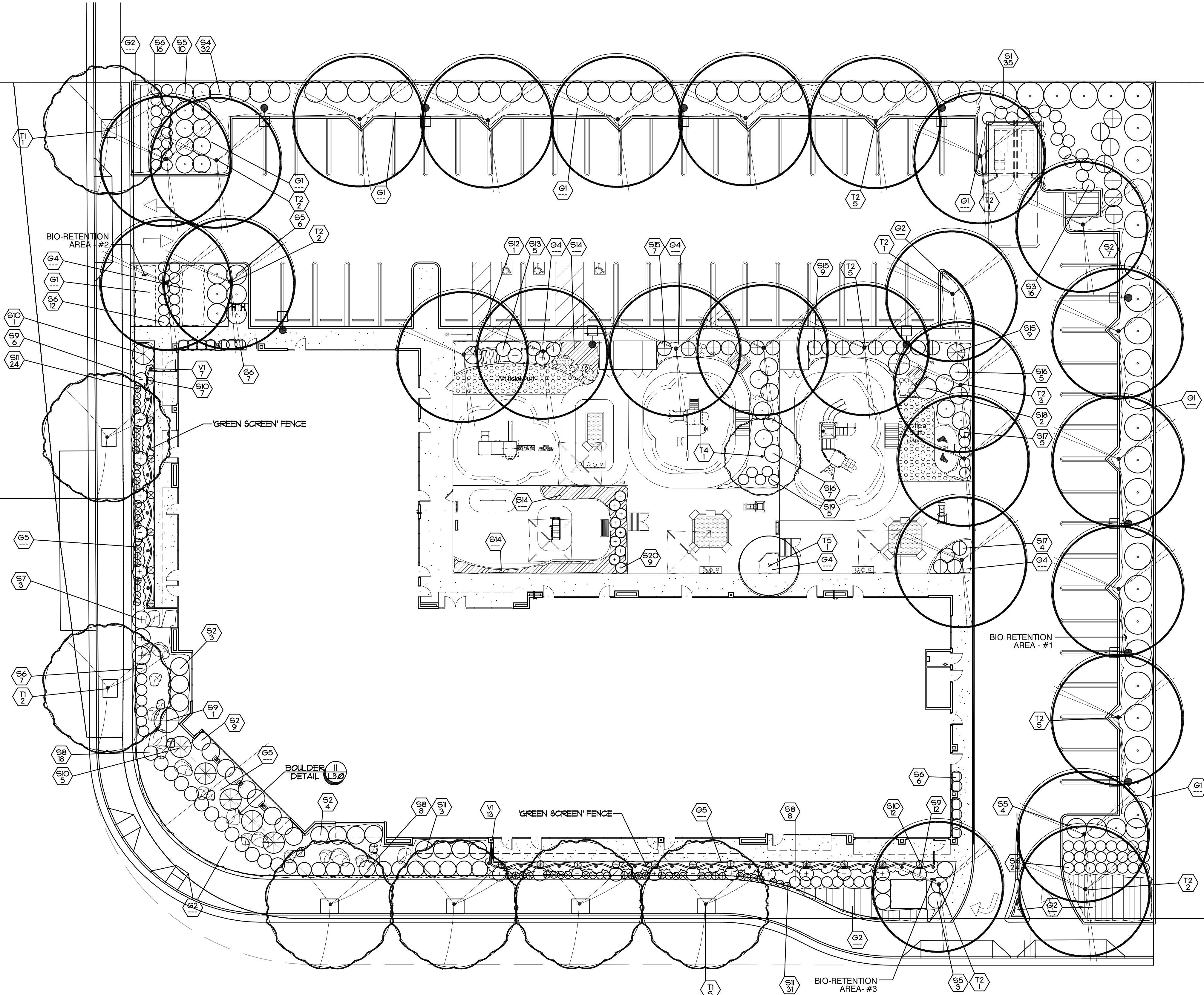
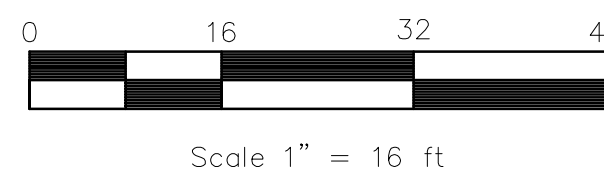
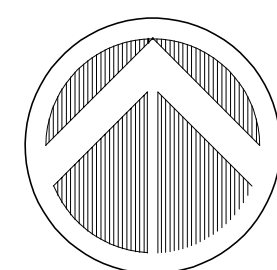
LANDSCAPE AREA TOTALS

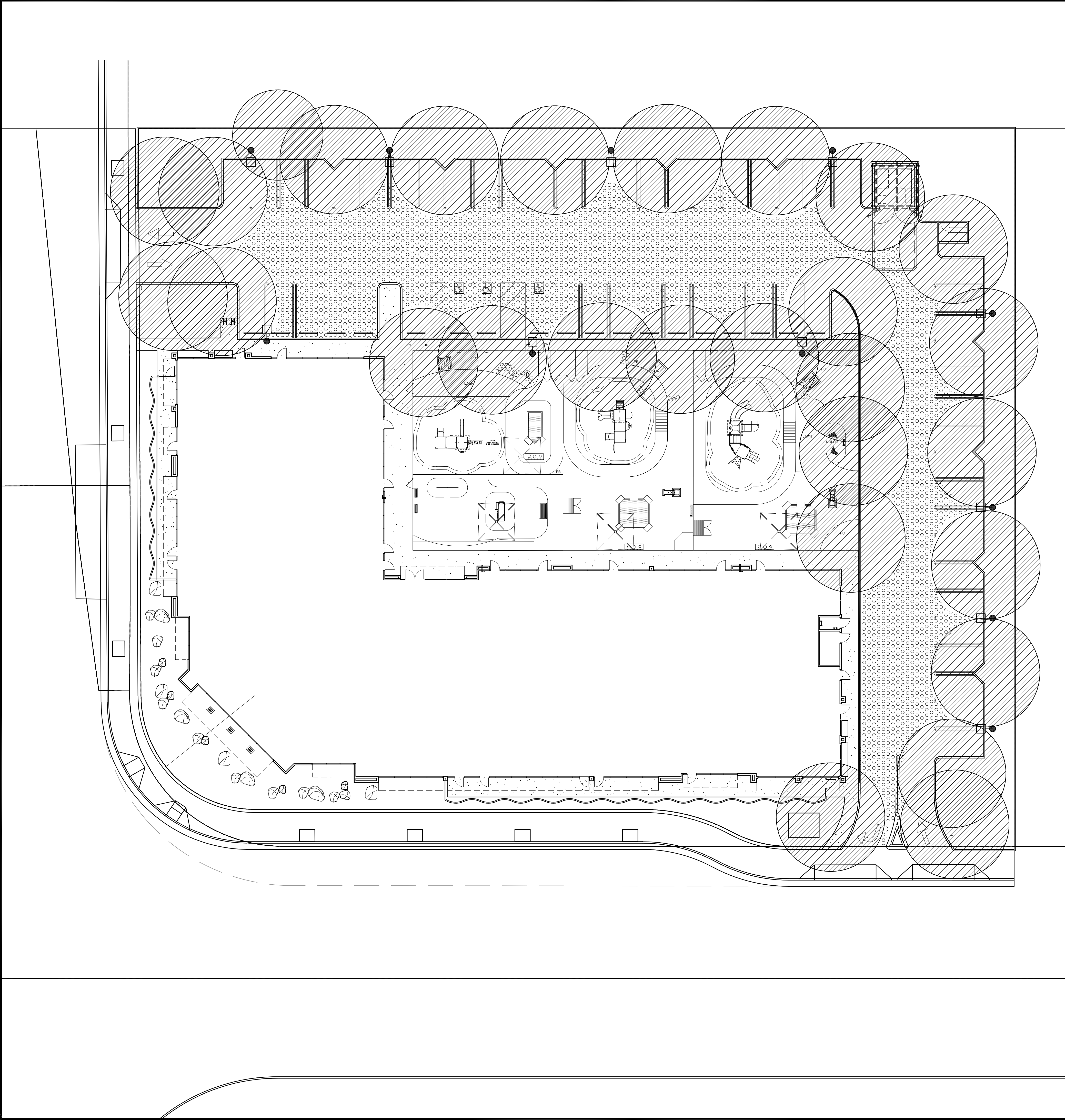
- 1,213 S.F. - TOTAL LANDSCAPE PLANTING AREA
7,327 S.F. - TOTAL AREA INSIDE PLAYGROUND AREA.
8,540 S.F. - TOTAL LANDSCAPE AREA AND PERVIOUS AREAS INSIDE PLAYGOURND.

BEFORE EXCAVATING CALL: 811
48-HOURS BEFORE ALL
PLANNED WORK OPERATIONS



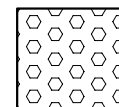
Know what's below.
Call before you dig.





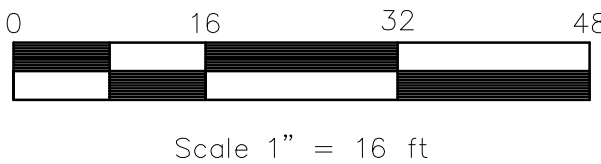
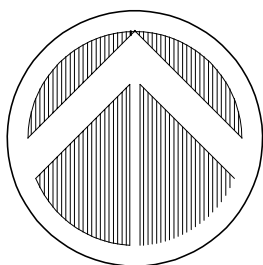
TREE SHADING REQUIREMENT

19,678 s.f. - TOTAL ASPHALT PARKING PAVING AREA (WITH IN PROPERTY LINES)
10,642 s.f. - TOTAL TREE CANOPY COVERAGE AT FULL GROWTH (15 YEARS)

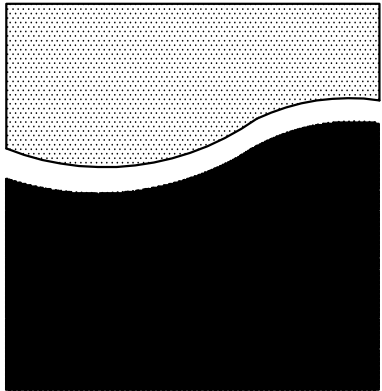
-  TREE CANOPY SHADING
-  ASPHALT PARKING PAVING AREA

TREE SHADING COVERAGE

Parking lot square footage	19,678 s.f.
Tree shading square footage	10,494 s.f.
Percentage shading coverage in 15 years	53.3 %



BEFORE EXCAVATING CALL: 811
48-HOURS BEFORE ALL
PLANNED WORK OPERATIONS

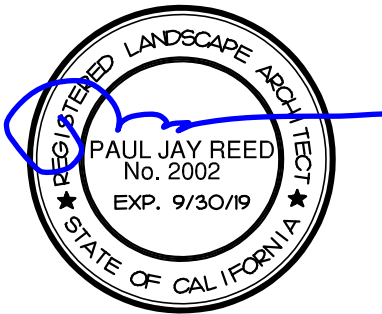


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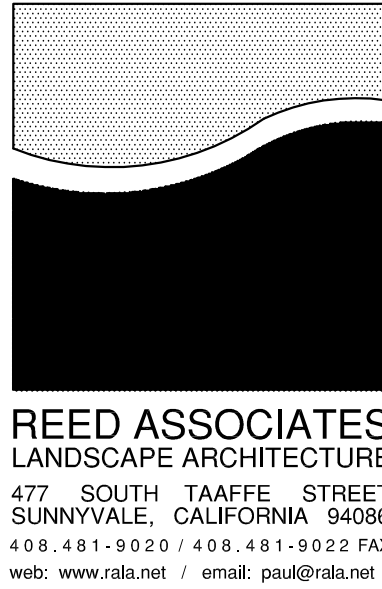


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Scale	1"=16'	Issue Date	11-10-17

LANDSCAPE TREE
SHADING PLAN

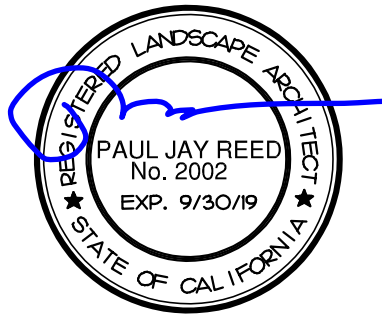
L1.1



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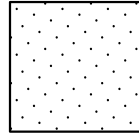
Approved	PJR
Drawn	JH
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Scale	1"=16'
Issue Date	11-10-17

LANDSCAPE HYDROZONE PLAN

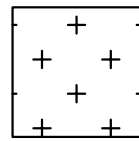
L2.0

IRRIGATION HYDRO-ZONE LEGEND

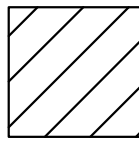
PLANTS ARE GROUP TO HAVE MATCHING WATER REQUIREMENTS AND MICRO-CLIMATE CHARACTERISTICS.



