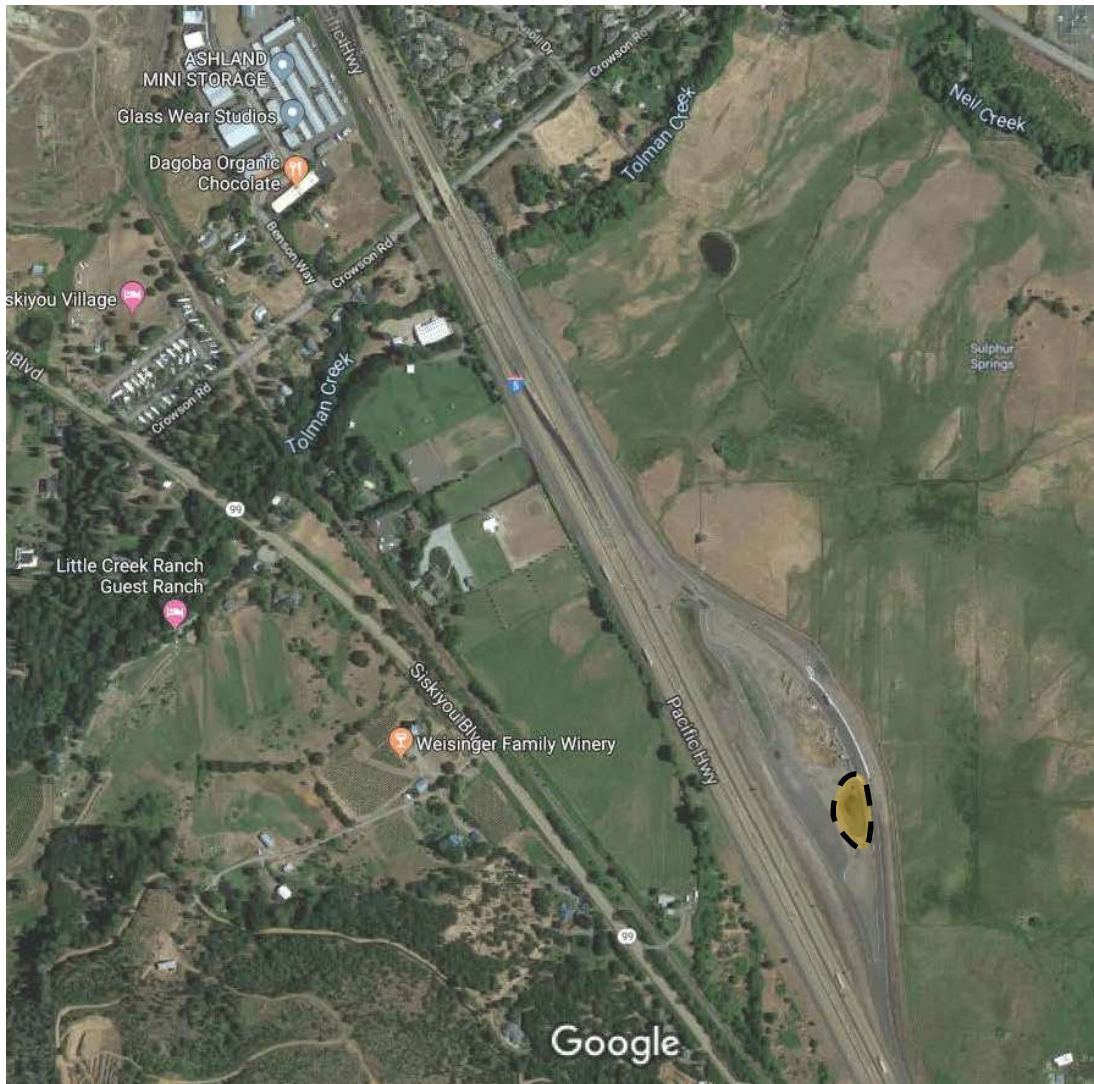


# OPERATION & MAINTENANCE MANUAL

DFI No. : D00881

Facility Type: Water Quality Extended  
Detention Dry Pond



NOVEMBER 2018

**INDEX**

1. IDENTIFICATION ..... 1

2. FACILITY CONTACT INFORMATION ..... 1

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8. WASTE MATERIAL HANDLING..... 4

**APPENDIX A:** Operational Plan and Profile Drawing(s)

**APPENDIX B:** ODOT Project Plan Sheets

## 1. Identification

Drainage Facility ID (DFI): **D00881**  
Facility Type: Water Quality Extended Detention Dry Pond  
Construction Drawings: 48V-092  
Location: District: 08  
Highway No.: 001  
Mile Post: 12.67; 12.72 (beg./end)  
Description: This facility is located within the Siskiyou Rest Area. Primary access to the facility can be obtained from the gravel access at the southern corner of the car parking lot. Secondary access can be made via the roadway to the car parking area and gate at the south end of the pond.

## 2. Facility Contact Information

Contact the Engineer of Record, Region Technical Center, or Geo-Environmental's Senior Hydraulics Engineer for:

- Operational clarification
- Maintenance clarification
- Repair or restoration assistance

### Engineering Contacts:

Region Technical Center Hydro Unit Manager

Or

Geo-Environmental Senior Hydraulics Engineer (503) 986-3365.

## 3. Construction

Engineer of Record: DeLanie Cutsforth – Region 3 Tech Center, White City, (541) 774-6326

Facility construction:  
Contractor: N/A

#### 4. Storm Drain System and Facility Overview

The extended detention dry pond is located at the Siskiyou Rest Area (I-5 Northbound) on the South side of the rest area buildings. The drainage is collected by a series of inlets and conveyed to the facility by two 12-inch storm sewer pipes. The drainage area includes the rest area off-ramp(s), the portion of I-5 surface that drains onto the off-ramps, and the south end of the RV parking area. All stormwater is conveyed into the pond and drains out through one of two Type D outlets. Stormwater then flows through an 18" pipe network along the employee access road and outfalls into Tolman Creek; see the Operational Plan, Appendix A.

The pond is designed to treat highway stormwater runoff through filtration by plants and infiltration into water quality soils. The pond is designed to detain runoff by metering the outflow during storms. This is done by an orifice in the lower type D pond outlet. There is also a pond underdrain that will allow runoff to infiltrate through the soils before exiting the system. There may be runoff in the pond for several days after a storm while infiltration is occurring. During a larger storm, the lower type D inlet may be submerged.

A. Maintenance equipment access:

The facility can be accessed from the south and north ends of the pond via a maintenance access road. Areas of the pond may be soft when wet and large equipment access in the pond bottom should be limited to times when the pond is dry to avoid damage to the facility.

B. Heavy equipment access into facility:

- Allowed (no limitations)
- Allowed (with limitations)
- Not allowed

C. Special Features:

- Amended Soils
- Porous Pavers
- Liners
- Underdrains

**5. Facility Haz Mat Spill Feature(s)**

The extended detention dry pond can be used to store a volume of liquid by blocking the Type D outlet structure.

**6. Auxiliary Outlet (High Flow Bypass)**

7. Auxiliary Outlets are provided if the primary outlet control structure can not safely pass the projected high flows. A manhole with an open metal conical top will pass auxiliary flows for this pond. It is located near the primary and secondary Type "D" outlets at the North end of the pond and is accessible via the access road at the North end.

The auxiliary outlet feature for this facility is:

- Designed into facility
- Other

**8. Maintenance Requirements**

Routine maintenance table for non-proprietary stormwater treatment and storage/detention facilities have been incorporated into ODOT's Maintenance Guide. These tables summarize the maintenance requirements for ponds, swales, filter strips, bioslopes, and detention tanks and vaults. Special maintenance requirements in addition to the routine requirements are noted below when applicable.

The ODOT Maintenance Guide can be viewed at the following website:

<http://www.oregon.gov/ODOT/HWY/OOM/MGuide.shtml>

Maintenance requirements for proprietary structures, such as underground water quality manholes and/or vaults with filter media are noted in Appendix C when applicable.

The following stormwater facility maintenance table (See ODOT Maintenance Guide) should be used to maintain the facility outlined in this Operation and Maintenance Manual or follow the Maintenance requirements outlined in Appendix C when proprietary structure is selected below:

- Table 1 (general maintenance)
- Table 2 (stormwater ponds)
- Table 3 (water quality biofiltration swales)

- Table 4 (water quality filter strips)
- Table 5 (water quality bioslopes)
- Table 6 (detention tank)
- Table 7 (detention vault)
- Appendix C (proprietary structure)
- Special Maintenance requirements:

Note: Special maintenance Requirements Require Concurrence from ODOT SR Hydraulics Engineer.

## 9. Waste Material Handling

Material removed from the facility is defined as waste by DEQ. Refer to the roadwaste section of the ODOT Maintenance Yard Environmental Management System (EMS) Policy and Procedures Manual for disposal options: <http://egov.oregon.gov/ODOT/HWY/OOM/EMS.shtml>

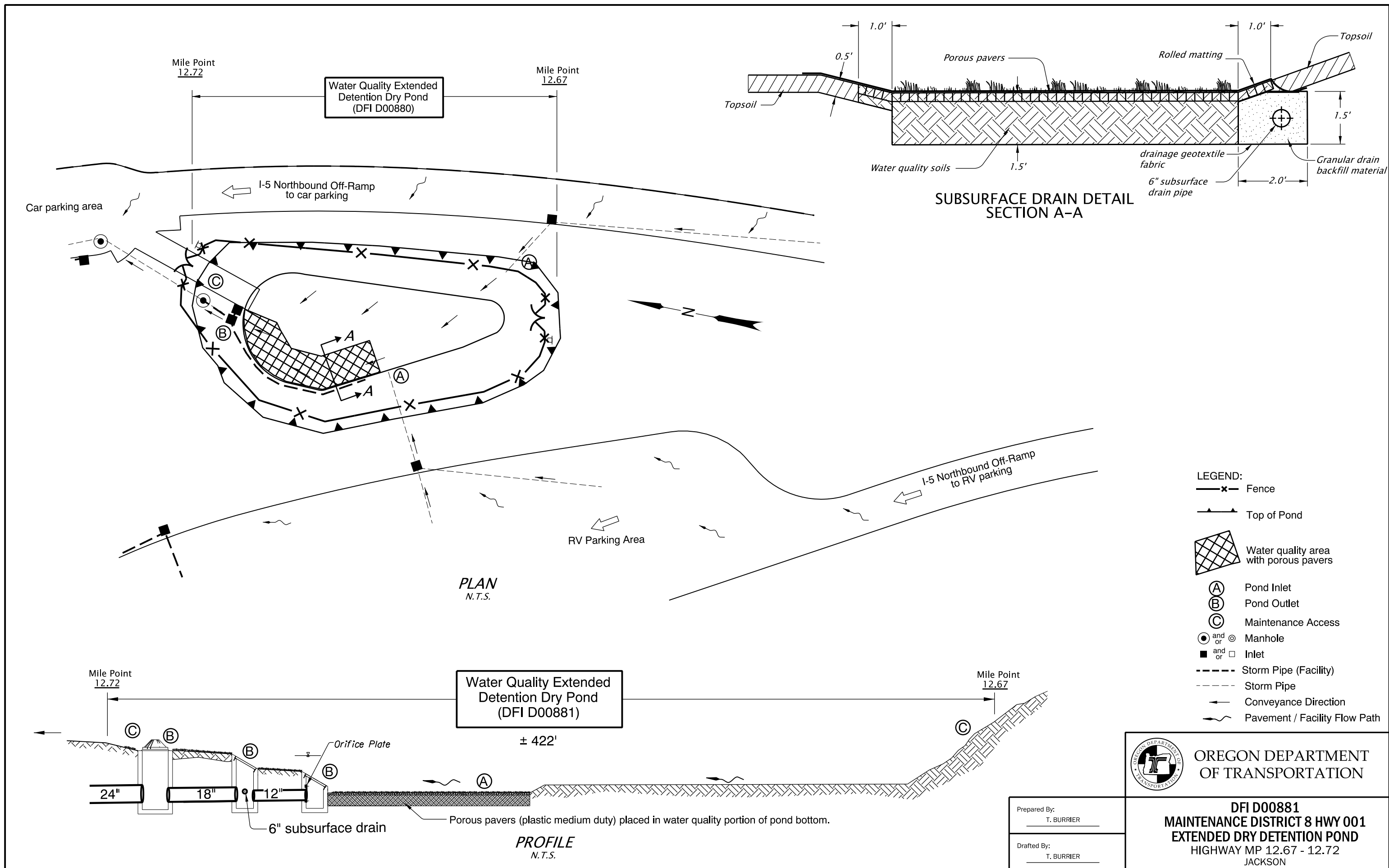
Contact any of the following for more detailed information about management of waste materials found on site:

