



# Oregon

Theodore R. Kulongoski, Governor


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DATE: March 18, 2009

## Addenda No. 2

TO: PLAN HOLDERS

PREPARED BY:  P.L.S.  
Shane Terwilliger

APPROVED BY:  P.E.  
Carol Cartwright

SUBJECT: OR126: Horseshoe Creek - Siuslaw River Section  
Florence - Eugene Highway  
Lane County  
Grading, Drainage, Structures, Paving, Signing, & Illumination Project  
(Bids to be opened and read March 26, 2009)

### The following changes are made to the Project Special Provisions:

1. Subsection **00310.40(a) Guardrail, Median Rail, and Concrete Barrier** - This subsection was added to the special provisions in accordance with addenda No.1. Modify the subsection as follows:

Replace the sentence that reads "Guardrail must be in place before 3pm on Fridays and remain in place through midnight on Sunday." with the following sentence:

Guardrail must be in place before 3pm on Fridays and remain in place through 7:00PM on Sundays.

2. Subsection **00596.00 Scope** - Add the following to the end of this subsection:

Concrete panel walls and block walls require coping. Details for concrete coping and leveling pads have been included in the plans for the Contractor's convenience. If the Contractor wishes to use a different coping or leveling pad option, the Contractor shall submit details and design calculations according to 00596.04.

3. Subsection **00970.80 Measurement** – This subsection is replaced with the following subsection:

**00970.80 Measurement** - Add the following to the end of this subsection:

The estimated quantities of lighting poles and arms are as follows:

<b>Item</b>	<b>Quantity (Feet)</b>
Lighting Poles, Slip Base.....	297
Lighting Pole Arms .....	120

**The following changes are made to the Project Plans:**

1. Plan sheets GC-7 and I -1506 are replaced with revised plan sheets GC-7 and I -1506.

These changes will be included in the Contract for this Project. It is understood that your Bid will be submitted accordingly.

ST:st

Attachments: Revised Plan Sheets

**RETAINING WALL GENERAL NOTES:**

Ensure that material and workmanship conform to the 2008 Standard Specifications for Highway Construction of the Oregon Department of Transportation and supplemental project special provisions.

Ensure design conforms to the requirements for Service Load Design of the 1997 AASHTO Standard Specifications for Highway Bridges, applicable Interim AASHTO Specifications, and ODOT Design Instructions.

Retaining wall seismic design is in accordance with AASHTO Standard Specifications for Highway Bridges Division I-A, Seismic Design. The site peak bedrock acceleration coefficient (A) is 0.21 g and the assumed site coefficient (S) is 1. The design earthquake is a 500 year return period seismic event. ODOT has performed external stability calculations. The wall will perform adequately for global, sliding, bearing capacity and overturning under static and design seismic loads.

Provide a minimum service life of 75 years for all components.

Use the following soil property values:

	Angle of Internal Friction	Density pcf
Soil retained by structure	30	110
Granular backfill in structure	38 $\Delta$	125
Soil below structure	34 $\Delta$	110

