

## DOT HELP DESK Phone and Fax Numbers

Effective November 7<sup>th</sup>, 2011 the DOT Help Desk number and Fax number will be changing.

The new DOT Help Desk number will be **919-707-7000**. The DOT Help Desk Fax Number will be **919-250-4254**. This fax number is used to fax in directory updates.

Be advised that the **1-800-368-2778 number will not be changing**.

## FYI

Please note that Ed Williams of CADD Services is on medical disability for the next several months as he recovers from his recent surgery. If you generally contacted Ed for direct help please feel free to contact any other member of CADD Services or simply call the helpdesk and we will get right back to you.



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## CADD Happenings

It has been a while since the last CADD newsletter I thought it might be a good idea to bring everyone up to speed on what is happening with CADD in the NCDOT.

As I'm sure everyone knows CADD Services spent most of July, August and September upgrading every NCDOT CADD PC in the state to the V8i SS2 versions of MicroStation, GEOPAK and Iplot. The upgrade went pretty smooth and we have experienced very few problems. So for the first time that I can remember the entire DOT is using the same up to date version of our CADD Software.

Next up—Windows 7. The NCDOT has made the decision to upgrade the Department's PCs from XP to Windows 7 64 bit over the next few years. To this end CADD Services has created new Window 7 64 bit images for all of our standard CADD PC configurations and is currently testing them to make sure that they work as planned. We hope to have this testing finished by the end of the year (barring any show stopping problems). The goal is to have these new images ready to be deployed early next year. While we won't automatically upgrade all the existing CADD PCs to Windows 7 all the new

ones coming out of the warehouse will have a Window 7 image on them.

On the hardware side of things the NCDOT plans to replace all the remaining HP XW4400s that are still in use (some were replaced during the recent Software upgrades) with new HP PCs. If you are currently using an HP XW4400 then you expect a new PC in 2012..

CADD Training continues at three locations around the state, In Raleigh at the Century Center, in Winston-Salem at the ROW training room and in Asheville at the Division headquarter building. In addition to our standard CADD classes (see page 3) CADD Services is currently developing a MicroStation 3D class (no glasses required), assessing how we might use of MicroStation Map and is planning a series of "mini corridor modeling seminars" dealing with topics like intersection and roundabout design.

Finally with the NCDOT portal being shut-down at the end of this year we are happy to announce that you can still find CADD Services online at **Inside NCDOT** .

<https://inside.ncdot.gov/Business/technology/Pages/Tech-CADDServices.aspx>

## Western Division Training is back (sort of)

While ITWest has not gotten a new training facility to replace the previous one in Hickory CADD Services (along with PC Training) are again offering training classes for Divisions 9-14. Classes are currently being held at the ROW training room in Winston Salem and in the Temporary Training room in Asheville at the Division 13 Headquarters building. I would like to thank both the ROW Unit and Division 13 for allowing us to use these training rooms. For more information on CADD Training Classes contact Rande Robinson at 828.466.5526 or David Dietrich at 919.386.9116 for PC training or PC software support issues.

## MicroStation You Tube videos

Freeware video demo **View Rotation** - <http://bit.ly/aS0CCw>

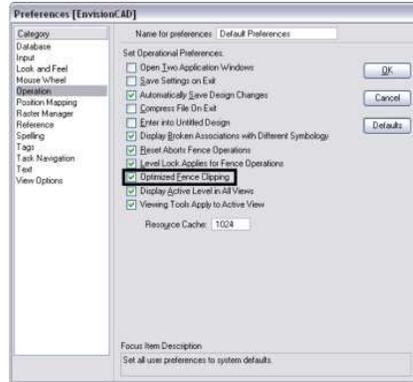
Freeware video demo **View Model** - <http://bit.ly/a2L56L>

Freeware video demo **View Levels** - <http://bit.ly/cXtHOM>

## Trouble remembering where the upf is located?

You can open the MicroStation menu item Workspace -> About Workspace. In the middle of the dialog it will show the path to the file (hover over it to see the full path).

