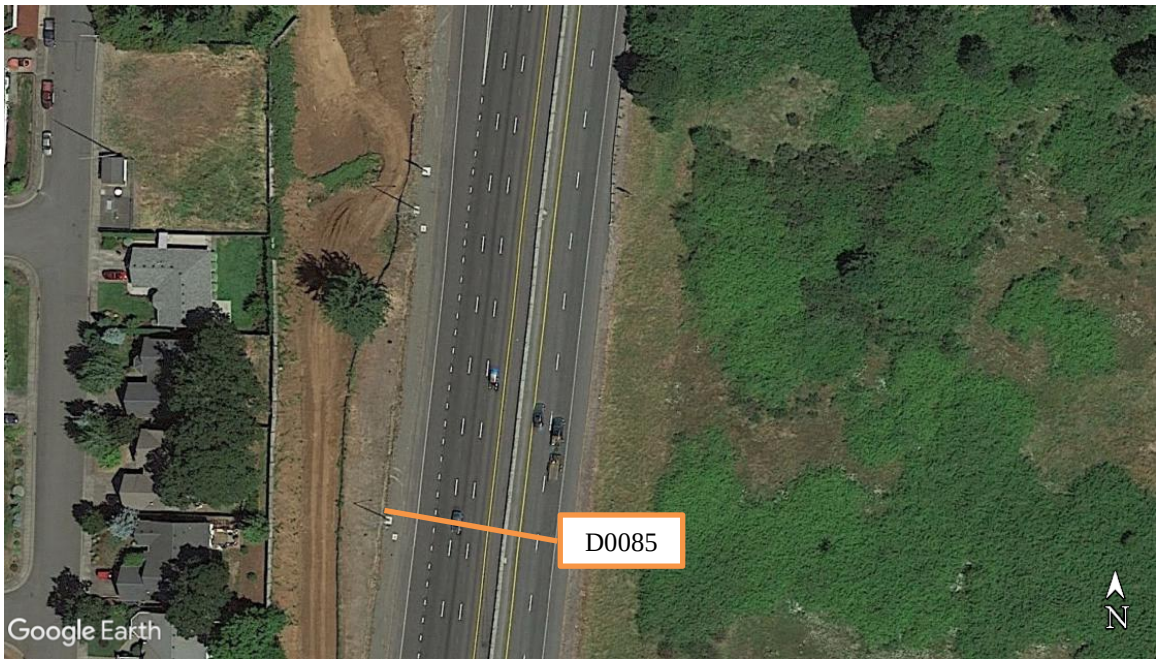
OPERATIONS AND MAINTENANCE MANUAL

DFI No. 00858

Facility Type: Biofiltration Swale



April, 2018

INDEX

1. Identification

Facility Types: Water Quality Biofiltration Swale 00858

Location: Pacific Highway 001
Milepost 250.85 to 250.88

2. Facility Contact Information

Chris Carman, ODOT Hydraulics Engineer (503) 986-2691.

3. Construction

Engineer of Record: ODOT Designer - Region 2 Tech. Center,
Chris Carman, (503) 986-2691

Facility construction: 2015
V-File: 48V-008

4. Overview

Treatment of pollutants from the highway are achieved through sedimentation and infiltration through the water quality mix shown in section B-B in the operational plan.

5. Facility Haz Mat Spill Feature

The swale can be used to store a volume of liquid by blocking the outlet of the swale. A barrier such as a temporary berm made of sandbags could be used to prevent liquid from draining from the swale.

6. Auxiliary Outlet (High Flow Bypass)

Auxiliary Outlets are provided if the primary outlet control structure can not safely pass the projected high flows. Broad-crested spillway weirs and over flow risers are the two most common auxiliary outlets used in stormwater treatment facility design. The auxiliary outlet feature is either a part of the facility or an additional storm drain feature/structure.

The auxiliary outlet feature for this facility is:

☐ Designed into facility
☒ Other

This facility does not contain an auxiliary outlet feature. The facility was designed to receive runoff from the road and discharge into cross pipes.

