

ASCENSION HEIGHTS SUBDIVISION

BEL AIRE ROAD

SAN MATEO, CALIFORNIA



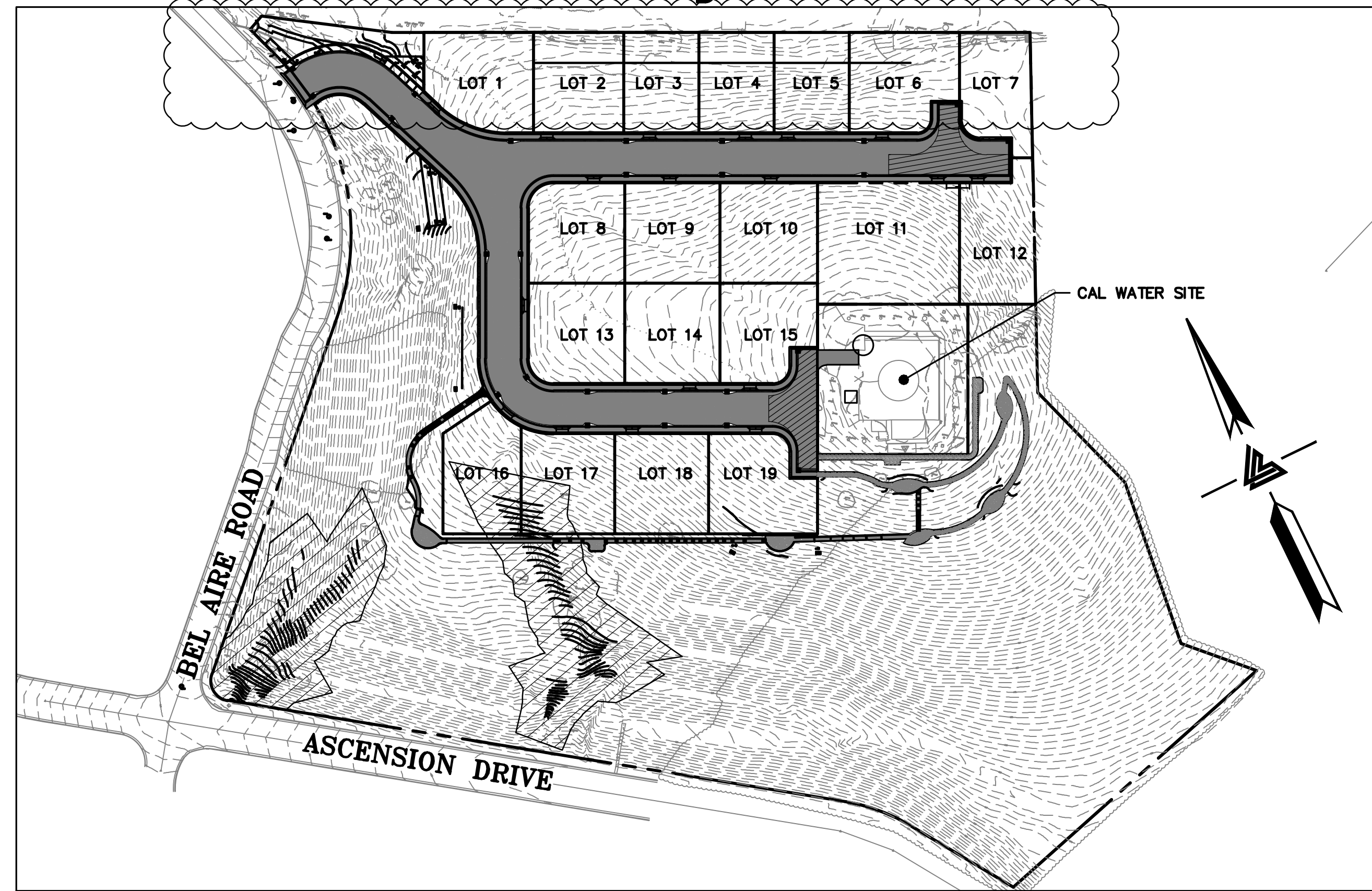
LEA & BRAZE ENGINEERING, INC.
 CIVIL ENGINEERS • LAND SURVEYORS
 SACRAMENTO REGION
 3400 JUDAS ROAD, SUITE # 300
 ROSSELVILLE, CALIFORNIA 94545
 (P) (916) 966-1338
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 WWW.LEABRAZE.COM

LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	BOUNDARY
---	---	PROPERTY LINE
---	---	RETAINING WALL
---	---	LANDSCAPE RETAINING WALL
RW	RW	RAINWATER TIGHTLINE
SUB	SUB	SUBDRAIN LINE
TL	TL	TIGHTLINE
SD	SD	STORM DRAIN LINE
SS	SS	SANITARY SEWER LINE
W	W	WATER LINE
G	G	GAS LINE
P	P	PRESSURE LINE
JT	JT	JOINT TRENCH
---	---	SET BACK LINE
---	---	CONCRETE VALLEY GUTTER
---	---	EARTHEN SWALE
CB	CB	CATCH BASIN
JB	JB	JUNCTION BOX
AD	AD	AREA DRAIN
SDMH	SDMH	STORM DRAIN MANHOLE
SSMH	SSMH	SANITARY SEWER MANHOLE
222.57 INV	222.57 INV	SPOT ELEVATION
←	←	FLOW DIRECTION
○	○	DEMOLISH/REMOVE
○	○	BENCHMARK
○	○	CONTOURS
○	○	TREE TO BE REMOVED

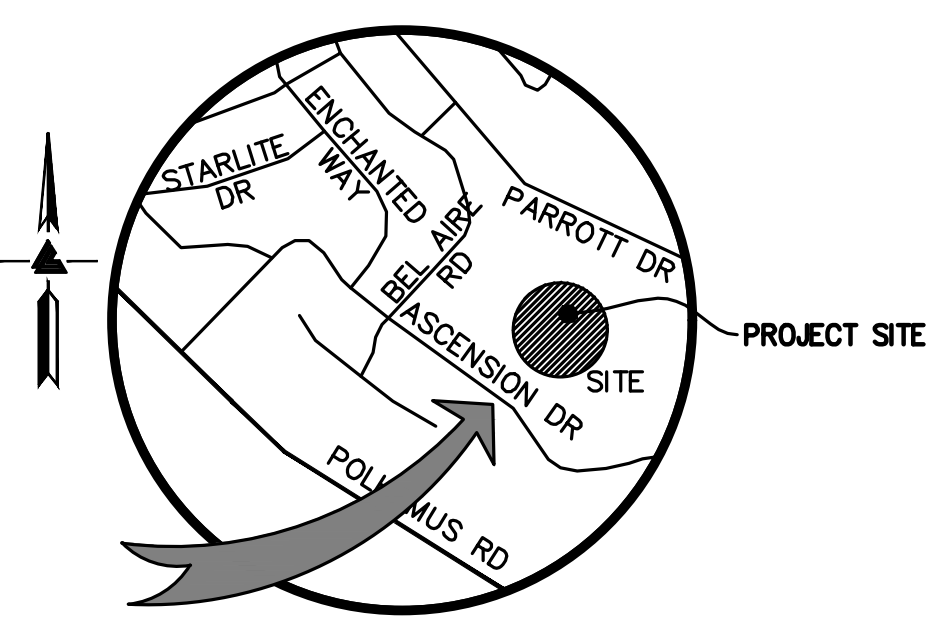
ABBREVIATIONS

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



NOTES

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS.
 UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.
 BUILDING FOOTPRINTS ARE SHOWN TO FINISHED MATERIAL (STUCCO/SIDING) AT GROUND LEVEL.
 FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR).



VICINITY MAP
NO SCALE

EASEMENT NOTE

A CURRENT TITLE REPORT FOR THE SUBJECT PROPERTY HAS NOT BEEN EXAMINED BY LEA & BRAZE ENGINEERING, INC. EASEMENTS OF RECORD MAY EXIST THAT ARE NOT SHOWN ON THIS MAP.
 EASEMENTS SHOWN PER ADJOINING SUBDIVISIONS.

OWNER'S INFORMATION

OWNER: SAN MATEO REAL ESTATE, INC.
 C/O DENNIS THOMAS
 BEL AIRE ROAD
 SAN MATEO, CA

REFERENCES

- THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO:
- TOPOGRAPHIC SURVEY BY LEA & BRAZE ENGINEERING, INC. ENTITLED: "TOPOGRAPHIC SURVEY" BEL AIRE DRIVE SAN MATEO, CA DATED: 9-20-17 JOB# 2161284
 - SOIL REPORT BY MICHELUCCI & ASSOCIATES, INC. ENTITLED: "GEOTECHNICAL & ENGINEERING GEOLOGIC INVESTIGATION" PROPOSED ASCENSION HEIGHTS SUBDIVISION SAN MATEO COUNTY, CA JOB# 01-3188 DATE: DECEMBER 16, 2002

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

SITE BENCHMARK

SURVEY CONTROL POINT
 MAG AND SHINER SET IN ASPHALT
 ELEVATION = 587.30'
 (ASSUMED)

KEY MAP

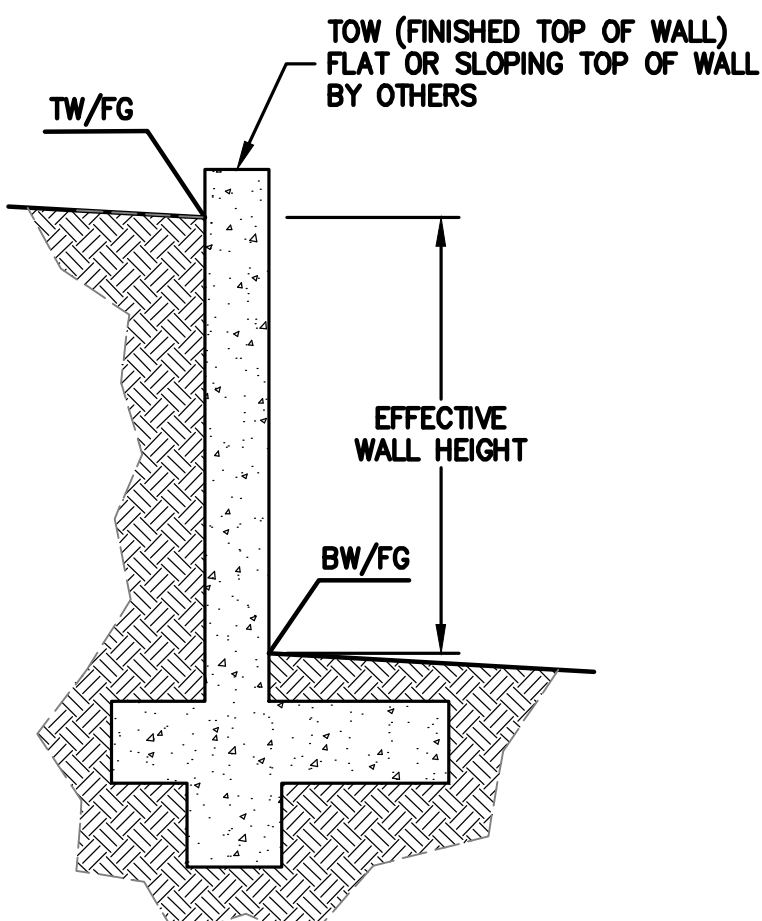
1" = 100'

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- C-1.00 TITLE SHEET
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- C-2.00 DEMOLITION PLAN
- C-2.01 TEMPORARY ACCESS ROAD PLAN - PHASE 1
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- C-2.03 MASS GRADING PLAN
- C-3.00 OVERALL SITE PLAN
- C-3.01 GRADING & DRAINAGE PLAN
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- C-3.03 GRADING & DRAINAGE PLAN
- C-3.04 GRADING & DRAINAGE PLAN
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- C-5.03 PRIVATE STREET PLAN & PROFILE - WATER TOWER
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- C-5.07 PRIVATE STREET SIGNAGE & STRIPING PLAN
- C-6.00 DETAILS
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- C-6.04 BIORETENTION DETAILS
- SWCP-1 DRAINAGE MANAGEMENT INFORMATION SHEET
- SWCP-2 DRAINAGE MANAGEMENT STORMWATER RETENTION EXHIBIT
- SWCP-3 DRAINAGE MANAGEMENT STORMWATER TREATMENT EXHIBIT
- SWCP-4 DRAINAGE MANAGEMENT STORMWATER CONTROL DETAILS
- SWCP-5 DRAINAGE MANAGEMENT STORMWATER CONTROL DETAILS
- ER-1 EROSION CONTROL PLAN
- ER-2 EROSION CONTROL PLAN
- ER-3 EROSION CONTROL DETAILS
- BMP BEST MANAGEMENT PRACTICES

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 WEEDHOLES 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.



ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	TOTAL CUBIC YARDS
CUT	0	44,930	44,930
FILL	0	19,325	19,325
EXPORT			25,605

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.

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

CONTRACTOR COURTESY NOTE:
 CONTRACTOR TO PROVIDE 72-HOUR COURTESY NOTICE FOR NOISE AND DUST (INCLUDING POINT OF CONTACT) TO COMMUNITY PRIOR TO COMMENCEMENT OF OPERATIONS.

ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA
 (UNINCORPORATED) SAN MATEO COUNTY

TITLE SHEET

REVISIONS	BY
1	RM
2	RM

JOB NO:	2161285
DATE:	5-2-18
SCALE:	AS NOTED
DESIGN BY:	RC
DRAWN BY:	ATL
SHEET NO:	

C-1.00
1 OF 50 SHEETS

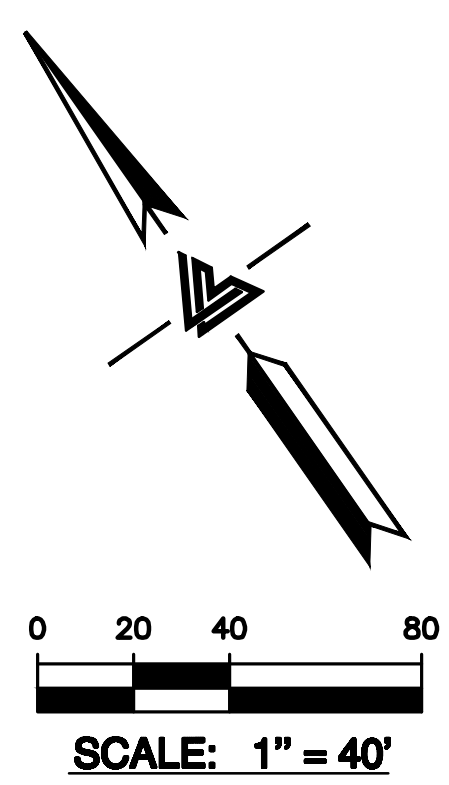




NOTE:
CONTRACTOR SHALL MAINTAIN ACCESS FOR CAL WATER TO EXISTING WATER TANK AT ALL TIMES. REFER TO SHEET C-2.01 FOR TEMPORARY ACCESS ROAD PLAN.

NOTE:
CONTRACTOR SHALL MARK THE PROJECT SURVEY OR ARBORIST MARK ALL TREES PRIOR TO DEMOLITION

***NOTE:**
SEE PHASING PLAN FOR SEQUENCING OF REMOVAL OF EXISTING UTILITIES & ROADWAY



TREES TO BE REMOVED

Tree no.	Size (in)	Species	Tree no.	Size (in)	Species	Tree no.	Size (in)	Species
596	9,10	Euc	1562	8	Oak	1898	6	Pine
597	9,11	Pine	1563	13	Oak	1901	17	Oak
598	20	Euc	1566	7,12	Oak	1907	6	Pine
645	14	Oak	1567	12	Oak	1908	6	Pine
931	10	Oak	1568	8	Tree	1909	7	Pine
947	30	Pine	1569	8	Oak	1912	8,8	Pine
948	12,24	Pine	1570	7	Oak	1913	18	Pine
949	20	Oak	1571	8	Bay	1914	14	Pine
951	28	Pine	1573	17	Oak	1915	14	Pine
1010	7	Pine	1574	9,11	Oak	1916	16	Pine
1013	9	Pine	1575	8,9,14	Oak	1918	12	Pine
1014	18,18	Pine	1576	12	Oak	1919	9,14	Pine
1015	17	Pine	1590	11	Oak	1922	12	Oak
1031	16	Pine	1593	16	Pine	1923	10	Pine
1035	6	Pine	1594	8	Oak	1929	7	Oak
1063	20	Oak	1600	9	Pine	1930	6	Oak
1064	13	Pine	1601	9	Pine	1931	9	Oak
1075	12	Oak	1602	15	Oak	1932	18	Pine
1084	8,8,10	Oak	1603	11	Oak	1934	12	Oak
1357	13	Oak	1604	24	Oak	1935	9	Oak
1358	8,9,10	Oak	1605	18	Pine	1936	12	Pine
1359	10	Oak	1613	12	Oak	1937	7	Oak
1360	10	Oak	1614	8(x6)	Oak	1939	7	Oak
1361	7,8	Oak	1619	7	Oak	1940	6,12	Pine
1362	8,13	Oak	1622	10	Pine	1942	10	Tree
1363	11	Oak	1624	9	Pine	1948	24	Pine
1374	7,16,22	Oak	1625	17	Pine	1960	7	Tree
1375	9	Pine	1626	13	Pine	1965	12,14	Oak
1377	12	Pine	1627	6	Pine	1966	9	Oak
1378	16	Oak	1628	6	Pine	1967	12,13	Oak
1379	10	Oak	1629	7	Pine	1968	11	Oak
1380	8	Oak	1630	8	Pine	1969	9	Oak
1382	15	Oak	1631	10	Pine	1972	14	Pine
1383	10,12,18	Oak	1632	8	Pine	1973	8	Oak
1384	14	Oak	1633	10,12	Pine	1974	9	Oak
1385	8,10	Oak	1634	11	Pine	1975	7	Oak
1386	20	Oak	1635	8	Pine	1976	7	Oak
1389	17	Pine	1636	8	Pine	1979	10	Stump
1390	9,11,12	Pine	1637	7	Pine	1981	18	Pine
1391	12	Oak	1639	12	Oak	1982	8	Oak
1392	12	Oak	1640	6	Oak	1985	6	Tree
1393	9,12	Oak	1735	18	Pine	2048	8,18	Oak
1394	10,16	Oak	1736	7,13	Pine	2051	6	Oak
1411	12,13,13,16	Oak	1741	20	Pine	2054	12	Pine
1413	32	Stump	1742	15	Oak	2057	8	Oak
1416	12	Oak	1743	10	Oak	2061	6,6	Oak
1428	8,9	Acacia	1744	7	Oak	2063	10	Oak
1429	6,9	Acacia	1745	5,7	Oak	2070	6	Oak
1430	6,6,8	Acacia	1746	7,9	Oak	2113	6	Oak
1431	6,7,8	Acacia	1757	8,8,11	Pine	2114	8	Oak
1434	16	Pine	1762	7	Pine	2131	16	Pine
1435	10	Oak	1763	6,7,9	Oak	2139	7(x3),8,10	Oak
1436	12	Oak	1764	7,8,12	Oak	2146	6	Oak
1472	8,9,15,15	Oak	1765	12	Oak	2147	4,5,6	Oak
1473	8,10,12	Oak	1766	7	Oak	2162	10,14	Oak
1475	11	Oak	1767	6,6,7	tree	2163	7	Oak
1476	9	Oak	1768	8,10	Oak	2164	7	Oak
1482	17	Pine	1769	10	Oak	2170	7	Oak
1484	18	Pine	1770	6,9	Oak	2180	6	Oak
1526	12	Oak	1771	5,6	Oak	2190	14,20	Oak
1533	24	Pine	1772	6,8	Oak	2194	7	Oak
1536	11	Pine	1773	14	Pine	2195	6	Oak
1537	9,14,18	Oak	1774	9	Oak	2242	18	Pine
1538	16	Oak	1775	8,8	Oak	2243	16	Pine
1539	10,10,12	Oak	1776	7	Oak	2245	22	Pine
1540	187	Oak	1777	6	Oak	2246	11,12	Pine
1541	12	Oak	1778	6	Oak	2247	8	Pine
1542	11	Pine	1779	7	Oak	2248	15	Pine
1544	12,13	Oak	1787	7	Oak	2249	13	Pine
1546	6	Oak	1869	13	Pine	2256	15	Pine
1555	7,20	Oak	1882	12	Pine	2264	7,8	Oak
1556	14,16	Oak	1883	12	Pine	2265	16	Oak
1558	9	Pine	1894	6	Pine	2268	22	Pine
1559	10	Oak	1895	9	Pine	2269	7	Pine
1561	22	Oak	1897	8	Pine			

CONTOURS IN THIS AREA ARE DONE BY AERIAL SURVEY DATED 10-30-01. NOTE THAT KEY ITEMS SUCH AS TREES OR POTENTIAL UTILITIES HAVE NOT BEEN LOCATED IN THIS AREA.

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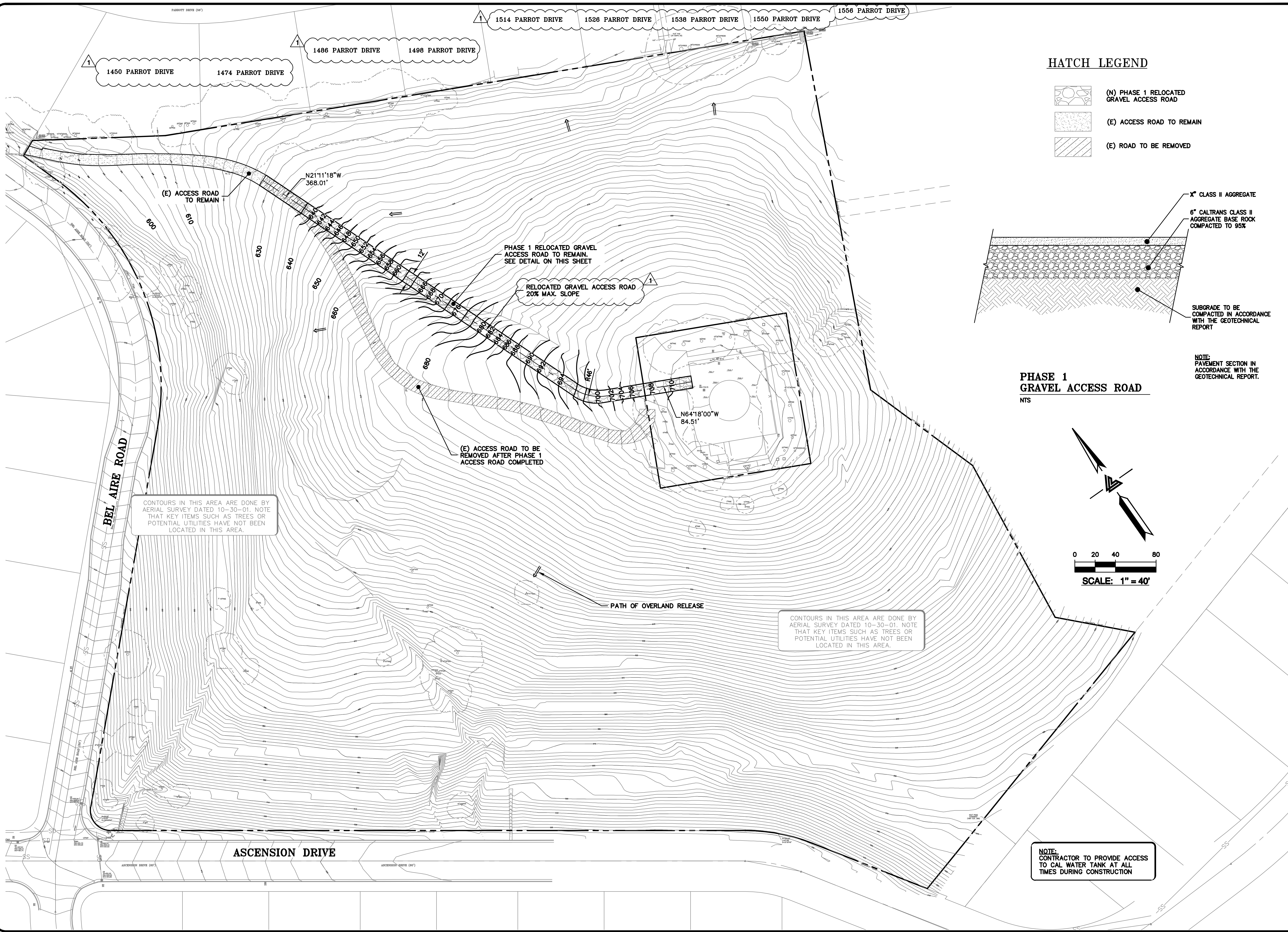
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DEMOLITION PLAN

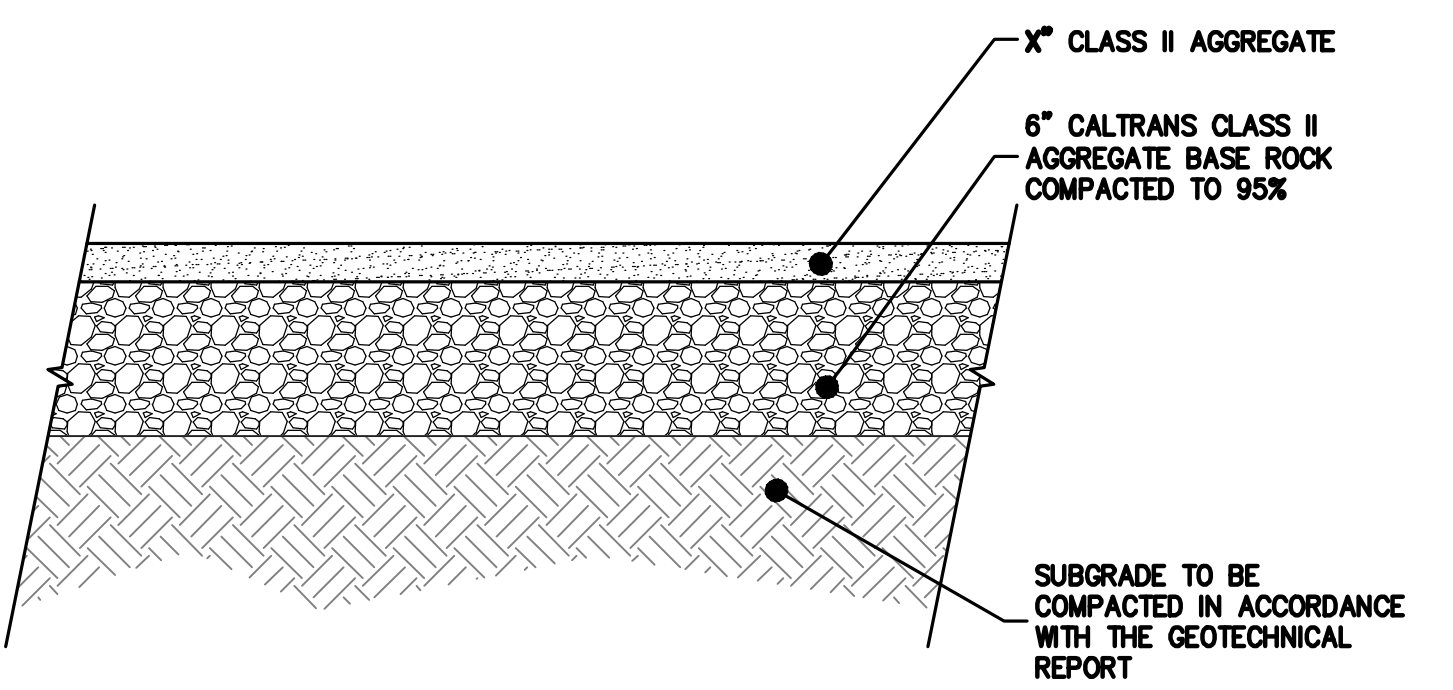
PRELIM PLAN CHECK REV.	01-17-19	RM
1 PLAN CHECK REV.	11-13-18	RM
REVISIONS	BY	

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1" = 40'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:

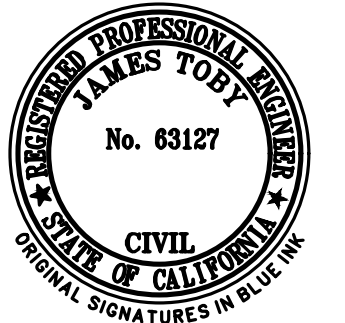
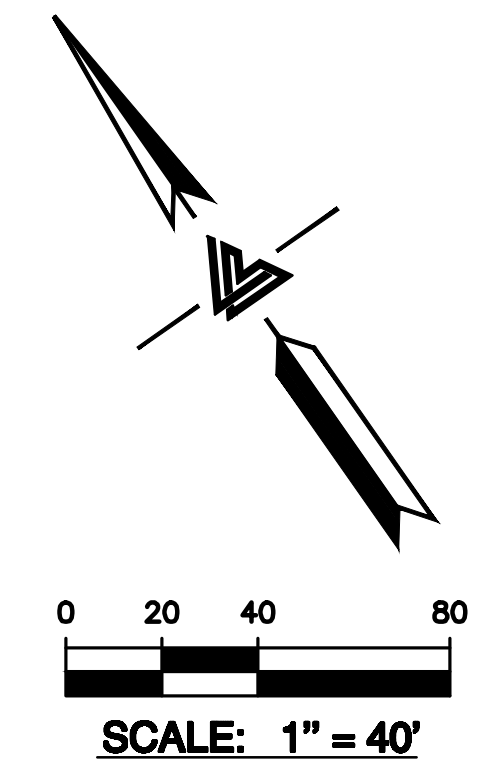


HATCH LEGEND

-  (N) PHASE 1 RELOCATED GRAVEL ACCESS ROAD
-  (E) ACCESS ROAD TO REMAIN
-  (E) ROAD TO BE REMOVED



PHASE 1 GRAVEL ACCESS ROAD
NTS

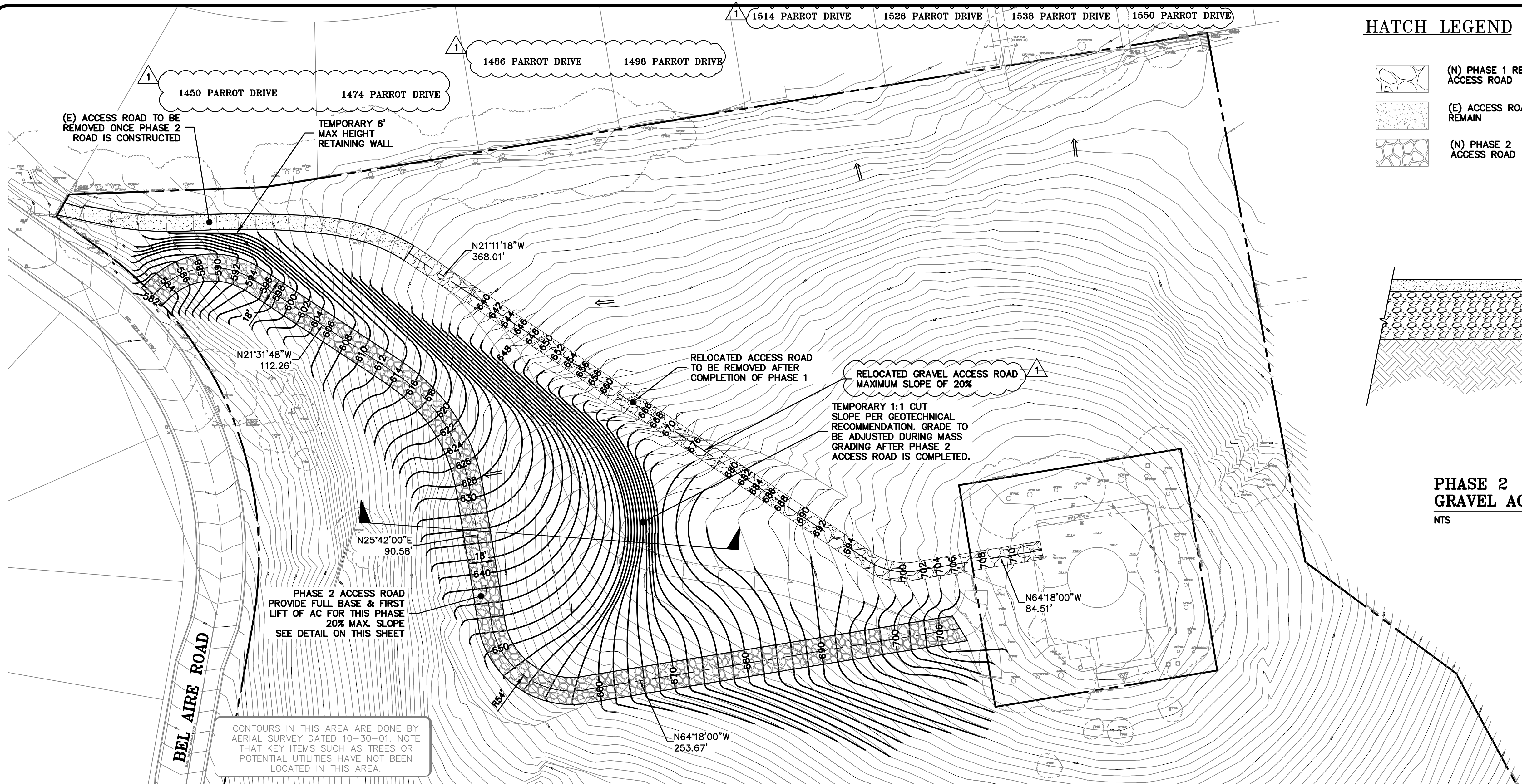


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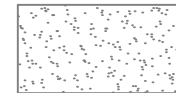
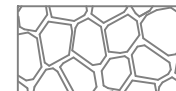
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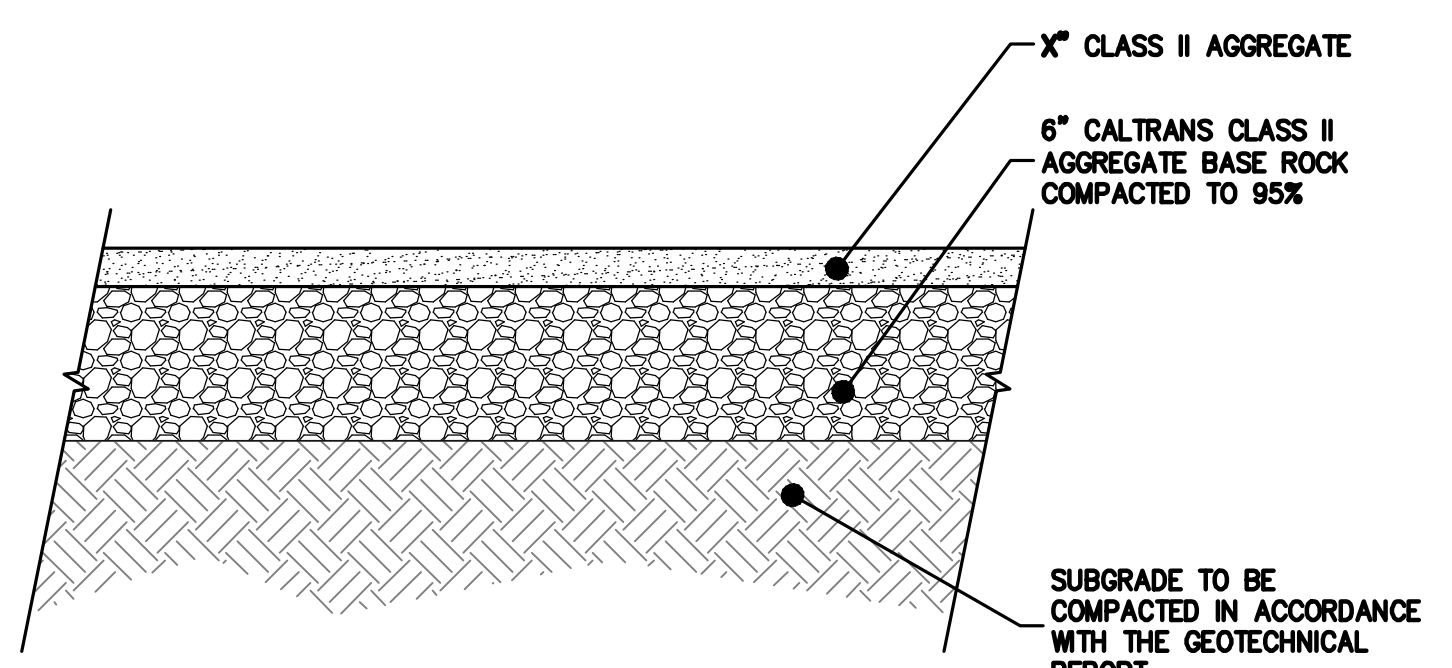
TEMPORARY ACCESS ROAD PLAN
PHASE 1

PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM
REVISIONS	BY
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DATE: 5-2-18	
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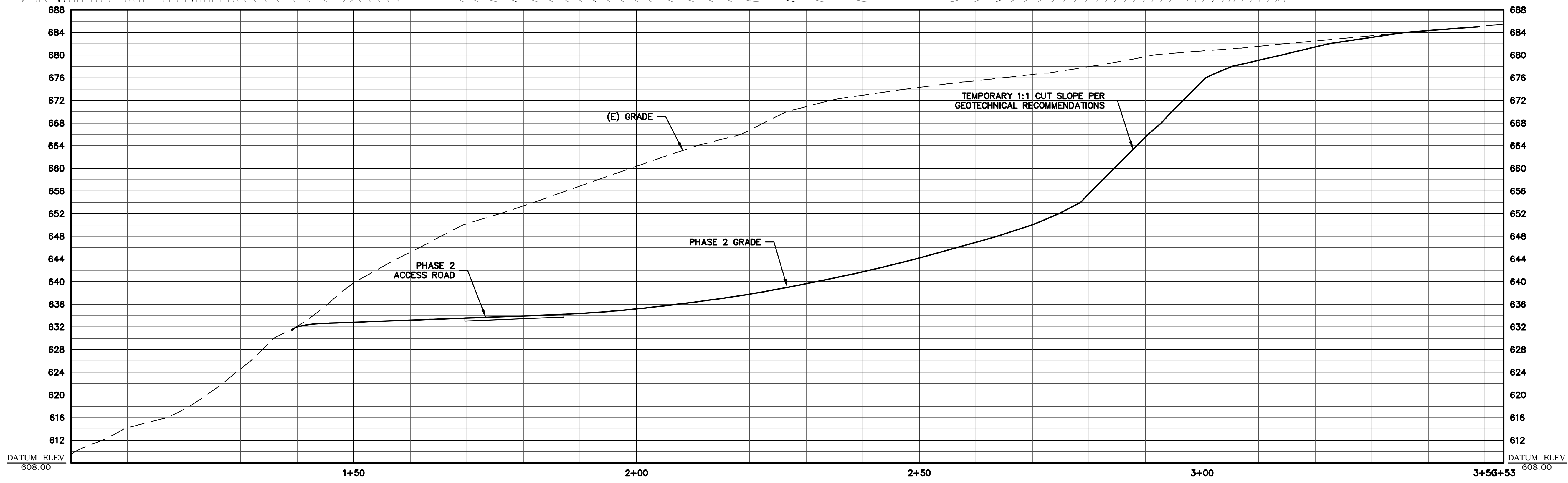
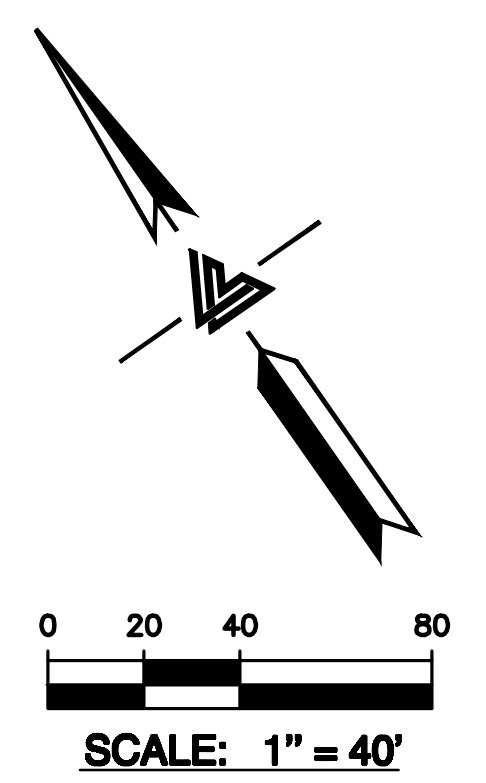


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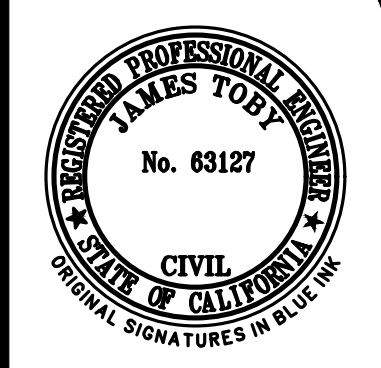
-  (N) PHASE 1 RELOCATED GRAVEL ACCESS ROAD
-  (E) ACCESS ROAD TO REMAIN
-  (N) PHASE 2 ACCESS ROAD



PHASE 2 GRAVEL ACCESS ROAD
NTS



PHASE 2 GRADING PROFILE
SCALE: 1" = 10' HORIZ & VERT



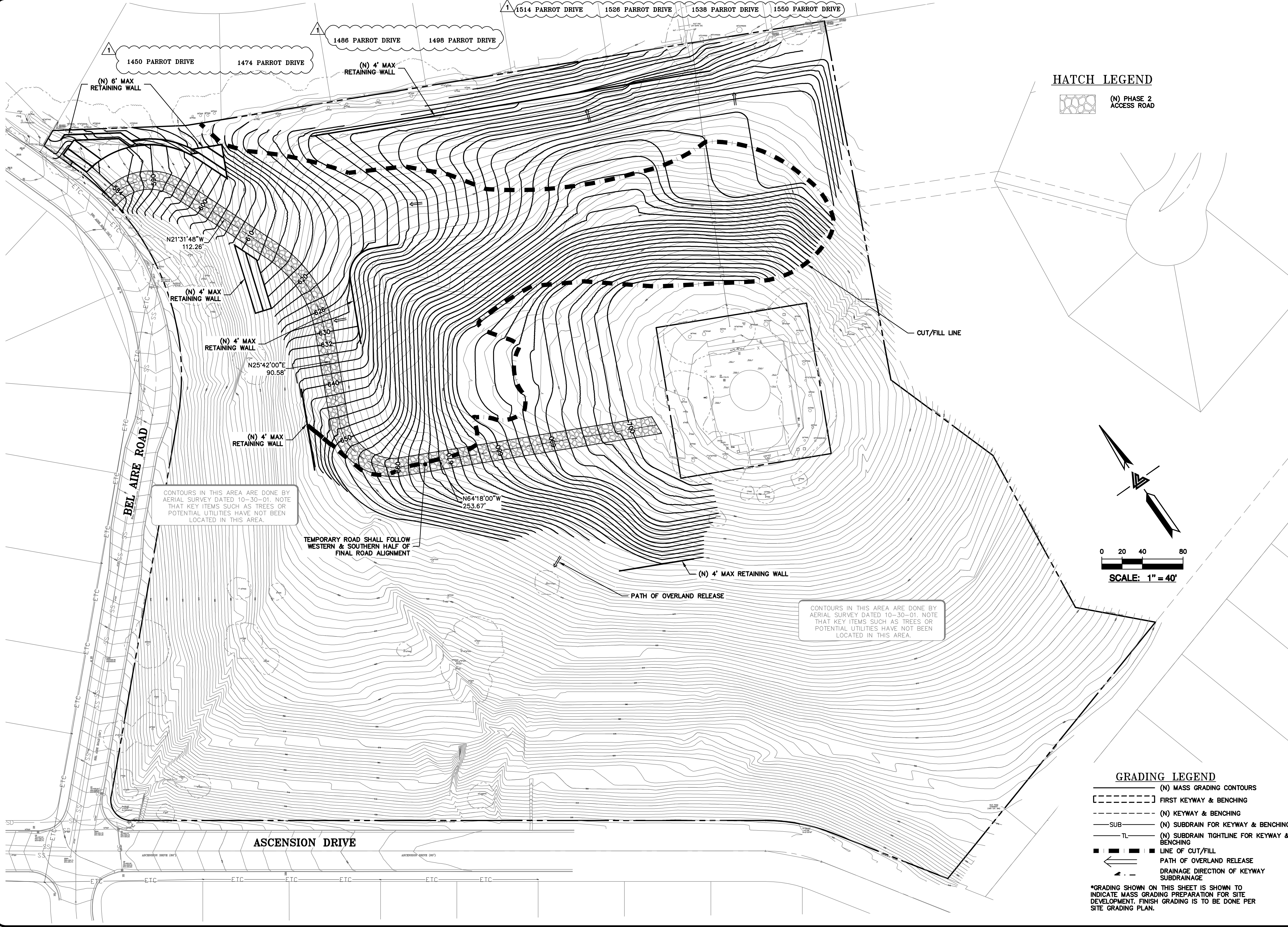
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BAY AREA REGION
SAN FRANCISCO, CALIFORNIA 94115
SOUTH COAST REGION
SAN ANTONIO, TEXAS 78201
ROSELAND, CALIFORNIA 94568
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(F) (510) 887-3019 (F) (916) 797-7363
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**ASCENSION HEIGHTS
SUBDIVISION
SAN MATEO, CALIFORNIA**
(UNINCORPORATED) SAN MATEO COUNTY

**TEMPORARY ACCESS
ROAD PLAN
PHASE 2**

NO.	REVISIONS	BY
1	PLANCHCK REV. 11-13-18	RM
	PRELIM PLANCHCK REV. 01-17-19	RM

JOB NO: 2161285
DATE: 5-2-18
SCALE: 1" = 40'
DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:



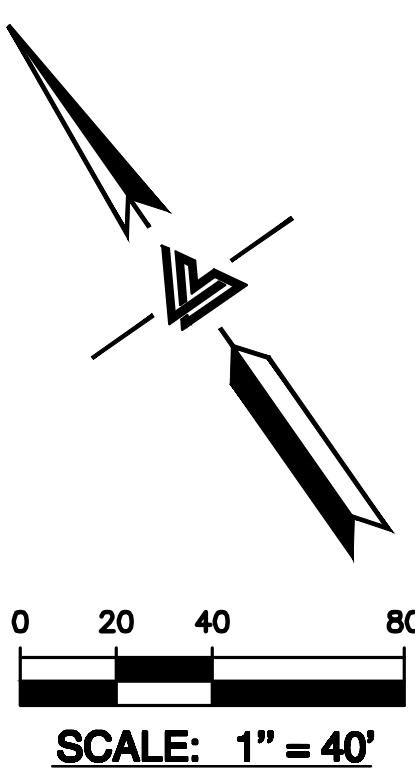
CONTOURS IN THIS AREA ARE DONE BY AERIAL SURVEY DATED 10-30-01. NOTE THAT KEY ITEMS SUCH AS TREES OR POTENTIAL UTILITIES HAVE NOT BEEN LOCATED IN THIS AREA.

TEMPORARY ROAD SHALL FOLLOW WESTERN & SOUTHERN HALF OF FINAL ROAD ALIGNMENT

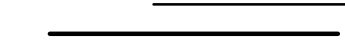
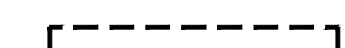

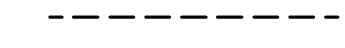




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HATCH LEGEND

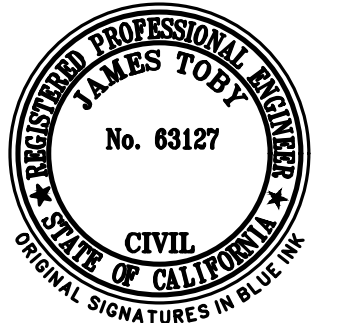
 (N) PHASE 2 ACCESS ROAD



GRADING LEGEND

-  (N) MASS GRADING CONTOURS
-  FIRST KEYWAY & BENCHING
-  (N) KEYWAY & BENCHING
-  (N) SUBDRAIN FOR KEYWAY & BENCHING
-  (N) SUBDRAIN TIGHTLINE FOR KEYWAY & BENCHING
-  LINE OF CUT/FILL
-  PATH OF OVERLAND RELEASE
-  DRAINAGE DIRECTION OF KEYWAY SUBDRAINAGE

*GRADING SHOWN ON THIS SHEET IS SHOWN TO INDICATE MASS GRADING PREPARATION FOR SITE DEVELOPMENT. FINISH GRADING IS TO BE DONE PER SITE GRADING PLAN.



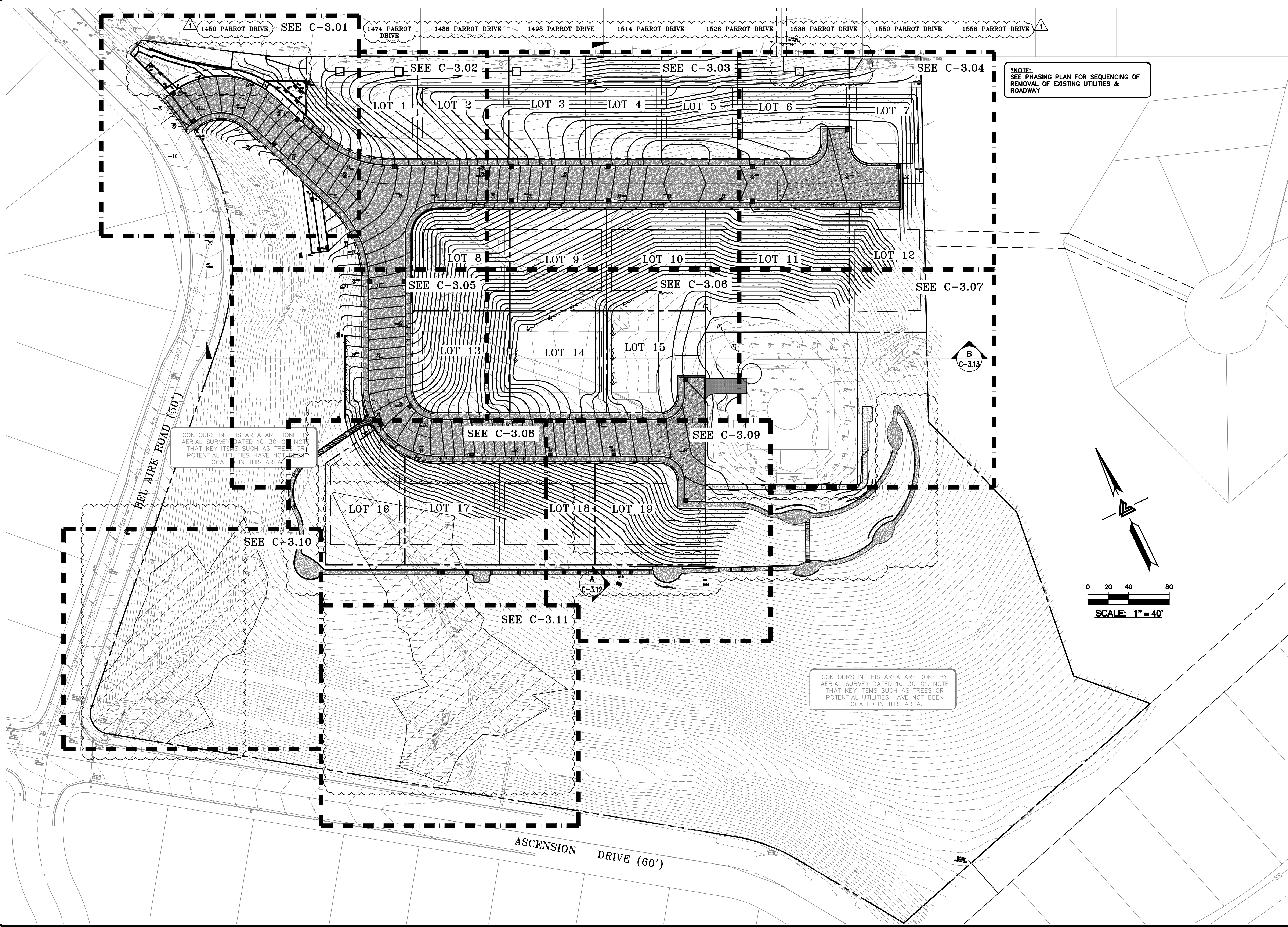
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**MASS GRADING
 PLAN**

REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM

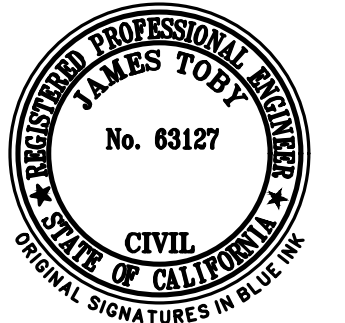
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NOTE:
SEE PHASING PLAN FOR SEQUENCING OF REMOVAL OF EXISTING UTILITIES & ROADWAY



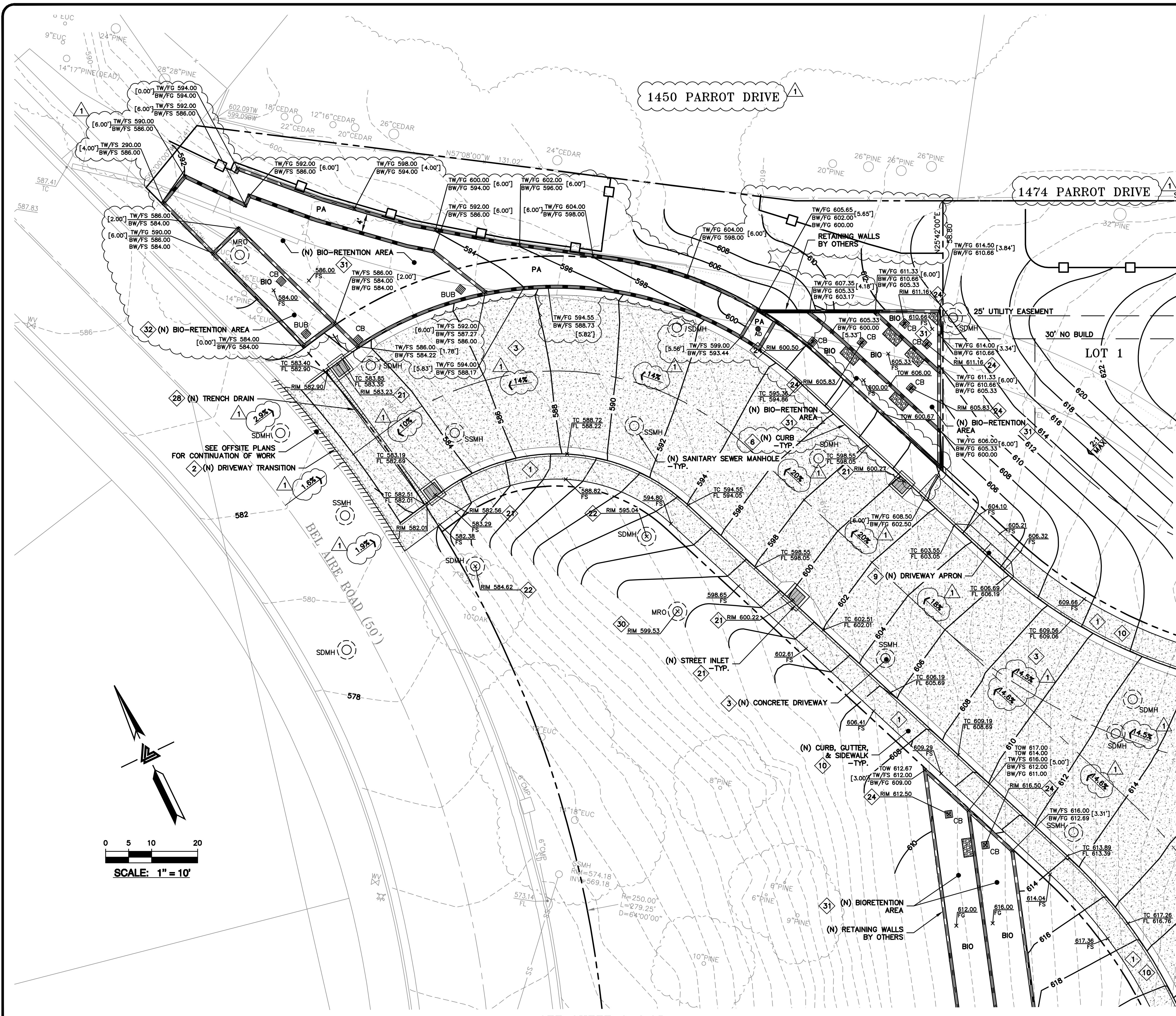
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OVERALL SITE PLAN

PRELIM PLANCHECK REV.	01-17-19	RM
1 PLANCHECK REV.	11-13-18	RM
REVISIONS	BY	
JOB NO:	2161285	
DATE:	5-2-18	
SCALE:	1"=40'	
DESIGN BY:	RC	
DRAWN BY:	ATL	
SHEET NO:		

C-3.00
7 OF 50 SHEETS



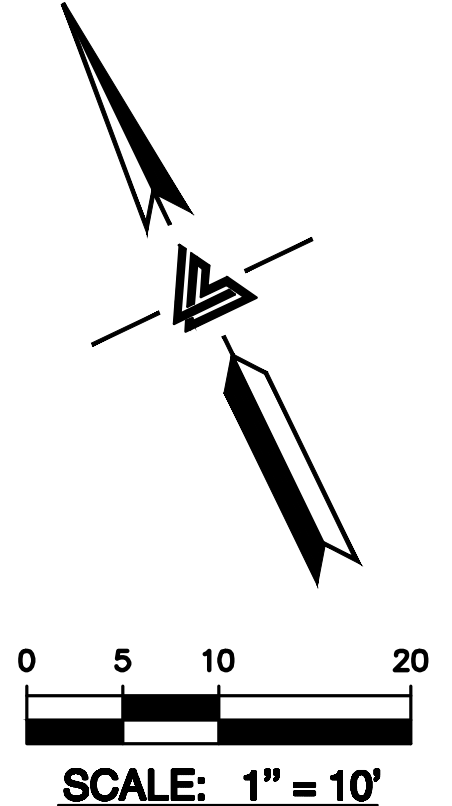
1450 PARROT DRIVE

1474 PARROT DRIVE

BEL AIRE ROAD (50')

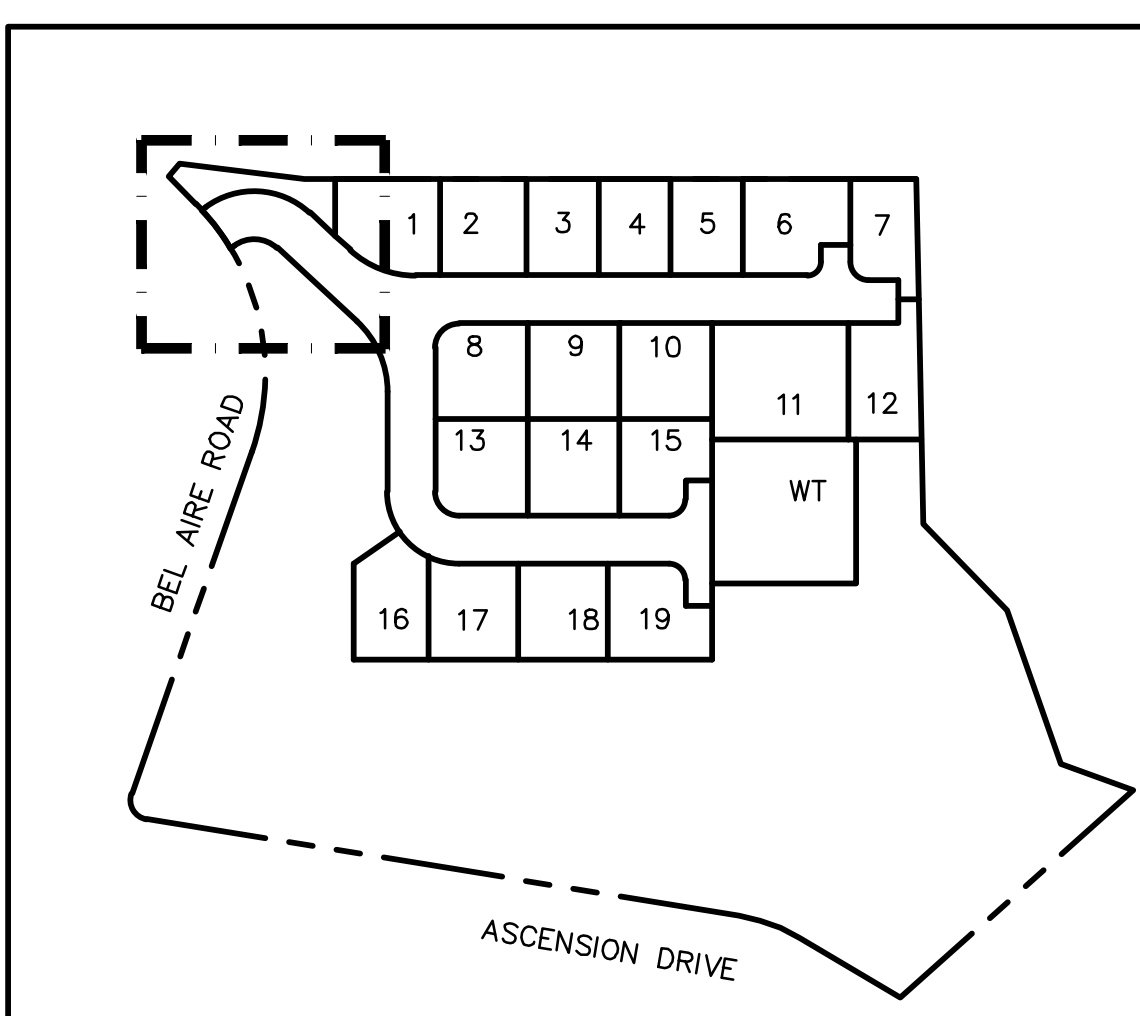
SEE SHEET C-3.02

SEE SHEET C-3.05



- FLATWORK KEYNOTES 1 TO 10**
- 1 PROVIDE 2% (1% MIN.) SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 2304.11.2. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.
 - 2 GRIND AC TO TIE (N) CONCRETE INTO (E) AC PAVING. SEE DETAIL 7 ON SHEET C-6.00.
 - 3 (N) CONCRETE DRIVEWAY. SEE DETAIL 1 ON SHEET C-6.00.
 - 4 (N) GRAVEL WALKWAY. SEE DETAIL 2 ON SHEET C-6.00.
 - 5 (N) CAL WATER GRAVEL ACCESS ROAD. SEE DETAIL 3 ON SHEET C-6.00.
 - 6 (N) TYPICAL CURB. SEE DETAIL 4 ON SHEET C-6.00.
 - 7 (N) FLUSH CURB. SEE DETAIL 5 ON SHEET C-6.00.
 - 8 (N) REDWOOD HEADER. SEE DETAIL 6 ON SHEET C-6.00.
 - 9 (N) CONCRETE DRIVEWAY APRON PER SAN MATEO COUNTY STANDARD DETAIL D-1 ON SHEET C-6.03.
 - 10 (N) CURB, GUTTER, & SIDEWALK PER SAN MATEO COUNTY STANDARD. SEE DETAIL D-3 ON SHEET C-6.03.

- STORM DRAIN KEYNOTES 20 TO 33**
- 20 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE STORM DRAIN MANHOLES AT ALL BENDS IN MAIN. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. SEE SAN MATEO COUNTY STANDARD TRENCH BACKFILL DETAIL B-15 ON SHEET C-6.02.
 - 21 INSTALL (N) (TYPE GCL) STREET INLET. SEE SAN MATEO COUNTY STANDARD DETAILS B-1 AND B-1A ON SHEET C-6.02.
 - 22 INSTALL (N) STORM DRAIN MANHOLE. SEE SAN MATEO COUNTY STANDARD DETAIL B-10 ON SHEET C-6.02.
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 - 24 INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH WITH LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE ROCK. SEE DETAIL 1 ON SHEET C-6.01.
 - 25 INSTALL (N) "CHRISTY V-24" SILT BASIN W/GRAVEL BOTTOM. SEE DETAIL 2 ON SHEET C-6.01.
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 - 27 INSTALL (N) "CHRISTY V-24" BUBBLER BOX W/ GRAVEL BOTTOM. SEE DETAIL 4 ON SHEET C-6.01.
 - 28 INSTALL (N) ZURN ZB74-18 NO. 1803P TRENCH DRAIN W/ TRAFFIC-RATED GRATE OR APPROVED EQUAL CONNECT TO NEAREST STORM DRAIN LINE VIA 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS) PIPE.
 - 29 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 2 ON SHEET C-6.04.
 - 30 INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 3 ON SHEET C-6.04.
 - 31 INSTALL (N) CASCADING BIO-RETENTION AREA. SEE DETAIL 6 ON SHEET C-6.01.
 - 32 INSTALL (N) BIO-RETENTION AREA. SEE DETAIL 1 ON SHEET C-6.04.
 - 33 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.



