

# **OPERATION & MAINTENANCE MANUAL**

**DFI No. : D00634**  
**Facility Type: Water Quality**  
**Biofiltration Swale**



**December, 2018**

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

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## 1. Identification

Drainage Facility ID (DFI): **D00634**  
Facility Type: Water Quality Biofiltration Swale  
Construction Drawings: 46V-003  
Location: District: 08  
Highway No.: 001  
Mile Post: 66.90; 69.40 (beg./end)  
Description: This facility is located on the east side of northbound I-5. Access to the facility can be obtained along the east shoulder of I-5.

## 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: Jered Carpenter – Region 3 Tech Center  
Roseburg, (541) 957 - 3693

Facility construction: 2012  
Contractor: N/A

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

A water quality swale is a flat-bottomed open channel designed to treat stormwater runoff from highway pavement areas. This type of facility is lined with grass. Treatment by trapping sedimentation occurs when stormwater runoff flows through the grass.

Description: This facility is located on the east side of northbound I-5. Access to the facility can be obtained along the east shoulder of I-5. Stormwater enters the facility via roadway runoff and various drainage ditches located along the east side of I-5. As the water flows downhill, it is treated as it slows and spreads out within the swale before outfalling into the drainage ditch system.

A. Maintenance equipment access:

This facility can be accessed from the east shoulder of I-5.

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 water quality biofiltration swale can be used to store a volume of liquid by blocking the facility outlet or any of the check dams through use of sandbags.

#### 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

There are no auxiliary outlets built into this facility. In the event that flows exceed design flows the water will overtop the swale.

## 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:

<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.

**8. Waste Material Handling**

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

[http://www.oregon.gov/ODOT/Maintenance/Documents/ems\\_manual.pdf](http://www.oregon.gov/ODOT/Maintenance/Documents/ems_manual.pdf)

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

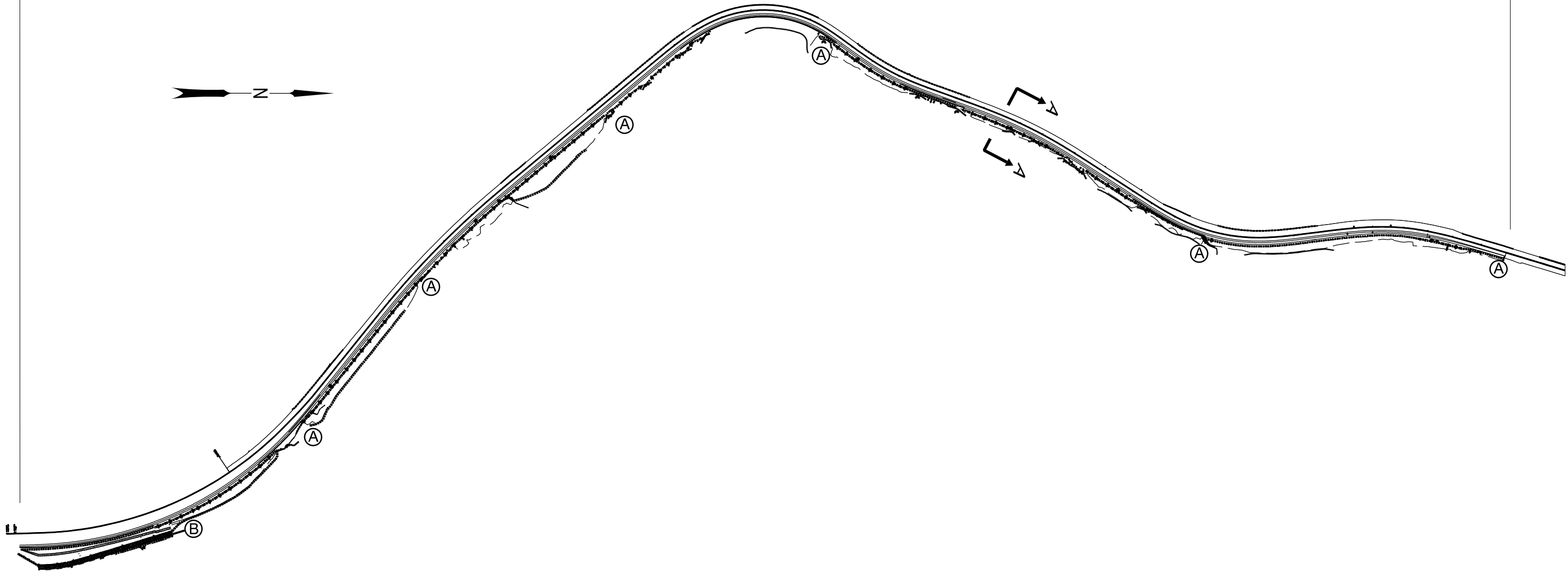
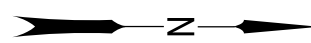
ODOT Clean Water Unit	(503) 986-3008
ODOT Statewide Hazmat Coordinator	(503) 667-7442
ODOT Region 1 Hazmat Coordinator	(503) 731-8290
ODOT Region 2 Hazmat Coordinator	(503) 986-2647
ODOT Region 3 Hazmat Coordinator	(541) 957-3594
ODOT Region 4 Hazmat Coordinator	(541) 388-6186
ODOT Region 5 Hazmat Coordinator	(541) 963-1590
ODEQ Northwest Region Office	(503) 229-5263

# Appendix A

## Content:

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

MP 69.40 Water Quality Biofiltration Swale (DFI D00634) MP 66.90  
 ± 13200 Ft.



PLAN  
N.T.S.

- LEGEND:
- (A) Swale Inlet
  - (B) Swale Outlet
  - and ○ Manhole
  - and □ Inlet
  - - - Storm Pipe (Facility)
  - - - Storm Pipe
  - ← Conveyance Direction
  - ~ Pavement / Facility Flow Path



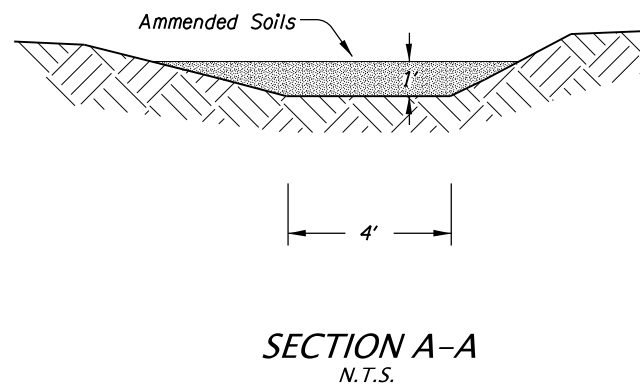
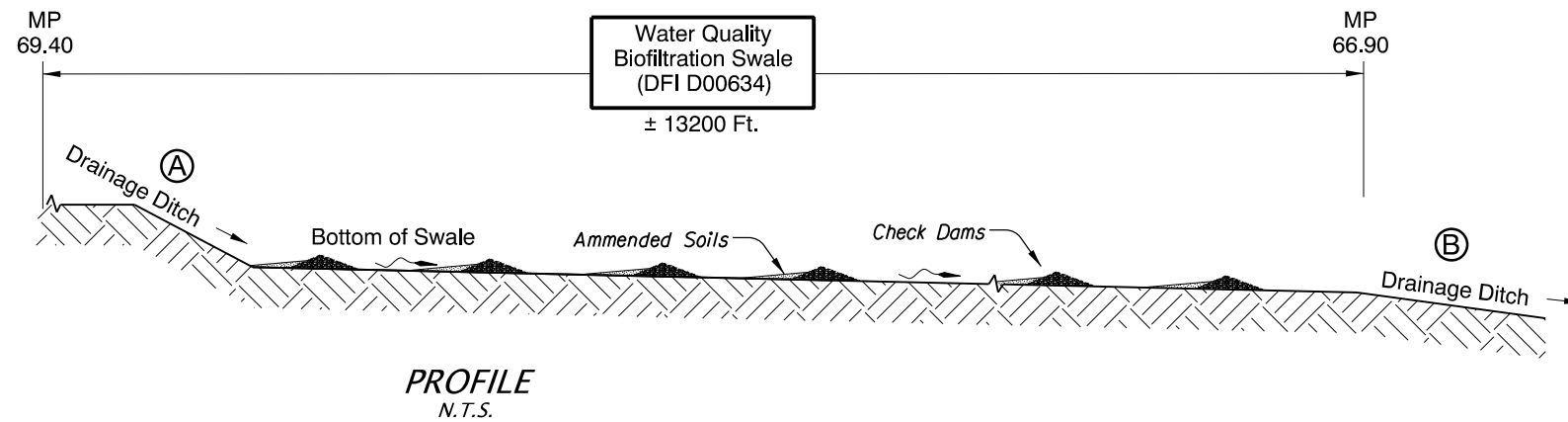
OREGON DEPARTMENT OF TRANSPORTATION

Prepared By:  
J. GONZALEZ

Drafted By:  
J. GONZALEZ

**DFI D00634**  
**MAINTENANCE DISTRICT 8 HWY 001**  
**WQ BIOFILTRATION SWALE**  
 HIGHWAY MP 66.90 TO 69.40  
 JOSEPHINE





LEGEND:

- (A) Swale Inlet
- (B) Swale Outlet
- and ○ Manhole
- and □ Inlet
- Storm Pipe (Facility)
- - - Storm Pipe
- ← Conveyance Direction
- ~ Pavement / Facility Flow Path



OREGON DEPARTMENT OF TRANSPORTATION

Prepared By:  
J. GONZALEZ

Drafted By:  
J. GONZALEZ

**DFI D00634**  
**MAINTENANCE DISTRICT 8 HWY 001**  
**WQ BIOFILTRATION SWALE**  
HIGHWAY MP 66.90 TO 69.40  
JOSEPHINE

# 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	Index Of Sheets Cont'd. & Std. Dwg. Nos.

STATE OF OREGON  
DEPARTMENT OF TRANSPORTATION

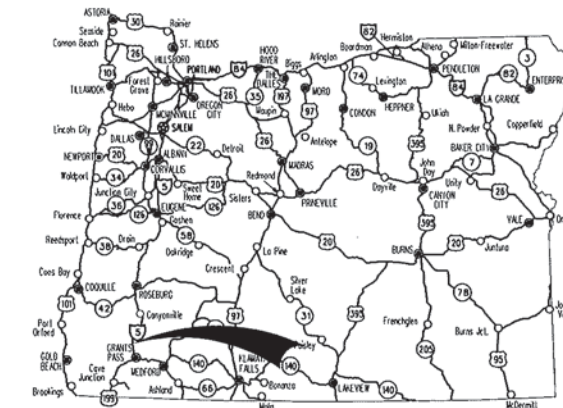
PLANS FOR PROPOSED PROJECT  
GRADING & PAVING

**I-5: GLENDALE-HUGO PAVING/  
SEXTON CLIMBING LANE**

PACIFIC HIGHWAY

JOSEPHINE & DOUGLAS COUNTY

DECEMBER 2012



Overall Length Of Project - 14.5 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-STP-S001(407)  
STA. "NB" 15+82.5 (M.P. 81.40)**



**END OF PROJECT  
IM-STP-S001(407)  
STA. "SB" 866+00.0 (M.P. 66.7)**

OREGON TRANSPORTATION COMMISSION

Pat Egan	CHAIR
Mary F. Olson	COMMISSIONER
David Lohman	COMMISSIONER
Mark Frohnmayer	COMMISSIONER
Tammy Baney	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: *M. Thompson*  
Signature & date 12-15-12  
Mark Thompson Rg. 3 Tech. Ctr. Mgr.  
Print name and title  
*[Signature]*  
Concurrence by ODOT Chief Engineer

T. 32 S., R. 6 W., W.M.  
T. 33 S., R. 6 W., W.M.  
T. 34 S., R. 6 W., W.M.



I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY		
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	IM-STP-S001(407)	1

INDEX OF SHEETS, CONT'D.	
SHEET NO.	DESCRIPTION
1C Thru 1C-7	Survey Control Sheets
2 Thru 2A-7	Typical Sections
2B Thru 2B-21	Details
2C Thru 2C-14	Traffic Control Plans
2D Thru 2D-2	Pipe Data Sheets
3 Thru 5A	General Construction
6 Thru 36	
36A	Construction Notes
37, 37A, 38 Thru 47	General Construction
47A	Profile
48, 49	General Construction
49A	Construction Notes
49B, 49C	Profiles
50	General Construction
50A	Profiles
51	General Construction
51A	Profiles
52	General Construction
52A	Profiles
53, 54	General Construction
54A	Profiles
55	General Construction
55A	Profiles
56	General Construction
56A	Profiles
57, 58	General Construction
58A, 58B	Profiles
59	General Construction

GEO/HYDRO	
DRAWING NO.	DESCRIPTION
GA Thru GA-16	Erosion Control
GB Thru GB-39	Geotechnical Data
GM-1 Thru GM-3	Prospective Material Source

BRIDGE	
DRAWING NO.	DESCRIPTION
89917	Bridge Index Sheet
89918	Plan Br. # 09352, 09352A, 09337, 09339
89922	Plan Br. #09440, 09440A, 09439, 09439A, 19626, 19627
89923	Misc. Details

PERMANENT PAVEMENT MARKINGS	
DRAWING NO.	DESCRIPTION
ST-1 Thru ST-5	Striping Plan

PERMANENT SIGNING	
DRAWING NO.	DESCRIPTION
S-13412 Thru S-13434	Sign Plans

ITS	
DRAWING NO.	DESCRIPTION
ITS-1158	Pavement Sensor Installation Details

Standard Dwg. Nos.

- RD150 - Slope Rounding
- RD300 - Trench Backfill, Bedding, Pipe Zone And Mult. Installations
- RD302 - Street Cut
- 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
- RD326 - Coupling Bands For Corrugated Metal Pipe
- RD334 - Locator Post
- RD335, RD336, RD342, RD344, RD346 - Manholes
- RD348 - Manhole with inlet
- RD356 - Manhole Cover & Frames
- RD360 - Manhole Frame Adjustment
- RD364, RD368, RD376 - Concrete Inlets
- RD380, RD384, RD386, RD388, RD390 - Miscellaneous Drainage Structures
- RD398 - Pipe Fill Height Tables
- RD399 - Culvert ID Marker
- RD400, RD405, RD410, RD415, RD420, RD435, RD440, RD450 - Stormwater Treatment and Storage Facility Field Markers
- RD400, RD405, RD410, RD415, RD420, RD435, RD440, RD450 - Guardrail
- RD500 - Precast Concrete Barrier Pin And Loop Assembly
- RD505 - Concrete Barrier Cast-in-Place
- RD510 - Concrete Barrier Terminal
- RD515 - Median Barrier Anchoring Details
- RD516 - Securing Concrete Barrier To Roadway
- RD530 - Guardrail Transition To Concrete Barrier
- RD545 - Precast Tall (42") Concrete Barrier
- RD560 - Cast-In-Place Tall Conc. Barrier Tran. to Std. Conc. Barrier
- RD570 - Guardrail Transition To Tall Concrete Barrier
- RD575 - Tall Concrete Barrier (Modified) Around Median Obstacle
- RD610 - Asphalt Pavement Details
- RD700, RD701 - Curbs
- RD810 - Barbed And Woven Wire Fences
- RD815 - Chain Link Fence
- RD1000 - Construction Entrances
- RD1005 - Check Dams
- RD1015 - Inlet Protection
- RD1040 - Sediment Fence
- RD1055 - Matting

R/W Map No.

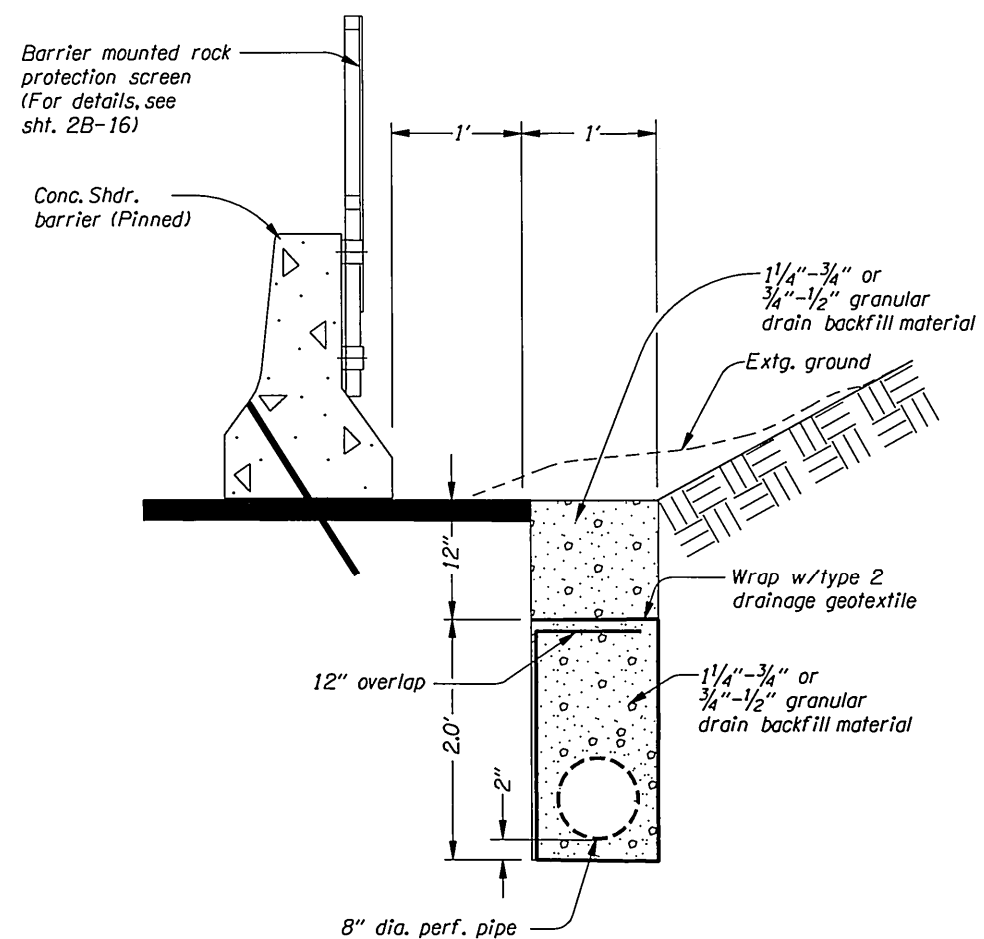
- BR203 - Transition Concrete Bridge Rail To Guardrail
- BR236 - Trailing End Bridge Connection Conc. Bridge Rail To Guardrail
- BR270 - Rail Transition From Flex Beam Rail To Curb & Parapet Rail
- TM200 - Sign Installation Details
- TM201 - Miscellaneous Sign Placement Details
- TM211 - Signing Details
- TM221, TM222 - Milepost Marker Details
- TM224 - Directional Sign Layout
- TM230, TM231, TM232, TM233 - Mounting Details For Removable Legend
- TM500, TM501, TM502, TM503 - Pavement Marking Standard Details
- TM515 - Raised Pavement Markers
- TM516 - Raised Pavement Markers Freeway Med. Crossover
- TM517 - Recessed Pavement Markers
- TM522 - Durable Pavement Markings
- TM530 - Intersection Pavement Markings
- TM547 - Freeway Entrance Ramp Pavement Markings
- TM551 - Freeway Exit Ramp Pavement Markings
- TM560, - Alignment Layout
- TM570 - Traffic Delineators
- TM571 - Traffic Delineators Steel Post Details
- TM575 - Traffic Delineator Installation
- TM602 - Triangular Base Breakaway Multi-Direction Slip Base
- TM635 - Breakaway Sign & Luminaire Supports
- TM670 - Wood Post Sign Supports
- TM671 - 3 Second Gust Wind Speed Isotach
- TM675 - Extruded Aluminum Panels
- TM676 - Sign Attachments
- TM678 - Secondary Sign Mounting Details
- TM681, TM687, TM688 - Square Tube Sign Supports
- TM800 - Tables, Abrupt Edge And PCMS Details
- TM810 - Temporary Reflective Pavement Markers
- TM820 - Temporary Barricades
- TM821 - Temporary Sign Supports
- TM830 - Temporary Concrete Barrier And Rumble Strips
- TM831, TM832 - Temporary Impact Attenuators
- TM860, TM861, TM862 - Freeway Sections
- TM870 - Bridge Construction
- TM871 - Blasting Zones

No.	DATE	REVISIONS	BY
1	10-30-12	Added std. dwg. no.	
2	11-07 -12	Added sheets	

<b>I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE</b>		
PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY		
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	IM-STP-S001(407)	1A

