SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON
BENTON COUNTY PROJECT #:25321-01-05

INDEX TO SHEETS:

C - 0.1 COVER SHEET
C - 0.2 GENERAL NOTES AND CONDITIONS, TYPICAL SECTIONS
C - 1.1 EROSION AND SEDIMENT CONTROL PLAN

SW RESERVOIR AVENUE PROPOSED PLAN AND PROFILE
C - 2.1 SW RESERVOIR AVENUE 7+50 - STA 18+60
C - 2.2 SW RESERVOIR AVENUE 18+60 - STA 30+50
C - 2.3 SW RESERVOIR AVENUE 26+00 - STA 37+50
C - 2.4 SW RESERVOIR AVENUE 34+00 - STA 40+45
C - 2.5 RESERVOIR TIE-IN STA 0+00 - STA 3+00
C - 3.1 - C - 3.16 SW RESERVOIR AVENUE CROSS-SECTIONS NITS
C - 4.1 CULVERT DETAIL NITS
C - 4.2 SIGNALIZATION AND STREET LIGHTING NITS
C - 4.3 LANDSCAPING AND IRRIGATION NITS

WETLAND MITIGATION
C - 5.1 EXISTING CONDITIONS
C - 5.2 GRADING PLAN
C - 5.3 MAIN CHANNEL CROSS-SECTIONS
C - 5.4 BACKWATER CROSS-SECTIONS
C - 5.5 PROFILES
C - 5.6 PLANTING AND CHANNEL PLAN

C - 6.1 DETAILS
C - 6.2 DETAILS
C - 6.3 DETAILS

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BENTON COUNTY PROJECT MANAGER:	
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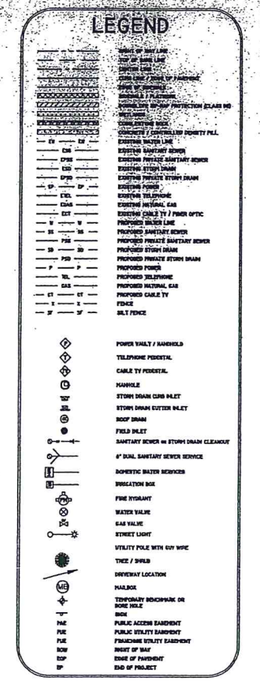
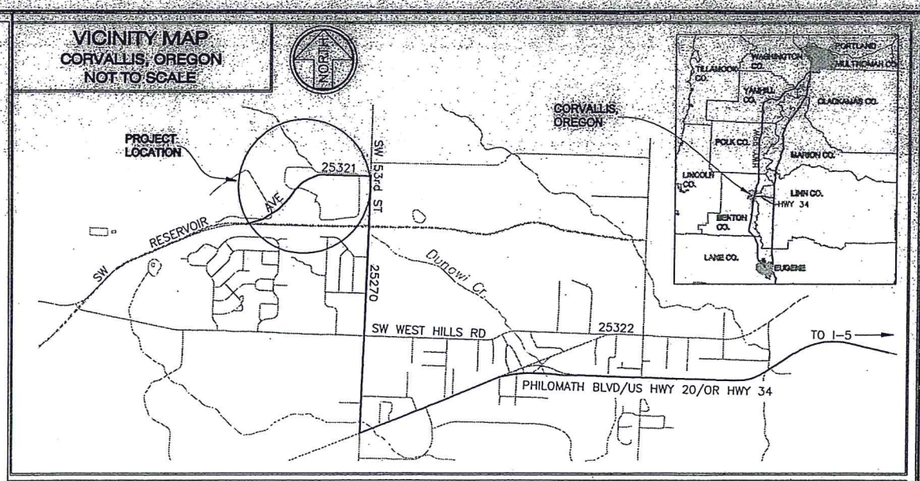
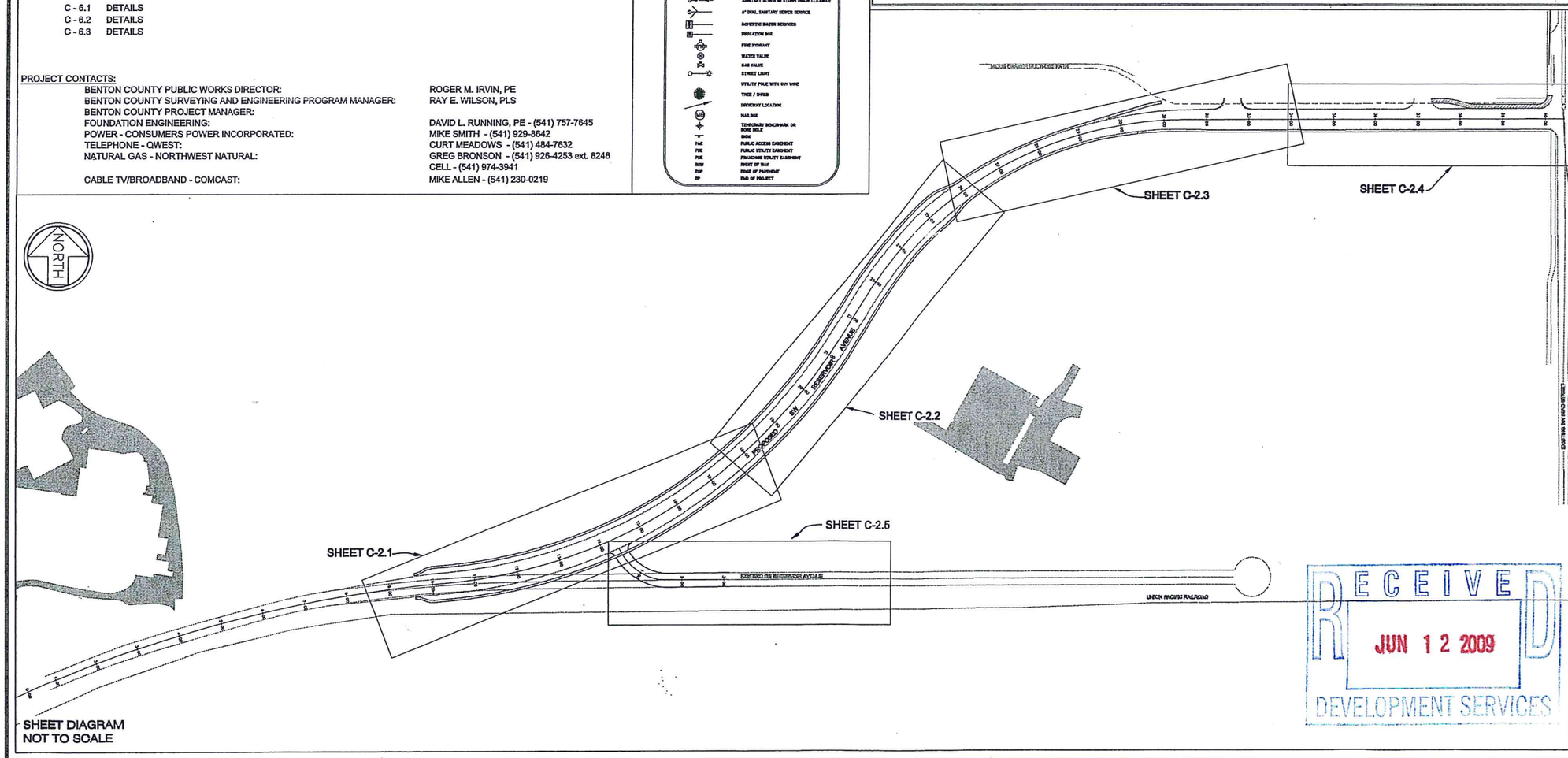
NATURAL GAS - NORTHWEST NATURAL:	GREG BRONSON - (541) 926-4253 ext. 8248
	CELL - (541) 974-3941
CABLE TV/BROADBAND - COMCAST:	MIKE ALLEN - (541) 230-0219

LEGEND



VICINITY MAP
CORVALLIS, OREGON
NOT TO SCALE





RECEIVED
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DEVELOPMENT SERVICES

Benton County
Public Works Department
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Date: FEBRUARY 12, 2009

REGISTERED PROFESSIONAL ENGINEER
53803PE
OREGON
JULY 11, 2003
LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

COVER SHEET

Revision Description	Date	Initials

Scale: AS SHOWN

Drawn by: SMP
Designed by: SMP

Project #: 25321-01-05

File Location: G:\Avery Proj\Mgmt\ROA\DB\25321\25321-01-05\ENGINEERING DESIGN

Index Number: C - 0.1

Sheet # 1 of 2 Sheets

EXC09-00047

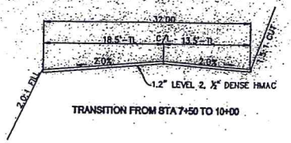
GENERAL NOTES & CONDITIONS:

1) EROSION CONTROL SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER AND SHALL BE MAINTAINED BY THE CONTRACTOR PER THE EROSION CONTROL PLAN AND PERMIT.
2) THE CONTRACTOR MUST KEEP COPIES OF THE CONSTRUCTION DRAWINGS (WITH AS-BUILT INFORMATION RECORDED), SPECIFICATIONS, SPECIAL PROVISIONS AND ALL NECESSARY PERMITS AT THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION.
3) CONSTRUCTION STAKING AND SURVEYING WILL BE PERFORMED BY BENTON COUNTY PUBLIC WORKS. ALL REQUIRED SURVEYING AND STAKING MUST BE COORDINATED THROUGH THE BENTON COUNTY SURVEYOR'S OFFICE (541-766-6012). A MINIMUM OF 2 BUSINESS DAYS (48 HOURS) NOTICE IS REQUIRED.
4) PROPERTY MONUMENTS AND STAKING LOST AS A RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5) EXACT PAVEMENT SAW CUT LIMITS TO BE LOCATED BY ENGINEER IN THE FIELD. THE COUNTY WILL PROVIDE ONE SET OF CONSTRUCTION STAKING FOR PIPELINE ALIGNMENTS, GRADES AND STRUCTURES.
6) UTILITIES ILLUSTRATED IN THESE DRAWINGS ARE COMPILED FROM "AS-BUILT" DRAWINGS, FIELD SURVEYS, FIELD UTILITY LOCATES AND DRAWINGS FOR UTILITY LOCATES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR MUST COMPLY WITH ALL STIPULATIONS OF ORS 757.542 - 562 & 757.993 and OAR 952-001. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITIES DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
7) MAJOR FRANCHISE UTILITY RELOCATION WILL BE PERFORMED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO START OF CONSTRUCTION.
8) THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES TO ARRANGE THE RELOCATION OR REPLACEMENT OF DROPS, HAND HOLDS, PEDESTALS AND CROSSINGS IN CONFLICT WITH CONSTRUCTION EFFORTS NOT COVERED BY THE MAJOR RELOCATION EFFORTS NOTED IN 7) ABOVE. UTILITY CONTACT NAMES AND PHONE NUMBERS ARE LISTED ON THE COVER SHEET (C-0.1).
9) CONSTRUCTION SITE SAFETY AND TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY BENTON COUNTY AT THE PRE-CONSTRUCTION MEETING.
10) THE CONTRACTOR SHALL ERECT, MAINTAIN, AND REMOVE ALL REQUIRED TEMPORARY TRAFFIC CONTROL DEVICES.
11) THE CONTRACTOR SHALL KEEP ALL TRAVEL LANES, DRIVEWAYS, SIDEWALKS AND THE MULTI-USE PATH CLEAR OF DEBRIS FROM THE CONSTRUCTION SITE.
12) CONTRACTOR SHALL BACKFILL BEHIND CURBS WITH SANDY LOAM, OR ANOTHER SUITABLE MATERIAL APPROVED BY THE ENGINEER, FROM AN APPROVED SOURCE AND SHALL PROVIDE FINAL CLEAN-UP AND SLOPED GRADED GROUND, AS PER STAKING IN FIELD BY, OR AT THE DIRECTION OF BENTON COUNTY PERSONNEL.
13) STRIPING AND SIGNING FOR THIS PROJECT WILL BE PERFORMED BY BENTON COUNTY CREWS.
14) PIPE WORK, BEDDING AND BACKFILL SHALL BE PERFORMED AS PER DETAIL NUMBERS 201, 202, 206A & 206-BCP ON SHEETS C-6.1 & C-6.2.
15) MANHOLES & CURB INLETS AND CATCH BASINS SHALL BE INSTALLED AS PER DETAIL NUMBERS 203, 205, 206A-BCPW, 209, & PMSU 40-40 ON SHEETS C-6.1 & C-6.2.
16) ALL CURB, GUTTER, DRIVEWAYS AND SIDEWALKS SHALL BE INSTALLED AS PER DETAIL NUMBERS, 103, 103-A, 106, 107, 107A& 09 ON SHEET C-6.1.
17) THE MULTI-USE PATH ON THE NORTH SIDE OF RESERVOIR AVENUE (MIDGE KRAMER PATH) SHALL BE CONSTRUCTED TO CITY STANDARDS FOR HIGH-VOLUME PATHS. WHERE ACCESSES TO THE FAIRGROUNDS CROSS THE PATH, PAVING MATERIALS THAT CONTRAST WITH BOTH THE COMMERCIAL DRIVEWAY ACCESS AND THE MULTI-USE PATH SHALL BE USED.
18) ITEMS OF WORK NOT SHOWN ON THESE DRAWINGS BUT NECESSARY FOR SUCCESSFUL COMPLETION OF THIS PROJECT MAY BE REQUIRED BY THE COUNTY.

ABBREVIATIONS:

AC	ASPHALT CONCRETE
ADD	ADDENDUM
AGG	AGGREGATE
ALT	ALTERNATIVE
BL	BIKE LANE
BOC	BOTTOM OF CURB
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BP	BEGIN PROJECT
BVC	BEGINNING OF VERTICAL CURVE
BUFF	SURVEY BUFFER
CAB	CRUSHED AGGREGATE BASE
CB	CATCH BASIN
CI	CURB INLET
CIP	CAST IN PLACE
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COC	CITY OF CORVALLIS
COMC	COMCAST
CONST	CONSTRUCT
CONT	CONTINUOUS
COP	CITY OF PHILOMATH
CP	CONCRETE PIPE
CPI	CONSUMER'S POWER, INC.
CT	CABLE TELEVISION
CTR	CENTER
CU	CUBIC
DET	DETAIL
DI	DUCTILE IRON
DIAM	DIAMETER
DIM	DIMENSION
DITT	DITCH
DWG	DRAWING
E	EAST
EA	EACH
ELEV	ELEVATION
EASE	EASEMENT
EOG	EDGE OF GRAVEL
EP	EDGE PAVEMENT
EOP	END OF PROJECT
EVC	END OF VERTICAL CURVE
EX	EXISTING
EXC	EXCAVATION
EXT	EXTERIOR
F	FUTURE OR PROPOSED
FD	FIELD DRAIN
FF	FIELD FABRICATE
FAB	FABRICATE
FD	FOUND
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIN	FINISHED
FL	FLOW LINE
FLG	FLANGE
FOC	FACE OF CURB
FT	FOOT - FEET
FUE	FRANCHISE UTILITY EASEMENT
GA	GUAGE
GALV	GALVANIZED
GAS	NATURAL GAS
HC	HANDICAPPED
HMAC	HOT MIX ASPHALT CONCRETE
HORIZ	HORIZONTAL
HP	HIGH POINT
IE	INVERT ELEVATION
IN	INCH - INCHES
INFO	INFORMATION
INSP	INSPECTION
INST	INSTALL
INT	INTERIOR
IR	IRON ROD
JT	JOINT
LAT	LATERAL
LB	POUND
LF	LINEAL FOOT - FEET
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MAN HOLE
MISC	MISCELLANEOUS
MIN	MINIMUM
MJ	MECHANICAL JOINT
MUP	MULTI-USE PATH
N	NORTH
NIC	NOT IN CONTRACT
NITS	NOT IN THIS SUBMITTAL
NOM	NOMINAL
NTS	NOT TO SCALE
NWNG	NORTHWEST NATURAL GAS
OC	ON CENTER
OD	OUTSIDE DIAMETER
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
OH	OVER HEAD
P	PRIVATE, POWER
PAC	PACIFIC POWER & LIGHT
PAE	PUBLIC ACCESS EASEMENT
PC	PRECAST
PCC	PORTLAND CEMENT CONCRETE
PI	POINT OF INTERSECTION
PIPC	PUBLIC IMPROVEMENT BY PRIVATE CONTRACT
PL	PROPERTY LINE
POC	POINT OF CURVATURE
PP	POWER POLE
PS	PLANTER STRIP
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
QW	QWEST COMMUNICATIONS
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
REINF	REINFORCED
REQ	REQUIRED
REV	REVISION - REVISED
ROW	RIGHT OF WAY
RT	RIGHT
S	SOUTH
SD	STORM DRAIN
SEC	SECOND
SECT	SECTION
SF	SQUARE FOOT - FEET
SL	SLOPE
SPEC	SPECIFICATION
SQ	SQUARE
SS	SANITARY SEWER
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STRUCT	STRUCTURAL
SW	SIDE WALK
SYM	SYMMETRICAL
TBR	TO BE REMOVED
TBR&R	TO BE REMOVED & REPLACED
TEL	TELEPHONE
TEMP	TEMPORARY
TL	TRAVEL LANE
TOB	TOP OF BANK
TOC	TOP OF CURB
TOE	TOE OF SLOPE
TOG	TOP OF GRAVEL
TOP	TOP OF PIPE
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UT	UTILITY
VC	VERTICAL CURVE
VERT	VERTICAL
VOL	VOLUME
W	WEST, WITH or WATER
WO	WITHOUT
WL	WATER LINE
WM	WATER METER
WWM	WELDED WIRE MESH
WV	WATER VALVE

