

KEY MAP LEGEND

- SHEET LIMITS
- 5** SHEET NUMBER
- SUBDIVISION BOUNDARY

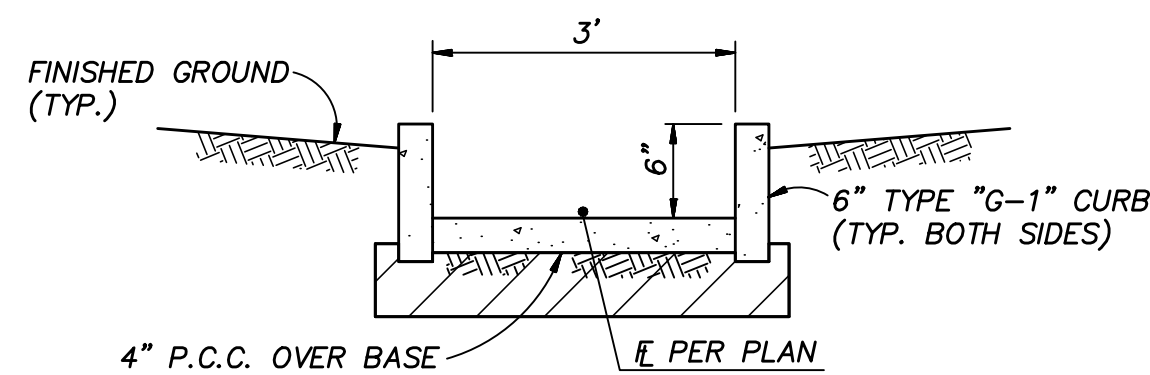
SHEET INDEX

- 1-2 TITLE SHEET AND IMPROVEMENT NOTES
- 3-4 KEY MAP AND TYPICAL SECTIONS
- 5-17 STREET PLANS AND PROFILES
- 18 STRIPING AND SIGNING NOTES
- 19-22 FIRE UNDERGROUND PLANS

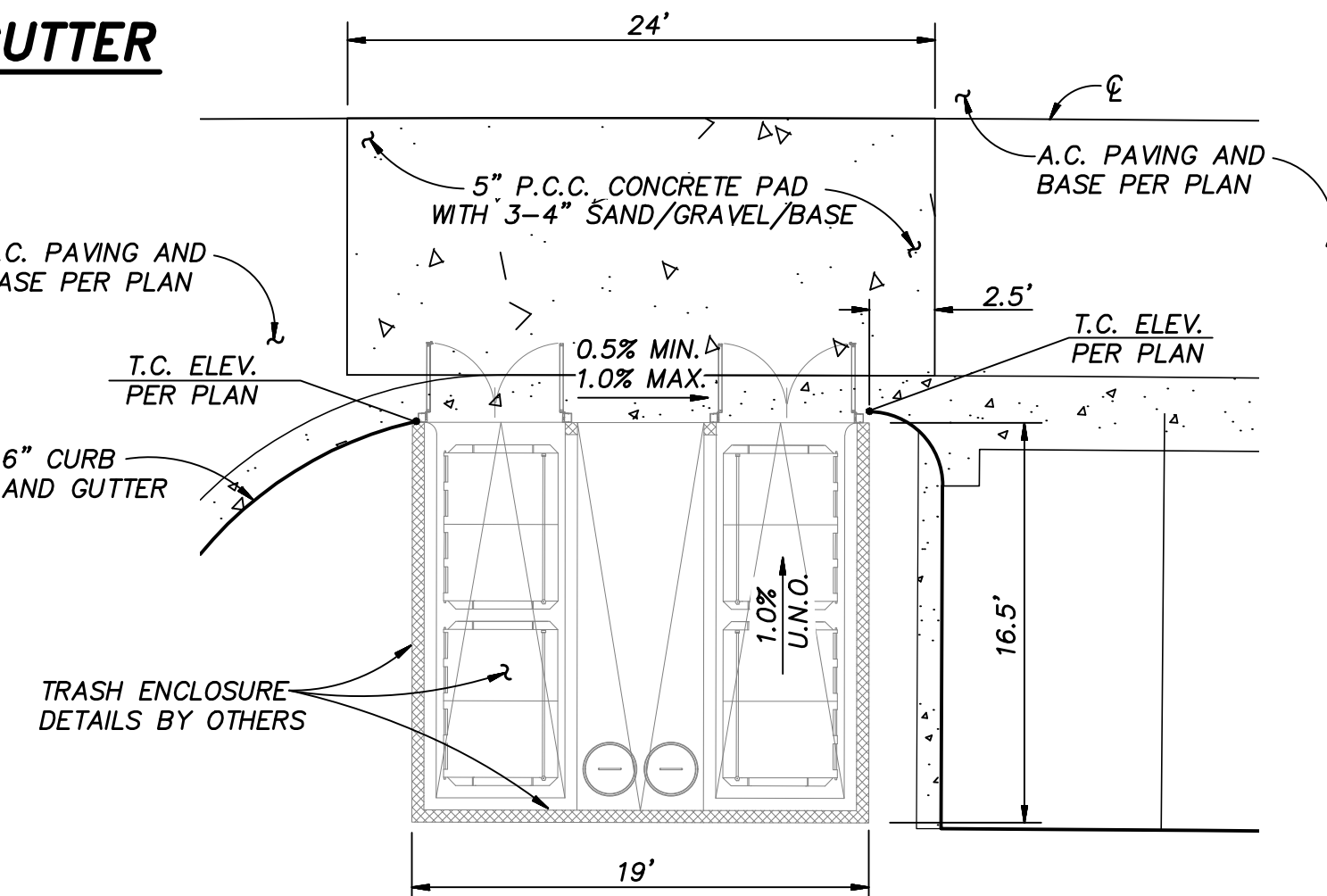
LIST OF ABBREVIATIONS

EXIST.	EXISTING	B.W.	BOTTOM OF WALL
R/W	RIGHT-OF-WAY	H.P.	HIGH POINT
TYP.	TYPICAL	F.S.	FINISHED SURFACE
F.G.	FINISHED GRADE	C.B.	CATCH BASIN
T.C.	TOP OF CURB	CLEANOUT	CLEANOUT
F.F.	FINISHED FLOOR	D.G.	DECOMPOSED GRANITE
S.G.	SUBGRADE	P.C.C.	PORTLAND CEMENT CONCRETE
AC.	ACRE	STA.	STATION
P	PROPERTY LINE	DWG.	DRAWING
CL	CENTERLINE	MAX.	MAXIMUM
EL	FLOW LINE	ELEV.	ELEVATION
MIN.	MINIMUM	O.C.	ON CENTER
P.P.	POWER POLE	SIM.	SIMILAR
E.P.	EDGE OF PAVEMENT	ST. LT.	STREET LIGHT
DIA.	DIAMETER	PVT.	PRIVATE
E.O.E.	EXISTING OVERHEAD ELECTRIC	DWY.	DRIVEWAY
V.C.P.	VITRIFIED CLAY PIPE	PKWY.	PARKWAY
S.F.	SQUARE FEET	S.D.C.O.	STORM DRAIN CLEANOUT
L.P.	LOW POINT	GTR.	GUTTER
R.C.P.	REINFORCED CONCRETE PIPE	MOD.	MODIFIED
T.W.	TOP OF WALL	S.C.O.	SEWER CLEANOUT
S.M.H.	SEWER MANHOLE	U.N.O.	UNLESS NOTED OTHERWISE
G.F.	GARAGE FLOOR	I.E.	INVERT ELEVATION
C.Y.	CUBIC YARD	DWY.	DRIVEWAY
D.U.	DWELLING UNIT	N.A.P.	NOT A PART
PVT.	PRIVATE	H.D.C.	HIGH DEFLECTION COUPLING

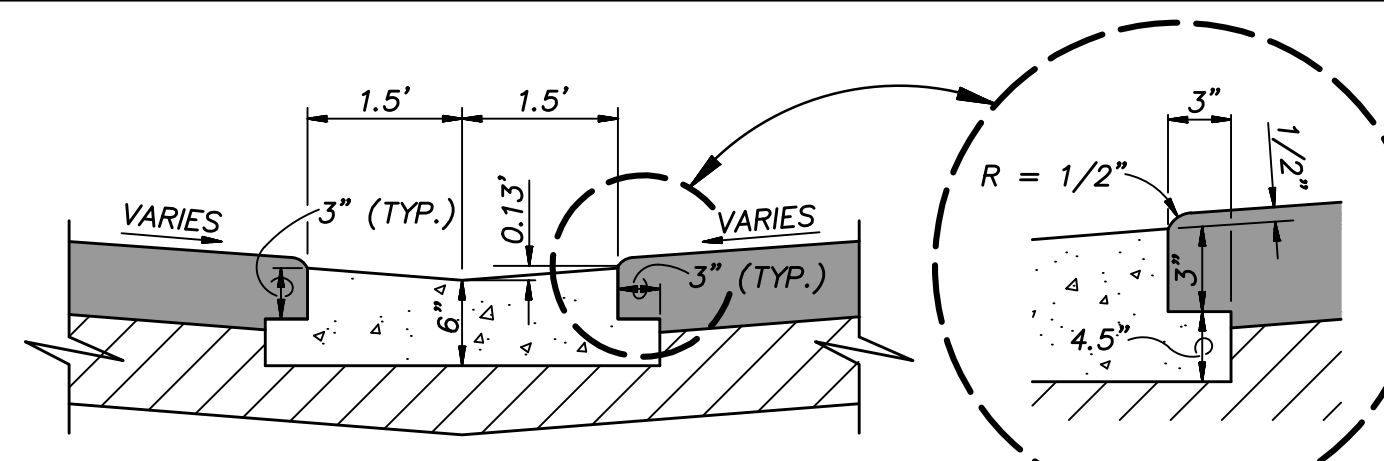
KEY MAP
SCALE: 1" = 100'



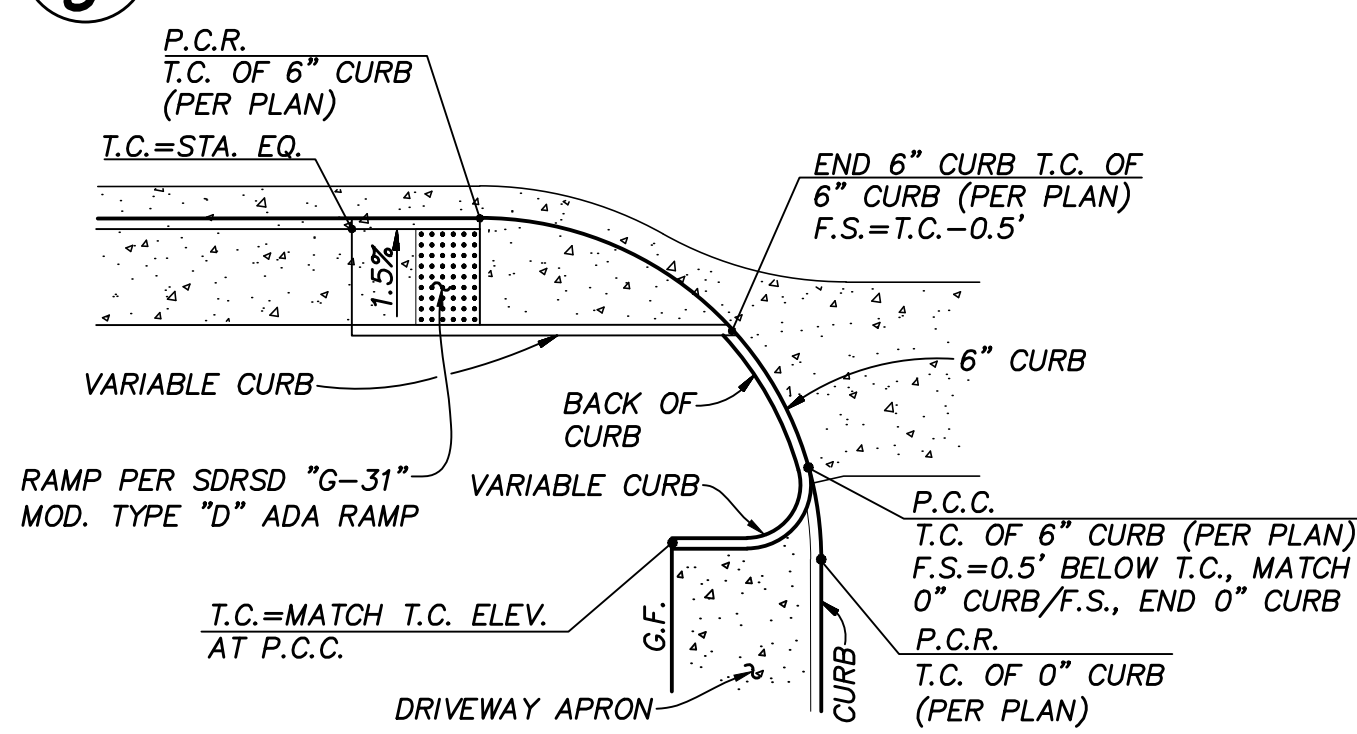
TYPICAL DETAIL
3' WIDE PASS-THROUGH GUTTER
NOT TO SCALE



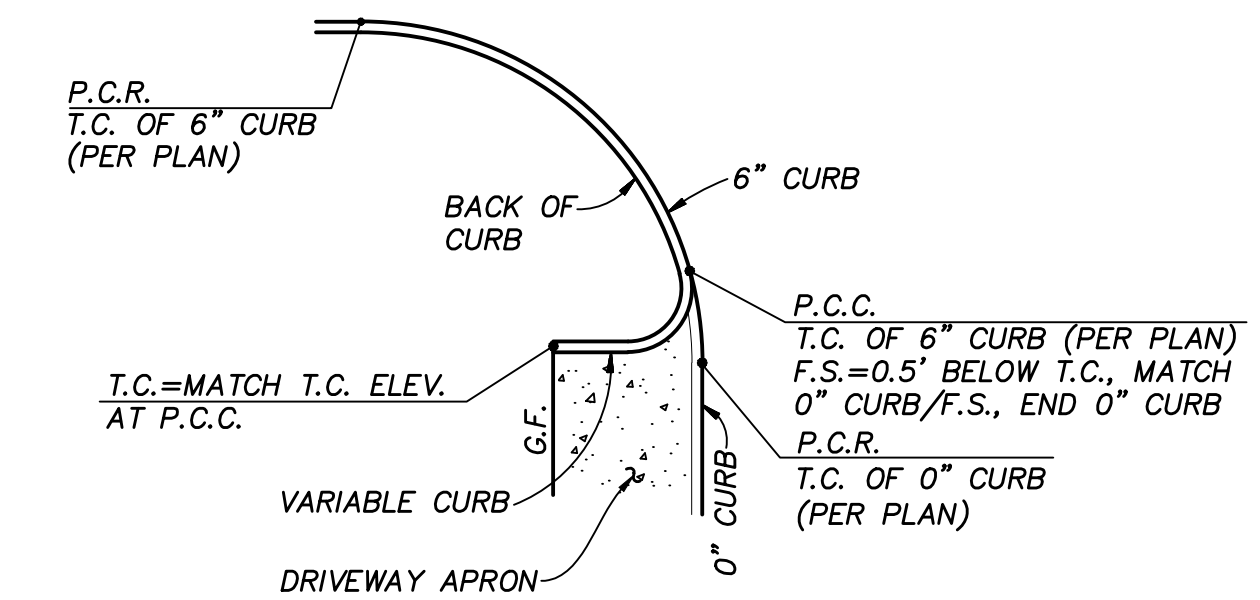
TYPICAL DETAIL
ADA TRASH ENCLOSURE
NOT TO SCALE



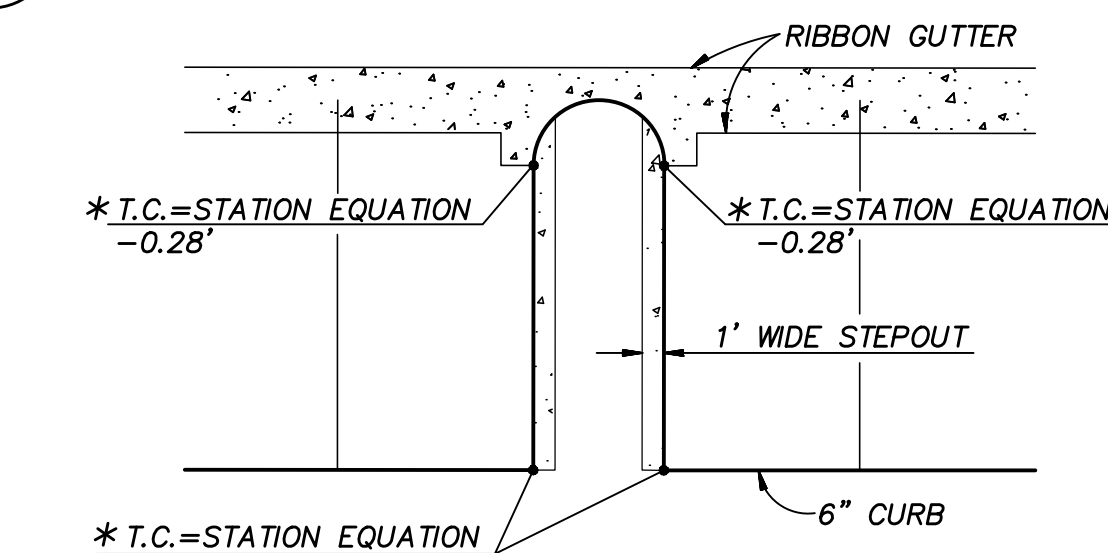
DETAIL ~ 3' RIBBON GUTTER
NOT TO SCALE



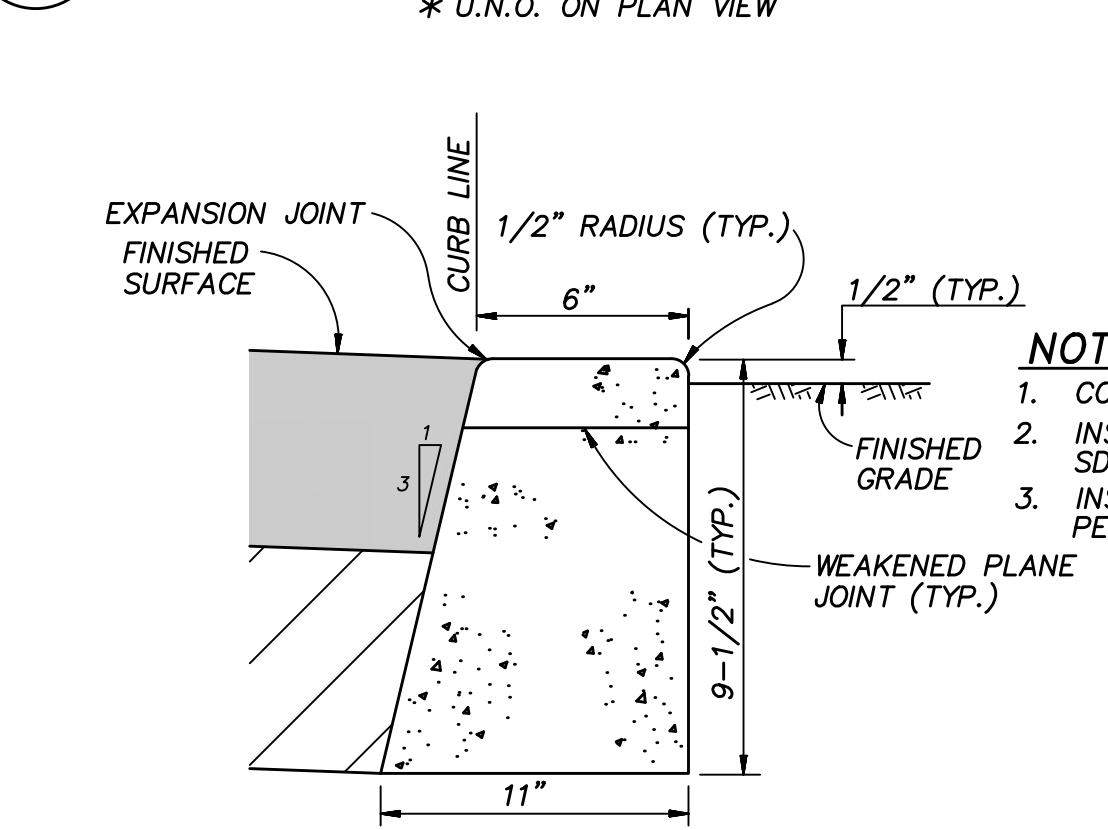
TYPICAL DETAIL ~ ALLEY CURB RETURN
NOT TO SCALE



TYPICAL DETAIL ~ ALLEY CURB RETURN
NOT TO SCALE



TYPICAL DETAIL ~ PARKING ISLAND
NOT TO SCALE



DETAIL ~ 0" CURB
NOT TO SCALE

GENERAL NOTES

- STORM DRAINS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIZES, LOCATIONS, AND TYPE OF SEWER AND DRAINAGE FACILITIES, OR ANY SURFACE IMPROVEMENTS WITHIN FUTURE STREET RIGHTS-OF-WAY SHOWN ON THESE PLANS. SEPARATE APPROVALS AND PERMITS FOR THESE SHALL BE REQUIRED IN CONJUNCTION WITH IMPROVEMENT PLANS.
- WRITTEN PERMISSION SHALL BE OBTAINED FOR ANY OFF-SITE GRADING.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING GRADING OPERATIONS. ANYTHING DAMAGED OR DESTROYED SHALL BE REPLACED OR REPAIRED TO CONDITION EXISTING PRIOR TO GRADING.
- THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REVERENCE, AND/OR PRESERVE ALL HISTORICAL PROPOSED IMPROVEMENTS; AND IF DESTROYED, A LANDS SURVEYOR, OR A CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING SHALL REPLACE SUCH MONUMENTS WITH THE APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LANDS SURVEYOR ACT. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE DEVELOPER/CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
- THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
- ALL FLOWS SHOWN ARE FOR 50-YEAR STORM, EXCEPT AS NOTED.
- ALL SEDIMENTATION BASINS, OUTLET PIPES AND DITCHES ARE PRIVATE UNLESS OTHERWISE NOTED AND HAVE NOT BEEN REVIEWED FOR ADEQUACY BY THE CITY ENGINEERING DEPARTMENT.
- THE OWNER MUST OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF OCCUPANCY SAFETY AND HEALTH (D.O.S.H.) FOR CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE FEET OR DEEPER INTO WHICH A PERSON IS REQUIRED TO DESCEND. SAID PERMIT IS REQUIRED PRIOR TO ISSUANCE OF A GRADING PERMIT BY THE CITY OF CHULA VISTA.
- GRADING EQUIPMENT SHALL NOT USE OR BLOCK TRAFFIC LANES DURING GRADING ACTIVITY. TRUCK OPERATIONS IN AND OUT OF CONSTRUCTION AND STAGING AREAS SHALL BE CONTROLLED AS REQUIRED BY THE CITY. TRUCK AND EQUIPMENT ROUTES IN AND OUT OF THE SITE, SHALL BE APPROVED BY THE CITY PRIOR TO START OF WORK, AT THE END OF THE WORKING DAY, STREETS SHALL BE CLEANED OF DIRT AND CONSTRUCTION DEBRIS TO THE SATISFACTION OF THE CITY INSPECTOR AND THE MITIGATION MONITOR.
- DUST GENERATED BY CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LOCAL DUST CONTROL, ANY REQUIREMENTS OF ANY MITIGATION MONITORING PROGRAMS, AND UNIFORM BUILDING CODE (UBC) REQUIREMENTS, WHICH INCLUDE DUST CONTROL MEASURES FOR CONSTRUCTION SITES. DUST REDUCING MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, REGULAR WATERING OF GRADED SURFACES AND RESTRICTION OF ALL CONSTRUCTION VEHICLES AND EQUIPMENT TO TRAVEL ALONG ESTABLISHED AND REGULARLY WATERED ROADWAYS AT SPECIFIED SPEEDS.

NOTIFICATIONS

- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORD, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN HEREON, HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UNDERGROUND SERVICE ALERT (PHONE 1-800-422-4133) TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION FOR THE MARK OUT OF THE LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK.

FOR ANY QUESTIONS REGARDING THE MARK OUT OF UNDERGROUND UTILITIES, THE CONTRACTOR SHOULD CONTACT THE RESPECTIVE UTILITY COMPANY:

- STREET LIGHT OR SIGNAL LIGHT CONDUIT CITY OF CHULA VISTA (619) 397-6163
- SEWER OR STORM DRAIN CITY OF CHULA VISTA VERIFICATION (619) 691-5024 NOTIFICATION (619) 397-6000
- GAS & ELECTRIC SAN DIEGO GAS & ELECTRIC CO. 1-800-227-2600 (619)230-7800
- WATER OTAY WATER DISTRICT (619) 670-2222
- SWEETWATER AUTHORITY (619) 420-1413
- TELEPHONE PACIFIC BELL (619) 266-4683
- TELEVISION COX CABLE OF SAN DIEGO/CHULA VISTA CABLE (619) 263-9251 (619) 476-0177
- ULTRONICS & WORLDWIDE SATELLITE (619) 422-0776

- CONTRACTOR SHALL NOTIFY THE CITY ENGINEER'S OFFICE (PHONE 619-585-5737) AND THE MITIGATION MONITOR AT THE DEVELOPMENT SERVICES DIVISION (PHONE 619-691-5101) 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
- CONTRACTOR SHALL GIVE 24 HOURS (ONE WORKING DAY) NOTICE ON CALLS FOR INSPECTION. PHONE: 619-397-6128.
- ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL AT CONTRACTOR'S EXPENSE.

NOTES

- CONCRETE SHALL BE 520-C-2500.
- INSTALL EXPANSION JOINTS AT 45' INTERVALS PER SDG-109 AND G-10.
- INSTALL WEAKENED PLANE JOINTS 15' INTERVALS PER SDG-109 AND G-10

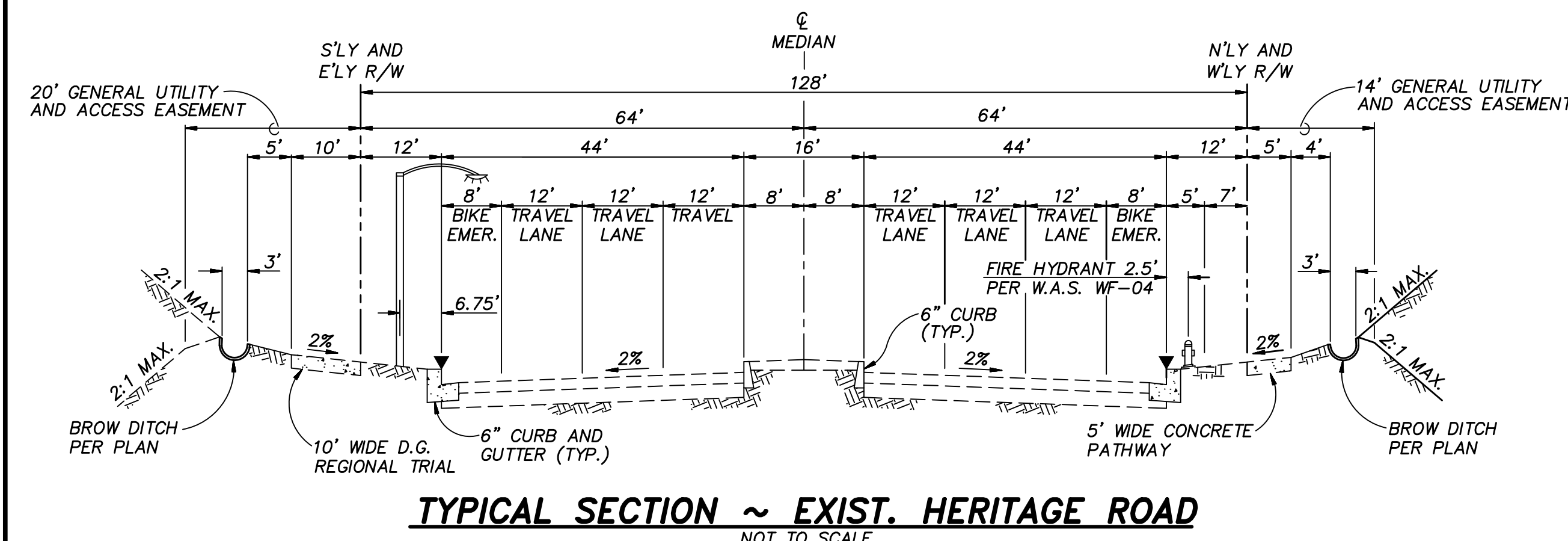


AS BUILT		<p>PLANNING ENGINEERING SURVEYING 3990 Ruffin Road, Suite 120 San Diego, Ca. 92123 858-560-1141 858-560-8157 Fax</p>
Signature: AARON PARKER	Date: _____	
Printed Name: AARON PARKER	P.E. No. 68547	
My Registration Expires: 9-30-21	Discipline: CIVIL	
CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT		DRAWING NO. _____
PRIVATE IMPROVEMENT PLANS FOR:		_____ -03
OTAY RANCH VILLAGE 2 R-25(A)		
CITY OF CHULA VISTA TRACT NO. DR20-0010		W.O. No. _____

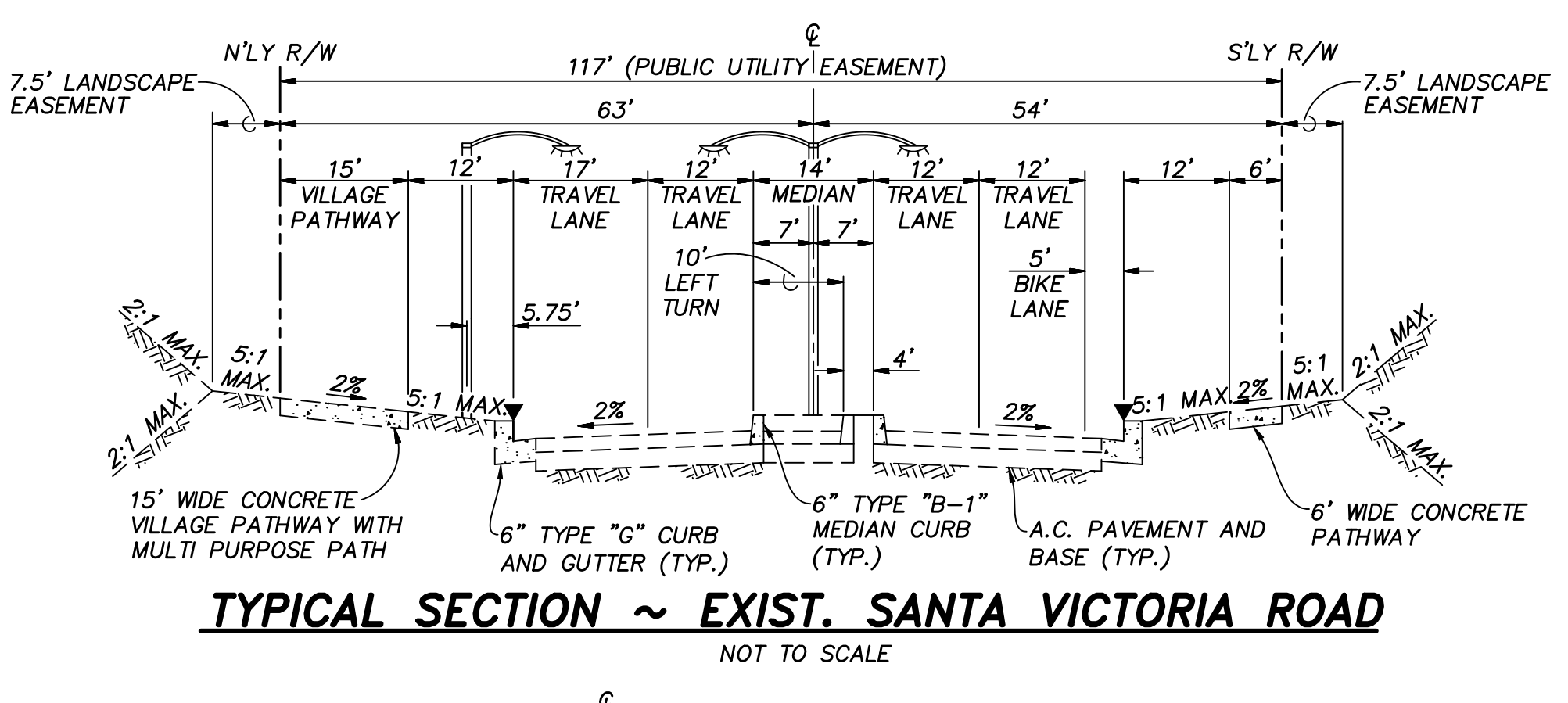


CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:
CONTRACTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035					DESCRIPTION: BRASS DISC MKD. "SD CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO ALV.R. TRACKING STA. 15'+- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL 1" = 100' VERTICAL N/A	J.S.	T.P.	A.P.	By: _____	By: _____
INSPECTOR:								Aaron Parker			By: _____	For the City Engineer
DATE COMPLETED:												

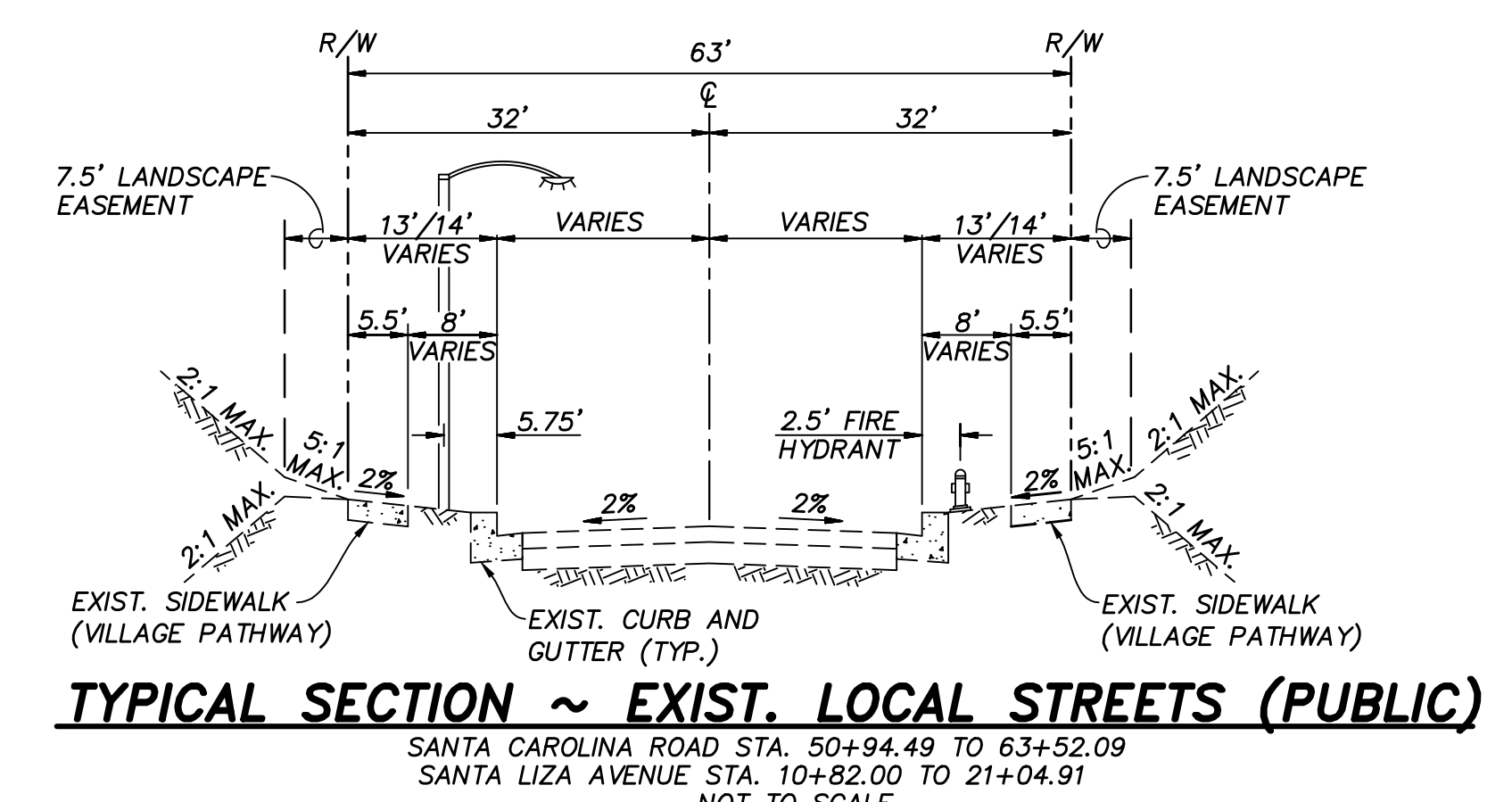
OTAY RANCH VILLAGE 2 ~ R-25(A)



