JOINT PUBLIC NOTICE

January 21, 2014

United States Army Corps of Engineers
New Orleans District
Regulatory Branch
Post Office Box 60267
New Orleans, Louisiana 70160-0267

(504) 862-1301
Project Manager
Neil T. Gauthier
Neil.T.Gauthier@USACE.army.mil
MVN 2013-02865-CM

State of Louisiana
Department of Environmental Quality
Water Quality Certifications Section
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

(225) 219-3225
Project Manager
Elizabeth Johnson
WQC Application Number
WQC 140114-01

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the US Army Corps of Engineers pursuant to: [X] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [X] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

Application has also been made to the Louisiana Department of Environmental Quality, Water Quality Certifications Section, for a Water Quality Certification (WQC) in accordance with statutory authority contained in LRS 30:2074 A(3) and provisions of Section 401 of the Clean Water Act.

FILL FOR THE CONSTRUCTION OF A SECOND MAINLINE RAILROAD TRACK BETWEEN LIVONIA AND GROSSE TETE, LOUISIANA

NAME OF APPLICANT: Union Pacific Railroad Corporation, c/o CH2MHill, 14701 St. Mary's Lane, Suite 300, Houston, Texas 77079.

LOCATION OF WORK: Adjacent to the existing railroad between Livonia and Grosse Tete, Louisiana, within the Lower Grand hydrologic unit (HUC 08070100), as shown on the attached drawings.

CHARACTER OF WORK: The applicant has requested Department of the Army authorization to clear, grade, excavate, and deposit approximately 10,222 cubic yards of earthen fill, ballast, sub-ballast, and rip-rap material to construct and maintain a second mainline railroad track approximately 7 miles in length adjacent to the existing mainline track between Livonia and Grosse Tete, Louisiana. Two new bridges will be constructed, one over Bayou Maringouin and the other over an unnamed tributary. One other bridge over an unnamed tributary will be removed and replaced in addition to the replacement of 24 culverts and addition of 2 new culverts. The proposed project would permanently impact approximately 0.923 acre of forested wetlands and 3.423 acres of "other waters of the US" non-wetlands. Temporary impacts to 0.913 acre of forested wetlands and "other waters of the US" non wetlands will also occur. It is anticipated that the proposed action

would have minimal impact on adjacent wetlands.

The applicant has designed the project to avoid and minimize direct and secondary adverse impacts to the maximum extent practicable. The new track will be within their right of way and must be positioned to side the existing track. The impacts have been reduced as much as possible while still allowing the applicant to achieve the project purpose. The applicant proposes to avoid additional direct impacts and minimize secondary impacts to wetlands by using existing access roads when possible and installing culverts and bridges to allow existing drainage patterns to remain intact. As compensation for unavoidable wetland impacts, the applicant proposes to mitigate in-kind wetland credits from a Corps approved mitigation bank located in the watershed.

The comment period for the Department of Army will close in **20 days** from the date of this joint public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit and/or this WQC request and must be mailed so as to be received before or by the last day of the comment period. Letters concerning the Corps of Engineers permit application must reference the applicant's name and the Permit Application Number, and be mailed to the Corps of Engineers at the address above, **ATTENTION: REGULATORY BRANCH**. Similar letters concerning the Water Quality Certification must reference the applicant's name and the WQC application number and be mailed to the Louisiana Department of Environmental Quality at the address above. Individuals or parties may request an extension of time in which to comment on the proposed work by writing or e-mailing the Corps of Engineers Project Manager listed above. Any request must be specific and substantively supportive of the requested extension, and received by this office prior to the end of the initial comment period. The Section Chief will review the request and the requestor will be promptly notified of the decision to grant or deny the request. If granted, the time extension will be continuous to the initial comment period and, inclusive of the initial comment period, will not exceed a total of 30 calendar days.

The application for this proposed project is on file with the Louisiana Department of Environmental Quality and may be examined during weekdays between 8:00 a.m. and 4:30 p.m. Copies may be obtained upon payment of costs of reproduction.

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the

people.

The US Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the US Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. Issuance of this public notice solicits input from the State Archeologist and State Historic Preservation Officer regarding potential impacts to cultural resources.

Our initial finding is that the proposed work would neither affect any species listed as endangered by the U.S. Departments of Interior or Commerce, nor affect any habitat designated as critical to the survival and recovery of any endangered species.

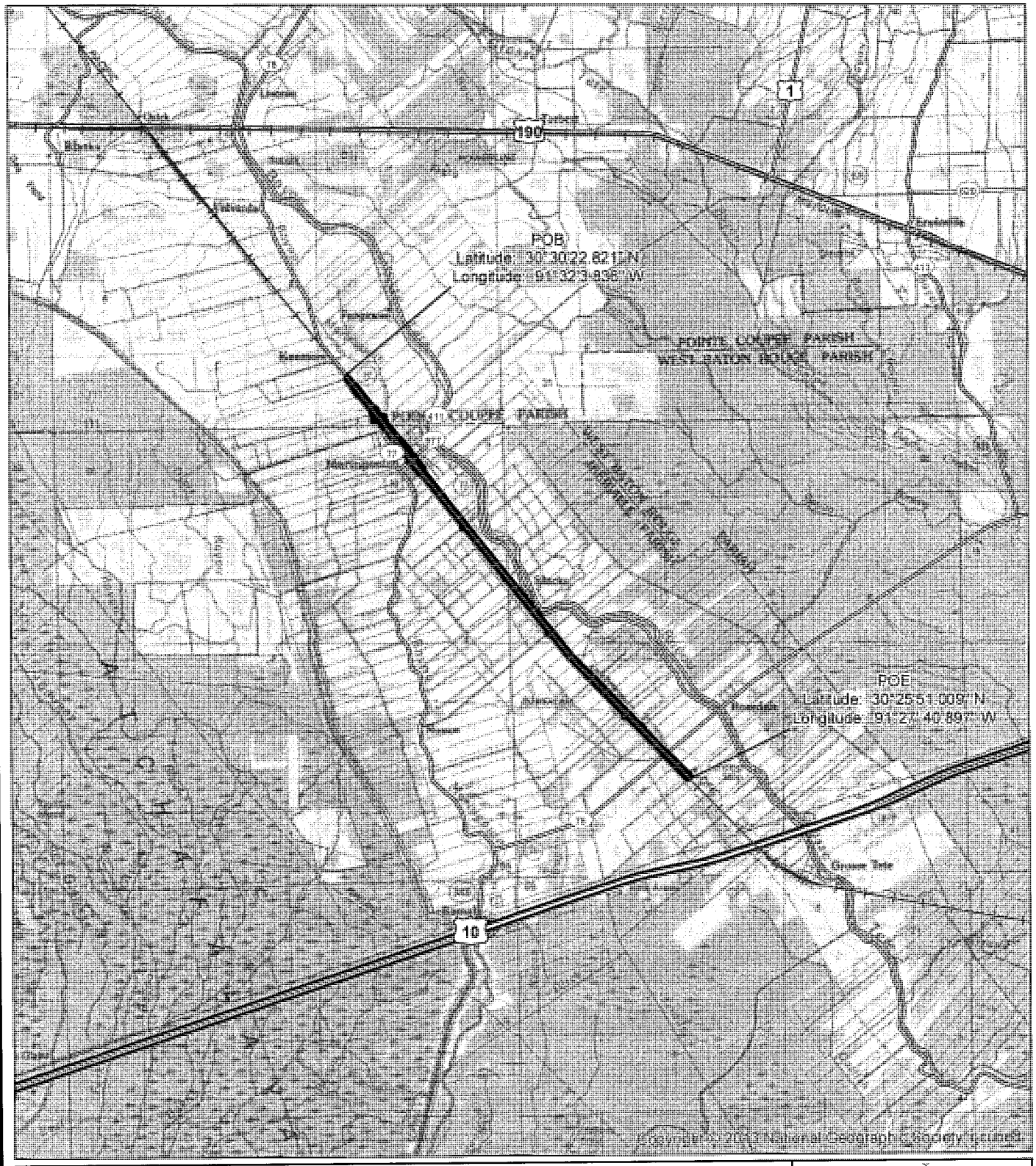
This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the destruction or alteration of up to **n/a** acres of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate water quality standards will be required from the Department of Environmental Quality, Water Quality Certifications Section before a permit is issued.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

JOHN M. HERMAN
Chief, Central Evaluation Section
Regulatory Branch

Enclosures



November 18, 2013

Major Highway

Interstate

Rail Centerline

Project Boundary

N

0 2

Miles

1 in = 10,000 ft

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Union Pacific Railroad
Vicinity Map
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 1 of 40

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November 18, 2013

Existing Track

Road Centerline

Surface Water and Flow Direction

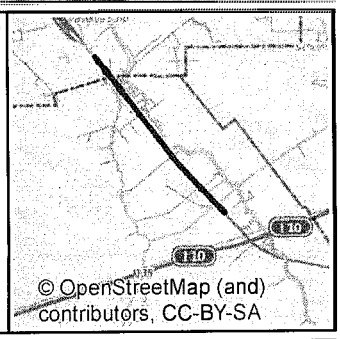
Project Boundary

N

0 5,000

Feet

1 in = 5,000 ft



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Union Pacific Railroad
Existing Conditions
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 2 of 40

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POB
Latitude: 30°30'22.821" N
Longitude: 91°32'3.836" W

LA 77

To Livonia Rail Yard

112211_U2_1002_D
Permanent Impact: 0.301 ac
Temporary Impact: 0.054 ac
(966 cy) To be filled by embankment construction

Pointe Coupee Parish

Culvert Replacement
See Sheets 28-30

Culvert Installation
See Sheets 28-30

112211_U2_1001_D
Permanent Impact: 0.191 ac
Temporary Impact: 0.010 ac
(303 cy) To be filled by embankment construction

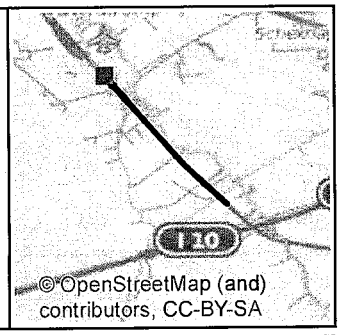
Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	1,595	8,627

Permanent and Temporary Wetland/WOUS Impacts		
Wetland/WOUS	Permanent Impact Acreage	Temporary Impact Acreage
Palustrine Broad-Leaved Deciduous Forest (PFO1)	0.914	0.305
Palustrine Needle-Leaved Deciduous Forested (PFO2)	0.006	0.009
Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	4.346	0.913

Existing Right of Way
Proposed Right of Way
Grading Limits
Proposed Culvert
Proposed Track
Proposed Bridge
Surface Flow
Road Improvement
Road Centerline
Signal Case
Existing Track
Existing Culvert
Existing Bridge
Surface Water and Flow Direction
Permanent Workspace
Temporary Workspace
Potential Jurisdictional Waters of the U.S.
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 3 of 40

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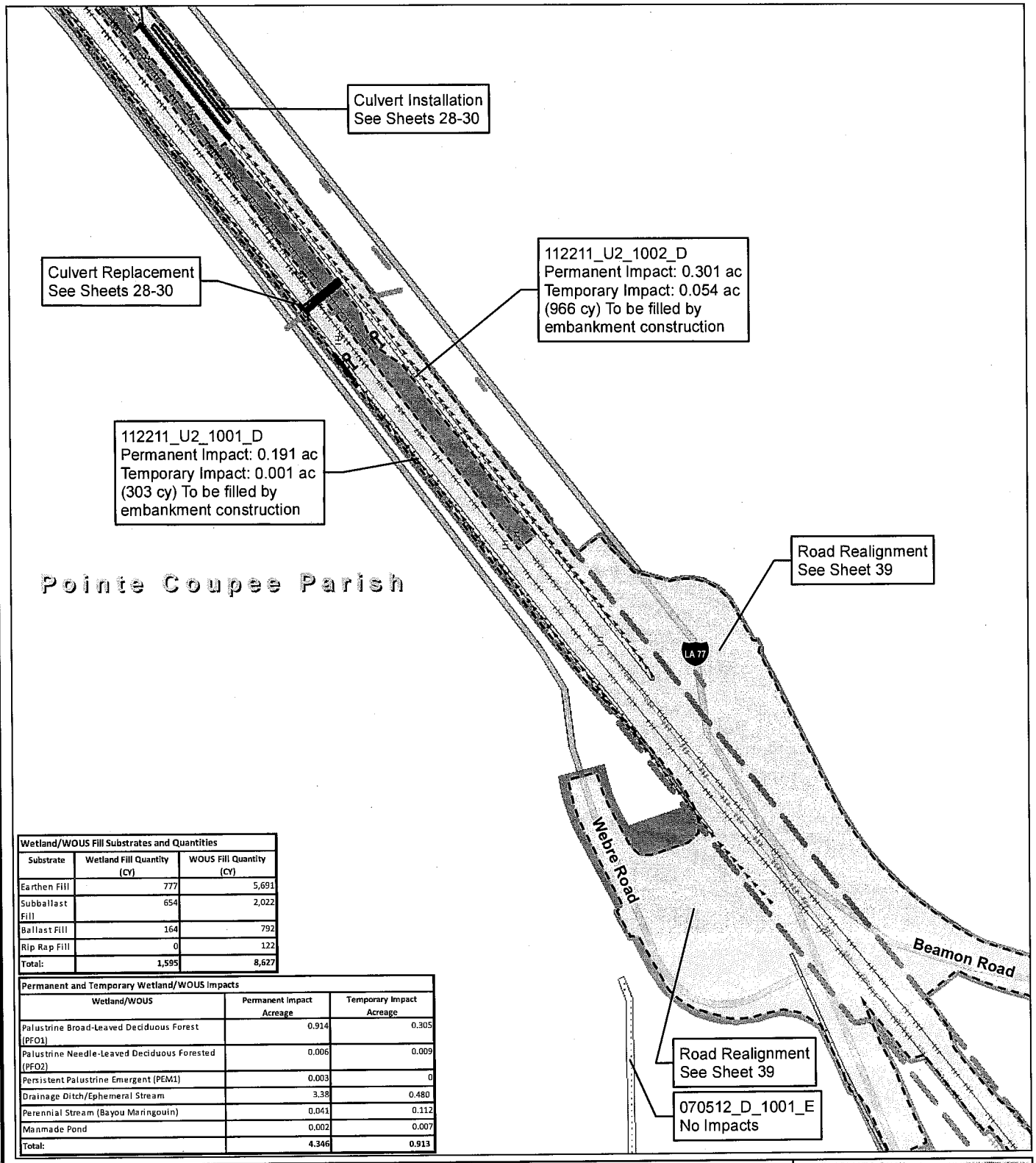

Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	1,595	8,627

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Palustrine Needle-Leaved Deciduous Forested (PFO2)	0.006	0.009
Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	4.346	0.913

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Existing Track
Existing Culvert
Existing Bridge
Surface Water and Flow Direction
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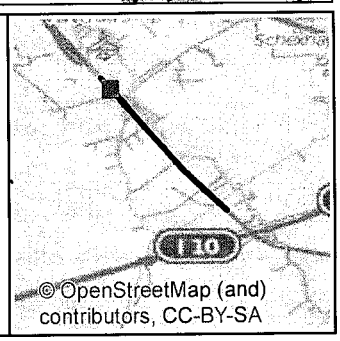
Temporary Workspace
Potential Jurisdictional Waters of the U.S.
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 4 of 40

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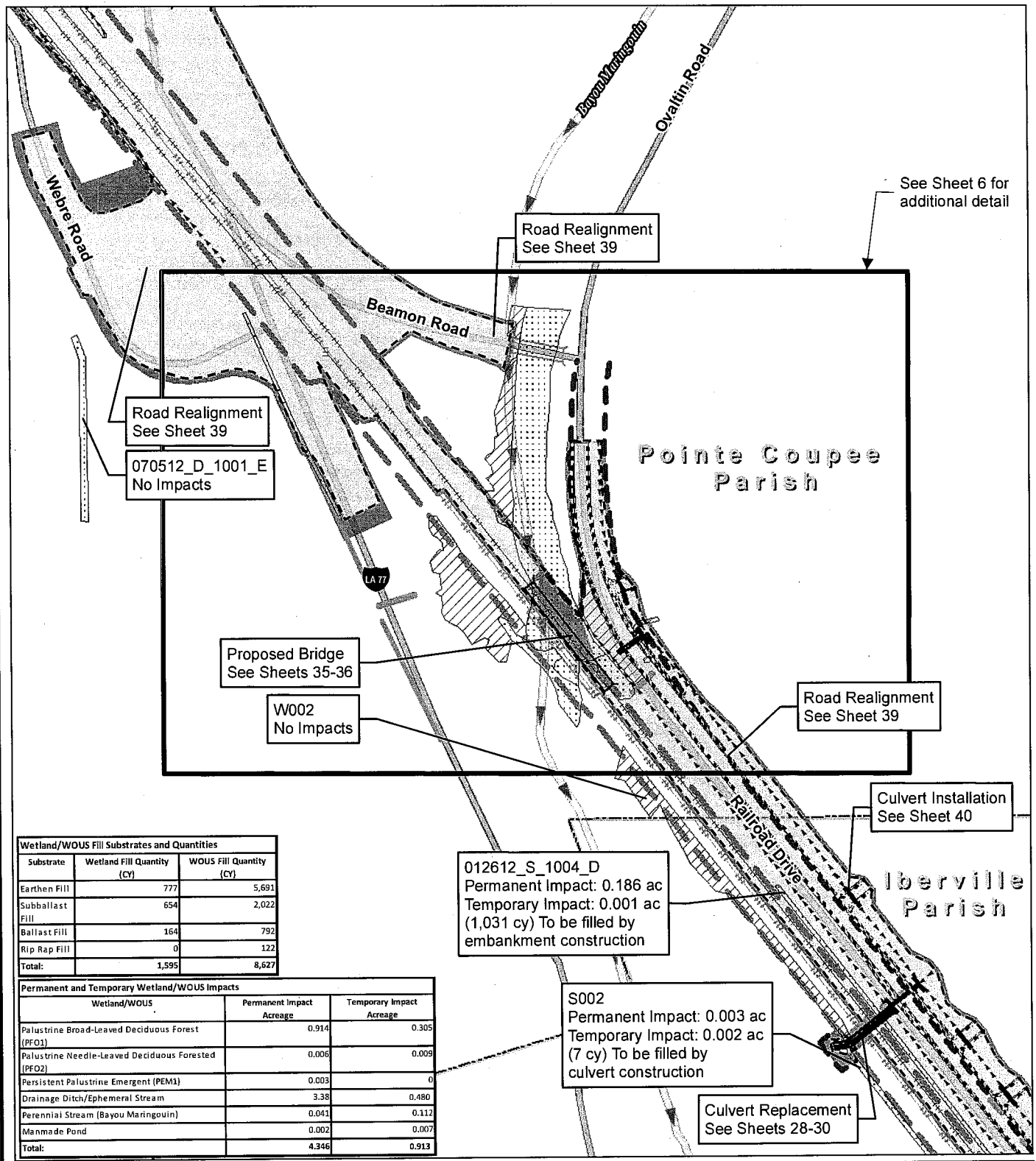

Wetland/WOUS Fill Substrates and Quantities

Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	**1,595**	**8,627**

Permanent and Temporary Wetland/WOUS Impacts

Wetland/WOUS	Permanent Impact Acreage	Temporary Impact Acreage
Palustrine Broad-Leaved Deciduous Forest (PFO1)	0.914	0.305
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Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	**4.346**	**0.913**