7. 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:

https://www.oregon.gov/ODOT/HWY/OOM/mg/02/act125_waterqualityfacilandtables.pdf

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:

8. Waste Material Handling

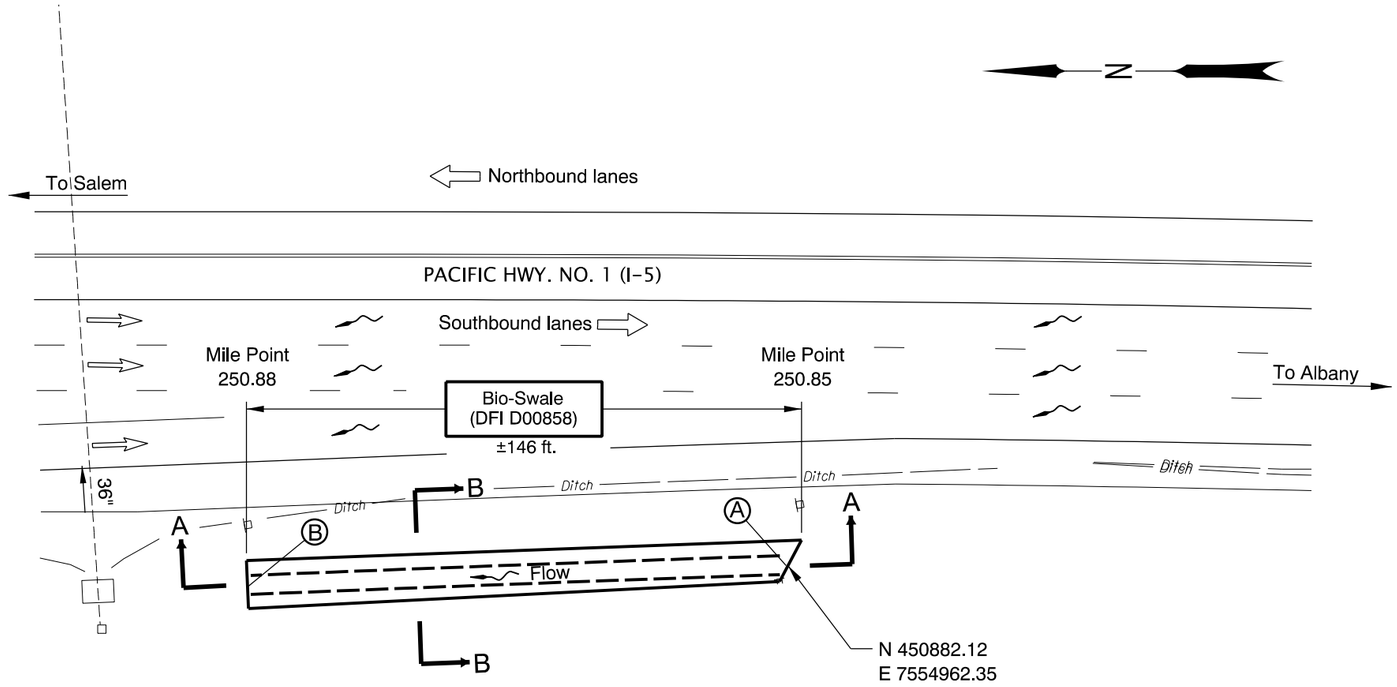
Material removed from the facility is defined as waste by DEQ. Refer to the roadwaste section 5.18 of the ODOT Maintenance Yard Environmental Management System (EMS) Policy and Procedures Manual for disposal options:

https://www.oregon.gov/ODOT/HWY/OOM/EMSdoc/ems_manual.pdf

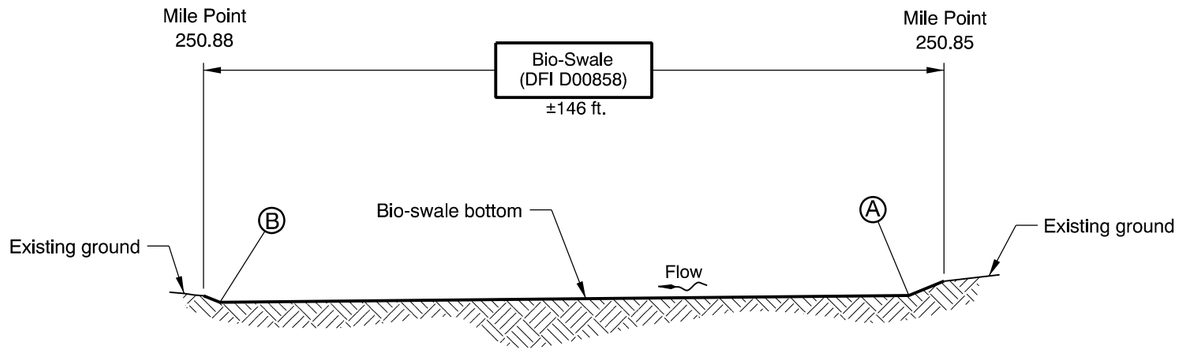
Contact any of the following for more detailed information about management of waste materials found on site:

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: Operational Plan (s)



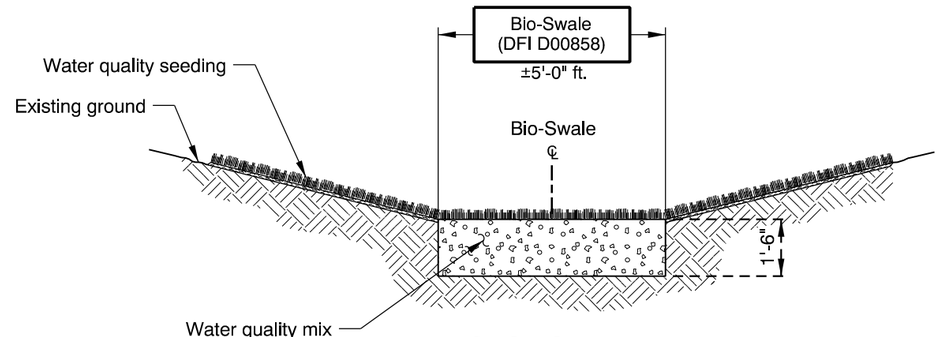
PLAN
NTS



SECTION A-A
NTS

LEGEND:

- A — Swale Inlet
- B — Swale Outlet
- Pavement / Facility Flow Path
- Conveyance Direction
- Ditch Line
- Storm Pipe (Facility)
- Storm Pipe
- Swale Boundary
- Traffic Direction
- Manhole and/or
- Inlet and/or



SECTION B-B
NTS

OREGON DEPARTMENT OF TRANSPORTATION

Prepared By: Christopher Carman

Drafted By: Jeff Coon

DFI D00858
MAINTENANCE DISTRICT 3 I-5 @ KUEBLER
WATER QUALITY BIOFILTRATION SWALE
PACIFIC HIGHWAY MP 250.85
MARION COUNTY

APPENDIX B: As-Construct Drawings

48V-8

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
1A	Index Of Sheets Cont'd.
1A-2	Std. Drg. Nos.
1B	Plan Sheet Layout

STATE OF OREGON

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED PROJECT

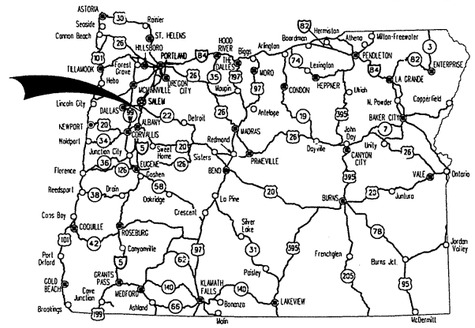
GRADING, DRAINAGE, STRUCTURE, PAVING, SIGNING, ILLUMINATION, SIGNALS & ROADSIDE DEVELOPMENT

FFO - I-5 @ KUEBLER INTERCHANGE - S.B. RAMP IMPROVEMENTS (SALEM) SEC.

