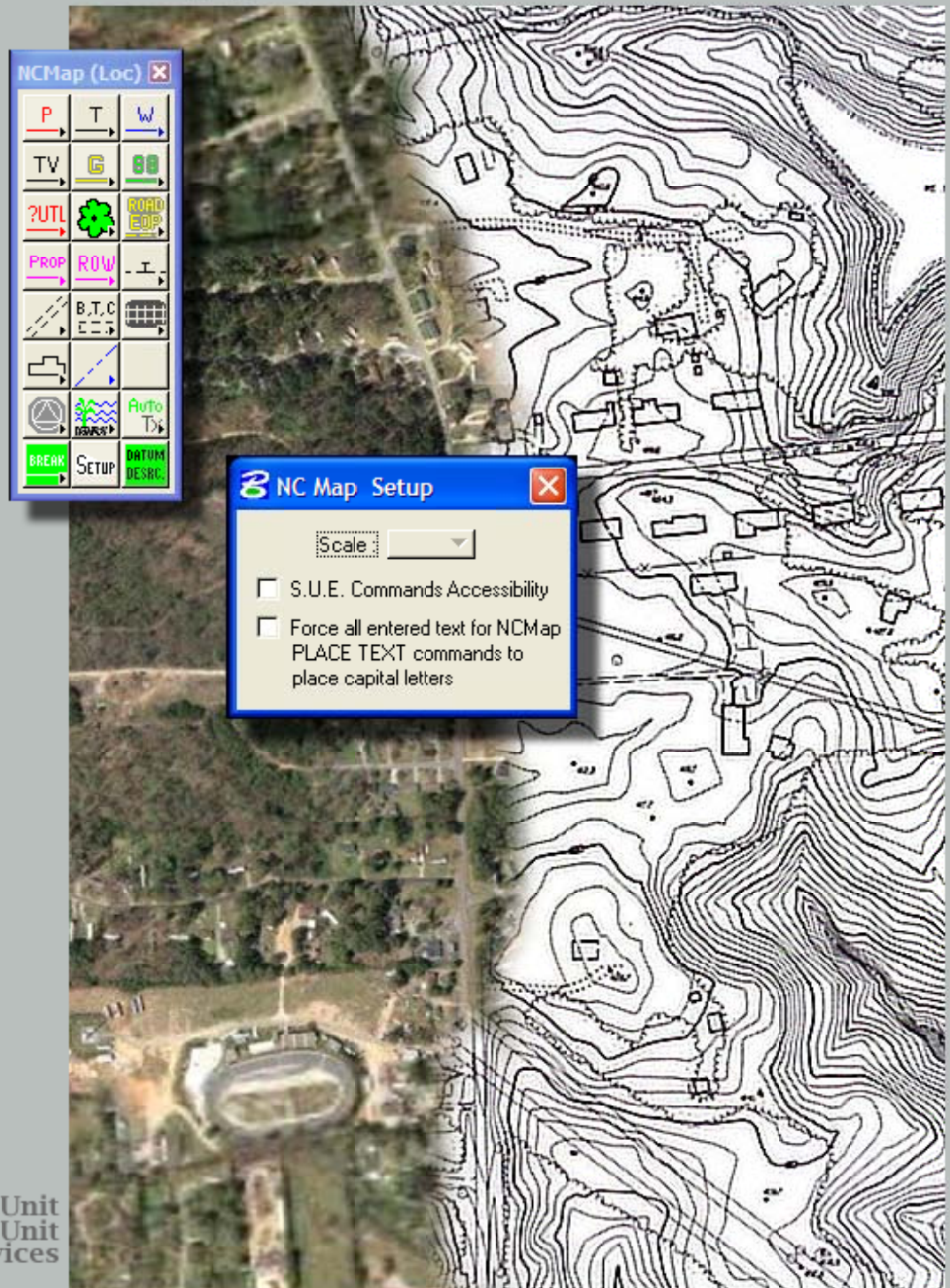




# North Carolina Department Of Transportation Mapping Manual



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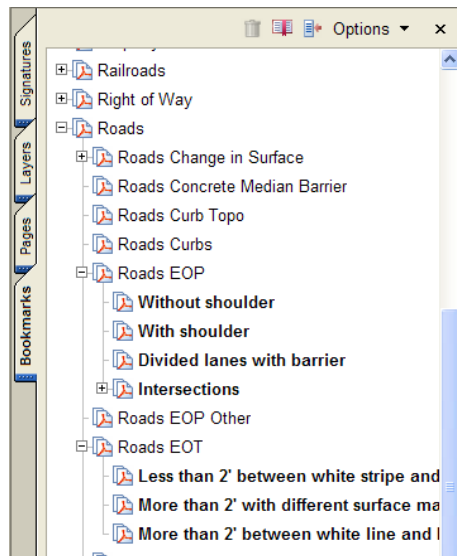
## General Instructions

This main purpose of this Mapping Manual is to provide instruction for the compilation and classification of features on plan and topographic mapping. Features were included herein that either had feature codes for data collection or appeared on NCMAP dialogs, but may or may not be shown in both categories. This Mapping Manual can be used to educate in feature code usage for field surveys to ensure compatibility with photogrammetric mapping and show stereo compilers/editors proper feature usage.

The planimetric features are divided into general categories of similarly related features. Specific features are listed under each category. Each feature has a description, a listing of the CADD parameters, a set of instructions for the collection and classification of topo and plan sheet items. Each listing has an example of the feature, as it should appear on a plot.

During the compilation phase of the mapping, maximum use of all available data must be made to ensure complete and accurate portrayal of all required features. When compiling details such as buildings, roads, or streams in wooded or shaded areas, refer to the contact prints and the aid of a stereoscope in interpreting the desired information. Considerable care must be employed in the compilation of the planimetry, since the majority of the planimetric features are well defined and thus subject to the horizontal accuracy checks.

## Document Format

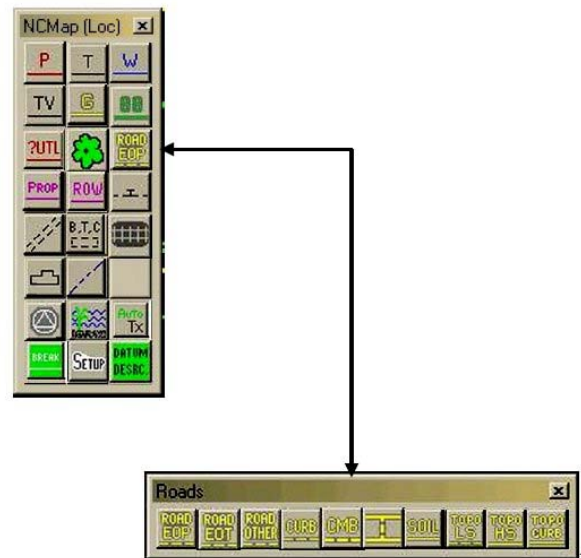


Throughout this manual several different methods are incorporated to help the User decide how and where each feature is to be placed.

One method is the use of Bookmarks located on the left-hand side of the PDF window. For features whose uses change as different mapping configurations occur, several bookmarks will be used. This is most widely apparent within the “Roads” category, where varied intersection design requires each feature or linetype to be utilized in a precise manner to indicate the different configuration of materials. Those used in Plan Sheet mapping are shown using Bold print and Topo examples are depicted in Blue text.

