

DISTRICT THREE DESIGN NEWSLETTER



Inside this issue:

Practical Design	1
Design Spotlight— Jess Glenn	2
Top Ten Quality Control Comments	2
Supplemental Agreement Report	3
CADD, Tricks, Tips, Updates	4

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July—September, 2012

From the Editor's Desk - Practical Design Scott Golden, P.E., District Design Engineer

I am sure that you are aware of the Practical Design Guidelines "List of Optional Items to Review on RRR Projects" under which the FDOT has been working for some time now. This document is divided into three categories: To Remain In..., To Be Eliminated..., and To Remain At The Engineer's Discretion. I ask the question, what else should we be doing under the concept of Practical Design?



The first thing that comes to mind is Value Engineering. Of course, VE is a process the Department has been utilizing for years. I'm sure many of you have heard me state that Value Engineering should be done by the EOR on EVERY project. VE should be a way of thinking, not just a process that must be followed by a VE team only on certain projects.

A great example is an ongoing interstate resurfacing project that contains a two lane ramp with 4' (or less) total/paved shoulders on each side. The standard shoulder width is 8-foot/4-foot paved and 12-foot/10-foot paved on the left and right, respectively. This location has relatively low volumes for a two lane ramp and almost no crash history on the ramp (none related to shoulder widths). The Department was presented with three options. We could widen the shoulders on the ramp to standard, restripe the ramp from a two lane to a single lane, or apply for an exception. Initially, the primary opinion for the appropriate treatment was because this is an interstate, "we have to bring it to standard!" This decision was a struggle. What really makes sense? Then again, if we consider the restriping option we would have to change the cross road striping as well to remove the two lanes entering the ramp. What would a Value Engineering approach recommend? If we compare the cost of the improvement to the value of the improvement, our decision becomes more clear. As a result, we recently received approval of a Design Exception on an interstate project for width of paved shoulders on an interstate ramp.



District III Quarterly Design Newsletter

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Top Ten Quality Control Comments July – Sept., 2012

1. Designers should not use the word “average” on Typical Sections when Milling Depth is uniform, match existing or constant across the entire lane.
2. When Cross Slope Corrections require Variable Milling, the milling depth should be listed as “average” on the Typical Section; however, a separate Variable Depth Milling Detail that provides a Control Point, Specific Depth at Control Point (not a range) and Specific Cross Slope will also be required in order to supplement Typical Section. (Ref. P.P.M Vol. II, Chapter 6, Exhibit TYP-9A and 9B).
3. On Typical Section Details, the Milling Control Point Arrow should be moved to the existing surface. Central Office Design is aware of issue and will make changes to the Plans Prep. Manual. (Ref. P.P.M Vol. II, Chapter 6, Exhibits TYP-9A and TYP-9B) .
4. Since there is to be only one quantity for each Pay Item, it is important that this quantity in the Plans, the Computation Book and in Trns*port match to avoid confusion and/or conflict with the Bidding Process and further Payment.
5. When used in conjunction with ditch pavement, the cost of the Filter Fabric is to be included in the cost of the Ditch Pavement. Reference the Design Standards.
6. When there are Signalized Intersections within the Project Limits, Pay Items 0102-14 (Traffic Control Officer with Plan Note, 0102-14 (Temporary Signalization and Maintenance) and 0102-107-1 (Temporary Traffic Detection and Maintenance) with summary box in the Plans should be considered.
7. Earthwork adjustment factors shall be 45% for Shrinkage and 25% for Bulkage, unless you are within 10 miles of the coast. If you are within 10 miles of the coast the earthwork adjustment factors shall be 35% for Shrinkage and 20% for Bulkage.
8. Per the PPM Vol. 2 Exhibit 10-1, the benchmark datum used for the plans (NAVD 88 or other) shall be noted in the first General Note.
9. Items like Right of Way and proposed features like paved driveways need to be drawn and dimensioned with the same offset in the Plan View and Cross Sections.
10. The State Specifications office has released the 2013 FDOT Standard Specifications for Road and Bridge Construction and should be referenced as the current governing Specifications as applicable on the Key Sheet of the plans. Also, reference Roadway Design Bulletin 12-16 for inclusion of revised index drawings in the plans.

Design Spotlight— John “Jess” Glenn, P.E. Project Manager

Scott Golden, P.E., District Design Engineer



We would like to welcome Jess to Design.

Jess has recently been hired as a Design Project Manager. Prior to joining the Department, Jess worked for Long Engineering in Atlanta, Georgia. He has previous work experience in Northwest Florida working with Parsons Brinkerhoff and Gortemoller Engineering. Jess graduated from Chipola College and the University of Florida where he earned a Bachelor of Science in Civil Engineering.

