



www.ci.brownsville.or.us

City Hall
255 N. Main Street • P.O. Box 188
Brownsville, OR 97327 • 541.466.5666
Fax 541.466.5118 • TT/TDD 800.735.2900

February 1st, 2024

River's Edge Homeowner's Association

RE: River's Edge Subdivision/PUD Details

Dear Resident,

The City would like to share some background information so that everyone who resides in the River's Edge subdivision is aware of the Homeowners Association's and the City's present and future responsibilities.

The City's Planning Commission granted developer Stephan Smith his proposed Planned Unit Development (PUD) in 2017. The Commission and Smith negotiated several key points that ultimately allowed Mr. Smith to develop his property with the housing density he sought. Cities, under Oregon law, are allowed to make certain concessions and modifications to zoning requirements based on this specific procedure in certain zones of a city. Several public meetings were conducted during this process and City Staff had countless meetings over the last several years to assist in bringing the subdivision to fruition.

Below I have listed the approval details for the PUD as well as answers to the questions we discussed:

Open Space

- ★ Developer Stephan Smith was required to improve several areas for private recreational and parking purposes.
- ★ City Staff was charged with the responsibility to ensure the completion of these areas met the Conditions of Approval before they were turned over to the Association for perpetual care.
- ★ On November 1st, 2023, the City has given final approval for these improvements and is awaiting a warranty assurance letter for the work recently completed by Rexius.
- ★ The parking areas at the south & north end of the open space area are under the operational & maintenance responsibility of the Association.
- ★ The parking area located along River Street is under the operational & maintenance responsibility of the Association.

Drainage

- ★ Developer Stephan Smith raised the subdivision out of the floodplain at great expense.

- ★ The Association is responsible for the perpetual maintenance of all drainage ponds, swales, and ditches in the subdivision.
- ★ The City is responsible for all underground, stormwater pipes emptying into the drainage ponds, except for the pipes carrying runoff from the three drainage basins to the drainage ponds.

Streets

- ★ The streets have been installed to the City's Public Works Standards and are the perpetual responsibility of the City of Brownsville.
- ★ The streetlights were procured by Developer Stephan Smith and installed by Pacific Power under contract with the City. The City is responsible for the perpetual maintenance and monthly expense of the streetlights.
- ★ Existing street signs and any original traffic painting are the perpetual responsibility of the City.

Civil Utilities

- ★ Waterlines, hydrants, and associated appurtenances have been installed to the City's Public Works Standards and are the perpetual responsibility of the City of Brownsville.
- ★ Sewer collection lines and associated appurtenances have been installed to the City's Public Works Standards and are the perpetual responsibility of the City of Brownsville.

Frequently Asked Questions

- ★ Is the City willing to paint the curbs red throughout the fire zones and yellow in other areas?

The City accepted the plans as presented for approval. Those plans did not include curb paint and were accepted as such. The City is solely responsible for making any future determination on curb or street painting. It is not the City's policy to deviate from approved plans.

- ★ What can be done about illegal parking by fire hydrants and in fire lane areas?

The City contracts with the Linn County Sheriff's Department for law enforcement services. Contact City Administrator Scott McDowell to address any parking related issues. Any law enforcement issues should be addressed directly with the Linn County Sheriff's Office. Of course, 911 for emergency calls and 541.967.3911 for non-emergency calls.

- ★ Does the City enforce the Association's covenants & restrictions?

The City does not enforce any covenants, restrictions or otherwise associated with Association rules or deed restrictions. Such enforcement is the sole responsibility of the Association.

The City does enforce permitting issues and general nuisance complaints that fall under the general requirements of the Brownsville Municipal Code.

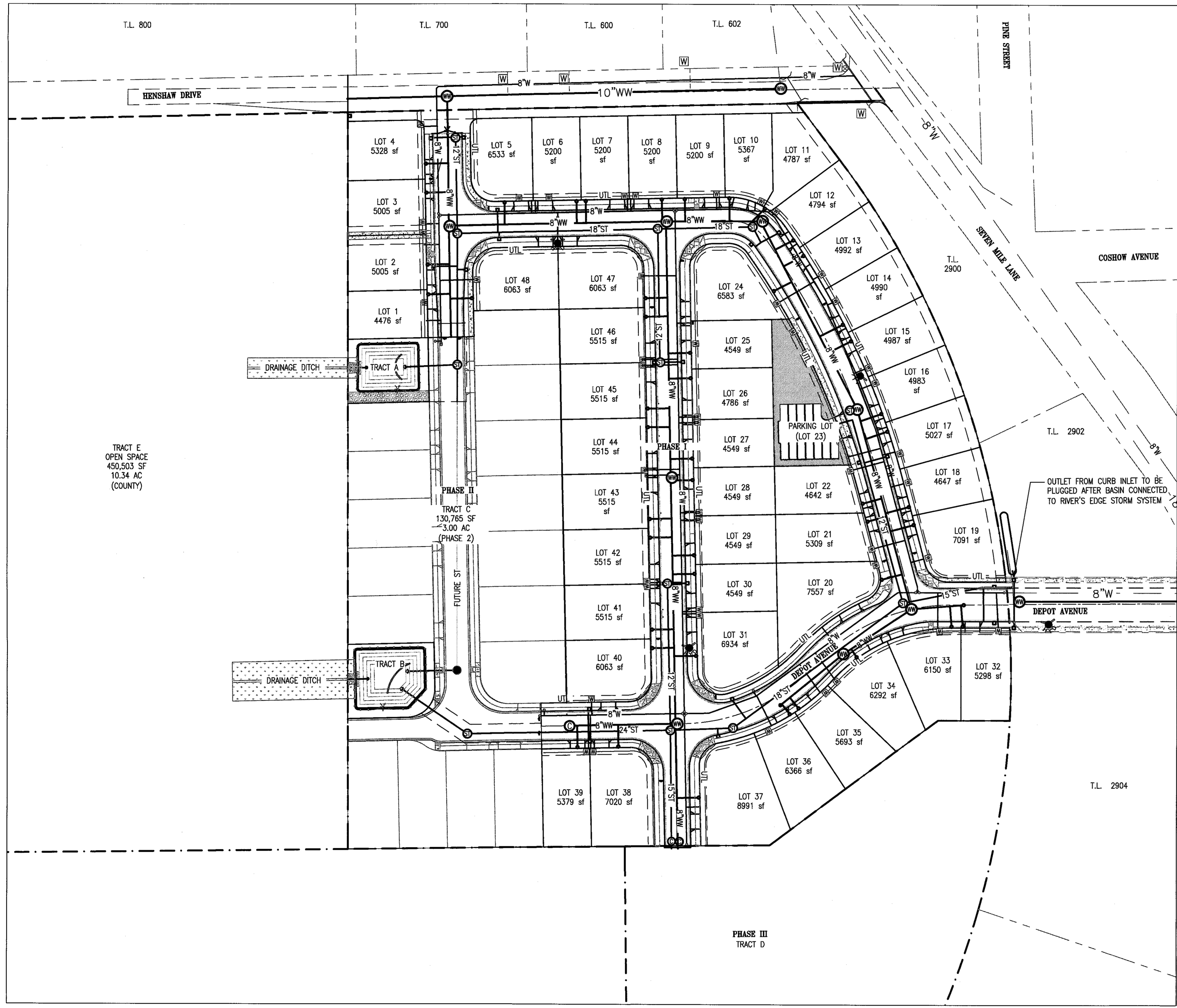
The Brownsville Municipal Code can be found on the City's website which is www.ci.brownsville.or.us. The City is to have you as resident of Brownsville!

Sincerely,



S. Scott McDowell
City Administrator

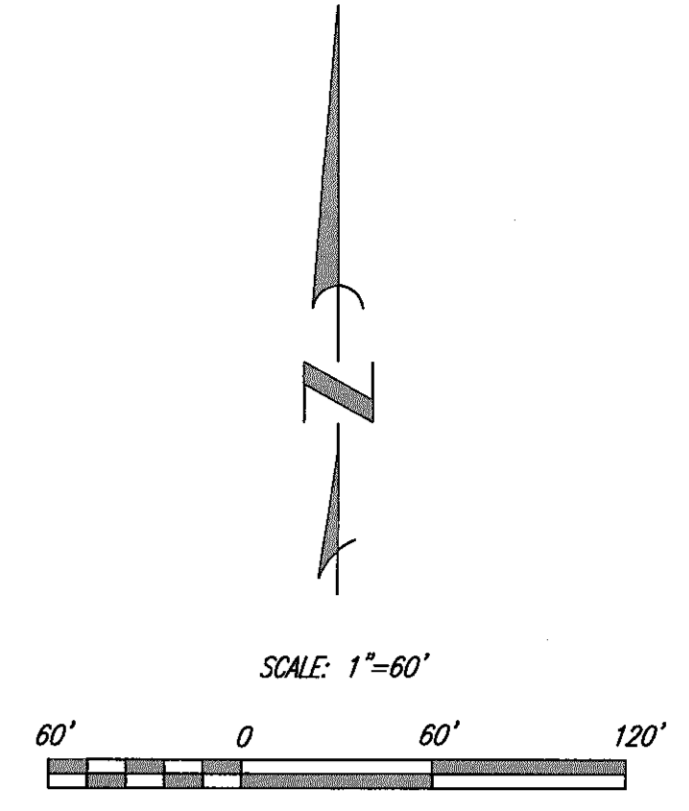
c: City Council
Planning Commission
Karl Frink, Public Works Superintendent
Elizabeth Coleman, Administrative Assistant
Staff



TRACT E
OPEN SPACE
450,503 SF
10.34 AC
(COUNTY)

PHASE II
TRACT C
130,765 SF
3.00 AC
(PHASE 2)

PHASE III
TRACT D

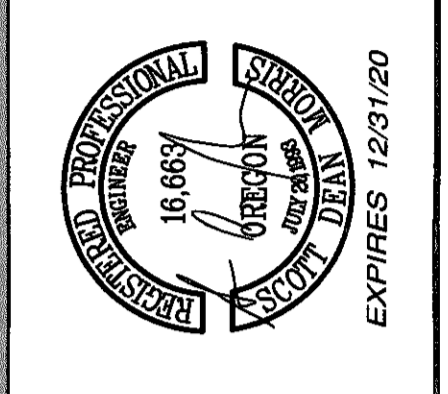


NOTES:

1. FOR STREET TREE, LIGHTING, AND SIGNAGE PLAN REFER TO SHEET C-8.0.
2. FRANCHISE UTILITY LINES TO RUN WITHIN 7.00' P.U.E. AS SHOWN ON PLAN. UTILITIES TO BE JOINT TRENCHED PER UTILITY PROVIDER'S STANDARDS.
3. ADA RAMP AND LANDINGS TO BE CONSTRUCTED AS PART OF THE PEPI CONSTRUCTION PHASE. SIDEWALKS FRONTING LOTS TO BE CONSTRUCTED DURING INDIVIDUAL HOME CONSTRUCTION BY HOME BUILDER.
4. WHERE LESS THAN 6" OF VERTICAL CLEARANCE EXISTS BETWEEN PIPES, THE LOWER PIPE SHALL BE PROTECTED BY A CONCRETE COLLAR PER CITY OF BROWNSVILLE STANDARDS.
5. STORM RUNOFF FROM HOME ROOFS TO BE ROUTED THROUGH WEEPHOLES IN CURB. CONTRACTOR TO VERIFY WEEPHOLE LOCATIONS WITH HOME BUILDER PRIOR TO PLACEMENT.
6. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR FINAL INSTALLATION.

OUTLET FROM CURB INLET TO BE PLUGGED AFTER BASIN CONNECTED TO RIVER'S EDGE STORM SYSTEM

A & O Engineering L.L.C.
CONSULTING ENGINEERS &
SITE DEVELOPMENT PLANNING
3800 ST. BITE RD
SPRINGFIELD, MO 65747
PHONE: (417) 307-9790
info@aao-engineer.com



Comprehensive Utility Plan
for Phase 1 of
River's Edge Subdivision
Brownsville Linn County Oregon

DATE: 6/15/17	PROJECT No: 1172
SCALE: HORIZ: 1"=80'	VERT: 1"=80'
REVIEWED BY: ACH	REVIEWED BY: SOM
REVIEWED BY: SOM	COA:

REVISIONS:

SHEET
C-2.1
of
25

PO

GRADING NOTES:

- ALL HOUSE FINISH FLOOR ELEVATIONS SHALL BE A MINIMUM 1.00' FEET ABOVE BASE FLOODPLAIN ELEVATION.
- COMPACTION OF MATERIAL IN STRUCTURAL AREAS TO BE DOCUMENTED AND CERTIFIED BY A GEOTECHNICAL PROFESSIONAL.
- ALL EROSION MEASURES OUTLINED IN APPROVED DEQ 1200C PERMIT SHALL BE INSTALLED PRIOR TO SITE GRADING.
- STRIPPINGS SHALL BE SPREAD ONSITE IN NON-STRUCTURAL AREAS.
- CONTRACTOR SHALL ENSURE A MINIMUM SLOPE OF 0.50% FROM POND OVERFLOW WEIRS TO EXISTING PONDS TO WEST IS PRESENT TO ALLOW FOR OVERLAND DISCHARGE.
- GRADES ARE SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE PROFILE SHEETS FOR CONSTRUCTION.
- ALL LOTS TO HAVE POSITIVE GRADE TOWARD STREET FRONTAGE.

SUNMARK SEEDS INTERNATIONAL, INC.
 PO Box 1210
 Fairview OR 97024
 503-241-7333
 888-214-7333

Native Water Quality
 KEEP IT CLEAN
 DRAINS TO RIVER

Sunmark Native Water Quality Mix
 Acres: 43.38 lbs.
 Quantity: 43.38 lbs.

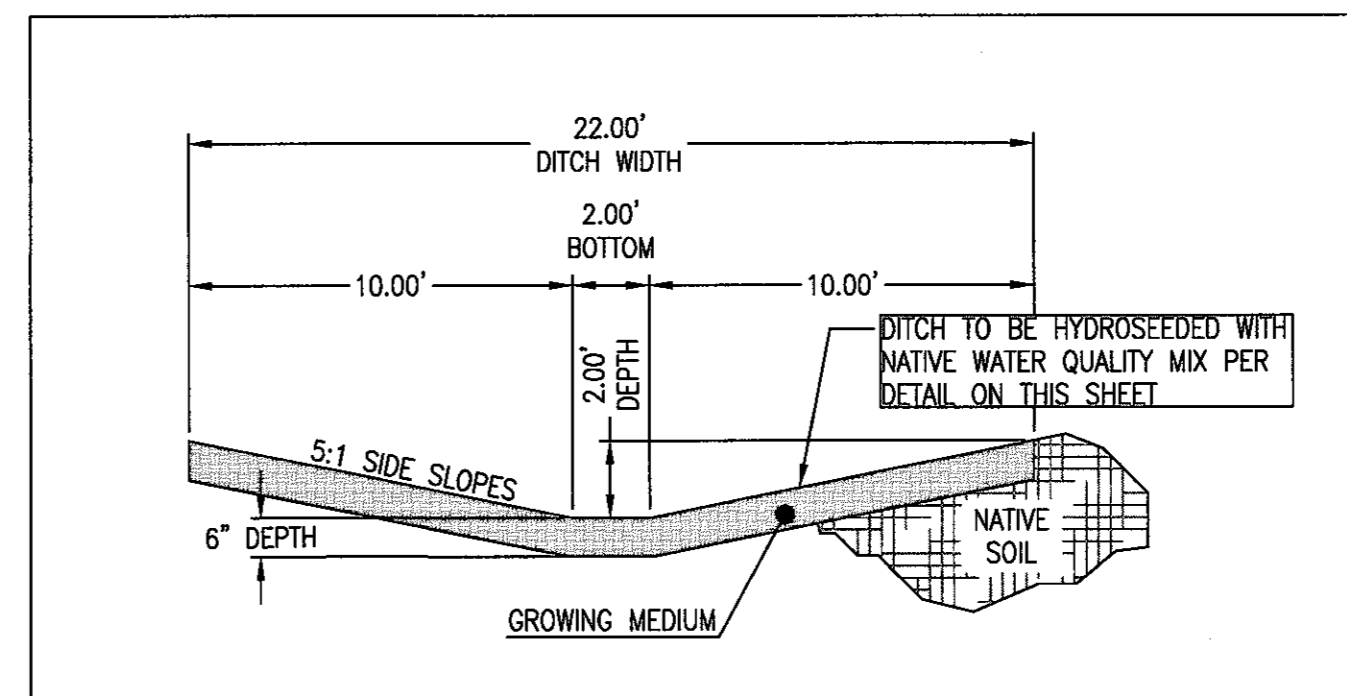
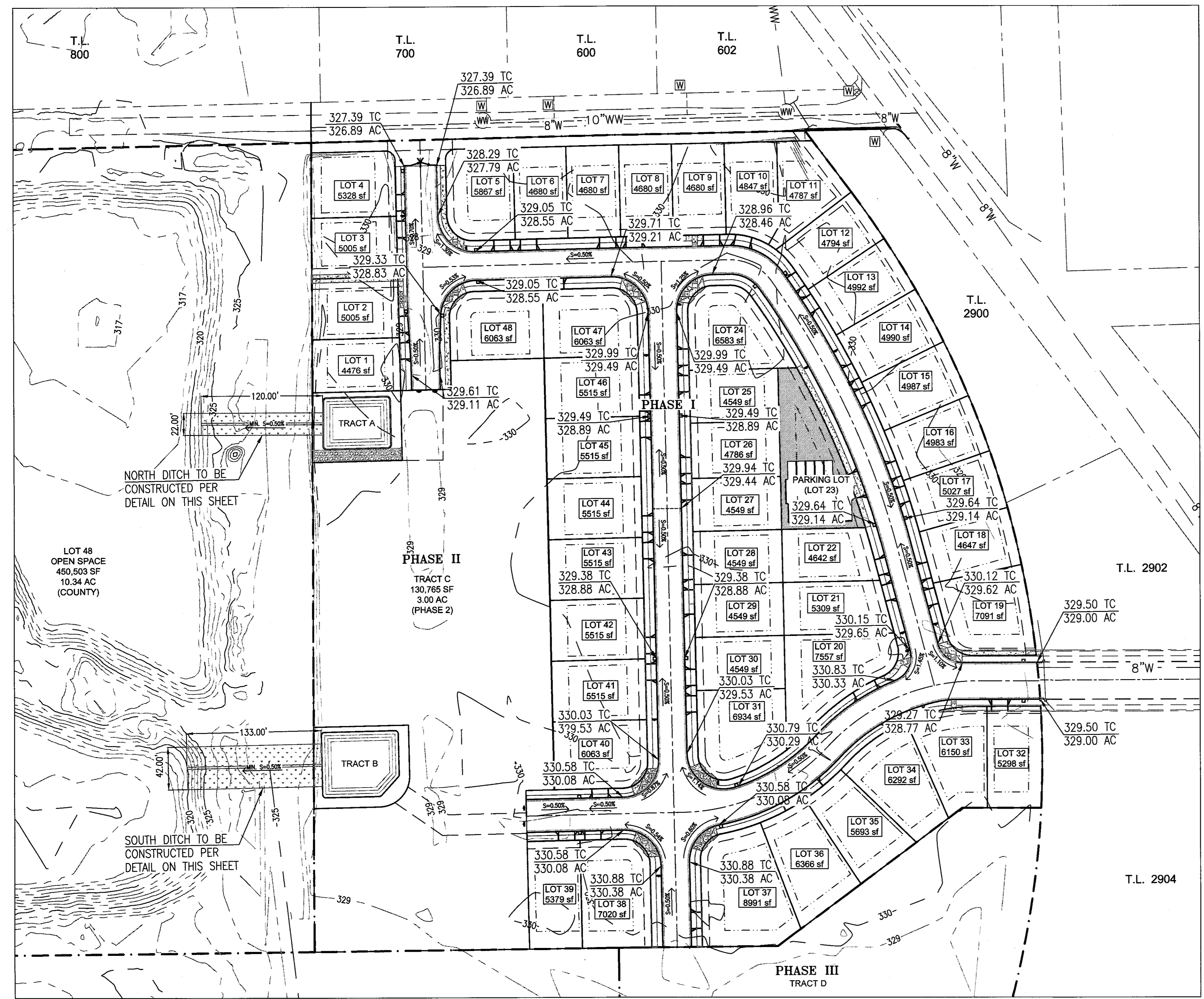
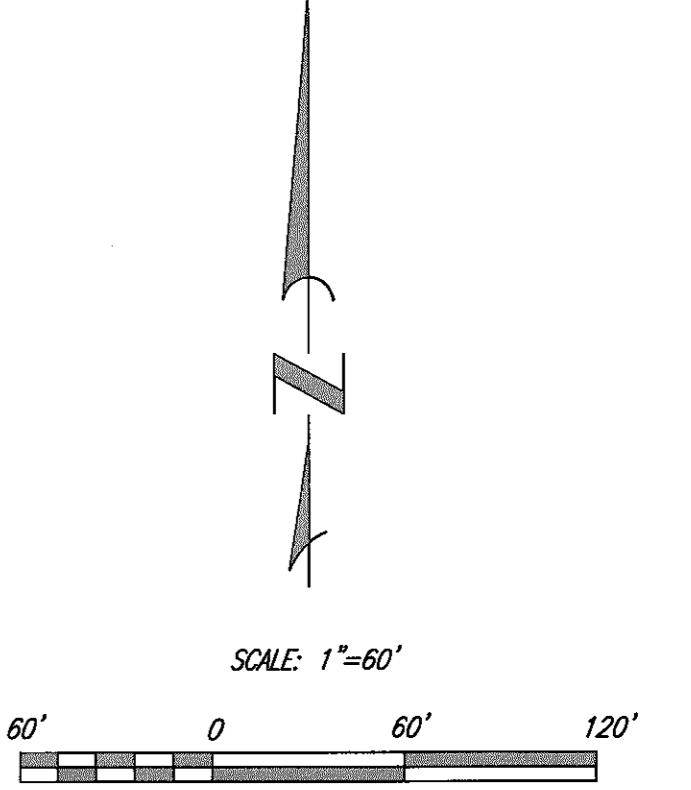
Botanical Name	Common Name	% by weight	Seeds per lb. of mix	Seeds per lb. of seed	Actual % by seed	Lbs. Requested
<i>Alfalfa sativa</i>	Alfalfa	10.00	100,000	100,000	10.00	4,338
<i>Festuca rubra rubra</i>	Native Red Fescue	10.00	200,000	200,000	10.00	4,338
<i>Poa trivialis</i>	Turfed Hairgrass	22.00	300,000	2,900,000	48.97	520
<i>Cheerixia occidentalis</i>	Western Hemisphere	2.00	3000	1,500,000	4.99	21
<i>Bermuda zizanioides</i>	American Bluestgrass	2.00	2300	1,150,000	3.75	16
TOTALS:		100.00%	412,000	4,120,000	100%	4,338

Seeding Rate: 1.00 PLS lbs. per 1000 sq. ft.
 43.38 PLS lbs. per acre

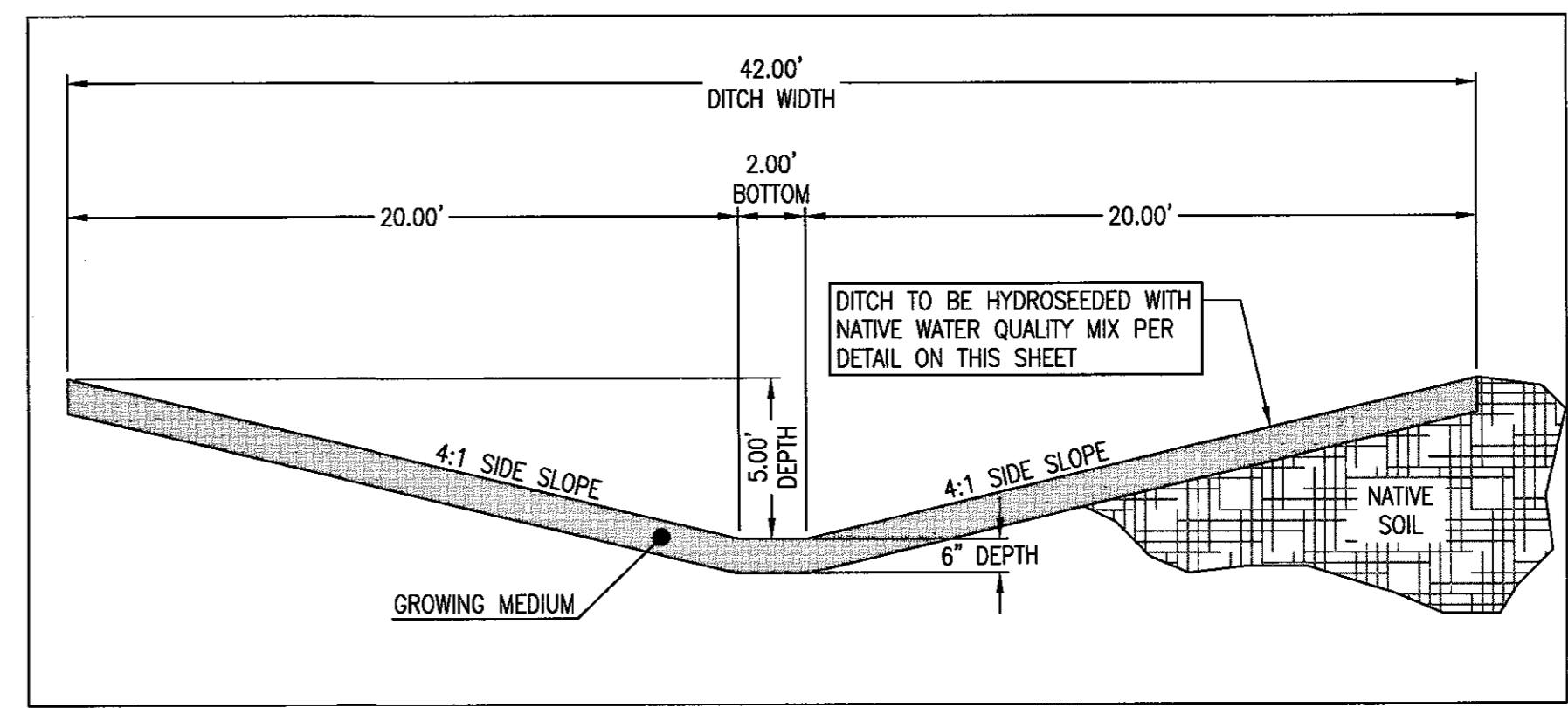
Water Quality is designed as a native bio-filtration seed mix. This salmon-friendly native mix will perform well in the bottom of drainage swales, storm water retention ponds, and bio-filtration swales. This mixture will range from the continuously wet lowlands, up into the riparian zone, offering erosion control and habitat development.

*All elevations in units of feet on NAVD88 datum

Lot #	Design Top Face of Curb Elevation	Base Flood Elevation	Minimum Building Pad Elevation (BFE + 1')	Minimum Home FFE (BFE + 1')	Estimated Home FFE
1	329.46	329.23	328.21	330.23	331.71
2	329.08	329.18	328.30	330.18	331.33
3	328.55	329.18	327.75	330.18	330.80
4	328.00	329.17	327.75	330.17	330.25
5	329.05	329.29	328.80	330.29	331.30
6	329.39	329.32	329.14	330.32	331.64
7	329.64	329.38	329.39	330.38	331.89
8	329.66	329.43	329.41	330.43	331.91
9	329.44	329.46	329.19	330.46	331.69
10	329.16	329.51	328.91	330.51	331.41
11	329.10	329.58	328.85	330.58	331.35
12	329.10	329.58	328.85	330.58	331.35
13	329.25	329.65	329.00	330.65	331.50
14	329.50	329.69	329.25	330.69	331.75
15	329.75	329.75	329.50	330.75	332.00
16	329.97	329.80	329.72	330.80	332.22
17	329.80	329.86	329.55	330.86	332.05
18	329.80	329.90	329.55	330.90	332.05
19	330.05	329.98	329.80	330.98	332.30
20	330.15	329.88	329.90	330.88	332.40
21	330.10	329.84	329.85	330.84	332.35
22	329.80	329.80	329.55	330.80	332.05
23	N/A, to be used for guest parking lot				
24	329.25	329.59	329.00	330.59	331.50
25	329.60	329.61	329.35	330.61	331.85
26	329.75	329.63	329.50	330.63	332.00
27	329.90	329.68	329.65	330.68	332.15
28	329.70	329.71	329.45	330.71	331.95
29	329.50	329.76	329.25	330.76	331.75
30	329.60	329.80	329.35	330.80	331.85
31	329.90	329.84	329.65	330.84	332.15
32	329.60	330.20	329.35	331.20	331.85
33	330.25	330.10	330.00	331.10	332.50
34	331.10	330.10	330.85	331.10	333.35
35	331.10	330.10	330.85	331.10	333.35
36	330.80	330.10	330.55	331.10	333.05
37	330.70	330.10	330.45	331.10	332.95
38	330.60	329.90	330.35	330.90	332.85
39	330.50	329.84	330.25	330.84	332.75
40	330.50	329.84	330.25	330.84	332.75
41	330.00	329.68	329.75	330.68	332.25
42	329.70	329.64	329.45	330.64	331.95
43	329.50	329.58	329.25	330.58	331.75
44	329.90	329.54	329.65	330.54	332.15
45	329.70	329.52	329.45	330.52	331.95
46	329.70	329.47	329.45	330.47	331.95
47	329.90	329.44	329.65	330.44	332.15
48	329.46	329.37	329.21	330.37	331.71



NORTH DITCH CROSS-SECTION DETAIL
 N.T.S.



SOUTH DITCH CROSS-SECTION DETAIL
 N.T.S.

A & O Engineering L.L.C.
 CONSULTING ENGINEERS &
 SITE DEVELOPMENT PLANNING
 380 QST. SUITE 200
 SPRINGFIELD, OR 97477
 PHONE: (541) 362-9790
 info@aao-engine.com

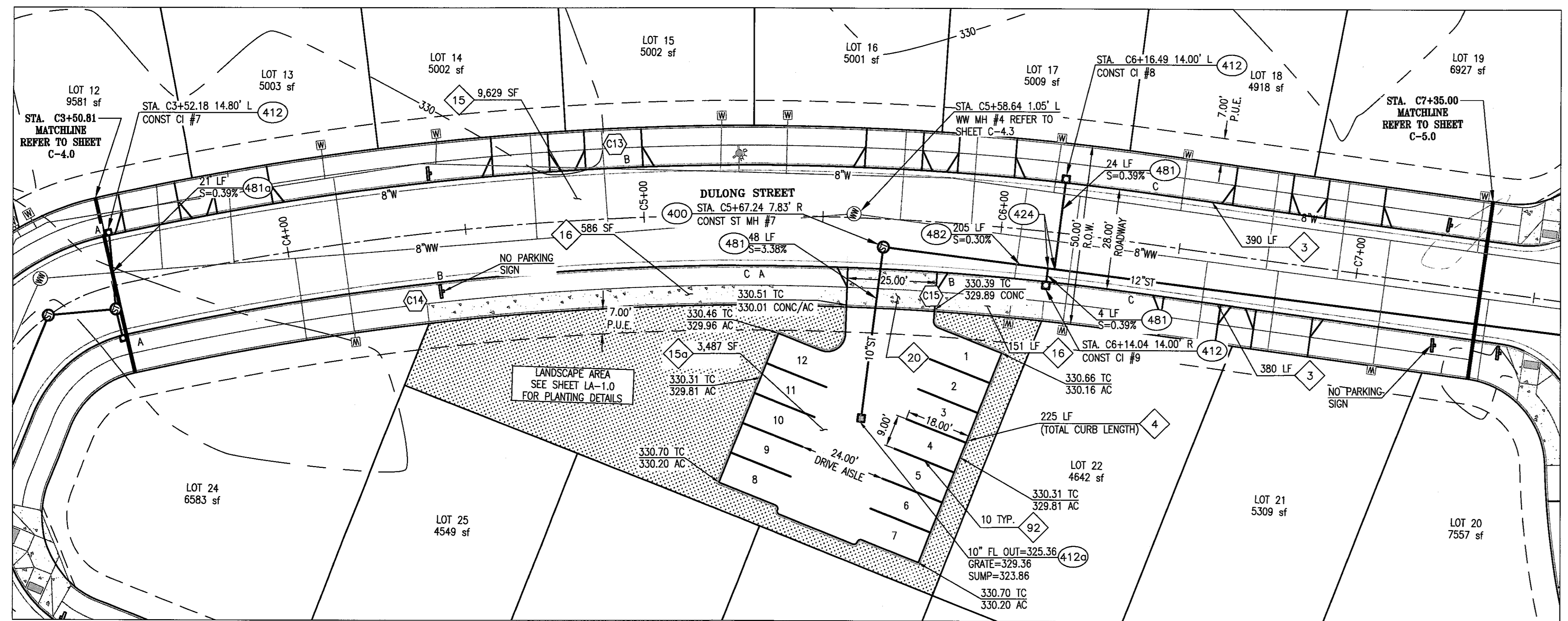
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 EXPIRES 12/31/20

Grading Plan
 for
River's Edge Subdivision
 Brownsville Linn County Oregon

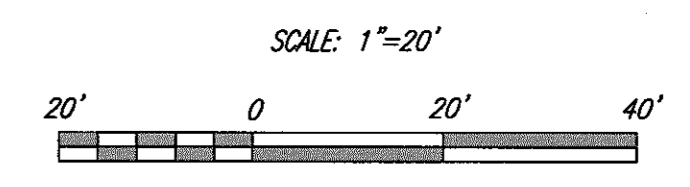
DATE: 6/15/17
 PROJECT No: 117Z
 SCALE: HORIZ. 1"=60'
 VERT.
 REVIEWED BY: ACH
 REVIEWED BY: KOM
 REVIEWED BY: SDM
 COA:

REVISIONS:

SHEET
 C-2.2
 of
 25



GENERAL NOTES:
 1. LENGTHS, AREAS, AND QUANTITIES SHOWN ARE FOR REFERENCE ONLY AND NOT INTENDED FOR BID PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES.
 2. EROSION CONTROL MEASURES WITHIN THE RIGHT OF WAY AND OUTLINED IN THE APPROVED DEQ 1200C PERMIT SHALL REMAIN IN EFFECT UNTIL PROJECT COMPLETION. ADDITIONAL EROSION MEASURES SHALL BE ADDED DURING CONSTRUCTION AS DIRECTED BY CESCL CERTIFIED INSPECTOR.

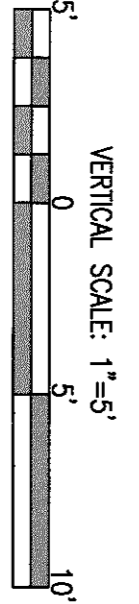
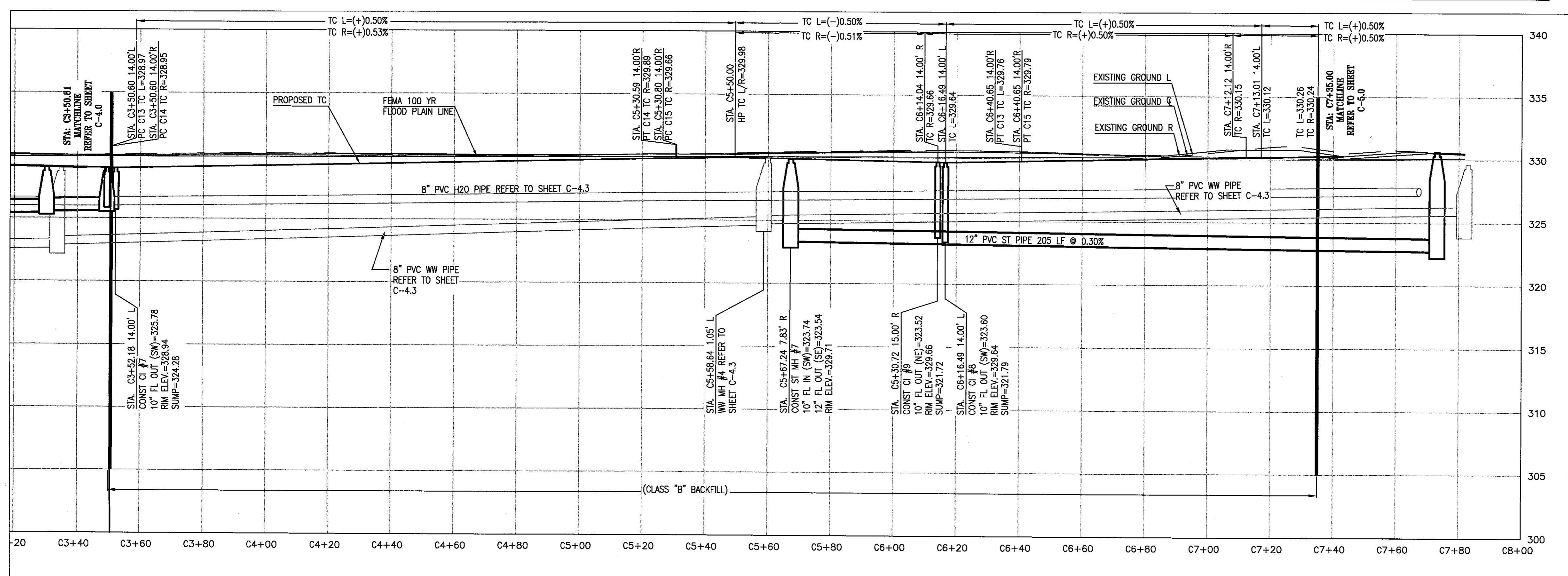
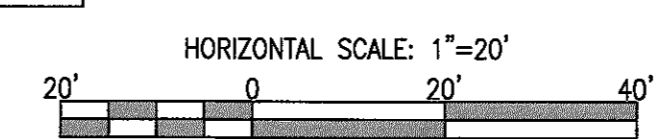


ST CONSTRUCTION NOTES

- 400. CONST STD. MANHOLE WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNSVILLE DWG SS118 & SS129. REFER TO SHEET C-7.0.
- 412. CONST CURB-INLET WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNSVILLE STD DWG SS101 & SS129. REFER TO SHEET C-7.0.
- 412a. CONST 24" CATCH BASIN PER DETAIL REFER TO SHEET C-7.1.
- 424. CONST 12"x12"x10" PVC SDR 35 TEE WITH GASKET JOINTS.
- 481. CONST 10" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TRACER WIRE.
- 481a. CONST 10" STORM DRAIN PIPE, PVC C900 W/ RUBBER GASKET JOINTS AND TONE WIRE.
- 482. CONST 12" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TRACER WIRE.
- 483. CONST 15" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TRACER WIRE.
- 484. CONST 18" STORM DRAIN PIPE, PVC F679 W/ RUBBER GASKET JOINTS AND TRACER WIRE.

PAVING CONSTRUCTION NOTES

- 3. CONST CURB AND GUTTER PER CITY OF BROWNSVILLE STD. DWG ST103. REFER TO SHEET C-7.0.
- 4. CONST EXTRUDED CURB PER DETAIL. REFER TO SHEET C-7.0.
- 15. CONST 3.5" AC OVER 12" CRUSHED ROCK PER DETAIL. SEE SHEET C-7.0.
- 15a. CONST 3" AC OVER 12" CRUSHED ROCK PER DETAIL. SEE SHEET C-7.0.
- 16. CONST 4" CONC OVER 2" CRUSHED ROCK, 5.00' WALKWAY.
- 20. CONST 8" CONCRETE DRIVEWAY APPROACH WITH STANDARD WINGS PER CITY OF BROWNSVILLE STD. DWG ST114. REFER TO SHEET C-7.3.
- 92. PAINT 4" WIDE STRIPE TRAFFIC WHITE.



PT	DELTA	TC ELEV	DESCRIPTION
$\Delta = 20'31.06"$ $R=823.93'$ $L=295.06'$ $LC=293.47'$			
A	00'00"00"	329.19	PC
B	10'15"33"	329.07	1/2 DELTA
C	20'31'06"	328.95	PT
$\Delta = 12'43'56"$ $R=795.93'$ $L=176.87'$ $LC=176.79'$			
A	00'00"00"	329.28	PC
B	06'24'58"	329.13	1/2 DELTA
C	12'43'56"	328.97	PT
$\Delta = 07'46'14"$ $R=795.93'$ $L=107.94'$ $LC=107.86'$			
A	00'00"00"	329.28	PC
B	03'53'07"	329.13	1/2 DELTA
C	07'46'14"	328.97	PT

A & O Engineering L.L.C.
 CONSULTING ENGINEERS &
 SITE DEVELOPMENT PLANNING
 380 O ST. SUITE 300
 SPRINGFIELD, OR 97477
 PHONE: (541) 302-9700
 info@aao-engr.com

PROFESSIONAL
 ENGINEER
 16,863
 EXPIRES 12/31/20

Plan and Profile Dulong Street
 Sta. B3+50.81 to B7+35.00
 River's Edge Subdivision
 Brownsville Linn County Oregon

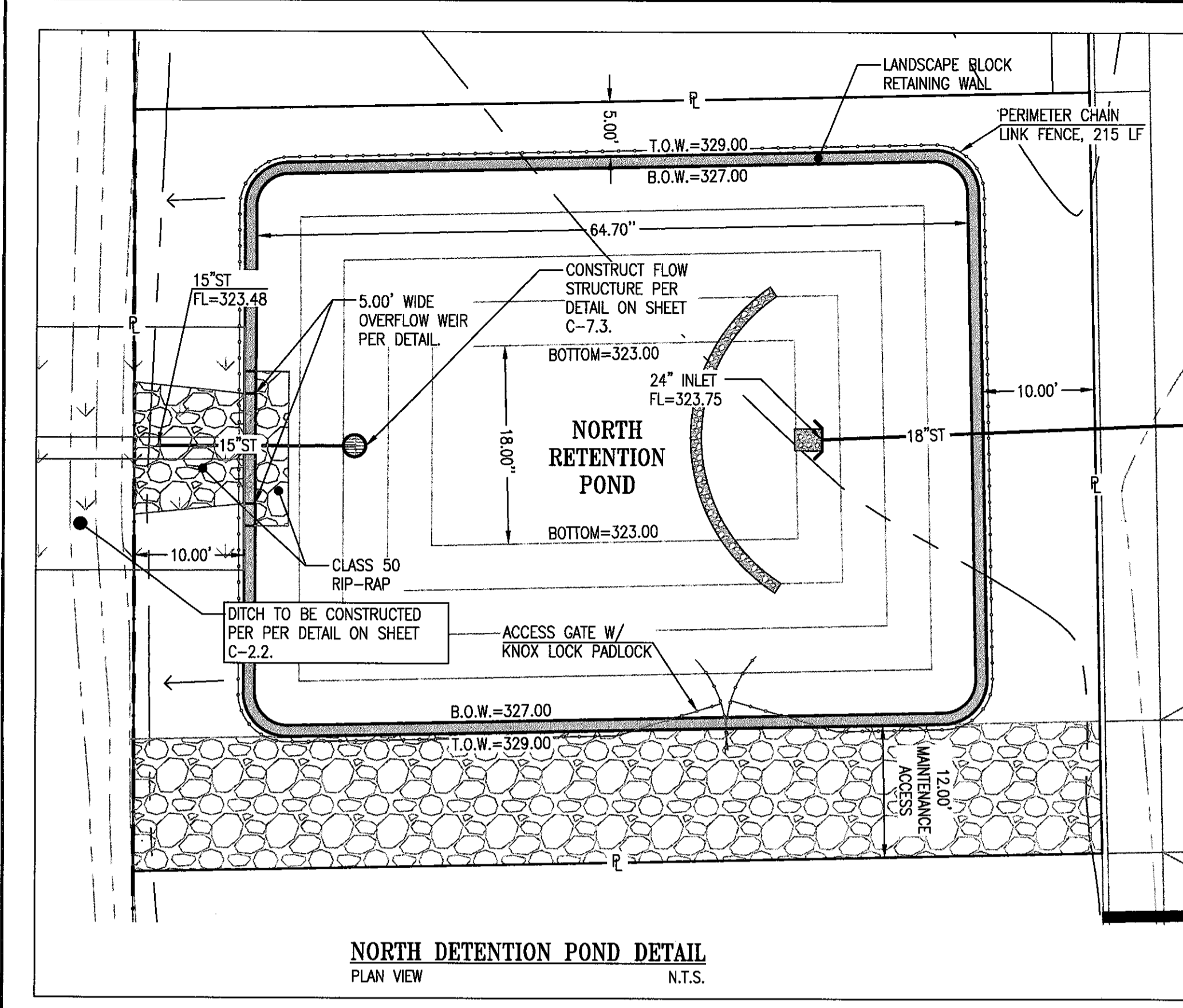
DATE: 6/15/17
 PROJECT No.: 1172
 SCALE: HORIZ: 1"=80'
 VERT: 1"=5'

REVIEWED BY: JCH
 REVIEWED BY: KOM
 REVIEWED BY: SDM
 COA.

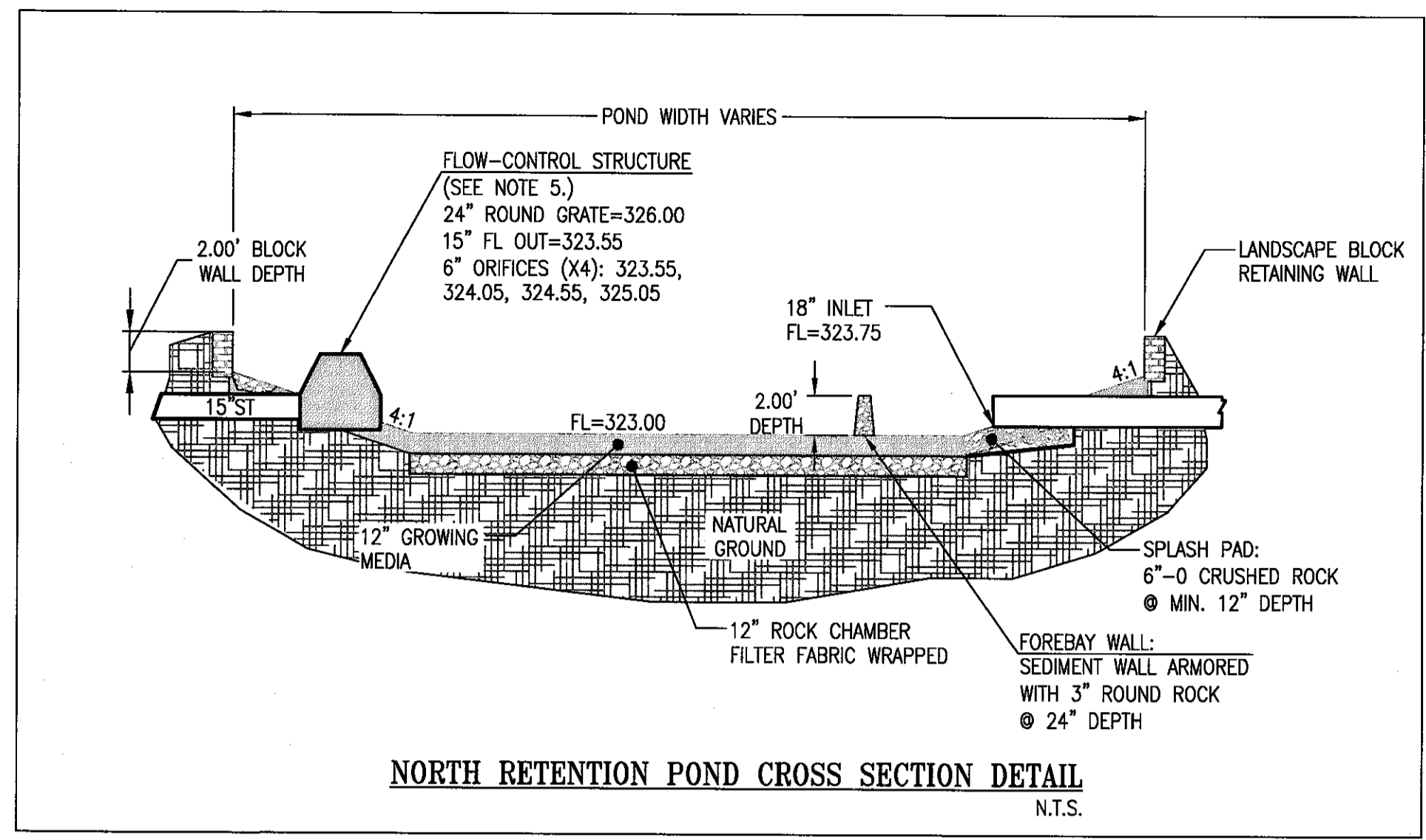
REVISIONS:

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ROADWAY & STORM DRAINAGE CONSTRUCTION PLAN
 DULONG STREET SIK C3+50.81 TO SIK C7+35.00

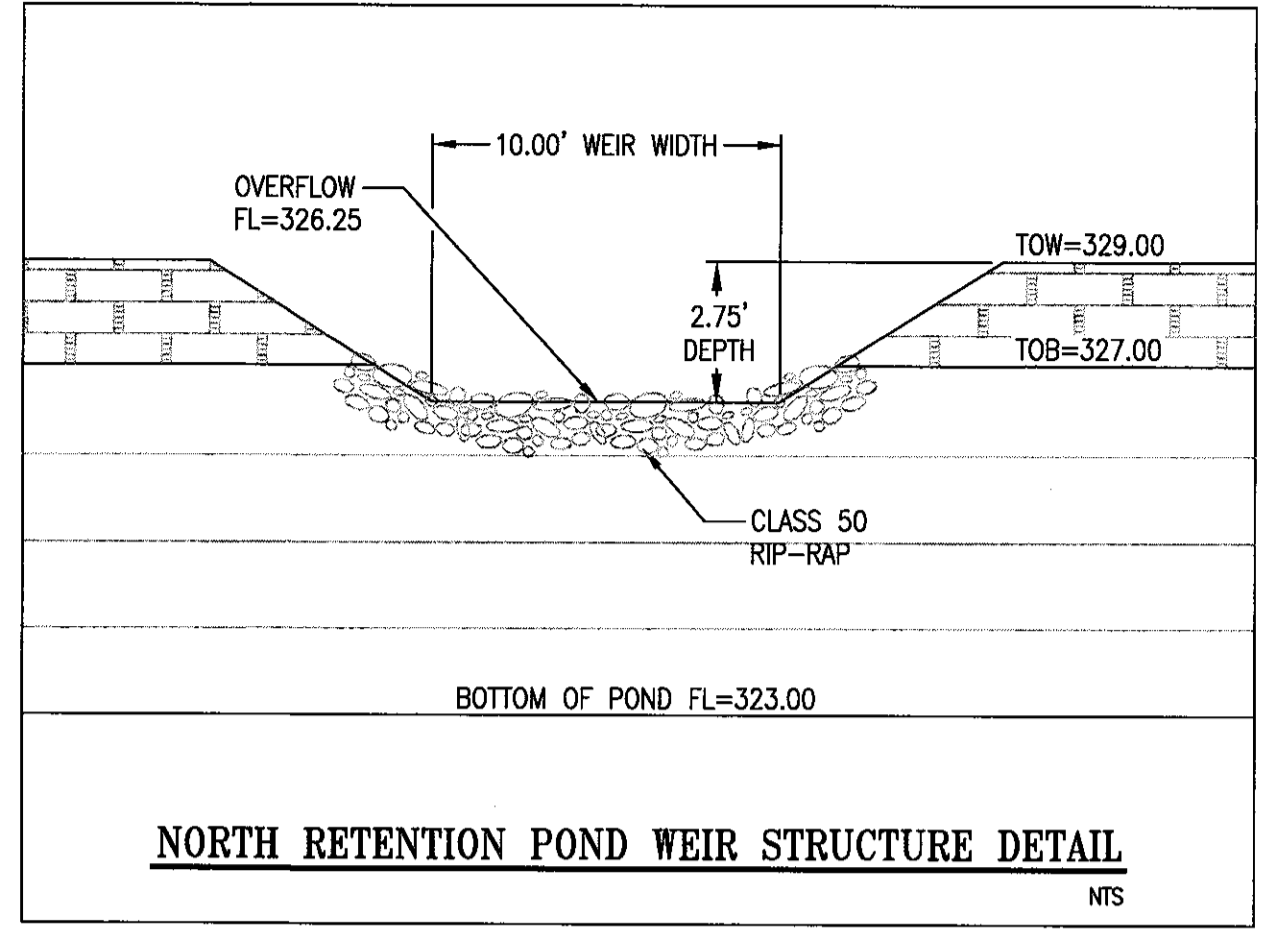


NORTH DETENTION POND DETAIL
PLAN VIEW
N.T.S.