PACIFIC HIGHWAY

MARION COUNTY

MARCH 2015

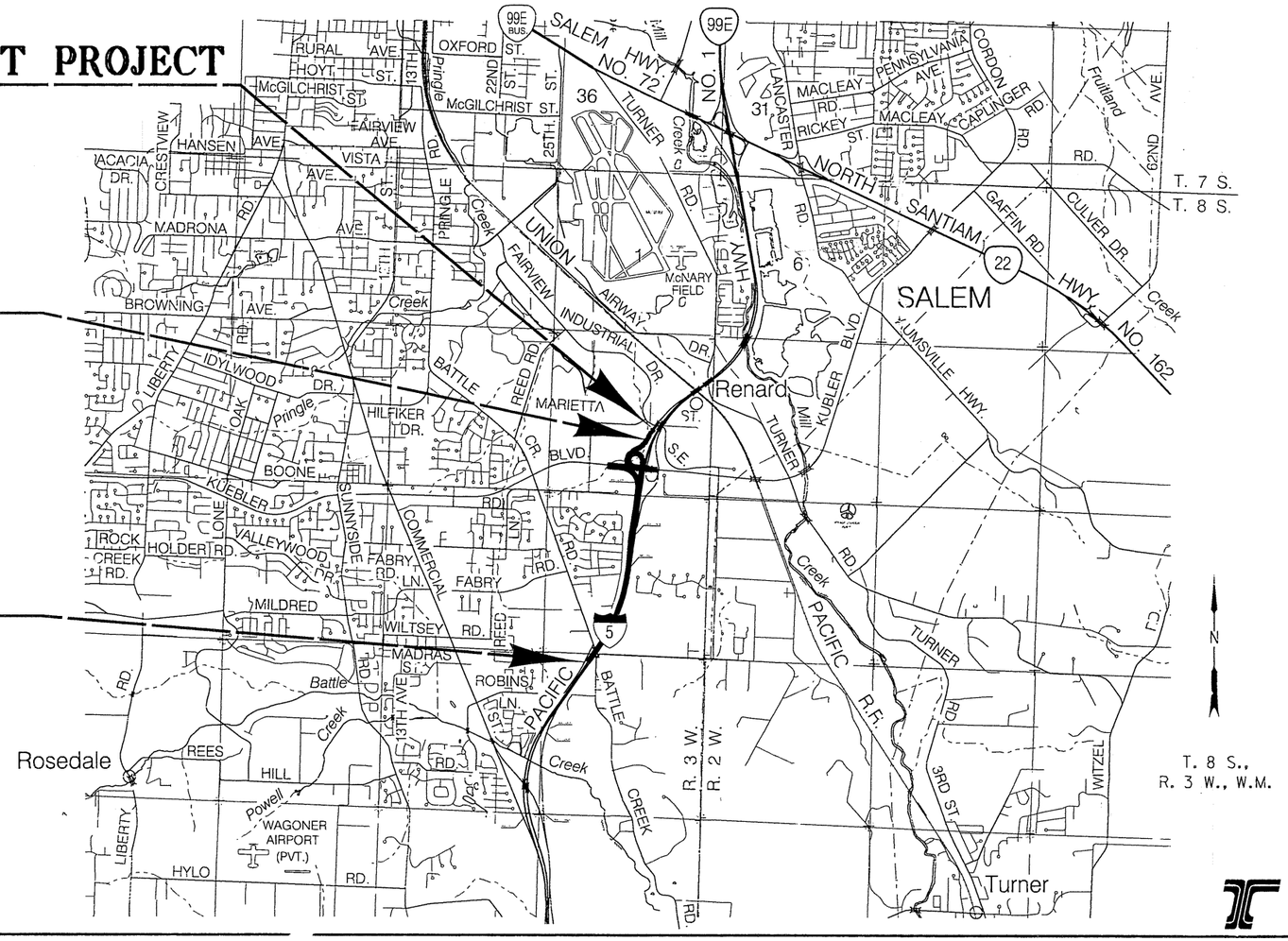


Overall Length Of Project - 1.61 Miles

IM-SO-S001(427)
BEGINNING OF CONTRACT PROJECT
STA. "Dk" 485+84 (M.P. 251.76)

IM-SO-S001(427)
BEGINNING OF PROJECT
STA. "L" 497+20 (M.P. 251.54)

IM-SO-S001(427)
END OF PROJECT
STA. "SB" 570+25 (M.P. 250.15)



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.)