ODOT Clean Water Unit	(503) 986-3008
ODOT Statewide Hazmat Coordinator	(503) 229-5129
ODOT Region Hazmat Coordinator	(503) 731-8304
ODEQ Northwest Region Office	(503) 229-5263

# Appendix A

## Content:

- **Operational Plan and Profile Drawing(s)**



- LEGEND:**
- x— Fence
  - ▲ Top of Pond
  - ▩ Water quality area with porous pavers
  - Ⓐ Pond Inlet
  - Ⓑ Pond Outlet
  - Ⓒ Maintenance Access
  - and ⊙ Manhole
  - and □ Inlet
  - - - Storm Pipe (Facility)
  - - - Storm Pipe
  - Conveyance Direction
  - ~ Pavement / Facility Flow Path

**OREGON DEPARTMENT OF TRANSPORTATION**

**DFI D00881**  
**MAINTENANCE DISTRICT 8 HWY 001**  
 EXTENDED DRY DETENTION POND  
 HIGHWAY MP 12.67 - 12.72  
 JACKSON

Prepared By: T. BURRIER  
 Drafted By: T. BURRIER



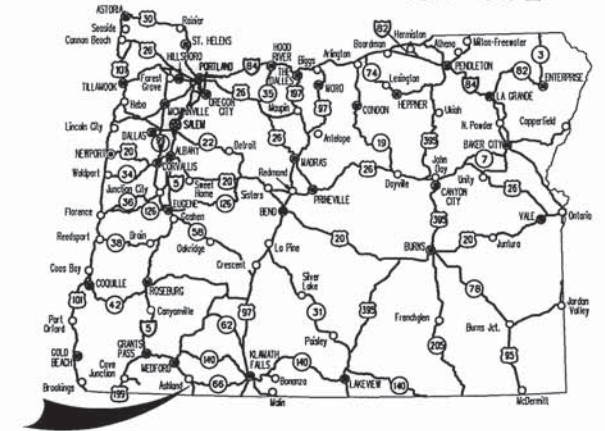
# Appendix B

## Content:

- **ODOT Project Plan Sheets**
  - *Cover/Title Sheet*
  - *Water Quality/Detention Plan Sheets*
  - *Other Details*

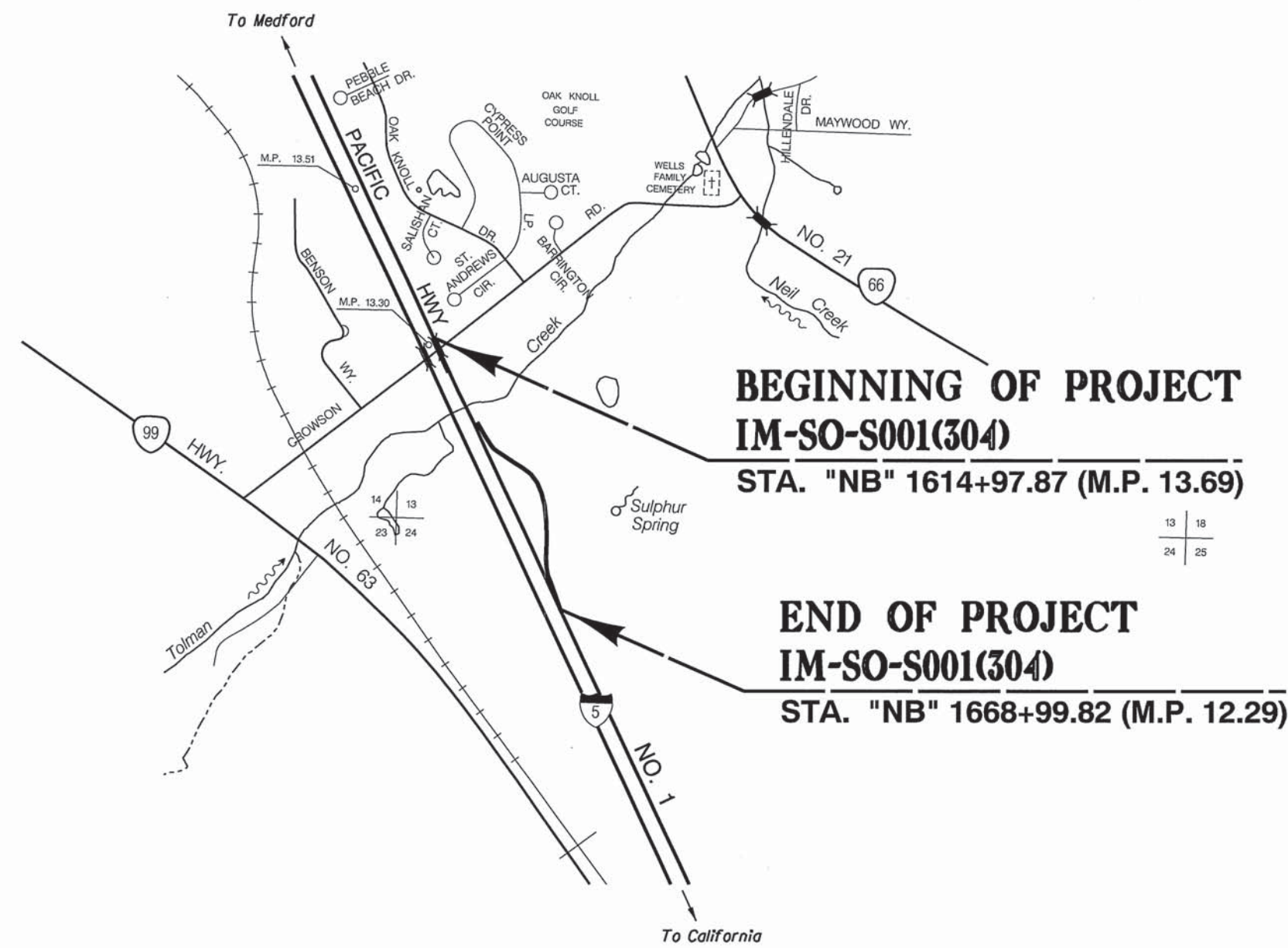
INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
1A & 1A-2	Index Of Sheets Cont. & Std. Drg. Nos.

STATE OF OREGON  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED PROJECT  
**GRADING, PAVING, DRAINAGE, GUARDRAIL & SIGNING**  
**I-5: SISKIYOU REST AREA (ASHLAND)**  
**PACIFIC HIGHWAY**  
 JACKSON COUNTY  
 SEPTEMBER 2015



Overall Length Of Project - 1.40 Miles

**ATTENTION:**  
 Oregon Law Requires You To Follow Rules Adopted By The Oregon Utility Notification Center. Those Rules Are Set Forth In OAR 952-001-0010 Through OAR 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Center Is (503) 232-1987.)



**BEGINNING OF PROJECT**  
**IM-SO-S001(304)**  
**STA. "NB" 1614+97.87 (M.P. 13.69)**

**END OF PROJECT**  
**IM-SO-S001(304)**  
**STA. "NB" 1668+99.82 (M.P. 12.29)**

13	18
24	25



T. 39 S., R. 1E., W.M.



OREGON TRANSPORTATION COMMISSION

Tammy Baney	CHAIR
David Lohman	COMMISSIONER
Susan Morgan	COMMISSIONER
Alonso Simpson	COMMISSIONER
Sean O'Hallaren	COMMISSIONER
Matthew L. Garrett	DIRECTOR OF TRANSPORTATION

These plans were developed using ODOT design standards. Exceptions to these standards, if any, have been submitted and approved by the ODOT Chief Engineer or their delegated authority.

Approving Authority: Signature & date 7-15-15

MARK THOMPSON, TECH. CENTER MGR.  
 Print name and title

Concurrency by ODOT Chief Engineer

**I-5: SISKIYOU REST AREA (ASHLAND)**  
**PACIFIC HIGHWAY**  
**JACKSON COUNTY**

FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	IM-SO-S001 (304)	1

Standard Drg. Nos.

- RD120 - Concrete Stairway
- RD130 - Ballards
- RD140 - Roadway Cross Slopes Superelevated Sections
  
- RD250 - Thrust Blocking
- RD258 - Valve Box and Operator Extension Assembly
- RD262 - Typical Main Dead-End Blowoff Assembly
- RD266 - Manual Air-Release Assembly (3/4 inch)
- RD278 - Water Meter Assembly (Larger than 2")
  
- RD300 - Trench Backfill, Bedding, Pipe Zone and Multiple Installations
- RD302 - Street Cut
- RD306 - Concrete Encasement, Cradle, And Cap Details
- RD312 - Subsurface Drain
- RD316 - Sloped Ends for Metal Pipe
- RD318 - Sloped Ends for Concrete Pipe
- RD319 - Miscellaneous Culvert Details
- RD320 - Paved End Slope for Culverts 60" Maximum Pipe Size
- RD325 - Coupling Bands for Corrugated Metal Pipe
- RD326 - Coupling Bands for Corrugated Metal Pipe
- RD327 - Coupling Bands for Corrugated Metal Pipe
- RD330 - Pipe Slope Anchors - Metal
- RD334 - Locator Post
- RD335 - Standard Storm Sewer Manhole
- RD336 - Standard Manhole Details
- RD337 - Manhole Safety Ladder
- RD338 - Standard Sanitary Sewer Manhole
- RD339 - Pipe To Structure Connections
- RD340 - Storm Sewer Pollution Control Manhole
- RD342 - Shallow Manholes
- RD344 - Standard Manhole Base Section
- RD345 - Pipe to Manhole Connections
- RD346 - Large Precast Manhole
- RD348 - Manhole with Inlet
- RD356 - Manhole Covers and Frames
- RD358 - Manhole Slope Protectors
- RD363 - Gutter Transition
- RD364 - Concrete Inlets Type G-1, G-2, G-2M, & G-2MA
- RD365 - Frames & Grates for Concrete Inlets
- RD366 - Concrete Inlets Type CG-1, CG-2
- RD367 - Curb Inlet Channel
- RD370 - Ditch Inlet Type D
- RD371 - Concrete Inlet Base Type CG-3
- RD372 - Concrete Inlet Top, Option 1 Type CG-3
- RD373 - Concrete Inlet Top, Option 2 Type CG-3
- RD376 - Miscellaneous Drainage Structures Siphon Box, Inlet Cap & Inlet Adjustment
- RD380 - Fill Height Tables for Aluminum & Steel Corrugated Pipe
- RD384 - Fill Height Tables for Aluminum & Steel Spiral Rib Pipe
- RD386 - Fill Height Table for Circular Concrete Pipe
- RD388 - Fill Height Tables for PVC Pipe
- RD390 - Fill Height Table for Corrugated HDPE Pipe
- RD393 - Fill Height Tables for Polypropylene Pipe
- RD398 - Culvert ID Marker