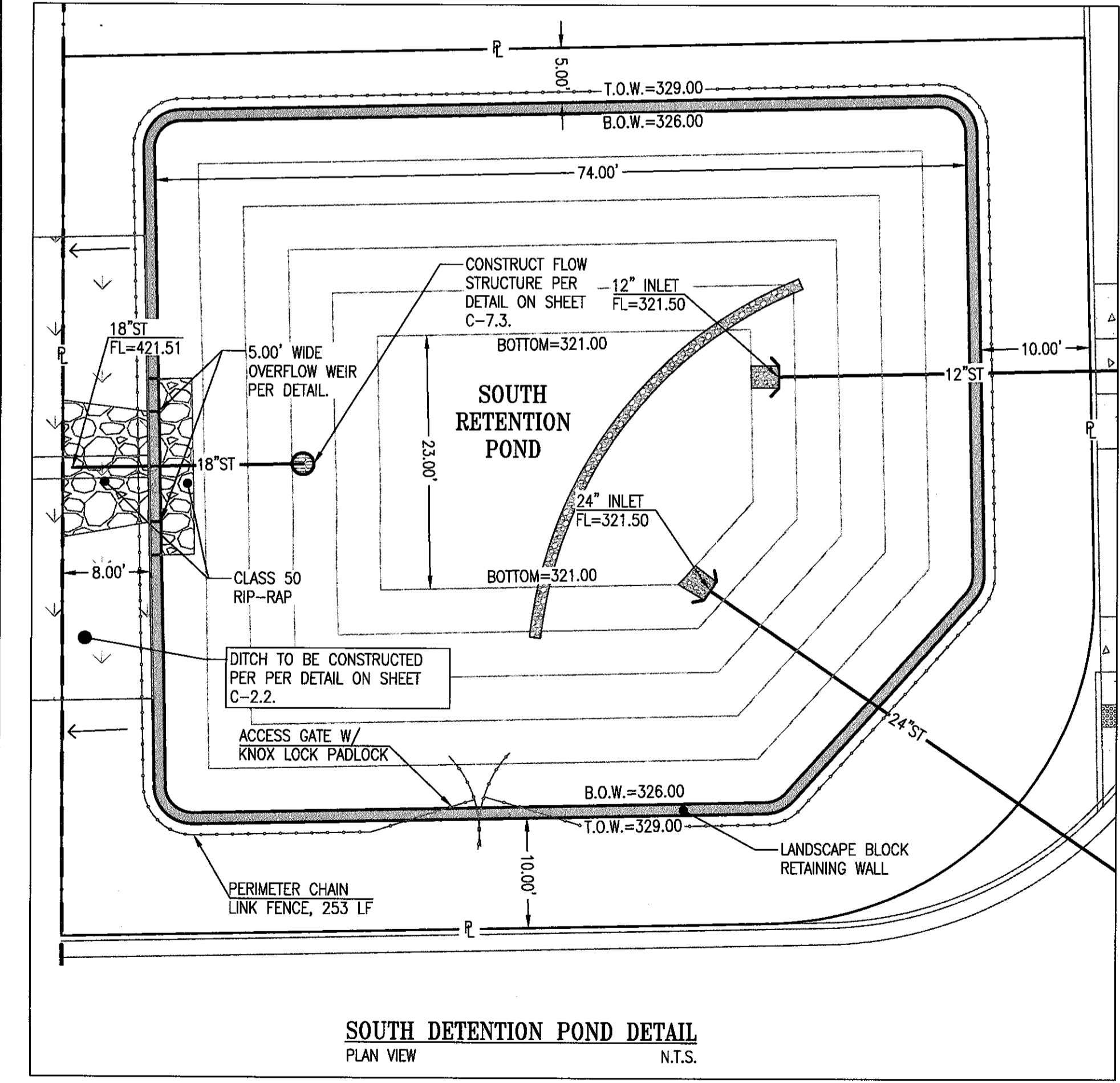


NORTH RETENTION POND CROSS SECTION DETAIL
N.T.S.

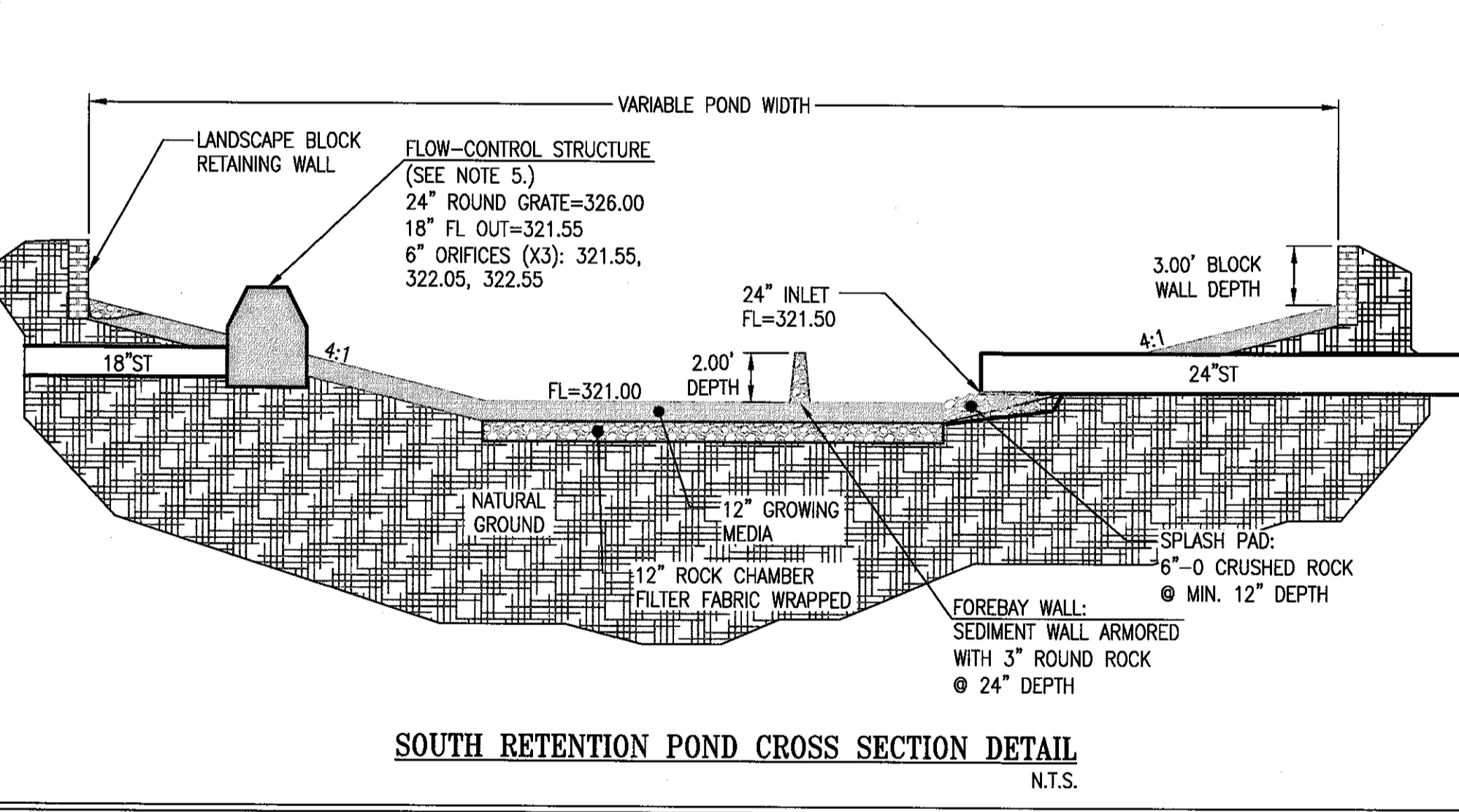
- RETENTION POND NOTES:**
1. BLOCK RETAINING WALL SHALL BE INTERLOCKING AND BE RATED BY MANUFACTURE TO A MINIMUM HEIGHT OF 3.00'. CONTRACTOR SHALL SUBMIT CUT SHEETS OF PROPOSED BLOCKS TO ENGINEER FOR APPROVAL PRIOR TO ORDERING.
 2. GROWING MEDIA SHALL BE IMPORTED TOPSOIL WITH HIGH INFILTRATION CHARACTERISTICS AND ALLOW FOR GRASS SEED TO GROW. CONTRACTOR SHALL SUBMIT CUT SHEET OF MEDIA SOIL TO ENGINEER FOR APPROVAL PRIOR TO ORDERING.
 3. PONDS SHALL BE HYDROSEEDDED WITH A MIXTURE OF 1/3 PERENNIAL RYE, 1/3 PATRIOT II PERENNIAL RYE AND 1/3 EVENING SHADE PERENNIAL RYE.
 4. ROCK CHAMBER SHALL BE FILLED WITH 1/2"-2 1/2" CLEAN ROCK UNCOMPACTED.
 5. FLOW-CONTROL STRUCTURE TO BE STANDARD CONCRETE MANHOLE PER CITY DETAIL SS118 W/ 24" ROUND SLOTTED GRATE.



NORTH RETENTION POND WEIR STRUCTURE DETAIL
N.T.S.

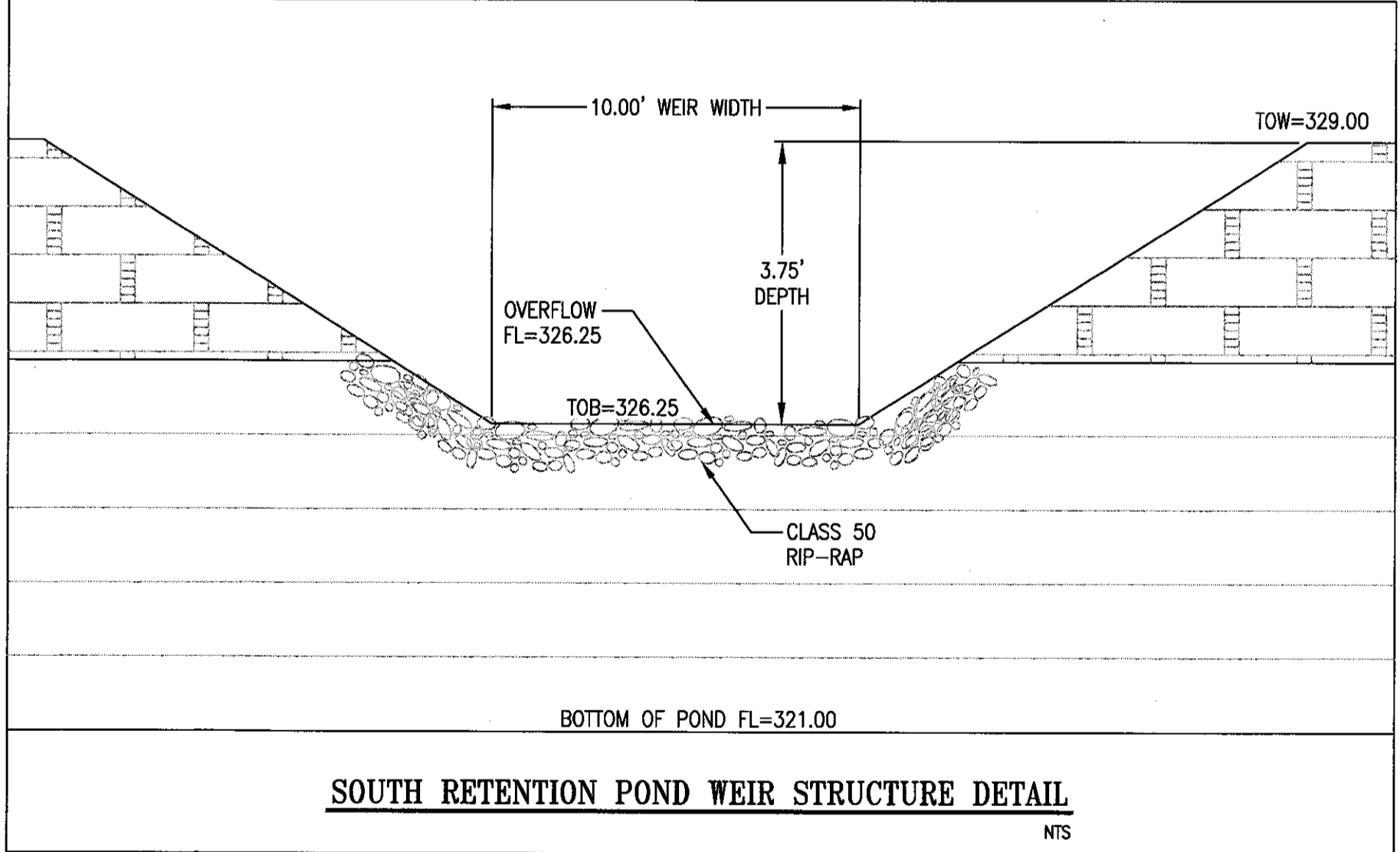


SOUTH DETENTION POND DETAIL
PLAN VIEW
N.T.S.



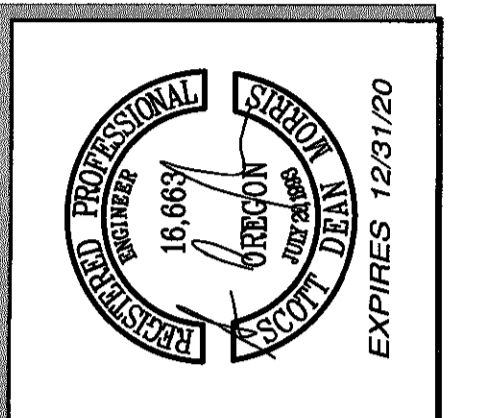
SOUTH RETENTION POND CROSS SECTION DETAIL
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SOUTH RETENTION POND WEIR STRUCTURE DETAIL
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A & O Engineering L.L.C.
CONSULTING ENGINEERS &
SITE DEVELOPMENT PLANNING
300 Q ST. SUITE 200
SPRINGFIELD, OR 97477
PHONE: (541) 326-9790
info@aandoe.com



Civil Details
for
River's Edge Subdivision
Brounsville Linn County Oregon

DATE: 6/15/17
PROJECT No.: 1172
SCALE: NONE
N/A
REVIEWED BY: ACH
REVIEWED BY: KOM
REVIEWED BY: SDM
COA:

REVISIONS:

NO.	DATE	DESCRIPTION

SHEET
C-7.2
of
25

PO

UTILITY PROVIDERS:
 WATER- CITY OF BROWNSVILLE
 SEWER- CITY OF BROWNSVILLE
 CABLE- ALYRICA
 PHONE- CENTURY LINK
 ELECTRICITY- PACIFIC POWER
 NATURAL GAS- NORTHWEST NATURAL GAS

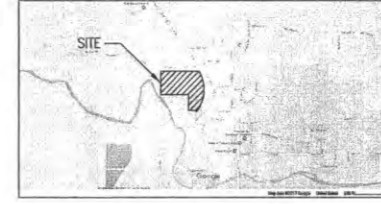
CONTRACTOR
 MID-VALLEY GRAVEL COMPANY
 705 CLEMENS MILL ROAD
 PHILOMATH, OREGON 97570
 PHONE: (541) 929-2200

DESIGN ENGINEER
 A & O ENGINEERING
 380 Q ST. SUITE 200
 SPRINGFIELD, OREGON 97477
 PHONE: (541) 302-9790

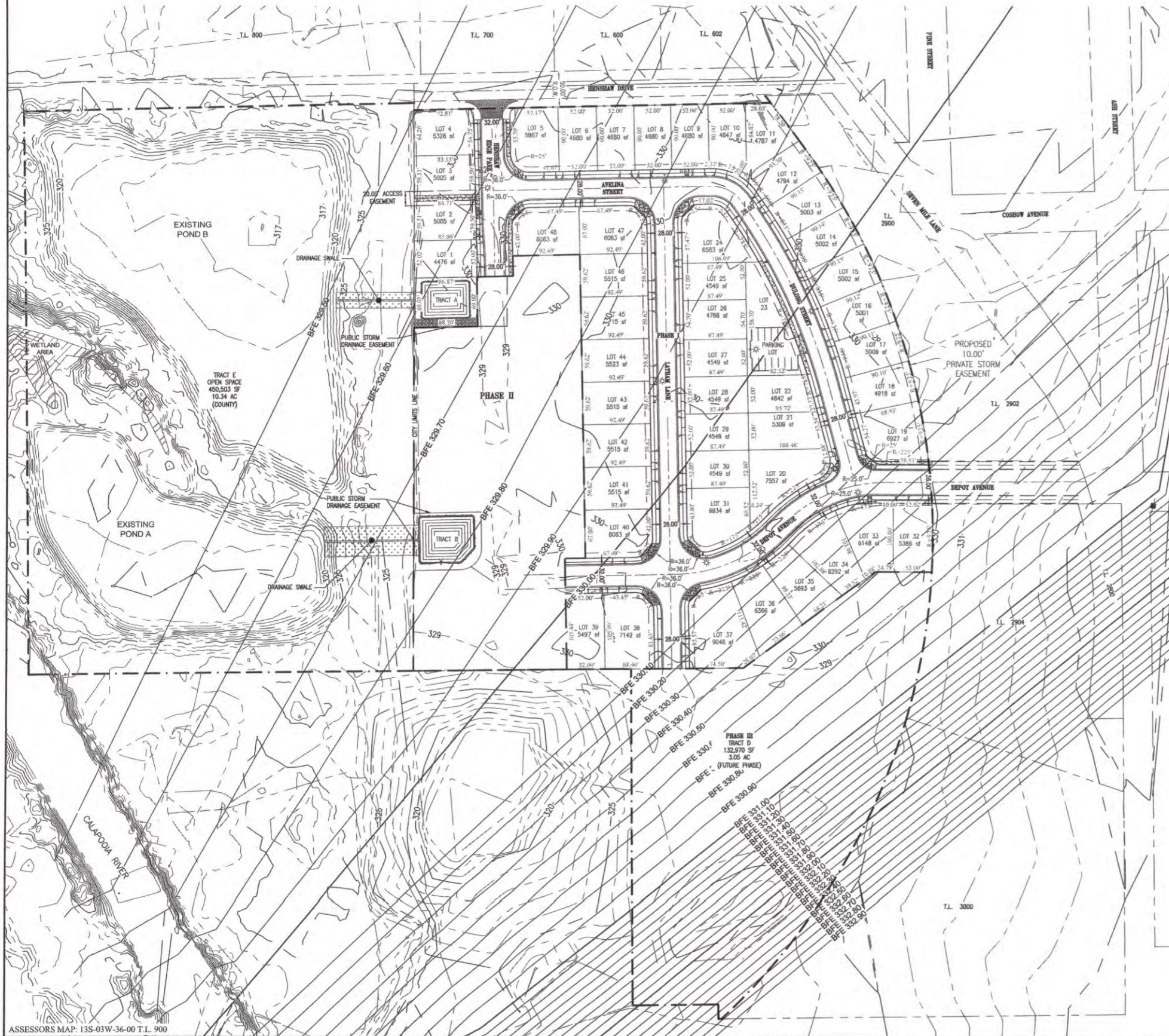
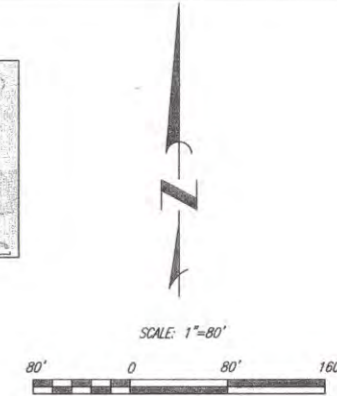
OWNER/APPLICANT
 PROGRESSIVE DESIGN BUILDERS, INC.
 P.O. BOX 727
 ALBANY, OREGON 97321
 PHONE: (541) 740-2948

PLAT SURVEYOR
 EGR & ASSOCIATES, INC
 2535 PRAIRIE RD., STE B
 EUGENE, OREGON 97402
 PHONE: (541) 688-8322

PEPI PLANS FOR
 RIVER'S EDGE SUBDIVISION
 PHASE 2
 N.W. 1/4, SEC.31, T.13S. R.2 W, W.M.
 TAX LOT 900
 BROWNSVILLE, LINN COUNTY, OREGON



VICINITY MAP
 NTS



GENERAL NOTES:

1. LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL HAVE SERVICING UTILITIES FIELD LOCATE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF OAR 952-001-0010 THROUGH 952-001-0090. ONE CALL PHONE NUMBER 811.
2. CONSTRUCTION OF ALL PRIVATE SEWERS SHALL COMPLY WITH THE CURRENT OREGON STATE PLUMBING CODES, THE LOCAL AUTHORITY AND AS SPECIFIED HEREIN. SEWER AND MANHOLE TESTING SHALL COMPLY WITH THE CURRENT OREGON STATE PLUMBING SPECIALTY CODES AND THE LOCAL AUTHORITY.
3. PROVIDE SHORING OF ALL TRENCHES AS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES.
4. WHERE CONNECTING TO AN EXISTING PIPE, THE CONTRACTOR SHALL EXPOSE EXISTING PIPE AND ALLOW THE ENGINEER TO VERIFY EXACT LOCATION, PIPE MATERIAL AND ELEVATION PRIOR TO LAYING NEW PIPE.
5. REQUESTS BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER OF RECORD AND CITY OF BROWNSVILLE AND THE OWNER BEFORE THE CHANGES ARE IMPLEMENTED.
6. THE CONTRACTOR SHALL EMPLOY CONSTRUCTION PRACTICES WHICH WILL MINIMIZE THE EROSION OF DISTURBED GROUND DURING THE CONSTRUCTION ACTIVITY. THE PRACTICES SHALL COMPLY WITH THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT. PURSUANT TO ORS 468.740 AND THE FEDERAL CLEAN WATER ACT.
7. WHEN PERFORMING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF OAR 952-001-0010 TO 952-001-0090, WHICH INCLUDE REQUIREMENTS THAT THE CONTRACTOR HAND-EXPOSE (POT-HOLE) UNDERGROUND FACILITIES AND USE REASONABLE CARE TO AVOID DAMAGING THEM.
8. PROVIDE DUST CONTROL AT ALL TIMES.
9. ALL STRIPPINGS TO BE SPREAD ONSITE IN NON STRUCTURAL AREAS.
10. BOUNDARY INFORMATION PROVIDED BY EGR & ASSOCIATES INC. THIS DRAWING IS FOR REFERENCE ONLY AND IS NOT A BOUNDARY SURVEY. REFER TO PLAT DOCUMENTS FOR BOUNDARY INFORMATION. ALL ELEVATIONS ARE GIVEN IN NAVD88 VERTICAL DATUM. APPROXIMATE CONVERSION FROM NAVD29 TO NAVD88 LOCAL TO THE SITE IS 3.48'.
11. OFFSITE IMPROVEMENTS TO BE BUILT UNDER SEPARATE PERMIT FROM LINN COUNTY. SEE SEPARATE PEPI PLANS FOR OFFSITE IMPROVEMENTS.
12. 100 YEAR FLOOD PLAIN ELEVATIONS SHOWN ARE DERIVED FROM FEMA FIRM MAPS-CONVERTED TO NAVD88 DATUM.
13. CONTOURS SHOWN ON THIS SHEET ARE EXISTING FROM LAST TOPO SURVEY DONE ON SITE.
14. PHASE 1 IMPROVEMENTS ARE CURRENTLY UNDER CONSTRUCTION AT TIME OF PHASE 2 DESIGN. THESE DRAWINGS ASSUME PHASE 1 IS CONSTRUCTED PER PHASE 1 DESIGN DRAWINGS. CHANGES MAY BE NEEDED AFTER PHASE 1 CONSTRUCTION IS COMPLETED.

SHEET INDEX

- C-1.0 COVER SHEET
- C-1.1 CONSTRUCTION NOTES
- C-2.0 SITE DEVELOPMENT PLAN
- C-2.1 COMPREHENSIVE UTILITY PLAN
- C-2.2 COMPREHENSIVE GRADING PLAN
- C-3.0 PLAN & PROFILE HENSHAW EDGE PARK
- C-3.1 PLAN & PROFILE HENSHAW EDGE PARK
- C-4.0 PLAN & PROFILE DEPOT AVENUE
- C-4.1 PLAN & PROFILE DEPOT AVENUE
- C-5.0 CIVIL DETAILS
- C-5.1 CIVIL DETAILS

A & O Engineering L.L.C.
 CONSULTING ENGINEERS &
 SITE DEVELOPMENT PLANNING
 380 Q ST. SUITE 200
 SPRINGFIELD, OR 97477
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 info@a-oeng.com



Cover Sheet
 for Phase 2 of
 River's Edge Subdivision
 Brownsville Linn County Oregon

DATE: 10/14/20
 PROJECT No: 1172
 SCALE: HORIZ: 1"=80'
 VERT: 1"=10'
 REVIEWED BY: AJH
 REVIEWED BY: KOM
 REVIEWED BY: SOM
 COA:

REVISIONS:
 1. 10/17/20

APPROVED FOR CONSTRUCTION
 10-28-2020
 R-O
 CITY OF BROWNSVILLE/
 THE DYER PARTNERSHIP

SHEET
 C-1.0
 of
 12

LEGEND

	BOUNDARY LINE		EXISTING STREET LIGHT
	ADJACENT LOT LINE		EXISTING ELECTRIC TRANSFORMER
	EXISTING 1' CONTOUR LINE		EXISTING UTILITY POLE
	EXISTING EDGE OF PAVEMENT		EXISTING GUY ANCHOR
	EXISTING WATER METER		EXISTING TREES
	EXISTING FIRE HYDRANT		PROPOSED CURB & GUTTER
	EXISTING WATER VALVE		PROPOSED WATER METER
	EXISTING STORM DRAINAGE SYSTEM		PROPOSED FIRE HYDRANT
	EXISTING CURB INLET		PROPOSED WATER VALVE
	EXISTING CATCH BASIN		PROPOSED STORM DRAINAGE SYSTEM
	EXISTING STORMWATER CULVERT		PROPOSED CURB INLET
	EXISTING WASTEWATER SYSTEM		PROPOSED STORMWATER CULVERT
	EXISTING OVERHEAD ELECTRIC		PROPOSED WASTEWATER SYSTEM
			PROPOSED CLEANOUT
			PROPOSED STREET LIGHT

	PROPOSED CONCRETE
	PROPOSED GRAVEL SECTION
	PROPOSED ASPHALT

ABBREVIATION LEGEND

	PROPOSED FLOW DIRECTION
S=2.00%	PROPOSED SLOPE
BW	BACK OF WALK ELEVATION
EX	EXISTING ELEVATION
FG	FINISH GRADE
SW	SIDEWALK
HP	HIGH POINT
CI	CURB INLET
TC	TOP OF CURB
EX GR	EXISTING GRADE
BR	BACK OF RAMP
GB	GUTTER BAR
AC	ASPHALT/CONCRETE
LP	LOW POINT
B.O.W.	BOTTOM OF WALL
T.O.W.	TOP OF WALL
BFE	BASE FLOOD ELEVATION
FL	FLOWLINE

GENERAL NOTES

- CONSTRUCTION SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2018 AND THE OREGON STANDARD DRAWINGS CURRENT.
- ALL MATERIAL AND EQUIPMENT SHOWN HEREON IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY. THE DESIGN ENGINEER SHALL APPROVE AND PROVIDE THREE COPIES OF CATALOGUE CUT SHEETS FOR ALL MATERIAL AND EQUIPMENT TO BE INSTALLED ON THE PROJECT TO THE CITY OF BROWNSVILLE CITY ENGINEER. ALLOW A MINIMUM OF 10 DAYS FOR CITY ENGINEER REVIEW OF SUBMITTALS.
- ITEMS OF WORK NOT SHOWN ON THE PLAN BUT NECESSARY FOR SUCCESSFUL COMPLETION OF THIS PROJECT WILL BE REQUIRED BY THE CITY.
- THE CITY ENGINEER SHALL PROVIDE A NOTICE TO PROCEED. SUCH NOTICE SHALL NOT BE ISSUED UNTIL THE CONTRACTOR OR DEVELOPER PROVIDES THE FOLLOWING:
 - CERTIFICATE OF GENERAL LIABILITY INSURANCE LISTING THE CITY OF BROWNSVILLE AND THE CITY'S ENGINEER, THE DYER PARTNERSHIP AS ADDITIONAL INSURED. ORIGINAL CERTIFICATE OF INSURANCE SHALL BE MAILED TO THE CITY OF BROWNSVILLE AND A COPY TO THE DYER PARTNERSHIP 481 S. MAIN STREET, LEBANON, OR 97355.
 - THE CONTRACTOR HAS ATTENDED A PRE-CONSTRUCTION MEETING WITH THE CITY TO REVIEW SPECIAL CONSIDERATIONS ON THE PROJECT.
- A COUNTY UTILITY PERMIT IS REQUIRED FOR ALL WORK TO BE CONDUCTED IN EXISTING COUNTY R.O.W. SECURE THE PERMIT THROUGH LINN COUNTY PUBLIC WORKS.
- WORK SHALL NOT BE PERFORMED WITHOUT REQUIRED INSPECTIONS. A MINIMUM 48-HOUR ADVANCE NOTICE OF REQUIRED INSPECTIONS IS REQUIRED. THE FOLLOWING ARE MINIMUM INSPECTION REQUIREMENTS:
 - TV INSPECTION OF ALL SEWER AND DRAINAGE PIPING.
 - HYDROSTATIC TESTING, DEFLECTION TESTING AND MANHOLE TESTING OF ALL SANITARY SEWER ELEMENTS.
 - DEFLECTION TESTING OF ALL STORM DRAINAGE LINES.
 - FLUSHING, DISINFECTION AND HYDROSTATIC TESTING OF ALL WATER LINES.
 - DEFLECTION TESTING ON SUB-GRADE.
 - ITEMS LISTED IN THE TABLE.
- WHERE CONTRACTOR IS UNABLE TO ACHIEVE SUB-GRADE COMPACTION AND DEFLECTION REQUIREMENTS THE SUB-GRADE SHALL BE LOWERED A MINIMUM OF SIX INCHES, FABRIC SHALL BE PLACED AND THE MATERIAL REMOVED AND REPLACED WITH 1"-0 INCH MINUS CRUSHED ROCK. THIS PROCESS SHALL BE COMPLETED UNTIL TESTING MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.
- HOT MIX ASPHALT CONCRETE (HMAC) SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION. LEVEL 2 HMAC SHALL BE USED FOR LOCAL STREETS AND COLLECTORS; LEVEL 3 HMAC SHALL BE USED ON ARTERIALS OR OTHER STREETS AT THE CITY ENGINEER'S DISCRETION ASPHALT MIX DESIGN SUBMITTAL SHALL FOLLOW THE STANDARD SUBMITTAL PROCESS OUTLINED IN ITEM 2.
- CONTRACTOR SHALL FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER REGARDING THE REQUIREMENTS FOR UTILITY LOCATES (OAR 952-001-0090). COPIES ARE AVAILABLE AT 503-232-1987.
- THE CONTRACTOR SHALL PROTECT AND REPLACE ALL DISTURBED VEGETATION, FENCING AND OTHER IMPROVEMENTS ON PRIVATE PROPERTY.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO EXISTING RESIDENTS DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE RESIDENT'S DRIVEWAYS ALONG HENSHAW DRIVE THAT ARE DISTURBED DURING CONSTRUCTION BEFORE PROJECT COMPLETION.
- ACCESS TO EXISTING FIRE HYDRANTS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- ONLY CITY PERSONNEL SHALL BE ALLOWED TO OPERATE WATER SYSTEM VALVES. CONTRACTOR SHALL COORDINATE WITH CITY OF BROWNSVILLE PUBLIC WORKS WHEN OPERATION IS REQUIRED. 72-HOUR NOTIFICATION FOR WATER SHUTOFF OR ACTIVATION IS REQUIRED.
- FOR WATER MAIN CONNECTIONS CONTRACTOR MUST HAVE ALL EQUIPMENT, FITTINGS, AND PIPING ON SITE AND READY FOR INSTALLATION PRIOR TO CONSTRUCTING THE CONNECTION. CITY HAS THE RIGHT TO REFUSE AUTHORIZATION FOR THE INSTALLATION IF ALL MATERIAL AND EQUIPMENT ARE NOT ON-SITE. MAXIMUM SHUTDOWN TIME IS 3 HOURS. SHUTDOWNS ARE NOT ALLOWED ON MONDAYS OR FRIDAYS.
- CONTRACTOR SHALL HAVE A SET OF THESE DRAWINGS ON SITE AT ALL TIMES.
- CONTRACTOR IS EXPECTED TO ACTIVELY ENGAGE IN EROSION CONTROL MEASURES TO MINIMIZE THE TRANSPORT OF SEDIMENT AND SOILS FROM THE CONSTRUCTION SITE. ACTIVE ENGAGEMENT SHALL MEAN THAT ALL EROSION CONTROL METHODS ARE MAINTAINED AND THAT THE FACILITIES ARE ROUTINELY INSPECTED FOR COMPLIANCE WITH ACCEPTED EROSION CONTROL PRACTICES. ADDITIONAL MEASURES MAY BE REQUIRED BY THE DESIGNATED EROSION CONTROL INSPECTOR, WHO MUST BE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) PER DEQ 1200C PERMIT.
- CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AND SECURE COUNTY APPROVAL OF THE PLAN AT LEAST 5 WORKING DAYS PRIOR TO STARTING.
- GUTTER PAN OF CURB & GUTTER SHALL BE 18" PER CITY OF BROWNSVILLE DRAWING ST103.
- CONTRACTOR TO FOLLOW AWWA 600 AND 651 FOR DISINFECTION STANDARDS AND D.I. TESTING.

INSPECTION GENERAL NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL REQUIRED INSPECTIONS ARE COMPLETED BY AUTHORIZED INSPECTORS. COORDINATE INSPECTION SCHEDULE WITH PROJECT ENGINEER.
- PROJECT ENGINEER OR AUTHORIZED REPRESENTATIVE TO PROVIDE ROUTINE INSPECTION OF ALL ELEMENTS IN MATRIX BELOW.
- LINN COUNTY INSPECTOR SHALL BE NOTIFIED FOR ALL REQUIRED INSPECTIONS IN COUNTY RIGHT-OF-WAY.
- THIRD PARTY TESTING FOR DENSITY TESTS, AND CONCRETE TO BE PROVIDED.
- CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR NECESSARY TRENCH INSPECTIONS.

Inspection	Interval	Requirement	Notes
Roadway			
Subgrade Prep.	Proof Rolled		Witnessed by Engineer of Record and City of Brownsville.
Base Rock/Curb Rock	1 Test /4,000 SF/ Lift, Proof Roll w/ Loaded Dump Truck	95% of max. dry density, T-180 modified ASTM	Third Party Lab Test/ Engineer of Record
Asphalt (Local)	1 Test / 6,000 SF / Lift	92% Rice Value	Third Party Lab Test
Sidewalk / Curb and Gutter	1 per 100 cubic yards	Slump & Air, Set of Cylinders	Third Party Lab Test
Curb and Gutter		Water Flow Test	Witnessed by Engineer of Record and City of Brownsville.
ADA Ramps	All Ramps / Landings	Slump & Air, Set of Cylinders	Third Party Lab Test
Piped Utilities			
Trench Backfill	1 Test / 200 LF / 3' Lift	92% of max. dry density, T-180 modified ASTM	
Trench AC Restoration	1 Test / 300 LF / 3' Lift	92% Rice Value	
Storm Water			
Deflection test (Mandrel)	95% of actual inside diameter		Witnessed by Engineer of Record and City of Brownsville.
TV Inspection	All lines.		Tapes reviewed by Engineer of Record and City of Brownsville.
Wastewater Mains			
TV Inspection	All lines.		Tapes reviewed by Engineer of Record and City of Brownsville.
Deflection test (Mandrel)	95% of actual inside diameter		Witnessed by Engineer of Record and City of Brownsville.
Vacuum Testing	All Manholes.		
Air Testing	All lines		
Water			
Pressure Test	Per City Requirement		City Witnessed Test
Bacterial Water Test	Per Oregon Health Authority	Per Oregon Health Authority	City Witnessed Test
Chlorine Residual Test	Per City Requirement	Per City Requirement	City Witnessed Test
Fire Flow Test	When Water System Active		City Witnessed Test

EROSION CONTROL INSPECTION MATRIX

Site Condition	Minimum Frequency
1. Active Period	Daily when stormwater runoff, including runoff from snowmelt, is occurring. At least once every two weeks, regardless of whether or not runoff is occurring.
2. Prior to the site becoming inactive or in anticipation of site inaccessibility.	Once to ensure that erosion and sediment control measures are in working order. Any necessary maintenance and repair must be made prior to leaving the site.
3. Inactive periods greater than fourteen (14) calendar days.	Once every two (2) weeks.
4. Periods during which the site is inaccessible due to inclement weather.	If practical, inspections must occur daily at a relevant and accessible discharge point or downstream location.

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 180 S. ST. CLUTE, BOX
 SPRINGFIELD, OR 97177
 PHONE: (541) 302-9790
 info@a-o-engineer.com

PROFESSIONAL ENGINEER
 9/14/2022
 OREGON
 EXPIRES 12/22

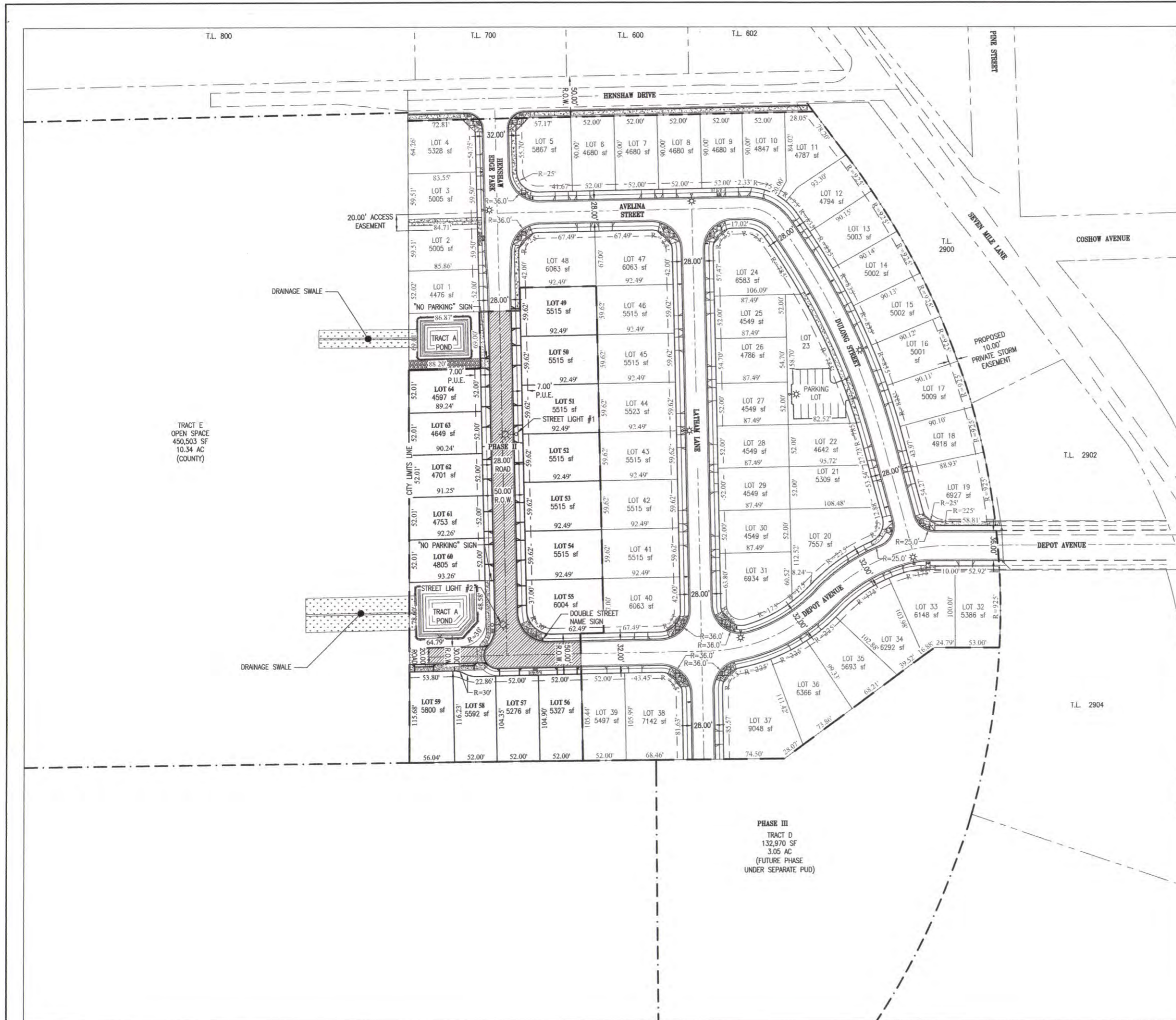
Constructions Notes
 for Phase 2 of
River's Edge Subdivision
 Brownsville Linn County Oregon

DATE: PROJECT No. 117Z
 SCALE: HORIZ. 1"=80'
 VERT.
 REVIEWED BY: AJH
 REVIEWED BY: KOM
 REVIEWED BY: SOM
 COA.

REVISIONS:

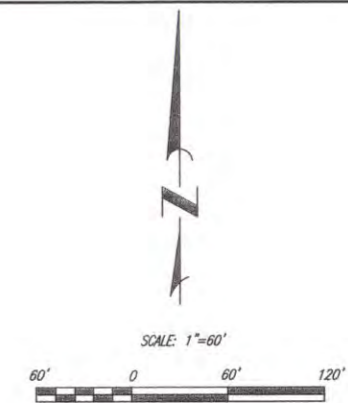
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RL



TRACT E
OPEN SPACE
450,503 SF
10.34 AC
(COUNTY)

PHASE III
TRACT D
132,970 SF
3.05 AC
(FUTURE PHASE
UNDER SEPARATE PUD)



PHASE 2 SITE DATA:
TOTAL # OF LOTS=16
PHASE 2 AREA= 2.79 ACRES
RIGHT-OF-WAY WIDTH= 50'

- NOTES:**
1. OFFSITE UTILITY IMPROVEMENTS ARE REQUIRED ON SEVEN MILE LANE AND HENSHAW DRIVE. THESE ARE SHOWN ON SEPARATE PLAN SET APPROVED BY LINN COUNTY. WORK COVERED UNDER LINN-COUNTY FACILITY PERMIT.
 2. ALL PROPOSED ADA WALKWAYS SHALL HAVE CROSS SLOPES OF LESS THAN 2.00% AND RUNNING SLOPES LESS THAN 5.00%.
 3. ADA RAMPS SHALL HAVE CROSS SLOPES LESS THAN 2.00% AND RUNNING SLOPES OF LESS THAN 8.33%. LANDING AND TURNING SPACES TO BE 5'X5' AND LESS THAN 2.00% IN ALL DIRECTIONS.
 4. MAILBOX LOCATIONS TO BE DETERMINED THROUGH COORDINATION WITH THE UNITED STATES POSTAL SERVICE.
 5. ADA RAMPS TO BE CONSTRUCTED AS PART OF THE PEPI CONSTRUCTION PHASE. SIDEWALKS FRONTING LOTS TO BE CONSTRUCTED DURING INDIVIDUAL HOME CONSTRUCTION BY HOME BUILDER.
 6. SIDEWALKS TO BE CONSTRUCTED DURING PEPI WORK ARE HATCHED ON PLAN.
 7. STREET NAME SIGNS AND NO PARKING SIGNS SHALL BE PLACED IN SUBDIVISION PER PLAN. SIGNS SHALL BE IN CONFORMANCE WITH THE STATE OF OREGON UNIFORM TRAFFIC MANUAL. THE FINAL LOCATION OF ALL STREET SIGNS TO COORDINATED WITH THE CITY OF BROWNSVILLE.
 8. ALL LOT DRIVEWAYS ARE PROPOSED TO BE 16' THROAT WIDTH. LOCATIONS TO BE FINALIZED WITH HOME BUILDERS IN THE FIELD. CONTRACTOR TO VERIFY PRIOR TO POURING CURBS.
 9. SEE PHASE 2 PLAT DOCUMENT FOR ACTUAL LOT DIMENSIONS AND SIZE. THIS DRAWING SHALL NOT BE CONSIDERED A SURVEY DRAWING OR USED FOR PROPERTY PIN PLACEMENT.
 10. SIDEWALK RAMPS FALLING OUTSIDE OF PUBLIC R.O.W. TO BE GRANTED SIDEWALK EASEMENTS. SEE FINAL PLAT FOR DETAILS.
 11. NO PARKING SIGNS SHALL BE INSTALLED AT LOCATIONS CALLED OUT ON PLAN.

- STREET LIGHT NOTES:**
1. THERE ARE 2 STREET LIGHTS PROPOSED TO BE INSTALLED WITHIN PHASE 2.
 2. STREET LIGHT LOCATIONS ARE SHOWN ON PLAN.
 3. FOR STREET LIGHT TYPE AND DESIGN REFER TO SEPARATE UTILITY PLANS PREPARED BY PACIFIC POWER. DESIGN DETAILS TO BE WORKED OUT BY CITY OF BROWNSVILLE.

A & O Engineering L.L.C.
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3810 ST. SUITE 200
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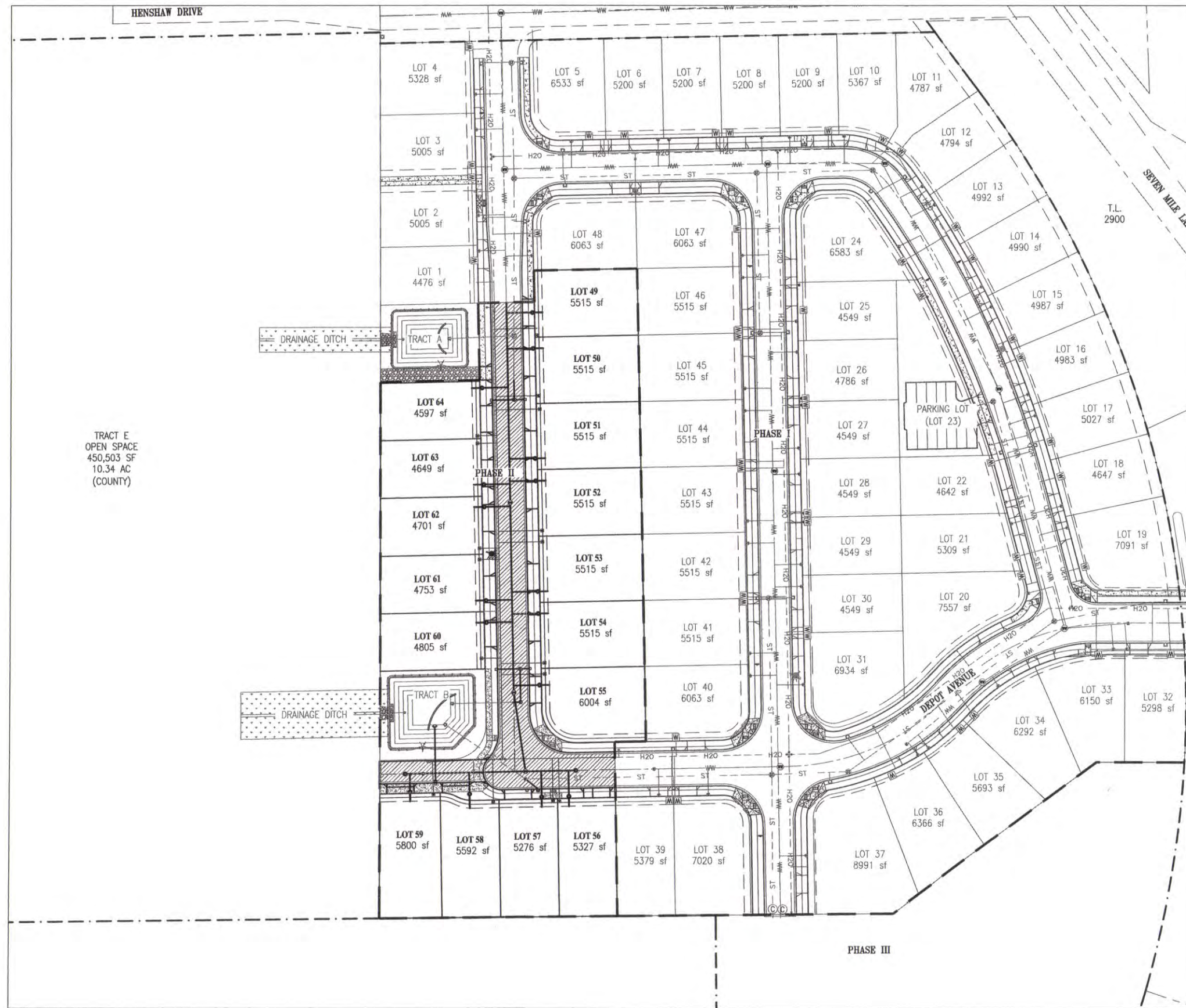


Site Development Plan
for Phase 2 of
River's Edge Subdivision
Brownsville Linn County Oregon

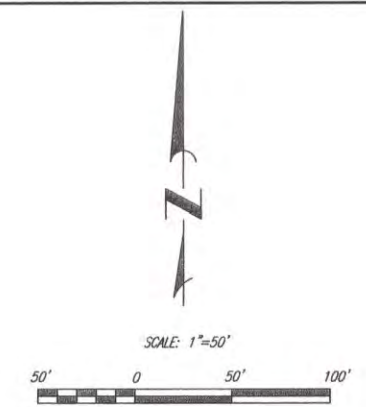
DATE:	PROJECT No.:	SCALE:	REVIEWED BY:	REVIEWED BY:	COA:
	1172	1"=60'	ACH	KOM	

REVISIONS:

SHEET
C-2.0
of
12



TRACT E
OPEN SPACE
450,503 SF
10.34 AC
(COUNTY)



- NOTES:**
1. FRANCHISE UTILITY LINES TO RUN WITHIN 7.00' P.U.E. AS SHOWN ON PLAN. UTILITIES TO BE JOINT TRENCHED PER UTILITY PROVIDER'S STANDARDS.
 2. ADA RAMP AND LANDINGS TO BE CONSTRUCTED AS PART OF THE PEPI CONSTRUCTION PHASE. SIDEWALKS FRONTING LOTS TO BE CONSTRUCTED DURING INDIVIDUAL HOME CONSTRUCTION BY HOME BUILDER.
 3. WHERE LESS THAN 6" OF VERTICAL CLEARANCE EXISTS BETWEEN PIPES, THE LOWER PIPE SHALL BE PROTECTED BY A CONCRETE COLLAR PER CITY OF BROWNSVILLE STANDARDS.
 4. STORM RUNOFF FROM HOME ROOFS TO BE ROUTED THROUGH WEEPHOLES IN CURB. CONTRACTOR TO VERIFY WEEPHOLE LOCATIONS WITH HOME BUILDER PRIOR TO PLACEMENT.
 5. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR FINAL INSTALLATION.
 6. COMPREHENSIVE UTILITY SHEET IS GIVEN FOR REFERENCE ONLY. CONTRACTOR SHALL USE PLAN AND PROFILE SHEETS FOR CONSTRUCTION.