Existing Right of Way
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Proposed Track
Proposed Bridge
Surface Flow
Road Improvement
Road Centerline
Signal Case
Existing Track
Existing Culvert
Existing Bridge
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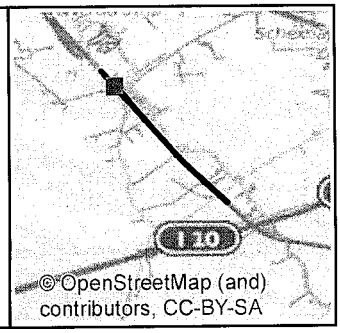
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 5 of 40

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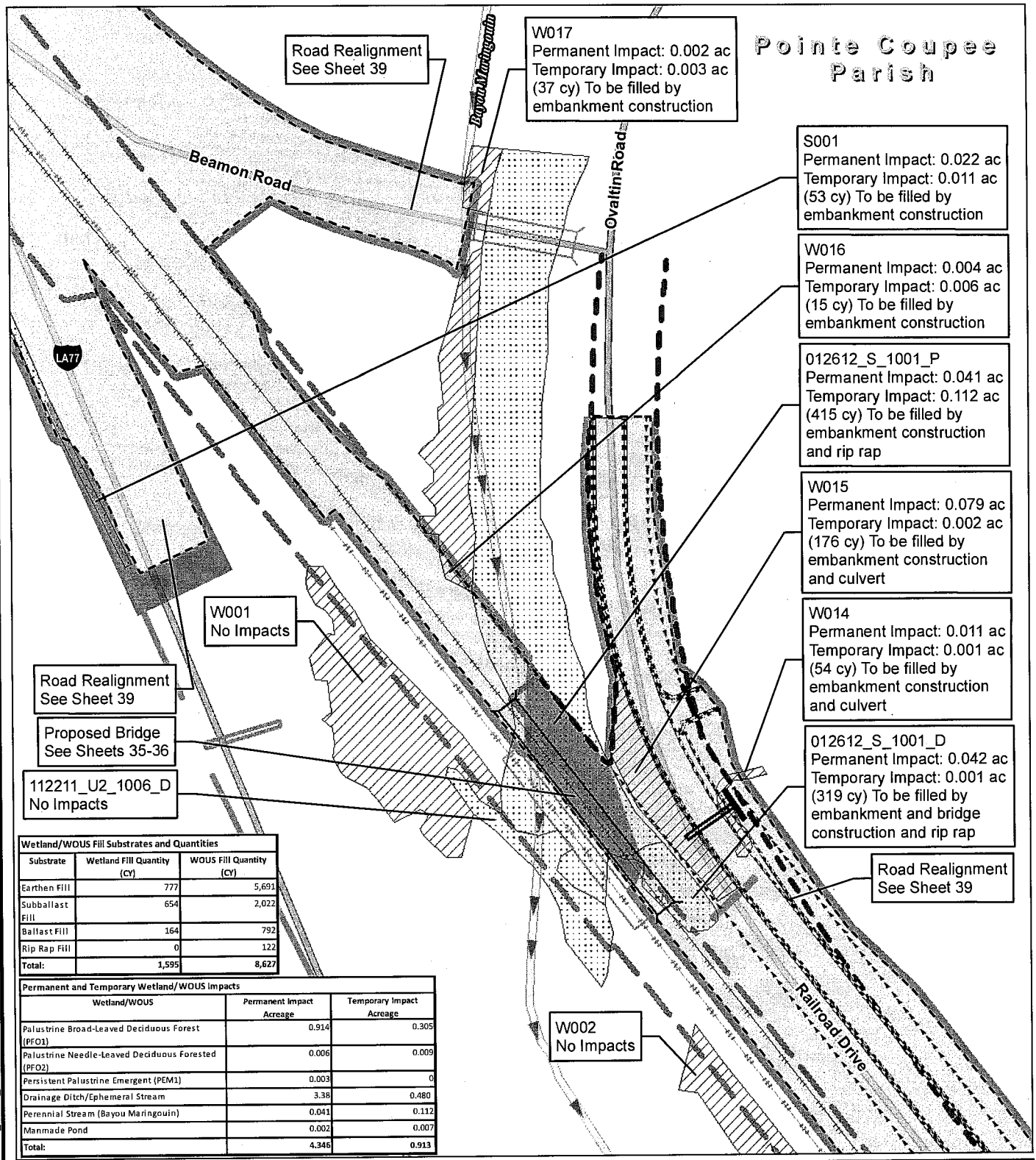


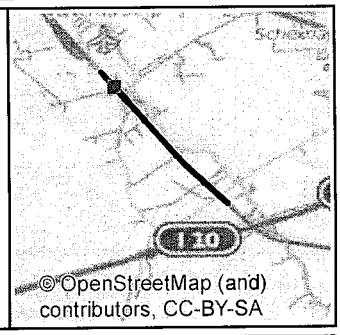
Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	**1,595**	**8,627**

Permanent and Temporary Wetland/WOUS Impacts		
Wetland/WOUS	Permanent Impact Acreage	Temporary Impact Acreage
Palustrine Broad-Leaved Deciduous Forest (PFO1)	0.914	0.305
Palustrine Needle-Leaved Deciduous Forested (PFO2)	0.006	0.009
Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	**4.346**	**0.913**

Existing Right of Way
Proposed Right of Way
Grading Limits
Proposed Culvert
Proposed Track
Proposed Bridge
Surface Flow
Road Improvement
Road Centerline
Signal Case
Existing Track
Existing Culvert
Existing Bridge
Surface Water and Flow Direction
Permanent Workspace
Temporary Workspace
Potential Jurisdictional Waters of the U.S.
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 100
Feet
1 in = 100 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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W002
No Impacts

Road Realignment
See Sheet 39

Culvert Replacement
See Sheets 28-30

Culvert Installation
See Sheet 40

012612_S_1004_D
Permanent Impact: 0.186 ac
Temporary Impact: 0.001 ac
(1,031 cy) To be filled by
embankment construction

W013
Permanent Impact: 0.006 ac
Temporary Impact: 0.098 ac
(<1 cy) To be filled by
embankment construction

S002
Permanent Impact: 0.003 ac
Temporary Impact: 0.002 ac
(7 cy) To be filled by
culvert construction

Iberville Parish

LA 77

012612_S_1005_D
Permanent Impact: 0.011 ac
Temporary Impact: 0.001 ac
(32 cy) To be filled by
embankment construction

Railroad Drive

Church Street

W003
No Impacts

Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	1,595	8,627

Permanent and Temporary Wetland/WOUS Impacts		
Wetland/WOUS	Permanent Impact Acreage	Temporary Impact Acreage
Palustrine Broad-Leaved Deciduous Forest (PFO1)	0.914	0.305
Palustrine Needle-Leaved Deciduous Forested (PFO2)	0.006	0.009
Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	4.346	0.913

Existing Right of Way
Proposed Right of Way
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Surface Water and Flow Direction
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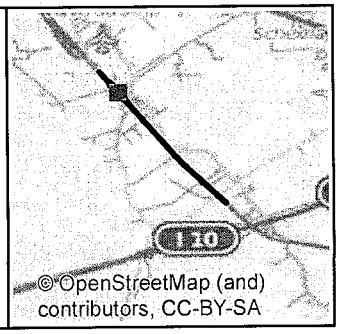
Potential Jurisdictional Waters of the U.S.
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N

0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 7 of 40

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012612_S_1004_D
Permanent Impact: 0.186 ac
Temporary Impact: 0.001 ac
(1,031 cy) To be filled by
embankment construction

012612_S_1005_D
Permanent Impact: 0.011 ac
Temporary Impact: 0.001 ac
(32 cy) To be filled by
embankment construction

W013
Permanent Impact: 0.006 ac
Temporary Impact: 0.098 ac
(<1 cy) To be filled by
embankment construction

W003
No Impacts

W004
No Impacts

Cross Street Tie-in
See Sheet 39

012612_S_1002_D
Permanent Impact: 0.028 ac
Temporary Impact: 0.020 ac
(49 cy) To be filled by
embankment construction

012612_S_1003_D
Temporary Impact: 0.001 ac

Iberville Parish

LA 77

Church Street

W005
No Impacts

Railroad Drive

112211_U2_1003_D
No Impacts

Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
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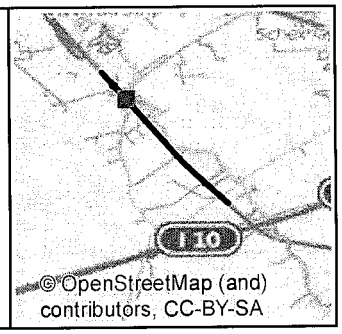
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 8 of 40

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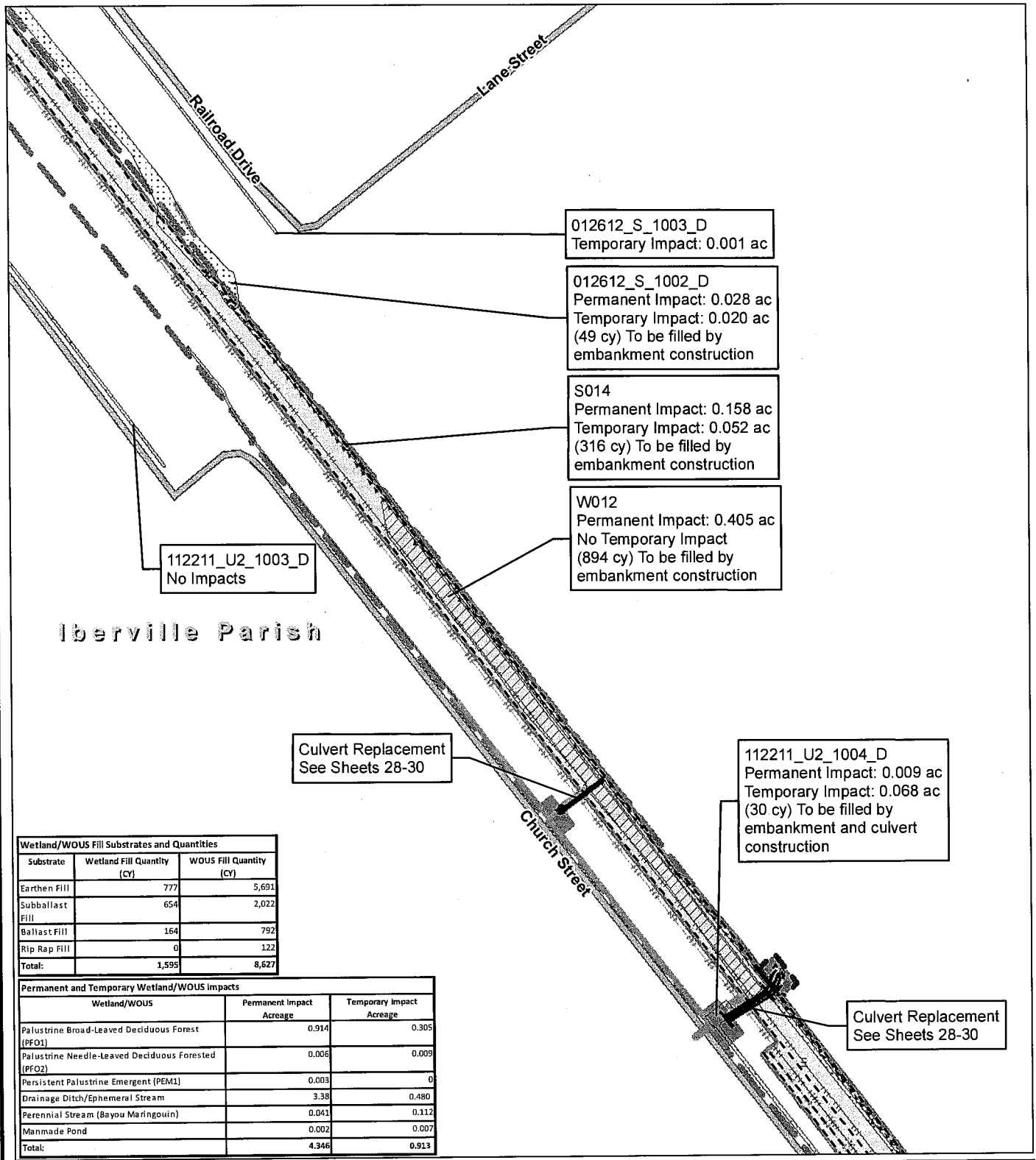

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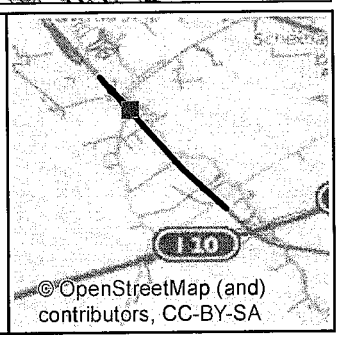
Surface Water and Flow Direction
Permanent Workspace
Temporary Workspace
Potential Jurisdictional Waters of the U.S.
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 9 of 40

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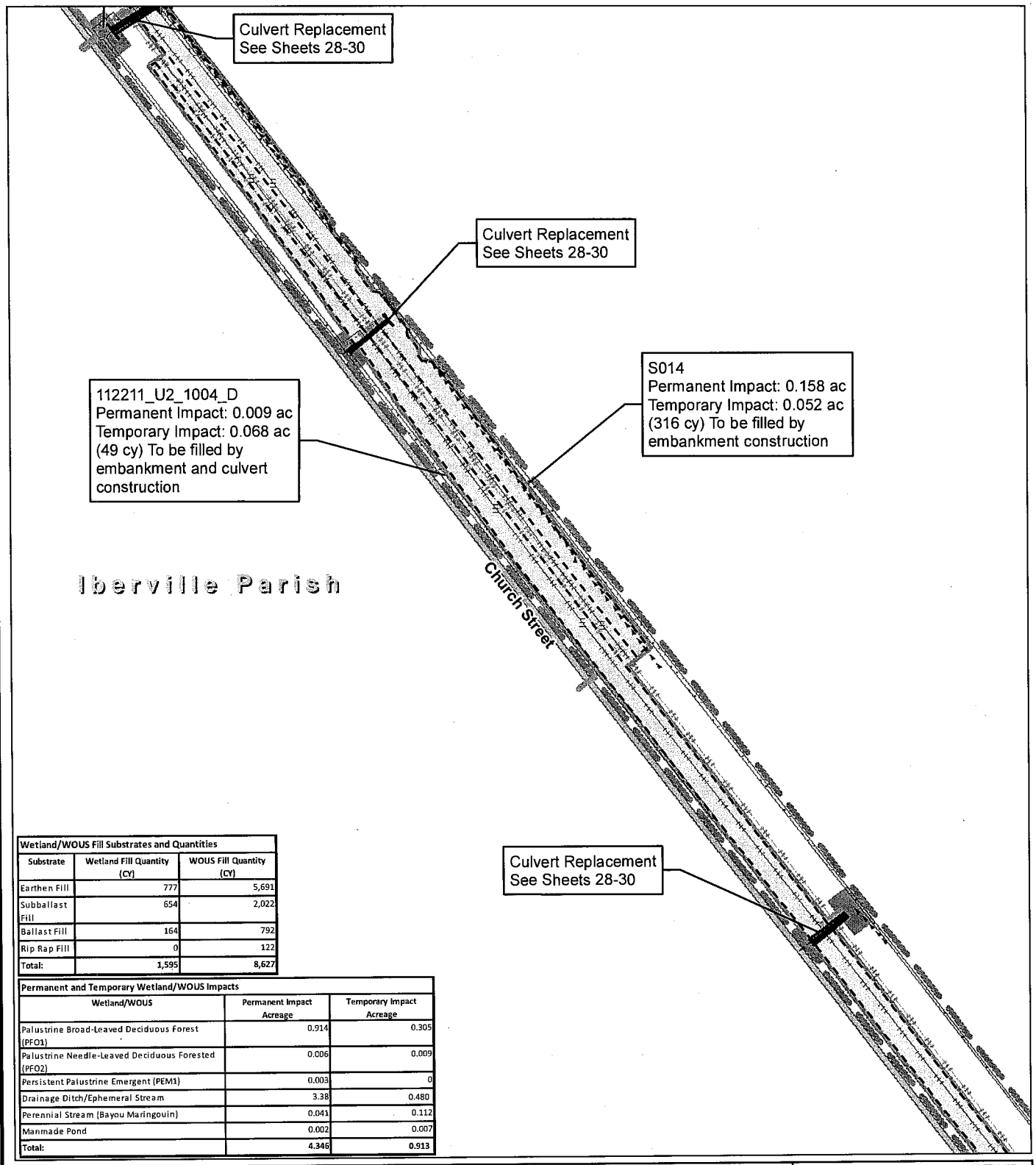

Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	1,595	8,627

Permanent and Temporary Wetland/WOUS Impacts		
Wetland/WOUS	Permanent Impact Acreage	Temporary Impact Acreage
Palustrine Broad-Leaved Deciduous Forest (PFO1)	0.914	0.305
Palustrine Needle-Leaved Deciduous Forested (PFO2)	0.006	0.009
Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	4.346	0.913

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Proposed Right of Way
Grading Limits
Proposed Culvert
Proposed Track
Proposed Bridge
Surface Flow
Road Improvement
Road Centerline
Signal Case
Existing Track
Existing Culvert
Existing Bridge
Surface Water and Flow Direction
Permanent Workspace
Temporary Workspace
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Feet
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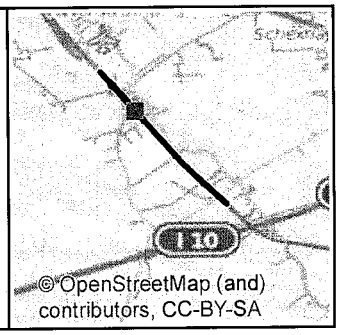
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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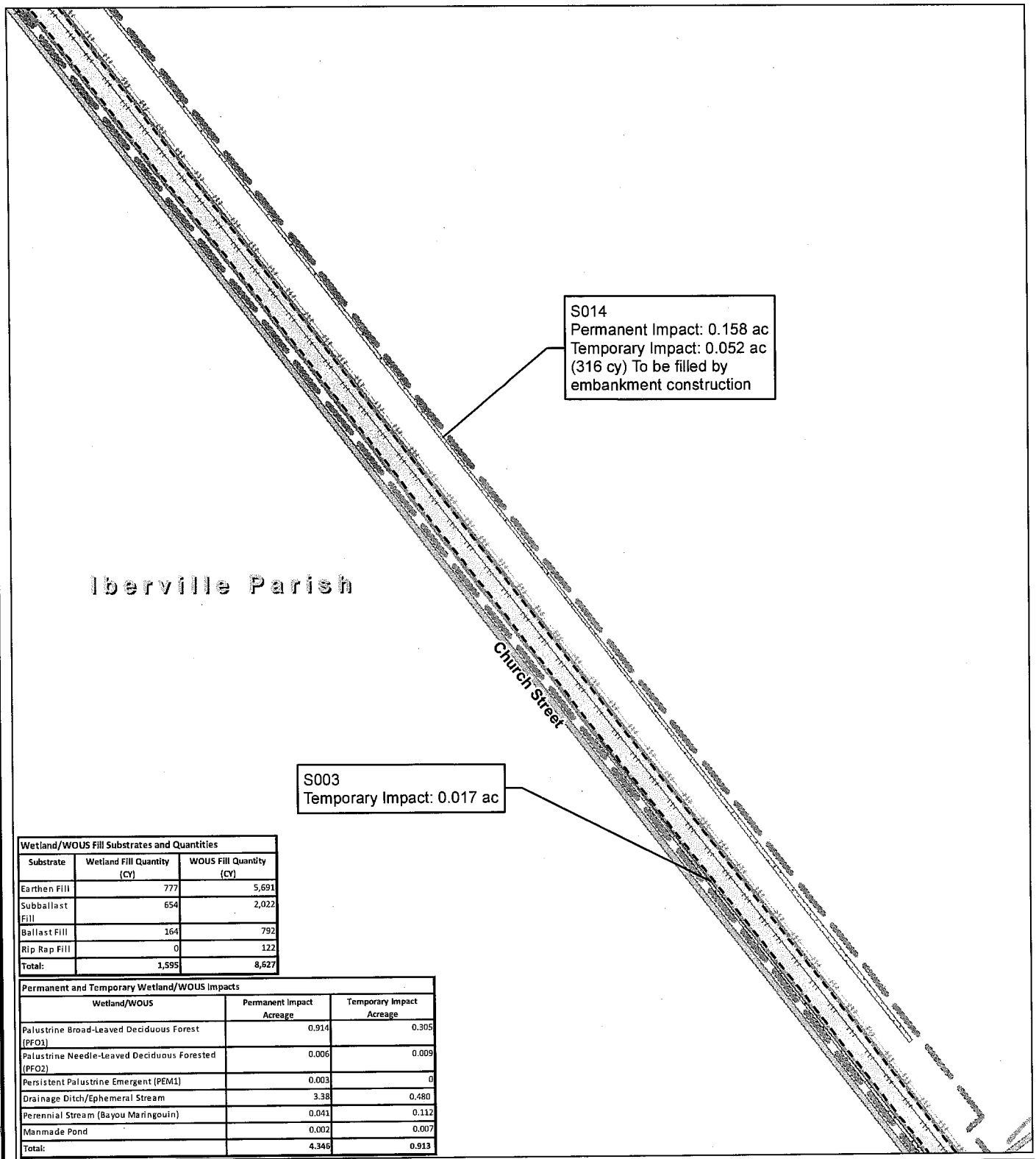

