

DISTRICT THREE DESIGN NEWSLETTER



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Volume 21, Issue 3

July - September, 2016

*From the Editor's Desk -  
New Things*

Rodney Chamberlain, P.E., District Design Engineer



Well, it has been almost two months since I've taken my new position as District Design Engineer. It has been a whirlwind of new information, new faces and some very interesting issues – who would have thought rumble striping could be so controversial? During my short time in the Design office, I have been asked by several people what has been your biggest surprise? I will tell you, without a doubt, it has been the people that I have been working with. Everyone has exhibited the utmost professionalism, solid technical knowledge and can-do attitudes, all of which have made my transition very easy. Everyone I have encountered has been extremely supportive as I continue to be informed on various project-related issues.

A little background on who I am: I was born and raised in Slidell, Louisiana and went to college at the University of Central Florida (many say this is why I am not a fan of college football). I received a BSCE and Masters in Structures and went to work for a consultant in the Orlando area designing bridges. I began my career with the Department in 2009 working in Structures Design in Central Office. I also worked in the State Construction Office before landing a job in the District Structures Maintenance Office here in Chipley. After working in bridge design and then bridge construction, I felt like my real learning started in bridge maintenance. Design and construction are comparatively brief phases when you consider most bridges have service lives greater than 60 years, and in that perspective, proper design and construction to include long-term considerations is essential. And there were many times where engineering judgement was the prevailing decision maker – I remember responding to a callout about a fire under an I-10 bridge – no textbook I had contained any information about how to assess fire damage on a concrete structure. And it was in Structures Maintenance that I was introduced to the saying "Roads will get you in trouble, but Bridges get you fired...." I always wondered why Secretary Barfield repeated that nearly every time he saw me.....

During my time so far, one tool I have found very useful is project kmz files. We have all used and benefitted greatly from Google Earth, and I have seen some amazing things done with GE that have made us more efficient, saving untold amounts of money in field review times and enabling decision makers to be more readily informed. I find that overlaying a design file onto an interactive aerial is the best way to communicate many project details. So I have been requesting kmz files a lot lately and I have noticed that some consultants are more familiar with this than others. So please take the time to familiarize staff with creating kmz files, as there will be many more requests in the future. I will close by saying that we are in the midst of some changes here in District Three – new DDE, new Director of Development and soon, a new District Secretary. This is an environment that fosters change and innovation and encourages new ideas. If anyone has a new idea or thinks of a better way to do something, bring it up.



*District 3 Quarterly Design Newsletter*

Editor.....Rodney Chamberlain

Layout/Graphics.....Aixa Corbitt

CONTRIBUTORS:

Lester Forrest      Kerrie Harrell

Iris Waters          Howard Helms

Carol Kreis

## From Kerrie's Desk

I have noticed in recent months that I spend the majority of my day handling issues that are not necessarily engineering related and am sure many of you feel the same. The good thing is the engineering is going well and projects are progressing at a rapid pace. Everyone is adapting well to making changes as new improvements are necessary including avoid tree impacts, enhancing erosion control and ensuring proper access management during maintenance of traffic. A few things we still need to work on from a consultant project management standpoint are:

- Plan submittals – ensure that your submittals include all requirements listed in your Scope of Service and the PPM.
- VE Study Results – the District Secretary signs for approval of implementation of any idea investigated during the VE Study that he wants to be incorporated in design. At times, additional design efforts occur that may determine the VE Study idea was infeasible. If this is the case, the EOR needs to prepare a memo detailing why implementation is not feasible and FDOT management must concur. Remember to get this documentation if this situation occurs on your project.
- Public Official letters – continue to keep in mind that public official letters are a reflection of the EOR and sometimes the only project specific representation of your work the District Secretary will review. Make sure your letter leaves a positive impression!
- Public Meetings – we typically have citizens arrive at meetings 30 minutes to an hour in advance of the meeting start time. As engineers you need to make sure you are there a minimum of one hour in advance of the meeting. Your public involvement staff may setup the meeting, but as engineers you are the one that needs to be answering project questions.
- Contract execution – we are all excited when a consultant selection occurs for a project. If you are the successful consultant, please make sure you celebrate your success, but at the same time send in your contract paperwork. Your contract execution date is tracked similar to a project letting so it is imperative the execution date occurs when it is scheduled.
- Staff hour spreadsheet – we get a lot of questions about whether this spreadsheet is locked and if changes can be made. The spreadsheet is locked for a reason and we only want you to enter information in fields you are allowed to change.
- Supplemental agreements – If a supplement agreement is determined to be necessary your first order of business is to submit your staff hours for negotiation so the agreement can be processed quickly.
- Contract End of Services Date – It is the Consultant's responsibility to monitor the End of Services Date for Basic Services contracts. Set calendar reminders 60-90 days prior to services ending and request time extensions promptly to ensure contracts do not end prematurely. If your contract expires, we have no way to pay you for your work.

# Final Plans Processing

Iris Waters, P.E. - District Specifications Engineer

## Pre-Final Plans Processing Meeting

The District Three Final Plans/ Specifications Team has begun hosting monthly meetings to share expectations and information prior to the 1<sup>st</sup> Final Plans Processing ERC Submittal. The goal is to preemptively address many of the common issues in Final Plans. These meetings are for Project Managers and at least one representative from the design consulting firm.

## Important Documents

Frequently used documents for Final Plans can be found in ERC- District Documents. Documents include Change Memo, Contract File Index, Consultant Checklist, Notes Database spreadsheet and Revision Memo. **Jan2017 Consultant Checklist** is the complete checklist for Final Plans and Specs submittals including submittal checklist, directions for MSP's, TSP's and a QC Checklist. <https://fdotwp1.dot.state.fl.us/ElectronicReviewComments/Documents/DistrictDocuments.aspx>

| Name                                  | Description                        |                      |
|---------------------------------------|------------------------------------|----------------------|
| Change Memo.pdf                       | Change Memo                        | <a href="#">View</a> |
| Contract File Index.pdf               | Contract File Index                | <a href="#">View</a> |
| D3 KEY SHEET.PDF                      | D3 Key Sheet                       | <a href="#">View</a> |
| Jan2017 Consultant Checklist.pdf      | Consultant Checklist Jan-June 2017 | <a href="#">View</a> |
| Notes Database - Post Let Issues.xlsx | Notes Database - Post Let Issues   | <a href="#">View</a> |
| Revision Memo.pdf                     | Revision Memo                      | <a href="#">View</a> |

## Project Notes

Final Plans Processing least favorite topic, NOTES! The Post Let Issues Spreadsheet is generated out of Central Office as a database for unnecessary, redundant, or incorrect notes that should be removed from plans. The Final Plans Processing Office makes an average of 20 comments per submittal due to plan notes. To help in this effort, District Three has added a worksheet within the Notes Database –Post Let Issues spreadsheet named, “D3 Notes”. This contains General Notes that are accepted by District Three. Some of these notes are from the PPM, others are District preference. **Engineers of Record review all plan notes against the D3 Notes prior to submittal.** If the note is not on the D3 Notes list or project specific, ensure the note is needed and be in a defensible position.

## Notable Changes

Notable changes to current projects include formatting changes to the Key Sheet and individual component PDF's. The format changes to the Key Sheet reflected in Roadway Design Bulletin 16-03 are to be implemented on all plan sets beginning with the January 2017 letting. Along with these changes District Three preferences are listed below and in example Key Sheet:

- Description of the project limits under the state road number. This should match the Item Segment Description in Project Suite or Description in FM.
- Engineer of Record block please add a phone number.
- Project Manager's phone number under their name.