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SPRINGFIELD, OR 97477
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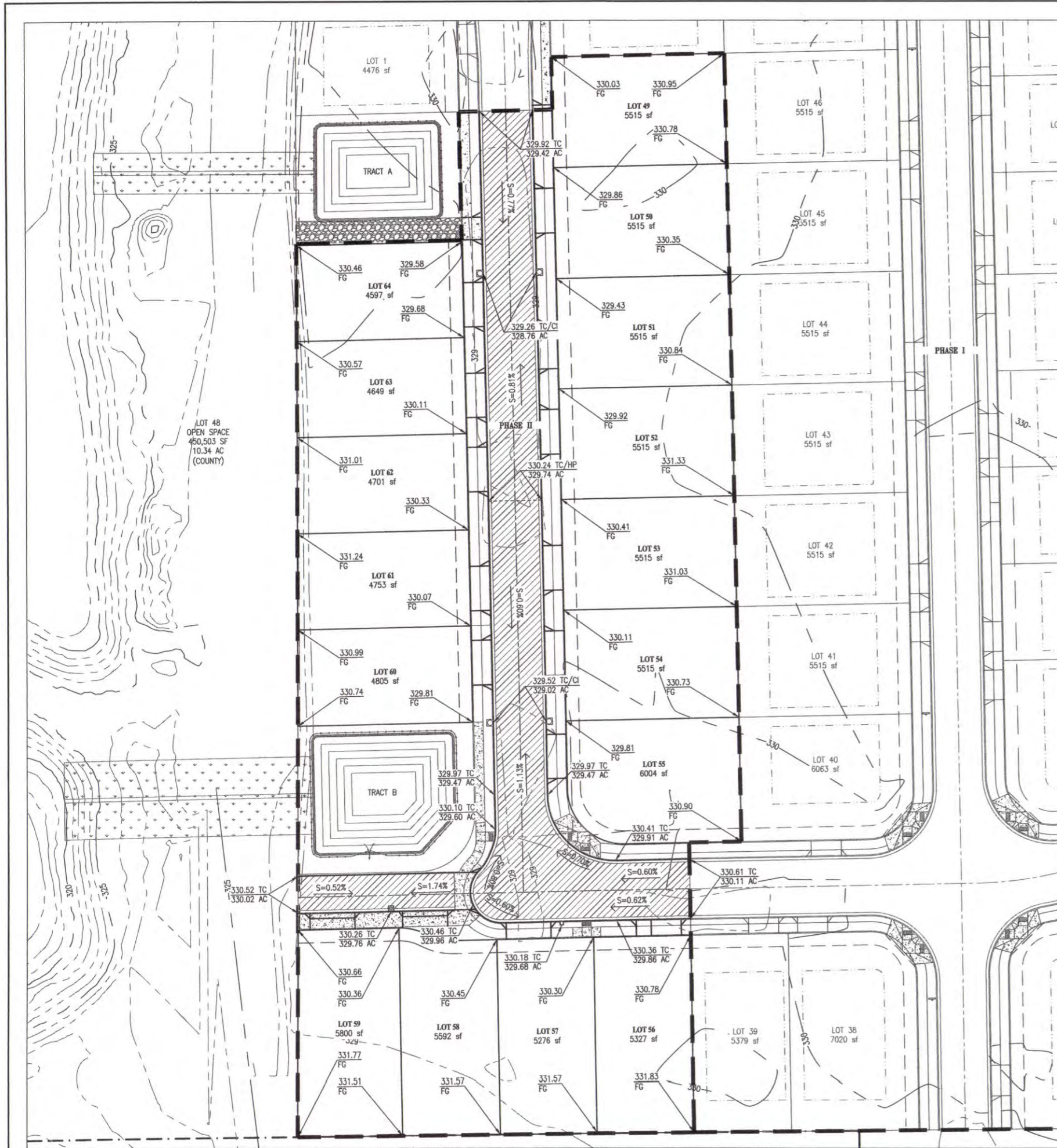


Comprehensive Utility Plan
for Phase 2 of
River's Edge Subdivision
Brownsville Linn County Oregon

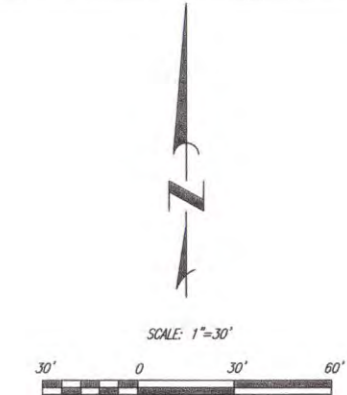
DATE:	PROJECT No.:	SCALE:
	117Z	1"=50'
REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
ACH	KCM	SJM
COA:		

REVISIONS:

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of
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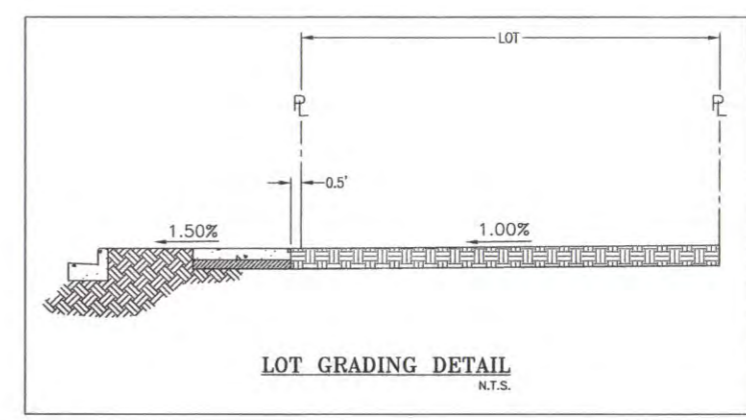


ASSESSORS MAP: 13S-03W-36-00 T.L. 900



GRADING NOTES:

1. ALL HOUSE FINISH FLOOR ELEVATIONS SHALL BE A MINIMUM 1.00' FEET ABOVE BASE FLOODPLAIN ELEVATION.
2. COMPACTION OF MATERIAL IN LOT AREAS TO BE DOCUMENTED AND CERTIFIED BY A GEOTECHNICAL PROFESSIONAL.
3. ALL EROSION MEASURES OUTLINED IN APPROVED DEQ 1200C PERMIT SHALL BE INSTALLED PRIOR TO SITE GRADING.
4. STRIPPINGS SHALL BE SPREAD ONSITE IN NON-STRUCTURAL AREAS.
5. CURB GRADES ARE SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE PROFILE SHEETS FOR CONSTRUCTION.
6. ALL LOTS TO HAVE POSITIVE GRADE TOWARD STREET FRONTAGE. SEE DETAIL ON THIS SHEET.



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 info@aaoe-eng.com

Comprehensive Grading Plan
 for
River's Edge Subdivision
 Brownsville Linn County Oregon

DATE:	
PROJECT No:	1172
SCALE: HORIZ:	1"=80'
VERT:	
REVIEWED BY:	ACH
REVIEWED BY:	KDM
REVIEWED BY:	SDM
COA:	

REVISIONS:

SHEET
 C-2.2
 of
 12

RD

UTILITY PROVIDERS:
 WATER- CITY OF BROWNSVILLE
 SEWER- CITY OF BROWNSVILLE
 CABLE- ALYRICA
 PHONE- CENTURY LINK
 ELECTRICITY- PACIFIC POWER
 NATURAL GAS- NORTHWEST NATURAL GAS

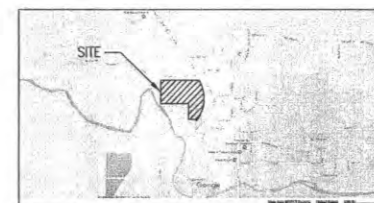
CONTRACTOR
 MID-VALLEY GRAVEL COMPANY
 705 CLEMENS MILL ROAD
 PHILOMATH, OREGON 97570
 PHONE: (541) 929-2200

DESIGN ENGINEER
 A & O ENGINEERING
 380 Q ST. SUITE 200
 SPRINGFIELD, OREGON 97477
 PHONE: (541) 302-9790

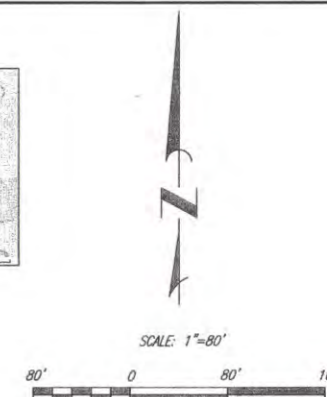
OWNER/APPLICANT
 PROGRESSIVE DESIGN BUILDERS, INC.
 P.O. BOX 727
 ALBANY, OREGON 97321
 PHONE: (541) 740-2948

PLAT SURVEYOR
 EGR & ASSOCIATES, INC
 2535 PRAIRIE RD., STE B
 EUGENE, OREGON 97402
 PHONE: (541) 688-8322

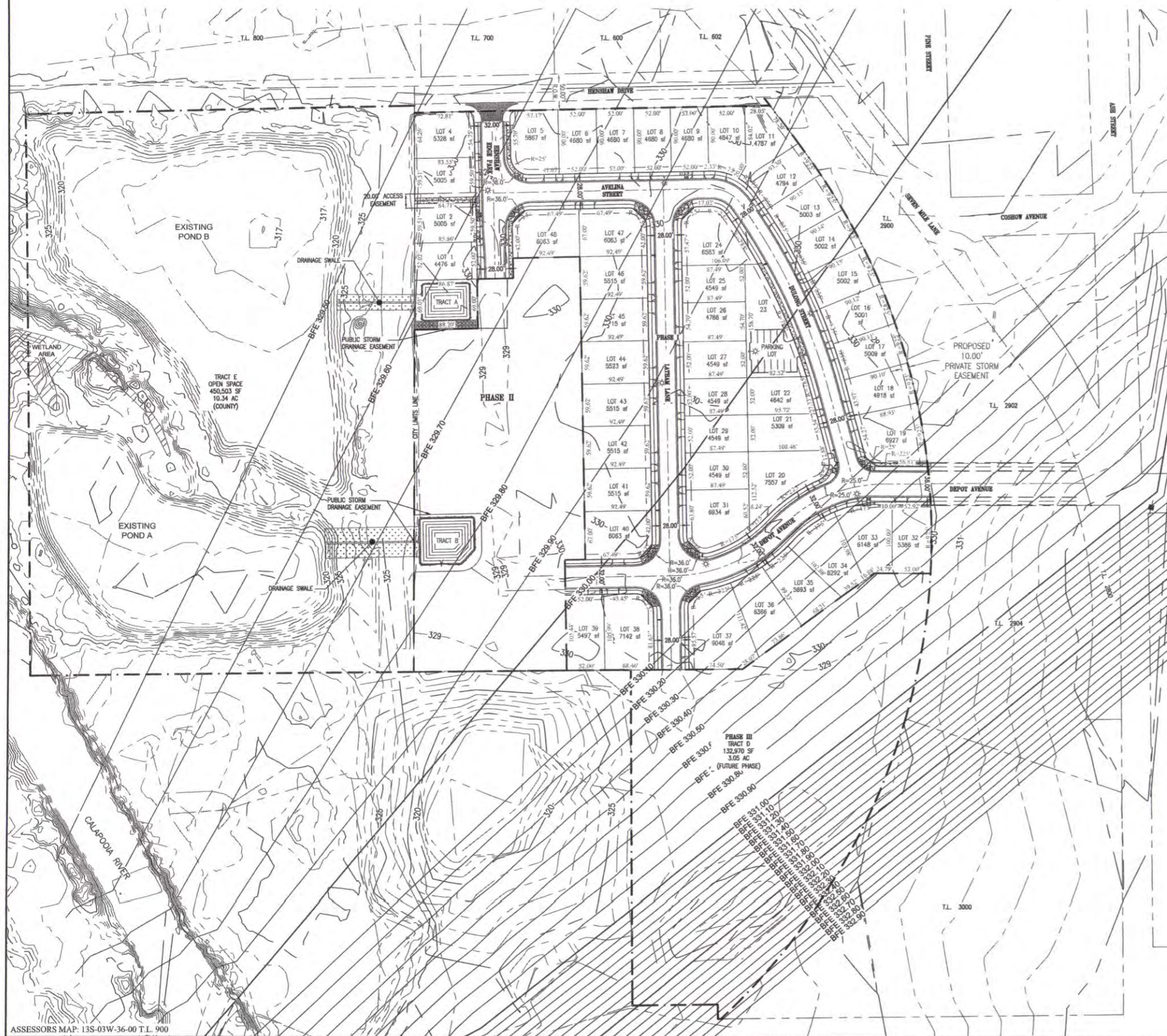
PEPI PLANS FOR
 RIVER'S EDGE SUBDIVISION
 PHASE 2
 N.W. 1/4, SEC.31, T.13S. R.2 W, W.M.
 TAX LOT 900
 BROWNSVILLE, LINN COUNTY, OREGON



VICINITY MAP
 NTS



SCALE: 1"=80'



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5. REQUESTS BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER OF RECORD AND CITY OF BROWNSVILLE AND THE OWNER BEFORE THE CHANGES ARE IMPLEMENTED.
6. THE CONTRACTOR SHALL EMPLOY CONSTRUCTION PRACTICES WHICH WILL MINIMIZE THE EROSION OF DISTURBED GROUND DURING THE CONSTRUCTION ACTIVITY. THE PRACTICES SHALL COMPLY WITH THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT. PURSUANT TO ORS 468.740 AND THE FEDERAL CLEAN WATER ACT.
7. WHEN PERFORMING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF OAR 952-001-0010 TO 952-001-0090, WHICH INCLUDE REQUIREMENTS THAT THE CONTRACTOR HAND-EXPOSE (POT-HOLE) UNDERGROUND FACILITIES AND USE REASONABLE CARE TO AVOID DAMAGING THEM.
8. PROVIDE DUST CONTROL AT ALL TIMES.
9. ALL STRIPPINGS TO BE SPREAD ONSITE IN NON STRUCTURAL AREAS.
10. BOUNDARY INFORMATION PROVIDED BY EGR & ASSOCIATES INC. THIS DRAWING IS FOR REFERENCE ONLY AND IS NOT A BOUNDARY SURVEY. REFER TO PLAT DOCUMENTS FOR BOUNDARY INFORMATION. ALL ELEVATIONS ARE GIVEN IN NAVD88 VERTICAL DATUM. APPROXIMATE CONVERSION FROM NAVD29 TO NAVD88 LOCAL TO THE SITE IS 3.48'.
11. OFFSITE IMPROVEMENTS TO BE BUILT UNDER SEPARATE PERMIT FROM LINN COUNTY. SEE SEPARATE PEPI PLANS FOR OFFSITE IMPROVEMENTS.
12. 100 YEAR FLOOD PLAIN ELEVATIONS SHOWN ARE DERIVED FROM FEMA FIRM MAPS-CONVERTED TO NAVD88 DATUM.
13. CONTOURS SHOWN ON THIS SHEET ARE EXISTING FROM LAST TOPO SURVEY DONE ON SITE.
14. PHASE 1 IMPROVEMENTS ARE CURRENTLY UNDER CONSTRUCTION AT TIME OF PHASE 2 DESIGN. THESE DRAWINGS ASSUME PHASE 1 IS CONSTRUCTED PER PHASE 1 DESIGN DRAWINGS. CHANGES MAY BE NEEDED AFTER PHASE 1 CONSTRUCTION IS COMPLETED.

SHEET INDEX

- C-1.0 COVER SHEET
- C-1.1 CONSTRUCTION NOTES
- C-2.0 SITE DEVELOPMENT PLAN
- C-2.1 COMPREHENSIVE UTILITY PLAN
- C-2.2 COMPREHENSIVE GRADING PLAN
- C-3.0 PLAN & PROFILE HENSHAW EDGE PARK
- C-3.1 PLAN & PROFILE HENSHAW EDGE PARK
- C-4.0 PLAN & PROFILE DEPOT AVENUE
- C-4.1 PLAN & PROFILE DEPOT AVENUE
- C-5.0 CIVIL DETAILS
- C-5.1 CIVIL DETAILS

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Cover Sheet
 for Phase 2 of
 River's Edge Subdivision
 Brownsville Linn County Oregon

DATE:	10/11/20
PROJECT NO.:	1172
SCALE:	HORIZ. 1"=80'
VERT.:	
REVIEWED BY:	AJH
REVIEWED BY:	KJM
REVIEWED BY:	SDM
COA:	

REVISIONS:	
1	ADD DEPOT AVENUE
2	10/17/20

APPROVED FOR CONSTRUCTION
 10-28-2020
 R-O
 CITY OF BROWNSVILLE/
 THE DYER PARTNERSHIP

SHEET
 C-1.0
 of
 12

LEGEND

	BOUNDARY LINE		EXISTING STREET LIGHT
	ADJACENT LOT LINE		EXISTING ELECTRIC TRANSFORMER
	EXISTING 1' CONTOUR LINE		EXISTING UTILITY POLE
	EXISTING EDGE OF PAVEMENT		EXISTING GUY ANCHOR
	EXISTING WATER METER		EXISTING TREES
	EXISTING FIRE HYDRANT		PROPOSED CURB & GUTTER
	EXISTING WATER VALVE		PROPOSED WATER METER
	EXISTING STORM DRAINAGE SYSTEM		PROPOSED FIRE HYDRANT
	EXISTING CURB INLET		PROPOSED WATER VALVE
	EXISTING CATCH BASIN		PROPOSED STORM DRAINAGE SYSTEM
	EXISTING STORMWATER CULVERT		PROPOSED CURB INLET
	EXISTING WASTEWATER SYSTEM		PROPOSED STORMWATER CULVERT
	EXISTING OVERHEAD ELECTRIC		PROPOSED WASTEWATER SYSTEM
			PROPOSED CLEANOUT
			PROPOSED STREET LIGHT

	PROPOSED CONCRETE
	PROPOSED GRAVEL SECTION
	PROPOSED ASPHALT

ABBREVIATION LEGEND

	PROPOSED FLOW DIRECTION
S=2.00%	PROPOSED SLOPE
BW	BACK OF WALK ELEVATION
EX	EXISTING ELEVATION
FG	FINISH GRADE
SW	SIDEWALK
HP	HIGH POINT
CI	CURB INLET
TC	TOP OF CURB
EX GR	EXISTING GRADE
BR	BACK OF RAMP
GB	GUTTER BAR
AC	ASPHALT/CONCRETE
LP	LOW POINT
B.O.W.	BOTTOM OF WALL
T.O.W.	TOP OF WALL
BFE	BASE FLOOD ELEVATION
FL	FLOWLINE

GENERAL NOTES

- CONSTRUCTION SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2018 AND THE OREGON STANDARD DRAWINGS CURRENT.
- ALL MATERIAL AND EQUIPMENT SHOWN HEREON IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY. THE DESIGN ENGINEER SHALL APPROVE AND PROVIDE THREE COPIES OF CATALOGUE CUT SHEETS FOR ALL MATERIAL AND EQUIPMENT TO BE INSTALLED ON THE PROJECT TO THE CITY OF BROWNSVILLE CITY ENGINEER. ALLOW A MINIMUM OF 10 DAYS FOR CITY ENGINEER REVIEW OF SUBMITTALS.
- ITEMS OF WORK NOT SHOWN ON THE PLAN BUT NECESSARY FOR SUCCESSFUL COMPLETION OF THIS PROJECT WILL BE REQUIRED BY THE CITY.
- THE CITY ENGINEER SHALL PROVIDE A NOTICE TO PROCEED. SUCH NOTICE SHALL NOT BE ISSUED UNTIL THE CONTRACTOR OR DEVELOPER PROVIDES THE FOLLOWING:
 - CERTIFICATE OF GENERAL LIABILITY INSURANCE LISTING THE CITY OF BROWNSVILLE AND THE CITY'S ENGINEER, THE DYER PARTNERSHIP AS ADDITIONAL INSURED. ORIGINAL CERTIFICATE OF INSURANCE SHALL BE MAILED TO THE CITY OF BROWNSVILLE AND A COPY TO THE DYER PARTNERSHIP 481 S. MAIN STREET, LEBANON, OR 97355.
 - THE CONTRACTOR HAS ATTENDED A PRE-CONSTRUCTION MEETING WITH THE CITY TO REVIEW SPECIAL CONSIDERATIONS ON THE PROJECT.
- A COUNTY UTILITY PERMIT IS REQUIRED FOR ALL WORK TO BE CONDUCTED IN EXISTING COUNTY R.O.W. SECURE THE PERMIT THROUGH LINN COUNTY PUBLIC WORKS.
- WORK SHALL NOT BE PERFORMED WITHOUT REQUIRED INSPECTIONS. A MINIMUM 48-HOUR ADVANCE NOTICE OF REQUIRED INSPECTIONS IS REQUIRED. THE FOLLOWING ARE MINIMUM INSPECTION REQUIREMENTS:
 - TV INSPECTION OF ALL SEWER AND DRAINAGE PIPING.
 - HYDROSTATIC TESTING, DEFLECTION TESTING AND MANHOLE TESTING OF ALL SANITARY SEWER ELEMENTS.
 - DEFLECTION TESTING OF ALL STORM DRAINAGE LINES.
 - FLUSHING, DISINFECTION AND HYDROSTATIC TESTING OF ALL WATER LINES.
 - DEFLECTION TESTING ON SUB-GRADE.
 - ITEMS LISTED IN THE TABLE.
- WHERE CONTRACTOR IS UNABLE TO ACHIEVE SUB-GRADE COMPACTION AND DEFLECTION REQUIREMENTS THE SUB-GRADE SHALL BE LOWERED A MINIMUM OF SIX INCHES. FABRIC SHALL BE PLACED AND THE MATERIAL REMOVED AND REPLACED WITH 1"-0 INCH MINUS CRUSHED ROCK. THIS PROCESS SHALL BE COMPLETED UNTIL TESTING MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.
- HOT MIX ASPHALT CONCRETE (HMAC) SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION. LEVEL 2 HMAC SHALL BE USED FOR LOCAL STREETS AND COLLECTORS; LEVEL 3 HMAC SHALL BE USED ON ARTERIALS OR OTHER STREETS AT THE CITY ENGINEER'S DISCRETION ASPHALT MIX DESIGN SUBMITTAL SHALL FOLLOW THE STANDARD SUBMITTAL PROCESS OUTLINED IN ITEM 2.
- CONTRACTOR SHALL FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER REGARDING THE REQUIREMENTS FOR UTILITY LOCATES (OAR 952-001-0090). COPIES ARE AVAILABLE AT 503-232-1987.
- THE CONTRACTOR SHALL PROTECT AND REPLACE ALL DISTURBED VEGETATION, FENCING AND OTHER IMPROVEMENTS ON PRIVATE PROPERTY.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO EXISTING RESIDENTS DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE RESIDENT'S DRIVEWAYS ALONG HENSHAW DRIVE THAT ARE DISTURBED DURING CONSTRUCTION BEFORE PROJECT COMPLETION.
- ACCESS TO EXISTING FIRE HYDRANTS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- ONLY CITY PERSONNEL SHALL BE ALLOWED TO OPERATE WATER SYSTEM VALVES. CONTRACTOR SHALL COORDINATE WITH CITY OF BROWNSVILLE PUBLIC WORKS WHEN OPERATION IS REQUIRED. 72-HOUR NOTIFICATION FOR WATER SHUTOFF OR ACTIVATION IS REQUIRED.
- FOR WATER MAIN CONNECTIONS CONTRACTOR MUST HAVE ALL EQUIPMENT, FITTINGS, AND PIPING ON SITE AND READY FOR INSTALLATION PRIOR TO CONSTRUCTING THE CONNECTION. CITY HAS THE RIGHT TO REFUSE AUTHORIZATION FOR THE INSTALLATION IF ALL MATERIAL AND EQUIPMENT ARE NOT ON-SITE. MAXIMUM SHUTDOWN TIME IS 3 HOURS. SHUTDOWNS ARE NOT ALLOWED ON MONDAYS OR FRIDAYS.
- CONTRACTOR SHALL HAVE A SET OF THESE DRAWINGS ON SITE AT ALL TIMES.
- CONTRACTOR IS EXPECTED TO ACTIVELY ENGAGE IN EROSION CONTROL MEASURES TO MINIMIZE THE TRANSPORT OF SEDIMENT AND SOILS FROM THE CONSTRUCTION SITE. ACTIVE ENGAGEMENT SHALL MEAN THAT ALL EROSION CONTROL METHODS ARE MAINTAINED AND THAT THE FACILITIES ARE ROUTINELY INSPECTED FOR COMPLIANCE WITH ACCEPTED EROSION CONTROL PRACTICES. ADDITIONAL MEASURES MAY BE REQUIRED BY THE DESIGNATED EROSION CONTROL INSPECTOR, WHO MUST BE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) PER DEQ 1200C PERMIT.
- CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AND SECURE COUNTY APPROVAL OF THE PLAN AT LEAST 5 WORKING DAYS PRIOR TO STARTING.
- GUTTER PAN OF CURB & GUTTER SHALL BE 18" PER CITY OF BROWNSVILLE DRAWING ST103.
- CONTRACTOR TO FOLLOW AWWA 600 AND 651 FOR DISINFECTION STANDARDS AND D.I. TESTING.

INSPECTION GENERAL NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL REQUIRED INSPECTIONS ARE COMPLETED BY AUTHORIZED INSPECTORS. COORDINATE INSPECTION SCHEDULE WITH PROJECT ENGINEER.
- PROJECT ENGINEER OR AUTHORIZED REPRESENTATIVE TO PROVIDE ROUTINE INSPECTION OF ALL ELEMENTS IN MATRIX BELOW.
- LINN COUNTY INSPECTOR SHALL BE NOTIFIED FOR ALL REQUIRED INSPECTIONS IN COUNTY RIGHT-OF-WAY.
- THIRD PARTY TESTING FOR DENSITY TESTS, AND CONCRETE TO BE PROVIDED.
- CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR NECESSARY TRENCH INSPECTIONS.

Inspection	Interval	Requirement	Notes
Roadway			
Subgrade Prep.	Proof Rolled		Witnessed by Engineer of Record and City of Brownsville.
Base Rock/Curb Rock	1 Test /4,000 SF/ Lift, Proof Roll w/ Loaded Dump Truck	95% of max. dry density, T-180 modified ASTM	Third Party Lab Test/ Engineer of Record
Asphalt (Local)	1 Test / 6,000 SF / Lift	92% Rice Value	Third Party Lab Test
Sidewalk / Curb and Gutter	1 per 100 cubic yards	Slump & Air, Set of Cylinders	Third Party Lab Test
Curb and Gutter		Water Flow Test	Witnessed by Engineer of Record and City of Brownsville.
ADA Ramps	All Ramps / Landings	Slump & Air, Set of Cylinders	Third Party Lab Test
Piped Utilities			
Trench Backfill	1 Test / 200 LF / 3' Lift	92% of max. dry density, T-180 modified ASTM	
Trench AC Restoration	1 Test / 300 LF / 3' Lift	92% Rice Value	
Storm Water			
Deflection test (Mandrel)	95% of actual inside diameter		Witnessed by Engineer of Record and City of Brownsville.
TV Inspection	All lines.		Tapes reviewed by Engineer of Record and City of Brownsville.
Wastewater Mains			
TV Inspection	All lines.		Tapes reviewed by Engineer of Record and City of Brownsville.
Deflection test (Mandrel)	95% of actual inside diameter		Witnessed by Engineer of Record and City of Brownsville.
Vacuum Testing	All Manholes.		
Air Testing	All lines		
Water			
Pressure Test	Per City Requirement		City Witnessed Test
Bacterial Water Test	Per Oregon Health Authority	Per Oregon Health Authority	City Witnessed Test
Chlorine Residual Test	Per City Requirement	Per City Requirement	City Witnessed Test
Fire Flow Test	When Water System Active		City Witnessed Test

EROSION CONTROL INSPECTION MATRIX

Site Condition	Minimum Frequency
1. Active Period	Daily when stormwater runoff, including runoff from snowmelt, is occurring. At least once every two weeks, regardless of whether or not runoff is occurring.
2. Prior to the site becoming inactive or in anticipation of site inaccessibility.	Once to ensure that erosion and sediment control measures are in working order. Any necessary maintenance and repair must be made prior to leaving the site.
3. Inactive periods greater than fourteen (14) calendar days.	Once every two (2) weeks.
4. Periods during which the site is inaccessible due to inclement weather.	If practical, inspections must occur daily at a relevant and accessible discharge point or downstream location.

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PROFESSIONAL ENGINEER
 9/14/2022
 OREGON
 EXPIRES 12/22

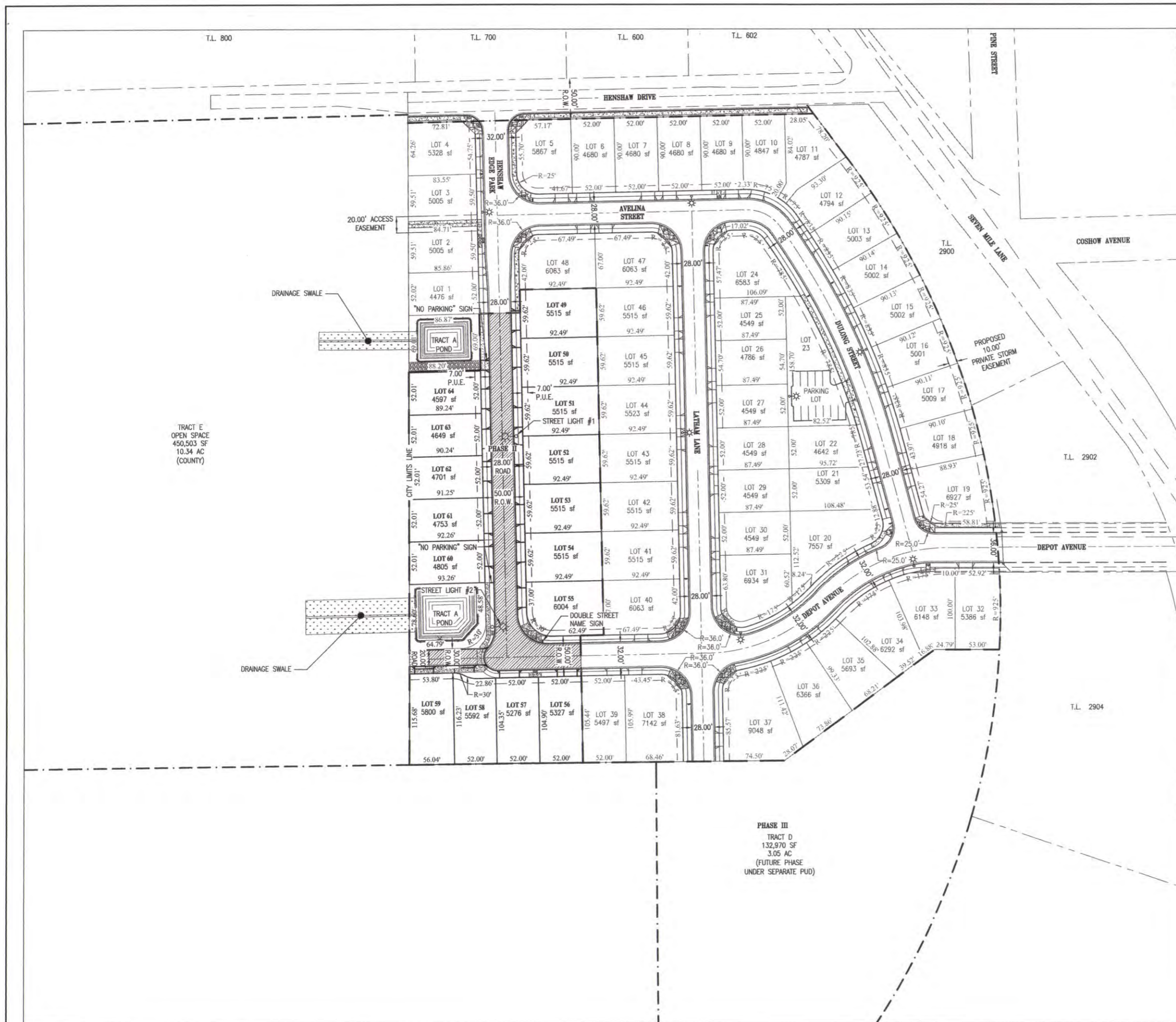
Constructions Notes
 for Phase 2 of
River's Edge Subdivision
 Brownsville Linn County Oregon

DATE: _____	PROJECT No: 117Z
SCALE: HORIZ: 1"=80'	VERT: _____
REVIEWED BY: AJH	REVIEWED BY: KJM
REVIEWED BY: SOM	COA: _____

REVISIONS:

SHEET
 C-1.1
 of
 12

RL



PHASE 2 SITE DATA:
 TOTAL # OF LOTS=16
 PHASE 2 AREA= 2.79 ACRES
 RIGHT-OF-WAY WIDTH= 50'

- NOTES:**
1. OFFSITE UTILITY IMPROVEMENTS ARE REQUIRED ON SEVEN MILE LANE AND HENSHAW DRIVE. THESE ARE SHOWN ON SEPARATE PLAN SET APPROVED BY LINN COUNTY. WORK COVERED UNDER LINN-COUNTY FACILITY PERMIT.
 2. ALL PROPOSED ADA WALKWAYS SHALL HAVE CROSS SLOPES OF LESS THAN 2.00% AND RUNNING SLOPES LESS THAN 5.00%.
 3. ADA RAMPS SHALL HAVE CROSS SLOPES LESS THAN 2.00% AND RUNNING SLOPES OF LESS THAN 8.33%. LANDING AND TURNING SPACES TO BE 5'X5' AND LESS THAN 2.00% IN ALL DIRECTIONS.
 4. MAILBOX LOCATIONS TO BE DETERMINED THROUGH COORDINATION WITH THE UNITED STATES POSTAL SERVICE.
 5. ADA RAMPS TO BE CONSTRUCTED AS PART OF THE PEPI CONSTRUCTION PHASE. SIDEWALKS FRONTING LOTS TO BE CONSTRUCTED DURING INDIVIDUAL HOME CONSTRUCTION BY HOME BUILDER.
 6. SIDEWALKS TO BE CONSTRUCTED DURING PEPI WORK ARE HATCHED ON PLAN.
 7. STREET NAME SIGNS AND NO PARKING SIGNS SHALL BE PLACED IN SUBDIVISION PER PLAN. SIGNS SHALL BE IN CONFORMANCE WITH THE STATE OF OREGON UNIFORM TRAFFIC MANUAL. THE FINAL LOCATION OF ALL STREET SIGNS TO COORDINATED WITH THE CITY OF BROWNSVILLE.
 8. ALL LOT DRIVEWAYS ARE PROPOSED TO BE 16' THROAT WIDTH. LOCATIONS TO BE FINALIZED WITH HOME BUILDERS IN THE FIELD. CONTRACTOR TO VERIFY PRIOR TO POURING CURBS.
 9. SEE PHASE 2 PLAT DOCUMENT FOR ACTUAL LOT DIMENSIONS AND SIZE. THIS DRAWING SHALL NOT BE CONSIDERED A SURVEY DRAWING OR USED FOR PROPERTY PIN PLACEMENT.
 10. SIDEWALK RAMPS FALLING OUTSIDE OF PUBLIC R.O.W. TO BE GRANTED SIDEWALK EASEMENTS. SEE FINAL PLAT FOR DETAILS.
 11. NO PARKING SIGNS SHALL BE INSTALLED AT LOCATIONS CALLED OUT ON PLAN.

- STREET LIGHT NOTES:**
1. THERE ARE 2 STREET LIGHTS PROPOSED TO BE INSTALLED WITHIN PHASE 2.
 2. STREET LIGHT LOCATIONS ARE SHOWN ON PLAN.
 3. FOR STREET LIGHT TYPE AND DESIGN REFER TO SEPARATE UTILITY PLANS PREPARED BY PACIFIC POWER. DESIGN DETAILS TO BE WORKED OUT BY CITY OF BROWNSVILLE.



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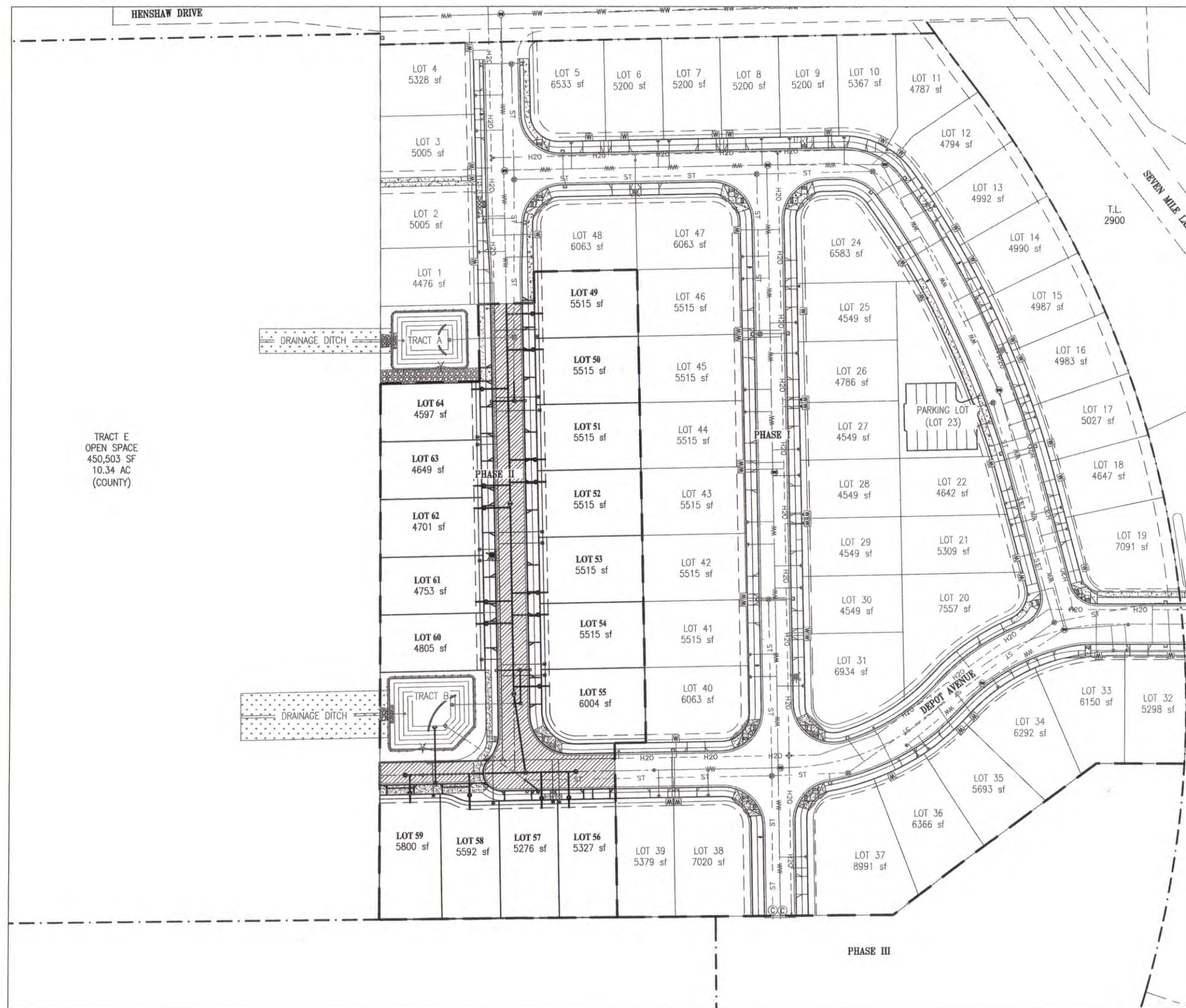
PROFESSIONAL
 REGISTERED
 ENGINEER
 OREGON
 No. 12122
 EXPIRES 12/22

Site Development Plan
 for Phase 2 of
River's Edge Subdivision
 Brownsville Linn County Oregon

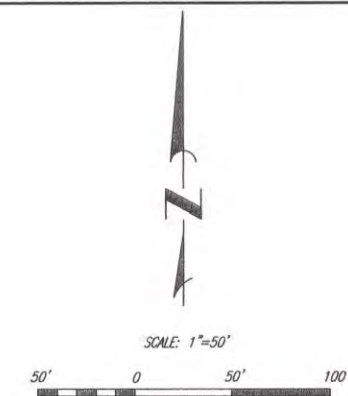
DATE:	PROJECT No.:	SCALE:	REVIEWED BY:	REVIEWED BY:	COA:
	1172	1"=60'	AJH	KJM	

REVISIONS:

SHEET
 C-2.0
 of
 12



TRACT E
OPEN SPACE
450,503 SF
10.34 AC
(COUNTY)



- NOTES:**
1. FRANCHISE UTILITY LINES TO RUN WITHIN 7.00' P.U.E. AS SHOWN ON PLAN. UTILITIES TO BE JOINT TRENCHED PER UTILITY PROVIDER'S STANDARDS.
 2. ADA RAMP AND LANDINGS TO BE CONSTRUCTED AS PART OF THE PEPI CONSTRUCTION PHASE. SIDEWALKS FRONTING LOTS TO BE CONSTRUCTED DURING INDIVIDUAL HOME CONSTRUCTION BY HOME BUILDER.
 3. WHERE LESS THAN 6" OF VERTICAL CLEARANCE EXISTS BETWEEN PIPES, THE LOWER PIPE SHALL BE PROTECTED BY A CONCRETE COLLAR PER CITY OF BROWNSVILLE STANDARDS.
 4. STORM RUNOFF FROM HOME ROOFS TO BE ROUTED THROUGH WEEPHOLES IN CURB. CONTRACTOR TO VERIFY WEEPHOLE LOCATIONS WITH HOME BUILDER PRIOR TO PLACEMENT.
 5. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR FINAL INSTALLATION.
 6. COMPREHENSIVE UTILITY SHEET IS GIVEN FOR REFERENCE ONLY. CONTRACTOR SHALL USE PLAN AND PROFILE SHEETS FOR CONSTRUCTION.

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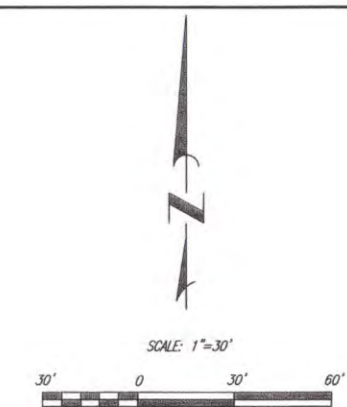
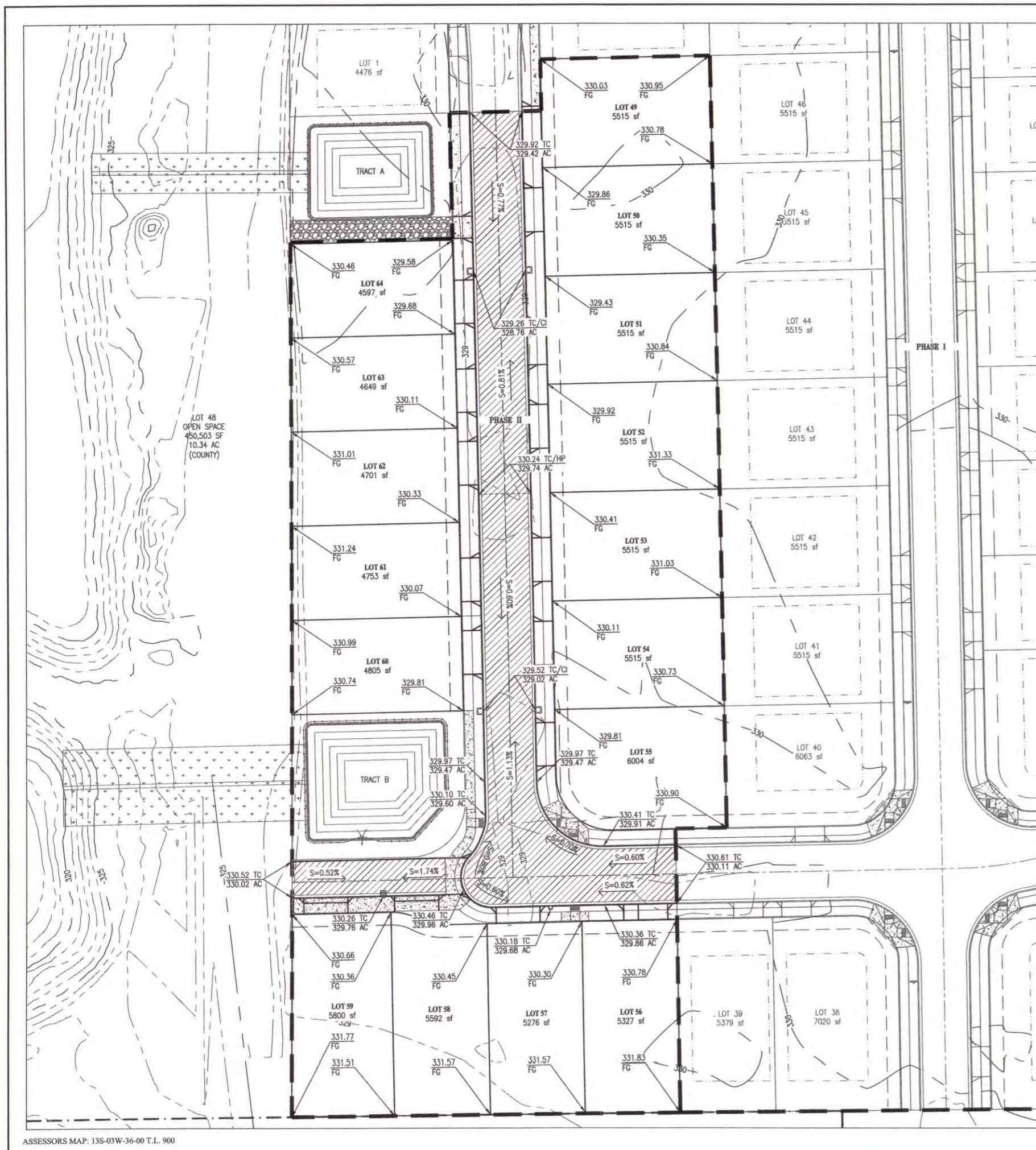


Comprehensive Utility Plan
for Phase 2 of
River's Edge Subdivision
Brownsville Linn County Oregon

DATE:	PROJECT No.:	SCALE:
	117Z	1"=50'
REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
ACH	KEM	SJM
COA:		

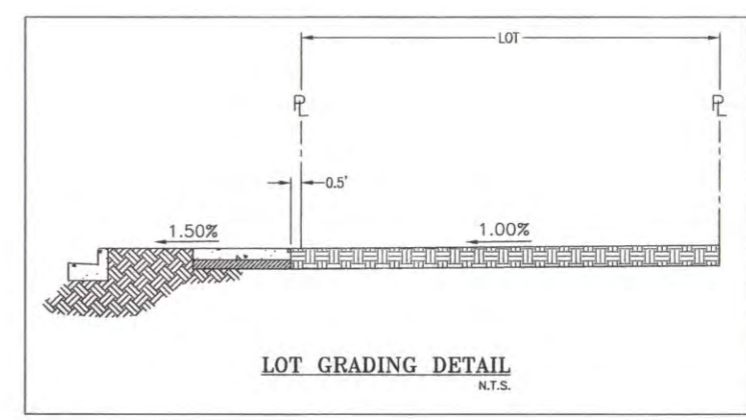
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of
12



GRADING NOTES:

1. ALL HOUSE FINISH FLOOR ELEVATIONS SHALL BE A MINIMUM 1.00' FEET ABOVE BASE FLOODPLAIN ELEVATION.
2. COMPACTION OF MATERIAL IN LOT AREAS TO BE DOCUMENTED AND CERTIFIED BY A GEOTECHNICAL PROFESSIONAL.
3. ALL EROSION MEASURES OUTLINED IN APPROVED DEQ 1200C PERMIT SHALL BE INSTALLED PRIOR TO SITE GRADING.
4. STRIPPINGS SHALL BE SPREAD ONSITE IN NON-STRUCTURAL AREAS.
5. CURB GRADES ARE SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE PROFILE SHEETS FOR CONSTRUCTION.
6. ALL LOTS TO HAVE POSITIVE GRADE TOWARD STREET FRONTAGE. SEE DETAIL ON THIS SHEET.



