OPERATION & MAINTENANCE MANUAL

DFI No. 01006
Facility Type: Sediment Basin

Picture

Prepared: April 2016

INDEX

1. Identification

Drainage Facility ID (DFI):	D01006
Facility Type:	Sediment Basin
Construction Drawings:	49V-077
Location:	District: 3
	Highway Number: 16
	Mile Post: 86.79 to 87.02
	Description: Facility is a ditch that collects hillside runoff and road sanding cinders upstream from a storm drain inlet. The storm drain is between M.P. 86.79 and 87.02, the ditch is ditch is between M.P. 86.80 and 86.85, and the inlet is at M.P. 86.82. The inlet and ditch are on the north side of the highway opposite from Suttle Lake.

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 Geo/Hydro/Environmental Unit Manager

Or

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

3. Construction

Engineer of Record:
ODOT Designer -- Region 2 Hydraulics, Bo Miller, (503) 986-2738
Facility construction year: 2016
Contractor: _____

4. Storm Drain System and Facility Overview

Road, and hillside runoff is collected in seven inlets. Five are on the road between the pavement edge and the fog line. They collect water if there is a snow berm at the pavement edge that collects runoff like a curb. Water flows past them and over the pavement edge if the snow is not there. Two inlets drain the sediment basin. It is a basin on the uphill side of the highway that collects hillside runoff and sanding cinders that are pushed or blown off of the road. The cinders and any soil washing off of the hillside settle out of the runoff when it flows through the basin. Sections of the basin are at near to level grades to slow the flow and promote settling. The storm drain and basin are shown on the attached drawings.

Two type "D" ditch inlets are the basin outlet and one is higher than the other. The lowest inlet grate should be covered or the basin cleaned when sediment builds up high enough to reach the lower inlet lip. The sediment can continue to collect until it reaches the lower edge of the upper inlet grate. The basin must be cleaned at this time. The upper inlet should always be open.

A. Maintenance equipment access:

The basin is readily accessible from the highway edge. There are no guardrails. The ditch foreslope is 3 units horizontal to 1 unit vertical (3H : 1V).

B. Heavy equipment access into facility:

☐ Allowed (no limitations)
☐ Allowed (with limitations)
■ Not Allowed

Heavy equipment is not allowed within 3 feet of the basin edges. Foot traffic, only, is allowed within the basin and on the basin sides.

C. Special Features:

□ Amended Soils
□ Porous Pavers
□ Liners
☐ Underdrains

5. Facility Haz Mat Spill Feature

No special features are included for Haz Mat. Standard operating procedures for Haz Mat in roadside ditches are to be used.

6. Auxiliary Outlets (Basin Overflow)

The upper inlet to the storm drain is the auxiliary outlet. It should be fully open at all times. The lower inlet can be blocked if sediment reaches it, if desired.

The auxiliary outlets for this facility are:

■ Designed into facility:

☐ Other, as noted below:

7. Maintenance Requirements

Routine maintenance is cleaning the basin to the lines, grades, and cross-section shown on the attached drawings. Standard operating procedures for ditch cleaning are to be used. Annual cleaning is recommended.