*Good, Fast or Cheap ~ You can have any two you want.*

**CONTRACT PLANS COMPONENTS**

- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- SIGNALIZATION PLANS
- INTELLIGENT TRANSPORTATION SYSTEMS PLANS
- LIGHTING PLANS
- LANDSCAPE PLANS
- ARCHITECTURAL PLANS
- STRUCTURE PLANS
- TOLL FACILITIES PLANS

**INDEX OF ROADWAY PLANS**

| SHEET NO.      | SHEET DESCRIPTION                    |
|----------------|--------------------------------------|
| 1              | KEY SHEET                            |
| 2              | SIGNATURE SHEET                      |
| 3              | SUMMARY OF PAY ITEMS                 |
| 4              | DRAINAGE MAP                         |
| 5 - 6          | TYPICAL SECTIONS                     |
| 7              | TYPICAL SECTION DETAILS              |
| SQ-1 - SQ-6    | SUMMARY OF QUANTITIES                |
| 8              | SUMMARY OF DRAINAGE STRUCTURES       |
| 9              | OPTIONAL MATERIALS TABULATION        |
| 10             | PROJECT LAYOUT                       |
| 11             | PROJECT NOTES                        |
| 12 - 15        | ROADWAY PLAN-PROFILES                |
| 16             | TRAFFIC MONITORING SITE              |
| 17             | SPECIAL PROFILES                     |
| 18             | INTERSECTION LAYOUT/DETAILS          |
| 19 - 25        | DRAINAGE STRUCTURES                  |
| 26 - 32        | BOX CULVERT DETAILS                  |
| 33             | LATERAL DITCH PLAN-PROFILES          |
| 34             | LATERAL DITCH CROSS SECTIONS         |
| 35             | SPECIAL DETAILS                      |
| 36             | ROADWAY SOIL SURVEY                  |
| 37 - 47        | CROSS SECTIONS                       |
| 48             | STORMWATER POLLUTION PREVENTION PLAN |
| 49 - 52        | TEMPORARY TRAFFIC CONTROL PLANS      |
| 53 - 57        | UTILITY ADJUSTMENTS                  |
| 58 - 62        | SELECTIVE CLEARING AND GRUBBING      |
| CTL-1 - CTL-5* | PROJECT NETWORK CONTROL SHEETS       |

DEVELOPMENTAL DESIGN STANDARDS (DDS):  
D450 HIGH-TENSION CABLE BARRIER

\* These sheets are included in the Index of Roadway Plans only to indicate that they are part of the Roadway Plans. These sheets are contained in a separate digitally signed and sealed document.

**GOVERNING DESIGN STANDARDS:**

Florida Department of Transportation, FY2016-17 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:  
<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>

APPLICABLE DSRs: DSR400-01, DSR410-01, DSR411-01

**GOVERNING STANDARD SPECIFICATIONS:**

Florida Department of Transportation, July 2016 Standard Specifications for Road and Bridge Construction at the following website:  
<http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks>

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

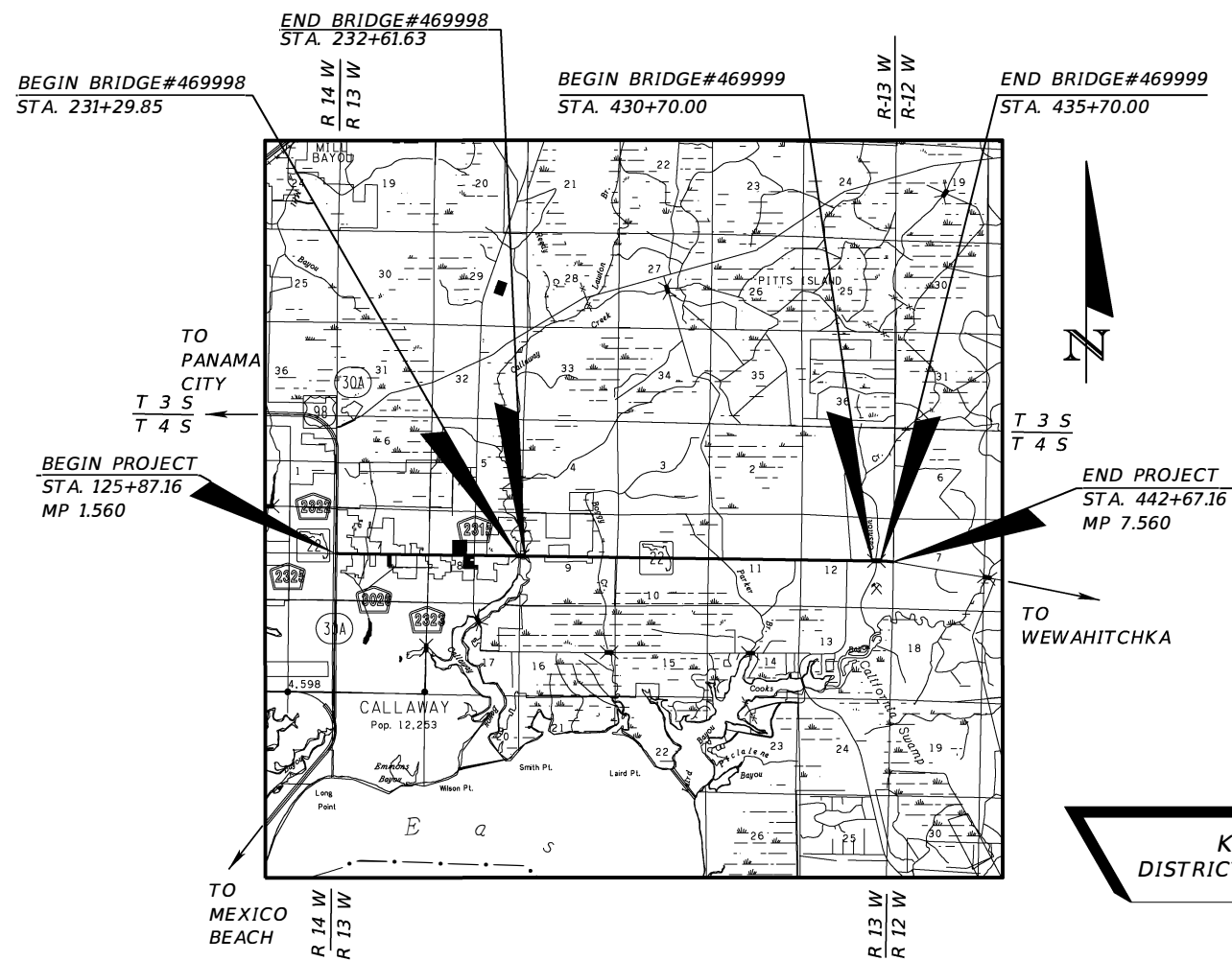
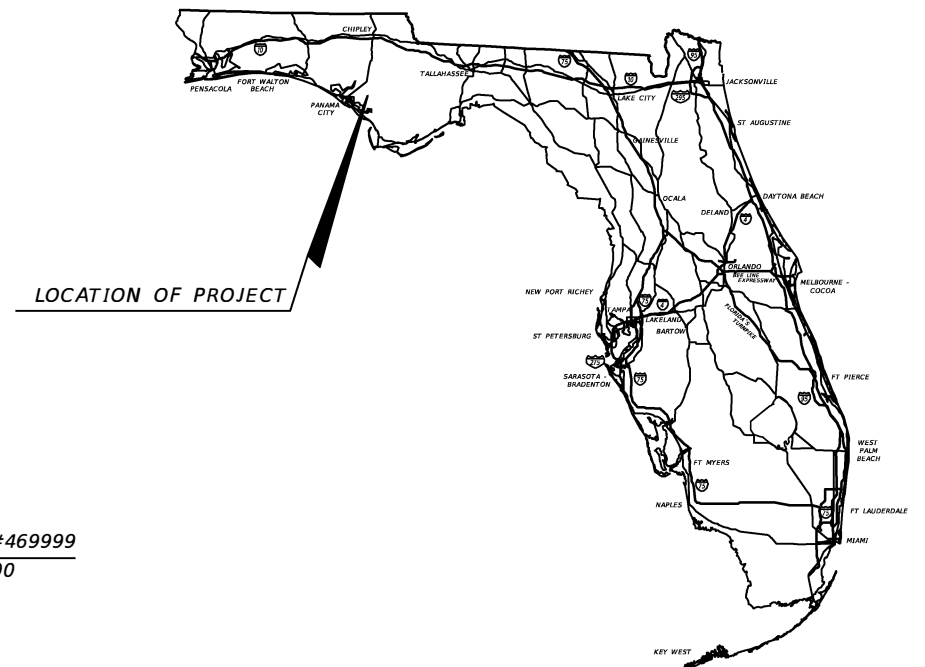
FINANCIAL PROJECT ID 123456-1-52-01

