



INVITATION TO BID #2017-80
Boyer Drive Extension Project
ADDENDUM NUMBER 2
October 25, 2017

On September 26, 2017, Clackamas County ("County") published Invitation to Bid #2017-80 ("BID") and on October 4, 2017 published Addendum #1. The County has found that it is in its interest to amend the BID through the issuance of this Addendum #2. Except as expressly amended below, all other terms and conditions of the original BID and subsequent Addenda shall remain unchanged.

1. The following clarifications have been made:

The "Invitation for Bid" states "Bidders must be prequalified in the areas of Asphalt Concrete Paving & Oiling (ACP), Earthwork & Drainage (EART), Electrical (ELEC), Buildings (BLD1), Signing (SIGN), Landscaping (LAND), and Pavement Markings (PAVE)".

- a. The BLD1 prequalification was not intended to be included and is not required for this project.

2. Remove and Replace the Bid Schedule with the attached Bid Schedule title *Addendum #2*, Dated October 25, 2017. Note the following changes have been made:

Item Number	Description of Change
28	Revised so Item Numbers were sequential
29	Revised so Item Numbers were sequential
34	Units revised to EACH (to match SP's). Quantity remains 1.

3. The following Project Plan Sheets have been updated:

Sheets: 2D-4, 2D-5, 3E-2, SS-4, TS-3

Description: Revised to address ODOT comments

Sheets: 2D-5, 2D-8, 2F-7, 3B-2, 3E-2, 3E-2.1, 3F-1, GA-2.1, SS-1, SS-2, SS-4, TS-4

Description: These sheet revisions were required to address a modification to the bike box transition area at Monroe/82nd. Shifting the transition area west was required by ODOT and resulted in a re-design of the storm planter and associated components of the storm system.

Sheets: SS-8

Description: Updated to correct information in the sign table.

These changes will be included in the contract for this Project. It is understood that your Bid will be submitted accordingly.

Attachments: New Bid Schedule, dated 8/25/17
New Plan Sheets 2D-4, 2D-5, 2D-8, 2F-7, 3B-2, 3E-2, 3E-2.1, 3F-1, GA-2.1,
SS-1, SS-2, SS-4, SS-8, TS-3, TS-4,

End of Addendum #2

SE BOYER DRIVE EXTENSION PROJECT - BID SCHEDULE

October 25, 2017 (Addendum 2)

ITEM	SPEC	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Part 00100 - General Conditions						
1	00197	FORCE ACCOUNT	FA	1	\$ 125,000.00	\$ 125,000.00
Part 00200 - Temporary Features and Appurtenances						
2	00210	MOBILIZATION	LS	1		
3	00225	TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE	LS	1		
4	00225	OWNER-DIRECTED FLAGGERS	HOUR	200		
5	00270	TEMPORARY FENCE, 6' CHAIN LINK FENCE WITH CONCRETE BLOCKS	FOOT	250		
6	00280	EROSION CONTROL	LS	1		
7	00280	CONSTRUCTION ENTRANCE	EACH	4		
8	00280	COMPOST FILTER SOCK	FOOT	1,049		
9	00280	INLET PROTECTION, PREFABRICATED FILTER INSERTS	EACH	36		
10	00280	INLET PROTECTION, COMPOST FILTER SOCK	EACH	16		
11	00280	PLASTIC SHEETING	SQYD	1,000		
12	00280	TEMPORARY MULCHING	ACRE	0.10		
13	00280	SEDIMENT BARRIER, BIOFILTER BAGS	EACH	100		
14	00290	POLLUTION CONTROL PLAN	LS	1		
Part 00300 - Roadwork						
15	00310	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1		
16	00320	CLEARING AND GRUBBING	ACRE	0.50		
17	00330	EARTHWORK - EXCAVATION AND EMBANKMENT	LS	1		
18	00330	GENERAL ROCK EXCAVATION	CUYD	400		
19	00331	12 INCH SUBGRADE STABILIZATION	SQYD	500		
20	00350	SUBGRADE GEOTEXTILE	SQYD	5,025		
21	00350	IMPERMEABLE LINER, 6 MIL PVC	SQYD	116		
22	00390	LOOSE RIPRAP, CLASS 50	CUYD	25		
Part 00400 - Drainage and Sewers						
23	00415	MAINLINE VIDEO INSPECTION	LS	1		
24	00442	CONTROLLED LOW STRENGTH MATERIAL	CUYD	100		
25	00445	4 INCH SANITARY PIPE, GRANULAR BACKFILL	FOOT	15		

SE BOYER DRIVE EXTENSION PROJECT - BID SCHEDULE

October 25, 2017 (Addendum 2)

ITEM	SPEC	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
26	00445	8 INCH SANITARY PIPE, GRANULAR BACKFILL	FOOT	110		
27	00445	6 INCH DUCTILE IRON STORM PIPE, GRANULAR BACKFILL	FOOT	200		
28	00445	12 INCH DUCTILE IRON STORM PIPE, GRANULAR BACKFILL	FOOT	100		
29	00445	12 INCH STORM PIPE, GRANULAR BACKFILL	FOOT	757		
30	00445	18 INCH STORM PIPE, GRANULAR BACKFILL	FOOT	50		
31	00445	6 INCH PERF. STORM PIPE W/ FILTER SOCK, GRANULAR BACKFILL	FOOT	180		
32	00470	CONCRETE SANITARY SEWER MANHOLES	EACH	2		
33	00470	CONCRETE STORM SEWER MANHOLES	EACH	2		
34	00470	CONCRETE STORM MANHOLE WITH GB-2 INLET LID	EACH	1		
35	00470	WATER QUALITY MANHOLE #3 WITH CONNECTIONS, STORMCEPTOR STC300i	LS	1		
36	00470	CONCRETE STORM MANHOLE #1 WITH CONNECTIONS	LS	1		
37	00470	CONCRETE STORM MANHOLE #4 WITH CONNECTIONS	LS	1		
38	00470	CONCRETE STORM MANHOLE #5 WITH CONNECTIONS	LS	1		
39	00470	CONCRETE STORM MANHOLE #9 WITH CONNECTIONS	LS	1		
40	00470	CONCRETE INLETS, CURB INLET	EACH	5		
41	00470	CONCRETE INLETS, TYPE CG-3	EACH	1		
42	00470	CONCRETE INLETS, BEEHIVE INLET	EACH	4		
43	00470	CONCRETE CATCH BASIN, TYPE GB-2	EACH	5		
44	00470	CLEANOUT	EACH	10		
45	00490	FILLING ABANDONED STRUCTURES	CUYD	100		
46	00490	ADJUSTING INLETS	EACH	1		
47	00490	MINOR ADJUSTMENT OF MANHOLES	EACH	2		
48	00495	TRENCH RESURFACING	SQYD	200		
Part 00600 - Bases						
49	00620	COLD PLANE PAVEMENT REMOVAL, 2 INCHES DEEP	SQYD	165		
50	00641	1 INCH - 0 AGGREGATE BASE	TON	4,000		
Part 00700 - Wearing Surfaces						
51	00744	LEVEL 3, 1/2 INCH ACP MIXTURE	TON	1,600		
52	00744	TEMPORARY PAVEMENT RESTORATION	SQYD	100		

SE BOYER DRIVE EXTENSION PROJECT - BID SCHEDULE

October 25, 2017 (Addendum 2)

ITEM	SPEC	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
53	00755	CONCRETE CROSSWALK, INTEGRAL COLOR	SQFT	2,281		
54	00756	PLAIN CONCRETE PAVEMENT, DOWELED, 8 INCHES THICK	SQYD	70		
55	00759	CONCRETE CURBS, TYPE C	FOOT	657		
56	00759	CONCRETE CURBS, CURB AND GUTTER	FOOT	1,558		
57	00759	CONCRETE CURBS, 28 INCH MODIFIED TYPE C (AT PLANTER)	FOOT	274		
58	00759	CONCRETE CURBS, 24 INCH THICK CURB AND GUTTER (AT PLANTER)	FOOT	236		
59	00759	CONCRETE WHEEL STOPS	EACH	1		
60	00759	CONCRETE ISLANDS, NON-MOUNTABLE TYPE C	SQFT	28		
61	00759	CONCRETE TRAFFIC SEPARATOR	SQFT	172		
62	00759	CONCRETE DRIVEWAYS, REINFORCED	SQFT	2,803		
63	00759	CONCRETE WALKS	SQFT	11,618		
64	00759	RETROFIT CONCRETE SIDEWALK RAMPS, OTTY RD AT FULLER RD	LS	1		
65	00759	EXTRA FOR NEW SIDEWALK RAMPS	EACH	18		
66	00759	CYCLE TRACK, INTEGRAL COLOR	SQFT	2,444		
Part 00800 - Permanent Traffic Safety and Guidance Devices						
67	00851	PAVEMENT LINE REMOVAL	FOOT	2,830		
68	00851	PAVEMENT BAR REMOVAL	SQFT	18		
69	00851	PAVEMENT LEGEND REMOVAL	EACH	5		
70	00860	LONGITUDINAL PAVEMENT MARKINGS - PAINT	FOOT	555		
71	00865	THERMOPLASTIC, SPRAYED, SURFACE, NON-PROFILED	FOOT	8,300		
72	00867	PAVEMENT LEGEND, TYPE A: ARROWS	EACH	5		
73	00867	PAVEMENT LEGEND, TYPE A: "BUS"	EACH	1		
74	00867	PAVEMENT LEGEND, TYPE A: DISABLED PARKING	EACH	1		
75	00867	PAVEMENT LEGEND, TYPE A: "WAIT HERE"	EACH	2		
76	00867	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	6		
77	00867	PAVEMENT LEGEND, TYPE B-HS: GREEN BIKE LANE MARKING	SQFT	715		
78	00867	PAVEMENT LEGEND, TYPE B-HS: BIKE STENCIL IN GREEN BIKE LANE	EACH	2		
79	00867	PAVEMENT LEGEND, TYPE B-HS: CIRCLE BIKE PATH STENCIL	EACH	4		
80	00867	PAVEMENT LEGEND, TYPE B-HS: CIRCLE PED PATH STENCIL	EACH	4		

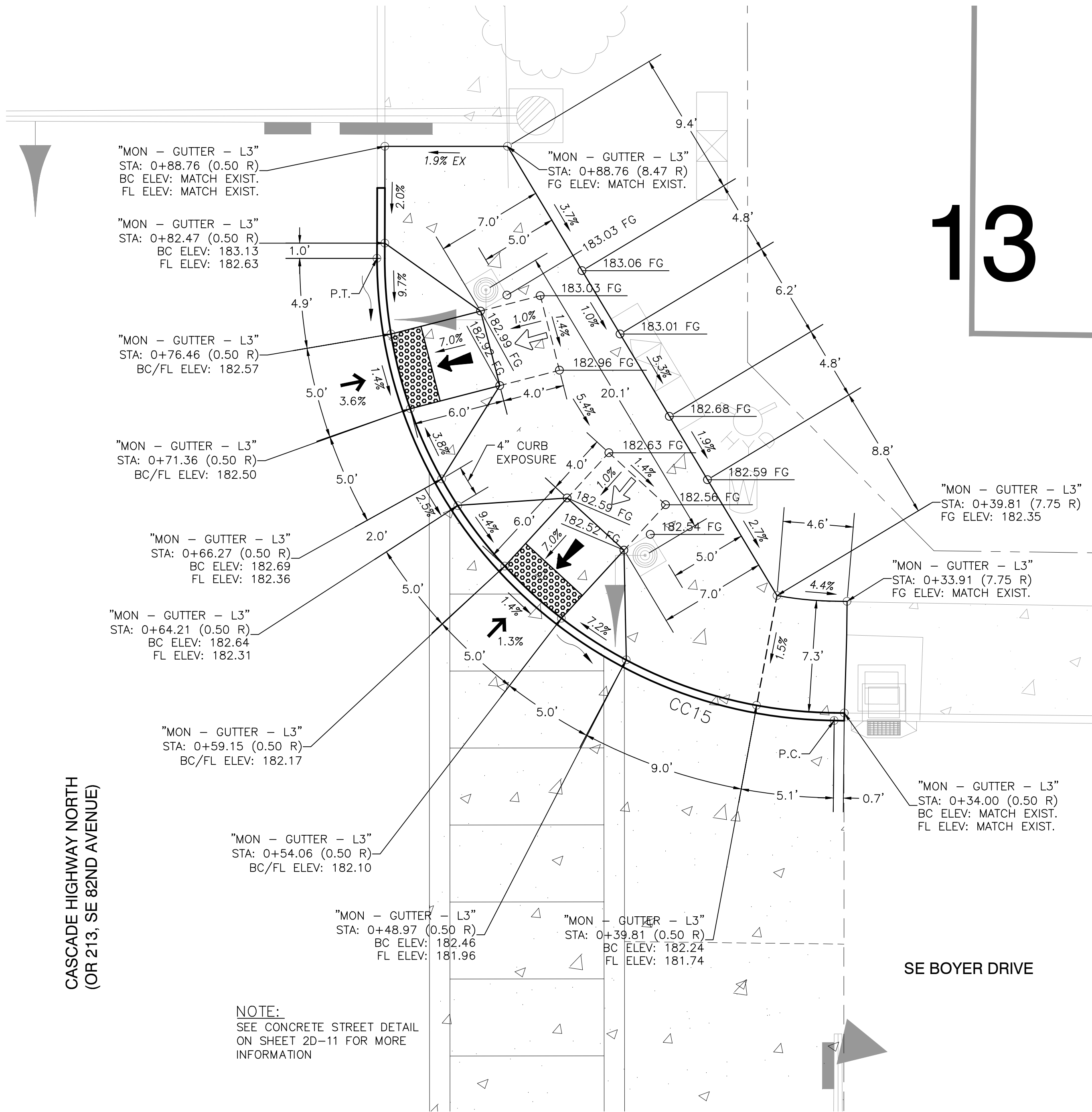
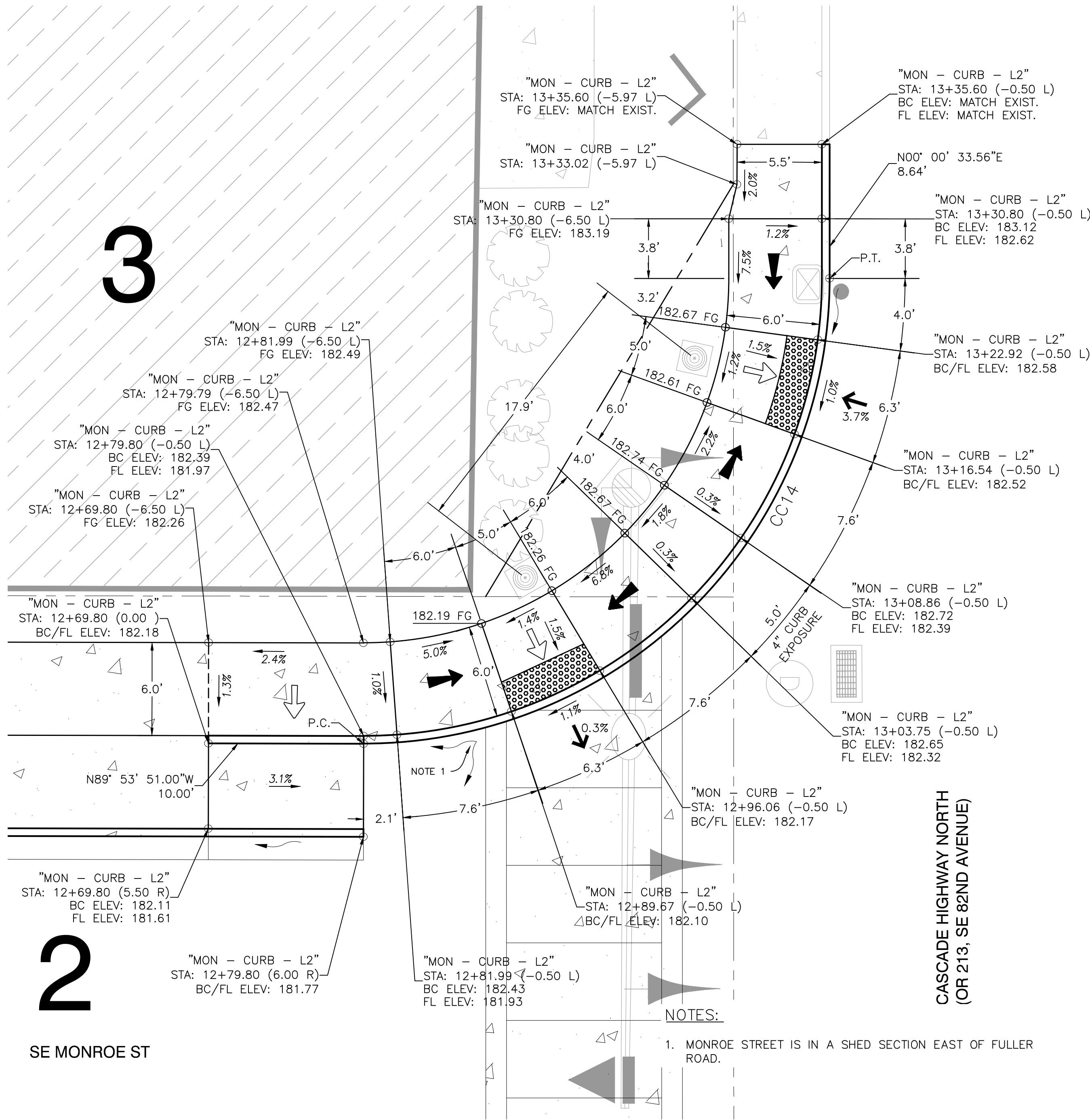
SE BOYER DRIVE EXTENSION PROJECT - BID SCHEDULE

