

Information for File # 2009-00214-JTF

Applicant City of Cloquet, Minnesota

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Primary County Carlton

Sec/Township/Range: Sec(s). 28, 29, 32, 33, T. 49N., R. 17W.

Information Complete On December 16, 2013

Posting Expires On December 30, 2013

Authorization Type LOP-10-FDL

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act. Our jurisdictional review and final jurisdictional determination could result in modifications to the scope of the project's regulated waterbody/wetland impacts and compensatory mitigation requirements identified above. An approved jurisdictional determination will be made prior to reaching a permit decision, and will be posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/>.

PROJECT PURPOSE & NEED: Cartwright Road is hilly with a rough gravel surface, and it experiences a high volume of traffic because it is the most direct route between the Fond du Lac Tribal Headquarters and Black Bear Casino. Originally built as a forest road, no design standards were used in the initial construction of the road. The road surface is narrow in some portions and with heavy use it has been eroding on numerous side slopes, especially near Otter Creek, a designated trout stream. Heavy rain events in 2010, 2011, and 2012 caused the road to wash out at the culvert at Otter Creek, thus permanently closing the road.

This work is a cooperative effort between the City of Cloquet, Fond du Lac Reservation and the Bureau of Indian Affairs. The work is necessary because by resurfacing Cartwright Road with blacktop, widening it, and making it flatter, erosion problems

would be reduced, maintenance costs would diminish, and traffic flow and safety would be improved.

PROJECT DESCRIPTION:

Reconstruction would consist of road widening, minor straightening, elevation smoothing, wetland excavation and filling, stream culvert replacement, sub grade and top grade compaction, surface crowning, and bituminous paving. The road would be reconstructed for its entire length of 10,403 linear feet. The project has been designed to meet current road design standards and to improve safety.

The main driving surface would consist of two 12-foot lanes and 6-foot shoulders to accommodate foot and bicycle traffic. The intersection of University Road and Cartwright Road would be modified to create a “T” intersection with Cartwright Road proceeding due south, while University Road would “T” off of Cartwright to the west.

All existing culverts along the project would be replaced. The existing double 4-foot culverts at Otter Creek would be replaced with a single 16-foot by 14-foot concrete box culvert with wing extensions on each end. During culvert installation at Otter Creek, sheet piling and a 10-foot wide temporary diversion ditch would be used to reroute the stream around the work area. Two flume pipes would be placed in the temporary ditch to convey the water around the project site. During and after construction the stream diversion would be monitored for downstream effects including erosion.

In non-wetland areas, slopes would be 4:1 from the shoulders outward. Ditches would be placed adjacent to the road on slopes while the remaining portions would be graded to provide for proper drainage. In the wetland area, the inboard slopes of the ditches would generally be 3:1. There would be no ditches at the toe of the slope in wetlands. Once the side slopes have been contoured, they would be covered in erosion control mats from the shoulder to the toe of the slope and seeded with an approved seed mix. Silt fencing would be installed on the north and south ends of the project to catch any debris and prevent erosion. Silt fencing and erosion control mats may be placed in other locations as needed.

Approximately, 1,230 square feet of temporary riprap would be placed upstream in the event of high water during construction. Ditch armoring would be placed in ditches on both sides of the road going downhill. In total 12 rock check dams to slow water velocities would be placed to mitigate stormwater impacts.

NAME, AREA AND TYPES OF WATERS (INCLUDING WETLANDS) SUBJECT TO LOSS: The project would result in temporary impacts to 5,934 square feet of deep marsh/shrub carr wetlands and 26,451 square feet of permanent impacts to deep marsh/shrub carr wetlands. The sites would be restored and seeded upon completion of the project. Erosion control structures would be removed after new growth has been established.

ALTERNATIVES CONSIDERED: The no-build alternative was dismissed since it would not address the safety issues on Cartwright Road.

Another alternative had a longer box culvert proposed. This design also had a turning lane at the intersection of Cartwright Road and University Road. This design was eliminated to reduce wetland and stream impacts.

The third alternative of road reconstruction, grading, drainage, and adding bituminous surfacing was chosen. This alternative would have the least adverse effect on wetlands and also meet the purpose of the project to improve roadway safety and traffic flow.

COMPENSATORY MITIGATION: The applicant has proposed to provide compensatory mitigation for the wetland impacts through the MN Board of Water and Soil Resources Road Replacement Program mitigation bank. A 1:1 wetland compensation ratio will be required when using this bank.

DRAWINGS: See attached.

Project Start and End Points



087.575 350 525 700
Meters

Legend

- Otter Creek
- Roads



Disclaimer: FDL makes no representations about the suitability of this map for any purpose. The map is presented 'as is' without express or implied warranties, including warranties of merchantability and fitness for a particular purpose or noninfringement.