(FEDERAL FUNDS)

BAY COUNTY (46080)

STATE ROAD NO. 22

S.R. 22 FROM CRIN BLVD TO WASHINGTON STREET



KEY SHEET  
DISTRICT 3 PREFERENCES

**REVISIONS:**

| KEY SHEET REVISIONS |             |
|---------------------|-------------|
| DATE                | DESCRIPTION |
|                     |             |
|                     |             |

**ROADWAY PLANS  
ENGINEER OF RECORD:**

LUKE S. WALKER, P.E.  
P.E. NO.: 99991  
ROADWAY ENGINEERS, INC.  
123 MAIN STREET  
TALLAHASSEE, FL 32301  
CONTRACT NO.: C0000  
VENDOR NO.: 99-999999  
CERTIFICATE OF AUTHORIZATION NO.: 12345  
(555) 555-5555

**FDOT PROJECT MANAGER:**

BEN K. UWAIBI, P.E.  
(555) 555-5555

| CONSTRUCTION CONTRACT NO. | FISCAL YEAR | SHEET NO. |
|---------------------------|-------------|-----------|
| T0000                     | 17          | 1         |

## Coming Soon: New Web Address — [www.fdot.gov](http://www.fdot.gov)

Please share the following information with those staff in your organization that may be impacted by this change.

On **Friday, October 7, 2016 (after 7:00 p.m. EDT)**, the web address for the Florida Department of Transportation's (FDOT) internet website changed from [www.dot.state.fl.us](http://www.dot.state.fl.us) to [www.fdot.gov](http://www.fdot.gov).

This change is part of a larger effort to streamline the agency's online presence. The goal is to make it easier to remember FDOT's web address when searching for information related to the department's operations.

Office web addresses have also be renamed, so please use the following link to preview the future web address for a department office:

<http://www.dot.state.fl.us/agencyresources/domainchange/websites.shtm>

Please be aware that the current web address will continue to be operational until the transition is complete. For questions regarding this change, please contact the FDOT Web Support Team at [websupport@dot.state.fl.us](mailto:websupport@dot.state.fl.us).

*REMEMBER: FDOT Letterhead needs to be changed to include the new web address on official correspondence.*

Note: On Saturday, November 5, 2016, the web address for the department's File Transfer Protocol (FTP) server will also change from <ftp://ftp.dot.state.fl.us> to <https://ftp.fdot.gov> and will begin using secured protocols.

### **Resetting your ISA password.**

Follow these steps in order to login to ERC after a password reset action:

1. Copy new password from the Password Reset Email.
2. Go to the Email – Internet Subscriber option on the ERC login screen.
3. Choose Change Password selection.
4. Enter email address associated with ISA account and paste the password from the reset email.
5. Create your new password and confirm.
6. Select Change Password.

### **ERC News**

**Aixa Corbitt, District ERC Administrator**

## Top Ten Quality Control Comments July – September, 2016

Lester Forrest - QA/QC Plans Reviewer

1. PG 76-22 asphalt binder is not required on multi use paths: it is intended for asphalt under traffic.
2. Ensure that buried utilities are not only shown in the Plan Sheets but that they are also plotted in the Drainage Structures sheets and the Cross Section sheets as well.
3. It is no longer necessary to include the PMA distinction in the Typical Section Pavement Design for the PG 76-22 asphalt items. Effective January 2017, new pay item numbers for PG 76-22 will include either PMA or ARB. Roadway Design Bulletin 16-05.
4. When calling for modifications to turnouts provide desired radius to be constructed.
5. When there are two or more Typical Sections in plan set; consider numbering each Typical Section for reference.
6. On resurfacing details; if the intent is to match the existing cross slope state “Match Existing” instead of listing the existing cross slope. Ref: PPM Vol. 25.4.6.
7. When calling for the construction of wildlife fence on projects; include the standard D3 Wildlife Fence Details, which are available from Project Managers.
8. Designers should make an effort to accommodate existing and proposed trees and other long lived plants during design.
9. Please ensure the Project Quality Control Plan is current and used by the project team.
10. Roadway Design Bulletin 16-09 requires a minimum asphalt structural course thickness of 1.5 inches for shared use paths.

### Design Spotlight Donald Rogers, P.E. Drainage Engineer

Donald grew up in Chipley. After a beginning his career in Tampa as a consultant in District 7, he was able to return home as a consultant to District 3. He and his wife Lori and have two boys, the oldest enrolled in Chipola, and the youngest is still in high school here in Chipley. Donald is an active member of Oakie Ridge Baptist Church and has recently started “buying shirts” from local running events, including the Double Bridge Run in Pensacola.



Donald received his Bachelor’s Degree in Civil Engineering from the University of Florida and is a registered PE. His has a diverse design experience including working as a FDOT design consultant, as a private consultant for municipal projects and private development, and finally as a member of the FDOT family. Donald came on board with the Department just over 5 years ago as a Project Manager, but soon crossed the parking lot to the Drainage building so he could focus his efforts on “the fun stuff”.

While he feels blessed to have such a wonderful family, work family, and loves what he does, he’s probably best known as “you know, that guy with the shoes”.

## ***Supplemental Agreement Report – June, July, August, 2016***

Carol Kreis - QA/QC Plans Reviewer

**Description Code: 503: Change resulting from engineering decision.**

**Reason:** To enhance the MOT by replacing the 3 Head Temporary Traffic Signal with a 5 Head Temporary Traffic Signal to lessen traffic congestion in the intersection.

**Granted Time: 0 Days**

**Increase: \$2,110.00**

**Response: Unavoidable: No action recommended.**

**Description Code: 305: Costs Savings Initiative.**

**Reason:** To replace elevated roadways (bridges) designated in the Contract Plans with M.S.E. Walls.

**Granted Time: 0 Days**

**Decrease: \$-2,179,586.23**

**Response: Unavoidable: No action recommended.**

**Description Code: 012: Deterioration of, or damage to project after design (not weather related).**

**Reason:** Due to the presence of loose and raveled aggregate which creates an unstable turning movement at the crossovers and side street connections and allows for the potential of projectile aggregate materials striking motorist vehicles, the existing FC-5 was removed and replaced with FC-9.5 (dense grade mix) to correct the deteriorated and unsafe conditions at these locations.