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Feet
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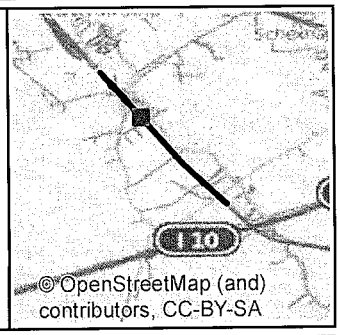
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 11 of 40

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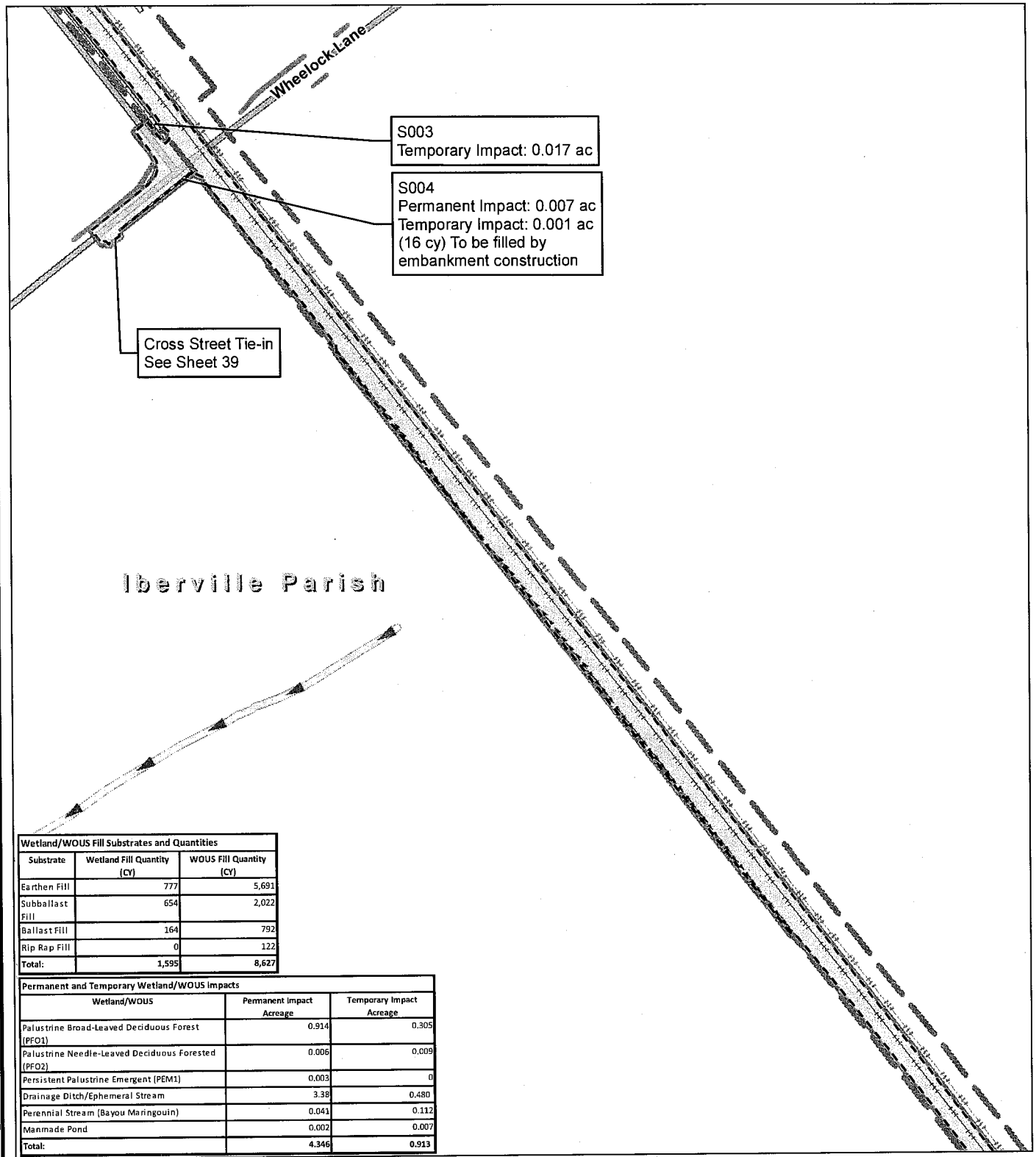

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Feet
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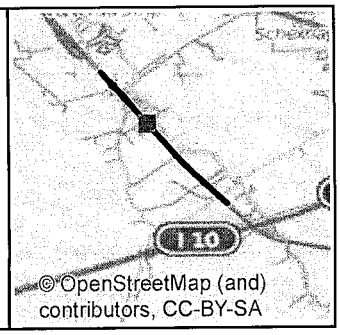
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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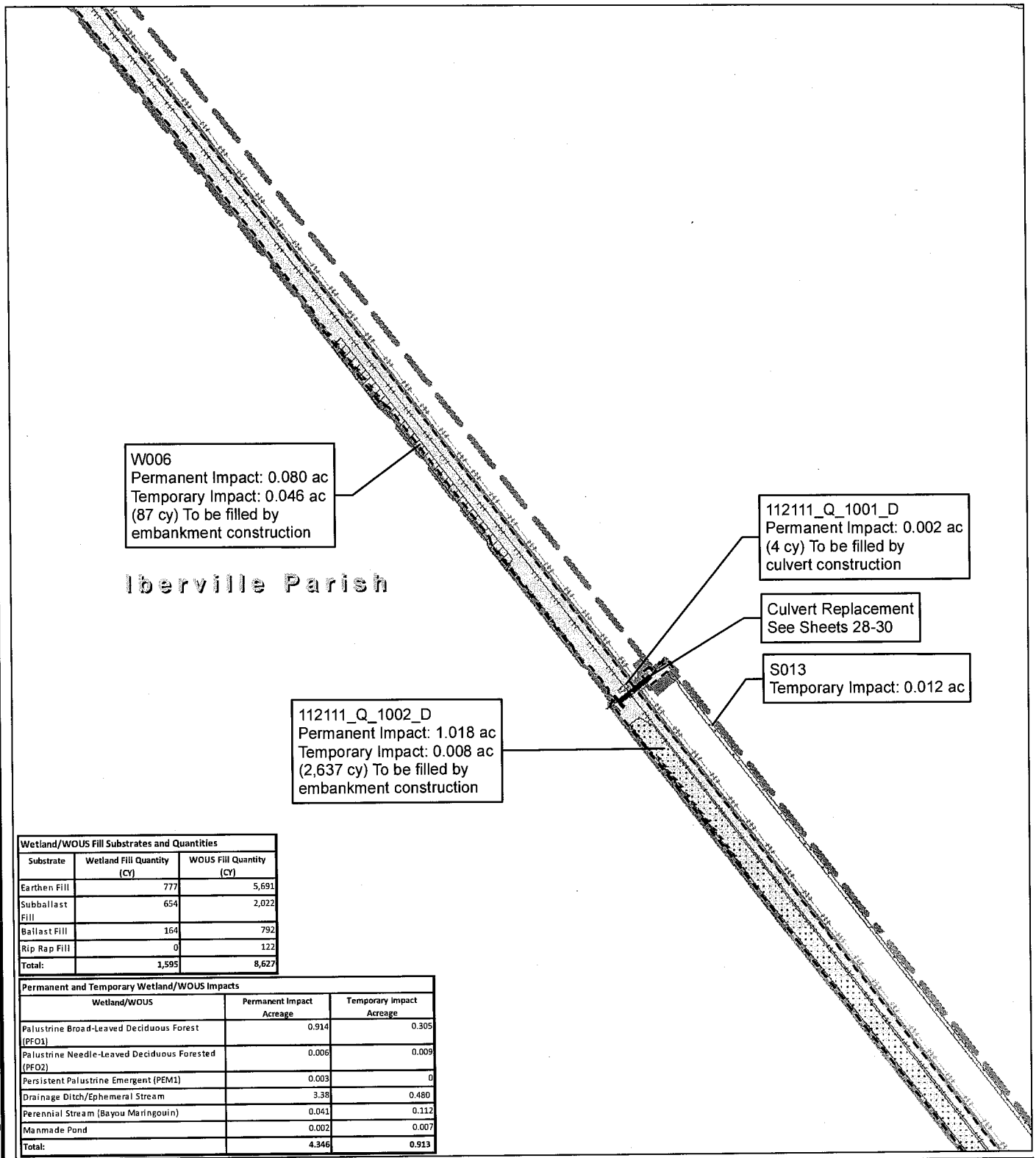

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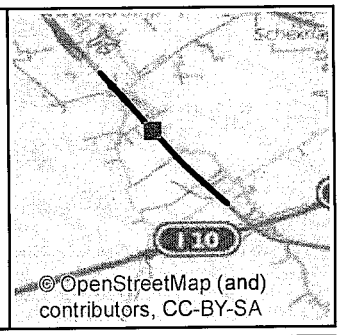
N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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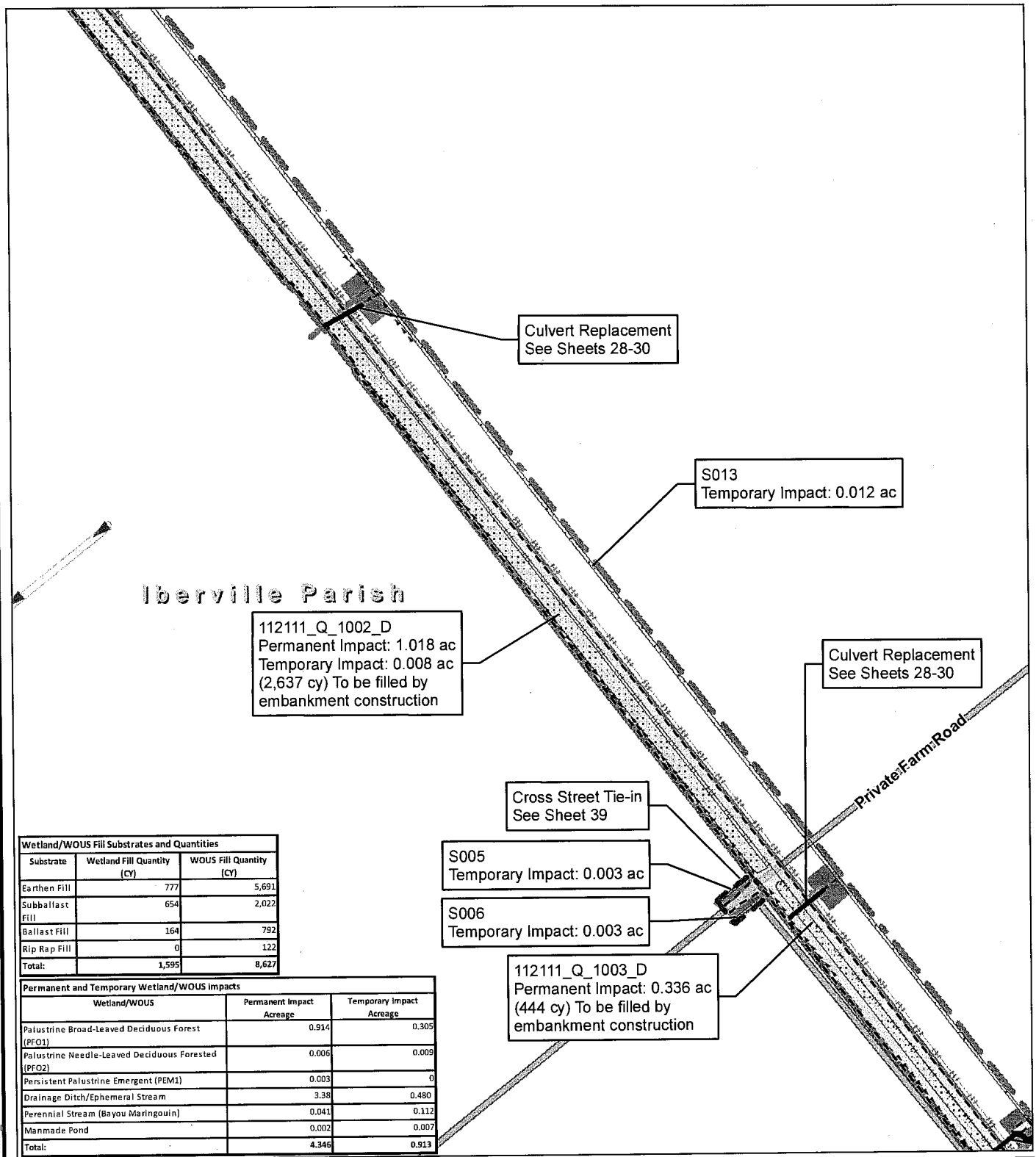

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N
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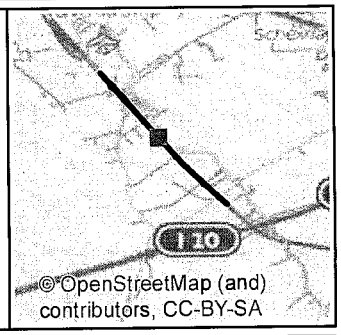
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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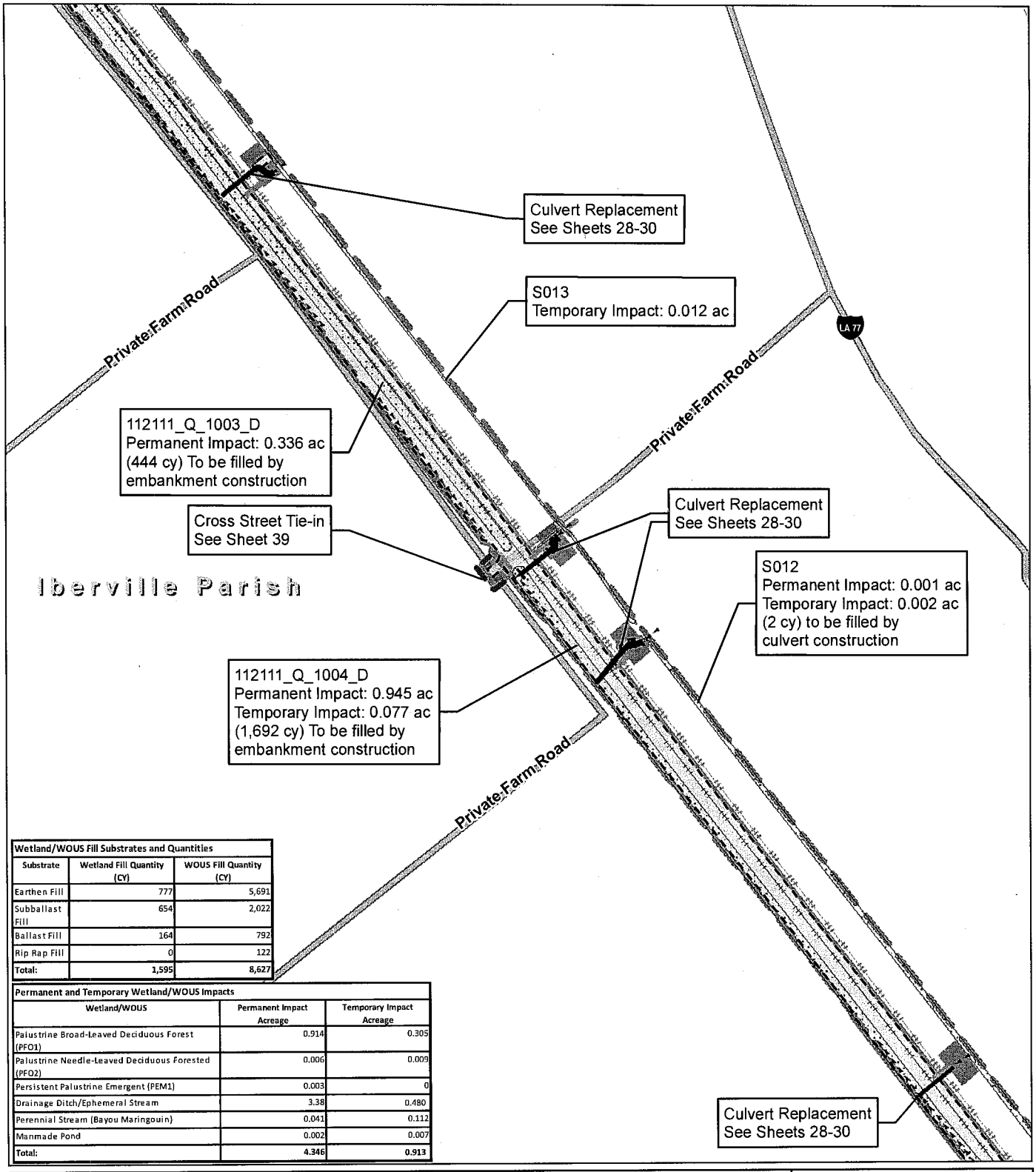