TYPICAL SECTIONS - RESERVOIR AVENUE



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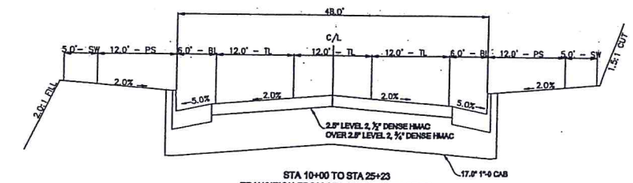
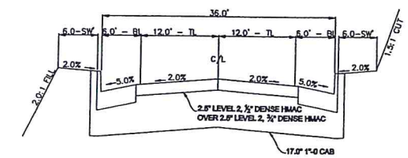
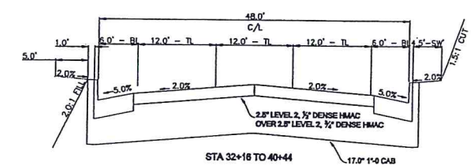


STA 10+00 TO STA 25+23
TRANSITION FROM STA 25+23 TO STA 27+93

SEE SHEET C-6.1 FOR
CURB AND GUTTER DETAILS

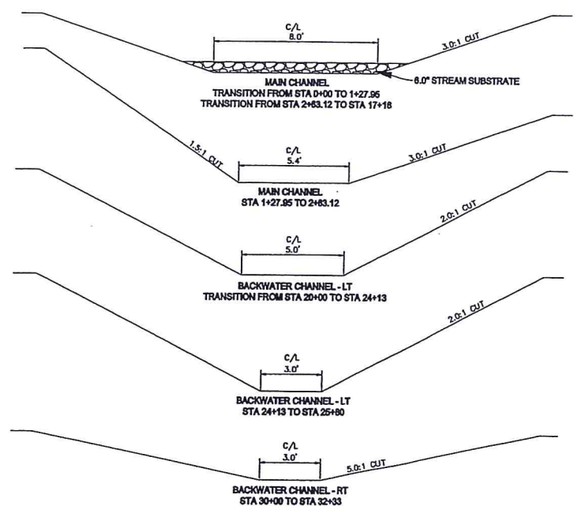


STA 27+93 TO STA 29+48
TRANSITION FROM STA 29+48 TO STA 32+16



STA 32+16 TO 40+44

TYPICAL SECTIONS - STREAM



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Date: MARCH 10, 2009

REGISTERED PROFESSIONAL ENGINEER
53803PE
OREGON
JULY 11, 2006
LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

GENERAL NOTES, CONDITIONS, AND TYPICAL SECTIONS

Revision Description	Date	Initials

Scale: NTS

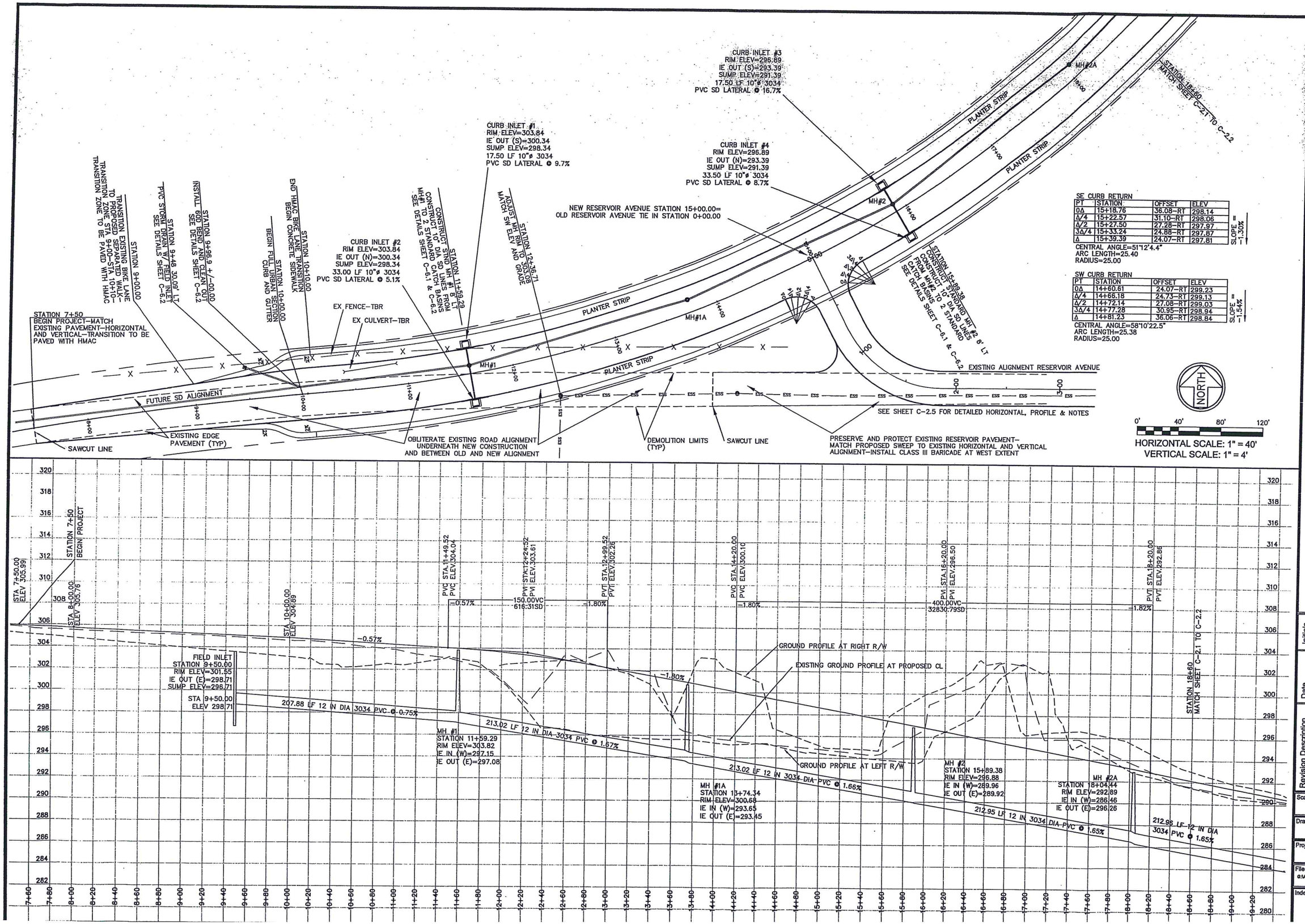
Drawn by: SMP
Designed by: SMP

Project #: 25321-01-05

File Location: G:\Avery Proj\Mgmt\ROAD\25321\25321-01-05\ENGINEERING DESIGN

Index Number: C - 0.2

Sheet # 2 of 2 Sheets



SE CURB RETURN

PT	STATION	OFFSET	ELEV
0Δ	15+18.76	36.08-RT	298.14
Δ/4	15+22.57	31.10-RT	298.06
Δ/2	15+27.50	27.28-RT	297.97
3Δ/4	15+33.24	24.86-RT	297.87
Δ	15+39.39	24.07-RT	297.81

CENTRAL ANGLE=51°12'4.4"
ARC LENGTH=25.40
RADIUS=25.00
SLOPE = -1.50%

SW CURB RETURN

PT	STATION	OFFSET	ELEV
0Δ	14+60.61	24.07-RT	299.23
Δ/4	14+66.18	24.73-RT	299.13
Δ/2	14+72.14	27.08-RT	299.03
3Δ/4	14+77.28	30.95-RT	298.94
Δ	14+81.23	36.06-RT	298.84

CENTRAL ANGLE=58°10'22.5"
ARC LENGTH=25.38
RADIUS=25.00
SLOPE = -1.54%

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Date: MARCH 17, 2009

REGISTERED PROFESSIONAL ENGINEER 53803PE OREGON JULY 11, 2000 LAUREL E. BYER

Renewal Date: 12/31/09

RESERVOIR AVENUE REALIGNMENT
BENTON COUNTY OREGON
PROJECT NUMBER 25321-01-05

T12S, R6W, SECTIONS 12 & 13 - MP 0.000 - MP 0.522

PROPOSED PLAN & PROFILE STA STA 7+50 - STA 18+60

Revision Description	Date	Initials

Scale: 1" = 40'

Drawn by: SMP Designed by: SMP

Project #: 25321-01-05

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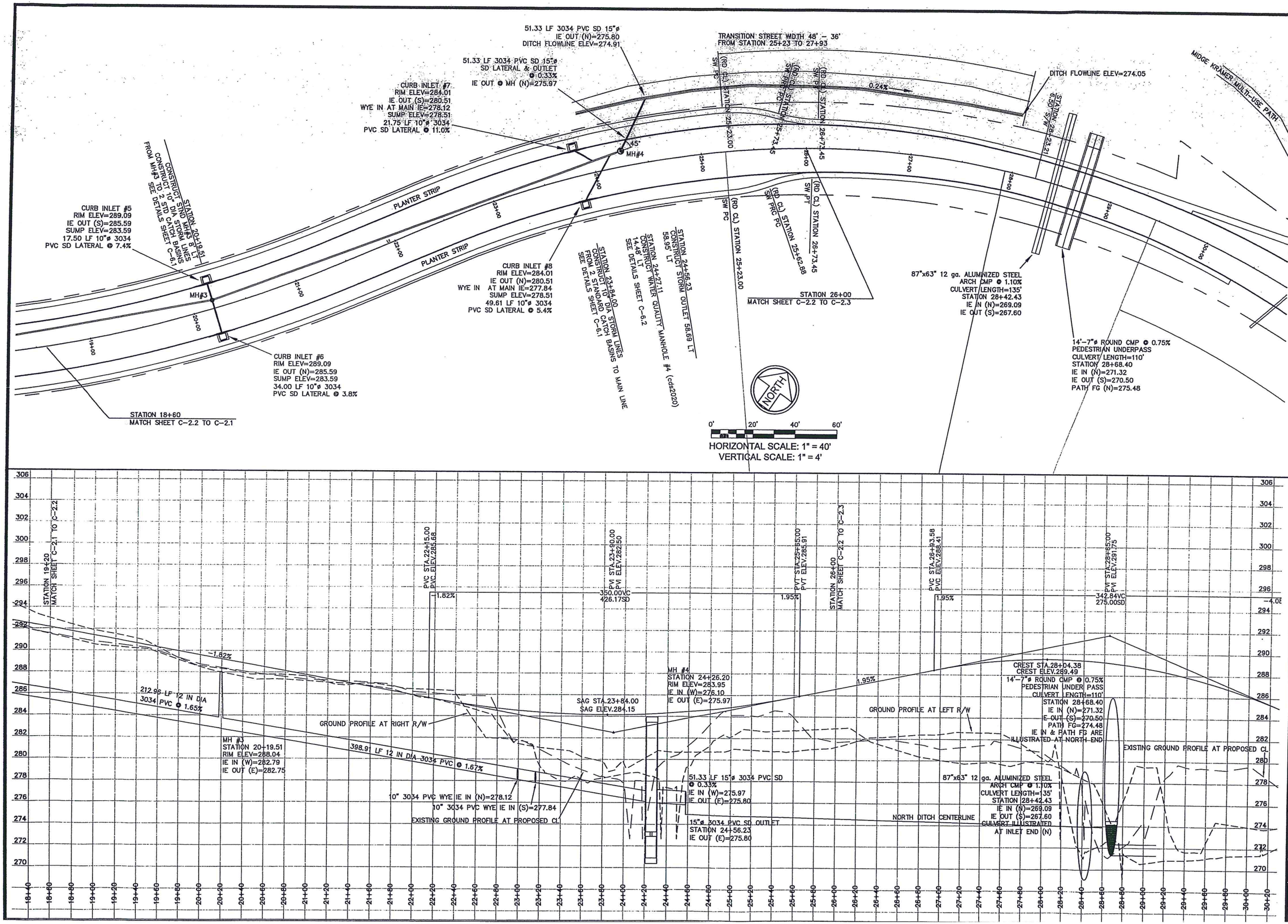
Index Number: C-2.1



Benton County
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Date: MARCH 17, 2009

REGISTERED PROFESSIONAL ENGINEER 53803PE OREGON JULY 11, 2000 LAUREL E. BYER

Renewal Date: 12/31/09

RESERVOIR AVENUE REALIGNMENT
BENTON COUNTY OREGON
PROJECT NUMBER 25321-01-05

T12S, R6W, SECTIONS 12 & 13 - MP 0.000 - MP 0.522

PROPOSED PLAN & PROFILE STA STA 18+60 - STA 30+50

Revision Description	Date	Initials

Scale: 1" = 40'

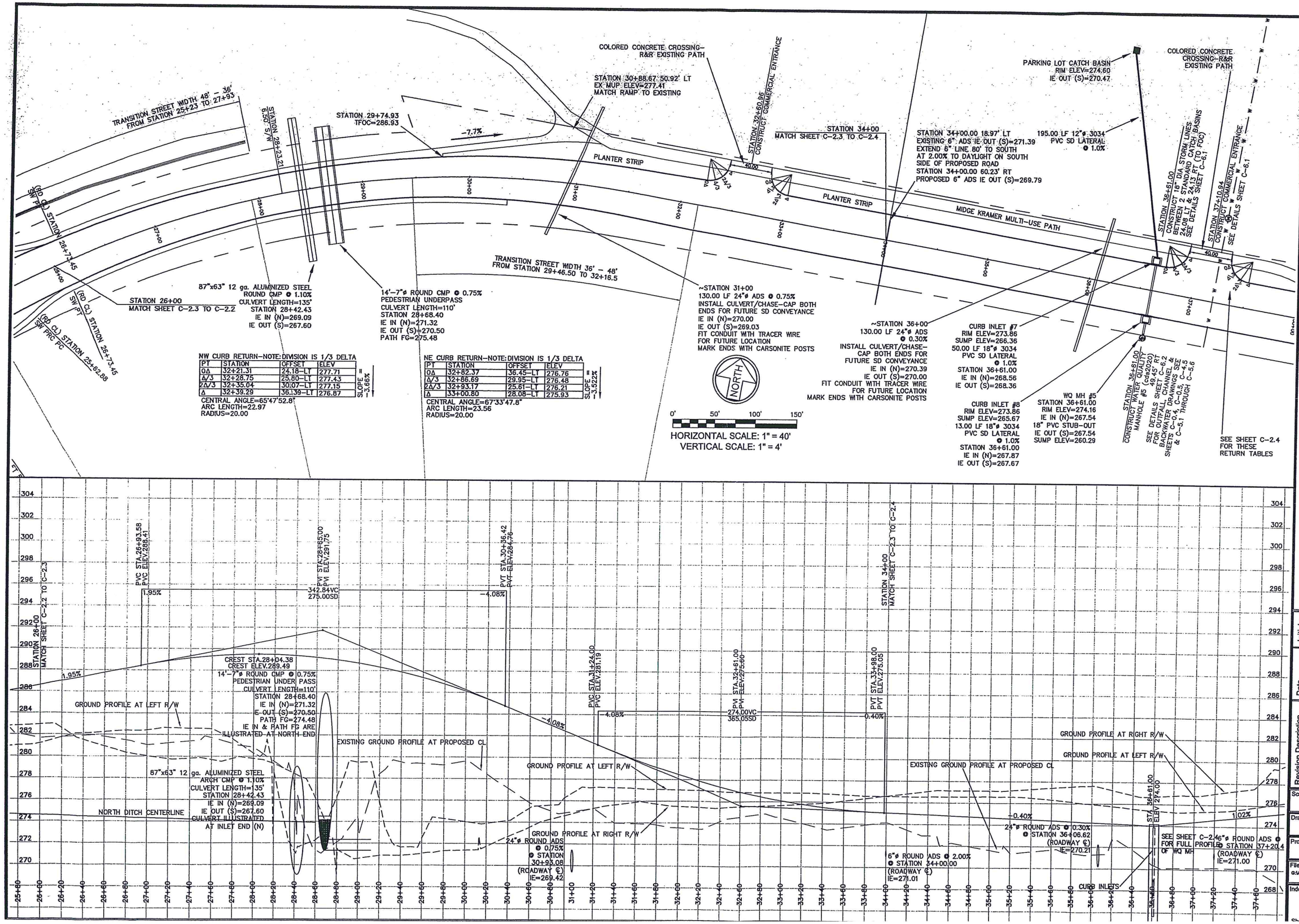
Drawn by: SMP Designed by: SMP

Project #: 25321-01-05

File Location: G:\Arwy Proj\Mgmt\Roads\25321\EngDesign

Index Number: C-2.2

Sheet # 2 of 5 Sheets



NW CURB RETURN–NOTE: DIVISION IS 1/3 DELTA

PT	STATION	OFFSET	ELEV
0Δ	32+21.31	24.18–LT	277.71
Δ/3	32+28.75	25.80–LT	277.43
2Δ/3	32+35.04	30.07–LT	277.15
Δ	32+39.29	36.39–LT	276.87