October 25, 2017 (Addendum 2)

ITEM	SPEC	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
81	00867	PAVEMENT BAR, TYPE A	SQFT	560		
Part 00900 - Permanent Traffic Control and Illumination						
82	00902	CROSSWALK CLOSURE BARRICADES	EACH	4		
83	00905	REMOVE EXISTING SIGNS	LS	1		
84	00905	REMOVE AND REINSTALL EXISTING SIGNS	LS	1		
85	00930	PERFORATED STEEL SQUARE TUBE SLIP BASE SIGN SUPPORTS	LS	1		
86	00940	TYPE "G" SIGNS IN PLACE	SQFT	16		
87	00940	TYPE "G1" SIGNS IN PLACE	SQFT	106		
88	00940	TYPE "R" SIGNS IN PLACE	SQFT	9		
89	00940	TYPE "W2" SIGNS IN PLACE	SQFT	1		
90	00940	TYPE "W5" SIGNS IN PLACE	SQFT	1		
91	00940	TYPE "W12" SIGNS IN PLACE	SQFT	2		
92	00940	TYPE "Y1" SIGNS IN PLACE	SQFT	17		
93	00963	42 INCH DIAMETER SIGNAL SUPPORT DRILLED SHAFT	FOOT	55		
94	00970	ROADWAY LIGHTING INSTALLATION	LS	1		
95	00990	TRAFFIC SIGNAL INSTALLATION	LS	1		
96	00995	INTERCONNECT AND COMMUNICATIONS SYSTEM	LS	1		
97	00995	INSTALL LOOSE TUBE FIBER OPTIC CABLE (12 FIBER)	FOOT	2,150		
98	00995	FIBER OPTIC COMMUNICATION CABLE SPLICING	EACH	36		
99	00995	FIBER OPTIC COMMUNICATION CABLE TESTING	LS	1		
100	00995	PROOF EXISTING INTERCONNECT CONDUIT	LS	1		
101	00995	REPAIR EXISTING INTERCONNECT CONDUIT	FOOT	500		
Part 01000 - Right of Way Development and Control						
102	01030	PERMANENT SEEDING	ACRE	0.10		
103	01040	WATER QUALITY MIXTURE	CUYD	336		
104	01040	DECIDUOUS TREES, 2" CAL.	EACH	11		
105	01040	DECIDUOUS TREES, 1.5" CAL.	EACH	3		
106	01040	SHRUBS, 5 GAL.	EACH	410		
107	01040	GROUND COVER, 1 GAL.	EACH	478		

SE BOYER DRIVE EXTENSION PROJECT - BID SCHEDULE**October 25, 2017 (Addendum 2)**

ITEM	SPEC	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
108	01040	WETLAND PLANTS, PLUGS	EACH	1,195		
109	01040	BARK MULCH, 3 INCH DEPTH	SQYD	1,000		
110	01040	ROOT BARRIER	FOOT	280		
111	01040	ROCK MULCH, 3/4 INCH - 1/4 INCH	TON	20		
112	01040	ROCK MULCH, 1-1/2 INCH - 3/4 INCH	TON	240		
113	01044	2ND AND 3RD YEAR PLANT ESTABLISHMENT	LS	1		
114	01050	TYPE CL-8R SECURITY CHAIN LINK FENCE	FOOT	63		
115	01050	26 FOOT X 96 INCH CHAIN LINK DOUBLE GATES	EACH	1		
116	01065	MONUMENT BOXES	EACH	9		
117	01070	MULTIPLE MAILBOX SUPPORTS	EACH	1		
118	01090	GRAVEL BLANKET	SQYD	120		
Part 01100 - Water Supply Systems						
119	01120	IRRIGATION SYSTEM	LS	1		
120	01140	6 INCH POTABLE WATER PIPE, FITTINGS & COUPLINGS W/ RESTRAINED JOINTS AND CLASS B BACKFILL	FOOT	75		
121	01160	MOVING EXISTING HYDRANTS	EACH	2		
122	01170	3/4 INCH WATER SERVICE CONNECTION	EACH	3		
123	01170	1 INCH WATER SERVICE CONNECTION	EACH	1		
124	01170	BACKFLOW ASSEMBLY, 3/4" OR 1" SERVICE	EACH	3		
Part 01200 - Miscellaneous Utility Systems						
125	01210	4 INCH GREY SCHEDULE 40 PVC CONDUIT FOR POWER	FOOT	100		
126	01210	4 INCH FIBERGLASS BEND FOR POWER	EACH	10		
GRAND TOTAL: \$						



5 NW INTERSECTION SIDEWALK RAMP
1"=5'

6 NE INTERSECTION SIDEWALK RAMP
1"=5'

LEGEND:

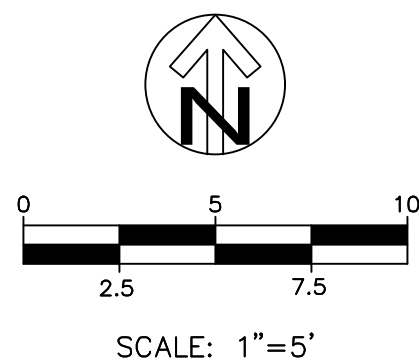
- FLOW ARROW
- SLOPE 7.5% MAX., DESIGN SLOPES SHOWN ON DETAIL.
(MAX. 8.3% FINISHED SURFACE SLOPE)
- SLOPE 1.5% MAX., DESIGN SLOPES SHOWN ON DETAIL.
(MAX. 2.0% FINISHED SURFACE SLOPE)
(NORMAL SIDEWALK CROSS SLOPE)
- COUNTER SLOPE, DESIGN SLOPES SHOWN ON DETAIL.
- TC TOP FACE OF CURB
- FL GUTTER FLOW LINE
- FG FINISH GRADE
- SIDEWALK RAMP
- BIKE RAMP

CC14 CURB RETURN TABLE (FACE OF CURB)		
CURVE DATA	STATION	CURVE POINT
$\Delta = 90^{\circ}03'31"$ $R = 30.00'$ $L = 47.16'$ $T = 30.03'$	STA. "MON - CENTERLINE"	P.C.
	22+88.47 (23.00' L)	
	STA. "ODOT HWY 213"	P.T.
	STA-MP	
	392+95.10 (23.79' R)	

CC15 CURB RETURN TABLE (FACE OF CURB)		
CURVE DATA	STATION	CURVE POINT
$\Delta = 89^{\circ}24'01"$ $R = 30.00'$ $L = 46.81'$ $T = 29.69'$	STA. "MON - CENTERLINE"	P.C.
	24+27.92 (22.40' L)	
	STA. "ODOT HWY 213"	P.T.
	STA-MP	
	392+95.97 (55.95' L)	

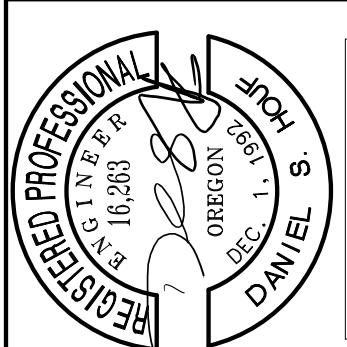
GENERAL NOTES:

- SEE SHEET SERIES 2C FOR ROADWAY DETAILS AND GENERIC NOTES.
- SEE SHEET SERIES 3B FOR ROADWAY PLANS.
- SEE SHEET SERIES 3C FOR ROADWAY PROFILES
- STATION AND ELEVATION DATA SHOWN FOR REFERENCE ONLY. DIMENSIONS AND ELEVATIONS ARE TO BE FIELD VERIFIED. FINISHED SURFACES MUST BE CONSTRUCTED WITHIN MAXIMUM SLOPES SHOWN.
- ALIGNMENTS AND STATION BASED ON FACE OF CURB OR FACE OF GUTTER PAN AS SHOWN UNLESS NOTED OTHERWISE.



N. RAMP DETAILS - SE MONROE ST & OR 213 AVE
BOYER DRIVE EXTENSION PROJECT
CLACKAMAS COUNTY, OREGON

Harper Houf Peterson
Righellis Inc.
ENGINEERS*PLANNERS
LANDSCAPE ARCHITECTS*SURVEYORS
205 SE Spokane Street, Suite 200, Portland, OR 97202
phone: 503.221.1131 www.hhp.com fax: 503.221.1171



DESIGNED:	DSH
DRAWN:	USE
CHECKED:	DSH
DATE:	5/16/2017

NO.	DESCRIPTION
1	R
2	E
3	V
4	I
5	S
6	I
7	O
8	N
9	S

SHEET NO.
2D-4
JOB NO.
CLA-76

SE BOYER DRIVE

**Harper
Houf Peterson
Righellis Inc.**

HPRI

ENGINEERS*PLANNERS
LANDSCAPE ARCHITECTS*SURVEYORS

205 SE Spokane Street, Suite 200, Portland, OR 97202

A circular professional engineer seal for Daniel S. Huff, Oregon, No. 16,263. The seal features the text "REGISTERED PROFESSIONAL ENGINEER" around the top and "OREGON" at the bottom. The number "16,263" is in the center. The name "DANIEL S. HUFF" is written around the bottom edge. A signature is scrawled across the seal.

DESIGNED:	DSH
DRAWN:	JSE
CHECKED:	DSH
DATE:	5/16/2017

[illegible]

SHEET NO.

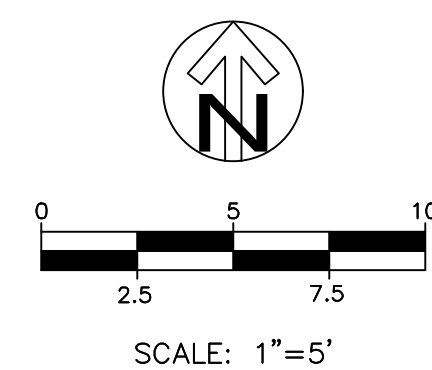
2D-5

JOB NO.

CLA-76



CC17 CURB RETURN TABLE (FACE OF CURB)		
CURVE DATA	STATION	CURVE POINT
Δ = 90°33'35"	STA. "MON-CENTERLINE"	P.C.
R = 30.00'	24+28.61 (19.52' R)	
L = 47.42'	STA. "ODOT HWY 213	P.T.
T = 30.30'	STA-MP"	
	393+97.93 (55.92' L)	



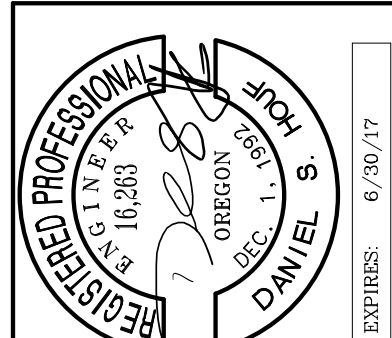
1. SEE SHEET SERIES 2C FOR ROADWAY DETAILS AND GENERIC NOTES.
2. SEE SHEET SERIES 3B FOR ROADWAY PLANS.
3. SEE SHEET SERIES 3C FOR ROADWAY PROFILES
4. STATION AND ELEVATION DATA SHOWN FOR REFERENCE ONLY. DIMENSIONS AND ELEVATIONS ARE TO BE FIELD VERIFIED. FINISHED SURFACES MUST BE CONSTRUCTED WITHIN MAXIMUM SLOPES SHOWN.
5. ALIGNMENTS AND STATION BASED ON FACE OF CURB OR FACE OF GUTTER PAN AS SHOWN UNLESS NOTED OTHERWISE.
6. EXISTING SE BOYER DR SIDEWALK PANEL MAY NEED TO BE REMOVED TO ACHIEVE MAXIMUM 7.5% RUNNING AND 1.5% CROSS SLOPES TO NEW SIDEWALK RAMP AREA.

DRIVEWAY DETAILS - SE MONROE ST
BOYER DRIVE EXTENSION PROJECT
CLACKAMAS COUNTY, OREGON

HHPR
Harper Houf Peterson
Righellis Inc.

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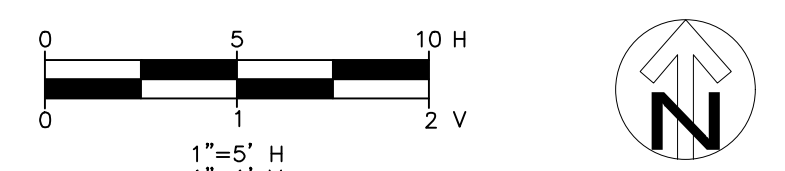
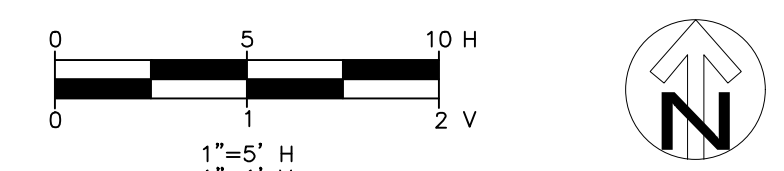
				DESIGNED:	DSH
				DRAWN:	JSE
				CHECKED:	DSH
10/5/2017 DATE	A NO.	STORM DRAINAGE REVISION DESCRIPTION	R E V I S I O N S	DATE:	5/18/2017

SHEET NO.

2D-8

JOB NO.