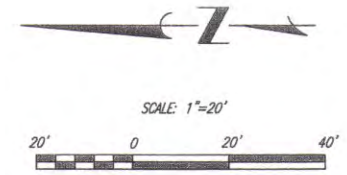
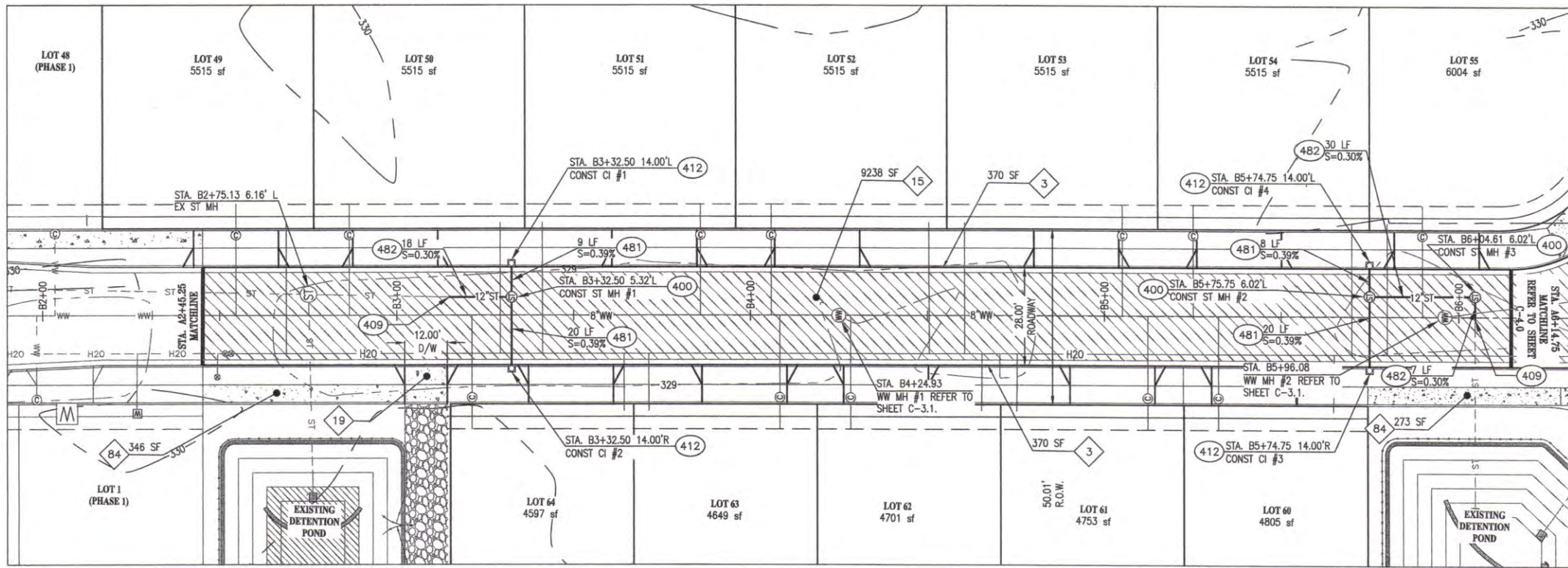
A & O Engineering L.L.C.
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Comprehensive Grading Plan
 for
River's Edge Subdivision
 Brownsville Linn County Oregon

DATE:	
PROJECT No:	1172
SCALE: HORIZ:	1"=80'
VERT:	
REVIEWED BY:	ACH
REVIEWED BY:	KDM
REVIEWED BY:	SDM
COA:	

REVISIONS:

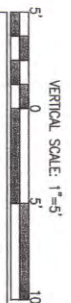
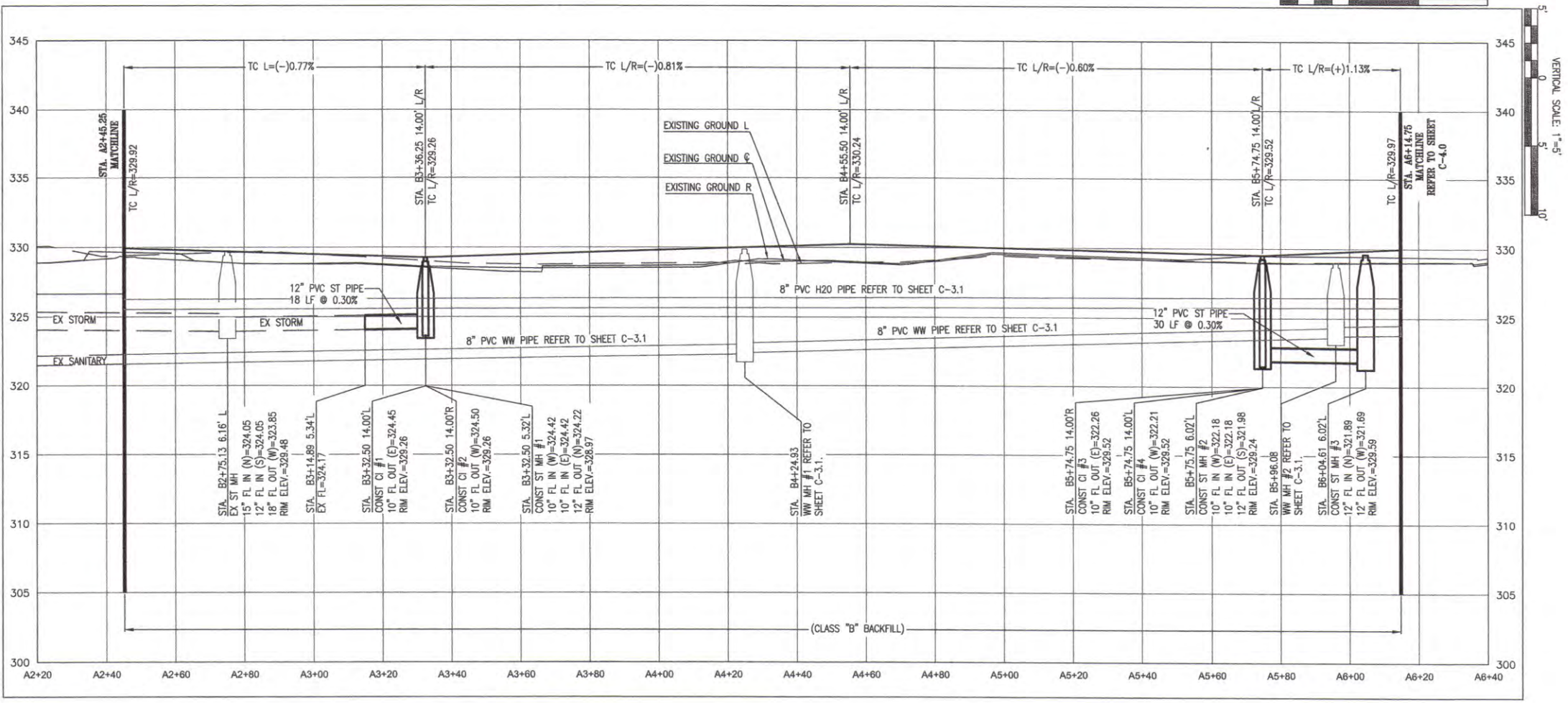
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- GENERAL NOTES:**
- LENGTHS, AREAS, AND QUANTITIES SHOWN ARE FOR REFERENCE ONLY AND NOT INTENDED FOR BID PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES.
 - EROSION CONTROL MEASURES WITHIN THE RIGHT OF WAY AND OUTLINED IN THE APPROVED DEQ 1200C PERMIT SHALL REMAIN IN EFFECT UNTIL PROJECT COMPLETION. ADDITIONAL EROSION MEASURES SHALL BE ADDED DURING CONSTRUCTION AS DIRECTED BY CESCL CERTIFIED INSPECTOR.
 - EXISTING UTILITY CONNECTIONS FROM PHASE 1 CONSTRUCTION ARE ASSUMED TO HAVE BEEN CONSTRUCTED PER PHASE 1 DESIGN PLAN. CONTRACTOR SHALL VERIFY ELEVATIONS ARE PER DESIGN PRIOR TO ORDERING MATERIALS AND MANHOLES.

- # PAVING CONSTRUCTION NOTES**
- CONST CURB AND GUTTER PER CITY OF BROWNSVILLE STD. DWG ST103. REFER TO SHEET C-5.0.
 - CONST 3.5" AC OVER 12" CRUSHED ROCK PER DETAIL. SEE SHEET C-5.0.
 - CONST 6" CONCRETE DRIVEWAY APPROACH WITH STANDARD WINGS PER CITY OF BROWNSVILLE STD. DWG ST114. REFER TO SHEET C-5.2.
 - CONST ADA RAMP PER CITY OF BROWNSVILLE STD. DWG ST117. REFER TO SHEET C-5.1.
 - CONST SETBACK SIDEWALK PER CITY OF BROWNSVILLE STD. DWG ST115. REFER TO SHEET C-5.1.

- # ST CONSTRUCTION NOTES**
- CONST STD. MANHOLE WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNSVILLE DWG SS118 & SS129. SEE SHEET C-5.1.
 - TIE INTO EXISTING STORM PIPE W/RIGID PVC COUPLER.
 - CONST CURB-INLET WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNSVILLE STD DWG SS101 & SS129. REFER TO SHEET C-5.1.
 - CONST 10" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TONE WIRE.
 - CONST 12" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TONE WIRE.



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PROFESSIONAL SEAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF OREGON
No. 12345
EXPIRES 12/22

Plan & Profile Henshaw Edge Park
Sta. B2+45.25 to B6+14.75
River's Edge Subdivision
Brownsville Linn County Oregon

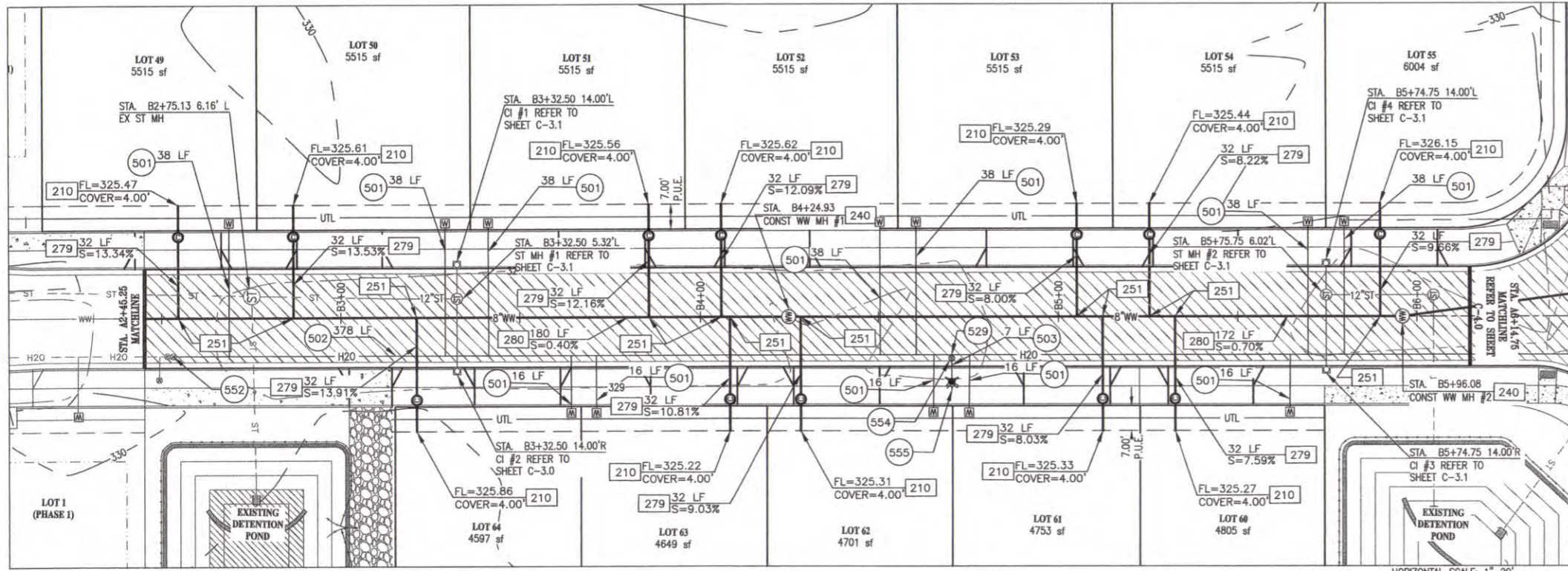
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SCALE: HORIZ.:	1"=60'	
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REVIEWED BY:	ACH	
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COA:		

REVISIONS:

SHEET
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ROADWAY & STORM DRAINAGE CONSTRUCTION PLAN
HENSHAW EDGE PARK STA. B2+45.25 TO STA. B6+14.75

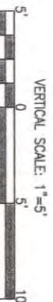
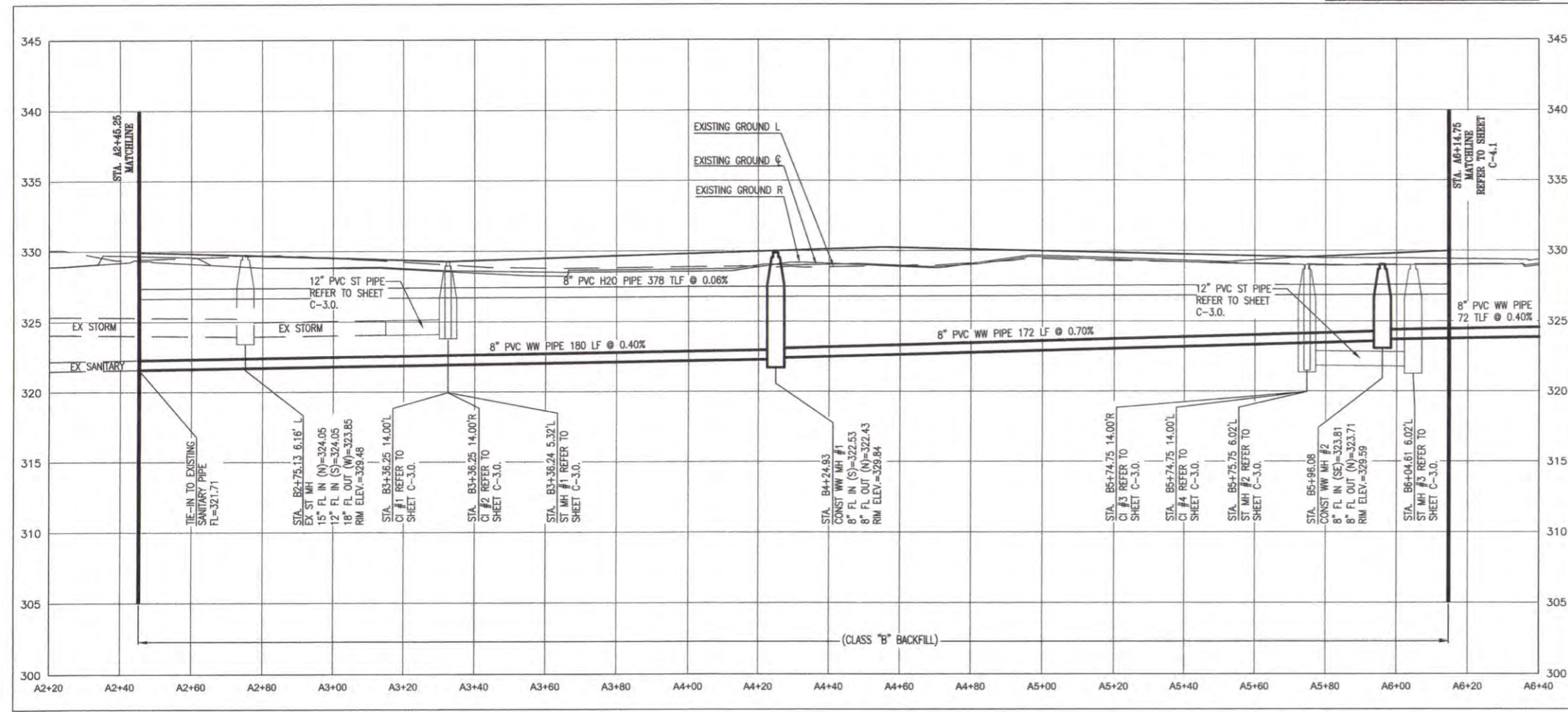
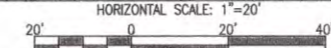
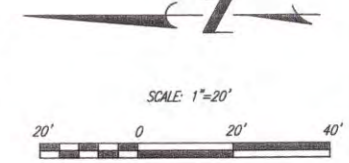


WW CONSTRUCTION NOTES

- 210. PLUG END OF PIPE W/MECHANICAL PLUG AND MARK W/2X4 MARKER PAINTED GREEN. PLUG SHALL INCLUDE PAINT MARKING TO DESIGNATE "WW". CONST SERVICE WITH CLEANOUT PER CITY OF BROWNSVILLE STD. DWG SS111. REFER TO SHEET C-5.0.
- 240. CONST WASTEWATER MANHOLE WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNSVILLE DWG SS118 & SS129. SEE SHEET C-5.1.
- 251. CONST 8"x4"x8" PVC D3034 SDR 35 TEE WITH RUBBER GASKET JOINTS AND TONE WIRE.
- 279. CONST 4" PVC WASTEWATER PIPE, D3034 SDR 35 WITH RUBBER GASKET JOINTS AND TONE WIRE.
- 280. CONST 8" D3034 SDR 35 WASTEWATER PIPE WITH RUBBER GASKET JOINTS AND TONE WIRE.

WATER CONSTRUCTION NOTES

- 501. CONST HDPE (PE3408) IPS 3/4" WATER SERVICE LINE AND A 3/4" WATER METER PER CITY OF BROWNSVILLE STD. DWG W107. REFER TO SHEET C-5.2.
- 502. CONST 8" AWWA C-900, SDR 18 PVC WATER LINE. WITH MECHANICAL JOINTS.
- 503. CONST 6" AWWA CLASS 52, C-151 DUCTILE IRON WATER LINE.
- 529. CONST 8"x6"x8" TEE MJ X FLG X MJ WITH RETAINER GLANDS.
- 552. TIE-INTO EXISTING WATER LINE.
- 554. CONST 6" GATE VALVE MJ X FLG
- 555. CONST FIRE HYDRANT PER DETAIL. REFER TO SHEET C-5.2.



UTILITY NOTES:
 1. CONTRACTOR TO COORDINATE ALL UTILITY WORK WITH RESPECTIVE UTILITY PROVIDERS PRIOR TO WORK BEING COMPLETED.

WATER NOTES:
 1. ALL WATER FITTINGS SHALL BE THRUST BLOCKED PER BROWNSVILLE STD. DRAWING W112. SEE SHEET C-5.2 FOR DETAIL.
 2. PIPE CROSSINGS BETWEEN WATER MAIN AND WASTE-WATER PIPE SHALL BE ONE FULL LENGTH AND CENTERED AT POINT OF CROSSING.
 3. CONTRACTOR SHALL MAINTAIN 10.00' SEPARATION BETWEEN WATER AND WASTEWATER MAINS.
 4. CROSSINGS BETWEEN WATER PIPE AND WASTEWATER SHALL HAVE A MINIMUM CLEARANCE OF 1.50' PER OAR STANDARDS. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF STANDARD CANNOT BE MET. OHR 333-061-0050 (C)(A).
 5. CROSSINGS BETWEEN WATER AND STORMWATER PIPES SHALL HAVE SEPARATION ACCORDING TO CITY OF BROWNSVILLE STANDARD DRAWING W118. REFER TO SHEET C-5.2 FOR DETAIL.
 6. PARALLEL CLEARANCE BETWEEN WATER AND SEWER PIPE SHALL COMPLY WITH OAR 333-061-0050 (9)(B).
 7. ALL WATER METERS ARE TO BE 3/4" METERS (PROVIDED BY CITY OF BROWNSVILLE) PER CITY OF BROWNSVILLE STD. DWG W107. REFER TO SHEET C-5.2.

WASTEWATER NOTES:
 1. ALL SANITARY SEWER CLEANOUTS SHALL HAVE CAST IRON LIDS SET IN CONCRETE AND BE TRAFFIC LOADING RATED.
 2. IF SANITARY MAIN CROSSES OVER WATER MAIN, SEWER MAIN SHALL BE CENTERED AT POINT OF CROSSING AND PIPE TYPE SHALL CHANGE TO C900 PVC. TRANSITION FROM D3034 TO C900 SHALL BE DONE BY SOLID COUPLER.

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PROFESSIONAL ENGINEER
 91412PE
 OREGON
 EXPIRES 12/22

Plan & Profile Henshaw Edge Park
 Sta. B2+45.25 to B6+14.75
 River's Edge Subdivision
 Brownsville Linn County Oregon

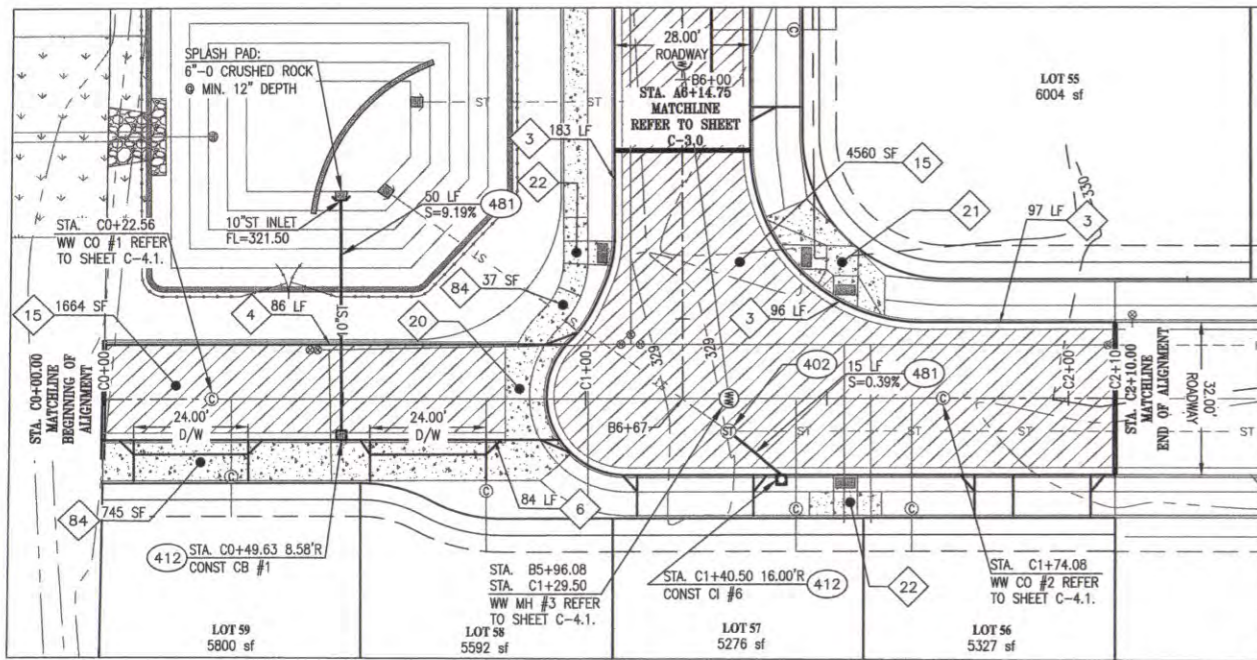
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	1172	1"=80'	AJH	KJM	

REVISIONS:

SHEET C-3.1
 of 12

20

SANITARY & WATER CONSTRUCTION PLAN
 HENSHAW EDGE PARK STR. B2+45.25 TO STR. B6+14.75



GENERAL NOTES:

1. LENGTHS, AREAS, AND QUANTITIES SHOWN ARE FOR REFERENCE ONLY AND NOT INTENDED FOR BID PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES.
2. EROSION CONTROL MEASURES WITHIN THE RIGHT OF WAY AND OUTLINED IN THE APPROVED DEQ 1200C PERMIT SHALL REMAIN IN EFFECT UNTIL PROJECT COMPLETION. ADDITIONAL EROSION MEASURES SHALL BE ADDED DURING CONSTRUCTION AS DIRECTED BY CESCL CERTIFIED INSPECTOR.
3. EXISTING UTILITY CONNECTIONS FROM PHASE 1 CONSTRUCTION ARE ASSUMED TO HAVE BEEN CONSTRUCTED PER PHASE 1 DESIGN PLANS. CONTRACTOR SHALL VERIFY ELEVATIONS ARE PER DESIGN PRIOR TO ORDERING MATERIALS AND MANHOLES.
4. CENTERLINE OF ROADWAY FRONTING LOTS 58 AND 59 IS NOT THE CENTERLINE OF THE RIGHT-OF-WAY.

UTILITY NOTES:

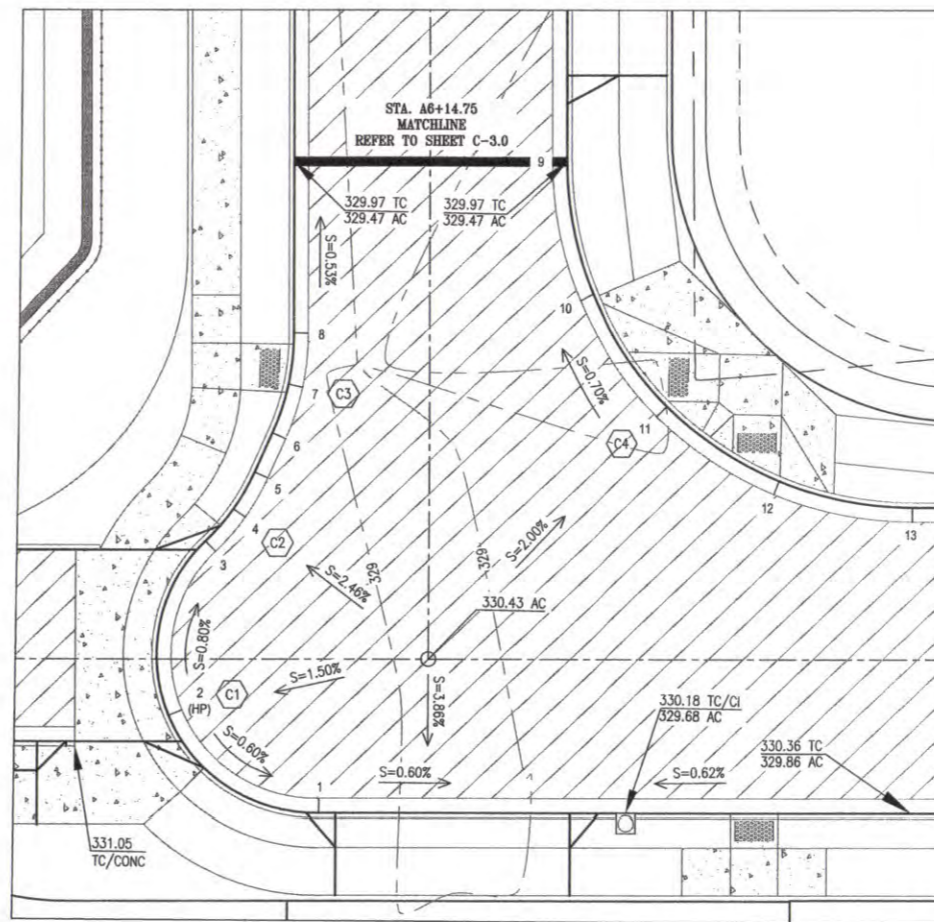
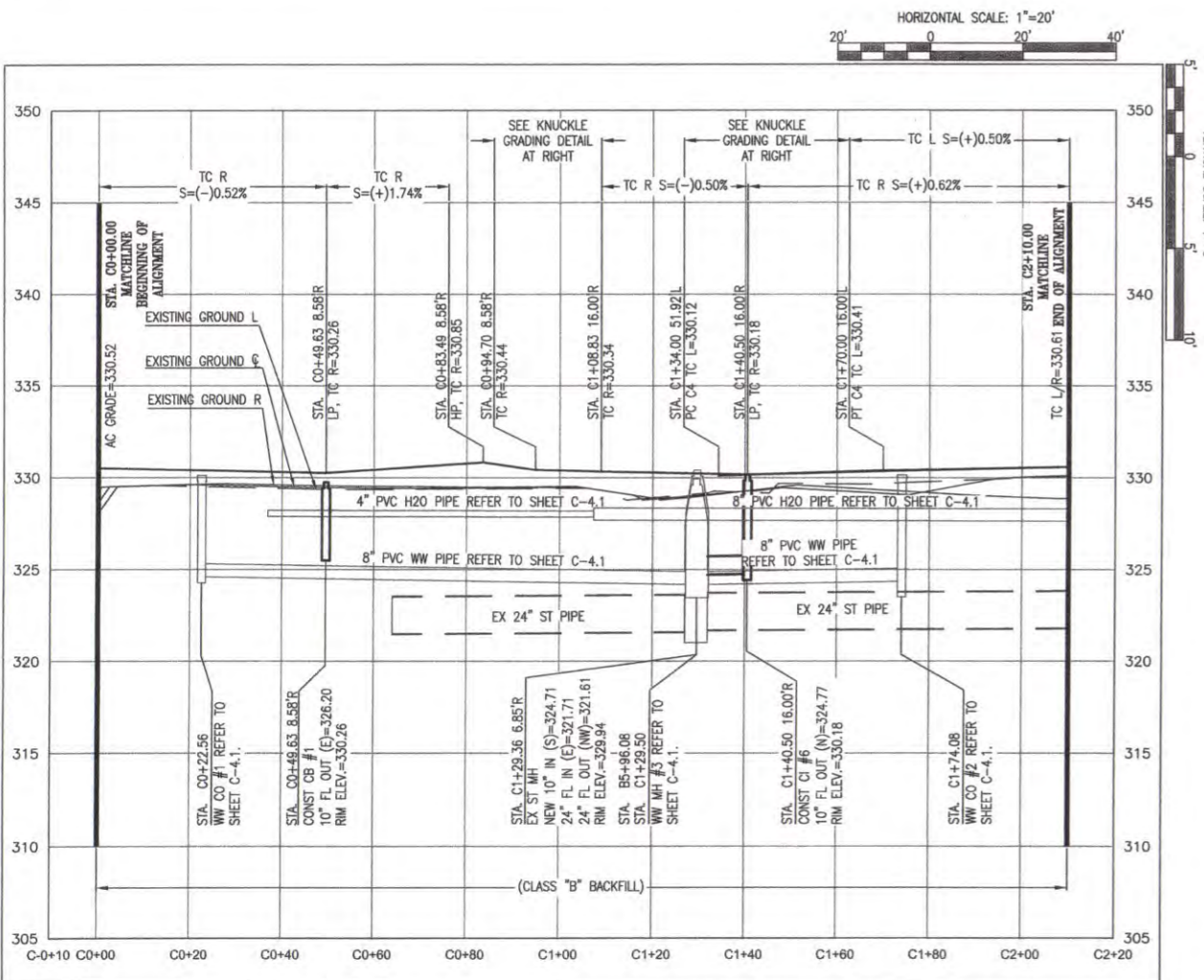
1. CONTRACTOR TO COORDINATE ALL UTILITY WORK WITH RESPECTIVE UTILITY PROVIDERS PRIOR TO WORK BEING COMPLETED.

PAVING CONSTRUCTION NOTES

3. CONST 18" CURB AND GUTTER PER CITY OF BROWNSVILLE STD. DWG ST103. REFER TO SHEET C-5.1.
4. CONST 16" VERTICAL CURB PER DETAIL ON SHEET C-5.0.
6. CONST LOW-PROFILE MOUNTABLE CURB AND GUTTER. REFER TO SHEET C-5.0.
15. CONST 3.5" AC OVER 12" CRUSHED ROCK PER DETAIL. SEE SHEET C-5.0.
20. CONST 8" CONCRETE DRIVEWAY APPROACH WITH STANDARD WINGS PER CITY OF BROWNSVILLE STD. DWG ST114. REFER TO SHEET C-5.2.
21. CONST ADA RAMP PER CITY OF BROWNSVILLE STD. DWG ST117. REFER TO SHEET C-5.1.
22. CONST ADA RAMP PER CITY OF BROWNSVILLE STD. DWG ST116. REFER TO SHEET C-5.1.
84. CONST SETBACK SIDEWALK PER CITY OF BROWNSVILLE STD. DWG ST115. REFER TO SHEET C-5.1.

ST CONSTRUCTION NOTES

402. RAISE EXISTING MANHOLE LID TO GRADE LISTED IN PROFILE.
412. CONST CURB-INLET WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNSVILLE STD DWG SS101 & SS129. REFER TO SHEET C-5.1.
481. CONST 10" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TONE WIRE.



CURB RETURN AND KNUCKLE DETAIL

SCALE: 1"=10'

KNUCKLE TABLE

#	TC ELEV	DESCRIPTION
1	330.34	PC 16.50' RAD.
2	330.46	1/2 DELTA, HIGH POINT
3	330.30	PT 16.50' RAD., PRC 23.50' RAD.
4	330.26	1/2 DELTA
5	330.22	PT 23.50' RAD.
6	330.18	PC 25.50' RAD.
7	330.14	1/2 DELTA
8	330.10	PT 25.50' RAD.
9	329.97	PC 36.00' RAD.
10	330.07	1/4 DELTA
11	330.17	1/2 DELTA
12	330.27	3/4 DELTA
13	330.37	PT 36.00' RAD.

C1	$\Delta = 24'02''14''$ LC=30.70'	R=25.50'	L=39.44'
C2	$\Delta = 21'34''23''$ LC=8.80'	R=23.50'	L=8.85'
C3	$\Delta = 136'58''16''$ LC=10.62'	R=16.50'	L=10.70'
C4	$\Delta = 90'00''00''$ LC=50.91'	R=36.00'	L=56.55'

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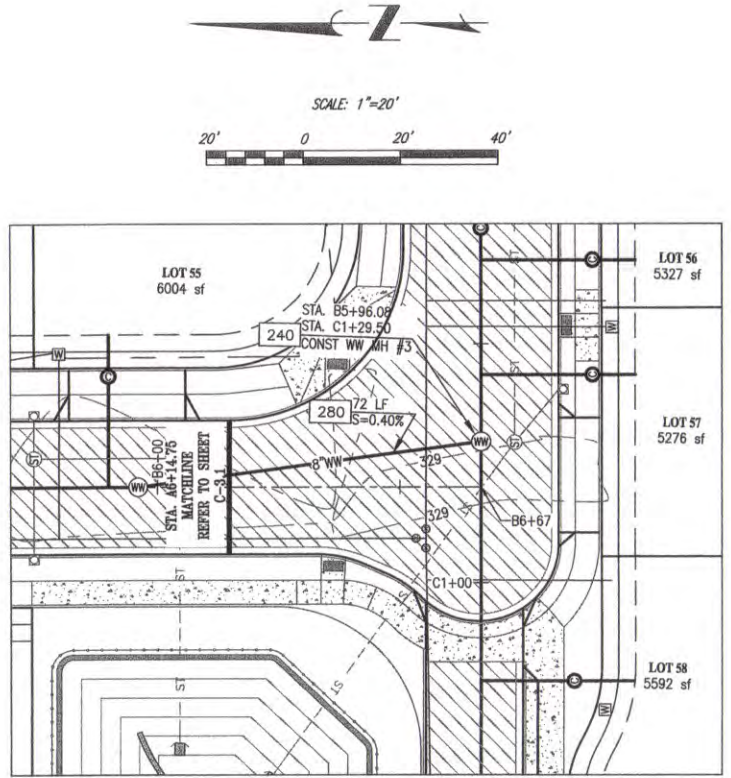
Plan & Profile Depot Avenue
Sta. C0+00.00 to C2+10.00
River's Edge Subdivision
Brownsville Linn County Oregon

DATE: PROJECT No: 1172
SCALE: HORIZ: 1"=80'
VERT: 1"=80'
REVIEWED BY: AJH
REVIEWED BY: KDM
REVIEWED BY: SOM
COAL:

REVISIONS:

SHEET
C-4.0
of
12

ROADWAY & STORMWATER CONSTRUCTION PLAN
DEPOT AVENUE STA. C0+00.00 TO STA. C2+10.00

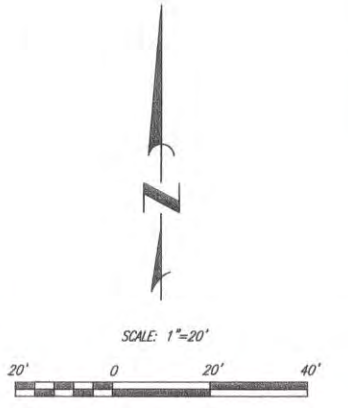
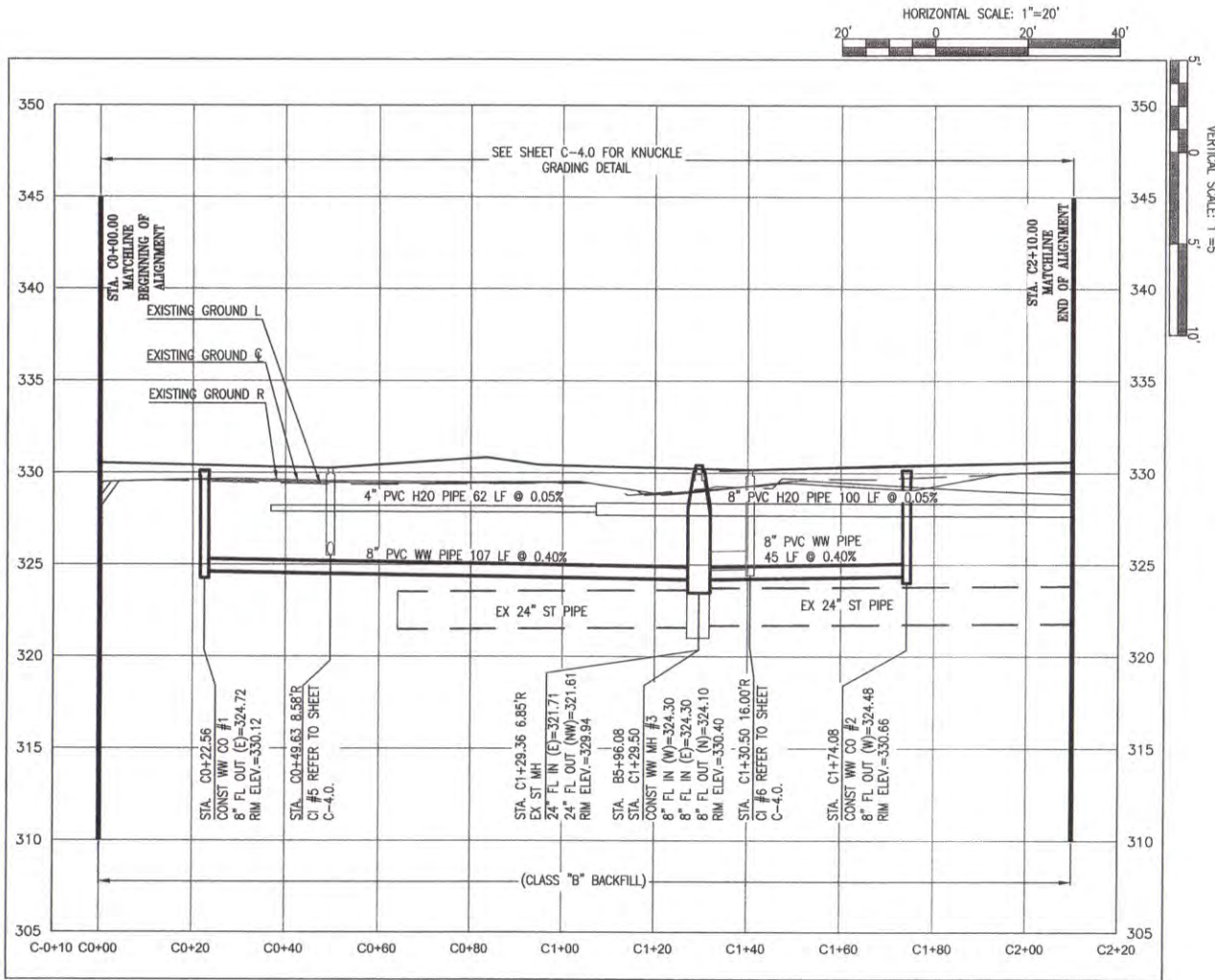
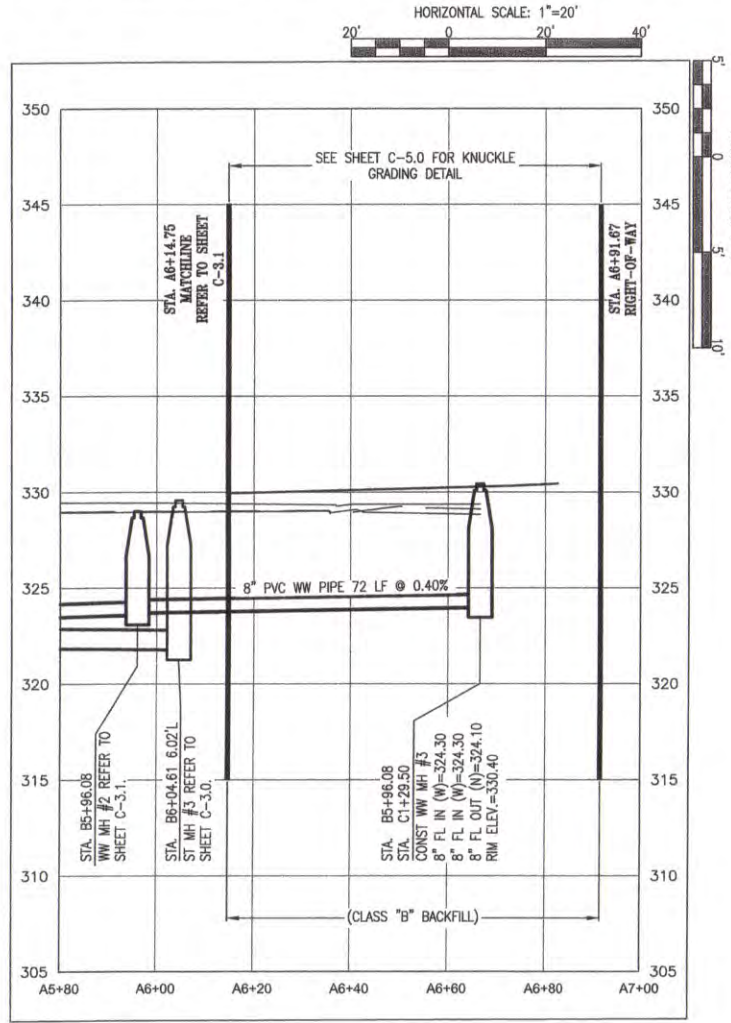
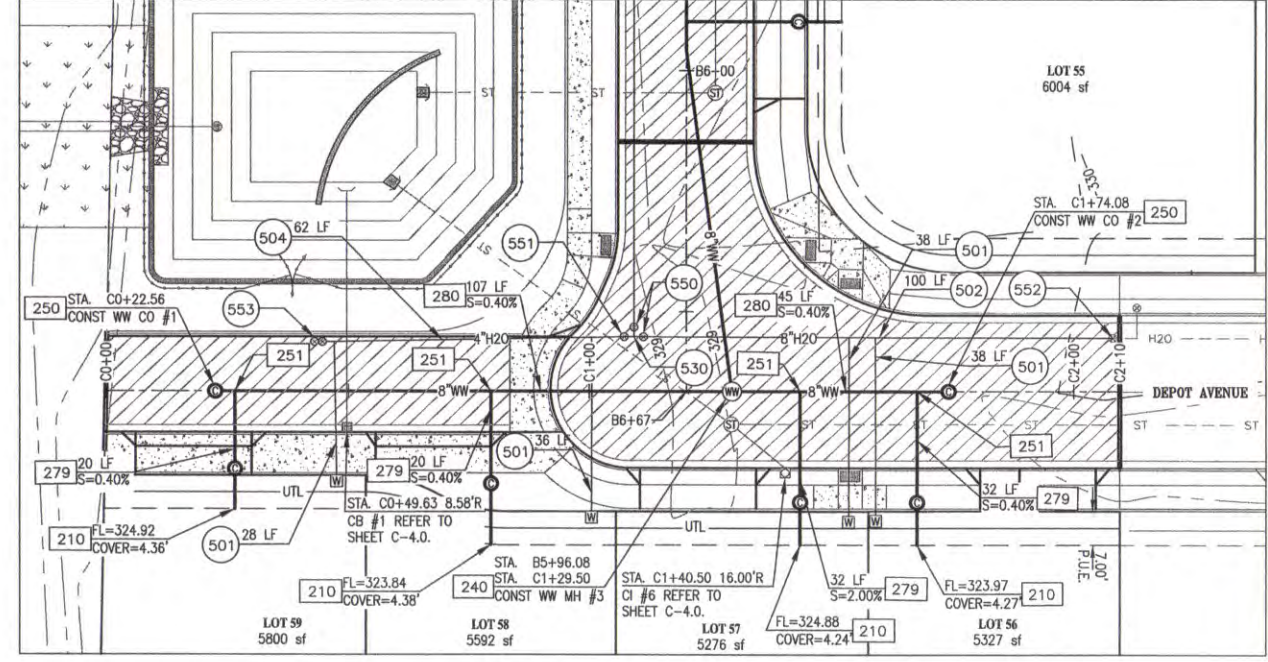


WW CONSTRUCTION NOTES

- 210. PLUG END OF PIPE W/MECHANICAL PLUG AND MARK W/2X4 MARKER PAINTED GREEN. PLUG SHALL INCLUDE PAINT MARKING TO DESIGNATE "WW". CONST SERVICE WITH CLEANOUT PER CITY OF BROWNVILLE STD. DWG SS111. REFER TO SHEET C-5.0.
- 240. CONST WASTEWATER MANHOLE WITH BOLT DOWN LID AND STAINLESS STEEL BOLTS WITH NICKEL ANTI-SEIZE LUBRICANT PER CITY OF BROWNVILLE DWG SS118 & SS129. SEE SHEET C-5.1.
- 250. CONST STD. CLEANOUT W/ CAST IRON LID & 6" RISER SET IN CONCRETE.
- 251. CONST 8"x8" PVC D3034 SDR 35 TEE WITH RUBBER GASKET JOINTS AND TONE WIRE.
- 279. CONST 4" PVC WASTEWATER PIPE, D3034 SDR 35 WITH RUBBER GASKET JOINTS AND TONE WIRE.
- 280. CONST 8" D3034 SDR 35 WASTEWATER PIPE WITH RUBBER GASKET JOINTS AND TONE WIRE.

WATER CONSTRUCTION NOTES

- 501. CONST HDPE (PE3408) IPS 3/4" WATER SERVICE LINE AND A 3/4" WATER METER PER CITY OF BROWNVILLE STD. DWG W107. REFER TO SHEET C-5.2.
- 502. CONST 8" AWWA C-900, SDR 18 PVC WATER LINE. WITH MECHANICAL JOINTS.
- 504. CONST 4" AWWA C-900, SDR 18 PVC WATER LINE. WITH MECHANICAL JOINTS.
- 530. CONST 8"x8"x4" AWWA C-110 DUCTILE IRON TEE FLG X FLG X FLG.
- 550. CONST 8" GATE VALVE MJ X FLG
- 551. CONST 4" GATE VALVE MJ X FLG
- 552. TIE-INTO EXISTING WATER LINE.
- 553. CONST BLOW-OFF ASSEMBLY PER CITY OF BROWNVILLE STD. DWG W103. REFER TO SHEET C-5.2.



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- 7. ALL WATER METERS ARE TO BE 3/4" METERS (PROVIDED BY CITY OF BROWNVILLE) PER CITY OF BROWNVILLE STD. DWG W107. REFER TO SHEET C-5.2.