**Granted Time: 0 Days**

**Increase: \$121, 779.75**

**Response: Unavoidable: No action recommended.**

**Description Code: 305: Costs Savings Initiative.**

**Reason:** Removal of several items of work from this project to facilitate coordination with a future project which would tear out these structures in the process of reconstructing the area.

**Granted Time: 0 Days**

**Decrease: \$-34,785.58**

**Response: Unavoidable: No action recommended.**

**Description Code: 101: Necessary Pay Item(s) not included in contract.**

**Reason:** The quantity of existing Work Zone Signs was increased and Temporary Raised Rumble Strips were added for the temporary lane closure Maintenance of Traffic since these are required by 2016 Standard Index 603 which is applicable to this project.

**Granted Time: 0 Days**

**Increase: \$6,894.00**

**Response: Avoidable: Production FDOT\*.**

**Description Code: 003: Harmonize project with adjacent projects or right of way**

**Reason:** Specific roadway pay items involve within this contract were either reduced or deleted to eliminate redundancy with a previous project and unnecessary cost for this construction project. Due to

*(Continued on page 7)*

## ***Supplemental Agreement Report – June, July, August, 2016***

**Carol Kreis - QA/QC Plans Reviewer**

*(Continued from page 6)*

the significant decrease of the asphalt, a major item of work, the Contractor requested a renegotiation of the unit cost for tonnage asphalt to be constructed.

**Granted Time: -2 Days**

**Decrease: \$-317,430.27**

**Response: Avoidable: No action recommended.**

**Description Code: 105: Discrepancies between plan notes, plan details, pay items, standard indexes, and specifications.**

**Reason:** To raise the final earth elevation along the back side of the median barrier wall in order to utilize the Standard Index 410, Sheet 1 of 25 reference in the original plans. The original plan indicated an elevation difference between the lower re-direct section of median barrier wall and the final grade that excluded SI 410, Sheet 1 from being applicable.

**Granted Time: 0 Days**

**Increase: \$3,393.45**

**Response: Avoidable: No action recommended.**

**Description Code: 101: Necessary Pay Item not in the contract.**

**Reason:** The Signing and Pavement Marking Tabulation of Quantities indicated sixteen different painted pavement markings, but for the Temporary Traffic Control Plan only four Pay Items were included for the Project. All of the temporary painted pavement markings were necessary to stripe the roadway for MOT purpose and safety reasons.

**Granted Time: 0 Day**

**Increase: \$18,423.90**

**Response: Avoidable: No action recommended.**

**Description Code: 115: Required drainage modifications.**

**Reason:** To compensate for lost production costs due to a plan error on a drainage structure, installation of a triple barrel closed flume inlet, the invoice price for the salvaged precast structure and deletion of curb inlets.

**Granted Time: 4 Days**

**Increase: \$10,517.45**

**Response: Avoidable: Action recommended.**

**Description Code: 003: Harmonize project with adjacent projects or right of way.**

**Reason:** Add the Pay Item for Miscellaneous Asphalt that was not included in the original bid items to harmonize the newly constructed concrete sidewalk and driveways to the existing facilities on the Right of Way.

**Granted Time: 7 Days**

**Increase: 39,147.00**

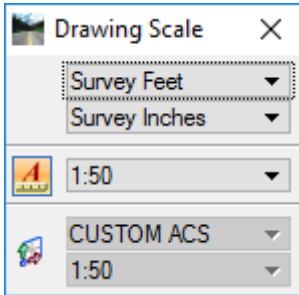
**Response: Unavoidable: No action recommended.**



# ***CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD***

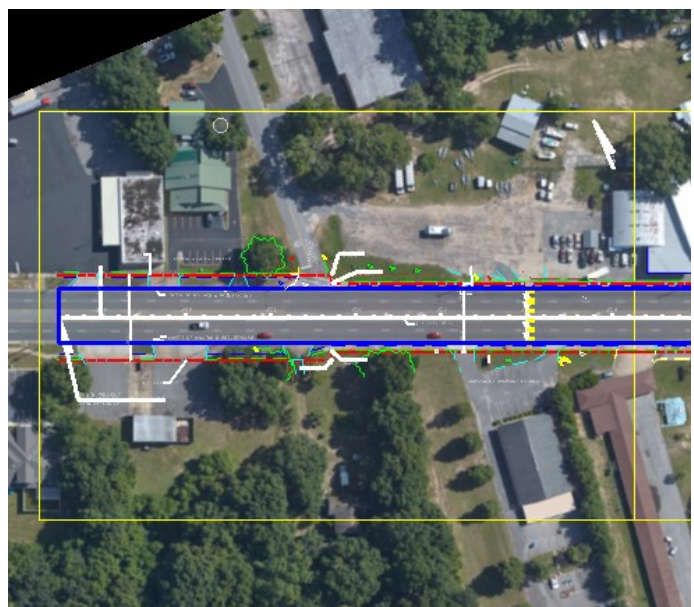
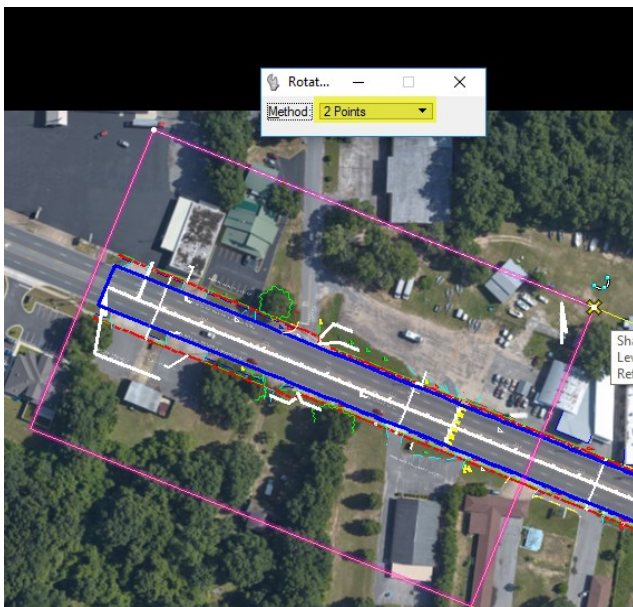
Howard Helms, CADD Manager

Create a TEXTRD01.dgn, open it and set the drawing scale. (Use FDOT Toolbar)



Reference in your CLIPRD01 and MTPLRD01 dgn file.

Rotate the View to the sheet clip that you will be working in.



