

March 30, 2016

Ms. Gail Terzi
US Army Corps of Engineers Seattle District
Regulatory Branch CENWS OD RG
PO Box 3755
Seattle, WA 98124-3755

RE: I-5 Scatter Creek and Maytown Safety Rest Areas and I-5 Grand Mound to Maytown Widening
USACE IP Number NWS-2007-284-SOD

Dear Ms. Terzi,

The Washington State Department of Transportation completed monitoring of the I-5 Scatter Cr and Maytown Safety Rest Areas (SRA) and I-5 Grand Mound to Maytown Widening sites on September 9, 10, 16 and 17, 2015 to determine survival of planted species for compliance with the above-listed USACE individual permit.

General Site Information			
USACE IP Number	NWS-2007-284-SOD		
Restoration Location	I-5 between MP 87.5 to 95.68		
Construction Date	2008-2009 (Safety Rest Areas) 2010 (I-5 Widening)		
Monitoring Period	2009-2018 (Safety Rest Areas) 2011-2020 (I-5 Widening)		
Year of Monitoring	6 of 10 (Safety Rest Areas) 4 of 10 (I-5 Widening)		
Project Impact	Permanent	Long-term Temporary	Short-term Temporary¹
Area of Project Impact (acres)	1.124 wetland 4.621 buffer	1.471 wetland	0.121 wetland 3.405 buffer
Type of Mitigation	Bank debit	Revegetation	Revegetation
Area of Mitigation	n/a	1.471 wetland	0.121 wetland 3.405 buffer
Bank Credits Debited	1.512 credits debited ²		n/a

¹ Temporary impacts occurred in multiple wetlands. For a breakdown of impacts see I-5 Grand Mound to Maytown Widening Project Wetland Mitigation Memorandum, December 2008 and USACE 2007.

² Off-site compensation for adverse impacts is provided by the North Fork Newaukum (NFN) Wetland Mitigation Bank Site for permanent and long-term temporary wetland impacts not entirely compensated for by on-site mitigation. Credits debited from the NFN bank will be 1.512 for both the Safety Rest Area and Widening Projects.

Performance Standard ³		2015 Results	Management Activities
I-5 Scatter Creek and Maytown SRA's	Years 1-3: 80% or greater survival of woody species	35% survival	
I-5 Grand Mound to Maytown Widening		57% survival	
I-5 Scatter Creek and Maytown SRA's	All Class A, Class B, and Class C noxious weeds on the State or County Weed list will be chemically and/or mechanically controlled at the re-vegetation areas before and after planting to insure that they do not out compete or interfere with the development of desirable vegetation.	5% cover	Weed control occurred on 3/30, 5/27, 5/28, 6/22 and 6/30 in 2015
I-5 Grand Mound to Maytown Widening		10% cover	Weed control occurred on 6/30 and 8/4 in 2015

Site development:

Survival rates in both re-vegetation areas has dropped since 2014, however plants in areas where noxious weed cover is low have become well established. In several planting areas, snowberry (*Symphoricarpos albus*) is forming dense monocultures. Cover of invasive species is high in certain areas as noted below.

³ For performance standards see: Washington State Department of Transportation. 2007. I-5 Grand Mound to Maytown Widening Mitigation Plan. Olympic Region Environmental Services.

Results for Performance Standard 1
(80% survival of woody species):

I-5 Scatter Creek and Maytown SRA's:

Survival of native woody vegetation is 35 percent across all planting areas. No single planting area achieved greater than 80 percent survival.

I-5 Grand Mound to Maytown Widening:

Survival of native woody vegetation is 57 percent across all planting areas. Wetland and buffer areas for wetland B, and buffer areas for wetlands T₁ and T₂ are the only areas that are achieving 80 percent or greater survival (likely with the help of replanting after the first year). (Photo 1)

Results for Performance Standard 2
(Weed control):

I-5 Scatter Creek and Maytown SRA's:

Cover of noxious weeds is qualitatively estimated at less than five percent across all planting areas. Himalayan blackberry (*Rubus armeniacus*) was found scattered throughout all planting areas. Some cutleaf blackberry (*Rubus laciniatus*) and a couple Scotch broom (*Cytisus scoparius*) plants were also observed.

I-5 Grand Mound to Maytown Widening:

Cover of noxious weeds is qualitatively estimated at 10 percent across all planting areas. Reed canarygrass (*Phalaris arundinacea*) and Scot's broom were found competing with the plantings in the northeast wetland and buffer areas for wetland A₁. Reed canarygrass dominates the northeast wetland planting area for wetland A. For wetland U, the wetland planting areas are dominated by Himalayan blackberry, and non-native blackberries and Scot's broom were both found in the buffer planting area. Canada thistle (*Cirsium arvense*) and reed canarygrass were found in the buffer planting area near wetland X. The buffer planting area near wetland T is overgrown with Himalayan blackberry and is also being colonized by red alder (*Alnus rubra*). The wetland planting area for wetland N has Himalayan blackberry and reed canarygrass competition as well.



Photo 1 – Survival of woody species in a buffer area for wetland T₁. (September 2015)