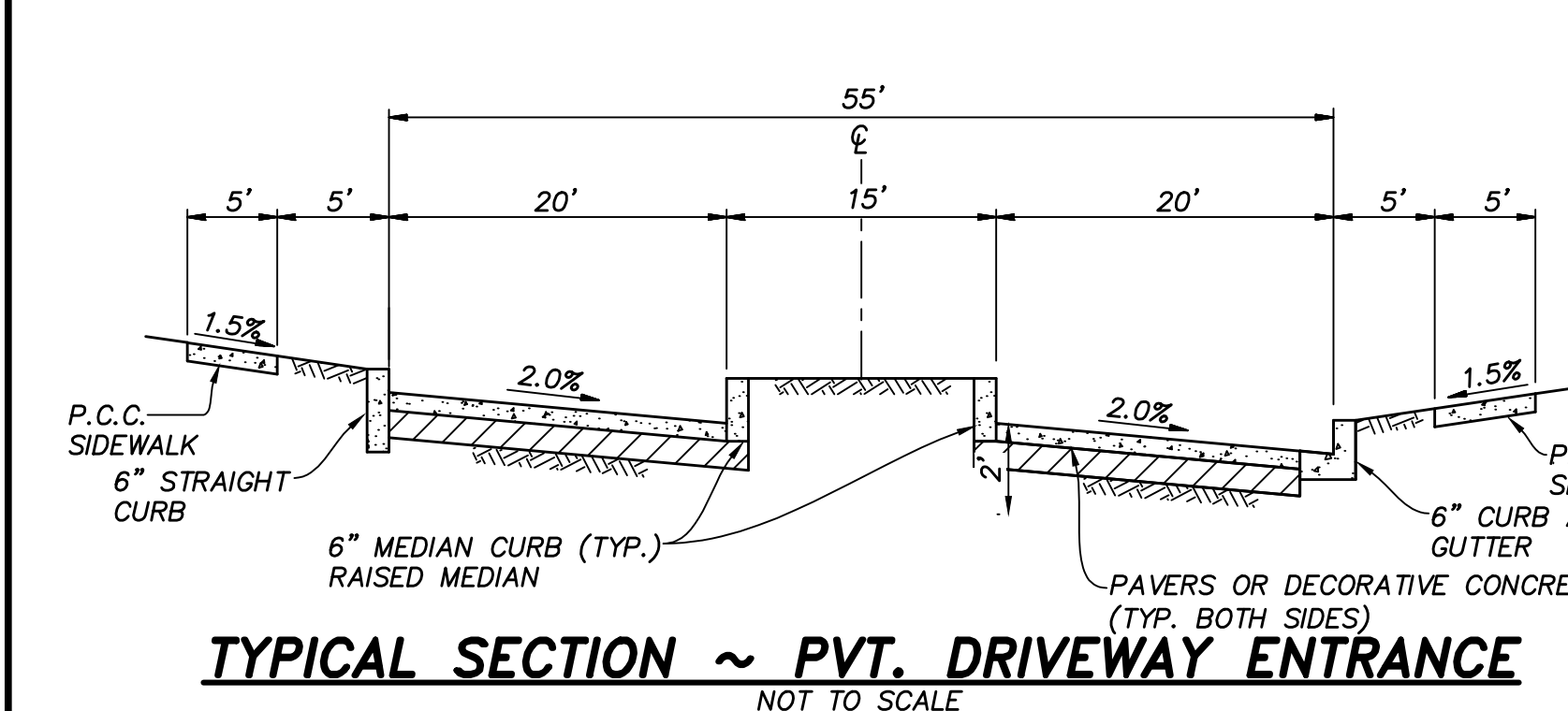
TYPICAL SECTION ~ EXIST. HERITAGE ROAD
NOT TO SCALE



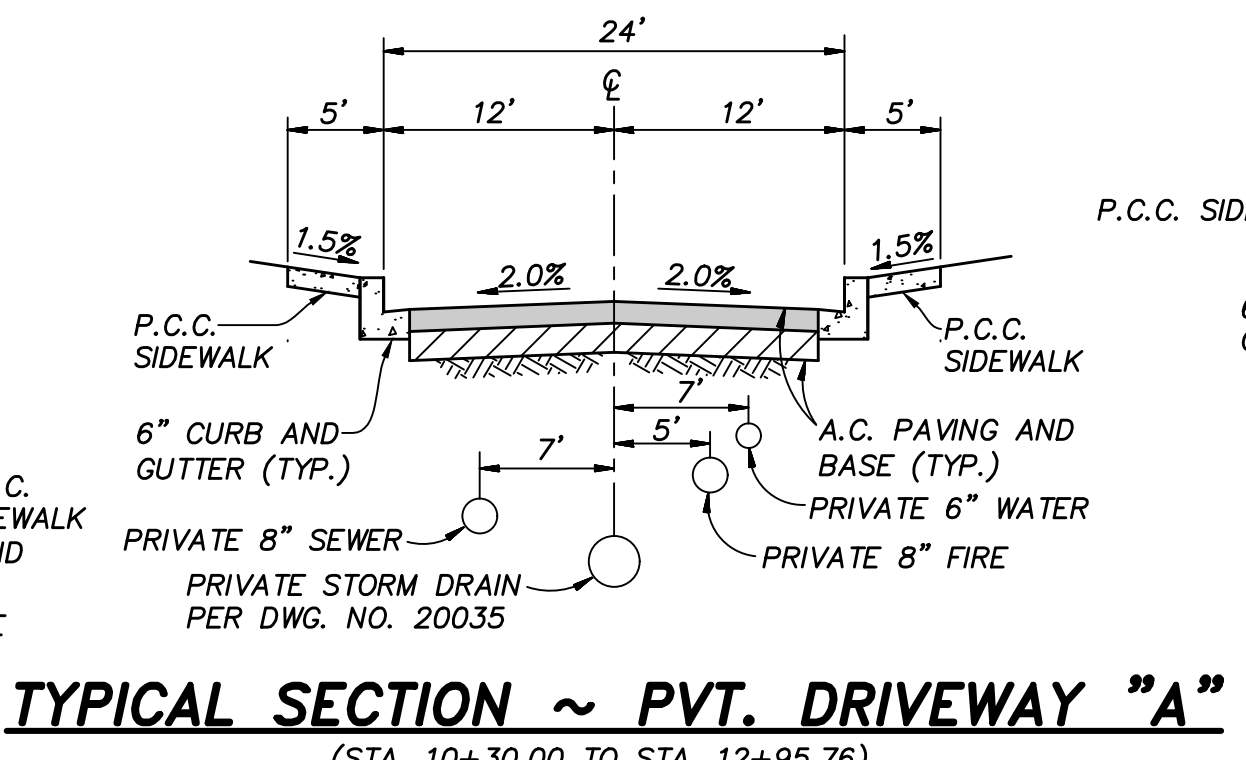
TYPICAL SECTION ~ EXIST. SANTA VICTORIA ROAD
NOT TO SCALE



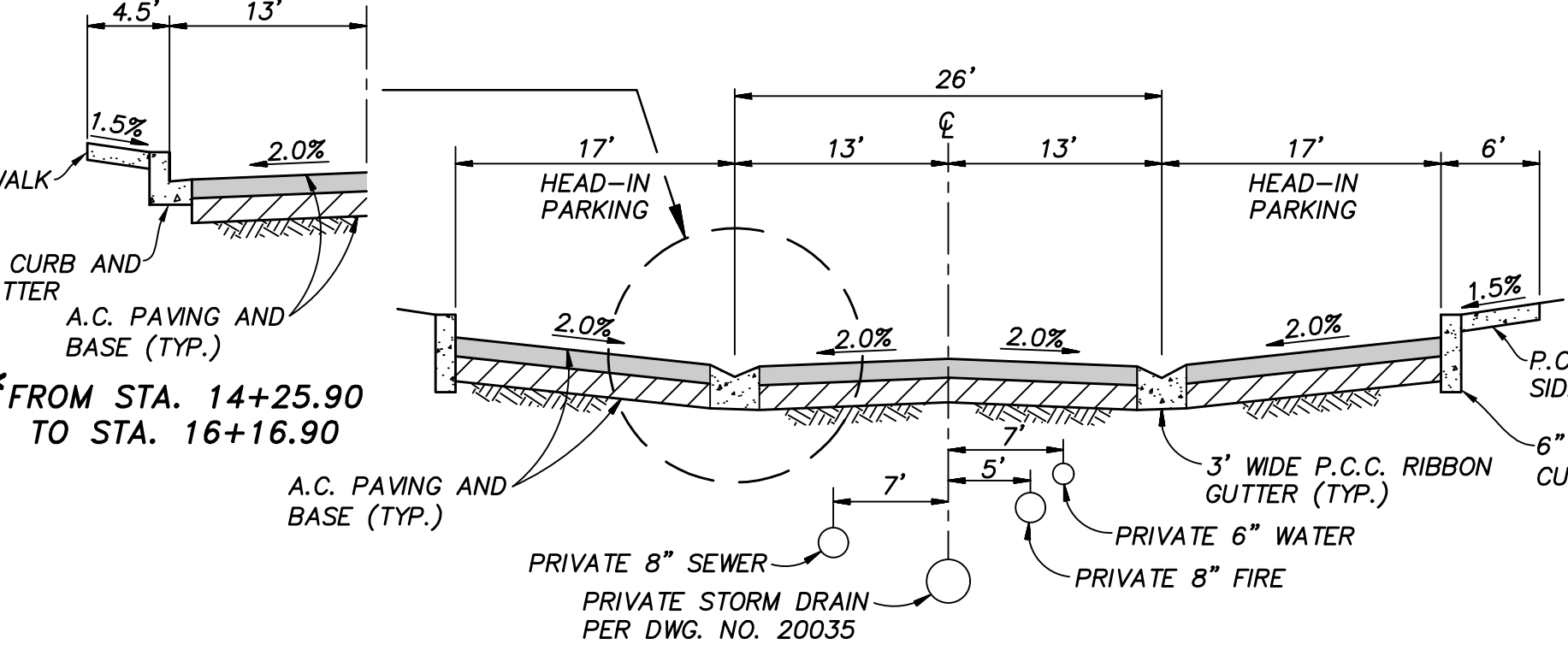
TYPICAL SECTION ~ EXIST. LOCAL STREETS (PUBLIC)
SANTA CAROLINA ROAD STA. 50+94.49 TO 63+52.09
SANTA LIZA AVENUE STA. 10+82.00 TO 21+04.91
NOT TO SCALE



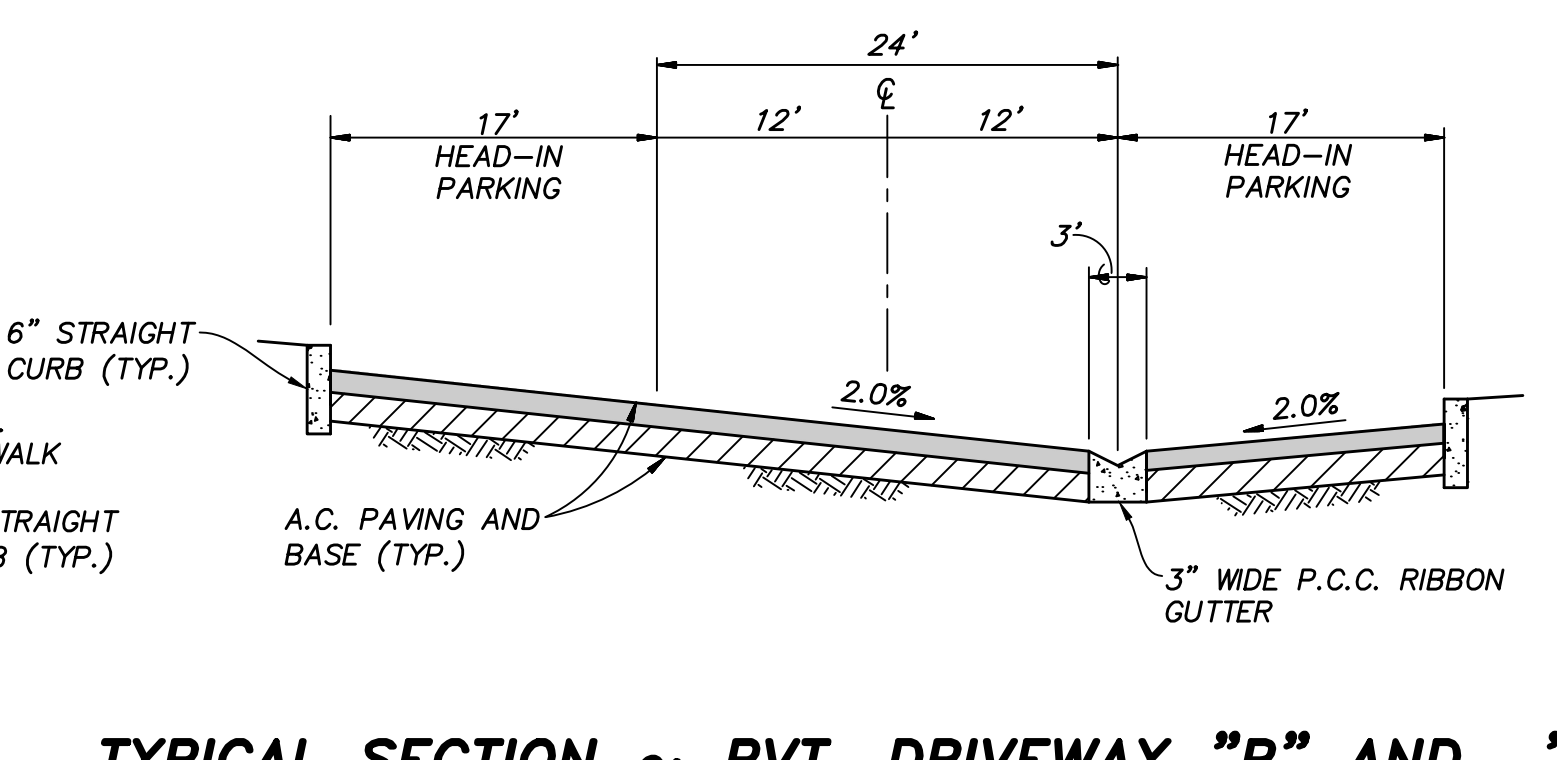
TYPICAL SECTION ~ PVT. DRIVEWAY ENTRANCE
NOT TO SCALE



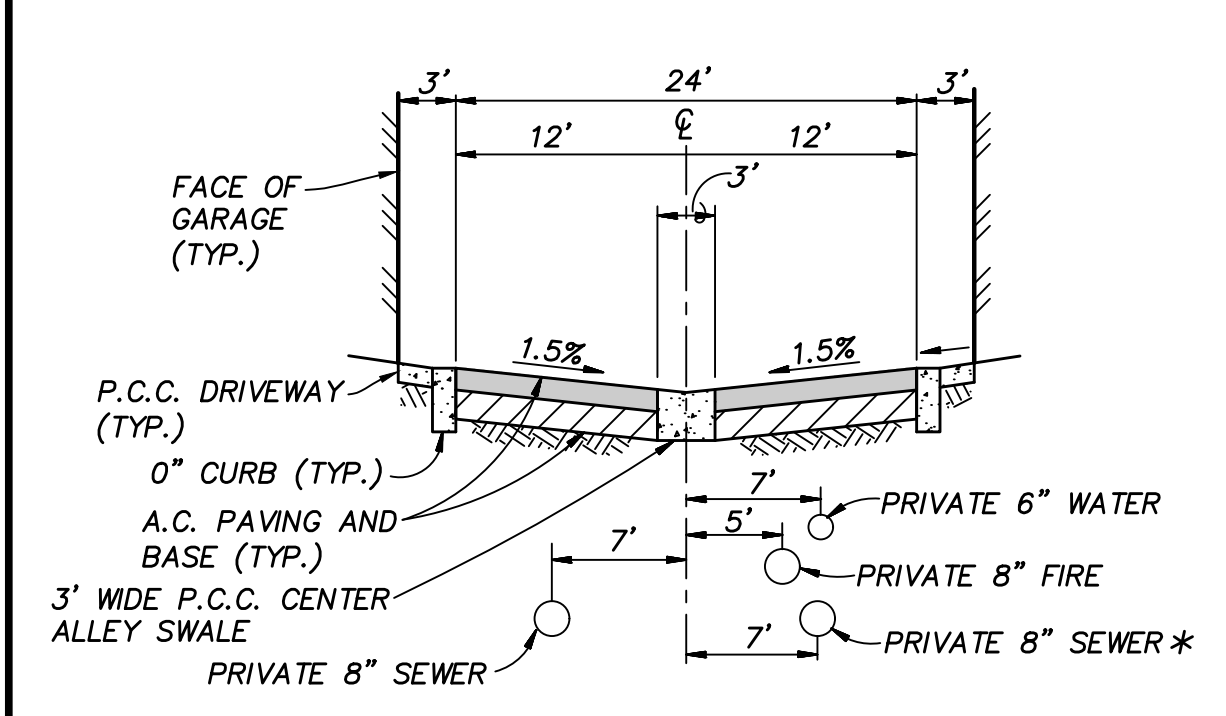
TYPICAL SECTION ~ PVT. DRIVEWAY "A"
(STA. 10+30.00 TO STA. 12+95.76)
NOT TO SCALE



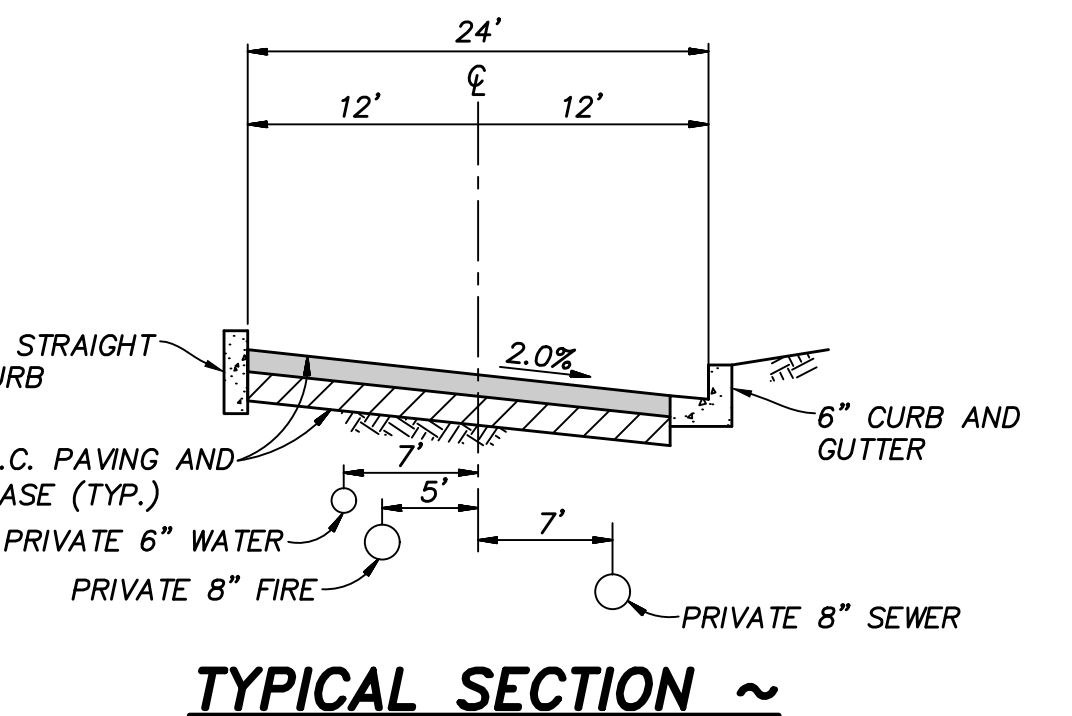
TYPICAL SECTION ~ PVT. DRIVEWAY "A"
(STA. 17+83.06 TO STA. 21+07.06)
NOT TO SCALE



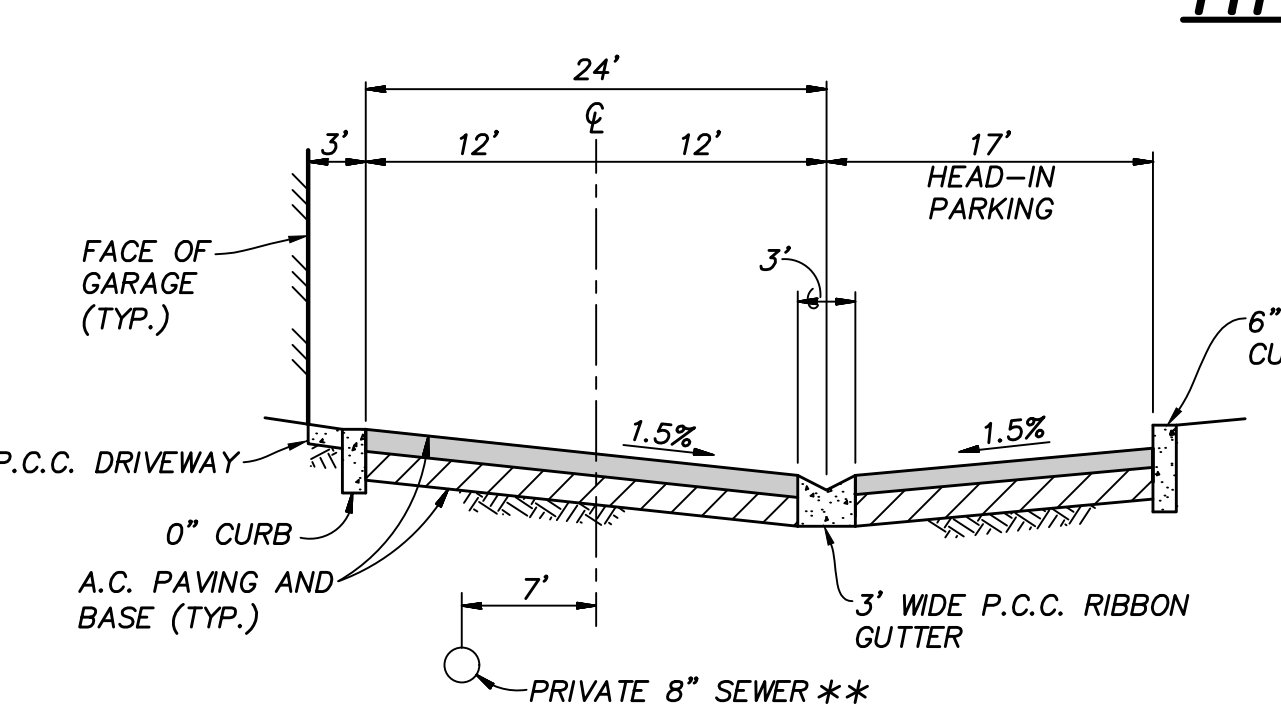
TYPICAL SECTION ~ PVT. DRIVEWAY "B" AND "J"
(DRIVEWAY "B" = STA. 17+85.00 TO STA. 21+34.50)
(DRIVEWAY "J" = STA. 11+11.04 TO 12+01.04)
NOT TO SCALE



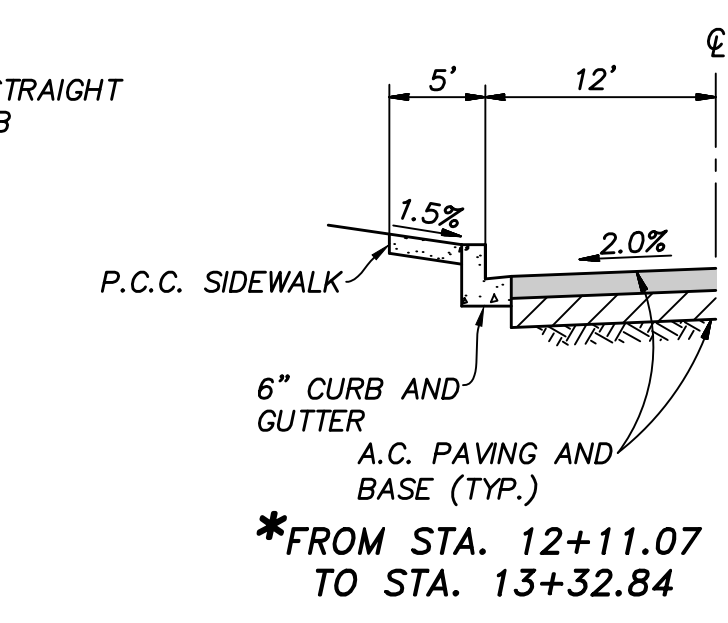
TYPICAL SECTION ~ PVT. DRIVEWAY "C", "D" AND "F"
(DRIVEWAY "C" = STA. 10+24.74 TO STA. 12+64.63)
NOT TO SCALE
* DRIVEWAY "D" ONLY, EXCLUDE FIRE AND WATER MAINS



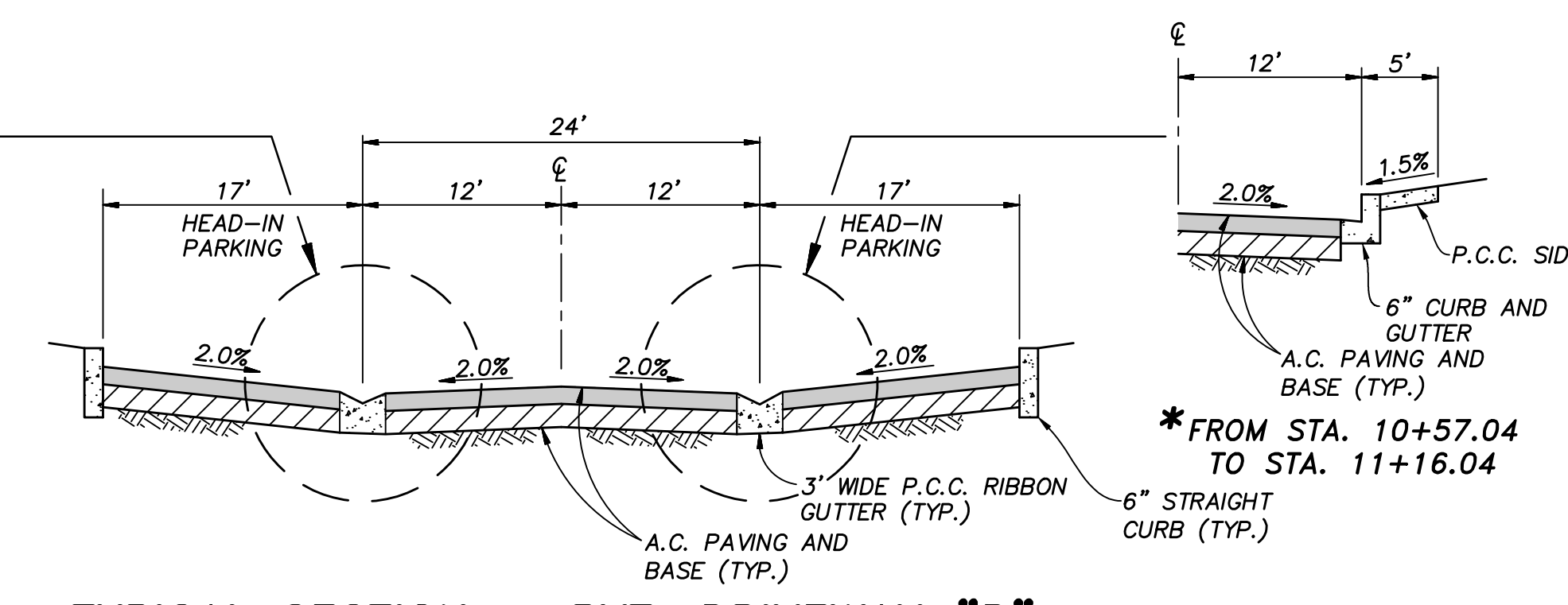
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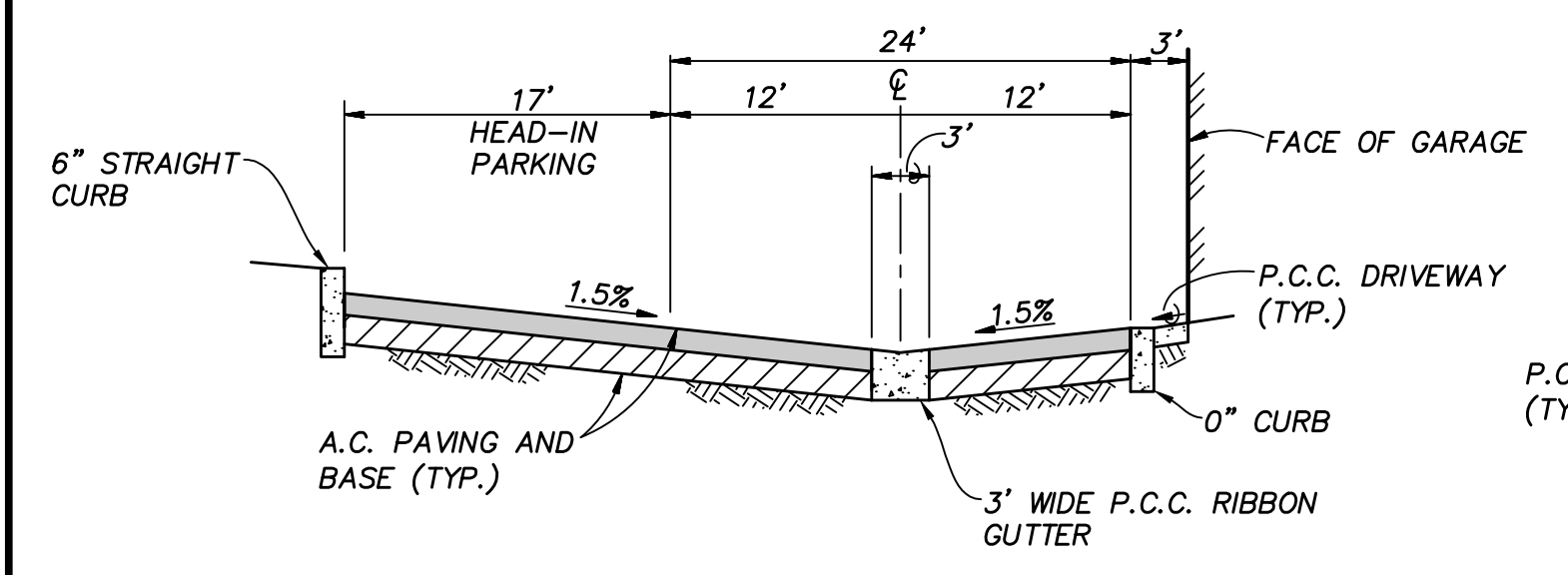
TYPICAL SECTION ~ PVT. DRIVEWAY "C", "G", "K" AND "L"
(DRIVEWAY "C" = STA. 13+47.00 TO STA. 13+65.00)
NOT TO SCALE
** DRIVEWAY "C" ONLY



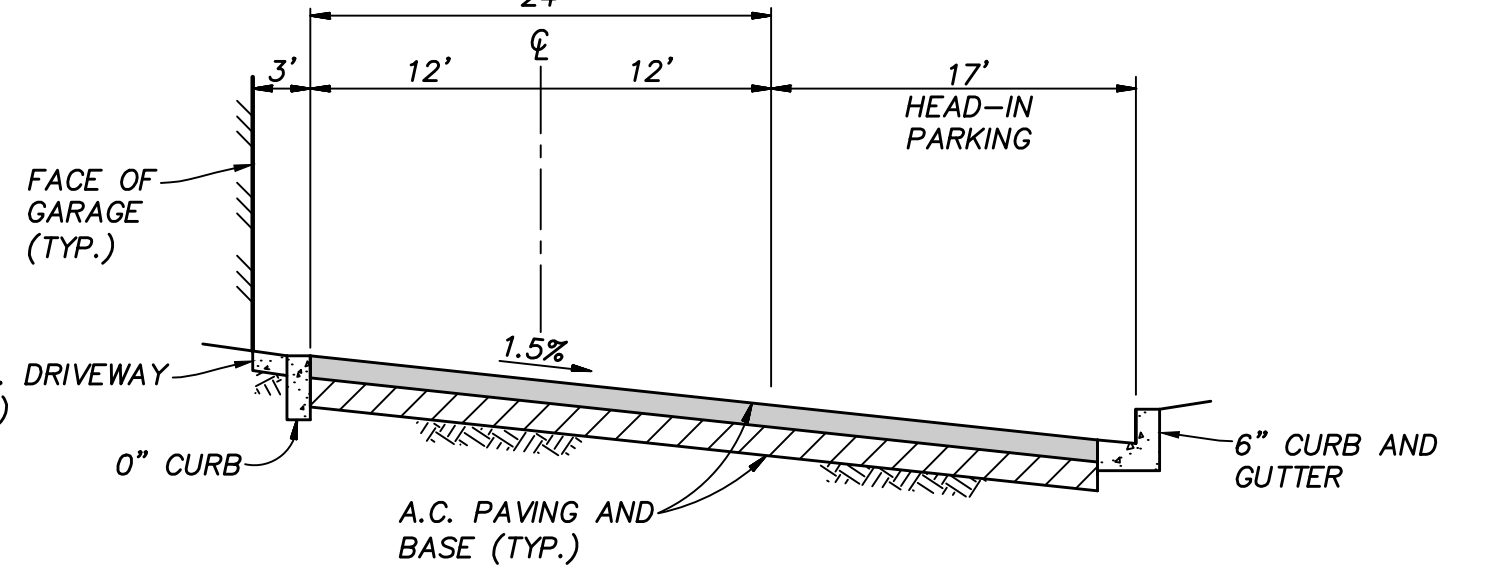
TYPICAL SECTION ~ PVT. DRIVEWAY "B"
(STA. 12+11.07 TO STA. 13+32.84)
NOT TO SCALE



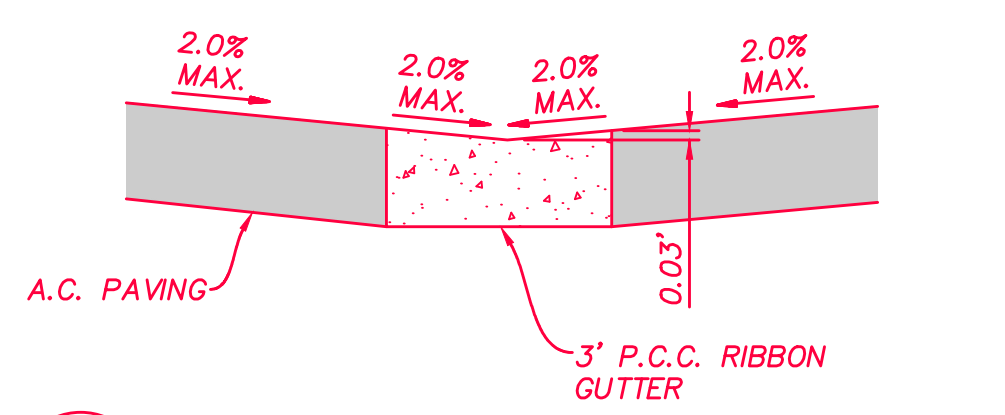
TYPICAL SECTION ~ PVT. DRIVEWAY "B"
(STA. 14+57.89 TO STA. 16+25.44)
NOT TO SCALE



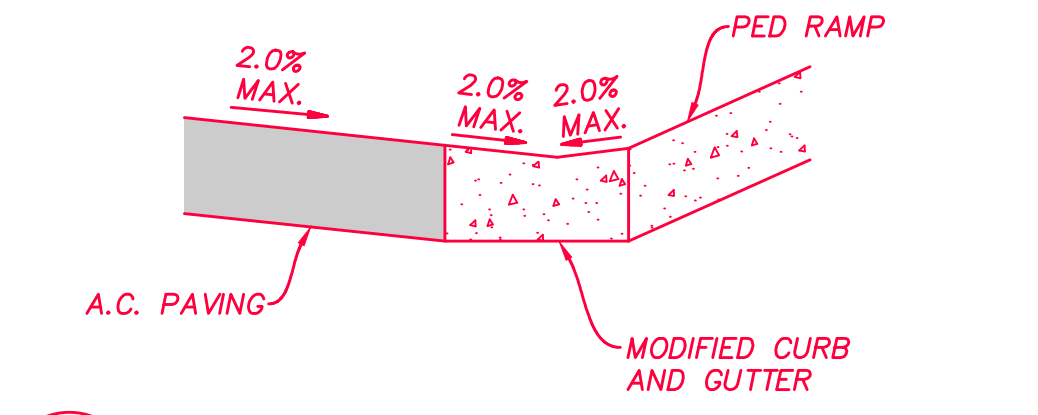
TYPICAL SECTION ~ PVT. DRIVEWAY "H"
NOT TO SCALE



TYPICAL SECTION ~ PVT. DRIVEWAY "I"
NOT TO SCALE



(A) DETAIL ~ MODIFIED RIBBON GUTTER-ADA COMPLIANT
NOT TO SCALE



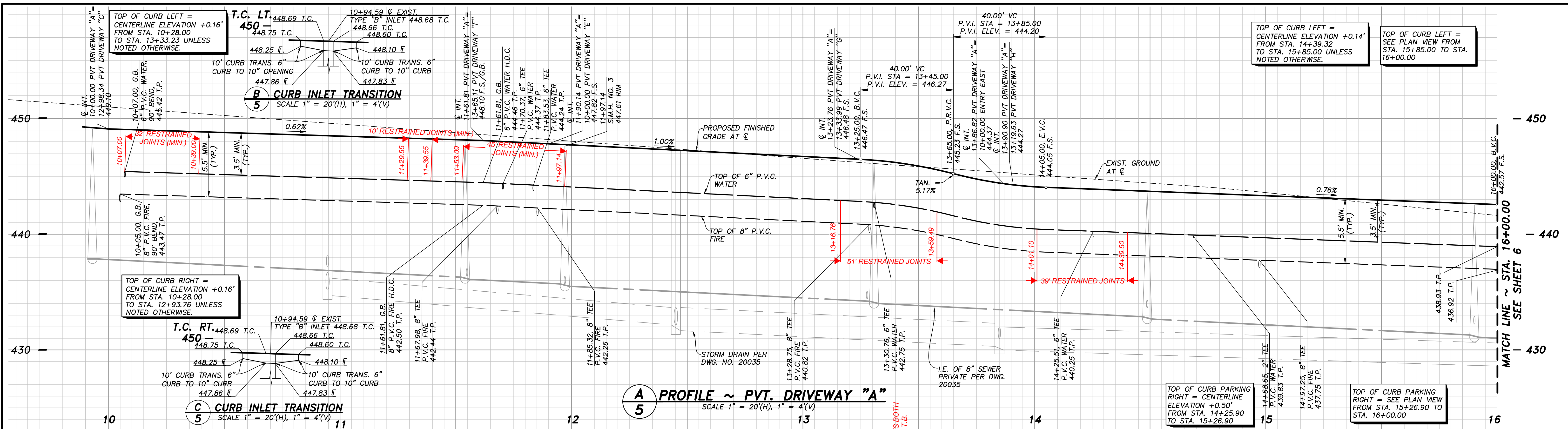
(B) DETAIL ~ MODIFIED GUTTER FLOW LINE-ADA COMPLIANT
NOT TO SCALE



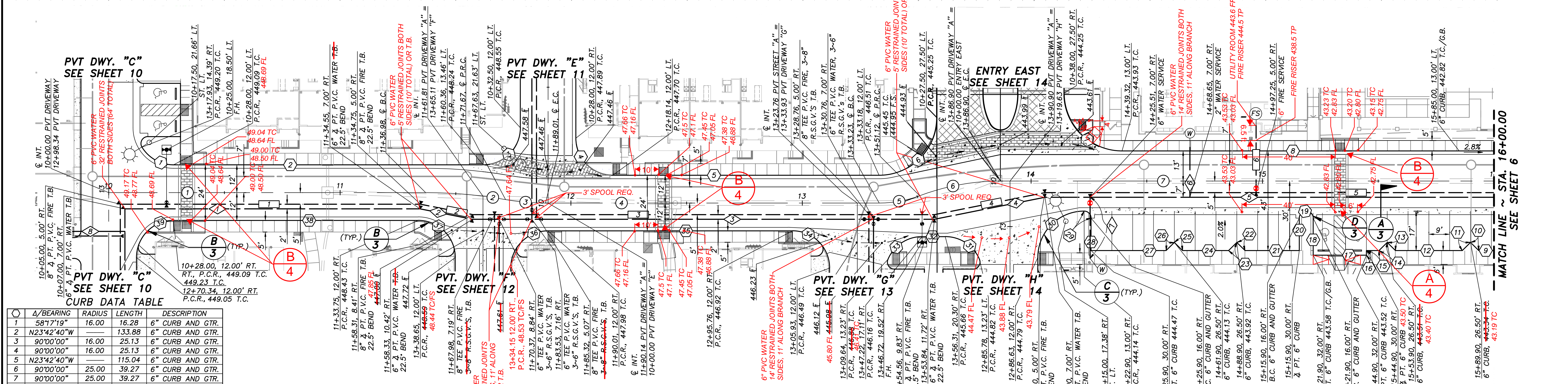
CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.	
CONTRACTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	SB&C	ADD ADA DETAILS	6/3/21		DESCRIPTION: BRASS DISC MKD. "SD CITY ENGR." IN 3/4" IRON PIPE 0.5 MI S'LY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO ALVR. TRACKING STA. 15'+- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL N/A VERTICAL N/A	J.S.	T.P.	A.P.			Signature: AARON PARKER Printed Name: AARON PARKER My Registration Expires: 9-30-21 Discipline: CIVIL	AS BUILT Date: _____ P.E. No. 68547 3990 Ruffin Road, Suite 120 San Diego, Ca. 92123 858-560-1141 858-560-8157 Fax	DR20-0010



