

# CITY OF LAKE FOREST PARK

KING COUNTY

WASHINGTON

## L90 CULVERT REPLACEMENT



### CITY OFFICIALS

**TOM FRENCH**  
MAYOR

**LORRI BODI**  
DEPUTY MAYOR

**LARRY GOLDMAN**

**TRACY FURUTANI**  
CITY COUNCIL

**JON LEBO**

**SEMRA RIDDLE**

**ELLYN SAUNDERS**

**PAULA GOODE**

**LORRI BODI**

**PHILLIP HILL**  
CITY ADMINISTRATOR

**KATIE PHILLIPS**  
PROJECT MANAGER

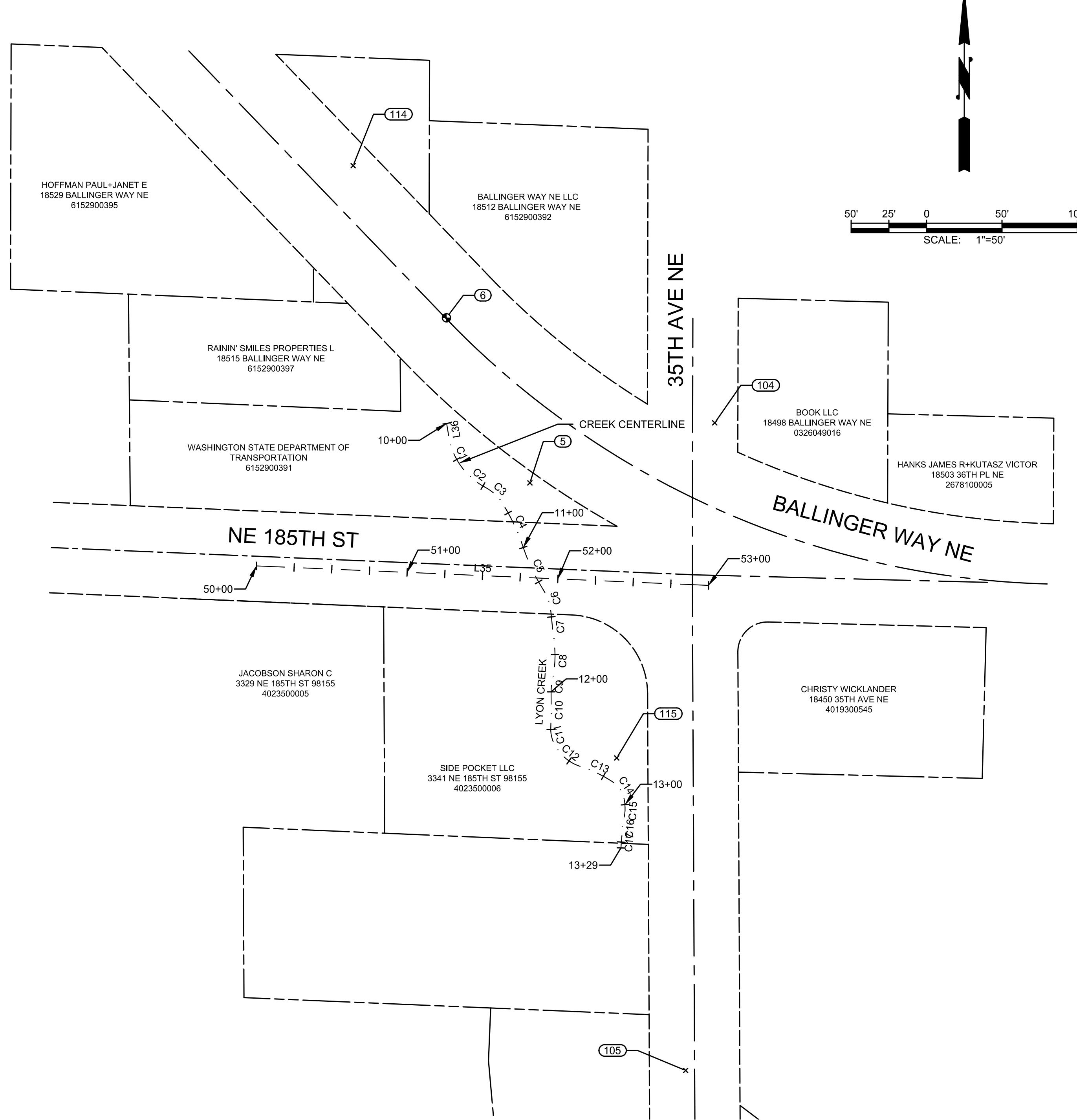
**REBECCA DICKINSON**  
PUBLIC WORKS DIRECTOR

REVIEWED AND  
CONCURRED WITH: \_\_\_\_\_  
CITY OF LAKE FOREST PARK  
DATE: \_\_\_\_\_

  
**Gray & Osborne, Inc.**  
CONSULTING ENGINEERS  
3710 168TH STREET NE, BLDG. B, SUITE 210  
ARLINGTON, WASHINGTON 98223 (360) 454-5490

**60% PLANSET  
OCTOBER 2025  
G&O JOB#19569**





### CITY OF LAKE FOREST PARK - LYON CREEK L90 CULVERT

JOB NUMBER -19569

HORIZONTAL DATUM: NAD83/11  
WSPCS N. ZONE, GRID NORTH, MODIFIED GROUND  
COORD'S SCALED AT G+O 7, Avg CGF=0.99995906707

VERTICAL DATUM: NAVD88

HOLDING WSDOT GP17522-236 (G&amp;O #11)

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
5	281687.50	1281615.84	124.67	SFN=FOUND NAIL, LARGE MAG NAIL IN ASPHALT, SW SIDE OF NE BALLINGER WAY, SE OF AUTO SHOP SIGN.
6	281796.93	1281560.50	124.19	SFMC, CENTERLINE TURN LANE NE BALLINGER WAY, W. OF INTX. W/35TH AVE NE.
104	281727.32	1281738.37	126.06	SSNT, N. OF NLY ADA IN ASPH. RAMP, NE COR 35TH AVE NE & NE BALLINGER WAY. 2' E. OF TBC.
105	281298.05	1281719.06	116.91	SSNT, W. SIDE OF 35TH AVE, S. OF CREEK, N. OF DRIVE WAY.
114	281897.79	1281498.64	125.98	SSNT, N SIDE BALLINGER WAY, NW OF CULVERT CROSSING IN ASPHALT PATH
115	281505.20	1281673.42	115.72	SSN=SET NAIL, 60D NAIL W/ PINK FLAGGING. 17' SW OF 30" FIR TREE, IN YARD E OF CREEK.

ALIGN - 185TH ST - CONSTRUCTION CENTERLINE ALIGNMENT												
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
L35	50+00.00	281,632.49	1,281,434.53	53+00.00	281,619.56	1,281,734.25	300.00	S87°31'46"E				

FG CREEK CL - CONSTRUCTION CENTERLINE ALIGNMENT												
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
L36	10+00.00	281,726.92	1,281,560.63	10+09.15	281,717.90	1,281,562.12	9.15	S9°22'24"E				
C1	10+09.15	281,717.90	1,281,562.12	10+34.94	281,694.92	1,281,573.07			45.86	13.25	25.79	
C2	10+34.94	281,694.92	1,281,573.07	10+51.81	281,684.55	1,281,586.26			47.27	8.53	16.87	
C3	10+51.81	281,684.55	1,281,586.26	10+67.80	281,673.75	1,281,597.81			30.31	8.19	15.99	
C4	10+67.80	281,673.75	1,281,597.81	11+00.01	281,644.66	1,281,611.45			137.75	16.18	32.21	
C5	11+00.01	281,644.66	1,281,611.45	11+30.55	281,617.10	1,281,624.44			128.17	15.34	30.54	
C6	11+30.55	281,617.10	1,281,624.44	11+47.45	281,601.23	1,281,629.82			36.25	8.61	16.90	
C7	11+47.45	281,601.23	1,281,629.82	11+66.59	281,582.21	1,281,631.91			595.72	9.57	19.14	
C8	11+66.59	281,582.21	1,281,631.91	11+91.83	281,557.12	1,281,630.74			73.42	12.75	25.24	
C9	11+91.83	281,557.12	1,281,630.74	12+00.31	281,548.71	1,281,629.88			36.66	4.26	8.48	
C10	12+00.31	281,548.71	1,281,629.88	12+24.03	281,524.99	1,281,629.65			529.01	11.86	23.72	
C11	12+24.03	281,524.99	1,281,629.65	12+35.96	281,513.53	1,281,632.41			22.26	6.11	11.93	
C12	12+35.96	281,513.53	1,281,632.41	12+58.61	281,499.47	1,281,649.48			29.95	11.90	22.65	
C13	12+58.61	281,499.47	1,281,649.48	12+81.50	281,489.71	1,281,670.12			87.31	11.51	22.90	
C14	12+81.50	281,489.71	1,281,670.12	12+97.29	281,476.89	1,281,678.52			18.89	8.39	15.78	
C15	12+97.29	281,476.89	1,281,678.52	13+10.50	281,463.80	1,281,677.88			31.23	6.71	13.21	
C16	13+10.50	281,463.80	1,281,677.88	13+20.73	281,453.69	1,281,676.82			25.84	5.18	10.23	
C17	13+20.73	281,453.69	1,281,676.82	13+28.90	281,445.55	1,281,676.19			112.12	4.09	8.17	

## RIGHT-OF-WAY DISCLAIMER

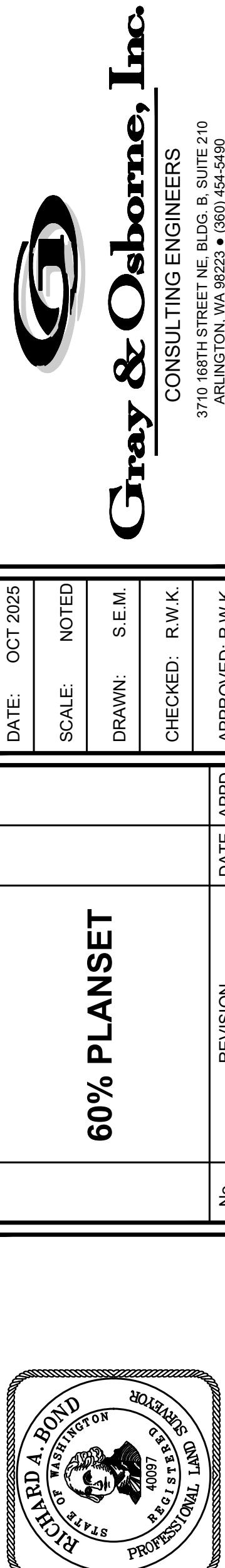
THE RIGHT-OF-WAY AND/OR PROPERTY LINES  
SHOWN HEREON ARE BASED ON AVAILABLE  
INFORMATION, NOT ON A SURVEYED LOCATION  
AND ARE ONLY APPROXIMATE.

0 1" 2"

TWO INCHES AT FULL SCALE. IF  
NOT, SCALE ACCORDINGLY

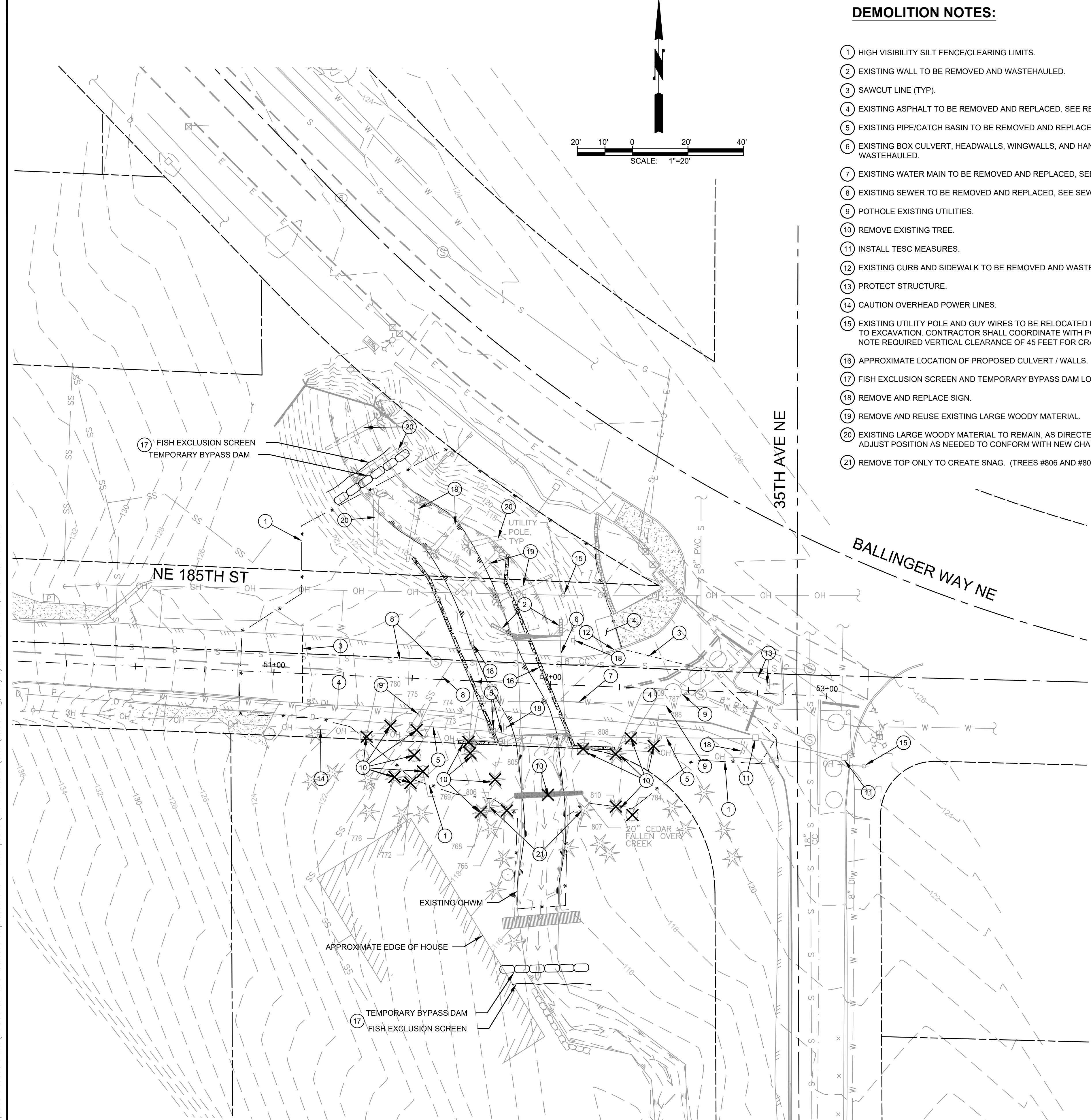
CITY OF LAKE FOREST PARK  
KING COUNTY  
WASHINGTON  
L90 CULVERT REPLACEMENT  
SURVEY CONTROL & ALIGNMENT TABLES

SHEET: 2 OF 29  
JOB NO.: 19569  
DWG SURVEY CONTROL



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## DEMOLITION NOTES:

## EROSION/SEDIMENTATION CONTROL NOTES

- CONTRACTOR SHALL SUBMIT TEMPORARY WATER POLLUTION/EROSION CONTROL PLAN PER THE CONTRACT SPECIFICATIONS.
- ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION SHALL BE OBSERVED DURING CONSTRUCTION. TREE PROTECTION MUST BE INSTALLED PRIOR TO CLEARING.
- ALL REQUIRED SEDIMENTATION/EROSION CONTROL FACILITIES MUST BE IN OPERATION PRIOR TO LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO EROSION/SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE EROSION AND SEDIMENTATION CONTROL SYSTEMS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND AS UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE CONTRACTOR SHOULD ANTICIPATE THAT MORE EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES AND THE WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF THE SEDIMENT. ALL CATCH BASINS, CONVEYANCE LINES AND DITCHES SHALL BE CLEANED PRIOR TO PAVING.
- THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE TOWN RIGHT-OF-WAY OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM.
- TEMPORARY EROSION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND MAINTAINED WITHIN 24 HOURS FOLLOWING A STORM EVENT. SEDIMENT SHALL BE REMOVED TO INSURE THE FACILITIES WILL FUNCTION PROPERLY. THE FACILITIES SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- DISTURBED SOIL SHALL BE STABILIZED PER THE SPECIFICATIONS.

## FISH EXCLUSION NOTES

- IF PRACTICABLE, ALLOW LISTED FISH SPECIES TO MIGRATE OUT OF THE WORK AREA OR REMOVE FISH BEFORE Dewatering; OTHERWISE REMOVE FISH FROM AN EXCLUSION AREA AS IT IS SLOWLY Dewatered WITH METHODS SUCH AS HAND OR DIP-NETS, SEINING, OR TRAPPING WITH MINNOW TRAPS (OR GEE-MINNOW TRAPS).
- FISH CAPTURE WILL BE SUPERVISED BY A QUALIFIED FISHERIES BIOLOGIST, WITH EXPERIENCE IN WORK AREA ISOLATION AND COMPETENT TO ENSURE THE SAFE HANDLING OF ALL FISH.
- CONDUCT FISH CAPTURE ACTIVITIES DURING PERIODS OF THE DAY WITH THE COOLEST AIR AND WATER TEMPERATURES POSSIBLE, NORMALLY EARLY IN THE MORNING TO MINIMIZE STRESS AND INJURY OF SPECIES PRESENT.
- MONITOR THE NETS FREQUENTLY ENOUGH TO ENSURE THEY STAY SECURED TO THE BANKS AND FREE OF ORGANIC ACCUMULATION.
- ELECTROFISHING WILL BE USED DURING THE COOLEST TIME OF DAY, ONLY AFTER OTHER MEANS OF FISH CAPTURE ARE DETERMINED TO BE NOT FEASIBLE OR INEFFECTIVE.

## TEMPORARY STREAM BYPASS NOTES

- DEWATER THE SHORTEST LINEAR EXTENT OF WORK AREA PRACTICABLE, UNLESS WETTED IN-STREAM WORK IS DEEMED TO BE MINIMALLY HARMFUL TO FISH, AND IS BENEFICIAL TO OTHER AQUATIC SPECIES.
- USE A COFFER DAM AND A BY-PASS CULVERT OR PIPE, OR A LINED, NON-ERODIBLE DIVERSION DITCH TO DIVERT FLOW AROUND THE Dewatered AREA. DISSIPATE FLOW ENERGY TO PREVENT DAMAGE TO RIPARIAN VEGETATION OR STREAM CHANNEL AND PROVIDE FOR SAFE DOWNSTREAM REENTRY OF FISH, PREFERABLY INTO POOL HABITAT WITH COVER.
- WHERE GRAVITY FEED IS NOT POSSIBLE, PUMP WATER FROM THE WORK SITE TO AVOID REWATERING AND TO SUSTAIN STREAM FLOW. MAINTAIN A FISH SCREEN ON THE PUMP INTAKE TO AVOID JUVENILE FISH ENTRAPMENT.
- PUMP SEEPAGE WATER TO A TEMPORARY STORAGE AND TREATMENT SITE, OR INTO UPLAND AREAS, TO ALLOW WATER TO PERCOLATE THROUGH SOIL OR TO FILTER THROUGH VEGETATION BEFORE REENTERING THE STREAM CHANNEL WITH A TREATMENT SYSTEM COMPRISED OF EITHER A HAY BALE BASIN OR OTHER SEDIMENT CONTROL DEVICE.
- MONITOR BELOW THE CONSTRUCTION SITE TO PREVENT STRANDING OF AQUATIC ORGANISMS.
- WHEN CONSTRUCTION IS COMPLETE, RE-WATER THE CONSTRUCTION SITE SLOWLY TO PREVENT LOSS OF SURFACE FLOW AND TO PREVENT A SUDDEN INCREASE IN STREAM TURBIDITY.
- WHEN A PUMP IS USED TO Dewater THE ISOLATION AREA AND ESA-LISTED FISH MAY BE PRESENT, A FISH SCREEN WILL BE USED THAT MEET THE MOST CURRENT VERSION OF NMFS'S FISH SCREEN CRITERIA (NMFS 2011a)

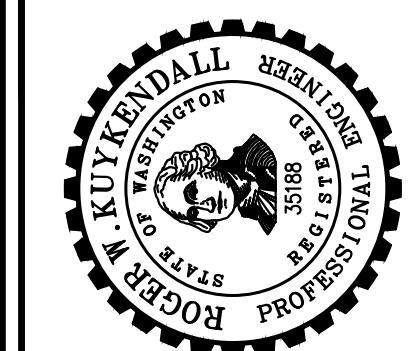
CITY OF LAKE FOREST PARK  
WASHINGTON  
KING COUNTY  
L90 CULVERT REPLACEMENT  
TESC & DEMO PLAN

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DATE: OCT 2025	SCALE: NOTED
DRAWN: S.E.M.	CHECKED: R.W.K.
APPROVED: R.W.K.	

60% PLANSET

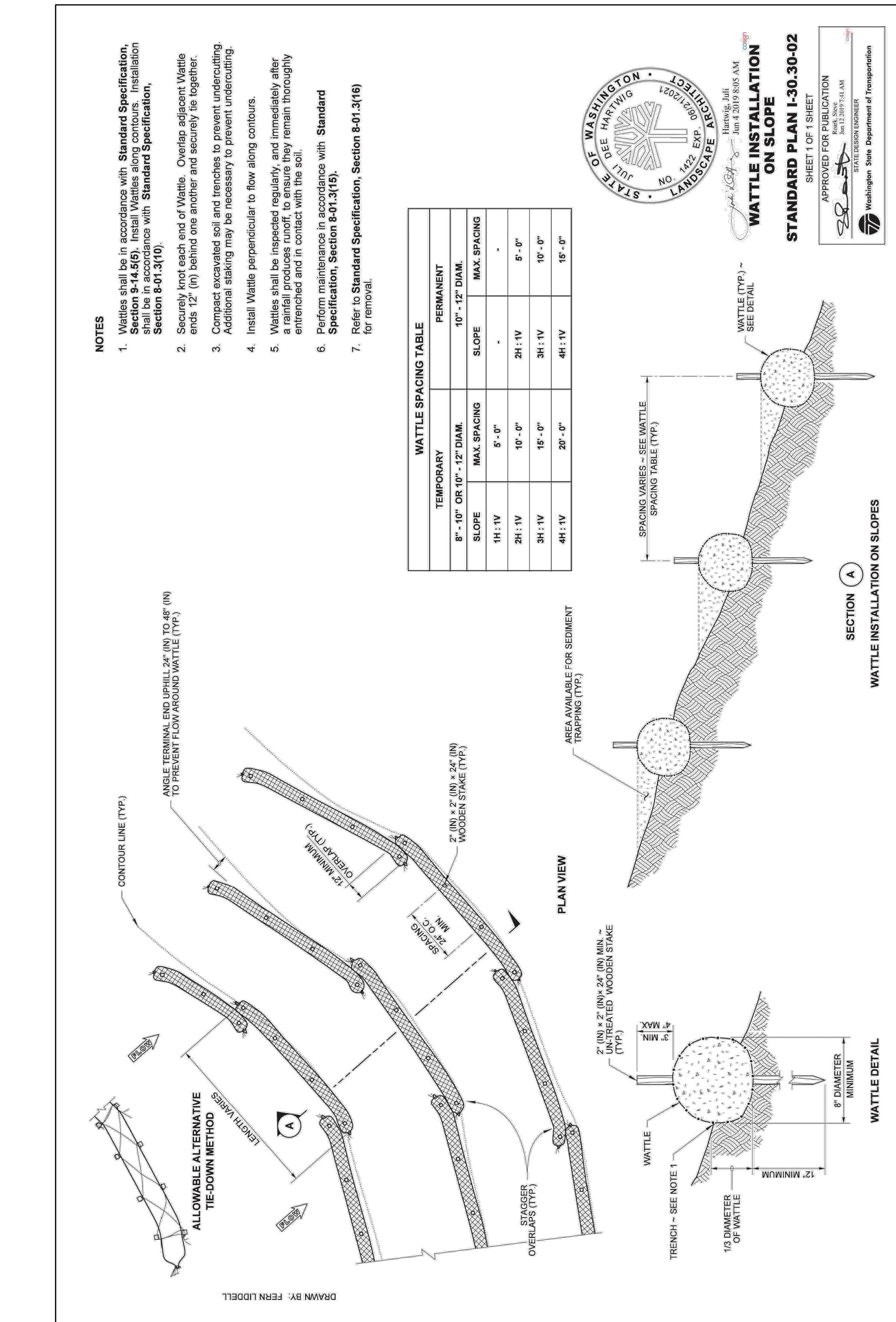
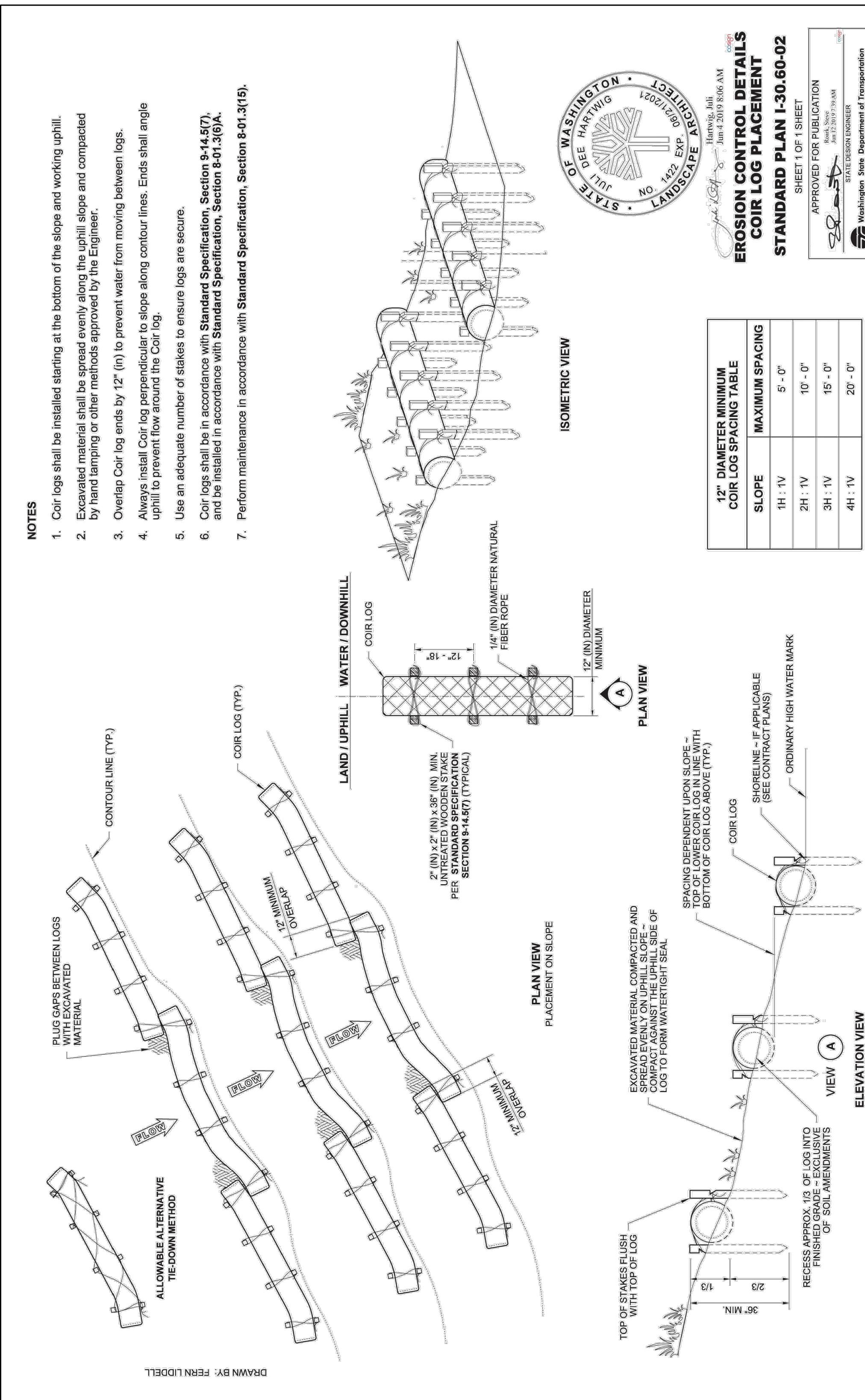
No.	REVISION	DATE	APPROVED
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SHEET: 4  
OF: 29  
JOB NO.: 19569  
DWG: TESC

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TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY



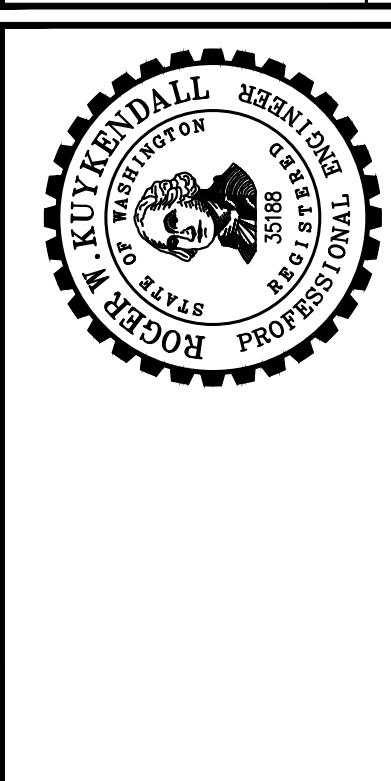


0  
1"  
2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

SHEET: 6  
OF: 29  
JOB NO.: 19569  
DWG: TESC DETAILS

CITY OF LAKE FOREST PARK  
KING COUNTY  
WASHINGTON  
L90 CULVERT REPLACEMENT  
TESC DETAILS



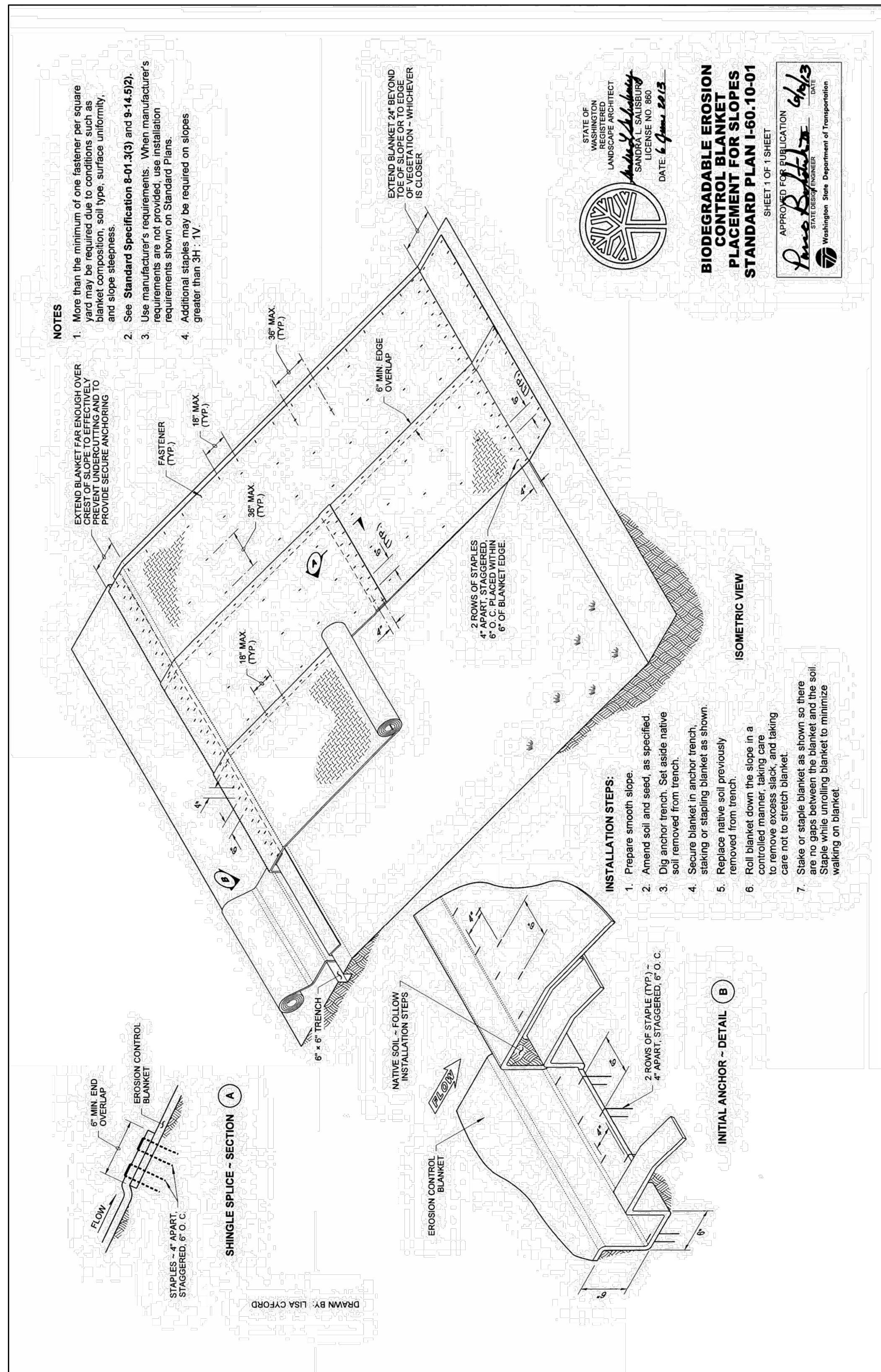
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DATE: OCT 2025  
SCALE: NOTED  
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CHECKED: R.W.K.  
APPROVED: R.W.K.