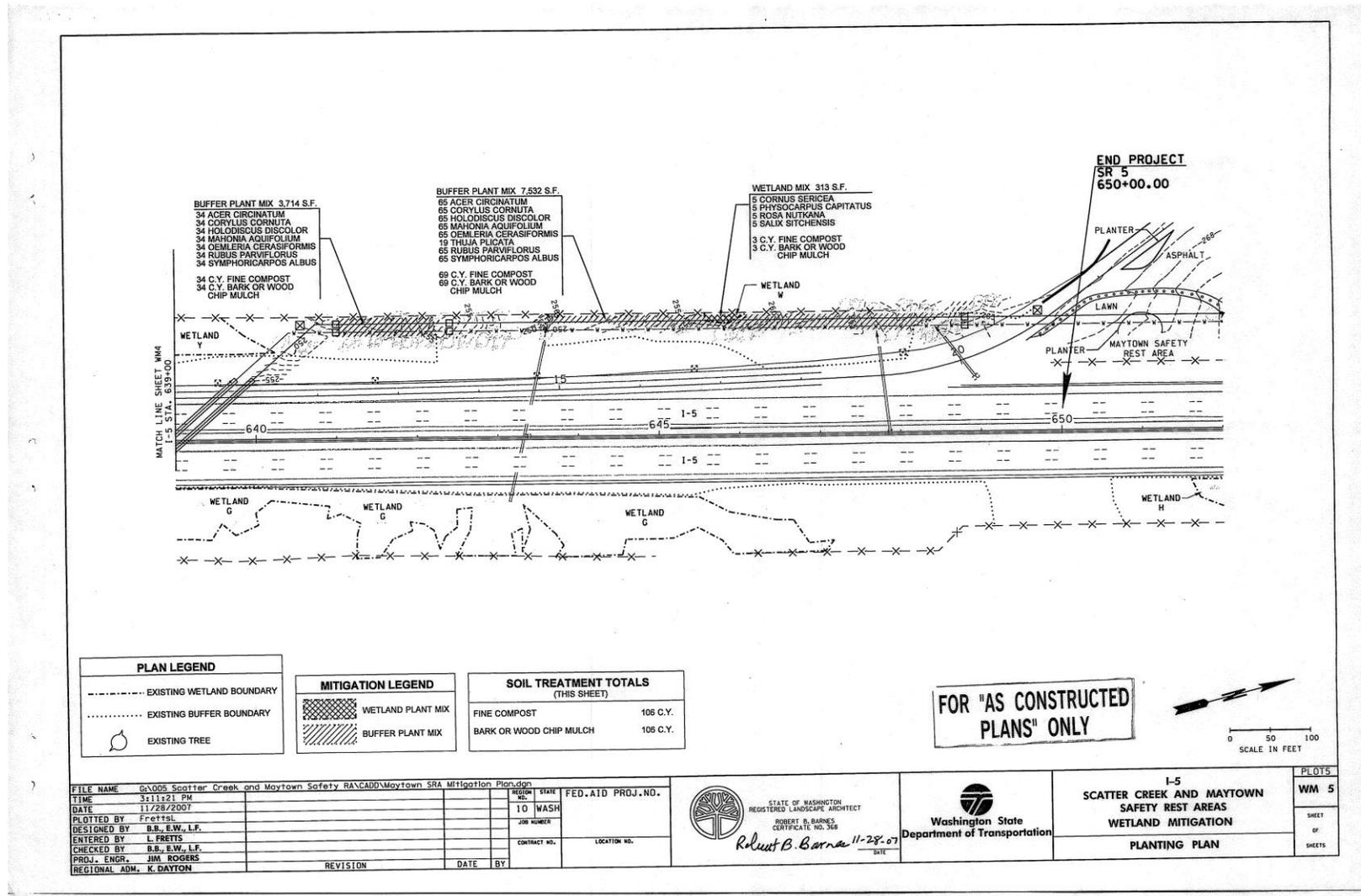
We welcome your questions or comments. Please contact me at 360/570-2579 or by e-mail at littaud@wsdot.wa.gov for questions about these mitigation sites.