INDEX OF SHEETS, CONT'D.	
SHEET NO.	DESCRIPTION
1C	Survey Control Sheet
2 Thru 2A-11	Typical Sections
2B Thru 2B-12	Details
2C Thru 2C-4	Traffic Control
2D Thru 2D-4	Pipe Data Sheets
3	Alignment
3A	General Construction
3A-2	General Construction Notes
3B	Drainage & Utilities
3B-2	Drainage & Utilities Notes
3C & 3C-2	Profile
3E	Site Utility Plan
4	Alignment
4A	General Construction
4B	Drainage & Utilities
4B-2	Drainage & Utilities Notes
4C & 4C-2	Profile
4E	Site Utility Plan
5	Alignment
5A	General Construction
5B	Drainage & Utilities
5B-2	Drainage & Utilities Notes
5C Thru 5C-3	Profile
5D	Site Civil Plan
5E	Site Utility Plan
6	Alignment
6A	General Construction
6B	Drainage & Utilities
6C & 6C-2	Profile
6D	Site Civil Plan
7	Alignment
7A	General Construction
7B	Drainage & Utilities, Profile
<b>GEO/HYDRO</b>	
SHEET NO.	DESCRIPTION
GA	Erosion Control Details
GA-2 Thru GA-7	Erosion Control Plan
GJ & GJ-2	Stormwater Plan
GJ-3 Thru GJ-6	Stormwater Details
GM & GM-2	Excess Material Disposal Site
GN	Planting Details & Plant Materials Schedule
GN2 & GN3	Planting Plan

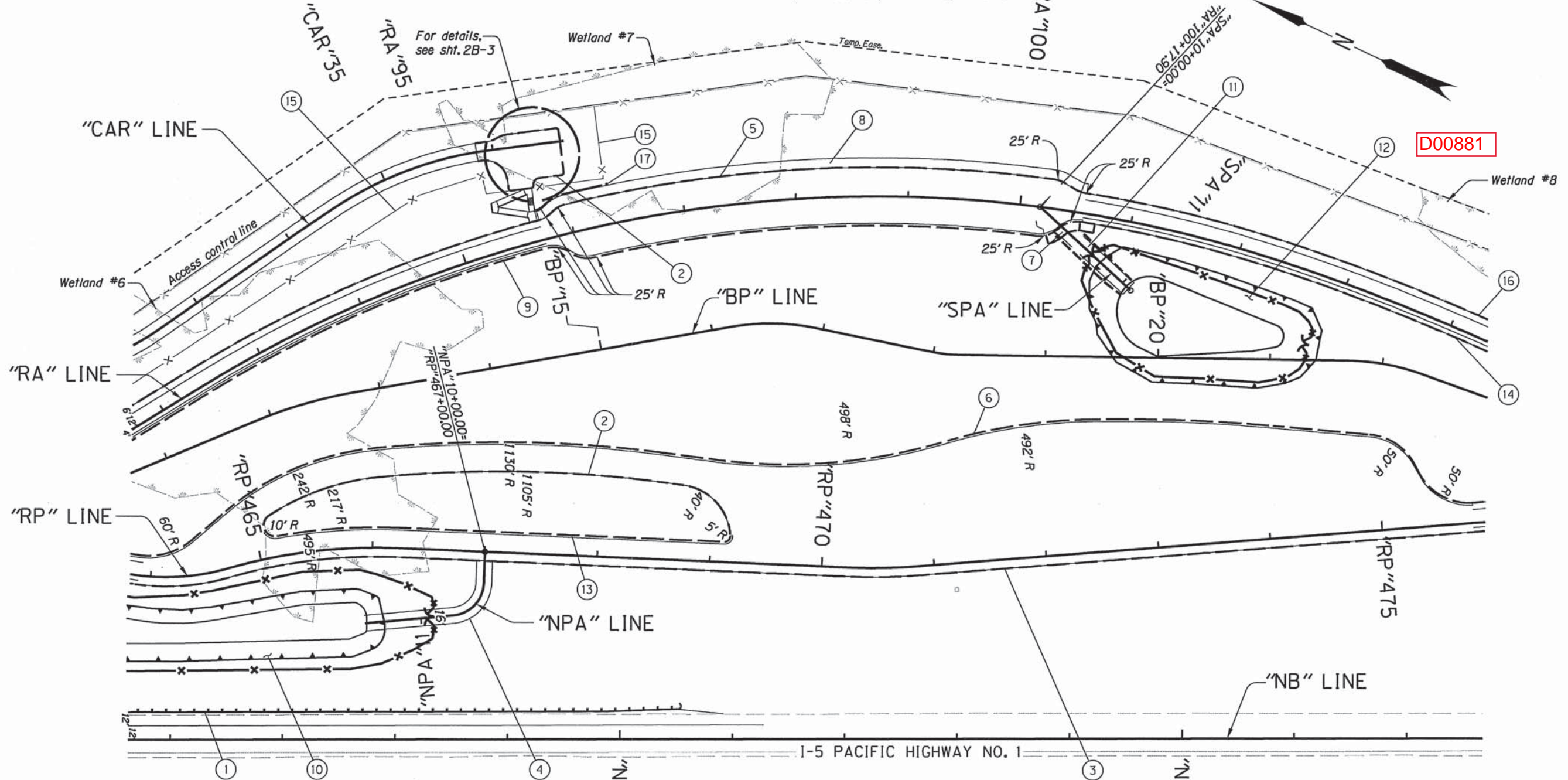
RETAINING WALL #20972	
SHEET NO.	DESCRIPTION
95441	West Wall - Plan and Elevation
95442	General Notes
95443	Foundation Data Sheet
95444	Details
<b>RETAINING WALL #20973</b>	
SHEET NO.	DESCRIPTION
95445	Plan and Elevation
95446	General Notes
95447	Foundation Data Sheet
95448	Details
<b>RETAINING WALL #20974</b>	
SHEET NO.	DESCRIPTION
95449	MSE - Plan and Elevation
95450	MSE Wall Design Notes
95451	Foundation Data Sheet
<b>BRIDGE MODIFICATIONS #08746N</b>	
SHEET NO.	DESCRIPTION
95452	Plan, Elevation, and Details
<b>PERMANENT PAVEMENT MARKINGS</b>	
SHEET NO.	DESCRIPTION
ST Thru ST-3	Striping Details
ST-4 Thru ST-9	Striping Plan
<b>PERMANENT SIGNING</b>	
SHEET NO.	DESCRIPTION
S-15432 Thru S-15435	Signing Plan
S-15436 Thru S-15438	Signing Details
S-15439 Thru S-15441	Sign and Post Data Table
<b>ILLUMINATION</b>	
SHEET NO.	DESCRIPTION
I-02414 Thru I-02417	Illumination Plan
I-02418 & I-02419	Illumination Details
<b>ELECTRICAL</b>	
SHEET NO.	DESCRIPTION
E-1	One Line Diagram/Panel Schedule
E-2	Details
E-3	Electrical Site Plan - North
E-4	Electrical Site Plan - Middle
E-5	Details

No.	DATE	REVISIONS	BY
1	08-18-15	Added Detail sheet nos. 2B-11, 2B-12	CE
2	09-09-15	Added Site Civil Plan sheet no. 6D	CE

<b>1-5: SISKIYOU REST AREA (ASHLAND)</b>		
PACIFIC HIGHWAY JACKSON COUNTY		
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	IM-SO-S001 (304)	1A

Standard Drawings located on the web at:  
[http://www.oregon.gov/ODOT/HWY/ENGSERVICES/pages/standard\\_drawings\\_home.aspx](http://www.oregon.gov/ODOT/HWY/ENGSERVICES/pages/standard_drawings_home.aspx)

Sec. 24, T. 39 S., R. 1 E., W.M.



- ① See sht. 4A, note 3  
Const. guardrail  
Const. end terminal, non-flared  
Test level 3, L=37.5'  
E=2', W=2'
- ② Const. std. curb
- ③ See sht. 4A, note 11  
Const. std. curb
- ④ Const. North Pond access road  
(For details, see sht. 2A-9)
- ⑤ See sht. 4A, note 7  
Const. std. curb

- ⑥ See sht. 4A, note 9  
Const. curb & gutter
- ⑦ Sta. "RA" 100+37.50, Rt.  
Const. P.C. conc. dwy., Option (N)  
(See drg. no. RD750)
- ⑧ Sta. "RA" 95+72.50, Lt. to  
Sta. "RA" 100+57.00, Lt.  
Const. P.C. conc. sidewalk
- ⑨ See sht. 4A, note 6  
Const. curb & gutter
- ⑩ Const. North Bioretention Pond  
(For drg. nos., see sht. 1A)

- ⑪ Const. South Pond access road  
(For details, see sht. 2A-9)
- ⑫ Const. South Bioretention Pond  
(For drg. nos., see sht. 1A)
- ⑬ Sta. "RP" 465+09.00, Lt. to  
Sta. "RP" 469+17.00, Lt.  
Const. curb and gutter
- ⑭ Sta. "RA" 100+57.00, Rt. to  
Sta. "RA" 108+14.00, Rt.  
Const. low profile mountable curb
- ⑮ Future fence  
(Not in Contract)

- ⑯ Sta. "RA" 100+57.00, Lt. to  
Sta. "RA" 113+69.00, Lt.  
Const. low profile mountable curb
- ⑰ Sta. "RA" 95+71.26, Lt. to  
Sta. "RA" 96+40.00, Lt.  
Const. pedestrian handrail - 72"  
(Three tube rail)  
(See drg. nos. RD770 & RD771)