OTAY RANCH VILLAGE 2 ~ R-25(A)



A PROFILE ~ PVT. DRIVEWAY "A"
SCALE 1" = 20'(H), 1" = 4'(V)



PVT. DRIVEWAY "A"

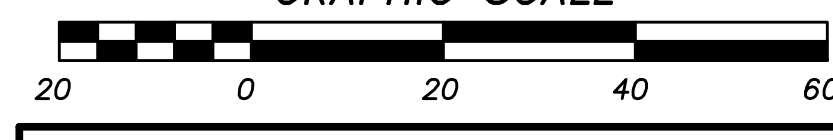
Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 58°17'19"	16.00	16.28	6" CURB AND GTR.
2 N23°42'40"W	133.88	6" CURB AND GTR.	
3 90°00'00"	16.00	25.13	6" CURB AND GTR.
4 90°00'00"	16.00	25.13	6" CURB AND GTR.
5 N23°42'40"W	115.04	6" CURB AND GTR.	
6 90°00'00"	25.00	39.27	6" CURB AND GTR.
7 90°00'00"	25.00	39.27	6" CURB AND GTR.
8 N23°42'40"W	160.68	6" CURB AND GTR.	
9 N23°42'40"W	6.53	6" CURB	
10 N20°42'57"W	5.00	6" CURB	
11 N68°08'17"W	5.00	6" CURB	
12 N23°42'40"W	28.86	6" CURB	
13 N20°42'57"E	5.00	6" CURB	
14 N68°08'17"W	5.00	6" CURB	
15 N23°42'40"W	5.43	6" CURB	
16 N66°17'20"E	2.00	6" CURB	
17 N23°42'40"W	23.00	6" CURB	
18 N66°17'20"E	16.00	6" CURB	
19 180°00'00"	3.00	9.42	6" CURB AND GTR.
20 N66°17'20"E	14.00	6" CURB	
21 N23°42'40"W	23.43	6" CURB	
22 N20°42'57"E	5.00	6" CURB	
23 N68°08'17"W	5.00	6" CURB	
24 N23°42'40"W	19.86	6" CURB	
25 N20°42'57"E	5.00	6" CURB	
26 N68°08'17"W	5.00	6" CURB	
27 N23°42'40"W	32.43	6" CURB	

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
28 N66°17'20"E	14.00	6" CURB	
29 90°00'00"	3.00	4.71	6" CURB AND GTR.
30 90°00'00"	20.00	31.42	6" CURB AND GTR.
31 67°22'48"	16.00	18.82	6" CURB AND GTR.
32 N23°42'40"W	10.00	6" CURB AND GTR.	
33 67°22'48"	16.00	18.82	6" CURB AND GTR.
34 51°33'14"	16.00	14.40	6" CURB AND GTR.
35 N23°42'40"W	105.75	6" CURB AND GTR.	
36 54°00'47"	15.96	15.04	6" CURB AND GTR.
37 74°22'51"	16.00	20.77	6" CURB AND GTR.
38 N23°42'40"W	105.75	6" CURB AND GTR.	
39 70°08'26"	16.00	19.59	6" CURB AND GTR.

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N23°42'40"W	127.55	6" P.V.C., CL. 200, C-900	
2 N12°27'40"W	23.07	6" P.V.C., CL. 200, C-900	
3 N23°42'40"W	199.67	6" P.V.C., CL. 200, C-900	
4 N34°57'40"W	48.70	6" P.V.C., CL. 200, C-900	
5 N23°42'40"W	194.00	6" P.V.C., CL. 200, C-900	
6 N66°17'20"E	21.08	2" WATER SERVICE	
7 N66°17'20"E	26.36	6" P.V.C., CL. 200, C-900	

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N23°42'40"W	129.75	8" P.V.C., CL. 200, C-900	
2 N12°27'40"W	23.07	8" P.V.C., CL. 200, C-900	
3 N23°42'40"W	199.47	8" P.V.C., CL. 200, C-900	
4 N34°57'40"W	48.70	8" P.V.C., CL. 200, C-900	
5 N23°42'40"W	194.00	8" P.V.C., CL. 200, C-900	
6 N66°17'20"E	27.80	6" P.V.C., CL. 200, C-900	

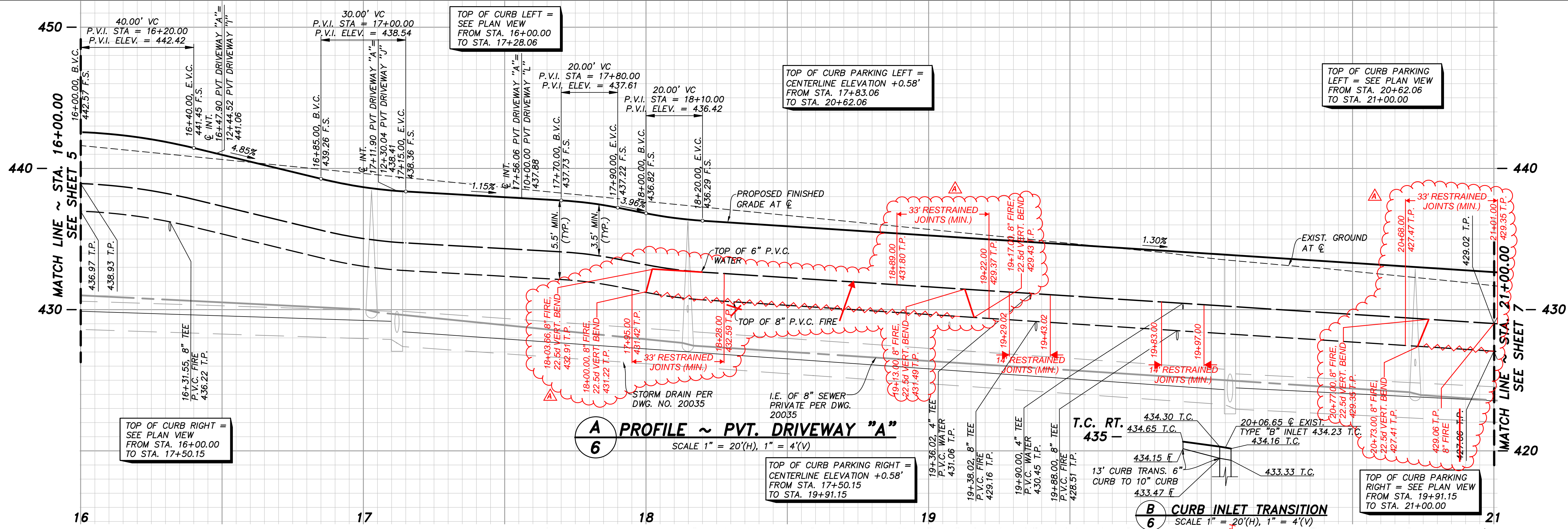
Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N23°42'40"W	136.98"	6" CURB AND GUTTER	
2 9°56'11"	200.00'	34.68'	
3 9°56'11"	100.00'	17.34'	
4 N23°42'40"W	144.22'	6" CURB	
5 20°30'03"	50.00'	17.89'	
6 20°30'03"	100.00'	35.78'	
7 N23°42'40"W	187.50'	6" CURB	



NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

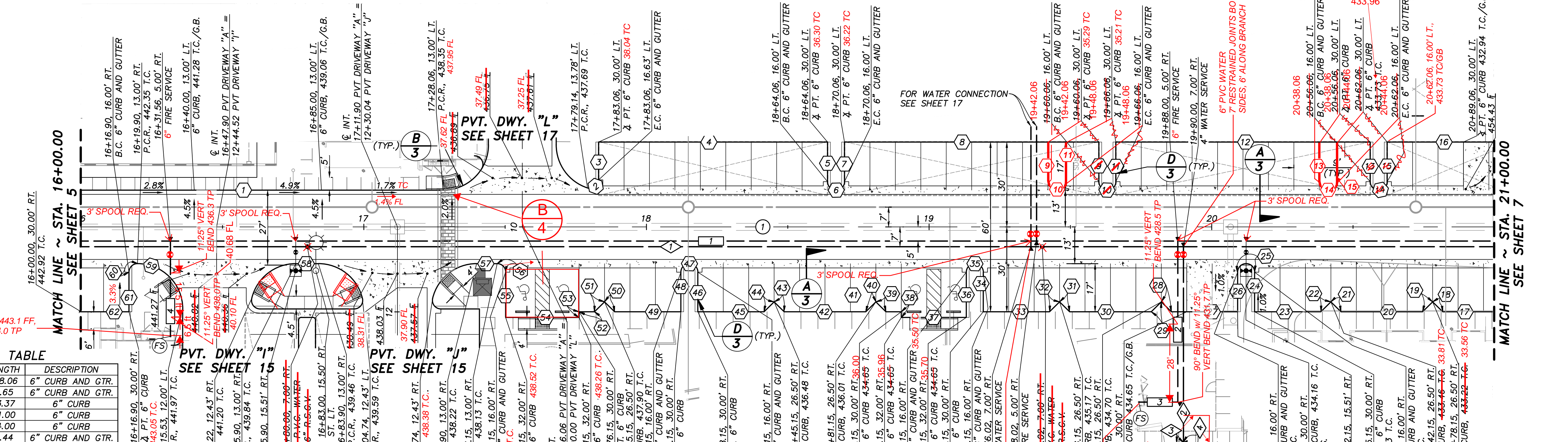
CONTRACTOR: SB&O	REFERENCES: 06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	By: SB&O	REVISIONS: REVISE LATERALS, RAMP	Date: 3/22/21	BENCHMARK: HORIZONTAL	SCALE: 1" = 20'	Designed By: J.S.	Drawn By: T.P.	Checked By: A.P.	Submitted: _____	Approved: _____	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO. _____
INSPECTOR: SB&O	DATE COMPLETED: _____	By: SB&O	REVISIONS: ADD RESTRAINERS, VALVES, REVISE TC, SVC SIZE	Date: 4/7/21	DESCRIPTION: BRASS DISC MKD. "SD" CITY ENGR. IN 3/4" IRON PIPE 0.5 MI. SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRADING STA. 154'- E OF METAL GATE. OPT. #34 PER R.O.S. 14841 ELEVATION = 520.425 (NAVD '88)	VERTICAL	Plans Prepared Under Supervision Of: Aaron Parker	Date: 3-9-21	R.C.E. No. 68547	By: _____	For the City Engineer	CITY OF CHULA VISTA TRACT NO. DR20-0010	W.O. No. _____
By: SB&O	REVISIONS: ADD RISER TP, REVISE ADA	Date: 5/13/21	REVISIONS: REVISE X-GTR, TC	Date: 7/01/21									

OTAY RANCH VILLAGE 2 ~ R-25(A)



A PROFILE ~ PVT. DRIVEWAY "A"
SCALE 1" = 20'(H), 1" = 4'(V)

B CURB INLET TRANSITION
SCALE 1" = 20'(H), 1" = 4'(V)



PVT. DRIVEWAY "A"

CURB DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N23°42'40"W		128.06	6" CURB AND GTR.
2	107°55'13"	3.00	5.65	6" CURB AND GTR.
3	N66°17'20"E		13.37	6" CURB
4	N23°42'40"W		81.00	6" CURB
5	N66°17'20"E		14.00	6" CURB
6	180°00'00"	3.00	9.44	6" CURB AND GTR.
7	N66°17'20"E		14.00	6" CURB
8	N23°42'40"W		72.00	6" CURB
9	N66°17'20"E		14.00	6" CURB
10	180°00'00"	3.00	9.43	6" CURB AND GTR.
11	N66°17'20"E		14.00	6" CURB
12	N23°42'40"W		90.00	6" CURB
13	N66°17'20"E		14.00	6" CURB
14	180°00'00"	3.00	9.43	6" CURB AND GTR.
15	N66°17'20"E		14.00	6" CURB
16	N23°42'40"W		55.94	6" CURB
17	N23°42'40"W		18.28	6" CURB
18	N20°42'57"E		5.00	6" CURB
19	N68°08'17"W		5.00	6" CURB
20	N23°42'40"W		28.86	6" CURB
21	N20°42'57"E		5.00	6" CURB
22	N68°08'17"W		5.00	6" CURB
23	N23°42'40"W		23.43	6" CURB
24	N66°17'20"E		14.00	6" CURB
25	180°00'00"	3.00	9.42	6" CURB AND GTR.
26	N66°17'20"E		14.00	6"-10" CURB
27	N23°42'40"W		23.43	6" CURB

CURB DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
28	N20°42'57"E		5.00	6" CURB
29	N68°08'17"W		5.00	6" CURB
30	N23°42'40"W		28.86	6" CURB
31	N20°42'57"E		5.00	6" CURB
32	N68°08'17"W		5.00	6" CURB
33	N23°42'40"W		23.43	6" CURB
34	N66°17'20"E		14.00	6" CURB
35	180°00'00"	3.00	9.42	6" CURB AND GTR.
36	N66°17'20"E		16.00	6" CURB
37	N23°42'40"W		23.00	6" CURB
38	N66°17'20"E		2.00	6" CURB
39	N23°42'40"W		5.43	6" CURB
40	N20°42'57"E		5.00	6" CURB
41	N68°08'17"W		5.00	6" CURB
42	N23°42'40"W		28.86	6" CURB
43	N20°42'57"E		5.00	6" CURB

CURB DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
44	N68°08'17"W		5.00	6" CURB
45	N23°42'40"W		23.43	6" CURB
46	N66°17'20"E		14.00	6" CURB
47	180°00'00"	3.00	9.42	6" CURB AND GTR.
48	N66°17'20"E		14.00	6" CURB
49	N23°42'40"W		23.43	6" CURB
50	N20°42'57"E		5.00	6" CURB
51	N68°08'17"W		5.00	6" CURB
52	N23°42'40"W		5.43	6" CURB
53	N66°17'20"E		2.00	6" CURB
54	N23°42'40"W		26.00	6" CURB
55	N66°17'20"E		16.00	6" CURB
56	90°00'00"	3.00	4.71	6" CURB AND GTR.
57	N23°42'40"W		7.25	6" CURB AND GTR.
58	N23°42'40"W		8.00	6" CURB AND GTR.

CURB DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
59	90°00'00"	16.00	25.13	6" CURB AND GTR.
60	90°00'00"	3.00	4.71	6" CURB AND GTR.
61	N66°17'20"E		14.00	6" CURB
62	N23°42'40"W		16.90	6" CURB

FIRE DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N23°42'40"W		500.00	8" P.V.C., CL. 200, C-900
2	N66°17'20"E		56.92	6" P.V.C., CL. 200, C-900
3	N23°42'40"W		13.79	6" P.V.C., CL. 200, C-900
4	N66°17'20"E		33.70	6" P.V.C., CL. 200, C-900

WATER DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N23°42'40"W		500.00	6" P.V.C., CL. 200, C-900
2	N66°17'20"E		59.70	4" P.V.C., CL. 200, C-900
3	N23°42'40"W		5.48	4" P.V.C., CL. 200, C-900
4	N66°17'20"E		17.19	4" P.V.C., CL. 200, C-900
5	N23°42'40"W		6.50	4" P.V.C., CL. 200, C-900
6	N23°42'40"W		3.00	4" P.V.C., CL. 200, C-900
7	N32°42'40"E		8.44	4" P.V.C., CL. 200, C-900

DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH
1	N23°42'40"W		500.00'

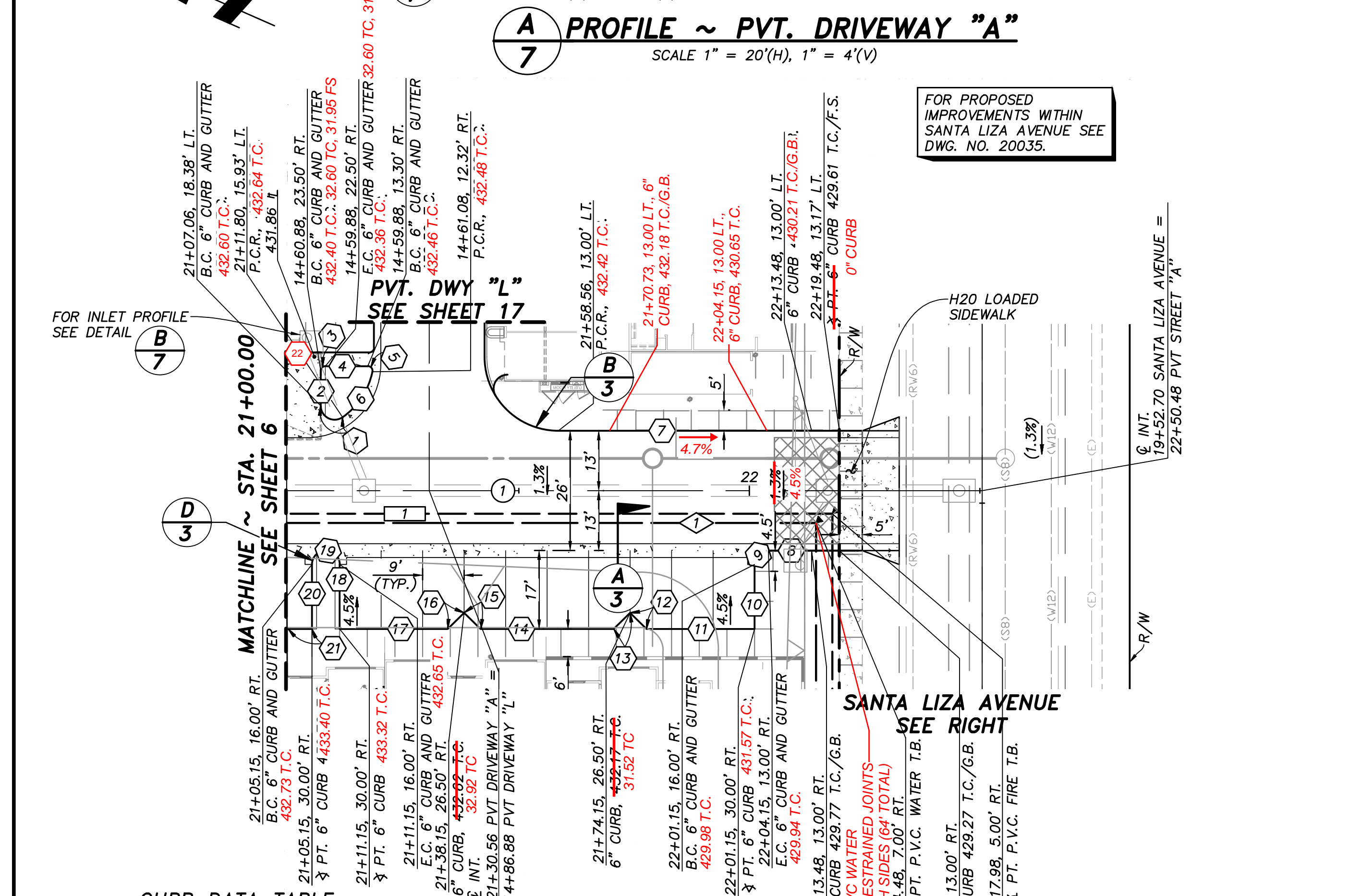
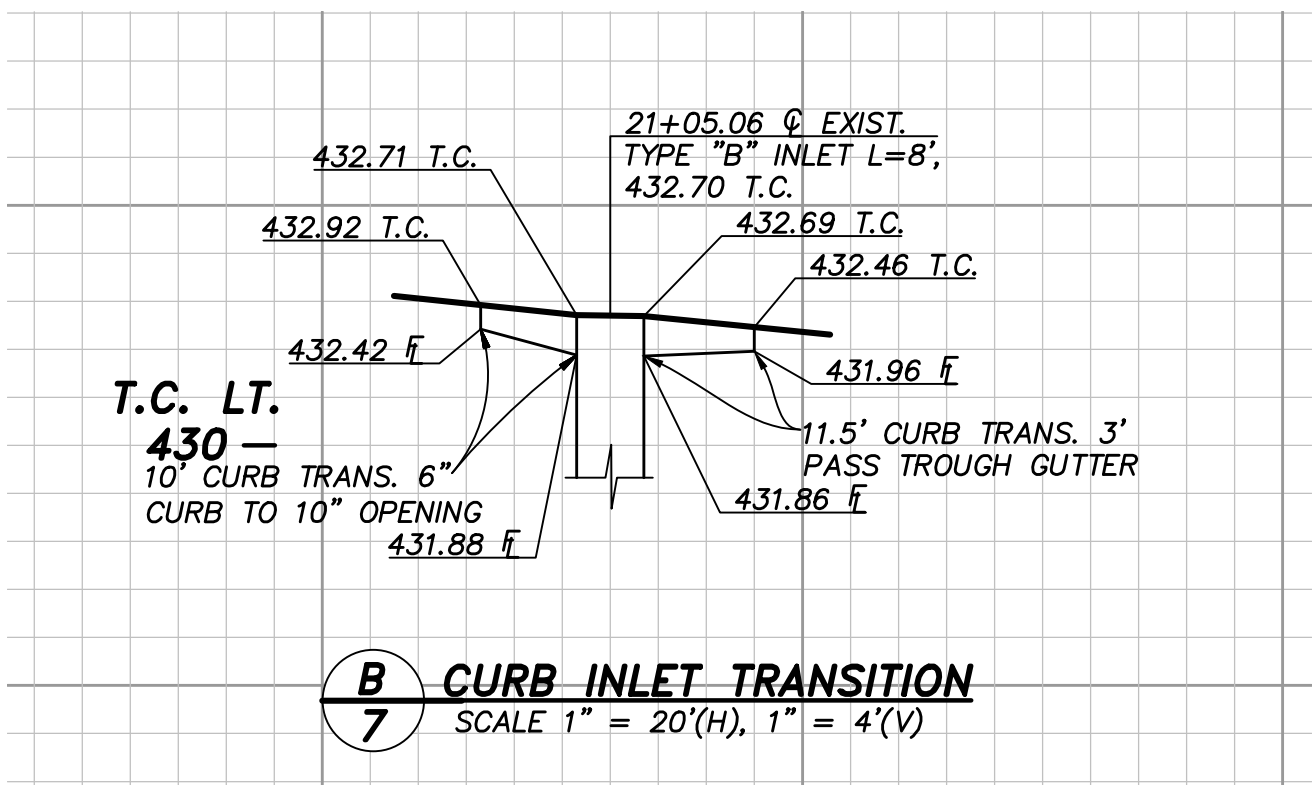
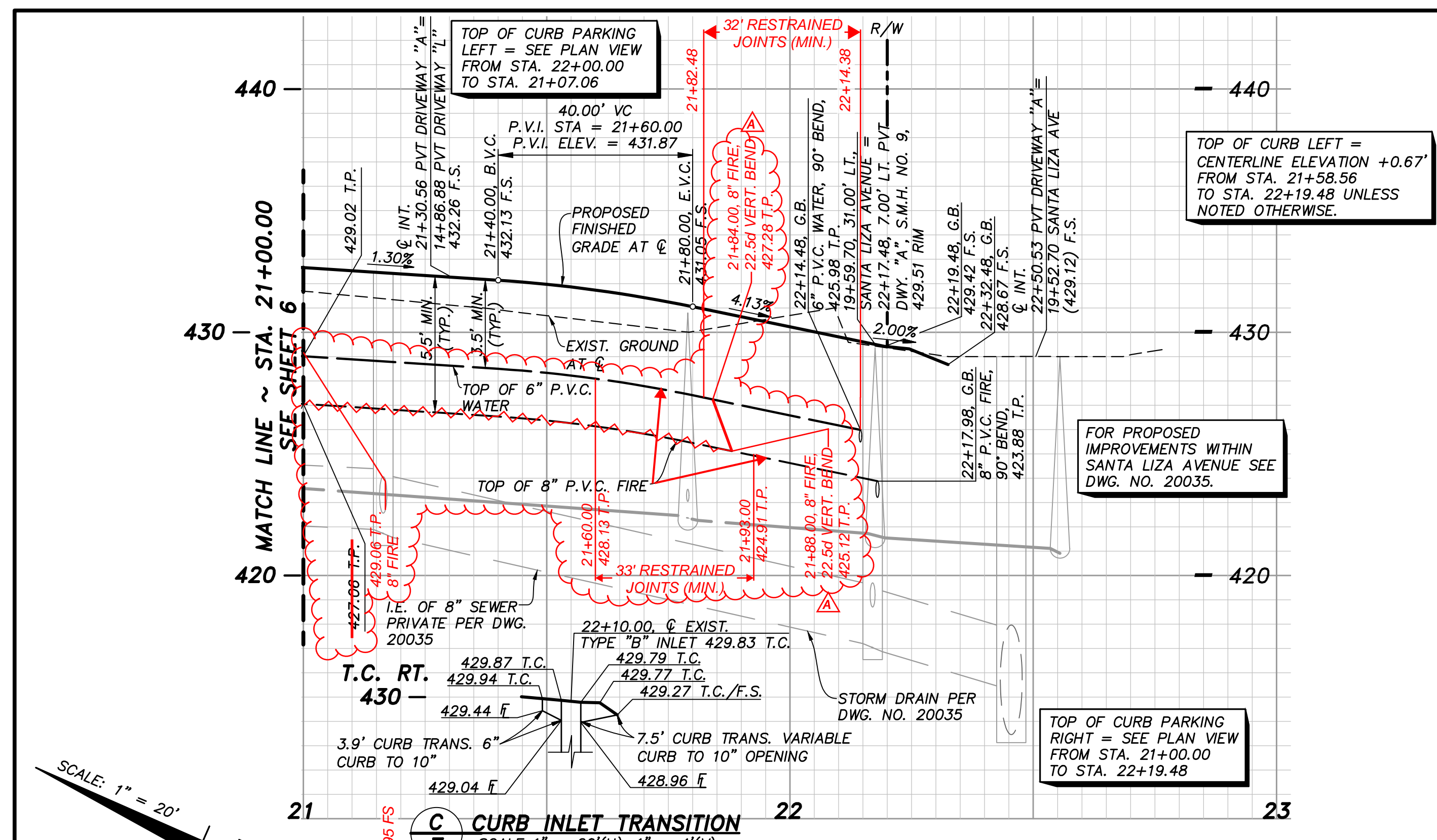
AS BUILT

Signature	Date:
AARON PARKER	
Printed Name	P.E. No. 68547
My Registration Expires 9-30-21	Discipline CIVIL

SB&O INC.
PLANNING ENGINEERING SURVEYING
3990 Ruffin Road, Suite 120
San Diego, CA 92123
858-560-1141
858-560-8157 Fax

CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT
PRIVATE IMPROVEMENT PLANS FOR:
OTAY RANCH VILLAGE 2 R-25(A)
CITY OF CHULA VISTA TRACT NO. DR20-0010

CONTRACTOR: 06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035
INSPECTOR: SB&O
DATE COMPLETED: 5/12/21
By: AARON PARKER
REVISIONS: REVISE 8" FIRE PROFILE, T.C. 3/22/21; ADD RESTRAINERS, VALVES, REVISE TC, SVC SIZE 4/7/21; ADD RISER TP, REVISE ADA 5/12/21
BENCHMARK: J.S.
SCALE: HORIZONTAL 1" = 20'; VERTICAL 1" = 4'
Designed By: J.S.
Drawn By: A.P.
Checked By: A.P.
Submitted: 3-9-21
R.C.E. No. 68547
By: AARON PARKER
Planning: Landscape: For the City Engineer



CURB DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	125°14'04"	3.00	6.56	6" CURB AND GTR.
2	N66°17'20"E	7.62	6" CURB AND GTR.	
3	90°00'00"	1.00	1.57	6" CURB
4	N23°42'40"W	9.20	6" CURB	
5	101°32'13"	1.00	1.77	6" CURB AND GTR.
6	43°13'43"	16.00	12.07	6" CURB AND GTR.
7	N23°42'40"W	60.92	6" CURB	
8	N23°42'40"W	15.33	6" CURB AND GTR.	
9	90°00'00"	3.00	4.71	6" CURB AND GTR.
10	N66°17'20"E	14.00	6" CURB	
11	N23°42'40"W	23.43	6" CURB	
12	N20°42'57"E	5.00	6" CURB	
13	N68°08'17"W	5.00	6" CURB	
14	N23°42'40"W	28.86	6" CURB	

PVT. DRIVEWAY "A" CURB DATA TABLE

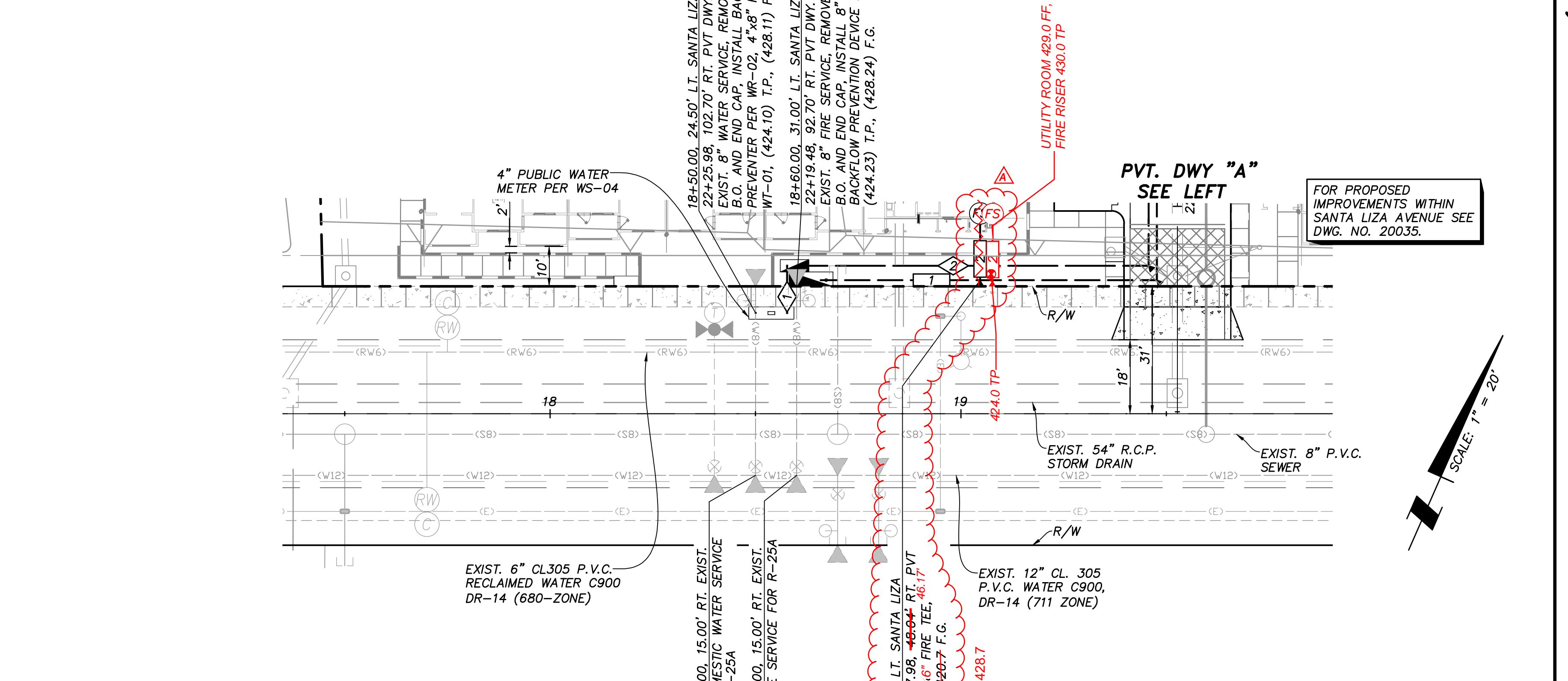
NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
15	N20°42'57"E	5.00	6" CURB	
16	N68°08'17"W	5.00	6" CURB	
17	N23°42'40"W	23.43	6" CURB	
18	N66°17'20"E	14.00	6" CURB	
19	180°00'00"	3.00	9.42	6" CURB AND GTR.
20	N66°17'20"E	14.00	6" CURB	
21	N23°42'40"W	5.15	6" CURB	
22	N23°42'40"W	17.56	6" CURB	

WATER DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N23°42'40"W	11.48	6" P.V.C., CL. 200, C-900	

FIRE DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N23°42'40"W	117.98	8" P.V.C., CL. 200, C-900	



NOTE:
FOR IMPROVEMENT PLANS WITHIN SANTA LIZA AVENUE, SEE CITY OF CHULA VISTA DWG. NO. 14041.

