Ray Bennett

**Roadway Design Unit Staff Meeting Minutes**
**July 25, 2000**

## 1. Plans/Design Items

Invert Elevations on Drainage Summary

A letter was previously sent to you about the invert elevations on drainage summaries. Jimmy Norris' group has generated a new drainage summary sheet for your use. We are only going to show these elevations on projects on which computations of the drainage summary sheet have not begun. We set a date that we wanted to start to use on all projects which is January 2001. There has been an exception clause added. The intent is for nobody to have to redo an existing drainage summary. If you need an exception, send a request to John and he will sign it for you to put it in the file folder. Charlie Casey will handle exceptions for PEF contracts. "Extra depth labels" will no longer be required on plan sheets when the invert and top of box elevations are shown on the drainage summary sheets.

Curb Cuts in No Paved Sidewalk Areas

We have been requested to allow the Division the option of not paving wheelchair ramps behind curb and gutter in non-sidewalk areas. We will accommodate this request. A statement to this effect has been added to the wheelchair ramp question on the Field Inspection questions. We are required to provide curb cuts.

Median X-overs, 2-lane to 4-lane Projects

When you are widening existing two lanes to four lanes divided, check with the division and Bob Abernethy to see if you need a median crossover for any project 4 miles or longer. This should be done before sending plans to Hydro.

Detour Pavement Widths

Handout #1 is pertaining to Detour Widths and was discussed by Dewayne Sykes. John received an e-mail from Glenn Mumford stating that there was a discrepancy between the on-site detour pavement width and the tables used in the guide manual F-1 and 12-4 in the Greenbook for traffic operations. Ignore table in the text and go by the F-1. Handout #1 compares travelway and shoulder widths in 12-4, F-1, Greenbook, and 3R Guide. It recommended to also consult the 3R Guide when selecting detour widths. However, detour widths should never be less than existing roadway widths.

Review of plans from other Units

Handout #2 is a copy of an e-mail sent from Debbie about an error where a Signal Pole was proposed in front of a decorative wall. The decorative wall was not shown on the roadway plans but was shown on the landscape plans. The Design Units did not catch the error. Please make sure you review more closely the landscape plans as well as other unit's plans in the future.

SE on Plans

John had a meeting with Gary Lee, Charlie Casey, and others to decide whether to show standard super elevations on plans. The final decision from this previous meeting was not to show super elevations on plans if it follows standard run-off. If it is non-standard, you should always show it on the plans.

Hydraulics, Construction, and the majority of the people in the staff meeting prefer that SE be shown on the plans. Therefore, we will show SE on the plans when requested by other units or when desired by the Project Engineer.

"B" Project Process With Document, Preliminary, and Functional Design by PEF

Jay Bennett went over a memo sent by Gail Grimes about a meeting he attended on Bridge Replacement Projects. The meeting was held to discuss a process for selecting a preferred alternative for bridge replacement projects. The following process was approved.

1. Roadway Design will provide an estimate for the work effort required for developing functional and/or preliminary design plans.

2. A scoping letter is sent to the federal and state environmental resource and regulatory agencies, the local municipality, the county manager or planner, the local school superintendent and to various branches with the Department of Transportation. Approximately ten (10) weeks to three (3) months after the scoping letter has been distributed, the preferred alternative selection meeting will be held.

3. The Selection Committee will meet to select the preferred alternative for the project.

   For plan design projects, the selection committee will select reasonable and feasible alternatives to carry forward. Preliminary design (25% Plans) will be prepared for these alternatives. A second meeting (possibly a NEPA/404 Merger Team Meeting) will be held to select the preferred alternative.

4. A draft Categorical Exclusion will be distributed for comment.

5. A final Categorical Exclusion will be circulated.

Maintenance Breaks in Long Noise Walls

John received a call from Len Hill about maintenance breaks in long noise walls. If you have a long noise wall in your project that is offset from your CA line, you need to consider overlaps for maintenance. While you are out on your field inspection, discuss this with the Division to see if they feel there is a need to have some overlap for maintenance.

Guardrail Summary Header Shading

A comment was received from someone in reproduction about the header shading. It looks really nice on the original plans, but when you reproduce them to 1/2-size prints, they're not readable. The shading in a heading box is reproducing very poorly and hides the underlying text. When you customize the headers on the plans, make sure it is readable when reduced.

## 2. CADD/Electronic Items

Location & Surveys (PSD's & Wetland Mapping)

PSD's – Handout #3 is a copy of an advanced acquisition for R/W on R-0967CC. Roadway should not calculate the deed descriptions, etc. on the PSD's. This will be done by Location & Surveys.

