



Addendum No. 02
Boeckman Creek Sanitary Sewer Interceptor
and Trail Design and Construction Support
City of Wilsonville Project #2107, 9150

Issue Date: April 29, 2022
To: Plan Holders (Quest CDN# 8183576)
From: Matt Palmer, P.E. – Civil Engineer
RE: Clarifications and revisions to the request for proposal

The following Addenda to the Request for Proposal (RFP) shall be considered merged with the original RFP as if they were whole. Proposer shall acknowledge receipt of this Addendum as stated in the RFP.

Request for Proposal due date and time: May 11, 2022, 2:00 PM. NO CHANGE

CLARIFICATIONS

ITEM #1: A design element of the Boeckman Creek Sanitary Sewer Interceptor project that was not explicitly stated within the RFP was creek crossings of the interceptor line. Attachment B-4 (Boeckman Creek Trunk Sewer, As-Built # 1979 07 001) of the RFP shows the following three existing creek crossing locations:

<u>As-Built Sheet</u>	<u>RFP Page No.</u>	<u>Stationing</u>
Sheet 2A	Page 69	STA 13+78
Sheet 3A	Page 68	STA 19+64
Sheet 3A	Page 68	STA 22+65

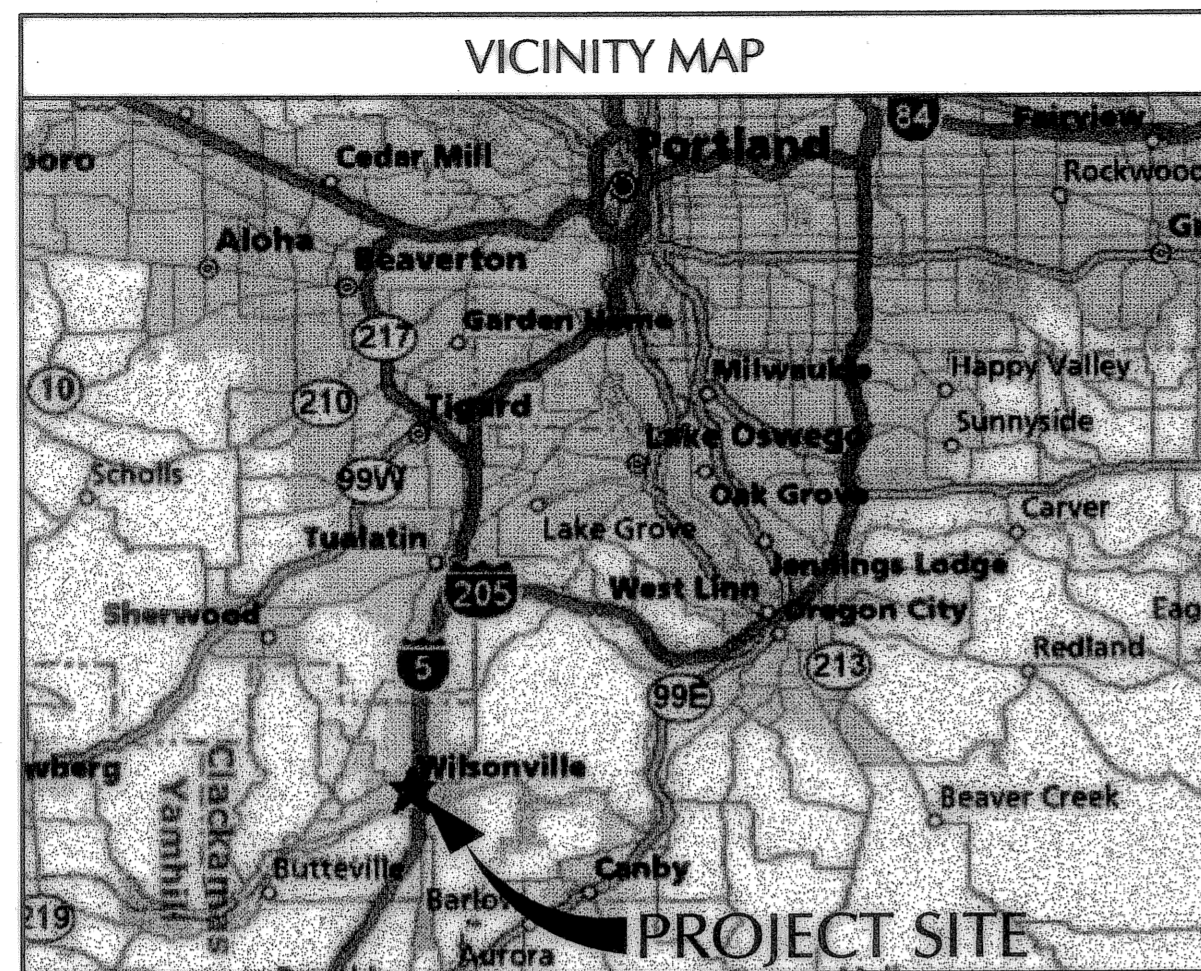
CHANGES, ADDITIONS, AND DELETIONS

ITEM #2: The following addition has been made to the RFP:

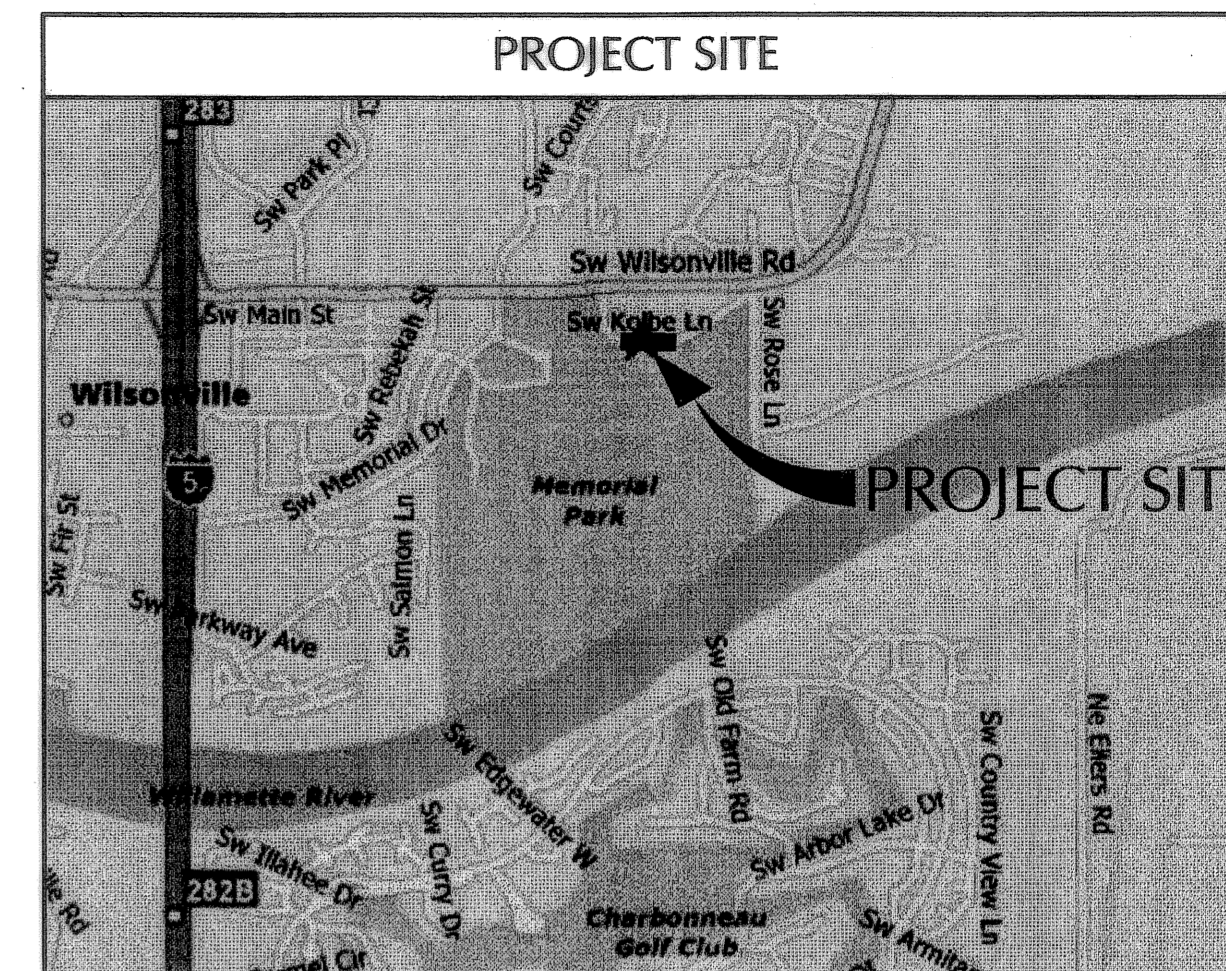
Attachment B-5 (attached). Boeckman Creek Fish Passage and Stream Restoration Project (As-Built # 2007 04 002).

Attachment B5

Boeckman Creek Fish Passage and
Stream Restoration Project
(As-Built # 2007 04 002)



BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT UPPER SITE (KOLBE LANE)



PROJECT CONTACTS	
CONTACT	ADDRESS
CITY CONTACT: JOHN MICHAEL (503) 570-1540 michael@ci.wilsonville.or.us	CITY OF WILSONVILLE 29799 SW TOWN CENTER LOOP E WILSONVILLE, OR 97070
PROJECT MANAGER: CURT VANDERZANDEN (503) 227-3251 curt.vanderzanden@kpfcivilpdx.com	KPFF CONSULTING ENGINEERS 111 SW 5TH AVENUE, SUITE 2500 PORTLAND, OR 97204-3628
CIVIL ENGINEER CONTACT: LAURA VANDERVORT (503) 227-3251 laura.vandervort@kpfcivilpdx.com	KPFF CONSULTING ENGINEERS 111 SW 5TH AVENUE, SUITE 2500 PORTLAND, OR 97204-3628
STRUCTURAL ENGINEER CONTACT: STEPHEN WHITTINGTON (503) 227-3251 stephen.whittington@kpf.com	KPFF CONSULTING ENGINEERS 111 SW 5TH AVENUE, SUITE 2500 PORTLAND, OR 97204-3628
HABITAT RESTORATION: JOHN VAN STAVEREN (503) 570-0800 jvs@pacifichabitat.com	PACIFIC HABITAT SERVICES, INC. 9450 SW COMMERCE CIRCLE, SUITE 180 WILSONVILLE, OR 97070
PLANTING: DENNIS O'CONNOR (503) 617-6553 habitatconcepts@verizon.net	HABITAT CONCEPTS PO BOX 91231 PORTLAND, OR 97291
GEOTECHNICAL ENGINEER: TIMOTHY PFEIFFER (503) 643-1541 tjp@foundationengr.com	FOUNDATION ENGINEERING, INC. 8380 SW NIMBUS AVE. BEAVERTON, OR 97008

UTILITY COMPANY CONTACTS	
CONTACT	ADDRESS
PHONE: LAURA FLAHERTY (503) 644-9848 laura.a.flaherty@verizon.com	VERIZON P.O. BOX 1100 BEAVERTON, OR 97005
POWER: RAY LAMBERT (503) 570-4413 raymond.lambert@pgn.com	PORTLAND GENERAL ELECTRIC 9480 SW BOECKMAN ROAD WILSONVILLE, OR 97070
NATURAL GAS: RYAN TRUIR (503) 226-4211 x3047 ryan.truir@nwnatural.com	NORTHWEST NATURAL GAS 19200 SW TETON AVENUE TUALATIN, OR 97062

DRAWING INDEX	
SHEET NUMBER	SHEET NAME
C1	COVER SHEET
C2	CONSTRUCTION STAGING PLAN & SECTIONS
C3	STREET & STORM DRAINAGE PLAN
C4	STREET & STORM DRAINAGE PROFILES
C5	SANITARY SEWER & WATER PLAN
C5.1	SANITARY SEWER EXTENSION PLAN & PROFILE
C6	SANITARY SEWER & WATER PROFILES
C7	WORK ISOLATION PLAN
C8	DETAILS
C9	STANDARD DETAILS
C10	STANDARD DETAILS
C11	STANDARD DETAILS
C12	STANDARD DETAILS
S1	BRIDGE PLAN & ELEVATION
S2	FOUNDATION DATA
S3	FOUNDATION PLAN
S4	BENT 1 & 2 PLAN & ELEVATION
S5	BENT 1 & 2 DETAILS
S6	WINGWALL DETAILS
LS1	SITE PLAN AND EXISTING FINAL SITES
LS2	PLANTING PLAN, DETAILS AND PLANT LIST
LS3	EROSION CONTROL PLAN AND DETAILS
LS4	BIO-ENGINEERING
LS5	BIO-ENGINEERING DETAILS

RECORD DRAWING

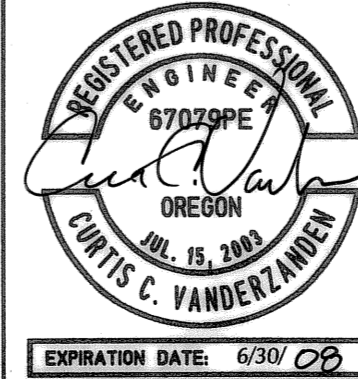
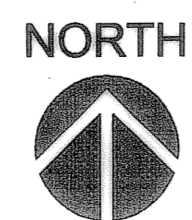
THIS DRAWING HAS BEEN UPDATED TO REFLECT CHANGES MADE DURING CONSTRUCTION BASED UPON CONSTRUCTION INSPECTOR'S NOTES AND AS-BUILT SURVEY MEASUREMENTS PERFORMED DURING CONSTRUCTION.

- GENERAL NOTES**
- SURVEY PROVIDED BY OBEC CONSULTING ENGINEERS, INC. AND KPFF CONSULTING ENGINEERS COMPLETED MARCH, 2007. ELEVATIONS SHOWN HEREON ARE BASED UPON CITY OF WILSONVILLE BENCHMARK NUMBER 6011, BEING A FOUND RAILROAD SPIKE AT THE INTERSECTION OF WILSONVILLE ROAD AND ROSE LANE. NAVD88 DATUM ELEVATION IS 146.452 FEET.
 - THIS SITE USED A LOCAL DATUM PLANE (LDP) COORDINATE SYSTEM, WHICH IS RELATIVE TO THE OREGON STATE PLANE COORDINATE SYSTEM-NORTH ZONE, NAD 83(91) DATUM WITH RESPECT TO LOCAL LATITUDE AND GROUND ELEVATION. TO CONVERT THE LDP COORDINATES TO THE OREGON STATE PLANE COORDINATE SYSTEM-NORTH ZONE, NAD 83(91) DATUM, MULTIPLY THE COORDINATE VALUES BY A COMBINED FACTOR OF 0.99989263.
 - CONTRACTOR TO REFERENCE PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS FOR SITE MATERIALS AND CONSTRUCTION NOTES. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THESE PLANS AND THE APPLICABLE REQUIREMENTS OF THE 2002 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 - CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
 - CONTRACTOR TO REFERENCE SOILS MEMORANDUM BY FEI DATED MARCH 14, 2007, AND FOUNDATION MEMORANDUM BY FEI, DATED MAY 3, 2007, FOR THE SITE SOILS CONDITIONS.
 - ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987.) EXCAVATORS MUST NOTIFY ALL PERTINENT COMPANIES OR AGENCIES WITH UNDERGROUND UTILITIES IN THE PROJECT AREA AT LEAST 48 BUSINESS-DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS PRIOR TO COMMENCING AN EXCAVATION, SO UTILITIES MAY BE ACCURATELY LOCATED.
 - THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL VERIFY ELEVATIONS, PIPE SIZE, AND MATERIAL TYPES OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH CONSTRUCTION AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF KPFF CONSULTING ENGINEERS, 72 HOURS PRIOR TO START OF CONSTRUCTION.

PROPOSED		EXISTING	
---	APPX. LIMITS OF ENHANCEMENT	---	ROW
---	EDGE OF PAVEMENT	---	R
---	PROPERTY LINE(PL) OR RIGHT OF WAY(R/W)	---	SS
---	CENTER LINE (CL)	---	W
---	SANITARY SEWER	---	G
---	STORM DRAIN	---	U TV
---	WATER	---	100
---	NATURAL GAS	---	99
---	UNDERGROUND FRANCHISE UTILITIES	---	
---	MAJOR CONTOUR	---	
---	MINOR CONTOUR	---	
---	APPX. LIMITS OF EXCAVATION	---	
---	WATER QUALITY SWALE	---	
---	OVERHEAD ELECTRICITY	---	
---	TREE/SHRUB	---	
X	REMOVE TREE	---	
---	FENCE	---	
---	FIRE HYDRANT	---	
---	DITCH INLET	---	
---	BOLLARD	---	
---	VALVE (WATER)	---	
---	MANHOLE	---	
---	ABANDON EXISTING UTILITY LINE	---	

ABBREVIATIONS			
AC	ASPHALT CONCRETE	LF	LINEAL FEET
APPROX.	APPROXIMATE	MH	MANHOLE
BLDG.	BUILDING	N	NORTHING
CB	CATCH BASIN	N.I.C.	NOT INCLUDED IN CONTRACT
CONST.	CONSTRUCT	PC	POINT OF CURVATURE
C.O.W.	CITY OF WILSONVILLE	POC	POINT ON CURVE
C.Y.	CUBIC YARDS	POT	POINT ON TANGENT
D.I.	DUCTILE IRON	PP	POWER POLE
DWG.	DRAWING	PT	PRESSURE
E.A.	EASTING	PUD	POINT OF TANGENCY
EG	EXISTING GRADE	PUM/T	PUBLIC UTILITY DISTRICT
ELECT.	ELECTRICAL	R	RIGHT
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
EXIST./EX.	EXISTING	SHT.	SHEET
FG	FINISH GRADE	SPECS	SPECIFICATIONS
FH	FIRE HYDRANT	SS	SANITARY SEWER
FT	FEET / FOOT	STD.	STANDARD
G	GUTTER	TP	TOP OF PAVEMENT
GB	GRADE BREAK	TYP.	TYPICAL
HMAC	HOTMIX ASPHALT CONCRETE	W	WATER LINE
IE	INVERT ELEVATION	WV	WATER VALVE

REVISION	DATE	DESCRIPTION	BY
AS-CONSTRUCTED DRAWINGS	04/11/2008		



JOB No.:	307020.00
DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/22/08 4:56pm
PLOTTED BY:	Jcudia
DWG NAME:	7020CV.DWG
TAB NAME:	C1

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

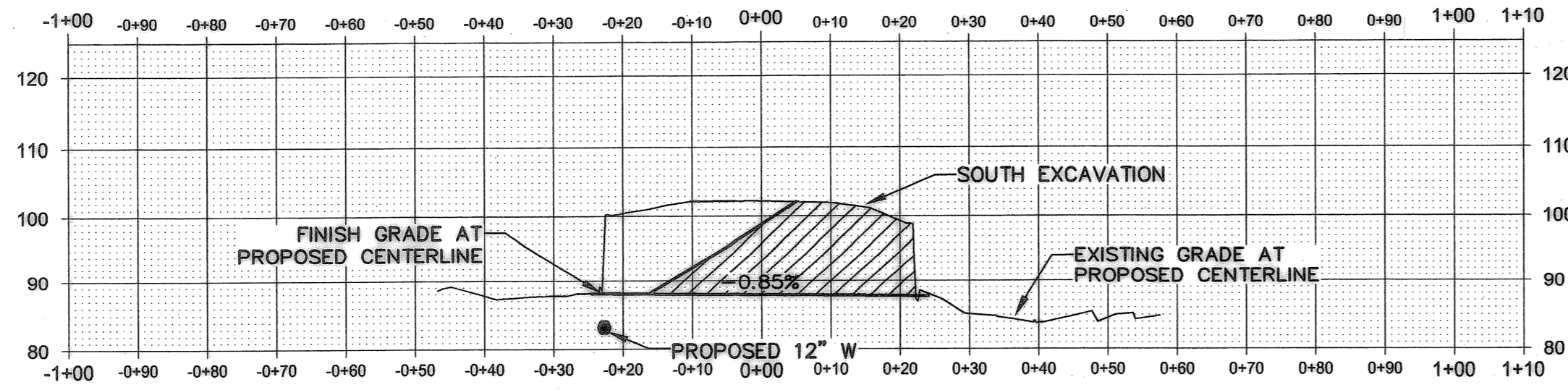
BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

COVER SHEET

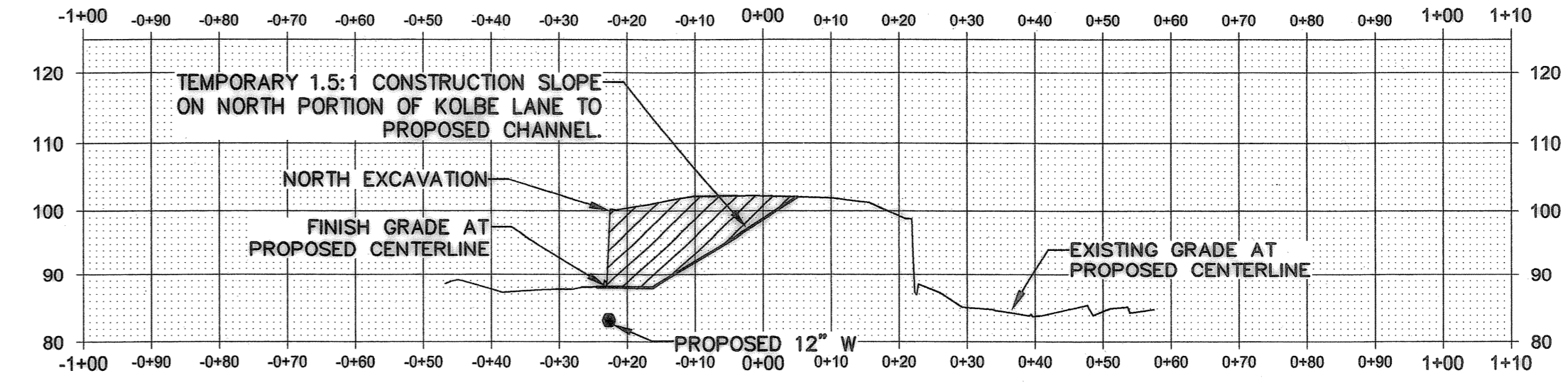
SHEET NO. **C1**

SHEET 1 OF 23

RECORD NO. 307020-01

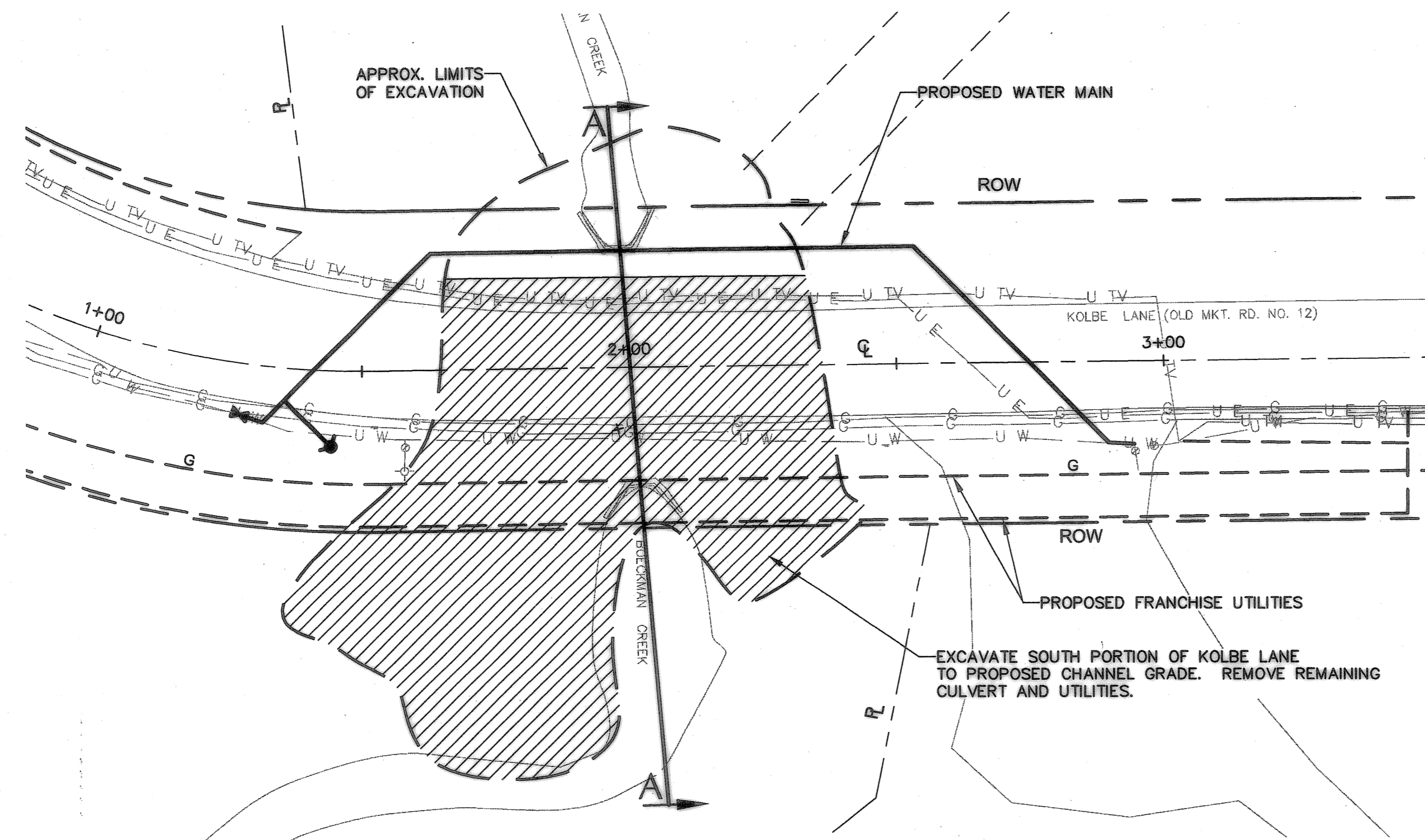


2 STAGE TWO - SECTION A-A
1' : 20'

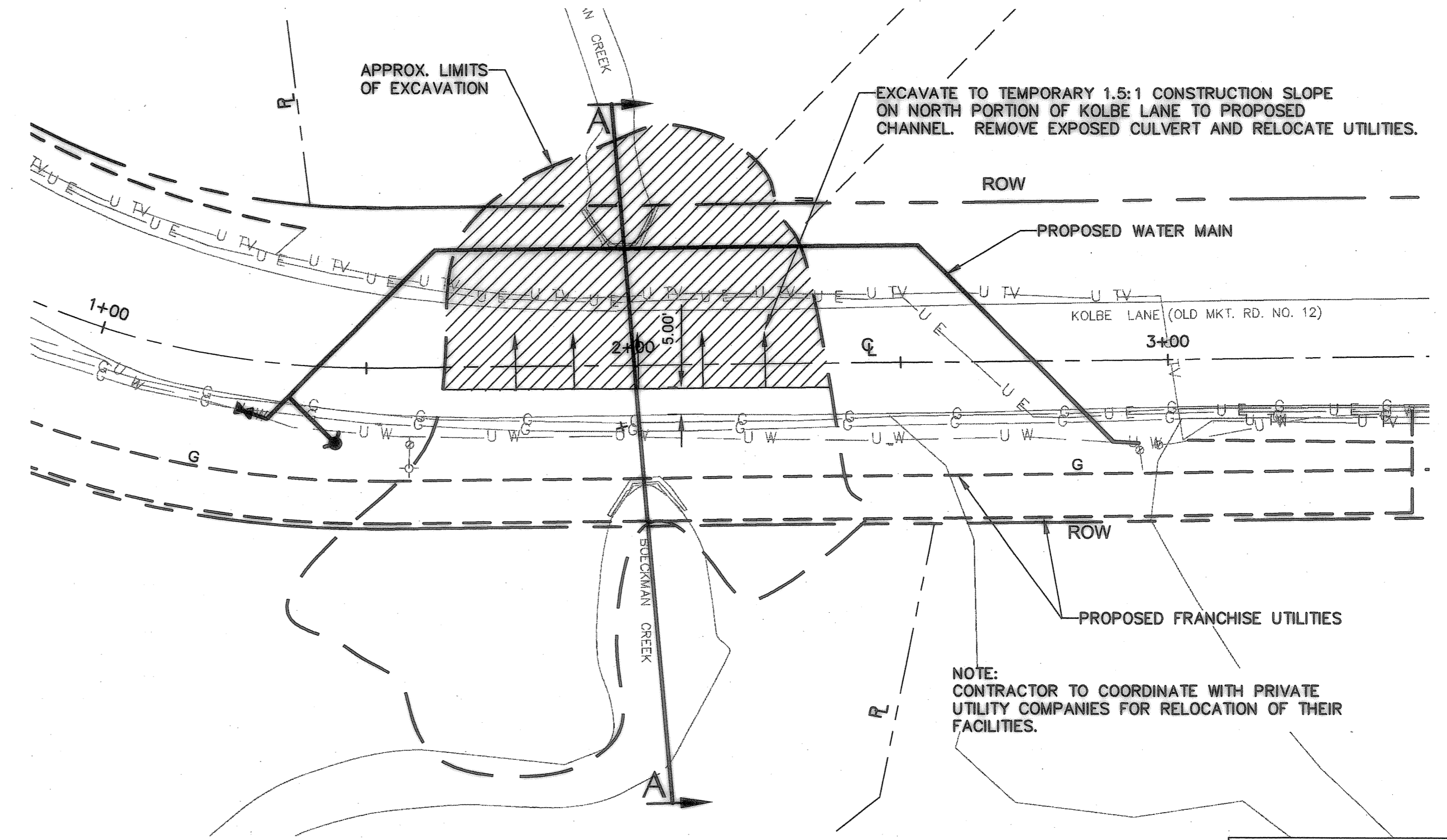


1 STAGE ONE - SECTION A-A
1' : 20'

Record Drawings, Maps, and Plans Not Guaranteed
Record drawings, maps and plans are provided to the City by the Owner/Developer upon completion of development and/or improvement projects within the City. The City does not guarantee the accuracy of measurements, elevations, locations, or other information on such maps and plans. All information should be independently verified by a registered engineer via survey, photoling, or other appropriate means prior to conducting any improvement or development.



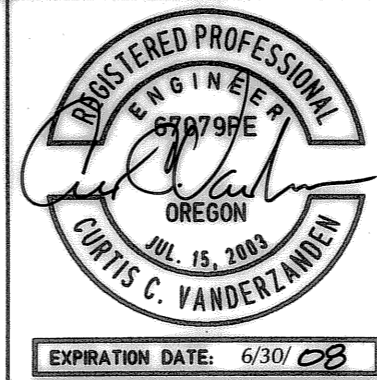
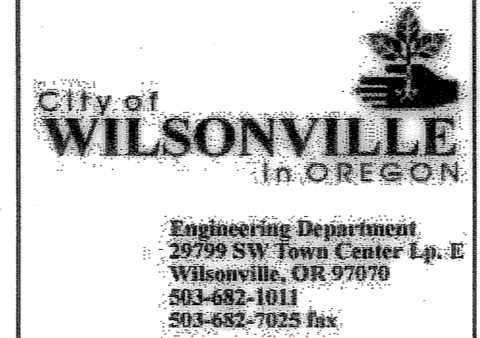
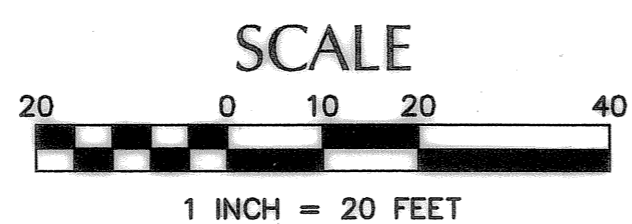
2 STAGE TWO - PLAN VIEW
1' : 20'



1 STAGE ONE - PLAN VIEW
1' : 20'

RECORD DRAWING
THIS DRAWING HAS BEEN UPDATED TO REFLECT CHANGES MADE DURING CONSTRUCTION BASED UPON CONSTRUCTION INSPECTOR'S NOTES AND AS-BUILT SURVEY MEASUREMENTS PERFORMED DURING CONSTRUCTION.

REVISION	DATE	DESCRIPTION	BY
1	04/11/2008	AS-CONSTRUCTED DRAWINGS	



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DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
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PLOTTED BY:	jcadua
DWG NAME:	7020SSWT.DWG
TAB NAME:	C2

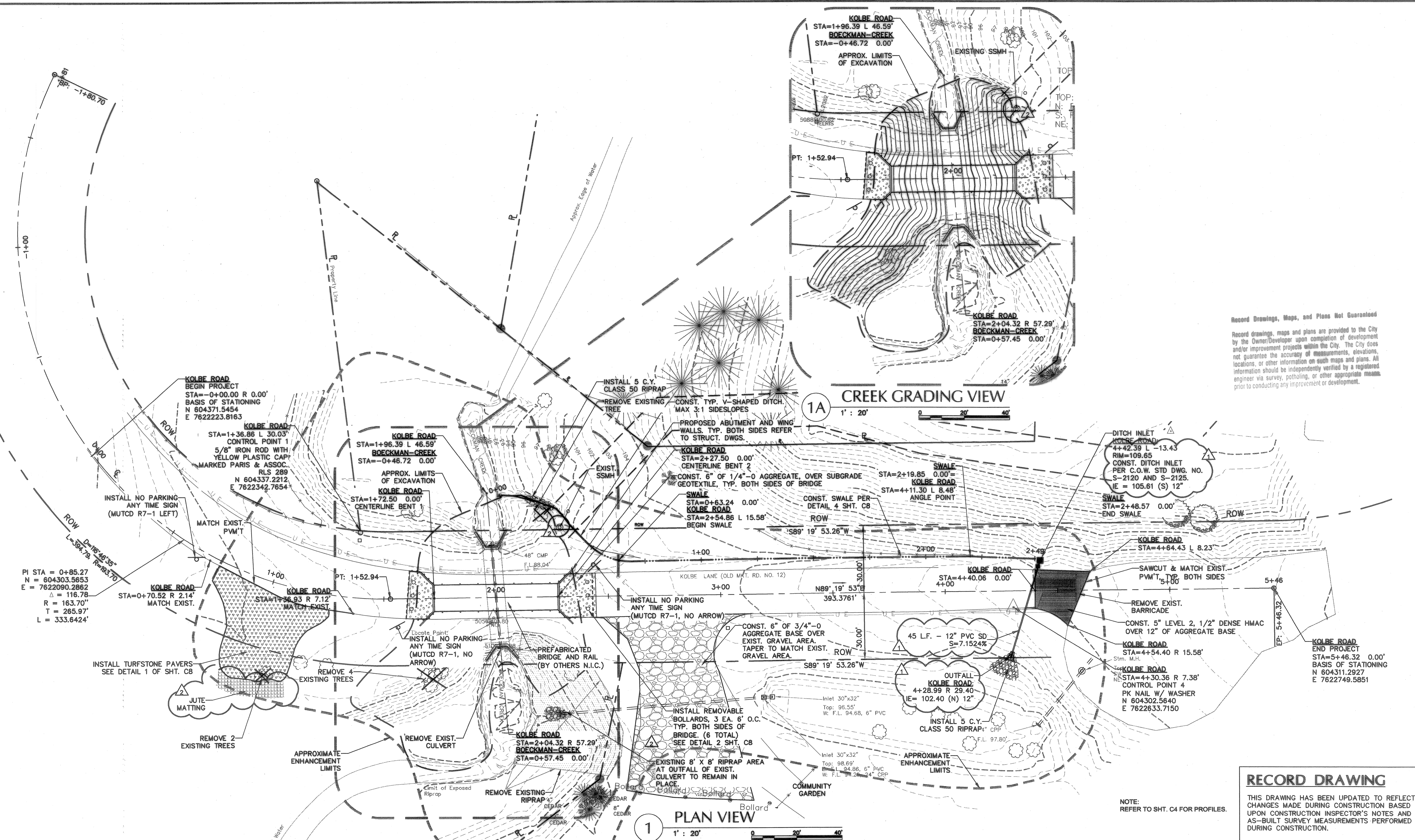
City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)
**CONSTRUCTION STAGING
PLAN and SECTIONS**

SHEET NO.	C2
SHEET	2 OF 23
RECORD NO.	307020-02

BOECKMAN CREEK
CULVERT REPLACEMENT
STREET & STORM DRAINAGE
PLAN

NW 24



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07 04 002

REVISION	DATE	DESCRIPTION	BY
2	04/21/2008	AS-CONSTRUCTED DRAWINGS	
1	04/11/2008	AS-CONSTRUCTED DRAWINGS	

NORTH

SCALE

1 INCH = 20 FEET

City of
WILSONVILLE
in OREGON

Engineering Department
30799 SW Town Center Loop E
Wilsonville, OR 97070
503-682-1011
503-682-7025 fax

kpff
Consulting Engineers
111 SW Fifth Avenue
Suite 2400
Portland, Oregon 97204
(503) 227-3251
STRUCT. FAX (503) 227-3860
CIVIL FAX (503) 274-4681

REGISTERED PROFESSIONAL
ENGINEER
COURTIS C. VANDERLINDEN
JUL 15, 2009
EXPIRATION DATE: 6/30/20

JOB No.:	307020.00
DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/23/08 9:07am
PLOTTED BY:	jcadua
DWG NAME:	7020STGD.DWG
TAB NAME:	C3

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

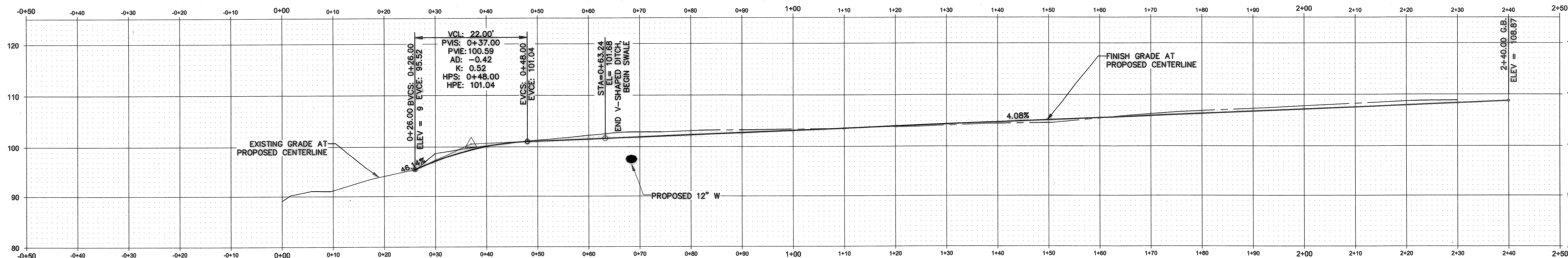
BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

STREET & STORM DRAINAGE PLAN

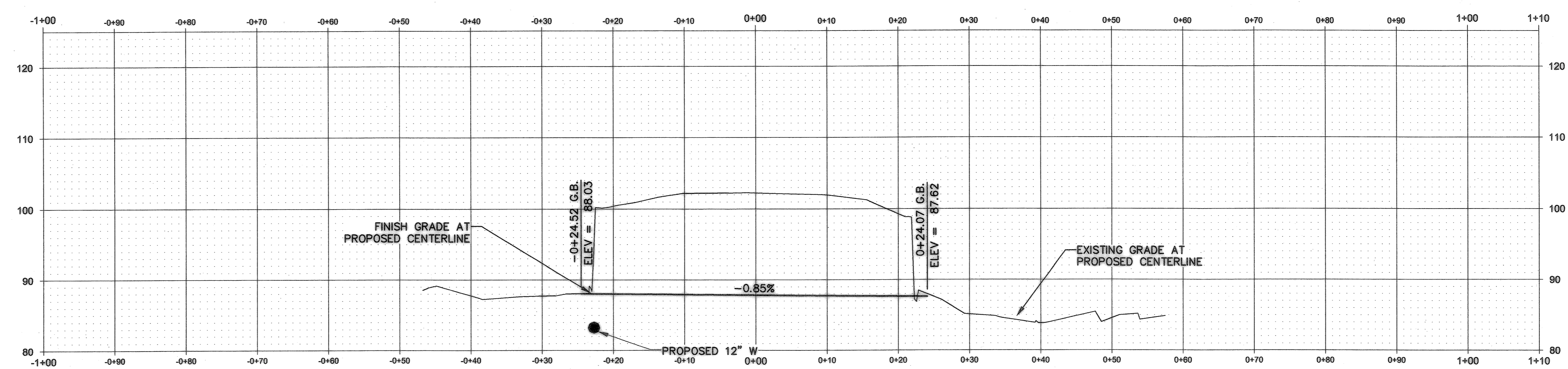
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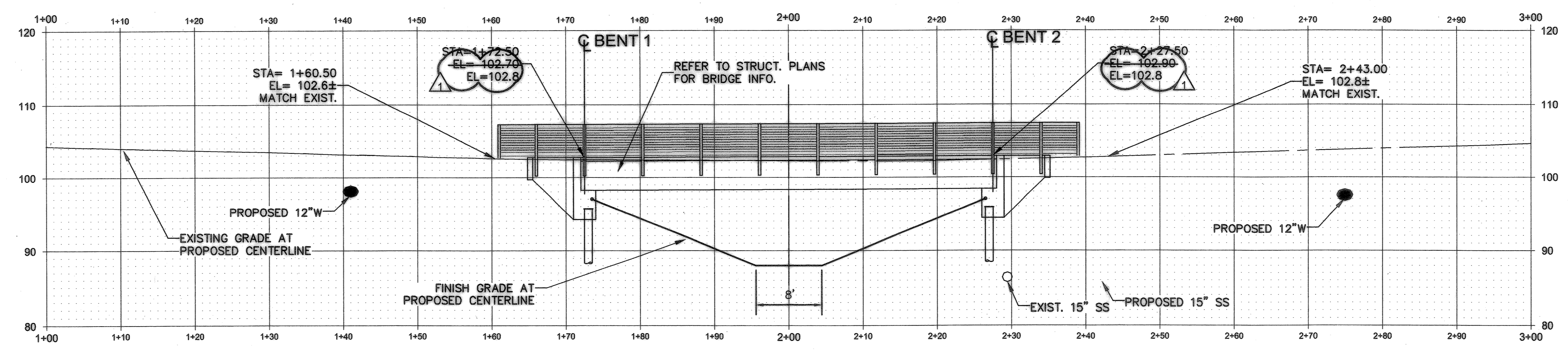
SHEET 3 OF 23
RECORD NO.
307020-03



1 SWALE PROFILE
 1' : 10'



2 BOECKMAN CREEK PROFILE
 1' : 10'



3 KOLBE ROAD PROFILE
 1' : 10'

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RECORD DRAWING

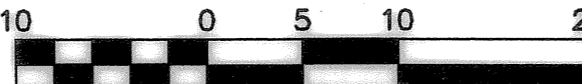
THIS DRAWING HAS BEEN UPDATED TO REFLECT CHANGES MADE DURING CONSTRUCTION BASED UPON CONSTRUCTION INSPECTOR'S NOTES AND AS-BUILT SURVEY MEASUREMENTS PERFORMED DURING CONSTRUCTION.