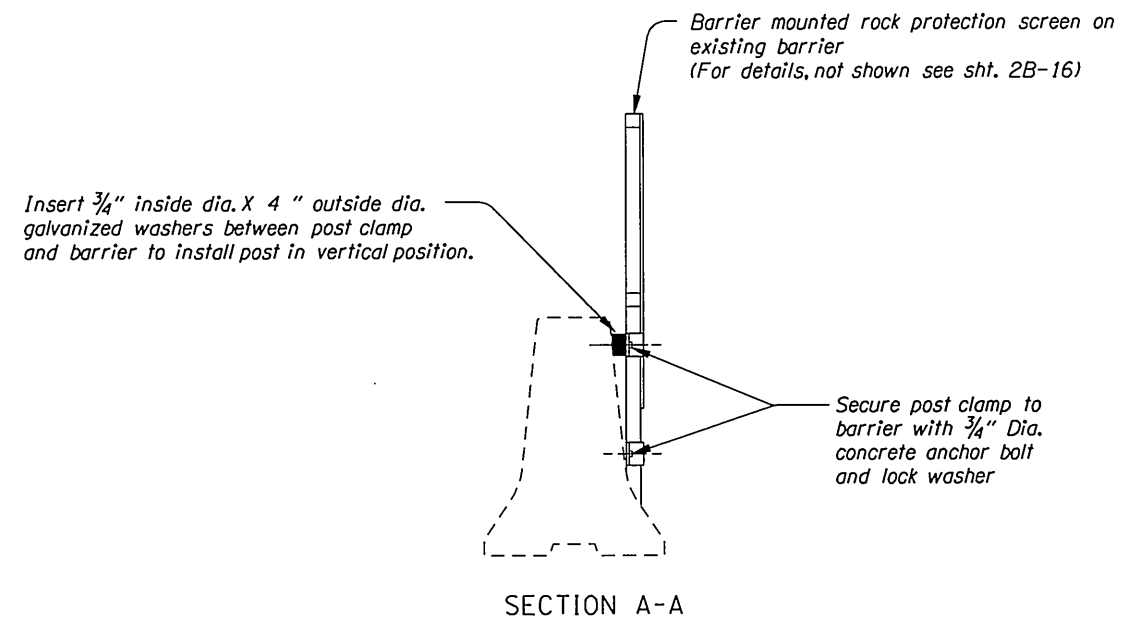
Standard Drawings located on the web at:  
[http://www.oregon.gov/ODOT/HWY/ENGSERVICES/standard\\_drawings\\_home.shtml](http://www.oregon.gov/ODOT/HWY/ENGSERVICES/standard_drawings_home.shtml)

SUBSURFACE DRAIN DETAIL

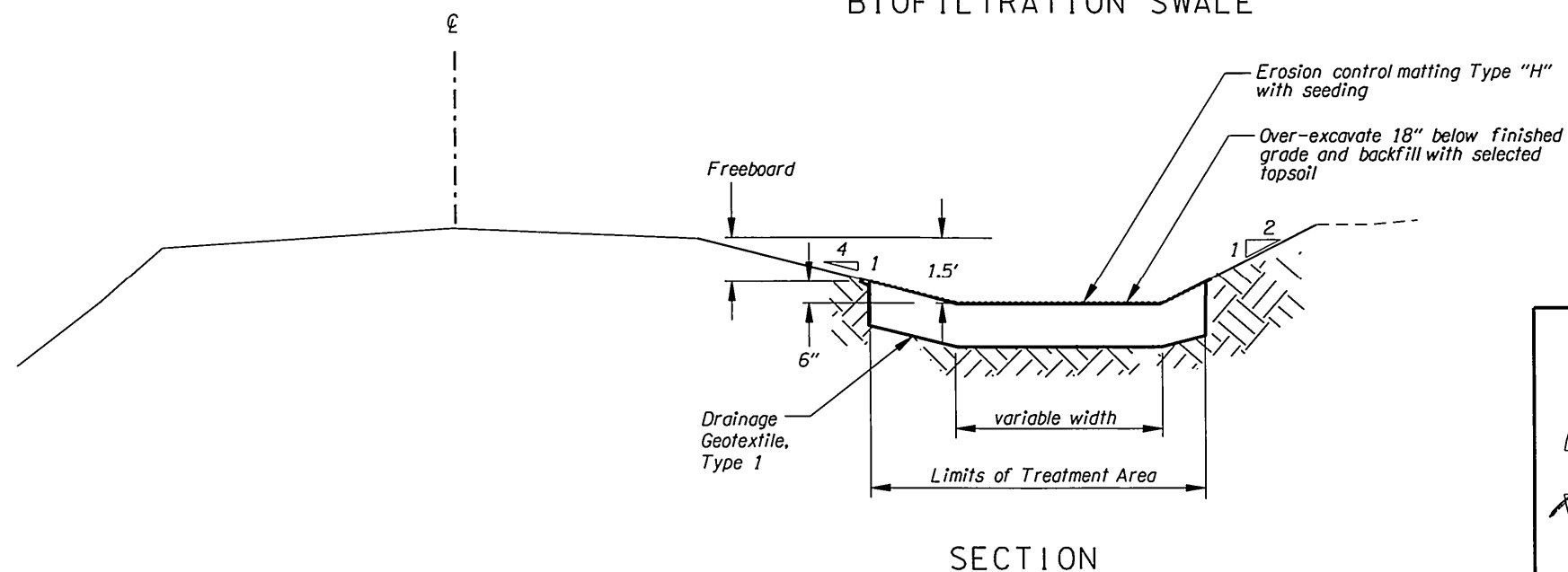


1. For details not shown See dwg. no. RD312

BARRIER MOUNTED ROCK PROTECTION SCREEN ON EXISTING BARRIER

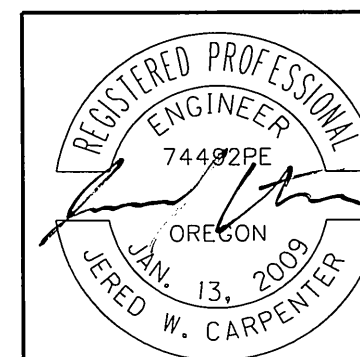


BIOFILTRATION SWALE



SECTION

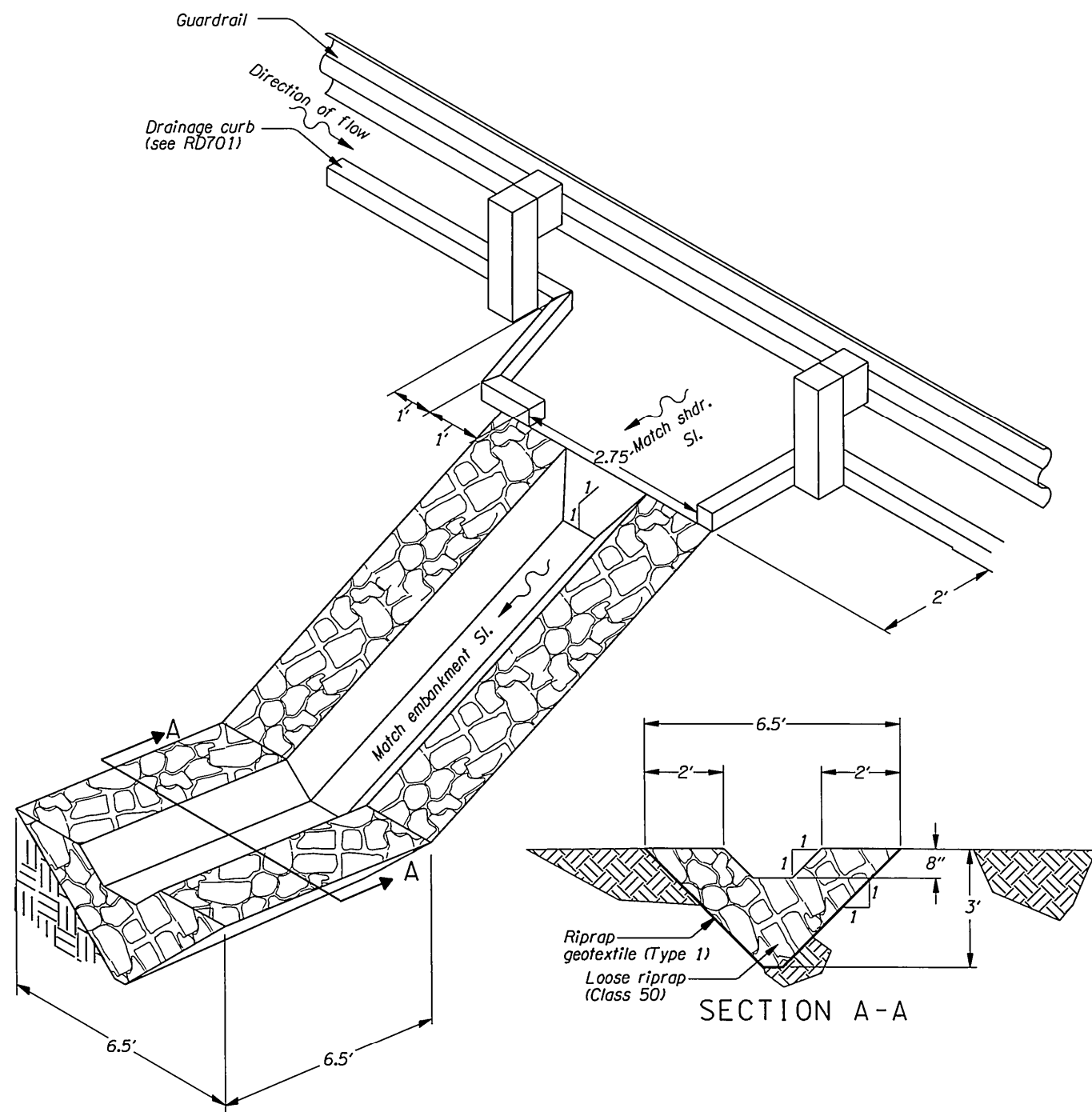
NOTE:  
1. Side-slopes are shown as vert. to horiz.



EXPIRES: 12-31-2013

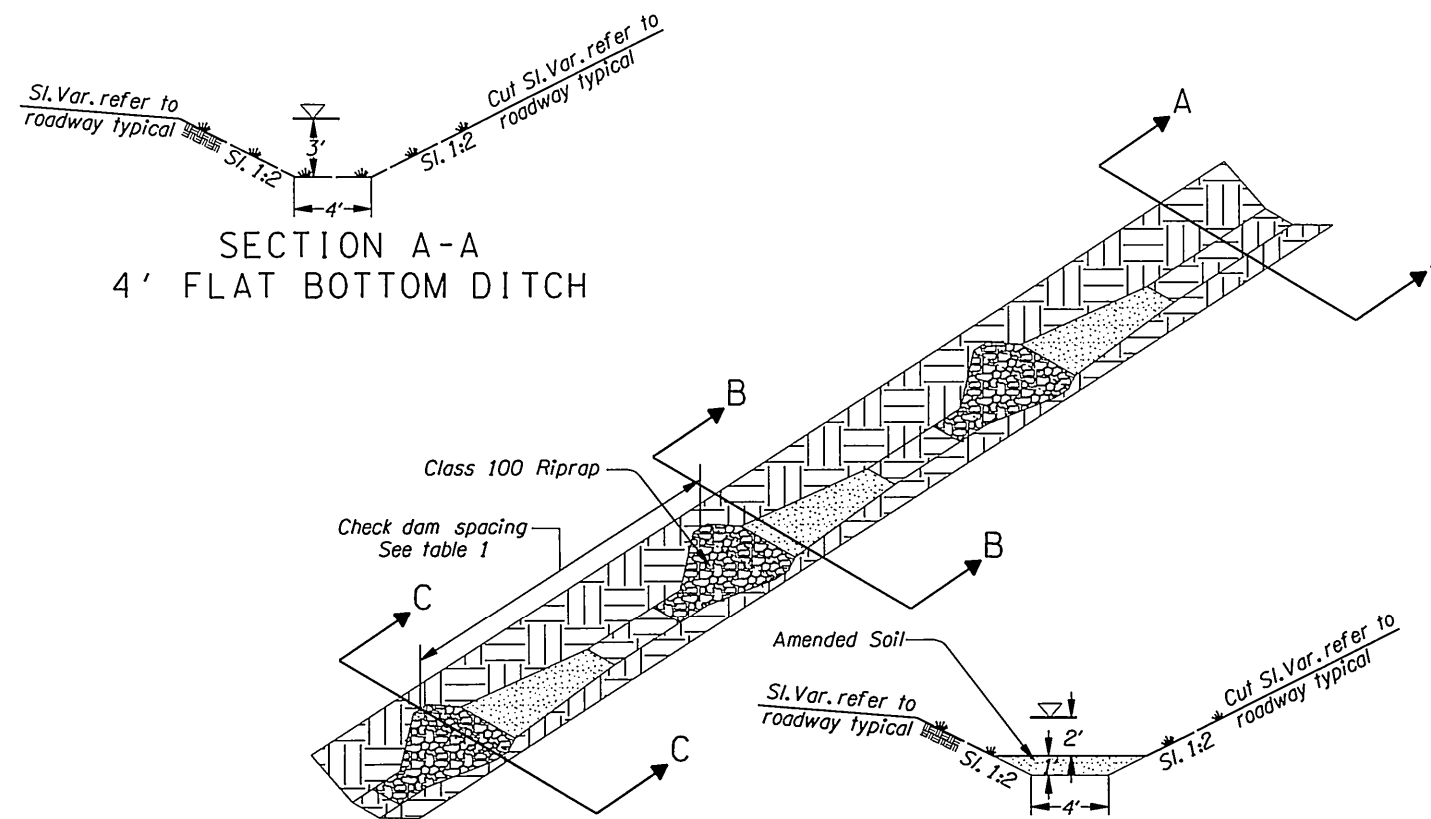
<p>OREGON DEPARTMENT OF TRANSPORTATION</p>	
<p>REGION 3 - TECHNICAL CENTER</p>	
<p>1-5: GLENDALE - HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE &amp; DOUGLAS COUNTY</p>	
<p>Designed By - Jered Carpenter Reviewed by - Brian Sheadel Drafted By - Billy Shafer</p>	
<p><b>DETAILS</b></p>	<p>SHEET NO. 2B-6</p>

AC OUTLET STRUCTURE AND SLOPE PROTECTION



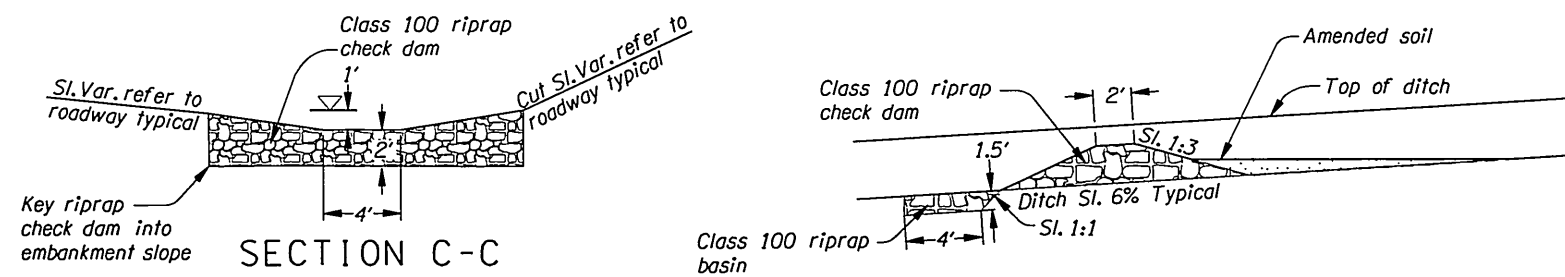
SECTION A-A

BIOFILTRATION CHECK DAM



SECTION A-A  
4' FLAT BOTTOM DITCH

SECTION B-B  
4' FLAT BOTTOM DITCH  
WITH AMMENDED SOIL

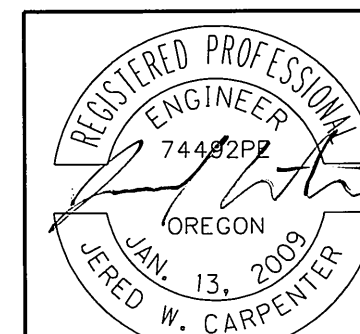


SECTION C-C  
CHECK DAM

NOTE:  
1. Side-slopes are shown as vert. to horiz.

TABLE 1

Ditch Slope (%)	Ctr. - Ctr. Check dam spacing (Ft.)
3	80
4	70
5	60
6	50



EXPIRES: 12-31-2013

**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

**I-5: GLENDALE - HUGO PAVING/  
SEXTON CLIMBING LANE**  
PACIFIC HIGHWAY  
JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
Reviewed by - Brian Sheadel  
Drafted By - Billy Shafer

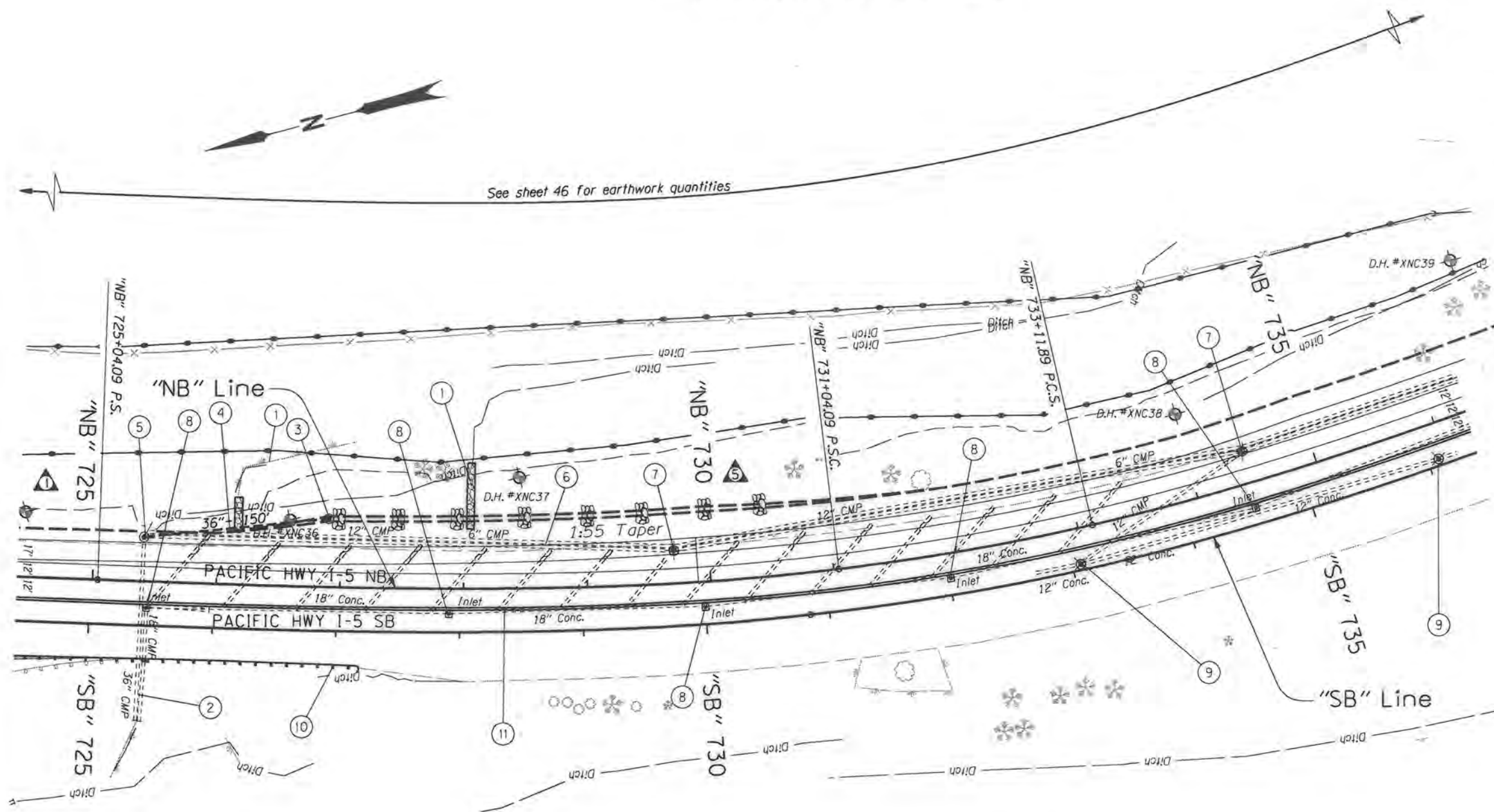
**DETAILS**

SHEET NO.

2B-7

Sec. 14, T. 34 S, R. 6 W, W.M.  
 Sec. 23, T. 34 S, R. 6 W, W.M.