Gray & Osborne, Inc.

CONSULTING ENGINEERS

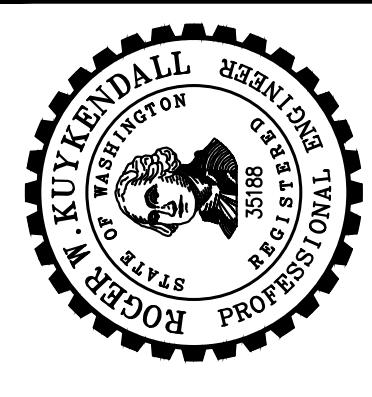
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0 1" 2"  
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

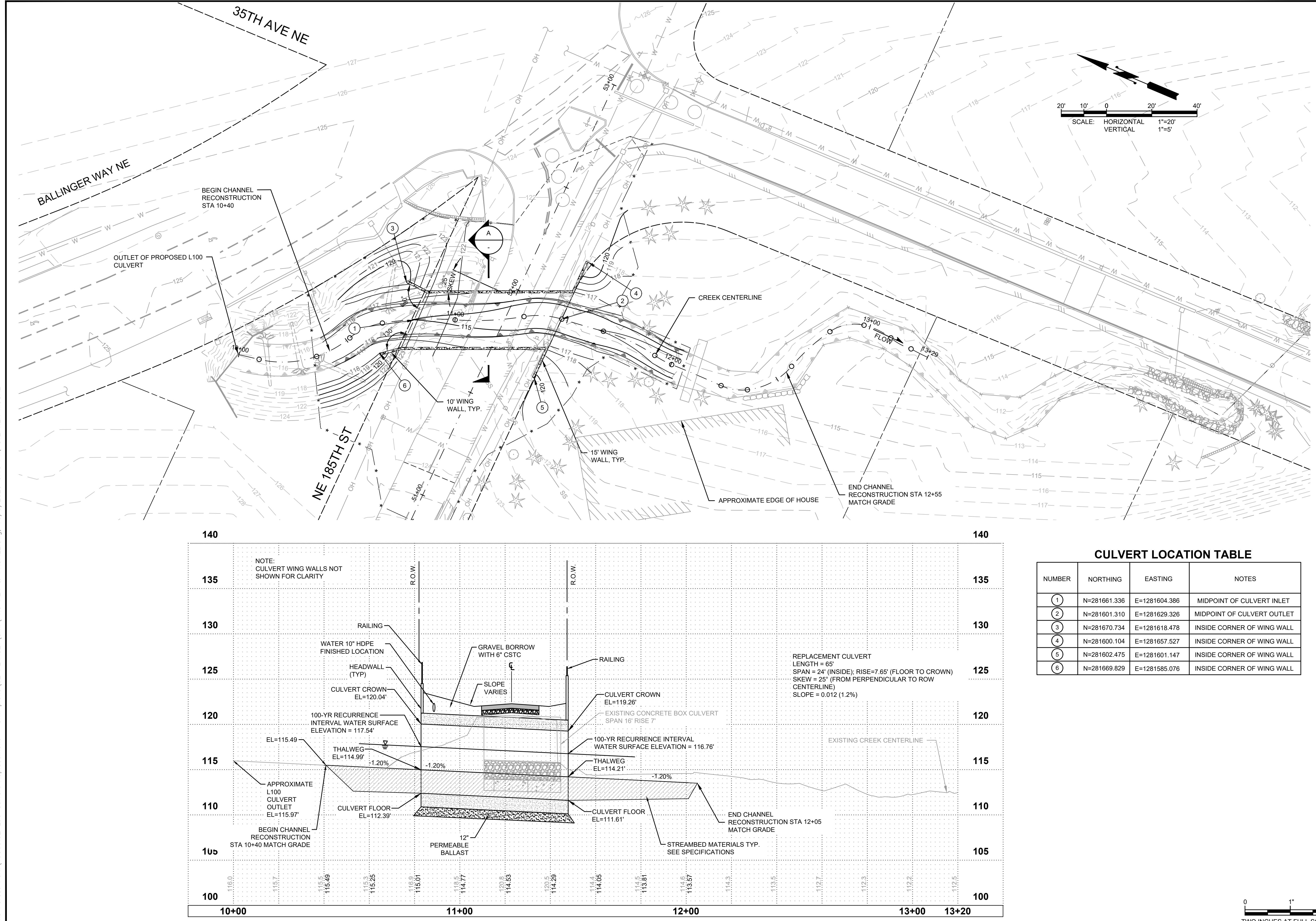
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OF: 29  
JOB NO.: 19569  
DWG: TESC DETAILS

CITY OF LAKE FOREST PARK  
KING COUNTY  
WASHINGTON  
L90 CULVERT REPLACEMENT  
TESC DETAILS



DATE: OCT 2025  
SCALE: S.E.M.  
DRAWN: S.E.M.  
CHECKED: R.W.K.  
APPROVED: R.W.K.

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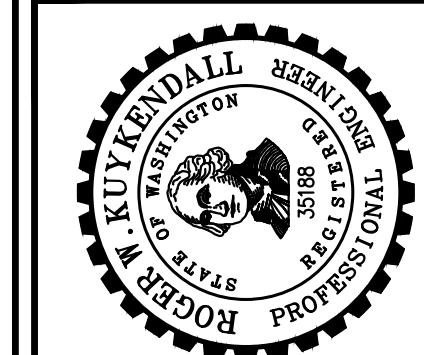


CULVERT LOCATION TABLE

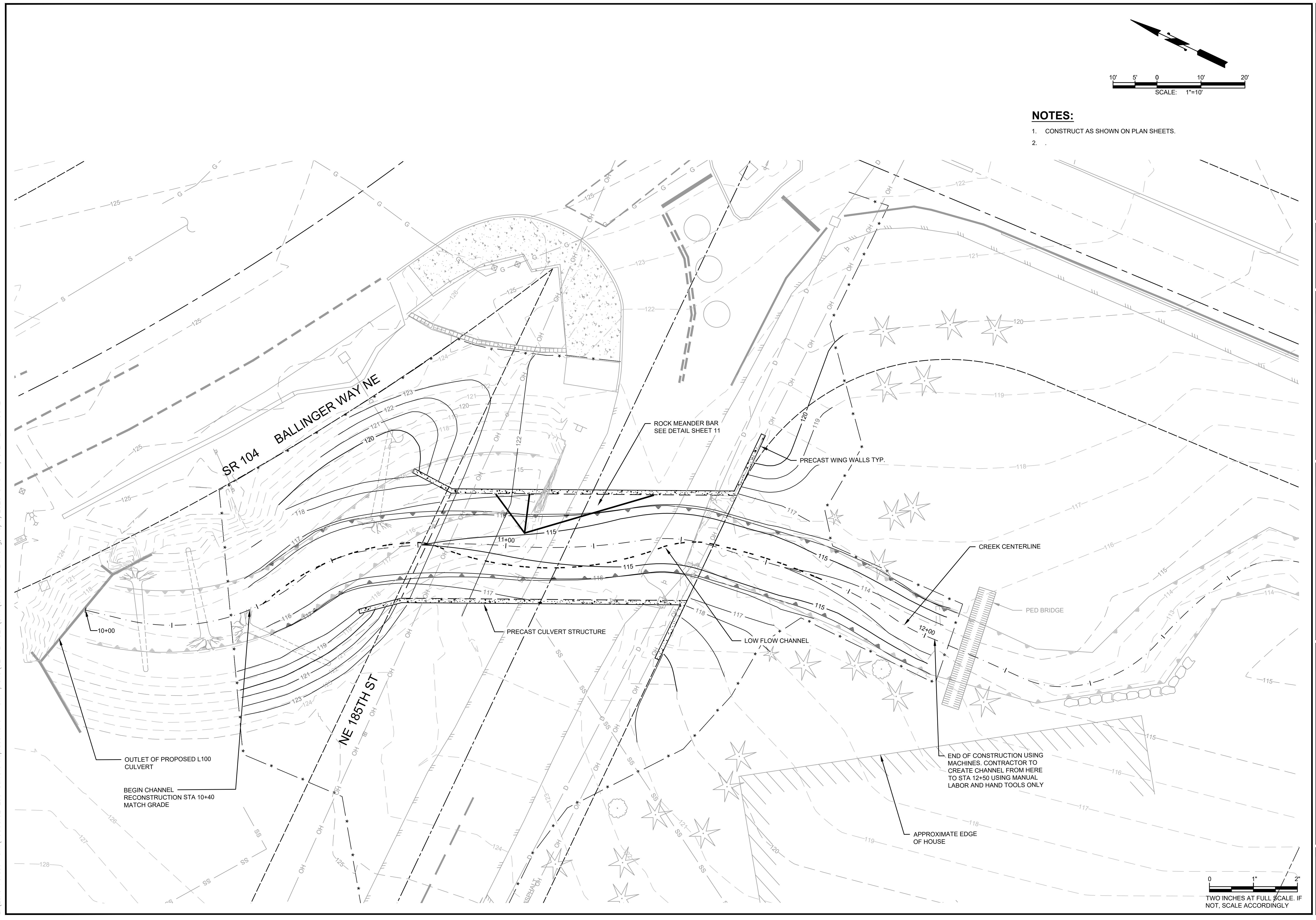
NUMBER	NORTHING	EASTING	NOTES
(1)	N=281661.336	E=1281604.386	MIDPOINT OF CULVERT INLET
(2)	N=281601.310	E=1281629.326	MIDPOINT OF CULVERT OUTLET
(3)	N=281670.734	E=1281618.478	INSIDE CORNER OF WING WALL
(4)	N=281600.104	E=1281657.527	INSIDE CORNER OF WING WALL
(5)	N=281602.475	E=1281601.147	INSIDE CORNER OF WING WALL
(6)	N=281669.829	E=1281585.076	INSIDE CORNER OF WING WALL

CITY OF LAKE FOREST PARK  
WASHINGTON  
KING COUNTY  
L90 CULVERT REPLACEMENT  
PROPOSED CULVERT PLAN & PROFILE

SHEET: 8 OF 29  
JOB NO.: 19569  
DWG PRO PLN & PROFILE

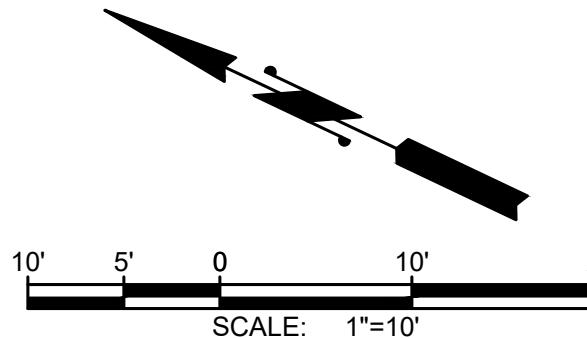


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**NOTES:**

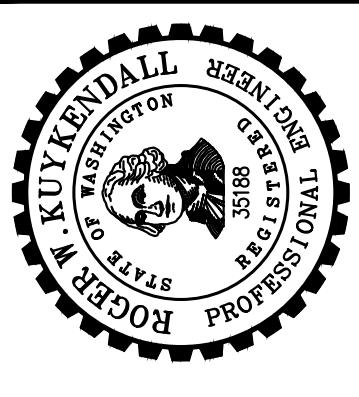
1. CONSTRUCT AS SHOWN ON PLAN SHEETS.
- 2.



CITY OF LAKE FOREST PARK  
WASHINGTON  
KING COUNTY  
L90 CULVERT REPLACEMENT  
STREAM & CHANNEL SHAPING PLAN

SHEET: 9 OF 29  
JOB NO.: 19569  
DWG SHAPING PLAN

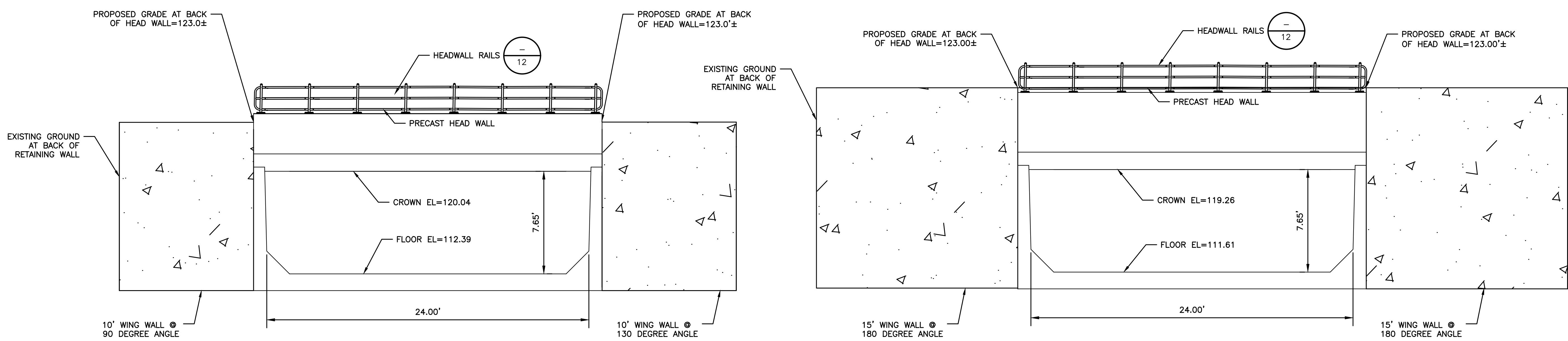
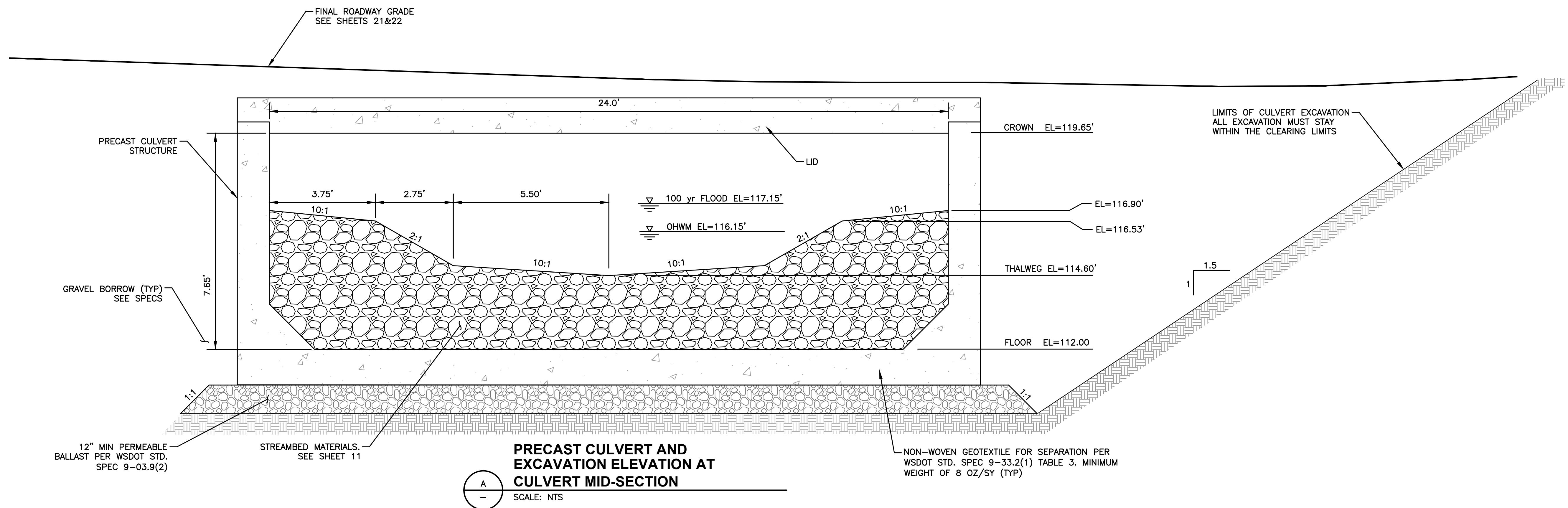
**60% PLANSET**



DATE: OCT 2025	SCALE: 1"=10'
DRAWN: S.E.M.	NOTED:
CHECKED: R.W.K.	APPROVED: R.W.K.
APPROVED: R.W.K.	

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10  
OF  
29

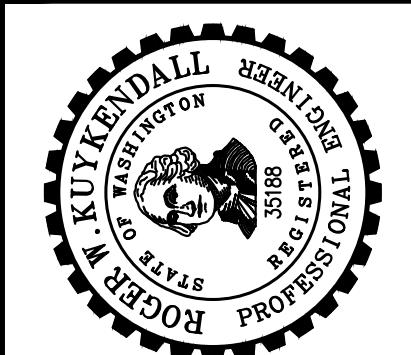
0 1" 2"  
TWO INCHES AT FULL SCALE. IF  
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JOB NO.: 19569  
DWG.CULVERT DETAIL

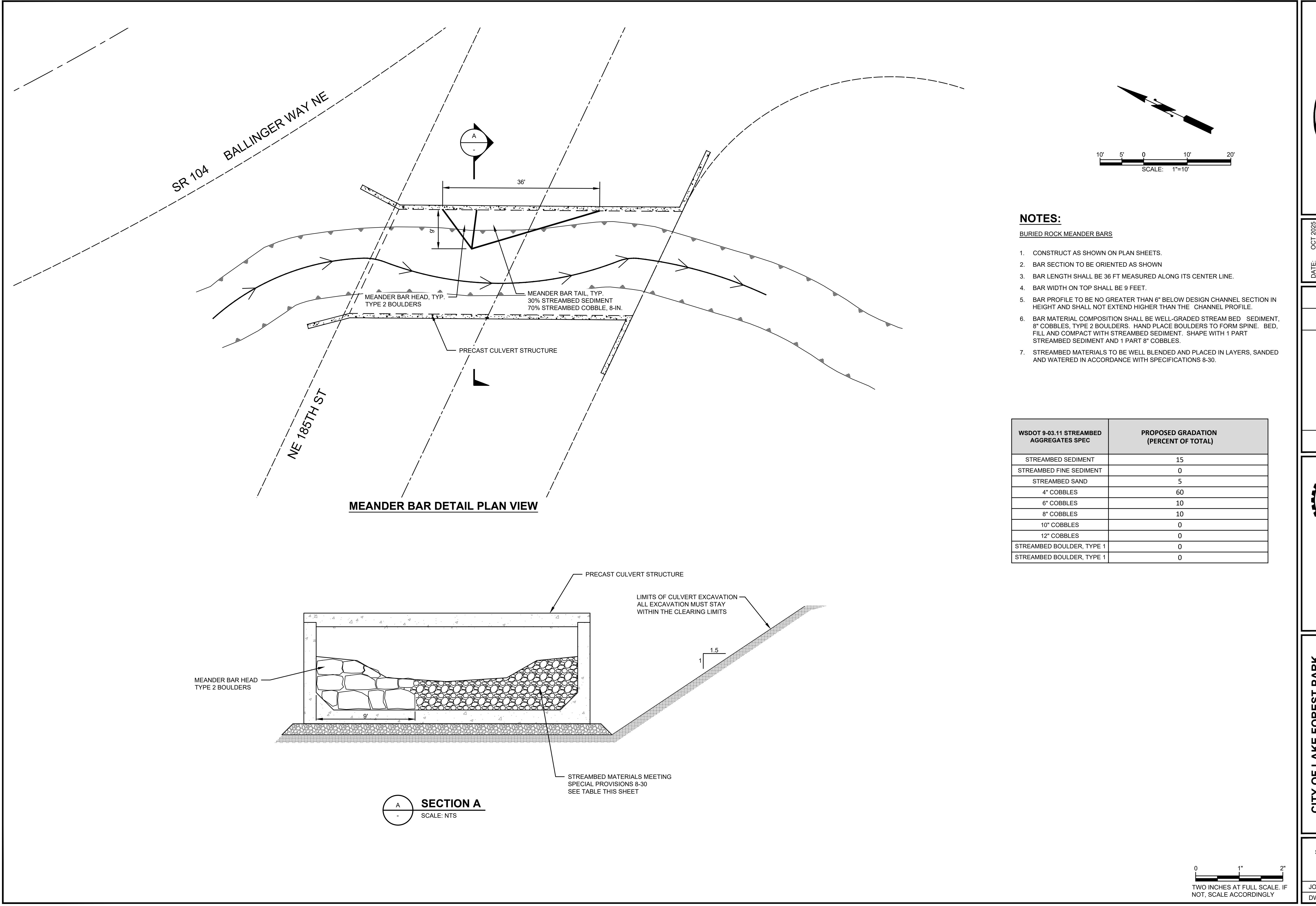
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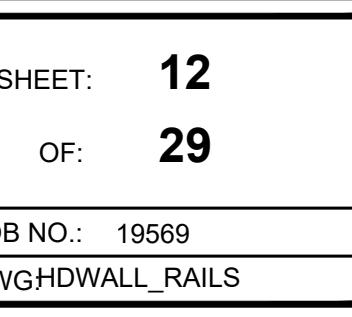
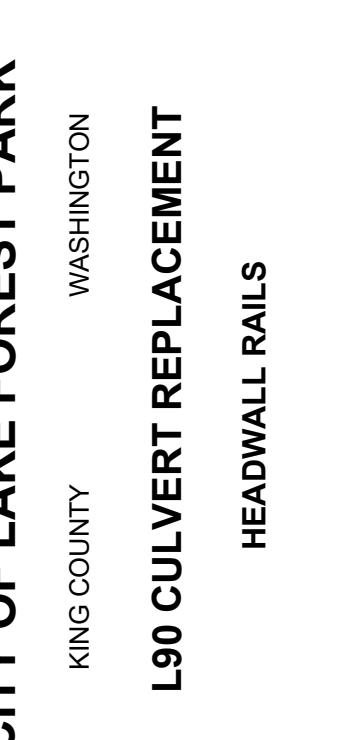
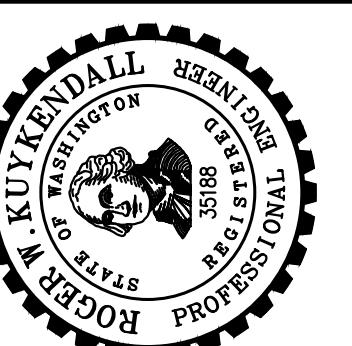
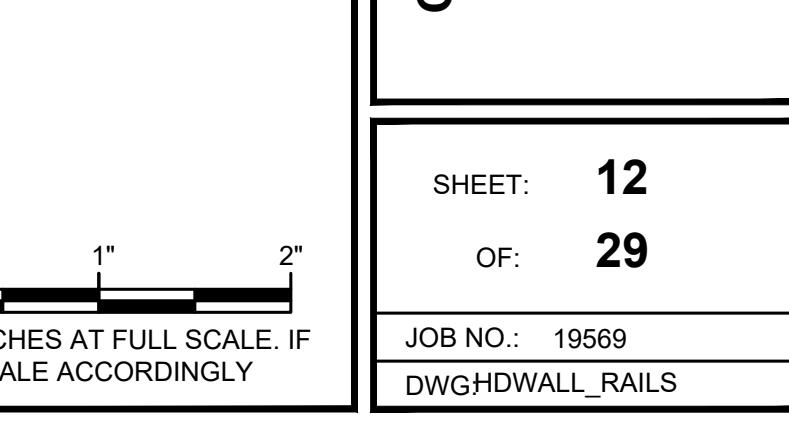
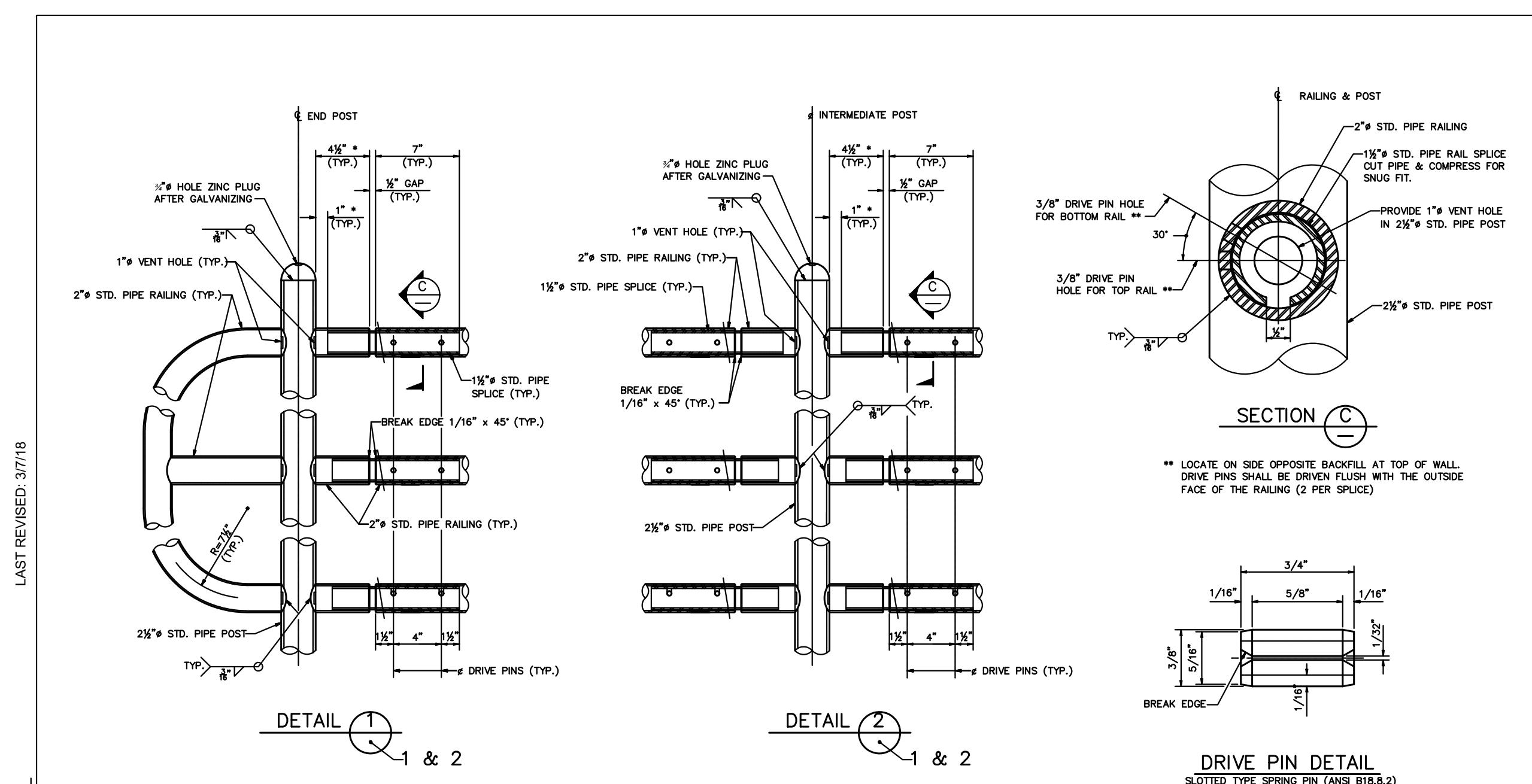
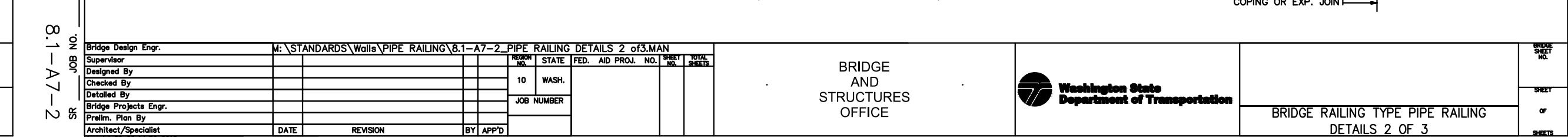
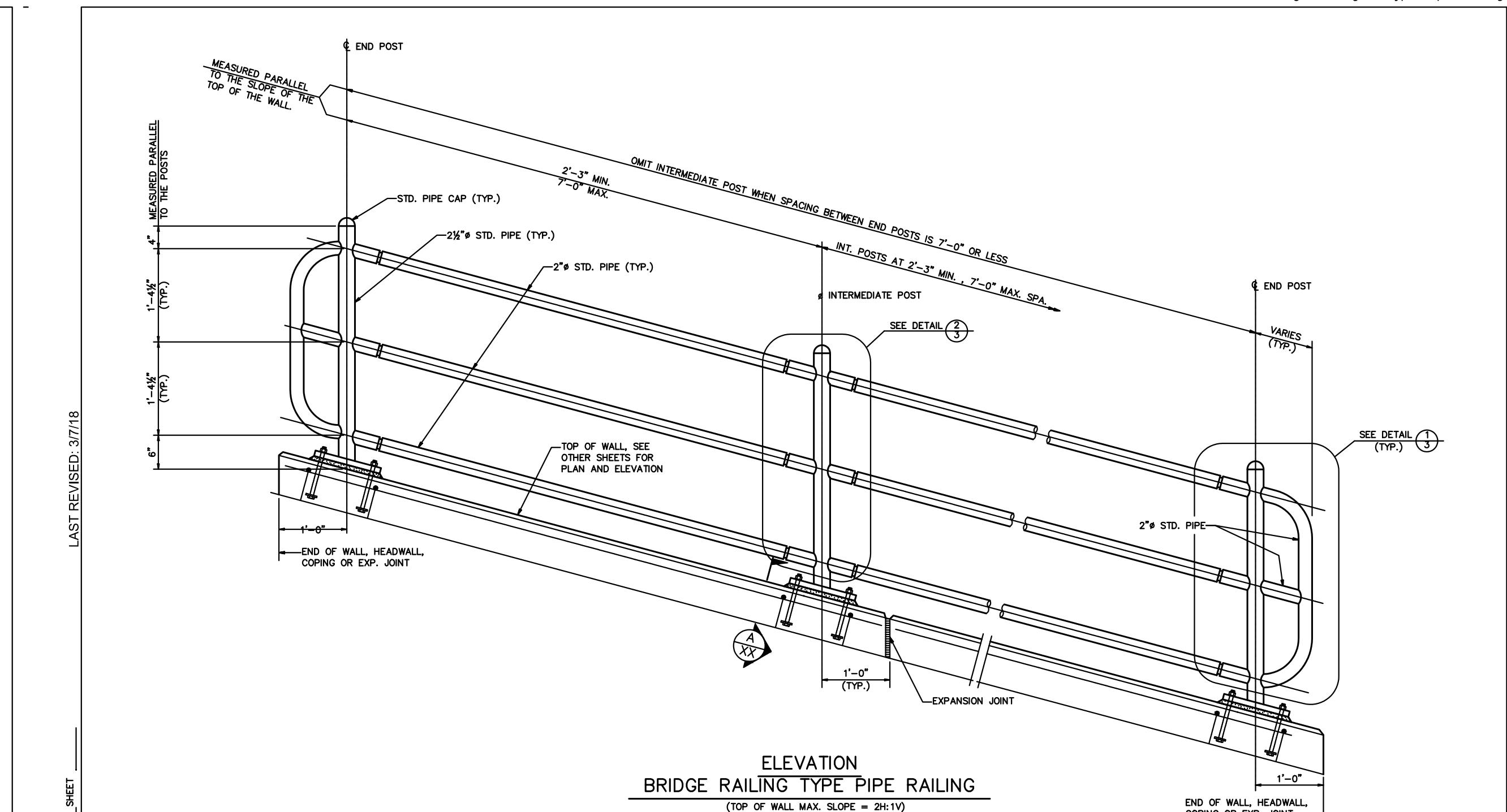
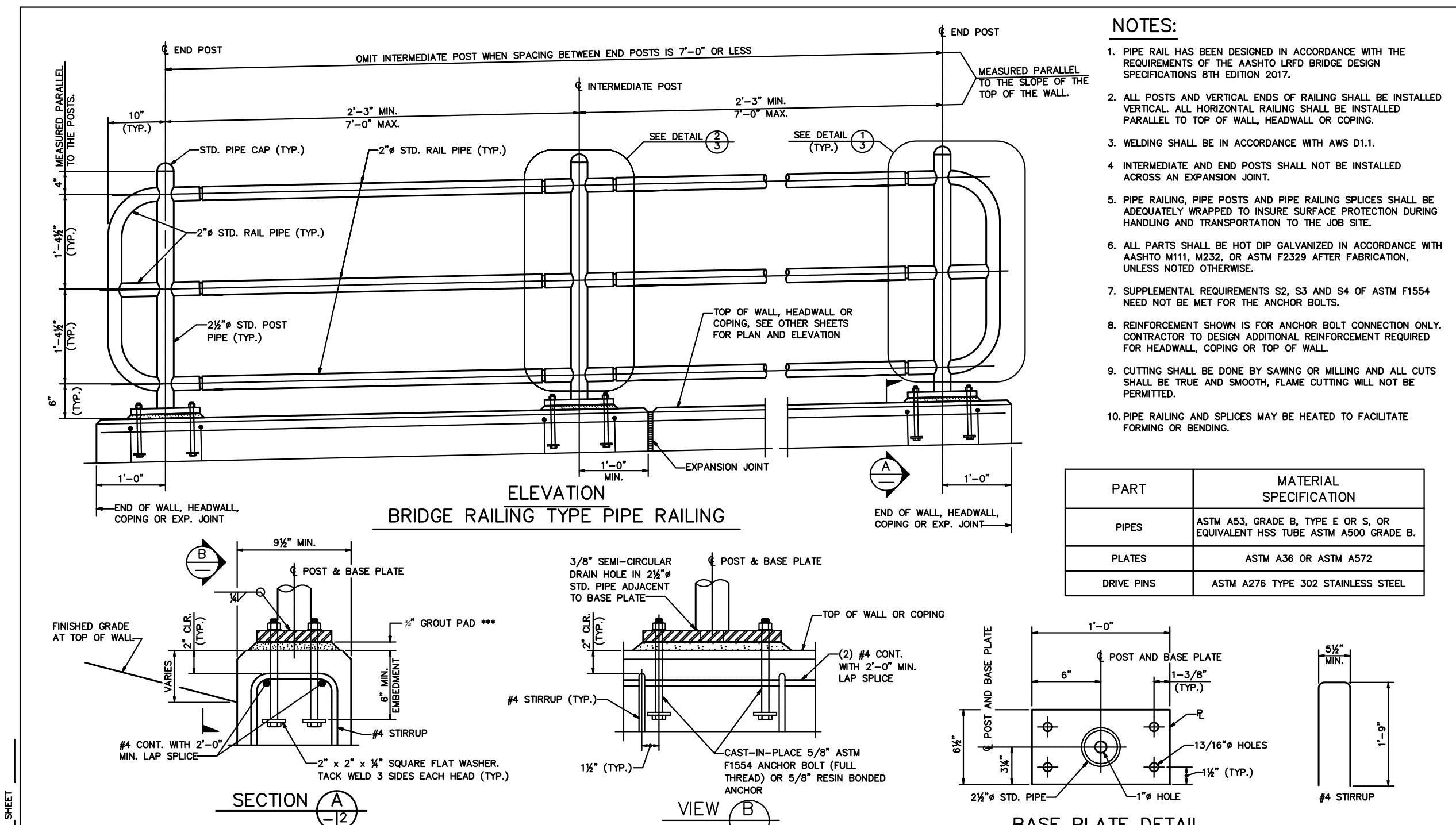
DATE: OCT 2025	SCALE: NOTED
DRAWN: S.E.M.	CHECKED: R.W.K.
APPROVED: R.W.K.	