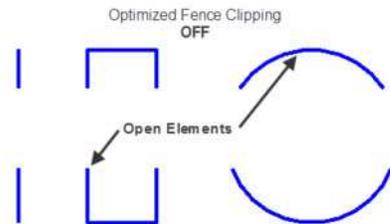
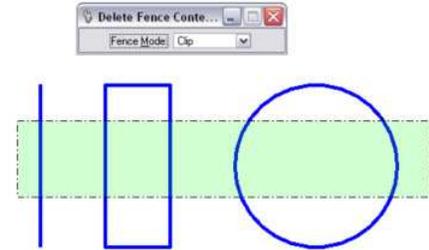
## Optimized Fence Clipping



There is a toggle that will allow you to fence clip elements in different fashions. Depending on how you want to your fence clipping operation to perform, it can automatically close shapes, surfaces and solids or you can trim the elements.

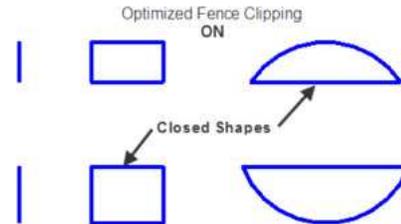
Under **Workspace>Preferences>Operation** there is the option to **Optimized Fence Clipping**.

The operations copy, move, rotate, scale, mirror and stretch would all work similarly. The following screen shots show you the end result of the Fence Clip Delete command. The three blue elements are going to be deleted by the fence using the clip mode.



If **“Use Optimized Fence Clipping”** is toggled off the fence clipping operation will drop the closed shapes to individual elements as shown on the left.

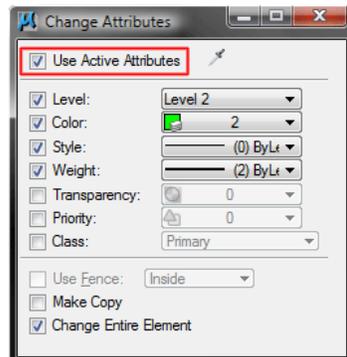
If **“Use Optimized Fence Clipping”** is toggled on the fence clipping operation will automatically close the shapes for you as shown on the Right.



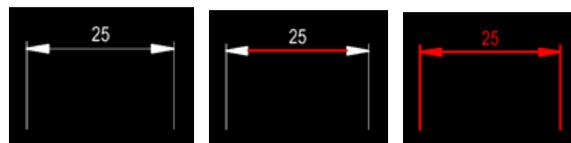
By default **“Use Optimized Fence Clipping”** option is toggled ON.

From EnvisionCad

## CHANGE AN ENTIRE ELEMENT



A new option in V8i, Change Entire Element allows you to change all or part of an element to the chosen attributes. It only works for elements that can have multiple attributes, such as a dimension or underlined text:





## How to get CADD Training

With each new version of software comes the never ending activity of learning how the program's great new features work and which old ones don't .

If you need training for a new employee or feel you need a refresher course in any of our CADD products, all you need to do is go to the CADD Support section of the NCDOT Intranet Portal at:

<https://inside.ncdot.gov/Business/technology/Pages/Tech-CADDServices.aspx>

Then select Training from the Document Library CADD Menu. From the Training page download and fill out the CADD request Training form and mail the form to:

**Steve Brown**  
Engineering Application Services



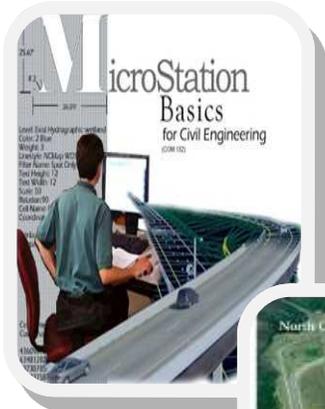
1597 Mail Service Center  
Raleigh, NC 27699-1597

CADD Services will get you into the next available class provided there is no waiting list.

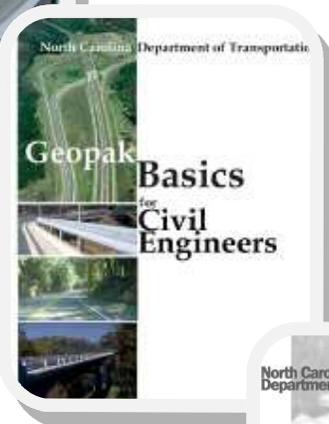
Remember that it is not necessary to continue to fill out requests if a request is on record. If in doubt email Steve at [sbrown@ncdot.gov](mailto:sbrown@ncdot.gov)

Also, when making a request, **check off all the classes that you wish to take.** (i.e. It's not necessary to complete MicroStation before you can request GEOPAK). Once we receive and enter a request our database keeps up with them.