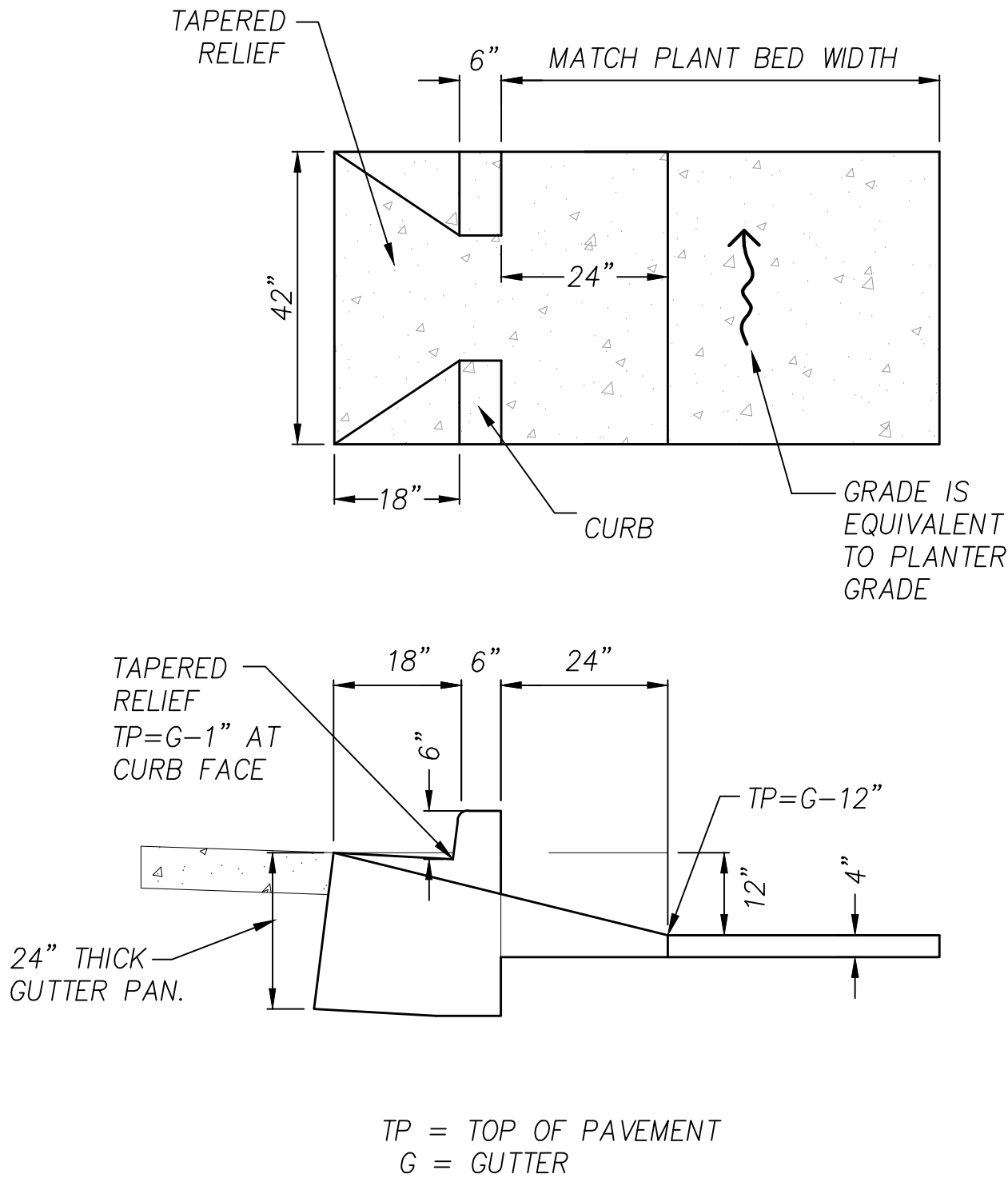
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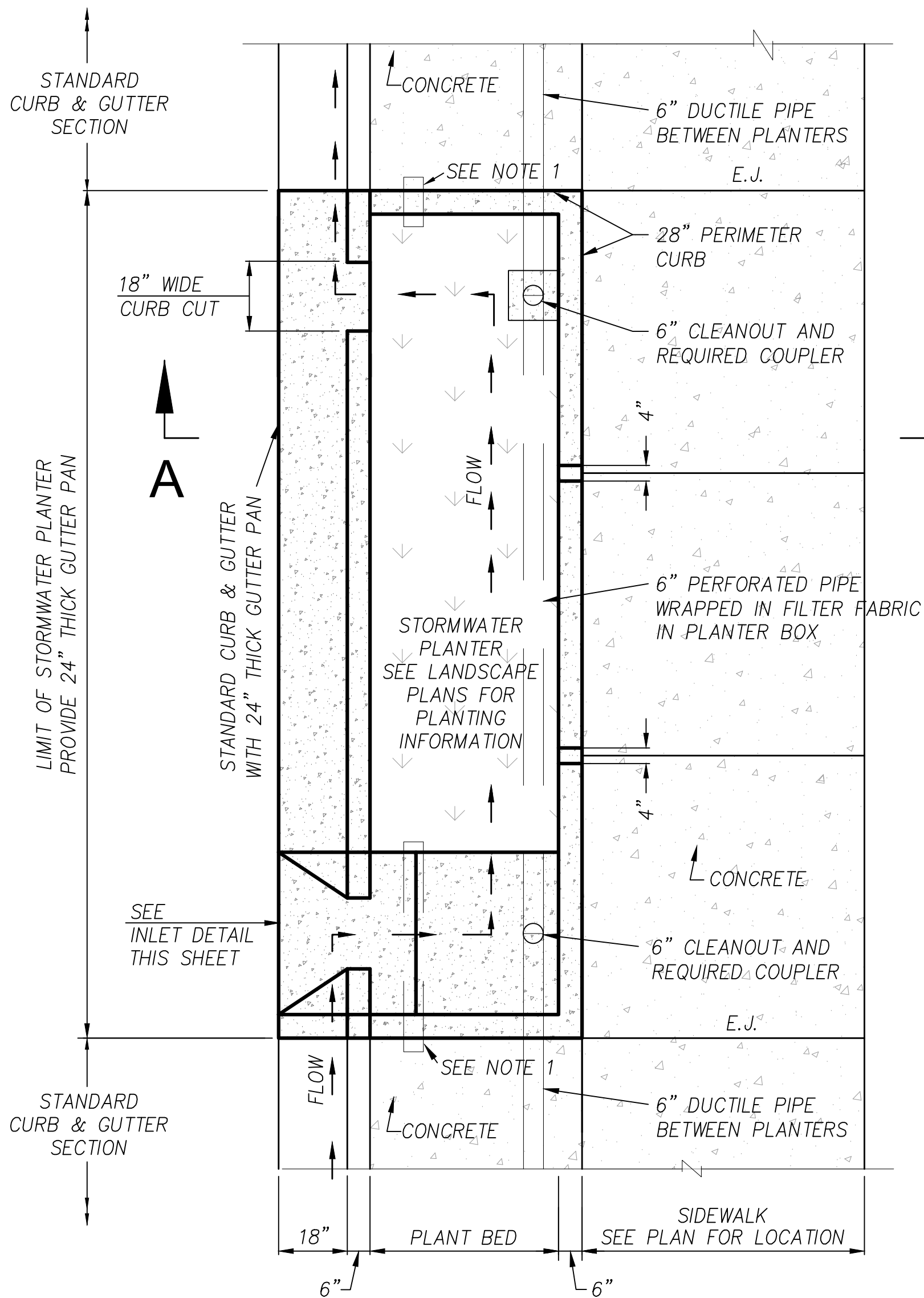
- GENERAL NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED ON PLAN.
 2. ALL STATIONS REFERENCE SE MONROE STREET ALIGNMENT UNLESS OTHERWISE SPECIFIED ON PLAN.
 3. SEE SHEET SERIES 2C FOR ROADWAY DETAILS AND GENERIC NOTES.
 4. SEE SHEET SERIES 3B FOR ROADWAY PLANS.
 5. SEE SHEET SERIES 3C FOR ROADWAY PROFILES.
 6. STATION AND ELEVATION DATA SHOWN FOR REFERENCE ONLY. DIMENSIONS AND ELEVATIONS ARE TO BE FIELD VERIFIED. FINISHED SURFACES MUST BE CONSTRUCTED WITHIN THE MAXIMUM SLOPES SHOWN.

LEGEND:

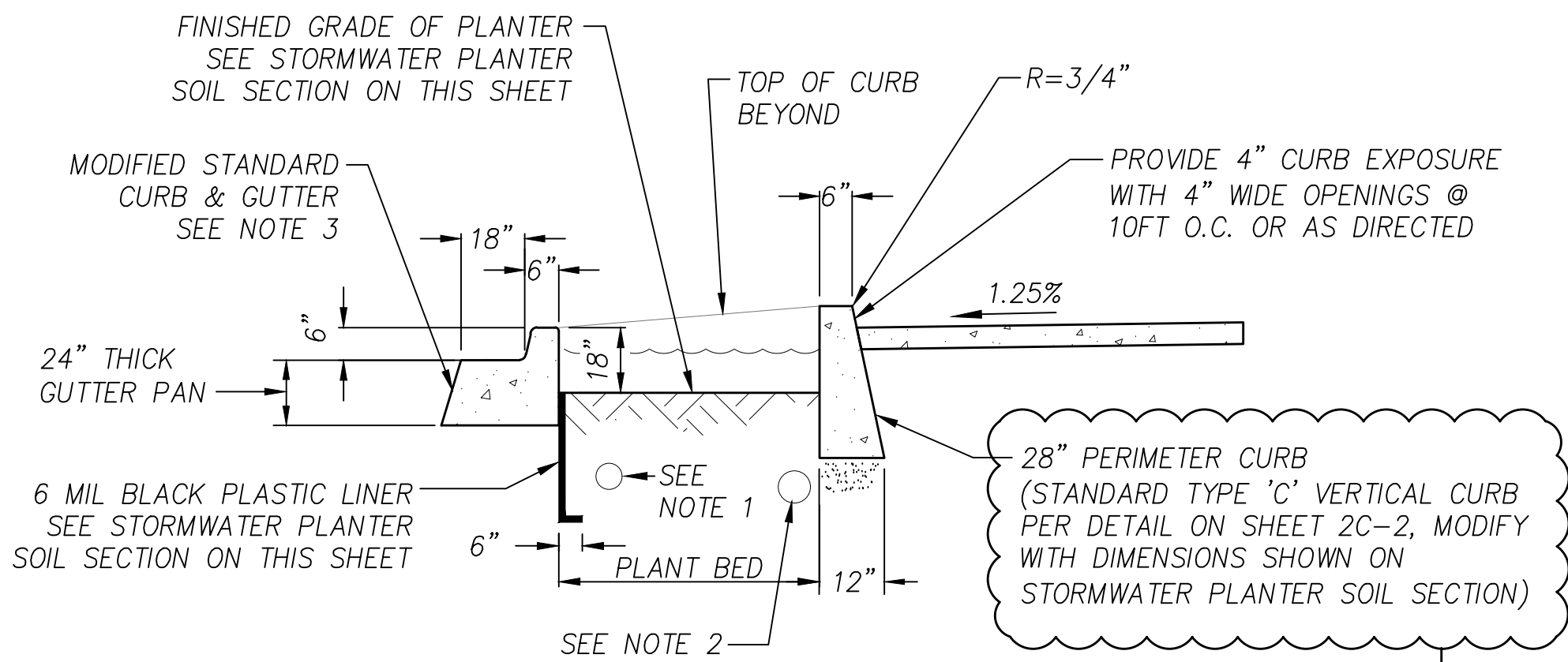
 CONCRETE PAVEMENT



INLET DETAIL

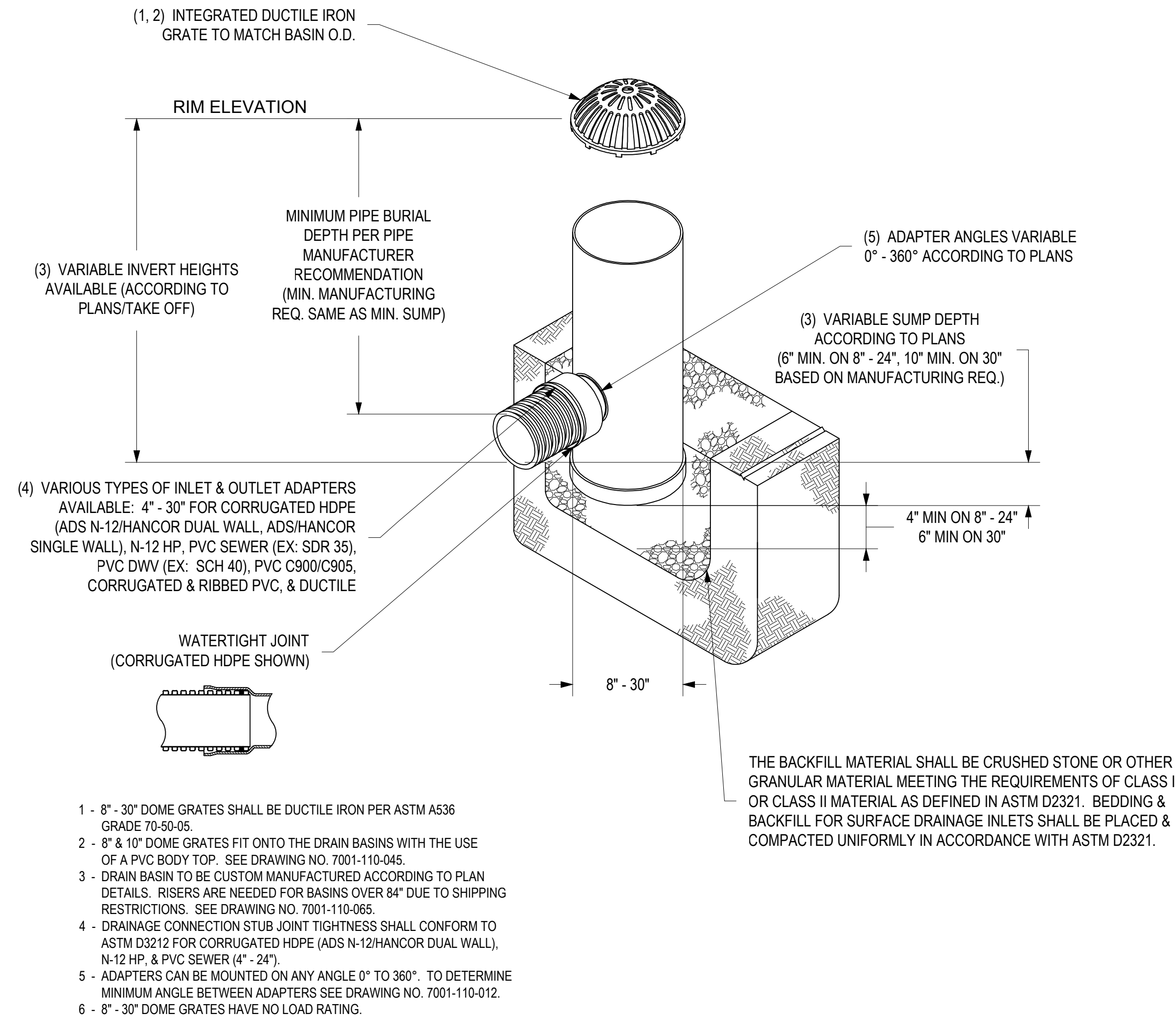


PLAN

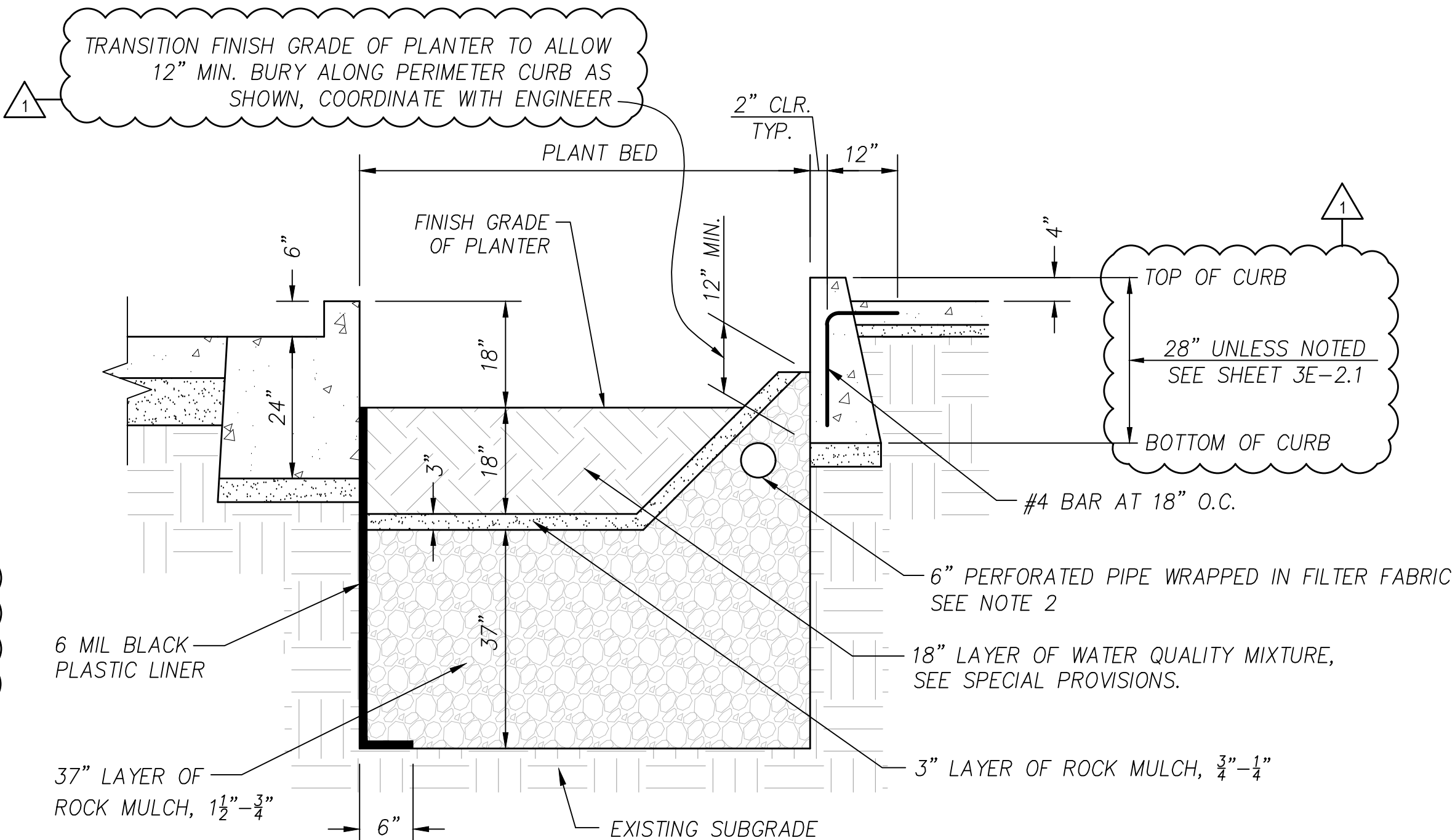


SECTION A-A

STORMWATER PLANTER



BEEHIVE INLET STORMWATER PLANTER OVERFLOW



STORMWATER PLANTER SOIL SECTION

STORMWATER PLANTER NOTES

1. INSTALL IRRIGATION SLEEVE PRIOR TO CURB INSTALLATION. REFER TO SHEET SERIES 9.0 FOR EXACT LOCATIONS. IRRIGATION MAY BE INSTALLED BELOW 28" PERIMETER CURB, AND SLEEVE IS NOT REQUIRED.
2. INSTALL 6" PERFORATED PIPE WRAPPED IN FILTER FABRIC WITHIN STORMWATER PLANTER LIMITS. INSTALL 6" DUCTILE PIPE OUTSIDE OF STORMWATER PLANTER LIMITS. SEE PLAN FOR INVERT ELEVATIONS.
3. CONSTRUCT MODIFIED STANDARD CURB AND GUTTER PER STANDARD CURB AND GUTTER DETAIL ON SHEET 2C-2. MODIFY GUTTER PAN TO BE 24" THICK AS SHOWN.

50V-017

13

MATCH LINE STA. 24+50 SEE BELOW

ROAD PLAN - SE MONROE ST & SE BOYER DR
BOYER DRIVE EXTENSION PROJECT
CLACKAMAS COUNTY, OREGON

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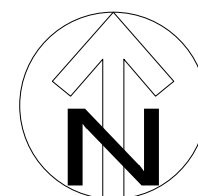
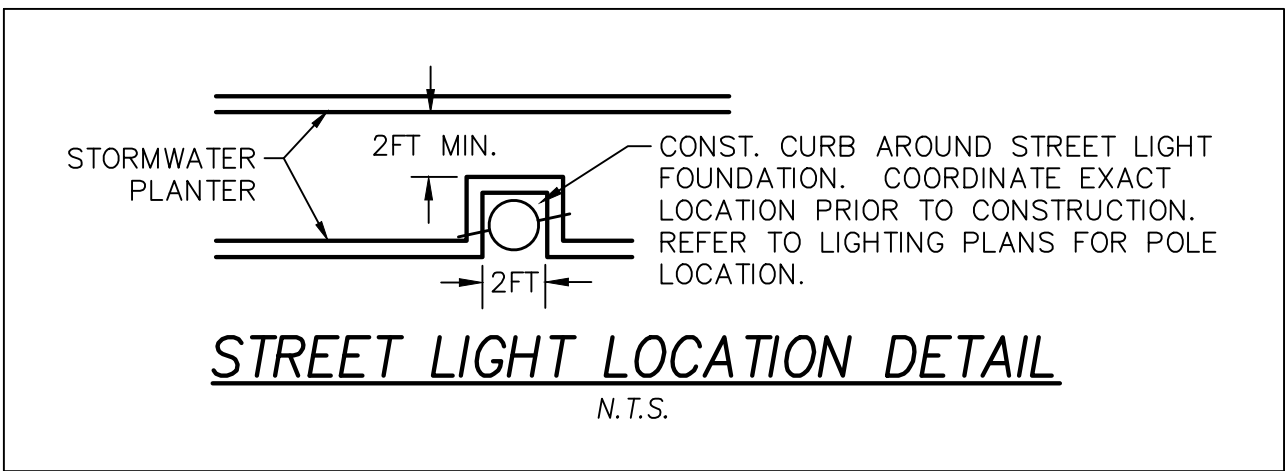
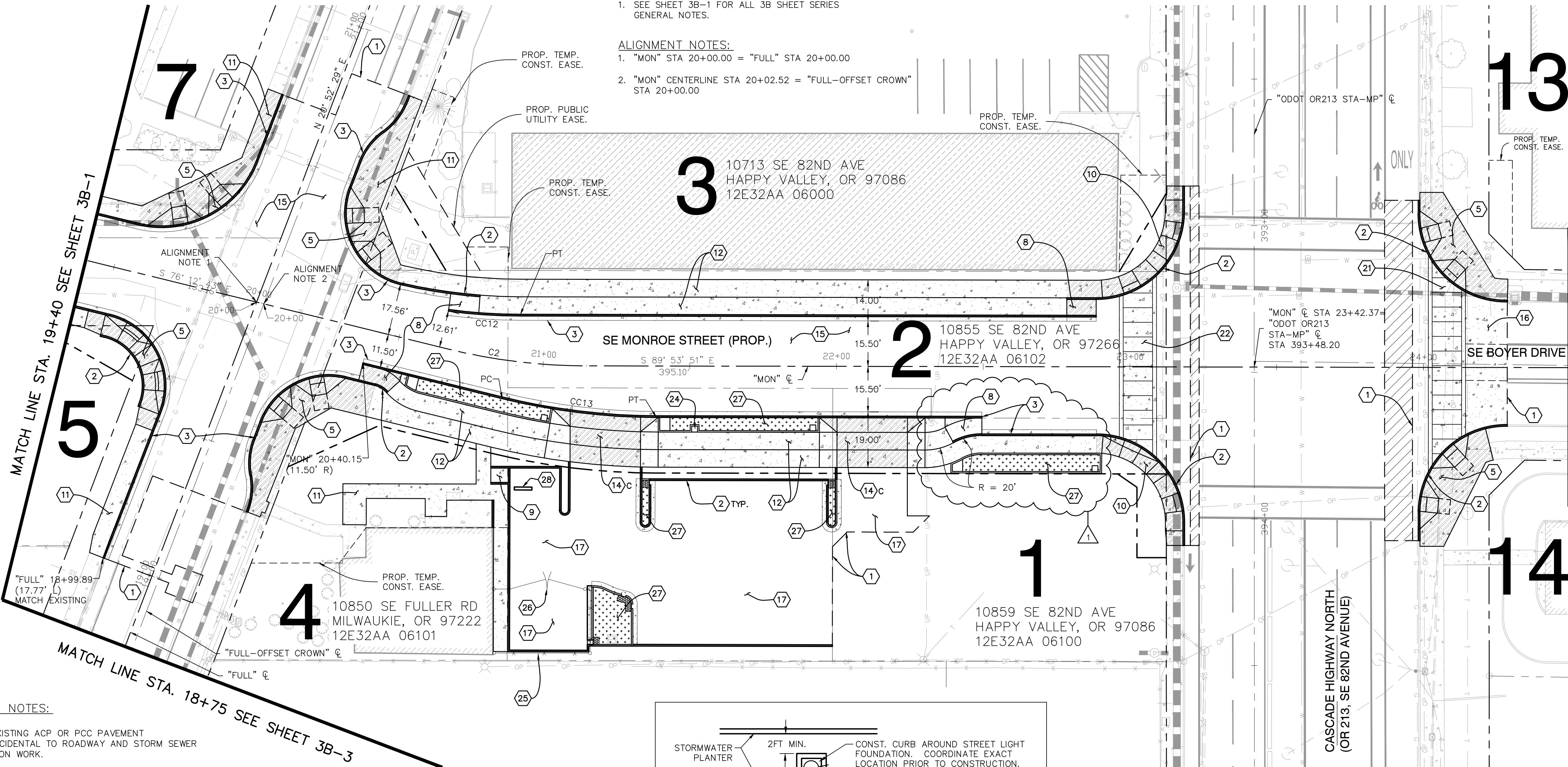
DESIGNED: DSH
DRAWN: JSE
CHECKED: DSH
DATE: 5/16/2017

NO.	DATE	REVISION	DESCRIPTION
1	10/5/2017		STORM DRAINAGE

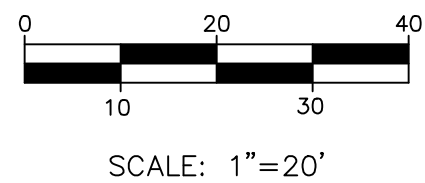
SHEET NO.
3B-2
JOB NO.
CLA-76

GENERAL NOTES:
1. SEE SHEET 3B-1 FOR ALL 3B SHEET SERIES GENERAL NOTES.

ALIGNMENT NOTES:
1. "MON" STA 20+00.00 = "FULL" STA 20+00.00
2. "MON" CENTERLINE STA 20+02.52 = "FULL-OFFSET CROWN" STA 20+00.00



PLAN
1"=20'



CONSTRUCTION NOTES:

1. SAW CUT EXISTING ACP OR PCC PAVEMENT
SAW CUT INCIDENTAL TO ROADWAY AND STORM SEWER
CONSTRUCTION WORK.
2. CONST. STANDARD CURB
SEE DETAIL S100, SERIES 2C
3. CONST. CURB AND GUTTER
SEE DETAIL S150, SERIES 2C
5. CONST. SIDEWALK RAMP
DOUBLE PERPENDICULAR CURB RAMP
SEE DETAIL S910, SERIES 2C
SPOT ELEVATIONS PER RAMP DETAIL, SERIES 2D
8. CONST. BIKE RAMP AT CYCLE TRACK
SEE DETAIL S920 (MOD-2), SERIES 2C
SPOT ELEVATIONS PER RAMP DETAIL, SERIES 2D
9. CONST. SIDEWALK RAMP
PEDESTRIAN RAMP
SEE DETAIL S920 (MOD-2), SERIES 2C
SPOT ELEVATIONS PER RAMP DETAIL, SERIES 2D
10. CONST. SIDEWALK RAMP
DOUBLE PARALLEL CURB RAMP
SEE DETAIL S930, SERIES 2C
SPOT ELEVATIONS PER RAMP DETAIL, SERIES 2D
11. CONST. PCC SIDEWALK
SEE DETAIL S960, SERIES 2C
12. CONST. PCC CYCLE TRACK AND WALK
SEE DETAIL S960 (MOD-1), SERIES 2C
14. CONST. PCC DRIVEWAY
WITH LANDSCAPING STRIP
R=RESIDENTIAL, C=COMMERCIAL
SEE DETAIL D650, SERIES 2C
SPOT ELEVATIONS PER DRIVEWAY DETAILS, SERIES 2D

15. CONST. FULL DEPTH ACP PAVEMENT SECTION
SEE TYPICAL SECTION, SERIES 2A
16. CONST. FULL DEPTH PCC PAVEMENT SECTION
SEE TYPICAL SECTION, SERIES 2A
17. CONST. PARKING LOT PAVEMENT SECTION
SEE TYPICAL SECTION, SERIES 2A
SPOT ELEVATIONS PER DRIVEWAY DETAILS, SERIES 2D
21. CONST. PCC TO ACP TRANSITION AT BOYER.
SEE DETAIL 1, PANEL DETAIL 1604 (MOD-1), SERIES 2C
22. CONST. PCC TO ACP TRANSITION AT MONROE.
SEE DETAIL 2, PANEL DETAIL 1604 (MOD-2), SERIES 2C
24. CONST. CURB AROUND STREET LIGHT FOUNDATION.
SEE STREET LIGHT LOCATION DETAIL ON THIS SHEET.
25. CONST. CL-8R SECURITY (CHAIN LINK) FENCE
SEE DETAIL 1610 (MOD-1), SHEET 2C-7.
26. CONST. CHAIN LINK GATE, 26-FT WIDE
SEE DETAIL RD815, SHEET 2C-5.
27. CONST. STORMWATER PLANTER
SEE DETAIL ON SHEET 2F-7
28. INSTALL PRECAST CONCRETE WHEEL STOP.
SEE DETAIL ON SHEET 2C-11.