See sheet 46 for earthwork quantities



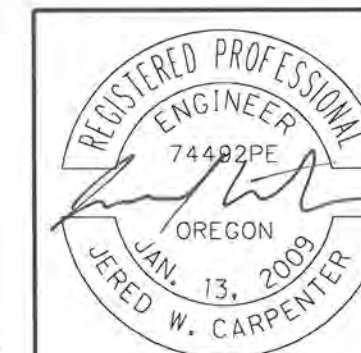
- ① Sta. "NB" 726+40 Lt. to Sta. "NB" 728+06 Lt.  
 Const. slope protection - 2  
 (Class 50 riprap) - 60 C.Y.  
 (For details, see sht. 2B-7)
- ② Sta. "NB" 725+40.52  
 Rehab. extg. 36" culvert with CIPP liner - 152'  
 Make spot repairs  
 (Subject to the in-water work period  
 or when completely dry).
- ③ Sta. "NB" 726+90.00, 55.21 Lt.  
 Const. 60" manhole w/ mod. ditch inlet  
 (For details, see sht. 2B-B & 47A)  
 (See dwg. no. RD346)
- ④ Sta. "NB" 726+90.00 55.21' Lt. to  
 "NB" 725+40.52, 35.80' Lt.  
 Inst. 36" storm sew. - 150'  
 (For details, see sht. 47A)
- ⑤ Sta. "NB" 725+40.52, 35.80 Lt.  
 Const. 60" manhole over extg. storm pipe  
 (See dwg. no. RD346)
- ⑥ Remove 12" perf. pipe - 1,050'
- ⑦ Major adjust manholes - 2
- ⑧ Adjust inlet - 5
- ⑨ Minor adjust manhole - 2
- ⑩ See sht. 46, note 5  
 Const. anchor (Type 1 mod.)  
 Inst. anchor (Type B)
- ⑪ See sht. 38, note B

- NOTES:
1. All dimensions shown are in feet unless otherwise noted.
  2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517.
  3. Guardrail design is based on a terminal length of 37.5'; if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

No.	DATE	REVISIONS	BY
①	10-01-12	Revised location of "NO WORK AREA"	JWC
②	10-19-12	Revised note composition	JWC
③	10-22-12	Revised note	JWC
④	10-25-12	Revised note	JWC
⑤	10-25-12	Removed abandon pipe symbol	JWC

- Drainage Notes:
- ④ 1) As-built drawings 3V-167 & 8V-127 showing perf. pipe in the NB lanes from approx. Sta. "NB" 725+00 to approx. Sta. "NB" 748+00. Avoid damaging perf. pipes during construction activities. Survey data indicates that the perf. pipes are deeper than 36" at the manholes shown.
  - ④ 2) If perf. pipes are disturbed during construction take care to minimize the disturbance & replace the damaged section with the corresponding size of drain pipe according to the contract Schedule of Items.

- Legend
1. Check dam shown thus: (For details, see sht. 2B-7)
  2. "NO WORK AREA" Shown Thus:



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

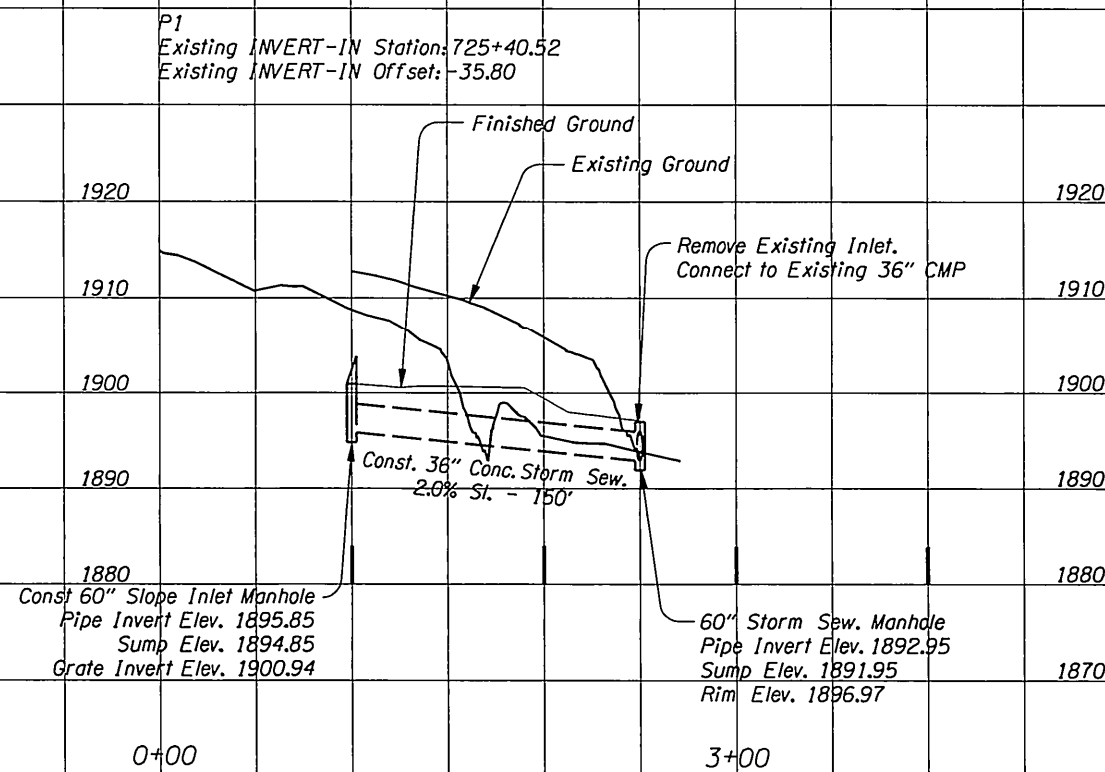
**I-5: GLENDALE-HUGO PAVING/  
 SEXTON CLIMBING LANE  
 PACIFIC HIGHWAY**  
 JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
 Reviewed By - Brian Sheedel  
 Drafted By - Linda K. Coffel

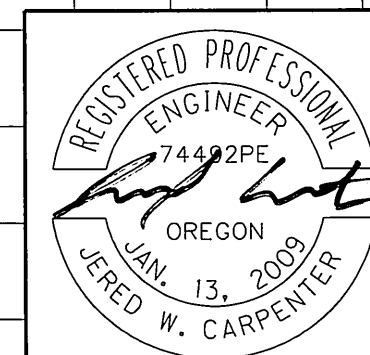
**GENERAL CONSTRUCTION**

SHEET NO. **47**

46V-003



- Note:
- Existing INVERT-IN of proposed pipe @ Sta. "NB" 725+40.52, -35.80 Lt. (See sht. 47, note 3)
  - Profile shown @ pipe  $\perp$



EXPIRES: 12-31-2011

OREGON DEPARTMENT OF TRANSPORTATION

REGION 3 - TECHNICAL CENTER

I-5: GLENDALE-HUGO PAVING/  
SEXTON CLIMBING LANE  
PACIFIC HIGHWAY  
JOSEPHINE & DOUGLAS COUNTY

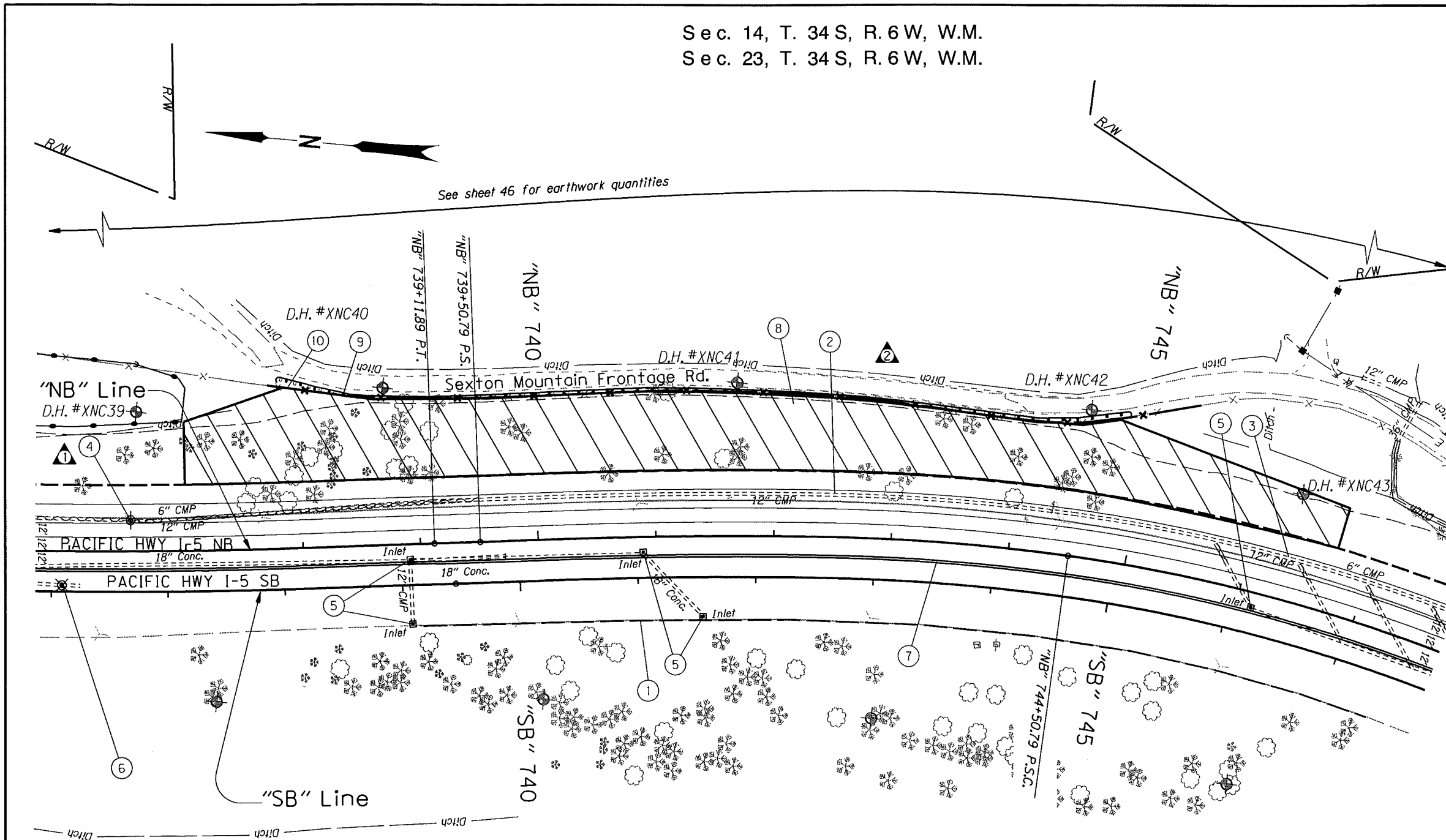
Designed By - Jered Carpenter  
Reviewed By - Brian Sheadel  
Drafted By - Linda K. Coffel

**PROFILE**

SHEET NO.  
47A



Sec. 14, T. 34 S, R. 6 W, W.M.  
 Sec. 23, T. 34 S, R. 6 W, W.M.

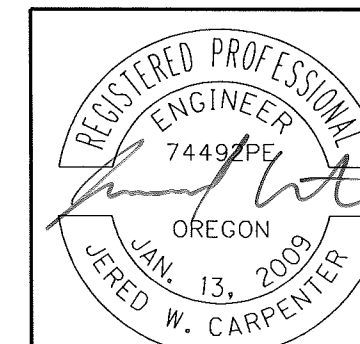


- ① Sta. "SB" 739+15.3 to "SB" 747+42.3, Rt. Remove drainage curb - 815' Const. drainage curb - 815'
- ② Remove 9" perf pipe - 950'
- ③ Remove 12" perf. pipe - 260'
- ▲ ④ Major adjust manhole
- ⑤ Adjust inlet - 5
- ⑥ See sht. 47, note 9
- ⑦ See sht. 38, note 8
- ⑧ Sta. "NB" 737+00 to Sta. "NB" 746+70, Lt. Const. wire mesh slope protection - 101,260 sq. ft. (Vinyl coated, black)
- ⑨ Sta. "NB" 737+84.1 to Sta. "NB" 744+82.4, Lt. Remove guardrail - 725' Const. guardrail w/8' steel posts - 725' (Type 2A) Const. anchor - 2 (Type 1) Inst. end piece - 2 (Type C) (See dwg. nos. RD415 & RD450)
- ⑩ Sta. "NB" 737+73 to Sta. "NB" 745+37, Lt. Remove fence - 798' Const. type 2 fence - 798' Connect to extg. (See dwg. no. RDB10)

- NOTES:
1. All dimensions shown are in feet unless otherwise noted.
  2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517.
  3. Guardrail design is based on a terminal length of 37.5', if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

- Drainage Notes:
- ▲ 1) As-built drawings 3V-167 & 8V-127 showing perf. pipe in the NB lanes from approx. Sta. "NB" 725+00 to approx. Sta. "NB" 748+00. Avoid damaging perf. pipes during construction activities. Survey data indicates that the perf. pipes are deeper than 36" at the manholes shown.
  - ▲ 2) If perf. pipes are disturbed during construction take care to minimize the disturbance & replace the damaged section with the corresponding size of drain pipe according to the contract Schedule of Items.

- Legend
1. Check dam shown thus: (For details, see sht. 2B-7)
  2. "NO WORK AREA" Shown Thus:



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

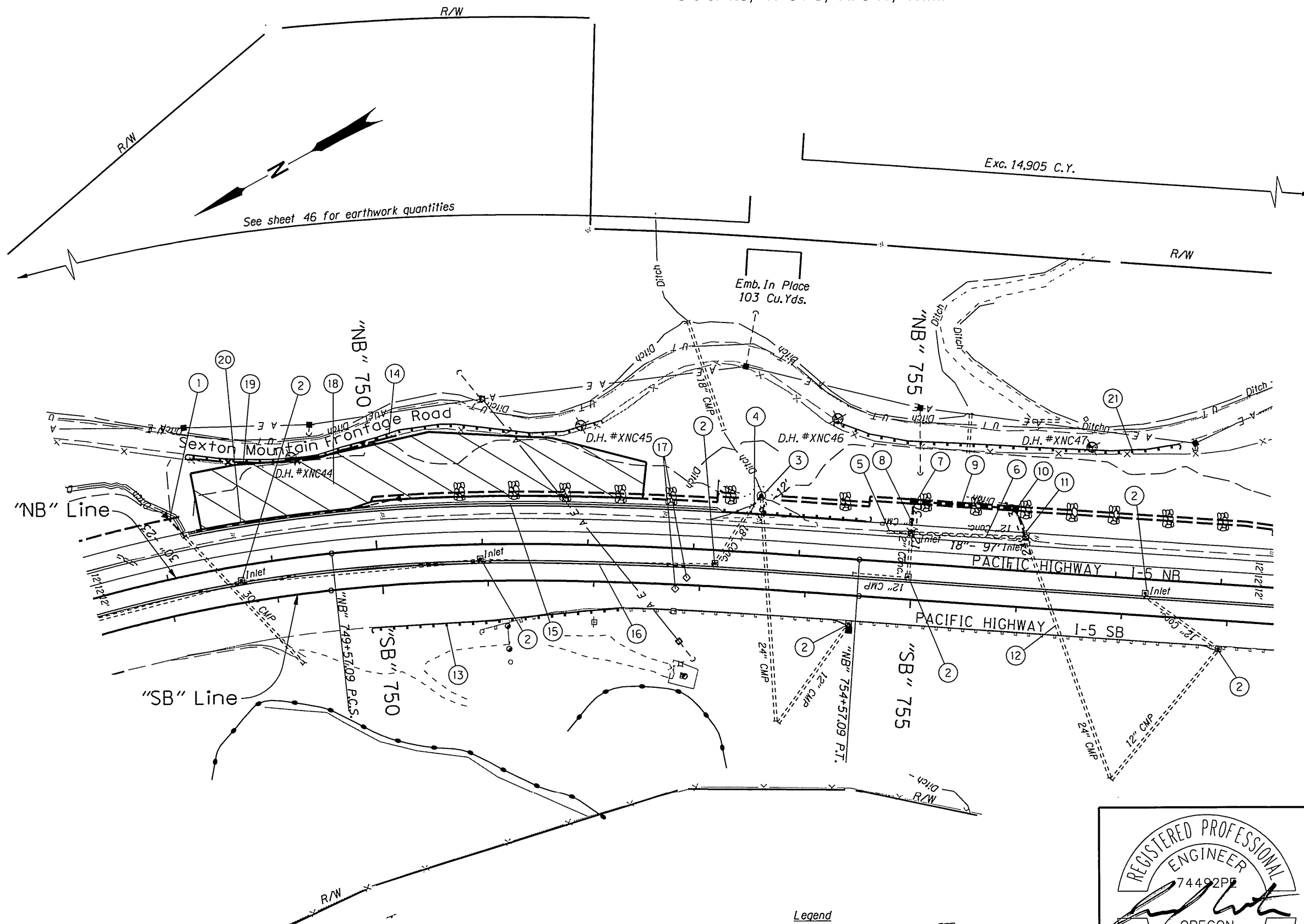
**I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE**  
 PACIFIC HIGHWAY  
 JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
 Reviewed By - Brian Sheedel  
 Drafted By - Linda K. Coffel

**GENERAL CONSTRUCTION**

SHEET NO. 48

No.	DATE	REVISIONS	BY
①	10-25-12	Revised note	JWC
②	11-19-12	Adjusted cut slope	JWC



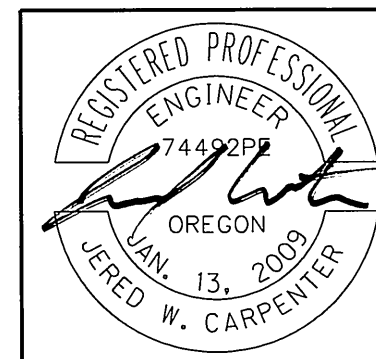
See sheet 46 for earthwork quantities

Exc. 14,905 C.Y.

Emb. In Place  
103 Cu.Yds.

- NOTES:
1. All dimensions shown are in feet unless otherwise noted.
  2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517
  3. Guardrail design is based on a terminal length of 37.5', if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

**Legend**  
 Check dam shown thus: (For details, see sht. 2B-7)  
 "No work area" shown thus:

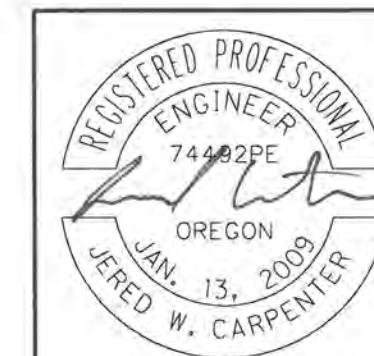


EXPIRES: 12-31-2013

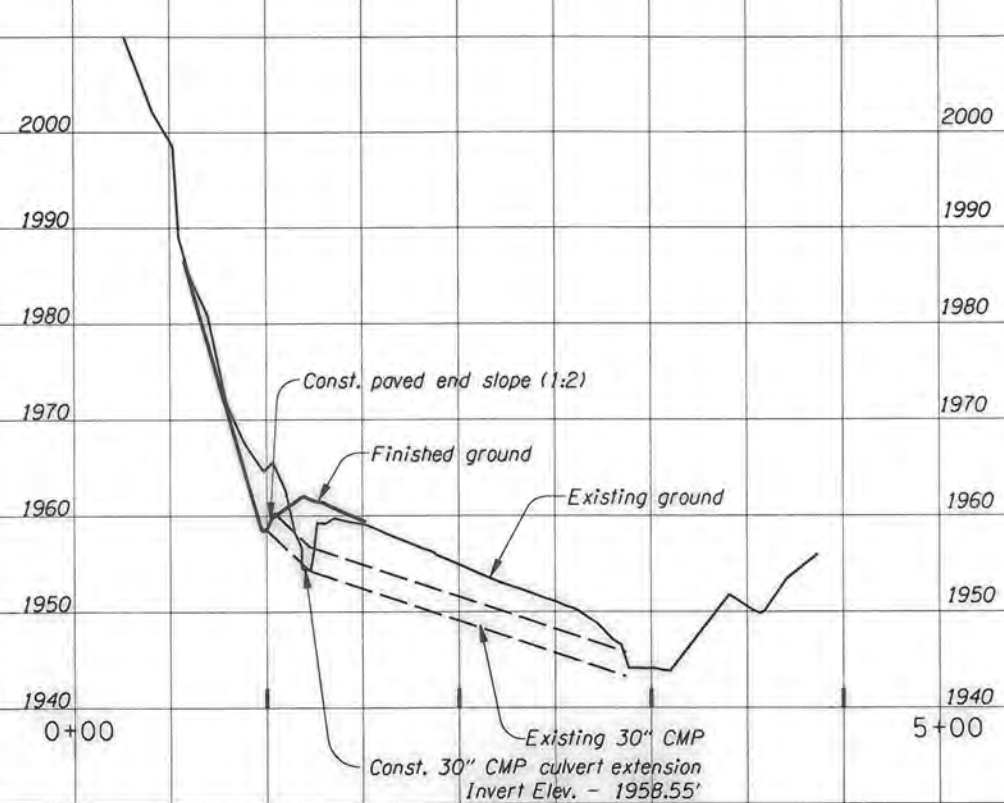
OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
<b>GENERAL CONSTRUCTION</b>	SHEET NO. <b>49</b>