 OREGON DEPARTMENT OF TRANSPORTATION

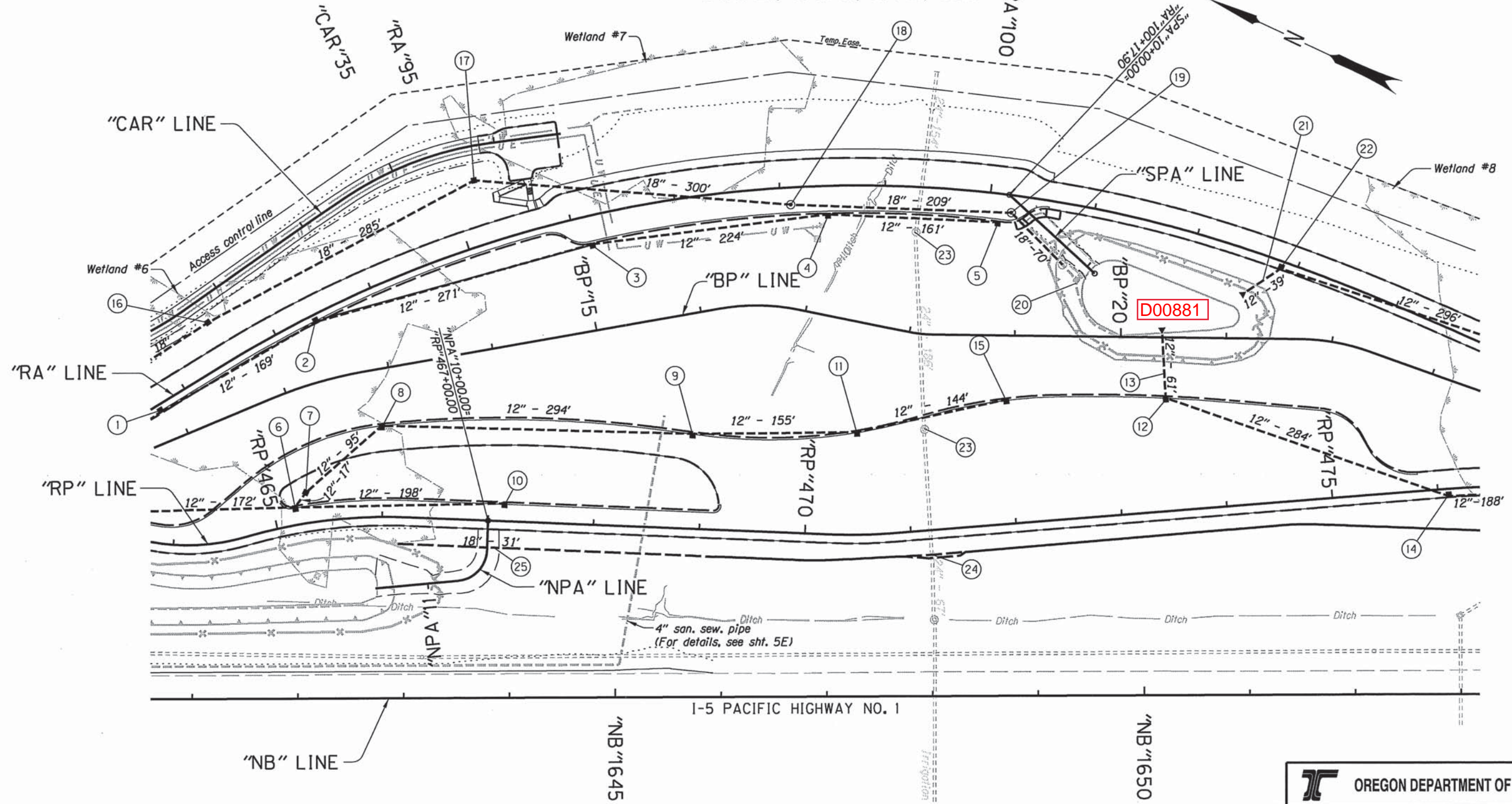
 REGION 3 - TECHNICAL CENTER

**I-5: SISKIYOU REST AREA (ASHLAND)**  
PACIFIC HIGHWAY  
JACKSON COUNTY

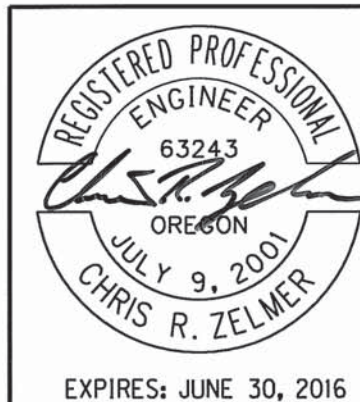
Design Team Leader - Mike Morris  
Designed By - Chris Zelmer  
Drafted By - David Knox

**GENERAL CONSTRUCTION** SHEET NO. **5A**

Sec. 24, T. 39 S., R. 1 E., W.M.



I-5 PACIFIC HIGHWAY NO. 1



OREGON DEPARTMENT OF TRANSPORTATION

REGION 3 - TECHNICAL CENTER

I-5: SISKIYOU REST AREA (ASHLAND)  
PACIFIC HIGHWAY  
JACKSON COUNTY

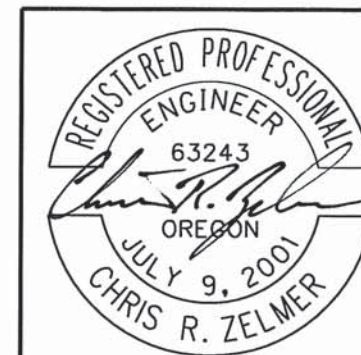
Design Team Leader - Mike Morris  
Designed By - Chris Zelmer  
Drafted By - David Knox

**DRAINAGE & UTILITIES**  
SHEET NO. 5B

- ① See sht. 4B-2, note 22
- ② Sta. "RA" 93+40.00, 8.00' Rt.  
Const. type "CG-2" Inlet  
Inst. 12" storm sew. pipe - 271'  
5' depth
- ③ Sta. "RA" 96+15.00, 26.00' Rt.  
Const. type "CG-3" Inlet  
Inst. 12" storm sew. pipe - 224'  
5' depth
- ④ Sta. "RA" 98+45.00, 26.00' Rt.  
Const. type "CG-3" Inlet  
Inst. 12" storm sew. pipe - 161'  
5' depth
- ⑤ Sta. "RA" 100+10.00, 26.00' Rt.  
Const. type "CG-3" Inlet
- ⑥ Sta. "RP" 465+20.00, 18.00' Lt.  
Const. type "G-2" Inlet  
Inst. 12" storm sew. pipe - 17'  
5' depth  
Inst. 12" storm sew. pipe - 198'  
5' depth
- ⑦ Sta. "RP" 465+32.00, 29.75' Lt.  
Const. type "G-2MA" Inlet  
Inst. 12" storm sew. pipe - 95'  
5' depth
- ⑧ Sta. "RP" 466+00.00, 87.36' Lt.  
Const. type "CG-2" Inlet  
Inst. 12" storm sew. pipe - 294'  
5' depth
- ⑨ Sta. "RP" 468+90.00, 90.81' Lt.  
Const. type "CG-2" Inlet  
Inst. 12" storm sew. pipe - 155'  
5' depth
- ⑩ Sta. "RP" 467+15.00, 18.00' Lt.  
Const. type "G-2" Inlet
- ⑪ Sta. "RP" 470+50.08, 98.70' Lt.  
Const. type "CG-2" Inlet  
Inst. 12" storm sew. pipe - 144'  
5' depth

- ⑫ Sta. "RP" 473+50.00, 108.12' Lt.  
Const. type "CG-2" Inlet  
Inst. 12" storm sew. pipe - 284'  
10' depth
- ⑬ Sta. "RP" 473+51.65, 167.52' Lt.  
Inst. 12" storm sew. pipe - 61'  
10' depth  
Const. sloped end  
Const. paved end slope, Lt.
- ⑭ Sta. "RP" 476+10.00, 8.00' Rt.  
Const. type "G-2" Inlet  
Inst. 12" storm sew. pipe - 188'  
5' depth
- ⑮ Sta. "RP" 472+00.00, 117.96' Lt.  
Const. type "CG-2" Inlet
- ⑯ Sta. "CAR" 32+74.64, 21.14' Rt.  
Const. type "G-2MA" Inlet  
Inst. 18" storm sew. pipe - 285'  
10' depth
- ⑰ Sta. "CAR" 35+74.40, 32.50' Rt.  
Const. type "G-2MA" Inlet  
Inst. 18" storm sew. pipe - 300'  
10' depth
- ⑱ Sta. "RA" 98+09.71, 16.36' Rt.  
Const. manhole  
Inst. 18" storm sew. pipe - 209'  
10' depth
- ⑲ Sta. "RA" 100+21.84, 16.50' Rt.  
Const. manhole  
Inst. 18" storm sew. pipe - 70'  
10' depth
- ⑳ Sta. "RA" 100+61.74, 48.88' Rt.  
Const. outlet control structure  
(For drg. no. See sht. 1A)
- ㉑ Sta. "RA" 102+63.31, 25.71' Rt.  
Inst. 12" storm sew. pipe - 39'  
5' depth  
Const. sloped end  
Const. paved end slope, Lt.
- ㉒ Sta. "RA" 102+85.00, 8.00' Rt.  
Const. type "G-2" Inlet  
Inst. 12" storm sew. pipe - 296'  
5' depth

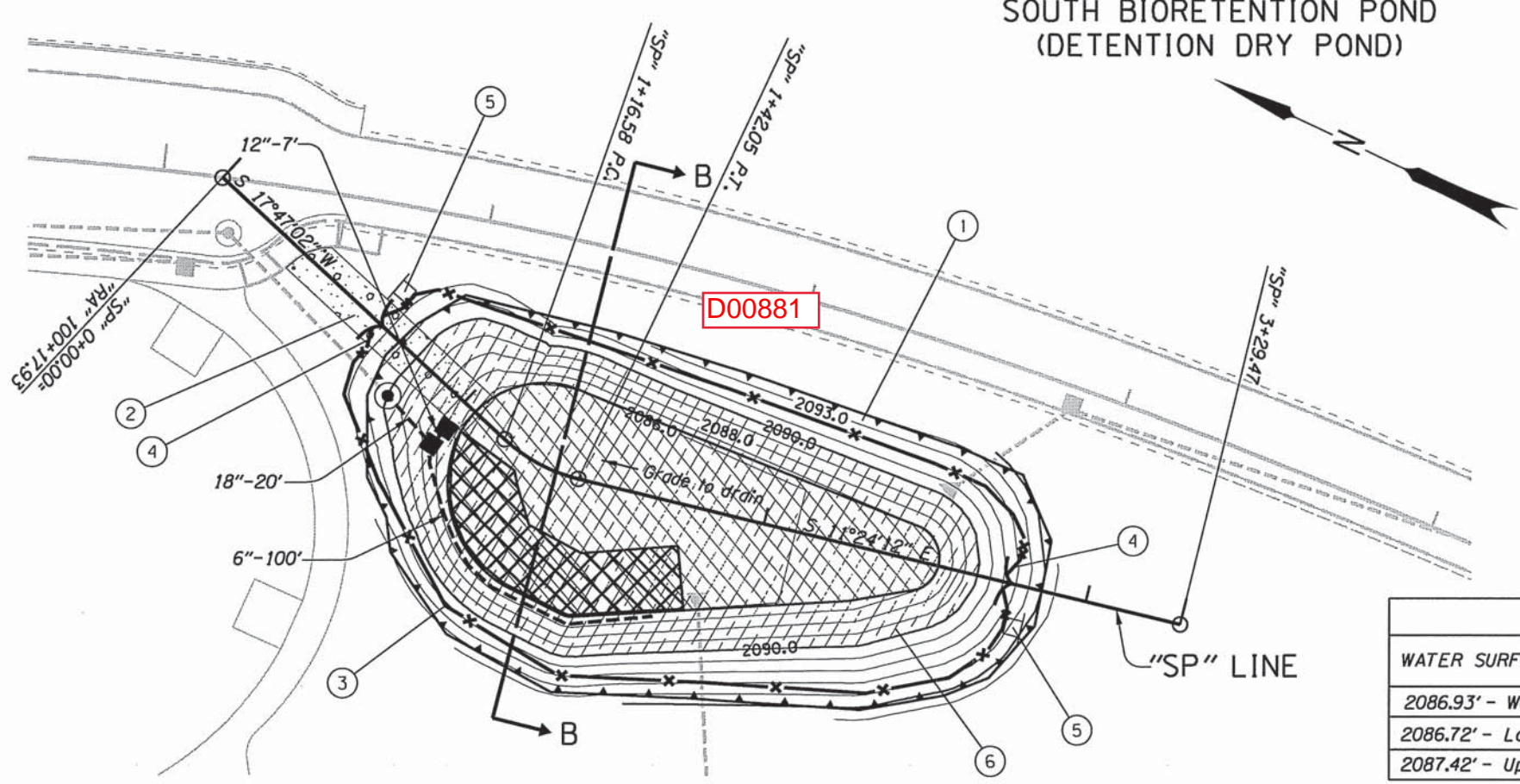
- ㉓ Major adjust manhole - 2
- ㉔ Adjust inlet
- ㉕ Sta. "RP" 466+85.70, 25.38' Lt. to  
Sta. "RP" 467+16.50, 25.44' Lt.  
Inst. 18" culv. pipe - 31'  
5' depth  
Const. sloped end - 2