## Current CADD Training Courses for NCDOT Employees



COM 132  
MicroStation Basics for Civil Engineering



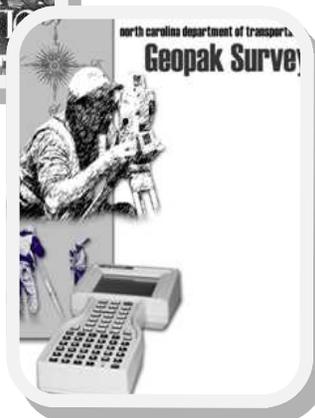
COM 199  
GEOPAK Basics for Civil Engineers



COM 194  
GEOPAK for Construction

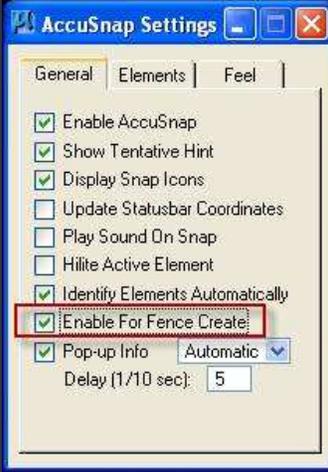
*( Need a refresher?  
Repeat students welcome !! )*

COM 195  
GEOPAK Survey



**BEST of all it is Free (for NCDOT staff). There is no charge back or cost to your Unit or Division for CADD Training !!**

## Enable AccuSnap for Fence Create.



## AccuDraw & AccuSnap

When using AccuSnap in conjunction with AccuDraw, one can use the following AccuDraw shortcut keys:

**F**—A 3D key that aligns/orients the AccuDraw compass with the front view of the design cube regardless of your views rotation.

**S**—A 3D key that aligns the AccuDraw compass with the right side view of the design cube regardless of your views rotation.

**T**—A 3D key that aligns the AccuDraw compass with the Top view of the design cube regardless of your views rotation.

AccuDraw also lets you change the snap mode for the *next snap* the following keys.

**I**—to use the Intersect Snap

**N**—changes to the Nearest Snap

**C**—Center Snap

## Basic MicroStation File Maintenance

Ever have a problem with a MicroStation file? Things like lines and objects disappearing or files bombing out when you try to zoom in on an object or part of a drawing? Or maybe everything just seems to be working really slow. While MicroStation files in general are pretty stable things do go wrong. Now while it may be major problem that only Bentley can fix there are many simple things that can be fixed by the user pretty easily. The Following 10 steps are from a 2010 online article by Nigel Davies that may solve a lot of simple problems. At least they are a good place to start and can help you eliminate the simple problems before having to call CADD support or the Help Desk.

1. **Turn on ALL Levels**—problems can be caused by elements you can't see. Once you have all your levels turned on FIT the view. If you can't see anything or you end up with two dots on the screen, it may indicate that you have unwanted or unneeded element in your dgn file that need to be looked at.
2. **Check the information is within the Model's Working Area**—Despite MicroStation's design plane being basically infinite you can find that inaccuracies occur if elements are too far from the solids working area (or at the edge of the design plane). This is particularly important for 3D elements, but can also effect certain 2D ones.
3. **Delete Duplicate Items**—It is easy to accidentally copy elements on top of themselves, so use the **Utilities > Data Cleanup** pull down to remove any duplicate elements.
4. **Drop CTRL+G (Graphic) Groups**—While grouped elements created using CTRL+G won't necessarily cause crashes in itself, it can cause issues with display of nested elements, in particular hatching/patterning when converting clipped reference files. To ensure your output is as expected, only use CTRL+G as a temporary measure and always drop them again once you have used them. (The quickest way to these groups is to use CTRL+A to select all elements, CTRL+U to ungroup (you can't ungroup complex elements or cells). Repeat as needed to ungroup nested groups.
5. **Compress your File**
6. **Check your Reference Files**—Elements within References or even the attachment itself can cause errors. Turn all references off, then turn them back on one by one. After you have turned each one on, fit the view and repeat what it was you were doing when the problem or crash occurred. If the problem reoccurs then it may be that reference file causing the problem. If it is that reference file detach it, compress it then reattach the file from scratch. If the problem continues then you will need to work through the referenced file.
7. **Create a New File**—A quick way to ensure that any unidentifiable corruptions are removed is to start with a clean file.