HIGH WATER REQUIREMENT



MEDIUM WATER REQUIREMENT



LOW WATER REQUIREMENT (DROUGHT TOLERANT PLANTING)

Appendix B - Water Efficient Landscape Worksheet

Reference Evapotranspiration (ETo) 43.5

MAWA - Regular Landscape Areas

MAWA = (ETo) x (0.62) x ((0.45 x LA) + (0.3 x SLA))

landscape area	12,321	s.f.
ETAF	.45	average ETAF for regular landscape areas must be 0.55 residential areas, and 0.45 for non-residential areas.
mawa total	149,534	gallons per year

ETWU - Regular Landscape Areas

ETWU = (ETo) x (0.62) x (ETAF x LA)

hydro-zone number	plant water use	plant factor (PF)	irrigation method	irrigation efficiency	ETAF (PF/IE)	hydro-zone area	ETAF x Area	ETWU
1	low	0.2	drip	0.81	0.247	6,186	1,527.4	41,194
2	medium	0.5	drip	0.81	0.617	2,152	1,328.4	35,827
3	low	0.2	drip	0.81	0.247	3,983	983	26,524

totals 12,321 3839.26 103,545

ETAF calculations

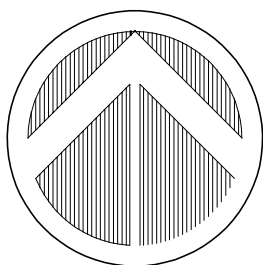
total ETAF x area	3839.26
total area	12,321 s.f.
average ETAF	0.312

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

TOTALS

MAWA total	149,534	gallons per year
ETWU total	103,545	gallons per year

30.8 Percentage reduction of Potabel Irrigation Water

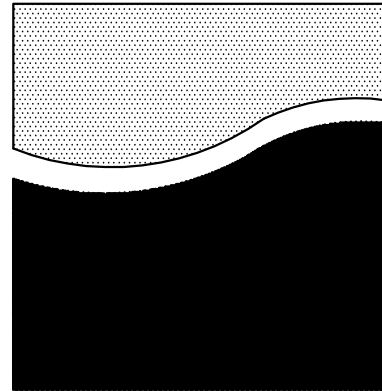


Scale 1" = 16 ft

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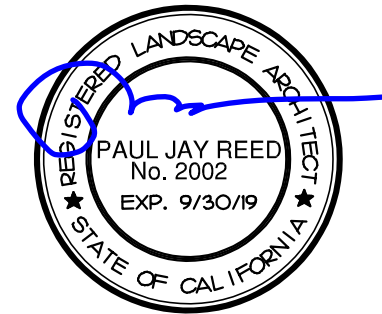


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Drawn JH Reviewed PJR
Project No. 17.39
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LANDSCAPE
IRRIGATION PLAN

L2.1

Sheet of

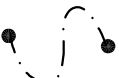
DRIP IRRIGATION NOTES

- REFER TO DRIP IRRIGATION DETAILS FOR THE LAYOUT AND EXACT DIMENSIONS FOR THE DRIP LINE. THE DRIP LINE SHALL BE A MAXIMUM OF 18" APART AND SHALL BE A MAXIMUM OF 4" FROM ALL WALKS, CURBS AND WALLS. THE NUMBER OF DRIP LINES SHOWN ON PLANS MAY NOT REFLECT THE ACTUAL NUMBER REQUIRED, THE SPACING GUIDE SHALL TAKE PRECEDENCE. DRIP EMITTER LINES SHALL BE ALIGNED TO HAVE A STAGGERED TRIANGULAR EMITTER LAYOUT PATTERN.
- THE SUPPLY HEADER AND EXHAUST HEADER, WHEN PVC, SHALL BE BURIED AT A MINIMUM OF 12" BELOW GRADE.
- INSTALL THE AUTOMATIC AIR RELIEF VALVE AT THE HIGHEST POINT ON EACH CIRCUIT OR AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
- OPERATING PRESSURE FOR DRIP EMITTER LINE - 20 PSI (MIN) TO 60 PSI (MAX). 20 PSI TO BE PROVIDED AT THE FARTHEST EMITTER FROM THE P.O.C. VERIFY PRIOR TO CONSTRUCTION.
- ON LAWN AREAS, CONTRACTOR SHOULD BE RESPONSIBLE FOR HAND WATER THE AREA UNTIL LAWN IS ESTABLISHED AND ROOTS ARE IRRIGATED BY DRIP.

IRRIGATION NOTES

- SEE SPECIFICATION AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES BETWEEN THE ACTUAL SITE CONDITIONS AND THIS PLAN.
- THIS SYSTEM IS DESIGNED TO OPERATE WITH A STATIC WATER PRESSURE OF 70 PSI. VERIFY WATER PRESSURE PRIOR TO THE START OF CONSTRUCTION.
- THIS PLAN IS DIAGRAMMATIC AND DOES NOT NECESSARILY INDICATE ALL OFFSETS AND FITTINGS REQUIRED FOR A COMPLETE IRRIGATION SYSTEM.
- LOCATE ALL PIPING IN PLANTING AREAS WHERE EVER POSSIBLE.
- ADJUST ALL IRRIGATION HEADS TO INSURE PROPER COVERAGE AND AVOID EXCESSIVE OVERSPRAY.
- COORDINATE AUTOMATIC CONTROLLER ELECTRICAL HOOK-UP WITH PROJECT ELECTRICIAN.
- VERIFY TYPE AND LOCATION OF BACKFLOW PREVENTION ASSEMBLY WITH LOCAL JURISDICTION, PRIOR TO INSTALLATION.
- INSTALL CHECK VALVES AS REQUIRED TO PREVENT LOW-HEAD DRAINAGE.
- DETECTOR TAPE SHOULD BE INSTALLED WITH ANY PRESSURE LINES NOT BURIED IN THE SAME TRENCH WITH CONTROL WIRES AND WITH ANY LINES OF ANY KIND UNDER PAVING NOT IN A TRENCH WITH CONTROL WIRES.
- INSTALL TWO SPARE CONTROL WIRES ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.
- EXISTING TREE TO REMAIN

IRRIGATION LEGEND

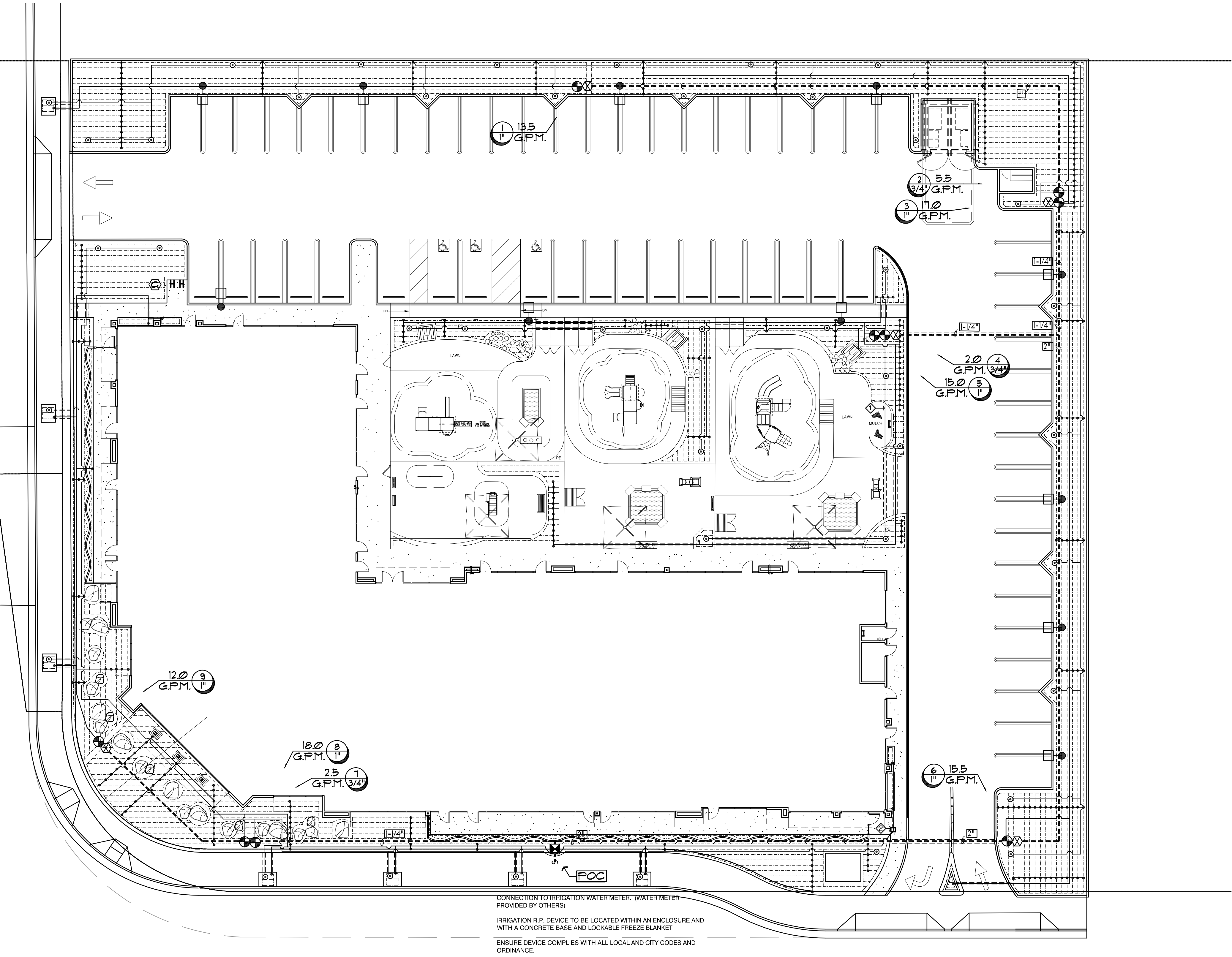
KEY	DESCRIPTION	
	POINT OF CONNECTION (CONNECT TO WATER SERVICE LINE) ENSURE CONNECTION COMPLIES WITH ALL LOCAL LAWS AND ORDINANCES PRIOR TO INSTALLATION.	
-----	SCHEDULE 40 - or - CLASS 315 PVC PRESSURE MAINLINE (SIZE AS NOTED)	
=====	SCHEDULE 40 PVC NON-PRESSURE SLEEVE UNDER PAVEMENT (2X SIZE/SIDE PIPE) CLASS 200 PVC NON-PRESSURE LATERAL LINE (SIZE AS NOTED)	
	INDICATES CONTROLLER STATION NO. INDICATES VALVE SIZE	
	RAINBIRD IRRIGATION CONTROLLER (E8P8LXME) & STATION BASE CONTROLLER (UR2-RC) WIRELESS RAIN/FREEZE SENSOR (IQ3G-US4) IQ 3G CELLULAR NCC WITH 1 YEAR OF SERVICE (QEXTANTGP) EXTERNAL CELLULAR ANTENNA (LXMMFED) POWDER-COATED METAL PEDESTAL	
	"IRRITROL" 100 SERIES "ULTRA-FLOW" - ELECTRIC VALVE - (SIZE AS NOTED). (SEE DRIP IRRIGATION DETAILS FOR CONTROL VALVES ON DRIP LINE CIRCUITS)	
KEY	DESCRIPTION	
	XFD-09-18-500 (SURFACE DRIP CHECK VALVE)	Ø 3 GPH DRIPLINE AT 18" SPACING
	XCZ-100-FREB-COM1	CONTROL ZONE/FILTER KIT - 1" (MAX. FLOW OF 20 GPM)
	XGF-10-18-100	Ø 6" DRIPLINE HEADER 1" DIA. AT 18" SPACING
		(SEE IRRIGATION DETAILS FOR ADDITIONAL INFORMATION INSTALL PER MANUFACTURER'S SPECIFICATIONS)
	RAINBIRD 1401 (Ø25gpm)	FLOOD BUBBLER

IRRIGATION NOTES LEGEND

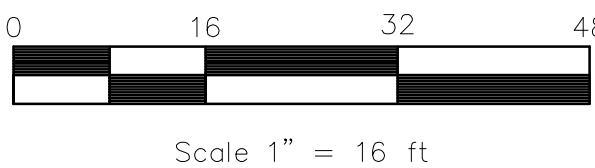
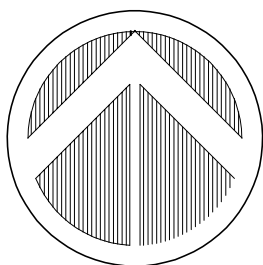
- EXISTING TREE TO REMAIN
- LOCATE IRRIGATION MAINLINE AND IRRIGATION VALVES IN LANDSCAPE AREAS. ALL IRRIGATION VALVES TO BE LOCATED IN SPECIFIED VALVE BOX IN SHALLO PLANTING AREAS ONLY.
- INSTALL LATERAL LINE "ELL/TEE" IN CONCRETE BOX WITH CONCRETE LID.

IRRIGATION PIPE SIZING CHART

CLASS 200	SCHEDULE 40	CLASS 315
● INTERMITTENT-PRESSURE LATERAL PIPING	● CONSTANT PRESSURE PIPING 1/2 INCHES AND SMALLER.	● CONSTANT PRESSURE PIPING 2 INCHES AND LARGER.
1/2" == 0-4 GPM	1" == 9-16 GPM	2" == 31-48 GPM
3/4" == 5-9 GPM	1-1/4" == 16-22 GPM	2-1/2" == 49-65 GPM
1" == 10-16 GPM	1-1/2" == 23-30 GPM	3" == 66-100 GPM
1-1/4" == 17-26 GPM		
1-1/2" == 27-35 GPM		
2" == 36-55 GPM		

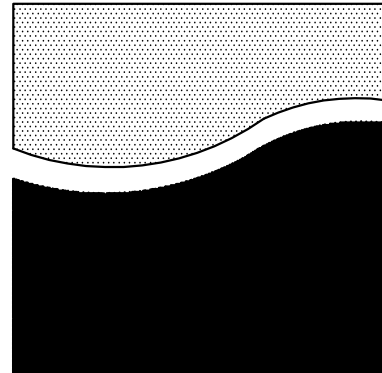


CONNECTION TO IRRIGATION WATER METER. (WATER METER PROVIDED BY OTHERS)
IRRIGATION R.P. DEVICE TO BE LOCATED WITHIN AN ENCLOSURE AND WITH A CONCRETE BASE AND LOCKABLE FREEZE BLANKET
ENSURE DEVICE COMPLIES WITH ALL LOCAL AND CITY CODES AND ORDINANCE.



BEFORE EXCAVATING CALL: 811
48-HOURS BEFORE ALL
PLANNED WORK OPERATIONS



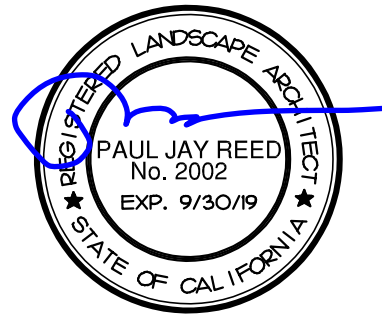


REED ASSOCIATES
LANDSCAPE ARCHITECTURE
477 SOUTH TAAFFE STREET
SUNNYVALE, CALIFORNIA 94086
408.481.9020 / 408.481.9022 FAX
web: www.rals.net / email: paul@rals.net

BRIGHT HORIZONS
PROJECT

1010 SUNNYVALE-SARATOGA RD.
SUNNYVALE, CA

ISSUE	DATE
1	---
2	---
3	---
4	---
5	---
6	---
7	---
8	---
9	---
10	---
11	---
12	---



OWNERSHIP AND USE OF DOCUMENTS
All Drawings, Specifications and copies thereof furnished by
Reed Associates Landscape Architecture, one and shall remain
its property. They are to be used only with respect to this
Project and are not to be used on any other project.
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Approved PJR
Drawn JH Reviewed PJR
Project No. 17.39
Scale Issue Date 11-10-17

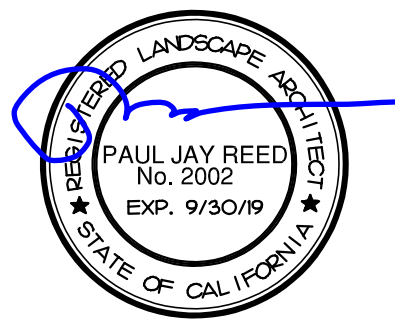
LANDSCAPE
CONSTRUCTION
DETAILS

L3.0

1 IRRIGATION HEAD DETAIL	2 IRRIGATION CONTROL VALVE DETAIL	3 QUICK-COUPLER DETAIL	4 BACKFLOW PREVENTER DETAIL
5 GROUND COVER SPACING	6 TREE PLANTING DETAIL	7 TREE ROOT BARRIER DETAIL	8 SHRUB PLANTING DETAIL
9 GROUND COVER SPACING	10 IRRIGATION TRENCH DETAIL	11 GRANITE TRAFFIC STOP BOULDER DETAIL	12