EXPIRES: JUNE 30, 2016

OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: SISKIYOU REST AREA (ASHLAND) PACIFIC HIGHWAY JACKSON COUNTY	
Design Team Leader - Mike Morris Designed By - Chris Zelman Drafted By - David Knox	
<b>DRAINAGE &amp; UTILITIES NOTES</b>	SHEET NO. <b>5B-2</b>

SOUTH BIORETENTION POND  
(DETENTION DRY POND)

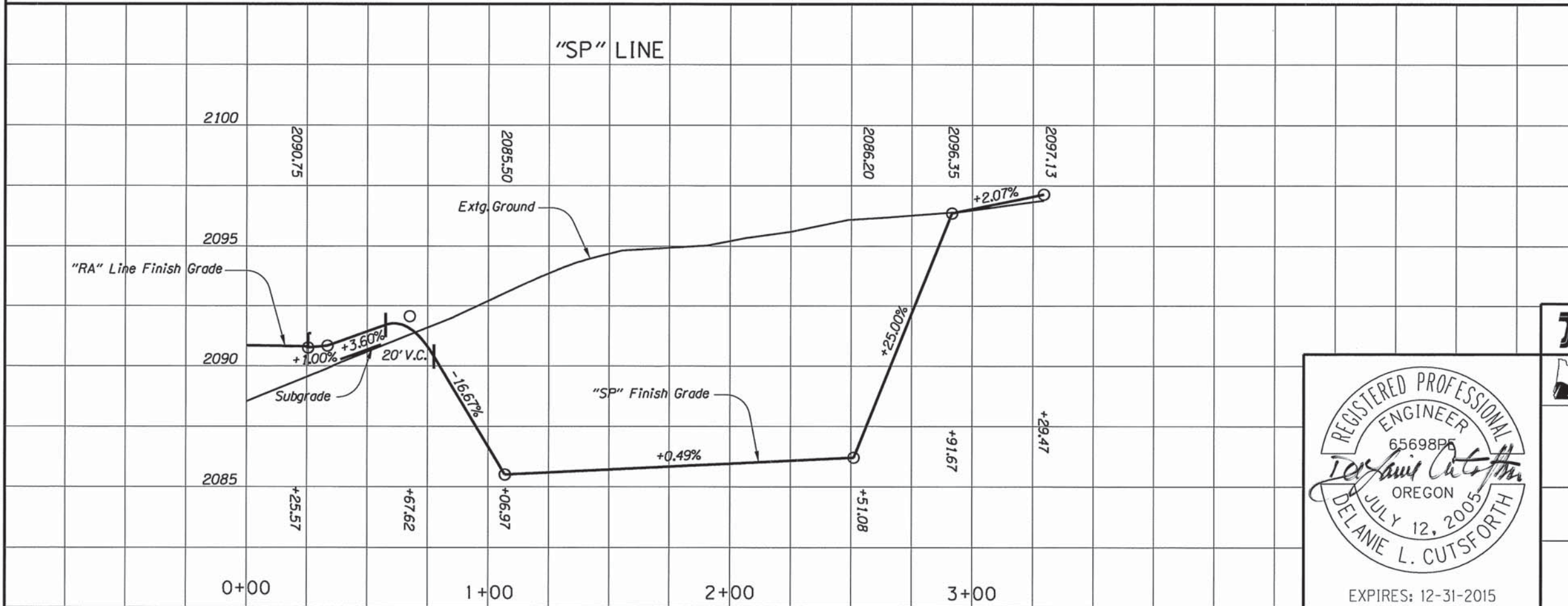


- ① Const. bioretention pond, South 48V-092  
(For details, see shfs. GJ-3 thru GJ-6)
- ② Const. Aggregate Access Road  
(For Typical Section, see sht. 2A-9)
- ③ Const. Type CL-4 fence - 491'  
(Chain link fabric, metal fence posts, braces and appurtenances shall be black.)
- ④ Sta "RA" 100+74.0, 37.6 ft. Rt. & Sta "RA" 103+00.0, 61.0 ft. Rt.  
Inst 4' x 16' chain link double gate - 2  
(Chain link fabric, metal fence posts, braces and appurtenances shall be black.)
- ⑤ Inst. field facility markers, Type "S2" - 2  
(For details, see sht. GJ-6)
- ⑥ Const. bioretention irrigation system
- ⑦ Inst. rolled matting (Type F)

HYDRAULIC DATA		
WATER SURFACE Elevation	STORAGE VOLUME	BASE FLOOD
2086.93' - Water Quality	0.18 Acre-Ft.	50% of 2-Yr.
2086.72' - Lower Control Structure Flow	0.14 Acre-Ft.	42% of 2-Yr.
2087.42' - Upper Control Structure Flow	0.61 Acre-Ft.	10-Yr.

- Aggregate Base
- Porous Pavers & Water Quality Mixture
- Irrigation
- Type F Erosion control matting
- Top of Pond
- Fence

Note:  
 1. All dimensions are in feet, unless otherwise noted.  
 2. For drainage details not shown, see sheet 5B.  
 3. For section B-B details, see sht. GJ-4.



**OREGON DEPARTMENT OF TRANSPORTATION**

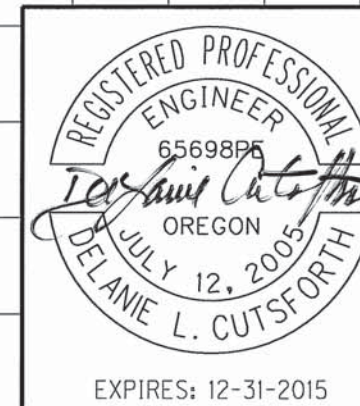
REGION 3 - TECHNICAL CENTER

**I-5: SISKIYOU REST AREA (ASHLAND)**  
PACIFIC HIGHWAY  
JACKSON COUNTY

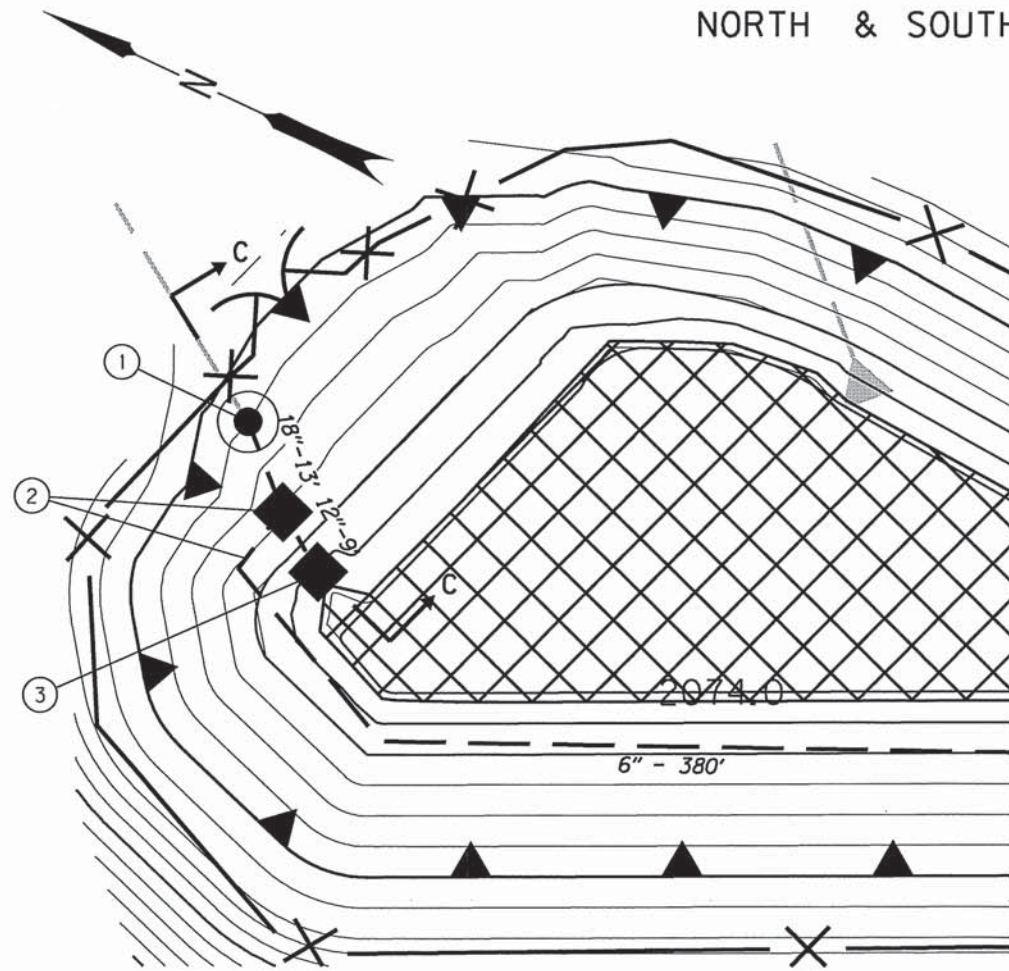
Design By - DeLanie Cutsforth  
Reviewed By - Wade Holaday  
Drafted By - David Knox