A. Use File Fence command (ff=) to copy the information out into a new file. Make sure all references are switched off before doing this, otherwise you will merge the reference into the the new file.

B. Preferably, create the file completely from scratch. Reference your problem file into a new empty file and copy the information through. Do not use Merge Reference as this may bring with it the elements that are causing the problem. Place a fence around your information and use the Fence Copy with fence mode set to inside. (This will remove all your references, but they may be the cause of the problem as noted previously).

8. **Attach the References Again**—Reattach your reference files one by one. After you have attached each one fit the view or repeat what you were doing when things crashed. If the problem reoccurs then you probably have problem with that reference file. If it does detach that reference file, compress it and start with step 1 to try and figure out what is wrong with it.

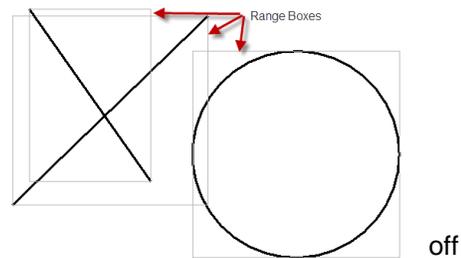


**Basic MicroStation File Maintenance**—Continued from page 4

Continued next page

9. **If there are still problems—Try using the Set Range Command** to visually identify whether there are corrupted elements. Set range will show a bounding box around every element which should lie exactly at its minimum and maximum points.

- A. Key-in SET RANGE in the key-in box.
- B. **Update** the view.
- C. The Ranges of the elements will display.
- D. Delete and redraw any problem elements where the bounding box does not match the element.
- E. Key-in SET RANGE again and update the screen to turn the bounding boxes.



Finally check and make sure your seed file is good.

10. **Finally after all this you still haven't resolved the problem call the help desk and let CADD Services and Bentley take a look at it.**

**Final Thoughts**—Problems can't always be avoided. Sometime corruption just occurs, however, to minimize the risk of problems and to avoid copying them to multiple files keep the following in mind:

- Always draw within the Default Model's Working Area and/or the Design plane.
- Avoid copying or merging reference information from other files, particularly those of external consultants or organizations.
- Avoid using Save As when creating new files (use design file generator). Not only will this avoid copying potential corruptions into files, it will also assure that all your files have the correct settings.
- Be aware of what you have selected when copying elements and what you have enclosed when

**MicroStation View**



Use your DOT Active Directory Username/Password.  
DOT Help Desk 1-800-368-2778

Need to view or print a quick copy of a MicroStation file but you don't have MicroStation on your PC. Then Just login to Citrix at:

<https://gateway.dot.state.nc.us/Citrix/XenApp/auth/login.aspx>

and Access MicroStation View.



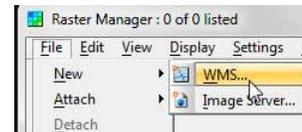
## OneMap World Mapping Server (WMS) now Available

Ever need to attach an image underneath your design file? Have you been clipping Google Earth images and trying to warp them to fit? If you have recently updated your workspace then you don't have . You can now use MicroStation Raster Manager to attach coordinately correct orthographic imagery of the entire state of North Carolina to your design files.

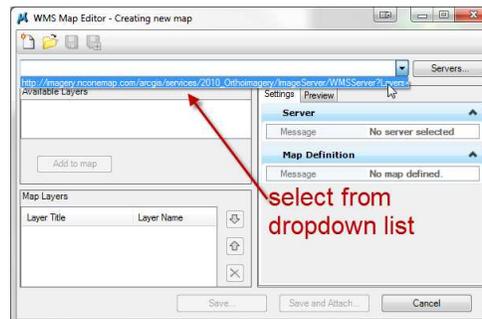
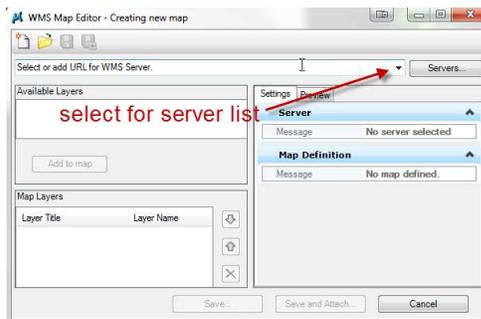