SLOPE = -3.66%

CENTRAL ANGLE=65°47'52.8"
ARC LENGTH=22.97
RADIUS=20.00

NE CURB RETURN–NOTE: DIVISION IS 1/3 DELTA

PT	STATION	OFFSET	ELEV
0Δ	32+82.37	36.45–LT	276.76
Δ/3	32+86.69	29.95–LT	276.48
2Δ/3	32+93.17	25.61–LT	276.21
Δ	33+00.80	28.08–LT	275.93

SLOPE = -3.522%

CENTRAL ANGLE=67°33'47.8"
ARC LENGTH=23.56
RADIUS=20.00

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Date: MARCH 17, 2009

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Renewal Date: 12/31/09

RESERVOIR AVENUE REALIGNMENT
BENTON COUNTY OREGON
PROJECT NUMBER 25321-01-05

T12S, R6W, SECTIONS 12 & 13 - MP 0.000 - MP 0.522

PROPOSED PLAN & PROFILE STA STA 26+00 - STA 37+50

Revision Description	Date	Initials

Scale: 1" = 40'

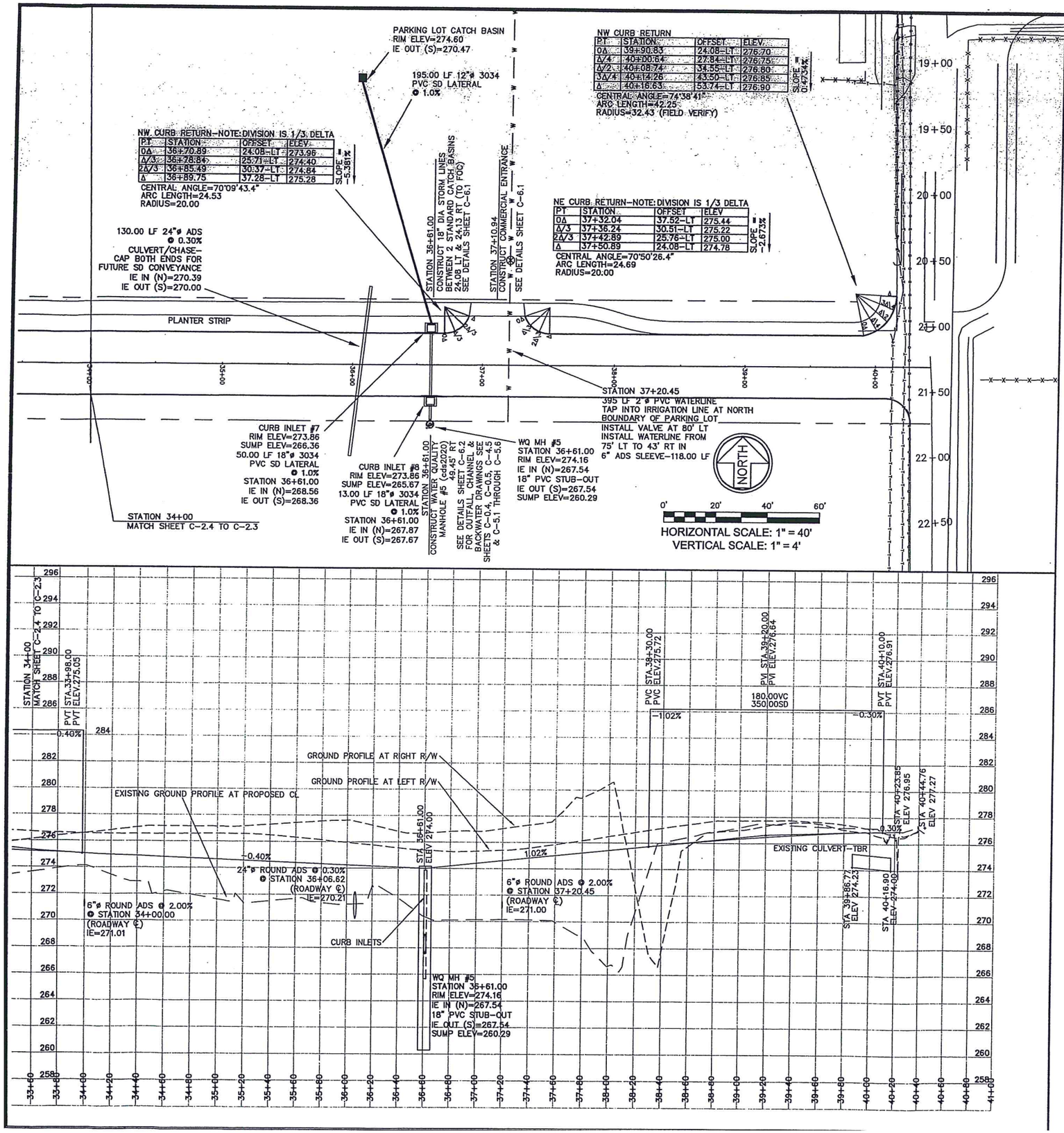
Drawn by: SMP Designed by: SMP

Project #: 25321-01-05

File Location: G:\Avery Proj\Rgmt\Roads\25321\EngDesign

Index Number: C-2.3

Sheet # 3 of 5



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Date: MARCH 17 2009

REGISTERED PROFESSIONAL ENGINEER 53803PE OREGON JULY 11, 2000 LAUREL E. BYER

Renewal Date: 12/31/09

RESERVOIR AVENUE REALIGNMENT
BENTON COUNTY OREGON
PROJECT NUMBER 25321-01-05

T12S, R6W, SECTIONS 12 & 13 - MP 0.000 - MP 0.522

PROPOSED PLAN & PROFILE STA 34+00 - STA 40+45

Revision Description	Date	Initials

Scale: 1" = 40'

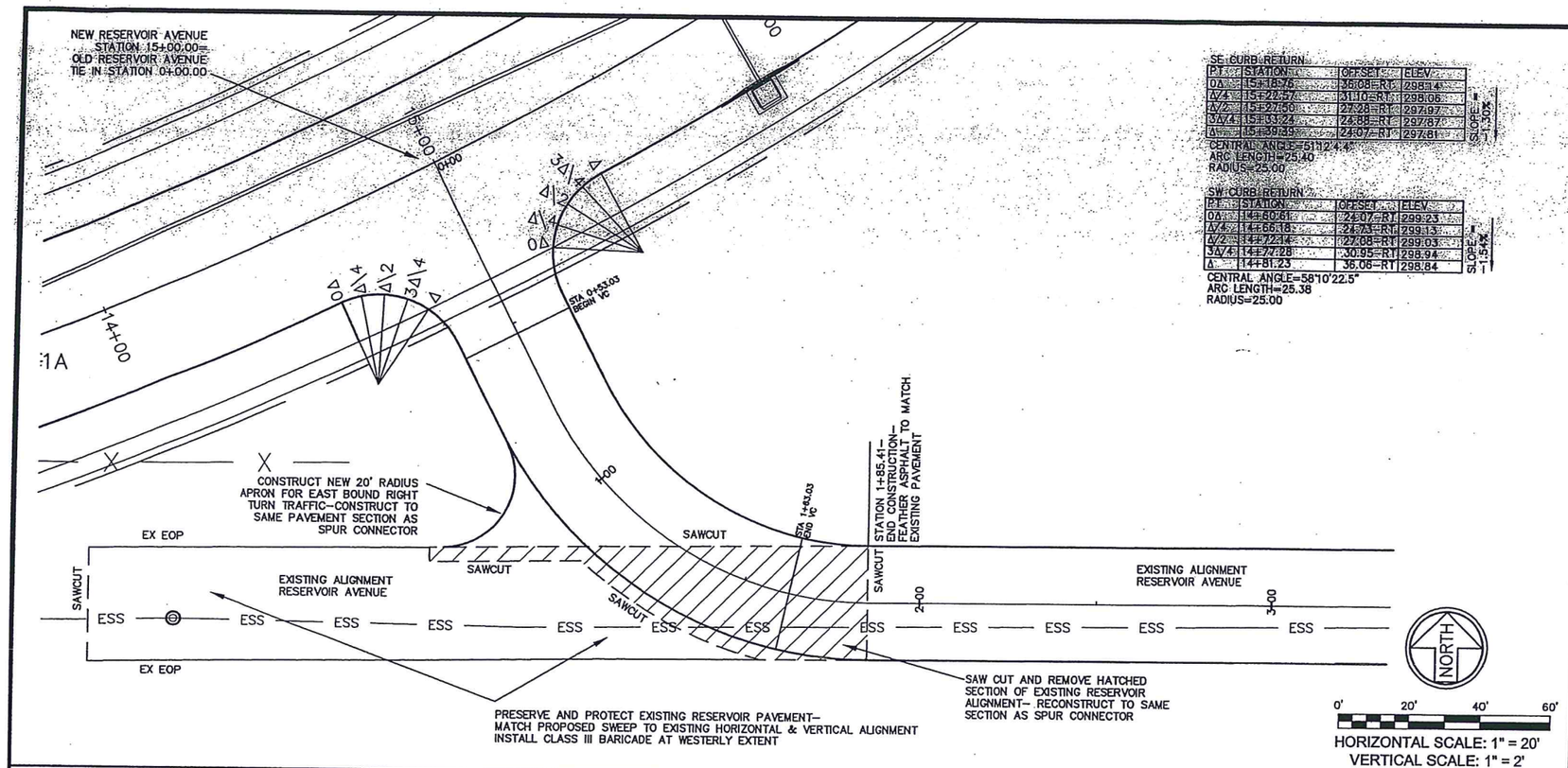
Drawn by: SMP Designed by: SMP

Project #: 25321-01-05

File Location: G:\Avery Proj\Mgmt\Roads\25321\Eng\Desig

Index Number: C-2.4

Sheet 4 of 5



SE CURB RETURN

PT	STATION	OFFSET	ELEV
0Δ	15+18.76	36.08–RT	298.14
Δ/4	15+22.57	31.10–RT	298.06
Δ/2	15+27.50	27.28–RT	297.97
3Δ/4	15+33.24	24.88–RT	297.87
Δ	15+39.39	24.07–RT	297.81

SLOPE= -1.30%

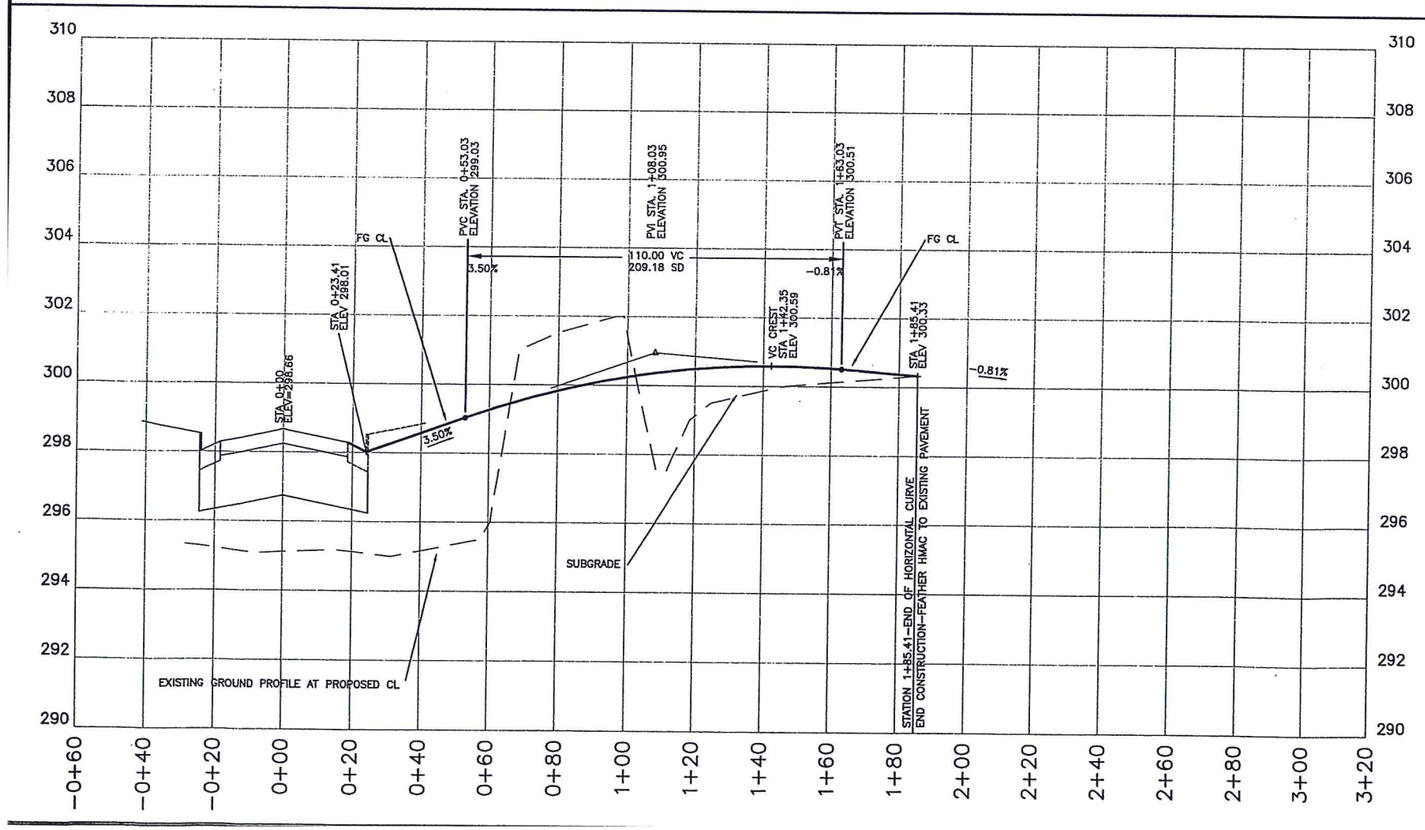
CENTRAL ANGLE=51°12'4.4"
ARC LENGTH=25.40
RADIUS=25.00

SW CURB RETURN

PT	STATION	OFFSET	ELEV
0Δ	14+60.61	24.07–RT	299.23
Δ/4	14+66.18	24.73–RT	299.13
Δ/2	14+72.14	27.08–RT	299.03
3Δ/4	14+77.28	30.95–RT	298.94
Δ	14+81.23	36.06–RT	298.84

SLOPE= -1.54%

CENTRAL ANGLE=58°10'22.5"
ARC LENGTH=25.38
RADIUS=25.00



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Date: MARCH 17, 2009

REGISTERED PROFESSIONAL ENGINEER 53803PE OREGON JULY 11, 2000 LAUREL E. BYER

Renewal Date: 12/31/09

RESERVOIR AVENUE REALIGNMENT
BENTON COUNTY OREGON
PROJECT NUMBER 25321-01-05

T12S, R6W, SECTIONS 12 & 13 - MP 0.000 - MP 0.522

RESERVOIR AVENUE TIE-IN PLAN & PROFILE
STA STA 0+00 - STA 3+00

Revision Description	Date	Initials

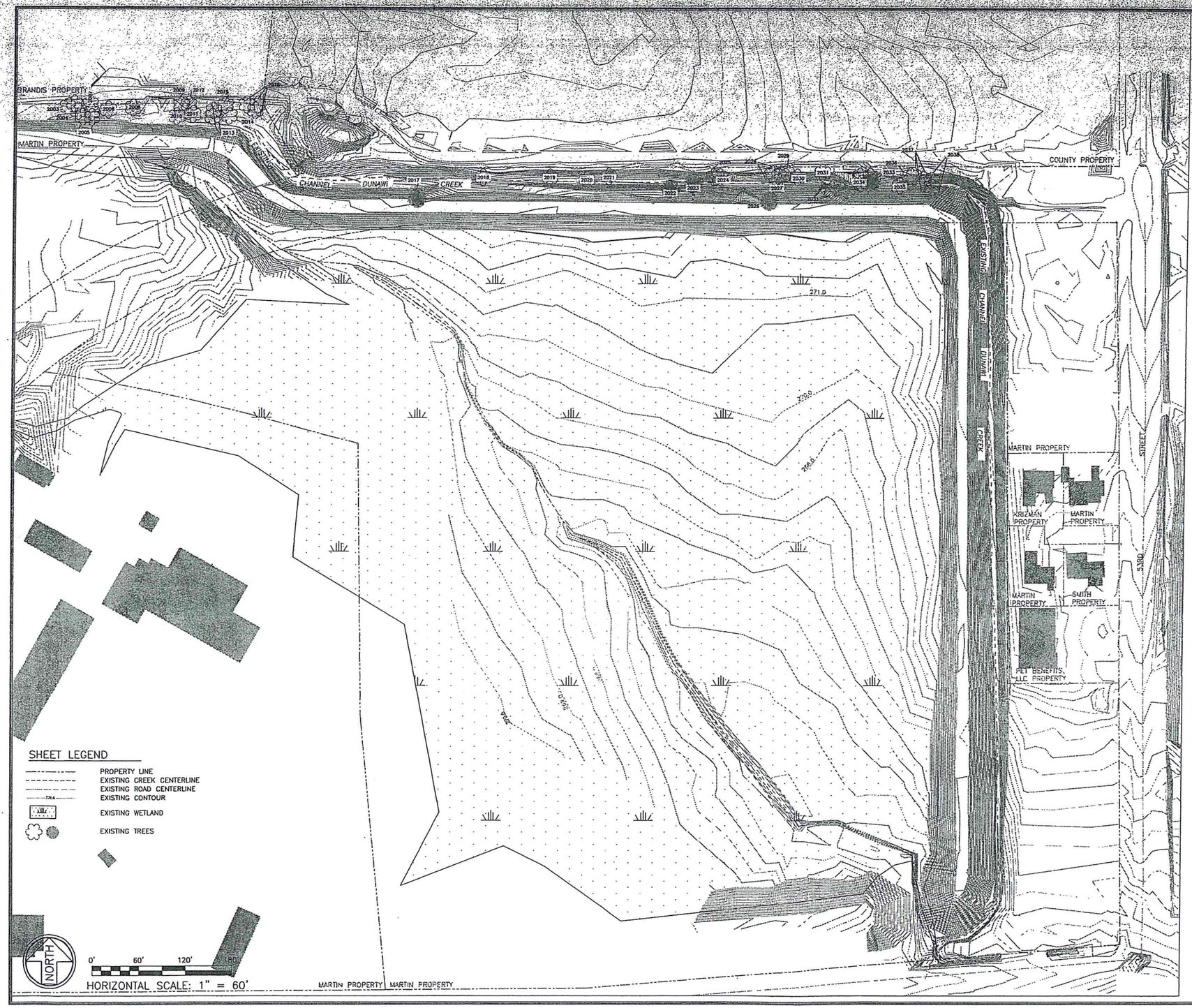
Scale: 1" = 20'