60% PLANSET	
No.	REVISION



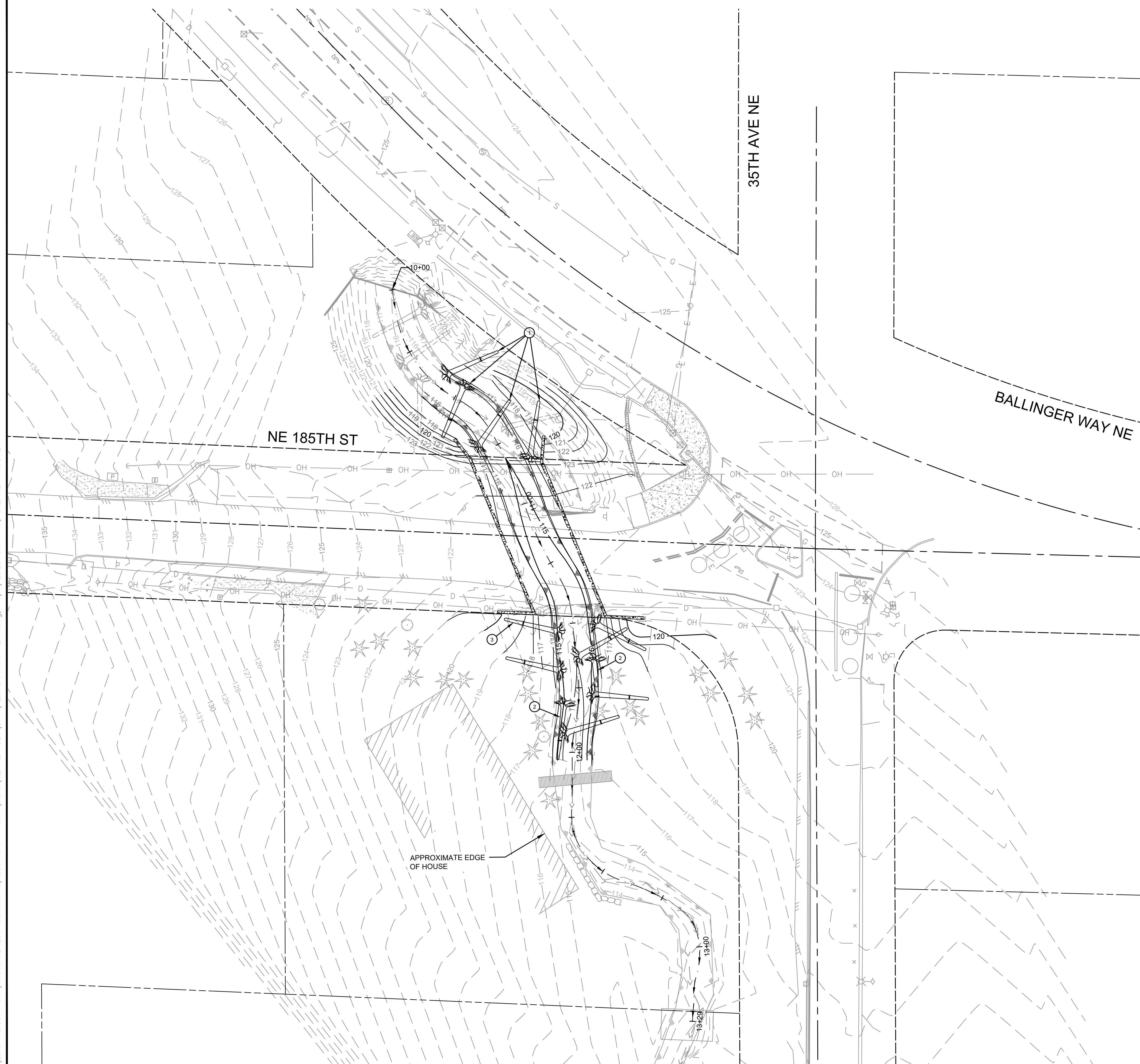
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CULVERT DETAILS

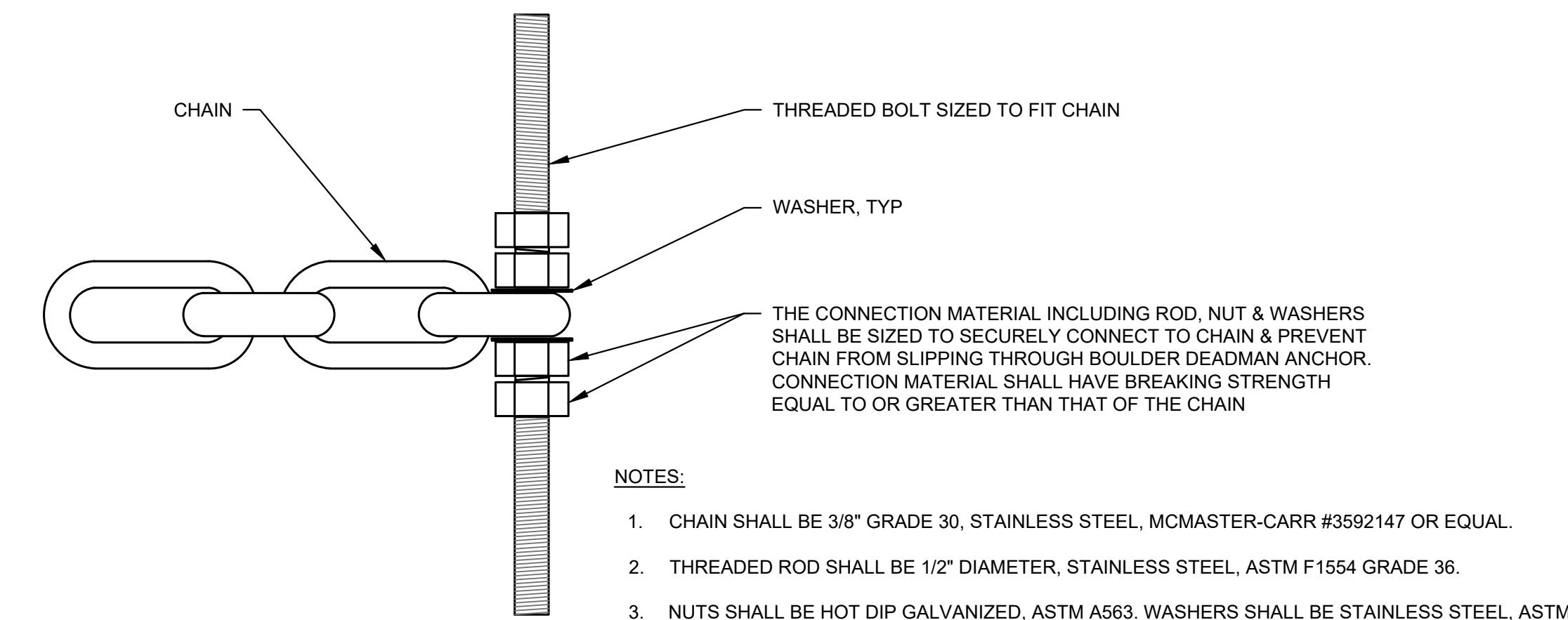
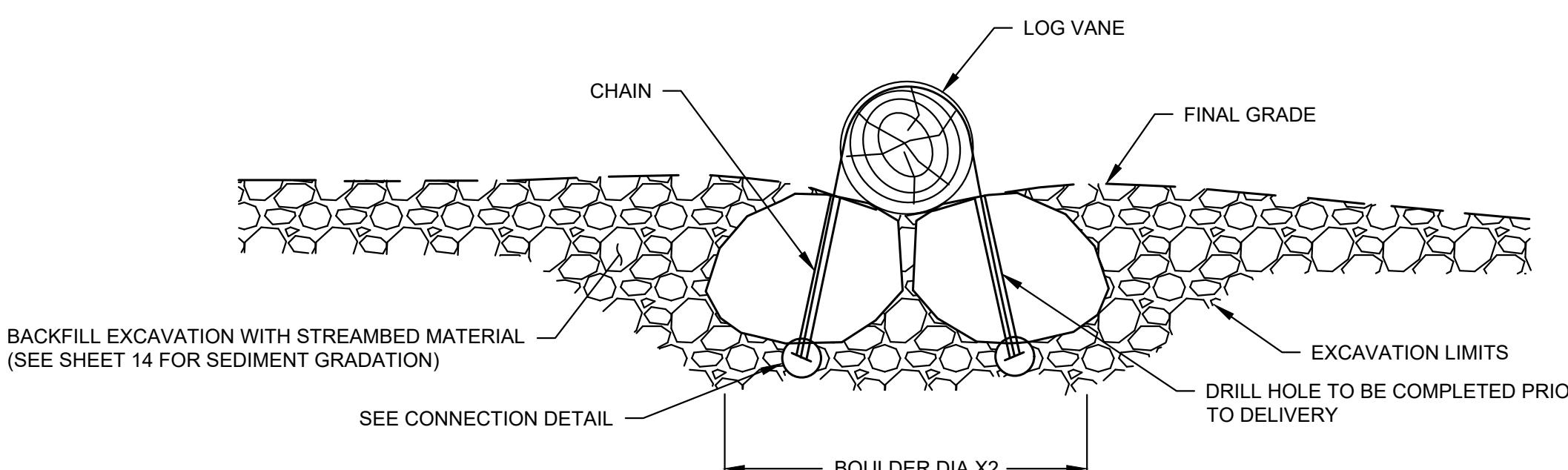
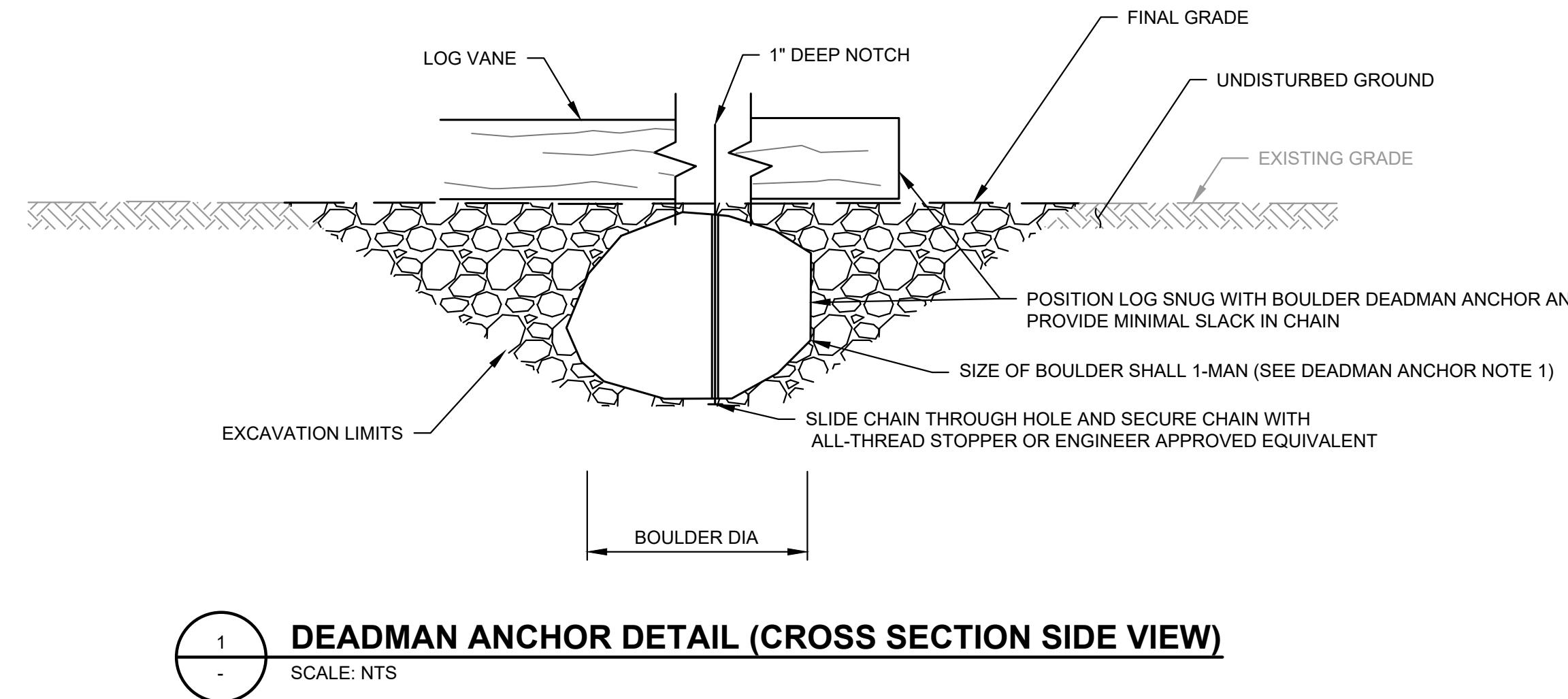




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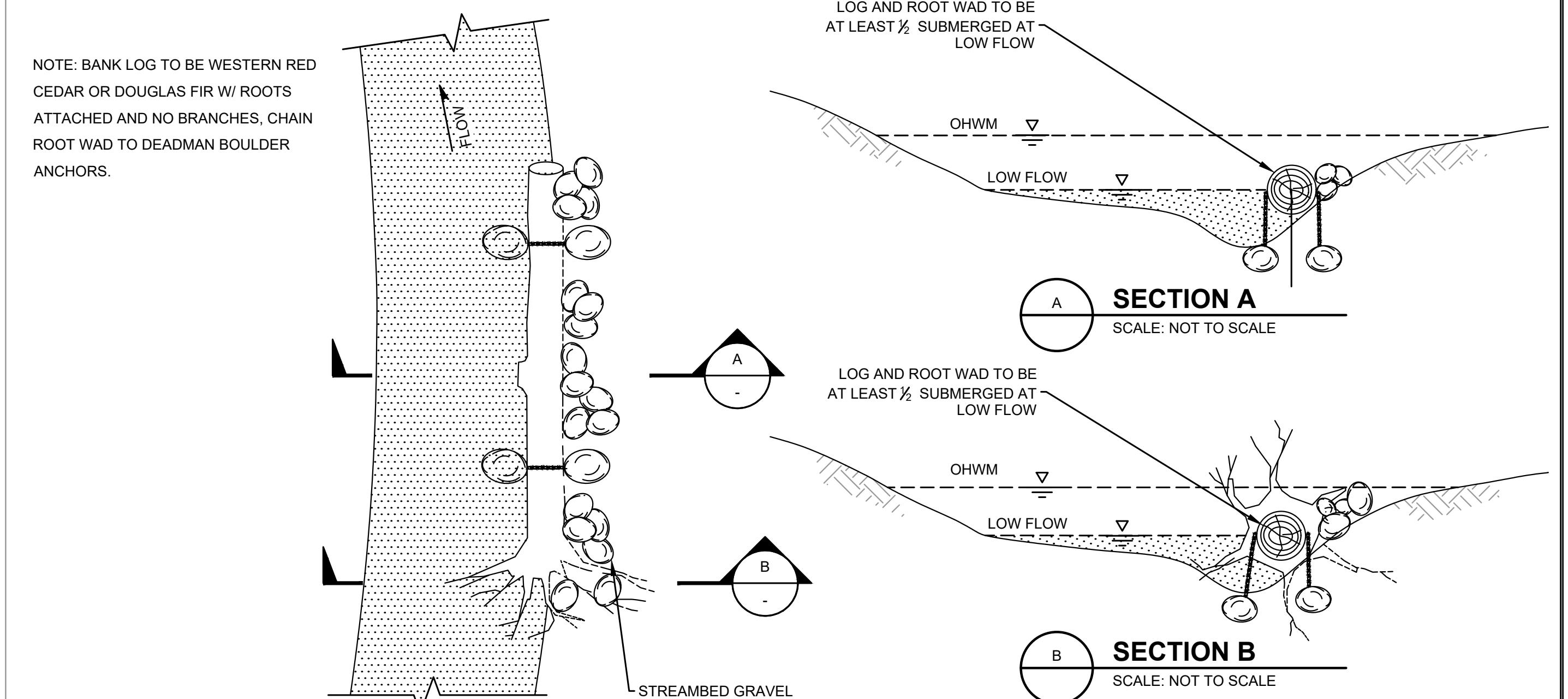
**CONSULTING ENGINEERS**  
3710 168TH STREET NE, BLDG. B, SUITE 2  
ARLINGTON, WA 98223 • (360) 454-5490



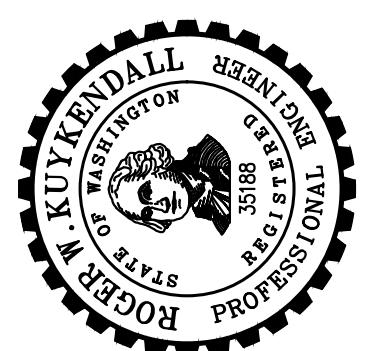


DEADMAN ANCHOR NOTES:

1. SIZE OF BOULDERS USED IN DEADMAN ANCHORS SHALL BE 1-MAN BOULDERS (WSDOT 9-03.11(3)).



**CITY OF LAKE FOREST PARK**  
KING COUNTY, WASHINGTON  
L90 CULVERT REPLACEMENT  
RESTORATION DETAILS



**SHEET: 14  
OF: 29**  
JOB NO.: 19569  
DWGLWD DETAILS

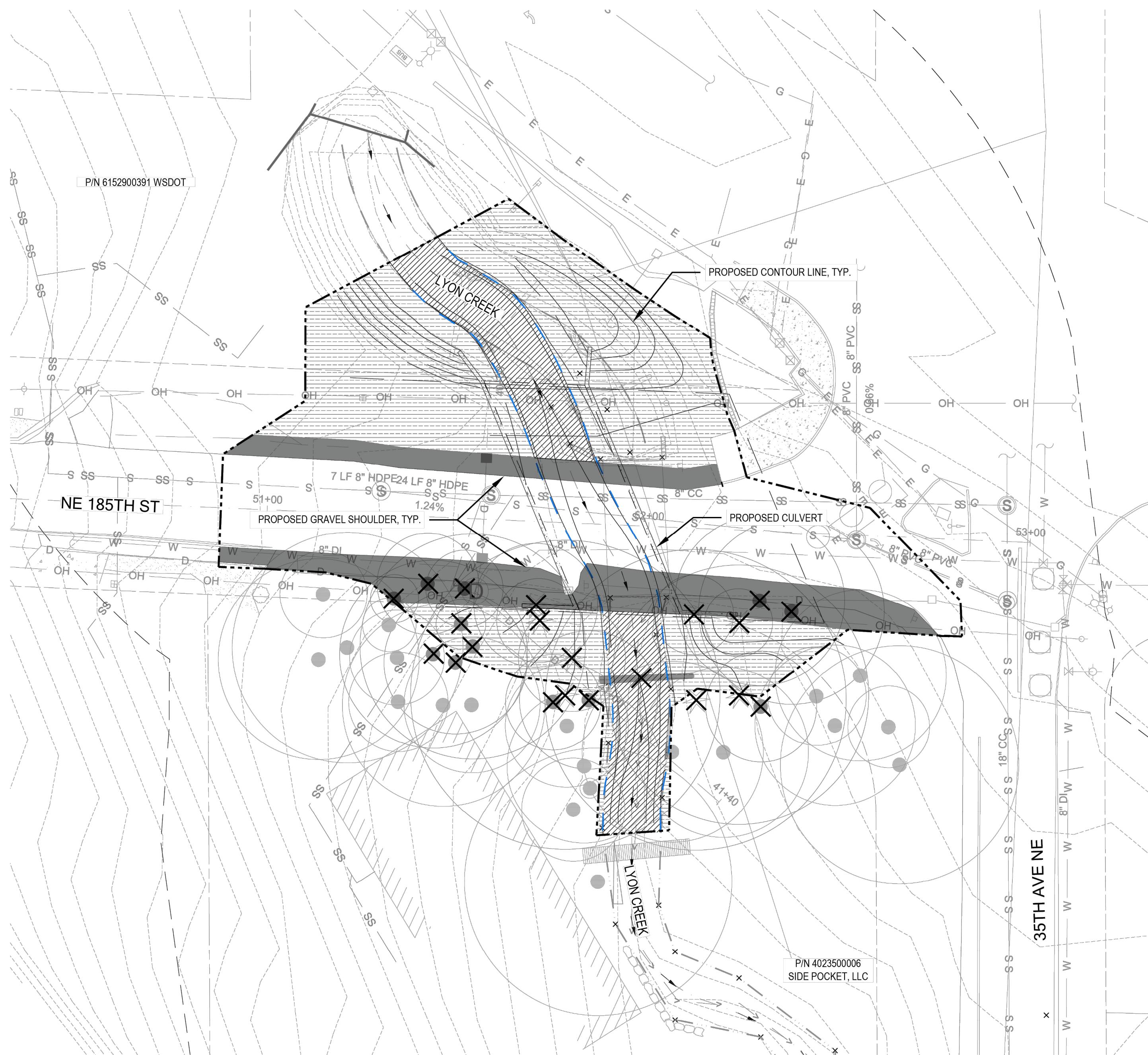
**Gray & Osborne, Inc.**  
CONSULTING ENGINEERS  
3710 168TH STREET NE, BLDG. B, SUITE 210  
ARLINGTON, WA 98223 • (360) 454-5490

DATE: OCT 2025	SCALE: NTS
DRAWN: S.E.M.	CHECKED: R.W.K.
APPROVED: R.W.K.	

<b>60% PLANSET</b>	
No	REVISION
	DATE APPROVED

0 1" 2"  
TWO INCHES AT FULL SCALE, IF NOT, SCALE ACCORDINGLY





## LEGEND

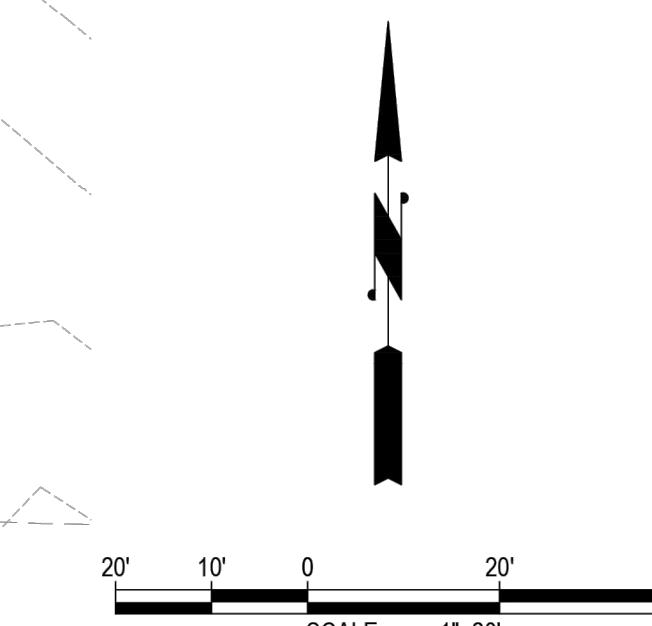
- - - - - PROJECT BOUNDARY
- - - - - EXISTING ORDINARY HIGH WATER MARK (OHWM)
- - - - - PROPOSED ORDINARY HIGH WATER MARK (OHWM)
- - - - - 115-FT LYON CREEK BUFFER
-  EXISTING TREES (SURVEYED)
-  EXISTING TREES (APPROX. LOCATION)
-  CRITICAL ROOT ZONE

---

1 PROPOSED GRADING AND SITE PLAN RECEIVED FROM GRAY & OSBORNE, INC. ON MAY 30, 2025.

## IMPACTS ASSESSMENT

SYMBOL	IMPACT	AREA (SF)
	PERMANENT IMPACT WITHIN LYON CREEK BUFFER	2,390
	TEMPORARY IMPACT WITHIN LYON CREEK	1,905
	TEMPORARY IMPACT WITHIN LYON CREEK BUFFER	6,142
	TREE REMOVAL (20 TREES AND 1 SNAG)	



750 Sixth Street South  
Kirkland, WA 98033

P: 425.822.5242  
F: 425.827.8136

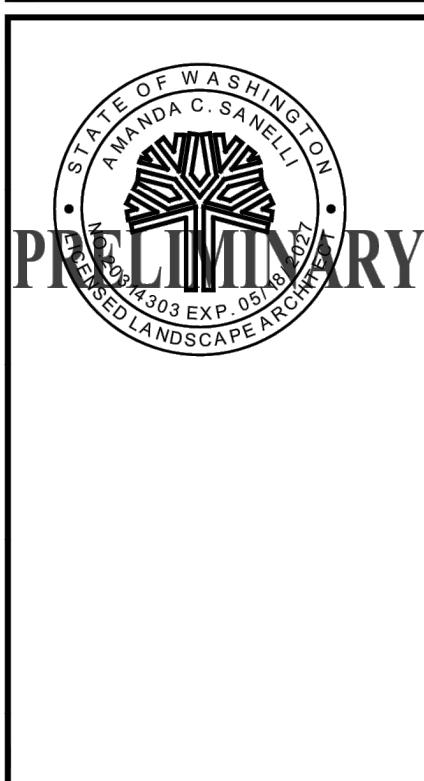
www.facebook.com

www.facethw.com

WOW INCHES AT FULL SCALE.  
DO NOT SCALE ACCORDINGLY.