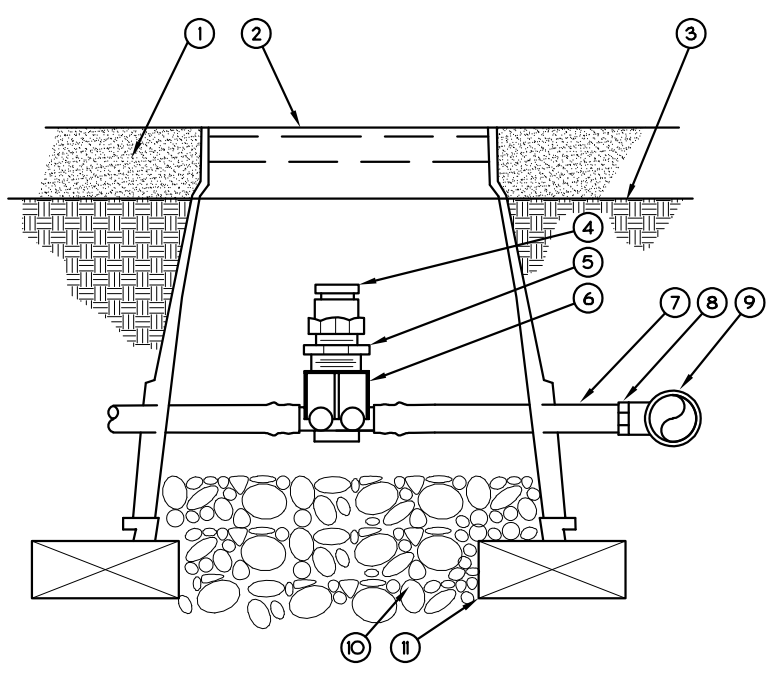
BRIGHT HORIZONS
PROJECT

ISSUE	DATE
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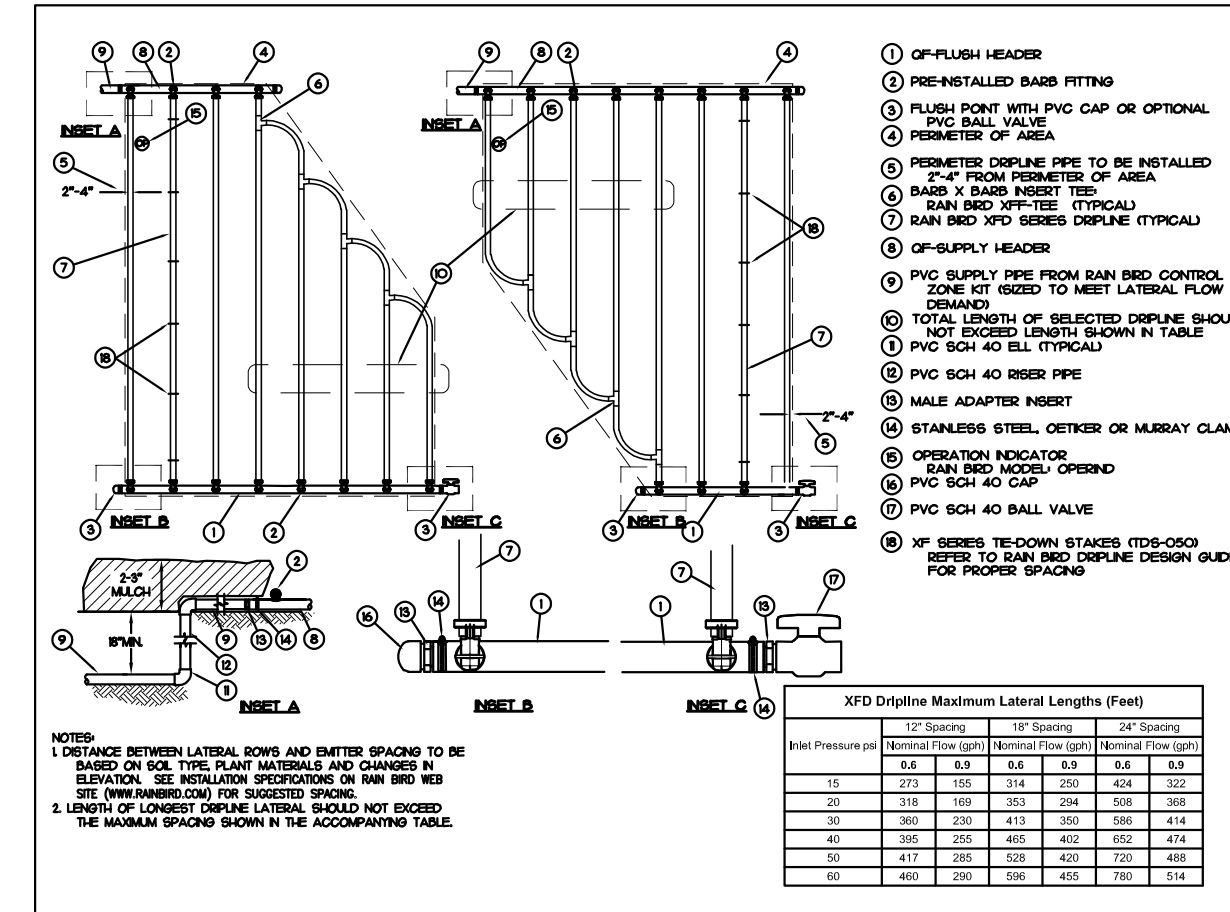
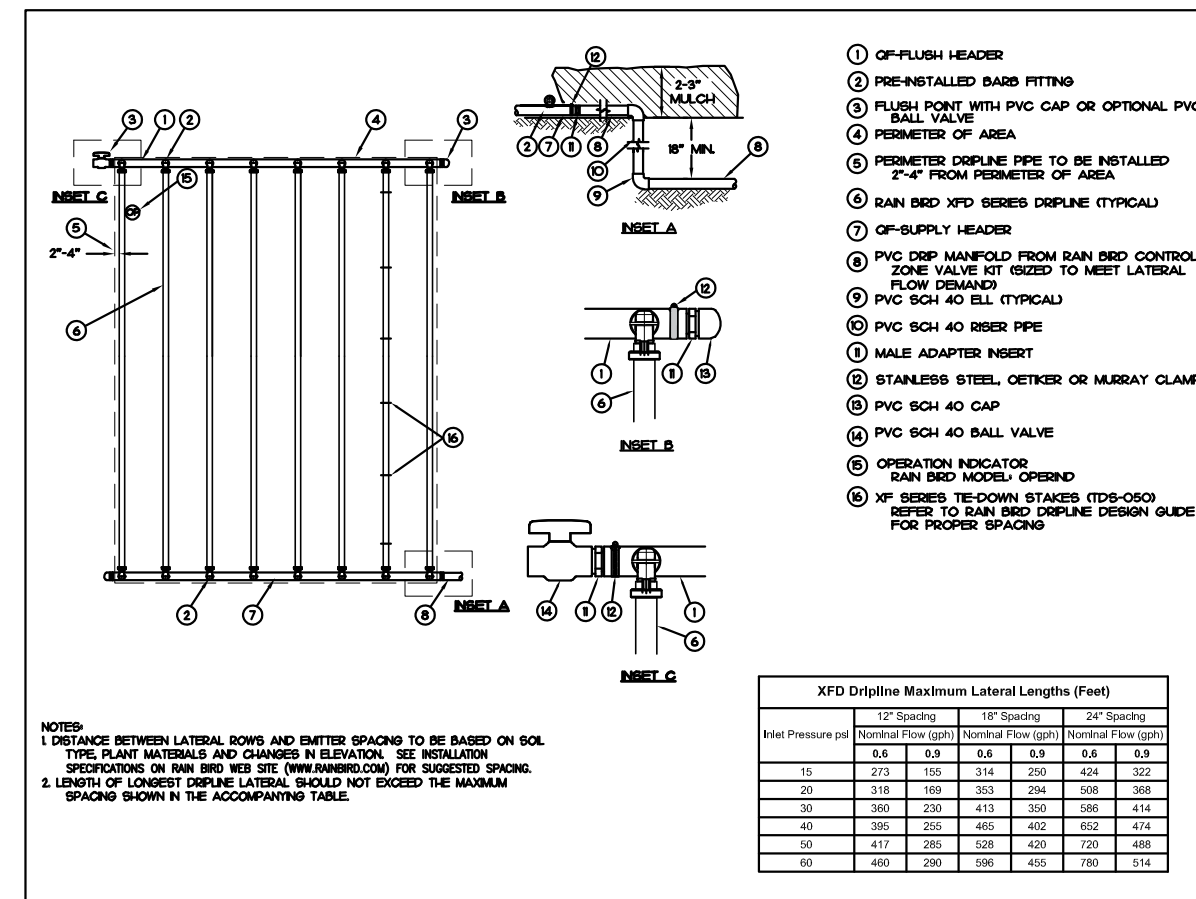
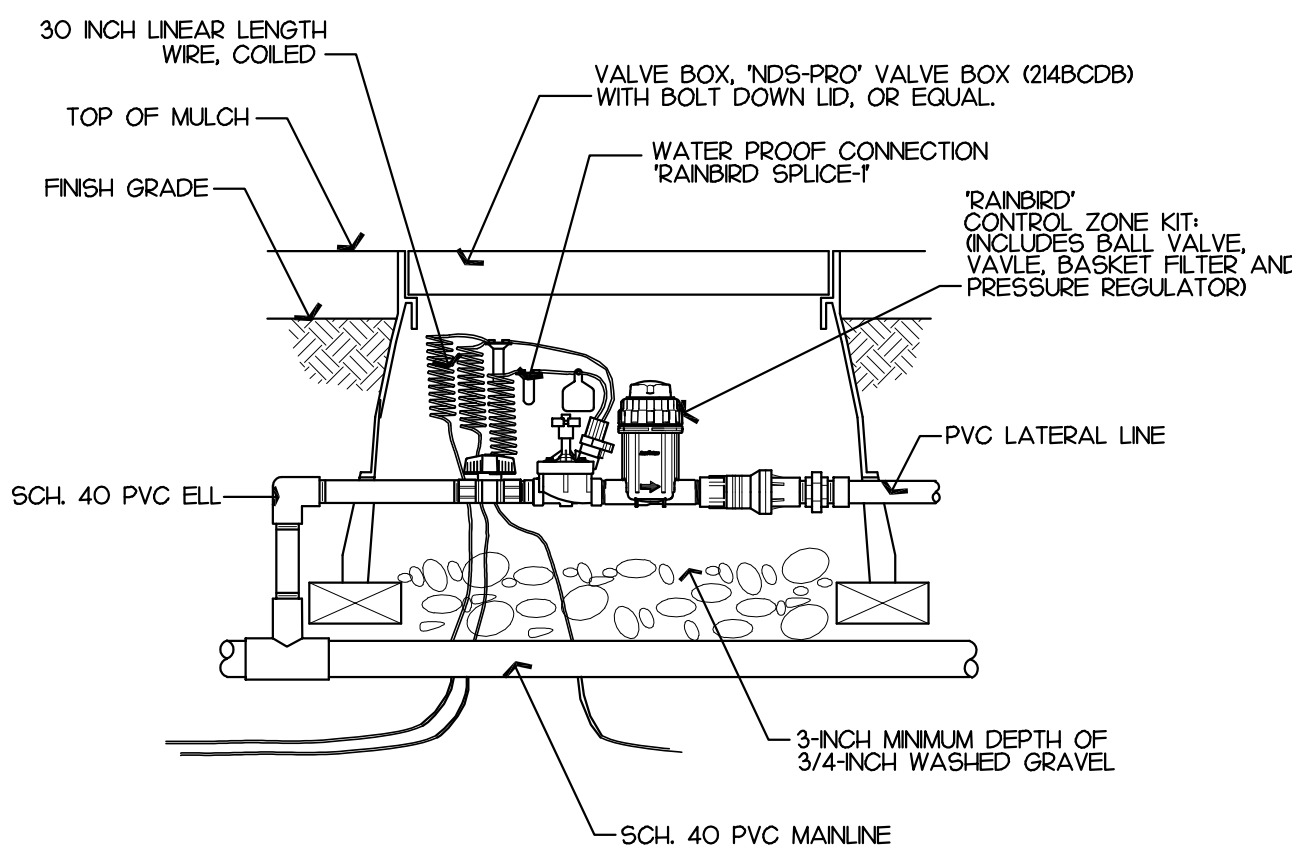


Approved	PJR		
Drawn	JH	Reviewed	PJR
Project No.	17.39		
Scale		Issue Date	11-10-1