8. Waste Material Handling

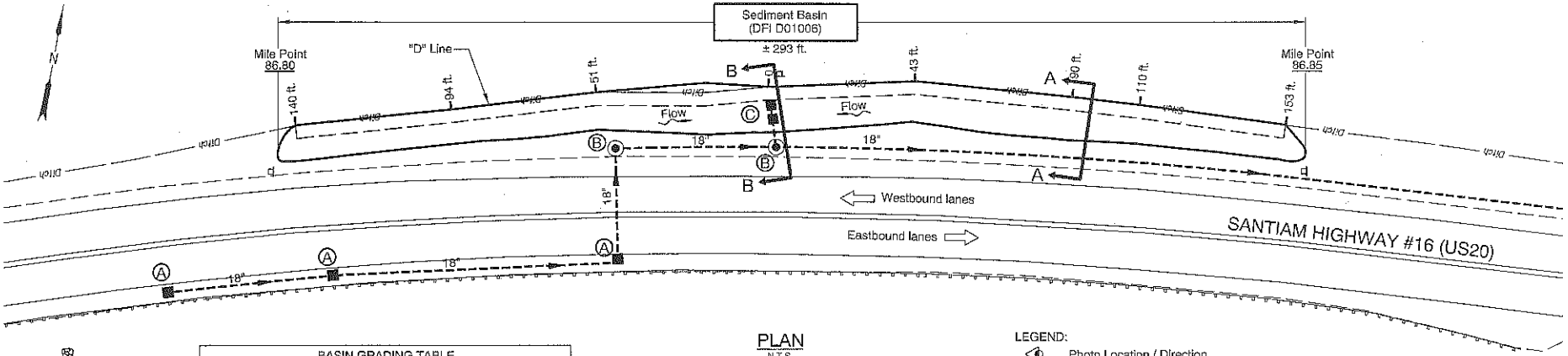
Standard operating procedures for ditch spoils are to be used. Contact any of the following for more detailed information about management of waste materials found on site:

ODOT Clean Water Unit	(503) 986-3008
ODOT Statewide Hazmat Coordinator	(503) 229-5129
ODOT Region Hazmat Coordinator	(503) 986-2647
ODEQ Northwest Region Office	(503) 229-5263

Appendix A

Content:

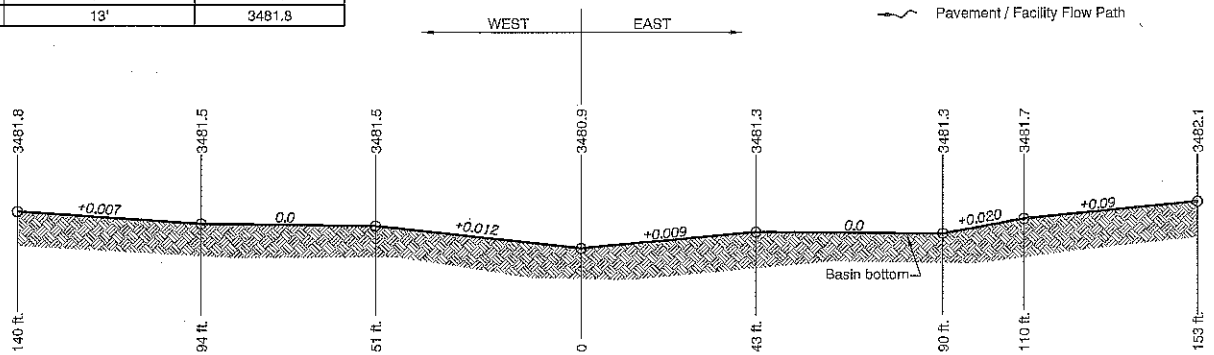
- **Operational Plan and Profile Drawings**



PLAN
N.T.S.

BASIN GRADING TABLE		
DISTANCE FROM INLET (Feet)	DISTANCE FROM EDGE OF PAVEMENT TO BACK OF BASIN "D"	ELEVATION OF BASIN BOTTOM "E"
153' East	17'	3482.1
110' East	19'	3481.7
90' East	20'	3481.3
43' East	22'	3481.3
At Inlet	19'	3480.9
51' West	17'	3481.5
94' West	14'	3481.5
140' West	13'	3481.8

LEGEND:
- Photo Location / Direction
- (A) Special Inlet
- (B) Manhole
- (C) Basin Inlet
- Manhole
- Inlet
- Sediment Basin
- Storm Pipe
- Conveyance Direction
- Pavement / Facility Flow Path



Basin bottom Along "D" Line
PROFILE
N.T.S.