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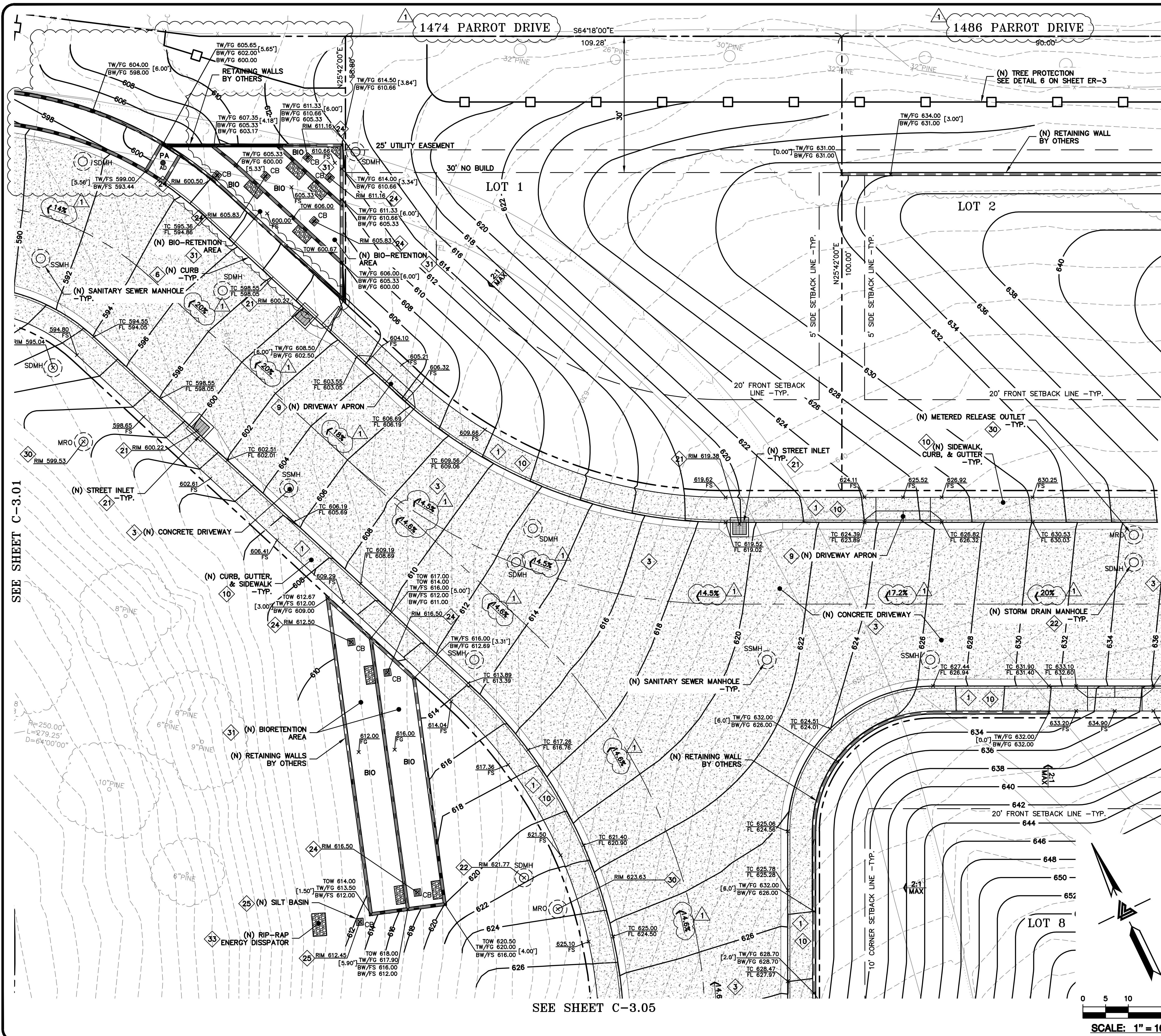
**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

**GRADING &
 DRAINAGE PLAN**

NO.	REVISIONS	BY
1	PRELIM PLAN CHECK REV. 01-17-19	RM
2	PLAN CHECK REV. 11-13-18	RM

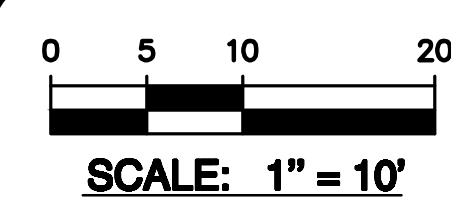
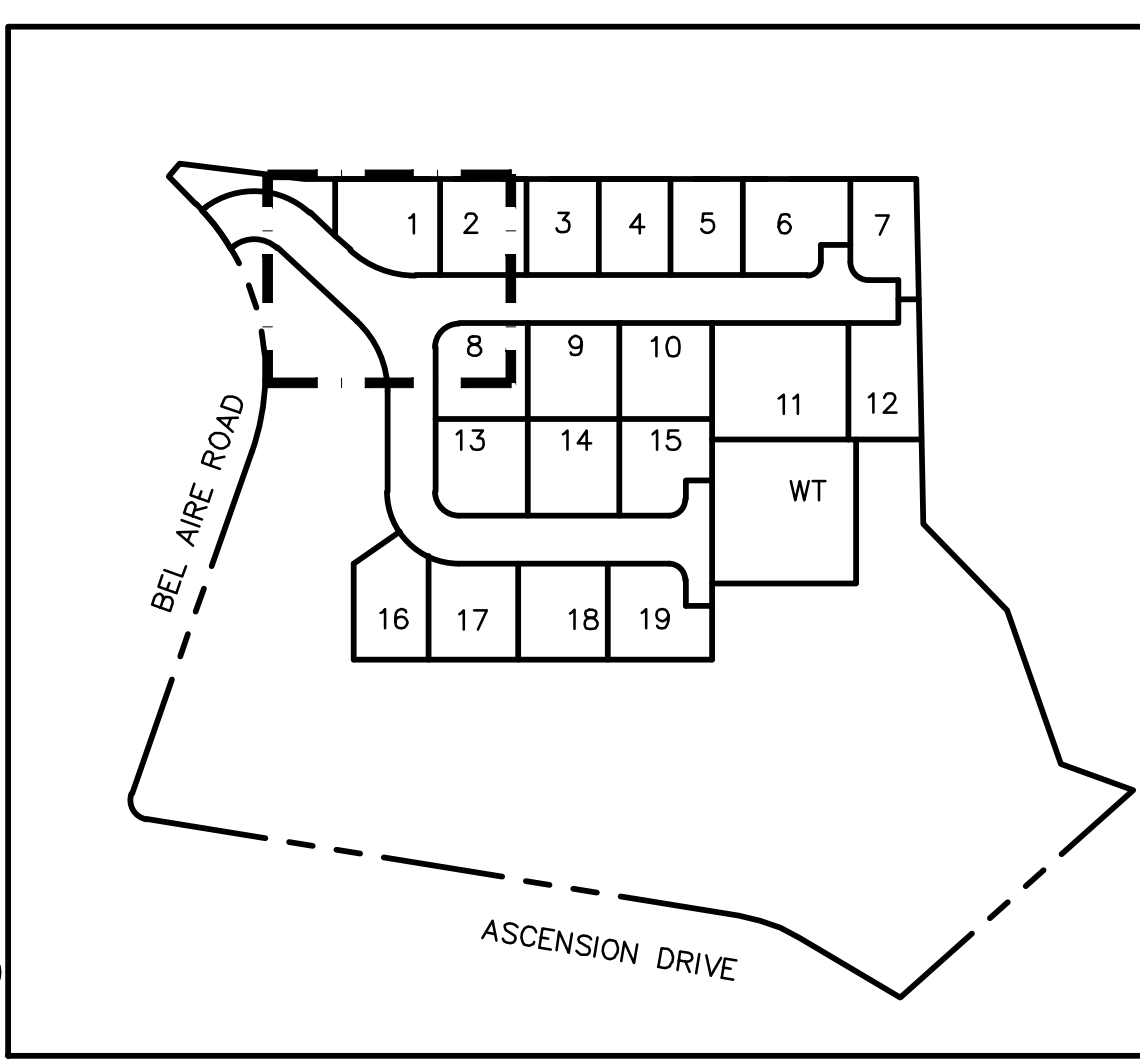
JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=10'
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 SHEET NO:

C-3.01
 8 OF 50 SHEETS



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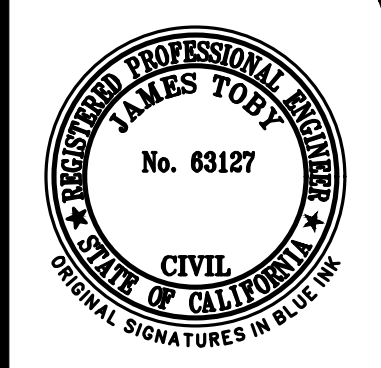
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SEE SHEET C-3.01

SEE SHEET C-3.05

SEE SHEET C-3.03

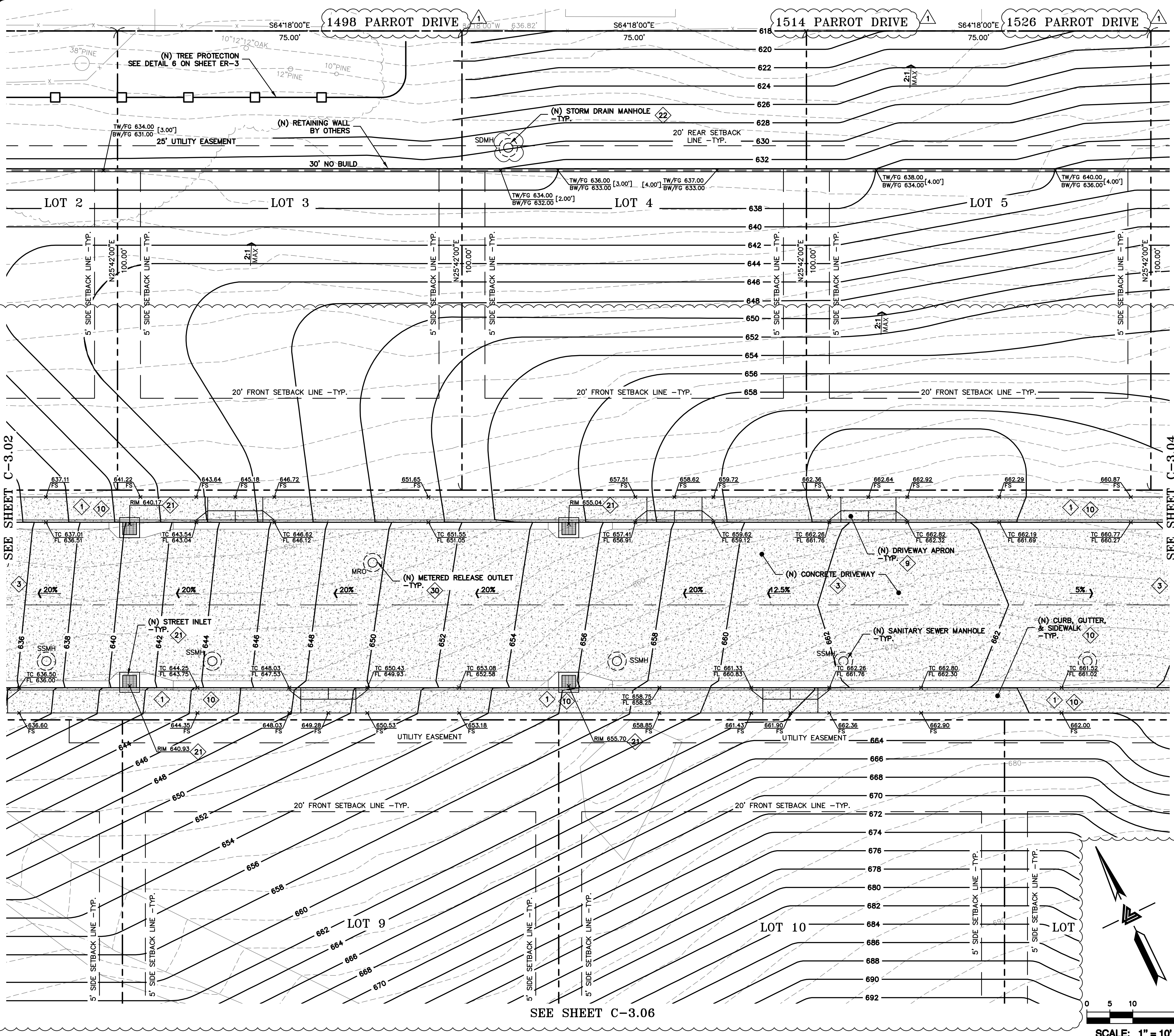


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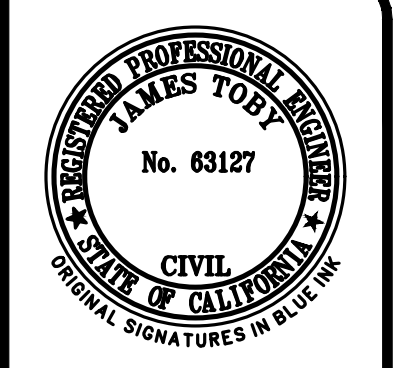
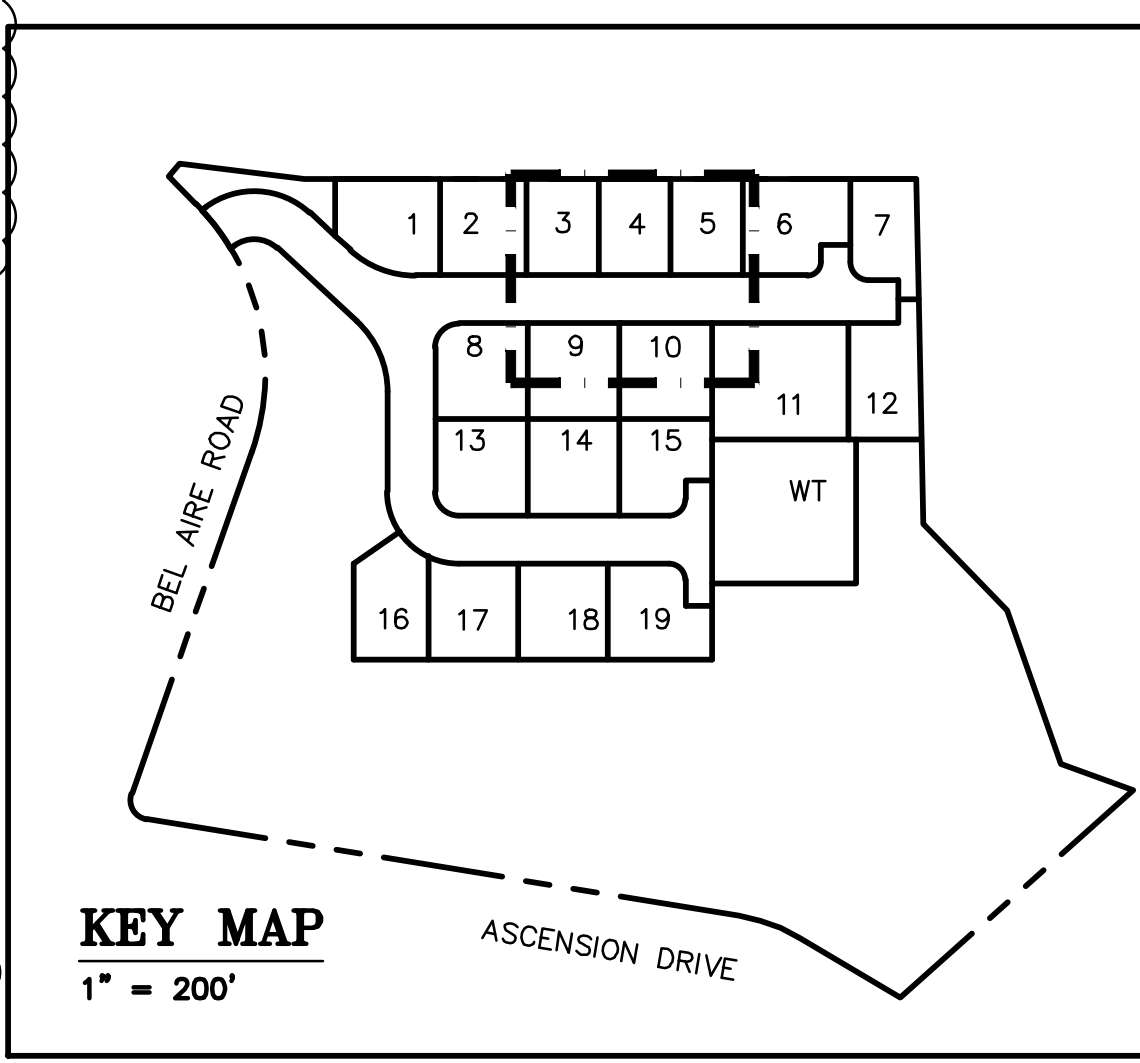
**GRADING &
 DRAINAGE PLAN**

NO.	REVISIONS	BY
1	PRELIM PLAN CHECK REV. 01-17-19	RM
2	PLAN CHECK REV. 11-13-18	RM
REVISIONS		
JOB NO: 2161285		
DATE: 5-2-18		
SCALE: 1"=10'		
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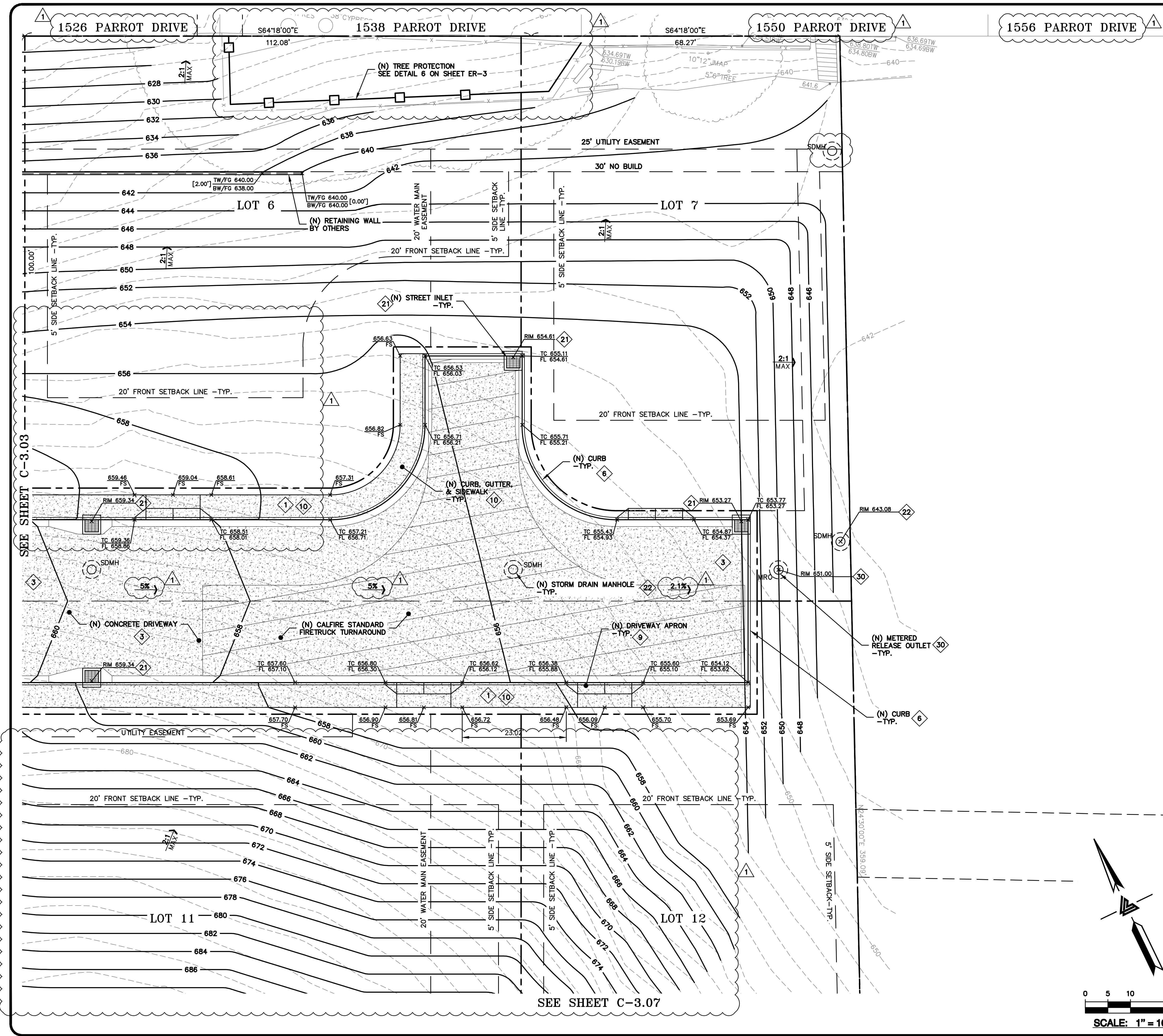
**ASCENSION HEIGHTS
 SUBDIVISION**

SAN MATEO, CALIFORNIA

(UNINCORPORATED) SAN MATEO COUNTY

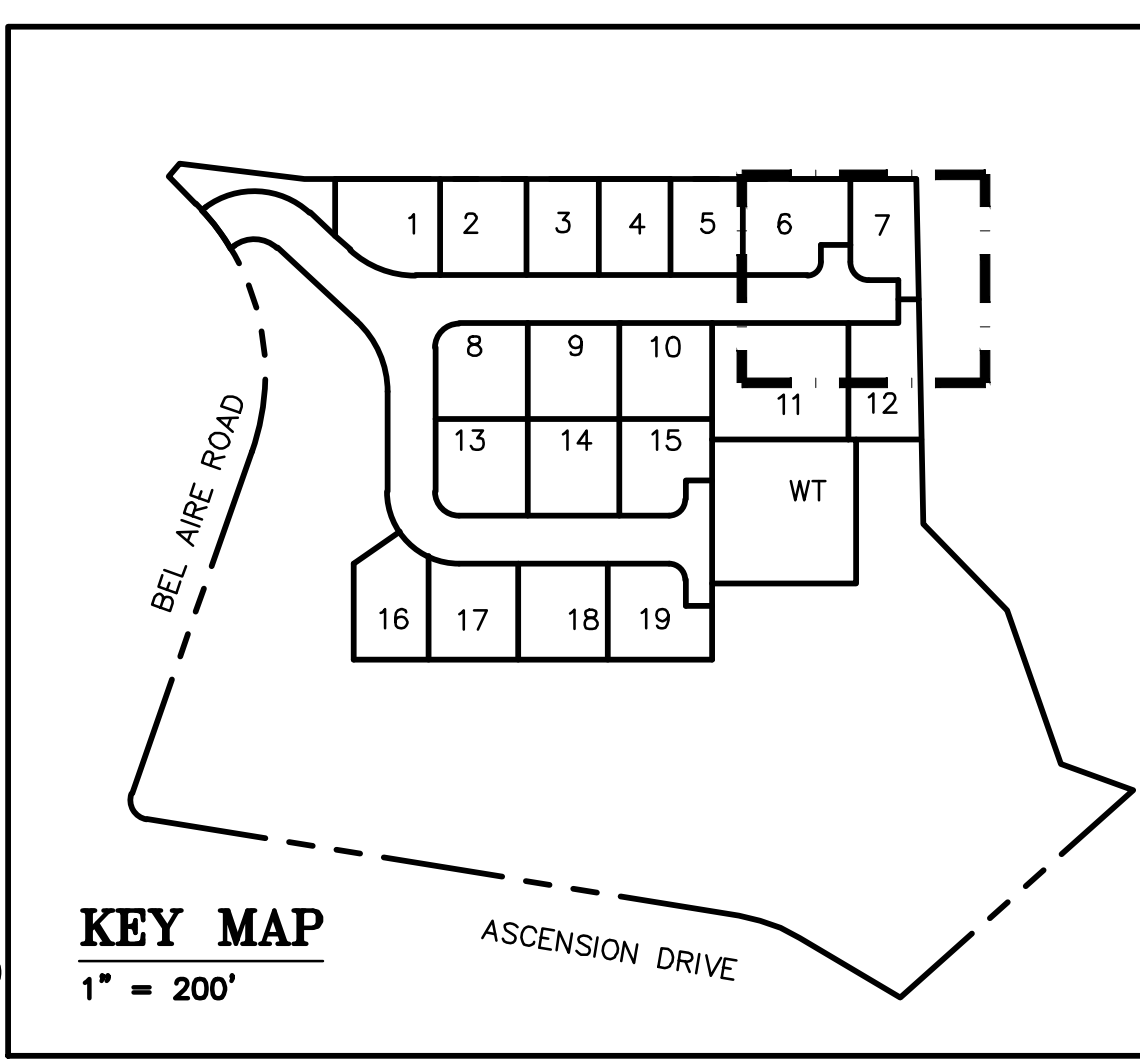
**GRADING &
 DRAINAGE PLAN**

REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
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- 20 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE STORM DRAIN MANHOLES AT ALL BENDS IN MAIN. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. SEE SAN MATEO COUNTY STANDARD TRENCH BACKFILL DETAIL B-15 ON SHEET C-6.02.
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 - 25 INSTALL (N) "CHRISTY V-24" SILT BASIN W/GRAVEL BOTTOM. SEE DETAIL 2 ON SHEET C-6.01.
 - 26 CONSTRUCT (N) VEGETATED SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 3 ON SHEET C-6.01.
 - 27 INSTALL (N) "CHRISTY V-24" BUBBLER BOX W/ GRAVEL BOTTOM. SEE DETAIL 4 ON SHEET C-6.01.
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 - 30 INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 3 ON SHEET C-6.04.
 - 31 INSTALL (N) CASCADING BIO-RETENTION AREA. SEE DETAIL 6 ON SHEET C-6.01.
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 - 33 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.



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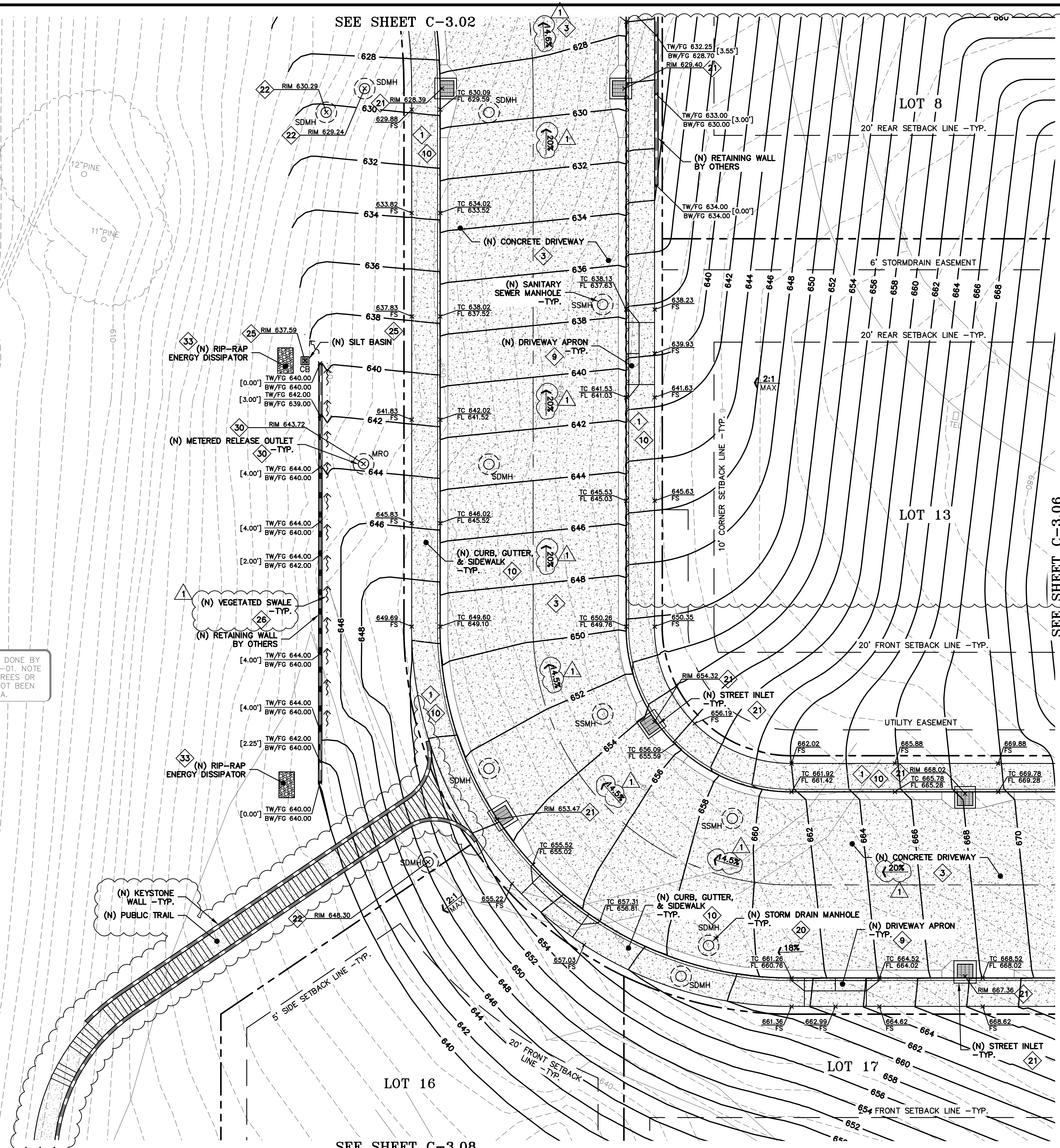
**GRADING &
 DRAINAGE PLAN**

REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=10'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:
C-3.04
 11 OF 50 SHEETS

SEE SHEET C-3.02

CONTOURS IN THIS AREA ARE DONE BY AERIAL SURVEY DATED 10-30-01. NOTE THAT KEY ITEMS SUCH AS TREES OR POTENTIAL UTILITIES HAVE NOT BEEN LOCATED IN THIS AREA.

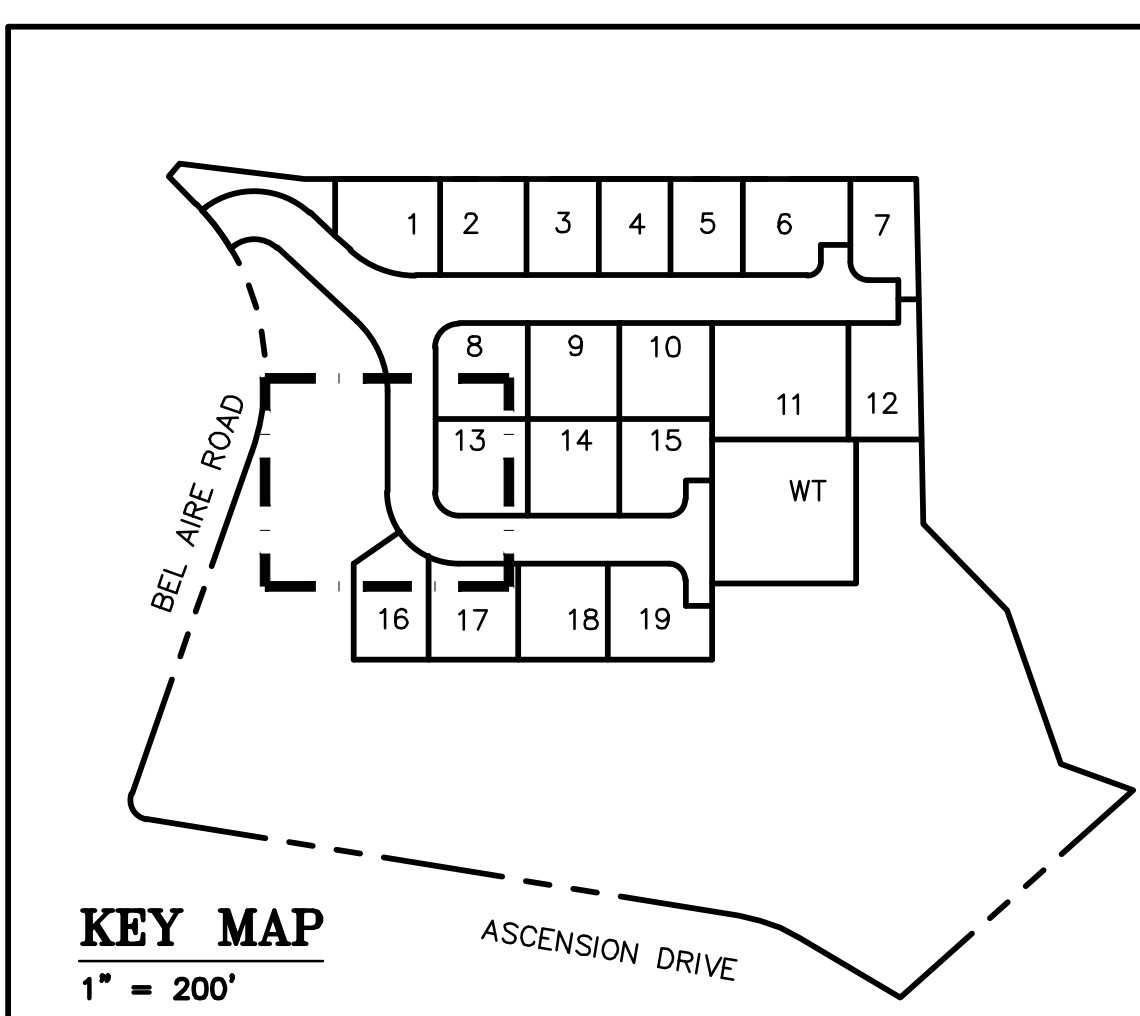


SEE SHEET C-3.08

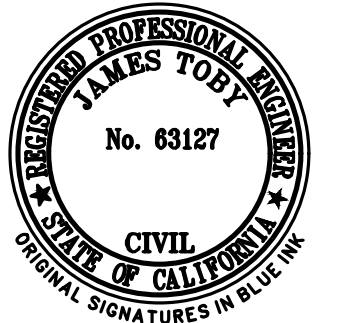
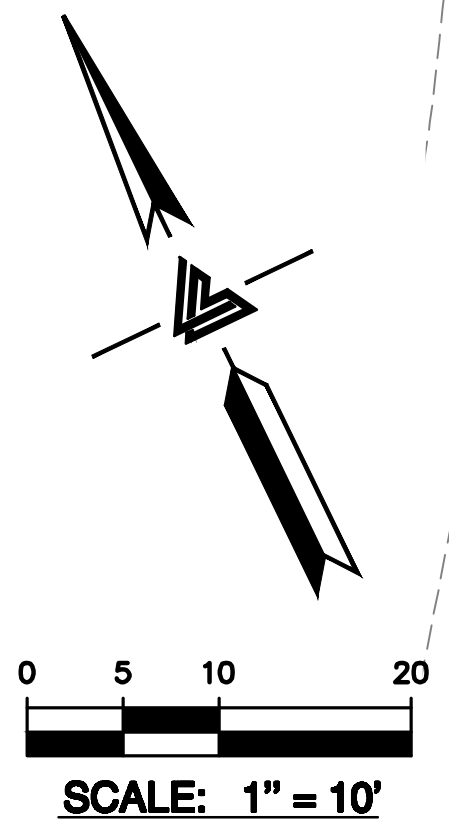
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SEE SHEET C-3.06



KEY MAP
1" = 200'



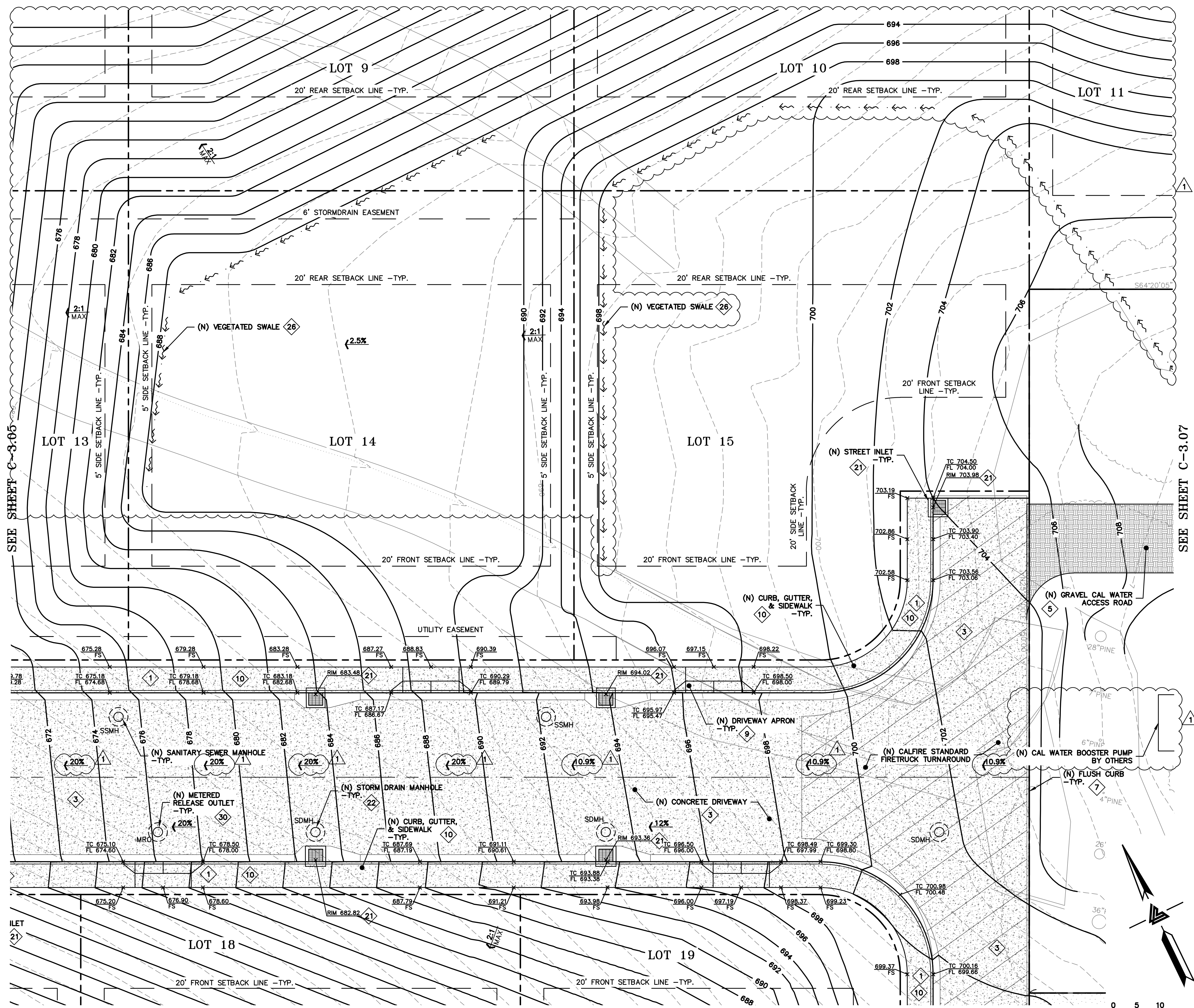
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**GRADING &
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NO.	REVISIONS	BY
1	PRELIM PLANCHACK REV. 01-17-19	RM
2	PLANCHACK REV. 11-13-18	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=10'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:
C-3.05
 12 OF 50 SHEETS

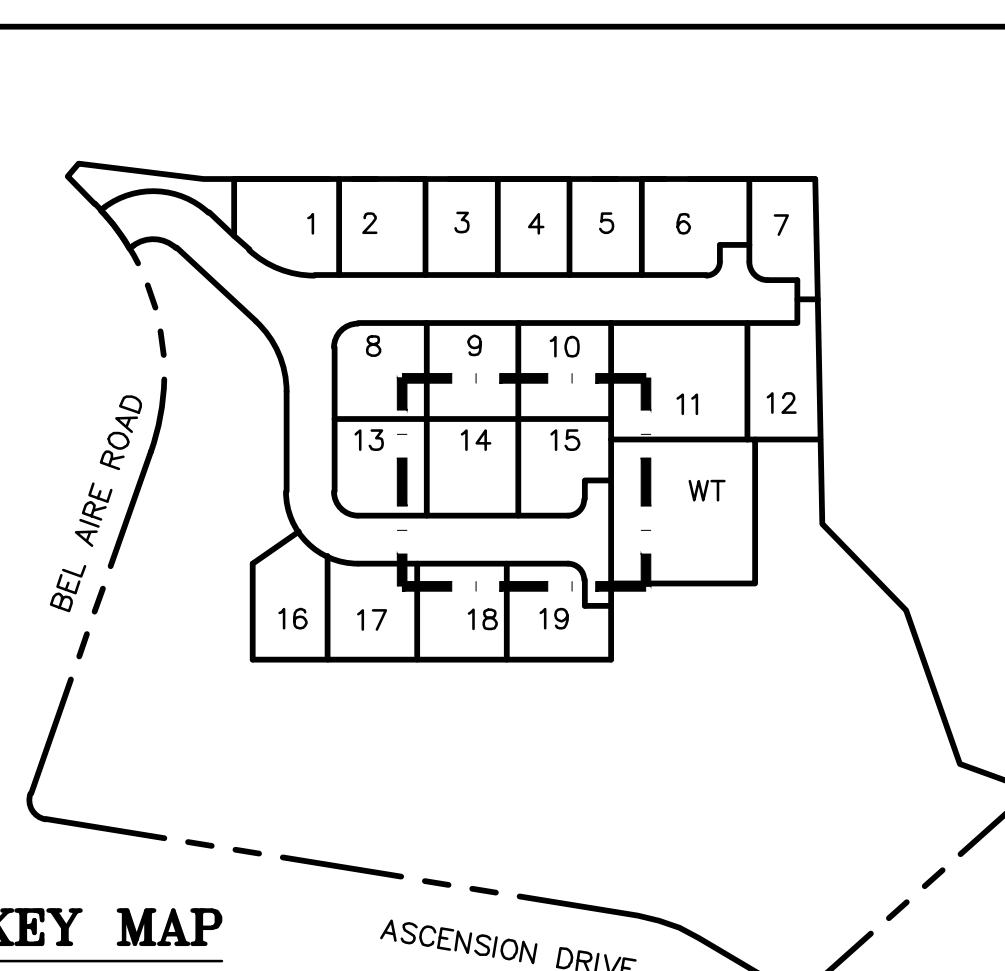


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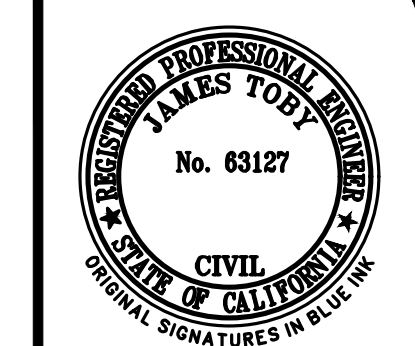
SEE SHEET C-3.07

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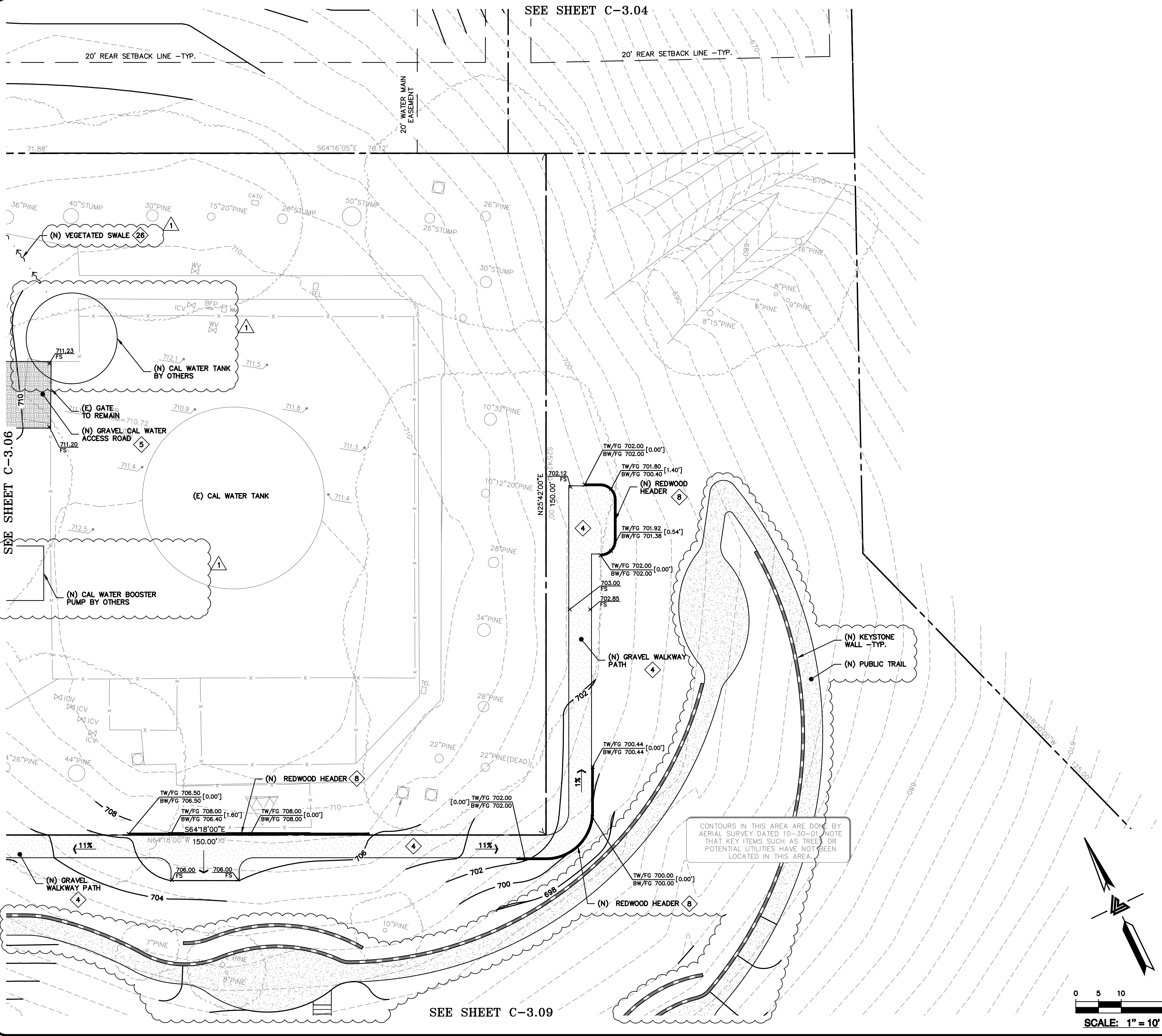


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GRADING & DRAINAGE PLAN

REVISIONS	BY
PRELIM PLANCHECK REV. 01-17-19	RM
1 PLANCHECK REV. 11-13-18	RM
REVISIONS BY	
JOB NO: 2161285	
DATE: 5-2-18	
SCALE: 1"=10'	
DESIGN BY: RC	
DRAWN BY: ATL	
SHEET NO:	



SEE SHEET C-3.04

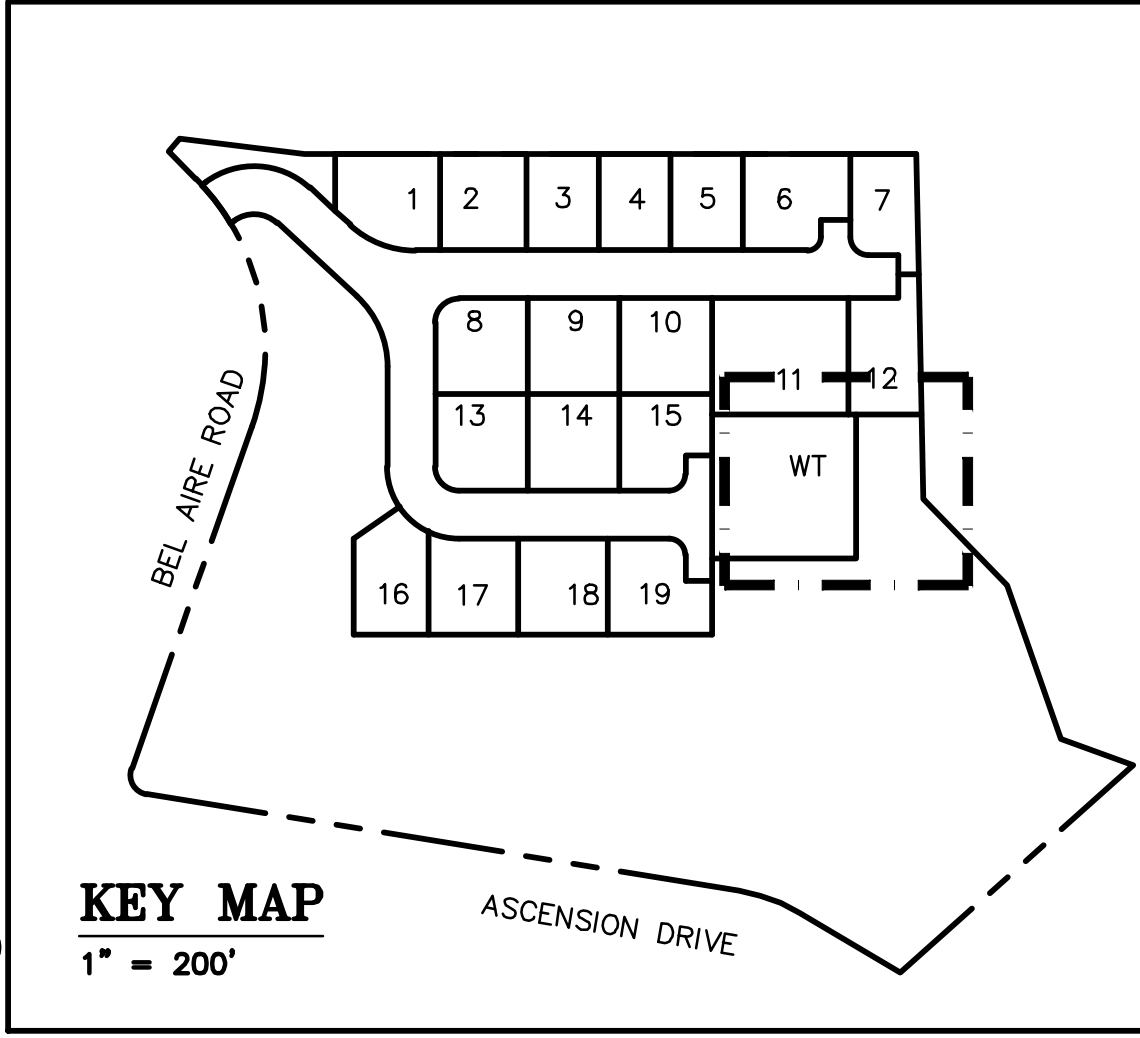
SEE SHEET C-3.06

SEE SHEET C-3.09

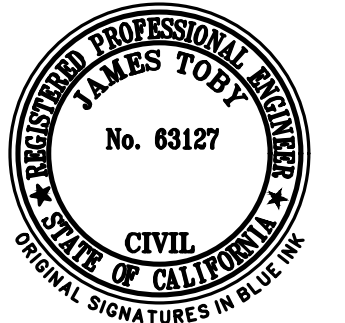
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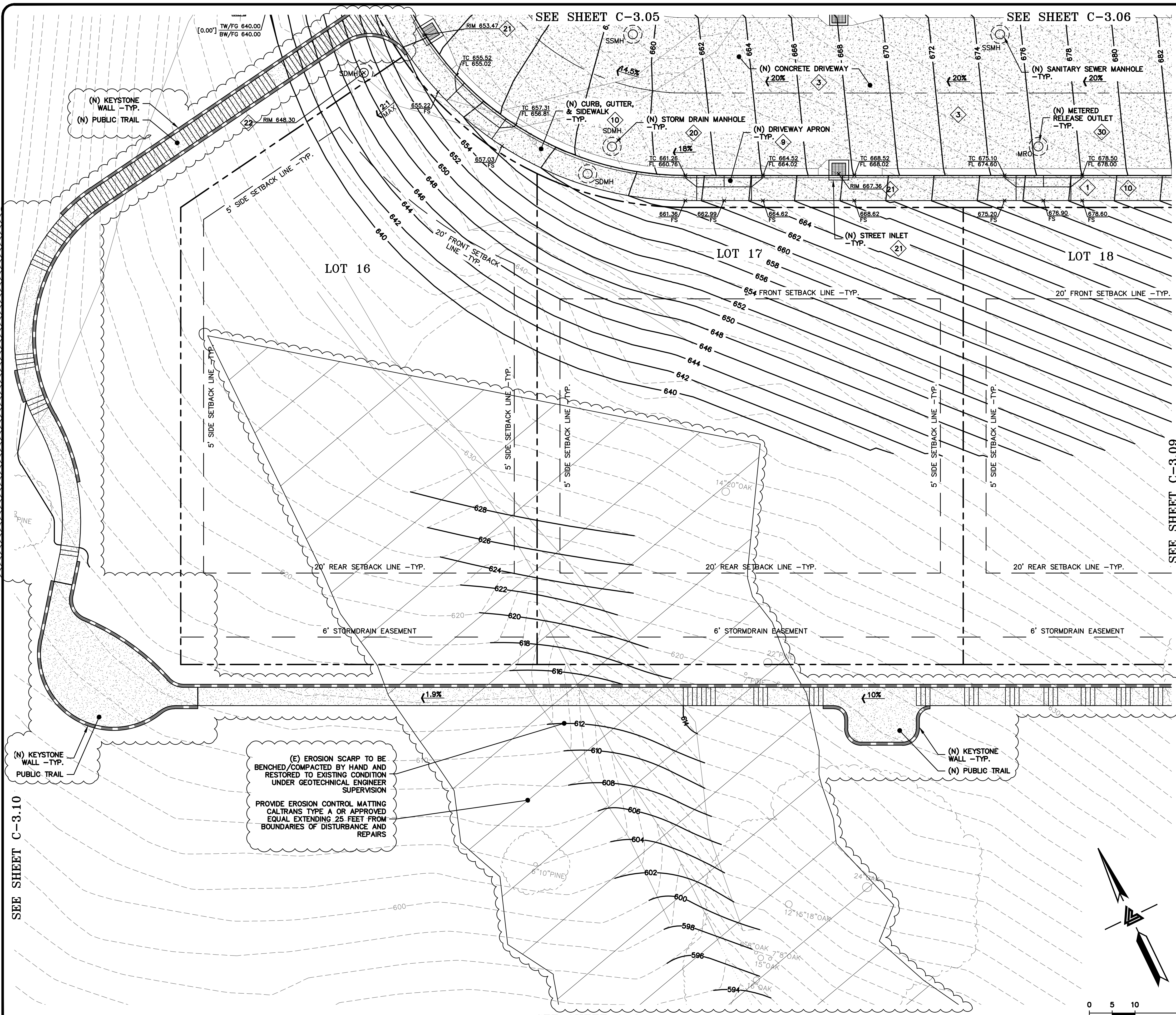
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SEE SHEET C-3.06

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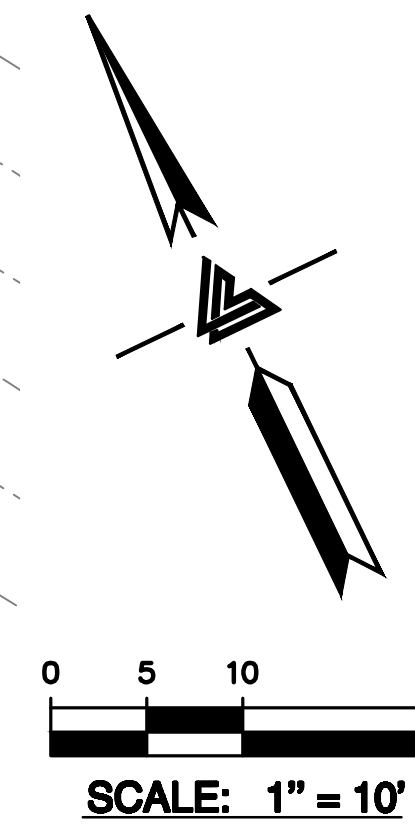
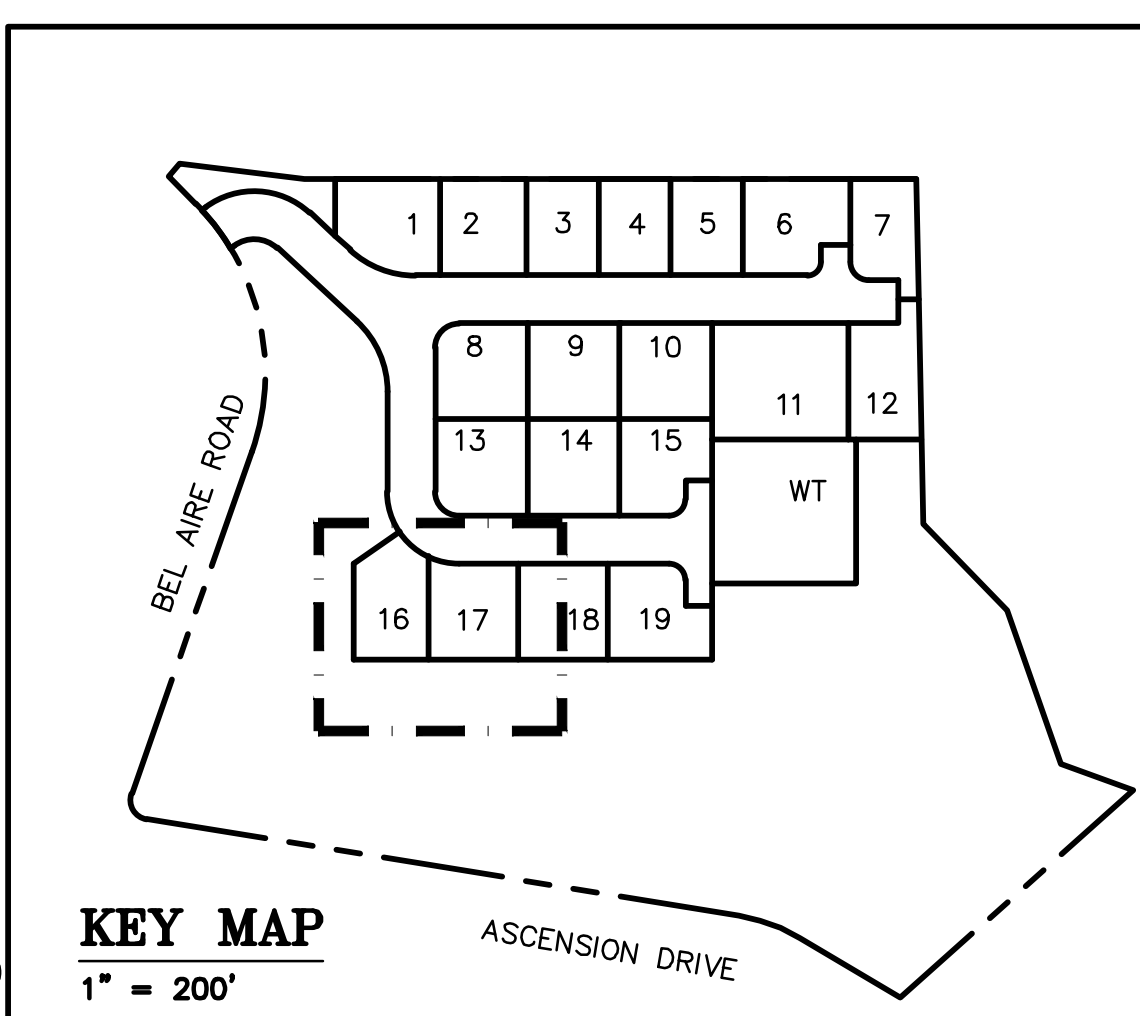
SEE SHEET C-3.09

SEE SHEET C-3.10

(E) EROSION SCARP TO BE BENCHED/COMPACTED BY HAND AND RESTORED TO EXISTING CONDITION UNDER GEOTECHNICAL ENGINEER SUPERVISION
 PROVIDE EROSION CONTROL MATTING CALTRANS TYPE A OR APPROVED EQUAL EXTENDING 25 FEET FROM BOUNDARIES OF DISTURBANCE AND REPAIRS

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- 23 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. SEE DETAIL 5 ON SHEET C-6.01.
- 24 INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH WITH LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE ROCK. SEE DETAIL 1 ON SHEET C-6.01.
- 25 INSTALL (N) "CHRISTY V-24" SILT BASIN W/GRAVEL BOTTOM. SEE DETAIL 2 ON SHEET C-6.01.
- 26 CONSTRUCT (N) VEGETATED SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 3 ON SHEET C-6.01.
- 27 INSTALL (N) "CHRISTY V-24" BUBBLER BOX W/ GRAVEL BOTTOM. SEE DETAIL 4 ON SHEET C-6.01.
- 28 INSTALL (N) ZURN ZB74-18 NO. 1803P TRENCH DRAIN W/ TRAFFIC-RATED GRATE OR APPROVED EQUAL CONNECT TO NEAREST STORM DRAIN LINE VIA 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS) PIPE.
- 29 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 2 ON SHEET C-6.04.
- 30 INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 3 ON SHEET C-6.04.
- 31 INSTALL (N) CASCADING BIO-RETENTION AREA. SEE DETAIL 6 ON SHEET C-6.01.
- 32 INSTALL (N) BIO-RETENTION AREA. SEE DETAIL 1 ON SHEET C-6.04.
- 33 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.



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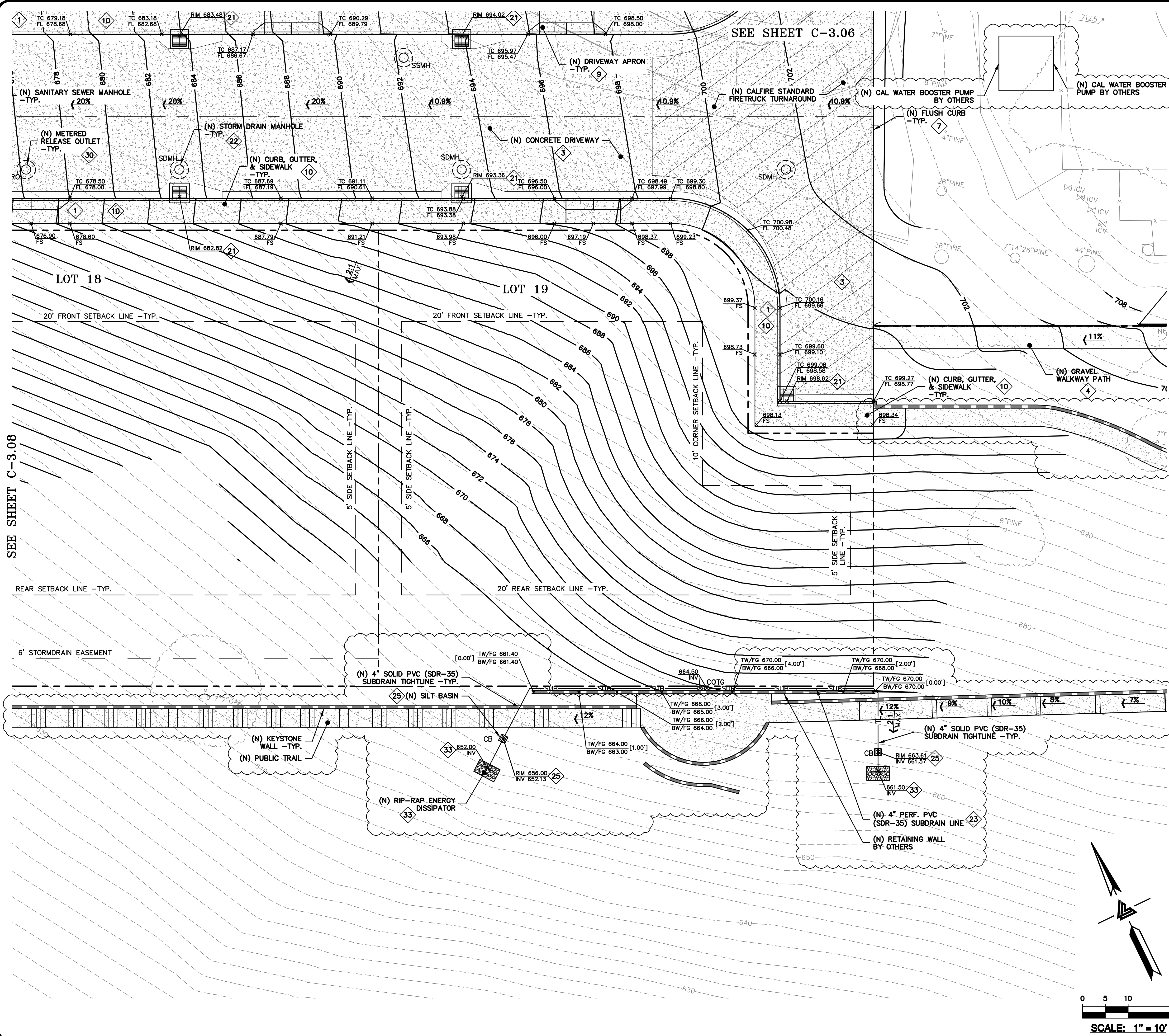
ASCENSION HEIGHTS SUBDIVISION
SAN MATEO, CALIFORNIA
 (UNINCORPORATED) SAN MATEO COUNTY

GRADING & DRAINAGE PLAN

REVISIONS	BY
PRELIM PLAN/CHECK REV. 01-17-19	RM
1 PLAN/CHECK REV. 11-13-18	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=10'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:

C-3.08
 15 OF 50 SHEETS

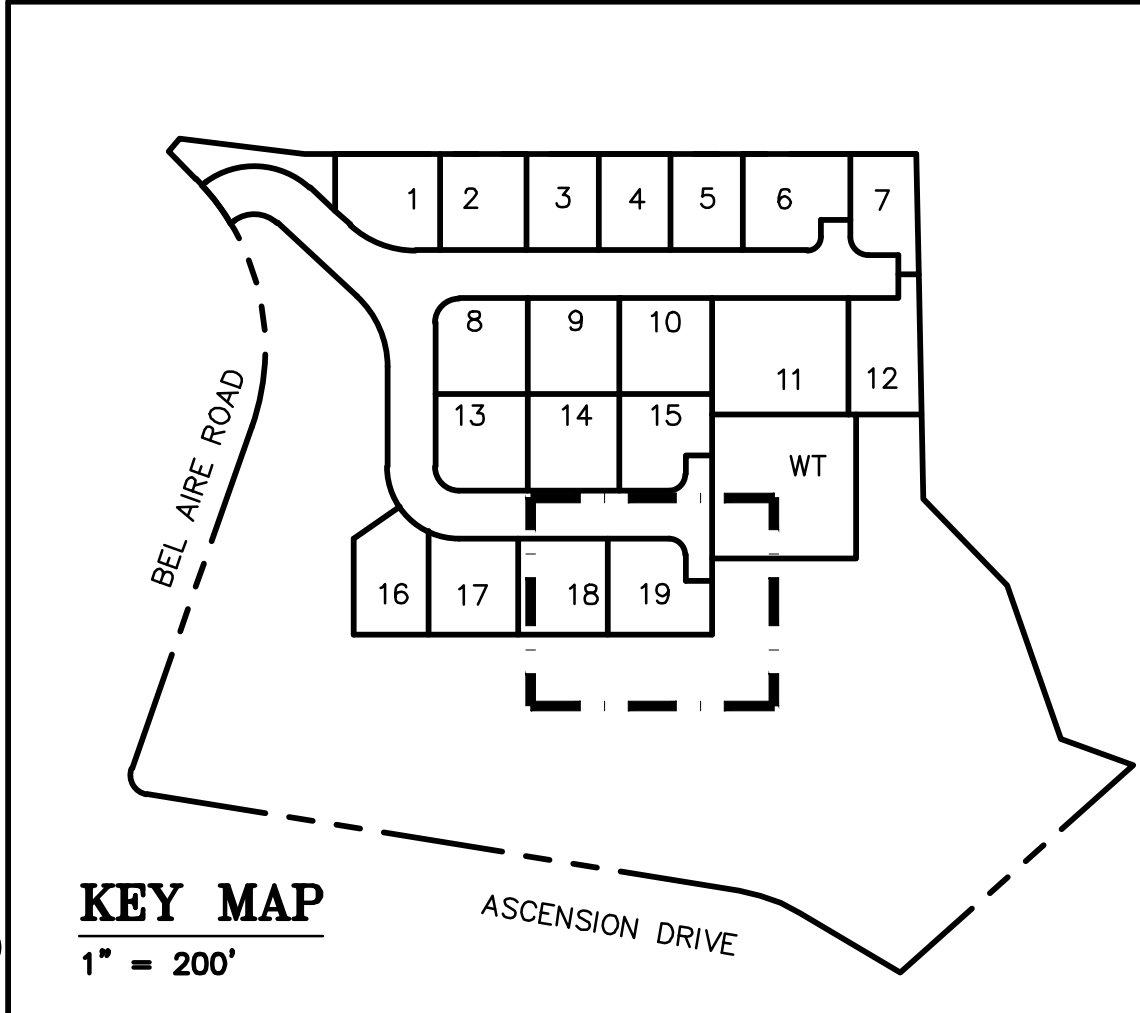


SEE SHEET C-3.06

SEE SHEET C-3.08

- FLATWORK KEYNOTES 1 TO 10**
- 1 PROVIDE 2% (1% MIN.) SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 2304.11.2. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.
 - 2 GRIND AC TO TIE (N) CONCRETE INTO (E) AC PAVING. SEE DETAIL 7 ON SHEET C-6.00.
 - 3 (N) CONCRETE DRIVEWAY. SEE DETAIL 1 ON SHEET C-6.00.
 - 4 (N) GRAVEL WALKWAY. SEE DETAIL 2 ON SHEET C-6.00.
 - 5 (N) CAL WATER GRAVEL ACCESS ROAD. SEE DETAIL 3 ON SHEET C-6.00.
 - 6 (N) TYPICAL CURB. SEE DETAIL 4 ON SHEET C-6.00.
 - 7 (N) FLUSH CURB. SEE DETAIL 5 ON SHEET C-6.00.
 - 8 (N) REDWOOD HEADER. SEE DETAIL 6 ON SHEET C-6.00.
 - 9 (N) CONCRETE DRIVEWAY APRON PER SAN MATEO COUNTY STANDARD DETAIL D-1 ON SHEET C-6.03.
 - 10 (N) CURB, GUTTER, & SIDEWALK PER SAN MATEO COUNTY STANDARD. SEE DETAIL D-3 ON SHEET C-6.03.