NOT, SCALE ACCORDINGLY

STREET: 16  
OF: 29  
JOB NO.: 1905.00  
DWG: L90 RESTORATION

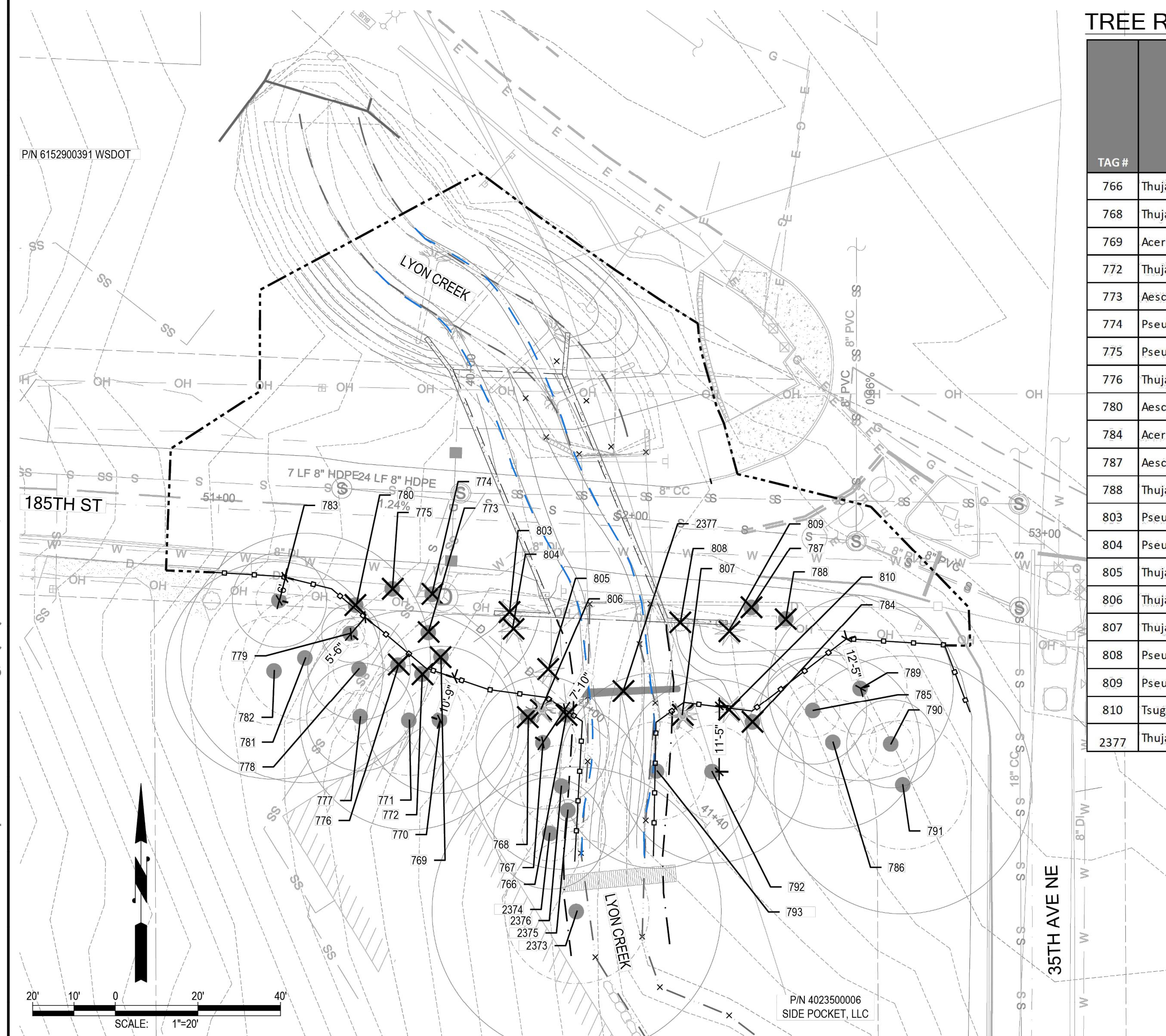


**CITY OF LAKE FOREST PARK**  
NE 18TH ST, KING COUNTY WASHINGTON  
**L90 CULVERT REPLACEMENT**

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**CONSULTING ENGINEERS**  
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#### LEGEND

- PROJECT BOUNDARY
- EXISTING ORDINARY HIGH WATER MARK (OHWM)
- PROPOSED ORDINARY HIGH WATER MARK (OHWM)
- 115-FT LYON CREEK BUFFER
- EXISTING TREES (SURVEYED)
- EXISTING TREES (APPROX. LOCATION)
- CRITICAL ROOT ZONE
- INNER CRITICAL ROOT ZONE
- TREE PROPOSED FOR REMOVAL
- TREE PROPOSED TO BE SNAGGED (2)
- TREE PROTECTION FENCING

#### 1 TREE PROTECTION FENCING

#### TREE REMOVAL TABLE

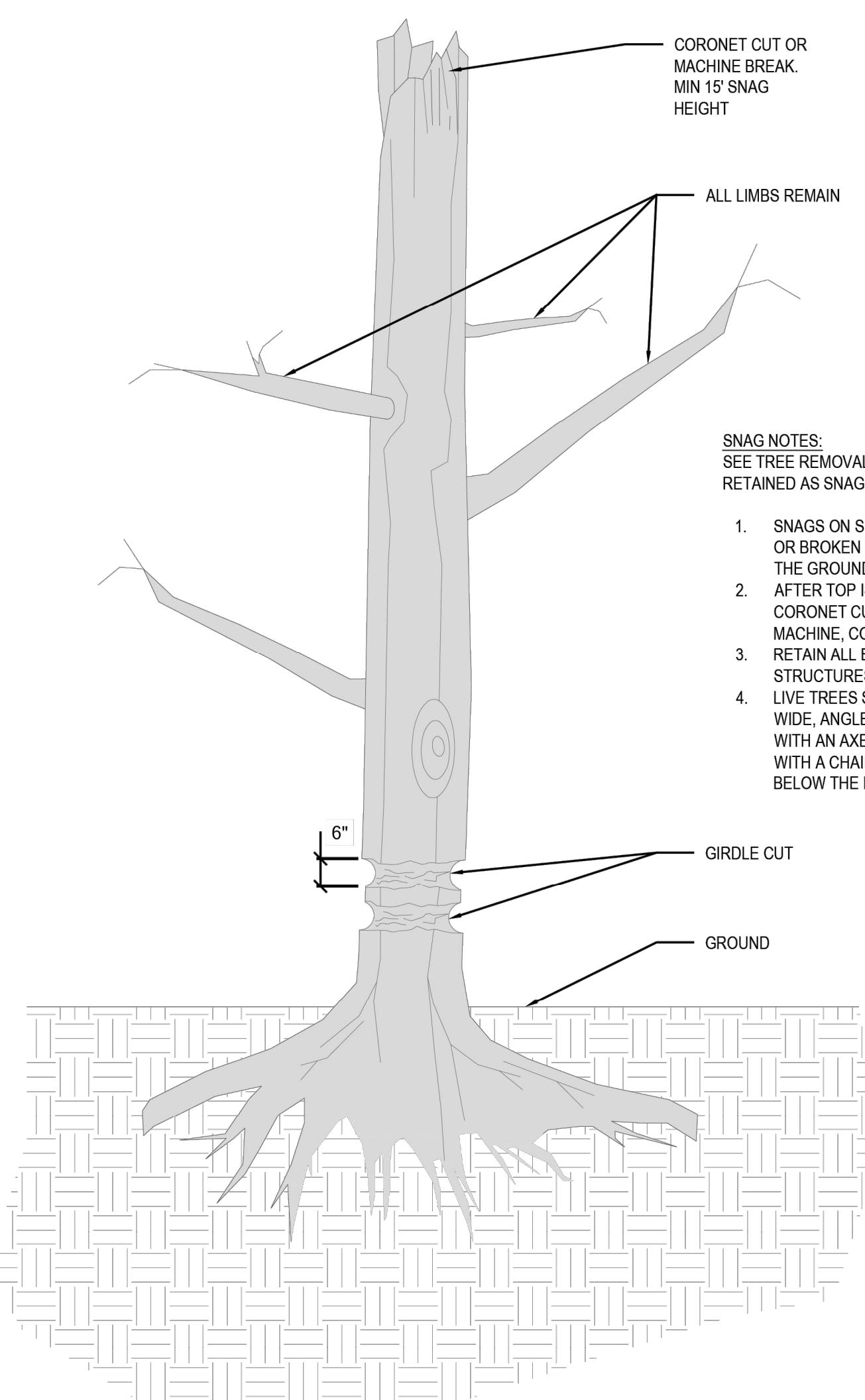
TAG #	TREE NAME	# STEMS	COMBINED DBH (IN)	HEIGHT (FT)	CANOPY RADIUS (FT)	REMOVAL/SNAG
766	Thuja plicata (Western red cedar)	2	18.1	70	10	Y
768	Thuja plicata (Western red cedar)	1	12.5	60	8	Y
769	Acer macrophyllum (Bigleaf maple)	1	29.5	100	18	Y
772	Thuja plicata (Western red cedar)	1	18.7	85	8	Y
773	Aesculus hippocastanum (Horse chestnut)	1	6.5	20	7	Y
774	Pseudotsuga menziesii (Douglas-fir)	1	10.1	20	7	Y
775	Pseudotsuga menziesii (Douglas-fir)	1	13.3	20	8	Y
776	Thuja plicata (Western red cedar)	1	24.6	100	12	Y
780	Aesculus hippocastanum (Horse chestnut)	1	6.3	20	7	Y
784	Acer macrophyllum (Bigleaf maple)	1	14.5	75	18	Y
787	Aesculus hippocastanum (Horse chestnut)	2	22.2	45	12	Y
788	Thuja plicata (Western red cedar)	1	24.3	80	14	Y
803	Pseudotsuga menziesii (Douglas-fir)	1	16.2	25	16	Y
804	Pseudotsuga menziesii (Douglas-fir)	1	11.0	28	14	Y
805	Thuja plicata (Western red cedar)	1	14.0	55	15	Y
806	Thuja plicata (Western red cedar)	1	40.5	80	20	Snag
807	Thuja plicata (Western red cedar)	1	39.4	80	20	Snag
808	Pseudotsuga menziesii (Douglas-fir)	1	10.4	25	10	Y
809	Pseudotsuga menziesii (Douglas-fir)	1	8.9	25	12	Y
810	Tsuga heterophylla (Western hemlock)	1	34.0	95	20	Y
2377	Thuja plicata (Western red cedar)	1	14	20	8	Y

#### TREE INVENTORY NOTES

- FOR COMPLETE TREE ATTRIBUTE INFORMATION, SEE ARBORIST REPORT PREPARED BY FACET IN JULY, 2025.
- SELECT TREES WERE SURVEYED AND INDICATED WITH A TREE SYMBOL. ALL OTHER TREE LOCATIONS WERE ESTIMATED USING AERIAL PHOTOGRAPHY. TREE PROTECTION FENCING SHOULD BE INSTALLED USING THE DIMENSIONS SHOWN ON THE PLAN WHERE APPLICABLE.
- TREE PROTECTION REVIEWED BY APRIL MULCAHY, ISA CERTIFIED ARBORIST UT-4238A.

#### TREE PROTECTION MEASURES:

- TREE PROTECTION ZONE (TPZ) FENCING SHALL BE INSTALLED PER PLANS AND MUST REMAIN IN PLACE UNTIL THE COMPLETION OF THE PROJECT. LAMINATED SIGNS SHALL BE INSTALLED AT MINIMUM 10FT INTERVALS ALONG TPZ FENCING AND SHALL STATE "TREE PROTECTION ZONE - FENCING SHALL NOT BE MOVED WITHOUT APPROVAL FROM CITY ARBORIST AND SHALL REMAIN FOR THE DURATION OF THE PROJECT. NO HEAVY EQUIPMENT, PARKING, MATERIALS STORAGE, OR DUMPING OF SOIL OR OTHER MATERIALS IS ALLOWED WITHIN THE TPZ." TPZ FENCING SHALL BE 6FT TALL CHAIN LINK ON PIER BLOCKS UNLESS THIS IS NOT POSSIBLE DUE TO UNFAVORABLE SITE CONDITIONS, WITH APPROVAL BY CITY ARBORIST. THEN MINIMUM 4' TALL ORANGE POLYETHYLENE SHALL BE USED. INSPECTION OF TREE PROTECTION FENCING BY CITY ARBORIST SHALL BE REQUIRED PRIOR TO TREE REMOVAL AND LAND DISTURBANCE. APPLICANT SHALL CALL IN FOR INSPECTION AT (206) 957-2804.
- THE PROJECT ARBORIST SHALL RE-EVALUATE THE VIABILITY OF RETAINED TREES WHICH DO NOT HAVE SURVEYED POSITION DATA DURING A PRE-CONSTRUCTION SURVEY PRIOR TO DEMOLITION.
- GRADING WITHIN THE SOUTHERN MOST PROJECT LIMITS IS RESTRICTED TO GENTLE RESHAPING OF THE STREAM BED AND SHALL BE PERFORMED BY HAND.
- MINIMIZE INJURY: WHEN TREE ROOTS MUST BE REMOVED, CUT ROOTS CLEANLY USING A SHARP SAW OR PRUNERS. DO NOT RIP OR CUT TREE ROOTS WITH HEAVY EQUIPMENT. ROOTS EXPOSED FOR MORE THAN 12 HOUR SHALL BE COVERED WITH SOIL OR MOIST BURLAP.
- PRE AND POST CONSTRUCTION MONITORING: THE PROJECT ARBORIST SHALL BE PRESENT ON-SITE DURING CONSTRUCTION ACTIVITIES WITHIN THE CRITICAL ROOT ZONES OF RETAINED TREES TO MONITOR TREE PROTECTION, ASSIST WITH CHANGES IN THE FIELD, AND DOCUMENT CONSTRUCTION IMPACTS, ALL TO ENSURE THE PROPOSED DEVELOPMENT ACTIVITIES COMPLY WITH THE LPPMC. THIS WILL BE DOCUMENTED IN WEEKLY MEMOS PROVIDED TO THE CITY OF LAKE FOREST PARK ARBORIST.



#### 2 TREE SNAG DETAIL

NOT TO SCALE

## **PLANT MATERIAL SETBACK CHART**

	GUARDRAIL BARRIER	EDGE OF ROAD	PATHS, TRAILS	WALL	FENCE	SIGNS	EXISTING TREE, TRUNK	EXISTING VEGETATION MASS	OVERHEAD POWER
TREE	8'	10'	10'	8'	8'	15'	10'	-	10'
SHRUBS	5'	5'	8'	8'	3'	6'	5'	5'	

\*MAINTAIN SIGHT DISTANCE FOR SIGNS ACCORDING TO M51-02-07 (TRAFFIC MANUAL)

## LEGEND

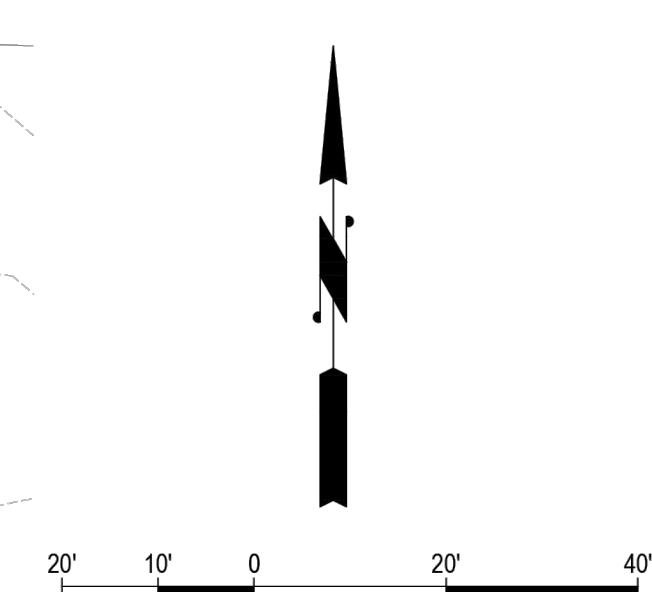
- - - - PROJECT BOUNDARY
- - - - EXISTING ORDINARY HIGH WATER MARK (OHWM)
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- - - - 115-FT LYON CREEK BUFFER
-  EXISTING TREES (SURVEYED)
-  EXISTING TREES (APPROX. LOCATION)
- - - - CRITICAL ROOT ZONE
-  TREE PROPOSED TO BE SNAGGED

## PLANT SCHEDULE

<u>SYMBOL</u>	<u>BOTANICAL / COMMON NAME</u>	<u>SIZE</u>	<u>SPACING</u>	<u>QTY</u>	<u>SOIL PREP</u>
 2,764 SF	<u>NATIVE TREES</u>				
	ACER MACROPHYLLUM / BIG LEAF MAPLE	2 GALLON	9' o.c.	5	TYPE 2
	PSEUDOTSUGA MENZIESII / DOUGLAS-FIR	2 GALLON	9' o.c.	14	TYPE 2
	THUJA PLICATA / WESTERN RED CEDAR	2 GALLON	9' o.c.	14	TYPE 2
	TSUGA HETEROPHYLLA / WESTERN HEMLOCK	2 GALLON	9' o.c.	14	TYPE 2
 1,477 SF	<u>NATIVE SHRUBS</u>				
	ACER CIRCINATUM / VINE MAPLE	1 GALLON	5' o.c.	14	TYPE 2
	CORYLUS CORNUTA VAR. CALIFORNICA / BEAKED HAZELNUT	1 GALLON	5' o.c.	14	TYPE 2
	HOLODISCUS DISCOLOR / OCEANSPRAY	1 GALLON	5' o.c.	14	TYPE 2
	PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	1 GALLON	5' o.c.	14	TYPE 2
	SAMBUCUS RACEMOSA / RED ELDERBERRY	1 GALLON	5' o.c.	14	TYPE 2
	ROSA NUTKANA / NOOTKA ROSE	1 GALLON	5' o.c.	14	TYPE 2
	SYMPHORICARPOS ALBUS / COMMON SNOWBERRY	1 GALLON	5' o.c.	14	TYPE 2
 2,860 SF	<u>NATIVE TREES</u>				
	ALNUS RUBRA / RED ALDER	2 GALLON	9' o.c.	7	TYPE 2
	PICEA SITCHENSIS / SITKA SPRUCE	2 GALLON	9' o.c.	7	TYPE 2
	THUJA PLICATA / WESTERN RED CEDAR	2 GALLON	9' o.c.	7	TYPE 2
 2,860 SF	<u>NATIVE SHRUBS</u>				
	CORNUS SERICEA / RED OSIER DOGWOOD	1 GALLON	5' o.c.	12	TYPE 2
	LONICERA INVOLUCRATA / TWINBERRY	1 GALLON	5' o.c.	12	TYPE 2
	PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	1 GALLON	5' o.c.	12	TYPE 2
	RUBUS SPECTABILIS / SALMONBERRY	1 GALLON	5' o.c.	12	TYPE 2
	DRY NATIVE SEED MIX WSDOT STD 8-02.2 (9-14.3)	SEED MIX		2,860 SF	TYPE 1

## PLANTING PLAN AND SCHEDULE NOTES

1. RESTORATION PLANTING PLAN REPRESENTS A CONCEPTUAL LAYOUT. FINAL PLANT LOCATIONS SHALL BE APPROVED BY ECOLOGIST PRIOR TO PLANTING.
2. EXISTING AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BEYOND THOSE SHOWN ARE TO BE RESTORED AND/OR SEEDED TO EXISTING CONDITION.
3. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION.
4. SEE PLANTING DETAILS ON SHEET 5.
5. CONTRACTOR IS RESPONSIBLE FOR 100% PERCENT SURVIVAL OF ALL TREES, SHRUBS, AND GROUND COVERS FOR ONE YEAR FROM DATE OF CONSTRUCTION COMPLETION.
6. AMEND ALL PLANTING AREAS AND SEEDING AREAS PER SOIL PREPARATION DETAILS ON SHEET 5. SOIL AMENDMENT SHALL BE CEDAR GROVE FINE COMPOST PER THE SPECIAL PROVISIONS..
7. ALL TREES SHALL BE MINIMUM 2 GAL CONTAINER. FULL, DENSE, AND SYMMETRICAL IN SHAPE.
8. ALL 1 GALLON CONTAINER PLANTS SHALL BE MINIMUM HEIGHT OF 12".
9. CLUSTER SAME SPECIES OF LIVE STAKES IN GROUPS OF 3, 5, AND 7.
10. INSTALL A TEMPORARY, ABOVE GROUND IRRIGATION SYSTEM TO PROVIDE FULL COVERAGE TO ALL INSTALLED PLANTS WITHIN THE RESTORATION AREA.
11. REFER TO CRITICAL AREA STUDY FOR GOALS AND OBJECTIVES, PERFORMANCE STANDARDS, MONITORING METHODS, MAINTENANCE RECOMMENDATIONS, AND CONTINGENCIES



**CITY OF LAKE FOREST PARK**

NE 18TH ST, KING COUNTY WASHINGTON

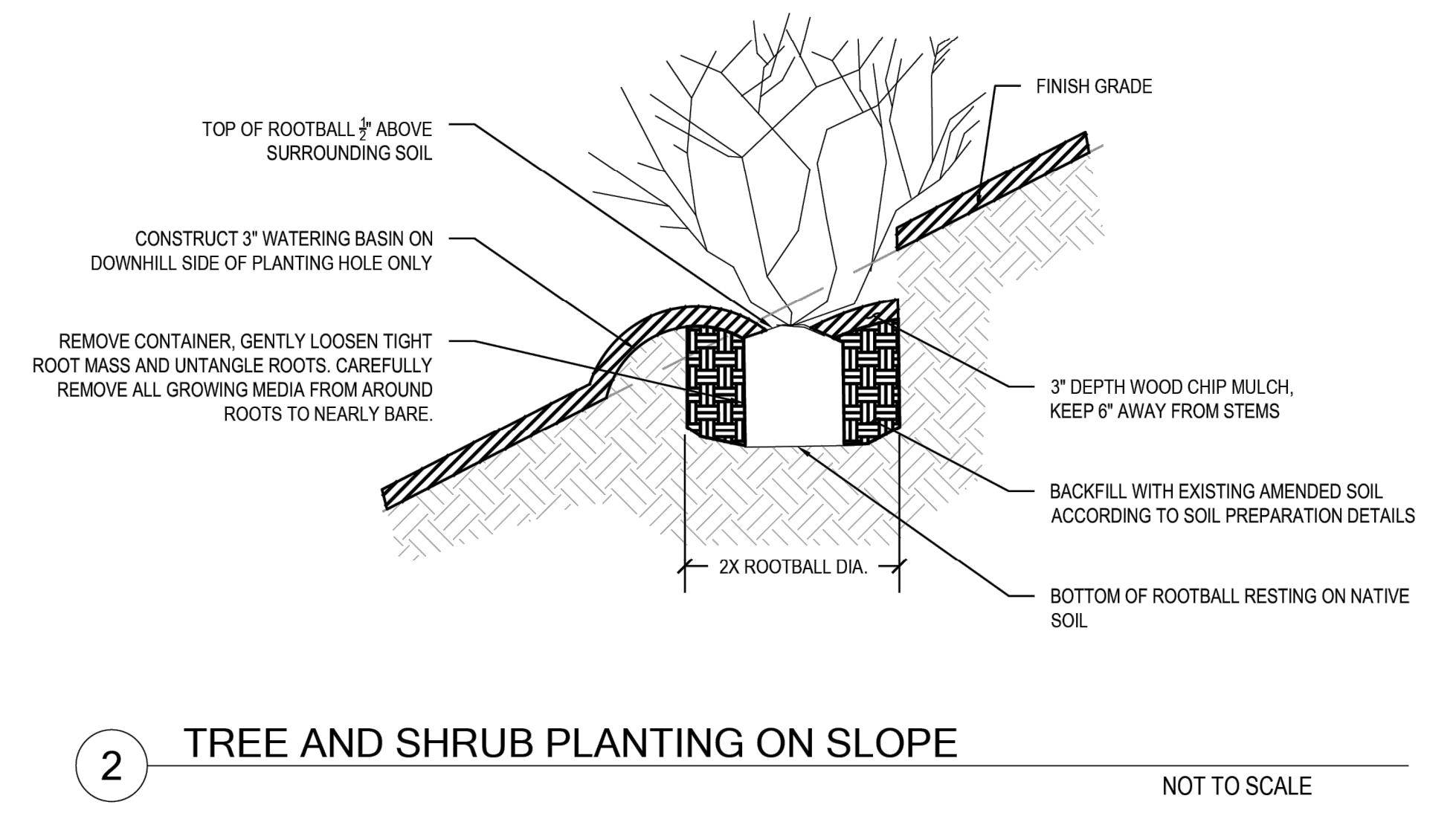
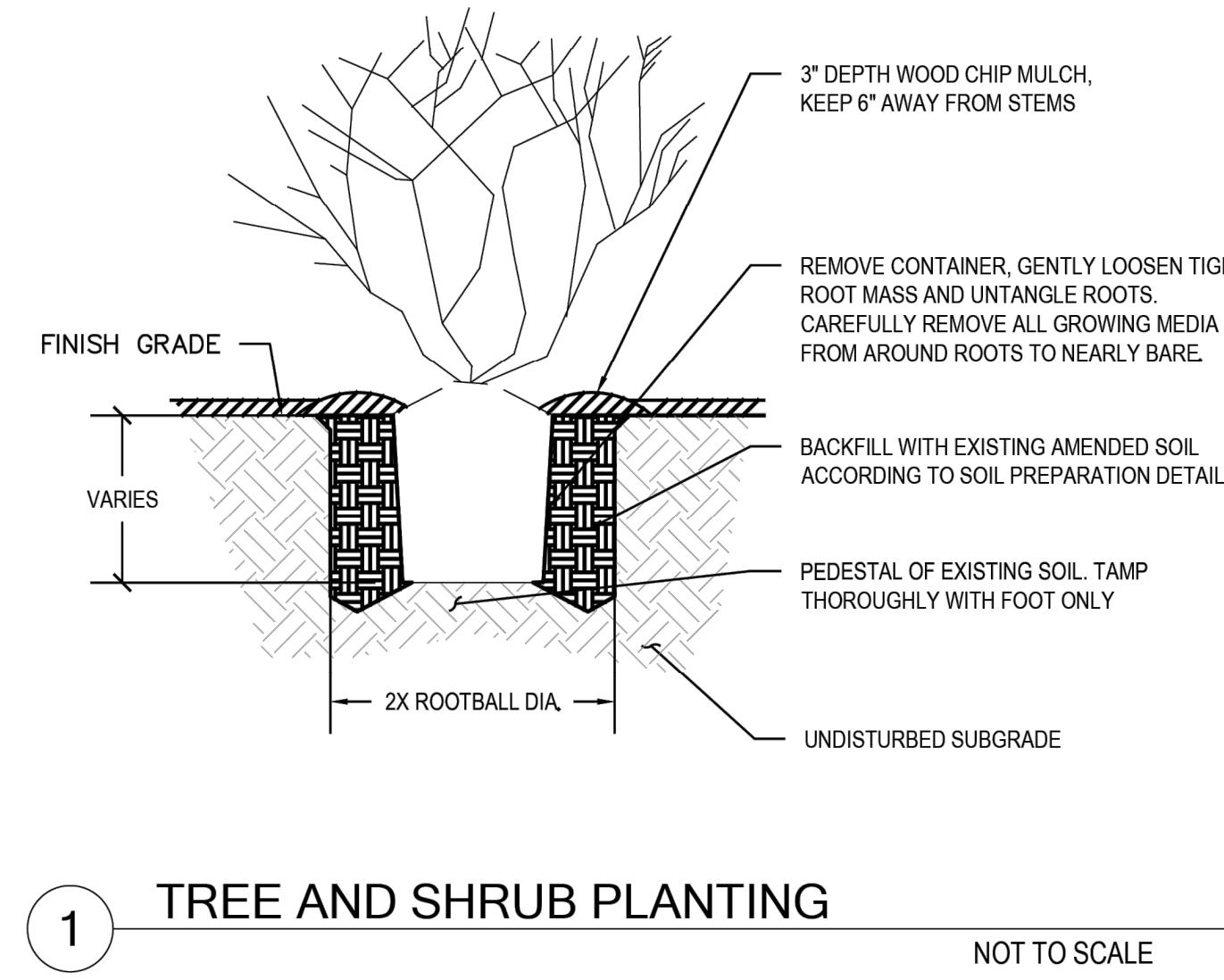
**L90 CULVERT REPLACEMENT**

**RESTORATION PLANTING PLAN AND SCHEDULE**

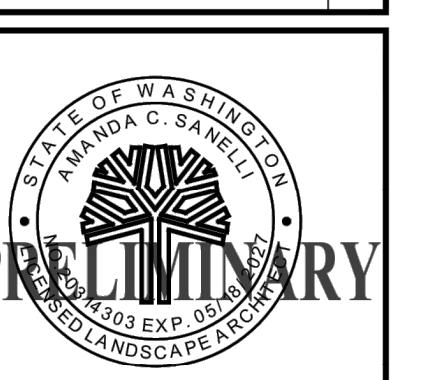
**SHEET: 18**  
**OF: 29**

**Gray & Sibley, Inc.**  
**CONSULTING ENGINEERS**  
3710 168TH STREET NE, BLDG. B, SUITE 210  
ARLINGTON, WA 98223 • (360) 454-5490