**STORMWATER PLAN**

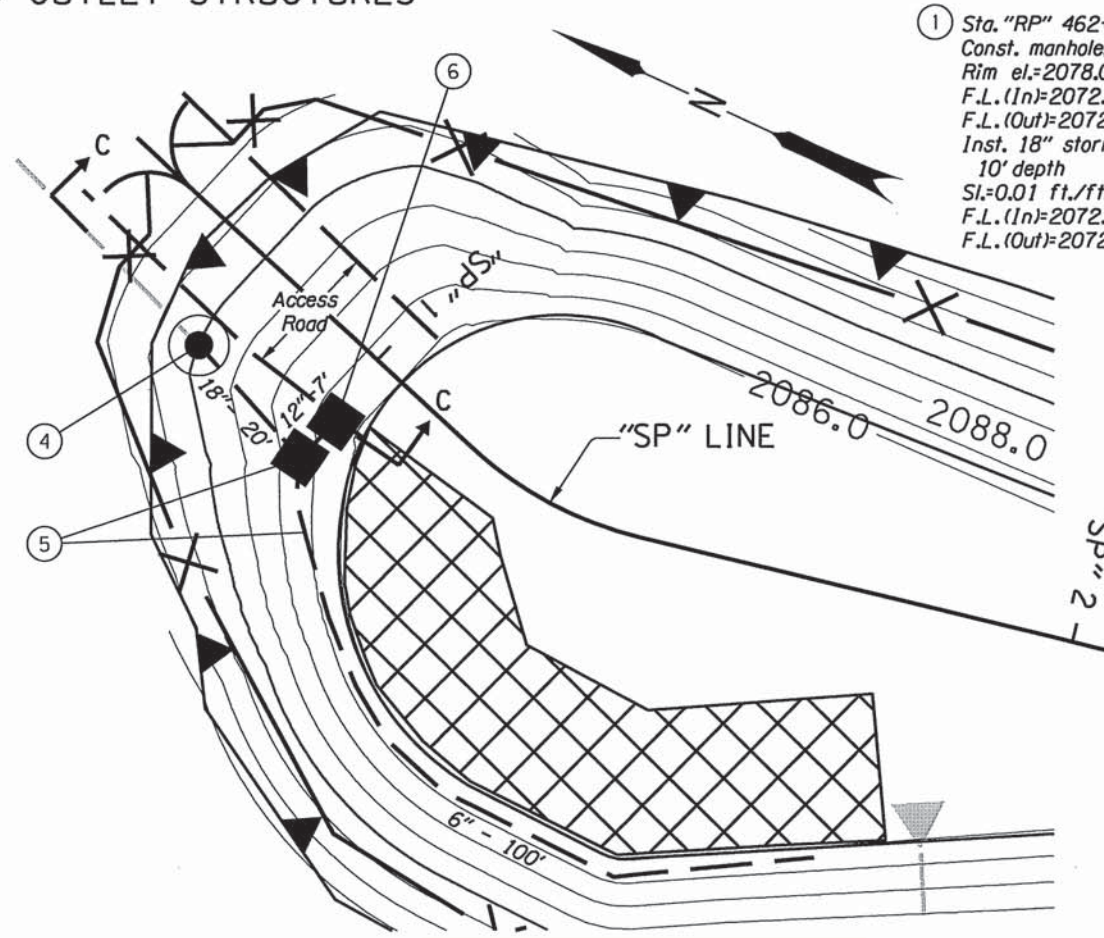
SHEET NO. GJ-2



NORTH & SOUTH POND OUTLET STRUCTURES



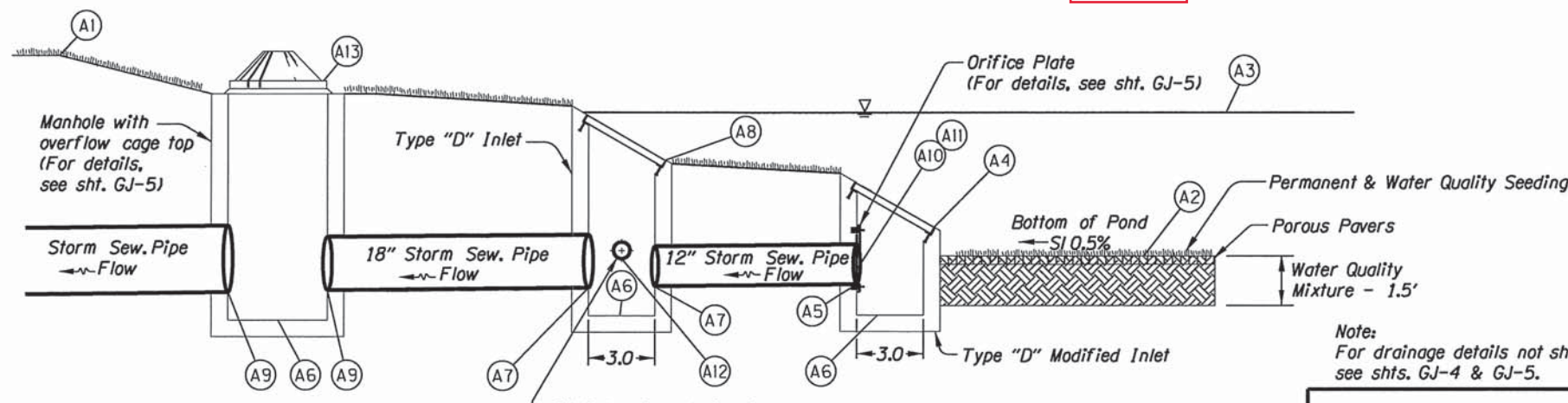
NORTH POND OUTLET PLAN VIEW



SOUTH POND OUTLET PLAN VIEW

D00881

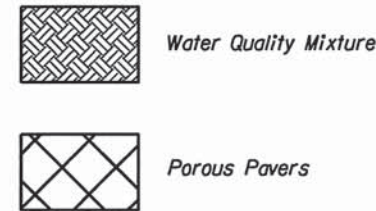
- ① Sta. "RP" 462+70.7, 87.9' Rt.  
Const. manhole, modified with cage top  
Rim el.=2078.0'  
F.L.(In)=2072.58'  
F.L.(Out)=2072.38'  
Inst. 18" storm sew. pipe - 13'  
10' depth  
Sl.=0.01 ft./ft.  
F.L.(In)=2072.71'  
F.L.(Out)=2072.58'
- ② Sta. "RP" 462+78.3, 94.0' Rt.  
Const. type "D" inlet  
Rim el.=2077.0'  
F.L.=2070.60'  
Inst. 12" storm sew. pipe - 9'  
10' depth  
Sl.=0.01 ft./ft.  
F.L.(In)=2072.80'  
F.L.(Out)=2072.71'  
Inst. 6" perforated drain pipe - 380'  
15' depth  
Sl.=0.0056 ft./ft.  
F.L.(In)=2075.0'  
F.L.(Out)=2073.0'
- ③ Sta. "RP" 462+84.0, 97.2' Rt.  
Const. type "D" inlet, modified with orifice plate  
Rim el.=2074.9'  
F.L.=2070.60'
- ④ Sta. "SP" 0+81.73, 14.4' Rt.  
Const. manhole, modified with cage top  
Rim el.=2088.7'  
F.L.(In)=2084.00'  
F.L.(Out)=2083.80'  
Inst. 18" storm sew. pipe - 20'  
10' depth  
Sl.=0.012 ft./ft.  
F.L.(In)=2084.23'  
F.L.(Out)=2084.00'
- ⑤ Sta. "SP" 1+01.38, 16.2' Rt.  
Const. type "D" inlet  
Rim el.=2087.30'  
F.L.=2082.00'  
Inst. 12" storm sew. pipe - 7'  
15' depth  
Sl.=0.01 ft./ft.  
F.L.(In)=2084.30'  
F.L.(Out)=2084.23'  
Inst. 6" perforated drain pipe - 100'  
15' depth  
Sl.=0.005 ft./ft.  
F.L.(In)=2085.0'  
F.L.(Out)=2084.50'
- ⑥ Sta. "SP" 1+01.59, 9.6' Rt.  
Const. type "D" inlet, modified with orifice plate  
Rim el.=2086.9'  
F.L.=2082.0'



SECTION C-C

Note:  
For drainage details not shown,  
see shts. GJ-4 & GJ-5.

	ELEVATION		DESCRIPTION
	North Pond	South Pond	
A1	2080.00'	2091.00'	Top of pond elev.
A2	2074.00'	2085.50'	Bottom of pond min. elev.
A3	2076.88'	2087.73'	Max. water surface elev.
A4	2074.90'	2086.90'	Elev. of lip of lower type "D" inlet
A5	2072.80'	2084.30'	Invert-in elev. of 12" storm sew. pipe
A6	2070.60'	2082.00'	Max. sump elev. of type "D" inlet & manhole
A7	2072.71'	2084.23'	Invert-out elev. of 12" storm sew. pipe
A8	2077.0'	2087.30'	Elev. of lip of upper type "D" inlet
A9	2072.58'	2084.00'	Invert-in elev. of outlet pipe
A10	2073.25'	2084.75'	Orifice center elev.
A11	6.0"	4.0"	Orifice diameter
A12	2073.0'	2084.50'	Invert-out elev. of 6" subsurface drain pipe
A13	2078.0'	2088.70'	Overflow cage rim elev.



REGISTERED PROFESSIONAL ENGINEER  
65698PE  
DeLanie Cutsforth  
OREGON  
JULY 12, 2005  
DELANIE L. CUTSFORTH  
EXPIRES: 12-31-2015

**OREGON DEPARTMENT OF TRANSPORTATION**

REGION 3 - TECHNICAL CENTER

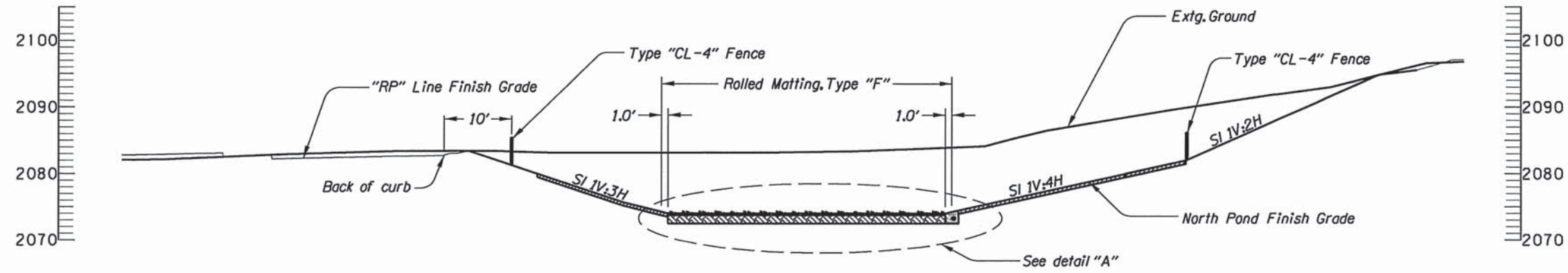
I-5: SISKIYOU REST AREA (ASHLAND)  
PACIFIC HIGHWAY  
JACKSON COUNTY

Design By - DeLanie Cutsforth  
Reviewed By - Wade Holaday  
Drafted By - David Knox

