



Montana Department of Transportation
2701 Prospect Ave.
P.O. Box 201001
Helena, MT 59620-1001

MEMORANDUM

To: Kevin Christensen, PE
Construction Engineer

From: Paul Jagoda, PE
Construction Engineering Services Engineer

Date: 31 July 2012

Subject: Construction Review Report – Great Falls District
Project No.: CBI 1-3(65)209
Designation: East Glacier - Browning
Control Number: 6961
Contract Number: 06312

Please find the attached Construction Review Report for the subject project. If you have any questions or require additional information, please contact me or Terry W. Wickman.

PJ/TW/tww

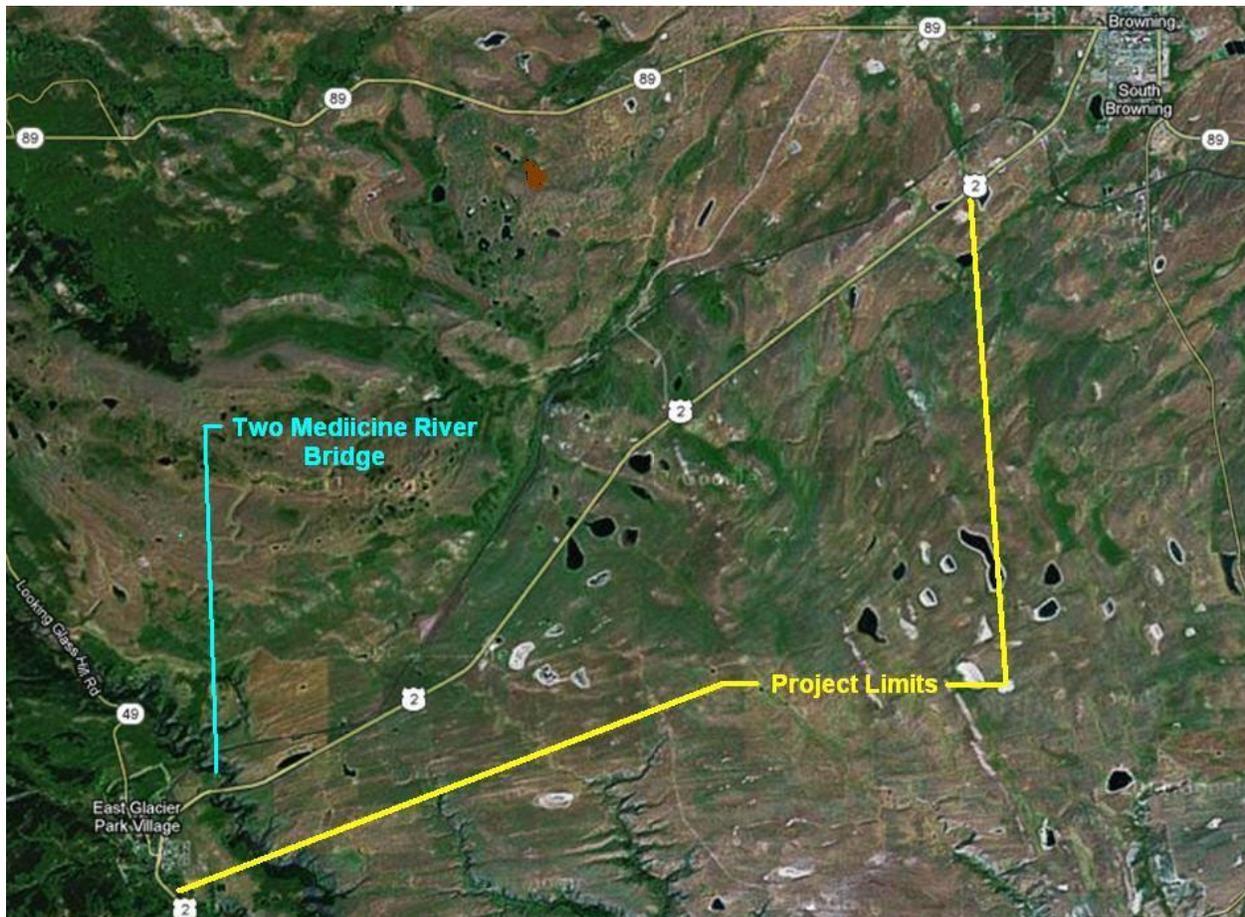
cc:	Dwane Kailey, PE	Suzy Price	Jeania Cereck
	Jim Walther, PE	Paul Ferry, PE	Stan Kuntz, DMS
	Mick Johnson, DA	Tim Conway, PE	Jim Dunbar
	Doug Wilmot, PE	Tom Martin, PE	Mike Dyrdaahl
	Jim Combs, PE	Matt Strizich, PE	Helen Varcoe
	Mark Beckedahl, EPM	Jeff Jackson, PE	Dave Hand
	Robert Snyder, PE	Lesly Tribelhorn, PE	Stephanie Smith, DEO
	Michael Kulbacki, PE-FHWA	Lee Grosch, PE	Joe Nye, PE
	Alan Woodmansey, PE-FHWA	Tom Atkins, PE	Devin Roberts, PE
	Dan Smith, PE-FHWA	Steve Prinzing, PE	Construction Reviewers
	Lisa Durbin, PE	Christie McOmber, PE	