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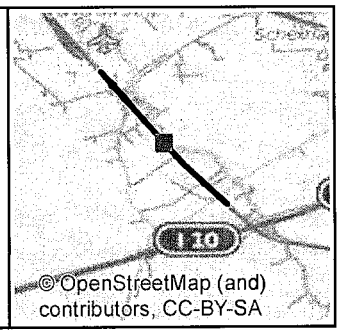
N
0 200
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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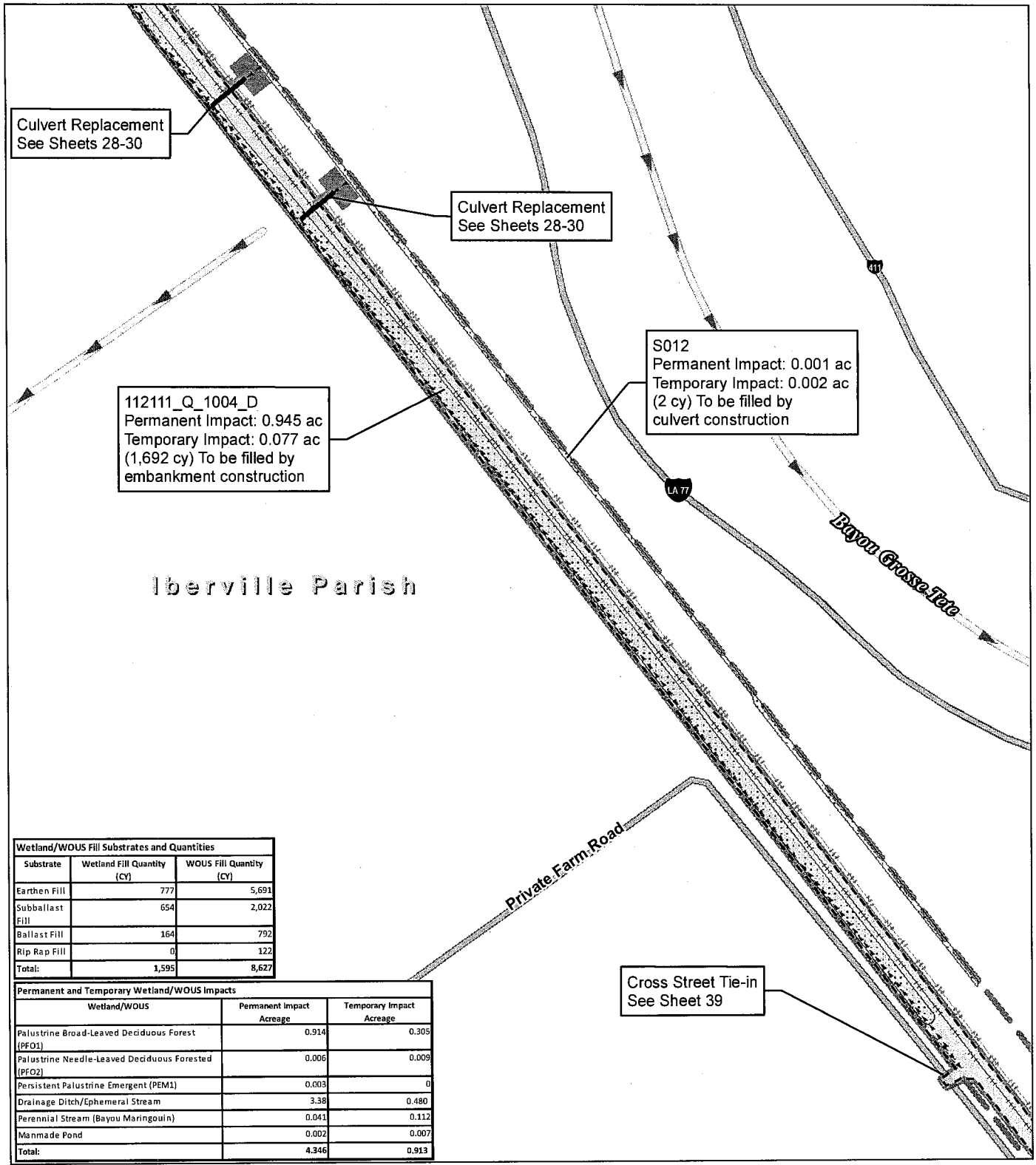

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N
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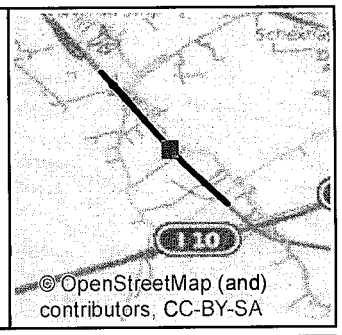
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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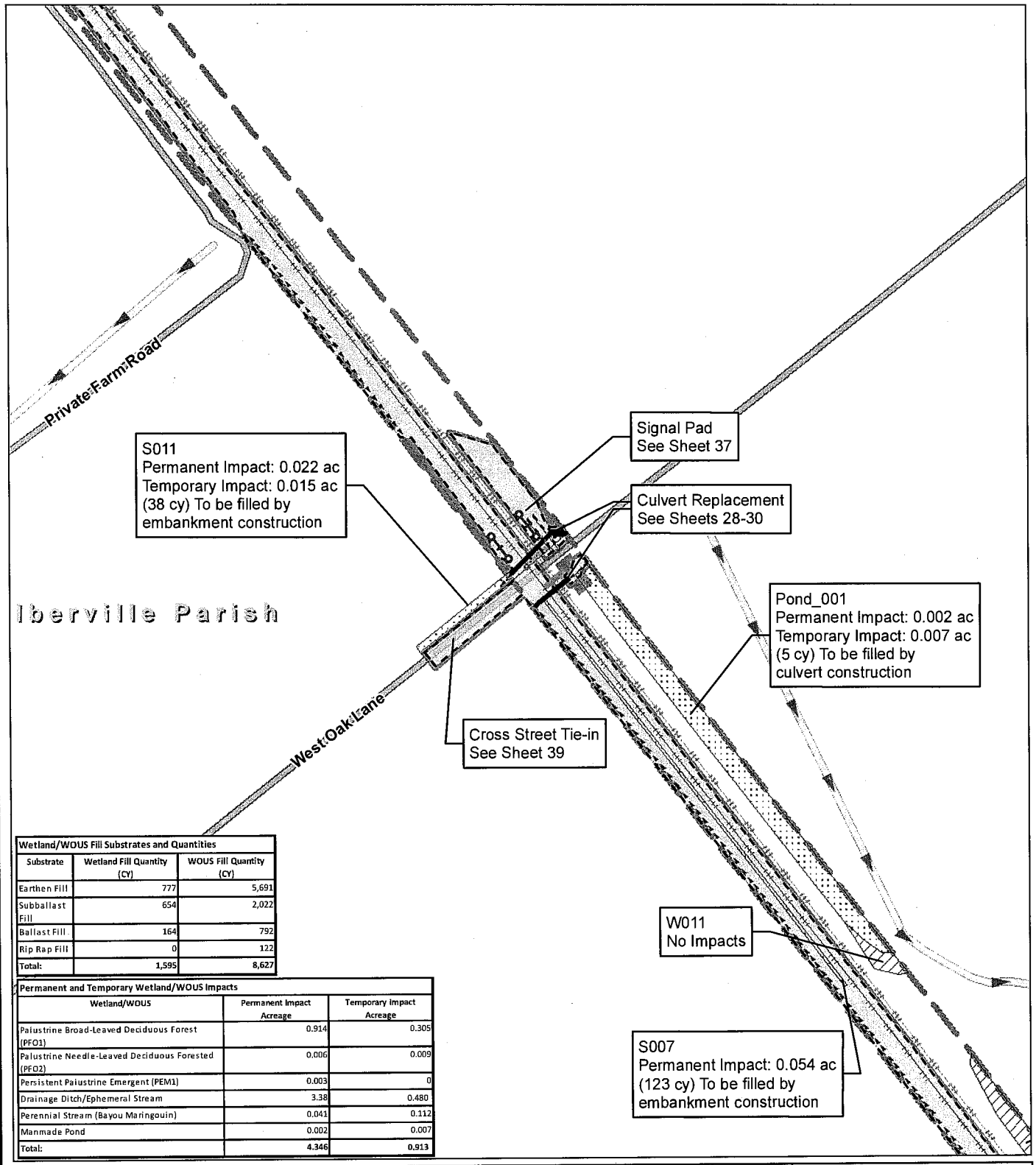

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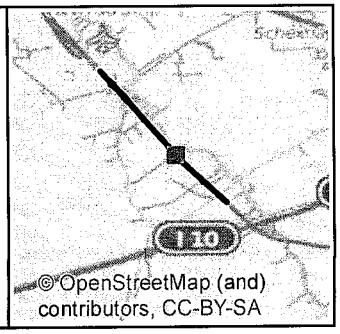

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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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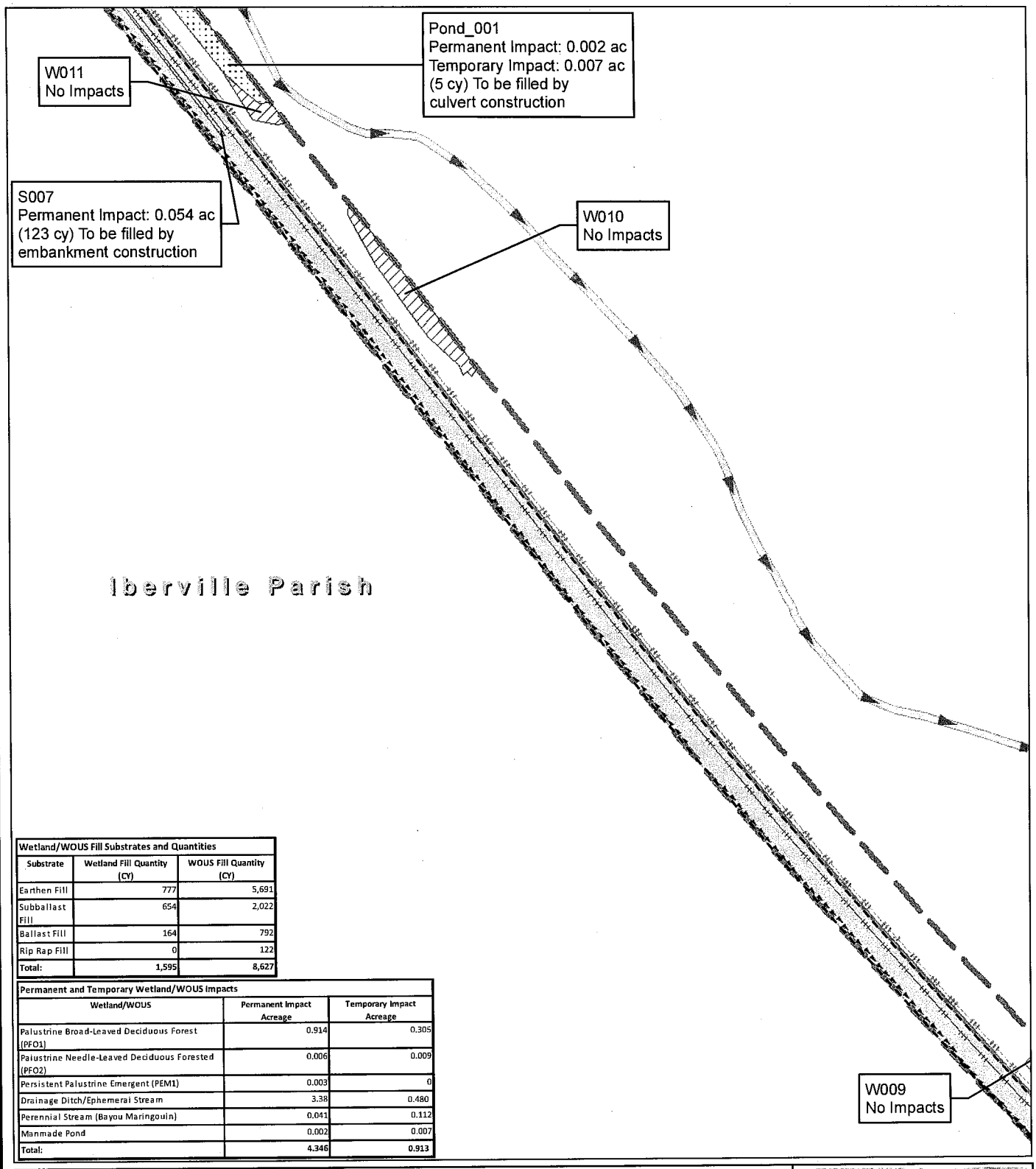

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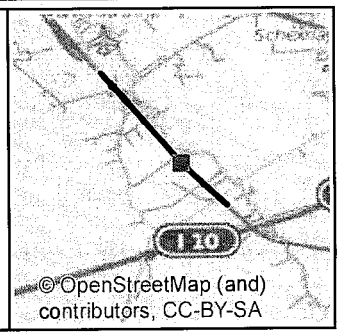

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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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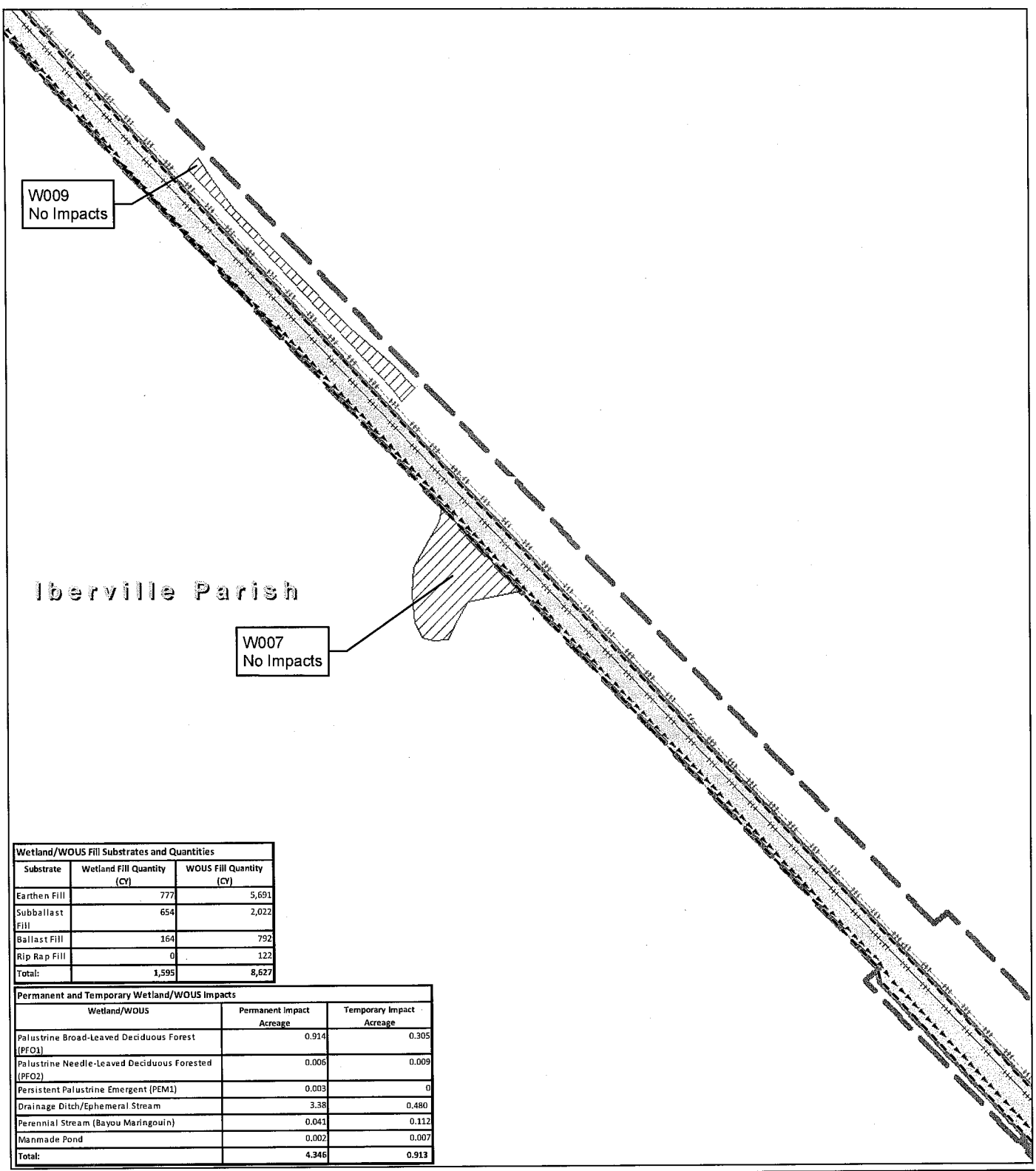

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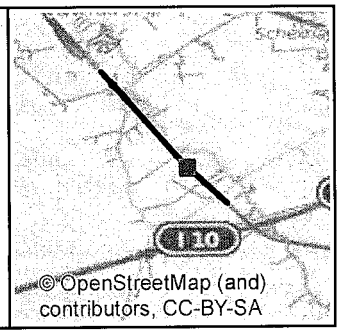
Potential Jurisdictional Wetlands
Jurisdictional Waters of the U.S. (MVN-2012-00795-SQ)
Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
0 200
Feet
1 in = 200 ft

November 18, 2013



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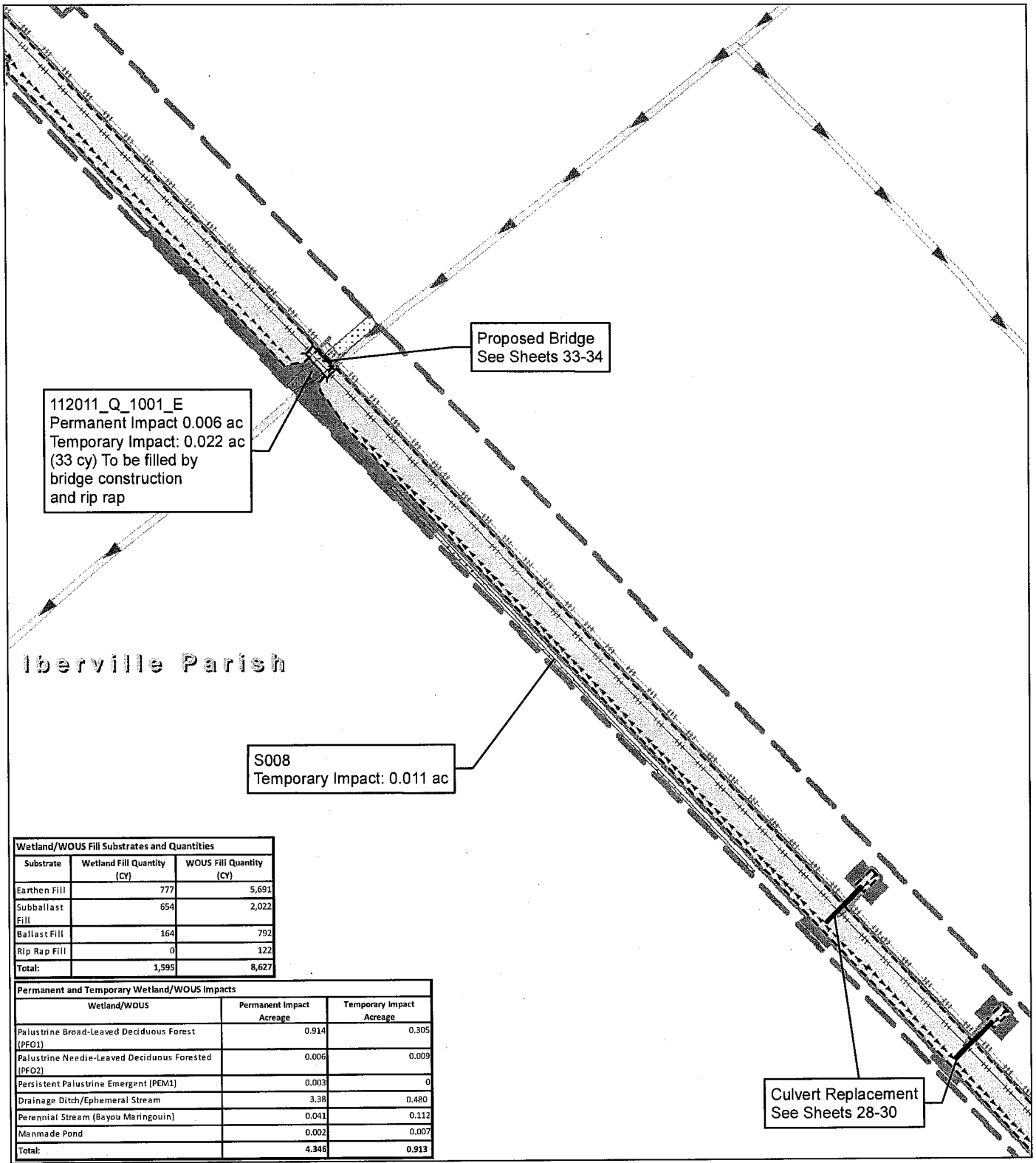
Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 19 of 40