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**GRADING &
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REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM

JOB NO: 2161285
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 SCALE: 1"=10'
 DESIGN BY: RC
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 SHEET NO:

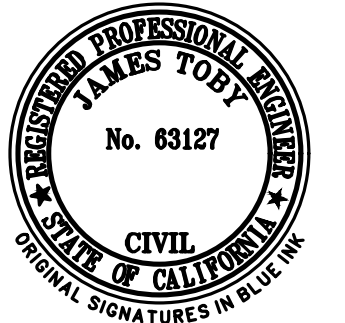
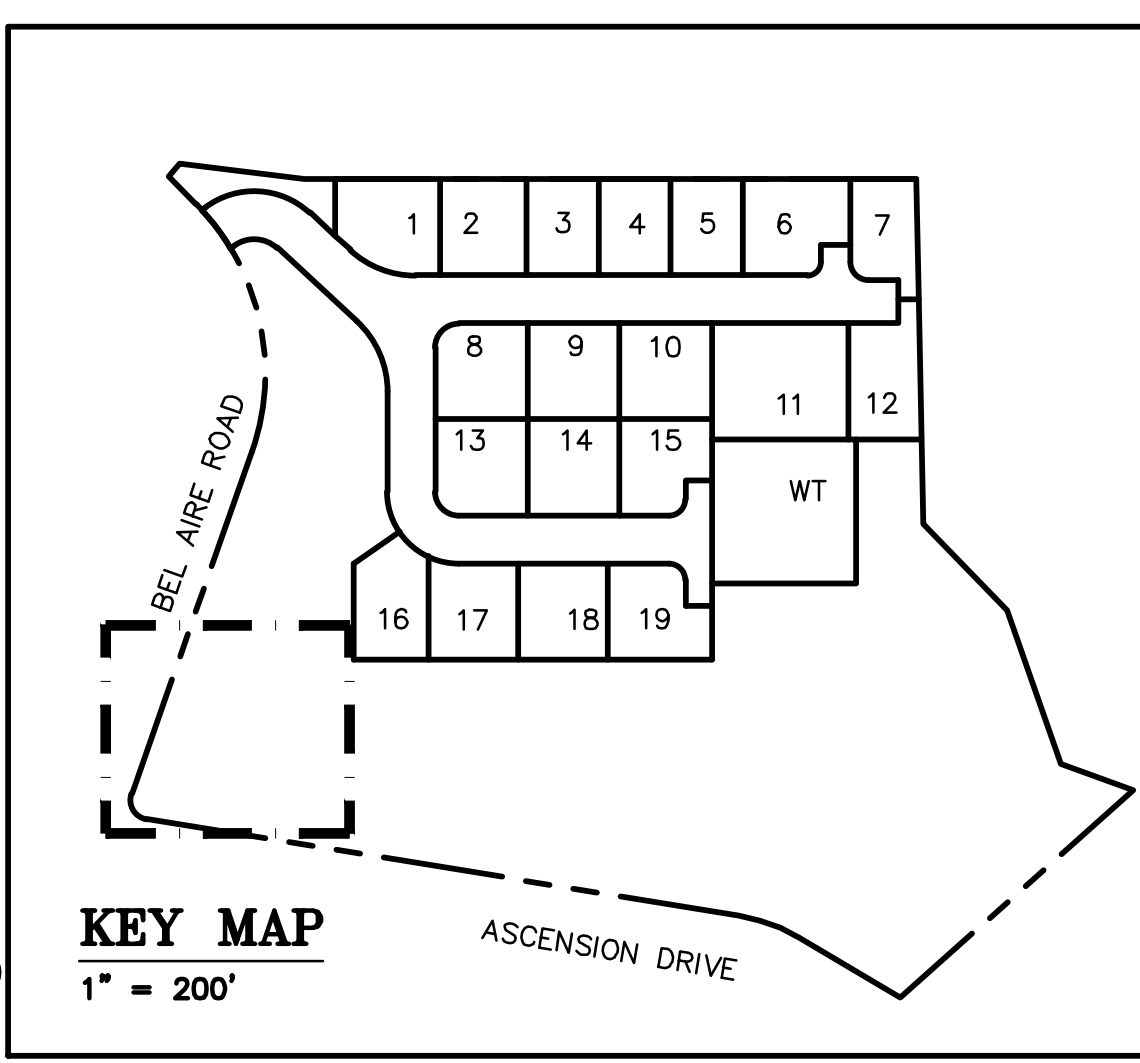


SEE SHEET C-3.11

SEE SHEET C-3.08

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**ASCENSION HEIGHTS
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 (UNINCORPORATED) SAN MATEO COUNTY

**GRADING &
 DRAINAGE PLAN**

NO.	REVISIONS	BY
1	PRELIM PLAN CHECK REV. 01-17-19	RM
1	PLAN CHECK REV. 11-13-18	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=10'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:

SEE SHEET C-3.08

SEE SHEET C-3.09

SEE SHEET C-3.10



FLATWORK KEYNOTES 1 TO 10

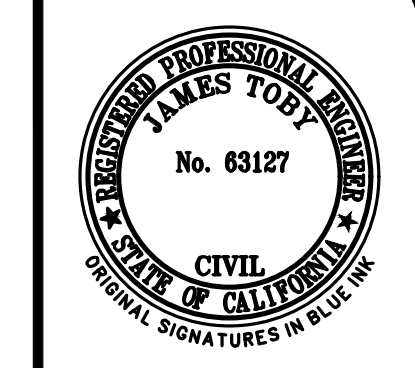
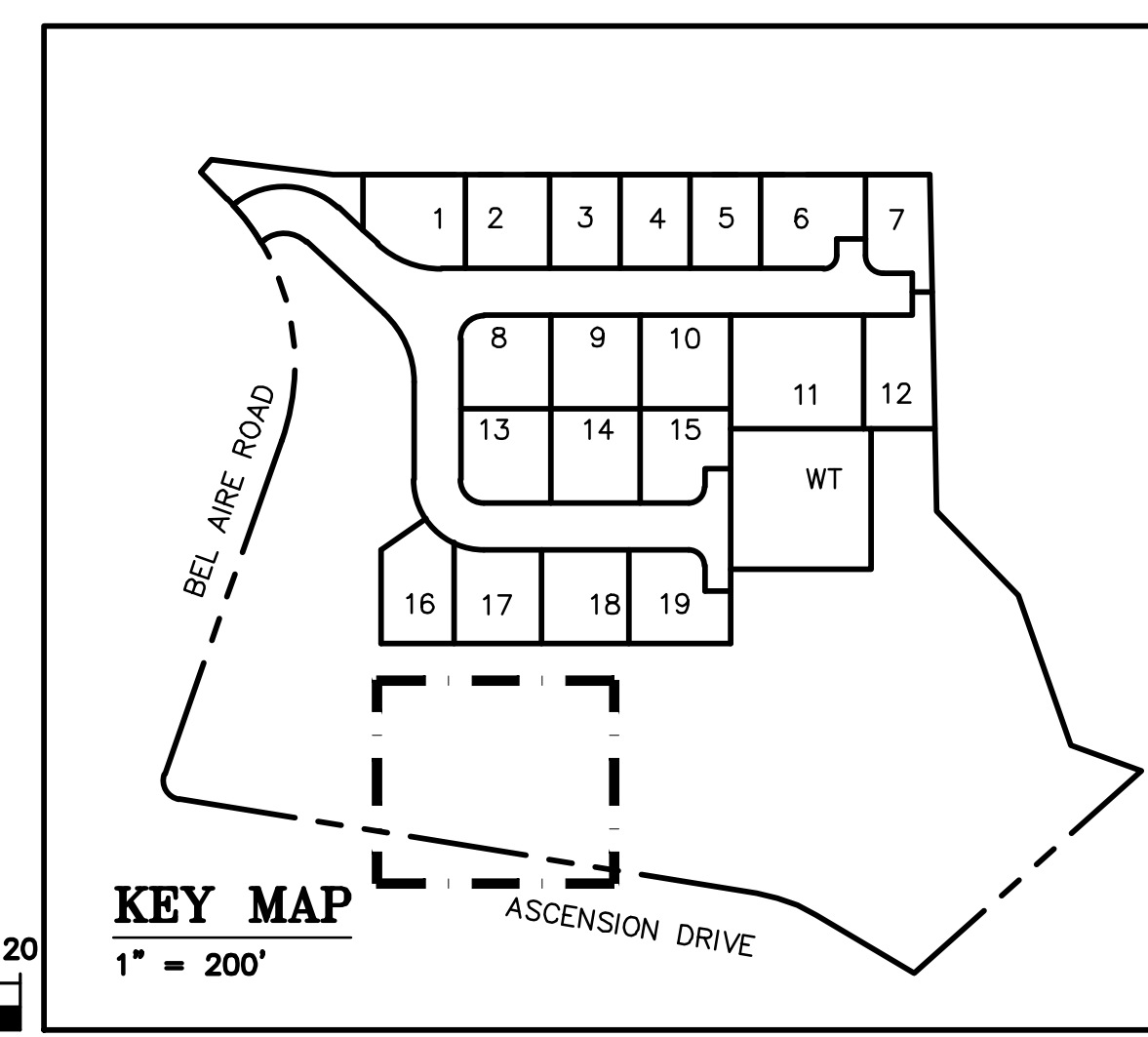
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PROVIDE EROSION CONTROL MATTING CALTRANS TYPE A OR APPROVED EQUAL EXTENDING 25 FEET FROM BOUNDARIES OF DISTURBANCE AND REPAIRS

(E) EROSION SCARP TO BE BENCHED/COMPACTED BY HAND AND RESTORED TO EXISTING CONDITION UNDER GEOTECHNICAL ENGINEER SUPERVISION



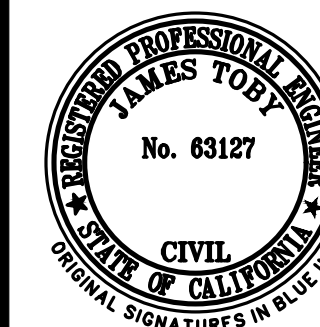
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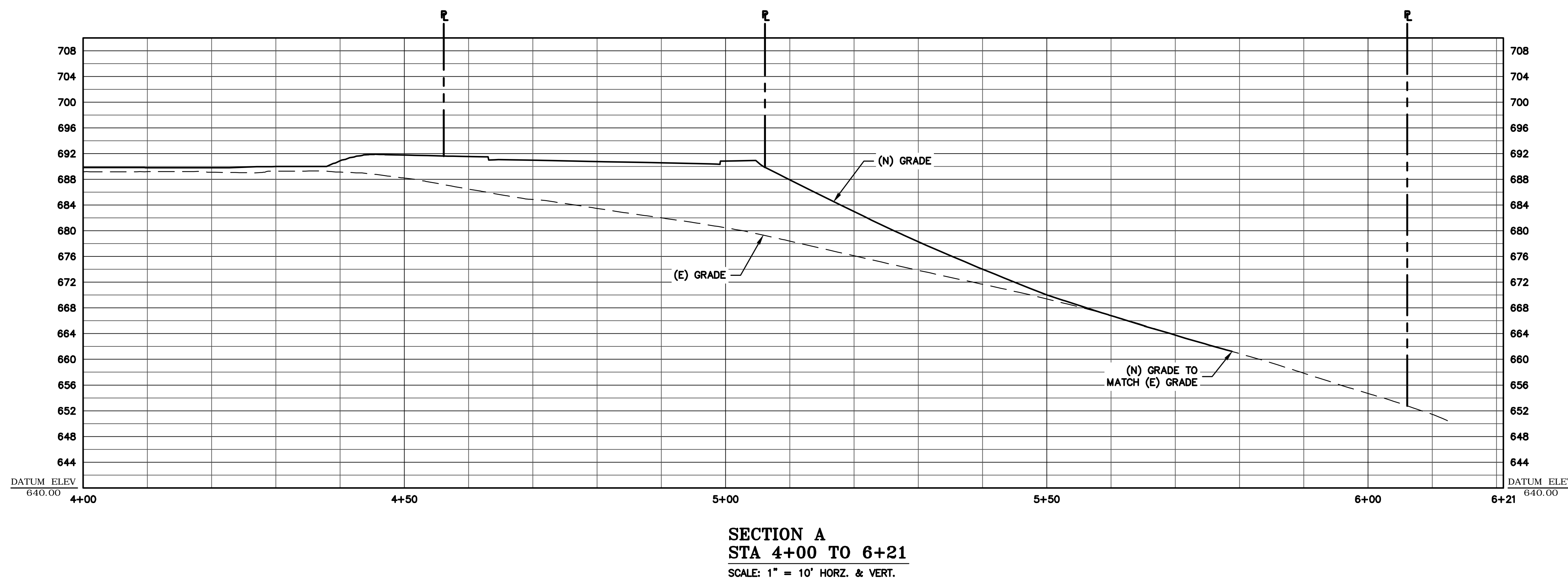
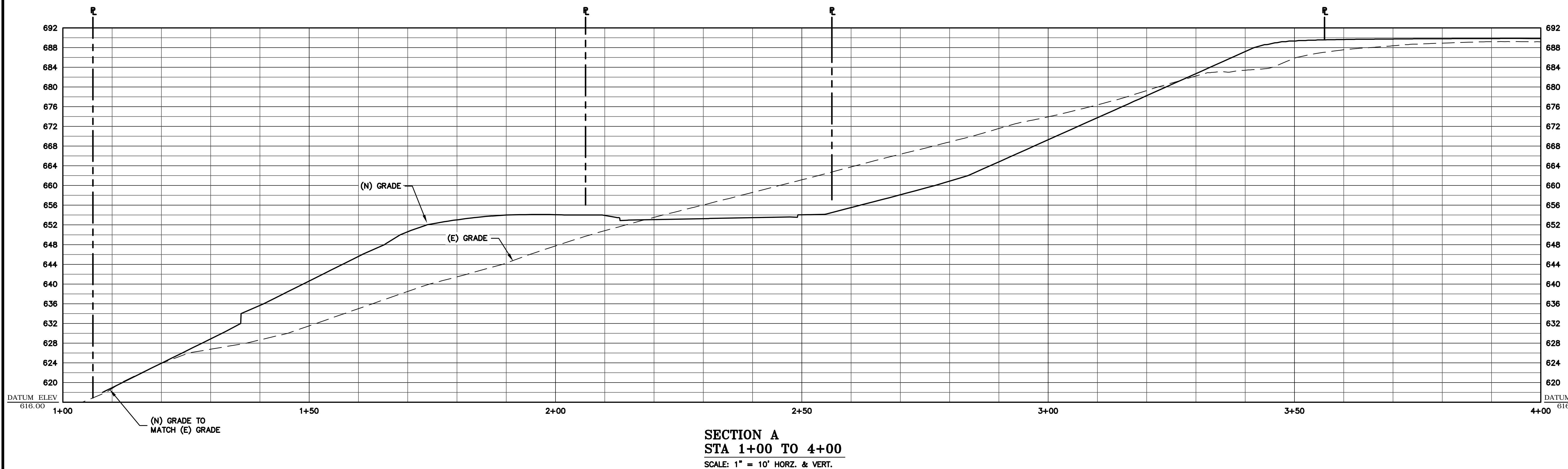
JOB NO: 2161285
 DATE: 5-2-18
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 (F) (510) 887-3019 (F) (916) 797-7363
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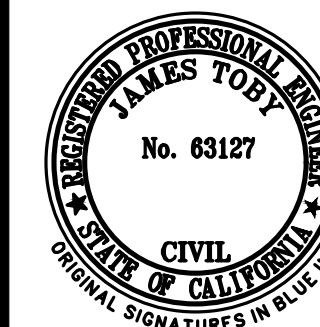
**ASCENSION HEIGHTS
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 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

SECTIONS



REVISIONS	BY
1	RM
	RM

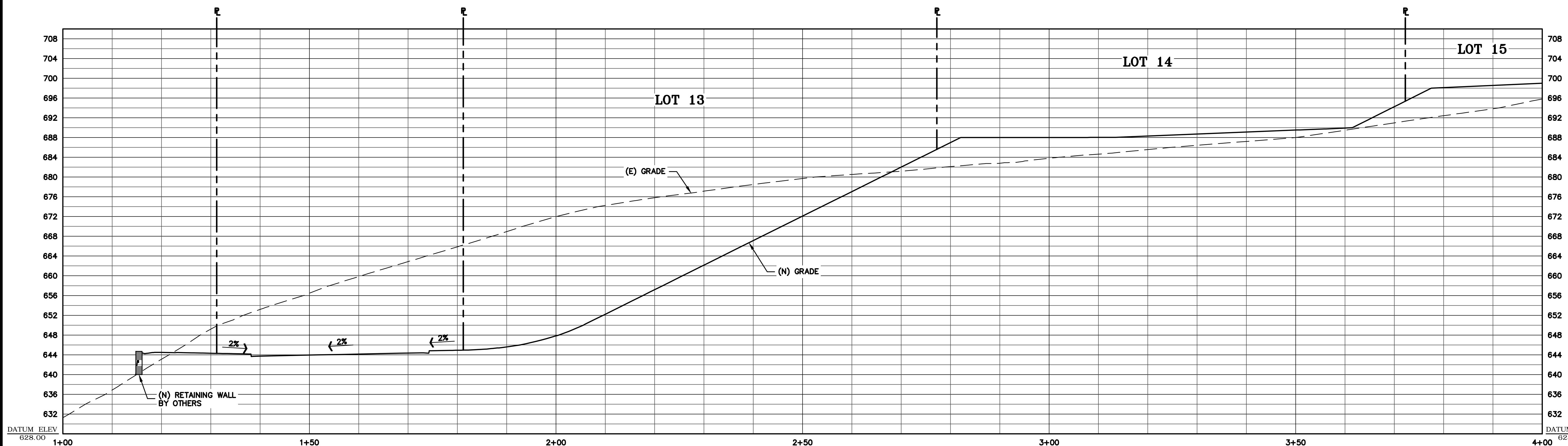
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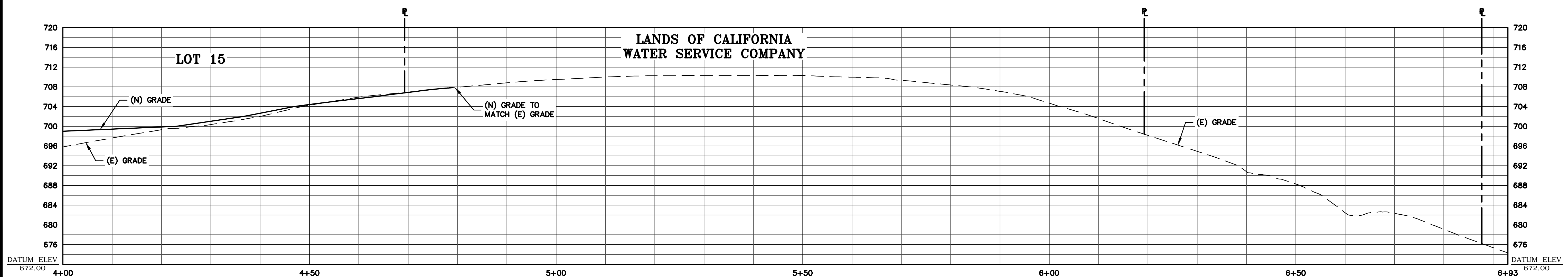
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SECTIONS



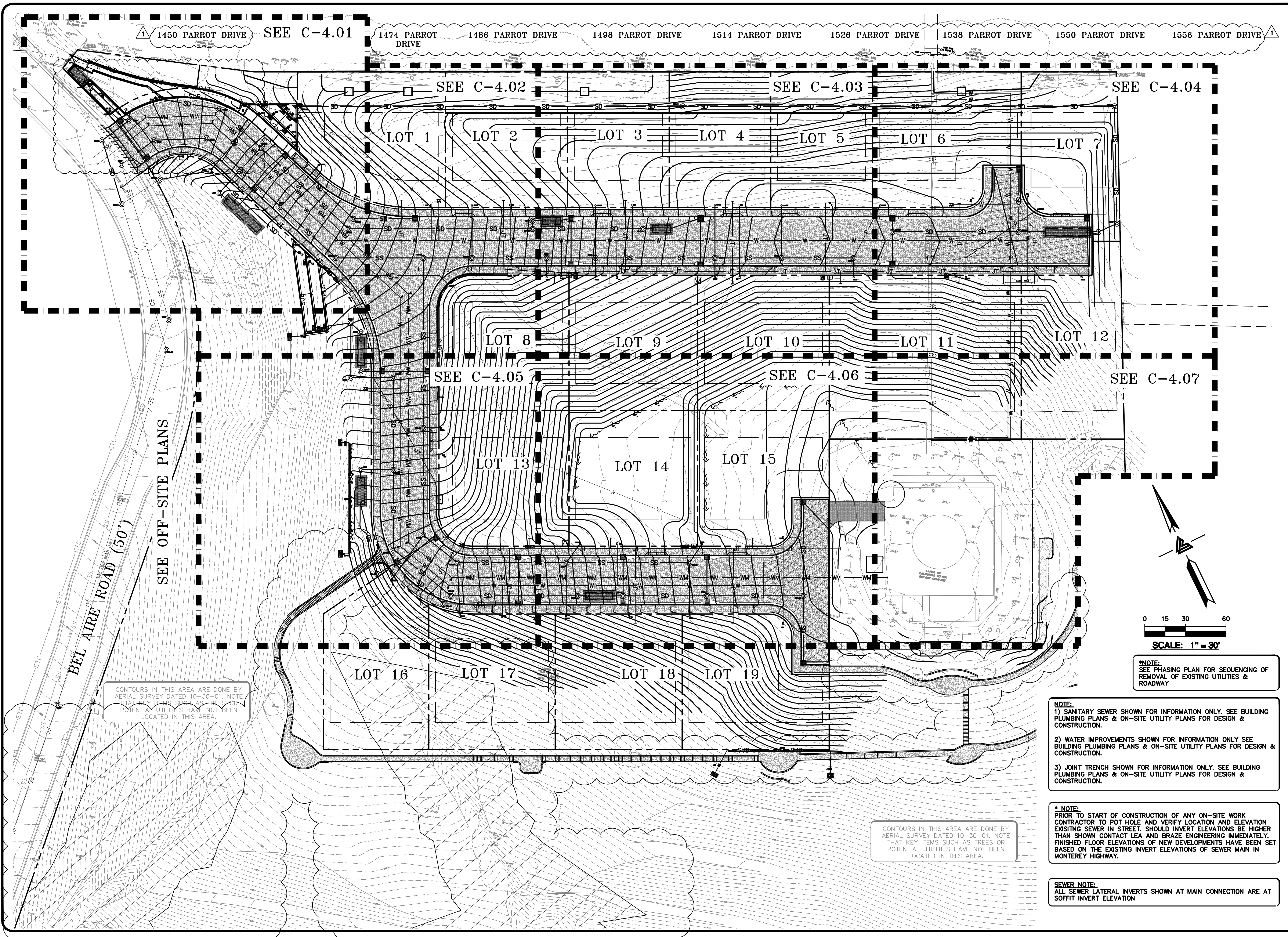
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 STA 1+00 TO 4+00**
 SCALE: 1" = 10' HORZ. & VERT.



**SECTION B
 STA 4+00 TO 6+68**
 SCALE: 1" = 10' HORZ. & VERT.

NO.	REVISIONS	BY
1	PLANCHECK REV. 11-13-18	RM
	PRELIM PLANCHECK REV. 01-17-19	RM

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 SHEET NO:



CONTOURS IN THIS AREA ARE DONE BY AERIAL SURVEY DATED 10-30-01. NOTE THAT KEY ITEMS SUCH AS TREES OR POTENTIAL UTILITIES HAVE NOT BEEN LOCATED IN THIS AREA.

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***NOTE:**
SEE PHASING PLAN FOR SEQUENCING OF REMOVAL OF EXISTING UTILITIES & ROADWAY

- NOTE:**
- 1) SANITARY SEWER SHOWN FOR INFORMATION ONLY. SEE BUILDING PLUMBING PLANS & ON-SITE UTILITY PLANS FOR DESIGN & CONSTRUCTION.
 - 2) WATER IMPROVEMENTS SHOWN FOR INFORMATION ONLY SEE BUILDING PLUMBING PLANS & ON-SITE UTILITY PLANS FOR DESIGN & CONSTRUCTION.
 - 3) JOINT TRENCH SHOWN FOR INFORMATION ONLY. SEE BUILDING PLUMBING PLANS & ON-SITE UTILITY PLANS FOR DESIGN & CONSTRUCTION.

*** NOTE:**
PRIOR TO START OF CONSTRUCTION OF ANY ON-SITE WORK CONTRACTOR TO POT HOLE AND VERIFY LOCATION AND ELEVATION EXISTING SEWER IN STREET. SHOULD INVERT ELEVATIONS BE HIGHER THAN SHOWN CONTACT LEA AND BRAZE ENGINEERING IMMEDIATELY. FINISHED FLOOR ELEVATIONS OF NEW DEVELOPMENTS HAVE BEEN SET BASED ON THE EXISTING INVERT ELEVATIONS OF SEWER MAIN IN MONTEREY HIGHWAY.

SEWER NOTE:
ALL SEWER LATERAL INVERTS SHOWN AT MAIN CONNECTION ARE AT SOFFIT INVERT ELEVATION



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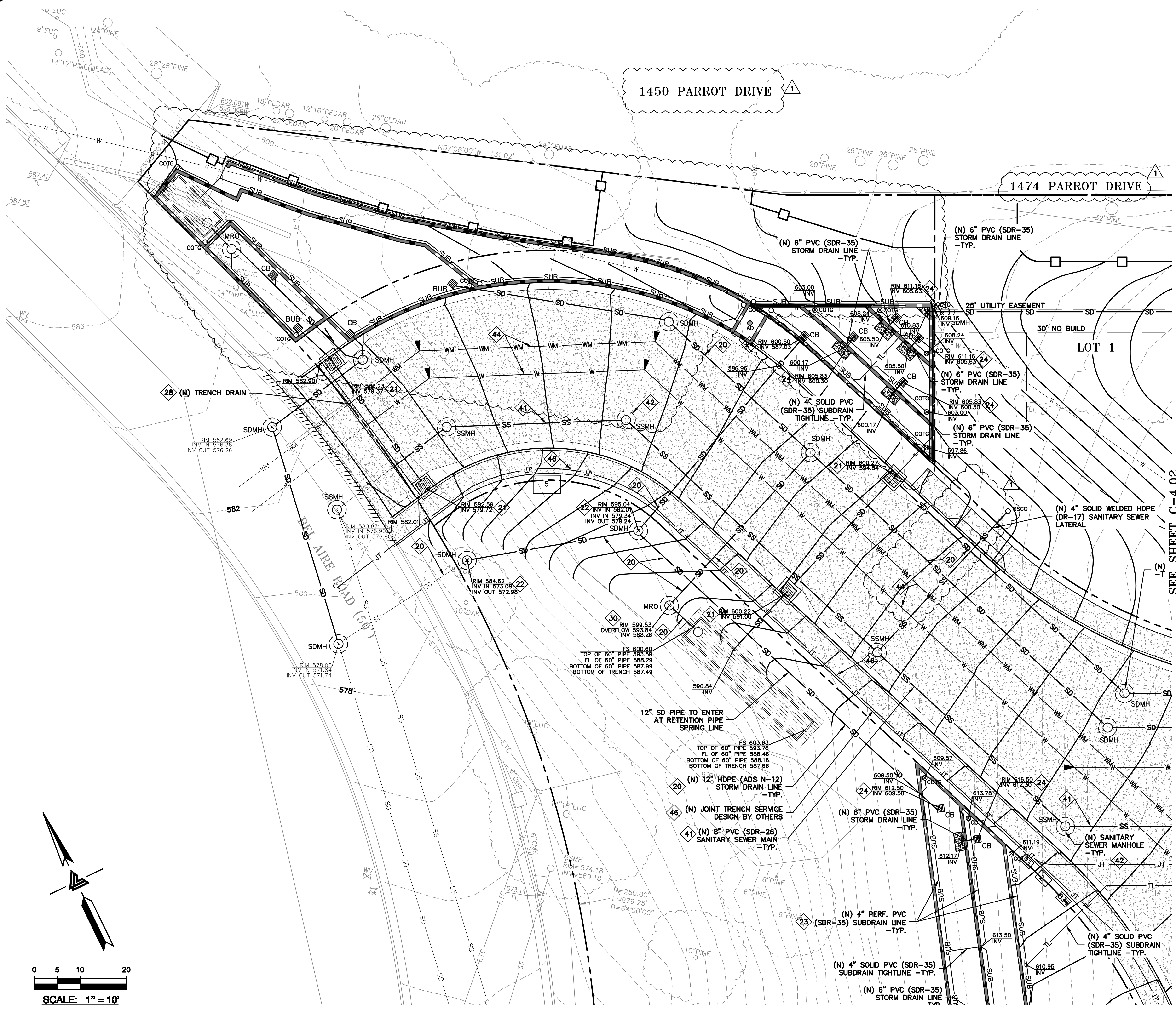
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SUBDIVISION
SAN MATEO, CALIFORNIA
(UNINCORPORATED) SAN MATEO COUNTY

OVERALL UTILITY
PLAN

PRELIM PLAN/CHECK REV.	DATE	BY
01-17-19	RM	
1 PLAN/CHECK REV.	RM	
11-13-18	RM	
REVISIONS	BY	

JOB NO: 2161285
DATE: 5-2-18
SCALE: 1"=30'
DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:

C-4.00



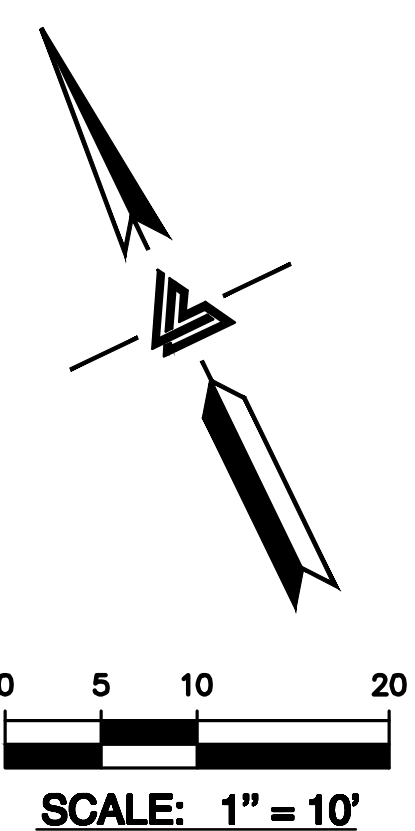
1450 PARROT DRIVE

1474 PARROT DRIVE

LOT 1

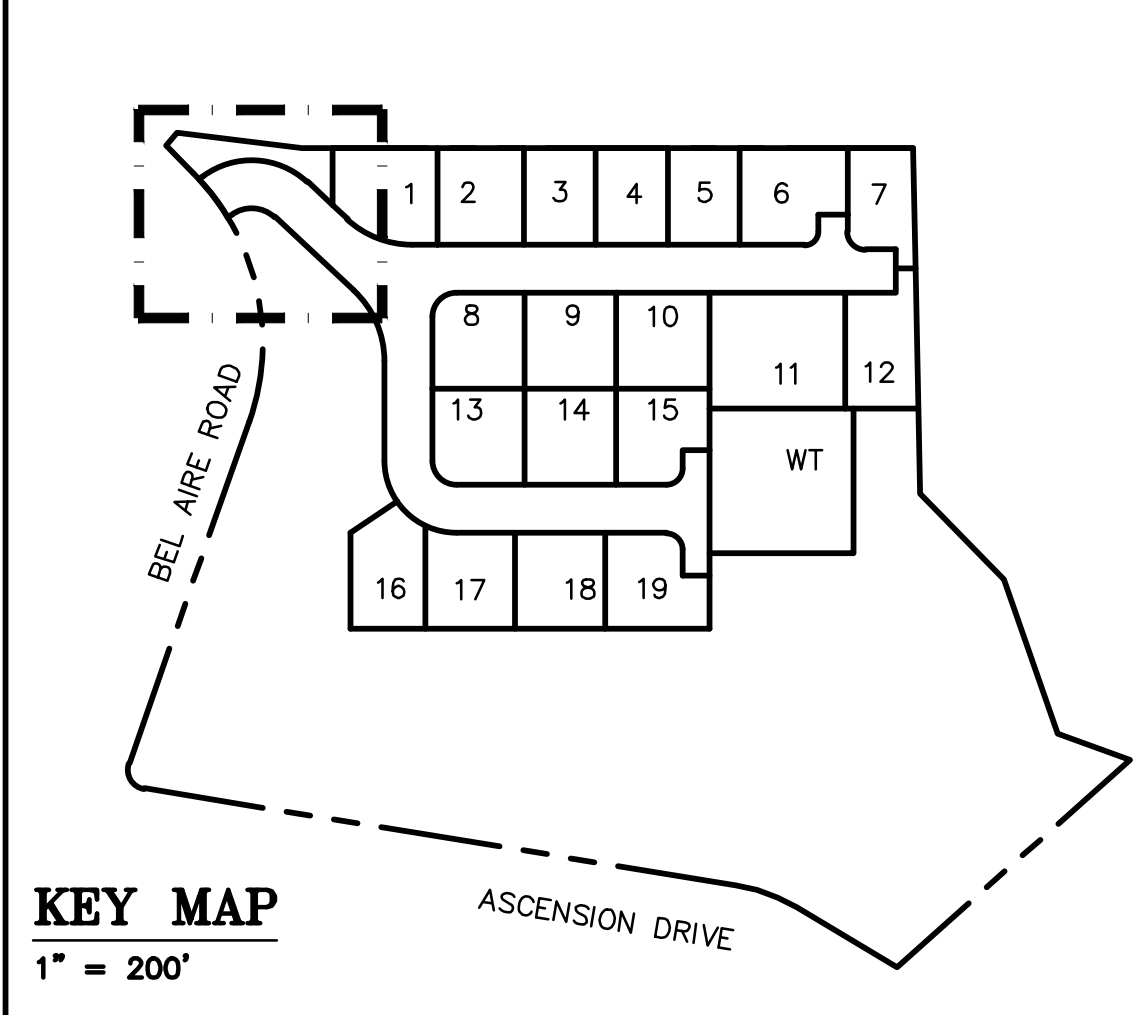
BEL AIRE ROAD (50')

SEE SHEET C-4.02



- STORM DRAIN KEYNOTES 20 TO 33**
- 20 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE STORM DRAIN MANHOLES AT ALL BENDS IN MAIN. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. SEE SAN MATEO COUNTY STANDARD TRENCH BACKFILL DETAIL B-15 ON SHEET C-6.02.
 - 21 INSTALL (N) (TYPE GOL) STREET INLET. SEE SAN MATEO COUNTY STANDARD DETAILS B-1 AND B-1A ON SHEET C-6.02.
 - 22 INSTALL (N) STORM DRAIN MANHOLE. SEE SAN MATEO COUNTY STANDARD DETAIL B-10 ON SHEET C-6.02.
 - 23 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). MIRADRRAIN 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. SEE DETAIL 5 ON SHEET C-6.01.
 - 24 INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH WITH LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE ROCK. SEE DETAIL 1 ON SHEET C-6.01.
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 - 28 INSTALL (N) ZURN Z874-18 NO. 1803P TRENCH DRAIN W/ TRAFFIC-RATED GRATE OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS) PIPE.
 - 29 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 2 ON SHEET C-6.04.
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 - 32 INSTALL (N) BIO-RETENTION AREA. SEE DETAIL 1 ON SHEET C-6.04.
 - 33 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.

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- 40 INSTALL (N) SANITARY SEWER LATERALS. USE 4" SOLID WELDED HDPE (DR-17) SLOPED AT 2% MINIMUM. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. CONNECT PER SAN MATEO COUNTY STANDARDS. SEE DETAILS C-3 AND C-5 ON SHEET C-6.03.
 - 41 INSTALL (N) 8" PVC (SDR-26) SANITARY SEWER MAIN. SEE TRENCH BACKFILL DETAIL C-7 ON SHEET C-6.03.
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 - 43 INSTALL (N) 2" HDPE (SDR-11) SANITARY SEWER PRESSURE LINE. PROVIDE STUBOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE. CONNECT PER SAN MATEO COUNTY STANDARDS.
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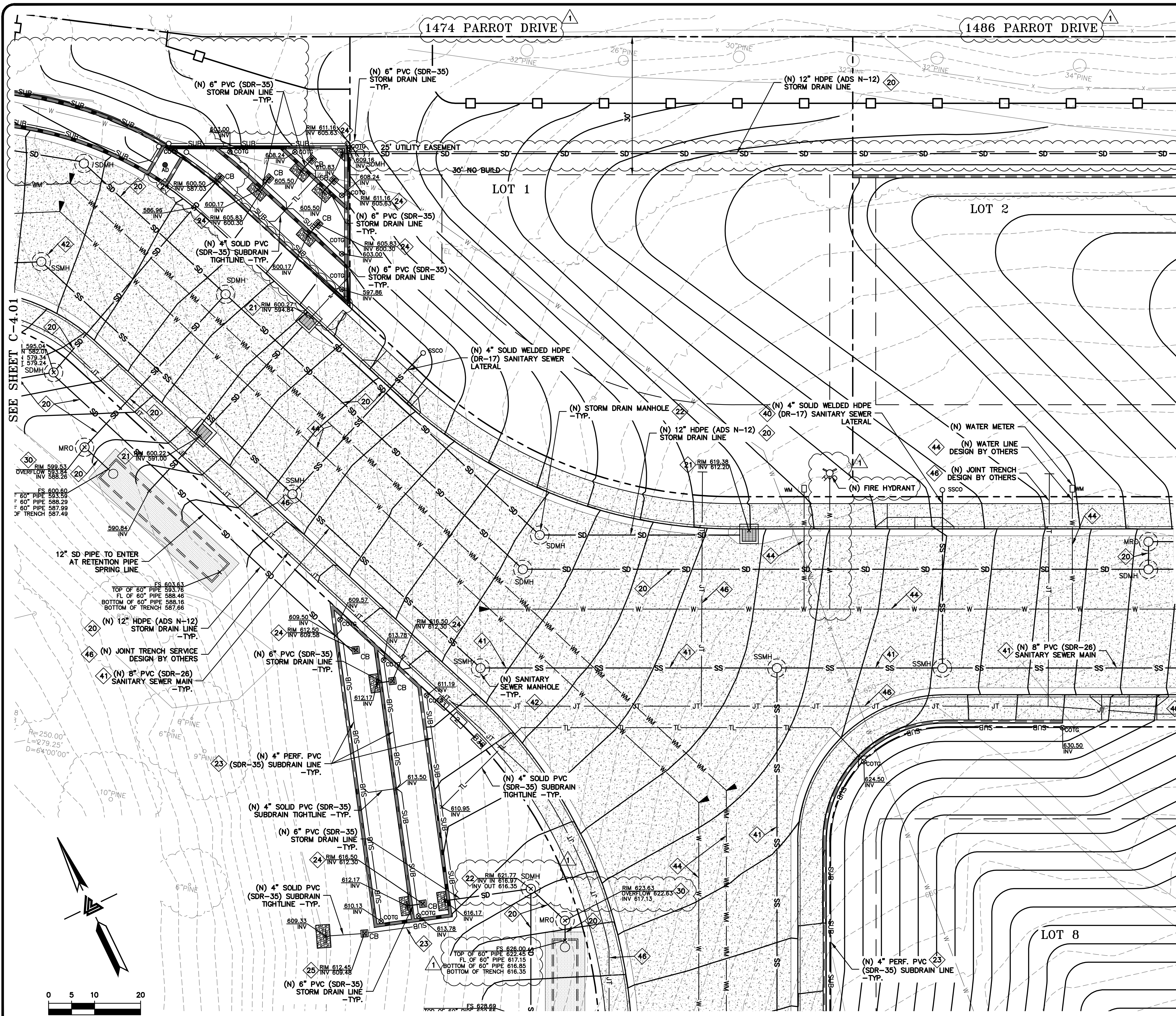
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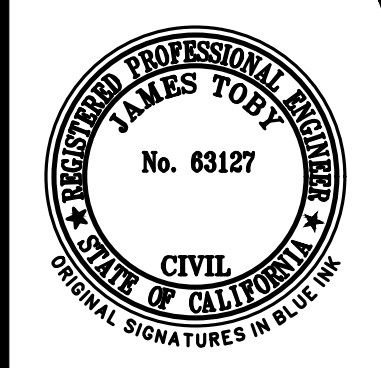
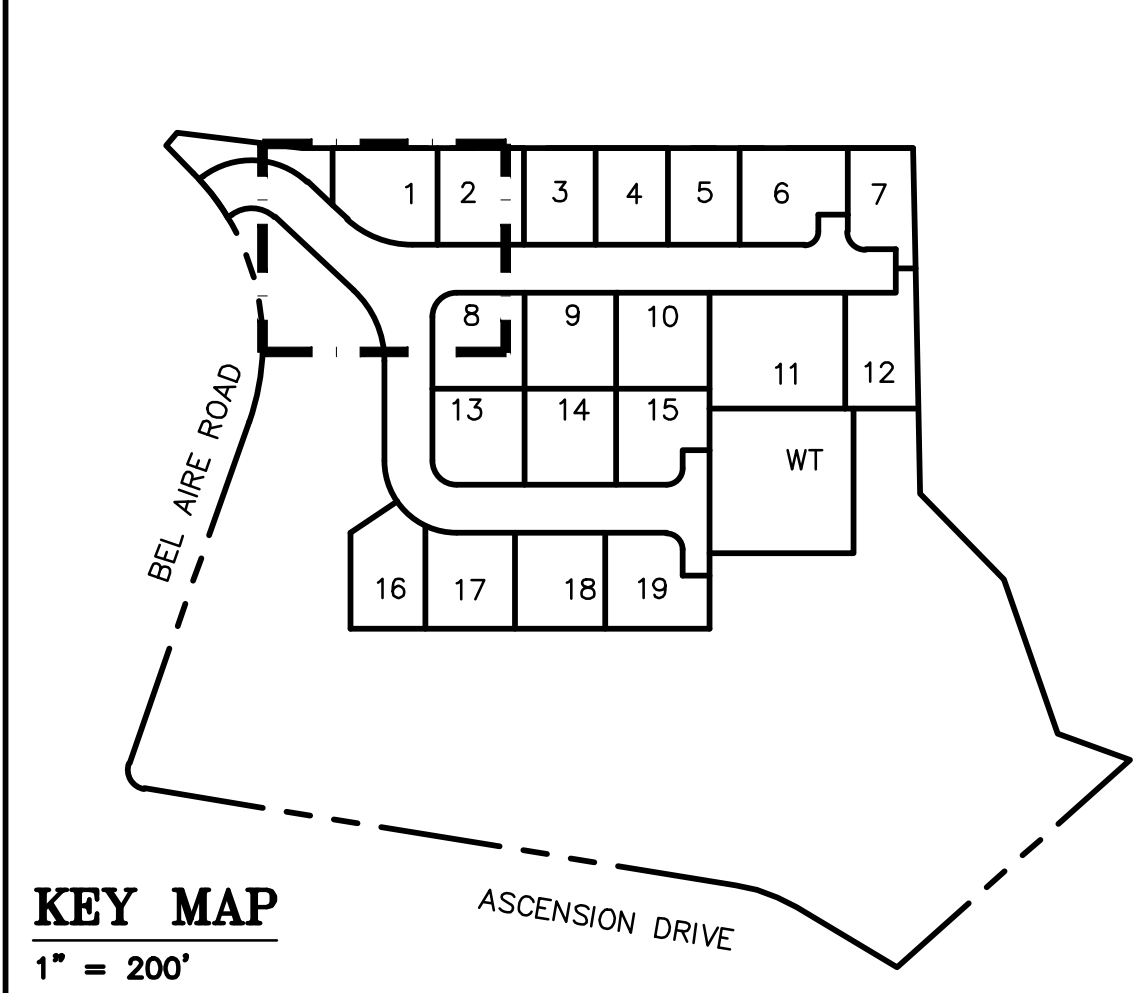
NO.	REVISIONS	BY
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C-4.01
 22 OF 50 SHEETS



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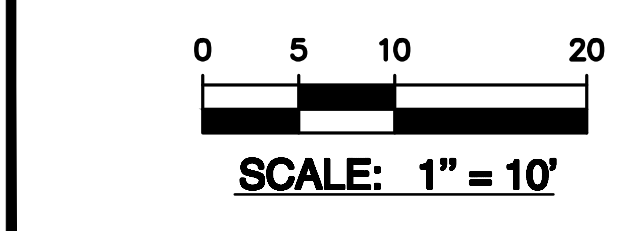
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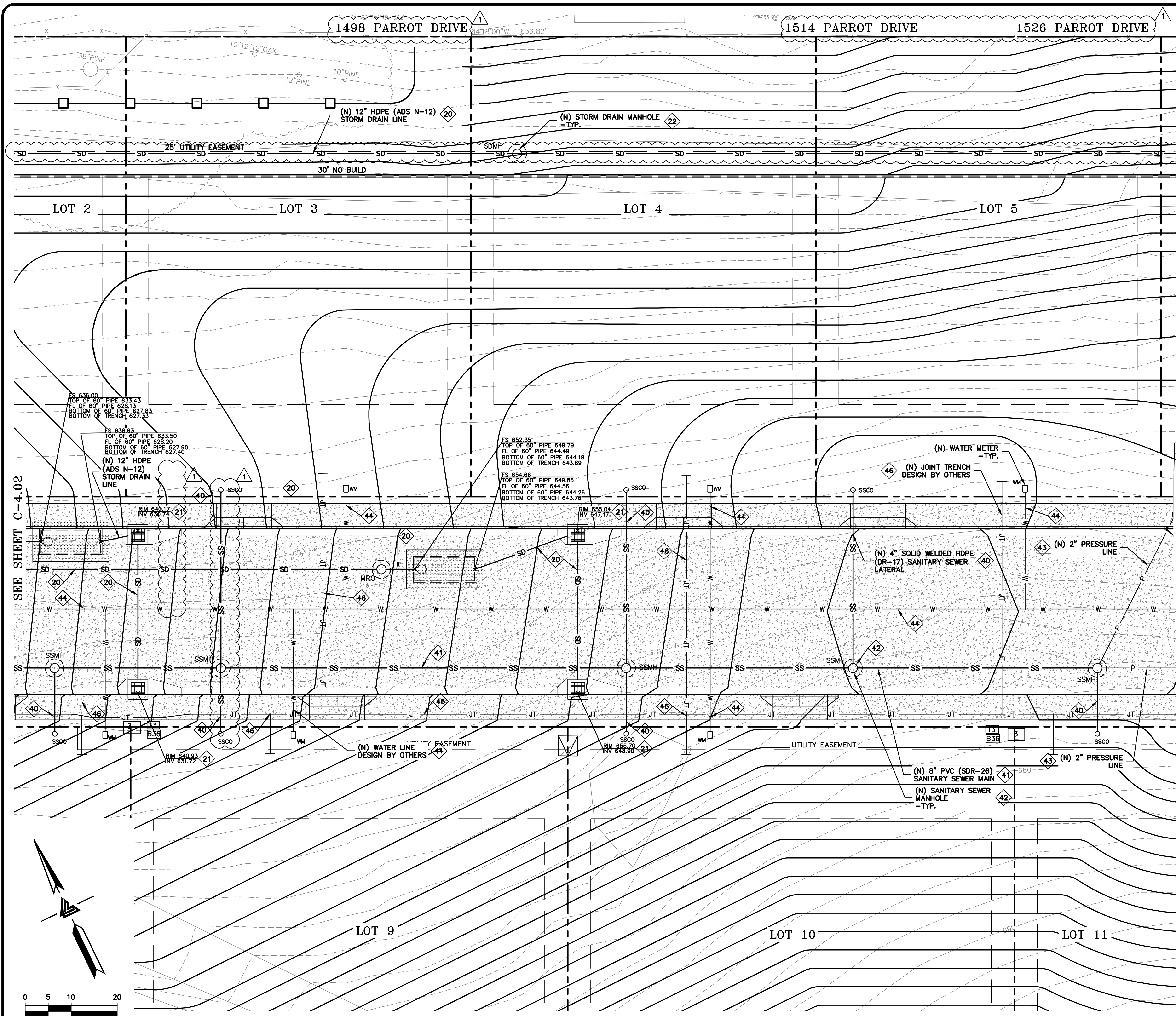
C-4.02
 23 OF 50 SHEETS



SEE SHEET C-4.05

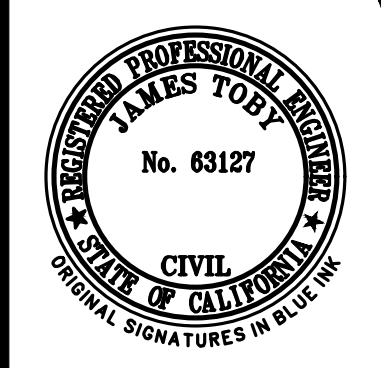
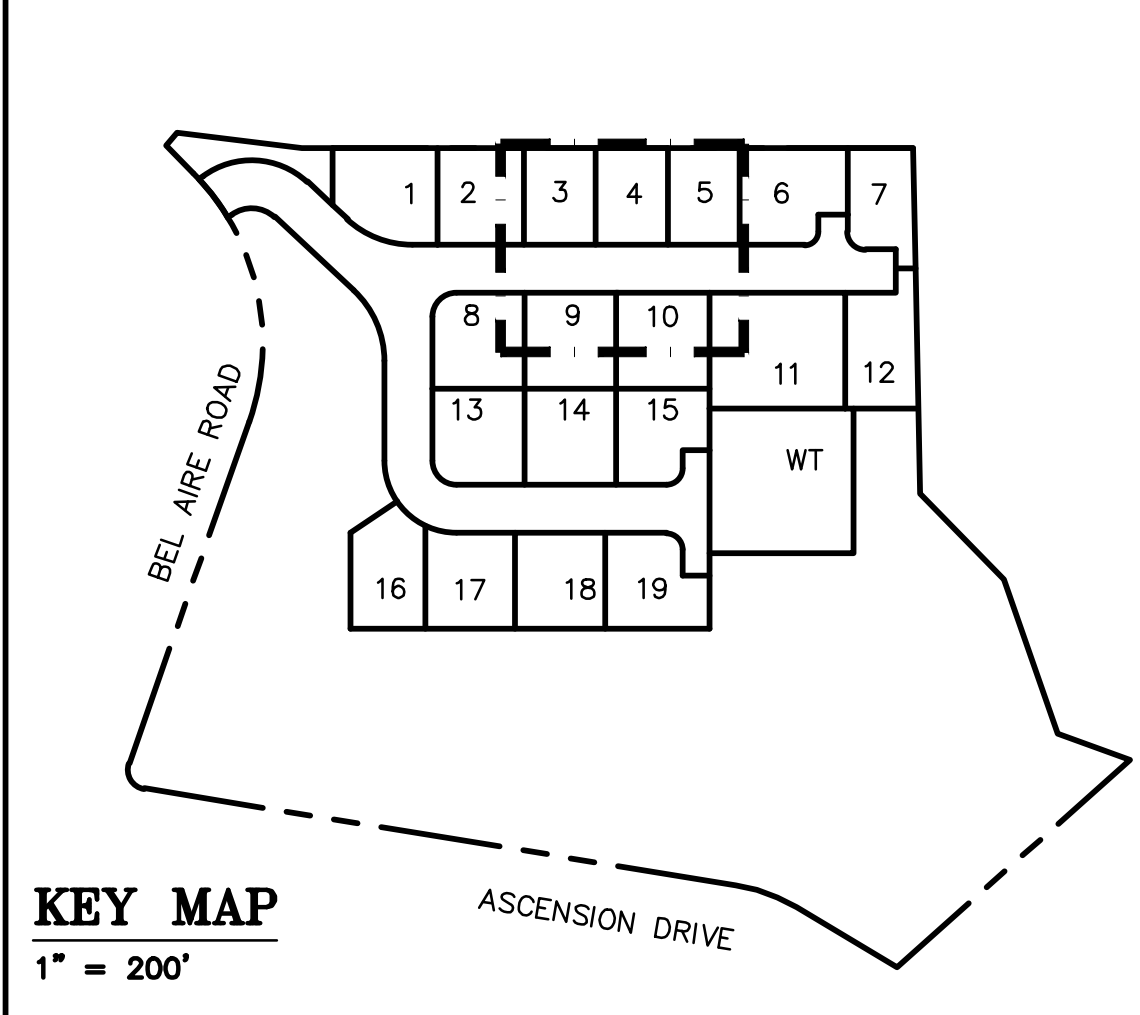
SEE SHEET C-4.03

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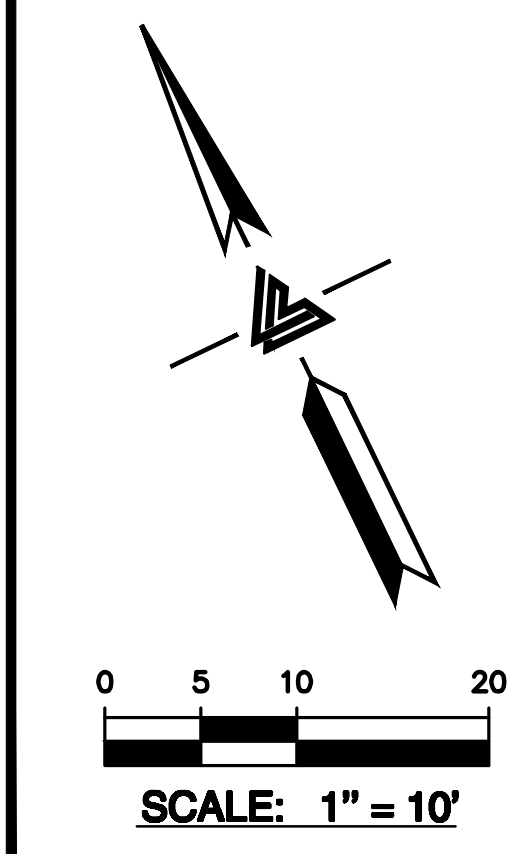
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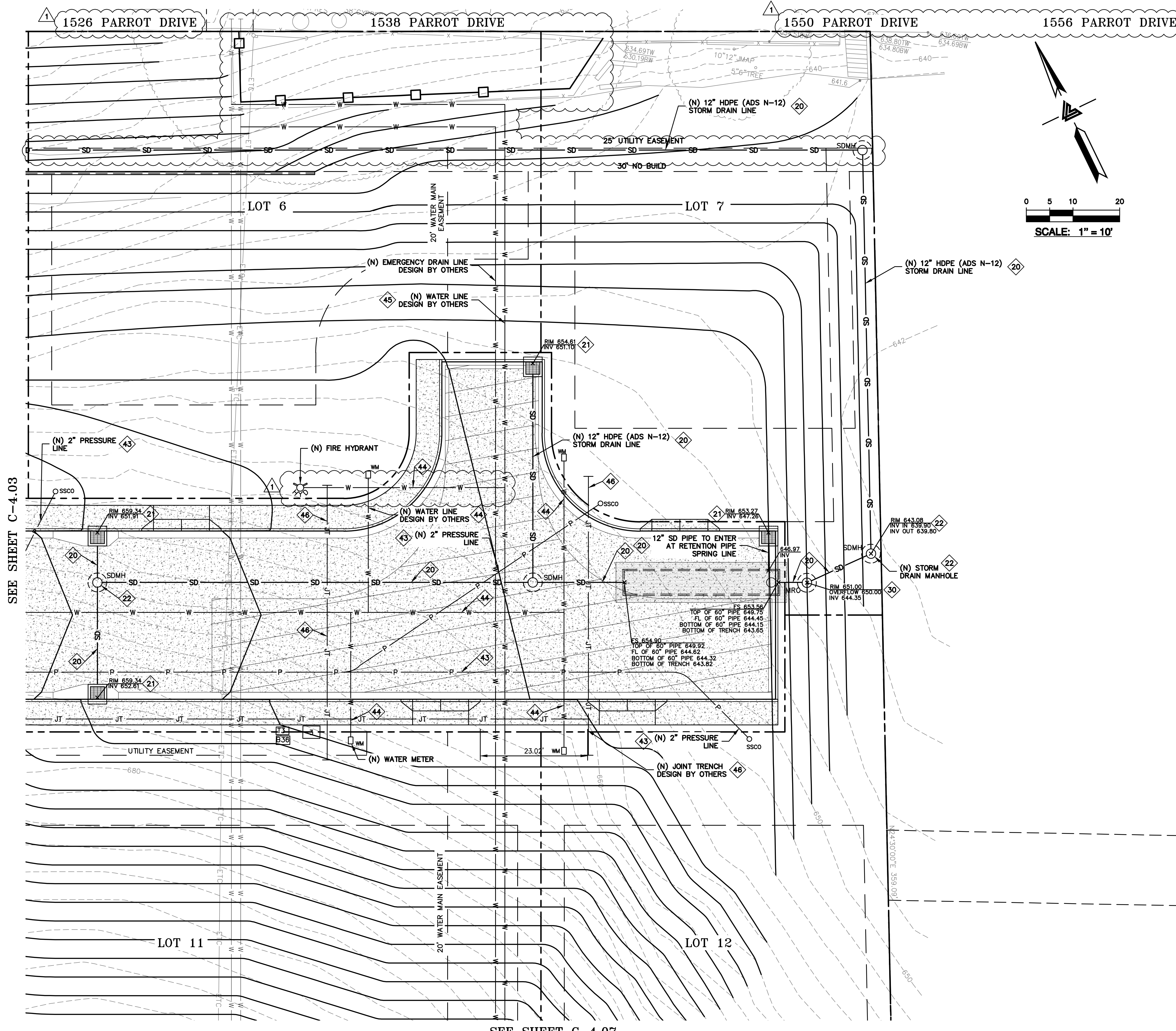
C-4.03
 24 OF 50 SHEETS



SEE SHEET C-4.06

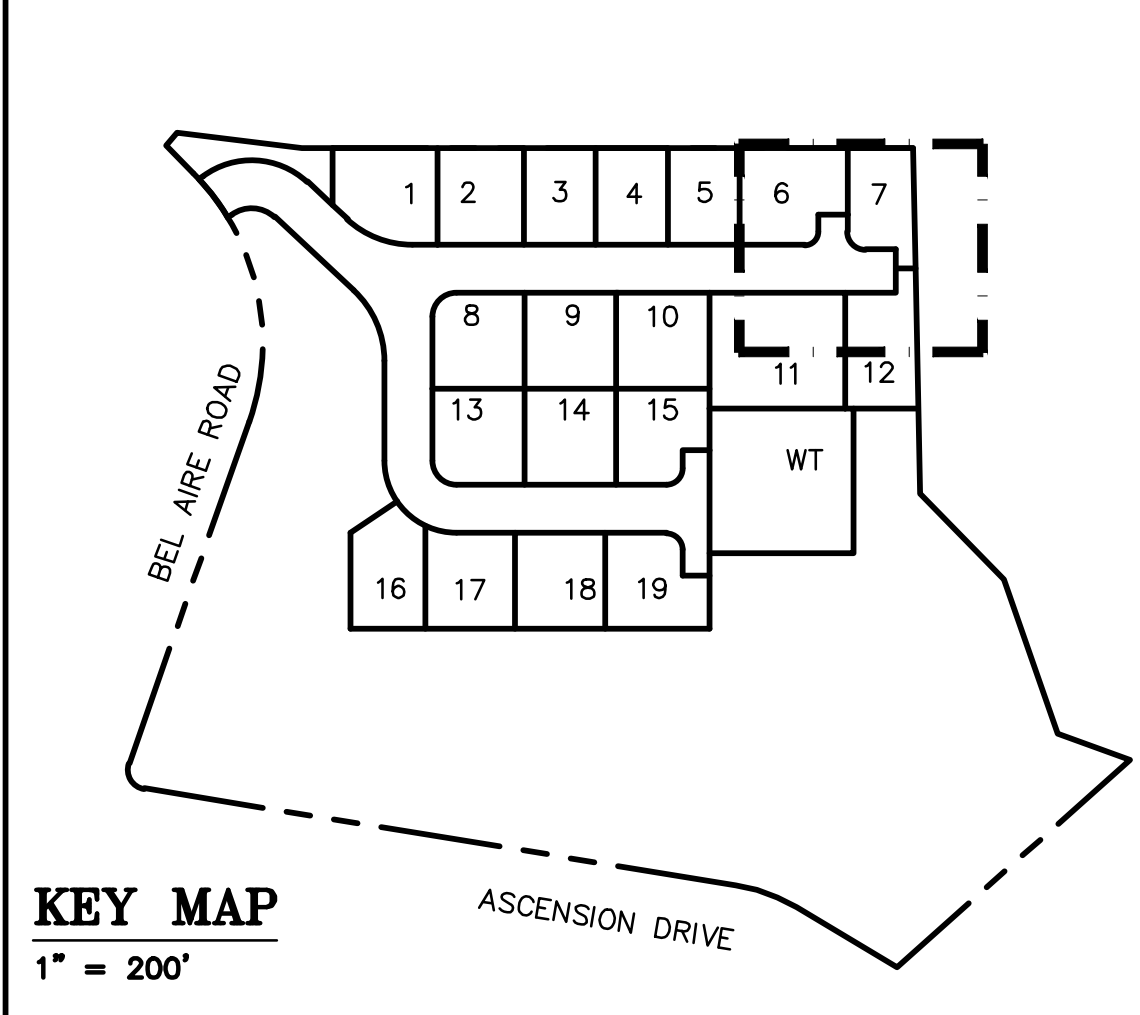
SEE SHEET C-4.04

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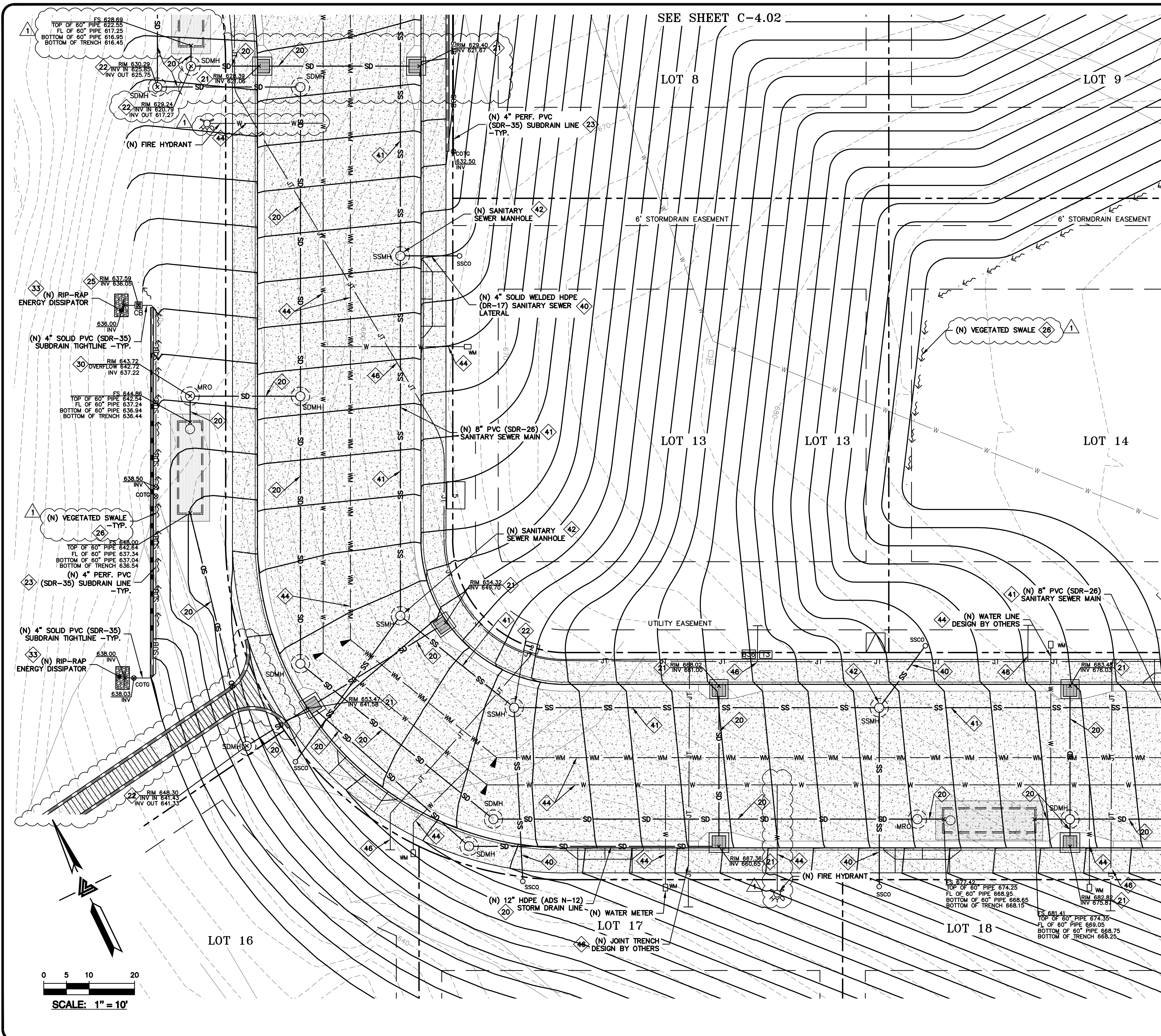
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SEE SHEET C-4.02

SEE SHEET C-4.06

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INSTALL (N) (TYPE GOL) STREET INLET. SEE SAN MATEO COUNTY STANDARD DETAILS B-1 AND B-1A ON SHEET C-6.02.