CONSTRUCTION ENGINEERING SERVICES PROJECT REVIEW REPORT

Project Number:	CBI 1-3(65)209	Letting Date:	22 March 2012
Project Designation:	East Glacier – Browning	MDT District:	Great Falls
Control Number:	6961	EPM:	Mark Beckedahl
Contract Number:	06312		
Review Date:	02 July 2012		
Reviewed By:	Terry W. Wickman	In Company With:	John Abrahamson, CET 4
Project Description:	<p>Digouts, cold milling, cold-in-place recycled plant mix surfacing, Grade S plant mix bituminous surfacing, seal and cover, signing, ADA improvements, and other work on a segment of US 2 in Glacier County.</p> <p>The project is located on US 2 (National Highway Route 1), beginning at RP 208.9 and extends to RP 218.9 with the exception of the limits of the Two Medicine River Bridge project currently under construction. The total project length is 9.67 miles, 8.73 miles with the excluded project limits. The project is located entirely within the Blackfeet Indian Reservation.</p>		
Review Type:	<input type="checkbox"/> Constructability <input type="checkbox"/> Investigatory <input checked="" type="checkbox"/> Oversight <input type="checkbox"/> Post Construction <input type="checkbox"/> Subject Specific- <input type="checkbox"/> Training		

CONTRACT INFORMATION	
Contractor:	Schellinger Construction Co., Inc.
Contract Amount:	\$5,194,871.65
Engineer's Estimate:	\$5,698,191.61
Contract Payments To-Date	\$ 478,333.73 (through 30 June 2012 – Est. No. 3)
Contract Time/Completion Date:	90 Working days
Contract Time Used to-Date:	17 Working Days (through 02 July 2012)
Award Date:	03 April 2012
Notice to Proceed Date:	30 April 2012
Date Work Began:	09 May 2012



Project Location

Phases Inspected: Cold-in-place recycling (CIPR) operation; Subexcavation @ plan location; Traffic Control; Temporary Erosion Control features.

Work In Progress: On the date of this review, the cold-in-place recycling subcontractor (Construction Materials Recycling, Inc.) began their cold-in-place recycling operation at Station 192+84 ±, RT. and was working back on Station in the eastbound lane. The actual recycling work began on 30 June. However, when the subcontractor began having mechanical problems with their equipment, the prime Contractor's Project Superintendent had them remove all of their equipment from the roadway (after completing only 300' of roadway) until all the equipment was operational. There was no further production that date (i.e., 30 June).

The plans call out for milling off 0.20' over the full-width and length of the project, except for a short distance at the Beginning of Project (BOP). The milled surface will then receive either a 0.20' or 0.25' plant mix overlay, depending on location.