REVISION	DATE	DESCRIPTION	BY
1	04/11/2008	AS-CONSTRUCTED DRAWINGS	

NORTH



SCALE



1 INCH = 10 FEET

City of
WILSONVILLE
in OREGON

Engineering Department
29799 SW Town Center Loop E
Wilsonville, OR 97070
503-682-1011
503-682-7025 Fax

kpff
Consulting Engineers
111 SW Fifth Avenue
Suite 2400
Portland, Oregon 97204
(503) 227-3251
STRAIGHT FAX (503) 227-7260
CIVIL FAX (503) 274-4681

REGISTERED PROFESSIONAL
ENGINEER
67879PE
OREGON
COURTIS C. VANDERLINDEN
JUL 15, 2003
EXPIRATION DATE: 6/30/08

JOB No.:	307020.00
DESIGNED BY:	MAFLJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/23/08 9:08am
PLOTTED BY:	jcadua
DWG NAME:	7020STGD.DWG
TAB NAME:	C4

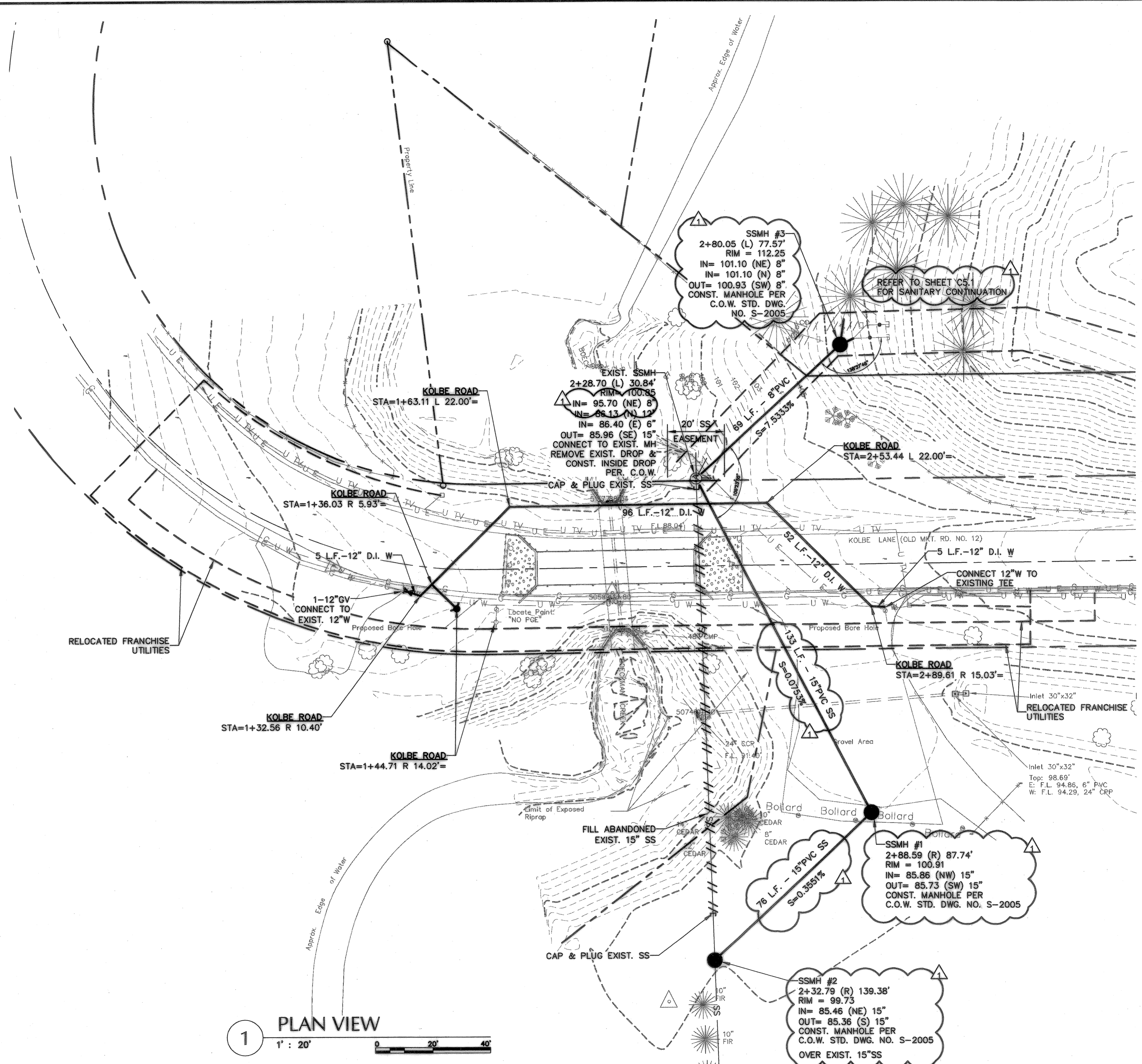
City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

STREET & STORM DRAINAGE PROFILES

SHEET NO.
C4

SHEET 4 OF 23
RECORD NO.
307020-04



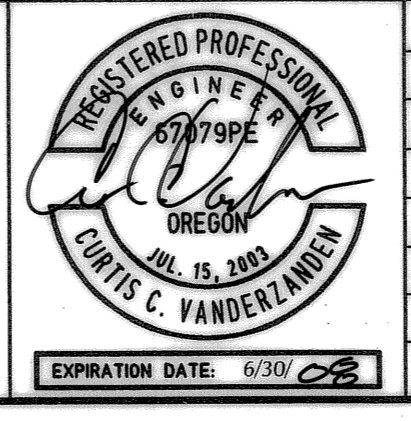
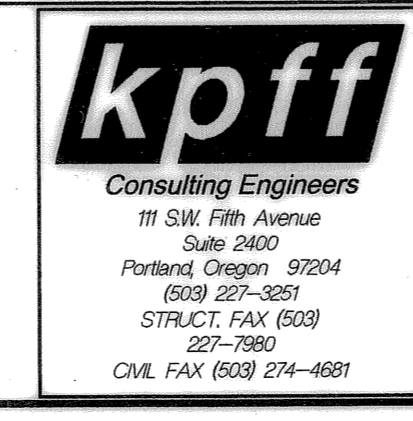
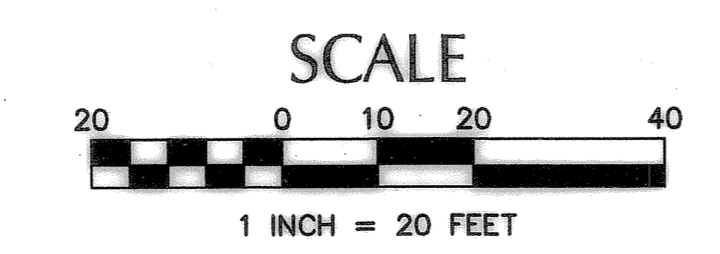
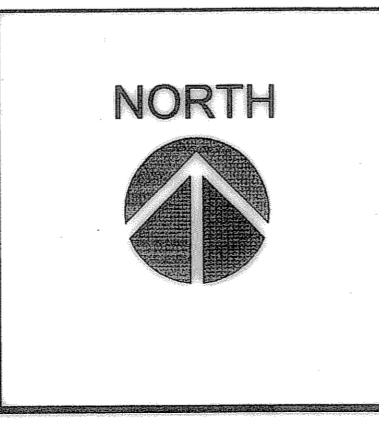
1 PLAN VIEW
1" = 20'

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REVISION	DATE	DESCRIPTION	BY



JOB No.:	307020.00
DESIGNED BY:	MAF/ILV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/23/08 9:10am
PLOTTED BY:	Jcaudua
DWG NAME:	7020SSWT.DWG
TAB NAME:	C5

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

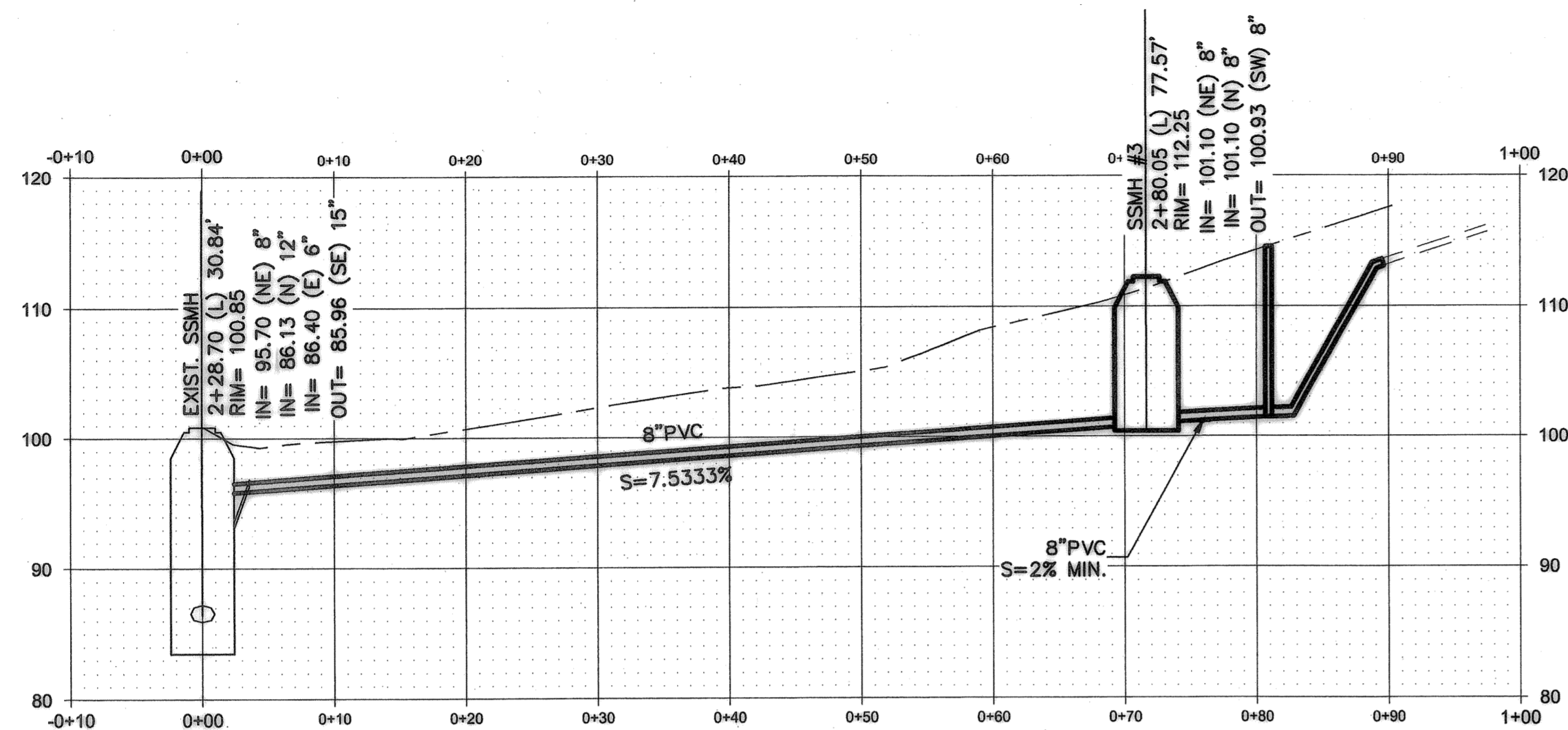
BOECKMAN CREEK FISH PASSAGE
 & STREAM RESTORATION PROJECT
 UPPER SITE (KOLBE LANE)

SANITARY SEWER & WATER PLAN

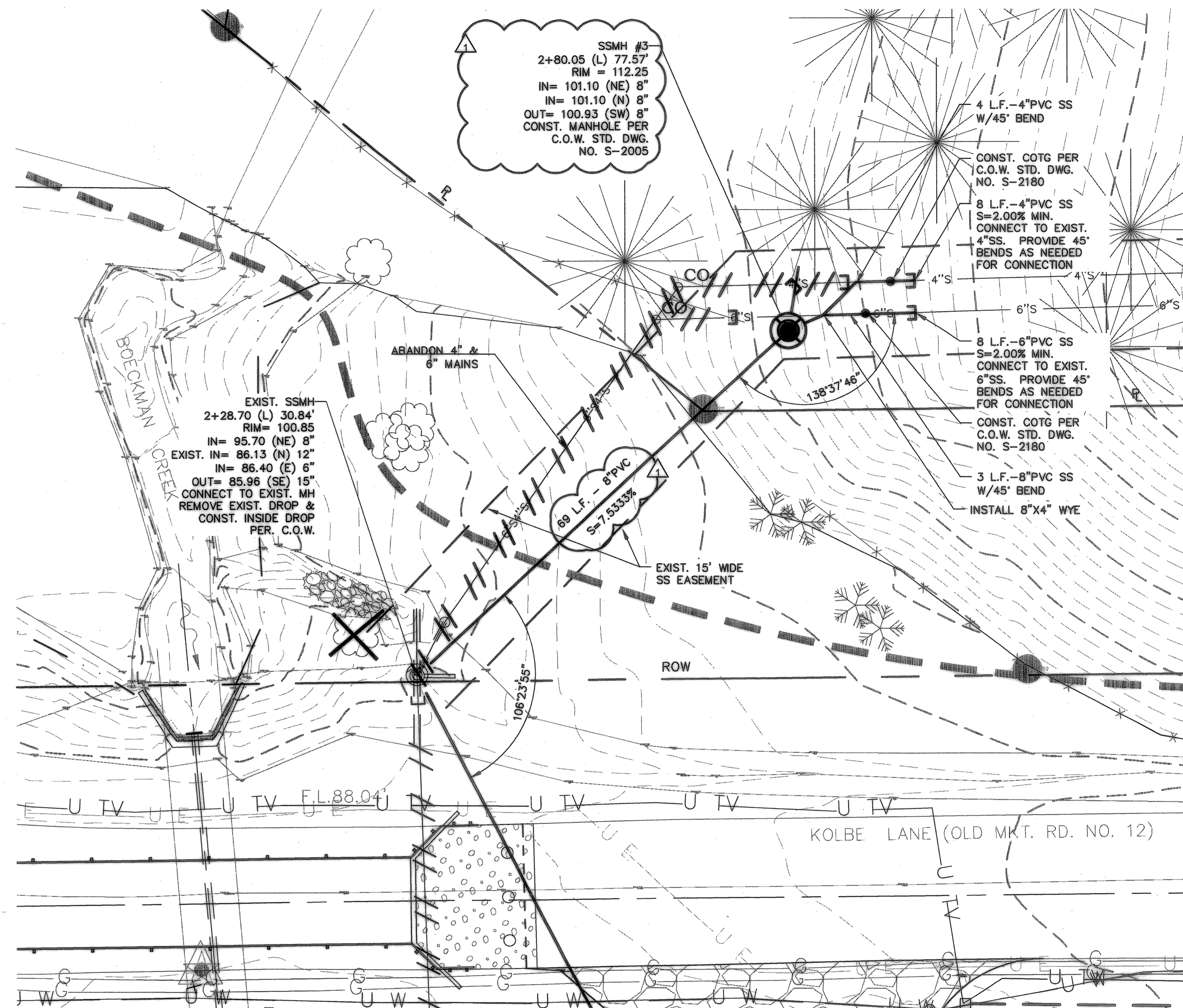
SHEET NO.	C5
SHEET	5 OF 23
RECORD NO.	307020-05

BOECKMAN CREEK
 CULVERT REPLACEMENT
 SANITARY SEWER EXT
 PLAN & PROFILE

NW 24



ALIN-(PRSS)-
STATION -0+10 to STATION 1+00
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'



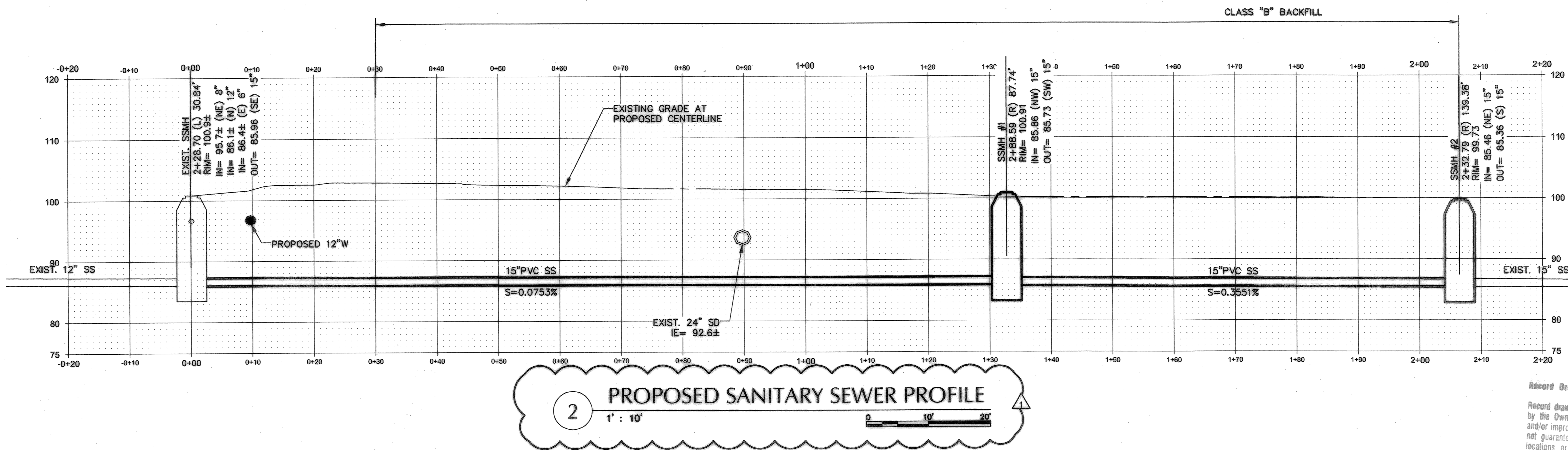
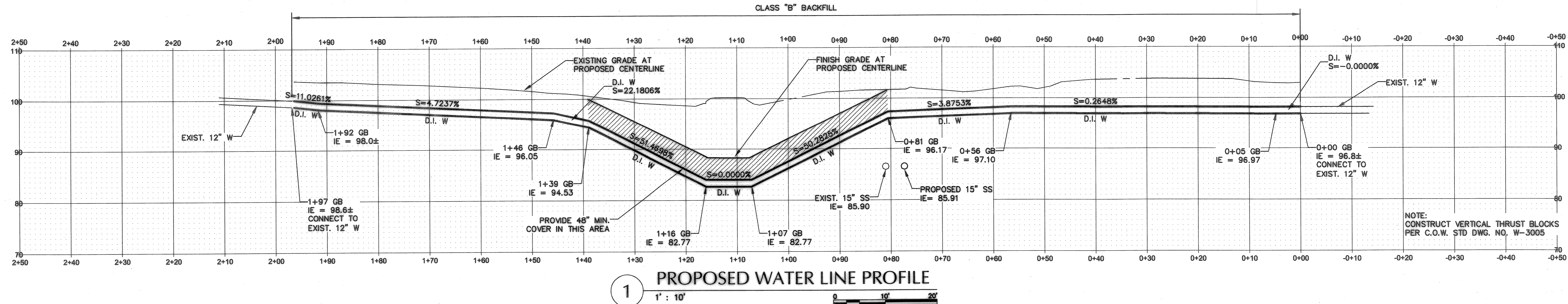
1 PLAN AND PROFILE VIEWS
 1" : 20'

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REVISION	DATE	DESCRIPTION	BY	JOB No.: 307020.00 DESIGNED BY: LJV DRAWN BY: MAF CHECKED BY: CCV PLOT DATE: 4/23/08 9:05am PLOTTED BY: jcadua DWG NAME: 7020xs.dwg TAB NAME: C5.1	City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070 BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT UPPER SITE (KOLBE ROAD) SANITARY SEWER EXTENSION PLAN and PROFILE	SHEET NO. C5.1 SHEET 1 OF 24 RECORD NO. 307020-05.1	07 04 002
REVISION DATE DESCRIPTION BY	04/11/2008 AS-CONSTRUCTED DRAWINGS						

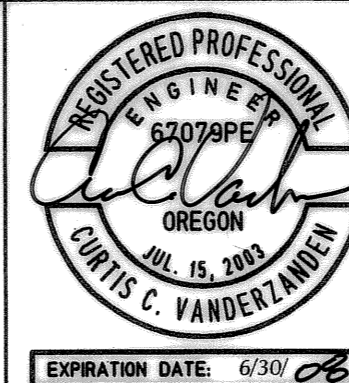
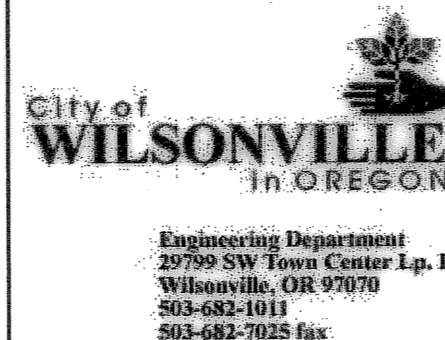
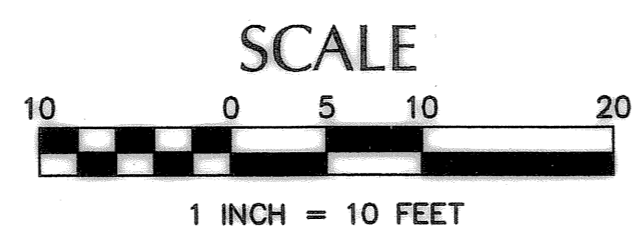
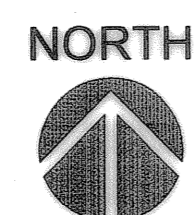


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REVISION	DATE	DESCRIPTION	BY
▲	04/11/2008	AS-CONSTRUCTED DRAWINGS	



JOB No.:	307020.00
DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/23/08 3:30pm
PLOTTED BY:	jeadua
DWG NAME:	7020SSWT.DWG
TAB NAME:	C6

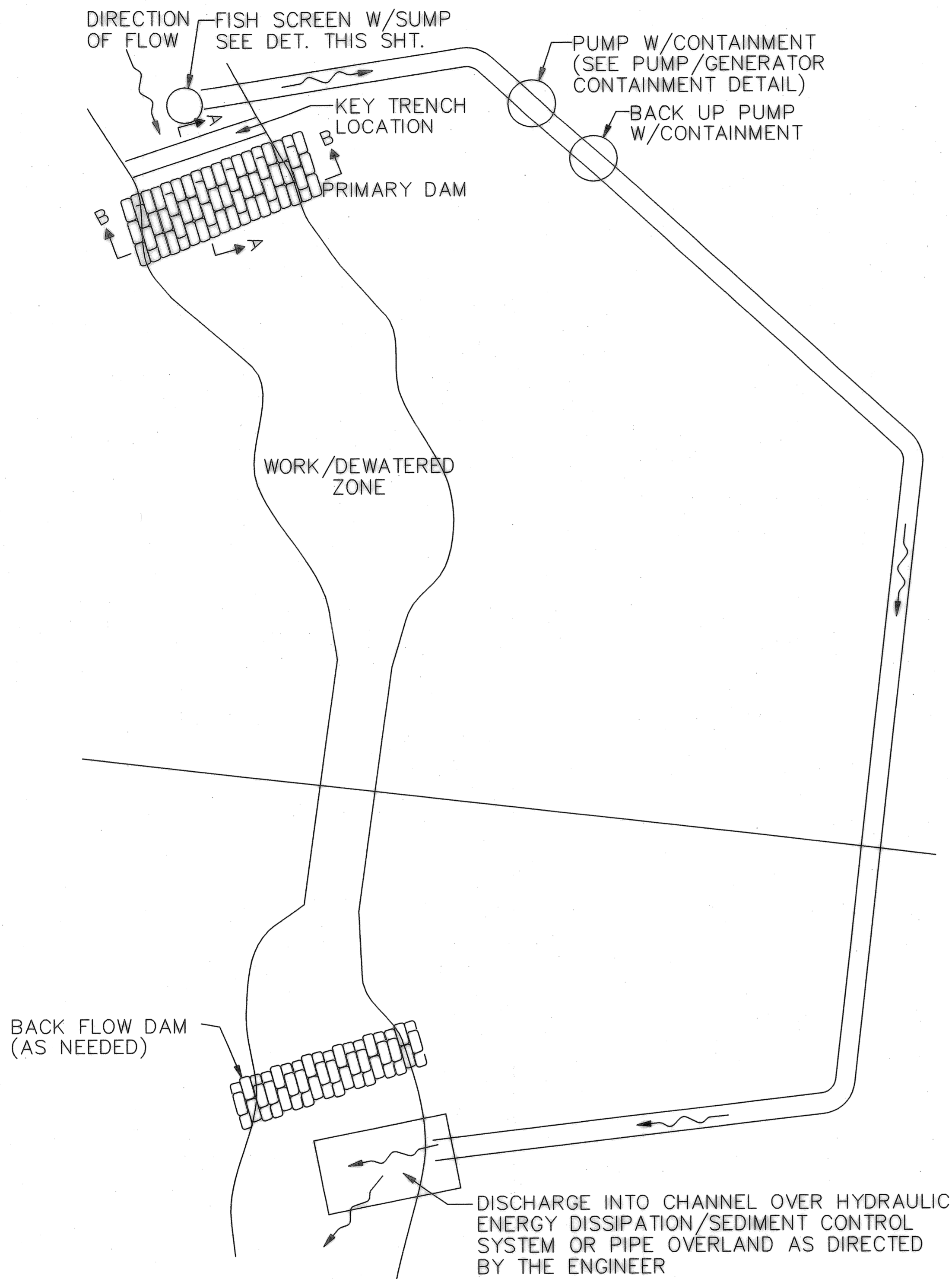
City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
 & STREAM RESTORATION PROJECT
 UPPER SITE (KOLBE LANE)

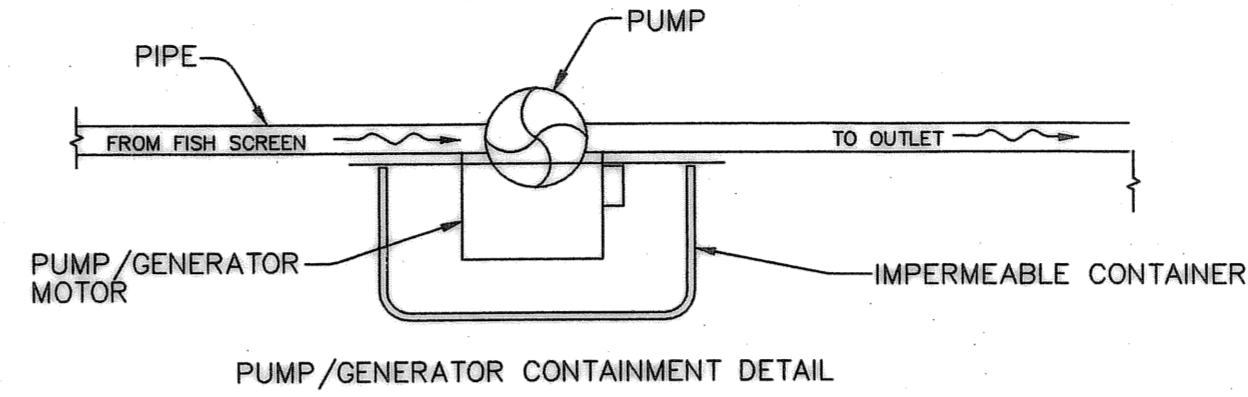
SANITARY SEWER & WATER PROFILES

SHEET	6	OF	23
RECORD NO.	307020-06		

C6

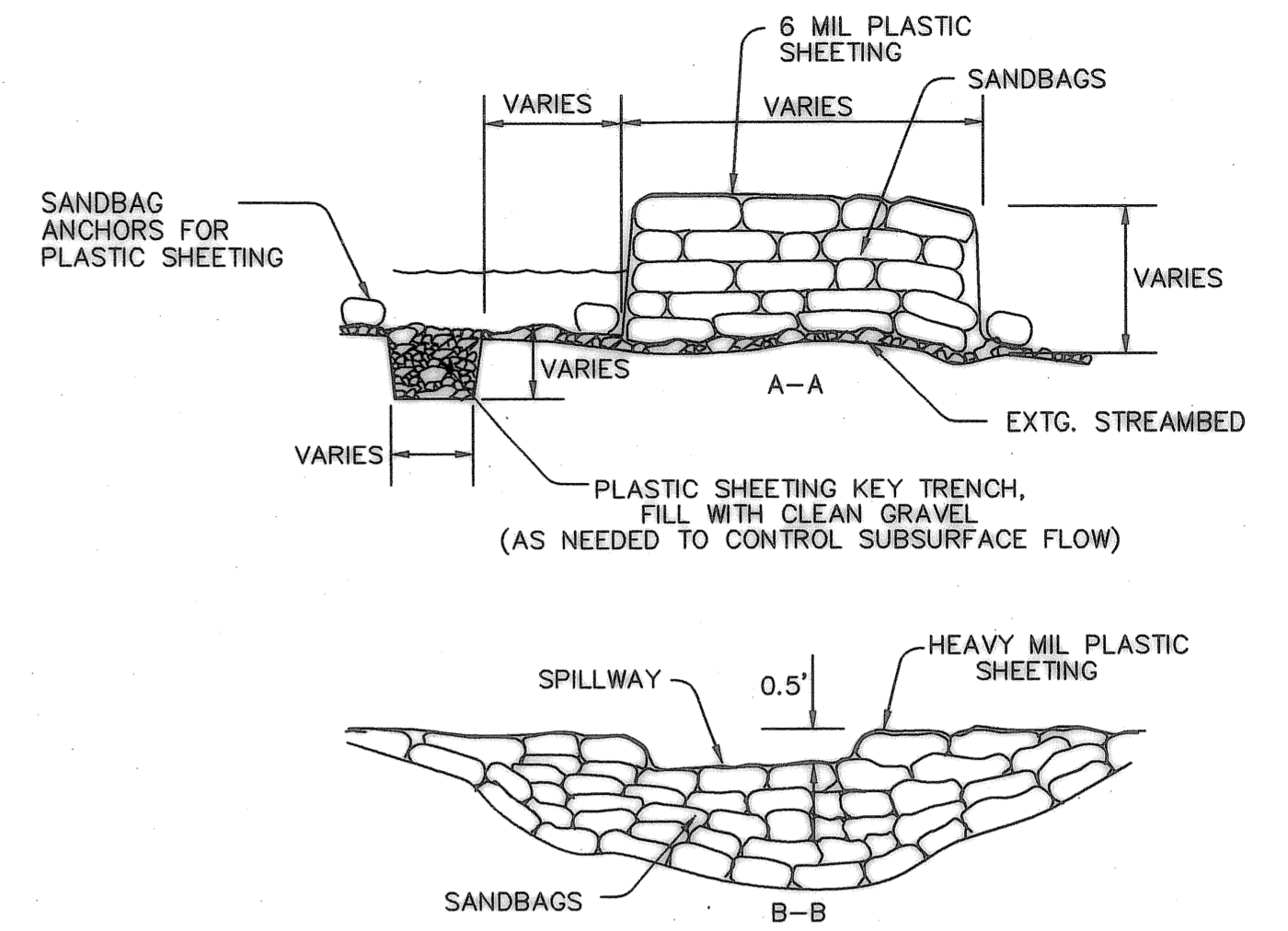


4 DEWATERING CONCEPT PLAN
N.T.S.



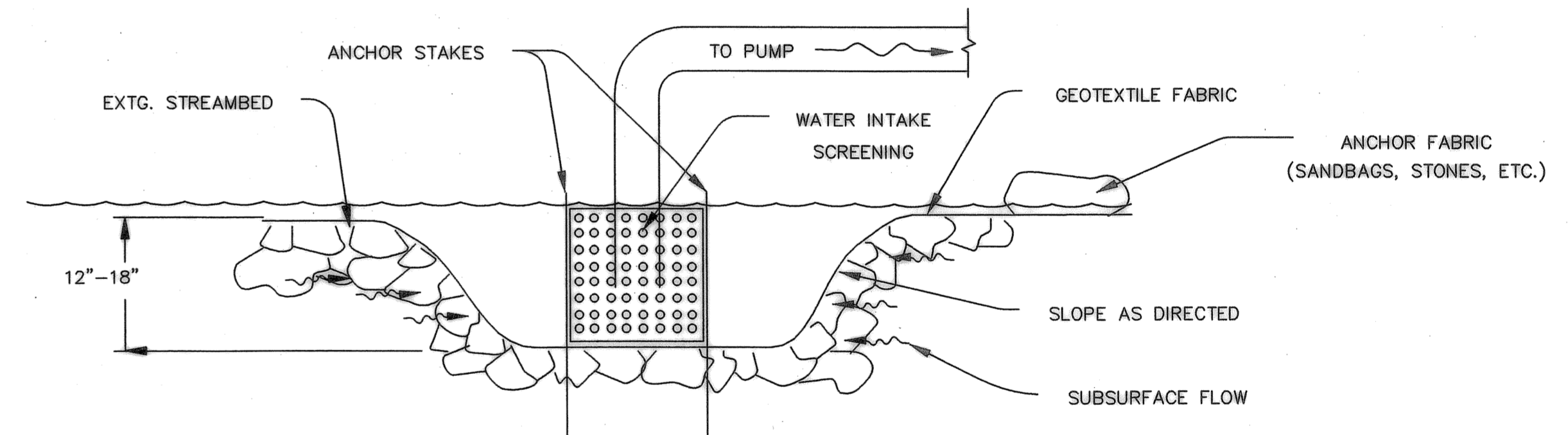
- GENERAL NOTES:
1. SIZE CONTAINER TO HOLD ALL FUEL AND LUBRICANTS STORED IN THE PUMP/GENERATOR MOTOR
 2. MECHANICALLY FASTEN PUMP/GENERATOR HOUSING TO CONTAINER
 3. SUPPORT CONTAINER TO PREVENT OVERTURNING

2 PUMP/GENERATOR CONTAINMENT DETAIL
N.T.S.



1 DAM SECTIONS
N.T.S.

EFFECTIVE FLOW RATE OF PUMP		
GALLONS PER MINUTE	CUBIC FEET PER SECOND	MINIMUM EFFECTIVE SCREEN AREA (FT ²)
50	0.111	.560
100	0.223	1.11
150	0.334	1.67
200	0.446	2.23
250	0.557	2.79
300	0.668	3.34
400	0.891	4.46
500	1.114	5.57
600	1.337	6.68
700	1.560	7.79
800	1.782	8.91
900	2.005	10.02
1000	2.228	11.14
1200	2.674	13.37
1400	3.119	15.60
1600	3.565	17.83
1800	4.010	20.05
2000	4.456	22.28
3000	6.684	33.42



- GENERAL NOTES:
1. SCREEN MESH OPENINGS SHALL NOT EXCEED 1/2" FOR WOVEN WIRE OR PERFORATED PLATE SCREENS, OR 3/4" FOR PROFILE WIRE SCREENS, WITH A MINIMUM 27% OPEN AREA. IF FRY-SIZED FISH ARE NEVER PRESENT AT THE SITE (BY DETERMINATION OF ODFW) SCREEN MESH OPENINGS SHALL NOT EXCEED 1/2" FOR WOVEN WIRE, PERFORATED PLATE SCREENS, OR PROFILE WIRE SCREENS, WITH A MINIMUM OF 40% OPEN AREA.
FORMULA FOR MINIMUM EFFECTIVE SCREEN AREA FOR PASSIVE SCREENS: $\frac{\text{MAX. FLOW (CFS)}}{0.2 \text{ (FPS)}} = \text{MINIMUM EFFECTIVE SCREEN AREA (FT}^2\text{)}$ CALCULATED SCREEN AREAS SHOWN AT RIGHT.
 2. FOR INFORMATION NOT PROVIDED HERE, SEE "JUVENILE FISH SCREEN CRITERIA FOR PUMP INTAKES", DEVELOPED BY NATIONAL MARINE FISHERIES SERVICE.
 3. ACTIVE SCREENING SYSTEMS SHOULD BE CONSIDERED WHEN HEAVY DEBRIS IS EXPECTED.

3 FISH SCREEN SUMP DETAIL
N.T.S.

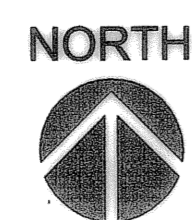
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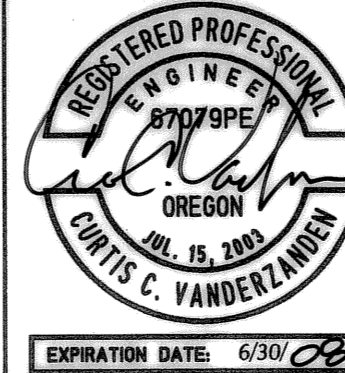
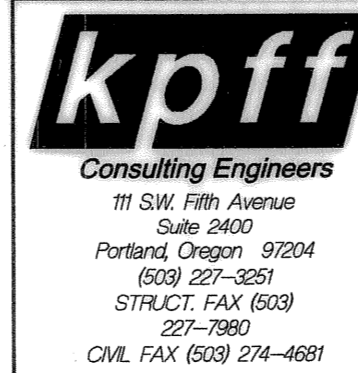
REVISION	DATE	DESCRIPTION	BY
1	04/11/2008	AS-CONSTRUCTED DRAWINGS	



SCALE



NO SCALE



JOB No.:	307020.00
DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/22/08 4:57pm
PLOTTED BY:	jadua
DWG NAME:	7020DT.DWG
TAB NAME:	C7

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

WORK ISOLATION PLAN

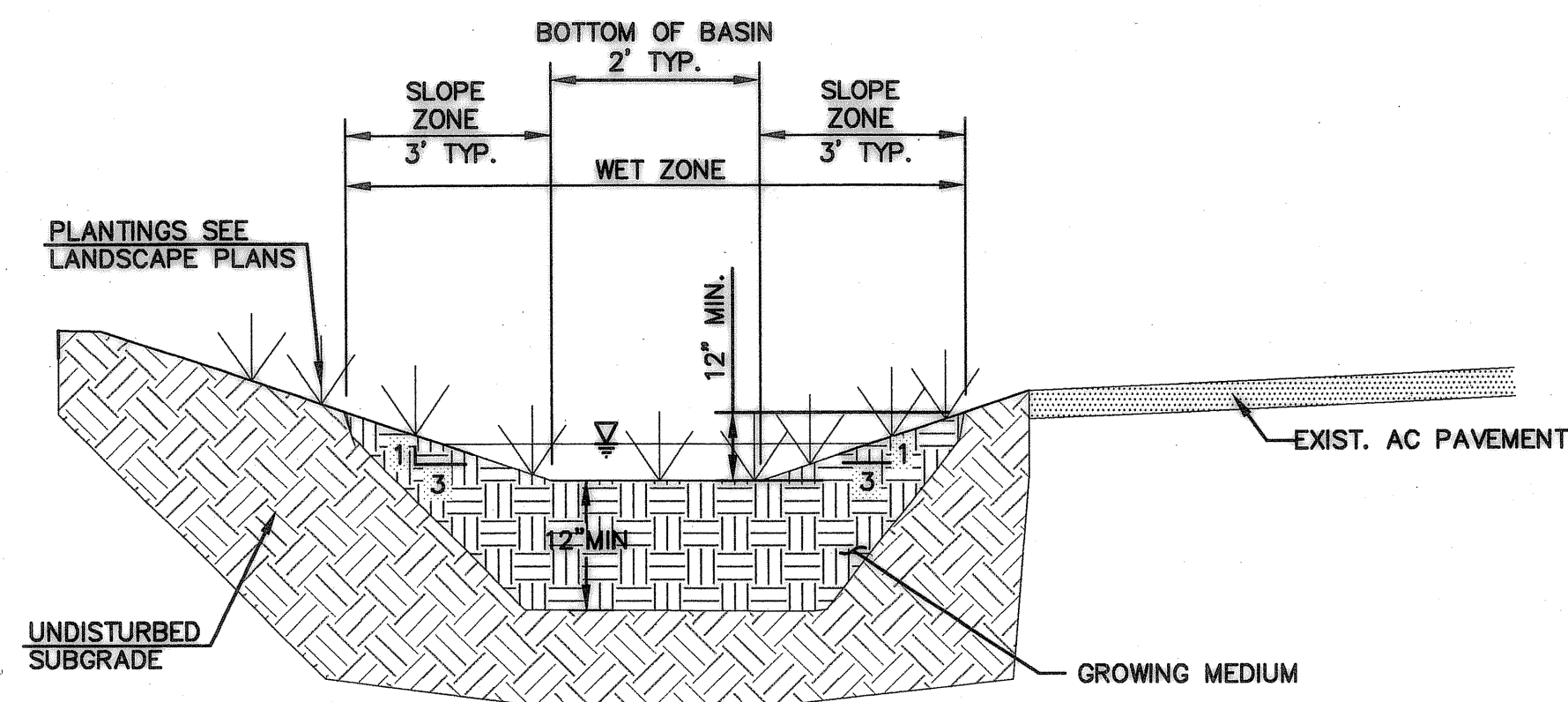
SHEET NO.

C7

SHEET 7 OF 23

RECORD NO.

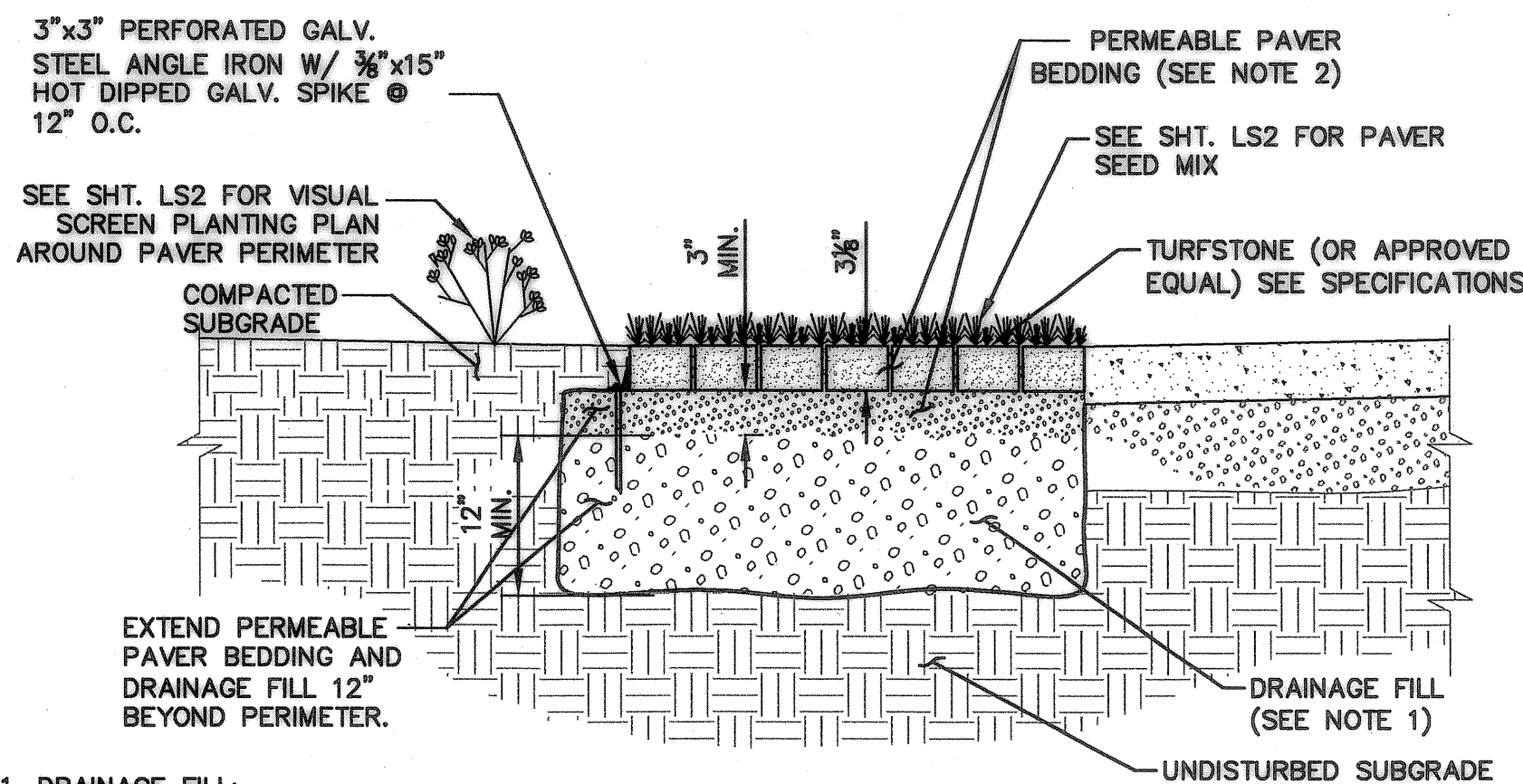
307020-07



NOTES:

1. SLOPE ZONES AND BOTTOM OF BASIN DIMENSIONS MAY VARY BASED ON DEPTH OF SWALE RELATIVE TO ADJACENT PAVEMENT.
2. SEE LANDSCAPE PLAN SHT. LS2 FOR SEED AND PLANT SPECIFICATIONS.
3. INSTALL CLASS 50 RIPRAP CHECK DAMS WITH 6" DEPTH, 6" TOP WIDTH, AT 12' O.C. ALONG SWALE ALIGNMENT.

4 WATER QUALITY SWALE
N.T.S.



1. **DRAINAGE FILL:**
DRAINAGE FILL MATERIAL SHALL CONSIST OF CRUSHED STONE CONFORMING TO ASTM C33 NO. 57 PER GRADATION IN TABLE 1. PLACE IN MAXIMUM 1-FOOT LOOSE LIFTS AND COMPACT UNTIL WELL KEYED, MEANING LITTLE OR NO DEFLECTION OF THE MATERIAL WHILE COMPACTION IS TAKING PLACE. COMPACTION SHOULD BE OBSERVED BY THE GEOTECHNICAL REPRESENTATIVE.
2. **PERMEABLE PAVER BEDDING (PPB):**
PPB MATERIAL SHALL CONSIST OF CRUSHED STONE CONFORMING TO ASTM C33 NO. 8 PER THE GRADATION IN TABLE 2. ASTM NO. 89 CRUSHED STONE OR FINER MATERIAL MAY BE REQUIRED TO FILL NARROW JOINTS BETWEEN INTERLOCKING PAVERS.