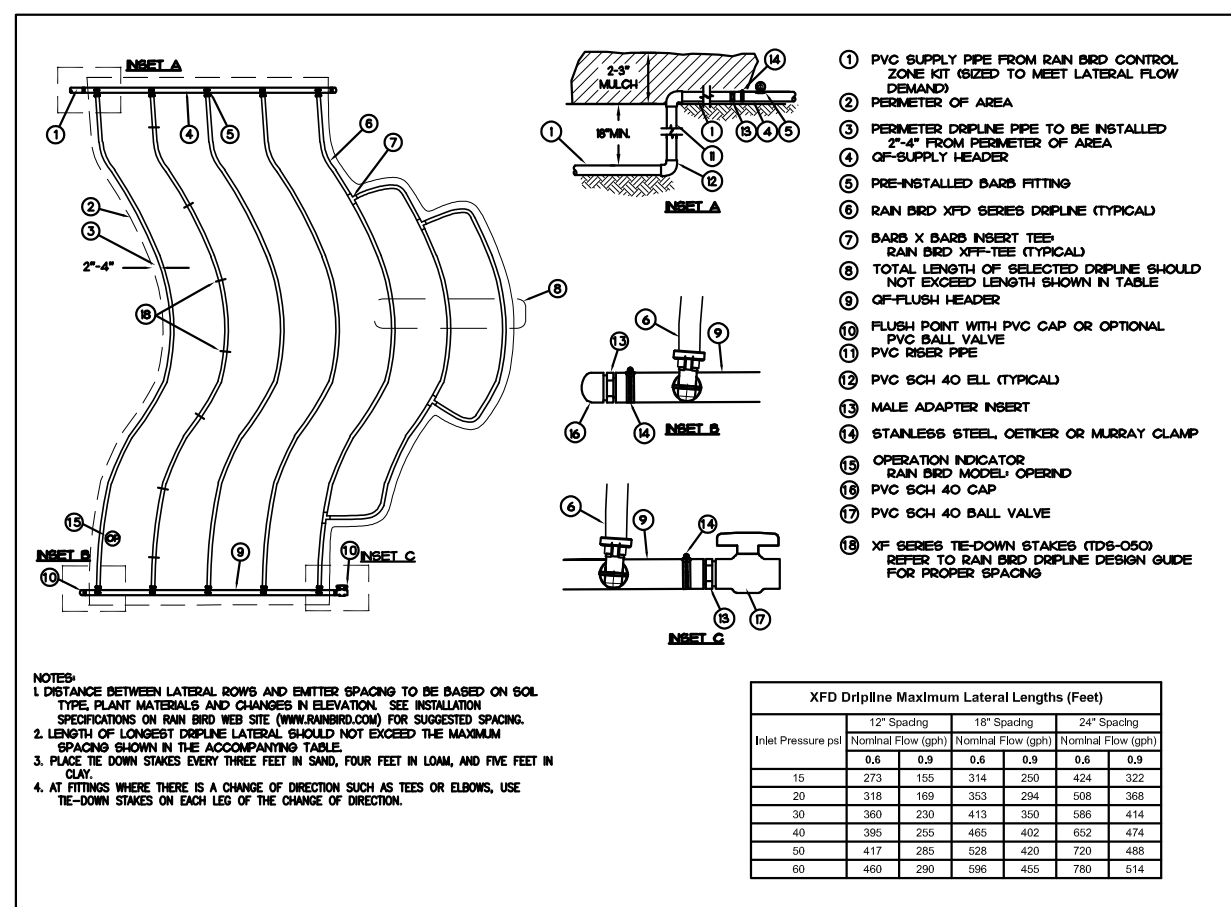
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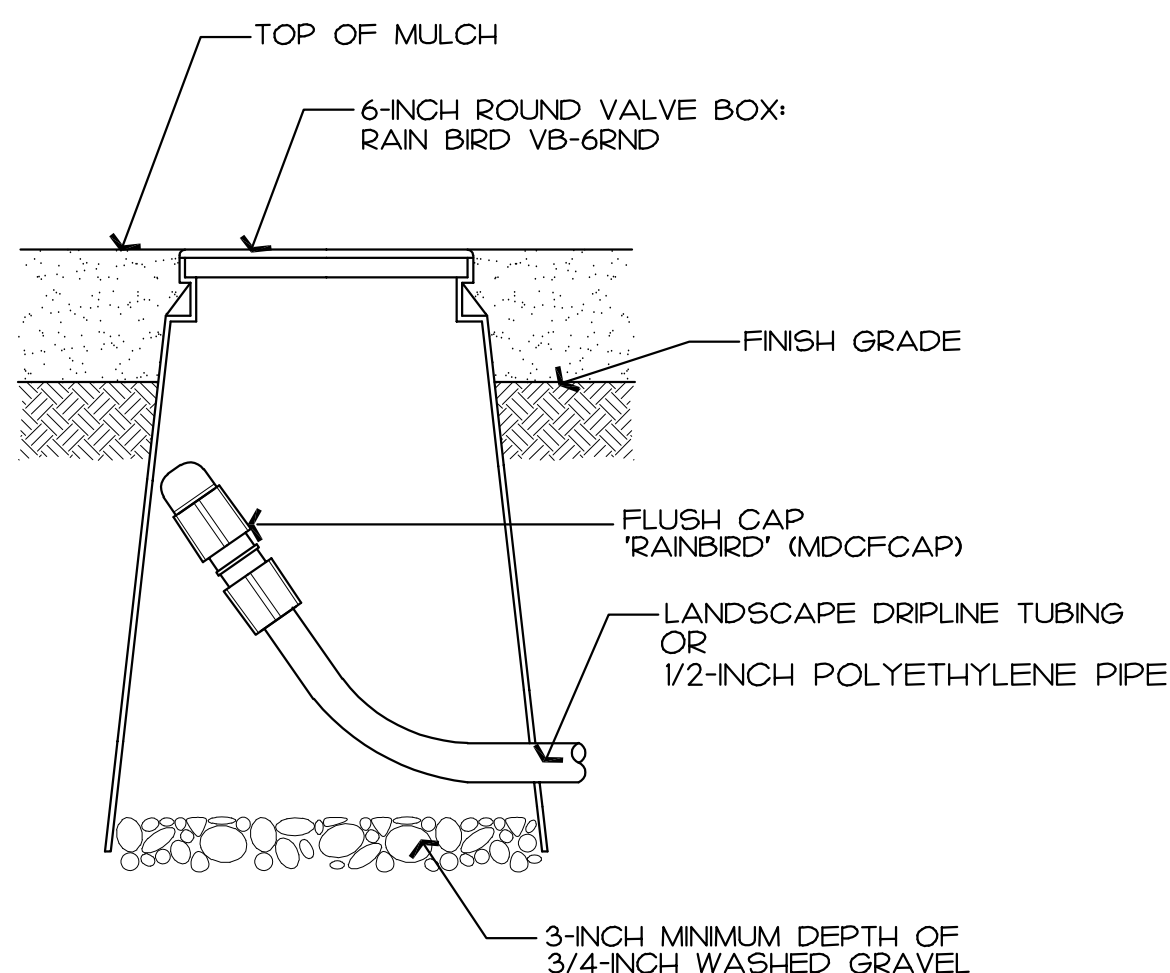
- 1 BARK MULCH
- 2 SUBSTRATE/EMITTER BOX
RAIN BID-VB-70NCK
- 3 FINISH GRADE
- 4 1/2" AIR RELIEF VALVE-
RAIN BID-ARVSO
TO BE INSTALLED AT HIGH POINTS IN
OPE ZONE
- 5 1/2" X 1/2" PVC REDUCER BUSHING
- 6 BARG X FEMALE THREAD CONNECTOR-
RAIN BID-XFD-TFA FITTING
- 7 1/2" BLANK DROPLE TUBING-
RAIN BID-XF SERIES
- 8 BARG X MALE THREAD CONNECTOR-
RAIN BID-YFMA FITTING
- 9 PVC TEE CONNECTED TO PVC HEADER
PIPE
- 10 3" MINIMUM DEPTH OF
1/2" WASHED GRAVEL
- 11 BARG CO. ID