INSTALL (N) STORM DRAIN MANHOLE. SEE SAN MATEO COUNTY STANDARD DETAIL B-10 ON SHEET C-6.02.

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). MIRADRRAIN 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. SEE DETAIL 5 ON SHEET C-6.01.

INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH WITH LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE ROCK. SEE DETAIL 1 ON SHEET C-6.01.

INSTALL (N) "CHRISTY V-24" SILT BASIN W/GRAVEL BOTTOM. SEE DETAIL 2 ON SHEET C-6.01.

CONSTRUCT (N) VEGETATED SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 3 ON SHEET C-6.01.

INSTALL (N) "CHRISTY V-24" BUBBLER BOX W/ GRAVEL BOTTOM. SEE DETAIL 4 ON SHEET C-6.01.

INSTALL (N) ZURN ZB74-18 NO. 1803P TRENCH DRAIN W/ TRAFFIC-RATED GRATE OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS) PIPE.

INSTALL (N) RETENTION SYSTEM. SEE DETAIL 2 ON SHEET C-6.04.

INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 3 ON SHEET C-6.04.

INSTALL (N) CASCADING BIO-RETENTION AREA. SEE DETAIL 6 ON SHEET C-6.01.

INSTALL (N) BIO-RETENTION AREA. SEE DETAIL 1 ON SHEET C-6.04.

INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.

UTILITIES KEYNOTES 40 TO 46
 INSTALL (N) SANITARY SEWER LATERALS. USE 4" SOLID WELDED HDPE (DR-17) SLOPED AT 2% MINIMUM. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. CONNECT PER SAN MATEO COUNTY STANDARDS. SEE DETAILS C-3 AND C-5 ON SHEET C-6.03.

INSTALL (N) 8" PVC (SDR-26) SANITARY SEWER MAIN. SEE TRENCH BACKFILL DETAIL C-7 ON SHEET C-6.03.

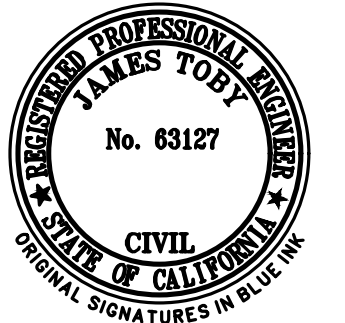
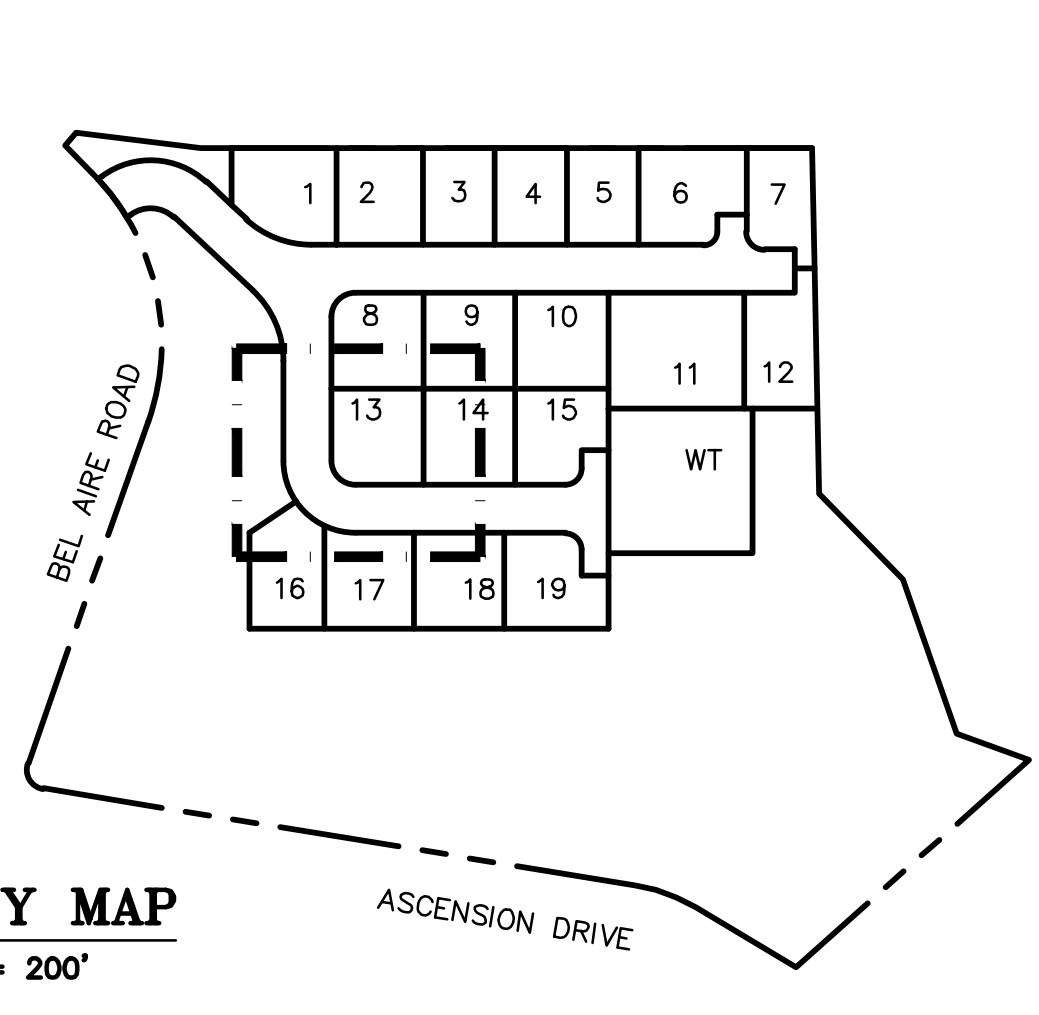
INSTALL (N) SANITARY SEWER MANHOLE. SEE DETAIL C-1 ON SHEET C-6.02.

INSTALL (N) 2" HDPE (SDR-11) SANITARY SEWER PRESSURE LINE. PROVIDE STUBOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE. CONNECT PER SAN MATEO COUNTY STANDARDS.

CONNECT (N) PROJECT WATER SERVICE LINE PER CALIFORNIA WATER SERVICES STANDARDS. DESIGN BY OTHERS. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.

INSTALL (N) WATER MAIN PER CALIFORNIA WATER SERVICES STANDARDS. DESIGN BY OTHERS.

INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.



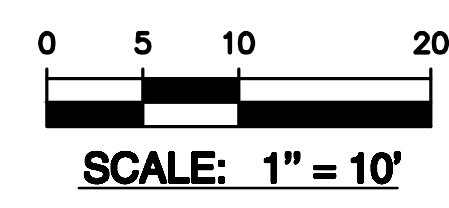
LEA & BRAZE ENGINEERING, INC.
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 3400 JULES ROAD, SUITE # 300
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**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

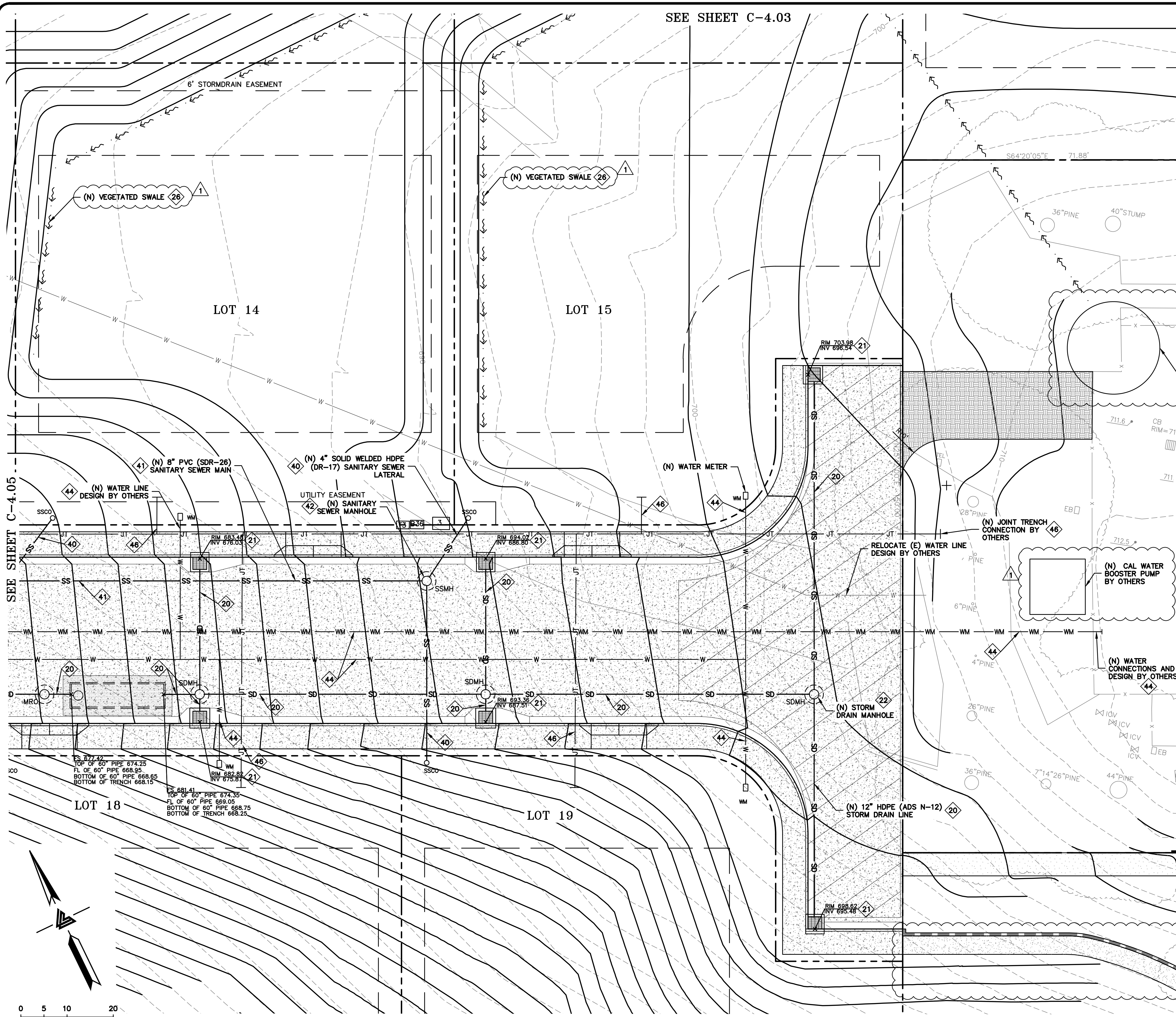
UTILITY PLAN

NO.	REVISIONS	BY
1	PLANCHCK REV. 11-13-18	RM
	PLANCHCK REV. 01-17-19	RM
	PRELIM PLANCHCK REV. 01-17-19	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=10'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:
C-4.05
 26 OF 50 SHEETS



SEE SHEET C-4.03



STORM DRAIN KEYNOTES 20 TO 33

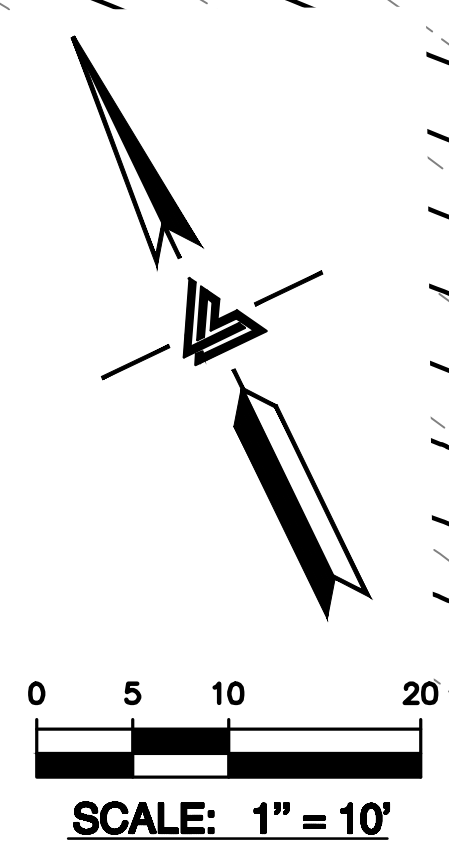
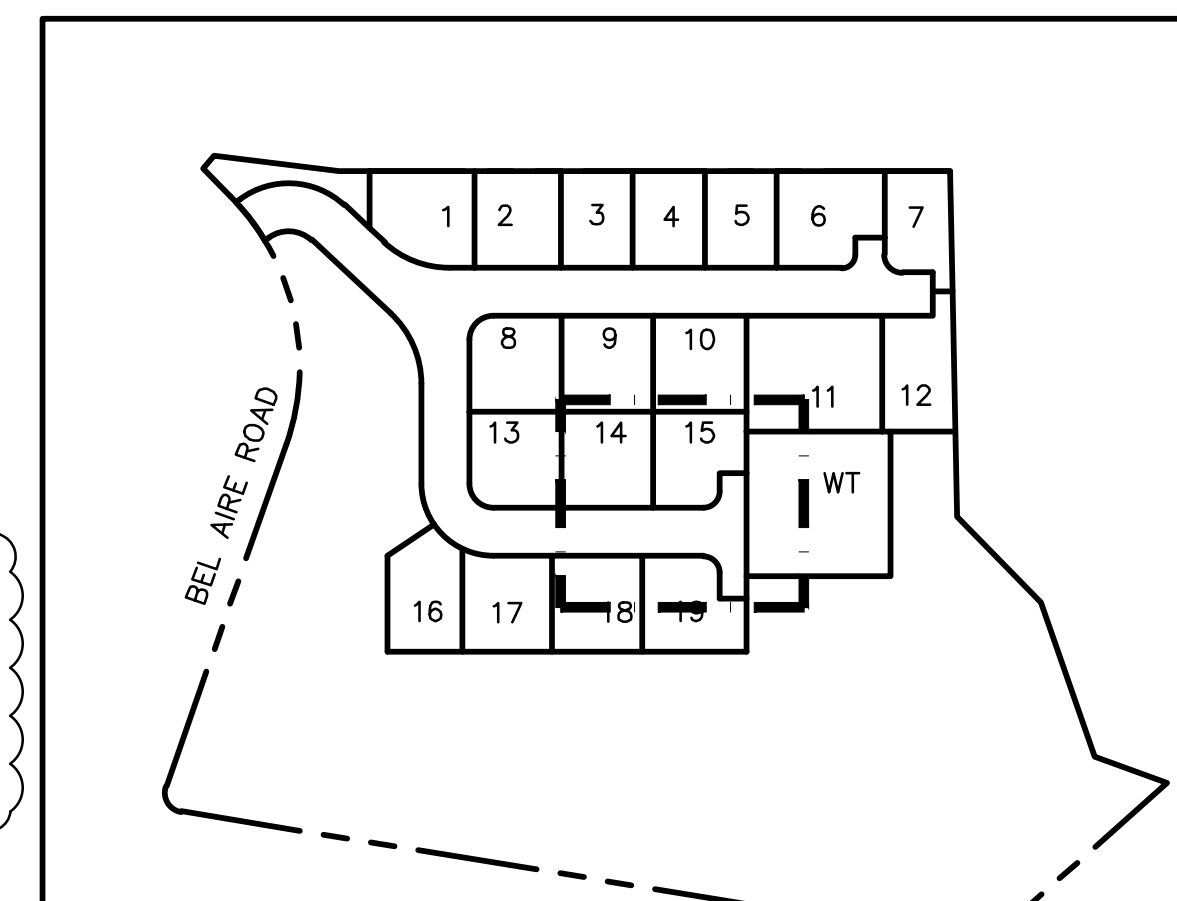
INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE STORM DRAIN MANHOLES AT ALL BENDS IN MAIN. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. SEE SAN MATEO COUNTY STANDARD TRENCH BACKFILL DETAIL B-15 ON SHEET C-6.02.

- 20 INSTALL (N) (TYPE GOL) STREET INLET. SEE SAN MATEO COUNTY STANDARD DETAILS B-1 AND B-1A ON SHEET C-6.02.
- 21 INSTALL (N) STORM DRAIN MANHOLE. SEE SAN MATEO COUNTY STANDARD DETAIL B-10 ON SHEET C-6.02.
- 22 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. SEE DETAIL 5 ON SHEET C-6.01.
- 23 INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH WITH LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE ROCK. SEE DETAIL 1 ON SHEET C-6.01.
- 24 INSTALL (N) "CHRISTY V-24" SILT BASIN W/GRAVEL BOTTOM. SEE DETAIL 2 ON SHEET C-6.01.
- 25 CONSTRUCT (N) VEGETATED SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 3 ON SHEET C-6.01.
- 26 INSTALL (N) "CHRISTY V-24" BUBBLER BOX W/ GRAVEL BOTTOM. SEE DETAIL 4 ON SHEET C-6.01.
- 27 INSTALL (N) ZURN Z874-18 NO. 1803P TRENCH DRAIN W/ TRAFFIC-RATED GRATE OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS) PIPE.
- 28 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 2 ON SHEET C-6.04.
- 29 INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 3 ON SHEET C-6.04.
- 30 INSTALL (N) CASCADING BIO-RETENTION AREA. SEE DETAIL 6 ON SHEET C-6.01.
- 31 INSTALL (N) BIO-RETENTION AREA. SEE DETAIL 1 ON SHEET C-6.04.
- 32 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.

UTILITIES KEYNOTES 40 TO 46

INSTALL (N) SANITARY SEWER LATERALS. USE 4" SOLID WELDED HDPE (DR-17) SLOPED AT 2% MINIMUM. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. CONNECT PER SAN MATEO COUNTY STANDARDS. SEE DETAILS C-3 AND C-5 ON SHEET C-6.03.

- 40 INSTALL (N) 8" PVC (SDR-26) SANITARY SEWER MAIN. SEE TRENCH BACKFILL DETAIL C-7 ON SHEET C-6.03.
- 41 INSTALL (N) SANITARY SEWER MANHOLE. SEE DETAIL C-1 ON SHEET C-6.02.
- 42 INSTALL (N) 2" HDPE (SDR-11) SANITARY SEWER PRESSURE LINE. PROVIDE STUBOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE. CONNECT PER SAN MATEO COUNTY STANDARDS.
- 43 CONNECT (N) PROJECT WATER SERVICE LINE PER CALIFORNIA WATER SERVICES STANDARDS. DESIGN BY OTHERS. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.
- 44 INSTALL (N) WATER MAIN PER CALIFORNIA WATER SERVICES STANDARDS. DESIGN BY OTHERS.
- 45 INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.
- 46



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**ASCENSION HEIGHTS
SUBDIVISION
SAN MATEO, CALIFORNIA**
(UNINCORPORATED) SAN MATEO COUNTY

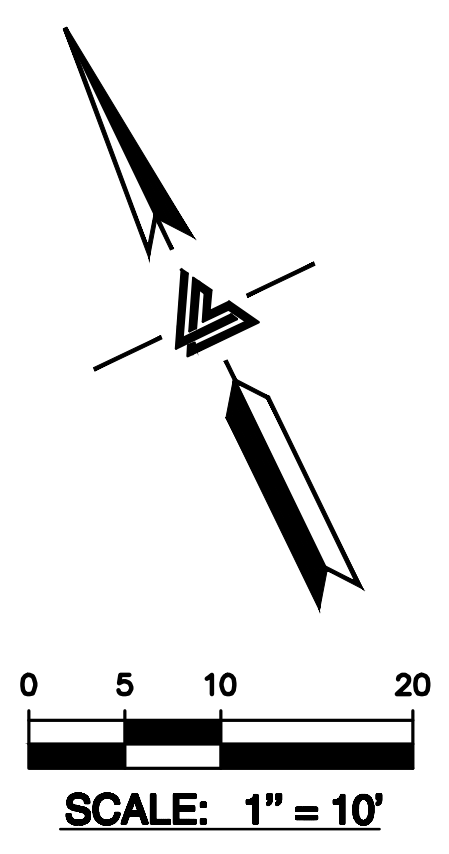
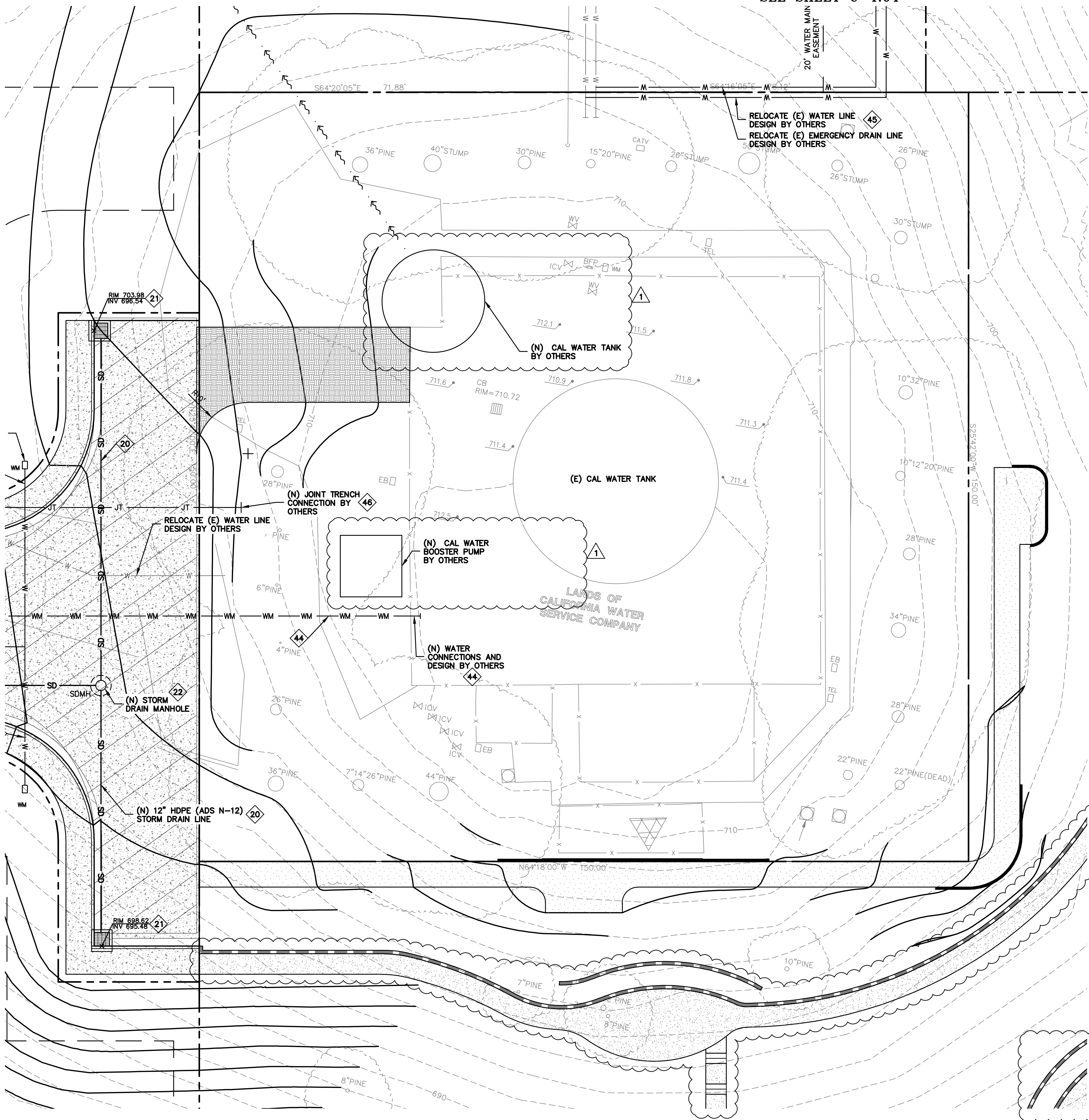
UTILITY PLAN

REVISIONS	BY
PRELIM PLANCHUCK REV. 01-17-19	RM
1 PLANCHUCK REV. 11-13-18	RM

JOB NO: 2161285
DATE: 5-2-18
SCALE: 1"=10'
DESIGN BY: RC
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SHEET NO:

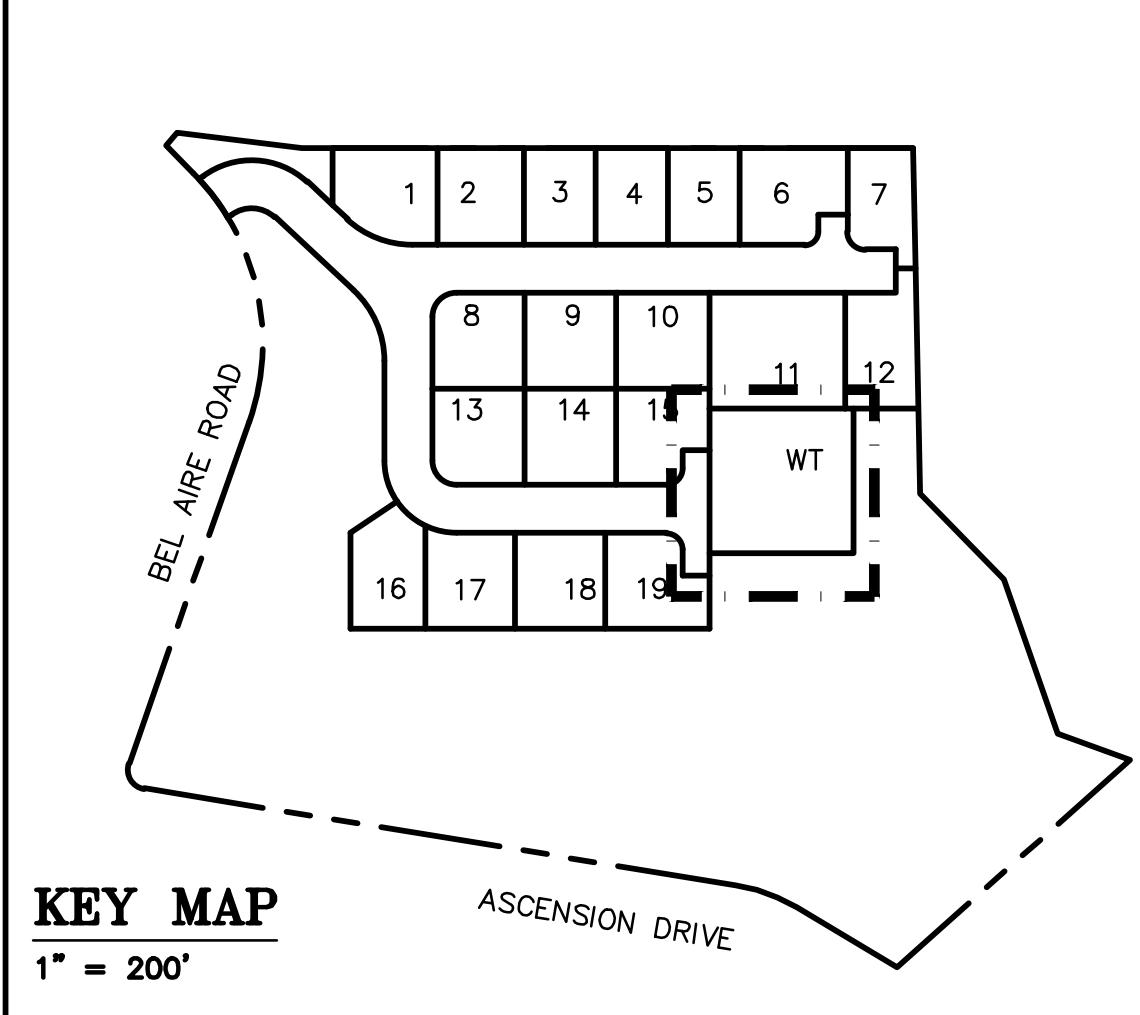
SEE SHEET C-4.04

SEE SHEET C-4.06



- STORM DRAIN KEYNOTES 20 TO 33**
- 20 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE STORM DRAIN MANHOLES AT ALL BENDS IN MAIN. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. SEE SAN MATEO COUNTY STANDARD TRENCH BACKFILL DETAIL B-15 ON SHEET C-6.02.
 - 21 INSTALL (N) (TYPE GOL) STREET INLET. SEE SAN MATEO COUNTY STANDARD DETAILS B-1 AND B-1A ON SHEET C-6.02.
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 - 23 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. SEE DETAIL 5 ON SHEET C-6.01.
 - 24 INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH WITH LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE ROCK. SEE DETAIL 1 ON SHEET C-6.01.
 - 25 INSTALL (N) "CHRISTY V-24" SILT BASIN W/ GRAVEL BOTTOM. SEE DETAIL 2 ON SHEET C-6.01.
 - 26 CONSTRUCT (N) VEGETATED SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 3 ON SHEET C-6.01.
 - 27 INSTALL (N) "CHRISTY V-24" BUBBLER BOX W/ GRAVEL BOTTOM. SEE DETAIL 4 ON SHEET C-6.01.
 - 28 INSTALL (N) ZURN Z874-18 NO. 1803P TRENCH DRAIN W/ TRAFFIC-RATED GRATE OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 12" HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS) PIPE.
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 - 31 INSTALL (N) CASCADING BIO-RETENTION AREA. SEE DETAIL 6 ON SHEET C-6.01.
 - 32 INSTALL (N) BIO-RETENTION AREA. SEE DETAIL 1 ON SHEET C-6.04.
 - 33 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 8 ON SHEET C-6.00.

- UTILITIES KEYNOTES 40 TO 46**
- 40 INSTALL (N) SANITARY SEWER LATERALS. USE 4" SOLID WELDED HDPE (OR-17) SLOPED AT 2% MINIMUM. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. CONNECT PER SAN MATEO COUNTY STANDARDS. SEE DETAILS C-3 AND C-5 ON SHEET C-6.03.
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 - 44 CONNECT (N) PROJECT WATER SERVICE LINE PER CALIFORNIA WATER SERVICES STANDARDS. DESIGN BY OTHERS. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.
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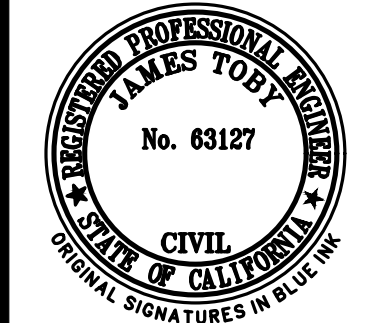
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**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

UTILITY PLAN

REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM
JOB NO:	2161285
DATE:	5-2-18
SCALE:	1"=10'
DESIGN BY:	RC
DRAWN BY:	ATL
SHEET NO:	

C-4.07
 28 OF 50 SHEETS



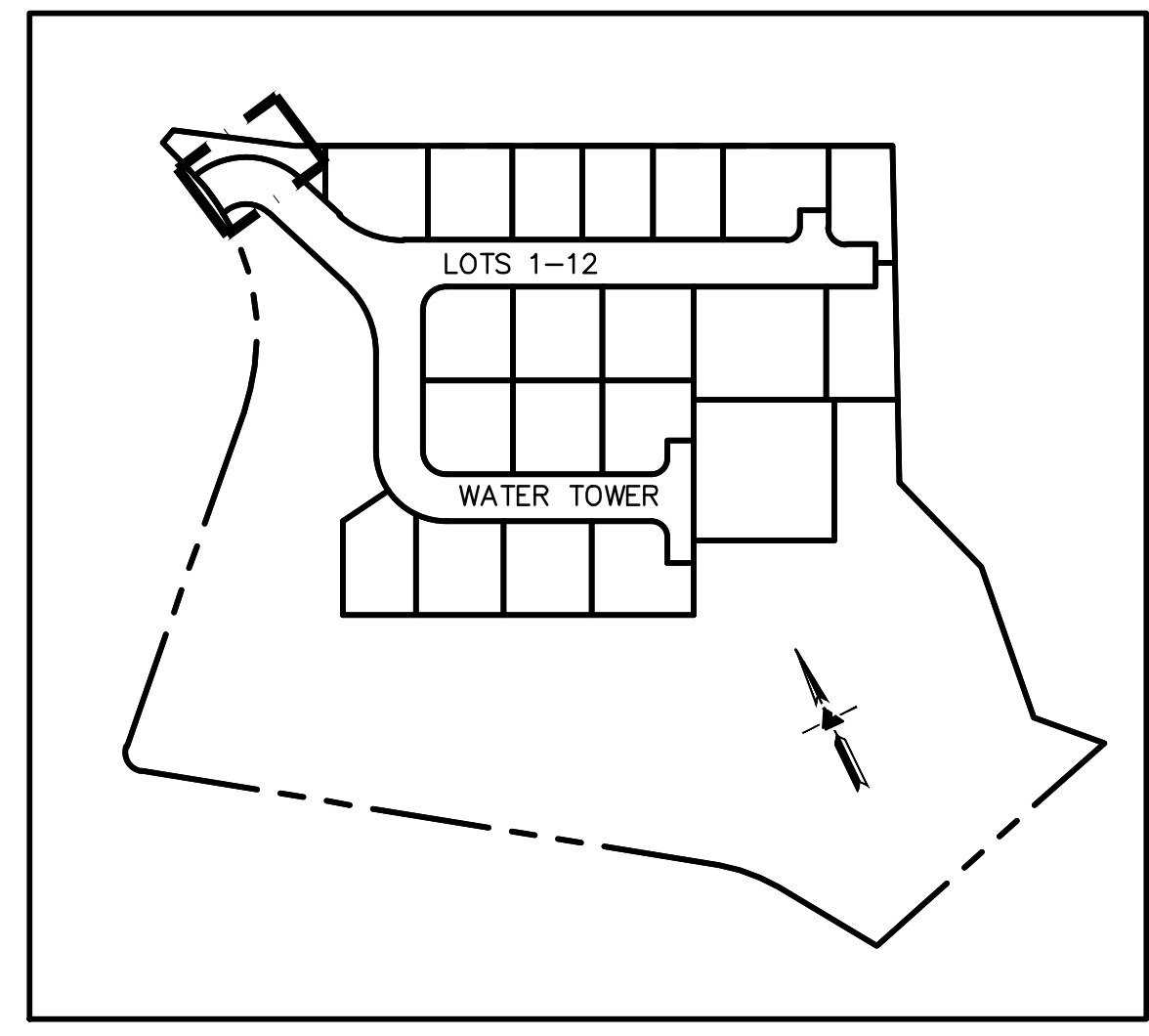
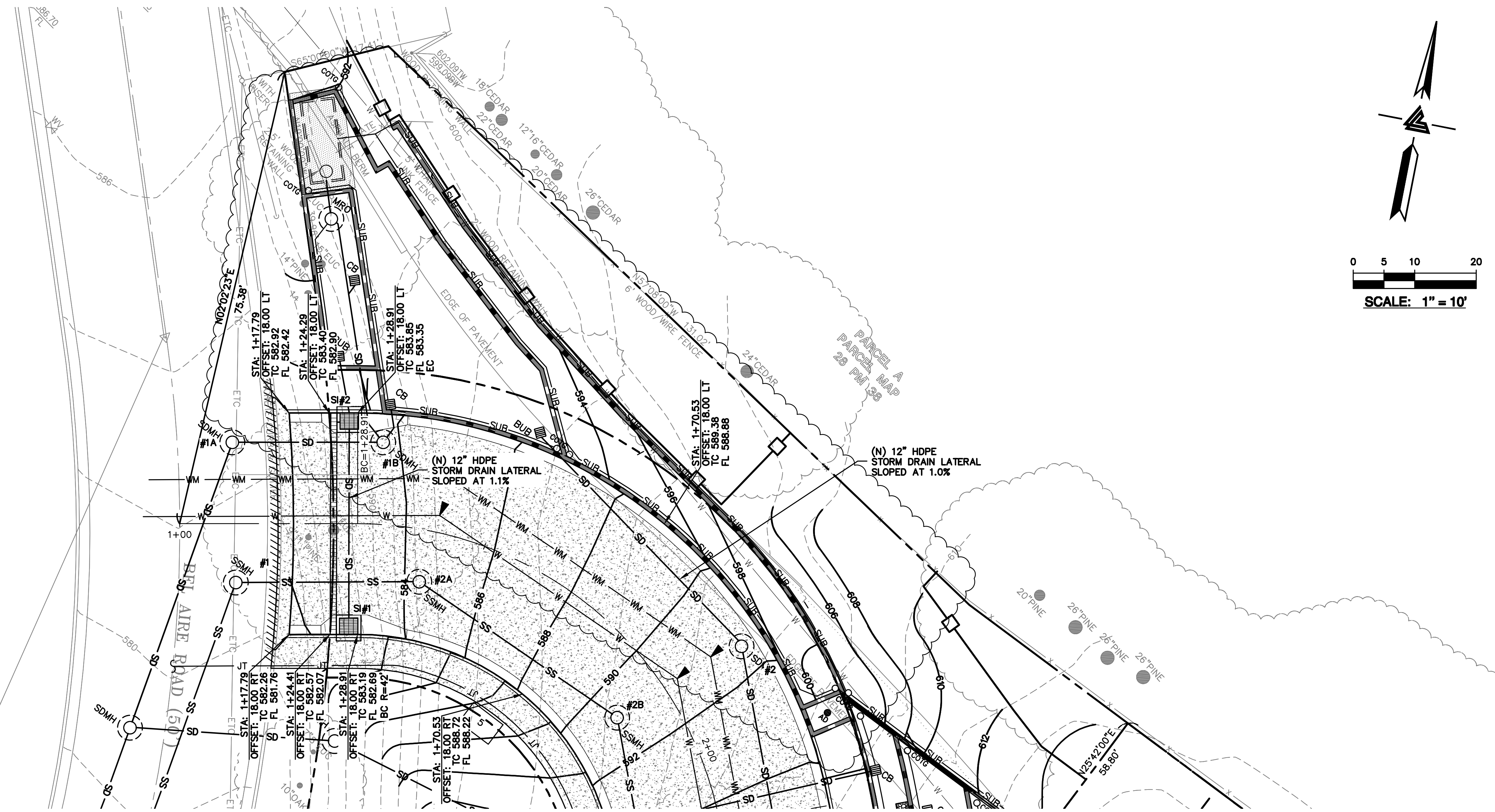
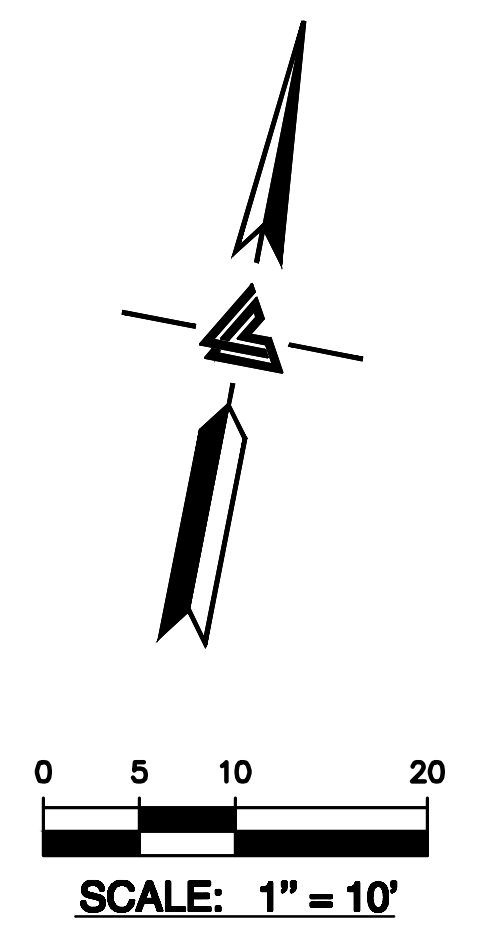
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 1400 J STREET, SUITE 200, # 300
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 (UNINCORPORATED) SAN MATEO COUNTY

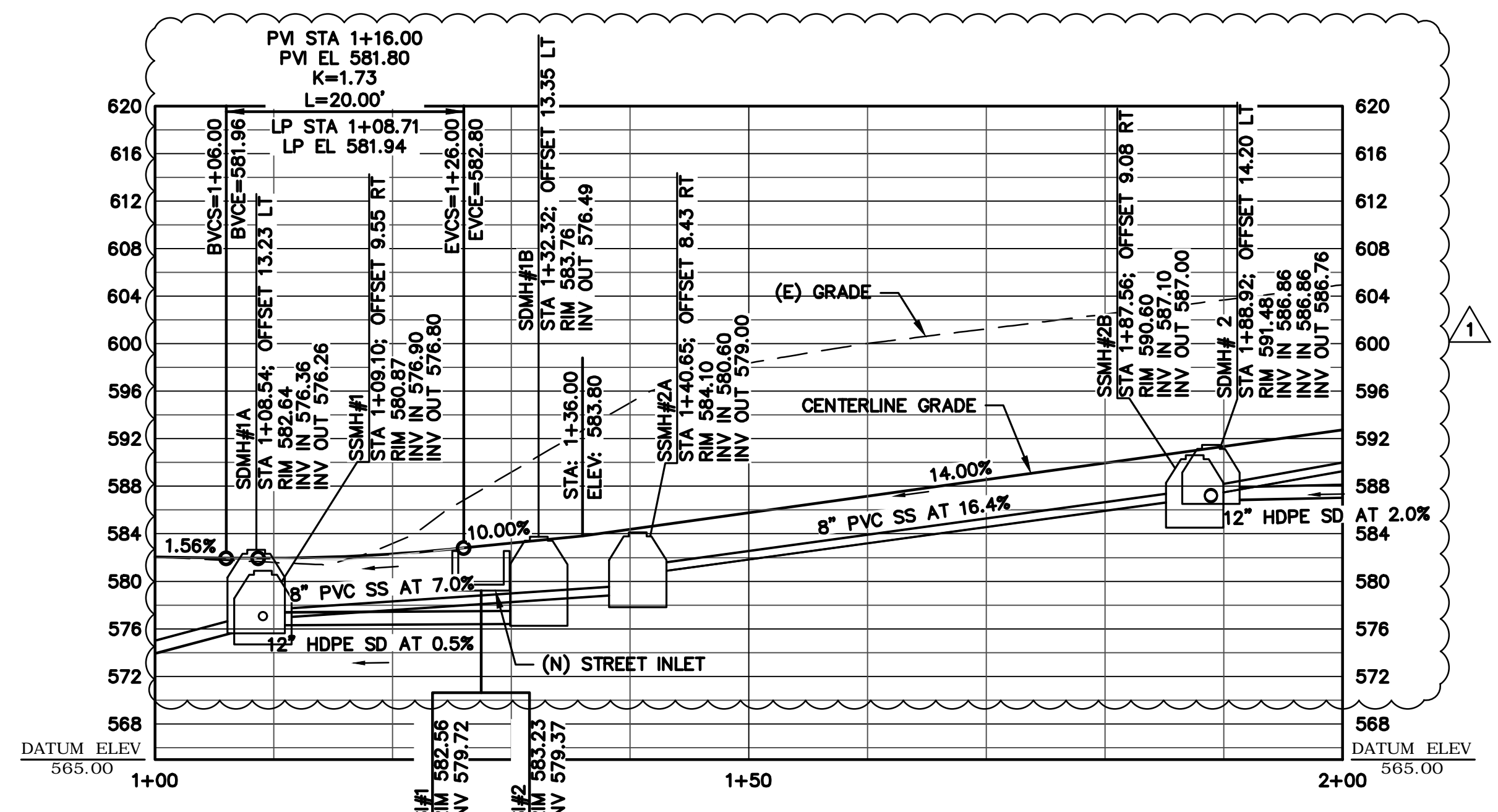
**PRIVATE STREET
 PLAN & PROFILE
 ENTRY**

REVISIONS	BY
1	RM
1	RM

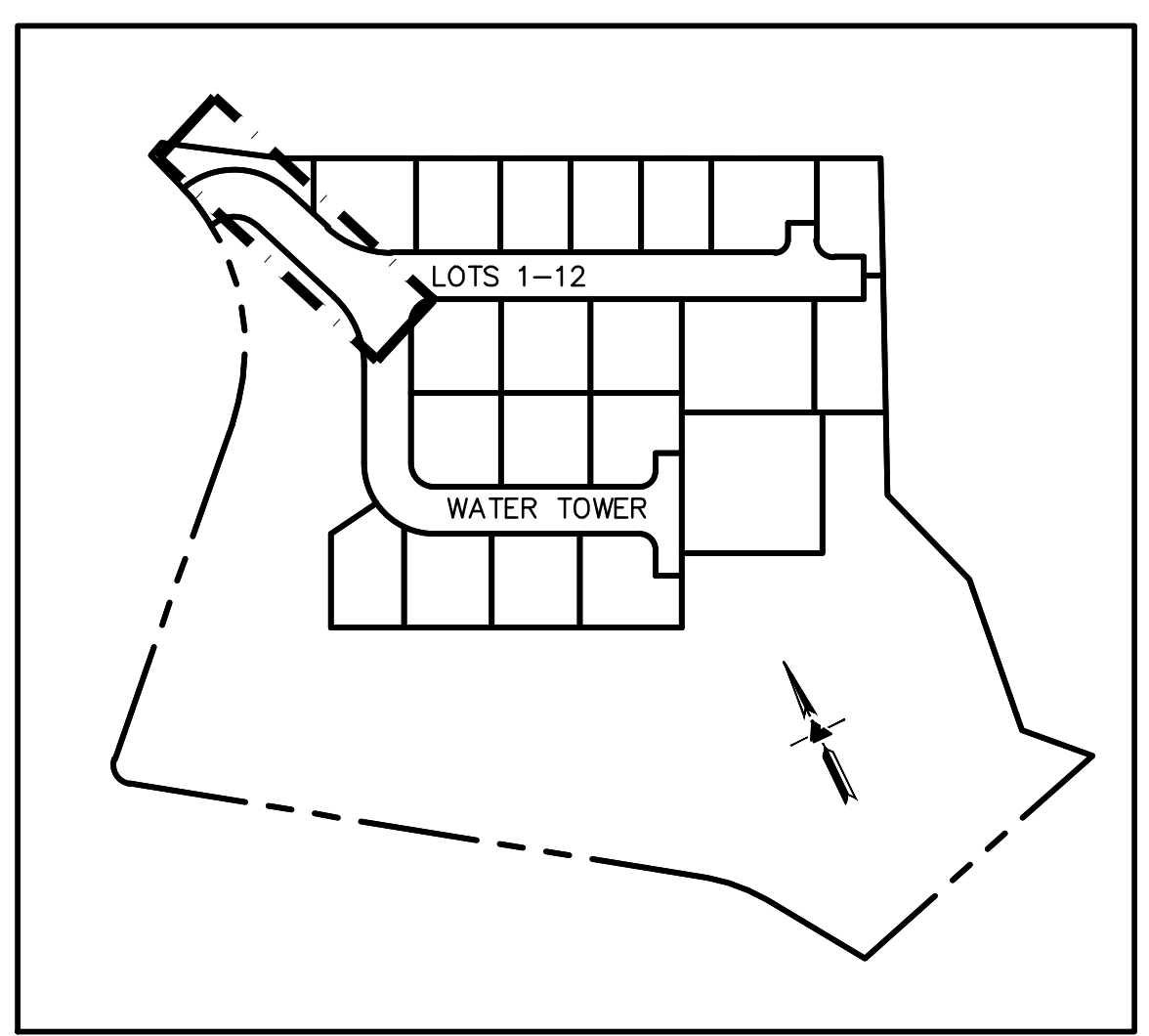
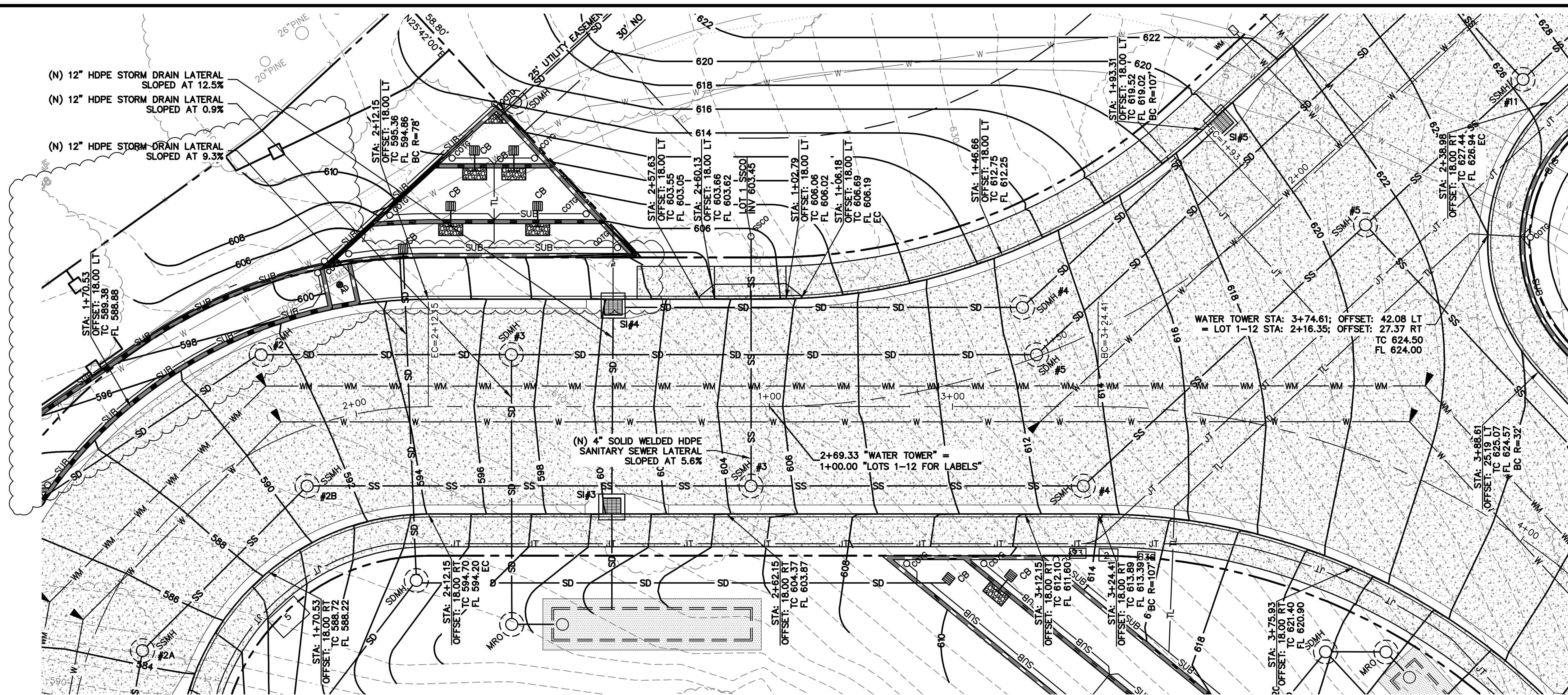
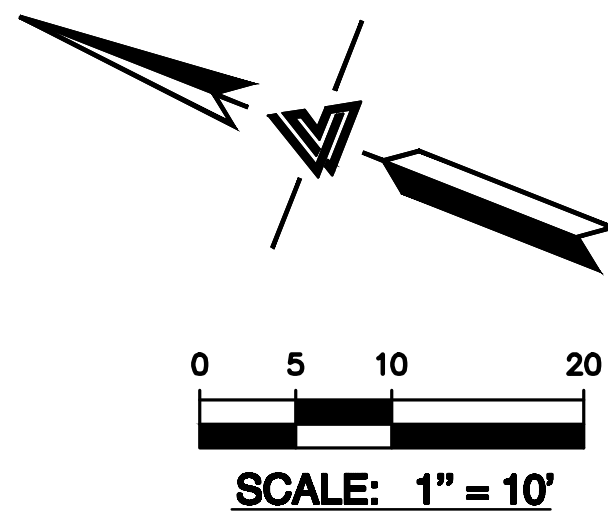
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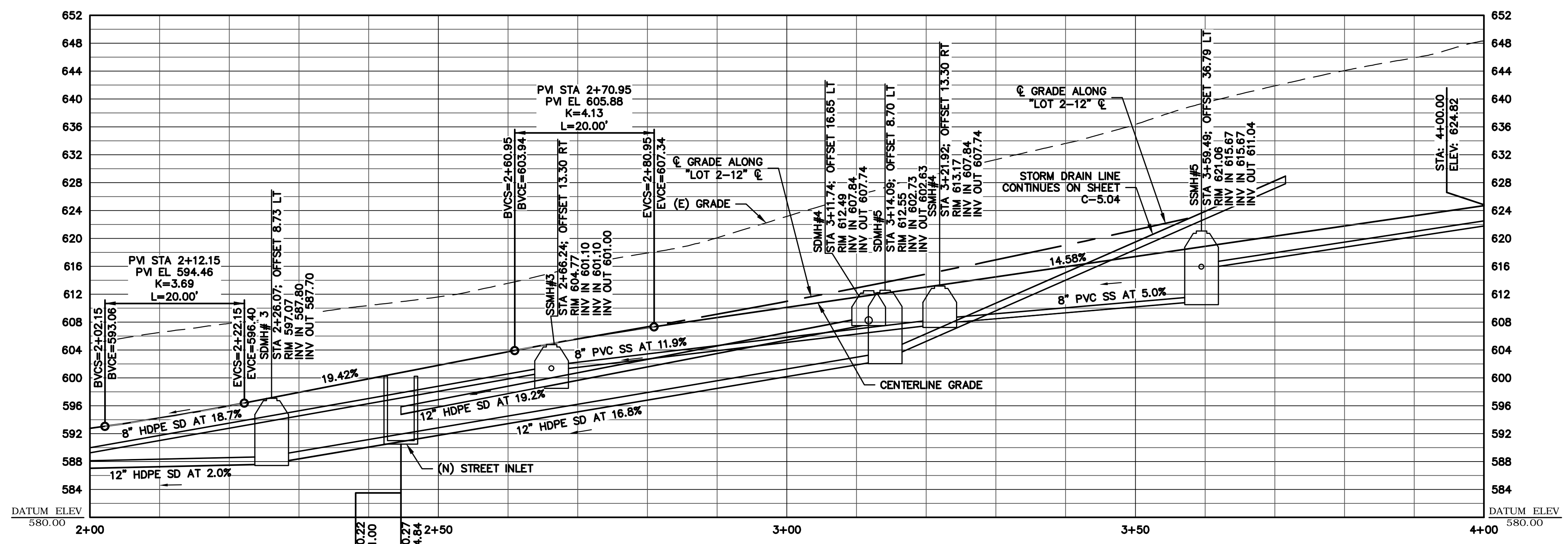
KEY MAP
 1" = 200'



STA: 1+00 TO 2+00 TO WATER TOWER PROFILE
 SCALE: 1" = 10' HORIZ. & VERT.



KEY MAP
1" = 200'



STA: 2+00 TO 4+00 TO WATER TOWER PROFILE
SCALE: 1" = 10' HORIZ. & VERT.



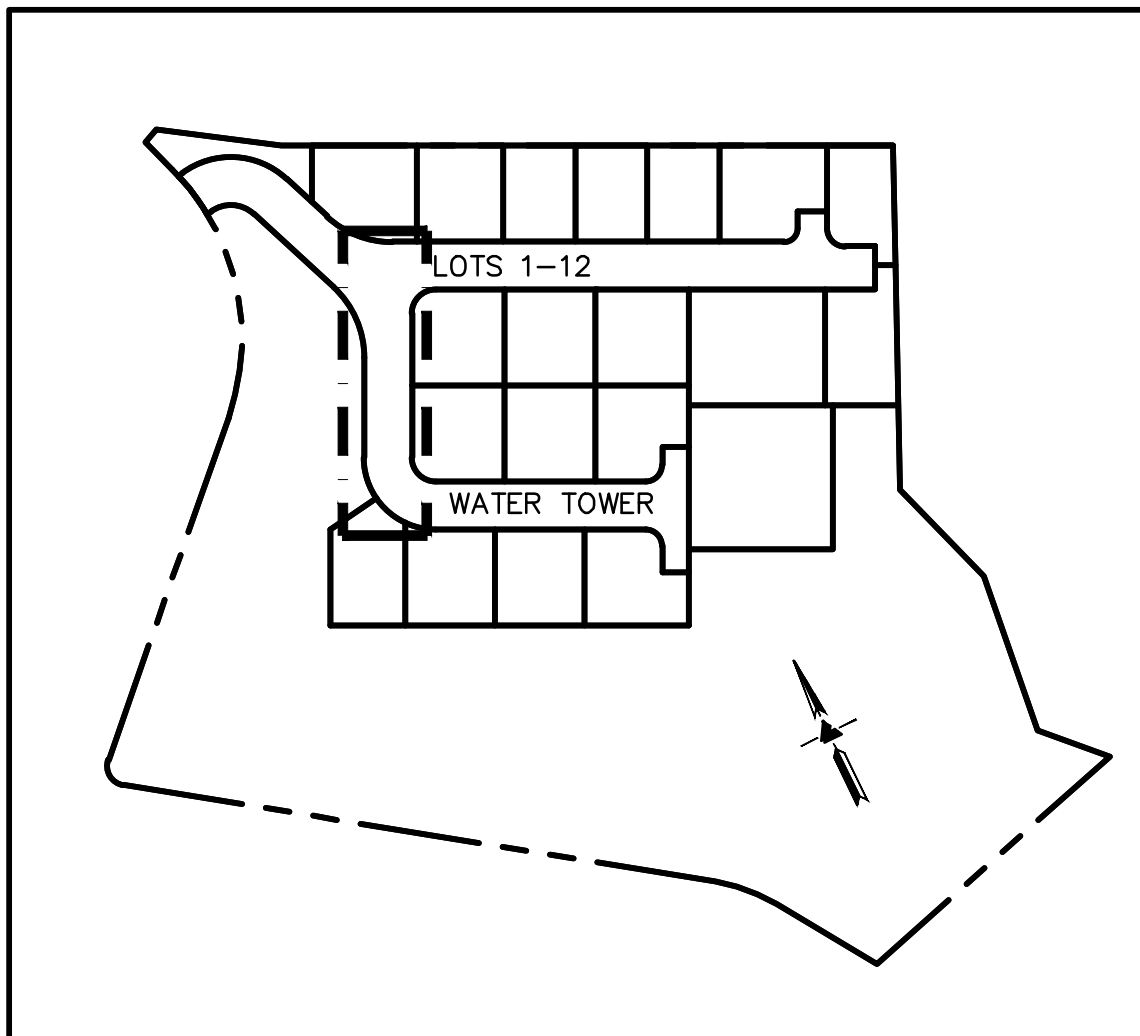
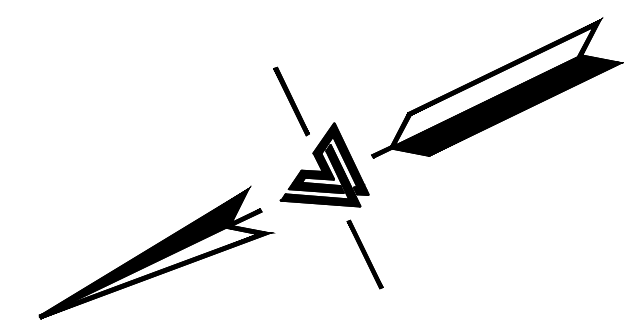
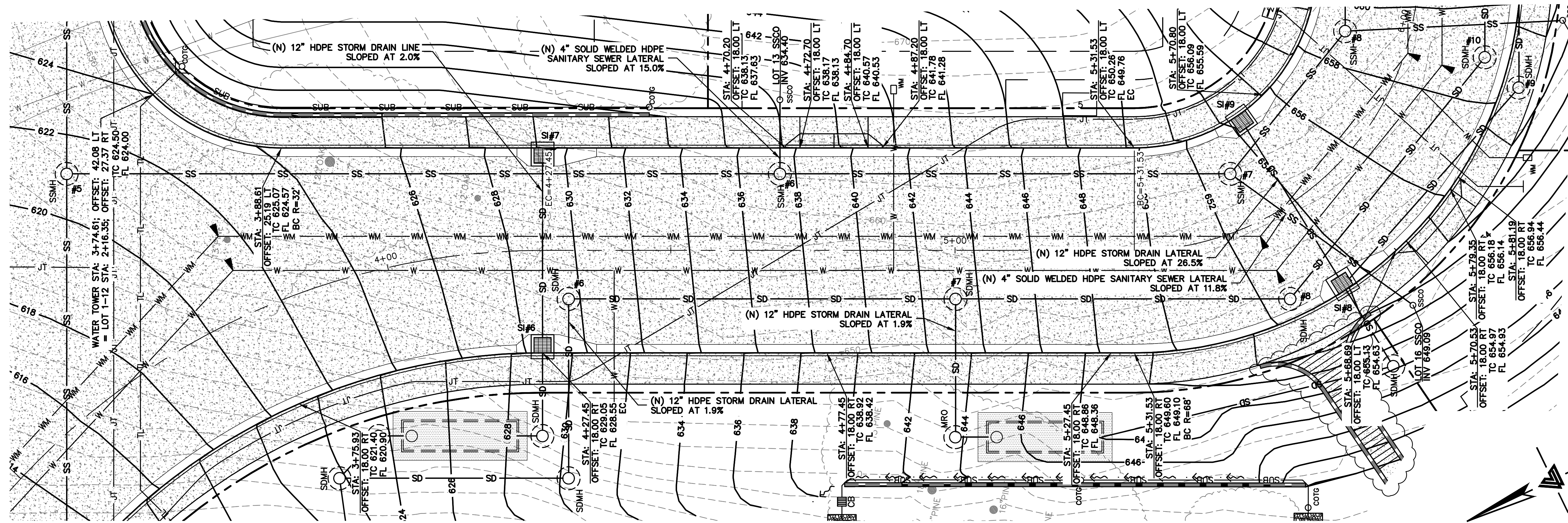
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1400 JONES BLVD., SUITE # 300
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**ASCENSION HEIGHTS
SUBDIVISION**
SAN MATEO, CALIFORNIA
(UNINCORPORATED) SAN MATEO COUNTY

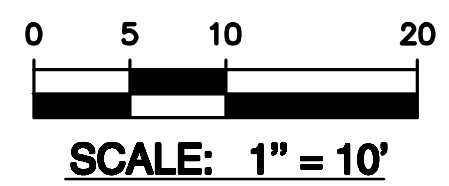
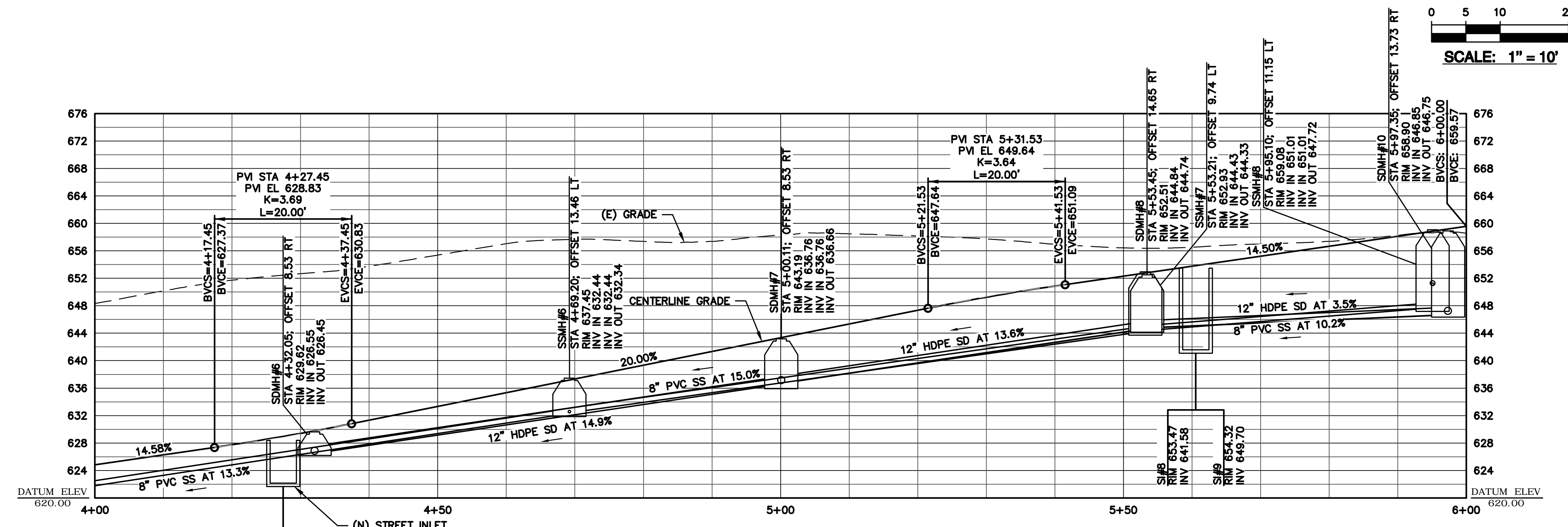
**PRIVATE STREET
PLAN & PROFILE**
WATER TOWER

REVISIONS	BY
1	RM
2	RM

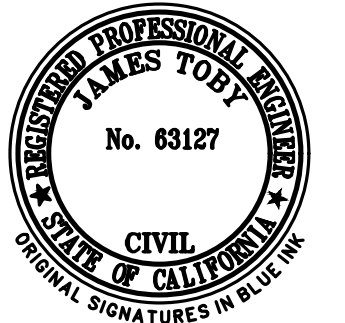
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DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:



KEY MAP
1" = 200'



STA: 4+00 TO 6+00 TO WATER TOWER PROFILE
SCALE: 1" = 10' HORIZ. & VERT.