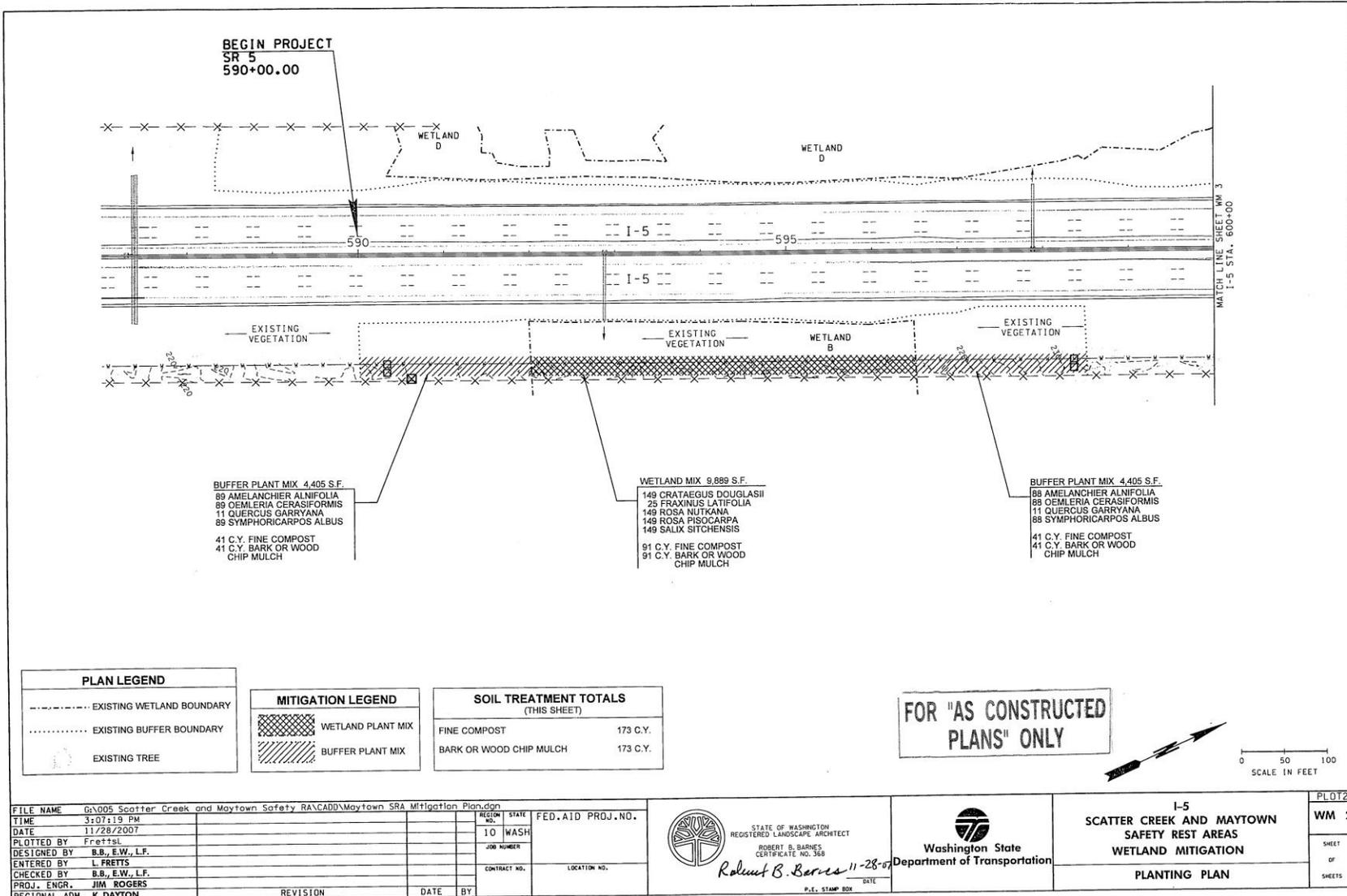
Sincerely,

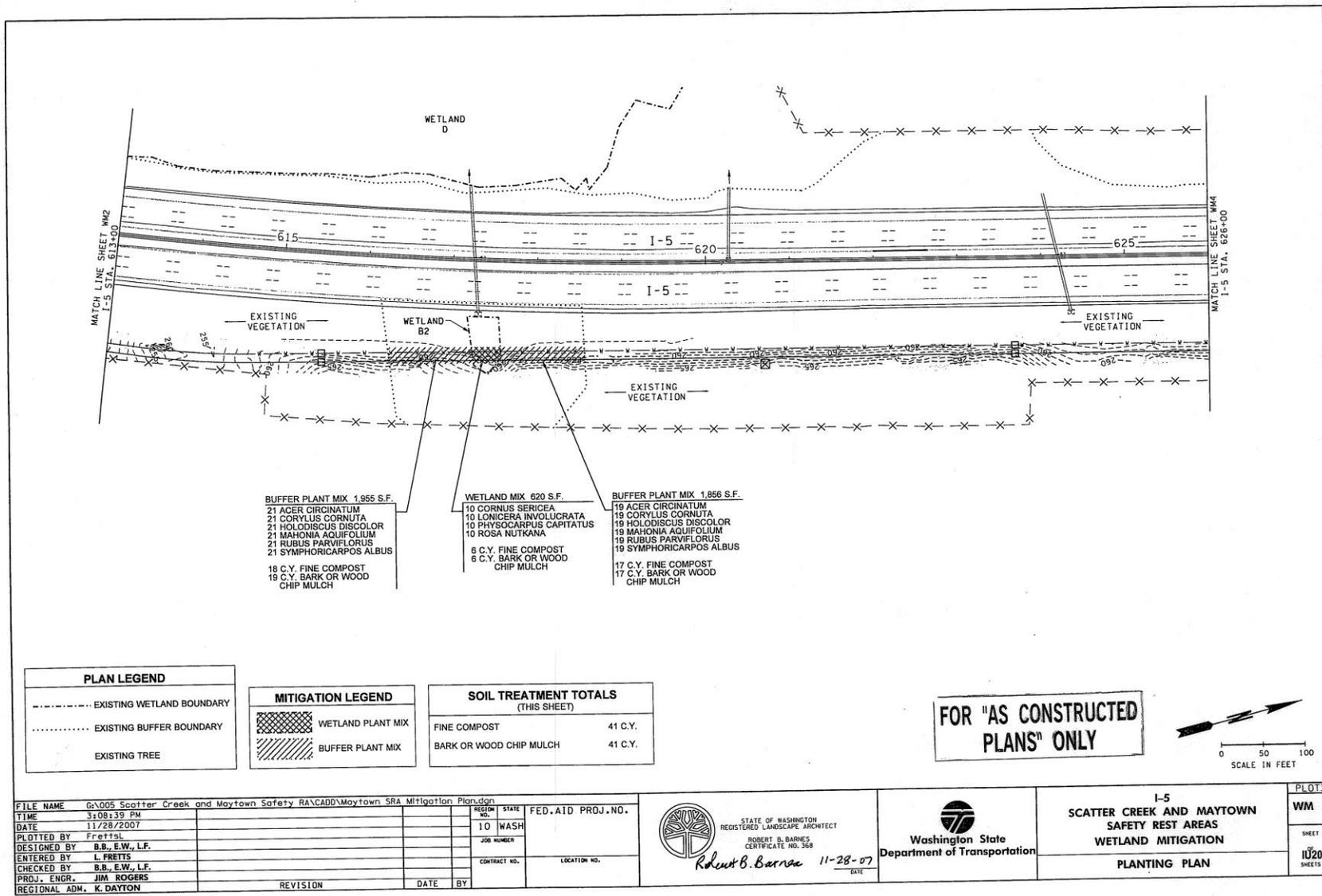
Doug Littauer
Wetlands Program

Scatter Creek and Maytown SRA

No photos taken in 2015.







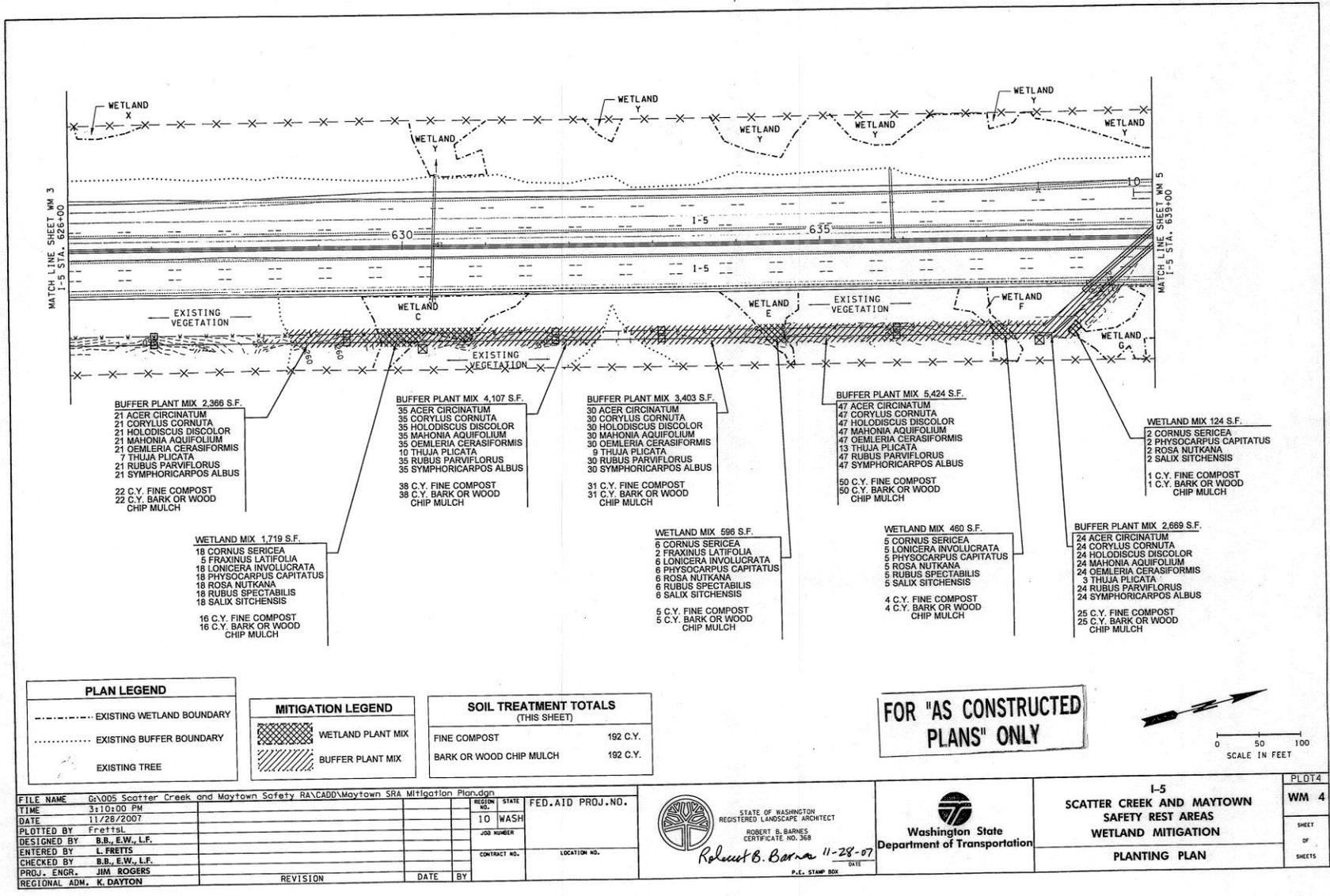
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PLOTTED BY	Frettl	JOB NUMBER	
DESIGNED BY	B.B. E.W., L.F.	CONTRACT NO.	LOCATION NO.
ENTERED BY	L. FRETTS		
CHECKED BY	B.B. E.W., L.F.		
PROJ. ENGR.	JIM ROGERS		
REGIONAL ADM.	K. DAYTON	REVISION	DATE BY

STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT
ROBERT B. BARNES
CERTIFICATE NO. 368
Robert B. Barnes 11-28-07

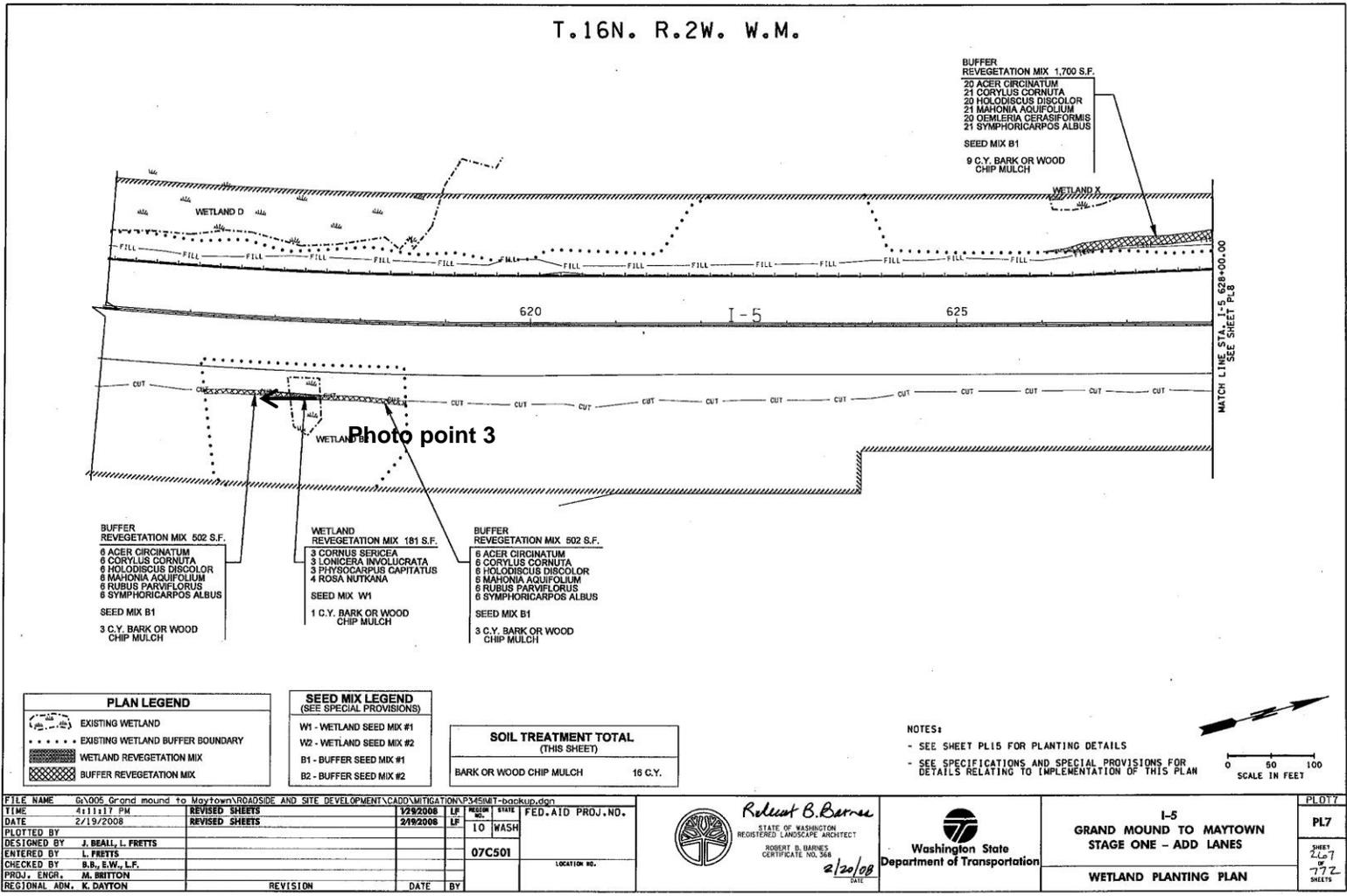
Washington State
Department of Transportation

I-5
SCATTER CREEK AND MAYTOWN
SAFETY REST AREAS
WETLAND MITIGATION
PLANTING PLAN

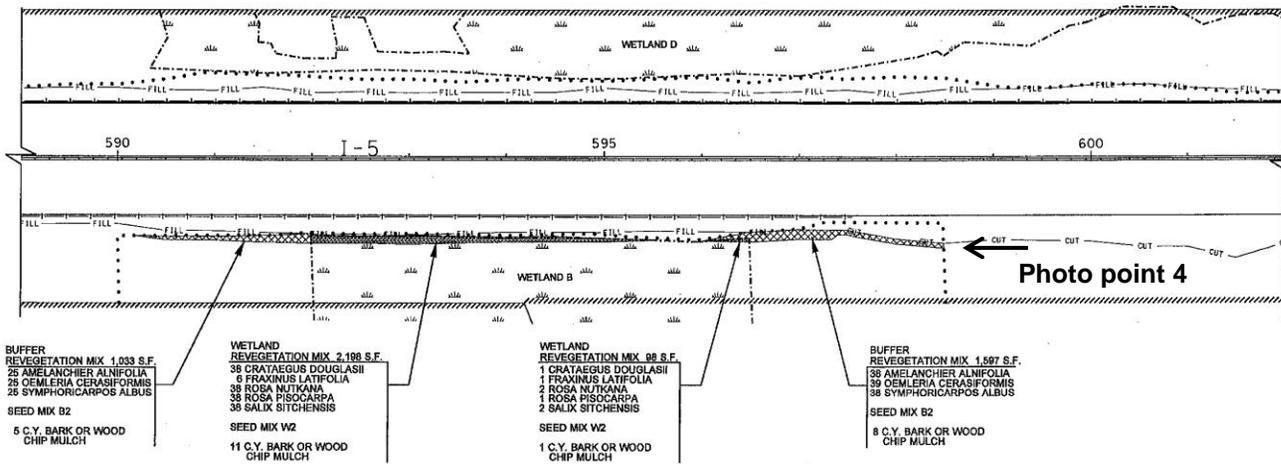
PLOTS	WM 3
SHEET	1020
SHEETS	



T.16N. R.2W. W.M.



T.16N. R.2W. W.M.