1	DRIP LINE AIR RELIEF VALVE
---	----------------------------

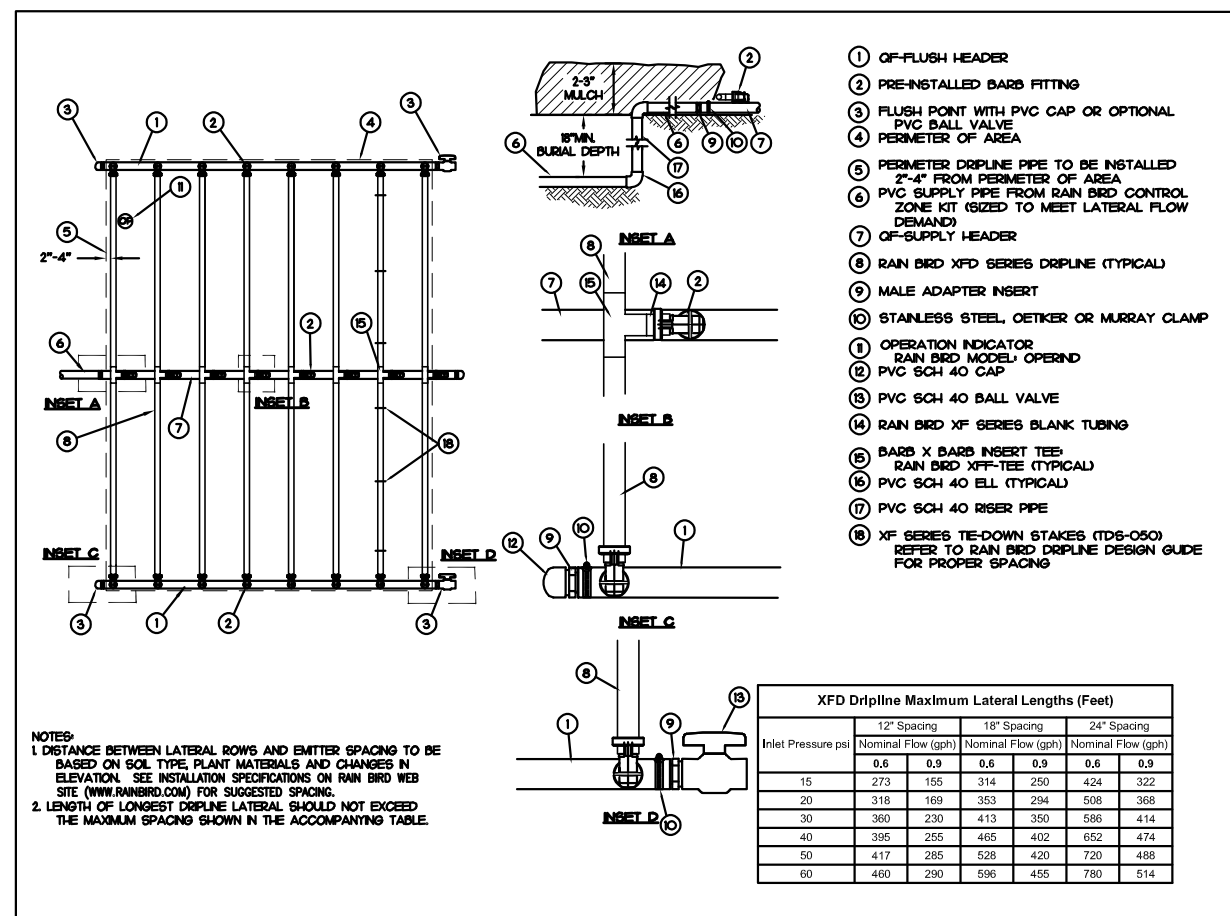


5	DRIP EMITTER LINE DETAIL
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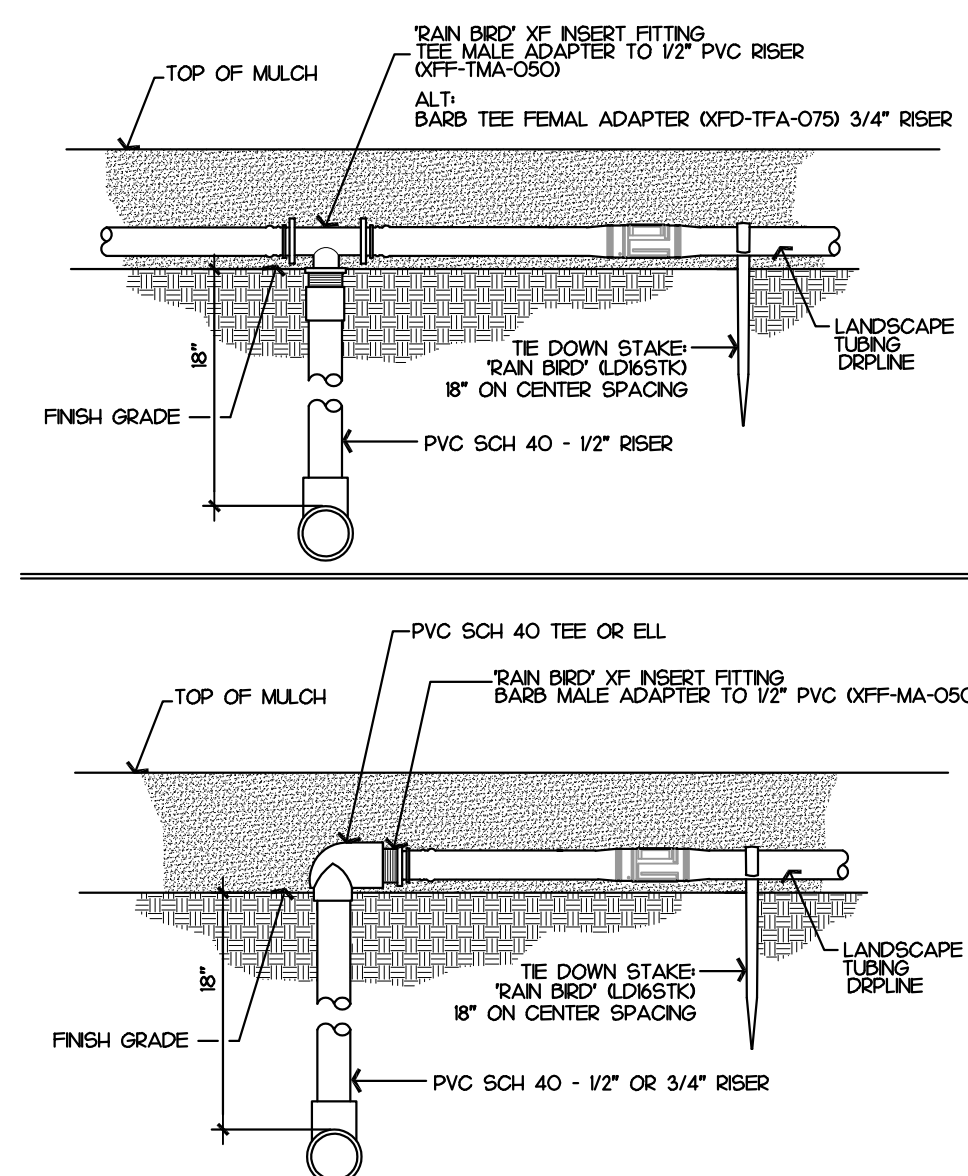


9	FLUSH POINT DETAIL
---	--------------------

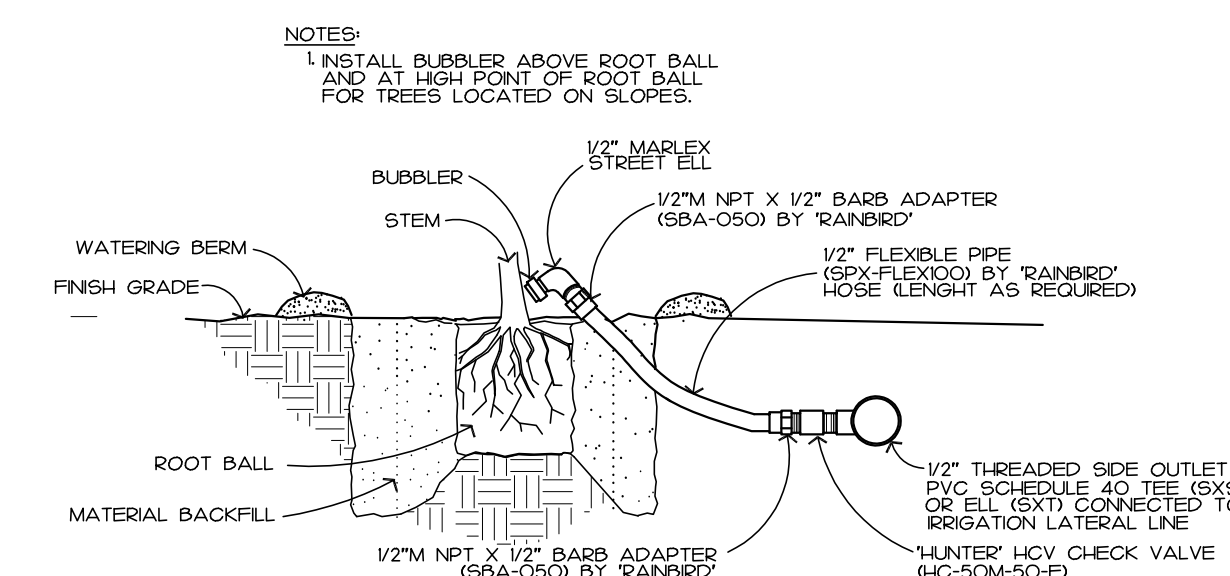
2	DRIP LINE CONTROL ZONE KIT DETAIL
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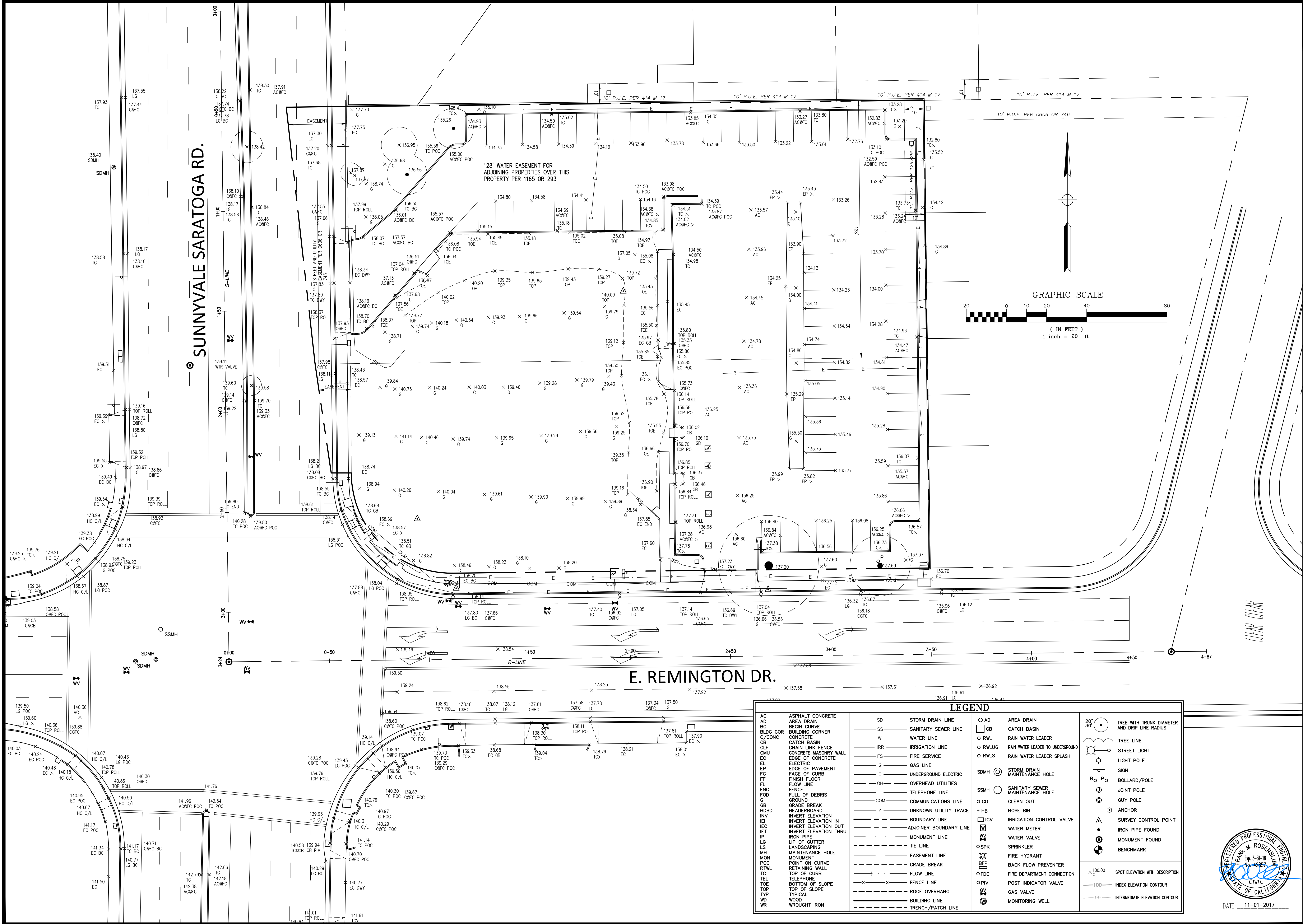
6	DRIP EMITTER LINE DETAIL
---	--------------------------



7	DRIP EMITTER LINE DETAIL
---	--------------------------



12	TREE BUBBLER DETAIL
----	---------------------



DATE

#

DESC.

REVISIONS

UNDERWOOD & ROSENBLUM, INC.

civil engineers and surveyors

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(408) 433-1222

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CHILDRE CENTER

1010 SUNNYSALE-SARATOGA RD

SUNNYVALE CALIFORNIA

TOPOGRAPHIC/BOUNDARY SURVEY

DATE 11-01-2017

Scale 1"=20'

Design By: FR

Job J17052

Sheet

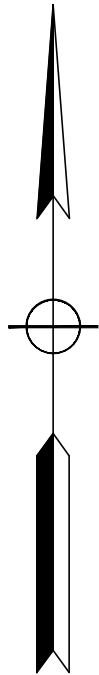
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GENERAL NOTES

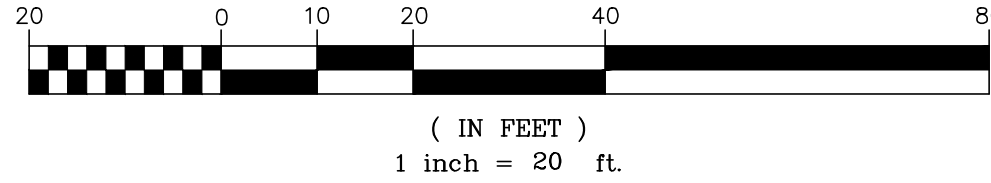
1. THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADE STAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
2. ANY INCONSISTENCIES IN EXISTING OR PROPOSED ELEVATIONS SHALL BE BROUGHT TO THE NOTICE OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO CONSTRUCTION OR AS SOON AS DISCOVERED.
3. IN THE EVENT THAT ANY UNKNOWN UNDERGROUND TANKS OR STRUCTURES OR UTILITY LINES ARE DISCOVERED ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE TO DETERMINE THE DISPOSITION OF THE STRUCTURE.
4. CONTRACTOR SHALL IMPORT REQUIRED MATERIALS OR EXPORT EXCESS AS REQUIRED TO ESTABLISH PLAN GRADES. EXCESS MATERIAL IF ANY SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT CONTRACTOR'S EXPENSE.
5. EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.

DEMOLITION LEGEND

- | | |
|-------------|--|
| | REMOVE EXISTING PAVEMENT |
| | REMOVE EXISTING TREE |
| | REMOVE EXISTING CURB |
| | REMOVE EXISTING UNDERGROUND UTILITY AND LIGHTS |
| | LIMIT OF SITE DEMOLITION, CLEARING AND GRADING |
| | SAW CUT LINE |
| | TEMPORARY CONSTRUCTION CHAIN LINK FENCE |
| AC | ASPHALT CONCRETE |
| AD | AREA DRAIN |
| CB | CATCH BASIN |
| CO | CLEAN OUT |
| CONC. | CONCRETE |
| EX., EXIST. | EXISTING |
| TYP. | TYPICAL |
| ① | EXISTING UTILITY VAULT TO REMAIN. |
| ② | EXISTING TRAFFIC/STREETLIGHT POLE TO BE RELOCATED. |
| ③ | EXISTING FIRE HYDRANT TO BE RELOCATED. |



GRAPHIC SCALE

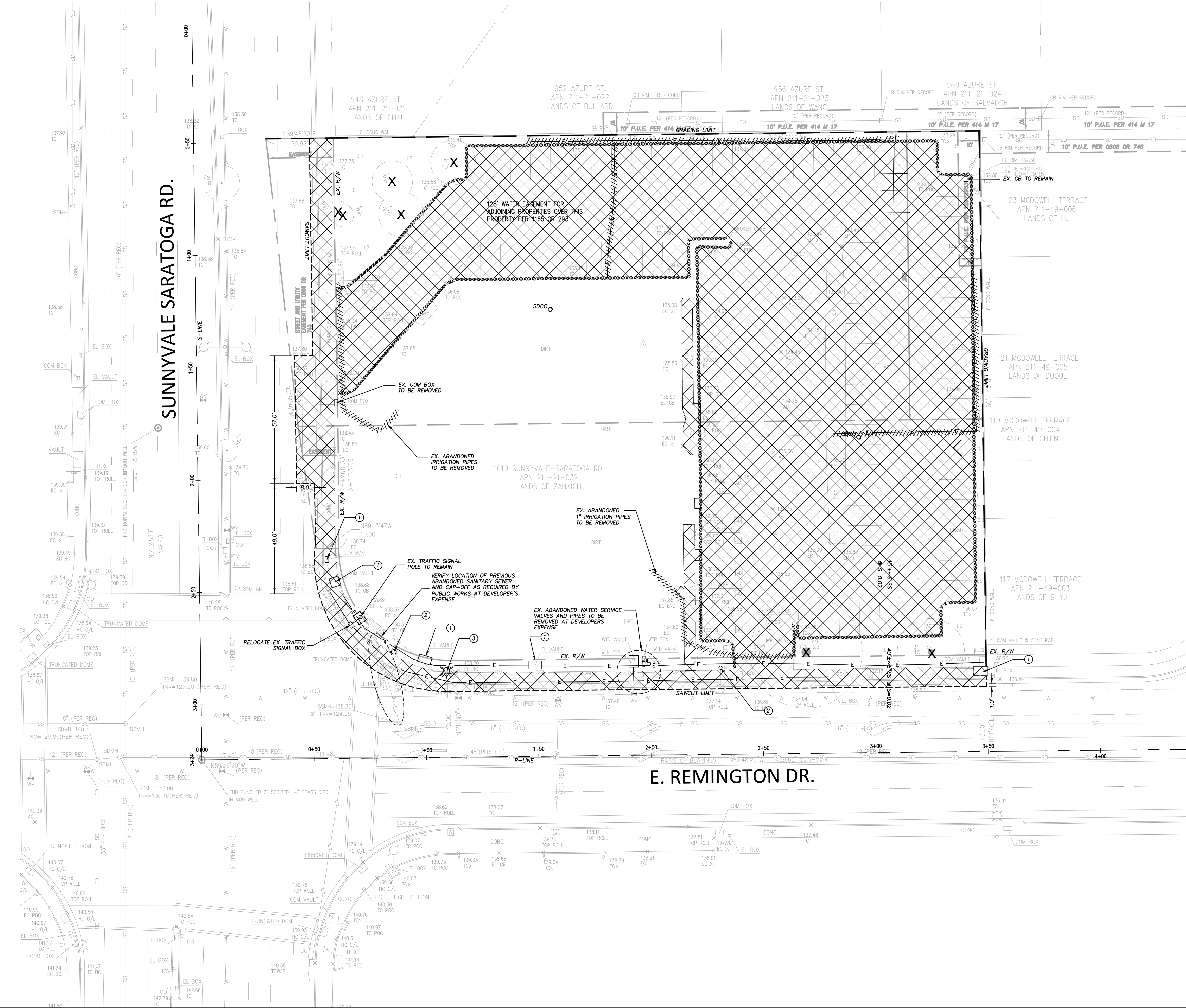


CHILDRE CENTER
1010 SUNNYVALE-SARATOGA RD
SUNNYVALE CALIFORNIA

PRELIMINARY
SITE DEMOLITION PLAN

Date 11-01-2017
Scale 1"=20'
Design By: FR
Job J17052
Sheet

C1



GENERAL NOTES

1. THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADESTAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
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4. CONTRACTOR SHALL IMPORT REQUIRED MATERIALS OR EXPORT EXCESS AS REQUIRED TO ESTABLISH PLAN GRADES. EXCESS MATERIAL IF ANY SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT CONTRACTOR'S EXPENSE.
5. EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.
6. ALL PUBLIC INFRASTRUCTURE SHALL BE DESIGN AND CONSTRUCTED PER CITY OF SUNNYVALE DESIGN GUIDELINES.

GRADING & PAVING LEGEND

- NEW AC PAVEMENT-OFFSITE TRAFFIC 3,054 S.F.
- NEW AC PAVEMENT- PARKING LOT 20,964 S.F.
- NEW CONCRETE- ON-SITE 9,209 S.F.
- NEW CONCRETE OFF-SITE STREET SIDEWALK 5,763 S.F.
- NEW BUILDING 3,942 S.F.
- NEW EXTERIOR SYNTHETIC TURF PLAY AREA 9,443 S.F.
- NEW LANDSCAPE 2,674 S.F.
- NEW BIO-RETENTION LANDSCAPE AREA 2,683 S.F.
- NEW CITY STANDARD DRIVEWAY 400 S.F.
- NEW VTA CONCRETE BUS PAD 550 S.F.
- LIMIT OF GRADING
- SAW CUT LINE
- DRAINAGE FLOW LINE
- GRADE BREAK LINE
- RIDGE LINE
- NEW FENCE LINE
- NEW HANDRAIL
- NEW RETAINING WALL
- FINISH GRADE CONTOUR
- ASPHALT CONCRETE
- AREA DRAIN
- PORTLAND CEMENT CONCRETE
- CATCH BASIN
- CLEAN OUT TO GRADE
- EXISTING
- FINISH FLOOR
- FIRE HYDRANT
- FLOW LINE
- GROUND
- GRADE BREAK
- JUNCTION BOX
- STORM DRAIN MAINTENANCE HOLE
- SANITARY SEWER MAINTENANCE HOLE
- TOP OF CURB
- TOP OF WALL
- TYPICAL

E. REMINGTON DR.

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.