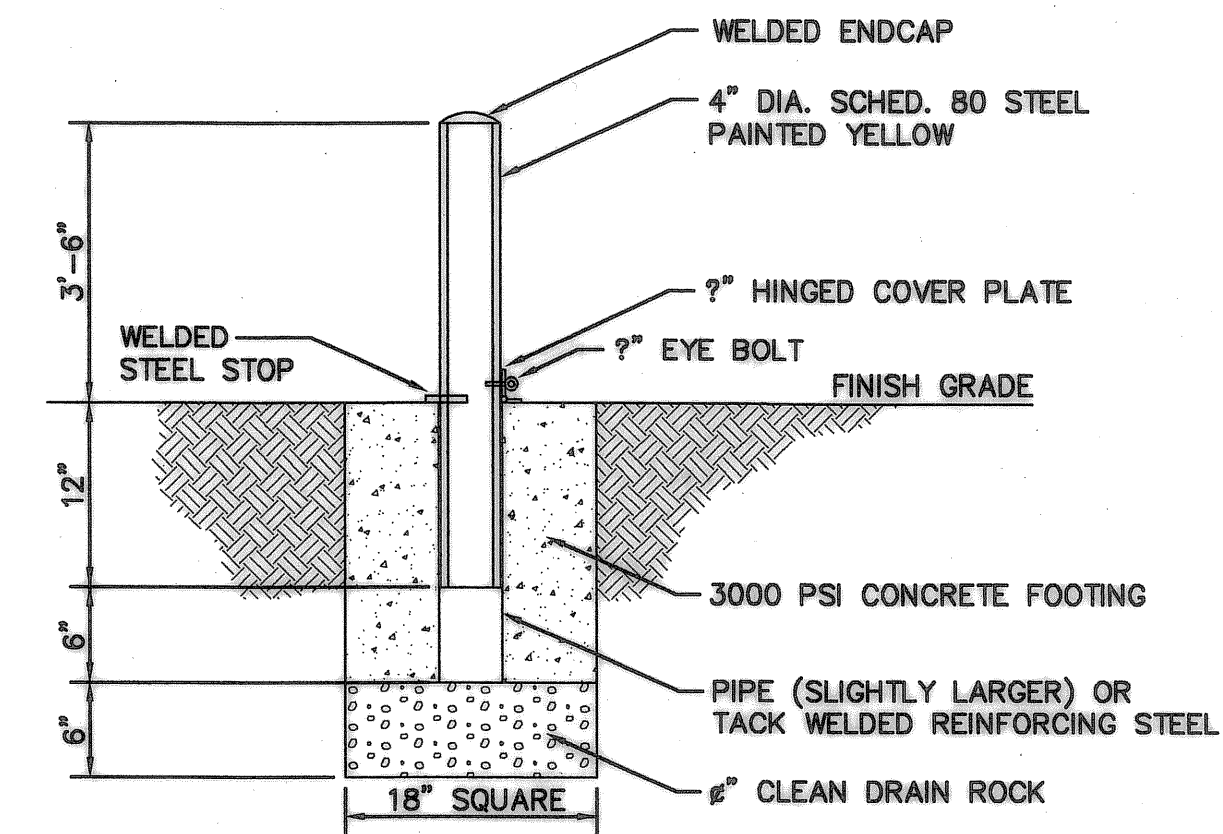
SIEVE SIZE	% PASSING
1 1/2"	100
1"	95 TO 100
3/4"	25 TO 60
NO. 4	0 TO 10
NO. 8	0 TO 5

TABLE 1

SIEVE SIZE	% PASSING
1/2"	100
3/8"	85 TO 100
NO. 4	10 TO 30
NO. 8	0 TO 10
NO. 16	0 TO 5

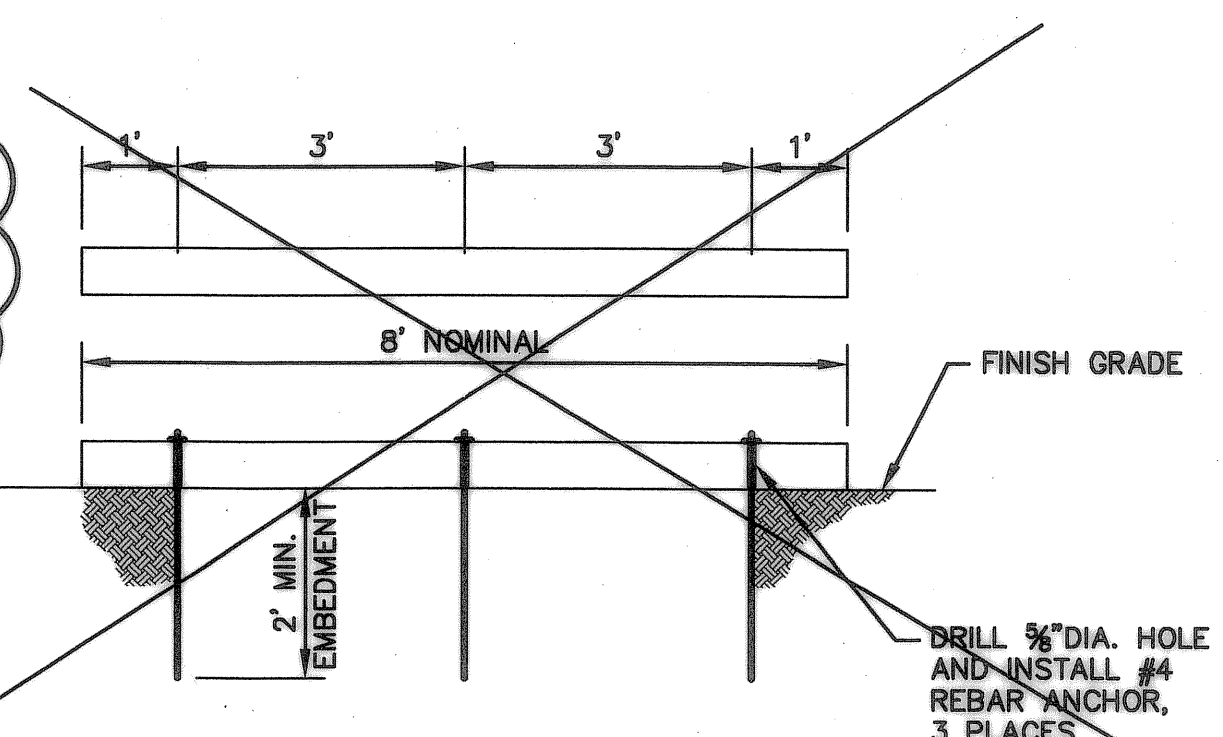
TABLE 2

1 TURFSTONE PAVERS
N.T.S.



2 REMOVABLE BOLLARD
N.T.S.

RAILROAD TIES WERE NOT INSTALLED. BOULDERS WERE PLACED AROUND THE PERIMETER PER FIELD CHANGE DIRECTED BY THE CITY.

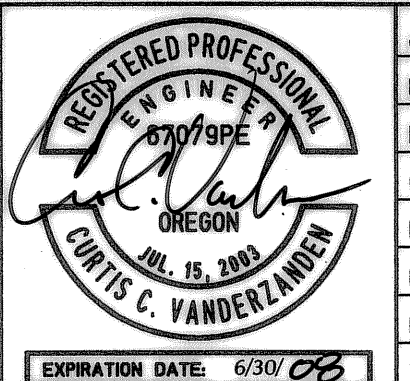
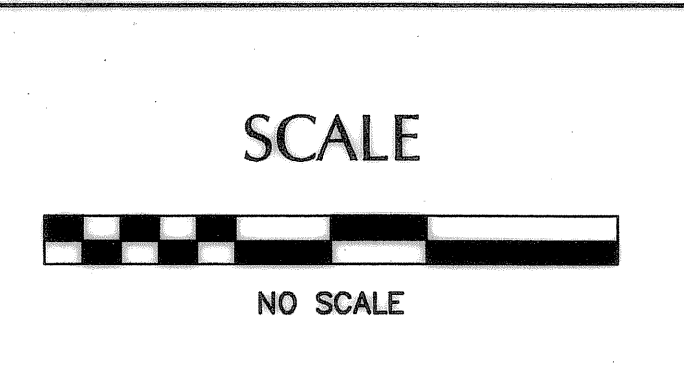
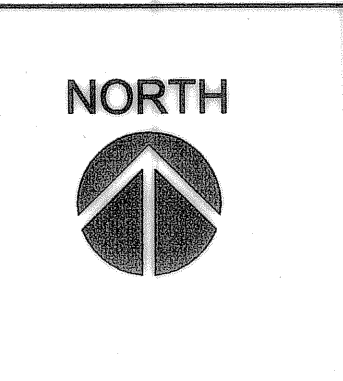


3 RAILROAD TIE
N.T.S.

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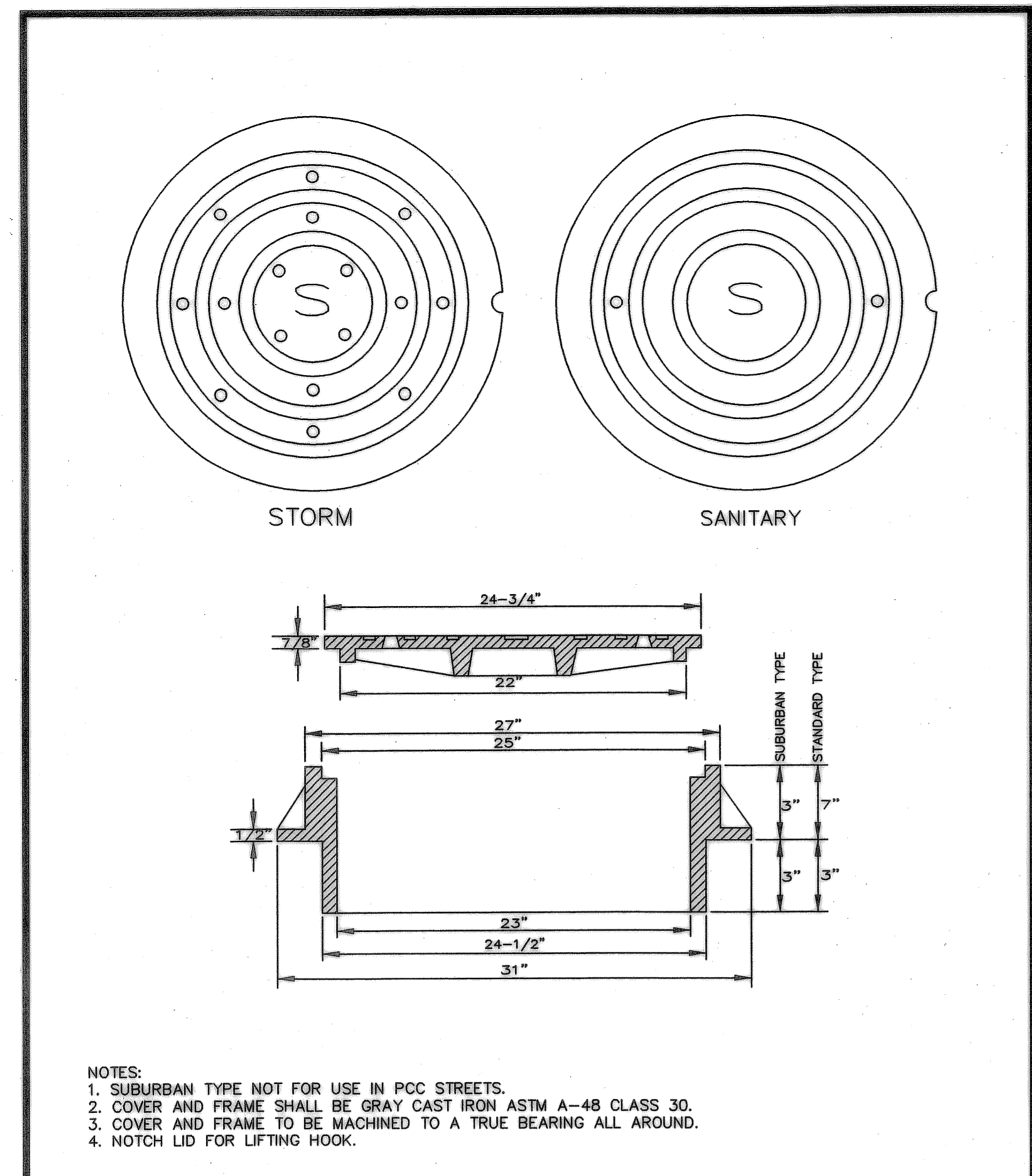
REVISION	DATE	DESCRIPTION	BY
1	04/11/2008	AS-CONSTRUCTED DRAWINGS	



JOB No.:	307020.00
DESIGNED BY:	MAFILJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/22/08 4:57pm
PLOTTED BY:	Jcadua
DWG NAME:	7020DT.DWG
TAB NAME:	C8

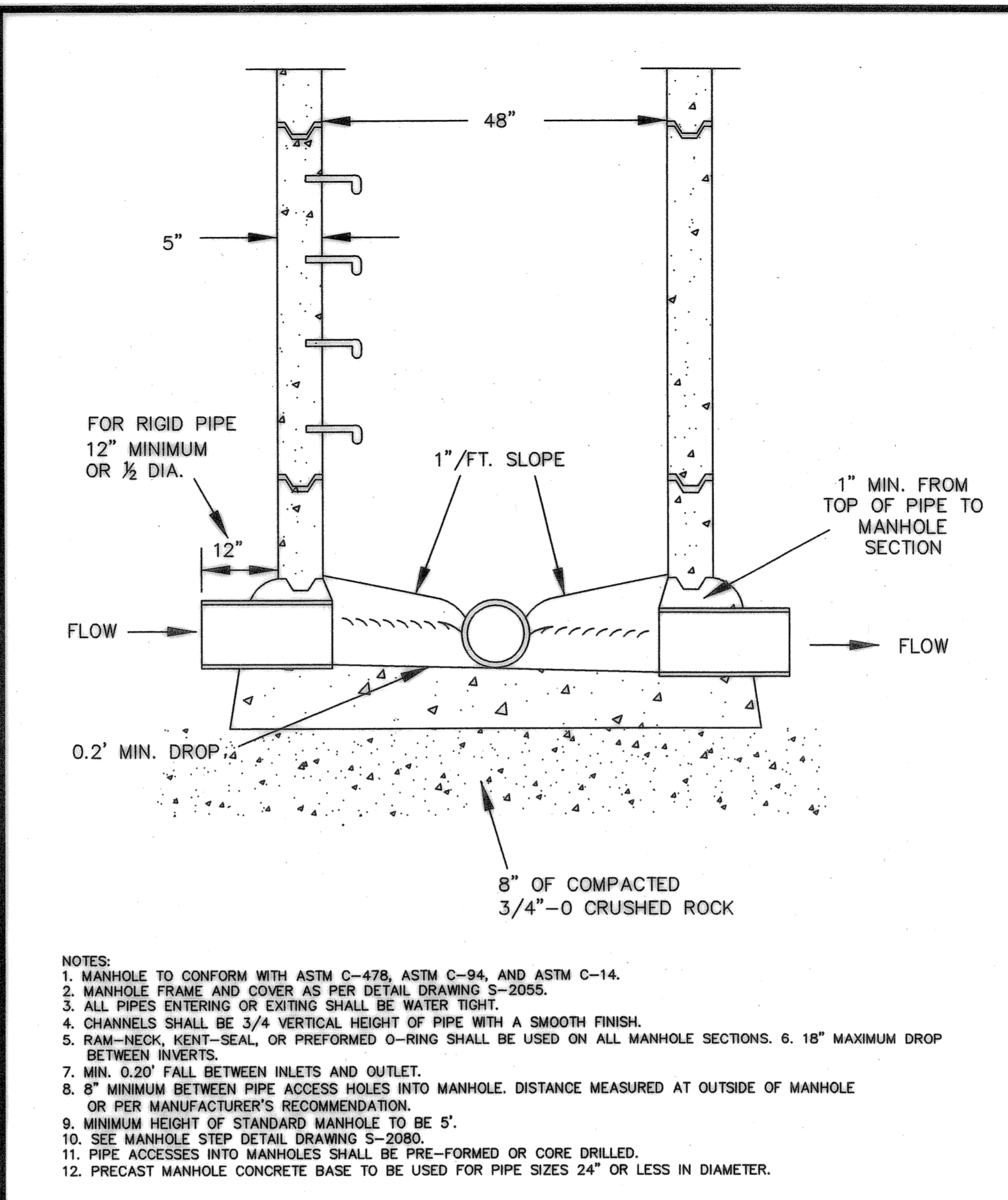
City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070
BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)
DETAILS

SHEET NO. **C8**
SHEET 7 OF 23
RECORD NO. 307020-07



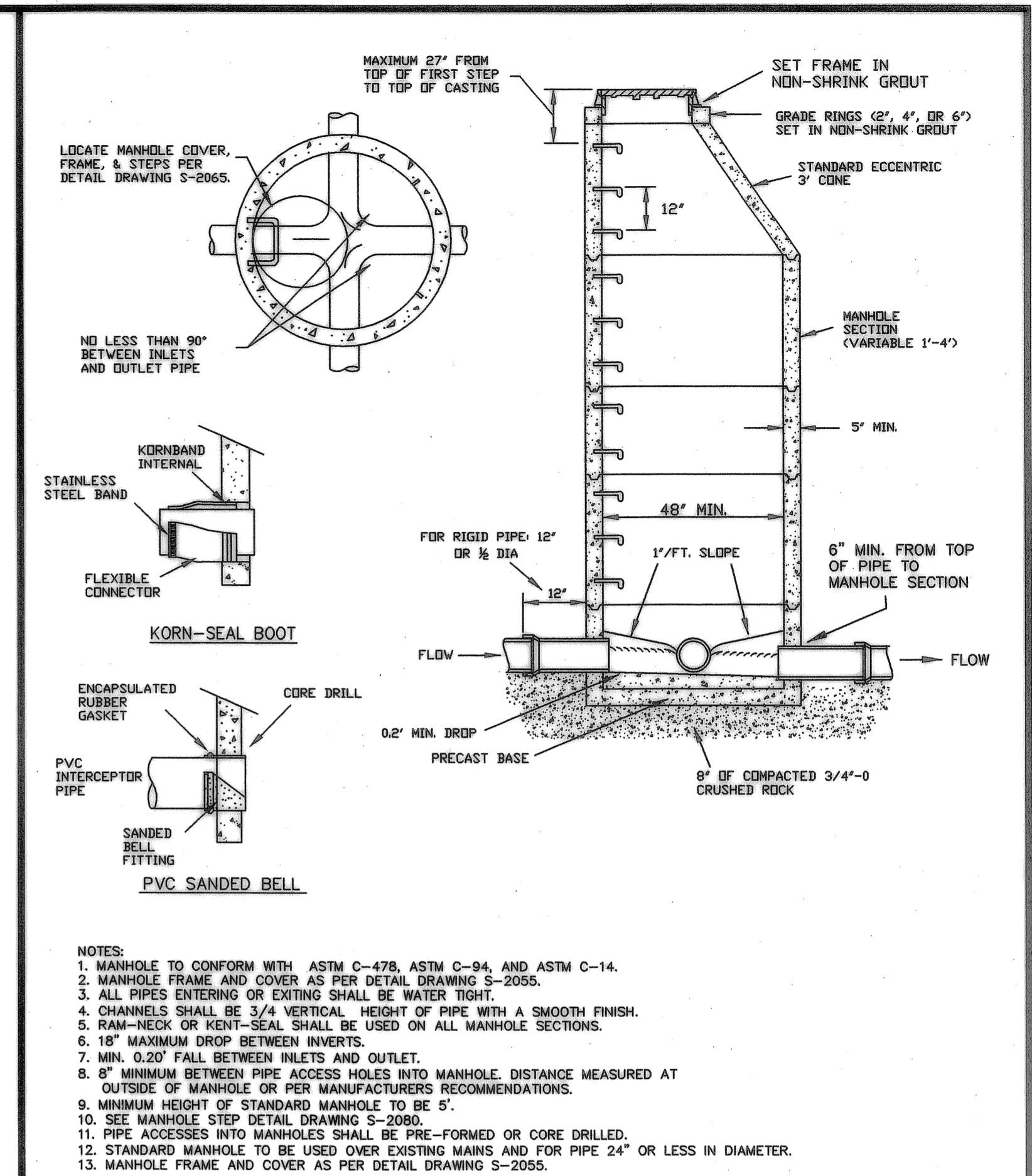
- NOTES:
1. SUBURBAN TYPE NOT FOR USE IN PCC STREETS.
 2. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
 3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
 4. NOTCH LID FOR LIFTING HOOK.

Suburban and Standard Manhole Frame and Cover			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: S-2055	DRAWN BY: SJ	SCALE: N.T.S.	
FILE NAME: S-2055.dwg	APPROVED BY: SA	DATE: 03/29/06	



- NOTES:
1. MANHOLE TO CONFORM WITH ASTM C-478, ASTM C-94, AND ASTM C-14.
 2. MANHOLE FRAME AND COVER AS PER DETAIL DRAWING S-2055.
 3. ALL PIPES ENTERING OR EXITING SHALL BE WATER TIGHT.
 4. CHANNELS SHALL BE 3/4 VERTICAL HEIGHT OF PIPE WITH A SMOOTH FINISH.
 5. RAM-NECK, KENT-SEAL, OR PREFORMED O-RING SHALL BE USED ON ALL MANHOLE SECTIONS. 6. 18" MAXIMUM DROP BETWEEN INVERTS.
 7. MIN. 0.20' FALL BETWEEN INLETS AND OUTLET.
 8. 8" MINIMUM BETWEEN PIPE ACCESS HOLES INTO MANHOLE. DISTANCE MEASURED AT OUTSIDE OF MANHOLE OR PER MANUFACTURER'S RECOMMENDATION.
 9. MINIMUM HEIGHT OF STANDARD MANHOLE TO BE 5'.
 10. SEE MANHOLE STEP DETAIL DRAWING S-2080.
 11. PIPE ACCESSSES INTO MANHOLES SHALL BE PRE-FORMED OR CORE DRILLED.
 12. PRECAST MANHOLE CONCRETE BASE TO BE USED FOR PIPE SIZES 24" OR LESS IN DIAMETER.

Cast-in-place Concrete Manhole Base			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: S-2010	DRAWN BY: SJ	SCALE: N.T.S.	
FILE NAME: S-2010.dwg	APPROVED BY: SA	DATE: 03/29/06	



- NOTES:
1. MANHOLE TO CONFORM WITH ASTM C-478, ASTM C-94, AND ASTM C-14.
 2. MANHOLE FRAME AND COVER AS PER DETAIL DRAWING S-2055.
 3. ALL PIPES ENTERING OR EXITING SHALL BE WATER TIGHT.
 4. CHANNELS SHALL BE 3/4 VERTICAL HEIGHT OF PIPE WITH A SMOOTH FINISH.
 5. RAM-NECK OR KENT-SEAL SHALL BE USED ON ALL MANHOLE SECTIONS.
 6. 18" MAXIMUM DROP BETWEEN INVERTS.
 7. MIN. 0.20' FALL BETWEEN INLETS AND OUTLET.
 8. 8" MINIMUM BETWEEN PIPE ACCESS HOLES INTO MANHOLE. DISTANCE MEASURED AT OUTSIDE OF MANHOLE OR PER MANUFACTURER'S RECOMMENDATIONS.
 9. MINIMUM HEIGHT OF STANDARD MANHOLE TO BE 5'.
 10. SEE MANHOLE STEP DETAIL DRAWING S-2080.
 11. PIPE ACCESSSES INTO MANHOLES SHALL BE PRE-FORMED OR CORE DRILLED.
 12. STANDARD MANHOLE TO BE USED OVER EXISTING MAINS AND FOR PIPE 24" OR LESS IN DIAMETER.
 13. MANHOLE FRAME AND COVER AS PER DETAIL DRAWING S-2055.

Standard Manhole			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: S-2005	DRAWN BY: SJ	SCALE: N.T.S.	
FILE NAME: S-2005.dwg	APPROVED BY: SA	DATE: 03/29/06	

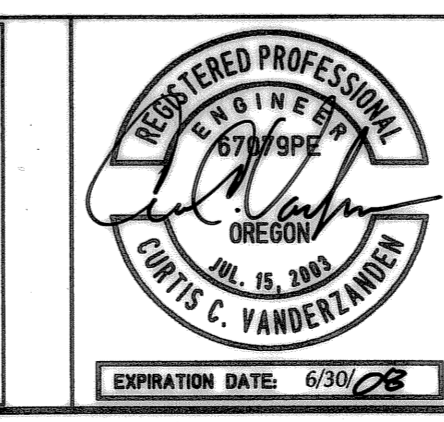
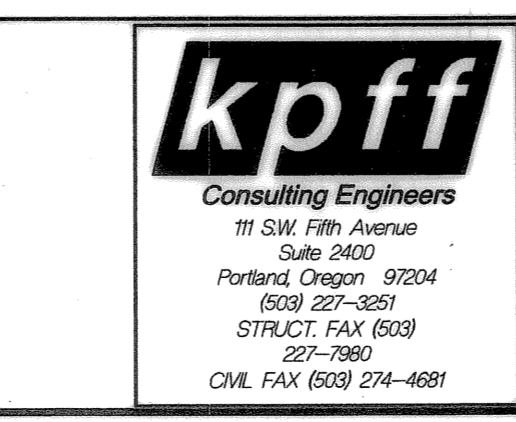
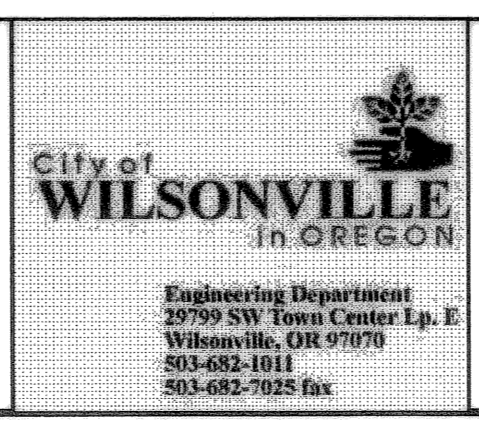
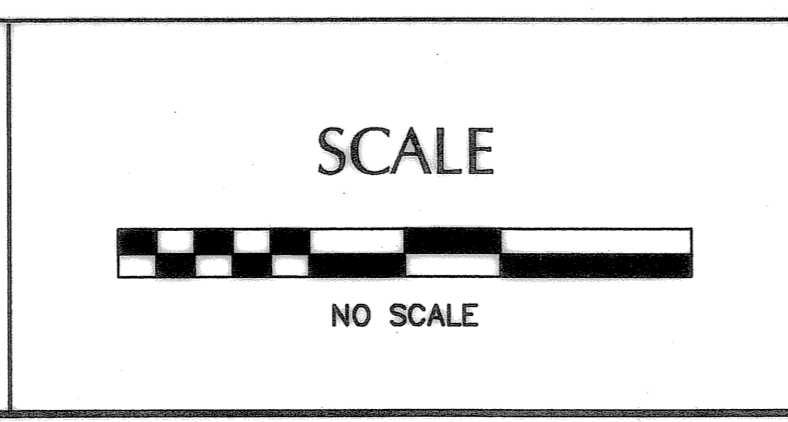
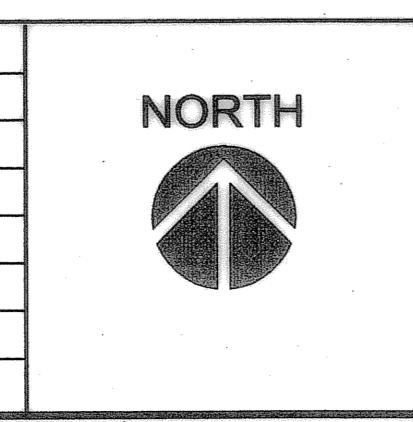
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REVISION	DATE	DESCRIPTION	BY
1	04/11/2008	AS-CONSTRUCTED DRAWINGS	



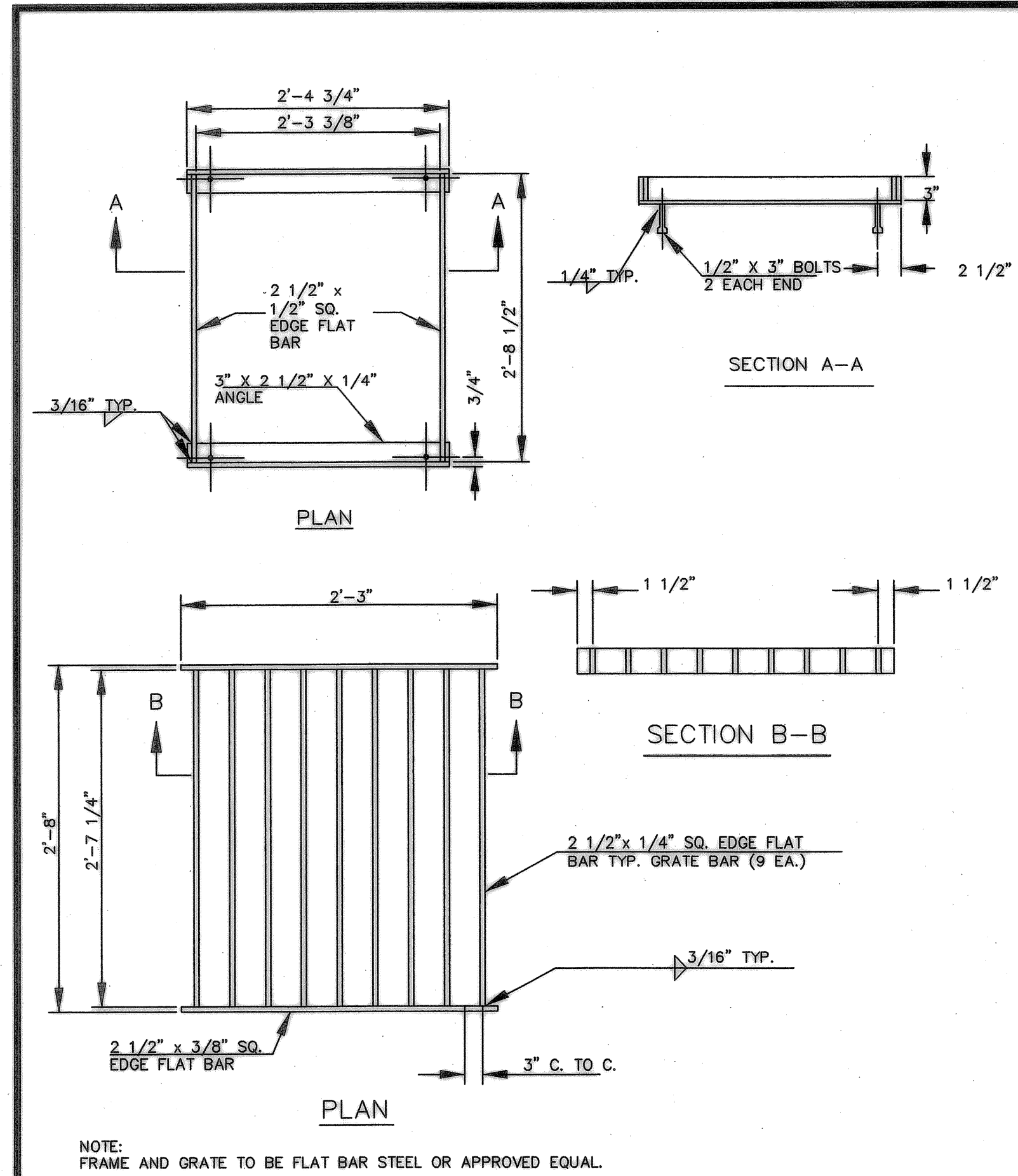
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DESIGNED BY:	MAFLJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/22/08 4:58pm
PLOTTED BY:	jcadua
DWG NAME:	7020DT.DWG
TAB NAME:	C9

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97170

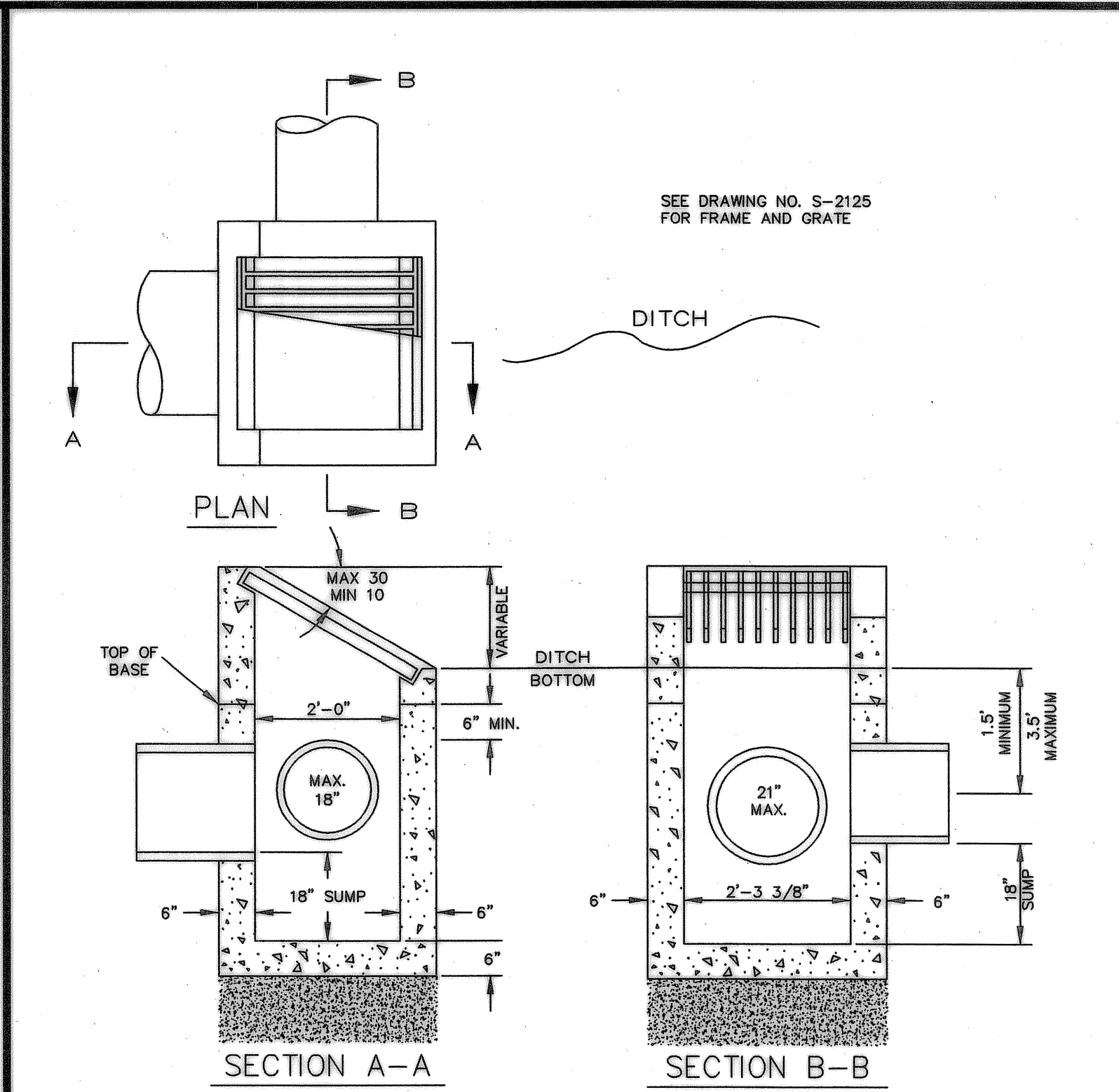
BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

STANDARD DETAILS

SHEET	8	OF	23
RECORD NO.	307020-08		

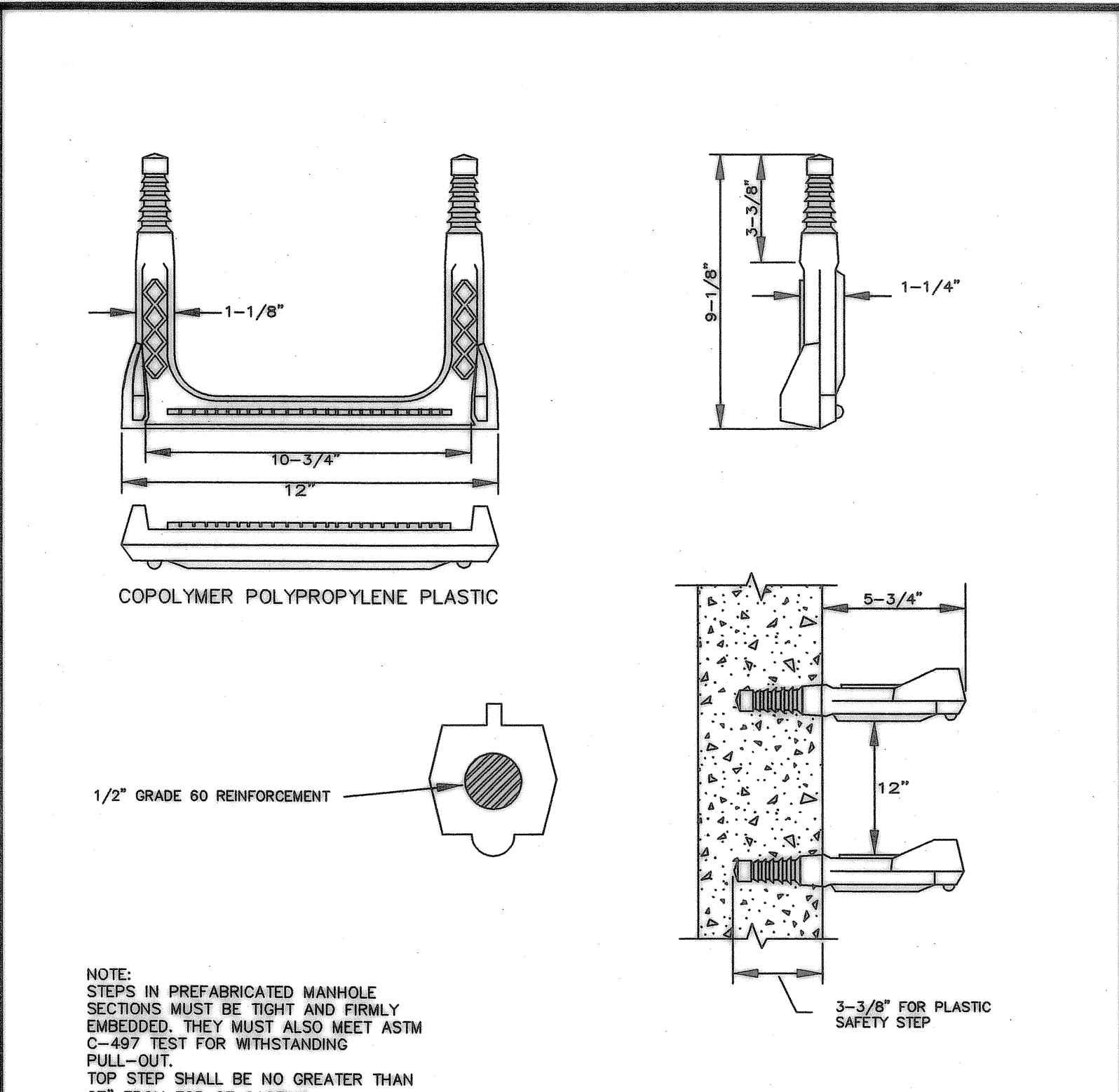


Ditch Inlet Frame and Cover			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: S-2125	DRAWN BY: SJ	SCALE: N.T.S.	
FILE NAME: S-2125.dwg	APPROVED BY: SA	DATE: 03/29/06	



NOTES:
 1. DITCH INLET CONSTRUCTION IN ACCORDANCE WITH ASTM C-478
 2. 8" OF COMPACTED 3/4"-0 CRUSHED ROCK BASE MATERIAL REQUIRED.
 3. PRIOR APPROVAL REQUIRED FOR DITCH INLET STRUCTURES FOR PIPE SIZES 24" OR LARGER.
 4. PRECAST MINIMUM WALL THICKNESS TO BE 5", REINFORCEMENT TO BE REBAR MEETING ASTM A615 GRADE 60 OR WELDED WIRE MEETING ASTM A497.

Ditch Inlet			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: S-2120	DRAWN BY: GCF	SCALE: N.T.S.	
FILE NAME: S-2120.dwg	APPROVED BY: MAS	DATE: 11/01/03	



NOTE:
 STEPS IN PREFABRICATED MANHOLE SECTIONS MUST BE TIGHT AND FIRMLY EMBEDDED. THEY MUST ALSO MEET ASTM C-497 TEST FOR WITHSTANDING PULL-OUT. TOP STEP SHALL BE NO GREATER THAN 27" FROM TOP OF CASTING.

MATERIALS:
 PLASTIC:
 MUST CONFORM WITH ASTM C-478. STEEL REINFORCING BAR MINIMUM 1/2" GRADE 60, MEETING REQUIREMENTS OF ASTM A615 ENCAPSULATED WITH INJECTION MOLDED COPOLYMER POLYPROPYLENE WITH SERRATED SURFACES.