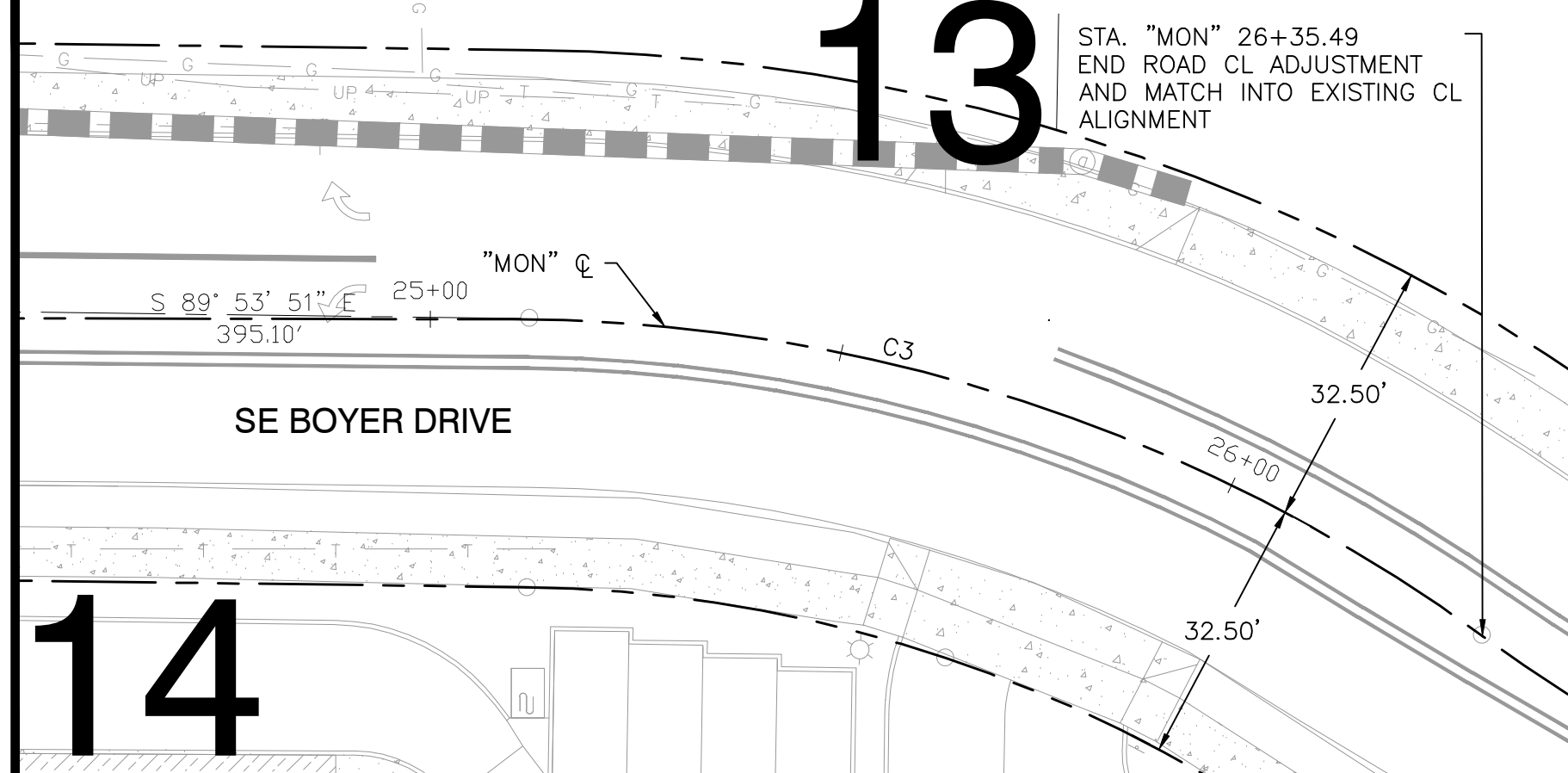
CENTERLINE CURVE TABLE						
CURVE #	RADIUS	LENGTH	TANGENT	DELTA ANGLE	START STATION	END STATION
C2	200.00	47.77	24.00	013°41'08"	20+67.10	21+14.87

CENTERLINE CURVE TABLE						
CURVE #	RADIUS	LENGTH	TANGENT	DELTA ANGLE	START STATION	END STATION
C3	200.00	125.52	64.90	035°57'33"	25+09.97	26+35.49

CC12 CURB CURVE TABLE		CC13 CURB CURVE TABLE	
CURVE DATA	STATION	CURVE DATA	STATION
$\Delta = 7°28'30"$ $R = 188.50'$ $L = 24.79'$ $T = 12.31'$	STA. "MON" 20+64.19 (13.10' L) PC	$\Delta = 13°41'08"$ $R = 222.00'$ $L = 53.03'$ $T = 26.64'$	STA. "MON" 20+87.82 (13.14' R) PC
	STA. "MON" 20+90.24 (16.11' L) PT		STA. "MON" 21+38.65 (17.50' R) PT

CURB CURVE TABLE NOTE:
TC, BC, AND FL POINTS SHALL BE ESTABLISHED FROM ROADWAY CENTERLINE PROFILES
AND CURB DETAILS AT PC, PT, AND QUARTER POINTS UNLESS SPECIFICALLY NOTED ON
SHEET SERIES 2D AND 3B.

MATCH LINE STA. 24+50 SEE ABOVE



13

14

BOYER DRIVE EXTENSION PROJECT
CLACKAMAS COUNTY, OREGON

ENGINEERS ♦ PLANNERS
LANDSCAPE ARCHITECTS ♦ SURVEYORS

205 SE Spokane Street, Suite 200, Portland, OR 97202
phone: 503.221.1131 www.bhnr.com fax: 503.221.1171

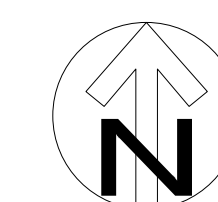
EXPIRES: 6/30/17

5/16/2017

REVISIONS

3E-2

CLA-76



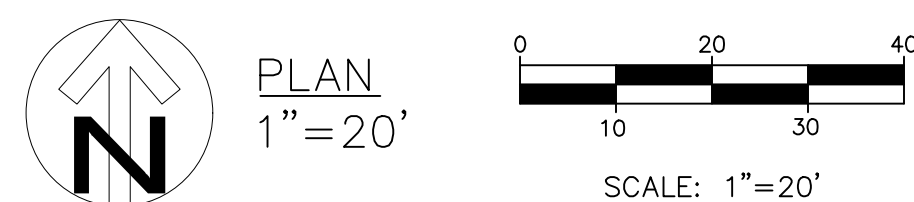
0 10 20 30

SCALE: 1"=20'

- 8 REMOVE EXISTING PIPE TO THE EXTENTS SHOWN ON PLAN, PLUG AND CAP END OF REMAINING PIPE.
- 10 CONNECT TO EXISTING STRUCTURE.
- 11 REMOVE EXISTING INLET. CONNECT NEW PIPE TO EXISTING PIPE WITH FLEXIBLE COUPLING. REMOVE AND REPLACE STORM PIPE NORTH TO PROPOSED MH#6.
- 12 CONSTRUCT MANHOLE. CONSTRUCT MANHOLE WITH GB-2 INLET. SEE DETAIL ON SHEET 2F-8. FIELD ADJUST INLET TO CURB LINE FOR POSITIVE DRAINAGE AS REQUIRED AND DIRECTED.
- 21 CONSTRUCT INLET, TYPE CG-3, PER ODOT STD. DWG. RD372. SEE DETAIL ON SHEET 2F-11.
- 22 CONSTRUCT STANDARD STORM SEWER MANHOLE PER ODOT STD. DWG. RD335. SEE DETAIL ON SHEET 2F-10.

CALL BEFORE YOU DIG. 811

13



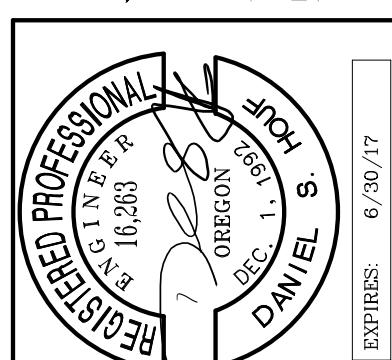
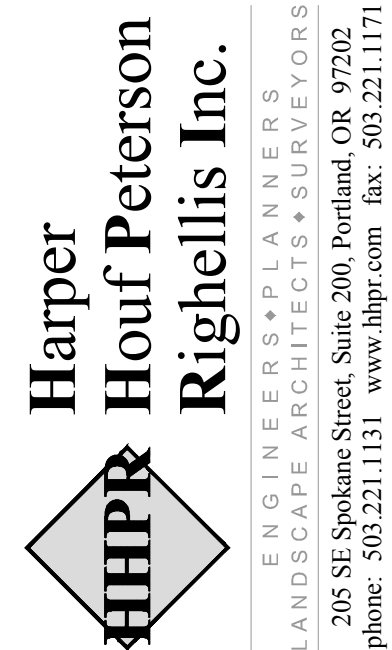
1 NOTE: CO#6 NOT USED.

SHEET NO.
3E-2.1
JOB NO. **CLA-76**

CALL BEFORE YOU DIG. 811

50V-017

STORM DRAINAGE PROFILES
BOYER DRIVE EXTENSION PROJECT
CLACKAMAS COUNTY, OREGON



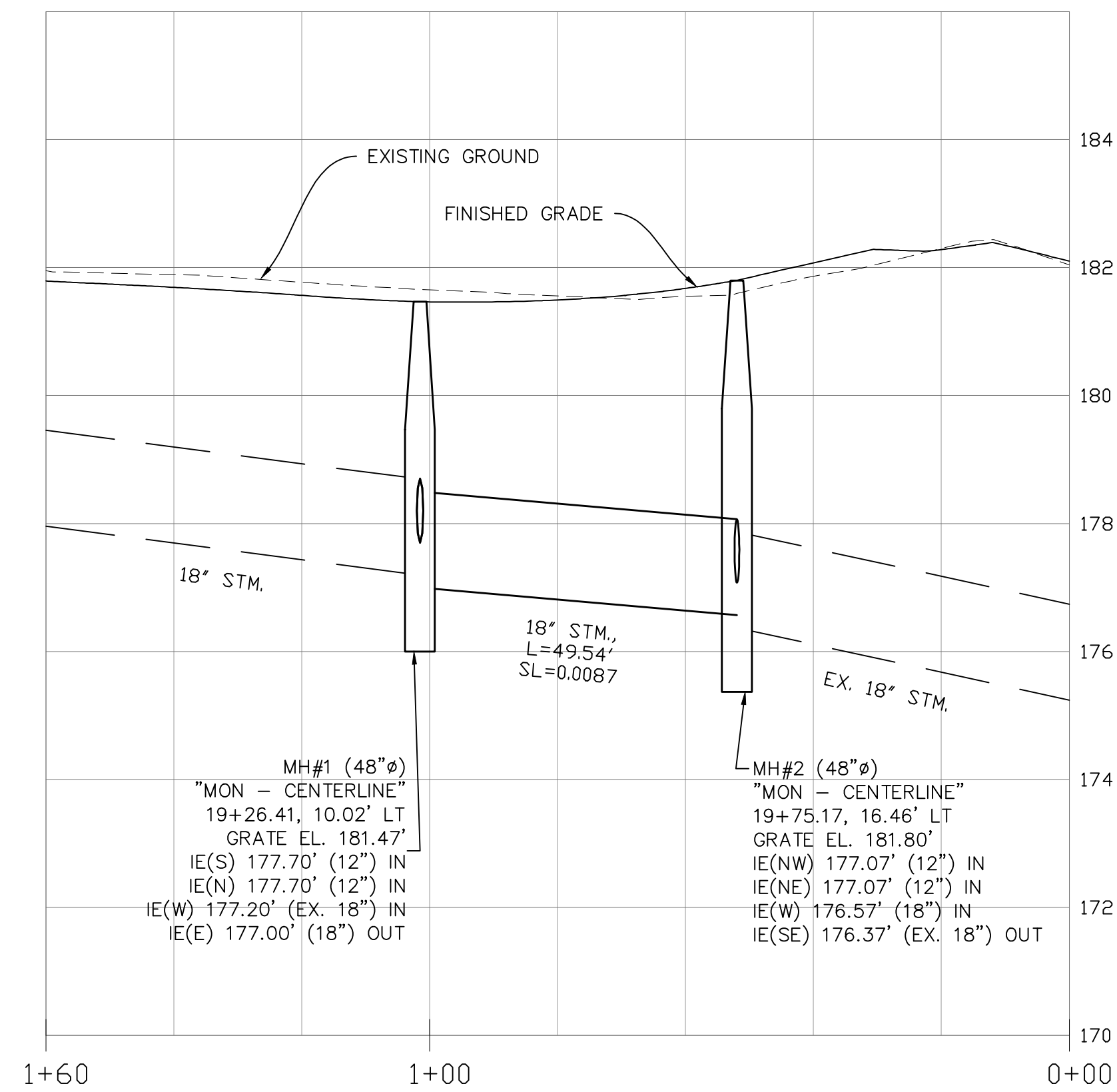
DESIGNED:	DSH
DRAWN:	JSE
CHECKED:	DSH
DATE:	5/16/2017

SHEET NO.

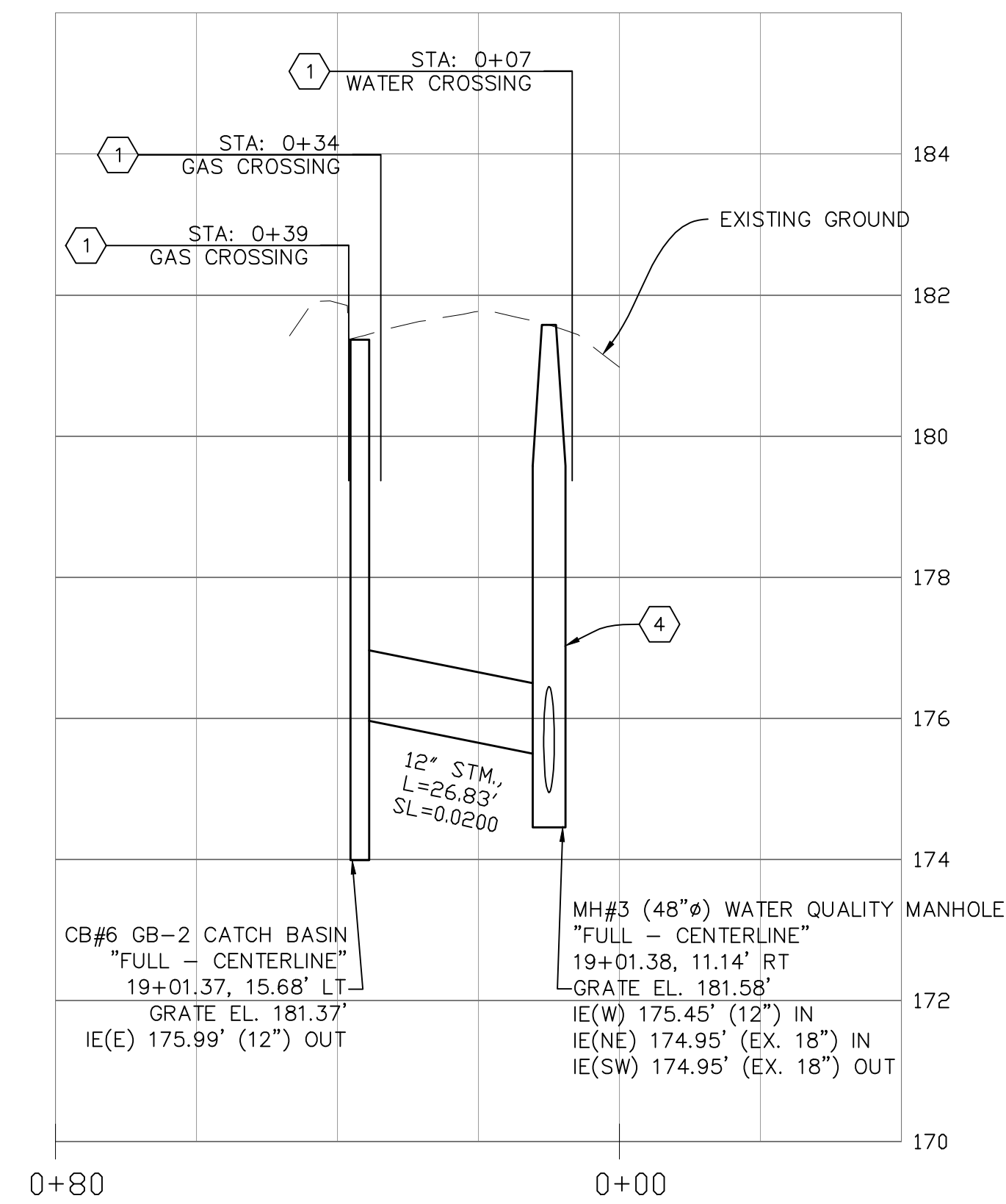
3F-1

JOB NO.