Drawn by: SMP
Designed by: SMP

Project #: 25321-01-05

File Location: G:\Arwry Proj\Mgmt\Roads\25321\EngDesign

Index Number: C-2.5



MEASURED TREES			
REFERENCE NUMBER	INFORMATION	REFERENCE NUMBER	INFORMATION
2003	1 X 8" ASH	2020	1 X 10" ASH
2004	1 X 10" ASH	2021	1 X 18" ASH
2006	3 X 18" ASH	2024	2 X 10" CW
2009	1 X 18" ASH	2027	2 X 18" CW
2010	1 X 12" WILLOW	2029	1 X 13" CW
2011	1 X 18" SNAG	2030	1 X 14" UNKNOWN
2012	1 X 14" ASH	2031	1 X 10" HAWTHORNE
2013	2 X 14" SNAGS	2034	4 X 12" WILLOW
2014	1 X 20" SNAG	2035	1 X 26" CW
2015	1 X 12" SNAG	2036	1 X 18" CW
2018	1 X 10" ASH	2037	1 X 12" CW
2019	1 X 10" ASH		

SALVAGED LOGS/ROOT WADS *			
REFERENCE NUMBER	INFORMATION	REFERENCE NUMBER	INFORMATION
2006	1 X 22" ASH	2025	1 X 24" CW
2007	1 X 20" ASH	2026	1 X 24" FIR
2016	3 X 24" ASH	2028	2 X 24" CW
2017	1 X 24" FIR	2032	1 X 24" CW
2022	1 X 24" FIR	2033	1 X 24" FIR
2023	1 X 24" FIR	2038	2 X 24" CW

**NOTE: THERE MAY BE 2 SALVAGEABLE FIR TREES LOCATED ON THE EAST BERM AS WELL AS ADDITIONAL SALVAGE LOGS DISCOVERED WHILE EXCAVATING THE BARK LAYER.

ASH TREES AND COTTONWOODS (CW) LISTED MAY BE USE AS BALLASTS WITHIN THE LARGE WOOD HABITAT OF THE MAIN CHANNEL AND MAY BE USED IN THE BACKWATER CHANNELS.

NOTES:
CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO SALVAGE, CLEAN ALL SEDIMENT OFF LOGS AND ROOT WADS, AND STOCKPILE LOGS WITH ATTACHED BRANCHES, LOGS WITH ATTACHED ROOT WADS AND ATTACHED BRANCHES, AND SLASH FROM DESIGNATED TREES. TO THE MAXIMUM PRACTICAL EXTENT, CONTRACTOR SHALL SALVAGE TREES BY PARTIALLY EXCAVATING THE ROOT WADS AND THEN PUSHING THE TREES OVER IN ORDER TO SALVAGE LOGS, ROOT WADS AND SLASH SUITABLE FOR USE IN CONSTRUCTION OF THIS PROJECT. TO THE MAXIMUM PRACTICAL EXTENT, CONTRACTOR SHALL MINIMIZE BREAKAGE OF LOGS, ROOT WADS, AND SLASH DURING SALVAGE, STORAGE, HANDLING AND INSTALLATION ACTIVITIES.

THE CONTRACTOR SHALL MAXIMIZE THE NUMBER OF LOGS AND ROOT WADS SALVAGED FROM TIMBER LOCATED WITHIN THE LIMITS OF DISTURBANCE THAT MEET REQUIREMENTS SHOWN BELOW IN TABLE 1. MEASUREMENT OF LOG DIAMETER FOR SALVAGED ROOT WAD SHALL BE AT BREAST HEIGHT FOR THE STANDING TREE. MEASUREMENT OF LOG DIAMETER FOR SALVAGED LOG SHOULD BE AT THE NARROWEST POINT ALONG THE LOG.

TABLE 1	
TYPE OF WOODY DEBRIS	REQUIREMENTS
SALVAGED LOG	DOUGLAS FIR OR WESTERN RED CEDAR LOG LENGTH, 25–40 FEET LOG DIAMETER, 15–INCH MINIMUM BRANCHES ATTACHED TO LOG CONDITION, FREE FROM ROT OR DECAY CLEANED OF ALL SEDIMENT
SALVAGED ROOT WAD	DOUGLAS FIR OR WESTERN RED CEDAR ROOT WAD ATTACHED TO LOG LOG LENGTH, 25–40 FEET LOG DIAMETER, 15 INCH MINIMUM ROOT WAD DIAMETER, 4 FEET MINIMUM BRANCHES ATTACHED TO LOG CONDITION, FREE FROM ROT OR DECAY CLEANED OF ALL SEDIMENT
SLASH	LOG OR BRANCH DIAMETER, 4 INCH MINIMUM LOG OR BRANCH LENGTH, 10 FEET MINIMUM CONDITION, FREE FROM ROT OR DECAY CLEANED OF SEDIMENT

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Date: MAY 11, 2009

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OREGON
JULY 11, 2000
LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

EXISTING CONDITIONS

Revision Description	Date	Initials

Scale: 1" = 60'

Drawn by: JA
Designed by:

Project #: 25321-01-05

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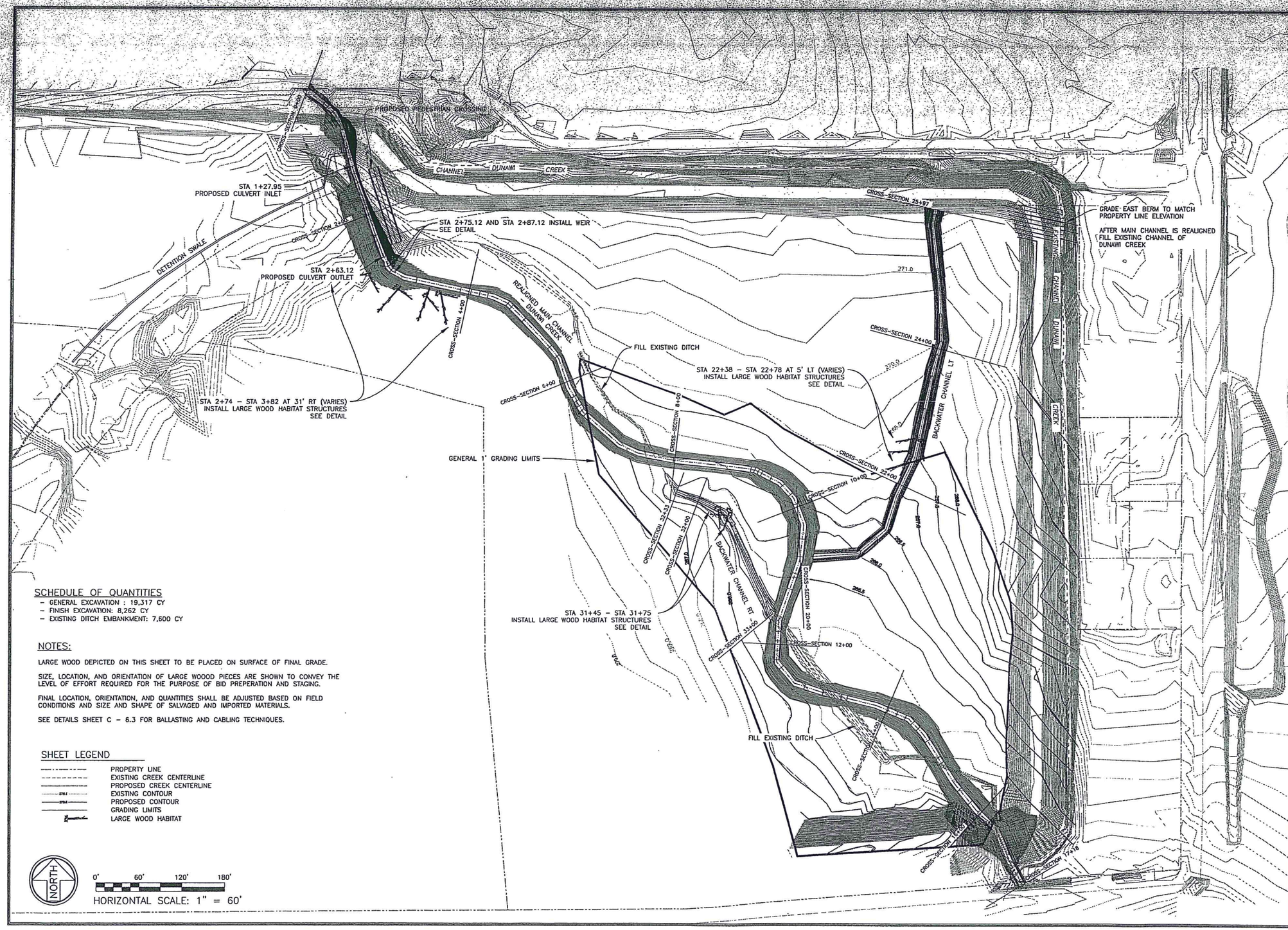
Index Number: C - 5.1

Sheet # 1 of 6 Sheets



SCHEDULE OF QUANTITIES

- GENERAL EXCAVATION : 19,317 CY
- FINISH EXCAVATION: 8,262 CY
- EXISTING DITCH EMBANKMENT: 7,600 CY

NOTES:

LARGE WOOD DEPICTED ON THIS SHEET TO BE PLACED ON SURFACE OF FINAL GRADE.

SIZE, LOCATION, AND ORIENTATION OF LARGE WOOOD PIECES ARE SHOWN TO CONVEY THE LEVEL OF EFFORT REQUIRED FOR THE PURPOSE OF BID PREPERATION AND STAGING.

FINAL LOCATION, ORIENTATION, AND QUANTITIES SHALL BE ADJUSTED BASED ON FIELD CONDITIONS AND SIZE AND SHAPE OF SALVAGED AND IMPORTED MATERIALS.

SEE DETAILS SHEET C – 6.3 FOR BALLASTING AND CABLING TECHNIQUES.

SHEET LEGEND

- PROPERTY LINE
- EXISTING CREEK CENTERLINE
- PROPOSED CREEK CENTERLINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- GRADING LIMITS
- LARGE WOOD HABITAT

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SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R6W, SECTION 5 - MP 0.0 - MP 0.75

GRADING PLAN OVERVIEW

Revision Description	Date	Initials

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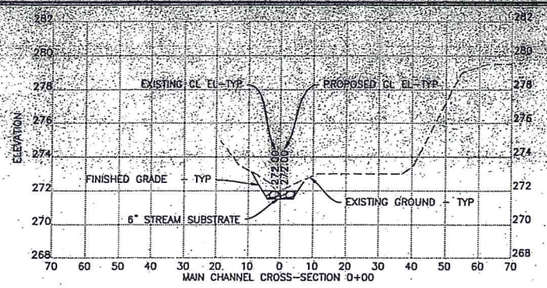
Index Number: C - 5.2

Sheet # 2 of 6 Sheets



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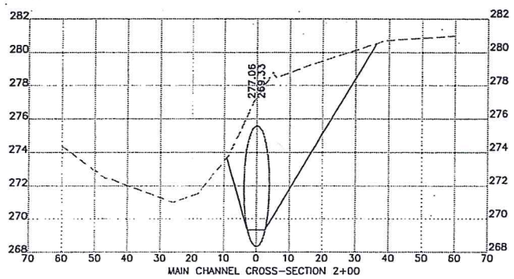

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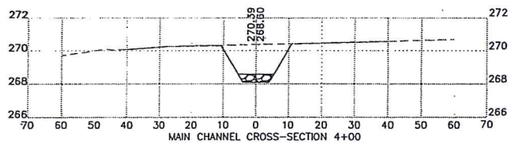

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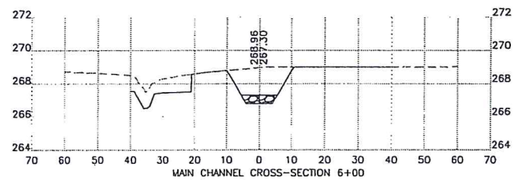

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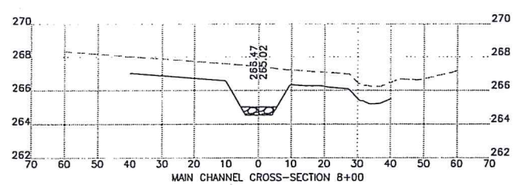

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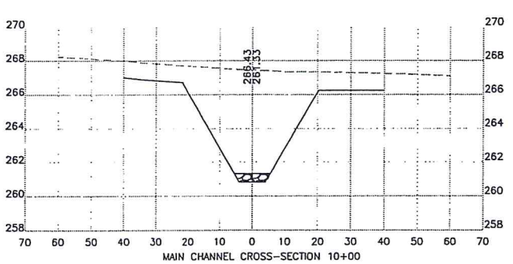

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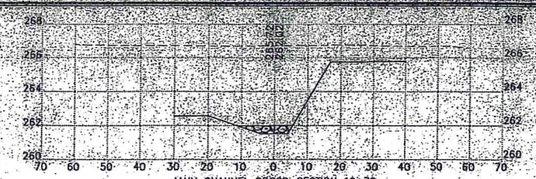

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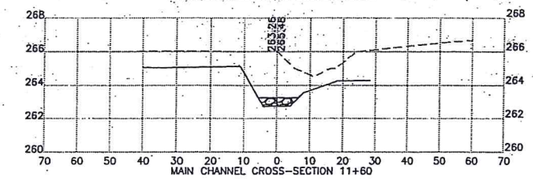

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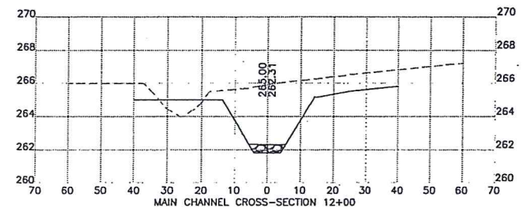

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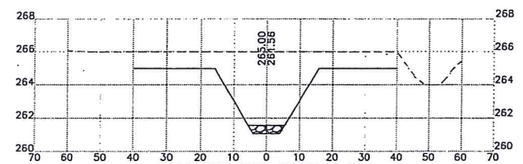

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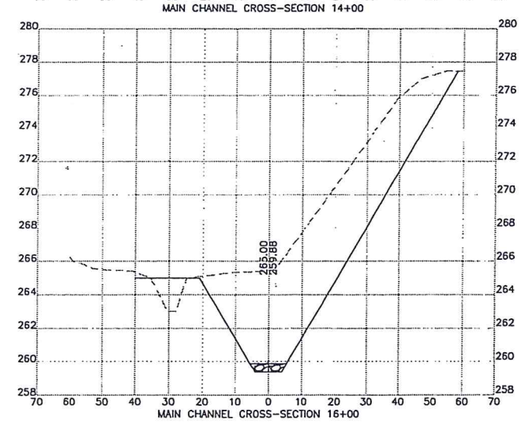

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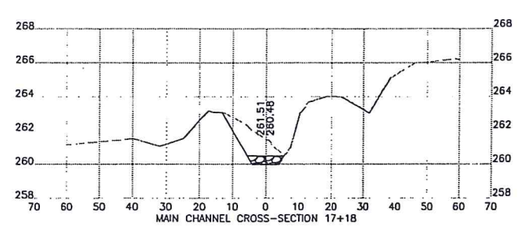