ARLINGTON, WA 98223 • (360) 434-3490

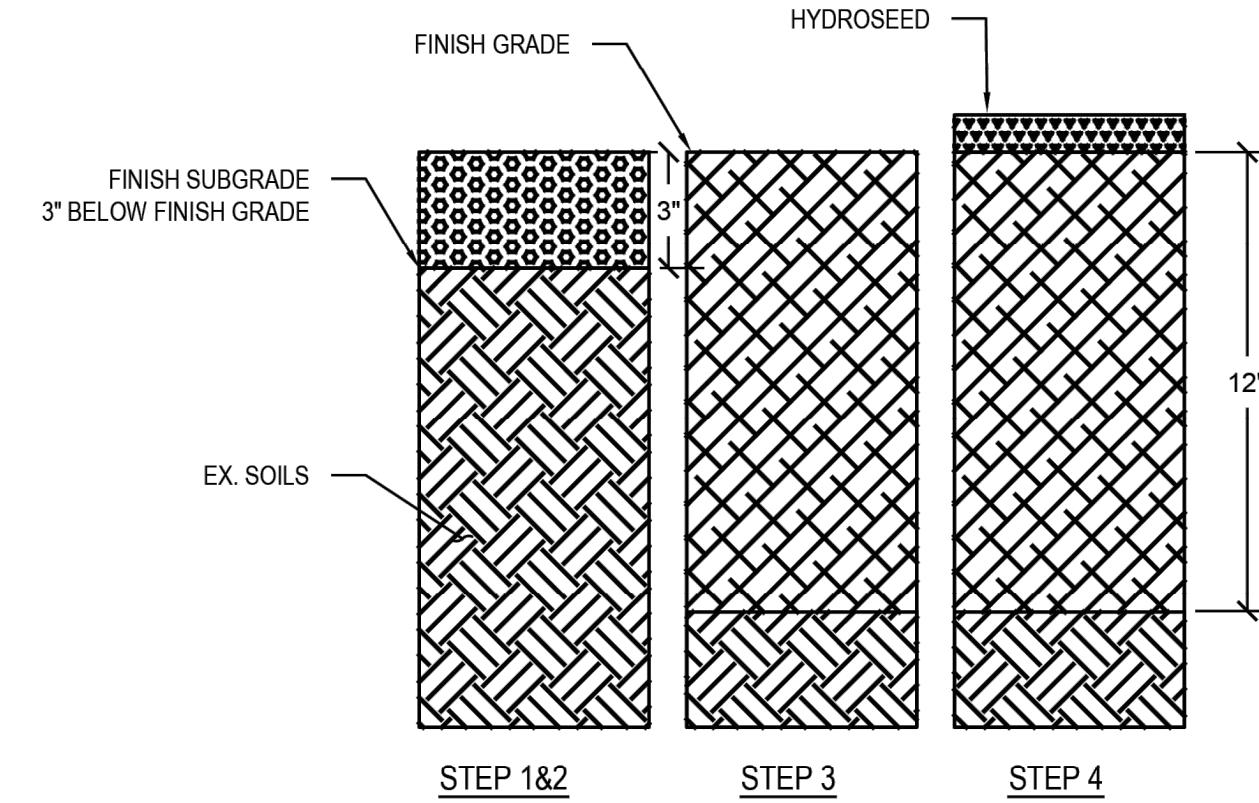


CITY OF LAKE FOREST PARK  
NE 18TH ST, KING COUNTY, WASHINGTON  
L90 CULVERT REPLACEMENT  
RESTORATION DETAILS

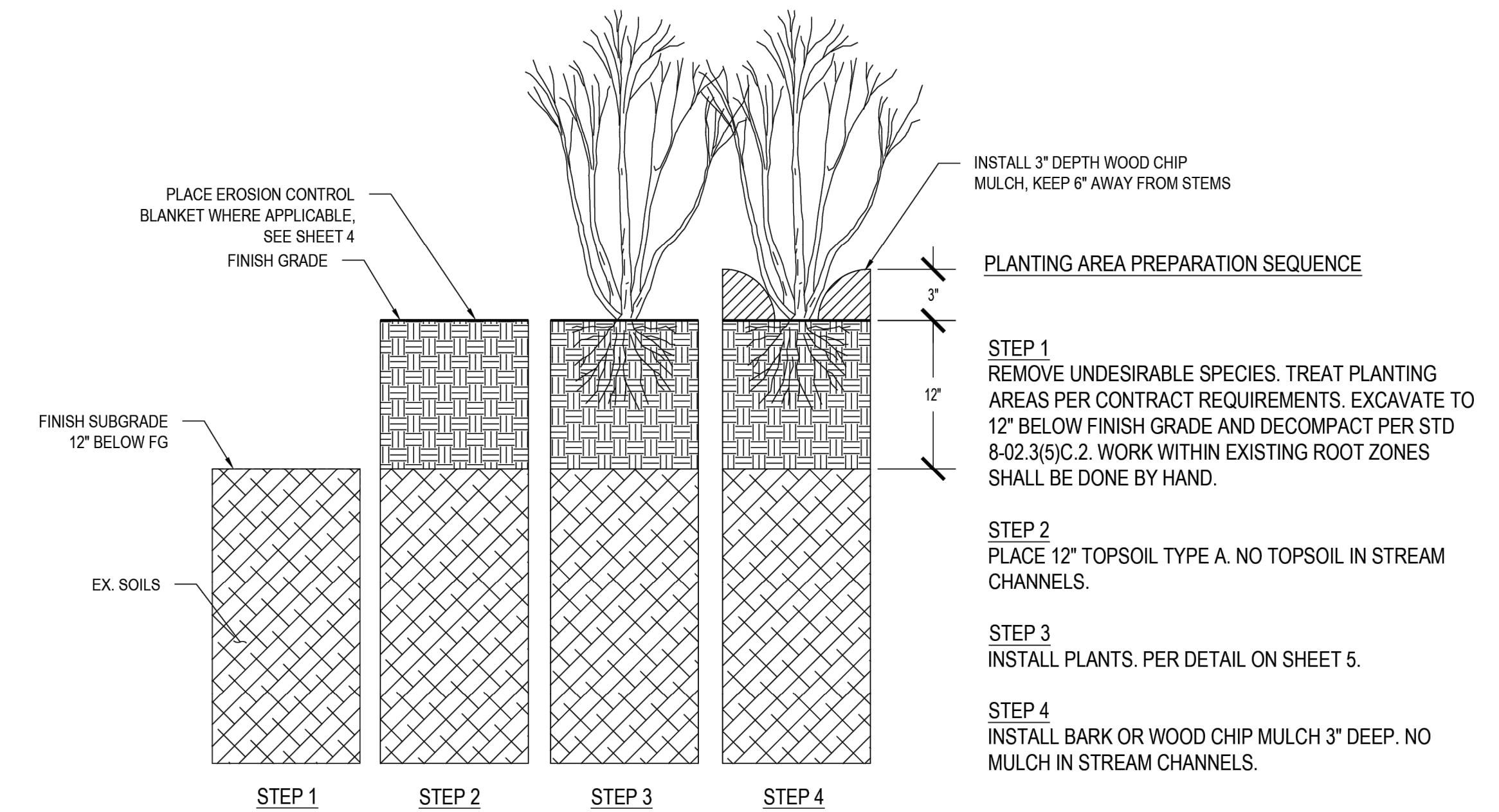


Gray & Osborne, Inc.  
CONSULTING ENGINEERS  
3711 188TH STREET NE, BLDG. B, SUITE 210  
ARLINGTON, WA 98223 • (360) 654-5490

DATE: AUG. 2025	SCALE: NOTED	DRAWN: HC	CHECKED: AW/SP	APPROVED: HM
No.	REVISION	DATE APPD:		



PLANTING AREA PREPARATION SEQUENCE



**1 SOIL PREPARATION TYPE 1 - DRY NATIVE SEED AREAS (2,860 SF)**

NOT TO SCALE

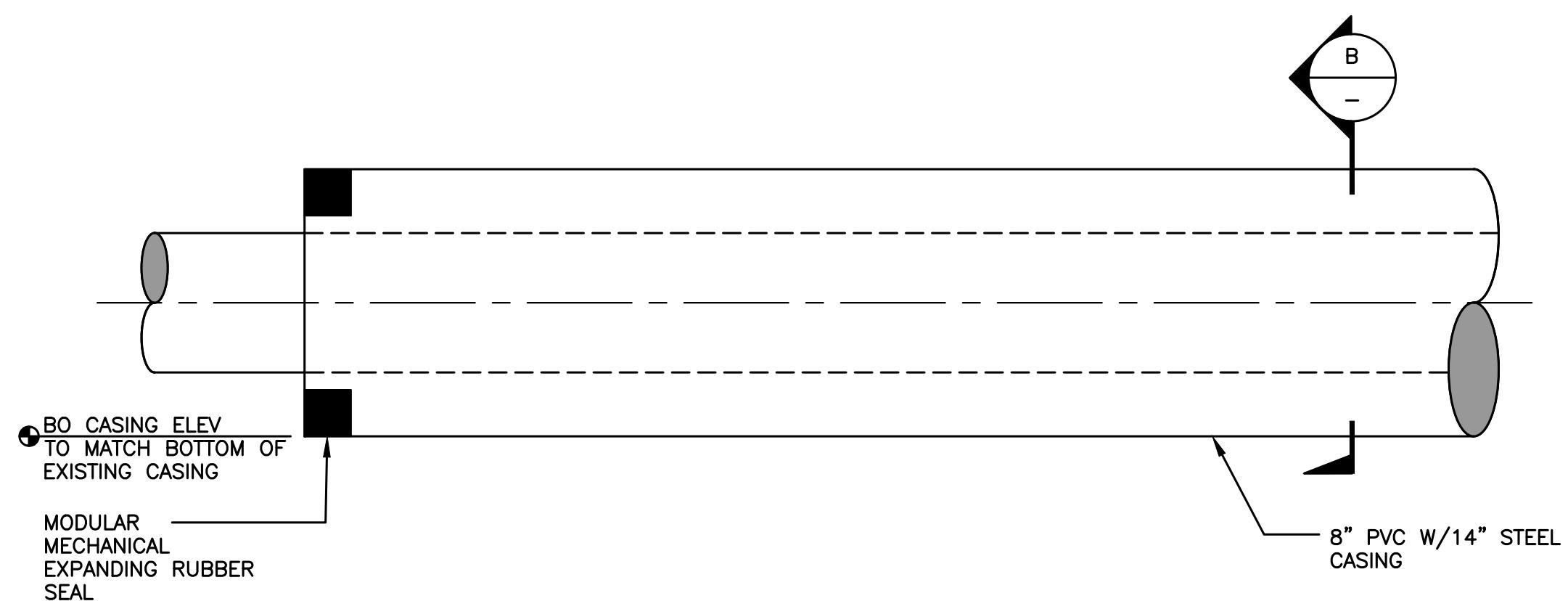
**2 SOIL PREPARATION TYPE 2 - RIPARIAN PLANTING (4,241 SF)**

NOT TO SCALE

**CITY OF LAKE FOREST PARK**  
NE 18TH ST, KING COUNTY WASHINGTON  
**L90 CULVERT REPLACEMENT**  
**SOIL PREPARATION DETAILS**

**20**  
SHEET:  
OF:  
**29**  
JOB NO.: 1905.0089.00  
DWG: L90 RESTORATION

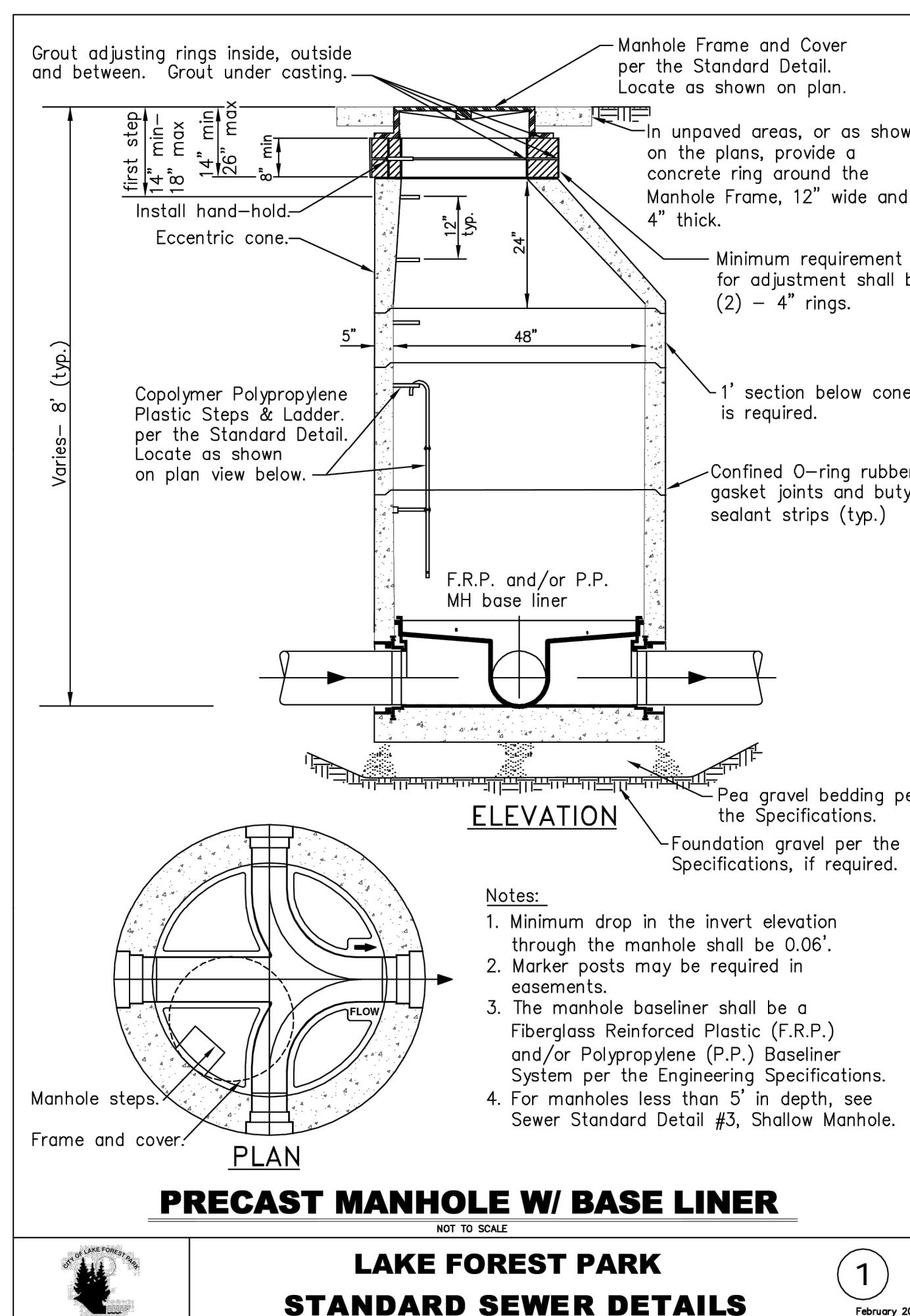
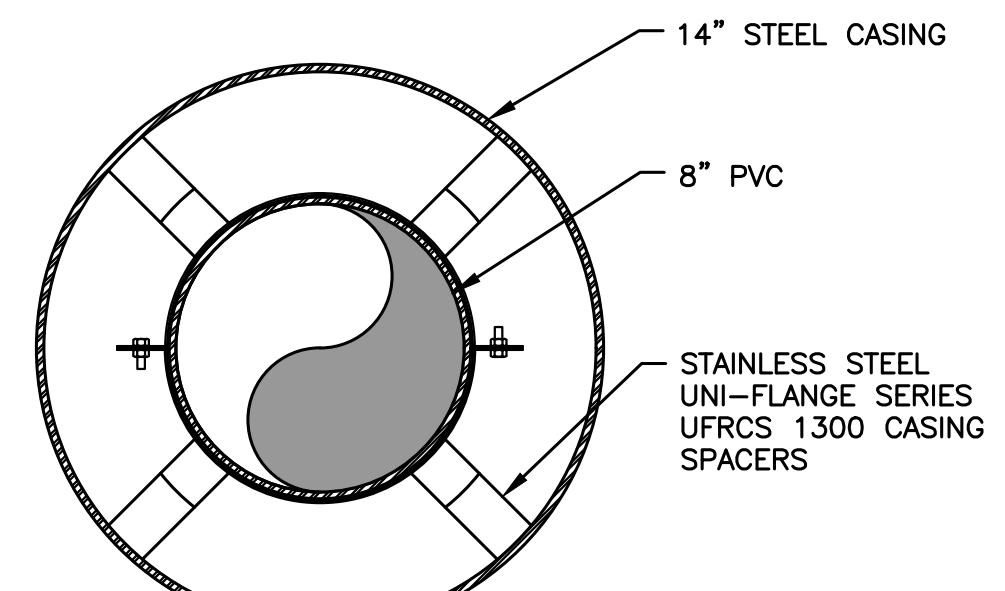




**NOTES:**

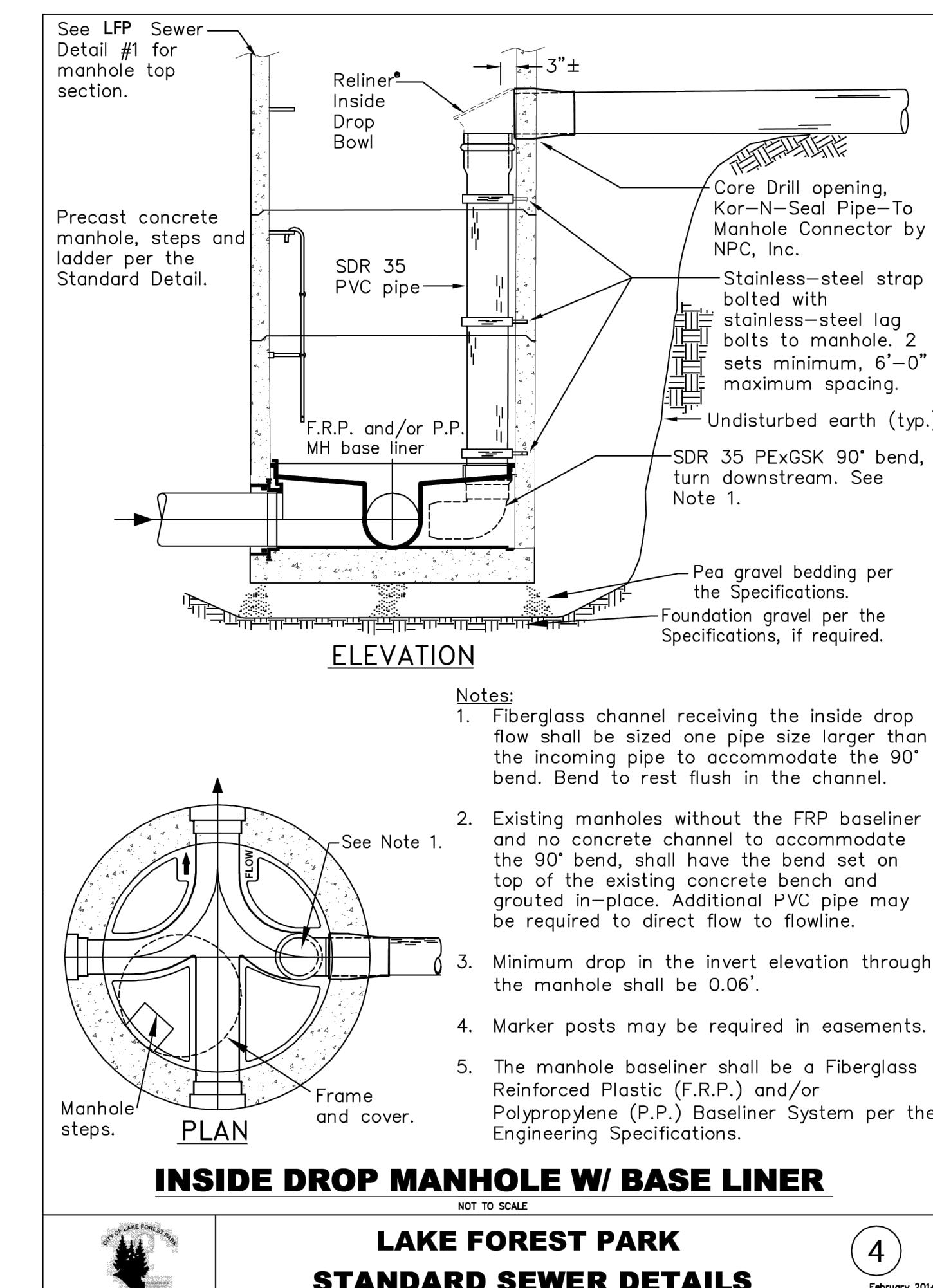
1. STEEL CASING SHALL BE HOT-DIP GALVANIZED ASTM A53 WITH  $F_y=35$  KSI MIN.