DATE: 11-01-2017

CHILD CARE CENTER
1010 SUNNYVALE-SARATOGA RD

PRELIMINARY
GRADING & PAVING PLAN

Date 11-01-2017

Scale 1"=20'

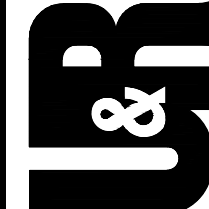
Design By: FR

Job J17052

Sheet

C2

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civil engineers and surveyors
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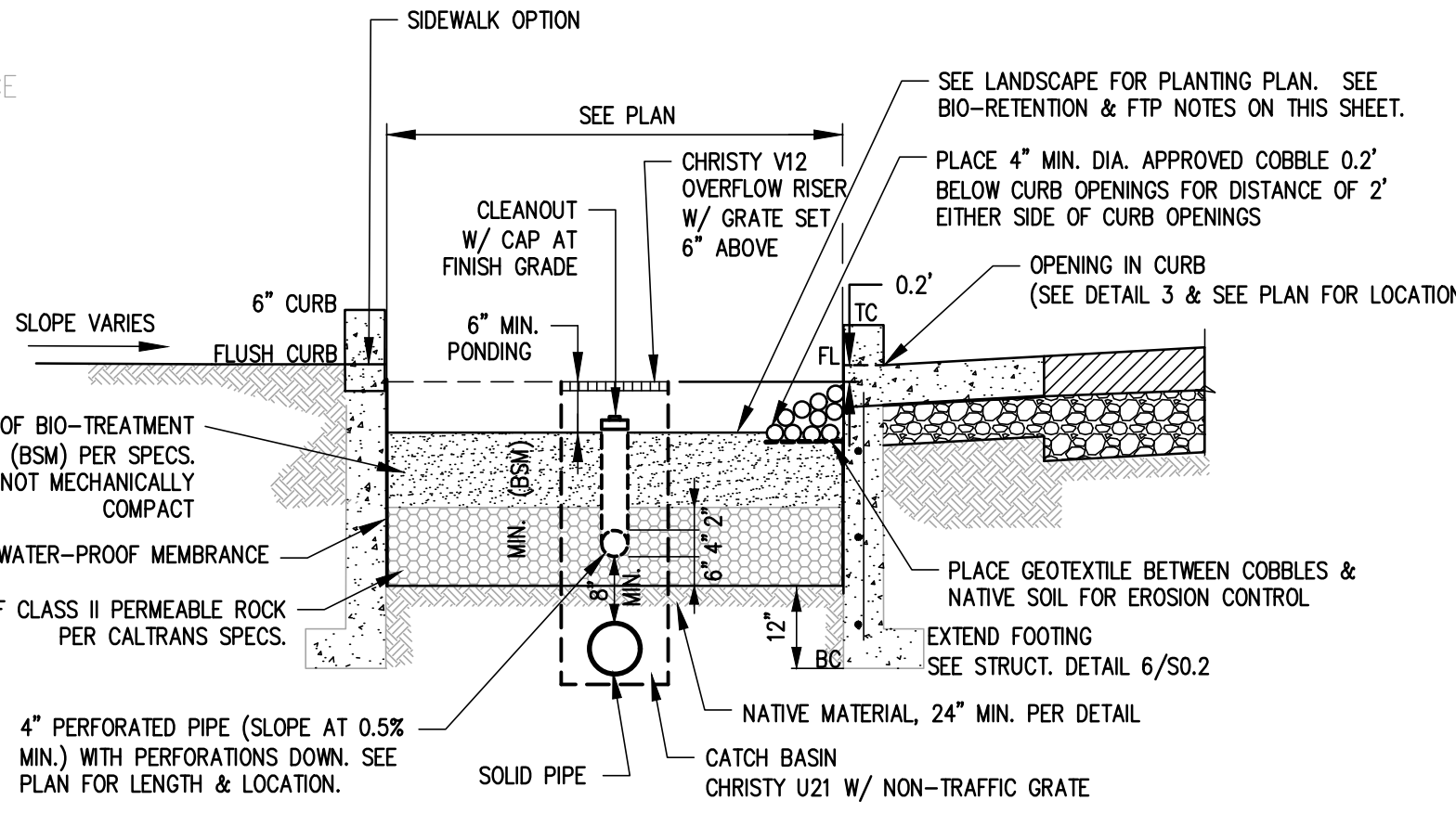
SUNNYVALE CALIFORNIA

C2

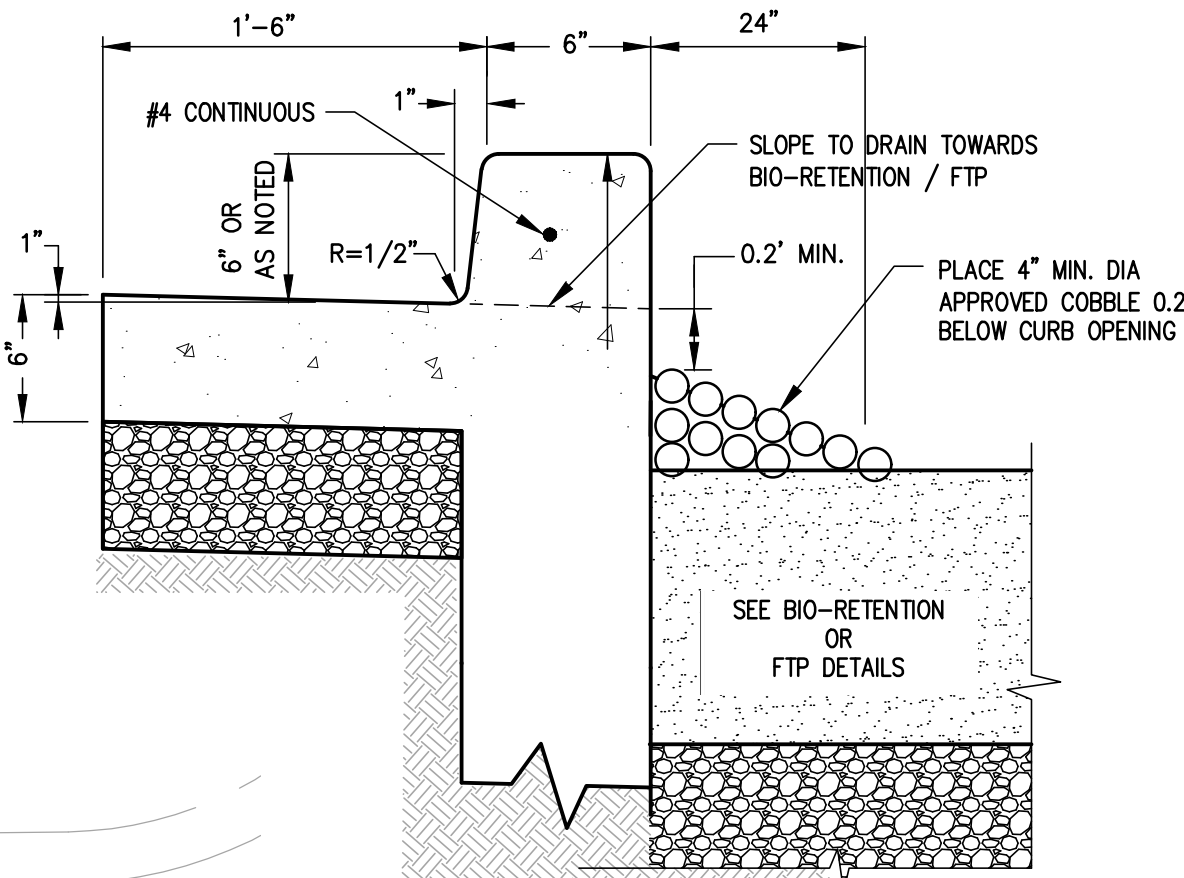
LEGEND & ABBREVIATION

	TCM # BIO-RETENTION - INFILTRATION ALLOWED
IMP	IMPERVIOUS
PER	PERVIOUS
SF	SQUARE FEET
TMC	TREATMENT CONTROL MEASURE

TCM SUMMARY TABLE					
DRAINAGE AREA CALCULATIONS					
Catchment Label (AREA #)	Impervious Area (SF)	Pervious Area (SF)	Total Area (SF)	Treatment Provided Area (SF)	Type
1	40,785	14,300	55,085	1822	BIO-RETENTION
2	608	1,887	2,495	80	BIO-RETENTION
3	760	1,670	2,430	44	BIO-RETENTION
TOTAL	42,153	17,857	60,010	1,946	



A BIO-RETENTION DETAIL (UNLINED)
NTS

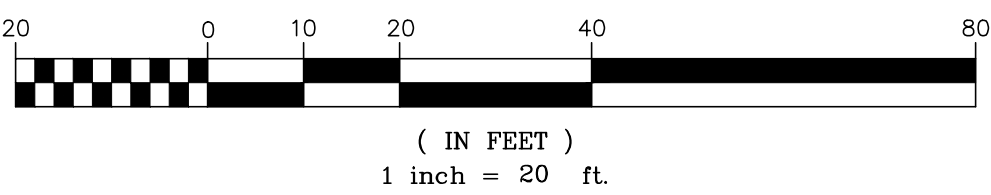


SECTION VIEW

PLAN VIEW

CURB OPENING DETAIL
NTS

GRAPHIC SCALE



DATE: 11-01-2017

CHILD CARE CENTER
1010 SUNNYVALE-SARATOGA RD
SUNNYVALE CALIFORNIA

PRELIMINARY
STORM WATER CONTROL PLAN

Date 11-01-2017
Scale 1"=20'
Design By: FR
Job J17052
Sheet

C3

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civil engineers and surveyors
1830 Oakland Road, Suite A114, San Jose, CA 95131
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REVISIONS

DATE

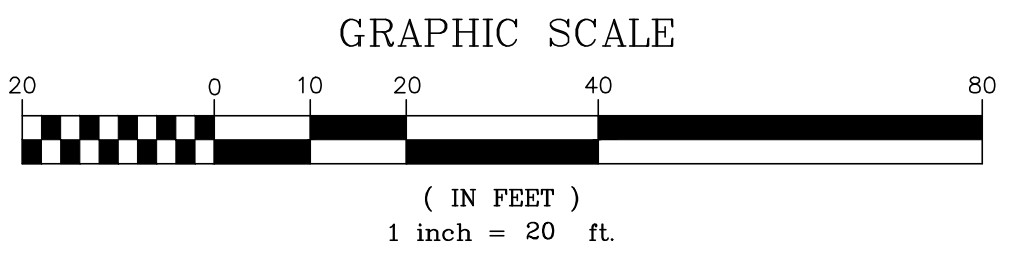
GENERAL NOTES

1. THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADE STAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
2. ANY INCONSISTENCIES IN EXISTING OR PROPOSED ELEVATIONS SHALL BE BROUGHT TO THE NOTICE OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO CONSTRUCTION OR AS SOON AS DISCOVERED.
3. IN THE EVENT THAT ANY UNKNOWN UNDERGROUND TANKS OR STRUCTURES OR UTILITY LINES ARE DISCOVERED ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE TO DETERMINE THE DISPOSITION OF THE STRUCTURE.
4. CONTRACTOR SHALL IMPORT REQUIRED MATERIALS OR EXPORT EXCESS AS REQUIRED TO ESTABLISH PLAN GRADES. EXCESS MATERIAL IF ANY SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT CONTRACTOR'S EXPENSE.
5. EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.
6. PLUMBING CONTRACTOR TO PROVIDE TRACER WIRES ON ALL BURIED PLASTIC PIPING.
7. VALVE BOXES TO BE CHRISTY 10"x17" WITH BALL VALVES. BALL VALVES TO BE SET 12" BELOW GRADE. WATER LINES TO BE SET 24" BELOW GRADE.
8. WHEN WATER AND SEWER LINES ARE INSTALLED IN JOINT TRENCH, WATER LINES TO BE SET MINIMUM 1' HIGHER THAN SEWER LINES WITH MINIMUM 1' HORIZONTAL CLEARANCE.
9. UTILITY POINTS OF CONNECTION ARE 5' OUTSIDE OF BUILDING. SEE MECHANICAL AND PLUMBING DRAWINGS FOR UTILITY CONNECTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD.
11. ALL UTILITY TRENCHES SHOULD BE BACKFILLED WITH COMPACTED FILL IN ACCORDANCE WITH LOCAL REQUIREMENTS OR THE RECOMMENDATIONS IN THE SOILS REPORT. FILL MATERIAL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN UNCOMPACTED THICKNESS AND SHOULD BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION (ASTM D-1557, LATEST EDITION) BY MECHANICAL MEANS ONLY, EXCEPT WHERE LOCAL REQUIREMENTS SPECIFY HIGHER REQUIREMENTS. IF IMPORTED SAND IS USED AS BACKFILL, THE UPPER THREE FEET IN BUILDING AND PAVEMENT AREAS SHALL BE COMPACTED TO 95 PERCENT. THE UPPER 6 INCHES OF BACKFILL IN ALL PAVEMENT AREAS SHALL BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION.
12. ALL PUBLIC INFRASTRUCTURE SHALL BE DESIGN AND CONSTRUCTED PER CITY OF SUNNYVALE DESIGN GUIDELINES.

PLUMBING LEGEND

- NEW STORM DRAIN
SIZE AND SLOPE AS INDICATED
- NEW 8" RAIN WATER LEADER @ S=0.02 MIN.
- NEW SANITARY SEWER (SIZE AS INDICATED)
S=0.01 UNLESS OTHERWISE INDICATED
- NEW WATER LINE (SIZE AS INDICATED)
- NEW FIRE SERVICE LINE (SIZE AS INDICATED)
- NEW PVC SUBDRAIN (SIZE AS INDICATED)
- NEW ELECTRICAL LINE (SEE ELECTRICAL DRAWINGS)
- AD AREA DRAIN
- CB CATCH BASIN
- JB JUNCTION BOX
- SDMH STORM DRAIN MAINTENANCE HOLE
- SSMH SANITARY SEWER MAINTENANCE HOLE
- RWL RAIN WATER LEADER
- COTG/SSCO/CSSCO CLEAN OUT TO GRADE
- WV WATER VALVE
- WM WATER METER
- BFP BACK FLOW PREVENTER
- RPDA REDUCED PRESSURE DETECTOR ASSEMBLY
- FH FIRE HYDRANT
- D.I.P. DUCTILE IRON PIPE
- EX. EXIST.
- FF FINISH FLOOR
- HDPE HIGH DENSITY POLYETHYLENE PIPE
- INV INVERT ELEVATION
- IEI INVERT ELEVATION IN
- IEO INVERT ELEVATION OUT
- IET INVERT ELEVATION THROUGH
- PVC POLYVINYL CHLORIDE
- RCP REINFORCED CONCRETE PIPE
- SS SANITARY SEWER
- SD STORM DRAIN
- TYP. TYPICAL
- W, DW DOMESTIC WATER
- FDC FIRE DEPARTMENT CONNECT
- BFP BACKFLOW PREVENTER
- PV POST INDICATOR VALVE
- WV WATER VALVE

E. REMINGTON DR.



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CHILD CARE CENTER
1010 SUNNYVALE-SARATOGA RD
SUNNYVALE CALIFORNIA

PRELIMINARY
UTILITY PLAN

Date 10-31-2017
Scale 1"=20'
Design By: FR
Job J17052
Sheet
C4.1

GENERAL NOTES

1. THE CONTRACTOR SHALL LAY OUT THE WORK, SETTING GRADE STAKES, ESTABLISHING LINES, BASE LINES, ELEVATIONS AND OTHER REFERENCE MARKERS AND INFORMATION NECESSARY TO COMPLETE THE WORK AND SHALL BE RESPONSIBLE FOR THE ACCURACY THEREOF.
2. ANY INCONSISTENCIES IN EXISTING OR PROPOSED ELEVATIONS SHALL BE BROUGHT TO THE NOTICE OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO CONSTRUCTION OR AS SOON AS DISCOVERED.
3. IN THE EVENT THAT ANY UNKNOWN UNDERGROUND TANKS OR STRUCTURES OR UTILITY LINES ARE DISCOVERED ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE TO DETERMINE THE DISPOSITION OF THE STRUCTURE.
4. CONTRACTOR SHALL IMPORT REQUIRED MATERIALS OR EXPORT EXCESS AS REQUIRED TO ESTABLISH PLAN GRADES. EXCESS MATERIAL IF ANY SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT CONTRACTOR'S EXPENSE.
5. EXISTING WATER, STORM AND SANITARY INVERTS SHALL BE EXPOSED AND VERIFIED PRIOR TO ANY NEW CONSTRUCTION.
6. PLUMBING CONTRACTOR TO PROVIDE TRACER WIRES ON ALL BURIED PLASTIC PIPING.
7. ALL PUBLIC INFRASTRUCTURE SHALL BE DESIGNED AND CONSTRUCTED PER CITY OF SUNNYVALE DESIGN GUIDELINES.