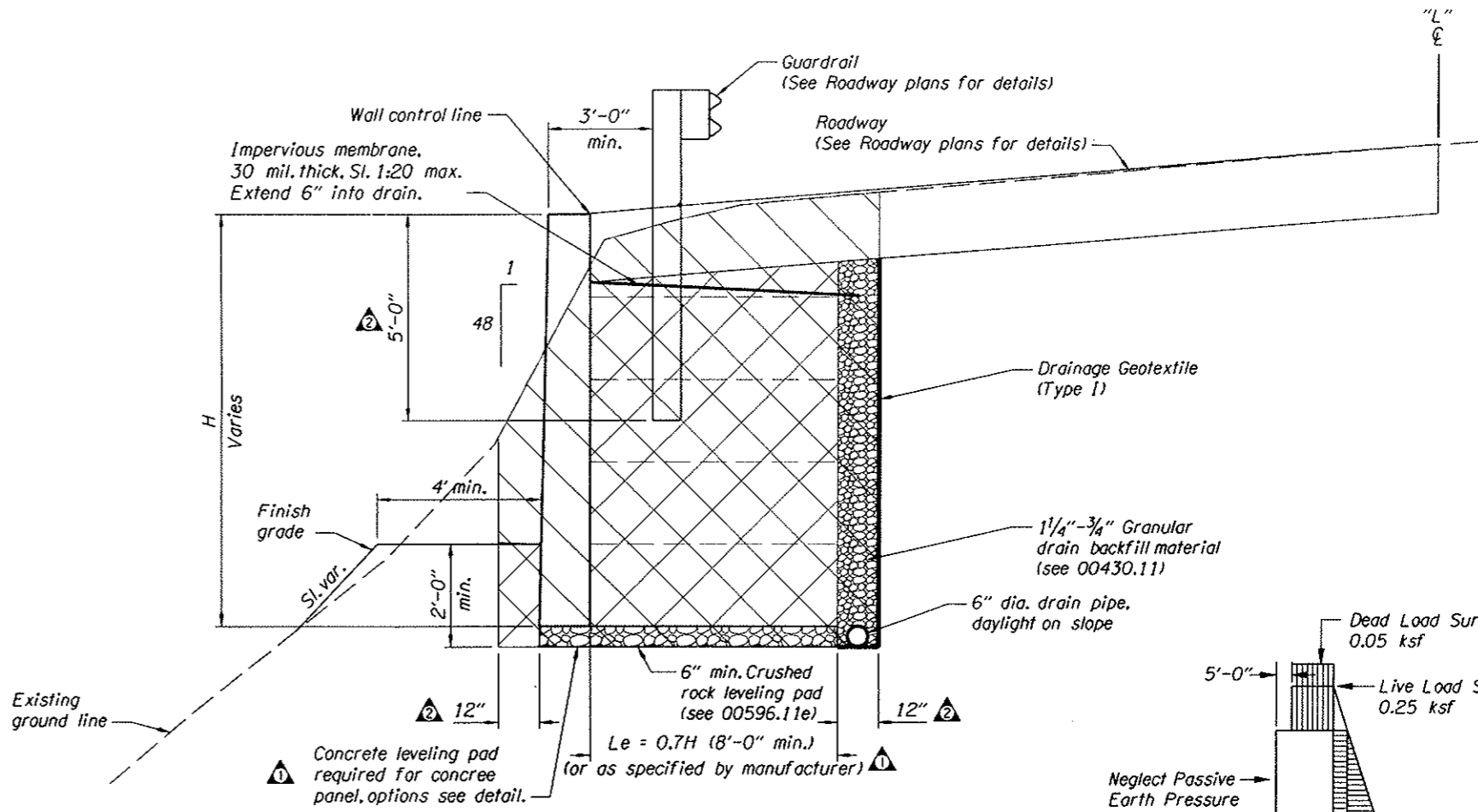
Meet a minimum factor of safety for soil reinforcement pullout of 1.5

Use the following loss rates for galvanized steel soil reinforcements:  
 Zinc galvanization loss = 15  $\mu$ m/year (0.60 mil/year) for first 2 years.  
 Zinc galvanization loss = 4  $\mu$ m/year (0.60 mil/year) for subsequent years.  
 Carbon steel loss = 12  $\mu$ m/year (0.47 mil/year) after zinc depletion.

Supply steel soil reinforcements with allowable tensile stresses meeting the following limits:  
 Strip or grid-type reinforcements and connections  $\leq 0.55F_y$   
 At welded connections of transverse grid members  $\leq 0.48F_y$

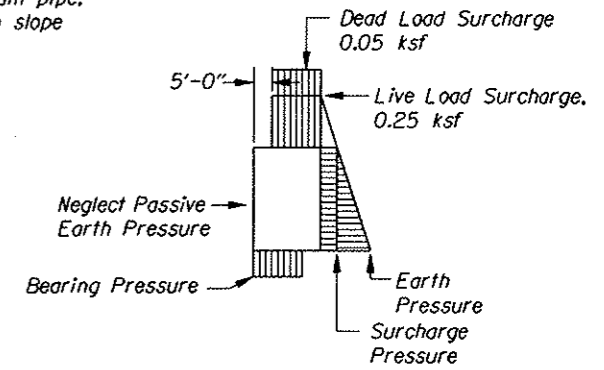
For extensible soil reinforcements calculate the long-term reinforcement strength (Ultimate Limit State Condition) using Minimum Average Roll Values (MARV) and a combined reduction factor to account for potential long-term degradation due to installation damage (RF<sub>ID</sub>), creep (RF<sub>CR</sub>), and chemical aging (RF<sub>D</sub>) per manufacturers recommendation.

For extensible soil reinforcements used in permanent wall applications, use a global safety factor of 1.5 for ultimate limit state conditions.