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PROFESSIONAL ENGINEER
 81412P
 OREGON
 EXPIRES 12/22

Plan & Profile Depot Avenue
 Sta. C0+00.00 to C2+10.00
 River's Edge Subdivision
 Brownsville Linn County Oregon

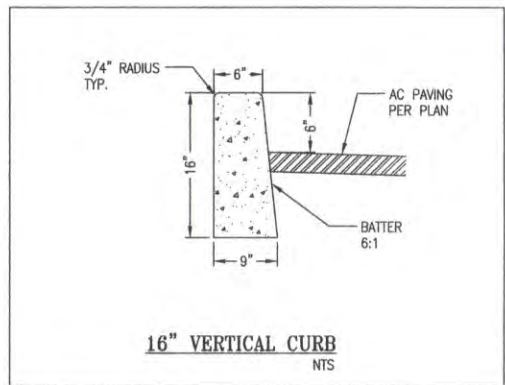
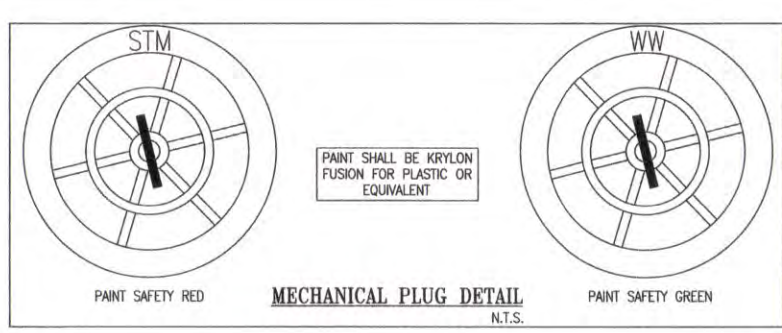
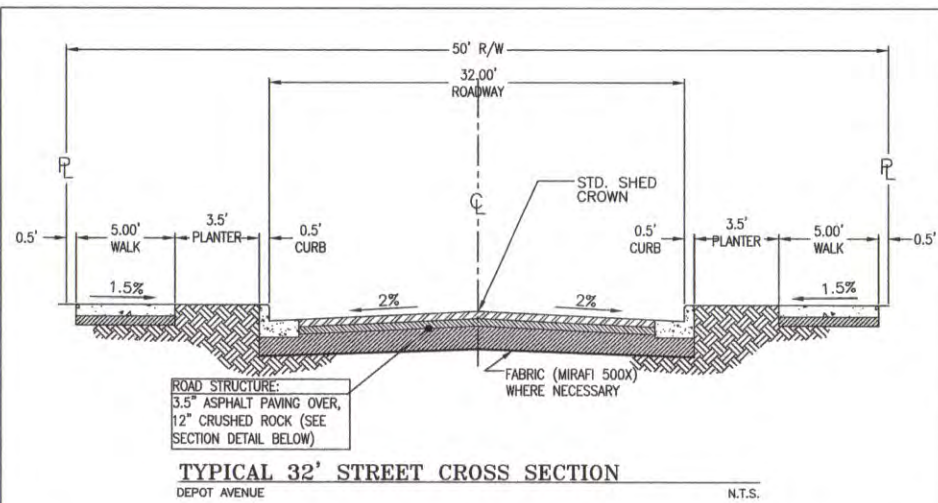
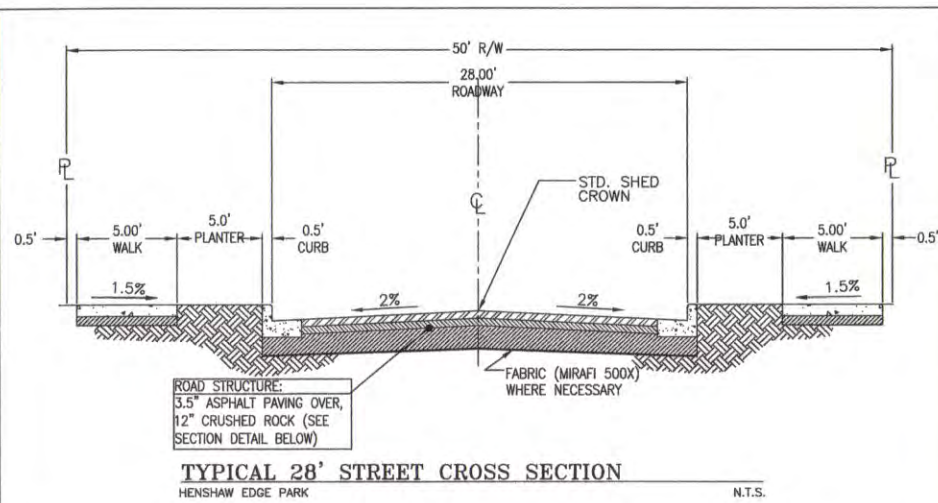
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REVIEWED BY:	REVIEWED BY:	REVIEWED BY:	COA:
	KOM	SDM	

REVISIONS:

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 C-4.1
 of
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RL

SANITARY & WATER CONSTRUCTION PLAN
 DEPOT AVENUE STA. C0+00.00 TO STK. C2+10.00

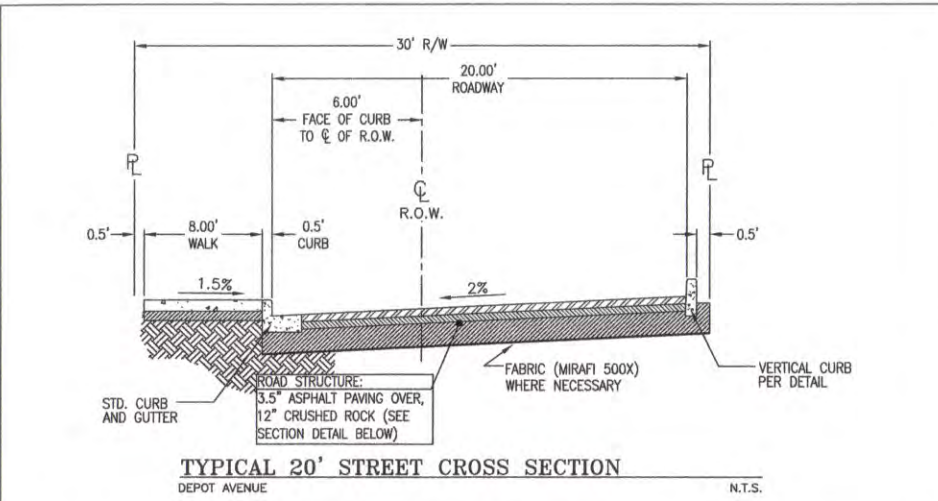


ROADWAY NOTES:

- SUBGRADE AND BASE ROCK THAT DON'T MEET COMPACTION REQUIREMENTS SHALL BE OVEREXCAVATED, MIRAFI 500X FABRIC PLACED AND BACKFILLED WITH 1"-0 CRUSHED ROCK. DEPTH AS DIRECTED BY ENGINEER OF RECORD.
- PLANTER STRIP AREAS SHALL HAVE MINIMUM OF 12" DEEP CLEAN LOAM TO WITHIN 3" OF TOP OF CURB.
- BARK-0-MULCH SHALL BE PLACED OVER SOIL IN PLANTER (3" MINIMUM)

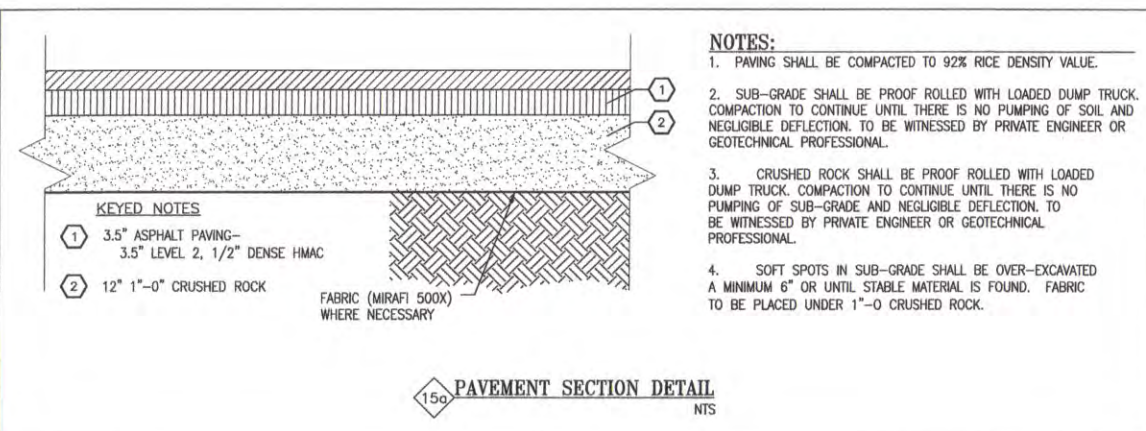
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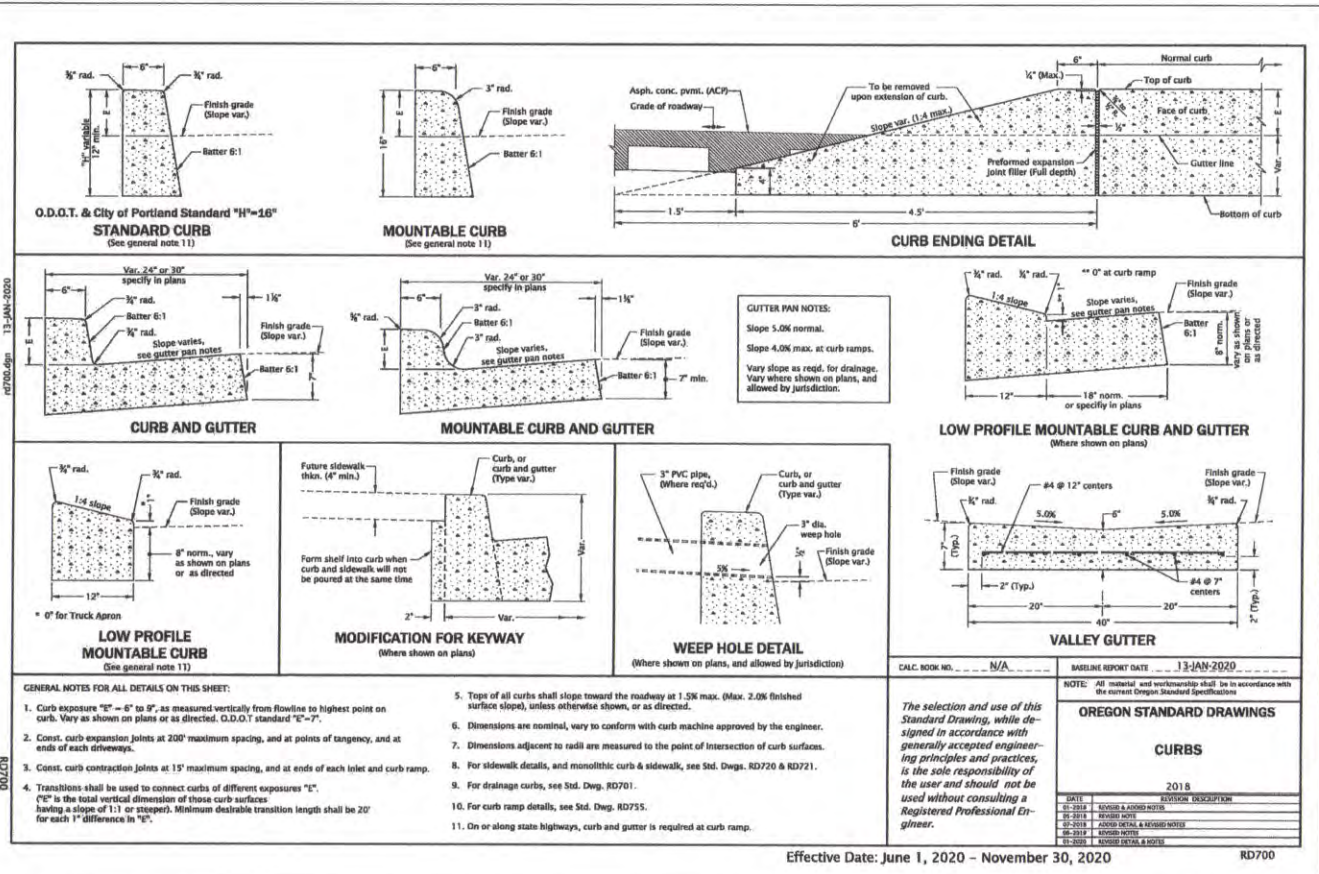
ROADWAY NOTES:

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- PLANTER STRIP AREAS SHALL HAVE MINIMUM OF 12" DEEP CLEAN LOAM TO WITHIN 3" OF TOP OF CURB.



NOTES:

- PAVING SHALL BE COMPACTED TO 92% RICE DENSITY VALUE.
- SUB-GRADE SHALL BE PROOF ROLLED WITH LOADED DUMP TRUCK. COMPACTION TO CONTINUE UNTIL THERE IS NO PUMPING OF SOIL AND NEGIGIBLE DEFLECTION. TO BE WITNESSED BY PRIVATE ENGINEER OR GEOTECHNICAL PROFESSIONAL.
- CRUSHED ROCK SHALL BE PROOF ROLLED WITH LOADED DUMP TRUCK. COMPACTION TO CONTINUE UNTIL THERE IS NO PUMPING OF SUB-GRADE AND NEGIGIBLE DEFLECTION. TO BE WITNESSED BY PRIVATE ENGINEER OR GEOTECHNICAL PROFESSIONAL.
- SOFT SPOTS IN SUB-GRADE SHALL BE OVER-EXCAVATED A MINIMUM 6" OR UNTIL STABLE MATERIAL IS FOUND. FABRIC TO BE PLACED UNDER 1"-0 CRUSHED ROCK.



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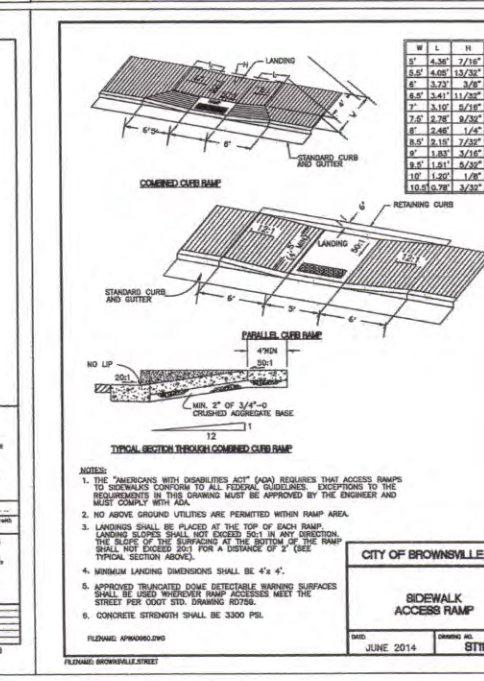
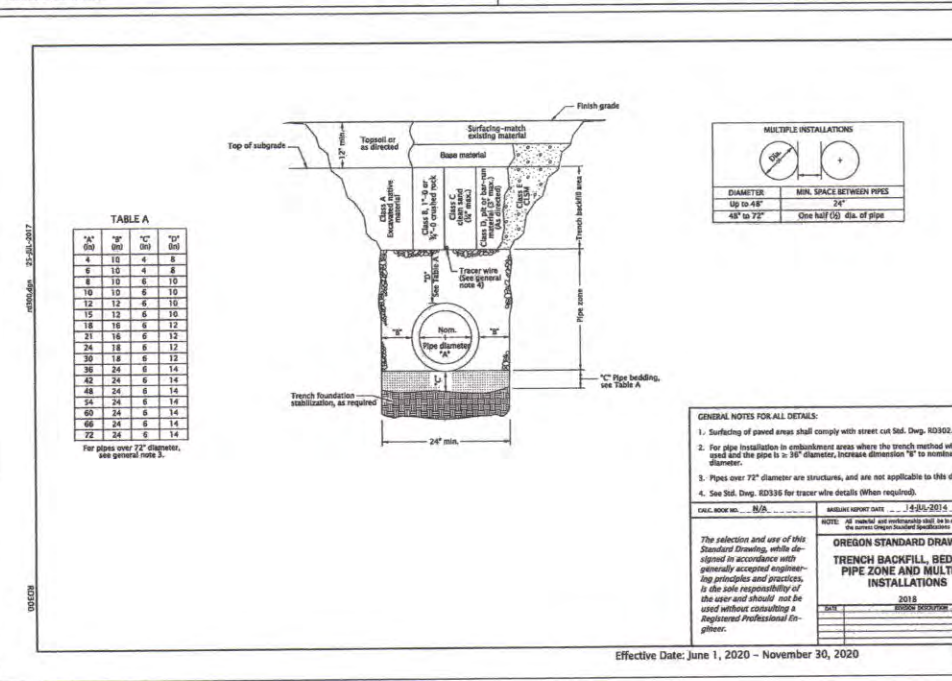
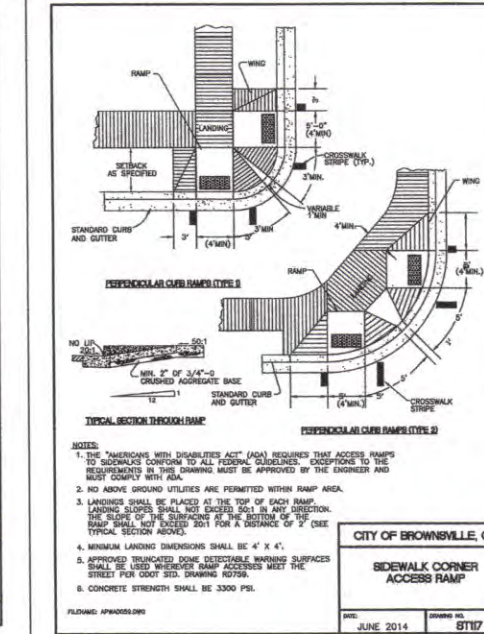
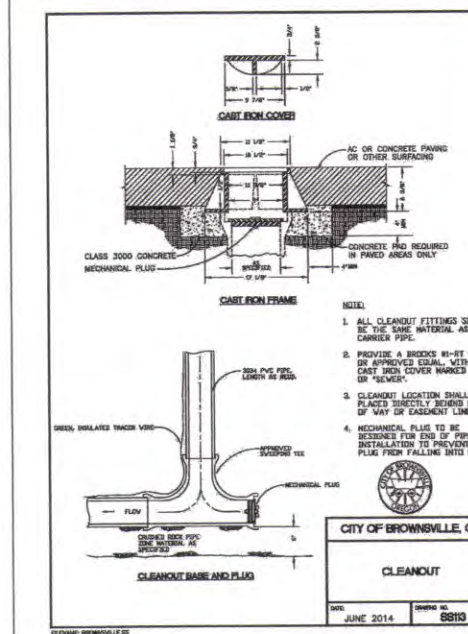
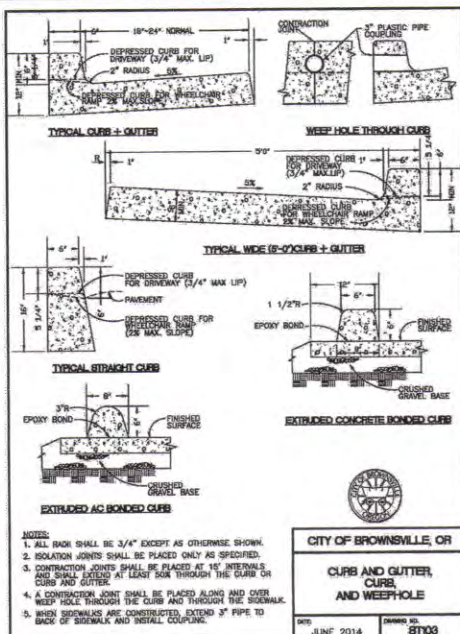
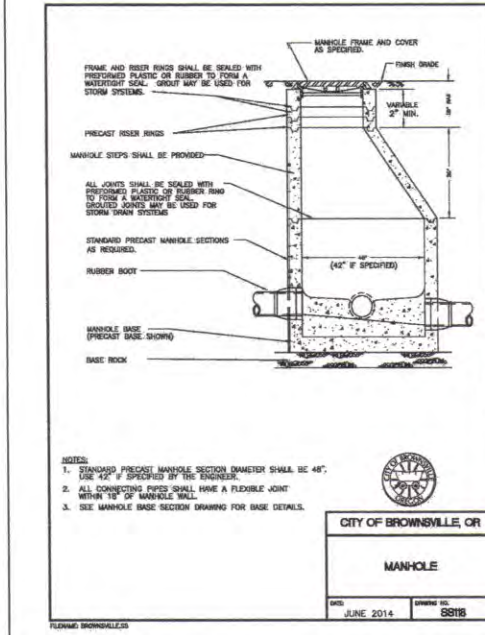
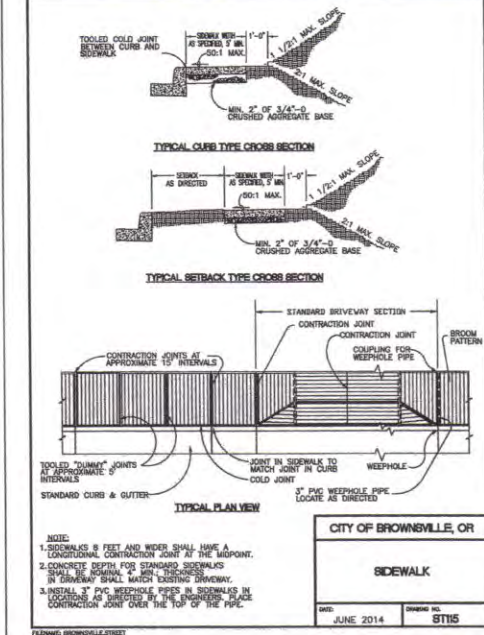
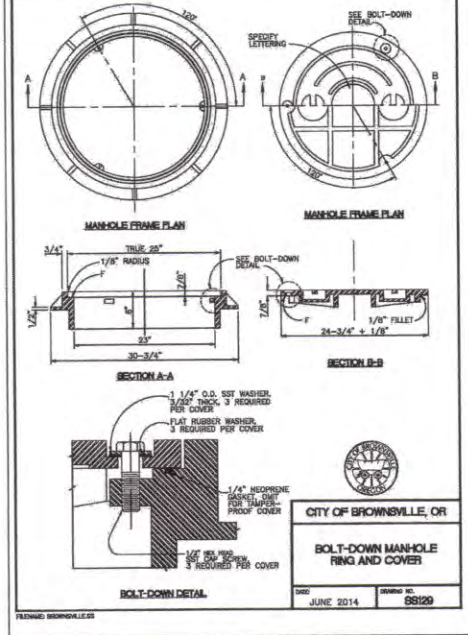
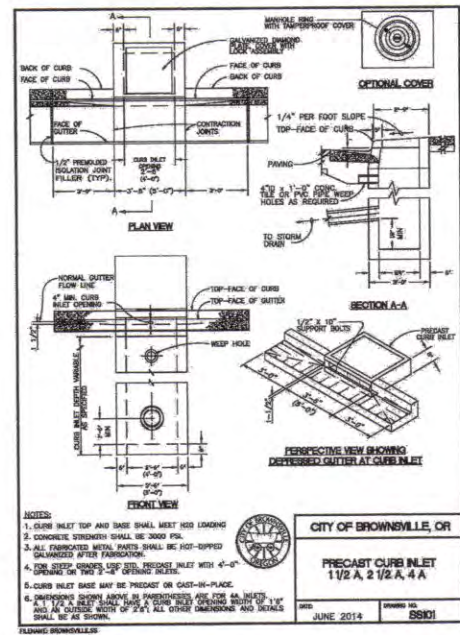
Civil Details
for
River's Edge Subdivision
Brounsville Linn County Oregon

DATE: PROJECT No. 1172
SCALE: none N/A
REVIEWED BY: ACH
REVIEWED BY: KOM
REVIEWED BY: SOM
COA:

REVISIONS:

NO.	DESCRIPTION

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C-5.0
of
12



A & O Engineering L.L.C.
 CONSULTING ENGINEERS &
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 SPRINGFIELD, OR 97477
 PHONE: (541) 342-9790
 INFO@AOE-OR.COM



Civil Details
 for
River's Edge Subdivision
 Brownsville Linn County Oregon

DATE: _____

PROJECT No: 1172

SCALE: 1/8" = 1'-0"

REVIEWED BY: ACH

REVIEWED BY: KOM

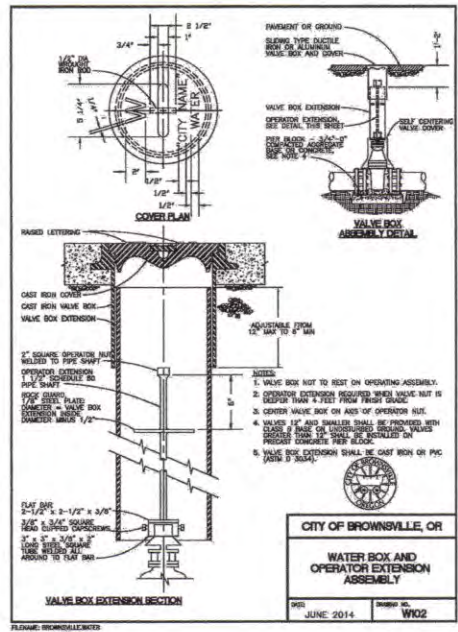
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COA: _____

REVISIONS:

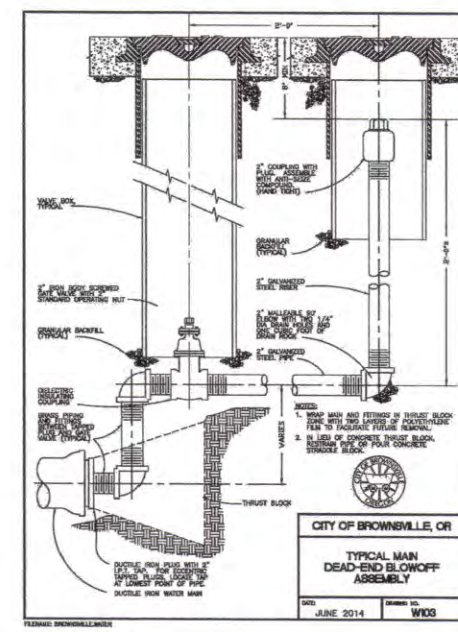
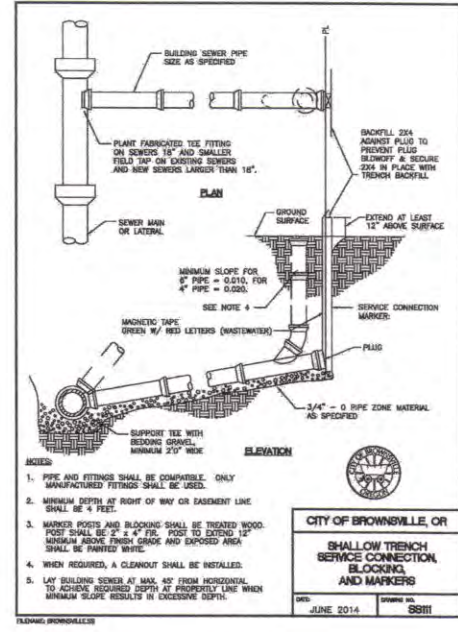
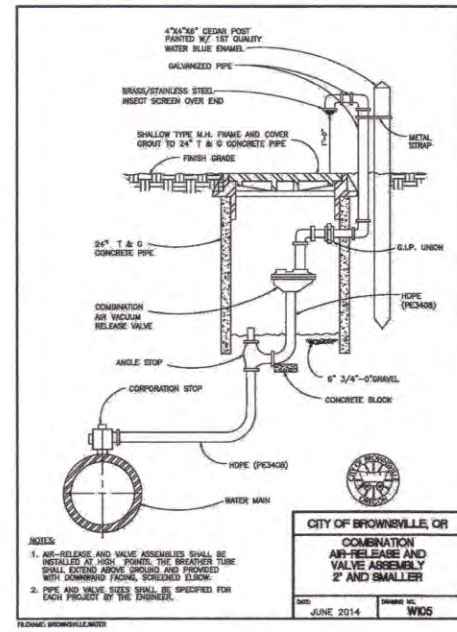
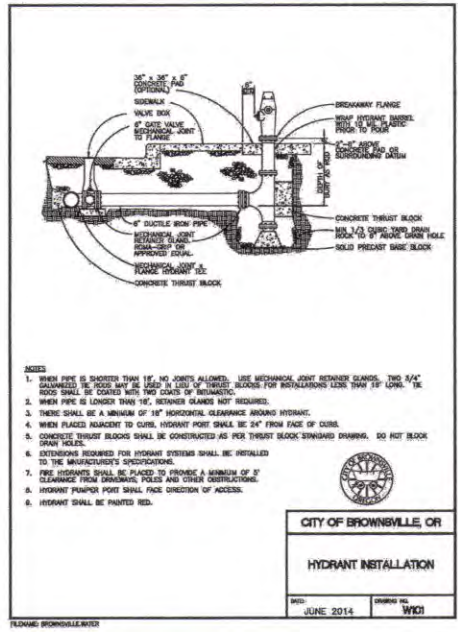
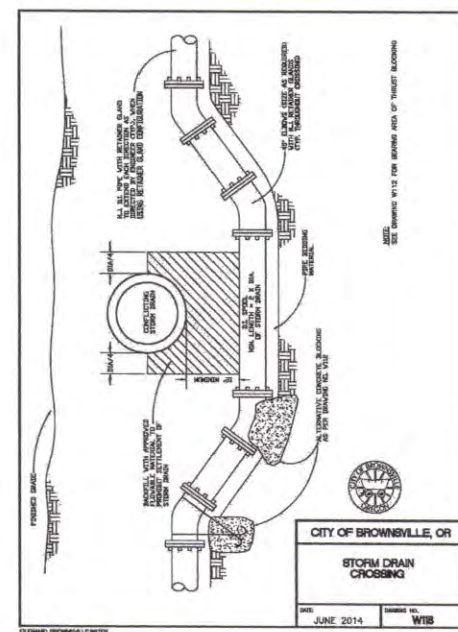
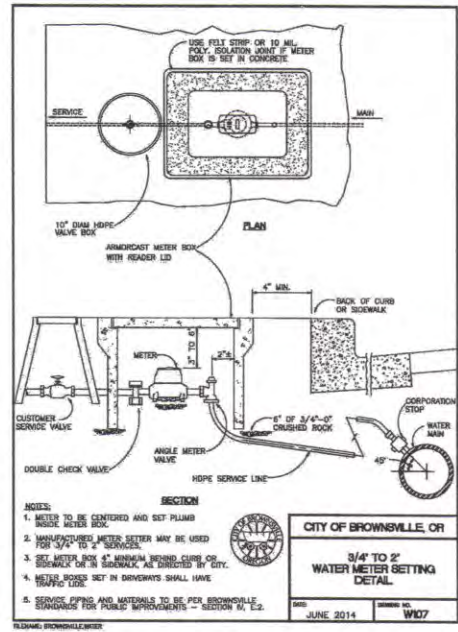
NO.	DATE	DESCRIPTION

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 12



BEARING AREA OF THRUST BLOCKS										VOLUME OF THRUST BLOCK IN CUBIC YARDS									
PIPE SIZE	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.	INS. DIA.
4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
8	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
10	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
12	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
14	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
18	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
20	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0
24	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0

CITY OF BROWNVILLE, OR
THRUST BLOCKING
 DATE: JUNE 2014
 DRAWN BY: WJ2



Air/Vacuum Valves
Guaranteed Protection

- Protection for pipelines
- Elimination of air from the line due to vacuum
- Exhausts air when the line is filled
- Adaptable to re-enter immediately when the line clears

Plus these exclusive features at no extra cost:

- Standard steel body - galvanneal
- ASTM quality materials guaranteed throughout
- Every valve hydrostatically factory tested

Why and Where to Use Air/Vacuum Valves

An Air/Vacuum Valve has a large venting orifice and is used to exhaust large quantities of air from a pipeline when the pipeline is under vacuum. Once the line is filled, the Air/Vacuum Valve closes and remains closed until the liquid is drained and pressure returns to atmospheric. The Air/Vacuum Valve will then immediately open to allow air to re-pressurize the line and prevent a vacuum from developing.

Air/Vacuum Valves do not open to exhaust the small pockets of air which collect in the line while it is operating under pressure. Use highly recommended Automatic Air Release Valves (ARV) for use in conjunction with Air/Vacuum Valves for maximum pipeline flow and pump efficiency. The ARV will continuously collect air pockets from forming at the high points of the pipeline.

The minimal cost for the Automatic Air Release Valves will quickly pay for itself in increasing head loss through the pipeline. The result: energy savings!

Series 142H available for high pressure service (usually operating pressure is below 200 psi/1380 kpa).

Series 150 - Air Valve for Vertical Turbine Pumps

Manufactured to ANSI/AWWA C-512
 ISO flange connections available

Series 140
 4" (102 mm) through 30" (762 mm) outside diam. 150 psi (1034 kpa) working pressure. It is good practice to install a manhole top into the threaded outlet for electrical protection.

Series 150
 4" (102 mm) through 30" (762 mm) outside diam. 150 psi (1034 kpa) working pressure. It is good practice to install a manhole top into the threaded outlet for electrical protection.

Optional standard or tapered outlets available.

Physical Dimensions

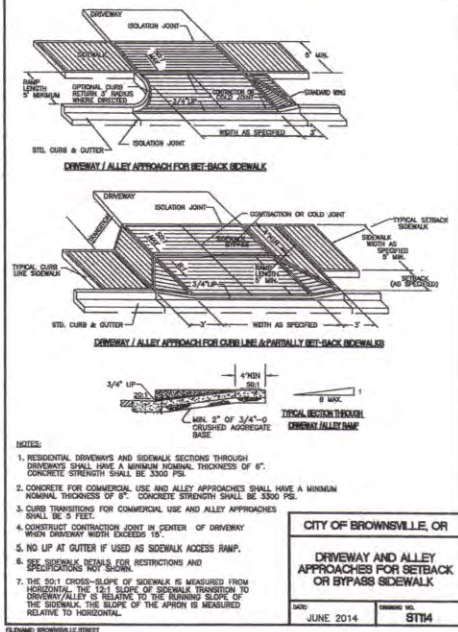
Model	Material	Height	Weight	Outlet	Weight
140	Steel	12.00	12.00	4"	12.00
140	Steel	12.00	12.00	6"	12.00
140	Steel	12.00	12.00	8"	12.00
140	Steel	12.00	12.00	10"	12.00
140	Steel	12.00	12.00	12"	12.00
140	Steel	12.00	12.00	14"	12.00
140	Steel	12.00	12.00	16"	12.00
140	Steel	12.00	12.00	18"	12.00
140	Steel	12.00	12.00	20"	12.00
140	Steel	12.00	12.00	24"	12.00
140	Steel	12.00	12.00	30"	12.00

Replace Shut-Off Valves with DZURK Butterfly Valves

Cells to enhance pipeline transfer can be greatly reduced by using DZURK Butterfly Valves for isolation instead of gate valves. DZURK Butterfly Valves are economical, reliable and much shorter, permitting a reduction in depth of trench. See below.

Size	Model	Connection	A	B	C	Min. Required & Max. Depth
12"	1200	12"	12"	12"	12"	8'-0" to 11'-0"
14"	1400	14"	14"	14"	14"	8'-0" to 11'-0"
16"	1600	16"	16"	16"	16"	8'-0" to 11'-0"
18"	1800	18"	18"	18"	18"	8'-0" to 11'-0"
20"	2000	20"	20"	20"	20"	8'-0" to 11'-0"
24"	2400	24"	24"	24"	24"	8'-0" to 11'-0"
30"	3000	30"	30"	30"	30"	8'-0" to 11'-0"

CITY OF BROWNVILLE, OR
DRIVEWAY AND ALLEY APPROACHES FOR RETRACK OR BYPASS SIDEWALK
 DATE: JUNE 2014
 DRAWN BY: STM



A & O Engineering L.L.C.
 CONSULTING ENGINEERS &
 SITE DEVELOPMENT PLANNING

380 S. ST. SUITE 206
 BROWNVILLE, OREGON 97117
 PHONE: (503) 342-9770
 INFO@AOE-ENG.COM

REGISTERED PROFESSIONAL ENGINEER
 OREGON
 914227
 EXPIRES 12/22

Civil Details
 for
 River's Edge Subdivision
 Brownsville Linn County Oregon

DATE: _____
 PROJECT No: 1172
 SCALE: RMB: N/A
 REVIEWED BY: ACH
 REVIEWED BY: ROM
 COA: _____

REVISIONS:

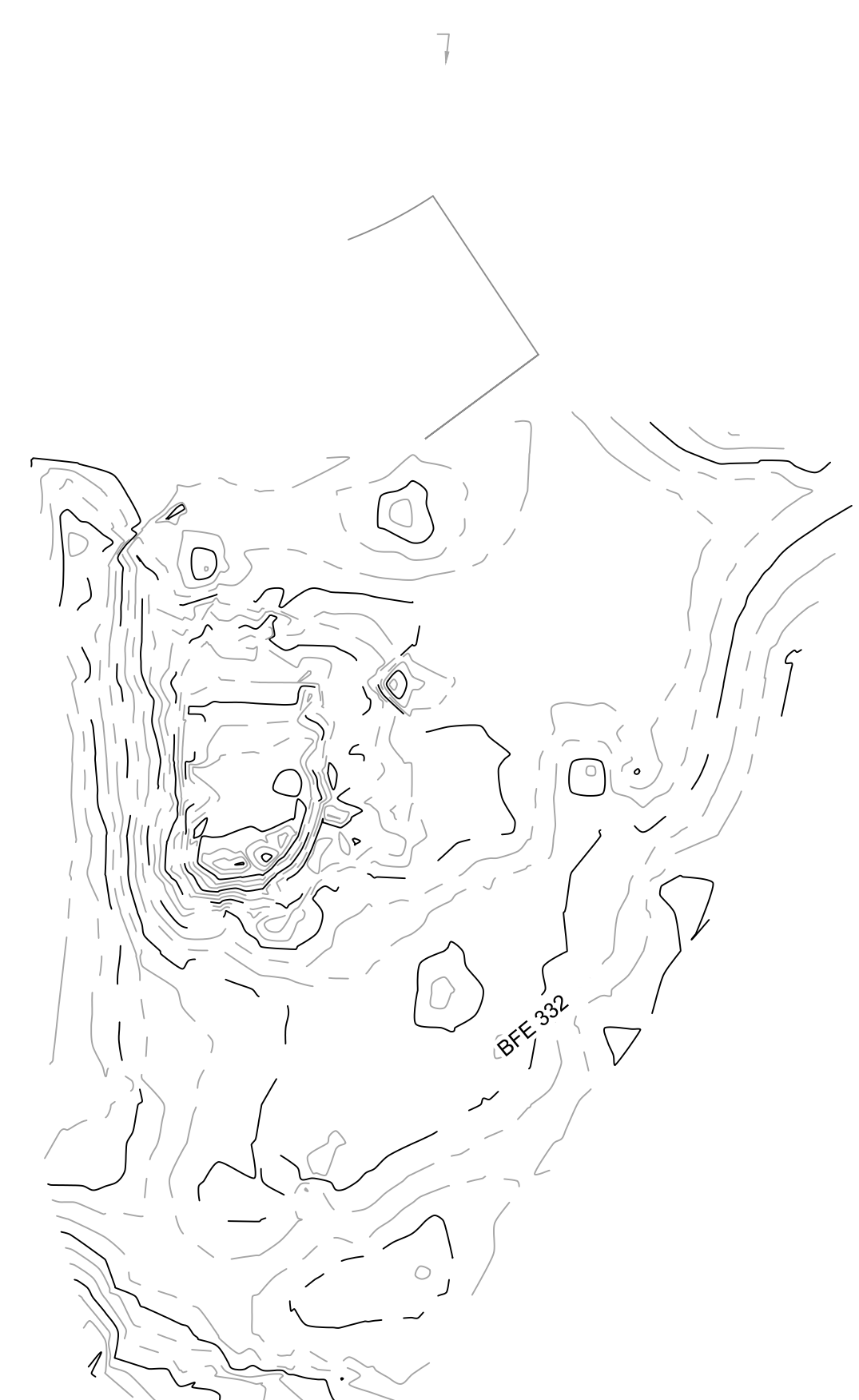
No.	Description

SHEET
 C-5.2
 of
 12

PUBLIC IMPROVEMENT PLAN
 FOR
 RIVER'S EDGE SUBDIVISION
 PHASE 3
 N.W. 1/4, SEC.36, T.13S. R.3 W, W.M.
 TAX LOT 5700
 BROWNSVILLE, LINN COUNTY, OREGON

GENERAL NOTES:

1. LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL HAVE SERVICING UTILITIES FIELD LOCATE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF OAR 952-001-0010 THROUGH 952-001-0090. ONE CALL PHONE NUMBER 811.
2. CONSTRUCTION OF ALL PRIVATE SEWERS SHALL COMPLY WITH THE CURRENT OREGON STATE PLUMBING CODES, THE LOCAL AUTHORITY AND AS SPECIFIED HEREIN. SEWER AND MANHOLE TESTING SHALL COMPLY WITH THE CURRENT OREGON STATE PLUMBING SPECIALTY CODES AND THE LOCAL AUTHORITY.
3. PROVIDE **VICINITY MAP** TRENCHES AS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES.
4. WHERE CONNECTING TO AN EXISTING PIPE, THE CONTRACTOR SHALL EXPOSE EXISTING PIPE AND ALLOW THE ENGINEER TO VERIFY EXACT LOCATION, PIPE MATERIAL AND ELEVATION PRIOR TO LAYING NEW PIPE OR ANY NEW INFRASTRUCTURE.
5. REQUESTS BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER OF RECORD, CITY OF BROWNSVILLE AND THE OWNER BEFORE THE CHANGES ARE IMPLEMENTED.
6. THE CONTRACTOR SHALL EMPLOY CONSTRUCTION PRACTICES WHICH WILL MINIMIZE THE EROSION OF DISTURBED GROUND DURING THE CONSTRUCTION ACTIVITY. THE PRACTICES SHALL COMPLY WITH THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT. PURSUANT TO ORS 468.740 AND THE FEDERAL CLEAN WATER ACT.
7. WHEN PERFORMING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF OAR 952-001-0010 TO 952-001-0090, WHICH INCLUDE REQUIREMENTS THAT THE CONTRACTOR HAND-EXPOSE (POT-HOLE) UNDERGROUND FACILITIES AND USE REASONABLE CARE TO AVOID DAMAGING THEM.
8. PROVIDE DUST CONTROL AT ALL TIMES.
9. ALL STRIPPINGS TO BE SPREAD ONSITE IN NON STRUCTURAL AREAS.
10. BOUNDARY INFORMATION PROVIDED BY EGR & ASSOCIATES INC. THIS DRAWING IS FOR REFERENCE ONLY AND IS NOT A BOUNDARY SURVEY. REFER TO PLAT DOCUMENTS FOR BOUNDARY INFORMATION. ALL ELEVATIONS ARE GIVEN IN NAVD88 VERTICAL DATUM. APPROXIMATE CONVERSION FROM NGVD29 TO NAVD88 LOCAL TO THE SITE IS 3.48'.
11. 100 YEAR FLOOD PLAIN ELEVATIONS SHOWN ARE DERIVED FROM FEMA FIRM MAPS-CONVERTED TO NAVD88 DATUM.
12. CONTOURS SHOWN ON THIS SHEET ARE EXISTING FROM LAST TOPO SURVEY DONE ON SITE.



ASSESSORS MAP: 13S-03W-36-00 T.L. 900

BFE 330

5800 of LOT 58

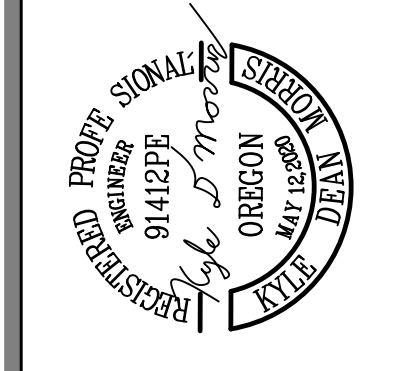
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Digitally signed by Jesse McElwain
 DN: c=US, E=jmcelwain@dyspart.com, O=The
 Dyer Partnership Engineers & Planners, Inc.,
 OU=Lebanon, CN=Jesse McElwain
 Contact Info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800

APPROVED FOR CONSTRUCTION

5700



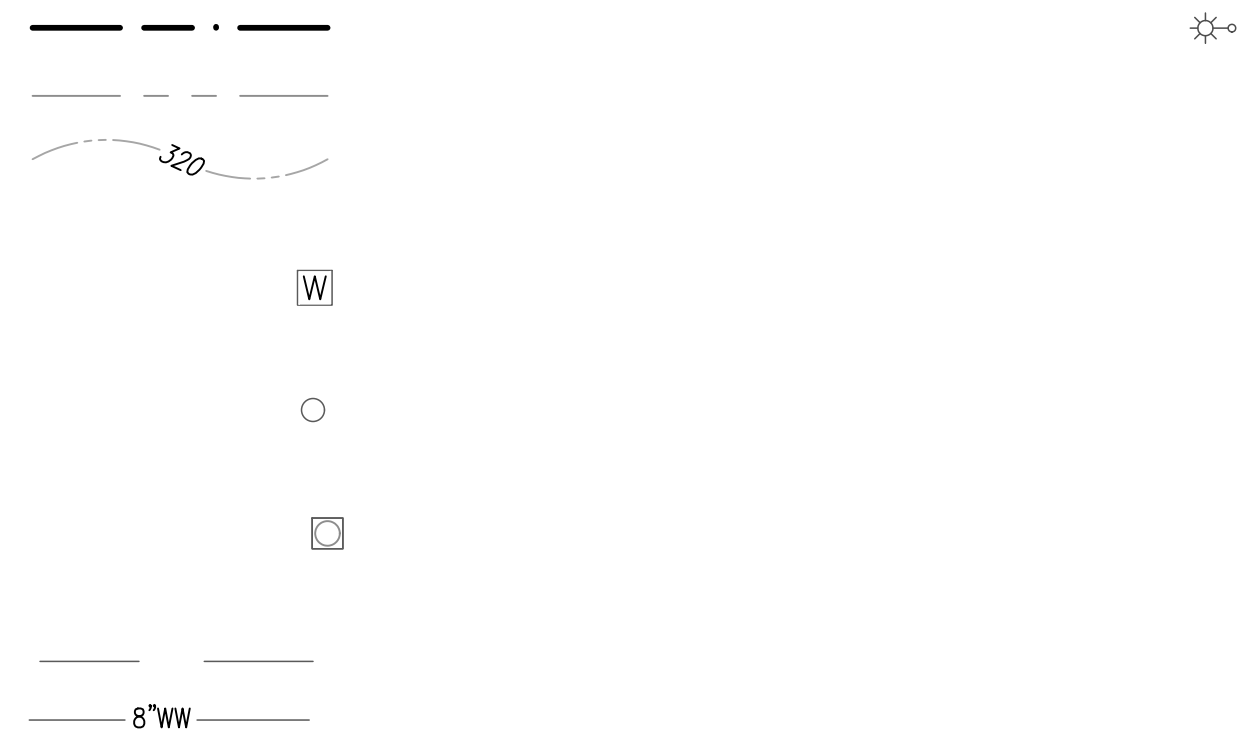
Cover Sheet PROJECT No. _____
 for Phase 3 of
River's Edge Subdivision
 Brownsville Linn County Oregon
 PHONE: (541) 302 _____

DATE: 11/2/2021
 SCALE: 1/8"=1'-0"
 DRAWN BY: ACH
 DESIGNED BY: KDM
 REVIEWED BY: SJM

SUBMITTALS:

REVISIONS:

SHEET
C-1.0
 1 OF 14



INSPECTION GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL REQUIRED INSPECTIONS ARE COMPLETED BY AUTHORIZED INSPECTORS. COORDINATE INSPECTION SCHEDULE WITH PROJECT ENGINEER.
2. PROJECT ENGINEER OR AUTHORIZED REPRESENTATIVE TO PROVIDE ROUTINE INSPECTION OF ALL ELEMENTS IN MATRIX BELOW.
3. THIRD PARTY TESTING FOR DENSITY TESTS, AND CONCRETE TO BE PROVIDED.
4. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR NECESSARY TRENCH INSPECTIONS.

GENERAL NOTES

1. CONSTRUCTION SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2018 AND THE OREGON STANDARD DRAWINGS CURRENT.
2. ALL MATERIAL AND EQUIPMENT SHOWN HEREON IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY. THE DESIGN ENGINEER SHALL APPROVE AND PROVIDE THREE COPIES OF CATALOGUE CUT SHEETS FOR ALL MATERIAL AND EQUIPMENT TO BE INSTALLED ON THE PROJECT TO THE CITY OF BROWNSVILLE CITY ENGINEER. ALLOW A MINIMUM OF 10 DAYS FOR CITY ENGINEER REVIEW OF SUBMITTALS.
3. ITEMS OF WORK NOT SHOWN ON THE PLAN BUT NECESSARY FOR SUCCESSFUL COMPLETION OF THIS PROJECT WILL BE REQUIRED BY THE CITY.
4. THE CITY ENGINEER SHALL PROVIDE A NOTICE TO PROCEED. SUCH NOTICE SHALL NOT BE ISSUED UNTIL THE CONTRACTOR OR DEVELOPER PROVIDES THE FOLLOWING:
 - A. CERTIFICATE OF GENERAL LIABILITY INSURANCE LISTING THE CITY OF BROWNSVILLE AND THE CITY'S ENGINEER, THE DYER PARTNERSHIP AS ADDITIONAL INSURED. ORIGINAL CERTIFICATE OF INSURANCE SHALL BE MAILED TO THE CITY OF BROWNSVILLE AND A COPY TO THE DYER PARTNERSHIP 481 S. MAIN STREET, LEBANON, OR 97355.
 - B. THE CONTRACTOR HAS ATTENDED A PRE-CONSTRUCTION MEETING WITH THE CITY TO REVIEW SPECIAL CONSIDERATIONS ON THE PROJECT.
5. A COUNTY UTILITY PERMIT IS REQUIRED FOR ALL WORK TO BE CONDUCTED IN EXISTING COUNTY R.O.W. SECURE THE PERMIT THROUGH LINN COUNTY PUBLIC WORKS.
6. WORK SHALL NOT BE PERFORMED WITHOUT REQUIRED INSPECTIONS. A MINIMUM 48-HOUR ADVANCE NOTICE OF REQUIRED INSPECTIONS IS REQUIRED. THE FOLLOWING ARE MINIMUM INSPECTION REQUIREMENTS:
 - A. TV INSPECTION OF ALL SEWER AND DRAINAGE PIPING.
 - B. HYDROSTATIC TESTING, DEFLECTION TESTING AND MANHOLE TESTING OF ALL SANITARY SEWER ELEMENTS
 - C. DEFLECTION TESTING OF ALL STORM DRAINAGE LINES.
 - D. FLUSHING, DISINFECTION AND HYDROSTATIC TESTING OF ALL WATER LINES.
 - E. DEFLECTION TESTING ON SUB-GRADE.
 - F. ITEMS LISTED IN THE TABLE.
7. WHERE CONTRACTOR IS UNABLE TO ACHIEVE SUB-GRADE COMPACTION AND DEFLECTION REQUIREMENTS THE SUB-GRADE SHALL BE LOWERED A MINIMUM OF SIX INCHES, FABRIC SHALL BE PLACED AND THE MATERIAL REMOVED AND REPLACED WITH 1"-0 INCH MINUS CRUSHED ROCK. THIS PROCESS SHALL BE COMPLETED UNTIL TESTING MEETS THE REQUIREMENTS OF THE SPECIFICATIONS AT THE DIRECTION OF THE PROJECT GEOTECHNICAL ENGINEER.
8. HOT MIX ASPHALT CONCRETE (HMAC) SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION. LEVEL 2 HMAC SHALL BE USED FOR LOCAL STREETS AND COLLECTORS; LEVEL 3 HMAC SHALL BE USED ON ARTERIALS OR OTHER STREETS AT THE CITY ENGINEER'S DISCRETION ASPHALT MIX DESIGN SUBMITTAL SHALL FOLLOW THE STANDARD SUBMITTAL PROCESS OUTLINED IN ITEM 2.
9. CONTRACTOR SHALL FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER REGARDING THE REQUIREMENTS FOR UTILITY LOCATES (OAR 952-001-0090). COPIES ARE AVAILABLE AT 503-232-1987.
10. THE CONTRACTOR SHALL PROTECT AND REPLACE ALL DISTURBED VEGETATION, FENCING AND OTHER IMPROVEMENTS ON PRIVATE PROPERTY.
11. ACCESS TO EXISTING FIRE HYDRANTS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
12. ONLY CITY PERSONNEL SHALL BE ALLOWED TO OPERATE WATER SYSTEM VALVES. CONTRACTOR SHALL COORDINATE WITH CITY OF BROWNSVILLE PUBLIC WORKS WHEN OPERATION IS REQUIRED. 72-HOUR NOTIFICATION FOR WATER SHUTOFF OR ACTIVATION IS REQUIRED.
13. FOR WATER MAIN CONNECTIONS CONTRACTOR MUST HAVE ALL EQUIPMENT, FITTINGS, AND PIPING ON SITE AND READY FOR INSTALLATION PRIOR TO CONSTRUCTING THE CONNECTION. CITY HAS THE RIGHT TO REFUSE AUTHORIZATION FOR THE INSTALLATION IF ALL MATERIAL AND EQUIPMENT ARE NOT ON-SITE. MAXIMUM SHUTDOWN TIME IS 3 HOURS. SHUTDOWNS ARE NOT ALLOWED ON MONDAYS OR FRIDAYS.
14. CONTRACTOR SHALL HAVE A SET OF THESE DRAWINGS ON SITE AT ALL TIMES.
15. CONTRACTOR IS EXPECTED TO ACTIVELY ENGAGE IN EROSION CONTROL MEASURES TO MINIMIZE THE TRANSPORT OF SEDIMENT AND SOILS FROM THE CONSTRUCTION SITE. ACTIVE ENGAGEMENT SHALL MEAN THAT ALL EROSION CONTROL METHODS ARE MAINTAINED AND THAT THE FACILITIES ARE ROUTINELY INSPECTED FOR COMPLIANCE WITH ACCEPTED EROSION CONTROL PRACTICES. ADDITIONAL MEASURES MAY BE REQUIRED BY THE DESIGNATED EROSION CONTROL INSPECTOR, WHO MUST BE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) PER DEQ 1200C PERMIT.
16. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AND SECURE CITY APPROVAL OF THE PLAN AT LEAST 5 WORKING DAYS PRIOR TO STARTING.
17. GUTTER PAN OF CURB & GUTTER SHALL BE 18" PER CITY OF BROWNSVILLE DRAWING ST103.
18. CONTRACTOR TO FOLLOW AWWA 600 AND 651 FOR DISINFECTION STANDARDS AND D.I. TESTING.