- ① Sta. "NB" 748+12.11, 56.22 Lt. to Sta. "NB" 748+23.74, 36.62' Lt. Extend 30" CMP - 23' Const. paved end slope (1:3) - 47 sq. ft. Connect to extg. storm pipe (Subject to the In-water work period) (For details see sht. 49B) (See dwg. no. RD320)
- ② Adjust inlet - 7
- ③ Sta. "NB" 753+60.93, 53.76' Lt. Const. 60" manhole w/mod. ditch inlet over extg. 24" CMP & 18" conc. pipe extension (For details, see sht. 2B-8 & 49B)
- ④ Sta. "NB" 753+53.44, 43.80' Lt. to Sta. "NB" 753+60.93, 53.76' Lt. Extend extg. 18" conc. pipe - 12' Remove extg. inlet Connect to extg. pipe (For details, see sht. 49B)
- ⑤ Remove 6" PVC pipe - 50'
- ⑥ Remove 12" conc. pipe - 107'
- ⑦ Sta. "NB" 755+04.33, 58.20 Lt. Const. Type B-SL inlet (For details, see sht. 49B) (See dwg. no. RD368)
- ⑧ Sta. "NB" 755+04.27, 27.78' Lt. to Sta. "NB" 755+04.33, 58.20' Lt. Extend 12" conc. storm sew. - 30' Connect to extg. pipe Remove extg. inlet (For details, see sht. 49B)
- ⑨ Sta. "NB" 755+04.33, 58.20' Lt. to Sta. "NB" 756+01.35, 58.20' Lt. Inst. 18" storm sew. - 97' 5' depth (For details, see sht. 49B)
- ⑩ Sta. "NB" 756+01.35, 58.20' Lt. Const. Type B-SL inlet (For details, see sht. 49B)
- ⑪ Sta. "NB" 756+01.35, 58.20' Lt. to Sta. "NB" 756+13.21, 30.45' Lt. Extend 24" CMP - 30' Connect to existing pipe Remove extg. inlet (For details, see sht. 49C)
- ⚠ ⑫ Sta. "NB" 756+13.21 Rehab. extg. 24" culvert with CIPP liner - 247' Make spot repairs (Subject to the In-water work period or when completely dry.)
- ⑬ Sta. "SB" 749+88.6 to Sta. "SB" 752+31.0, Rt. Remove guardrail - 125' Const. guardrail - 200' (Type 2A) Const. guardrail terminal, non-flared Test level 3 Connect to extg. guardrail Inst. Type 4 (Alt. 2) delineators - 2
- ⑭ Sta. "NB" 748+41.0 to Sta. "NB" 750+25.0, Lt. Const. guardrail w/8' steel posts - 200' (Type 2A) Const. anchor - 2 (Type 1) Inst. end piece - 2 (Type C) Inst. Type 4 (Alt. 2) delineators - 4
- ⑮ Sta. "NB" 748+27.56 to Sta. "SB" 754+63.61, Lt. Const. conc. shldr. barrier (pinned) w/ rock protection screen - 500' Const. guardrail transition to barrier Const. guardrail - 75.0' (Type 2A) Const. guardrail - 12.5' (Type 3) Const. guardrail terminal, non-flared Test level 3 Inst. Type 5 delineators - 11 Inst. Type 4 (Alt. 2) delineator
- ⑯ See sht. 38, note B
- ⑰ Const. pavement sensor opening (For details, see sht. ITS-1158)
- ⑱ Sta. "NB" 748+40.0 to Sta. "NB" 752+50.0, Lt. Const. wire mesh slope protection - 37,815 sq. ft. (vinyl coated, black)
- ⑲ Sta. "NB" 748+41.0 to Sta. "NB" 750+25.0, Lt. Remove fence - 200' Const. type 2 fence - 200' Connect to extg.
- ⑳ Sta. "NB" 748+27.6 to Sta. "NB" 749+80.0 Inst. 8" subsurface drain w/ outlet protection block - 157' (For details, see 2B-6)
- ㉑ Sta. "NB" 754+28.0 to Sta. "NB" 757+51.0 Lt. Const. guardrail w/8' steel posts - 325' (Type 2A) Const. anchor - 2 (Type 1) Inst. end piece - 2 (Type C) Inst. Type 4 (Alt. 2) delineators - 4

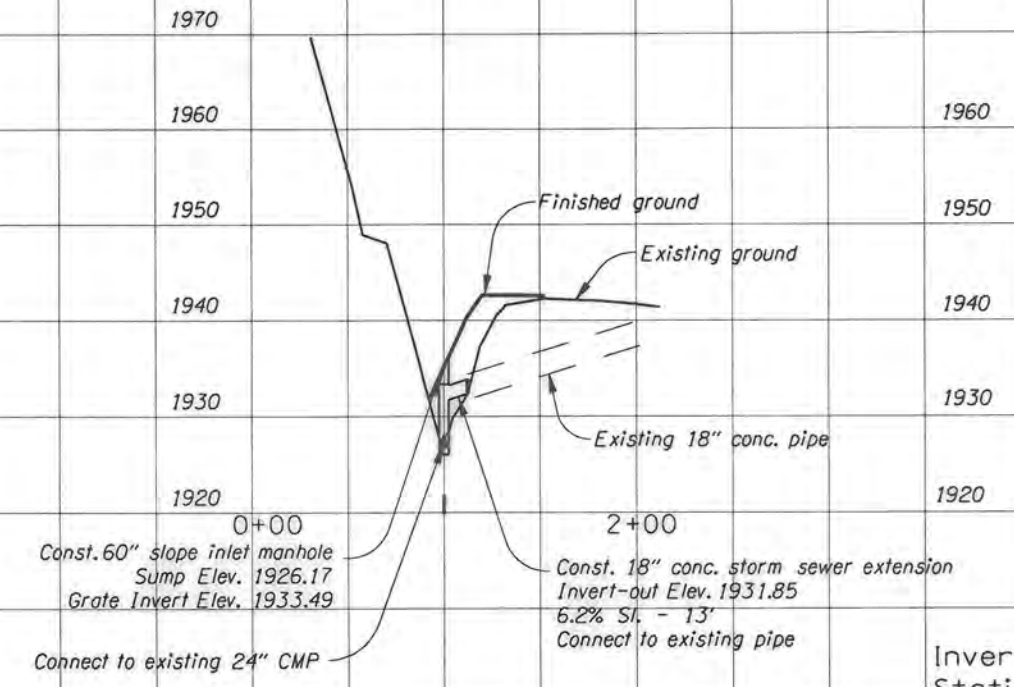
No.	DATE	REVISIONS	BY
①	10-19-12	Revised note composition	JWC
②	10-22-12	Revised note	JWC



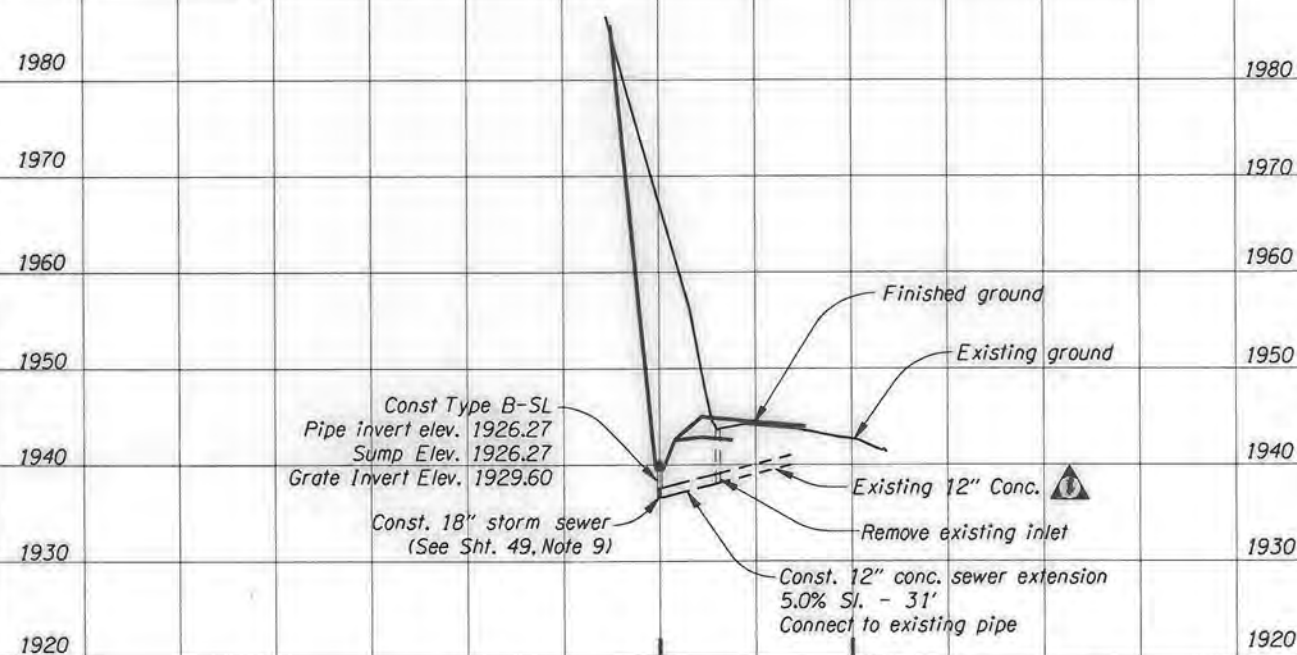
OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
<b>CONSTRUCTION NOTES</b>	SHEET NO. <b>49A</b>



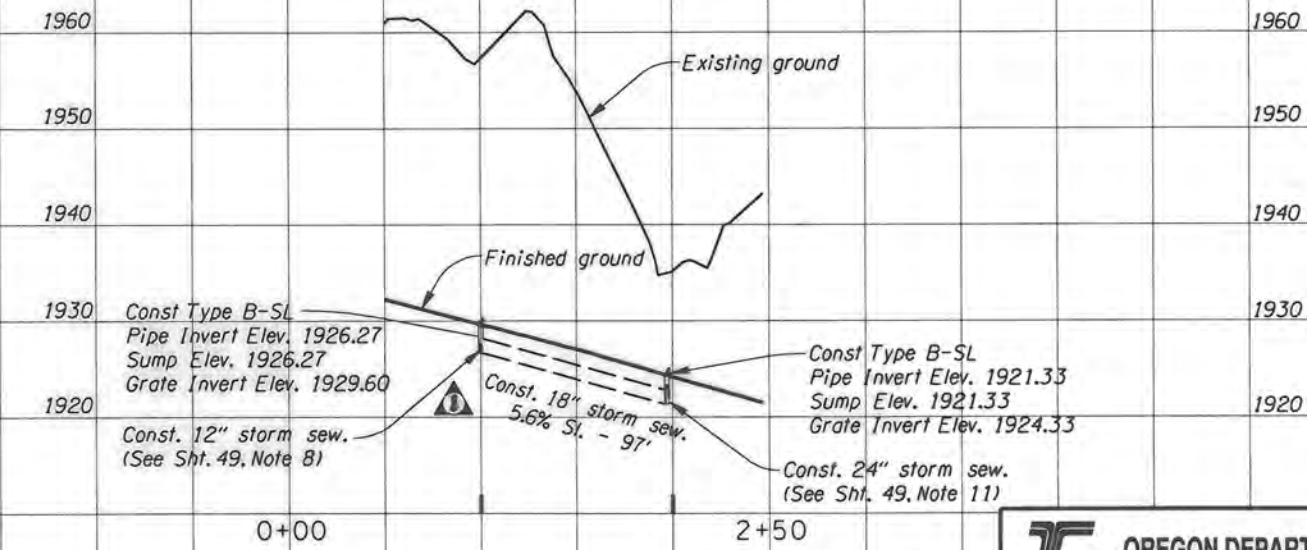
Invert-in of proposed pipe @ Sta. "NB"748+23.74, 36.62 Lt. See sht. 49, note 1, Profile shown @ pipe ☒



Invert -in of proposed pipe @ Station "NB" 753+53.44, 43.80 Lt. See sht. 49, note 4 Profile shown @ pipe ☒

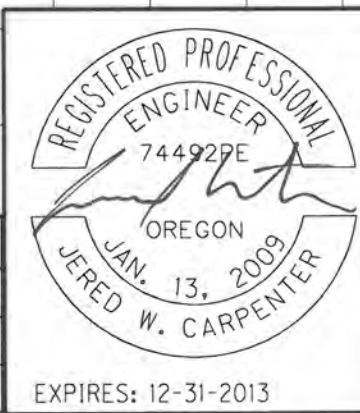


Invert-in of proposed pipe @ Sta. "NB"755+04.27, 27.78 Lt. See sht. 49, note 8 Profile shown @ pipe ☒



Invert-in of proposed pipe @ Sta. "NB"755+04.33, 58.20' Lt. See sht. 49, note 9 Profile shown @ pipe ☒

No.	DATE	REVISIONS	BY
1	11-26-12	Changed material description	JWC



**OREGON DEPARTMENT OF TRANSPORTATION**

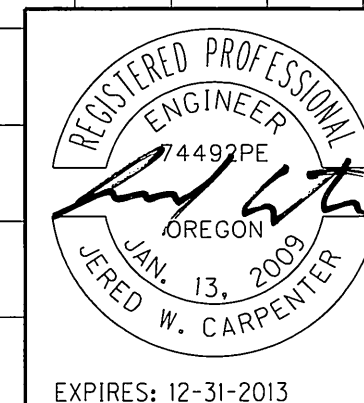
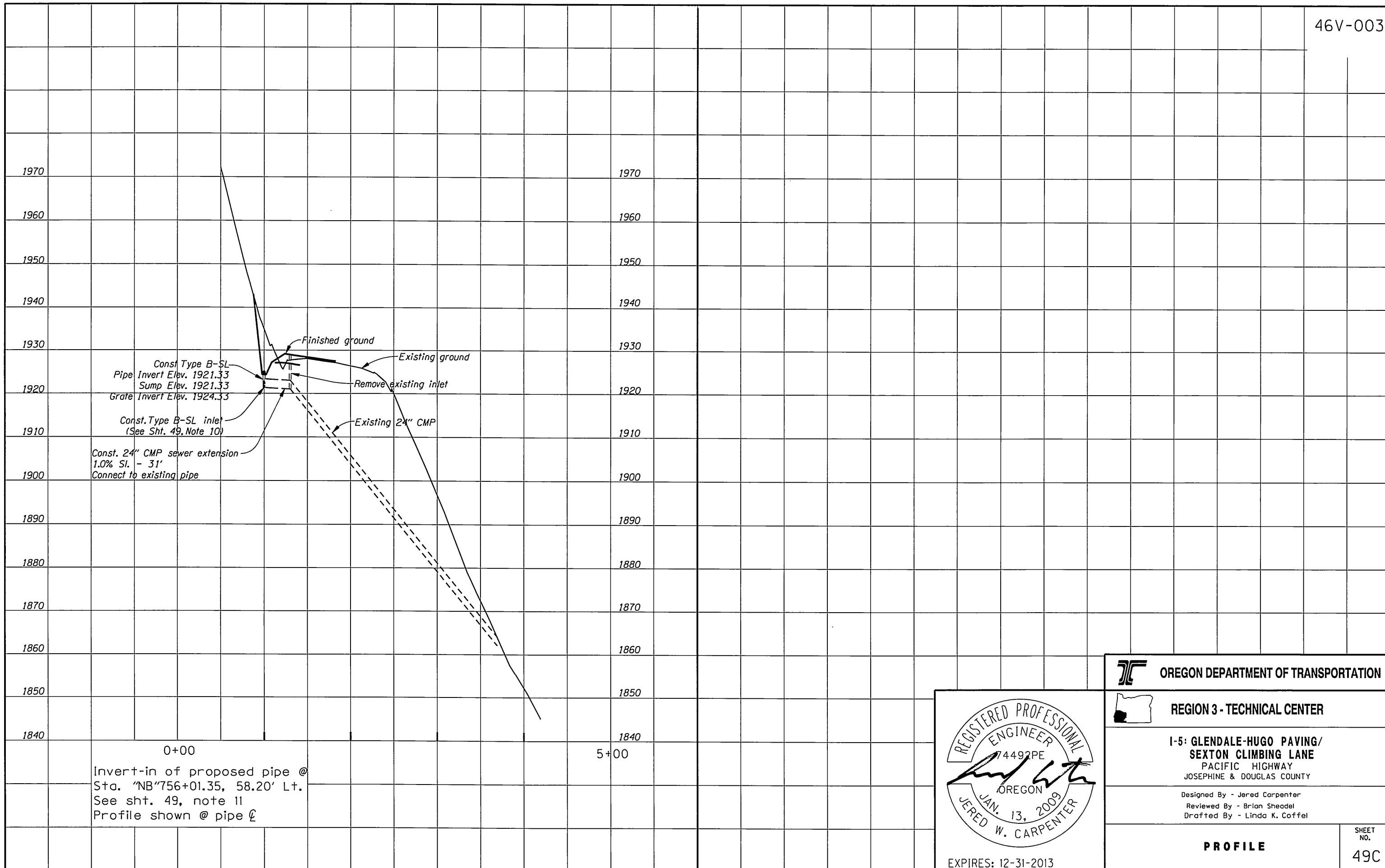
**REGION 3 - TECHNICAL CENTER**

**I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY**  
JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
Reviewed By - Brian Sheedel  
Drafted By - Linda K. Coffel

**PROFILE**

SHEET NO. **49B**



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

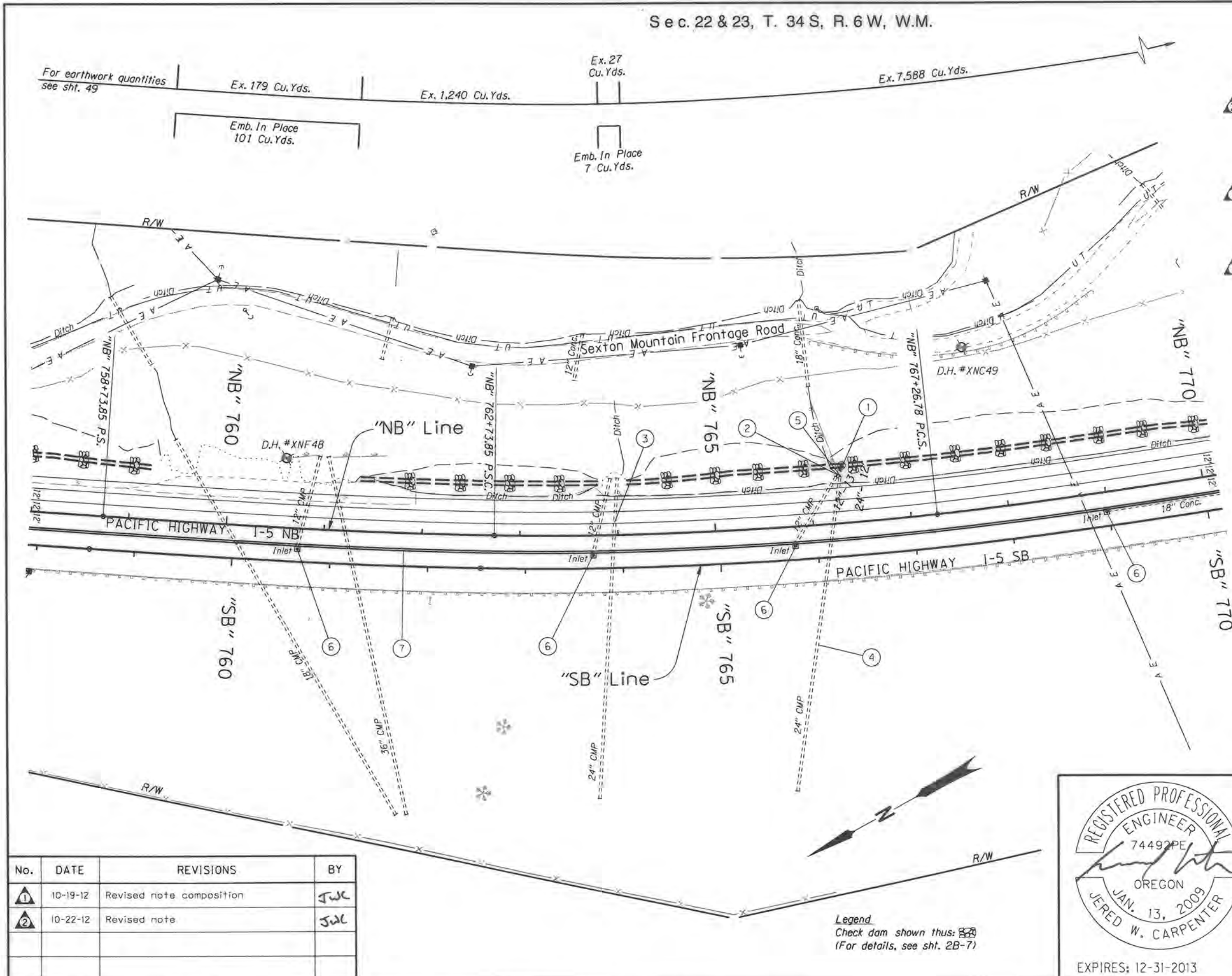
**I-5: GLENDALE-HUGO PAVING/  
SEXTON CLIMBING LANE  
PACIFIC HIGHWAY  
JOSEPHINE & DOUGLAS COUNTY**

Designed By - Jered Carpenter  
Reviewed By - Brian Sheedel  
Drafted By - Linda K. Coffel

**PROFILE** SHEET NO. **49C**

Sec. 22 & 23, T. 34 S, R. 6 W, W.M.

