

NEW RESIDENCE AT 634 PALOMAR DRIVE REDWOOD CITY, CA 94062

PROJECT TEAM

OWNERS
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062
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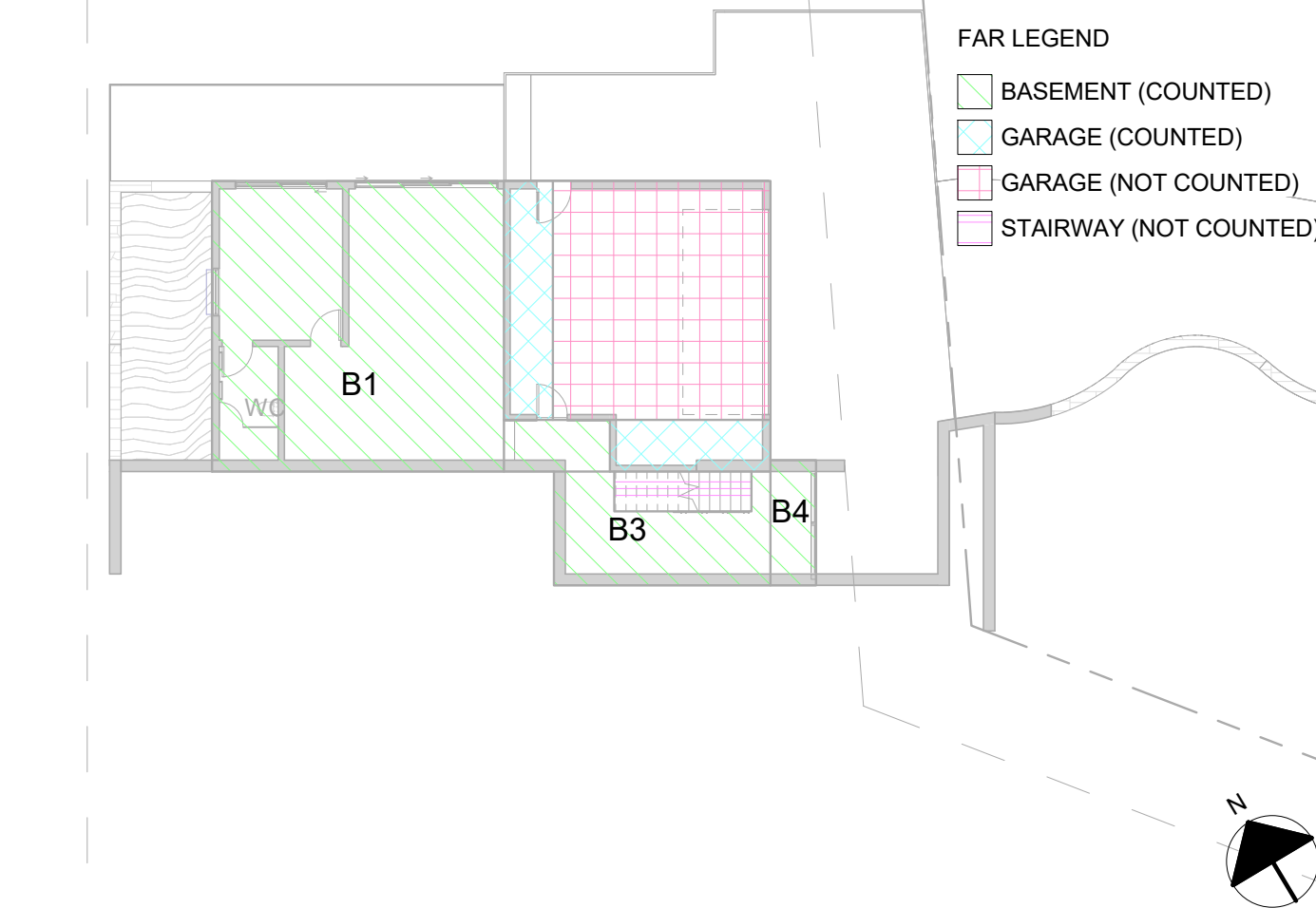
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5 FAR - BASEMENT DIAGRAM (SEE A1.2)



Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021

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PROJECT DATA TABLES

ZONING SUMMARY	
ZONE:	R-1,S-91 COMBINING DISTICT, DR - PALOMAR PARK
APN:	051-022-380
FLOOD ZONE:	X
PUBLIC R.O.W.:	NA
CONFORMITY:	VACANT LOT
LOT DIMENSIONS:	+/- 18,122 SF (VERIFY SURVEY)
SCOPE OF WORK:	NEW RESIDENCE ON A VACANT LOT BASEMENT + TWO-STORIES AND OUTDOOR SWIMMING POOL

LOT AREA SUMMARY			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
FLOOR AREA RATIO	NA	5034.00 SF	5036.73 SF
LOT COVERAGE	NA	3388.00 SF	5436.6 SF
LANDSCAPE AREA	NA	####SF	####SF
FAR BREAKDOWN			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
BASEMENT	N/A	1041.00 SF	
FIRST FLOOR	N/A	2853.00 SF	
SECOND FLOOR	N/A	1340.00 SF	
TOTAL	N/A	5034.00 SF	5036.73 SF

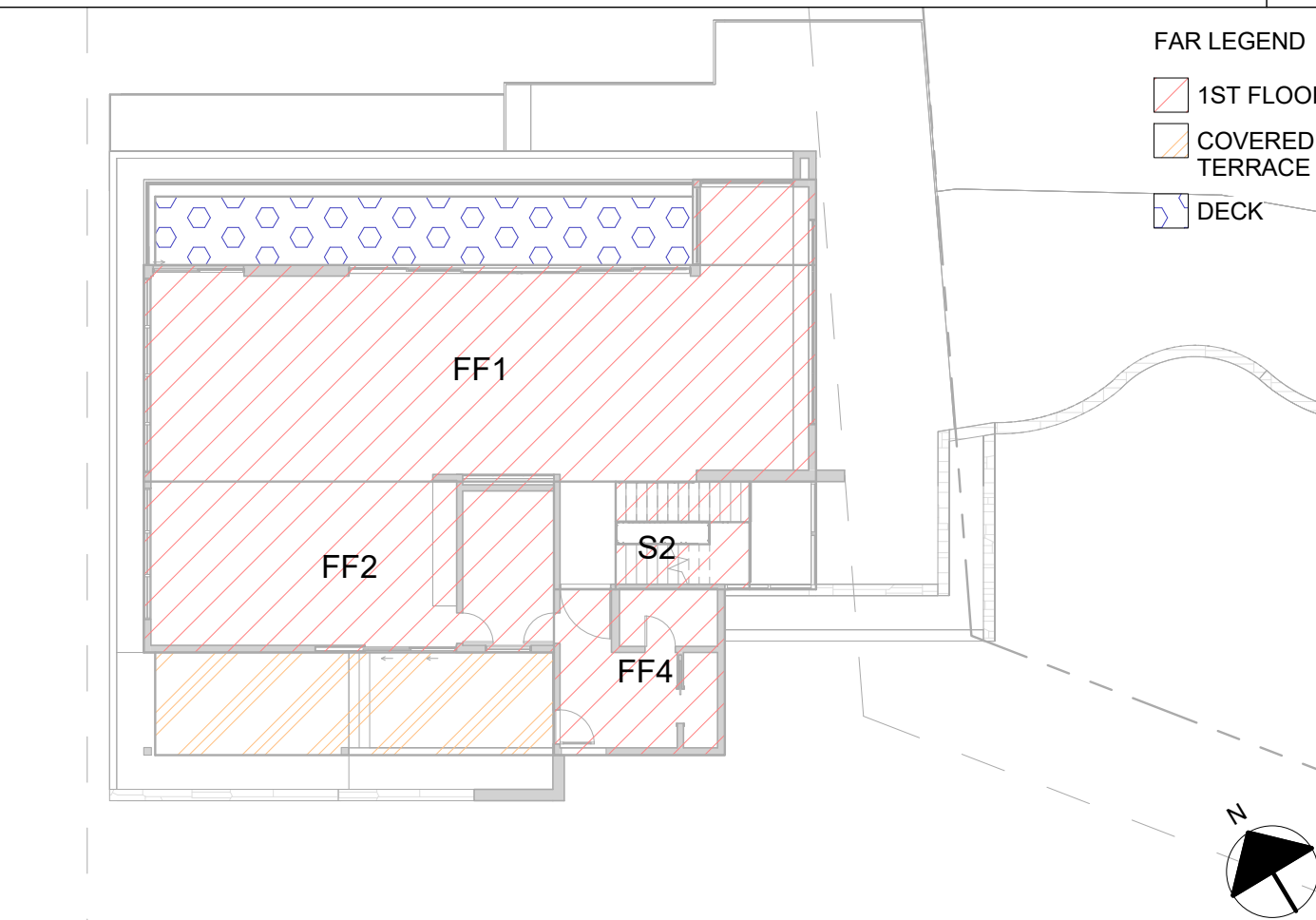
HEIGHT			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
HEIGHT	NA	27'-2"	28'-0"
DAYLIGHT PLANE	NA	20'-0" 45d	20'-0" 45d

SETBACK LINES			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
FRONT	NA	61'-10"	20'-0"
REAR	NA	50'-1"	20'-0"
LEFT SIDE	NA	15'-8"	10'-0"
RIGHT SIDE	NA	10'-0"	10'-0"

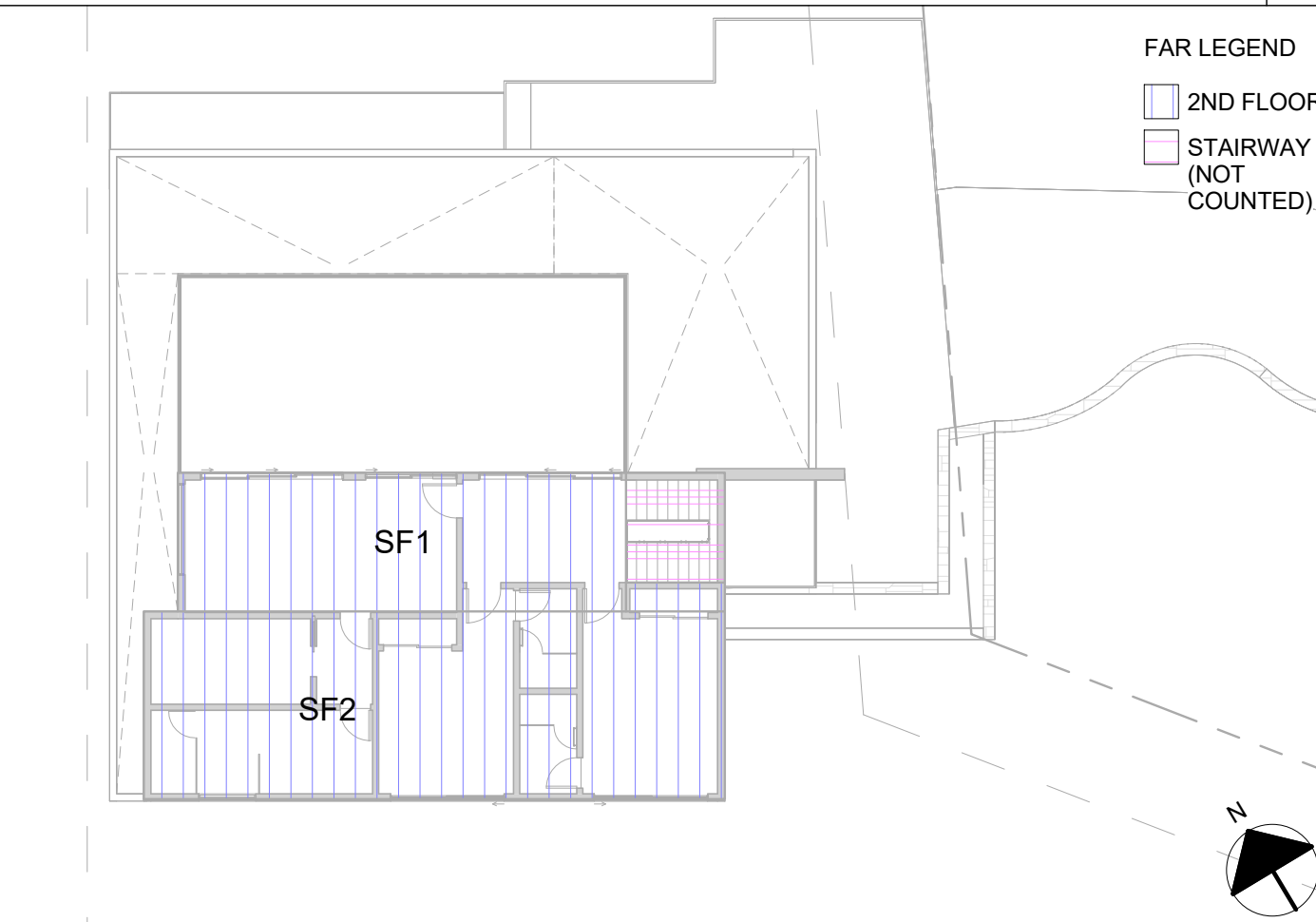
PARKING SUMMARY			
DESCRIPTION	EXISTING	PROPOSED	REQUIRED
ENCLOSED PARKING	NA	2	2
OPEN PARKING OR CARPORT	NA	1	1
EV CHARGING STATIONS	NA	2	NA

DRIVEWAY			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
NUMBER OF CURB CUTS	NA	NA	NA
CURB CUT WIDTH	NA	NA	NA
DRIVEWAY WIDTH	NA	16'-0"	
DRIVEWAY LENGTH	NA	10'-0"	

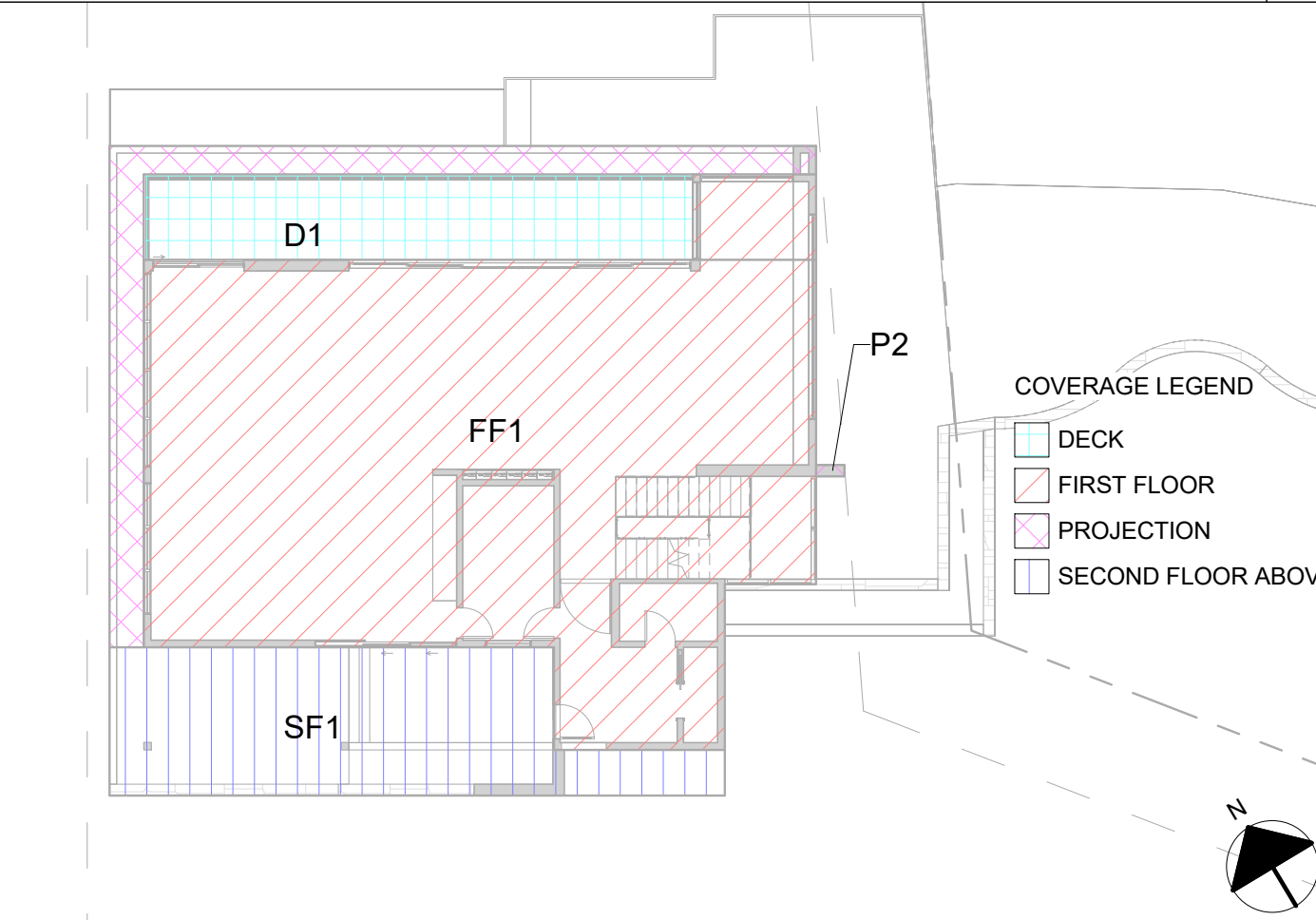
6 FAR - 1ST FLOOR DIAGRAM (SEE A1.2)



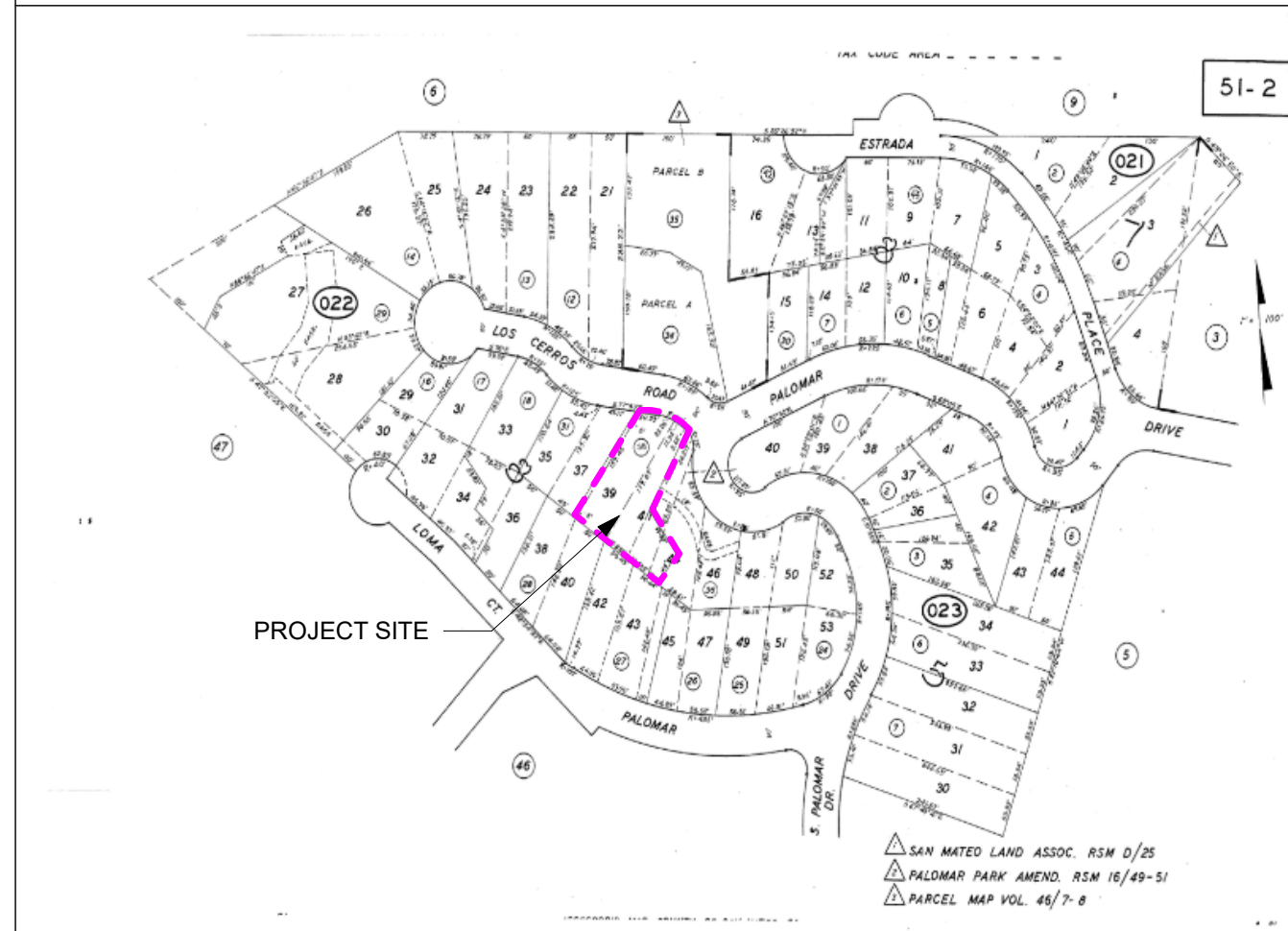
7 FAR - 2ND FLOOR DIAGRAM (SEE A1.2)



8 LOT COVERAGE DIAGRAM (SEE A1.3)



PARCEL MAP

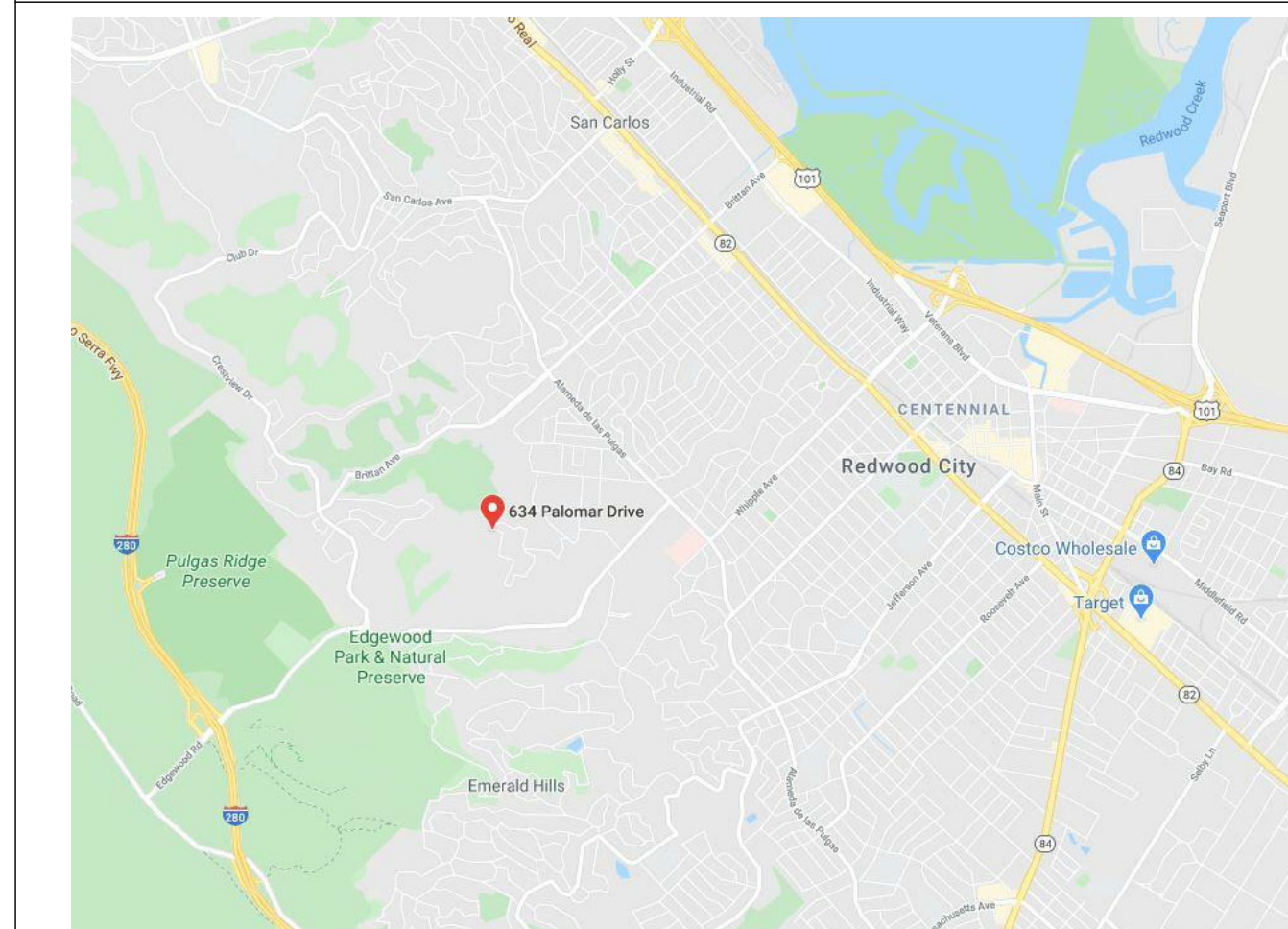


1 SHEET INDEX

IN.1 (P) ELEVATIONS- 1ST FLR - PANTRY	A6.1 (P) NORTH ELEVATIONS
IN.2 (P) ELEVATIONS- 1ST FLR - MUD ROOM	A6.2 (P) EAST ELEVATIONS
IN.3 (P) ELEVATIONS- 2ND FLR- BATH 1, 2, 3	A6.3 (P) SOUTH ELEVATION
IN.4 (P) ENLARGED PLAN & ELEVATIONS - 1ST FLR - STORAGE	A6.4 (P) WEST ELEVATION
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T0.2 EXHIBITS	BMP BEST MANAGEMENT PRACTICES
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T2.2 ARBORIST REPORT	C-4.0 DETAILS
	C-4.1 DETAILS
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A1.2 (P) SITE PLAN	ER-1 EROSION CONTROL
A2.1 (P) BASE FLOOR PLAN	ER-2 EROSION CONTROL DETAILS
A2.2 (P) 1ST FLOOR PLAN	SS-1 SEPTIC CONSTRUCTION PLAN
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A4.1 (P) ROOF PLAN	SS-3 SEPTIC DETAILS
AS.1 (P) A-A SECTION	SS-4 SEPTIC DETAILS
AS.2 (P) B-B SECTION	SS-5 SEPTIC DETAILS
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	L-2 HYDROZONE PLAN
	L-3 LANDSCAPE PLANTING MATERIAL

Total Sheets: 46

VICINITY MAP



2 CODE COMPLIANCE

APPLICABLE CODES	CODE SUMMARY
2019 CALIFORNIA BUILDING CODE	OCCUPANCY: R3/U
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE	OCCUPANT LOAD: 200 GROSS
2019 CALIFORNIA ELECTRICAL CODE	TYPE OF CONSTRUCTION: V-B
2019 CALIFORNIA MECHANICAL CODE	FIRE SUPPRESSION: SPRINKLED
2019 CALIFORNIA PLUMBING CODE	OCCUPANCY SEPARATION: 1-HOUR
2019 CALIFORNIA FIRE CODE	HEIGHT MAXIMUM: 28'-0"
2019 CALIFORNIA ENERGY CODE	ALLOWABLE FLOOR AREA RATIO: 5,036.73 SF
2019 CALIFORNIA RESIDENTIAL CODE	ALLOWABLE COVERAGE: 5,436.73 SF
REDWOOD CITY MUNICIPAL CODE	

DEFERRED SUBMITTALS

- POOL
- PRE-MANUFACTURED GUARDRAILS & HANDRAILS
- PRE-MANUFACTURED STAIRWAY
- POTABLE WATER
- GAS LINE DIAGRAM
- LANDSCAPING
- FIRE SUPPRESSION SYSTEM
- THE BUILDING SHALL BE PROTECTED BY AN AUTOMATIC FIRE SPRINKLER SYSTEM.
- FIRE ALARM SYSTEM

NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

TITLE SHEET

01/12/2022

T0.1

Q. ACCESS

- CRC 408.4 ACCESS - ACCESS SHALL BE PROVIDED TO ALL UNDER-FLOOR SPACES. ACCESS OPENINGS THROUGH THE FLOOR SHALL BE A MINIMUM OF 18 INCHES BY 24 INCHES (457 MM BY 610 MM). OPENINGS THROUGH A PERIMETER WALL SHALL BE NOT LESS THAN 16 INCHES BY 24 INCHES (407 MM BY 610 MM). WHERE ANY PORTION OF THE THROUGH-WALL ACCESS IS BELOW GRADE, AN AREAWAY NOT LESS THAN 16 INCHES BY 24 INCHES (407 MM BY 610 MM) SHALL BE PROVIDED.
- CRC 807.1 ATTIC ACCESS - BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES (762 MM) OR GREATER OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET (2.8 M²). THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES (559 MM BY 762 MM) AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHERE LOCATED IN A WALL, THE OPENING SHALL BE NOT LESS THAN 22 INCHES WIDE BY 30 INCHES HIGH (559 MM WIDE BY 762 MM HIGH). WHERE THE ACCESS IS LOCATED IN A CEILING, MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30 INCHES (762 MM) AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF CEILING FRAMING MEMBERS. SEE THE CALIFORNIA MECHANICAL CODE FOR ACCESS REQUIREMENTS WHERE MECHANICAL EQUIPMENT IS LOCATED IN ATTICS.

R. KITCHEN AND BATHROOM

- DISHWASHER: PROVIDE DIRECT CONNECTION TO WASTE WATER LINE OR GARBAGE DISPOSAL OR AN APPROVED AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHER MACHINE PER CPC 807.3.
- GAS FIRED COOKTOP: PROVIDE GAS SHUT OFF VALVE IN APPROVED ACCESSIBLE LOCATION.
- WATER CLOSETS: 30"W X 24"D CLEAR SPACE FRONT OF TOILET.
- R307.2 - BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6' ABOVE THE FLOOR.
- R308.4.5 - GLAZING IN WALLS, ENCLOSURES OF FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION. THIS SHALL APPLY TO SINGLE GLAZING AND EACH PANE IN MULTIPLE GLAZING.

S. STAIR NOTES

- R311.7.1 WIDTH - STAIRWAYS SHALL BE NOT LESS THAN 36 INCHES (914 MM) IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4 1/2 INCHES (114 MM) ON EITHER SIDE OF THE STAIRWAY AND THE CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL BE NOT LESS THAN 31 1/2 INCHES (787 MM) WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 27 INCHES (689 MM) WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.
- R311.7.2 HEADROOM - THE HEADROOM IN STAIRWAYS SHALL BE NOT LESS THAN 6 FEET 8 INCHES (2032 MM) MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM ON THAT PORTION OF THE STAIRWAY.
- R311.7.5.1 RISERS - THE RISER HEIGHT SHALL BE NOT MORE THAN 7 3/4 INCHES (196 MM). THE RISER SHALL BE MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH (9.5 MM). RISERS SHALL BE VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE NOSING OF THE TREAD ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES (0.51 RAD) FROM THE VERTICAL. OPEN RISERS ARE PERMITTED PROVIDED THAT THE OPENINGS LOCATED MORE THAN 30 INCHES (762 MM), AS MEASURED VERTICALLY, TO THE FLOOR OR GRADE BELOW DO NOT PERMIT THE PASSAGE OF A 4-INCH-DIAMETER (102 MM) SPHERE.
- R311.7.5.2 TREADS - THE TREAD DEPTH SHALL BE NOT LESS THAN 10 INCHES (254 MM). THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT A RIGHT ANGLE TO THE TREAD'S LEADING EDGE. THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH (9.5 MM).
- R311.7.8.1 HEIGHT - HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34 INCHES (864 MM) AND NOT MORE THAN 38 INCHES (965 MM).
- R312.1.2 HEIGHT - REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 42 INCHES (1067 MM) IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS.

T. ADDRESS

R319.1 ADDRESS IDENTIFICATION - BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT. EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES (102 MM) IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN 0.5 INCH (12.7 MM). WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE. WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS IDENTIFICATION SHALL BE MAINTAINED.

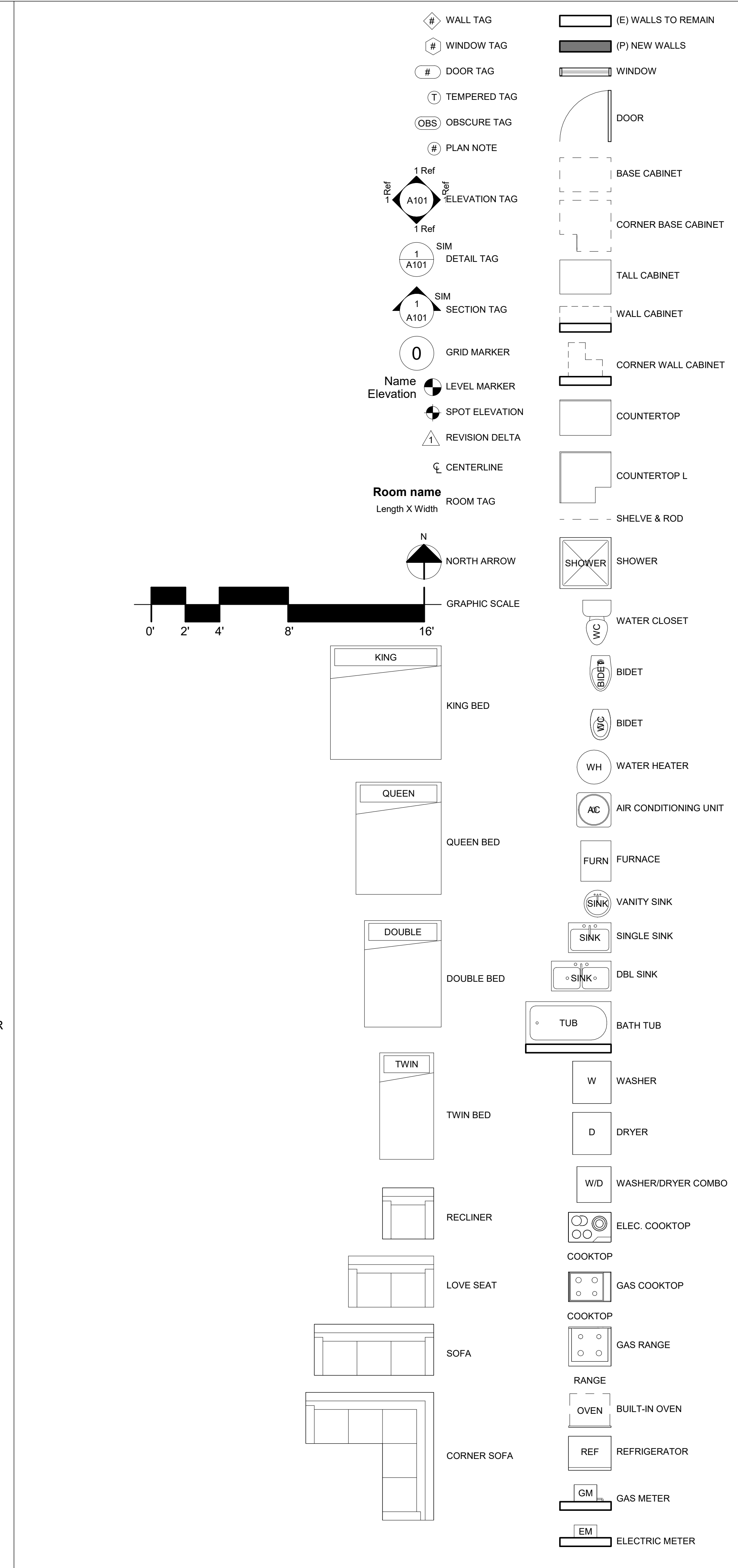
U. CITY PRACTICES

- ALL ENGINEERING INSPECTIONS REQUIRE 24-HOUR NOTICE
- WORK HOURS: NO WORK SHALL COMMENCE ON THE JOB SITE PRIOR TO 7:00 A.M. NOR CONTINUE LATER THAN 6:00 P.M., MONDAY THROUGH FRIDAY. EXCEPTION WITH WRITTEN PERMISSION FROM THE CITY
- ROADWAYS SHALL BE MAINTAINED CLEAR OF CONSTRUCTION MATERIALS AND DEBRIS AT ALL TIMES. DAILY ROAD CLEAN UP WILL BE ENFORCED.
- TRENCHES OR HOLES WITHIN THE PUBLIC RIGHT OF WAY MUST BE BACK FILLED BEFORE LEAVING EACH NIGHT UNLESS WRITTEN PERMISSION IS PROVIDED BY THE CITY ENGINEER, WHICH MUST BE REQUESTED 24 HOURS IN ADVANCE.
- ALL RECORDED SURVEY POINTS, WHETHER WITHIN PRIVATE PROPERTY OR PUBLIC RIGHT OF WAY SHALL BE PROTECTED AND PRESERVED. IF SURVEY POINTS ARE ALTERED REMOVED OR DESTROYED, THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING THE SERVICES OF A LICENSED SURVEYOR OR CIVIL ENGINEER TO RESTORE OR REPLACE THE SURVEY POINTS PRIOR AND RECORD THE REQUIRED MAP PRIOR TO COMPLETION OF THE BUILDING PERMIT.
- AN ENCROACHMENT PERMIT WILL BE REQUIRED FOR ANY WORK WITHIN THE CITY RIGHT OF WAY
- AN ENCROACHMENT BOND (OR CASH OR CERTIFICATE OF DEPOSIT) WILL BE REQUIRED FOR ANY WORK WITHIN THE CITY OF RIGHT OF WAY
- ALL IMPROVEMENTS IN THE CITY RIGHT OF WAY OR PUBLIC EASEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF SPECIFICATIONS AND WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY.
- EXISTING SIDEWALK, CURB, GUTTER OR STREET ADJACENT TO PROPERTY FRONTAGE THAT IS DAMAGED OR DISPLACED SHALL BE REPAIRED OR REPLACED EVEN IF THE DAMAGE OR DISPLACEMENT OCCURRED PRIOR TO ANY WORK PERFORMED FOR THIS PROJECT.
- ANY DAMAGE TO IMPROVEMENTS WITHIN CITY RIGHT OF WAY OR TO ANY PRIVATE PROPERTY, WHETHER ADJACENT TO SUBJECT PROPERTY OR NOT, THAT IS DETERMINED BY THE CITY ENGINEER TO HAVE RESULTED FROM CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT, SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY ENGINEER.
- THERE SHALL BE NO STRUCTURAL ENCROACHMENT IN THE PUBLIC RIGHT OF WAY.
- TRENCHES OR HOLES IN THE STREET OR SIDEWALK AREAS MUST HAVE A 6" SHOULDER ON ALL SIDES (2 6" TEE-CUT) AT LEAST 16" BELOW THE FINISHED SURFACE. FROM THAT LEVEL UP TO THE UNDERSIDE

& AND
@ ANGLE
< AT
∠ CENTERLINE
∗ PHASABLE @ (E) BLDG POUND OF NUMBER
PROPERTY LINE
Ⓜ ANCHOR BOLT
A.B. ABOVE FINISHED FLOOR
A.F.F ASSUMED PROPERTY LINE
A.P.L. AIR CONDITIONING
A/C ACOUSTICAL
AC ADDITIONAL
ADD'L ADDITION
ADN. ADJUSTABLE
ADJ. AGGREGATE
AGG. ALUMINUM
AL ALTERNATE
ATL. APPROXIMATE
APPROX. ARCHITECTURAL
ARCH. BENCH MARK
B.M. BOTTOM OF BEAM
B.O.B. BOARD
BD. BITUMINOUS
BITUM. BUILDING
BLDG. BLOCKING
BLKG. BEAM
BM. BOTTOM
BOT. BETWEEN
BTWN. CATCH BASIN
C.B. CUBICLE CURTAIN TRACK
C.C.T. COMB. DISPENSING UNIT
C.D.U. CAST IRON
C.I. CONTROL JOINT
C.J. CENTERLINE OF PIER
C.L.P CONCRETE MASONRY UNIT
C.M.U. C.O.
C.O. CERAMIC TILE
C.T. CABINET
CAB. CEMENT
CEM. CERAMIC
CER. CEILING
CLG. CLEAR
CLR. COLUMN
COL. COMBINATION
COMB. CONCRETE
CONC. CONNECTION
CONN. CONSTRUCTION
CONST. CONTINUOUS
CONT. CONTRACTOR
CONTR. CORRIDOR
CORR. CENTER
CTR. COUNTERSUNK
CTSK. DEFORMED BAR ANCHOR
D.B.A. DECK DRAIN
D.D. DOUGLAS FIR
D.F. DO OVER
D.O. DAMP PROOFING
D.P. DRINKING FOUNTAIN
DRK. FTN. DOWNSPOUT
D.S. DECIBEL
DB. DOUBLE
DBL. DEPARTMENT
DEPT. DETAIL
DET. DIAMETER
DIA. DIAGONAL
DIAG. DIMENSION
DIM. DISPENSER
DISP. DOWN
DN. DOOR
DR. DRAWING
DRG. EXISTING
(E) EACH FACE
E.F. EXT. INSUL. & FIN. SYSTEM
E.I.F.S. EXPANSION JOINT
E.J. EDGE NAIL
E.N. ENGINEER OF RECORD
E.O.R. EACH WAY
E.W. ELECTRIC WATER COOLER
E.W.C. EA.
EA. EL.
EL. ELECTRICAL
ELEC. ELEV.
ELEV. EMERG.
EMERG. ENCL.
ENCL. EQ.
EQ. EQPT.
EQPT. EXH.
EXH. EXP.
EXP. EXT.
EXT. F.A.
F.A. FIRE ALARM
F.B. FLAT BAR
F.C.O. FLOOR CLEAN OUT
F.D. FLOOR DRAIN
F.D. FIRE EXTINGUISHER
F.E. FIRE EXTINGUISHER CAB.
F.E.C. F.A.R.
F.A.R. FAR FACE
F.F. FINISHED GRADE
F.G. FIRE HOUSE CABINET
F.H.C. FLAT HEAD SCREW
F.H.S. FLOW LINE
F.L. FIELD NAIL
F.N. FACE OF CONCRETE
F.O.C. FACE OF FINISH
F.O.F. FACE OF MASONRY
F.O.M. FACE OF STUD
F.O.S. FIRE RETARDANT
F.R. FLR. SINK/FOOD SERVICE
F.S. FOOD SERVICE
F.S.E.C. EQUIPMENT CONTR.
F.F.S. FOLDING SHOWER SEAT
FDN. FOUNDATION
FIN. FINISH
FIN. FIXTURE
FIXT. FLOOR
FL. FLUORESCENT

FRM. FIREPROOF
FT. FRAMING
FTG. FOOR OF FEET
FURR. FOOTING
FUT. FUTURE
G.C. GENERAL CONTRACTOR
G.F.R.C. GLASS FIBER REIN. CONC.
G.F.R.G. GLASS FIBER REIN. GYP.
G.I. GALVANIZED IRON
G.L.B. GLUE-LAMINATED BEAM
GA. GAUGE
G.B. GRADE BEAM
GALV. GALVANIZED
GEN. GENERAL
GL. GLASS
GND. GROUND
GR. GRADE
GYP. GYPSUM
GYP. BD. GYPSUM BOARD
H.A. HANDICAP ACCESSIBLE
H.B. HOSE BIBB
H.C. HOLLOW CORE
H.D. HOLD DOWN
H.S.B. HIGH-STRENGTH BOLT
H.M. HOLLOW METAL
H.W. HOT WATER
HD. HEAD
HDR. HEADER
HDW. HARDWARE
HDWD. HARDWOOD
HK. HOOK
HORIZ. HORIZONTAL
HR. HOUR
HT. HEIGHT
HTR. HEATER
I.D. INSIDE DIAMETER
I.F. INSIDE FACE
I.J. ISOLATION JOINT
IN. INCH
INSUL. INSULATION
INT. INTERIOR
INV. INVERT
INT. INTRAVENOUS TRACK
JAN. JANITOR
JST. JOIST
JT. JOINT
KIT. KITCHEN
L.P. LAMINATED PLASTIC
LAM. LAMINATE
LAV. LAVATORY
LB. POUND
LDGR. LEDGER
LGTH. LENGTH
LT. LIGHT
M. MIRROR
M.B. MACHINE BOLT
M.B.H. MOP AND BROOM HOLDER
M.C. MEDICINE CABINET
M.E. MATCH EXISTING
M.G.P. MEDICAL GAS PANEL
M.H. MANHOLE
M.K. MARKER BOARD
M.O. MASONRY OPENING
MAT. MATERIAL
MAX. MAXIMUM
MECH. MECHANICAL
MEMB. MEMBRANE
MEZZ. MEZZANINE
MFR. MANUFACTURER
MIN. MINIMUM
MISC. MISCELLANEOUS
MLDG. MOULDING
MTD. MOUNTED
MTL. METAL
MUL. MULLION
(N) NEW
N.F. NEAR FACE
N.G. NATURAL GRADE
N.I.C. NOT IN CONTRACT
N.T.S. NOT TO SCALE
NO. NUMBER
NOM. NOMINAL
O.A. OVERALL
O.C. ON CENTER
O.D. OUTSIDE DIAMETER
O.F. OUTSIDE FACE
O.F.C.I. OWNER FURNISHED, CONTR. INSTALLED
O.F.D. OVERFLOW DRAIN
O.F.S. OVERFLOW SCUPPER
O.H. OPPOSITE HAND
O.L. OVERALL LENGTH
O.S.B. ORIENTED STRAND BOARD
O/ OVER
OBSC. OBSCURE
OPP. OPPOSITE
OPNG. OPENING
P.A.D. POWER ACTUATED DEVICE
P.C. PRECAST CONCRETE
P.I.P. POURED-IN-PLACE
P.J. TILT-UP PANEL JOIST
P.L. PROPERTY LINE
P.O.C. POINT OF CONNECTION
P.S.F. POUNDS PER SQ. FOOT
P.S.I. POUNDS PER SQ. INCH
P.T. PRESSURE TREATED
P.T.D. PAPER TOWEL DISPENSER
P.W. PLATE WASHER
PEN. PENETRATION(S)
PERP. PERPENDICULAR
PG. PAGE
PLAM. PLASTIC LAMINATE
PL. PLATE
PLAST. PLASTER
PLBG. PLUMBING
PLYWD. PLYWOOD

PNL. PANEL
PR. PAIR
PT. POINT
PTD. PAINTED
PTN. PARTITION
Q.T. QUARRY TILE
R. RISER
R.D. ROOF DRAIN
R.H. ROBE HOOK
R.O. ROUGH OPENING
R.T. RESILIENT TILE
R.W.L. RAIN WATER LEADER
RAD. RADIUS
RD. ROUND
REF. REFERENCE
REFG. REFRIGERATOR
REG. REGISTER
REINF. REINFORCEMENT
REQ'D REQUIRED
RESIL. RESILIENT
REV. REVISION
RFG. ROOFING
RGH. ROUGH
RM. ROOM
RWD. REDWOOD
S.A.D. SEE ARCH. DRAWINGS
S.C. SOLID CORE
S.C.D. SEAT COVER DISPENSER
S.D. SOAP DISPENSER
S.J. SAWCUT JOIST
S.M.D. SEE MECH. DRAWINGS
S.M.S. SHEET METAL SCREW
S.O.G. SLAB ON GRADE
S.S. STAINLESS STEEL
S-S SERVICE SINK
S.W. SHEAR WALL
SCHED. SCHEDULE
SCR. SCREW
SDG. SIDING
SECT. SECTION
SEL. SELECT
SEL. STR. SELECT STRUCTURAL
SH. SHELF
SHT. SHEET
SHWR. SHOWER
SIM. SIMILAR
SLDG. SLIDING
SM. SMOOTH
SPEC. SPECIFICATION
SPL. SPLASH
SQ. SQUARE
STD. STANDARD
STGR. STAGGER
STIFF. STIRRUP
STL. STEEL
STOR. STORAGE
STRUCT. STRUCTURAL
SUSP. SUSPENDED
SW. BD. SWITCH BOARD
SYM. SYMMETRICAL
T TREAD
T&B TOP AND BOTTOM
T&G TONGUE AND GROOVE
T.B. TOWEL BAR
T.D. TRENCH DRAIN
T.O. TOP OF
T.O.C. TOP OF CURB/CONC.
T.O.F. TOP OF FOOTING
T.O.P. TOP OF PLATE
T.O.S. TOP OF STEEL
T.O.W. TOP OF WALL
T.P. TOP OF PAVEMENT
T.P.D. TOILET PEPPER DISPENSER
TEL. TELEPHONE
TER. TERRAZZO
THK. THICK
TK. BD. TACKBOARD
TV. TELEVISION
TYP. TYPICAL
V.C.T. VINYL COMPOSITION TILE
V.C.P. VITREOUS CLAY PIPE
V.D.U. VISUAL DISPLAY UNIT
V.G. VERTICAL GRAIN
V.G. VINYL TILE
V.T.R. VENT THROUGH ROOF
VERT. VERTICAL
VEST. VESTIBULE
V.I.F. VERIFY IN FIELD
W/ WITH
W/O WITHOUT
W.C. WATER CLOSET
W.F. WIDE FLANGE
W.H. WATER HEATER
W.H.S. WELDED HEAD STUDS
W.P. WATERPROOF
W.S.P. WOOD STRUCT. PANEL
W.R. WASTE RECEPTACLE
W.W.F. WELDED WIRE MESH
WD. WOOD
WK. PT. WORK POINT
WT. WEIGHT



Description **Date**

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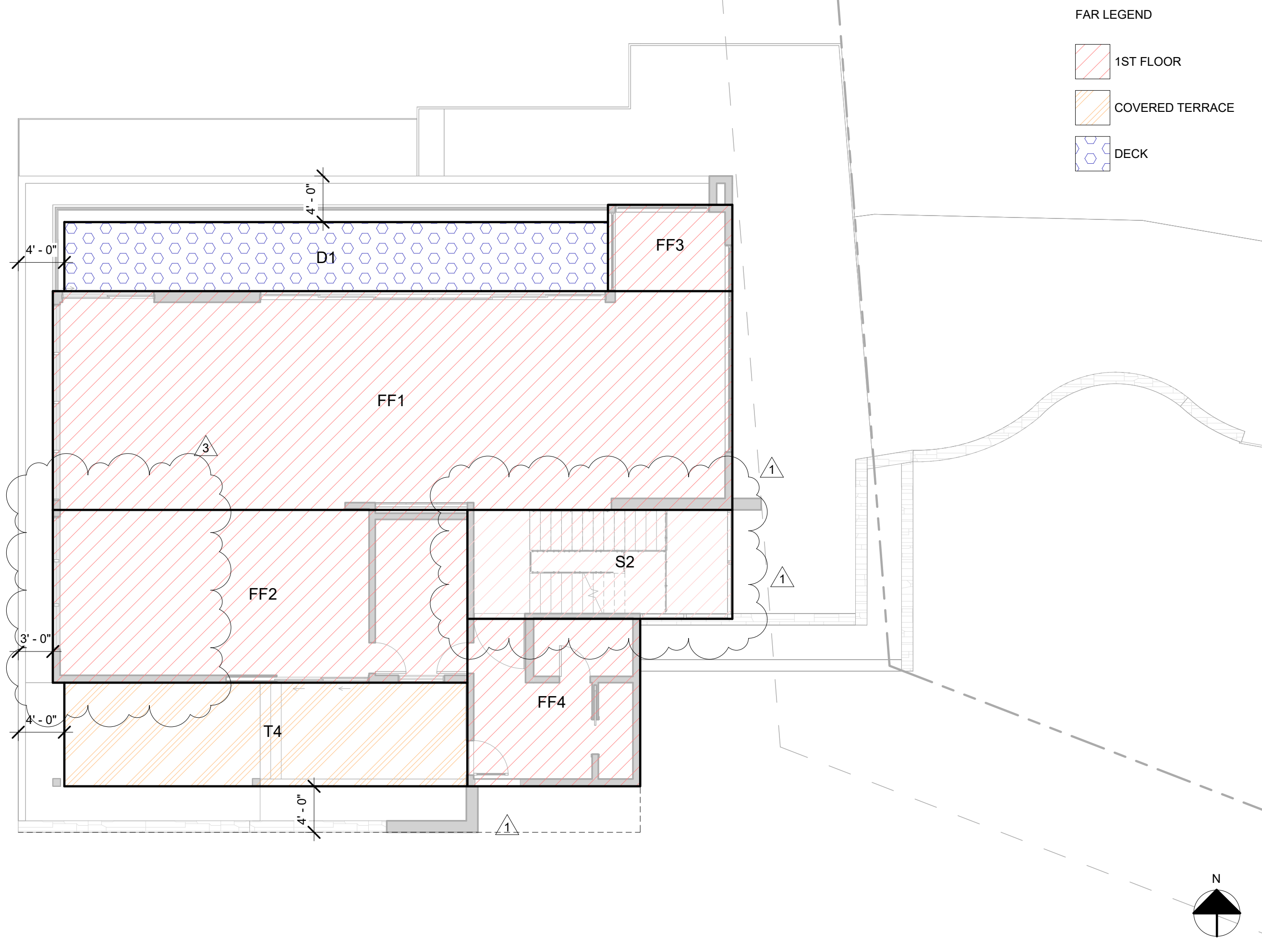
**NEW RESIDENCE AT
 634 PALOMAR DRIVE
 REDWOOD CITY, CA 94062**

INTERIOR DESIGN PACKAGE

ABBREVIATIONS AND GRAPHIC SYMBOLS

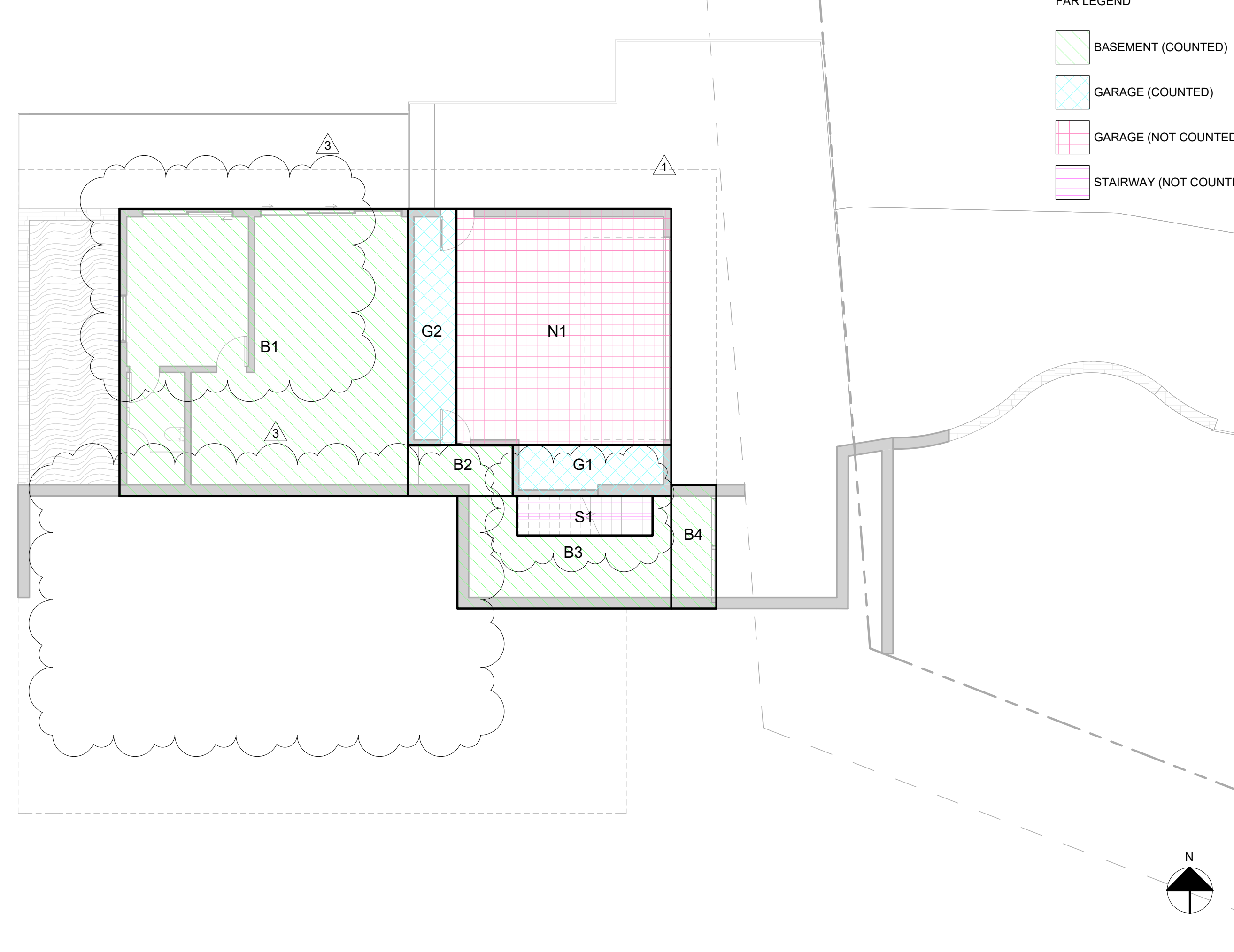
01/12/2022

T0.4



0' 4' 8' 16' 32' SCALE: 1/8" = 1'-0" 1

0' 4' 8' 16' 32' SCALE: 1/8" = 1'-0" 2



0' 4' 8' 16' 32' SCALE: 1/8" = 1'-0" 3

(P) FLOOR AREA RATIO			
NO.	WIDTH	LENGTH	AREA
BASEMENT (COUNTED)			
B1	25' - 7"	25' - 6"	653 SF
B2	9' - 4"	4' - 6"	42 SF
B3	27' - 0"	5' - 6"	148 SF
B4	11' - 0"	4' - 0"	44 SF
			887 SF
GARAGE (COUNTED)			
G1	14' - 1"	4' - 6"	64 SF
G2	21' - 0"	4' - 4"	90 SF
			154 SF
BASE FLR			1041 SF
1ST FLOOR			
FF1	59' - 0"	19' - 0"	1121 SF
FF2	36' - 0"	15' - 0"	540 SF
FF3	10' - 10"	7' - 6"	81 SF
FF4	15' - 0"	14' - 7"	218 SF
S2	25' - 9"	3' - 8"	95 SF
			2055 SF
COVERED TERRACE			
T4	35' - 0"	9' - 0"	315 SF
			315 SF
DECK			
D1	47' - 2"	6' - 0"	283 SF
			283 SF
1ST FLR			2653 SF
2ND FLOOR			
SF1	39' - 4"	12' - 2"	479 SF
SF2	51' - 0"	16' - 6"	840 SF
SF3	8' - 8"	2' - 6"	22 SF
			1340 SF
2ND FLR			1340 SF
TOTAL			5034 SF
ALLOWED			5036.73 SF

(P) FLOOR AREA RATIO (NOT COUNTED)			
NO.	WIDTH	LENGTH	AREA
GARAGE (NOT COUNTED)			
N1	21' - 0"	19' - 1"	400 SF
			400 SF
STAIRWAY (NOT COUNTED)			
S1	12' - 0"	3' - 6"	42 SF
			42 SF
BASE FLR			442 SF
STAIRWAY (NOT COUNTED)			
S2	9' - 8"	8' - 8"	84 SF
			84 SF
2ND FLR			84 SF
TOTAL			526 SF

Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021

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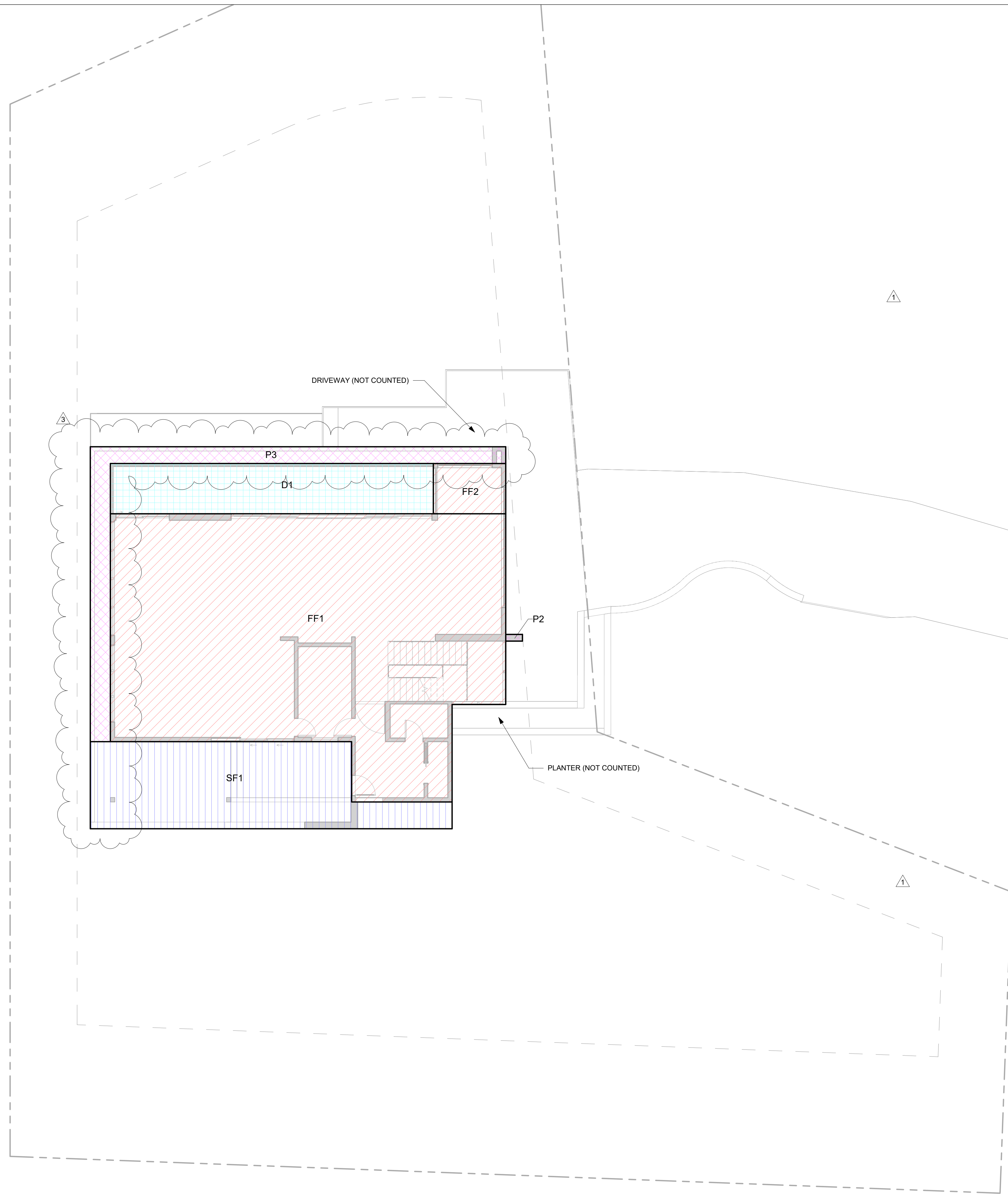
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INTERIOR DESIGN PACKAGE

(P) FLOOR AREA DIAGRAMS

01/12/2022

T1.2



(P) LOT COVERAGE CALCULATIONS		
NO.	AREA	PERCENTAGE
DECK		
D1	361 SF	1.99%
	361 SF	1.99%
FIRST FLOOR		
FF1	2097 SF	11.57%
FF2	81 SF	0.45%
	2178 SF	12.02%
PROJECTION		
P2	3 SF	0.01%
P3	280 SF	1.54%
	282 SF	1.56%
SECOND FLOOR ABOVE		
SF1	567 SF	3.13%
	567 SF	3.13%
ALLOWED	5436.6 SF	30.00%

- COVERAGES LEGEND
-  DECK
 -  FIRST FLOOR
 -  PROJECTION
 -  SECOND FLOOR ABOVE

Description	Date
REVISION 1	12/18/2020
REVISION 2	04/19/2021
REVISION 3	12/20/2021

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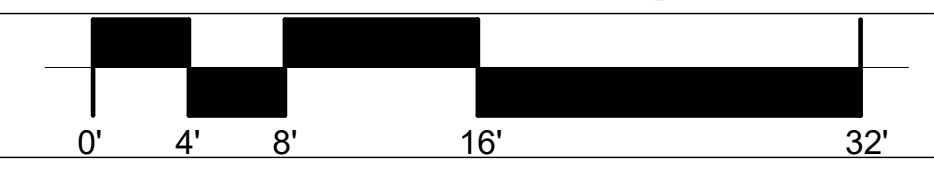
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**NEW RESIDENCE AT
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**INTERIOR DESIGN PACKAGE
 (P) LOT COVERAGE
 CALCULATIONS**

01/12/2022

T1.3



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Palo Alto, CA 94306

RE: 634 Palomar Drive
Redwood City, CA 94062

Date: 12/12/20

ARBORIST REPORT

Assignment

Arborist Report and Tree Protection Plan

- Review pre-existing relevant work product, as provided: site survey, schematic drawings, grading plans, landscape plans, utilities plans, etc.
Visit the project site to evaluate trees and develop the scope for the report.
Provide an evaluation of soil physical, chemical and drainage properties to typify the site at large.
Inspect adjacent properties for both overhanging tree canopies and sensitivity of adjacent tree root structure to construction impacts.
From a site plan (to be provided by others), label each tree to match the Arborist Report and Tree Protection Plan.
Provide a tree survey of all regulated trees on and adjacent to the project site.
Identify potential construction impacts to trees and provide recommendations for modifications and/or mitigation to lessen these impacts.
Develop tree recommendations for site utilization planning for staging and equipment access.
Develop tree maintenance recommendations.