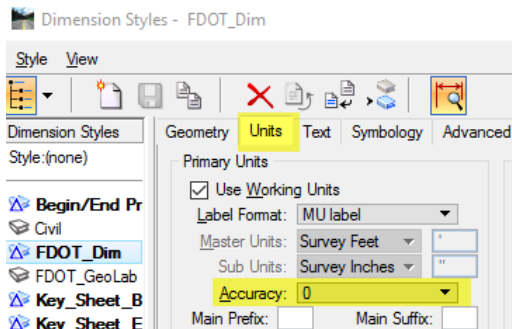
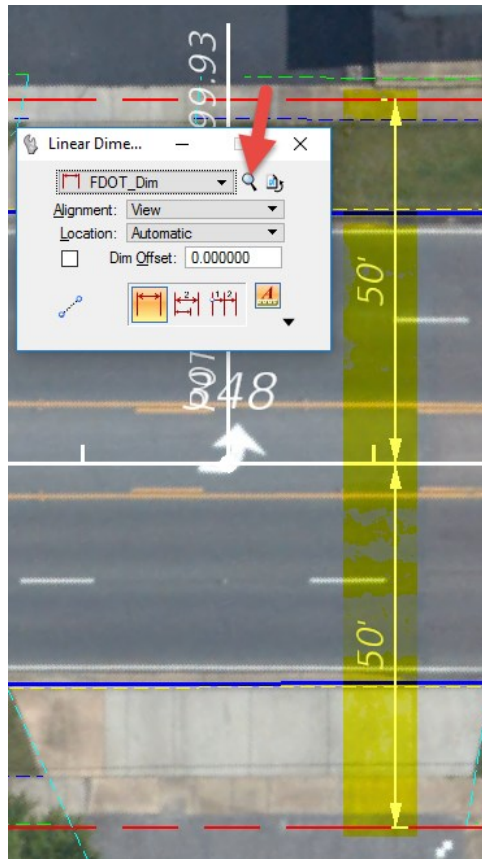
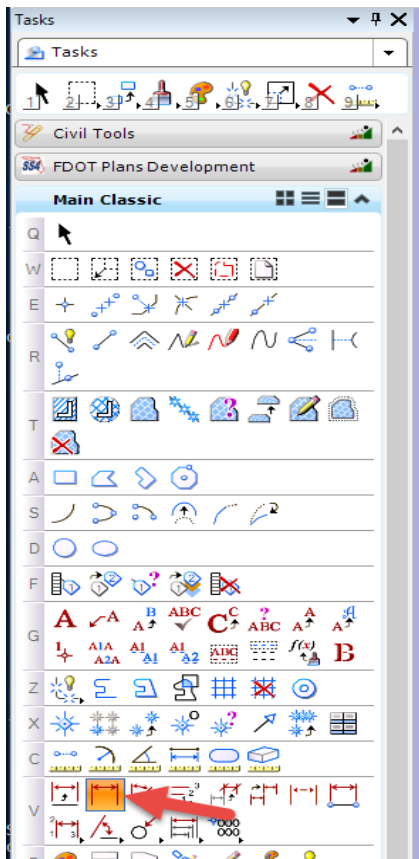
# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

Howard Helms, CADD Manager

(Continued from page 8)

## Dimension Linear

Choose FDOT\_Dim text style... edit the Dimension style, in the Units tab change the Accuracy to 0. **CAUTION:** Changing anything here can change other dimensions being used already on this dimension style.



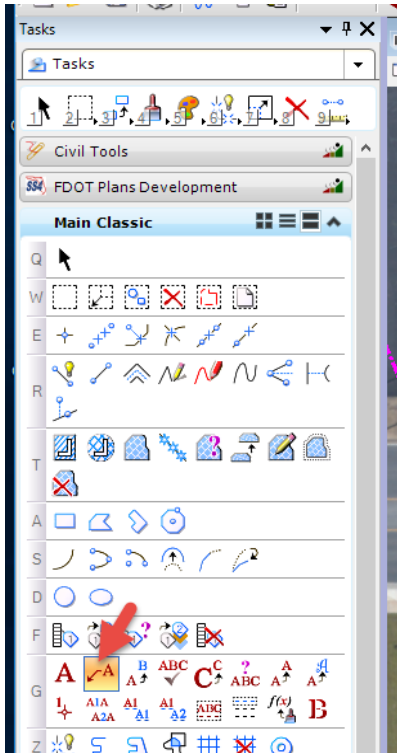
(Continued on page 10)

# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

Howard Helms, CADD Manager

(Continued from page 9)

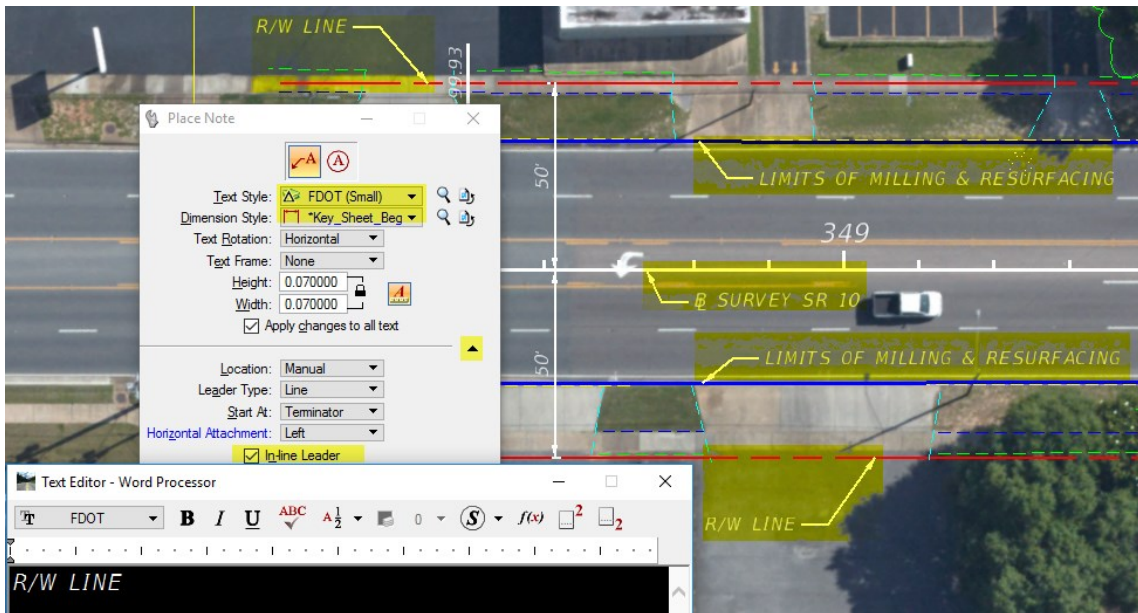
## Place Note



Change text style to FDOT\_(small) and Dimension Style to FDOT\_Dim.

Expand at bottom of Place Note window and make sure the In-line Leader is checked on.

Type your text in the text editor then left click where you want to start the arrow and then left click where you want the text. As long as you don't reset (right click) you can place the same text as many times as needed. (Right click) Reset will clear the text out of the text editor.