Manhole Step			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: S-2080	DRAWN BY: SJ	SCALE: N.T.S.	
FILE NAME: S-2080.dwg	APPROVED BY: SA	DATE: 03/21/06	

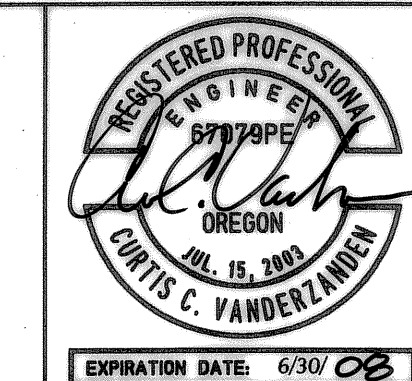
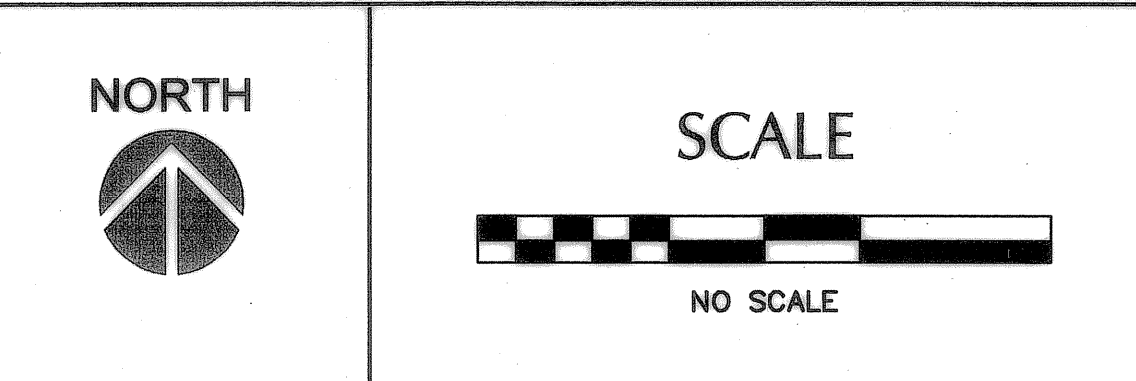
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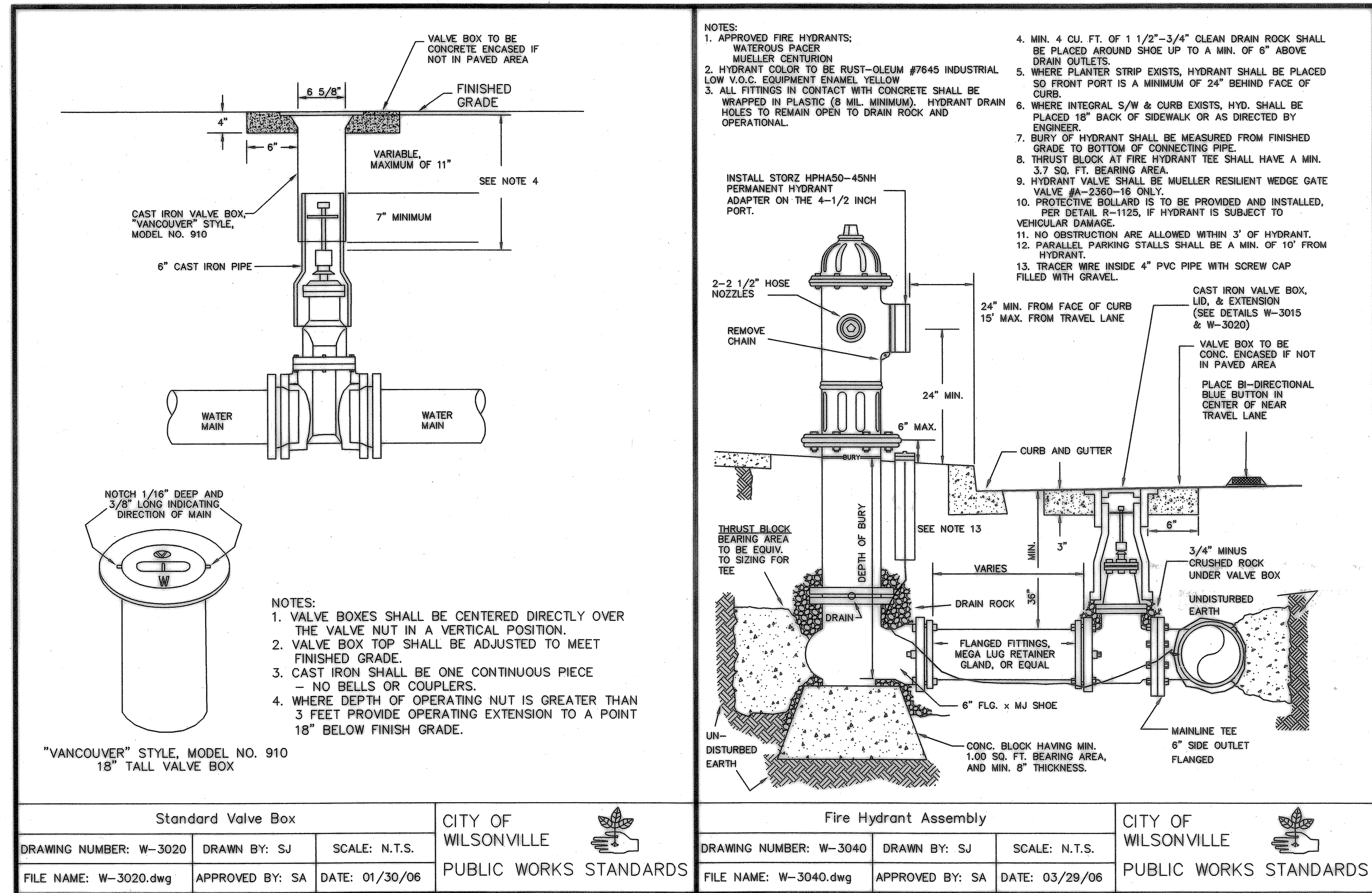
JOB No.:	307020.00
DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/22/08 4:58pm
PLOTTED BY:	Jcadua
DWG NAME:	7020DT.DWG
TAB NAME:	C10

City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

STANDARD DETAILS

SHEET	8	OF	23
RECORD NO.	307020-08		



Standard Valve Box		
DRAWING NUMBER: W-3020	DRAWN BY: SJ	SCALE: N.T.S.
FILE NAME: W-3020.dwg	APPROVED BY: SA	DATE: 01/30/06

CITY OF WILSONVILLE PUBLIC WORKS STANDARDS		
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Fire Hydrant Assembly		
DRAWING NUMBER: W-3040	DRAWN BY: SJ	SCALE: N.T.S.
FILE NAME: W-3040.dwg	APPROVED BY: SA	DATE: 03/29/06

CITY OF WILSONVILLE PUBLIC WORKS STANDARDS		
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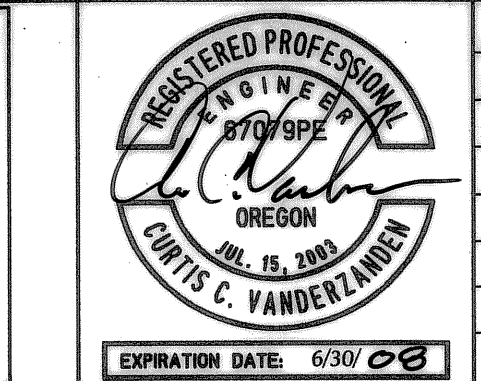
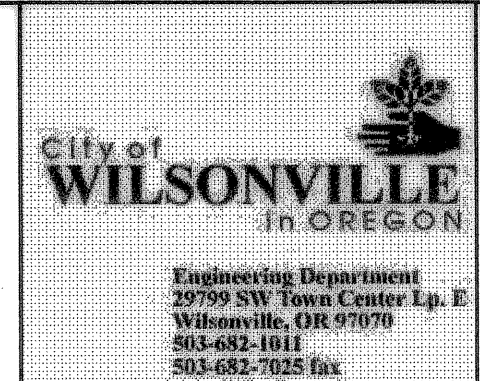
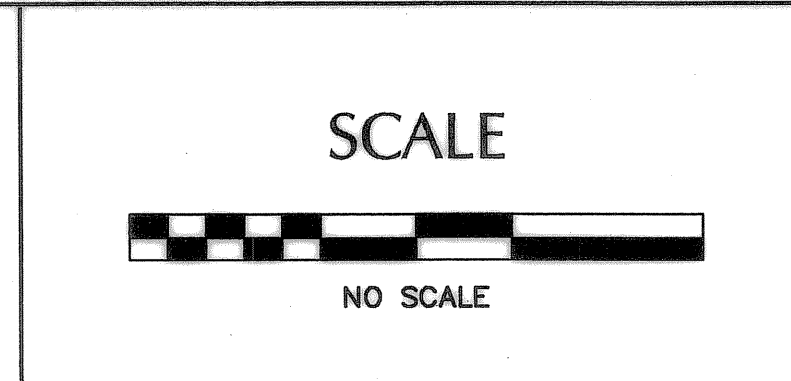
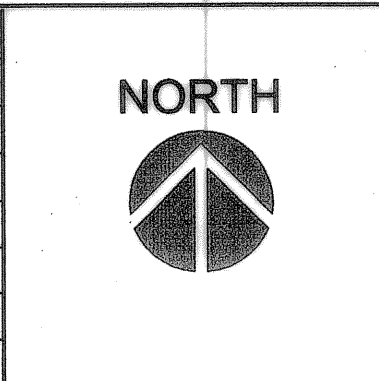
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▲	04/11/2008	AS-CONSTRUCTED DRAWINGS	



JOB No.:	307020.00
DESIGNED BY:	MAF/LJV
DRAWN BY:	MAF
CHECKED BY:	CCV
PLOT DATE:	4/22/08 4:58pm
PLOTTED BY:	jcaudue
DWG NAME:	7020DDT.DWG
TAB NAME:	C12

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

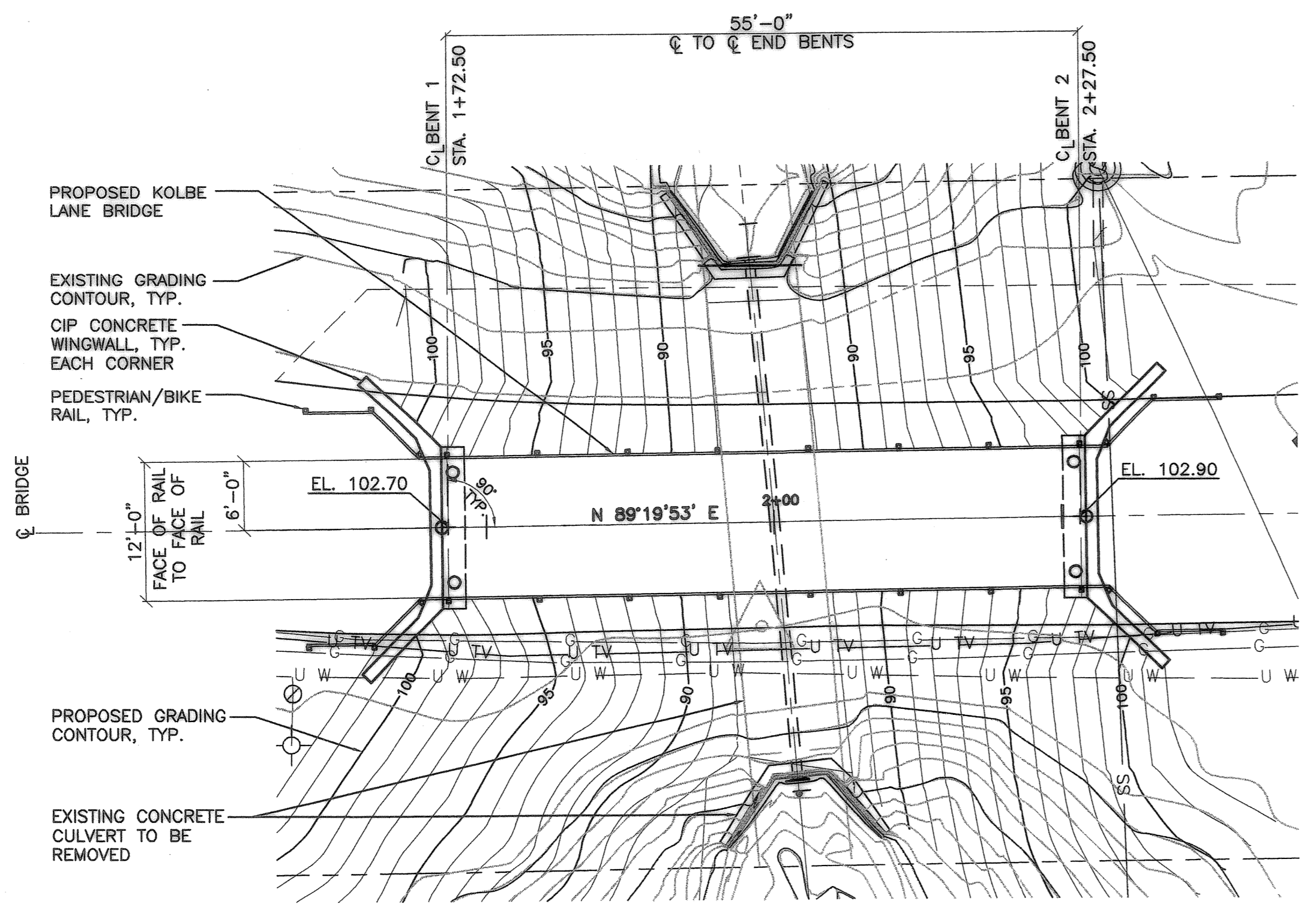
STANDARD DETAILS

SHEET	9	OF	23
RECORD NO.	307020-09		

NW 24

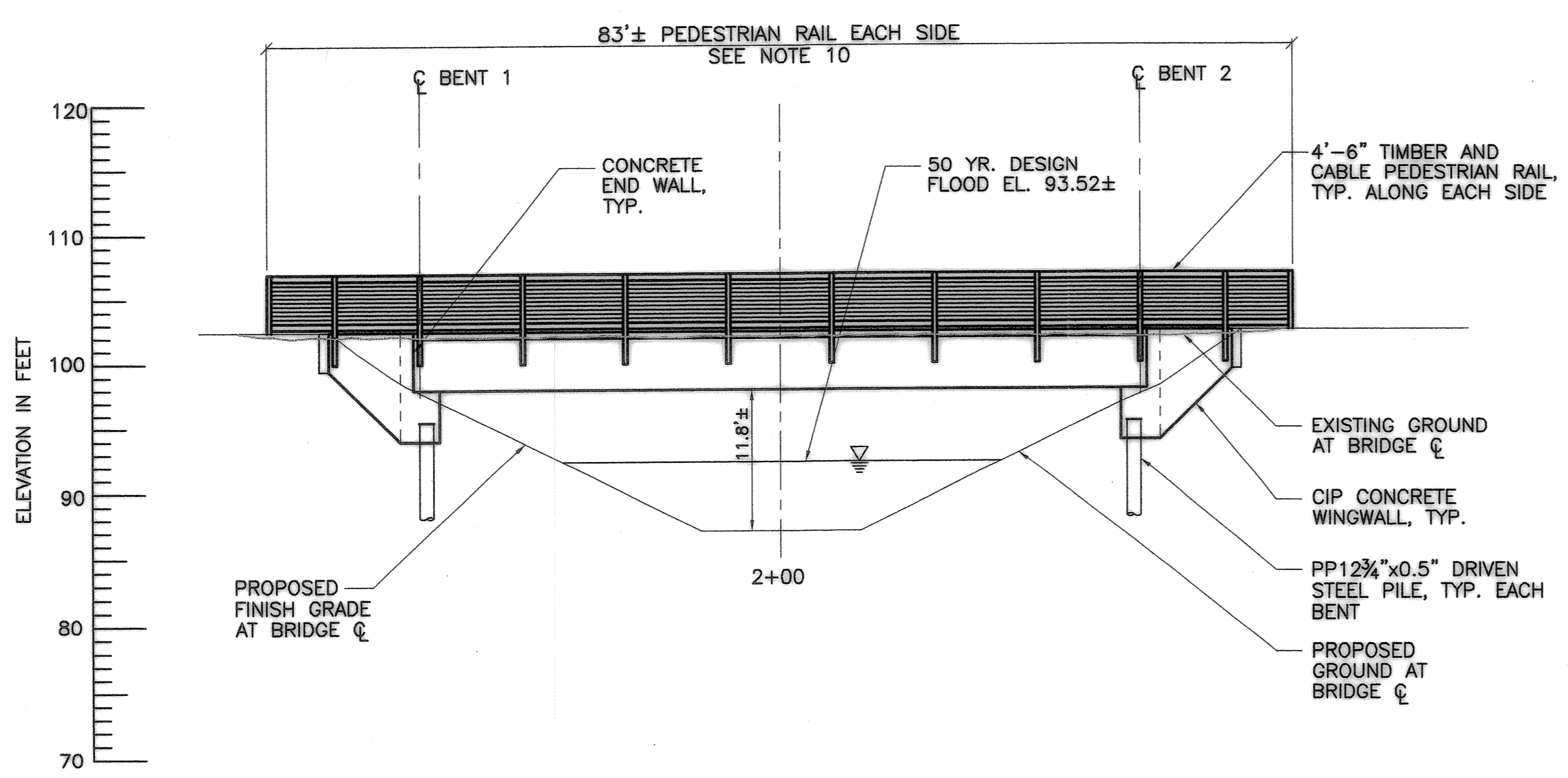
BOECKMAN CREEK
CULVERT REPLACEMENT
BRIDGE PLAN & ELEVATION

07 04 002



NOTE:
ELEVATIONS SHOWN ARE TO TOP OF DECK AT ϕ BENT AT ϕ BRIDGE.

1 PLAN
1"=10'-0"



NOTE:
ELEVATIONS ARE BASED ON NGVD 29.

2 ELEVATION
1"=10'-0"

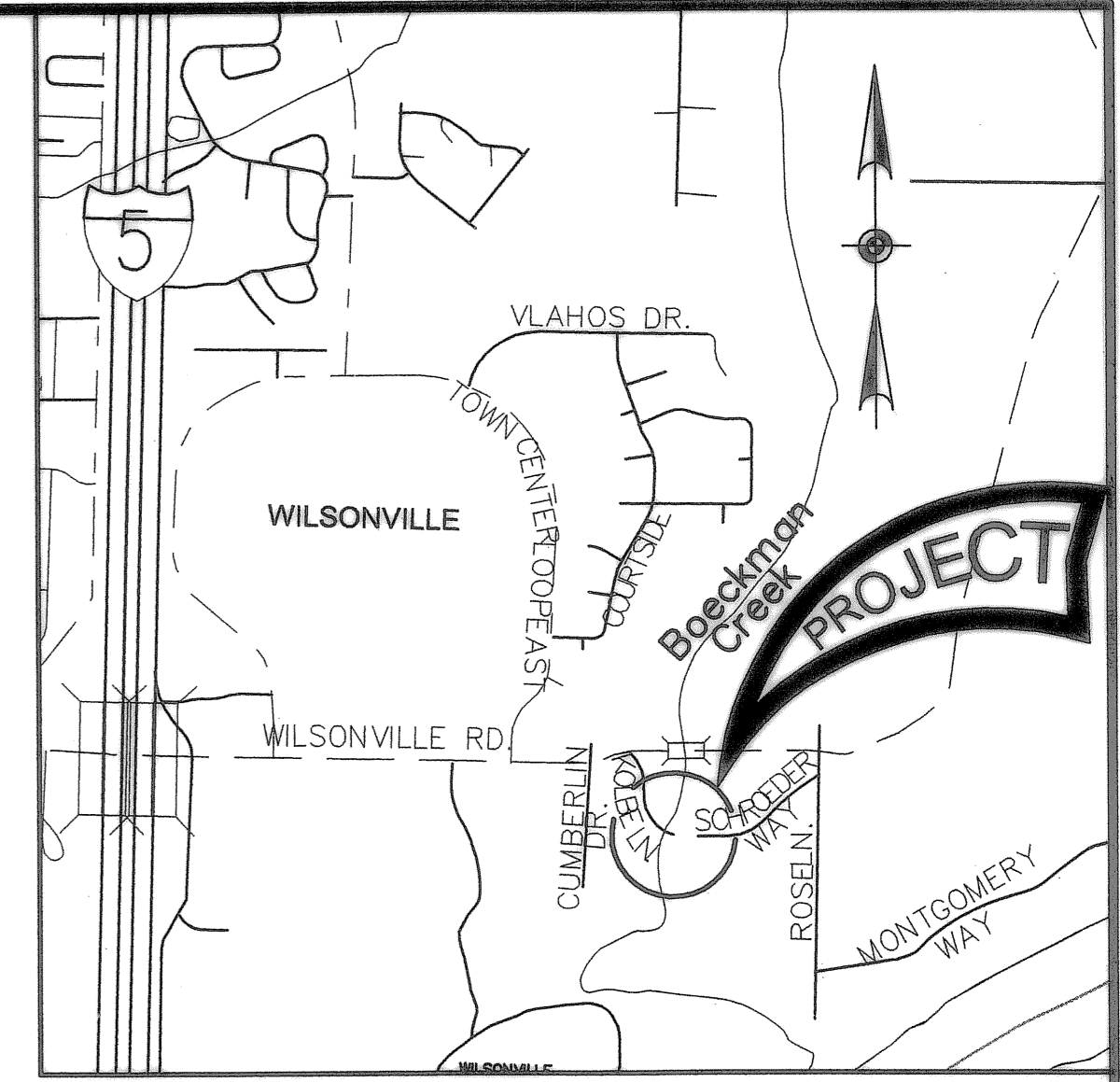
GENERAL NOTES:

- PROVIDE ALL MATERIALS AND PERFORM ALL WORK ACCORDING TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2002, THE LATEST SUPPLEMENTAL STANDARD SPECIFICATIONS FOR CONSTRUCTION, OF THE OREGON DEPARTMENT OF TRANSPORTATION AND THE SPECIAL PROVISIONS.
- BRIDGE IS DESIGNED WITH NO ALLOWANCE FOR PRESENT OR FUTURE WEARING SURFACE AND ALL OF THE FOLLOWING LIVE LOADS ACCORDING TO THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS:
SERVICE AND STRENGTH-1 LIMIT STATE:
THE CONTROLLING ARRANGEMENT OF A SINGLE DESIGN TRUCK (HS-20 EQUIVALENT) INCLUDING BRAKING FORCE OR 85 PSF PEDESTRIAN LIVE LOAD
IMPACT FACTOR = 0% MULTIPLE PRESENCE FACTOR = 1.0
- BRIDGE RAIL IS DESIGNED IN ACCORDANCE WITH THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR BICYCLE RAILINGS. RAILS ARE NOT DESIGNED FOR VEHICULAR TRAFFIC.
- BRIDGE IS DESIGNED IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT FOR PILING ELEMENTS WHICH ARE DESIGNED BY ALLOWABLE STRESS DESIGN IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- SEISMIC DESIGN INCLUDING CONNECTIONS BETWEEN SUPERSTRUCTURE AND SUBSTRUCTURE IS IN ACCORDANCE WITH THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" AS MODIFIED BY THE "ODOT BRIDGE DESIGN & DRAFTING MANUAL".
SITE COEFFICIENT (S)=1.5
500 YEAR PEAK BEDROCK ACCELERATION COEFFICIENT=0.18G
1000 YEAR PEAK BEDROCK ACCELERATION COEFFICIENT=0.25G
- PROVIDE ALL REINFORCING STEEL ACCORDING TO ASTM SPECIFICATION A706, OR AASHTO M31 (ASTM A615) GRADE 60. PROVIDE FIELD BENT STIRRUPS ACCORDING TO ASTM SPECIFICATION A706. USE THE FOLLOWING SPLICE LENGTHS (UNLESS SHOWN OTHERWISE):

REINFORCING SPLICE LENGTHS (CLASS B) GRADE 60											
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14 & #18	
UNCOATED	1'-0"	1'-4"	1'-8"	2'-0"	2'-8"	3'-6"	4'-4"	5'-7"	6'-9"	NOT PERMITTED	

FOR TOP BARS, MULTIPLY LAP LENGTH ABOVE BY 1.4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.

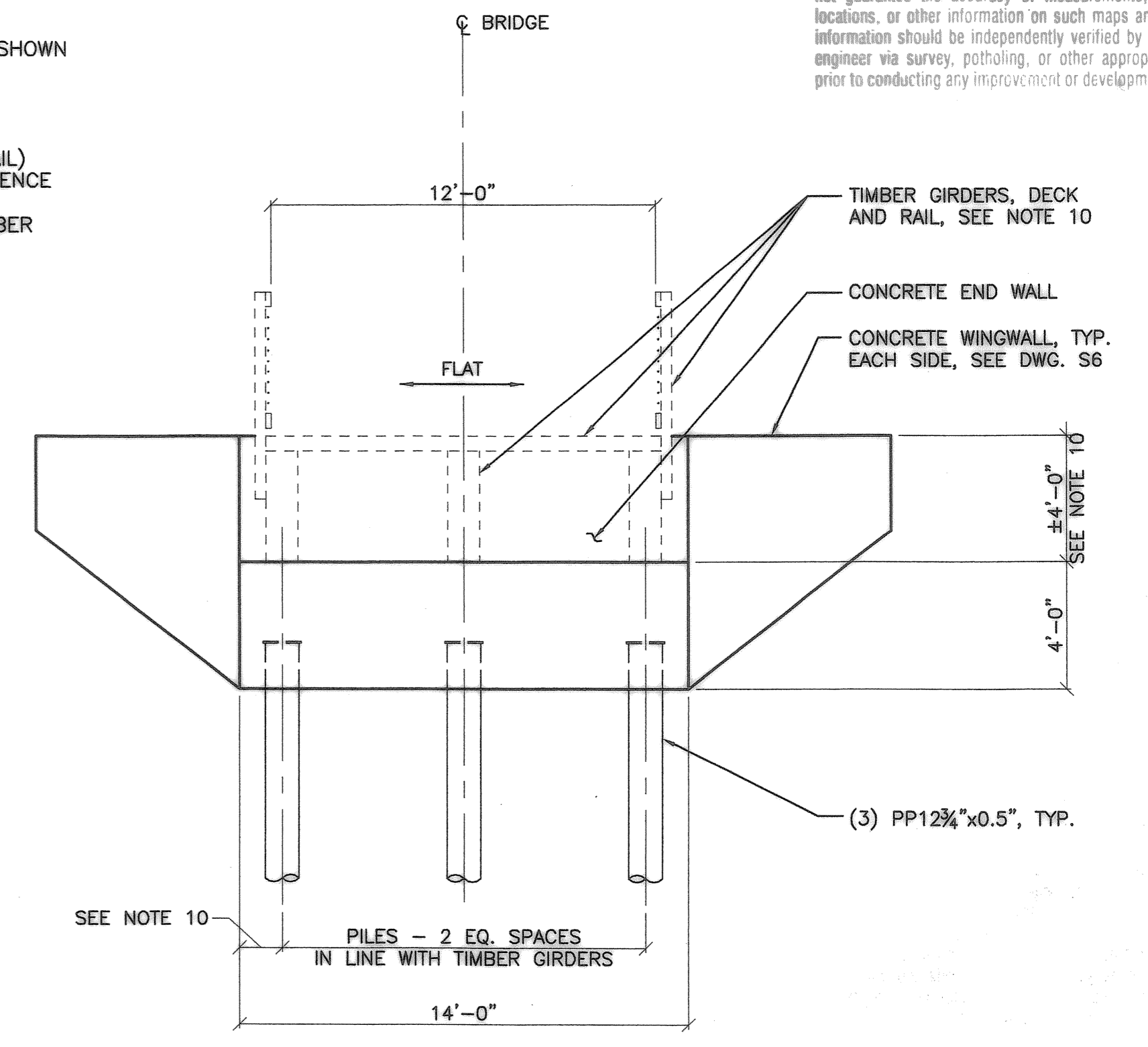
- SPLICE REINFORCING STEEL AT ALTERNATE BARS, STAGGERED AT LEAST ONE SPLICE LENGTH OR AS FAR AS POSSIBLE, UNLESS SHOWN OTHERWISE.
- PLACE BARS 2" CLEAR OF THE NEAREST FACE OF CONCRETE (UNLESS SHOWN OTHERWISE).
- PROVIDE CLASS 3600 - 1 $\frac{1}{2}$, 1 OR $\frac{3}{4}$ CONCRETE FOR ALL CONCRETE.
- PREFABRICATED TIMBER BRIDGE (SUPERSTRUCTURE, PEDESTRIAN/BIKE RAIL) SHALL BE DESIGNED AND PROVIDED BY AN APPROVED SUPPLIER. REFERENCE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE FINAL SUBSTRUCTURE AND SUPERSTRUCTURE DIMENSIONS WITH APPROVED TIMBER BRIDGE SHOP DRAWINGS.
- SEE FOUNDATION PLAN ON DWG. S3 FOR FOUNDATION DESIGN NOTES.



LOCATION MAP
No Scale

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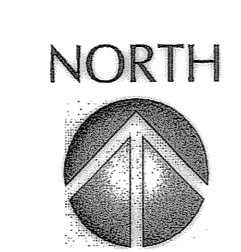
3 TYPICAL SECTION
NEAR BENT 2 - LOOKING UP STATION
1/4"=1'-0"

NOTE: All dimensions are in feet (ft) except as noted.

RECORD DRAWING

THIS DRAWING HAS BEEN UPDATED TO REFLECT CHANGES MADE DURING CONSTRUCTION BASED UPON CONSTRUCTION INSPECTOR'S NOTES AND AS-BUILT SURVEY MEASUREMENTS PERFORMED DURING CONSTRUCTION.

REVISION	DATE	DESCRIPTION	BY



City of WILSONVILLE In OREGON

Engineering Department
29799 SW Town Center Loop E
Wilsonville, OR 97070
503-682-1011
503-682-7025 fax

kpff
Consulting Engineers

111 SW 5th Avenue
Suite 2500
Portland, Oregon 97204
503-227-3251
Proj. No. 207144

JOB No.:	207144
DESIGNED BY:	JSW / KJ
DRAWN BY:	JW
CHECKED BY:	CJT
PLOT DATE:	4/10/08 2:24pm
PLOTTED BY:	jwilkes
DWG NAME:	12-207144.dwg
TAB NAME:	Layout1

City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070

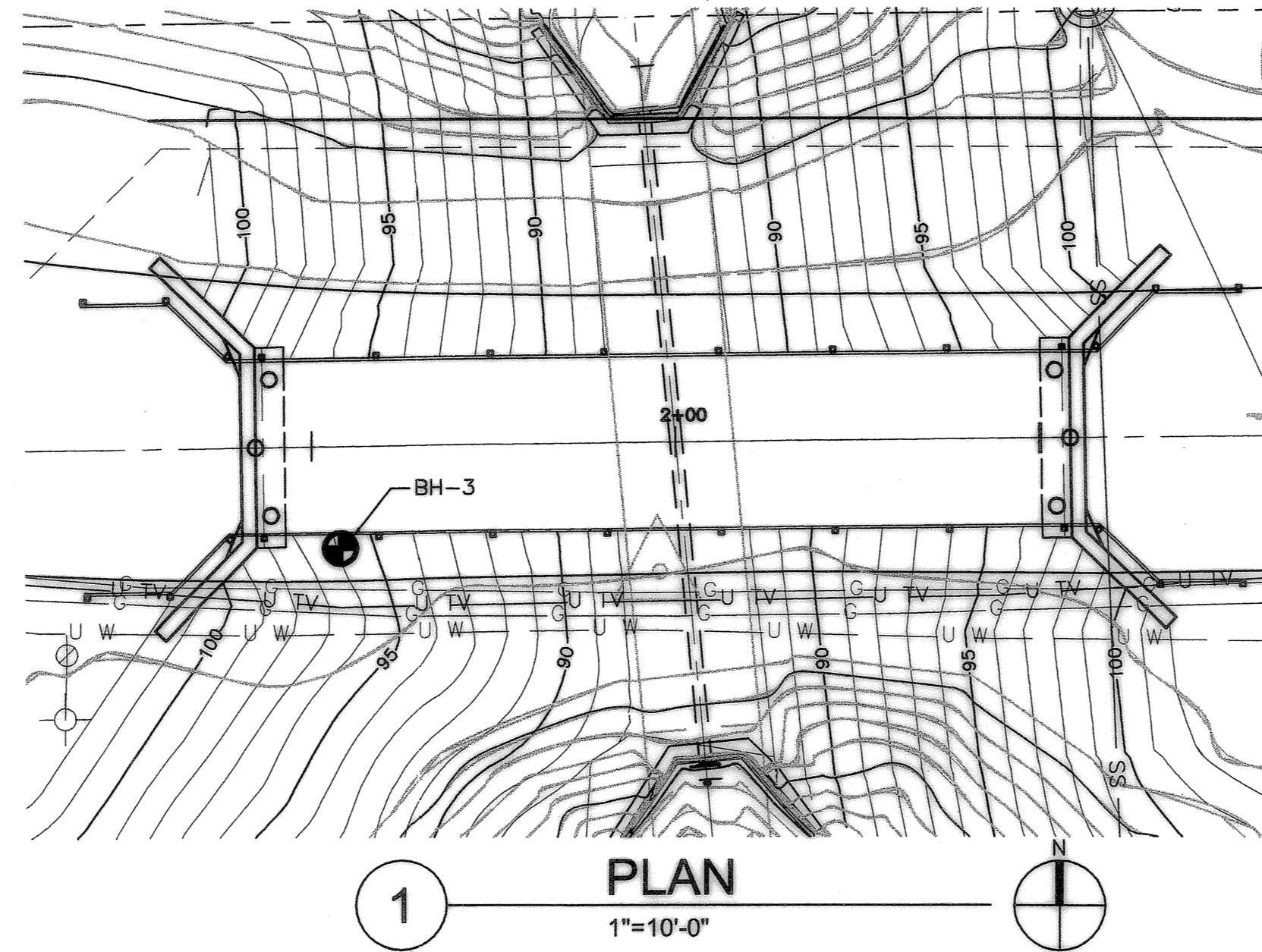
BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

BRIDGE PLAN AND ELEVATION

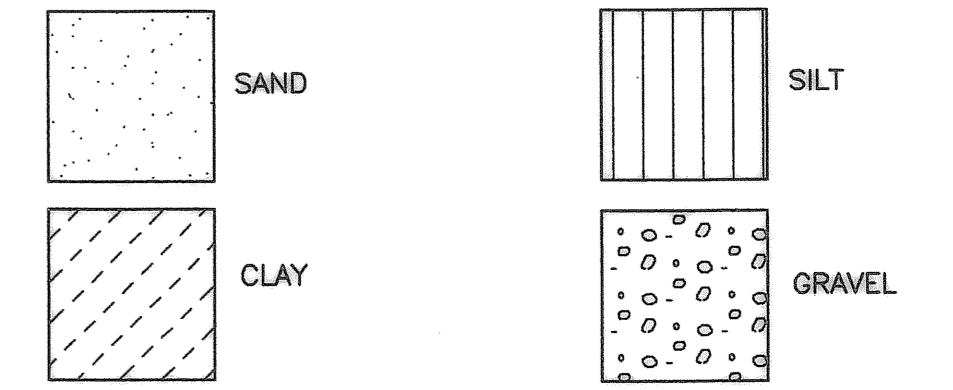
SHEET NO. S1

SHEET 12 OF 23

RECORD NO.



LEGEND OF MATERIALS

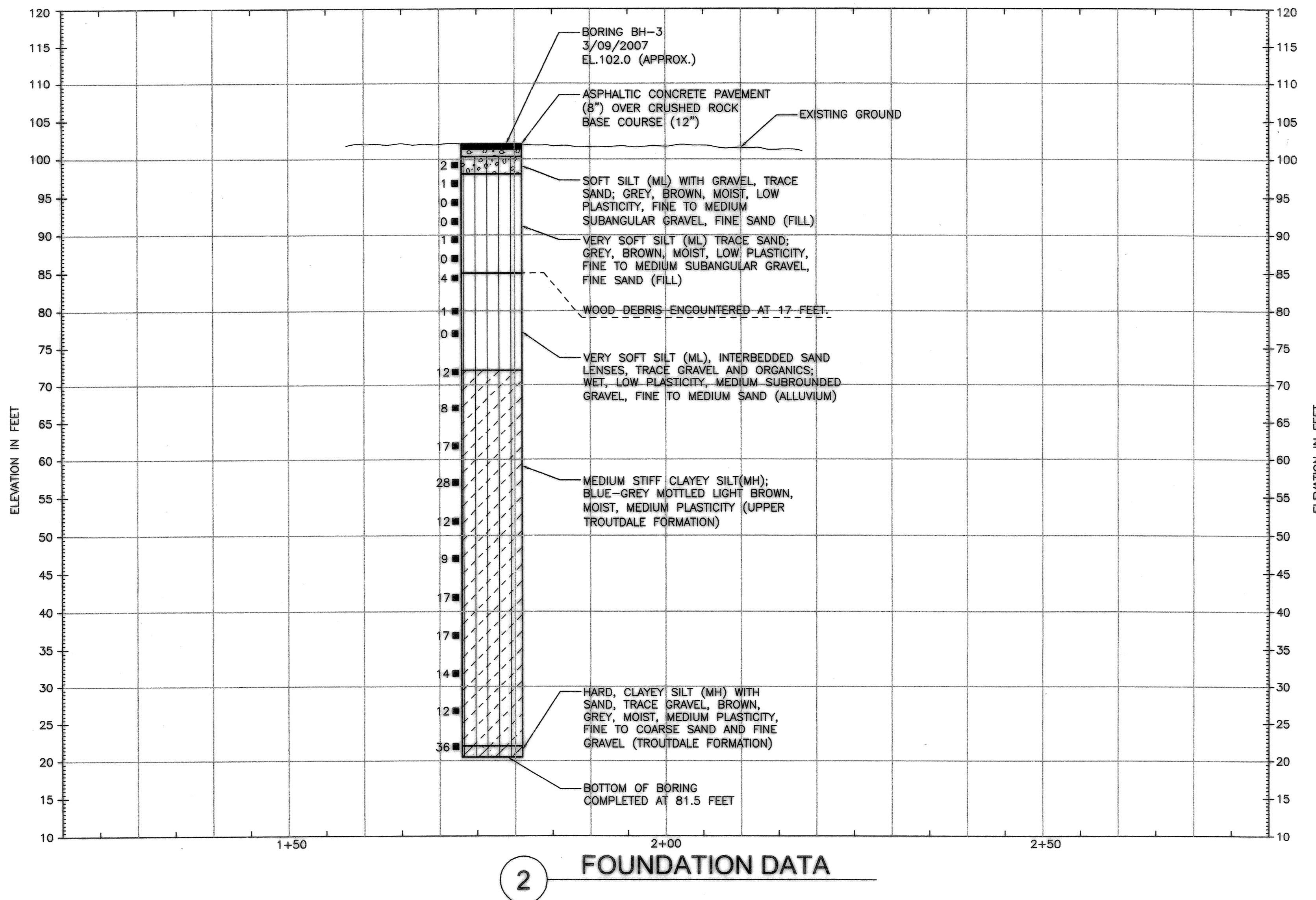


LEGEND AND NOTES

- = DRILL HOLE LOCATION.
 - 4 ■ = STANDARD PENETRATION TEST N VALUE.
- TEST HOLE LOCATION AND ELEVATION ARE APPROXIMATE.

FOUNDATION DATA SHOWN ON THIS DRAWING IS A CONSOLIDATION OF INFORMATION AND/OR REVISION IN TERMINOLOGY FROM THE SOILS AND GEOTECHNICAL EXPLORATION LOGS. THE SOILS AND GEOTECHNICAL EXPLORATION LOGS USED IN COMPILING THIS DRAWING ARE AVAILABLE UPON REQUEST.

GROUNDWATER LEVEL ASSUMED TO BE AT THE ELEVATION OF BOECKMAN CREEK.



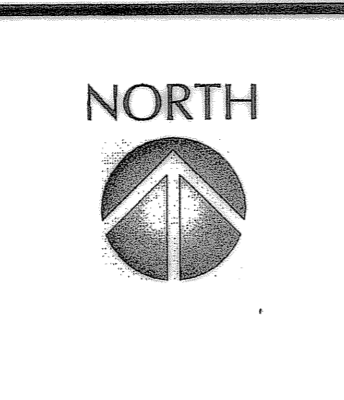
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RECORD DRAWING

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REVISION	DATE	DESCRIPTION	BY



FOUNDATION ENGINEERING INC.
PROFESSIONAL GEOTECHNICAL SERVICES
8380 SW NIMBUS AVE
BEASTON, OR 97008
BUS (503) 648-1541 FAX (503) 626-2419

CITY OF WILSONVILLE
IN OREGON
Engineering Department
29799 SW Town Center Lp. E
Wilsonville, OR 97070
503-682-1011
503-682-7025 fax

kpff
Consulting Engineers
111 SW 5th Avenue
Suite 2500
Portland, Oregon 97204
503-227-3251
Proj. No. 207144

JOB No.:	207144
DESIGNED BY:	JSW / KJ
DRAWN BY:	JW
CHECKED BY:	CJT
PLOT DATE:	4/10/08 2:25pm
PLOTTED BY:	jwlikes
DWG NAME:	13-207144.dwg
TAB NAME:	Layout1

City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

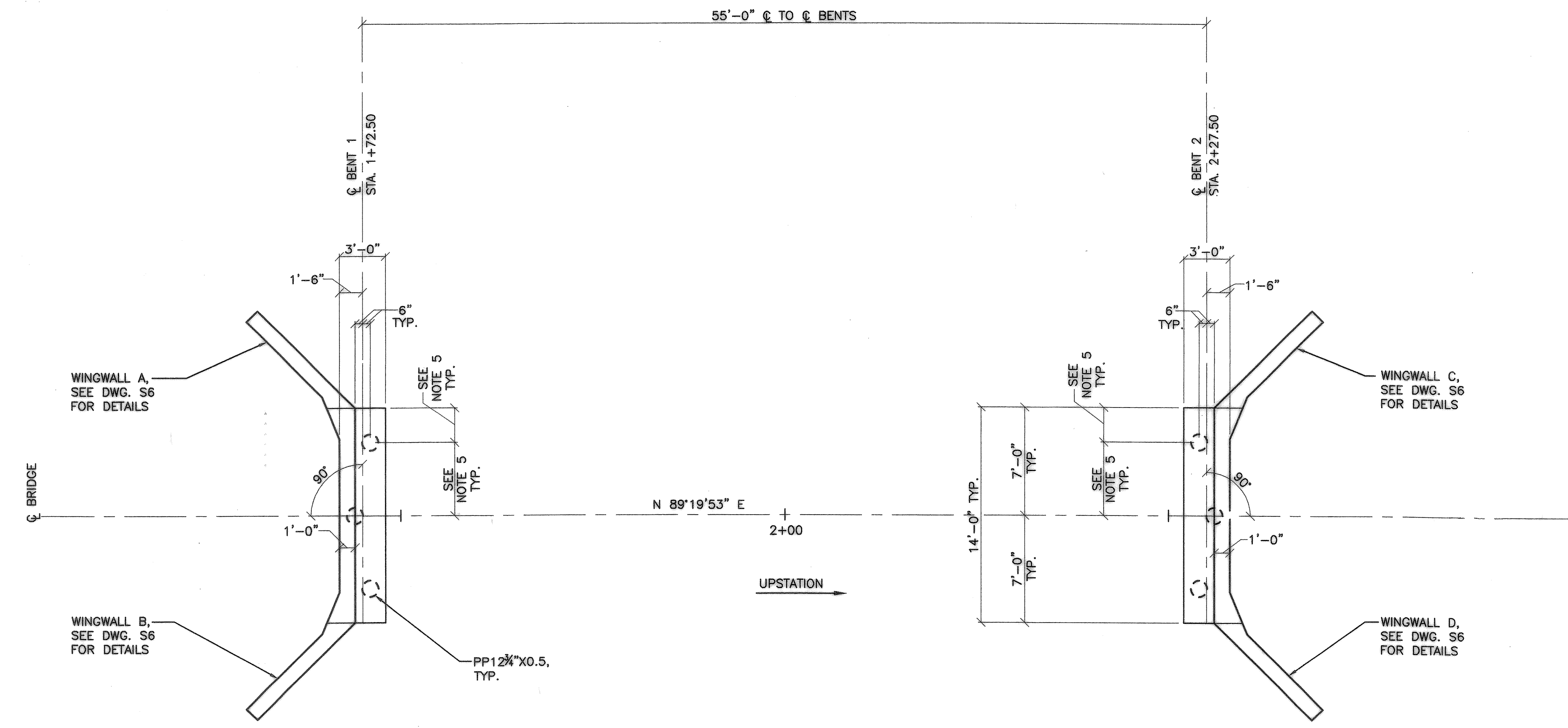
FOUNDATION DATA

SHEET NO. **S2**

SHEET 13 OF 23
RECORD NO.

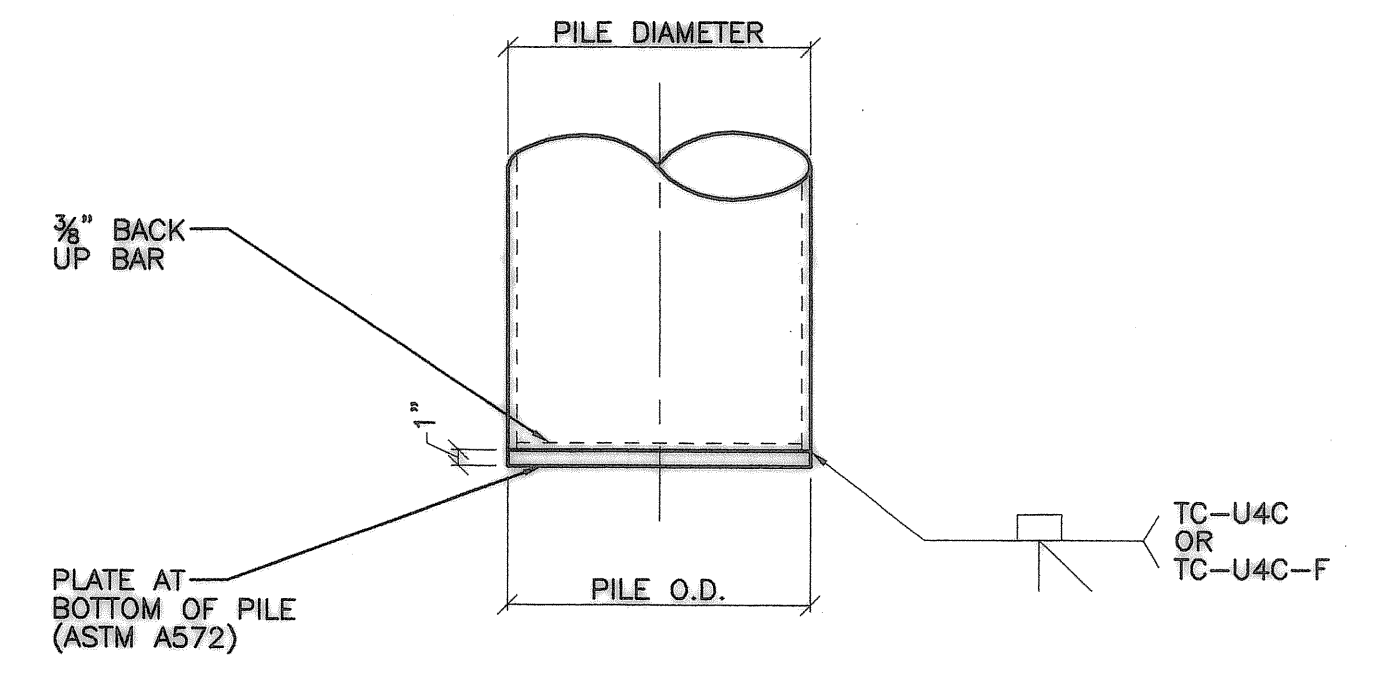
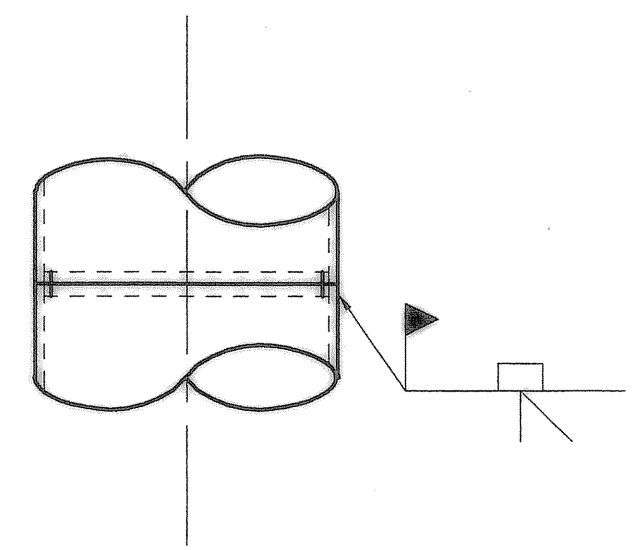
- FOUNDATION NOTES**
- ALL BENTS PROVIDE 12"x0.500", ASTM A252 GRADE 2 PILING DRIVEN CLOSED-ENDED TO AN ULTIMATE CAPACITY OF 165 KIPS PER PILE.
 - ESTIMATED PILE TIP ELEVATION FOR REQUIRED CAPACITY AT ALL BENTS IS ELEVATION 36 FT.
 - DRIVE ALL PILING TO THE SPECIFIED ULTIMATE CAPACITY USING DRIVING CRITERIA DEVELOPED FROM THE ODOT GATES EQUATION.
 - LOCATE EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK. AVOID DAMAGING AND PROTECT AS REQUIRED.
 - PIPE PILE TO ALIGN WITH C OF TIMBER GIRDER. COORDINATE WITH APPROVED TIMBER BRIDGE SHOP DRAWINGS.