What is the difference between an obstacle and an opportunity? Our attitude toward it. Every opportunity has a difficulty, and every difficulty has an opportunity.

~ J. Sidlow Baxter cited in Words for All Occasions

Supplemental Agreement Report – July – Sept., 2012

Miranda Glass, P.E., District Roadway Design Engineer

Following is a sample of Supplemental Agreements for the first quarter of 2012 (July through August). The three (3) categories of Supplemental Agreements that are included in this summary are 305, 115, 105. This summary is included in the Quarterly Design Newsletter as a tool to inform designers of errors and omissions that can lead to Supplemental Agreements and unnecessary cost to the public. Below are brief descriptions of those errors or omissions and the department's responses.

Description Code: 105-Discrepancies between plan notes, plan details, pay items, schedules, etc.

Reason: Provide for constructing the container platform in two phases due to vertical clearance restrictions directed by the USCG.

Granted Time: 0 Days

Increase: \$76, 229.38

Response: Unavoidable: No remedial action required.

Note: United States Coast Guard permits require a specific vertical clearance over navigable channels. On bridge painting projects which require containment systems, the lowest portion of the containment system has to meet clearance requirements. This may require the containment system to be constructed in two phases leaving part of channel unobstructed for safe boat passage.

Description Code: 115-Required drainage modifications.

Reason: Existing storm water pipe rehabilitation was performed by "Inverting Method", installing resin impregnated felt tube pipe liner into host pipe in lieu of "Slip lining" as originally specified in contract plans, due to rigid slip lining not being applicable to misaligned host pipe. Additional quantities of pipe liner were added to allow for the rehabilitation of pipe locations not included in the original contract.

Granted Time: 0 Days

Increase: \$356, 515.00

Response: Unavoidable: No remedial action required.

Note: Liners selected by the EOR must be appropriate for the application. Project specific considerations should include such aspects as structural requirements, required service life, installation and hydraulic adequacy.

Cost Savings Initiatives by Contractors

Description Code: 305 – Cost Savings Initiative

Reason: Substitute 15.5 gauge barbed wire for the plan 12.5 gauge barbed wire utilized in the construction of the wildlife fencing.

Granted Time: 0 Days

Decrease: \$5, 843.47

Response: Unavoidable: No remedial action required.

Note: 2013 Design Standards Index 801 sheet 1, #11 now allows 15.5 gauge wire.



CADD TRICKS , TIPS, UPDATES

PEDDS VS Microstation/GEOPAK

Kenny Rudd, Senior Roadway Design CADD Specialist

Fall Flug 2012 Tampa, FL Mark your calendars for Dec 6 – 7

Fall is in the air, and that means it's time to register for the FLUG (See tentative agenda for Thursday and Friday). FLUGs are a great source of information for power CADD users. At this event you will see what is new as well as useful tricks to using MicroStation, GEOPAK, AutoCAD, Civil 3D and many other engineering software. If you haven't tried any of the workshops, they are well worth the time. You'll find the keynote speakers are full of knowledge and are among the leaders in the CADD world. The FLUG is also a place where local users can mingle and share ideas and solutions with one another. For a small fee, you may also bring along guest(s) to the lunches or evening social. Keep your eyes open because registration will be open soon for this event. Don't miss out!

MAIN MENU

- Home
- Event
- Agenda
- Registration
- Officers
- Sponsors
- Vendors
- Michelle Quinn

FLUG POLICIES

- Eligibility Policy
- Sponsorship Levels
- Vendor Levels
- Breaky Statement
- Cancellation Policy
- Disclaimer
- Acknowledgment
- Mission Statement

Be User Group

Page Updated: 09/20/2012

Events

Dec-06-2012 - Dec-07-2012:
FallFLUG 2012

FLUG Conference Fees

Registration Fees	Workshop Fees
One-day \$120.00	>4-hours \$50.00
Two-days \$160.00	>4-hours \$75.00
	All day \$100.00

Guest Prices

	Meals (Cost Per Day)	Evening Social
Adult	\$20.00	\$10.00
Child (under 12)	\$7.00	Free

Guest passes can be purchased at the registration desk.

Location:
Address:
Sheraton - Tampa East (formerly Crowne Plaza)
10221 PRINCESS PALM AVENUE (Sabal Park)
Tampa, FL 33610
Telephone: (813)623-6363
Fax: (813)621-7224
Hotel Web Site:
<http://www.sheraton.com/tampaeast>

ANNOUNCEMENTS

Spring FLUG 2012
Thank you for attending the Spring Training Event and making it a huge success!