UNDERGROUND FIRE SERVICE TO FIRE HYDRANTS REQUIREMENTS:

NFPA 24 SEC. 4.1 THE UNDERGROUND FIRE SERVICE PLANS SHALL BE DRAWN TO SCALE AND SHALL INCLUDE ALL ESSENTIAL DETAILS, SUCH AS:

- A) SIZE AND LOCATION OF ALL WATER SUPPLIES.
- B) SIZE AND LOCATION OF ALL PIPING, INDICATING, WHERE POSSIBLE, THE CLASS AND TYPE AND DEPTH OF EXISTING PIPE, THE CLASS AND TYPE OF NEW PIPE TO BE INSTALLED, AND THE DEPTH TO WHICH IT IS TO BE BURIED.
- C) SIZE, TYPE, AND LOCATION OF VALVES. INDICATE IF LOCATED IN PIT OR IF OPERATION IS BY POST INDICATOR OR KEY WRENCH THROUGH A CURB BOX. INDICATE THE SIZE, TYPE, AND LOCATION OF METERS, REGULATORS, AND CHECK VALVES.
- D) SIZE AND LOCATION OF HYDRANTS, SHOWING SIZE AND NUMBER OF OUTLETS AND IF OUTLETS ARE TO BE EQUIPPED WITH INDEPENDENT GATE VALVES.
- E) SPRINKLER AND STANDPIPE RISERS TO BE SUPPLIED BY THE SYSTEM.
- F) LOCATION OF FIRE DEPARTMENT CONNECTIONS, IF PART OF PRIVATE FIRE SERVICE MAIN SYSTEM, INCLUDING DETAIL OF CONNECTIONS.

NFPA 24 SEC. 10.1 ALL FERROUS METAL PIPE SHALL BE LINED, AND STEEL PIPE SHALL BE COATED AND WRAPPED WITH JOINTS FIELD-COATED AND WRAPPED AFTER ASSEMBLY. FOR BURIED PIPE, GALVANIZING, INTERNALLY OR EXTERNALLY DOES NOT MEET THE REQUIREMENTS OF THIS SECTION.

NFPA 24 SEC. 10.3.5.2 ALL BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION.

NFPA 24 SEC. 10.8.3.5 AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES EXPECT THRUST BLOCKS, SHALL BE CLEANED AND THOROUGHLY COATED WITH A BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL.

NFPA 24 SEC. 10.8.2 THRUST BLOCKS SHALL BE OF CONCRETE MIX NOT LEANER THAN ONE PART CEMENT, TWO AND ONE-HALF PARTS SAND, AND FIVE PARTS STONE. THRUST BLOCKS SHALL BE PLACED BETWEEN UNDISTURBED EARTH AND THE FITTING TO BE RESTRAINED, AND SHALL BE OF SUCH BEARING AS TO ENSURE ADEQUATE RESISTANCE TO THE THRUST TO BE ENCOUNTERED. IN GENERAL, THRUST BLOCKS SHALL BE SO PLACED THAT THE JOINS WILL BE ACCESSIBLE FOR INSPECTION AND REPAIR.

NFPA 24 SEC. 10.10.2.1 UNDERGROUND MAINS SHALL BE COMPLETELY FLUSHED TO REMOVE FOREIGN MATERIALS THAT MIGHT HAVE ENTERED THE MAIN DURING THE COURSE OF THE INSTALLATION PER TABLE 9-1.1 TO PRODUCE A VELOCITY OF 10 FT. PER SECOND IN PIPES. (WITNESSED BY THE INSPECTOR OF RECORD)

NFPA 24 SEC. 10.10.2.2 ALL NEW PRIVATE UNDERGROUND FIRE SERVICE MAINS SHALL BE TESTED HYDROSTATICALLY AT NOT LESS THE 200-PSI PRESSURE FOR A MINIMUM OF TWO HOURS. (WITNESSED BY THE INSPECTOR OF RECORD)

NFPA 24 SEC. 10.10.1 BEFORE ASKING FINAL APPROVAL OF AN INSTALLATION BY THE INSPECTOR OF RECORD, THE INSTALLING COMPANY SHALL FURNISH A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE TO BE SUBMITTED TO DSA. A TYPICAL CERTIFICATE IS SHOWN IN FIGURE 10.10.1. THIS FORM SHALL BE GIVEN TO THE INSPECTOR OF RECORD (IOR) WHO WILL TURN-IN FOR DSA RECORDS.

NFPA 24 SEC. 10.4 THE DEPTH OF COVER OVER WATER PIPES SHALL BE NOT LESS THAN 2 1/2 FT. TO PREVENT MECHANICAL DAMAGE AND SHALL BE BURIED A MINIMUM OF 1/2 FT. OVER DRIVEWAYS.

NFPA 24 SEC. 10.8.1 PIPE SHALL NOT BE RUN UNDER BUILDINGS.

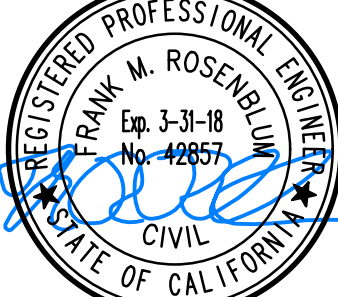
• DESIGN & INSTALLATION TO COMPLY WITH 2016 NFPA 24.

THE FOLLOWING SECTIONS OF THE STANDARD SITEMARK SPECIFICATIONS FOR THE CONSTRUCTION OF THIS PROJECT ARE APPLICABLE TO THE WORK SHOWN ON THIS DRAWING:

SECTION 3123331 - TRENCHING, BACKFILLING, AND COMPACTING
SECTION 331100 - WATER DISTRIBUTION SYSTEM

FIRE SERVICE LEGEND

- FS — FIRE TRUCK ACCESS
- CV — CHECK VALVE
- FDC — FIRE DEPARTMENT CONNECTION
- FIRE RISER — FIRE RISER
- GATE VALVE — GATE WATER VALVE
- PIV — POST INDICATOR VALVE
- DDCV — DOUBLE DETECTOR CHECK VALVE
- BFP — BACK FLOW PREVENTER
- TB — THRUST BLOCK
- SD — NEW FIRE HYDRANT (CLOW RICH 865)
- SS — EXISTING FIRE HYDRANT
- W — EXISTING STORM DRAIN LINE
- FS — EXISTING SANITARY SEWER LINE
- W — EXISTING WATER LINE
- FS — EXISTING FIRE SERVICE
- G — EXISTING GAS LINE
- E — EXISTING UNDERGROUND ELECTRIC
- T — EXISTING TELEPHONE LINE
- OH — EXISTING OVERHEAD UTILITIES



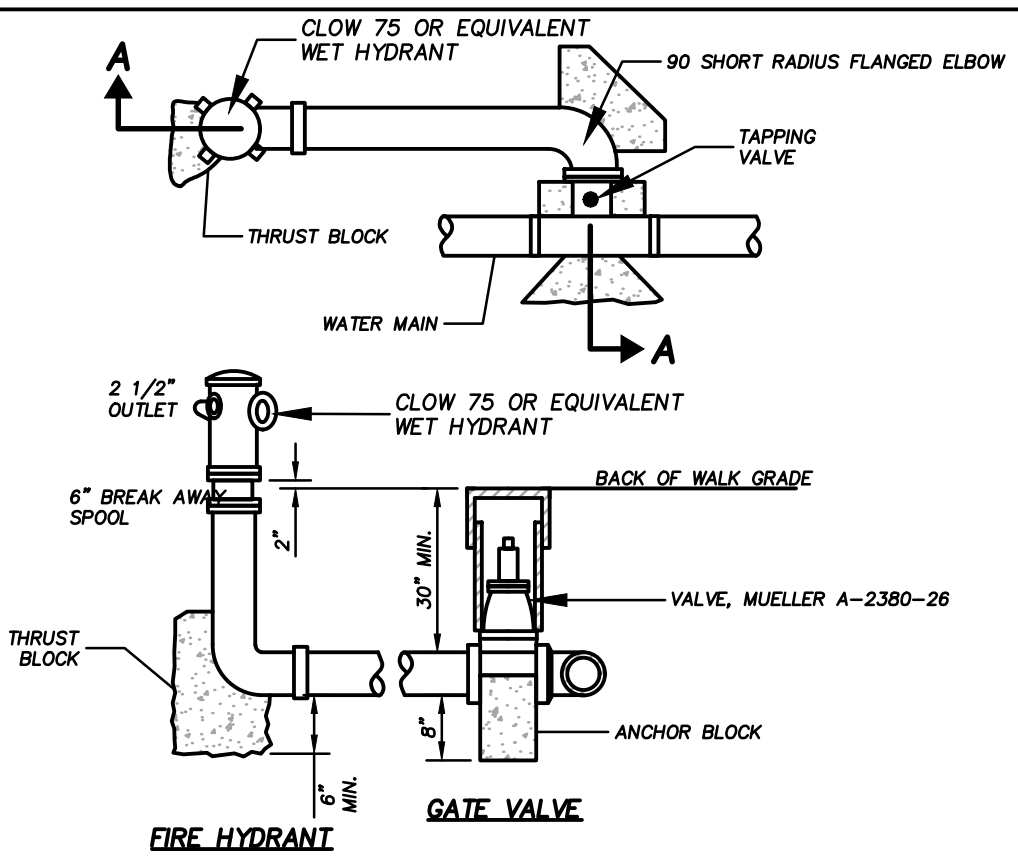
DATE: 11-11-2017



Listed below is the fire flow data you requested at:

1010 Sunnyvale-Saratoga Road
12" CI Main
1350 GPM
78 Residual Pressure
84 Static Pressure

Linda Duffley
Sr. Office Assistant
Environmental Services Department
City of Sunnyvale
408.730-7900

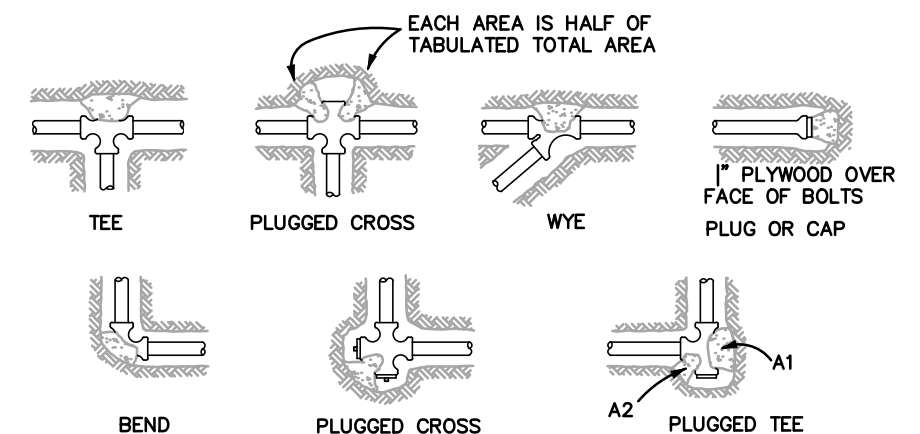


SECTION A-A

- NOTES:
1. Use rubber gasket type joints throughout hydrant assembly except where otherwise indicated.
 2. Hydrant shall be given 3 coats of exterior yellow paint, conforming to Federal Color Specification TT-C-595, color no. 1305. Paint shall be heavy duty plastic industrial enamel.
 3. When standing in the centerline of the street facing the hydrant, the valve should be toward the observer's right. This method to be used only where applicable (Type B).
 4. Approved hydrants must be Fire Underwriters Listed, Greenberg 75 or approved equal for residential, Greenberg 76, Rich 760 or approved equal for commercial or industrial, the 2 1/2" outlet shall have National Standard Hose Threads. The steamer outlet shall be 4" California Standard Hose Thread.
 5. Orient parts of Two Port Hydrants 45DEG to F.O.C. Orient the 4" part on three port hydrants perpendicular to and facing F.O.C.
 6. A Brooks Products SRT valve box with word "WATER" to be furnished and installed with each valve.