Record Drawings, Maps, and Plans Not Guaranteed
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1 FOUNDATION PLAN
 3/16"=1'-0"

2 PIPE PILE SPLICE
 NO SCALE

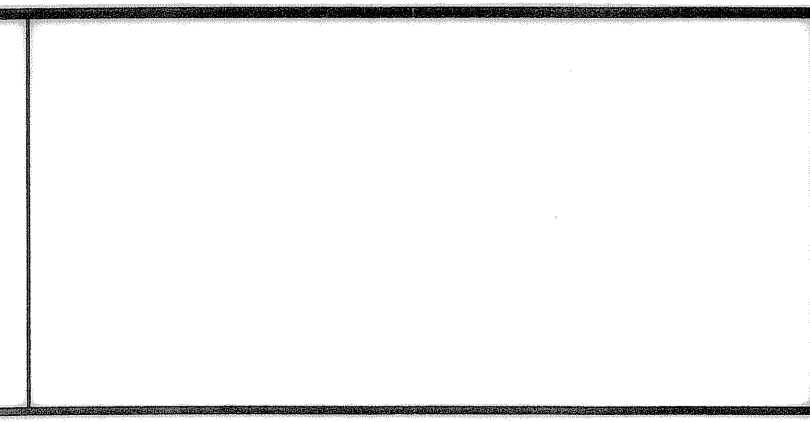
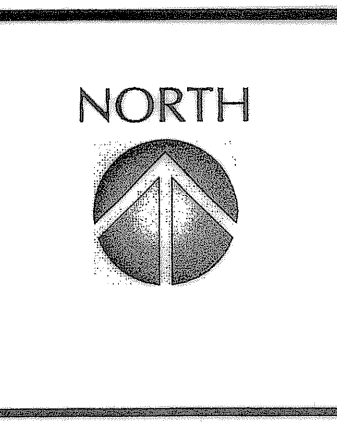


3 PILE TIP TREATMENT-(CLOSED ENDED)
 NO SCALE

RECORD DRAWING

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REVISION	DATE	DESCRIPTION	BY

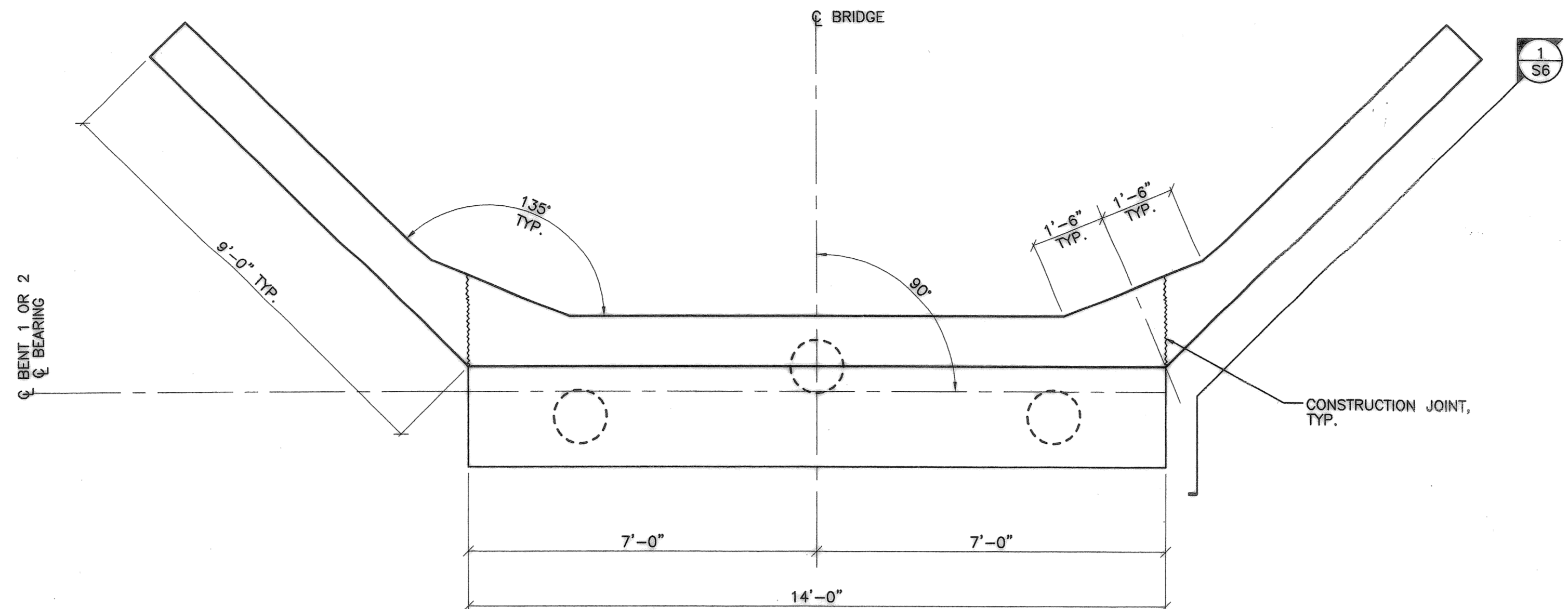


Engineering Department
 23799 SW Town Center Loop, E
 Wilsonville, OR 97070
 503-682-1011
 503-682-7025 fax

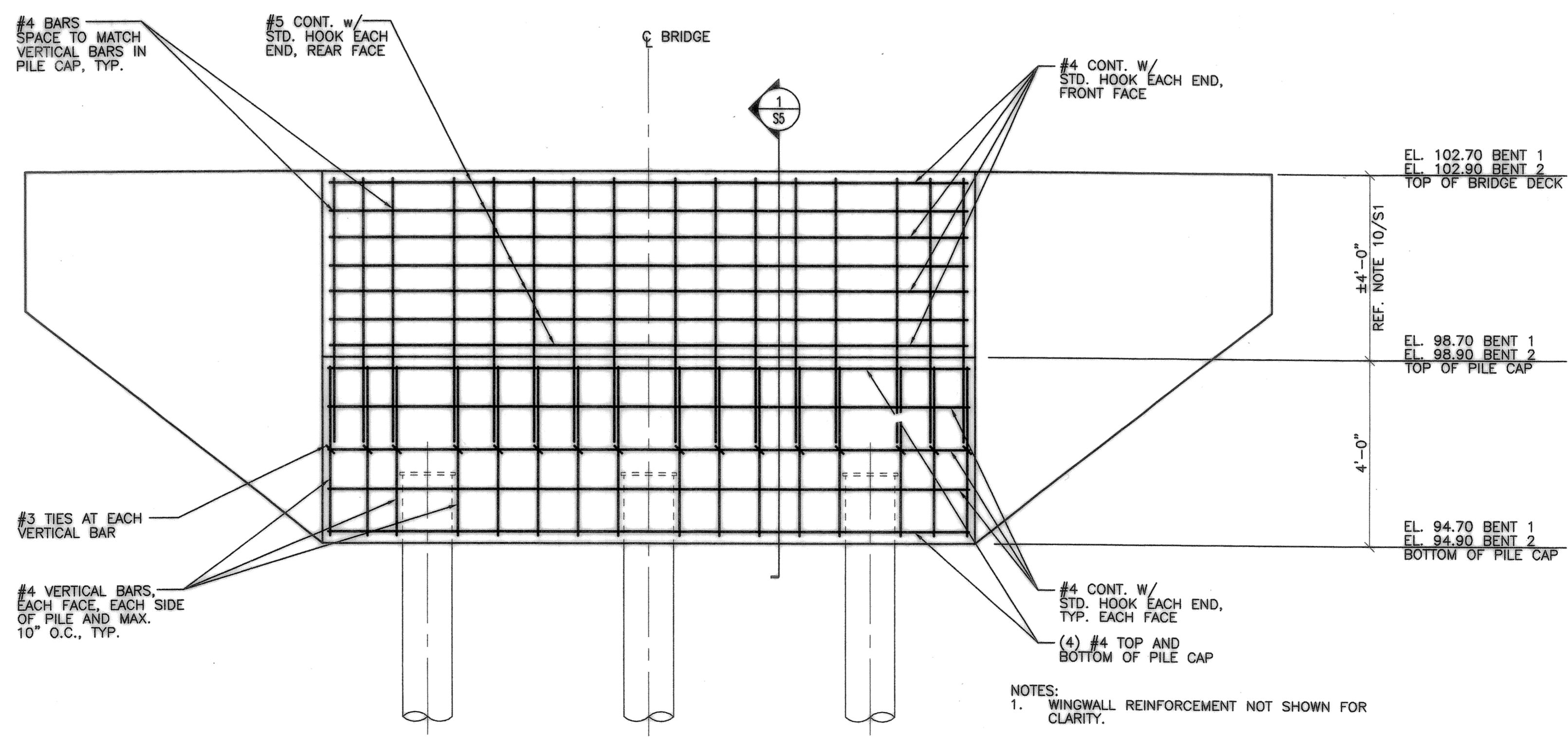
k p f f
 Consulting Engineers
 111 SW 5th Avenue
 Suite 2500
 Portland, Oregon 97204
 503-227-3251
 Proj. No. 207144

JOB No.:	207144
DESIGNED BY:	JSW / KJ
DRAWN BY:	JW
CHECKED BY:	CJT
PLOT DATE:	4/10/08 2:26pm
PLOTTED BY:	jwilkes
DWG NAME:	14-207144.dwg
TAB NAME:	Layout1

City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070
 BOECKMAN CREEK FISH PASSAGE
 & STREAM RESTORATION PROJECT
 UPPER SITE (KOLBE LANE)
FOUNDATION PLAN



1 PLAN - BENT 1 & 2
 1/2"=1'-0"



2 ELEVATION - BENT 1 & 2
 (LOOKING DOWN STATION AT BENT 1)
 (LOOKING UP STATION AT BENT 2)
 1/2"=1'-0"

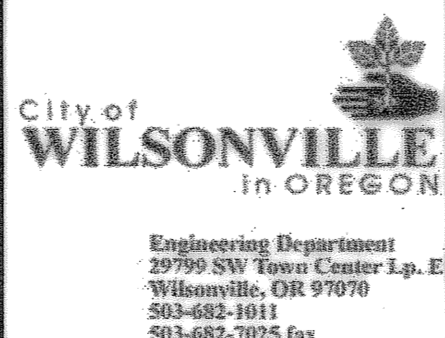
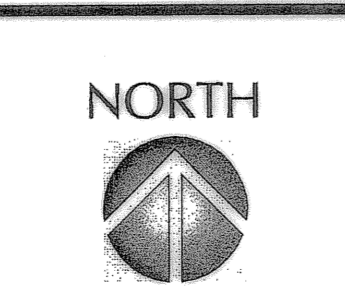
- NOTES:
 1. WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY.
 2. REF. DWG. S6 FOR ADDITIONAL WINGWALL REINFORCEMENT TO BE EMBEDDED INTO END BENT.

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REVISION	DATE	DESCRIPTION	BY



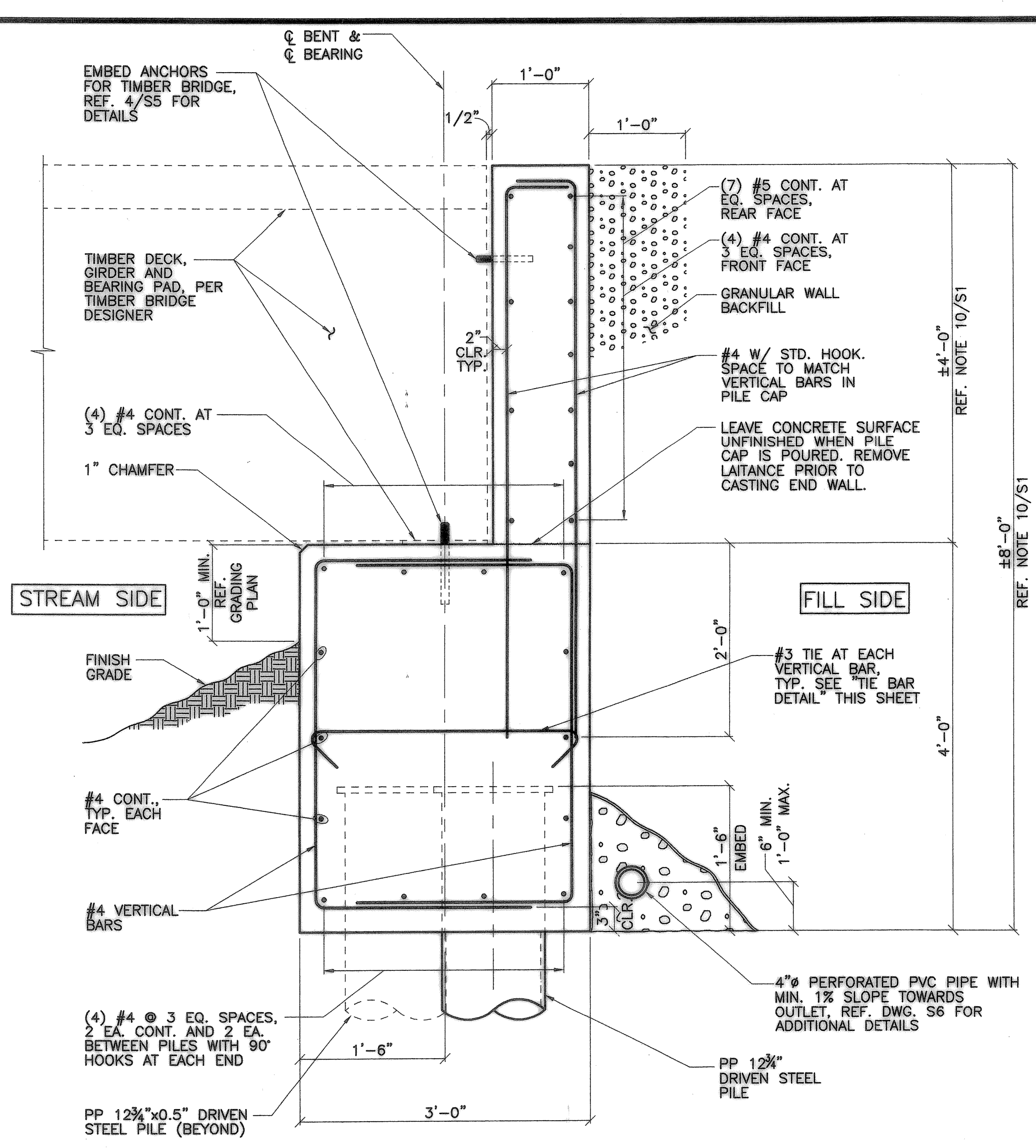
JOB No.:	207144
DESIGNED BY:	JSW / KJ
DRAWN BY:	JW
CHECKED BY:	CJT
PLOT DATE:	4/10/08 2:26pm
PLOTTED BY:	jwilkes
DWG NAME:	15-207144.dwg
TAB NAME:	Layout1

City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070

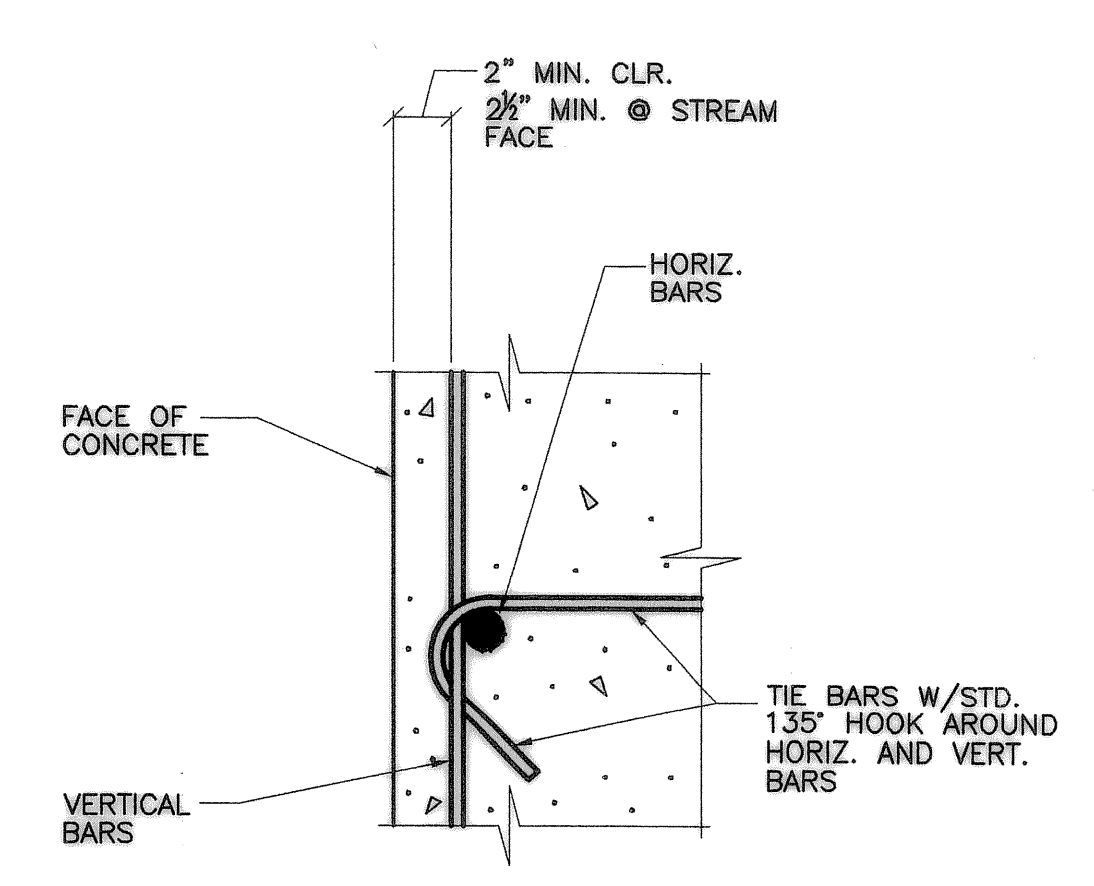
BOECKMAN CREEK FISH PASSAGE
 & STREAM RESTORATION PROJECT
 UPPER SITE (KOLBE LANE)

BENT 1 & 2 PLAN AND ELEVATION

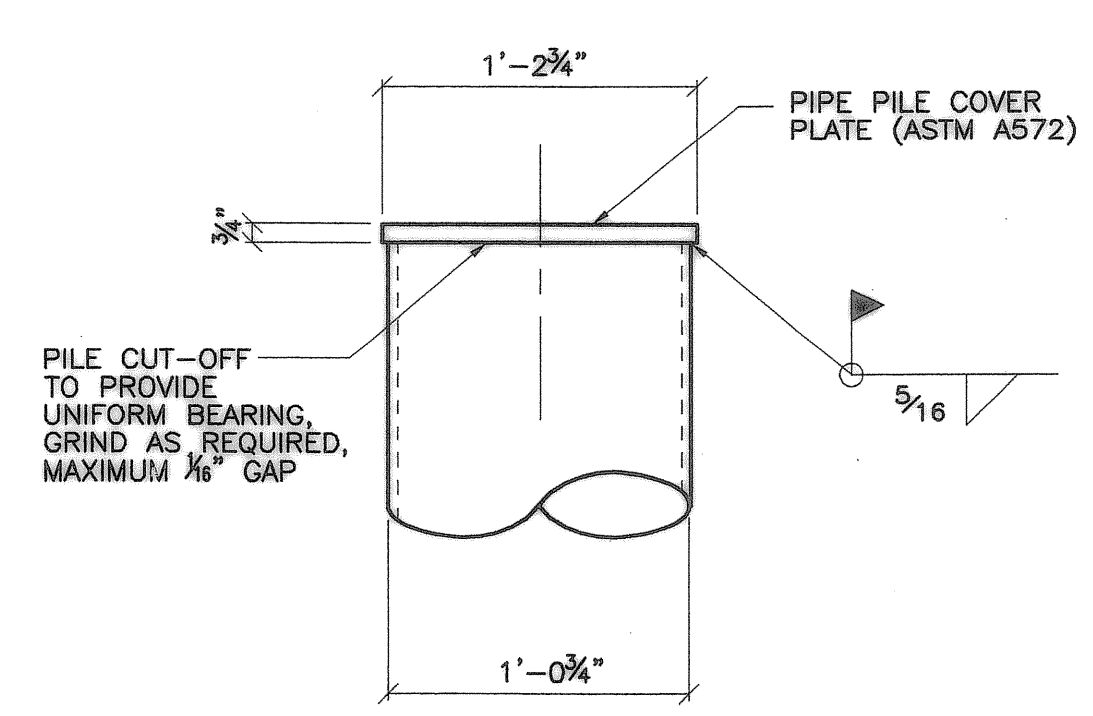
SHEET NO.	
S4	
SHEET	15 OF 23
RECORD NO.	



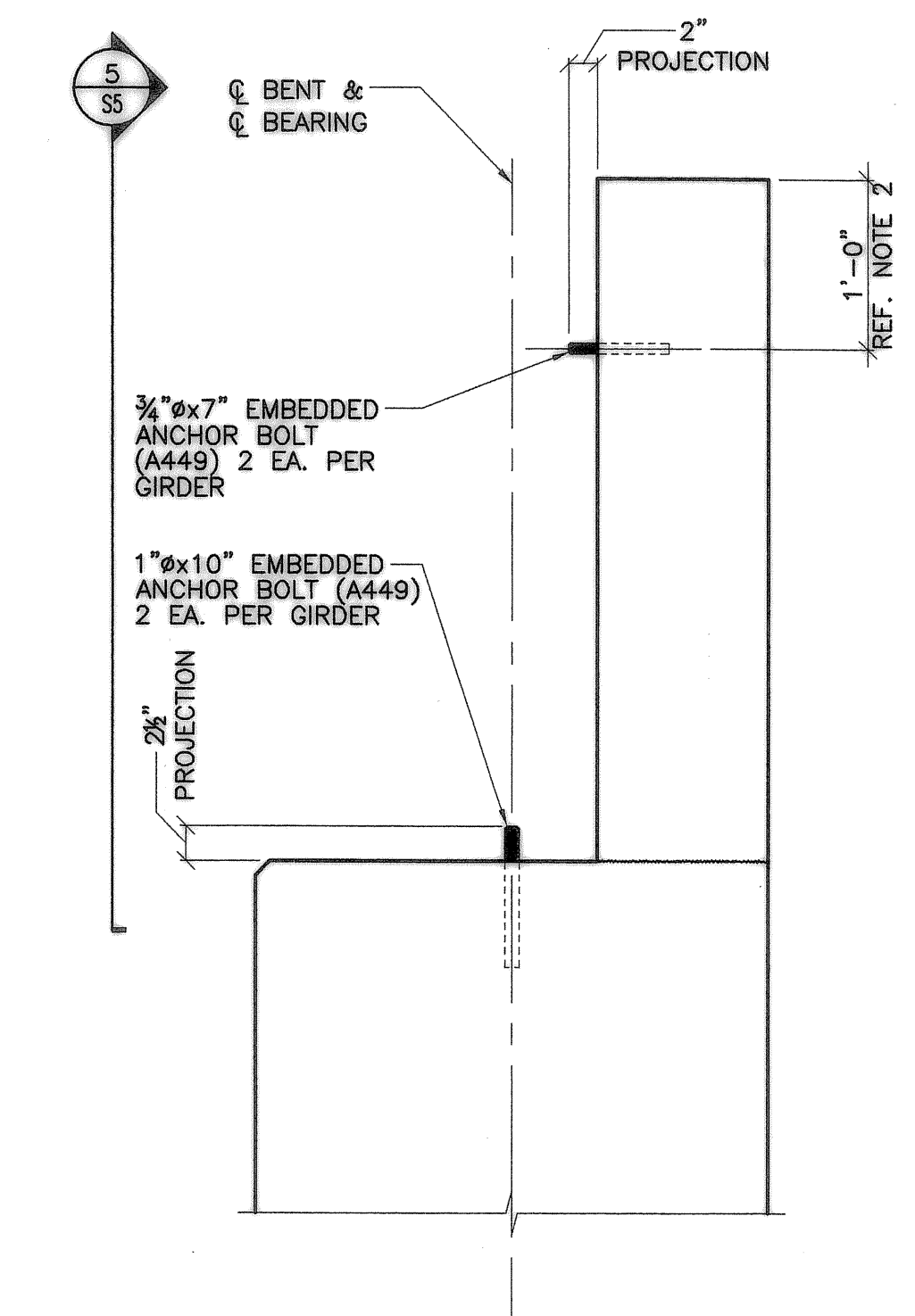
1 SECTION
1"=1'-0"



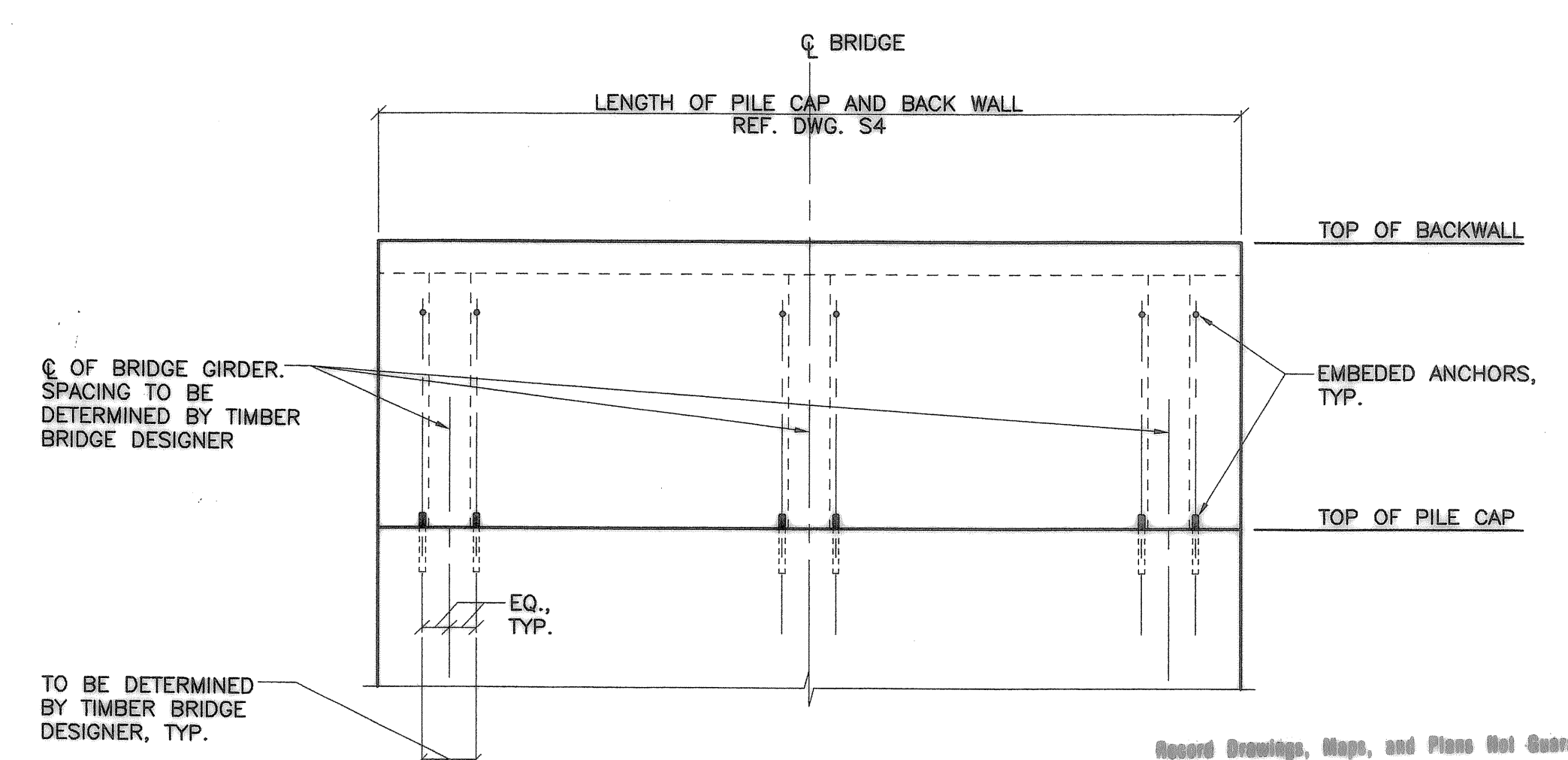
2 TIE BAR DETAIL
NO SCALE



3 PIPE PILE COVER PLATE
NO SCALE



4 ANCHOR BOLT DETAIL
1"=1'-0"



5 ANCHOR BOLT DETAIL
1/2"=1'-0"

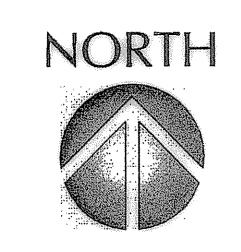
NOTES:
1. PILE CAP AND BACK WALL REINFORCING NOT SHOWN.
2. VERIFY ANCHOR BOLT DETAILS WITH APPROVED TIMBER BRIDGE SHOP DRAWINGS.

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REVISION	DATE	DESCRIPTION	BY



City of
WILSONVILLE
in OREGON

Engineering Department
29799 SW Town Center Loop E
Wilsonville, OR 97070
503-682-1014
503-682-7025 fax

kpff
Consulting Engineers

111 SW 5th Avenue
Suite 2500
Portland, Oregon 97204
503-227-3251
Proj. No. 207144

JOB No.:	207144
DESIGNED BY:	JSW / KJ
DRAWN BY:	JW
CHECKED BY:	CJT
PLOT DATE:	4/10/08 2:27pm
PLOTTED BY:	jwilkes
DWG NAME:	16-207144.dwg
TAB NAME:	Layout1

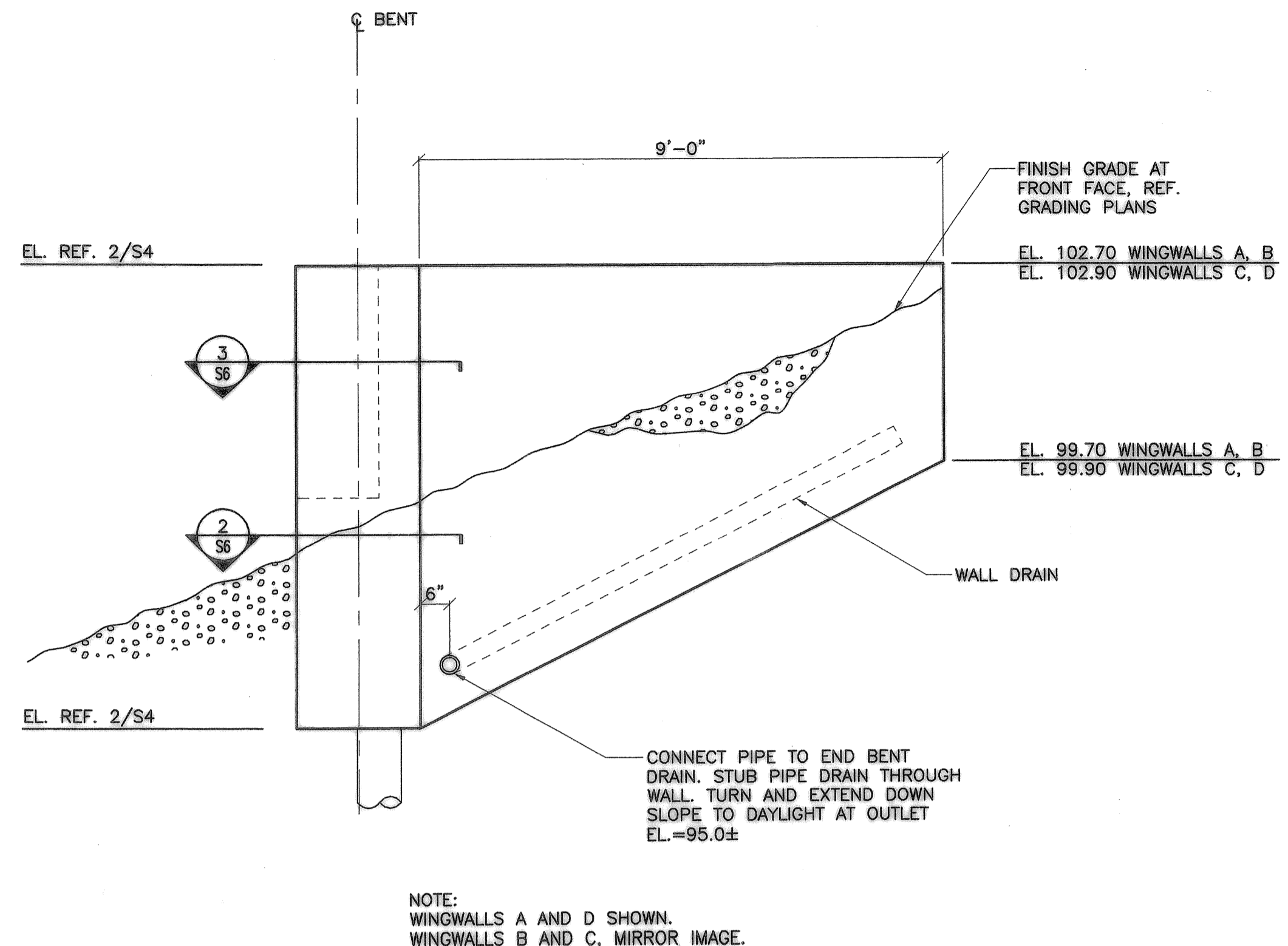
City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070

BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

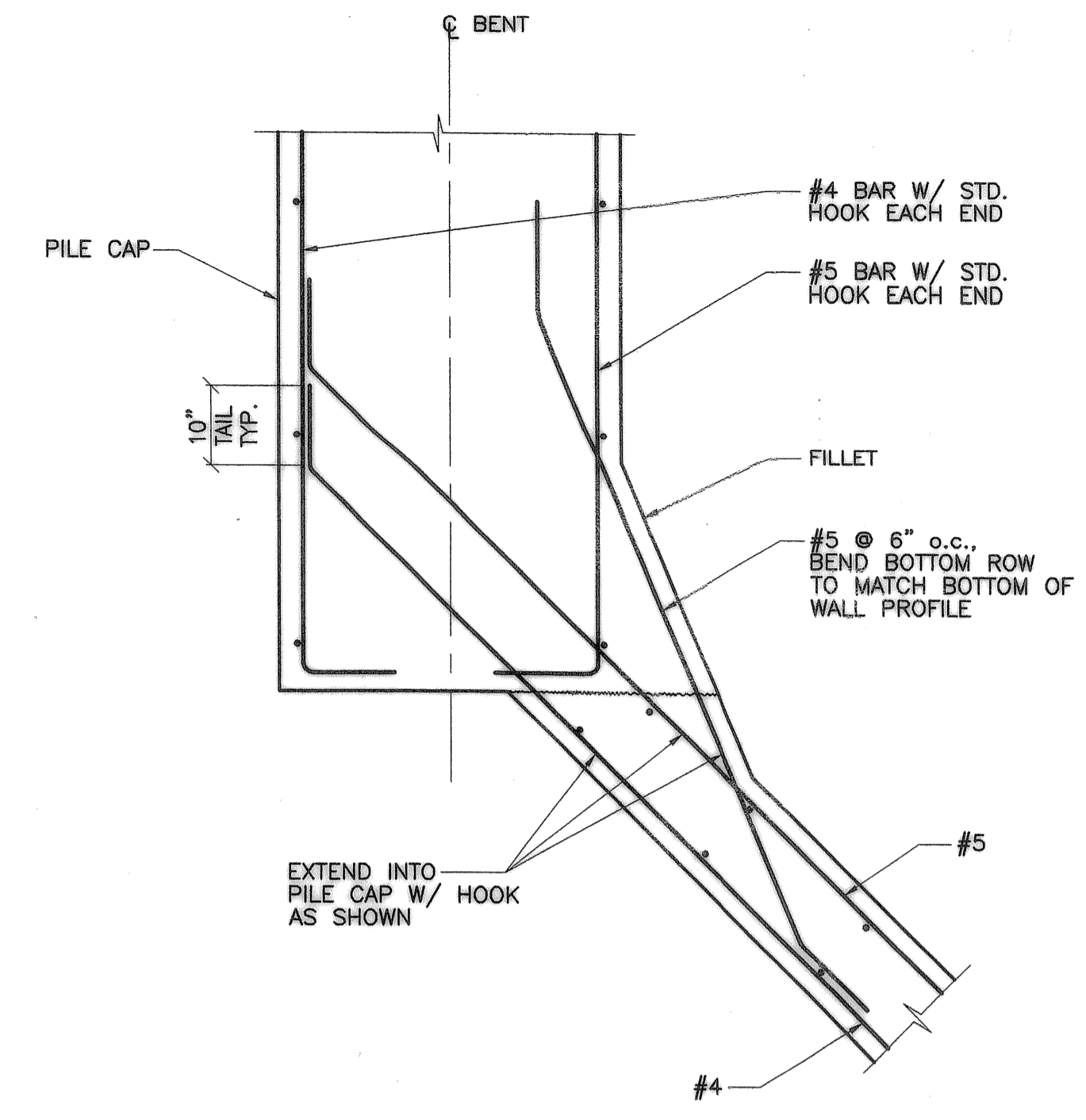
BENT 1 AND 2 DETAILS

SHEET NO.
S5

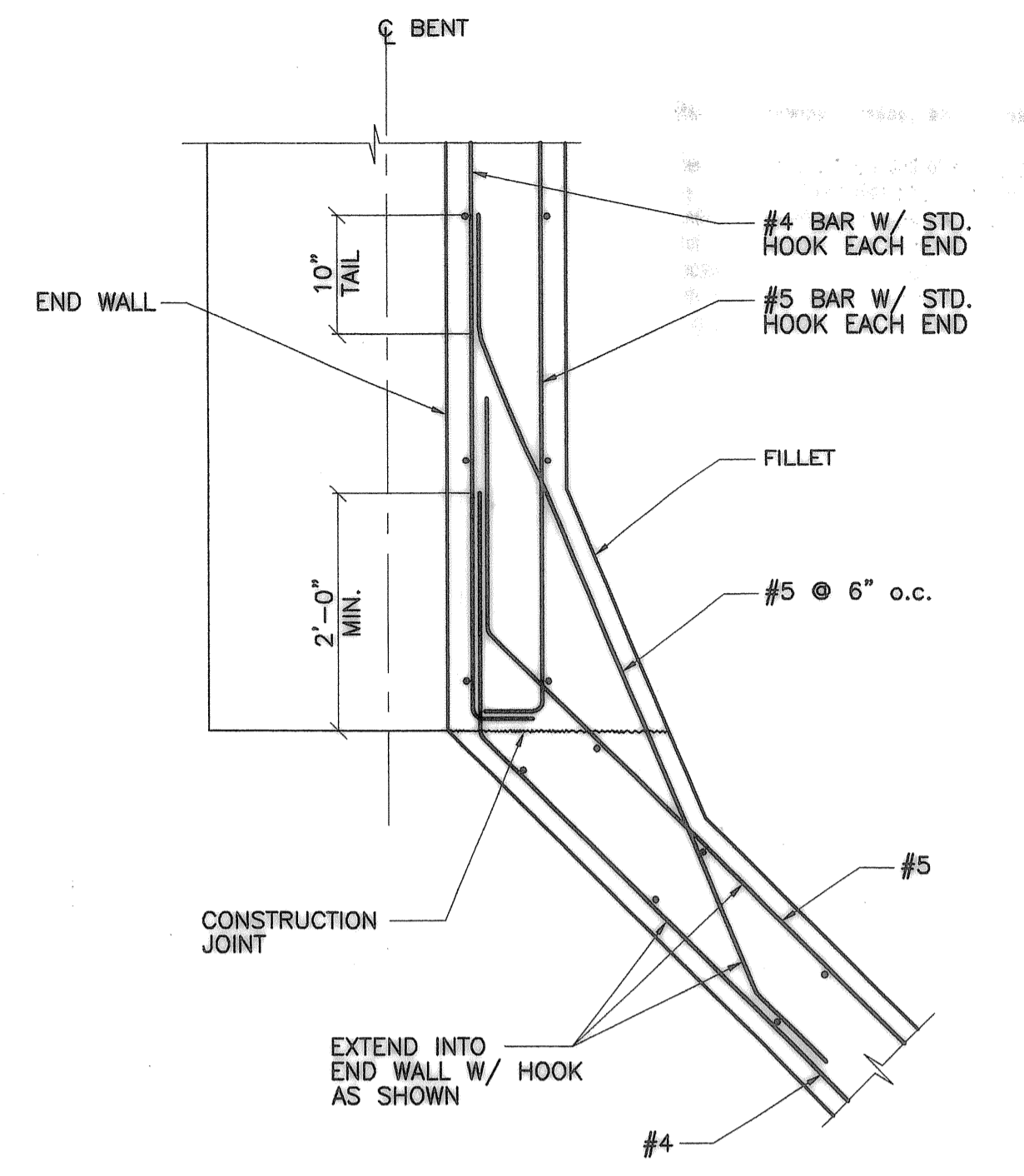
SHEET 16 OF 23
RECORD NO.