MAIN CHANNEL CROSS-SECTION 17+18

0' 20' 40' 80'

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'

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JULY 11, 2008
LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

MAIN CHANNEL CROSS-SECTIONS

Revision Description	Date	Initials

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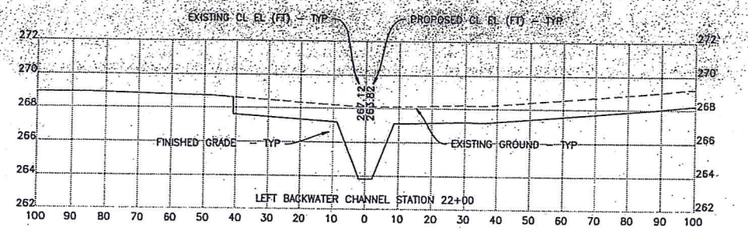
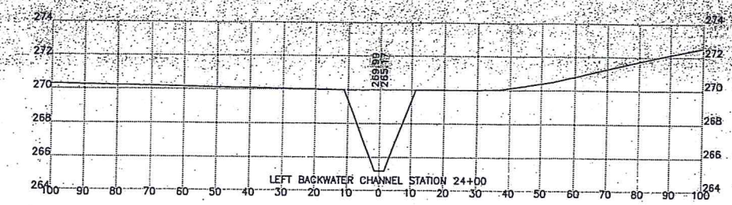
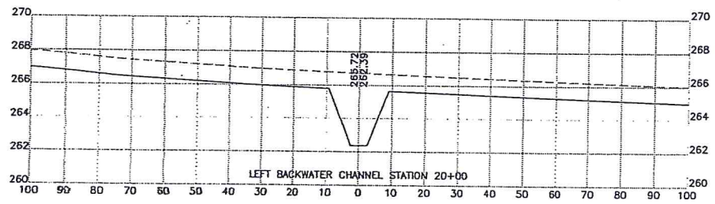
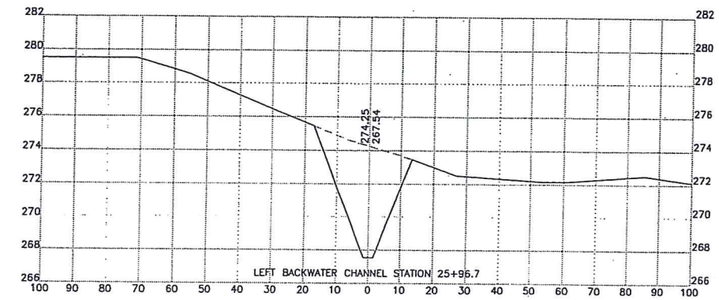
Index Number: C - 5.3

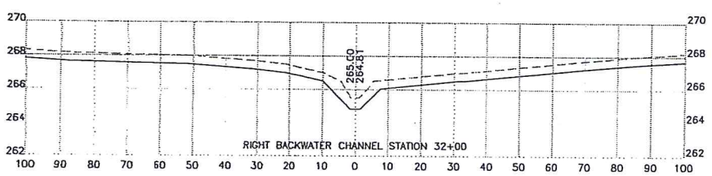
Sheet # 3 of 6 Sheets

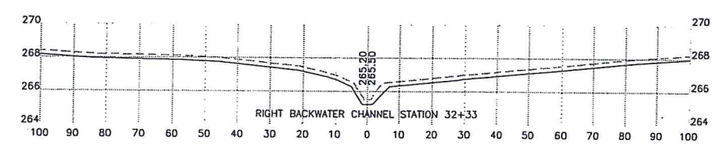


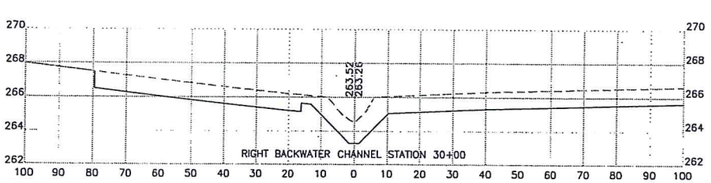












0' 20' 40' 80'

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'

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REGISTERED PROFESSIONAL ENGINEER 53603PE OREGON JULY 11, 2008 LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

BACKWATER CHANNEL X-SECTIONS

Revision Description	Date	Initials

Scale: AS SHOWN

Drawn by: JA
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Project #: 25321-01-05

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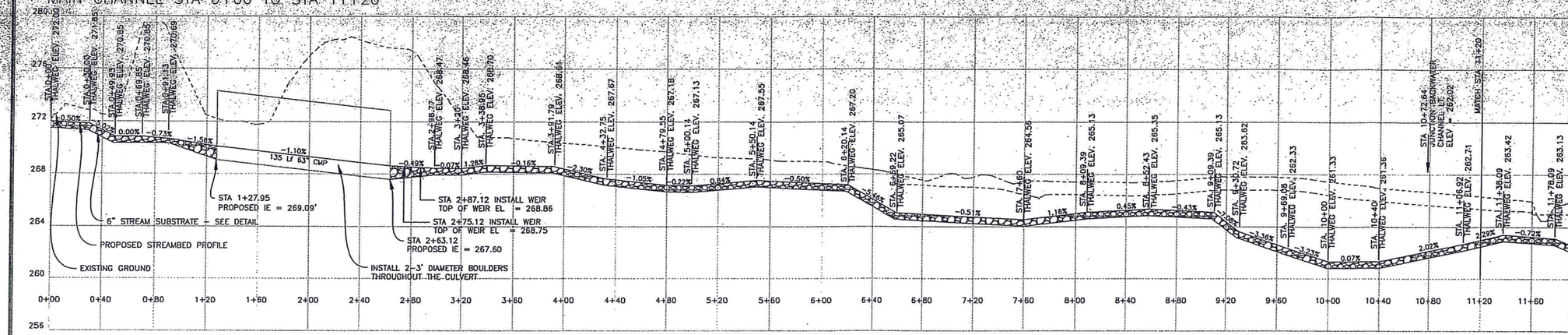
Index Number: C - 5.4

Sheet # 4 of 6 Sheets

MAIN CHANNEL STA 0+00 TO STA 11+20



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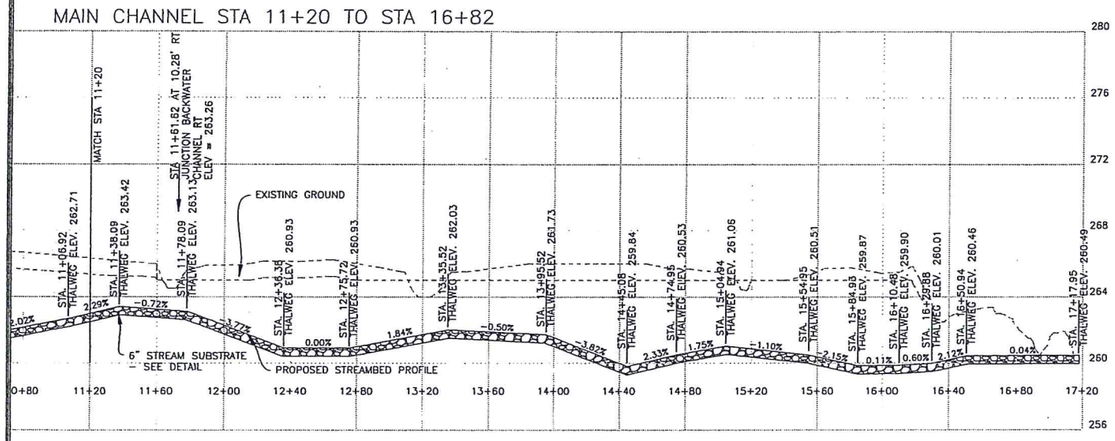
VERTICAL SCALE: 1" = 4'

MAIN CHANNEL STA 11+20 TO STA 16+82



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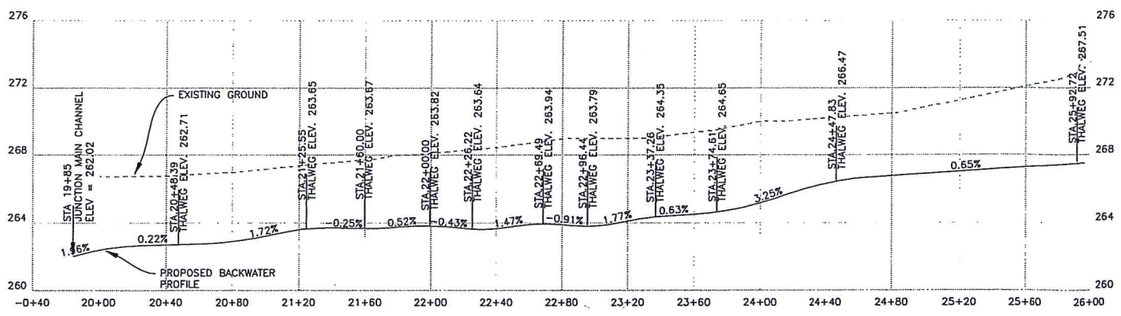
VERTICAL SCALE: 1" = 4'

BACKWATER CHANNEL – LEFT



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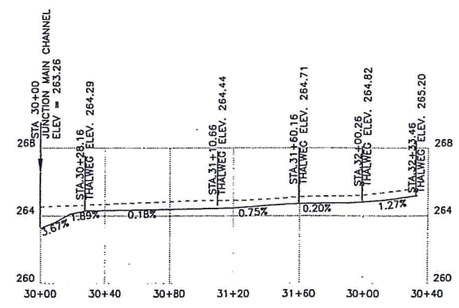
VERTICAL SCALE: 1" = 4'

BACKWATER CHANNEL – RIGHT



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Date: MAY 11, 2009

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OREGON
MAY 11, 2009
LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

CHANNNEL PROFILES

Revision Description	Date	Initials

Scale: AS SHOWN

Drawn by: JA
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Project #: 25321-01-05

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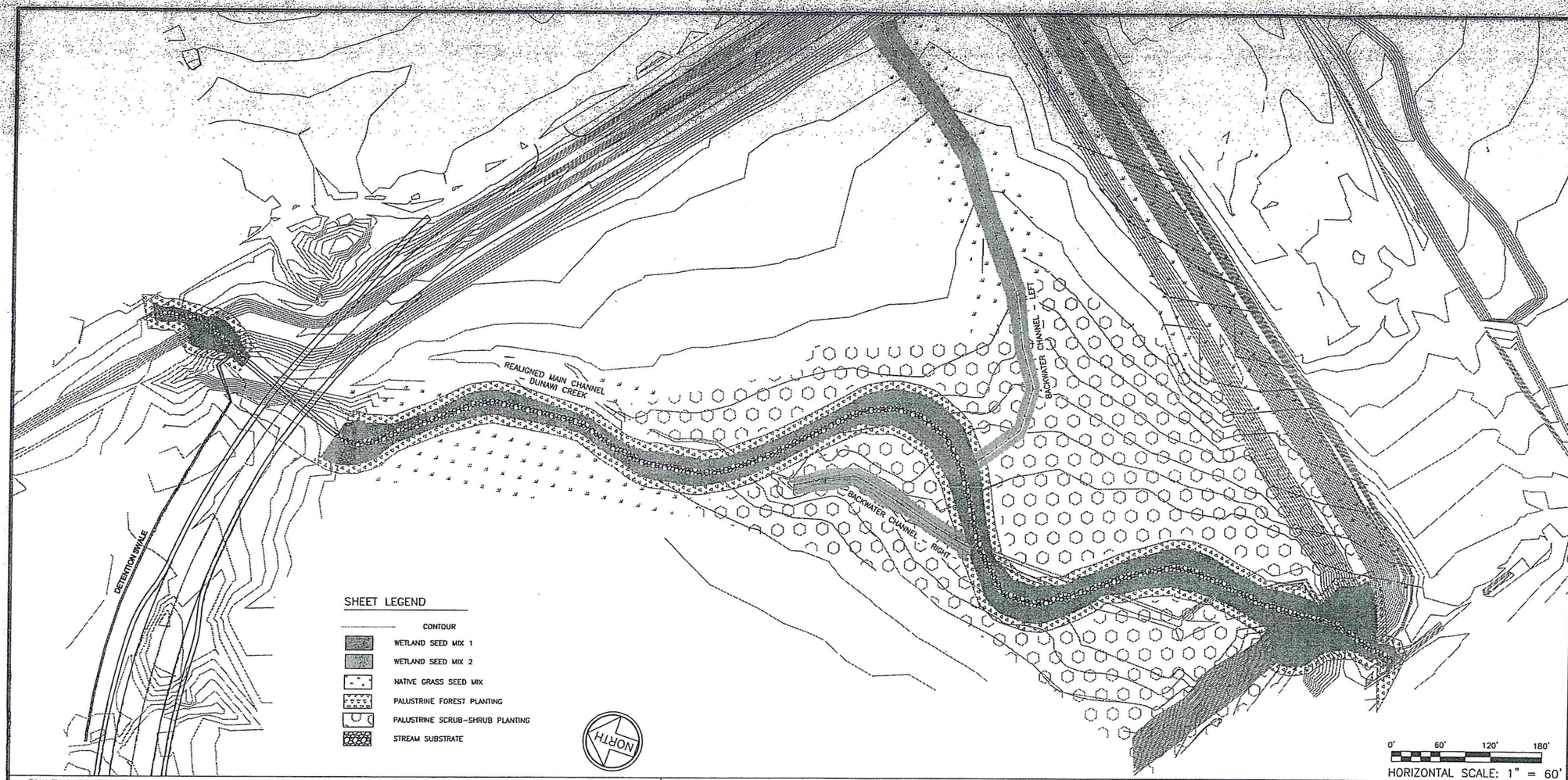
Index Number: C - 5.5

Sheet # 6 of 6 Sheets



SHEET LEGEND

- CONTOUR
- WETLAND SEED MIX 1
- WETLAND SEED MIX 2
- NATIVE GRASS SEED MIX
- PALUSTRINE FOREST PLANTING
- PALUSTRINE SCRUB-SHRUB PLANTING
- STREAM SUBSTRATE

PLANTING SCHEDULE

PALUSTRINE FOREST PLANTING

SPECIES	COMMON NAME	PLANTED FORM	TOTAL	AVERAGE SPACING
Alnus Rubra	Red Alder	1 Gallon	100	15' ON CENTER
Fraxinus latifolia	Oregon Ash	1 Gallon	200	15' ON CENTER
Populus trichorcarpa	Black Cottonwood	1 Gallon	100	15' ON CENTER
Thuja plicata	Western Red Cedar	1 Gallon	70	15' ON CENTER
Salix lasiandra	Pacific Willow	Cutting	3000	3' ON CENTER*

PALUSTRINE SCRUB-SHRUB PLANTING

SPECIES	COMMON NAME	PLANTED FORM	TOTAL	AVERAGE SPACING
Cornus stolonifera	Red Osier Dogwood	12"-24" bare root	2000	8' ON CENTER
Spirea douglasii	Douglas Spirea	12"-24" bare root	1000	8' ON CENTER
Physocarpus capitatus	Pacific Ninebark	12"-24" bare root	750	8' ON CENTER
Rosa pisocarpa	Swamp Rose	12"-24" bare root	750	8' ON CENTER

DETENTION SWALE AND WET POND PLANTING

SPECIES	COMMON NAME	PLANTED FORM	No./Acre	Total
Salix lasiandra	Pacific Willow	12"-24" bare root or cutting	700	17
Cornus stolonifera	Red Osier Dogwood	12"-24" bare root or cutting	700	17
Carex obnupta	Slough Sedge	4" Plug	5500	134
Juncus effusus	Soft Rush	4" Plug	5500	134
Juncus ensifolius	Dagger-leaf Rush	4" Plug	1350	33
Eleocharis palustris	Creeping Spike-Rush	4" Plug	1350	33
Scirpus microcarpus	Small-fruited Bulrush	4" Plug	900	22

WETLAND SEED MIX 1*

SPECIES	COMMON NAME	MIX COMPOSITION
Hordeum brachyantherum	Meadow Barley	25%
Danthonia californica	California Oatgrass	25%
Glyceria occidentalis	Western Mannagrass	15%
Deschampsia cespitosa	Tufted Hairgrass	7%
Sisyrinchium bellum	Blue-eyed Grass	6%
Eleocharis palustris	Creeping Spikerush	2%
Camassia quamash	Common Camas	5%
Festuca rubra	Native Red Fescue	5%
Carex obnupta	Slough Sedge	5%
Beckmannia syzigachne	American Sloughgrass	3%
Erigeron speciosus	Aspen Daisy	2%

WETLAND SEED MIX 2*

SPECIES	COMMON NAME	MIX COMPOSITION
Carex obnupta	Slough Sedge	25%
Scirpus microcarpa	Small-fruited Bulrush	25%
Beckmannia syzigachne	American Sloughgrass	20%
Juncus tenuis	Slender Rush	10%
Eleocharis palustris	Creeping Spikerush	10%
Carex stipata	Awl Sedge	10%