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

FIRE DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	80.53	91.87	8" P.V.C., CL. 200, C-900
2	S23°42'40"W	13.63	6" P.V.C., CL. 200, C-900	

WATER DATA TABLE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N23°42'40"W	11.50	6" P.V.C., CL. 200, C-900	
2	N66°17'20"E	84.39	6" P.V.C., CL. 200, C-900	

CONSTRUCTION RECORD

NO.	DATE	DESCRIPTION
1	06/20/20	REVISE 8" FIRE PROFILE LATERAL
2	06/03/20	ADD RESTRAINTS, VALVES, REVISE TC
3	06/03/20	ADD RISER TP
4	06/03/20	REVISE TC

REFERENCES

By: **AARON PARKER** (Professional Engineer, No. 68547)

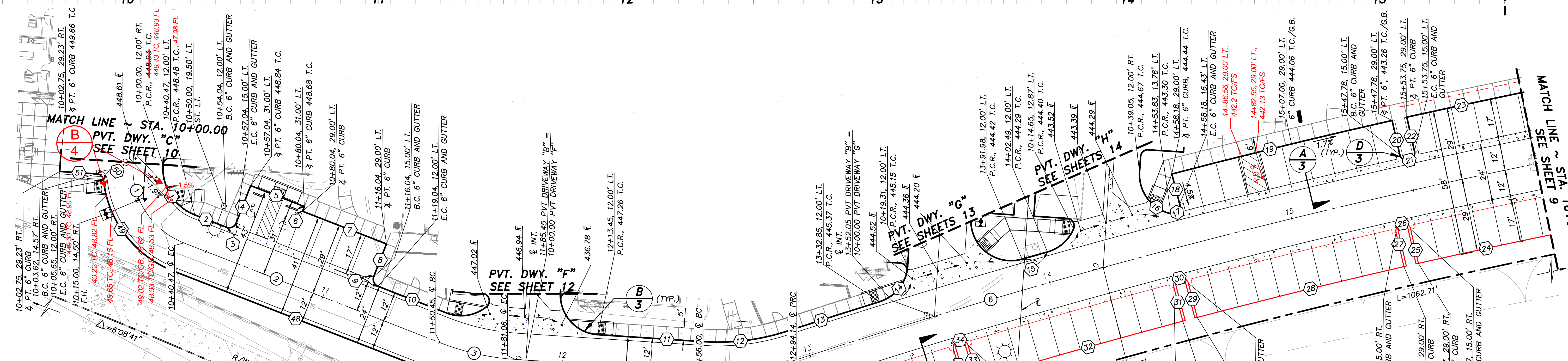
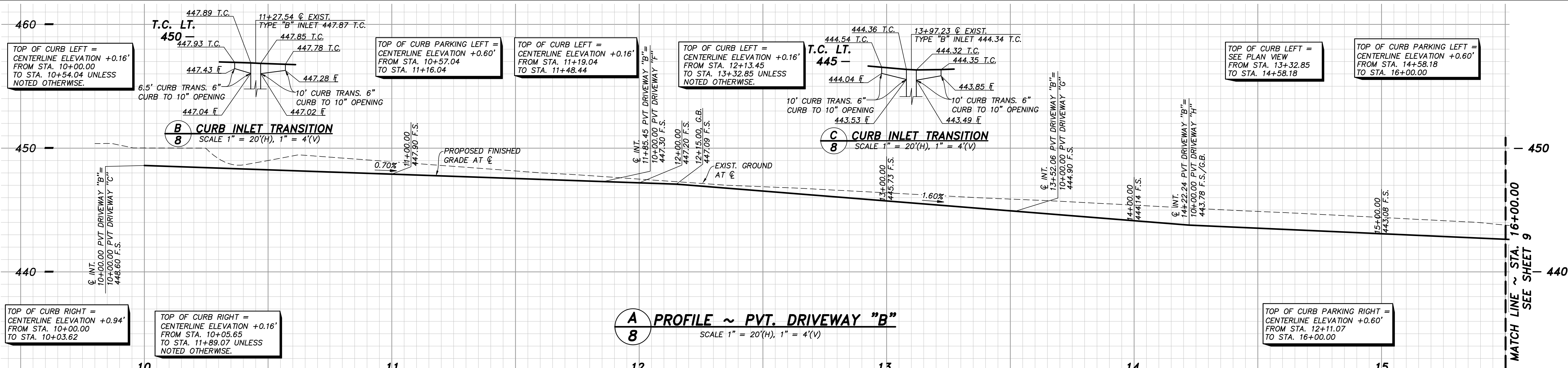
CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT

OTAY RANCH VILLAGE 2 R-25(A)

CITY OF CHULA VISTA TRACT NO. DR20-0010

DRAWING NO. **07**

OTAY RANCH VILLAGE 2 ~ R-25(A)



CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
72°29'51"	20.00	25.31	6" CURB
N06°10'22"W	13.57	6" CURB AND GTR.	
90°00'00"	3.00	4.71 6" CURB AND GTR.	
N83°49'38"E	16.00	6" CURB	
N06°10'22"W	23.00	6" CURB	
N83°49'38"E	2.00	6" CURB	
N06°10'22"W	36.00	6" CURB	
N83°49'38"E	14.00	6" CURB	
90°00'00"	3.00	4.71 6" CURB AND GTR.	
N06°10'22"W	29.41	6" CURB AND GTR.	
N23°42'40"W	42.37	6" CURB AND GTR.	
21°57'45"	88.00	33.73 6" CURB AND GTR.	
0°49'17"	2712.00	38.88 6" CURB AND GTR.	
60°11'00"	16.00	16.81 6" CURB AND GTR.	
15°01'23"	2712.00	10.56 6" CURB AND GTR.	
81°16'21"	16.00	22.70 6" CURB AND GTR.	
117°05'16"	3.00	6.13 6" CURB AND GTR.	
N47°55'46"E	12.58	6" CURB	
N49°49'47"E	2729.00	90.56 6" CURB	
179°56'12"	3.00	9.42 6" CURB AND GTR.	
N49°57'22"E	14.00	6" CURB	
0°58'52"	2729.00	46.73 6" CURB	
1°49'50"	2671.00	85.00 6" CURB	
N49°46'51"E	14.00	6" CURB	
180°03'50"	3.00	9.43 6" CURB AND GTR.	
N49°39'10"E	14.00	6" CURB	
1°49'24"	2671.00	85.00 6" CURB	
N47°49'46"E	14.00	6" CURB	
180°03'50"	3.00	9.43 6" CURB AND GTR.	
N47°42'05"E	14.00	6" CURB	

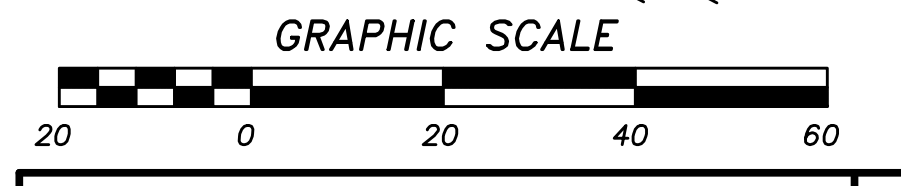
CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1°49'24"	2671.00	85.00	6" CURB
N45°52'41"E	14.00	6" CURB	
180°07'41"	3.00	9.43 6" CURB AND GTR.	
N45°45'01"E	14.00	6" CURB	
1°18'10"	2671.00	60.73 6" CURB	
37°12'25'00"	129.00	27.96 6" CURB	
N56°51'23"E	14.00	6" CURB	
39°18°07'41"	3.00	9.43 6" CURB AND GTR.	
N56°43'43"E	13.85	6" CURB	
71°3'30"	129.00	16.27 6" CURB	
N23°42'40"W	39.57	6" CURB	
N66°17'19"E	14.00	6" CURB	
90°00'00"	3.00	9.62 6" CURB AND GTR.	
N23°42'40"W	9.17	6" CURB AND GTR.	
N23°42'40"W	8.01	6" CURB AND GTR.	
17°32'18"	34.28	6" CURB AND GTR.	
N06°10'22"W	112.00	109.98 6" CURB AND GTR.	
62°20'23"	44.00	47.87 6" CURB AND GTR.	
79°52'40"	3.00	4.18 6" CURB	
N23°42'40"W	14.73	6" CURB	

PVT. DRIVEWAY 'B' DATA TABLE

Δ/BEARING	RADIUS	LENGTH
72°27'42"	32.00'	40.47'
N06°10'22"W	109.98'	109.98'
17°32'18"	100.00'	30.61'
N23°42'40"W	74.94'	74.94'
21°50'57"	100.00'	38.13'
22°03'36"	2700.00'	1039.55'

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

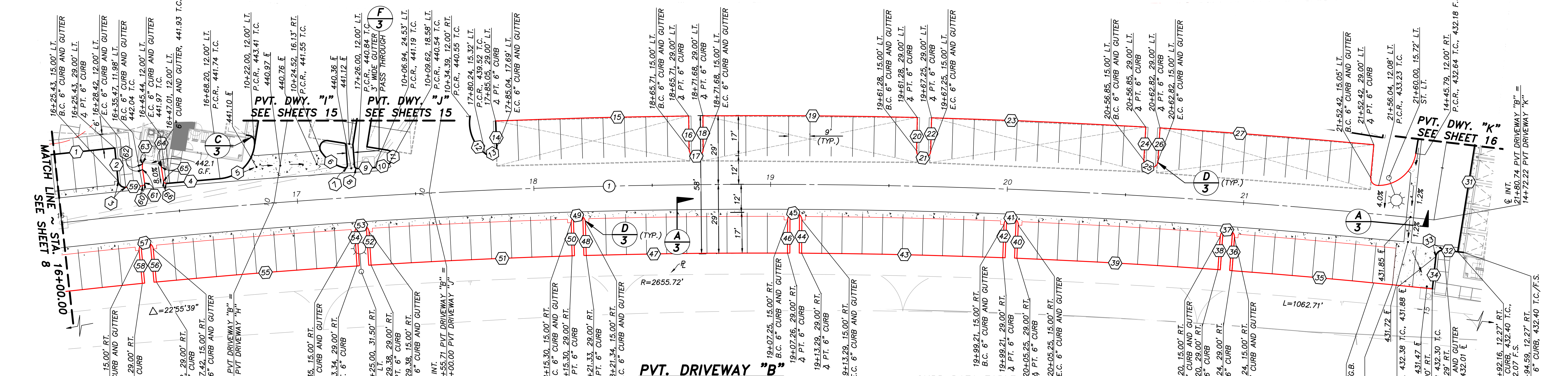
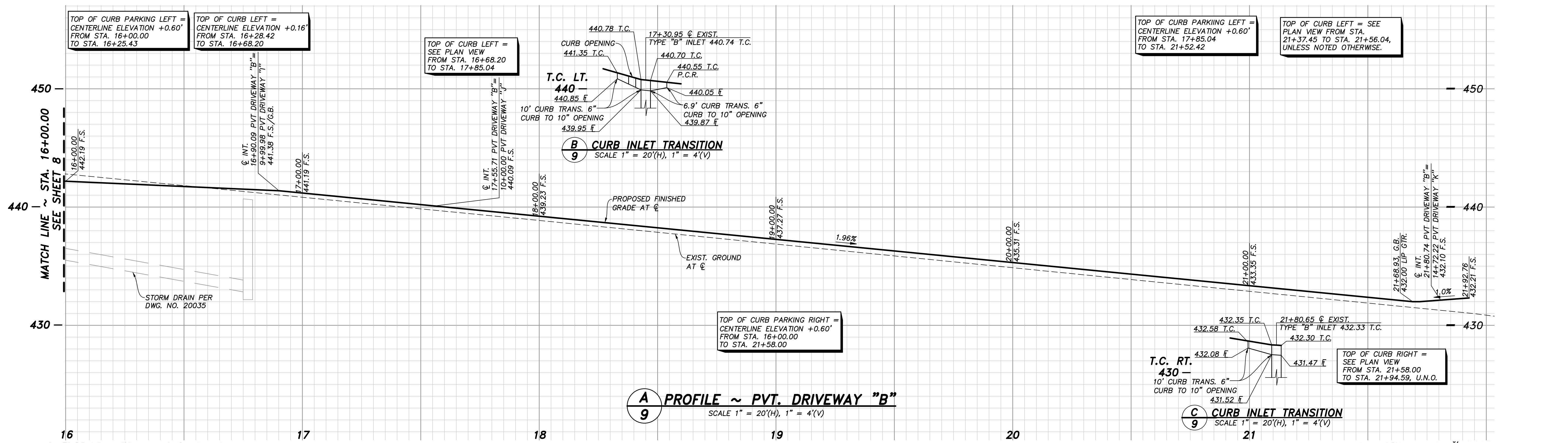


AS BUILT

Signature: **AARON PARKER** Date: _____
 Printed Name: **AARON PARKER** P.E. No. **68547**
 My Registration Expires **9-30-21** Discipline **CIVIL**

SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By	Drawn By	Checked By	Submitted	Approved	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.
CONTRACTOR: 06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	SB&O, REVISE T.C. SB&O, REVISE ADA/FL	AARON PARKER	REVISE T.C. REVISE ADA/FL	5/30/21 5/24/21	[Signature]	DESCRIPTION: BRASS DISC MKD. "SD CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRADING STA. 154'- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL 1" = 20' VERTICAL 1" = 4'	J.S.	T.P.	A.P.	By: _____ Date: 6/7/21 R.C.E. No. 68547	By: _____ For the City Engineer	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT PRIVATE IMPROVEMENT PLANS FOR: OTAY RANCH VILLAGE 2 R-25(A) CITY OF CHULA VISTA TRACT NO. DR20-0010	08



CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 0°32'24"	2729.00	25.72	6" CURB
2 N51°28'35"E	14.00	6.00	6" CURB
3 89°56'34"	3.00	4.71	6" CURB AND GTR.
4 0°26'59"	2712.00	21.29	6" CURB AND GTR.
5 76°05'20"	16.00	21.25	6" CURB AND GTR.
6 44°28'04"	16.00	12.42	6" CURB AND GTR.
7 106°53'54"	1.00	1.87	6" CURB AND GTR.
8 89°12'25"	1.00	1.56	6" CURB AND GTR.
9 0°09'16"	2712.00	7.31	6" CURB AND GTR.
10 2°32'15"	16.00	6.57	6" CURB AND GTR.
11 143°55'55"	3.00	7.54	6" CURB
12 63°51'54"	16.00	17.83	6" CURB
13 127°33'46"	3.00	6.68	6" CURB
14 N54°51'40"E	11.31	6.00	6" CURB

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
15 1°42'42"	2729.00	81.53	6" CURB
16 N56°34'10"E	14.00	14.00	6" CURB
17 179°56'13"	3.00	9.42	6" CURB
18 N56°41'45"E	14.00	14.00	6" CURB
19 1°54'05"	2729.00	90.56	6" CURB
20 N58°35'46"E	14.00	14.00	6" CURB
21 179°56'13"	3.00	9.42	6" CURB
22 N58°43'22"E	14.00	14.00	6" CURB
23 1°54'05"	2729.00	90.56	6" CURB
24 N60°37'22"E	14.00	14.00	6" CURB
25 179°56'13"	3.00	9.42	6" CURB
26 N60°44'58"E	14.00	14.00	6" CURB
27 1°54'05"	2729.00	90.56	6" CURB
28 N62°38'59"E	13.97	6.00	6" CURB
29 94°09'46"	3.00	4.93	6" CURB
30 82°11'53"	16.00	22.95	6" CURB AND GTR.
31 N66°17'20"E	73.52	6.00	6" CURB

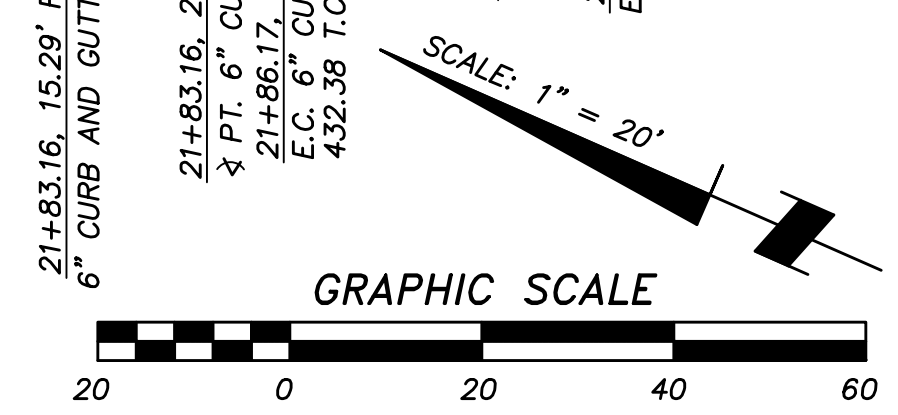
CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
32 N26°41'45"W	8.38	8.38	VARIABLE CURB
33 90°00'00"	3.00	4.71	6" CURB AND GTR.
34 N63°18'15"E	13.71	13.71	VARIABLE CURB
35 1°49'24"	2671.00	85.00	VARIABLE CURB
36 N61°29'23"E	14.00	6.00	6" CURB
37 180°07'41"	3.00	9.43	6" CURB
38 N61°21'42"E	14.00	14.00	6" CURB AND GTR.
39 1°49'26"	2671.00	85.03	6" CURB
40 N59°32'16"E	14.00	6.00	6" CURB
41 180°07'41"	3.00	9.43	6" CURB
42 N59°24'35"E	14.00	14.00	6" CURB AND GTR.
43 1°49'24"	2671.00	85.00	6" CURB
44 N57°35'11"E	14.00	6.00	6" CURB
45 180°07'41"	3.00	9.43	6" CURB
46 N57°27'30"E	14.00	6.00	6" CURB AND GTR.
47 1°49'24"	2671.00	85.00	6" CURB
48 N55°38'06"E	14.00	6.00	6" CURB

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
49 180°07'41"	3.00	9.43	6" CURB
50 N55°30'25"E	14.00	14.00	6" CURB AND GTR.
51 1°49'24"	2671.00	85.00	6" CURB
52 N53°40'51"E	14.00	6.00	6" CURB
53 180°07'41"	3.00	9.43	6" CURB AND GTR.
54 N53°33'11"E	14.00	6.00	6" CURB
55 1°50'15"	2671.00	85.66	6" CURB
56 N51°43'56"E	14.00	6.00	6" CURB
57 180°07'41"	3.00	9.43	6" CURB AND GTR.
58 N51°36'15"E	14.00	6.00	6" CURB
59 N38°16'09"E	7.08	7.08	6" CURB
60 93°13'53"	1.00	1.63	6" CURB AND GTR.
61 N48°29'58"E	5.74	5.74	6" CURB AND GTR.
62 16°36'09"	8.00	2.32	6" CURB AND GTR.
63 N65°06'07"E	0.62	0.62	6" CURB AND GTR.
64 N64°53'03"E	0.45	0.45	6" CURB AND GTR.
65 N48°29'58"E	6.30	6.30	6" CURB AND GTR.
66 86°36'17"	1.00	1.51	6" CURB AND GTR.

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.



Δ DATA TABLE

Δ/BEARING	RADIUS	LENGTH
1 22°03'36"	2700.00'	580.74'

CONSTRUCTION RECORD

DATE COMPLETED	BY	REVISIONS
06/02/20, 06/03/20, 06/03/20, 06/04/20, 14/02/24, 14/03/24, 14/03/24, 20/03/25	SB&O	REVISE T.C. ADD TRASH ENCLOSURE OPENING.

BENCHMARK

Date	App'd	DESCRIPTION
3/30/21	SB&O	BRASS DISC MKD. "50 CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+ E OF GATE TO A.V.R. TRACKING STA. 154'- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)
5/25/21	SB&O	

SCALE

Designed By:	Drawn By:	Checked By:
J.S.	T.P.	A.P.
Plans Prepared Under Supervision Of:	Date:	R.C.E. No.:
Aaron Parker	6/7/21	68547

Submitted:

By:	For the City Engineer

CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT

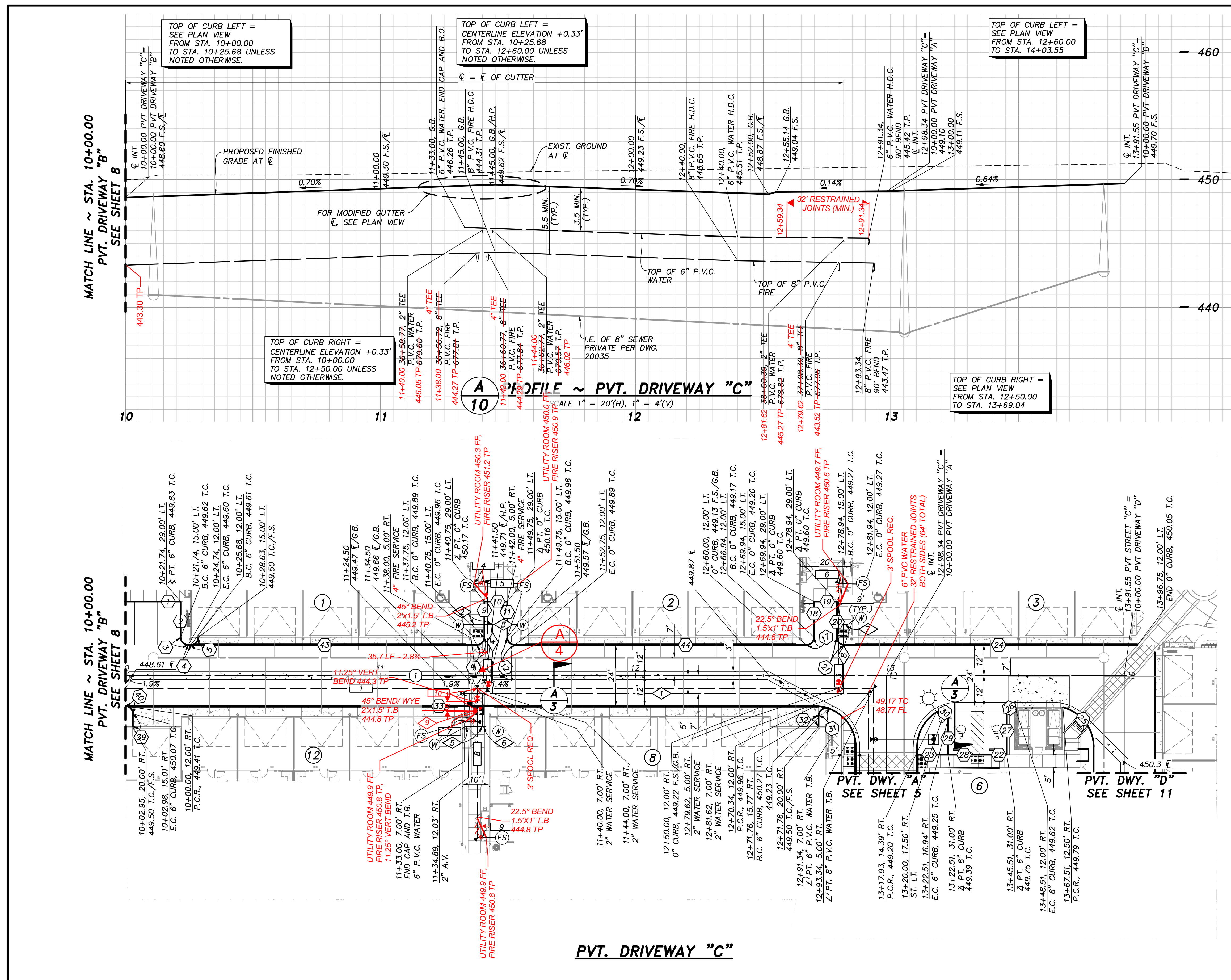
AS BUILT

Signature: Aaron Parker
Date: 6/7/21
P.E. No. 68547
Discipline: CIVIL

SB&O
PLANNING ENGINEERING SURVEYING
3990 Ruffin Road, Suite 120
San Diego, Ca. 92123
858-560-1141
858-560-8157 Fax

DRAWING NO. -09

W.O. No. -



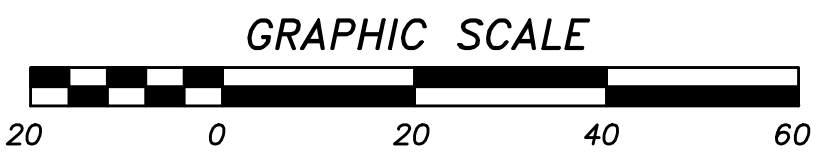
NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	---	27.00	6" CURB
2	N23°42'40"W	---	14.00	6" CURB
3	90°00'00"	3.00	4.71	6" CURB
4	N66°17'20"E	---	0.89	6" CURB
5	90°00'00"	3.00	4.71	VARIABLE CURB
6	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
7	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
8	90°00'00"	3.00	4.71	0" CURB
9	N23°42'40"W	---	14.00	0" CURB
10	N66°17'20"E	---	9.00	0" CURB
11	N23°42'40"W	---	14.00	0" CURB
12	90°00'00"	3.00	4.71	0" CURB
13	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
14	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
15	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
16	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
17	90°00'00"	3.00	4.71	0" CURB
18	N23°42'40"W	---	14.00	0" CURB
19	N66°17'20"E	---	9.00	0" CURB
20	N23°42'40"W	---	14.00	0" CURB
21	90°00'00"	3.00	4.71	0" CURB
22	N66°17'20"E	---	9.00	6" CURB
23	N66°17'20"E	---	12.17	6" CURB
24	N66°17'20"E	---	112.20	0" CURB
25	75°39'09"	16.00	21.13	6" CURB AND GTR.
26	90°00'00"	3.00	4.71	6" CURB AND GTR.
27	N23°42'40"W	---	16.00	6" CURB
28	N66°17'20"E	---	14.00	0" CURB
29	N23°42'40"W	---	14.06	6" CURB
30	121°42'41"	3.00	6.37	6" CURB AND GTR.
31	109°51'07"	3.00	5.75	6" CURB AND GTR.
32	N23°42'40"W	---	4.23	VARIABLE CURB
33	N66°17'20"E	---	270.34	0" CURB
34	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
35	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
36	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
37	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
38	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
39	N23°42'40"W	---	5.00	VARIABLE CURB
40	89°57'51"	3.00	4.71	6" CURB
41	INTENTIONALLY LEFT BLANK	---	---	INTENTIONALLY LEFT BLANK
43	N66°17'20"E	---	112.12	0" CURB
44	N66°17'20"E	---	114.19	0" CURB

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	---	307.02	8" P.V.C., CL. 200, C-900
2	N23°42'40"W	---	41.10	4" P.V.C., CL. 200, C-900
3	N23°42'40"W	---	32.52	4" P.V.C., CL. 200, C-900
4	N66°17'20"E	---	7.65	4" P.V.C., CL. 200, C-900
5	N66°17'20"E	---	11.67	4" P.V.C., CL. 200, C-900
6	N66°17'20"E	---	9.29	4" P.V.C., CL. 200, C-900
7	N66°17'20"E	---	6.41	4" P.V.C., CL. 200, C-900
8	N23°42'40"W	---	41.89	4" P.V.C., CL. 200, C-900
9	N66°17'20"E	---	8.63	4" P.V.C., CL. 200, C-900
10	N23°42'40"W	---	8.55	4" P.V.C., CL. 200, C-900

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	---	158.34	6" P.V.C., CL. 200, C-900
2	N66°17'20"E	---	7.41	2" WATER SERVICE
3	N66°17'20"E	---	9.67	2" WATER SERVICE
4	N23°42'40"W	---	27.00	2" WATER SERVICE
5	N66°17'20"E	---	7.83	2" WATER SERVICE
6	N66°17'20"E	---	7.83	2" WATER SERVICE
7	N66°17'20"E	---	1.56	2" WATER SERVICE
8	N23°42'40"W	---	27.00	2" WATER SERVICE
9	N23°42'40"W	---	13.00	2" WATER SERVICE

NO.	Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	---	145.25	N46°12'40"W

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.



AS BUILT

Signature: AARON PARKER
 Date: _____
 Printed Name: AARON PARKER
 My Registration Expires: 9-30-21
 P.E. No. 68547
 Discipline: CIVIL

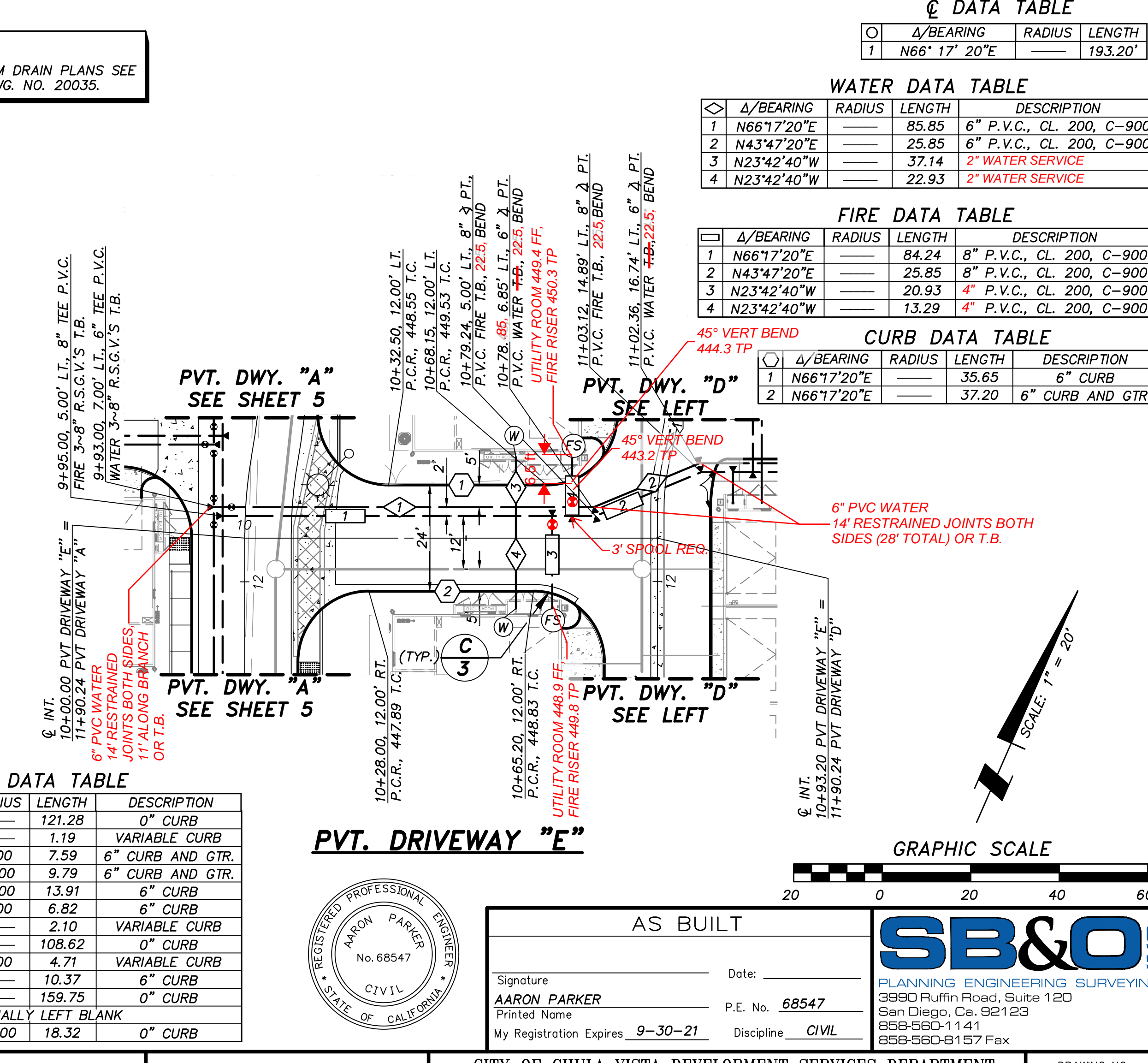
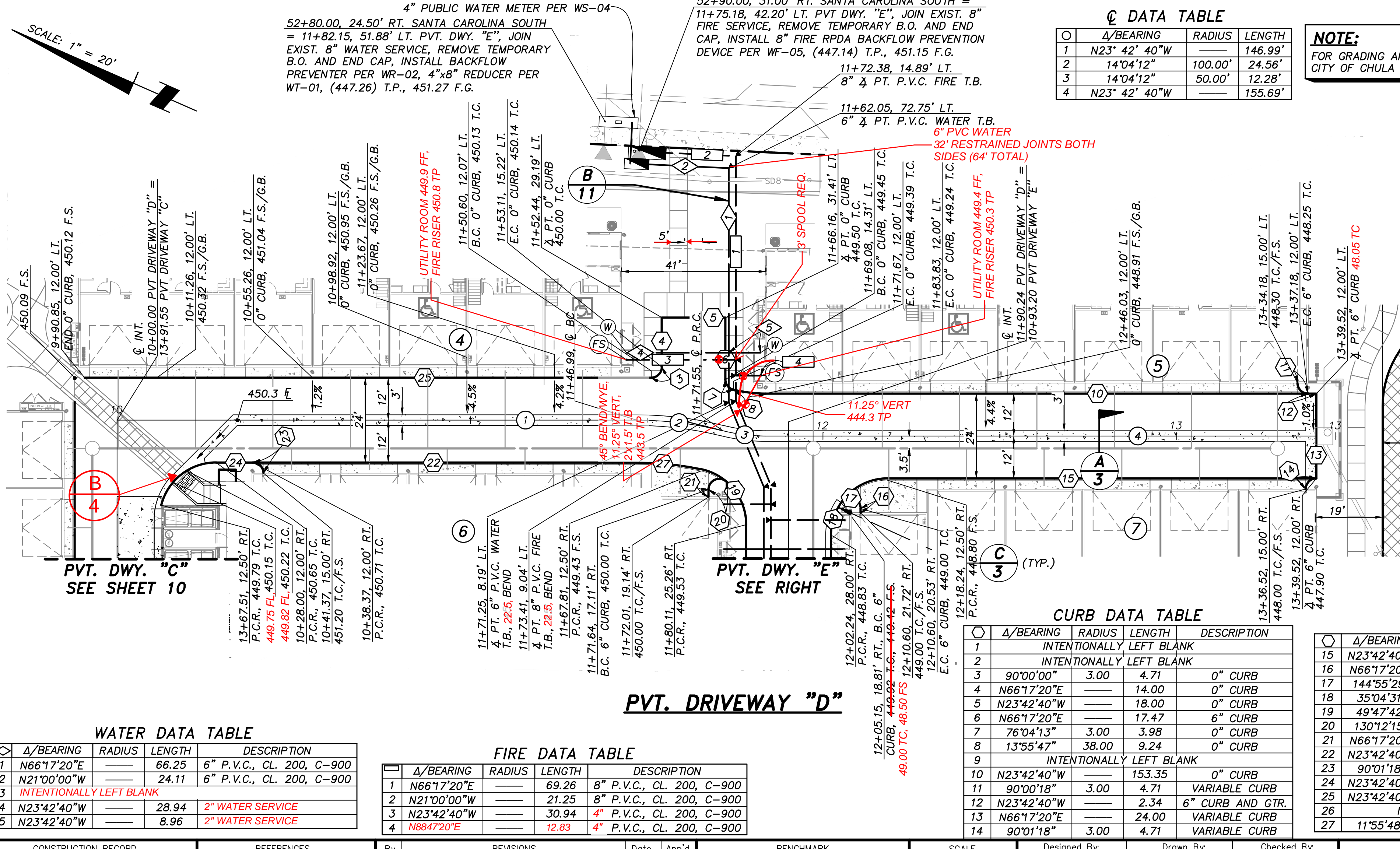
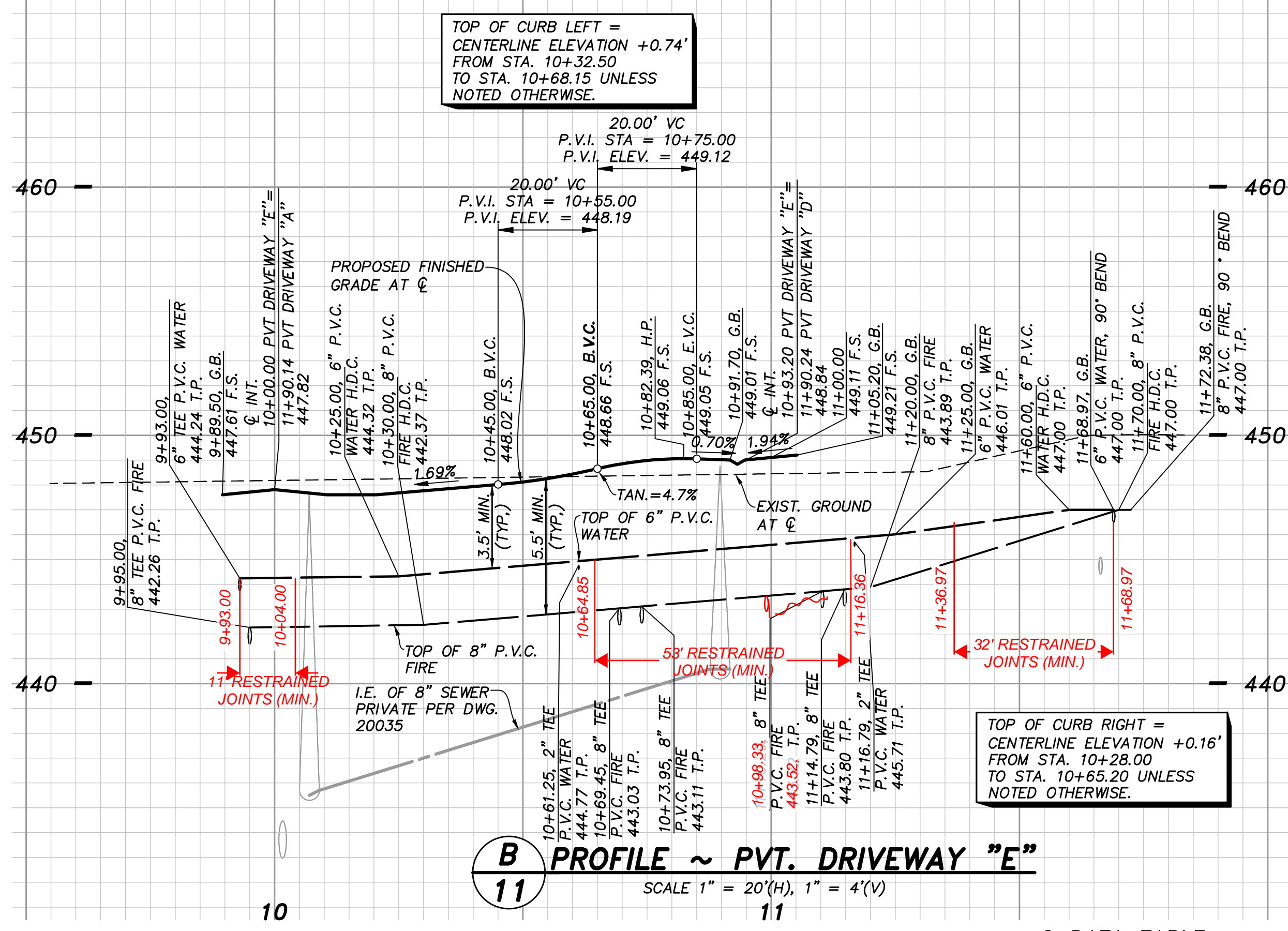
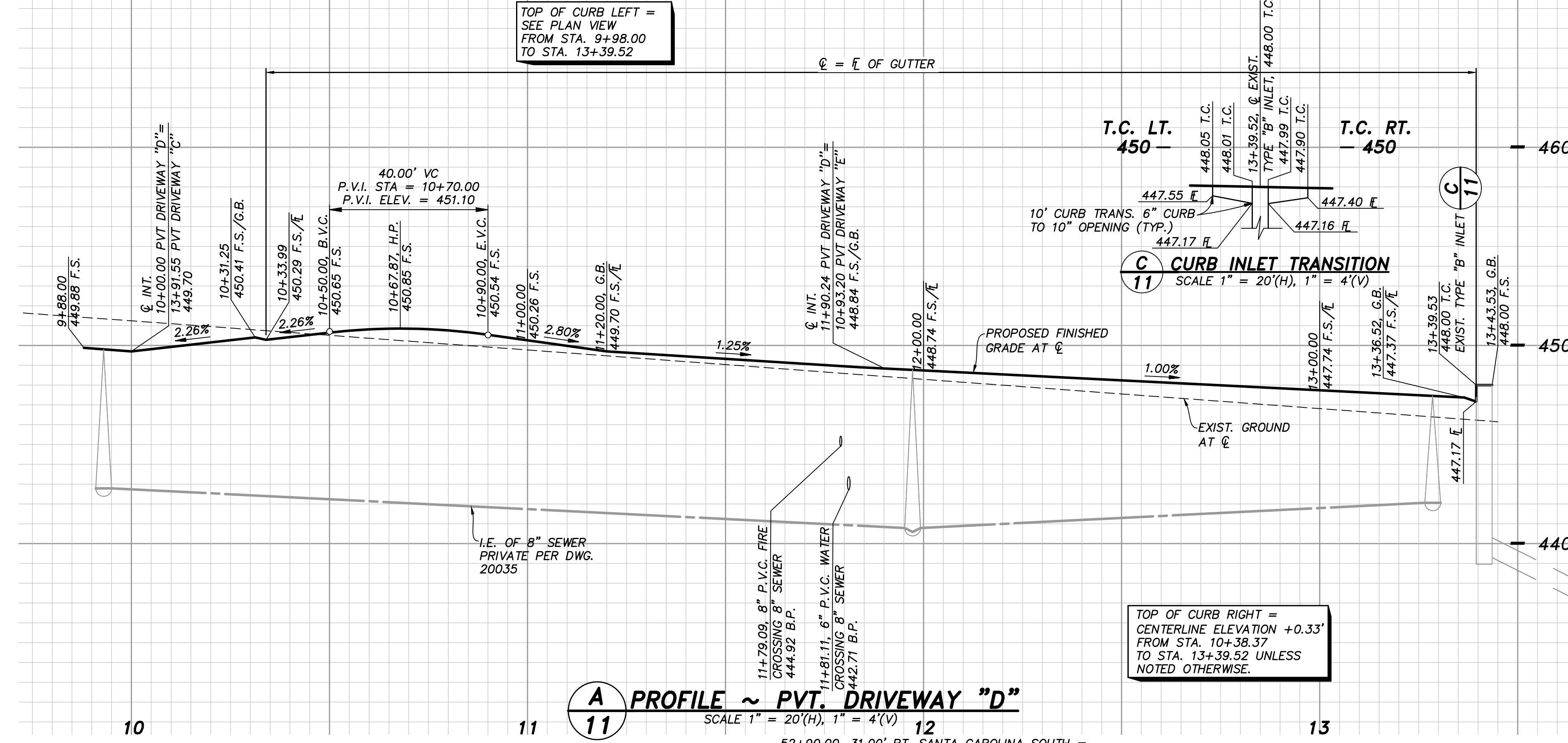
SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT
 PRIVATE IMPROVEMENT PLANS FOR:
OTAY RANCH VILLAGE 2 R-25(A)
 CITY OF CHULA VISTA TRACT NO. DR20-0010