Wetland Mapping – Charlie Brown called John about wetland mapping to see if Roadway was having trouble getting the wetland mapping from PD & EA. The Board has given Location and Surveys the go ahead for us to use the wetland mapping from consultants but Location & Surveys has to verify that the equipment used to generate those wetland boundaries is adequate. Roadway needs to make sure that Location & Surveys has seen the mapping. A meeting will be scheduled in the near future with Location and Surveys, PD & EA, and Roadway to establish guidelines and procedures.

R/W Recordation Issues

Handout #5 in the second column under "Standard Certification Requirements" letter "d" discusses "Electronically transmitted drawings". The entire statement "This document originally issued and sealed by (name of sealer), (licensure number), on (Date of sealing). This media shall not be considered a certified document." is put on the CD's we burn, and we have started to remove the seal from the 1/2-size set of plans and adding this note to it. On handout #4 is the procedure to follow for the Final Plan Process. The parcel index sheet will now be a part of the final plans for projects with more than one plan sheet. This should be Sheet 3Z or the last sheet in the number 3 series. This will start IMMEDIATELY

1. Remove preliminary plan stickers and turn plans in to plan checking
2. Make final plan corrections as noted by plan checking
3. Print full-size set to sign, seal, and date
4. Obtain all seals
5. Remove seals from electronic plans and place appropriate notes
6. Turn in final plans to plan checking
7. Design Services will automatically print and send to Roadway two (2) full-size sets and two (2) half-size sets when they print plans for letting.
8. Roadway will remove excess sheets and forward two (2) full-size sets to Location and Surveys and one half-size set with CD, where appropriate, to Right of Way.

Sharing of Archived Electronic Files

When you share "Archived" electronic files, make sure the electronic seals have been removed and replaced with the note shown on handout #5 under section 21-56.1103.(d). For construction revisions, remove the last statement of this note and seal your revision.

## 3. Administrative and Personnel Items

Schedule Changes (from Highway Design Staff Meeting)

When sending in a schedule change, please write in plain English (not Engineer Jargon) to explain the circumstances. Try to keep it as brief and concise as possible, such that the message is clear.

Highway Design Staff Meeting Overview

Debbie Barbour had the Highway Design Staff Meeting on July14. The following issues were discussed:

Alternative work schedules

- Lunches should be between 11:00 a.m. and 2:00 p.m.
- People using alternative work schedules are to attend meetings if scheduled between 8AM and 5PM.
- Personnel is about to begin a technician study for Transportation Technicians. This study may look into basing technician salaries on skill based pay.
- Len is working with Personnel in reviewing TT III's for inequity. Also, Len is working with Personnel on a TES II inequity study.
- Each unit has a Travel Coordinator. The Travel Coordinator is responsible for making travel arrangements out-of-state; checking flights, arranging for tickets,, and preparing 10-8's. Out-of-state travel will be looked at more closely in the future.

- Priority Projects to be Let in Remainder of Year: R-2548, R-2633CC & CA, R-1030BA, I-306DB, I-2511CA, A-9D, R-2709, and R-942B & CA. If you have any design problems with the schedules, please inform Debbie promptly.

- Safety: Drive the state vehicles in a safe manner and take care of the car as if it were your own. No speeding, and make sure you wear orange vests and hard hats when on construction sites. The Branch Office checked into getting a few Portable defibrillators, but due their expense decided not to get any.

- Thermostat Covers: Please do not remove the covers or adjust the heat or air in any way. If you have a complaint about the heat or air, let Dianne know and she will contact General Services.

- Debbie has decided not to fill the Scheduling Coordinator's position. The Scheduling Coordinator has been removed from the form letters. The staff engineer in Debbie's office will handle these duties. Until the staff engineer's position is filled, contact Debbie Barbour if you have any problems.

- Debbie has ask that you keep your PMSS's up to date.

On August 1, there will be a meeting with Len Hill to discuss Flexible Work Schedules.

Smart Computing Magazine

John asked if everyone would like to continue to receive the Smart Computing Magazine and the majority response was 'yes'.

**4. Miscellaneous Items**

Request for Traffic Volumes

John was in a meeting on July 6 with several others about traffic count request. Laura Cove requested the meeting to be set up to discuss with people in various rolls about the traffic count request. Often times, we send a request over asking for a three week turnaround time. Laura said that they could give a 2 or 3 week turnaround time if it was an emergency situation. The normal time for updating traffic is 3 months. If updated turn moves are not required, Statewide Planning would like for us to give them 6 weeks. Laura needs to attend any meeting which traffic volumes are being discussed. All requests for the traffic volumes, etc. should be sent to Laura Cove.