# NCDOT Mapping Manual

The button images on each feature page are dynamically linked to the header page at the beginning of each category. The button bars on each header page are then linked back to each feature page to help the User learn the location of each feature within NCMAP. Hovering the mouse over the linked buttons show the feature name in a tool tip.



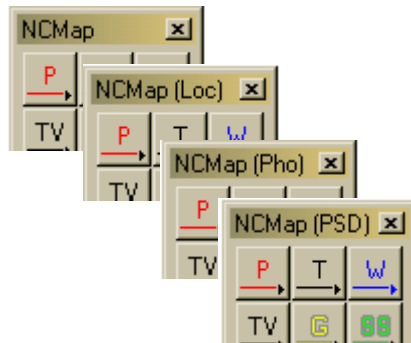
## NCMAP

With the implementation of MicroStation V8 at NCDOT in early 2005, several mapping automation changes were made to the NCMAP program.

The first improvement is the recognition of what Workspace is utilized or type of map that is being produced. When a User first opens NCMAP, the program reads the Workspace and/or file name to include specialized tools into the menu.



The four different interfaces are Generic, Location, Photogrammetry and Property Survey Drawing (Location PSD). The banner atop the NCMAP menu easily identifies these. As the menu reconfigures itself to these different interfaces, it also incorporates Unit specific button / tools within the menu itself. These button / tools can be identified by their colored backgrounds.



The V8 version of MicroStation added a new attribute to all element called "ByLevel". Simply, this means that the color, weight and linestyle can now be assigned to the level itself. NCDOT has implemented the use of ByLevel.

The V8 version of MicroStation added a new attribute to all element called "ByLevel". Simply, this means that the color, weight and linestyle can now be assigned to the level itself.



# NCDOT Mapping Manual

## Auto Text



One other major improvement in the NCMAP was the removal of the TEXT for individual feature category and the implementation of AutoText.

AutoText allows the User to pick the feature that they wish to text graphically and the program determines the correct level to place the text on. Through AutoText all pipes placed by NCMAP, or by NCDOT SMD file, have the size automatically determined and the label adjusted accordingly. All pipe Inverts and manhole Top Elevations can be done automatically with AutoText if the proper feature type is used in the field survey. The User needs to be aware of the Tools Settings box in MicroStation, as it changes allowing for different types of text from a single feature. (Example: Property lines allow for the entry of dimensions, Deed Book, or Owner names.

## Setup

The User's first step in a design file is to setup up the project scale. Select the "Setup" button on the bottom row of NCMAP and set the scale from the pull down menu. This procedure only needs to be done once in each design file as it is written into the file for future reference.

## Fixed Scales

Many cell and linestyle scale factor fix at a certain mapping\plotting scale. NCMAP automatically makes this adjustment when required. Consultants should be aware of this fact when NCMAP is not used for data collection. See table below:

Feature Name	Type	Scale changes	Fixed scale
Utilities Other Located Object	Cell	>1"=50'	50
Other Culture Well	Cell	>1"=50'	50
Utilities Power H-Frame Pole	Cell	>1"=50'	50
Utilities TV Tower Radio	Cell	>1"=50'	50
Utilities Other Pole Located Topo	Cell	>1"=50'	50
Utilities Other Pole Symbolized Topo	Cell	>1"=50'	50
Hydro Swamp or Marsh (NEU)	Cell	>1"=50'	50
Railroads Standard Gauge Topo	Line	>1"=100'	100
Other Culture Fence Line	Line	>1"=100'	100
Vegetation Woods Line	Line	>1"=100'	100

## **Mapping Specifications**

### **Plan Sheet Specifications**

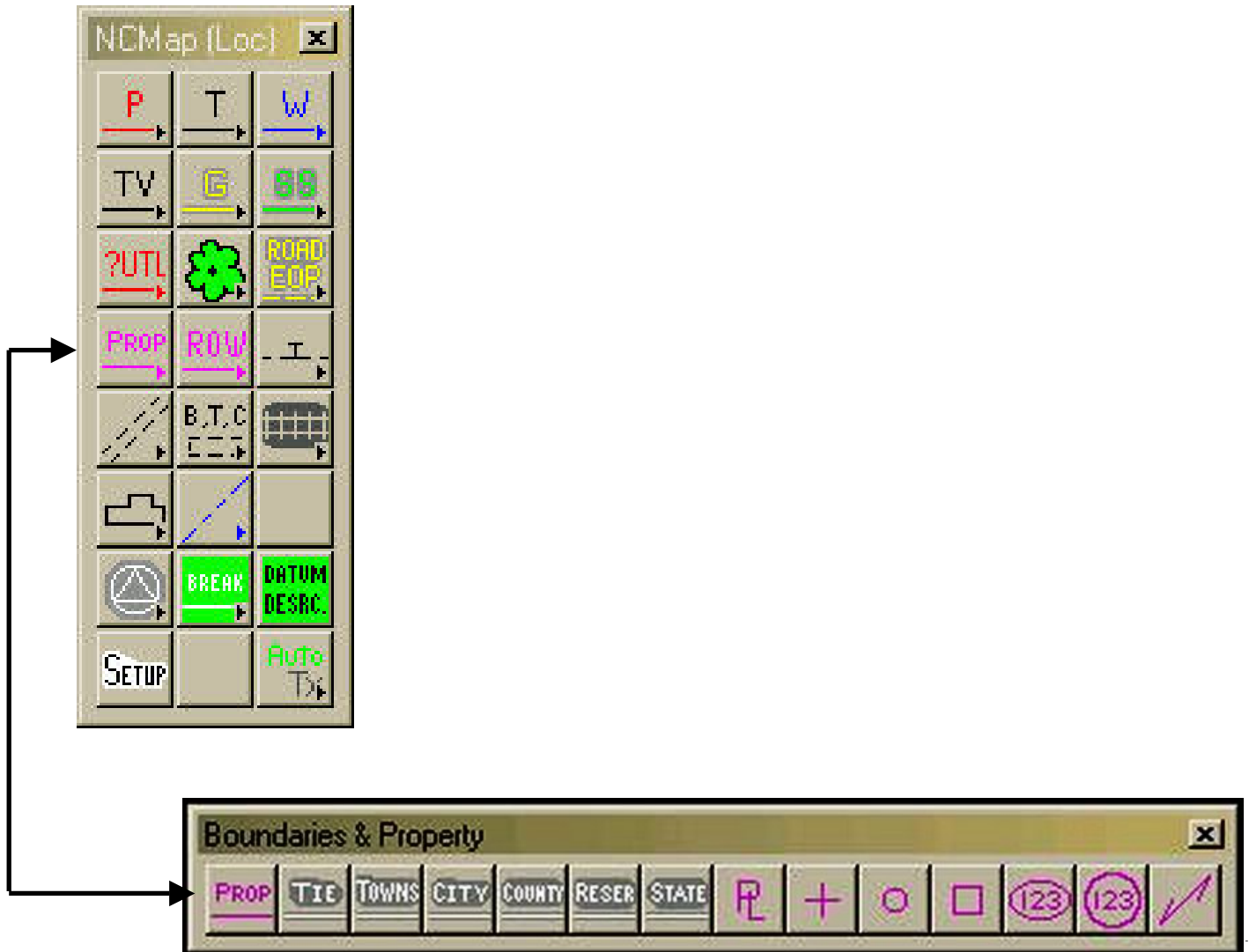
These specifications deal with the compilation and classification of large-scale mapping (1" = 20' and 1" = 50'). At these scales, maps are used to make base plan sheets for final design. It is important that all concerned thoroughly understand the requirements for mapping at these scales.