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Background

The property at 634 Palomar Drive, Redwood City currently has 12 trees on the property, and 7 trees near the driveway approach that crosses the neighbor's property, for a total of 19 trees affected. The new construction will impact various trees due to paving the driveway, the footprint for a new house, geotechnical stabilization of a relatively recent landslide and the installation of a septic system.

Lea & Braze Engineering has produced designs that show the landslide and septic system construction needs in detail, and the placement of the new home site and various retaining walls. Their utility plan sheet C-3.0 was used as the basis for the Site Plan with Additions that was created by us and is part of this report.

Tree Assessment

A total of 19 trees were found on this property and along the driveway approach. Tree numbers assigned to each tree below correspond to those used in the Site Plan with Additions. The data for tree identification, size and condition are listed below:

Table with 7 columns: Tree No., Genus species, Common Name, Diameter, Height, Spread, Condition. Lists 19 trees with their respective details.

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Table 1.0 – All Trees

Project Arborists

The Project Arborist referred to in this report is identified here as a Consulting Arborist from Tree Management Experts, and will be either Roy Leggett or Aaron Wang. Roy Leggett has more than 30 years of experience after obtaining a BS in Plant Science – Ornamental Horticulture from CSU-Fresno, is a Certified Arborist and is Tree Risk Assessment Qualified (TRAQ). Aaron Wang has more than 8 years of experience after obtaining a BS in Forestry and Natural Resources from UC-Berkeley, is a Certified Arborist and is Tree Risk Assessment Qualified.

Trees to be Removed

A total of 8 trees must be removed due to poor health or structure, for purposes of construction, or both poor condition and construction. California bay carries sudden oak death, and this small tree should be removed to protect the health of the nearby coast live oaks. See page 10.

Table with 5 columns: Tree No., Genus species, Common Name, Diameter, Removal Reason. Lists 8 trees to be removed with reasons.

Table 2.0 – Tree Removals

Tree Impacts and Recommendations

Tree Protection Zones

Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12

A Tree Protection Zone (TPZ) has been established for each remaining tree. Because of the landslide repairs, potential for grading, building footprint, leach field and retaining walls, all trees will be affected by construction, both along the driveway and on this property. The TPZ areas are graphically illustrated on the Tree Protection Plan (page 11), and the measured radius distances are shown in Table 3.0 below. If there is any difference, the measured radius distances in Table 3.0 will take precedence. Whenever

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work is performed within the TPZ of a tree, the tree must have tree protection measures in place, per this Arborist Report. When any excavation, trenching, grading or vehicular access occurs within a TPZ, the Project Arborist must be on site.

Pre-construction Pruning

Trees 1, 2, 3, 4, 5, 6, 7 and 12

Table 3.0 also indicates pruning requirements for certain trees. Pruning as specified will remove branches proactively to prevent broken branches from trucks that would cause injury to the protected trees. The pruning must be completed before construction of any type begins since this is part of the tree protection.

In some cases, branches will be cut back part way, and in other cases lower branches will need to be removed entirely. The driveway will need truck access past trees 1, 2, 3, 4, 5 and 7. The area where the landslide occurred will need equipment access beneath tree 6. Clearances for construction of the house will need some pruning of tree 12. All pruning must be completed under the direction of the Project Arborist.

Table with 6 columns: Tree No., Genus species, Common Name, Diameter, Pre-construction Pruning Requirements, Tree Protection Zone Diameter. Lists 12 trees with their respective details.

Table 3.0 – Tree Protection

Root Collar Protection and Root Collar Excavations

Trees 1, 2, 3, 4, 5, 6, 9 and 12

The root collars of trees 1, 2, 3, 4, 5 and 6 are currently partially buried under fill soil. The fill soil is either from grading or accumulation over time. The excess soil should be removed to a distance of 2 feet on all sides of each tree. The embankment created by

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excavation should be supported by a dry stacked wall, similar to the wall currently in place, although materials may vary. This work must be completed under the direction of the Project Arborist.

Soil cannot be placed within any TPZ area at any time. The TPZ areas cannot be re-graded or raised to accommodate excess soil, tailings or fill soil.

Similarly, soil cannot be graded down, cut away, or otherwise moved or removed within any TPZ except as shown on the Lea & Braze utility plan sheet C-3.0 and as specified in this report.

Site and Soil Conditions

The site has soil conditions that are deep, sandy loam that has formed in place from native Franciscan sandstone. The soil has drainage, nutritional and chemical properties as necessary to support normal and healthy growth of all tree species found on the site. Of particular note, native tree species are normal and healthy, and appeared to be generally free of serious diseases that would indicate either a disease court, poor drainage or soil compaction, all of which are damaging to trees and to the horticultural properties of soil. Based on these observations, it appears that native species of coastal trees and shrubs are well-suited to the site and could be used in future landscaping.

To maintain favorable conditions for trees and landscaping, only native soil should be used in filled areas such as behind retaining walls near the leach field. To preserve horticultural properties of the soil, soil placed atop the leach field should be laid down without tamping, vibration, rolling, saturating or otherwise causing compaction that exceeds 85 percent.

Construction Footprints

Trees 7 and 12

Various construction footprints requiring excavation may affect remaining trees:

- 1. A retaining wall along the east edge of the new entry
2. Foundations for the house
3. Utility connections for the sanitary sewer system
4. Utility connections for water, gas and electrical
5. Driveway re-grading as part of new pavement

A new wall is needed to provide access to the front of the house at the driveway and security gate. This new wall has been pulled away from Tree 7 by 9 feet, and the grade of the driveway has been kept higher and close to the pre-construction grade to minimize root impacts. The TPZ of Tree 7 extends past the property lines and through

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the nearby driveway areas. Since roots from Tree 7 are likely to be encountered, work must be done under the supervision of the Project Arborist.

Foundations for the new house will encroach on the southwest part of the TPZ for Tree 12. The tree protective fence must be placed and secured before excavation work begins. The root system extending up hill and toward the foundation excavation is likely fairly minimal, but could include some larger roots, and therefore must be done under the supervision of the Project Arborist.

Utility connections for the new sanitary sewer system will be placed outside the foundations and will further encroach on part of the TPZ for Tree 12. This trenching will require that excavation tailings be placed on a temporary root buffer, that all work be done by hand, that common trenches be used whenever possible, and that the work be done under the supervision of the Project Arborist.

Utility connections that are placed underground are to travel down the landslide area. Use of this area will avoid trenching damage to the roots of the neighbor's oak trees along the driveway.

Driveway re-grading and new gravel as designed will likely have little impact on tree roots, except at retaining wall footings.

- I recommend that the retaining wall near Tree 7 be supported on drilled piers with above grade beams tying them together to support the wall.
I recommend that base rock and new pavement be placed atop the existing grades without disturbance of the sub-grade. To avoid the need for compaction, I recommend the use of a geo-grid membrane to distribute loads and stabilize the base rock without any compaction of the sub-grade.

The Project Arborist must provide oversight of all work on the retaining wall footings, sub-grade compaction or grading, and the installation of a geo-grid membrane.

Construction Procedures

EXCAVATION

All tree protective fencing, root buffers, mulch and irrigation must be in place prior to demolition.

At no time is any wheeled equipment, a Bobcat® or an excavator allowed to enter or cross over TPZ areas, except where existing road surfaces remain as a temporary root buffer during construction.

NEW DRIVEWAY CONSTRUCTION

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Because of the Tree Protection Zones associated with the new driveway, the subgrade cannot be compacted or graded in any way.

The new driveway gravel will be laid atop a Tensar® geogrid (or equivalent) weight-dispersing membrane that is laid directly on uncompacted native soil and/or the existing gravel surface.

EXISTING DRIVEWAY AS A ROOT BUFFER

Retain the existing driveway as a temporary root buffer to protect Trees 1, 2, 3, 4, 5, 6 and 7 from soil compaction root damage.

If work occurs when rain is likely (November through April), additional protection is required in the TPZ of Tree 7. Place 1 1/8-inch thick sub-floor plywood over all soil areas, including the driveway, and secure the sheets together with clips or mending plates. This will offer further prevention of soil compaction and root damage.

The existing driveway will serve as the access point for all equipment and deliveries, and for staging of materials and debris.

STAGING AREAS

Staging areas are available in the areas of the existing driveway, and on the new leach field. Consult with Lea & Braze regarding protection needs for the leach field if it is used in this manner.

Any other or additional staging areas that are within TPZ areas will need to be placed on root buffers, subject to review and approval of the Project Arborist. The duration of root buffers within TPZ areas may be limited by the Project Arborist.

Tree Protection Implementation

Tree Protective Fencing

To implement tree protection measures effectively, precise measurement for fence locations is critical. Proper skills and equipment are required to place fences where they belong. It is essential that the fence installer refer to a copy of this Arborist Report and Table 3.0 at all times. Measurement of distances must be to within 6 inches, and cannot be completed properly by using either estimated or "paced off" distances. Required equipment will include an appropriate Engineer's scale and either a laser range finder or a 100-foot tape measure with a helper.

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It is recommended that fence posts be installed first. Measure each Tree Protection Zone (TPZ) and marking the TPZ locations with marking paint. Measure fence locations at the appropriate distance away from each footing, as shown on the Site Plan.

Fence boundaries must meet, match and enclose areas defined by existing fences. The exact location of existing fences is not known and must be determined in the field.

Following surface installations, chain link fencing must be strung tightly and closed off at all locations, including where abutting existing wooden fences.

TREE PROTECTIVE FENCING AND WARNING SIGNS

Placement: all fence installation lines are indicated on the Site Plan. Trees affected will include Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12.

Type and Size: 5 or 6-foot high chain link fencing shall be placed on 2 inch tubular galvanized iron posts driven a minimum of 2 feet into undisturbed soil and spaced not more than 10 feet on center.

Duration: Tree fencing shall be erected prior to any demolition activity, and shall remain in place for the duration of the project, except where a gap is needed for access to the detached garage.

Warning Signs: Warning signs shall be posted on Tree Protective Fencing not more than every 20 feet stating "WARNING – Tree Protective Zone – This fence shall not be removed"

Maintenance and Ongoing Care

Tree maintenance and ongoing care is necessary in preparation for construction, and throughout the entire timeline for construction. Anticipated needs include pruning, irrigation and tree protection during landscaping.

PRUNING

All pruning must be completed under the direction of the Project Arborist.

Pre-construction Pruning

Pre-construction pruning as specified above will remove limbs proactively to prevent broken branches and injury to the protected trees. This pruning will have some branches cut back part way, and trees will not necessarily be fully pruned or maintained as will ultimately be needed. Although the purpose of this pruning is to establish clearances for construction, it is also possible that some branch breakage will have occurred during the construction

Revision table with columns: Description, Date. Row 1: REVISION 1, 12/18/2020



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INTERIOR DESIGN PACKAGE
ARBORIST REPORT

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process. In the event that small branches are damaged, re-pruning to repair or correct any issue will likely best be left until the close of construction. Any branches larger than 1-inch diameter that are damaged should be reported immediately to the Project Arborist for their evaluation.

Post-construction Pruning

Pruning for overall structural improvement of the protected trees should occur at the close of construction, and before landscape installation. The exact pruning needs will need to be determined at that time, but will include improving the balance of canopies, shortening branches that are end-heavy and prone to breakage, and re-cutting or removing any branches that were broken during construction.

IRRIGATION

No supplemental irrigation is needed for the protected trees. These are all native species that are adapted to summer drought conditions. Summer irrigation of oak trees would put the trees at risk of developing root rot diseases. Construction impacts to the root systems are not expected to be severe enough to warrant the risks posed by summer irrigation.

New landscaping will require irrigation, and the plans are subject to review and approval by the Project Arborist. As a guideline, the new irrigation system should be low water use, should only operate during the dry season, and should be set up for drought tolerant and low water use plant material. It is our recommendation that plants native to the area be used for landscape purposes, and that the new irrigation system be designed for use on a minimal level and such that it is not necessary during drought conditions.

LANDSCAPING

New landscape designs are subject to reviewed and approval by the Project Arborist.

The new irrigation system must be designed to avoid the use of trenches across existing TPZ areas. If such surface trenches must be installed, common trenches should be used and they should stay as far away from the trees as possible. A trench running along a radius line directly toward a tree is preferable to a cross trench. If extensive trenching is done, Air-spade® excavation will be required.

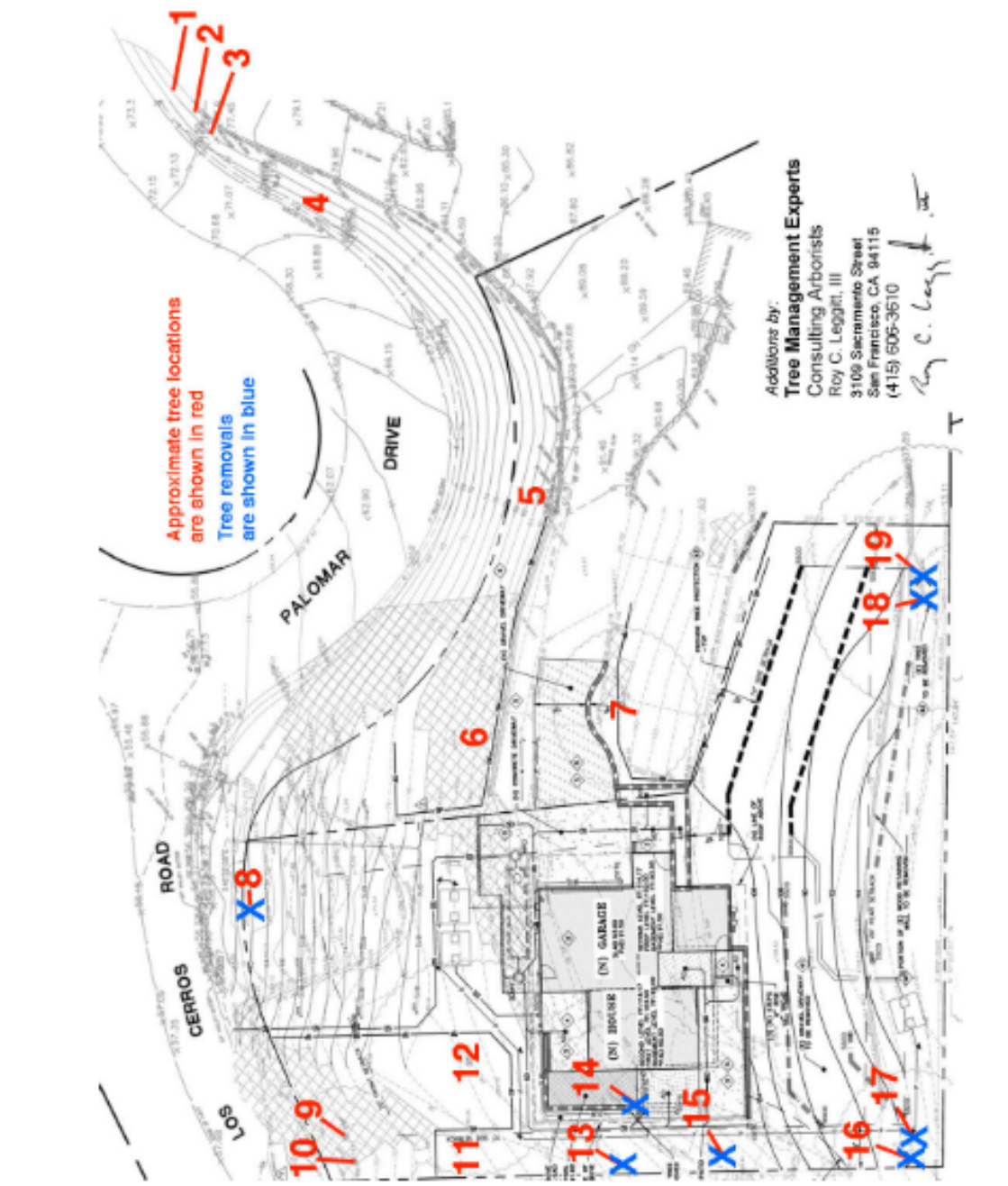
Care must be taken to keep mulch away from the base of all trees and other woody plants. Similarly, soil grades must be carefully monitored to keep excess soil from accumulating around the base of trees and shrubs.

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Tree Removal Plan

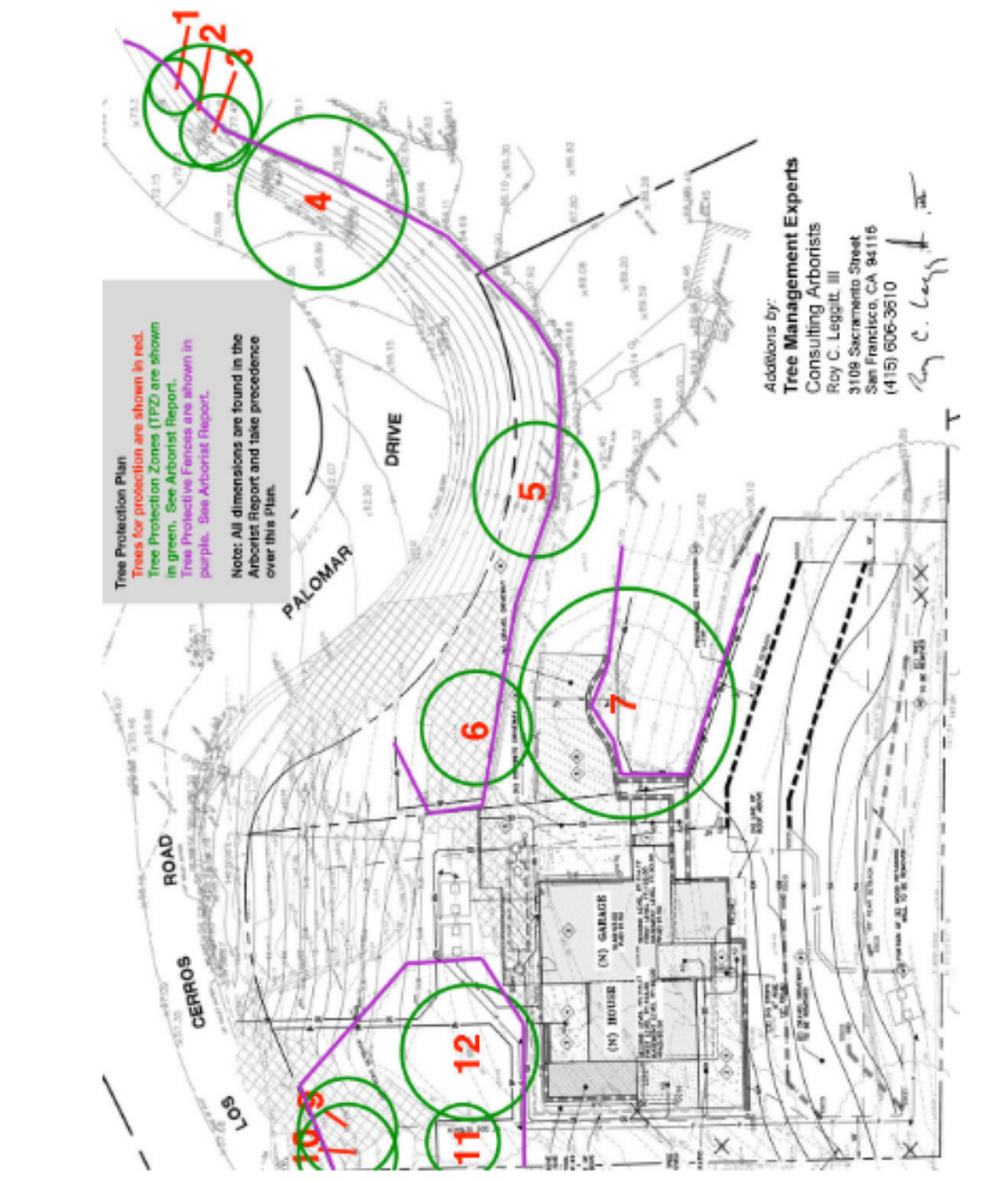


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Tree Protection Plan



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Assumptions and Limiting Conditions

- Any legal description provided to the consultant is assumed to be correct. Title and ownership of all property considered are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
- Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
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- This report represents the opinion of the consultant. In no way is the consultant's fee contingent upon a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule, an agreement or a contract.
- Information contained in this report reflects observations made only to those items described and only reflects the condition of those items at the time of the site visit. Furthermore, the inspection is limited to visual examination of items and elements at the site, unless expressly stated otherwise. There is no expressed or implied warranty or guarantee that problems or deficiencies of the plants or property inspected may not arise in the future.

Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fall in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Tree Management Experts

Consulting Arborists
3109 Sacramento Street
San Francisco, CA 94115
Member, American Society of Consulting Arborists
Certified Arborists, Tree Risk Assessment Qualified
Call 415.606.3610 email: roy@treemanagementexperts.com



Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. An arborist cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

Certification of Performance

I, Roy C. Leggett, III, Certify:

- That we have inspected the trees and/or property evaluated in this report. We have stated findings accurately, insofar as the limitations of the Assignment and within the extent and context identified by this report;
- That we have no current or prospective interest in the vegetation or any real estate that is the subject of this report, and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are original and are based on current scientific procedures and facts and according to commonly accepted arboricultural practices;
- That no significant professional assistance was provided, except as indicated by the inclusion of another professional report within this report;
- That compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I am a member in good standing of the American Society of Consulting Arborists and a member and Certified Arborist with the International Society of Arboriculture.

I have attained professional training in all areas of knowledge asserted through this report by completion of a Bachelor of Science degree in Plant Science, by routinely attending pertinent professional conferences and by reading current research from professional journals, books and other media.

I have rendered professional services in a full-time capacity in the field of horticulture and arboriculture for more than 30 years.

Signed:

Date: 12/12/20



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Phone: 650-565-9036
Fax: 949-625-7869

NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

ARBORIST REPORT

01/12/2022



T2.2

Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021



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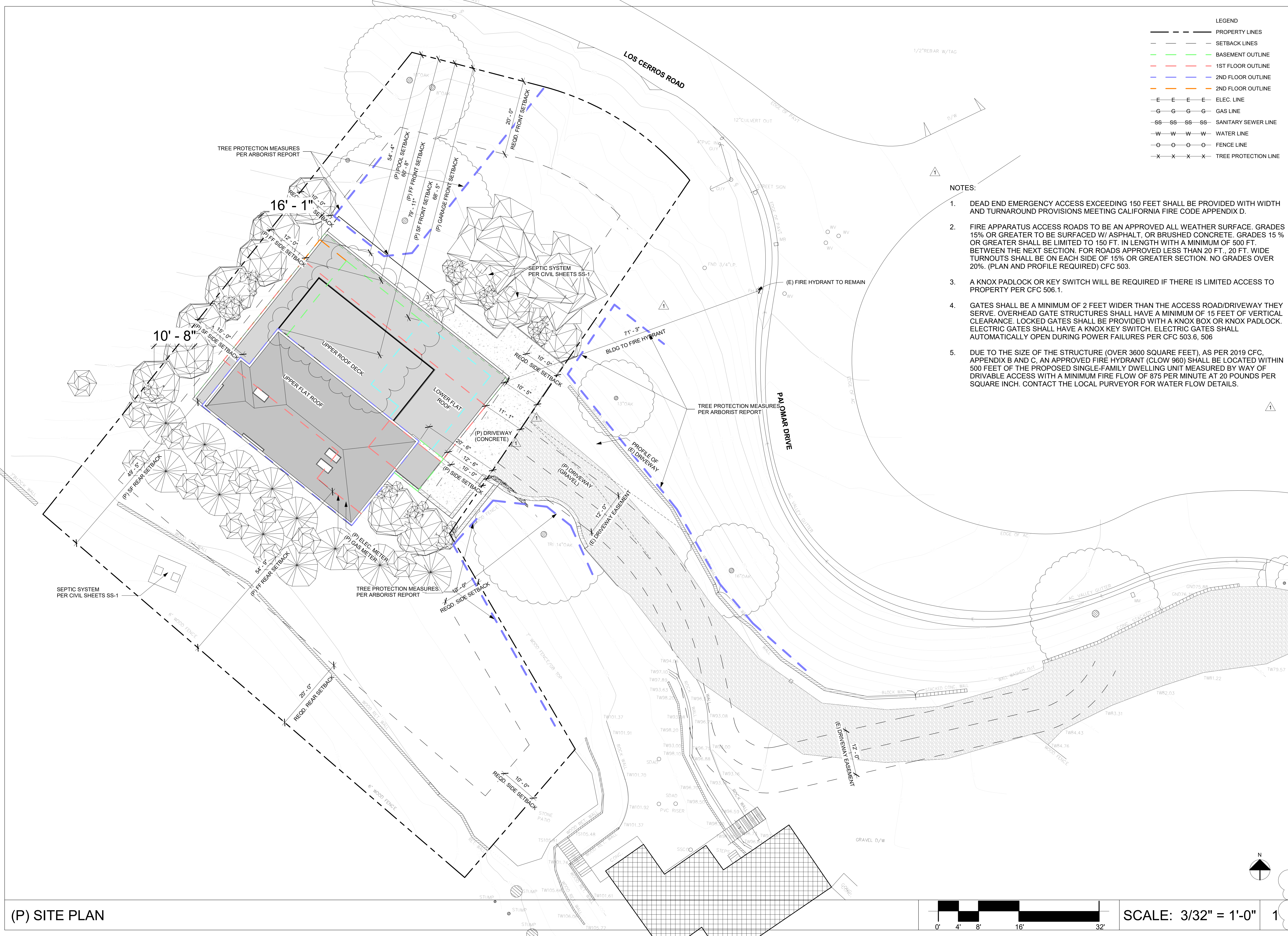
INTERIOR DESIGN PACKAGE
(P) SITE PLAN

01/12/2022

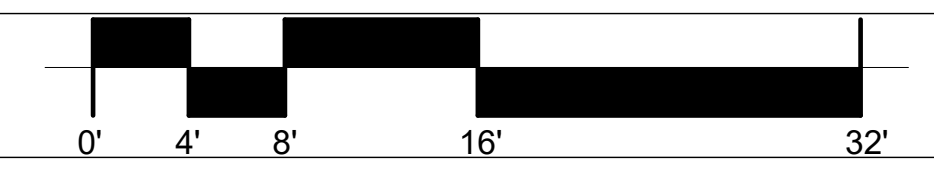
A1.2

LEGEND
--- PROPERTY LINES
- - - SETBACK LINES
- - - BASEMENT OUTLINE
- - - 1ST FLOOR OUTLINE
- - - 2ND FLOOR OUTLINE
- - - 2ND FLOOR OUTLINE
- E E E E ELEC. LINE
- G G G G GAS LINE
- SS SS SS SS SANITARY SEWER LINE
- W W W W WATER LINE
- O O O O FENCE LINE
- X X X X TREE PROTECTION LINE

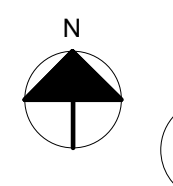
- NOTES:
- DEAD END EMERGENCY ACCESS EXCEEDING 150 FEET SHALL BE PROVIDED WITH WIDTH AND TURNAROUND PROVISIONS MEETING CALIFORNIA FIRE CODE APPENDIX D.
 - FIRE APPARATUS ACCESS ROADS TO BE AN APPROVED ALL WEATHER SURFACE. GRADES 15% OR GREATER TO BE SURFACED W/ ASPHALT, OR BRUSHED CONCRETE. GRADES 15% OR GREATER SHALL BE LIMITED TO 150 FT. IN LENGTH WITH A MINIMUM OF 500 FT. BETWEEN THE NEXT SECTION. FOR ROADS APPROVED LESS THAN 20 FT., 20 FT. WIDE TURNOUTS SHALL BE ON EACH SIDE OF 15% OR GREATER SECTION. NO GRADES OVER 20%. (PLAN AND PROFILE REQUIRED) CFC 503.
 - A KNOX PADLOCK OR KEY SWITCH WILL BE REQUIRED IF THERE IS LIMITED ACCESS TO PROPERTY PER CFC 506.1.
 - GATES SHALL BE A MINIMUM OF 2 FEET WIDER THAN THE ACCESS ROAD/DRIVEWAY THEY SERVE. OVERHEAD GATE STRUCTURES SHALL HAVE A MINIMUM OF 15 FEET OF VERTICAL CLEARANCE. LOCKED GATES SHALL BE PROVIDED WITH A KNOX BOX OR KNOX PADLOCK. ELECTRIC GATES SHALL HAVE A KNOX KEY SWITCH. ELECTRIC GATES SHALL AUTOMATICALLY OPEN DURING POWER FAILURES PER CFC 503.6, 506
 - DUE TO THE SIZE OF THE STRUCTURE (OVER 3600 SQUARE FEET), AS PER 2019 CFC, APPENDIX B AND C, AN APPROVED FIRE HYDRANT (CLOW 960) SHALL BE LOCATED WITHIN 500 FEET OF THE PROPOSED SINGLE-FAMILY DWELLING UNIT MEASURED BY WAY OF DRIVABLE ACCESS WITH A MINIMUM FIRE FLOW OF 875 PER MINUTE AT 20 POUNDS PER SQUARE INCH. CONTACT THE LOCAL PURVEYOR FOR WATER FLOW DETAILS.

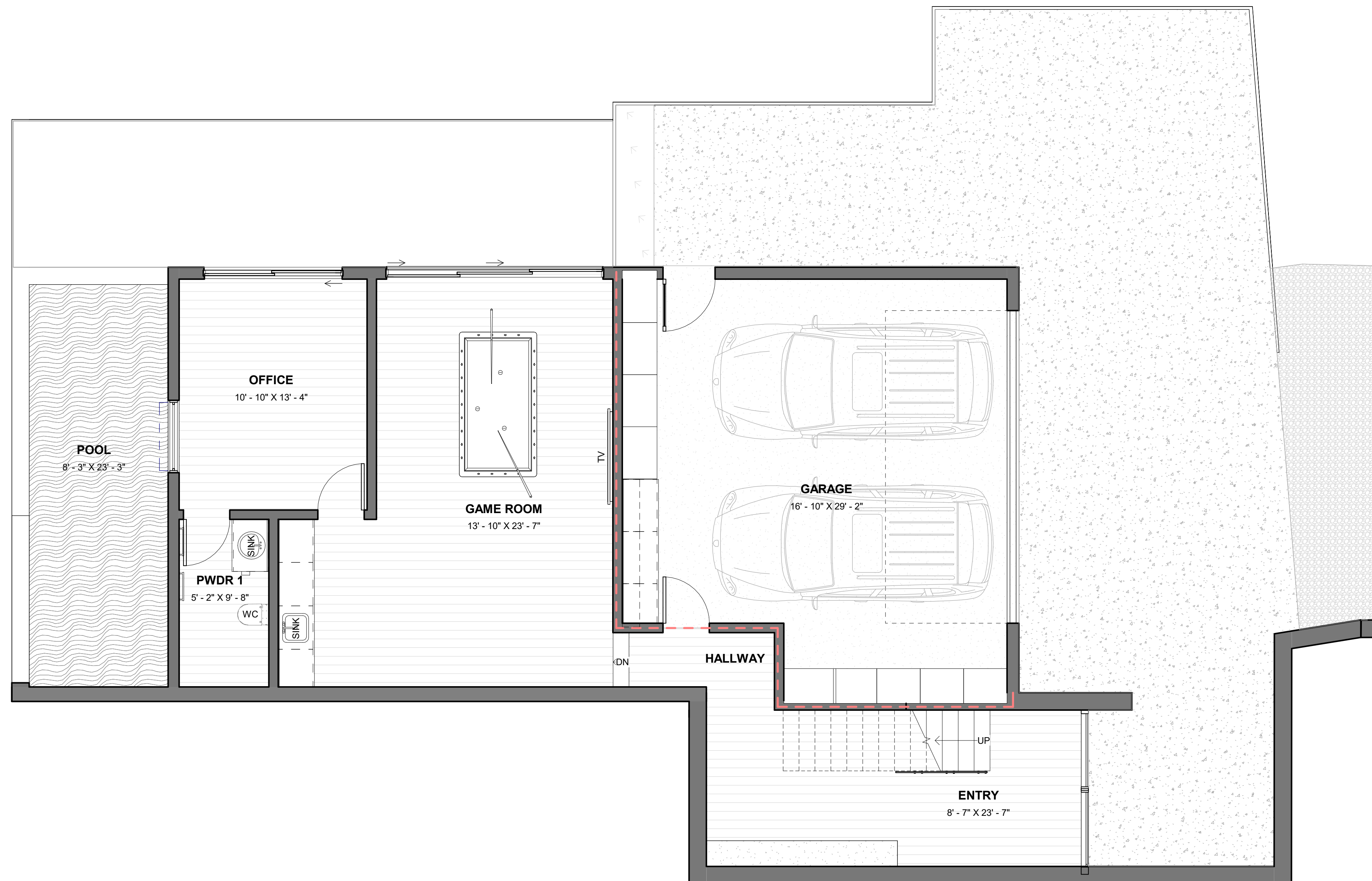


(P) SITE PLAN



SCALE: 3/32" = 1'-0"





LEGEND

	(E) WALLS TO REMAIN
	(P) NEW WALLS
	1-HOUR FIRE-RATED WALLS
	WALL TAG
	WINDOW TAG
	DOOR TAG
	TEMPERED TAG
	OBSCURE TAG
	PLAN NOTE
	SMOKE DETECTOR
	SMOKE & CARBON MONOXIDE DETECTOR
	ELECTRIC METER
	GAS METER

NOTES:

- SMOKE ALARM SHALL BE HARD WIRED PER THE CALIFORNIA BUILDING CODE, AND STATE FIRE MARSHAL REGULATIONS. THE APPLICANT IS REQUIRED TO INSTALL STATE FIRE MARSHAL APPROVED AND LISTED SMOKE DETECTORS WHICH ARE HARD WIRED, INTERCONNECTED, AND HAVE BATTERY BACKUP. THESE DETECTORS ARE REQUIRED TO BE PLACED IN EACH NEW AND RECONDITION SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. IN EXISTING SLEEPING ROOMS, AREAS MAY HAVE BATTERY POWERED SMOKE ALARMS. A MINIMUM OF ONE DETECTOR SHALL BE PLACED ON EACH FLOOR. SMOKE DETECTORS SHALL BE TESTED AND APPROVED PRIOR TO THE BUILDING FINAL. DATE OF INSTALLATION MUST BE ADDED TO EXTERIOR OF THE SMOKE ALARM AND WILL BE CHECKED AT FINAL.
- SMOKE ALARMS TO BE INSTALLED PER MANUFACTURES INSTRUCTION AND NFPA 72
- ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET, 5.0 SQ. FT. ALLOWED AT GRADE. THE MINIMUM ET CLEAR OPENABLE HEIGHT DIMENSION SHALL BE 24 INCHES. THE NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20 INCHES. FINISHED SILL HEIGHT SHALL BE NOT MORE THAN 44 INCHES ABOVE THE FINISHED FLOOR. (CFC 2019 SECTION 1030.2)
- NEW RESIDENTIAL BUILDINGS SHALL HAVE INTERNALLY ILLUMINATED ADDRESS NUMBERS CONTRASTING WITH THE BACKGROUND SO AS TO BE SEEN FROM THE PUBLIC WAY FRONTING THE BUILDING. THE LETTERS/NUMERALS FOR PERMANENT ADDRESS SIGNS SHALL BE 4 INCHES IN HEIGHT WITH A MINIMUM 1/2-INCH STROKE. RESIDENTIAL ADDRESS NUMBERS SHALL BE AT LEAST SIX FEET ABOVE THE FINISHED SURFACE OF THE DRIVEWAY, WHERE BUILDINGS ARE LOCATED REMOTELY TO THE PUBLIC ROADWAY, ADDITIONAL SIGNAGE AT THE DRIVEWAY/ROADWAY ENTRANCE LEADING TO THE BUILDING AND/OR ON EACH INDIVIDUAL BUILDING SHALL BE REQUIRED. THIS REMOTE SIGNAGE SHALL CONSIST OF A 6 INCH BY 18 INCH GREEN REFLECTIVE METAL SIGN WITH 3 INCH REFLECTIVE NUMBERS/ LETTERS SIMILAR TO HY-KO 911 OR EQUIVALENT. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE).
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- AN EXTERIOR BELL IS REQUIRED TO BE WIRED INTO THE REQUIRED FLOW SWITCH ON YOUR FIRE SPRINKLER SYSTEM

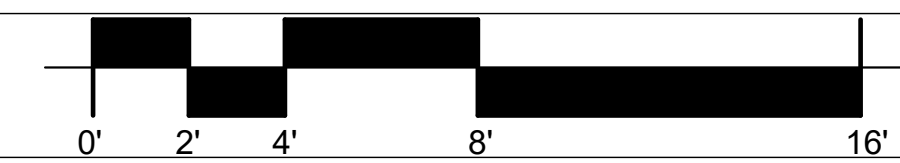
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NEW RESIDENCE AT
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REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE
(P) BASE FLOOR PLAN

01/12/2022

A2.1

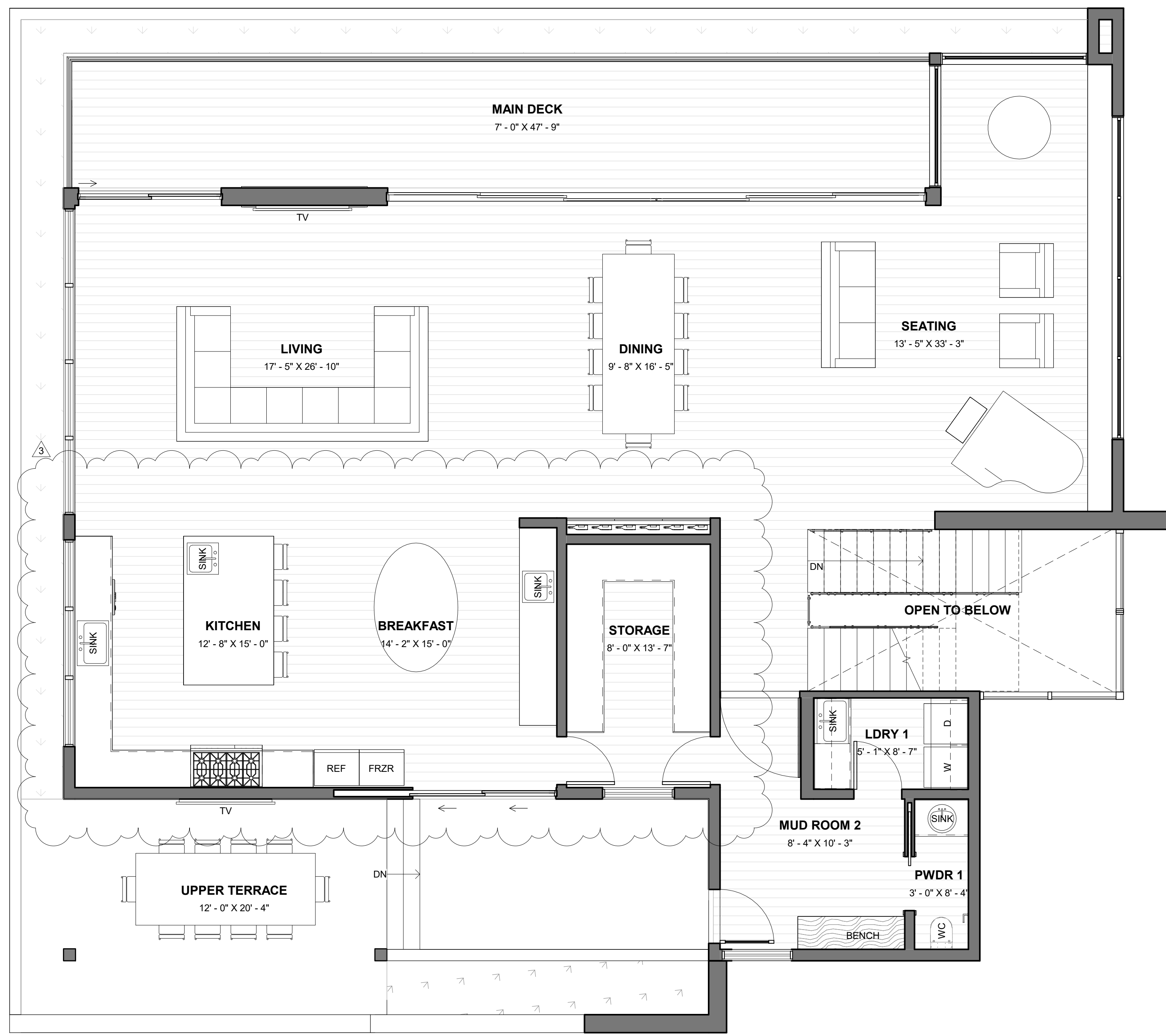


- LEGEND
- (E) WALLS TO REMAIN
 - (P) NEW WALLS
 - 1-HOUR FIRE-RATED WALLS
 - WALL TAG
 - WINDOW TAG
 - DOOR TAG
 - TEMPERED TAG
 - OBSCURE TAG
 - PLAN NOTE
 - SMOKE DETECTOR
 - SMOKE & CARBON MONOXIDE DETECTOR
 - EM ELECTRIC METER
 - GM GAS METER

Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021



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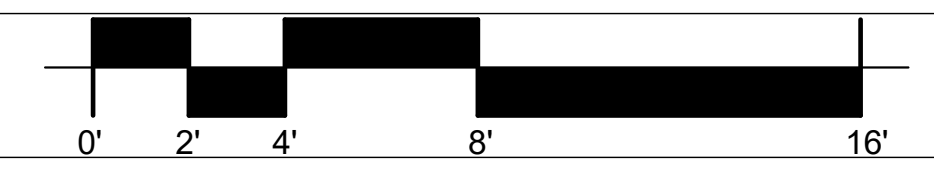
NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE
(P) 1ST FLOOR PLAN

01/12/2022

A2.2

(P) 1ST FLOOR PLAN



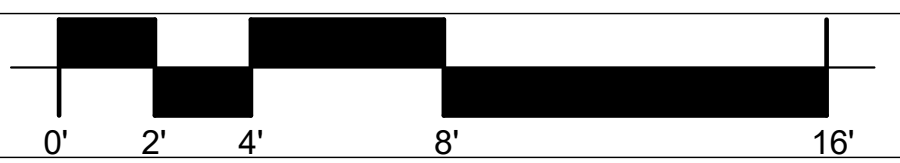
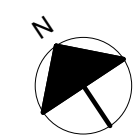
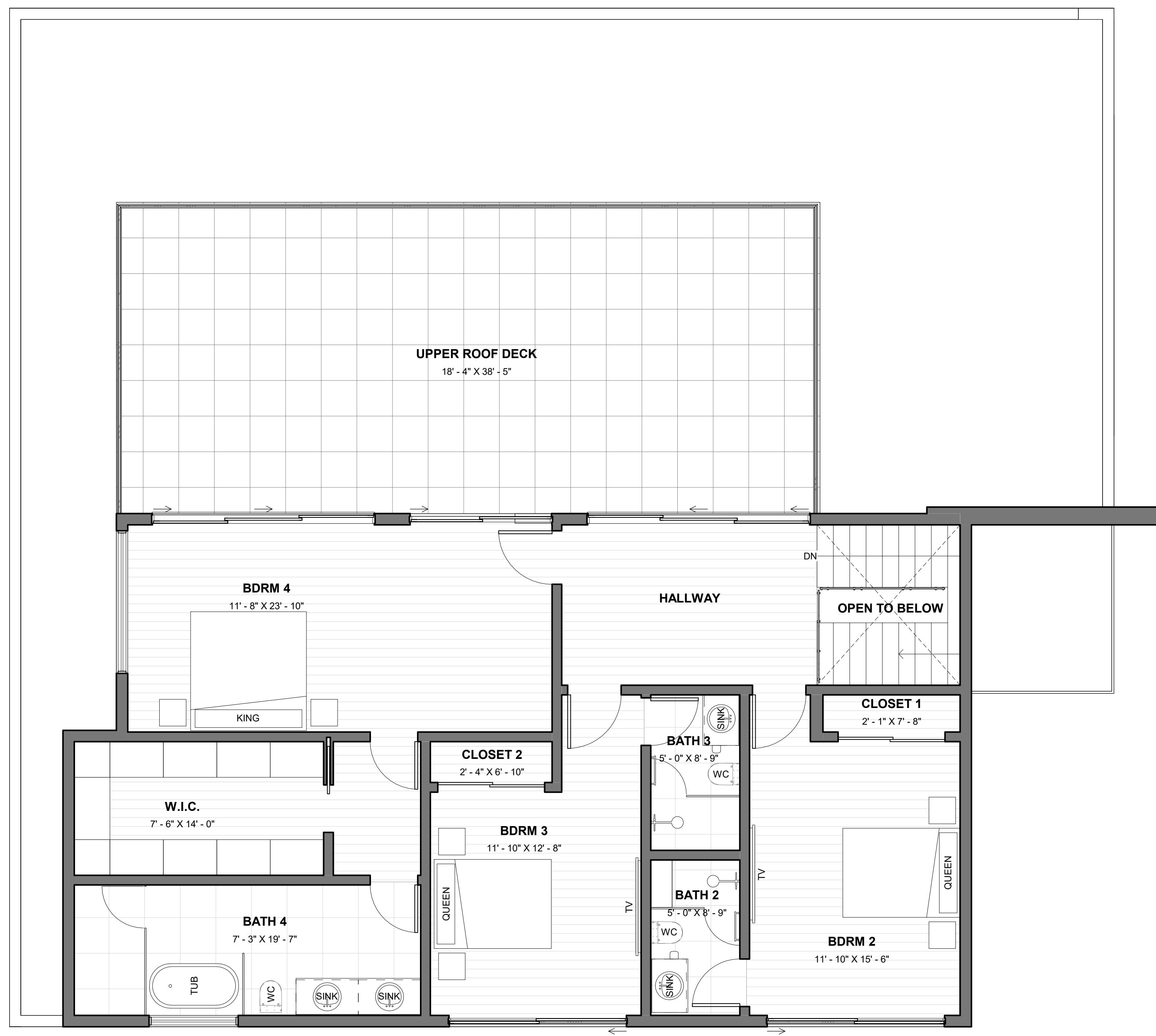
SCALE: 1/4" = 1'-0"

LEGEND

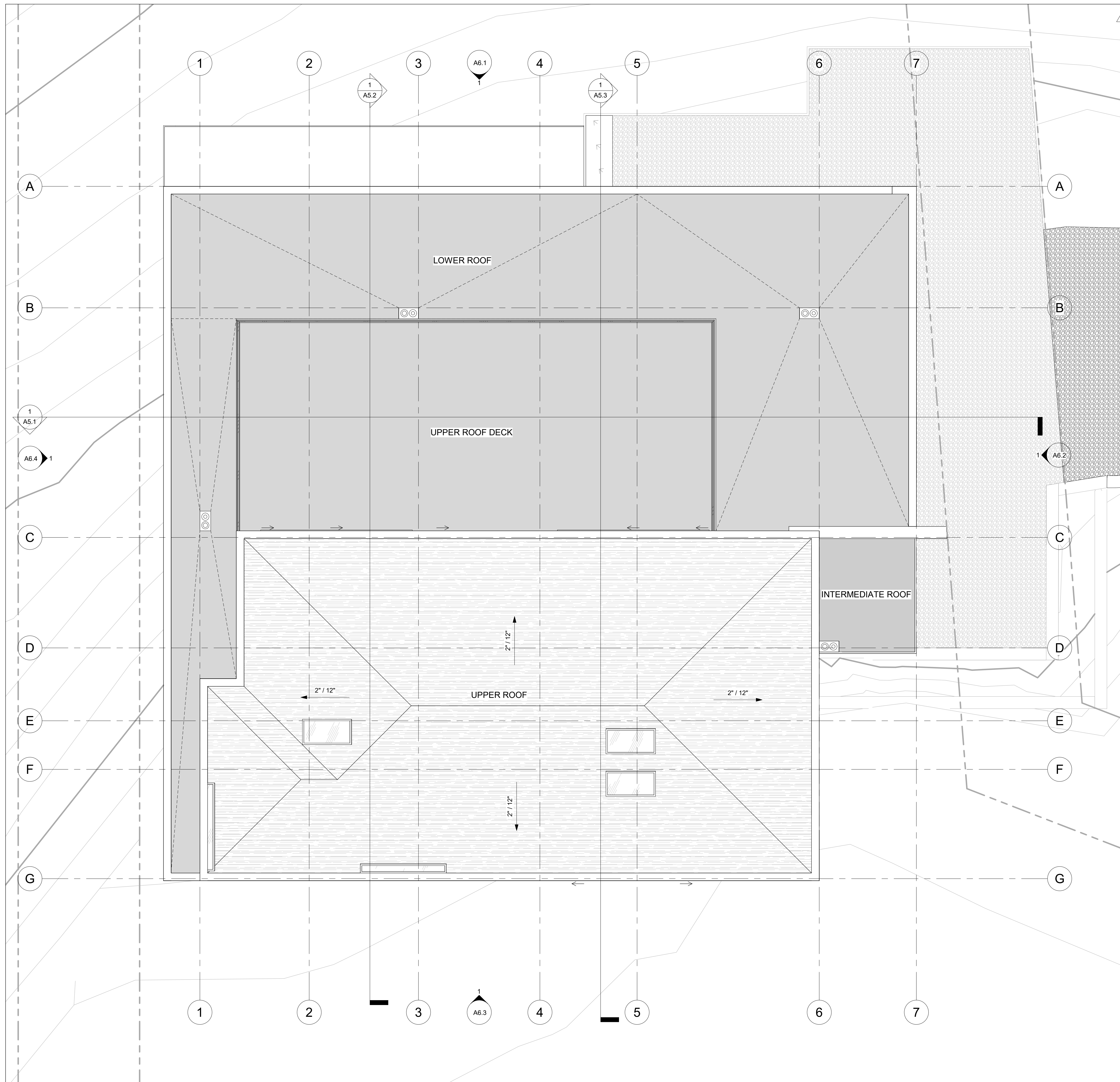
- (E) WALLS TO REMAIN
- (P) NEW WALLS
- 1-HOUR FIRE-RATED WALLS
- WALL TAG
- WINDOW TAG
- DOOR TAG
- TEMPERED TAG
- OBSCURE TAG
- PLAN NOTE
- SMOKE DETECTOR
- SMOKE & CARBON MONOXIDE DETECTOR
- EM ELECTRIC METER
- GM GAS METER

NOTES:

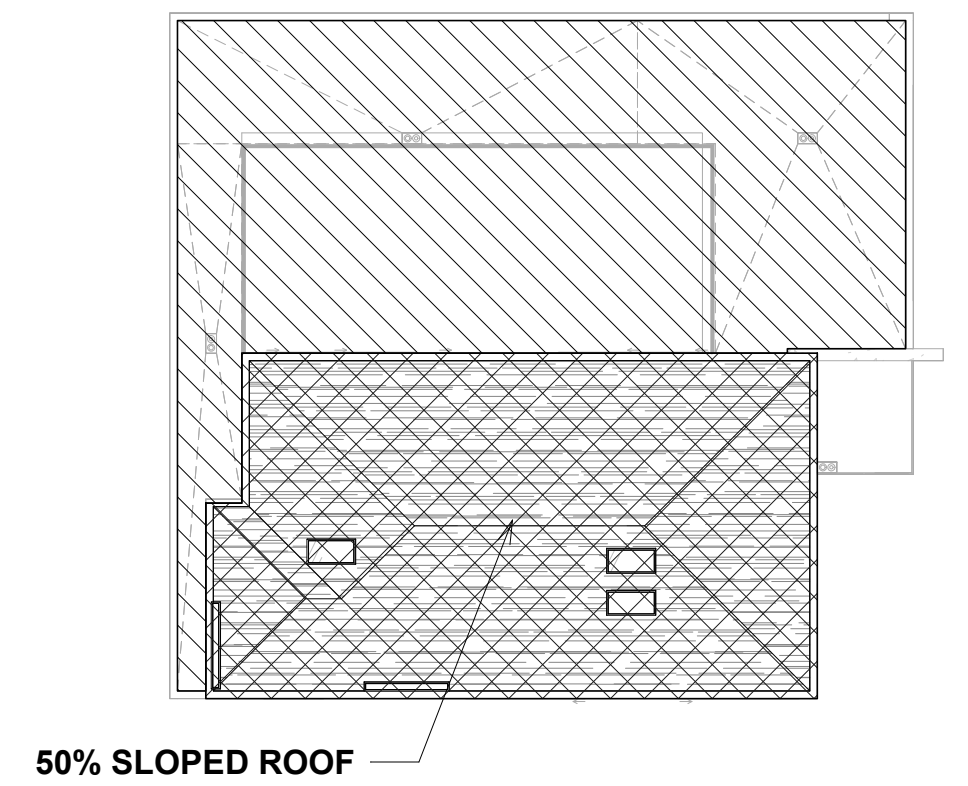
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2. SMOKE ALARMS TO BE INSTALLED PER MANUFACTURES INSTRUCTION AND NFPA 72
3. ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET, 5.0 SQ. FT. ALLOWED AT GRADE. THE MINIMUM ET CLEAR OPENABLE HEIGHT DIMENSION SHALL BE 24 INCHES. THE NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20 INCHES. FINISHED SILL HEIGHT SHALL BE NOT MORE THAN 44 INCHES ABOVE THE FINISHED FLOOR. (CFC 2019 SECTION 1030.2).
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6. AN EXTERIOR BELL IS REQUIRED TO BE WIRED INTO THE REQUIRED FLOW SWITCH ON YOUR FIRE SPRINKLER SYSTEM



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



NOTE: THE BUILDING IS IN A VERY HIGH FIRE HAZARD SEVERITY ZONE AND WILL REQUIRE A CLASS A ROOF.