AASHTO Subcommittee Meeting Overview

John attended the AASHTO Subcommittee Meeting held in South Dakota. They are working toward a "2000 Greenbook". They said that there will be a section in the Greenbook about "roundabouts", and the final guide is now on the FHWA website. The Greenbook will be dual unit with English values in parenthesis. It will be in an 8 1/2 x 11, soft bound book format. Instead of having tables and figures, it will have exhibits. Expected revisions/enhancements to the 2000 Greenbook are:

Chapter 2 Turning templates, some new & some upgraded
New definition for design speed
Chapter 3 Design Speed (15 – 80 mph) & (20 – 130 k/hr)
Discussion on how to handle super elevation and transition changes based on NCHRP 15-16
Discussion on site distance & underpasses. Stopping sight distance (object height going from 150mm to 600 mm) or 6" to height of tail lights.
Chapter 4 Discussion on Wheel Chair Ramps, ADA Compliance
Discussiion on Median Design based on NCHRP 375
Median Width and Design based on both rural and urban conditions
Chapter 5 Local Roads – ADA, Pedestrian, and Bicycle Guides

Chapter 7 Use of 4-lane undivided highways
Access Management Techniques based on NCHRP 420
Pedestrians and Bicycles in the Arterial Environment
Chapter 9 Defines Functional Area of an Intersection
Discussion on Modern roundabouts
Discussion on offset left turning lanes
Chapter 10 Increase emphases on pedestrians and bicycles at interchanges
Single point urban interchange
Super Elevations
2-lane entrance ramps
Access separation

There is a revised edition of the "Roadside Design Guide" planned for completion in late 2000. Chapter 11 will be added to address "Mailboxes" which will also be in dual units. They plan to discuss the updates of the 350 System and introduce the Roadside Safety Analysis Program. The major updates for the Roadside Design Guide Manual are scheduled to come out in 2003.

Bridge Rail Sketches

The Bridge Rail Guide handout was sketched up by Chris Parker's group. It's purpose is to provide an accurate representation and summary of use for those involved in the highway designing process. Additional copies have been requested, one for each squad.

Underground Utility Test Holes

Charlie Brown reported that test holes are dug at requested specific conflict locations at a cost of $381 - $464 each. He would like for Roadway to let him know how to select which projects to dig test holes to reduce utility conflicts. Give these suggestions to John. (A meeting with Location & Surveys, etc. is scheduled for August 4).

Meeting with Traffic

John was called to a meeting with Traffic on July 19. The meeting was called because traffic was upset about one of our projects being sent out to Field Inspection late. Make sure that if you know a FI is going to be held late, you inform them so they can set up a separate Traffic Control FI if needed.

Contacts with PEF's

John attended a meeting with Planning and was told that Roadway is calling consultants and are bypassing Planning. Try not to call PEF's. If you have any problems, please contact me and I will contact Gail Grimes to ask her to handle the problems. If the PEF's are working the preliminary design for us, you can call them.

Final Payment on Bridge Projects

Roger Thomas sent a request for a Final Pavement Design on a bridge project rather than a preliminary design. Roger asked for his final pavement design about 2 years in advance of the letting. Since it was a bridge job, he side-stepped the preliminary pavement design and went on to a final pavement design. This is acceptable, according to Judy Corley-Lay. Make sure you put down the required return date.

Workshop Participation

If you attend a workshop, please make sure you participate and stay until the end of the meeting. Please don't stand around in a group of your own. Dress appropriately.

Barchart Program Update

Ron Allen sent an e-mail around a short while ago asking for comments on the barchart program. Ron and Jimmy are giving feedback on the program to update it. Ron suggested that for the time being to continue using the old barchart program as a backup until further notice. The new program still has a few 'bugs' in it but should be ready to use soon.

Miscellaneous Items

Jimmy Norris discussed the new Spec Training class (Transport Estimate Training). Letters have been sent out to everybody reminding them about the upcoming training on this course. Please make sure that your people are in the training since this will be a one-time deal. There should be 2 per squad and the classes will be in August and September. It will go into effect in October, and all the new pay items will need to be done under this new system.

A handout was distributed showing a new line style for "berm ditches" and "special ditches".

Jimmy doesn't know when the server will be here, but everyone will be moved to the server. Jimmy's group is the only group at the present time on a server. All files on the server will be updated every night so be sure you keep all your projects on the server. It will probably be in October or November.

Jimmy's group has been trying to get access to GIS's website. GIS is presently taking all the files and converting into Microstation format. We are hoping to have online by September. If there is a county you need to have done, let them know and they will try to convert it for you.

Microstation SE will be replaced by Microstation J (Java) which is a programming language. It will probably be implemented in November. There will either be training or a seminar.

cc: John Alford, PE
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Dewayne Sykes, PE
Victor Barbour, PE
Charlie Brown, PE
Roadway Design Project Engineers
Charlie Casey
Debbie Barbour, PE
Cathy Houser, PE
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