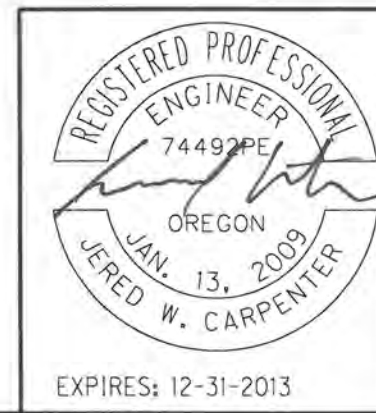
46V-003



- ① Sta. "NB" 766+33.82, 58.55' Lt.  
Const. 60" manhole w/mod. ditch inlet  
Connect to 12" & 24" pipe extensions  
(For details, see sht. 2B-8 & 50A)
- ② Sta. "NB" 766+27.09, 47.29 Lt. to  
"NB" 766+33.82, 58.55' Lt.  
extend 12" CMP - 13'  
Connect to existing pipe
- ③ Sta. "NB" 764+00.56  
Rehab. extg. 24" culvert with CIPP liner - 340'  
Make spot repairs  
(Subject to the In-water work period  
or when completely dry.)
- ④ Sta. "NB" 766+31.18  
Rehab. extg. 24" culvert with CIPP liner- 330'  
Make spot repairs  
(Subject to the In-water work period  
or when completely dry.)
- ⑤ Sta. "NB" 766+33.82, 58.55' Lt. to  
Sta. "NB" 766+31.18, 47.02' Lt.  
Extend 24" conc. pipe - 12'  
Connect to extg. pipe
- ⑥ Adjust inlet - 4
- ⑦ See sht. 38, note 8

NOTES:  
 1. All dimensions shown are in feet unless otherwise noted.  
 2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517  
 3. Guardrail design is based on a terminal length of 37.5'. if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

No.	DATE	REVISIONS	BY
①	10-19-12	Revised note composition	JWC
②	10-22-12	Revised note	JWC



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

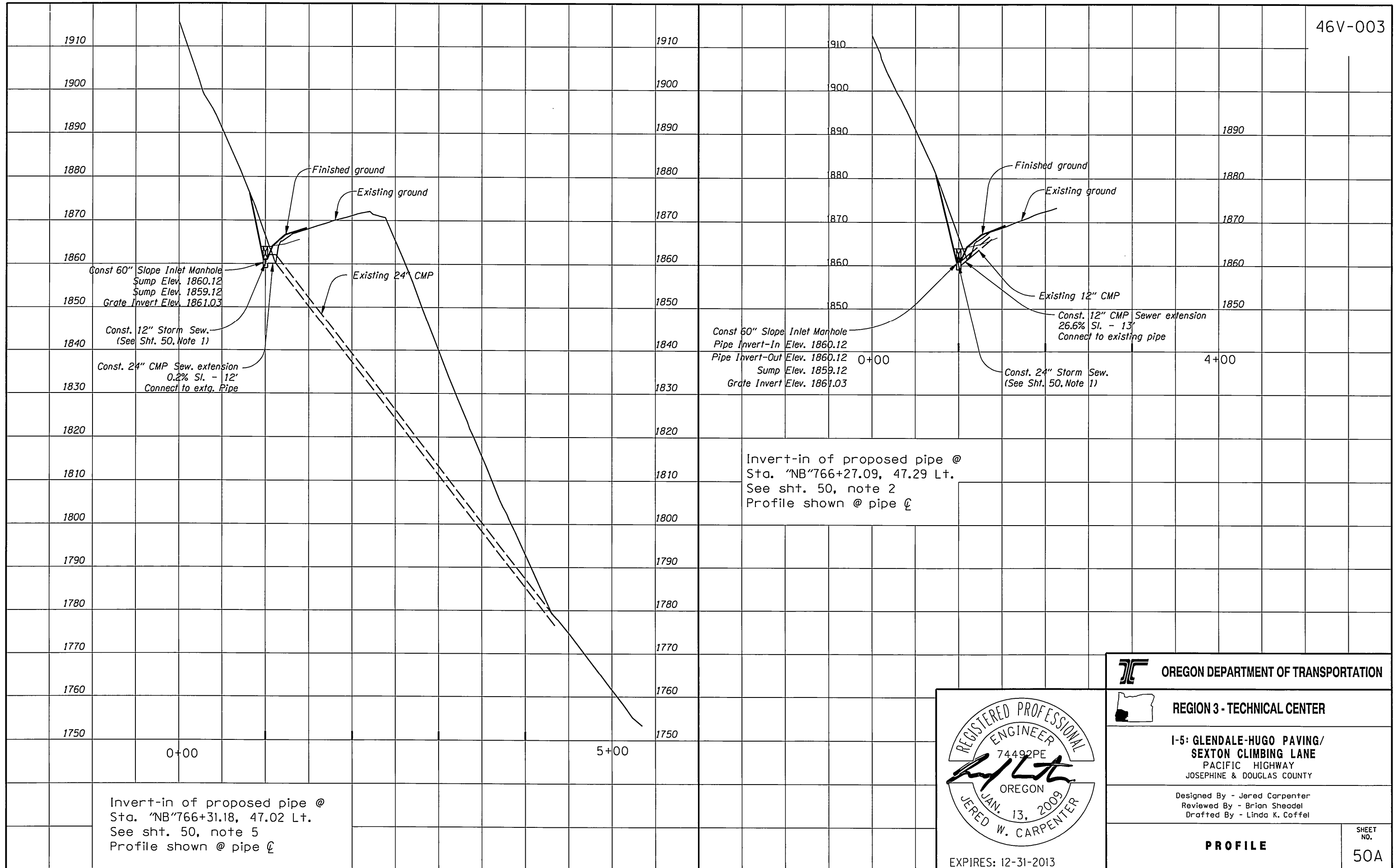
**I-5: GLENDALE-HUGO PAVING/  
SEXTON CLIMBING LANE  
PACIFIC HIGHWAY**  
JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
Reviewed By - Brian Sheadel  
Drafted By - Linda K. Coffel

**GENERAL CONSTRUCTION**

SHEET NO. **50**

Legend  
 Check dam shown thus:   
 (For details, see sht. 2B-7)



Const 60" Slope Inlet Manhole  
Sump Elev. 1860.12  
Sump Elev. 1859.12  
Grate Invert Elev. 1861.03

Const. 12" Storm Sew.  
(See Sht. 50, Note 1)

Const. 24" CMP Sew. extension  
0.2% Sl. - 12'  
Connect to extg. Pipe

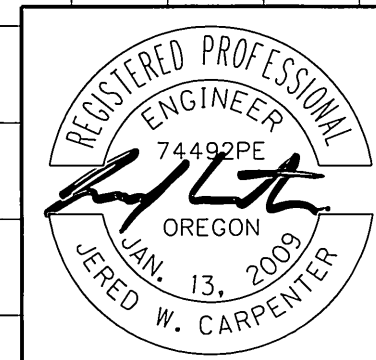
Const 60" Slope Inlet Manhole  
Pipe Invert-In Elev. 1860.12  
Pipe Invert-Out Elev. 1860.12  
Sump Elev. 1859.12  
Grate Invert Elev. 1861.03

Const. 12" CMP Sewer extension  
26.6% Sl. - 13'  
Connect to existing pipe

Const. 24" Storm Sew.  
(See Sht. 50, Note 1)

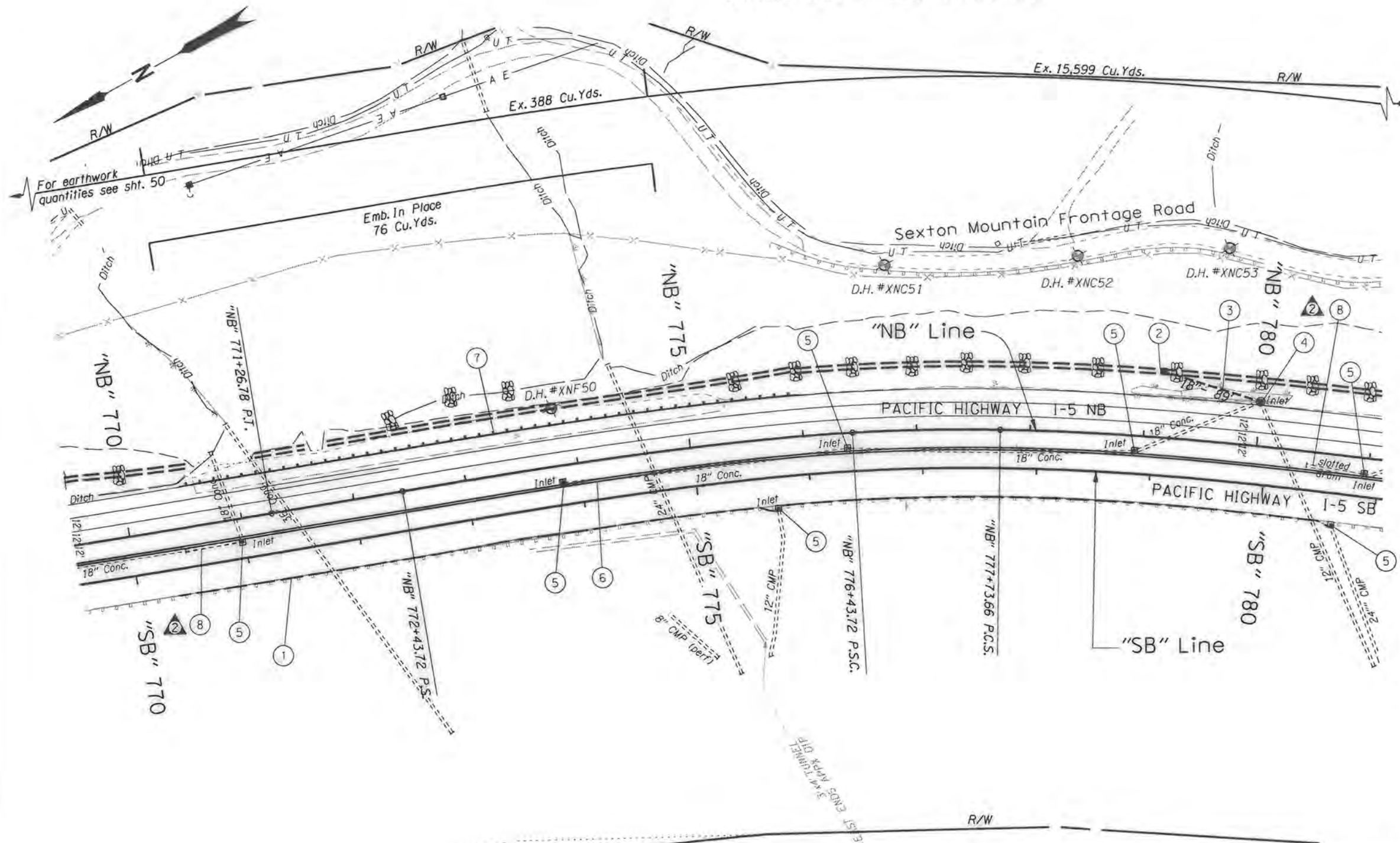
Invert-in of proposed pipe @  
Sta. "NB"766+27.09, 47.29 Lt.  
See sht. 50, note 2  
Profile shown @ pipe  $\phi$

Invert-in of proposed pipe @  
Sta. "NB"766+31.18, 47.02 Lt.  
See sht. 50, note 5  
Profile shown @ pipe  $\phi$



<b>OREGON DEPARTMENT OF TRANSPORTATION</b>	
<b>REGION 3 - TECHNICAL CENTER</b>	
<b>I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE</b> PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheedel Drafted By - Linda K. Coffel	
<b>PROFILE</b>	SHEET NO. <b>50A</b>

Sec. 22 & 27 T. 34 S, R. 6 W, W.M.



- ① Sta. "SB" 770+36.5 to Sta. "SB" 780+66.5, Rt. Remove extg. asphalt curb - 1,030' Const. drainage curb - 1,030'
- ② Sta. "NB" 779+13.59, 58.20 Lt. Const. type B-SL inlet (For details, see sht. 51A)
- ③ Sta. "NB" 779+13.59, 58.20' Lt. to Sta. "NB" 779+99.67, 39.20' Lt. Const. 18" storm sew. - 89' 5' depth (For details, see sht. 51A)
- ④ Sta. "NB" 779+99.67, 39.20 Lt. Const. 60" storm sew. manhole over 12" storm sew. & 24" conc. pipe (For details, see sht. 51A)
- ⚠ ⑤ Adjust inlet - 7
- ⑥ See sht. 38, note 8
- ⑦ Sta. "NB" 770+50 to Sta. "NB" 776+00 Lt. Const. guardrail - 512.5 (Type 2A) Const. anchor (Type 1 mod.) Const. guardrail terminal, non-flared Test level 3 Inst. end piece (Type B) Inst. Type 4 (Alt. 2) delineators - 4
- ⚠ ⑧ Slotted drain inlet (For details, see sht. 2B-16)

NOTES:  
 1. All dimensions shown are in feet unless otherwise noted.  
 2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517  
 3. Guardrail design is based on a terminal length of 37.5'. If longer terminal is used, reduce the length of Type 2A guardrail accordingly.

No.	DATE	REVISIONS	BY
①	10-22-12	Revised note	JWC
②	11-26-12	Added note	JWC

Legend  
 Check dam shown thus: (For details, see sht. 2B-7)



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

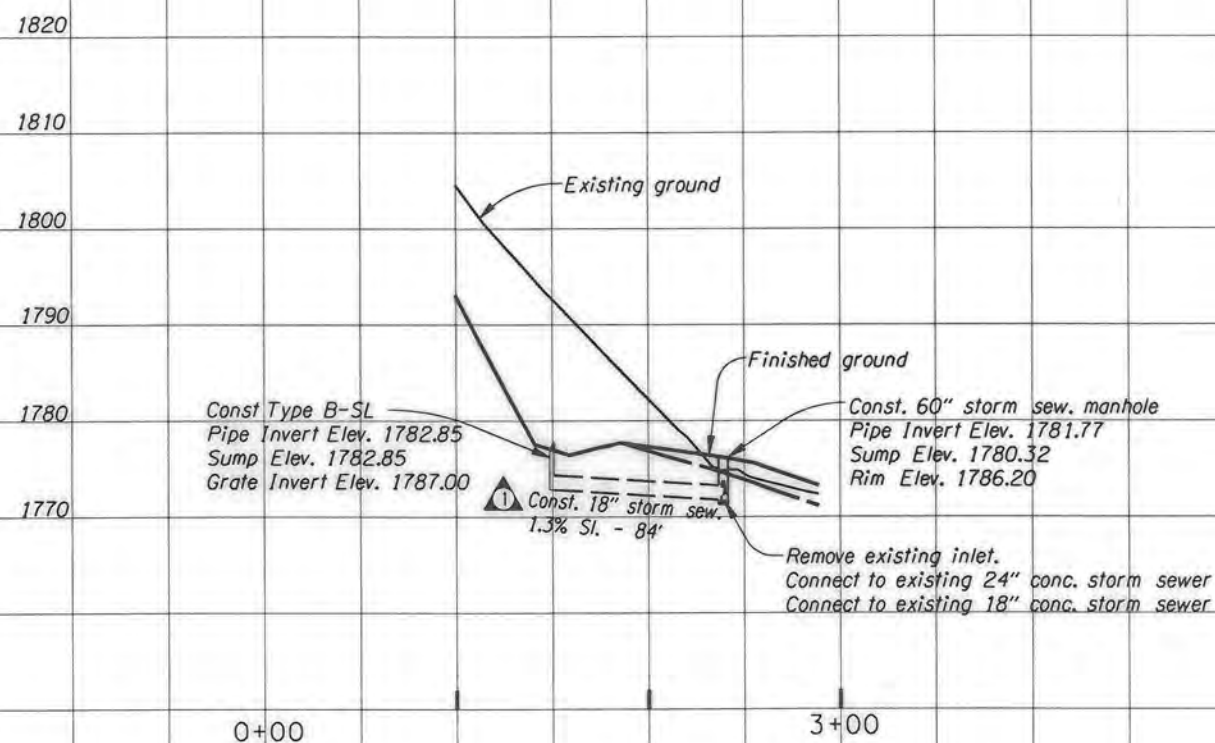
**I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE**  
 PACIFIC HIGHWAY  
 JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
 Reviewed By - Brian Sheffel  
 Drafted By - Linda K. Coffel

**GENERAL CONSTRUCTION**

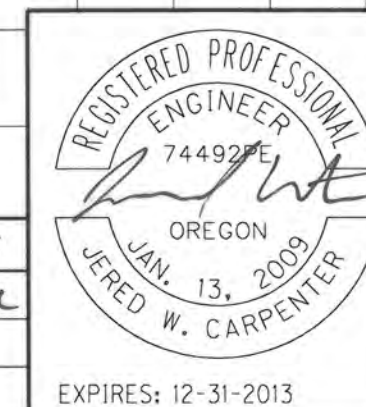
SHEET NO. **51**





Invert-in of proposed pipe @  
Sta. "NB" 779+14.71, 57.94 Lt.  
See sht. 51, note 3  
Profile shown @ pipe  $\varnothing$

No.	DATE	REVISIONS	BY
1	11-26-12	Changed material description	JWC



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

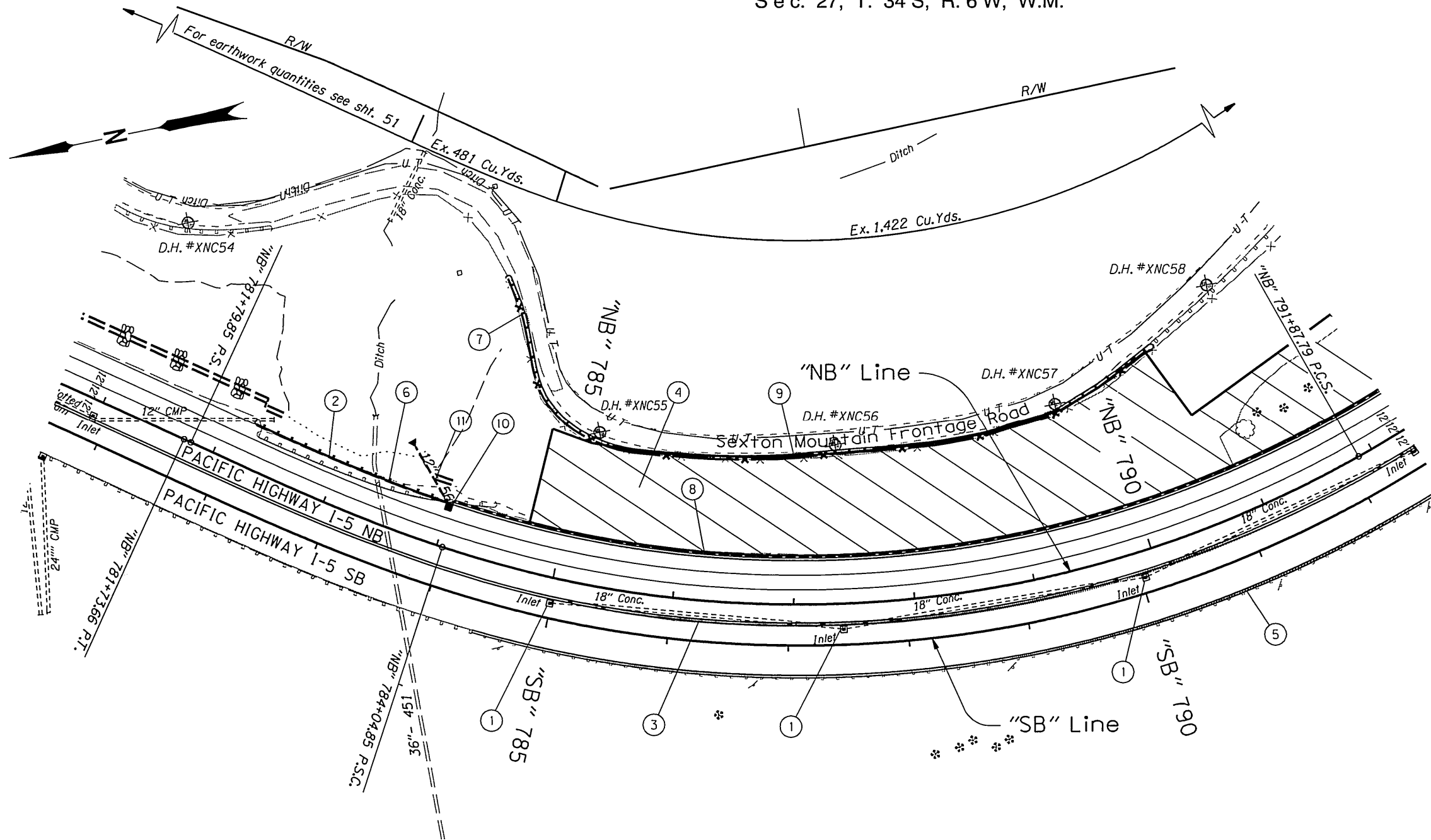
**I-5: GLENDALE-HUGO PAVING/  
SEXTON CLIMBING LANE  
PACIFIC HIGHWAY  
JOSEPHINE & DOUGLAS COUNTY**

Designed By - Jered Carpenter  
Reviewed By - Brian Sheadel  
Drafted By - Linda K. Coffel

**PROFILE**

SHEET NO. **51A**

Sec. 27, T. 34 S, R. 6 W, W.M.