DRAWING NO. _____
 W.O. No. _____

CONSTRUCTION RECORD	REFERENCES	REVISIONS	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:
CONTRACTOR: INSPECTOR: DATE COMPLETED:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	By: SB&O Date: 4/7/21 By: SB&O Date: 5/12/21 By: SB&O Date: 8/11/21	DESCRIPTION: BRASS DISC MKD. "SD CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRACKING STA. 154'-E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL 1" = 20' VERTICAL 1" = 4'	J.S. AARON PARKER	T.P. A.P.	A.P.	By: _____ Date: 3-9-21 R.C.E. No. 68547	By: _____ For the City Engineer

OTAY RANCH VILLAGE 2 ~ R-25(A)



WATER DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N66°17'20"E	66.25	6.25	6" P.V.C., CL. 200, C-900
2 N21°00'00"W	24.11	6.11	6" P.V.C., CL. 200, C-900
INTENTIONALLY LEFT BLANK			
3 N23°42'40"W	28.94	2.94	2" WATER SERVICE
4 N23°42'40"W	8.96	8.96	2" WATER SERVICE

FIRE DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N66°17'20"E	69.26	6.26	8" P.V.C., CL. 200, C-900
2 N21°00'00"W	21.25	6.25	8" P.V.C., CL. 200, C-900
3 N23°42'40"W	30.94	4.94	4" P.V.C., CL. 200, C-900
4 N68°42'0"E	12.83	4.83	4" P.V.C., CL. 200, C-900

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
3 90°00'00"	3.00	4.71	0" CURB
4 N66°17'20"E	14.00	0.00	0" CURB
5 N23°42'40"W	18.00	0.00	0" CURB
6 N66°17'20"E	17.47	6.47	6" CURB
7 76°04'13"	3.00	3.98	0" CURB
8 13°55'47"	38.00	9.24	0" CURB
INTENTIONALLY LEFT BLANK			
10 N23°42'40"W	153.35	0.35	0" CURB
11 90°00'18"	3.00	4.71	VARIABLE CURB
12 N23°42'40"W	2.34	6.34	6" CURB AND GTR.
13 N66°17'20"E	24.00	0.00	VARIABLE CURB
14 90°01'18"	3.00	4.71	VARIABLE CURB

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
15 N23°42'40"W	121.28	0.28	0" CURB
16 N66°17'20"E	1.19	1.19	VARIABLE CURB
17 144°55'29"	3.00	7.59	6" CURB AND GTR.
18 35°04'31"	16.00	9.79	6" CURB AND GTR.
19 49°47'42"	16.00	13.91	6" CURB
20 130°21'15"	3.00	6.82	6" CURB
21 N66°17'20"E	2.10	2.10	VARIABLE CURB
22 N23°42'40"W	108.62	0.62	0" CURB
23 90°01'18"	3.00	4.71	VARIABLE CURB
24 N23°42'40"W	10.37	0.37	6" CURB
25 N23°42'40"W	159.75	0.75	0" CURB
INTENTIONALLY LEFT BLANK			
27 11°55'48"	88.00	18.32	0" CURB

CONSTRUCTION RECORD

CONTRACTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	By:	ADD RESTRAINTS, VALVES, REVISE SVC MATERIAL ADD RISER TP, REVISE ADA	Date:	4/7/21 5/12/21	BENCHMARK:	DESCRIPTION: BRASS DISC MKD, "SO CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRADING STA. 154'- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	SCALE:	HORIZONTAL 1" = 20' VERTICAL 1" = 4'	Designed By:	J.S.	Drawn By:	T.P.	Checked By:	A.P.	Submitted:		Approved:	
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CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT
OTAY RANCH VILLAGE 2 R-25(A)
CITY OF CHULA VISTA TRACT NO. DR20-0010

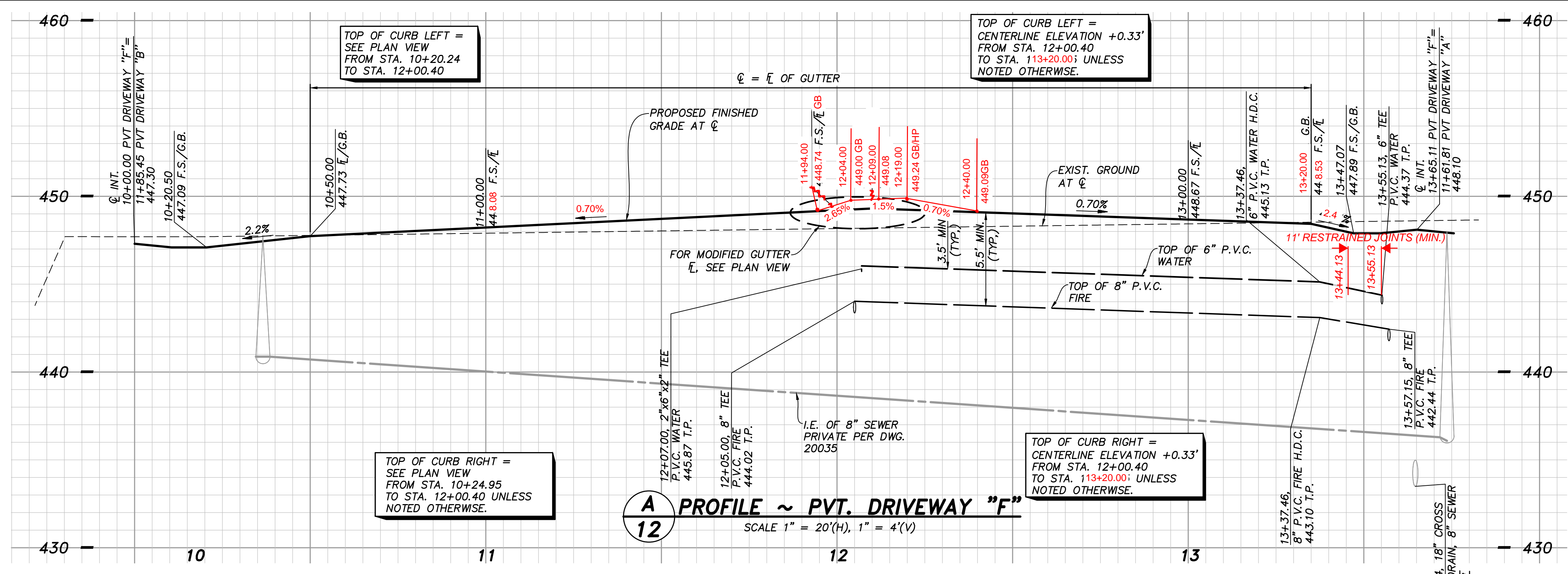
AS BUILT

Signature: **AARON PARKER**
 Date: _____
 Printed Name: **AARON PARKER**
 My Registration Expires: **9-30-21**
 Discipline: **CIVIL**

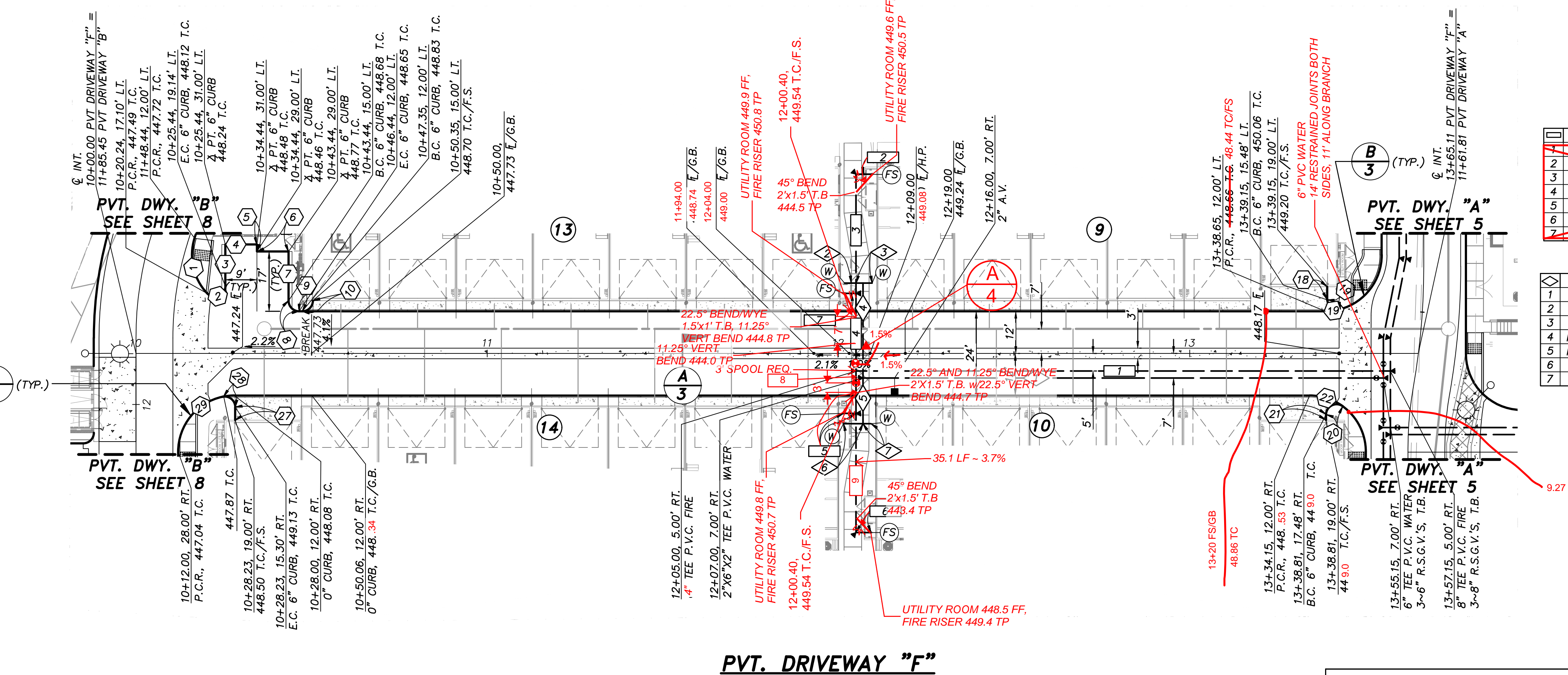
SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Rd, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

DRAWING NO. _____
 W.O. No. _____

OTAY RANCH VILLAGE 2 ~ R-25(A)



A PROFILE ~ PVT. DRIVEWAY "F"
SCALE 1" = 20'(H), 1" = 4'(V)



PVT. DRIVEWAY "F"

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	60°30'09"	16.00	6" CURB AND GTR.
2	137°02'09"	3.00	6" CURB
3	N23°42'40"W	11.86	6" CURB
4	N66°17'20"E	9.00	6" CURB
5	N23°42'40"W	2.00	6" CURB
6	N66°17'20"E	9.00	6" CURB
7	N23°42'40"W	14.00	6" CURB
8	90°00'00"	3.00	6" CURB
9	N66°17'20"E	0.92	6" CURB
10	90°00'00"	3.00	VARIABLE CURB
11	N66°17'20"E	153.04	0" CURB
12	INTENTIONALLY LEFT BLANK		
13	INTENTIONALLY LEFT BLANK		
14	INTENTIONALLY LEFT BLANK		
15	INTENTIONALLY LEFT BLANK		
16	INTENTIONALLY LEFT BLANK		
17	INTENTIONALLY LEFT BLANK		
18	N23°42'45"W	3.52	VARIABLE CURB
19	105°37'11"	3.00	6" CURB
20	125°43'24"	3.00	6" CURB
21	N23°42'29"W	1.52	VARIABLE CURB
22	N66°17'20"E	123.50	0" CURB
23	INTENTIONALLY LEFT BLANK		
24	INTENTIONALLY LEFT BLANK		
25	INTENTIONALLY LEFT BLANK		
26	N66°17'20"E	172.06	0" CURB
27	N23°42'47"W	3.70	VARIABLE CURB
28	102°18'02"	3.00	6" CURB
29	77°41'51"	16.00	6" CURB AND GTR.

Δ DATA TABLE

Δ/BEARING	RADIUS	LENGTH
1	N66°17'20"E	365.11'

FIRE DATA TABLE

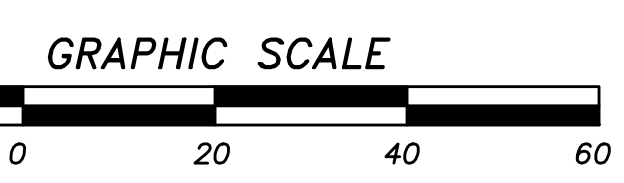
Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	152.15	8" P.V.C., CL. 200, C-900
2	N66°17'20"E	4.61	8" P.V.C., CL. 200, C-900
3	N23°42'40"W	33.92	8" P.V.C., CL. 200, C-900
4	N23°42'40"W	3.23	8" P.V.C., CL. 200, C-900
5	N66°17'20"E	3.56	8" P.V.C., CL. 200, C-900
6	N66°17'20"E	4.27	8" P.V.C., CL. 200, C-900
7	N66°17'20"E	3.23	8" P.V.C., CL. 200, C-900

WATER DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	148.15	6" P.V.C., CL. 200, C-900
2	N66°17'20"E	5.23	2" WATER SERVICE
3	N66°17'20"E	2.61	2" WATER SERVICE
4	N23°42'40"W	27.00	2" WATER SERVICE
5	N23°42'40"W	13.00	2" WATER SERVICE
6	N66°17'20"E	5.56	2" WATER SERVICE
7	N66°17'20"E	2.27	2" WATER SERVICE

FIRE DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1	N66°17'20"E	152.15	8" P.V.C., CL. 200, C-900
2	N21°17'20"E	6.52	4" P.V.C., CL. 200, C-900
3	N23°42'40"W	37.10	4" P.V.C., CL. 200, C-900
4	N23°42'40"W	14.29	4" P.V.C., CL. 200, C-900
5	N09°29'50"E	6.50	4" P.V.C., CL. 200, C-900
6	N64°48'57"E	6.50	4" P.V.C., CL. 200, C-900
7	N46°12'40"W	8.43	4" P.V.C., CL. 200, C-900
8	N23°42'40"W	5.92	4" P.V.C., CL. 200, C-900
9	N23°42'40"W	35.19	4" P.V.C., CL. 200, C-900



NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

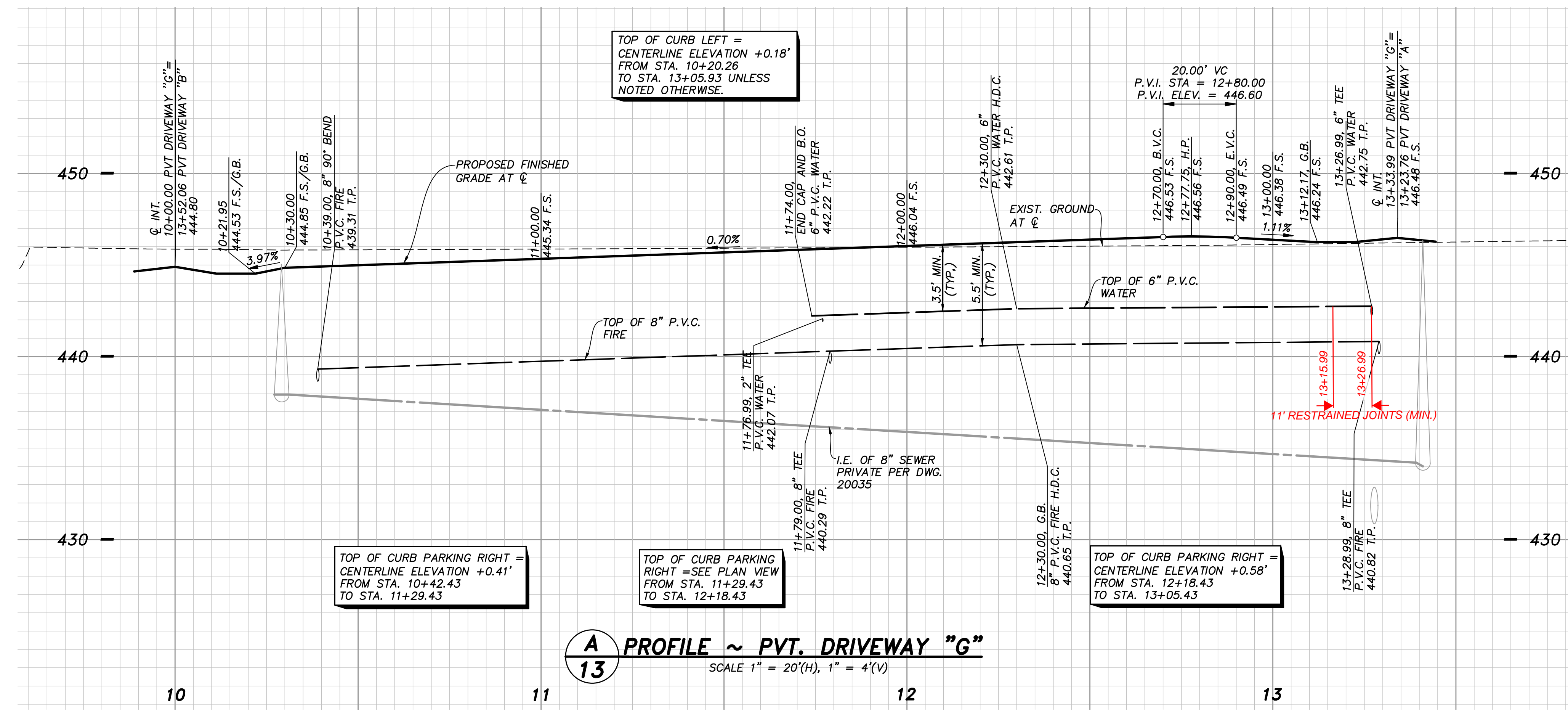


AS BUILT

Signature: Aaron Parker Date: _____
 Printed Name: Aaron Parker P.E. No. 68547
 My Registration Expires 9-30-21 Discipline CIVIL

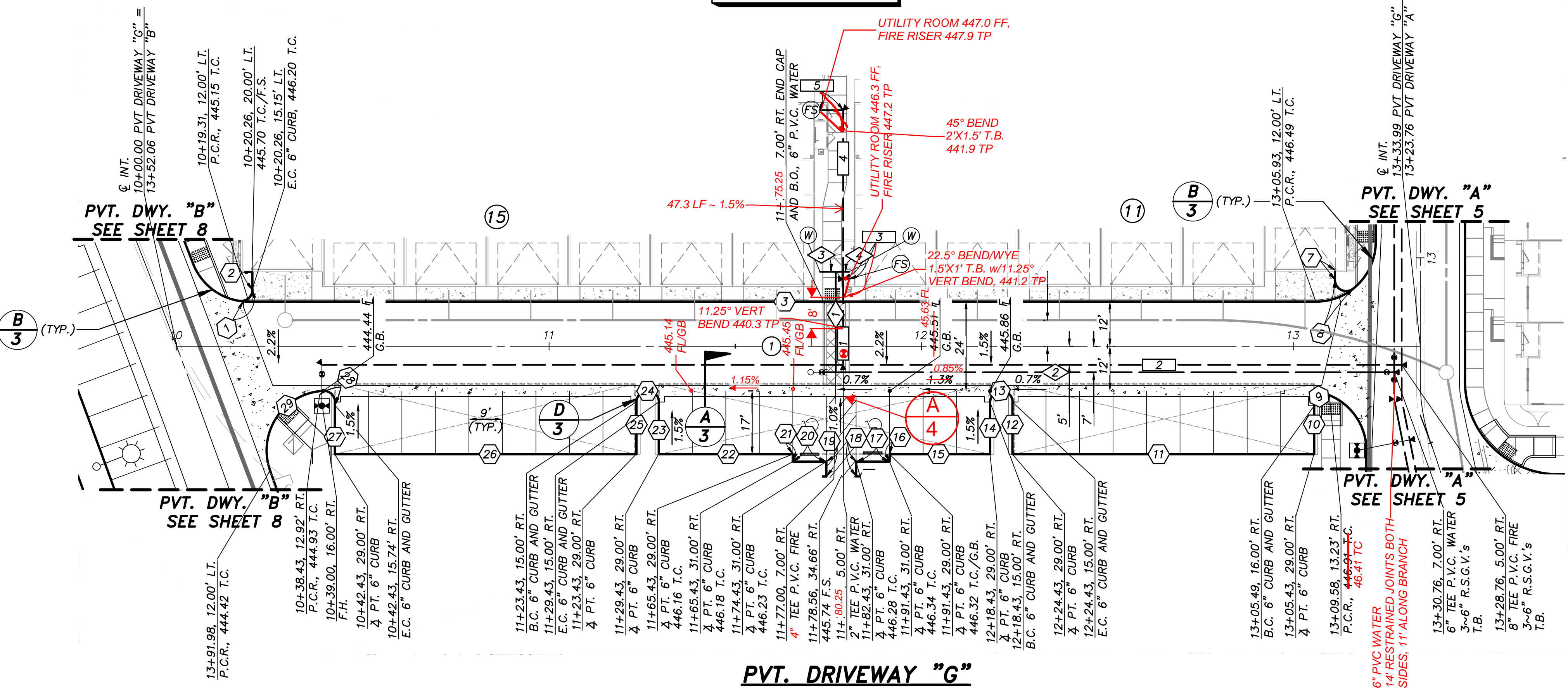
SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.
CONTRACTOR: INSPECTOR: DATE COMPLETED:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	SB&O	ADD RESTRAINERS, VALVES, REVISE SVC MATERIAL SIZE	4/7/21		DESCRIPTION: BRASS DISC MKD, "SO CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO ALVR. TRACKING STA. 154'-E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL 1" = 20' VERTICAL 1" = 4'	J.S.	T.P.	A.P.	By: _____ Planning: _____ Landscape: _____	By: _____ For the City Engineer	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT PRIVATE IMPROVEMENT PLANS FOR: OTAY RANCH VILLAGE 2 R-25(A) CITY OF CHULA VISTA TRACT NO. DR20-0010	_____ -12 W.O. No. _____



A PROFILE ~ PVT. DRIVEWAY "G"
 SCALE 1" = 20'(H), 1" = 4'(V)

NOTE:
 SEE PLAN VIEW FOR WARPED STREET SECTION FROM STA. 10+42.43 TO STA. 12+18.43



PVT. DRIVEWAY "G"

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
98°47'38"	3.00	5.17	6" CURB
N23°42'58"W	---	4.85	VARIABLE CURB
N66°17'20"E	---	286.62	0" CURB
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
N23°42'40"W	---	2.21	VARIABLE CURB
127°48'02"	3.00	6.69	6" CURB
112°37'12"	3.00	5.90	6" CURB AND GTR.
N23°42'40"W	---	13.00	6" CURB
N66°17'20"E	---	81.00	6" CURB
N23°42'40"W	---	14.00	6" CURB
180°00'00"	3.00	9.42	6" CURB AND GTR.
N23°42'40"W	---	14.00	6" CURB
N66°17'20"E	---	27.00	6" CURB
N23°42'40"W	---	2.00	6" CURB
N66°17'20"E	---	9.00	6" CURB
N23°42'40"W	---	4.00	6" CURB
N23°42'40"W	---	4.00	6" CURB
N66°17'20"E	---	81.00	6" CURB
N23°42'40"W	---	13.26	6" CURB
109°28'16"	3.00	5.73	6" CURB AND GTR.
70°31'44"	16.00	19.70	6" CURB AND GTR.
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			

FIRE DATA TABLE CONT'D

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
N23°42'40"W	---	14.98'	4" P.V.C., CL. 200, C-900
N01°12'40"W	---	7.48'	4" P.V.C., CL. 200, C-900
N23°42'40"W	---	48.47'	4" P.V.C., CL. 200, C-900
N68°42'40"W	---	7.03'	4" P.V.C., CL. 200, C-900

Δ DATA TABLE

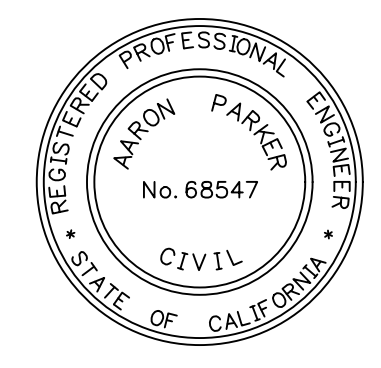
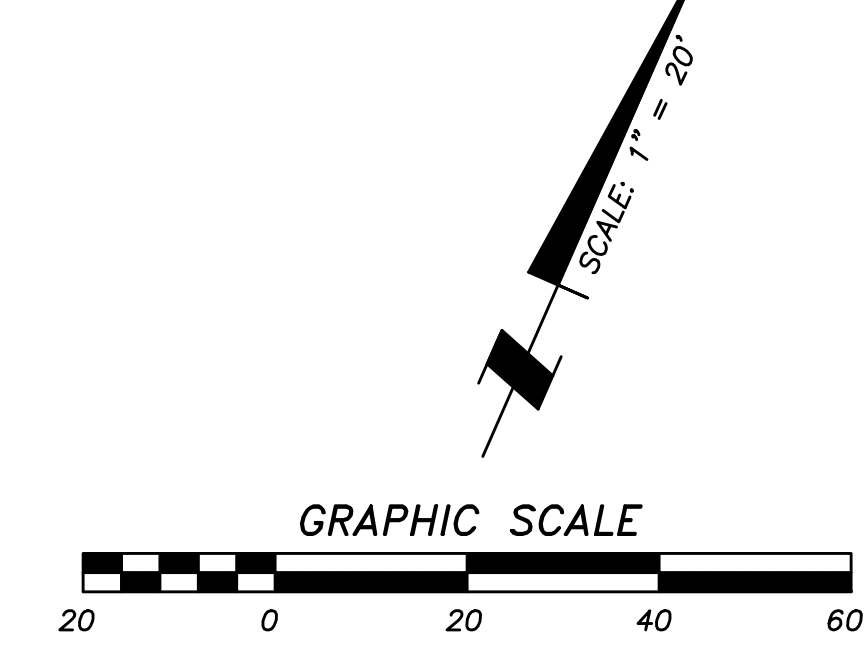
Δ/BEARING	RADIUS	LENGTH
N66°17'20"E	---	333.93'

FIRE DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
N23°42'40"W	---	23.00'	6" P.V.C., CL. 200, C-900
N66°17'20"E	---	289.99'	8" P.V.C., CL. 200, C-900
N66°17'20"E	---	1.61'	6" P.V.C., CL. 200, C-900
N23°42'40"W	---	45.33'	8" P.V.C., CL. 200, C-900
N66°17'20"E	---	6.22'	8" P.V.C., CL. 200, C-900

WATER DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
N23°42'40"W	---	27.00'	6" P.V.C., CL. 200, C-900
N66°17'20"E	---	154.24'	2" WATER SERVICE
N66°17'20"E	---	4.22'	2" WATER SERVICE
N66°17'20"E	---	3.61'	2" WATER SERVICE

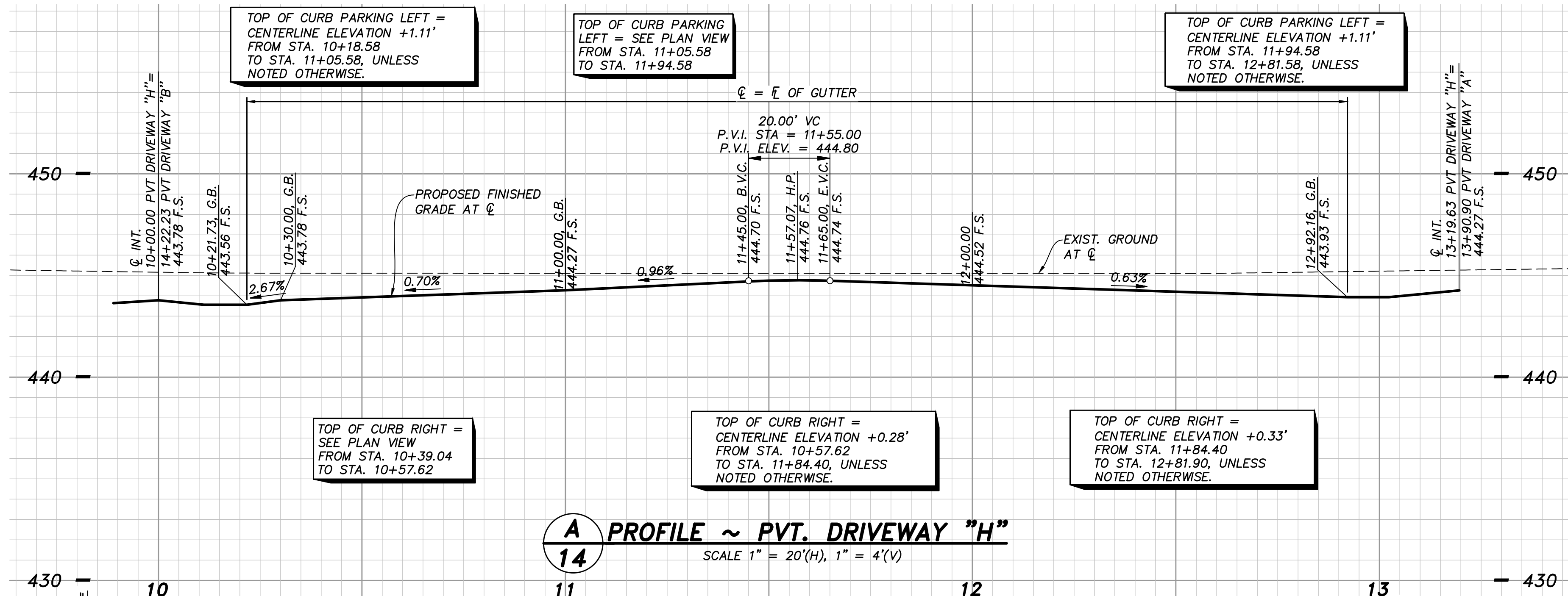


AS BUILT

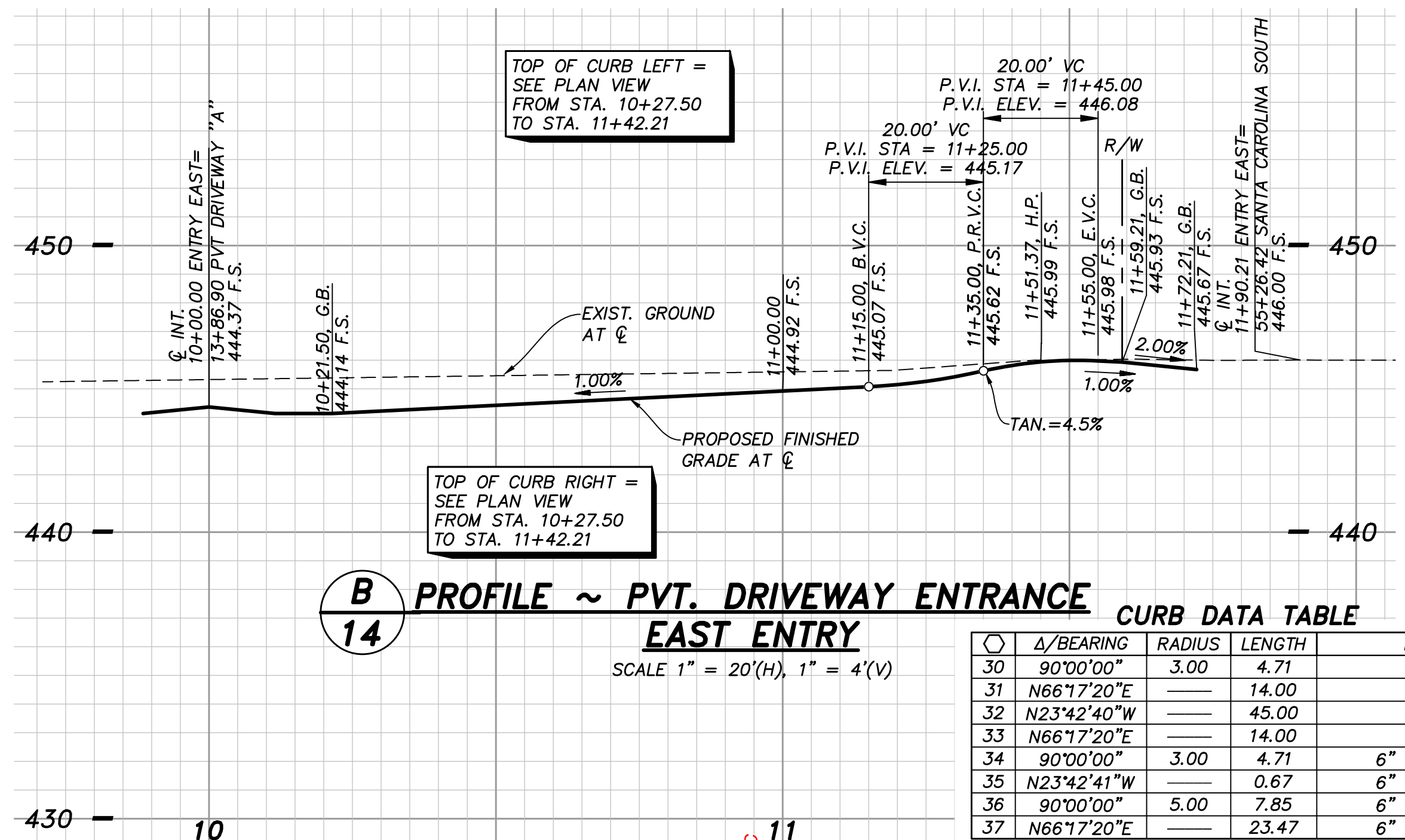
Signature: **AARON PARKER** Date: _____
 Printed Name: **AARON PARKER** P.E. No. **68547**
 My Registration Expires **9-30-21** Discipline **CIVIL**

NOTE:
 FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.
CONTRACTOR: SB&C	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	SB&C	ADD RESTRAINERS, VALVES, REVISE SVC MATERIAL SIZE	4/7/21		DESCRIPTION: BRASS DISC MKD, "SD" CITY ENGR. "IN" 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+ W OF GATE TO A.V.R. TRACKING STA. 154'- E OF METAL GATE. PT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL 1" = 20' VERTICAL 1" = 4'	J.S.	T.P.	A.P.	By: _____ Date: 3-9-21	By: _____ For the City Engineer	CITY OF CHULA VISTA TRACT NO. DR20-0010	13
DATE COMPLETED:		SB&C	REVISE FIRE SRVC'S, ADA, ADD RISER TP	5/13/21				AARON PARKER	R.C.E. No. 68547		Planning: _____ Landscape: _____			



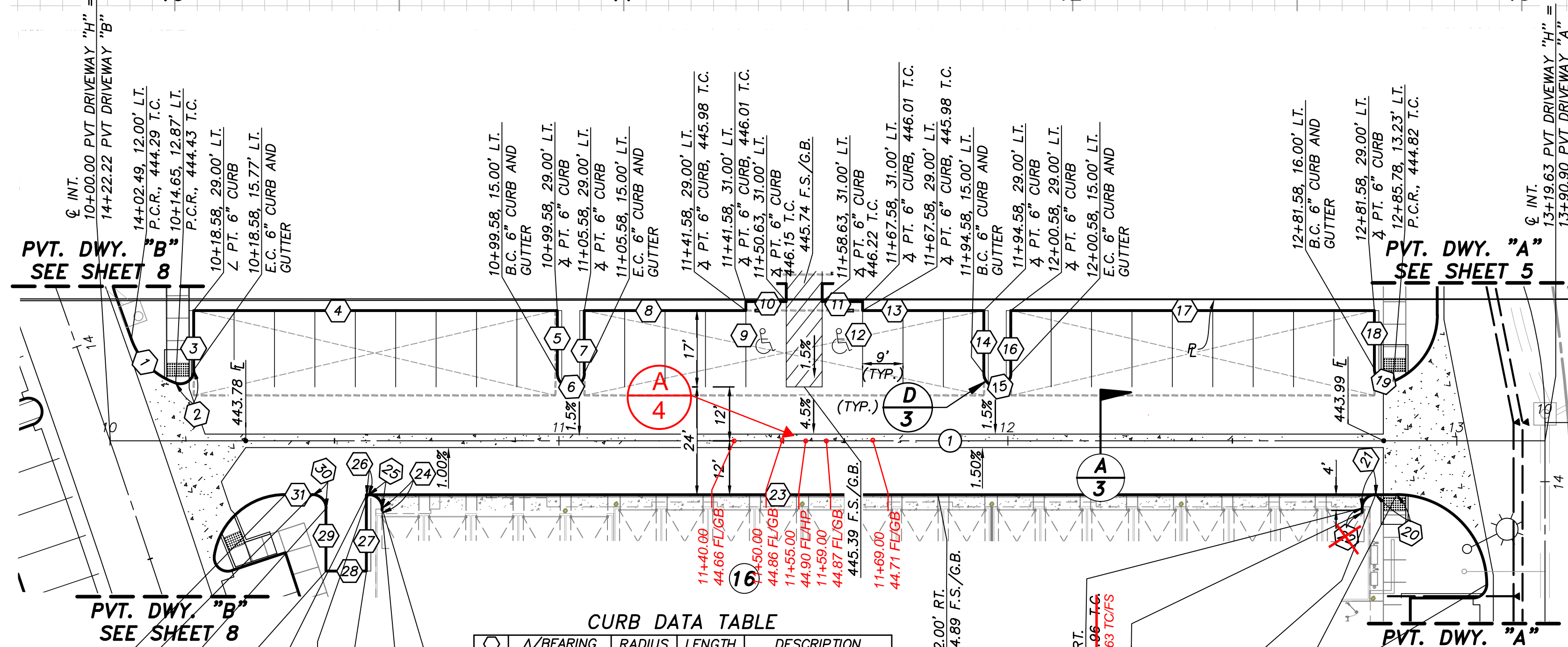
A PROFILE ~ PVT. DRIVEWAY "H"
SCALE 1" = 20'(H), 1" = 4'(V)



B PROFILE ~ PVT. DRIVEWAY ENTRANCE EAST ENTRY
SCALE 1" = 20'(H), 1" = 4'(V)

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
30 90°00'00"	3.00	4.71	6" CURB
31 N66°17'20"E	14.00	6.00	6" CURB
32 N23°42'40"W	45.00	6.00	6" CURB
33 N66°17'20"E	14.00	6.00	6" CURB
34 90°00'00"	3.00	4.71	6" CURB AND GTR.
35 N23°42'41"W	0.67	6.00	6" CURB AND GTR.
36 90°00'00"	5.00	7.85	6" CURB AND GTR.
37 N66°17'20"E	23.47	6.00	6" CURB AND GTR.