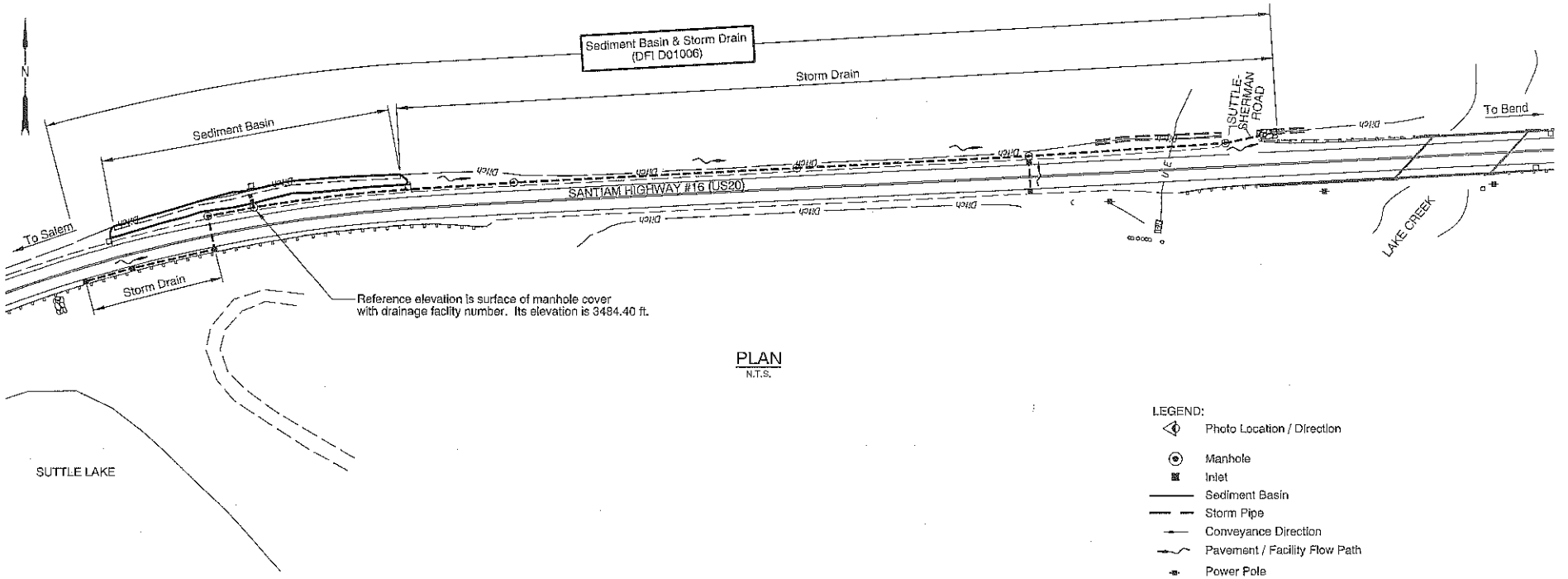
Sht. 2 of 3

OREGON DEPARTMENT OF TRANSPORTATION

Prepared By: Bo Miller

Drafted By: Sergy Chernishoff

DFI D01006
MAINTENANCE DISTRICT 3 HWY 016
SEDIMENT BASIN AND STORM DRAIN
SANTIAM HIGHWAY MP 86.79-87.02
JEFFERSON COUNTY



PLAN
N.T.S.

LEGEND:
- Photo Location / Direction
- Manhole
- Inlet
- Sediment Basin
- Storm Pipe
- Conveyance Direction
- Pavement / Facility Flow Path
- Power Pole