**ELEVATION**  
SCALE: 1"=1'-0"



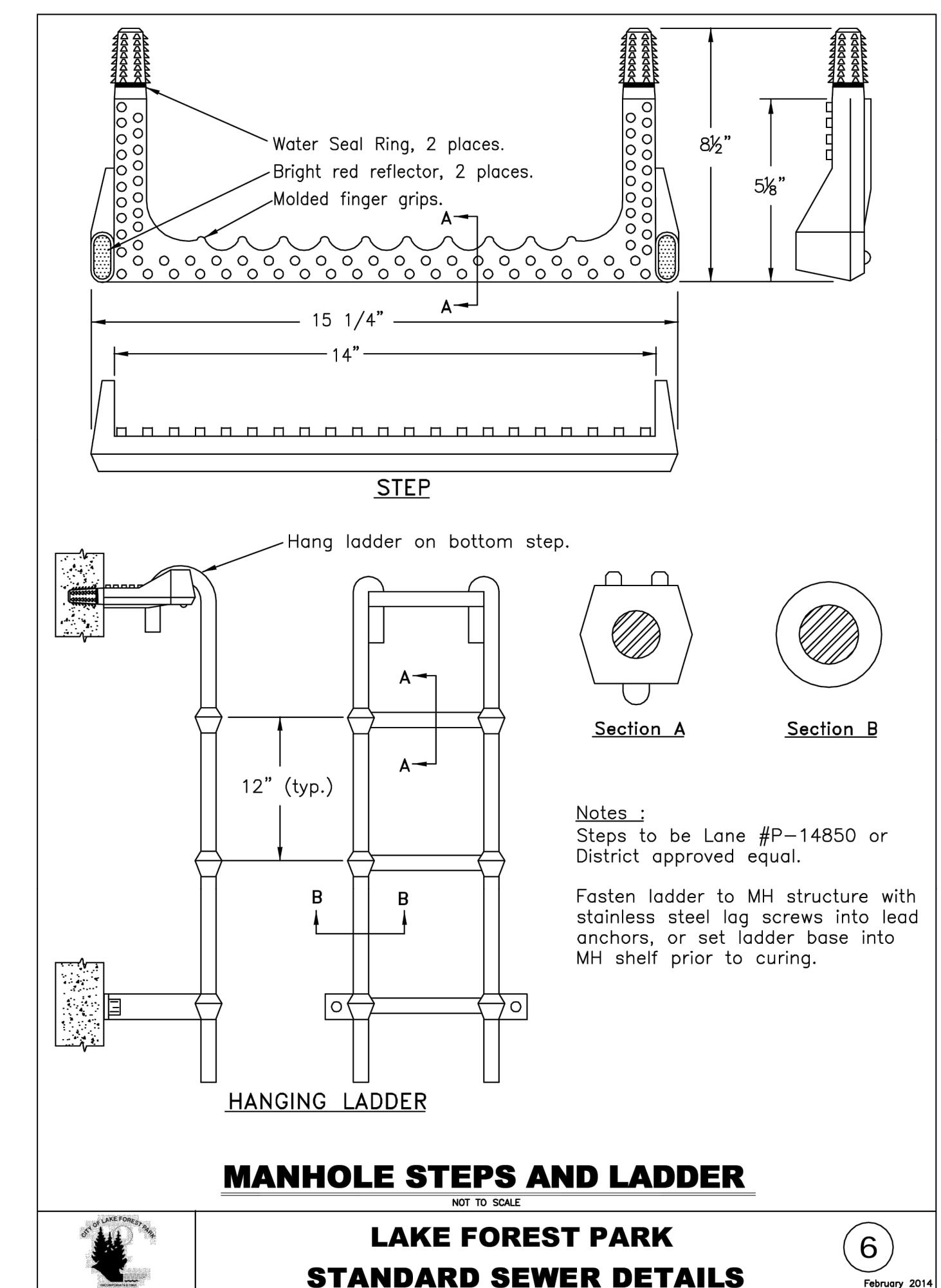
**PRECAST MANHOLE W/ BASE LINER**

NOT TO SCALE  
LAKE FOREST PARK  
STANDARD SEWER DETAILS  
1  
February 2014  
S-1(PRECASTM).dwg



**INSIDE DROP MANHOLE W/ BASE LINER**

NOT TO SCALE  
LAKE FOREST PARK  
STANDARD SEWER DETAILS  
4  
February 2014  
S-4(DROPM).dwg



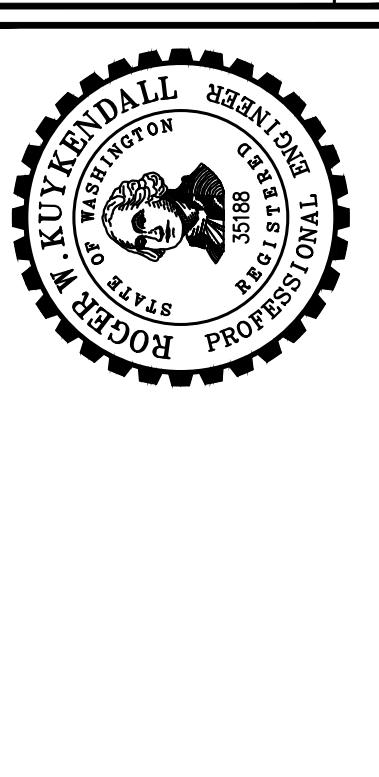
**MANHOLE STEPS AND LADDER**

NOT TO SCALE  
LAKE FOREST PARK  
STANDARD SEWER DETAILS  
6  
February 2014  
S-6(STEPLADDER).dwg

0 1" 2"  
TWO INCHES AT FULL SCALE. IF  
NOT, SCALE ACCORDINGLY

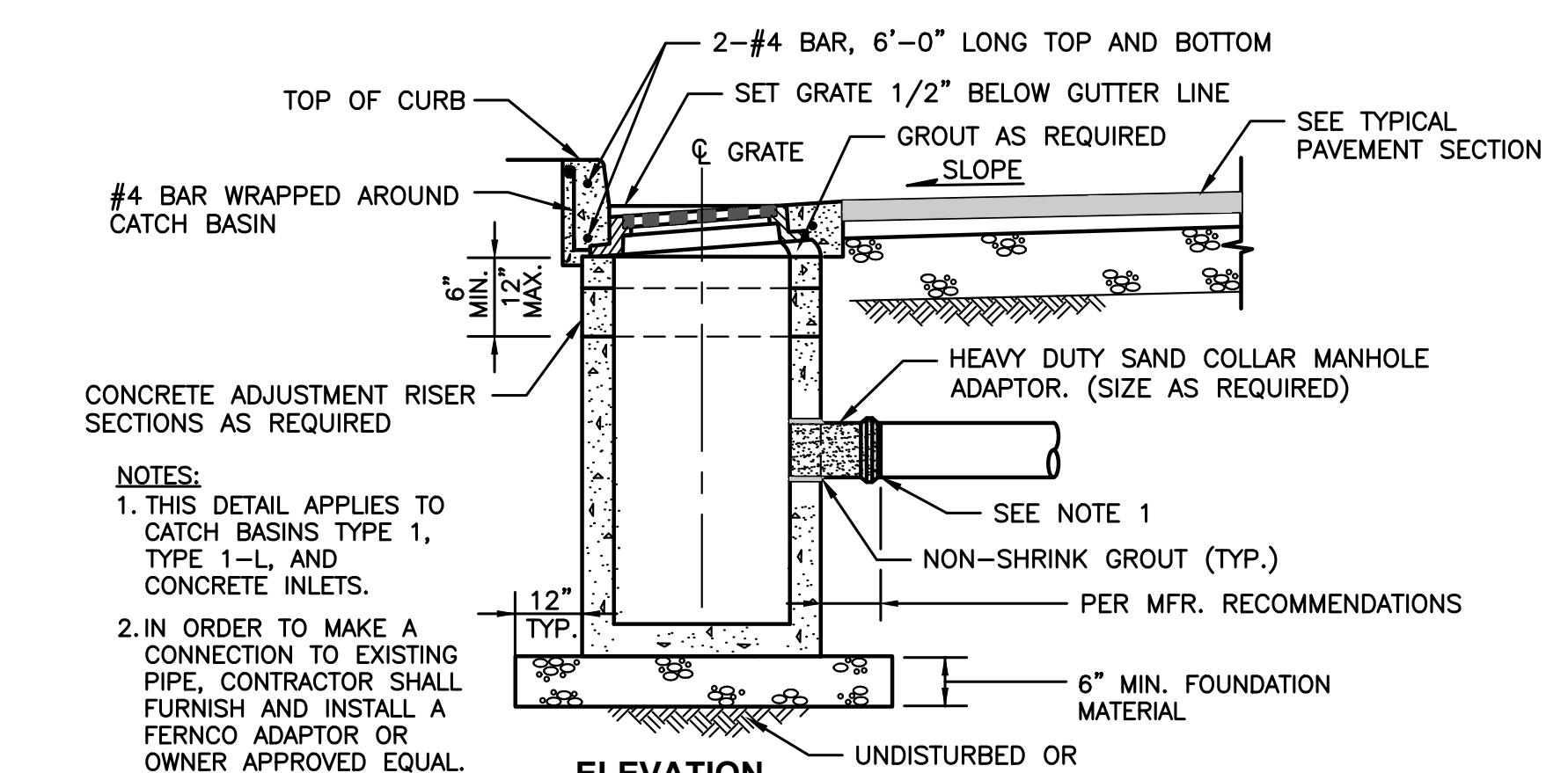
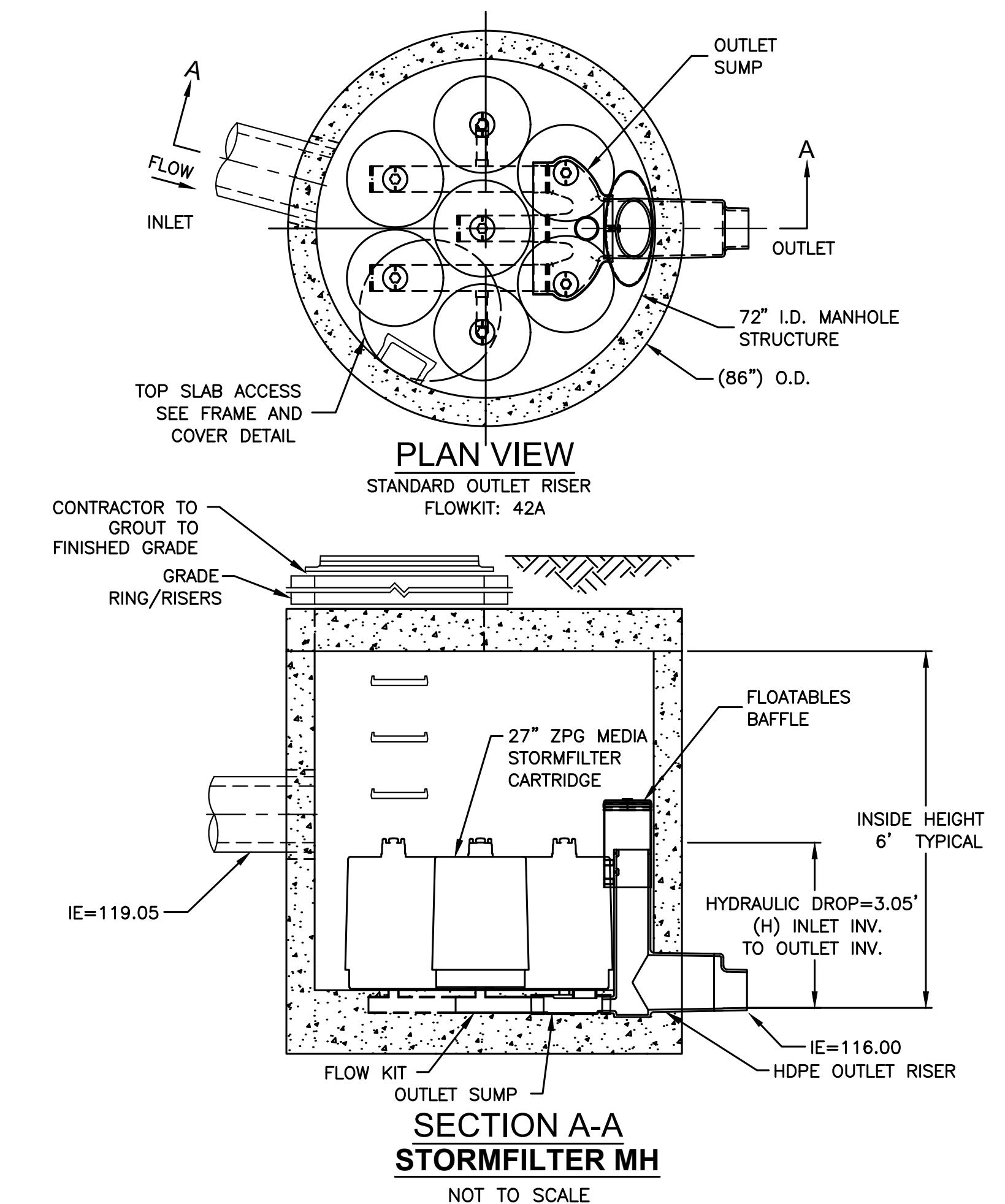
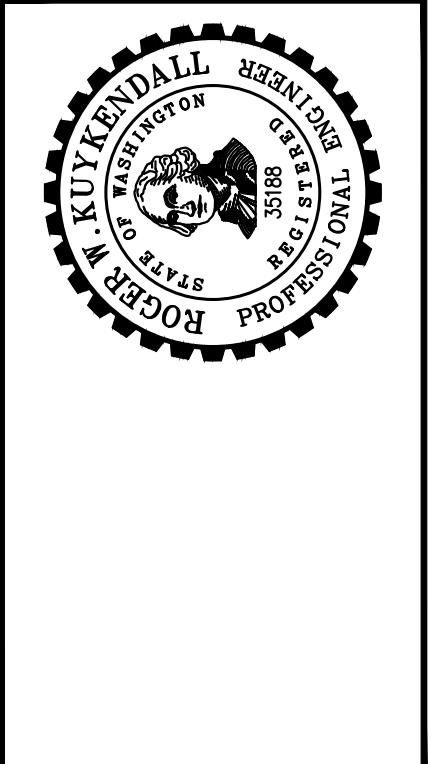
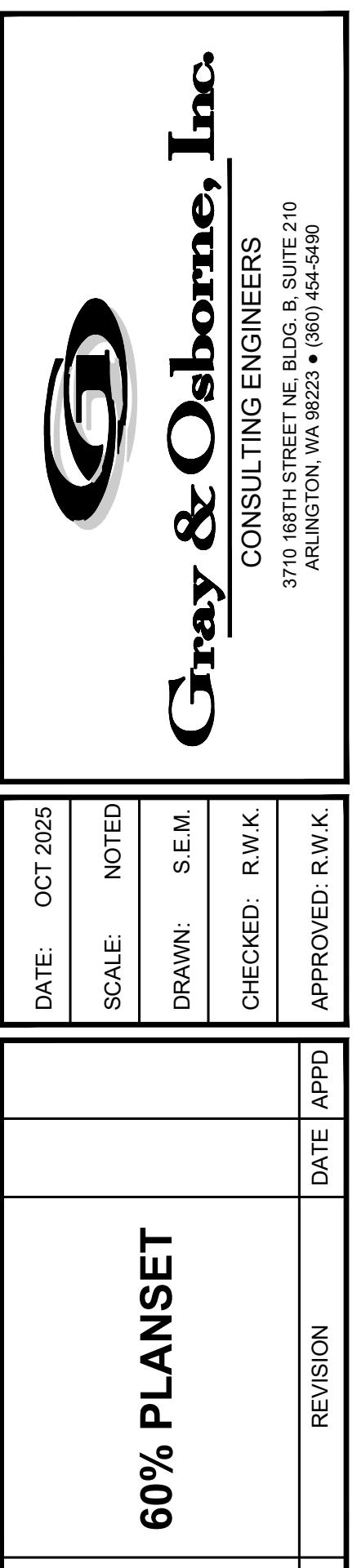
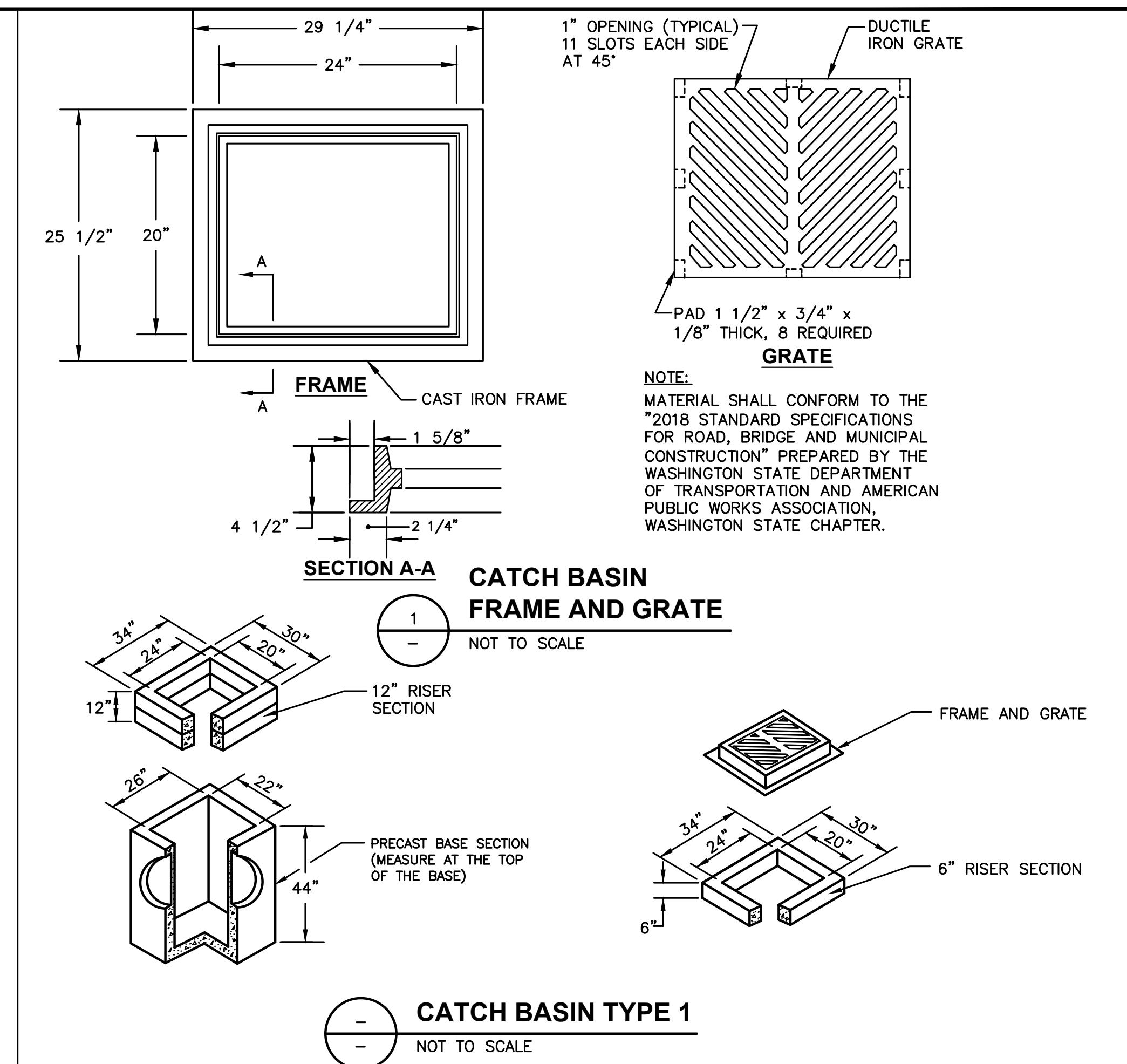
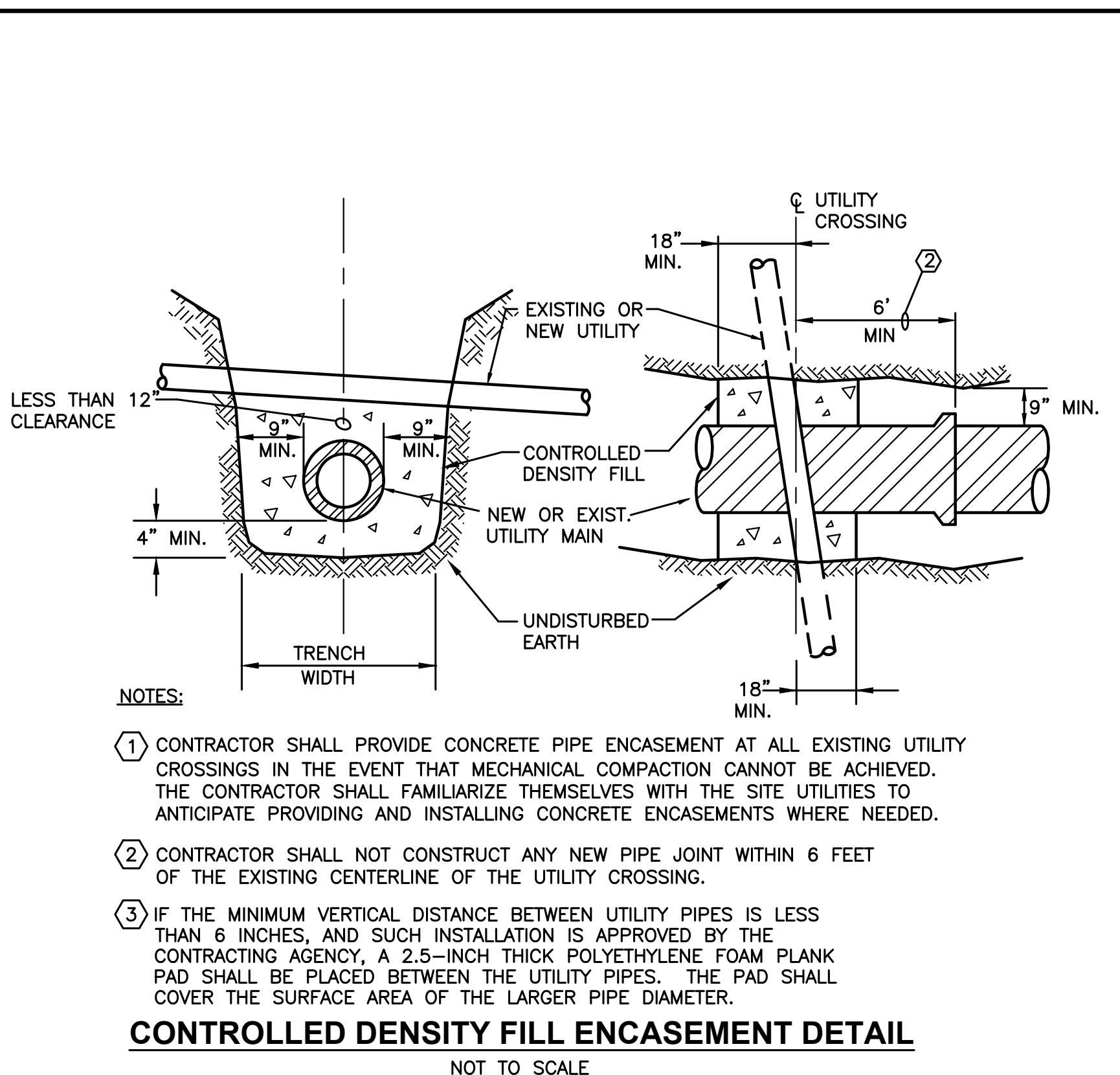
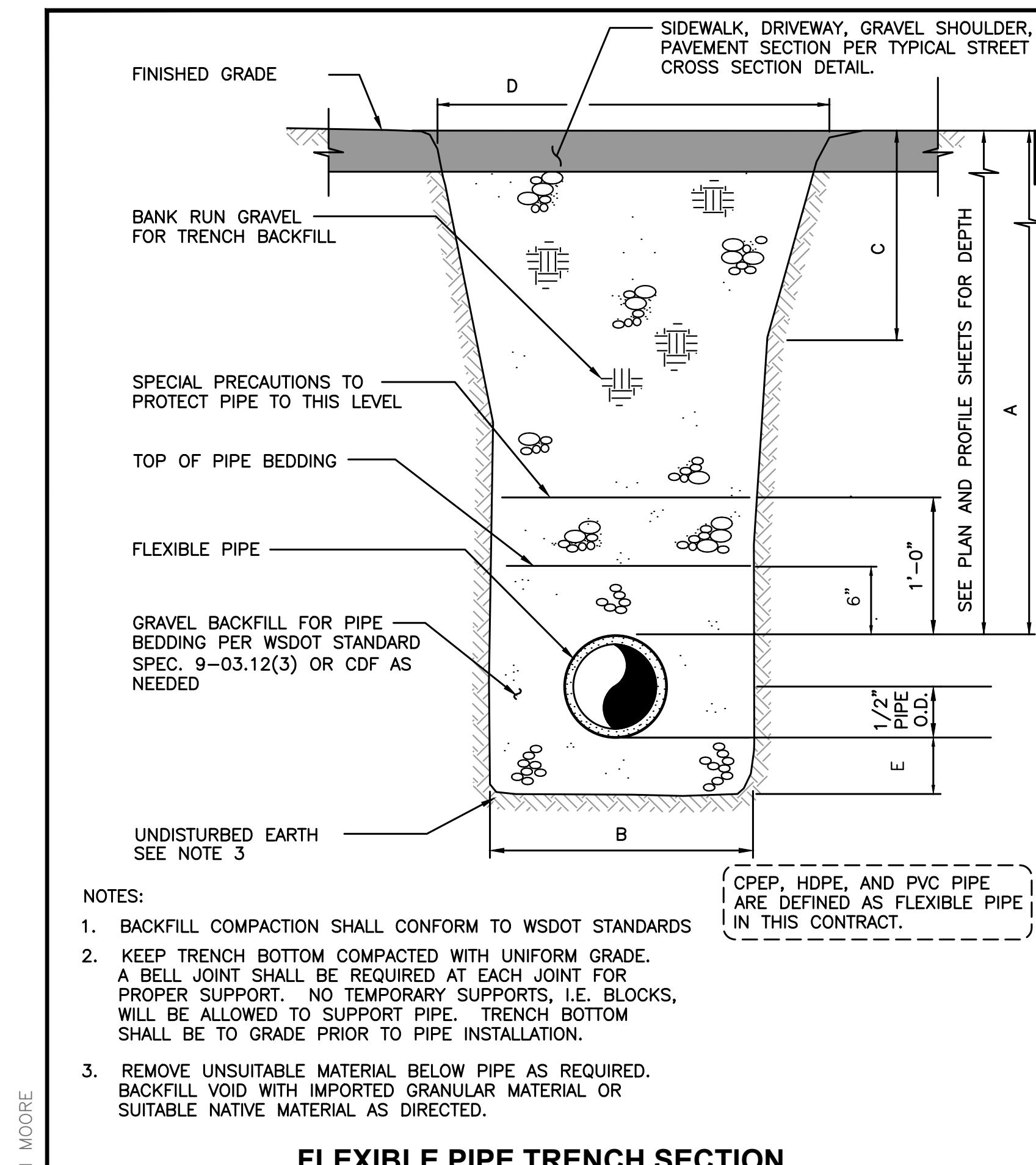
DATE: OCT 2025  
SCALE: NOTED  
DRAWN: S.E.M.  
CHECKED: R.W.K.  
APPROVED: R.W.K.

**60% PLANSET**

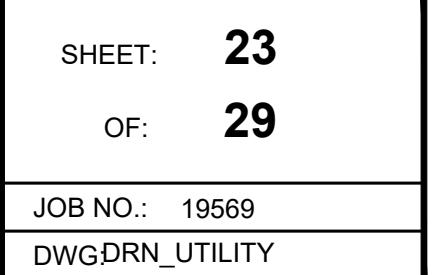
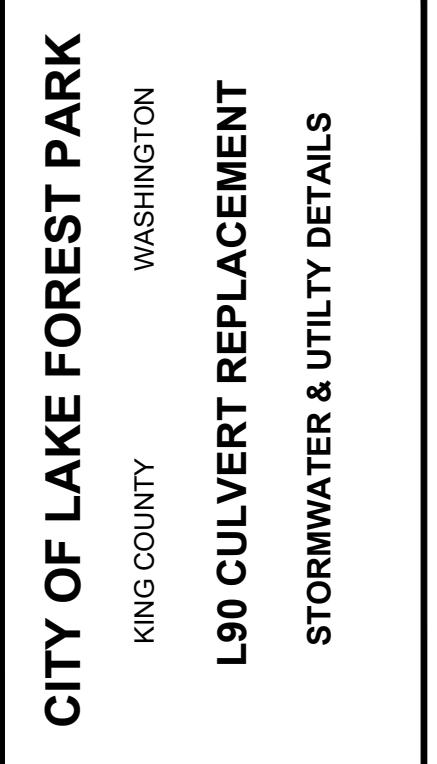


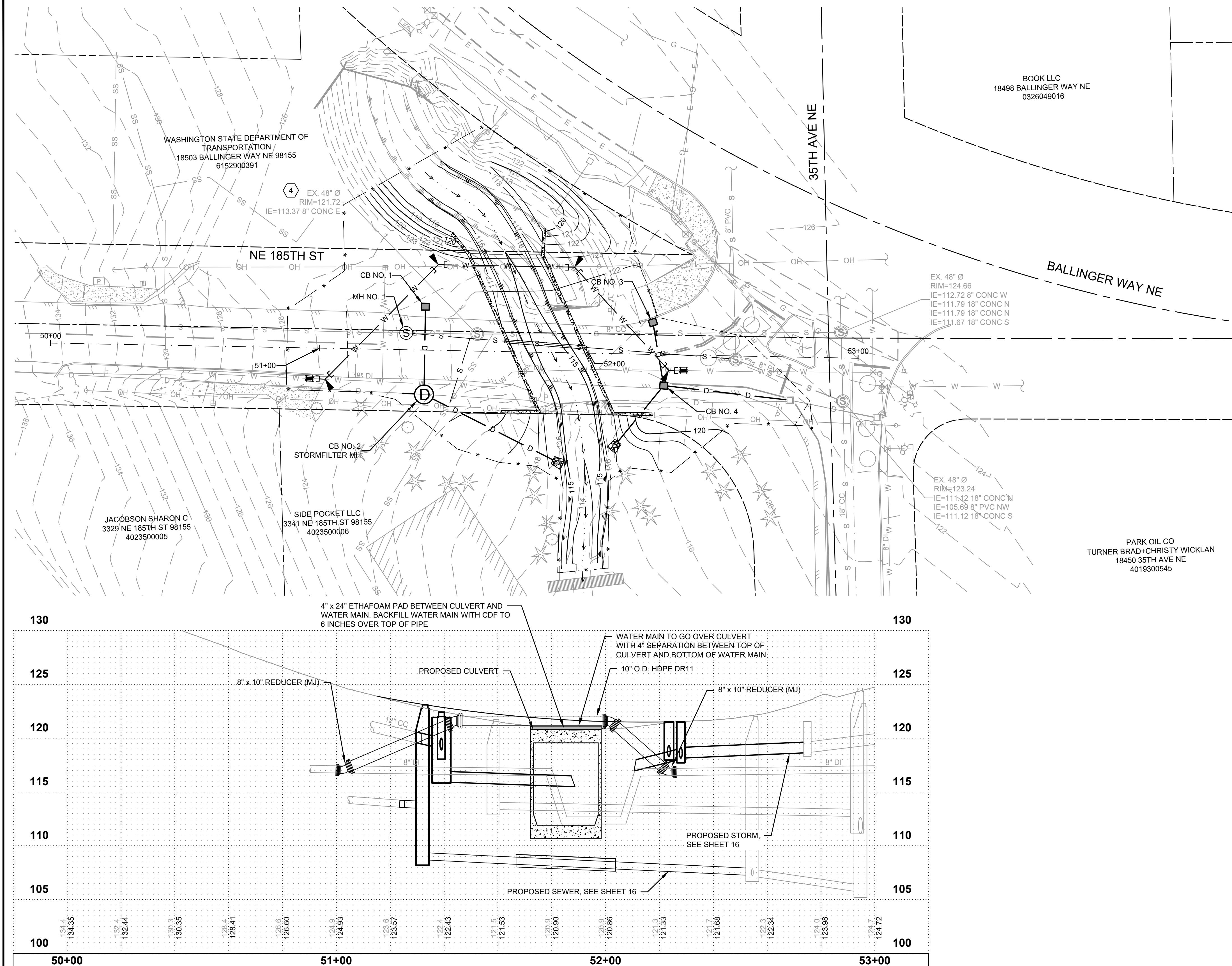
**CITY OF LAKE FOREST PARK**  
WASHINGTON  
KING COUNTY  
L90 CULVERT REPLACEMENT  
SEWER DETAILS

**22**  
OF  
**29**  
JOB NO.: 19569  
DWG: WATER PLAN



**TYPICAL TYPE 1 CATCH BASIN INSTALLATION DETAIL  
W/ CURB AND GUTTER**  
NOT TO SCALE





#### WATER CONSTRUCTION NOTES

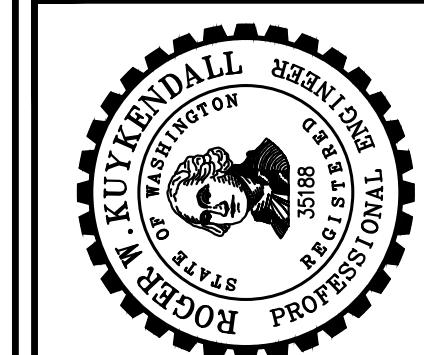
- 1 CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR TO POTHOLE AND FIELD VERIFY EXACT LOCATION AND DEPTH OF EXISTING UTILITY.
- 2 NO CONNECTIONS TO THE EXISTING WATER SYSTEM SHALL BE MADE WITHOUT AN APPROVED BACKFLOW PREVENTION DEVICE AND THE DISTRICTS APPROVAL. PERMANENT CONNECTIONS SHALL NOT BE MADE UNTIL NEW MAINS HAVE BEEN DISINFECTED, FLUSHED, AND HAVE PURITY IN ACCORDANCE WITH DISTRICT REQUIREMENTS. ANY CONNECTION TO THE EXISTING WATER SYSTEM SHALL BE WITNESSED BY THE DISTRICTS INSPECTOR.
- 3 ALL SERVICE CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE LAKE FOREST PARK WATER DISTRICT REQUIREMENTS.
- 4 ALL FIRE HYDRANTS SHALL BE INSTALLED, INSPECTED, AND ADJUSTED IN ACCORDANCE WITH THE DISTRICTS STANDARD DETAILS, SHEET 15.
- 5 BACKFILL WITH CDF WHERE PIPE HAS LESS THAN 36" OF COVER. MAINTAIN A MINIMUM SEPARATION OF 4" FROM TOP OF BOX CULVERT.

#### GENERAL NOTES

- 1 THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE DISTRICT AND ENGINEER.
- 2 A COMPLETE SET OF PLANS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION, AND SHALL REFLECT ANY VARIATION IN CONSTRUCTION FROM THE PLANS. THESE "AS-BUILT" PLANS SHALL BE PROVIDED TO THE DISTRICT AT THE COMPLETION OF CONSTRUCTION.
- 3 THE CONTRACTOR WILL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND WILL NEED FIELD VERIFICATION FOR EXACT ALIGNMENT AND DEPTH. THERE MAY BE EXISTING UTILITIES NOT SHOWN ON THE PLANS.
- 4 CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH SEATTLE CITY POWER & LIGHT FOR UTILITY POLE STABILIZATION IF REQUIRED.
- 5 THE DISTRICT SHALL AT ALL TIMES HAVE ACCESS TO THE WORK AND TO THE LOCATIONS WHERE THE WORK IS IN PREPARATION.
- 6 THE CONTRACTOR SHALL NOTIFY ONE CALL UTILITY LOCATING SERVICE PRIOR TO ANY CONSTRUCTION TO VERIFY LOCATION OF EXISTING UTILITIES, AT (800) 424-5555.
- 7 AFTER THE PIPE AND APPURTENANCES ARE IN PLACE AND THE SYSTEM HAS BEEN SATISFACTORILY PRESSURE TESTED, IT SHALL BE FLUSHED WITH WATER OF SUFFICIENT VELOCITY TO REMOVE ALL DIRT AND OTHER FOREIGN MATERIALS AND DISINFECTED/CHLORINATED IN ACCORDANCE WITH THE DISTRICT STANDARD DETAIL, SHEET 15 AND RECOMMENDED AWWA STANDARDS. THE CONTRACTOR SHALL REQUEST A BACTERIOLOGICAL SAMPLE TO BE TAKEN AT LEAST 24 HOURS AFTER FLUSHING AND DISINFECTION.
- 8 ALL WORK, MATERIALS, CONCRETE BLOCKING AND TESTING OF WATER LINES SHALL CONFORM TO STANDARD DETAILS OF LAKE FOREST PARK WATER DISTRICT AND AWWA STANDARDS.
- 9 THE WATER MAIN SHALL BE INSTALLED WITH MINIMUM OF 36" OF COVER, AS MEASURED FROM THE TOP OF THE PIPE TO FINISHED GRADE, UNLESS OTHERWISE APPROVED. WHERE UTILITY CONFLICTS OCCUR, THE WATER MAIN SHALL BE LOWERED TO CLEAR AS APPROVED BY THE WATER DISTRICT.
- 10 EXACT LOCATIONS AND CONFIGURATIONS OF WATER METERS AND VAULTS SHALL BE APPROVED BY THE DISTRICT PRIOR TO CONSTRUCTION.
- 11 BEDDING FOR WATER MAINS SHALL BE PROVIDED AS REQUIRED IN THE FLEXIBLE PIPE TRENCH SECTION DETAIL ON SHEET 13 AND THE SPECIFICATIONS.
- 12 PRIOR TO BACKFILLING, ALL MAINS AND APPURTENANCES SHALL BE INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT.

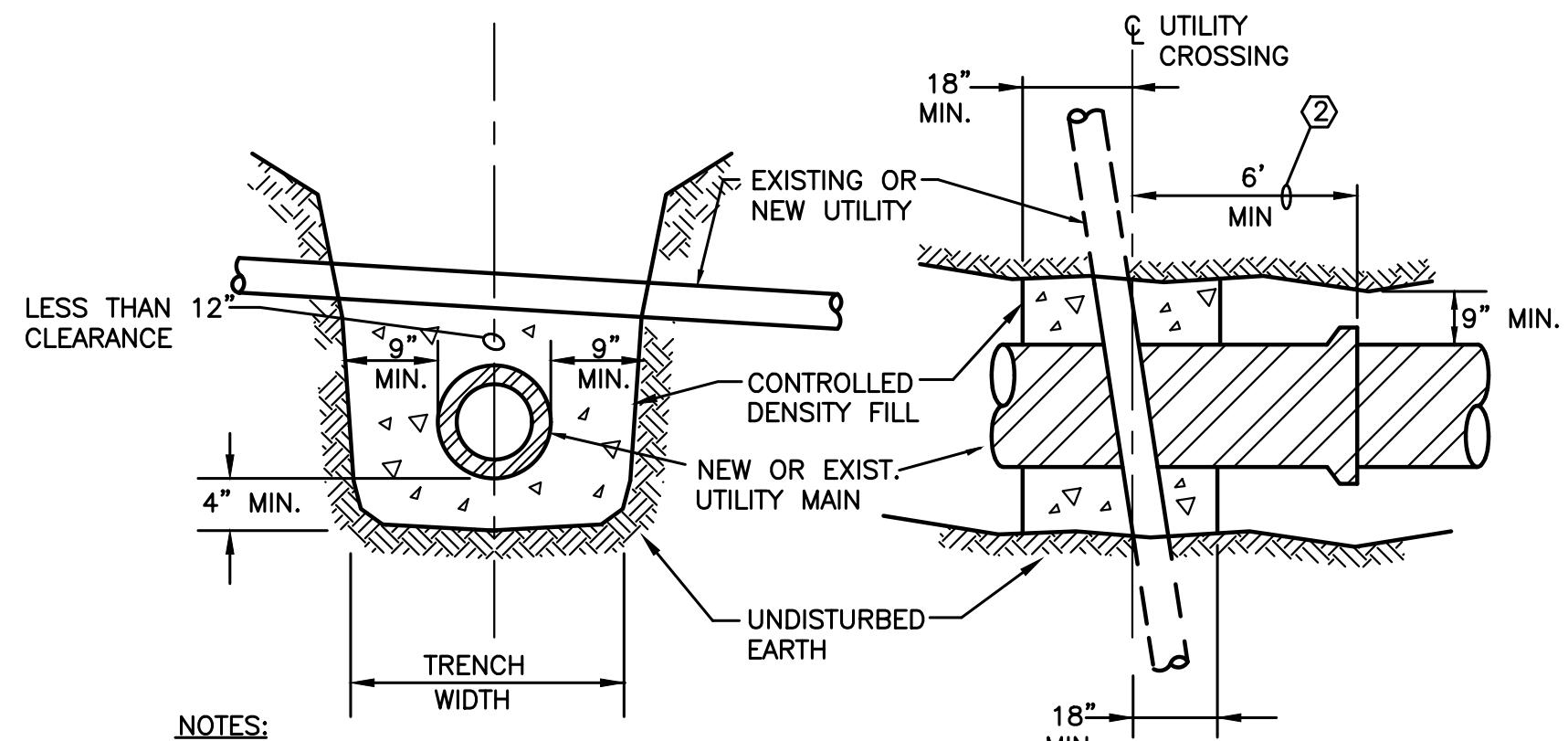
CITY OF LAKE FOREST PARK  
KING COUNTY  
WASHINGTON  
L90 CULVERT REPLACEMENT  
WATER PLAN & PROFILE

SHEET: 24  
OF: 29  
JOB NO.: 19569  
DWG SEWER



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CONSULTING ENGINEERS  
3710 168TH STREET NE, SUITE 210  
ARLINGTON, WA 98223 • (360) 454-5490