Description	Date
REVISION 1	12/18/2020



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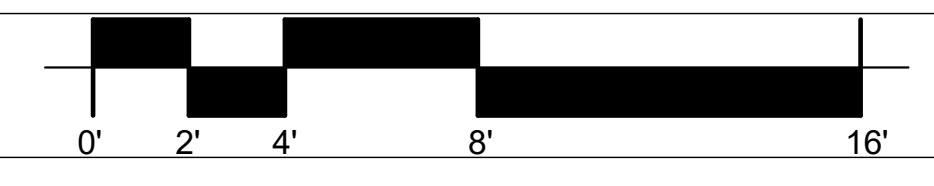
NEW RESIDENCE AT
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 REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE
 (P) ROOF PLAN

01/12/2022

A4.1

(P) ROOF PLAN



SCALE: As indicated 1

Description	Date
REVISION 3	12/20/2021

- LEGEND
- (E) WALLS, FLOORS, AND ROOFS TO REMAIN
 - (P) NEW WALLS, FLOORS AND ROOFS
 - # WALL TAG
 - # WINDOW TAG
 - # DOOR TAG
 - T TEMPERED TAG
 - OBS OBSCURE TAG
 - # PLAN NOTE

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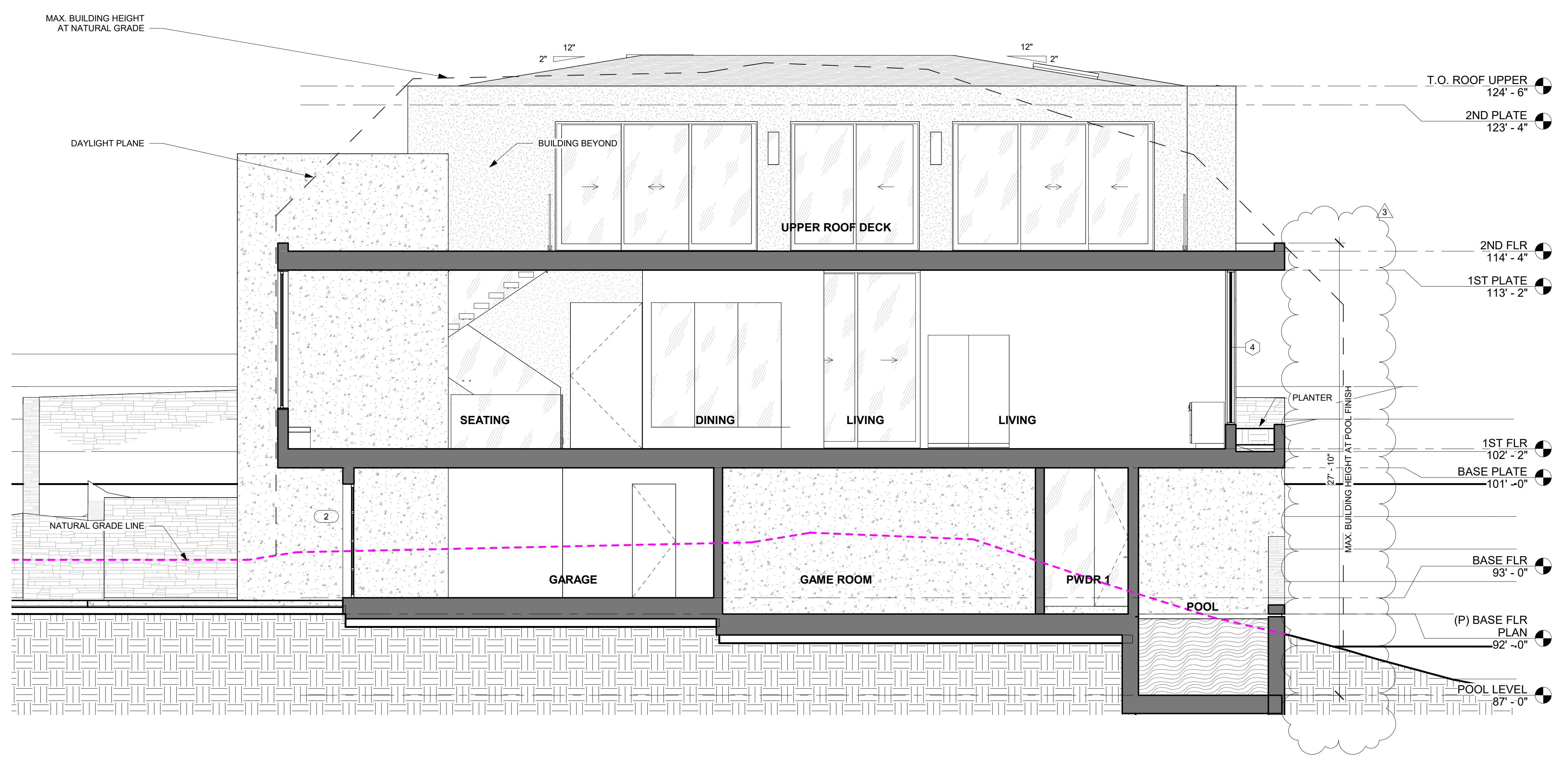
NEW RESIDENCE AT
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INTERIOR DESIGN PACKAGE

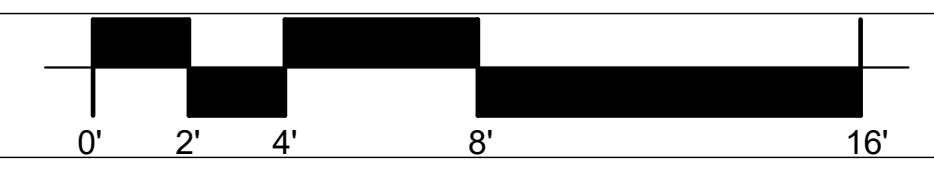
(P) A-A SECTION

01/12/2022

A5.1



(P) A-A SECTION



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

Description	Date
REVISION 3	12/20/2021

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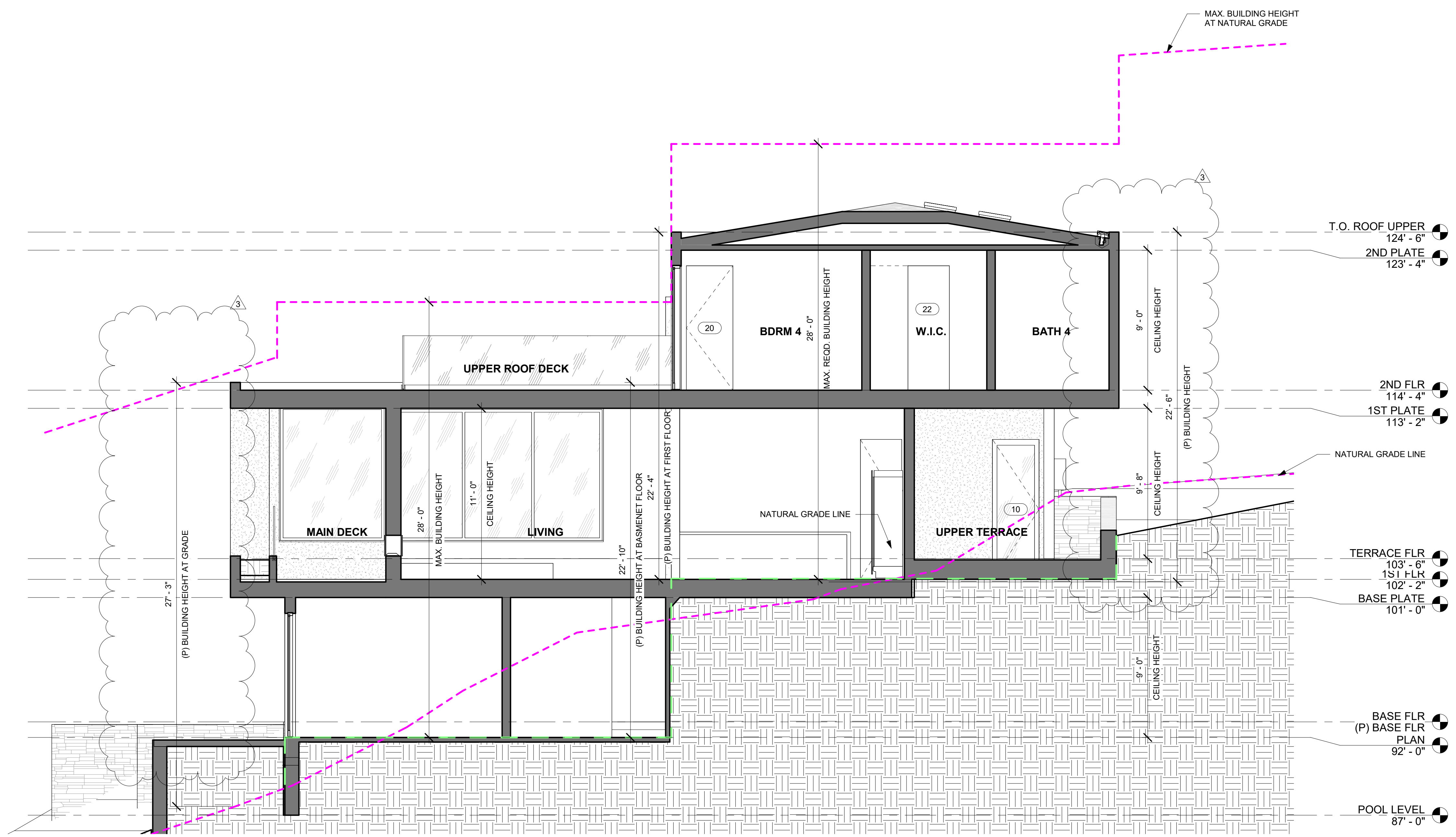
INTERIOR DESIGN PACKAGE

(P) B-B SECTION

01/12/2022

A5.2

- LEGEND
- ◆ WALL TAG
 - # WINDOW TAG
 - # DOOR TAG
 - T TEMPERED TAG
 - OBS OBSCURE TAG
 - # PLAN NOTE



(P) B-B SECTION

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

Description	Date
REVISION 3	12/20/2021

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**NEW RESIDENCE AT
 634 PALOMAR DRIVE
 REDWOOD CITY, CA 94062**

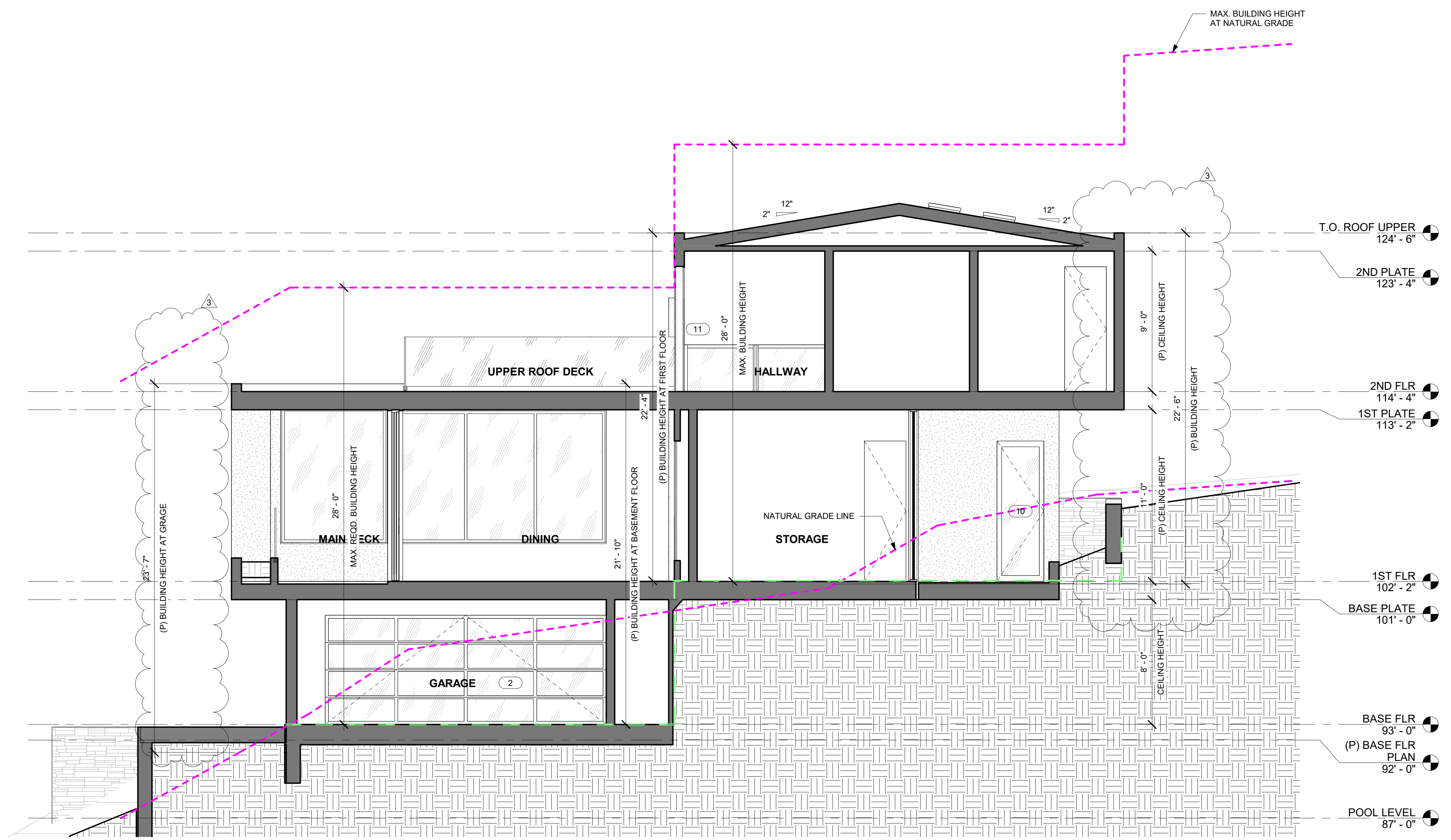
INTERIOR DESIGN PACKAGE

(P) C-C SECTION

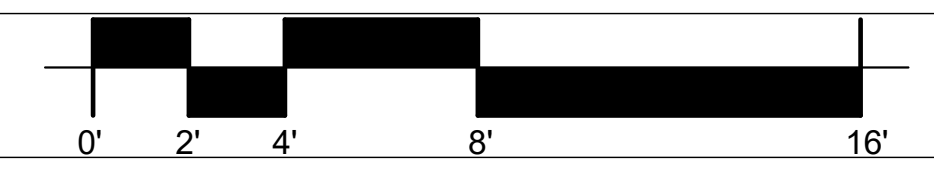
01/12/2022

A5.3

- LEGEND**
- ◊ # WALL TAG
 - ◻ # WINDOW TAG
 - # DOOR TAG
 - T TEMPERED TAG
 - OBS OBSCURE TAG
 - # PLAN NOTE



(P) C-C SECTION



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

Description	Date
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 Fax: 650-925-7869

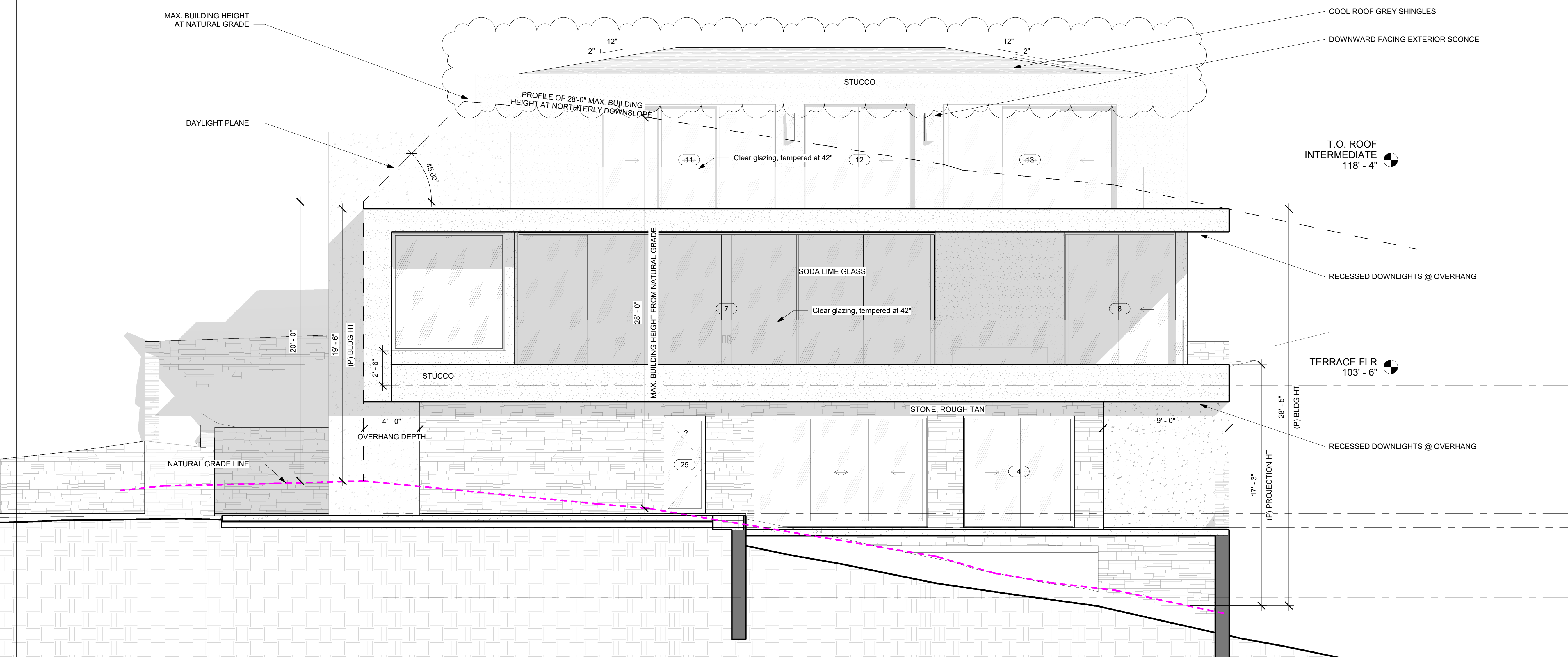
NEW RESIDENCE AT
 634 PALOMAR DRIVE
 REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE
 (P) NORTH ELEVATIONS

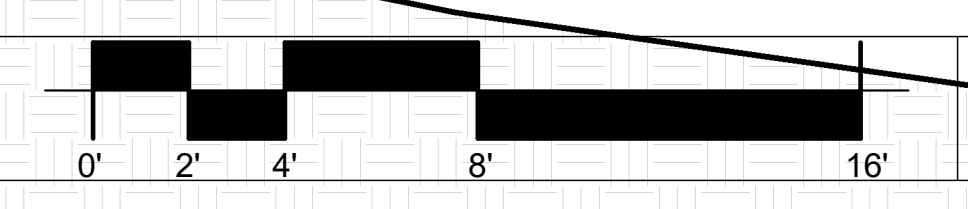
01/12/2022

A6.1

- LEGEND
- # WALL TAG
 - # WINDOW TAG
 - # DOOR TAG
 - T TEMPERED TAG
 - OBS OBSCURE TAG
 - # PLAN NOTE



(P) NORTH ELEVATIONS



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

Description	Date
REVISION 3	12/20/2021

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 4131 WEST EL CAMINO REAL, SUITE
 200, PALO ALTO CA 94306
 www.mdesignsarchitects.com
 Email: info@mdesignsarchitects.com
 Phone: 650-565-9036
 Fax: 650-565-7869

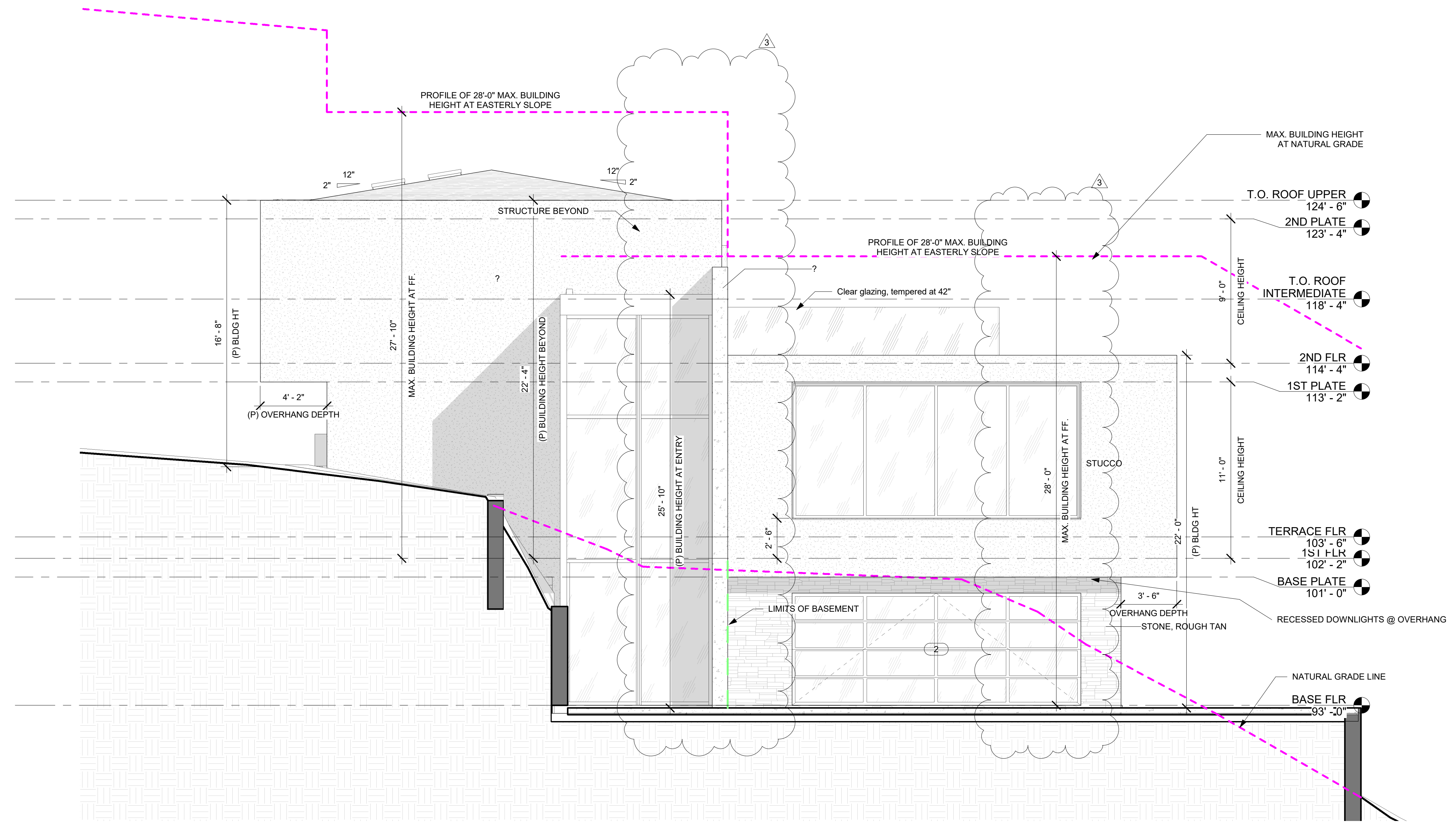
**NEW RESIDENCE AT
 634 PALOMAR DRIVE
 REDWOOD CITY, CA 94062**

**INTERIOR DESIGN PACKAGE
 (P) EAST ELEVATIONS**

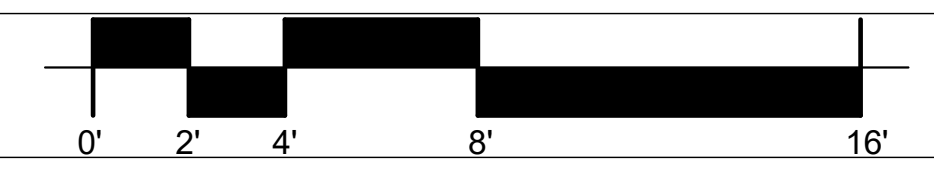
01/12/2022

A6.2

- LEGEND
- ◊ WALL TAG
 - # WINDOW TAG
 - # DOOR TAG
 - T TEMPERED TAG
 - OBS OBSCURE TAG
 - # PLAN NOTE



(P) EAST ELEVATIONS



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

Description	Date

- LEGEND
- ◇ # WALL TAG
 - ⊞ # WINDOW TAG
 - ⊞ # DOOR TAG
 - ⊞ T TEMPERED TAG
 - ⊞ OBS OBSOURE TAG
 - ⊞ # PLAN NOTE

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 Phone: 650-565-9036
 Fax: 650-625-7869

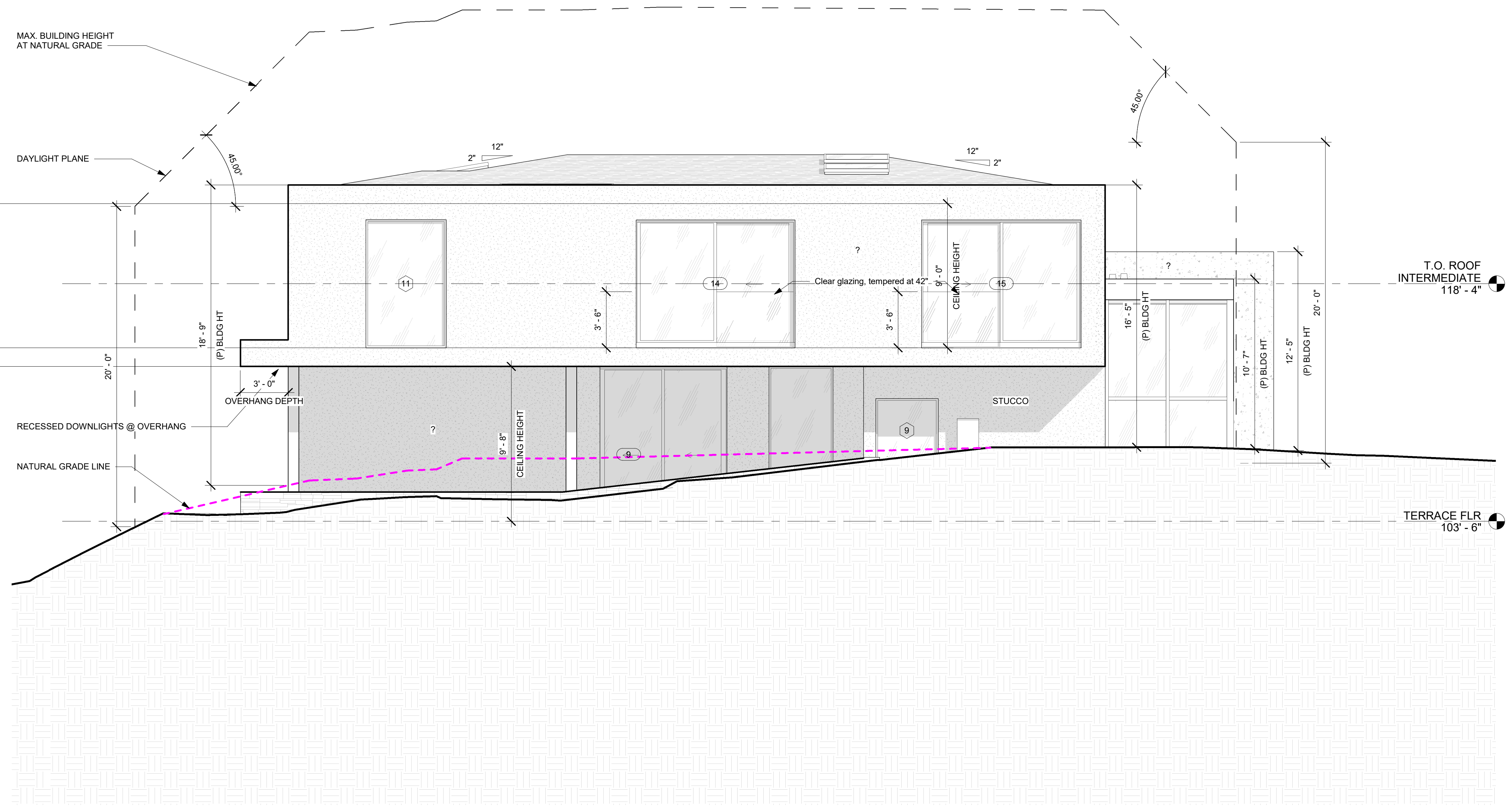
**NEW RESIDENCE AT
 634 PALOMAR DRIVE
 REDWOOD CITY, CA 94062**

INTERIOR DESIGN PACKAGE

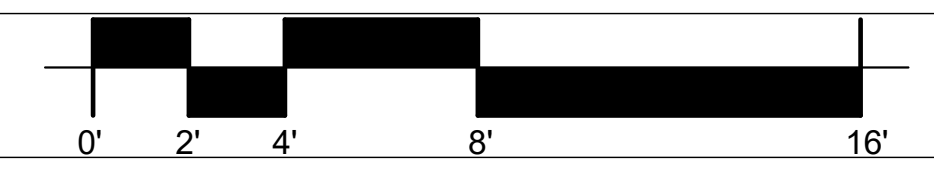
(P) SOUTH ELEVATION

01/12/2022

A6.3



(P) SOUTH ELEVATION



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

Description	Date
REVISION 3	12/20/2021

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 Phone: 650-565-9036
 Fax: 650-625-7869

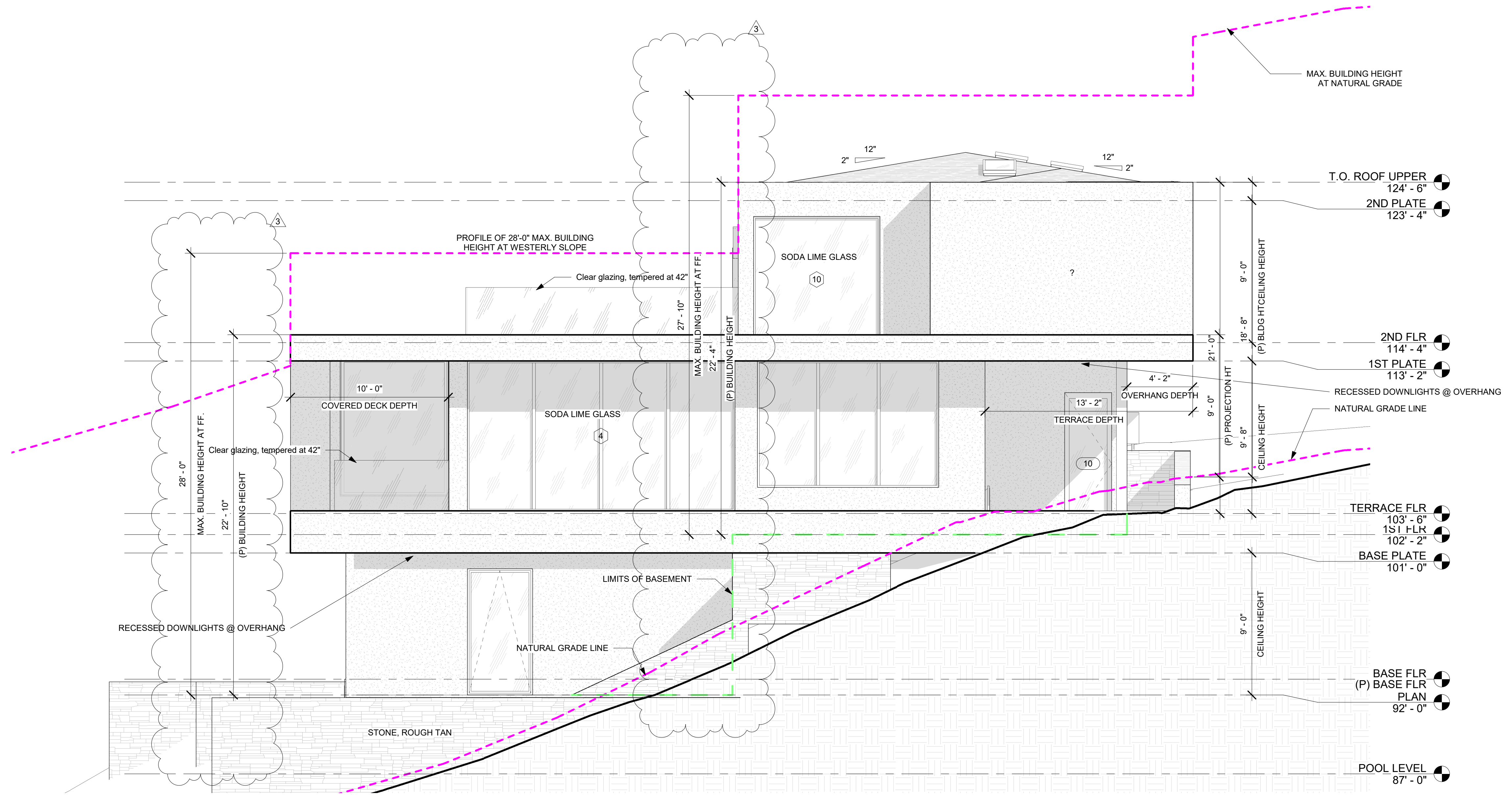
**NEW RESIDENCE AT
 634 PALOMAR DRIVE
 REDWOOD CITY, CA 94062**

**INTERIOR DESIGN PACKAGE
 (P) WEST ELEVATION**

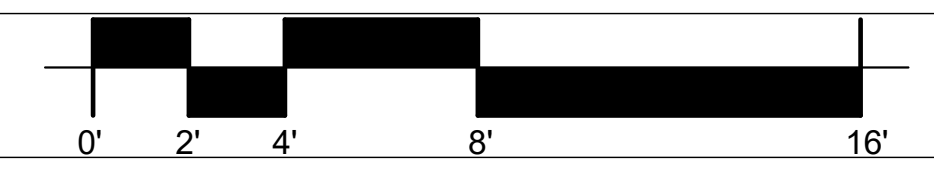
01/12/2022

A6.4

- LEGEND
- ◇ WALL TAG
 - # WINDOW TAG
 - # DOOR TAG
 - T TEMPERED TAG
 - OBS OBSCURE TAG
 - # PLAN NOTE



(P) WEST ELEVATION



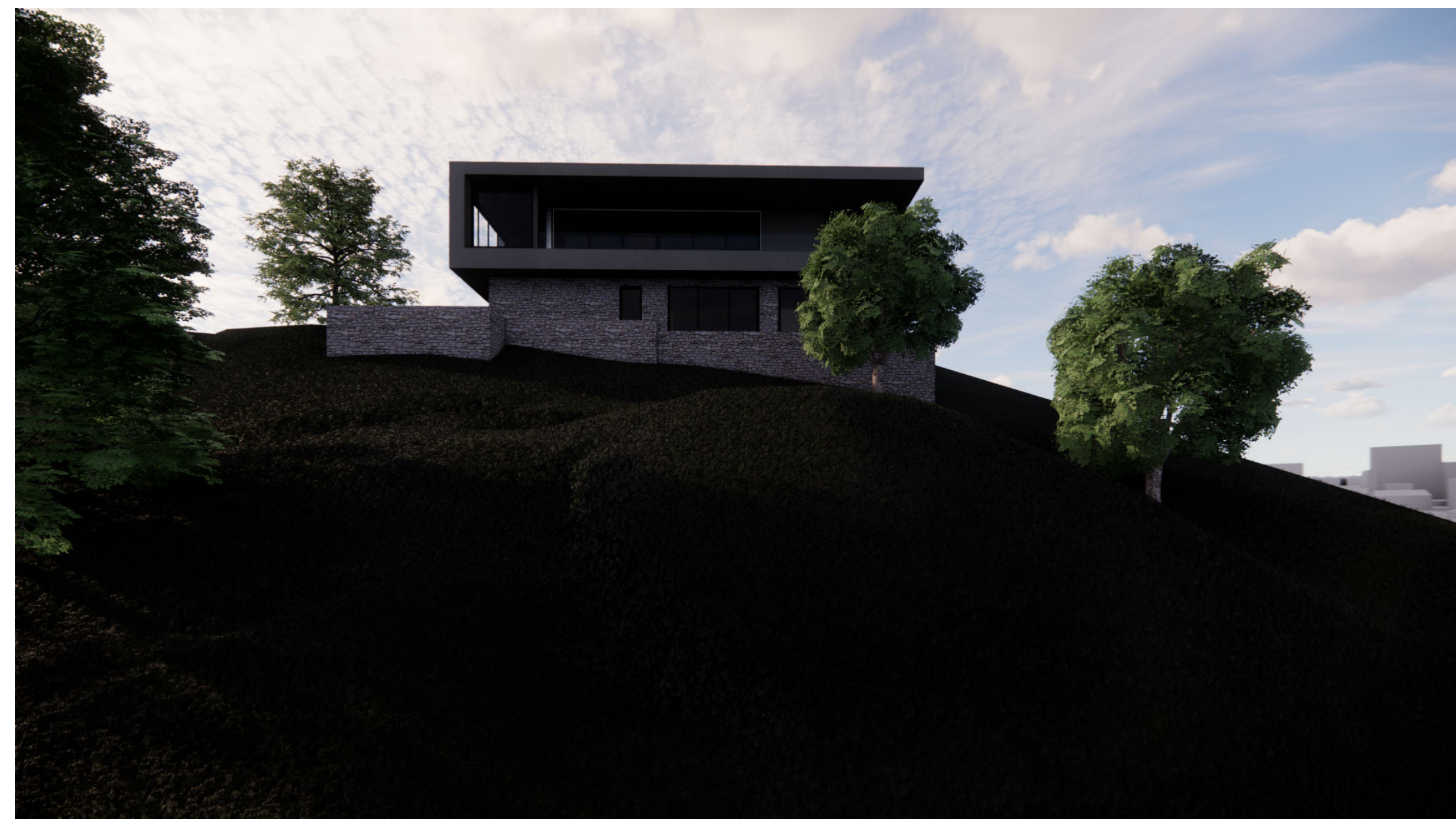
SCALE: 1/4" = 1'-0" 1



FRONT VIEW



REAR VIEW



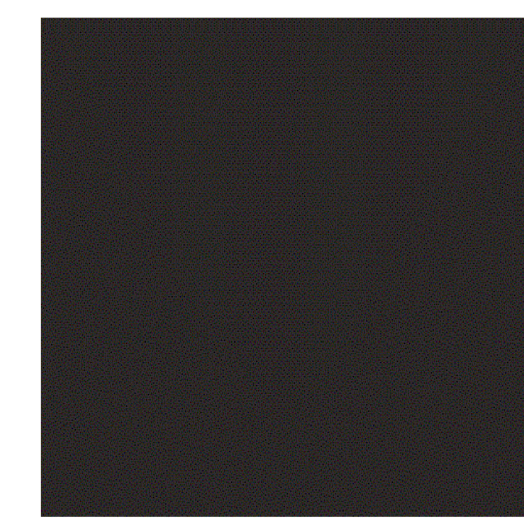
STREET VIEW



SEE A10.1 FOR PRODUCT SPECIFICATION SHEETS



WALL - CORONADO VIEJO BLEND



WINDOWS & DOORS TRIM- BLACK



STUCCO 1 FANGO - LRV 31

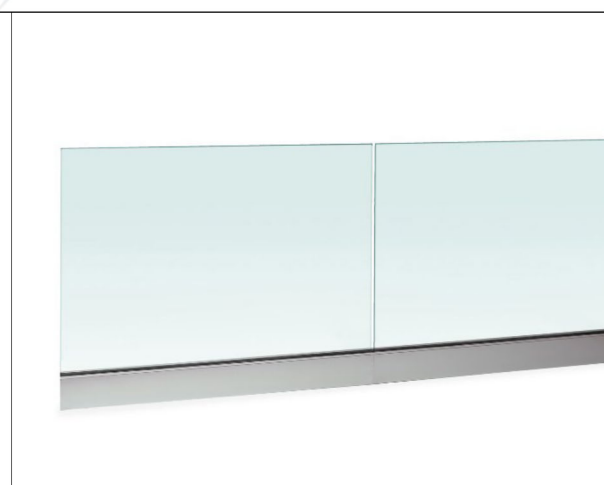


STUCCO 2 DOVE GREY - LRV:29

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ROOF- TPO



RAILING - TEMP. GLASS + METAL SHOE

Program Link	Initial Definiteness	% Yr. Definiteness	Initial Feasibility	% Yr. Feasibility	Initial SSI	% Yr. SSI	Agreed SSI	Agreed SSI (After 20)	Stop Date	CRIC Product ID#	Stop 24	Missed 21	LEED Credit	Energy Use	
Construction of 1000 sq ft office building	0.21	0.21*	0.91	Pending	31	Pending	21	21	-	X	0676-02374	Yes	Yes	Net Envelope	Pending
Construction of 1000 sq ft office building	0.17	0.17*	0.91	Pending	28	Pending	17	17	-	X	0676-01037	Yes	Yes	Net Envelope	Pending
Construction of 1000 sq ft office building	0.18	0.18*	0.92	0.90	17	18	18	18	-	X	0676-0089	Yes	Yes	Net Envelope	Net Envelope
Construction of 1000 sq ft office building	0.28	0.28*	0.92	0.91	30	27	28	28	-	X	0676-00424	Yes	Yes	Net Envelope	Yes
Construction of 1000 sq ft office building	0.27	0.28*	0.92	0.92	28	28	28	27	-	X	0676-00424	Yes	Yes	Net Envelope	Yes
Construction of 1000 sq ft office building	0.28	0.27*	0.92	0.90	30	28	28	28	-	X	0676-00424	Yes	Yes	Net Envelope	Yes
Construction of 1000 sq ft office building	0.26	0.26*	0.91	0.78	24	21	28	28	-	X	0676-0089	Yes	Yes	Net Envelope	Yes
Construction of 1000 sq ft office building	0.75	0.66*	0.90	0.89	90	80	80	80	X	X	0676-01031	Net Envelope	Yes	Contributes	Pending
Construction of 1000 sq ft office building	0.83	0.72*	0.84	0.91	103	89	87	87	X	X	0676-0089	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.85	0.72*	0.84	0.91	103	89	87	87	X	X	0676-0089	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.40	0.40*	0.89	0.86	45	45	47	47	X	X	0676-0038	Net Envelope	Net Envelope	Net Envelope	Net Envelope
Construction of 1000 sq ft office building	0.45	0.39*	0.90	0.84	76	69	71	71	X	X	0676-0037	Net Envelope	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.76	0.68*	0.92	0.91	94	81	81	81	X	X	0676-0031	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.82	0.81**	0.88	0.88**	110	110	Pending	105	X	X	0676-0034	Yes	Yes	Contributes	Net Envelope
Construction of 1000 sq ft office building	0.87	0.81**	0.88	0.88**	110	110	Pending	105	X	X	0676-0034	Yes	Yes	Contributes	Net Envelope
Construction of 1000 sq ft office building	0.87	0.76*	0.87	0.84	110	83	84	84	X	X	0676-0030	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.87	0.76*	0.87	0.84	110	83	84	84	X	X	0676-0030	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.87	0.76*	0.87	0.84	110	83	84	84	X	X	0676-0030	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.87	0.76*	0.87	0.84	110	83	84	84	X	X	0676-0030	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.72	0.67*	0.87	0.80	88	82	82	82	X	X	0676-0043	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.71	0.66*	0.89	0.89	88	80	80	80	X	X	0676-0034	Yes	Yes	Contributes	Yes
Construction of 1000 sq ft office building	0.40	0.40*	0.89	0.86	45	45	47	47	X	X	0676-0030	Net Envelope	Net Envelope	Net Envelope	Net Envelope

TPO SPEC SHEET

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Description	Date
REVISION 1	12/18/2020



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Fax: 650-565-7869

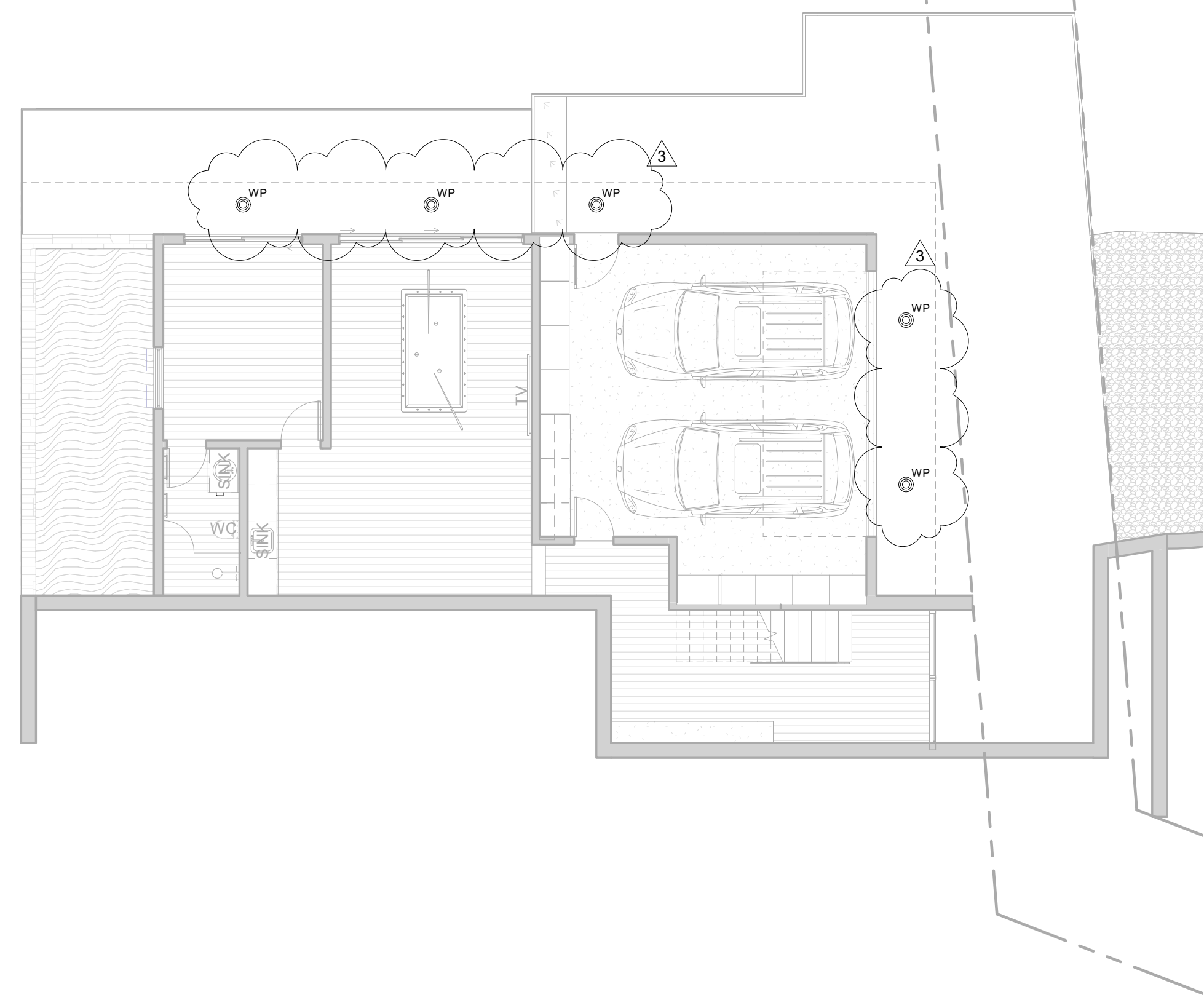
NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

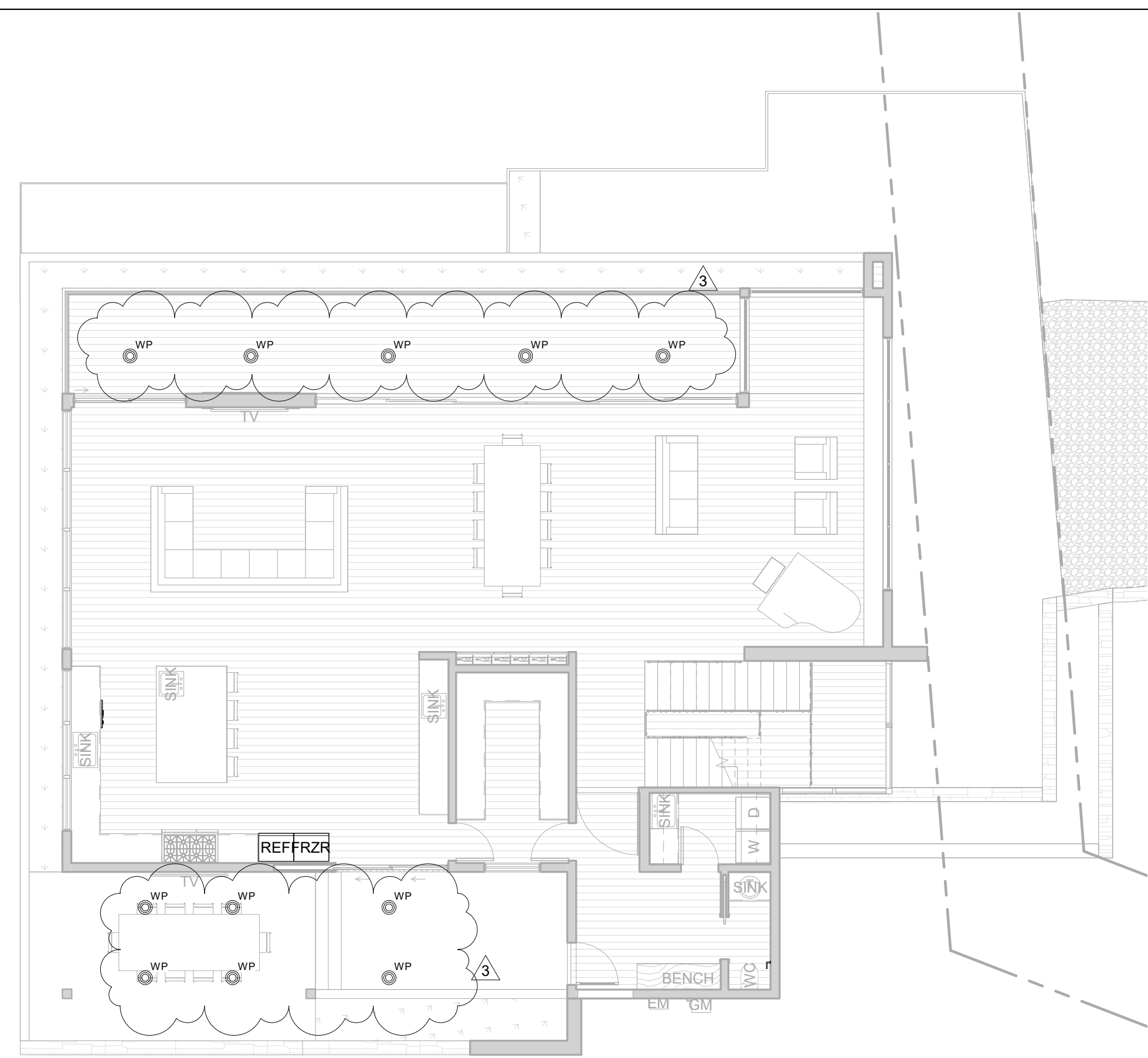
COLOR/MATERIAL BOARD

01/12/2022

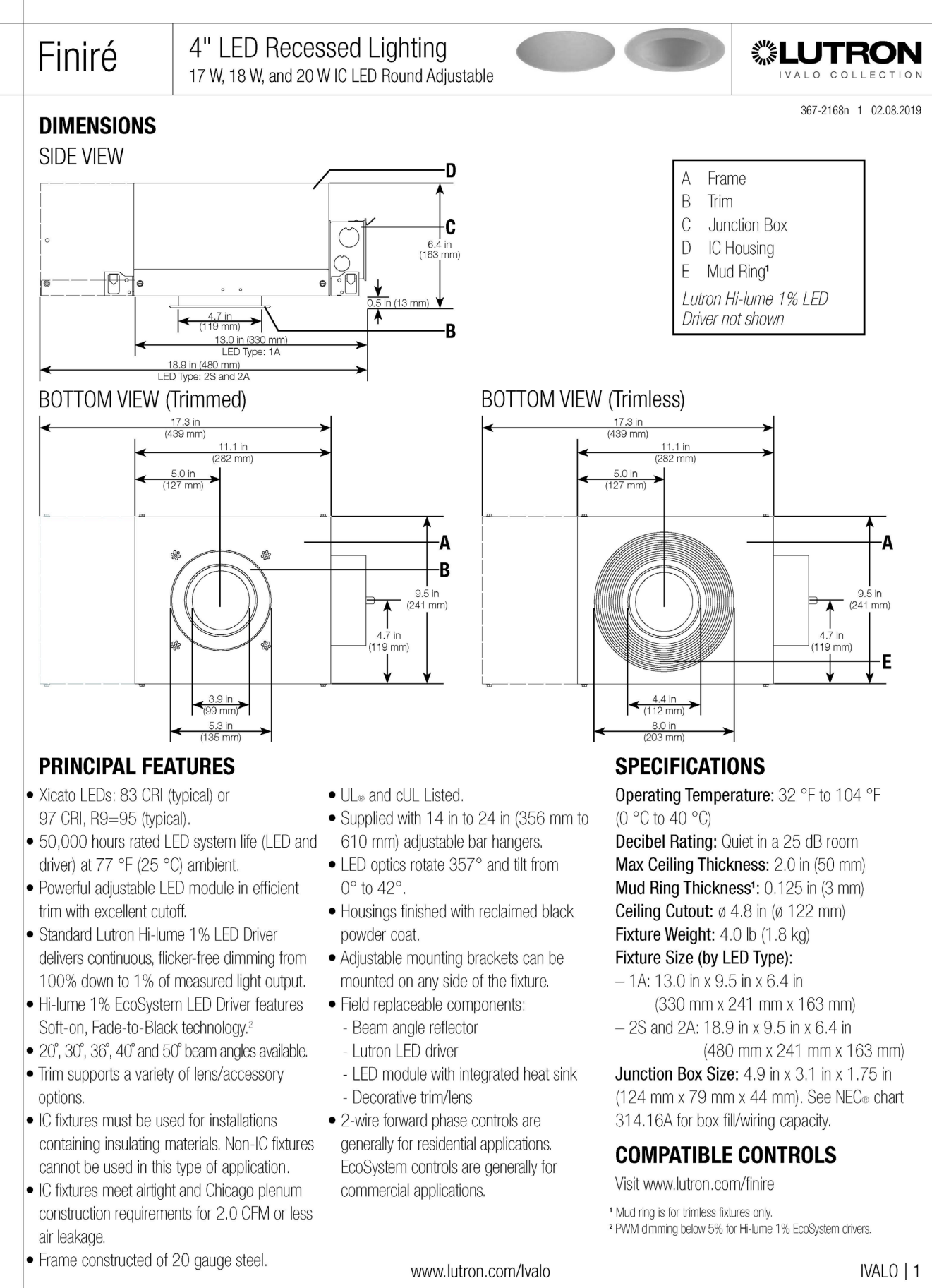
CB.1



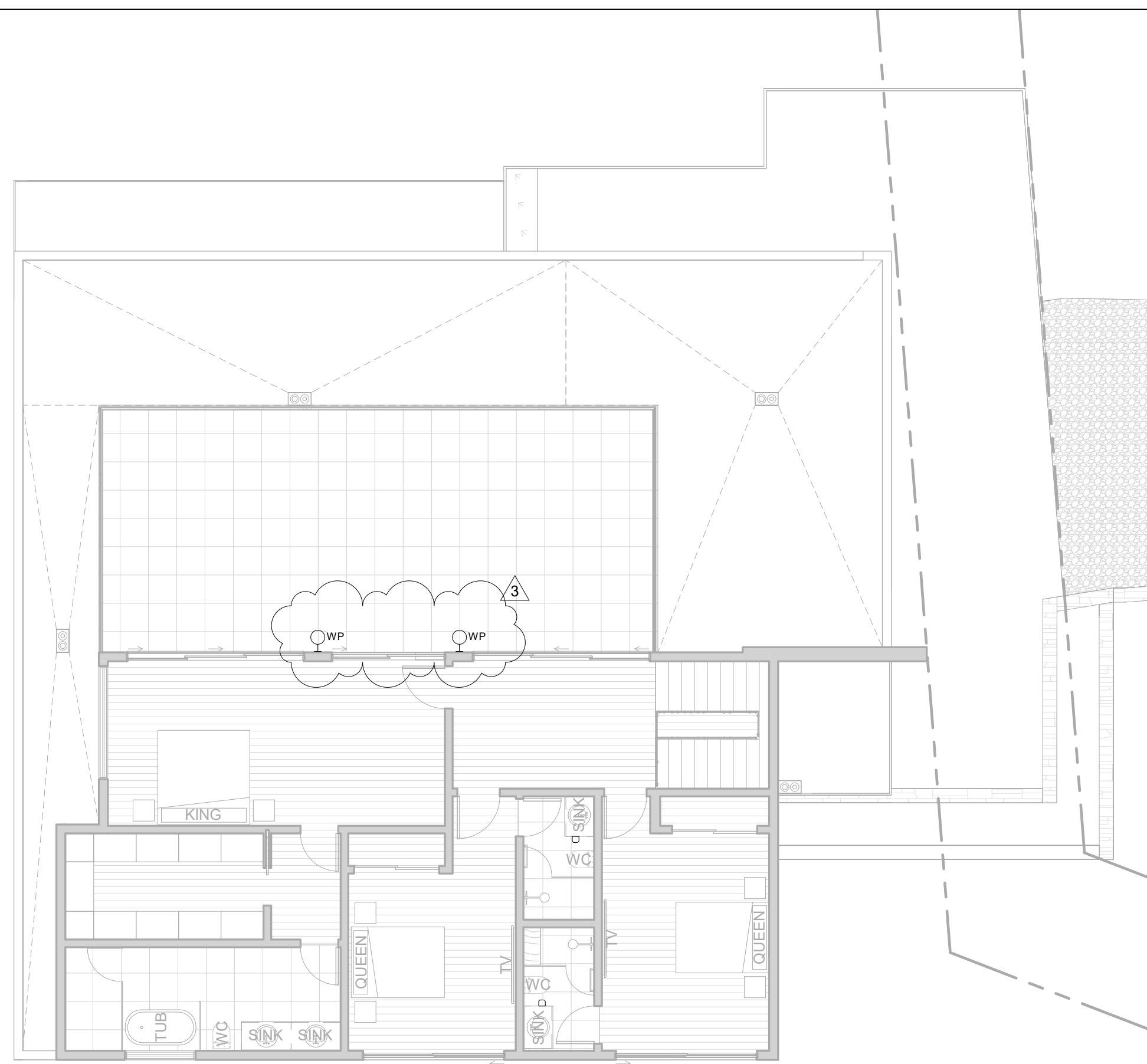
BASEMENT FLOOR EXTERIOR LIGHTING PLAN



FIRST FLOOR EXTERIOR LIGHTING PLAN



SECOND FLOOR EXTERIOR LIGHTING PLAN



Slant LED Indoor & Outdoor Wall Light
By dweLED

YLIGHTING
Call Us 866.428.9289

Product Options

Finish: Brushed Aluminum, Black

Details

- May be mounted on wall vertically or upside down
- ALED driver
- Designed in 2019
- Material: Aluminum
- Dimmable when used with a Electronic low voltage (ELV) Dimmer (Not Included)
- Dimmer Range: ELV Dimmer: 100 - 10%
- ADA compliant, Dark Sky compliant, Title 24 compliant
- ETL Listed Wet
- Warranty: 5 Years Functional, 2 Years Finish
- Made in China

Dimensions

Fixture: Length 5", Width 3.25", Height 10.83"

Lighting

- 7 Watt (443 Lumens) 120 Volt Integrated LED, CRI: 90 Color Temp: 3000K Lifespan: 50000 hours

Additional Details

Product URL:
<https://www.ylighting.com/slant-led-indoor-and-outdoor-wall-light-by-dweled-DWEF266554.html>

Rating: ETL Listed Wet

Product ID: DWEF266554

Prepared by:

Prepared for:
Project:
Room:
Placement:
Approval:

Created December 20th, 2021

Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021

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Fax: 949-625-7869

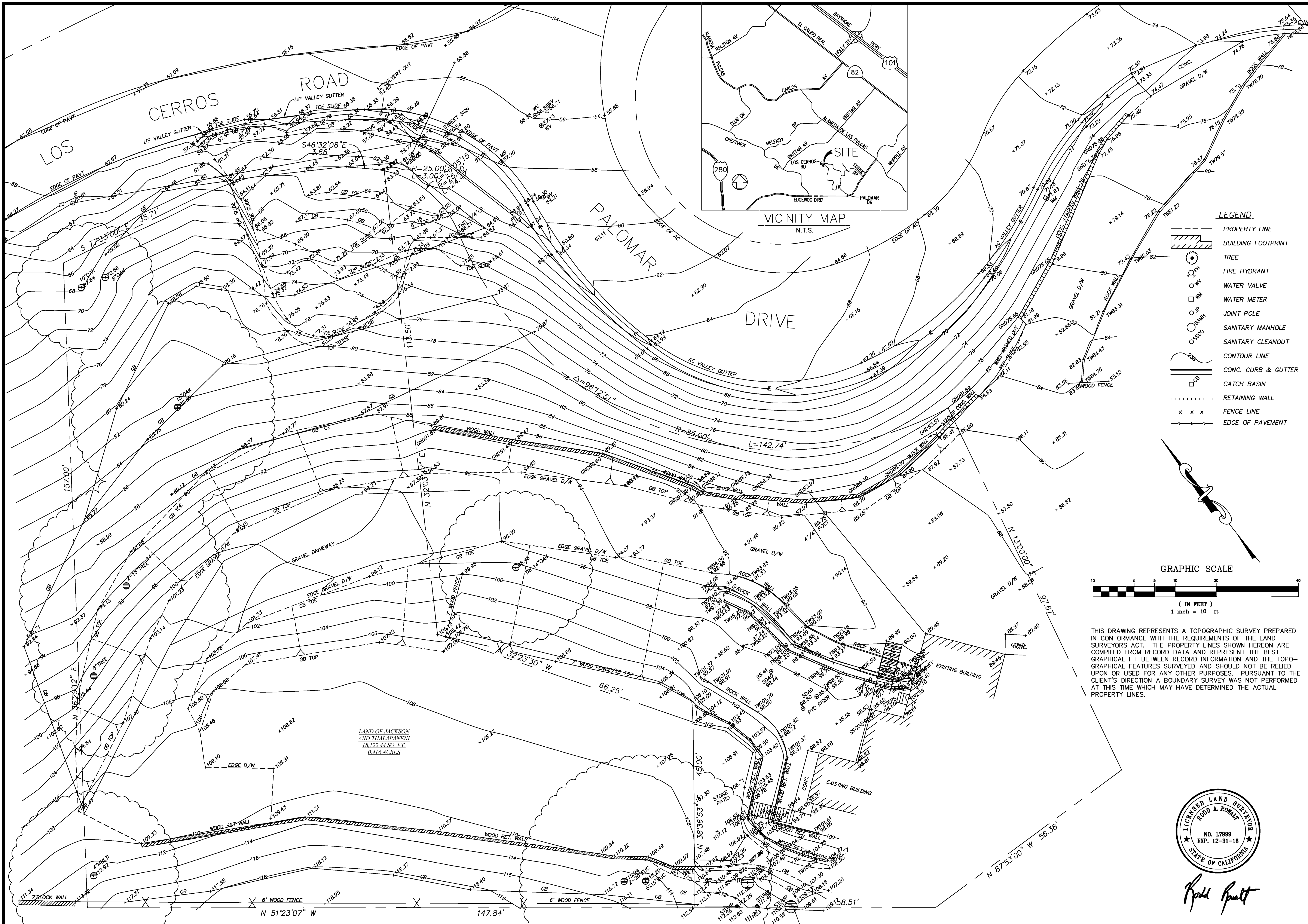
NEW RESIDENCE AT
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INTERIOR DESIGN PACKAGE
EXTERIOR LIGHTING

01/12/2022

E2.0

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED WITH THE INTENT THAT THE FIRM OF GIULIANI & KULL, INC. WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETED PROJECT. IF, HOWEVER ANOTHER ENGINEERING AND OR SURVEYING FIRM SHOULD BE EMPLOYED TO USED THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT THE FIRM OF GIULIANI & KULL, INC. WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF GIULIANI & KULL, INC. HAD PERFORMED THE STAKING WORK.



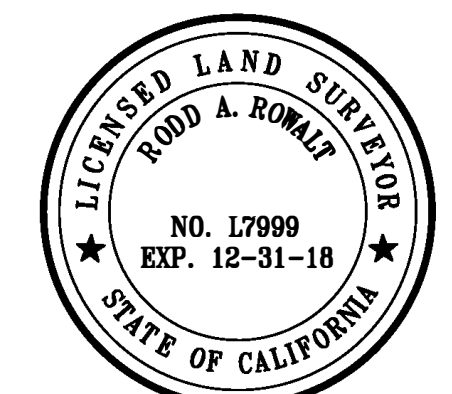
REVISIONS	DATE	DESIGNED BY	CHECKED BY

GIULIANI & KULL, Inc.
 Engineers • Planners • Surveyors
 4880 Stevens Creek Blvd., Suite 205, San Jose, CA 95129
 (408) 615-4000 Fax (408) 615-4004
 Auburn • San Jose • Oakland

634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA

TOPOGRAPHIC SURVEY

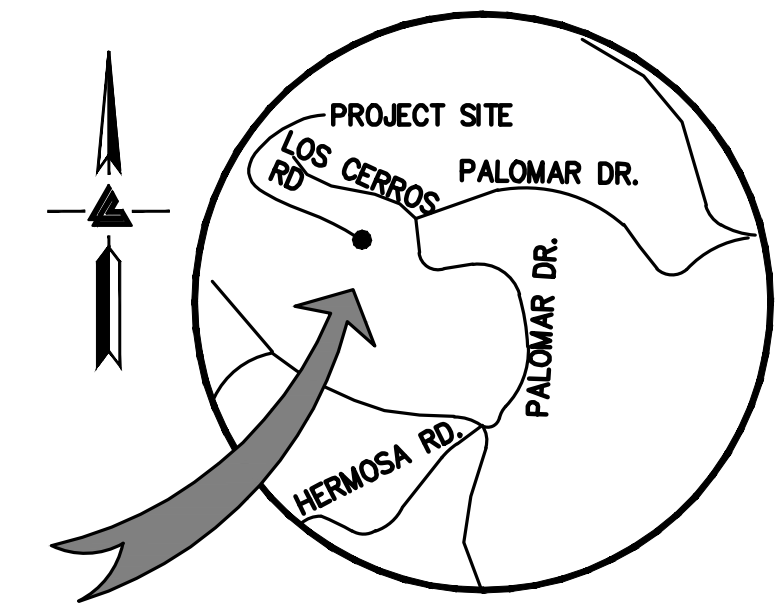
SHEET **1**
 OF 1
 DATE 3/24/17
 JOB NO. 14144



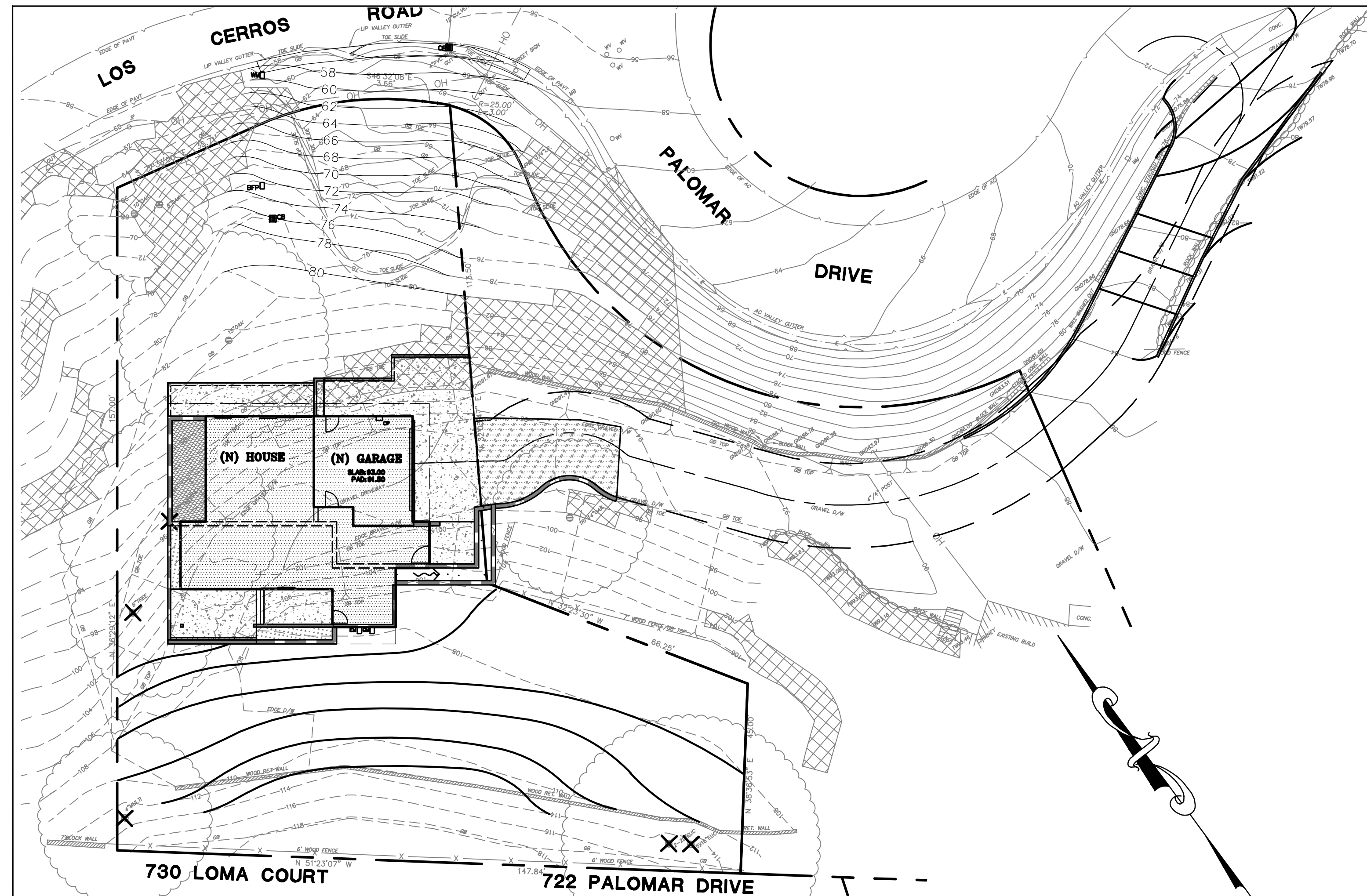
Rodolfo Romo

THIS DRAWING REPRESENTS A TOPOGRAPHIC SURVEY PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT. THE PROPERTY LINES SHOWN HEREON ARE COMPILED FROM RECORD DATA AND REPRESENT THE BEST GRAPHICAL FIT BETWEEN RECORD INFORMATION AND THE TOPOGRAPHICAL FEATURES SURVEYED AND SHOULD NOT BE RELIED UPON OR USED FOR ANY OTHER PURPOSES. PURSUANT TO THE CLIENT'S DIRECTION A BOUNDARY SURVEY WAS NOT PERFORMED AT THIS TIME WHICH MAY HAVE DETERMINED THE ACTUAL PROPERTY LINES.