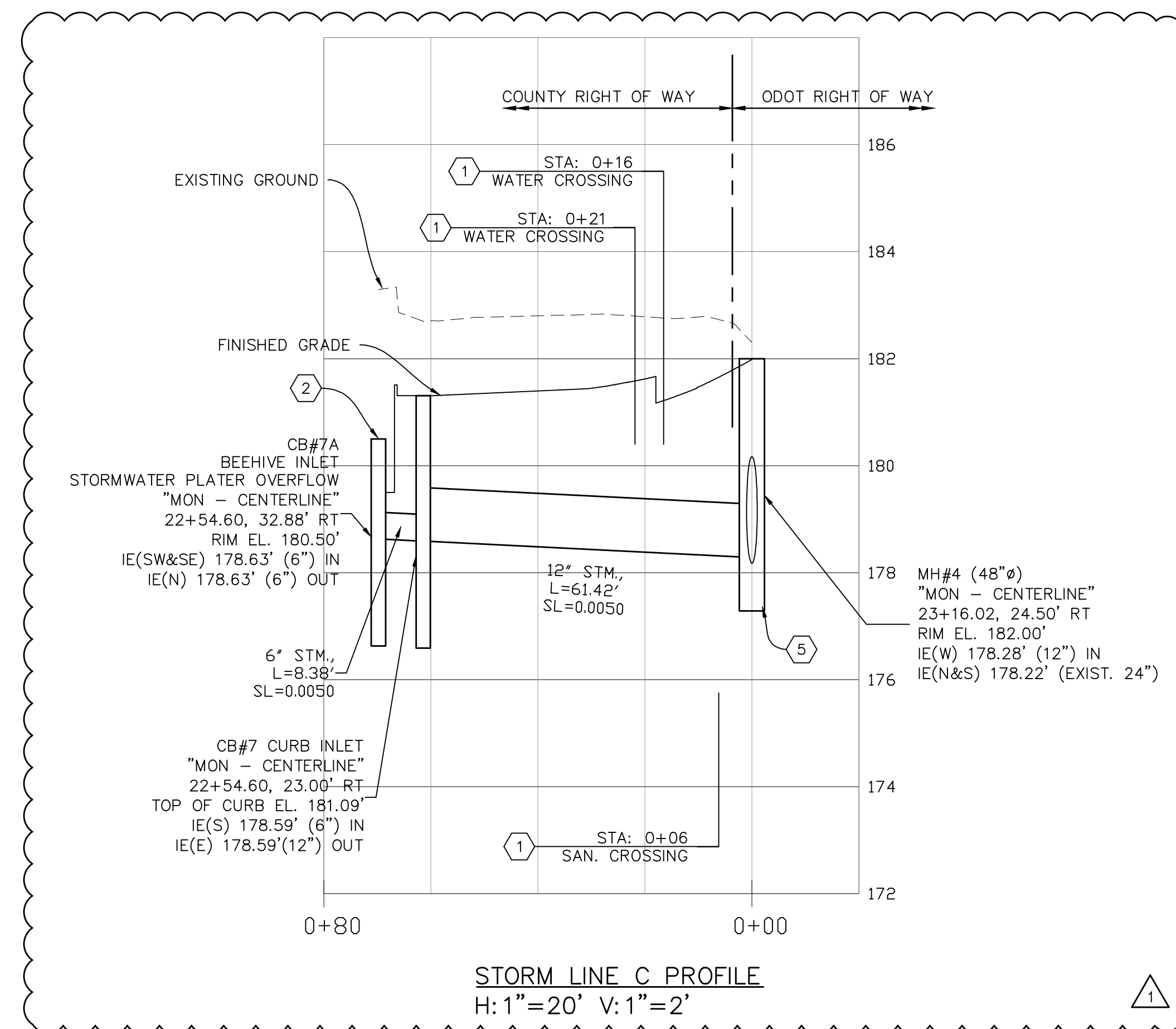
CLA-76



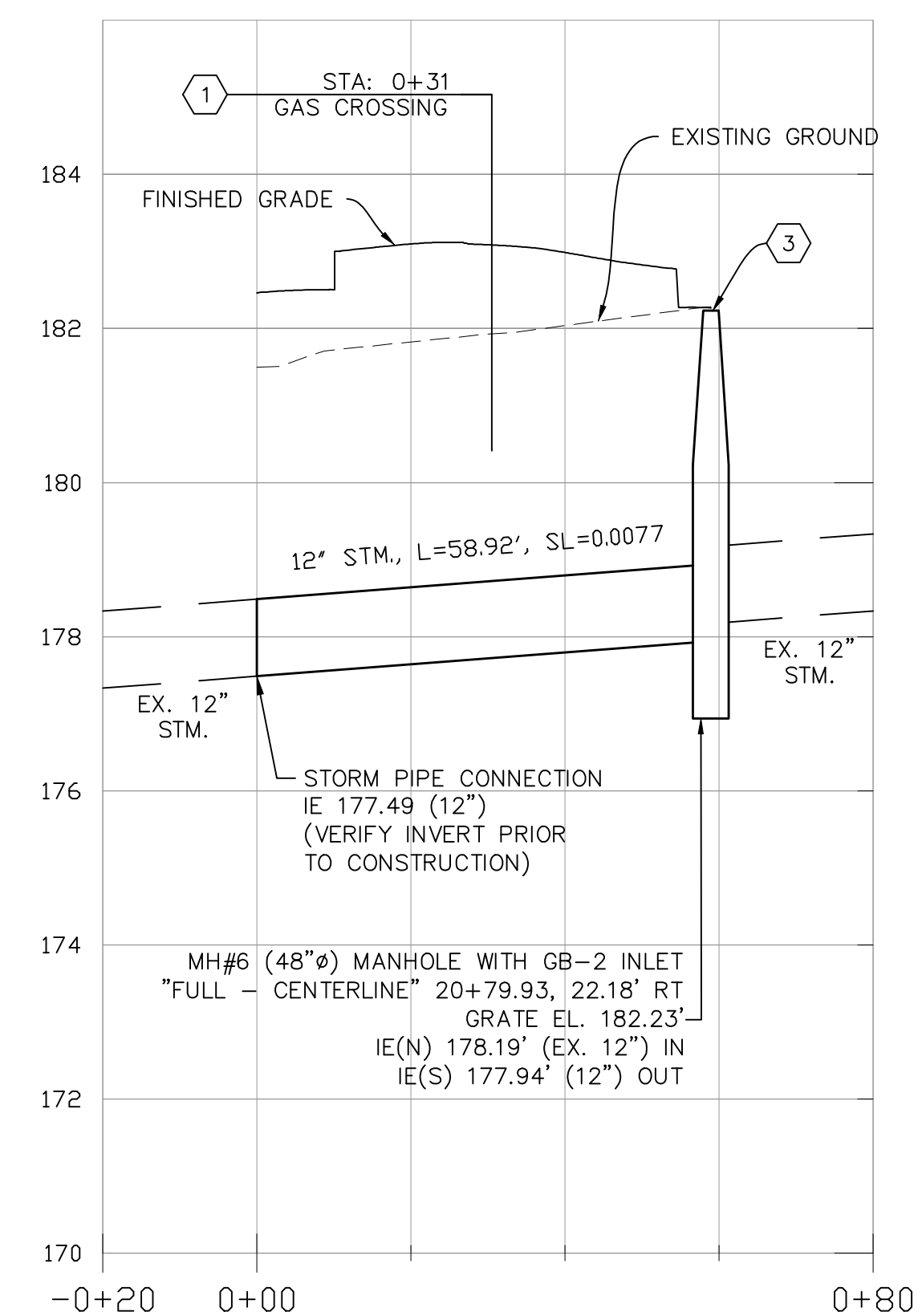
STORM LINE A PROFILE
H: 1"=20' V: 1"=2'



STORM LINE B PROFILE
H: 1"=20' V: 1"=2'



STORM LINE C PROFILE
H: 1"=20' V: 1"=2'



STORM LINE D PROFILE
H: 1"=20' V: 1"=2'

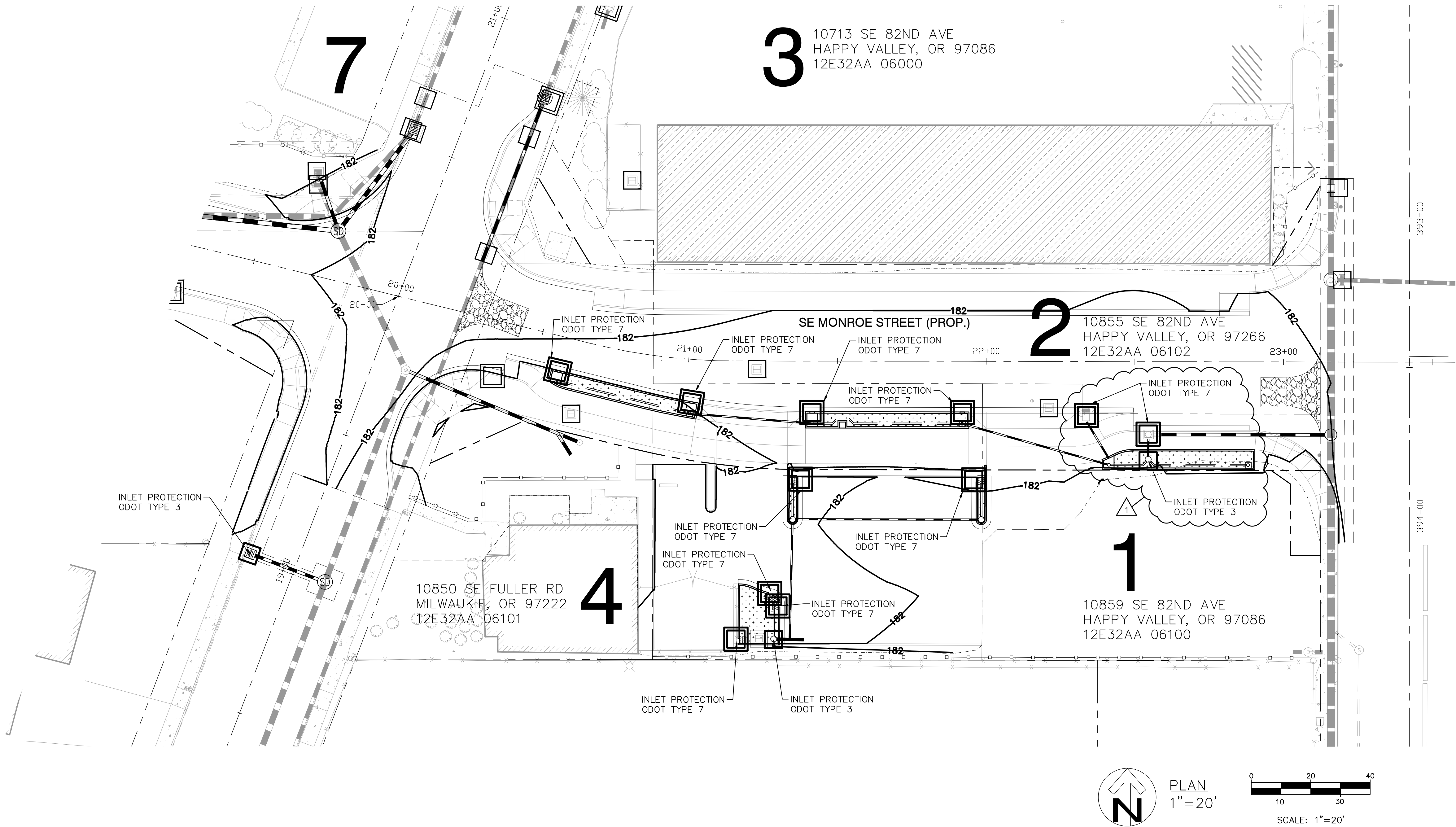
TRENCH BACKFILL NOTE:

1. USE CLSM BACKFILL FOR ALL TRENCHING IN ODOT RIGHT OF WAY.

CONSTRUCTION NOTES:

- 1 APPROXIMATE LOCATION FOR UTILITY CROSSING.
CONTRACTOR TO VERIFY IN FIELD. CONTACT OWNER
IMMEDIATELY IF CONFLICT EXISTS.
- 2 CONSTRUCT BEEHIVE INLET STORMWATER PLANTER
OVERFLOW. SEE DETAIL ON SHEET 2F-7.
- 3 CONSTRUCT MANHOLE WITH GB-2 INLET.
SEE DETAIL ON SHEET 2F-8.
- 4 CONSTRUCT WATER QUALITY MANHOLE.
SEE DETAIL ON SHEET 2F-9.
- 5 CONSTRUCT STANDARD STORM SEWER MANHOLE
PER ODOT STD. DWG. RD335. SEE DETAIL ON
SHEET 2F-10.

CALL BEFORE YOU DIG. 811



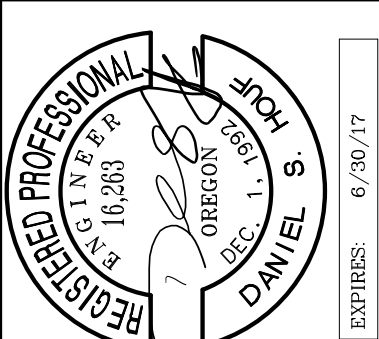
GENERAL NOTES:

- SEE SERIES GA FOR EROSION CONTROL DETAILS.
- FOR GENERAL GRADING AND STREET NOTES, SEE COUNTY DETAIL N200, SERIES 2C.
- INSTALL INLET PROTECTION APPROPRIATE FOR SITE CONDITION. BELOW ARE SUGGESTED USES FOR DIFFERENT TYPE OF INLETS.
 - ODOT TYPE 3, TYPICAL INLET PROTECTION AT EXISTING AND PROPOSED INLET BASINS IN ACTIVE TRAFFIC, PEDESTRIAN, AND BICYCLE AREAS.
 - ODOT TYPE 4, TYPICAL STORM OUTFALL PROTECTION.
 - ODOT TYPE 7, TYPICAL INLET PROTECTION AT EXISTING AND PROPOSED COMBINATION TYPE BASINS WHERE ODOT TYPE 3 MAY NOT BE PRACTICAL.
- PROTECT EXISTING STAIRS AND ACCESS TO EXISTING BUSINESS AT ALL TIME. COORDINATE WITH PROPERTY OWNER 24-HOUR IN ADVANCE WHEN WORK IMPACT ACCESS TO BUILDING.
- CONTRACTOR SHALL PROTECT EXISTING BUILDING STRUCTURE AND APPURTENANCES WHEN PERFORMING WORK NEAR EXISTING BUILDING.
- SEE SHEET GA-2 FOR ADDITIONAL EROSION CONTROL MEASURES.