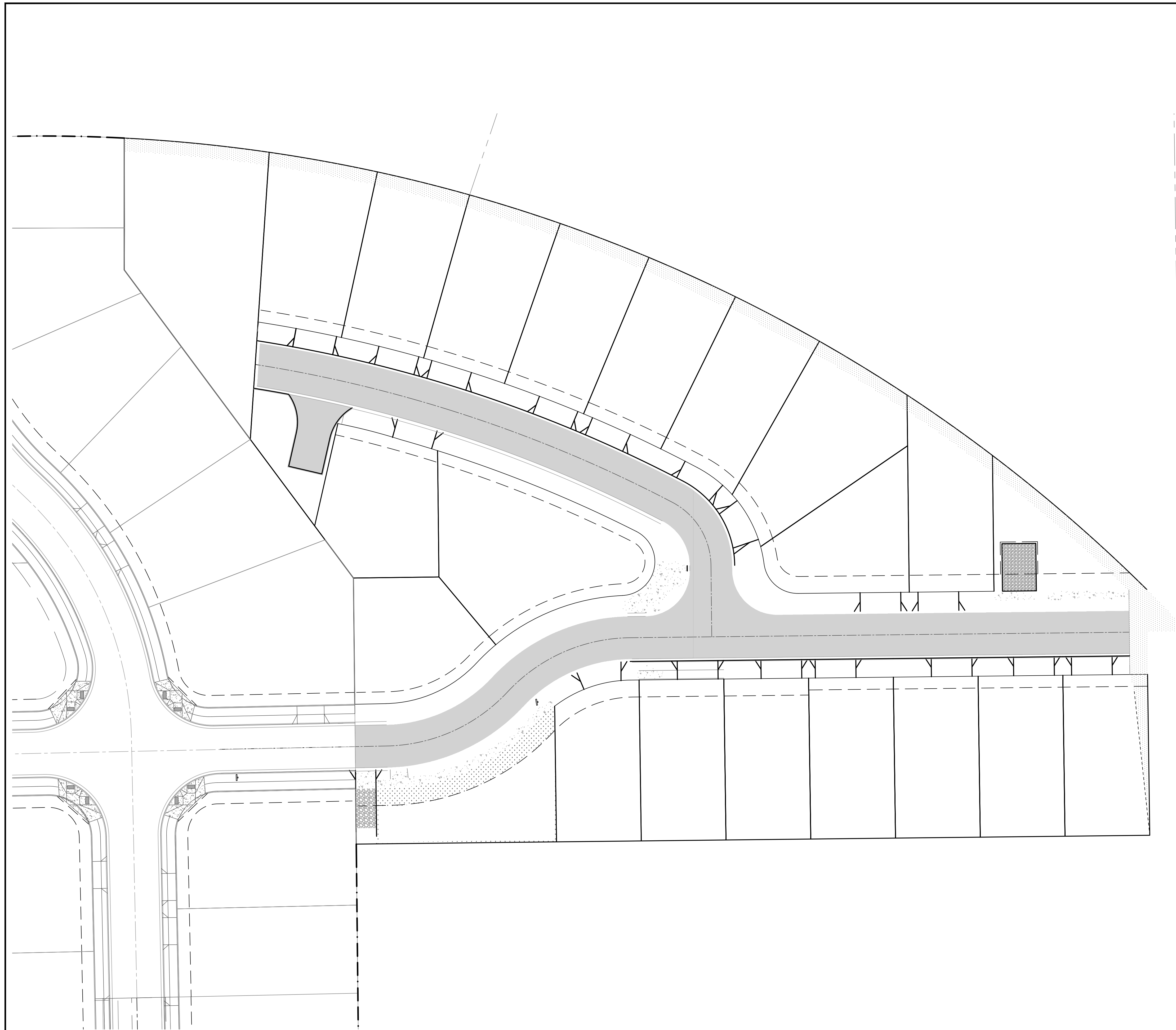
EROSION CONTROL INSPECTION MATRIX

Site Condition	Minimum Frequency
1. Active period	On initial date that land disturbance activities commence. Within 24 hours of any storm event, including runoff from snow melt, that results in discharge from the site. At least once every 14 days, regardless of whether stormwater runoff is occurring.
2. Inactive periods greater than fourteen (14) consecutive calendar days	The Inspector may reduce the frequency of inspections in any area of the site where the stabilization steps in Section 2.2.20 have been completed to twice per month for the first month, no less than 14 calendar days apart, then once per month.
3. Periods during which the site is inaccessible due to inclement weather	If safe, accessible and practical, inspections must occur daily at a relevant discharge point or downstream location of the receiving waterbody.
4. Periods during which construction activities are suspended and runoff is unlikely due to frozen conditions.	Visual monitoring inspections may be temporarily suspended. Immediately resume monitoring upon thawing, or when weather conditions make discharges likely.
5. Periods during which construction activities are conducted and runoff is unlikely during frozen conditions.	Visual monitoring inspections may be reduced to once a month. Immediately resume monitoring upon thawing, or when weather conditions make discharges likely.



Digitally signed by Jesse McElwain
DN: c=US, E=jmcelwain@dypart.com, O=The Dyer Partnership Engineers & Planners, Inc., OU=Lebanon, CN=Jesse McElwain
Contact info: 541.570.1630
Date: 2021.11.15 16:06:01-0800

APPROVED FOR CONSTRUCTION



ASSESSORS MAP: 13S-03W-36-00 T.L. 900



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 Dyer Partnership Engineers & Planners, Inc.,
 OU=Lebanon, CN=Jesse McElwain
 Contact Info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800

APPROVED FOR CONSTRUCTION

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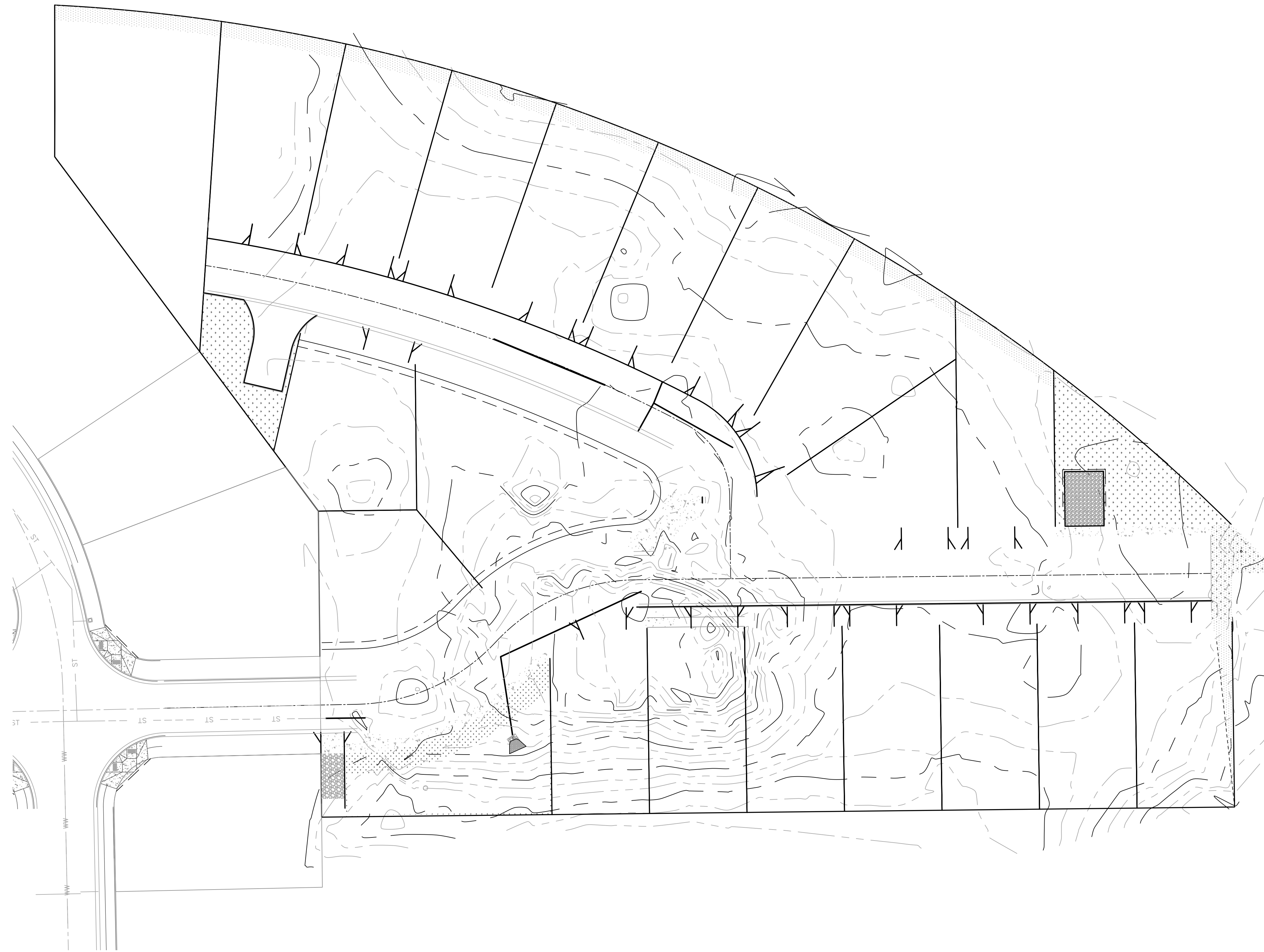
PHONE: (541) 302

DATE: _____
 PROJECT No: _____
 SCALE: 1/8"=1'-0"
 VERT: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS:

REVISIONS:

SHEET
 OF



ASSESSORS MAP: 13S03W36AD T.L. 5700



APPROVED FOR CONSTRUCTION

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 Date: 2021.11.15 16:06:01-0800

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PHONE: (541) 302

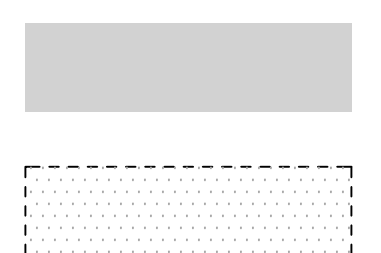
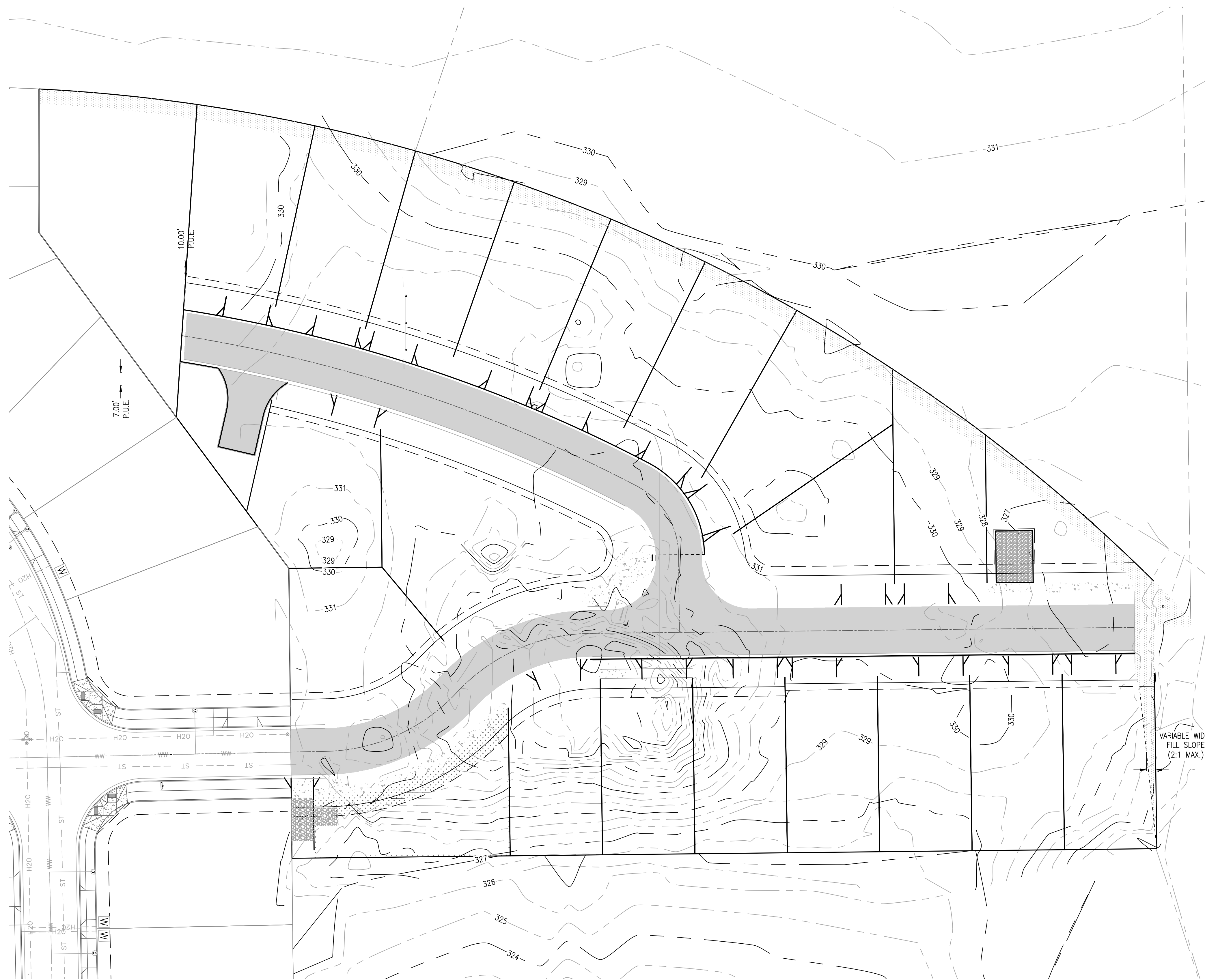
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 PROJECT NO: _____
 SCALE: 1/8"=1'-0"
 VERT: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS: _____

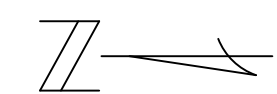
REVISIONS: _____

SHEET

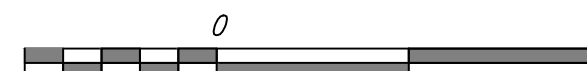
OF



PROPOSED 2:1 SLOPE AREA

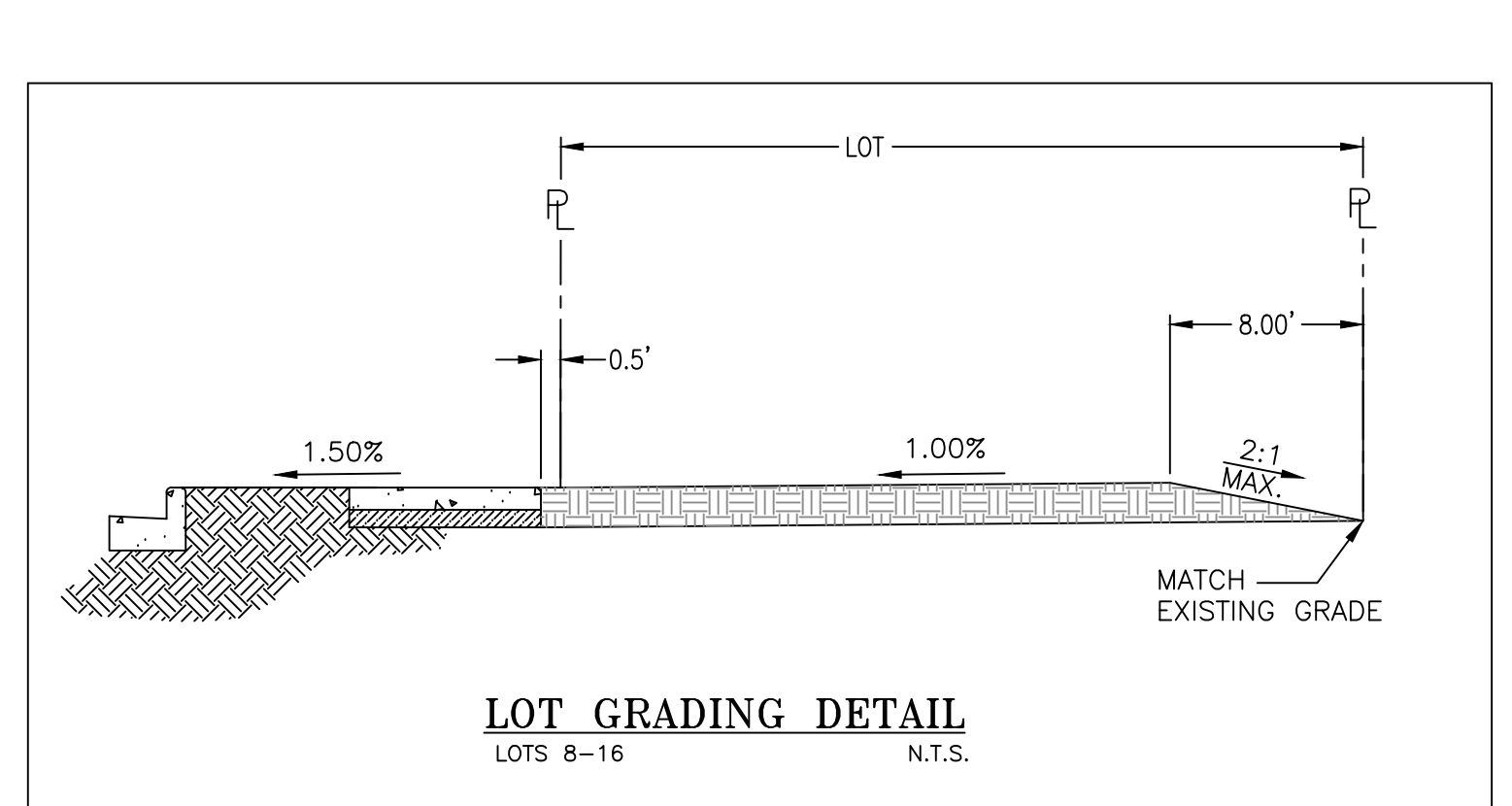


SCALE:



ROADWAY NOTES:

1. CONSTRUCT ROADWAYS PER DETAIL SHOWN ON SHEET C-5.0.
2. ROAD END BARRICADE TO BE INSTALLED AT SOUTH END OF PEBBLE STREET.
3. NO PARKING SIGNS PROPOSED ON STREETS AS SHOWN ON SHEET C-2.0.
4. GRADES ON THIS SHEET ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL REFERENCE PLAN AND PROFILE SHEETS (C-3.0 THOUGH C-4.1) FOR ROAD CONSTRUCTION.



LOT GRADING DETAIL
LOTS 8-16 N.T.S.



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Contact Info: 541.570.1630
Date: 2021.11.15 16:06:01-0800

APPROVED FOR CONSTRUCTION

9790

PHONE: (541) 302

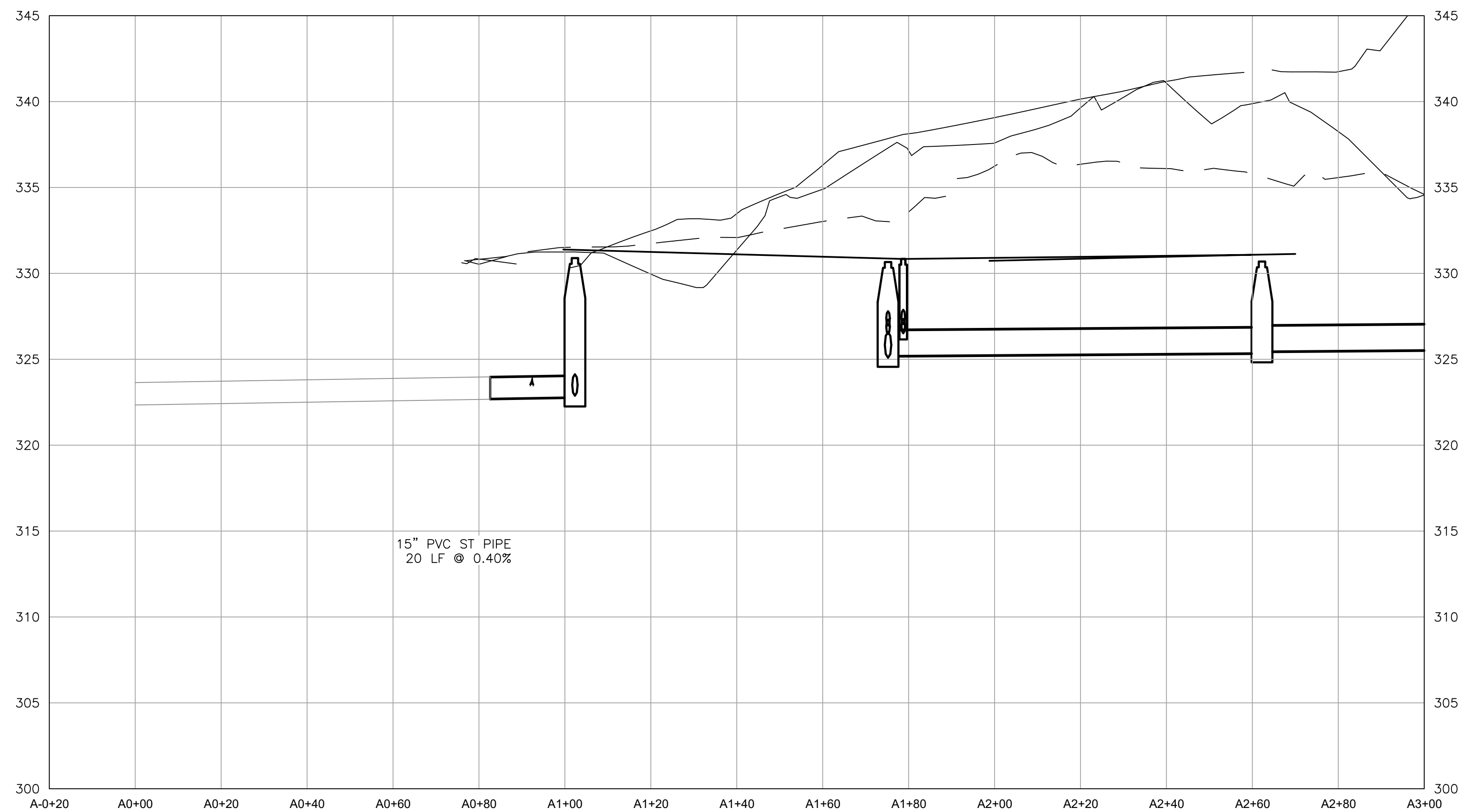
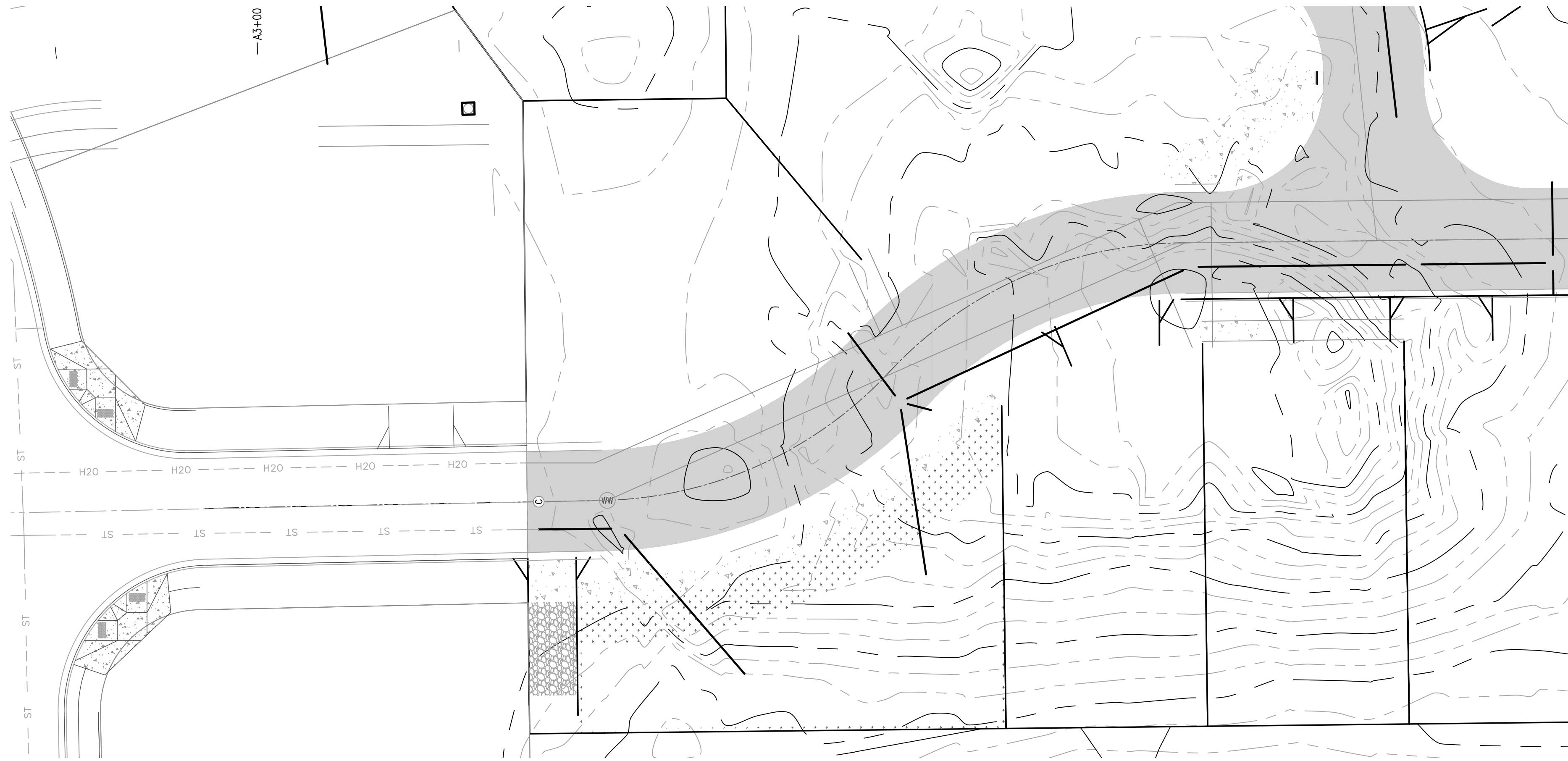
DATE:	PROJECT No:	SCALE:	VERT:	DRAWN BY:	DESIGNED BY:	REVIEWED BY:

SUBMITTALS:

REVISIONS:

SHEET

OF



ASSESSORS MAP: 13S03W36AD T.L. 5700



APPROVED FOR CONSTRUCTION

Digitally signed by Jesse McElwain
 DN: C=US, E=jmcelwain@dyerpart.com, O=The
 Dyer Partnership Engineers & Planners, Inc.,
 OU=Lebanon, CN=Jesse McElwain
 Contact Info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800

9790

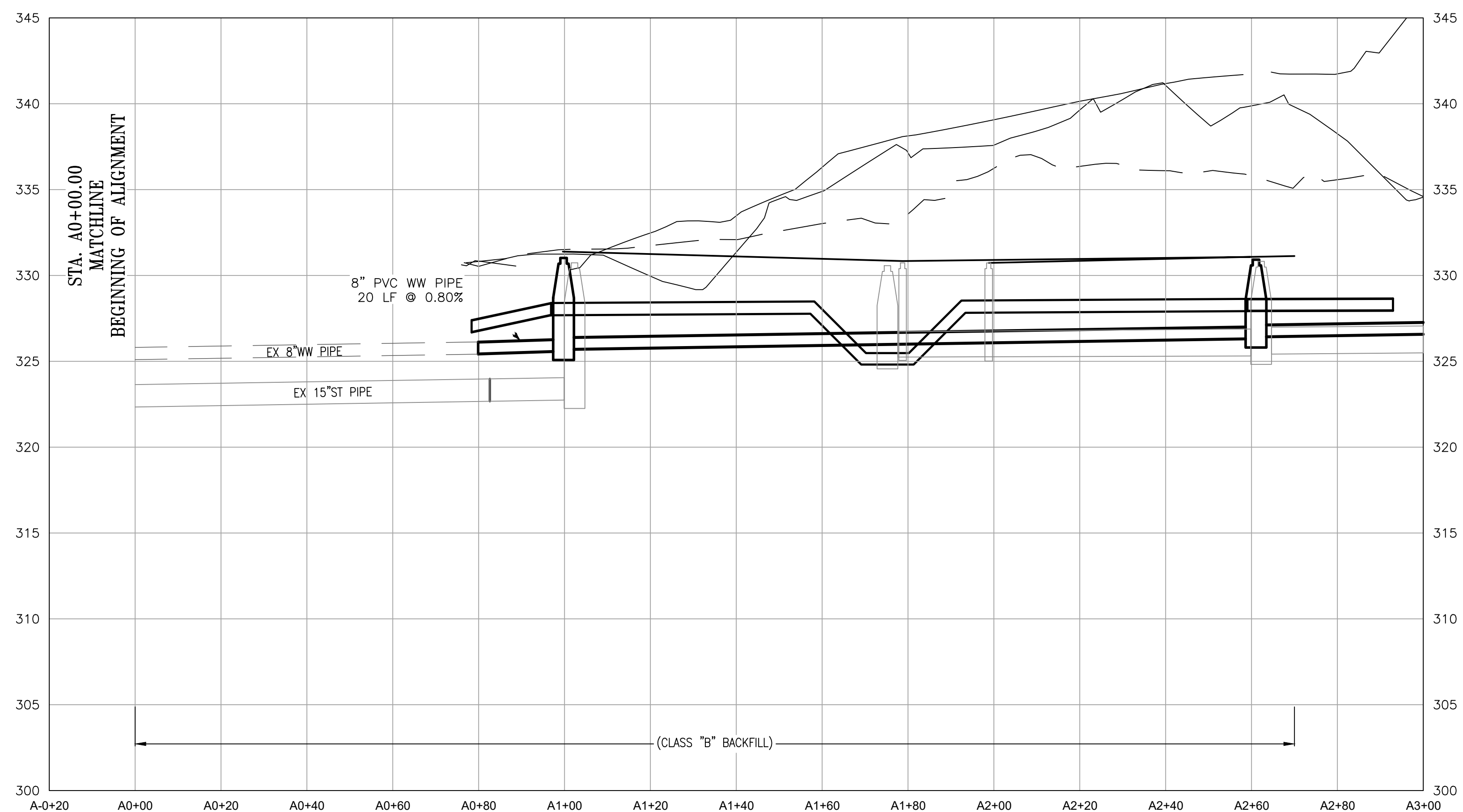
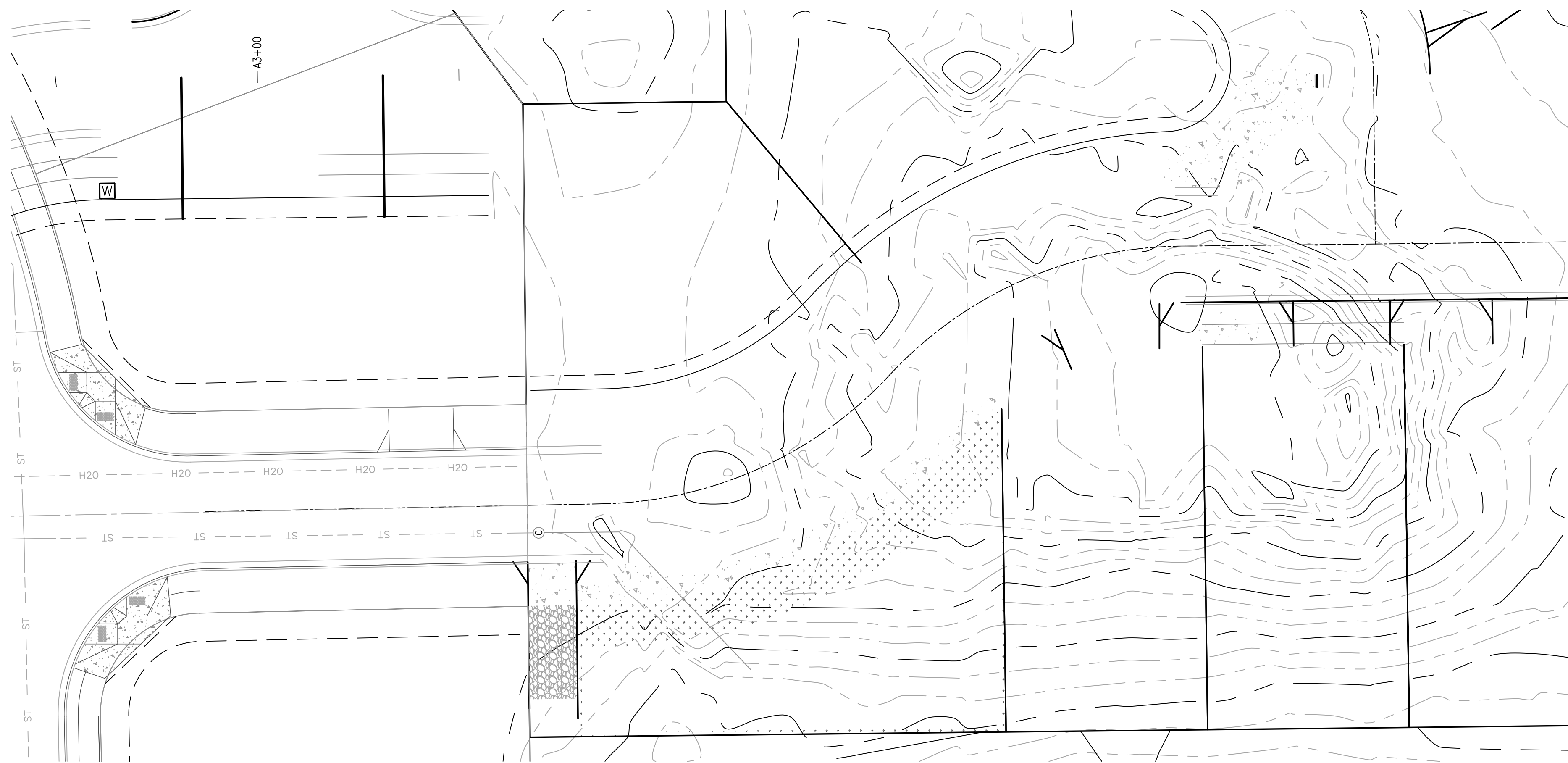
PHONE: (541) 302

DATE: _____
 PROJECT No: _____
 SCALE: 1"=80' HORIZ
 VERT: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS: _____

REVISIONS: _____
 SPRINGFIELD, OR

SHEET
 OF



ASSESSORS MAP: 13S03W36AD T.L. 5700



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 Dyer Partnership Engineers & Planners, Inc.,
 OU=Lebanon, CN=Jesse McElwain
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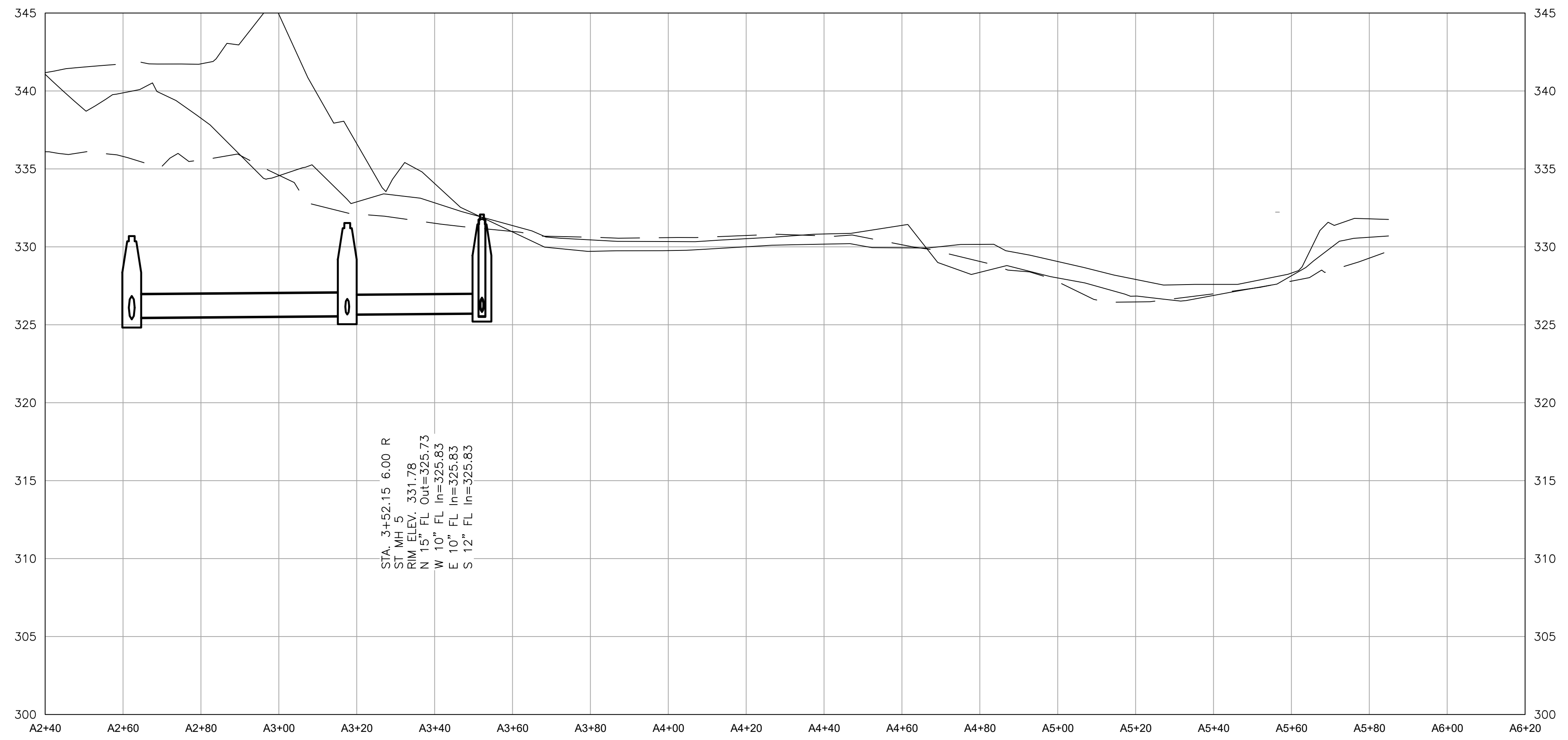
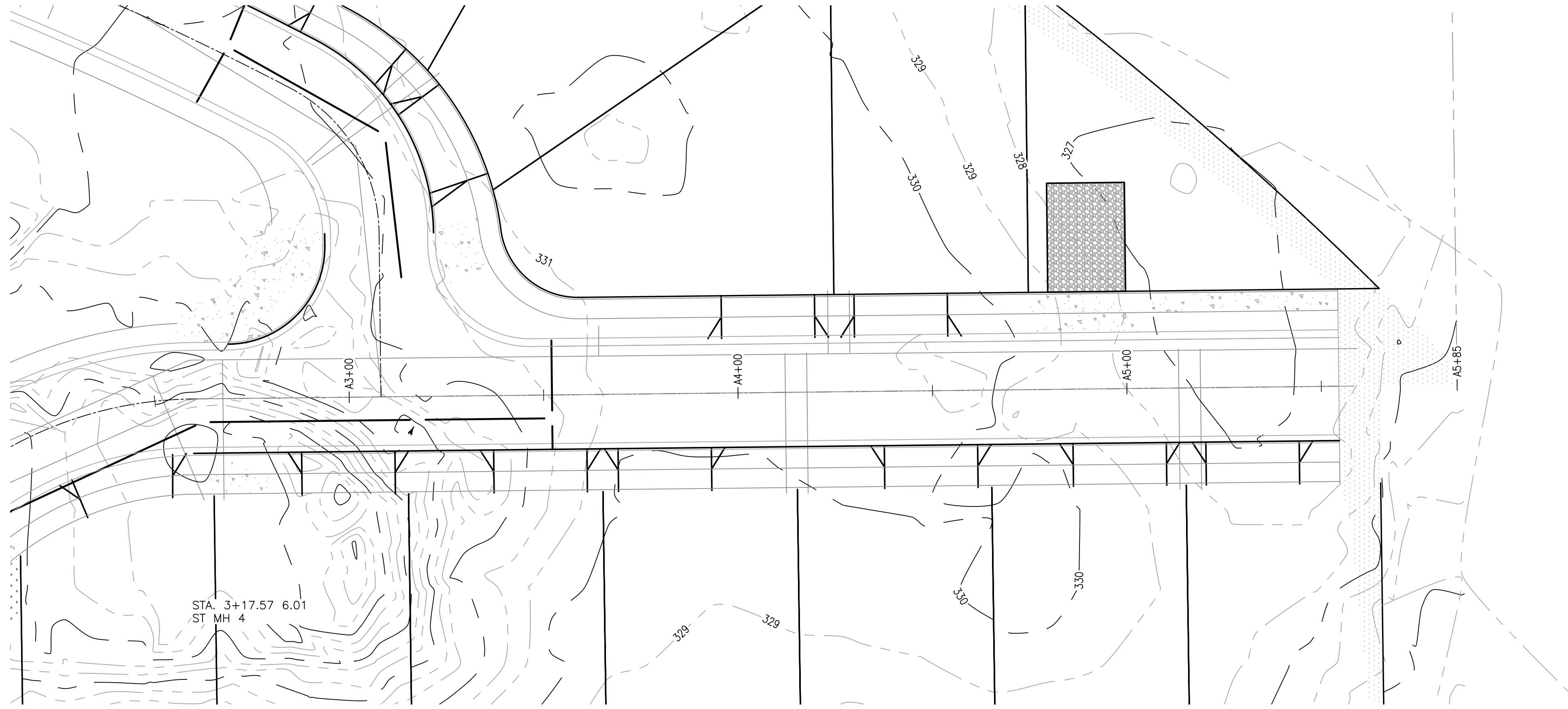
PHONE: (541) 302

DATE:	PROJECT No:
SCALE: 1"=80'	VERT:
DRAWN BY:	DESIGNED BY:
REVIEWED BY:	

SUBMITTALS:	

REVISIONS:	

SHEET OF



ASSESSORS MAP: 13S03W36AD T.L. 5700

D
 APPROVED FOR CONSTRUCTION

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 Dyer Partnership Engineers & Planners, Inc.,
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 Date: 2021.11.15 16:06:01-0800

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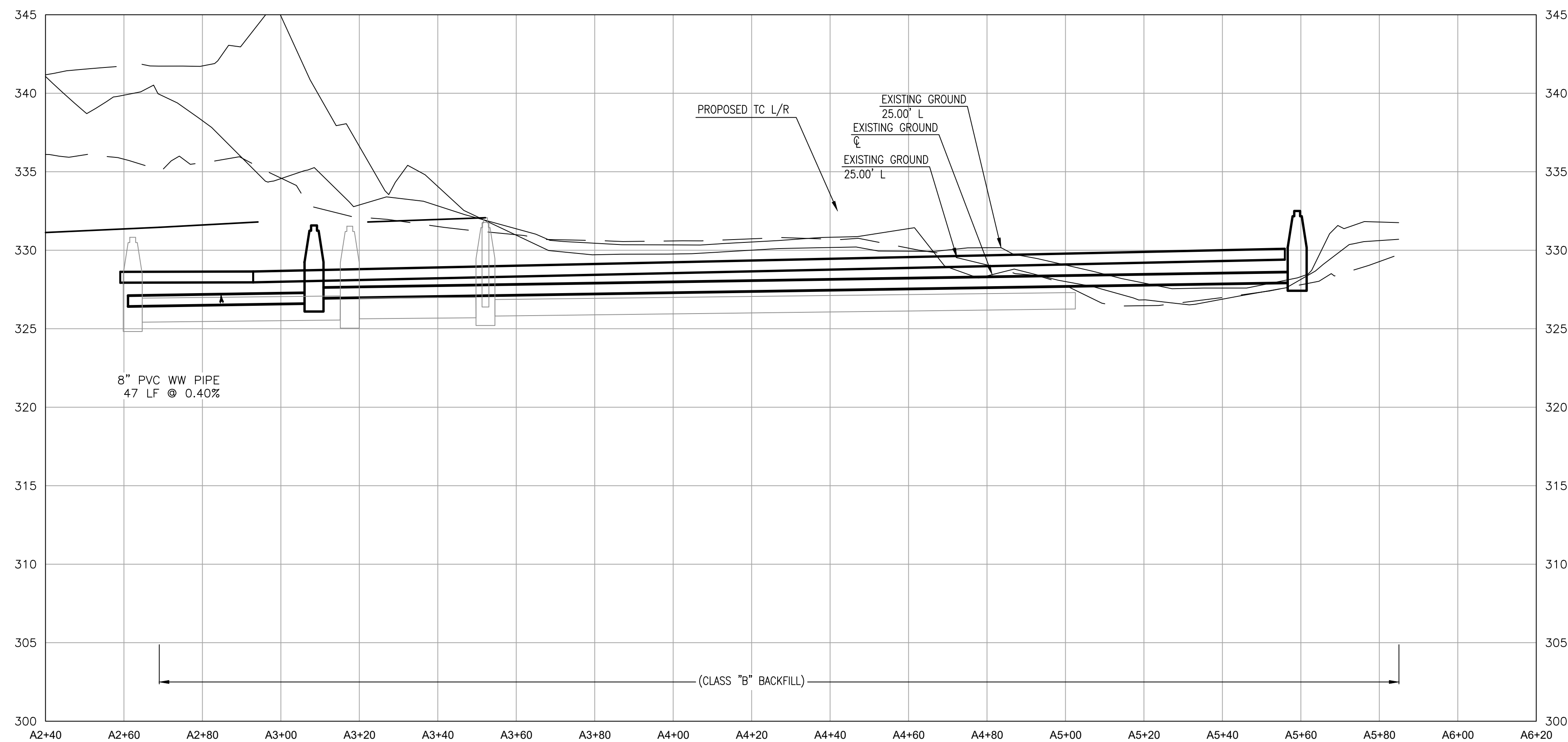
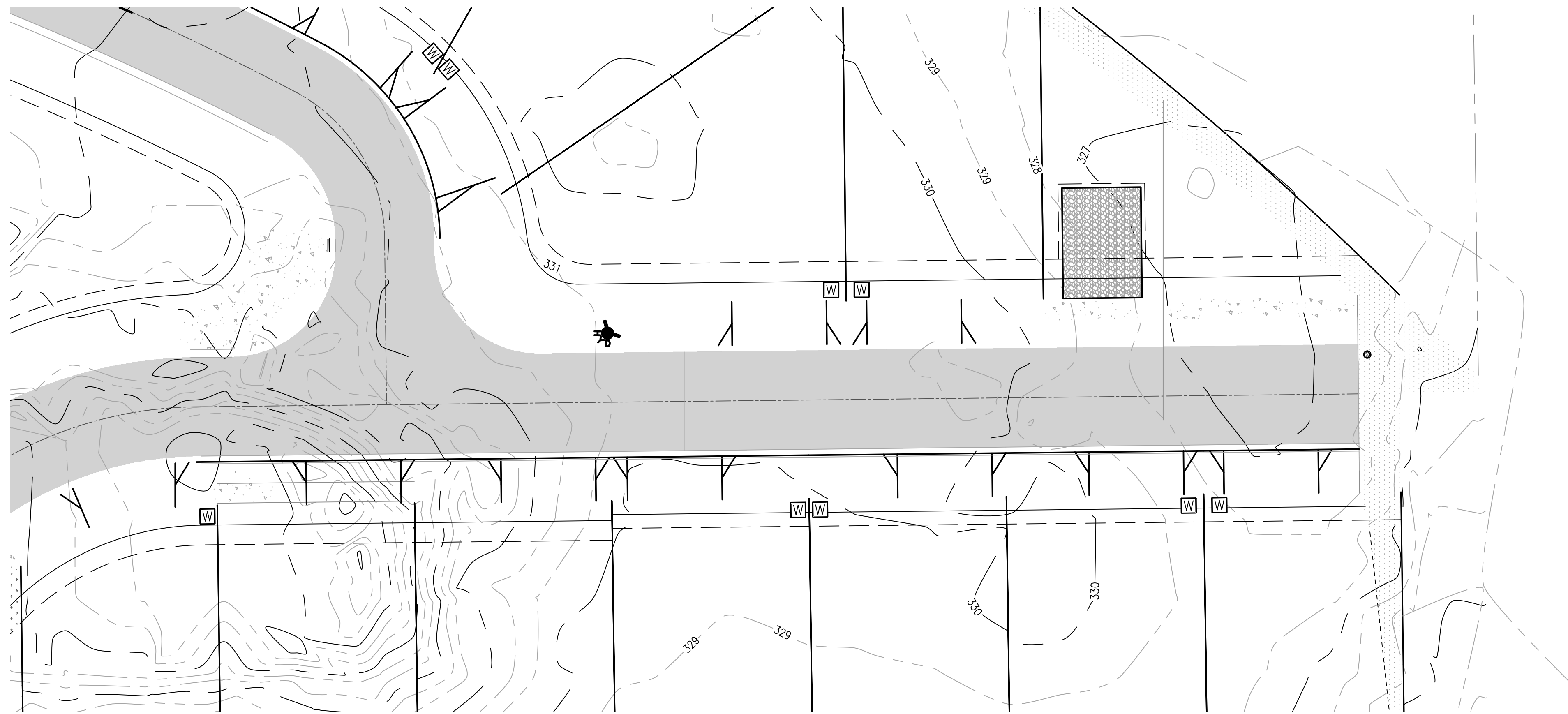
PHONE: (641) 302

DATE: _____
 PROJECT No: _____
 SCALE: 1"=80' VERT _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS:

REVISIONS:

SHEET
 OF



ASSESSORS MAP: 13S03W36AD T.L. 5700



APPROVED FOR CONSTRUCTION

Digitally signed by Jesse McElwain
 DN: C=US, E=jmcelwain@dyerpart.com, O=The
 Dyer Partnership Engineers & Planners, Inc.,
 OU=Lebanon, CN=Jesse McElwain
 Contact Info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800