LET'S ALL WORK TOGETHER TO MAKE THIS JOB SAFE

OREGON TRANSPORTATION COMMISSION

Catherine Mater	CHAIR
Tammy Baney	COMMISSIONER
David Lohman	COMMISSIONER
Susan Morgan	COMMISSIONER
Alando Simpson	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.

By: 1-8-15
Signature & date

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

Concurrence by ODOT Chief Engineer

FFO - I-5 @ KUEBLER INTERCHANGE - S.B. RAMP IMPROVEMENTS (SALEM) SEC.
PACIFIC HIGHWAY
MARION COUNTY

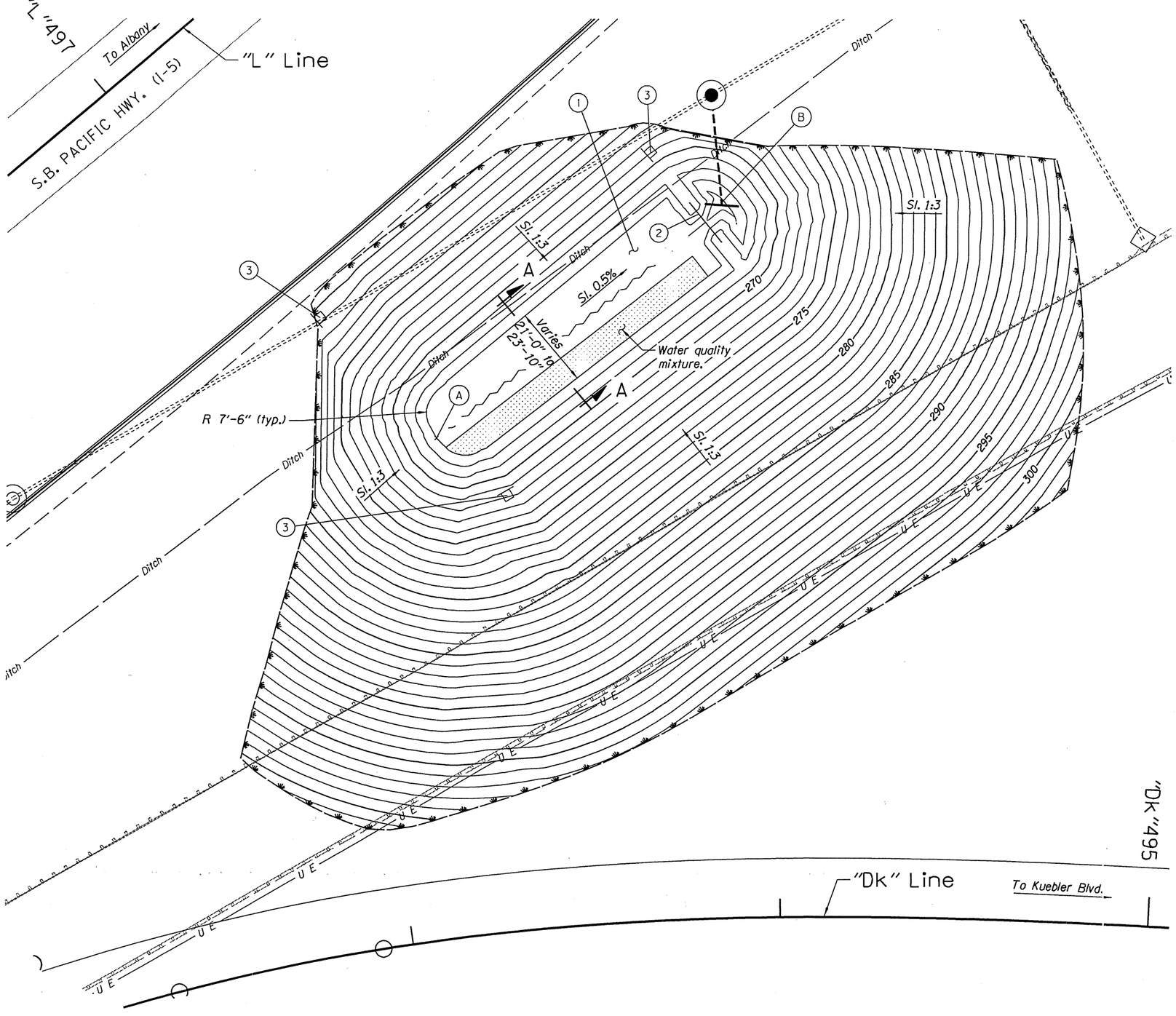
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	IM-SO-S001(427)	1