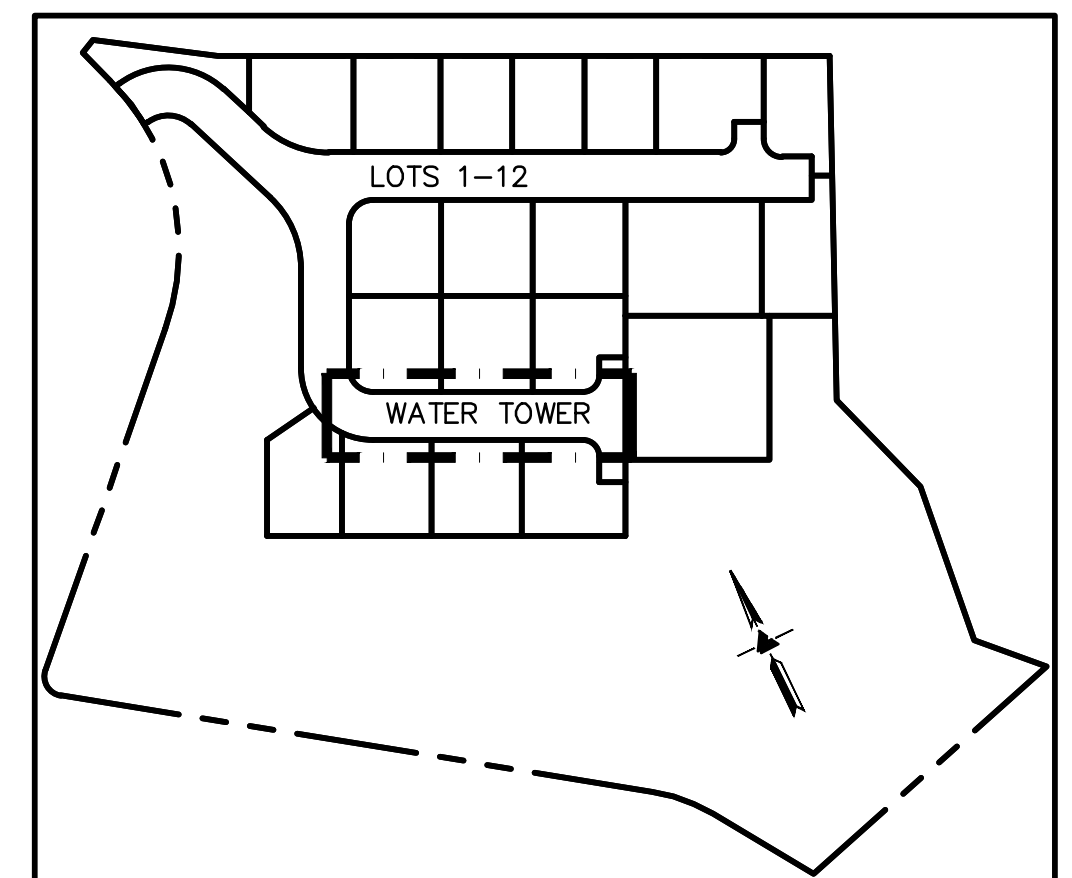
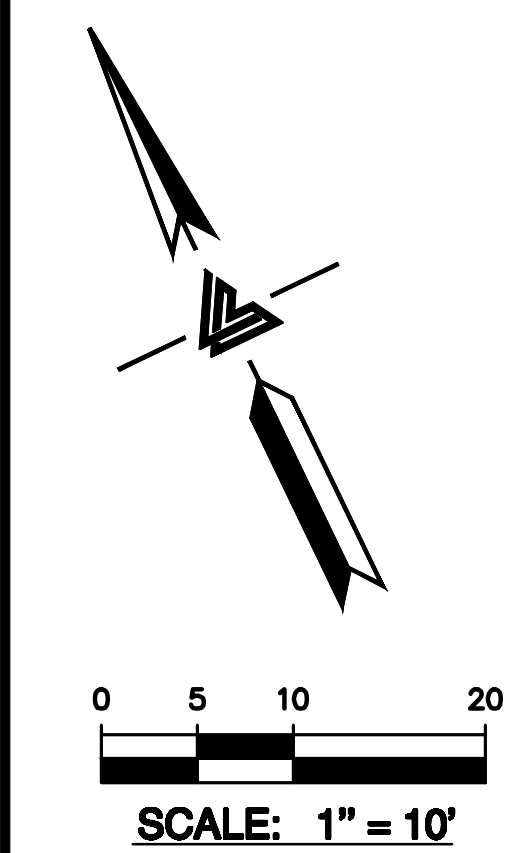
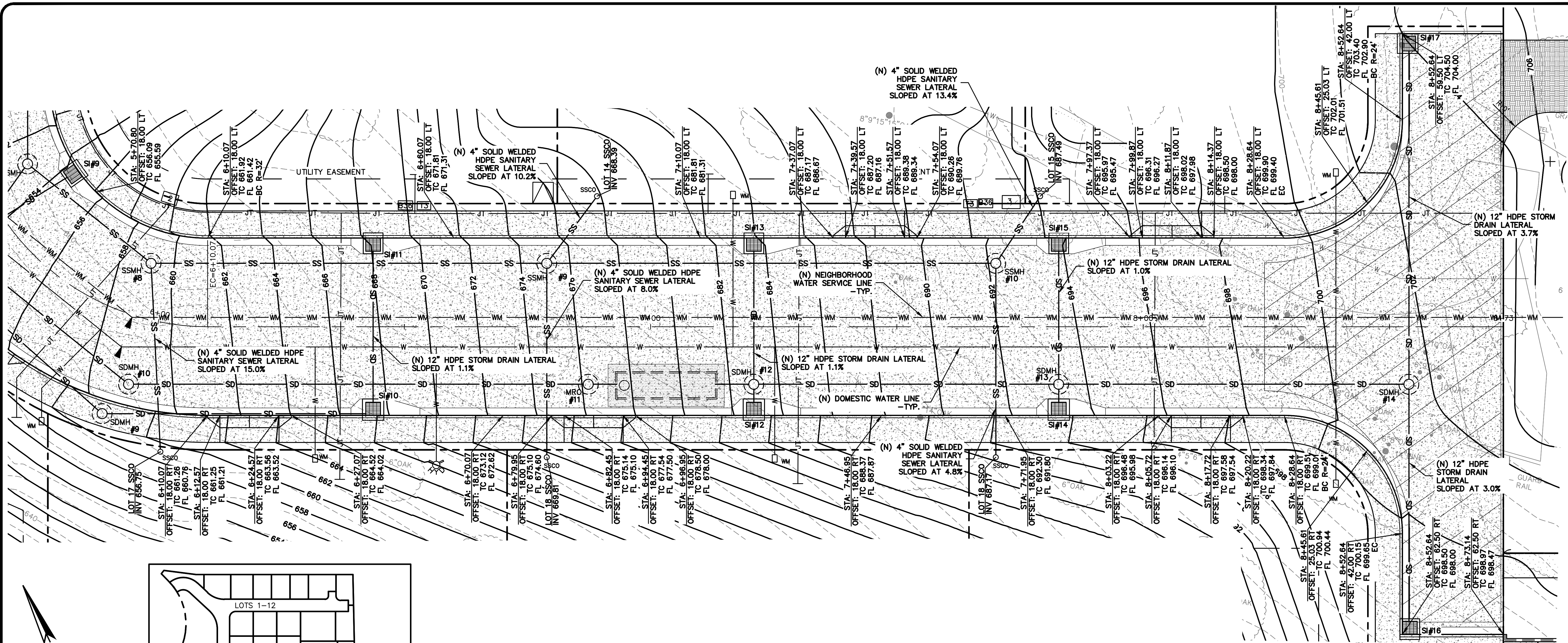
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4400 ARDEN CALIFORNIA 94645
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**ASCENSION HEIGHTS
SUBDIVISION**
SAN MATEO, CALIFORNIA
(UNINCORPORATED) SAN MATEO COUNTY

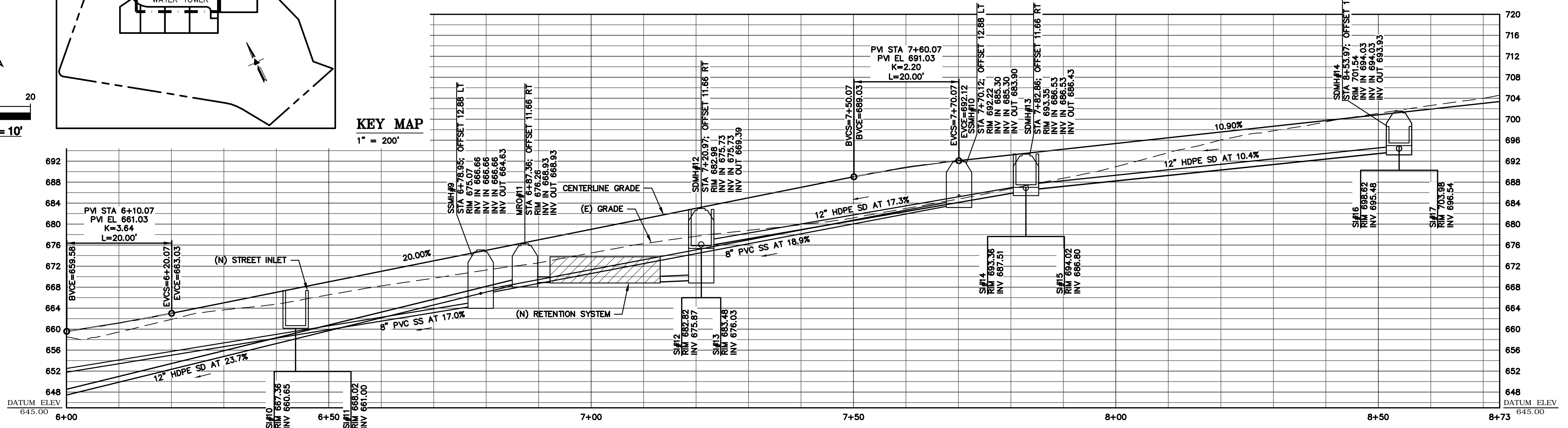
**PRIVATE STREET
PLAN & PROFILE**
WATER TOWER

NO.	REVISIONS	BY
1	PLANCHHECK REV. 11-13-18	RM
	PLANCHHECK REV. 01-17-19	RM

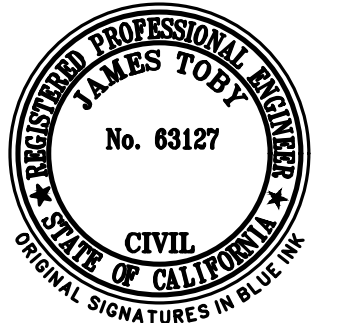
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SHEET NO:



KEY MAP
1" = 200'



STA: 6+00 TO WATER TOWER PROFILE
SCALE: 1" = 10' HORIZ. & VERT.



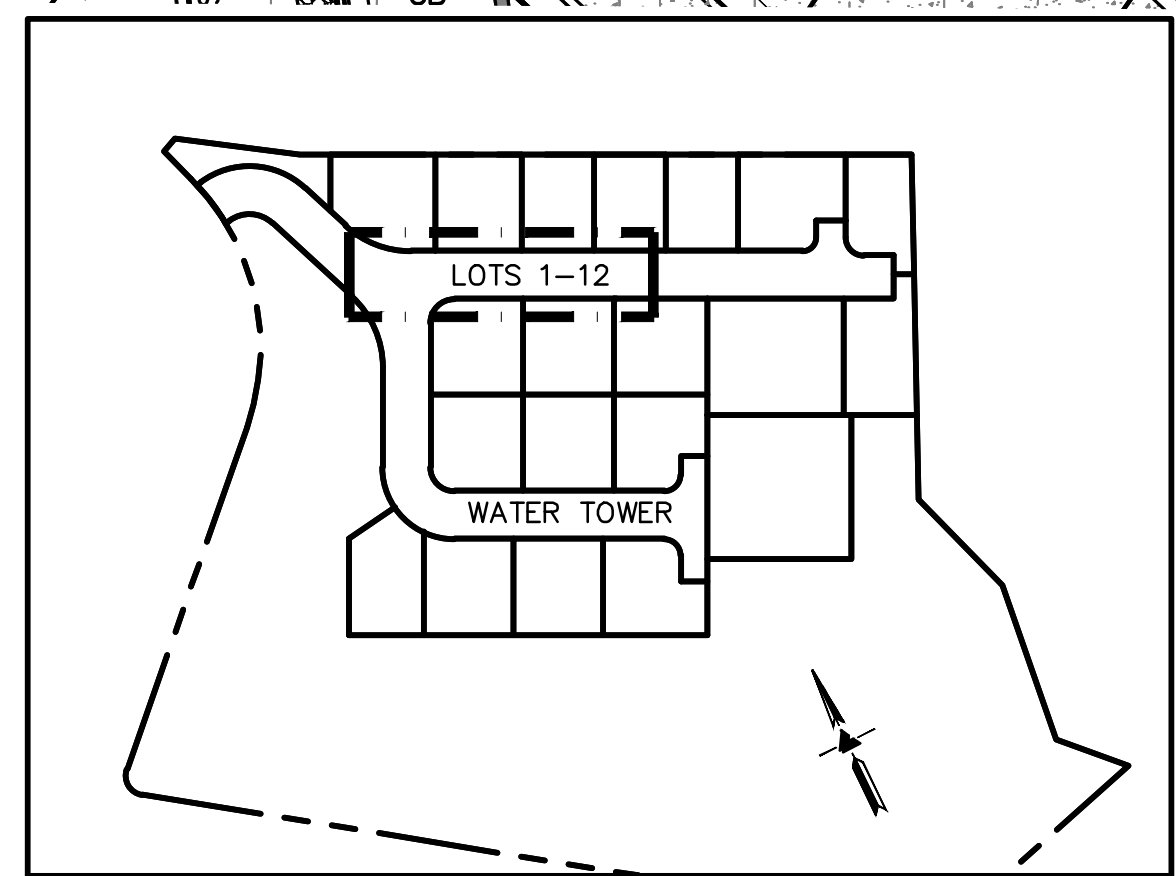
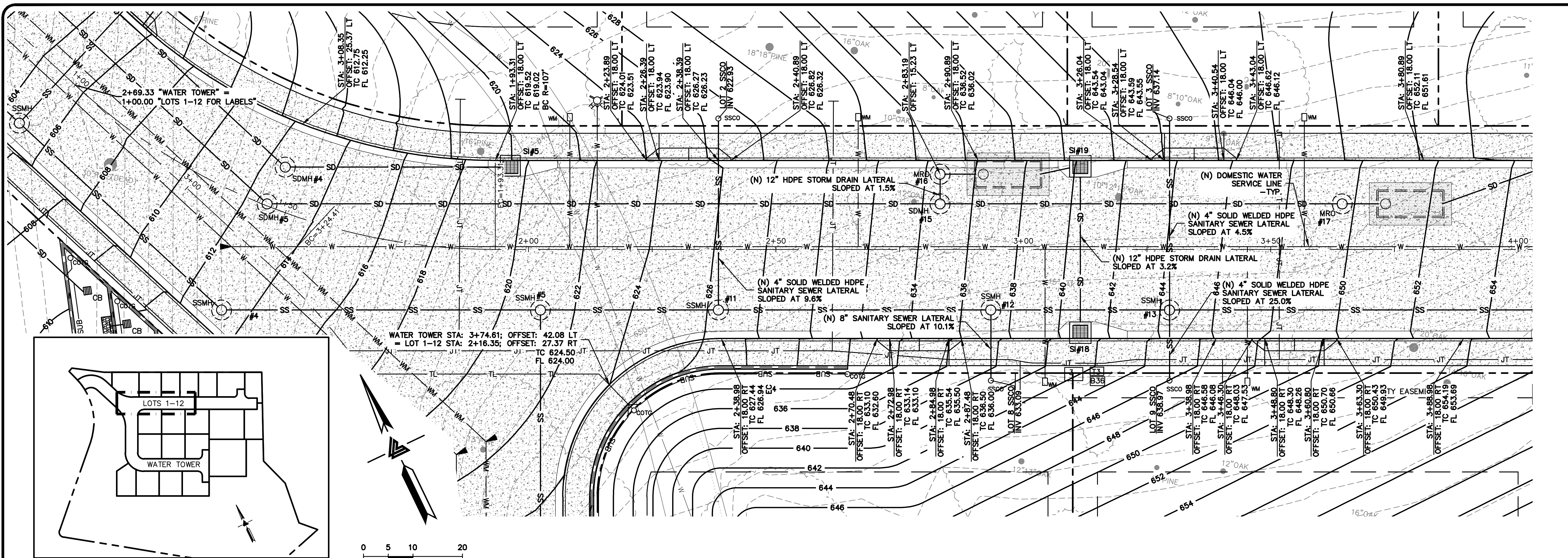
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 4400 ARDENWAY, WEST
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 SUBDIVISION**
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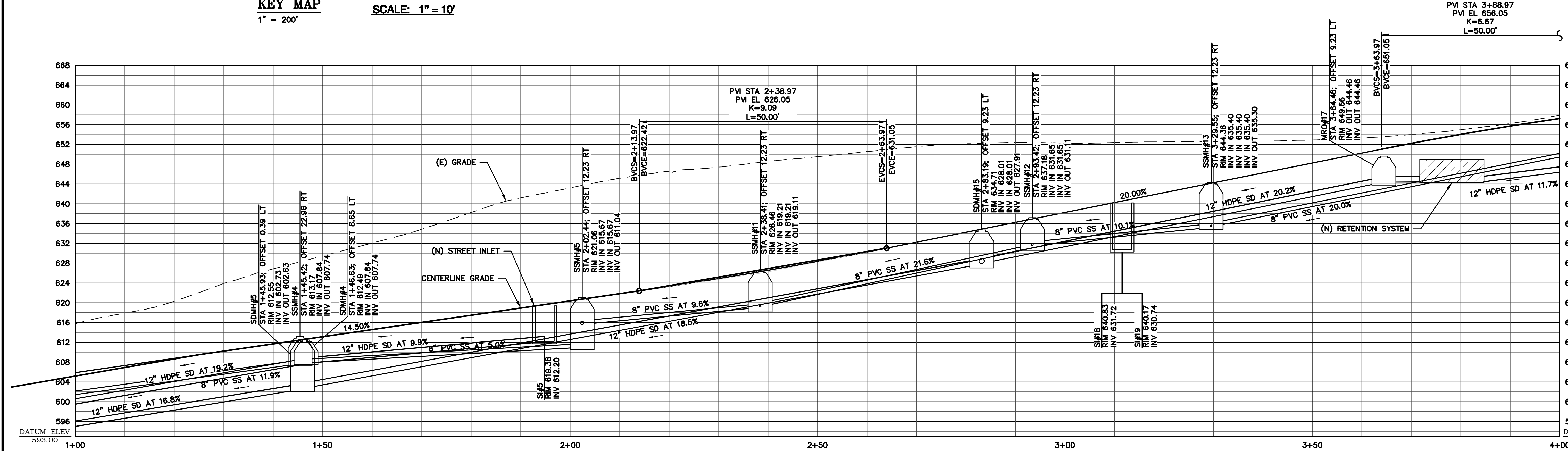
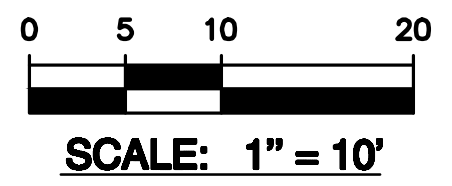
**PRIVATE STREET
 PLAN & PROFILE**
WATER TOWER

REVISIONS	BY
1	RM
2	RM

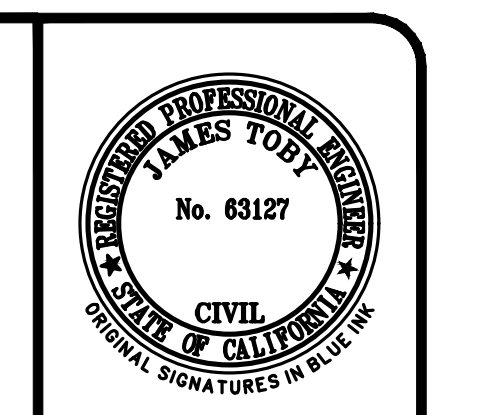
JOB NO: 2161285
 DATE: 5-2-18
 SCALE: AS NOTED
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:



KEY MAP
1" = 200'



STA: 1+00 TO 4+00 LOTS 1-12 PROFILE
SCALE: 1" = 10' HORIZ. & VERT.



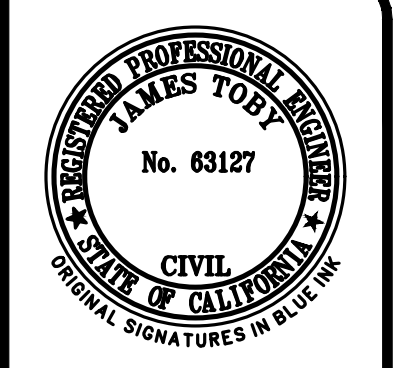
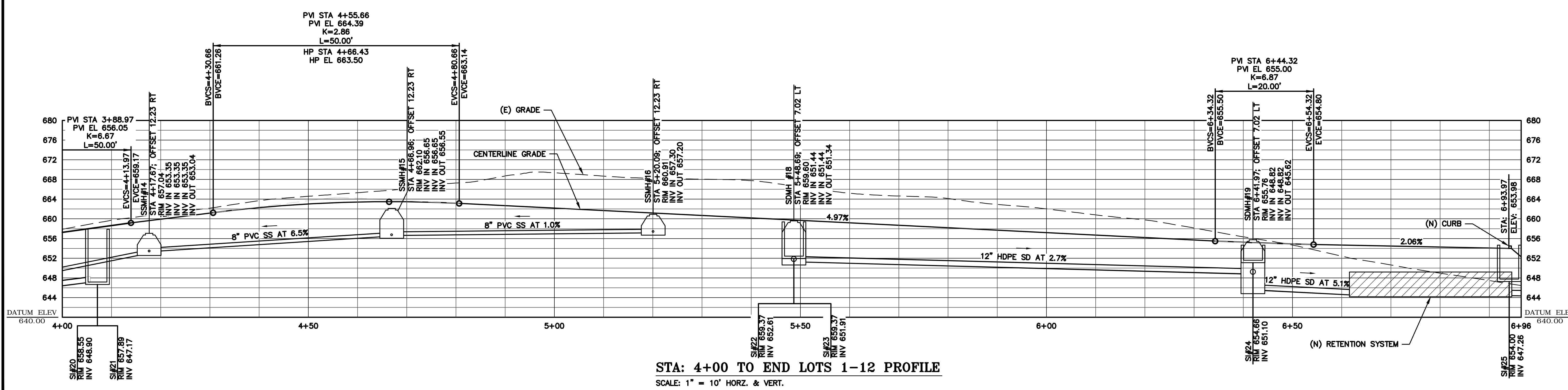
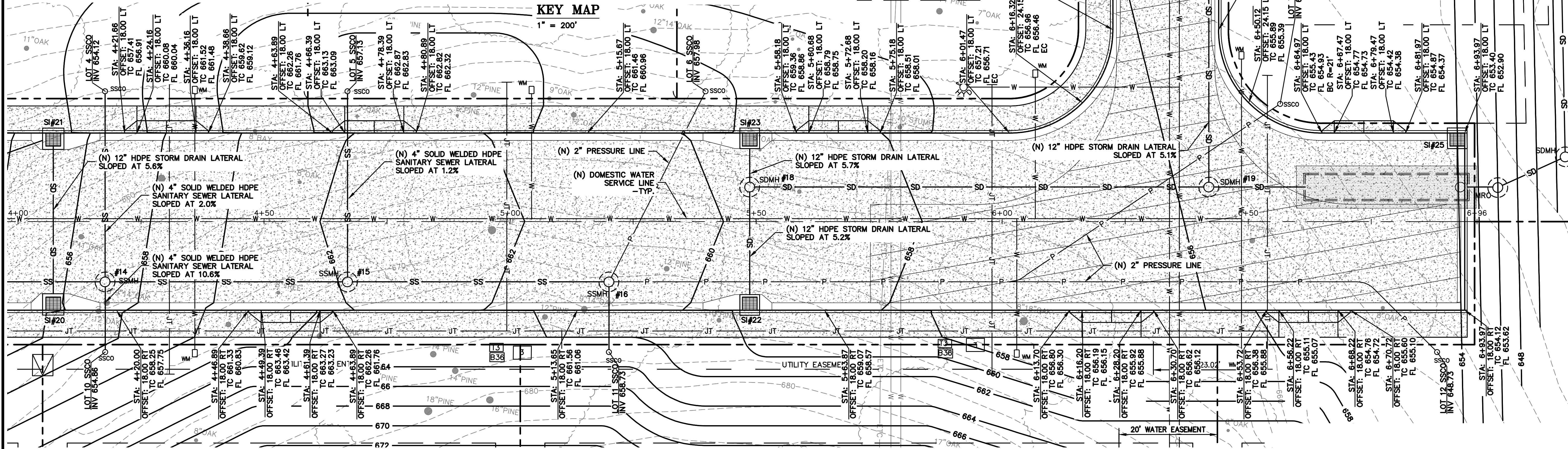
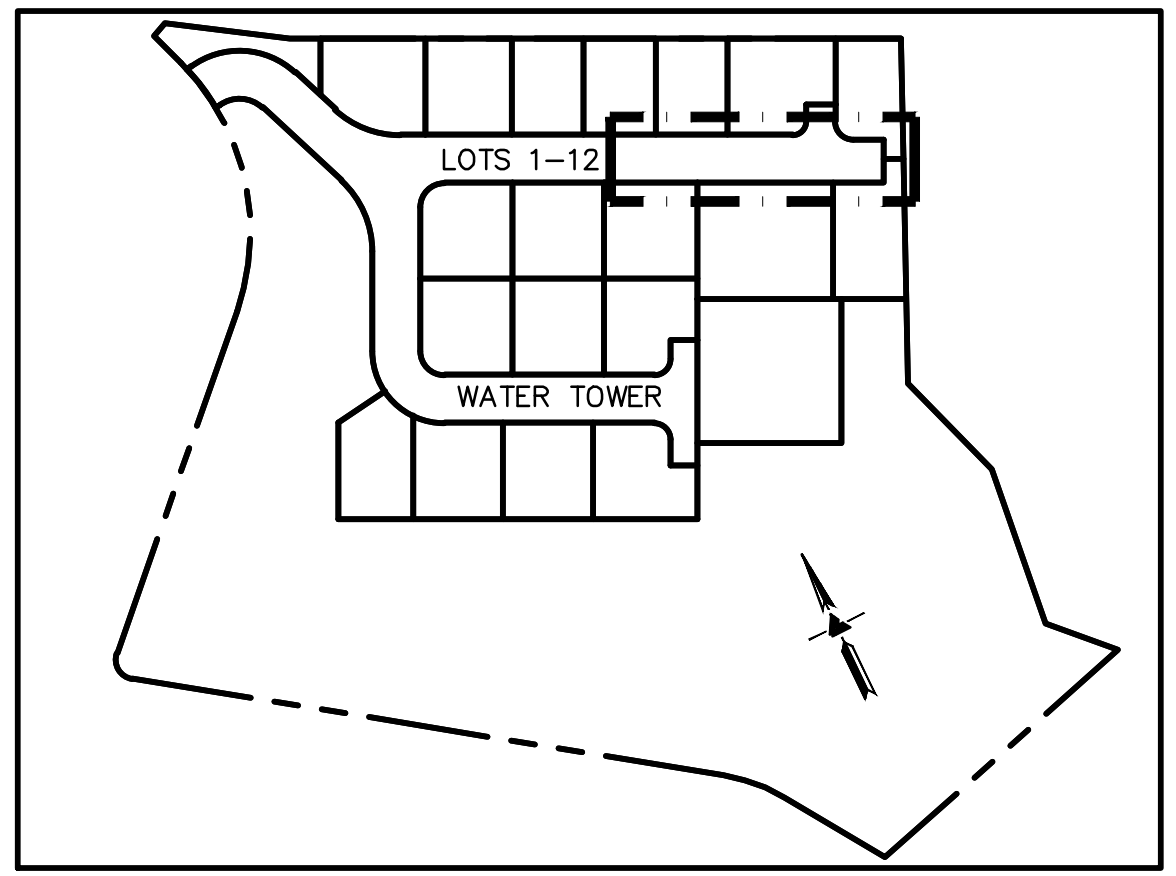
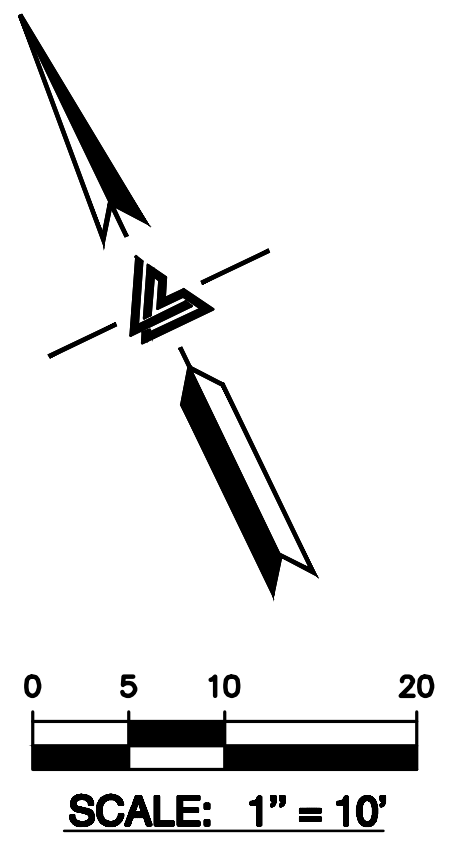
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**PRIVATE STREET
PLAN & PROFILE
LOTS 1-12**

NO.	REVISIONS	BY
1	PLAN CHECK REV. 11-13-18	RM
	PRELIM PLAN CHECK REV. 01-17-19	RM

JOB NO: 2161285
DATE: 5-2-18
SCALE: AS NOTED
DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:



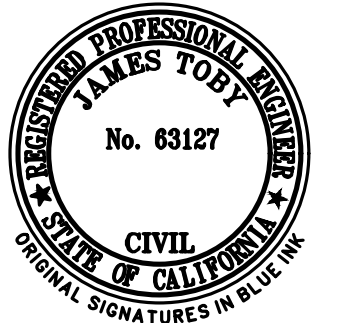
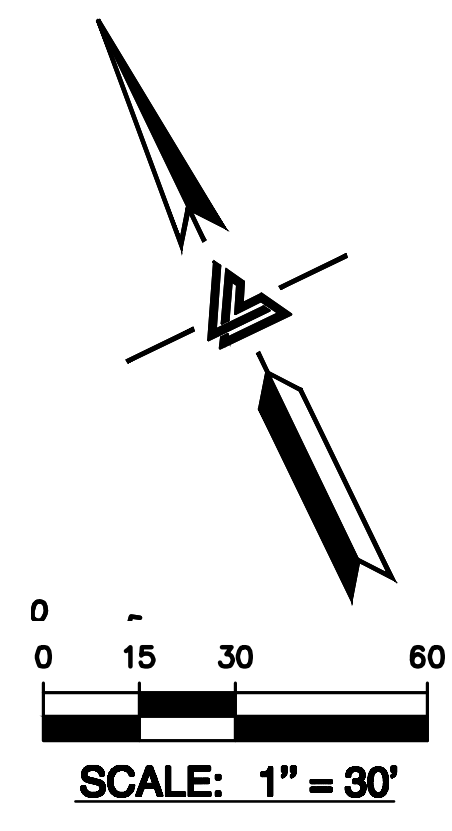
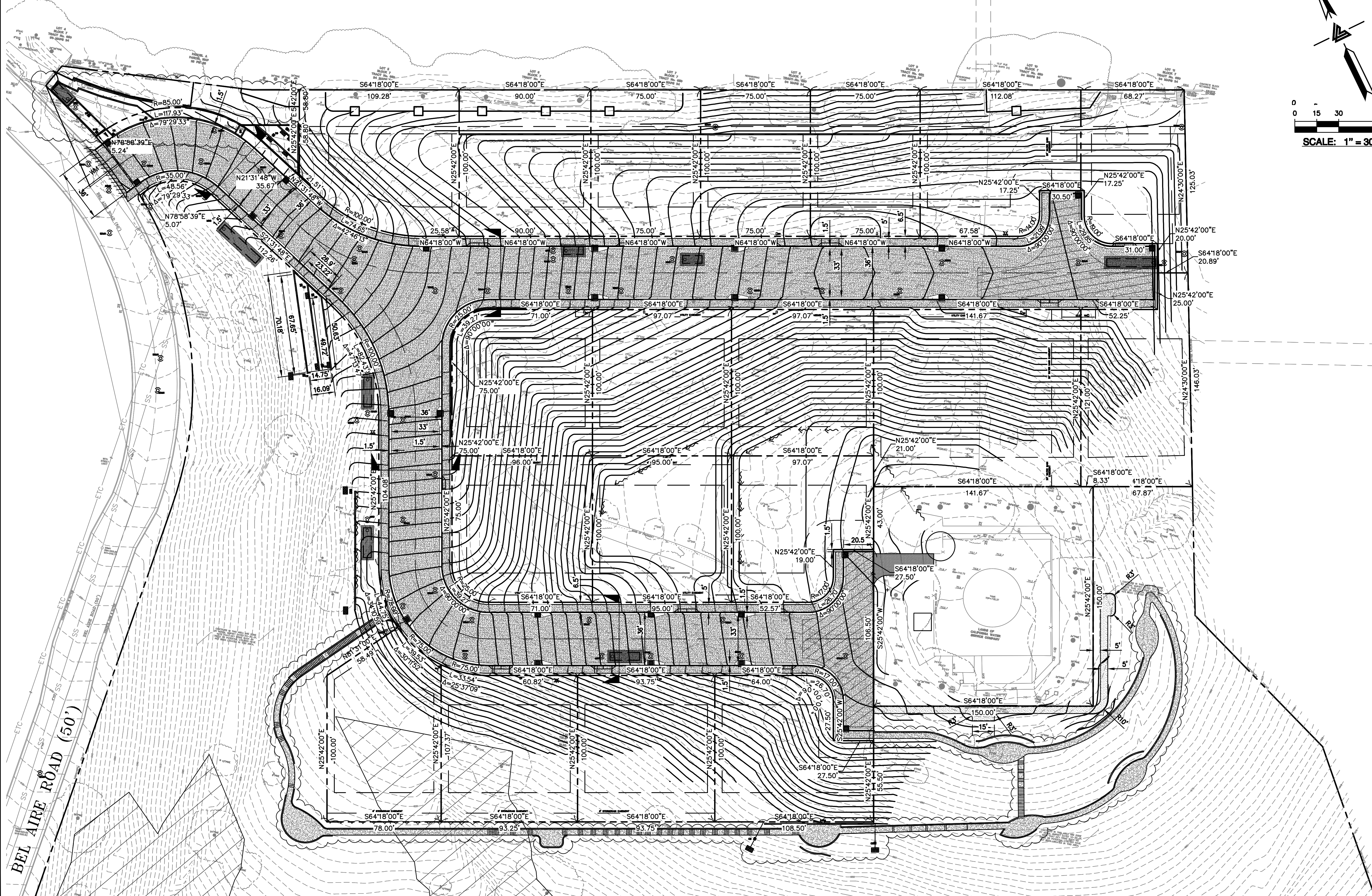
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SAN MATEO, CALIFORNIA
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**PRIVATE STREET
 PLAN & PROFILE**
LOTS 1-12

REVISIONS	BY
1	RC

JOB NO:	2161285
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SCALE:	AS NOTED
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**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
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**HORIZONTAL
 CONTROL PLAN**

NO.	REVISIONS	BY
1	PLANCHCK REV. 11-13-18	RM
	PLANCHCK REV. 01-17-19	RM
	PRELIM PLANCHCK REV.	

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=30'
 DESIGN BY: RC
 DRAWN BY: ATL
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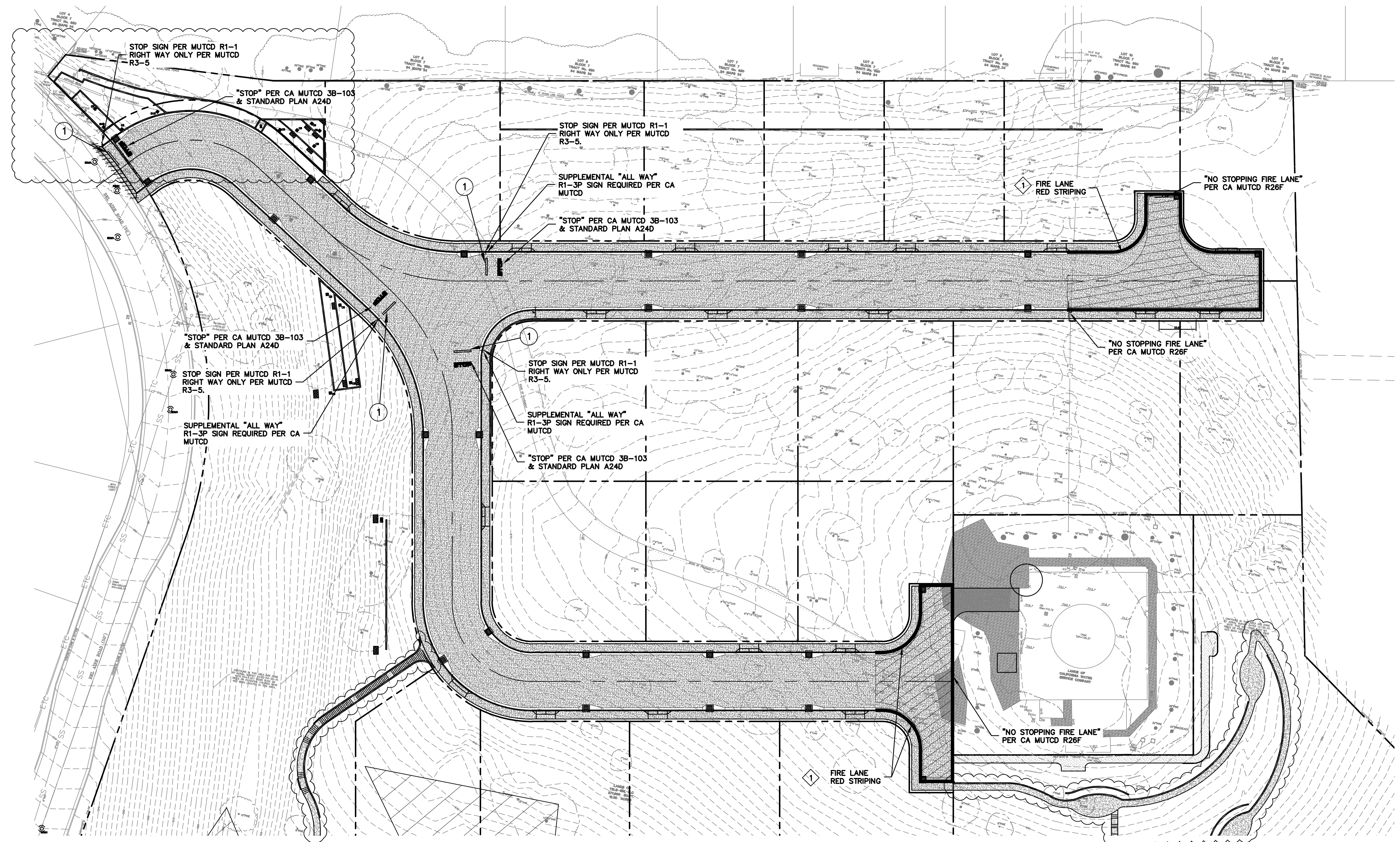
**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

**PRIVATE STREET
 SIGNAGE &
 STRIPING PLAN**

REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1" = 30'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:

C-5.07
 36 OF 50 SHEETS

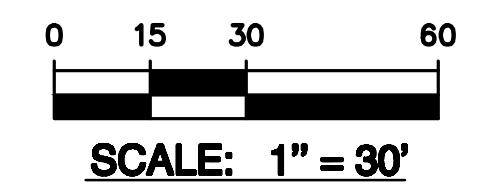
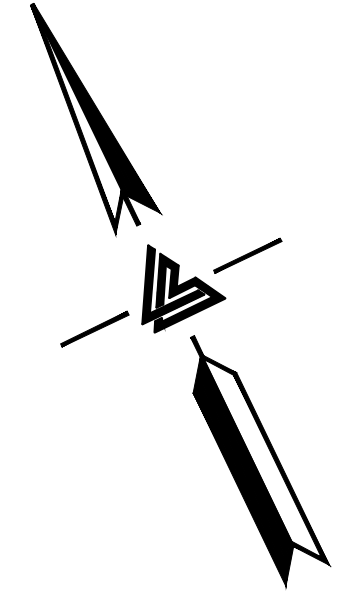


SIGNAGE & STRIPING KEYNOTES

① CURBS ALONG FIRE ACCESS LANES SHALL BE PAINTED TRAFFIC RED. SUCH CURBS SHALL HAVE THE WORDS "FIRE LANE" STENCILED EACH SEVENTY-FIVE FEET ON BOTH THE FACE AND TOP EDGE OF THE CURBS. THE STENCILED LETTERS SHALL BE A MINIMUM OF THREE INCHES IN HEIGHT AND HAVE A MINIMUM STROKE OF ONE-HALF INCH. THE LETTERING SHALL BE WHITE IN COLOR.

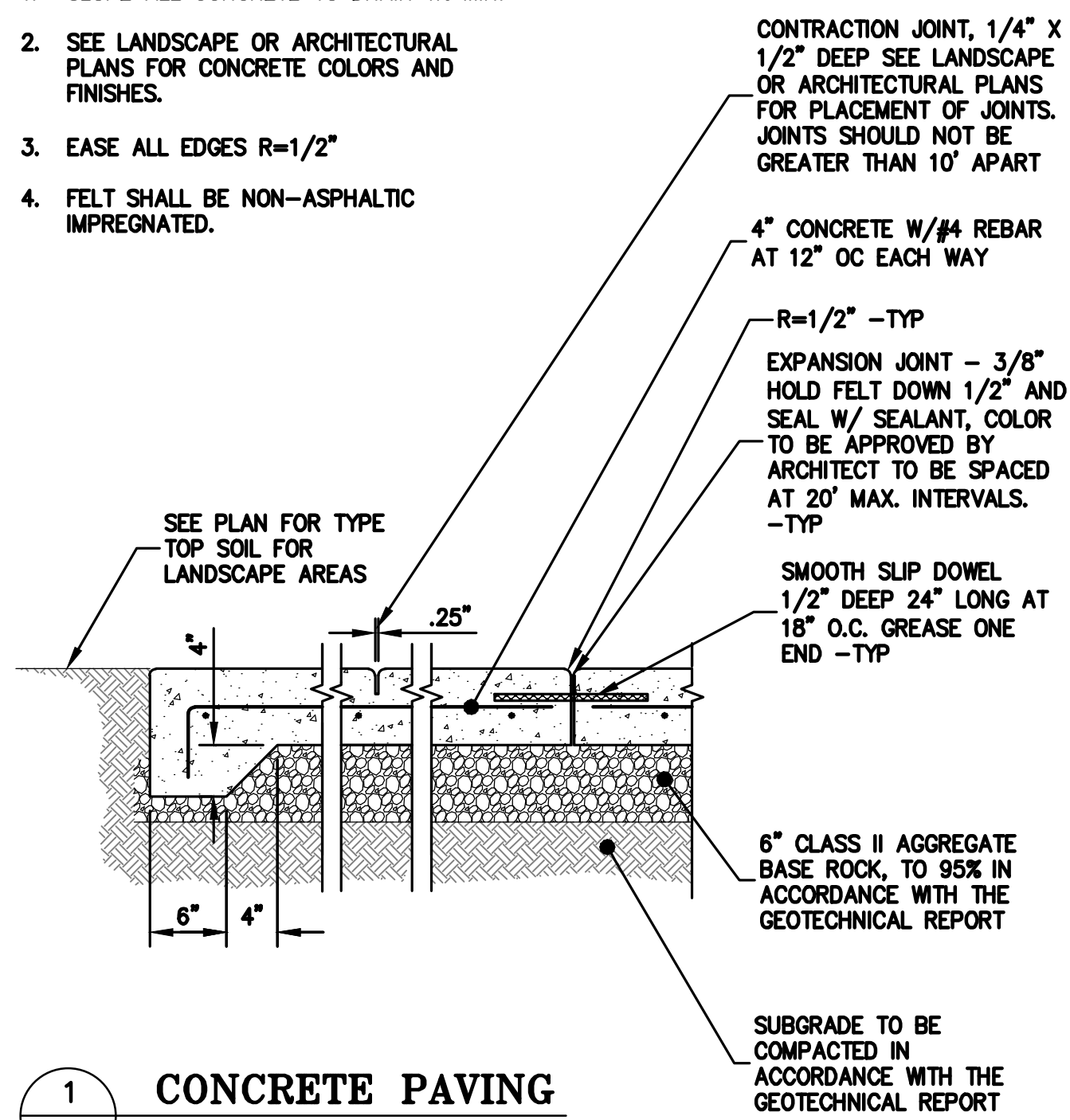
STRIPING LEGEND

① SOLID 12" WHITE LINE
 — RED FIRE STRIPING

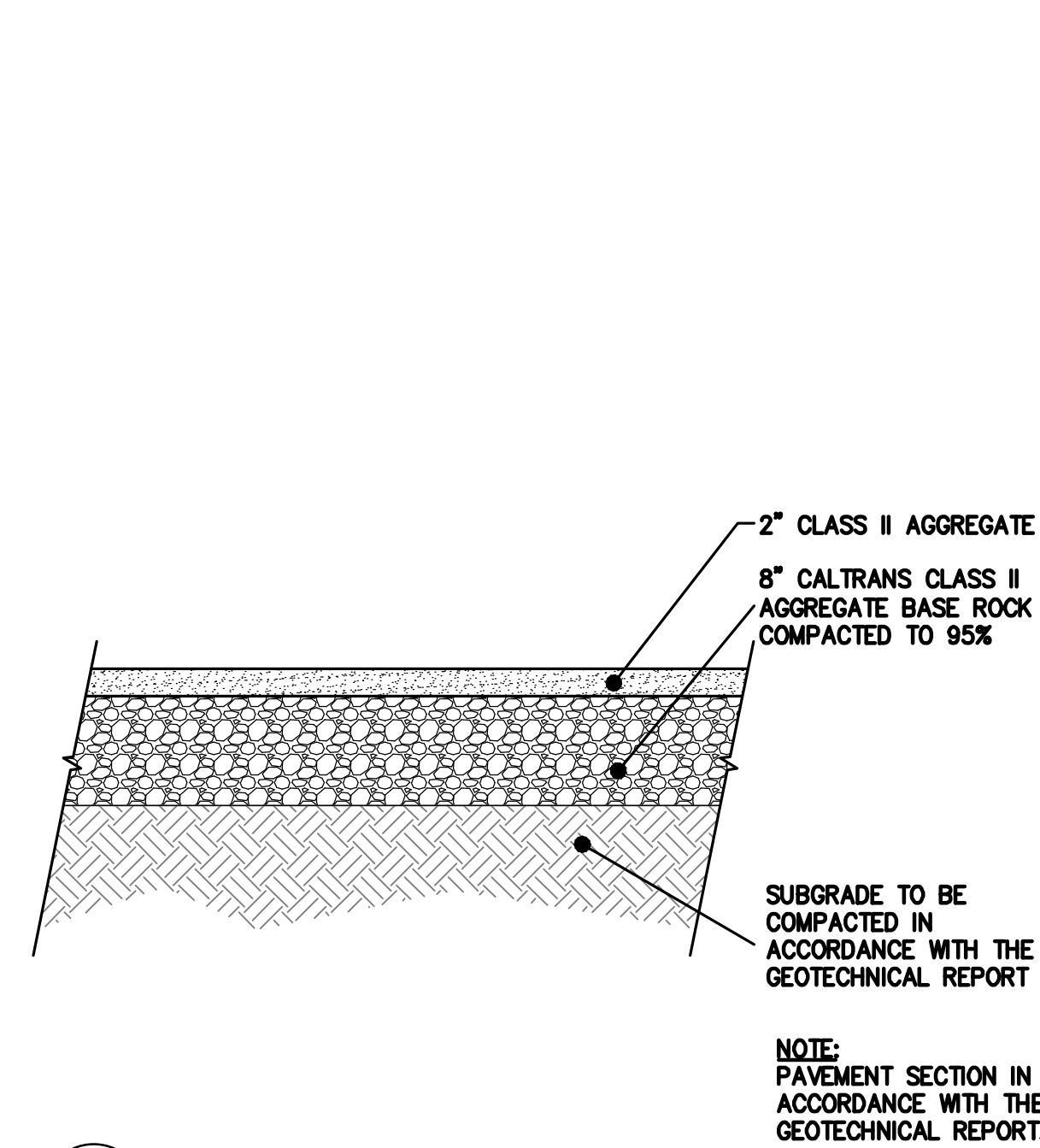


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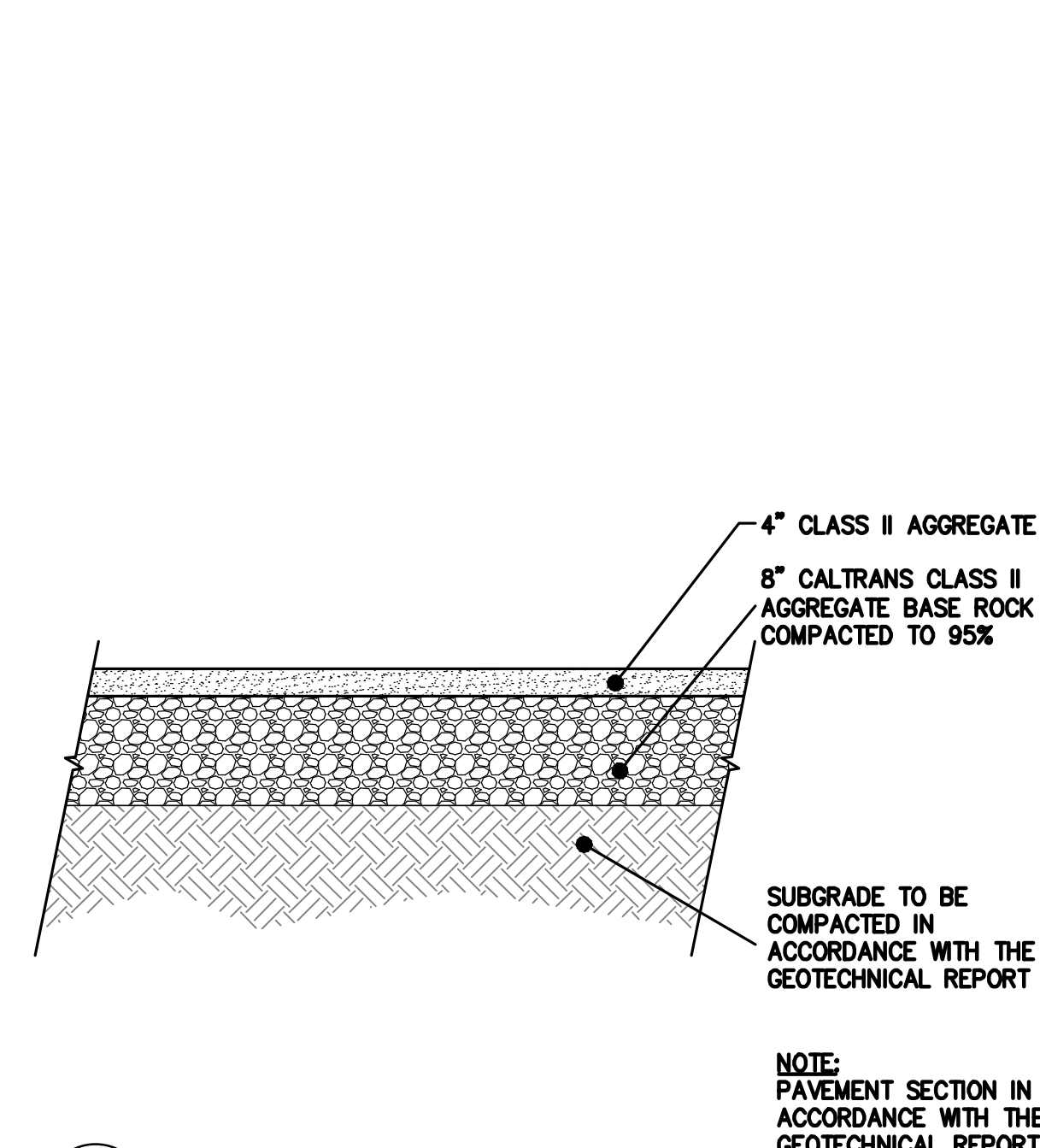
- SLOPE ALL CONCRETE TO DRAIN 1% MIN.
- SEE LANDSCAPE OR ARCHITECTURAL PLANS FOR CONCRETE COLORS AND FINISHES.
- EASE ALL EDGES R=1/2"
- FELT SHALL BE NON-ASPHALTIC IMPREGNATED.



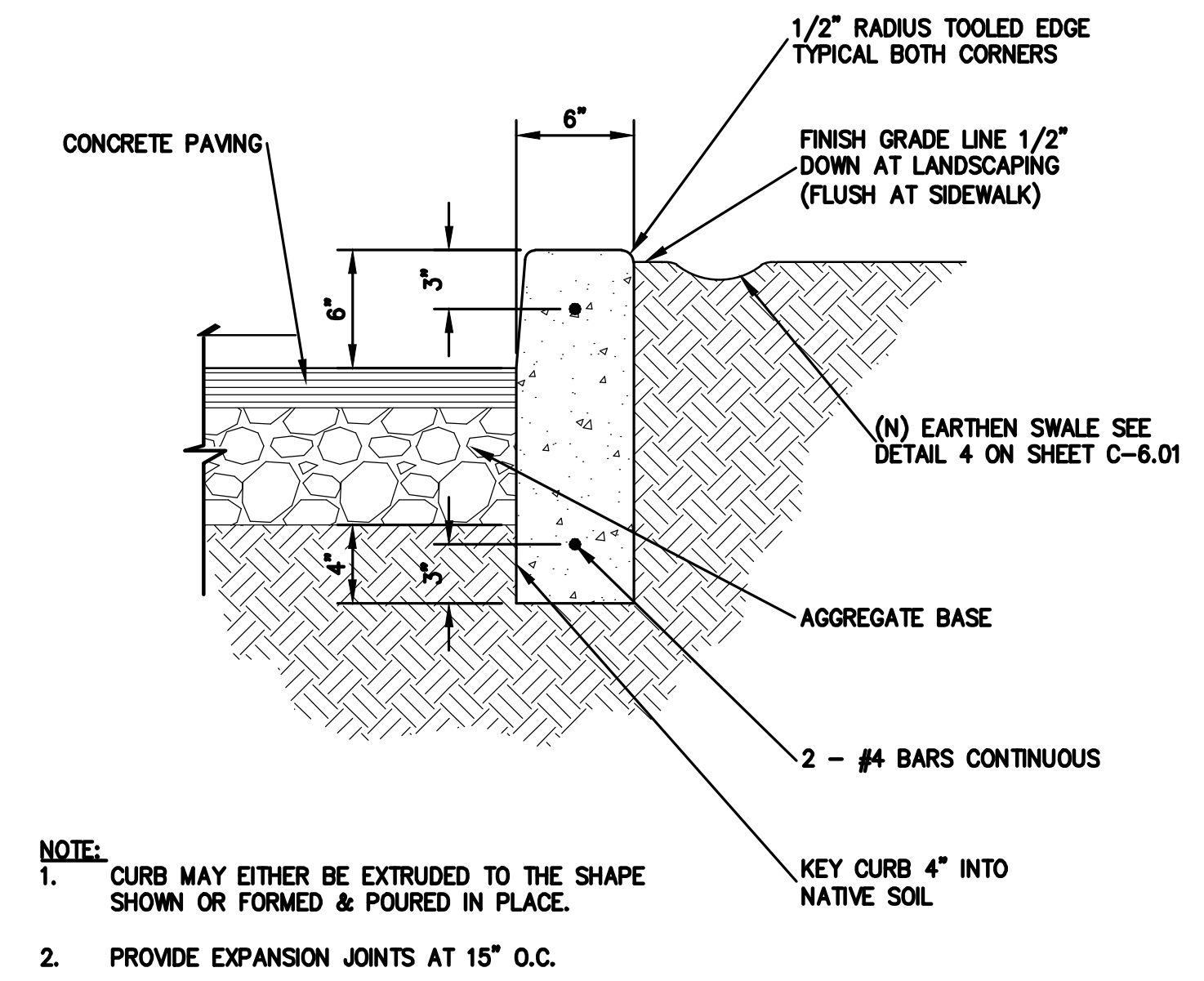
1 CONCRETE PAVING
C-6.00 NTS



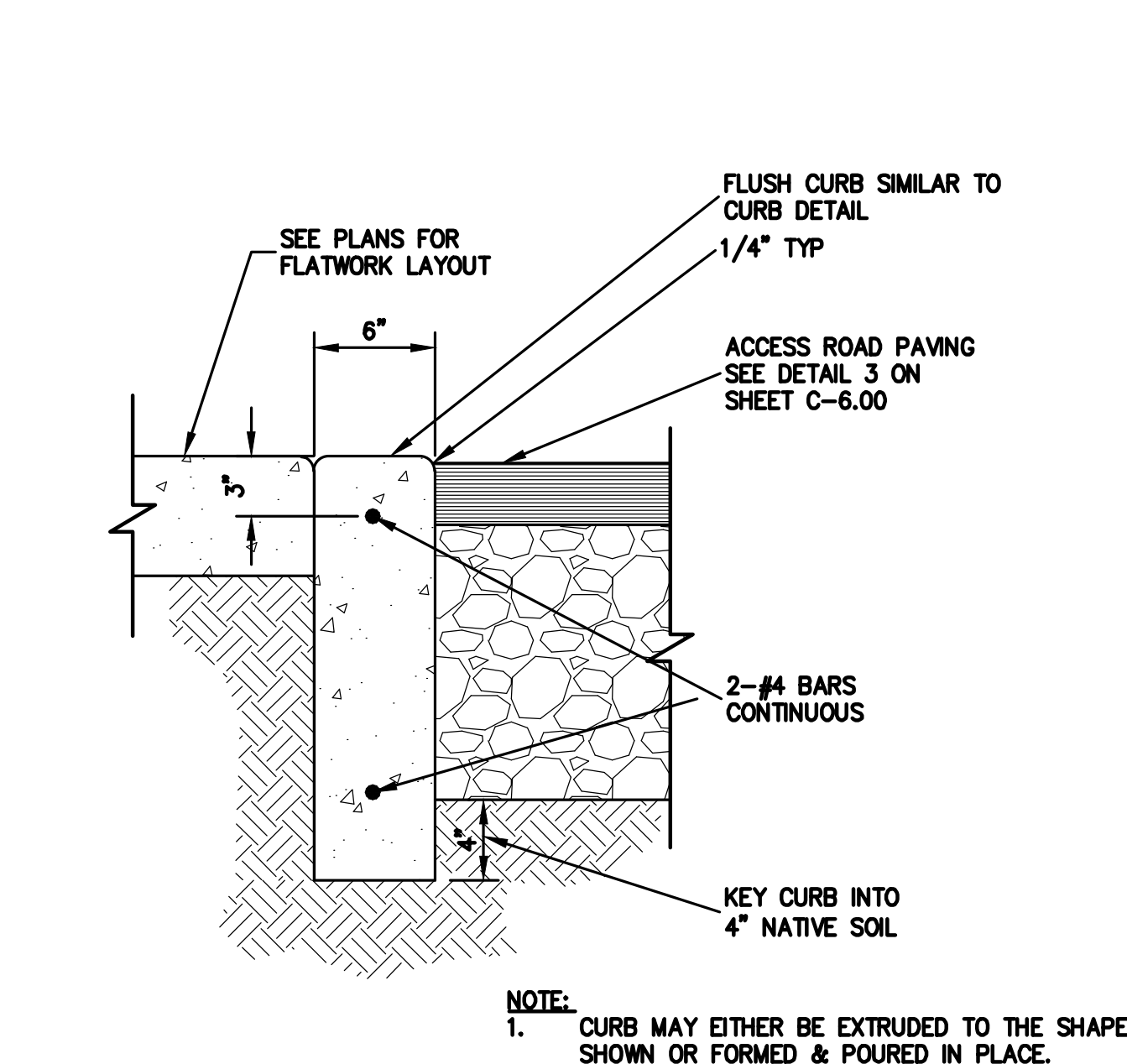
2 GRAVEL WALKWAY
C-6.00 NTS



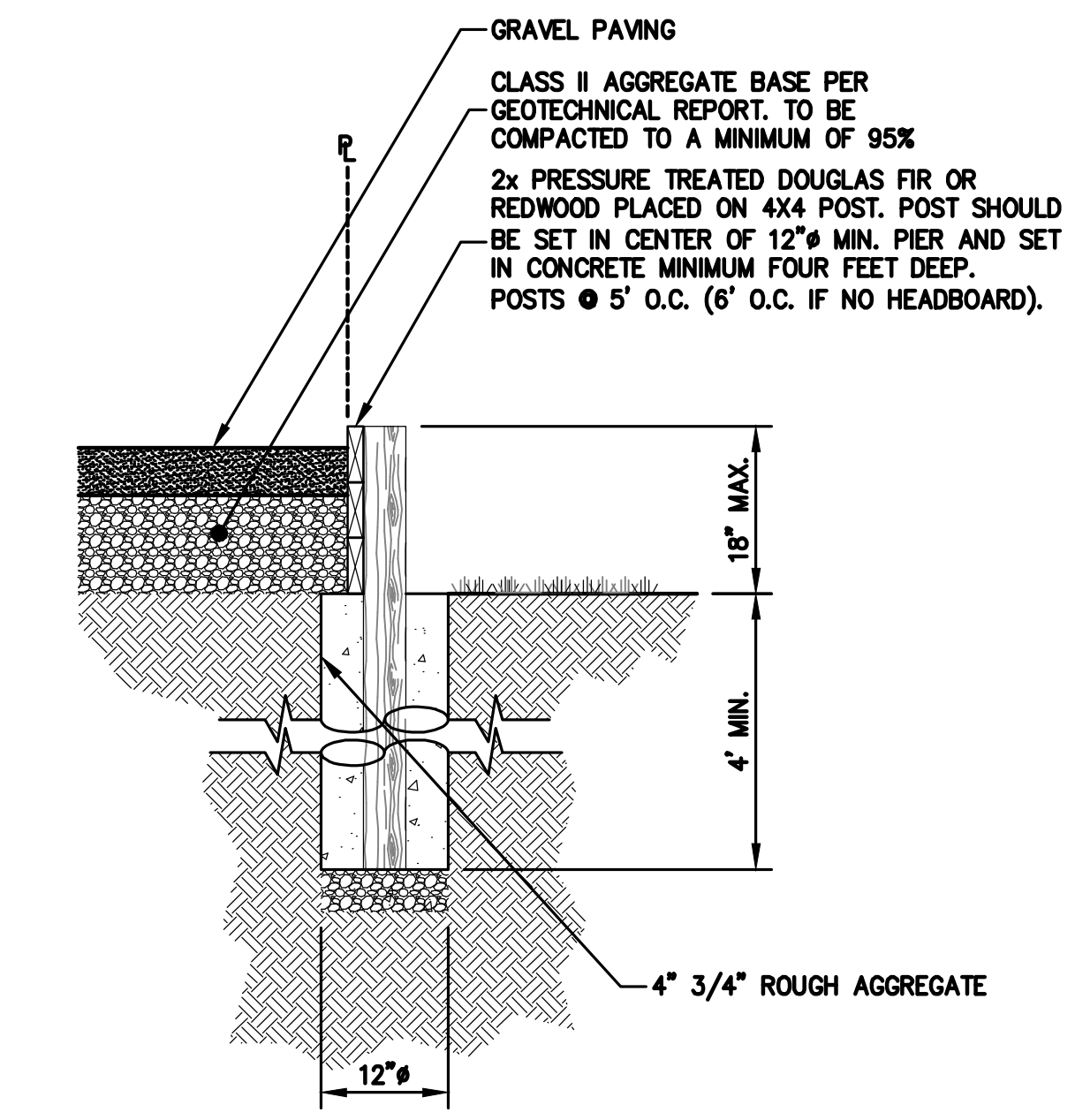
3 GRAVEL ACCESS ROAD
C-6.00 NTS



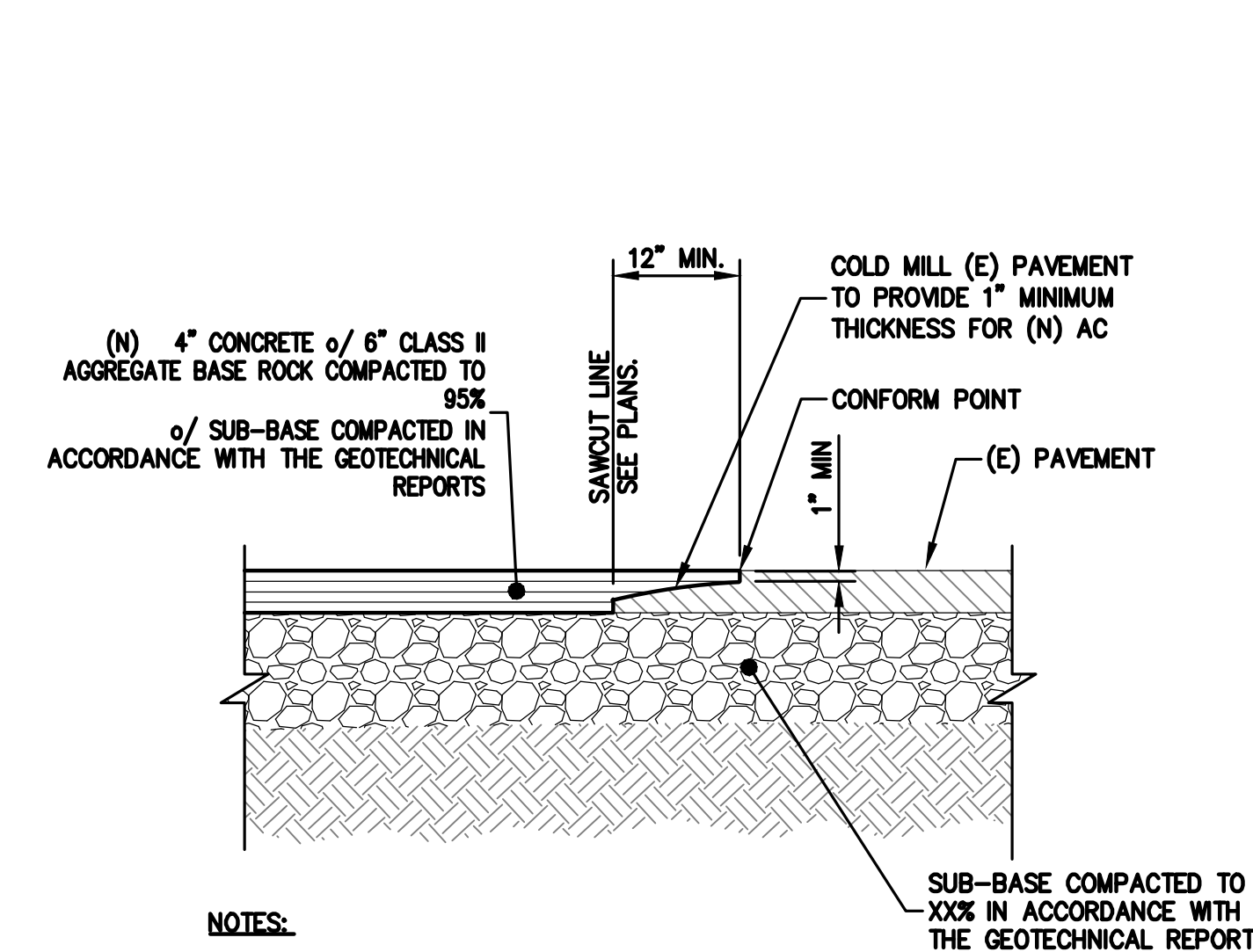
4 TYPICAL CURB
C-6.00 NTS



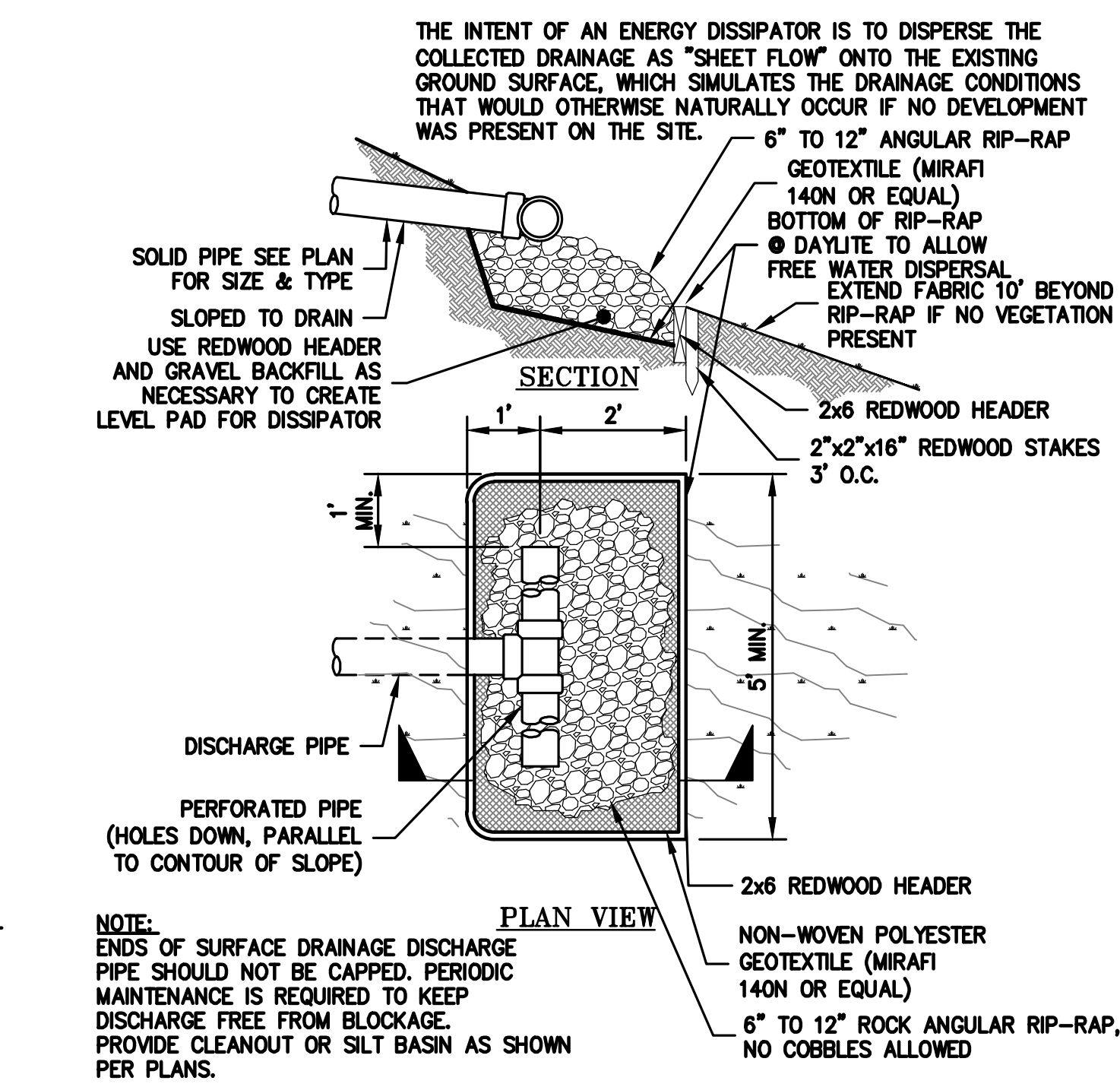
5 FLUSH CURB
C-6.00 NTS



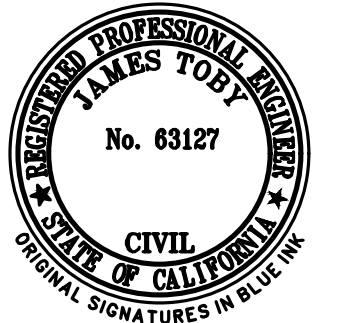
6 REDWOOD HEADER
C-6.00 NTS



7 PAVEMENT TIE-IN
C-6.00 NTS



8 ENERGY DISSIPATOR DISCHARGE
C-6.00 NTS



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ASCENSION HEIGHTS SUBDIVISION
SAN MATEO, CALIFORNIA
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DETAILS