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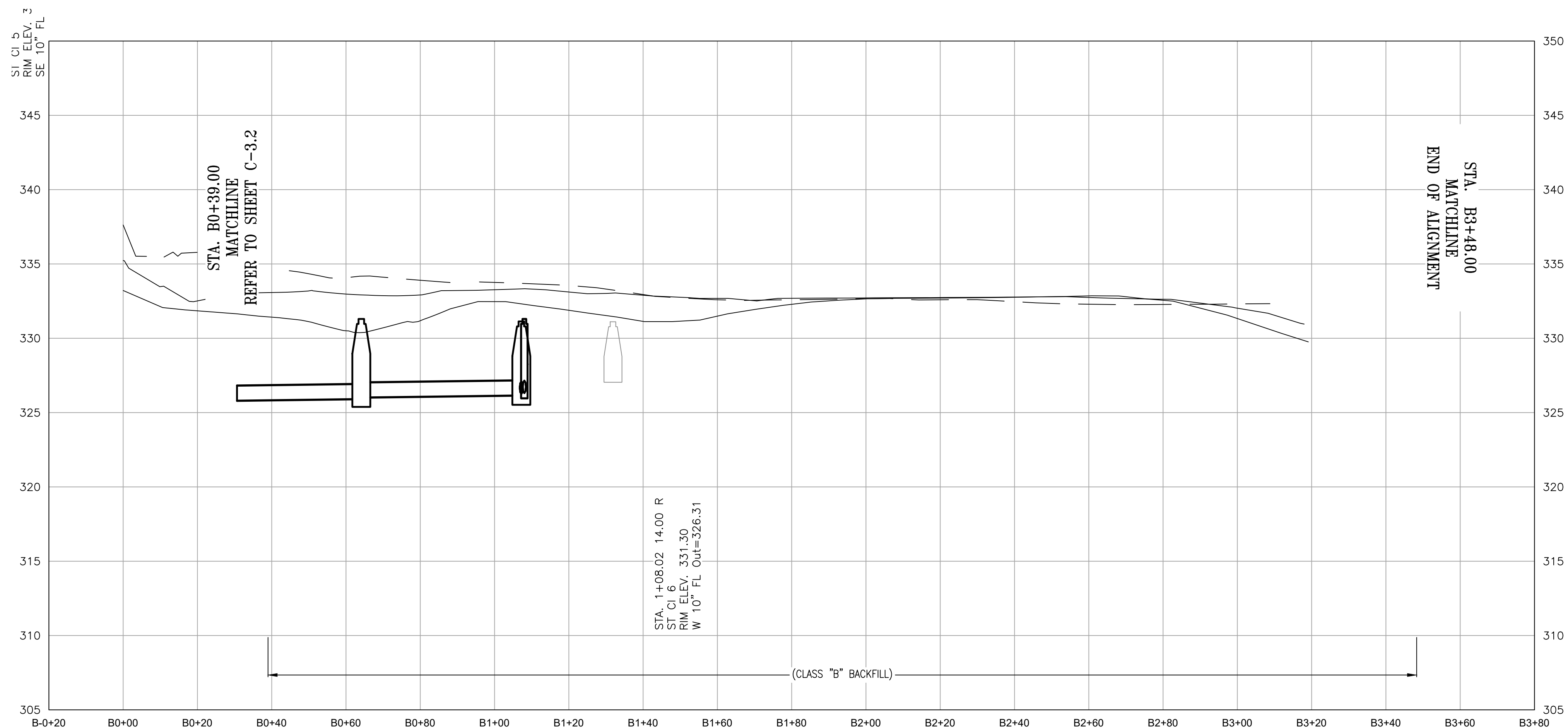
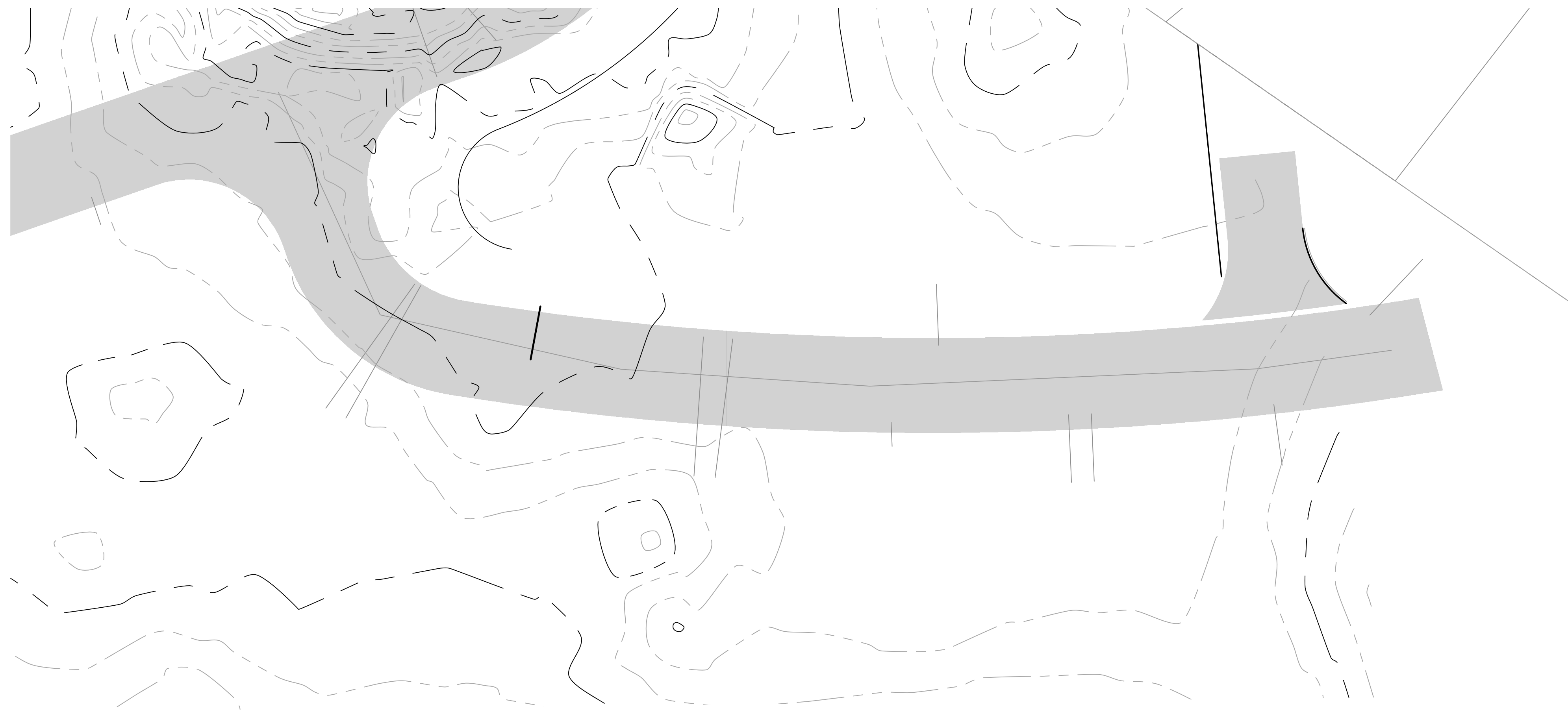
PHONE: (541) 302

DATE:	PROJECT No:
SCALE: 1/8"=1'-0"	VERT:
DRAWN BY:	DESIGNED BY:
REVIEWED BY:	

SUBMITTALS:

REVISIONS:

SHEET OF



ASSESSORS MAP: 13S03W36AD T.L. 5700



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 OU=Lebanon, CN=Jesse McElwain
 Contact Info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800

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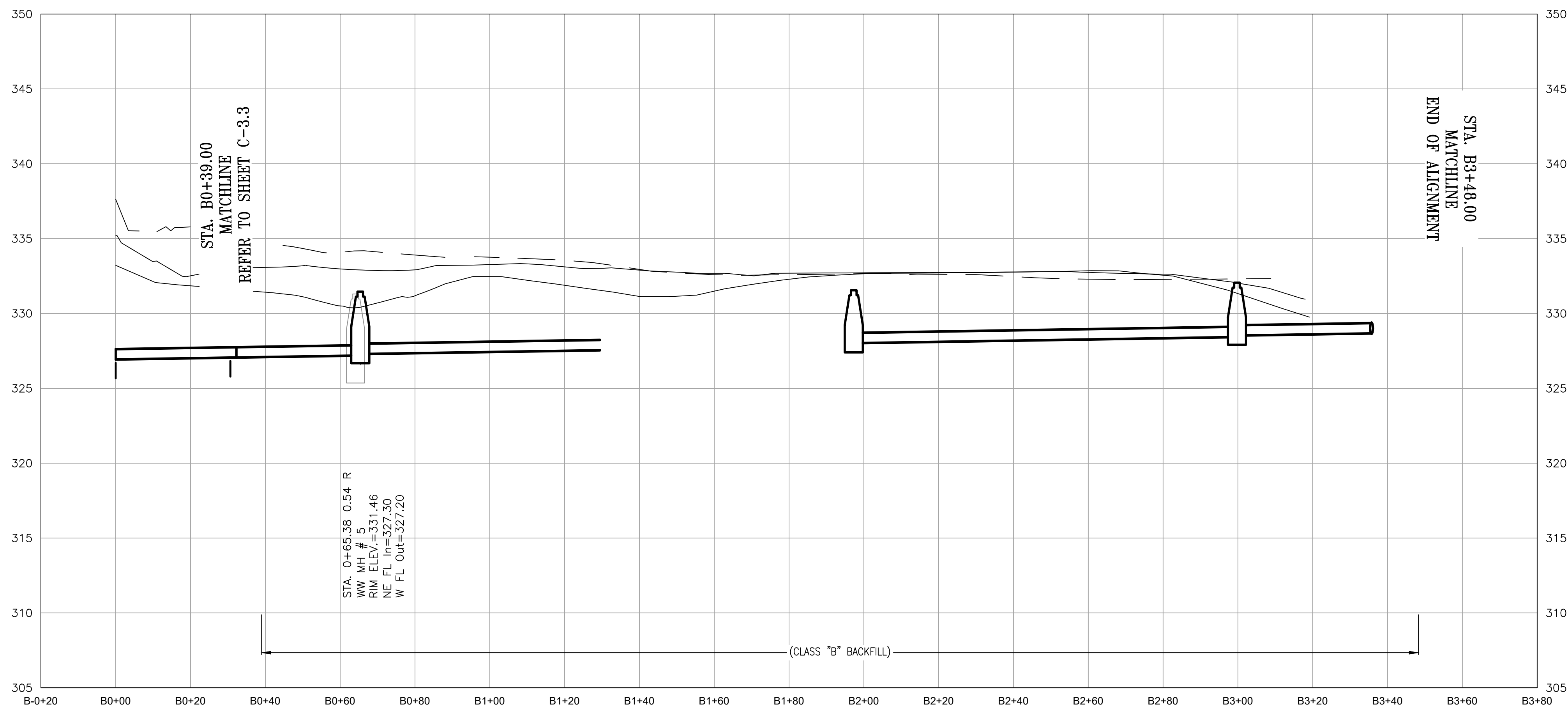
PHONE: (541) 302

DATE: _____
 PROJECT No: _____
 SCALE: 1"=80' HORIZ
 VERT: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS:

REVISIONS:

SHEET
 OF



ASSESSORS MAP: 13S03W36AD T.L. 5700



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Contact Info: 541.570.1630
Date: 2021.11.15 16:06:01-0800'

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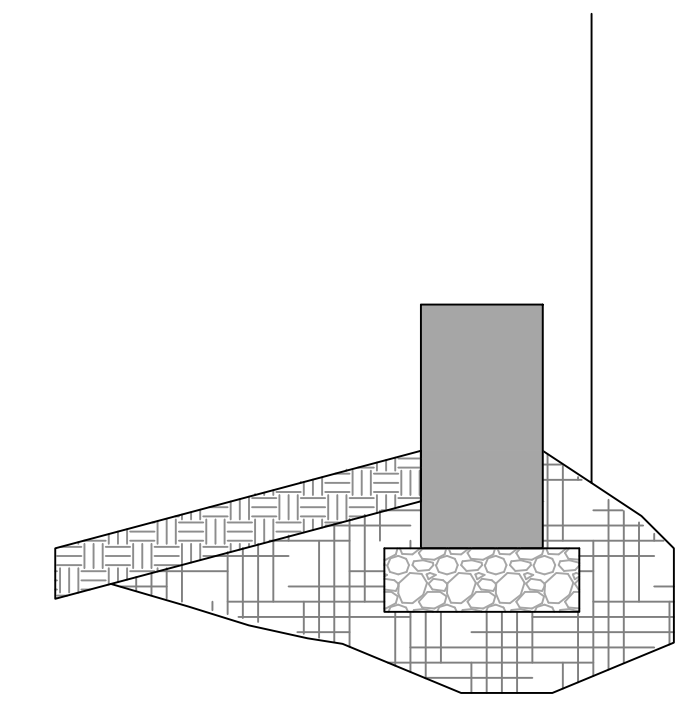
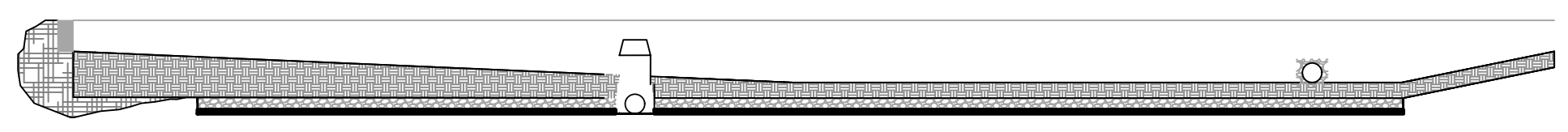
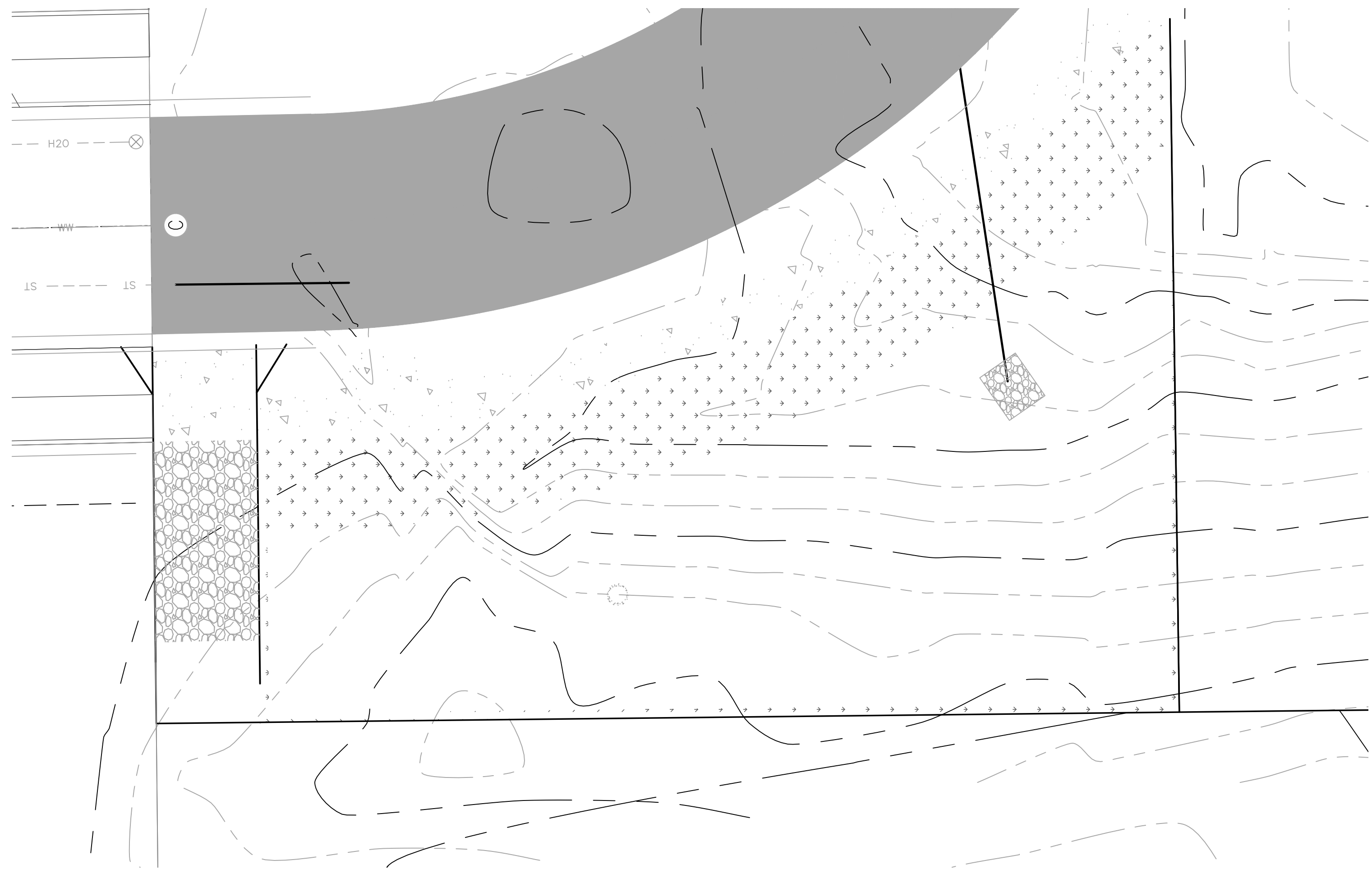
PHONE: (541) 302

DATE:	
PROJECT No:	
SCALE:	1"=80'
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DRAWN BY:	
DESIGNED BY:	
REVIEWED BY:	

SUBMITTALS:	

REVISIONS:	

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 OU=Lebanon, CN=Jesse McElwain
 Contact Info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800'

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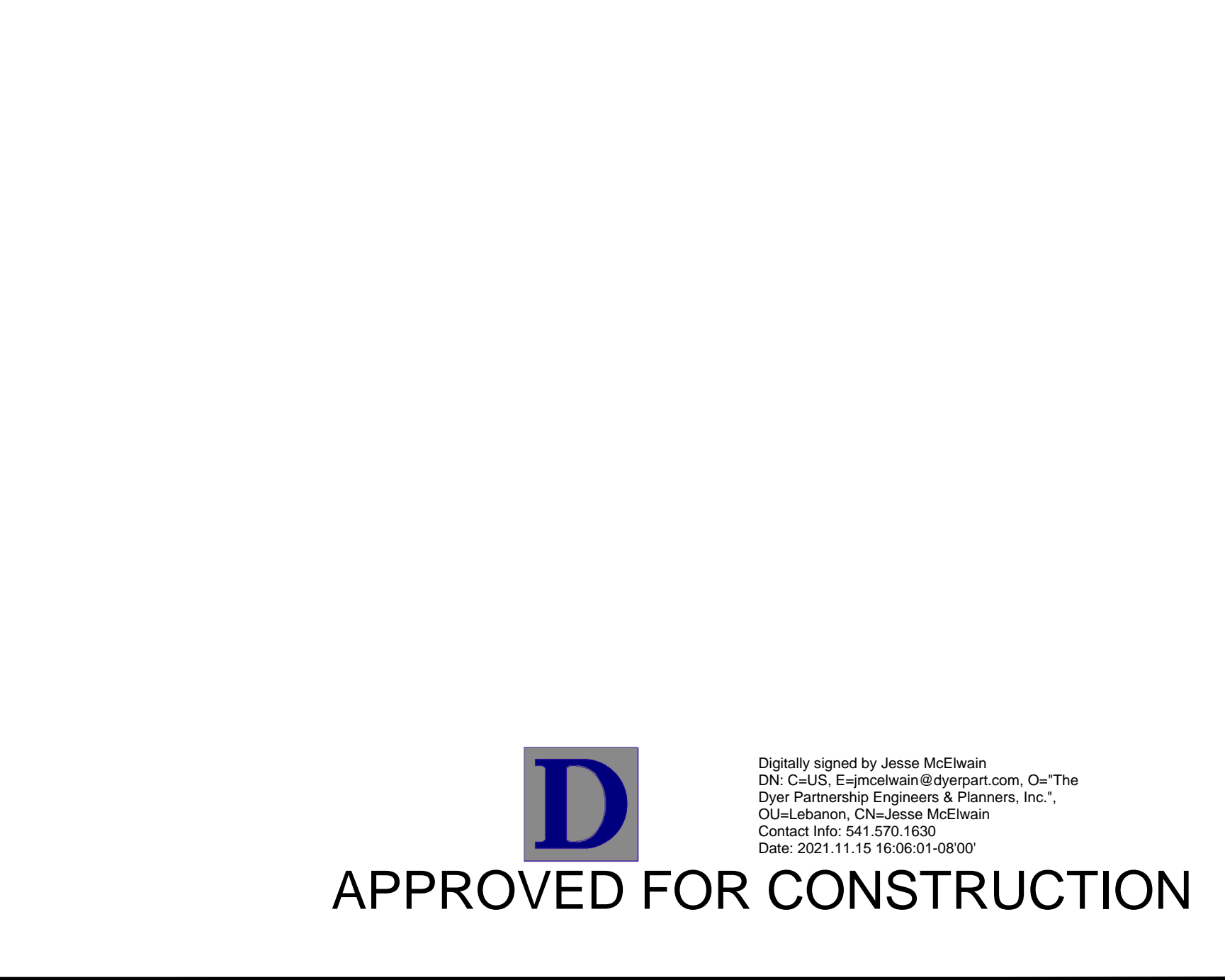
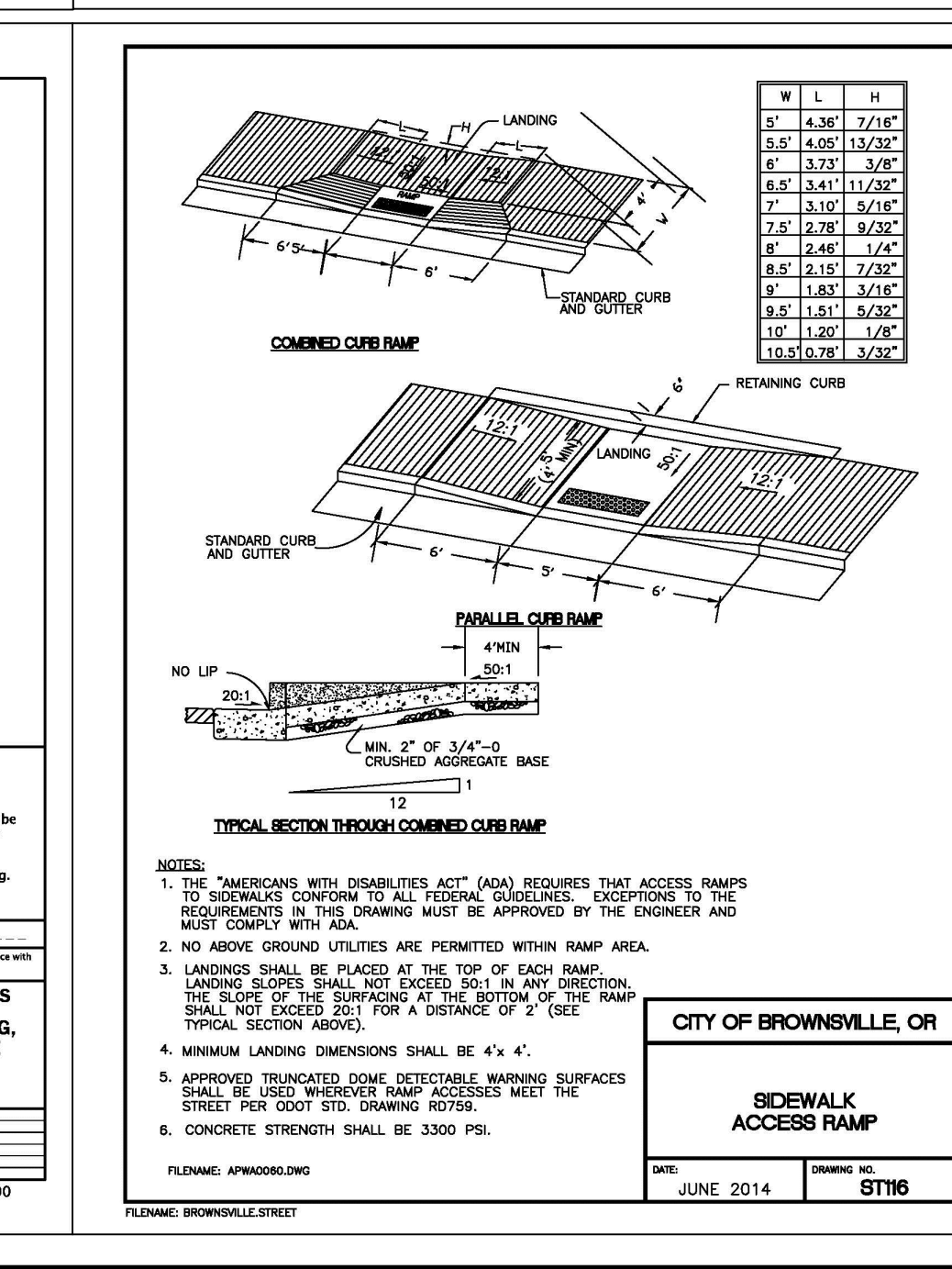
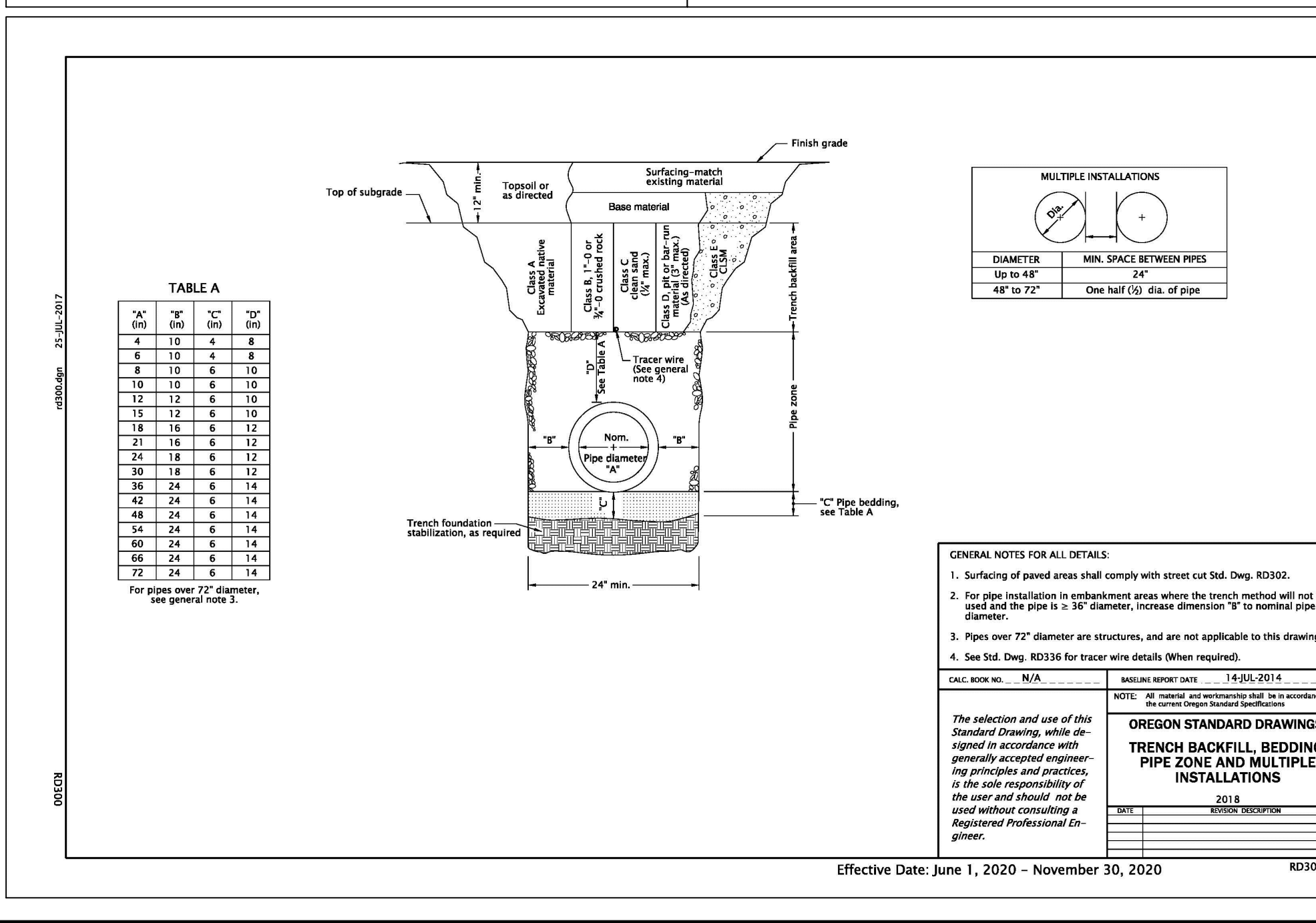
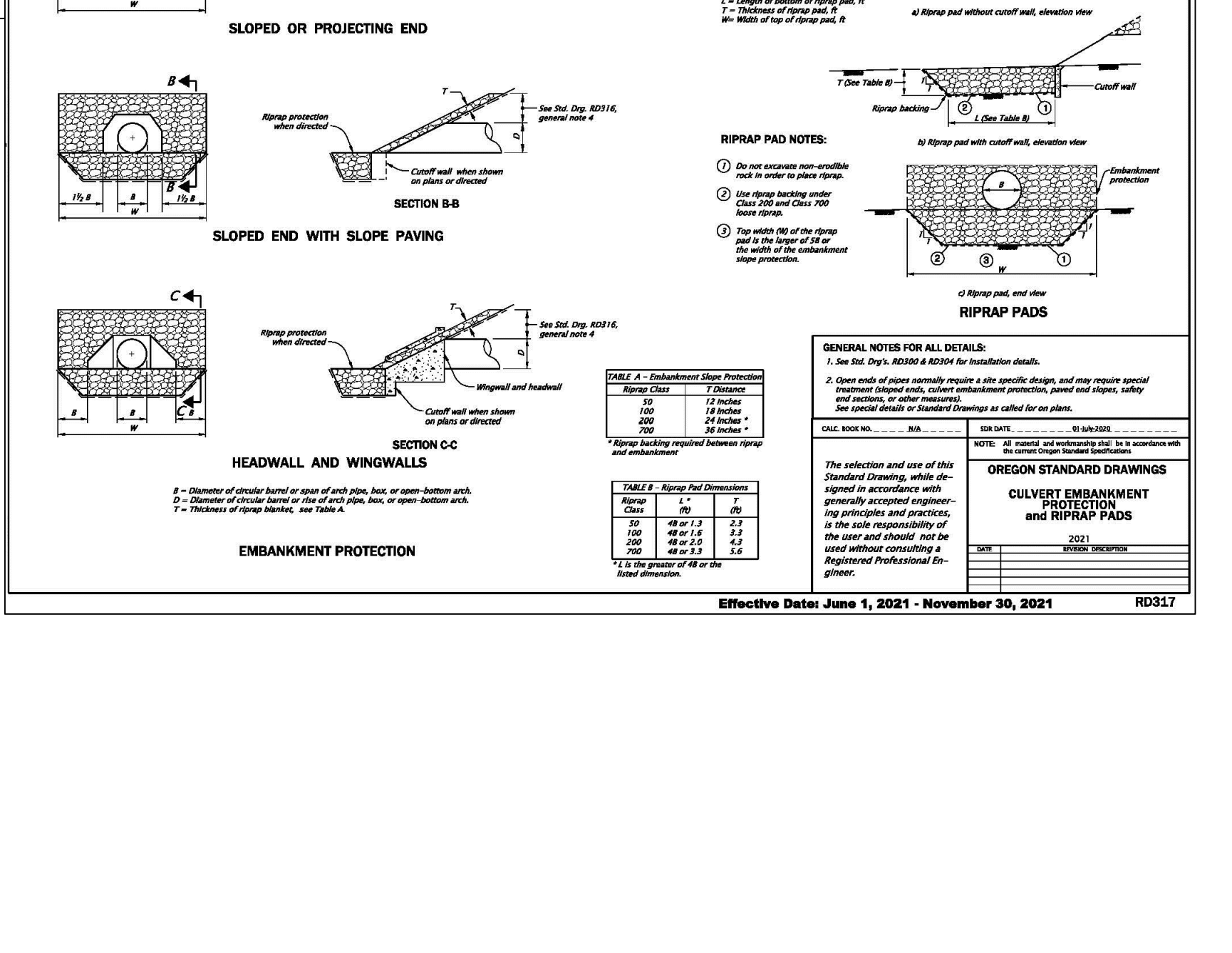
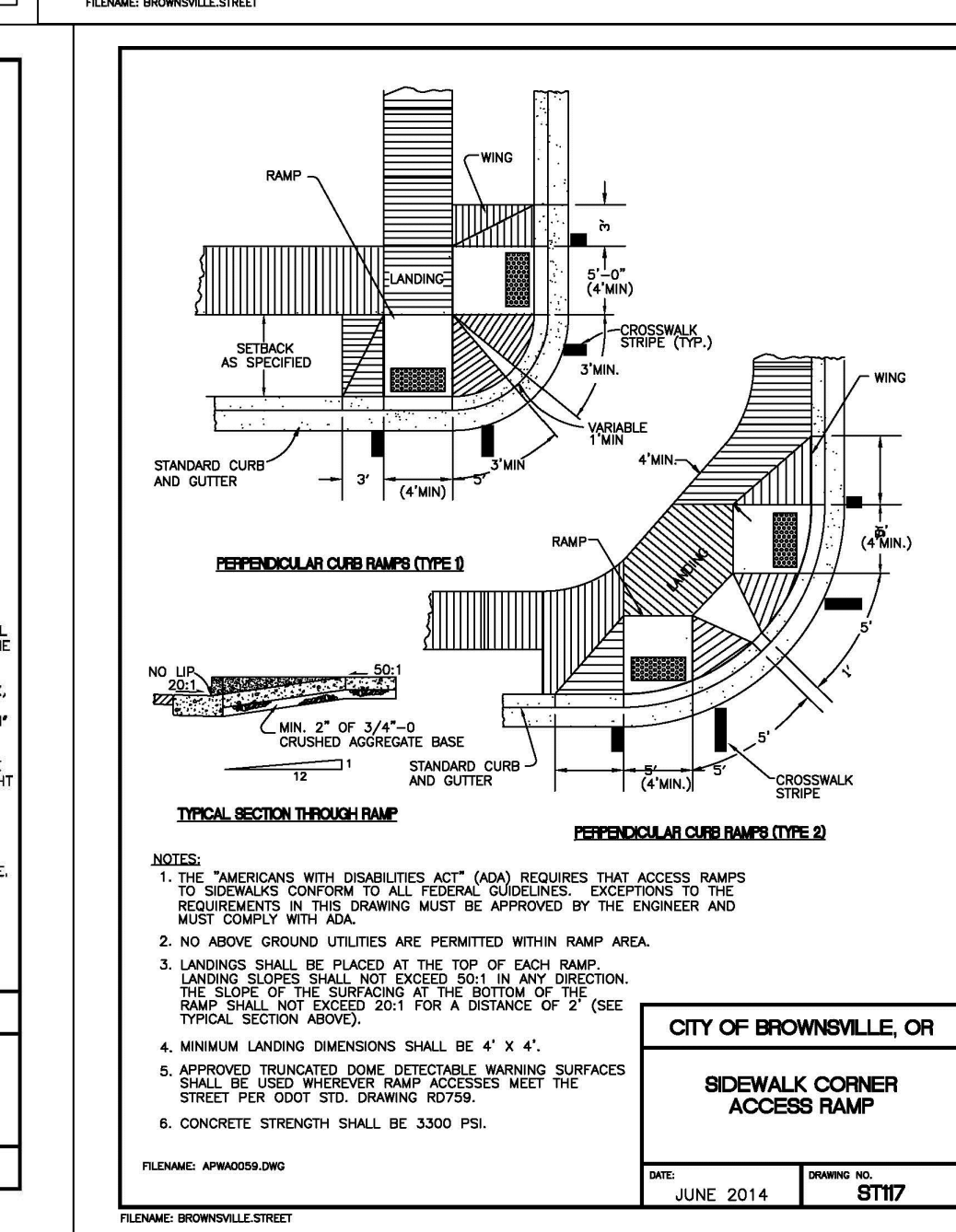
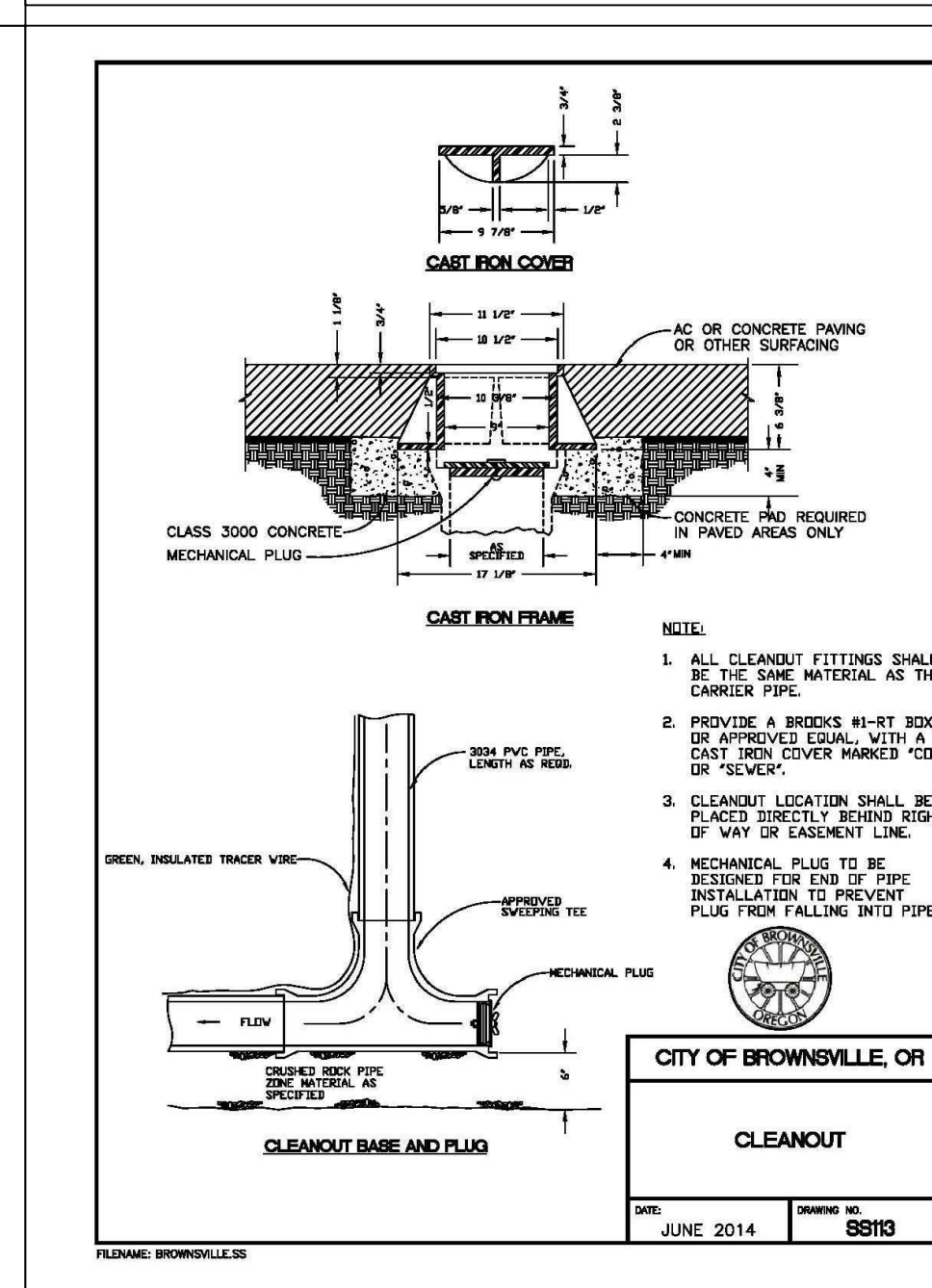
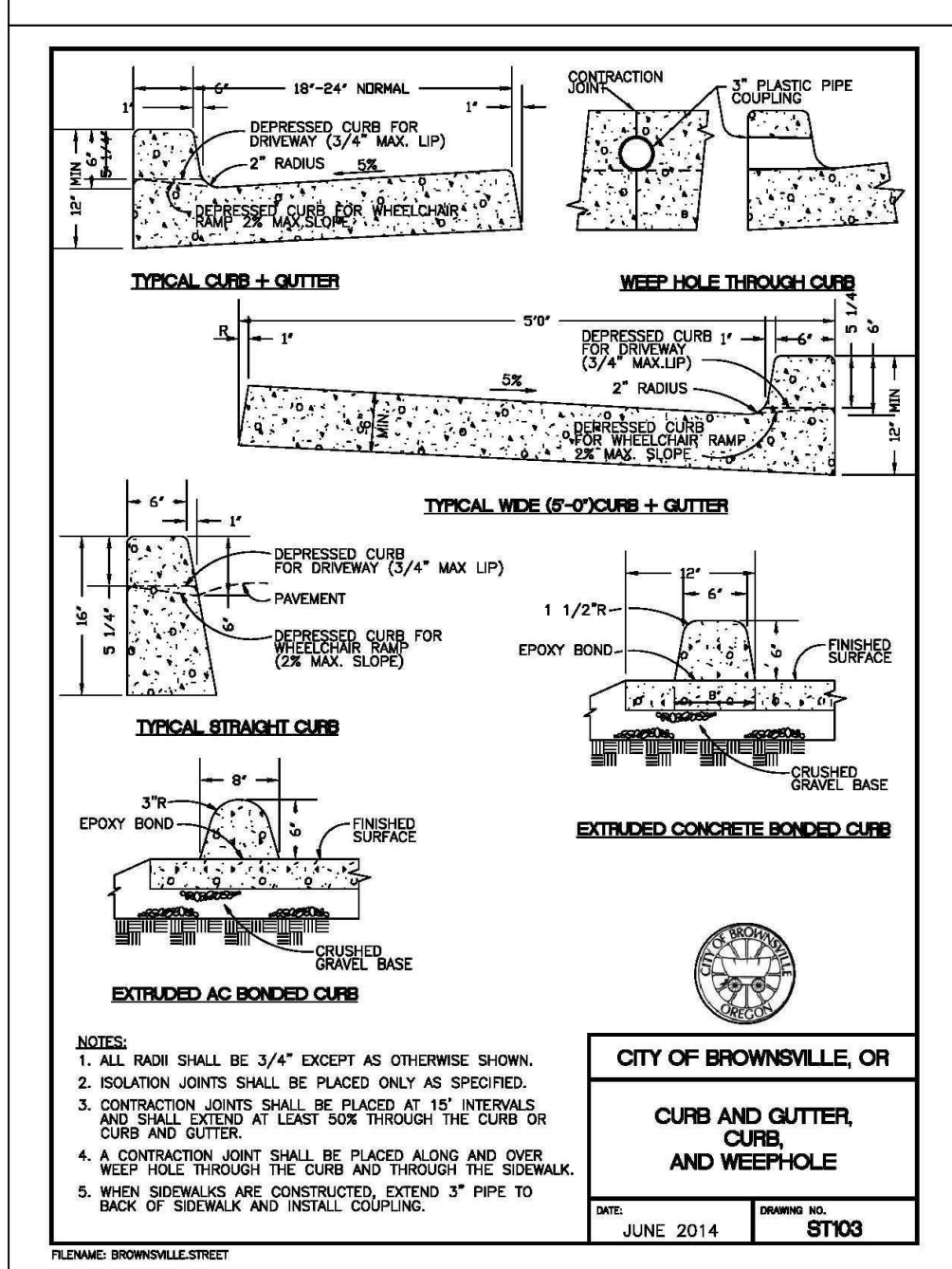
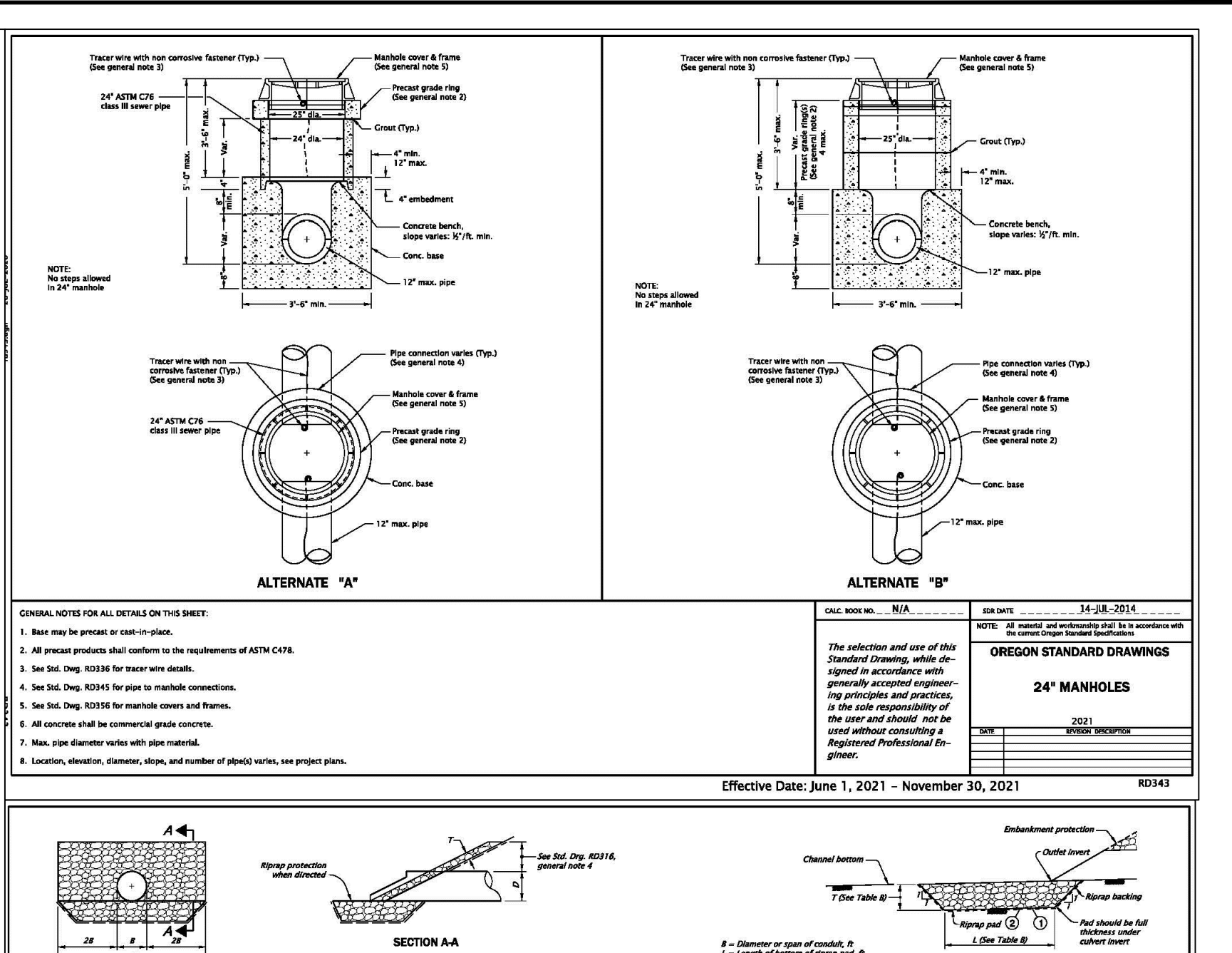
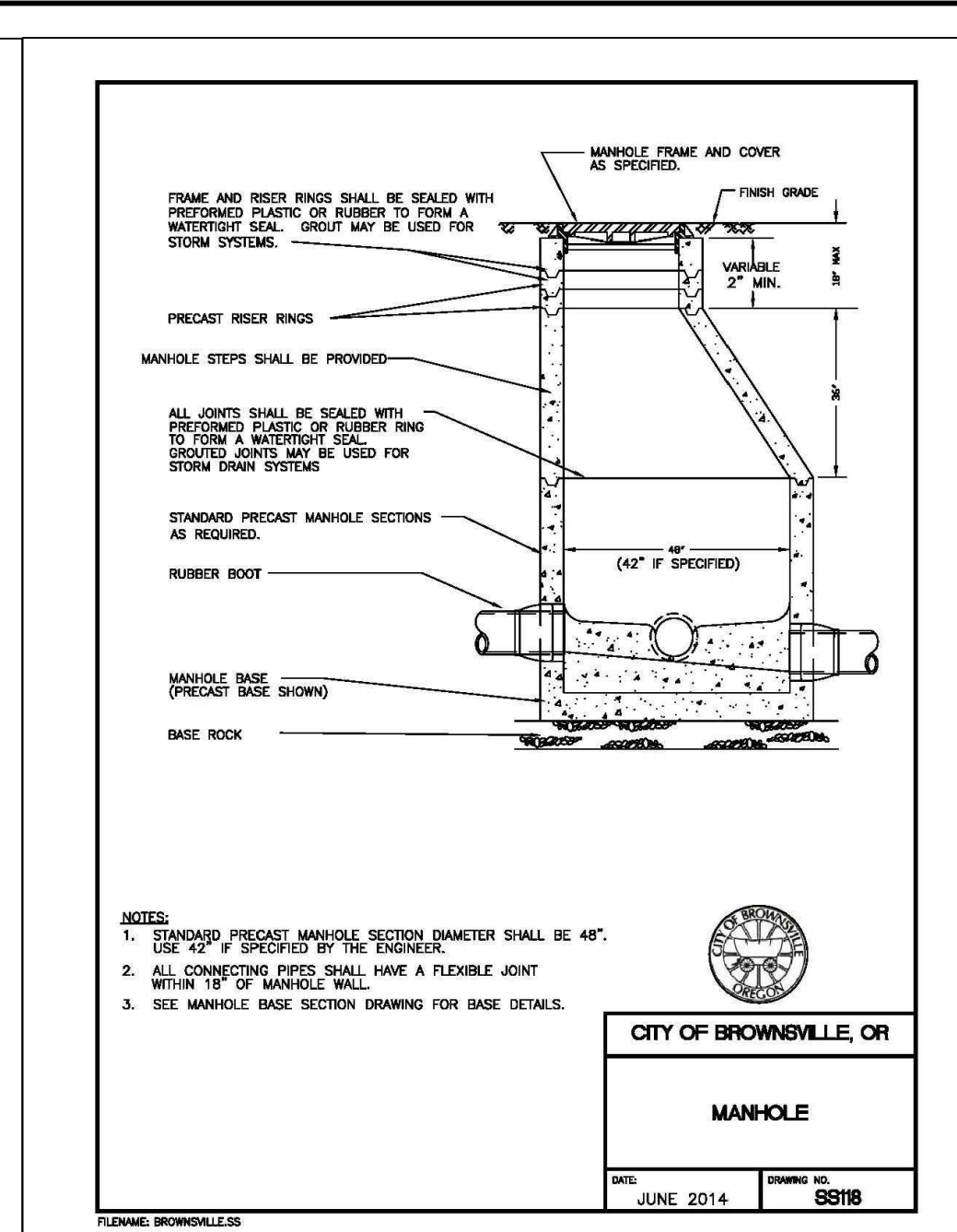
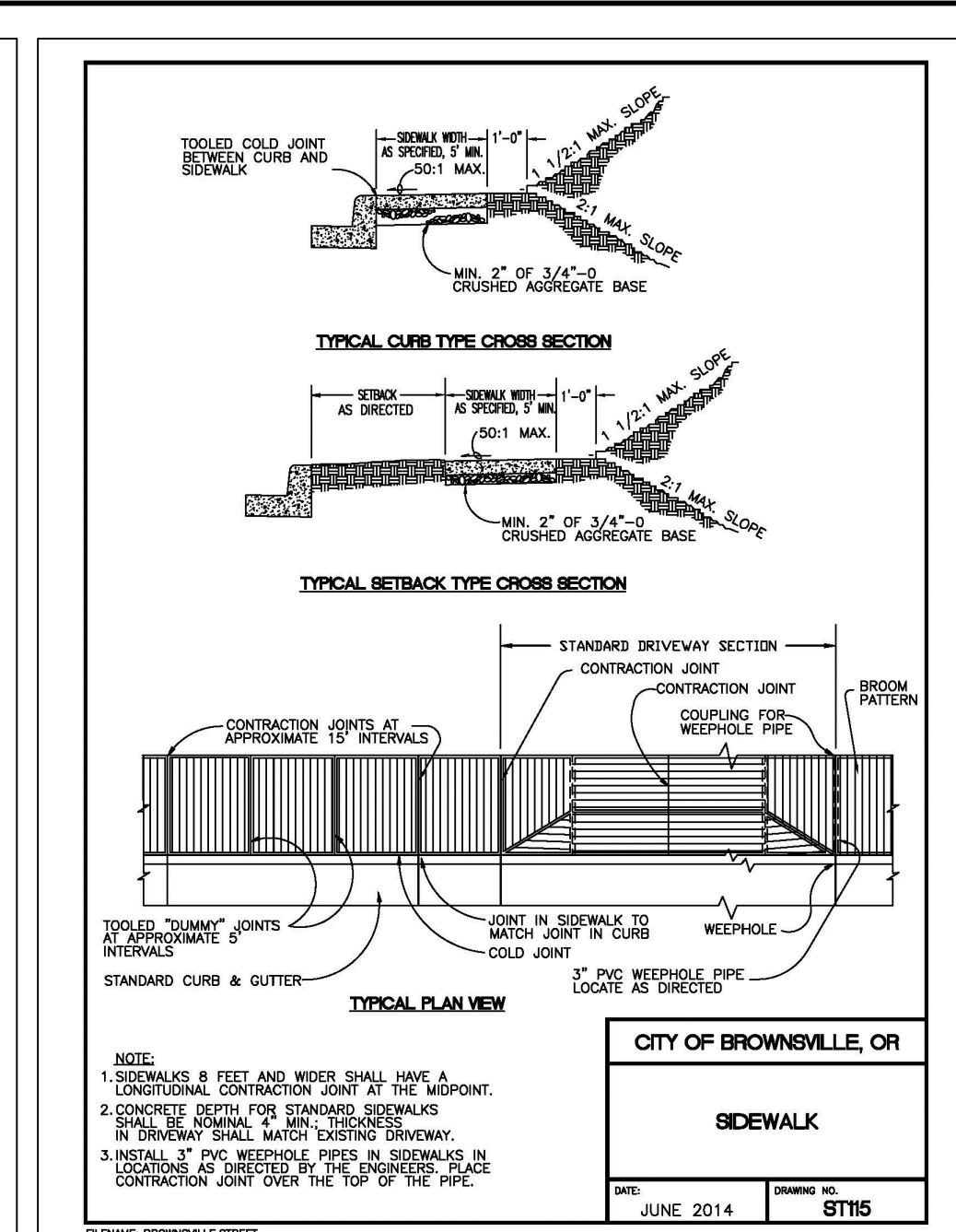
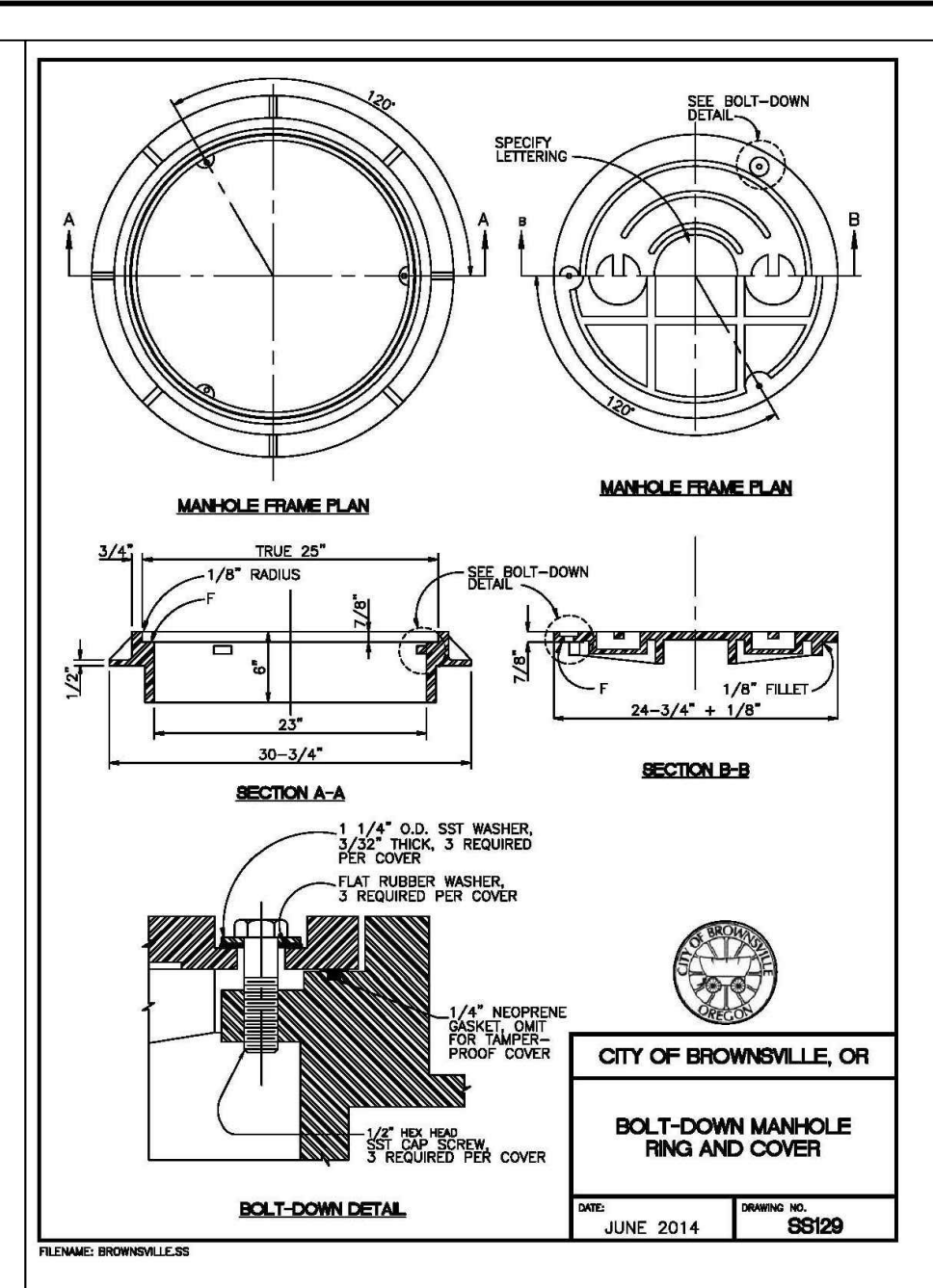
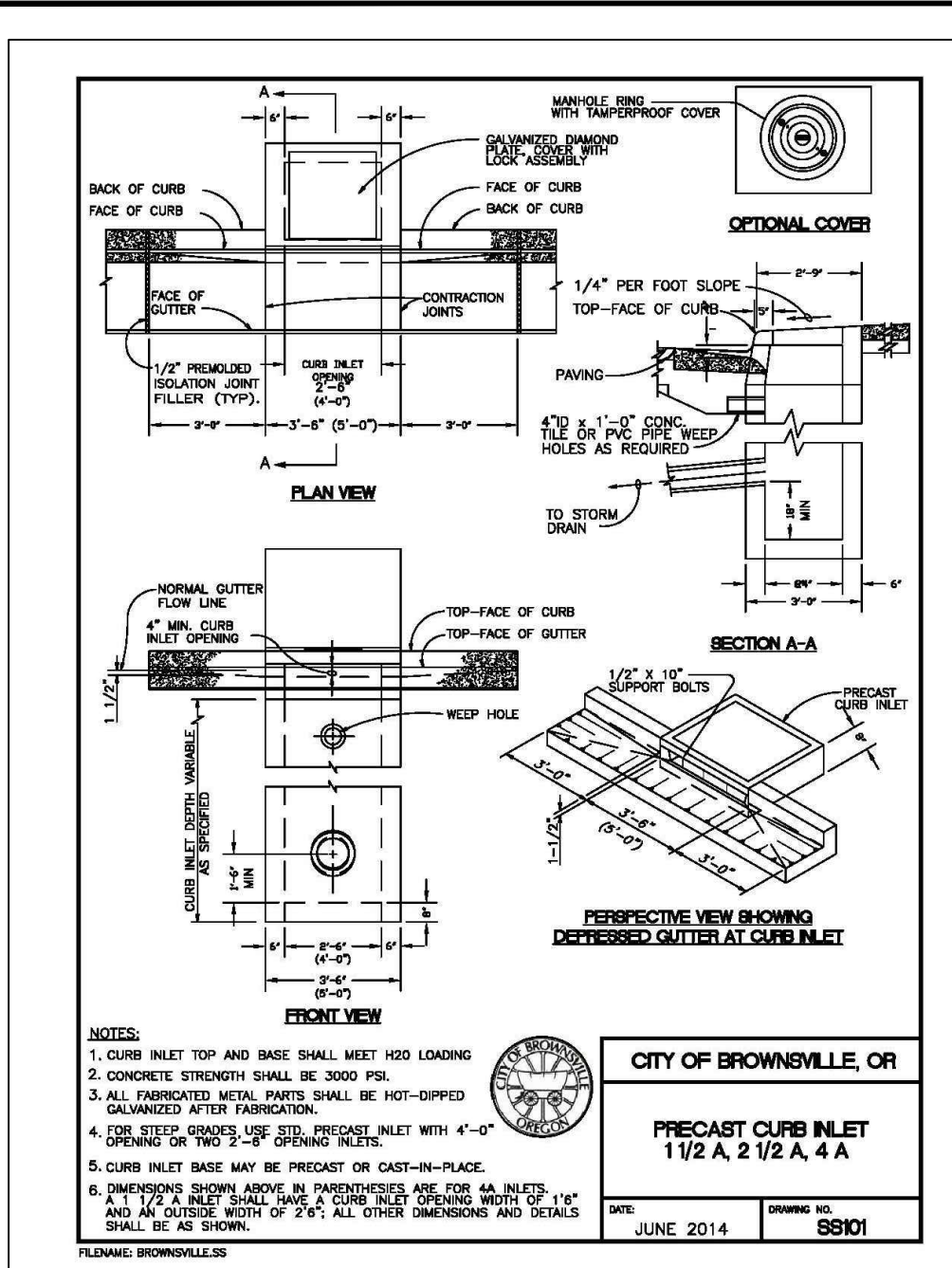
PHONE: (61) 302