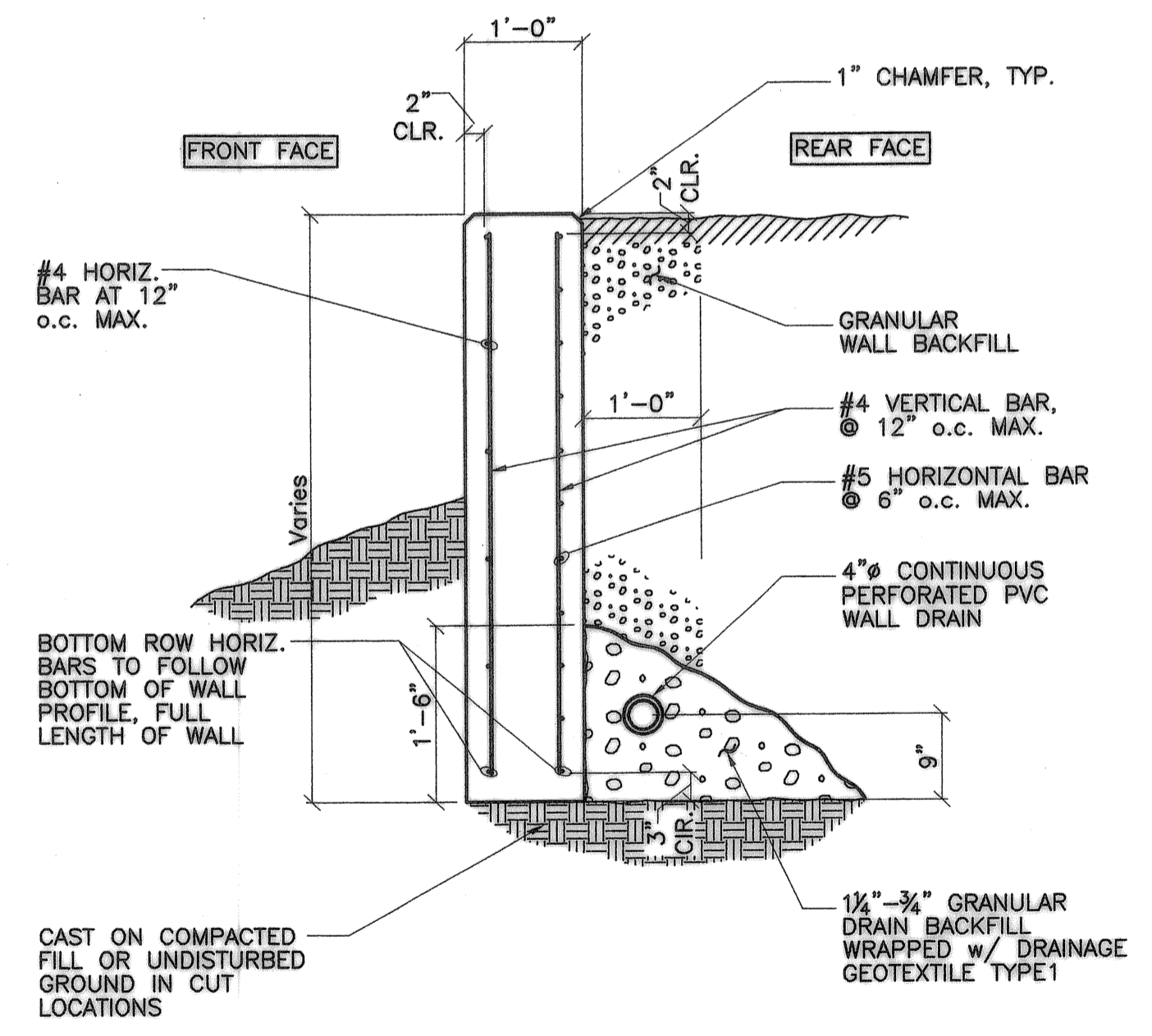
1 WINGWALL ELEVATION
1/2"=1'-0"



2 SECTION
3/4"=1'-0"



3 SECTION
3/4"=1'-0"



4 WINGWALL SECTION
3/4"=1'-0"

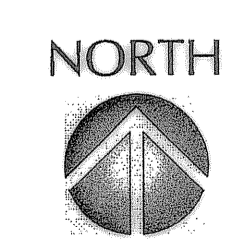
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REVISION	DATE	DESCRIPTION	BY



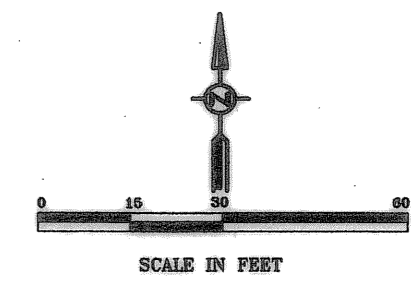
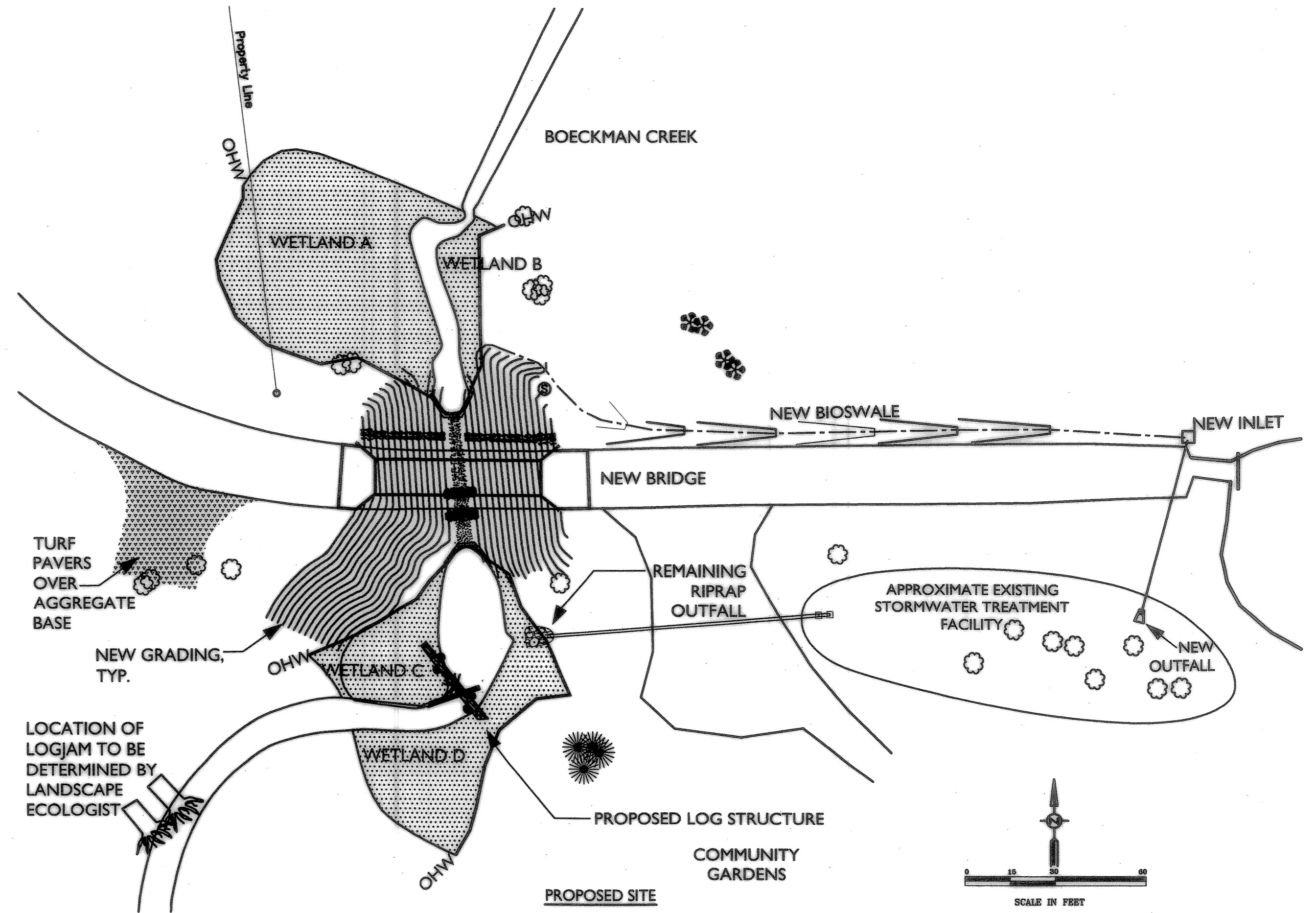
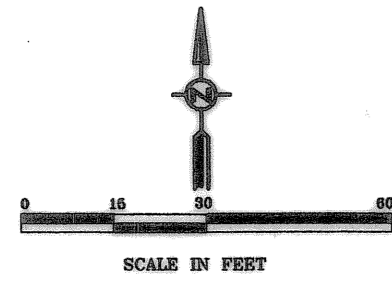
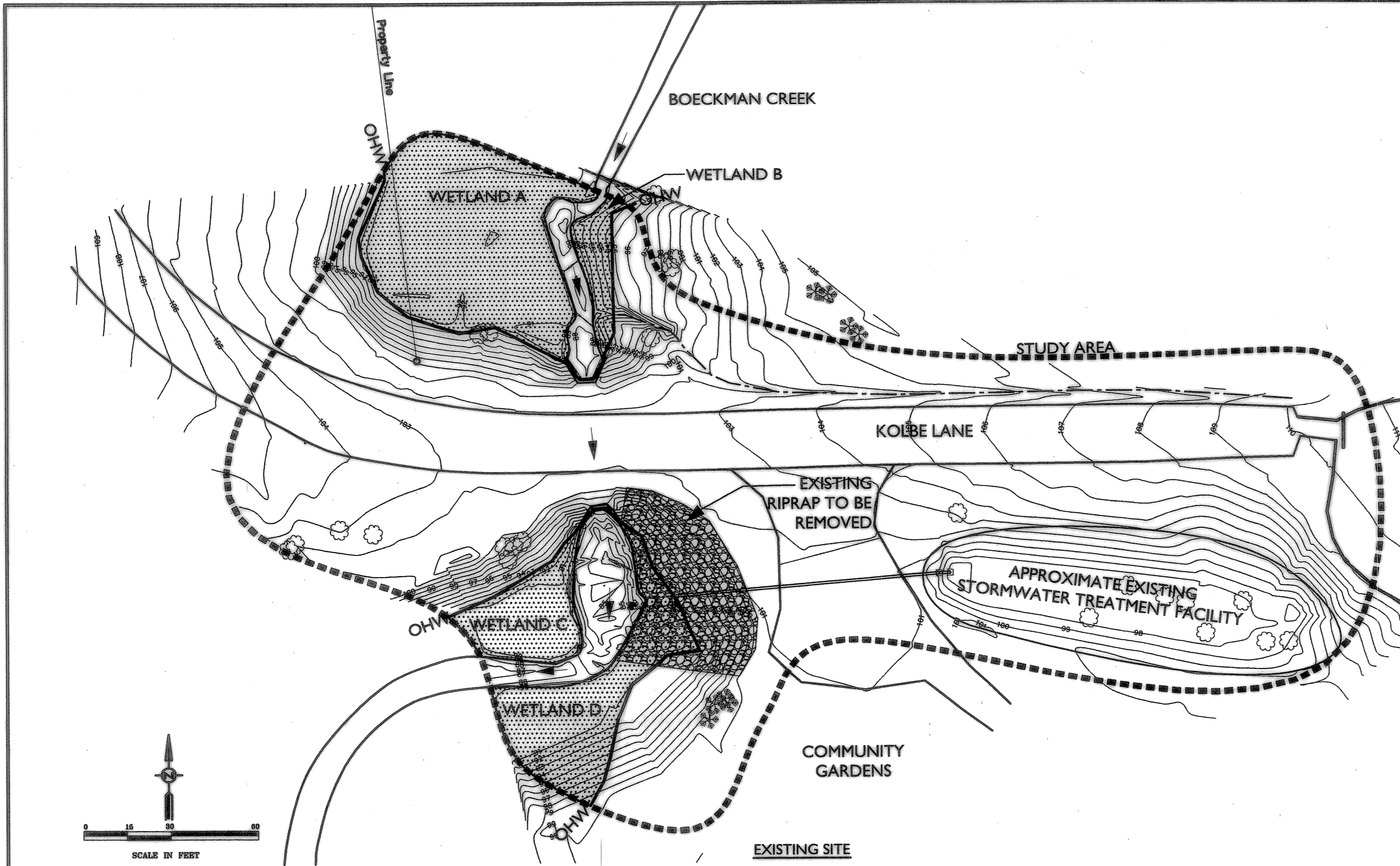
JOB No.:	207144
DESIGNED BY:	JSW / KJ
DRAWN BY:	JW
CHECKED BY:	CJT
PLOT DATE:	4/10/08 2:28pm
PLOTTED BY:	jwilkes
DWG NAME:	17-207144.dwg
TAB NAME:	Layout1

City of Wilsonville, 28799 SW Town Center Loop E, Wilsonville, Oregon 97070

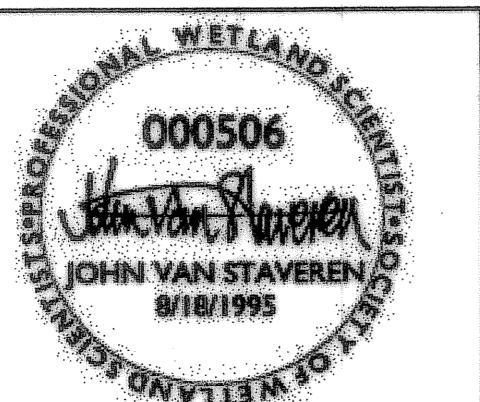
BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

WINGWALL DETAILS

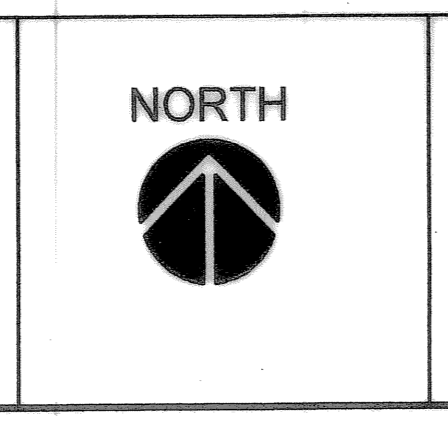
SHEET NO. S6
SHEET 17 OF 23
RECORD NO.



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REVISION	DATE	DESCRIPTION	BY



Habitat Concepts
Dennis O'Connor, Restoration Ecologist
P. O. Box 91231 Portland, Oregon 97291
503.617.6553 voice 317.6553 mobile
habitatconcepts@verizon.net

PHS
PACIFIC HABITAT SERVICES
9450 SW Commerce Circle, Ste. 180
Wilsonville, Oregon 97070
Phone: (503) 570-0009
Fax: (503) 570-0855
E-mail: phs@pacific-habitat.com

CITY OF WILSONVILLE
In OREGON
Engineering Department
28799 SW Town Center Exp. E
Wilsonville, OR 97070
503-652-1811
503-652-7825 fax

kpff
Consulting Engineers
711 SW First Avenue
Suite 2020
Portland, Oregon 97204
(503) 227-3361
STRUCT. FAX (503) 227-2300
CIVIL FAX (503) 274-4881

JOB No.:	307020.00
DESIGNED BY:	DO/JVS/DS
DRAWN BY:	SB
CHECKED BY:	CCV
PLOT DATE:	
PLOTTED BY:	
DWG NAME:	
TAB NAME:	

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070
**BOECKMAN CREEK FISH PASSAGE
& STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)**
EXISTING & FINAL SITES

SHEET NO.	LS-1
SHEET	19 OF 23
RECORD NO.	307020-06

UPPER BOECKMAN CREEK TURNAROUND PLANTING AREA

Botanical Name	Common Name	Spacing	Size/Form	% of Mix
PAVER SEED MIX (2 lbs./1,000 sf)				
<i>Achillea millefolium</i>	common yarrow		seed	20
<i>Bromus carinatus</i>	California brome		seed	20
<i>Clarkia amoena</i>	godetia		seed	10
<i>Elymus glaucus</i>	blue wildrye		seed	15
<i>Eschscholzia californica</i>	California poppy		seed	15
<i>Trifolium fragiferum</i>	Salina strawberry clover		seed	20
VISUAL SCREEN (AROUND PERIMETER/OUTSIDE OF PAVERS)				
<i>Arbutus menziesii</i>	madrone	20' O.C.	1 gallon	5
<i>Arctostaphylos uva-ursi</i>	kinnickinnick	4' O.C.	1 gallon	40
<i>Ceanothus sanguineus</i>	red stem ceanothus	8' O.C.	1 gallon	20
<i>Rhamnus purshiana</i>	cascara	8' O.C.	1 gallon	15
<i>Ribes sanguineum</i>	red flowering currant	8' O.C.	1 gallon	20

UPPER BOECKMAN CREEK PALUSTRINE SCRUB-SHRUB PLANTING AREA

Botanical Name	Common Name	Spacing	Size/Form	Quantity
<i>Bidens cernua</i>	Nodding beargartick	1' O.C.	4" pot	100
<i>Cornus stolonifera</i>	Red-osier dogwood	8' O.C.	1 gallon	80
<i>Crataegus douglasii</i>	Douglas hawthorn	10' O.C.	"	30
<i>Fraxinus latifolia</i>	Oregon ash	15' O.C.	1 gallon	20
<i>Juncus patens</i>	Spreading rush	6' O.C.	plug	200
<i>Rosa pisocarpa</i>	Clustered rose	3' O.C.	"	120
<i>Salix lasioandra</i>	Pacific willow	15' O.C.	pole cuttings**	40
<i>Salix scouleriana</i>	Scouler willow	8' O.C.	1 gallon	50
<i>Salix scouleriana</i>	Scouler willow	3' O.C.	cuttings	150
<i>Salix sitchensis</i>	Sitka willow	8' O.C.	1 gallon	50
<i>Salix sitchensis</i>	Sitka willow	3' O.C.	cuttings	100
<i>Sambucus cerulea</i>	blue elderberry	15' O.C.	pole cuttings**	30
<i>Spiraea douglasii</i>	Douglas spirea	3' O.C.	1 gallon	200

**rooted seedling or 1 gallon
**6-8 feet in height

UPPER BOECKMAN CREEK PALUSTRINE EMERGENT PLANTING AREA

Botanical Name	Common Name	Spacing	Size/Form	Quantity
<i>Beckmannia syzigachne</i>	American sloughgrass	6' O.C.	plug	200
<i>Eleocharis palustris</i>	Creeping spike rush	6' O.C.	plug	300
<i>Scirpus microcarpus</i>	Small-fruited bulrush	6' O.C.	plug	100
<i>Veronica americana</i>	American Brooklime	1' O.C.	plug	50
<i>Veronica scutellata</i>	Marsh speedwell	6' O.C.	plug	50
<i>Salix scouleriana</i>	Scouler willow	3' O.C.	cuttings	100
<i>Salix sitchensis</i>	Sitka willow	3' O.C.	cuttings	150

UPPER BOECKMAN CREEK UPLAND FOREST PLANTING AREA

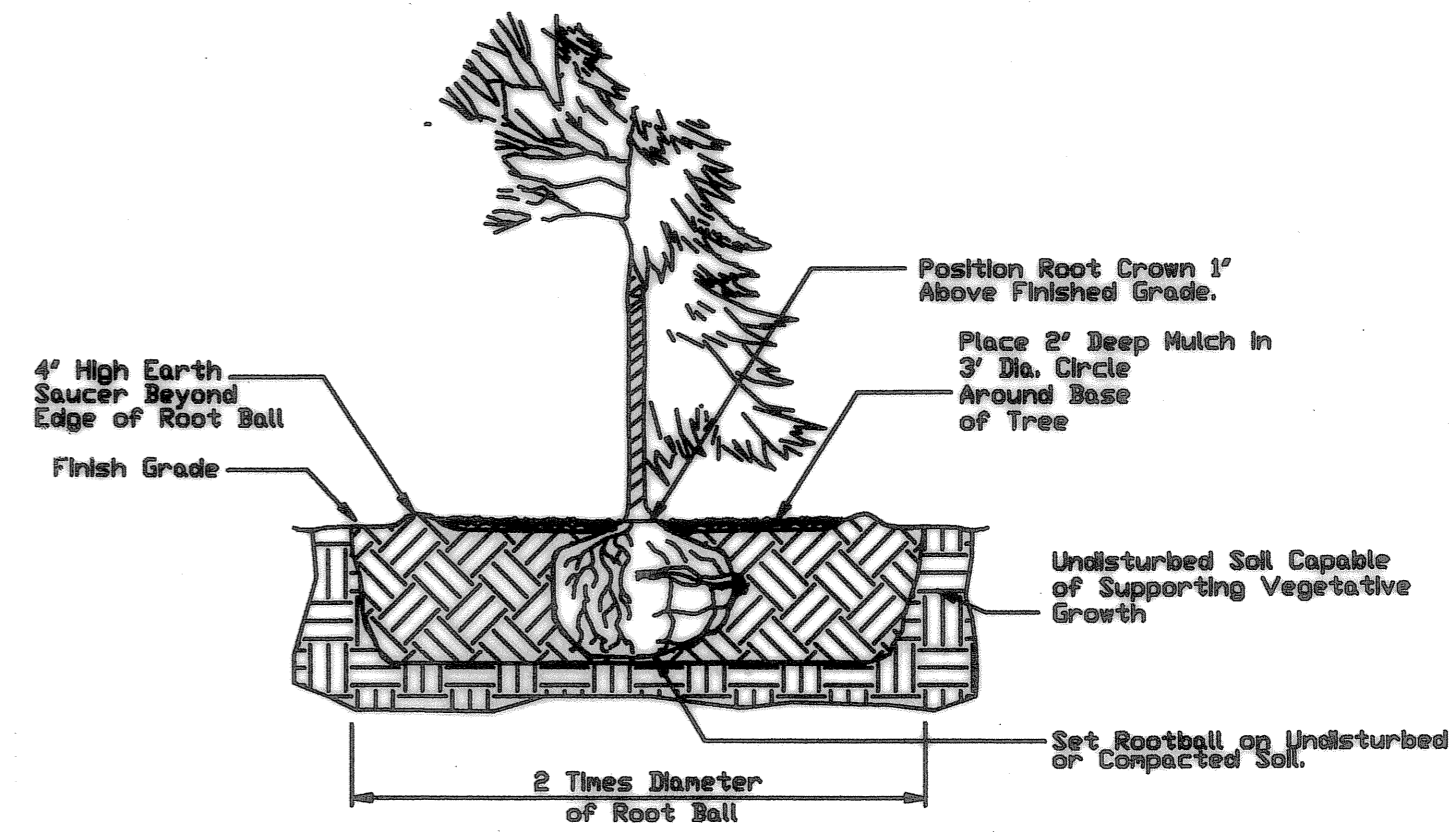
Botanical Name	Common Name	Spacing	Size/Form	Quantity
<i>Abies grandis</i>	Grand fir	30' O.C.	1 gallon	5
<i>Acer glabrum</i>	Vine maple	10' O.C.	rooted seedling	25
<i>Acer macrophyllum</i>	Big leaf maple	30' O.C.	1 gallon	5
<i>Alnus rubra</i>	Red alder	15' O.C.	1 gallon	30
<i>Arbutus menziesii</i>	Madrone	20' O.C.	1 gallon	10
<i>Arctostaphylos uva-ursi</i>	Kinnickinnick	2' O.C.	4" pot	200
<i>Ceanothus sanguineus</i>	Oregon redstem ceanothus	1' O.C.	bulb	50
<i>Cornus nuttallii</i>	Oregon dogwood	10' O.C.	5 gallon	10
<i>Holodiscus discolor</i>	Oceanspray	6' O.C.	1 gallon	50
<i>Lonicera ciliosa</i>	Orange honeysuckle	4' O.C.	1 gallon	50
<i>Quercus garryana</i>	Oregon white oak	25' O.C.	1 gallon	10
<i>Rhamnus purshiana</i>	Cascara	6' O.C.	1 gallon	50
<i>Ribes sanguineum</i>	Red flowering currant	5' O.C.	1 gallon	50
<i>Symphoricarpos albus</i>	Snowberry	4' O.C.	1 gallon	100

WETLAND SEED MIXES (SCRUB-SHRUB & EMERGENT AREAS)

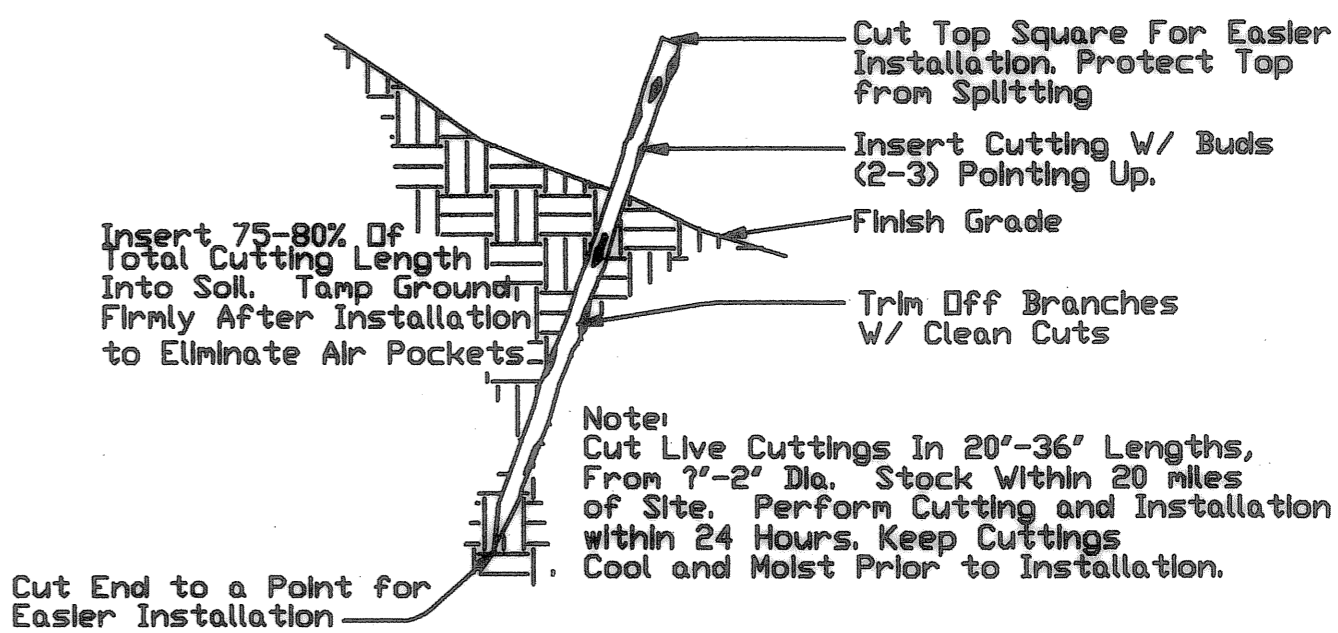
Botanical Name	Common Name	% of Mix
GRASSES (30 LBS/ACRE)		
<i>Agrostis exarata</i>	spike bentgrass	10
<i>Beckmannia syzigachne</i>	American sloughgrass	20
<i>Deschampsia cespitosa</i>	tufted hairgrass	15
<i>Deschampsia elongata</i>	slender hairgrass	15
<i>Glyceria occidentalis</i>	western mannagrass	10
<i>Hordeum brachyantherum</i>	meadow barley	30
FORBS & WILDFLOWERS (5 LBS/ACRE)		
<i>Downingia elegans</i>	downingia	15
<i>Epilobium densiflorum</i>	dense spike primrose	35
<i>Lupinus polyphyllus</i>	streamside lupine	35
<i>Sisyrinchium angustifolium</i>	blue-eyed grass	15
SEDGES, RUSHES, EMERGENTS (10 LBS/ACRE)		
<i>Alisma plantago-aquatica</i>	water plantain	25
<i>Carex obnupta</i>	slough sedge	50
<i>Eleocharis ovata</i>	ovate spike rush	25

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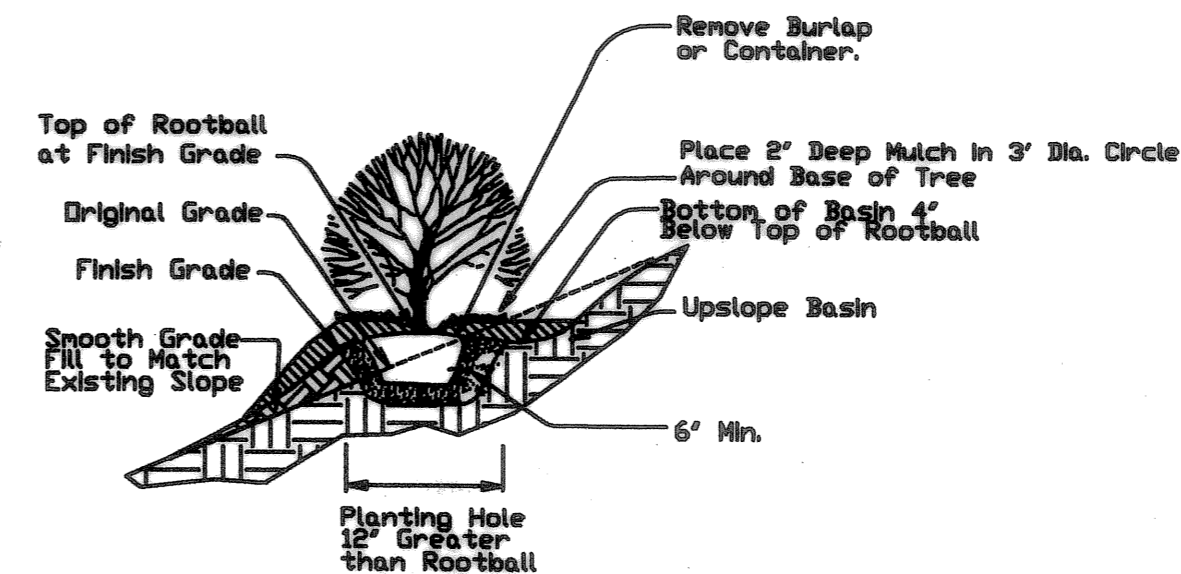
NOTE:
ALL PLANTINGS WILL BE SURROUNDED BY 36" HIGH CHICKEN WIRE SUPPORTED BY STAKES OR OTHER SUITABLE BROWSE PROTECTION.



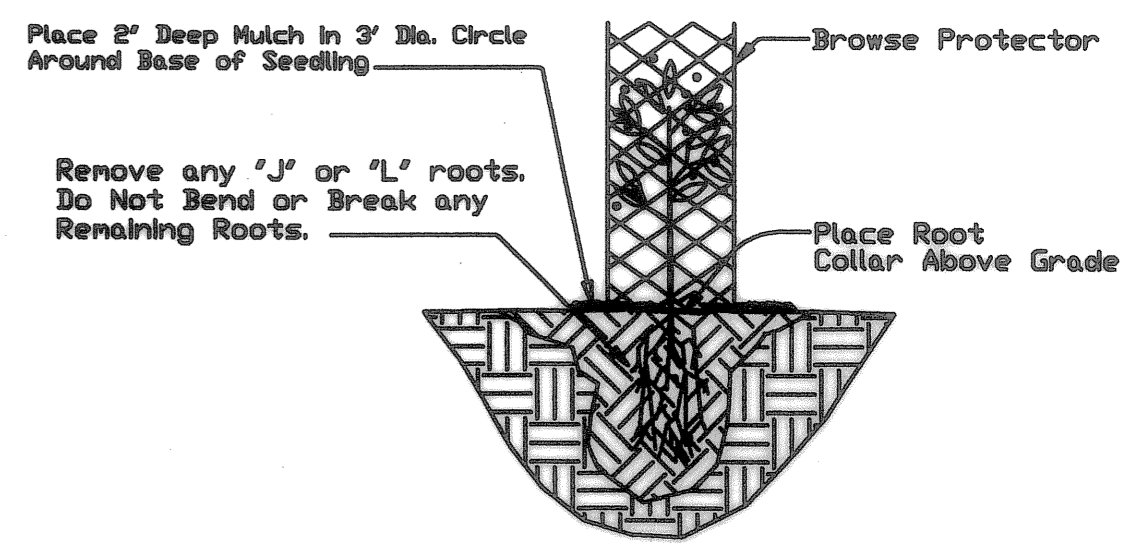
TREE PLANTING
(all forms except bare root)



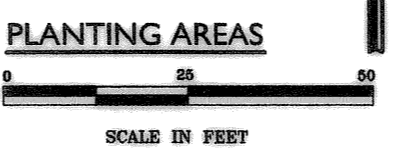
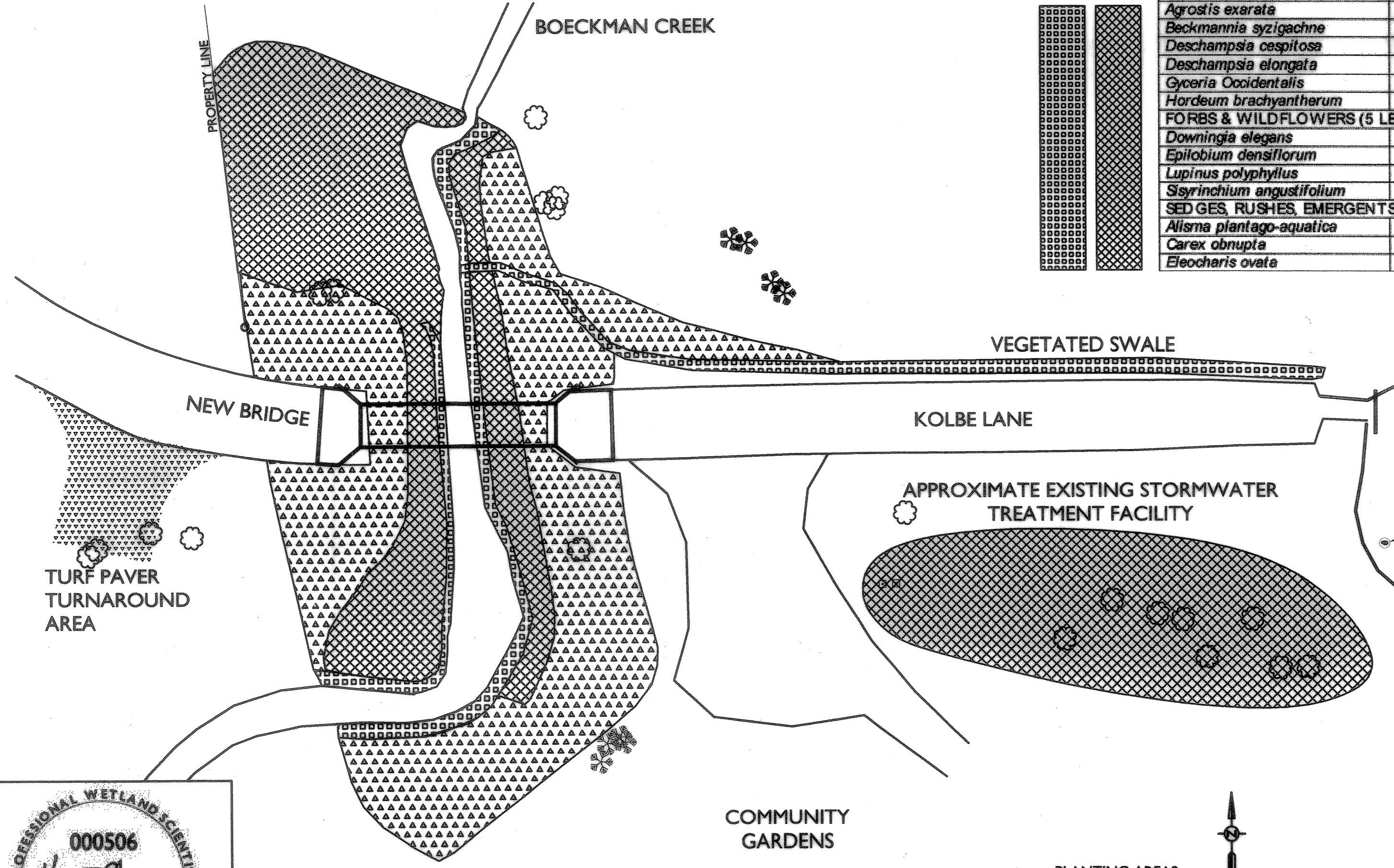
PLANT CUTTING INSTALLATION



SLOPED AREA SHRUB PLANTING
(all forms except bare root)



BARE ROOT SEEDLING PLANTING



REVISION	DATE	DESCRIPTION	BY

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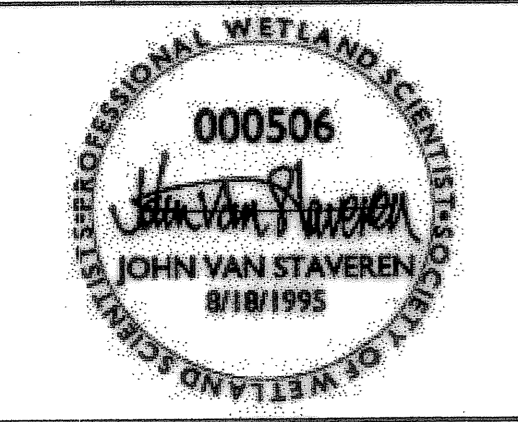
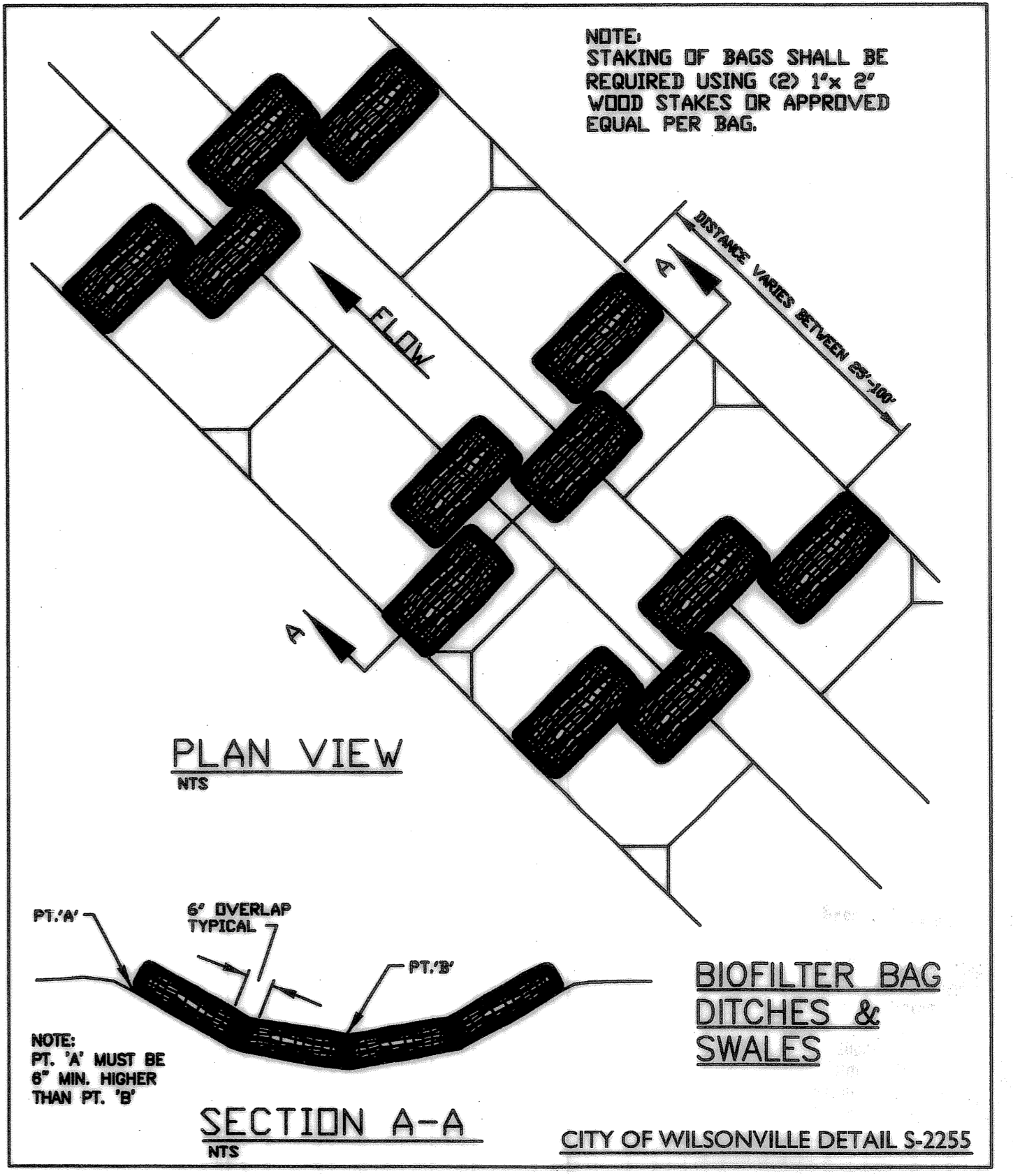
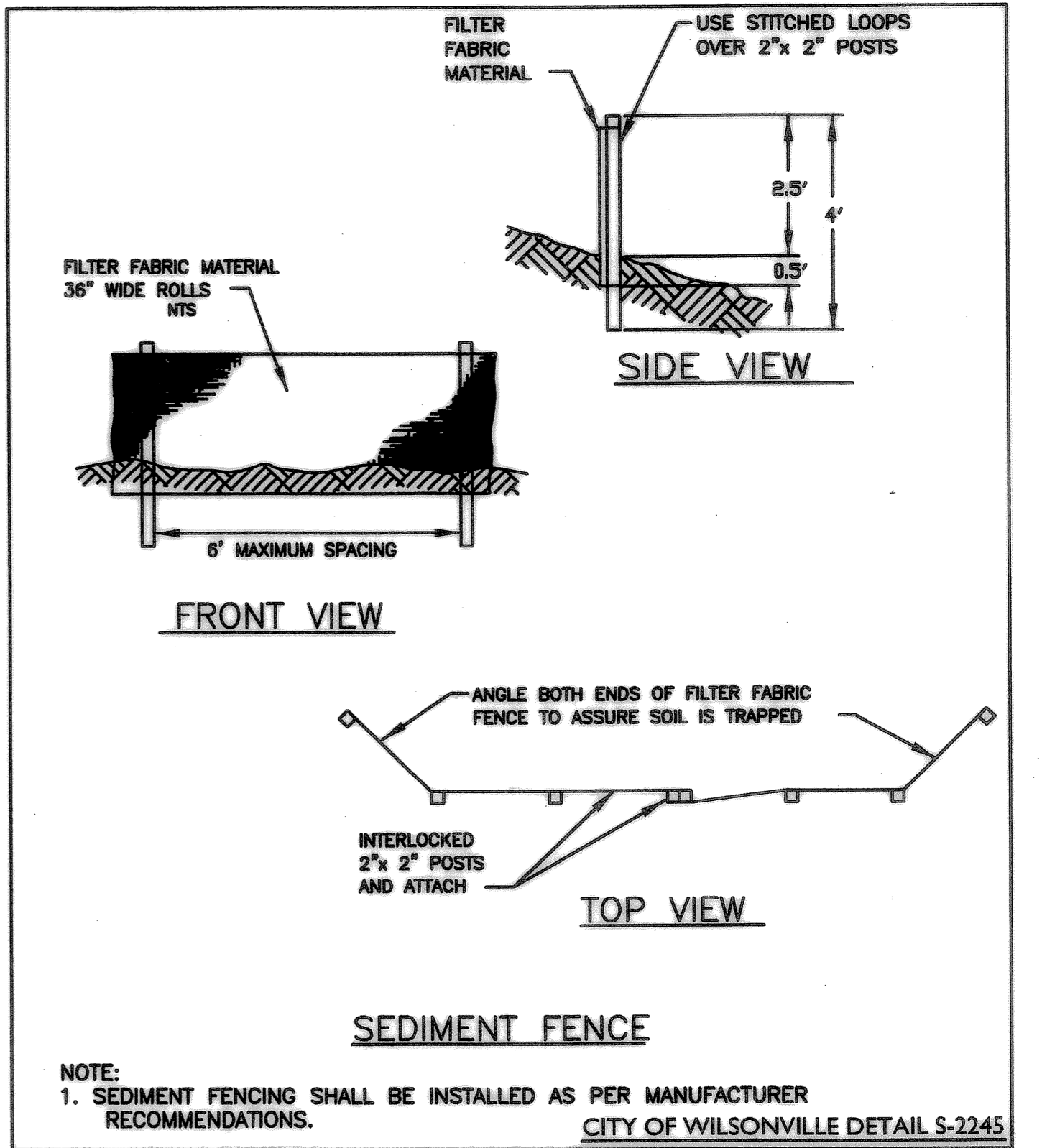
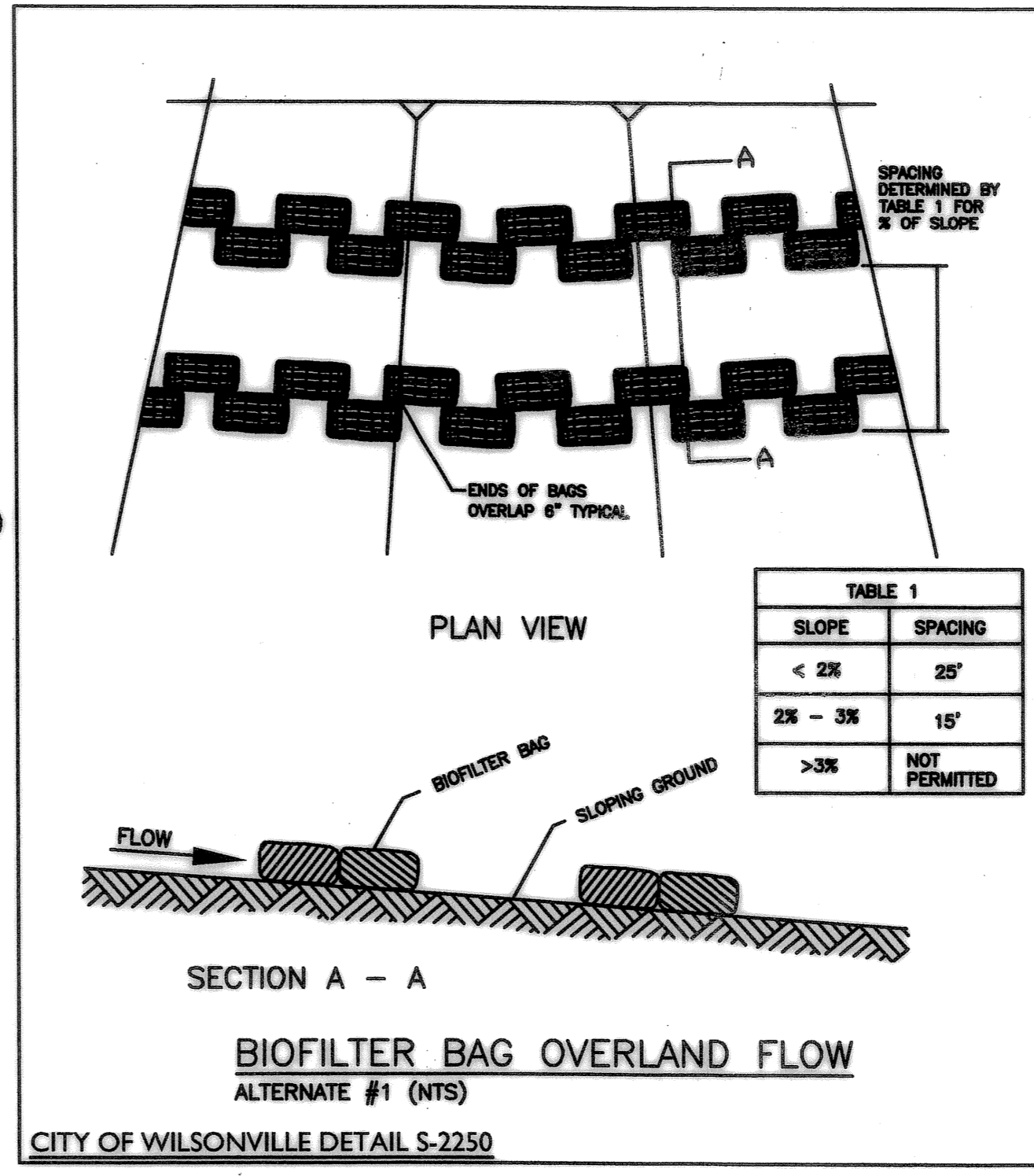
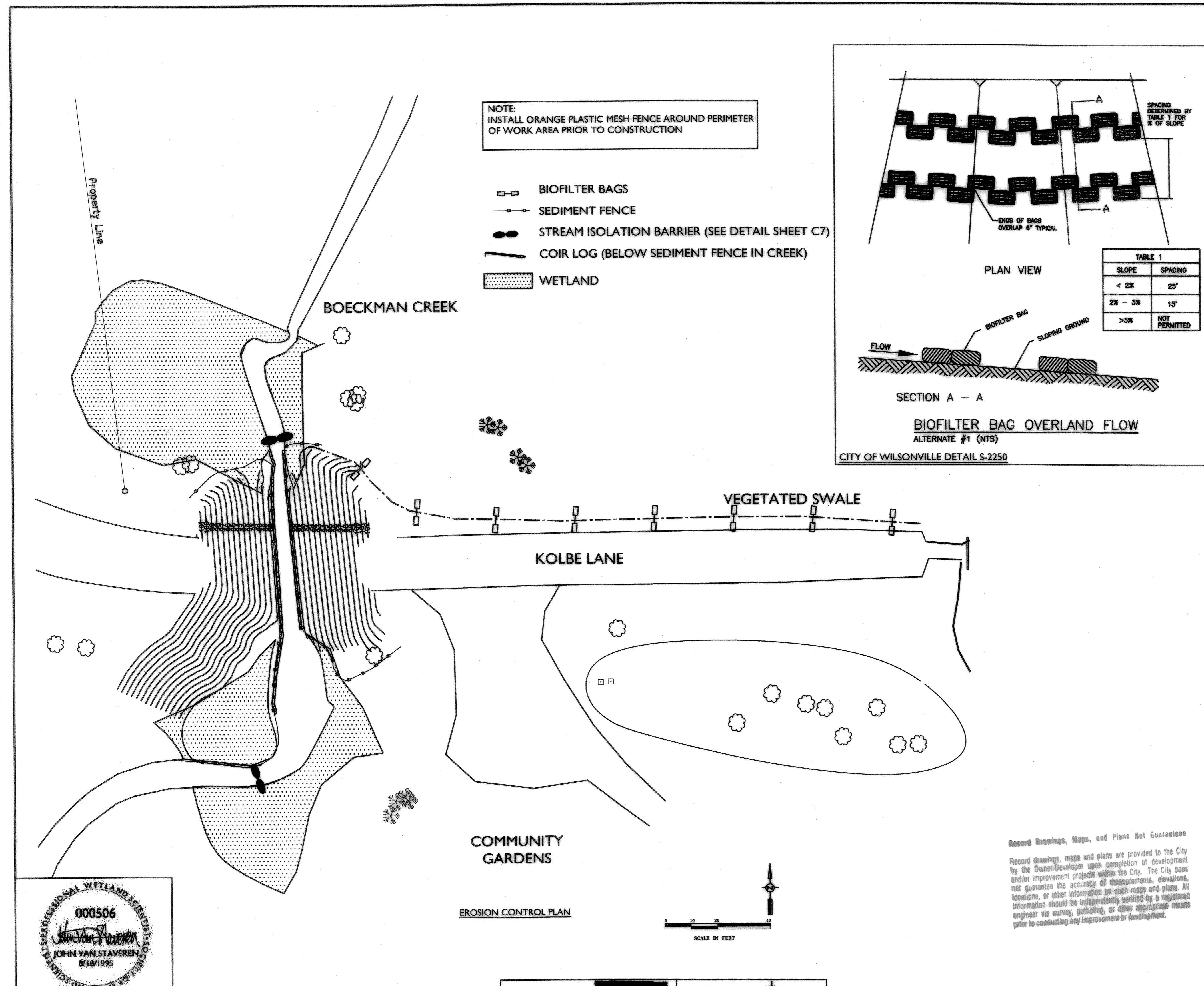
CITY OF WILSONVILLE
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JOB No.:	307020.00
DESIGNED BY:	DO/JVS/DS
DRAWN BY:	SB
CHECKED BY:	CCV
PLOT DATE:	
PLOTTED BY:	
DWG NAME:	
TAB NAME:	