Maps at these scales, made by or for the NCDOT, will conform to the accuracy standards as prepared by the Photogrammetry for Highways Subcommittee of the American Society for Photogrammetry and Remote Sensing. There will be no deviation from the above specifications unless it is a requirement on special projects.

### **Topography Specifications**

This section deals with the compilation and classification of small-scale mapping (1" = 100' and 1" = 200'). At these scales, maps are used to make preliminary design. It is important that all concerned thoroughly understand the requirements for mapping at these scales. This section is in two parts.

# Boundary and Property



# NCDOT Mapping Manual

## Boundary City Limits

**Description:**

The lines that denote City Limits. Where two or more boundaries coincide, the symbol of the higher ranking boundary is shown. (State, County, City, Town and Reservation.)

**Cadd Parameters**



Feature Code: 3728  
Style: **ByLevel** ncmmap Bdy Cit  
Color: **ByLevel** 0 (white) Cell Name: Boundary City Limits  
Weight: **ByLevel** 1 Level Name: Exist Boundary City Limits

**Plan** Plot limits as indicated on photo enlargements or other sources.  
**Collect:**

[Topo](#) From municiple data if available.  
[Collect:](#)

**Plan** Label with name.  
**Classify:**

[Topo](#) Label with name.  
[Classify:](#)

**Plotting**  
**Example:**



## Boundary County Line

**Description:**

The lines that denote County Lines. Where two or more boundaries coincide, the symbol of the higher ranking boundary is shown. (State, County, City, Town and Reservation.)

**Cadd Parameters**



Feature Code: 3726  
Style: **ByLevel** ncmmap Bdy Cou  
Color: **ByLevel** 0 (white) Cell Name: Boundary County Line  
Weight: **ByLevel** 1 Level Name: Exist Boundary County Line

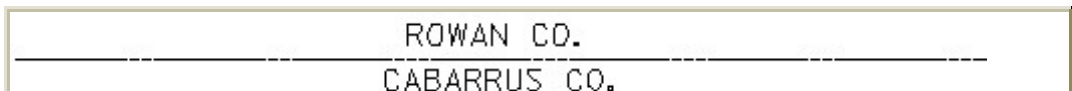
**Plan** Plot limits as indicated on photo enlargements or other sources.  
**Collect:**

[Topo](#) From municiple data if available.  
[Collect:](#)

**Plan** Label with name.  
**Classify:**

[Topo](#) Label with name.  
[Classify:](#)

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Boundary Reservation

**Description:**

The lines that denote Reservation boundary. Where two or more boundaries coincide, the symbol of the higher ranking boundary is shown. (State, County, City, Town and Reservation.)

**Cadd Parameters**



Feature Code: 3729  
Style: **ByLevel** ncmmap Bdy Res  
Color: **ByLevel** 0 (white) Cell Name: Boundary Reservation  
Weight: **ByLevel** 1 Level Name: Exist Boundary Reservation

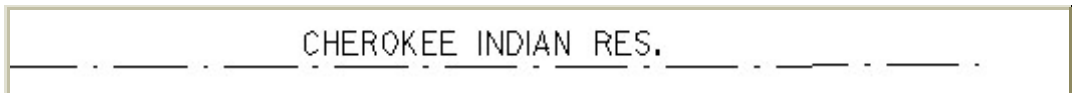
**Plan** Plot limits as indicated on photo enlargements or other sources.  
**Collect:**

[Topo](#) From municiple data if available.  
[Collect:](#)

**Plan** Label with name.  
**Classify:**

[Topo](#) Label with name.  
[Classify:](#)

**Plotting**  
**Example:**



## Boundary State Line

**Description:**

The lines that denote State Line. Where two or more boundaries coincide, the symbol of the higher ranking boundary is shown. (State, County, City, Town and Reservation.)

**Cadd Parameters**



Feature Code: 3725  
Style: **ByLevel** ncmmap Bdy Sta  
Color: **ByLevel** 0 (white) Cell Name: Boundary State Line  
Weight: **ByLevel** 4 Level Name: Exist Boundary State Line

**Plan** Plot limits as indicated on photo enlargements or other sources.  
**Collect:**

[Topo](#) From municiple data if available.  
[Collect:](#)

**Plan** Label with name.  
**Classify:**

[Topo](#) Label with name.  
[Classify:](#)

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Boundary Township Line

**Description:**

The lines that denote Township Line. Where two or more boundaries coincide, the symbol of the higher ranking boundary is shown. (State, County, City, Town and Reservation.)

**Cadd Parameters**



Feature Code: 3727  
Style: **ByLevel** ncmmap Bdy Twn  
Color: **ByLevel** 0 (white) Cell Name: Boundary Township Line  
Weight: **ByLevel** 1 Level Name: Exist Boundary Township Line

**Plan** Plot limits as indicated on photo enlargements or other sources.  
**Collect:**

Topo *From municiple data if available.*  
Collect:

**Plan** Label with name.  
**Classify:**

Topo *Label with name.*  
Classify:

**Plotting**  
**Example:**



## Property Corner

**Description:**

The corner of a parcel of land.

**Cadd Parameters**



Feature Code: 3708  
Style: **ByLevel** 0  
Color: **ByLevel** 5 (purple) Cell Name: Property Corner  
Weight: **ByLevel** 2 Level Name: Exist Property Corner CELL

**Plan** Reference file.  
**Collect:**

Topo *This feature not shown in topo.*  
Collect:

**Plan** Reference file.  
**Classify:**

Topo *This feature not shown in topo.*  
Classify:

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Property Iron Pin

**Description:**

An iron stake placed in the ground to indicate a point along the boundary of a parcel.

**Cadd Parameters**



Feature Code: 3701  
 Style: **ByLevel** 0  
 Color: **ByLevel** 5 (purple) Cell Name: Property Iron Pin  
 Weight: **ByLevel** 1 Level Name: Exist Property Iron Pin CELL

Plan Reference file.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan Reference file.  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## Property Line

**Description:**

A line that denotes the ownership boundaries of land. Property data is provided by municipalities. When property line is coincident with walls, fences, single line streams or shorelines, place the property line symbol on the feature. When a property is the center of a double-line feature, the property is designated with property line only, and without the property line symbol. Lines should be adjusted so they do not go through buildings.