634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA UNINCORPORATED SAN MATEO COUNTY



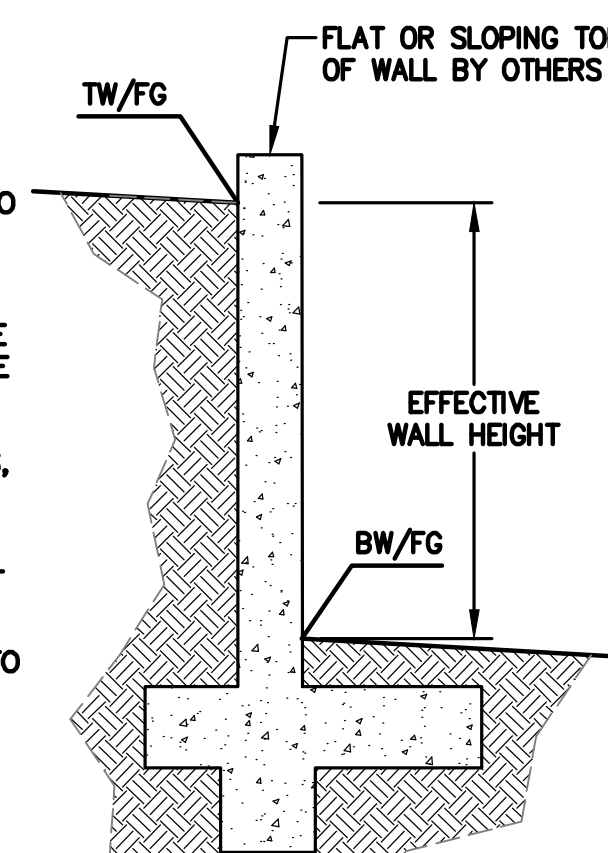
VICINITY MAP
NTS



KEY MAP
1" = 20'

RETAINING WALL NOTES

- TW/FG REPRESENTS FINISHED EARTHEN GRADE OR PAVEMENT ELEVATION AT TOP OF WALL, NOT ACTUAL TOP OF WALL MATERIAL. BW/FG REPRESENTS FINISH EARTHEN GRADE OR PAVEMENT ELEVATION AT BOTTOM OF WALL NOT INCLUDING FILL FOUNDATION. GRADES INDICATED ON THESE PLANS REFER TO THE FINISHED GRADES ADJACENT TO THE RETAINING WALL, NOT INCLUDING FOOTING, FREEBOARD, ETC.
- DIMENSIONS SHOWN IN BRACKETS SHOWN AS [X.X'] DENOTE THE EFFECTIVE WALL HEIGHT ONLY. THE ACTUAL WALL HEIGHT AND DEPTH MAY DIFFER DUE TO CONSTRUCTION REQUIREMENTS.
- REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR STRUCTURAL ELEMENTS, FREEBOARD, AND EMBEDMENT.
- REFER TO ARCHITECTURAL, LANDSCAPE ARCHITECTURE, AND/OR STRUCTURAL PLANS FOR DETAILS, WALL ELEVATIONS, SUBDRAINAGE, WATERPROOFING, FINISHES, COLORS, STEEL REINFORCING, MATERIALS, ETC. PROVIDE CLIPS OR OTHER MEANS OF SECURING FINISH MATERIALS AS NECESSARY (WET SET INTO THE WALL).
- ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT HYDROSTATIC PRESSURE.
- SEE DETAIL SHEET FOR SPECIFIC INFORMATION.
- PROVIDE GUARDRAIL (WHERE APPLICABLE AND DESIGNED BY OTHERS) AS REQUIRED FOR GRADE SEPARATION OF 30 INCHES OR MORE MEASURED 5' HORIZONTALLY FROM FACE OF WALL, PER CBC.



SCHEMATIC RETAINING WALL. PLEASE NOTE THE DETAIL ABOVE IS SCHEMATIC ONLY AND DOES NOT PERTAIN TO ANY SPECIFIC RETAINING WALL LOCATED ON-SITE.



*** BUILDING PAD NOTE:**
ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

INSPECTIONS REQUIRED
THE COUNTY OF SAN MATEO REQUIRES LEA & BRAZE ENGINEERING, INC. TO INSPECT ALL STORM DRAINAGE AS IT IS INSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING, INC. PRIOR TO START OF CONSTRUCTION TO SET UP A PRE-CONSTRUCTION MEETING, AND TO CALL AT LEAST 48 HOURS IN ADVANCE OF ANY INSPECTIONS. PIPES ARE TO REMAIN UNCOVERED UNTIL AN INSPECTION PERFORMED BY LEA & BRAZE ENGINEERING, INC. OCCURS.
POINT OF CONTACT:
JIM TOBY
LEA & BRAZE ENGINEERING, INC.
(510)887-4086 jtoby@leabraze.com

SHEET INDEX

C-1.0	TITLE SHEET
C-2.0	GRADING & DRAINAGE PLAN
C-3.0	UTILITY PLAN
C-4.0	DETAILS
C-4.1	DETAILS
C-5.0	GRADING SPECIFICATIONS
C-6.0	DRIVEWAY PROFILES
ER-1	EROSION CONTROL
ER-2	EROSION CONTROL DETAILS
BMP	BEST MANAGEMENT PRACTICES

LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	BOUNDARY
---	---	PROPERTY LINE
---	---	RETAINING WALL
---	---	LANDSCAPE RETAINING WALL
---	---	RAINWATER TIGHTLINE
---	---	SUBDRAIN LINE
---	---	TIGHTLINE
---	---	STORM DRAIN LINE
---	---	SANITARY SEWER LINE
---	---	WATER LINE
---	---	GAS LINE
---	---	PRESSURE LINE
---	---	JOINT TRENCH
---	---	SET BACK LINE
---	---	CONCRETE VALLEY GUTTER
---	---	EARTHEN SWALE
---	---	CATCH BASIN
---	---	JUNCTION BOX
---	---	AREA DRAIN
---	---	CURB INLET
---	---	STORM DRAIN MANHOLE
---	---	FIRE HYDRANT
---	---	SANITARY SEWER MANHOLE
---	---	STREET SIGN
---	---	SPOT ELEVATION
---	---	FLOW DIRECTION
---	---	DEMOLISH/REMOVE
---	---	BENCHMARK
---	---	CONTOURS
---	---	TREE TO BE REMOVED

ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	MAX	MAXIMUM
ACC	ACCESSIBLE	MH	MANHOLE
AD	AREA DRAIN	MIN	MINIMUM
BC	BEGINNING OF CURVE	MON.	MONUMENT
B & D	BEARING & DISTANCE	(N)	NEW
BM	BENCHMARK	NO.	NUMBER
BW/FG	BOTTOM OF WALL/FINISH	NTS	NOT TO SCALE
CB	CATCH BASIN	O.C.	OVER CENTER
C & G	CURB AND GUTTER	O/P	OVER PLANTING AREA
C	CENTER LINE	PA	PEDESTRIAN
CPP	CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR)	PIV	POST INDICATOR VALVE
CO	CLEANOUT	PSS	PUBLIC SERVICES EASEMENT
COTG	CLEANOUT TO GRADE	PP	PROPERTY LINE
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT
CONST	CONSTRUCT or -TION	PVC	POLYVINYL CHLORIDE
CONC COR	CONCRETE CORNER	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DIAMETER	RIM	RIM ELEVATION
DI	DROP INLET	RW	RAINWATER
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
EA	EACH	S	SLOPE
EC	END OF CURVE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATIONS	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
EQ	EQUIPMENT	SHT	SHEET
EW	EACH WAY	S.L.D.	SEE LANDSCAPE DRAWINGS
(E)	EXISTING	SPEC	SPECIFICATION
FC	FACE OF CURB	SS	SANITARY SEWER
FF	FINISHED FLOOR	SSCO	SANITARY SEWER CLEANOUT
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FH	FIRE HYDRANT	ST	STREET
FL	FLOW LINE	STA	STATION
FS	FINISHED SURFACE	STD	STANDARD
G	GAS	STRUCT	STRUCTURAL
GA	GAGE OR GAUGE	T	TELEPHONE
GB	GRADE BREAK	TC	TOP OF CURB
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TEMP	TEMPORARY
HORIZ	HORIZONTAL	TP	TOP OF PAVEMENT
HI PT	HIGH POINT	TW/FG	TOP OF WALL/FINISH GRADE
H&T	HUB & TACK	TYP	TYPICAL
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
INV	INVERT ELEVATION	VCP	VERTIFIED CLAY PIPE
JB	JUNCTION BOX	VERT	VERTICAL
JT	JOINT TRENCH	W	WITH
JP	JOINT UTILITY POLE	W, WL	WATER LINE
L	LENGTH	WM	WATER METER
LNDR	LANDING	WWF	WELDED WIRE FABRIC

ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	SWIMMING POOL(S) AND SPA(S)	OFFSITE/ROADWAY	TOTAL CUBIC YARDS
CUT	525	290	35	30	880
FILL	0	90	0	0	90
EXPORT					790

NOTE:
GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.



LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
REGIONAL OFFICES:
DUBLIN, CALIFORNIA 94568
HAYWARD, CALIFORNIA 94545
SAN JOSE
(510) 887-4086
WWW.LEABRAZE.COM

634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA
SAN MATEO COUNTY
APN: 051-022-380

TITLE SHEET

NO.	REVISIONS	BY
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
2	PLANCHECK 05-28-21	JOR
1	PLANCHECK 12-10-20	JOR

JOB NO: 2200474
DATE: 07-17-20
SCALE: 1"=20'
DESIGN BY: JOR
DRAWN BY: JOR
SHEET NO:

C-1.0
1 OF 9 SHEETS

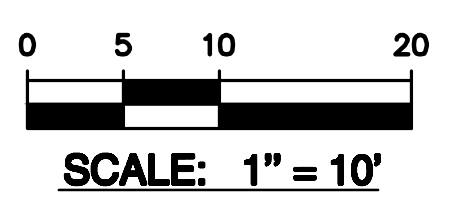
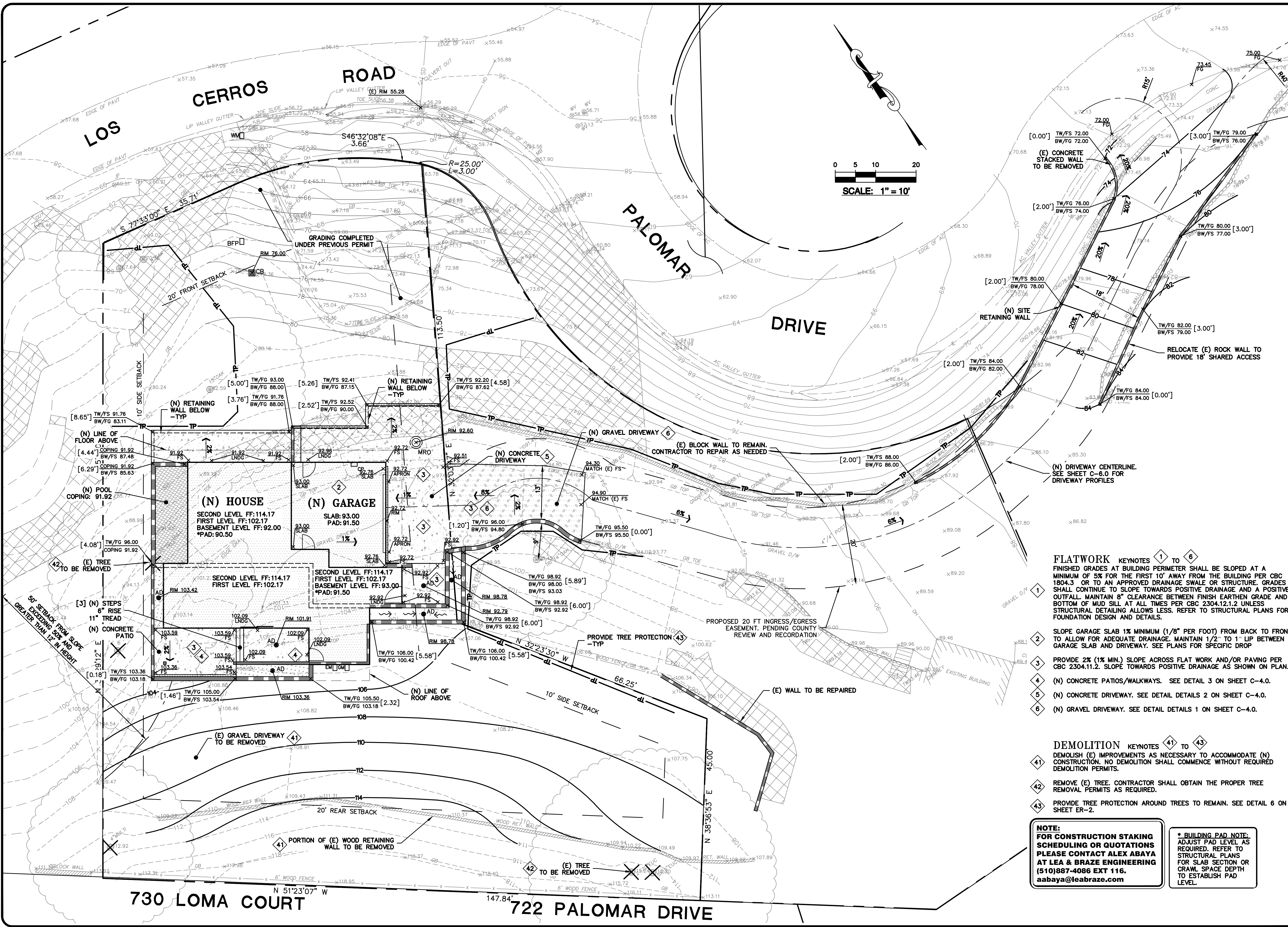


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**634 PALOMAR DRIVE
 REDWOOD CITY,
 CALIFORNIA**

**GRADING &
 DRAINAGE PLAN**

NO.	REVISIONS	BY
5	PLANCHCK 05-24-22	JOR
4	PLANCHCK 04-07-22	JOR
3	PLANCHCK 11-25-21	JOR
2	PLANCHCK 05-28-21	JOR
1	PLANCHCK 12-10-20	JOR



- FLATWORK KEYNOTES 1 TO 6**
- 1 FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.3 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 8" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.12.1.2 UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.
 - 2 SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP
 - 3 PROVIDE 2% (1% MIN.) SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 2304.11.2. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.
 - 4 (N) CONCRETE PATIOS/WALKWAYS. SEE DETAIL 3 ON SHEET C-4.0.
 - 5 (N) CONCRETE DRIVEWAY. SEE DETAIL DETAILS 2 ON SHEET C-4.0.
 - 6 (N) GRAVEL DRIVEWAY. SEE DETAIL DETAILS 1 ON SHEET C-4.0.

- DEMOLITION KEYNOTES 41 TO 43**
- 41 DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.
 - 42 REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.
 - 43 PROVIDE TREE PROTECTION AROUND TREES TO REMAIN. SEE DETAIL 6 ON SHEET ER-2.

NOTE:
 FOR CONSTRUCTION STAKING
 SCHEDULING OR QUOTATIONS
 PLEASE CONTACT ALEX ABAYA
 AT LEA & BRAZE ENGINEERING
 (510)887-4086 EXT 116.
 aabaya@leabraze.com

*** BUILDING PAD NOTE:**
 ADJUST PAD LEVEL AS
 REQUIRED. REFER TO
 STRUCTURAL PLANS
 FOR SLAB SECTION OR
 CRAWL SPACE DEPTH
 TO ESTABLISH PAD
 LEVEL.



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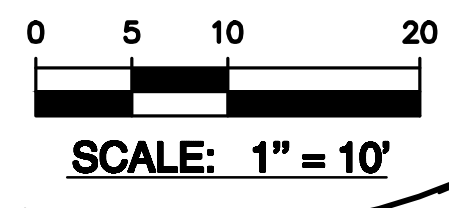
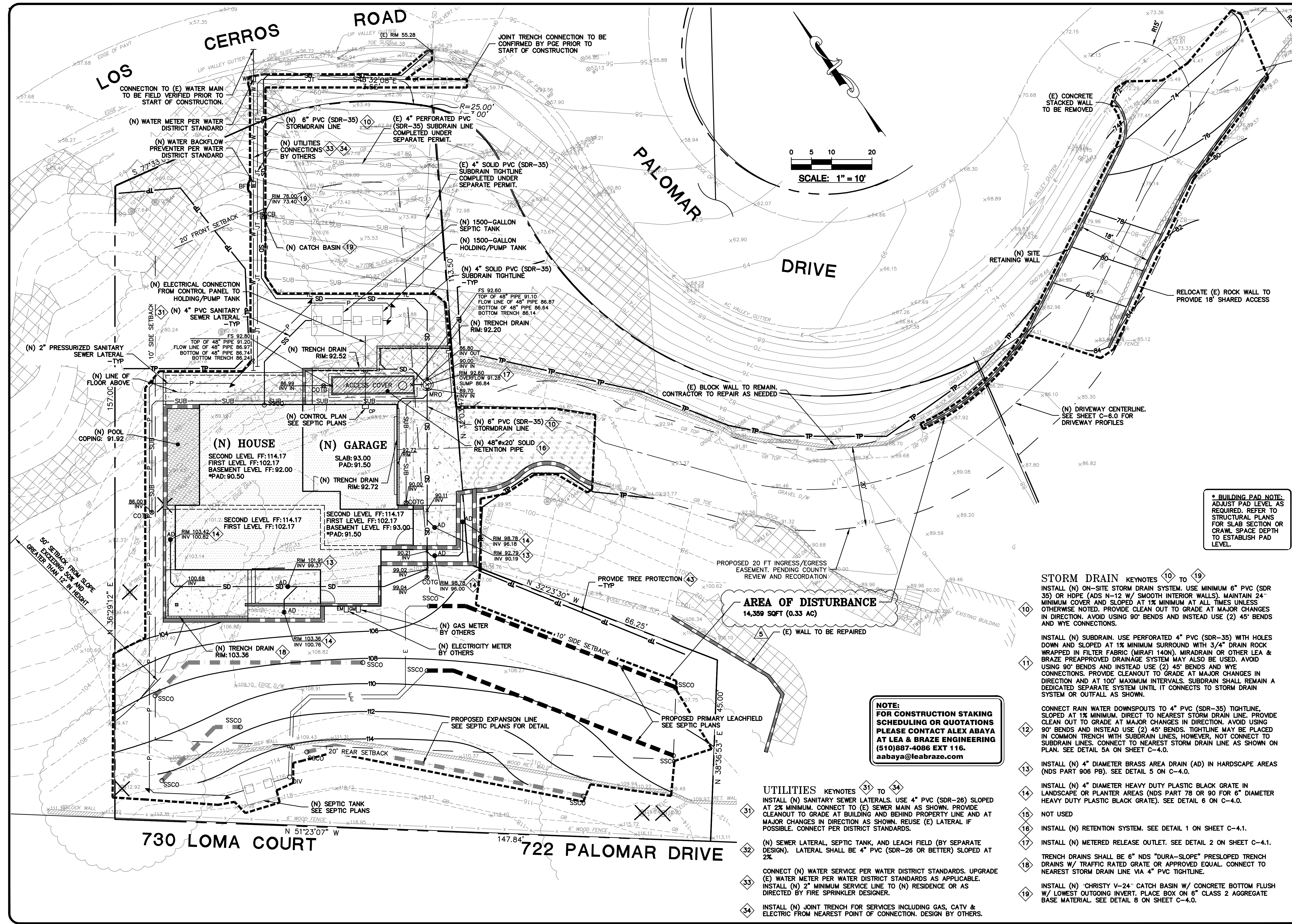
634 PALOMAR DRIVE
 REDWOOD CITY,
 CALIFORNIA

UTILITY PLAN

PLANCHCK	DATE	JOB NO.
5	05-24-22	JOR
4	04-07-22	JOR
3	11-25-21	JOR
2	05-28-21	JOR
1	12-10-20	JOR
	REVISIONS	BY

JOB NO: 2200474
 DATE: 07-17-20
 SCALE: 1"=10'
 DESIGN BY: JOR
 DRAWN BY: JOR
 SHEET NO:

C-3.0
 3 OF 9 SHEETS



*** BUILDING PAD NOTE:**
 ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

NOTE:
 FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

STORM DRAIN KEYNOTES 10 TO 19
 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 6" PVC (SDR 35) OR HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE CLEAN OUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

INSTALL (N) SUBDRAIN. USE PERFORATED 4" PVC (SDR-35) WITH HOLES DOWN AND SLOPED AT 1% MINIMUM SURROUND WITH 3/4" DRAIN ROCK WRAPPED IN FILTER FABRIC (MIRAFI 140N). MIRADRAIN OR OTHER LEA & BRAZE PREAPPROVED DRAINAGE SYSTEM MAY ALSO BE USED. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION AND AT 100' MAXIMUM INTERVALS. SUBDRAIN SHALL REMAIN A DEDICATED SEPARATE SYSTEM UNTIL IT CONNECTS TO STORM DRAIN SYSTEM OR OUTFALL AS SHOWN.

CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM. DIRECT TO NEAREST STORM DRAIN LINE. PROVIDE CLEAN OUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES, HOWEVER, NOT CONNECT TO SUBDRAIN LINES. CONNECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLAN. SEE DETAIL 5A ON SHEET C-4.0.

INSTALL (N) 4" DIAMETER BRASS AREA DRAIN (AD) IN HARDSCAPE AREAS (NDS PART 906 PB). SEE DETAIL 5 ON C-4.0.

INSTALL (N) 4" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE IN LANDSCAPE OR PLANTER AREAS (NDS PART 78 OR 90 FOR 6" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE). SEE DETAIL 6 ON C-4.0.

NOT USED

INSTALL (N) RETENTION SYSTEM. SEE DETAIL 1 ON SHEET C-4.1.

INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 2 ON SHEET C-4.1.

TRENCH DRAINS SHALL BE 6" NDS "DURA-SLOPE" PRESLOPED TRENCH DRAINS W/ TRAFFIC RATED GRATE OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 4" PVC TIGHTLINE.

INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH W/ LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE MATERIAL. SEE DETAIL 8 ON SHEET C-4.0.

UTILITIES KEYNOTES 31 TO 34
 INSTALL (N) SANITARY SEWER LATERALS. USE 4" PVC (SDR-26) SLOPED AT 2% MINIMUM. CONNECT TO (E) SEWER MAIN AS SHOWN. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. REUSE (E) LATERAL IF POSSIBLE. CONNECT PER DISTRICT STANDARDS.
 (N) SEWER LATERAL, SEPTIC TANK, AND LEACH FIELD (BY SEPARATE DESIGN). LATERAL SHALL BE 4" PVC (SDR-26 OR BETTER) SLOPED AT 2%.
 CONNECT (N) WATER SERVICE PER WATER DISTRICT STANDARDS. UPGRADE (E) WATER METER PER WATER DISTRICT STANDARDS AS APPLICABLE. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.
 INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.

- 31
- 32
- 33
- 34

AREA OF DISTURBANCE
 14,359 SQFT (0.33 AC)

(E) WALL TO BE REPAIRED

PROVIDE TREE PROTECTION TYP

PROPOSED 20 FT INGRESS/EGRESS EASEMENT. PENDING COUNTY REVIEW AND RECORDATION

(E) BLOCK WALL TO REMAIN. CONTRACTOR TO REPAIR AS NEEDED

(N) DRIVEWAY CENTERLINE. SEE SHEET C-6.0 FOR DRIVEWAY PROFILES

RELOCATE (E) ROCK WALL TO PROVIDE 18' SHARED ACCESS

(N) SITE RETAINING WALL

(E) CONCRETE STACKED WALL TO BE REMOVED

SCALE: 1" = 10'

JOINT TRENCH CONNECTION TO BE CONFIRMED BY PGE PRIOR TO START OF CONSTRUCTION

(E) 4" PERFORATED PVC (SDR-35) SUBDRAIN LINE COMPLETED UNDER SEPARATE PERMIT.

(E) 4" SOLID PVC (SDR-35) SUBDRAIN TIGHTLINE COMPLETED UNDER SEPARATE PERMIT.

(N) 1500-GALLON SEPTIC TANK

(N) 1500-GALLON HOLDING/PUMP TANK

(N) 4" SOLID PVC (SDR-35) SUBDRAIN TIGHTLINE - TYP

(N) TRENCH DRAIN RIM: 92.20

(N) TRENCH DRAIN RIM: 92.52

(N) TRENCH DRAIN RIM: 92.20

(N) TRENCH DRAIN RIM: 92.20

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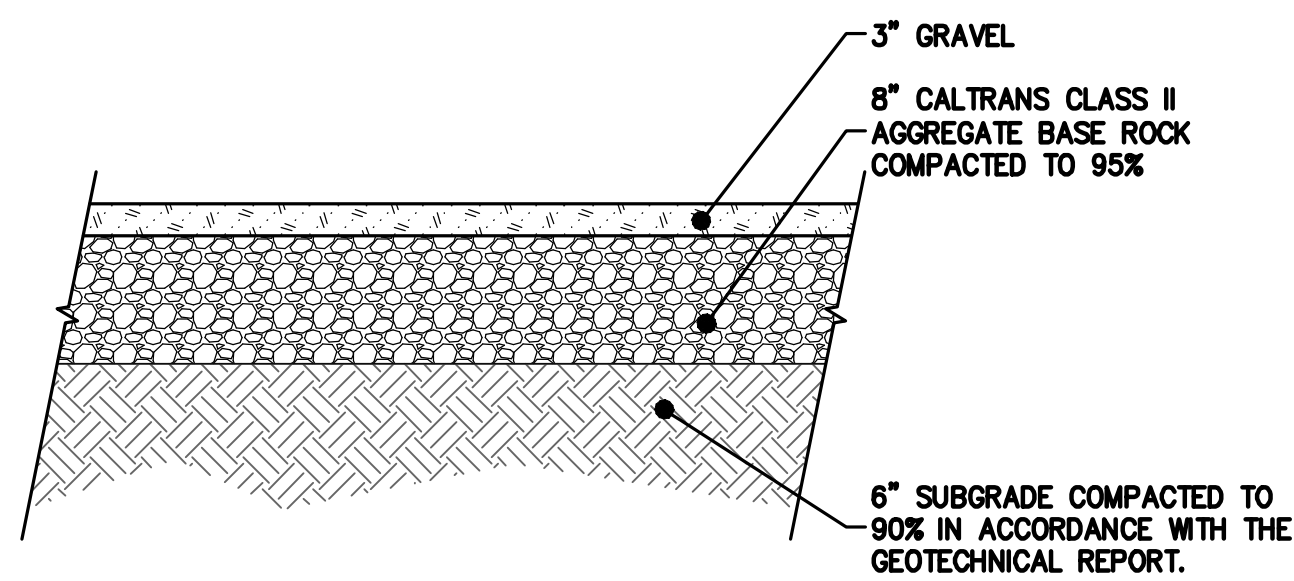
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(N) TRENCH DRAIN RIM: 92.20

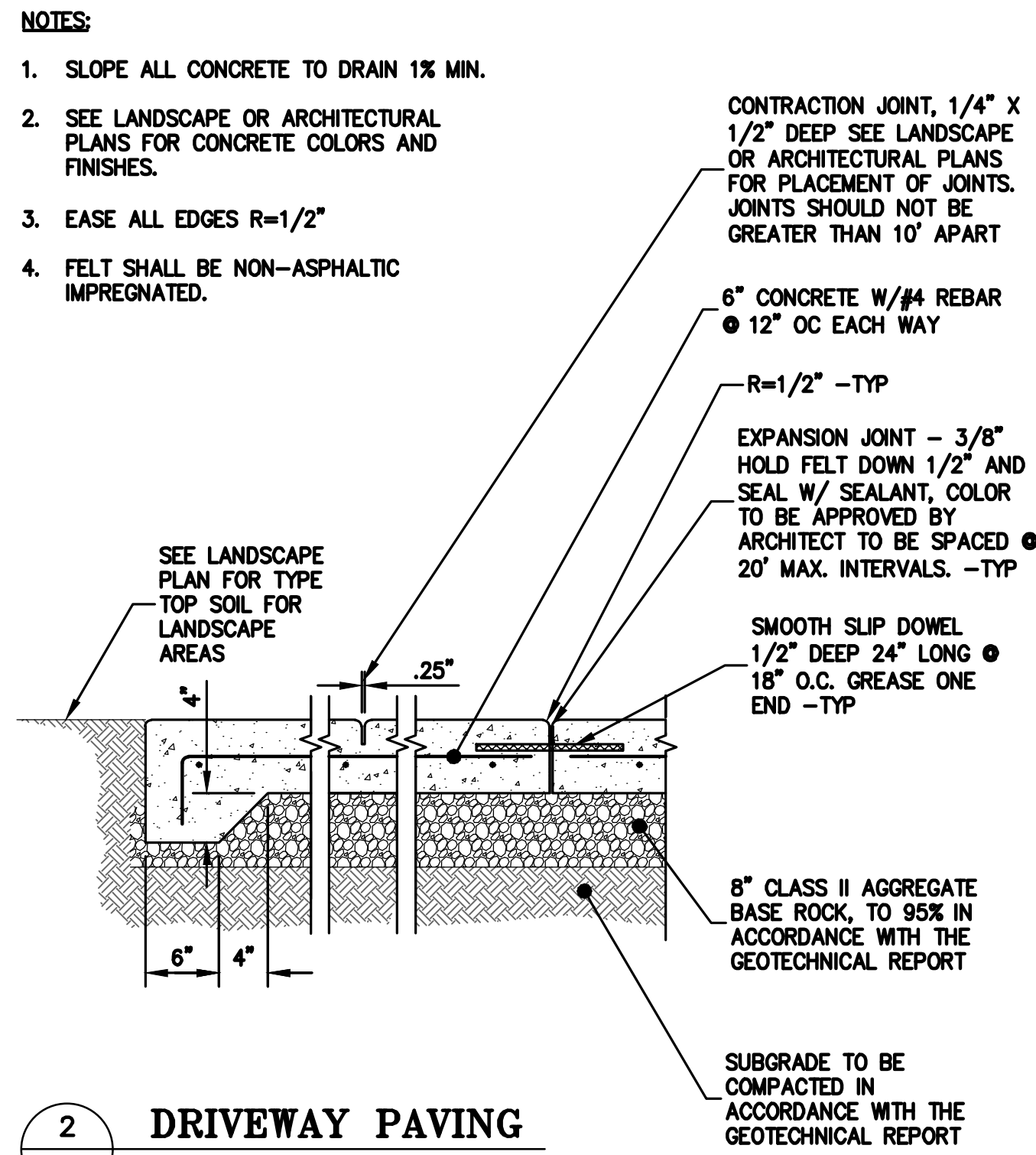
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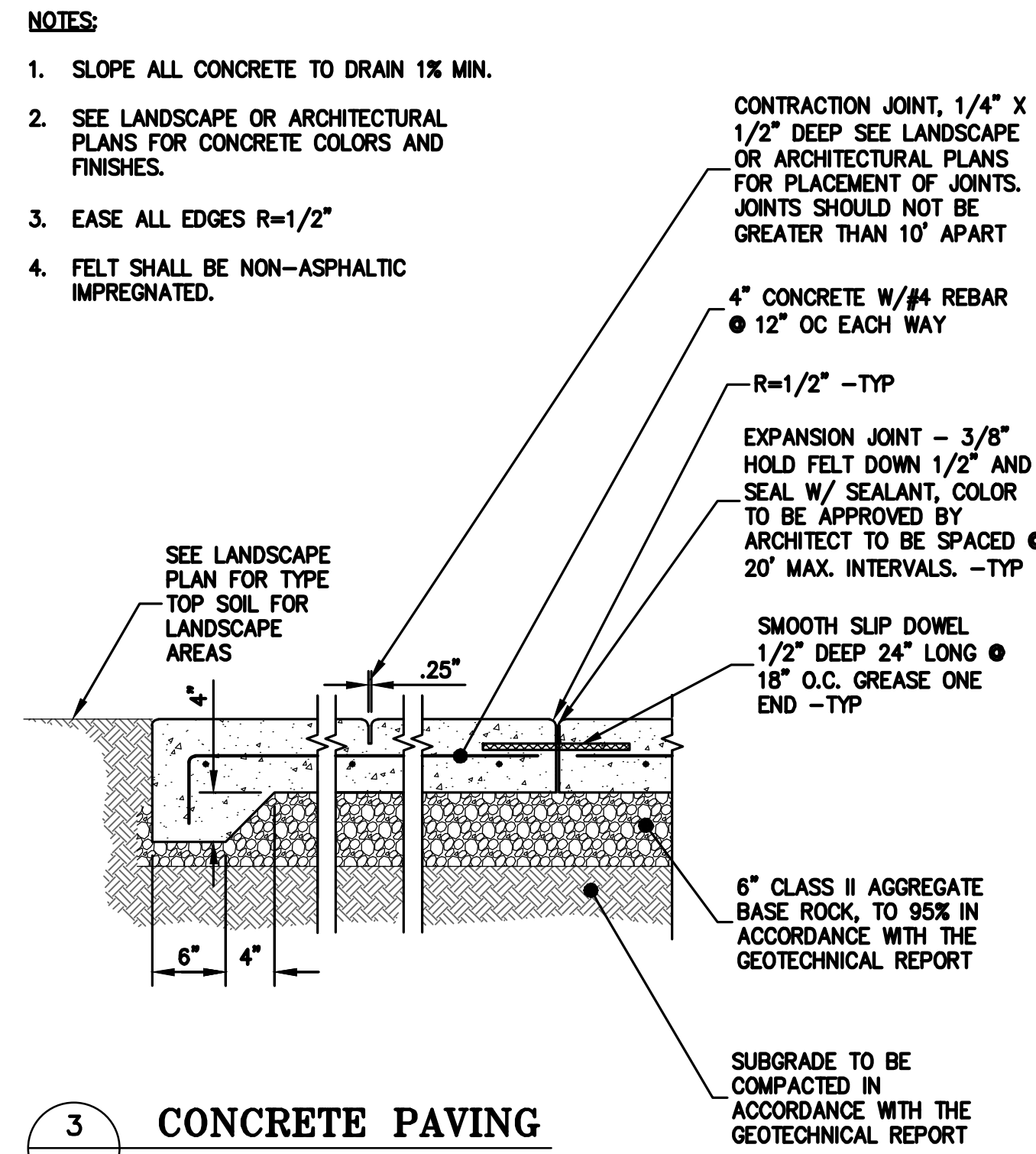
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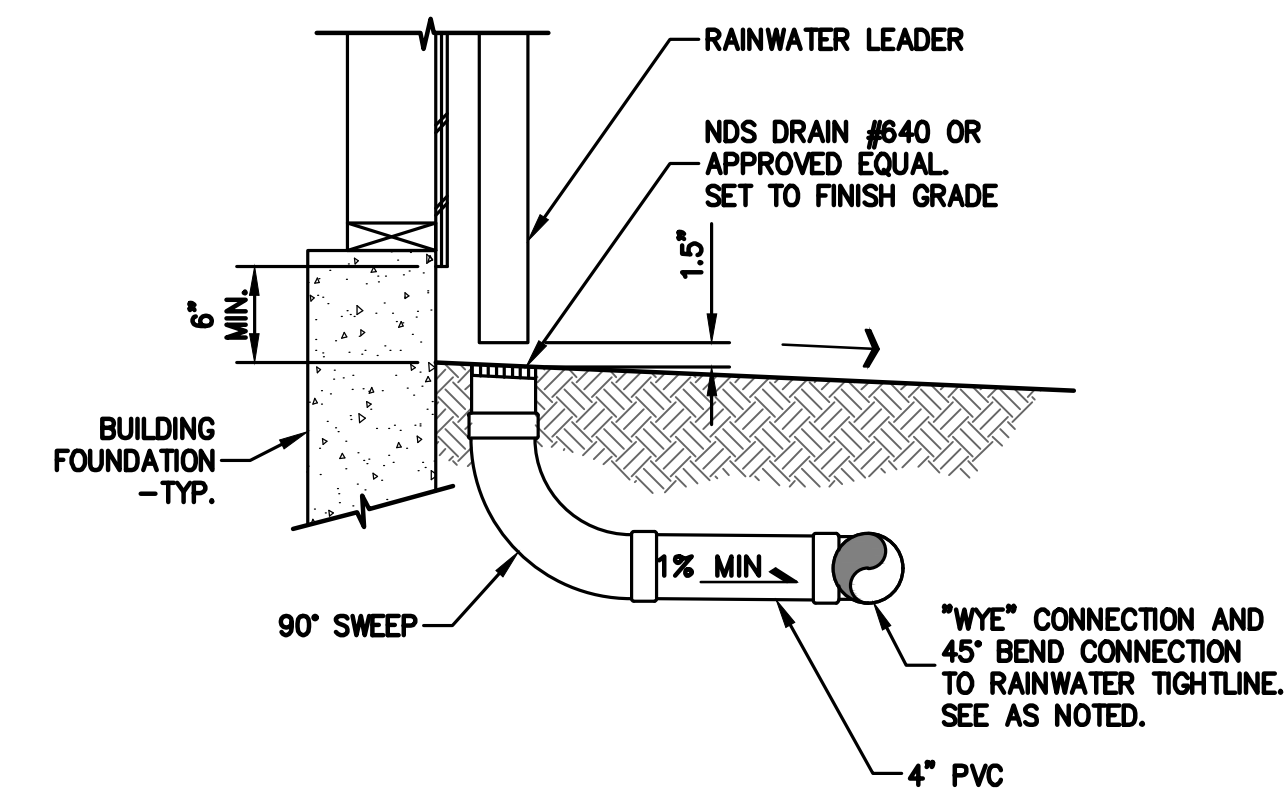
1 GRAVEL DRIVEWAY SECTION
C-4.0 NTS



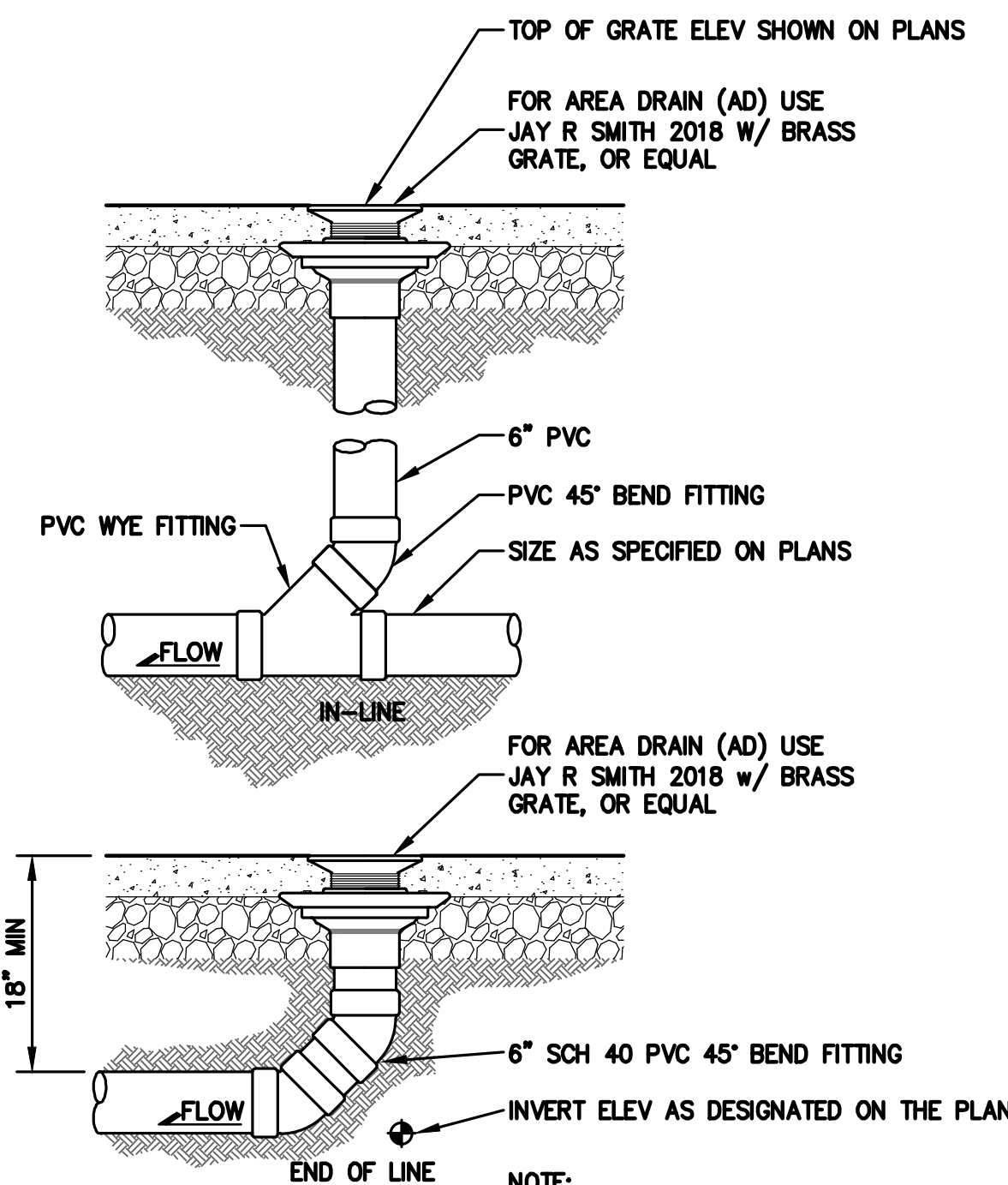
2 DRIVEWAY PAVING
C-4.0 NTS



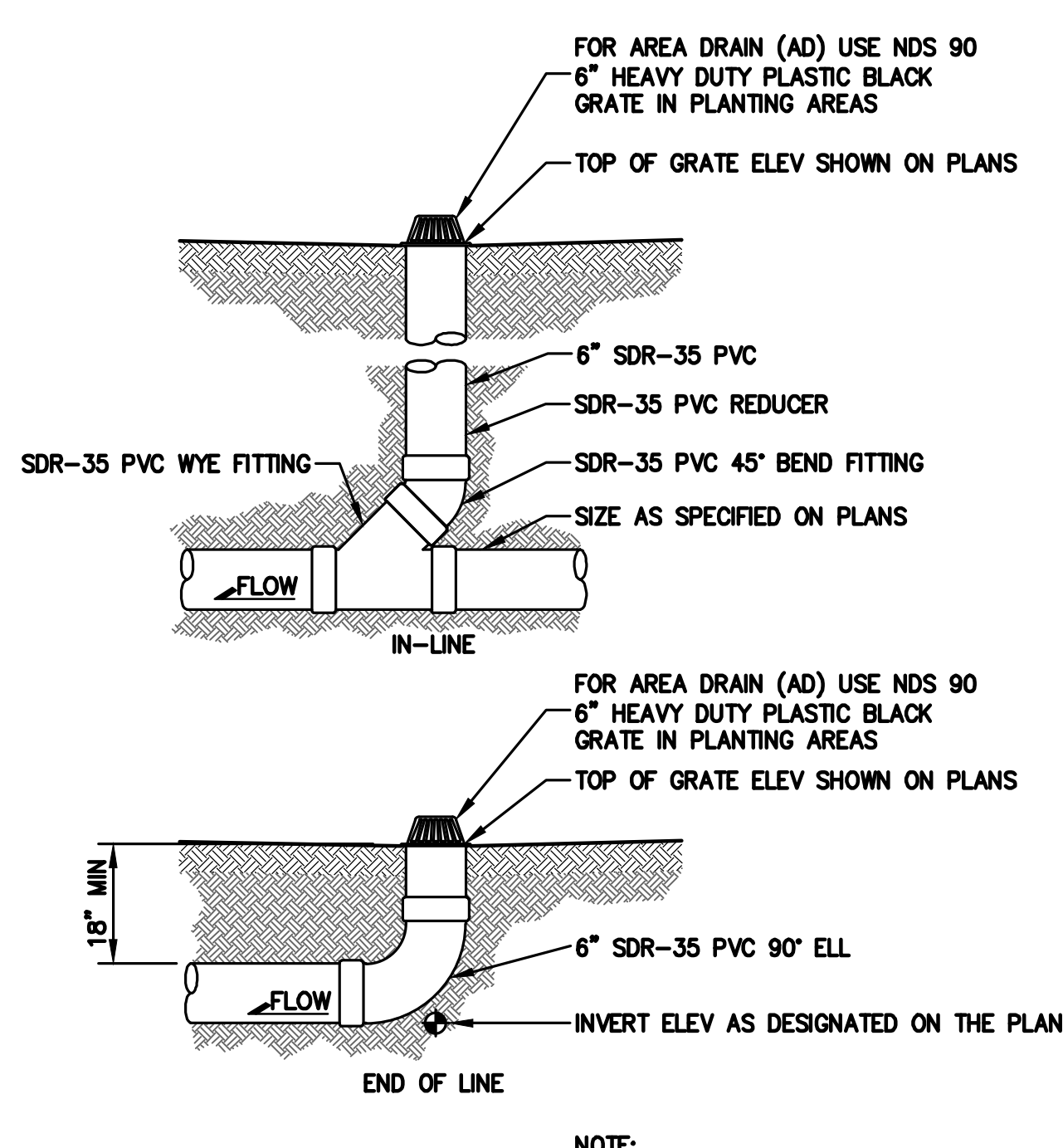
3 CONCRETE PAVING
C-4.0 NTS



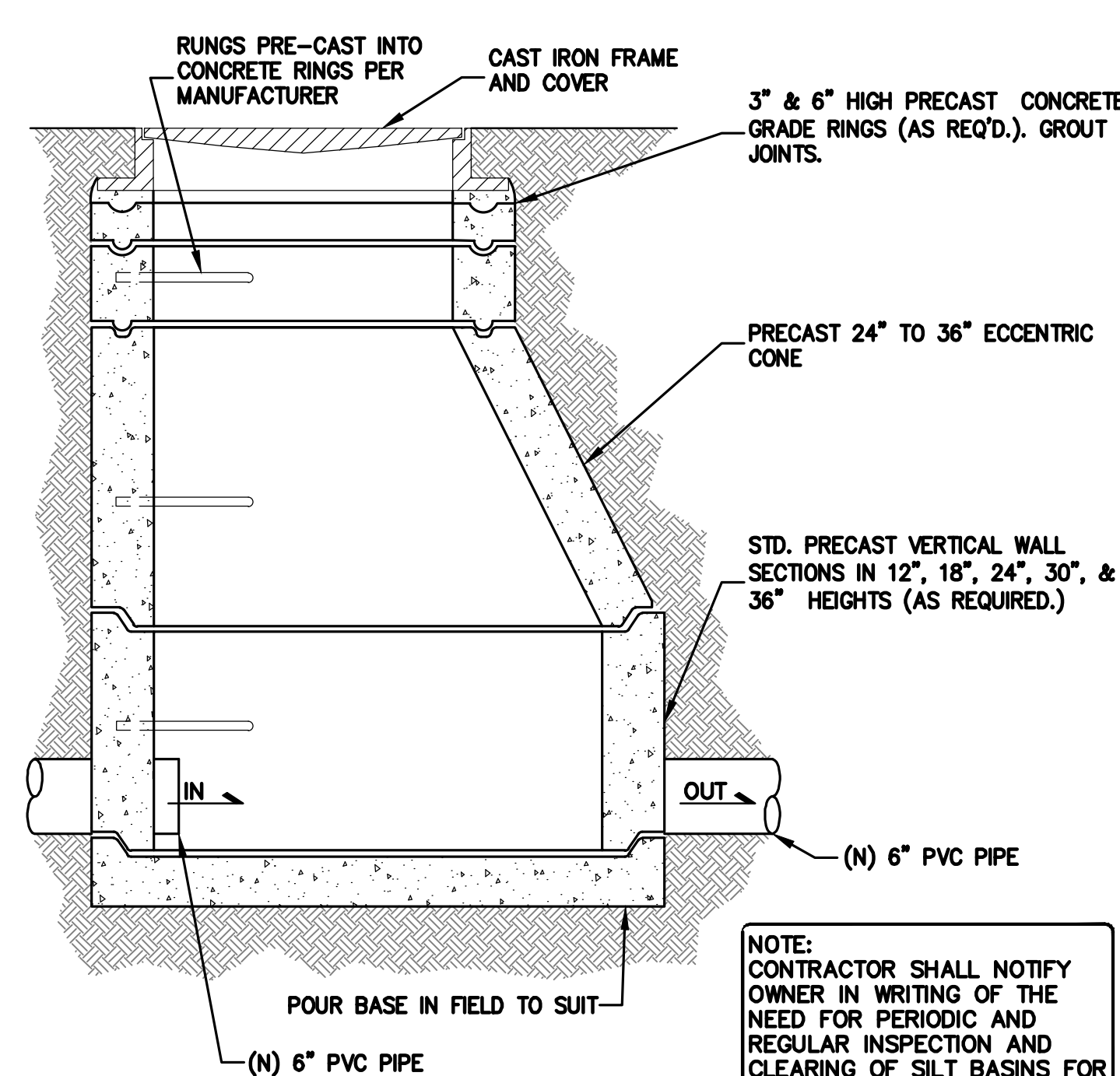
4 RAIN WATER LEADER TO TIGHTLINE CONNECTION
C-4.0 NTS



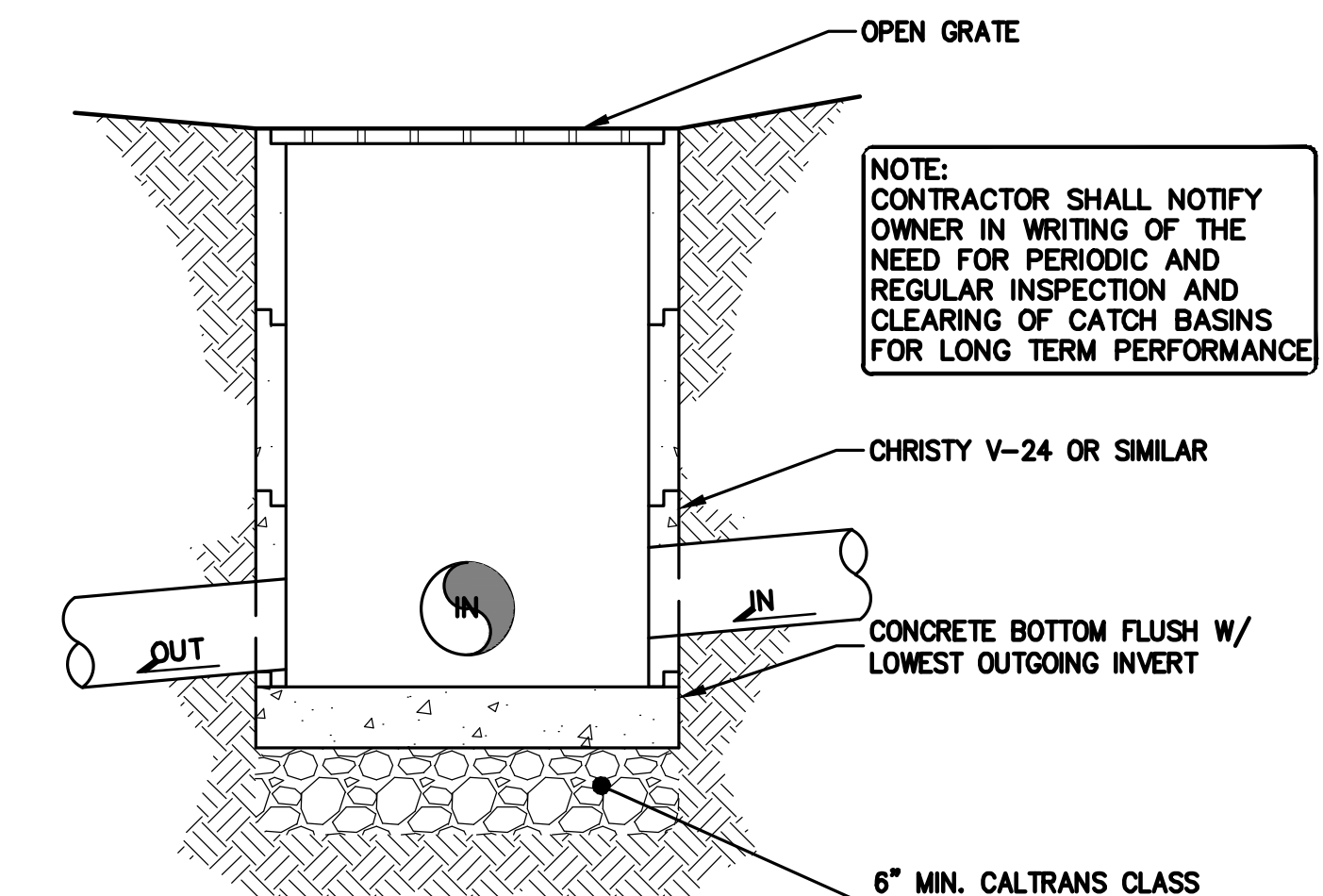
5 FLATWORK DRAIN
C-4.0 NTS



6 AREA DRAIN
C-4.0 NTS



7 STORM DRAIN MANHOLE
C-4.0 NTS



8 CATCH BASIN
C-4.0 NTS



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634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA
SAN MATEO COUNTY
APN: 051-022-380

DETAILS

NO.	REVISIONS	BY
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
2	PLANCHECK 05-28-21	JOR
1	PLANCHECK 12-10-20	JOR

JOB NO: 2200474
DATE: 07-17-20
SCALE: NTS
DESIGN BY: JOR
DRAWN BY: JOR
SHEET NO:



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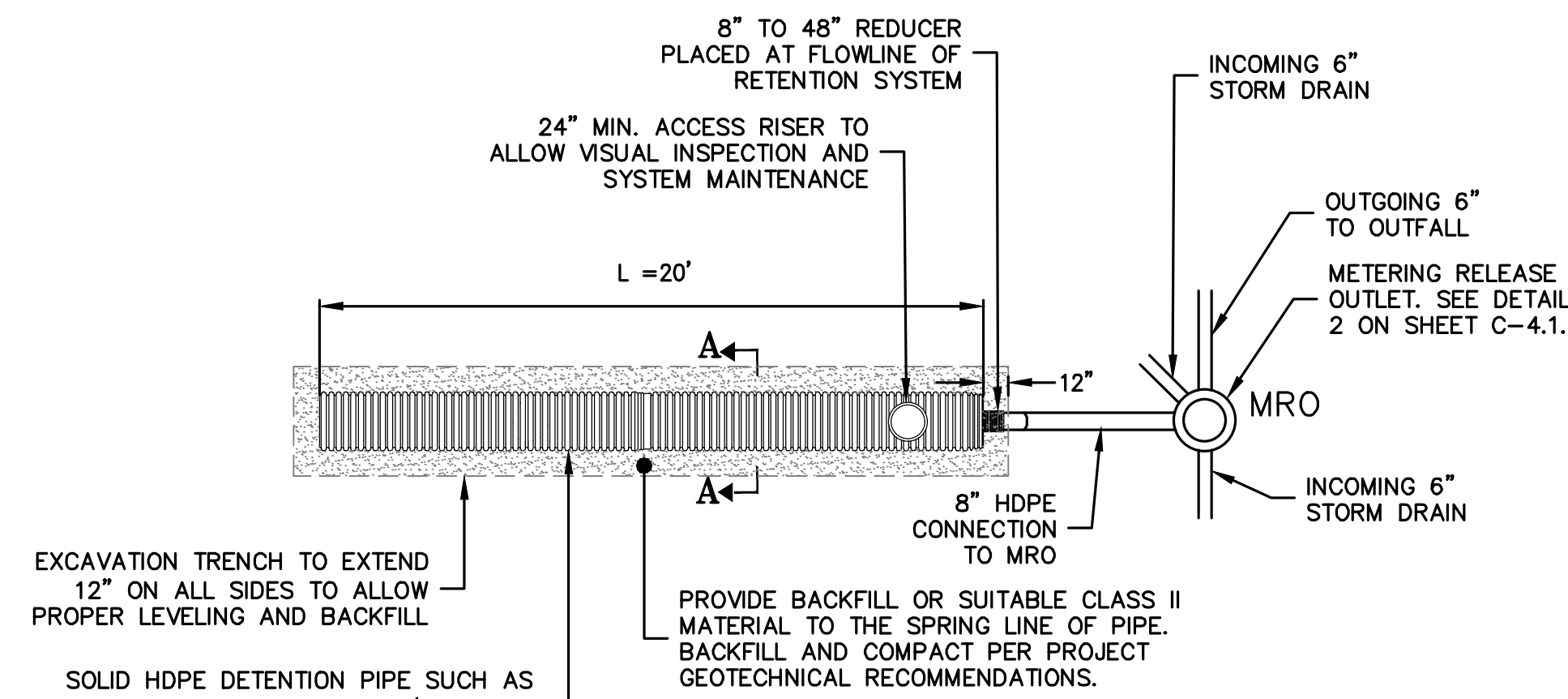
SAN MATEO COUNTY

DETAILS

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 DRAWN BY: JOR
 SHEET NO:

C-4.1
 5 OF 9 SHEETS



EXCAVATION TRENCH TO EXTEND 12" ON ALL SIDES TO ALLOW PROPER LEVELING AND BACKFILL

SOLID HDPE DETENTION PIPE SUCH AS ADS N-12 OR EQUIVALENT W/ 48-INCH INNER DIAMETER. JOIN PIPES PER MANUFACTURER SPECIFICATIONS FOR WATERTIGHT CONNECTIONS

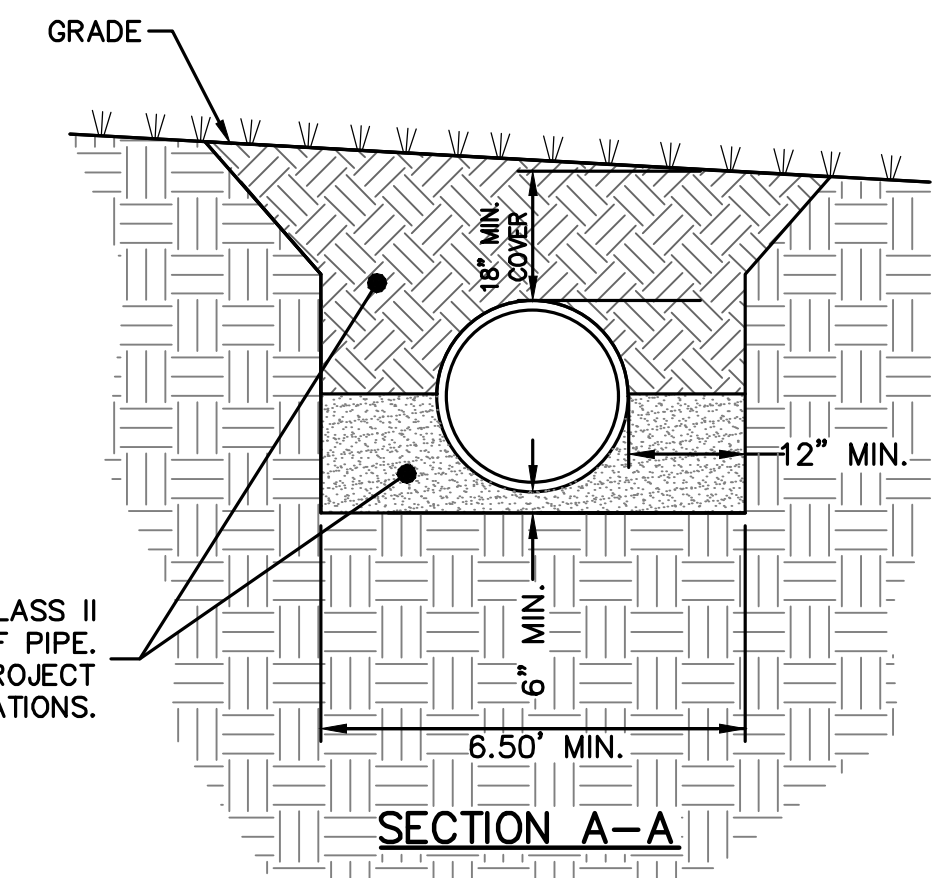
PLAN VIEW

NOTE:
 REFER TO THE PLANS FOR SPECIFIC INLET AND OUTLET LOCATIONS.
 REFER TO THE PLANS FOR SPECIFIC ACCESS COVER LOCATIONS.