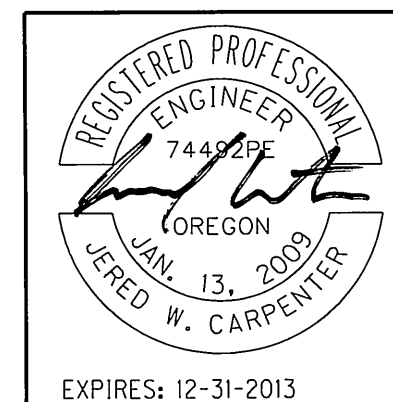


- ① Adjust inlets - 3
- ② Sta. "NB" 782+23.5 to Sta. "NB" 784+02.9, Lt. Const. drainage curb - 176'
- ③ See sht. 38, note 8
- ④ Sta. "NB" 784+70.0 to Sta. "NB"793+50.8, Lt. Const. wire mesh slope protection - 107,829 sq. ft. (Vinyl coated, black)
- ⑤ Sta. "SB" 784+24.32 to Sta. "SB"795+04.76, Rt. Remove guardrail - 1,115' const. tall conc. barrier (Pinned) - 1,087.5' Const. guardrail transition to tall barrier Const. guardrail connection to tall barrier Const. guardrail - 12.5' (Type 3) Inst. Type 5 delineators - 23 (See dwg. nos. RD410, RD570, BR236 & Sht. 2B-16)
- ⑥ Sta. "NB" 782+23.88 to Sta. "NB"784+02.92, Lt. Const. guardrail - 175.0' (type 2A) Const. anchor (type 1 mod.) Inst. end piece (type B) Const. guardrail connection to barrier Inst. Type 4 (Alt. 2) delineators - 2
- ⑦ Sta. "NB" 783+86.0 to Sta. "NB"790+61, Lt. Remove guardrail - 637.5' Const. guardrail w/8' steel posts - 637.5' (type 2A) Const. anchor - 2 (type 1) Inst. end piece (type C) Connect to extg. guardrail Inst. Type 4 (Alt. 2) delineators - 7
- ⑧ Sta. "NB" 784+02.92 to Sta. "NB"793+50.78, Lt. Const. conc. shldr. barrier w/rock protection screen (pinned) - 912.5' Inst. Type 5 delineators - 19 Const. 8" subsurface drain w/subsurface drain outlet - 909' Inst. cleanout access in middle of subsurface drain (For details, see 2B-6, 2B-17)
- ⑨ Sta. "NB" 783+86.0 to Sta. "NB"790+61.0, Lt. Remove fence - 637.5' Const. type 2 fence - 637.5' Connect to extg.

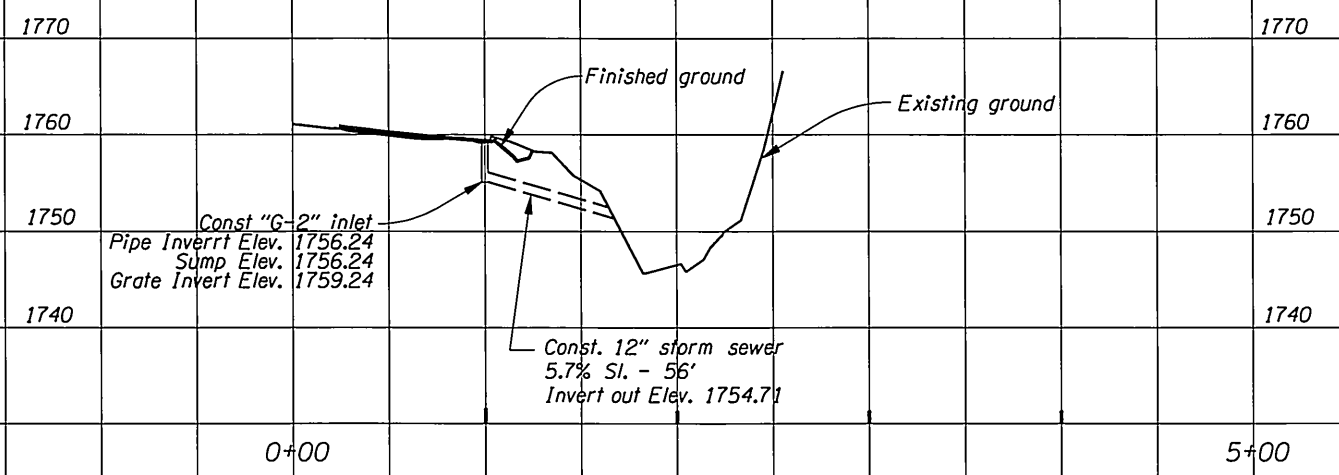
- ⑩ Sta. "NB" 783+99.54, 34.43' Lt. Const. type G-2 inlet (For details, see sht. 52A)
- ⑪ Sta. "NB" 783+99.54, 34.43' Lt. to Sta. "NB" 783+55.36, 70.76' Lt. Const. 12" storm sew. - 56' 5' depth Const. paved end slope - 23 sq. ft. (For details, see sht. 52A)

**Legend**  
 Check dam shown thus:   
 (For details, see sht. 2B-7)

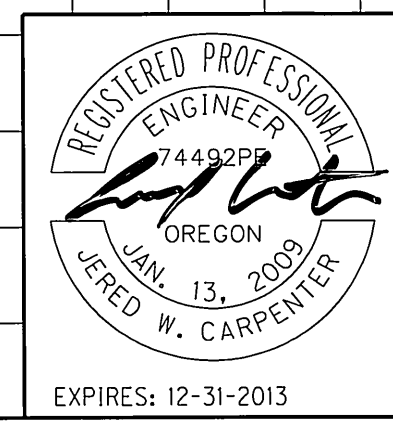
**NOTES:**  
 1. All dimensions shown are in feet unless otherwise noted.  
 2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517  
 3. Guardrail design is based on a terminal length of 37.5', if longer terminal is used, reduce the length of Type 2A guardrail accordingly.




OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
<b>GENERAL CONSTRUCTION</b>	SHEET NO. <b>52</b>

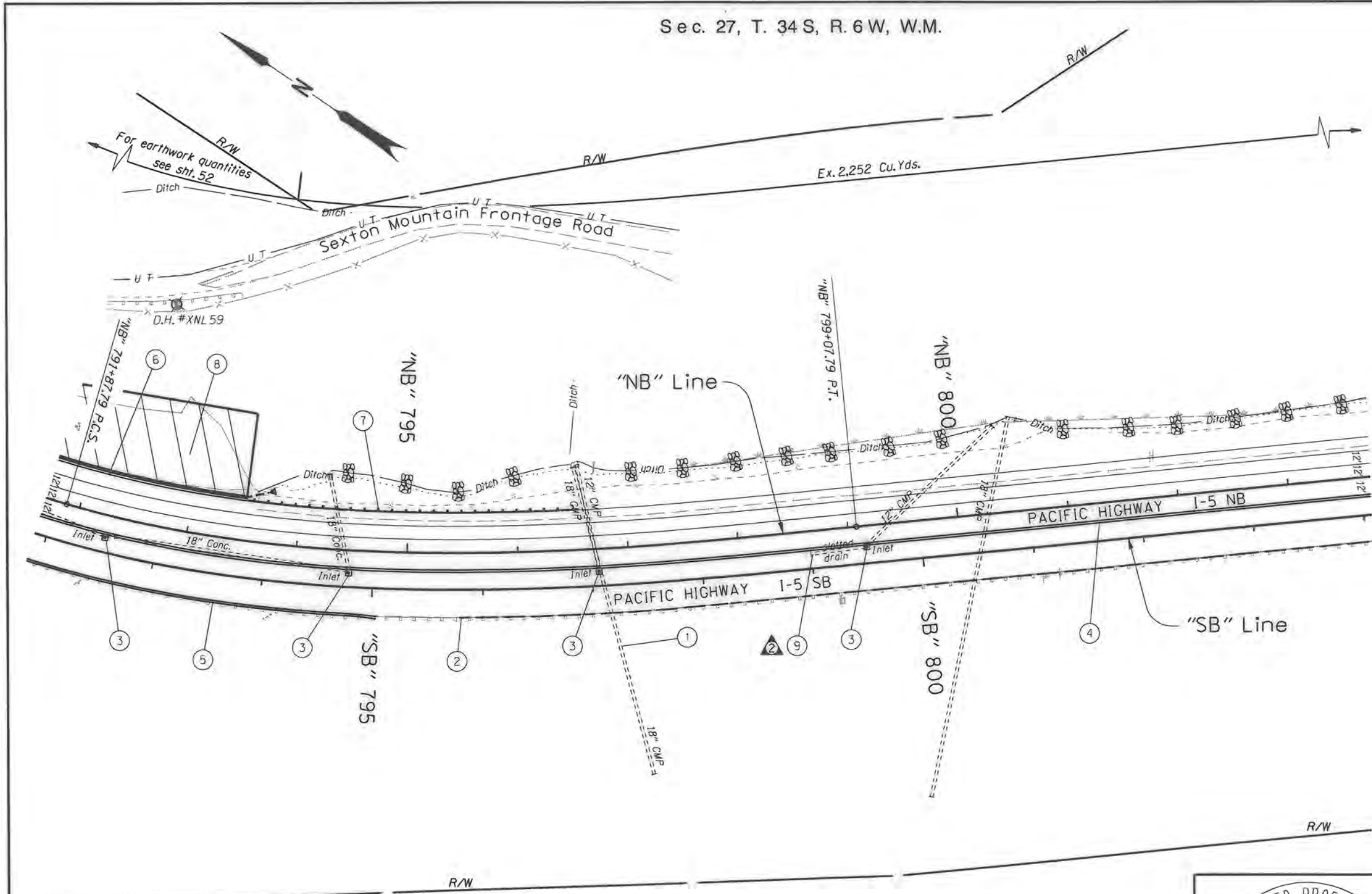


Invert-in of proposed pipe @  
 Sta. "NB"783+99.54, 34.43' Lt.  
 See sht. 52, note 11  
 Profile shown @ pipe  $\text{\textcircled{C}}$



 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Shadel Drafted By - Linda K. Coffel	
PROFILE	SHEET NO. 52A

Sec. 27, T. 34 S, R. 6 W, W.M.



- ① Sta. "NB" 796+54.16  
Rehab. extg. 18" culvert with CIPP liner - 295'  
Make spot repairs  
(Not subject to the In-water work period)
- ② Sta. "SB" 795+81.5 to Sta. "SB" 805+97.5 Rt.  
Remove asphalt curb - 1,016'  
Const. conc. curb - 1,016'
- ③ Adjust inlet - 4
- ④ See sht. 38, note 8
- ⑤ See sht. 52, note 5
- ⑥ See sht. 52, note 8
- ⑦ Sta. "NB" 793+50.78 to Sta. "NB" 796+50.37, L.I.  
Const. guardrail transition to barrier  
Const. guardrail - 12.5' (type 3)  
Const. guardrail - 225' (type 2A)  
Const. guardrail terminal, non-flared  
Test level 3  
Inst. Type 4 (Alt. 2) delineators - 2
- ⑧ See sht. 52, note 4
- ⑨ Slotted drain inlet  
(For details, see sht. 2B-16)

**NOTES:**

1. All dimensions shown are in feet unless otherwise noted.
2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517
3. Guardrail design is based on a terminal length of 37.5', if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

No.	DATE	REVISIONS	BY
①	10-19-12	Revised note composition	JWC
②	11-26-12	Added note	JWC

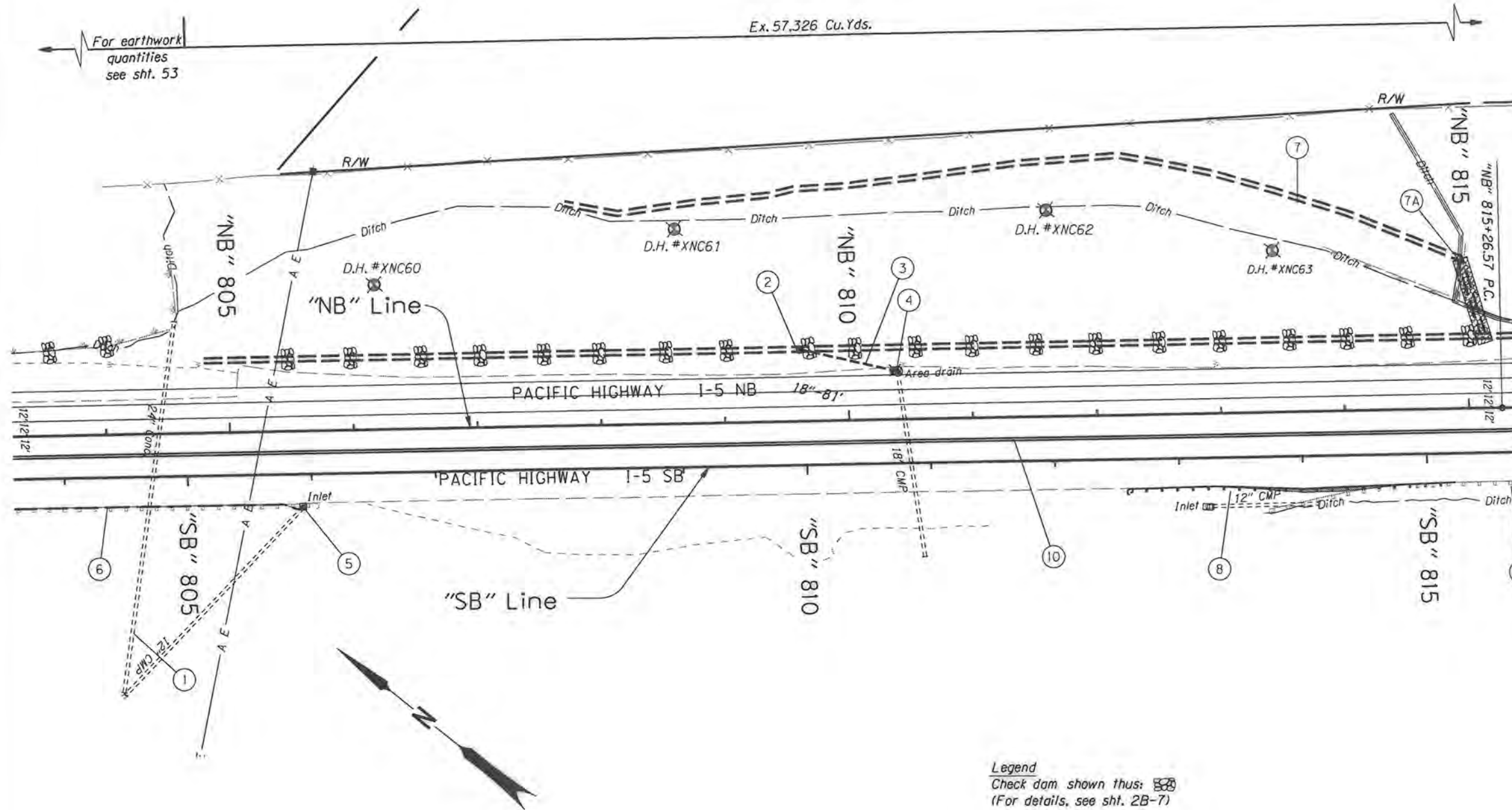
**Legend**  
Check dam shown thus: (For details, see sht. 2B-7)




OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
GENERAL CONSTRUCTION	SHEET NO. 53

Sec. 27 & 26, T. 34 S, R. 6 W, W.M.

46V-003




- ① Sta. "NB" 804+56.60  
Rehab. extg. 24" culvert with CIPP liner - 307'  
Make spot repairs  
(Subject to the In-water work period or when completely dry.)
- ② Sta. "NB" 809+60.72, 58.85' Lt.  
Const. Type B-SL inlet  
(For details, see sht. 54A)
- ③ Sta. "NB" 809+60.72, 58.85' Lt. to Sta. "NB" 810+39.35, 39.51' Lt.  
Const. 18" storm sew. - 81'  
5' depth  
(For details, see sht. 54A)
- ④ Sta. "NB" 810+39.35, 39.51' Lt.  
Const. std. storm sew. manhole over extg. sew.  
(Connect to 18" storm sew & existing 18" CMP)  
(For details, see sht. 54A)
- ⑤ Adjust inlet
- ⑥ See sht. 53, note 2
- ⑦ Sta. "NB" 807+72.0 to Sta. "NB" 815+00.0, Lt.  
Const. drainage ditch - 554 C.Y.  
(For details, see sht. 2B-3)
- ⑦A Const. slope protection (Class 50 riprap - 40 C.Y.)  
(For details, see sht. 2B-7)
- ⑧ Sta. "SB" 812+63.0 to Sta. "SB" 815+25.5, Rt.  
Remove guardrail - 150'  
Const. guardrail - 225' (Type 2A)  
Const. guardrail terminal, non-flared  
Test level 3  
Connect to extg.  
Inst. Type 4 (Alt. 2) delineators - 2  
Remove AC surfacing - 31 sq. yds.
- ⑨ Sta. "SB" 815+25.5 to Sta. "SB" 828+63.0, Rt.  
Remove washers - 214
- ⑩ See sht. 38, note 8

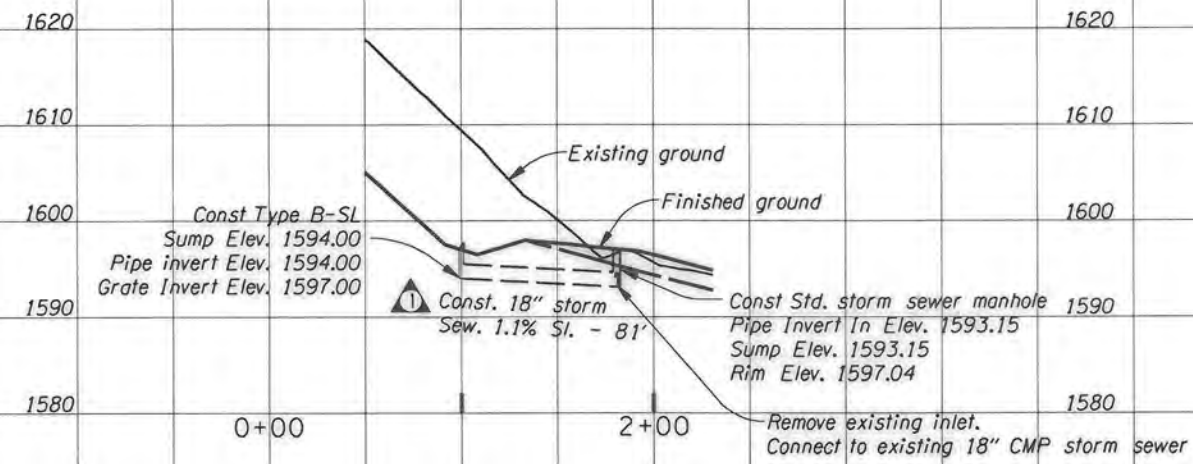
Legend  
Check dam shown thus:   
(For details, see sht. 2B-7)

- NOTES:
1. All dimensions shown are in feet unless otherwise noted.
  2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517
  3. Guardrail design is based on a terminal length of 37.5'. if longer terminal is used, reduce the length of Type 2A guardrail accordingly.