REVISIONS	BY
1	RM

JOB NO: 2161285
DATE: 5-2-18
SCALE: NTS
DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:



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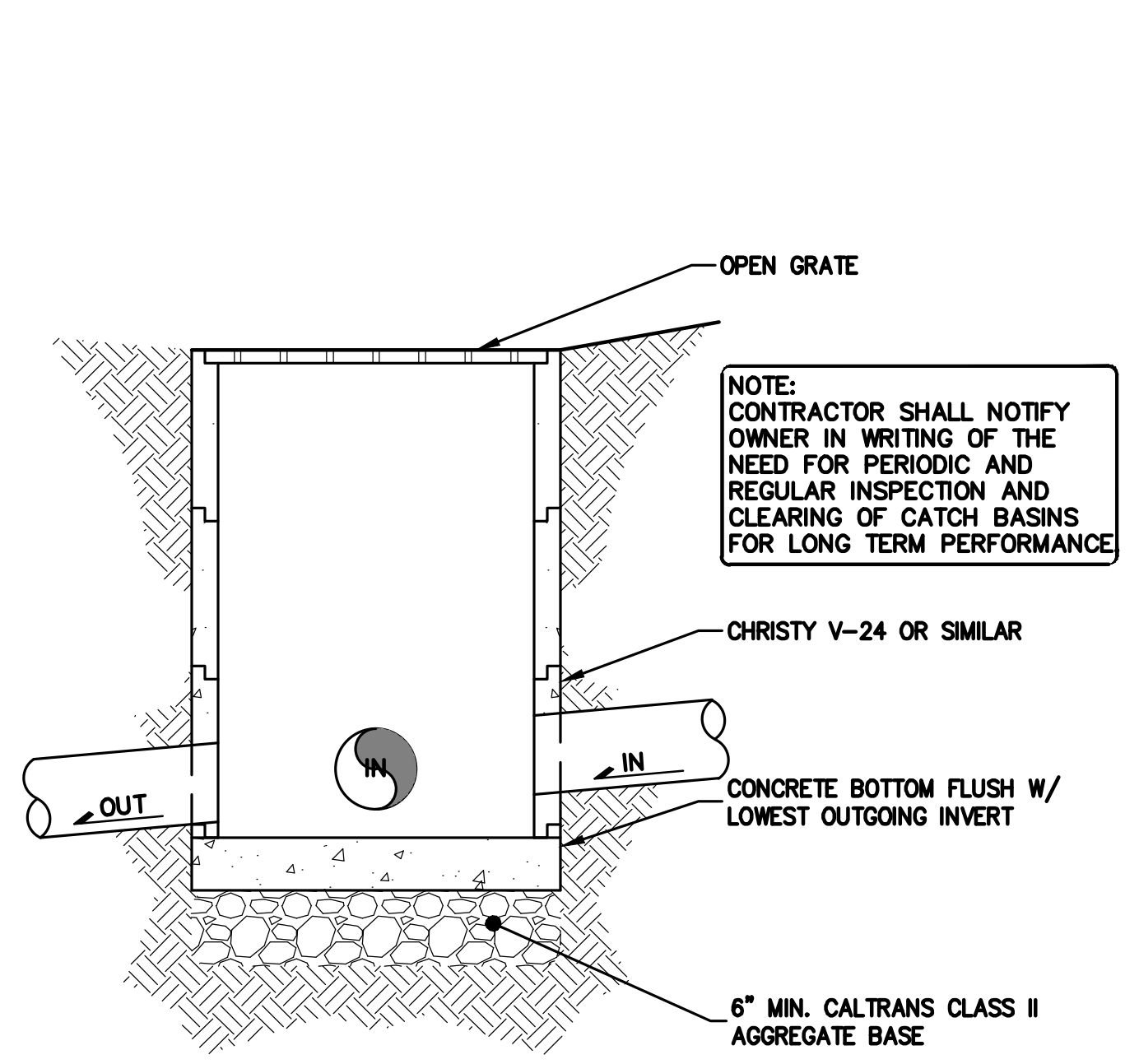
DETAILS

REVISIONS	BY
1	RM
1	RM

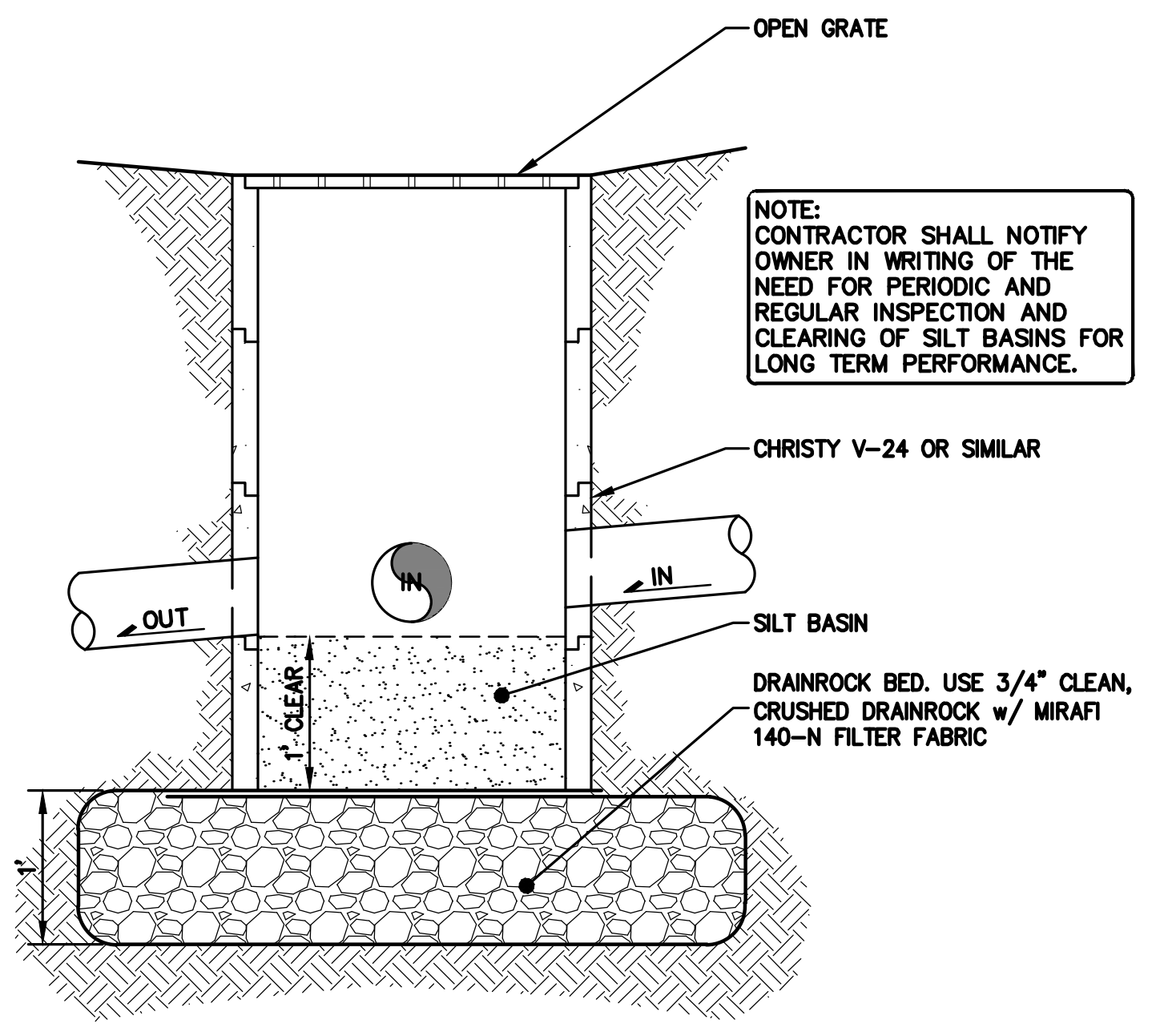
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 PLANCHECK REV. 11-13-18 RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: NTS
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:

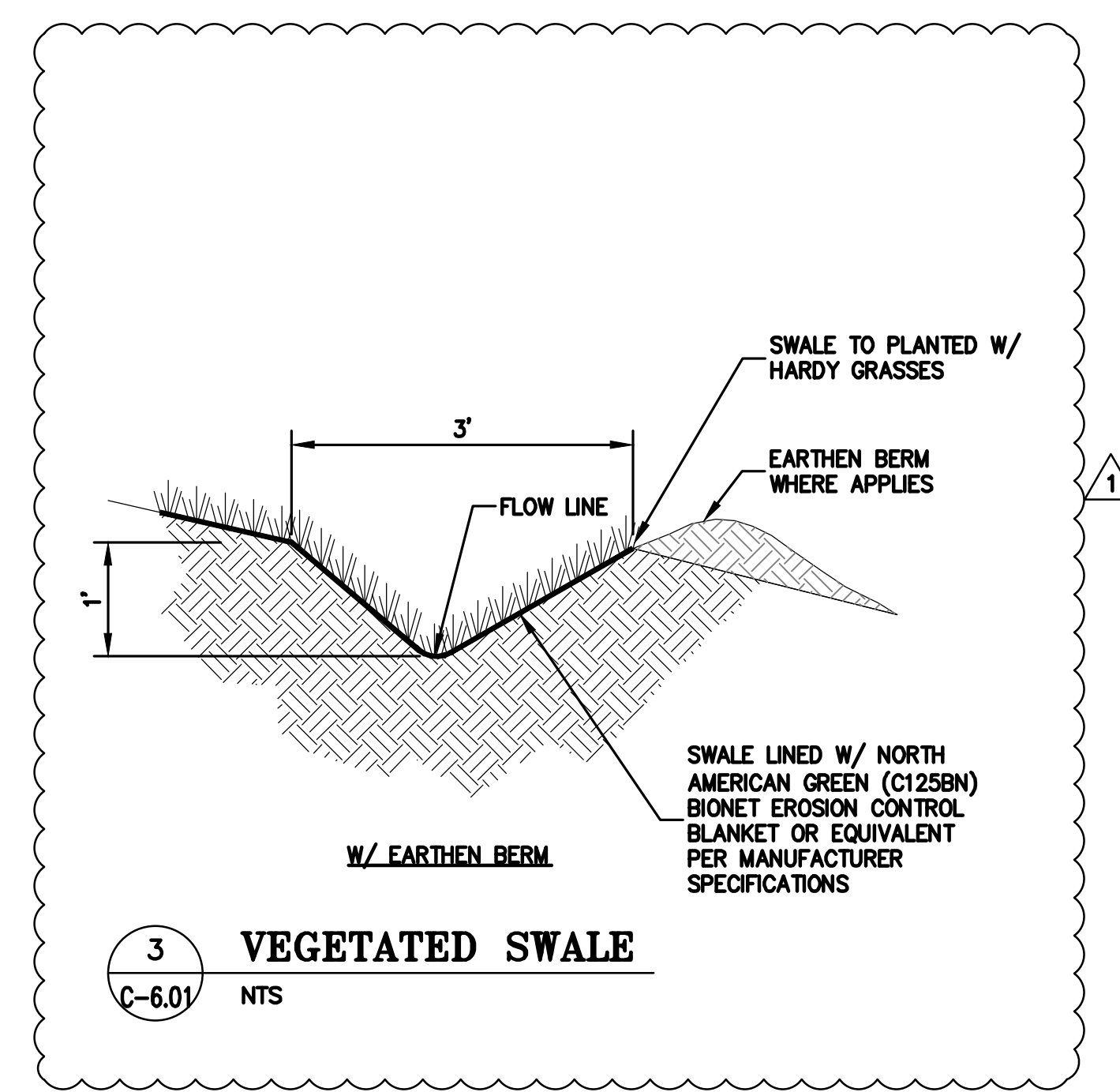
C-6.01
 38 OF 50 SHEETS



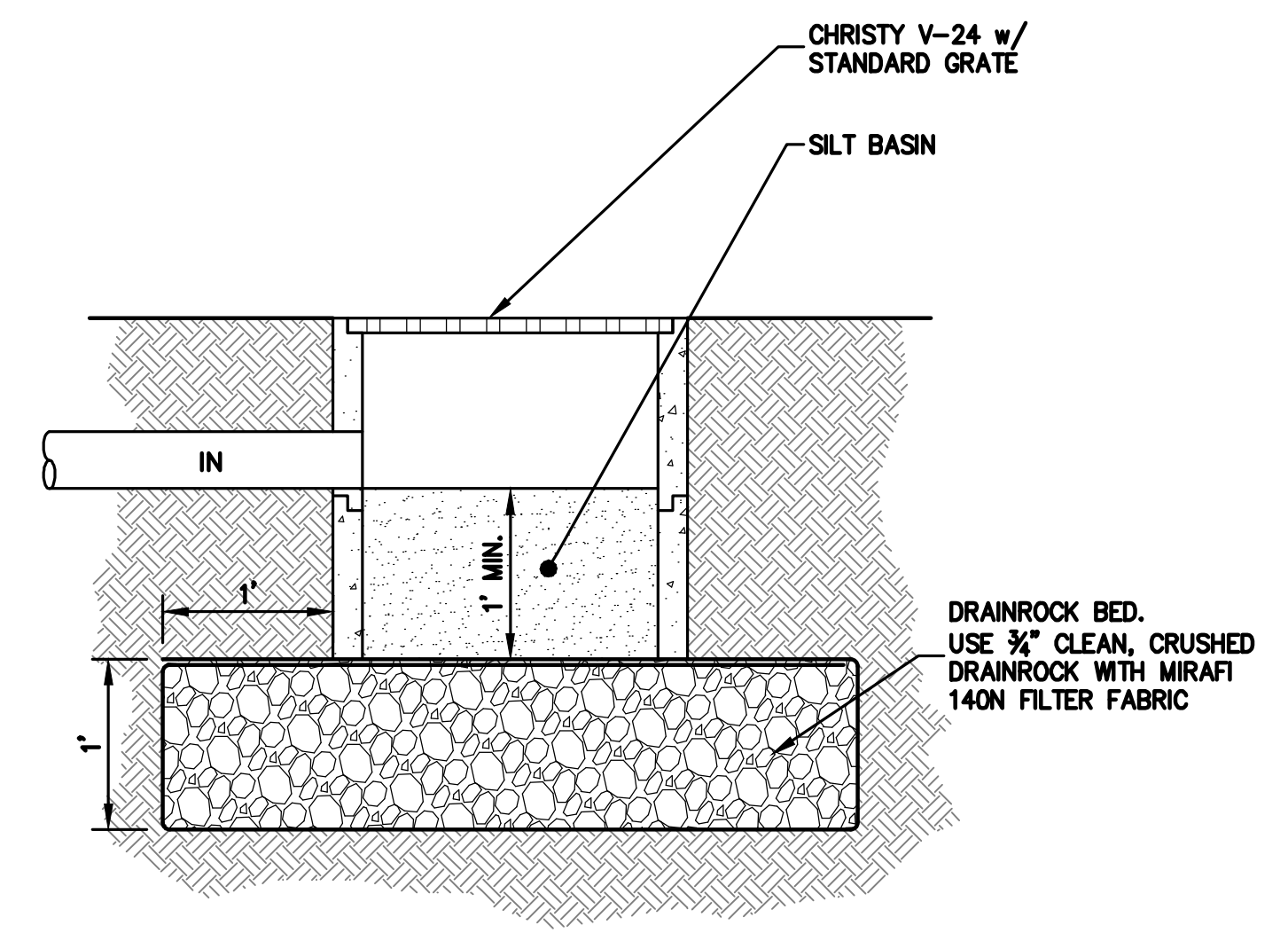
1 CATCH BASIN
 C-6.01 NTS



2 SILT BASIN
 C-6.01 NTS

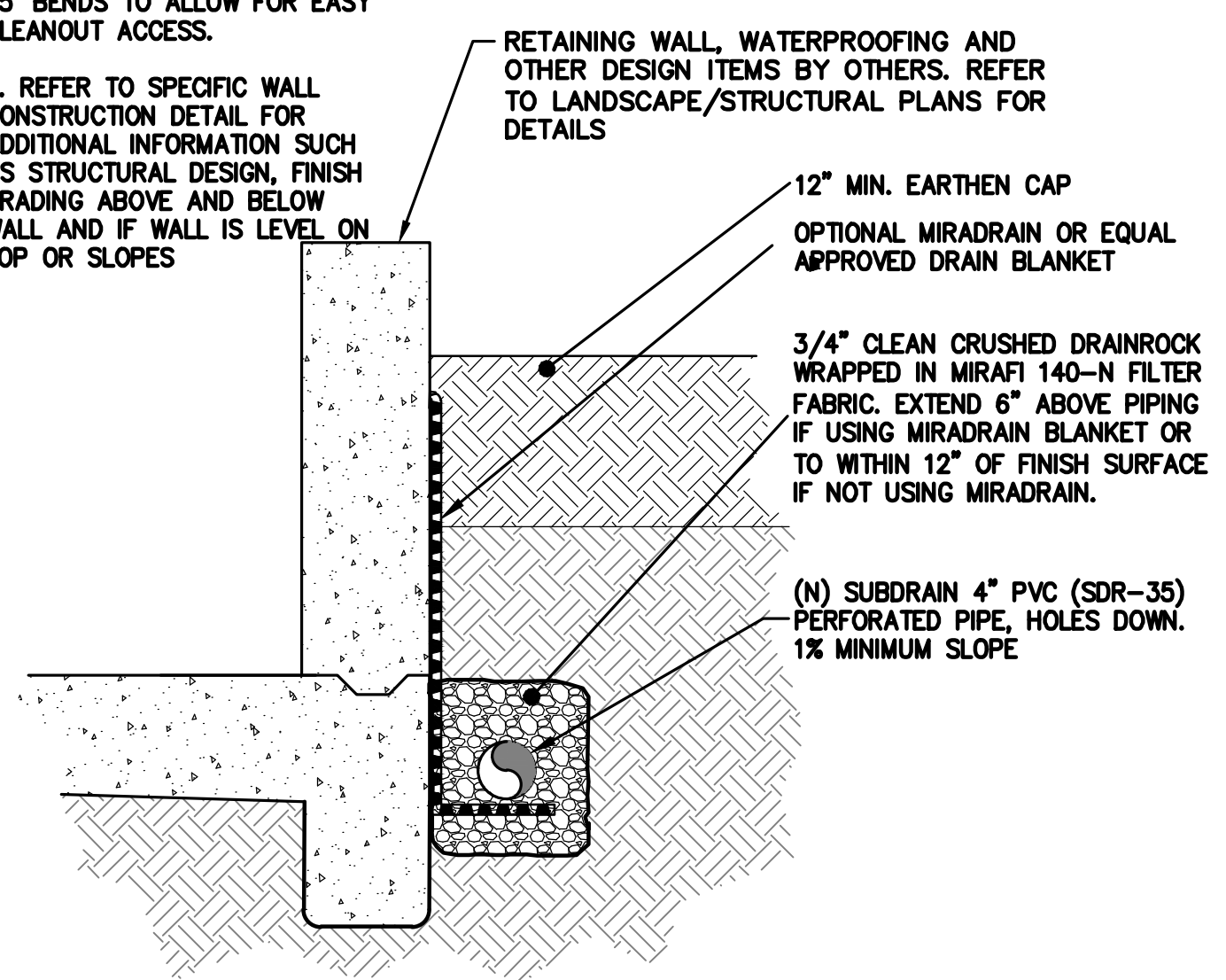


3 VEGETATED SWALE
 C-6.01 NTS

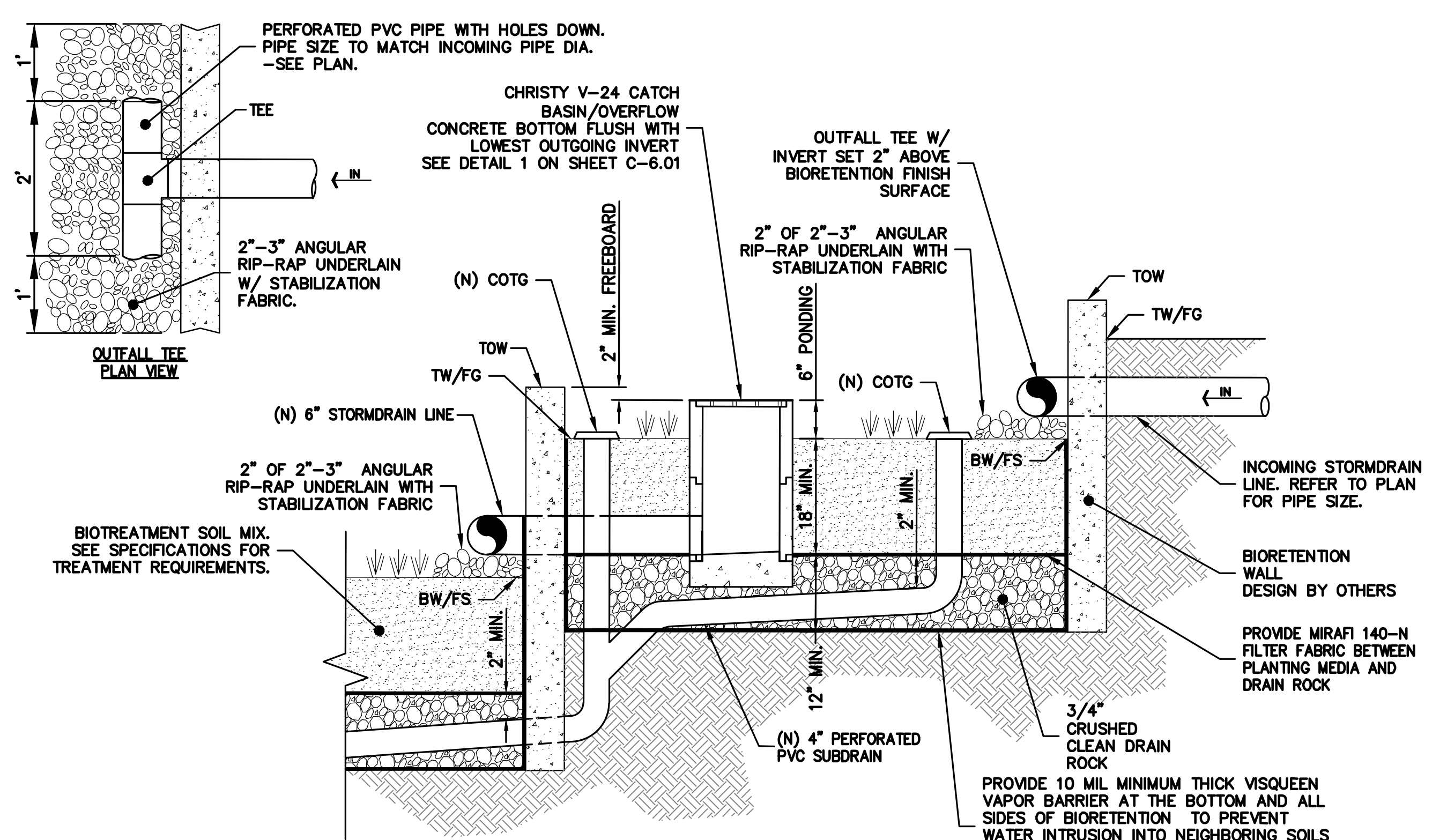


4 BUBBLER BOX
 C-6.01 NTS

NOTES:
 1. PROVIDE CLEANOUTS TO GRADE @ ALTERNATING BENDS OR EVERY 100 LF OF PIPE RUN. CONNECT TO SUBDRAIN VIA WYE CONNECTION. DO NOT USE 90° BENDS. USE 90° SWEEP OR TWO 45° BENDS TO ALLOW FOR EASY CLEANOUT ACCESS.
 2. REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION SUCH AS STRUCTURAL DESIGN. FINISH GRADING ABOVE AND BELOW WALL AND IF WALL IS LEVEL ON TOP OR SLOPES



5 SITE RETAINING WALL SUBDRAIN
 C-6.01 NTS



6 BIORETENTION OVERFLOW TO BIORETENTION
 C-6.01 NTS



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**COUNTY STANDARD
 DETAILS**

PRELIM PLAN CHECK REV.	01-17-19	RM
1 PLAN CHECK REV.	11-13-18	RM
REVISIONS		BY
JOB NO:	2161285	
DATE:	5-2-18	
SCALE:	NTS	
DESIGN BY:	RC	
DRAWN BY:	ATL	
SHEET NO:		

SAN MATEO COUNTY DEPARTMENT
OF
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REDWOOD CITY
CALIFORNIA

DRAWN BY: A.G.M. SCALE: NONE
 CHECK BY: R.L.F. DATE: 6/95
 APPROVED BY: N.R.C. REVISED: 4/97

TABLE B

Curb Type	Normal Curb Height	Curb Batter	b
A1-6	6"	1 1/2"	12 1/2"
A1-8	8"	2"	12
B	6"	4"	10
Dike	6"	3"	

SECTION G-G **PLAN**

**INLET
TYPE GO**

	H=3'-0" to 8'-0" (T=6")		H=8'-1" to 20'-0" (T=8")	
	H=3'-0"	ADDITIONAL P.C.C. PER FT. (C.Y.)	H=8'-1"	ADDITIONAL P.C.C. PER FT. (C.Y.)
GO	1.24	0.245	3.39	0.346

TABLE BASED ON 8" FLOOR SLAB, NO DEDUCTION FOR PIPE OPENINGS, AND CURB TYPE GIVING HIGHEST QUANTITY OF CONCRETE. NO DEDUCTIONS OR ADJUSTMENTS ARE TO BE MADE TO THESE QUANTITIES BECAUSE OF PIPE OPENINGS, DIFFERENT FLOOR ALTERNATIVES OR DIFFERENT CURB TYPE.

B-1

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DRAWN BY: A.G.M. SCALE: NONE
 CHECK BY: R.L.F. DATE: 6/95
 APPROVED BY: N.R.C. REVISED: _____

TYPE GO INLET ON SAG

TYPE GO INLET ON GRADE

INLET	ON GRADE	IN SAG
GO	0.3843	0.3880

APRON DETAILS
NO SCALE

B-1 (A)

SAN MATEO COUNTY DEPARTMENT
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REDWOOD CITY
CALIFORNIA

DRAWN BY: N.M.A. SCALE: NONE
 CHECK BY: R.L.F. DATE: 6/95
 APPROVED BY: N.R.C. REVISED: _____

GENERAL NOTES:

- "H" IS THE DIFFERENCE IN ELEVATION BETWEEN THE OUTLET PIPE FLOW LINE AND THE NORMAL GUTTER GRADE LINE UNDEPRESSED AT THE CURB FACE.
- FOR "T" WALL THICKNESS SEE TABLE.
- HEIGHT OF CURB OPENING WILL VARY WITH THE TYPE OF CURB AND THE DEPTH OF THE LOCAL DEPRESSION.
- WALL REINFORCING NOT REQUIRED WHEN H = 8' OR LESS AND THE UNSUPPORTED WIDTH OR LENGTH = 7' OR LESS. WALLS EXCEEDING THESE LIMITS SHALL BE REINFORCED WITH #4 BARS @ 18" +/- CENTERS PLACED 1-1/2" CLEAR TO INSIDE OF BOX UNLESS OTHERWISE SHOWN.
- STEPS - NONE REQUIRED WHERE "H" IS LESS THAN 30 INCHES. WHERE "H" IS 30 INCHES OR MORE, INSTALL STEPS WITH LOWEST RUNG 12 INCHES ABOVE THE FLOOR, AND HIGHEST RUNG NOT MORE THAN 6 INCHES BELOW TOP OF INLET. THE DISTANCE BETWEEN STEPS SHALL NOT EXCEED 12 INCHES AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF WALL. PLACE STEPS IN THE WALL WITHOUT AN OPENING. STEP INSERTS MAY BE SUBSTITUTED FOR THE BAR STEPS. STEP INSERTS SHALL COMPLY WITH STATE INDUSTRIAL SAFETY REQUIREMENTS.
- WHEN SHOWN ON THE PROJECT PLANS, PLACE A #6 PROTECTION BAR HORIZONTALLY ACROSS THE ENTIRE LENGTH OF THE OPENING AND BEND BACK 4" INTO THE INLET WALL ON EACH SIDE.
- CURB SUPPORTS SHALL BE EVENLY SPACED AND MINIMAL IN NUMBER SUCH THAT MAXIMUM SPAN OF UNSUPPORTED CURB IS 7'.
- EXCEPT FOR INLETS USED AS JUNCTION BOXES, BASIN FLOOR SHALL HAVE A MINIMUM SLOPE OF 12:3 FROM ALL DIRECTIONS TOWARD OUTLET PIPE AND SHALL HAVE A WOOD TROWEL FINISH.
- GALVANIZING: SEE STANDARD SPECIFICATION OR SPECIAL PROVISIONS.
- SEE STANDARD PLAN D78 FOR DEPRESSION DETAILS.
- FULL PENETRATION BUTT WELDS MAY BE SUBSTITUTED FOR THE FILLET WELDS ON ALL ANCHORS.
- STANDARD SQUARE, HEXAGON, ROUND OR EQUIVALENT HEADED ANCHORS MAY BE SUBSTITUTED FOR THE RIGHT ANGLE HOOKS ON THE ANCHORS SHOWN ON THIS PLAN.
- CAST-IN-PLACE OR PRECAST ALTERNATIVE IS OPTIONAL WITH CONTRACTOR. SEE STANDARD SPECIFICATIONS.

STORM DRAINAGE INLETS

B-3

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DRAWN BY: B.M.A. SCALE: NONE
 CHECK BY: R.L.F. DATE: 6/95
 APPROVED BY: N.R.C. REVISED: 7/97

PIPE SIZE	W
15	22"
18	21"
21	20"
24	19"
27	18"

PLAN

SECTION A-A

SECTION B-B

STANDARD STORM DRAIN MANHOLE
NO SCALE

B-10

SAN MATEO COUNTY DEPARTMENT
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DRAWN BY: A.G.M. SCALE: NONE
 CHECK BY: R.L.F. DATE: 6/95
 APPROVED BY: N.R.C. REVISED: 7/97

O.D. = OUTSIDE DIAMETER

TYPE A (IN ROADWAY) **TYPE B (OUTSIDE ROADWAY)**

THERE SHALL BE A MINIMUM OF TWO AND ONE-HALF FEET (30 INCHES) OF COVER OVER ALL PIPES AND CONDUITS UNLESS OTHERWISE DIRECTED BY COUNTY ROAD INSPECTOR.

STRUCTURE BACKFILL MATERIAL...MATERIAL WITH SAND EQUIVALENT NOT LESS THAN 20 AND SIEVE GRADATION BY WEIGHT AS FOLLOWS:

SIEVE SIZE	% PASSING SIEVES
3"	100
NO.4	35-100
NO.30	20-100

BACKFILL MATERIAL...MATERIAL FROM EXCAVATION, FREE FROM STONES OR LUMPS EXCEEDING 3 INCHES IN GREATEST DIMENSION, VEGETABLE MATTER, OR OTHER UNSATISFACTORY MATERIAL.

*IN AREAS OF CEMENT TREATED BASES, THE REPLACEMENT MATERIAL SHALL CONSIST OF A MINIMUM OF 3" OF ASPHALT CONCRETE (TYPE B) OVER A MINIMUM OF 8" OF PORTLAND CEMENT CONCRETE (CLASS B).

FOR TRENCH BACKFILL REQUIREMENTS FOR SANITARY SEWER PIPE, SEE STANDARD DRAWINGS CG AND C7.

**STANDARD TRENCH BACKFILL
AND BEDDING DETAIL
STORM DRAIN PIPES**

B-15

SAN MATEO COUNTY DEPARTMENT
OF
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REDWOOD CITY
CALIFORNIA

DRAWN BY: D.P. SCALE: NONE
 CHECK BY: R.O. DATE: 6/95
 APPROVED BY: N.R.C. REVISED: 7/97

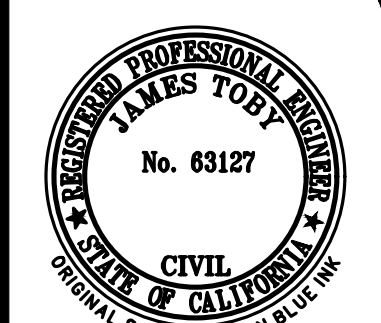
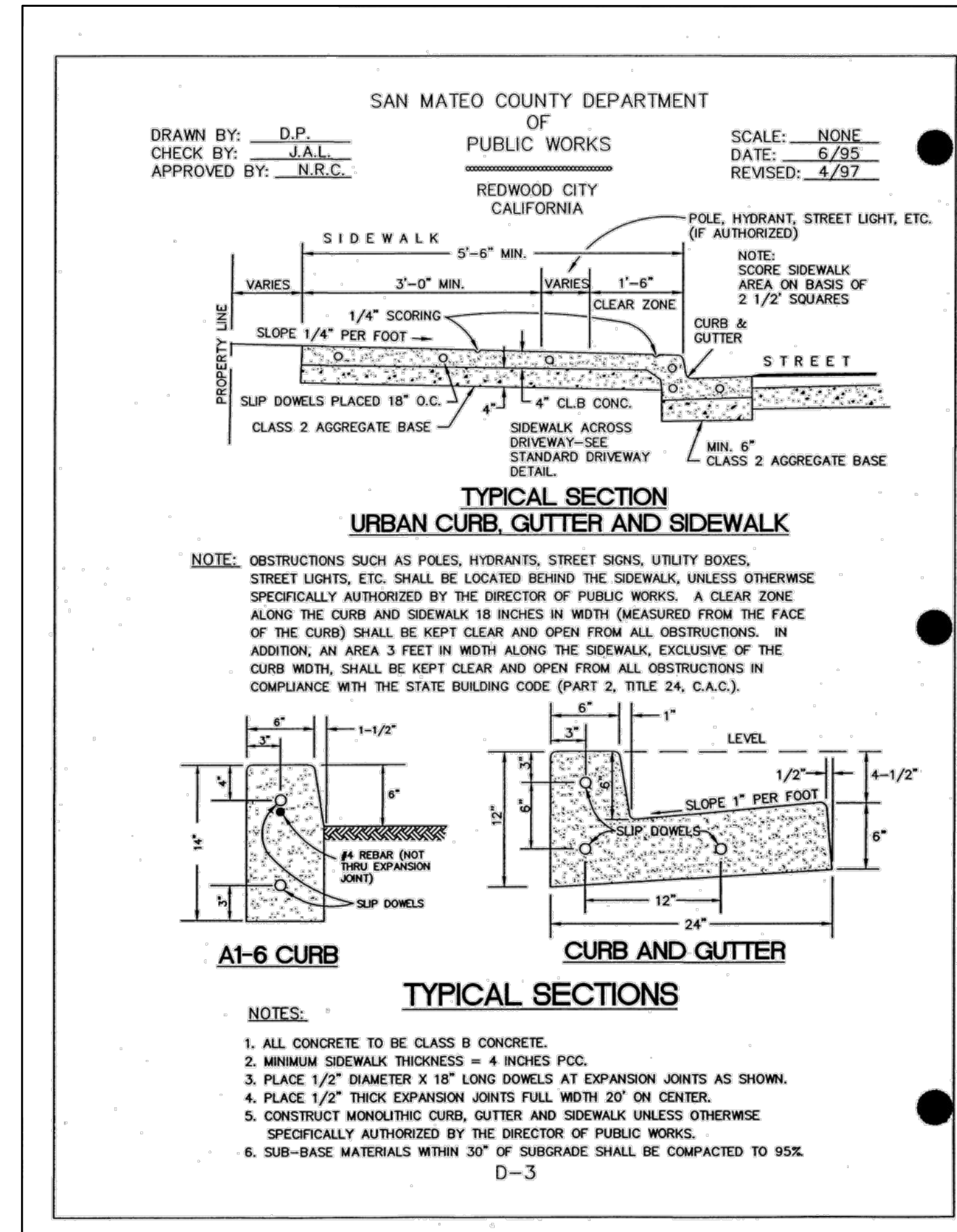
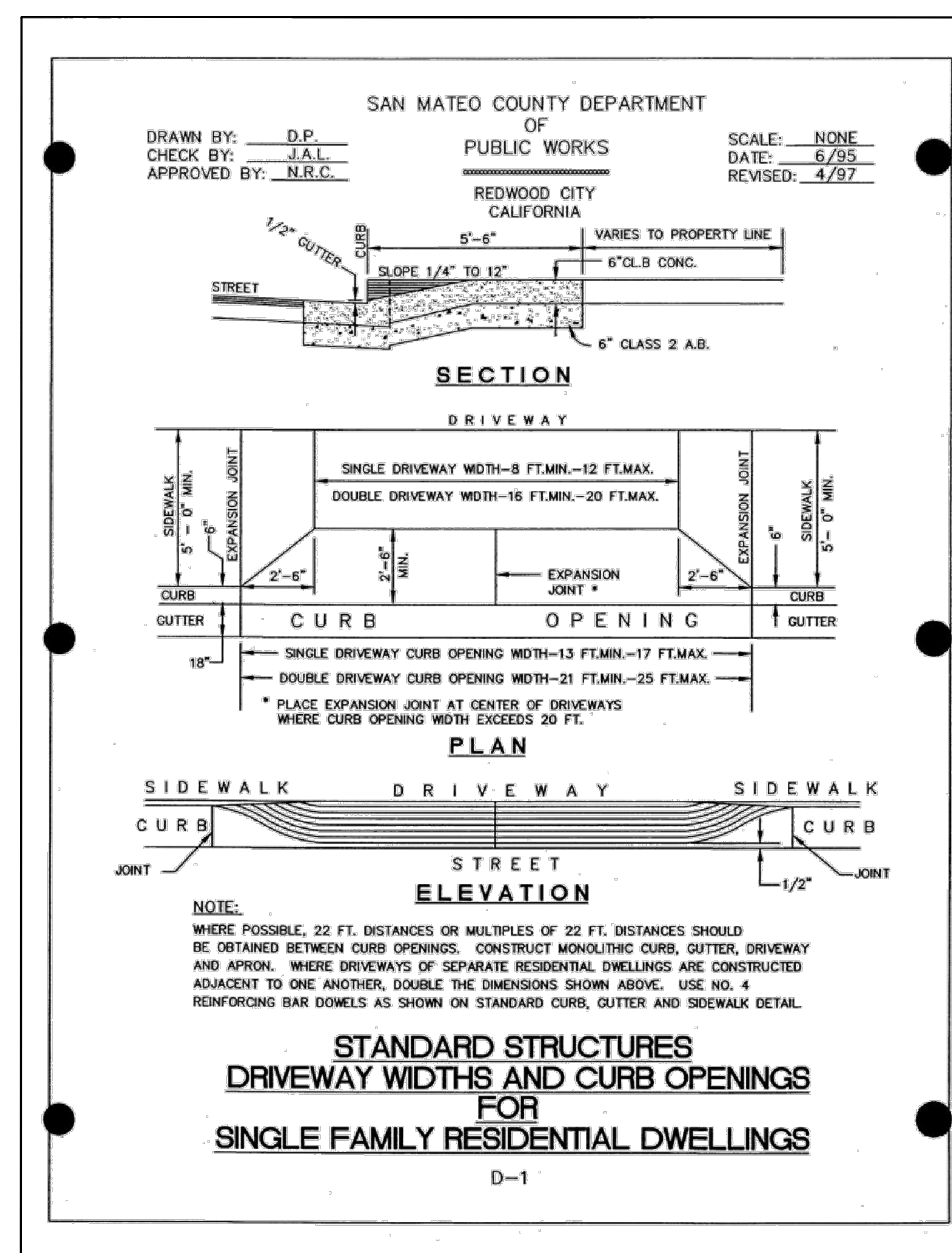
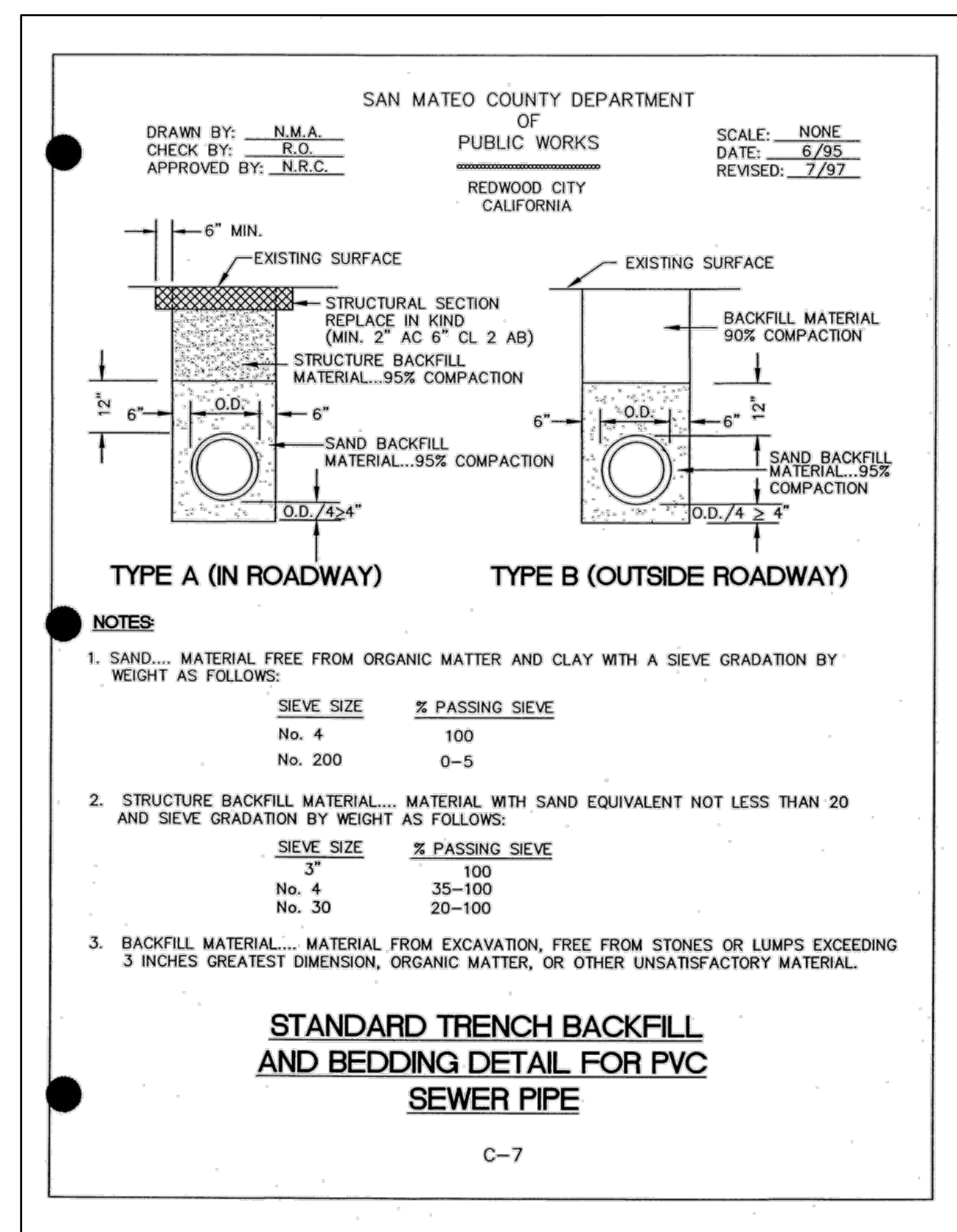
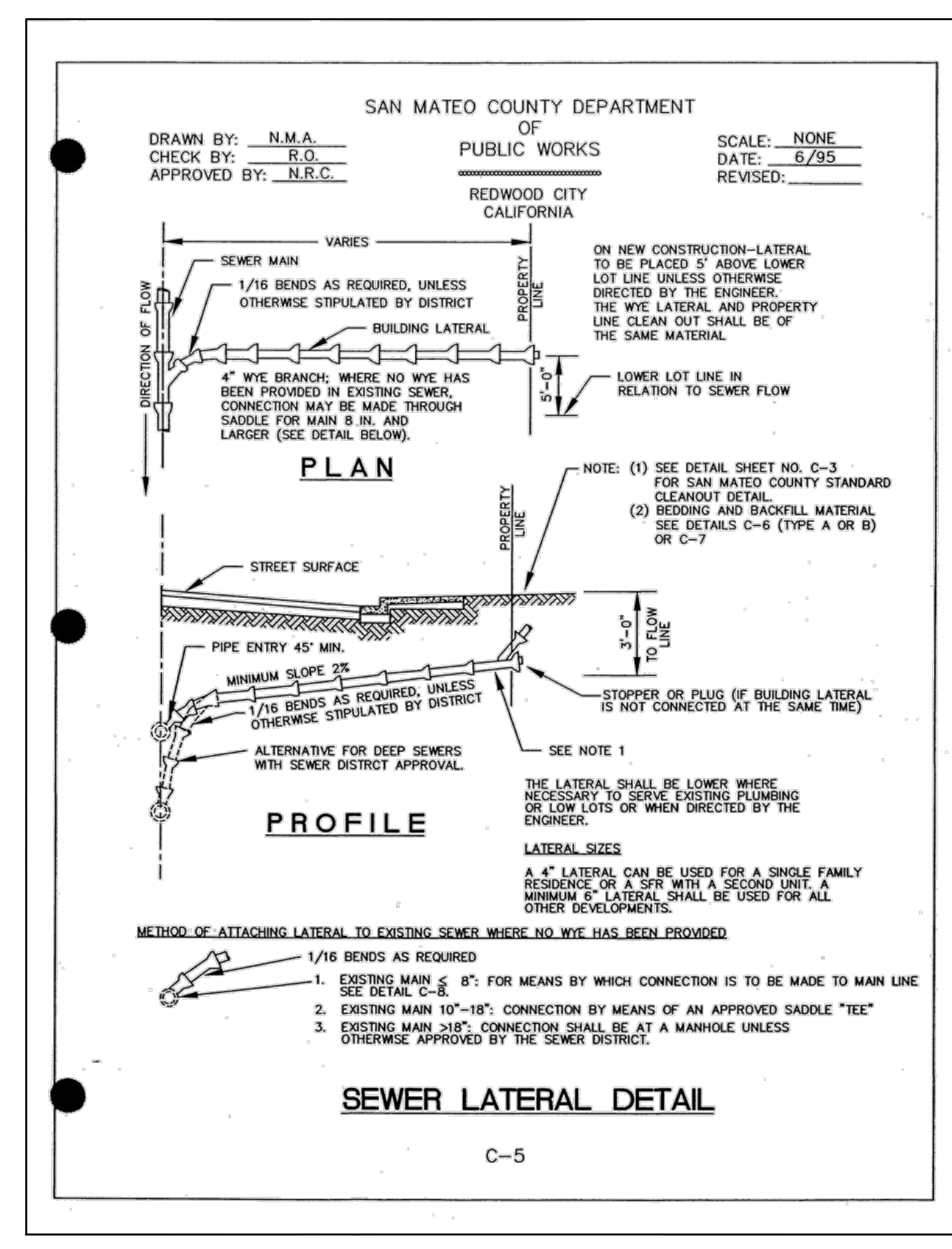
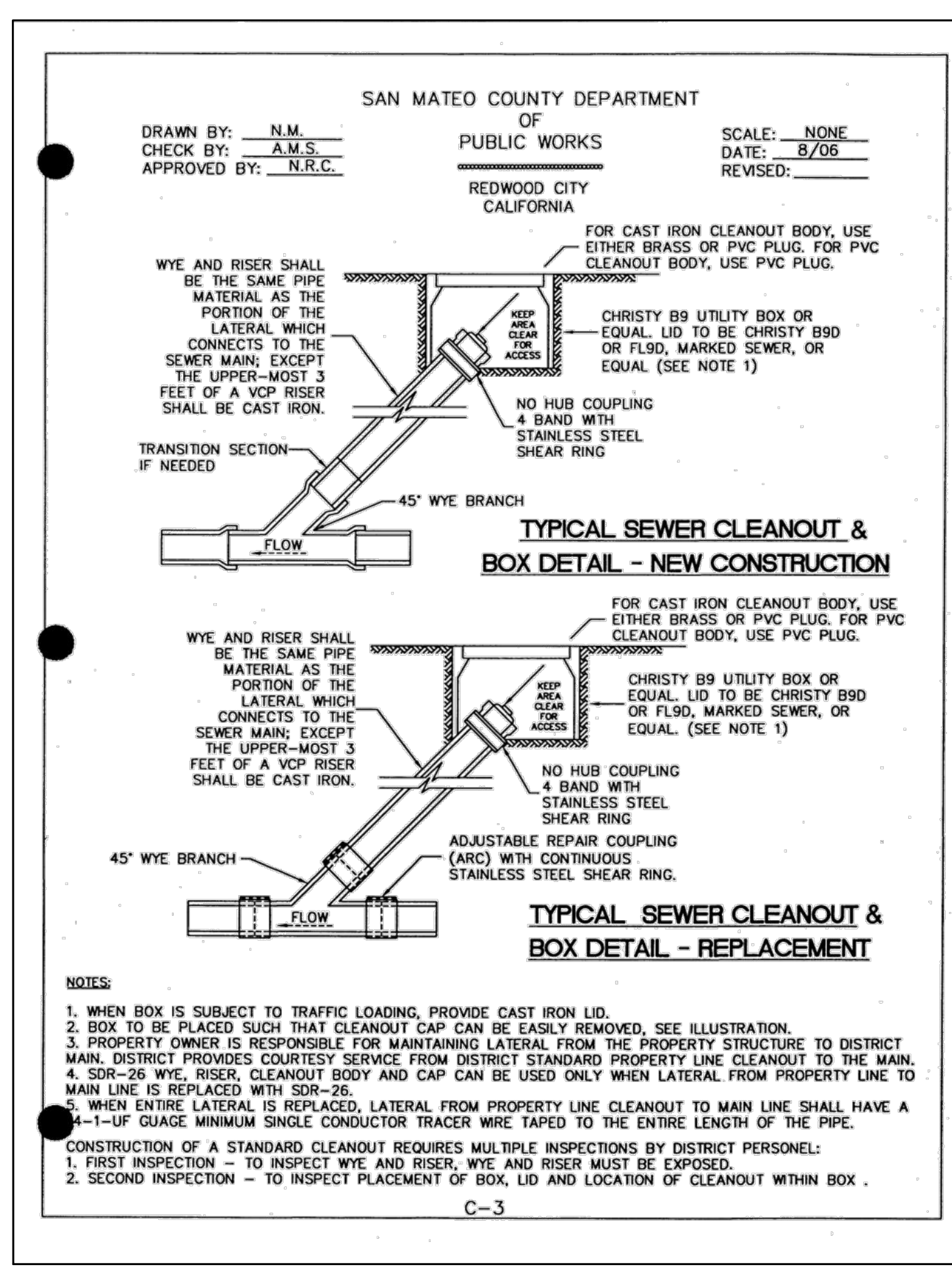
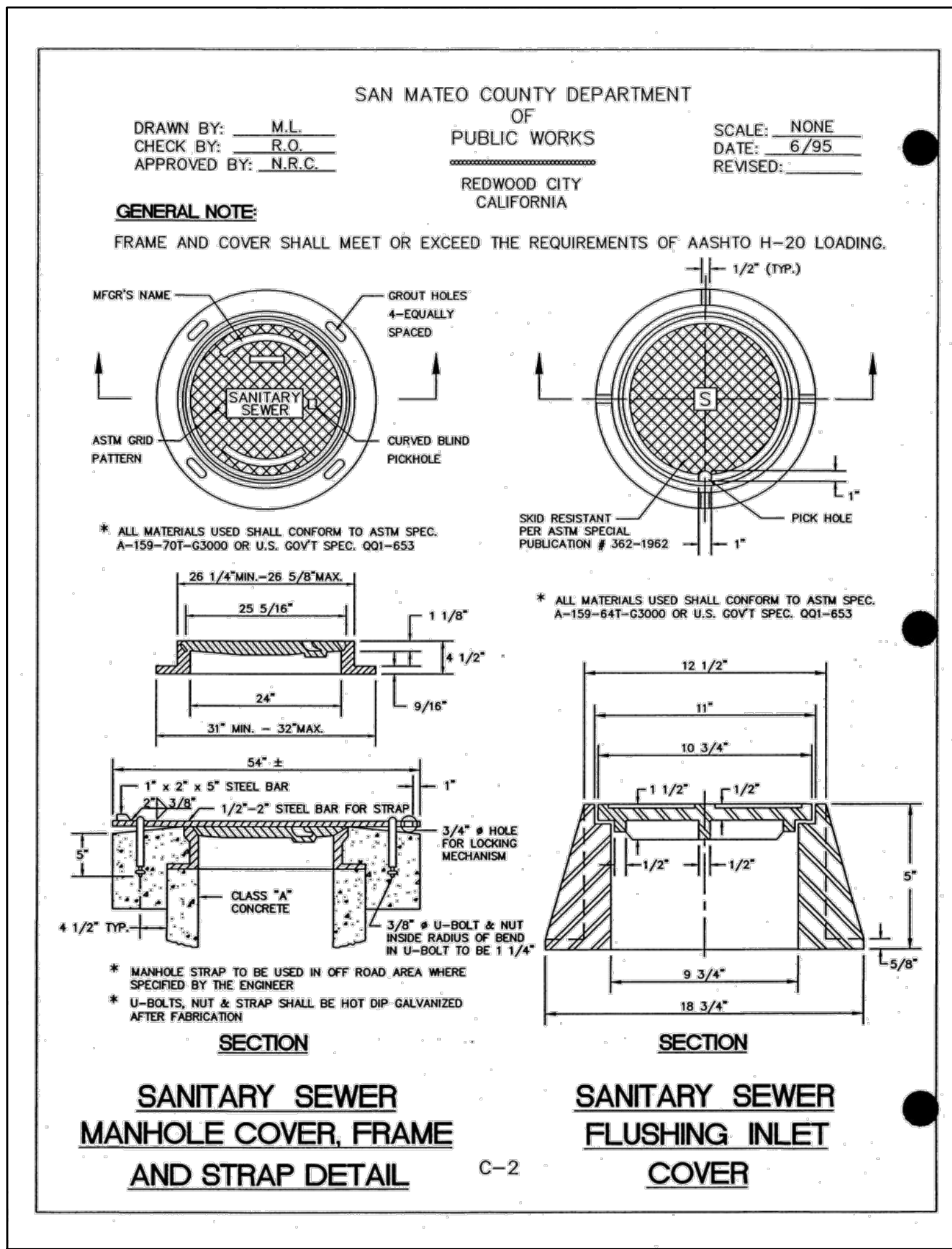
SECTION A-A

SANITARY SEWER MANHOLE DETAIL

C-1

NOTES:

- ALL STEEL TO BE 3" CLEAR.
- LAY PIPE THRU M.H. WHEN POSSIBLE.
- M.H. SHELF SHALL BE MORTARED TO A SLOPE OF 2"/FT.
- THERE SHALL BE NO STEPS IN THE MANHOLE.
- PREFORMED PLASTIC SEALING GASKET SHALL BE "RAM-NEK" OR APPROVED EQUAL.
- IN THE EVENT PVC OR ABS PIPES ARE APPROVED, STANDARD WATER STEPS SHALL BE INCORPORATED INTO THE MANHOLE BASE.
- OTHER APPLICABLE DETAIL: C-2
- MANHOLE THROAT LOCATION TO BE OPPOSITE THE LARGEST SHELF AREA OR AS DIRECTED BY THE ENGINEER.



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ASCENSION HEIGHTS
SUBDIVISION
SAN MATEO, CALIFORNIA
(UNINCORPORATED) SAN MATEO COUNTY

COUNTY STANDARD
DETAILS

REVISIONS	BY
PRELIM PLAN CHECK REV. 01-17-19	RM
1 PLAN CHECK REV. 11-13-18	RM

JOB NO: 2161285
DATE: 5-2-18
SCALE: NTS
DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:

BIORETENTION SOIL SPECIFICATIONS

- GENERAL REQUIREMENTS - BIORETENTION SOIL SHALL:
 - ACHIEVE A LONG-TERM, IN PLACE INFILTRATION RATE OF AT LEAST 5 INCHES PER HOUR.
 - SUPPORT VIGOROUS PLANT GROWTH.
 - CONSIST OF THE FOLLOWING MIXTURE OF FINE SAND AND COMPOST, MEASURED ON A VOLUME BASIS:
 - 60-70% SAND
 - 30-40% COMPOST
- BIOTREATMENT SOIL REQUIREMENTS: PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.
- REFER TO THE TECHNICAL GUIDANCE MANUAL ATTACHMENT FOR ADDITIONAL INFORMATION INCLUDING SAND AND COMPOST SPECIFICATIONS. SEE WWW.CLEANWATERPROGRAM.ORG AND CLICK ON BUSINESS/DEVELOPMENT.