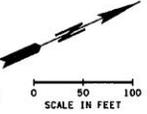


PLAN LEGEND	
	EXISTING WETLAND
	EXISTING WETLAND BUFFER BOUNDARY
	WETLAND REVEGETATION MIX
	BUFFER REVEGETATION MIX

SEED MIX LEGEND (SEE SPECIAL PROVISIONS)	
W1 - WETLAND SEED MIX #1	
W2 - WETLAND SEED MIX #2	
B1 - BUFFER SEED MIX #1	
B2 - BUFFER SEED MIX #2	

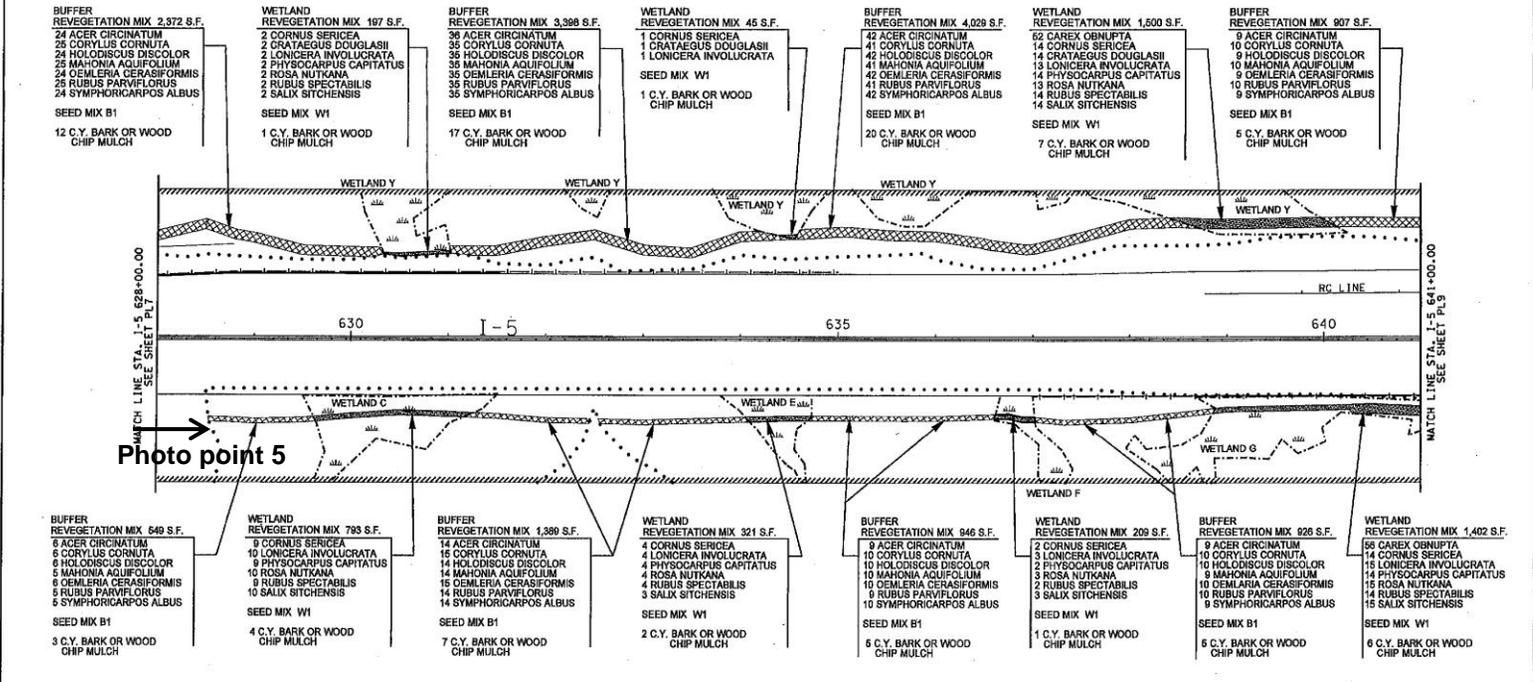
SOIL TREATMENT TOTAL (THIS SHEET)	
BARK OR WOOD CHIP MULCH	26 C.Y.

NOTES:
 - SEE SHEET PL15 FOR PLANTING DETAILS
 - SEE SPECIFICATIONS AND SPECIAL PROVISIONS FOR DETAILS RELATING TO IMPLEMENTATION OF THIS PLAN



FILE NAME	G:\005 Grand mound to Maytown\ROADSIDE AND SITE DEVELOPMENT\CADD\MITIGATION\PS45MIT-backup.dgn			 STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT ROBERT B. BARNES CERTIFICATE NO. 3688 2/20/08 DATE	 Washington State Department of Transportation	I-5 GRAND MOUND TO MAYTOWN STAGE ONE - ADD LANES WETLAND PLANTING PLAN	PL016 SHEET 2-14 OF 177 SHEETS
TIME	4:11:14 PM	REVISED SHEETS	1/23/2008				
DATE	2/19/2008	REVISED SHEETS	2/19/2008	LF	07C501	LOCATION NO.	
PLOTTED BY							
DESIGNED BY	J. BEALL, L. FREYTS						
ENTERED BY	L. FREYTS						
CHECKED BY	S.B., E.W., L.F.						
PROJ. ENGR.	M. BRITTON						
REGIONAL ADM.	K. DAYTON	REVISION		DATE			

T.16N. R.2W. W.M.



PLAN LEGEND	
	EXISTING WETLAND
	EXISTING WETLAND BUFFER BOUNDARY
	WETLAND REVEGETATION MIX
	BUFFER REVEGETATION MIX

SEED MIX LEGEND (SEE SPECIAL PROVISIONS)	
W1 - WETLAND SEED MIX #1	
W2 - WETLAND SEED MIX #2	
B1 - BUFFER SEED MIX #1	
B2 - BUFFER SEED MIX #2	

SOIL TREATMENT TOTAL (THIS SHEET)	
BARK OR WOOD CHIP MULCH	98 C.Y.

NOTES:
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 - SEE SPECIFICATIONS AND SPECIAL PROVISIONS FOR DETAILS RELATING TO IMPLEMENTATION OF THIS PLAN



FILE NAME	GN05 C and mound to Maytown ROADSIDE AND SITE DEVELOPMENT CAD\W\TATION\GN\345MIT-bqkub.dgn	DATE	2/19/2008	REVISED SHEETS	2/19/2008	DATE	2/19/2008	BY	LF	10	WASH	FED. AID PROJ. NO.	07CS01	LOCATION NO.	
PLOTTED BY	J. BEALL, L. FREITS	DESIGNED BY	L. FREITS	CHECKED BY	S.B., E.W., L.F.	PROJ. ENGR.	M. BRITTON	REGIONAL ADM.	K. DAYTON	REVISION		DATE			