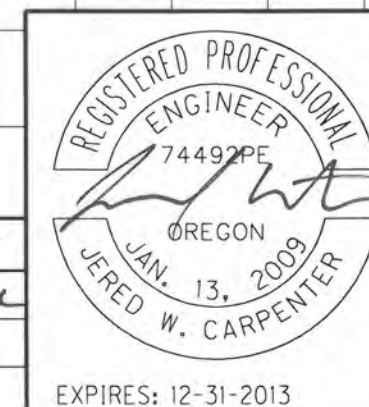
 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
GENERAL CONSTRUCTION	SHEET NO. 54

No.	DATE	REVISIONS	BY
①	10-19-12	Revised note composition	JWC



Invert-in of proposed pipe @ Sta. "NB"809+61.86, 58.57 Lt. See sht. 54, note 3 Profile shown @ pipe ƒ

No.	DATE	REVISIONS	BY
1	11-26-12	Changed material description	JWC



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

**I-5: GLENDALE-HUGO PAVING/  
SEXTON CLIMBING LANE  
PACIFIC HIGHWAY  
JOSEPHINE & DOUGLAS COUNTY**

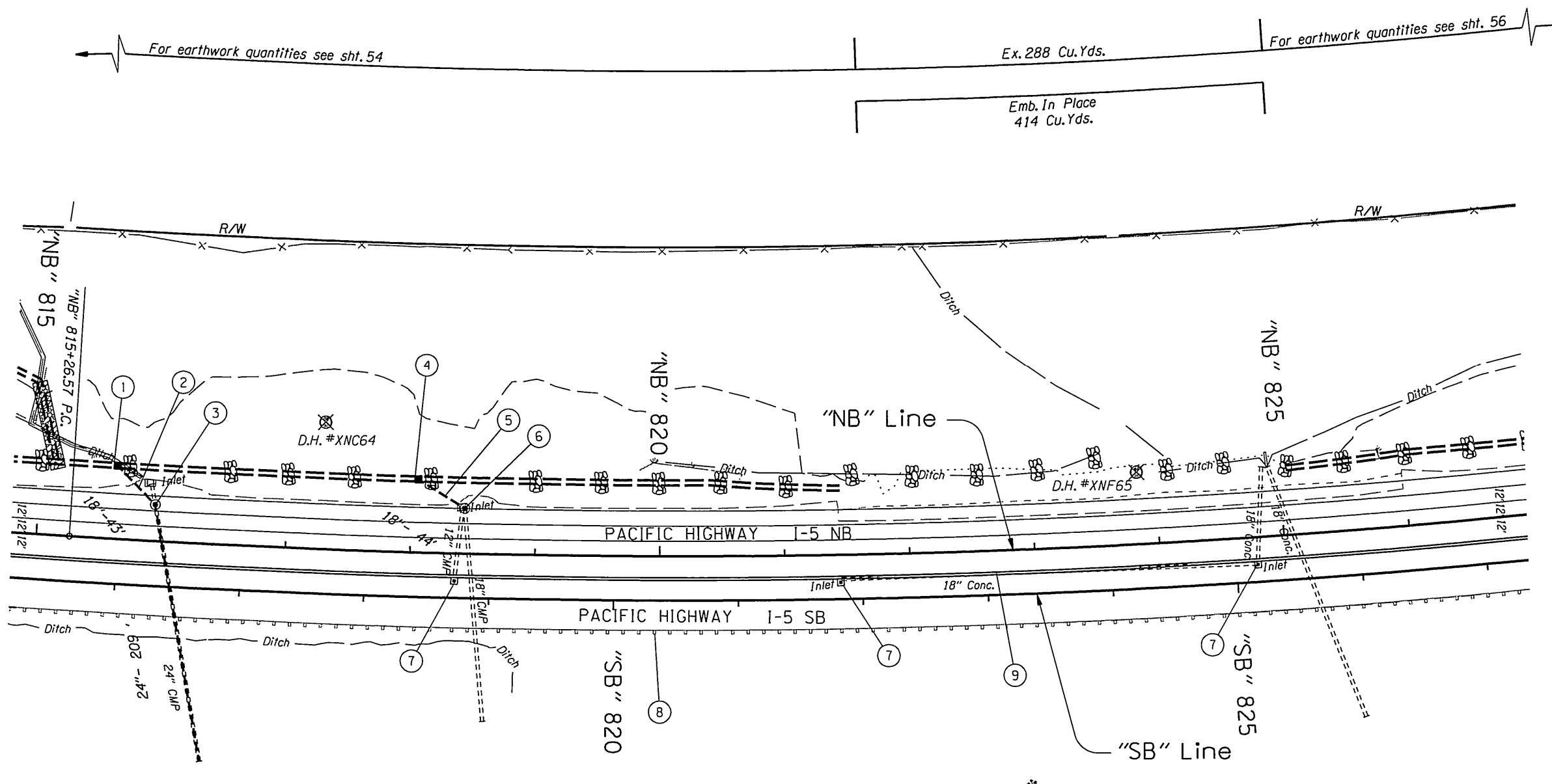
Designed By - Jered Carpenter  
Reviewed By - Brian Sheadel  
Drafted By - Linda K. Coffel

**GENERAL CONSTRUCTION**

SHEET NO. **54A**


Sec. 26, T. 34 S, R. 6 W, W.M.

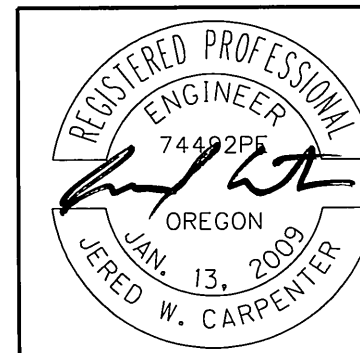
46V-003




- ① Sta. "NB" 815+61.50, 59.46' Lt.  
Const. Type B-SL inlet  
(For details, see sht. 55A)
- ② Sta. "NB" 815+61.50, 59.46 Lt. to  
"NB" 815+93.59, 30.23' Lt.  
Const. 18" storm sew. - 43'  
10' depth  
(For details, see sht. 55A)
- ③ Sta. "NB" 815+93.59, 30.23' Lt.  
Remove extg. inlet  
Remove extg. pipe - 17'  
Const. std. storm sew. manhole over extg. sew.  
(Connect to extg. 24" CMP &  
18" storm sew.)  
(For details, see sht. 55A)
- ④ Sta. "NB" 818+04.80, 59.24' Lt.  
Const. Type B-SL inlet  
(For details, see sht. 55A)
- ⑤ Sta. "NB" 818+04.80, 59.24' Lt. to  
"NB" 818+42.88, 37.06' Lt.  
Const. 18" storm sew. - 44'  
5' depth  
(For details, see sht. 55A)
- ⑥ Sta. "NB" 818+42.88, 37.06' Lt.  
Remove extg. inlet  
Const. std. storm sew. manhole over extg. sew.  
(Connect to extg. 12" & 18" CMP  
Connect to 18" storm sew.)  
(For details, see sht. 55A)
- ⑦ Adjust inlet - 3
- ⑧ See sht. 54, note 9
- ⑨ See sht. 38, note 8

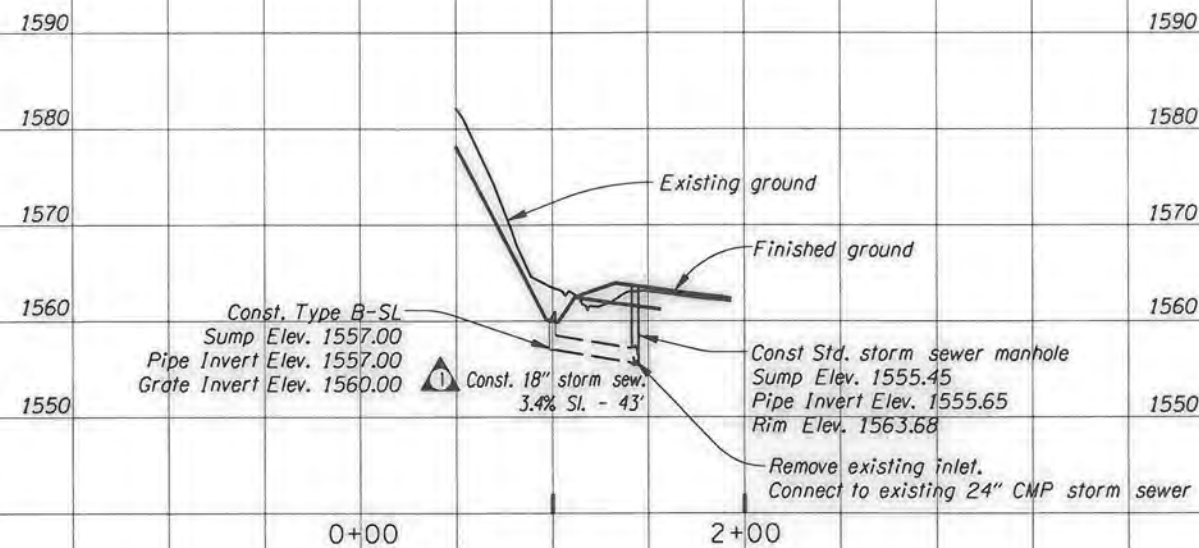
NOTES:  
 1. All dimensions shown are in feet unless otherwise noted.  
 2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517  
 3. Guardrail design is based on a terminal length of 37.5'. if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

Legend  
 Check dam shown thus:   
 (For details, see sht. 2B-7)

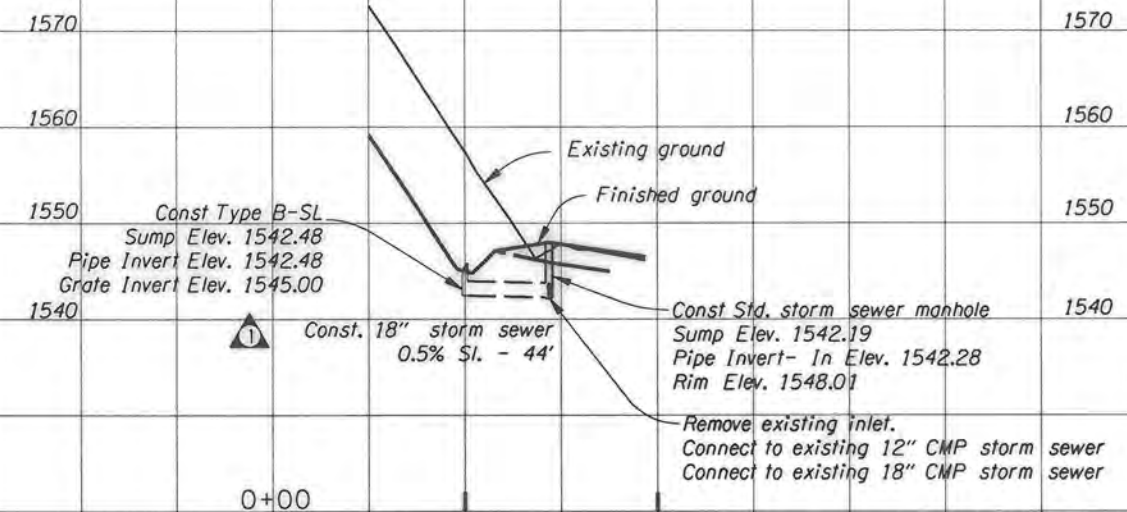


EXPIRES: 12-31-2013

 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheddel Drafted By - Linda K. Coffel	
GENERAL CONSTRUCTION	SHEET NO. 55

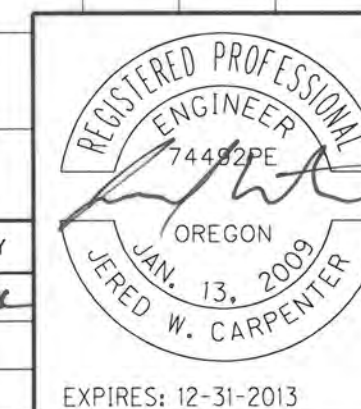


Invert-in of proposed pipe @ Sta. "NB"815+61.50, 59.46 Lt. See sht. 55, note 2 Profile shown @ pipe centerline



Invert-in of proposed pipe @ Sta. "NB"818+04.80, 59.24' Lt. See sht. 55, note 5 Profile shown @ pipe centerline

No.	DATE	REVISIONS	BY
1	11-26-12	Changed material description	JWC



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

**I-5: GLENDALE-HUGO PAVING / SEXTON CLIMBING LANE PACIFIC HIGHWAY**  
JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
Reviewed By - Brian Sheedel  
Drafted By - Linda K. Coffel

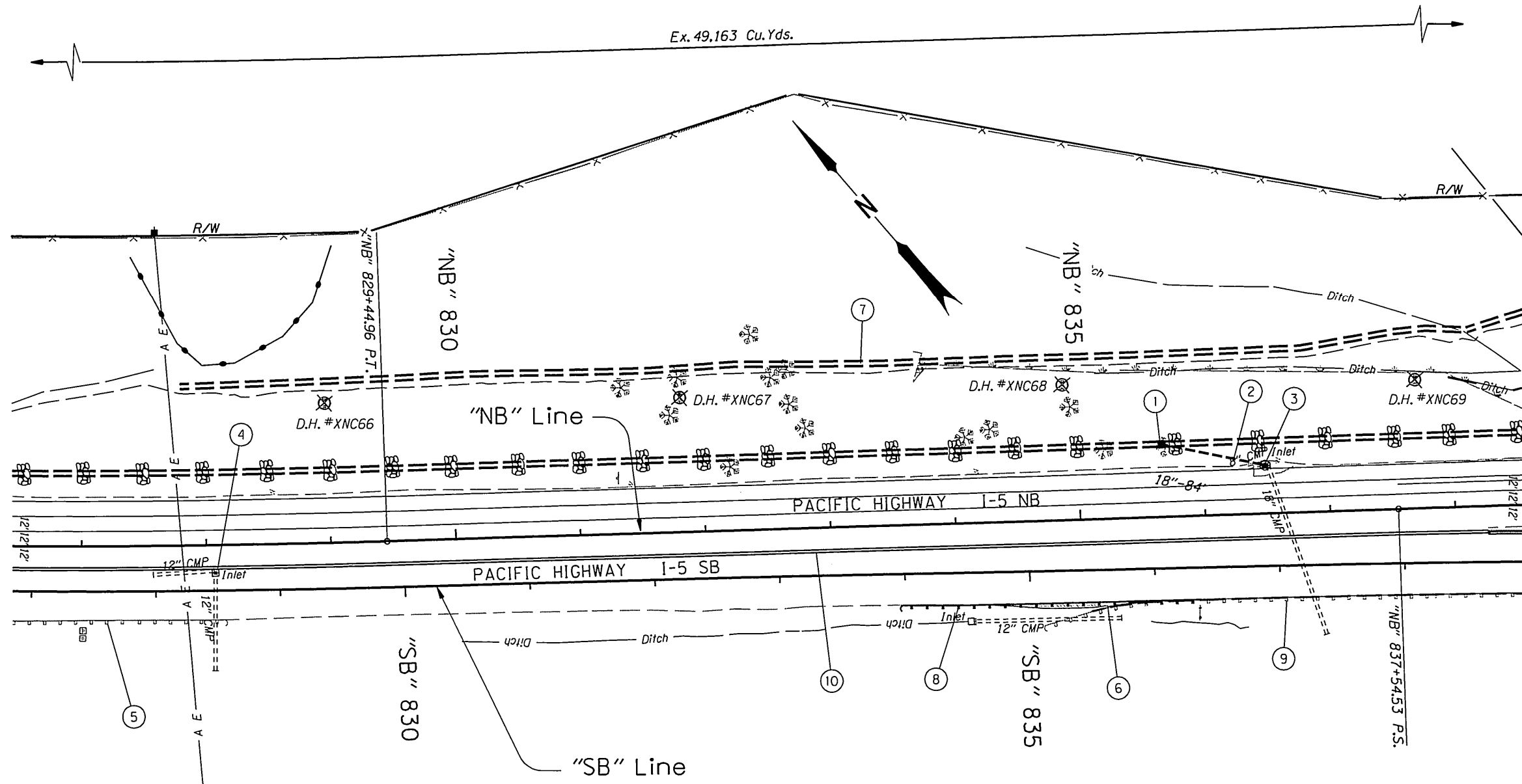
**PROFILE**

SHEET NO. **55A**




Sec. 26, T. 34 S, R. 6 W, W.M.


46V-003

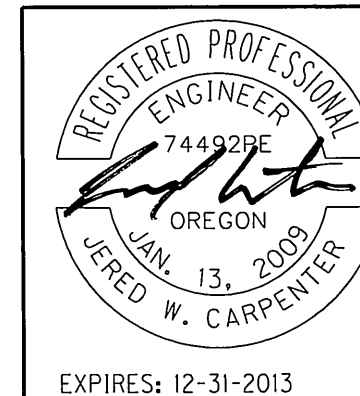




- ① Sta. "NB" 835+66.71, 58.20' Lt.  
Const. Type B-SL inlet  
(For details, see sht. 56A)
- ② Sta. "NB" 835+66.71, 58.20' Lt. to  
Sta. "NB" 836+48.53, 38.79' Lt.  
Const. 18" storm sew. - 84'  
5' depth  
(For details, see sht. 56A)
- ③ Sta. 836+48.53, 38.79' Lt.  
Remove extg. inlet  
Const. std. storm sew. manhole over extg. sew.  
(Connect to extg. 8" & 18" CMP  
(Connect to 18" storm sew.)  
(For details, see sht. 56A)
- ④ Adjust inlet
- ⑤ See sht. 54, note 9
- ⑥ Sta. "SB" 835+52.0 to Sta. "SB" 845+44.0, Rt.  
Remove extg. drainage curb - 992'  
Const. drainage curb - 992'
- ⑦ Sta. "NB" 827+80.0 to Sta. "NB" 840+02.0, Lt.  
Const. drainage ditch - 920 C.Y.  
(For details, see sht. 2B-3)
- ⑧ Sta. "SB" 834+02 to Sta. "SB" 836+40, Rt.  
Remove guardrail - 125'  
Const. guardrail - 200' (Type 2A)  
Const. guardrail terminal, non-flared  
Test level 3  
Connect to extg. guardrail  
Inst. Type 4 (Alt. 2) delineators - 2  
Remove AC surfacing - 41 sq. yds.
- ⑨ Sta. "SB" 836+39.5 to Sta. "SB" 845+39.5, Rt.  
Remove washers - 144
- ⑩ See sht. 38, note 8  
(Pin barrier from Sta. "SB" 838+67 to  
Sta. "SB" 866+77)

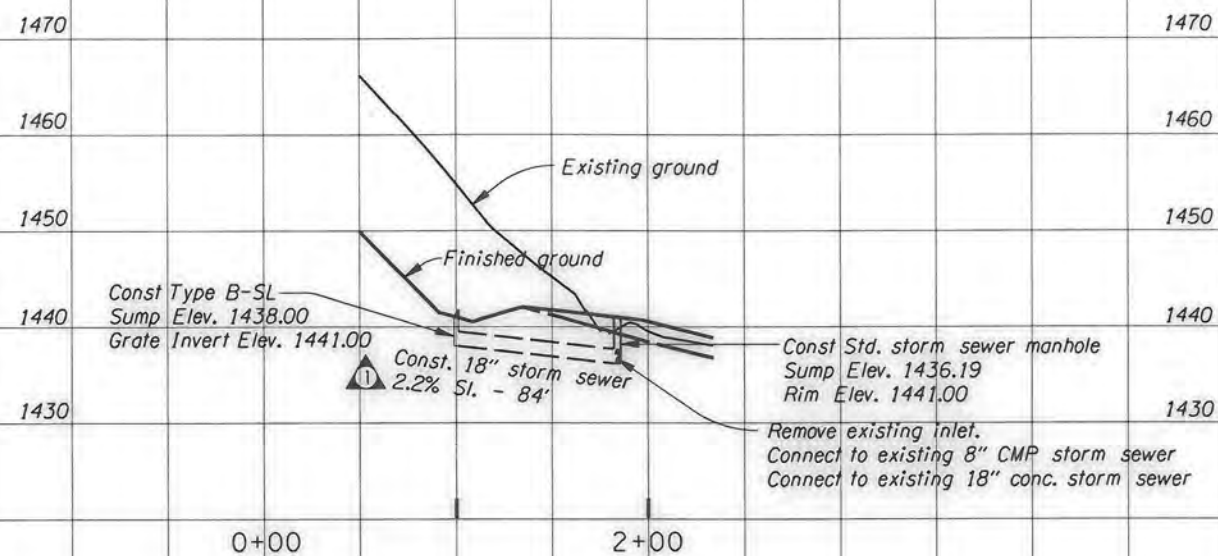
NOTES:  
 1. All dimensions shown are in feet unless otherwise noted.  
 2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517  
 3. Guardrail design is based on a terminal length of 37.5', if longer terminal is used, reduce the length of Type 2A guardrail accordingly.