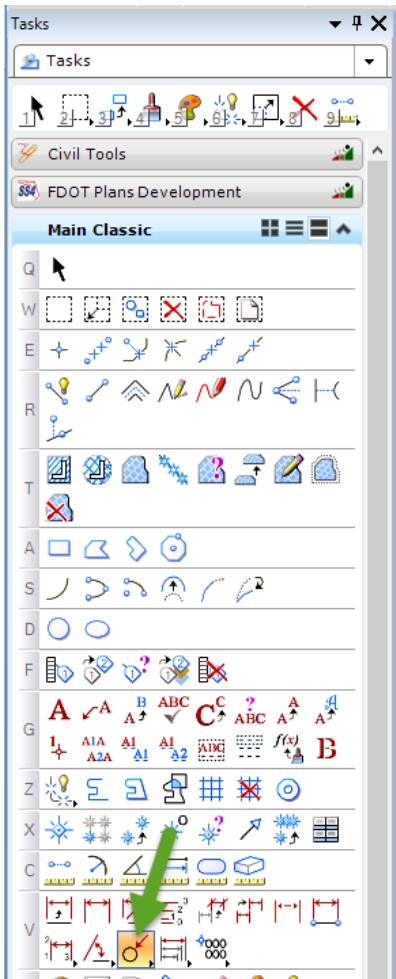


# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

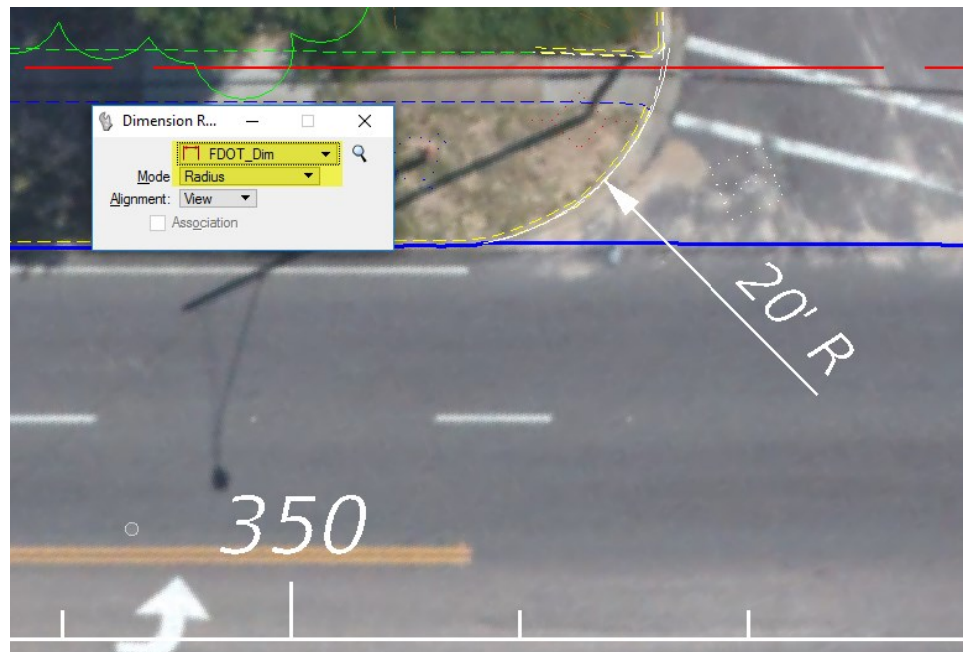
Howard Helms, CADD Manager

(Continued from page 10)

## Dimension Radial



Change the Dimension Style to FDOT\_Dim and the Mode to Radius. Left click on curve, move cursor to where you want the leader/arrow and text and left click.



(Continued on page 12)

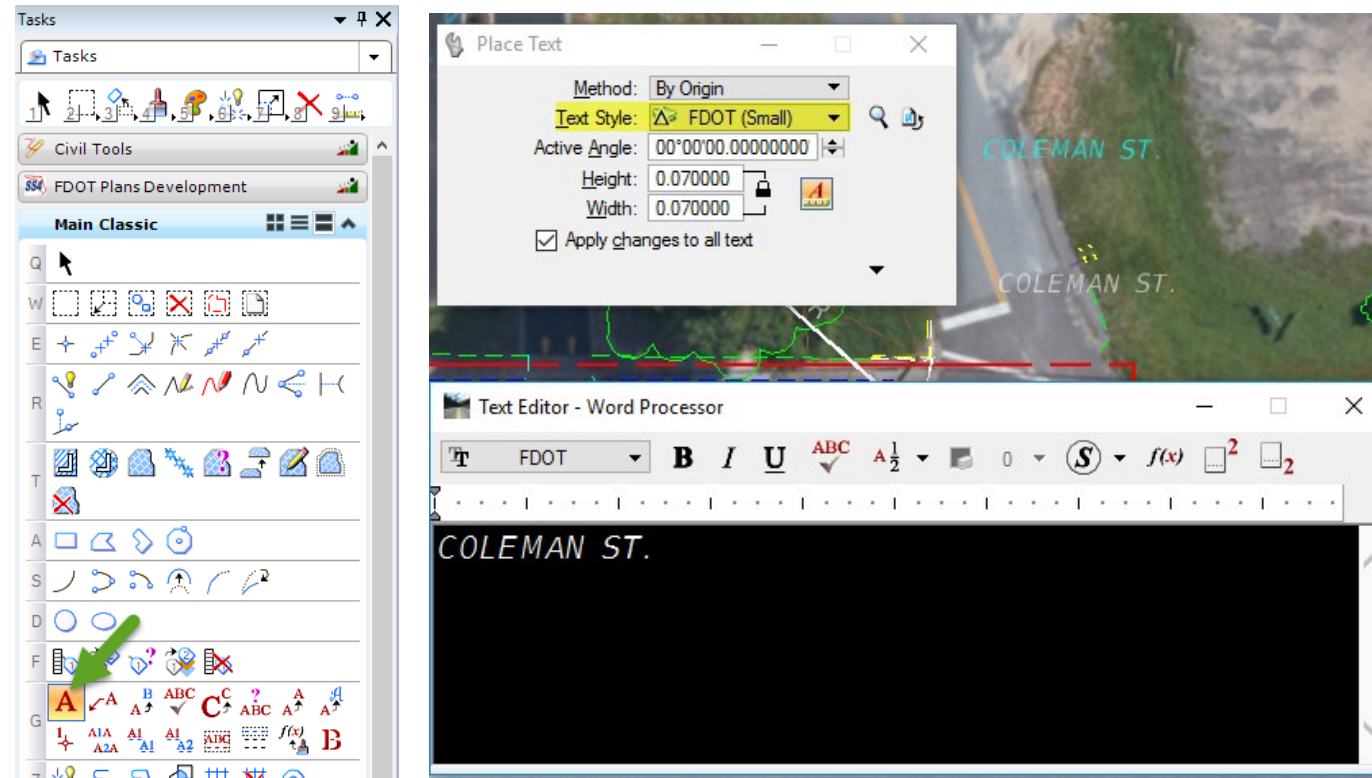
# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

Howard Helms, CADD Manager

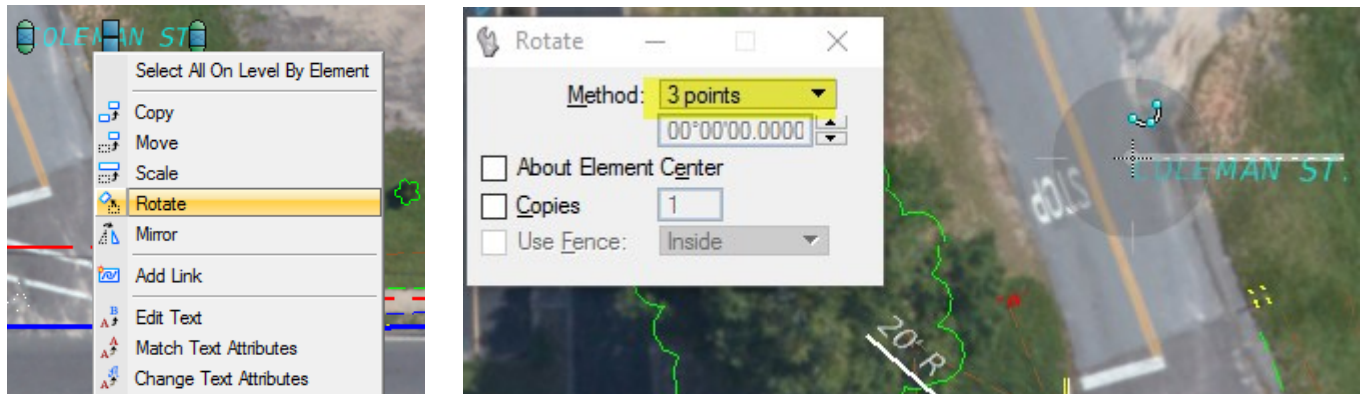
(Continued from page 11)

## Place Text (Street Names/Businesses)

Change the Text Style to FDOT (Small) and place text by left clicking.



Hover over the text and hold down a right click to get a pop up menu and choose rotate. Change the Method to 3 points, left click on the node of the text and then move cursor to the left and left click again, rotate text by moving cursor, then left click again.