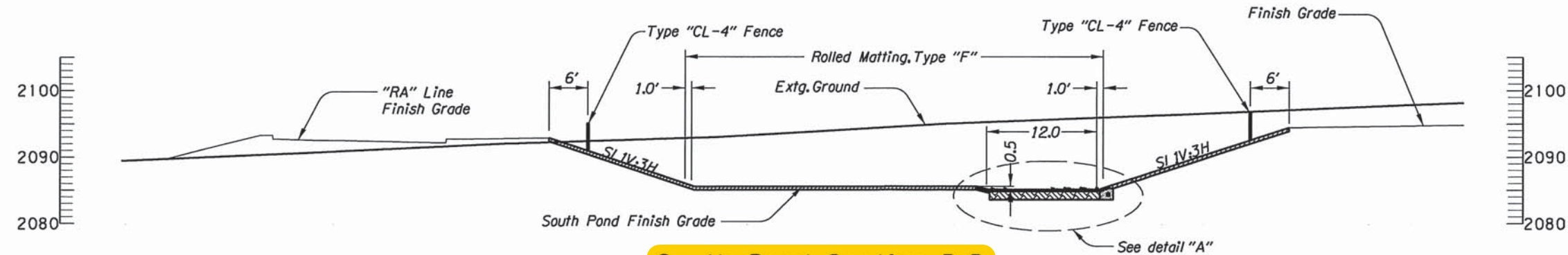
**STORMWATER DETAILS**

SHEET NO. GJ-3








North Pond Section A-A

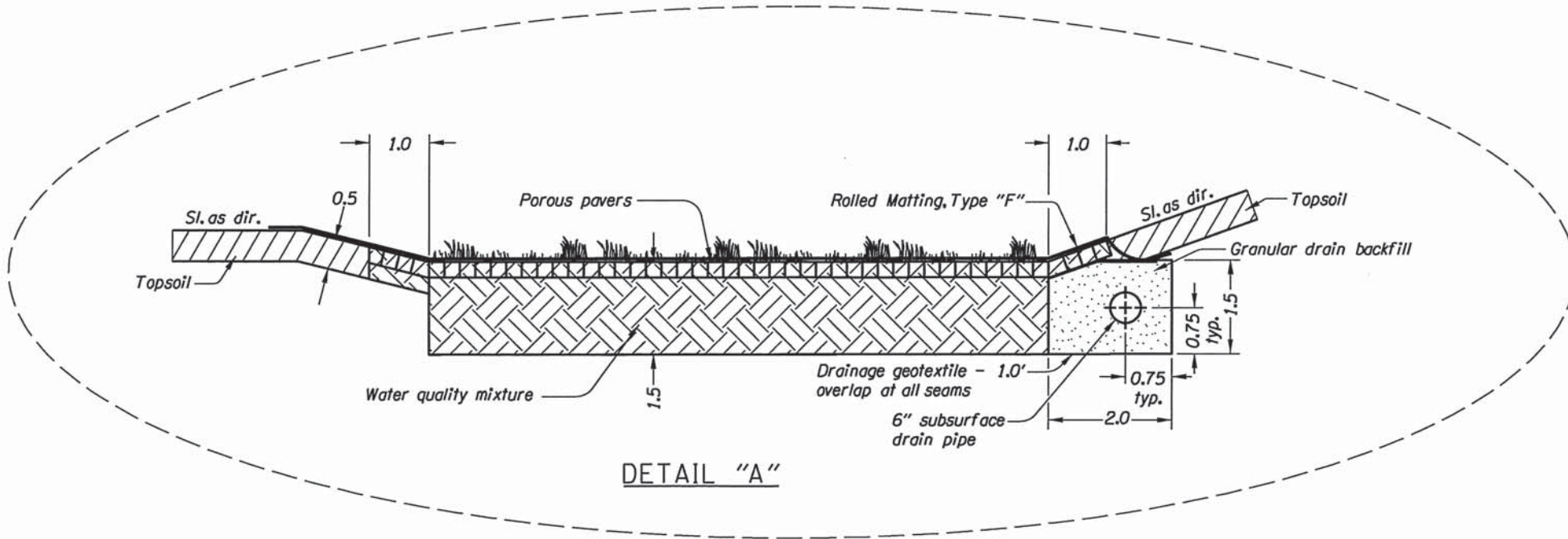


South Pond Section B-B

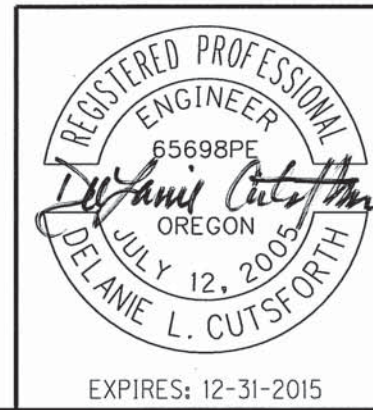
D00881

-  Topsoil
-  Water quality mixture
-  Granular drain backfill

Notes:  
 1) All elevations shown are based on NAVD 1988 datum.  
 2) All dimensions shown are in feet unless otherwise noted.

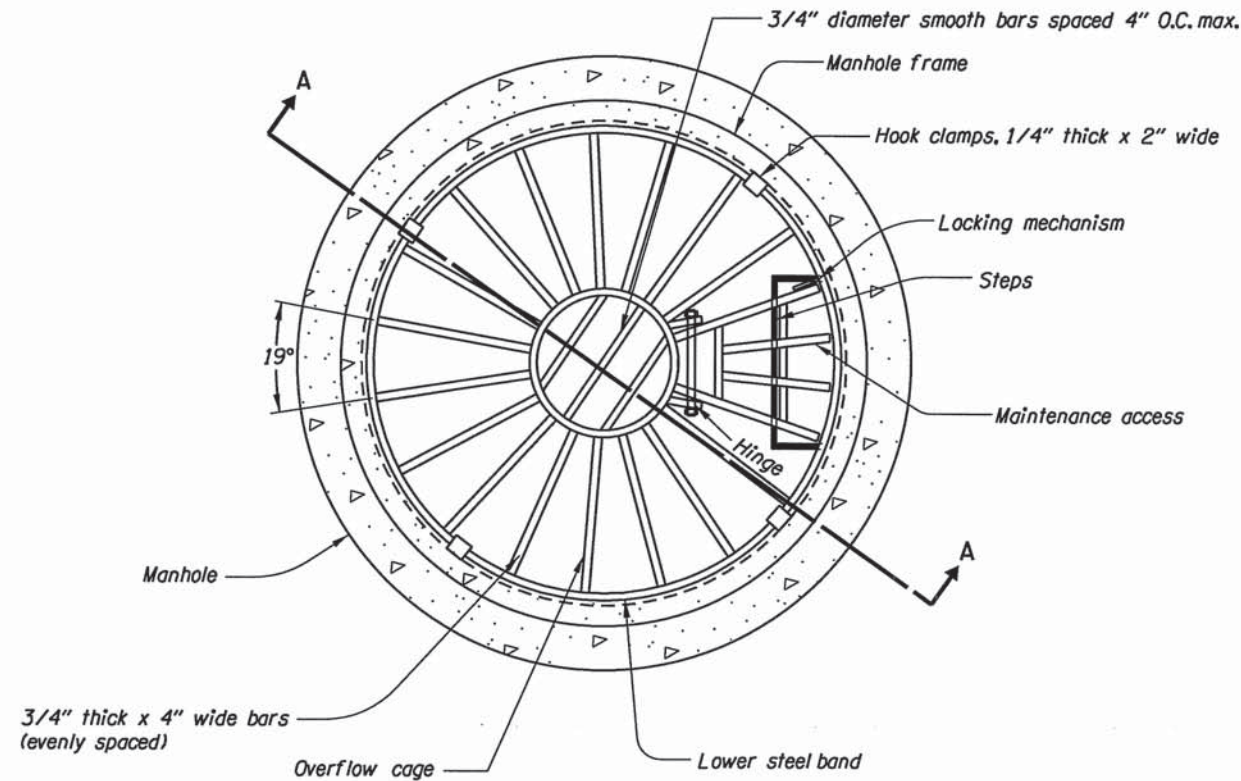


DETAIL "A"

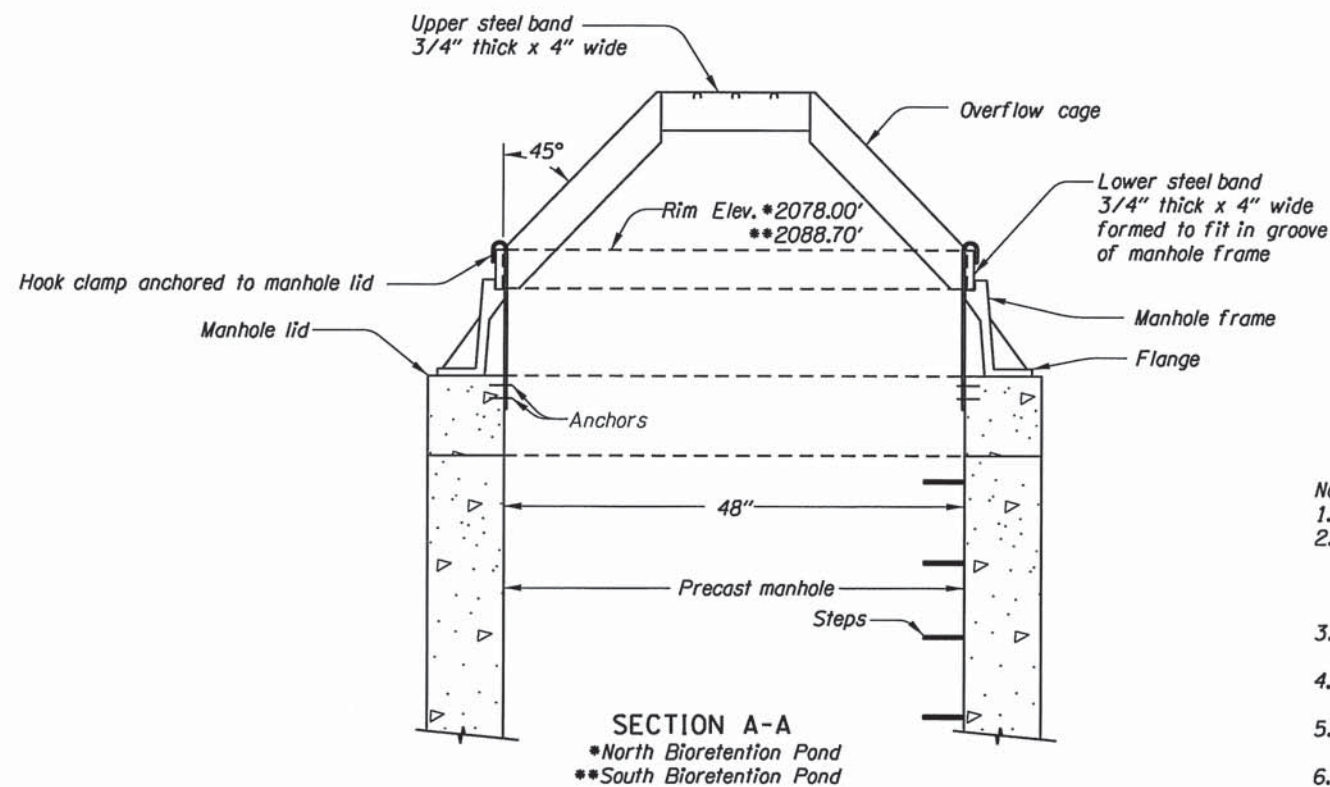
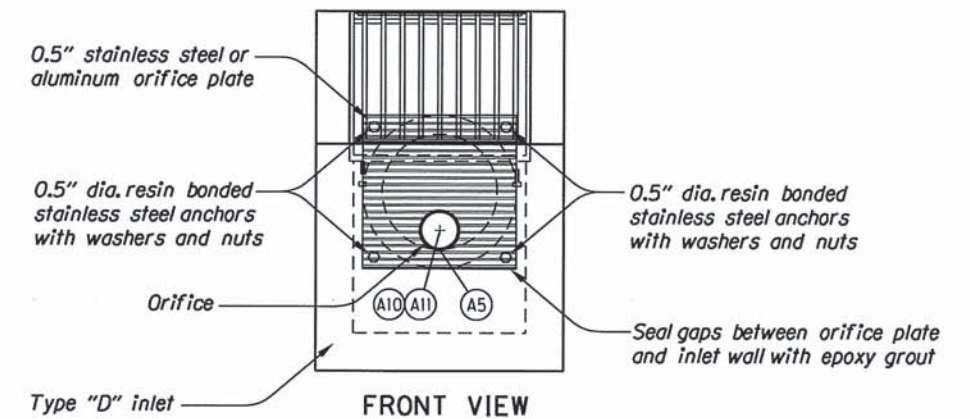


 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: SISKIYOU REST AREA (ASHLAND) PACIFIC HIGHWAY JACKSON COUNTY	
Design By - DeLanie Cutsforth Reviewed By - Wade Holaday Drafted By - David Knox	
<b>STORMWATER DETAILS</b>	SHEET NO. GJ-4

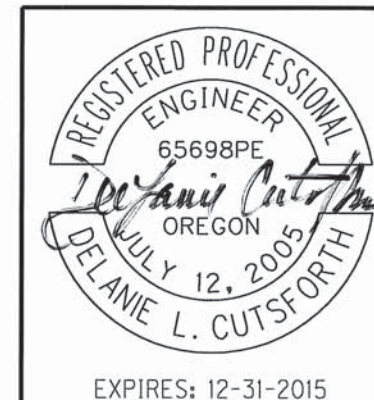
MODIFIED MANHOLE WITH OVERFLOW CAGE TOP  
(Not to scale)



ORIFICE PLATE DETAIL  
(Not to scale)