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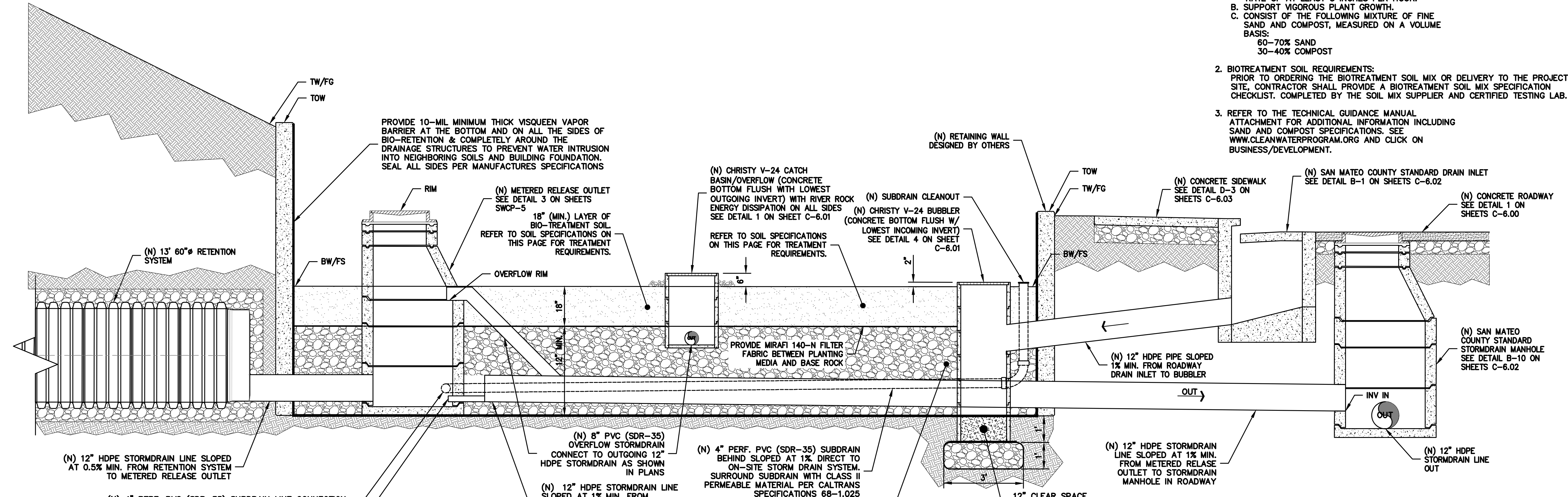
ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA
 (UNINCORPORATED) SAN MATEO COUNTY

BIORETENTION
 DETAILS

REVISIONS	BY
1	RM
2	RM

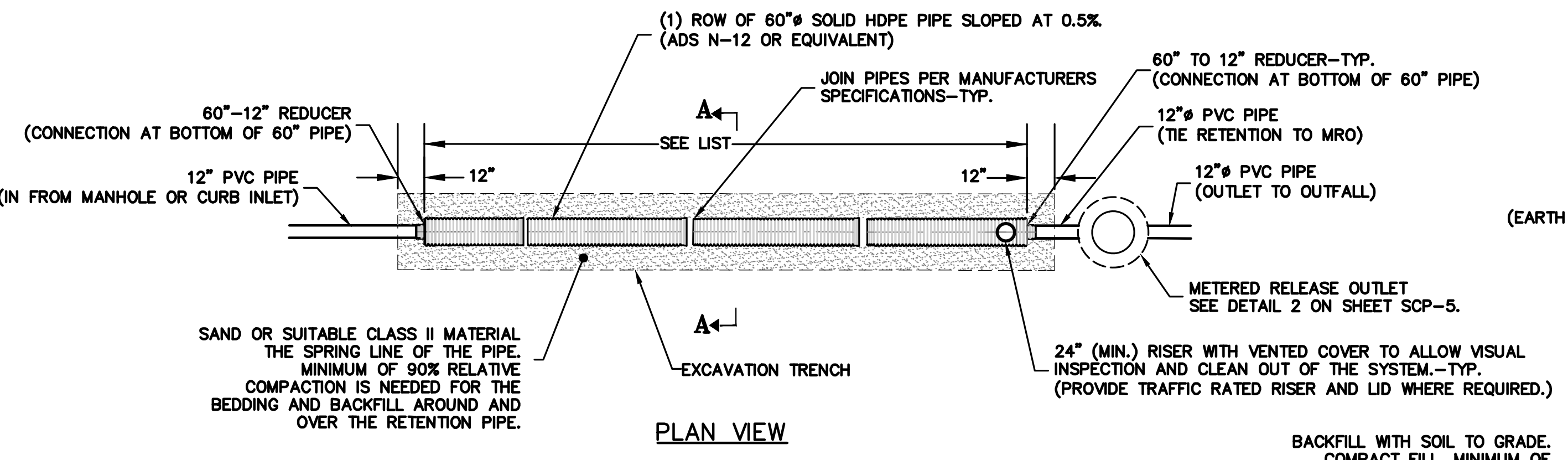
PRELIM PLAN CHECK REV. 01-17-19 RM
 PLAN CHECK REV. 11-13-18 RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: NTS
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:



**CONSTRUCTION DETAILS
 TREATMENT CONTROL MEASURE #4**

1
 C-6.04
 NTS



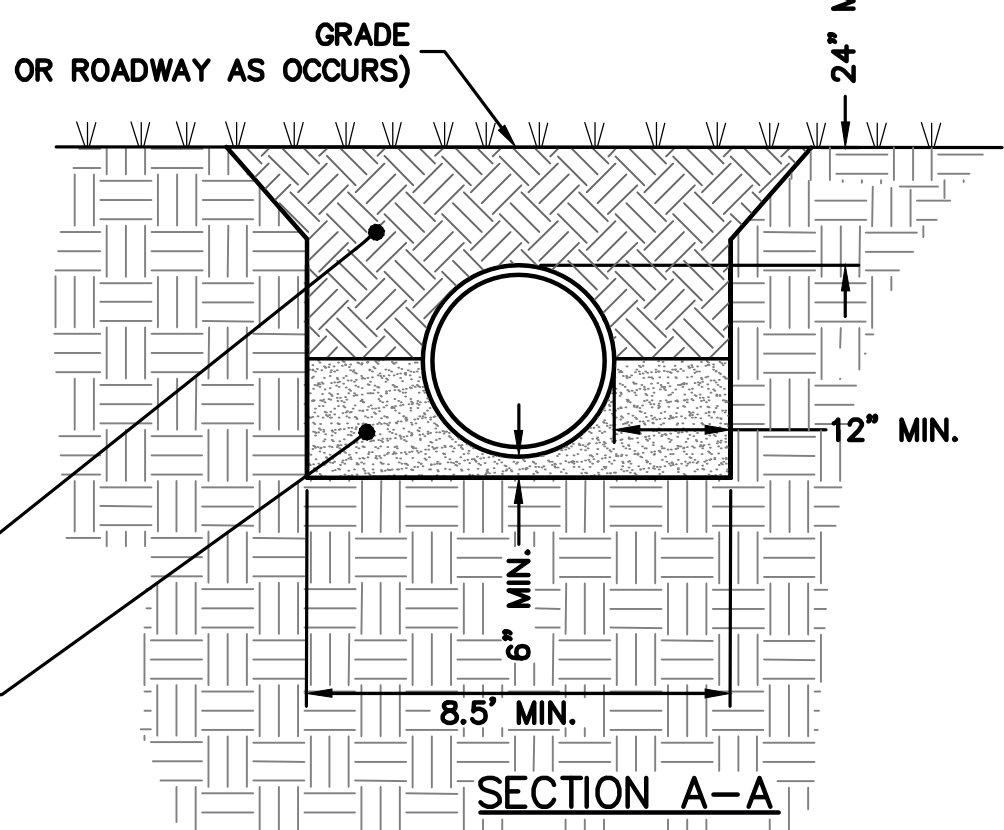
PLAN VIEW

STORAGE PIPE NOMINAL I.D.	NOMINAL O.D.	MIN. SIDE COVER
60" (1500 MM)	67" (1702 MM)	12" (292 MM)

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

- 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.

ALL EXCAVATION, SHORING AND BRACING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING THE CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS.



SECTION A-A

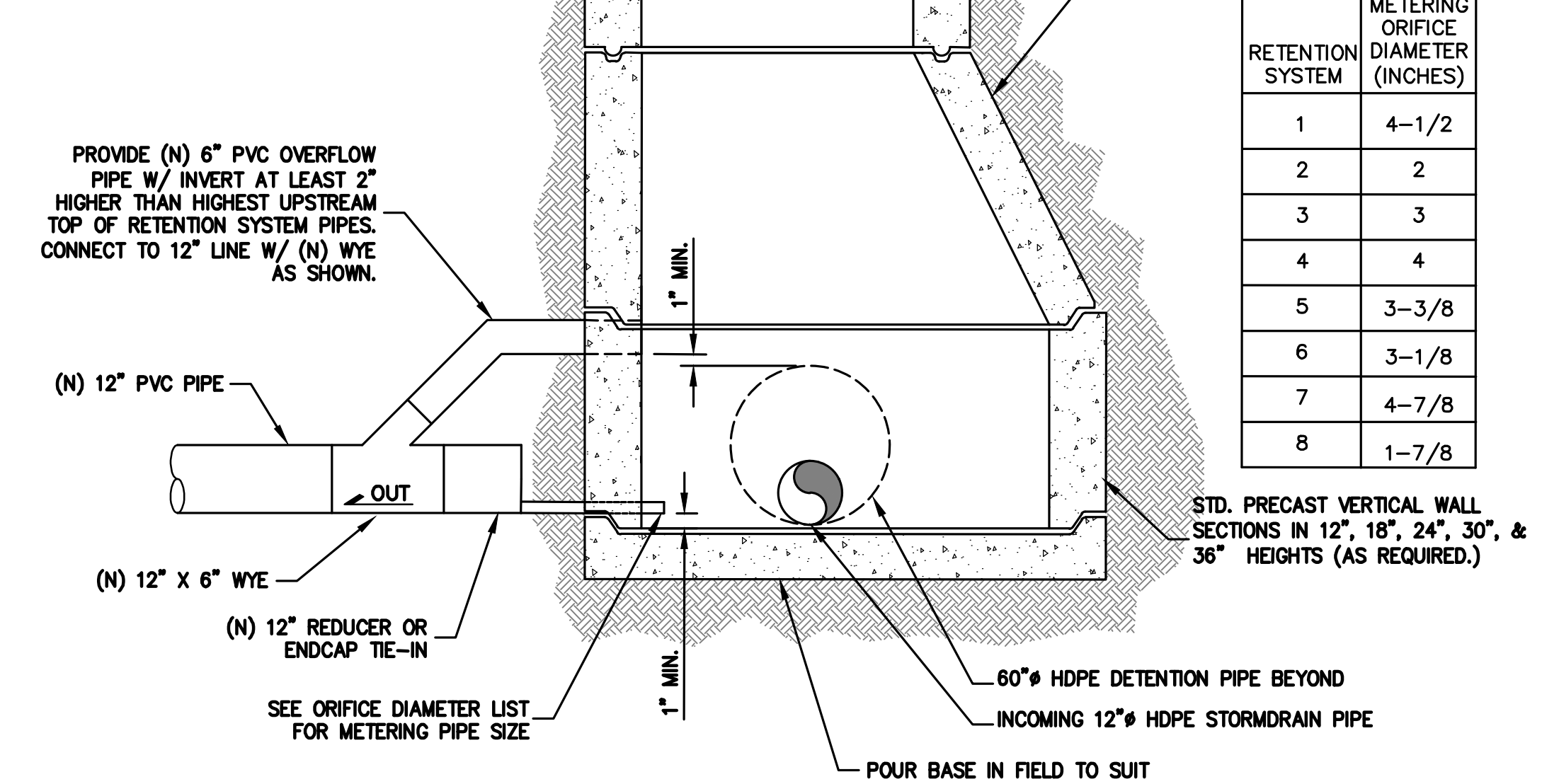
PIPE LENGTH

RETENTION SYSTEM	RETENTION PIPE LENGTH (FEET)
1	33.00
2	13.00
3	13.00
4	20.00
5	20.00
6	20.00
7	33.00
8	13.00

**TYPICAL RETENTION SYSTEM DETAILS
 SITE RETAINING WALL SUBDRAIN**

2
 C-6.04
 NTS

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



**3
 C-6.04
 NTS
 METERED RELEASE OUTLET (MRO)**

ORIFICE DIAMETER

RETENTION SYSTEM	METERING ORIFICE DIAMETER (INCHES)
1	4-1/2
2	2
3	3
4	4
5	3-3/8
6	3-1/8
7	4-7/8
8	1-7/8

DESCRIPTION OF FACILITY ACTIVITY:

CONSTRUCT A SINGLE FAMILY RESIDENTIAL DEVELOPMENT OF 19 LOTS, PARKING TO ACCOMMODATE THE UNITS, AND EXTEND UTILITIES TO SERVE THE DEVELOPMENT. FRONTAGE IMPROVEMENTS, ROUGH GRADING AND UTILITY STUBS WILL BE INSTALLED FOR THESE IMPROVEMENTS.

DESCRIPTION OF WATER BODIES:

THE PROJECT WILL TIE INTO THE EXISTING COUNTY STORM DRAIN SYSTEM.

IDENTIFICATION OF POTENTIAL POLLUTANTS:

POSSIBLE POLLUTANTS FOR THIS SITE INCLUDE TRASH, SEDIMENTS, NUTRIENTS, DUST, CONSTRUCTION DEBRIS, AUTOMOBILE DEBRIS, AND PESTICIDES. THE CONSTRUCTION OF THE PROJECT AND THE LONG TERM MAINTENANCE SHOULD NOT ADD ANY OF THE FOLLOWING: COPPER, NICKEL, DIAZINON, MERCURY, CHLORIDANE, DDT, DIELDRIN, AND PCB'S.

BMP DESCRIPTION:

THIS PROJECT USES FLOW-THROUGH BIO-TREATMENT PLANTERS EXCLUSIVELY AS THE TREATMENT CONTROL MEASURE (TCM.)

THE SITE IS DIVIDED INTO 4 DRAINAGE MANAGEMENT AREAS (DMA) THAT ARE DIRECTED TO 4 TREATMENT CONTROL MEASURES.

THE TOTAL SITE AREA IS APPROXIMATELY 600,169 SQUARE FEET. THE PROJECT AREA IS APPROXIMATELY 161,213 SQUARE FEET THAT WILL CONSIST OF 67,233 SQUARE FEET OF IMPERVIOUS SURFACE AND 93,980 SQUARE FEET OF PERVIOUS SURFACE THAT WILL BE CAPTURED AND DIRECTED TO THE TREATMENT CONTROL MEASURES.

POST CONSTRUCTION TCM MAINTENANCE AND/OR SOURCE CONTROL:

FUEL, OIL PETROLEUM PRODUCTS, PESTICIDES, AND OTHER STORM DRAINAGE POLLUTANT SPILLS NEED TO BE CONTAINED. OWNERS SHALL USE ABSORBENT MATERIAL ON SMALL SPILLS RATHER THAN HOSING SPILLS DOWN. REMOVE THE ABSORBENT MATERIAL PROMPTLY AND DISPOSE OF PROPERLY, AS REQUIRED BY CITY, STATE AND FEDERAL REGULATIONS.

DRAINAGE INLETS SHALL BE INSPECTED MONTHLY AND KEPT CLEAN OF ANY TRASH THAT MAY HAVE ACCUMULATED. IT IS THE RESPONSIBILITY OF THE PROPERTY MANAGER/OWNER TO HAVE THOSE INSPECTION PERFORMED, DOCUMENTED AND ANY REPAIRS MADE.

A. LANDSCAPE MAINTENANCE

LANDSCAPE AREAS SHALL BE COVERED WITH PLANTS OR SOME TYPE OF GROUND COVER TO MINIMIZE EROSION. NO AREAS ARE TO BE LEFT AS BARE DIRT THAT COULD ERODE. MOUNDING SLOPES SHALL NOT EXCEED 2 HORIZONTAL TO 1 VERTICAL.

PESTICIDES AND FERTILIZERS SHALL BE STORED AS HAZARDOUS MATERIALS AND IN APPROPRIATE PACKAGING. OVER SPRAYING ONTO PAVED AREAS SHALL BE AVOIDED WHEN APPLYING FERTILIZERS AND PESTICIDES. PESTICIDES AND FERTILIZERS WILL BE PROHIBITED FROM STORAGE OUTSIDE.

THE LANDSCAPE AREAS SHALL BE INSPECTED AND ALL TRASH PICKED UP AND OBSTRUCTIONS TO THE DRAINAGE FLOW REMOVED ON A MONTHLY BASIS MINIMUM. THIS SITE WILL BE DESIGNED WITH EFFICIENT IRRIGATION AND DRAINAGE TO REDUCE PESTICIDE USE. PLANTS HAVE BEEN SELECTED BASED ON SIZE AND ARE SITUATED TO REDUCE MAINTENANCE AND ROUTINE PRUNING.

THE INTEGRATED PEST MANAGEMENT INFORMATION ATTACHED WILL BE PROVIDED TO BUILDING MANAGEMENT.

B. DRAINAGE COLLECTION MANAGEMENT

THE STORM DRAINAGE SYSTEM CONSISTS OF AREA DRAINS, CATCH BASINS, VEGETATED SWALES, CURB INLETS, AND CLEANOUTS.

THE STORM DRAINAGE COLLECTION SYSTEM SHALL BE CLEANED YEARLY BY THE PROPERTY MANAGEMENT/OWNER. THE INSPECTION SHALL BE PERFORMED DURING THE DRY SEASON. THIS INCLUDES THE FOLLOWING;

*ALL TRASH AND OBSTRUCTIONS SHALL BE REMOVED FROM AREA DRAINS, CLEANOUTS, AND CATCH BASINS.

C. BIORETENTION AREAS

MAINTENANCE AGREEMENT
UPON ACCEPTANCE OF THE DESIGN CONCEPT, A MAINTENANCE AGREEMENT WILL BE DEVELOPED REQUIRING THE PROPERTY MANAGER/OWNER TO PROVIDE THE FOLLOWING INFORMATION ON A ROUTINE BASIS. THESE REQUIREMENTS APPLY ONLY TO THE PORTION OF THE BIORETENTION AREAS USED FOR STORMWATER TREATMENT.

MAINTENANCE STANDARDS:

*SOILS AND PLANTINGS MUST BE MAINTAINED, INCLUDING ROUTINE PRUNING, MOWING, IRRIGATION, REPLENISHMENT OF MULCH, WEEDING, AND FERTILIZING WITH A SLOW-RELEASE FERTILIZER WITH TRACE ELEMENTS.

*REMOVE OBSTRUCTIONS AND TRASH FROM BIORETENTION AREAS.

*ONLY PESTICIDES AND FERTILIZERS THAT ARE ACCEPTED WITHIN THE INTEGRATED PEST MANAGEMENT APPROACH FOR USE IN BIORETENTION AREAS SHALL BE USED.

*EROSION AT INFLOW POINTS MUST BE REPAIRED.

BIORETENTION AREAS SHALL BE INSPECTED AND MAINTAINED MONTHLY TO REVIEW:

***OBSTRUCTION AND TRASH**

*IF PONDED WATER IS OBSERVED, THE SURFACE SOILS SHALL BE REMOVED AND REPLACED AND SUBDRAIN SYSTEM INSPECTED.

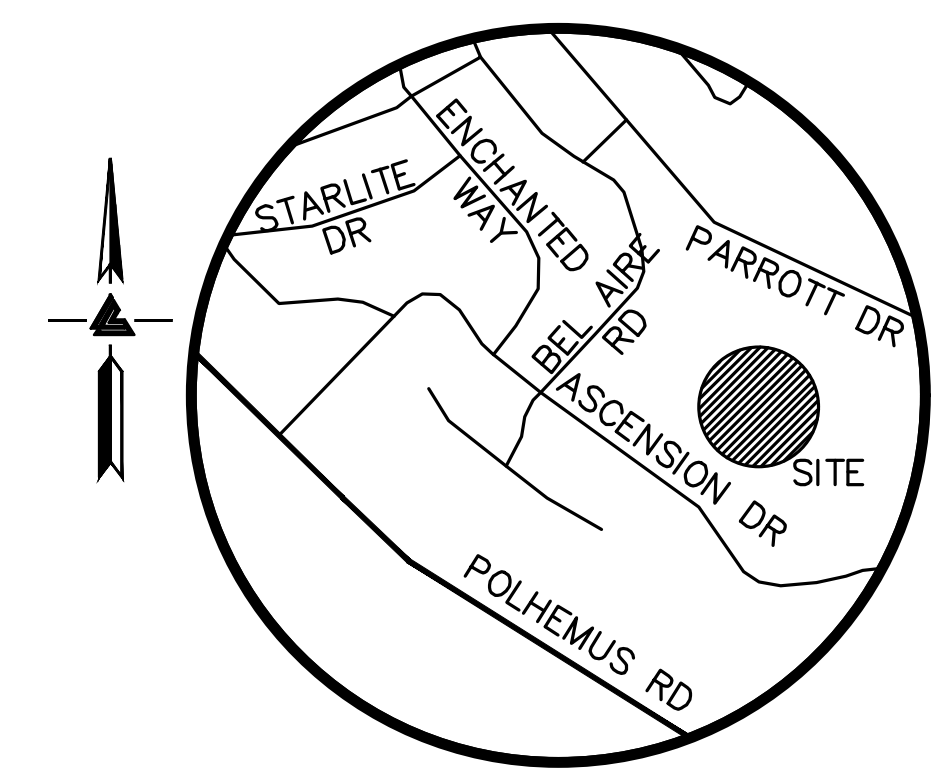
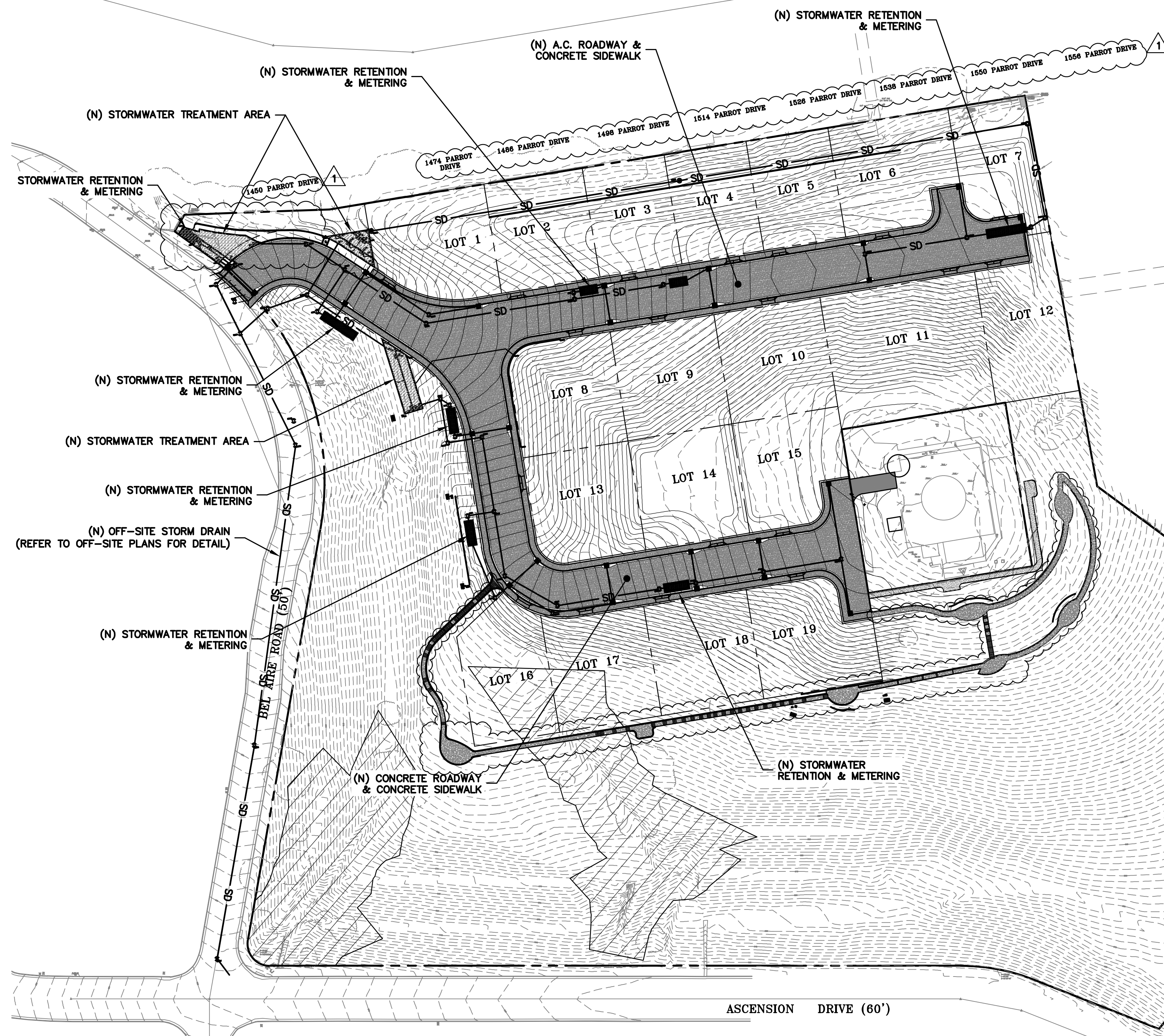
***CONDITION OF GRASSES.**

D. TRAINING PROGRAM

A COPY OF THE STORMWATER MANAGEMENT PLANS (SWMP) WILL BE MADE AVAILABLE TO PERSONNEL IN CHARGE OF FACILITY MAINTENANCE AND WILL BE DISTRIBUTED TO THE SUBCONTRACTOR REPRESENTATIVE ENGAGED IN THE MAINTENANCE OR INSTALLATION OF THE TCM'S.

MATERIAL PRESENTED IN THE INTEGRATED PEST MANAGEMENT PROGRAM WILL BE MADE AVAILABLE TO PERSONNEL IN CHARGE OF FACILITY MAINTENANCE AND WILL BE DISTRIBUTED TO THE SUBCONTRACTOR REPRESENTATIVE ENGAGED IN THE MAINTENANCE OR INSTALLATION OF THE TCM'S.

A COPY OF THE YEARLY INSPECTION REPORTS SHALL BE MANAGED BY THE PROPERTY MANAGER/OWNER.



VICINITY MAP
NO SCALE

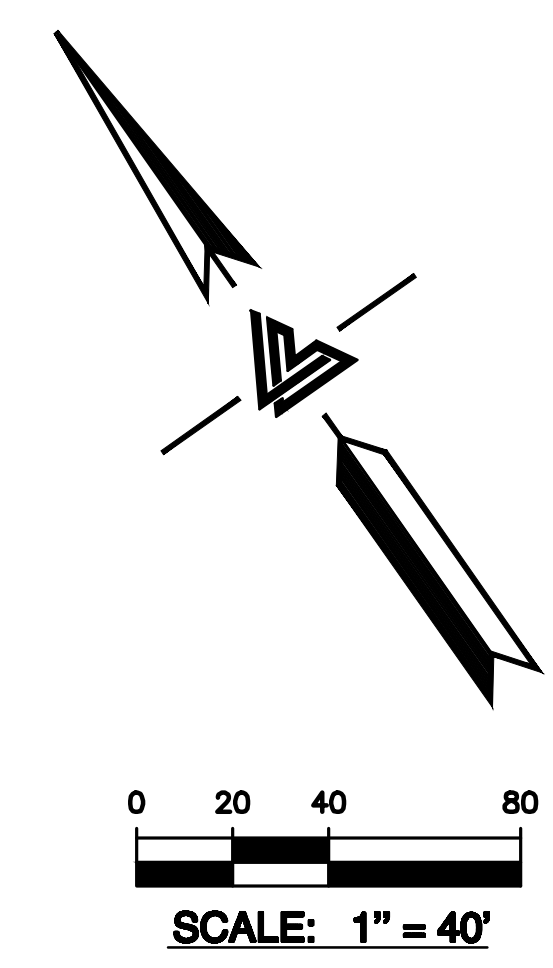


TABLE 1:
ON-SITE PERVIOUS AND IMPERVIOUS SURFACE COMPARISON

SITE (ACRES) = 13.78	EXISTING CONDITIONS (SQ FT)		PROPOSED CONDITIONS (SQ FT)		DIFFERENCE (SQ. FT)	
	SQ FT	%	SQ FT	%	SQ. FT	%
STREETS (PUBLIC/PRIVATE):	0	0.0	49,864	8.3	+49,864	+8.3
SIDEWALK:	0	0.0	17,387	2.9	+17,387	+2.9
LANDSCAPE:	600,169	100.0	532,936	88.8	-67,233	-11.2
TOTAL	600,169	100.0	600,169	100.0	0	0
IMPERVIOUS SURFACES:	0	0.0	67,223	11.2	+67,233	+11.2
PERVIOUS SURFACES:	600,169	100.0	532,936	88.8	-67,233	-11.2
TOTAL	600,169	100.0	600,169	100.0	0	0.0

TABLE 2:
DRAINAGE AREA SUMMARY

DRAINAGE ZONE	PRE-CONSTRUCTION			POST-CONSTRUCTION		
	TOTAL AREA (SQ FT) (ACRE)	IMPERVIOUS AREA (SQ FT) (ACRE)	PERVIOUS AREA (SQ FT) (ACRE)	TOTAL AREA (SQ FT) (ACRE)	IMPERVIOUS AREA (SQ FT) (ACRE)	PERVIOUS AREA (SQ FT) (ACRE)
1	33,373 0.77	0 0.00	33,373 0.77	33,373 0.77	12,198 0.28	21,175 0.49
2	6,488 0.15	0 0.00	6,488 0.15	6,488 0.15	3,106 0.07	3,382 0.08
3	14,862 0.34	0 0.00	14,862 0.34	14,862 0.34	4,781 0.11	10,081 0.23
4	26,039 0.60	0 0.00	26,039 0.60	26,039 0.60	9,984 0.23	16,055 0.37
5	18,397 0.42	0 0.00	18,397 0.42	18,397 0.42	8,008 0.18	10,389 0.24
6	17,771 0.41	0 0.00	17,771 0.41	17,771 0.41	6,673 0.15	11,098 0.25
7	38,605 0.89	0 0.00	38,605 0.89	38,605 0.89	16,600 0.38	22,005 0.51
8	5,202 0.12	0 0.00	5,202 0.12	5,202 0.12	4,871 0.11	331 0.01
TOTAL	160,737 3.69	0 0.00	160,737 3.69	160,737 3.69	66,221 1.52	94,516 2.17

TABLE 3:
RETENTION & METERING SUMMARY

RETENTION SYSTEM	RETENTION PIPE LENGTH (FEET)	METERING ORIFICE DIAMETER (INCHES)
1	33.00	4-1/2
2	13.00	2
3	13.00	3
4	20.00	4
5	20.00	3-3/8
6	20.00	3-1/4
7	33.00	4-7/8
8	13.00	1-7/8

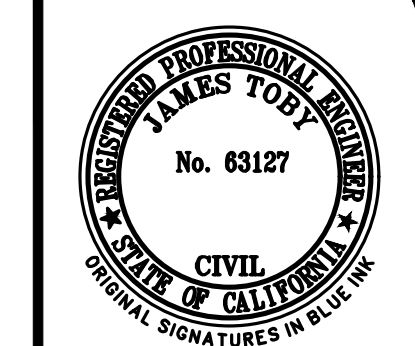
TABLE 4:
C.3 DRAINAGE MANAGEMENT AREA SUMMARY

DRAINAGE MANAGEMENT AREA DESIGNATION	TOTAL AREA (SQ FT)	IMPERVIOUS AREA (SQ FT)	ADJUSTMENT FACTOR	PERVIOUS AREA (SQ FT)	ADJUSTMENT FACTOR	EFFECTIVE IMPERVIOUS AREA (SQ FT)
DMA-1	33,373	12,198	1.0	21,175	0.1	14,316
DMA-2	59,955	24,487	1.0	35,468	0.1	28,034
DMA-3	62,207	24,665	1.0	37,542	0.1	28,419
DMA-4	5,202	4,871	1.0	331	0.1	4,904
TOTAL	160,737	66,221	1.0	94,516	0.1	75,673

TABLE 5:
C.3 TREATMENT AREA SIZING SUMMARY

*TREATMENT SIZING CALCULATIONS ARE BASED ON THE COMBINATION FLOW AND VOLUME SIZING METHOD PROVIDED IN THE SAN MATEO COUNTY C.3 TECHNICAL GUIDANCE MANUAL. ADJUSTED UNIT BASIN STORAGE VOLUME FOR SITE IS 0.88 INCHES

TREATMENT CONTROL MEASURE DESIGNATION	REQUIRED CAPTURE VOLUME (CU FT)	RAINFALL EVENT DURATION (HOURS)	TREATMENT AREA PROVIDED (SQ FT)	RUNOFF VOLUME TREATED (CU FT)	RUNOFF STORED IN PONDING AREA (CU FT)	PONDING DEPTH (INCHES)
TCM-1	1,051	4.41	517	949	102	2.37
TCM-2	2,057	4.41	880	1,615	442	6.02
TCM-3	2,087	4.41	894	1,641	446	5.98
TCM-4	432	4.41	201	369	63	3.76

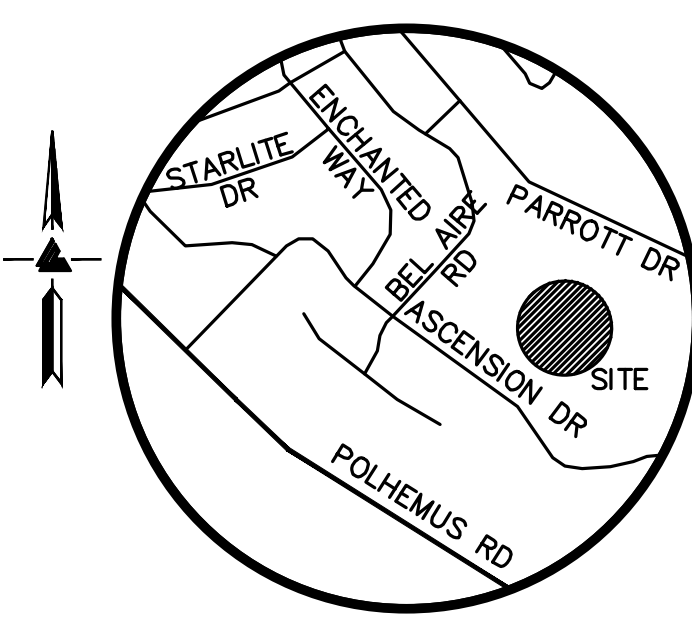
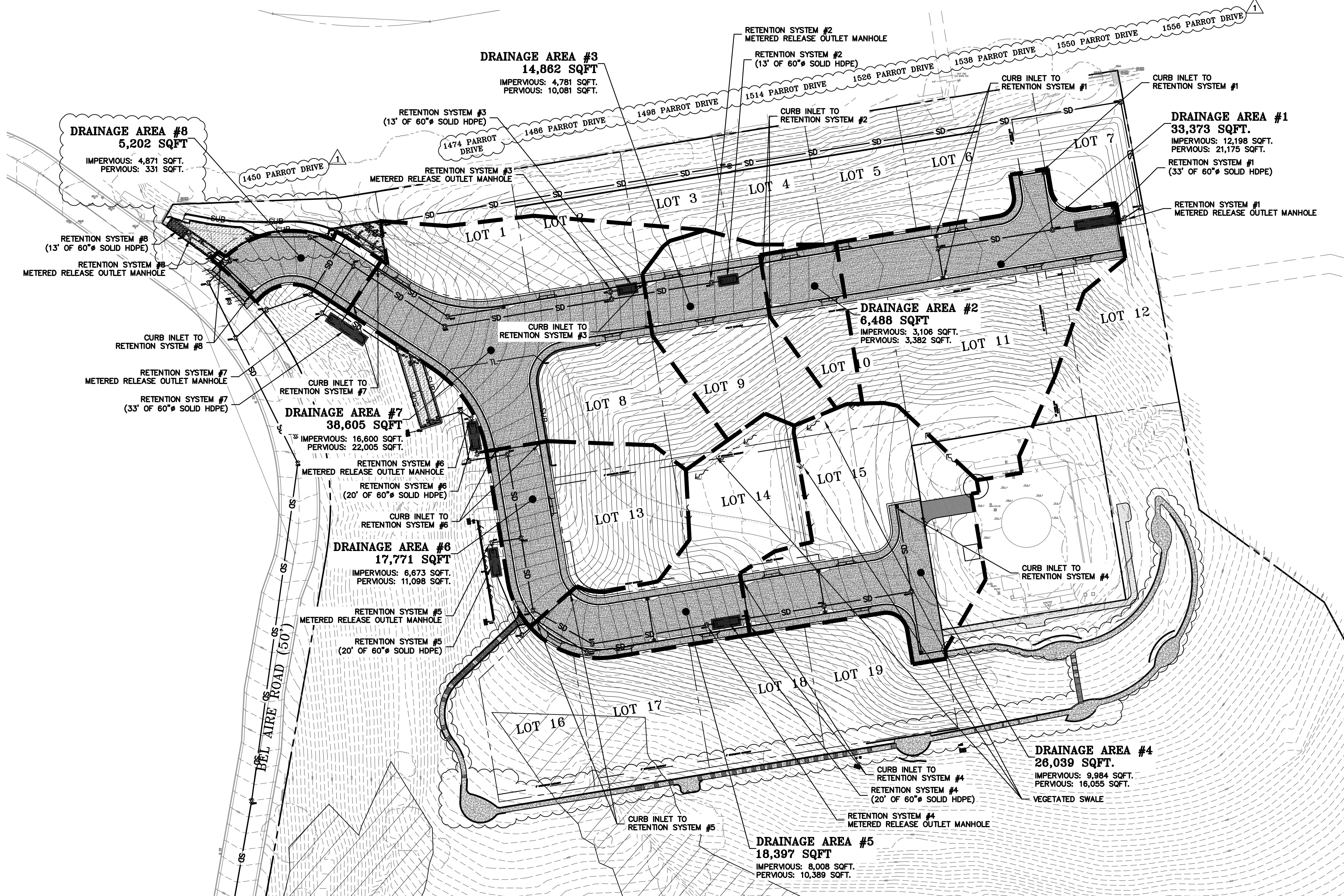


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SUBDIVISION
SAN MATEO, CALIFORNIA
(UNINCORPORATED) SAN MATEO COUNTY

DRAINAGE MANAGEMENT
INFORMATION SHEET

PRELIM PLAN CHECK REV. 01-17-19 RM
1 PLAN CHECK REV. 11-13-18 RM
REVISIONS BY
JOB NO: 2161285
DATE: 5-2-18
SCALE: 1"=60'
DESIGN BY: RC
DRAWN BY: ATL
SHEET NO:
SWCP-1
42 OF 50 SHEETS



VICINITY MAP
NO SCALE



LEA & BRAZE ENGINEERING, INC.
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ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA
 (UNINCORPORATED) SAN MATEO COUNTY

DRAINAGE MANAGEMENT
 STORMWATER RETENTION
 EXHIBIT

TABLE 1:
ON-SITE PERVIOUS AND IMPERVIOUS SURFACE COMPARISON

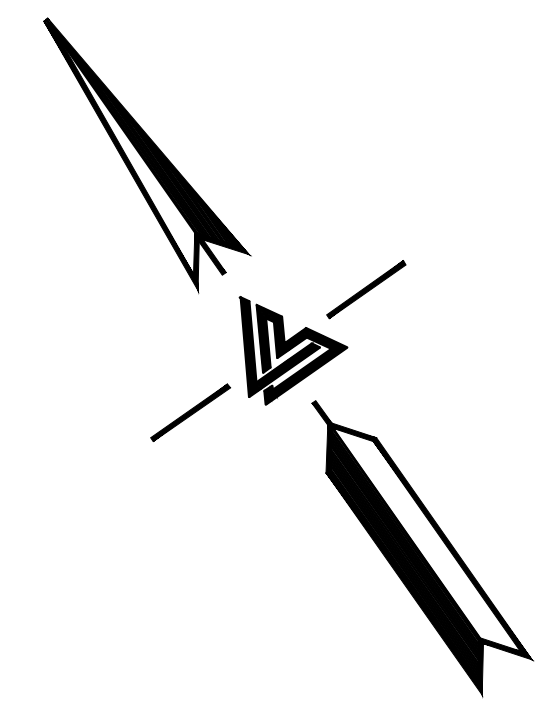
	EXISTING CONDITIONS (SQ FT)	%	PROPOSED CONDITIONS (SQ FT)	%	DIFFERENCE (SQ. FT)	%
SITE (ACRES) = 13.78	600,169	100.0	600,169	100.0	0	0.0
STREETS (PUBLIC/PRIVATE):	0	0.0	49,864	8.3	+49,864	+8.3
SIDEWALK:	0	0.0	17,387	2.9	+17,387	+2.9
LANDSCAPE:	600,169	100.0	532,936	88.8	-67,233	-11.2
TOTAL	600,169	100.0	600,169	100.0	0	0.0
IMPERVIOUS SURFACES:	0	0.0	67,223	11.2	+67,233	+11.2
PERVIOUS SURFACES:	600,169	100.0	532,936	88.8	-67,233	-11.2
TOTAL	600,169	100.0	600,169	100.0	0	0.0

TABLE 2:
DRAINAGE AREA SUMMARY

DRAINAGE ZONE	PRE-CONSTRUCTION				POST-CONSTRUCTION			
	TOTAL AREA (SQ FT)	IMPERVIOUS AREA (SQ FT)	PERVIOUS AREA (SQ FT)	(ACRE)	TOTAL AREA (SQ FT)	IMPERVIOUS AREA (SQ FT)	PERVIOUS AREA (SQ FT)	(ACRE)
1	33,373	0.00	33,373	0.77	33,373	0.77	12,198	0.28
2	6,488	0.00	6,488	0.15	6,488	0.15	3,106	0.07
3	14,862	0.00	14,862	0.34	14,862	0.34	4,781	0.11
4	26,039	0.00	26,039	0.60	26,039	0.60	9,984	0.23
5	18,397	0.00	18,397	0.42	18,397	0.42	8,008	0.18
6	17,771	0.00	17,771	0.41	17,771	0.41	6,673	0.15
7	38,605	0.00	38,605	0.89	38,605	0.89	16,600	0.38
8	5,202	0.00	5,202	0.12	5,202	0.12	4,871	0.11
TOTAL	160,737	0.00	160,737	3.69	160,737	3.69	66,221	1.52

TABLE 3:
RETENTION & METERING SUMMARY

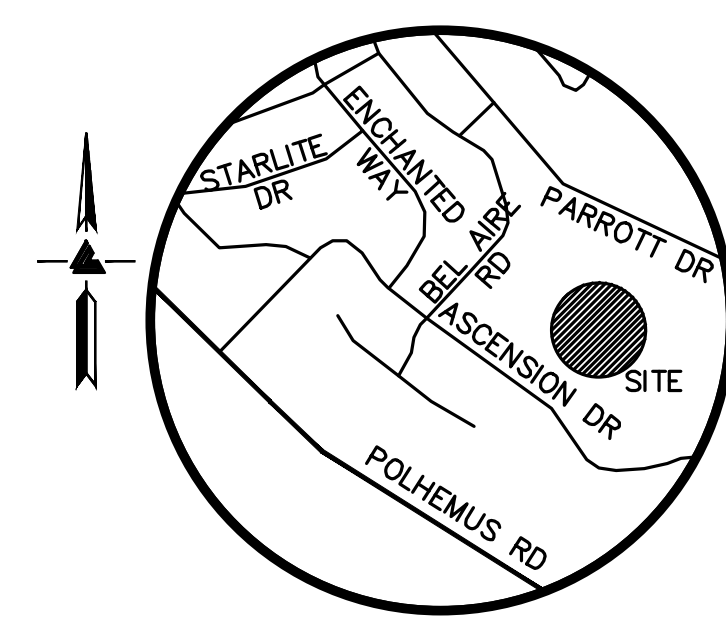
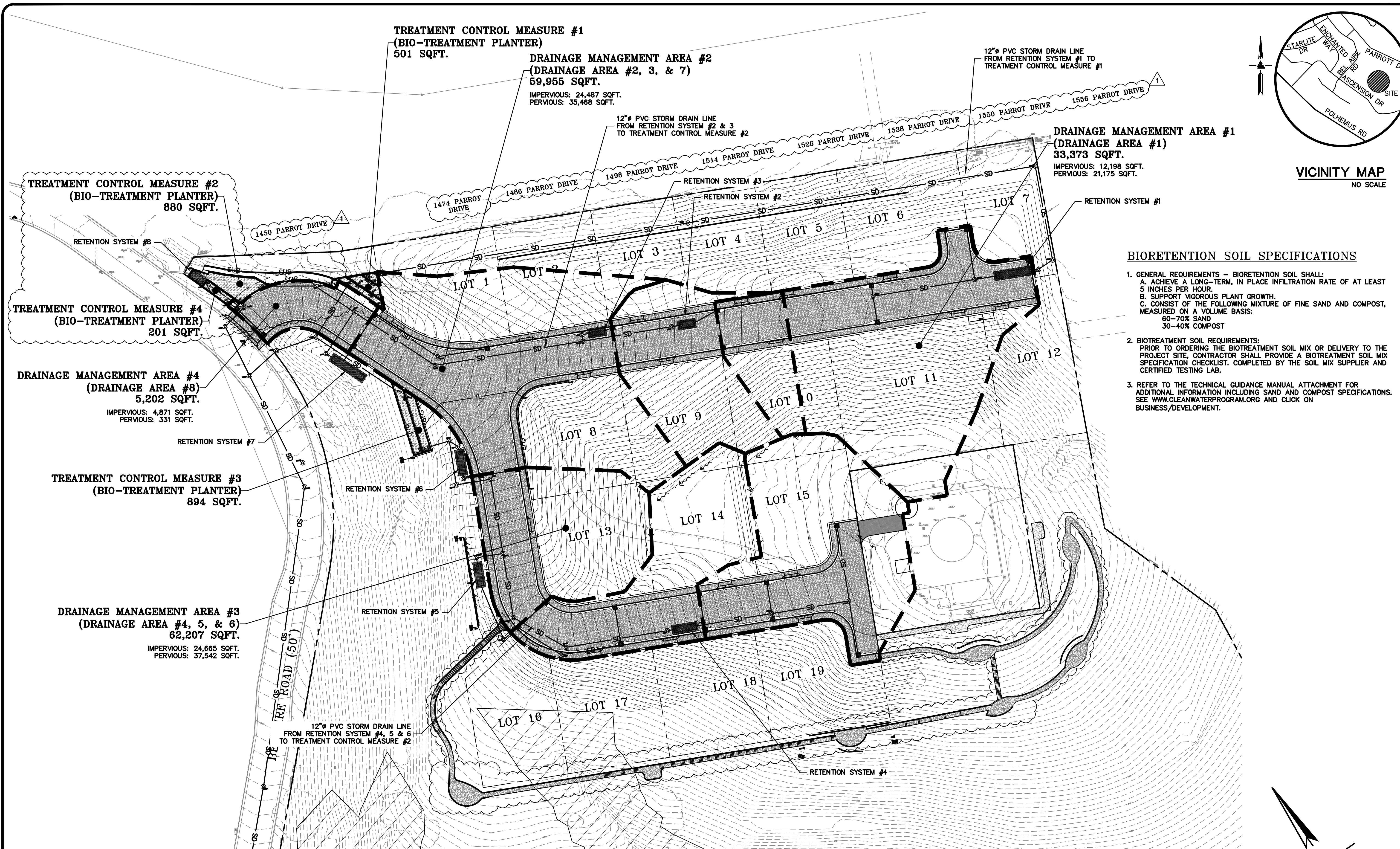
RETENTION SYSTEM	RETENTION PIPE LENGTH (FEET)	METERING ORIFICE DIAMETER (INCHES)
1	33.00	4-1/2
2	13.00	2
3	13.00	3
4	20.00	4
5	20.00	3-3/8
6	20.00	3-1/4
7	33.00	4-7/8
8	13.00	1-7/8



0 20 40 80
SCALE: 1" = 40'

REVISIONS	BY
1	RM
2	RM

JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1" = 40'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:



- BIORETENTION SOIL SPECIFICATIONS**
- GENERAL REQUIREMENTS - BIORETENTION SOIL SHALL:
 - ACHIEVE A LONG-TERM, IN PLACE INFILTRATION RATE OF AT LEAST 5 INCHES PER HOUR.
 - SUPPORT VIGOROUS PLANT GROWTH.
 - CONSIST OF THE FOLLOWING MIXTURE OF FINE SAND AND COMPOST, MEASURED ON A VOLUME BASIS:
 - 60-70% SAND
 - 30-40% COMPOST
 - BIOTREATMENT SOIL REQUIREMENTS: PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.
 - REFER TO THE TECHNICAL GUIDANCE MANUAL ATTACHMENT FOR ADDITIONAL INFORMATION INCLUDING SAND AND COMPOST SPECIFICATIONS. SEE WWW.CLEANWATERPROGRAM.ORG AND CLICK ON BUSINESS/DEVELOPMENT.

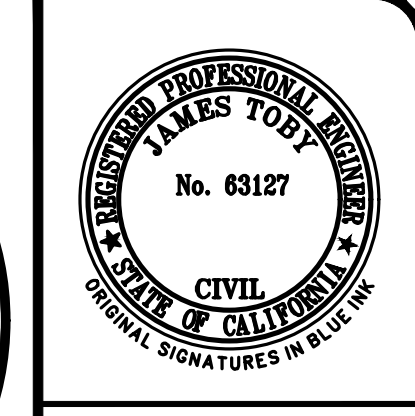
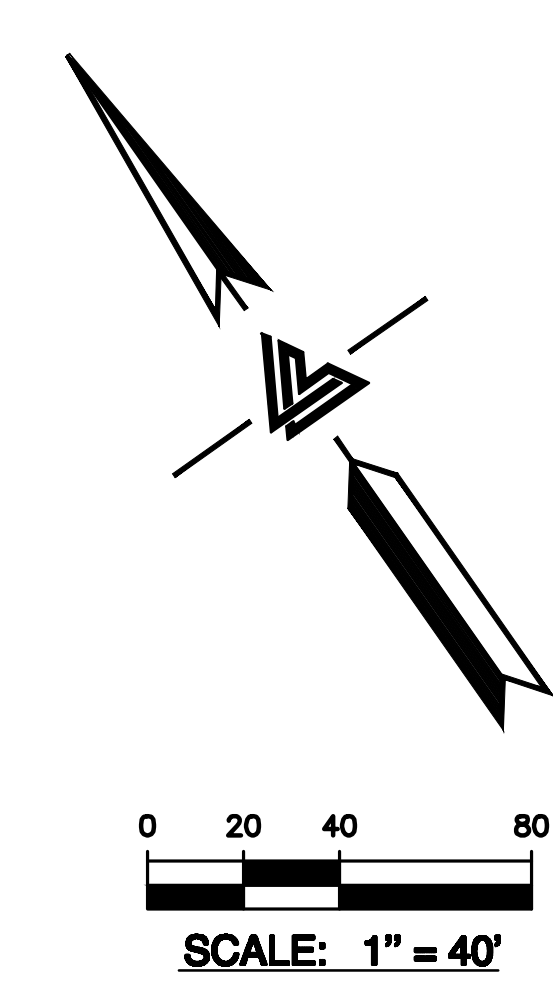
**TABLE 4:
C.3 DRAINAGE MANAGEMENT AREA SUMMARY**

DRAINAGE MANAGEMENT AREA DESIGNATION	TOTAL AREA (SQ FT)	IMPERVIOUS AREA (SQ FT)	ADJUSTMENT FACTOR	PERVIOUS AREA (SQ FT)	ADJUSTMENT FACTOR	EFFECTIVE IMPERVIOUS AREA (SQ FT)
DMA-1	33,373	12,198	1.0	21,175	0.1	14,316
DMA-2	59,955	24,487	1.0	35,468	0.1	28,034
DMA-3	62,207	24,665	1.0	37,542	0.1	28,419
DMA-4	5,202	4,871	1.0	331	0.1	4,904
TOTAL	160,737	66,221	1.0	94,516	0.1	75,673

**TABLE 5:
C.3 TREATMENT AREA SIZING SUMMARY**

*TREATMENT SIZING CALCULATIONS ARE BASED ON THE COMBINATION FLOW AND VOLUME SIZING METHOD PROVIDED IN THE SAN MATEO COUNTY C.3 TECHNICAL GUIDANCE MANUAL. ADJUSTED UNIT BASIN STORAGE VOLUME FOR SITE IS 0.88 INCHES

TREATMENT CONTROL MEASURE DESIGNATION	REQUIRED CAPTURE VOLUME (CU FT)	RAINFALL EVENT DURATION (HOURS)	TREATMENT AREA PROVIDED (SQ FT)	RUNOFF VOLUME TREATED (CU FT)	RUNOFF STORED IN PONDING AREA (CU FT)	PONDING DEPTH (INCHES)
TCM-1	1,051	4.41	517	949	102	2.37
TCM-2	2,057	4.41	880	1,615	442	6.02
TCM-3	2,087	4.41	894	1,641	446	5.98
TCM-4	432	4.41	201	369	63	3.76



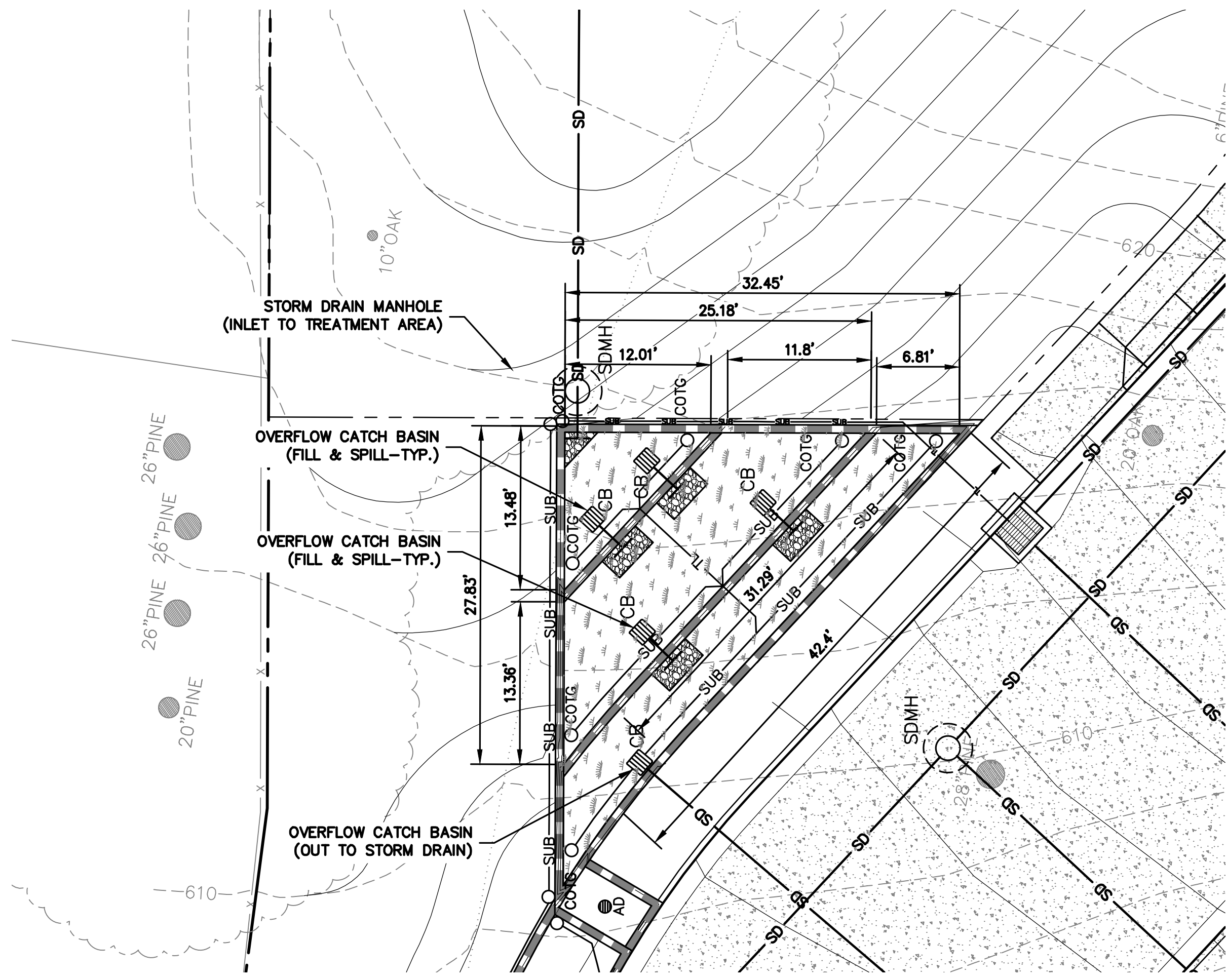
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 CIVIL ENGINEERS • LAND SURVEYORS
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**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

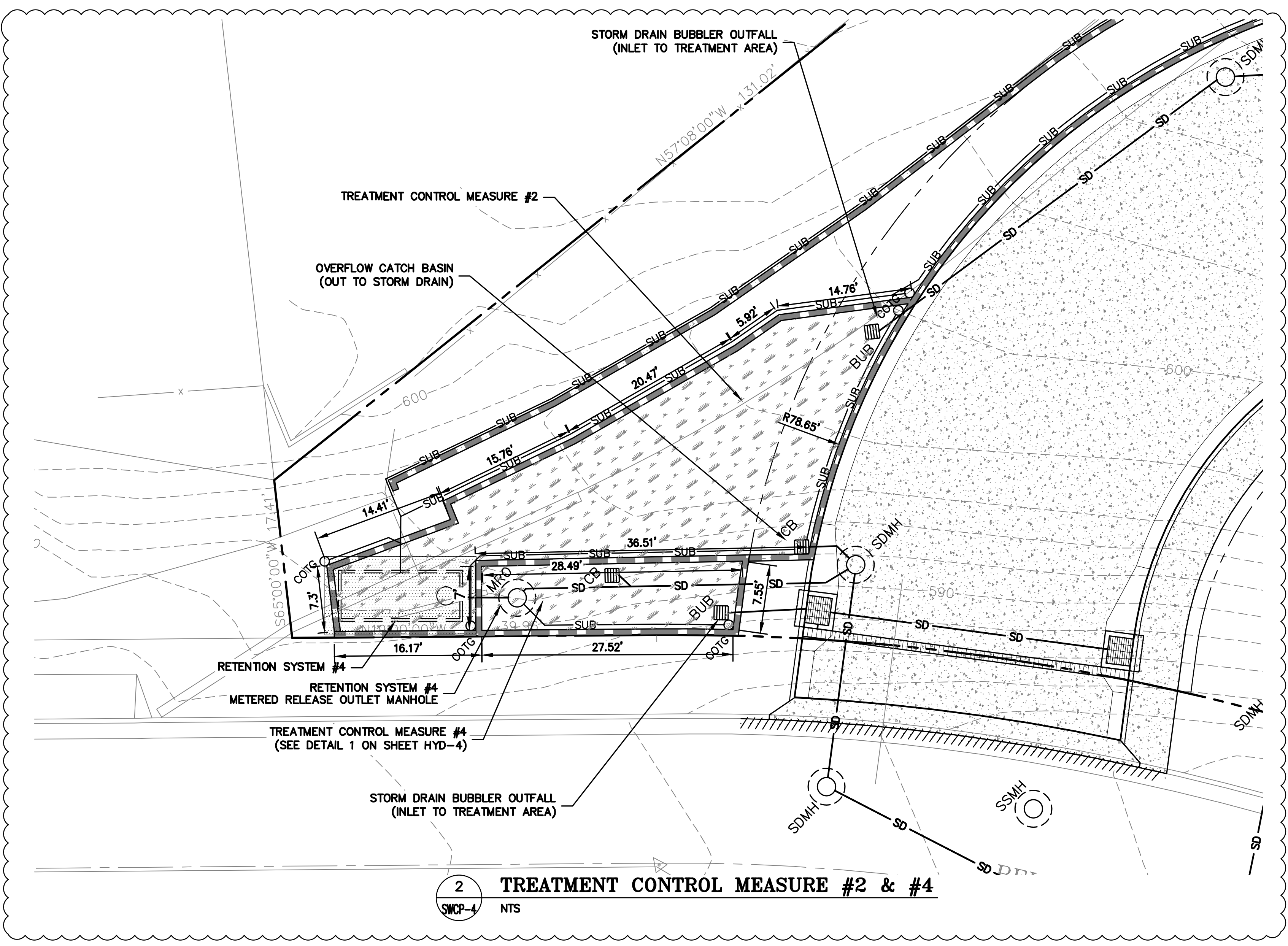
**DRAINAGE MANAGEMENT
 STORMWATER
 TREATMENT
 EXHIBIT**

REVISIONS	BY
PRELIM PLANCHECK REV. 01-17-19	RM
1 PLANCHECK REV. 11-13-18	RM

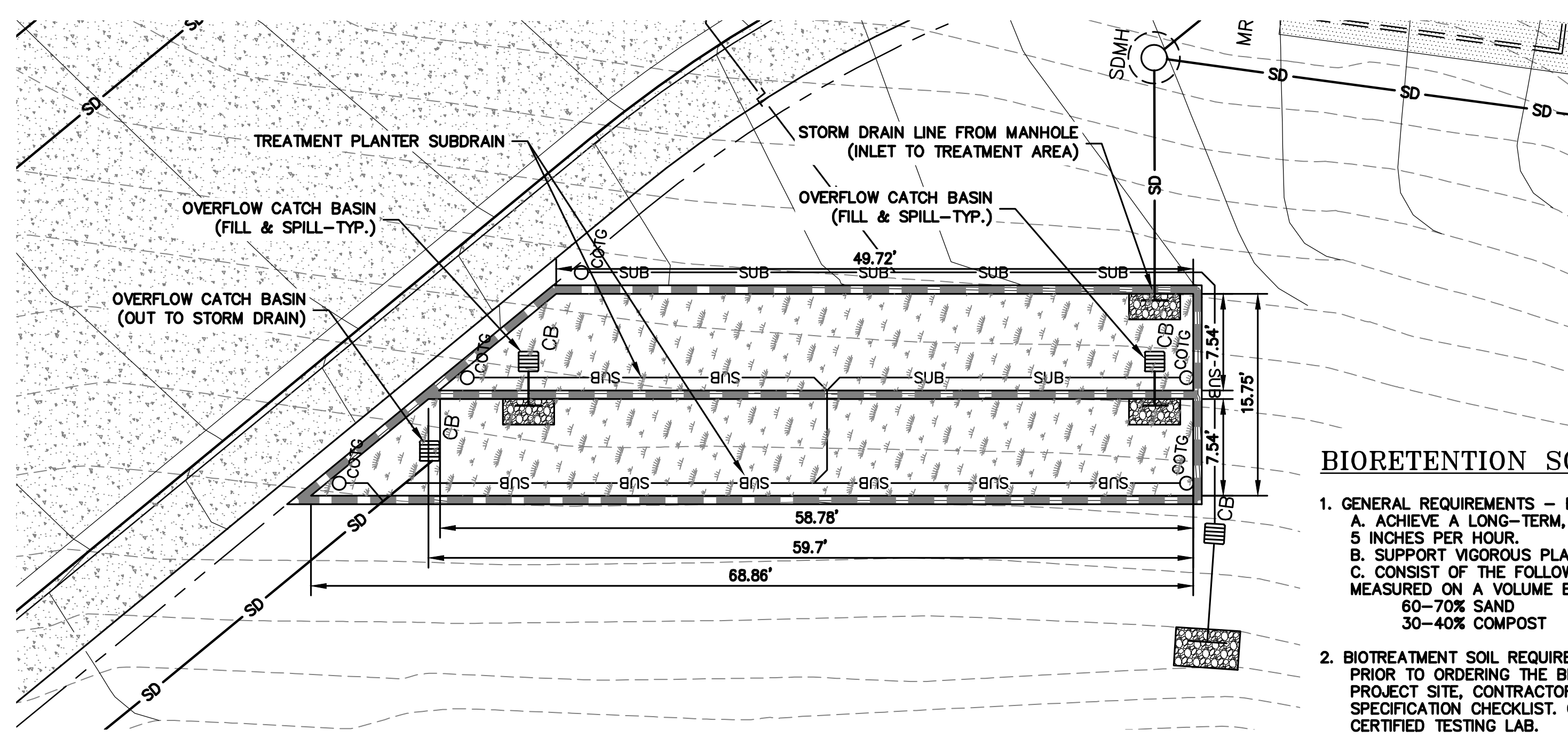
JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=40'
 DESIGN BY: RC
 DRAWN BY: ATL
 SHEET NO:



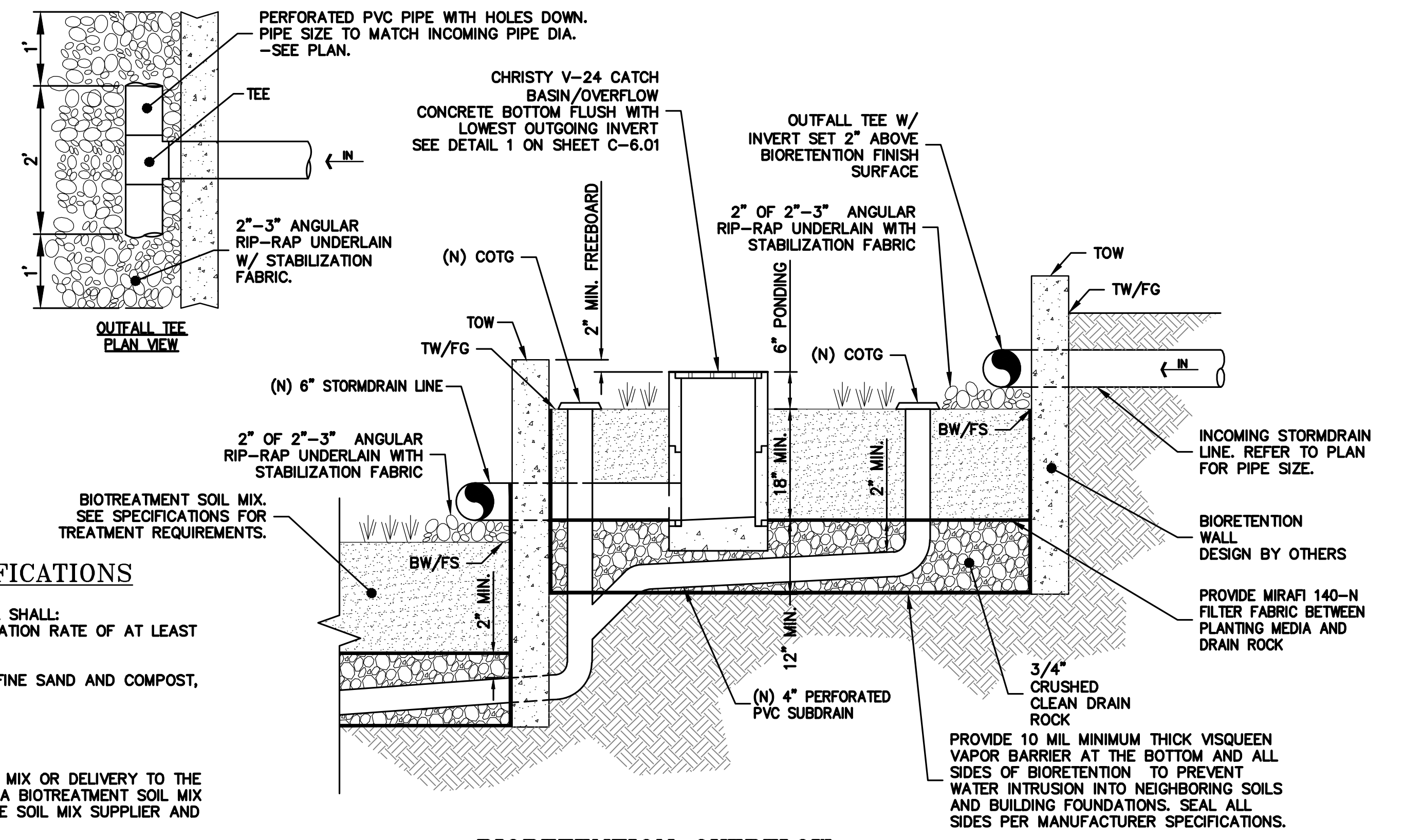
1 TREATMENT CONTROL MEASURE #1
SWCP-4 NTS



2 TREATMENT CONTROL MEASURE #2 & #4
SWCP-4 NTS



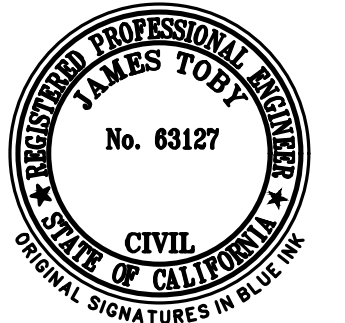
3 TREATMENT CONTROL MEASURE #3
SWCP-4 NTS



4 BIORETENTION OVERFLOW TO BIORETENTION (DAYLIGHT)
SWCP-4 NTS

BIORETENTION SOIL SPECIFICATIONS

- GENERAL REQUIREMENTS - BIORETENTION SOIL SHALL:
 - ACHIEVE A LONG-TERM, IN PLACE INFILTRATION RATE OF AT LEAST 5 INCHES PER HOUR.
 - SUPPORT VIGOROUS PLANT GROWTH.
 - CONSIST OF THE FOLLOWING MIXTURE OF FINE SAND AND COMPOST, MEASURED ON A VOLUME BASIS:
 - 60-70% SAND
 - 30-40% COMPOST
- BIOTREATMENT SOIL REQUIREMENTS: PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.
- REFER TO THE TECHNICAL GUIDANCE MANUAL ATTACHMENT FOR ADDITIONAL INFORMATION INCLUDING SAND AND COMPOST SPECIFICATIONS. SEE WWW.CLEANWATERPROGRAM.ORG AND CLICK ON BUSINESS/DEVELOPMENT.