Sht. 1 of 3

OREGON DEPARTMENT OF TRANSPORTATION

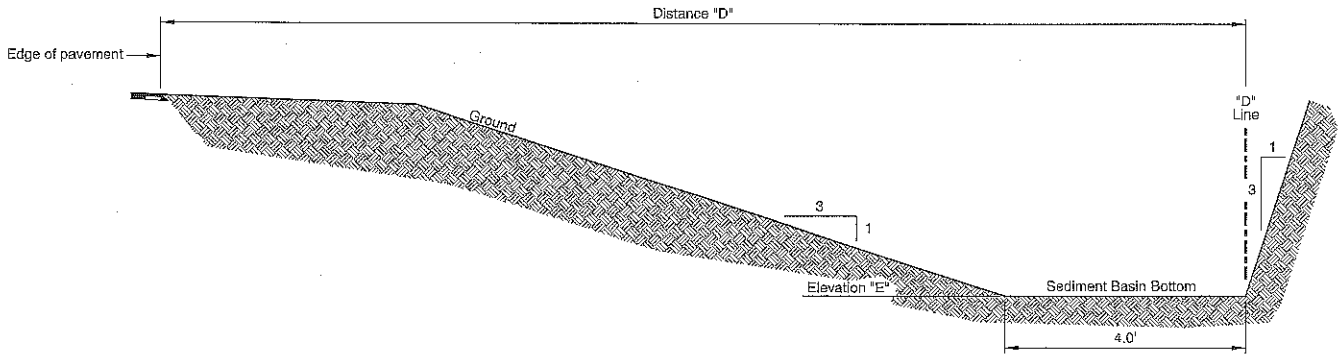
Prepared By: Bo Miller

Drafted By: Sergy Chernishoff

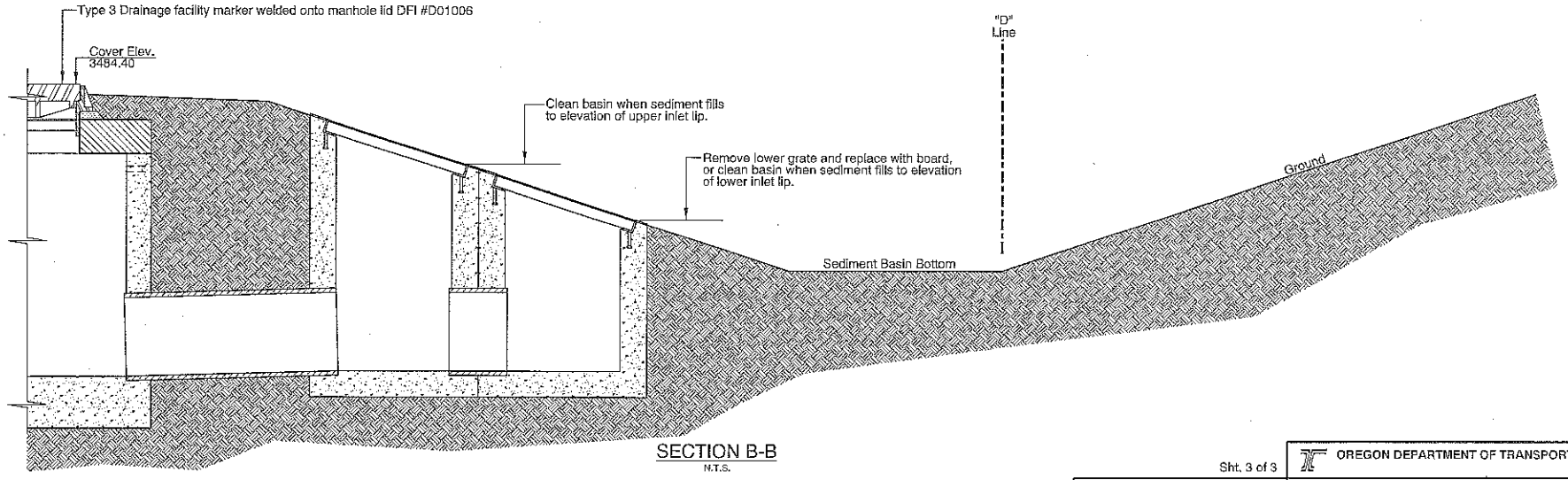
DFI D01006
MAINTENANCE DISTRICT 3 HWY 016
SEDIMENT BASIN AND STORM DRAIN
SANTIAM HIGHWAY MP 86.79-87.02
JEFFERSON COUNTY