STORAGE PIPE NOMINAL I.D.	NOMINAL O.D.	MIN. SIDE COVER
48" (1200 MM)	54" (1372 MM)	12" (292 MM)

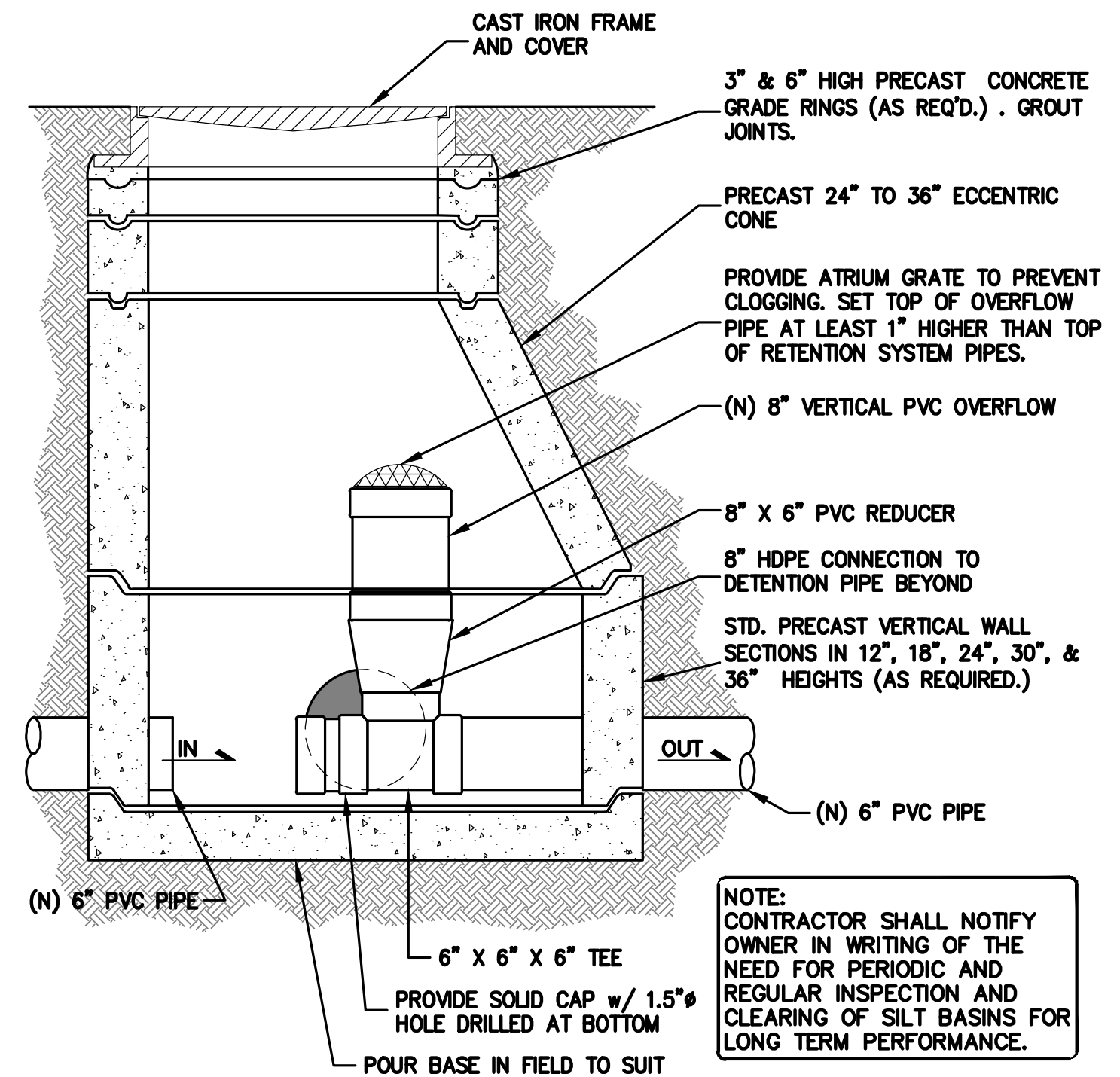
1 DETENTION SYSTEM DETAIL
 C-4.1 NTS

- NOTES:
- ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 - ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
 - MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
 - FILTER FABRIC:** A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.



PROVIDE BACKFILL OR SUITABLE CLASS II MATERIAL TO THE SPRING LINE OF PIPE. BACKFILL AND COMPACT PER PROJECT GEOTECHNICAL RECOMMENDATIONS.

- BEDDING:** SUITABLE MATERIAL SHALL BE SAND OR CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 8" (150mm) FOR 30"-60" (750mm-900mm) COMPACTED TO 90% SPD.
- INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE SAND OR CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- MINIMUM COVER:** MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 18" FROM TOP OF PIPE TO GROUND SURFACE. COMPACT AS RECOMMENDED BY THE SOILS ENGINEER. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 18" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
- CONNECTIONS:** ALL CONNECTIONS FOR EACH SEGMENT SHALL BE WATER TIGHT.
 * CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.



NOTE:
 CONTRACTOR SHALL NOTIFY OWNER IN WRITING OF THE NEED FOR PERIODIC AND REGULAR INSPECTION AND CLEARING OF SILT BASINS FOR LONG TERM PERFORMANCE.

2 METERED RELEASE OUTLET
 C-4.1 NTS

GENERAL NOTES

ALL GENERAL NOTES, SHEET NOTES, AND LEGEND NOTES FOUND IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT...

THESE DRAWINGS AND THEIR CONTENT ARE AND SHALL REMAIN THE PROPERTY OF LEA AND BRAZE ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT...

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK INCLUDING, BUT NOT LIMITED TO, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE...

IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO CHECK AND VERIFY ALL CONDITIONS, DIMENSIONS, LINES AND LEVELS INDICATED. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED...

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE JOB BY EACH SUBCONTRACTOR BEFORE HE/SHE BEGINS HIS/HER WORK. ANY ERRORS, OMISSION, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/CONTRACTOR BEFORE CONSTRUCTION BEGINS.

COMMENCEMENT OF WORK BY THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS, OR EXISTING ON SITE, WHICH COULD AFFECT THEIR WORK.

WORK SEQUENCE

IN THE EVENT ANY SPECIAL SEQUENCING OF THE WORK IS REQUIRED BY THE OWNER OR THE CONTRACTOR, THE CONTRACTOR SHALL ARRANGE A CONFERENCE BEFORE ANY SUCH WORK IS BEGUN.

SITE EXAMINATION: THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED...

LEA AND BRAZE ENGINEERING, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER...

CONSTRUCTION IS ALWAYS LESS THAN PERFECT SINCE PROJECTS REQUIRE THE COORDINATION AND INSTALLATION OF MANY INDIVIDUAL COMPONENTS BY VARIOUS CONSTRUCTION INDUSTRY TRADES. THESE DOCUMENTS CANNOT PORTRAY ALL COMPONENTS OR ASSEMBLIES EXACTLY...

IF THE OWNER OR CONTRACTOR OBSERVES OR OTHERWISE BECOMES AWARE OF ANY FAULT OR DEFECT IN THE PROJECT OR NONCONFORMANCE WITH THE CONTRACT DOCUMENTS, PROMPT WRITTEN NOTICE THEREOF SHALL BE GIVEN BY THE OWNER AND/OR CONTRACTOR TO THE ENGINEER.

THE ENGINEER SHALL NOT HAVE CONTROL OF OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK...

SITE PROTECTION

PROTECT ALL LANDSCAPING THAT IS TO REMAIN. ANY DAMAGE OR LOSS RESULTING FROM EXCAVATION, GRADING, OR CONSTRUCTION WORK SHALL BE CORRECTED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER...

STORMWATER POLLUTION PREVENTION NOTES

- 1) STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.
2) CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING SOLID WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENT, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.

SUPPLEMENTAL MEASURES

- A. THE PHRASE "NO DUMPING - DRAINS TO BAY" OR EQUALLY EFFECTIVE PHRASE MUST BE LABELED ON STORM DRAIN INLETS (BY STENCILING, BRANDING, OR PLAQUES) TO ALERT THE PUBLIC TO THE DESTINATION OF STORM WATER AND TO PREVENT DIRECT DISCHARGE OF POLLUTANTS INTO THE STORM DRAIN.
B. USING FILTRATION MATERIALS ON STORM DRAIN COVERS TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

GRADING & DRAINAGE NOTES:

1. SCOPE OF WORK

THESE SPECIFICATIONS AND APPLICABLE PLANS PERTAIN TO AND INCLUDE ALL SITE GRADING AND EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEARING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, RECOMPACTION PREPARATION FOR SOIL RECEIVING FILL, PAVEMENT, FOUNDATION OF SLABS, EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL, PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPE SHOWN ON THE PROJECT GRADING PLANS.

2. GENERAL

- A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT BY EARTH INVESTIGATIONS CONSULTANTS; AND THE COUNTY OF SAN MATEO.
B. ALL FILL MATERIALS SHALL BE DENSIFIED SO AS TO PRODUCE A DENSITY NOT LESS THAN 90% RELATIVE COMPACTION BASED UPON ASTM TEST DESIGNATION D1557, FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 3017.

3. CLEARING AND GRUBBING

- A. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION. ALL EXISTING PUBLIC IMPROVEMENTS SHALL BE PROTECTED. ANY IMPROVEMENTS DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE LOCAL JURISDICTION WITH NO EXTRA COMPENSATION.
B. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ANY SURFACE DEBRIS SHALL BE REMOVED AND DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

4. SITE PREPARATION AND STRIPPING

- A. ALL SURFACE ORGANICS SHALL BE STRIPPED AND REMOVED FROM BUILDING PADS, AREAS TO RECEIVE COMPACTED FILL AND PAVEMENT AREAS.
B. UPON THE COMPLETION OF THE ORGANIC STRIPPING OPERATION, THE GROUND SURFACE (NATIVE SOIL SUBGRADE) OVER THE ENTIRE AREA OF ALL BUILDING PADS, STREET AND PAVEMENT AREAS AND ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE PLOWED OR SCARIFIED UNTIL THE SURFACE IS FREE OF RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH MAY INHIBIT UNIFORM SOIL COMPACTION.

5. EXCAVATION

- A. UPON COMPLETION OF THE CLEARING AND GRUBBING, SITE PREPARATION AND STRIPPING, THE CONTRACTOR SHALL MAKE EXCAVATIONS TO LINES AND GRADES NOTED ON THE PLAN. WHERE REQUIRED BY THE SOILS ENGINEER, UNSUITABLE NATIVE SOILS OR UNENGINEERED FILL SHALL BE OVER EXCAVATED BELOW THE DESIGN GRADE. SEE PROJECT SOILS REPORT FOR DISCUSSION OF OVER EXCAVATION OF THE UNACCEPTABLE MATERIAL. RESULTING GROUND LINE SHALL BE SCARIFIED, MOISTURE-CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS.
B. EXCAVATED MATERIALS SUITABLE FOR COMPACTED FILL MATERIAL SHALL BE UTILIZED IN MAKING THE REQUIRED COMPACTED FILLS. THOSE NATIVE MATERIALS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL BE DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

6. PLACING, SPREADING AND COMPACTING FILL MATERIAL

A. FILL MATERIALS

THE MATERIALS PROPOSED FOR USE AS COMPACTED FILL SHALL BE APPROVED BY THE SOILS ENGINEER BEFORE COMMENCEMENT OF GRADING OPERATIONS. THE NATIVE MATERIAL IS CONSIDERED SUITABLE FOR FILL; HOWEVER, ANY NATIVE MATERIAL DESIGNATED UNSUITABLE BY THE SOILS ENGINEER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR...

B. FILL CONSTRUCTION

THE SOILS ENGINEER SHALL APPROVE THE NATIVE SOIL SUBGRADE BEFORE PLACEMENT OF ANY COMPACTED FILL MATERIAL. UNACCEPTABLE NATIVE SOIL SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER. THE RESULTING GROUND LINE SHALL BE SCARIFIED MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS...

THE APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM HORIZONTAL LAYERS NO THICKER THAN 8" IN LOOSE THICKNESS. LAYERS SHALL BE SPREAD EVENLY AND SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER...

AFTER EACH LAYER HAS BEEN PLACED, MIXED, SPREAD EVENLY AND MOISTURE CONDITIONED, IT SHALL BE COMPACTED TO AT LEAST THE SPECIFIED DENSITY.

THE FILL OPERATION SHALL BE CONTINUED IN COMPACTED LAYERS AS SPECIFIED ABOVE UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED SLOPES AND GRADES AS SHOWN ON THE PLANS. NO LAYER SHALL BE ALLOWED TO DRY OUT BEFORE SUBSEQUENT LAYERS ARE PLACED.

COMPACTION EQUIPMENT SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA UNTIL THE REQUIRED MINIMUM DENSITY HAS BEEN OBTAINED.

7. CUT OR FILL SLOPES

ALL CONSTRUCTED SLOPES, BOTH CUT AND FILL, SHALL BE NO STEEPER THAN 2 TO 1 (HORIZONTAL TO VERTICAL), DURING THE GRADING OPERATION, COMPACTED FILL SLOPES SHALL BE OVERLIFTED BY AT LEAST ONE FOOT HORIZONTALLY AT THE COMPLETION OF THE GRADING OPERATIONS...

8. SEASONAL LIMITS AND DRAINAGE CONTROL

FILL MATERIALS SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNSUITABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS INTERRUPTED FOR ANY REASON THE FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TEST PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONDITIONS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED...

9. DUST CONTROL

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY FOR THE ALLEVIATION OR PREVENTION OF ANY DUST NUISANCE ON OR ABOUT THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE. THE CONTRACTOR SHALL ASSUME ALL LIABILITY INCLUDING COURT COST OF CO-DEFENDANTS FOR ALL CLAIMS RELATED TO DUST OR WIND-BLOWN MATERIALS ATTRIBUTABLE TO HIS WORK...

10. INDEMNITY

THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER, THE OWNER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

11. SAFETY

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

12. GUARANTEE

NEITHER THE FINAL PAYMENT, NOR THE PROVISIONS IN THE CONTRACT, NOR PARTIAL, NOR ENTIRE USE OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT OR RELIEVES THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP.

THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

13. TRENCH BACKFILL

EITHER THE ON-SITE INORGANIC SOIL OR APPROVED IMPORTED SOIL MAY BE USED AS TRENCH BACKFILL. THE BACKFILL MATERIAL SHALL BE MOISTURE CONDITIONED PER THESE SPECIFICATIONS AND SHALL BE PLACED IN LIFTS OF NOT MORE THAN SIX INCHES IN HORIZONTAL UNCOMPACTED LAYERS AND BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 90% RELATIVE COMPACTION...

14. EROSION CONTROL

- A. ALL GRADING, EROSION AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE IS SUBJECT TO ALL TERMS AND CONDITIONS OF THE COUNTY GRADING ORDINANCE AND MADE A PART HEREOF BY REFERENCE.
B. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO ANY PUBLICLY OWNED AND MAINTAINED ROAD CAUSED BY THE AFORESAID CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE.

- F. FIBER, 2000 LBS/ACRE
SEED, 200 LBS/ACRE (SEE NOTE J, BELOW)
FERTILIZER (11-8-4), 500 LBS/ACRE
WATER, AS REQUIRED FOR APPLICATION
J. SEED MIX SHALL BE PER CALTRANS STANDARDS.

- K. WATER UTILIZED IN THE STABILIZATION MATERIAL SHALL BE OF SUCH QUALITY THAT IT WILL PROMOTE GERMINATION AND STIMULATE GROWTH OF PLANTS. IT SHALL BE FREE OF POLLUTANT MATERIALS AND WEED SEED.
L. HYDROSEEDING SHALL CONFORM TO THE PROVISIONS OF SECTION 20, EROSION CONTROL AND HIGHWAY PLANTING, OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED.
M. A DISPERSING AGENT MAY BE ADDED TO THE HYDROSEEDING MATERIAL PROVIDED THAT THE CONTRACTOR FURNISHES SUITABLE EVIDENCE THAT THE ADDITIVE WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE SEEDING MIXTURE.

15. CLEANUP

THE CONTRACTOR MUST MAINTAIN THE SITE CLEAN, SAFE AND IN USABLE CONDITION. ANY SPILLS OF SOIL, ROCK OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE BY THE CONTRACTOR DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. COST FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE EXCAVATION AND COMPACTION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

NOTE: THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.



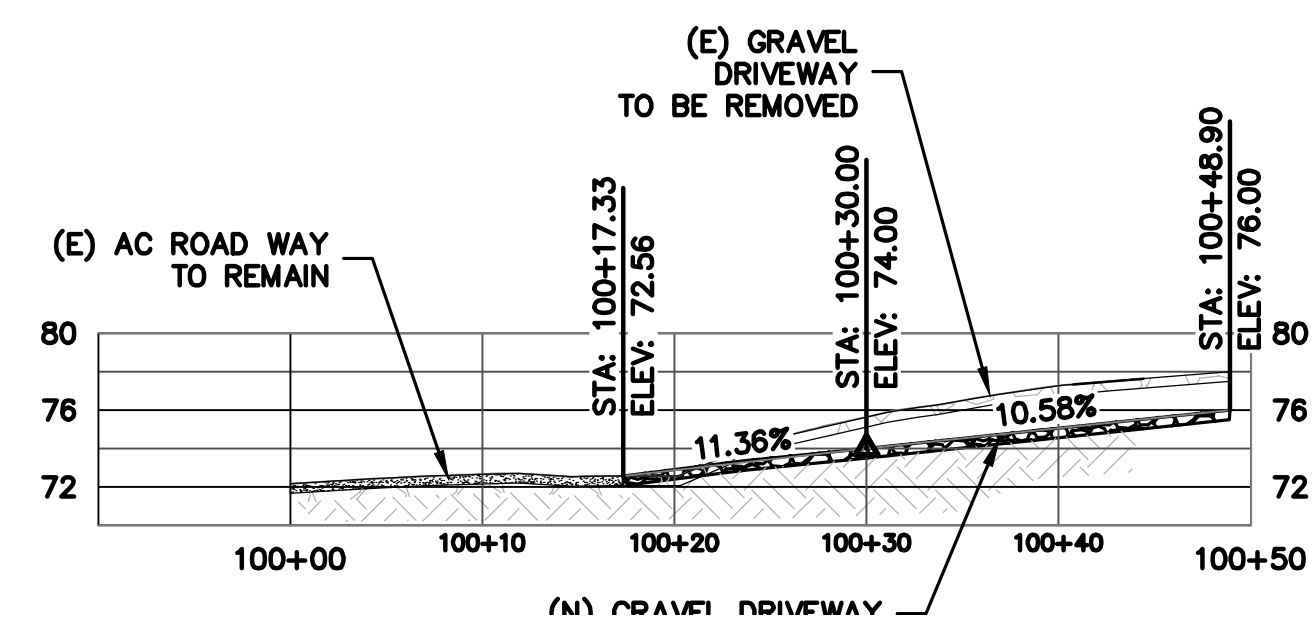
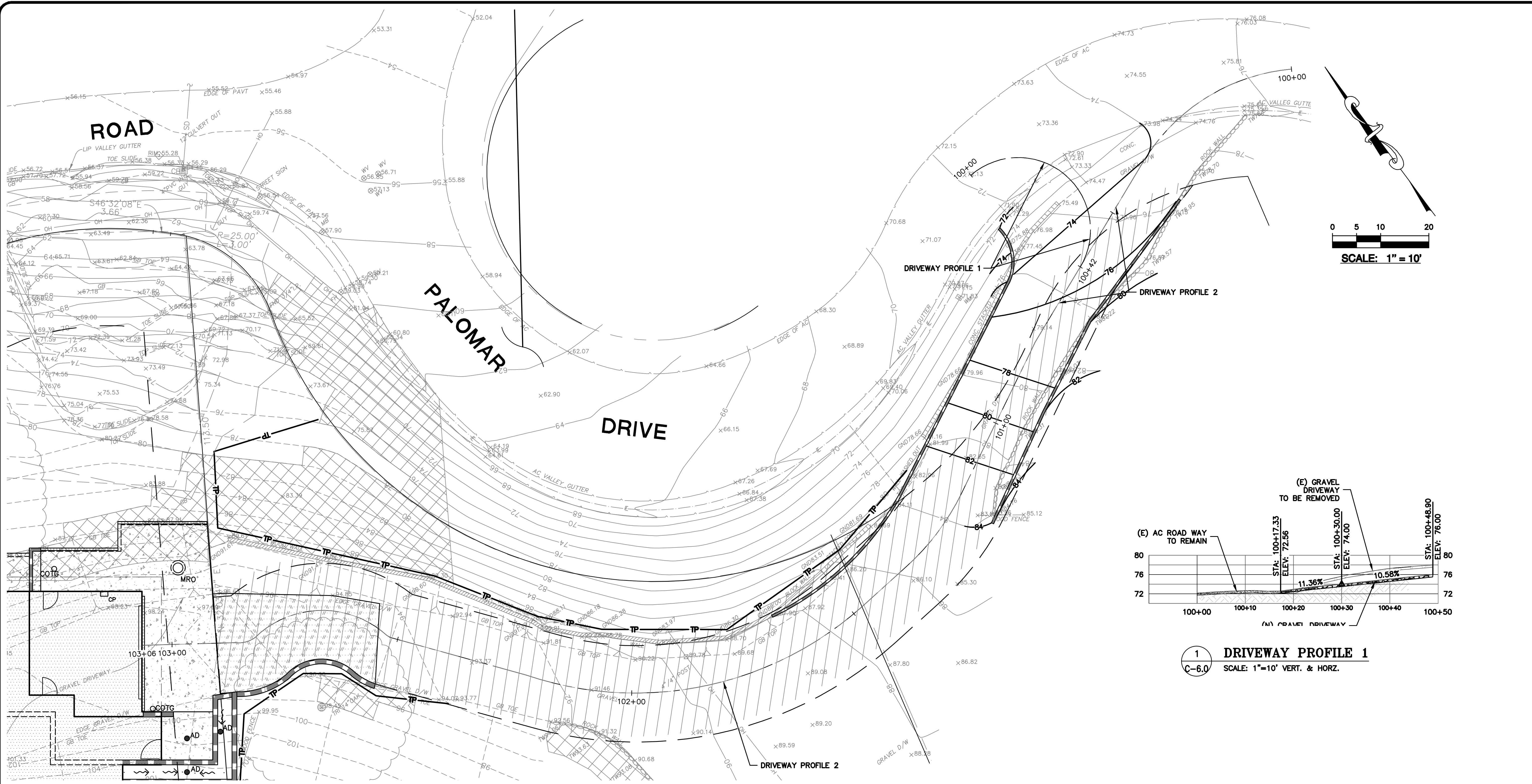
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634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA

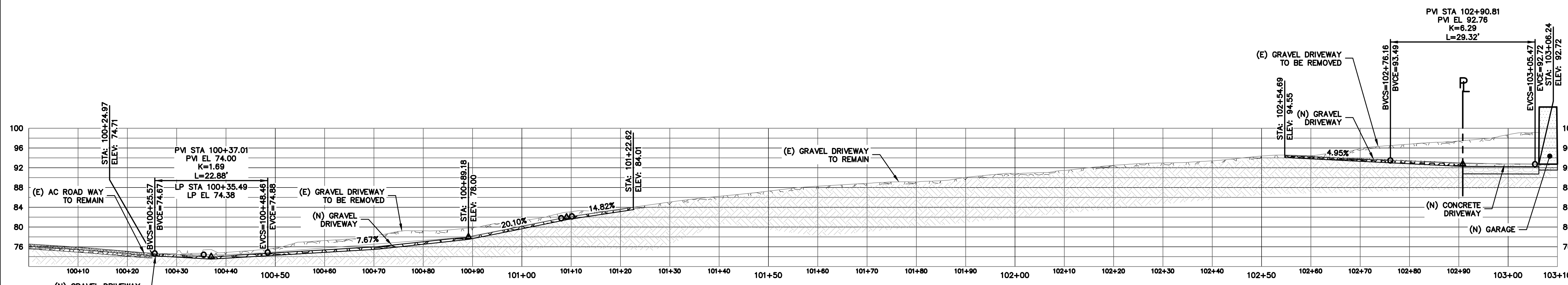
GRADING SPECIFICATIONS

Table with 3 columns: Revision number, Description, and Initials. Includes revisions 1 through 5.

JOB NO: 2200474
DATE: 07-17-20
SCALE: NO SCALE
DESIGN BY: JOR
DRAWN BY: JOR
SHEET NO:



1 DRIVEWAY PROFILE 1
SCALE: 1"=10' VERT. & HORZ.



2 DRIVEWAY PROFILE 2
SCALE: 1"=10' VERT. & HORZ.



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**634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA**

DRIVEWAY PROFILE

NO.	DESCRIPTION	DATE	BY
5	PLANCHECK	05-24-22	JOR
4	PLANCHECK	04-07-22	JOR
3	PLANCHECK	11-25-21	JOR
2	PLANCHECK	05-28-21	JOR
1	PLANCHECK	12-10-20	JOR

JOB NO: 2200474
DATE: 07-17-20
SCALE: 1"=10'
DESIGN BY: JOR
DRAWN BY: JOR
SHEET NO:

PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

- IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
- THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
- OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
- CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST.
- EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 1ST THROUGH APRIL 30TH, WHICHEVER IS LONGER.
- IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
- MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
- EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 30TH.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 1ST THRU APRIL 30TH, WHICHEVER IS GREATER.
- PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT("MRP") NPDES PERMIT CAS 612008.
- THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
- THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
- THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPIILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
- SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
- THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
- STOCKPILED MATERIALS SHALL BE COVERED WITH VISQUEEN OR A TARPULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
- EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND

EROSION CONTROL NOTES CONTINUED:

- FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
- SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS, TO PUBLIC OWNED FACILITIES.

EROSION CONTROL MEASURES:

- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1ST TO APRIL 30TH. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 1ST OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
- SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
- ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 1ST, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
- INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
- THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
- THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
- STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURERS SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

REFERENCES:

- CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
- CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

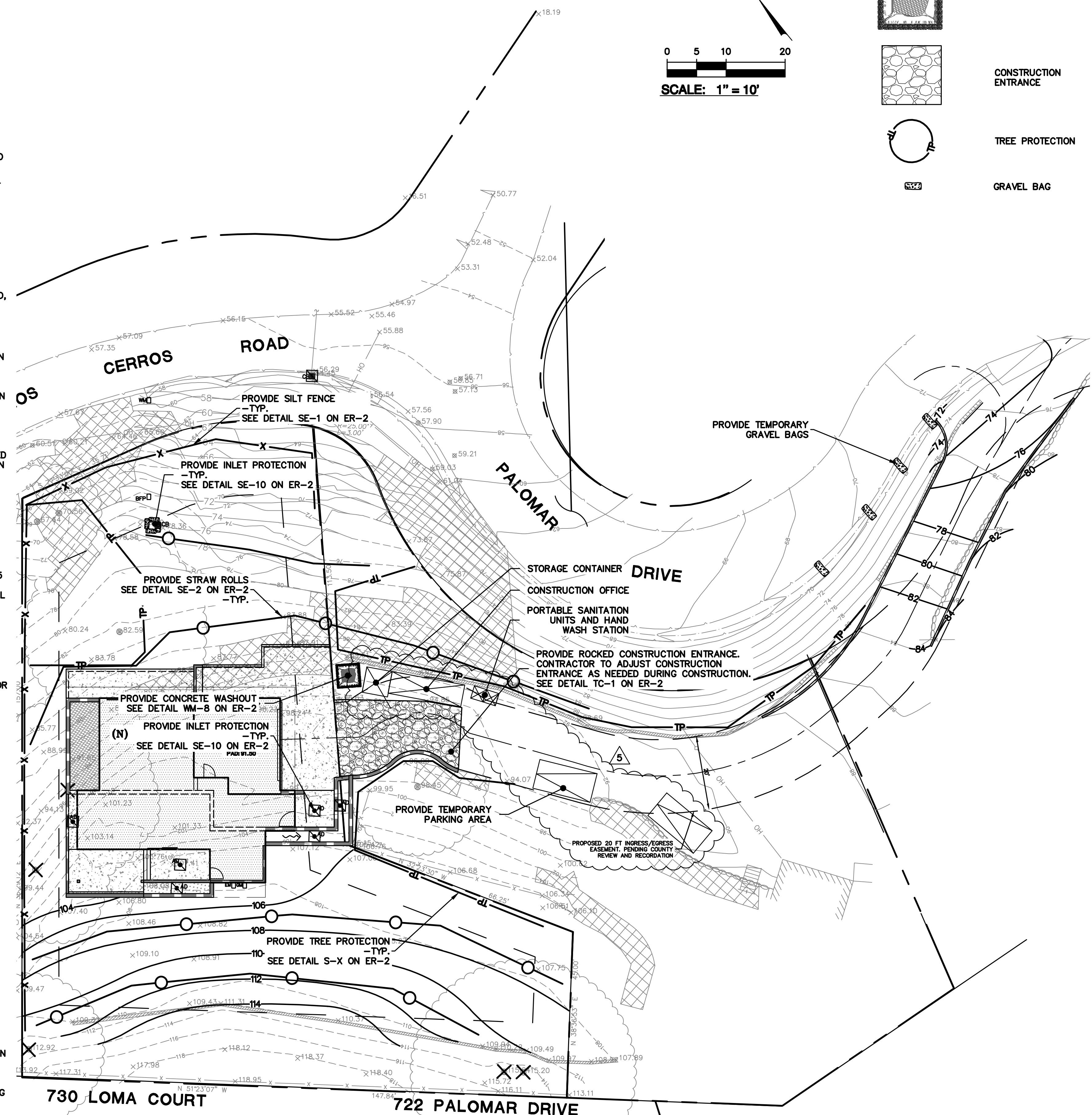
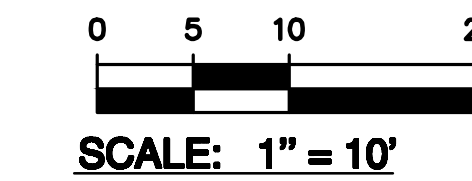
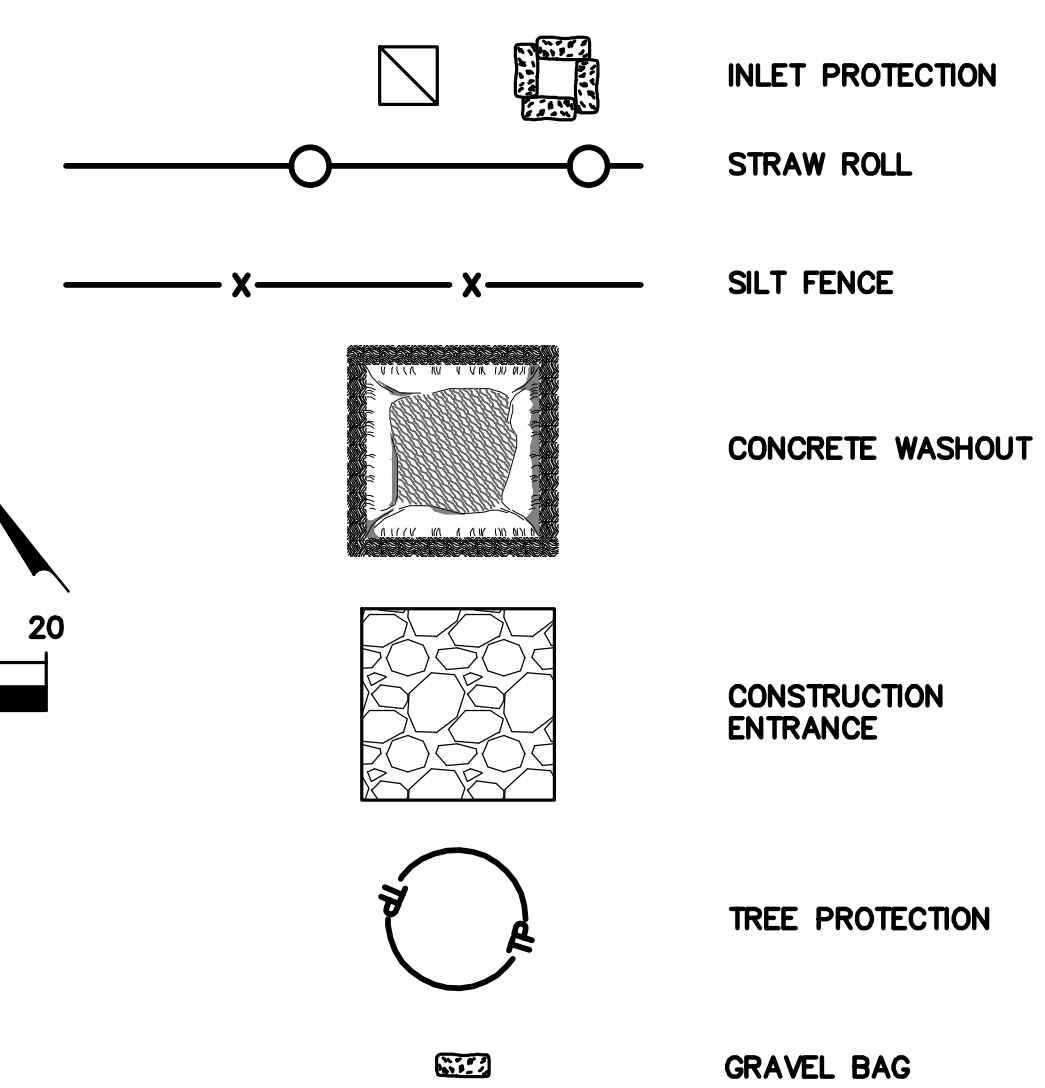
PERIODIC MAINTENANCE:

- MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
 - SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
 - SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
 - SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1" FOOT.
 - SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - RILLS AND GULLIES MUST BE REPAIRED.
- GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.
- STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
- SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
- CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
- ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION

NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP

NOTE:
ACCESS ROAD AND SITE WILL BE RESTORED TO NATURAL CONDITIONS ONCE THE STAGING WORK IS COMPLETED

EROSION CONTROL LEGEND



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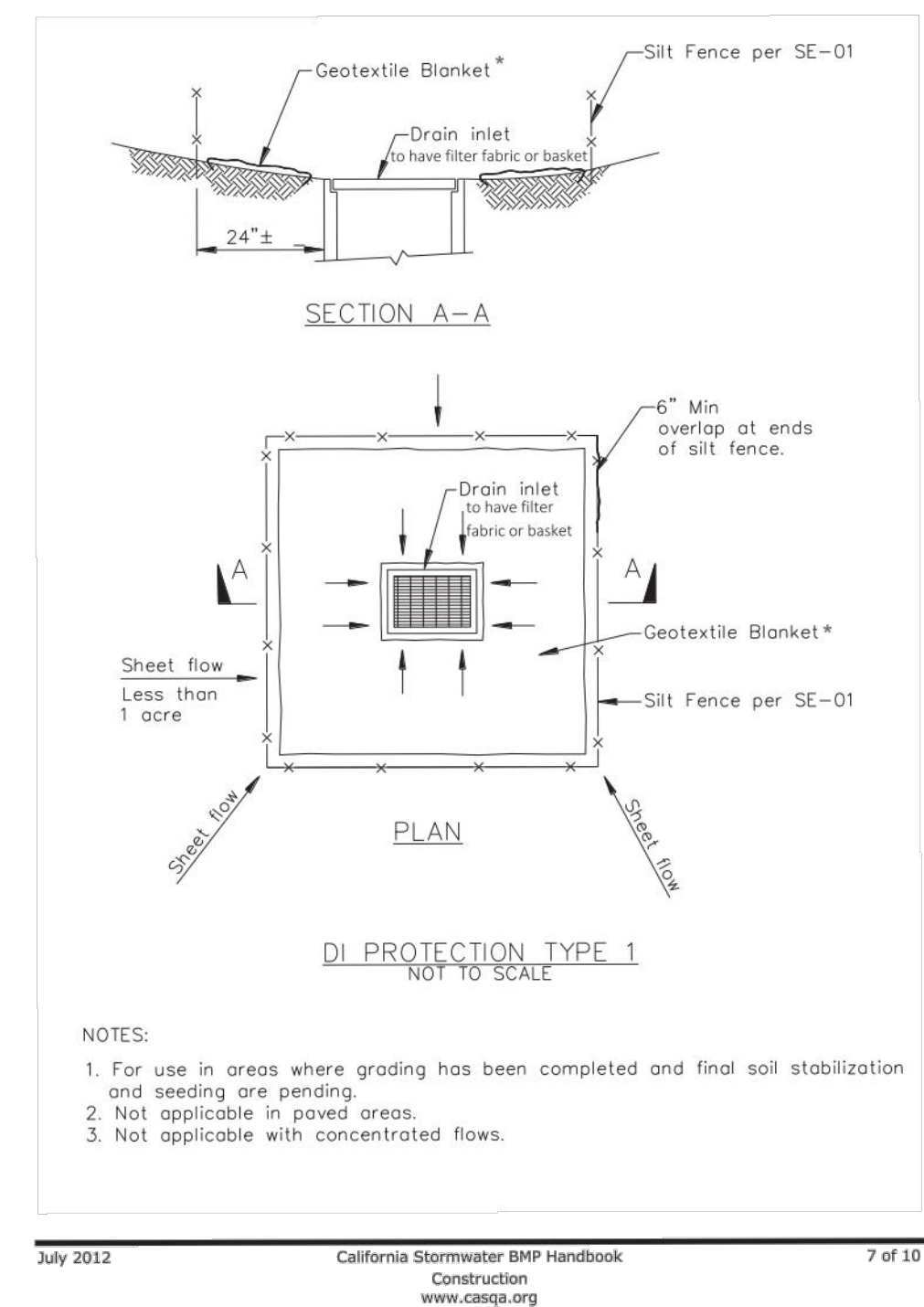
SAN MATEO COUNTY

EROSION CONTROL PLAN

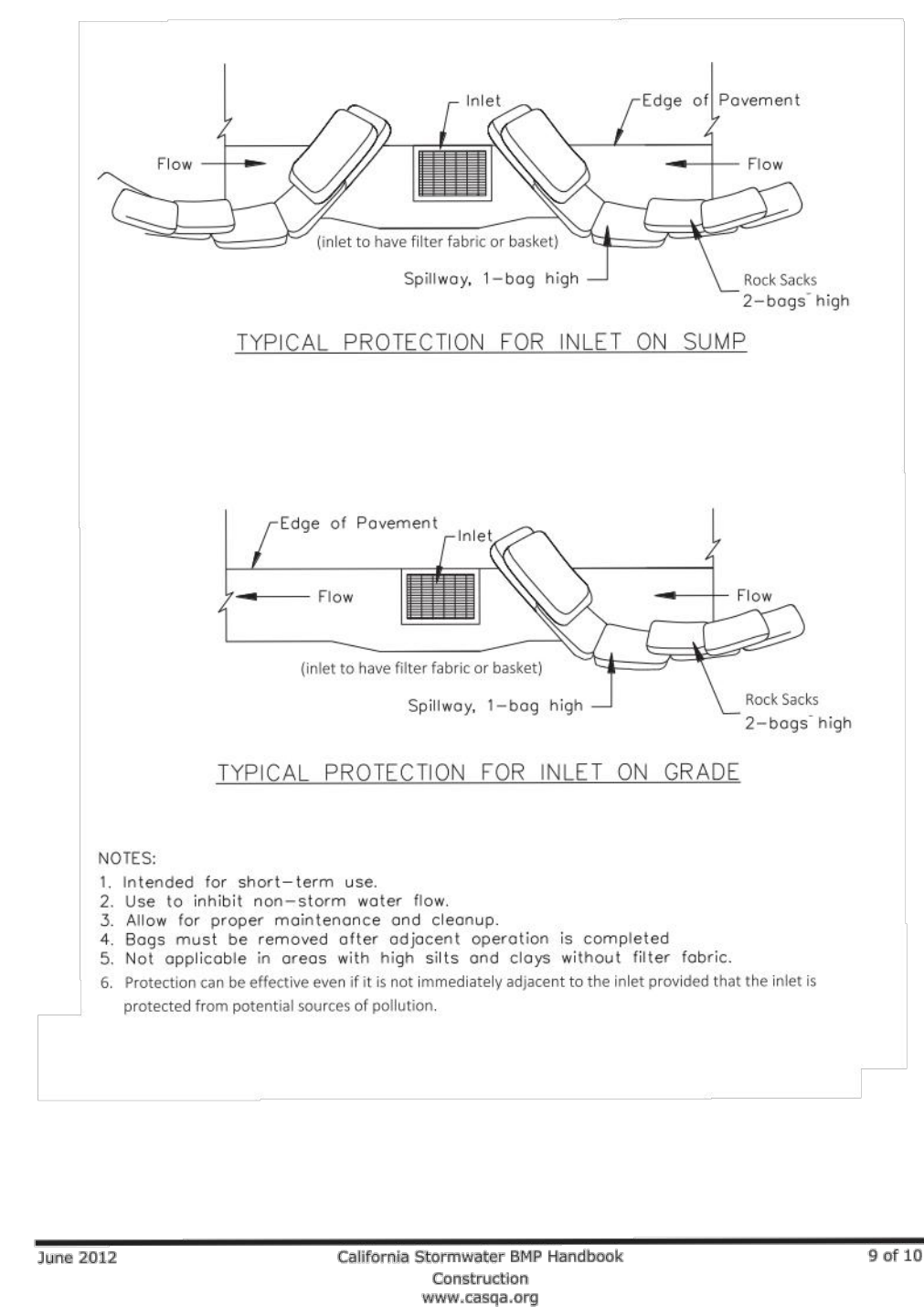
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
2	PLANCHECK 05-28-21	JOR
1	PLANCHECK 12-10-20	JOR
	REVISIONS	BY

JOB NO: 2200474
 DATE: 07-17-20
 SCALE: 1"=10'
 DESIGN BY: JOR
 DRAWN BY: JOR
 SHEET NO:

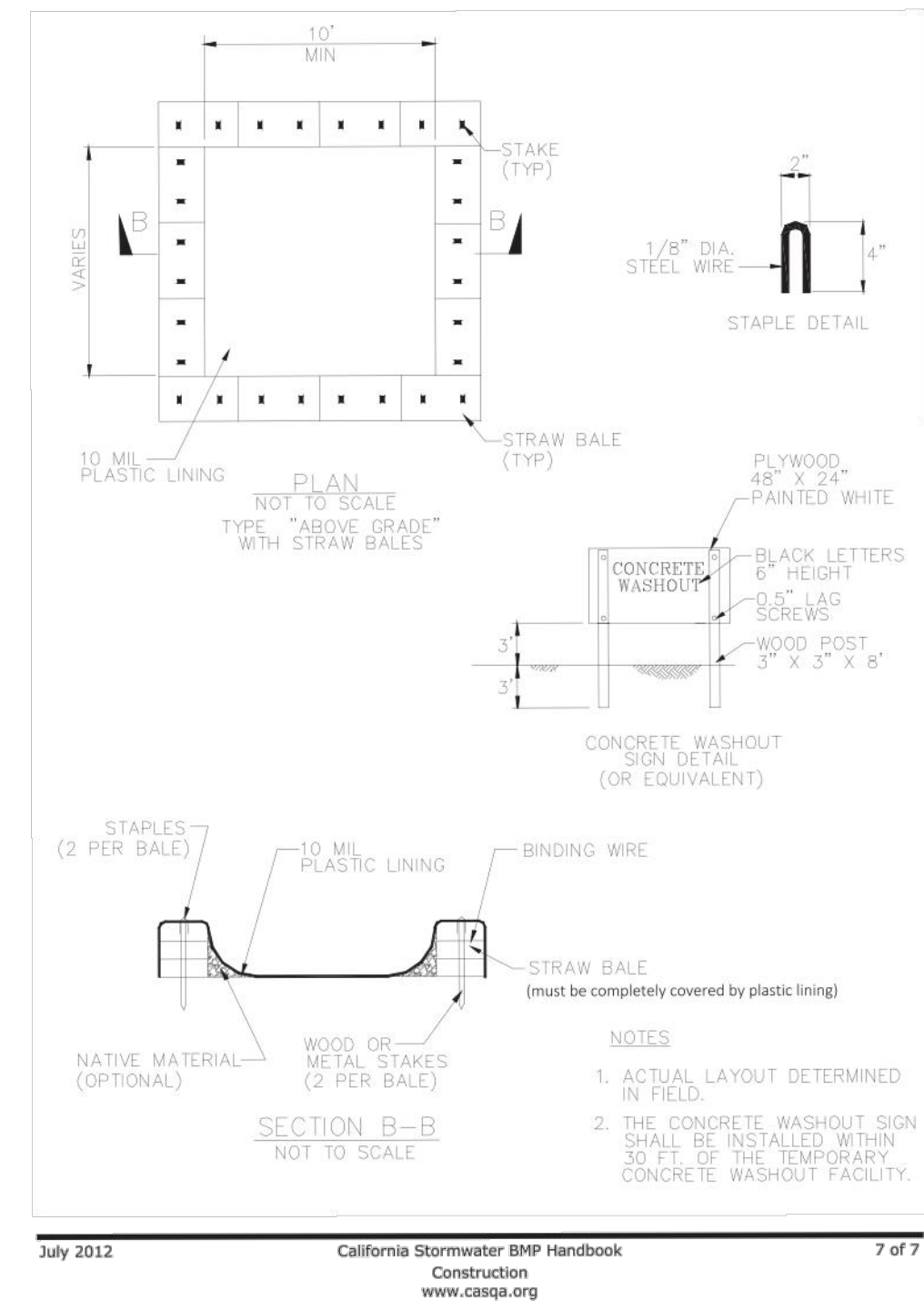
Storm Drain Inlet Protection SE-10



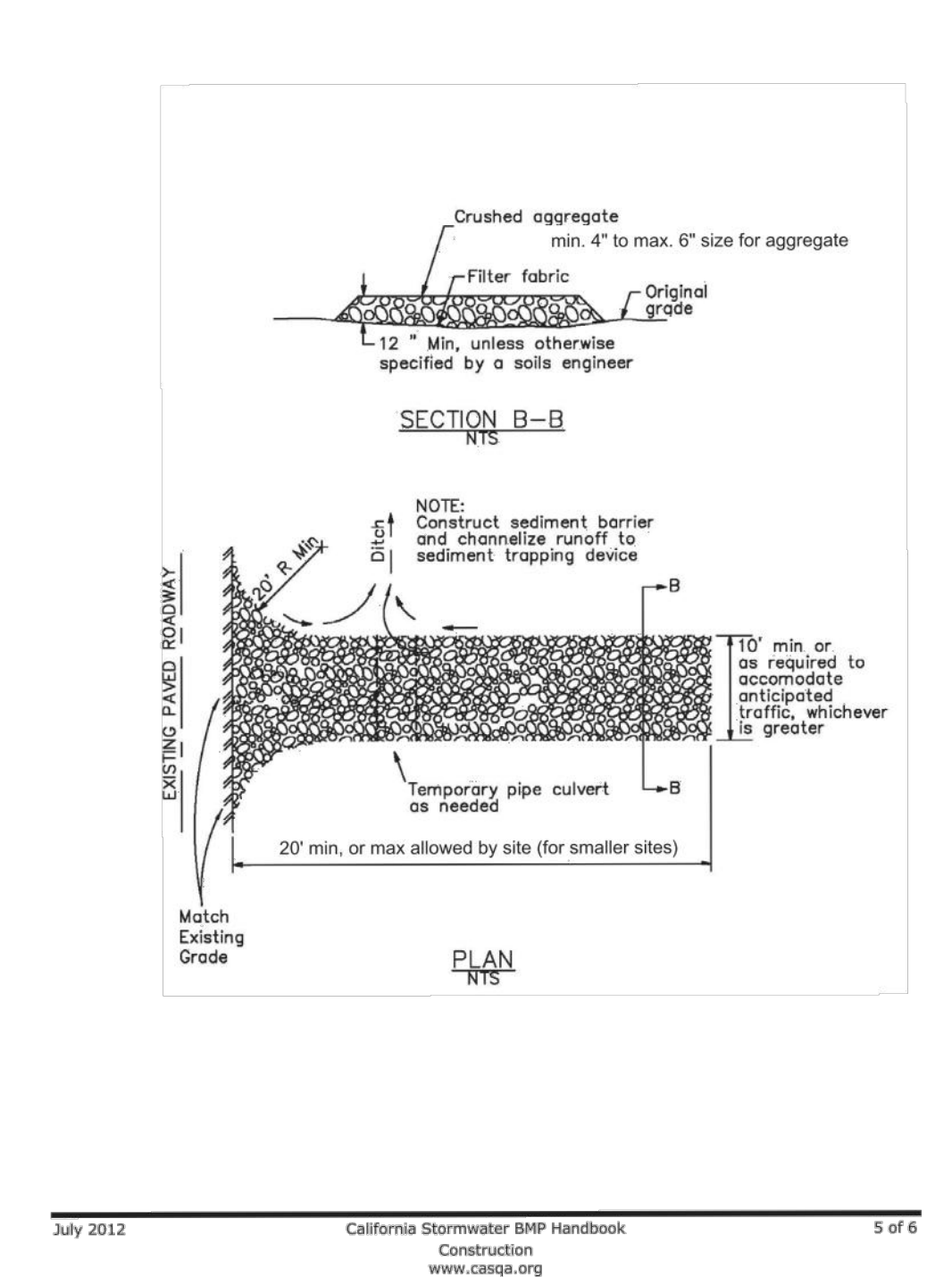
Storm Drain Inlet Protection SE-10



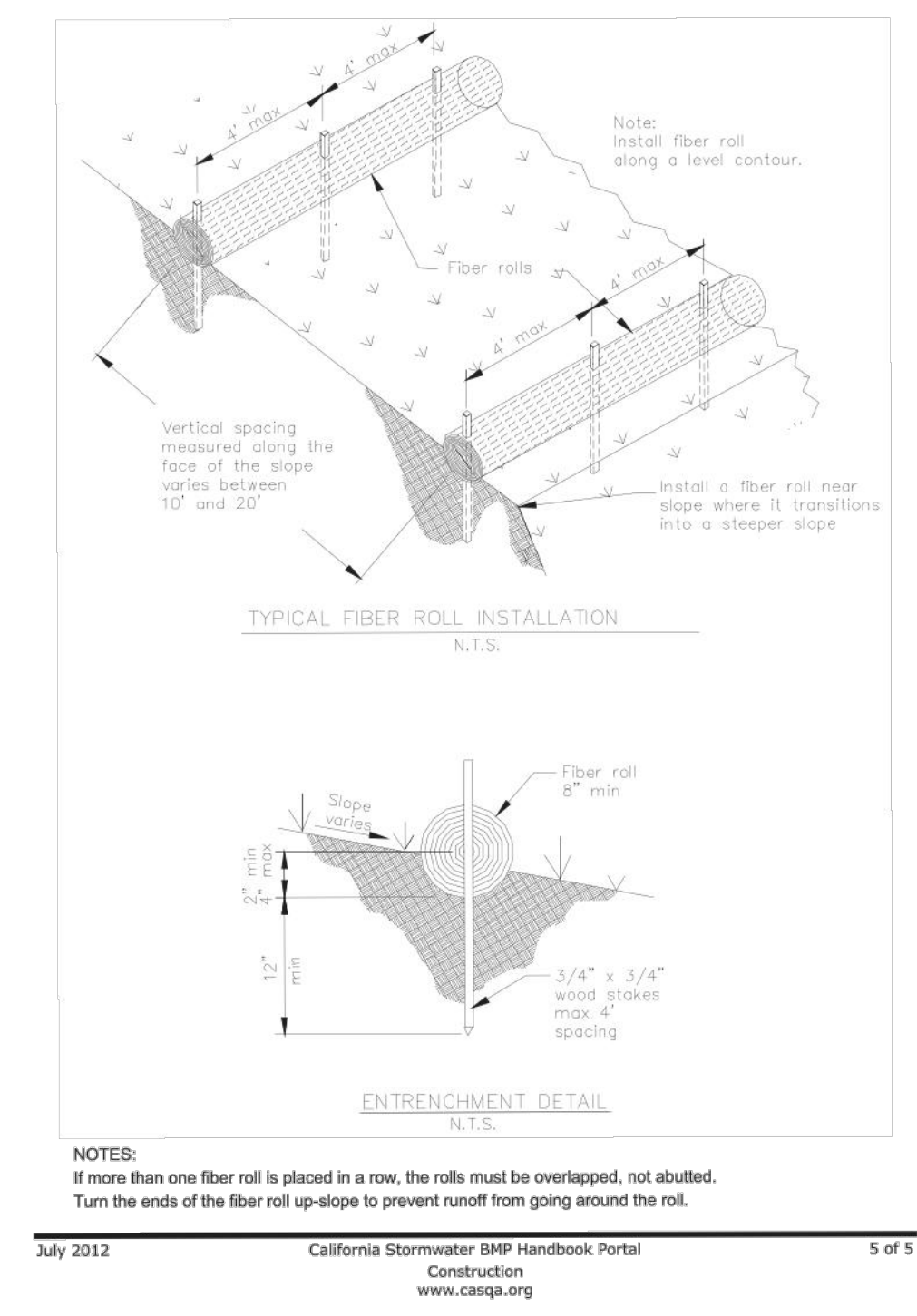
Concrete Waste Management WM-8



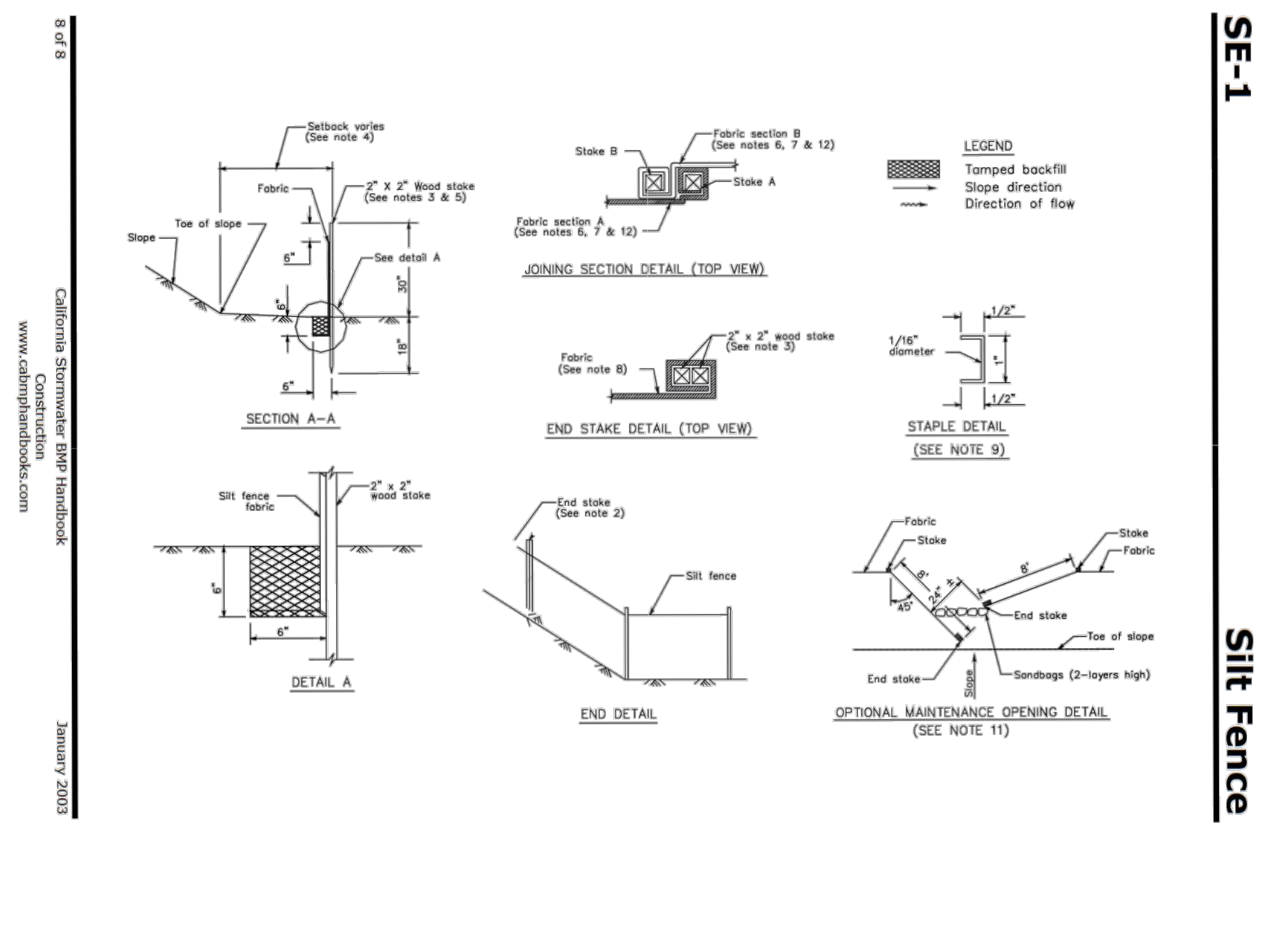
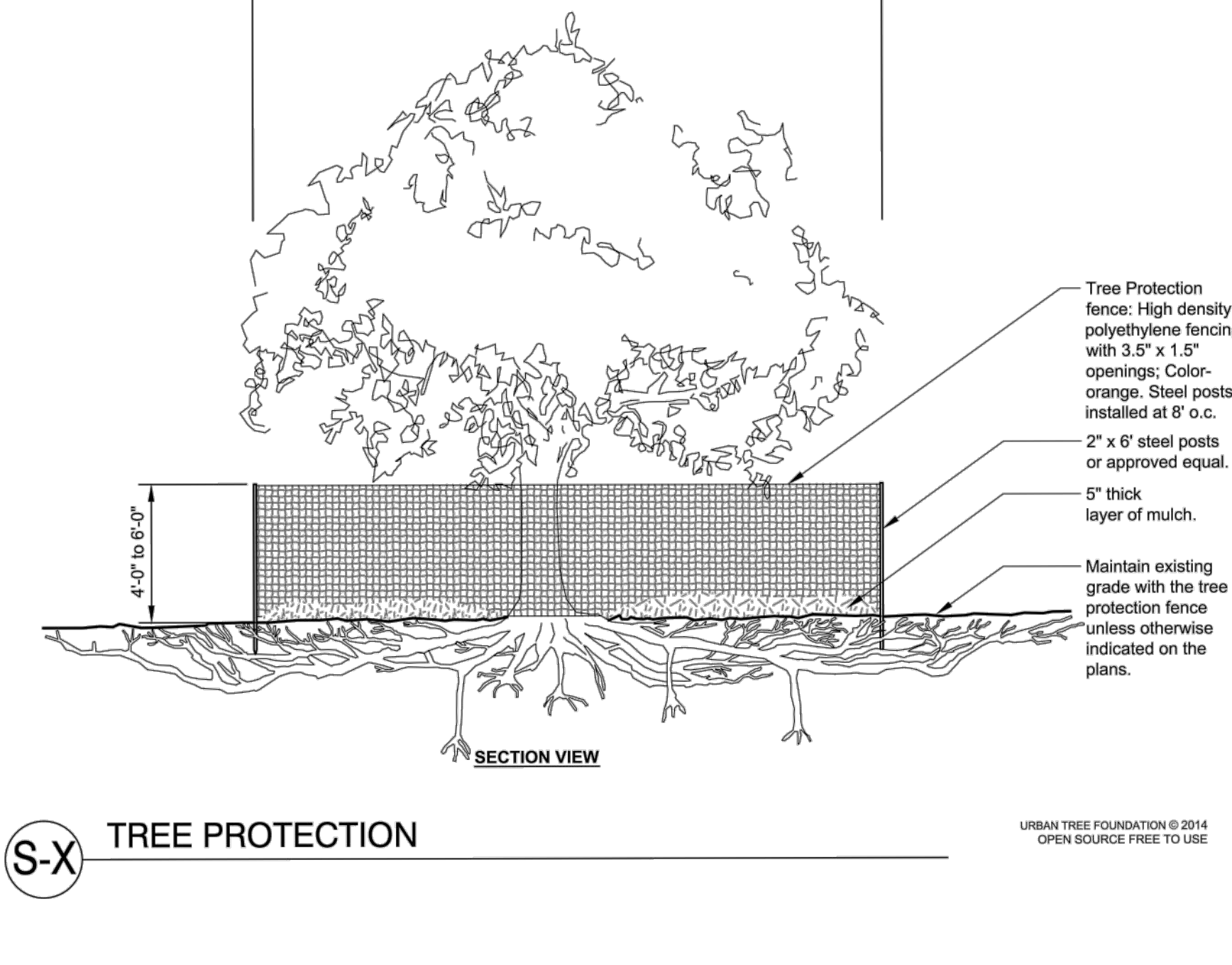
Stabilized Construction Entrance/Exit TC-1



Fiber Rolls SE-5



Notes:
No equipment shall operate inside the protective fencing including during fence installation and removal.



LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
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DUBLIN, CALIFORNIA 94568
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634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA
SAN MATEO COUNTY
APN: 051-022-380

**EROSION CONTROL
DETAILS**

NO.	REVISIONS	BY
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
2	PLANCHECK 05-28-21	JOR
1	PLANCHECK 12-10-20	JOR

JOB NO: 2200474
DATE: 07-17-20
SCALE: AS NOTED
DESIGN BY: JOR
DRAWN BY: JOR
SHEET NO:

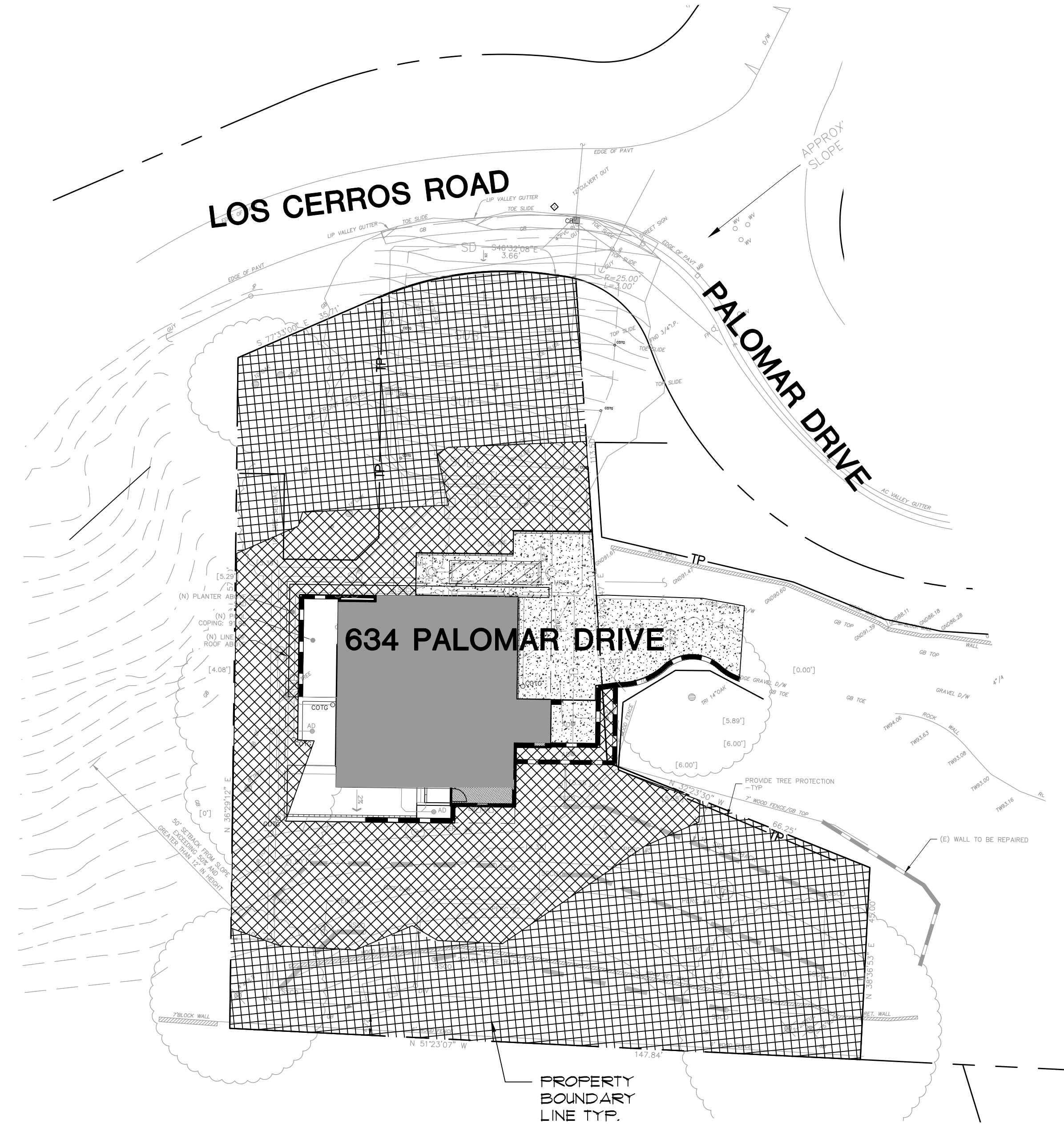
LANDSCAPE IMPROVEMENTS 634 PALOMAR DR. REDWOOD CITY, CALIFORNIA

SHEET INDEX

TITLE SHEET	L-1
IRRIGATION PLAN	L-2
HYDROZONE PLAN	L-3
IRRIGATION DETAILS	L-4
PLANTING PLAN	L-5
PLANTING DETAILS/NOTES	L-6

GENERAL NOTES

- All construction and installation of landscape items are subject to the County of San Mateo Guidelines and Specifications for Landscape Development.
- The Landscape Contractor is responsible for obtaining all permits necessary for installation prior to beginning work. This includes all building and plumbing permits prior to commencing wall construction and irrigation installation, respectively.
- The Contractor is responsible for knowing all site conditions and all underground utilities, pipes, and structures, and shall take sole responsibility for replacement costs incurred due to damage during construction. Contractor shall call for all underground utilities to be marked-out in field prior to excavation. Before excavation, verify the location of underground utilities. Call Dig Alert (underground services alert) 811 or 1(800)227-2600.
- The Contractor is to verify existing PSI at the job site prior to installing the landscape irrigation system. Verification shall be made with the Bayshore District San Carlos Water (650-558-7800). Discrepancies between the design pressures shown on the plan and existing static pressures shall be reported to the project Landscape Architect.
- The Contractor shall not willfully proceed with construction when it is obvious that discrepancies exist between this plan and actual site conditions, and assumes responsibility that any discrepancies are brought to the attention of the Owner's representative. The Contractor shall bear the cost of necessary revisions due to failure to give such notification, and no change in contract price will be allowed for actual or claimed discrepancy between existing conditions and those shown on the plan.
- The Contractor must notify the Landscape Architect and County Public Works Inspector minimum of 48 hours (two working days) prior to starting construction. Within the 48 hours (two working days) notice, prior to beginning landscape construction, the Job Superintendent, Landscape Contractor, Landscape Architect of work, and the City Public Works Inspector shall meet for a pre-construction site meeting. Any work not meeting the approval of the Owner, Owner's representative or the approved landscape plan shall be corrected at the Contractor's expense.
- All property, lot lines and buffer lines shall be verified and marked in an obvious manner prior to construction.
- A soils report shall be prepared by County approved equal. Soils testing for agricultural suitability shall be accomplished at the conclusion of rough grading and submitted to the Landscape Architect for conformance review prior to soil preparation. All soils reports shall meet all of the specifications of the MWEL0 ordinance for soil fertility, infiltration and percolation tests and soil texture information. Contact the project Landscape Architect for a copy of the preliminary soils analysis, dated August 7, 2020, prior to beginning work. Any subsequent report shall be EQUALLY comprehensive in the information provided in the preliminary report and the recommendations for soil preparation and backfill amendments. If a subsequent report is incomplete, then the original soils report recommendations shall take precedence.
- All reduced pressure backflow preventors and pressure vacuum breaker assemblies shall be tested by a County approved certified tester after installation, relocation, or repairs. Notify the Bayshore District San Carlos Water Department for a current list. (If applicable)
- Approved landscape plans and specifications shall be at the job site location at all times.
- Note: ALL trees and palms shall have a one (1) year warranty, both in the right of way and in common area landscapes. The Contractor or Owner is required to maintain all common areas shrubs and groundcovers for 90 days and the public right of way landscaping for one (1) year prior to City acceptance of all improvements. Thereafter, permanent maintenance responsibility will be that of the owner.
- The 'As-Built' plans must be completed and approved by the City Engineer prior to the commencement of the required one (1) year maintenance period. The Landscape Contractor shall provide As-Built to Landscape Architect prior to end of the 90 Day maintenance period per the City's policy and Landscape Manual specifications.
- Any turfed areas, if applicable, shall have a maximum design slope of 4:1. Ground cover areas shall have a maximum design slope of 2:1.
- All graffiti shall be removed within 24 hours of occurrence.
- Contractor shall obtain for reference purposes, all approved grading plans and all relative technical reports, drawings and documents and keep on site with landscape plans.
- For details not referenced or shown on these plans, please refer to the County of San Mateo Manual or Manufacturer's details and specifications for installation.
- The project Landscape Architect is aware of the County of San Mateo policy which prohibits trees and permanent structures in utility easements and has designed the project landscape plans in accordance with this requirement, based on the easement information received from the project Engineer of Work. The project Landscape Architect has verified that these plans meet the requirements of said policy.
- The project Contractor is aware of the County policy which prohibits trees and structures in utility easements and shall install the project in accordance with this requirement. The Contractor shall verify the location of all easements, property mark or stake all property lines and easements, and verify the scope of work within the easement prior to installing improvements within any easement.
- Guarantee of Irrigation Work. Per the County's policy, the Landscape Contractor shall provide "Guarantee of Irrigation Work" letter. See irrigation notes for required content of the Irrigation Guarantee.
- The landscape contractor shall provide Controller certification letter to Landscape Architect for documentation package. See irrigation plan, notes and details.
- MWEL0 Compliance. The landscape contractor shall provide to Landscape Architect all required permanent irrigation schedules, installation certification letter, maintenance information and third party audit as required by the Water Efficiency Landscape Ordinance. See Irrigation Notes for additional requirements.



SITE PLAN

NOTE: BASE INFORMATION SHOWN IS FOR REFERENCE ONLY. FOR STORMWATER TREATMENT PLAN, DETAILS, SPECIFICATIONS AND MANAGEMENT INFORMATION, OR EASEMENTS, UTILITIES, GRADING AND IMPROVEMENTS REFER TO CIVIL PLANS.

SYMBOL



LEGEND

APPROXIMATE TOTAL SQ. FT. OF LANDSCAPE AND MAINTENANCE RESPONSIBILITY FOR PROJECT PRIVATE AREA LANDSCAPE = 14,265 SQ. FT. THIS AREA SHALL BE PERMANENTLY MAINTAINED BY THE OWNER

NOTES:

AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED BY A CERTIFIED IRRIGATION AUDITOR AT THE TIME OF FINAL INSPECTION. REPORT SHALL BE SUBMITTED TO SAN MATEO COUNTY PLANNING FOR REVIEW AND ACCEPTANCE.

A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.

A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE LANDSCAPE ARCHITECT, DESIGNER, OF THE PLANTING / IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.

WATER EFFICIENT LANDSCAPE ORDINANCE COMPLIANCE

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE.

LANDSCAPE ARCHITECT

DATE

634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA

SAN MATEO COUNTY APN: 051-022-380

SHEET TITLE:
TITLE SHEET
DATE: 10.30.20
REV: 5.10.21

SHEET NUMBER:

L-1

SCALE: AS NOTED



Irrigation System Pressure Requirements
Worst Case Operation/Friction Loss Analysis

VALVE NO 5 @ 10 GPM
POINT OF CONNECTION 1" Meter 2" Service Line
DATE: 4-28-2021
LATERAL PIPE SECTION (CL. 200)

PIPE SIZE	SECTION LENGTH	SECTION GPM FLOW	PIPE MULT. FACTOR	SECTION FRICTION LOSS
1. 3/4"	45	10.00	0.0431	1.94
2. 1"	30	11.00	0.0156	0.47
3. 1-1/2"	25	25.00	0.0134	0.00
4. 2"	44	44.00	0.018	0.00
5. 2-1/2"	0	0	0.0141	0.00

TOTAL LATERAL LINE LOSS 2.41

PIPE SIZE	SECTION LENGTH	SECTION GPM FLOW	SECTION MULT. FACTOR	SECTION FRICTION LOSS
1. 1"	200	10	0.0263	5.26

TOTAL MAINLINE LOSS 5.26

TOTAL IRRIGATION LINE LOSS 7.67

SYSTEM PRESSURE LOSS CALCULATION

METER 'A'	1"
METER SIZE	1"
STATIC PRESSURE AT POC	40.00
Elevation @ POC	96.0
Elevation @ LAST HEAD	110.0
ELEVATION PSI LOSS	-14.0

WATER METER LOSS	0.70
BACKFLOW PREVENTER LOSS	NA
MASTER VALVE LOSS	3.00
MAIN LINE LOSS	5.26
GATE/BALL VALVE LOSS	1.50
REMOTE CONTROL VALVE LOSS	2.00
LATERAL LINE LOSS	2.41

FRICITION LOSS SUBTOTAL = 14.87

FITTING LOSSES 10%	1.49
ELEVATION LOSS	-6.02
MINIMUM OPERATIONAL PSI	40.00
FRICITION LOSS SUBTOTAL	14.87
SYSTEM OPERATIONAL TOTAL =	62.37

STATIC PRESSURE	40.00
BOOSTER PUMP	30.00
SYSTEM OPERATIONAL REQ.	62.37
RESIDUAL PSI =	7.63

NOTES:
FIELD ADJUST ALL SPRINKLERS TO ELIMINATE OVERSPRAY ONTO SIDEWALKS OR DRIVEWAYS

POC A

POTABLE WATER METER ID.	M
METER LOCATION:	PRIVATE DRIVEWAY
METER ELEVATION:	96
METER SIZE:	1"
SERVICE LINE:	2"
STATIC PSI:	40 PSI
WORST CASE VALVE CIRCUIT:	VALVE 5 @ 10 GPM
MINIMUM PSI FOR OPERATIONAL:	63 PSI
BOOSTER PUMP:	30 PSI
RESIDUAL PSI:	7.63 GPM
MAX FLOW:	9 GPM

CONTRACTOR TO VERIFY STATIC WATER PRESSURE FOR IRRIGATION SYSTEM PERFORMANCE PRIOR TO INSTALLATION. NOTIFY LANDSCAPE ARCHITECT OF STATIC PRESSURE IF PRESSURE DOES NOT MEET MINIMUM PSI FOR OPERATION.

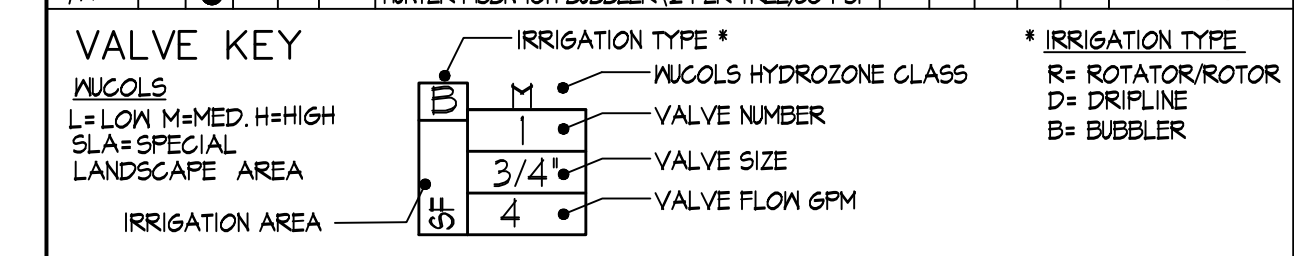
IRRIGATION EQUIPMENT LEGEND

VALVES, CONTROLS, & MISC. EQUIPMENT

DETAIL	SYM.	MANUFACTURER / MODEL #	DESCRIPTION
CIVIL	M	EXISTING 1" RESIDENTIAL METER WITH 2" SERVICE LINE	METER DETAIL / PER CIVIL PLANS VERIFY LOCATION AND SIZE PER CIVIL PLANS
A/L-4	P.O.C.	IRRIGATION POINT OF CONNECTION	SYSTEM CONNECTION DOWN STREAM OF METER
A/L-3	HUNTER IBV-1016-F5	MASTER VALVE	1" BRASS VALVE NORMALLY CLOSED-INSTALL IN STANDARD RECTANGULAR VALVE BOX-BRAND LID "BV"
B/L-3	HUNTER FCT100-FLOW SENSOR	1" FLOW METER -INSTALL IN STD. ROUND VALVE BOX-BRAND LID "FS"	
F/L-4	KING BROS SERIES BALL VALVE	BALL VALVE - LINE SIZE-INSTALL IN 10" ROUND VALVE BOX-BRAND "BV"	
E/L-4	HAMMOND UP801/8503 SERIES ISOLATION VALVE	STANDARD PORT BRASS BALL VALVE - LINE SIZE - BRAND "RR SHUT OFF" IN ROUND VALVE BOX	
K/L-4	HUNTER HQ-38DLRC QUICK COUPLER	3/4" QUICK COUPLER VALVE - INSTALL IN 10" ROUND VALVE BOX - BRAND LID "QCV" PROVIDE KEY TO OWNER	
G/L-4	HUNTER ANTI-SIPHON VALVE PGV-015-ASV WITH FLOW CONTROL	ANTI-SIPHON VALVE -INSTALL 12" ABOVE HIGHEST HEAD PER DETAIL & MANUFACTURER SPECIFICATION - SIZE PER PLAN	
C/L-3	HUNTER PGV-101A ANGLE VALVE	1" ANGLE / GLOVE VALVE INSTALLED WITH ATMOSPHERIC VACUUM BREAKER	
D/L-3	WILKING ATMOSPHERIC VACUUM BREAKER 35 SERIES 3/4" BACKFLOW DEVICE	3/4" AVB INSTALL HEIGHT PER DETAIL/MFR.	
B/C/L-4	HUNTER A2C-1200-SS CONTROLLER W/ A2C-F5, A2C-WIFI AND HUNTER WR-CLK RAIN SENSOR	12 STA. SMART CONTROLLER (WIFI)-COORDINATE HARD WIRE RAIN SENSOR ATTACH TO GUTTER/EAVE. HALL MOUNT IRRIGATION ENCLOSURE EXACT LOCATION PER OWNER. WET BUBBLER SENSOR, 1 RAIN SHUT-OFF	
	BF	BARETT IRRIGATION BOOSTER PUMP	INSTALL PUMP PER MFR. SPEC. CONTRACTOR SHALL VERIFY EXISTING DYNAMIC WATER PRESSURE, STATIC PRESSURE AND ELECTRICAL POWER SUPPLY PRIOR TO ORDERING PUMP. CONTACT MFR FOR PROPER PUMP SPEC. 8H-232-1861
L/L-4	PERMANENT	DURA 912 SERIES	PVC INLINE SPRING CHECK VALVE

SPRINKLER HEADS

DETAIL	SYMBOLS	MANUFACTURER / MODEL #	GPM - AT 40 PSI	DESCRIPTION
H/L-4	360 210 210 210 40	HUNTER PROS-12-PRS40-CV W/ HUNTER MP1000	360 210 210 180 80 75 51 43 17 14	POP-UP ROTATOR
		HUNTER MP1000 RADIUS 8" TO 15"	147 110 86 74 40	FIXED RISER
		HUNTER MP2000 RADIUS 18" TO 21"	364 212 121 121 82 86	SLOPE AREA
		HUNTER MP2000 RADIUS 22" TO 30"	360 210 210 180 80 75 51 43 17 14	FIXED RISER
		HUNTER MP2000 RADIUS 32" TO 40"	360 210 210 180 80 75 51 43 17 14	FIXED RISER
H/L-4	360 180 210 40 ADJ	HUNTER PROS-12-PRS40-CV W/ HUNTER MP SIDE STRIPS RST	22	SIDE STRIP
		HUNTER MP SIDE STRIPS LST	22	POP-UP SPRAY
		HUNTER MP SIDE STRIPS SST	44	FIXED RISER
H/L-4		HUNTER MEB-HIGH BUBBLER (2 PER TREE) 30 PSI		FIXED RISER

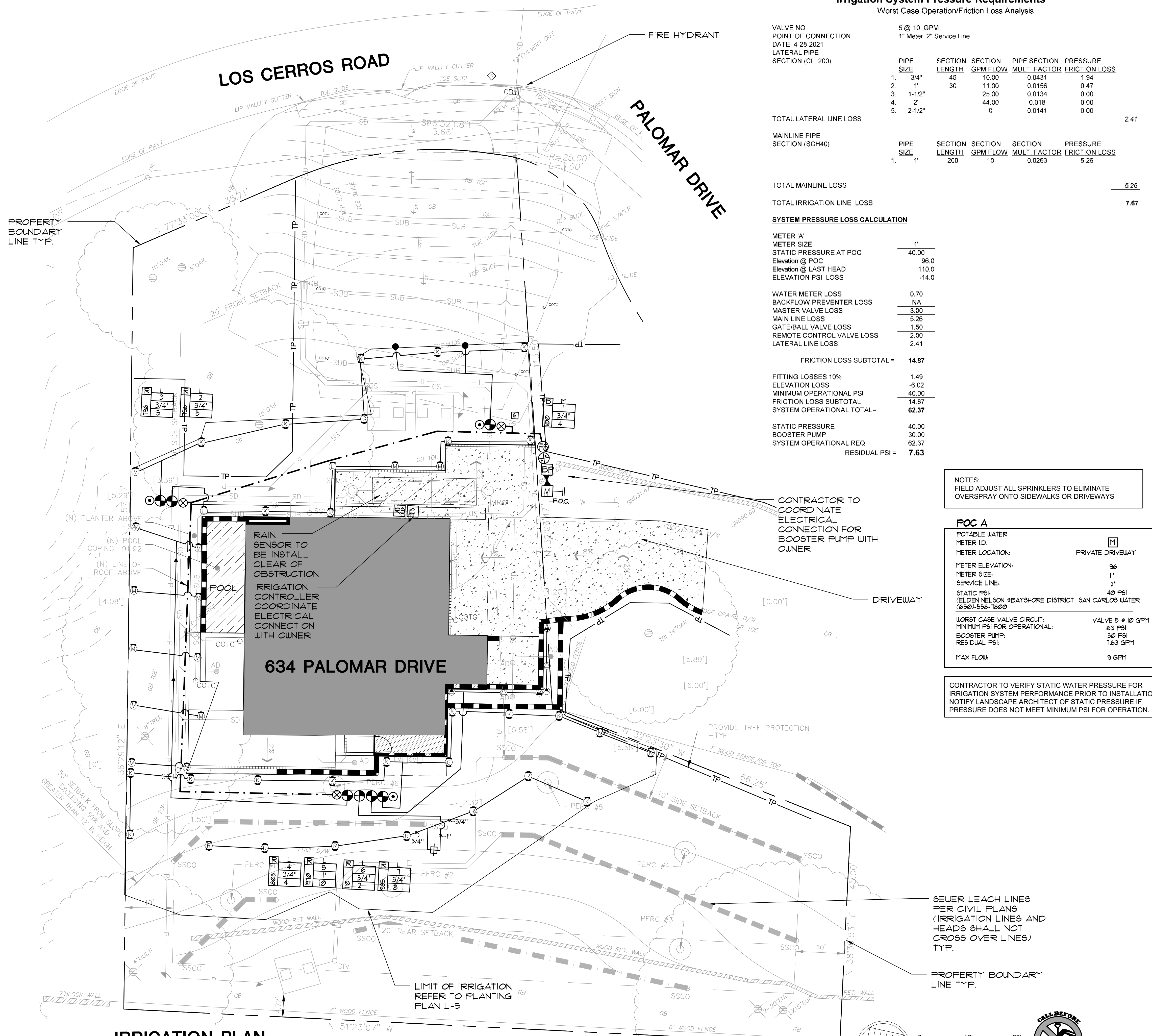


PIPING & SLEEVING

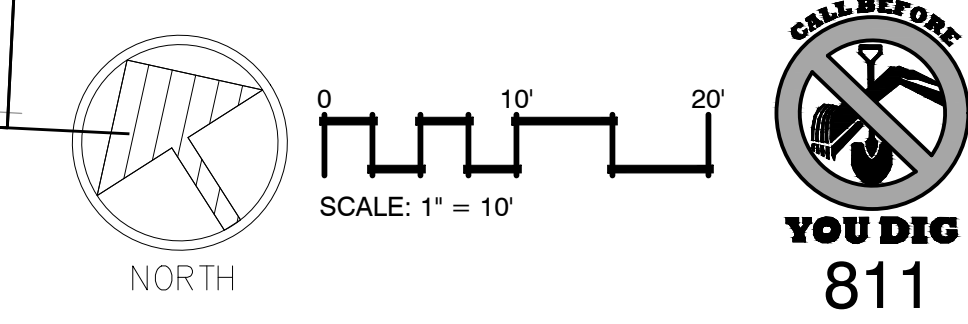
DETAIL	SYM.	DESCRIPTION
	---	SCHEDULE 40 PVC PRESSURE MAINLINE PIPING - WITH MYLAR DETECTION TAPE 1" SIZE UNLESS NOTED
	---	PVC CLASS 200 NON-PRESSURE LATERAL LINE PIPING - 3/4" SIZE UNLESS NOTED
J/L-4	---	PVC SCH 40 SLEEVING FOR MAIN AND LATERAL LINE PIPING SLEEVE SIZE 2X PIPE DIAMETER OF PIPING
NOT SHOWN GRAPHICALLY		CONTROL VALVE CONDUCTORS - TAPE TO MAINLINE EVERY 20' - PROVIDE 18" WIRE COIL AT CHANGES IN DIRECTION PROVIDE SPARE COMMON AND 2 SPARE CONDUCTORS WIRE CONNECTORS TO BE DB-SERIES "GREASE PACK" TYPE CONNECTOR INSTALL CONDUCTORS IN DB-60 PVC RNC IN PVC SCH. 40 SLEEVE UNDER ALL FLATWORK AND PAVING

IRRIGATION PIPE AND EQUIPMENT ARE DIAGRAMMATIC. INSTALL ALL EQUIPMENT IN LANDSCAPE AREAS. INSTALL PIPE IN PLANTERS, SLEEVE AS REQUIRED UNDER HARDSCAPE DEPTH OF COVER. CONTRACTOR TO PROVIDE IRRIGATION SCHEDULE PRINT OUT PRIOR TO END OF 90 DAY MAINTENANCE AND SWITCH TO SMART CONTROLLER SETTINGS BEFORE TURNOVER FOR ALL CONTROLLERS AND PROVIDE OWNER & LANDSCAPE ARCHITECT WITH SCHEDULE AND RUN TIMES FOR DOCUMENTATION PKGS.

- IRRIGATION NOTES**
- ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE SAN MATEO COUNTY STANDARD AND REQUIREMENTS. AN AUTOMATIC BELOW GRADE IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW VOLUME, LOW FLOW IRRIGATION EQUIPMENT AND CONSERVATION TECHNIQUES SHALL BE EMPLOYED ALONG WITH THE DOCUMENTATION PACKAGE TO PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH A MINIMUM WATER LOSS DUE TO WATER RUN-OFF. ZERO RUNOFF IS PERMITTED.
 - BUBBLERS AND ROTARY SPRAYS IRRIGATION SYSTEMS SHALL BE USED WITH HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS, MASTER VALVE, FLOW SENSOR AND RAIN SHUT-OFF SENSOR AND OTHER NECESSARY IRRIGATION EQUIPMENT FOR BEST EFFICIENCY AND WATER CONSERVATION.
 - ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL.
 - ALL IRRIGATION EQUIPMENT, SENSORS AND CONTROLLERS SHALL BE INSTALLED PER MANUFACTURER GUIDELINES AND SPECIFICATIONS, AND ADHERE TO ALL CODE RESTRICTIONS AND GUIDELINES.
 - ALL IRRIGATION PIPING AND WIRING SHALL BE SLEEVED UNDER ALL HARDSCAPE AND VEHICULAR AREAS, WITH STANDARD DEPTH OF COVER PER SAN MATEO COUNTY REQUIREMENTS.
 - SPRAY NOZZLES, AND/OR OR EFFICIENT ROTARY AND ROTOR SPRAY SYSTEMS THAT ARE ORDINANCE-COMPLIANT AND PROVIDE ZERO OVERSPRAY MAY BE USED.
 - FIELD ADJUST ALL SPRINKLERS AND EMITTERS TO ELIMINATE OVERSPRAY ONTO SIDEWALKS, DRIVEWAYS AND HARDSCAPE AREAS.
 - ALL IRRIGATION AREAS SHALL BE APPROPRIATELY HYDROZONED AND INSTALLED ACCORDING TO ORDINANCE REQUIREMENTS AND LANDSCAPE DESIGN STANDARDS.



IRRIGATION PLAN



634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA
SAN MATEO COUNTY

APN: 051-022-380

IRRIGATION PLAN

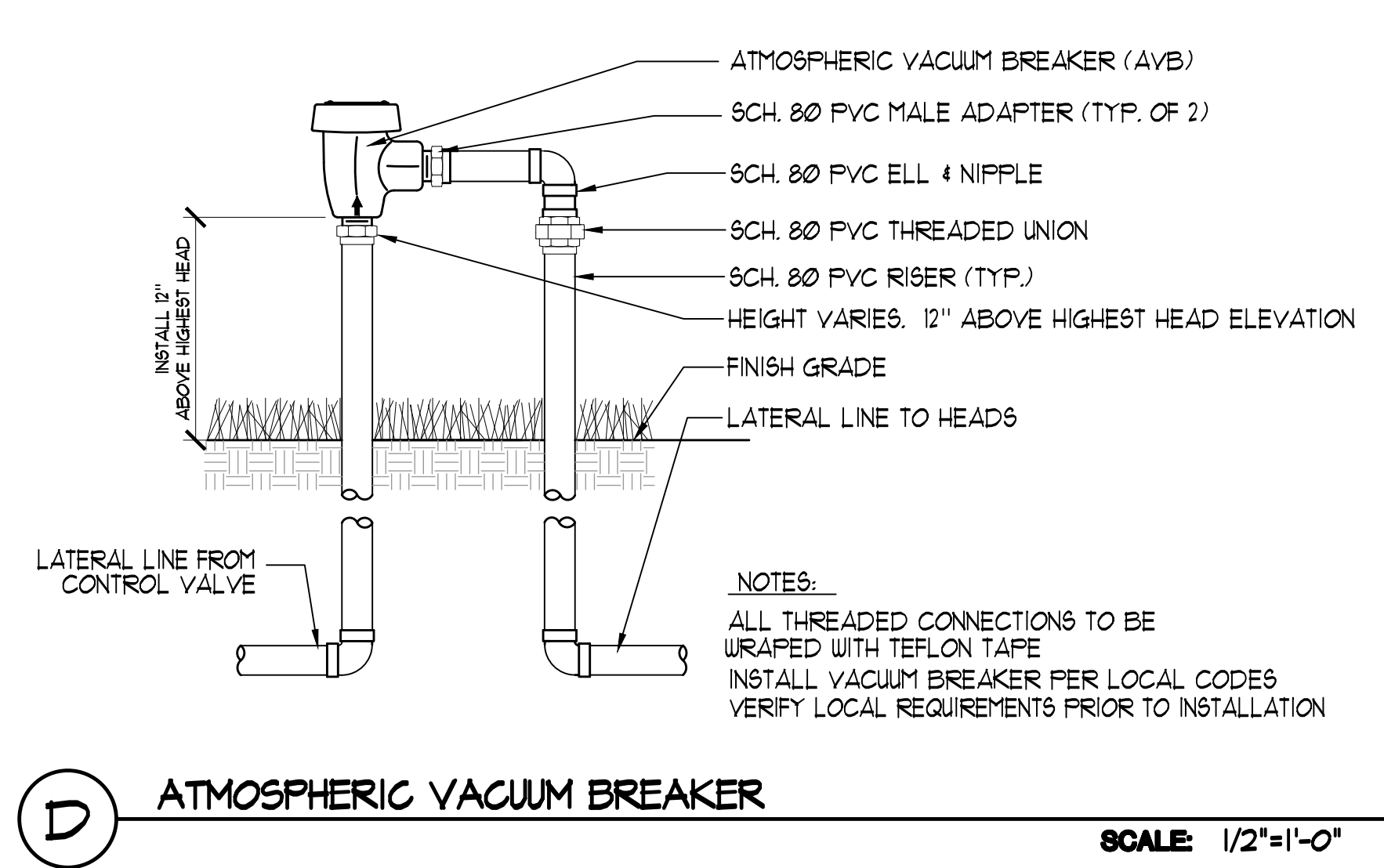
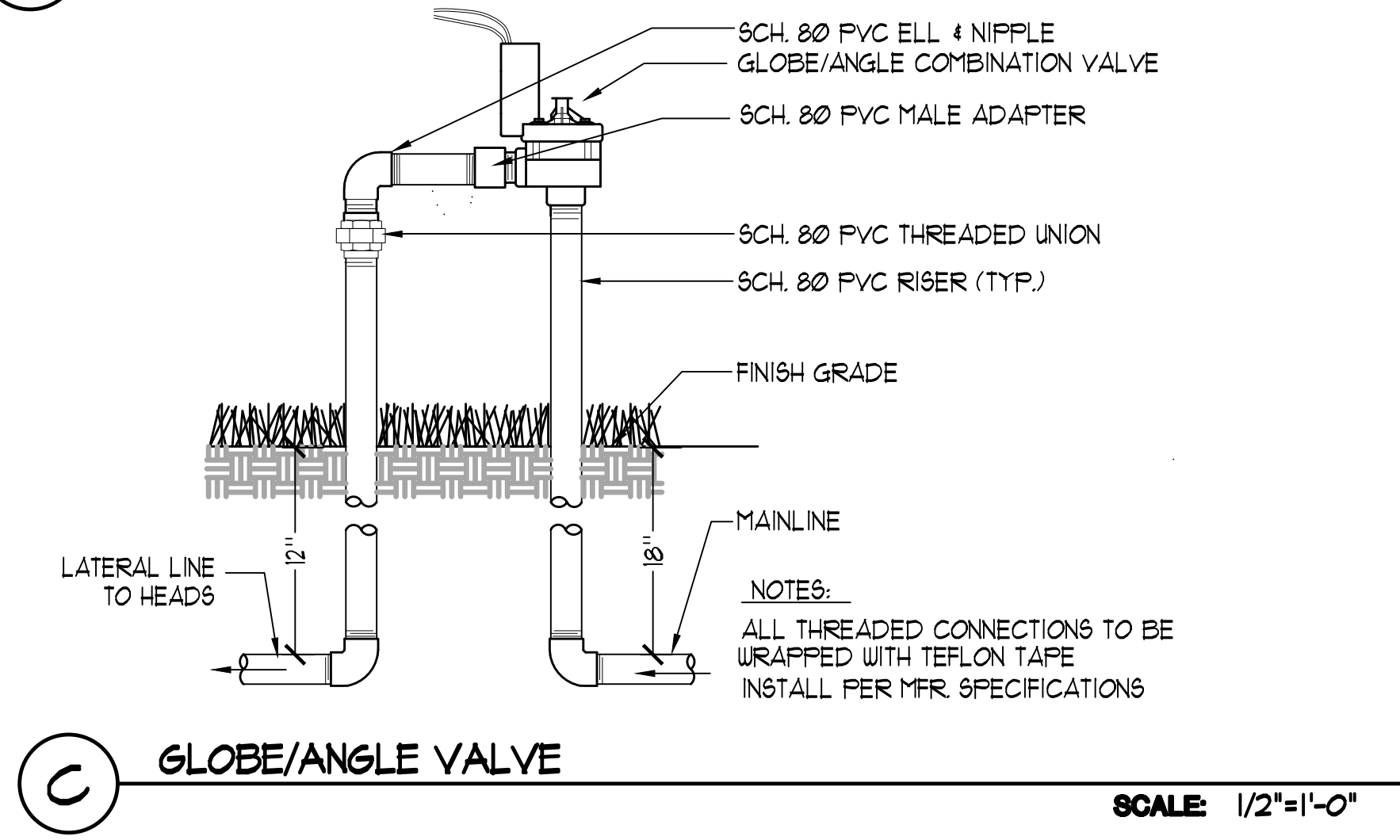
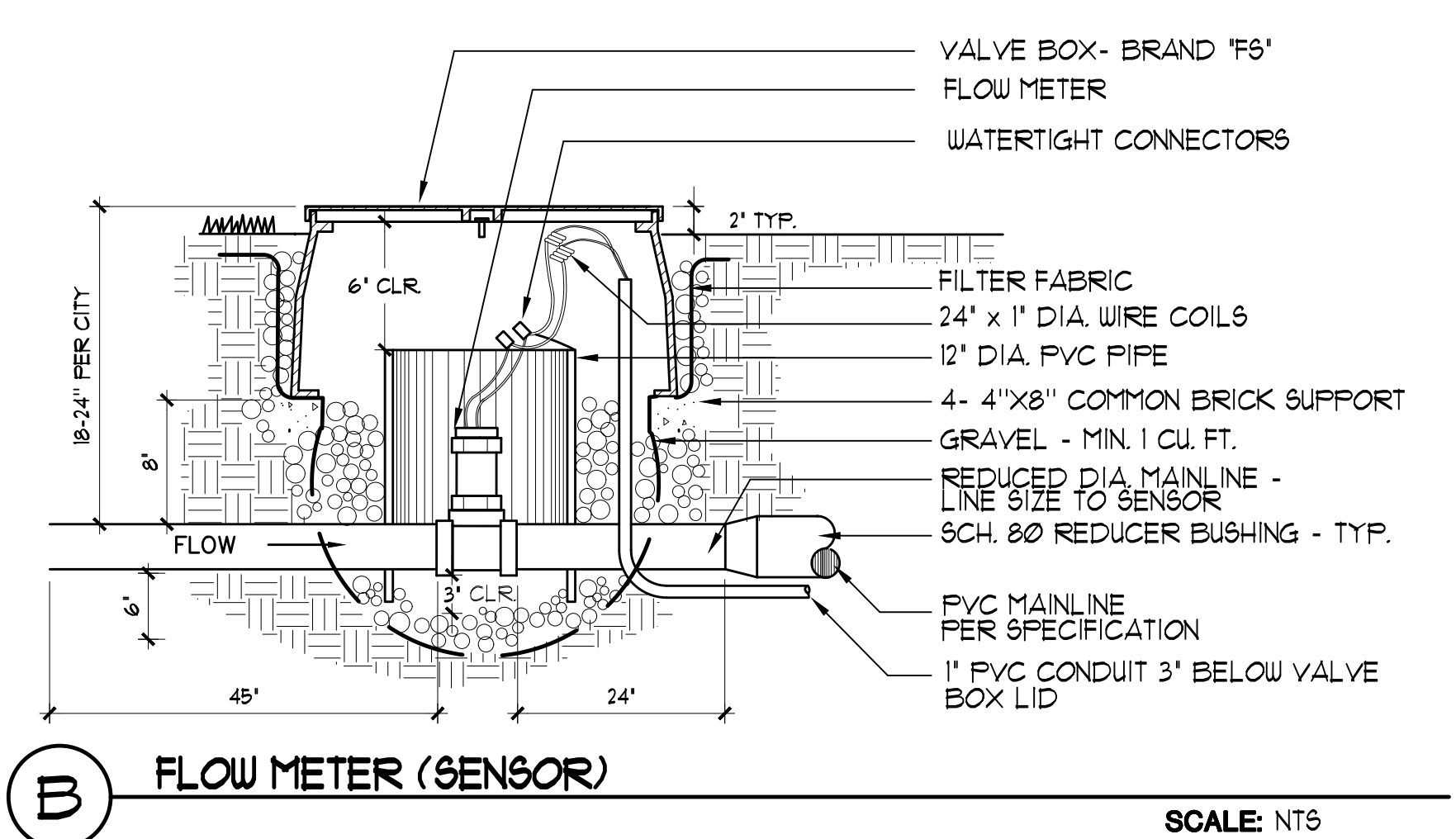
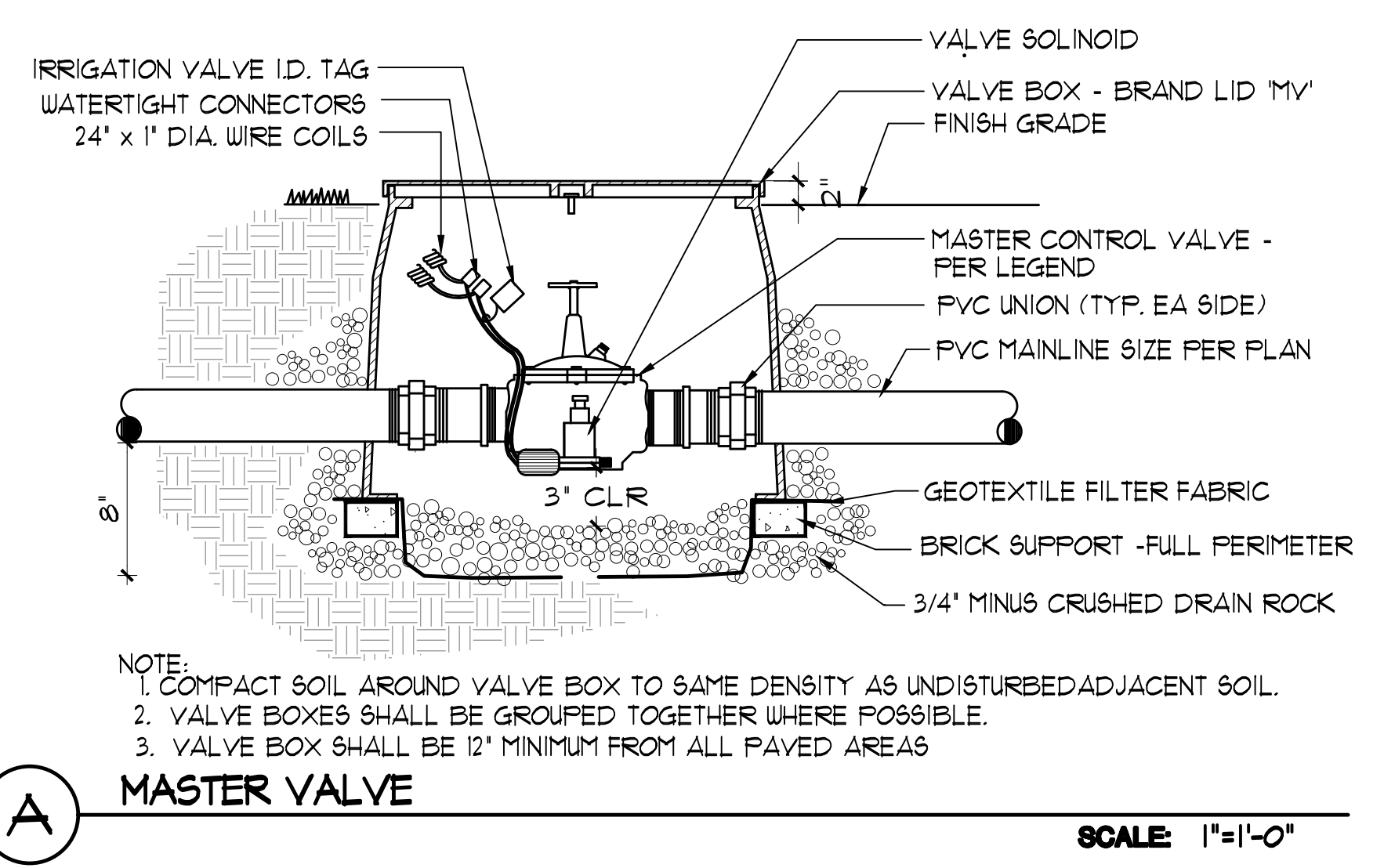
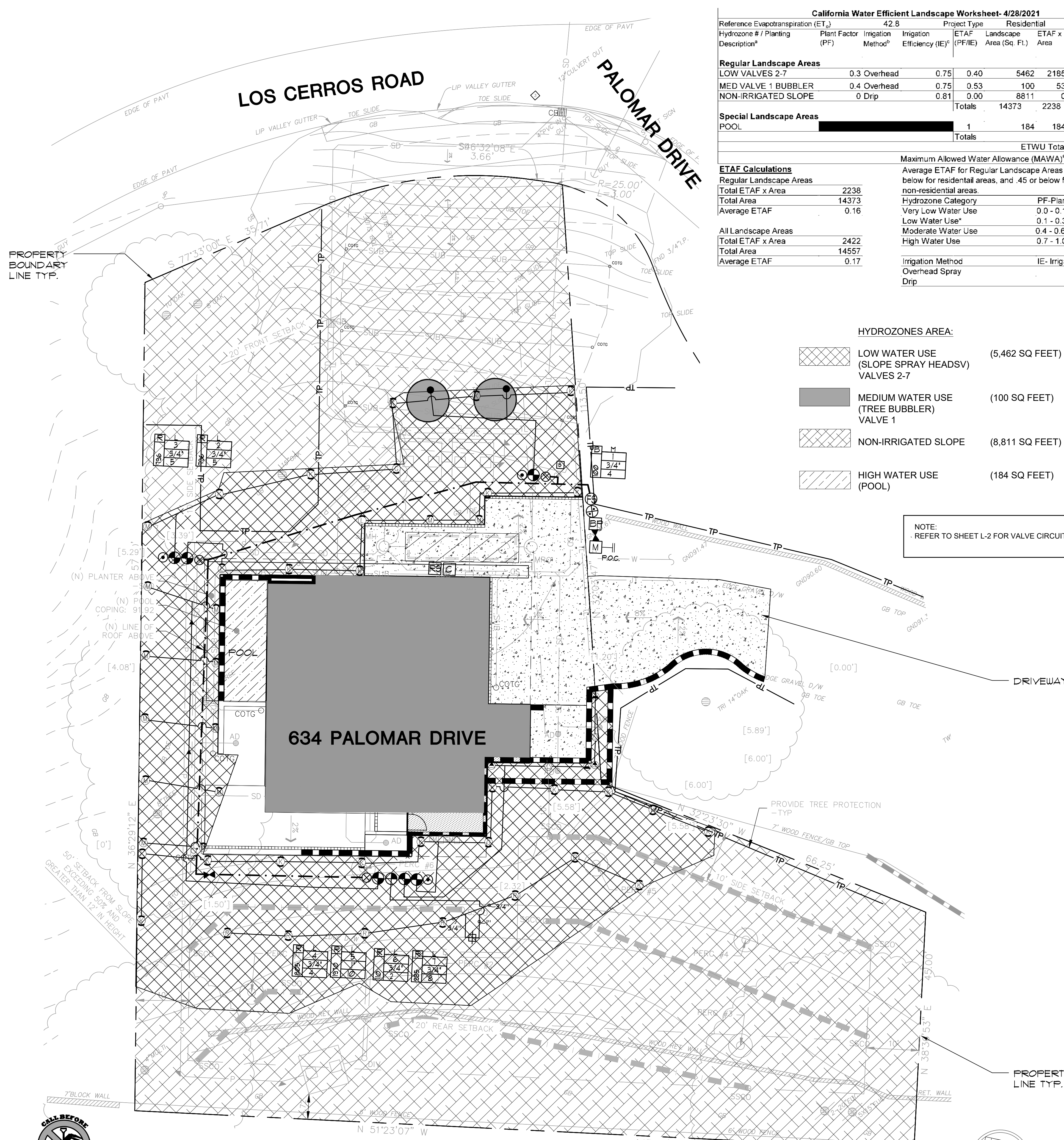
SHEET TITLE:
DATE: 10.30.20
REV: 5.10.21

SHEET NUMBER:
L-2

SCALE: AS NOTED

MAWA (MAXIMUM ALLOWED WATER ALLOWANCE)

California Water Efficient Landscape Worksheet- 4/28/2021						
Reference Evapotranspiration (ET _r)	42.8	Project Type	Residential	ETAF	0.55	Estimated Total Water Use (ETWU) ^g
Hydrozone # / Planting Description ^a	Plant Factor (PF)	Irrigation Method ^b	Efficiency (IE) ^c	ETAF (PF/IE)	Area (Sq. Ft.)	Area (ETAF x Area)
Regular Landscape Areas						
LOW VALVES 2-7	0.3	Overhead	0.75	0.40	5462	2185
MED VALVE 1 BUBBLER	0.4	Overhead	0.75	0.53	100	53
NON-IRRIGATED SLOPE	0	Drip	0.81	0.00	8811	0
Totals					14373	2238
Special Landscape Areas						
POOL				1	184	184
Totals						4883
				ETWU Total	64274	
				Maximum Allowed Water Allowance (MAWA) ^e	214654	
ETAF Calculations						
Average ETAF for Regular Landscape Areas must be .55 or below for residential areas, and .45 or below for non-residential areas.						
Hydrozone Category PF-Plant Factor						
Very Low Water Use 0.0 - 0.1						
Low Water Use* 0.1 - 0.3						
Moderate Water Use 0.4 - 0.6						
High Water Use 0.7 - 1.0						
Irrigation Method IE- Irrigation Efficiency						
Overhead Spray 0.75						
Drip 0.81						

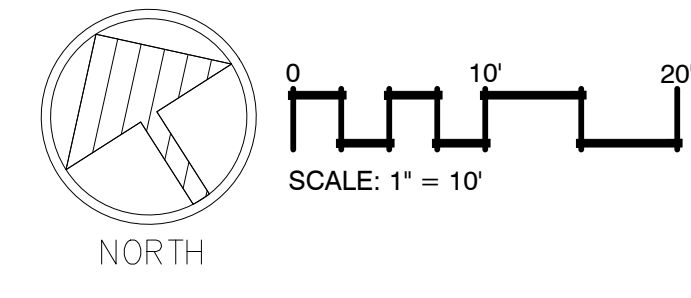


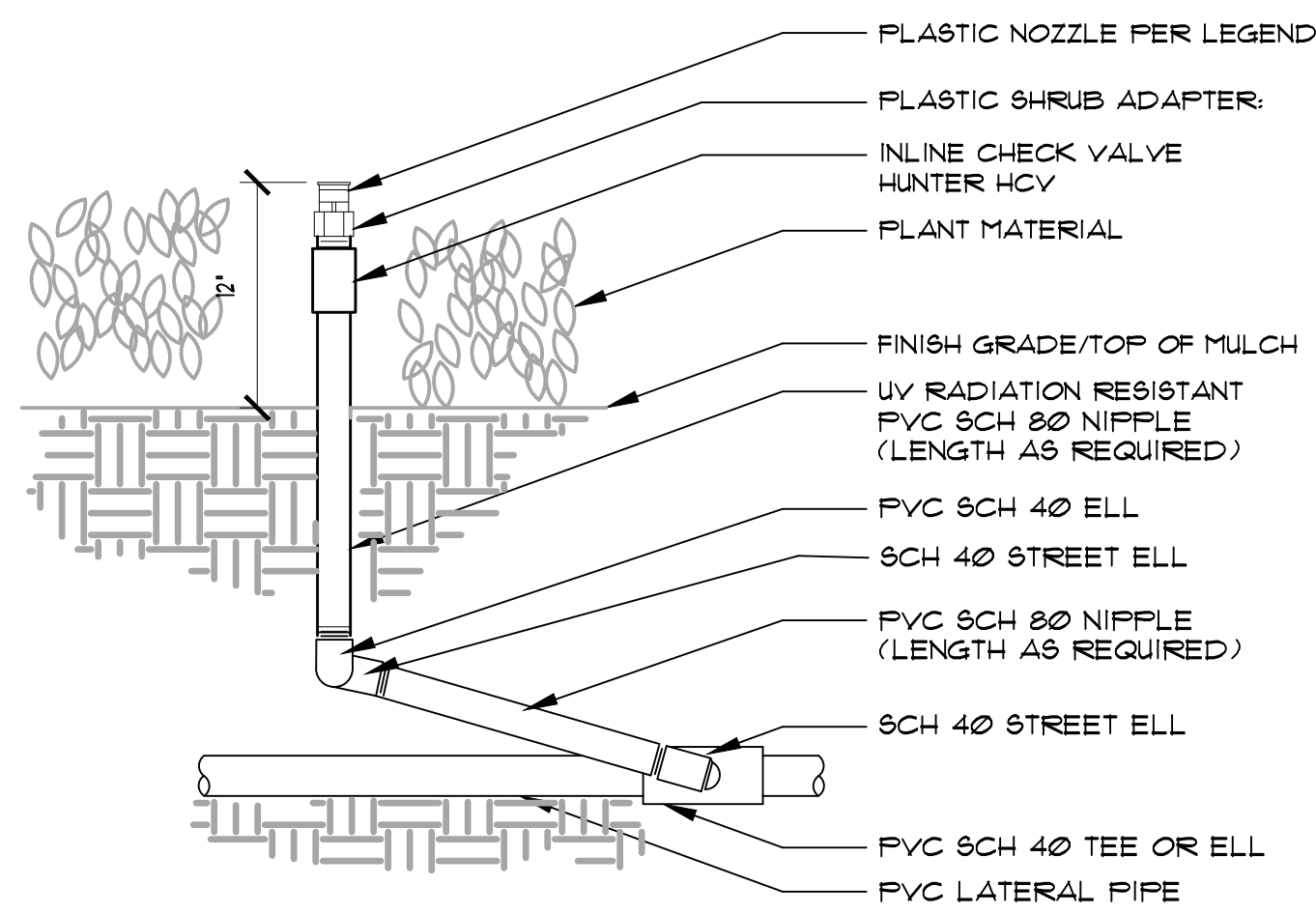
634 PALOMAR DRIVE
 REDWOOD CITY, CALIFORNIA
 SAN MATEO COUNTY
 APN: 051-022-380

SHEET TITLE:
 HYDROZONE PLAN
 DATE: 10.30.20
 REV: 5.10.21

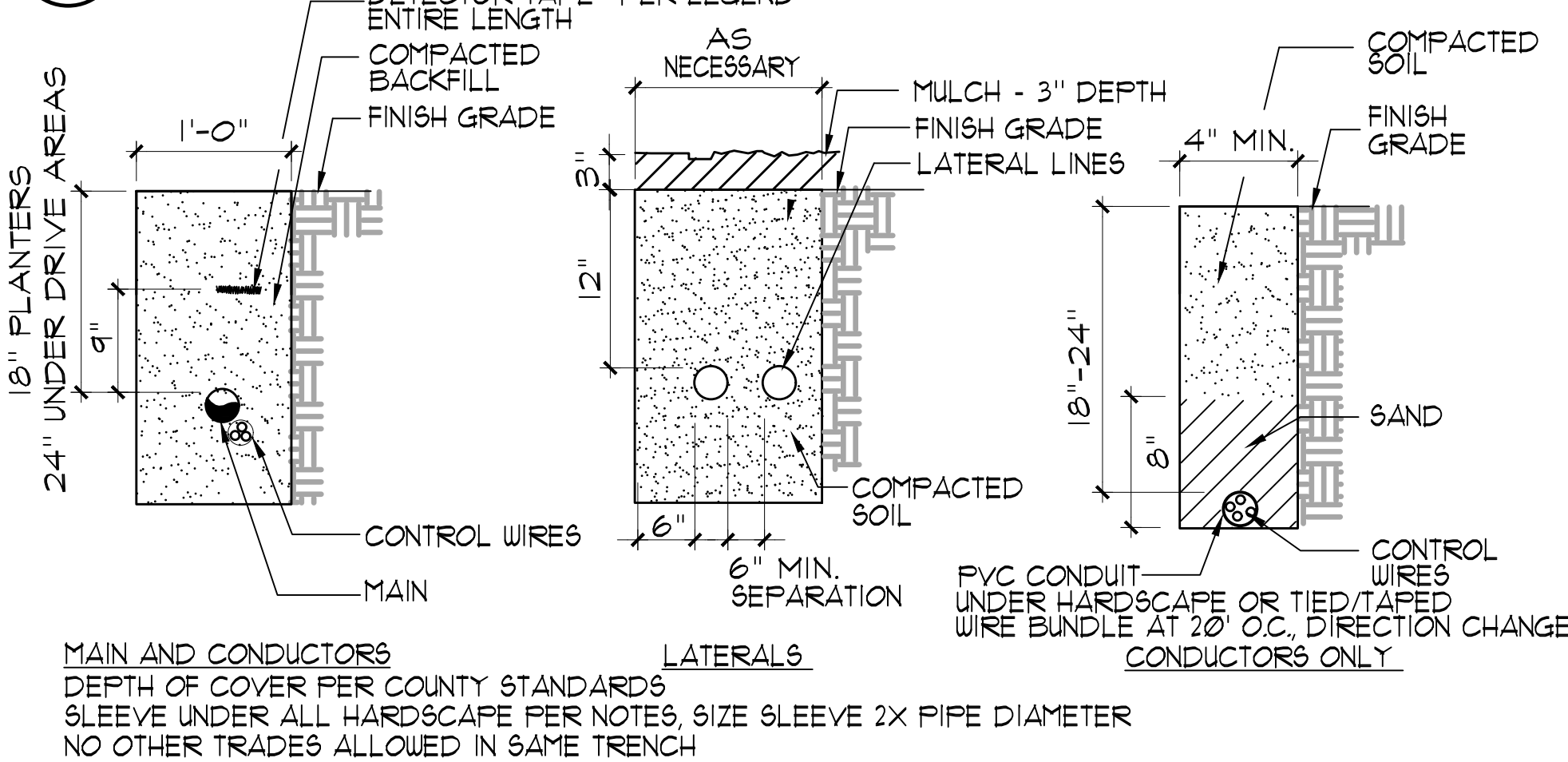
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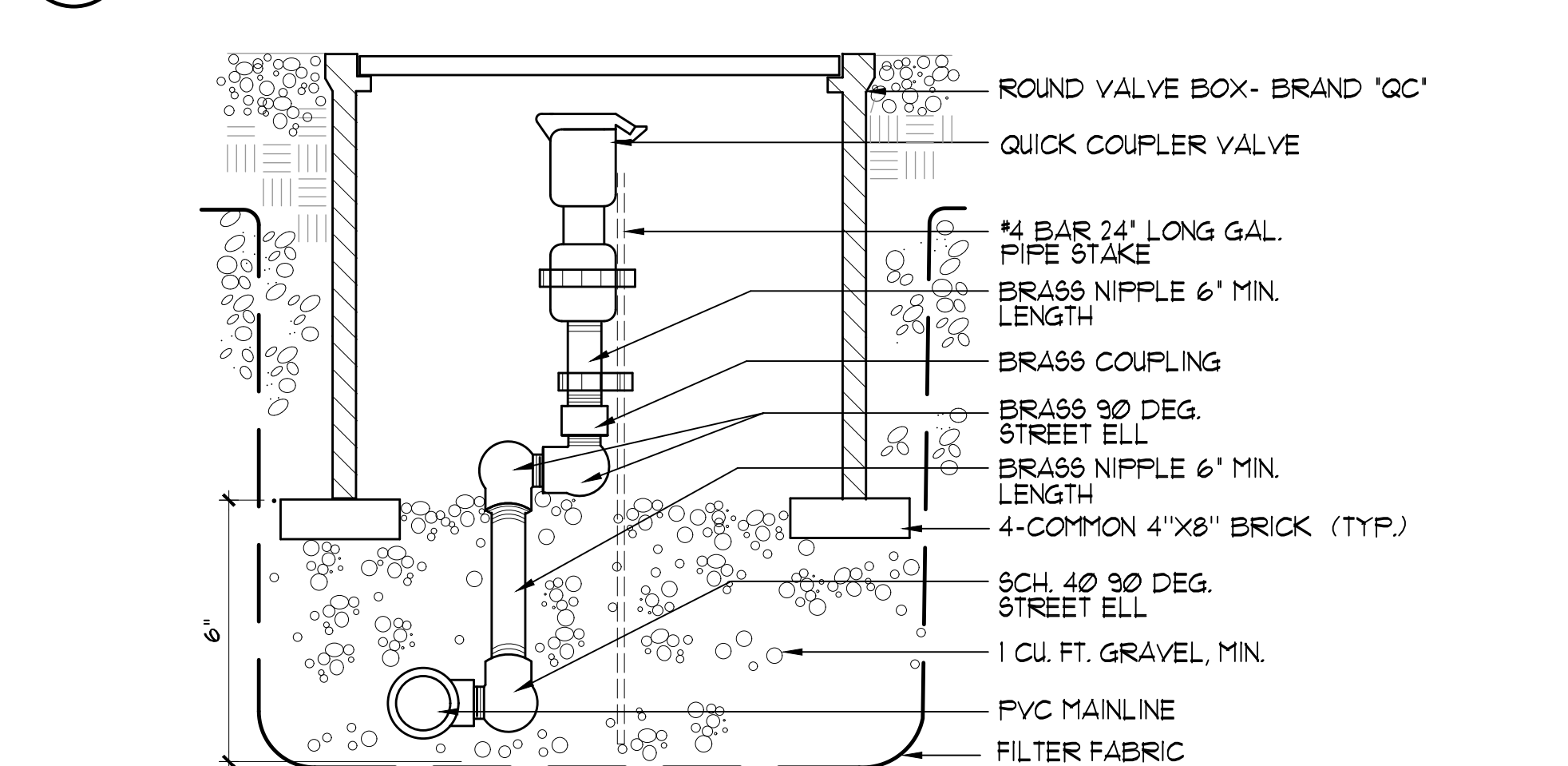




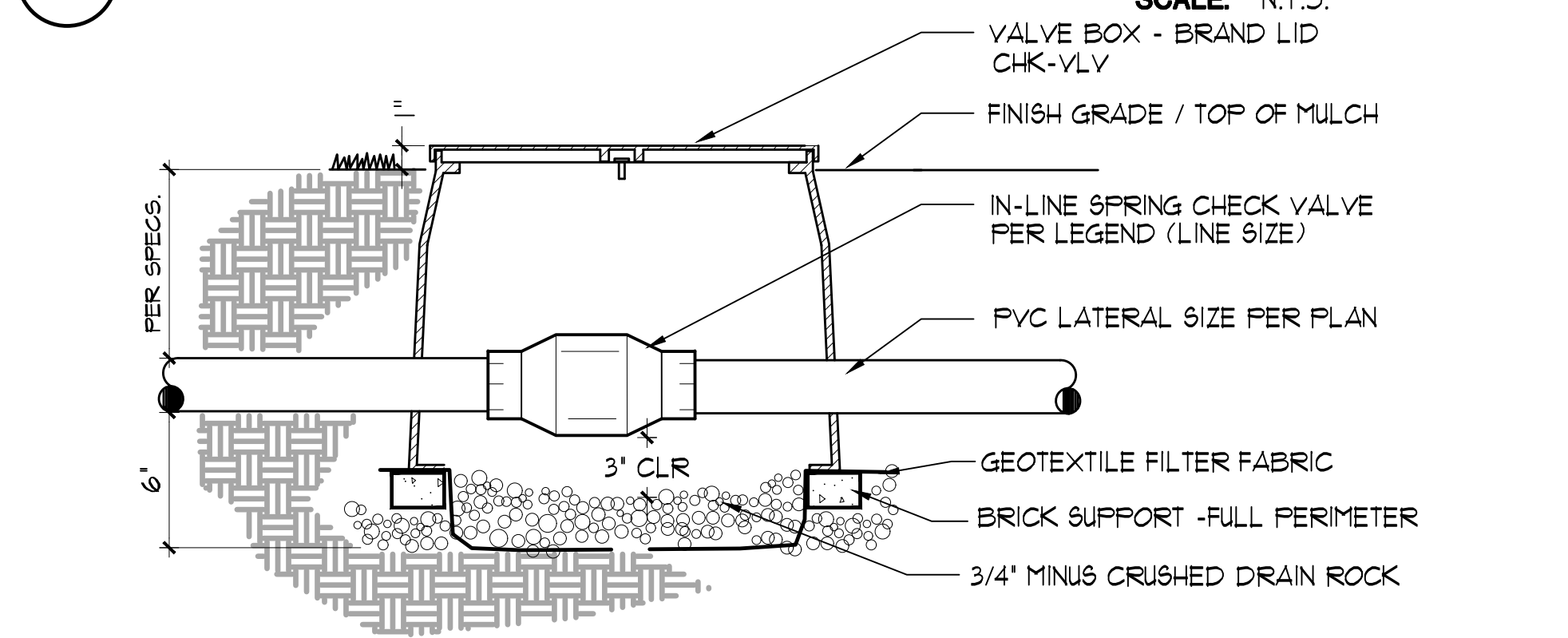
I **FIXED RISER HEAD** SCALE: N.T.S.