PE001730-010

F:\ODOT_DATA\Projects\16858KueblerSBramps\16858R2.tsl :: Default 12/15/2014 1:32:01 PM hvye07x

1:1200 Scale

STORMWATER CONTROL POND NO. 00649



PLAN

N

(1) Sta. "Dk"492+99 Lt. to Sta. "Dk"494+80 Lt.
Const. stormwater control pond no. 00649
Water quality mixture - 35 cu.yd.
General excavation - 13,540 cu.yd.

(2) Steel plate
(For details, see on sht. GJ-2)

(3) Stormwater facility marker. Types 1 & 2
(See dwg. RD399)

POND ELEVATION TABLE

LOCATION	NORTHING	EASTING	ELEVATION
A	454919.32	7555562.12	266.50
B	454,825.03	7555529.06	266.00

Notes:
Slopes are shown as vert. to horiz.

For Section A-A and plate details, see sht. GJ-2.

For location, see Roadway plans.

REGISTERED PROFESSIONAL ENGINEER
17807
OREGON
JULY 25, 1995
CHRIS CARMAN
RENEWS: 12-31-2015

OREGON DEPARTMENT OF TRANSPORTATION

REGION 2 TECH CENTER

FFO - I-5 @ KUEBLER INTERCHANGE - S.B. RAMP IMPROVEMENTS (SALEM) SEC.
PACIFIC HIGHWAY
MARION COUNTY

Reviewed By - Bruce Carmichael
Designed By - Chris Carman
Drafted By - Michael Skelton