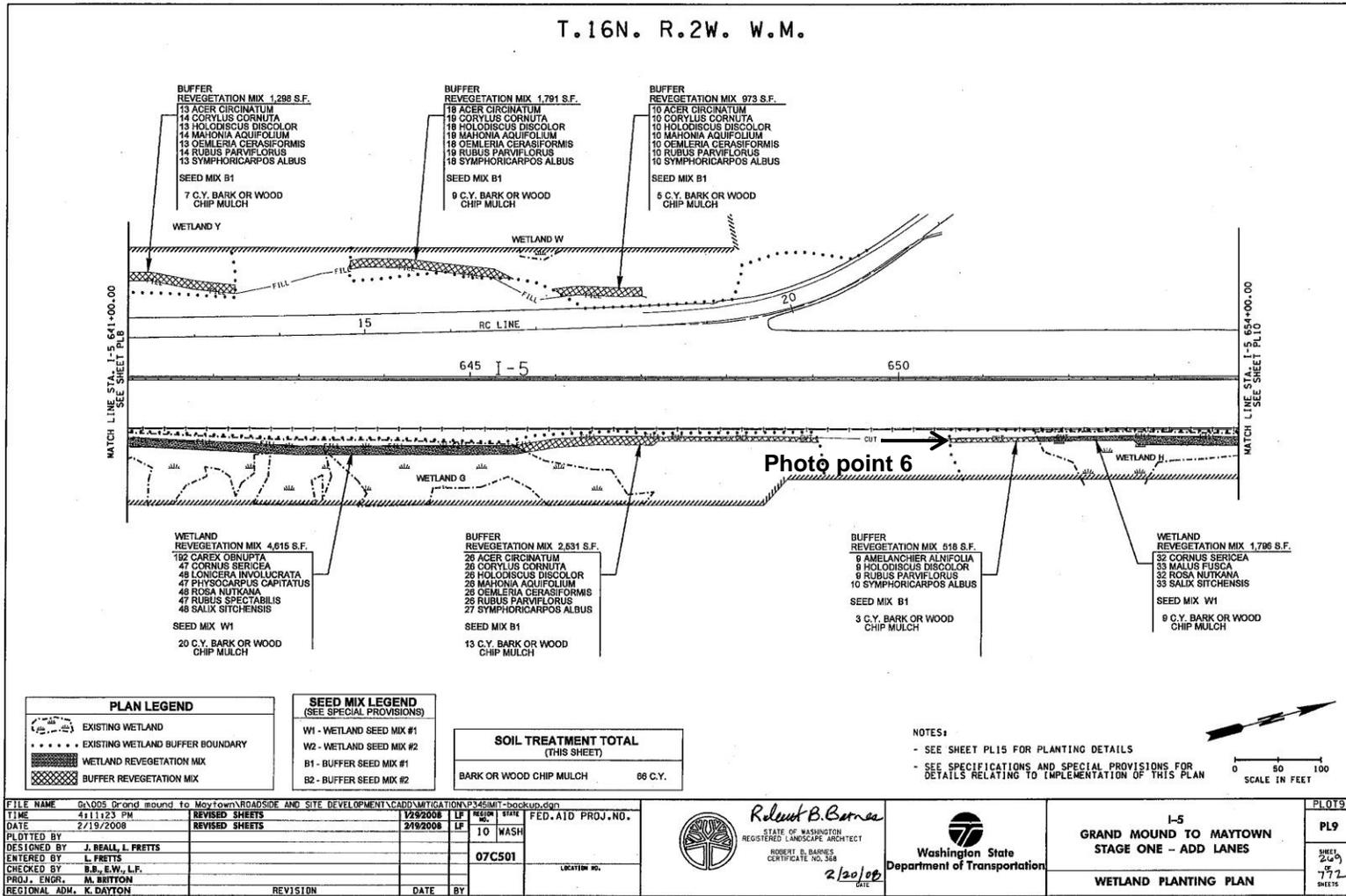


Robert B. Barnes
 STATE OF WASHINGTON
 REGISTERED LANDSCAPE ARCHITECT
 ROBERT B. BARNES
 CERTIFICATE NO. 368
 2/20/08
 SITE