Legend  
 Check dam shown thus:   
 (For details, see sht. 2B-7)

"No Work Zone" shown thus: 

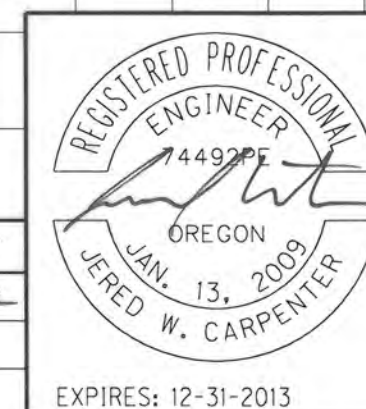


 OREGON DEPARTMENT OF TRANSPORTATION	
 REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
GENERAL CONSTRUCTION	SHEET NO. 56



Invert-in of proposed pipe @ Sta. "NB"835+66.71, 58.20' Lt. See sht. 56, note 2 Profile shown @ pipe centerline

No.	DATE	REVISIONS	BY
1	11-26-12	Changed material description	JWC



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 3 - TECHNICAL CENTER**

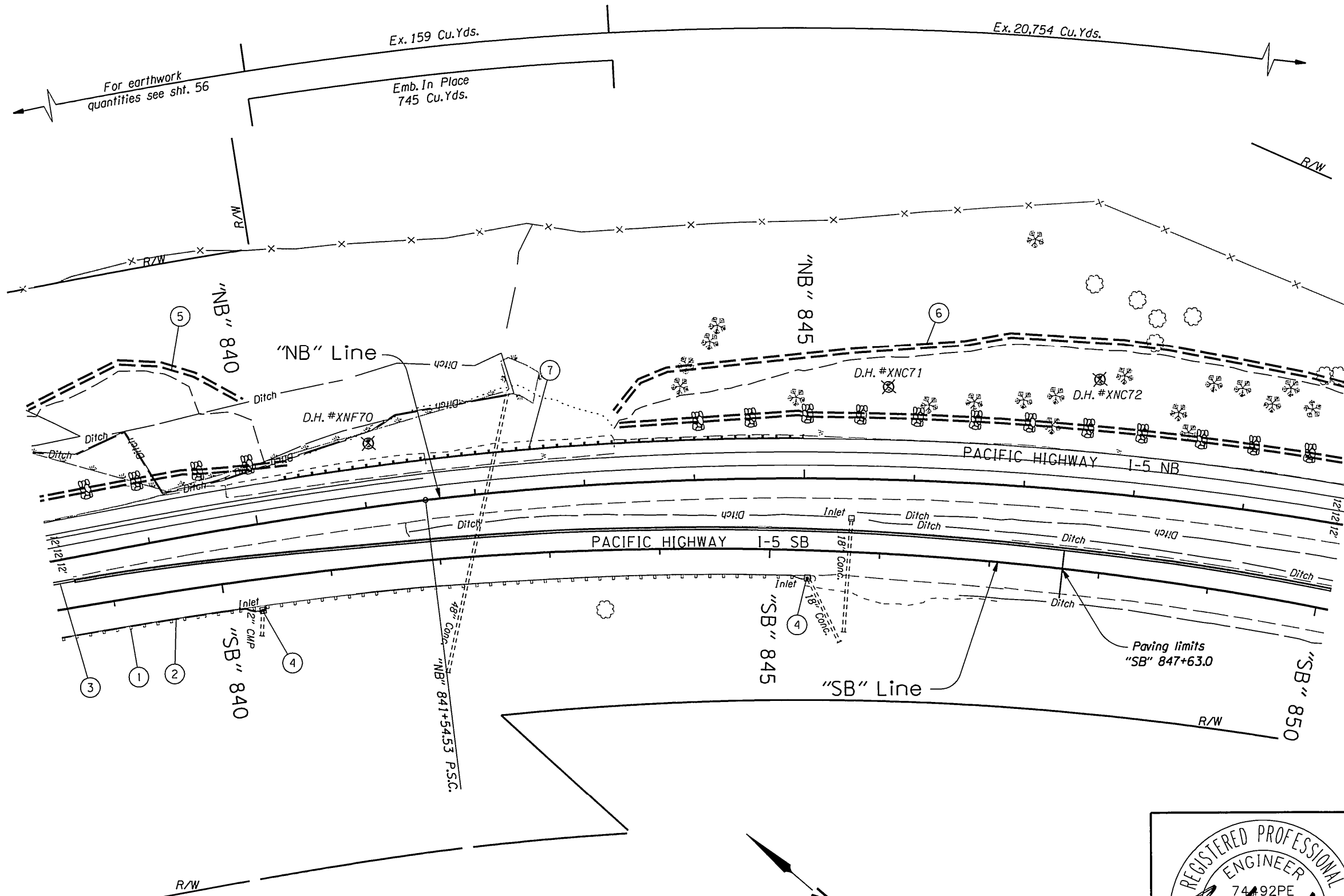
**I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE**  
PACIFIC HIGHWAY  
JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
Reviewed By - Brian Sheadel  
Drafted By - Linda K. Coffel

**PROFILE**

SHEET NO. **56A**

Sec. 26 & 35, T. 34 S, R. 6 W, W.M.



- ① See sht. 56, note 9
- ② See sht. 56, note 6
- ③ See sht. 38, note 8
- ④ Adjust inlet - 2
- ⑤ See sht. 56, note 7
- ⑥ Sta. "NB" 843+34.0 to Sta. "NB" 855+29, Lt. Const. drainage ditch - 939 C.Y. (For details, see sht. 2B-3)
- ⑦ Sta. "NB" 840+25.0 to Sta. "NB" 845+00, Lt. Const. guardrail - 437.5' (Type 2A) Const. anchor (Type 1 mod.) Inst. end piece (Type B) Const. guardrail terminal, non-flared Test level 3 Inst. Type 4 (Alt. 2) delineators - 4

Legend  
 Check dam shown thus: (For details, see sht. 2B-7)

- NOTES:
1. All dimensions shown are in feet unless otherwise noted.
  2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517
  3. Guardrail design is based on a terminal length of 37.5'. if longer terminal is used, reduce the length of Type 2A guardrail accordingly.
  4. Amended soil not required for check dams between Sta. "NB" 843+00 to "NB" 866+00

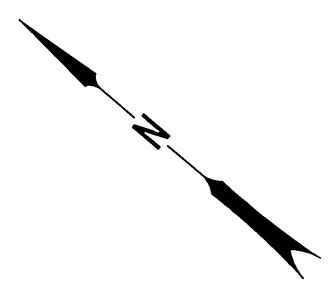
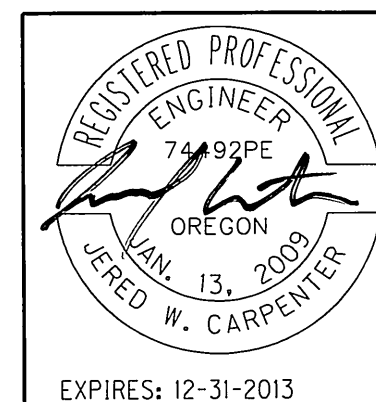
OREGON DEPARTMENT OF TRANSPORTATION

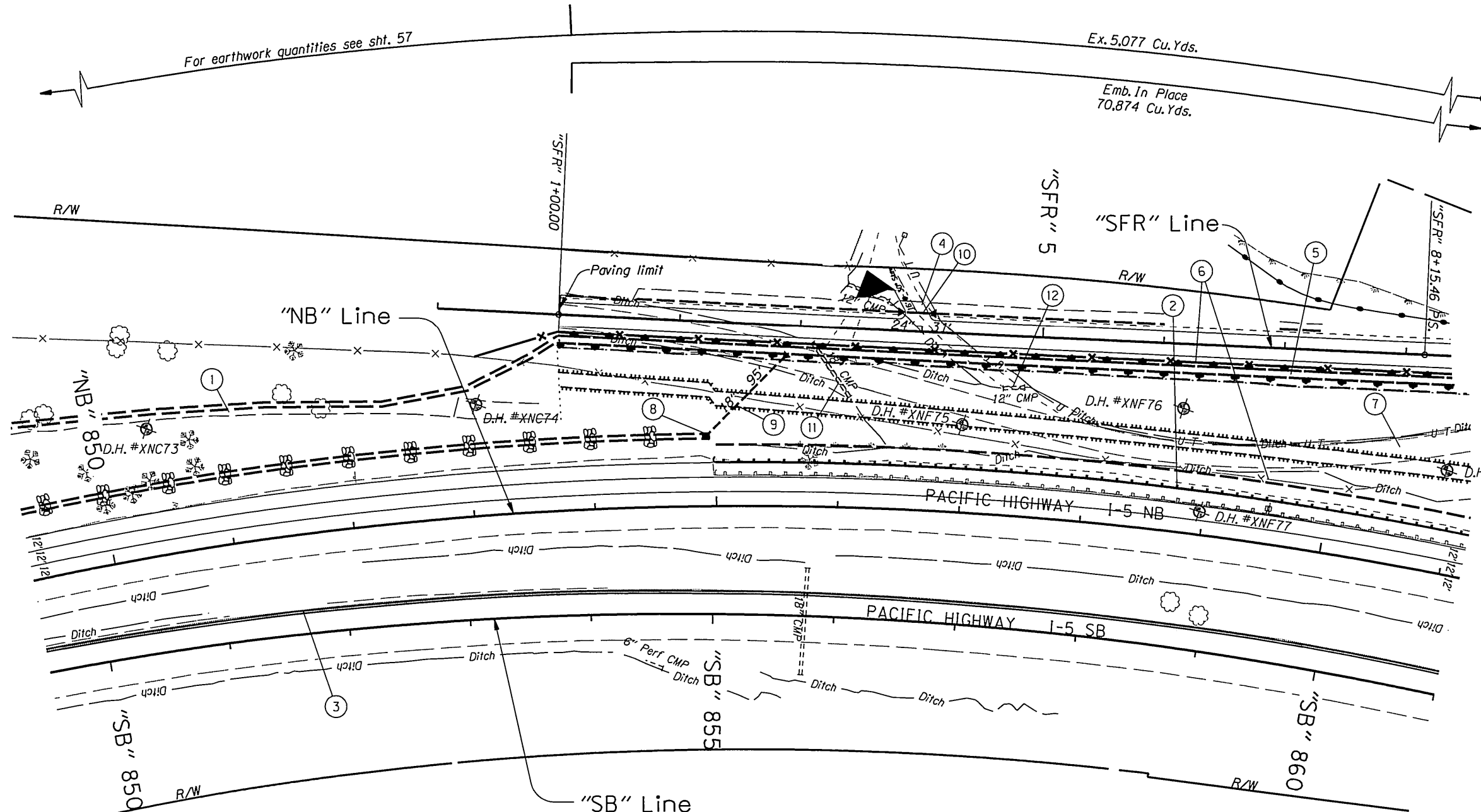
REGION 3 - TECHNICAL CENTER

I-5: GLENDALE-HUGO PAVING/  
 SEXTON CLIMBING LANE  
 PACIFIC HIGHWAY  
 JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
 Reviewed By - Brian Sheadel  
 Drafted By - Linda K. Coffel

GENERAL CONSTRUCTION SHEET NO. 57



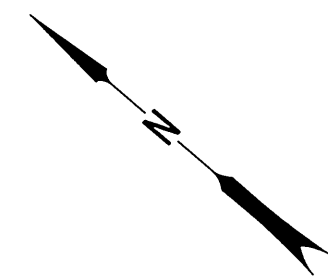


- ① See sht. 57, note 6
- ② Sta. "NB" 855+00 to Sta. "NB" 866+00, Lt. Remove guardrail - 1,100' Const. guardrail - 1,100' (type 2A) Const. anchor (Type 1mod.) Inst. end piece (type B) Inst. Type 4 (Alt. 2) delineators - 7
- ③ See sht. 38, note 8
- ④ Const. approach, asphalt (For details, see sht. 2B-18)
- ⑤ Const. 4' flat bottom bioswale - 760 sq. yds. (For details, see sht. 2B-6)
- ⑥ Sta. "SFR" 0+32 to Sta. "SFR" 12+87, Rt. Remove fence - 1,255' Const. Type 2 fence - 1,261' Connect to extg.
- ⑦ Remove AC surfacing on frontage road - 1,575 sq. yds.

**Legend**  
 Check dam shown thus: (For details, see sht. 2B-7)

- NOTES:**
- 1. All dimensions shown are in feet unless otherwise noted.
  - 2. Replace all existing striping/pavement markings in accordance with Standard Drawings TM500, TM501, TM502, TM530, TM547, TM551 & TM560. Replace all recessed pavement markers in accordance with Standard Drawings TM516 & TM517
  - 3. Guardrail design is based on a terminal length of 37.5', if longer terminal is used, reduce the length of Type 2A guardrail accordingly.
  - 4. Amended soil not required for check dams between Sta. "NB" 843+00 to "NB" 866+00

- ⑧ Sta. "NB" 854+92.06, 57.91' Lt. Const. type B-SL inlet (For details, see sht. 58A)
- ⑨ Sta. "NB" 854+92.06, 57.91' Lt. to Sta. "SFR" 2+90.00, 23.84' Rt. Const. 18" storm sew. - 95' 5' depth Const. paved end slope - 30 sq. ft. (For details, see sht. 58A) (See Std. dwg. no. RD320)
- ⑩ Sta. "SFR" 3+79.81, 15.77' Lt. to Sta. "SFR" 4+11.33, 15.77' Lt. Const. 24" culvert - 31' 5' depth Const. paved end slope each end - 74 sq. ft.
- ⑪ Remove 18" CMP - 54'
- ⑫ Remove 12" CMP - 18'

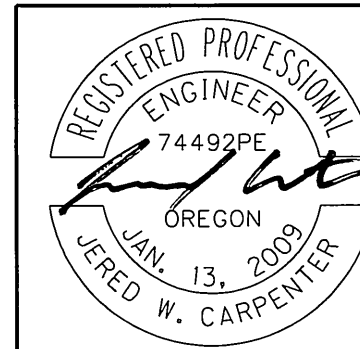


OREGON DEPARTMENT OF TRANSPORTATION

REGION 3 - TECHNICAL CENTER

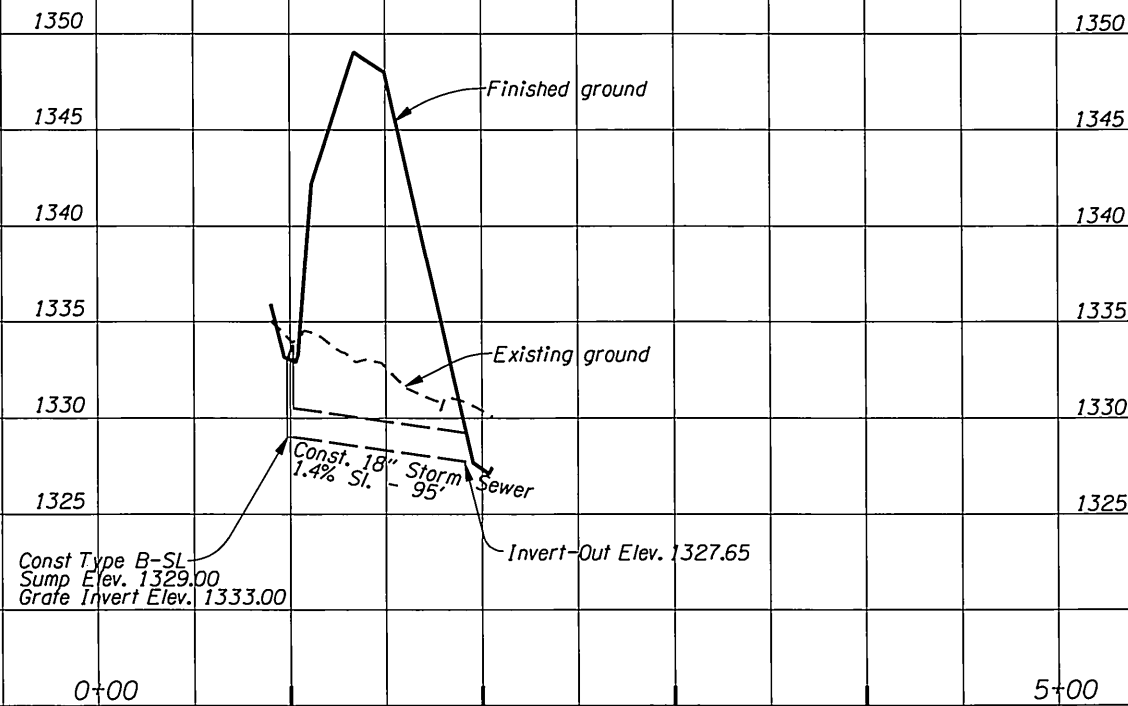
**I-5: GLENDALE-HUGO PAVING/  
 SEXTON CLIMBING LANE**  
 PACIFIC HIGHWAY  
 JOSEPHINE & DOUGLAS COUNTY

Designed By - Jered Carpenter  
 Reviewed By - Brian Sheadel  
 Drafted By - Linda K. Coffel

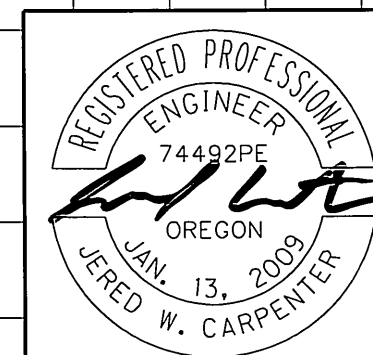



EXPIRES: 12-31-2013

**GENERAL CONSTRUCTION** SHEET NO. **58**



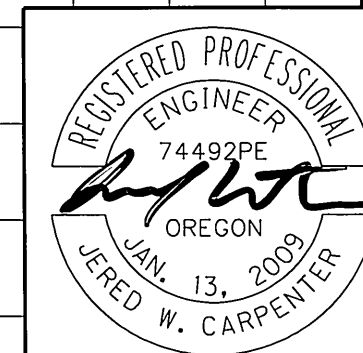
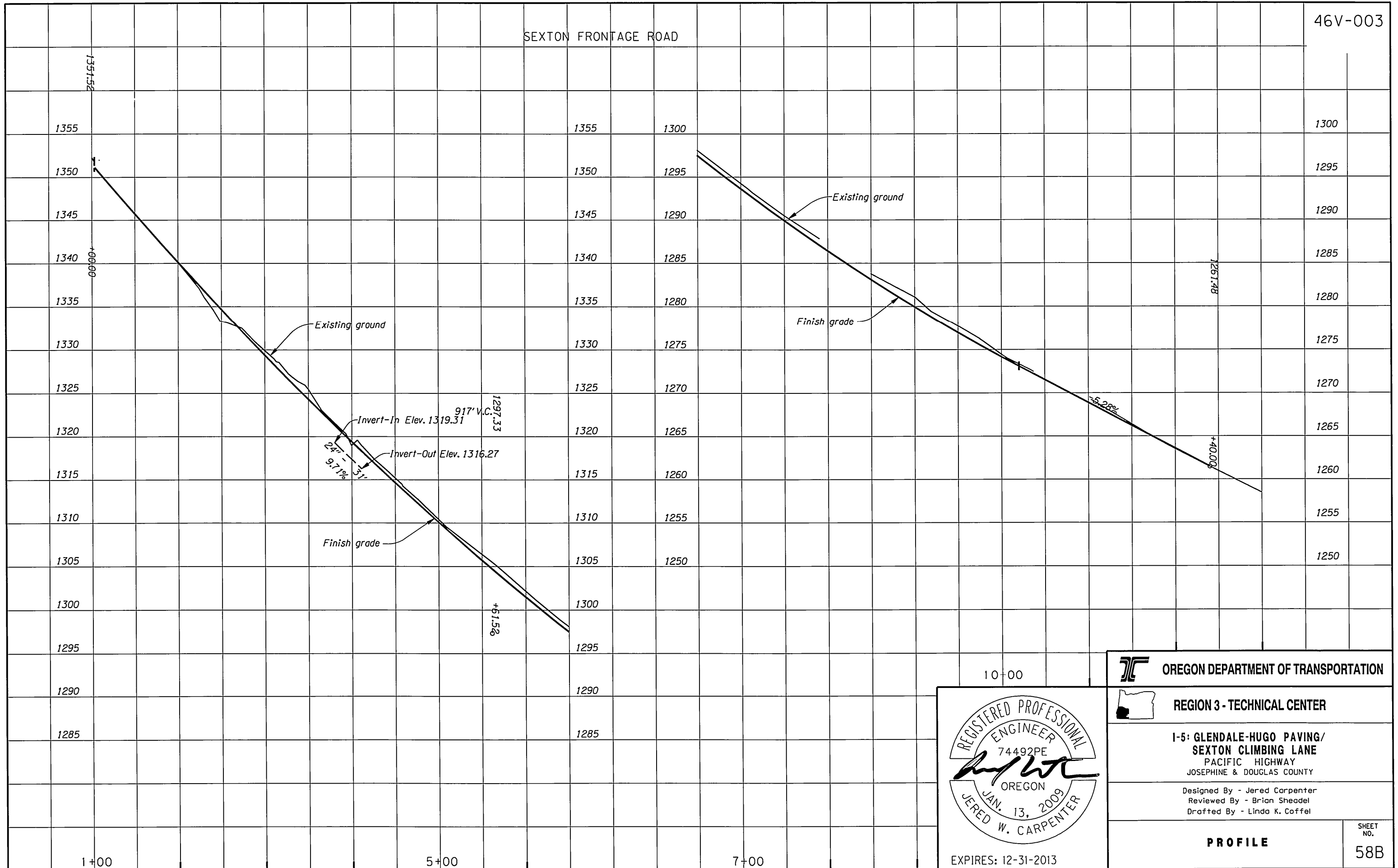
Invert-in of proposed pipe @  
Sta. "NB" 854+92.06, 57.91' Lt.  
See sht. 58, note 8  
Profile shown @ pipe centerline



 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 3 - TECHNICAL CENTER	
I-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
PROFILE	SHEET NO. 58A

46V-003

SEXTON FRONTAGE ROAD



<b>OREGON DEPARTMENT OF TRANSPORTATION</b>	
<b>REGION 3 - TECHNICAL CENTER</b>	
<b>1-5: GLENDALE-HUGO PAVING/ SEXTON CLIMBING LANE</b> PACIFIC HIGHWAY JOSEPHINE & DOUGLAS COUNTY	
Designed By - Jered Carpenter Reviewed By - Brian Sheadel Drafted By - Linda K. Coffel	
<b>PROFILE</b>	SHEET NO. <b>58B</b>