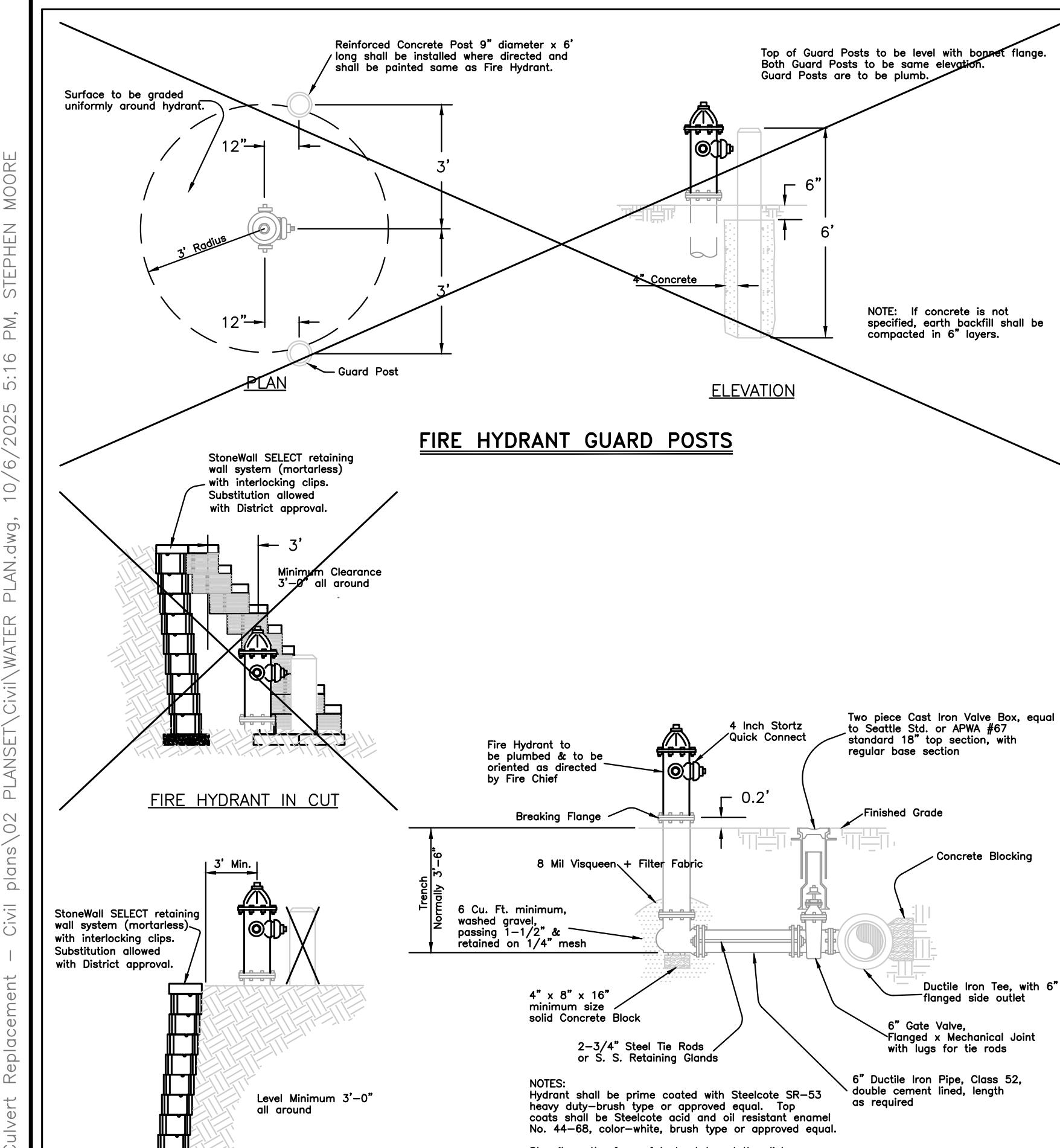
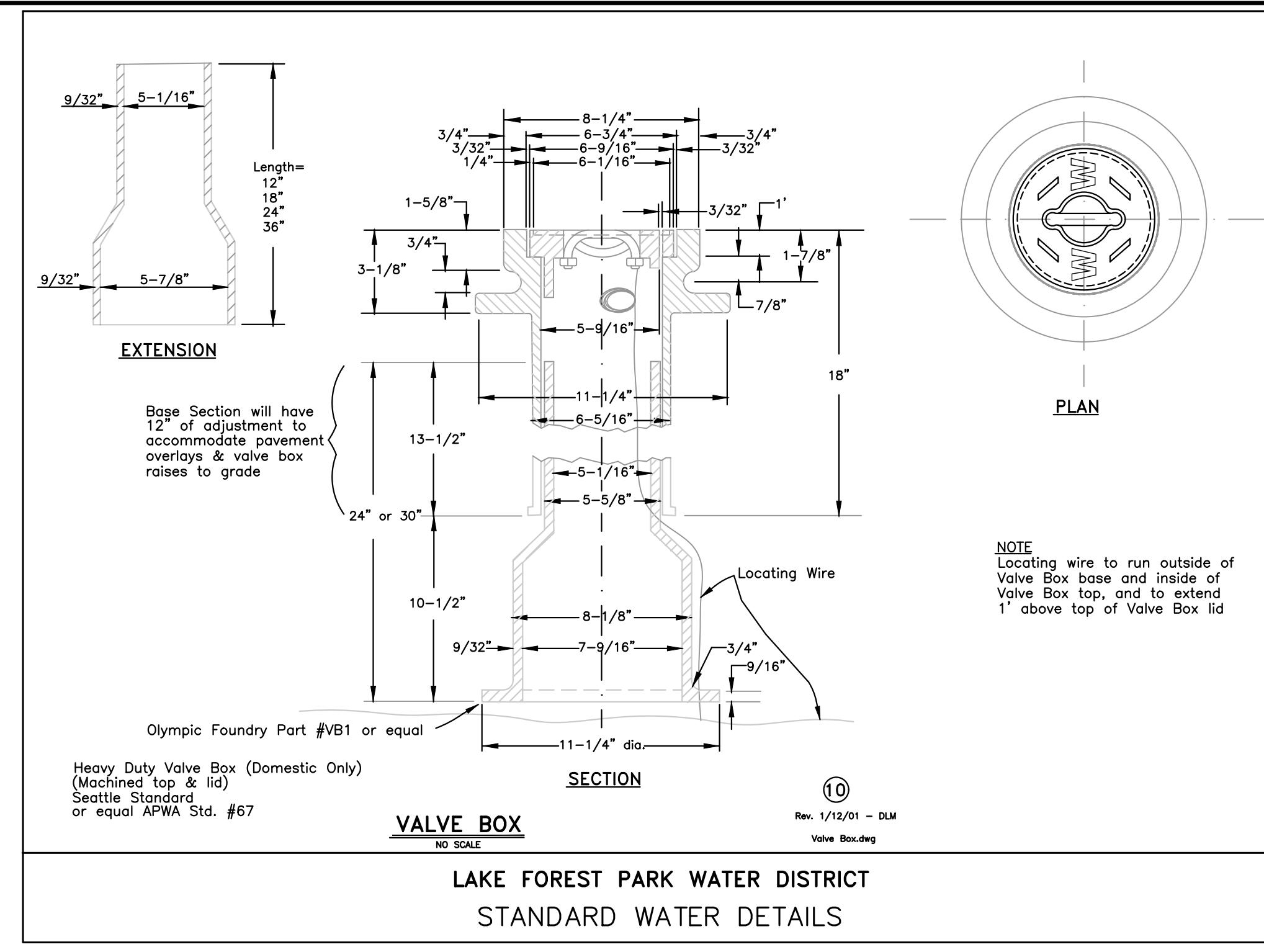
DATE: OCT 2025	SCALE: S.E.M.
DRAWN: R.W.K.	NOTED:
CHECKED: R.W.K.	APPROVED: R.W.K.
APID	
60% PLANSET	
No.	REVISION



- CONTRACTOR SHALL PROVIDE CONCRETE PIPE ENCASING AT ALL EXISTING UTILITY CROSSINGS IN THE EVENT THAT MECHANICAL COMPACTION CANNOT BE ACHIEVED. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE UTILITIES TO ANTICIPATE PROVIDING AND INSTALLING CONCRETE ENCASEMENTS WHERE NEEDED.
- CONTRACTOR SHALL NOT CONSTRUCT ANY NEW PIPE JOINT WITHIN 6 FEET OF THE EXISTING CENTERLINE OF THE UTILITY CROSSING.
- IF THE MINIMUM VERTICAL DISTANCE BETWEEN UTILITY PIPES IS LESS THAN 6 INCHES, AND SUCH INSTALLATION IS APPROVED BY THE CONTRACTING AGENCY, A 2.5-INCH THICK POLYETHYLENE FOAM PLANK PAD SHALL BE PLACED BETWEEN THE UTILITY PIPES. THE PAD SHALL COVER THE SURFACE AREA OF THE LARGER PIPE DIAMETER.

#### CONTROLLED DENSITY FILL ENCASEMENT DETAIL

NOT TO SCALE



#### FIRE HYDRANT LOCATION IN CUT OR FILL

#### FIRE HYDRANT ASSEMBLY

(3)

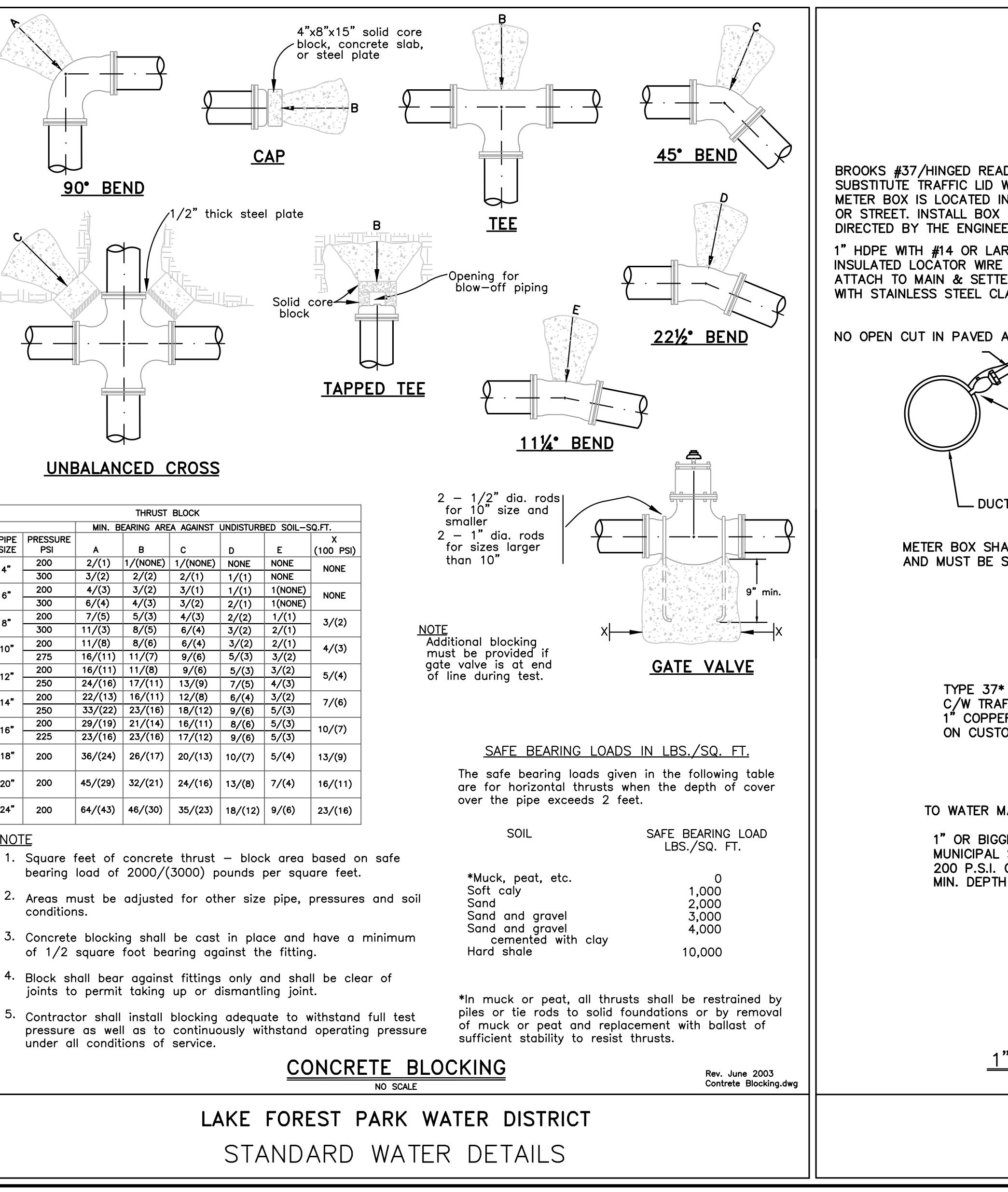
Rev. 5/12/05 DLM

FIRE HYDRANT ASSEMBLY.DWG

NO SCALE

#### LAKE FOREST PARK WATER DISTRICT STANDARD FIRE HYDRANT DETAIL MODIFIED

NOT TO SCALE

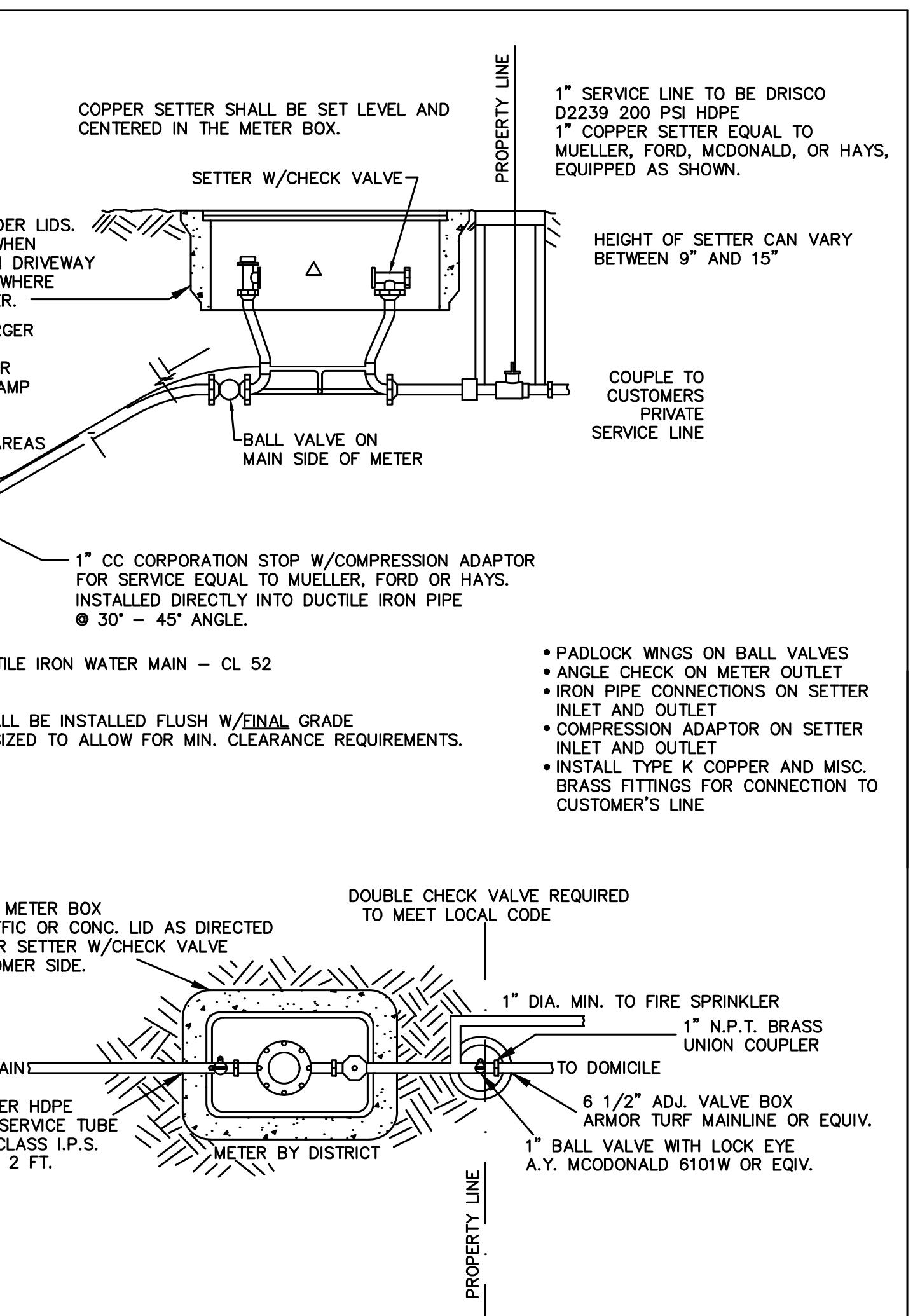


Rev. June 2003

Concrete Blocking.dwg

NO SCALE

#### LAKE FOREST PARK WATER DISTRICT STANDARD WATER DETAILS



#### 1" - WATER SERVICE WITH FIRE SPRINKLER

Rev. 7/07 - ACH Services, Inc. including

NO SCALE

#### LAKE FOREST PARK WATER DISTRICT STANDARD WATER DETAILS

0 1" 2"  
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

#### CITY OF LAKE FOREST PARK WATER DETAILS

KING COUNTY

WASHINGTON

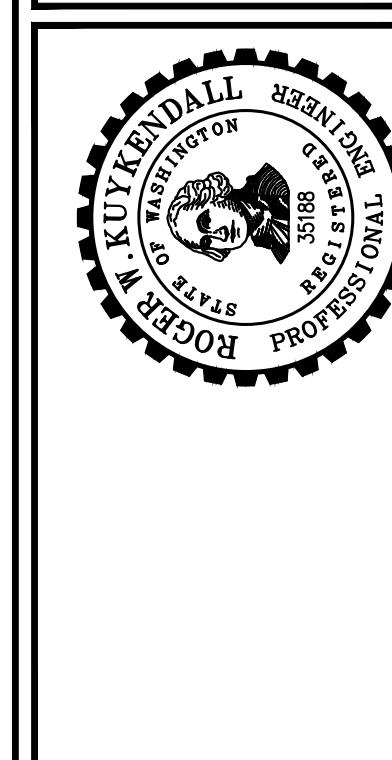
L90 CULVERT REPLACEMENT

SHEET: 25

OF: 29

JOB NO.: 19569

DWG:WATER PLAN



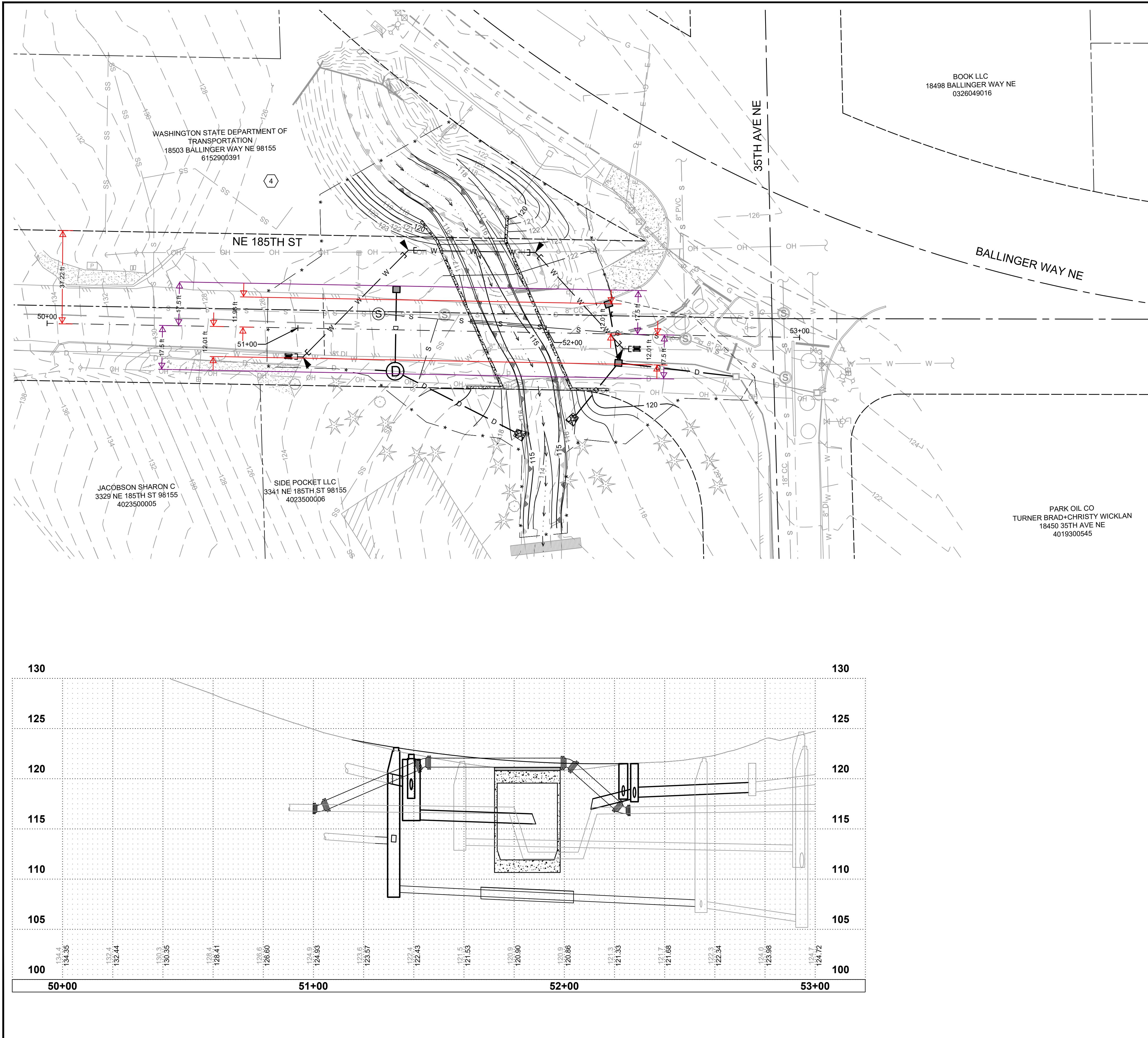
60% PLANSET

REVISION

No

DATE: OCT 2025  
SCALE: NOTED  
DRAWN: S.E.M.  
CHECKED: R.W.K.  
APPROVED: R.W.K.

Gray & Osborne, Inc.  
CONSULTING ENGINEERS  
3710 16th STREET NE, BLDG. B, SUITE 210  
ARLINGTON, VA 22223 • (703) 454-3490



BOOK LLC  
18498 BALLINGER WAY  
0326049016

## **CONSTRUCTION NOTES**

1. PROTECT EXISTING UTILITY VAULT DURING CONSTRUCTION. SEE GENERAL NOTE 2 SHEET   .
2. PROTECT EXISTING CURB, SIDEWALK, RAILING DURING CONSTRUCTION.
3. SAWCUT EXISTING PAVEMENT AND SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.
4. SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.
5. REMOVE SIDEWALK AND REPLACE WITH PEDESTRIAN HMA SURFACE PER DETAILS SHEET 22.

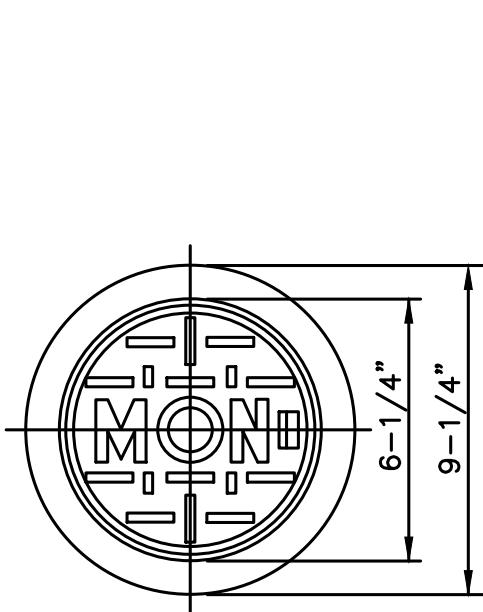
## **CHANNELIZATION NOTES:**

1. FURNISH AND INSTALL 4" WHITE PAINTED EDGE LINE PER WSDOT STANDARD PLAN M-20.10.
2. FURNISH AND INSTALL PAINTED DOUBLE YELLOW CENTER LINE, PER WSDOT STANDARD PLAN M-20.10.
3. FURNISH AND INSTALL WHITE PLASTIC TRAFFIC ARROW PER WSDOT STANDARD PLAN M-24.40.
4. FURNISH AND INSTALL WHITE PLASTIC STOP BAR PER WSDOT STANDARD PLAN M-XX.XX.

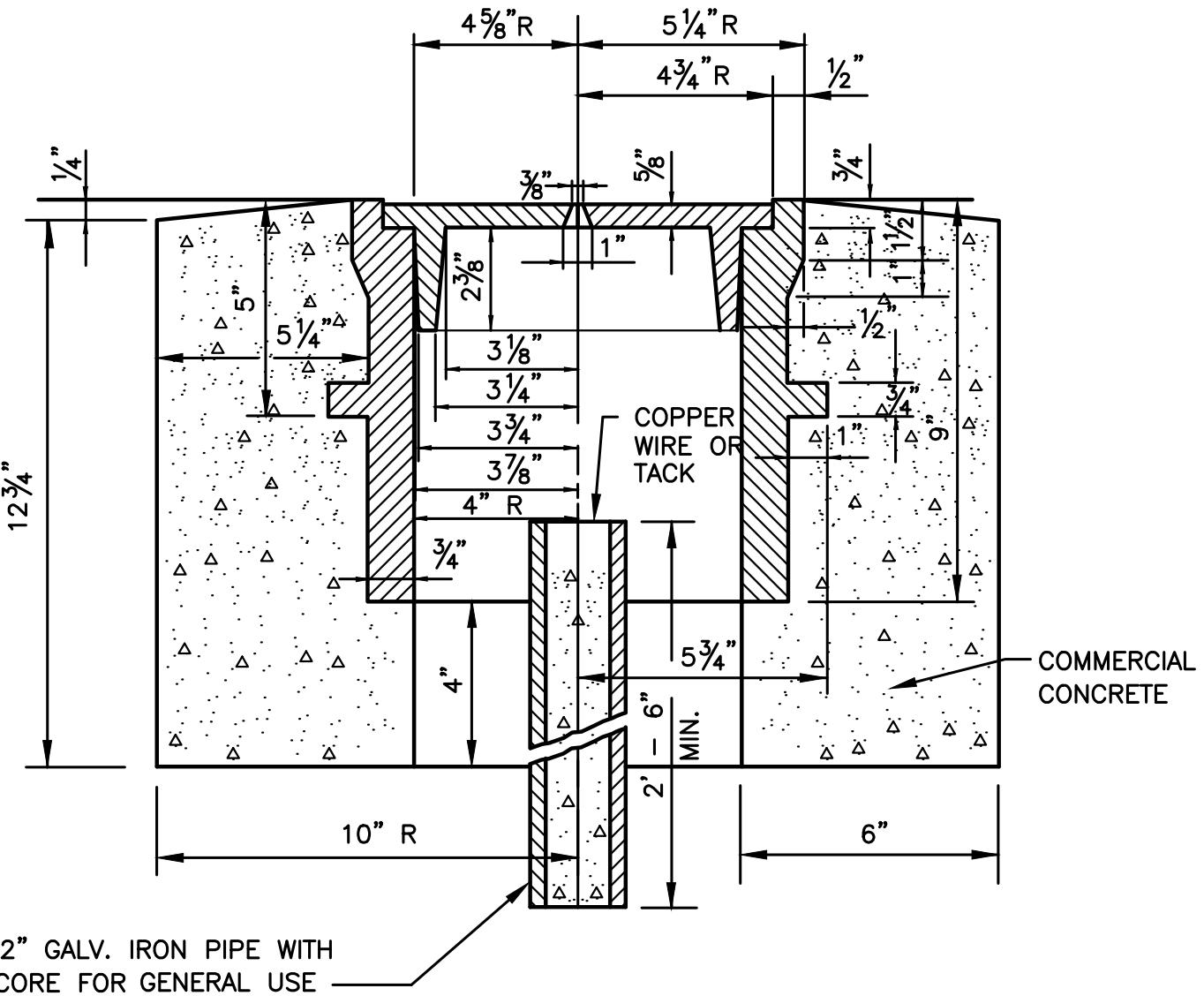
The seal is circular with a serrated outer edge. The outer ring contains the text "ROGER W. KUYKENDALL" at the top and "PROFESSIONAL" at the bottom. Between these, the word "ENGINEER" is on the left and "REGISTERED" is on the right. The inner circle features a profile of a bearded man, likely a historical figure, facing left. Above the profile, the words "STATE OF WASHINGTON" are written. Below the profile, the number "35188" is visible.