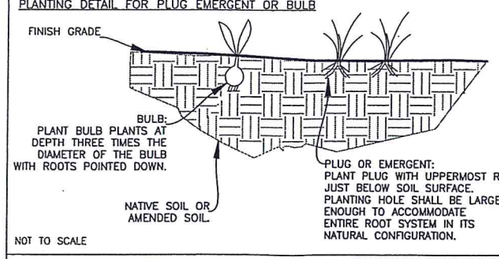
* NOTE: APPLIED AT 25 LBS/ACRE

NATIVE GRASS SEED MIX**

SPECIES	COMMON NAME	MIX COMPOSITION
Lolium perenne L.	Perennial Rye Grass	45%
Beckmannia syzigachne	American Sloughgrass	20%
Lolium Multiflora	Annual Ryegrass	20%
Festuca rubra L. ssp. arenaria	Creeping Red Fescue	15%

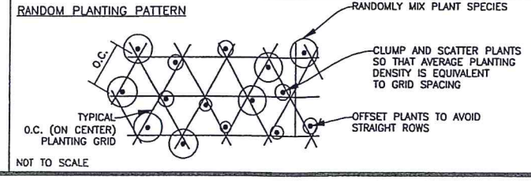
** NOTE: APPLIED AT 25 LBS/ACRE

PLANTING DETAIL FOR PLUG EMERGENT OR BULB



NOT TO SCALE

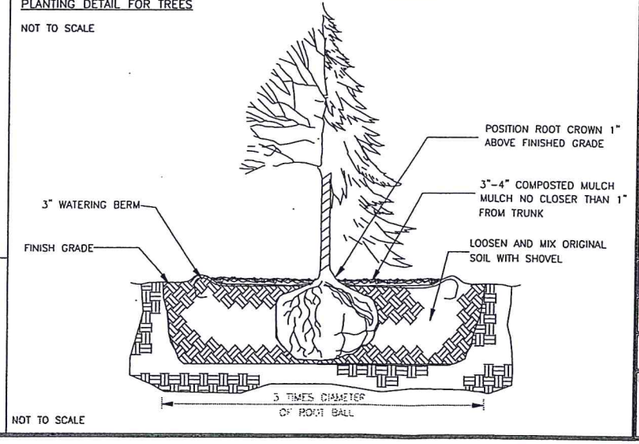
RANDOM PLANTING PATTERN



NOT TO SCALE

PLANTING DETAIL FOR TREES

NOT TO SCALE



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Date: MAY 11, 2009

REGISTERED PROFESSIONAL ENGINEER 53603PE OREGON JULY 11, 2008 LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

CHANNNEL AND PLANTING PLAN

Revision Description	Date	Initials

Scale: AS SHOWN

Drawn by: JA Designed by: SM

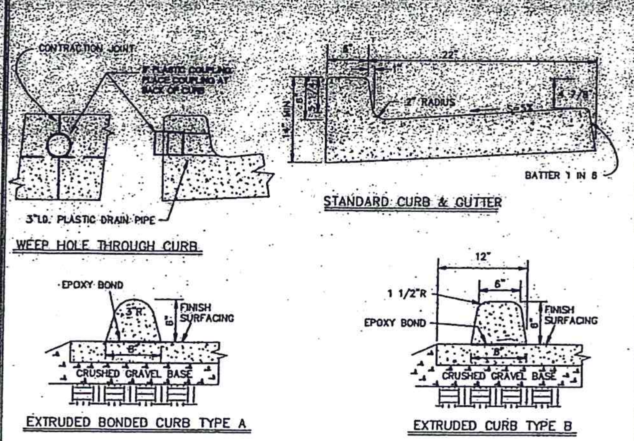
Project #: 25321-01-05

File Location: G:\Avery Proj\Apr5\ROADS\25321\25321-01-05\ENGINEERING DESIGN

Index Number: C - 5.6

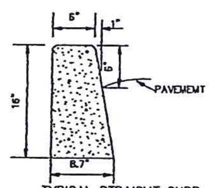
Sheet # 6 of 6 Sheets

City of Corvallis Standard Details



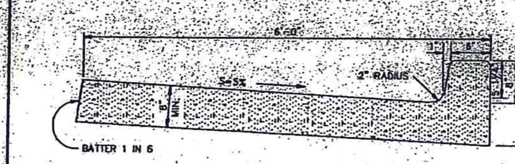
NOTES:

1. ALL RADII SHALL BE 3/4" EXCEPT AS OTHERWISE NOTED.
2. EXPANSION JOINTS SHALL BE PLACED AT ALL CONSTRUCTION JOINTS AS DIRECTED.
3. CONTRACTION JOINTS SHALL BE PLACED AT APPROX. 15' INTERVALS AND SHALL EXTEND A MIN. OF 50% THROUGH THE CURB OR CURB AND GUTTER.
4. THE ULTIMATE COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE AS SPECIFIED.
5. WEEP HOLES SHALL BE PLACED AT CONTRACTION JOINTS.
6. WEEP HOLES INSTALLED IN EXIST. CURB SHALL BE CORED ONLY, ON MIN. 12" CENTERS.
7. REFER TO STANDARD WHEELCHAIR RAMP DETAILS FOR INTERSECTION CURB RADII DETAILS.
8. THE USE OF EXTRUDED BONDED CURBS SHALL ONLY BE BY SPECIFIC APPROVAL OF THE ENGINEER.
9. EXTEND WEEPHOLES TO BACK OF WALK WHEN SIDEWALKS ARE CONSTRUCTED AND INSTALL COUPLINGS AT BACK OF WALK.
10. FOR CONCRETE STREETS, MATCH STREET AND CURB JOINTS.

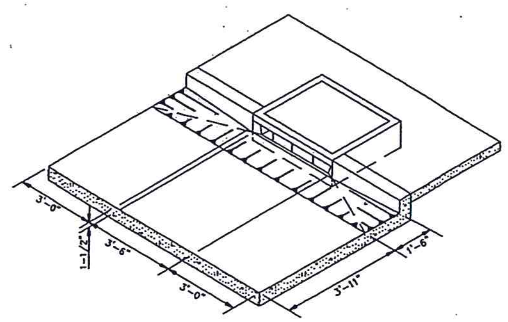


TYPICAL STRAIGHT CURB

CITY OF CORVALLIS
ENGINEERING DIVISION
CURB CONSTRUCTION STANDARD DETAIL
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 103
APPROVED:



STANDARD WIDE (6'-0") CURB & GUTTER

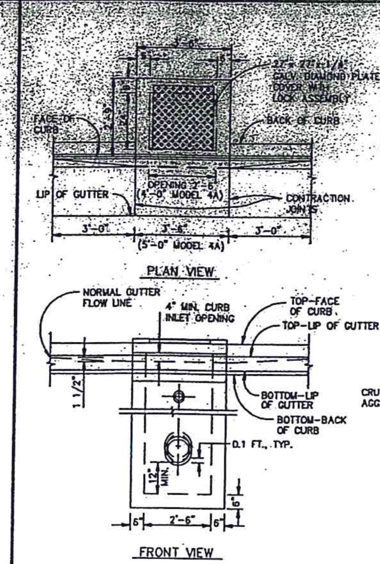


PERSPECTIVE VIEW SHOWING 65" GUTTER PLATE WITH 18" DEPRESSED GUTTER AT CURB INLET

NOTES:

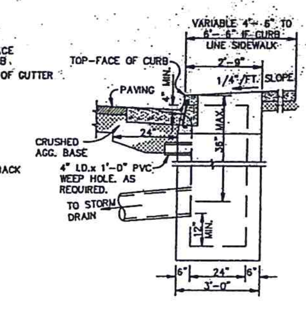
1. ALL NOTES APPLICABLE TO STANDARD DETAIL No. 103 SHALL APPLY.
2. SEE STANDARD DETAIL No. 209 FOR CURB INLET DETAILS.
3. ALL JOINTS SHALL BE GREEN CUT

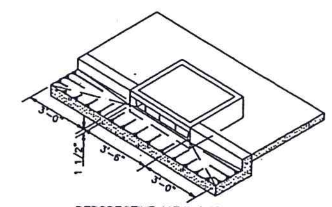
CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD WIDE (6'-0") CURB & GUTTER DETAIL
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 103A
APPROVED:



NOTES:

1) PRECAST CURB INLET SHALL BE MANUFACTURED BY WAL'S CONCRETE, SPRINGFIELD, OREGON, OR AN APPROVED EQUAL. THE DETAILS ON THIS SHEET PERTAIN TO MODEL 2 1/2A. WHEN MODEL 4A IS SPECIFIED, THE SIZE OF THE CATCH BASIN SHALL BE ADJUSTED AS REQUIRED.
2) ALL FABRICATED METAL PARTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
3) CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.

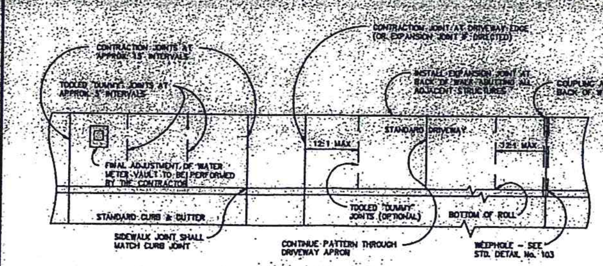




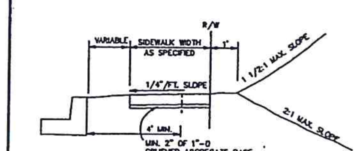
PERSPECTIVE VIEW SHOWING DEPRESSED GUTTER AT CURB INLET

NOTE: FOR DETAIL OF DEPRESSED GUTTER AT CURB INLET FOR STANDARD WIDE GUTTER PLATE – SEE STANDARD DETAIL 103A.

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD CURB INLET & CATCH BASIN DETAIL
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 209
APPROVED:



TYPICAL PLAN VIEW
APPLIES TO BOTH CURBLINE & PROPERTY LINE SIDEWALKS

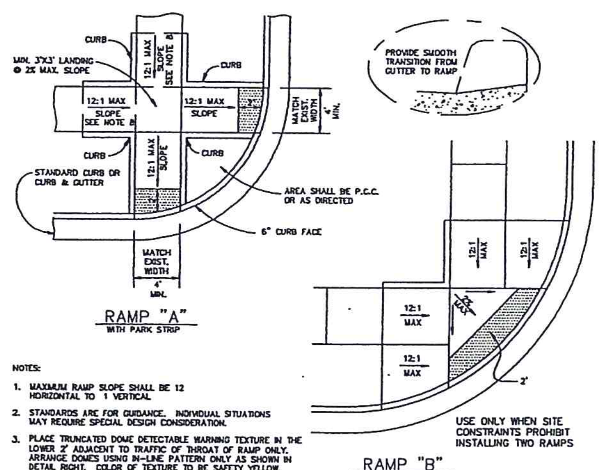


TYPICAL CROSS SECTION WITH PARK STRIP

NOTES:

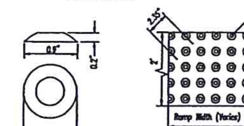
1. SIDEWALK WIDTHS (INCLUDING CURB WHEN APPLICABLE)
   4' CUL-DE-SAC
   5' LOCAL AND LOCAL CONNECTOR STREETS
   6' COLLECTOR AND ARTERIAL STREETS
2. SIDEWALKS SHALL BE LOCATED TO PRIVODE A 5-FOOT LANDSCAPE STRIP ON LOCAL AND LOCAL CONNECTOR STREETS, AND A 12-FOOT LANDSCAPE STRIP ON COLLECTOR AND ARTERRIAL STREETS. WHERE INADEQUATE ROW EXISTS, A REDUCTION IN LANDSCAPE STRIP WIDTH MAY BE ALLOWED WITH PRIOR APPROVAL OF THE ENGINEER.
3. STANDARD SIDEWALK CROSS SLOPE SHALL BE 1/4" PER FOOT. WHEN THE LOT IS BELOW THE TOP OF THE CURB AND SLOPES AWAY FROM THE CURB, A MINUS 3/4" PER FOOT SLOPE MAY BE REQUIRED, AS DIRECTED.
4. CONCRETE DEPTH FOR STANDARD SIDEWALKS SHALL BE NOMINAL 4" MIN. SINGLE FAMILY RESIDENTIAL DRIVEWAY SECTIONS INCLUDING SIDEWALKS THROUGH DRIVEWAYS SHALL BE NOMINAL 6" MIN. ALL OTHER DRIVEWAY SECTIONS SHALL BE NOMINAL 8" MIN. ALL CONCRETE SHALL BE PLACED OVER 2" MIN. CRUSHED AGGREGATE BASE.
5. CONTRACTION JOINTS SHALL BE INSTALLED AT APPROX. INTERVALS OF 15 FEET BY CUTTING A MIN. ONE THIRD OF THE DEPTH OF THE CONCRETE. "DUMMY" JOINTS SHALL BE INSTALLED AT APPROX. INTERVALS OF 5 FEET.
6. "DUMMY" JOINTS MAY BE CUT AS STANDARD WEAKENED PLANE CONTRACTION JOINTS IF THE CONTRACTOR SO ELECTS.
7. THE AREA BEHIND THE SIDEWALK IS TO BE BACK-FILLED WITH COMPACTED BACKFILL AS SHOWN ON THE PLAN AND AS DIRECTED. THE BACKFILL SHALL APPLY TO BOTH SIDES OF THE SIDEWALK ON A PROPERTY LINE SIDEWALK.

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD SIDEWALK DETAIL
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 106
APPROVED:



NOTES:

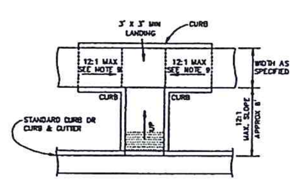
1. MAXIMUM RAMP SLOPE SHALL BE 12 HORIZONTAL TO 1 VERTICAL
2. STANDARDS ARE FOR GUIDANCE. INDIVIDUAL SITUATIONS MAY REQUIRE SPECIAL DESIGN CONSIDERATION.
3. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 2' ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY. ARRANGE DOMES USING IN-LINE PATTERN ONLY AS SHOWN IN DETAIL RIGHT. COLOR OF TEXTURE TO BE SAFETY YELLOW.
4. SAWCUT AND REMOVE THE EXISTING CURB RETURN TO THE OUTER EDGE OF THE RAMP UNLESS A JOINT EXISTS WITHIN 5 FEET OF THE RAMP IN WHICH CASE REMOVE TO THE JOINT.
5. SAWCUT AND REMOVE EXISTING SIDEWALK TO NEAREST FULL PANEL EDGE AS REQUIRED.
6. A 3' X 3' LANDING IS REQUIRED AT THE TOP OF ANY RAMP THAT HAS A SLOPE GREATER THAN 2%
7. IF RIGHT-OF-WAY DOES NOT ALLOW ADEQUATE SPACE FOR CURB TO BE PLACED OUTSIDE OF THE BACK OF WALK, INCORPORATE INTO SIDEWALK WIDTH.
8. WHEN PARK STRIPS ARE LESS THAN 8 FEET WIDE, RECONSTRUCT ADDITIONAL SIDEWALK OUTSIDE OF RAMP AREA TO ALLOW FOR A 12:1 MAX. SLOPE.
9. CURBS SEPARATING LANDSCAPED AREAS FROM RAMPS ARE FOR RETAINING PURPOSES. WHERE APPROPRIATE GRADING MEASURES ARE TAKEN, CURBS MAY BE ELIMINATED WITH PRIOR APPROVAL
10. SIDE FLARES MAY BE CONSTRUCTED IN LIEU OF CURBING. SIDE FLARES THAT ARE NOT PART OF THE PATH OF TRAVEL MAY BE ANY SLOPE. SIDE FLARES THAT ARE PART OF THE PATH OF TRAVEL SHALL BE A 12:1 MAXIMUM SLOPE.
11. THE DISTANCE BETWEEN SIDE FLARES OF TWO ADJACENT CURB RAMPS SHALL BE A MINIMUM OF 12-INCHES AS MEASURED AT THE FACE OF CURB. A MINIMUM 3-INCH CURB EXPOSURE SHALL BE MAINTAINED BETWEEN ADJACENT FLARES.