**MSE WALL CROSS SECTION**

No Scale

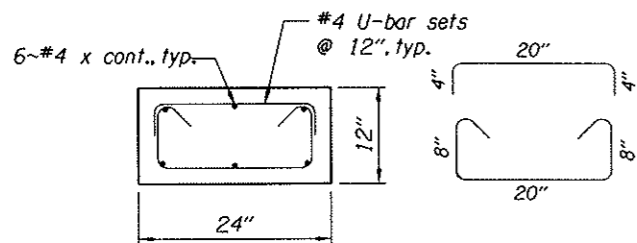


**PROJECT LOADING CONDITIONS**

No Scale

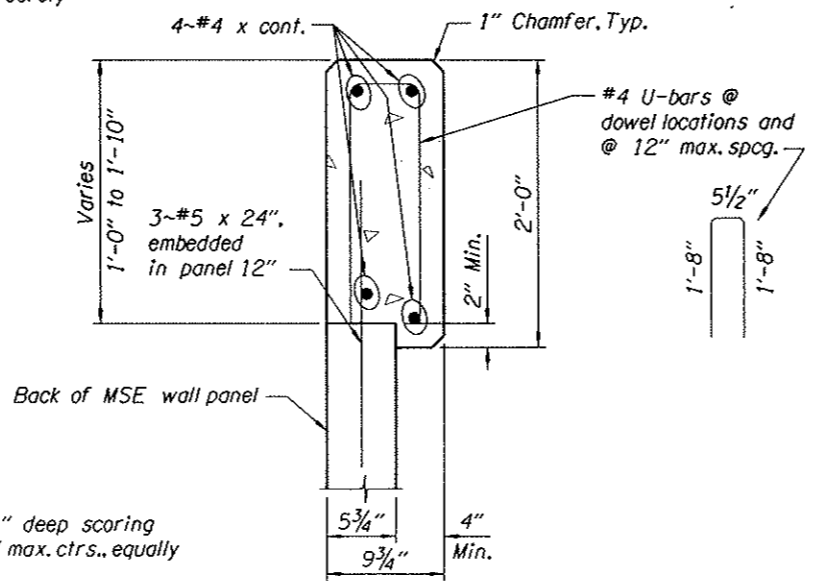
For Structures: 20976, 20977, 20978, 20979, 20980, 21067

- $\Delta$  3-9-09 Changed Dimensions, Friction Angle & Added Detail
- $\Delta$  3-17-09 Changed Dimensions



**LEVELING PAD DETAIL (CONCRETE PANEL OPTIONS)**

No Scale

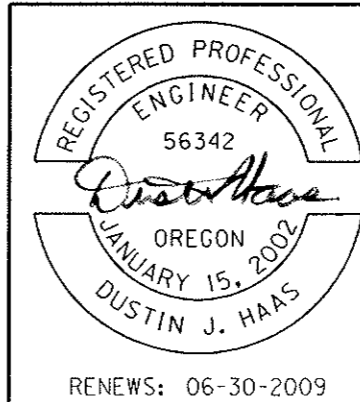


**MSE WALL COPING DETAIL (CONCRETE PANEL OPTIONS)**

No Scale

**NOTE:**  
Construct 1" deep scoring joints at 6' max. ctrs., equally spaced.

- Structure Excavation
- Granular Structure Backfill
- Granular Drain Backfill



**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 2 TECH CENTER**











OR126: HORSESHOE CREEK - SIUSLAW RIVER SEC.  
 FLORENCE - EUGENE HIGHWAY  
 LANE COUNTY

Reviewed By - Jeff Berry  
 Designed By - Dustin J. Haas, P.E.  
 Drafted By - Michael Skelton