**CITY OF LAKE FOREST PARK**  
KING COUNTY  
WASHINGTON  
**L90 CULVERT REPLACEMENT**  
**NE 185TH STREET PLAN & PROFILE**

**SHEET: 26**  
**OF: 29**  
JOB NO.: 19569  
DWG:SEWER

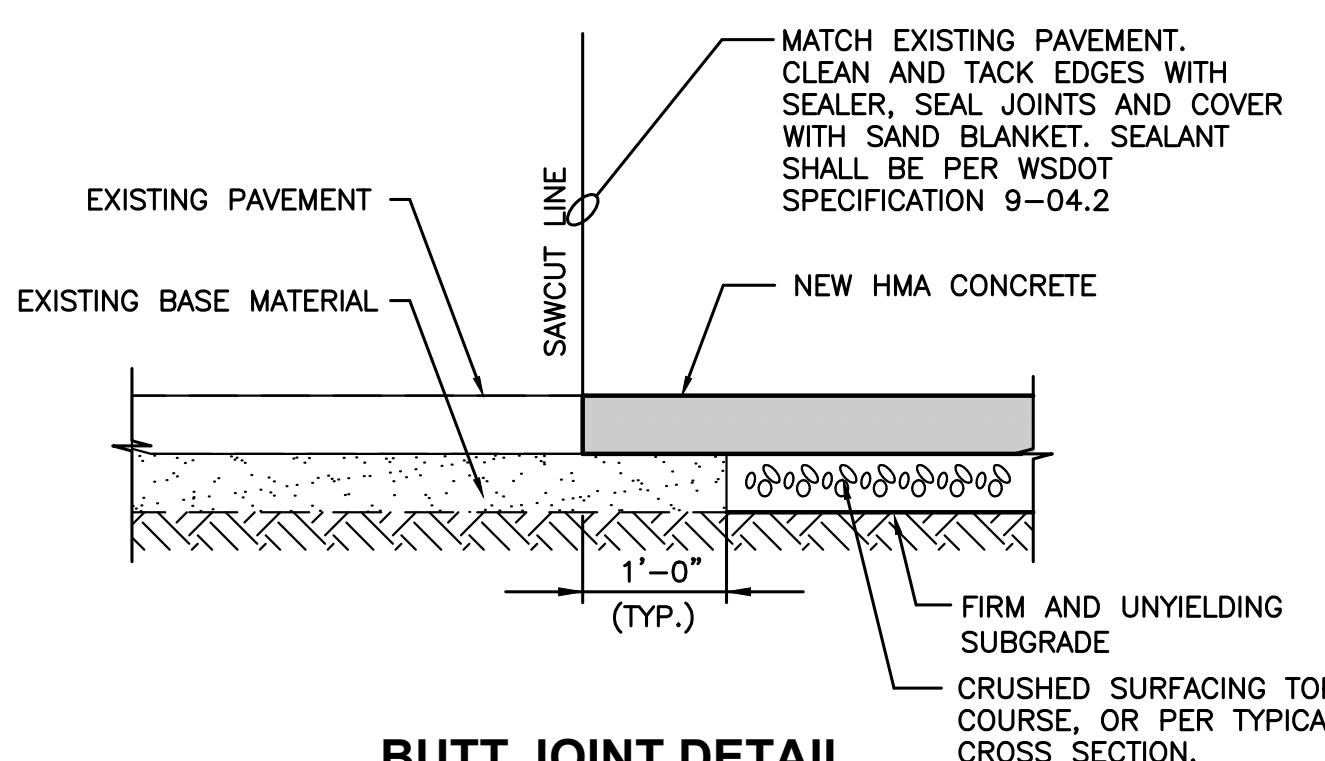


## MONUMENT COVER



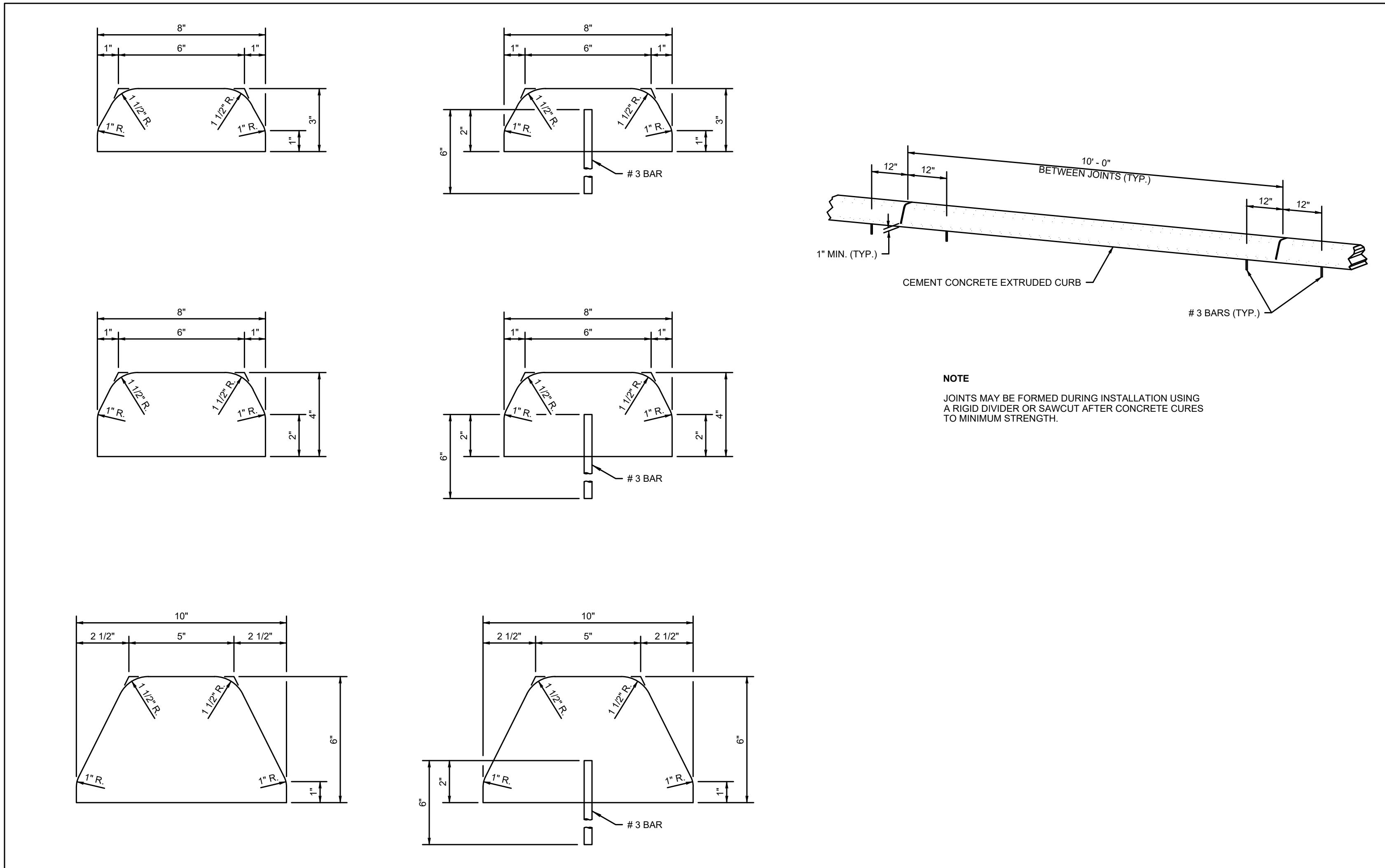
# PRECAST MONUMENT CASE AND COVER

NOT TO SCALE



## **BUTT JOINT DETAIL**

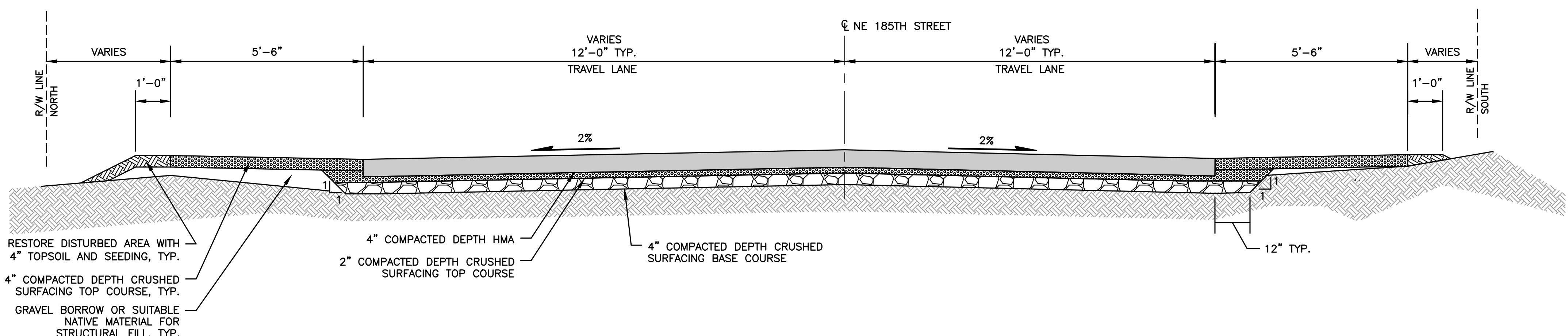
NOT TO SCALE



WSDOT STANDARD PLAN F-10.42-00

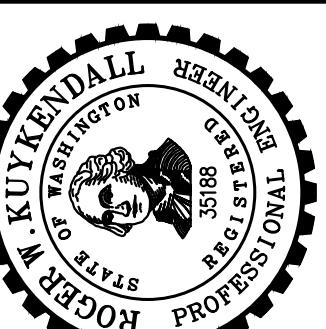
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SCALE: NOT TO SCALE



## **TYPICAL CROSS-SECTION NE 185TH STREET**

NOT TO SCALE



# CITY OF LAKE FOREST PARK

WASHINGTTON  
KING COUNTY

卷之三

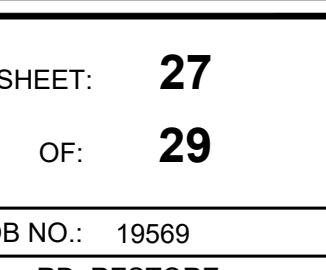
## COLVERI REPLACEMENT

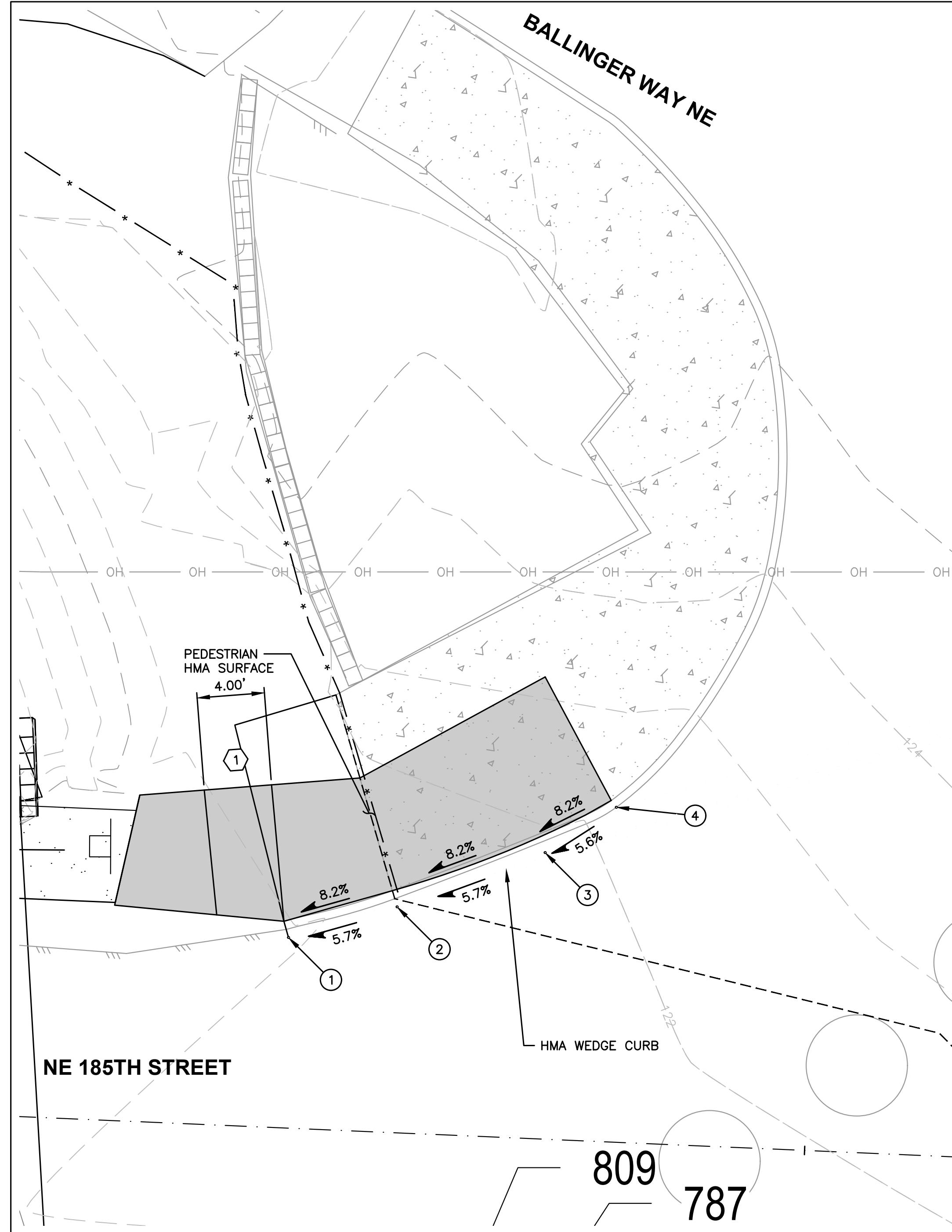
# CITY OF LAKE FOREST PARK

WASHINGTTON  
KING COUNTY

卷之三

## COLVERI REPLACEMENT



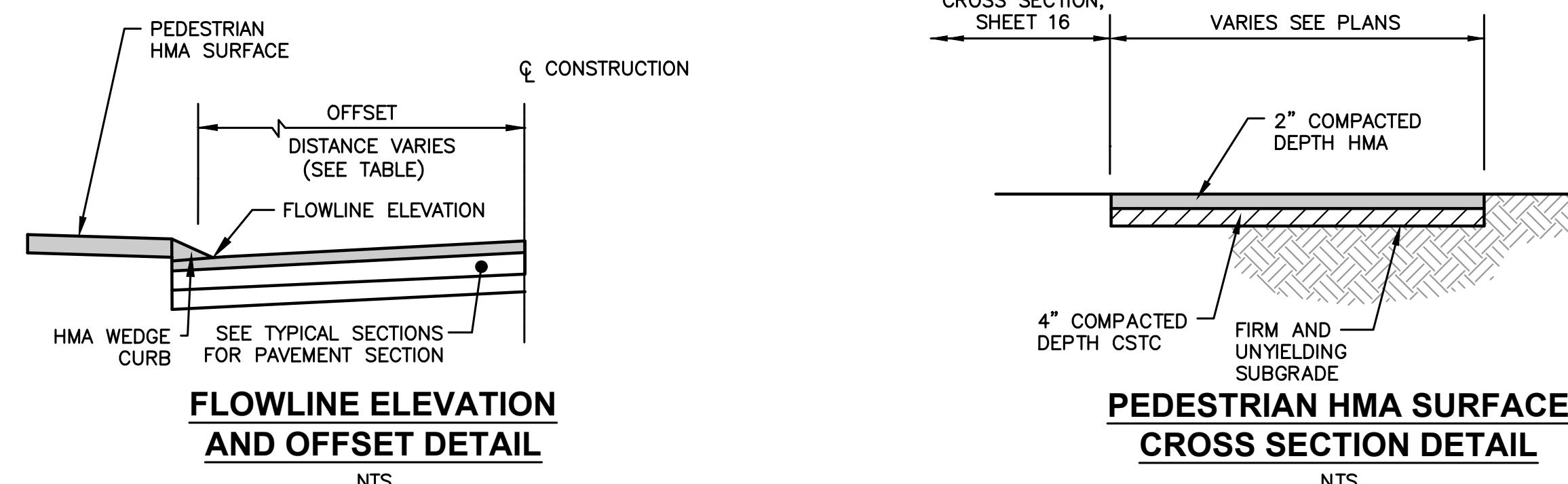


### NE 185TH STREET/ BALLINGER WAY NE SW CORNER CURB RETURN TABLE

NUMBER	TYPE	STATION	OFFSET	② FLOWLINE ELEVATION	CURB HEIGHT	DESCRIPTION	CENTER
①	--	52+18.89	11.29 LT	120.96 *	6" (MATCH EX.)		
②	PC	52+25.24	13.39 LT	121.34	CALC		
③	PT/PI	52+33.87	16.98 LT	121.87	CALC		
④	--	52+37.97	19.85 LT	122.15 *	0"		

### ADDITIONAL CURB RAMP NOTES

1. LANDING, 4'X4' MIN. OR AS NOTED. CROSS SLOPE SHALL NOT EXCEED 1.5%.
2. ELEVATIONS WITH " \* " CONTRACTOR SHALL MATCH EXISTING ELEVATIONS AT EXISTING CURB/SIDEWALK TIE-INS. (APPROXIMATE ELEVATIONS LISTED).

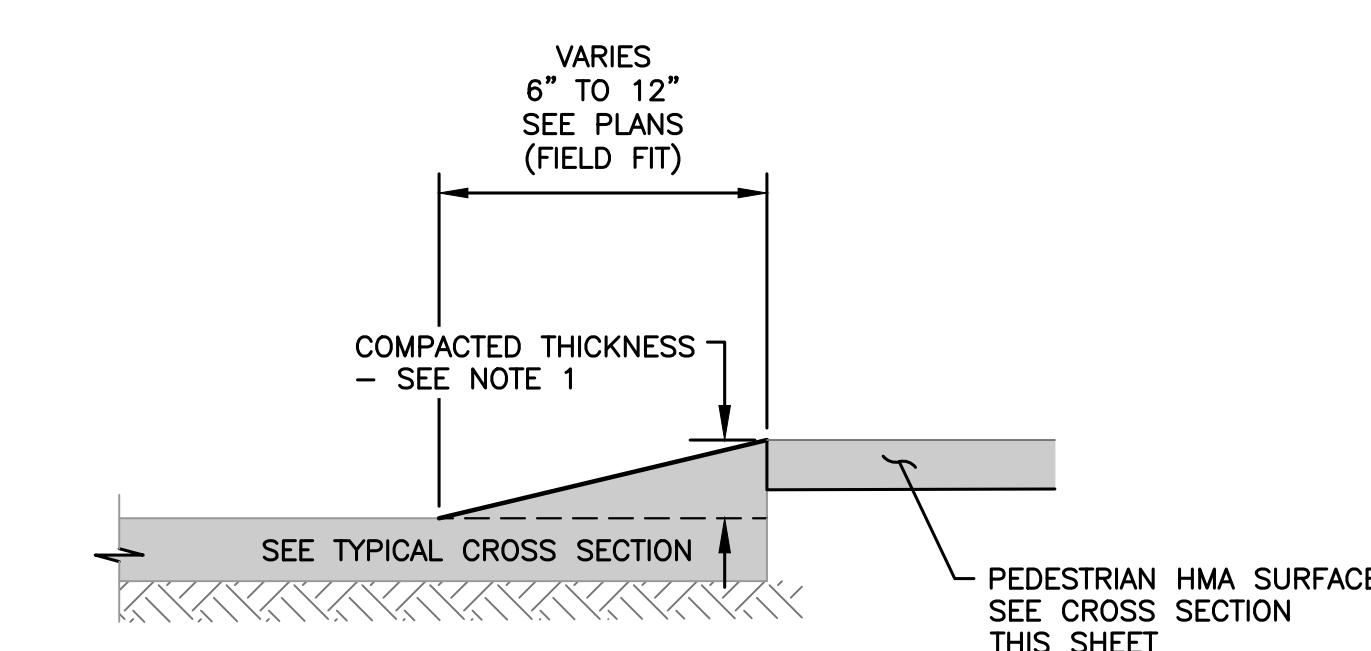


**FLOWLINE ELEVATION AND OFFSET DETAIL**

NTS

**PEDESTRIAN HMA SURFACE CROSS SECTION DETAIL**

NTS



**HMA WEDGE CURB DETAIL**

NTS

0 1" 2"  
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

**28**  
**29**

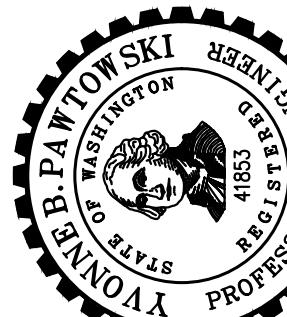
JOB NO.: 19569  
DWG.CURB RETURN

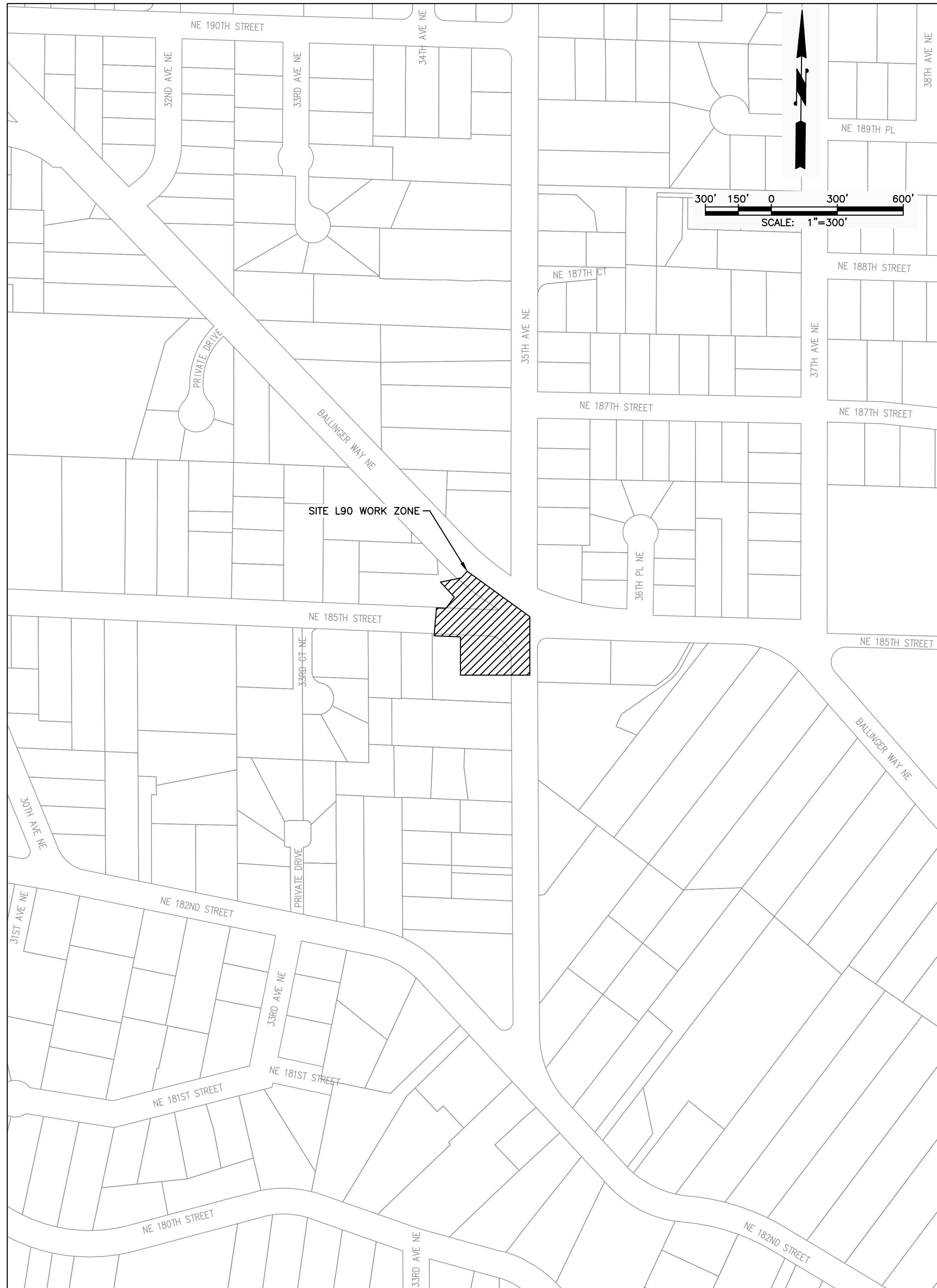
**CITY OF LAKE FOREST PARK**  
WASHINGTON  
KING COUNTY  
L90 CULVERT REPLACEMENT  
CURB RETURN

**Gray & Osborne, Inc.**  
CONSULTING ENGINEERS  
3710 168TH STREET NE, BLDG. B, SUITE 210  
ARLINGTON, WA 98223 • (360) 454-5490

DATE: OCT 2025  
SCALE: NOTED  
DRAWN: S.E.M.  
CHECKED: R.W.K.  
APPROVED: R.W.K.

**60% PLANSET**





## GENERAL TRAFFIC CONTROL NOTES:

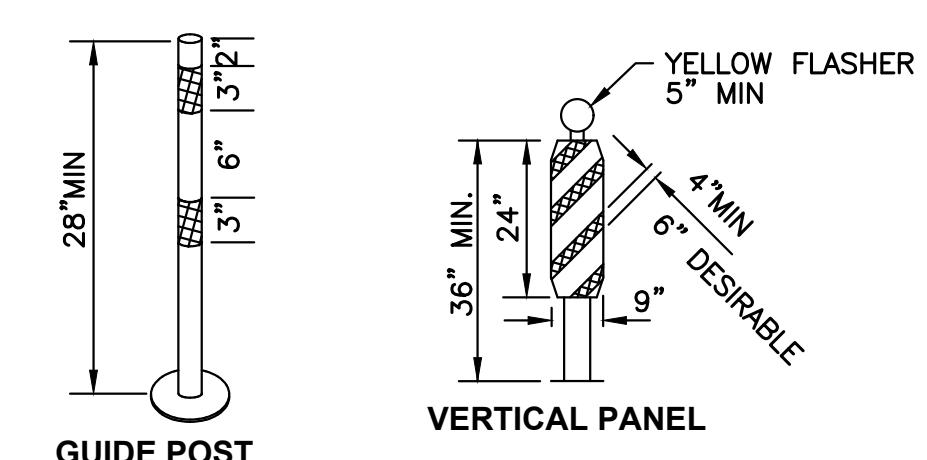
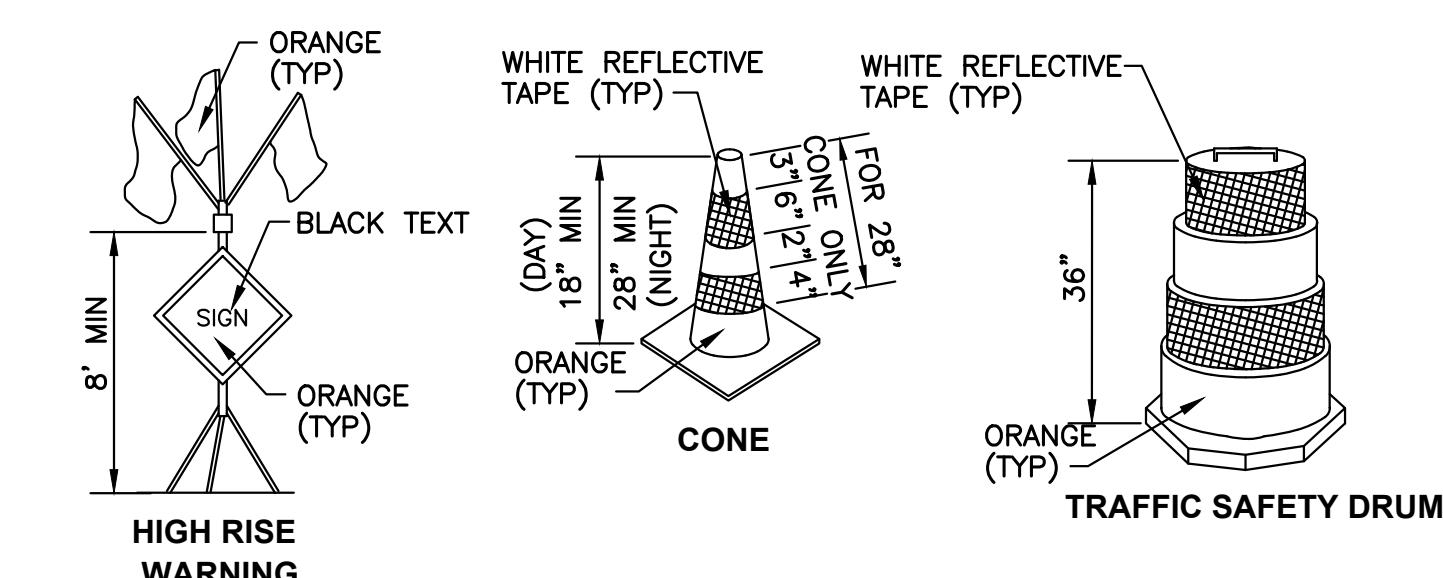
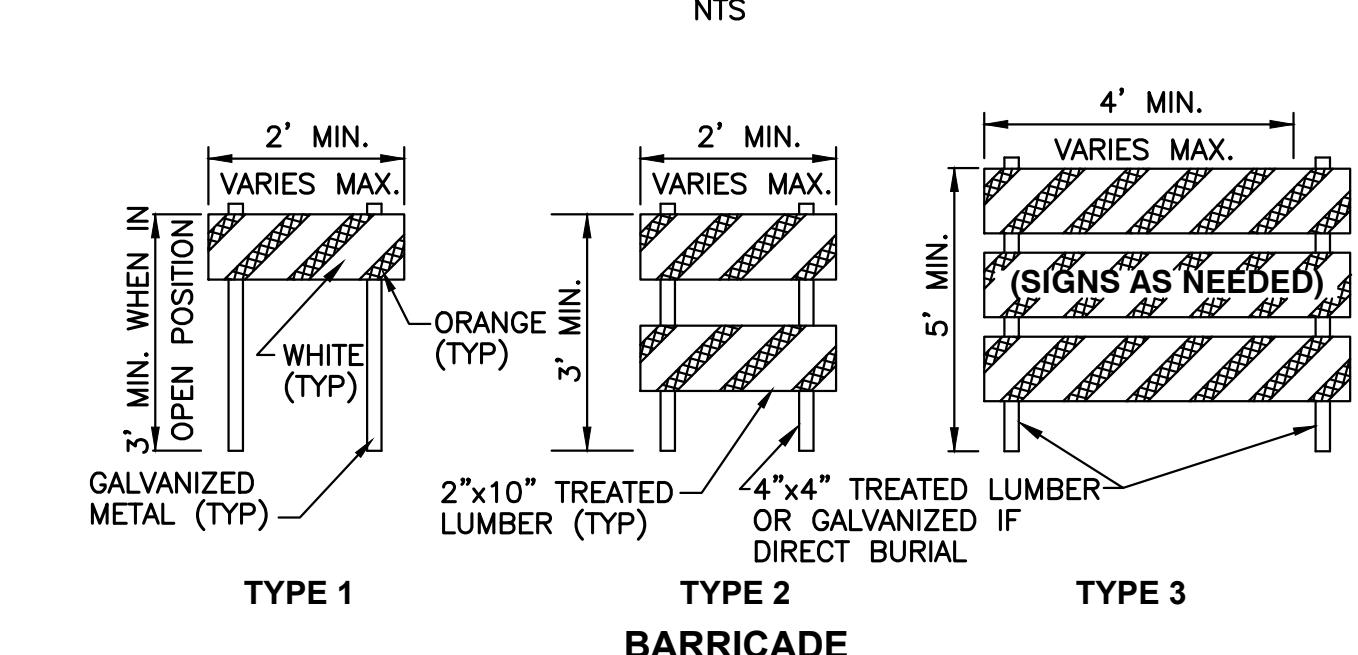
1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT) O.C.
2. ALL SIGNS ARE BLACK (NON-REFL.) ON ORANGE (REFL.), EXCEPT AS NOTED.
3. EXTEND DEVICES TAPER ACROSS SHOULDER WHERE SHOWN. NO ENCROACHMENT IN TRAVELED LANE SHALL BE PERMITTED. IF ENCROACHMENT IS NECESSARY, THE LANE SHALL BE CLOSED.
4. MOTORCYCLE USE EXTREME CAUTION SIGNS SHALL BE INSTALLED WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
  - GROOVED PAVEMENT
  - ABRUPT LANE EDGE
  - STEEL PLATES
  - LOOSE GRAVEL OR EARTH
 SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH MOTORCYCLES USE EXTREME CAUTION SIGNS
5. ALL SIGNS TO BE IN PLACE FOR 3 DAYS OR MORE SHALL BE POST MOUNTED
6. ALL BUSINESS ACCESSES TO ROAD CLOSURE SHALL BE BARRICADED W/ TYPE 3 BARRICADES AND TRAFFIC DRUMS.
7. DETOUR ROUTES FOR EACH PROJECT TO BE DEVELOPED AT 60% DESIGN.
8. CONTRACTOR SHALL NOT CLOSE ROAD UNTIL PRECAST CULVERT SECTIONS HAVE BEEN APPROVED FOR SHIPMENT.
9. MAXIMUM ROAD CLOSURE SHALL BE LESS THAN TWO WEEKS.

## DETOUR CALLOUTS

- ① R11-4, 60"x30" BLACK ON WHITE
- ② M4-9L, 30"x24" BLACK ON ORANGE
- ③ M4-9R, 30"x24" BLACK ON ORANGE
- ④ SPECIAL, 60"x48" BLACK ON WHITE
- ⑤ W20-2, 48"x48" BLACK ON ORANGE
- ⑥ M4-8a, 30x24 BLACK ON ORANGE
- ⑦ R3-1, RED ON BLACK ON WHITE
- ⑧ R3-2, RED ON BLACK ON WHITE
- ⑨ R11-3, 60"x30" BLACK ON WHITE
- ⑩ W20-1, 48"x48" BLACK ON ORANGE
- ⑪ TYPE 3 BARRICADE SEE TRAFFIC CONTROL DEVICES DETAIL

[PCMS] PORTABLE CHANGEABLE MESSAGE SIGN

## TRAFFIC CONTROL DEVICES



0 1" 2"  
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

CITY OF LAKE FOREST PARK  
WASHINGTON  
KING COUNTY  
L90 CULVERT REPLACEMENT  
TRAFFIC CONTROL PLAN

SHEET: 29  
OF: 29  
JOB NO.: 19569  
DWG: TRAFFIC CNTRL PLN

**Gray & Osborne, Inc.**  
CONSULTING ENGINEERS  
3710 158TH STREET NE, SUITE 210  
ARLINGTON, WA 98223 • (360) 454-5940

60% PLANSET