\\SCDATA2\2610drafting\Projects\19047_US20_at_Suttle_Lake_Drainage\Plans\03_OandM_Manual\DFI_D01006.dgn :: DFI_SHEET 1 4/8/2016 1:13:17 PM hwye3lg

Rotation: 0° Scale: 1"=100'



TYPICAL DITCH SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

Sht. 3 of 3

OREGON DEPARTMENT OF TRANSPORTATION

Prepared By: Bo Miller

Drafted By: Sergy Chernishoff

DFI D01006
MAINTENANCE DISTRICT 3 HWY 016
SEDIMENT BASIN AND STORM DRAIN
SANTIAM HIGHWAY MP 86.79-87.02
JEFFERSON COUNTY

Appendix B

Content:

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

49V-077

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

STATE OF OREGON

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED PROJECT

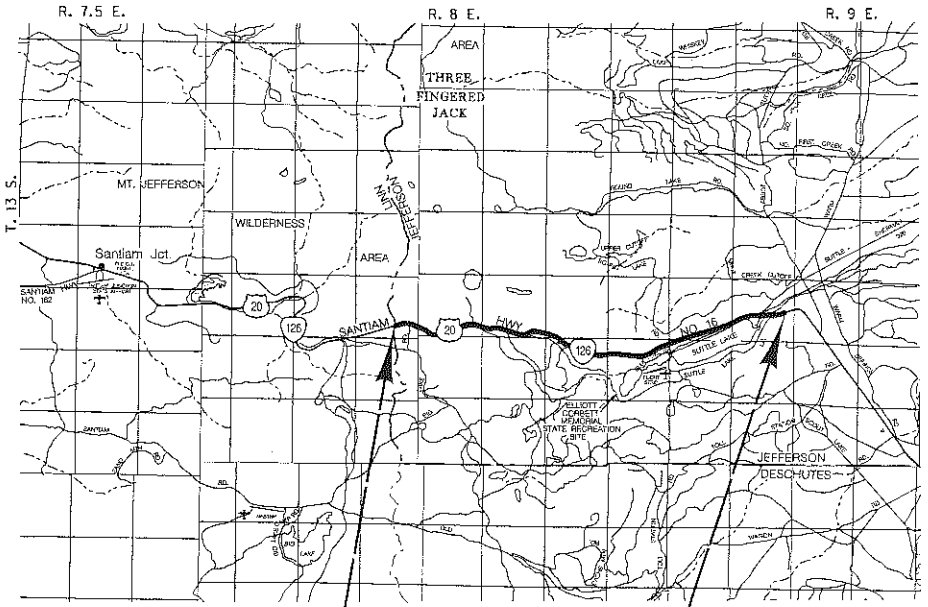
DRAINAGE

US20: SUTTLE LAKE - SANTIAM SUMMIT SEC.

SANTIAM HIGHWAY

JEFFERSON COUNTY

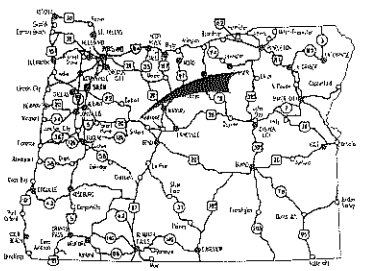
JUNE 2016



STP-S016(058)
END PROJECT
STA. "L" 543+23.19 (M.P. 80.88)

STP-S016(058)
BEGIN PROJECT
STA. "L" 204+94.46 (M.P. 87.22)

T. 13 S., R. 7.5, 8, 9 E., W.M.



Overall Length Of Project - 6.34 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.)

