




Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Memorandum

To: Distribution

From: Paul Ferry, P.E.
Highways Engineer 

Date: February 10, 2012

Subject: EPM/Design Meeting Minutes

A meeting with a number of Construction Engineering Project Managers (EPM) was held on January 9, 2012 to discuss information provided in the plans. The major focus of the meeting was on urban projects, however a number of other items were also discussed. The topics and decisions are summarized below:

Urban issues

1. The amount of design detail needed in the plans for sidewalks and ADA ramps should include, but not necessarily limited to:
 - Elevations, grades and horizontal dimensions (at least top back of curb) for ramps, any sloped slab, ties to existing sidewalks.
 - Locations of any obstacles
 - Locations, dimensions, quantities for retaining walls
 - Ties to drop inlets and other drainage features
2. Properly addressing ADA issues begins with the Preliminary Field Review. The projects need to be accurately scoped. If ADA items will be addressed on a pavement preservation project, the of the information necessary to design curb ramps and sidewalks requires a level of detail equivalent to a reconstruction or major rehabilitation.

We recommend that for urban PFRs, including pavement preservation projects, a walk-through be done to identify the issues at each intersection. The information (notes and photos where possible) should include:

- Are there ramps and do they meet current criteria
- Do ramps have detectable warning devices
- Obstacles to accessibility such as utilities, traffic signals, buildings)
- Drainage issues (e.g. location of drop inlets)
- Connectivity – is there a useable path adjacent to the intersection
- Are there traffic signals and if so, are there accessible pedestrian pushbuttons

DOUBLE SIDED

The amount of survey needed should also be identified at the PFR. The EPMs noted that the survey requests should address the details needed at each quadrant. The EPMs also asked that everyone use the survey request form

3. Training is needed for design and construction of ADA curb ramps and associated items (driveways, drainage issues.) Training is also needed for work zone ADA requirements
4. A number of other items related to urban projects were also discussed.
 - When we have to tie into the existing sidewalks we usually have to go 3 to 4 panels into the existing sidewalk to transition the new into the old. The number of panels that need to be removed for the transition should be noted.
 - Concrete collars should be installed around manholes and water valves. Concrete collars should also be used around drop inlets that extend beyond the gutter pan.
 - On projects with multiple overlays the shoulder cross slopes increase due to taper milling into the gutter pan. The cross slope should not exceed 5% because of ADA requirements.
 - Additional drop inlets may be needed where bulb-outs are installed

Other Issues

1. The EPMs identified a number of issues with taper milling
 - The 200-foot minimum taper is excessive for the 3/8" plant mix surfacing. A 50-foot taper should be adequate.
 - Some interstate projects that have a mainline mill and fill also include overlays on the ramps. A taper mill detail and quantities need to be included to tie the new ramp elevation to the mainline roadway.
 - On overlay projects, milling quantities should be provided for public approaches to tie the overlay to the existing approach surface. Tapering the overlay thickness onto the public approach road results in a rough surface which is very prone to breakup.
2. The EPMs noted that on some larger skewed culverts the concrete edge protection and corresponding slope extend into the clear zone.
3. When an existing roadway will be utilized as a detour a more in-depth evaluation needs to be done to determine if the route has adequate for width, vertical clearance and structural capacity.
4. The EPMs thought it would be worthwhile if they could attend plan-in-hands. They also support having more post-construction reviews and having the design staff attend them.

If you have questions concerning this, please contact me at 444-6244.

Distribution:

✓ Lesly Tribelhorn,	Highways Design Engineer
Damian Krings,	Road Design Engineer
Tim Conway,	Consultant Design Engineer
Roy Peterson,	Traffic & Safety Engineer
Lisa Durbin,	Construction Administration Services Engineer
Paul Jagoda,	Construction Engineering Services Engineer
Jim Frank,	Glendive District Engineering Services Supervisor
Gary Neville,	Billings District Engineering Services Supervisor
Dustin Rouse,	Butte District Engineering Services Supervisor
Shane Stack,	Missoula District Engineering Services Supervisor
Steve Prinzing,	Great Falls District Engineering Services Supervisor
John Cornell,	Road Plans Checker
Kevin Farry,	Road Plans Checker

This memo has some corrections and clarifications by Paul Ferry noted below.

- This memo is not a directive, it includes a number of items that should be considered during the design process and hopefully discussed at the appropriate plan reviews. However, they are not requirements.
- The next items are more in the realm of errors.
 - The note to tie into existing sidewalks with usually 3 to 4 panels into the existing sidewalks to transition the new into the old. It should have been stated that when the existing sidewalk is tied it should be at a panel joining not in the middle of a panel. Sometimes additional panels may need to be replaced, but that should be determined on a case-by-case basis.
 - The note also said Concrete collars should be used around manholes, water valves and drop inlets that extend beyond the gutter pan. It has been pointed out that some cities do not want concrete collars. So once again this is an item for discussion, and the use of concrete collars should be determined on a case-by-case basis.
 - Also mentioned that a 50-foot taper should be adequate for the 3/8" plant mix surfacing. It should have said that the 50-foot taper should be used for the 0.10 foot overlay thickness. Standard tapers should be used for the typical overlay thickness regardless of the aggregate.

Please contact Bryan Miller at (406) 444-9413 or send an e-mail brmiller@mt.gov to with any questions.