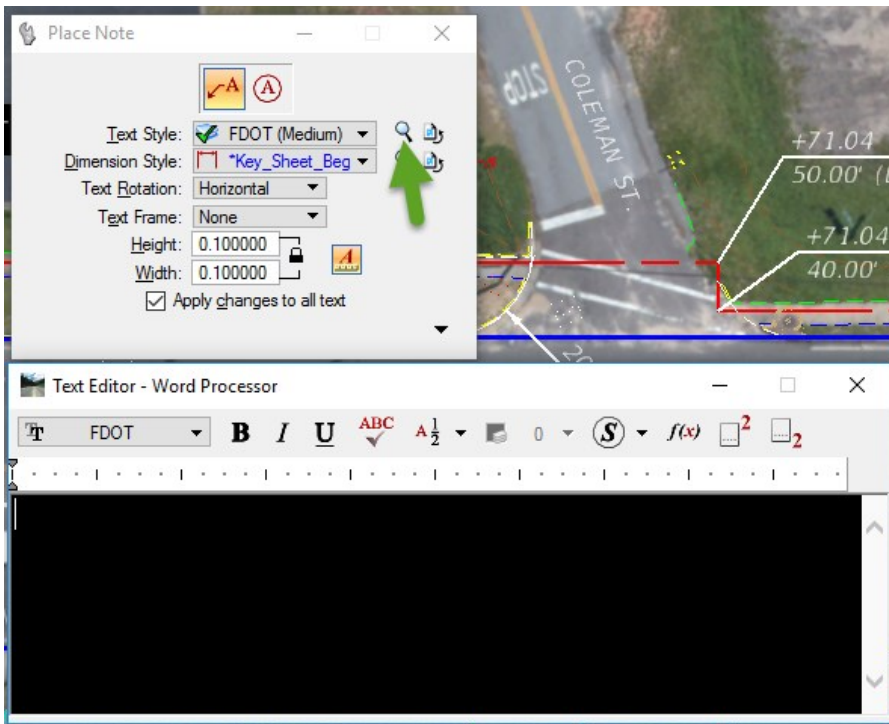
# CADD TRICKS, TIPS, UPDATES - Create & use a *TEXTRD*

Howard Helms, CADD Manager

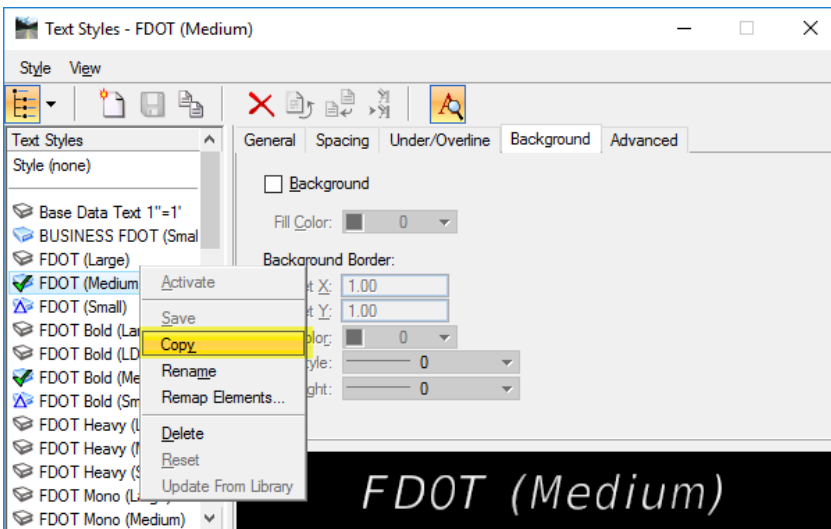
(Continued from page 12)

Copy, rename and edit text style for business names.

Click Text Styles



Right click on FDOT (Medium) text style and copy



# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

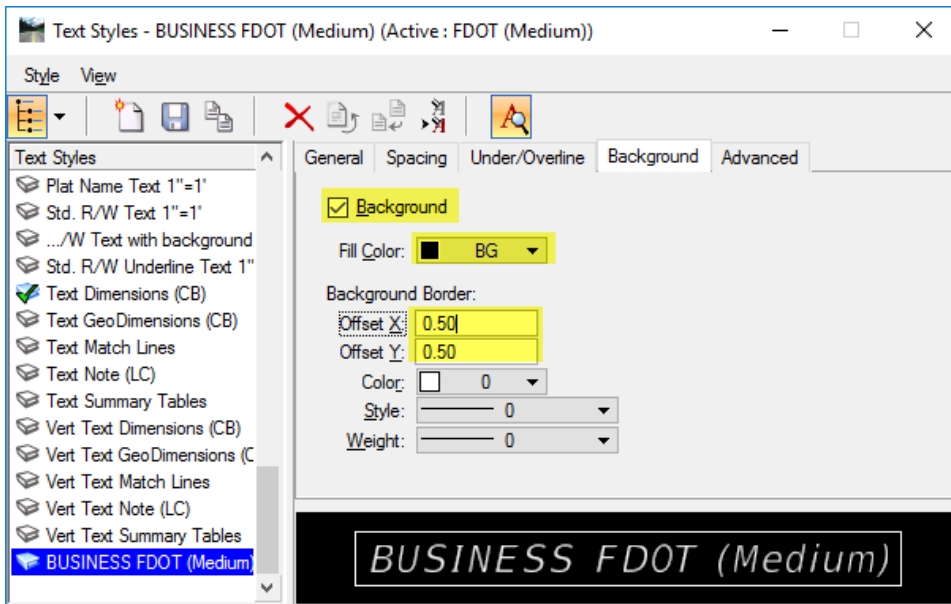
Howard Helms, CADD Manager

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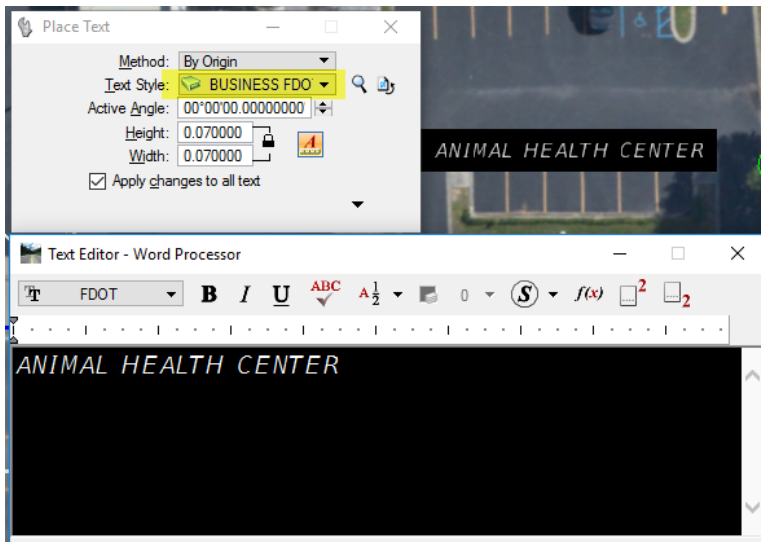
Rename it to Business FDOT (Medium)



Left click on the new text style, go to the Background Tab check on Background and change the Fill Color to black and Background Border: Offset X and Y to 0.50.



Choose the new Text Style and place text.