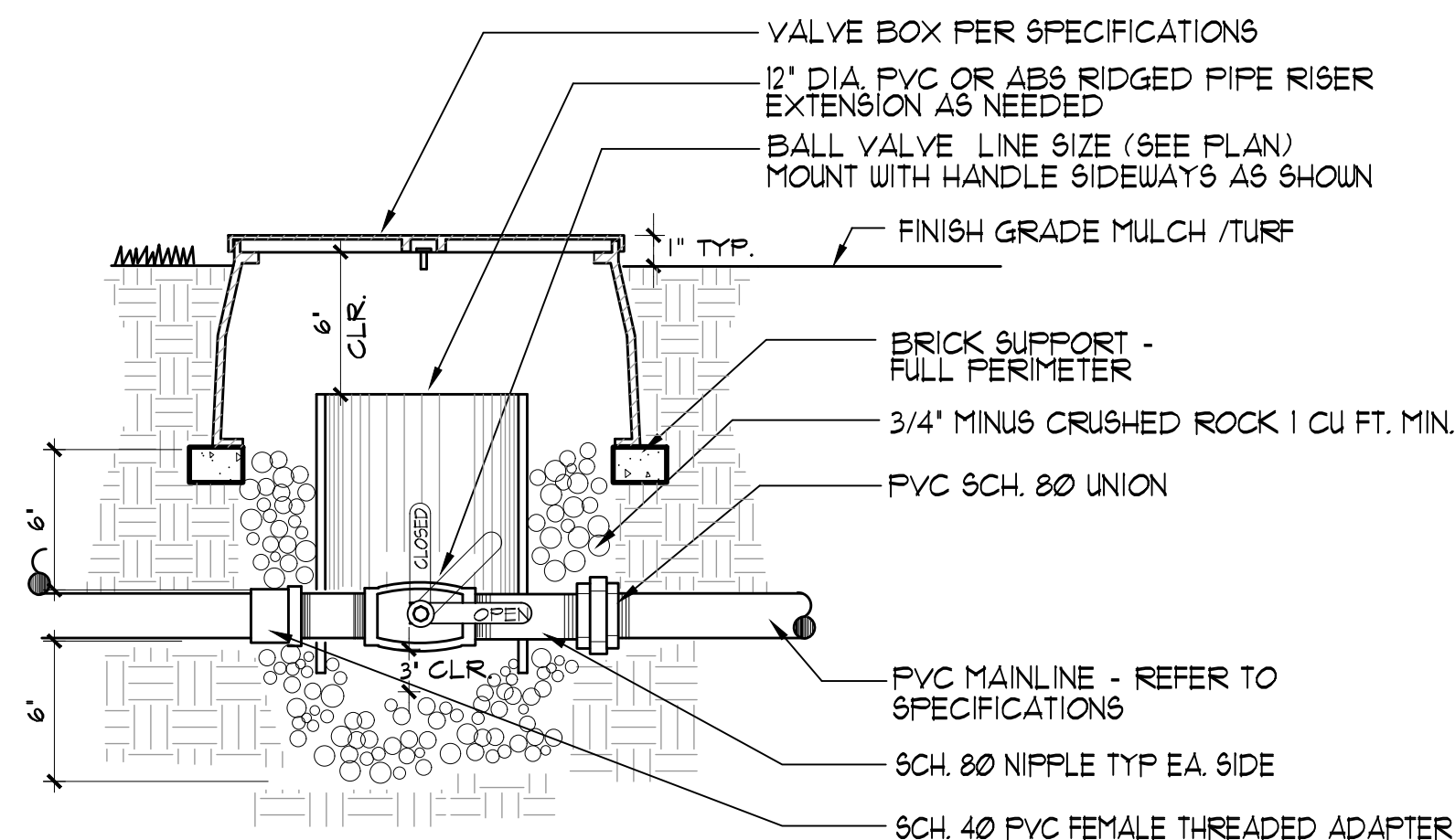
L **TRENCHING DETAIL** SCALE: N.T.S.



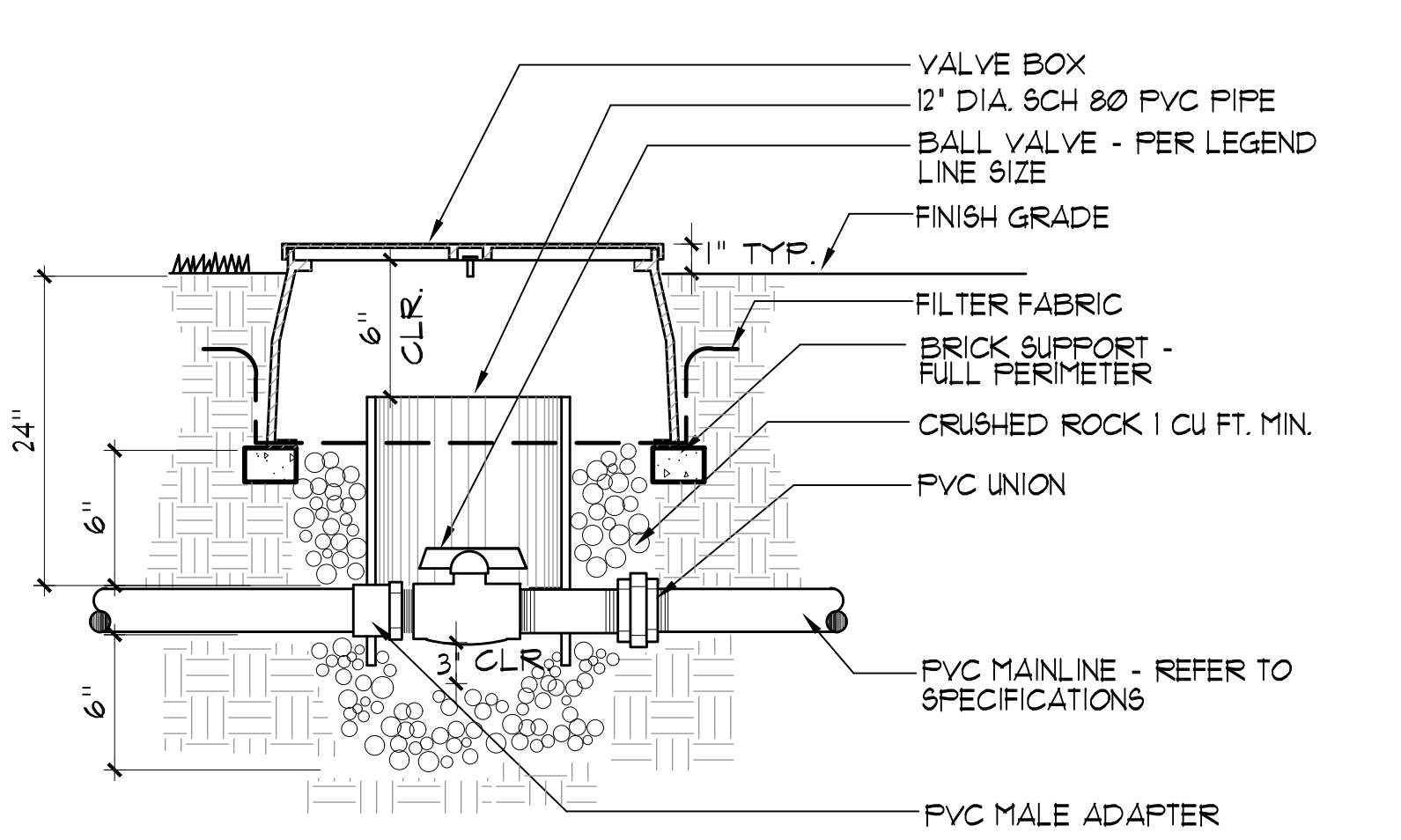
K **QUICK COUPLER VALVE** SCALE: N.T.S.



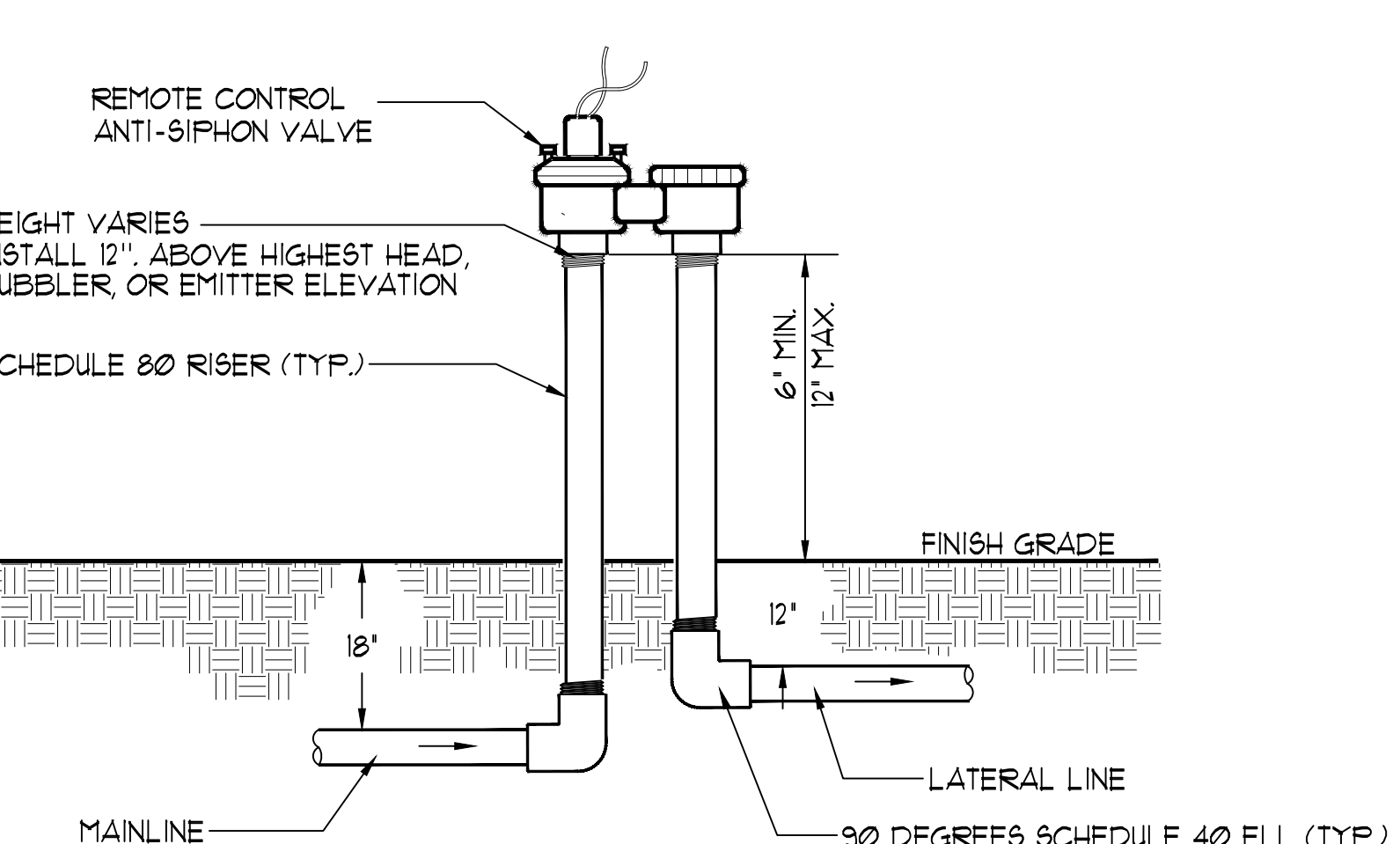
L **SPRING CHECK VALVE** SCALE: 1"=1'-0"



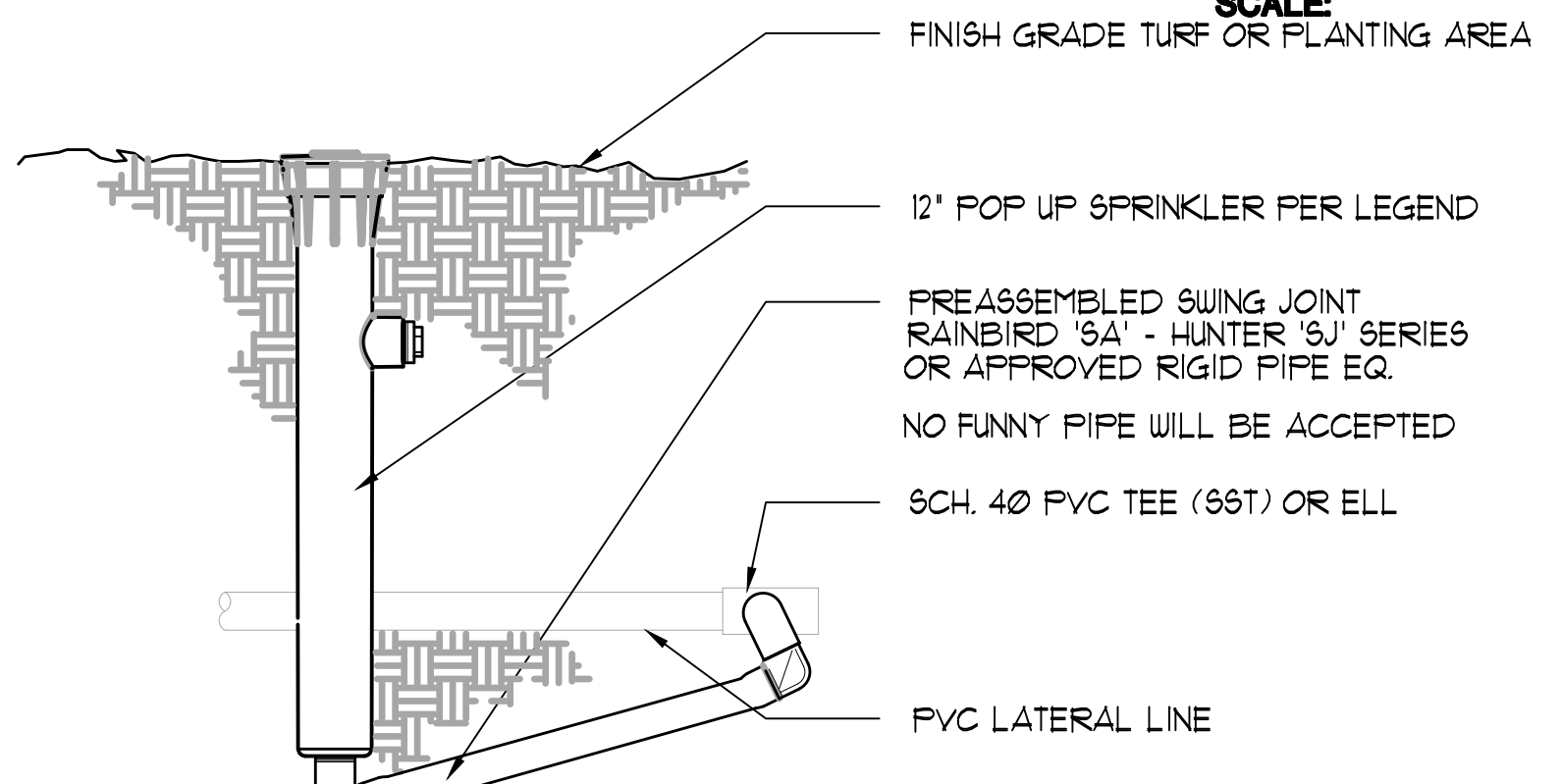
E **ISOLATION BALL VALVE** SCALE: 1"=1'-0"



F **BALL VALVE** SCALE: N.T.S.

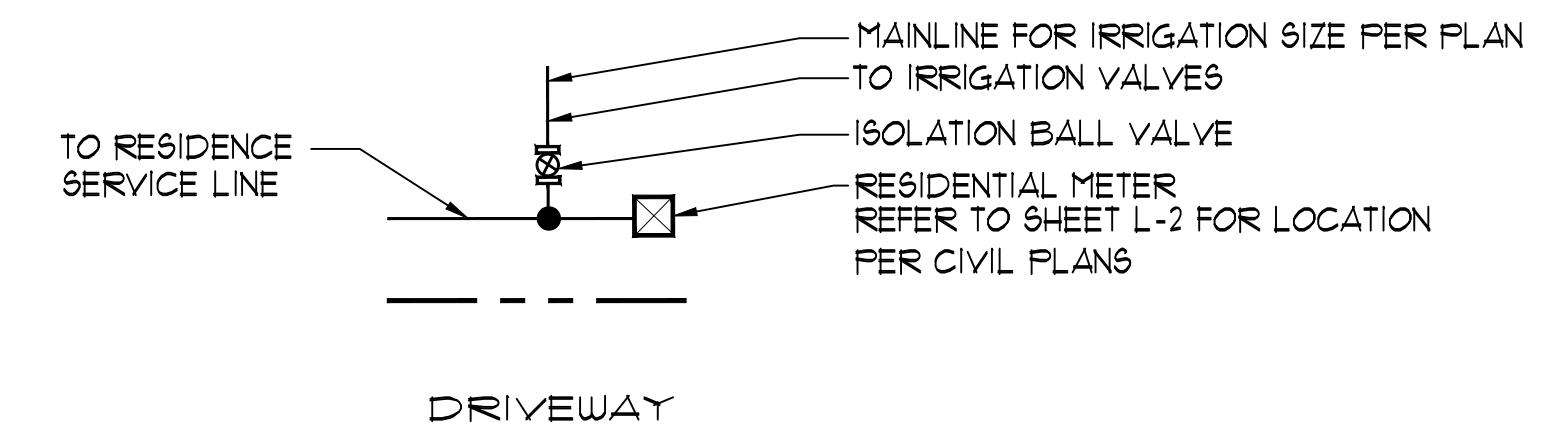


G **REMOTE CONTROL ANTI-SIPHON VALVE** SCALE: N.T.S.

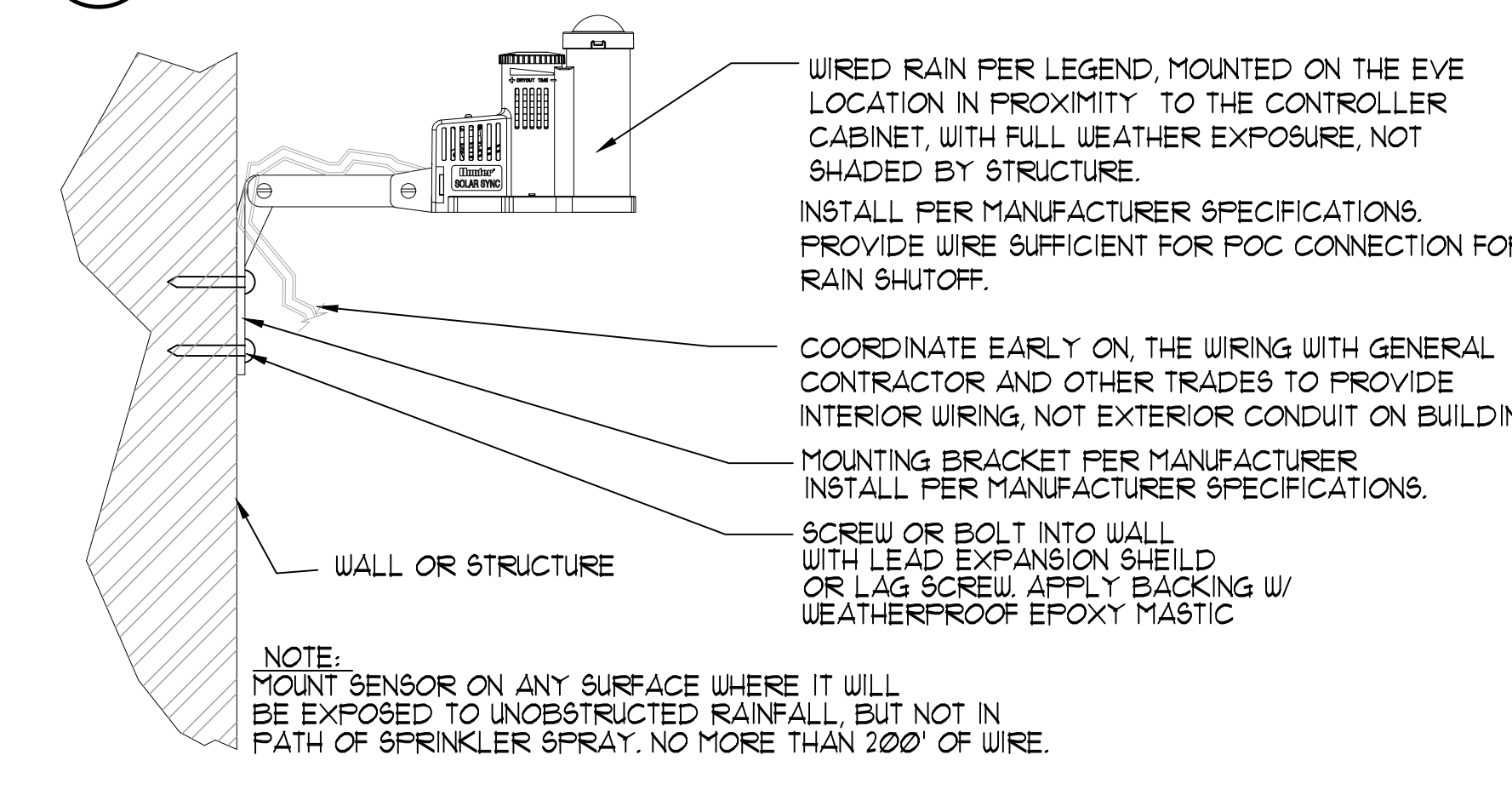


H **12" POP UP SPRAY HEAD** SCALE: 3"=1'-0"

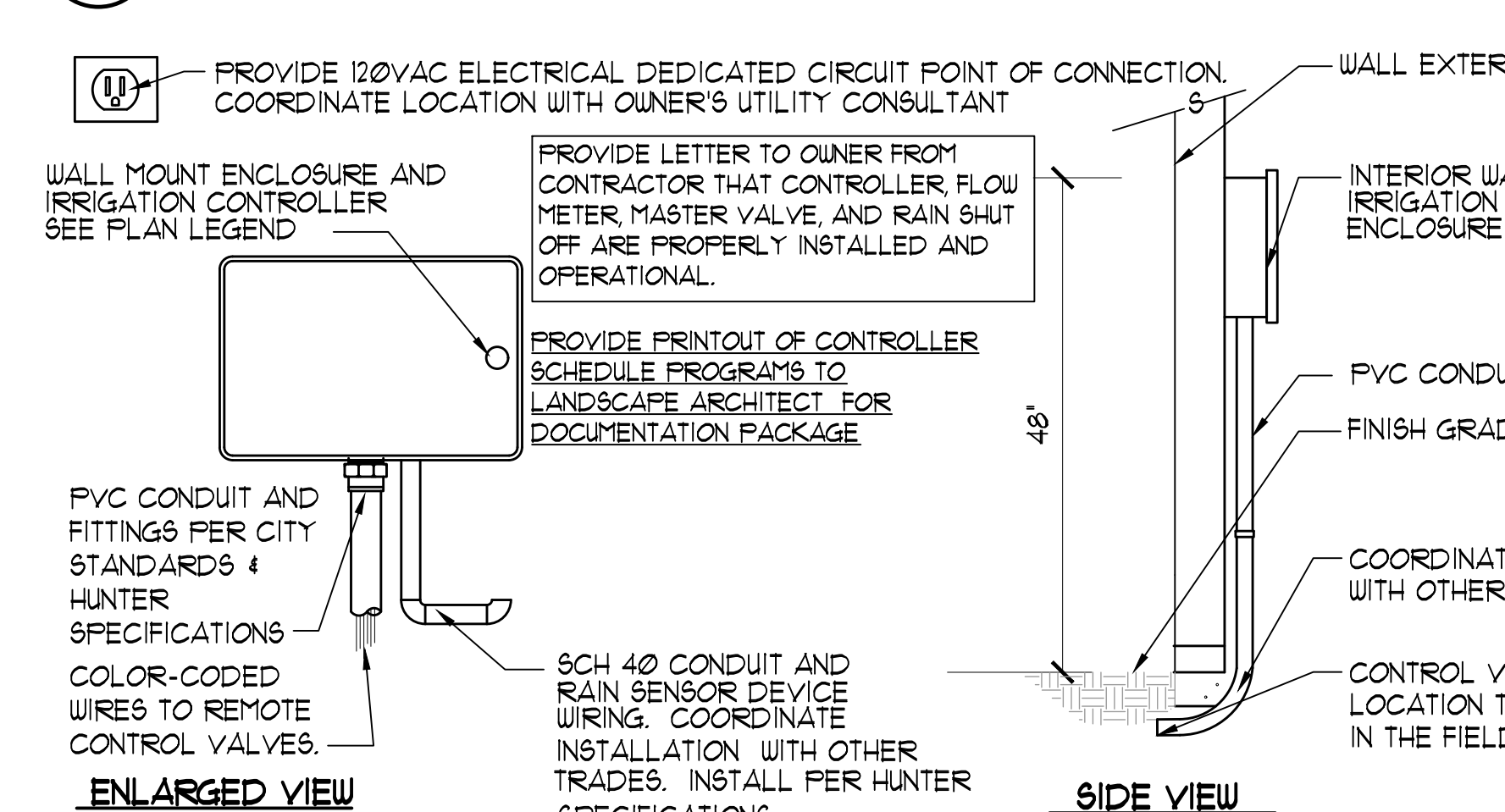
INSTALLATION SHALL MEET SAN MATEO COUNTY STANDARDS AND REGULATIONS



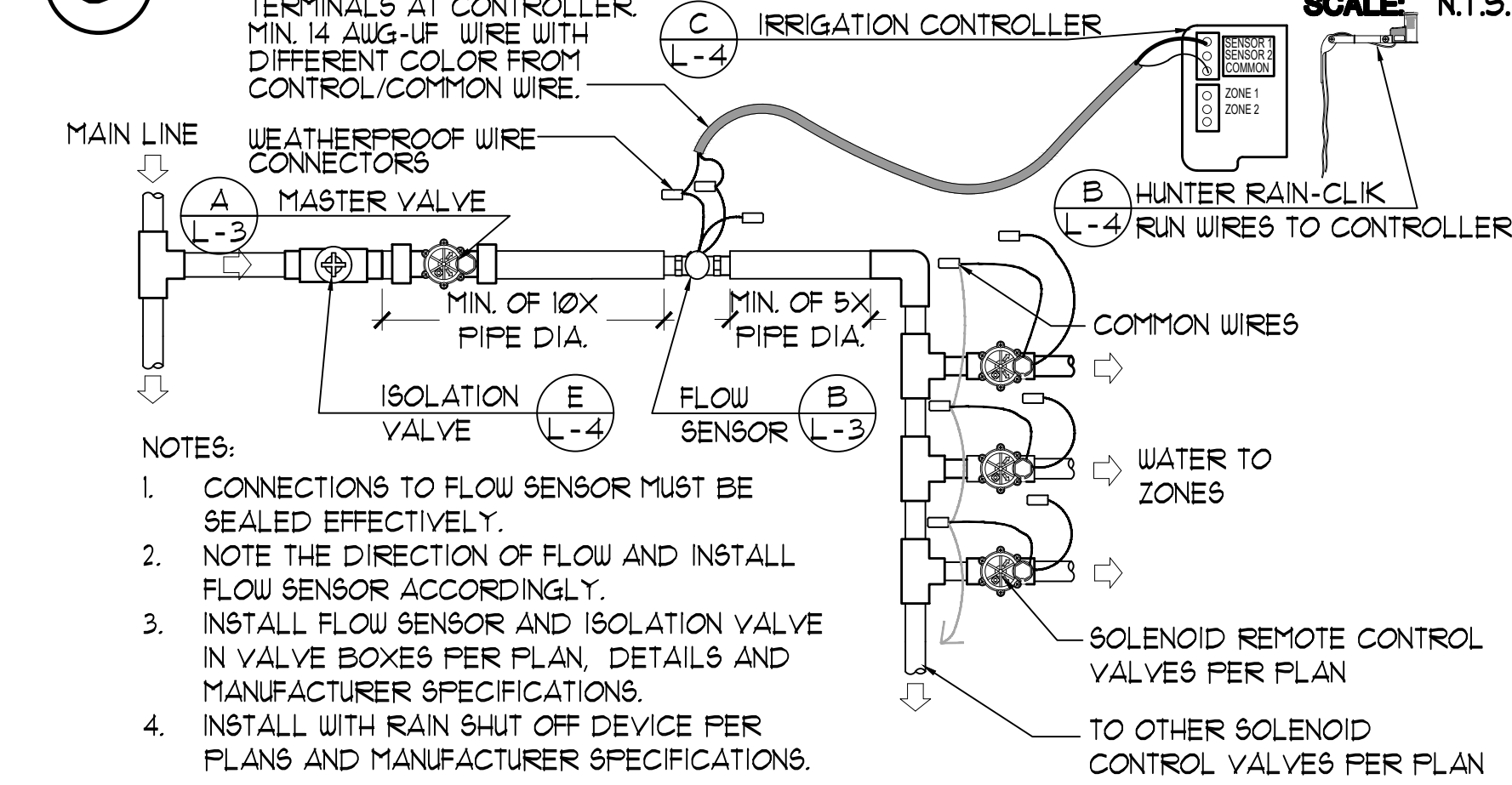
A **IRRIGATION P.O.C.** SCALE: 1/2"=1'-0"



B **WIRED RAIN SENSOR** SCALE: 3"=1'-0"



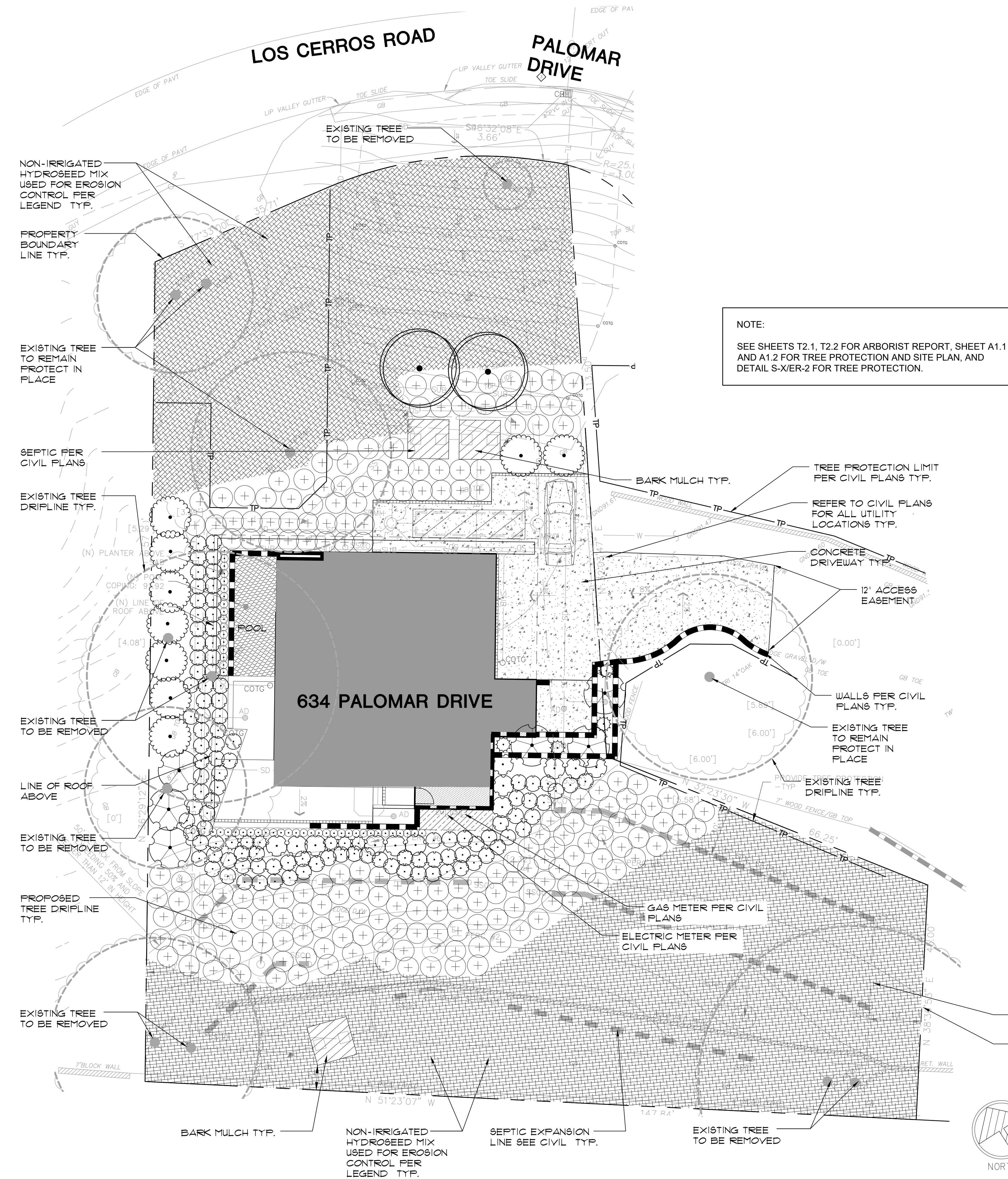
C **INTERIOR WALL MOUNT CONTROLLER** SCALE: N.T.S.



D **SCHEMATIC DIAGRAM** SCALE: 1/2"=1'-0"

634 PALOMAR DRIVE
 REDWOOD CITY, CALIFORNIA
 SAN MATEO COUNTY
 APN: 051-022-380

SHEET TITLE:
 IRRIGATION DETAILS
 SHEET NUMBER:
 L-4
 SCALE: AS NOTED
 DATE: 10.30.20
 REV: 5.10.21



NOTE:
SEE SHEETS T2.1, T2.2 FOR ARBORIST REPORT, SHEET A1.1 AND A1.2 FOR TREE PROTECTION AND SITE PLAN, AND DETAIL S-X/ER-2 FOR TREE PROTECTION.

SOIL PREPARATION-FOR BID PURPOSES

Gro-Power Plus is designed for soil conditions that are impossible, such as highly compacted, hard pan areas (clay, adobe, caliche soils) or areas that have extremely high levels of salt (EC), sodium boron or pH problems. Here is what Gro-Power Plus does for you:

- (1) Increases the rate and depth water penetration.
- (2) Aerates the soil.
- (3) Reduces evaporation.
- (4) Deepens root system.
- (5) Makes plant food in soil more available.
- (6) Frees trace minerals.
- (7) Soil does not become waterlogged.

I. Gro-Power Plus Used For Soil Preparation:
Use Gro-Power Plus at the rate of 150 lbs. to 200 lbs. per 1000 square feet Rototill Gro-Power Plus into the top 6" to 8" of soil. Then water thoroughly; the water activates the penetrant and starts to break up the compacted soil. Each time the water is added, the soil is broken up deeper until the penetrant is finally used up. The best part - the Humus in Gro-Power is there to keep the soil loose and friable below the root zone.

II. Gro-Power Plus Used For Turf Maintenance:
Use Gro-Power Plus at the rate of 25 lbs. to 30 lbs. per 1000 square feet on areas that have become highly compacted, hard-pan areas, areas where water stands, the center of football fields or high traffic areas. Use Gro-Power Plus once a year; then regular Gro-Power formula or Gro-Power HI Nitrogen at 7 lbs. to 8 lbs per 1000 square feet the rest of the application. Usually one or two more applications of regular Gro-Power or Gro-Power HI-Nitrogen is all that is needed the balance of the year after Gro-Power Plus has been used.

III. Gro-Power Plus Used For Hydroseeding:
Use for those difficult soil conditions - on cut and fill slopes, decomposed granite, etc. Apply at the rate 1,000 lbs. to 1,300 lbs per acre in slurry.

GRO-POWER PLUS 5-3-1 with 1.00% S&S Penetrant (Guaranteed Analysis)	
Total Nitrogen (N)	5.00%
1.00% Ammoniacal Nitrogen	
4.00% Urea Nitrogen	
Available Phosphoric Acid (P2O5)	3.00%
Soluble Potash (K2O)	1.00%
Iron (Fe)	1.00%
Manganese(Mn)	0.25%
Zinc (Zn)	0.25%
Derived from ammonium phosphate, urea, sulphate of potash, urea and sulfur and source of iron, manganese and zinc.	
ALSO CONTAINS: GRO-PLANT FOOD INGREDIENT: Humic Acids derived from compost	
Penetrant (alkyl naphthalene sodium sulfonate)	1.00%
Bacterial (common soil and airborne organisms - aerobic, anaerobic, yeast & mold)	Minimum 60,000 per 500 gram

BACKFILL - FOR BID PURPOSES

- A. 7 PARTS OF NATIVE ON-SITE SOIL, 3 PARTS OF NITROLIZED SHAVINGS AND 15LBS. OF GRO-POWER PER CUBIC YARD OF MIX. MIX THIS THOROUGHLY AND BACKFILL - OR-
- B. MIX 7 PARTS OF ROCK-FREE SOIL AND 3 PARTS OF NITROLIZED SHAVINGS AND MIX THOROUGHLY. BACKFILL WITH THIS MIXTURE TO TOP OF PLANTING PIT. APPLY GO-POWER, PLUS OR PLUS w/M ON TOP OF MIX.

CONTAINER SIZE	PIT SIZE	FEED GRO-POWER
1 gallon	Dig hole twice the size of ball	1/2 cup
5 gallons	Dig hole twice the size of ball	1 cup
15 gallons	Dig hole twice the size of ball	2 cups
24" box	Allow 2 ft. on each side of box	4 cups
30" box	Allow 2 ft. on each side of box	4 1/2 cups
36" box	Allow 2 ft. on each side of box	5 cups
42" box	Allow 2 ft. on each side of box	6 cups
48" box	Allow 2 ft. on each side of box	7 cups
54" box	Allow 2 ft. on each side of box	8 cups
60" box	Allow 2 ft. on each side of box	9 cups
72" box	Allow 2 ft. on each side of box	12 cups

SPECIFICATIONS:

Gro-Power Plus 5-3-1 Soil Penetrant Added (1.00% Alkyl Naphthalene Sodium Sulfonate)
Fertilizer - Conditioner - Organic materials, higher plant form life, composted below the fibrous stage to support bacterial cultures. Gro-Power contains no poultry, animal or human waste.
PHYSICAL PROPERTIES: A uniform "beaded" homogenous mixture - 100.00% passing through a #4 mesh screen - a water soluble bio-degradable binder is used to insure fast breakdown.
CHEMICAL ANALYSIS: 5-3-1. Nitrogen (available) 5.00%, Phosphate 3.00%, Potash 1.00% Humus 70.00%, Humic Acids 15.00% Soil Penetrant 1.00%. Gro-Power bacterial "stimulator" included.

GROW PLANTING TABLETS

GRO-POWER PLANTING TABLETS: 7 gram planting tablet designed for 12 month slow release. Components of tablets allow for breakdown within all soil mediums. May be used in new plantings, existing plants, containers, water plants.

12-8-8 NPK, 20% Humus, 4% Humic Acids, 3.5% Sulfur, 2% Iron, Micronutrients.

Gro-Power Planting Tablets Application Rates for New Landscape Plantings or Containers:			
4" Pot Ground Cover	6" Pot Liner	1 Gal. Plant	3 Gal. Plant
1	1-2	2-3	3-6
5 Gal. Plant	7 Gal. Plant	10 Gal. Plant	15 Gal. Plant
6-9	8-10	10-12	12-15
20" - 24" Box	30" Box	36" Box	42" Box
14-16	15-18	18-20	20-22
48" Box	60" Box	Larger sizes for each 1/2" caliper use	
22-24	32-36	3-4	

NORTH

CALL BEFORE YOU DIG 811

12/17/20
11/16/20
7/22/20

PLANT SCHEDULE							Water Use		
TREES	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	Low	Medium	DETAILS	
	Geijera parviflora	Australian Willow	24" Box	As Shown	2		X	A,B/L-6	
SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	Low	Medium	DETAILS	
	Agave attenuata	Foxtail Agave	5 gal.	4' o.c.	12	X		C,D/L-6	
	Aloe x 'Blue Elf'	Aloe	1 gal.	18" o.c.	46	X		C,D/L-6	
	Dodonaea viscosa 'Purpurea'	Purple Leafed Hopseed Bush	15 gal.	8' o.c.	9	X		C,D/L-6	
	Lomandra longifolia 'Breeze' TM	Breeze Mat Rush	1 gal.	3' o.c.	104	X		C,D/L-6	
	Muhlenbergia rigens	Deer Grass	1 gal.	4' o.c.	195	X		C,D/L-6	
	Phormium x 'Amazing Red'	Amazing Red New Zealand Flax	5 gal.	3' o.c.	10	X		C,D/L-6	
GROUND COVERS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	Low	Medium	DETAILS	
	Dymondia margaretae	Silver Carpet Dymondia	flat	12" o.c.	57 sf	X		D/L-6	
	Ornamental, Low Growing Native Hydroseed Mix- S & S Seeds - or approved equal. This is a mixture of showy, low growing annual and perennial species that will provide months of bright Spring color in a non-irrigated setting, or year-round color when irrigated. Recommended Application Rate - 42 lbs/acre					8,811 sf	X	MFR. SPEC.	

634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA
SAN MATEO COUNTY
APN: 051-022-380

SHEET TITLE:
PLANTING PLAN
DATE: 07.6.20
REV: 5.10.21

SHEET NUMBER:
L-5

SCALE: AS NOTED

PLANTING NOTES:

1. A MINIMUM OF THREE (3) INCHES OF MULCH SHALL BE ADDED TO THE SOIL SURFACE AFTER PLANTING IN NON-TURF AREAS. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH.

2. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS, AND GROUNDCOVERS.

3. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM A SOIL SUITABILITY SAMPLE TAKEN FROM THE SITE PRIOR TO PLANTING.

4. DESIGN SHALL MEET ALL WATER CONSERVATION POLICY AND GUIDELINES AND THE SAN MATEO COUNTY REQUIREMENTS.

5. CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES. COORDINATE WITH THE OWNER TO OBTAIN ANY REQUIRED PERMITS NECESSARY TO COMPLETE WORK. ALL WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE(1) CALENDAR YEAR AFTER FINAL ACCEPTANCE.

6. MAINTAIN ALL PLANT MATERIAL FOR A THREE(3) MONTH PERIOD FROM DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE SHALL INCLUDE PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, SPRAYING FOR DISEASE AND INSECTS. RECOMMENDED LONG-TERM MAINTENANCE PROCEDURES SHALL BE PROVIDED TO THE OWNER BEFORE EXPIRATION OF THIS PERIOD.

7. ALL REQUIRED LANDSCAPE AREAS SHALL BE THE RESPONSIBILITY OF THE OWNER. THE LANDSCAPE AREAS SHALL BE MAINTAINED PER THE COUNTY OF SAN MATEO COUNTY REQUIREMENTS.

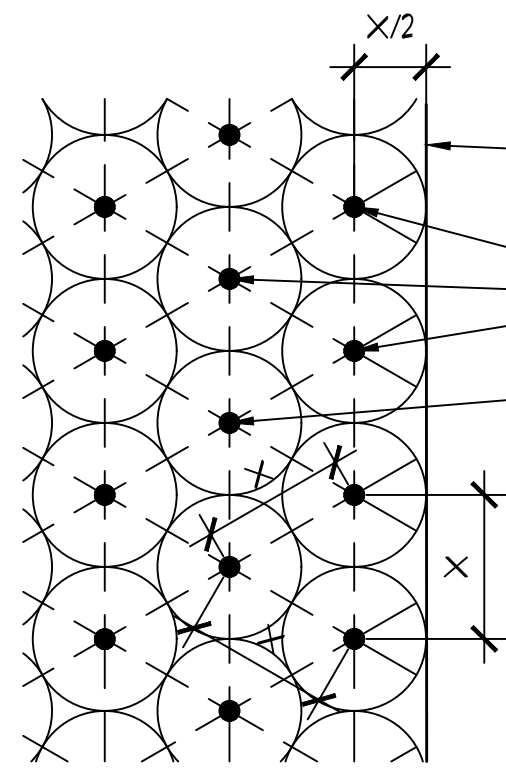
8. VERIFY ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. REPAIR ALL DAMAGED UTILITIES IF DAMAGED BY CONSTRUCTION TO SATISFACTION OF THE OWNER AND OPERATING AUTHORITY AT NO ADDITIONAL COST.

9. ALL EXISTING TREES THAT ARE TO REMAIN SHALL BE PROTECTED IN PLACE AND SHALL NOT DISTURB ROOTS UNDER TREE DRIPLINE. REFER TO CIVIL FOR ADDITIONAL NOTES.

10. A FUEL BREAK OF DEFENSIBLE SPACE IS REQUIRED AROUND THE PERIMETER OF ALL STRUCTURES TO A DISTANCE OF NOT LESS THAN 30 FEET AND MAY BE REQUIRED TO A DISTANCE OF 100 FEET OR TO THE PROPERTY LINE. THIS IS NEITHER A REQUIREMENT NOR AN AUTHORIZATION FOR THE REMOVAL OF LIVING TREES. TREES LOCATED WITHIN THE DEFENSIBLE SPACE SHALL BE PRUNED TO REMOVE DEAD AND DYING PORTIONS, AND LIMBED UP 6 FEET ABOVE THE GROUND. NEW TREES PLANTED IN THE DEFENSIBLE SPACE SHALL BE LOCATED NO CLOSER 10' TO ADJACENT TREES WHEN FULLY GROWN OR AT MATURITY. REMOVED THAT PORTION OF ANY EXISTING TREE, WHICH EXTENDS WITHIN 10 FEET OF THE OUTLET OF A CHIMNEY OR STOVEPIPE OR IS WITHIN 5' OF ANY STRUCTURE. MAINTAIN ANY TREE ADJACENT TO OR OVERHANGING A BUILDING FREE OF DEAD OR DYING WOOD.

11. ROOT BARRIER SHALL BE IMPLEMENTED IN AREAS WHERE TREES ARE WITHIN 10 FEET ADJACENT TO COUNTY FACILITIES AND HARDSCAPE. DETAIL A/L-2

12. LANDSCAPING WITH DEEP ROOTS SYSTEM SHALL NOT BE PLACED ON STORMWATER IMPROVEMENTS UNLESS THEY ARE AN INTEGRAL PART OF THE STORMWATER POLLUTION PREVENTION MEASURES. CONSTRUCTOR TO VERIFY THAT LANDSCAPING DOES NOT IMPACT STORAGE VOLUMES IN STORMWATER BASINS, SWALES, OR OTHER HYDRAULIC STRUCTURES.



NOTE: DIAGRAM REFERS TO ALL PLANT SPACING UNLESS OTHERWISE NOTED (TYP)

EDGE CONDITION (CONCRETE PAVEMENT, EDGING MATERIAL, WALL, FENCE, BUILDING FACADE, ETC)

TRIANGULAR SPACING FOR OPTIMUM COVERAGE (TYP.)

CENTER OF PLANT (SHRUB, GROUNDCOVER, ETC.) (TYP.) REFER TO PLANT LIST FOR TYPE, SIZE AND SPACING REQUIREMENTS.

NOTES:

X = SPACE PLANTS ACCORDING TO THE ON-CENTER (O.C.) PLANT SPACING AS NOTED IN THE PLANTING PLANS. (TYP.)

X/2 = SPACE PLANTS ACCORDING TO 1/2 THE ON-CENTER (O.C.) PLANT SPACING AS NOTED IN THE PLANTING PLANS. (TYP.)

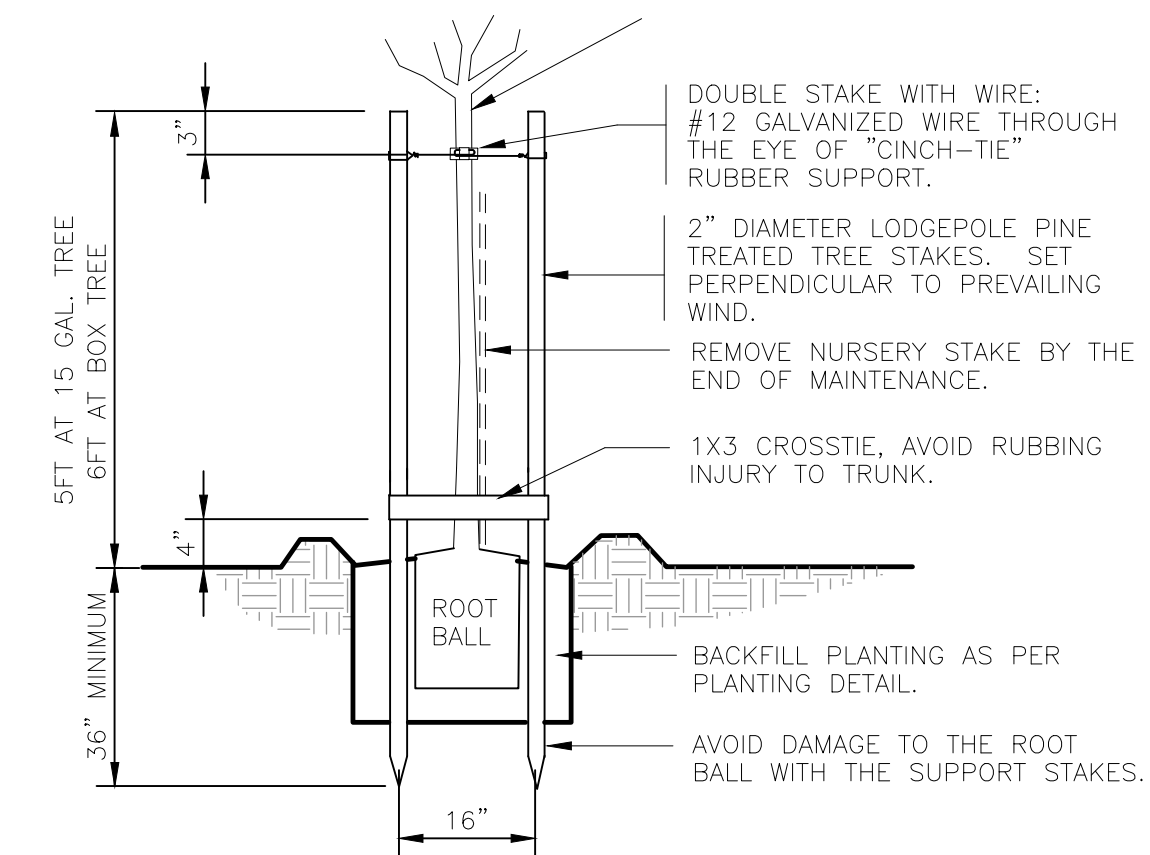
D TRIANGULAR SPACING DIAGRAM

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

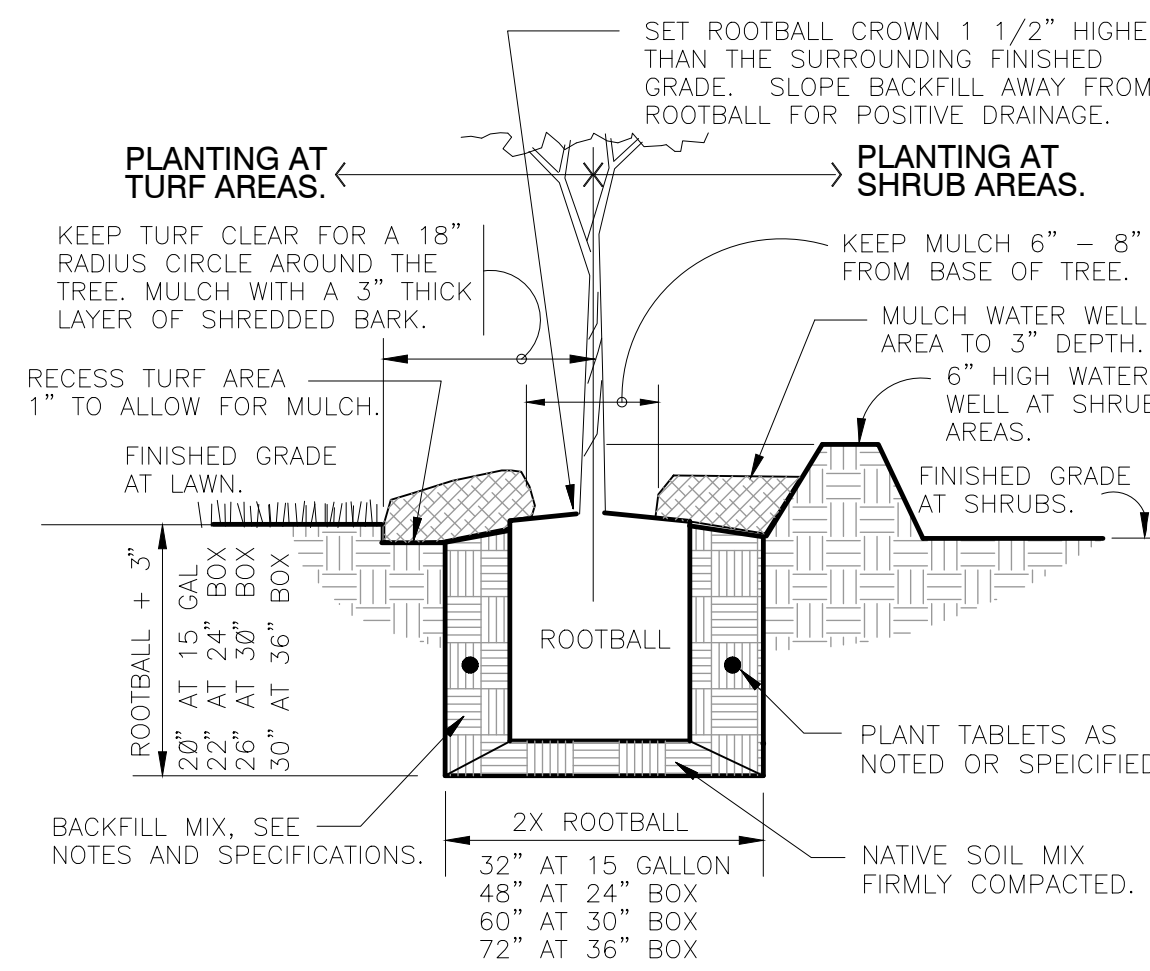
SOILS ANALYSIS REPORT

WALLACE LABS		SOILS REPORT		Print Date	Aug. 6, 2020	Receive Date	8/5/20
365 Coral Circle		Location		634 Palomar Dr., Redwood City, CA / Thalapaneni Residence			
El Segundo, CA 90245		Requester		Enrique Guzman, Contexto Landscape			
(310) 615-0116		graphic interpretation: *		* very low, ** low, *** moderate			
ammonium bicarbonate/DTPA		Sample ID Number		20-219-28			
extractable - mg/kg soil		Sample Description		Redwood City, 6"			
Interpretation of data		elements		graphic			
low medium high		phosphorus		34.98 *****			
0-7 8-15 over 15		potassium		557.85 *****			
0-60 60-120 121-180		iron		54.18 *****			
0-4 4-10 over 10		manganese		51.77 *****			
0-0.5 0.6-1 over 1		zinc		12.80 *****			
0-1 1-1.5 over 1.5		copper		4.30 *****			
0-0.2 0.3-0.5 over 0.5		boron		0.20 **			
0-0.2 0.2-0.5 over 1		calcium		447.80 *****			
		magnesium		304.44 *****			
		sodium		27.78 *			
		sulfur		20.16 *			
		molybdenum		0.04 ***			
		nickel		6.05 ***			
		aluminum		nd *			
		arsenic		0.20 *			
		barium		2.08 *			
		cadmium		0.08 *			
		chromium		0.15 *			
		cobalt		0.29 *			
		lead		8.37 ***			
		lithium		0.23 *			
		mercury		nd *			
		selenium		nd *			
		silver		nd *			
		strontium		2.07 *			
		tin		nd *			
		vanadium		0.41 *			
The following trace elements may be toxic		Saturation Extract		pH value			
The degree of toxicity depends upon the pH of the soil, soil texture, organic matter, and the concentrations of the individual elements as well as to their interactions.		pH value		6.62 ***			
		ECe (milli-mho/cm)		0.47 **			
		calcium		62.7 millieq/l			
		magnesium		24.3 2.0			
		sodium		11.1 0.5			
		potassium		24.1 0.6			
		cation sum		6.2			
		chloride		21 0.6			
		nitrate as N		7 0.5			
		phosphorus as P		4.7 0.2			
		sulfate as S		15.8 1.0			
		anion sum		2.3			
		boron as B		0.19 *			
		SAR		0.3 *			
		est. gypsum requirement-lbs./1000 sq. ft.		23			
		relative infiltration rate		fair/slow			
		estimated soil texture		loam			
		lime (calcium carbonate)		no			
		organic matter		fair/low hydrophobic			
		moisture content of soil		5.2%			
		half saturation percentage		40.8%			

Elements are expressed as mg/kg dry soil or mg/l for saturation extract. pH and ECe are measured in a saturation paste extract. nd means not detected. Analytical data determined on soil fraction passing a 2 mm sieve.



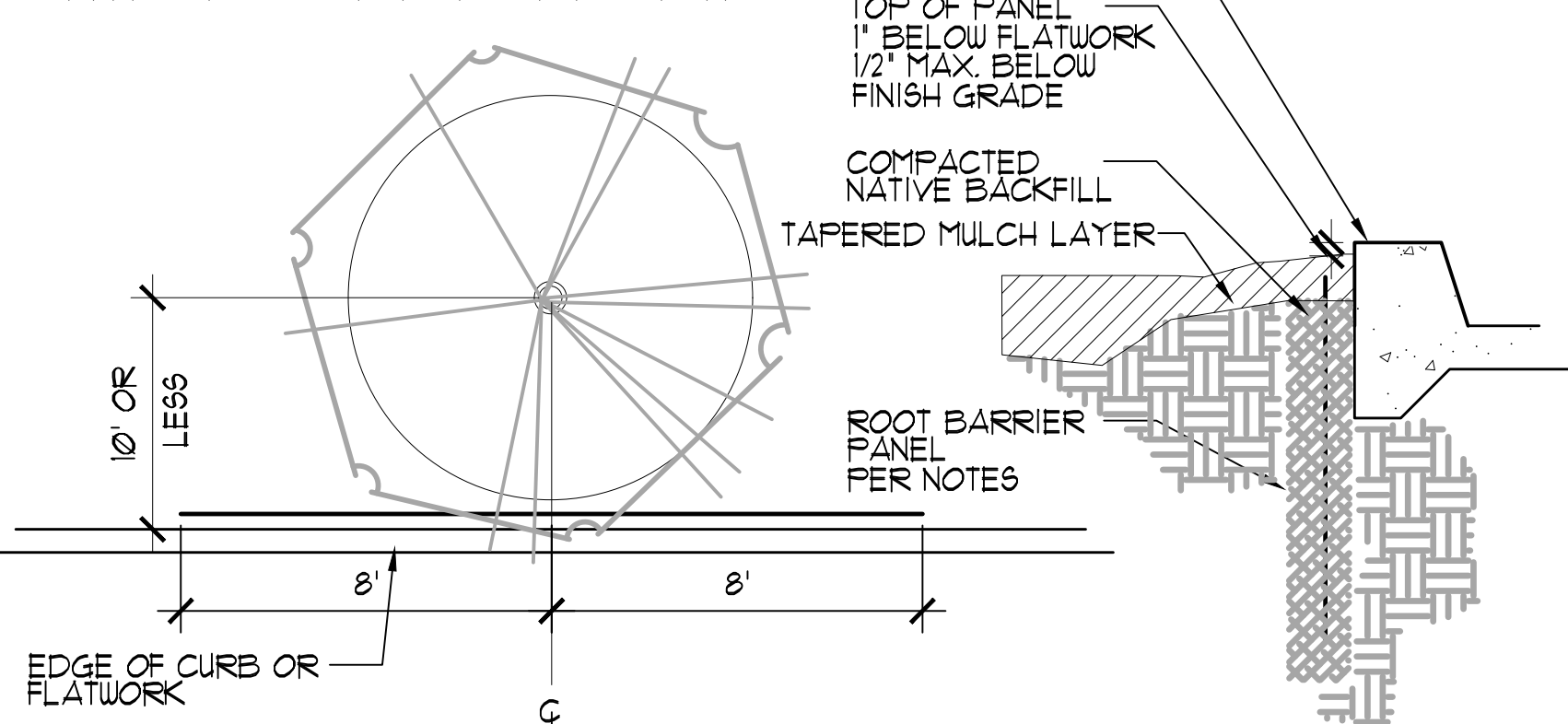
STAKING DETAIL



PLANT PIT DETAIL

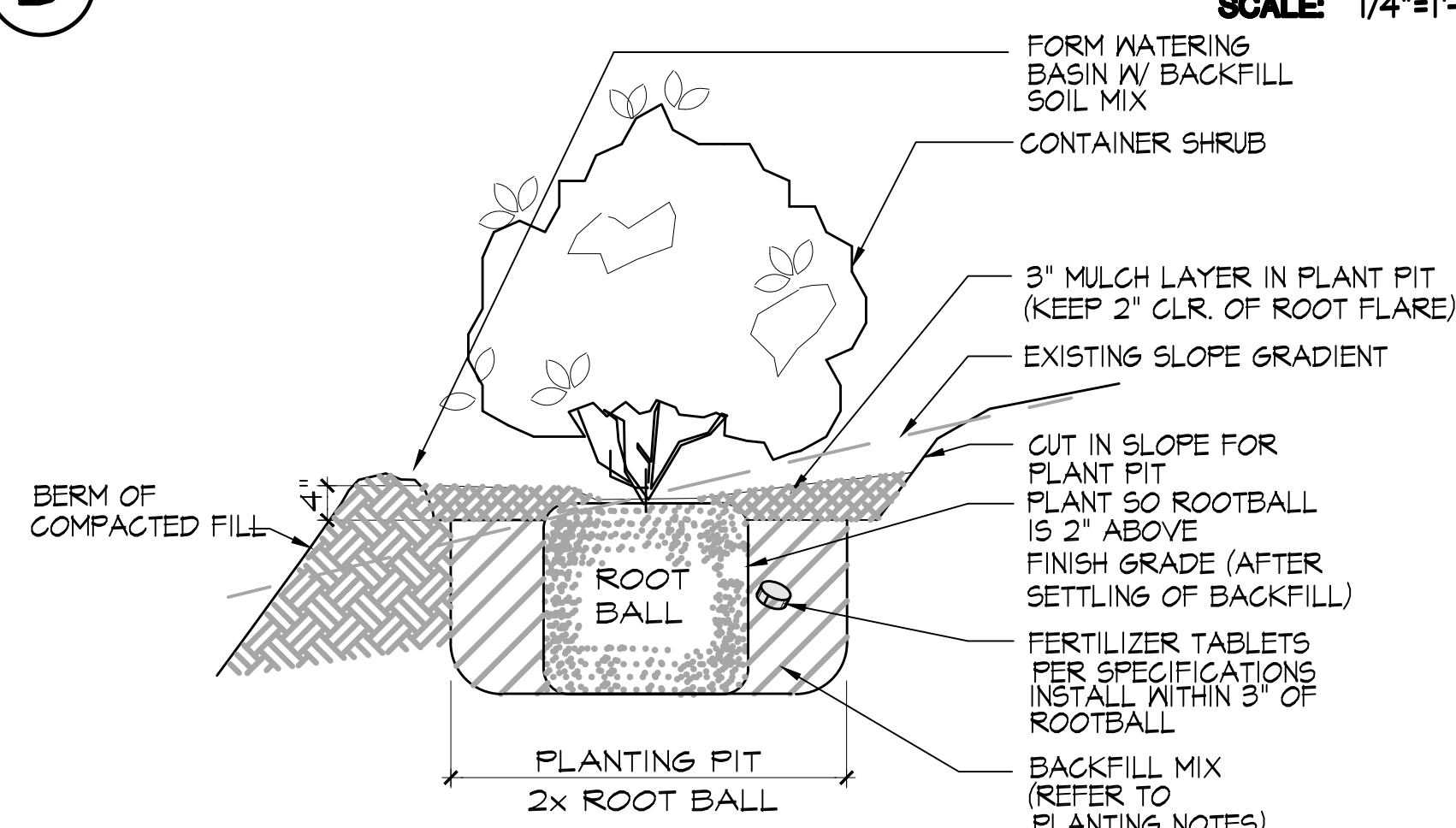
A TREE PLANTING DOUBLE STAKE

NOTES:
LINEAR ROOT BARRIER INSTALLATION DEPTH: 36" DEEP. DO NOT WRAP AROUND ROOTBALL.