STRUCTURE NO. See Above  
 BDS  
 DWG. NO. 80928  
 SHEET NO. GC-7



**RETAINING WALL DETAILS**

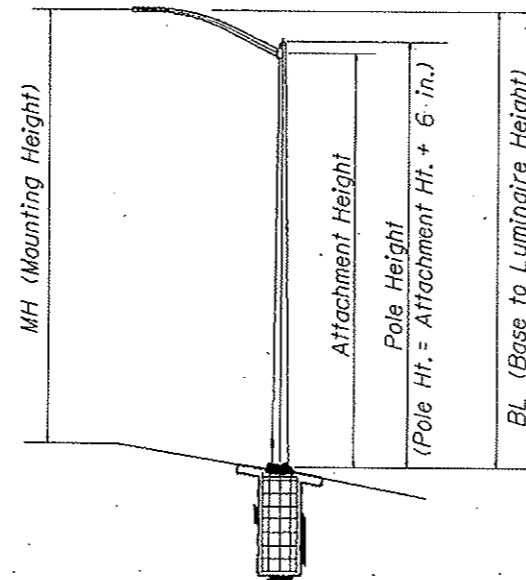
**L E G E N D**

-  Install service cabinet, 120/240 volt, for both electrical and illumination circuits
-  Pole # "N" (See Metal Light Pole Table on this sheet)
-  Install photocontrol electronic relay on cabinet (See detail on Sheet I-1508)
-  Install metal light pole (X) feet from edge of travel lane or fog line
-  Install 17"x10"x12" (min. dimension) precast concrete junction box w/ metal lid and concrete apron (See detail on Sheet I-1508)
-  Install (S = size) inch rigid non-metallic electrical conduit
-  Install (N=number) No. 1G=AWG wire size) type XHHW wires
-  Install one No.10 copper ground wire
-  Power source for 120/240 volt, single phase (installed by others; coordinate w/ power company)
-  Install post mounted control cabinet (See TM300)

**ILLUMINATION PLAN DETAILS AND LEGEND  
OR126: HORSESHOE CR - SIUSLAW R. SEC.  
OR 126 AT M.P. 11.2**


METAL LIGHT POLE TABLE * 												
POLE NO.	STATION	**ATTACHMENT HEIGHT OF ARM	UPSWEPT ARM			"BL"	LUMINAIRE			MOUNTING HEIGHT (ft.)	BASE PLATE CONFIG.	NOTES
			LENGTH	RISE (1)			LAMP (Watts)	LINE VOLT	TYPE			
1	"C" 304+04.6 (Rt.)	37.0'	15'-0"	5'-10"	43.3'	400W HPS	240 V	M-S-3	40	S	H(90)	
2	"WS" 100+49.6 (Rt.)	35.7'	15'-0"	5'-10"	42.0'	400W HPS	240 V	M-S-3	40	S	H(90)	
3	"WS" 102+50.2 (Rt.)	37.4'	15'-0"	5'-10"	43.8'	400W HPS	240 V	M-S-3	40	S	H(90)	
4	"WS" 104+49.9 (Rt.)	36.4'	15'-0"	5'-10"	42.7'	400W HPS	240 V	M-S-3	40	S	H(90)	
5	"WS" 106+49.0 (Rt.)	36.4'	15'-0"	5'-10"	42.7'	400W HPS	240 V	M-S-3	40	S	H(90)	
6	"WS" 108+48.1 (Rt.)	36.8'	15'-0"	5'-10"	43.1'	400W HPS	240 V	M-S-3	40	S	H(90)	
7	"WS" 110+46.4 (Rt.)	36.5'	15'-0"	5'-10"	42.4'	400W HPS	240 V	M-S-3	40	S	H(90)	
8	"C" 318+12.6 (Rt.)	37.0'	15'-0"	5'-10"	43.3'	400W HPS	240 V	M-S-3	40	S	H(90)	

MONTHLY SYSTEM ENERGY UTILIZATION	
1334 KWH per month	
DESIGN VALUES	
AVG MAINTAINED ILLUMINANCE (FC)	AVG/MIN UNIFORMITY
0.960 	2.59/1 




**POLE HEIGHT VERIFICATION**

Note: Slope may vary per pole location

REVISIONS
 Revised 03-18-2009 Changed pole height

**LEGEND**

- \* = Metal Pole and its foundation shall be according to ODOT Standard Specification & Standard Dwg. No. TM629 and TM630.
- \*\* = Field verify attachment height of arm before ordering.  
Values are approximated from grading cross sections
- S = Slip base illumination pole. See Dwg. No. TM629 & TM630.
- HPS = High Pressure Sodium
- (1) = Attachment height of arm may vary due to difference in manufacturer's arm rise
- M-S-3 = Medium-semicutoff-Type 3 light distribution
- BL = Base plate to Luminaire height
- H(n) = Handhole orientation measured from luminaire arm clockwise direction (n=angle in degrees)

	<p><b>OREGON DEPARTMENT OF TRANSPORTATION</b> TRAFFIC - ROADWAY SECTION</p> <p><i>Traffic Standards and Asset Management Section</i></p> <p><b>OR126: HORSESHOE CREEK - SIUSLAW RIVER SEC.</b> FLORENCE - EUGENE HIGHWAY LANE COUNTY</p> <p>DESIGNED BY: Martin Klug REVIEWED BY: Ernest Kim DRAWN BY: Martin Klug FC: 062 MP: 11.2</p> <p>ACCOMPANIED BY DWGS: TM300, TM301, TM302, TM472, TM485, TM629, TM630, TM671 and T.R.S. Dwg's I-1507 and I-1508</p> <p><b>ILLUMINATION PLAN DETAILS &amp; LEGEND</b></p> <p>Str. ID. No. _____ T.R.S. Dwg. No. <b>I-1506</b></p>
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