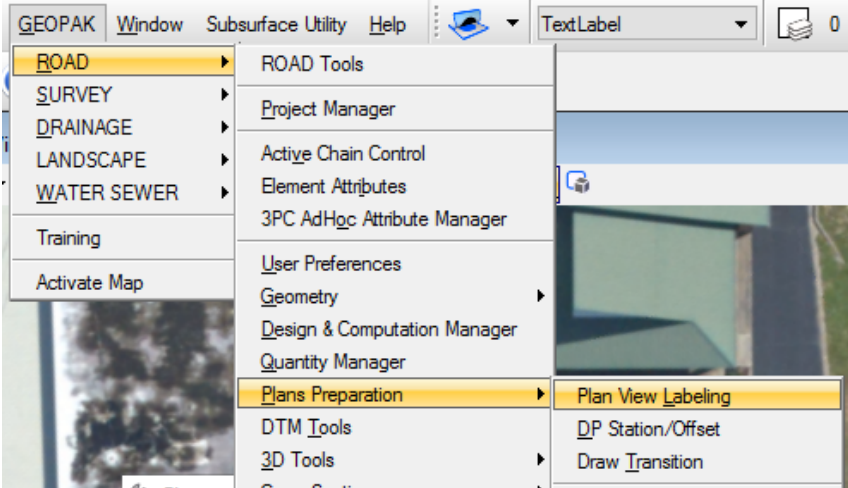
# ***CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD***

Howard Helms, CADD Manager

(Continued from page 14)

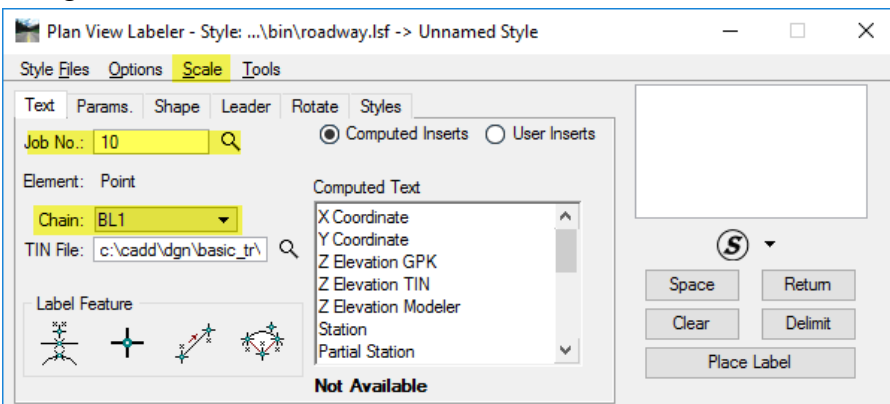
## **Label Partial Station and Offset**

Go to Geopak/Road/Plans Preparation/Plan View Labeling



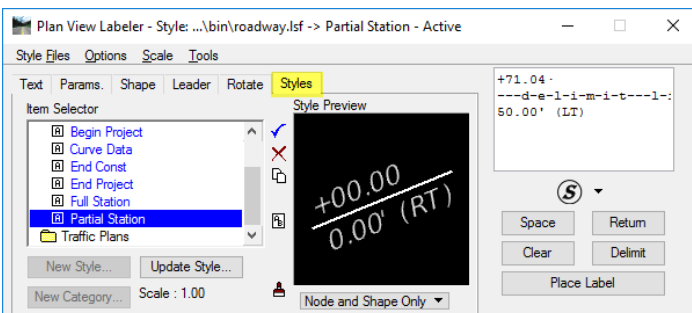
Choose the .gpk file Job No.: and the Chain:

Change the Scale to the correct scale. Same as the sheet scale.



Choose the Styles Tab

Pick the label from FDOT-Labels/Roadway/Partial Station



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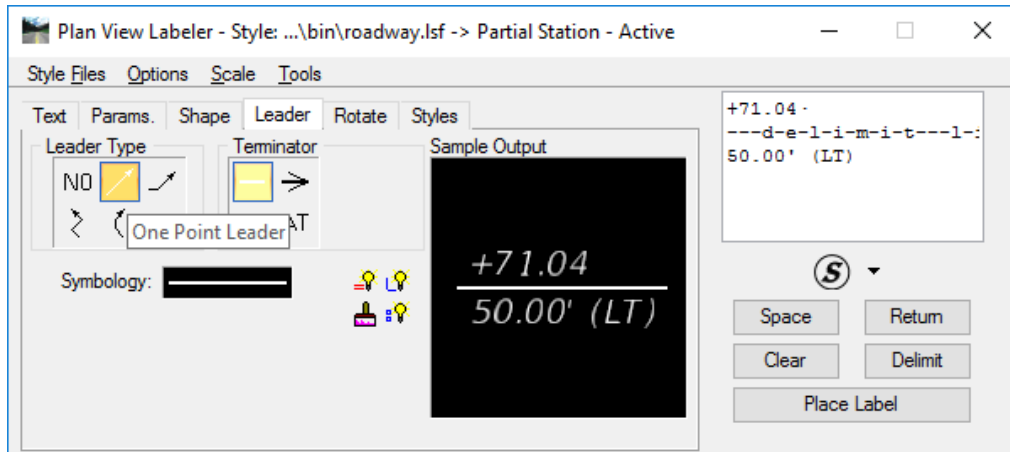


# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

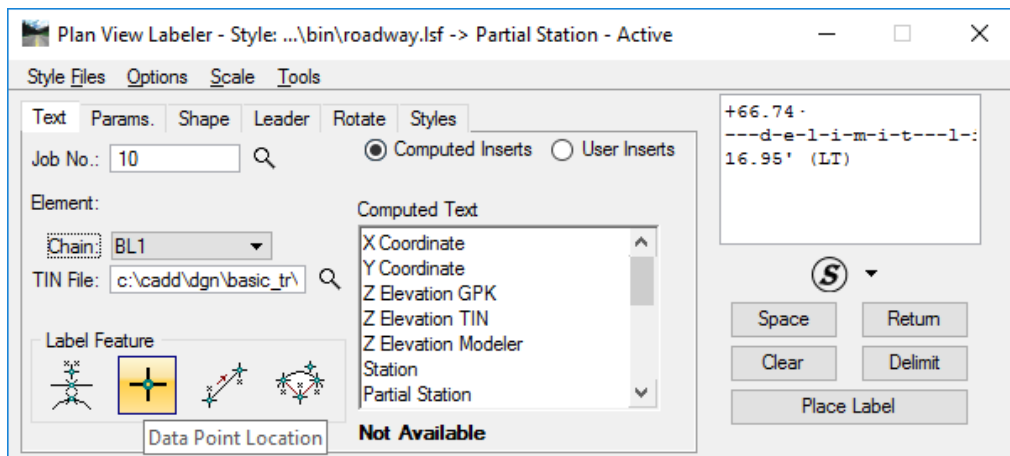
Howard Helms, CADD Manager

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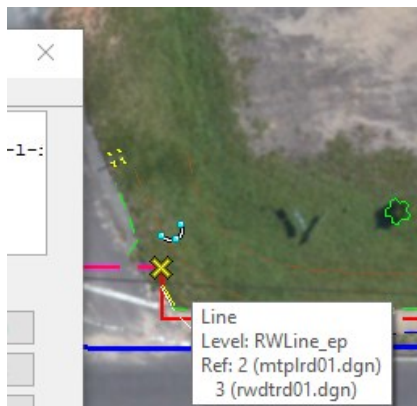
Choose the Leader Tab and choose Leader Type/One Point Leader



Choose the Text Tab and Click in Label Feature/Data Point Location.



Then snap to the location that needs labeled. This will populate the partial station and offset to be placed.



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# CADD TRICKS, TIPS, UPDATES - Create & use a TEXTRD

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Click Place Label and place the label by left clicking where you want it. Then select which side you want the leader on, by left clicking that side of the label.