Wetland/WOUS Fill Substrates and Quantities		
Substrate	Wetland Fill Quantity (CY)	WOUS Fill Quantity (CY)
Earthen Fill	777	5,691
Subballast Fill	654	2,022
Ballast Fill	164	792
Rip Rap Fill	0	122
Total:	1,595	8,627

Permanent and Temporary Wetland/WOUS Impacts		
Wetland/WOUS	Permanent Impact Acreage	Temporary Impact Acreage
Palustrine Broad-Leaved Deciduous Forest (PFO1)	0.914	0.305
Palustrine Needle-Leaved Deciduous Forested (PFO2)	0.006	0.009
Persistent Palustrine Emergent (PEM1)	0.003	0
Drainage Ditch/Ephemeral Stream	3.38	0.480
Perennial Stream (Bayou Maringouin)	0.041	0.112
Manmade Pond	0.002	0.007
Total:	4.346	0.913

Existing Right of Way
Proposed Right of Way
Grading Limits
Proposed Culvert
Proposed Track
Proposed Bridge
Surface Flow
Road Improvement
Road Centerline
Signal Case
Existing Track
Existing Culvert
Existing Bridge
Surface Water and Flow Direction
Permanent Workspace
Temporary Workspace
Potential Jurisdictional Waters of the U.S.
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Jurisdictional Wetlands (MVN-2012-00795-SQ)

N
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Feet
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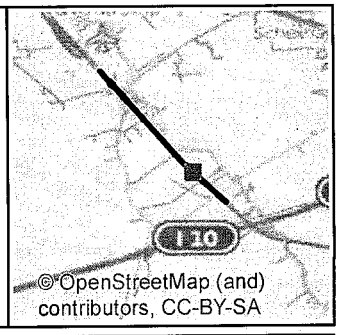
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 20 of 40

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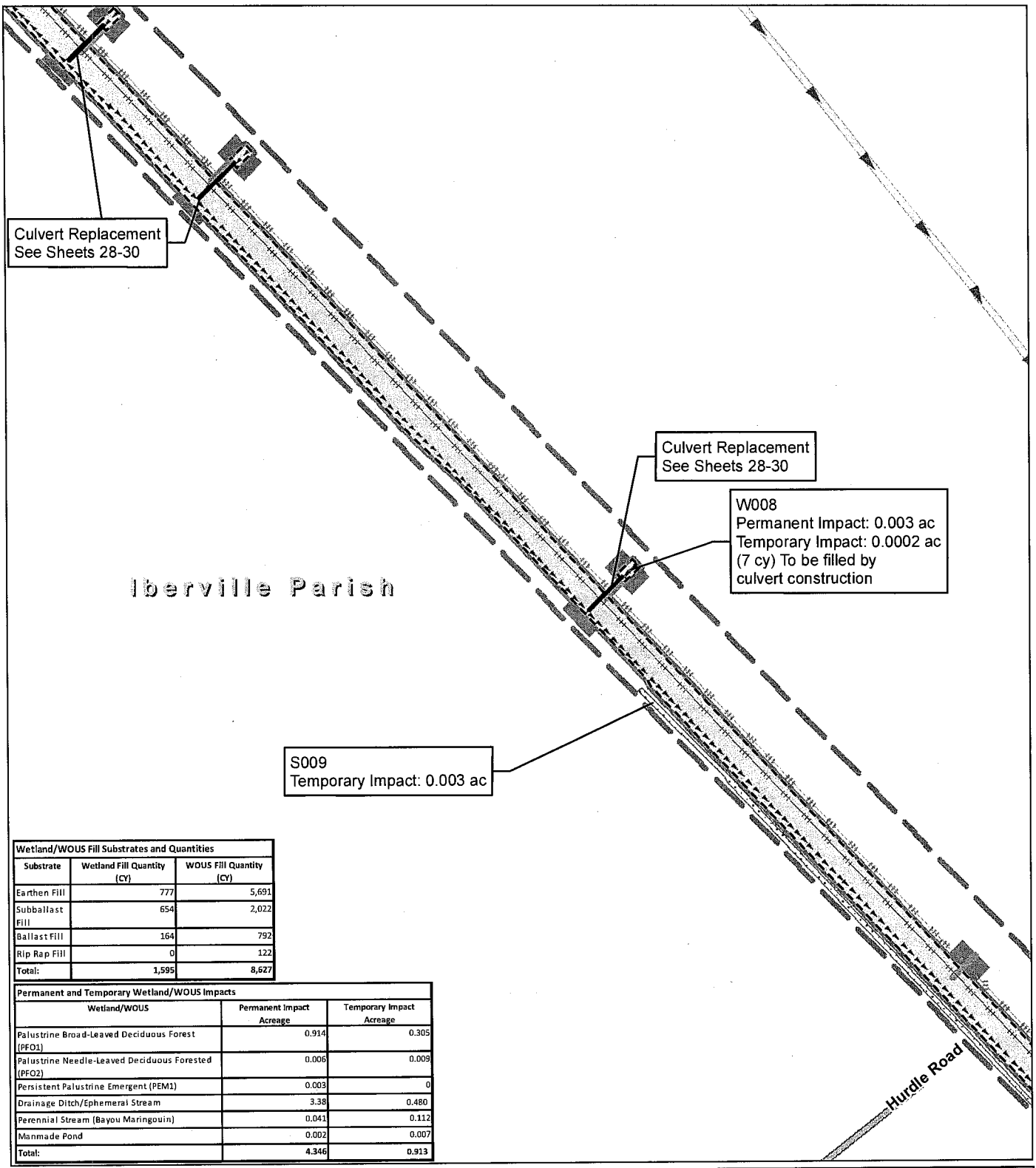

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N
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Feet
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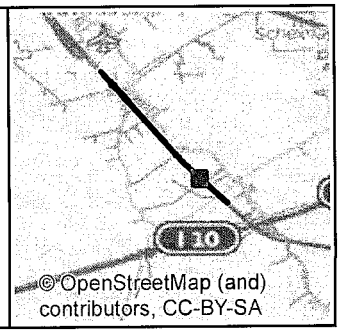
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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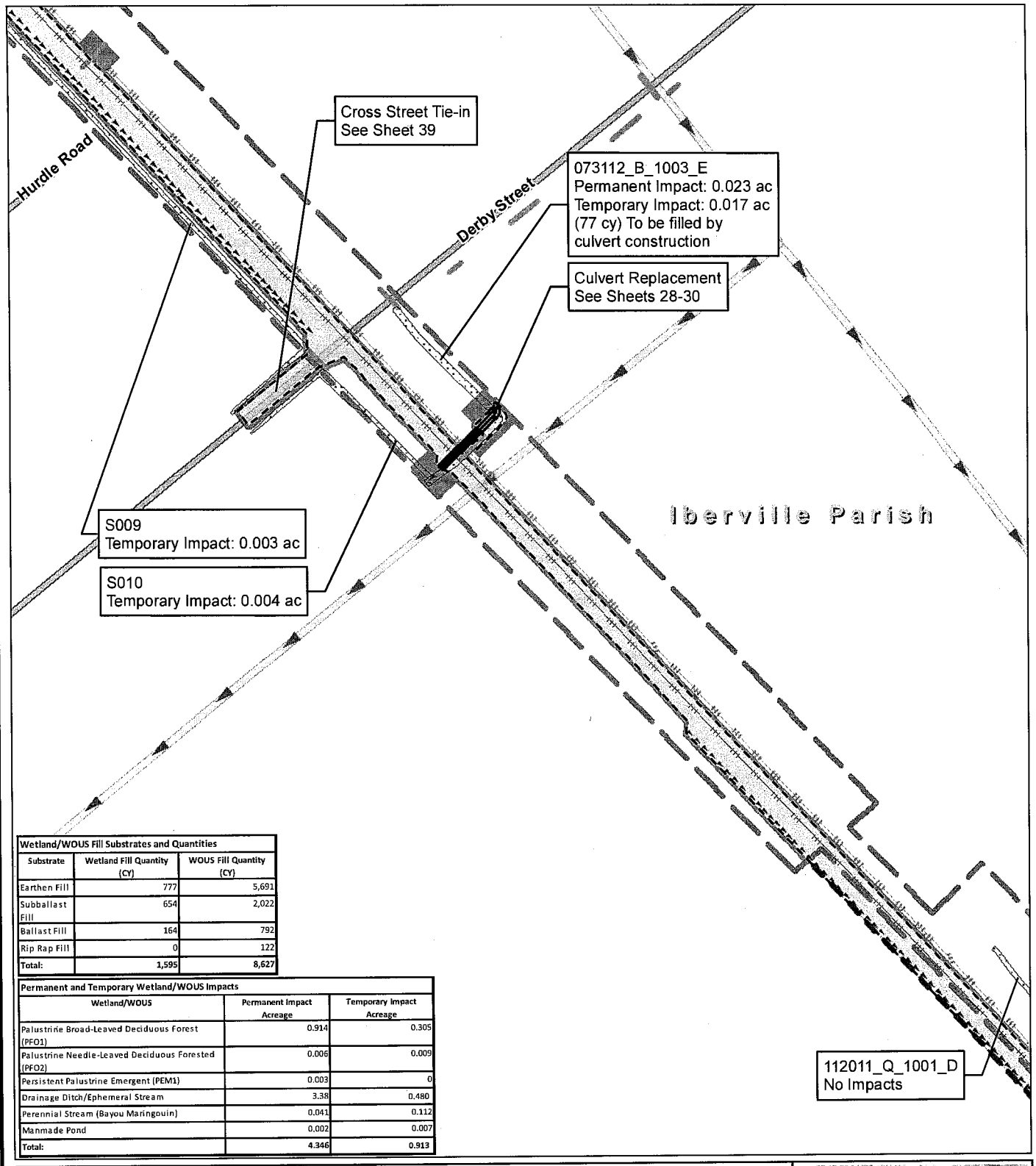

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N
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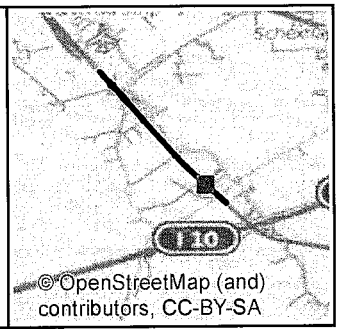
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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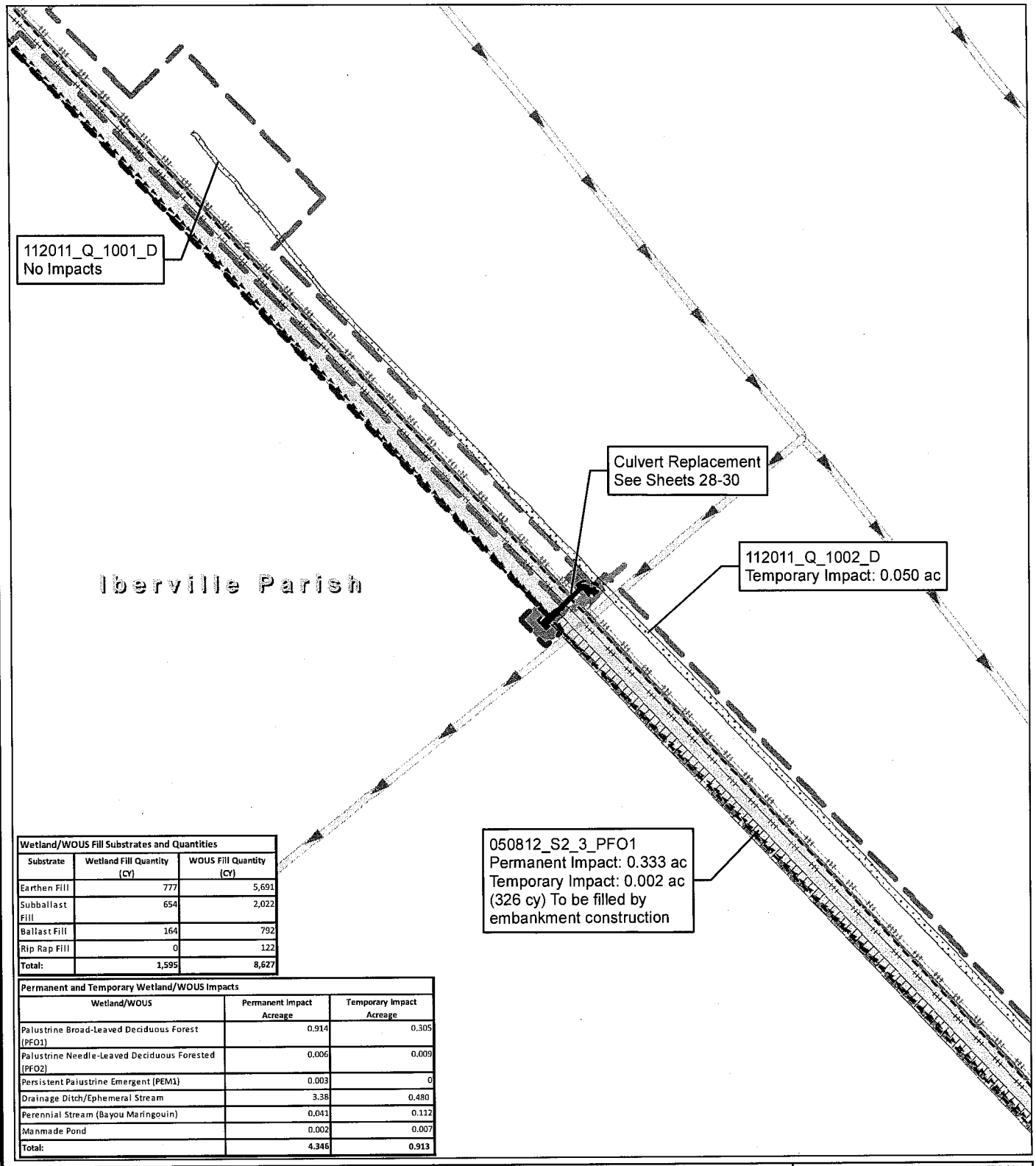

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N
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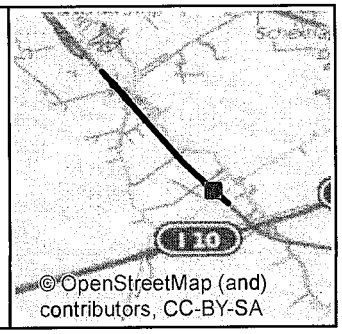
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 23 of 40

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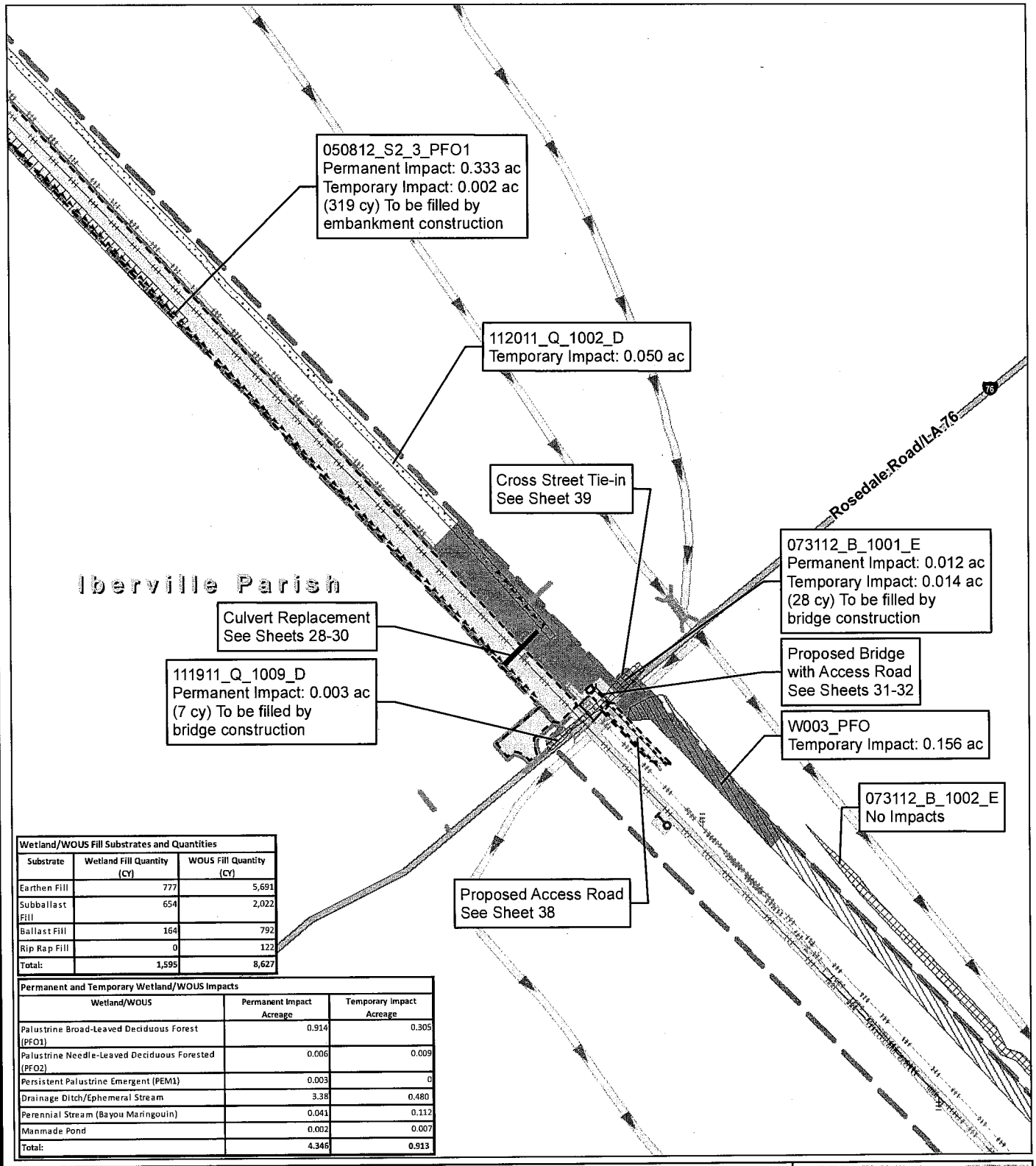

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N
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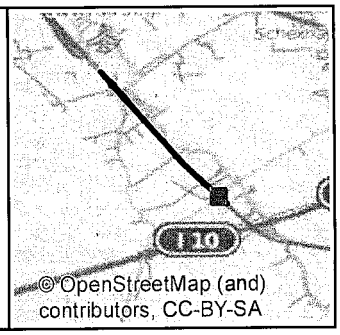
November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
Sheet 24 of 40