OREGON TRANSPORTATION COMMISSION

Tammy Baney	CHAIR
David Lohman	COMMISSIONER
Susan Morgan	COMMISSIONER
Alando Simpson	COMMISSIONER
Sean O'Hollaren	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.

PLANS PREPARED FOR MAINTENANCE

By: _____
Signature & date

James E. West - R2 Tech Center Manager
Print name and title

US20: SUTTLE LAKE - SANTIAM SUMMIT SEC.
SANTIAM HIGHWAY
JEFFERSON COUNTY

FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	STP-S016(058)	1

PE002478

F:\ODOT_DATA\Projects\19047 US 20 SUTTLE LAKE\19047_.tsl:: Default 4/12/2016 8:02:19 AM hwye80q

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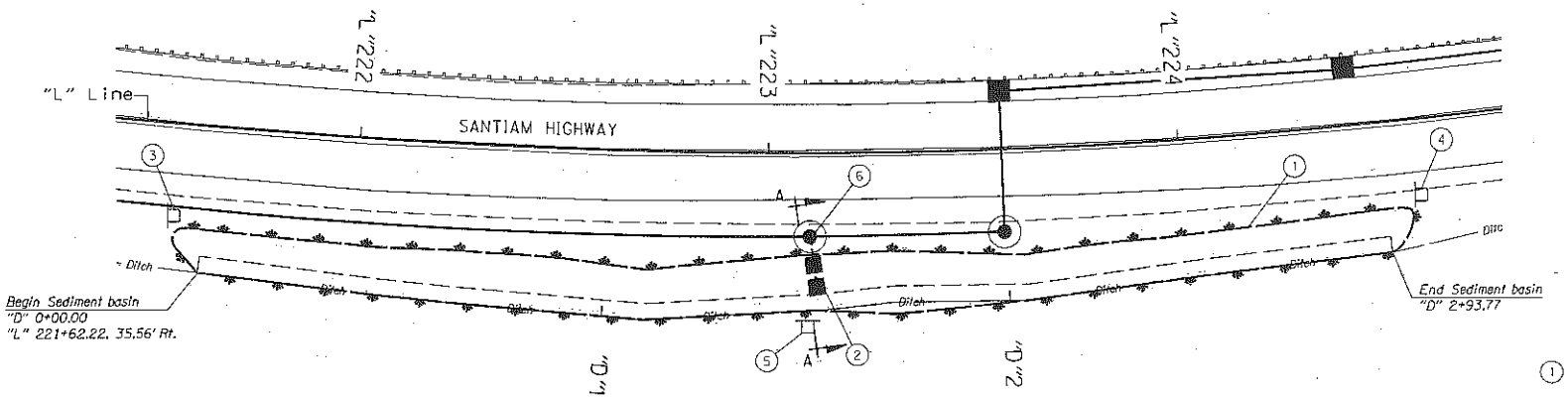
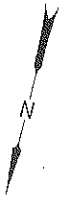
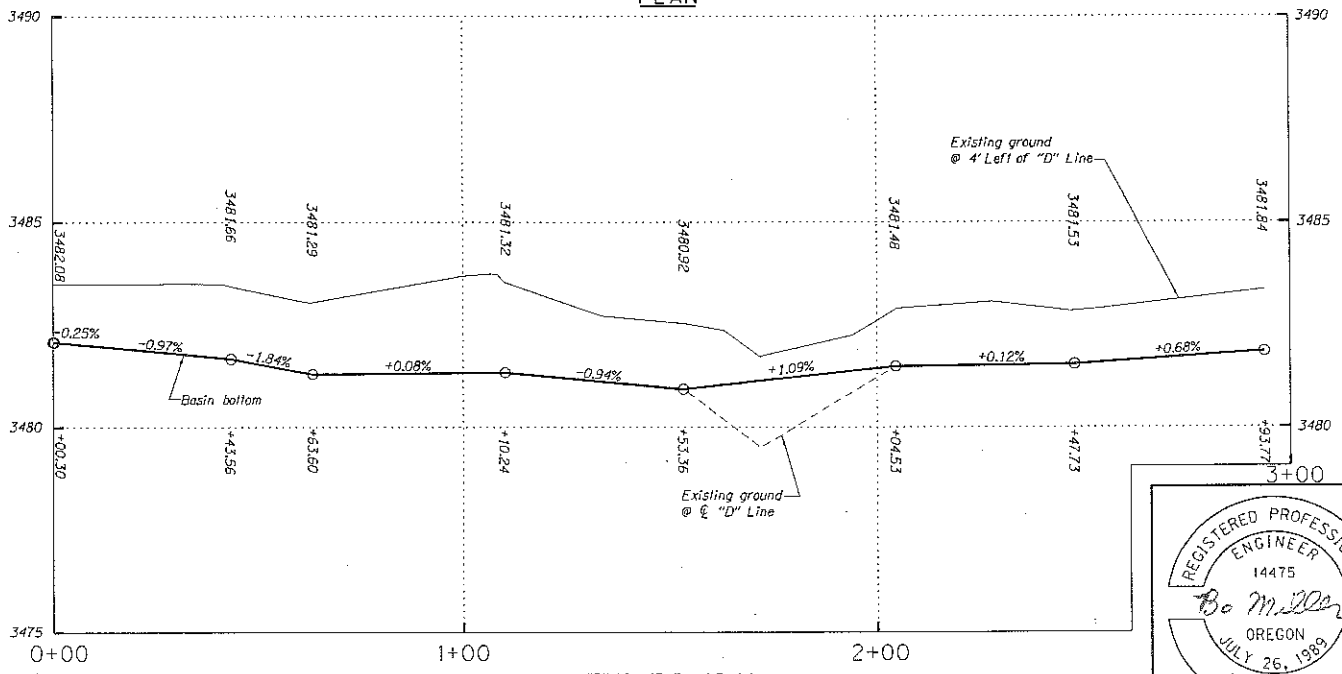
49V-077