B ROOT BARRIER

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



C CONTAINER PLANTING

SCALE: 1"=1'-0"

634 PALOMAR DRIVE

REDWOOD CITY, CALIFORNIA

SAN MATEO COUNTY

APN: 051-022-380

SHEET TITLE:
PLANTING DETAILS/ NOTES

DATE: 10.30.20
REV: 5.10.21

SHEET NUMBER:

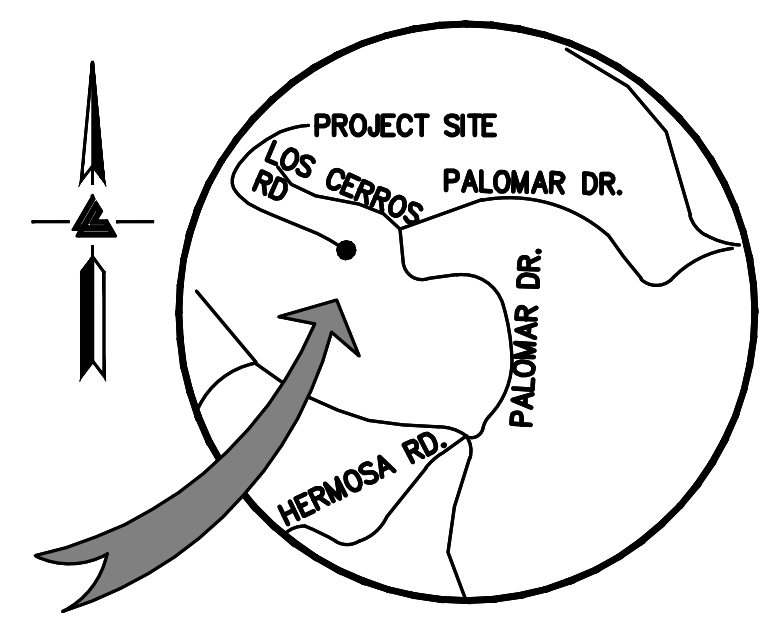
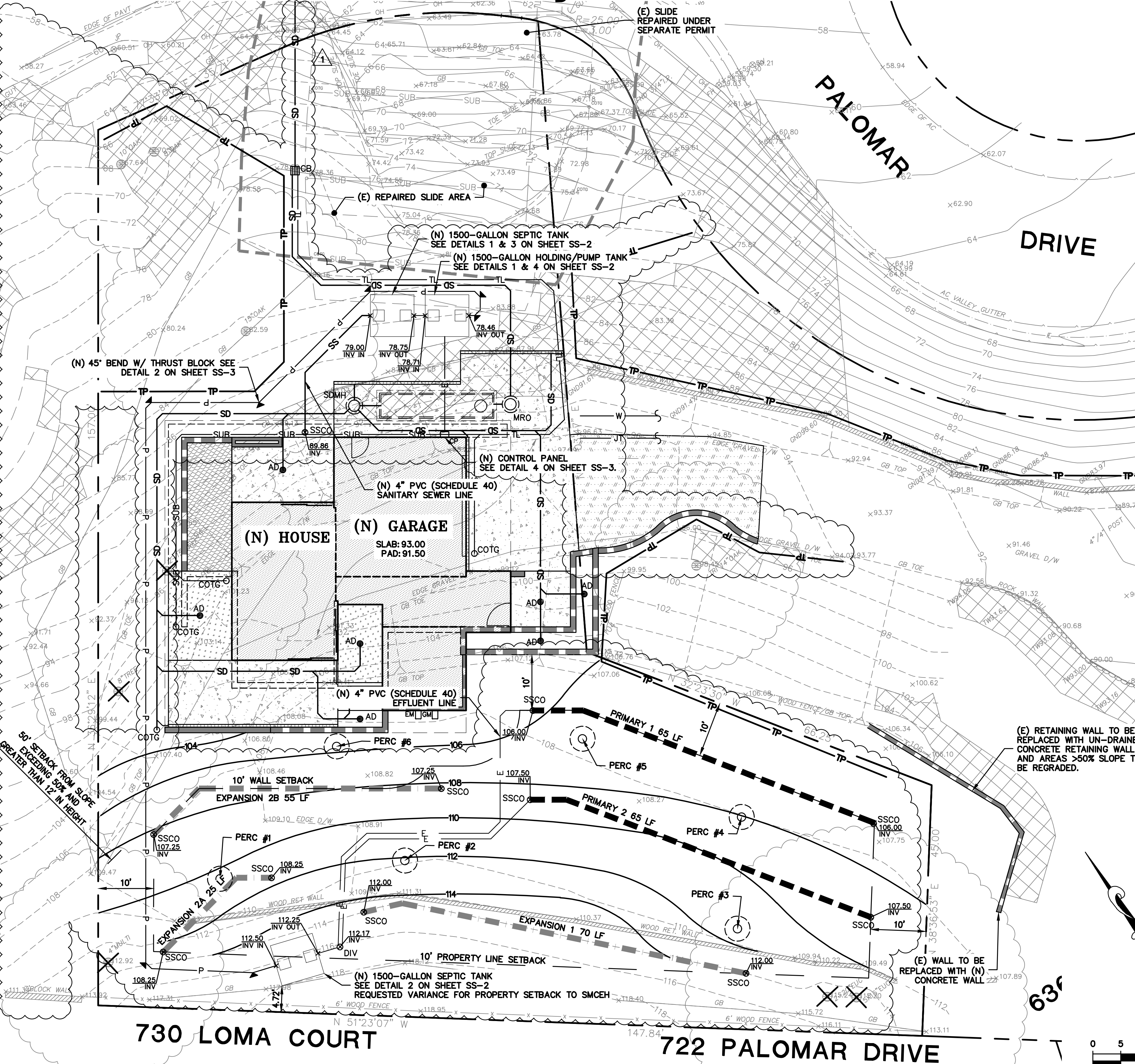
L-6

SCALE: AS NOTED

SEPTIC PLAN

634 PALOMAR DRIVE

REDWOOD CITY, CALIFORNIA



LEGEND

PROPOSED	DESCRIPTION
---	BOUNDARY
---	PRIMARY LEACH LINE
---	EXPANSION LEACH LINE
---	EXISTING LEACH LINE
---	EXISTING LEACH LINE TO BE REMOVED
---	RETAINING WALL
---	LANDSCAPE RETAINING WALL
TL	TIGHTLINE
E	EFFLUENT LINE
W	SET BACK LINE
X	WATER LINE
P	FENCE LINE
JT	PRESSURE LINE
SUB	JOINT TRENCH
---	SUBDRAIN LINE
---	GRADING LIMIT LINE
Div	DIVERSION VALVE
DS	DOWNSPOUT
SSCO	SANITARY SEWER CLEANOUT
AD	AREA DRAIN
222.57 INV	SPOT ELEVATION
200	CONTOURS
○	PERCOLATION TESTING LOCATION

LEACHFIELD NOTES

THE LEACH FIELD DESIGN INCLUDES CALCULATIONS WHICH CONSIDER A THREE (3) BEDROOM HOUSE WITH AN "A" PERCOLATION.

BASED ON THE ABOVE ASSUMPTIONS, MINIMUM LEACHFIELD LENGTHS REQUIRED:

MAIN HOUSE REQUIRED: 140 L.F. = 70 L.F. (PER FIELD)

MAIN HOUSE PROVIDED:

PRIMARY LINES #1 = 65 L.F.
PRIMARY LINES #2 = 65 L.F.

EXPANSION LINES #1 = 70 L.F.
EXPANSION LINES #2 = 25 L.F. + 55 L.F. = 80 L.F.

*SEE DETAIL 2 ON SHEET SS-5 FOR EQUIVALENT TRENCHING CALCULATIONS

NOTE: EXPANSION DRAIN FIELDS SHOWN FOR DEMONSTRATION PURPOSES ONLY AND IS NOT INTENDED TO BE INSTALLED.

OWNER'S INFORMATION

OWNER: DARIUS & MITRA SOLTANIEH
634 PALOMAR DRIVE
REDWOOD CITY, CA

APN: 051-022-380

THIS LEACHFIELD BASE MAP PLAN IS SUPPLEMENTAL TO:

1) TOPOGRAPHIC SURVEY BY GIULIANI & KULL, INC., ENTITLED: "TOPOGRAPHIC SURVEY"
634 PALOMAR DRIVE
REDWOOD CITY, CA
DATED: 3-24-17
JOB#: 14144

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

TRENCHING NOTE:
ALL TRENCHING FOR THE PROPOSED LEACHFIELDS WITHIN THE DRIP LINES OF ANY SIGNIFICANT TREE WILL BE DONE BY HAND UNDER THE SUPERVISION OF THE PROJECT ARBORIST

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

GENERAL INSTALLATION NOTES:

- PERMITS:**
CONSTRUCTION OF THE SEWAGE DISPOSAL SYSTEM SHALL NOT COMMENCE WITHOUT WRITTEN APPROVAL FROM TOWN OF WOODSIDE AND SAN MATEO COUNTY ENVIRONMENTAL HEALTH SERVICES.
- PLAN CHANGES:**
CHANGES TO THE PLANS OR SPECIFICATIONS SHALL BE MADE ONLY AFTER CONSULTATION WITH AND APPROVAL OF THE DESIGNER AND PERMITTING AGENCY.
- INSTALLATION:**
ALL INSTALLATION WORK SHALL BE IN ACCORDANCE WITH TOWN OF WOODSIDE AND SAN MATEO COUNTY SEWAGE DISPOSAL ORDINANCES.
- LOCATION OF THE SEPTIC TANK AND LEACHING TRENCHES:**
LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT IN THE FIELD BY DESIGNER WITH APPROVAL OF THE PERMITTING AGENCY. TRENCHES SHALL BE INSTALLED ALONG LEVEL CONTOUR TO ENSURE THE TRENCH BOTTOM IS MAINTAINED LEVEL THROUGHOUT THE ENTIRE LENGTH. A TRIPOD-MOUNTED LASER SHALL BE REQUIRED ON SITE.
- DRAINFIELDS (LEACHING TRENCH):**
THE FOLLOWING SHALL APPLY TO DRAIN FIELD INSTALLATION:
- TEN FEET FROM ANY BUILDING FOUNDATION AND RETAINING WALL.
 - TEN FEET FROM ANY PROPERTY LINE.
 - TRENCHES SHALL BE OUTSIDE DRIP LINE OF EXISTING TREES UNLESS APPROVED BY PERMITTING AUTHORITY UPON RECOMMENDATION OF LICENSED ARBORIST.
 - 100' FROM ANY WELL.
 - TWENTY-FIVE FEET (25') FROM ANY SLOPE EXCEEDING 50% AND LESS THAN TWELVE FEET (12') IN HEIGHT.
 - FIFTY FEET (50') FROM ANY SLOPE EXCEEDING 50% AND GREATER THAN TWELVE FEET (12') IN HEIGHT.
 - ALL LINES ARE SHOWN AT LEAST EIGHT (8) TIMES THE DIAMETER AWAY OF ALL MAJOR TREES.

ABBREVIATIONS

AD	AREA DRAIN	AD	AREA DRAIN
BFP	BACKFLOW PREVENTOR	CB	CATCH BASIN
CB	CATCH BASIN	CL	CENTER LINE
CL	CENTER LINE	CO	CLEANOUT
CO	CLEANOUT	CV	DIVERSION VALVE
CV	DIVERSION VALVE	E	EFFLUENT
E	EFFLUENT	ELEV	ELEVATIONS
ELEV	ELEVATIONS	(E)	EXISTING
(E)	EXISTING	FL	FLOW LINE
FL	FLOW LINE	INV	INVERT ELEVATION
INV	INVERT ELEVATION	JT	JOINT TRENCH
JT	JOINT TRENCH	LANDG	LANDING
LANDG	LANDING	MAX	MAXIMUM
MAX	MAXIMUM	MIN	MINIMUM
MIN	MINIMUM	(N)	NEW
(N)	NEW	NTS	NOT TO SCALE
NTS	NOT TO SCALE	O.C.	ON CENTER
O.C.	ON CENTER	P	PROPERTY LINE
P	PROPERTY LINE	PL	RIM ELEVATION
PL	RIM ELEVATION	SS	SANITARY SEWER
SS	SANITARY SEWER	SSCO	SANITARY SEWER CLEANOUT
SSCO	SANITARY SEWER CLEANOUT	SSMH	SANITARY SEWER MANHOLE
SSMH	SANITARY SEWER MANHOLE	STD	STANDARD
STD	STANDARD	TOP/FG	TOP OF WALL/FINISH GRADE
TOP/FG	TOP OF WALL/FINISH GRADE	TYP	TYPICAL
TYP	TYPICAL	W	WITH
W	WITH	WL	WATER LINE
WL	WATER LINE		

HATCH LEGEND

[Hatched Box]	AREAS OF SLOPE GREATER THAN 50%
---------------	---------------------------------

SHEET INDEX

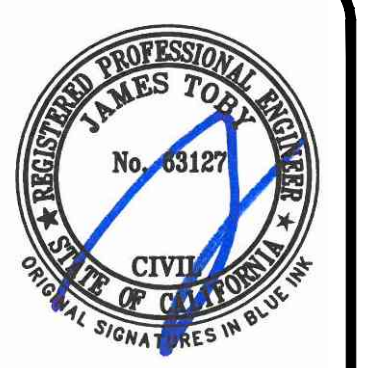
SS-1	SEPTIC CONSTRUCTION PLAN
SS-2	SEPTIC DETAILS
SS-3	SEPTIC DETAILS
SS-4	SEPTIC DETAILS
SS-5	SEPTIC DETAILS

STAKING NOTES:

LEA & BRAZE SHALL STAKE OUT PROPOSED SEPTIC SYSTEM FOR VERIFICATION BY SAN MATEO COUNTY ENVIRONMENTAL HEALTH PRIOR TO SITE INSPECTION

SEPTIC TANK AND DRAINFIELD CONSTRUCTION NOTES:

- INSTALL A 1500-GALLON CONCRETE PRECAST SEPTIC TANK.
- INSTALL A 1500-GALLON CONCRETE PRECAST HOLDING/PUMP TANK WITH A ZOELLER (MODEL 145) 3/4 H.P. SUBMERSIBLE PUMP. RECOMMEND PROVIDING A BATTERY OR GENERATOR BACK UP IN CASE OF A POWER FAILURE (LOCATION TO BE DETERMINED IN-FIELD IF PROVIDED).
- INSTALL GAS-TIGHT RISERS TO GRADE.
- INSTALL A 2" PRESSURE LINE WITH THRUST BLOCKS PROVIDED AT ALL MAJOR BENDS.
- INSTALL A 1500-GALLON CONCRETE PRECAST SEPTIC TANK.
- INSTALL A LANGLEY HILL QUARRY DIVERSION VALVE.
- INSTALL A DUAL LEACHING SYSTEM, SEPARATED BY THE DIVERSION VALVE.
- INSTALL AN INSPECTION RISER AND STANDPIPE AT THE END OF EACH LEACHFIELD TRENCH IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. THE INSPECTION RISER MAY BE CUT BELOW GRADE AND INSTALLED WITHIN A WATERTIGHT LANDSCAPE IRRIGATION BOX.
- INSTALL A VERICOMM S_{RO} CONTROL PANEL TO CONTROL THE LIFT STATION WITHIN THE PUMP TANK. PUMP IS SPECIFIED AT 115V, 13A, AND SINGLE PHASE. FOR PUMP PROGRAMMING, SEE DETAIL 3 ON SHEET SS-4.



LEA & BRAZE ENGINEERING, INC.
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634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA

SEPTIC CONSTRUCTION
PLAN

JOB NO:	2200474
DATE:	05-20-20
SCALE:	1" = 20'
DESIGN BY:	AH
DRAWN BY:	JOR
SHEET NO:	SS-1
1 OF 5 SHEETS	

Trusted. Tested. Tough®
Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



SECTION: 2.15.070
FMZ783
0419
Supersedes
0817

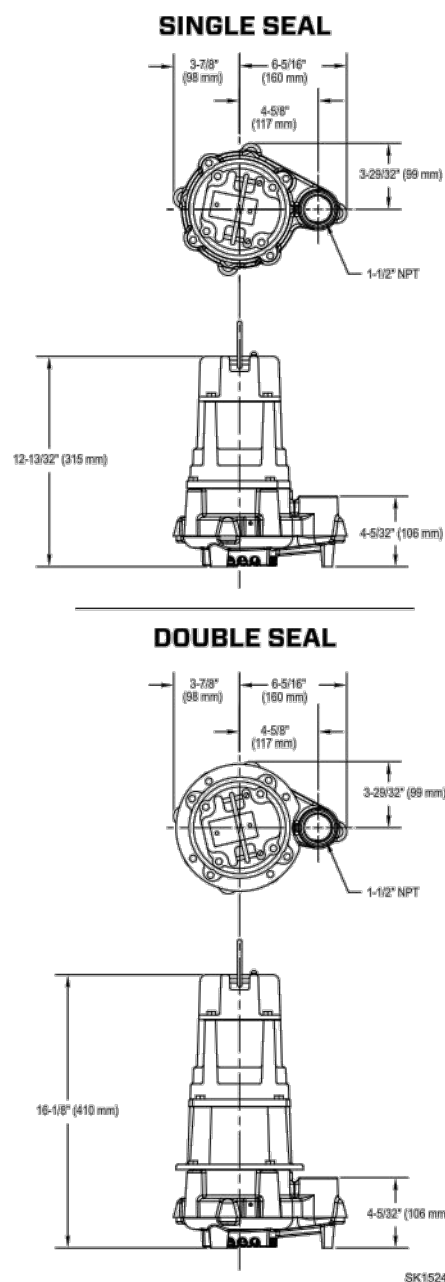
**TECHNICAL DATA SHEET
FLOW-MATE SERIES**
Models 140/4140, 145/4145 Effluent/Dewatering Pumps

PRODUCT SPECIFICATIONS

MOTOR	Specifications
Horse Power	3/4 - 1
Voltage	115 or 230
Phase	1 Ph
Hz	60 Hz
IPM	3450
Type	Permanent split capacitor
Insulation	Class B
Amps	6.0 - 13.0
Operation	Automatic or nonautomatic
Discharge Size	1-1/2" NPT
Solids Handling	1/2" (12 mm), 3/4" (19 mm) spherical solids
Cord Length	50' (15.2 m)
Cord Type	UL listed, neoprene cord
Max. Flow Rate	86 GPM (326 LPM) or 61 GPM (232 LPM)
Max. Operating Temp.	130°F (54°C)
Cooling	Oil filled
Motor Protection	Auto reset thermal overload

PUMP	Specifications
Cap	Cast iron
Motor Housing	Cast iron
Pump Housing	Cast iron
Base	Cast iron
Upper Bearing	Sleeve bearing
Lower Bearing	Ball bearing
Mechanical Seals	Carbon and ceramic
Impeller Type	Single vane (140) or non-clogging vortex (145)
Impeller	Engineered thermoplastic
Hardware	Stainless steel
Motor Shaft	JIS S45C steel
Gasket	Neoprene

MATERIALS	Specifications
Cap	Cast iron
Motor Housing	Cast iron
Pump Housing	Cast iron
Base	Cast iron
Upper Bearing	Sleeve bearing
Lower Bearing	Ball bearing
Mechanical Seals	Carbon and ceramic
Impeller Type	Single vane (140) or non-clogging vortex (145)
Impeller	Engineered thermoplastic
Hardware	Stainless steel
Motor Shaft	JIS S45C steel
Gasket	Neoprene



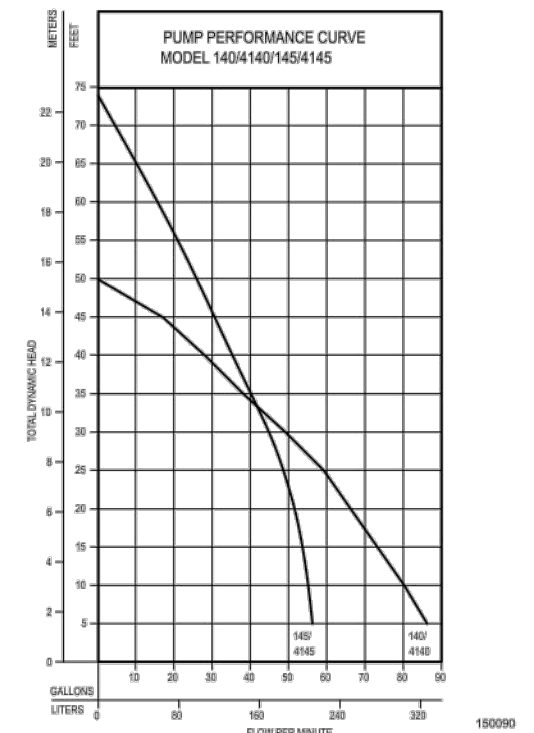
NOTE: See model comparison chart for specific details.



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**TOTAL DYNAMIC HEAD
FLOW PER MINUTE**

MODEL	140/4140	145/4145
Feet	1.5	3.0
Meters	0.46	0.91
Gal.	86	80
Liters	326	303
Gal.	56	55
Liters	212	208
15	4.6	7.3
20	6.1	10.6
25	7.6	13.9
30	9.1	17.2
40	12.2	23.1
50	15.2	30.1
60	18.3	37.1



MODEL COMPARISON

Model	Seal	Mode	Volts	Ph	Amps	HP	Hz	Lbs	Kg	Simplex	Duplex
N140	Single	Non	115	1	12.0	1	60	46	21	1 or 2	3
E140	Single	Non	230	1	6.0	1	60	46	21	1 or 2	3
BN140	Single	Auto	115	1	12.0	1	60	47	21	*	---
BE140	Single	Auto	230	1	6.0	1	60	47	21	*	---
E145	Single	Non	230	1	6.0	3/4	60	46	21	1 or 2	3
N145	Single	Non	115	1	13.0	3/4	60	46	21	1 or 2	3
BN145	Single	Auto	115	1	13.0	3/4	60	46	22	*	---
N4140	Double	Non	115	1	12.0	1	60	65	29	*	---
E4140	Double	Non	230	1	6.0	1	60	65	29	1 or 2	3
BN4140	Double	Auto	115	1	12.0	1	60	66	30	*	---
BE4140	Double	Auto	230	1	6.0	1	60	66	30	*	---
N4145	Double	Non	115	1	13.0	3/4	60	64	29	1 or 2	3
BN4145	Double	Auto	115	1	13.0	3/4	60	64	29	*	---

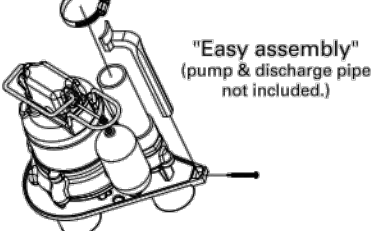
* Single piggyback switch included.
BN and BE models include a 20' (6 m) piggyback variable level pump switch. Additional cord lengths are available in 15' (5 m), 25' (8 m), 35' (11 m) and 50' (15 m).
50' (15 m) cord length is for 230 V only.

SELECTION GUIDE

- For automatic, use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
- See FM1228 for correct model of simplex control panel.
- See FM0712 for correct model of duplex control panel.

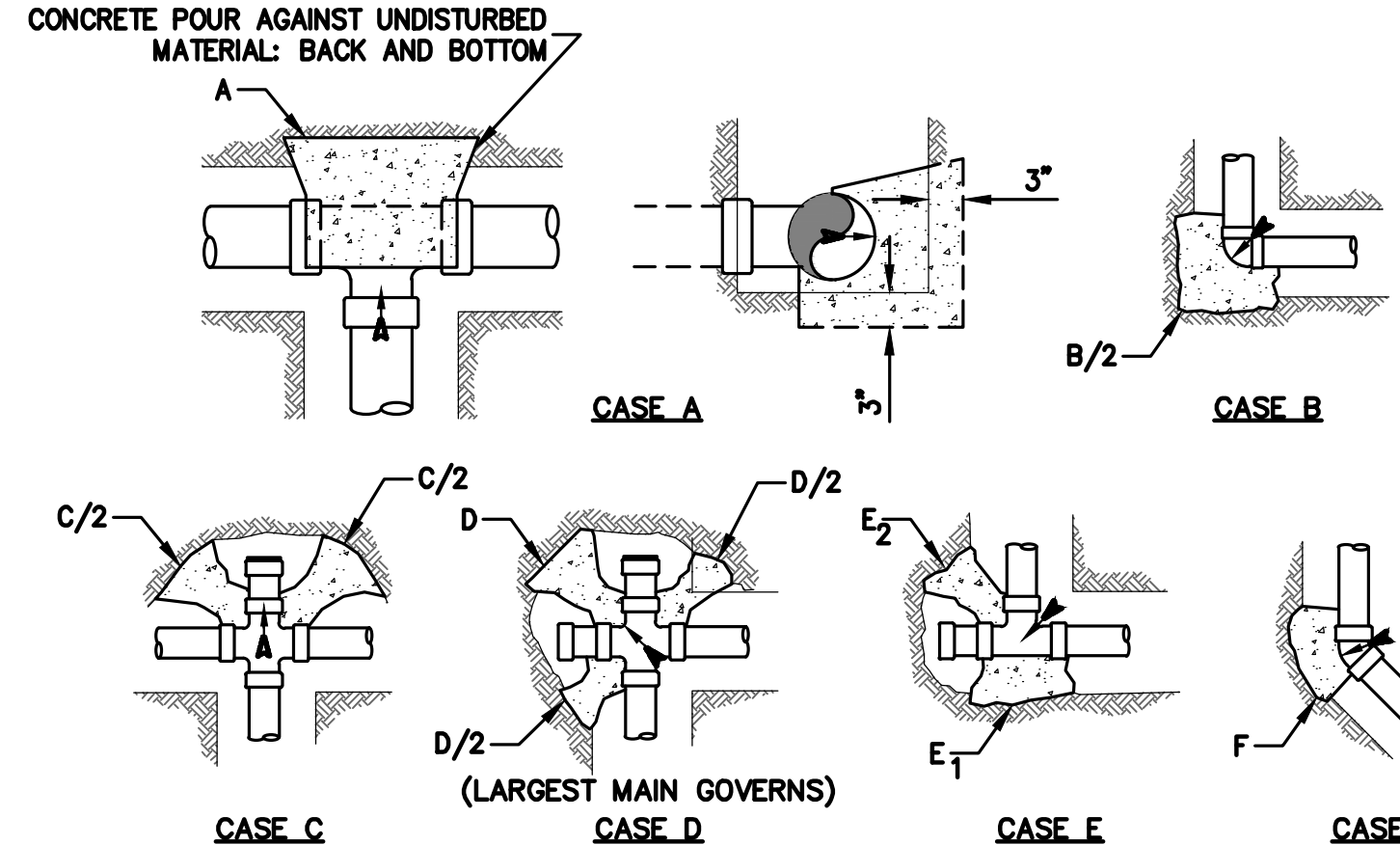
OPTIONAL PUMP STAND PIN 10-2421

- Reduces potential clogging by debris
 - Replaces roots or links under the pump
 - Made of durable, noncorrosive ABS
 - Raises pump 2" (5 cm) off bottom of basin
 - Provides the ability to raise intake by adding sections of 1-1/2" or 2" (DN40 or DN60) PVC piping
 - Attaches securely to pump
 - Accommodates sump, dewatering and effluent applications
- NOTE: Make sure float is free from obstruction.



CAUTION: All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

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- NOTES:**
- CASE "A" IS TYPICAL FOR ALL.
 - ALL BLOCKS TO BE KEPT CLEAR OF LUGS.
 - UNSUPPORTED SURFACES TO BE FORMED.
 - ARROWS ON CASE "A", "C" & "E" INDICATE MAINS WHICH DETERMINE BEARING AREA.
 - BASED ON 150 PSI PRESSURE, 1,000 PSF SOIL BEARING.
 - CONCRETE SHALL BE CLASS B PER STANDARD SPECIFICATIONS.

REQUIRED BEARING AREAS-SQ. FT.

	A	B	C	D	E ₁	E ₂	F
4"	2	3	3	3	2	3	2
6"	5	6	7	7	5	7	4
8"	8	12	11	11	8	11	6
10"	12	18	17	17	12	17	8
12"	17	24	24	24	17	24	12

2 THRUST BLOCK DETAIL
SS-3 NTS

1 3/4 HP ZOELLER PUMP (MODEL 145)
SS-3 NTS

POLYLOK Innovations in Process, Drainage & Wastewater Products
Zabel® A Division of Polylok Inc.

PL-122 Effluent Filter

The PL-122 was the original Polylok filter. It was the first filter on the market with an automatic shut-off ball installed with every filter. When the filter is removed for regular servicing, the ball will float up and prevent any solids from leaving the tank. Our patented design cannot be duplicated.

Features:

- Offers 122 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Has a flow control ball that shuts off the flow of effluent when the filter is removed for cleaning.
- Has its own gas deflector ball which deflects solids away.
- Installs easily in new tanks, or retrofits in existing systems.
- Comes complete with its own housing. No gluing of tees or pipe, no extra parts to buy.
- Has a modular design, allowing for increased filtration.

PL-122 Installation:
Ideal for residential waste flows up to 3,000 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

- Locate the outlet of the septic tank.
- Remove the tank cover and pump tank if necessary.
- Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
- Insert the PL-122 filter into tee.
- Replace and secure the septic tank cover.

PL-122 Maintenance:
The PL-122 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

- Do not use plumbing when filter is removed.
- Pull PL-122 cartridge out of the tee.
- Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
- Insert filter back into tee/housing.

Polylok offers the only filter on the market where you can get more GPD by simply snapping off filters together!

Patent Numbers 6,015,488 & 5,871,640

www.polylok.com 1-877-765-9565

Orenco Technical Data Sheet
VeriComm® S_RO Control Panels

Applications
VeriComm® S1RO and S2RO remote telemetry control panels are used with on-demand simplex pumping operations. Coupled with the web-based VeriComm Monitoring System, these affordable control panels give wastewater system operators and maintenance organizations the ability to monitor and control each individual system's performance remotely, with real-time efficiency, while remaining invisible to the homeowner.

Features

- Three Operating Modes**
 - "Start-Up Mode" collects trend data and establishes operating standards during the first 30 days of operation
 - "Normal Mode" manages day-to-day functions
 - "Test Mode" suspends data collection and alarm reporting during installation and service
- Data Collection and Utilization**
 - Compiles data logs of system conditions and events such as pump run times, pump cycles, and alarm conditions
- Troubleshooting and Diagnostic Logic**
 - Reports suspected component failures, which then trigger alarms
- Advanced Control Logic**
 - Activates system diagnostics in the event of a float failure or malfunction and maintains normal system operation until servicing can occur

Features, con't.

- Communication and Alarm Management**
 - Provides remote telemetry and a web-based monitoring application for communication and alarm management (see VeriComm Monitoring System, NTD-CP-VCOM-1)
 - Updates point values (including timer settings) and queued changes during each host communication session
 - Contacts with host monthly; more frequently during alarm conditions
- Multiple Communication Methods**
 - Call-In to VeriComm® Host (phone line or optional high speed internet)
 - Signals critical fault conditions that require immediate attention (e.g., pump failure) through automatic alarm notifications
 - Signals less-critical fault conditions (e.g., stuck float switch) through automatic alert notifications and triggers the panel's troubleshooting logic and alternative operating mode
 - Sends updates through automatic update notifications, including alarm updates or all-clear notifications following alarms/alerts, as well as manually scheduled monthly panel reports
 - Allows manual, forced communication from panel to host for updating point values and receipt of queued changes
 - Real-Time, Manual Direct Panel Connection
 - Allows a local operator real-time access to detailed logged data and the ability to change point values through direct connection via RS-232 serial port from a laptop or Android® device with optional Bluetooth® kit
 - Allows a local operator to initiate an auto-answer mode in real-time to access detailed logged data and the ability to change point values via direct, forced communication at the site
- Status Light Indicators**
 - Flashing green LED for normal operation
 - Yellow LEDs for status of digital inputs
 - Red LEDs for status of digital outputs and modem activity
- UL-recognized and FCC-approved**

Open-architecture software with password security is used during real-time, manual connections. Orenco offers BT-VCOM software as an option, but VeriComm panels require no proprietary software. V1100 protocol allows access and control from a Mac or PC computer using a simple communication program (e.g., Windows® HyperTerminal), with multilevel password protection ensuring that only qualified personnel can access the panel's data.

Typical VeriComm® S_RO Control Panel
Standard Models: VCOM S1RO, VCOM S2RO

For more information, try our online demo at www.vericom.net (no password required).

Orenco Systems® Inc., 814 Airway Ave., Sutherlin, OR 97479 USA • 800-348-9843 • 541-459-4449 • www.orenco.com

NTD-CP-VCOM-4 Rev. 1.0, © 06/18 Page 1 of 2

Orenco Technical Data Sheet
Standard Components

Feature	Specifications
1. Motor-Start Contactor	120 V, 16 FLA, 1 hp (0.75 kW), 60 Hz; 2.5 million cycles at FLA (5 million at 50% of FLA) 240 V, 16 FLA, 3 hp (2.24 kW), 60 Hz; 2.5 million cycles at FLA (5 million at 50% of FLA)
2. VeriComm® Remote Telemetry Unit*	ATRTU-100: 36/18 VAC (center tap transformer); 8 digital inputs, 4 analog inputs, 4 digital outputs, 0 analog outputs, on-board modem (2400 baud); LED input and output indicators; 1-year battery backup of data and program settings
3. Toggle Switch	Single-pole, single-throw, momentary manual switch; 20 A, 3/4 hp (0.75 kW)
4. Phone Line Surge Arrestor/DSL Filter	Surge protection for phone line; DSL filter for lines that also carry DSL service; connection to panel via RJ11 jack or terminal block
5. Controls Circuit Breaker	10 A, OFF/ON switch; single-pole 120 V; DIN rail mounting with thermal magnetic tripping characteristics (240 V units are available for international markets)
6. Pump Circuit Breaker	20 A, OFF/ON switch; single-pole 120 V or double-pole 240 V; DIN rail mounting with thermal magnetic tripping characteristics
7. Fuse	250 VAC, 1 A
8. Transformer	120 VAC primary, 36 VCT @ 0.85 A secondary
9. Audible Alarm	95 dB at 24 in. (610 mm), variable-tone sound
10. Visual Alarm	7/8-in. (22-mm) diameter red lens; "Push-to-silence"; UL Type 4X rated, 1 W LED light, 120 V
11. Panel Enclosure	Measures 13.51 in. high x 11.29 in. wide x 5.58 in. deep (343 mm x 287 mm x 142 mm); UL Type 4X rated; constructed of UV-resistant fiberglass; hinges and latch are stainless steel
VCOM-S1 RO	120 VAC, 1 hp, 16 A, single-phase, 60 Hz
VCOM-S2 RO	120 VAC, 1 hp, or 240 VAC, 3 hp; 16 A, single-phase, 60 Hz

*See VeriComm® Monitoring System (NTD-CP-VCOM-1) for details.

Optional Components

Feature	Specification(s)	Product Code Adder
Pump Run Light	7/8-in. (22-mm) diameter green lens, UL Type 4X rated, 1 W LED light, 120 V	PRL
Heater	Anti-condensation heater; self-adjusting; radiates additional wattage as temperature drops	HT

Additional options available on a custom basis. Contact Orenco Controls for more information.

NTD-CP-VCOM-4 Rev. 1.0, © 06/18 Page 2 of 2

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CONTROL PANEL LOCATION:
CONTRACTOR AND OWNER TO DETERMINE BEST LOCATION FOR CONTROL PANEL. MUST BE IN A VISIBLE AND READILY-AVAILABLE LOCATION.

SEE DETAIL 3 ON SHEET SS-4 FOR PUMP PROGRAMMING ELEVATIONS.

CONTROL PANEL FUNCTIONALITY NOTE:
CONTROL PANEL SHALL BE DESIGNED AND CONFIGURED IN SUCH A MANNER THAT, IN THE EVENT OF A TREATMENT UNIT MALFUNCTION, AN ALARM SYSTEM WILL BE TRIGGERED AND DISCHARGE FROM THE TREATMENT SYSTEM TO THE DISPERSAL FIELD WILL BE INTERRUPTED UNTIL THE TREATMENT UNIT MALFUNCTION IS RECTIFIED. AT A MINIMUM, THE ALARM SYSTEM SHALL INCLUDE AN AUDIBLE AND VISUAL ALARM LOCATION WITHIN THE BUILDING SERVED BY THE SYSTEM.



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634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA

SEPTIC DETAILS

NO.	REVISIONS	BY
1	PLANCHECK 12-10-20	RM

JOB NO: 2200474
DATE: 05-20-20
SCALE: AS NOTED
DESIGN BY: AH
DRAWN BY: JOR
SHEET NO: 3 OF 5 SHEETS

PROJECT	634 Palomar Drive	DATE	December 4, 2020
JOB NO.	2200474	BY	R. MaGee

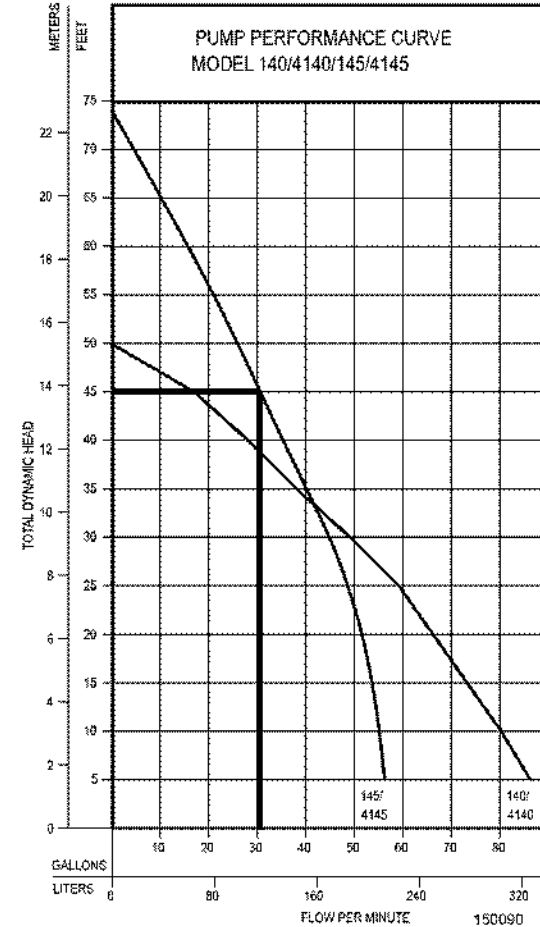
SEPTIC PUMP CALCULATIONS

SUMMARY:

Pump Chosen = 4/10 HP Zoeller (Model 152)
 Maximum Head Loss of Pump = 74 FT
 Total Head Loss of System = 45 FT
 Total Headloss < Max Pump Headloss: YES

	(FT)	(PSI)
STATIC HEAD LOSS	38.6	16.7
PIPE FRICTION LOSS	6.4	2.8
MINOR LOSS	0.1	0.1
TOTAL HEAD LOSS	45	20

3/4 HP ZOELLER (MODEL 145) PUMP CURVE



Elevation at Pump: 73.92
 Elevation at Highest Leachfield: 112.50
 Head Loss (ft): 38.58 ft
 Head Loss (psi): 16.70 psi

PIPE FRICTION HEAD LOSS:

$$h_f = \frac{10.44LQ^{1.85}}{C^{1.85}d^{4.87}}$$

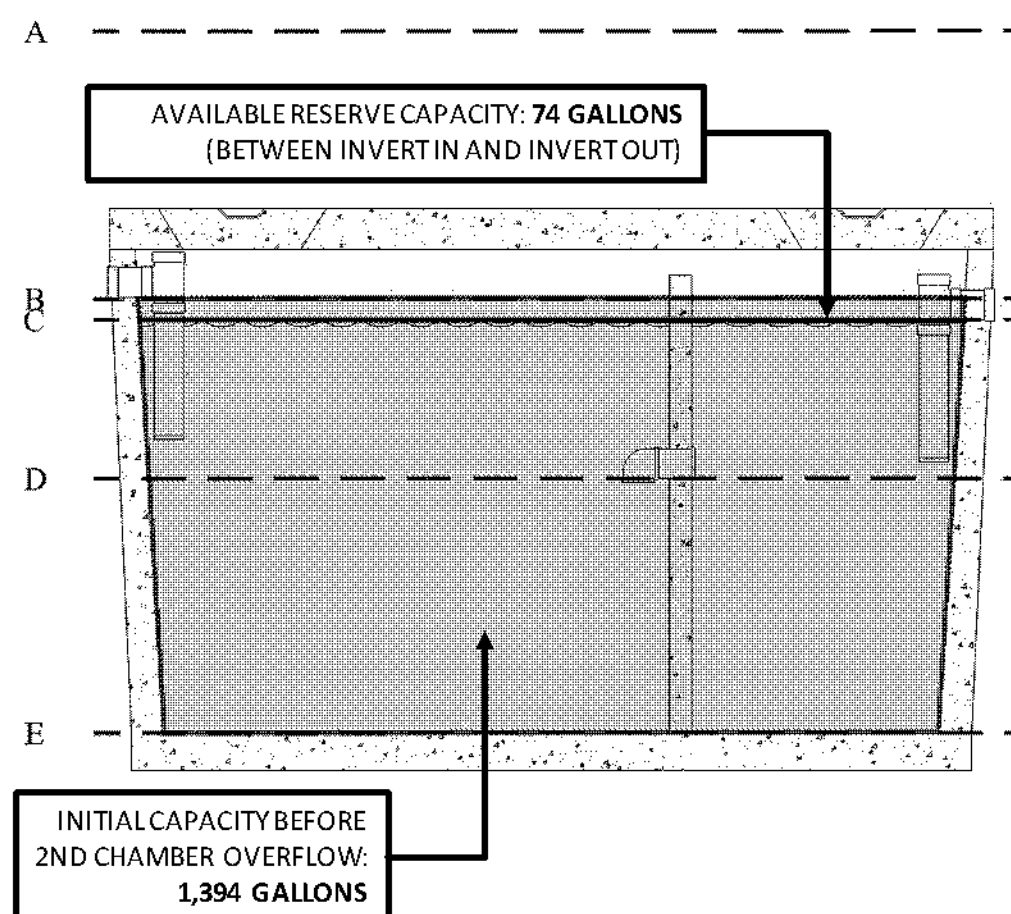
Pipe Size (in)	C value	Flow (GPM)	Length (ft)	Head Loss (ft)	Head Loss (psi)	Velocity (ft/s)
2	110	30.00	198	6.39	2.8	3.07

PROJECT	634 Palomar Drive	DATE	December 4, 2020
JOB NO.	2200474	BY	R. MaGee

SEPTIC TANK CAPACITY CALCULATIONS

SUMMARY:

SEPTIC TANK ELEVATIONS	(FT)
A - TANK RIM	82.00
B - TANK INVERT IN	79.00
C - TANK INVERT OUT	78.75
D - CHAMBER OVERFLOW	76.88
E - INSIDE BOTTOM OF TANK	74.04



SEPTIC TANK SIZING:

Tank Rim =	82.00	ft	
Invert In =	79.00	ft	
Invert Out =	78.75	ft	
Inside Bottom of Tank =	74.04	ft	
Outside Depth of Tank =	6.33	ft	per tank manufacturer
Inside Depth of Tank =	5.46	ft	per tank manufacturer
Thickness of Tank =	0.38	ft	per tank manufacturer
Inside Length of Chamber A =	4.25	ft	per tank manufacturer
Inside Length of Chamber B =	2.08	ft	per tank manufacturer
Inside Width of Tank =	6.25	ft	per tank manufacturer
Depth of Chamber Overflow Pipe Above Inside Bottom of Tank =	2.83	ft	per tank manufacturer (used CAD file)
A Tank Chamber A =	26.56	ft ²	
A Tank Chamber B =	13.02	ft ²	

INITIAL CAPACITY & REQUIRED TANK CAPACITY CALCULATIONS:

Number of Bedrooms =	3	bedrooms
Required Tank Capacity =	450.00	gal 150 gallons/day/bedroom
Elevation of Chamber Overflow =	76.88	ft
Volume Below Overflow (at Chamber A) =	562.95	gal
Volume Below Overflow (at Chamber B) =	275.95	gal
Volume Above Overflow (at Chamber A & B) =	555.16	gal
Volume Provided	1394.06	gal
Does Volume Meet Requirement?	Yes	

RESERVE CAPACITY CALCULATIONS:

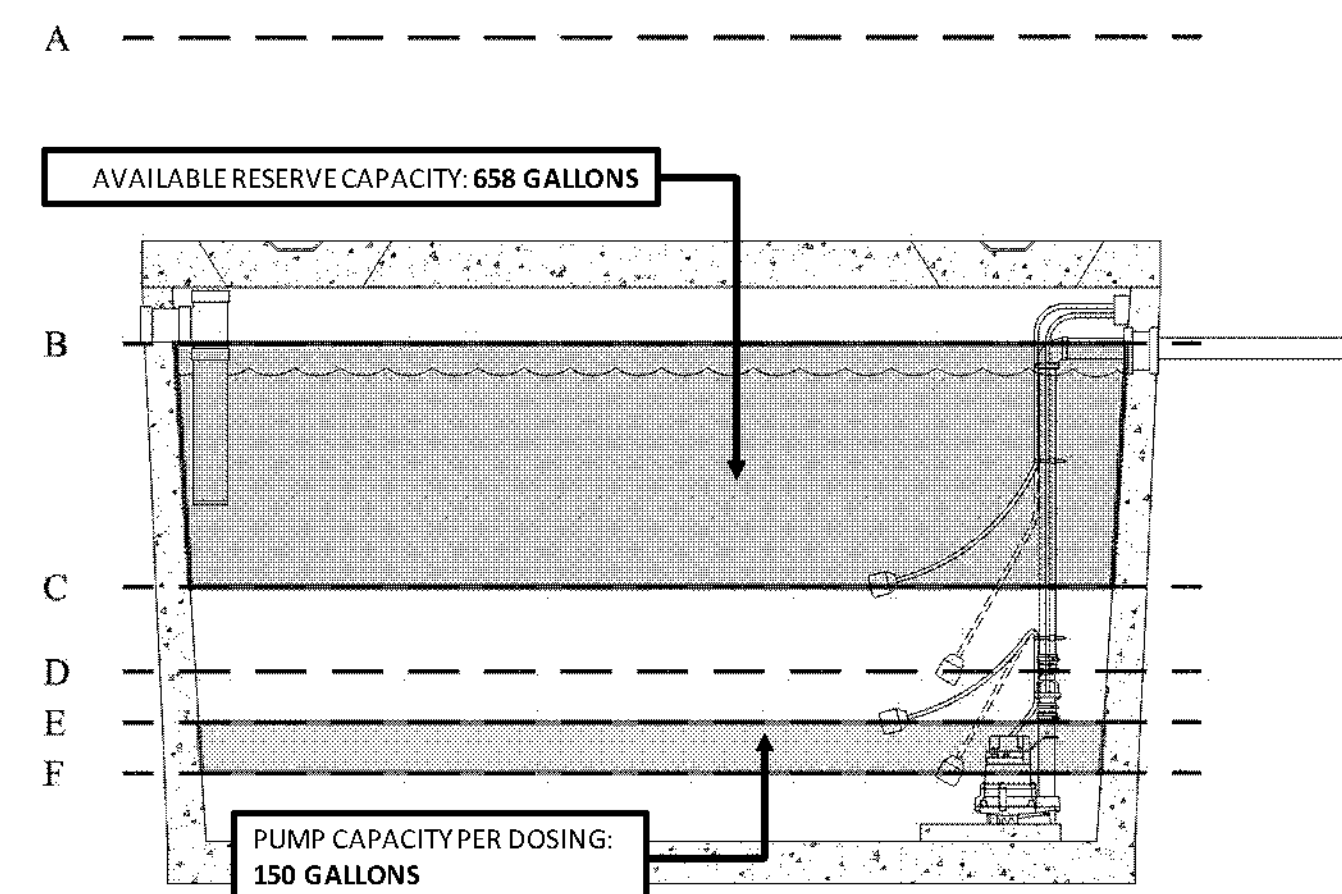
Required Reserve Capacity =	450.00	gal	Required Tank Capacity
Total Available Reserve Capacity =	74.02	gal	

PROJECT	634 Palomar Drive	DATE	December 4, 2020
JOB NO.	2200474	BY	R. MaGee

HOLDING TANK CAPACITY CALCULATIONS

SUMMARY:

HOLDING TANK & PUMP PROGRAMMING ELEVATIONS	(FT)
A - TANK RIM	82.50
B - TANK INVERT IN	78.71
C - EMERGENCY ALARM ELEVATION	76.57
D - PUMP OVERRIDE TIMER "ON"	75.41
E - PUMP TIMER "ON" ELEVATION	74.91
F - PUMP TIMER & OVERRIDE TIMER "OFF" ELEVATION	74.42



PUMP SETTINGS		
NUMBER OF DOSES PER DAY	3	doses
GALLONS PUMPED PER DOSING	150	gallons/dosing
GALLONS PUMPED PER DAY	450	gallons/day
PUMP TIMER "ON" PER DOSING	5.00	minutes
PUMP OVERRIDE TIMER "ON"	2.25	minutes

SEPTIC TANK SIZING:

Tank Rim =	82.50	ft	
Invert In =	78.71	ft	
Pump Invert In =	73.92	ft	pump sitting on 2" concrete block
Inside Bottom of Tank =	73.75	ft	
Outside Depth of Tank =	6.33	ft	per tank manufacturer
Inside Depth of Tank =	5.46	ft	per tank manufacturer
Thickness of Tank =	0.38	ft	per tank manufacturer
Inside Length of Chamber A =	6.58	ft	per tank manufacturer
Inside Width of Tank =	6.25	ft	per tank manufacturer
A Tank Chamber A =	41.15	ft ²	

RESERVE CAPACITY CALCULATIONS:

Required Reserve Capacity =	375.98	gal	74.02 gallons stored in Septic Tank
Depth Above Pump Override =	1.17	ft	"Emergency" float must be minimum 6" above "Override"
Elevation of Required Tank Reserve Capacity =	76.57	ft	
Emergency Alarm Elevation =	76.57	ft	at elevation of Required Tank Reserve Capacity
Available Reserve Capacity Above Emergency Alarm =	658.25	gal	
Does Volume Meet Requirement?	Yes		

PUMP TIMER "ON" CALCULATIONS:

Required Pump Capacity =	450.00	gal	150 gallons/day/bedroom
Number of Doses Per Day =	3	doses	
Gallons Pumped Per Dosing =	150.00	gallons	
Total Gallons Pumped Per Day =	450.00	gal	
Pump "On/Off" Cycle Time =	480	min	
Average Pump Flow @ Required Head =	30.00	gpm	from the Septic Pump Calculations
Pump Timer "On" For Dosing =	5.00	min	should be more than 2 minutes
Depth Above Tank Invert for Pump Capacity =	0.49	ft	"On" float must be minimum 6" above "Off"
Pump Timer "On" Elevation =	74.91	ft	

PUMP OVERRIDE TIMER "ON" CALCULATIONS:

Pump Override Timer Elevation =	75.41	ft	set 6" higher than pump timer "on"
Capacity at Pump Override Timer Elevation =	69.53	gal	
Average Pump Flow @ Required Head =	30.00	gpm	from the Septic Pump Calculations
Pump Override Timer "On" =	2.25	min	

1	PLANCHHECK	12-10-20	RM
	REVISIONS		BY

JOB NO: 2200474

DATE: 05-20-20

SCALE: AS NOTED

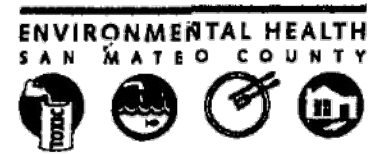
DESIGN BY: AH

DRAWN BY: JOR

SHEET NO:

SS-4

4 OF 5 SHEETS



LAND USE FIELD & DATA REPORT

455 County Center, Redwood City, CA 94063 • (650) 383-4305 • Fax (650) 383-7882
www.smhealth.org/environ

APN # 051-022-3801 Record ID ON-4003 Date 11-2-00
 Site Address 634 Palomar Owner Kirk
 City RWC ZIP Contractor Langley-Hill

Kevin of Langley Hill says
 Observed 14 ft deep hole has no evidence of groundwater
 Soil profile is constant from grade to 14 ft: silty sandy fractured rock

15' depth: 5-6' dep. #1 #2 #3 #4 #5 #6
 11:30 am: 5 1/16 7 3/16 9 1/16 11 1/16 13 1/16 15 1/16
 noon: 5 1/16 7 3/16 9 1/16 11 1/16 13 1/16 15 1/16

9 + 37 + 65 + 24 + 14 + 20 = 10.56
 0.56 = 6 = 1.76
 1.76 in 1 hr = 3.52 in/hr

overall "A" perc rate

REHS RECEIVED BY

Langley Hill Quarry

Ph: 650-851-0129 • Septic Systems Installed & Repaired • Lic. No. A702033

SMC Certified Installer No. 00-01

Tested By: KEVIN VAUGHN - Soil Percolation Tester # 00-07 = WINTER Added

Observed in Field By: Kevin Vaughn Date: 11-02-00

1/2 HOUR INTERVALS	READINGS	HOLE #1	HOLE #2	HOLE #3	HOLE #4	HOLE #5	HOLE #6
8:30	FINISH 6 1/16"	7"	11"	7 3/16"	7 3/16"	9 1/16"	9 1/16"
18:00	START 4"	4"	4"	4"	4"	4"	4"
	= DIFF. = 2 1/16"	3"	7"	3 3/16"	3 3/16"	5 1/16"	5 1/16"
9:00	FINISH 8"	7"	10 3/16"	8 3/16"	8 3/16"	10 3/16"	10 3/16"
28:30	START 6 1/16"	7"	6 3/16"	7 1/16"	7 1/16"	9 1/16"	9 1/16"
	= DIFF. = 1 1/16"	2"	4 3/16"	1 1/16"	1 1/16"	1 1/16"	1 1/16"
9:30	FINISH 8 1/16"	9 1/16"	10 3/16"	9"	9 1/16"	9 1/16"	9 1/16"
39:00	START 8"	9"	6"	8 3/16"	8 3/16"	6 1/16"	6 1/16"
	= DIFF. = 7/16"	1 3/16"	4 3/16"	8/16"	8/16"	3 1/16"	3 1/16"
10:00	FINISH 8 1/16"	10 3/16"	8 3/16"	8 3/16"	8 3/16"	8 3/16"	8 3/16"
49:30	START 8 1/16"	8 3/16"	6"	9"	8 3/16"	9 1/16"	9 1/16"
	= DIFF. = 1/16"	8/16"	2 3/16"	1/16"	6/16"	9/16"	9/16"
10:30	FINISH 6 1/16"	7 1/16"	7 3/16"	7 3/16"	7 3/16"	7 3/16"	7 3/16"
59:00	START 5"	5"	5"	5"	5"	5"	5"
	= DIFF. = 1 1/16"	2 1/16"	2 1/16"	2 1/16"	2 1/16"	2 1/16"	2 1/16"
11:00	FINISH 5 3/16"	7 1/16"	9 1/16"	6 3/16"	7 1/16"	7 1/16"	7 1/16"
69:30	START 5"	5"	4 1/16"	5"	5"	5"	5"
	= DIFF. = 3/16"	2 1/16"	4 1/16"	1 1/16"	2 1/16"	2 1/16"	2 1/16"
11:30	FINISH 5 3/16"	7 1/16"	7 3/16"	6 3/16"	6 3/16"	6 3/16"	6 3/16"
79:00	START 5"	5"	5"	5"	5"	5"	5"
	= DIFF. = 1/16"	2 3/16"	2 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"
12:00	FINISH 5 1/16"	7 3/16"	7 3/16"	6 3/16"	5 1/16"	6 3/16"	6 3/16"
89:30	START 4 1/16"	5"	5"	5"	5"	5"	5"
	= DIFF. = 1/16"	2 3/16"	2 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"
9	FINISH						
	START						
	DIFF.						
10	FINISH						
	START						
	DIFF.						

APPLICANTS NAME: LANGLEY HILL QUARRY PHONE: 650-851-0129
 OWNERS NAME: Kirk APN: 051-022-380
 ADDRESS: 634 Palomar Redwood city SMC
 SIZE OF PARCEL: _____ WATER SOURCE: city SUBDIVISION: _____
 WET WEATHER TESTING REQUIRED? YES NO DEPTH TO GROUND WATER: 14" DRY
 SOIL LOG: fractured rock & clayey sandy soil mix

1 PERCOLATION TEST DATA

SS-5 NTS

LEA & BRAZE ENGINEERING, INC. CIVIL ENGINEERS & LAND SURVEYORS
 PROJECT: Primary Leachfields SHEET NO. 1 OF 2
 ADDRESS: 634 Palomar Drive JOB NO. 2200474
 CITY, CA ZIP: Redwood City BY: RM DATE: 12/4/2020

Trench #	FG (MIN)	BOTTOM OF CAP	SSINV	DEPTH OF TRENCH (BELOW PIPE)	BOTTOM OF TRENCH	LENGTH OF TRENCH	SF OF SIDEWALL	TOTAL CUT
Trench #1 (P1)	107.50	106.50	106.00	6.50 FT	99.50	65.00 FT	845.00 FT*2	8.00 FT
Trench #2 (P2)	109.00	108.00	107.50	6.50 FT	101.00	65.00 FT	845.00 FT*2	8.00 FT

CHECK OF REQUIRED TREATMENT AREA (SF)				
	REQUIRED	PROPOSED	TOTAL	EXCESS
PRIMARY #1 (P1)	840	845	845	5
PRIMARY #2 (P2)	840	845	845	5

2 EQUIVALENT TRENCH CALCULATIONS

SS-5 NTS

LEA & BRAZE ENGINEERING, INC. CIVIL ENGINEERS & LAND SURVEYORS
 PROJECT: Expansion Leachfields SHEET NO. 2 OF 2
 ADDRESS: 634 Palomar Drive JOB NO. 2200474
 CITY, CA ZIP: Redwood City BY: RM DATE: 12/4/2020

Trench #	FG (MIN)	BOTTOM OF CAP	SSINV	DEPTH OF TRENCH (BELOW PIPE)	BOTTOM OF TRENCH	LENGTH OF TRENCH	SF OF SIDEWALL	TOTAL CUT
Trench #1 (EX1)	114.00	112.50	112.00	6.00 FT	106.00	70.00 FT	840.00 FT*2	8.00 FT
Trench #1 (EX2A)	109.75	108.25	108.25	4.75 FT	103.50	16.50 FT	156.75 FT*2	6.25 FT
Trench #2 (EX2A)	111.50	110.00	108.25	4.75 FT	103.50	8.50 FT	80.75 FT*2	8.00 FT
Trench #3 (EX2B)	108.75	107.25	107.25	6.50 FT	100.75	55.00 FT	715.00 FT*2	8.00 FT

CHECK OF REQUIRED TREATMENT AREA (SF)				
	REQUIRED	PROPOSED	TOTAL	EXCESS
EXPANSION #1 (EX1)	840	840	840	0
EXPANSION #2 (EX2A)	840	238	953	113
EXPANSION #2 (EX2B)		715		



LEA & BRAZE ENGINEERING, INC.
 CIVIL ENGINEERS • LAND SURVEYORS
 SACRAMENTO REGION
 BAY AREA REGION
 1400 SULLY WAY, WEST
 HAYWARD, CALIFORNIA 94545
 (P) (510) 887-4086 (F) (510) 887-3019
 WWW.LEA-BRAZE.COM

634 PALOMAR DRIVE
 REDWOOD CITY,
 CALIFORNIA

SEPTIC DETAILS

PLANCHICK 12-10-20 RM
 REVISIONS BY
 JOB NO: 2200474
 DATE: 05-20-20
 SCALE: AS NOTED
 DESIGN BY: AH
 DRAWN BY: JOR
 SHEET NO: 1
SS-5
 5 OF 5 SHEETS