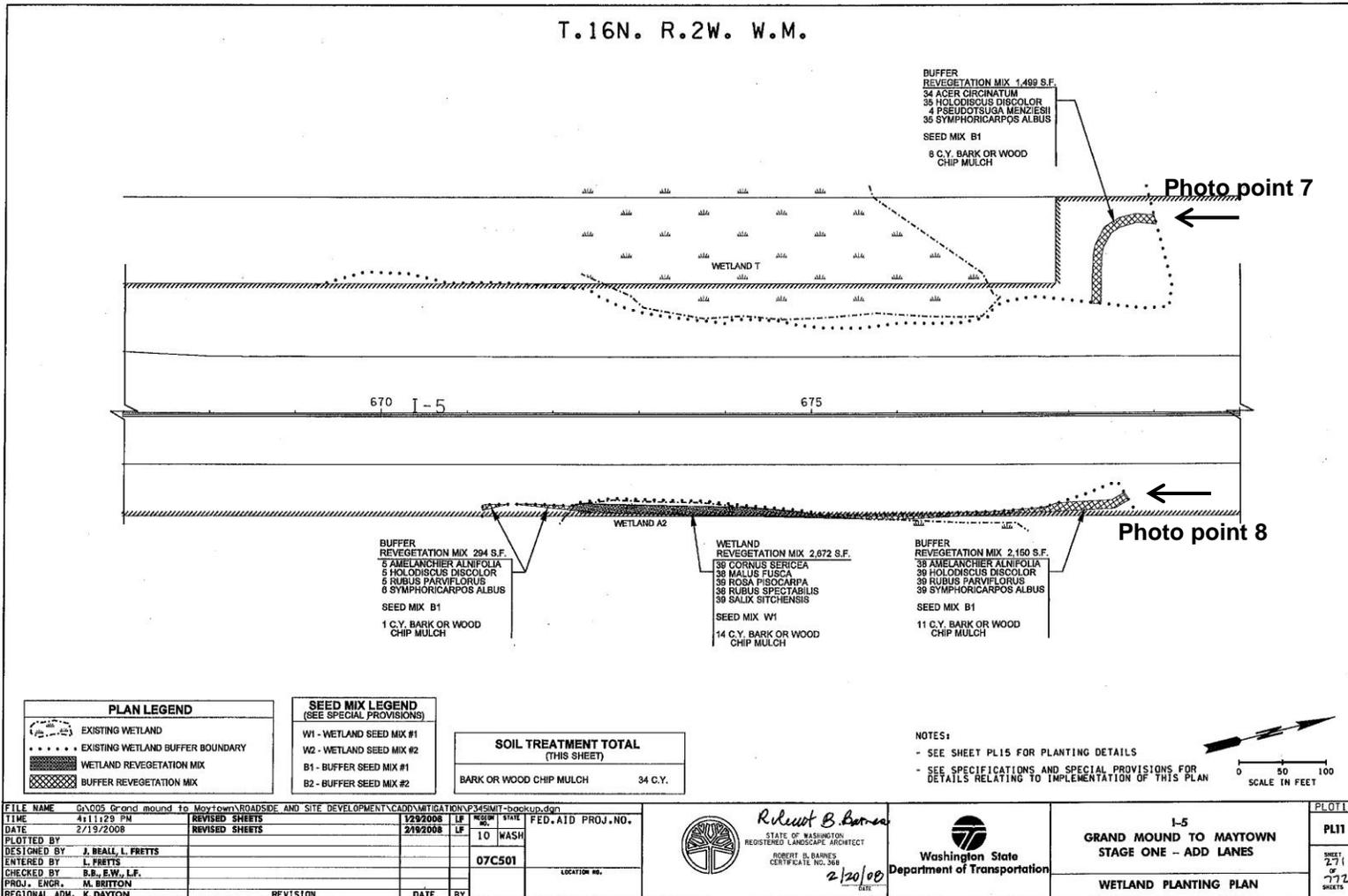


I-5 GRAND MOUND TO MAYTOWN STAGE ONE - ADD LANES		PL078
WETLAND PLANTING PLAN		SHEET 206 OF 177 SHEETS

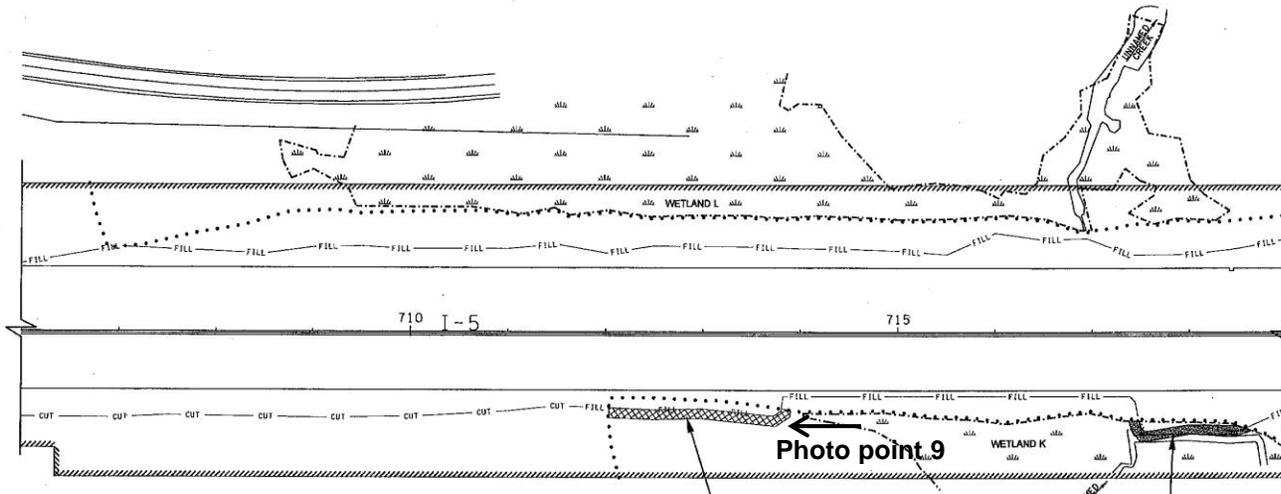
T.16N. R.2W. W.M.



T.16N. R.2W. W.M.



T.16N. R.2W. W.M.



BUFFER
 REVEGETATION MIX 1,800 S.F.
 17 ACER CIRCINATUM
 17 AMELANCHIER ALNIFOLIA
 18 CORYLUS CORNUTA
 17 HOLODISCUS DISCOLOR
 18 MAHONIA AQUIFOLIUM
 16 OSMERIA GERASIFORMIS
 8 PSEUDOTSUGA MENZIESII
 17 RUBUS PARVIFLORUS
 18 SYMPHORICARPOS ALBUS
SEED MIX B1
 10 C.Y. BARK OR WOOD
 CHIP MULCH

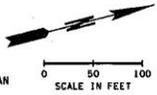
WETLAND
 REVEGETATION MIX 1,264 S.F.
 11 CORNUS SERICEA
 10 CRATAEGUS DOUGLASII
 4 ALNUS RUBRA
 11 LONICERA INVOLUCRATA
 11 MALUS FUSCA
 11 PHYSOCARPUS CAPITATUS
 11 ROSA NUTKANA
 11 RUBUS SPECTABILIS
 11 SALIX SITCHENSIS
SEED MIX W1
 8 C.Y. BARK OR WOOD
 CHIP MULCH

PLAN LEGEND	
	EXISTING WETLAND
	EXISTING WETLAND BUFFER BOUNDARY
	WETLAND REVEGETATION MIX
	BUFFER REVEGETATION MIX

SEED MIX LEGEND (SEE SPECIAL PROVISIONS)	
W1 - WETLAND SEED MIX #1	
W2 - WETLAND SEED MIX #2	
B1 - BUFFER SEED MIX #1	
B2 - BUFFER SEED MIX #2	

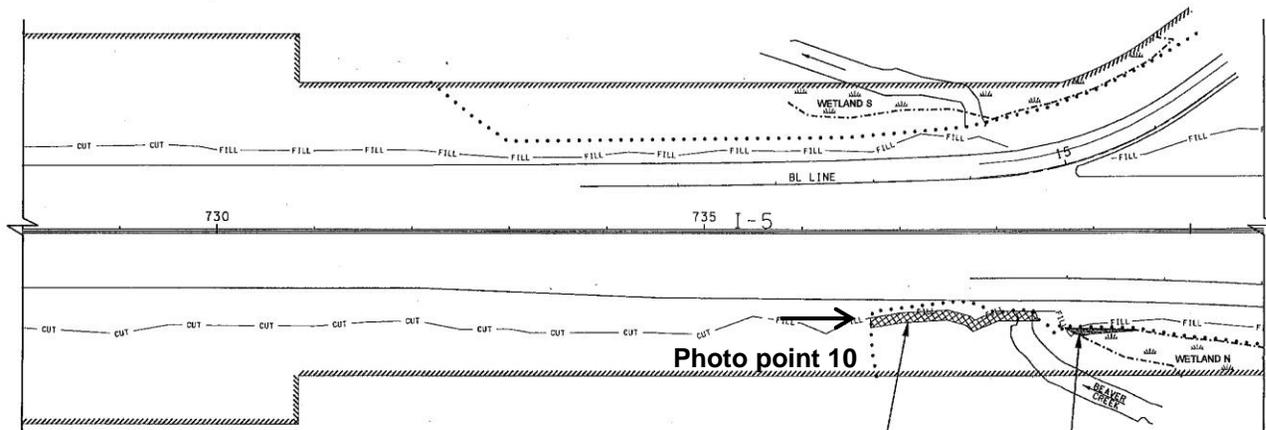
SOIL TREATMENT TOTAL (THIS SHEET)	
BARK OR WOOD CHIP MULCH	16 C.Y.

NOTES:
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 - SEE SPECIFICATIONS AND SPECIAL PROVISIONS FOR DETAILS RELATING TO IMPLEMENTATION OF THIS PLAN



FILE NAME	G:\005 Grand mound to Maytown\ROADSIDE AND SITE DEVELOPMENT\CADD\MITIGATION\345MIT-backup.dgn			I-5 GRAND MOUND TO MAYTOWN STAGE ONE - ADD LANES	PL12 SHEET 272 OF 772 SHEETS												
TIME	4:11:32 PM																
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REVISED SHEETS	12/9/2008	LF	10	WASH	FED. AID PROJ. NO.												
REVISED SHEETS	2/19/2008	LF															
DESIGNED BY	J. BEALL, L. PRETTS																
ENTERED BY	L. PRETTS																
CHECKED BY	B.S., E.W., L.F.																
PROJ. ENGR.	M. BRITTON																
REGIONAL ADM.	K. DAYTON																
REVISION																	

T.16N. R.2W. W.M.