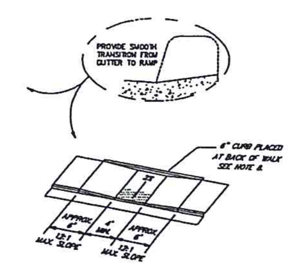
TRUNCATED DOME DETAIL

RAMP TEXTURE PATTERN DETAIL

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD WHEELCHAIR RAMPS
SCALE: NONE | STANDARD DETAIL No. 107



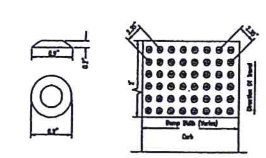
RAMP "C"



RAMP "D"

NOTES:

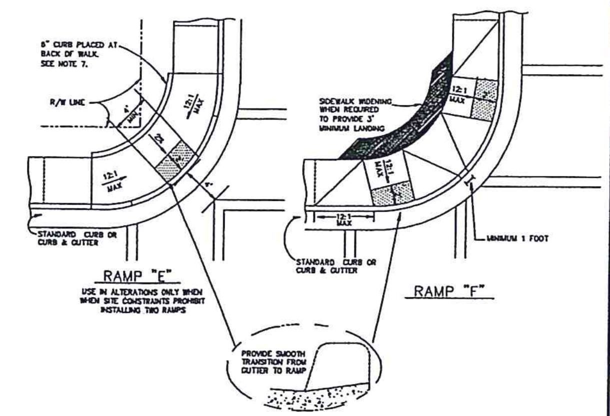
1. MAXIMUM RAMP SLOPE SHALL BE 12 HORIZONTAL TO 1 VERTICAL
2. STANDARDS ARE FOR GUIDANCE. INDIVIDUAL SITUATION MAY REQUIRE SPECIAL DESIGN CONSIDERATION.
3. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 2' ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY. ARRANGE DOMES USING IN-LINE PATTERN ONLY AS SHOWN IN DETAIL RIGHT. COLOR OF TEXTURE TO BE SAFETY YELLOW.
4. SAWCUT AND REMOVE THE EXISTING CURB RETURN TO THE OUTER EDGE OF THE RAMP UNLESS A JOINT EXISTS WITHIN 5 FEET OF THE RAMP, IN WHICH CASE REMOVE TO THE JOINT.
5. SAWCUT AND REMOVE EXISTING SIDEWALK TO NEAREST FULL PANEL EDGE AS REQUIRED.
6. A 3' X 3' LANDING IS REQUIRED AT THE TOP OF ANY RAMP THAT HAS A SLOPE GREATER THAN 2%
7. IF R/W DOESN'T ALLOW ADEQUATE SPACE FOR CURB TO BE PLACED OUTSIDE OF BACK OF WALK, INCORPORATE INTO SIDEWALK WIDTH.
8. WHEN PARK STRIP IS LESS THAN 8 FEET IN WIDTH, RECONSTRUCT ADDITIONAL SIDEWALK OUTSIDE OF RAMP AREA TO ALLOW FOR A 12:1 MAX. SLOPE.
9. CURBS SEPARATING LANDSCAPED AREAS FROM RAMPS ARE FOR RETAINING PURPOSES. WHERE APPROPRIATE GRADING MEASURES ARE TAKEN, CURBS MAY BE ELIMINATED WITH PRIOR APPROVAL



TRUNCATED DOME DETAIL

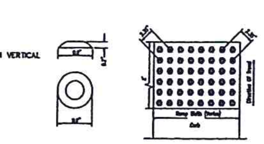
RAMP TEXTURE PATTERN DETAIL

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD WHEELCHAIR RAMPS
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 107A
APPROVED:



NOTES:

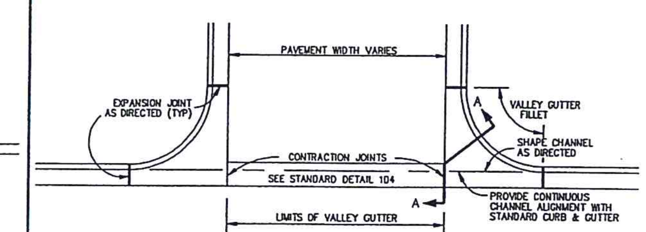
1. MAXIMUM RAMP AND WING SLOPE SHALL BE 12 HORIZONTAL TO 1 VERTICAL
2. STANDARDS ARE FOR GUIDANCE. INDIVIDUAL SITUATION MAY REQUIRE SPECIAL DESIGN CONSIDERATION.
3. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 2' ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY. ARRANGE DOMES USING IN-LINE PATTERN ONLY AS SHOWN IN DETAIL RIGHT. COLOR OF TEXTURE TO BE SAFETY YELLOW.
4. SAWCUT AND REMOVE THE EXISTING CURB RETURN TO THE OUTER EDGE OF THE RAMP UNLESS A JOINT EXISTS WITHIN 5 FEET OF THE RAMP, IN WHICH CASE REMOVE TO JOINT.
5. SAWCUT AND REMOVE EXISTING SIDEWALK TO NEAREST FULL PANEL EDGE AS REQUIRED.
6. A 3'X3' LANDING IS REQUIRED AT THE TOP OF ANY RAMP WITH A SLOPE GREATER THAN 2%
7. IF R/W DOESN'T ALLOW ADEQUATE SPACE FOR CURB TO BE PLACED OUTSIDE OF BACK OF WALK, INCORPORATE INTO SIDEWALK WIDTH.
8. CURBS SEPARATING LANDSCAPED AREAS FROM RAMPS ARE FOR RETAINING PURPOSES. WHERE APPROPRIATE GRADING MEASURES ARE TAKEN, CURBS MAY BE ELIMINATED WITH PRIOR APPROVAL.



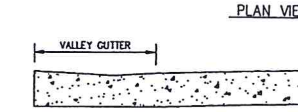
TRUNCATED DOME DETAIL

RAMP TEXTURE PATTERN DETAIL

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD WHEELCHAIR RAMPS
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 107B
APPROVED:

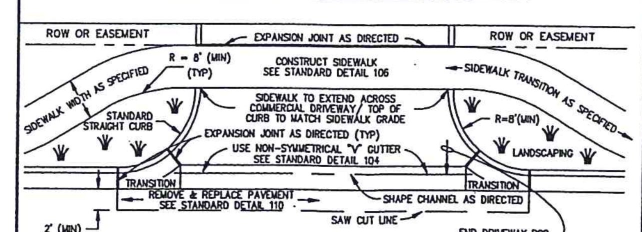


PLAN VIEW



SECTION A–A

VALLEY GUTTER ACROSS INTERSECTION



COMMERCIAL DRIVEWAY APPROACH
PLAN VIEW

NOTES:

1. CONSTRUCT CURBING MONOLITHIC WITH FILLET AND INSTALL SIDEWALK RAMPS AS DESIGNATED ON THE PLANS.
2. PCC SHALL ATTAIN A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.
3. ALL SIDEWALK CURVES WILL HAVE 8' (MIN) RADI

CITY OF CORVALLIS
ENGINEERING DIVISION
VALLEY GUTTER ACROSS INTERSECTION & STANDARD COMMERCIAL DRIVEWAY APPROACH
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 109
APPROVED:

Benton County
Public Works Department
360 SW Avery Avenue
Corvallis, Oregon 97333
Phone: 541-766-6821
FAX: 541-766-6891

Date: FEBRUARY 12, 2009

REGISTERED PROFESSIONAL ENGINEER 53803PE OREGON JULY 11, 2000 LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05
T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75
DETAILS

Revision Description	Date	Initials

Scale: NTS

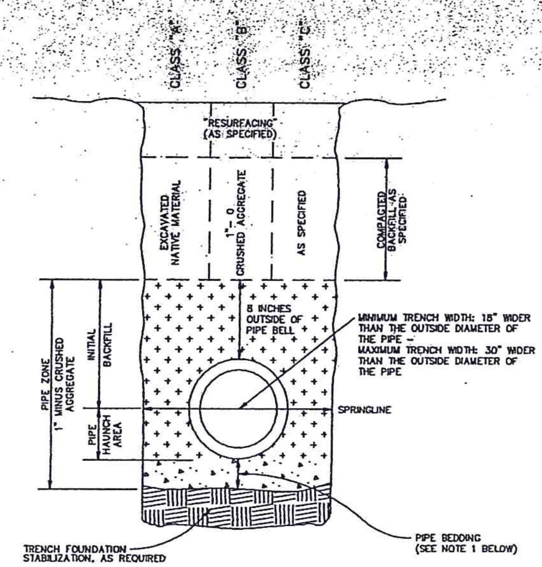
Drawn by: SMP | Designed by: SMP

Project #: 25321-01-05

File Location: [illegible]

Index Number: C-6.1

Sheet # 1 of 3 Sheets



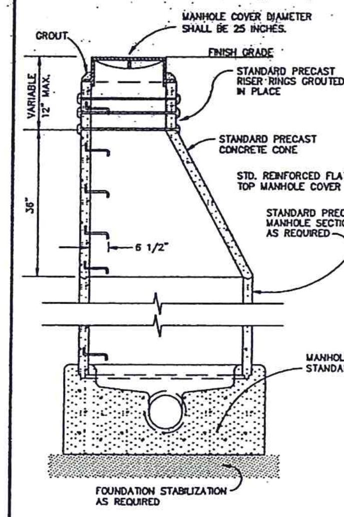
NOTES:

1) MINIMUM PIPE BEDDING SHALL BE AS FOLLOWS:
4" FOR PIPE 12" IN DIAMETER OR LESS
6" FOR PIPE 15" TO 36" IN DIAMETER
8" FOR PIPE 42" IN DIAMETER OR GREATER

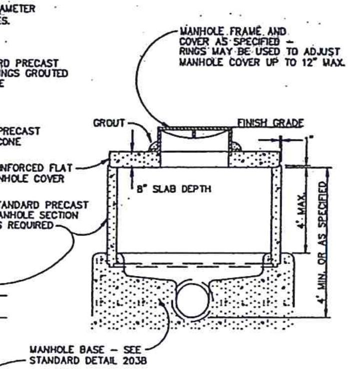
CITY OF CORVALLIS
ENGINEERING DIVISION
TRENCH BACKFILL & PIPE ZONE DETAIL
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 201
APPROVED:

NOTES:

1) STANDARD PRECAST MANHOLE SECTIONS USE 48" MINIMUM FOR PIPE SIZES TO 30"; MAXIMUM USE 60" MINIMUM FOR PIPE SIZES TO 42"; MAXIMUM USE 72", 84", OR 102" WHEN SPECIFIED.
2) USE ECCENTRIC PRECAST CONE FOR ALL MANHOLES OVER FOUR FEET DEEP.
3) ALL MANHOLE RINGS & COVERS SHALL BE MFG. BY INLAND FOUNDRY – PATTERN NO. 105 (STANDARD FRAME) – PATTERN NO. 107 (SUBURBAN FRAME) – PATTERN NO. 101T (TAMPERPROOF) – OR PATTERN NO. 101W (WATERTIGHT) OR APPROVED EQUAL.
4) INSTALL "LANE INTERNATIONAL CORP. P–14850" STEPS 12" O.C. IN ALL MANHOLES OVER FOUR (4) FEET DEEP – IN COMPLIANCE WITH O.S.H.D. CFR 29–1910.27.
5) ALL SANITARY SEWER MANHOLE SECTION JOINTS SHALL BE SEALED AS PER SECTION II.4.B.02.4 OF THE STANDARDS.
6) MANHOLES WITHIN STREETS SHALL BE ADJUSTED TO FINAL PAVING GRADE BEFORE WEARING COURSE IS INSTALLED. CONCRETE COLLAR SHALL BE INSTALLED ON EVERY MANHOLE PER STANDARD DETAIL 205.
7) ALL RIGID PIPES CONNECTED TO THE MANHOLE SHALL HAVE JOINTS 1 1/2 DIAMETERS OF THE MANHOLE STRUCTURE.
8) CONE OR TOP MUST BE ROTATED SO AS TO NOT PLACE THE LID IN THE WHEEL PATH IN PAVED AREAS AS DIRECTED BY THE ENGINEER.
9) MANHOLES INSTALLED OUTSIDE OF PAVED AREAS SHALL BE IDENTIFIED WITH FIBERGLASS MARKING POST.



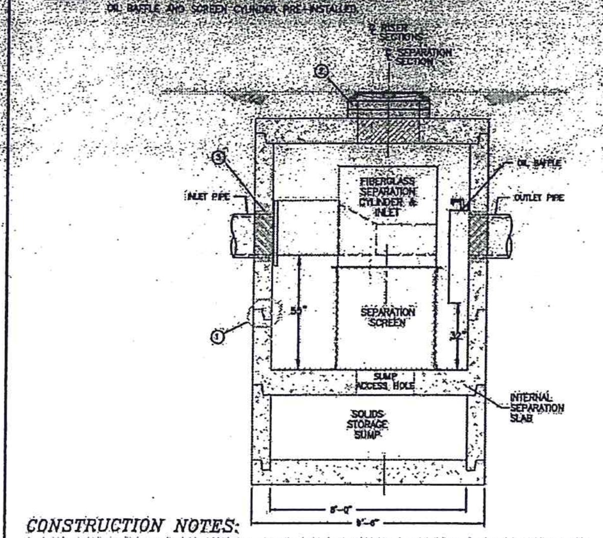
TYPICAL MANHOLE



TYPICAL SHALLOW MANHOLE

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD MANHOLE
DATE: JULY, 2005 | SCALE: NONE | STANDARD DETAIL No. 203
APPROVED:

NOTE: CDS UNIT COMES COMPLETE WITH FIBERGLASS INLET/DIVERSION STRUCTURE, OIL BAFFLE AND SCREEN CYLINDER PRE-INSTALLED.



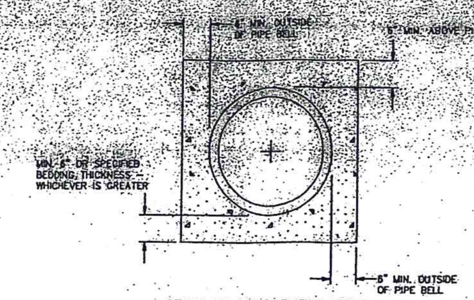
CONSTRUCTION NOTES:

1. APPLY RUBBER GASKET AND TWO LAYERS OF BUTYL MASTIC AS PROVIDED BY PRECASTOR ON TOP AND BOTTOM SHELF OF JOINT TO SEAL RISER JOINTS. APPLY LOAD TO MH SECTIONS TO COMPRESS BUTYL MASTIC SEALANT IF NECESSARY. UNIT MUST BE WATER TIGHT, HOLDING WATER UP TO FLOWLINE INVERT (MINIMUM).
2. USE GRADE RINGS, BLOCKS AND/OR GROUT TO MATCH GRADE. SEAL AS REQUIRED.
3. GROUT PIPE CONNECTIONS TO SEAL JOINT.

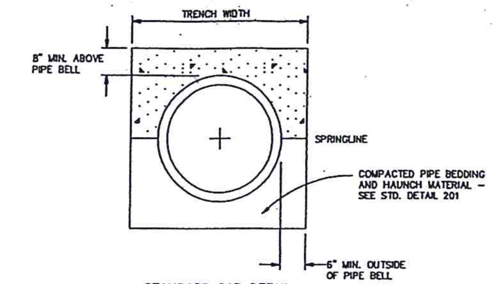
GENERAL NOTES:

1. CDS UNIT COMES COMPLETE WITH FIBERGLASS INLET/DIVERSION STRUCTURE, OIL BAFFLE AND SCREEN CYLINDER PRE-INSTALLED. SEPARATION SECTION IS THE HEAVIEST PICK AT 35,000 LBS.
2. INSTALL CDS UNIT PER CDS INSTALLATION SPECIFICATIONS.
3. INTERNAL COMPONENTS MAY BE INSTALLED IN THE FIELD TO FACILITATE IMMEDIATE DELIVERY AND INSTALLATION OF PRECAST STRUCTURE OR TO REDUCE THE HEAVIEST PICK. CONTACT CDS FOR DETAILS AND COORDINATION OF THIS CONSTRUCTION OPTION.

CDS TECHNOLOGIES
WATER QUALITY MANHOLE
DATE: JANUARY, 2006 | SCALE: NONE | STANDARD DETAIL No. PMSU 40–40
APPROVED:



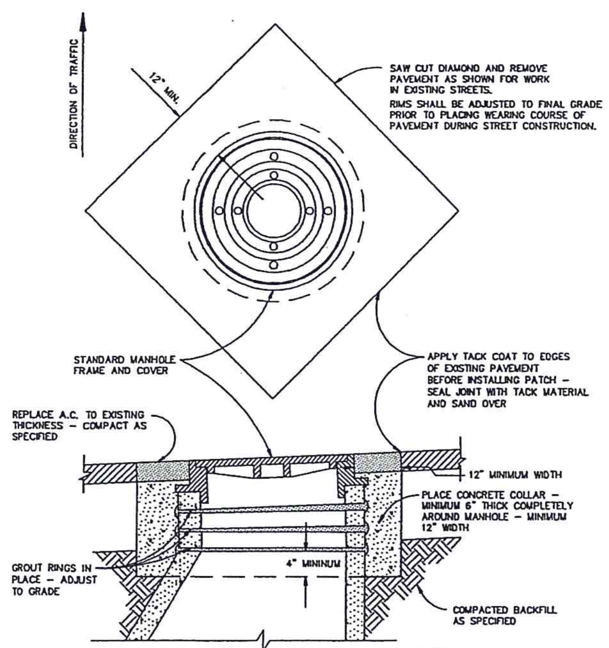
STANDARD ENCASEMENT DETAIL



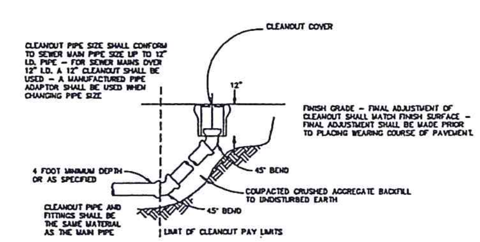
STANDARD CAP DETAIL

NOTES:
1) THE CONCRETE SHALL ATTAIN A 28 DAY MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 3000 P.S.I.
2) CAP ALL LOWER LINES AT UTILITY CROSSINGS WHEN LESS THAN 12" OF CLEARANCE EXISTS.
3) INSTALL ISOLATION MATERIAL AROUND PIPE BEFORE PLACING CONCRETE.