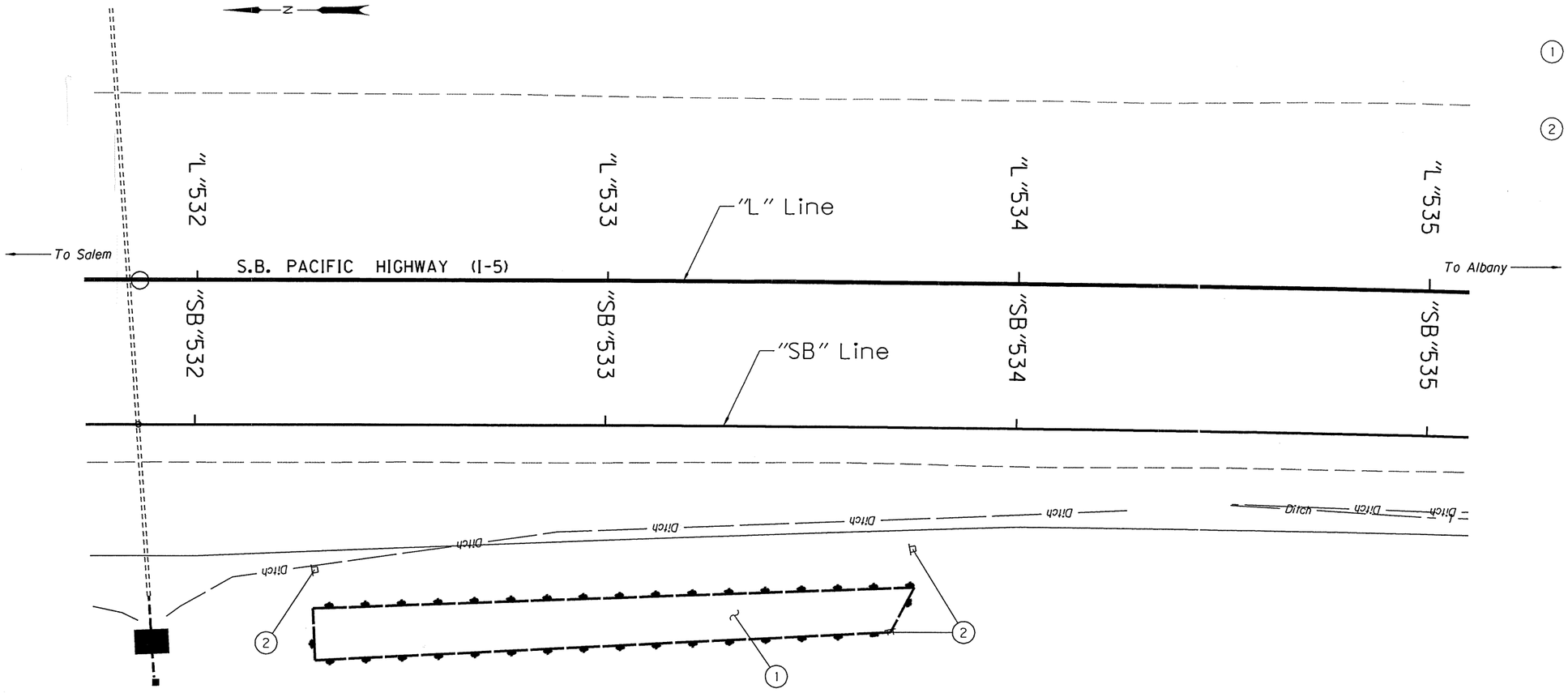
STORMWATER PLAN

SHEET NO. GJ

K:\Projects\16858_I-5@Kuebler_Intchg_SB\Plans\Michael_Skelton\16858st.pll :: 1to360 Default 12/15/2014 5:41:43 PM hwye931

Rotation: 0° Scale: 1"=30'

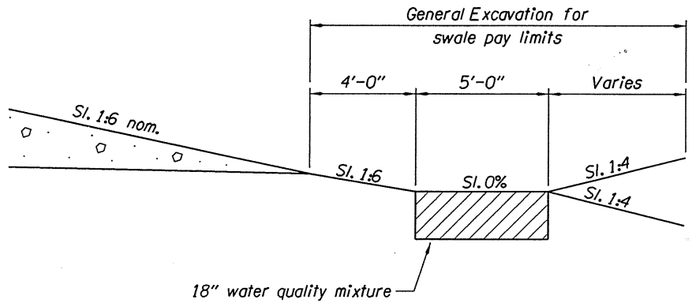
STORMWATER BIOFILTRATION SWALE NO. 00858



PLAN

(1) *Sta. "L" 532+30 to Sta. "L" 533+70 Rt.*
Construct water quality biofiltration swale no. 00858
Water Quality Mixture - 45 cu. yd.
General excavation - 12 cu. yd.

(2) *Stormwater Facility Marker Type 1 and 2 (See dwg. RD399)*



SWALE TYPICAL SECTION

Notes:
Side-slopes are shown as vert. to horiz.

For location see Roadway plans.

REGISTERED PROFESSIONAL ENGINEER
17807
OREGON
JULY 25, 1995
CHRIS CARMAN
RENEWS: 12-31-2015

OREGON DEPARTMENT OF TRANSPORTATION

REGION 2 TECH CENTER

FFO - I-5 @ KUEBLER INTERCHANGE - S.B. RAMP IMPROVEMENTS (SALEM) SEC.
PACIFIC HIGHWAY
MARION COUNTY

Reviewed By - Bruce Carmichael
Designed By - Christopher Carman
Drafted By - Julie Rentz

STORMWATER PLAN

SHEET NO. GJ-5