- BUFFER REVEGETATION MIX 1,785 S.F.**
- 15 ACER CIRCINATUM
 - 15 AMELANCHIER ALNIFOLIA
 - 15 CORNUS CORNUTA
 - 15 HOLODISCUS DISCOLOR
 - 15 MAHONIA AQUIFOLIUM
 - 15 OSMERIA CERASIFORMIS
 - 3 PINUS CONTORTA VAR. 'CONTORTA'
 - 2 PSEUDOTSUGA MENZIESII
 - 15 RUBUS PARVIFLORUS
 - 15 SYMPHORICARPOS ALBUS
- SEED MIX B1**
- 9 C.Y. BARK OR WOOD CHIP MULCH

- WETLAND REVEGETATION MIX 278 S.F.**
- 3 CORNUS SERICEA
 - 2 CRATAEGUS DOUGLASHII
 - 1 FRAXINUS LATIFOLIA
 - 3 LONICERA INVOLUCRATA
 - 2 PHYSOCARPUS CAPITATUS
 - 3 ROSA NUTKANA
 - 2 RUBUS SPECTABILIS
 - 3 SALIX SITCHENSIS
- SEED MIX W1**
- 1 C.Y. BARK OR WOOD CHIP MULCH

PLAN LEGEND

	EXISTING WETLAND
	EXISTING WETLAND BUFFER BOUNDARY
	WETLAND REVEGETATION MIX
	BUFFER REVEGETATION MIX

SEED MIX LEGEND (SEE SPECIAL PROVISIONS)

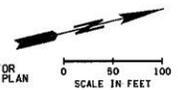
W1 - WETLAND SEED MIX #1
W2 - WETLAND SEED MIX #2
B1 - BUFFER SEED MIX #1
B2 - BUFFER SEED MIX #2

SOIL TREATMENT TOTAL (THIS SHEET)

BARK OR WOOD CHIP MULCH	10 C.Y.
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NOTES:

- SEE SHEET PL15 FOR PLANTING DETAILS
- SEE SPECIFICATIONS AND SPECIAL PROVISIONS FOR DETAILS RELATING TO IMPLEMENTATION OF THIS PLAN



FILE NAME	G:\005 Grand mound to Maytown\ROADSIDE AND SITE DEVELOPMENT\CADD\MITIGATION\PL15\MIT-backup.dgn
TIME	4:11:35 PM
DATE	2/19/2008
DESIGNED BY	J. BEALL, L. FRETTS
ENTERED BY	L. FRETTS
CHECKED BY	B.B., E.W., L.F.
PROJ. ENGR.	M. BRITTON
REGIONAL ADM.	K. DAYTON
REVISION	DATE BY

ROBERT B. BARNES
 STATE OF WASHINGTON
 REGISTERED LANDSCAPE ARCHITECT
 CERTIFICATE NO. 368
 2/20/08



I-5 GRAND MOUND TO MAYTOWN STAGE ONE - ADD LANES	PL13
WETLAND PLANTING PLAN	SHEET 273 OF 771 SHEETS

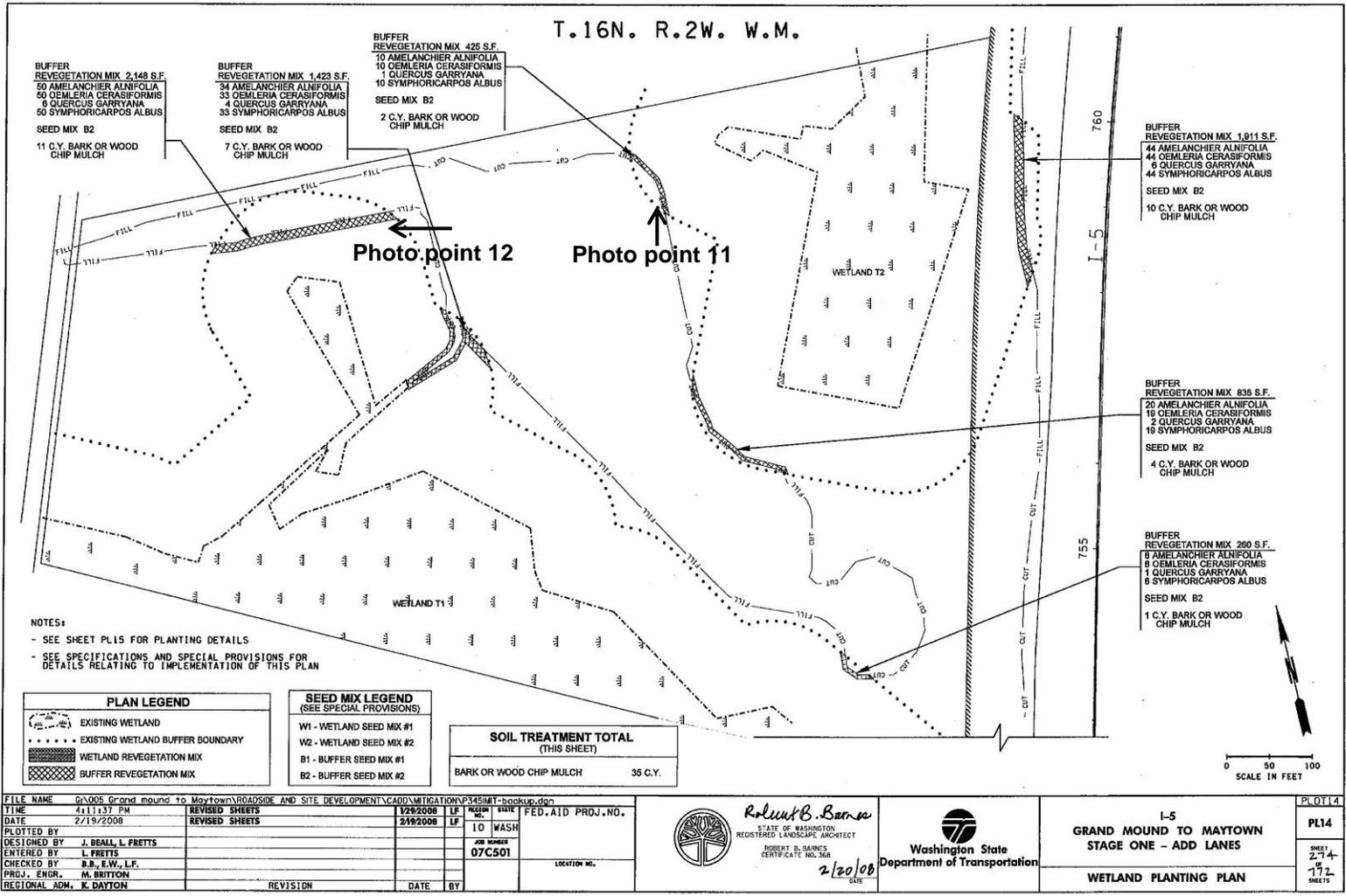




Photo Point 1



Photo Point 2



Photo Point 3



Photo Point 4



Photo Point 5



Photo Point 6



Photo Point 7



Photo Point 8



Photo Point 9

Photo not taken in 2015

Photo Point 10



Photo Point 11



Photo Point 12