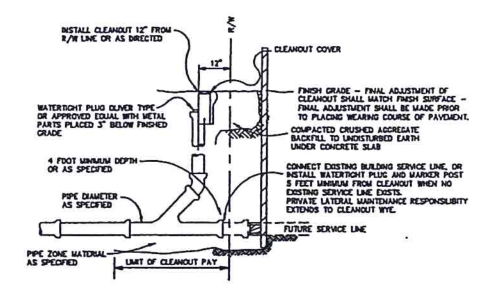
CITY OF CORVALLIS
ENGINEERING DIVISION
CONCRETE CAP & ENCASEMENT DETAILS
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 202
APPROVED:



CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD MANHOLE ADJUSTMENT IN EXISTING STREETS
DATE: AUGUST, 2002 | SCALE: NONE | STANDARD DETAIL No. 205
APPROVED:



STANDARD CLEANOUT DETAIL
(FOR END OF STORM MAIN)

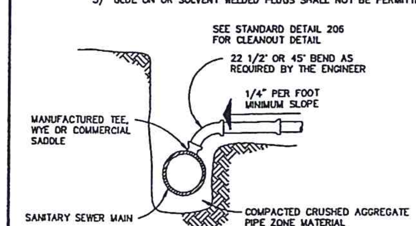


STANDARD SERVICE LATERAL CLEANOUT DETAIL

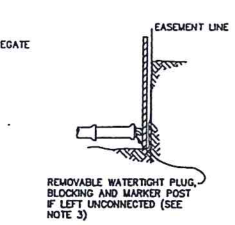
NOTES:
1) SEE DETAIL 206A FOR STANDARD MAIN PIPE CONNECTION DETAILS.
2) MARKER POSTS AND BLOCKING FOR END OF LINE SHALL BE A PRESSURE TREATED 2x4. POST SHALL EXTEND 12" ABOVE FINISH GRADE AND PAINTED WHITE.
3) CLEANOUTS OUTSIDE OF PAVED AREA SHALL BE IDENTIFIED WITH FIBERGLASS MARKER POST.
4) GLUE-ON OR SOLVENT WELDED PLUGS SHALL NOT BE PERMITTED.
5) MIN. DEPTH AT RIGHT-OF-WAY LINE SHALL BE 4 FT. OR AS SPECIFIED.

BENTON COUNTY PW
ENGINEERING DIVISION
STANDARD CLEANOUT DETAILS
BASED ON CITY OF CORVALLIS STD DET 206
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 206-BCPW
APPROVED:

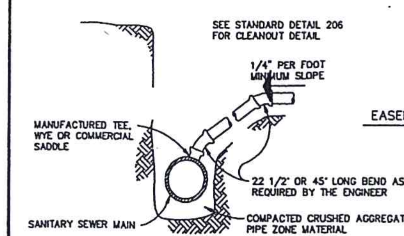
NOTES:
1) MINIMUM DEPTH AT EASEMENT LINE SHALL BE 4 FEET OR AS SPECIFIED.
2) MARKER POSTS AND BLOCKING SHALL BE A PRESSURE TREATED 2x4 – POST SHALL EXTEND 12" ABOVE FINISH GRADE AND EXPOSED AREA SHALL BE PAINTED WHITE
3) GLUE ON OR SOLVENT WELDED PLUGS SHALL NOT BE PERMITTED



SHALLOW TRENCH SERVICE CONNECTION

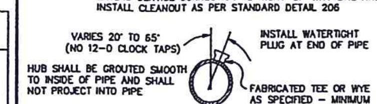


EASEMENT LINE MARKER POST DETAIL



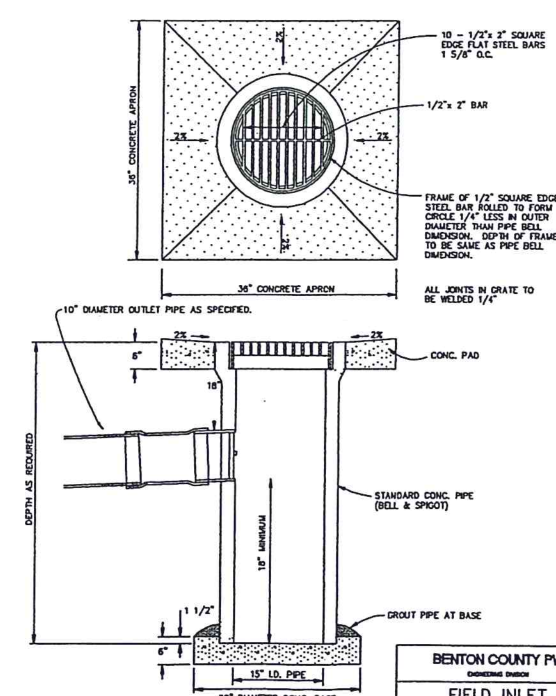
DEEP TRENCH SERVICE CONNECTION

NOTE: WHERE TEE OR WYE IS LOCATED IN STREET RIGHT-OF-WAY EXTEND SERVICE CONNECTION TO RIGHT-OF-WAY LINE AND INSTALL CLEANOUT AS PER STANDARD DETAIL 206



TYPICAL TAP-IN HUB TEE DETAIL

CITY OF CORVALLIS
ENGINEERING DIVISION
STANDARD PIPING DETAILS
DATE: JANUARY, 2003 | SCALE: NONE | STANDARD DETAIL No. 206A
APPROVED:



NOTES:
1. CONCRETE SHALL ATTAIN A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.

BENTON COUNTY PW
ENGINEERING DIVISION
FIELD INLET STANDARD DETAIL
BASED ON CITY OF CORVALLIS STD DET 206A
DATE: MARCH, 2007 | SCALE: NONE | STANDARD DETAIL No. 206A-BCPW
APPROVED:

Benton County
Public Works Department
360 SW Avery Avenue
Corvallis, Oregon 97333
Phone: 541-766-6821
FAX: 541-766-6891

Date: MARCH 16, 2009

REGISTERED PROFESSIONAL ENGINEER 53803PE OREGON JULY 11, 2000 LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

DETAILS

Revision Description	Date	Initials

Scale: NTS

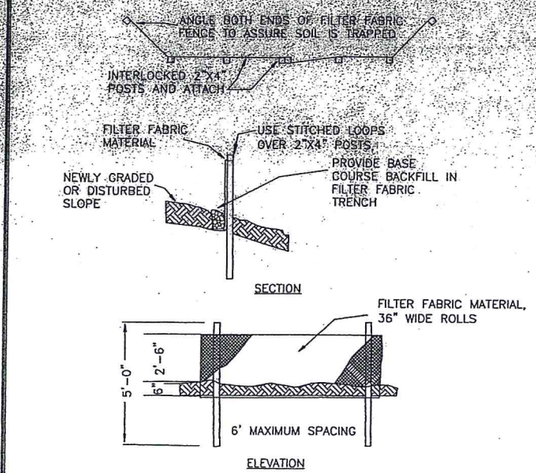
Drawn by: SMP
Designed by: SMP

Project #: 25321-01-05

File Location: G:\Avery Projects\ROADS\25321\25321-01-05\ENGINEERING DESIGN

Index Number: C - 6.2

Sheet # 2 of 3 Sheets

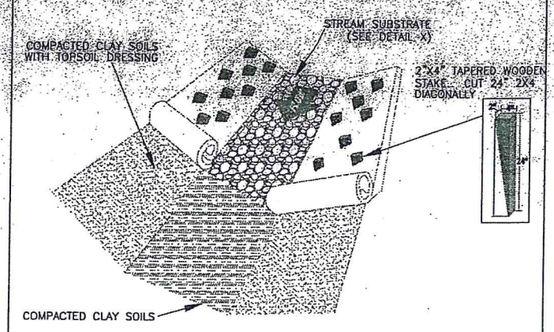


NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. POST MATERIALS PER THE PROJECT SPECIFICATIONS.
3. STITCHED LOOPS TO BE INSTALLED DOWNHILL SIDE OF SLOPE.
4. COMPACT ALL AREAS OF FILTER FABRIC TRENCH.

HENDERSON LAND SERVICES		
SUPPORTED SEDIMENT FENCE		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

STREAM CHANNEL

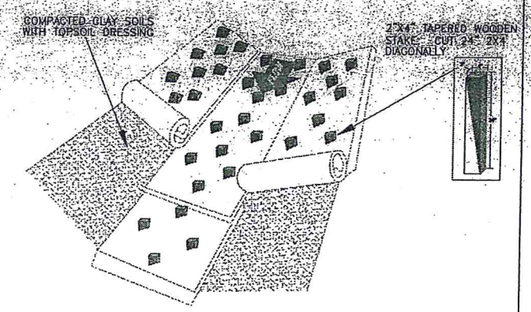


CONTRUCTION NOTES:

1. DISTURBED BANKS TO BE SEEDED WITH WETLAND SEED MIX 1 OR APPROVED EQUIVALENT.
2. DISTURBED BANKS TO BE COVERED WITH BIODEGRADABLE, EROSION AND SEDIMENT CONTROL (ESC) FABRIC, NORTH AMERICAN GREEN C125BN OR APPROVED EQUIVALENT; AND COIR 700 OR APPROVED EQUIVALENT. FABRIC SHALL BE SECURED WITH 2 FOOT WOOD STAKES PLACED EVERY 4 FEET. FABRIC SHALL BE STAKED INTO A 12" TRENCH AT THE TOP AND TOE OF THE SLOPE.
3. BOTTOM LONGITUDINAL EDGE OF FABRIC SHALL BE COVERED BY 1-2 LINEAL FEET OF STREAM SUBSTRATE.

HENDERSON LAND SERVICES		
TYPE 1 BANK TREATMENT		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

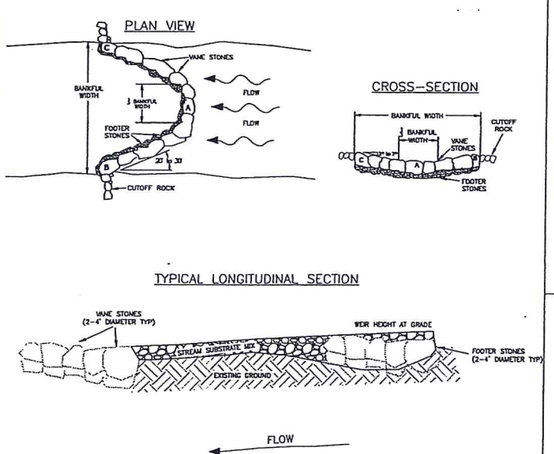
STREAM CHANNEL



CONTRUCTION NOTES:

1. DISTURBED BANKS TO BE SEEDED WITH WETLAND SEED MIX 2 OR APPROVED EQUIVALENT.
2. DISTURBED BANKS TO BE COVERED WITH BIODEGRADABLE, EROSION AND SEDIMENT CONTROL (ESC) FABRIC, NORTH AMERICAN GREEN C125BN OR APPROVED EQUIVALENT; AND COIR 700 OR APPROVED EQUIVALENT. FABRIC SHALL BE SECURED WITH 2 FOOT WOOD STAKES PLACED EVERY 4 FEET. FABRIC SHALL BE STAKED INTO A 12" TRENCH AT THE TOP AND TOE OF THE SLOPE.

HENDERSON LAND SERVICES		
TYPE 2 BANK TREATMENT		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		



NOTE: VANE STONES TYPICALLY TO BE 24" BASALT BOULDERS

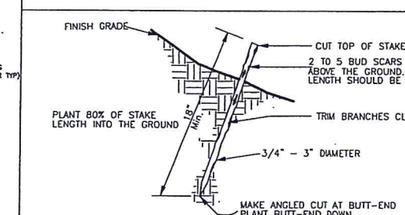
HENDERSON LAND SERVICES		
BURIED WEIR GRADE CONTROL		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

STREAM BED MATERIAL TO MEET O.D.F.W. STREAM SIMULATION
CRITERIA. STREAM BED MATERIAL TO BE COMPOSED OF:

- 35% FINES (DIRT/SAND)
- 30% SMALL ROCK (3"-6")
- 30% LARGE ROCK (6"-d100)
- 5% SHADOW ROCK (WEIR BOULDERS)

NOTE: ROUNDED RIVER ROCK SHALL BE USED FOR LARGE ROCK AND SMALL ROCK COMPONENT.

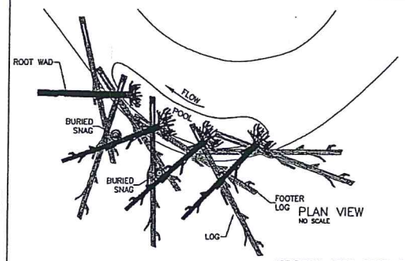
HENDERSON LAND SERVICES		
STREAM SUBSTRATE		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

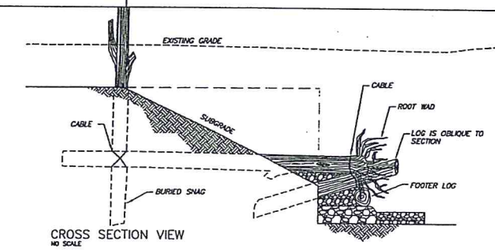


NOTES:

1. HARVEST AND PLANT STAKES DURING THE DORMANT SEASON
2. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD.
3. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT DURING INSTALLATION, USE A PILOT BAR IN FIRM SOILS.
4. SOAK CUTTINGS FOR 24 HOURS (MIN.) PRIOR TO INSTALLATION.
5. TAMP THE SOIL AROUND THE STAKE.

HENDERSON LAND SERVICES		
LIVE STAKING		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

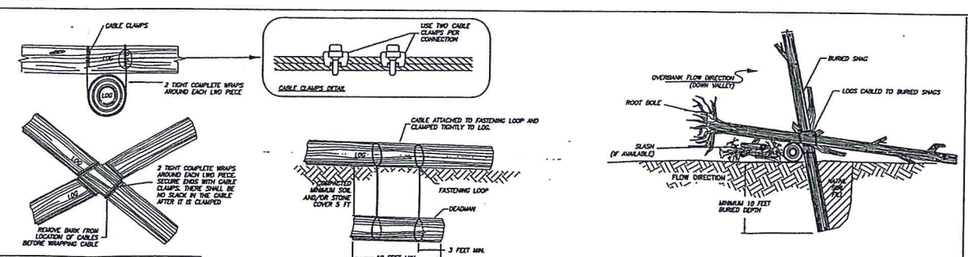




HENDERSON LAND SERVICES		
LARGE WOODY DEBRIS		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

ADDITIONAL LOGS, ROOTWADS, SNAGS, AND DEADMEN ARE PLACED AND CABLED OVER THE FOOTER LOGS TO PROTECT THE CONSTRUCTED BANK FROM EROSIVE FORCES AND TO CREATE FISH HABITAT. STEPS FOR INTALLATION OF LARGE WOOD PIECES SHALL INCLUDE TRENCHING, PLACEMENT, CABLING AND BACKFILLING. LOGS, ROOTWADS, AND WOOD ELEMENTS SHALL BE CABLED TIGHTLY TOGETHER. GAPS AND SPACES BETWEEN LARGE WOOD ELEMENTS SHALL BE PACKED TIGHTLY WITH SLASH, BEFORE BACKFILLING WITH STONE OR TOPSOIL (TO PREVENT LOSS OF BACKFILL).

NOTES
TREE SPECIES: DOUGLAS FIR OR WESTERN RED CEDAR
LOG LENGTH: 25-40 FEET
LOG DIAMETER: 15 INCH MINIMUM
ROOT WAD DIAMETER: 4 FEET MINIMUM
BRANCHES MUST BE ATTACHED TO LOG. THE LOG MUST BE FREE FROM ROT OR DECAY AND CLEANED OF ALL SEDIMENT.



HENDERSON LAND SERVICES		
LARGE WOODY DEBRIS CABLING		
DATE: JANUARY, 2007	SCALE: NONE	STANDARD DETAIL No.
APPROVED:		

Benton County
Public Works Department
360 SW Avery Avenue
Corvallis, Oregon 97333
Phone: 541-766-6831
FAX: 541-766-6891

Date: MAY 11, 2009

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 11, 2008
LAUREL E. BYER

Renewal Date: 12/31/09

SW RESERVOIR AVENUE MODERNIZATION
CORVALLIS, OREGON - PROJECT #25321-01-05

T12S, R5W, SECTION 5 - MP 0.0 - MP 0.75

DETAILS

Revision Description	Date	Initials

Scale: NTS

Drawn by: JA | Designed by: JA

Project #: 25321-01-05

File Location: Q:\Avery Proj\Mgmt\ROAD\25321\25321-01-05\ENGINEERING DESIGN

Index Number: C - 6.3

Sheet # 3 of 3 Sheets