**Cadd Parameters**



Feature Code: 3721  
 Style: **ByLevel** ncmmap Bdy PL  
 Color: **ByLevel** 5 (purple) Cell Name: Property Line  
 Weight: **ByLevel** 3 Level Name: Exist Property Line

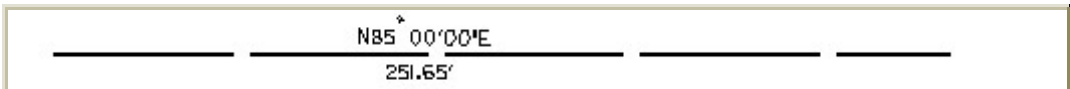
Plan Reference file. Any parcel that has a portion within the mapped area should be shown in its entirety within reason.  
Collect:

Topo *Reference file. Any parcel that has a portion within the mapped area should be shown in its entirety within reason.*  
Collect:

Plan Property ties for L & S.  
Classify:

Topo *No bearings and distances shown.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Property Monument

**Description:**

A property corner indicated by a concrete monument.

**Cadd Parameters**



Feature Code: 3702

Style: **ByLevel** 0

Color: **ByLevel** 5 (purple)

Weight: **ByLevel** 1

Cell Name: Property Monument

Level Name: Exist Property Monument CELL

Plan Reference file.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan Reference file.

Classify:

Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



## Property Owner Number

**Description:**

A number used in a parcel which identifies the owner when space is not available in the parcel for the owner's name (Location and Surveys). Cross reference with a listing on the base plan sheet.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 5 (purple)

Weight: **ByLevel** 3

Cell Name: Property Owner Number

Level Name: Exist Property Owner Number CELL

Plan Reference file.

Collect:

Topo *This feature not shown in topo. See similar Topo feature.*

Collect:

Plan Reference file.

Classify:

Topo *This feature not shown in topo. See similar Topo feature.*

Classify:

Plotting  
Example:





# NCDOT Mapping Manual

## Property Owner Number Topo

**Description:**

A number used in a parcel which identifies the owner when space is not available in the parcel for the owner's name (Photogrammetry). Cross reference with a listing on the base plan sheet. The listing is placed in columns above the planimetric data. Columns should not contain more than 100 names.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 5 (purple) Cell Name: Property Owner Number Topo  
 Weight: **ByLevel** 3 Level Name: Exist Property Owner Number Topo CELL

Plan Reference file.  
Collect:

Topo *May be reduces to 75% or leader lined to parcel.*  
Collect:

Plan Reference file.  
Classify:

Topo N/A  
Classify:

Plotting  
Example:



## Property PL Symbol

**Description:**

A symbol used on a planimetric features which identifies the property line between two parcels of land, or property line between a parcel of land and the street.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 5 (purple) Cell Name: Property PL Symbol  
 Weight: **ByLevel** 2 Level Name: Exist Property PL Symbol CELL

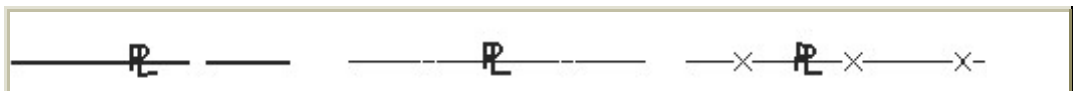
Plan Reference file.  
Collect:

Topo *Placed on fences, streams or walls that are coincident with property lines. Property lines should be removed allowing feature to act as boundary.*  
Collect:

Plan Reference file.  
Classify:

Topo *Same as Plan Sheet*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Property Same Owner Line

**Description:**

A line used to show same ownership across multiple parcels; only across right of ways or adjoining parcels.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 5 (purple) Cell Name: Property Same Owner Line  
 Weight: **ByLevel** 1 Level Name: Exist Property Same Owner Line CELL

Plan Collect: Reference file.

Topo Collect: *Placed by NCMAP*

Plan Classify: Reference file. Same Owner line should be perpendicular to the line it crosses and should be trimmed from the Right of Way.

Topo Classify: *Same as Plan sheet*

Plotting Example:



## Property Tie Line

**Description:**

A line that connects a property corner with the surveyed alignment.

**Cadd Parameters**



Feature Code: 3730  
 Style: **ByLevel** 3  
 Color: **ByLevel** 0 (white) Cell Name: Property Tie Line  
 Weight: **ByLevel** 1 Level Name: Exist Property Tie Line

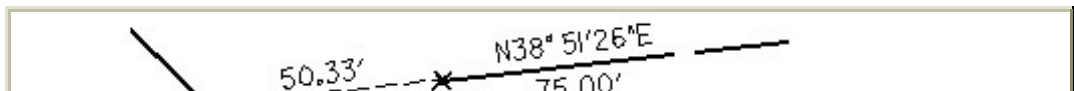
Plan Collect: Placed by NCMAP. This data typically arrives in Photogrammetry as a reference file.

Topo Collect: *This feature not shown in topo.*

Plan Classify: N/A.

Topo Classify: *This feature not shown in topo.*

Plotting Example:



# Building and Other Culture



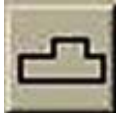
# NCDOT Mapping Manual

## Building

**Description:**

Any structure, barn, business, dwelling, garage, house, shed, house trailer, school, wall or church.

**Cadd Parameters**



Feature Code: 3401  
Style: **ByLevel** 0  
Color: **ByLevel** 6 (orange) Cell Name: Building  
Weight: **ByLevel** 3 Level Name: Exist Building

**Plan** Plot to scale.  
**Collect:**

**Topo** *Building-Same as Plan collect. Walls-Plot centerline of wall 0.5 inches or longer at plot scale. Docks- Plot to scale*  
**Collect:**

**Plan** Identify all dwellings, businesses, trailers, public use facilities, etc.. Label type, material, and usage  
**Classify:** according to the Building Code and Classification chart in Appendix B. Schools and churches each have a unique symbol to be used in conjunction with the building outline, give name if available. Label height in "inches" unless greater than 99". then label in feet.

**Topo** *Building-Label type and material, according to the Building code and Classification chart in Appendix B.*  
**Classify:** *Schools and churches each have a unique symbol to be used in conjunction with building outline, give name if available. Walls- Label as "WALL". Dock- Label as "DOCK"*

**Plotting Example:**



## Building Foundations

**Description:**

The sub-structure on which a building is supported.

**Cadd Parameters**



Feature Code: 3402  
Style: **ByLevel** ncmmap Fou  
Color: **ByLevel** 6 (orange) Cell Name: Building Foundations  
Weight: **ByLevel** 3 Level Name: Exist Building Foundations

**Plan** Plot outline to scale.  
**Collect:**

**Topo** *Plot outline to scale.*  
**Collect:**

**Plan** Label as "FOUND".  
**Classify:**

**Topo** *Label as "FOUND" or "Ruins".*  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Building Metal Canopy

**Description:**

A metal structure which serves as a cover from direct exposure to the weather, but is not an enclosed structure.

**Cadd Parameters**



Feature Code: 3403  
Style: **ByLevel** 0  
Color: **ByLevel** 6 (orange)      Cell Name: Building Metal Canopy  
Weight: **ByLevel** 2      Level Name: Exist Building Metal Canopy

Plan      Plot to scale.  
Collect:

Topo      *Plot to scale. For Topo mapping this may be used for metal or wood canopy.*  
Collect:

Plan      Label.  
Classify:

Topo      *Label as "CAN".*  
Classify:

Plotting  
Example:



## Building Paved Walk Topo

**Description:**

Sidewalks that have a distinct pattern as in parks, cemeteries, etc.