1. Const. sediment basin (DF1 no. D01006)
   General excavation = 62.3 cu. yd.
   (For details, see sht. GJ-2)
2. Const. type D inlets = 2 ea.
   Inst. 18" storm sew. pipe = 3'
   5' depth, S=0.0%
   F.L. elev. = 3479.00
   (See drg. no. RD370)
3. Inst. field facility marker, type S1 green = 1 ea.
4. Inst. field facility marker, type S1 red = 1 ea.
5. Inst. field facility marker, type S2 = 1 ea.
6. Inst. field facility marker, type S3 = 1 ea.
   DF1 no. D01006
   MP 86.82

PLAN



Elevations shown are based on
North American Vertical Datum (1988)

"D" Line (Sediment Basin)

PROFILE

REGISTERED PROFESSIONAL ENGINEER
14475
OREGON
JULY 26, 1989
BO MILLER
RENEWS: 12-31-2016

OREGON DEPARTMENT OF TRANSPORTATION

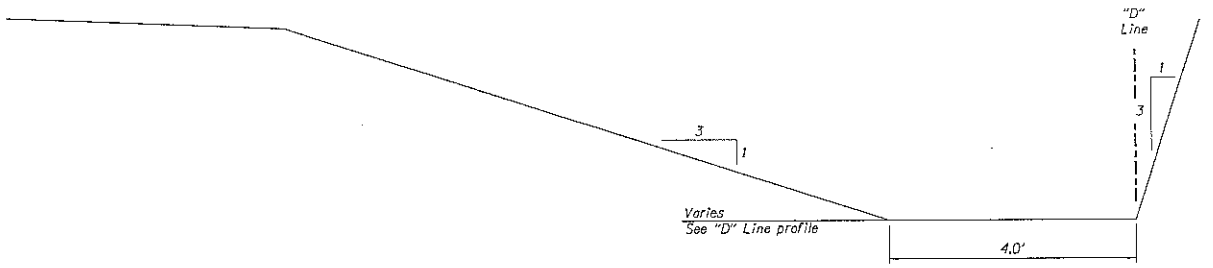
REGION 2 TECH CENTER

US20: SUTTLE LAKE - SANTIAM SUMMIT SEC.
SANTIAM HIGHWAY
JEFFERSON COUNTY

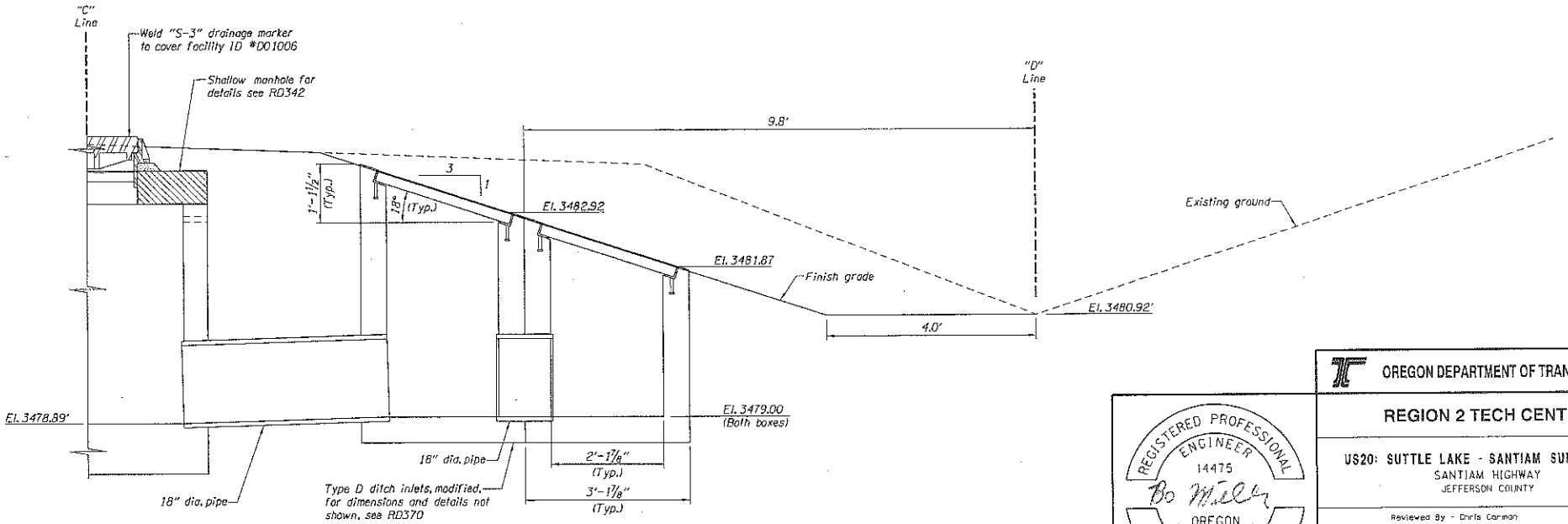
Reviewed By - Chris Corman
Designed By - Bo Miller
Drafted By - Sergy Chernishoff

STORMWATER PLAN

SHEET NO. GJ



TYPICAL SEDIMENT BASIN CROSS-SECTION



SECTION A-A

OREGON DEPARTMENT OF TRANSPORTATION

REGION 2 TECH CENTER

US20: SUTTLE LAKE - SANTIAM SUMMIT SEC.
SANTIAM HIGHWAY
JEFFERSON COUNTY

REGISTERED PROFESSIONAL ENGINEER
14475
Bo Miller
OREGON
JULY 26, 1989
BO MILLER
RENEWS: 12-31-2016

Reviewed By - Chris Carman
Designed By - Bo Miller
Drafted By - Sergy Chernishoff

STORMWATER DETAILS

SHEET NO. GJ-2