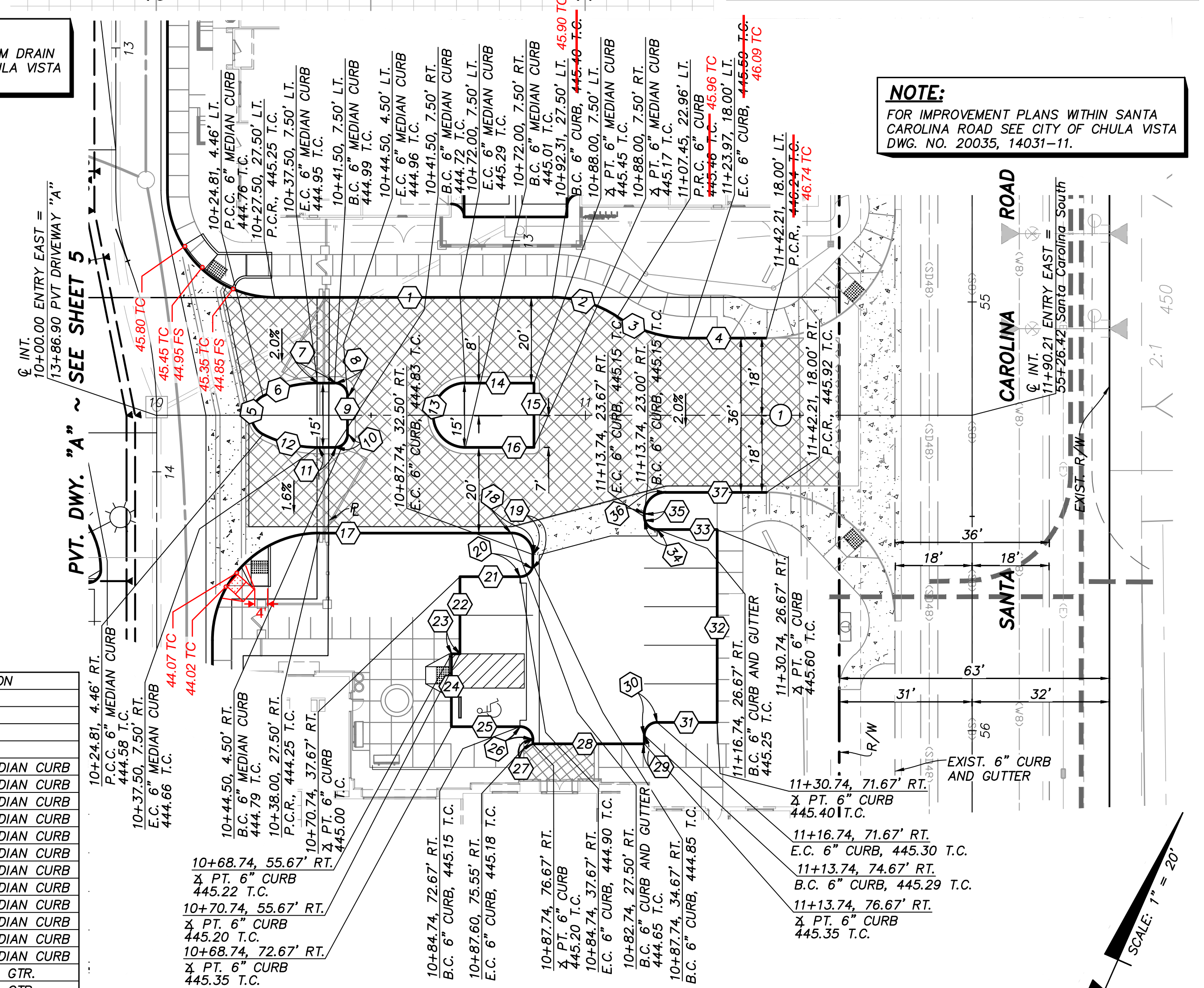
CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 51°30'37"	16.00	14.38	6" CURB AND GTR.
2 108°56'24"	3.00	5.70	6" CURB AND GTR.
3 N23°42'40"W	13.30	6.00	6" CURB
4 N66°17'20"E	81.00	6.00	6" CURB
5 N23°42'40"W	14.00	6.00	6" CURB
6 180°00'00"	3.00	9.42	6" CURB
7 N23°42'40"W	14.00	6.00	6" CURB
8 N66°17'20"E	36.00	6.00	6" CURB
9 N23°42'40"W	2.00	6.00	6" CURB
10 N66°17'20"E	9.00	6.00	6" CURB
11 N66°17'20"E	9.00	6.00	6" CURB
12 N23°42'40"W	2.00	6.00	6" CURB
13 N66°17'20"E	27.00	6.00	6" CURB
14 N23°42'40"W	14.00	6.00	6" CURB
15 180°00'00"	3.00	9.42	6" CURB
16 N23°42'40"W	14.00	6.00	6" CURB
17 N66°17'20"E	81.00	6.00	6" CURB
18 N23°42'40"W	13.00	6.00	6" CURB
19 112°37'12"	3.00	5.90	6" CURB AND GTR.
20 N66°17'20"E	4.73	6.00	6" CURB AND GTR.
21 90°00'00"	3.00	4.71	6" CURB
22 N23°42'40"W	0.50	6.00	VARIABLE CURB
23 N66°17'20"E	224.28	6.00	0" CURB
24 N23°42'40"W	1.21	6.00	VARIABLE CURB
25 90°00'00"	3.00	4.71	6" CURB
26 N66°17'20"E	0.20	6.00	6" CURB
27 N23°42'40"W	17.00	6.00	6" CURB
28 N66°17'20"E	9.00	6.00	6" CURB
29 N23°42'40"W	14.00	6.00	6" CURB
30 90°00'00"	3.00	4.71	6" CURB
31 N66°17'20"E	6.07	6.00	6" CURB

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N66°17'20"E	64.81	6.00	6" CURB
2 33°24'24"	27.50	16.03	6" CURB
3 33°24'24"	30.00	17.49	6" CURB
4 N66°17'20"E	18.24	6.00	6" CURB
5 126°04'31"	5.00	11.00	6" TYPE "B-1" MEDIAN CURB
6 26°57'45"	28.00	13.18	6" TYPE "B-1" MEDIAN CURB
7 N66°17'20"E	4.00	6.00	6" TYPE "B-1" MEDIAN CURB
8 90°00'00"	3.00	4.71	6" TYPE "B-1" MEDIAN CURB
9 N23°42'40"W	9.00	6.00	6" TYPE "B-1" MEDIAN CURB
10 90°00'00"	3.00	4.71	6" TYPE "B-1" MEDIAN CURB
11 N66°17'20"E	4.00	6.00	6" TYPE "B-1" MEDIAN CURB
12 26°57'45"	28.00	13.18	6" TYPE "B-1" MEDIAN CURB
13 180°00'00"	7.50	23.56	6" TYPE "B-1" MEDIAN CURB
14 N66°17'20"E	20.00	6.00	6" TYPE "B-1" MEDIAN CURB
15 180°00'00"	7.50	23.56	6" TYPE "B-1" MEDIAN CURB
16 N66°17'20"E	20.00	6.00	6" TYPE "B-1" MEDIAN CURB
17 N66°17'20"E	44.74	6.00	6" CURB AND GTR.
18 90°00'00"	5.00	7.85	6" CURB AND GTR.
19 N23°42'40"W	2.17	6.00	6" CURB AND GTR.
20 90°00'00"	3.00	4.71	6" CURB AND GTR.
21 N66°17'20"E	14.00	6.00	6" CURB
22 N23°42'40"W	18.00	6.00	6" CURB
23 N66°17'20"E	2.00	6.00	6" CURB
24 N23°42'40"W	17.00	6.00	6" CURB
25 N66°17'20"E	16.00	6.00	6" CURB
26 90°00'00"	3.00	4.71	6" CURB AND GTR.
27 N23°42'40"W	1.00	6.00	6" CURB AND GTR.
28 S66°17'20"E	26.00	6.00	6" CURB
29 N23°42'40"W	2.00	6.00	6" CURB

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

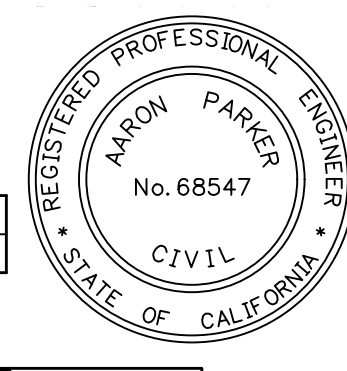


PVT. DRIVEWAY ENTRANCE EAST ENTRY

Δ DATA TABLE

Δ/BEARING	RADIUS	LENGTH
1 N66°17'20"E	190.21'	

GRAPHIC SCALE



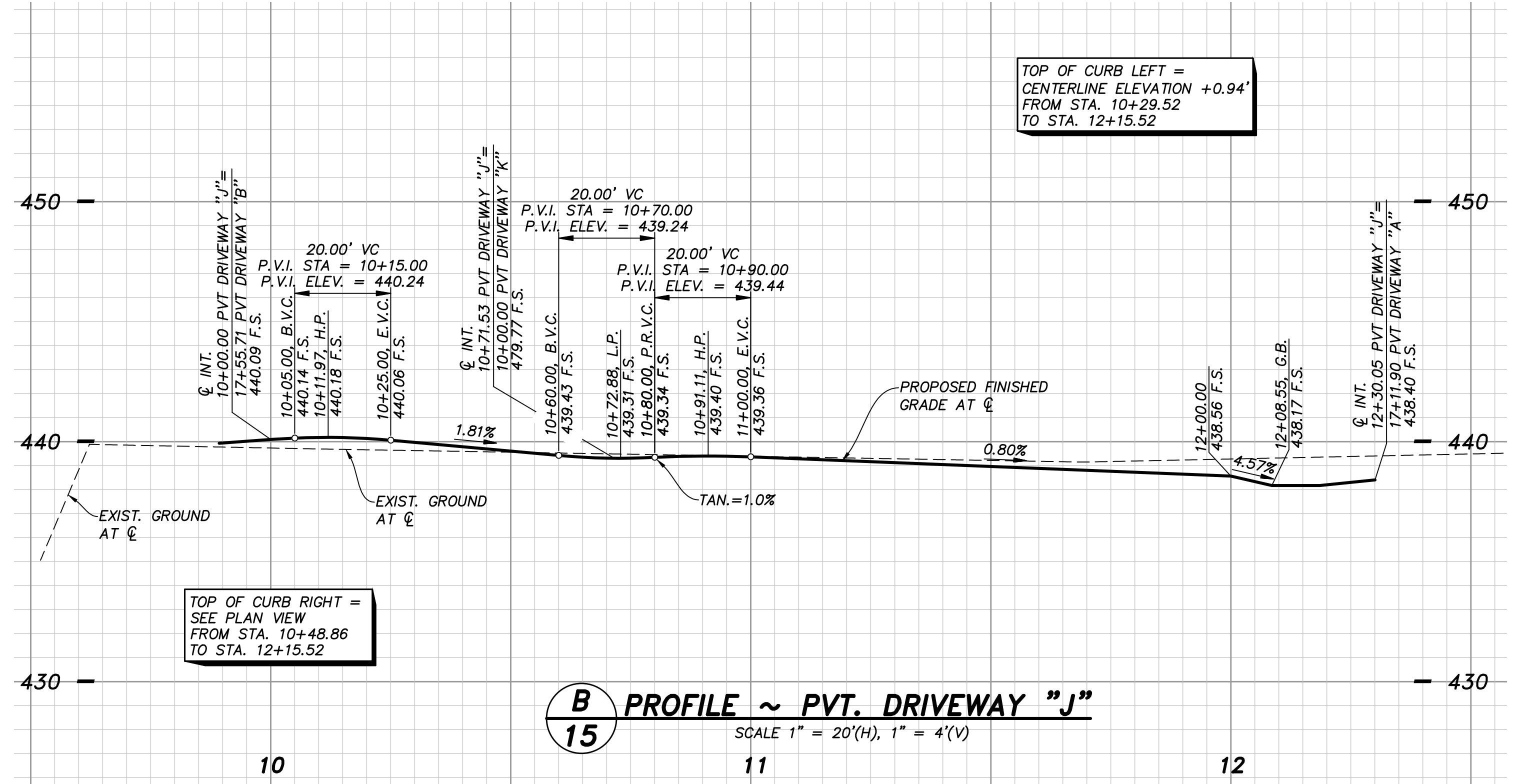
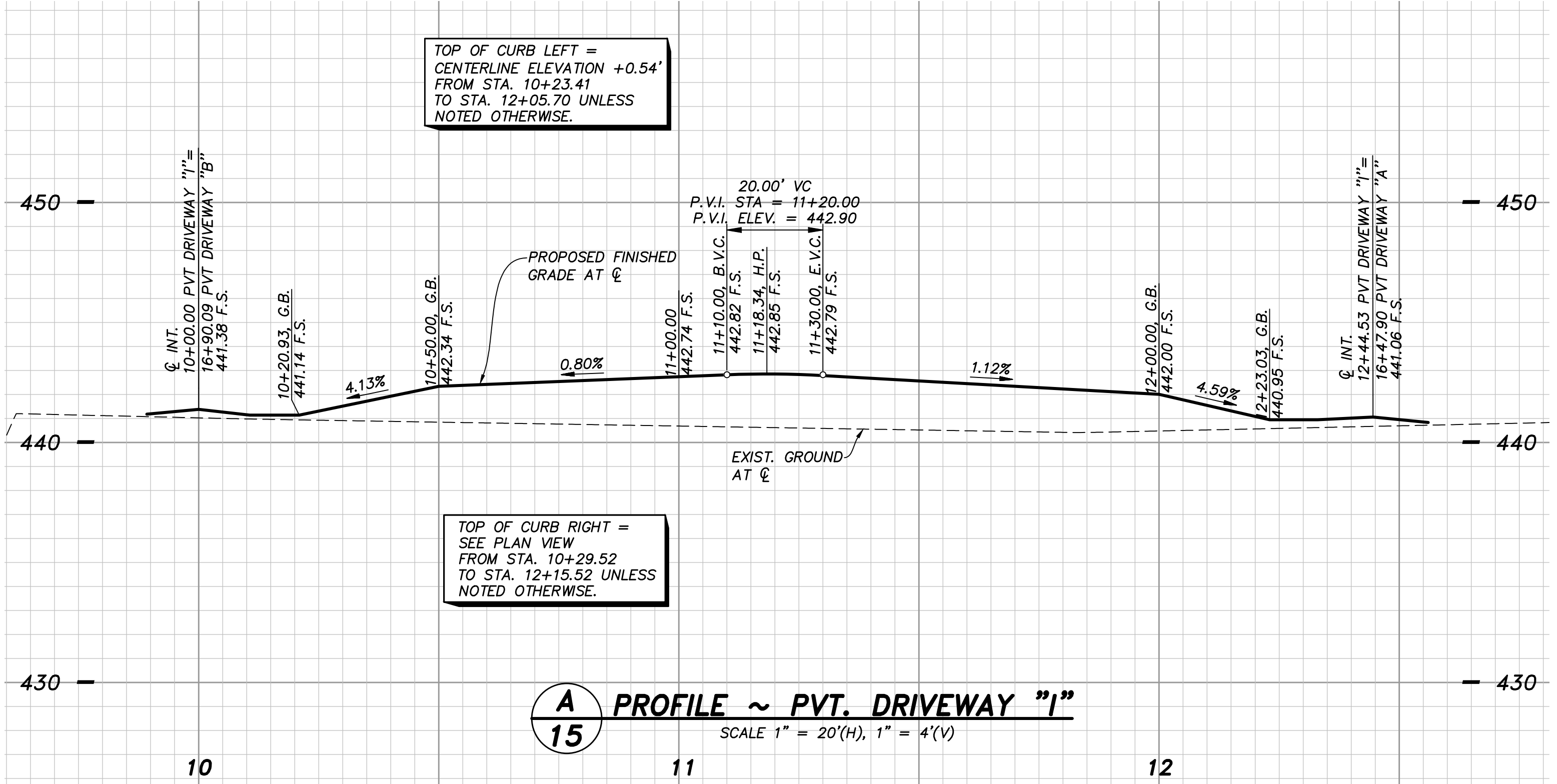
AS BUILT

Signature: **AARON PARKER**
Printed Name: **AARON PARKER**
My Registration Expires: **9-30-21**

Date: _____
P.E. No. **68547**
Discipline: **CIVIL**

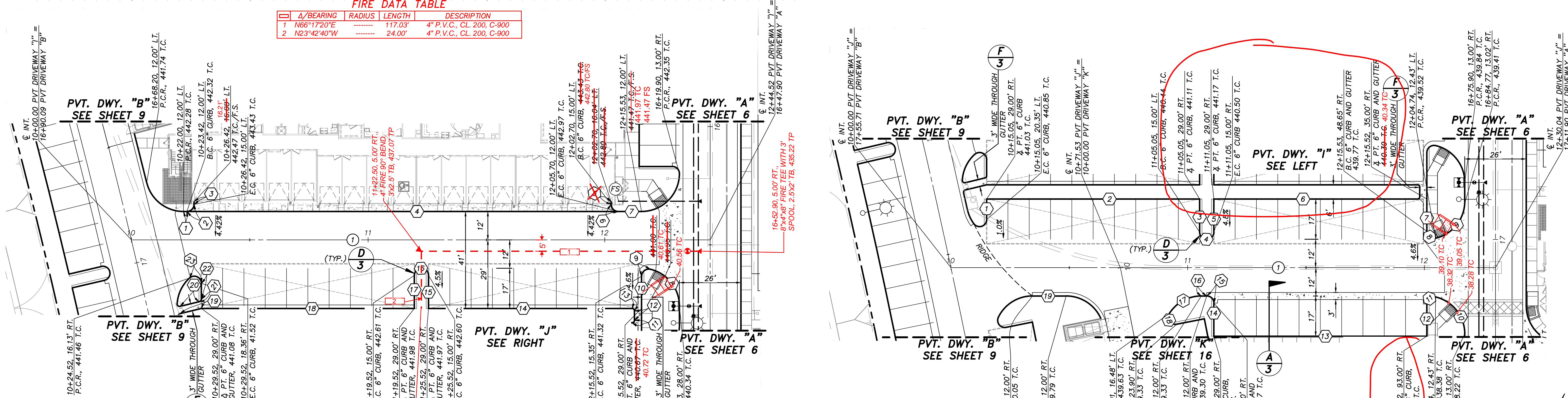
SB&O INC.
PLANNING ENGINEERING SURVEYING
3990 Ruffin Road, Suite 120
San Diego, Ca. 92123
858-560-1141
858-560-8157 Fax

CONTRACTOR: SB&O	REFERENCES: 06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	By: REVISOR	REVISIONS: REVISE ADA , REVISE TC	Date: 5/12/21	App'd: _____	BENCHMARK: _____	SCALE: HORIZONTAL 1" = 20', VERTICAL 1" = 4'	Designed By: J.S.	Drawn By: T.P.	Checked By: A.P.	Submitted: _____	Approved: _____	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO. DR20-0010
INSPECTOR: _____	DATE COMPLETED: _____	DESCRIPTION: BRASS DISC MKD, "SO CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRACKING STA. 154'-E OF METAL DATE: OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)		Date: 3-9-21	R.C.E. No. 68547	By: _____	For the City Engineer	Planning: _____	Landscape: _____	Approved: _____	By: _____	For the City Engineer	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO. DR20-0010



FIRE DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N66°17'20"E	117.03'	4" P.V.G., CL. 200, C-900	
2 N23°42'40"W	24.00'	4" P.V.C., CL. 200, C-900	



CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N66°17'20"E	1.42	6" CURB	
2 89°58'52"	3.00	6" CURB	
3 N23°41'32"W	1.21	VARIABLE CURB	
4 N66°17'20"E	182.28	0" CURB	
5 N23°42'40"W	1.04	VARIABLE CURB	
6 90°00'00"	3.00	6" CURB	
7 N66°17'20"E	9.83	6" CURB	
8 76°39'27"	16.00	21.41 6" CURB AND GTR.	
9 103°20'33"	3.00	5.41 6" CURB AND GTR.	
10 N23°42'40"W	33.30	6" CURB AND GTR.	
11 90°00'00"	1.00	1.57 6" CURB AND GTR.	
12 N23°42'40"W	4.00	6" CURB AND GTR.	
13 90°00'00"	1.00	1.57 6" CURB AND GTR.	
14 N66°17'20"E	86.00	6" CURB AND GTR.	
15 N23°42'40"W	14.00	6" CURB	
16 180°00'00"	3.00	9.42 6" CURB	

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
17 N23°42'40"W	14.00	6" CURB	
18 N66°17'20"E	90.00	6" CURB AND GTR.	
19 N52°48'40"E	9.22	6" CURB AND GTR.	
20 N52°48'40"E	8.49	6" CURB AND GTR.	
21 76°31'20"	1.00	1.34 6" CURB	
22 N23°42'40"W	6.77	6" CURB	
23 132°06'42"	3.00	6.92 6" CURB	

DATA TABLE

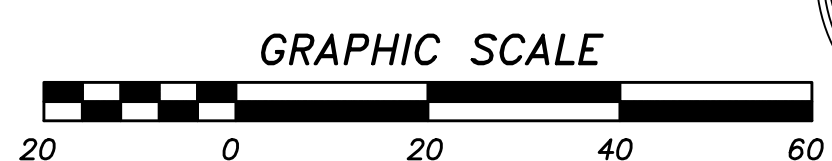
Δ/BEARING	RADIUS	LENGTH
1 N66°17'20"E	244.52'	

CURB DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N23°42'40"W	8.65	6" CURB	
2 N66°17'20"E	90.00	6" CURB	
3 N23°42'40"W	14.00	6" CURB	
4 180°00'00"	3.00	9.42 6" CURB	
5 N23°42'40"W	14.00	6" CURB	
6 N66°17'20"E	86.00	6" CURB	
7 N23°42'40"W	33.30	6" CURB AND GTR.	
8 103°20'33"	3.00	5.41 6" CURB AND GTR.	
9 76°39'27"	16.00	21.41 6" CURB AND GTR.	
10 76°39'27"	16.00	21.41 6" CURB AND GTR.	
11 103°20'33"	3.00	5.41 6" CURB AND GTR.	
12 N23°42'40"W	13.65	6" CURB	
13 N66°17'20"E	90.00	6" CURB	
14 N23°42'40"W	14.00	6" CURB	
15 90°00'00"	3.00	4.71 6" CURB AND GTR.	
16 N66°17'20"E	2.31	6" CURB	
17 57°11'20"	16.00	15.97 6" CURB	
18 133°58'33"	3.00	7.01 6" CURB	
19 N66°17'20"E	14.27	6" CURB AND GTR.	

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

PVT. DRIVEWAY "J"

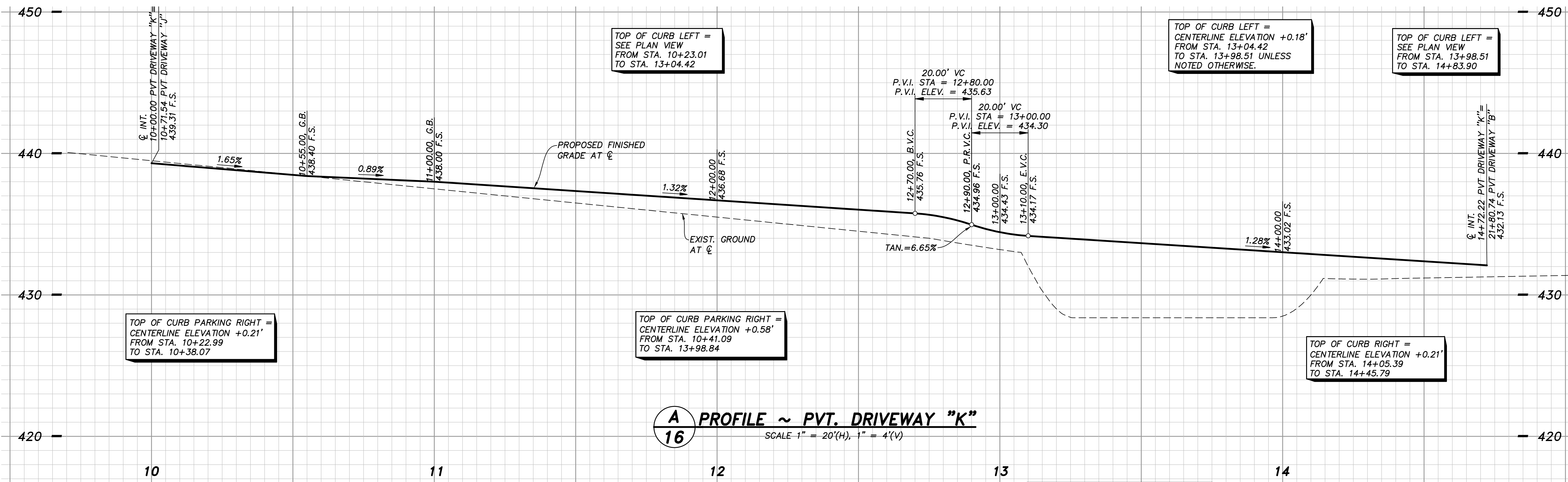


AS BUILT

Signature: AARON PARKER Date: _____
 Printed Name: AARON PARKER P.E. No. 68547
 My Registration Expires 9-30-21 Discipline CIVIL

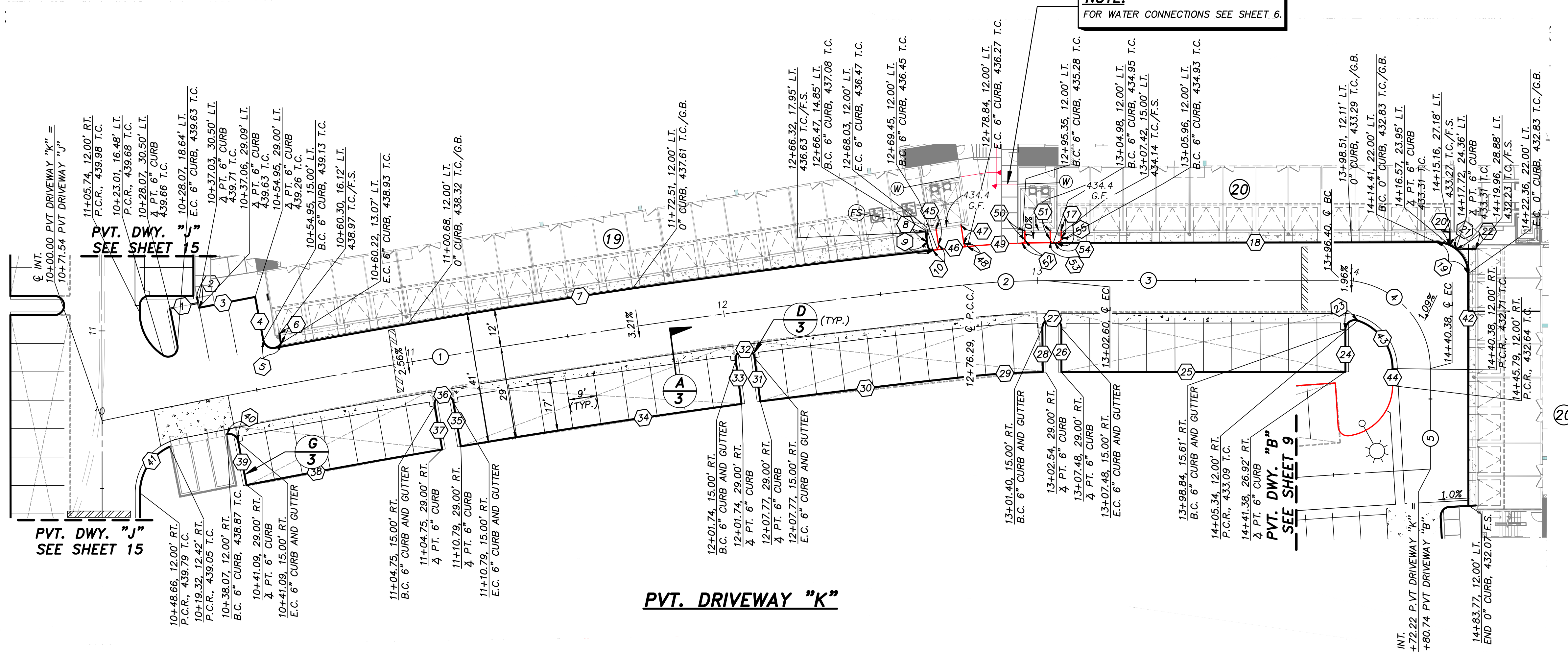
SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, CA 92123
 858-560-1141
 858-560-8157 Fax

CONTRACTOR: 06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	By: SB&O	REVISIONS: REVISE T.C., REVISE CURB, PED RAMP, ADD FIRE LAT.	Date: 3/20/21, 8/29/21	BENCHMARK: BRASS DISC MKD, "50 CITY ENGR. IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRACKING STA. 154'- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	SCALE: HORIZONTAL 1" = 20', VERTICAL 1" = 4'	Designed By: J.S. Aaron Parker	Drawn By: T.P. A.P.	Checked By: A.P.	Submitted: _____	Approved: _____	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO. 20-0010
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A PROFILE ~ PVT. DRIVEWAY "K"
 16 SCALE 1" = 20'(H), 1" = 4'(V)

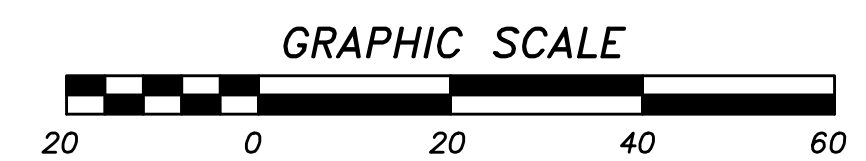
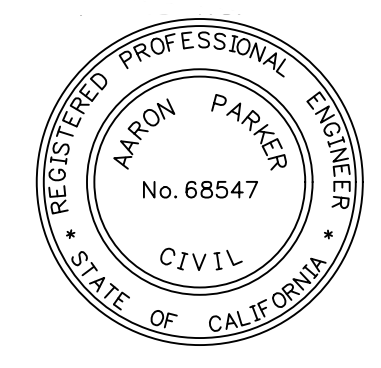
Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
0°11'07"	2800.50	9.06	6" CURB
N55°18'34"E	---	1.50	6" CURB
0°22'15"	2799.00	18.11	6" CURB
N55°40'49"E	---	14.00	6" CURB
139°52'21"	3.00	7.32	6" CURB
N57°17'20"E	---	3.05	VARIABLE CURB
4°22'30"	2782.00	212.43	0" CURB
N57°17'20"E	---	3.10	VARIABLE CURB
87°10'18"	3.00	4.56	6" CURB
0°02'40"	2782.00	2.16	6" CURB
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
N66°17'20"E	---	2.33	VARIABLE CURB
N23°42'40"W	---	121.98	0" CURB
90°00'00"	10.00	15.71	0" CURB
N66°17'20"E	---	4.21	VARIABLE CURB
12°34'02"	10.00	2.19	6" CURB
N23°42'40"W	---	6.28	VARIABLE CURB
108°17'35"	3.00	5.67	6" CURB AND GTR.
N66°17'20"E	---	13.34	6" CURB
N23°42'40"W	---	90.00	6" CURB
N66°17'20"E	---	14.00	6" CURB
180°05'48"	3.00	9.43	6" CURB AND GTR.
N66°00'54"E	---	14.00	6" CURB
5°45'24"	221.00	22.20	6" CURB
1°25'02"	2741.00	67.80	6" CURB
N58°50'29"E	---	14.00	6" CURB
180°03'45"	3.00	9.43	6" CURB AND GTR.
N58°42'59"E	---	14.00	6" CURB
1°52'53"	2741.00	90.00	6" CURB
N56°50'07"E	---	14.00	6" CURB
180°03'45"	3.00	9.43	6" CURB AND GTR.
N56°42'38"E	---	14.00	6" CURB
1°19'01"	2741.00	63.00	6" CURB
N55°23'37"E	---	14.00	6" CURB
90°03'45"	3.00	4.72	6" CURB AND GTR.
65°32'12"	16.00	18.30	6" CURB AND GTR.
N66°17'20"E	---	73.52	0" CURB
71°42'26"	16.00	20.02	6" CURB AND GTR.
N66°17'20"E	---	5.42	6" CURB AND GTR.
N57°17'20"E	---	5.01	VARIABLE CURB
0°10'15"	2782.00	8.29	0" CURB
N57°17'20"E	---	6.06	6" CURB
86°26'47"	1.00	1.51	6" CURB
6°01'49"	262.00	27.58	6" CURB
N66°17'20"E	---	2.82	6" CURB
N66°17'20"E	---	2.71	6" CURB
88°20'23"	1.00	1.54	6" CURB
90°00'00"	1.00	1.57	6" CURB
N23°42'40"W	---	0.98	6" CURB
90°00'00"	1.50	2.36	6" CURB



NOTE:
 FOR WATER CONNECTIONS SEE SHEET 6.

NOTE:
 FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.