City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070
BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)
PLANTING PLAN, DETAILS, AND PLANT LIST

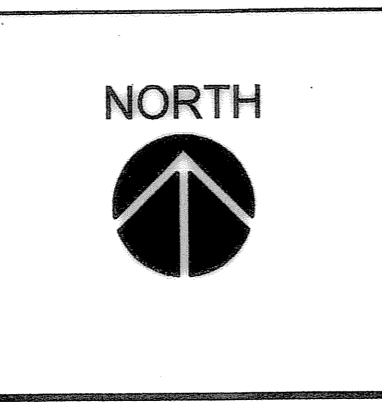
SHEET	20	OF	23
RECORD NO.	307020-06		



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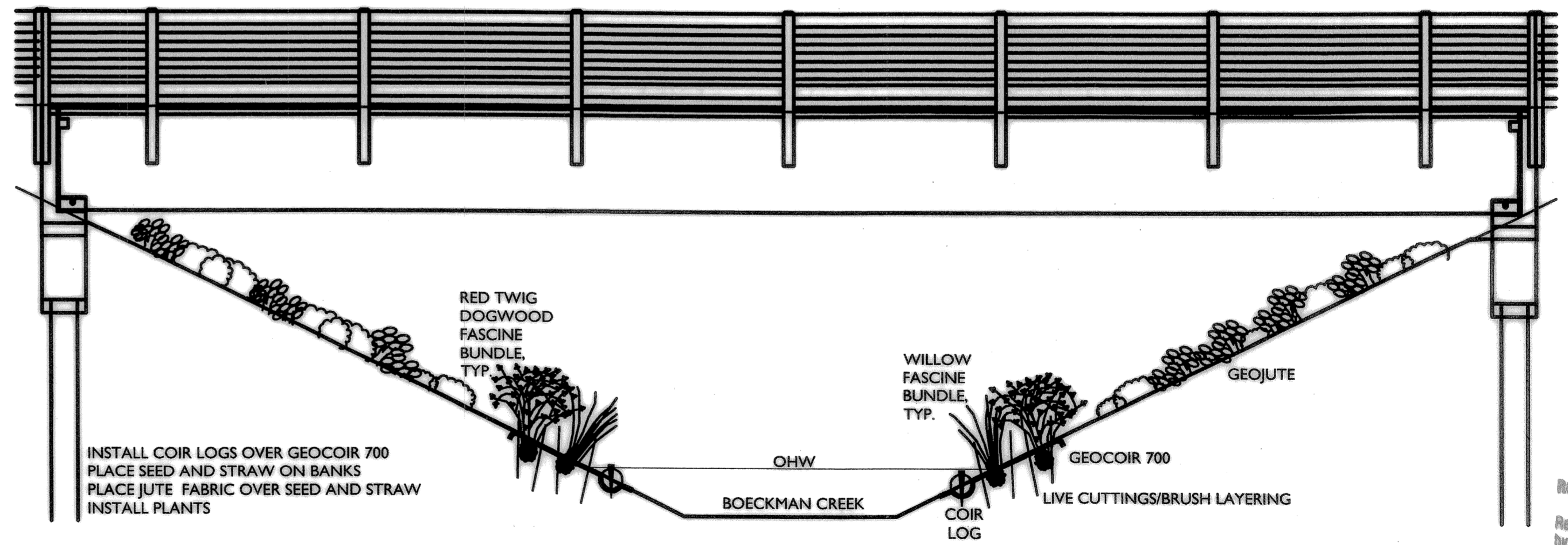
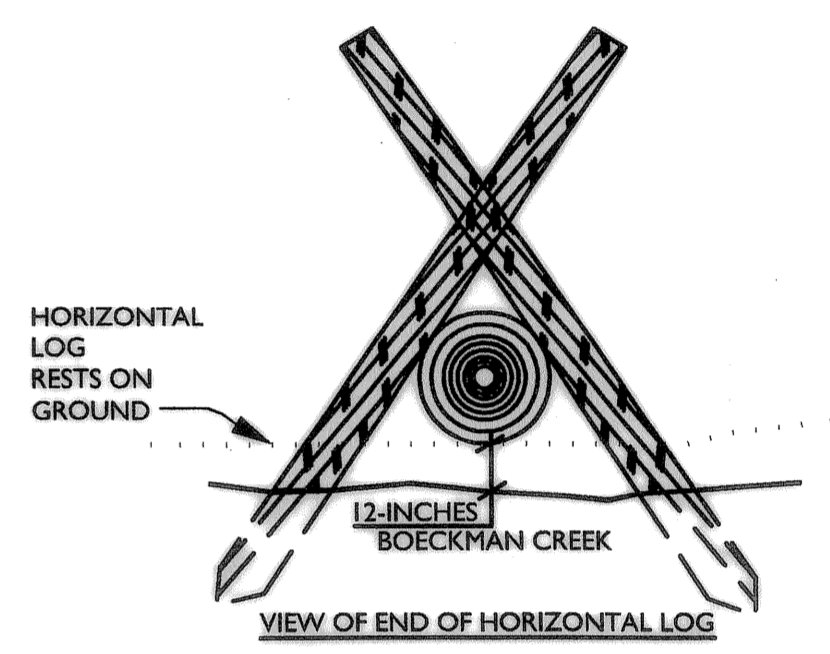
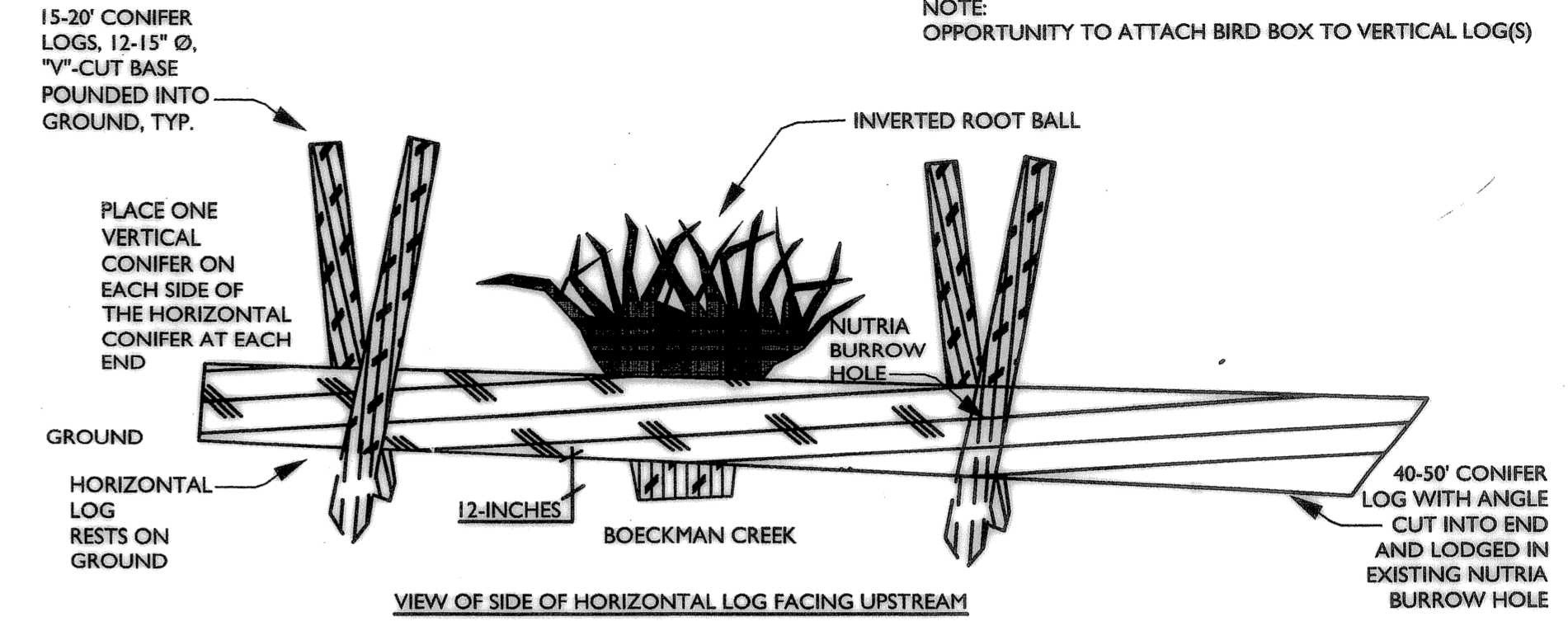
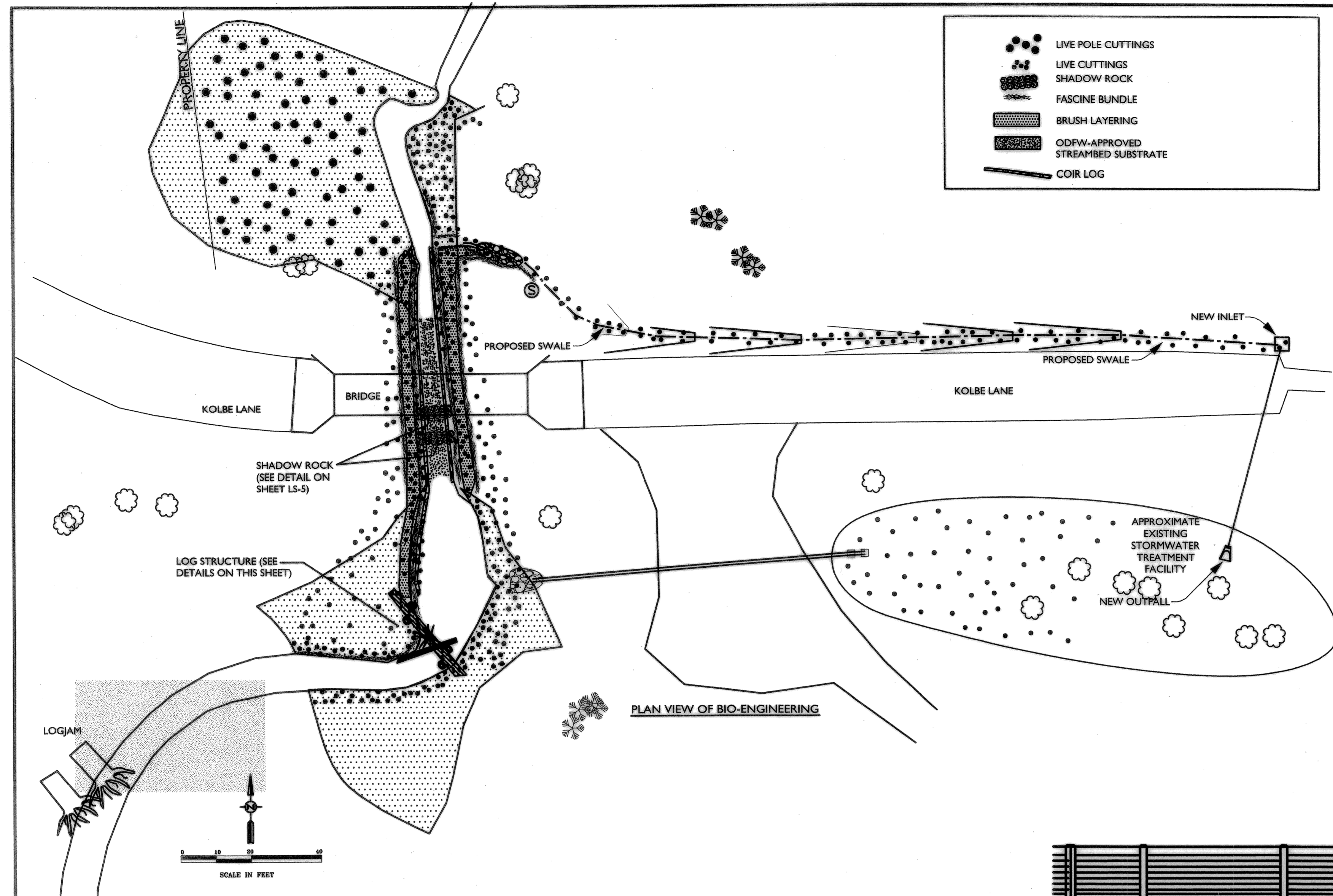
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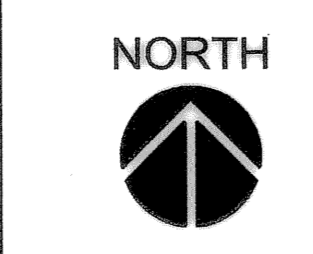
**BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)**

EROSION CONTROL PLAN AND DETAILS

SHEET NO.	LS-3
SHEET 21 OF 23	
RECORD NO.	307020-06



REVISION	DATE	DESCRIPTION	BY



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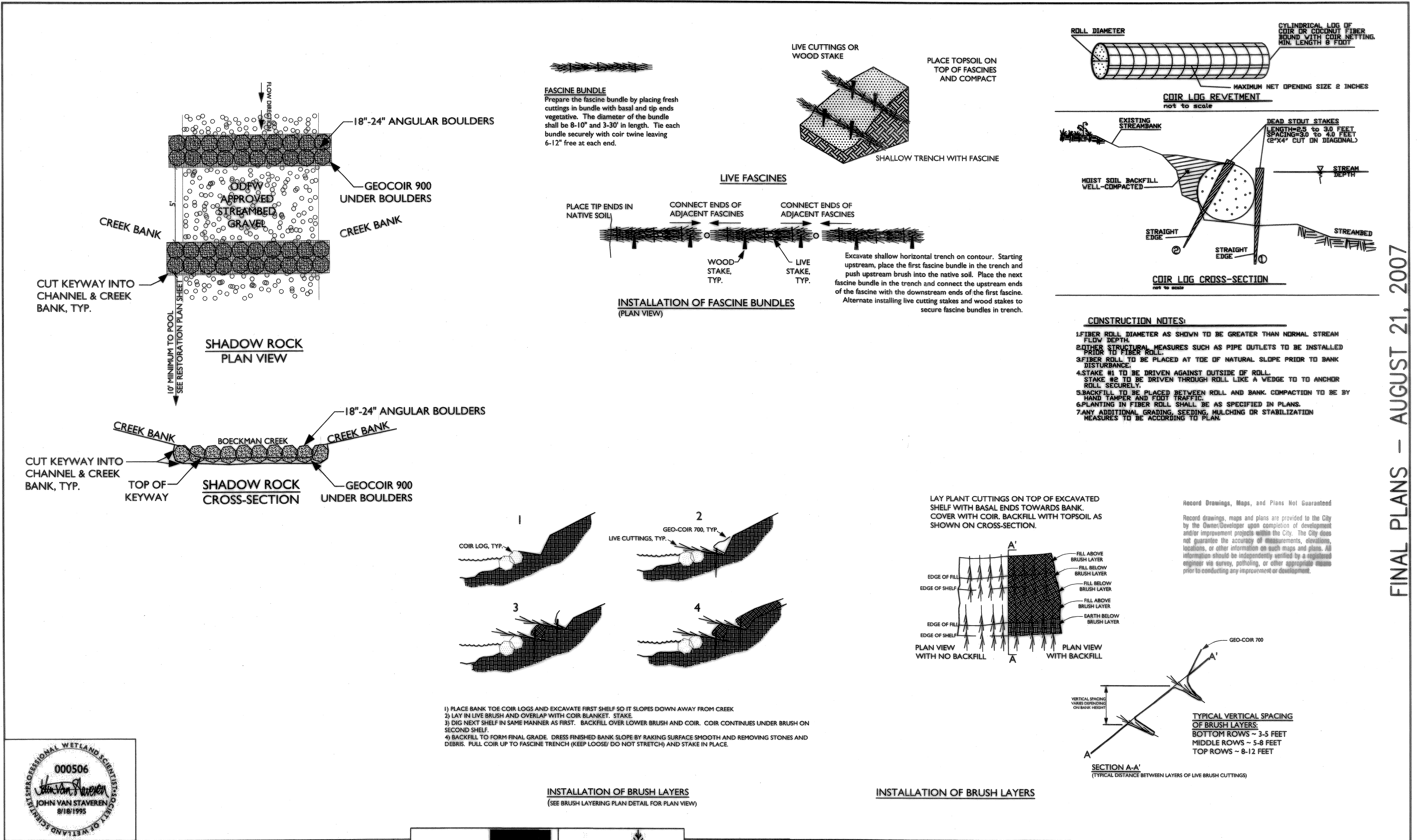
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BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT
UPPER SITE (KOLBE LANE)

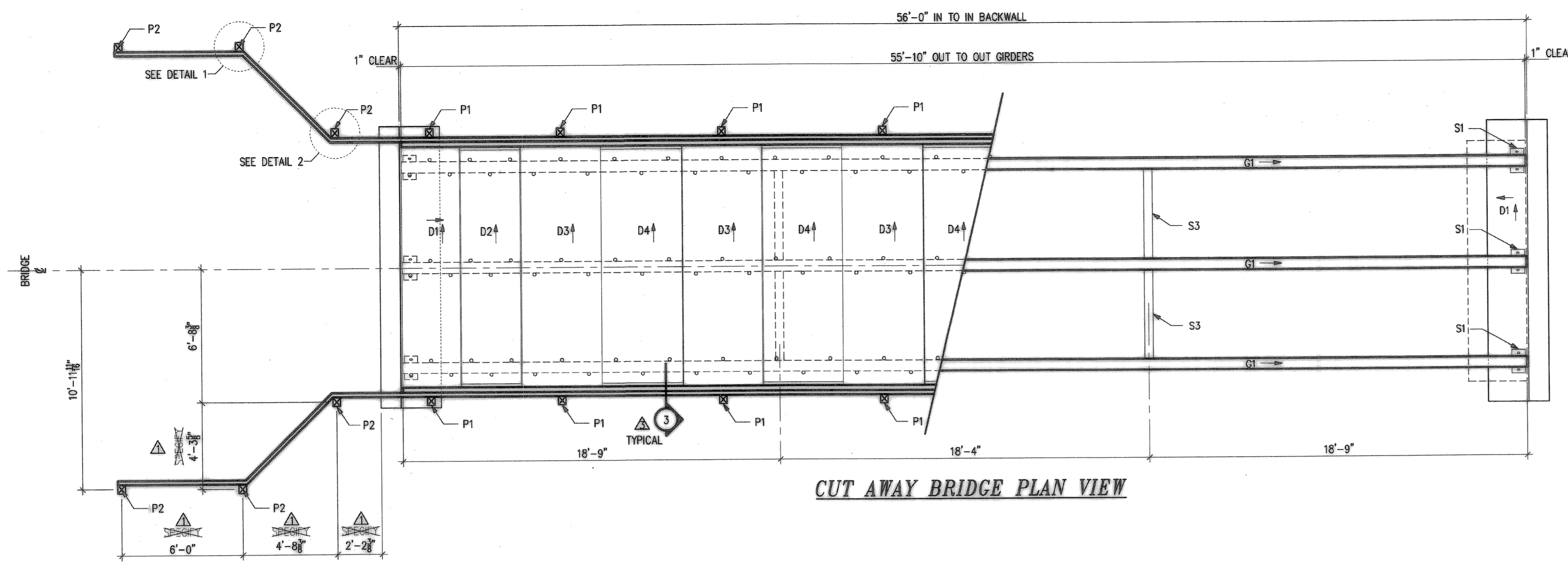
BIO-ENGINEERING

SHEET NO.	LS-4
SHEET	22 OF 23
RECORD NO.	307020-06

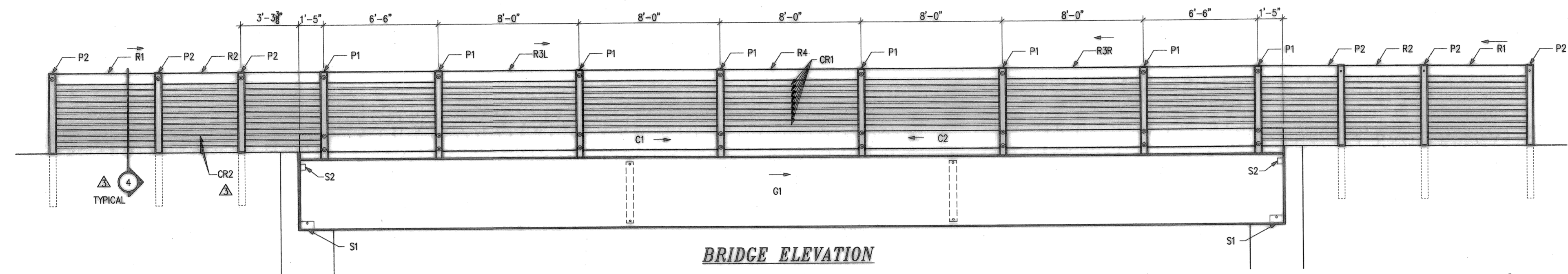
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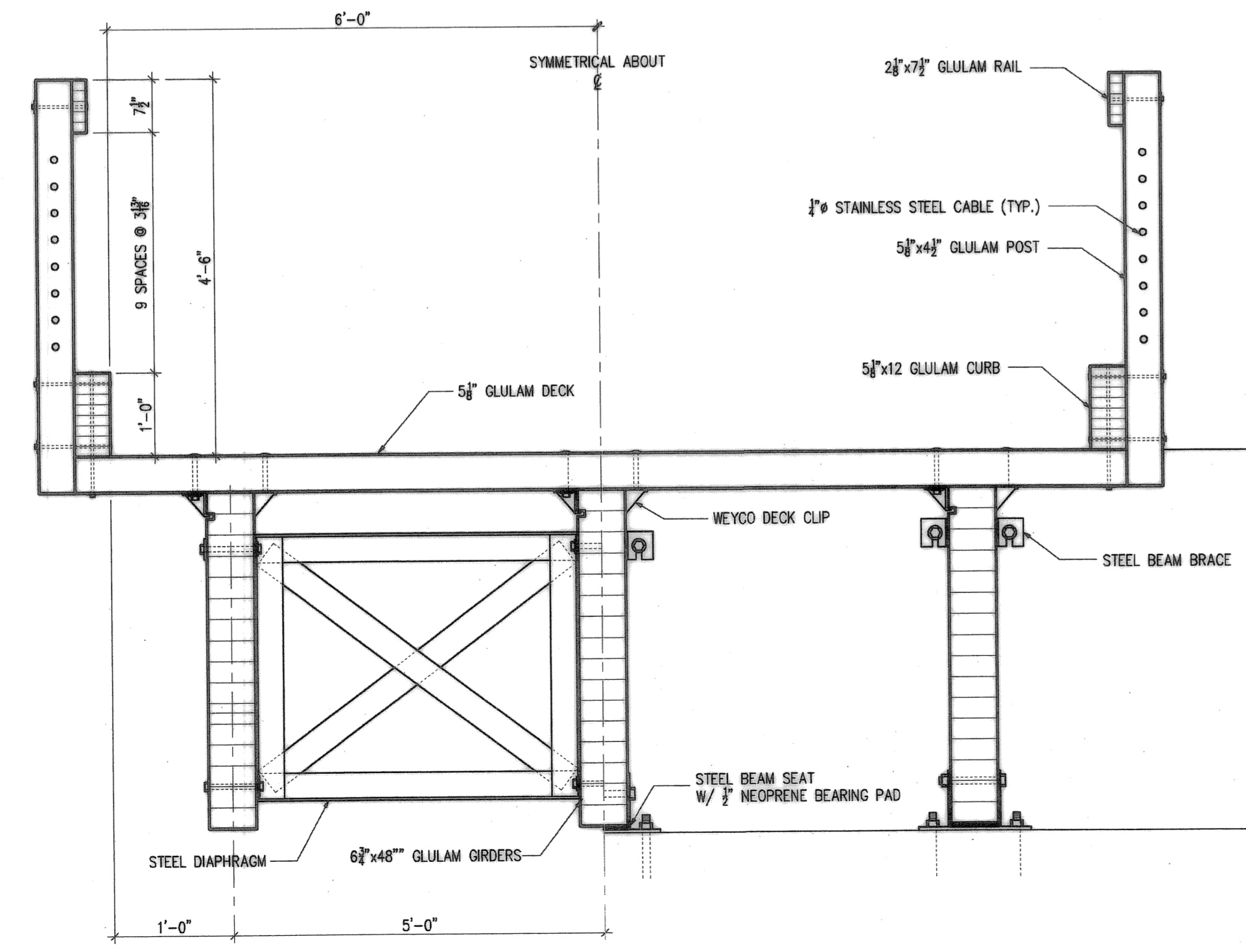
						<p>Habitat Concepts Dennis O'Connor, Restoration Ecologist P. O. Box 91231 Portland, Oregon 97291 503.617.6553 voice 317.6553 mobile habitatconcepts@verizon.net</p>		<p>PACIFIC HABITAT SERVICES 9450 SW Commerce Circle, Ste. 180 Wilsonville, Oregon 97070 Phone (503) 570-0800 Fax (503) 570-0855 E-mail: phs@pacifichabitat.com</p>		<p>City of WILSONVILLE in OREGON Engineering Department 29799 NW Town Center Exp. E Wilsonville, OR 97070 203-652-1911 203-652-7655 fax</p>		<p>Consulting Engineers 11 SW 7th Avenue Suite 2400 Portland, Oregon 97204 (503) 227-5200 ST/LEAD, FAX (503) 227-7890 CIVIL FAX (503) 274-4091</p>		JOB No.: 307020.00 DESIGNED BY: DO/JS/DS DRAWN BY: SB CHECKED BY: CCV PLOT DATE: PLOTTED BY: DWG NAME: TAB NAME:		City of Wilsonville, 29799 SW Town Center Loop E, Wilsonville, Oregon 97070 BOECKMAN CREEK FISH PASSAGE & STREAM RESTORATION PROJECT UPPER SITE (KOLBE LANE) BIO-ENGINEERING DETAILS		SHEET NO. LS-5 SHEET 23 OF 23 RECORD NO. 307020-06	
REVISION	DATE	DESCRIPTION	BY																



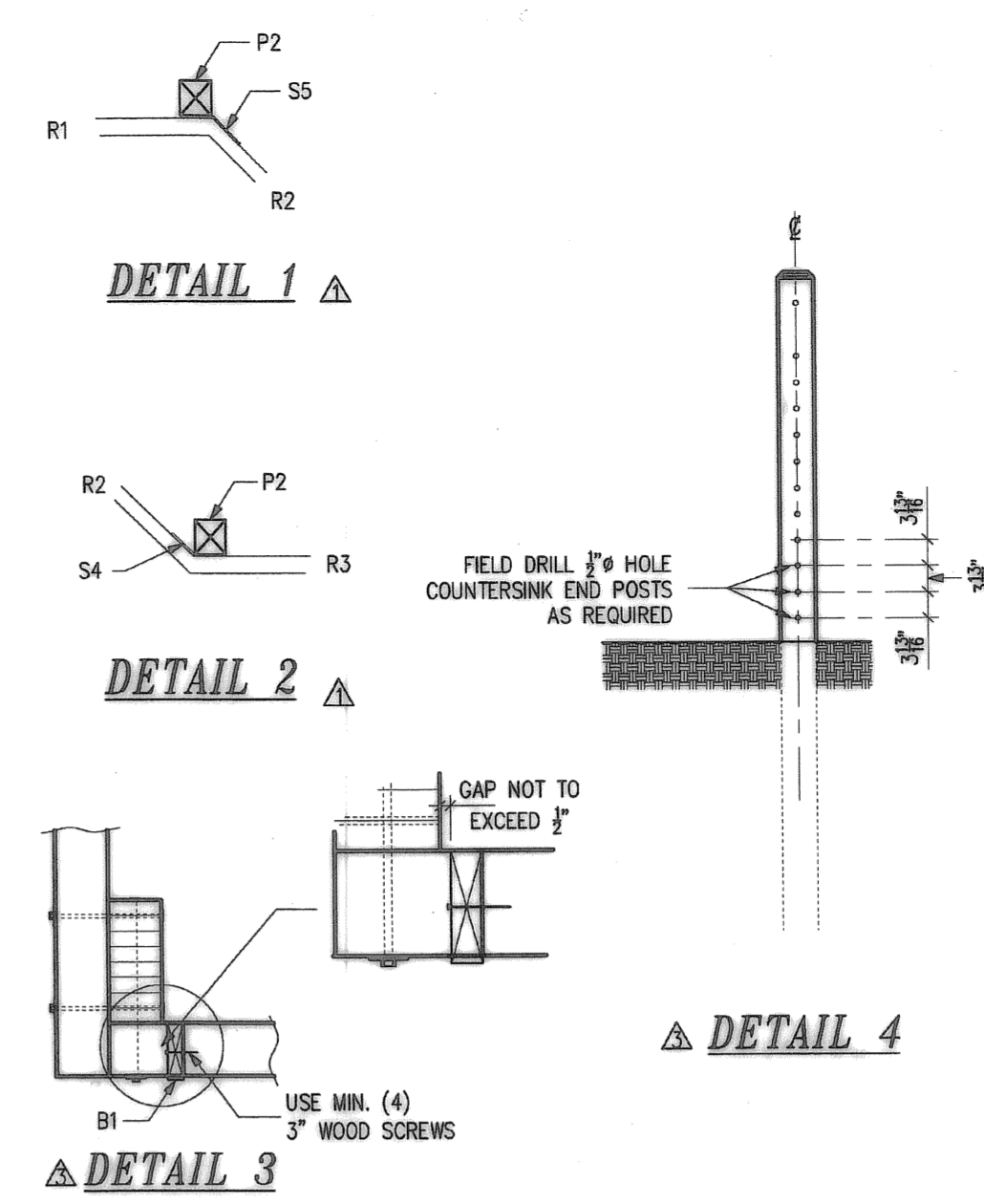
CUT AWAY BRIDGE PLAN VIEW



BRIDGE ELEVATION



BRIDGE SECTION @ MIDSPAN/ABUTMENT



DESIGN CRITERIA

VEHICLE LOAD : HS20-44
 PEDESTRIAN LOAD : 85 PSF
 SEISMIC LOAD : SITE COEFFICIENT (s) = 1.5
 500 YEAR PEAK BEDROCK ACCELERATION COEFFICIENT = 0.18g
 1000 YEAR PEAK BEDROCK ACCELERATION COEFFICIENT = 0.25g

WIND LOAD : 0.05 KSF PER AASHTO

DESIGN CONFORMS TO "AASHTO LRFD BRIDGE DESIGN SPECIFICATION" 4TH EDITION / 2007. RAILS NOT DESIGNED FOR VEHICULAR IMPACT

GLULAM SPECIFICATIONS

MATERIAL : WEST COAST DOUGLAS FIR 24F-V4 & COMB. 2 AS NOTED
 ADHESIVE : WATERPROOF PHENOLIC
 FABRICATION : AS SHOWN AND NOTED. MACHINE INCISE ALL GLULAM EXCEPT RAILS. DO NOT INCISE RAILS.
 APPEARANCE : AS SHOWN & NOTED
 FINISH : SEE TREATMENT SPECIFICATIONS.
 PROTECTION : NONE
 CERTIFICATE : AITC 117-2004 / APA-EWS
 GLULAM MATERIAL INCLUDES GIRDERS, DECK PANELS, POSTS & RAILS

STEEL SPECIFICATIONS

STEEL : ASTM A36
 HARDWARE : ASTM A307
 HOT DIP GALVANIZE ALL STEEL AFTER FABRICATION PER ASTM A123/ASTM A153
 HOT DIP GALVANIZE ALL HARDWARE

ALL WELDING TO BE PER AWS SPECIFICATIONS BY CERTIFIED WELDERS. TREAT ALL FIELD MODIFICATIONS W/ COLD GALVANIZING PAINT.

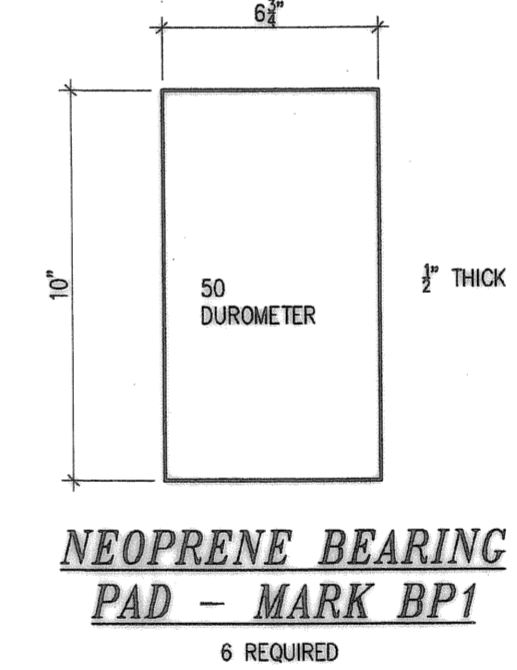
TREATMENT SPECIFICATIONS

ALL DIMENSIONED CUTS AND HOLES IN TIMBER MATERIAL SHALL BE MADE PRIOR TO PRESSURE TREATMENT. TREAT ALL FIELD CUTS AND BORES WITH COPPER NAPHTHATE IN ACCORDANCE WITH AWPA SPECIFICATION M4

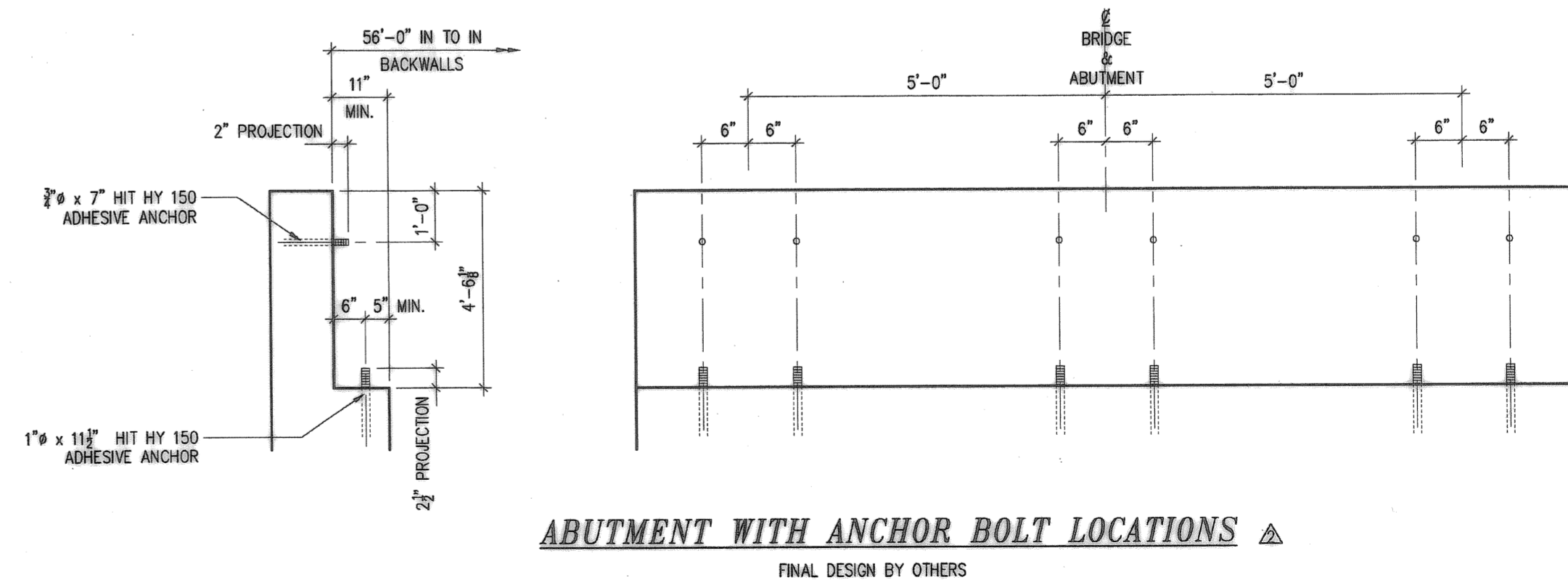
TREAT GLULAM DECK, POST & RAIL WITH PENTACHLOROPHENOL IN LIGHT SOLVENT TO A MINIMUM NET RETENTION OF 0.4 PCF PER AWPA SPECIFICATION C28. ISSUE CERTIFICATION OF TREATMENT

TREAT GLULAM GIRDERS WITH COPPER NAPHTHATE TO A MINIMUM NET RETENTION OF 0.06 PCF PER AWPA SPECIFICATION C28.

- 6 GIRDER TO ABUTMENT
 - 1 BEAM SEAT - MARK S1
 - 1 BEAM BRACE - MARK S2
 - 2 3/4"x7" HIT HY 150 ADHESIVE ANCHOR (MINIMUM EMBEDMENT = 5")
 - 2 1"x11 1/2" HIT HY 150 ADHESIVE ANCHOR (MINIMUM EMBEDMENT = 9")
 - 1 1"x8" MACHINE BOLT
 - 2 3/4" CUT WASHER
 - 4 1" CUT WASHER
 - 1 NEOPRENE BEARING PAD - BP1
- 4 DIAPHRAGM TO EXTERIOR GIRDER
 - 2 3/4"x8 1/2" MACHINE BOLT
 - 2 3/4" MALLEABLE IRON WASHER
 - 1 3/4" CUT WASHER (@ SLOTTED HOLE)
- 2 DIAPHRAGM TO INTERIOR GIRDER
 - 2 3/4"x8 1/2" MACHINE BOLT
 - 2 3/4" CUT WASHER (@ SLOTTED HOLE)
- 45 DECK TO GIRDER
 - 3 WEYCO DECK CLIP
 - 5/8"x7" ECONOMY HEAD BOLT
 - 5/8" CUT WASHER
- 16 CURB TO DECK (@ EACH POST)
 - 4 5/8"x18" MACHINE BOLT
 - 4 5/8" MALLEABLE IRON WASHER
- 16 POST TO CURB
 - 2 3/4"x12" MACHINE BOLT
 - 2 3/4" MALLEABLE IRON WASHER
- 20 RAIL TO POST
 - 1 1/2"x8 1/2" ECONOMY HEAD BOLT
 - 1 1/2" MALLEABLE IRON WASHER
- 8 POST TO RAIL 45° CONNECTION
 - 2 1/2"x3" CARRIAGE HEAD BOLT
 - 1 1/2" MALLEABLE IRON WASHER
 - 1 1/2"x8 1/2" ECONOMY HEAD BOLT
 - 1 BENT PLATE - MARK S4/S5
- 32 CABLE RAIL SYSTEM TO END POST
 - 1 5/16" CUT WASHER
 - 1 5/16" TIGHTENING NUT
 - 1 5/16" CAP NUT



NEOPRENE BEARING PAD - MARK BP1
6 REQUIRED



ABUTMENT WITH ANCHOR BOLT LOCATIONS

THE TIMBER ON THIS PROJECT ARE PRESSURE TREATED WITH PENTACHLOROPHENOL WHICH INSURES A LONG AND USEFUL SERVICE LIFE. WORKMEN SHOULD USE COMMON SENSE IN HANDLING THESE TREATED TIMBERS. AVOID DIRECT SKIN CONTACT WITH THE PRESERVATIVE BY WEARING RUBBER WORK GLOVES, LONG SLEEVE SHIRTS, AND LONG PANTS. WHEN TREATED WOOD IS FIELD FABRICATED, WORKMEN SHOULD ALSO WEAR A FACE MASK AND GOGGLES.

TIMBER TREATED WITH PENTACHLOROPHENOL MAY EXHIBIT A BLOOMING OF DRIED CRYSTALS ON THE WOOD SURFACES FOR SEVERAL WEEKS AFTER INSTALLATION. THESE CRYSTALS CAN BE BRUSHED OR WASHED OFF THE SURFACES OF THE BRIDGE, SUCH AS RAILING OR OTHER SURFACES SUBJECT TO PUBLIC CONTACT. THE BLOOMING WILL DISCONTINUE AS THE TIMBER REACHES EQUILIBRIUM WITH THE ATMOSPHERIC CONDITIONS.