DATE: _____
 PROJECT No: _____
 SCALE: 1/8"=1'-0"
 VERT: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS:

REVISIONS:

SHEET
 OF



D APPROVED FOR CONSTRUCTION

Digitally signed by Jesse McElwain
 DN: c=US, e=jmcelwain@dyerpart.com, o=Dyer Partnership Engineers & Planners, Inc., ou=Location, cn=Jesse McElwain
 Contact info: 541.570.1630
 Date: 2021.11.15 16:06:01-0800

DATE: PROJECT No: SCALE: 1/8"=1'-0" VERT: DRAWN BY: DESIGNED BY: REVIEWED BY:

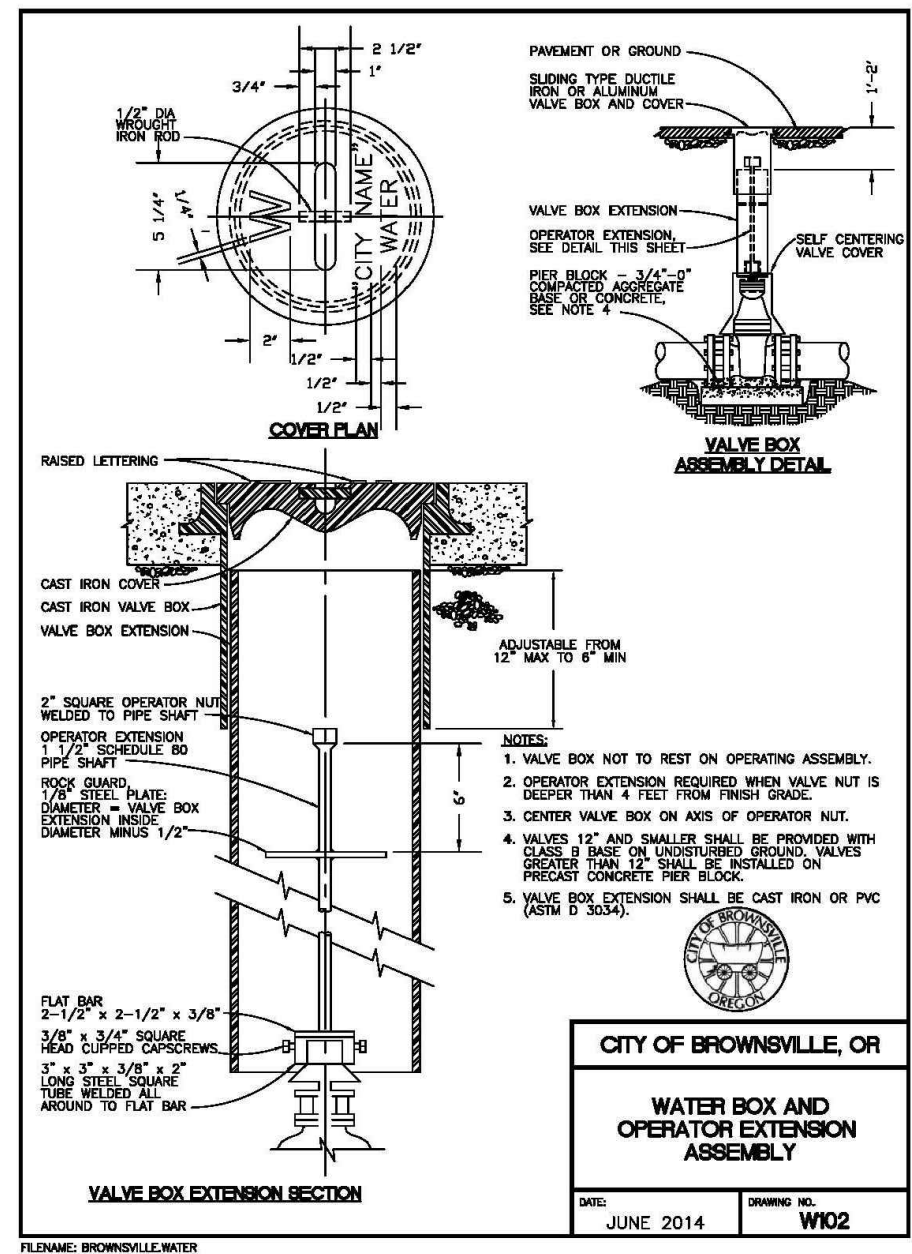
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REVISIONS:

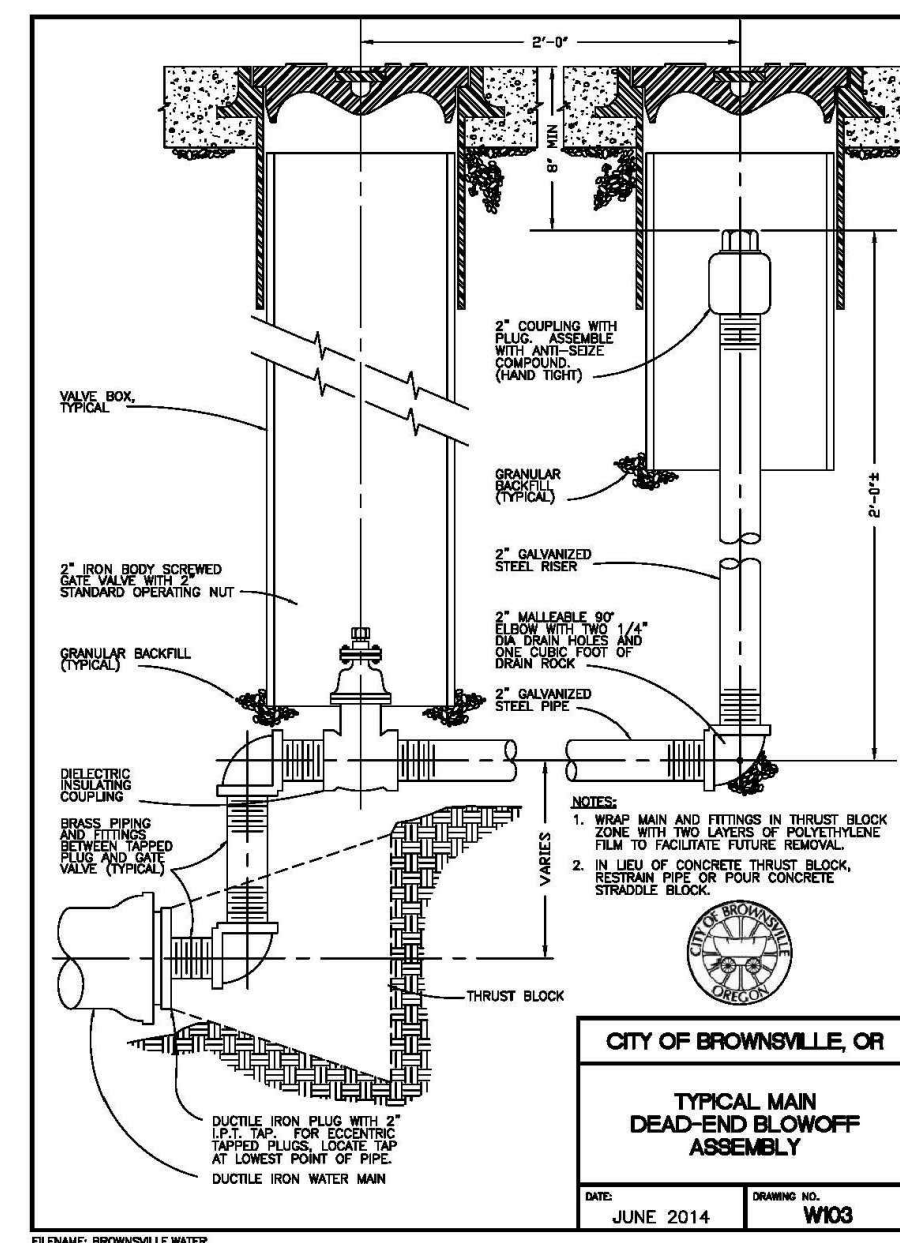
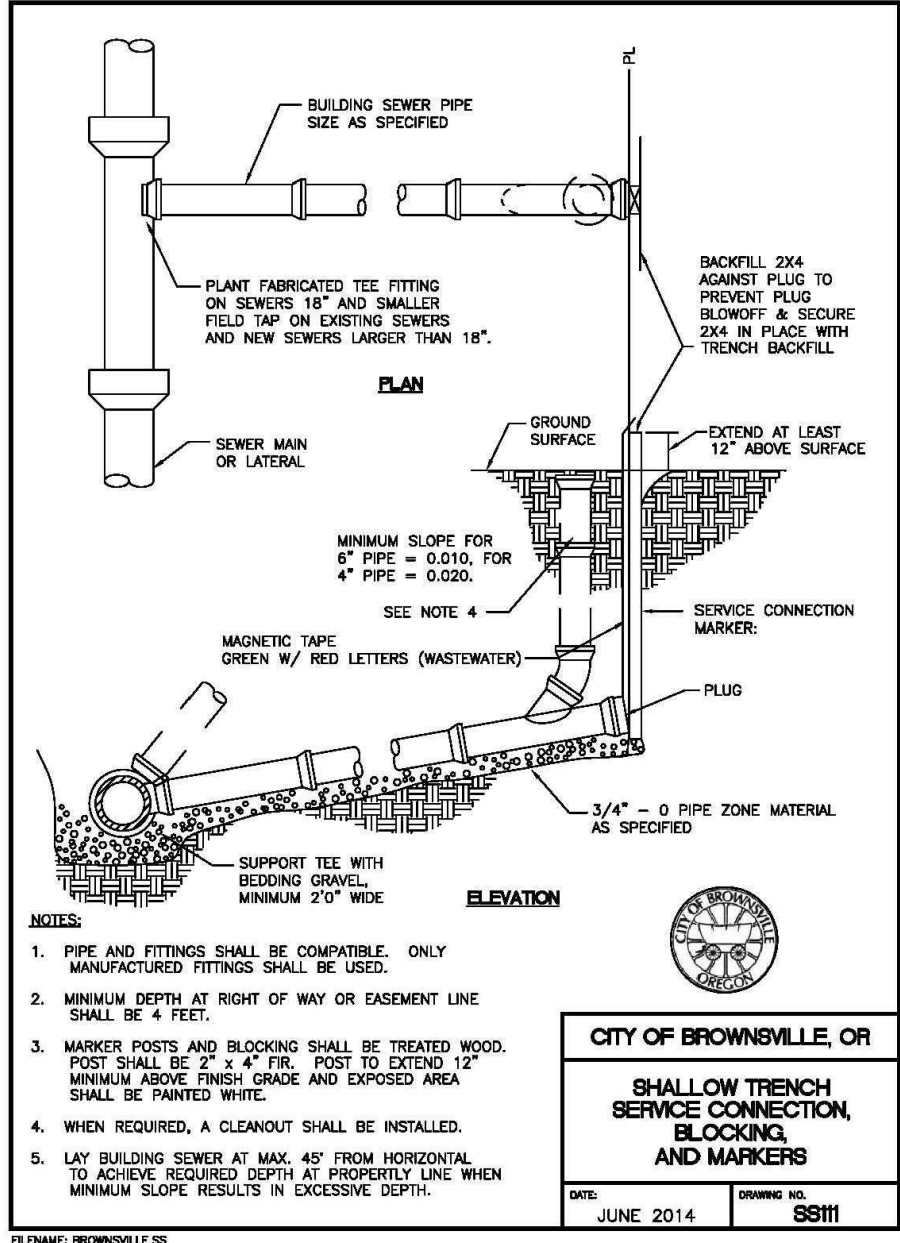
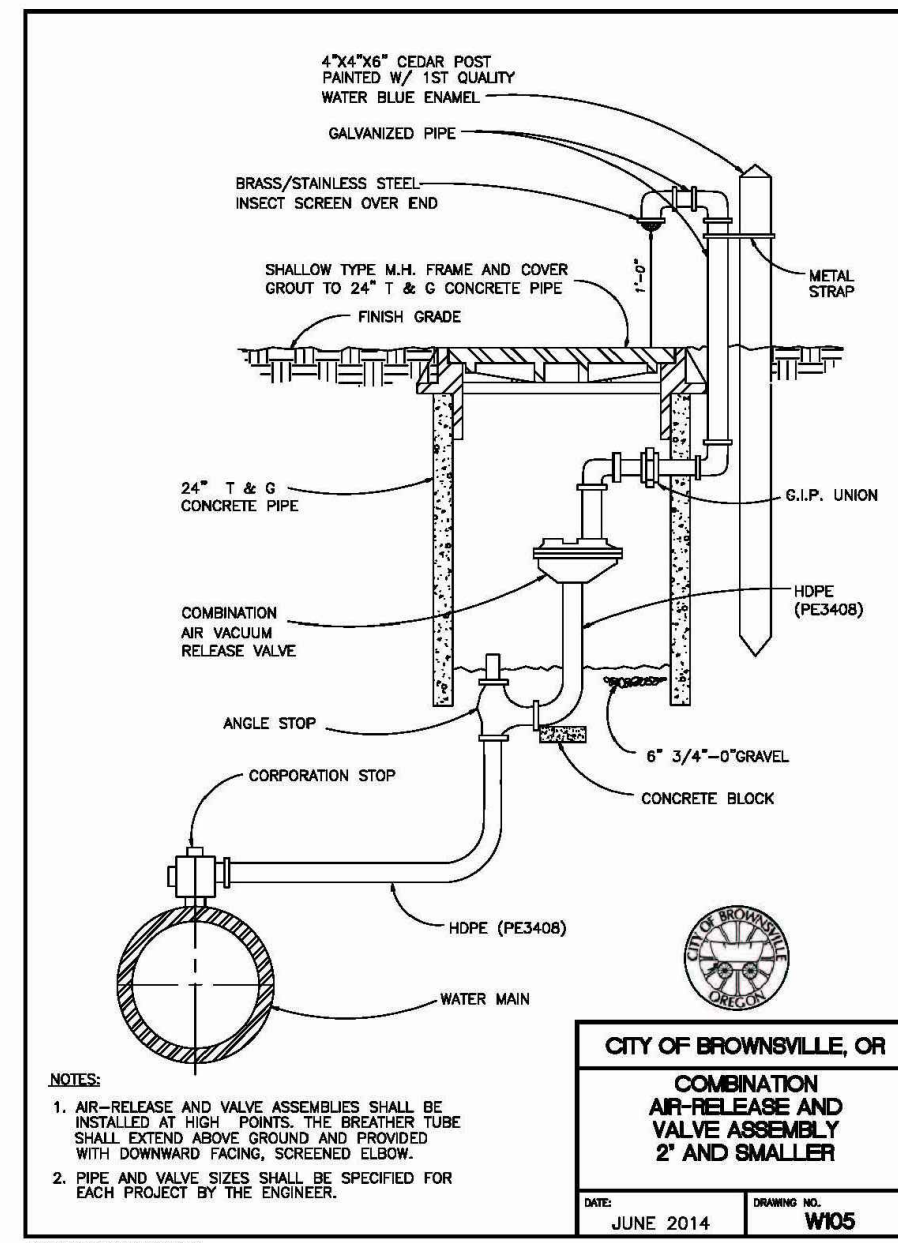
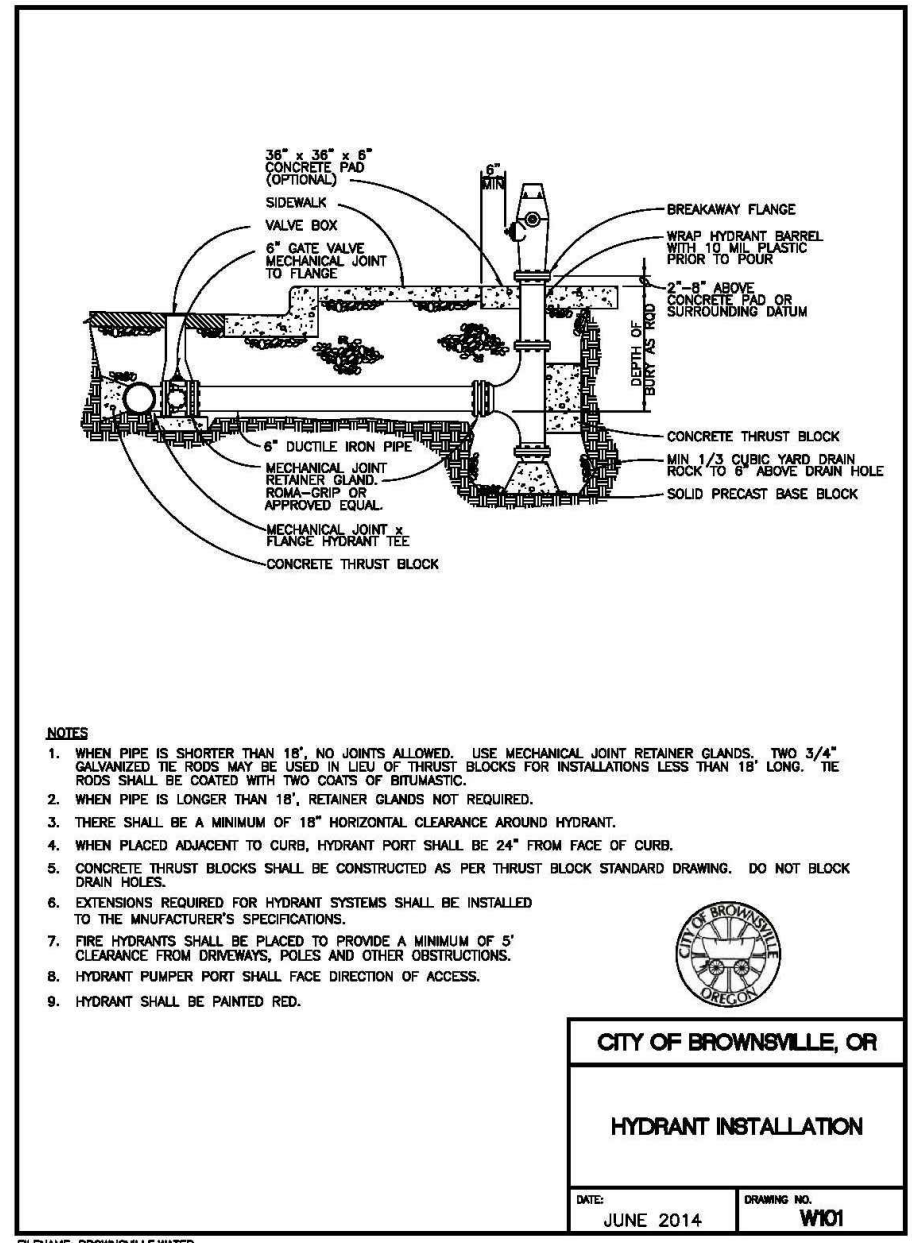
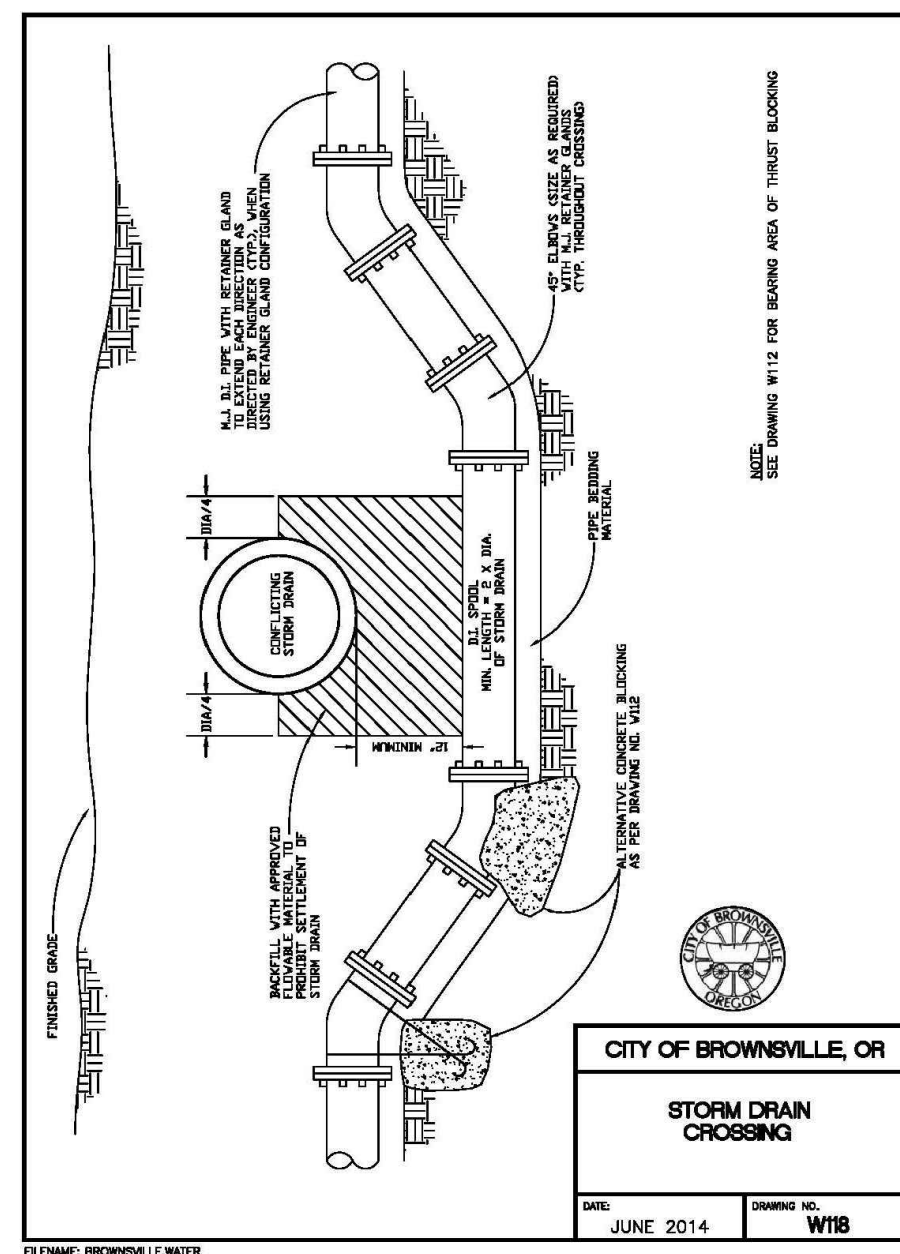
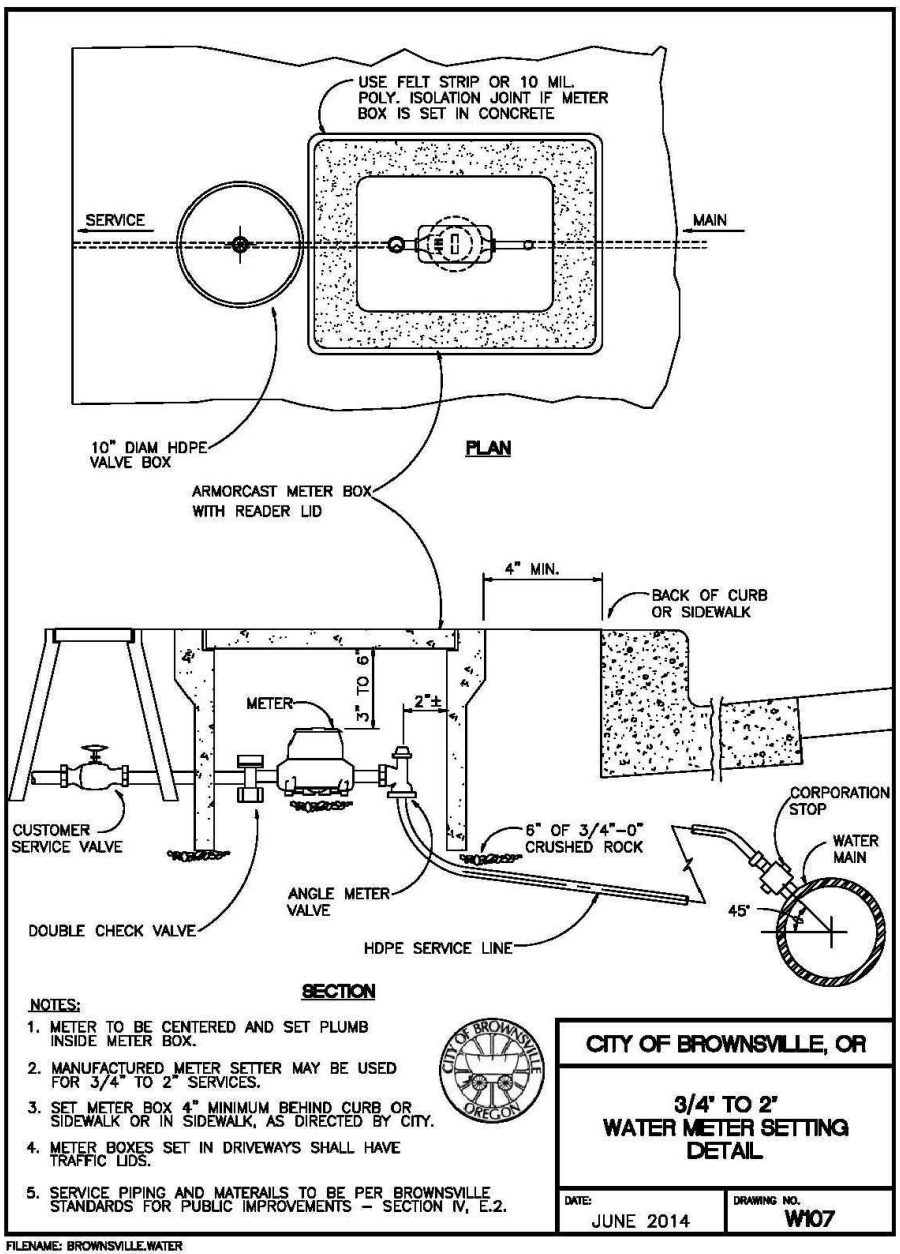
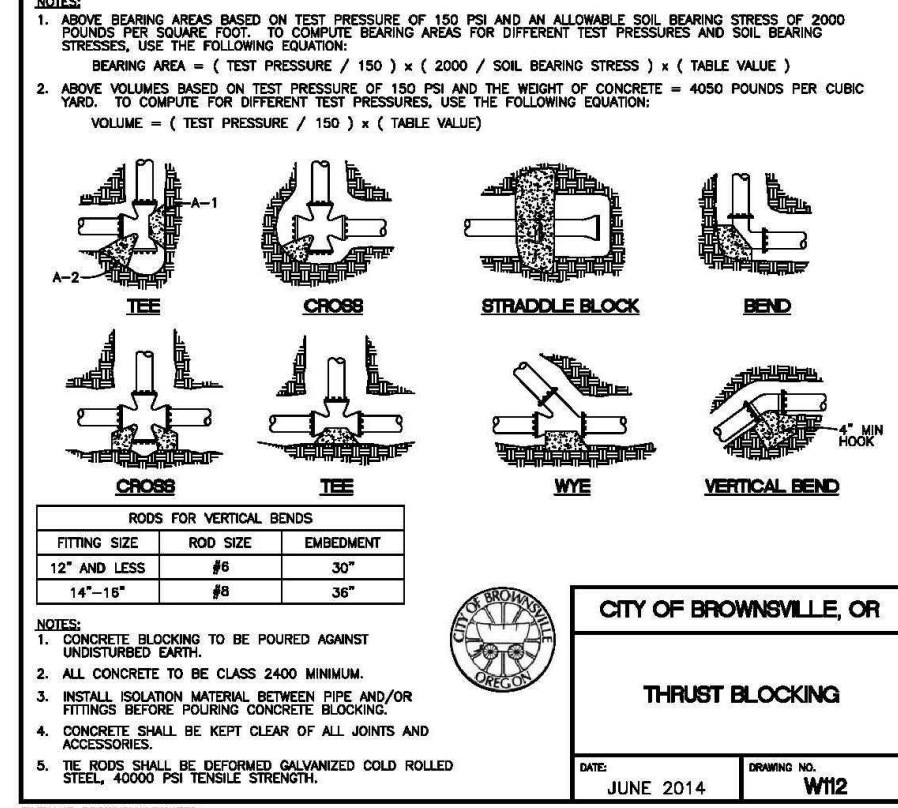
SHEET OF

PHONE: (503) 302-7177

SPRINGFIELD, OR



FITTING	BEARING AREA OF THRUST BLOCKS				VOLUME OF THRUST BLOCKS IN CUBIC YARDS			
	12" DIA	18" DIA	24" DIA	30" DIA	12" DIA	18" DIA	24" DIA	30" DIA
4	1.0	1.4	1.4	1.0	1.1	1.2	1.3	1.4
6	3.1	3.7	3.0	1.8	1.0	1.3	1.7	2.0
8	3.8	4.5	3.2	1.8	1.0	1.3	1.7	2.0
10	5.9	10.2	8.4	11.8	8.4	2.4	1.2	3.7
12	8.5	14.7	12.0	17.0	12.0	8.4	3.4	1.7
14	11.5	16.3	12.0	16.3	6.8	4.5	2.3	2.8
16	15.0	26.1	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	27.0	27.0	14.8	7.8	3.8	4.8
20	23.5	40.8	33.3	41.0	33.3	18.1	8.4	4.7
24	34.0	58.8	48.0	48.0	28.2	13.8	6.8	8.8



Air/Vacuum Valves

Guaranteed Protection

1. Protection for pipelines
2. Eliminating risk of collapsing the line due to vacuum
3. Exhausts air when the line is filled
4. Allows air to re-enter immediately when the line drains

Plus these exclusive features at no extra cost:

5. Stainless steel finish - Guaranteed individually tested
6. ASTM quality materials guaranteed throughout
7. Every valve hydrostatically factory tested

Why and Where to Use Air/Vacuum Valves

An Air/Vacuum Valve has a large venting orifice and is used to exhaust large quantities of air from a pipeline when being filled or a deep well pump column when the pump is started. Once the line is filled, the Air/Vacuum Valve closes and remains closed until the liquid is drained and pressure returns to atmospheric. The Air/Vacuum Valve will then immediately open to allow air to re-enter the line and prevent a vacuum from developing.

Air/Vacuum Valves do not open to exhaust the small pockets of air which collect in the line while it is operating under pressure. We highly recommend Automatic Air Release Valves (AARV) be used in conjunction with Air/Vacuum Valves for maximum pipeline flow and pump efficiency. The AARV will eliminate constricting air pockets from forming at the high points of the pipeline.

The minimal cost for the Automatic Air Release Valves will qualify you for staff in minimizing head loss through the pipeline. The result: energy cost savings!

Series 140H available for high pressure service (up to 100 psi operating pressure) (1.50 gal).

Series 140
 4" (102 mm) through 30" (762 mm) standard outlets are plain with a steel protector hood.

Series 150
 4" (102 mm) through 30" (762 mm) standard outlets are plain with a steel protector hood.

Optional threaded or flanged outlets available.

Manufactured by AWWA C512
 ISO flange connections available

Physical Dimensions

Model	Size	Height	Max. Inlet	Max. Outlet	Weight
140	4"	10.25"	4.0"	4.0"	10.0
150	6"	12.75"	6.0"	6.0"	15.0
160	8"	15.25"	8.0"	8.0"	20.0
180	10"	17.75"	10.0"	10.0"	25.0
200	12"	20.25"	12.0"	12.0"	30.0
240	16"	25.25"	16.0"	16.0"	40.0
300	24"	35.25"	24.0"	24.0"	60.0

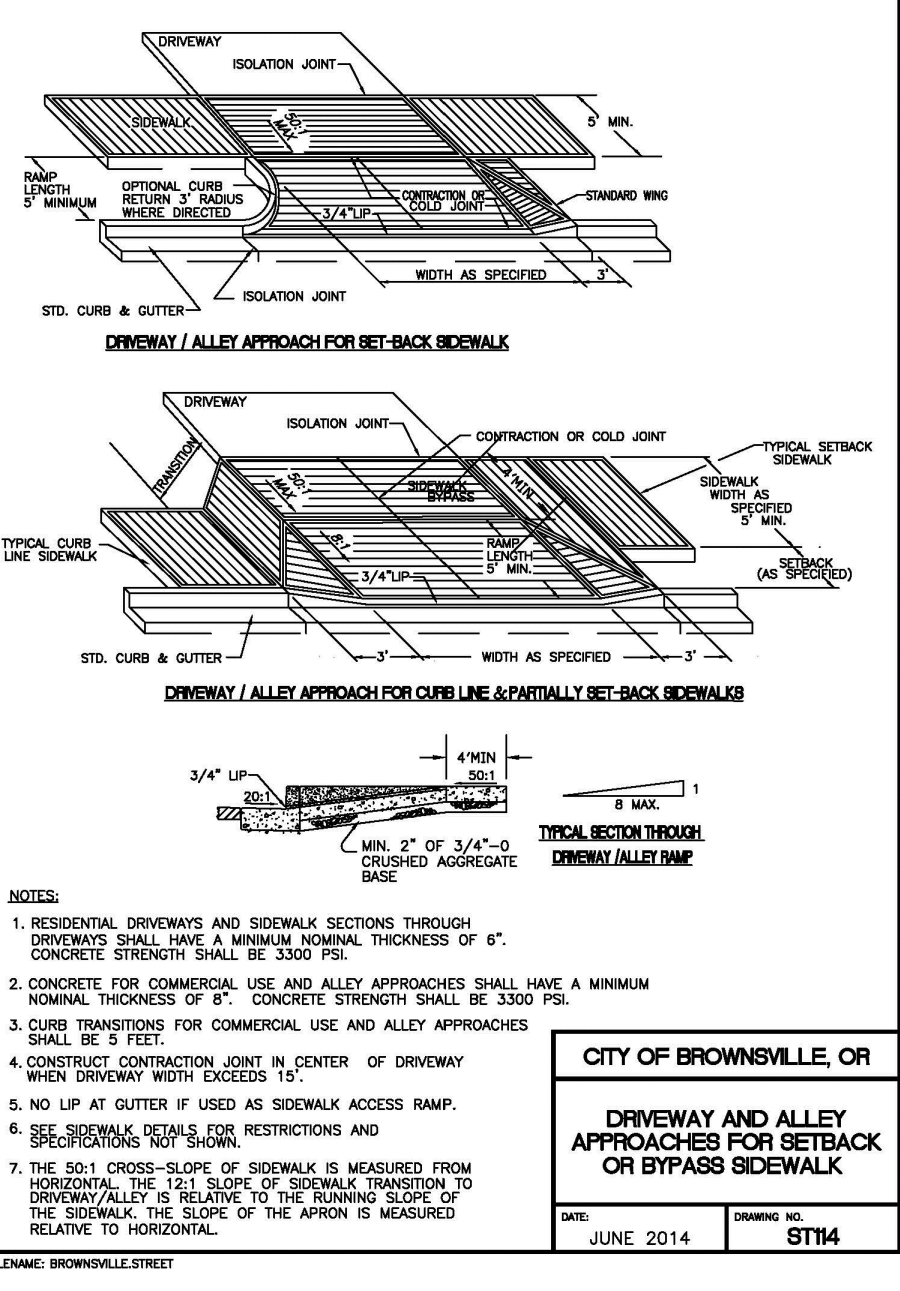
Replace Shut-Off Valves with DeZURIK Butterfly Valves

Costs to encase pipeline trenches can be greatly reduced by using DeZURIK Butterfly Valves for isolation instead of gate valves. DeZURIK Butterfly Valves are economical, reliable and much shorter, permitting a reduction in depth of trench. See Below.

Size	Model	Combination	A	R	X	Net Weight	Net Weight	Net Weight
			UNC	ISO	UNC	ISO	UNC	ISO
4"	1104	1104M	10.25"	10.25"	10.25"	10.25"	10.25"	10.25"
6"	1106	1106M	12.75"	12.75"	12.75"	12.75"	12.75"	
8"	1108	1108M	15.25"	15.25"	15.25"	15.25"	15.25"	
10"	1110	1110M	17.75"	17.75"	17.75"	17.75"	17.75"	
12"	1112	1112M	20.25"	20.25"	20.25"	20.25"	20.25"	
16"	1114	1114M	25.25"	25.25"	25.25"	25.25"	25.25"	
24"	1116	1116M	35.25"	35.25"	35.25"	35.25"	35.25"	

DRIVEWAY AND ALLEY APPROACHES FOR SETBACK OR BYPASS SIDEWALK

CITY OF BROWNSVILLE, OR
 DATE: JUNE 2014
 DRAWING NO: ST14



9790

PHONE: (541) 302

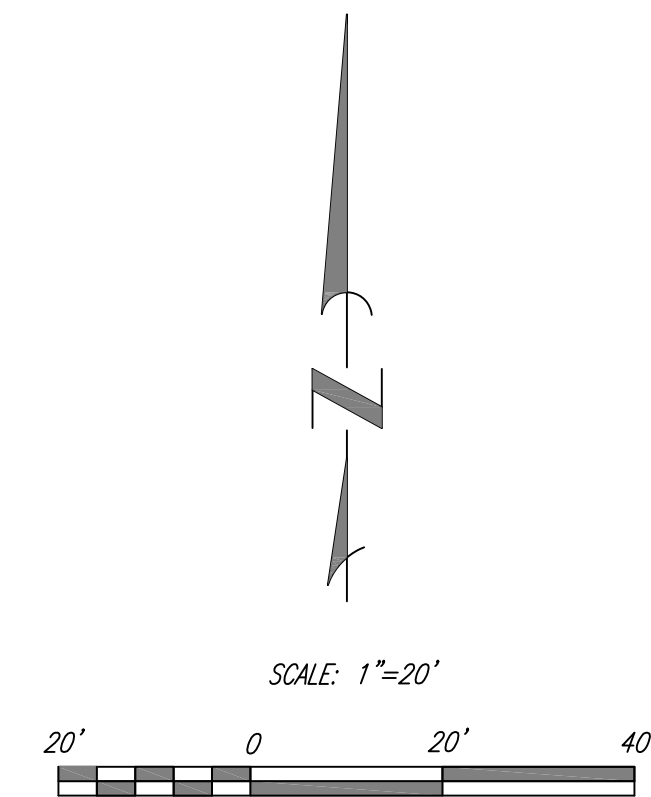
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 PROJECT NO: _____
 SCALE: 1/8"=1'-0"
 VERT: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 REVIEWED BY: _____

SUBMITTALS: _____
 REVISIONS: _____

SPRINGFIELD, OR 97177

SHEET
 OF

APPROVED FOR CONSTRUCTION

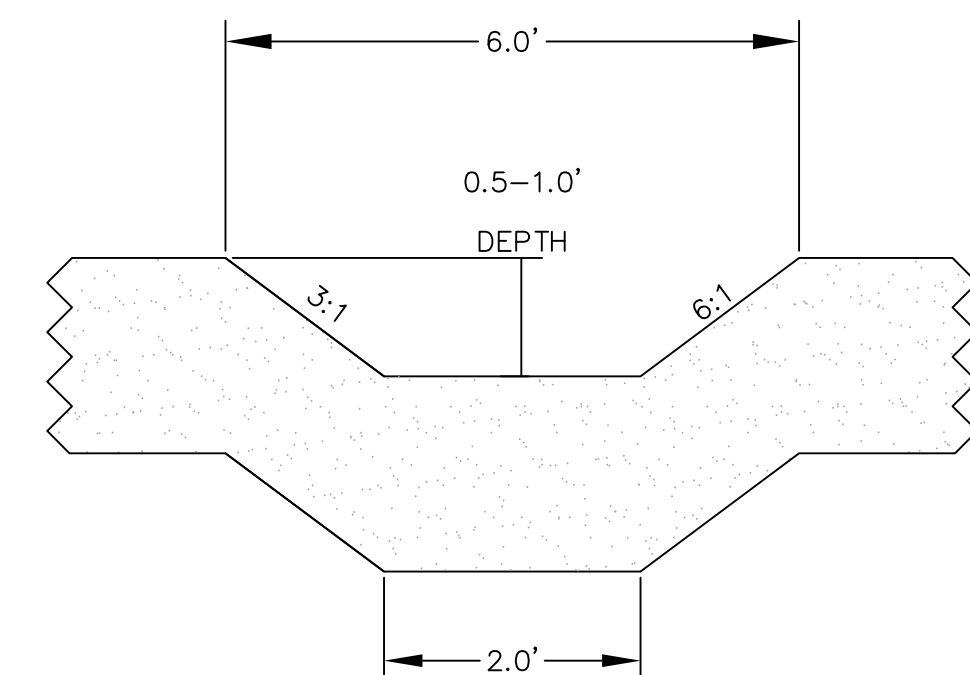


GENERAL NOTES:

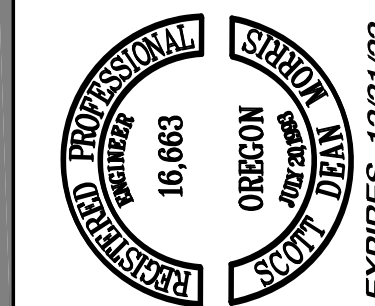
1. OFFSET TEMPORARY DITCH FROM PROPERTY LINE TO PROTECT EXISTING FENCING.

ST CONSTRUCTION NOTES

425. CONST CONCRETE DITCH INLET PER CITY OF BROWNSVILLE DWG SS109. REFER TO SHEET C-5.1.
480. CONST 6" STORM DRAIN PIPE, PVC D3034 W/ RUBBER GASKET JOINTS AND TONE WIRE.
443. CONST CULVERT EMBANKMENT PROTECTION AND RIP RAP PAD SECTION A-A PER OREGON STD. DWG RD317 PIPE SHALL BE MITERED PER DETAIL.



A & O Engineering L.L.C.
 CIVIL ENGINEERING & SITE
 DEVELOPMENT CONSULTING
 380 Q ST. SUITE 200
 SPRINGFIELD, OR 97477
 PHONE: (541) 302-9790
www.aandoeengineering.biz



Swale Detail
 for
Rivers Edge Phase 3
 Brownsville Linn County Oregon

PROJECT No.	5318
DRAWN BY:	KRC
REVIEWED BY:	SDM
PROJECT DATES:	

SHEET
 C-1.0