ON-SITE FIRE HYDRANT ASSEMBLY

NTS



- NOTES:
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
 2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
 3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCLOSED ON THE PLANS; E.G. (A1) INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
 4. IF NOT SHOWN ON PLANS REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUSTED IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIAL SPECIFICATIONS.
 5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN		45° BEND	22.5° BEND	11.25° BEND
			A1	A2			
4	1.0	1.4	1.9	1.4	1.0	---	---
6	2.1	3.0	4.3	3.0	1.6	1.0	---
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.8	3.4	1.7
14	11.5	16.3	23.0	16.3	9.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

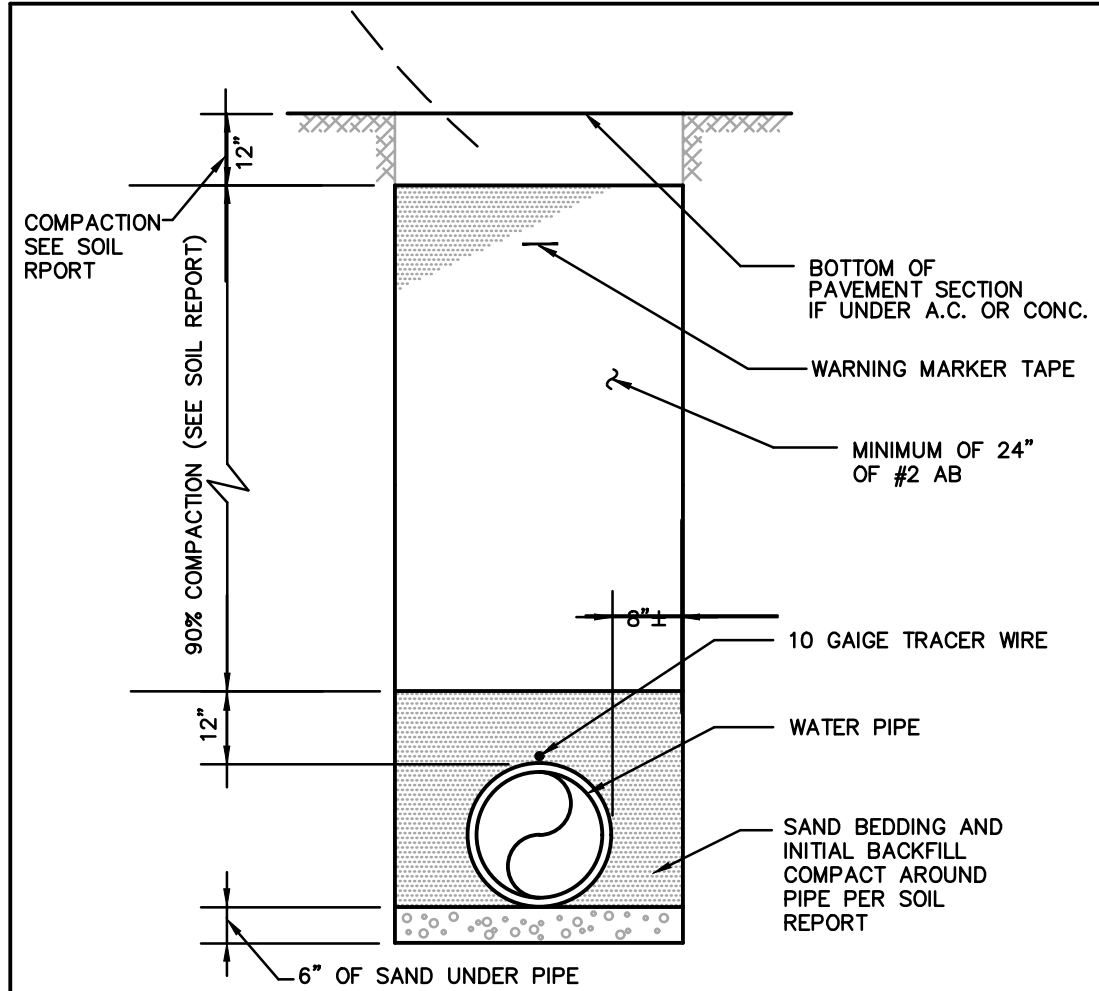
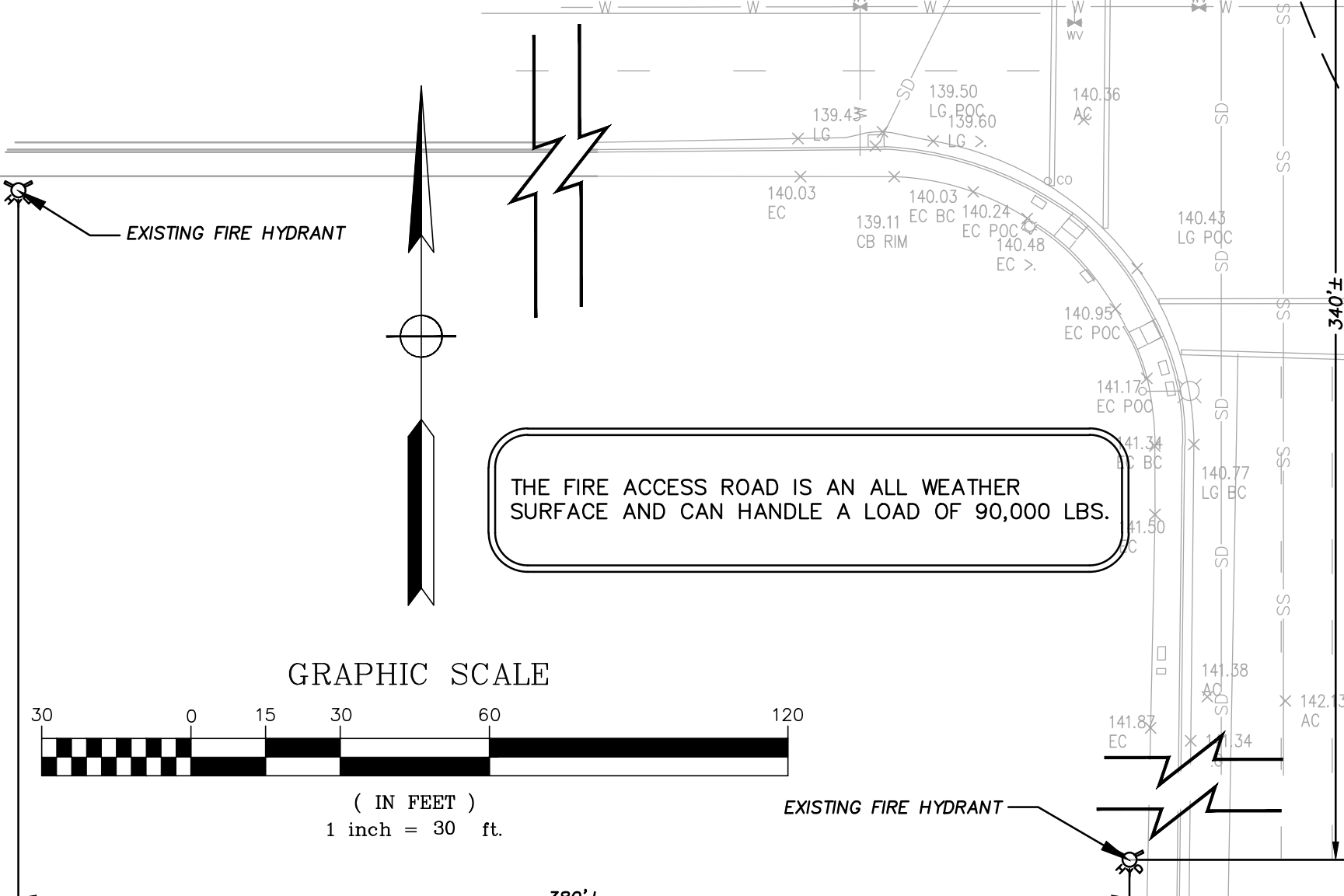
BEARING AREA OF THRUST BLOCKS IN SQ. FT.

FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN		45° BEND	22.5° BEND	11.25° BEND
			A1	A2			
4	1.0	1.4	1.9	1.4	1.0	---	---
6	2.1	3.0	4.3	3.0	1.6	1.0	---
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.8	3.4	1.7
14	11.5	16.3	23.0	16.3	9.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

NOTE: ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2,000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) X (2000/SOIL BEARING STRESS) X (TABLE VALUE).

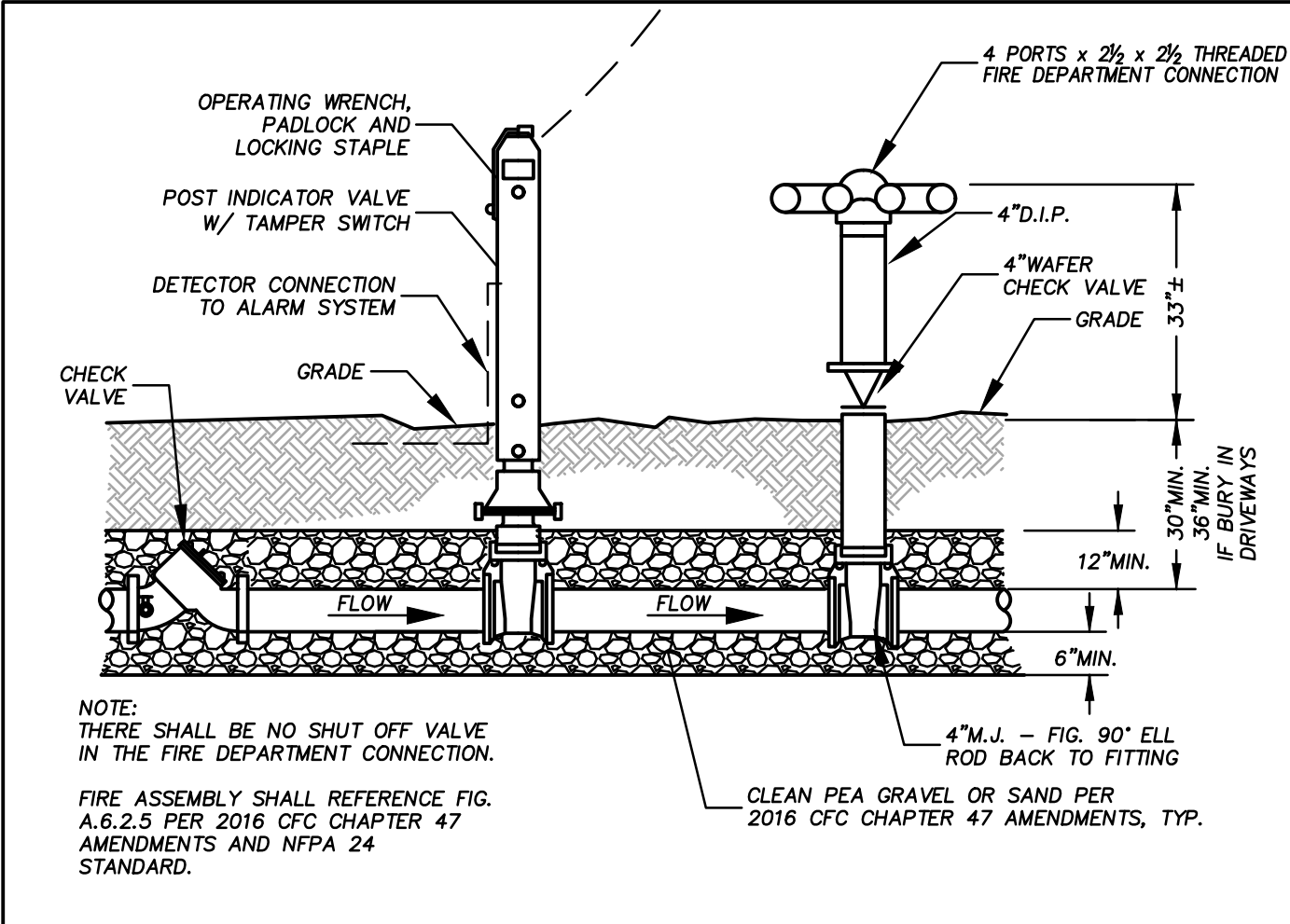
THRUST BLOCK DETAIL

NTS



TRENCH BACKFILL DETAIL

NTS



FIRE SERVICE ASSEMBLY DETAIL

NTS

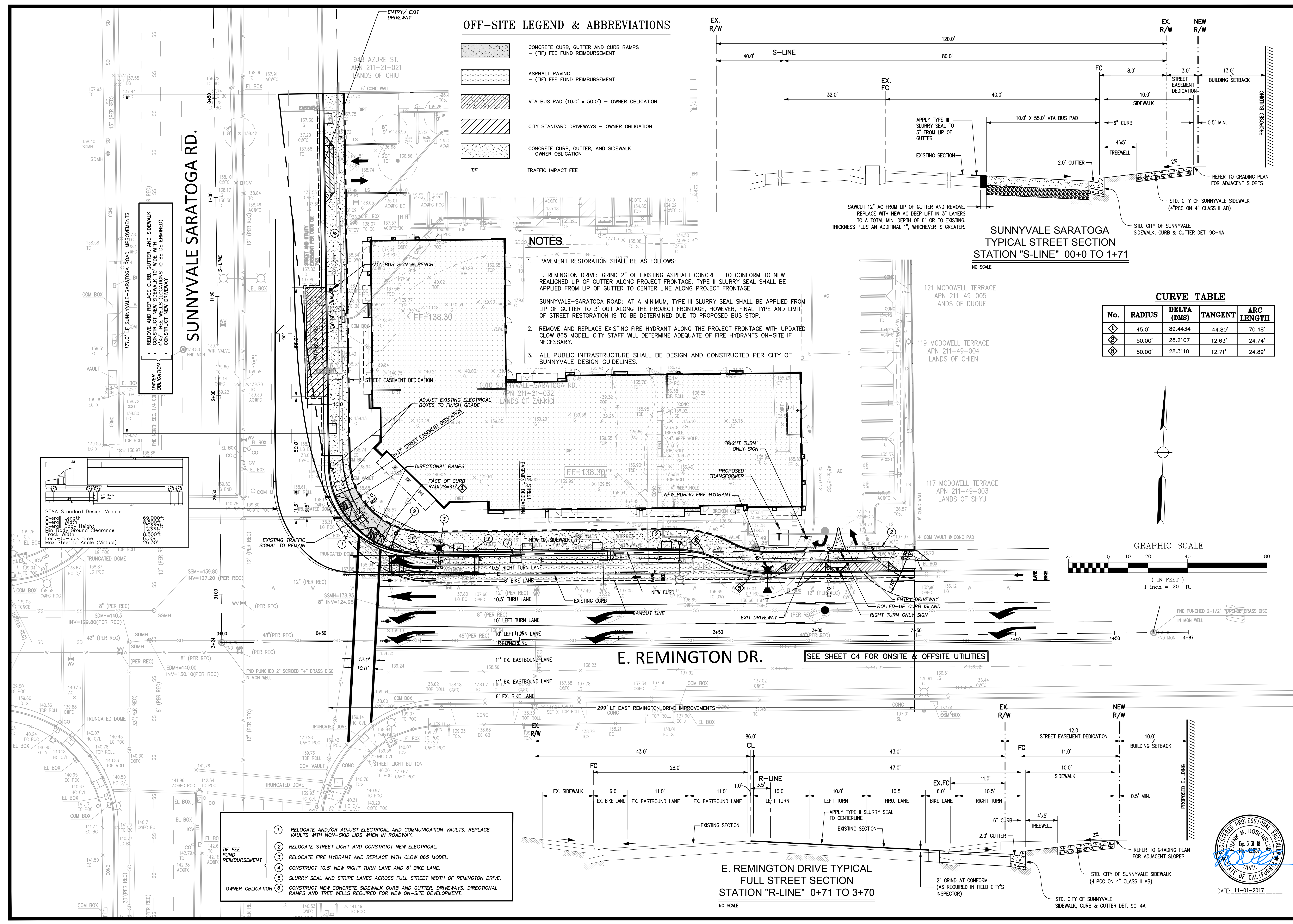
UNDERWOOD & ROSENBLUM, INC.
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1830 Oakland Road, Suite #115, San Jose, CA 95131
(408) 433-1222
www.usr.com

CHILDREAN CENTER
1010 SUNNYVALE-SARATOGA RD
SUNNYVALE CALIFORNIA

PRELIMINARY
FIRE SERVICE PLAN

Date 11-01-2017
Scale 1"=30'
Design By: FR
Job J17052
Sheet

C4.2



UNDERWOOD & ROSENBLUM, INC.
civil engineers and surveyors
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www.underwood.com

CHILDRE CENTER
1010 SUNNYVALE-SARATOGA RD
SUNNYVALE CALIFORNIA

PRELIMINARY STREET IMPROVEMENT PLAN

DATE	REVISIONS

Date 11-01-2017
Scale 1"=20'
Design By: FR
Job J17052
Sheet

C5