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 2  
Color: **ByLevel** 6      Cell Name: Building Paved Walk Topo  
Weight: **ByLevel** 1      Level Name: Exist Building Paved Walk Topo

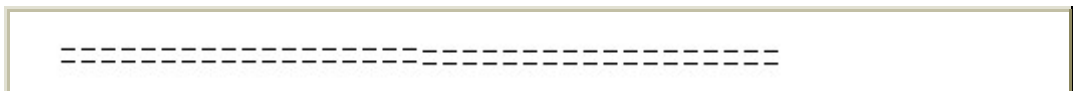
Plan      Not used in Plan Sheets.  
Collect:

Topo      *Plot to scale. (Sidewalks that are parallel to road or from the street to the building should not be shown.)*  
Collect:

Plan      Not used in Plan Sheets.  
Classify:

Topo      *Show pattern.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Other Culture AG Tank

**Description:**

A large, above ground container for holding or storing fluids or gases.

**Cadd Parameters**



Feature Code: 3423  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture AG Tank  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture AG Tank

**Plan** Plot permanent bulk storage tanks above ground to scale. Do not plot small service tanks.

**Collect:**

*Topo* Plot permanent bulk storage tanks above ground to scale. Do not plot small service tanks.

*Collect:*

**Plan** Identify contents and ownership.

**Classify:**

*Topo* Identify contents and ownership.

*Classify:*

**Plotting**  
**Example:**



## Other Culture Anchor (Guy Wire)

**Description:**

Used to denote the anchoring point on the ground where a pole's guy wire is located.

**Cadd Parameters**

Feature Code: 3508  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red) Cell Name: Other Culture Anchor (Guy Wire)  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Anchor (Guy Wire) CELL

**Plan**  
**Collect:**

*Topo* This feature not shown in topo.

*Collect:*

**Plan**  
**Classify:**

*Topo* This feature not shown in topo.

*Classify:*

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Other Culture Area Outline

**Description:**

Used to denote large areas of specific use. These areas may contain roads, buildings, and other features within the outline. When an area outline is coincident with another feature, such as property line or woods line, the area outline will not be shown. Some examples are: areas U/G, airfields, cemetery, fairgrounds, golf courses, landscape timbers, parks (amusement, Ball, Public), (Treatment, Industry) plants, quarry, rip rap, stadium, walkways.

**Cadd Parameters**



Feature Code: 3405, 3406, 340  
 Style: **ByLevel** ncmmap Are Out  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Area Outline  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Area Outline

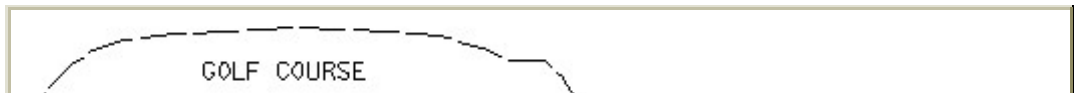
**Plan** Plot outlines where appropriate. (Note: Sidewalks parallel to roads and are within road R/W. [see 'Roads' section]. All other Walkways come from this section.) See "Bookmarks" located in this document for various context examples.  
**Collect:**

**Topo** *Plot outlines where appropriate.*  
**Collect:**

**Plan** Label area. Give usage and/or name.  
**Classify:**

**Topo** *Label area as to usage and/or name.*  
**Classify:**

**Plotting Example:**



## Other Culture ATM

**Description:**

Used to denoted Automatic Teller Machines.

**Cadd Parameters**



Feature Code: 3412  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture ATM  
 Weight: **ByLevel** 3 Level Name: Exist Other Culture ATM CELL

**Plan** Plot outline of machine or structure.  
**Collect:**

**Topo** *Plot outline of machine or structure. Automatically labeled with "\$" in NCMAP menu.*  
**Collect:**

**Plan** Label and show outline.  
**Classify:**

**Topo** *Label and show outline.*  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Other Culture Billboard Cableway

**Description:**

A suspended cable between elevated supports which constitutes a track along which carriers can be pulled.

**Cadd Parameters**



Feature Code: 3441  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Billboard Cableway  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Billboard Cableway

**Plan** Plot correct alignment with no restriction on minimum length.

**Collect:**

*Topo* Plot correct alignment with no restriction on minimum length.

*Collect:*

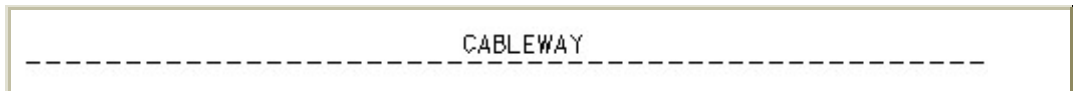
**Plan** Label as "CABLEWAY", "CONVEYOR BELT", or "SKI LIFT".

**Classify:**

*Topo* Label as "CABLEWAY", "CONVEYOR BELT", or "SKI LIFT".

*Classify:*

**Plotting Example:**



## Other Culture Church or Cemetery

**Description:**

A building for worship / burial grounds

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Church or Cemetery  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Church or Cemetery CELL

**Plan** Plot on appropriate features. Position symbol on back of church building away from road. Plot churches and cemeteries to scale.

**Collect:**

*Topo* Plot in the center of cemeteries. Position symbol on back of church building away from road. Plot churches and cemeteries to scale.

*Collect:*

**Plan** Name if given.

**Classify:**

*Topo* Label "CEM" and name if given.

*Classify:*

**Plotting Example:**





# NCDOT Mapping Manual

## Other Culture Dam

**Description:**

A barrier constructed across stream or river to control the flow of, or raise the level of water. Constructed of earth or masonry material. Some dams carry roads across their tops.

**Cadd Parameters**



Feature Code: 3432  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Dam  
 Weight: **ByLevel** 4 Level Name: Exist Other Culture Dam

**Plan Collect:** Plot both top edges of major dams (City reservoir, flood control, hydroelectric, etc. ) or dams that carry roads. Plot centerline of dam for all non-major dams.

**Topo Collect:** *Plot both top edges of major dams (City reservoir, flood control, hydroelectric, etc. ) or dams that carry roads. Plot centerline of dam for all non-major dams.*

**Plan Classify:** Give material type of major dams only.

**Topo Classify:** *Label as DAM. Give material type of major dams only.*

**Plotting Example:**



## Other Culture Fence Line

**Description:**

A structure of wood, posts, wire, or boards that serves as an enclosure or boundary.

**Cadd Parameters**



Feature Code: 3410  
 Style: **ByLevel** ncmmap Fen  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Fence Line  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Fence Line

**Plan Collect:** Plot all fences. Show approximate alignment in wooded areas when fence line is not visible on photography.

**Topo Collect:** *Plot fences that are 0.5 inches or greater in length at plotting scale. Do not plot fences within the right of way. See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.*

**Plan Classify:** Label all fences as to height and type. For barbed wire and electric fences give number of strands and type only. Label height in "inches" unless greater than 99", then label in feet.

**Topo Classify:** *None. (Symbol will denote classification)*

**Plotting Example:**



# NCDOT Mapping Manual

## Other Culture Gas Pump Island

**Description:**

A raised, typically concrete, platform on which fuel pumps reside.