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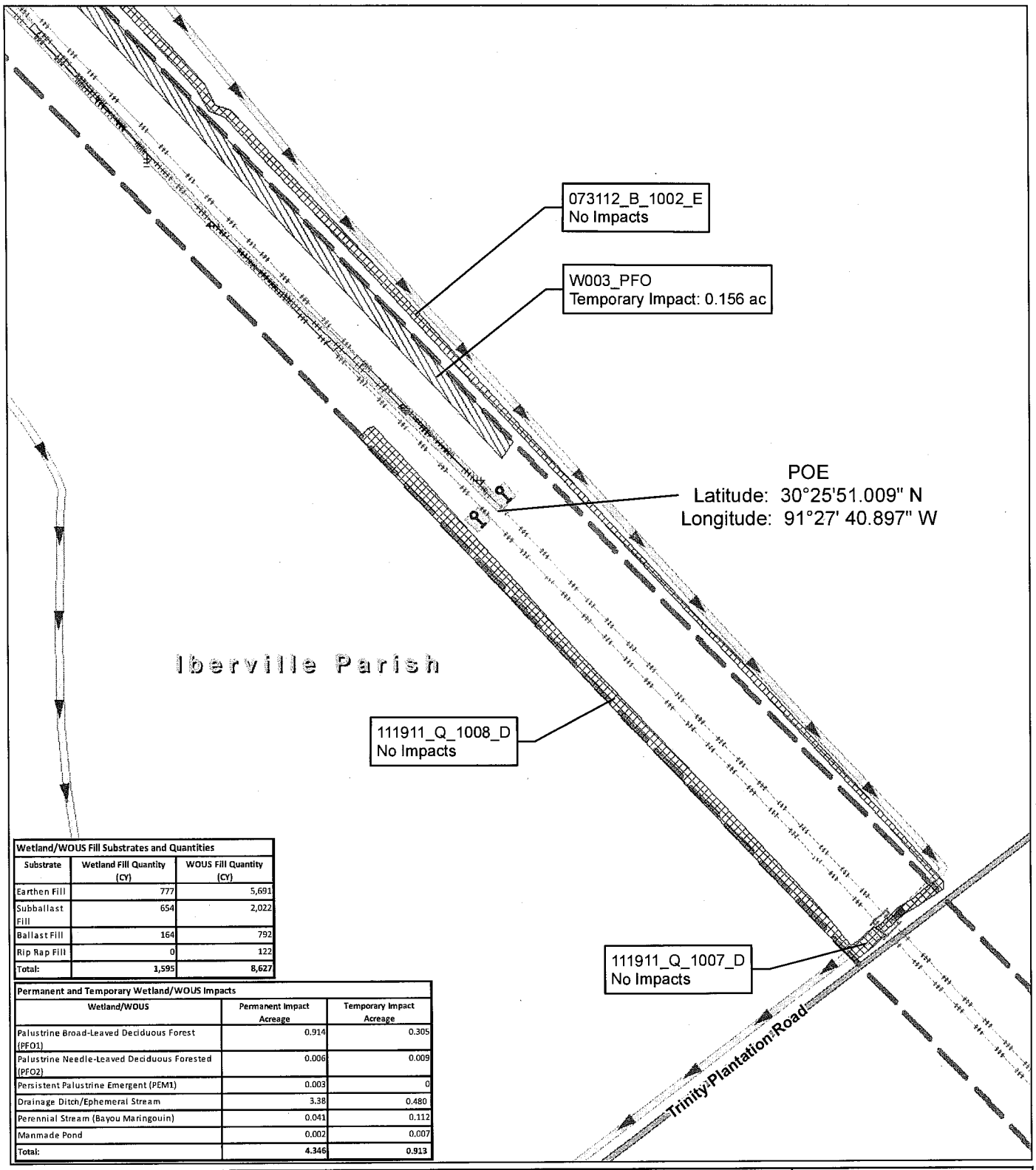

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N
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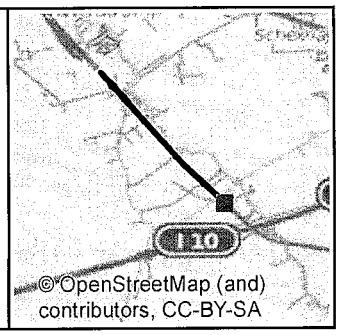
Feet
1 in = 200 ft

November 18, 2013



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Union Pacific Railroad
Plan View
Livonia to Grosse Tete 2MT Project

Figure 1
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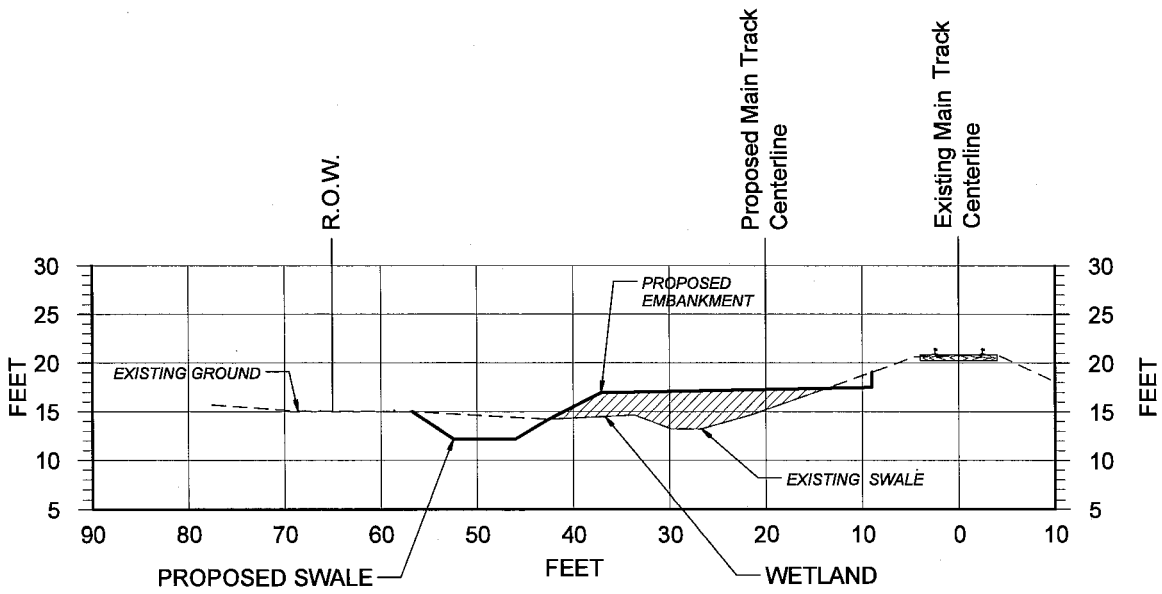
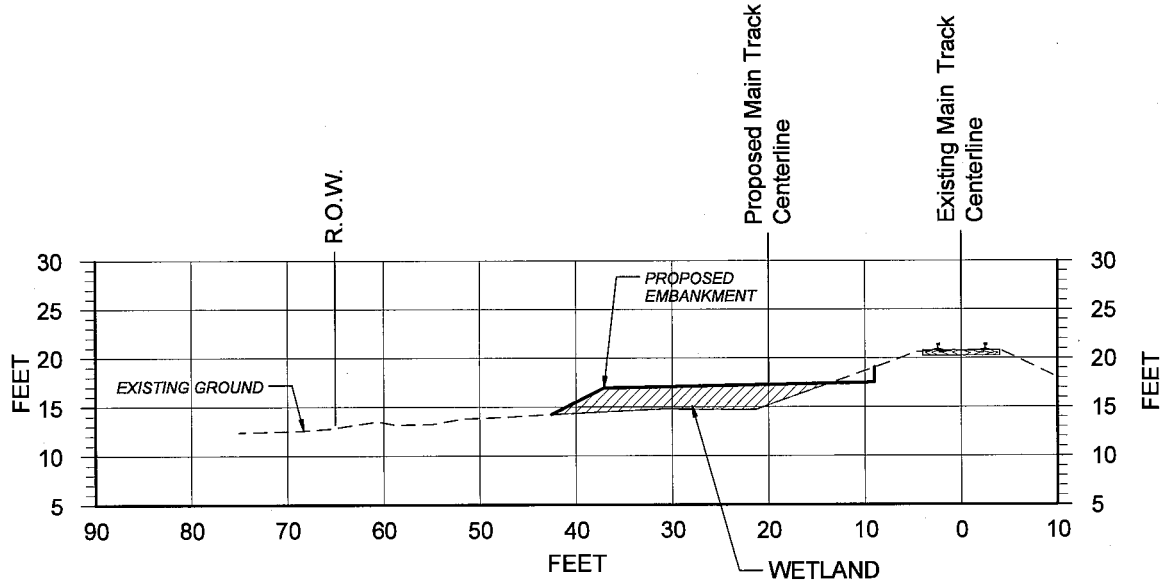


TYPICAL EMBANKMENT SECTION - SWALE REQUIRED



TYPICAL EMBANKMENT SECTION - SWALE NOT REQUIRED

POST-CONSTRUCTION DRAINAGE FLOW CASES.

1. EXISTING SHEETFLOW AWAY FROM TRACKS WITH NO EXISTING SWALE:
   PROPOSED EMBANKMENT PROVIDES SHEET FLOW AWAY FROM TRACKS MATCHING EXISTING DRAINAGE CONDITION. NO SWALE REQUIRED PER HYDROLOGY AND HYDRAULICS ANALYSIS.

2. PROPOSED GRADING IMPACTING EXISTING SWALE
   PROPOSED EMBANKMENT LOCATED WITHIN LIMITS OF EXISTING SWALE REQUIRES PROPOSED SWALE TO BE RELOCATED ALONG THE OUTSIDE OF PROPOSED EMBANKMENT SLOPE. PROPOSED SWALE SIZED ACCORDING TO CALCULATIONS PER HYDROLOGY AND HYDRAULICS ANALYSIS.

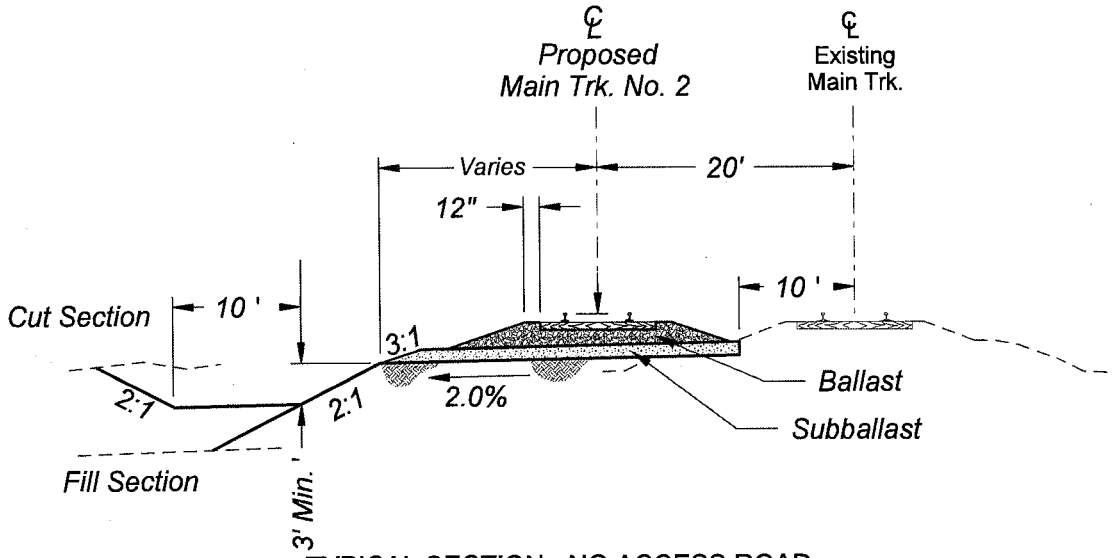
UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

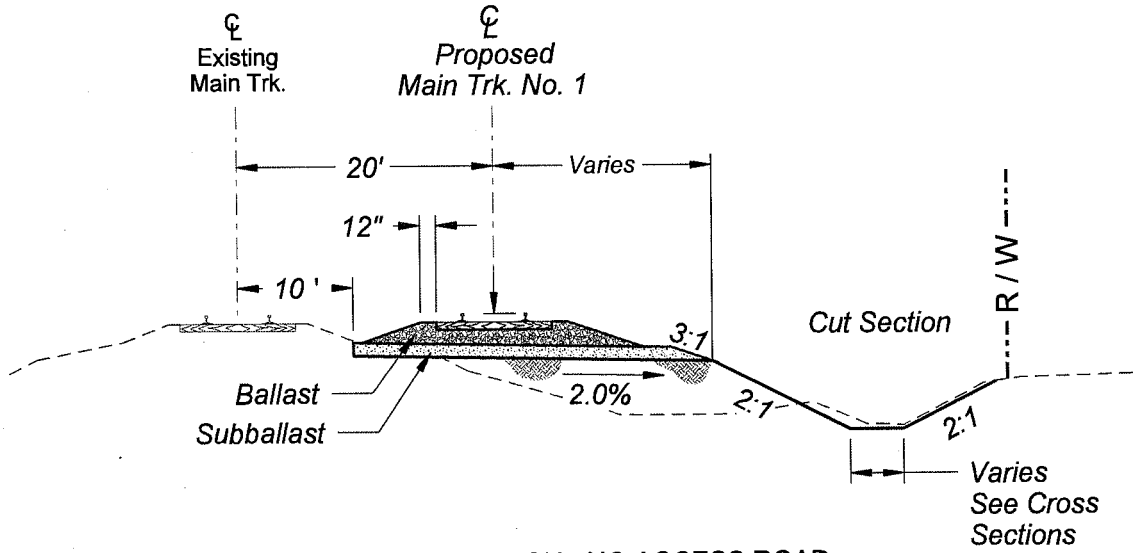
November 13, 2013

TYPICAL CROSS SECTIONS
TYPICAL WETLANDS

ES101513183044SAC



TYPICAL SECTION - NO ACCESS ROAD



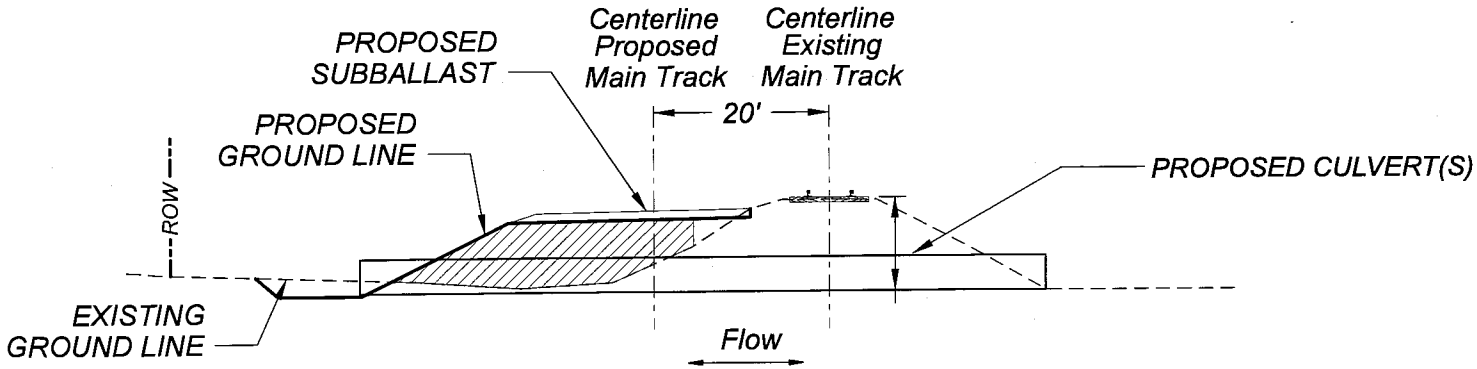
TYPICAL SECTION - NO ACCESS ROAD

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

TYPICAL TRACK
CROSS SECTIONS



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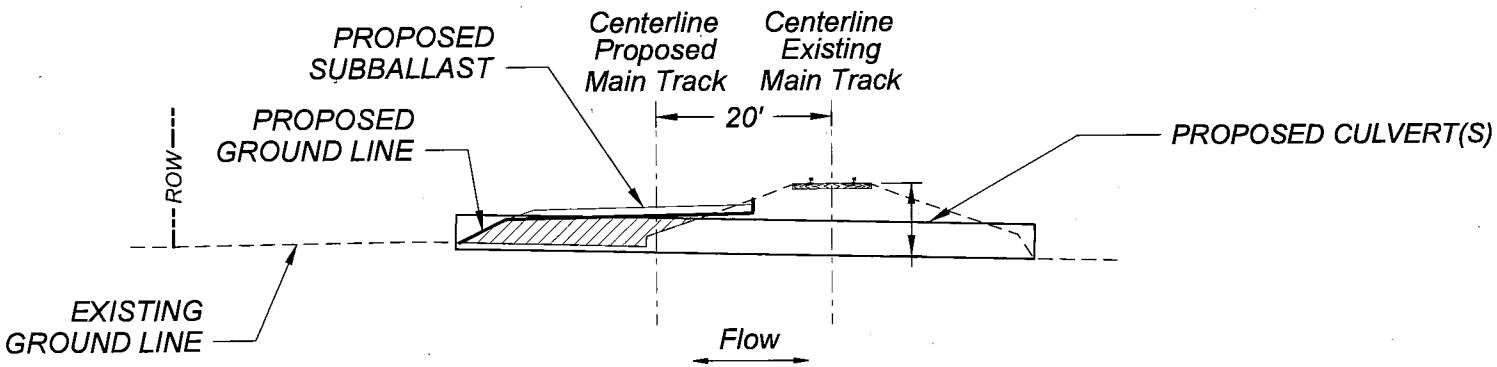