LEGEND:

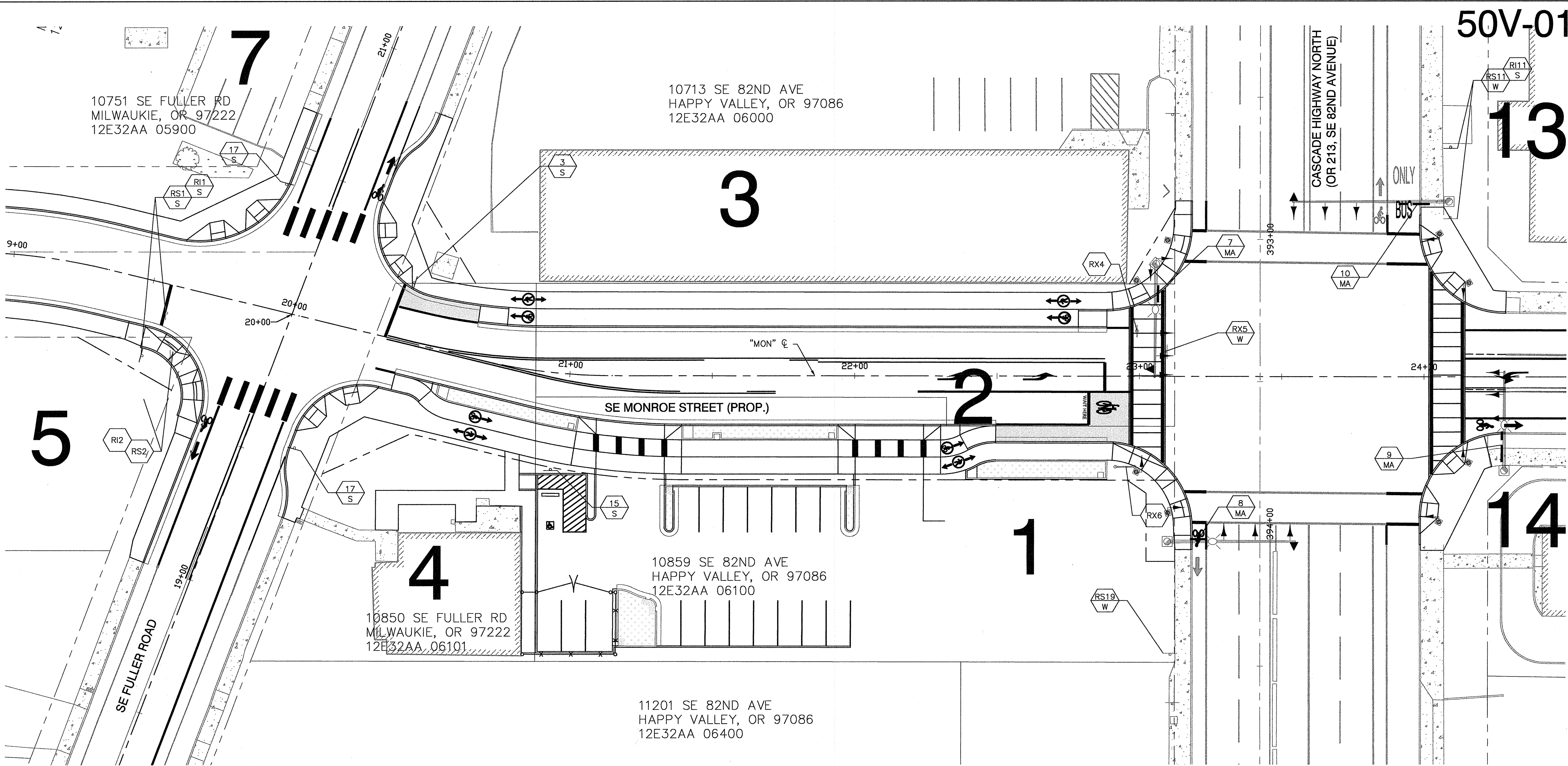
- CONSTRUCTION ENTRANCE
- CATCH BASIN/INLET PROTECTION (SEE NOTE 3)
- COMPOST FILTER SOCK
- SAW CUT
- GRADING LIMIT
- EXIST. GROUND CONTOURS
- FINISHED GROUND CONTOURS

Harper Houf Peterson
Righellis Inc.
ENGINEERS • PLANNERS
LANDSCAPE ARCHITECTS • SURVEYORS
205 SE Spokane Street, Suite 200, Portland, OR 97202
phone: 503.221.1131 www.hhpri.com fax: 503.221.1171



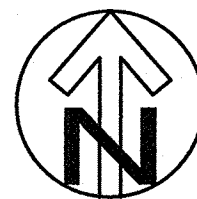
DESIGNED:	DSH
DRAWN:	JSE
CHECKED:	DSH
DATE:	5/16/2017
REVISION	
NO.	1
DATE	10/5/2017
DESCRIPTION	STORM DRAINAGE

H:\17\17975 - BOYER DRIVE EXTENSION\DWGS\DESIGN\242282_SS_SIGNING_KAI.DWG 7/17/2013 2:35 PM

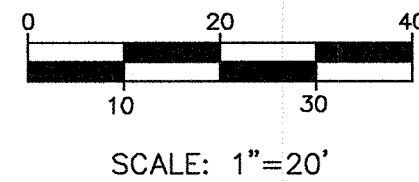


GENERAL NOTES:

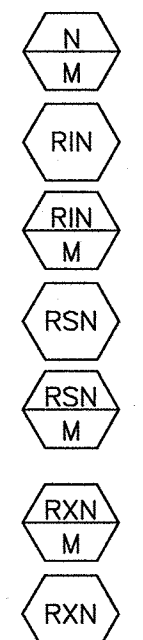
1. SEE SIGN DATA TABLE ON SHEET SS-8 FOR SIGN AND POST SPECIFICATIONS.
2. FOR NON-MUTCD SIGNS, SEE SHEETS SS-9 TO SS-20 FOR STANDARD SIGN DETAILS AND SPECIFICATIONS.



PLAN
1"=20'



SIGN LEGEND:



- INSTALL NEW SIGN (N) ON NEW SIGN SUPPORT (M)
- REINSTALL EXISTING SIGN (N)
- REINSTALL EXISTING SIGN (N) ON NEW SIGN SUPPORT (M)
- REMOVE & SAVE EXISTING SIGN (N)
- REMOVE & SAVE EXISTING SIGN (N) AND REMOVE EXISTING SUPPORT (M)
- REMOVE EXISTING SIGN (N) AND SUPPORT (M)
- REMOVE EXISTING SIGN (N)

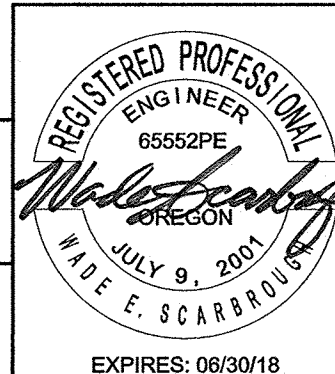
N = SIGN NUMBER, SEE SHEET SS-9
M = MATERIAL, SEE SHEET SS-8

MATERIAL OPTIONS:
W = WOOD POST
S = PERFORATED STEEL SQUARE TUBE
MA = MAST ARM STREET NAME SIGN MOUNT



OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC - ROADWAY SECTION

T.R.S. DWG. No.
S-16585



REVISIONS

NO.	DATE:	DESCRIPTION
1	10/17	MONROE BIKE DESIGN CHANGE

Sheet No.
SS-1

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION
AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

M. BARBARA CARTMILL

DIRECTOR

SE MONROE ST & SE BOYER DR

SIGNING PLAN

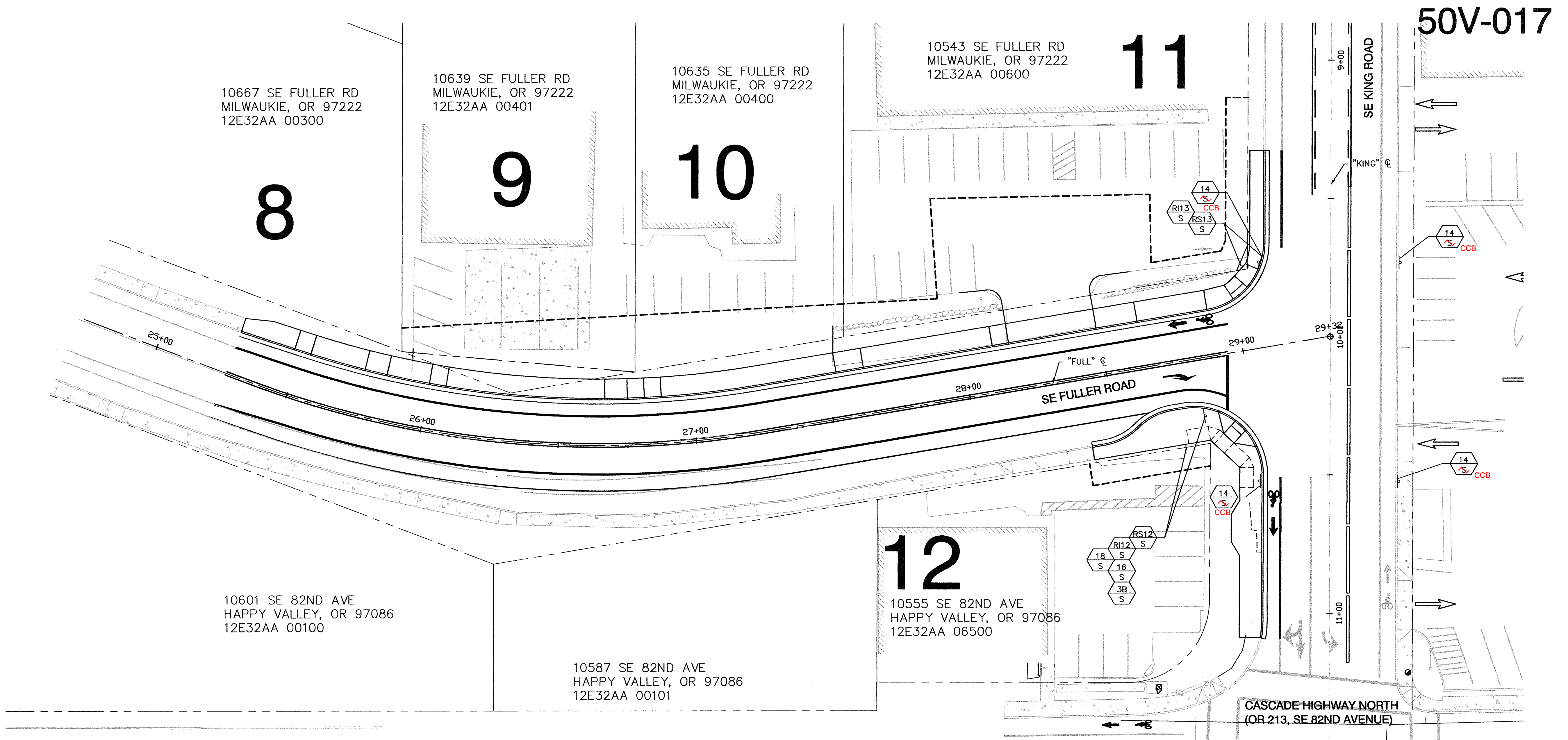
BOYER DRIVE EXTENSION

PROJECT

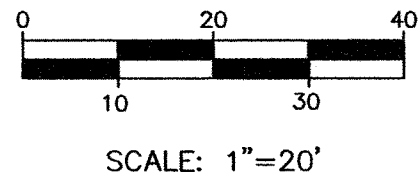
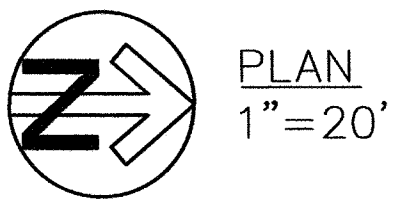
DATE: 9/26/2016 PROJECT NO.: 242282

50V-017

C:\PWORKING\SEA\1311508\242282_SS_SIGNING.DWG 7/17/2013 2:35 PM



- GENERAL NOTES:**
- SEE SIGN DATA TABLE ON SHEET SS-8 FOR SIGN AND POST SPECIFICATIONS.
 - FOR NON-MUTCD SIGNS, SEE SHEETS SS-9 TO SS-20 FOR STANDARD SIGN DETAILS AND SPECIFICATIONS.



SIGN LEGEND:

- N** = INSTALL NEW SIGN (N) ON NEW SIGN SUPPORT (M)
- RIN** = REINSTALL EXISTING SIGN (N)
- RSN** = REMOVE & SAVE EXISTING SIGN (N)
- RXN** = REMOVE EXISTING SIGN (N) AND SUPPORT (M)

MATERIAL OPTIONS:
W = WOOD POST
S = PERFORATED STEEL SQUARE TUBE
CCB = CROSSWALK CLOSURE BARRICADE

NOTE: REFER TO SHEET 1.1 FOR SUMMARY OF PLAN REVISIONS.

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC - ROADWAY SECTION

T.R.S. DWG. No.
S-16586

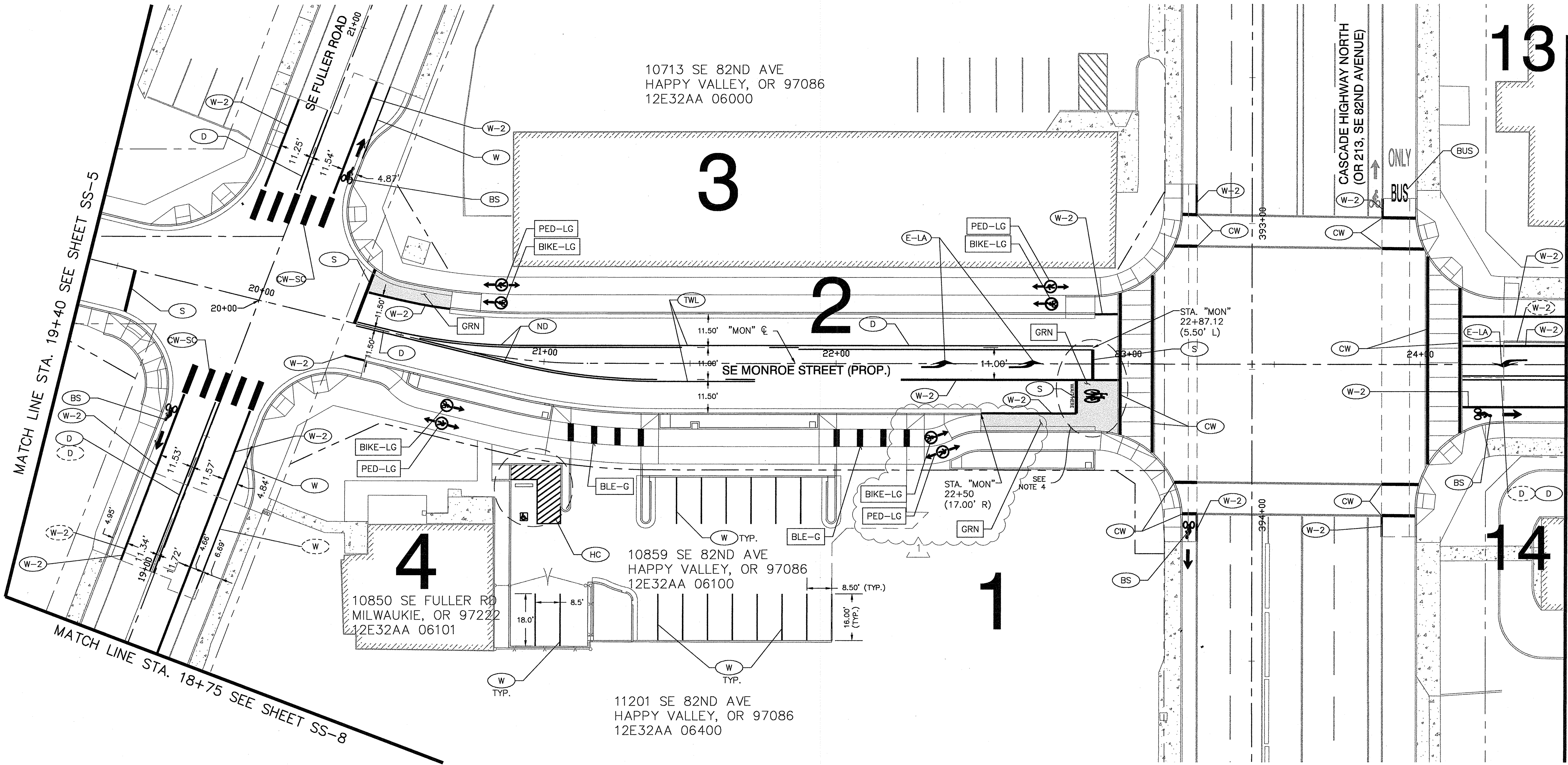


CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		SE FULLER RD SIGNING PLAN BOYER DRIVE EXTENSION PROJECT	
M. BARBARA CARTMILL DIRECTOR		DATE: 9/26/2016 PROJECT NO.: 242282	
REVISIONS		SHEET MODIFICATIONS	
NO. DATE:		1	5/10/2017
Sheet No.		SS-2	

50V-017

13

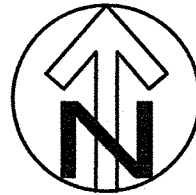
14



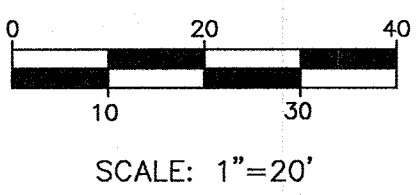
MATCH LINE STA. 19+40 SEE SHEET SS-5

MATCH LINE STA. 24+50 SEE SHEET SS-7

MATCH LINE STA. 18+75 SEE SHEET SS-8



PLAN
1"=20'



GENERAL NOTES:

1. SEE STANDARD PAVEMENT MARKING DETAILS ON SHEETS SS-21 TO SS-30.
2. PAVEMENT MARKING REMOVAL SHALL BE PERFORMED BY HYDROBLASTING, NO EXCEPTION.
3. MATCH EXISTING STRIPING LOCATION AT PROJECT LIMITS.
4. SEE CITY OF PORTLAND DETAIL P-436 ON SHEET SS-30 FOR BIKE PAVEMENT MARKINGS IN BIKE BOX.