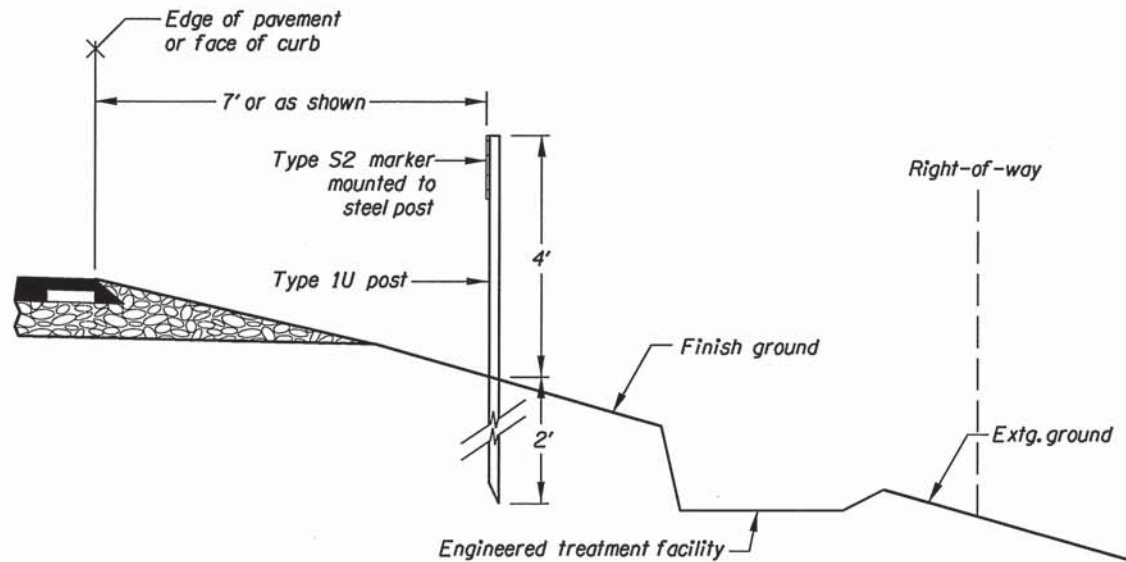


- Notes:
1. All metal parts corrosion resistant.
  2. Provide maintenance access by welding 4 cross bars to vertical bars as shown. Hinge upper ends with bolted flanges and provide locking mechanism on lower end. Locate ladder steps directly below.
  3. Place 4 hook clamps over lower steel bar. Anchor to manhole lid.
  4. Construct overflow cage with 3/4" x 4" square edge steel bars. Weld all joints.
  5. Hot-dip galvanize overflow cage and all steel parts after fabrication.
  6. Use galvanized or stainless steel for all fasteners and hardware.
  7. To be accompanied by drg. nos. RD336, RD346 & RD356.

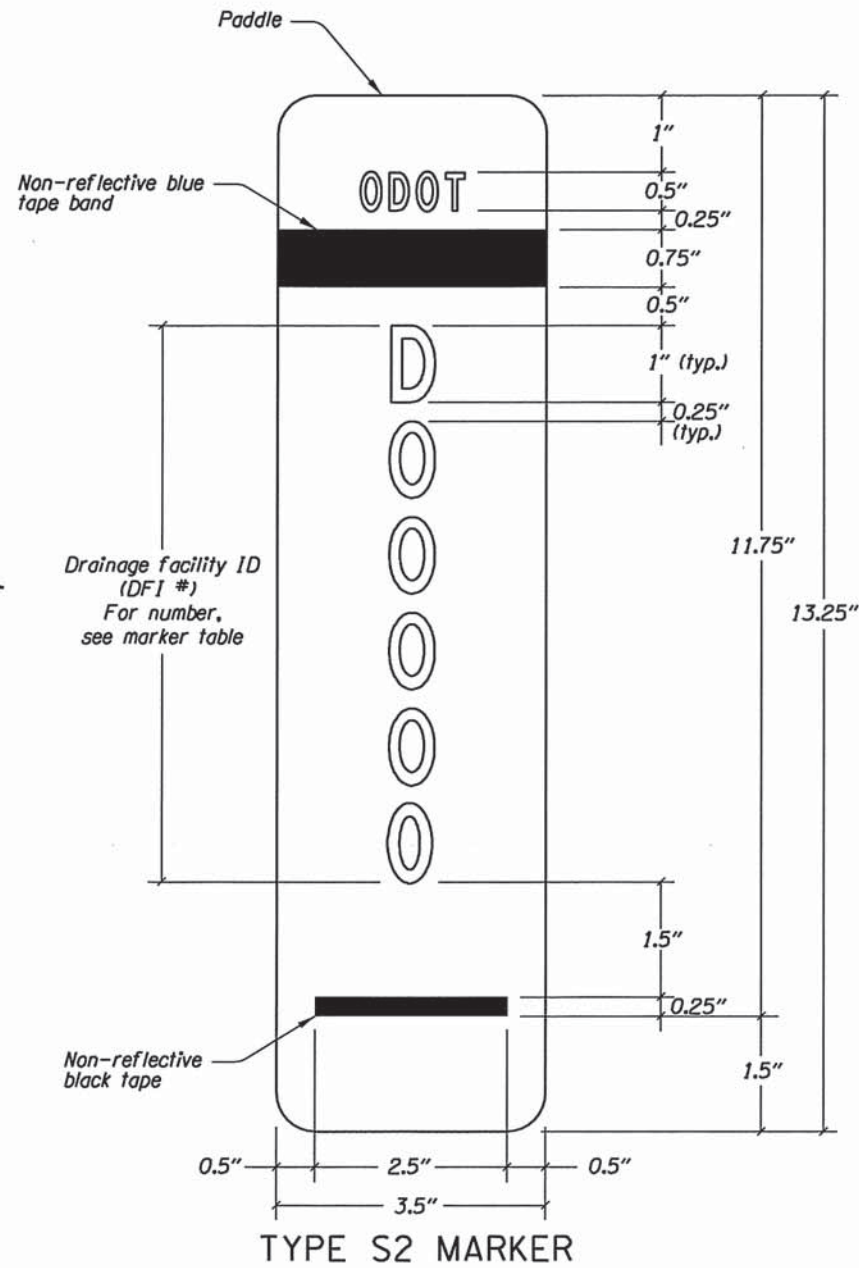


<p>OREGON DEPARTMENT OF TRANSPORTATION</p>	
<p>REGION 3 - TECHNICAL CENTER</p>	
<p><b>1-5: SISKIYOU REST AREA (ASHLAND)</b> PACIFIC HIGHWAY JACKSON COUNTY</p>	
<p>Design By - DeLanie Cutsforth Reviewed By - Wade Holaday Drafted By - David Knox</p>	
<p><b>STORMWATER DETAILS</b></p>	<p>SHEET NO. <b>GJ-5</b></p>

STORMWATER DRAINAGE FACILITY IDENTIFICATION



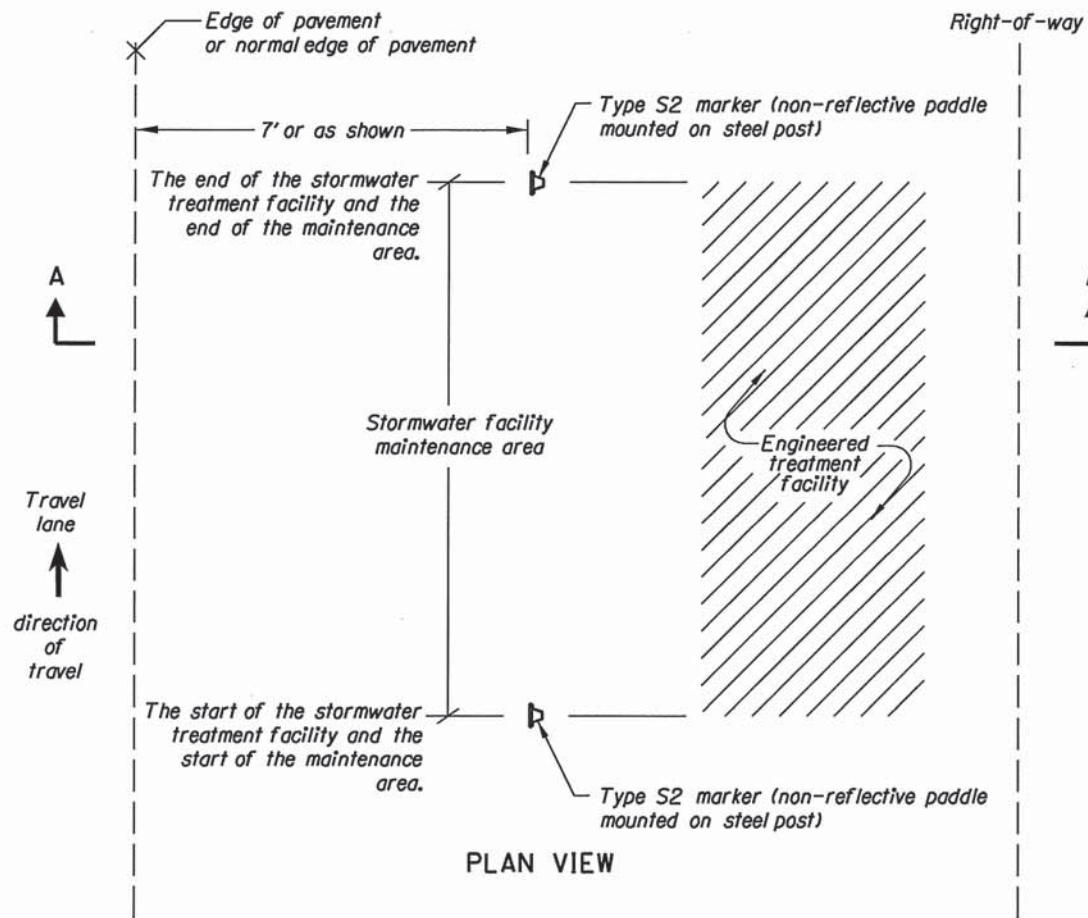
SECTION A-A



TYPE S2 MARKER

MARKER TABLE

FACILITY NAME	FACILITY LOCATION	DFI #	TYPE S2 MARKER	
			BEGIN	END
North Bioretention Pond	"C" 12+57.6	00880	✓	
North Bioretention Pond	"C" 13+57.6	00880		✓
South Bioretention Pond	"C" 5+98.4	00881	✓	
South Bioretention Pond	"C" 7+84.9	00881		✓



INSTALLATION DETAIL

Notes:

- Paddle:**
  - Aluminum sheet, nominal thickness 0.050"
  - White non-reflective background
  - Mount paddle to one (1) type 1U steel post using 3/16" diameter aluminum blind rivets and washers. See standard drawing TM570 detail labeled "Steel Posts" for mounting a traffic target. Install paddle onto Type 1U steel post using same hole pattern.
  - Text and numbers are type C font in non-reflectORIZED black
  - Band is non-reflective blue tape
  - Do not mount paddle to other highway signing posts
  - Install paddle parallel to travel lane
  - Prepare paddle for each "DFI" noted in the marker table
- Steel Posts:**
  - See drg. no. TM571 for type 1U steel post dimensions
- Place 7 feet from edge of pavement or as directed.**
- See marker table for installation locations.**



EXPIRES: 12-31-2015

<p>OREGON DEPARTMENT OF TRANSPORTATION</p>	
<p>REGION 3 - TECHNICAL CENTER</p>	
<p><b>1-5: SISKIYOU REST AREA (ASHLAND)</b> PACIFIC HIGHWAY JACKSON COUNTY</p>	
<p>Design By - DeLanie Cutsforth Reviewed By - Wade Holaday Drafted By - David Knox</p>	
<p><b>STORMWATER DETAILS</b></p>	<p>SHEET NO. <b>GJ-6</b></p>