Cold-in-Place Recycling (CIPR) Paving Equipment Train



Water Tender



Hydrated Lime Slurry Tanker



Roadtec RX 900 Cold Planer (Milling Machine) with 12'-6" Cutting Head



Screen Deck/Crusher/Pug Mill Blending Unit



Processed and Blended Recycled Plant Mix Being Windrowed on PTW



Emulsified Asphalt (CIR-EE) Pup



Prime Contractor's Paver & Pick-Up Attachment



CIPR Pavement Prior to Breakdown Rolling

During the time this Reviewer was on the project, the Contractor was using a Dynapac, rubber-tire roller for breakdown rolling, a Dynapac CC 722, tandem steel drum, vibratory roller for intermediate compaction, , and an Ingersoll Rand DD 130 HF, tandem steel drum vibratory roller for finish rolling.



Remnants of Crack Sealant (Bracketed Areas) On/In Finished Surface

NOTE: Apparent “Ruts” on Surface Are in Fact Only Shadows from Rubber-Tire Roller



In addition to the above operation, the prime Contractor was in the process of excavating, placing stabilization geotextile, and Special Backfill (A-1-a) within the plan Digout area within the westbound truck climbing lane, Station 378+00 ± to Station 467+00 ±. Typical Section No. 12 calls out excavating a plan depth of 3' ±. It is noted that, while the contract does not include specific soil survey or Log of Boring data, Special Provision No. 21, Moisture Sensitive Soils, does state that the subsurface investigation for this project indicated that subgrade and/or foundation soils located within the project limits are sensitive to changes in moisture content, and may cause construction difficulties when moisture contents exceed the plastic Limit determined by MT 208. At least two areas have been found to date that had weak and unstable soil at plan depth. These areas were subexcavated an additional 3' and measured for payment as Excavation – Digouts.



**Typical Section of Plan Digout Cut to Plan Depth w/Stabilization Geotextile & Special Backfill (A-1-a)
Material**



Section of Plan Digout Area Cut to Plan Depth, Plus Area Subexcavated an Additional 3' ±



Excavating & Disposing of Existing Plant Mix Within Plan Digout Area



Traffic Control: Traffic was being maintained on the PTW over the length of the project and was not subjected to undue delays at the time of this review. The proper series of advance warning series signs were in place at both ends of the Construction Zone. In addition, flag stations were in place at the outermost ends of the two Work Zones, which were approximately four miles apart at their closest points. An intermediate, walk-along flagger also accompanied the CIPR paving train. Pilot cars then guided traffic through the overall length of the work in progress, outermost flag station to outermost flag station. Once the pilot cars cleared each 35 MPH Work Zone, speed was stepped up to 55 MPH within the 4± mile “gap” between Work Zones.

During this heavy, pre-holiday travel time, traffic queues were becoming fairly long. However, traffic waits were limited to only about 7 to 9 minutes the entire time I was on site.

Erosion Control and Environmental Issues: No issues were raised during the course of this review. The CIPR paving operation involved only the PTW surface with no additional Temporary BMPs beyond the existing vegetative barriers required. Straw wattles were in place for the plan digout work along the westbound, truck climbing lane (RP 216.3± to RP 218.0±).

Change Orders: Two change orders have been processed to date:

<u>Change Order</u>	<u>Explanation</u>	<u>Cost</u>	<u>Time Extension</u>
<u>No. 1</u> (Pending)	Deletes MC-70 Prime on the CAC	-\$18,480.00	0 WD
<u>No. 2</u> (Draft)	Deletes Type “A” delineators and replaces with Type “G” delineators with 2 reflector plates	\$ 4,573.20	0 WD

Claims: None to date.

EPM Diaries: A random review of the EPM diaries and Inspector DWRs was made via SiteManager. All documents were complete, clear, and concise. In fact, the DWRs are some of the most detailed documents this Reviewer has seen to date.

Questions from Project Staff: None



Areas of Good Practice/Positive Aspects: Mark Beckedahl and his crew are probably some of the most experienced personnel within MDT. Not only do the Inspectors have a good grasp of the contract requirements for this project, their attention to detail is reflected in the quality of their DWRs.

Mark and his crew are also administering the contract for the Two Medicine River Bridge, which is physically located within the project limits of this project. While having the same MDT crew administer contracts for two, adjoining projects with different Contractors can be a daunting task, (especially with the magnitude of the Two Medicine River Bridge being what it is), this has provided the necessary continuity to minimize, if not avoid altogether, conflicts that might otherwise arise.

- End of Report -