Δ/BEARING	RADIUS	LENGTH
5°42'53"	2770.00'	276.29'
6°01'49"	250.00'	26.31'
N23°42'40"W	---	93.80'
89°59'55"	28.00'	43.98'
N66°17'20"E	---	31.84'

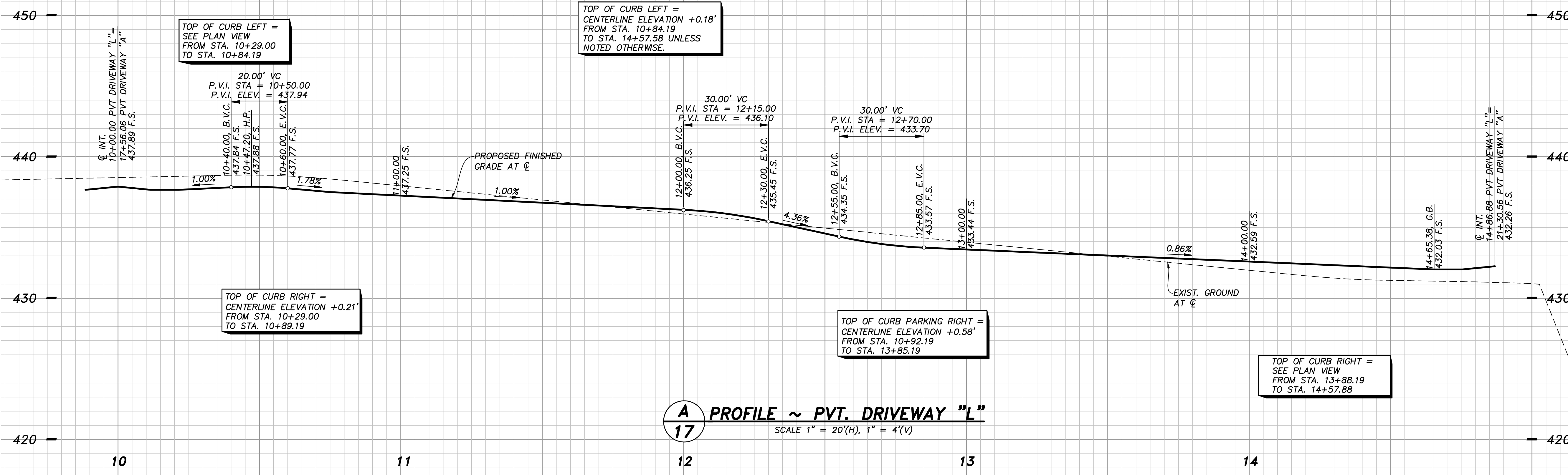


AS BUILT

Signature: AARON PARKER Date: _____
 Printed Name: AARON PARKER P.E. No. 68547
 My Registration Expires 9-30-21 Discipline CIVIL

SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.
CONTRACTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	SB&O	REMOVE PARKING, ADD TRASH ENCLOSURES, REVISE CURB	6/3/21		DESCRIPTION: BRASS DISC MKD, "SO CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRADING STA. 154+- E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	HORIZONTAL 1" = 20' VERTICAL 1" = 4'	J.S.	T.P.	A.P.	By: _____	By: _____	PRIVATE IMPROVEMENT PLANS FOR: OTAY RANCH VILLAGE 2 R-25(A) CITY OF CHULA VISTA TRACT NO. DR20-0010	16
DATE COMPLETED:								AARON PARKER	Date: 6/7/21	R.C.E. No. 68547	Planning: _____	For the City Engineer		



FIRE DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N23°42'40"W	---	7.00	6" P.V.C., CL. 200, C-900
2 N66°17'20"E	---	116.88	6" P.V.C., CL. 200, C-900
3 N23°42'40"W	---	17.92	6" P.V.C., CL. 200, C-900
4 N66°17'20"E	36.50'	---	4" P.V.C., CL. 200, C-900
5 N23°42'40"W	---	22.00'	4" P.V.C., CL. 200, C-900

WATER DATA TABLE

Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N23°42'40"W	---	0.76	6" P.V.C., CL. 200, C-900
2 N66°17'20"E	---	115.70	4" P.V.C., CL. 200, C-900
3 N23°42'40"W	---	15.68	4" P.V.C., CL. 200, C-900

CURB DATA TABLE

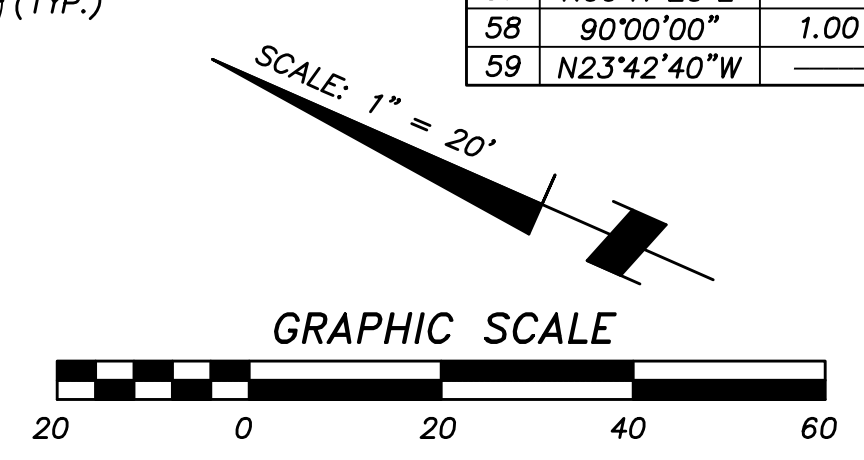
Δ/BEARING	RADIUS	LENGTH	DESCRIPTION
1 N66°17'20"E	---	35.35	0" CURB
2 N23°42'40"W	---	12.11	VARIABLE CURB
3 24°13'33"	40.00	16.91	6" CURB
4 N66°17'20"E	---	12.90	VARIABLE CURB
5 N23°42'40"W	---	137.67	0" CURB
6 90°00'00"	3.00	4.71	VARIABLE CURB
7 N23°42'40"W	---	33.38	6" CURB
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
INTENTIONALLY LEFT BLANK			
14 90°00'00"	3.00	4.71	VARIABLE CURB
15 N23°42'40"W	---	137.67	0" CURB
16 N66°17'20"E	---	13.04	VARIABLE CURB
17 23°40'49"	40.00	16.53	6" CURB
18 N23°42'40"W	---	12.39	VARIABLE CURB
19 N66°17'20"E	---	35.35	0" CURB
20 122°02'09"	3.00	6.39	VARIABLE CURB
21 57°57'51"	16.00	16.19	6" CURB
22 90°00'00"	1.00	1.57	6" CURB AND GTR.
23 N23°42'40"W	---	17.56	6" CURB AND GTR.
24 N66°17'20"E	---	9.21	6" CURB AND GTR.
25 74°22'53"	16.00	20.77	6" CURB AND GTR.
26 90°00'00"	3.00	5.53	6" CURB AND GTR.
27 N66°17'20"E	---	13.52	6" CURB
28 N23°42'40"W	---	63.00	6" CURB
29 N66°17'20"E	---	14.00	6" CURB
30 180°00'00"	3.00	9.43	6" CURB AND GTR.
31 N66°17'20"E	---	14.00	6" CURB
32 N23°42'40"W	---	63.00	6" CURB
33 N66°17'20"E	---	2.00	6" CURB
34 N23°42'40"W	---	23.00	6" CURB
35 N66°17'20"E	---	16.00	6" CURB
36 180°00'00"	3.00	9.42	6" CURB AND GTR.
37 N66°17'20"E	---	14.00	6" CURB
38 N23°42'40"W	---	72.00	6" CURB
39 N66°17'20"E	---	14.00	6" CURB
40 180°00'00"	3.00	9.42	6" CURB AND GTR.
41 N66°17'20"E	---	14.00	6" CURB
42 N23°42'40"W	---	72.00	6" CURB
43 N66°17'20"E	---	14.00	6" CURB
44 90°00'00"	3.00	4.71	6" CURB AND GTR.
45 61°42'30"	16.00	17.23	6" CURB AND GTR.
46 N66°17'20"E	---	11.21	6" CURB AND GTR.
47 72°04'47"	16.00	20.13	6" CURB AND GTR.
48 57°57'51"	16.00	16.19	6" CURB AND GTR.
49 122°02'09"	3.00	6.39	VARIABLE CURB
50 N66°17'20"E	---	2.71	6" CURB
51 90°00'00"	1.00	1.57	6" CURB
52 90°00'00"	1.00	1.57	6" CURB
53 N66°17'20"E	---	2.71	6" CURB
54 N23°42'40"W	---	43.50	6" CURB
55 N66°17'20"E	---	2.71	6" CURB
56 90°00'00"	1.00	1.57	6" CURB
57 N66°17'20"E	---	2.71	6" CURB
58 90°00'00"	1.00	1.57	6" CURB
59 N23°42'40"W	---	9.17	6" CURB

Δ DATA TABLE

Δ/BEARING	RADIUS	LENGTH
1 N66°17'20"E	---	40.21'
2 90°00'00"	28.00'	43.98'
3 N23°42'40"W	---	318.50'
4 90°00'00"	28.00'	43.98'
5 N66°17'20"E	---	40.21'

PVT. DRIVEWAY "L"

NOTE:
FOR GRADING AND STORM DRAIN PLANS SEE CITY OF CHULA VISTA DWG. NO. 20035.



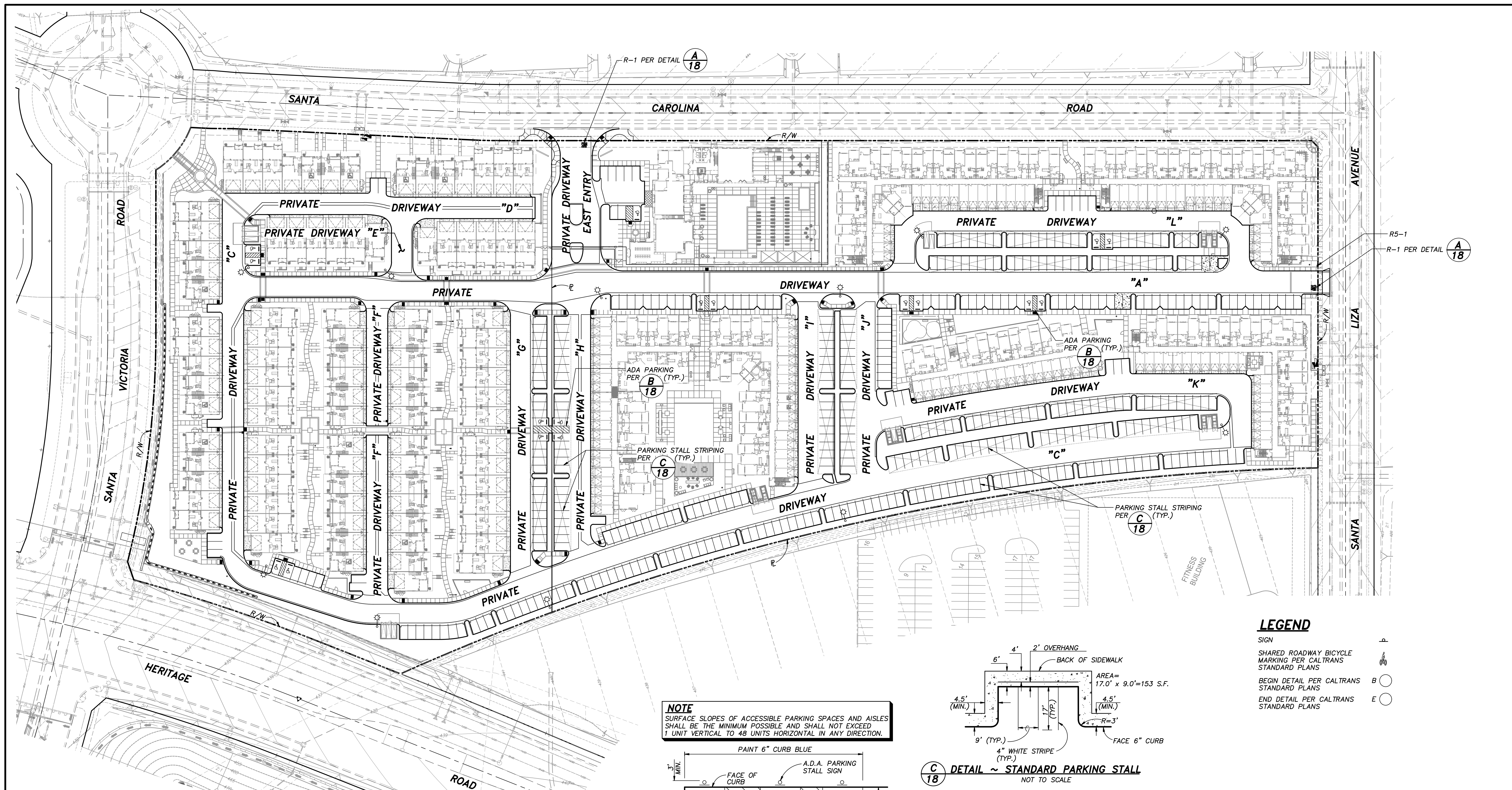
AS BUILT

Signature: AARON PARKER Date: _____
 Printed Name: AARON PARKER P.E. No. 68547
 My Registration Expires 9-30-21 Discipline CIVIL

SB&O INC.
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

CONTRACTOR: SB&O	REFERENCES: 06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035	By: SB&O	REVISIONS: REVISE T.C. STATIONS 3/30/21	BENCHMARK: DESCRIPTION: BRASS DISC MKD. "SO CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF NIX LA MEDIA RD. & BIRCH RD. SO SIDE OF GRAVEL RD. 225'± W OF GATE TO A.V.R. TRADING STA. 154'-E OF METAL GATE. OPT. #344 PER R.O.S. 14841) ELEVATION = 520.425 (NAVD '88)	SCALE: HORIZONTAL 1" = 20' VERTICAL 1" = 4'	Designed By: J.S.	Drawn By: T.P.	Checked By: A.P.	Submitted: _____	Approved: _____	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO. _____
INSPECTOR: SB&O		By: SB&O	ADD RISER T.P., REVISE WATER ELEV.'S, ADA 5/13/21			Planned Under Supervision Of: Aaron Parker	Date: 6/7/21	R.C.E. No. 68547	By: _____	For the City Engineer	PRIVATE IMPROVEMENT PLANS FOR: OTAY RANCH VILLAGE 2 R-25(A) CITY OF CHULA VISTA TRACT NO. DR20-0010	W.O. No. _____
DATE COMPLETED: _____		By: SB&O	ADD FIRE LAT. 6/29/21									REPLACEMENT SHEET

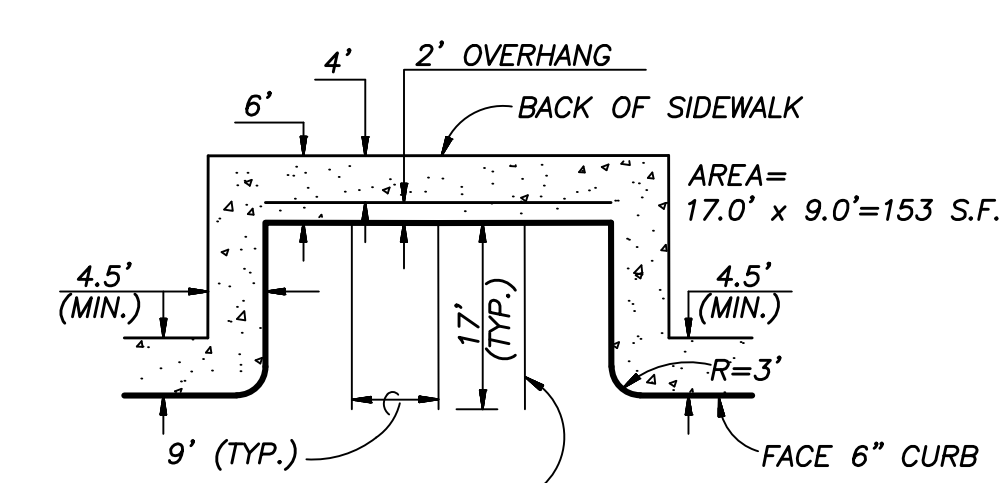
OTAY RANCH VILLAGE 2 ~ R-25(A)



OTAY RANCH VILLAGE 2 ~ R-25(A)

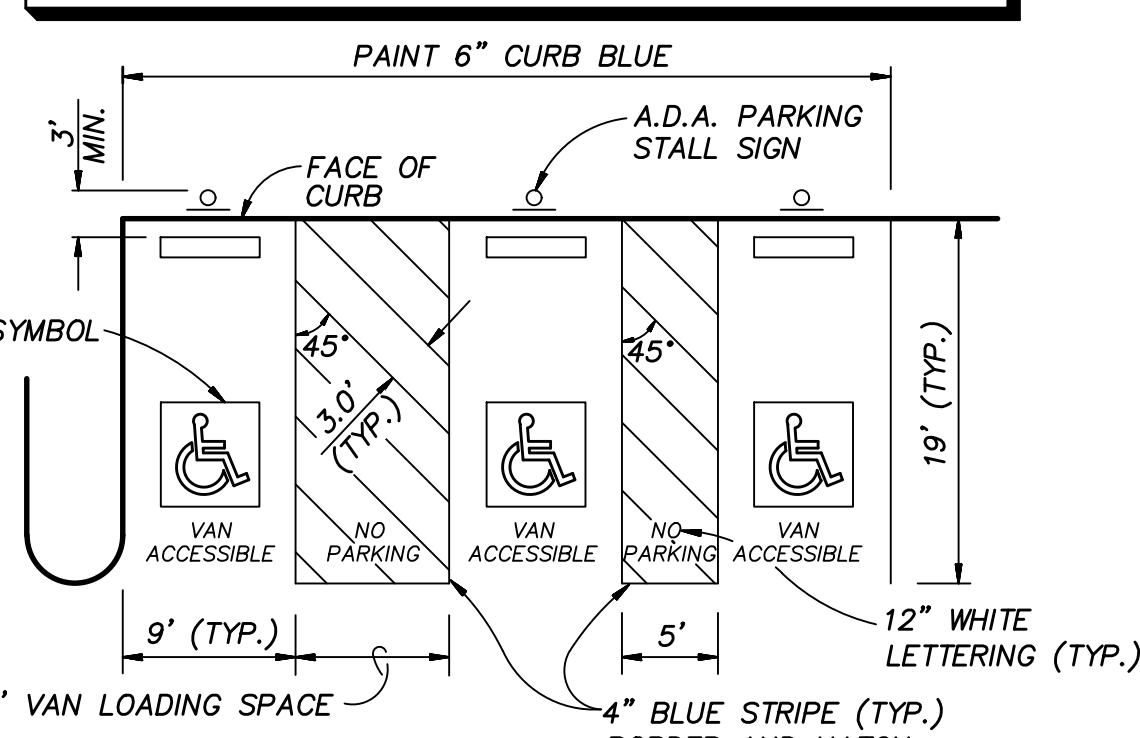
LEGEND

- SIGN P
- SHARED ROADWAY BICYCLE MARKING PER CALTRANS STANDARD PLANS B
- BEGIN DETAIL PER CALTRANS STANDARD PLANS E
- END DETAIL PER CALTRANS STANDARD PLANS

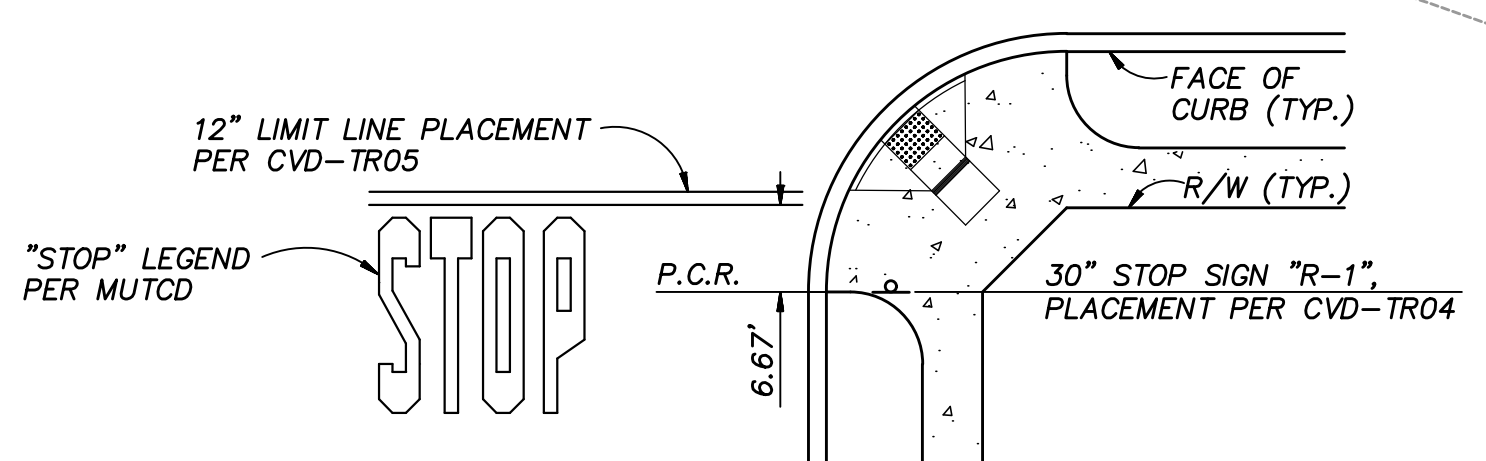
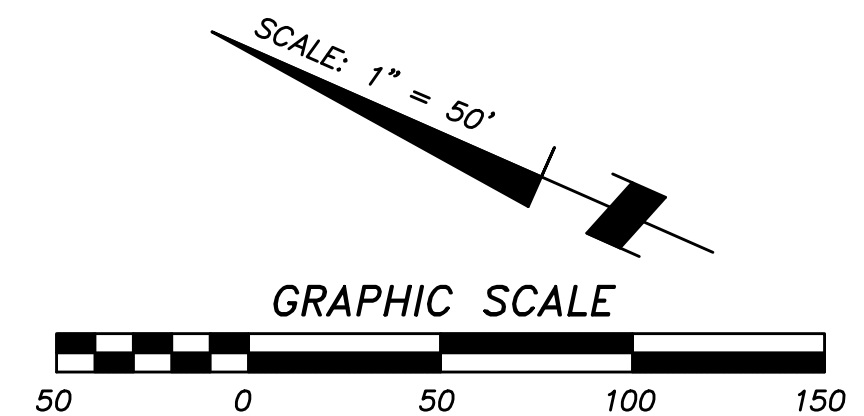


C 18 **DETAIL ~ STANDARD PARKING STALL**
NOT TO SCALE

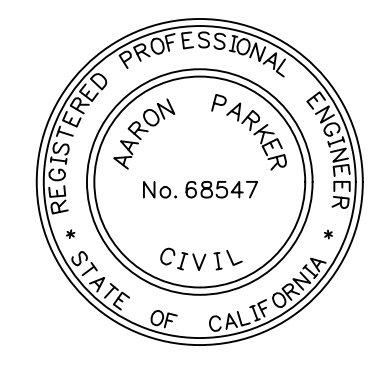
NOTE
SURFACE SLOPES OF ACCESSIBLE PARKING SPACES AND AISLES SHALL BE THE MINIMUM POSSIBLE AND SHALL NOT EXCEED 1 UNIT VERTICAL TO 48 UNITS HORIZONTAL IN ANY DIRECTION.



B 18 **DETAIL ~ ACCESSIBLE PARKING, STRIPING AND DETECTABLE WARNING SURFACE RAMP LIMITS DEPRESSED CURB**
NOT TO SCALE PER SDRSD M-27A



A 18 **DETAIL ~ STREET NAME SIGN**
NOT TO SCALE



AS BUILT	
Signature: AARON PARKER	Date: _____
Printed Name: AARON PARKER	P.E. No. 68547
My Registration Expires 9-30-21	Discipline CIVIL

CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT
SIGNING AND STRIPING PLANS FOR:
OTAY RANCH VILLAGE 2 R-25(A)
CITY OF CHULA VISTA TRACT NO. DR20-0010

CONTRACTOR:	REFERENCES:	By:	REVISIONS:	Date:	App'd:	BENCHMARK:	SCALE:	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	
INSPECTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038, 20035					DESCRIPTION: BRASS DISC MKD. "SD CITY ENGR." IN 3/4" IRON PIPE 0.5 MI SLY OF INTX LA MEDIA RD. & BIRCH RD. SO SIDE OF GRAVEL RD. 225'+- W OF GATE TO A.V.R. TRACKING STA. 15+/- E OF METAL GATE. (PT. #1344 PER P.O.S. 14841) ELEVATION = 520.425 (NAVD 85)	HORIZONTAL: 1" = 50' VERTICAL: N/A	J.S.	T.P.	A.P.			
DATE COMPLETED:								AARON PARKER				For the City Engineer	



Construction Site Policy for Compliance with Fire Safety Provisions

California has adopted a statewide uniform building code, codified in title 24 of the California Code of Regulations. The code imposes a mandatory duty on local jurisdictions to adopt rules and regulations which include the same building code requirements as those contained in the statewide building codes. Pursuant to that requirement, the City of Chula Vista Municipal Code section 15.36.010 adopts and incorporates by reference the California Fire Code, 2001 Edition.

California Fire Code section 8704 establishes fire safety standards for sites during the construction phase. Section 8704.2 requires that access roads sufficient to accommodate fire department apparatus be established and maintained. Section 8704.3 requires the installation of operational water supplies. Temporary access roads and water supplies may be permitted during the construction period upon approval by the Fire Department. These provisions are incorporated in Chula Vista Fire Department policies 2916.00 and 2916.01. The policies apply to residential and commercial construction projects and mandate that approved water supplies and access roads be in place prior to the delivery of combustible materials on any construction site. For purposes of compliance with the policies the following definitions apply:

- Water Supply means a fully operational and tested fire service utility system serving the permanent hydrant system.
- Access means a fully improved street section (private or public); a first layer of asphalt is also acceptable to allow for access to within 150 feet of all combustibles.
- When approved by the Fire Marshal, temporary access roadways and temporary water services may be substituted for permanent road and water supplies.

Requests for temporary roadways must be submitted in writing for review and approval by the Fire Marshal. Requests must include a site plan, geotechnical information, and a time frame indicating how long the temporary roadways will be in place (for the specific requirements, please see CVFD Policy 2916.03). The phasing of improvements and/or the point at which the temporary road extends is at the discretion of the Fire Marshal. Temporary access roads are to be constructed of an asphalt concrete pavement (of a suitable thickness), on top of an appropriate native soil or base as approved.

Requests to install temporary water services must be submitted in writing for review and approval by the Fire Marshal. Requests must include a site plan, and a time frame indicating how long the temporary water services will be in place.

Street Signs – California Fire Code section 901.4.5 requires street signs at all construction sites. Street signs may be permanent signs as approved for installation by City staff or temporary signs approved by the Fire Marshal. Street signs must indicate the street name and the hundred block.

The following California Fire Code sections apply to construction site safety provisions covered by this document.

- Section 103.3.1.1 authorizes the Fire Marshal to inspect construction sites, as often as necessary, to ensure compliance with these requirements.
- Section 103.3.1.3 authorizes the Fire Marshal to stop work at any site found to be in violation of these requirements.
- Section 103.4.1.1 authorizes the Fire Marshal to issue corrective notices.
- Section 103.4.4 authorizes the Fire Marshal to issue citations to persons who fail to take immediate corrective action for violations under this policy.

Chula Vista Municipal Code provides for penalties for violations of the California Fire Code. Administrative penalties of up to \$500.00 per day and civil penalties of up to \$1000.00 per day may be assessed. See CVMC sections 1.40.100 (D) (1) and 1.40.110(A). Finally, pursuant to Government Code section 38773, costs and penalties may be recovered for violations of the fire code.

If any of the above requirements are not in place in accordance with Fire Department and state regulations, the construction project will be shut down and all inspections will be temporarily stopped until provisions have been made to provide compliance. The undersigned hereby certifies that he/she has read the terms and conditions of this Policy and acknowledges that he/she understands such terms and conditions. Failure to comply with a cease and desist order is a misdemeanor and may subject the person signing this document to criminal prosecution.

The person signing this document is hereby responsible for ensuring compliance with provisions of this policy and must notify all responsible parties as to these requirements.

Name (Print) Bradley D. Sager Name (Signature) Bradley D. Sager

Title Senior Project Manager Date 3-12-21

Once signed and dated, this form shall be reproduced on the final permitted set of plans.

CHULA VISTA FIRE DEPARTMENT • Fire Prevention Division • 276 Fourth Avenue, Building 300, Suite B-143 • Chula Vista, CA 91910
(619) 691-5029 • fax (619) 691-5204 • www.chulavistaca.gov/goto/FirePrevention

BUILDING TABULATIONS

Building #	Units	Total Area (S.F.)	Fire Walls	Stories	Construction Type	Occupancy	Sprinkler Type	Type	Footprint
1	5	11175	2&3	VB	R2, U	NFPA-13		A	4552
2	5	11175	2&3	VB	R2, U	NFPA-13		A	4552
3	5	11175	2&3	VB	R2, U	NFPA-13		A	4552
4	7	15562	2&3	VB	R2, U	NFPA-13		B	6378
5	7	15562	2&3	VB	R2, U	NFPA-13		B	6378
6	6	12772	2&3	VB	R2, U	NFPA-13		C	5959
7	6	12772	2&3	VB	R2, U	NFPA-13		C	5959
8	6	12546	2	VB	R2, U	NFPA-13R		D	6168
9	6	14007	3	VB	R2, U	NFPA-13		E	5014
10	6	14007	3	VB	R2, U	NFPA-13		E	5014
11	6	12546	2	VB	R2, U	NFPA-13R		D	6168
12	6	12546	2	VB	R2, U	NFPA-13R		D	6168
13	7	16324	3	VB	R2, U	NFPA-13		F	5832
14	8	18641	3	VB	R2, U	NFPA-13		G	6651
15	7	14637	2	VB	R2, U	NFPA-13R		H	7196
16		113628		4					27924
17		71707		4					18031
18		71707		4					18031
19		46415		4					11789
20		59790		4					15132

Amenity/Leasing

LEGAL DESCRIPTION

LOT 8 OF CHULA VISTA TRACT 12-05 OTAY RANCH VILLAGE 2, SOUTH "A" MAP NO. 1 IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 16112.

ASSESSOR'S PARCEL NUMBER

644-313-52-00 AND 644-313-29-00

PROJECT LOCATION

SOUTH OF SANTA VICTORIA ROAD, NORTH OF SANTA LIZA STREET, EAST OF HERITAGE ROAD, WEST OF SANTA CHRISTINA AVENUE.

OWNER

SUNRANCH CAPITAL PARTNERS LLC AND VILLAGE II OF OTAY HB SUB.
610 W. ASH STREET, SUITE 1500
SAN DIEGO, CA. 92101
PHONE 619-234-4050
Bradley D. Sager 3-12-21
BRAD SAGER, SR. PROJECT MANAGER DATE

LEGEND

DESCRIPTION	STANDARD DWGS.	SYMBOL
PROJECT BOUNDARY		---
CENTERLINE		---
PROPOSED CURB		---
PROPOSED WATER MAIN		---
FIRE LATERAL		---
THRUST BLOCK		---
EXISTING FIRE HYDRANT		⊕
TYPICAL FIRE SERVICE CONNECTION	SEE SHEET 3	⊕
BUILDING NUMBER		①
FIRE HYDRANT LOCATION		⊕
KNOX BOX AND FIRE CONTROL ROOM		⊕
PRIVATE 6" FIRE SERVICE		⊕
PRIVATE FIRE MAIN		---
PRIVATE FIRE RPDA		---
PRIVATE WATER MAIN		---
RADIUS AROUND FIRE HYDRANT (300' EXISTING, 150' PROPOSED)		○
TRASH ENCLOSURE		⊕

SCOPE OF WORK

PROVIDE NEW PRIVATE FIRE UNDERGROUND SERVICES TO 20 BUILDINGS DESIGNED PER NFPA 24 STANDARDS AND THE CITY OF CHULA VISTA STANDARD DRAWINGS.

GENERAL UNDERGROUND PIPING NOTES

1. INSTALLATION SHALL CONFORM TO:
 - NFPA 24, 2019 EDITION
 - 2019 CALIFORNIA FIRE CODE
 - 2019 CALIFORNIA PLUMBING CODE
2. ALL MATERIALS USED SHALL BE UL LISTED AND/OR FIRE MARSHAL APPROVED FOR FIRE PROTECTION USE, WHERE SUCH LISTING IS APPLICABLE.
3. PIPING SHALL BE AWWA C900, DR-14 PVC OR AWWA C151, CLASS 350 DUCTILE IRON AS SHOWN ON PLANS.
4. FITTINGS SHALL BE AWWA C153, CLASS 250 DUCTILE IRON WITH FLANGED OR MECHANICAL JOINT ENDS, AS REQUIRED.
5. MINIMUM COVER SHALL BE 3' IN TRAFFIC ZONES AND 2'-6" IN PEDESTRIAN ZONES.
6. THRUST RESTRAINT PER NFPA 24 SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION AND/OR ELEVATION.
7. PIPE SHALL BE INSTALLED WITH SAND OR NEUTRAL EQUIVALENT MATERIAL SURROUNDING PIPE ZONE, AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
8. ALL PIPE AND FITTINGS BELOW GRADE SHALL BE WRAPPED AND/OR COATED AGAINST CORROSION IN ACCORDANCE WITH FIRE AND WATER DEPARTMENT REQUIREMENTS.
9. ALL PIPE PENETRATING CONCRETE OR MASONRY BUILDING WALLS AND FLOOR SLABS SHALL BE PROVIDED WITH 2" CLEAR SPACE AROUND THE OUTSIDE DIAMETER OF PIPE. HOLES FOR PENETRATIONS SHALL BE SLEEVED OR CORED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. WHERE REQUIRED, RATED FIRESTOP OR WATER SEAL ASSEMBLIES SHALL BE INSTALLED.
10. ALL INDICATING GATE VALVES CONTROLLING FIRE PROTECTION WATER SUPPLIES SHALL BE EQUIPPED WITH TAMPER SWITCHES AND CONNECTED TO AN APPROVED CENTRAL ALERT STATION.
11. ALL PIPE AND FITTINGS SHALL BE HYDROSTATICALLY TESTED FOR A MINIMUM OF 2 HOURS AT 200 PSI. AFTER ACCEPTANCE OF THE PRESSURE TEST ALL PIPING SHALL BE FLUSHED IN ACCORDANCE WITH NFPA.
12. ALL VISUAL INSPECTIONS, HYDROSTATIC TESTING, AND FLUSHING OF THE UNDERGROUND PIPING SHALL BE PERFORMED OR WITNESSED BY THE AUTHORITY HAVING JURISDICTION.

HYDRANT SPACING PER 2019 CALIFORNIA FIRE CODE, APPENDIX C: TABLE C102.1

REQUIRED FIRE FLOW:	5,000 G.P.M.
MINIMUM NUMBER OF HYDRANTS:	2
AVERAGE SPACING BETWEEN:	200 FEET ¹
MAXIMUM DISTANCE FROM ROAD:	120 FEET

NOTE:
1. A 50% SPACING INCREASE SHALL BE PERMITTED WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN APPROVED SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 OF THE CALIFORNIA FIRE CODE.



CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:
CONTRACTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038						HORIZONTAL	J.S.	T.P.	A.P.		
INSPECTOR:							VERTICAL	<i>Aaron Parker</i>	Date: 3-9-21	R.C.E. No. 68547		
DATE COMPLETED:								AARON PARKER				



AS BUILT

Signature: AARON PARKER Date: 68547

Printed Name: AARON PARKER P.E. No. 68547

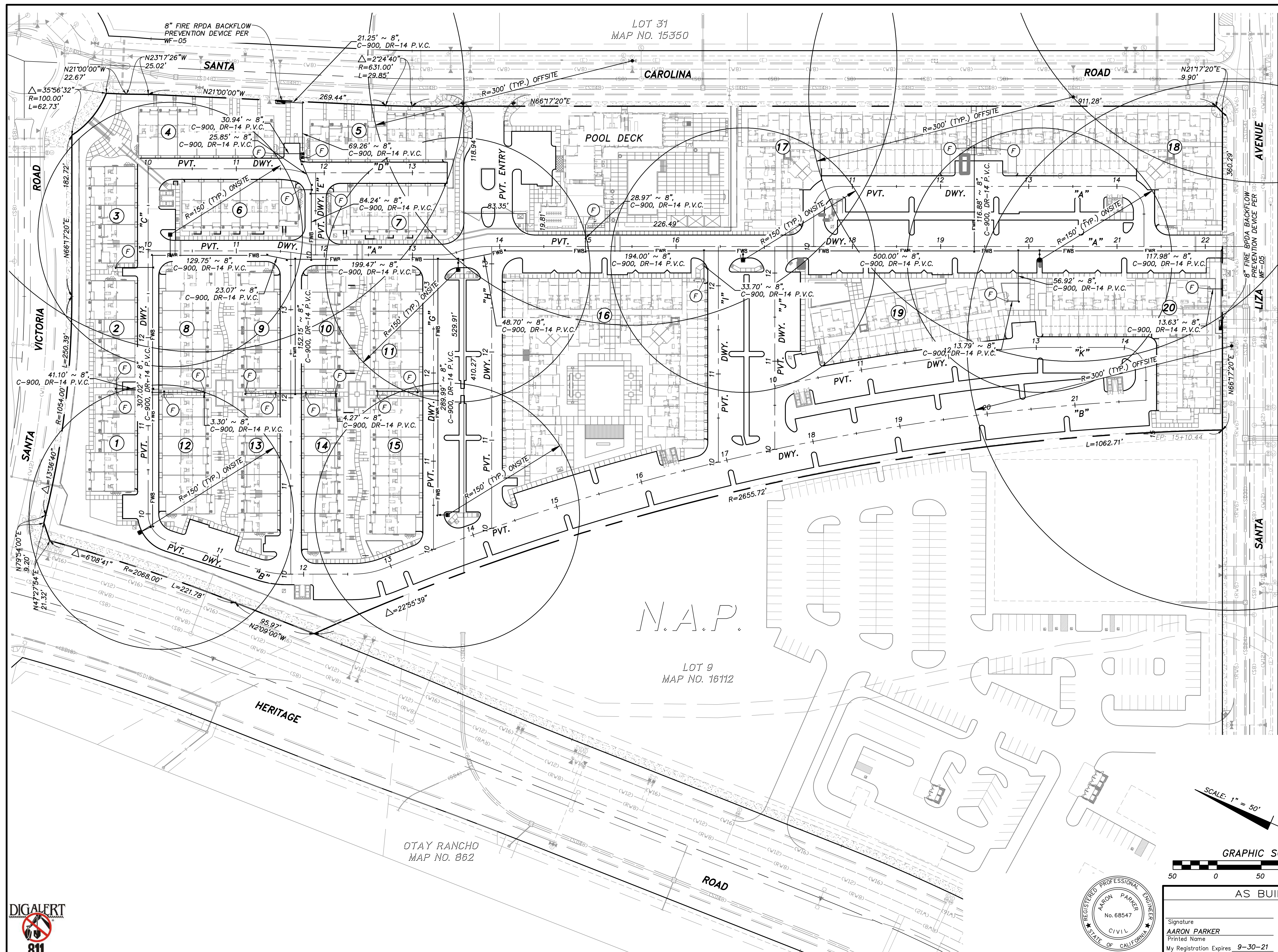
My Registration Expires 9-30-21 Discipline CIVIL

SB&O INC.
PLANNING ENGINEERING SURVEYING
3990 Ruffin Road, Suite 120
San Diego, Ca. 92123
858-560-1141
858-560-8157 Fax

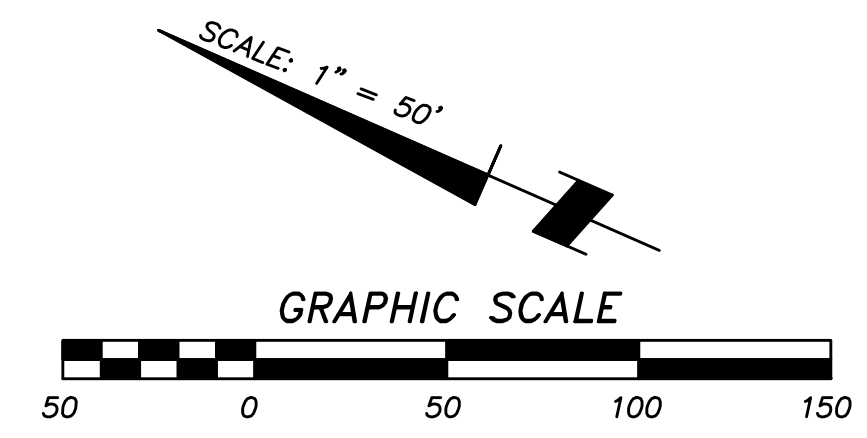
CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT
FIRE UNDERGROUND PLANS FOR:
OTAY RANCH VILLAGE 2 R-25(A)
CITY OF CHULA VISTA TRACT NO. DR 20-0010

DRAWING NO. **-19**
W.O. No. ---

OTAY RANCH VILLAGE 2 ~ R-25(A)
Plotted: 3/12/2021 9:28 AM D:\4392-R-25A.M\F03 DWG\FU14392\FU01.DWG - tony.p



- LEGEND**
 PROPOSED FIRE ACCESS ROAD
 SEE NOTES 1 AND 2.
- 600' FROM HYDRANT TO SIDES OF BUILDINGS ALONG FIRE ACCESS ROAD.
 SEE NOTE 5 BELOW.
- NOTES**
1. FIRE APPARATUS ACCESS ROAD DIMENSIONS SHALL BE A MINIMUM OF 20 FT. IN WIDTH AND HAVE AN UNOBSTRUCTED VERTICAL CLEARANCE OF 13 FT. 6 INCHES.
 2. FIRE APPARATUS ACCESS ROADS SHALL BE MARKED AS FIRE LANES IN ACCORDANCE WITH CHULA VISTA FIRE DEPARTMENT (CVFD) STANDARDS.
 3. TRUCK TURN ANALYSIS WAS PERFORMED UTILIZING CITY OF CHULA VISTA FIRE DEPARTMENT TRUCK CRITERIA.
 4. EXISTING PUBLIC HYDRANTS SURROUNDING COMMUNITY WILL PROVIDE THE REQUIRED FIRE FLOW OF 1500 GALLONS PER MINUTE (GPM) FOR A 2 HOUR DURATION. PER CITY OF CHULA VISTA FIRE PROTECTION DEPARTMENT, THE EXISTING PUBLIC FIRE HYDRANTS MEET THIS REQUIREMENT.
 5. EXISTING FIRE HYDRANTS SHALL MEET CALIFORNIA FIRE CODE (CFC) SECTION 507.5.1 (600' TO ALL EXTERIOR PORTIONS OF BUILDINGS AS MEASURED ALONG AN APPARATUS ACCESS ROAD).
 6. THE MINIMUM SIZE AND DIMENSION OF THE BUILDING ADDRESS NUMBERS SHALL BE 6 INCHES IN HEIGHT WITH 1-INCH STROKE WIDTH OR LARGER READILY VISIBLE AND LEGIBLE FROM THE ADJACENT STREET.
 7. THIS PROJECT IS TO BE PROTECTED THROUGHOUT BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13D. EACH UNIT WITHIN DUPLEX SHALL BE PROVIDED WITH ITS OWN SEPARATED FIRE SPRINKLER SYSTEM. SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION.



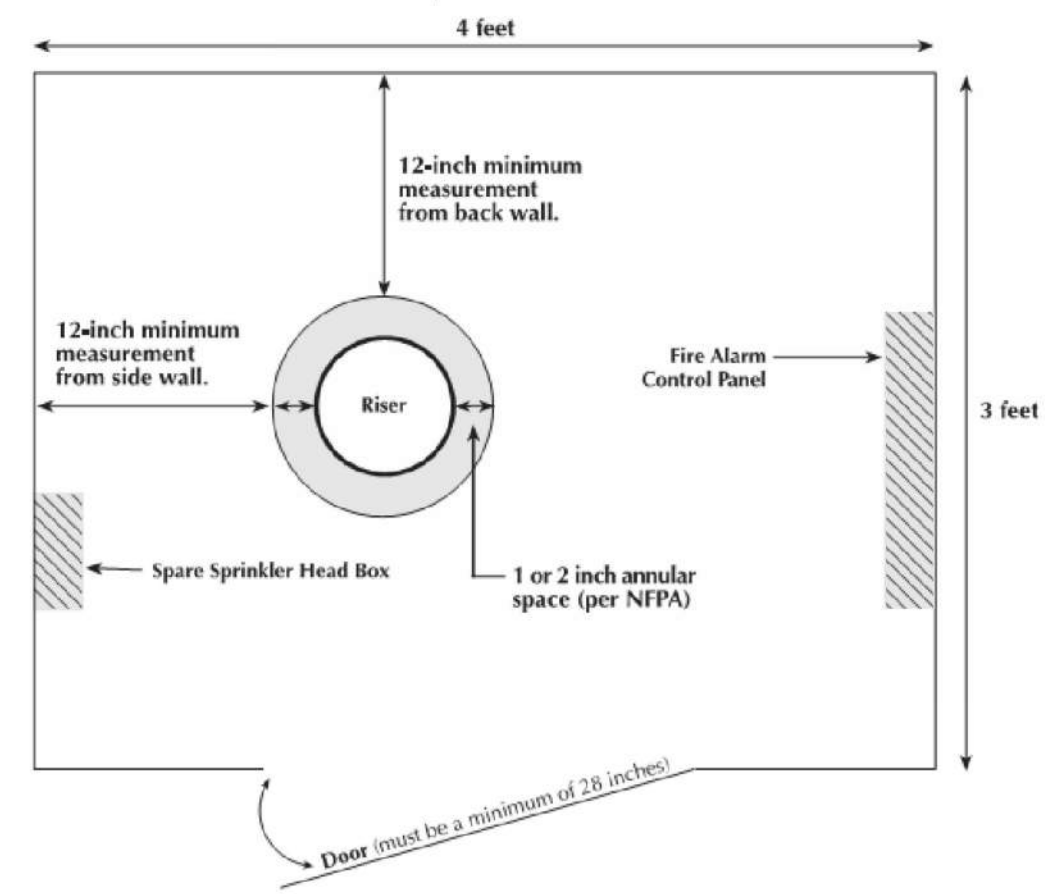
AS BUILT

Signature: AARON PARKER Date: _____
 Printed Name: AARON PARKER P.E. No. 68547
 My Registration Expires 9-30-21 Discipline: CIVIL

SB&O
 PLANNING ENGINEERING SURVEYING
 3990 Ruffin Road, Suite 120
 San Diego, Ca. 92123
 858-560-1141
 858-560-8157 Fax

CONTRACTOR:	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.
INSPECTOR:	06020, 06033, 06035, 06049, 14024, 14031, 14038						HORIZONTAL	J.S.	T.P.	A.P.	By:	For the City Engineer	FIRE UNDERGROUND PLANS FOR:	-20
DATE COMPLETED:							VERTICAL	AARON PARKER	Date: 3-9-21	R.C.E. No. 68547	Planning:	Landscape:	OTAY RANCH VILLAGE 2 R-25(A)	W.O. No.
													CITY OF CHULA VISTA TRACT NO. DR 20-0010	

Fire Control Room (top view)



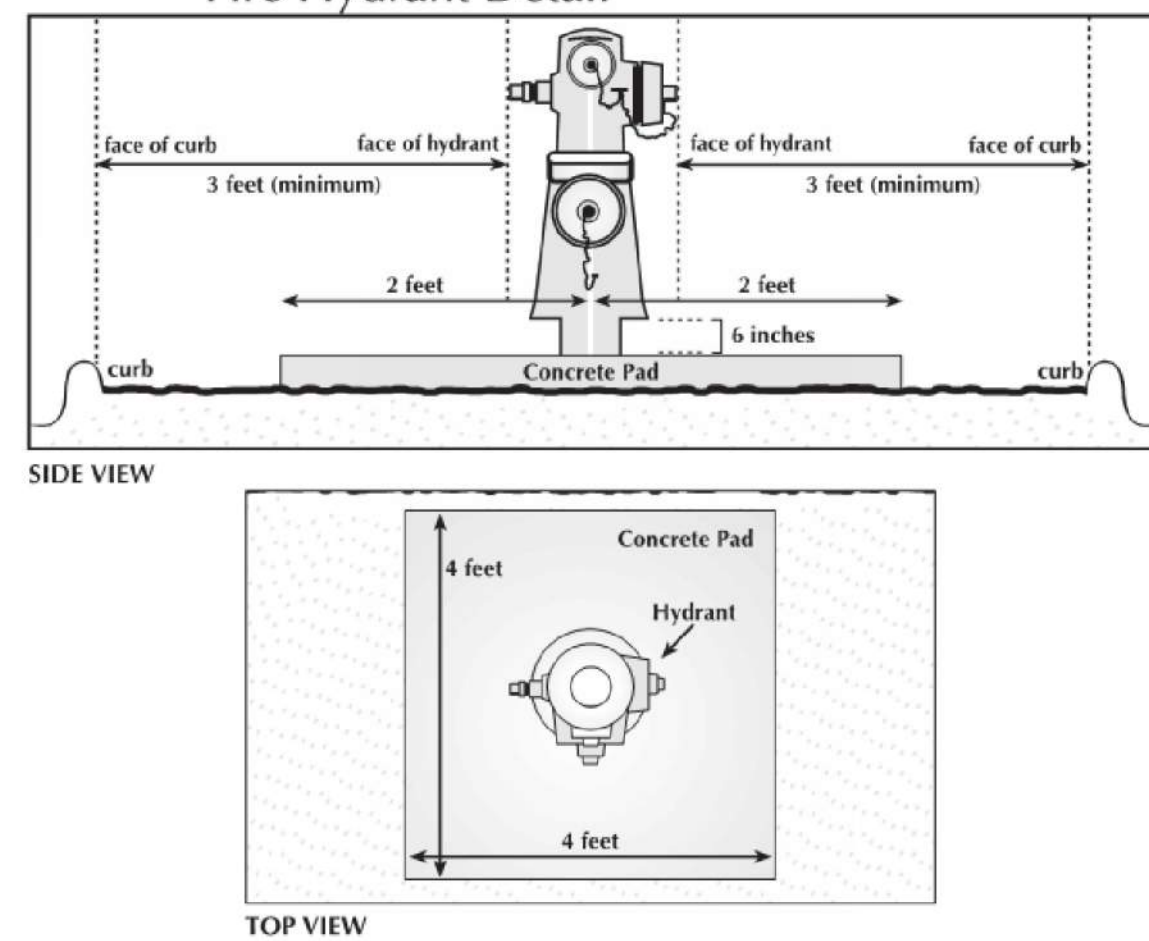
Fire Control Room Specifications

1. Measurements MUST be exact and will be subject to a field inspection.
2. Lighting is required on emergency back-up.
3. Door must be marked "FIRE CONTROL ROOM" in 4-inch letters.
4. Fire alarm panel to be located in the Fire Control Room.
5. A Fire Control Room shall be provided for each structure that has an automatic fire sprinkler system.
6. Doors shall exit directly to the exterior of the building and shall not be obstructed by any means.
7. This room shall not be used for any other purpose (i.e. no other non-life safety equipment can be located within this room).

*NOTE: For multiple risers in a room, the room dimension must be no less than 18 inches from appurtenances in all directions (to be approved by Fire Department).

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Fire Hydrant Detail



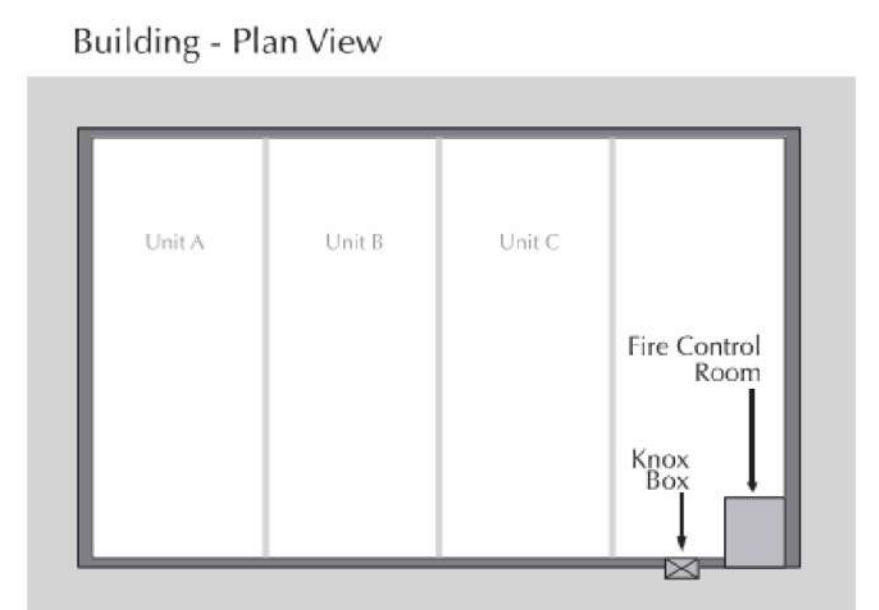
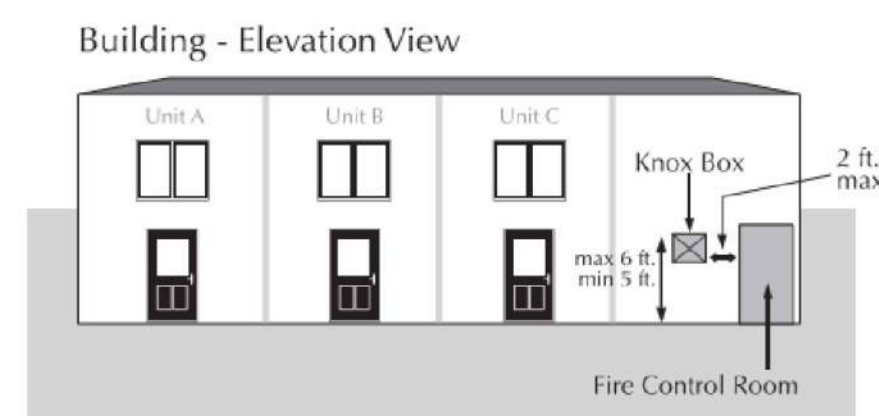
Hydrant Specifications

1. Measurements MUST be exact and will be subject to a field inspection
2. Residential and commercial hydrants must have one 4 inch port and two 2 1/2 inch ports with national standard threads (NST)
3. Industrial fire hydrants must have two 4 inch port and one 2 1/2 inch port with NST
4. Painted (OSHA) yellow
5. Must have concrete pad adhering to the above specifications
6. A blue reflective marker must be in place to identify fire hydrant location
7. Concrete pad must be a minimum of 4 inches thick
8. Base of hydrant must be 6 inches from concrete pad
9. Provide 3-foot (minimum) from the face of the hydrant to the face of the curb (bollards are required if distance is not met)

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MULTI-FAMILY RESIDENTIAL KNOX BOX

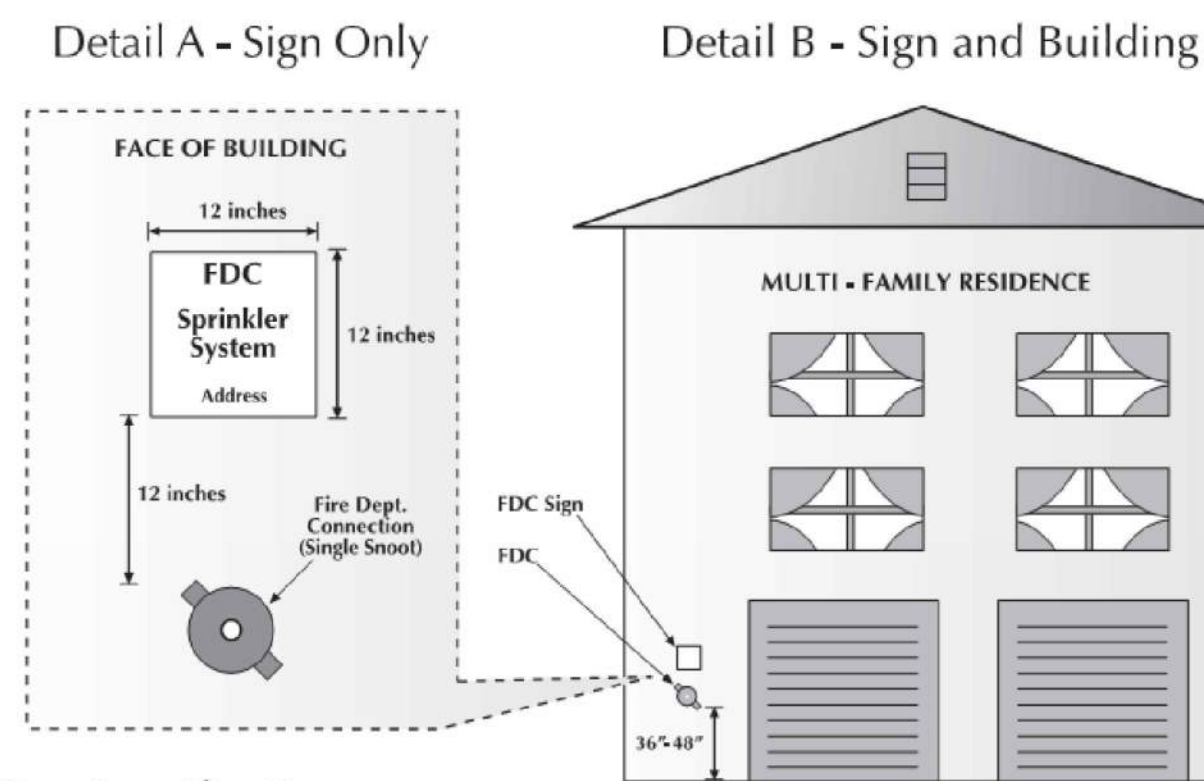
- Multi-family residential buildings are required to provide a Knox box (model 4431) for each fire control room
- Some buildings may require additional Knox devices
- The "Fire Department" Alert Decal is to be mounted on the door of the Fire Control Room
- Keys to be placed into the Knox box will be determined by CVFD Fire Prevention Staff (e.g. master keys), FACP, SDG&E, keys for appliance operation, etc.)
- Required keys shall be secured in Knox vault prior to final occupancy certification
- Knox devices can be ordered and purchased at www.knoxbox.com
- Install per manufacturer's instructions



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Multi-Family Sprinkler Connection (FDC*) Detail

*FDCs located on the building must have prior approval from the Fire Marshal

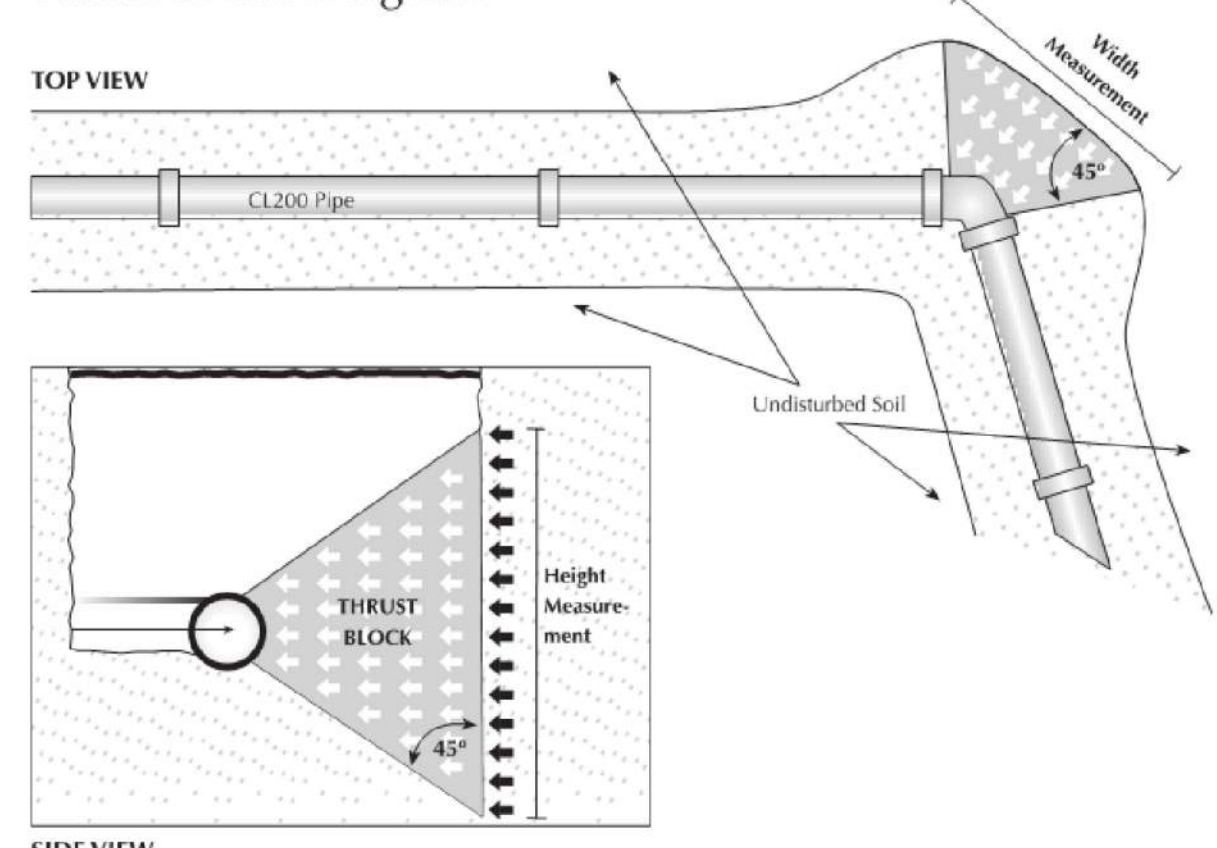


Sign Specifications

1. Measurements MUST be exact and will be subject to a field inspection.
2. Sign must be .080 gauge aluminum.
3. Sign shall have ASTM TYPE IV high intensity reflective sheeting
4. Protective overlay film on sign (P.O.F.)
5. Signage letter height:
 - FDC = 3 inches tall and Address = 1 1/4 inches tall
6. White background with black lettering
7. Sign must be permanently attached to the building (12 inches) above the FDC.

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Thrust Block Diagram



Notes

1. Underground fire service utilities shall be AWWA C-900 Class 200 pipe
2. Pipe joints shall be exposed at the time of hydrostatic test
3. Hydrostatic test shall be 200 psi for 2 hours
4. Tracer wire and tape are required and shall be in accordance with AWWA
5. Thrust blocks shall be Class 560-C-32.50 concrete, unless specified otherwise
6. For thrust block dimensions, see thrust block calculation detail.
7. Pipe shall be buried a minimum of 3 feet
8. Pipe shall be sleeved per NFPA for penetrating foundations
9. Provide an underground pipe certification at the time of the underground final

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Thrust Block Area Calculations 6-INCH PIPE

1. Min. Soil Bearing Capacity (PSF) = 1500 2. Min. Working Pressure (PSI) = 200

THRUST FROM NFPA 24 TABLE A-8-6.2 A BEND FOR:

DEAD END =	LB @ 100 PSI	FOR 200 PSI =	Ab = T/Sb =	Ab*S.F. =	USE
90° BEND =	5,288	200/100 * 5,288 = 10,576	7.05	7.05 X 1.5 = 10.58	USE 4" WIDE X 3" HIGH THRUST BLOCK
45° BEND =	2,862	200/100 * 2,862 = 5,724	3.82	3.82 X 1.5 = 5.72	USE 2.5" WIDE X 2.5" HIGH THRUST BLOCK
22 1/2° BEND =	1,459	200/100 * 1,459 = 2,918	1.95	1.95 X 1.5 = 2.92	USE 2" WIDE X 1.5" HIGH THRUST BLOCK
11 1/4° BEND =	733	200/100 * 733 = 1,466	0.98	0.98 X 1.5 = 1.47	USE 1" WIDE X 1.5" HIGH THRUST BLOCK

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Thrust Block Area Calculations 8-INCH PIPE

1. Min. Soil Bearing Capacity (PSF) = 1500 2. Min. Working Pressure (PSI) = 200

THRUST FROM NFPA 24 TABLE A-8-6.2 A BEND FOR:

DEAD END =	LB @ 100 PSI	FOR 200 PSI =	Ab = T/Sb =	Ab*S.F. =	USE
90° BEND =	9,097	200/100 * 9,097 = 18,194	12.13	12.13 X 1.5 = 18.19	USE 5" WIDE X 4" HIGH THRUST BLOCK
45° BEND =	4,923	200/100 * 4,923 = 9,846	6.56	6.56 X 1.5 = 9.85	USE 3.5" WIDE X 3" HIGH THRUST BLOCK
22 1/2° BEND =	2,510	200/100 * 2,510 = 5,020	3.35	3.35 X 1.5 = 5.02	USE 3" WIDE X 2" HIGH THRUST BLOCK
11 1/4° BEND =	1,261	200/100 * 1,261 = 2,522	1.68	1.68 X 1.5 = 2.52	USE 2" WIDE X 1.5" HIGH THRUST BLOCK

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Thrust Block Area Calculations 4-INCH PIPE

1. Min. Soil Bearing Capacity (PSF) = 1500 2. Min. Working Pressure (PSI) = 200

THRUST FROM NFPA 24 TABLE A-8-6.2 A BEND FOR:

DEAD END =	LB @ 100 PSI	FOR 200 PSI =	Ab = T/Sb =	Ab*S.F. =	USE
90° BEND =	2,559	200/100 * 2,559 = 5,118	3.41	3.41 X 1.5 = 5.12	USE 2.5" WIDE X 2.5" HIGH THRUST BLOCK
45° BEND =	1,385	200/100 * 1,385 = 2,770	1.85	1.85 X 1.5 = 2.77	USE 2" WIDE X 1.5" HIGH THRUST BLOCK
22 1/2° BEND =	706	200/100 * 706 = 1,412	0.94	0.94 X 1.5 = 1.41	USE 1.5" WIDE X 1" HIGH THRUST BLOCK
11 1/4° BEND =	355	200/100 * 355 = 710	0.47	0.47 X 1.5 = 0.71	USE 1" WIDE X 1" HIGH THRUST BLOCK

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CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:	CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT	DRAWING NO.
CONTRACTOR:	06020, 06033, 06035, 06049,						HORIZONTAL	J.S.	T.P.	A.P.			AS BUILT	
INSPECTOR:	14024, 14031, 14038						VERTICAL	Aaron Parker	Aaron Parker	Aaron Parker			PLANNING ENGINEERING SURVEYING	3990 Ruffin Road, Suite 120
DATE COMPLETED:								Date: 3-9-21	R.C.E. No. 68547				San Diego, Ca. 92123	858-560-1141
													858-560-8157 Fax	



STANDARD OPERATIONAL GUIDELINES

Section: 3104.00 - FPD - Plan Checks	Subject: Guidelines For Underground Fire Service Utilities	Page(s): 4
	Origin Date: 07/01/07	Revision Date:

SCOPE

These codes and standards shall provide the minimum requirements for the design installation, testing, and inspection of underground fire service utility systems in the City of Chula Vista:

- City of Chula Vista Fire Prevention Standard Operating Guidelines
- California Fire Code 2007 Edition
- California Building Code 2007 Edition
- NFPA 13 Current Edition
- NFPA 14 Current Edition
- NFPA 24 Current Edition
- Standard Drawings and Specifications and approved materials list of the appropriate Water District having jurisdiction for public systems when applicable.
- American Water Works Association

SYSTEM DESIGN, PLANS, PERMITS, CALCULATIONS, AND MATERIAL SUBMITTALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- Complete plans for underground components shall be submitted for approval well in advance of installation. Approval shall be obtained from the Chula Vista Fire Prevention Division prior to any installation. Underground fire service utility plan reviews can take up to 20 working days. Submit a minimum of three sets of drawings for review, additional sets may be requested upon review. Upon approval, the Fire Prevention Division retains a minimum of one set and an electronic copy. The contractor should provide additional sets as needed for approval.
- To receive an expedited review of 10 working days by the CVFD, an additional fee will be required per the master fee schedule.
- The Chula Vista Fire Department will only accept computer-generated plans for underground fire service utilities.
- The contractor shall provide an electronic copy of the plans and calculations for laserfiche importing in the Multi-page tif group 4 format at the time of final plan approval with a minimum resolution of 400 dpi. Changes in the field will require as-builts in an electronic copy prior to the building final. Note: when creating the CD-plans, calculations, and specification sheets shall all be part of a "single" electronic file.
- For all fees associated with the review and/or inspection of fire and life safety systems please see OPS # 3100.01. This fee schedule can be accessed through the following link:
http://www.chulavistaca.gov/City_Services/Public_Safety/Fire_Department/Safety/prevention.asp
- If a 2nd plan resubmittal and/or if a re-inspection is required, a fee shall be charged to cover expenses. Please see the current fee schedule for Fire Safety Engineering fees.

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- Plans shall indicate all necessary engineering features, including all hydraulic reference nodes, thrust block sizes, pipe lengths and pipe diameters as required by the above named codes and standards. Complete, accurate legends for all symbols and abbreviations shall be provided on plans.
- The associated building permit project-tracking number (example: B07-1234).
- Complete listings and manufacturers technical data sheets for all system materials shall be included with all underground system submittals. All system materials shall be U.L./E.M. listed for fire service and approved by the Fire Prevention Division prior to installation.
- The California Contractors License number shall be provided with each submittal and/or stamped and signed by a licensed professional engineer.
- City of Chula Vista Business License/Fire and Life Safety Contractor License: Installing contractors will have both a City Business License and a Chula Vista Fire Department's Fire and Life Safety Contractor License.
- A hydraulic water flow analysis shall accompany the plans. This analysis shall show the actual flow and pressure for all hydrants and riser stubs. The Hazen Williams formula shall be used in the determination of these flows and pressures. The analysis shall show that the required fire flow is available at the hydrants and that simultaneously the sprinkler demand is available at the most demanding sprinkler riser.
- The system shall be designed and sized such that the maximum velocity in the pipe shall be 10fps at fire demand or sprinkler demand, whichever is greater.
- Calculations shall extend to the point at which the water supply data was determined.
- Water supply data is required to accompany an underground submittal. An official water flow letter can be obtained from the respective water authority. The water flow requirements shall be based upon the currently adopted California Fire Code. The date of the water flow test shall be no older than six months from the time of the plan submittal. **No reductions in fire flow will be granted for buildings protected throughout by an approved automatic fire sprinkler system.**
- All thrust blocks on private fire hydrant lines and fire sprinkler laterals shall be calculated and constructed in accordance with NFPA 24. Calculations shall be submitted and the resulting dimensions of thrust blocks shall be shown on the plans. A geotechnical report shall be provided to substantiate the soils claim (See Chula Vista Fire Department details for both example calculations and diagrams).
- Control valves must be provided in each source of water supply, such as tanks and pumps. A sufficient number of sectional valves must be provided so that not more than a combined total of five hydrants and sprinkler systems, or not more than three sprinkler systems must be out of service due to a single break. Sectional valves may be key-operated type.
- Provide class 200 pipe for all underground fire service utilities.
- Special design considerations may also be required with excessive high static pressures or lines in which fire pumps are installed. Chula Vista Fire department will require a water hammer study by a licensed professional engineer to determine if surge suppression will be required.
- Any piping not shown on this approved plan is not a part of this approval. Any additional piping that is to be installed will require a separate plan submittal requiring the approval from the Chula Vista Fire Prevention Division.

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- The City of Chula Vista Fire Prevention Division will require the following inspections and tests as a minimum:
 - Thrust block pre-pour, trench and backfill inspection.
 - Components and wrap inspection
 - Tracer wire and continuity test
 - Underground hydrostatic test.
 - Underground flush.
 - Underground final
- No joints shall be installed under the building.
- Minimum fire hydrant size required (6" x 4" x 2 1/2" x 2 1/2").
- The civil engineer who designed the water system hereby certifies that this water system is in accordance with the requirements as prescribed by the Chula Vista Fire Prevention Division, the CFC and NFPA 24. This certificate shall be accomplished with a wet stamp and signature on the submitted plans.
- Breakaway spools or breakaway bolts are required. See the water agency standard details.
- Fire Department Connections (FDC's) shall not be located on any backflow device
- Fire Department Connections (FDC's) shall not be located on buildings unless approved by the Fire Marshal.
- Fire service laterals serving sprinkler systems shall have their own Post Indicating Valve (PIV). This PIV is in addition to and separate from valves on any backflow device.
- Post Indicating Valves shall be physically secured to an underground concrete anchor block via restraining rods, approved mechanical restraints, or restrained back to the next fittings.
- The Fire Prevention Division shall approve the location of the post indicator valve and the fire department connection. Fire department connections shall be visible, accessible, and installed at least 40 ft. away and separate from the building in approved locations within 50 foot of a fire hydrant (6" x 4" x 2 1/2" x 2 1/2").
- Additional check valves are required on private systems. The check valve shall be installed on the supply piping between the post indicator valve and the fire department connection. This is to isolate the sprinkler underground line from any hydrant system.
- All post indicator valves shall be installed with a supervisory switch, which sounds a supervisory alarm at a U.L. listed central receiving station (central station monitoring for certified system and central station remote service for non-certified monitoring systems).
- All post indicator valves shall be provided with a breakaway security lock. A set of keys shall be kept in the Knox Vault. The post indicator valve shall extend 36" to 44" above finished grade.
- Post indicator valves, and fire department connections shall be painted red (Rust-oleum safety red #2163 or equivalent).
- Fire Department Connections and Post Indicating Valves shall have a sign to indicate what buildings they serve. For a detail of this requirement please see the following link:
http://www.chulavistaca.gov/City_Services/Public_Safety/Fire_Department/PDFs/prevention/SignDetail1.pdf

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- Fire sprinkler system underground piping with on-site fire hydrants shall be designed so that on-site fire hydrants will not be shut off when the sprinkler system is shut off from the post indicator valve.
- Fire hydrants shall be arranged so that when the Fire Department Connection is pressurized the on-site hydrants are not pressurized.
- The Fire Prevention Division shall require, from the installing contractor, a completed "Contractors Material & Test Certificate for Underground Piping" at the time of underground final inspection. Underground system piping will not pass the final inspection until the Fire Prevention Division receives this completed certificate.
- Blue reflective markers shall be installed to identify location of fire hydrants. These markers shall be visible from both directions of vehicle travel. On undivided roads, markers will be placed one foot from centerline in the direction of the fire appliance.
- On site fire hydrants, post indicator valves, and fire department connections located less than three feet behind the inside face of a curb or when no curb is provided, shall then be protected by guard posts set in concrete. For a detail of this requirement please see the following link:
http://www.chulavistaca.gov/City_Services/Public_Safety/Fire_Department/PDFs/prevention/Bollard.pdf
- Each sprinklered building will require its own separate post indicator valve and fire department connections.
- Fire department connections shall be equipped with listed plugs or caps. All protective caps shall be of breakable cast iron. Plastic caps are not permitted. The use of brass plugs is an acceptable alternative although not recommended due to their vulnerability to theft.
- Private fire service lines when supplying three (3) or more fire hydrants are required to be provided with two (2) points of connection with the public main. Distribution must be looped to provide at least 50 percent of the required fire flow in case of a single break. Dead end mains must be avoided.
- Private fire service lines shall be no less than eight (8) inches in diameter when serving fire hydrants and automatic fire sprinkler systems.
- Underground lateral supplies for sprinkler systems shall be a minimum of 6 inches for commercial properties and a minimum of 4 inches for residential properties (1 inch is the minimum required for dwelling properties). Tracer wire and locate tape shall also be provided for all fire sprinkler system laterals.
- Fire hydrant control valves shall be provided on the lateral in a road box at ten (10) feet from the fire hydrant. See the water agency standard details.
- City of Chula Vista Fire Department job card shall be kept on the project site at all times.
- Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed, improved, or demolished.

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CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	BENCHMARK	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	Approved:
	06020, 06033, 06035, 06049, 14024, 14031, 14038						HORIZONTAL	J.S.	T.P.	A.P.		
INSPECTOR:							VERTICAL	<i>Aaron Parker</i>	Date: 3-9-21	R.C.E. No. 68547	By:	By:
DATE COMPLETED:								AARON PARKER			Planning:	Landscape:



AS BUILT		Date: _____	
Signature AARON PARKER	P.E. No. 68547	 PLANNING ENGINEERING SURVEYING 3990 Ruffin Road, Suite 120 San Diego, Ca. 92123 858-560-1141 858-560-8157 Fax	
Printed Name	Discipline CIVIL		
My Registration Expires 9-30-21			
CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT			
FIRE UNDERGROUND PLANS FOR: OTAY RANCH VILLAGE 2 R-25(A) CITY OF CHULA VISTA TRACT NO. DR 20-0010			
DRAWING NO. -22			W.O. No. _____