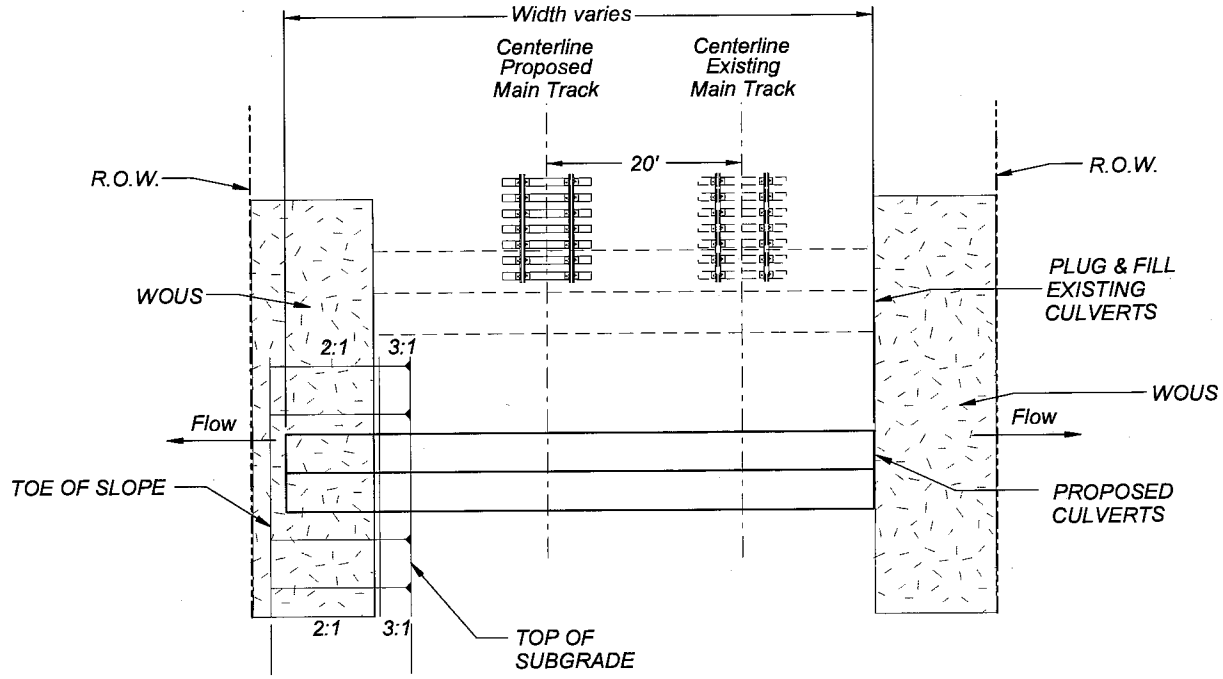
SECTION

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

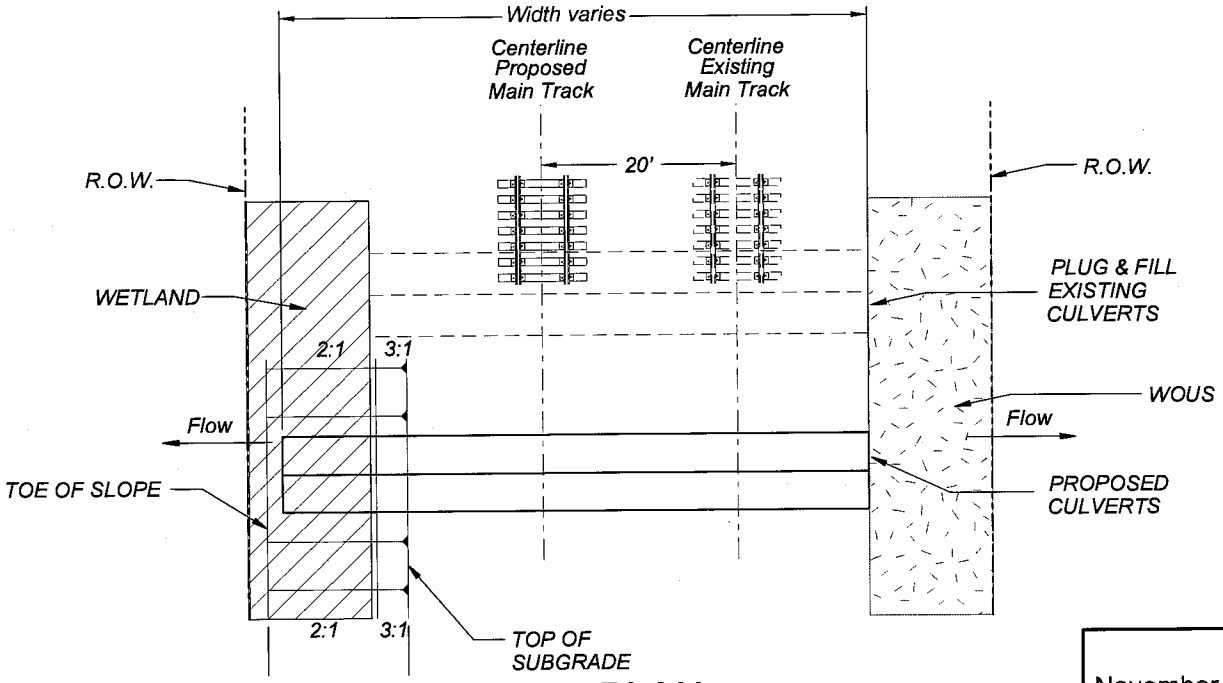
LIVONIA TO GROSSE TETE

November 13, 2013

CROSS SECTIONS
TYPICAL CULVERT EXTENSION
SHEET 28 of 40



PLAN



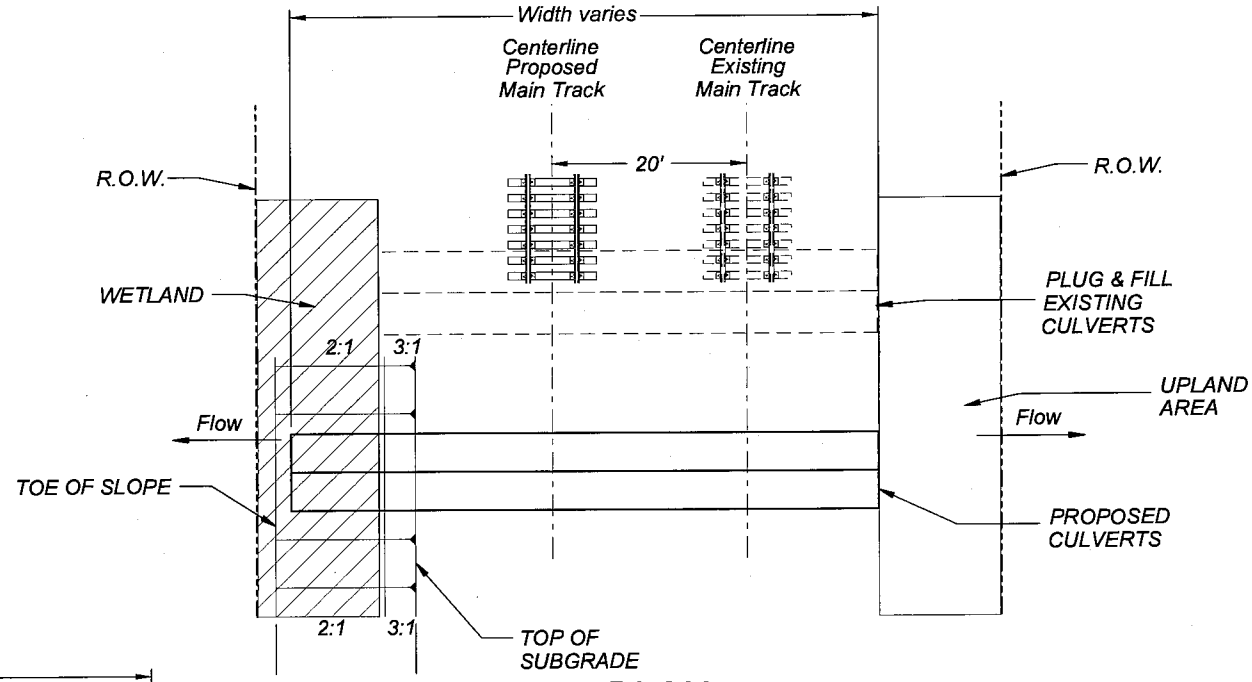
PLAN

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

PLAN VIEW
TYPICAL CULVER EXTENSION
SHEET 29 of 40



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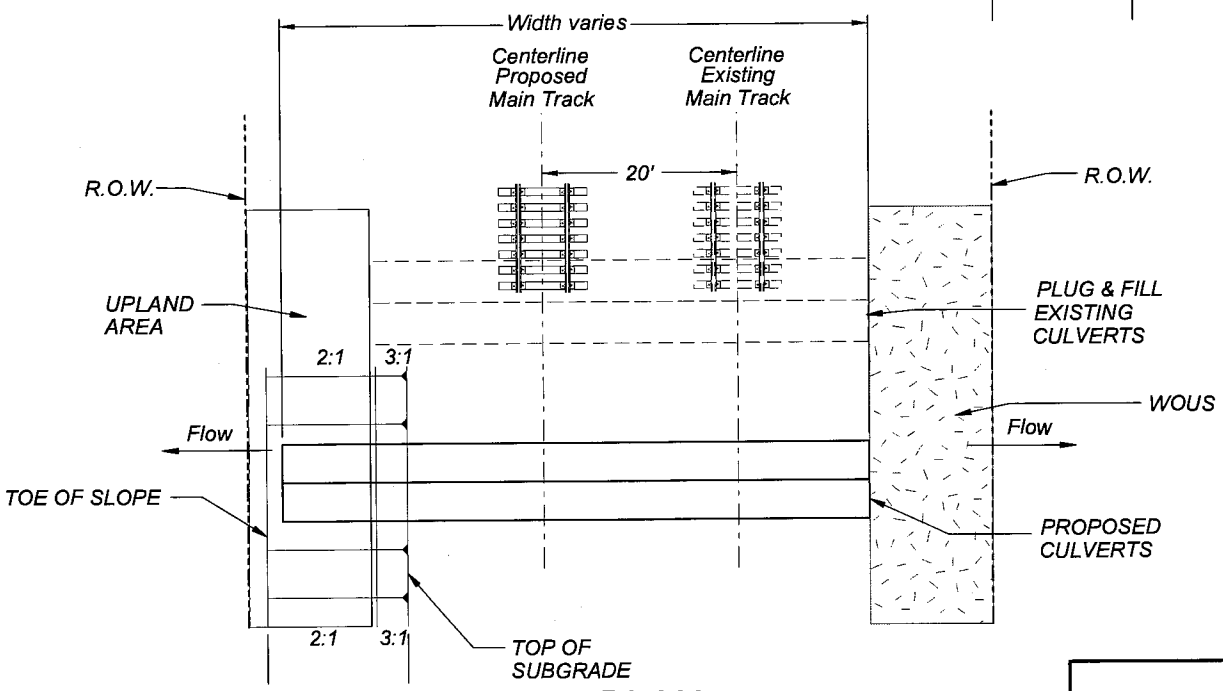


PLAN

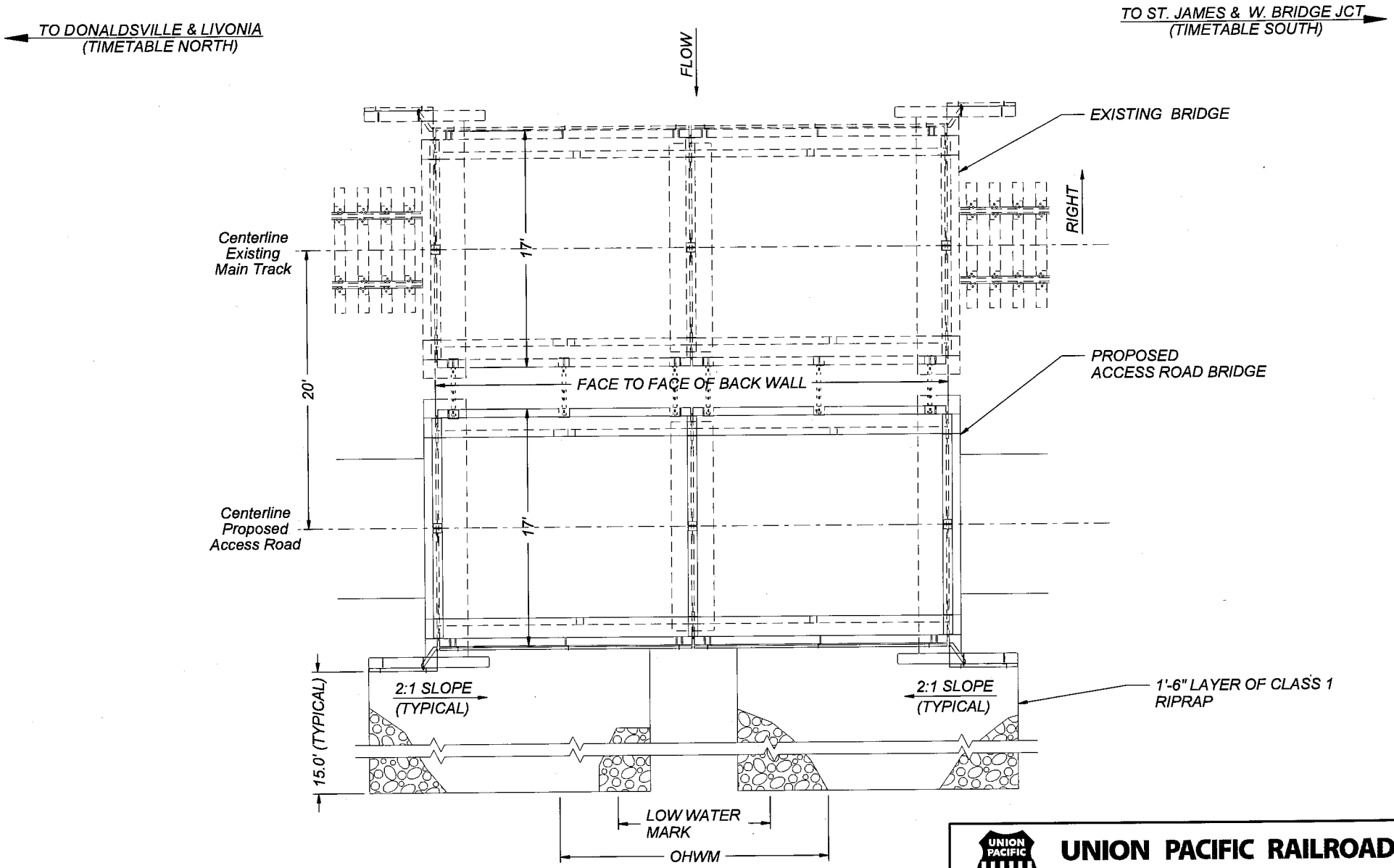
UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

PLAN VIEW
TYPICAL CULVERT REPLACEMENT
SHEET 30 of 40

0151318304 4SAC



PLAN

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

TYPICAL ACCESS ROAD BRIDGE
SHEET 31 of 40

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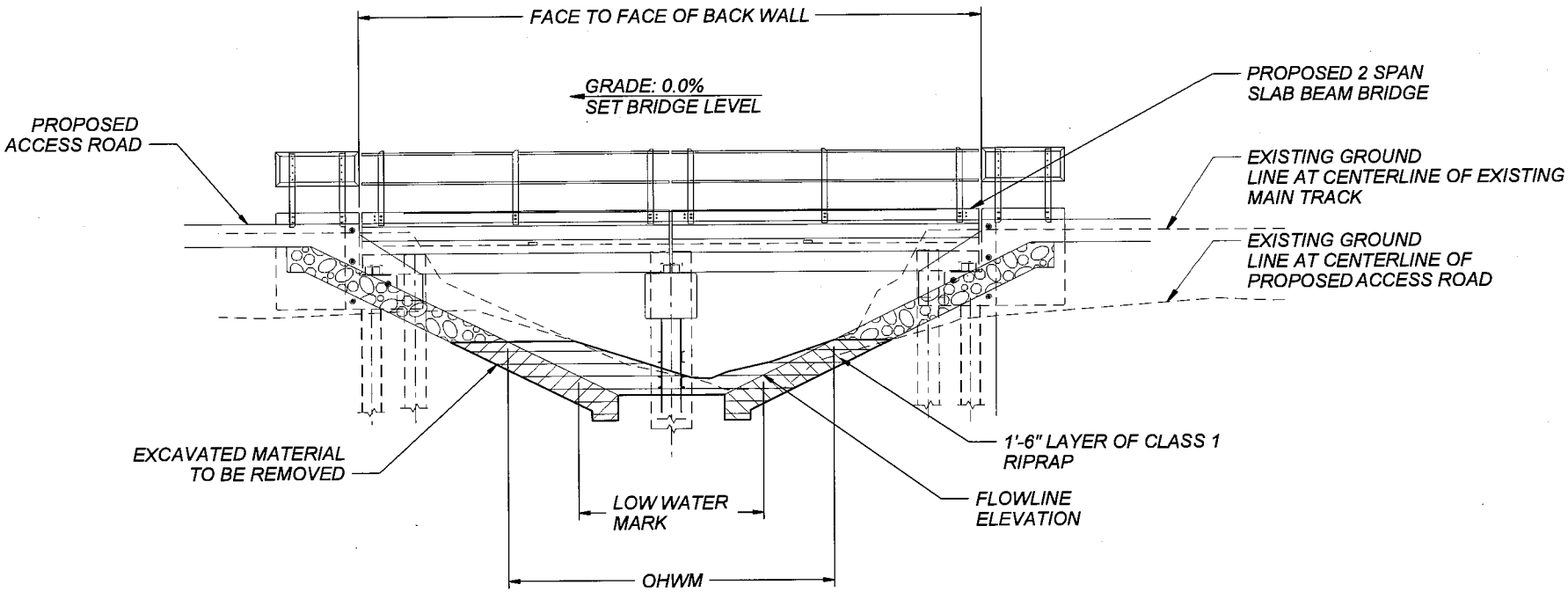