1) Open Raster Manager via the File Pull down menu or by selecting the the icon

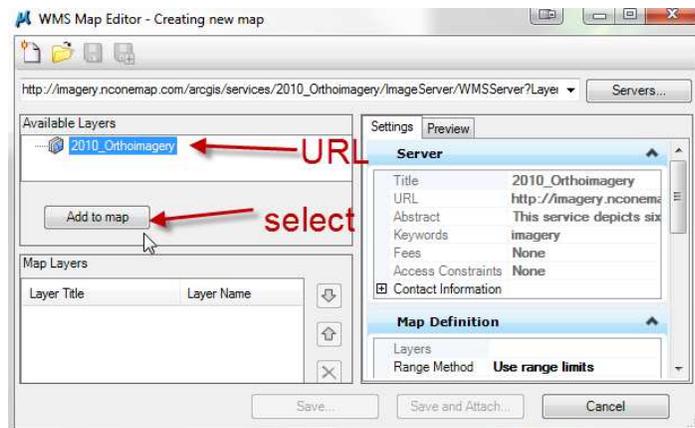
2) Under Raster Manager **File>New>WMS** opens the WMS Map Editor dialog.



3) The dropdown list for Select or Add URL for WMS Server is currently only populated with one listing (after you have updated your Workspaces!) which is the link to NC One Map.



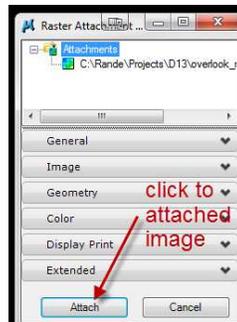
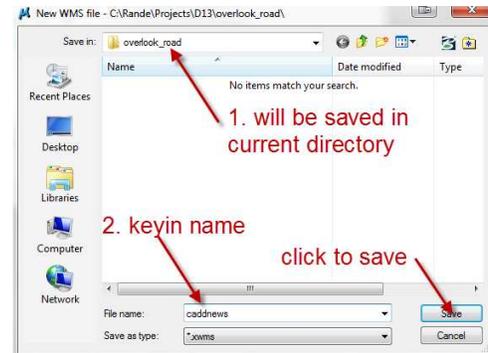
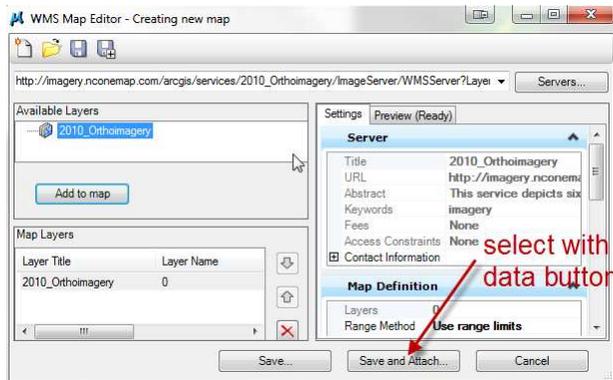
4) After selecting this URL, there is a layer that appears under the Available Layers section highlight it and then select the Add to Map button with a data point.



5) This activates the Save and Attach button on the bottom of the dialog, press it and the following dialog appears which wants the user to name a .xwms file for this particular attachment. (Continued next page)