STRIPING LEGEND:

- XX PAVEMENT MARKING.
- XX REMOVE EXISTING PAVEMENT MARKING.
- BIKE BOX GREEN PAVEMENT MARKING. (PATONE COLOR #375)
- XX PAVEMENT MARKING. SEE CITY OF PORTLAND PAVEMENT MARKINGS DETAIL ON SHEET SS-27 AND SS-28.

REVISIONS

NO.	DATE:	DESCRIPTION
1	10/17	BIKE DESIGN CHANGE

Sheet No.
SS-4

CLACKAMAS COUNTY

DEPT. OF TRANSPORTATION
AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045



M. BARBARA CARTMILL

DIRECTOR

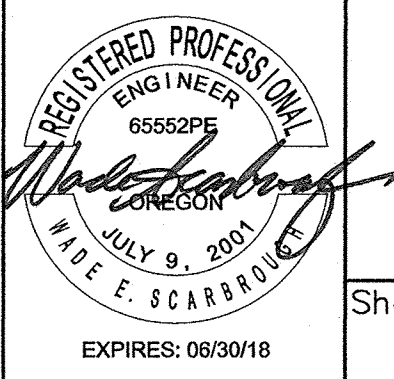
SE MONROE ST & SE BOYER DR

STRIPING PLAN

BOYER DRIVE EXTENSION

PROJECT

DATE: 10/12/2017 PROJECT NO.: 242282



SIGN AND POST DATA TABLE

50V-017

[illegible]

- 1/_/BK=BLACK
BL=BLUE
BR=BROWN
FY=FLUORESCENT YELLOW
G=GREEN
O=ORANGE
R=RED
RB=RED-BLUE
SW=SILVER-WHITE
W=WHITE
Y=YELLOW
YG=YELLOW-GREEN

- 2_/NOTE: L,C,R ARE LOCATIONS OF POSTS
FACING THE SIGN.
L=LEFT POST
C=CENTER POST
R=RIGHT POST
- 3_/DISTANCE FROM EDGE OF TRAVEL LANE,
FACE OF CURB, GUARDRAIL, OR BARRIER
TO THE CENTERLINE OF FOOTING. FOR
ADDITIONAL INFORMATION SEE STANDARD
DRAWINGS TM601, TM602 AND TM635.

- 4_ /NOTE: THE LOCATIONS SHOWN ARE APPROXIMATE
EXCEPT FOR SPEED ZONES, SCHOOL ZONES, OBJECT
MARKERS AND MILEPOST MARKERS. EXACT LOCATIONS
ARE TO BE DETERMINED BY THE ENGINEER.
- 5_ /MINIMUM DEPTH OF FOOTING FOR
TRIANGULAR BASE BREAKAWAY AND
MULTI-POST BREAKAWAY INSTALLATIONS
IS FOR A 2' DIAMETER FOOTING. FOR
ADDITIONAL INFORMATION SEE STANDARD
DRAWINGS TM601 AND TM602.

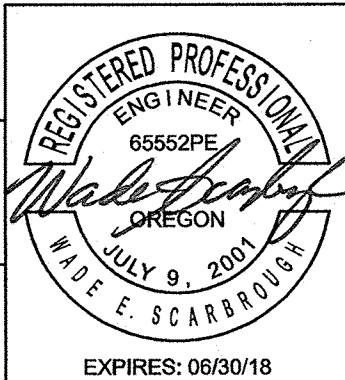
- 6_/NOTE: REINSTALL EXISTING SIGN
- 7_/NOTE: REMOVE AND REINSTALL APARTMENT ADVERTISEMENT SIGNS, POSTS, AND DECORATIVE FLAG POLES, COMPLETE.
- 8_/NOTE: REMOVE EXISTING SIGN, POST, ALL APPURTENANCES ASSOCIATED WITH SIGN.
- 9_/NOTE: EXISTING SIGN HAS BEEN REMOVED. REMOVE ANY REMAINING REMNANT OF POST, AND APPURTENANCE THAT MAY CONFLICT WITH ROADWAY CONSTRUCTION.

GENERAL NOTES:

1. SEE SHEET SS-11 FOR SIGN NUMBER DETAILS.
2. SEE SHEET SS-10 TO SS-30 FOR STANDARD DETAILS.



T.R.S. DWG. No.
S-16587



REVISIONS

PH(HDR)	
NO. DATE:	
1	10/10/17
TABLE CORRECTIONS	
DRAFTED BY:	
KS/MS	
CHECKED BY:	
WES	

DESIGNED BY:
PH(HDR)

DRAFTED BY:
VCS/MC

CHECKED BY: WES


CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

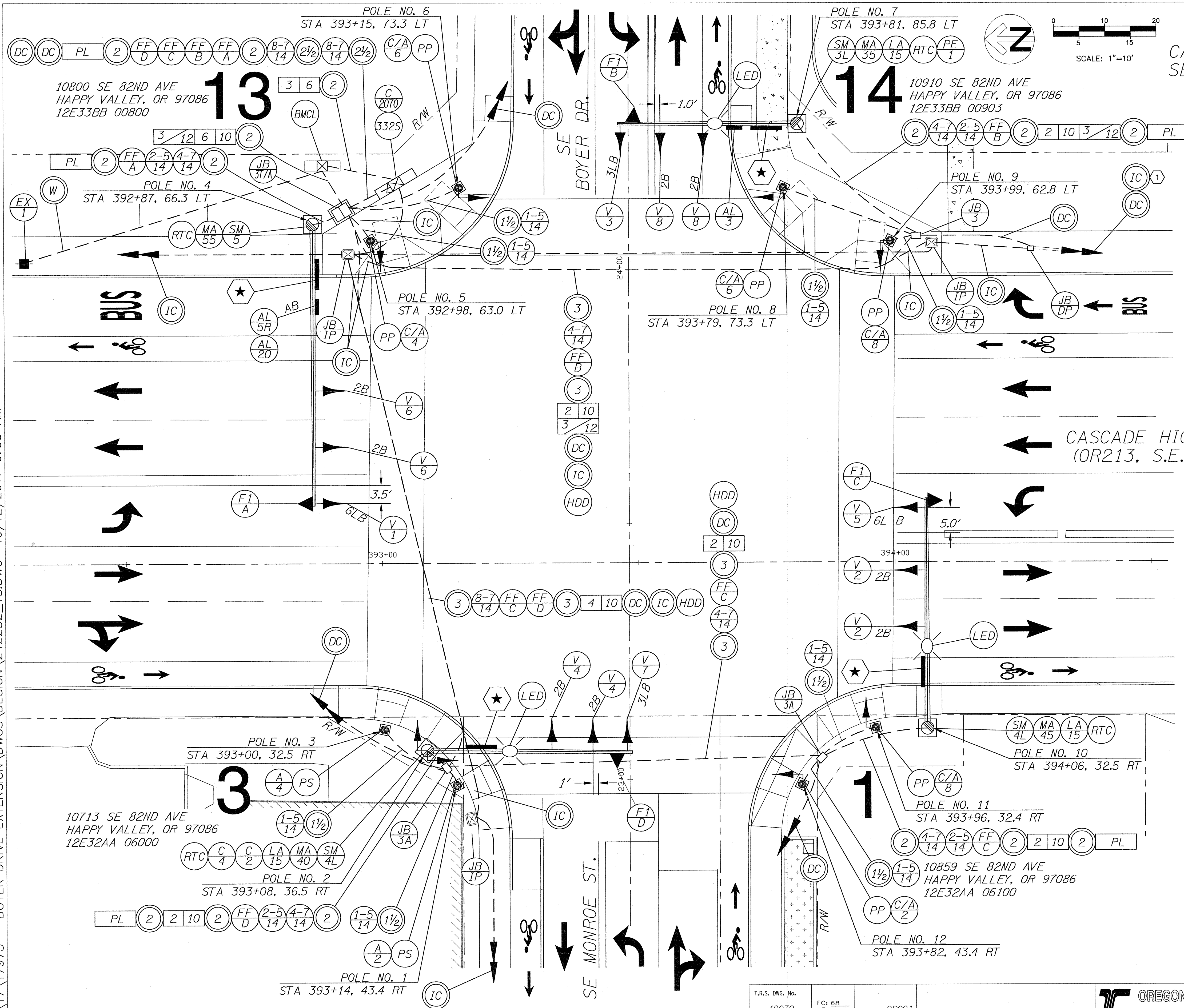
M. BARBARA CARTMILL

SIGN AND POST DATA TABLE

BOYER DRIVE EXTENSION PROJECT

DATE: 10/9/2017	PROJECT NO.: 242282
-----------------	---------------------

H:\17\17975 - BOYER DRIVE EXTENSION\DWGS\DESIGN\242282_TS.DWG 10/12/2017 9:33 AM



50V-017
SIGNAL PLAN
CASCADE HIGHWAY NORTH AT
SE BOYER DR/SE MONROE ST
OR213, MP 8.47
(CLACKAMAS)

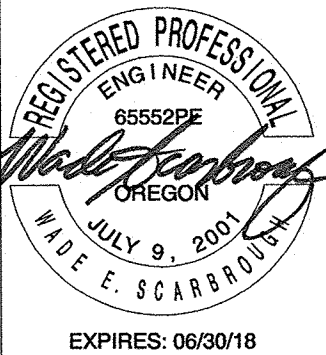
SITE SPECIFIC DETAILS:
① INTERCONNECT CABLE IN SHARED CONDUIT. SEE
INTERCONNECT PLAN FOR ADDITIONAL INFORMATION.

CASCADE HIGHWAY NORTH
(OR213, S.E. 82ND AVE.)

NOTE:
Field Verify Measurements Before Construction

UTILITIES NOT SHOWN
See Utility Plan Sheet

NOTE:
See Dwg. 19068 for Legend



OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC - ROADWAY SECTION

T.R.S. DWG. No. 19070
FC: 68
MP: 8.47
TSSU No. 2B091
Traffic Section Approval

DESIGNED BY: RAM /WES		NO. DATE:		REVISIONS		CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		SIGNAL PLAN	
								SE BOYER RD AT SE 82ND AVE	
DRAFTED BY: RAM		1 10/12/17 MONROE BIKE DESIGN CHANGE				CLACKAMAS COUNTY		BOYER DRIVE EXTENSION	
								PROJECT	
CHECKED BY: CWR						M. BARBARA CARTMILL		DATE: 10/12/2017	
								PROJECT NO.: 242282	

- 1 ROUTE NEW DETECTION CONDUIT INTO NEW JUNCTION BOX AT EXISTING LOCATION. SEE REMOVAL AND INTERCONNECT PLANS FOR ADDITIONAL INFORMATION.
- 2 INTERCEPT EXISTING CONDUIT AND ROUTE INTO NEW JUNCTION BOX. SEE REMOVAL PLAN FOR ADDITIONAL INFORMATION.
- 3 INTERCONNECT CABLE IN SHARED CONDUIT. SEE INTERCONNECT PLAN FOR ADDITIONAL INFORMATION.
- 4 REMOVE ONLY WIRING RELATED TO DETECTION SYSTEM. SEE INTERCONNECT PLANS FOR INTERCONNECT WIRING.

10800 SE 82ND AVE
HAPPY VALLEY, OR 97086
12E33BB 00800

10910 SE 82ND AVE
HAPPY VALLEY, OR 97086
12E33BB 00903

DETECTOR PLAN
CASCADE HIGHWAY NORTH AT
SE BOYER DR/SE MONROE ST
OR213, MP 8.47
(CLACKAMAS)

50V-017

10/12/2017	PROJECT NO.: 242282
------------	---------------------

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION
AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

M. BARBARA CARIMILLI



**CLACKAMAS
COUNTY**

DESIGNED BY: RAM/WES
DRAFTED BY: RAM
CHECKED BY: CWR

REVISIONS	
NO.	DATE:
1	10/12/17

Sheet No. **TS-4**

	Loop Number	Distance Feet	Phase	Slot	Voyage	
NO WORK	1	220	2	I2U	29	
	2	220	2	I2L	30	
	3	110	2	I3U	9	
	4	110				
	5	50	BIKE	2	I3L	10
	6	75	5	J1U	5	
	7	15	5	J1L	6	
	8	5				
	9	75	4	I8U	14	
	10	15	4	I9U	16	
	11	5				
	12	50	BIKE	4	I9L	17
	13	75	7	J6U	7	
	14	15	7	J6L	8	
	15	5				
NO WORK	16	220	6	J3U	19	
	17	220	6	J3L	20	
	18	110	6	J4U	21	
	19	110				
	20	50	BIKE	6	J4L	22
	21	75	1	I1U	1	
	22	15	1	I1L	2	
	23	5				
	24	90	8	J8U	24	
	25	30	8	J9U	26	
	26	20				
	27	45	BIKE	8	J10U	28
	28	5	BIKE	8	J10L	40
	29	5	BIKE			
	30	85	3	I6U	3	
	31	25	3	I6L	4	
	32	15				

LOOP DETECTOR WIRING DIAGRAM
"Distance" is from crosswalk to center of loop in feet

UTILITIES NOT SHOWN
See Utility Plan Sheet

NOTE:
Contractor is responsible for re-wiring and re-numbering of new and existing detector loops & loop feeders, in junction boxes and cabinet, to match wiring diagram.

NOTE:
Field Verify Measurements Before Construction

NOTE:
See Dwg. 19068 for Legend

T.R.S. DWG. No. <u>19071</u>	FC: <u>68</u> MP: <u>8.47</u>	TSSU. No. <u>2B091</u>	
			Traffic Section Approval

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC - ROADWAY SECTION

REGISTERED PROFESSIONAL
ENGINEER
65552PE
Wade H. Hines
OREGON
JULY 9, 2001
WIDE E. SCARBROUGH
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EXPIRES: 06/30/18