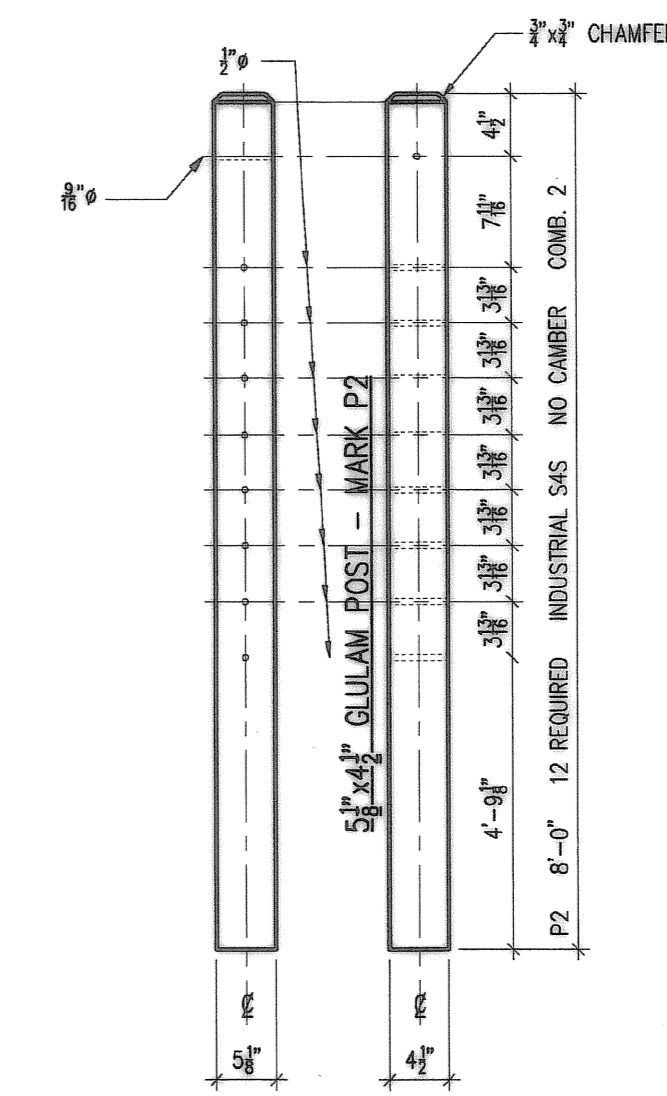
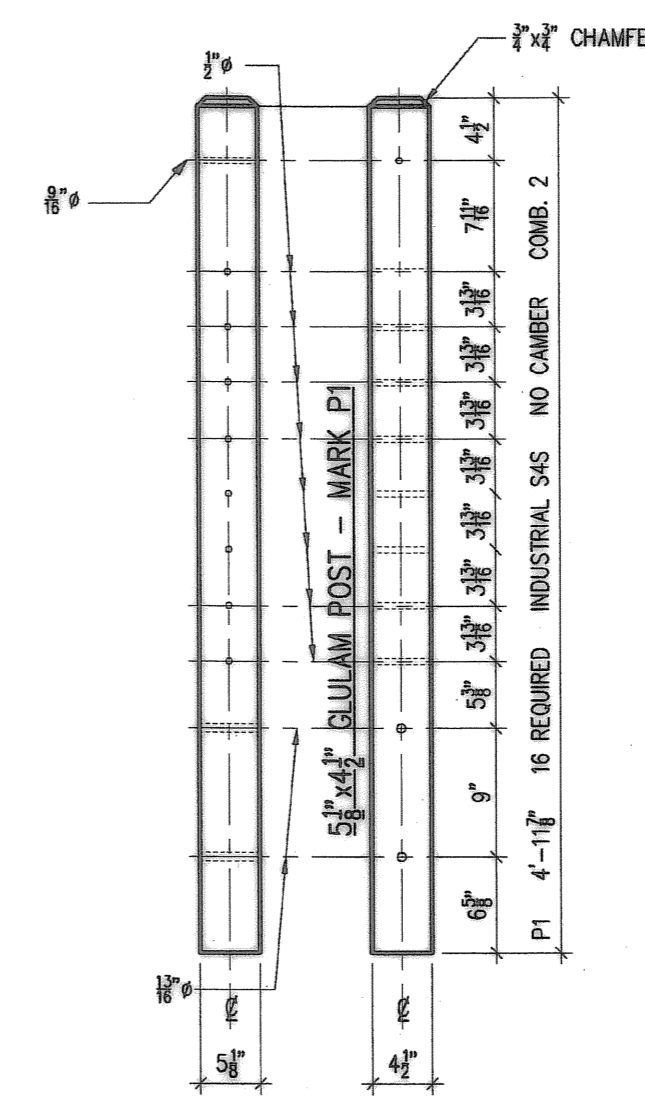
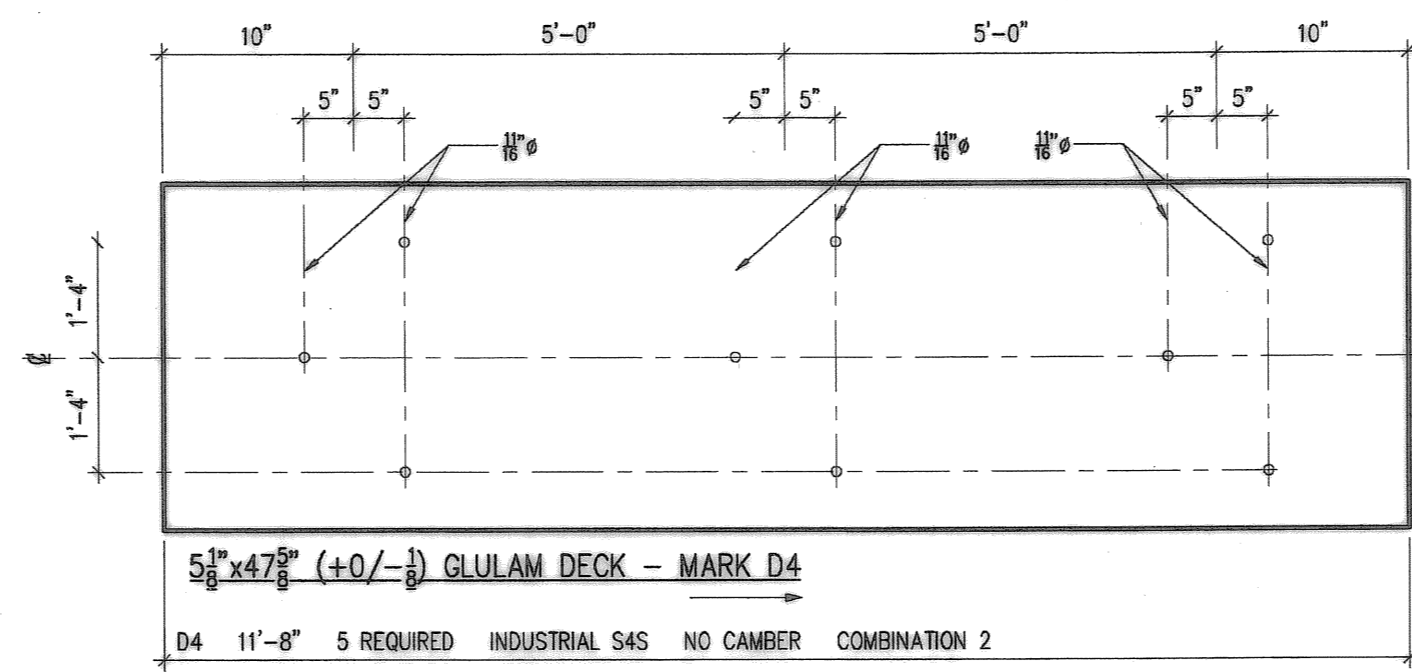
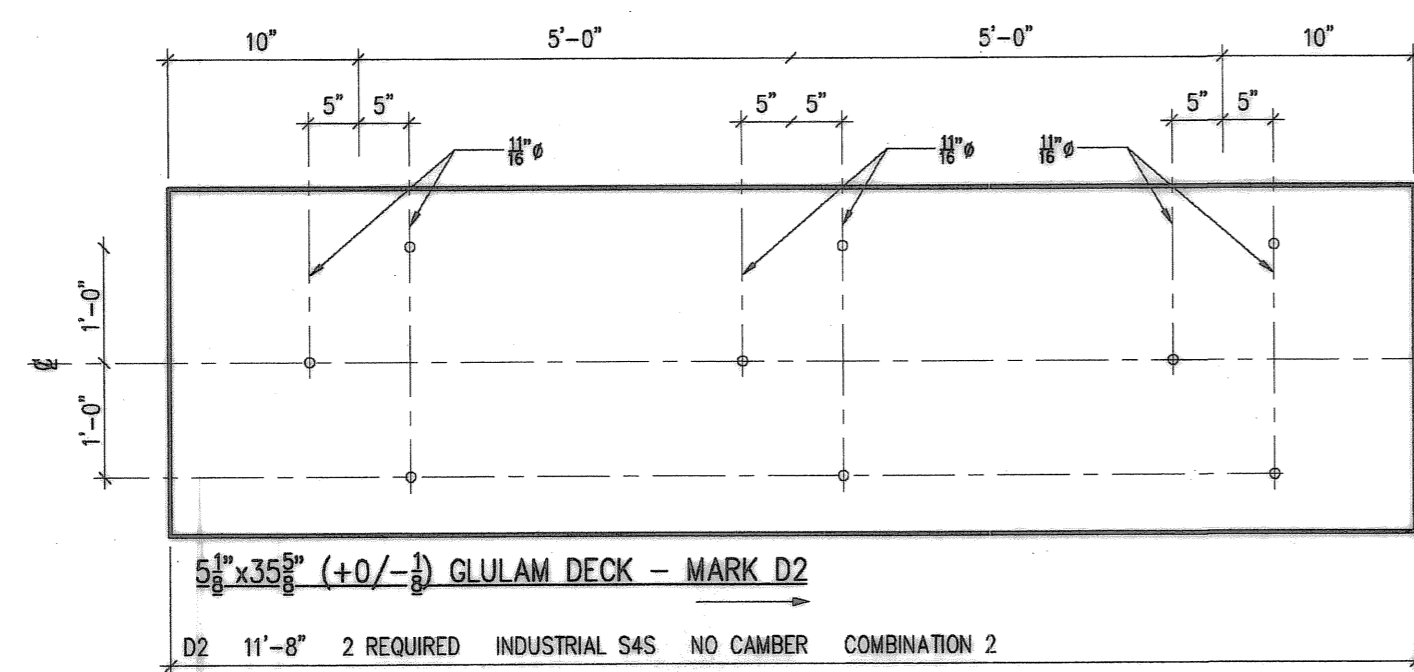
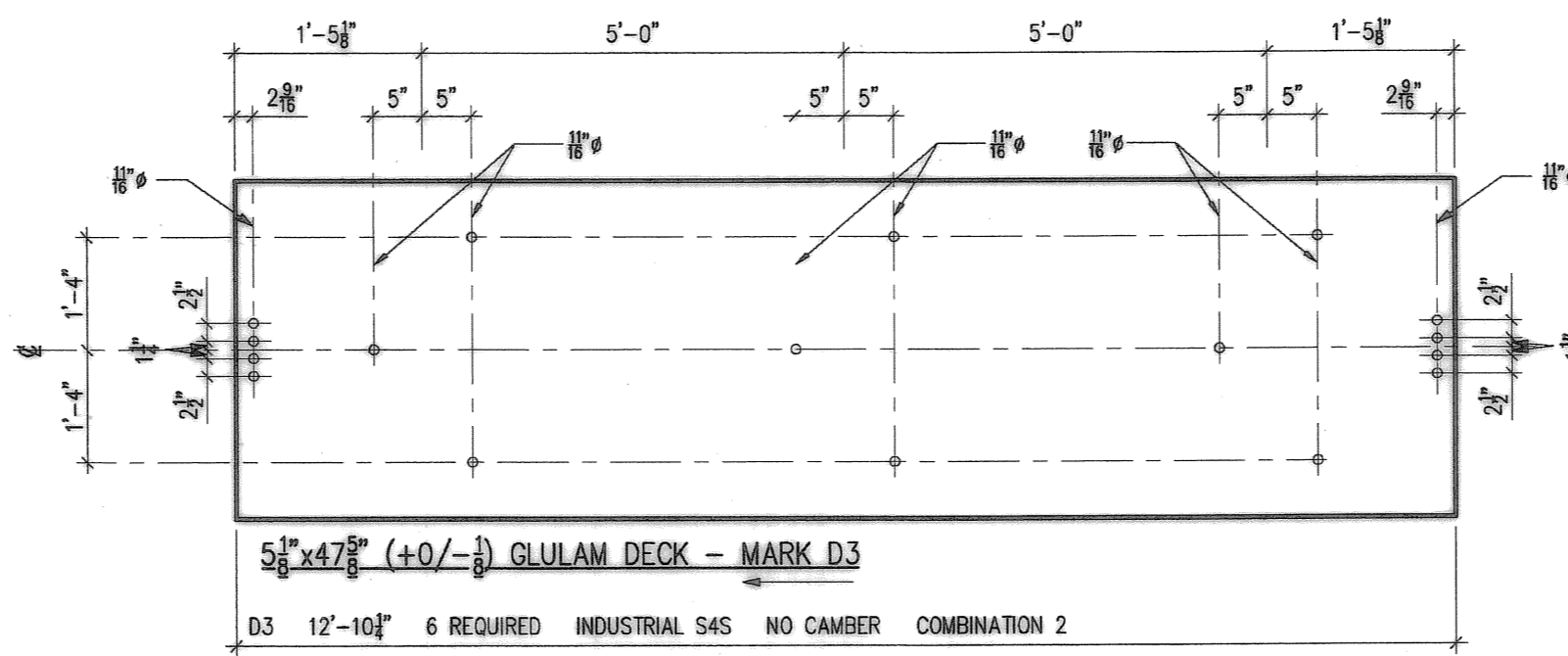
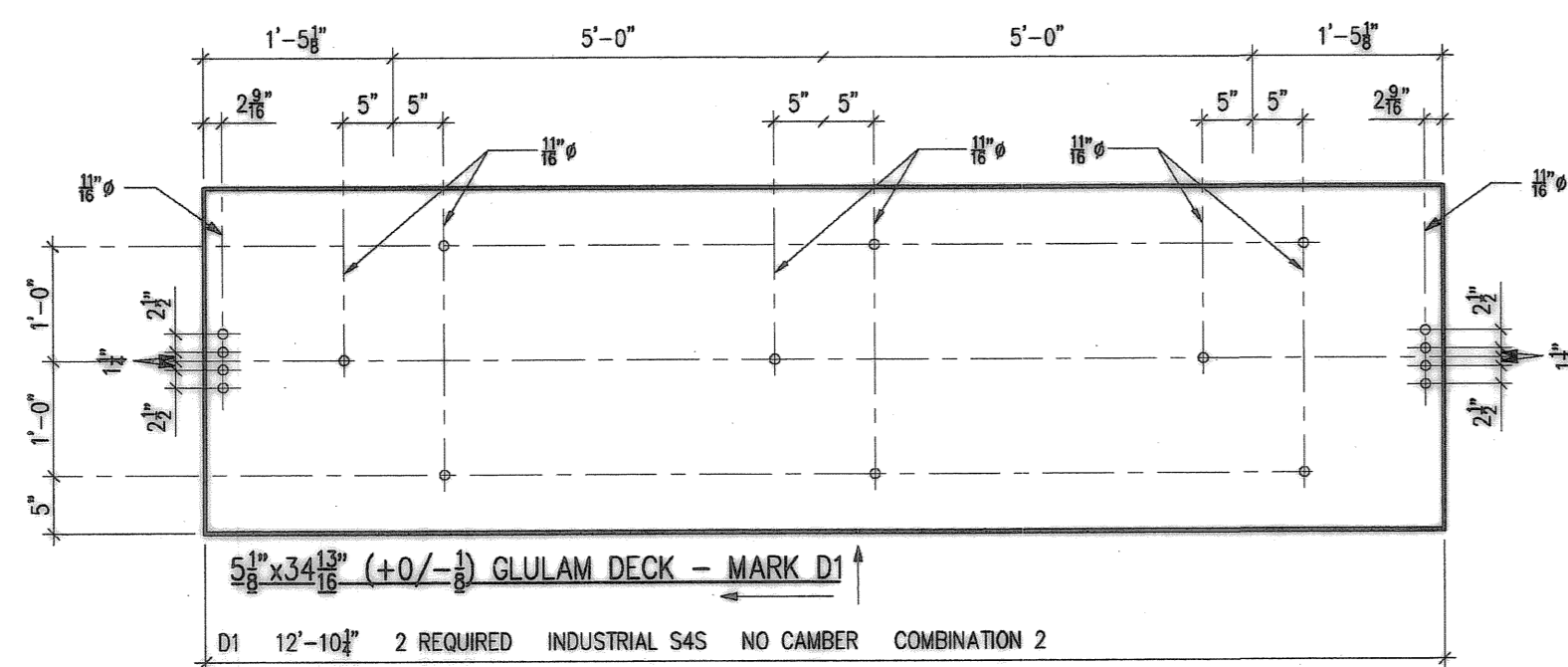
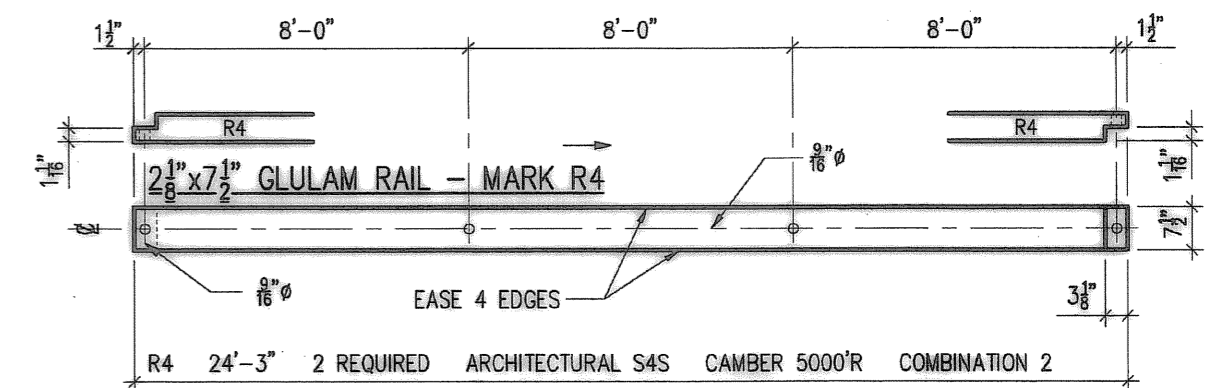
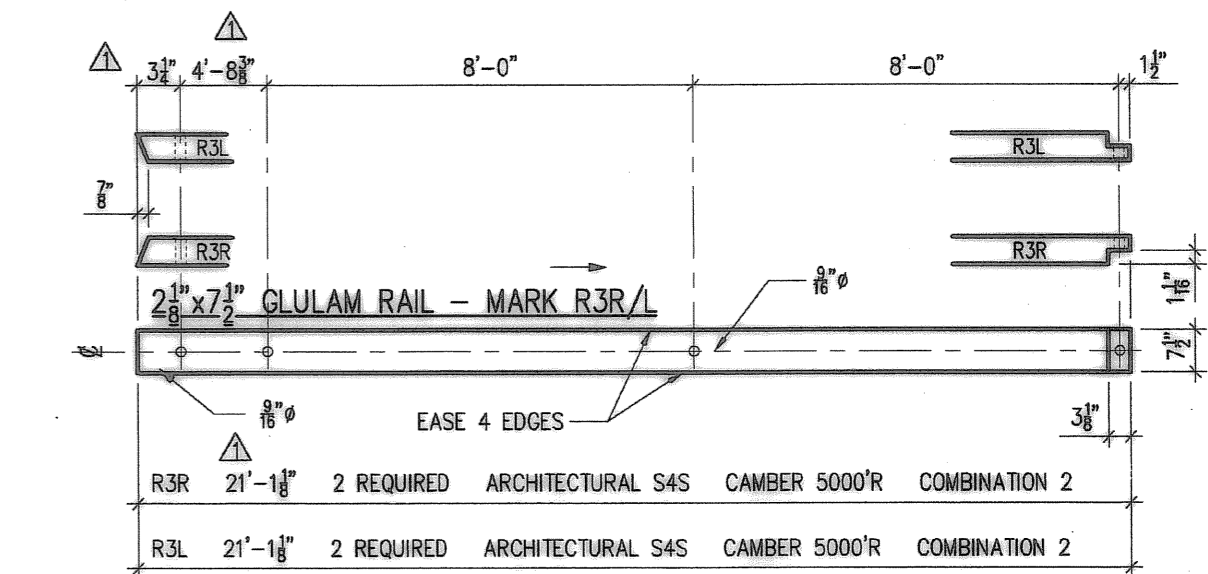
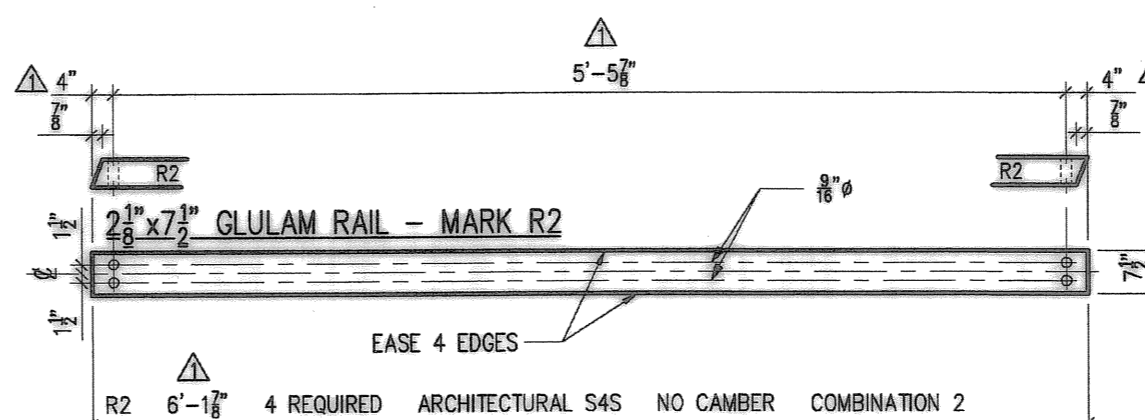
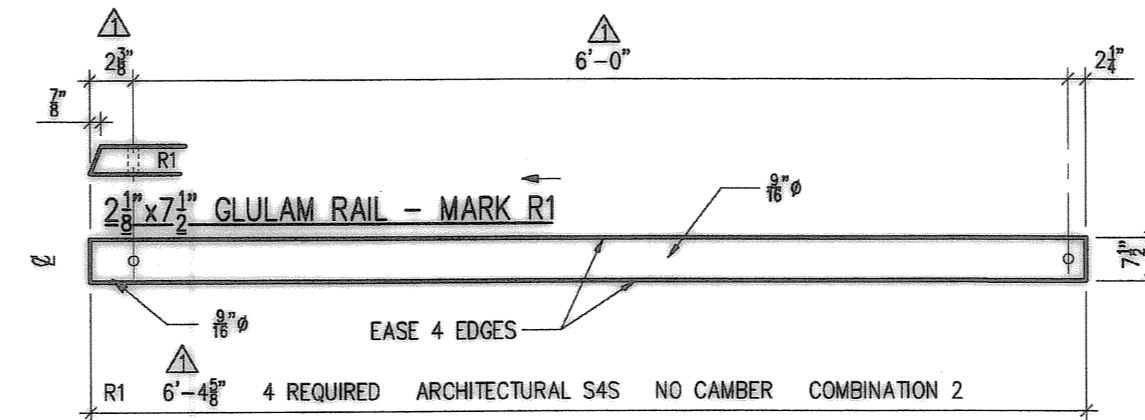
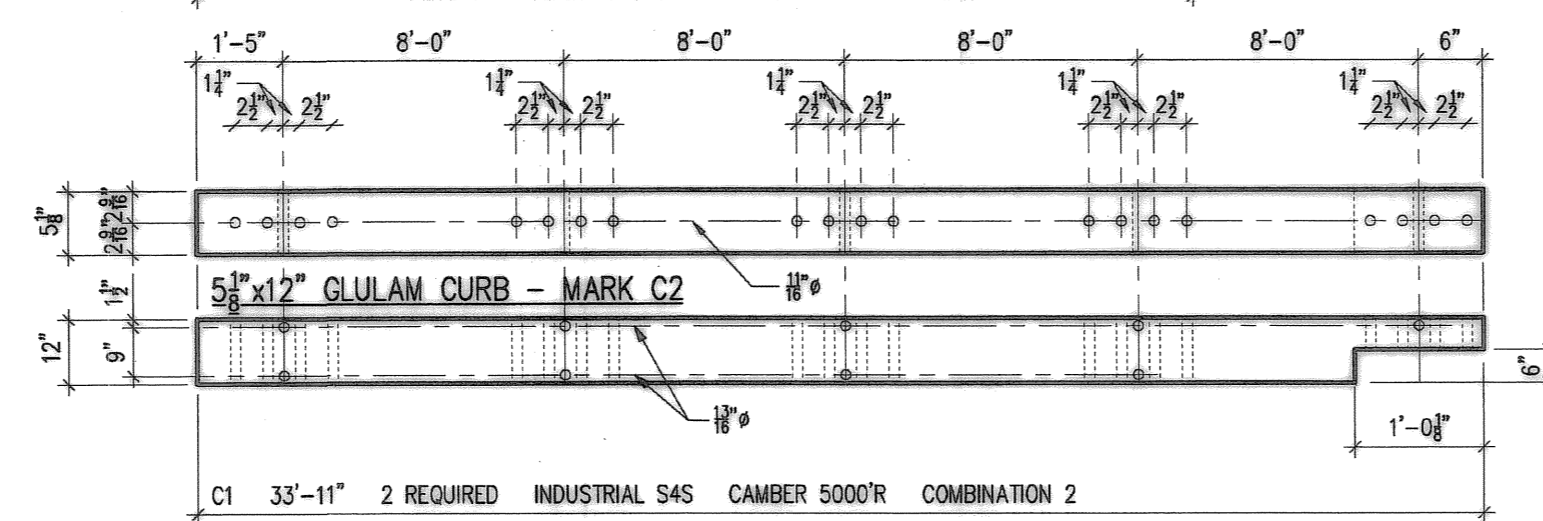
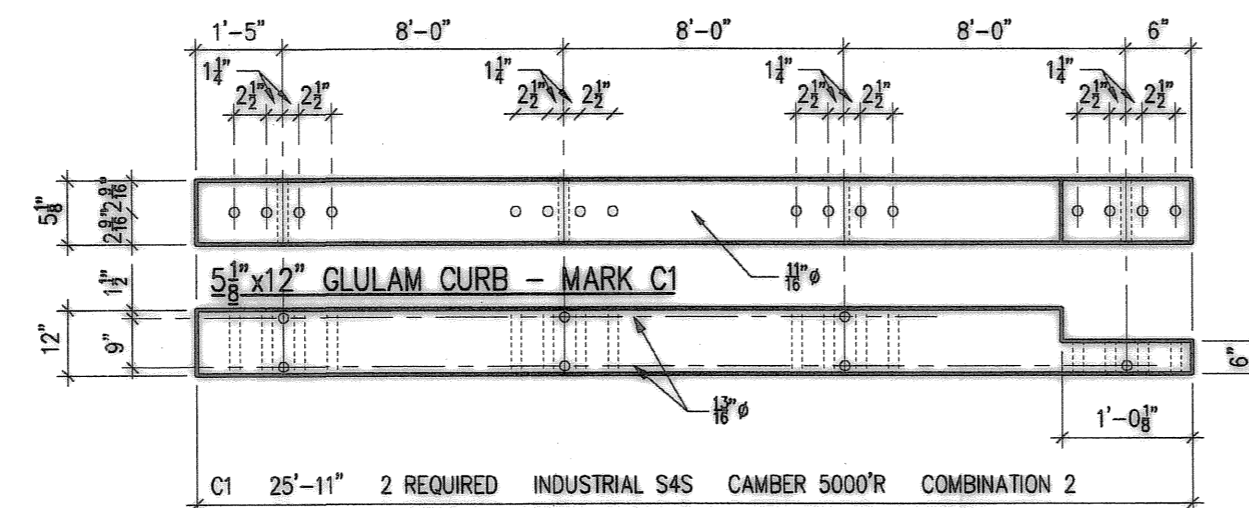
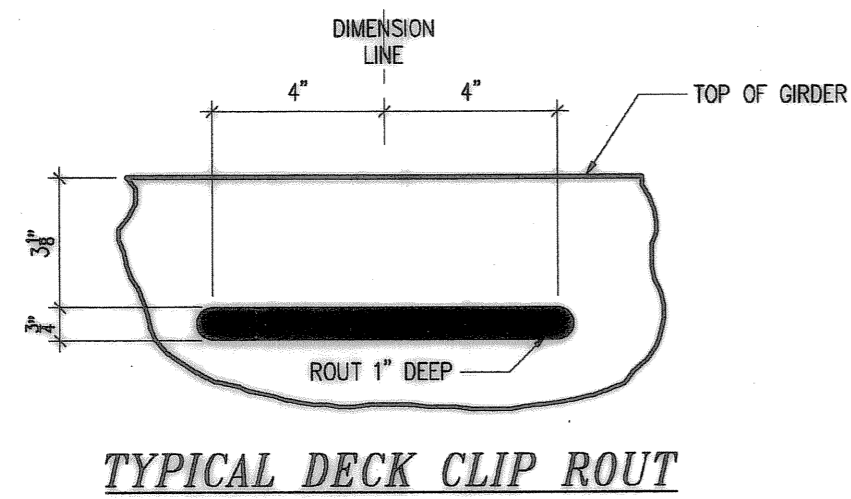
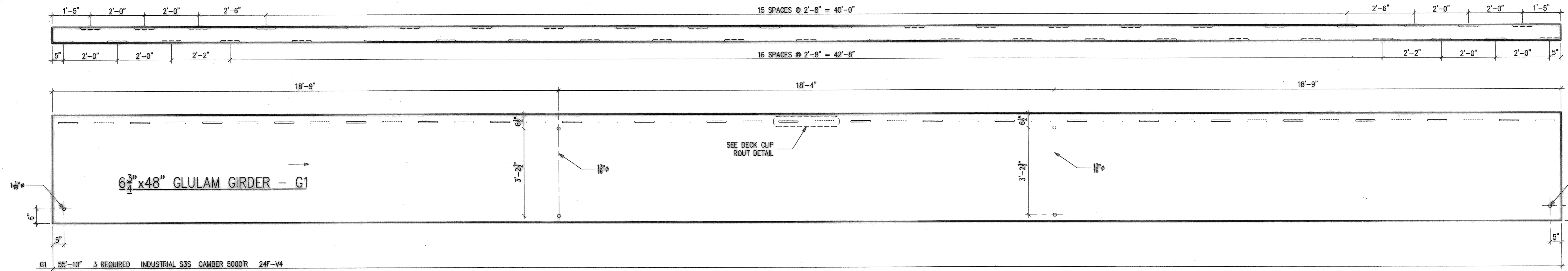
IT MAY BE DIFFICULT TO APPLY CERTAIN PAINT OR STAIN FINISHES TO PRESSURE TREATED TIMBERS. TIMBERS TREATED WITH LIGHT SOLVENT PENTACHLOROPHENOL SHOULD NOT BE CONSIDERED AS PAINTABLE UNTIL ALL SOLVENT HAS ESCAPED. WWS RECOMMENDS USING A PENETRATING PIGMENTED STAIN THAT DOES NOT FORM A COATING ON THE WOOD SURFACES.

IF BRIDGE MATERIAL IS TO BE STOCK PILED AT THE SITE, IT MUST BE STORED IN A LEVEL AREA AND STICKERED APPROXIMATELY EVERY 6 FEET. IF THE MATERIAL IS STORED IN A HOT, DRY CLIMATE, IT MUST ALSO BE COVERED WITH PLYWOOD OR OTHER MATERIAL TO PROTECT IT. FAILURE TO STICKER AND COVER MAY CAUSE WARPING AND EXCESSIVE SEASONING CHECKS.

Record Drawings, Maps, and Plans Not Guaranteed

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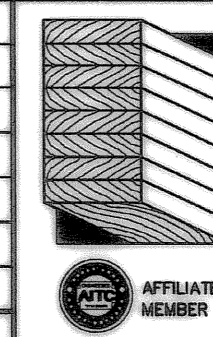
		PROJECT: BOECKMAN CREEK PEDESTRIAN BRIDGE LOCATION: WILSONVILLE, OREGON CLACKAMAS COUNTY	
ARCHITECT: ENGINEER:		CONTRACTOR: CITY OF WILSONVILLE	
P.O. BOX 130 TUALATIN, OREGON 97062 503/692-6900 FAX 503/692-6434 800/547-5411		DRAWN BY: JB DATE: 10/18/07 JOB NO.: 074052 CHECKED BY: ERG DATE: 10/26/07 DATE PRINTED: 02/28/08 SHEET: 1 of 3	
REVISIONS:			
NO.	DATE	REVISIONS	BY
1	2/28/08	PER CITY OF WILSONVILLE	JB
2	2/05/08	IN HOUSE REVISION	JB
3	11/14/07	PER APPROVAL	JB



2x6	SAWN	B1,B2
B1	4'-0"	10 REQUIRED DOUGLAS FIR #1 S4S
B2	3'-0"	2 REQUIRED DOUGLAS FIR #1 S4S

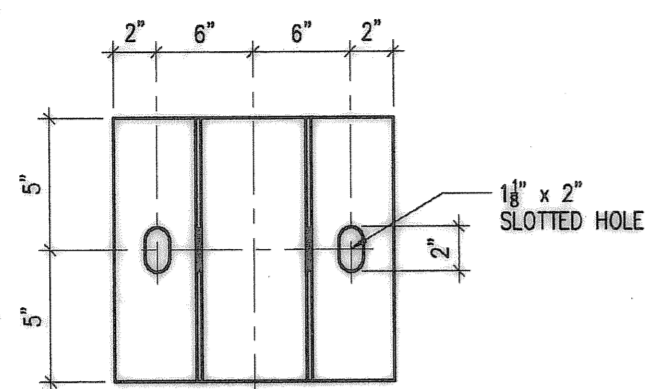
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NO.	DATE	REVISIONS	BY

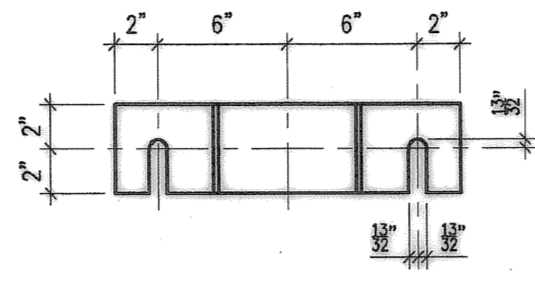
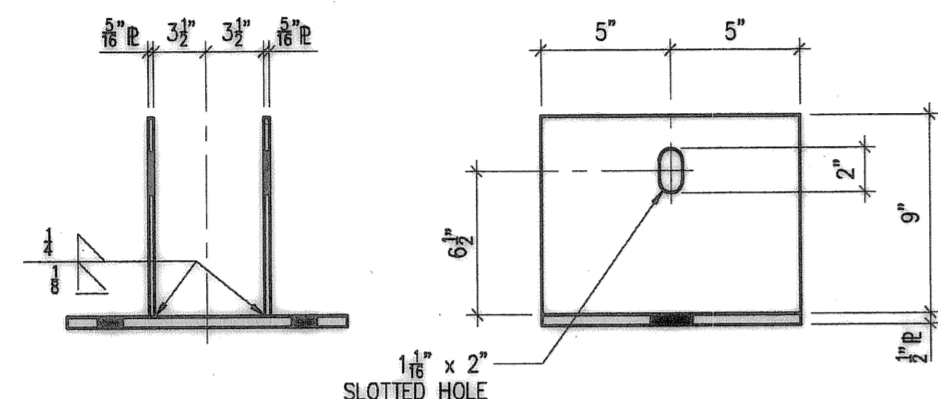


WESTERN WOOD STRUCTURES, INC.
 P.O. BOX 130 TUALATIN, OREGON 97062
 503/692-6900 FAX 503/692-6434
 800/547-5411

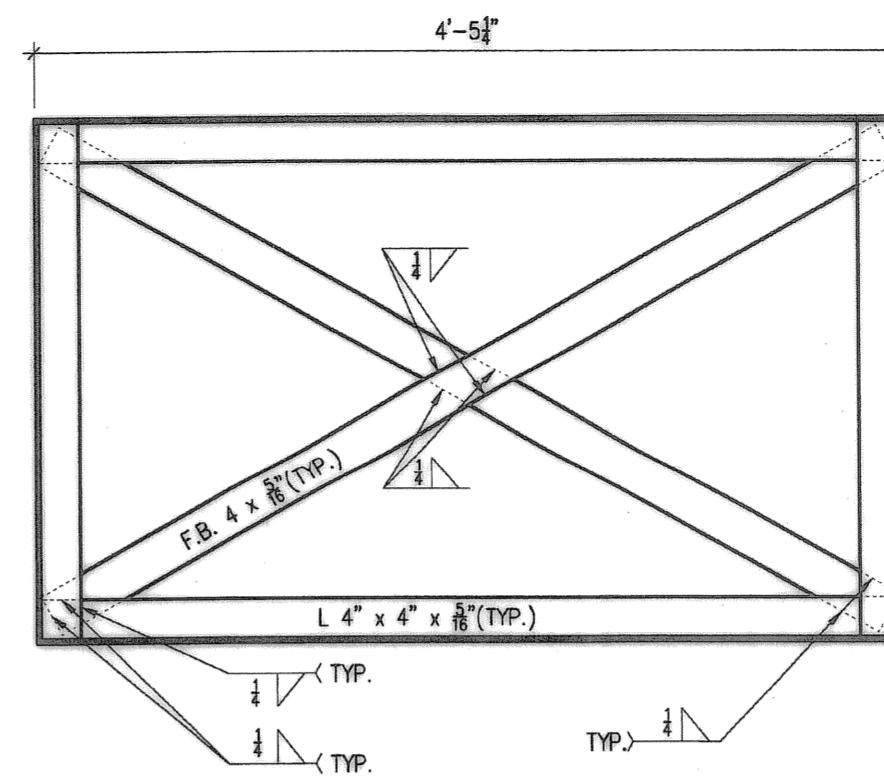
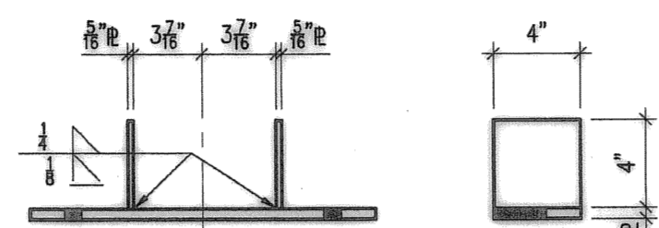
PROJECT:	BOECKMAN CREEK PEDESTRIAN BRIDGE
LOCATION:	WILSONVILLE, OREGON CLACKAMAS COUNTY
ARCHITECT:	
ENGINEER:	
CONTRACTOR:	CITY OF WILSONVILLE
DRAWN BY:	JB DATE 10/19/07
CHECKED BY:	ERG DATE 10/26/07
DATE PRINTED:	
JOB NO.	074052
PLANT DATE	10/26/08
SHT	2 of 3



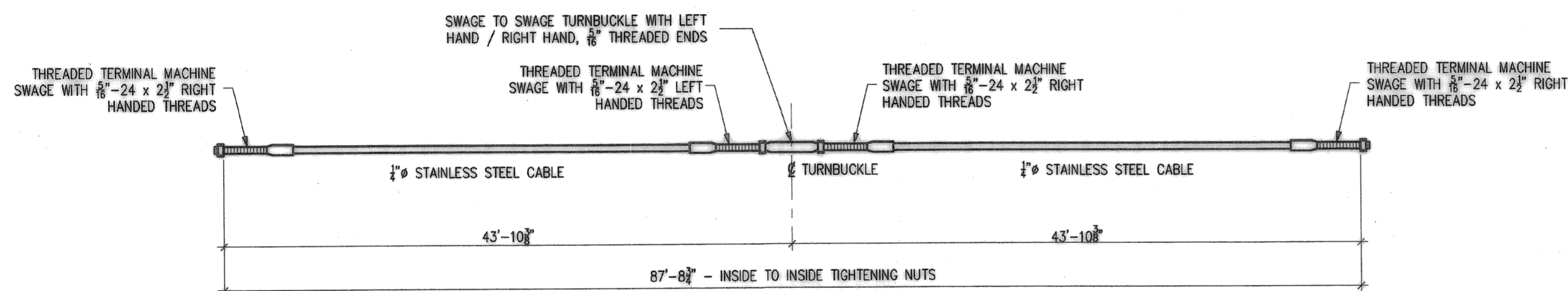
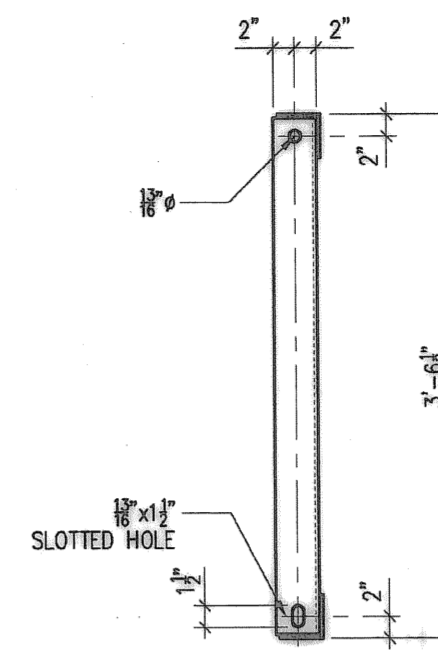
BEAM SEAT - MARK S1
MARK S1 6 REQUIRED



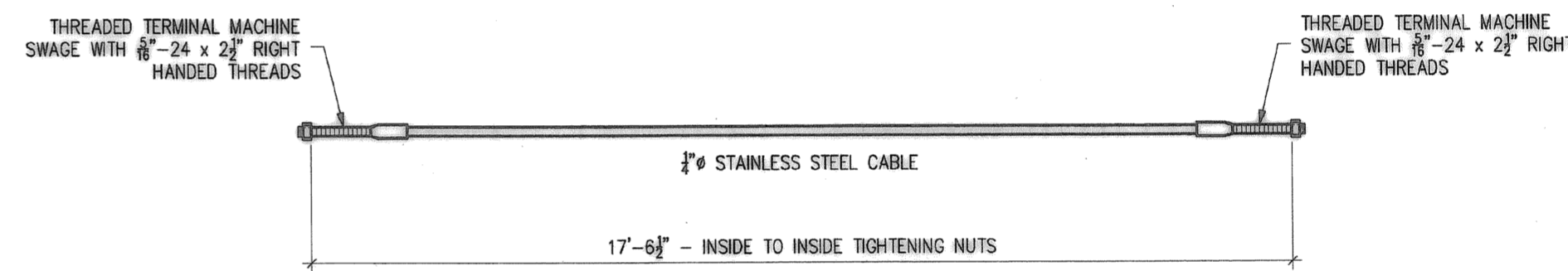
BEAM BRACE - MARK S2
MARK S2 6 REQUIRED



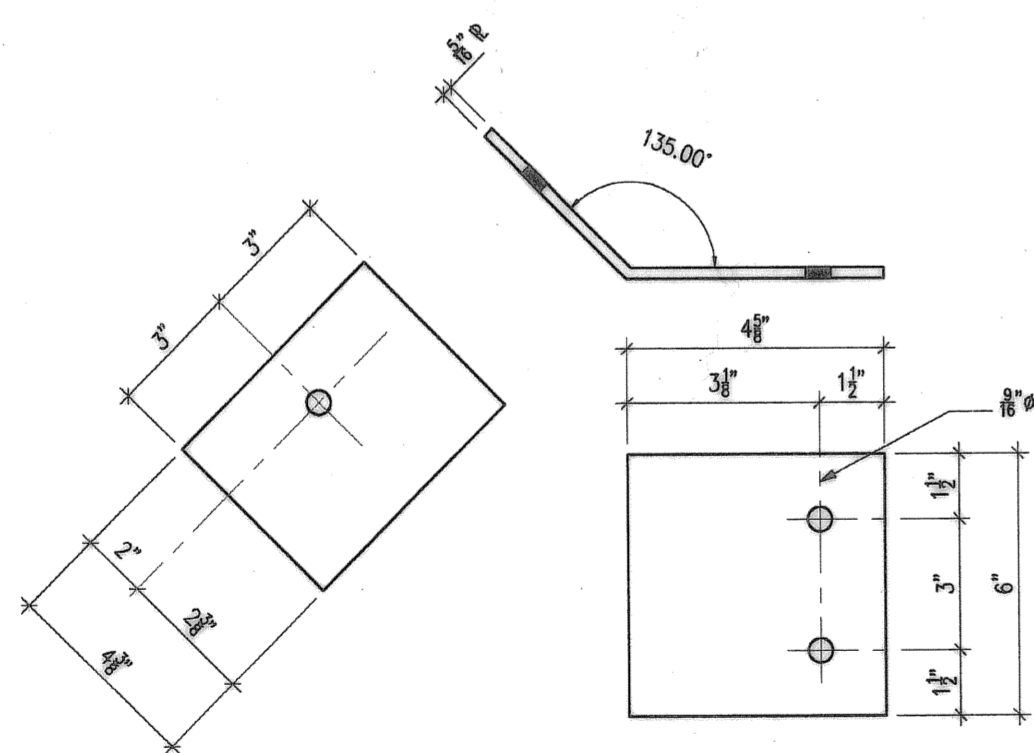
STEEL DIAPHRAGM - MARK S3
MARK S3 4 REQUIRED



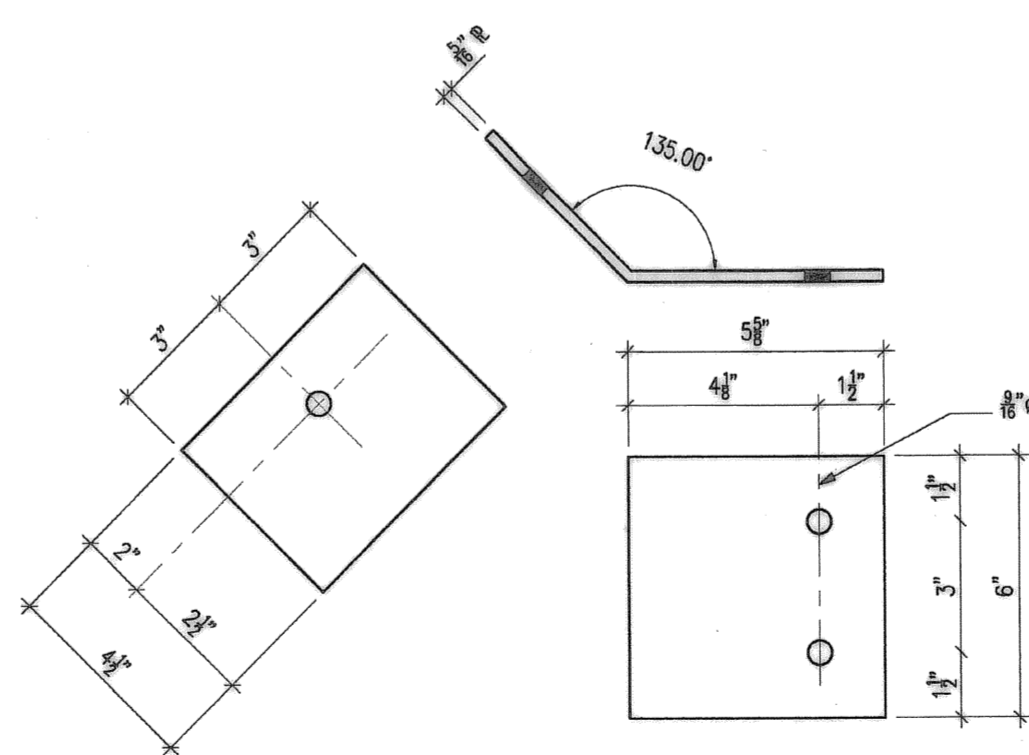
STAINLESS STEEL CABLE RAIL SYSTEM - MARK CR1
MARK CR1 16 REQUIRED



STAINLESS STEEL CABLE RAIL SYSTEM - MARK CR2
MARK CR2 12 REQUIRED



BENT PLATE - MARK S4 Δ
MARK S4 4 REQUIRED

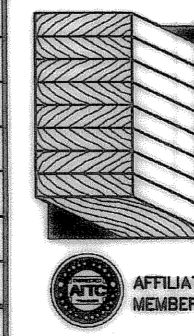


BENT PLATE - MARK S5 Δ
MARK S5 4 REQUIRED

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NO.	DATE	REVISIONS	BY
2/28/08		PER CITY OF WILSONVILLE	JB
11/15/07		PER APPROVAL	JB



WESTERN WOOD STRUCTURES, INC.
 P.O. BOX 130 TUALATIN, OREGON 97062
 503/692-6900 FAX 503/692-6434
 800/547-5411

PROJECT:	BOECKMAN CREEK PEDESTRIAN BRIDGE		
LOCATION:	WILSONVILLE, OREGON CLACKAMAS COUNTY		
ARCHITECT:	WESTERN WOOD STRUCTURES, INC.		
ENGINEER:	CITY OF WILSONVILLE		
CONTRACTOR:	CITY OF WILSONVILLE		
DRAWN BY:	JB	DATE	10/23/07
CHECKED BY:	ERG	DATE	10/26/07
DATE PRINTED:		JOB NO.	074052
		PLOT DATE	02/28/08
		SHEET	3 OF 3