Spring FLUG 2012
Event! Handouts will soon be available to download from the presentation website:
www.flug12.com/presentations.cfm

Fall FLUG 2012
The Fall FLUG takes place Dec 6 - 7, 2012 at Sheraton - Tampa East (formerly Crowne Plaza Tampa East), 10221 Princess Palm Blvd, Tampa, FL. Watch for additional announcements.

SEARCH THE WEB

Google Search

Thursday	12/6/2012 Session Tracks and Workshops							
Session	Session	Session	Session	Workshop	Workshop	Workshop	Workshop	Workshop
FDOT	BENTLEY	Autodesk	GENERAL	FDOT	BENTLEY	Autodesk	GENERAL	GENERAL
Cypress	Brandon 2	Brandon 4	Brandon 6	Brandon 1	Brandon 3	Brandon 5	Brandon 7	Brandon 7
9:30 - 10:30	What's New in FDOT	MicroStation Tips & Tricks Bentley	AUTOCAD For the MicroStation User FDOT	GeoPak Survey FDOT	Drainage FDOT	Corridor Modeler Roadway Designer Bentley	Sheet Set Organizer FDOT	Earthwork FDOT
10:30 - 11:00	"Snack with the Vendors!"							
11:00 - 12:00	Electronic Delivery Workflow FDOT	MicroStation 3D Design Bentley	Civil 3D Basic Operations AUTODESK	Civil 3D Tips, Tricks, & Action Click Savers Aarbus				
12:00 - 1:30	LUNCH							
1:30 - 2:30	FDOT Menu Roadway FDOT	Corridor Modeler - Milling & Resurfacing Bentley	Civil 3D Create Project / Create File AUTODESK	AUTO TURN Pro 3D, GUIDSIGN 6.0 & TORUS 3.0 Transoft		MicroStation Tools Bentley	Civil 3D Corridor Modeling & Reconstruction AutoDesk	
2:30 - 2:45	BREAK							
2:45 - 3:45	Partial PEDDS Projects for Sub-consultants FDOT	Corridor Modeler - Intersect Design Bentley	Civil 3D Sheet Set Organizer AUTODESK	TopoDOT Certainty 3D				Corridor Modeler Gore Design Bentley
3:45 - 4:00	BREAK							
4:00 - 5:00	Quantity Manager FDOT	Corridor Modeler - Superlevation Bentley	FDOT Plans Prep in Civil 3D AUTODESK	Sign Tools CADManage				
5:30 - 7:00	"Come join us in the Exhibit Hall for the Evening Social & Vendor Reception!"							

Friday	12/7/2012 Session Tracks and Workshops							
Session	Session	Session	Session	Workshop	Workshop	Workshop	Workshop	Workshop
FDOT	BENTLEY	Autodesk	GENERAL	FDOT	BENTLEY	Autodesk	GENERAL	GENERAL
Cypress	Brandon 2	Brandon 4	Brandon 6	Brandon 1	Brandon 3	Brandon 5	Brandon 7	Brandon 7
8:30 - 9:30	Sheet Navigator FDOT	GEOPAK Civil Geometry Bentley	Civil 3D FDOT Traffic Plans AUTODESK	Axiom Tool Kit Axiom	Corridor Modeler FDOT	Data Acquisition Bentley	Drainage Design w/ Autodesk Storm & Sanitary Analysis	Ancillary Features FDOT
9:30 - 9:45	BREAK							
9:45 - 10:45	Signing & Pavement Marking FDOT	GEOPAK Civil Accudraw Bentley	Civil 3D Plan/Profile Sheets AUTODESK	Civil 3D Storm & Sanitary Analysis Adv Surveying Tech				
10:45 - 11:00	BREAK							
11:00 - 12:00	QC Inspector FDOT	Print Organizer Bentley	Civil 3D Cross Sections AUTODESK	TIMS CION				Aarbus Associates
12:00 - 1:30	LUNCH							
1:30 - 2:30	Drainage - YBA's FDOT	MicroStation I-Models Bentley	Drainage Design & Pipe Network Workflow AUTODESK	Design Technology Management CADmanage		Print Organizer Bentley	AUTOCAD & Civil 3D Visualization AutoDesk	
2:30 - 2:45	BREAK							
2:45 - 3:45	Drainage - Plans Preparation FDOT	Working with Google Earth & GIS Bentley	Civil 3D Quantities AUTODESK	Field To Finish Imaginit				