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**ASCENSION HEIGHTS
 SUBDIVISION
 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

**DRAINAGE MANAGEMENT
 STORMWATER CONTROL
 DETAILS**

PRELIM PLAN CHECK REV.	01-17-19	RM
1 PLAN CHECK REV.	11-13-18	RM
REVISIONS	BY	
JOB NO:	2161285	
DATE:	5-2-18	
SCALE:	N.T.S.	
DESIGN BY:	RC	
DRAWN BY:	ATL	
SHEET NO:		

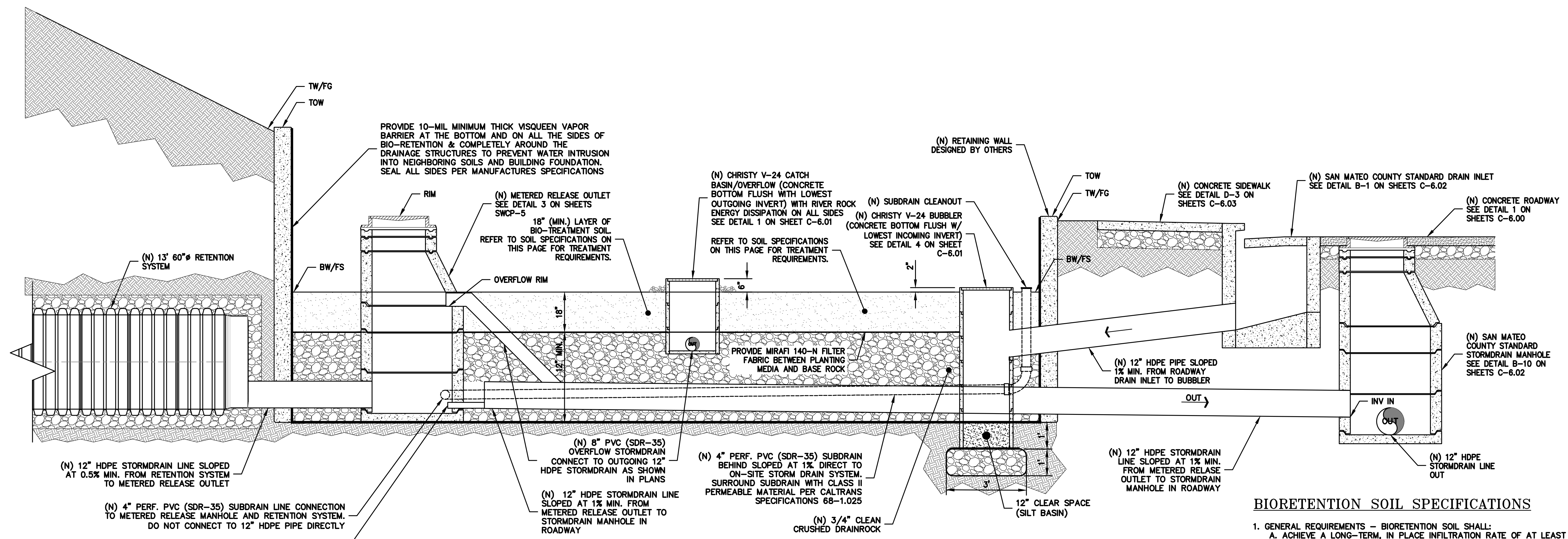


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ASCENSION HEIGHTS SUBDIVISION
SAN MATEO, CALIFORNIA
 (UNINCORPORATED) SAN MATEO COUNTY

DRAINAGE MANAGEMENT STORMWATER CONTROL DETAILS

PRELIM PLAN CHECK REV.	01-17-19	RM
1 PLAN CHECK REV.	11-13-18	RM
REVISIONS	BY	
JOB NO:	2161285	
DATE:	5-2-18	
SCALE:	N.T.S.	
DESIGN BY:	RC	
DRAWN BY:	ATL	
SHEET NO:		

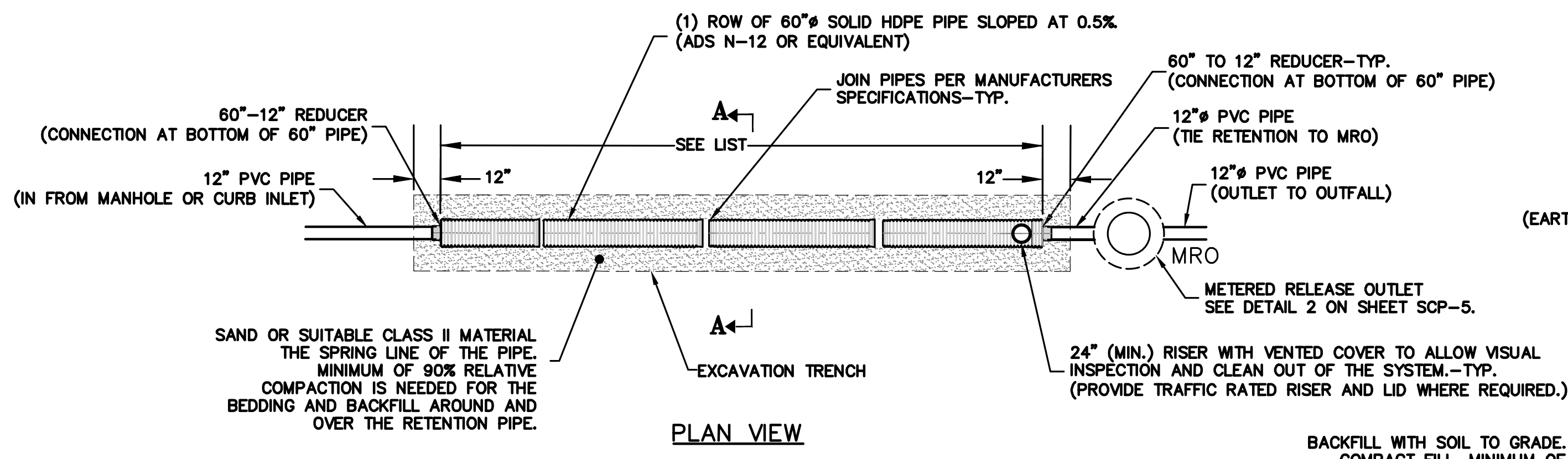


BIORETENTION SOIL SPECIFICATIONS

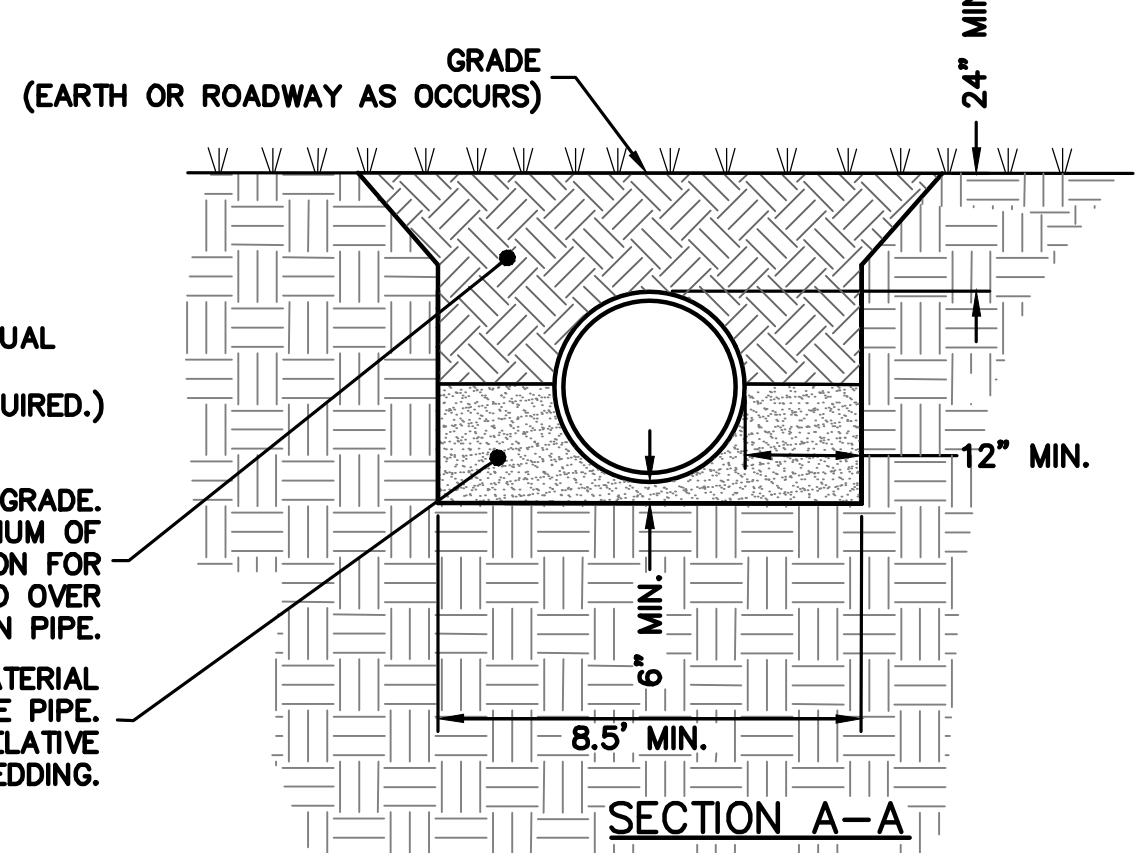
- GENERAL REQUIREMENTS - BIORETENTION SOIL SHALL:
 - ACHIEVE A LONG-TERM, IN PLACE INFILTRATION RATE OF AT LEAST 5 INCHES PER HOUR.
 - SUPPORT VIGOROUS PLANT GROWTH.
 - CONSIST OF THE FOLLOWING MIXTURE OF FINE SAND AND COMPOST, MEASURED ON A VOLUME BASIS:
 - 80-70% SAND
 - 30-40% COMPOST
- BIOTREATMENT SOIL REQUIREMENTS:

PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.
- REFER TO THE TECHNICAL GUIDANCE MANUAL ATTACHMENT FOR ADDITIONAL INFORMATION INCLUDING SAND AND COMPOST SPECIFICATIONS. SEE WWW.CLEANWATERPROGRAM.ORG AND CLICK ON BUSINESS/DEVELOPMENT.

1 CONSTRUCTION DETAILS TREATMENT CONTROL MEASURE #4
 SWCP-5 NTS



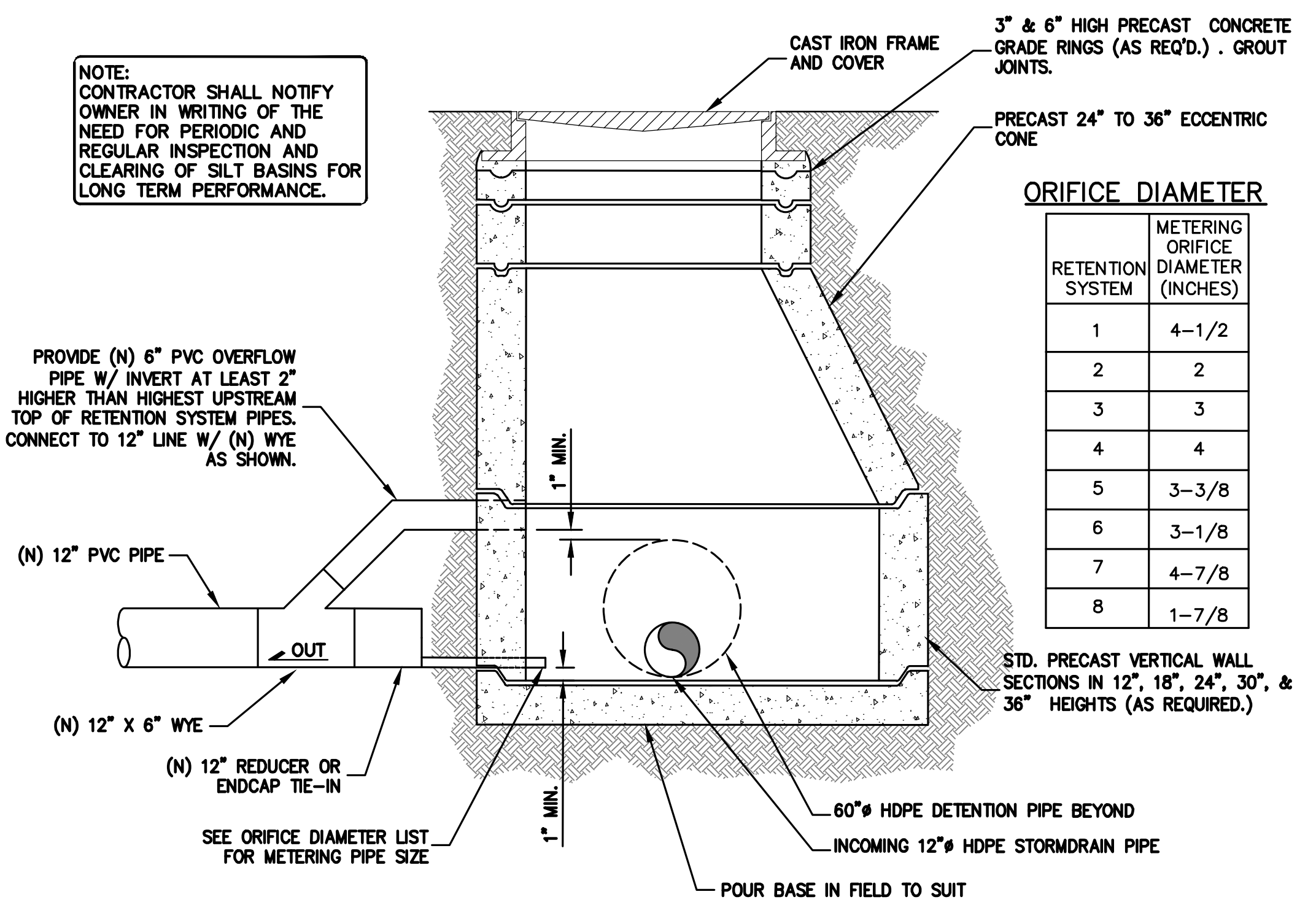
ALL EXCAVATION, SHORING AND BRACING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING THE CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS.



PIPE LENGTH

RETENTION SYSTEM	RETENTION PIPE LENGTH (FEET)
1	33.00
2	13.00
3	13.00
4	20.00
5	20.00
6	20.00
7	33.00
8	13.00

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



ORIFICE DIAMETER

RETENTION SYSTEM	METERING ORIFICE DIAMETER (INCHES)
1	4-1/2
2	2
3	3
4	4
5	3-3/8
6	3-1/8
7	4-7/8
8	1-7/8

3 METERED RELEASE OUTLET (MRO)
 SWCP-5 NTS

2 TYPICAL RETENTION SYSTEM DETAILS
 SWCP-5 NTS

STORAGE PIPE NOMINAL I.D.	NOMINAL O.D.	MIN. SIDE COVER
60" (1500 MM)	67" (1702 MM)	12" (292 MM)

- 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.
 - 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); 6" (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.

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 ADEN 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 15TH.
- EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 15TH THROUGH APRIL 15TH, 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 15TH.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 15TH THROUGH APRIL 15TH, 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 STOCKPILING 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 INSPECTION 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:

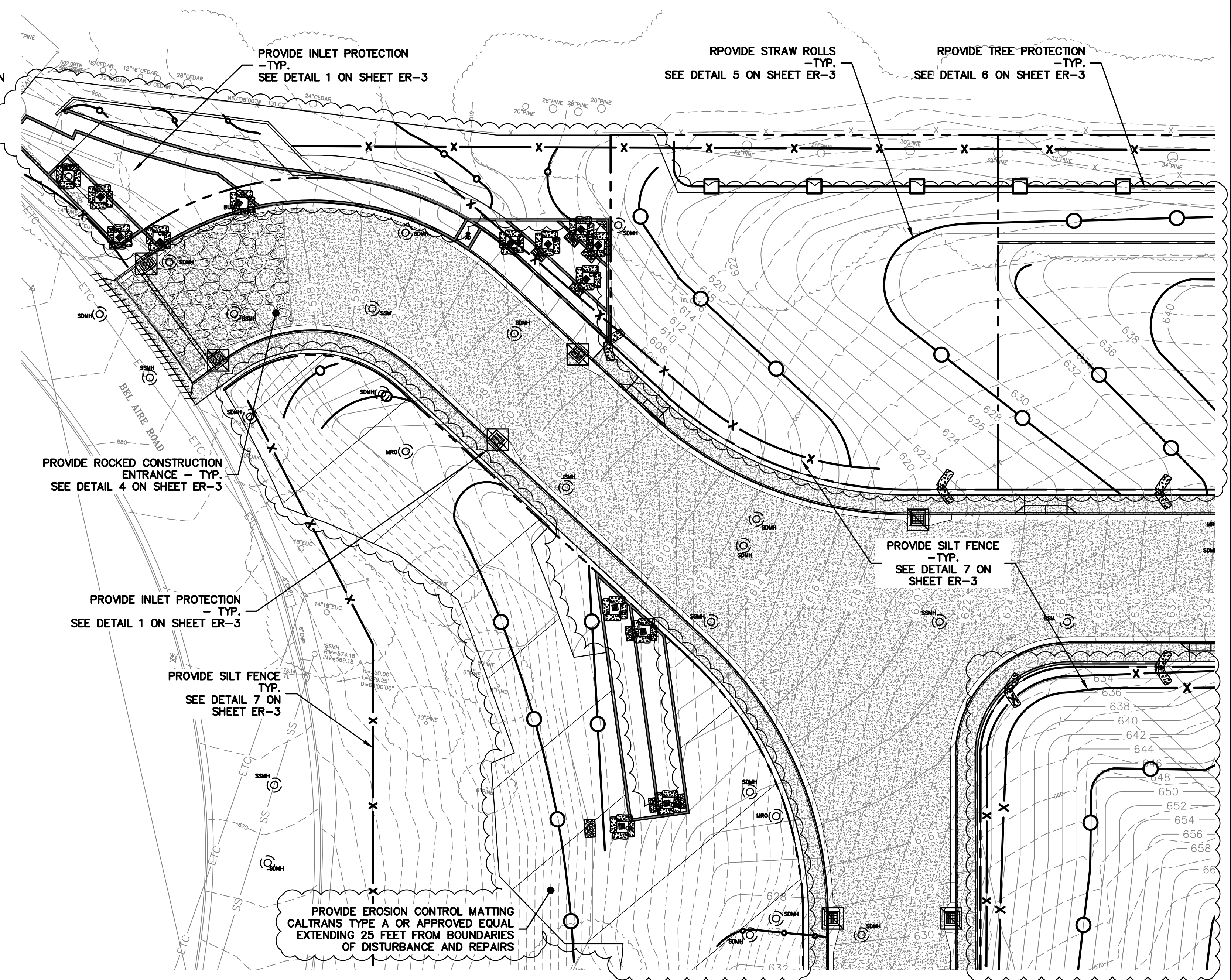
- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 15. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDDED SLOPES SHALL BE PROTECTED 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 15, 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:

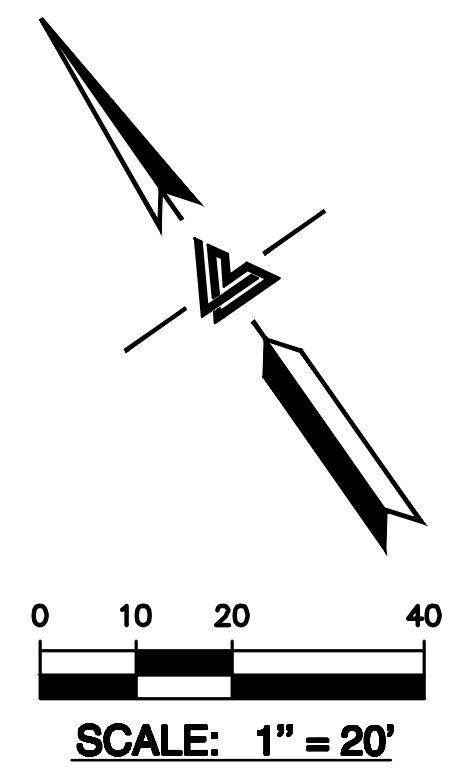
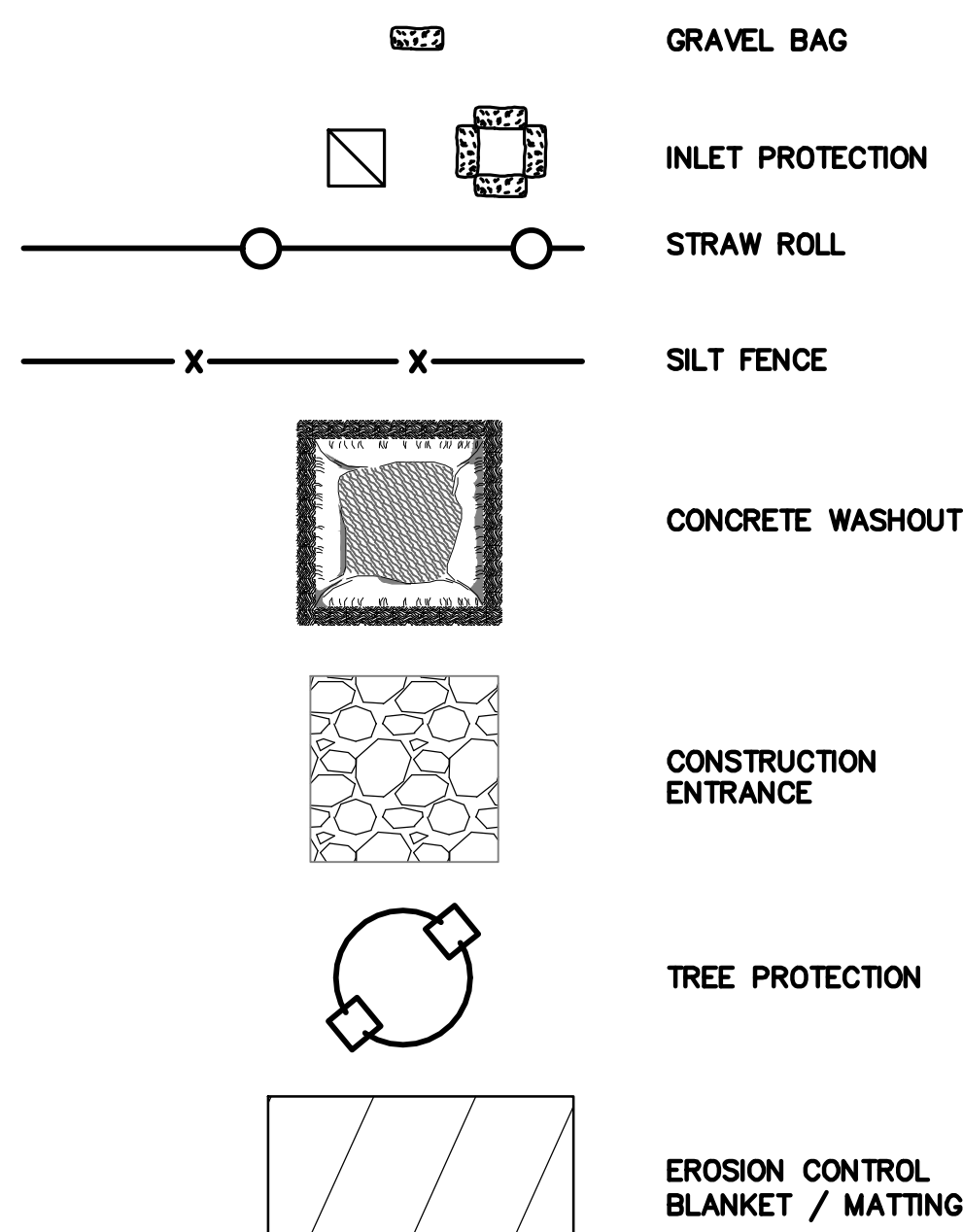
- CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
- CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

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



EROSION CONTROL LEGEND



SWPPP NOTE:
REFER TO PROJECT SWPPP FOR
ADDITIONAL INFORMATION.

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

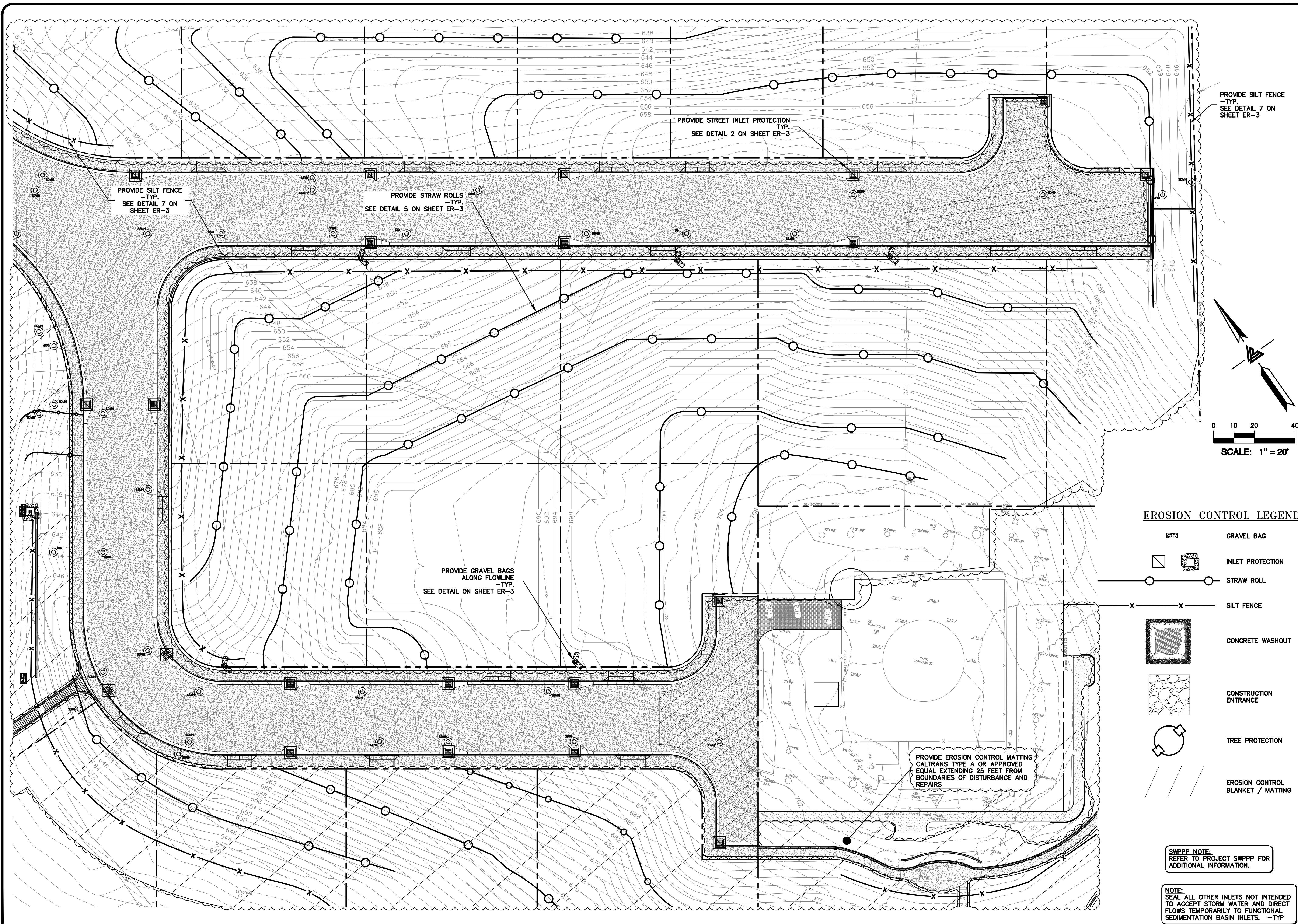


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ASCENSION HEIGHTS
SUBDIVISION
SAN MATEO, CALIFORNIA
(UNINCORPORATED) SAN MATEO COUNTY

EROSION CONTROL
PLAN

PRELIM PLAN CHECK REV.	01-17-19	RM
1 PLAN CHECK REV.	11-13-18	RM
REVISIONS	BY	
JOB NO:	2161285	
DATE:	5-2-18	
SCALE:	1"=20'	
DESIGN BY:	RC	
DRAWN BY:	ATL	
SHEET NO:		



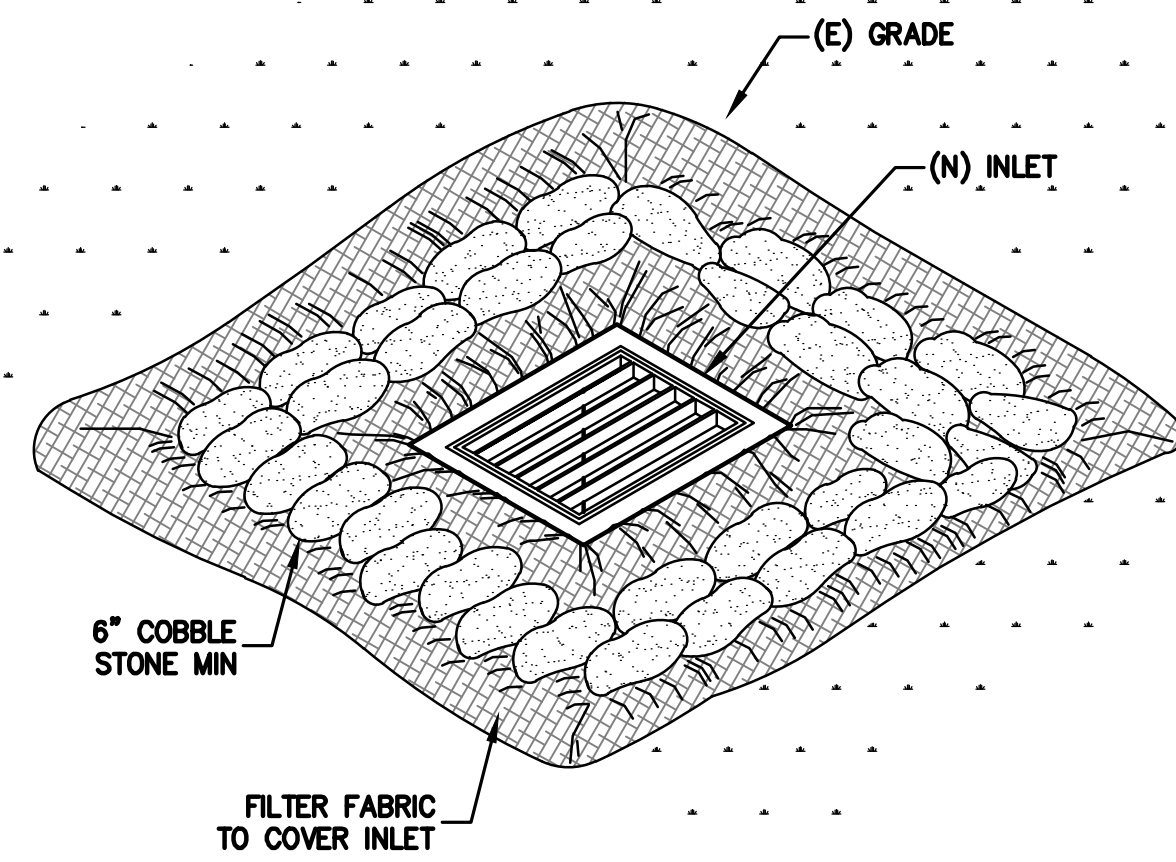
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 4400 ARDENWAY, WEST
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**ASCENSION HEIGHTS
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 SAN MATEO, CALIFORNIA**
 (UNINCORPORATED) SAN MATEO COUNTY

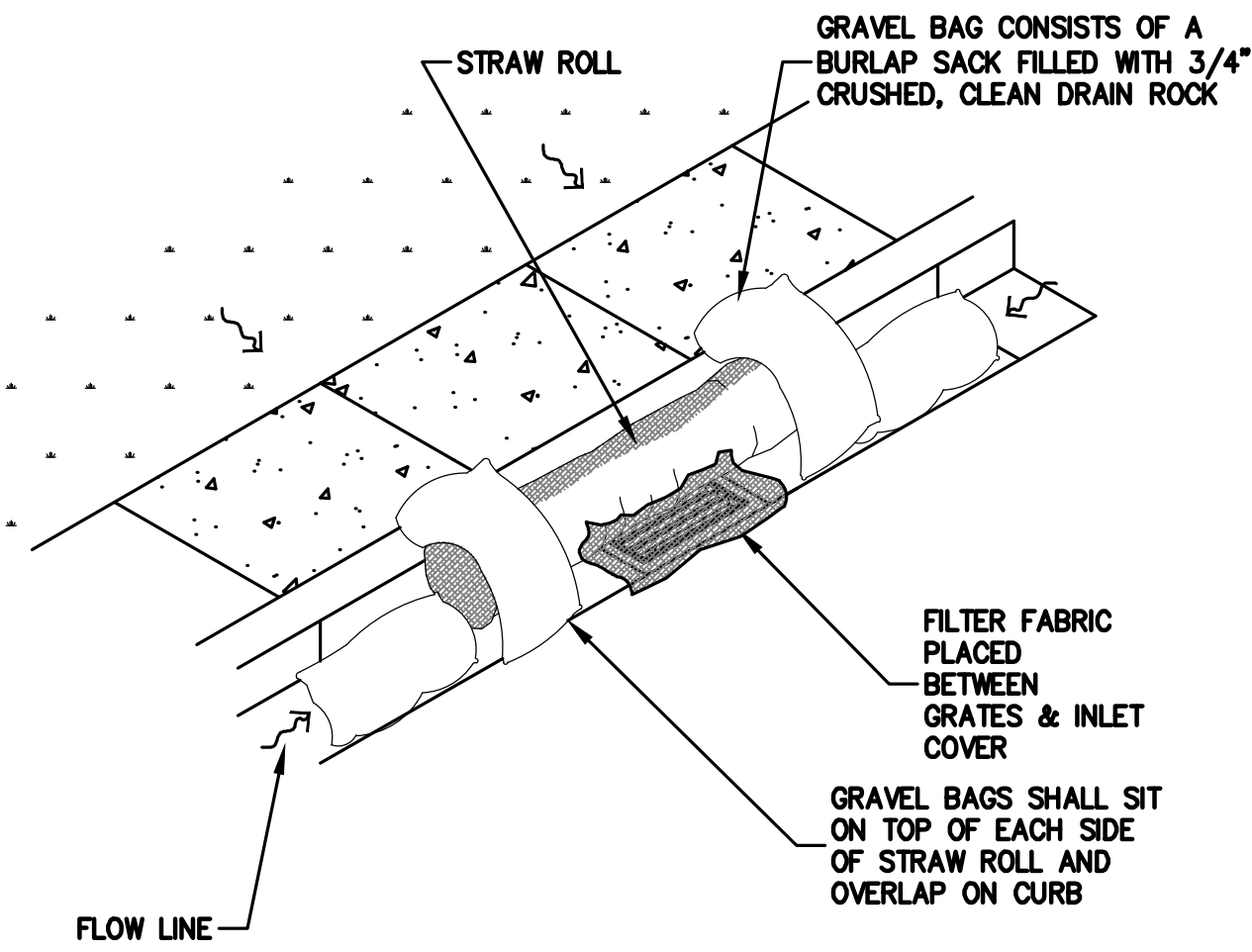
**EROSION CONTROL
 PLAN**

NO.	REVISIONS	BY
1	PLANCHCK REV. 11-13-18	RM
	PLANCHCK REV. 01-17-19	RM

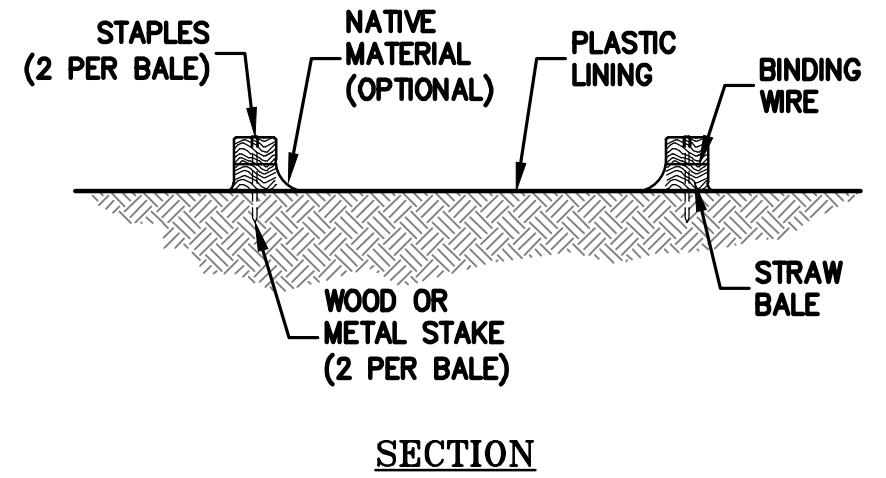
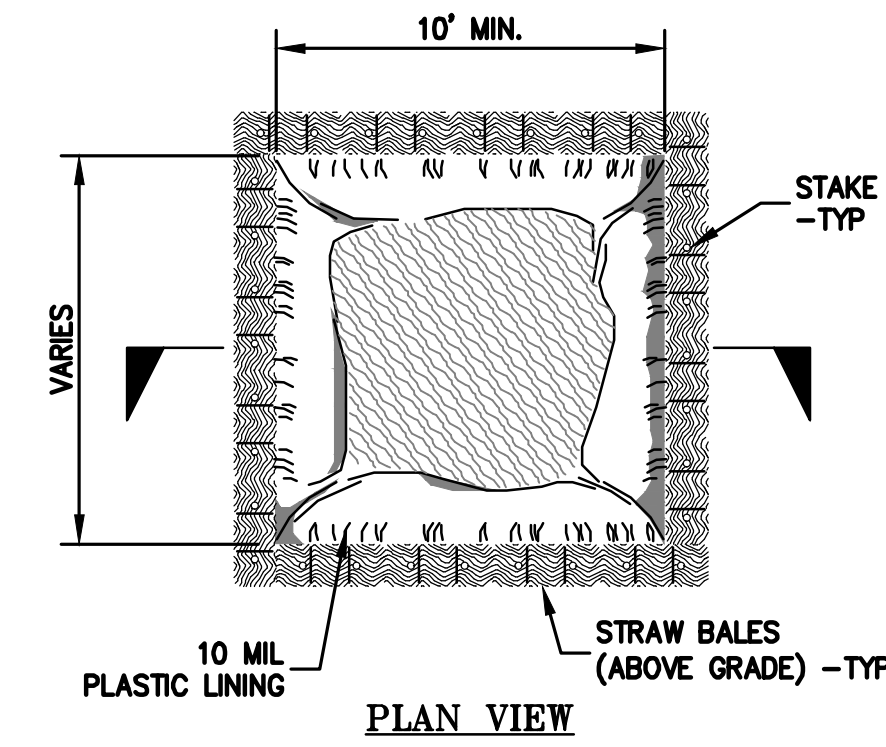
JOB NO: 2161285
 DATE: 5-2-18
 SCALE: 1"=20'
 DESIGN BY: RC
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 SHEET NO:



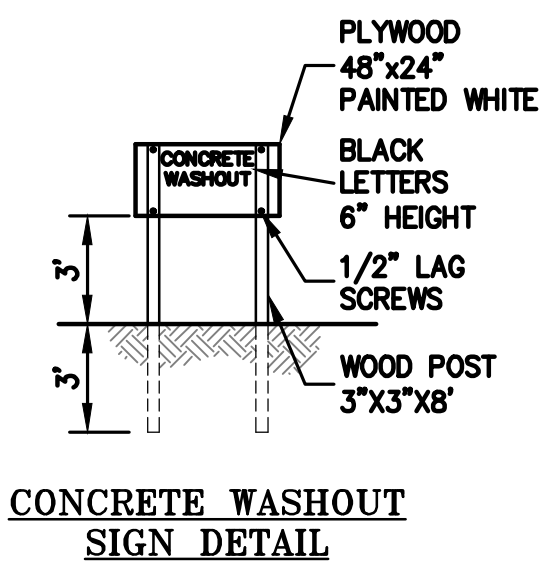
1 INLET PROTECTION
ER-3 NTS



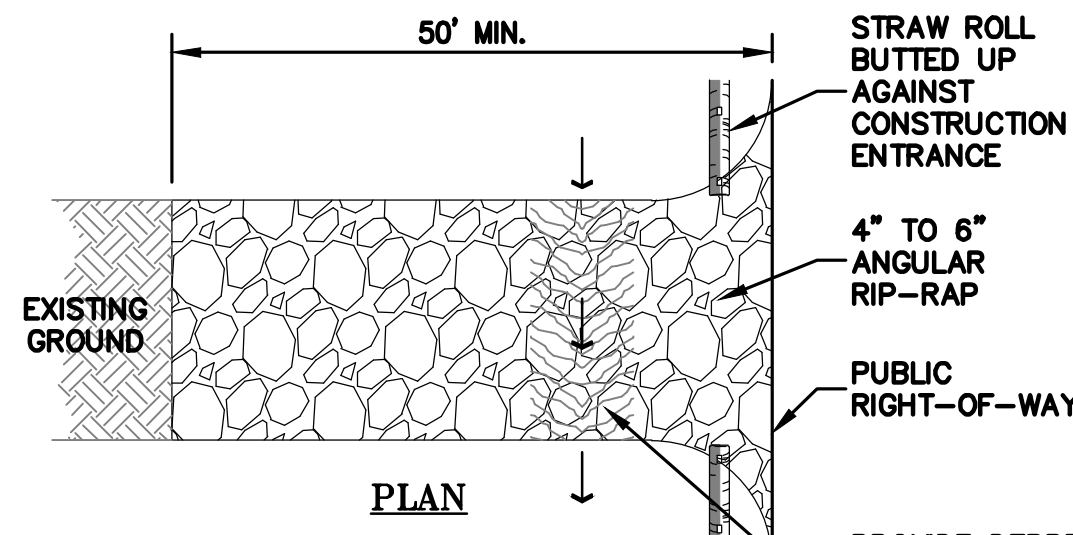
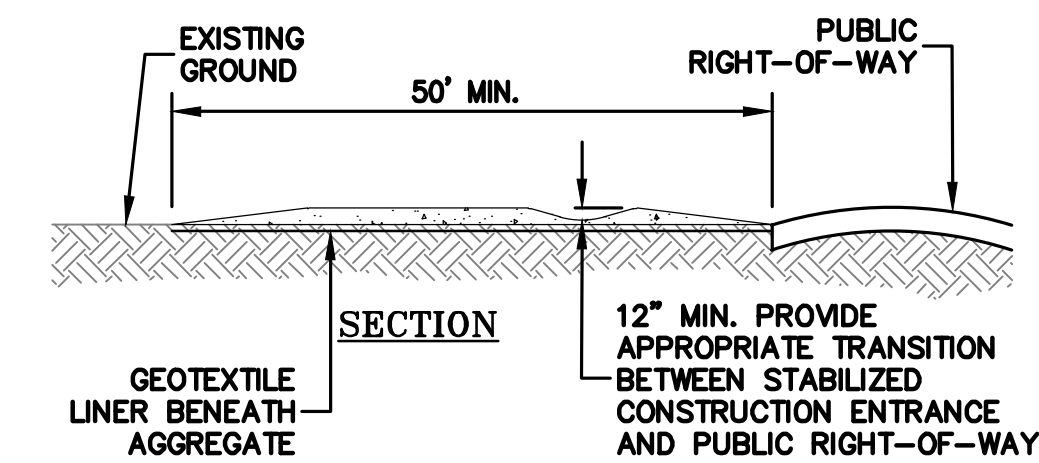
2 STREET INLET PROTECTION
ER-3 NTS



3 CONCRETE WASHOUT
ER-3 NTS

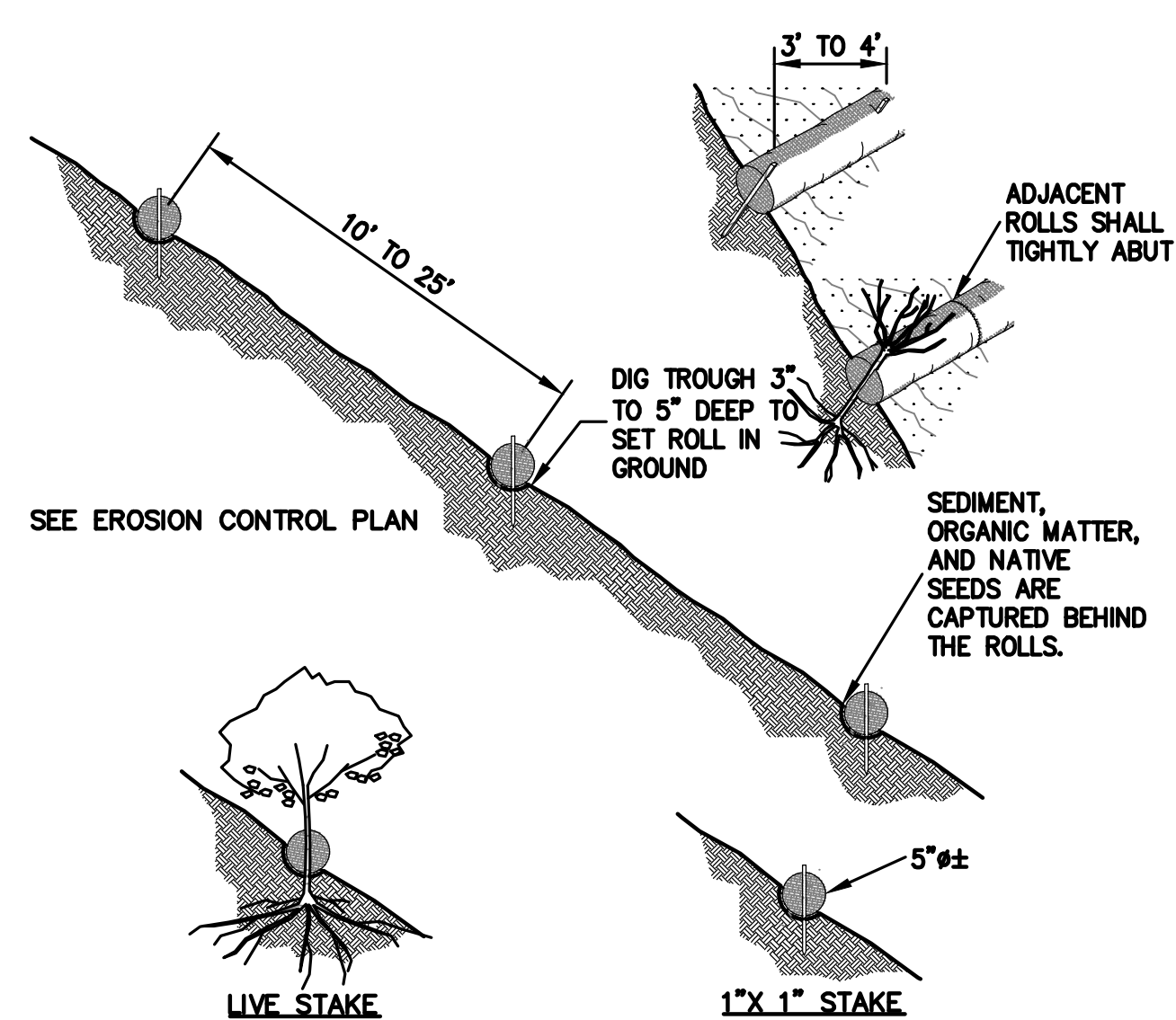


CONCRETE WASHOUT SIGN DETAIL
NOTES:
ACTUAL LAYOUT DETERMINED IN FIELD.
THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



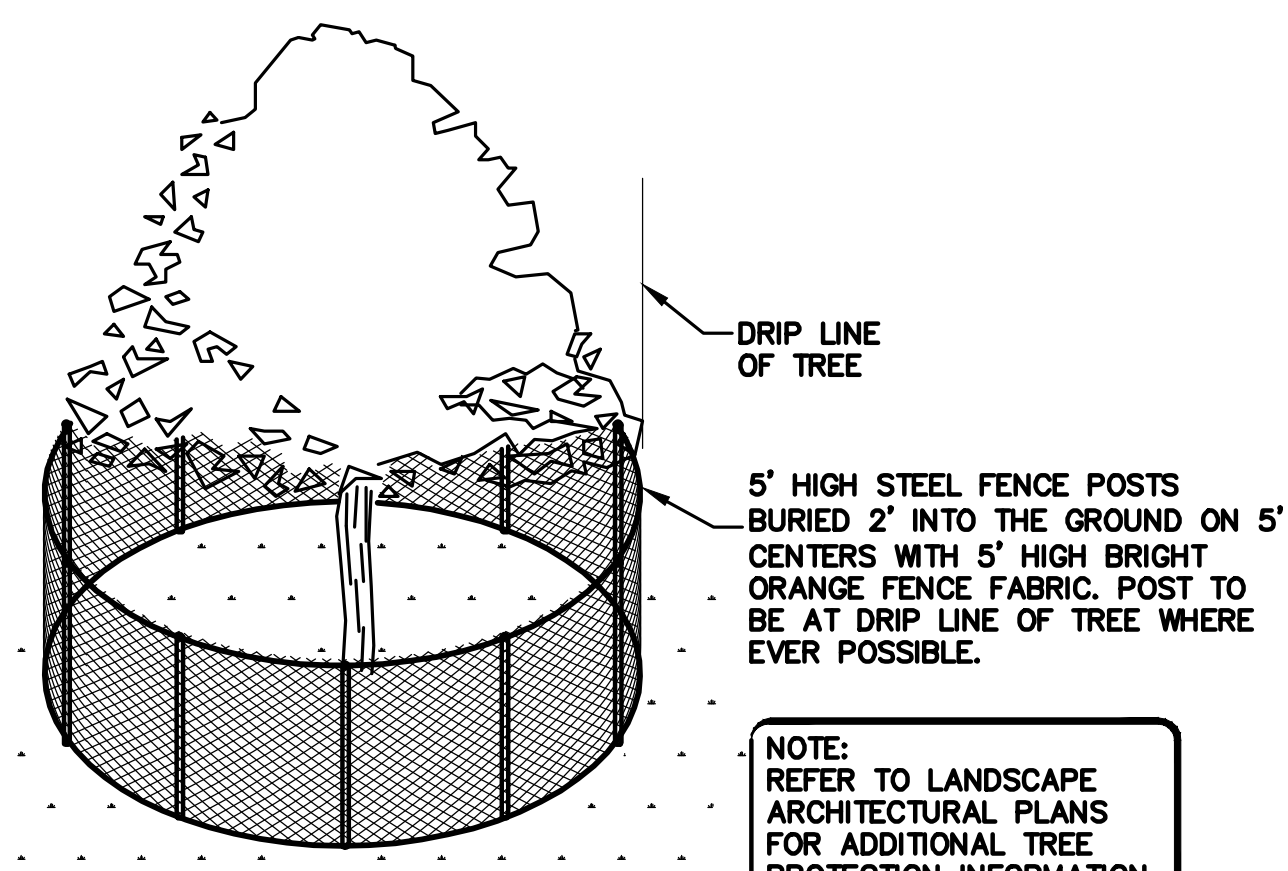
4 CONSTRUCTION ENTRANCE
ER-3 NTS

NOTES:
STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3" TO 4" WASHED, FRACTURED STONE AGGREGATE.
MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12". LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50'.
WIDTH SHALL BE A MIN. OF 15' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADI.
THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS SPECIFIED IN ABOVE NOTE.
ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY.
PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.



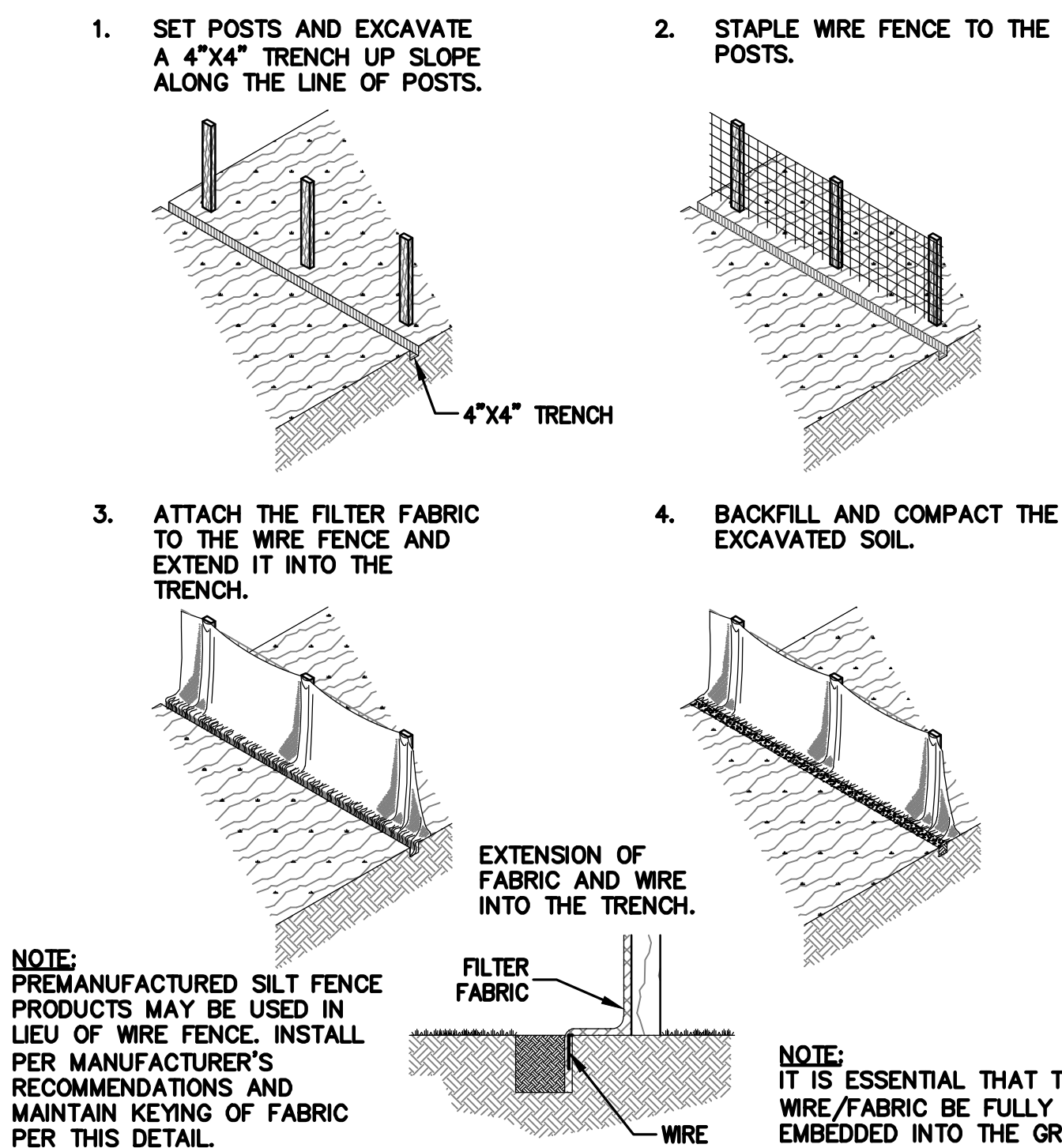
NOTE:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. CONTRACTOR IS RESPONSIBLE FOR REGULAR MAINTENANCE AND INSPECTION. THE SILT SHALL BE CLEANED OUT WHEN IT REACHES HALF THE HEIGHT OF THE ROLL.

5 STRAW ROLLS
ER-3 NTS



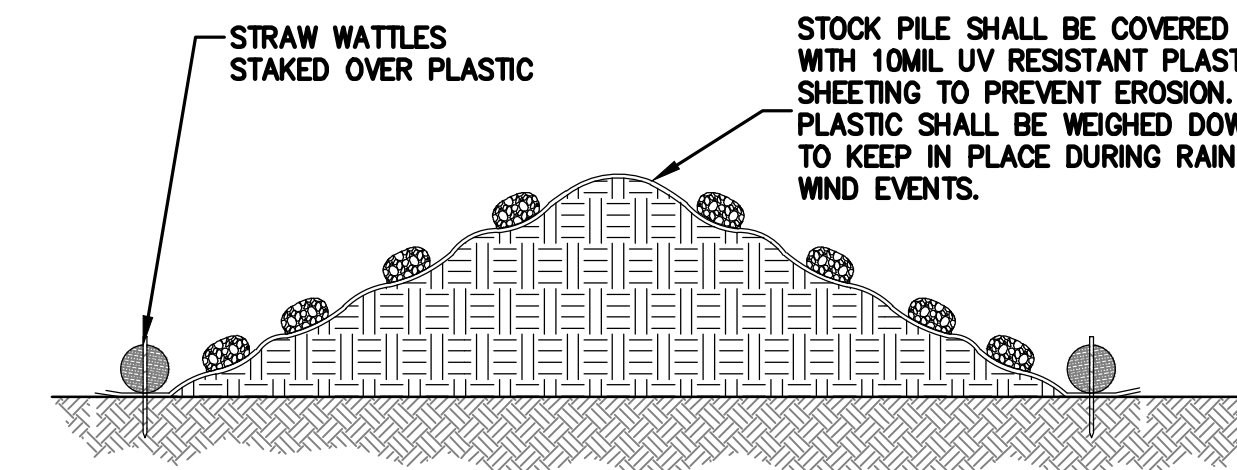
NOTE:
REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR ADDITIONAL TREE PROTECTION INFORMATION.
NOTE:
LOCAL JURISDICTION MIGHT HAVE MORE STRINGENT REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING W/ INSPECTOR TO ENSURE PROPER PROCEDURES ARE BEING FOLLOWED.

6 EXISTING TREE PROTECTION DETAIL
ER-3 NTS



NOTE:
PREMANUFACTURED SILT FENCE PRODUCTS MAY BE USED IN LIEU OF WIRE FENCE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN KEYING OF FABRIC PER THIS DETAIL.
NOTE:
IT IS ESSENTIAL THAT THE WIRE/FABRIC BE FULLY EMBEDDED INTO THE GROUND SO RUN-OFF CANNOT FLOW FREELY UNDER FENCE.

7 SILT FENCE
ER-3 NTS



NOTE:
STOCKPILE TO BE WITHIN PROPERTY AND CLEAR OF TREE DRIFLINE AND ROOTS.

8 STOCK PILE COVERING
ER-3 NTS



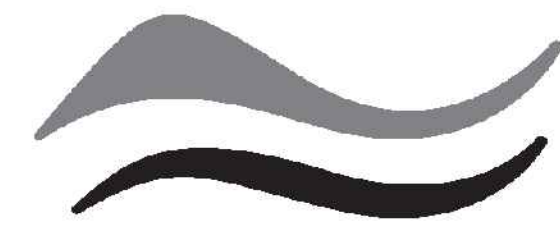
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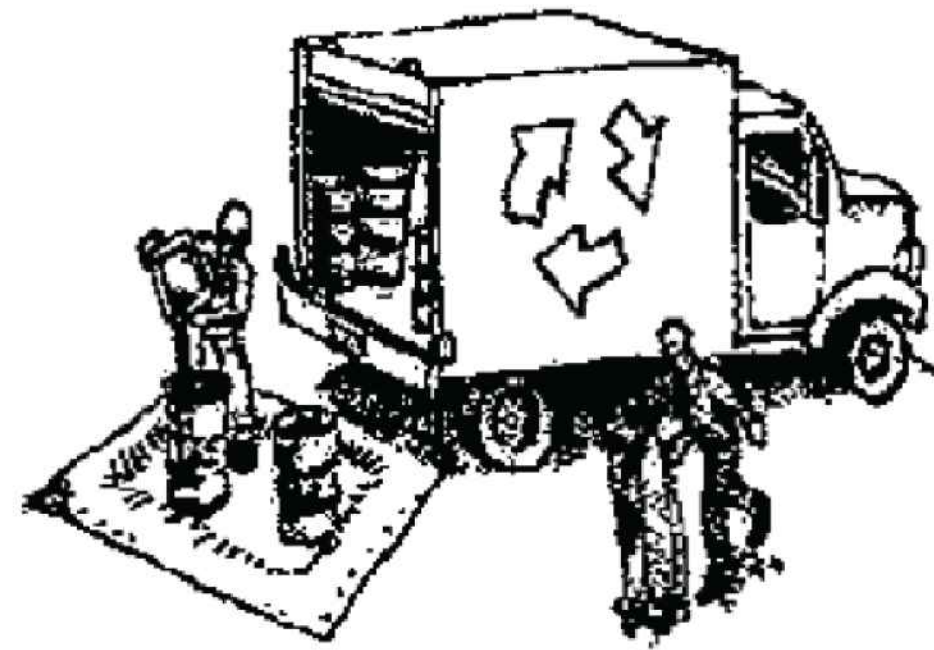
SAN MATEO COUNTYWIDE
**Water Pollution
Prevention Program**

Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

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

Materials & Waste Management



Non-Hazardous Materials

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

Hazardous Materials

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

Waste Management

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

Construction Entrances and Perimeter

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

Equipment Management & Spill Control



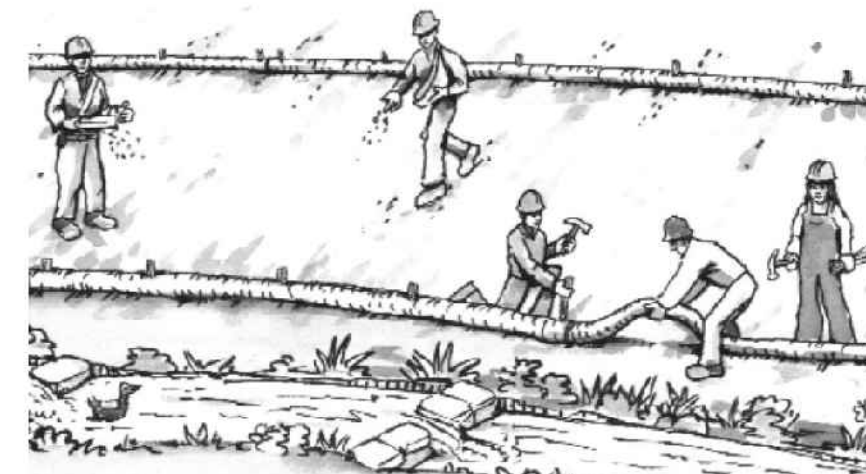
Maintenance and Parking

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

Spill Prevention and Control

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

Earthmoving



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

Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells
 - Buried barrels, debris, or trash.

Paving/Asphalt Work



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

Sawcutting & Asphalt/Concrete Removal

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

Concrete, Grout & Mortar Application



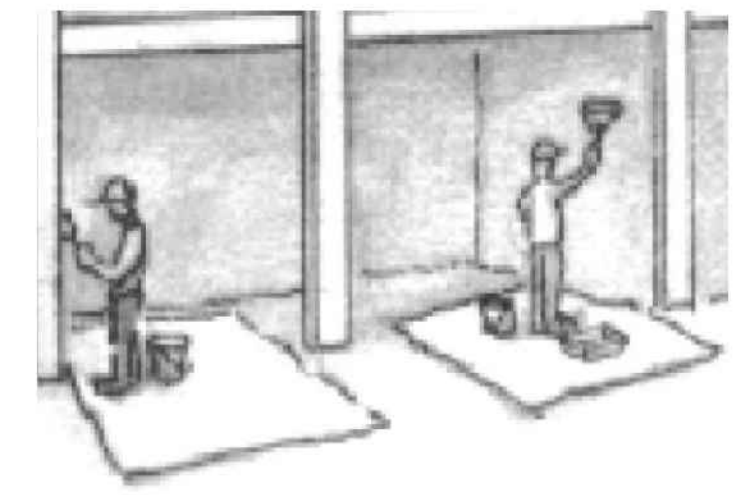
- Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will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

Landscaping



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

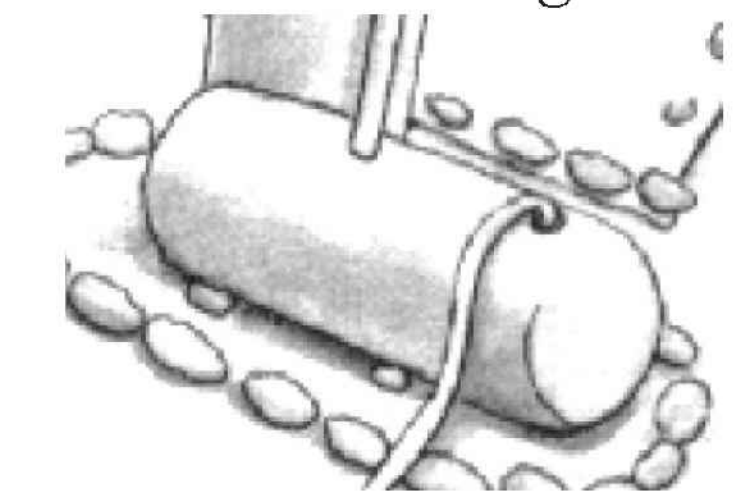
Painting & Paint Removal



Painting Cleanup and Removal

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

Dewatering



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

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