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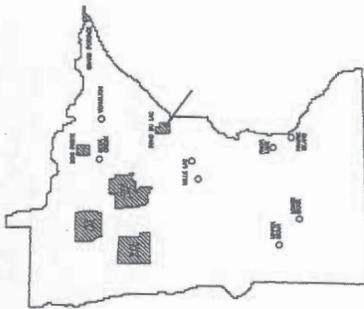
2009-00214-JTI
Drawing 1 of 4

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS - ROADS
MIDWEST REGION

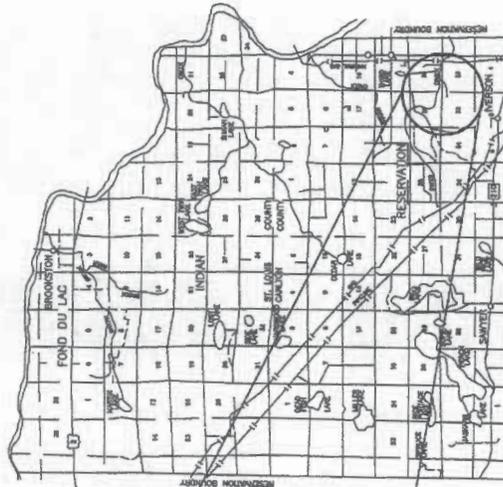
CARTWRIGHT ROAD
PROJECT I.D. NO. F5320277
IRR ROUTE NO. 2027

FOND DU LAC RESERVATION
CARLTON COUNTY, MINNESOTA
GRADING, DRAINAGE, AGGREGATE BASE,
BITUMINOUS SURFACE

CARTWRIGHT ROAD 10403.10 FEET
COUNTY ROAD #5 420.17 FEET
EXEMPTIONS 0.00 FEET
NET LENGTH OF CENTERLINE 10823.27 FEET

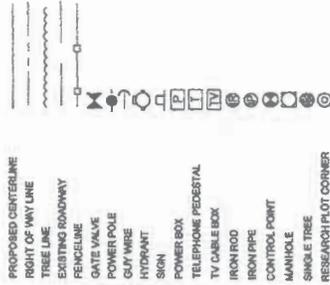


CARLTON COUNTY,
STATE OF MINNESOTA



LOCATION MAP
N.T.S.

LEGEND OF SYMBOLS



DESIGN DATA

DESIGN SPEED	55 MPH
MINIMUM RADIUS OF CURVE	NONE
MAXIMUM GRADE	4.05 PERCENT
TOPOGRAPHY	ROLLING
AVERAGE DAILY TRAFFIC (2008)	150
AVERAGE DAILY TRAFFIC (2028)	1480

INDEX OF SHEETS

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- 2 QUANTITIES NOTES & UTILITIES
- 3 MISCELLANEOUS QUANTITIES
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- 40 RIGHT OF WAY PLAT SHEET

DESIGN IS IN ACCORDANCE WITH A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2004 (AASHTO), EXCEPT WHERE SHOWN OTHERWISE. THIS PROJECT IS SUBJECT TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAYS PROJECTS (FHWA) AND STATE OF MINNESOTA, STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2008 EDITION, AND THE LATEST "SUPPLEMENTAL SPECIFICATIONS" TO THE 2008 EDITION.

U.S. DEPARTMENT OF THE INTERIOR - BUREAU OF INDIAN AFFAIRS
MIDWEST REGION - BEIDJJI
MIDWEST REGION

RECOMMENDED FOR APPROVAL

APPROVED: *[Signature]* 6/30/12 DATE
REGIONAL ENGINEER

APPROVED: *[Signature]* 6/29/12 DATE
REGIONAL DIRECTOR

CONTRACTOR SHALL VERIFY ALL PUBLIC UTILITIES PRIOR TO START OF CONSTRUCTION



WETLAND AREA A
AREA = 1,380 SF (0.03 AC)

WETLAND AREA B
AREA = 1,850 SF (0.04 AC)

CONSTRUCTION LIMITS
PERM WETLAND MITIGATION

SILT FENCE (APPROX)

10' WIDE X 20' LONG
3' DEEP SEDIMENT BASIN

R-O-W

EXISTING ROAD

EDGE OF ROAD

EXISTING ROAD

GAS

EDGE OF ROAD

EDGE OF ROAD

R-O-W

ROCK CHECK DAMS
STARTING AT STA 40+62
SPACED AT 62 FEET
TOP TO TOP OF CHECK

10' WIDE X 20' LONG
3' DEEP SEDIMENT BASIN

WETLAND AREA C
AREA = 3,280 SF (0.08 AC)

WETLAND AREA D
AREA = 8,707 SF (0.20 AC)

DIVERSION CHANNEL
10 FT WIDE W/ 2-4 FT PIPES
INVERTS 1 FT BELOW TOP OF WATER
GUARD RAIL WITH 3 TO 1 INSLOPES
SEEDED WITH EROSION CONTROL

INSTALL A 38 FT SINGLE CELL BOX CULVERT WITH A 16 FT SPAN X 14 FT RISE
LOCATED AT STATION 38+70 WITH INVERT ELEVATION OF 1218.90 (W. END) AND 1218.50 (E. END)