**Cadd Parameters**



Feature Code: 3421  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Gas Pump Island  
 Weight: **ByLevel** 3 Level Name: Exist Other Culture Gas Pump Island

**Plan** Plot to scale.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Label material and number of fuel pumps.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Other Culture Gas Pump or Vent

**Description:**

A fuel pump is a device used to pump fuel out of an underground storage tank. Vent caps cover vents which provide ventilation for underground storage tanks, and tank caps cover accessible refill entries to underground storage tanks.

**Cadd Parameters**



Feature Code: 3422  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Gas Pump or Vent  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Gas Pump or Vent CELL

**Plan** Plot center of feature.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Label the number of pumps. Label a vent cap as “VENT CAP” and a tank cap as “TANK CAP”. If more  
**Classify:** than one vent cap or tank cap exists in a nearby area, label as “VENT CAPS” or “TANK CAPS”.

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Other Culture Gate

**Description:**

A device used to gain access to a fenced area.

**Cadd Parameters**



Feature Code: 3411  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Gate  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Gate

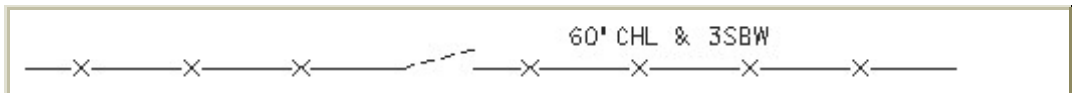
**Plan** Plot to scale at an angle of 30 degrees from the fence alignment.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** None.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting Example:**



## Other Culture Lighthouse

**Description:**

A tall structure topped by a powerful light to aid marine navigation.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Lighthouse  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Lighthouse CELL

**Plan** Plot these structures to scale. Place symbol in middle.  
**Collect:**

**Topo** *Plot these structures to scale. Place symbol in middle.*  
**Collect:**

**Plan** Label.  
**Classify:**

**Topo** *Label.*  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Other Culture Located Object

**Description:**

Used to denote a variety of map features including flagpoles, stacks, antennas, and beacons.

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	Other Culture Located Object
Style:	ByLevel 0	Level Name:	Exist Other Culture Located Object CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

**Plan** Plot and label these features.

**Collect:**

*Topo Plot center. Do not use to collect signs or billboards.*

*Collect:*

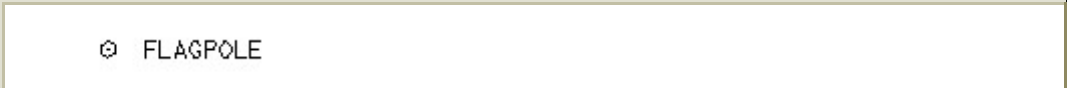
**Plan** Identify.

**Classify:**

*Topo Identify.*

*Classify:*

**Plotting Example:**



## Other Culture Panel

**Description:**

Used to denote placement of aerial panel

**Cadd Parameters**

Feature Code:	3902	Cell Name:	Other Culture Panel
Style:	ByLevel 0	Level Name:	Exist Other Culture Panel CELL
Color:	ByLevel 0 (white)		
Weight:	ByLevel 1		

**Plan** Plot surveyed location.

**Collect:**

*Topo This feature not shown in topo.*

*Collect:*

**Plan**

**Classify:**

*Topo This feature not shown in topo.*

*Classify:*

**Plotting Example:**



# NCDOT Mapping Manual

## Other Culture School Flag

**Description:**

Symbol used to distinguish the main school administration structure from other structures.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture School Flag  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture School Flag CELL

**Plan Collect:** Plot on appropriate structures. Position symbol on schools at the back of school building away from the road.

**Topo Collect:** *Plot on appropriate structures. Position symbol on the outside of the schools at the back of school building away from road, perpendicular to the building.*

**Plan Classify:** Name if given.

**Topo Classify:** *Name if given.*

**Plotting Example:**



## Other Culture Sign

**Description:**

Usually located along highways or near businesses for advertising and/or informational purposes.

**Cadd Parameters**



Feature Code: 3440  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Other Culture Sign  
 Weight: **ByLevel** 1 Level Name: Exist Other Culture Sign CELL

**Plan Collect:** Plot base of sign on pole or post and plot centerline of billboard. Omit all reflector and traffic regulatory signs except for large signs as on interstate-type highways.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Label as "S".

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Other Culture Small Mine

**Description:**

An excavation into the earth from which ore or minerals can be removed.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Other Culture Small Mine  
 Level Name: Exist Other Culture Small Mine CELL

**Plan** Plot symbol at mine entrance.  
**Collect:**

**Topo** *Plot center.*  
**Collect:**

**Plan** Give ownership and/or name of the mine.  
**Classify:**

**Topo** *Label*  
**Classify:**

**Plotting**  
**Example:**



## Other Culture UG Tank

**Description:**

A large, below ground container for holding or storing fluids or gases.

**Cadd Parameters**



Feature Code: 3420  
 Style: **ByLevel** ncmmap Tnk U/G  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Other Culture UG Tank  
 Level Name: Exist Other Culture UG Tank

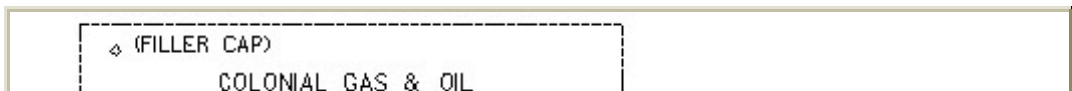
**Plan** Plot underground bulk storage tank outlines as provided by field classification  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Identify contents and ownership. Give approximate outline for underground tanks, and their capacity.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Other Culture Well

**Description:**

A hole dug into the earth in order to obtain water, oil, gas, etc . May be located inside a building or other structure.

**Cadd Parameters**



Feature Code: 3430  
Style: **ByLevel** 0  
Color: **ByLevel** 6 (orange) Cell Name: Other Culture Well  
Weight: **ByLevel** 1 Level Name: Exist Other Culture Well CELL

**Plan** Plot center of well, plot to scale if larger than symbol.

**Collect:**

Topo See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.

Collect:

**Plan** Label as "W".

**Classify:**

Topo N/A

Classify:

**Plotting Example:**



# Control





# NCDOT Mapping Manual

## CTL Bench Mark

**Description:**

A vertical control point, either permanent or temporary.

**Cadd Parameters**



Feature Code: 4021

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 2

Cell Name: CTL Bench Mark

Level Name: CTL Bench Mark CELL

**Plan** Plot at correct coordinate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## CTL County Line Monument

**Description:**

A County Line indicated by some form of field monumentation.

**Cadd Parameters**



Feature Code: 4024

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL County Line Monument

Level Name: CTL County Line Monument CELL

**Plan** Reference file.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Reference file.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## CTL GPS Horizontal

**Description:**

Horizontal GPS (Global Position System control station).

**Cadd Parameters**



Feature Code: 4016

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL GPS Horizontal

Level Name: CTL GPS Horizontal CELL

**Plan** Plot at correct coordinate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## CTL GPS Vertical

**Description:**

Vertical GPS (Global Position System control station).

**Cadd Parameters**



Feature Code: 4017

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL GPS Vertical

Level Name: CTL GPS Vertical CELL

**Plan** Plot at appropriate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## CTL HARN Monument

**Description:**

High Accurate Reference Network monument

**Cadd Parameters**



Feature Code: 4023

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL HARN Monument

Level Name: CTL HARN Monument CELL

Plan Plot at correct coordinate location.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan  
Classify:

Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



## CTL NCGS Horizontal

**Description:**

Horizontal monument NCGS (North Carolina Geodetic Survey).