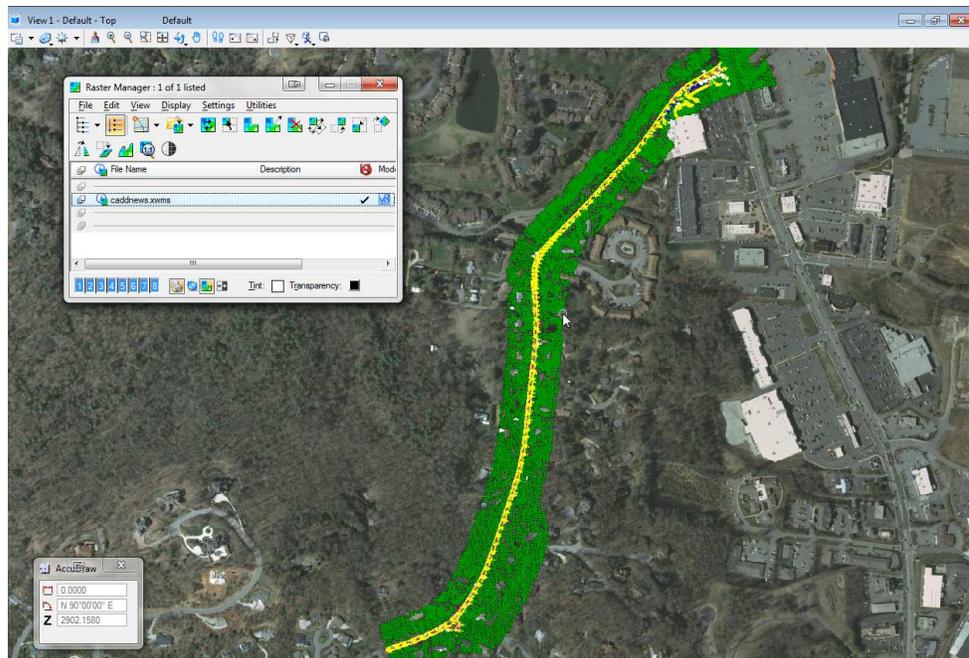


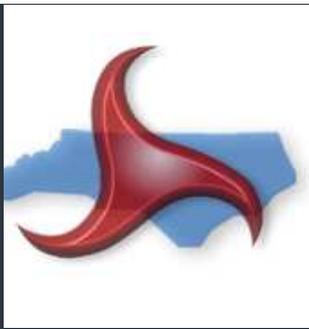
(WMS Continued from page 6)



This file name can be stored in the project directory for use later. After which the Raster Attachment dialog will appear. Select the attach button to finish attaching the WMS Image.

6) Depending on the network speed, after a few moments (be patient) the image should appear behind there mapping just like any other raster. Be aware that zooming in or out may take some time to refresh.





## Last Word (or images)— Unique Test Answers

Where was the American Declaration of Independence signed?

*At the bottom.*

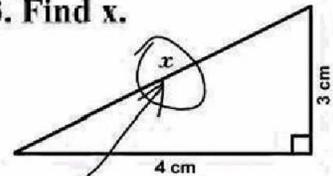
Name one of the early Romans' greatest achievements.

*Learning to speak Latin.*

Steve is driving his car. He is travelling at 60 feet/second and the speed limit is 40 mph. Is Steve speeding?

*He could find out by checking his speedometer.*

3. Find x.



*Here it is*

www.familyexamanswers.com

Transparency Worksheet 23  
Hard and Soft Water

I. Briefly explain what hard water is.

*ice*

### CADD News

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NCDOT  
Information Technology  
Engineering Technology Systems  
Engineering Applications Service  
CADD Services

<http://www.ncdot.org/doh/CADD/>

Century Center Complex Bldg. A  
1597 Mail Service Center  
Raleigh, NC 27699-1597

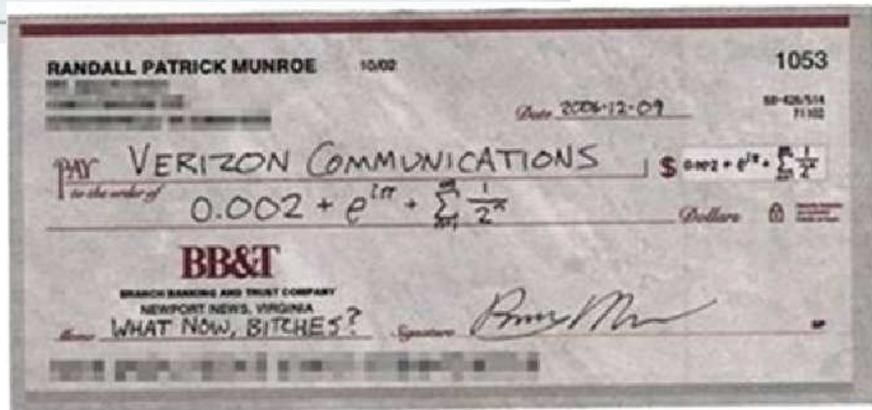
Phone: 919.707.7030  
Fax: 919.212.3072

IT West / co: Bridge Maintenance  
1296 Prison Camp Road  
Newton, NC 28658

Phone: 828.466.5526  
Fax: 828.466.5579

On the Intranet at

<https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/tabid/63/Default.aspx>



## Last Word— a simple question

How does one write 4 in between 5? Can it be done? If so How?

If you think you know the answer email it to [rjrobinson@ncdot.gov](mailto:rjrobinson@ncdot.gov)