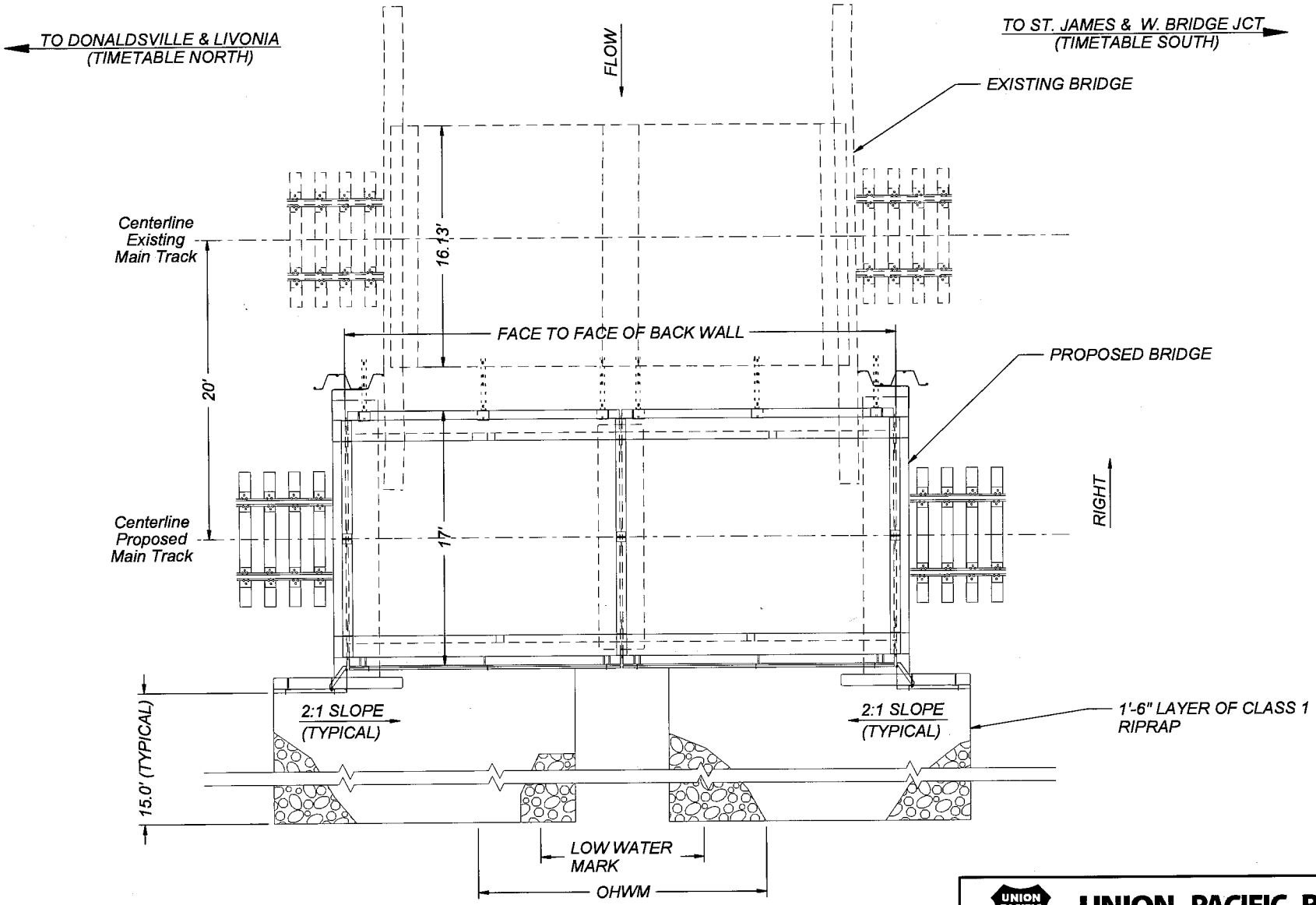
ELEVATION

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

CROSS SECTIONS
TYPICAL ACCESS ROAD BRIDGE
SHEET 32 of 40



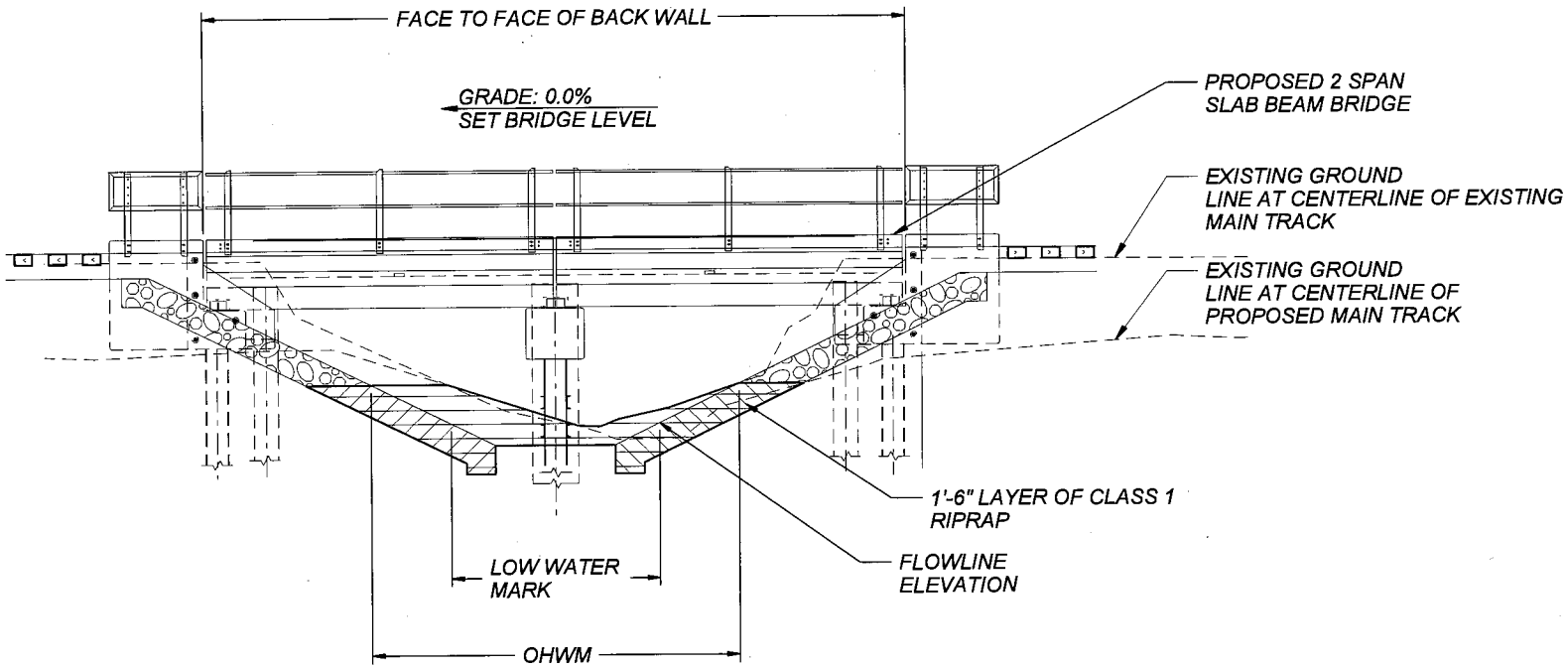
PLAN

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

TYPICAL BRIDGE
SHEET 33 of 40



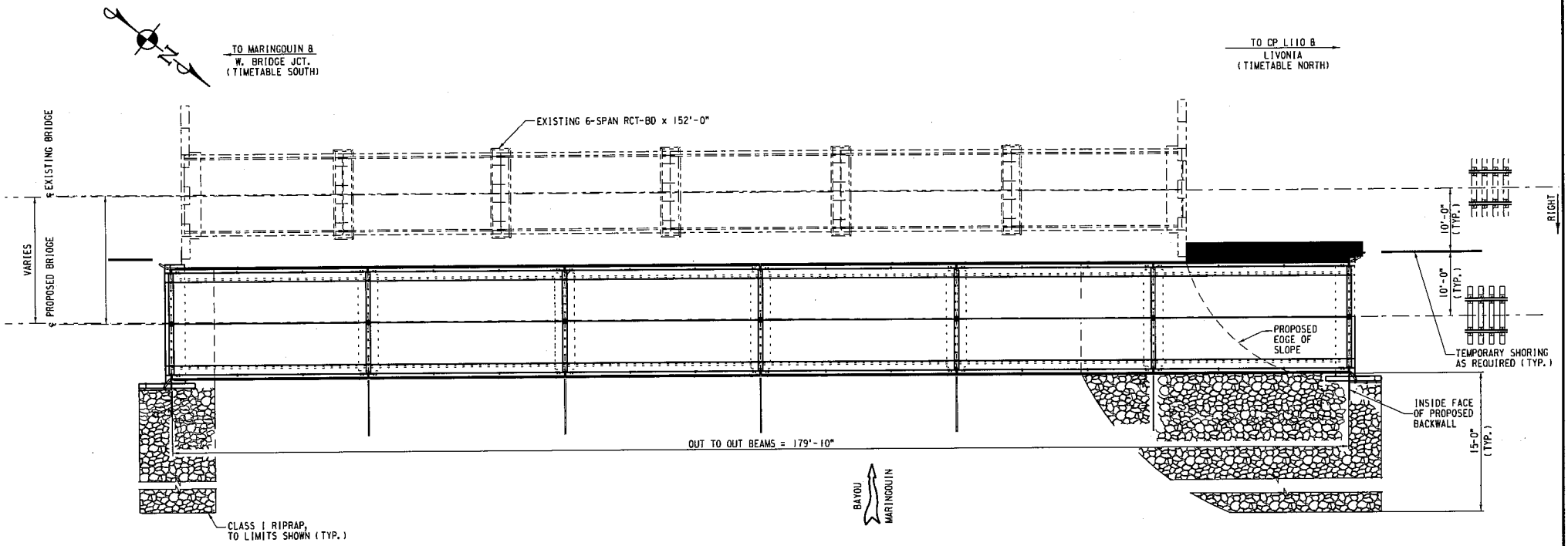
ELEVATION

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

CROSS SECTIONS
TYPICAL BRIDGE
SHEET 34 of 40



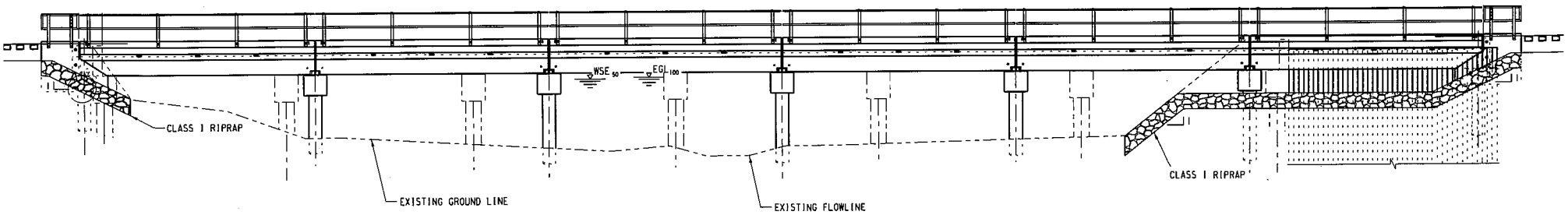
PLAN

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LIVONIA TO GROSSE TETE

November 13, 2013

CROSS SECTIONS
TYPICAL BAYOU BRIDGE
SHEET 35 of 40



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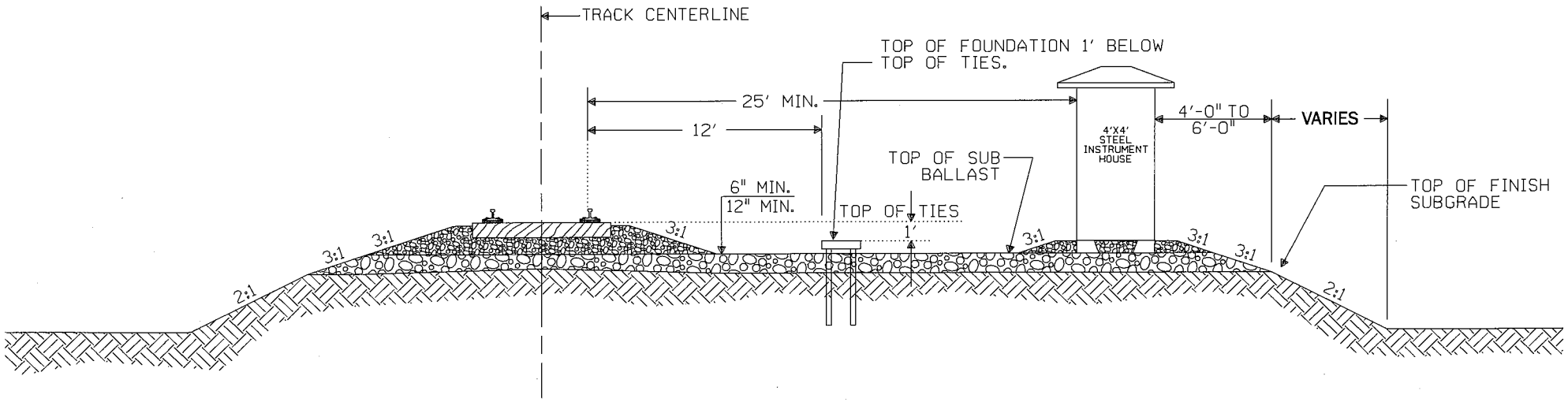
CROSS SECTIONS
TYPICAL BAYOU BRIDGE
SHEET 36 of 40

1513183044SAC



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CROSS SECTIONS
TYPICAL SIGNAL PAD
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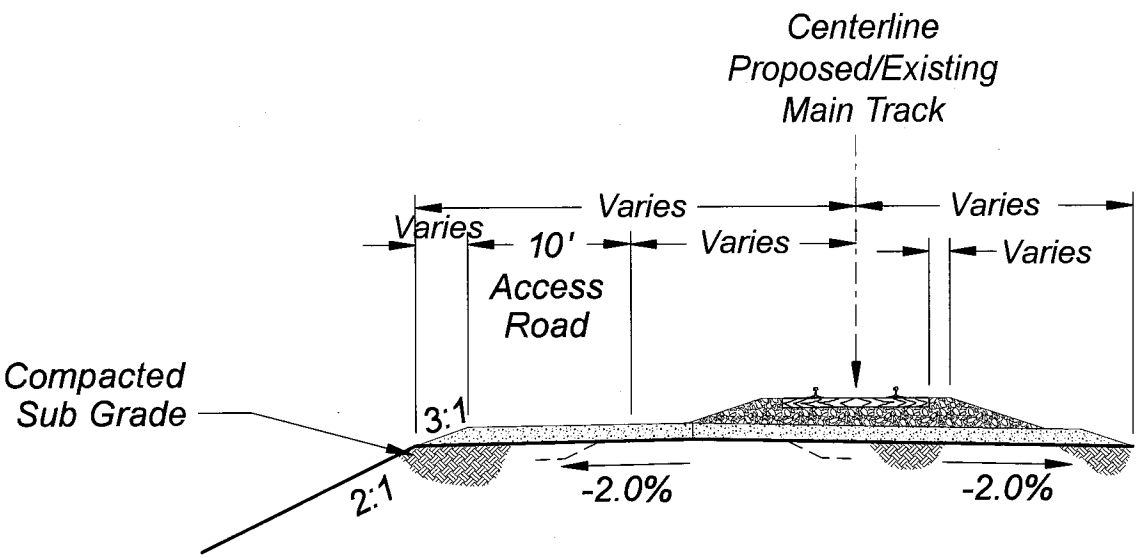
NOT TO SCALE

1513183044SAC



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CROSS SECTION
TYPICAL MAIN TRACK WITH ACCESS ROAD
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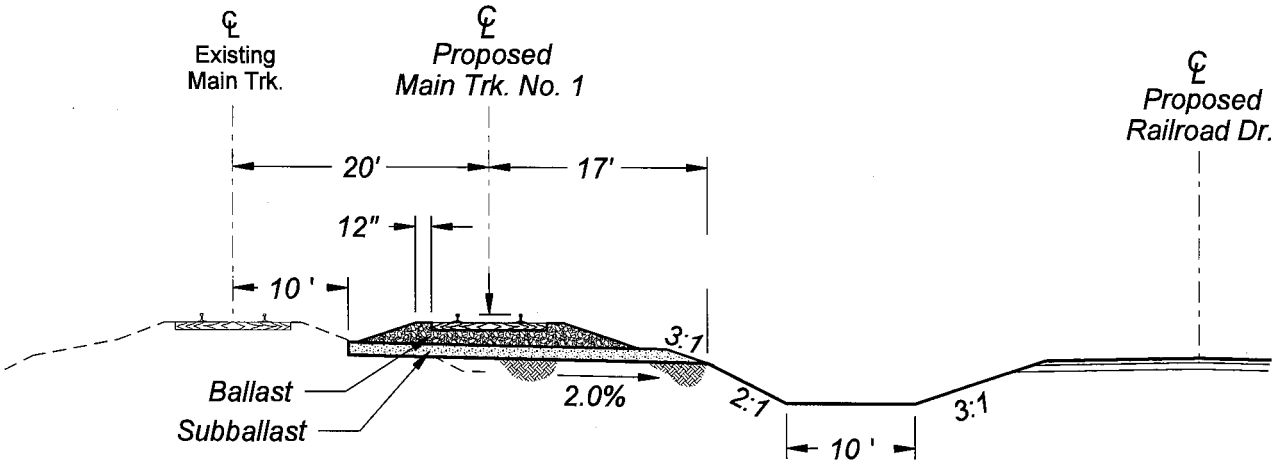
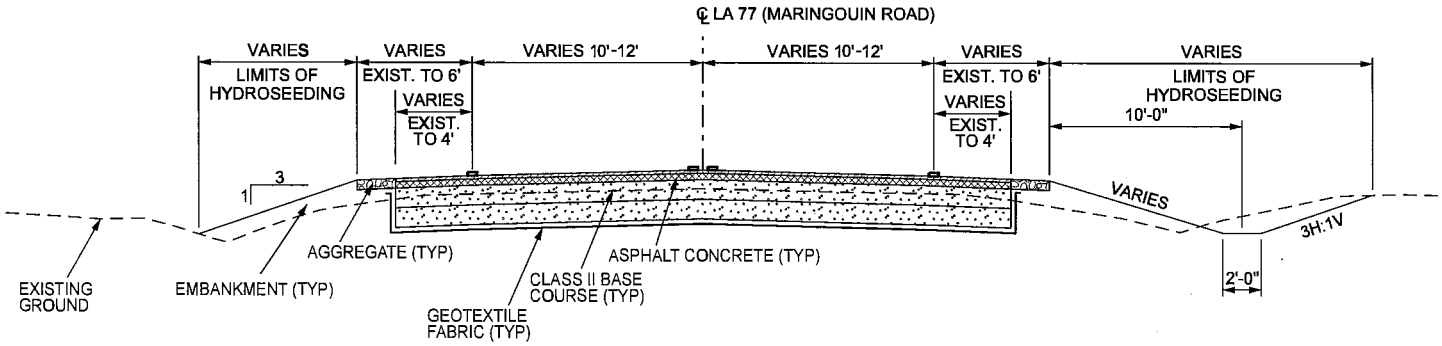
1513183044SAC

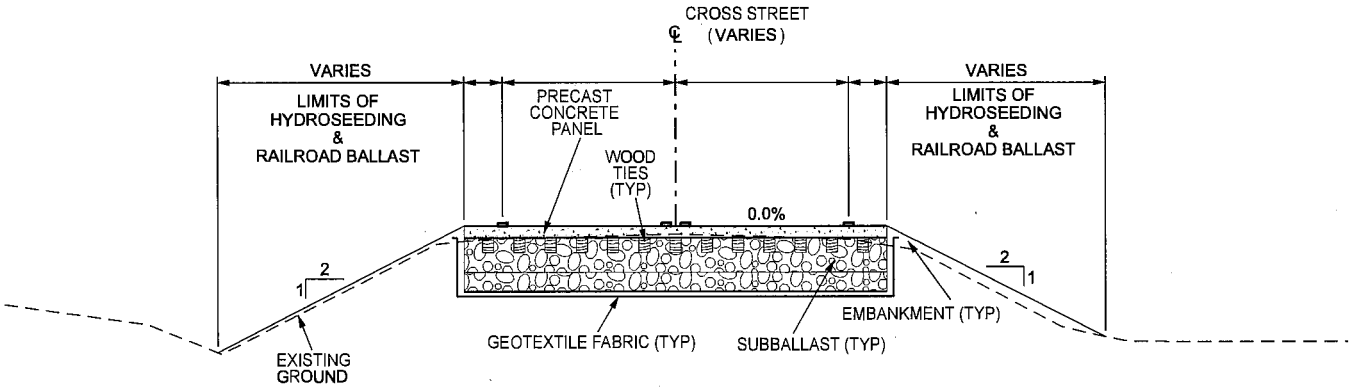
ES101513183044SAC



TYPICAL SECTION - RAILROAD DR. RELOCATION



TYPICAL SECTION - LA 77
(MARINGOUIN RD.), WEBRE RD.,
BAEMON RD. RELOCATIONS



TYPICAL SECTION - MINOR CROSS
STREET TIE-IN WEST OAK LANE

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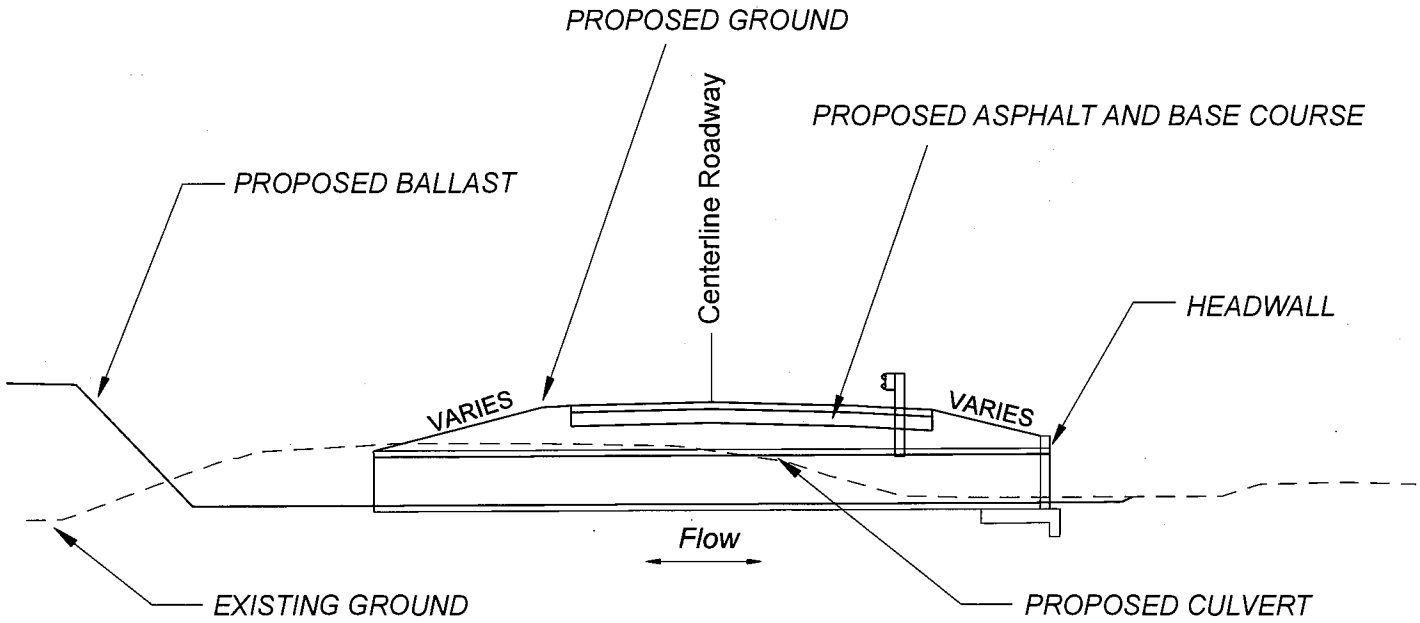
ROADWAY RELOCATION
CROSS SECTIONS



SECTION

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CROSS SECTIONS
TYPICAL ROADWAY CULVERT
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