**Cadd Parameters**



Feature Code: 4011

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL NCGS Horizontal

Level Name: CTL NCGS Horizontal CELL

Plan Plot at correct coordinate location.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan Monument name.  
Classify:

Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## CTL NCGS Horizontal and Vertical

**Description:**

Horizontal and Vertical monument NCGS (North Carolina Geodetic Survey)

**Cadd Parameters**



Feature Code: 4015

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL NCGS Horizontal and Vertical

Level Name: CTL NCGS Horizontal and Vertical CELL

**Plan** Plot at correct coordinate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Monument name.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## CTL NCGS Vertical

**Description:**

Vertical monument NCGS (North Carolina Geodetic Survey).

**Cadd Parameters**



Feature Code: 4013

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL NCGS Vertical

Level Name: CTL NCGS Vertical CELL

**Plan** Plot at appropriate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Monument name.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## CTL NGS Horizontal

**Description:**

Horizontal monument NGS (National Geodetic Survey).

**Cadd Parameters**



Feature Code: 4010

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL NGS Horizontal

Level Name: CTL NGS Horizontal CELL

**Plan** Plot at correct coordinate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Monument name.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## CTL NGS Horizontal and Vertical

**Description:**

Horizontal & Vertical monument NGS (National Geodetic Survey).

**Cadd Parameters**



Feature Code: 4014

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL NGS Horizontal and Vertical

Level Name: CTL NGS Horizontal and Vertical CELL

**Plan** Plot at correct coordinate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Monument name.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## CTL NGS Vertical

**Description:**

Vertical monument NGS (National Geodetic Survey).

**Cadd Parameters**



Feature Code: 4012  
Style: **ByLevel** 0  
Color: **ByLevel** 0 (white)  
Weight: **ByLevel** 1

Cell Name: CTL NGS Vertical  
Level Name: CTL NGS Vertical CELL

Plan Plot at appropriate location.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan Monument name.  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## CTL North Arrow

**Description:**

North Arrow.

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 0  
Color: **ByLevel** 0 (white)  
Weight: **ByLevel** 2

Cell Name: CTL North Arrow  
Level Name: CTL North Arrow CELL

Plan Plot at appropriate location.  
Collect:

Topo *Plot at appropriate scale, above and in the center of mapping.*  
Collect:

Plan None.  
Classify:

Topo *None.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## CTL North Arrow NAD 27

**Description:**

NAD 27 (North America Datum 1927).

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 0  
Color: **ByLevel** 0 (white)  
Weight: **ByLevel** 2

Cell Name: CTL North Arrow NAD 27  
Level Name: CTL North Arrow NAD 27 CELL

Plan Plot at appropriate location.  
Collect:

Topo *Plot at appropriate location.*  
Collect:

Plan None.  
Classify:

Topo *None.*  
Classify:

Plotting  
Example:



## CTL North Arrow NAD 83

**Description:**

NAD 83 (North America Datum 83).

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 0  
Color: **ByLevel** 0 (white)  
Weight: **ByLevel** 2

Cell Name: CTL North Arrow NAD 83  
Level Name: CTL North Arrow NAD 83 CELL

Plan Plot at appropriate location.  
Collect:

Topo *Plot at appropriate location.*  
Collect:

Plan None.  
Classify:

Topo *None.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## CTL North Arrow NAD 83 2001

**Description:**

NAD 83-2001 (North America Datum 83-2001).

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 2

Cell Name: CTL North Arrow NAD 83 2001

Level Name: CTL North Arrow NAD 83 2001 CELL

Plan Plot at appropriate location.

Collect:

Topo *Plot at appropriate location.*

Collect:

Plan None.

Classify:

Topo *None.*

Classify:

Plotting  
Example:



## CTL North Arrow NAD 83 95

**Description:**

NAD 83-95 (North America Datum 83-95).

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 2

Cell Name: CTL North Arrow NAD 83 95

Level Name: CTL North Arrow NAD 83 95 CELL

Plan Plot at appropriate location.

Collect:

Topo *Plot at appropriate location.*

Collect:

Plan None.

Classify:

Topo *None.*

Classify:

Plotting  
Example:





# NCDOT Mapping Manual

## CTL North Arrow NAD 83 NSRS

**Description:**

NAD 83-NSRS (North America Datum 83-NSRS).

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 0

Cell Name: CTL North Arrow NAD 83 NSRS

Level Name: CTL North Arrow NAD 83 NSRS CELL

**Plan** Plot at appropriate location.

**Collect:**

*Topo* Plot at appropriate location.

*Collect:*

**Plan** None.

**Classify:**

*Topo* None.

*Classify:*

**Plotting Example:**



## CTL Supplemental Horizontal

**Description:**

Local Supplemental, Horizontal control point.

**Cadd Parameters**



Feature Code: 4018

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL Supplemental Horizontal

Level Name: CTL Supplemental Horizontal CELL

**Plan** Plot at correct coordinate location.

**Collect:**

*Topo* This feature not shown in topo.

*Collect:*

**Plan** None.

**Classify:**

*Topo* This feature not shown in topo.

*Classify:*

**Plotting Example:**



# NCDOT Mapping Manual

## CTL Supplemental Horizontal and Vertical

**Description:**

Supplemental Local Horizontal and Vertical control point.

**Cadd Parameters**



Feature Code: 4020

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL Supplemental Horizontal and Vertical

Level Name: CTL Supplemental Horizontal and Vertical CELL

**Plan** Plot at correct coordinate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## CTL Supplemental Vertical

**Description:**

Local Supplemental, Vertical control point.

**Cadd Parameters**



Feature Code: 4019

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: CTL Supplemental Vertical

Level Name: CTL Supplemental Vertical CELL

**Plan** Plot at appropriate location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## Default Symbol

**Description:**

General purpose survey point for field use.

**Cadd Parameters**



Feature Code: 1

Style: **ByLevel** 0

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: Default Symbol

Level Name: Default Symbol CELL

**Plan**

**Collect:**

Consistently not shown on plot

Topo

*This feature not shown in topo.*

Collect:

**Plan**

**Classify:**

Topo

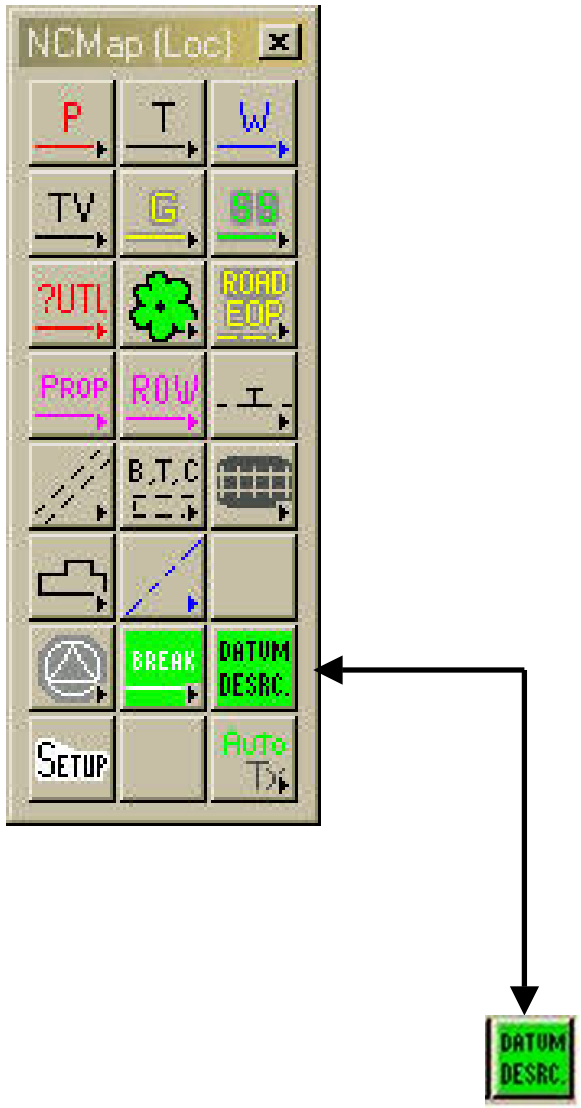
*This feature not shown in topo.*

Classify:

**Plotting Example:**



# Control Datum Description



# NCDOT Mapping Manual

## CTL Sheet Datum Description

### Description:

A graphical note denoting survey information such as datum used and localization point.

### Cadd Parameters



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 0

Weight: **ByLevel** 0

Cell Name: CTL Sheet Datum Description

Level Name: CTL Sheet Datum Description CELL

Plan Program generated

Collect:

Topo Program generated

Collect:

Plan N/A

Classify:

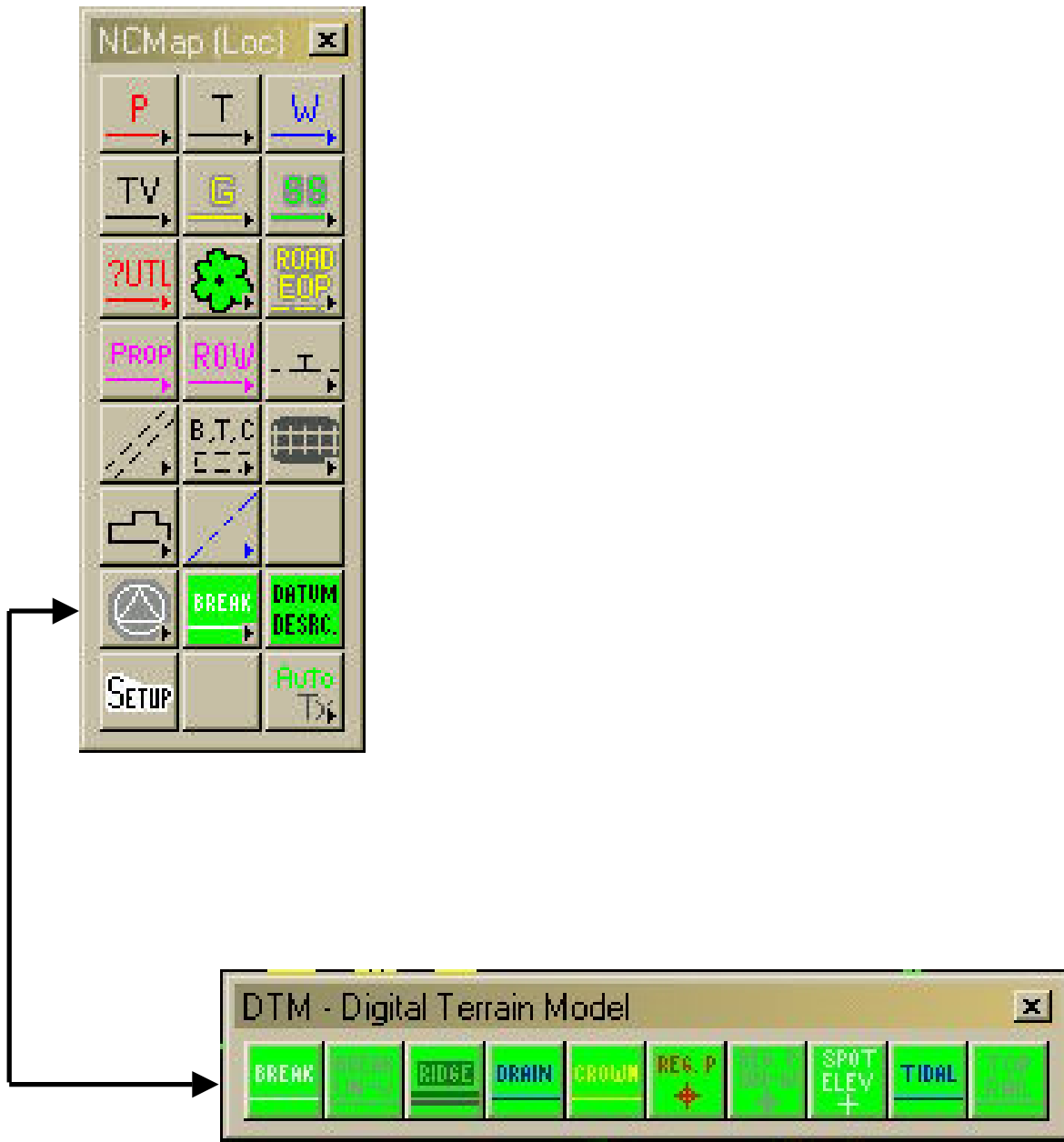
Topo N/A

Classify:

Plotting  
Example:



# Location and Surveys DTM



# NCDOT Mapping Manual

## DTM Breakline (Location and Surveys)

**Description:**

Linear element used to show extreme changes in earth surface.

**Cadd Parameters**



Feature Code: 4005

Style: **ByLevel** 3

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 0

Cell Name: DTM Breakline (Location and Surveys)

Level Name: Exist DTM Breakline

**Plan**

Plot along all majors changes in the earth surfaces such as top of bank, bottom of retaining walls, bottom of swales, etc.

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

None

**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**



## DTM Breakline Underwater (Location and Surveys)

**Description:**

Linear element used to show extreme changes in earth surface in underwater situations.

**Cadd Parameters**



Feature Code: 4007

Style: **ByLevel** 6

Color: **ByLevel** 9 (grey)

Weight: **ByLevel** 1

Cell Name: DTM Breakline Underwater (Location and Surveys)

Level Name: Exist DTM Breakline Underwater

**Plan**

Plot along all majors changes in the earth's underwater surfaces such as in streams, lakes and ponds.

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

None

**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## DTM Crownline (Location and Surveys)

**Description:**

Linear element used to show centerline crown on paved surfaces.

**Cadd Parameters**



Feature Code:	3008	Cell Name:	DTM Crownline (Location and Surveys)
Style:	ByLevel 1	Level Name:	Exist DTM Crownline
Color:	ByLevel 32 (yellow)		
Weight:	ByLevel 1		

**Plan** Plot centerline crown of paved surfaces with DOT alignments.  
**Collect:**

Topo *This feature not shown in topo.*  
Collect:

**Plan** None  
**Classify:**

Topo *This feature not shown in topo.*  
Classify:

**Plotting**  
**Example:**



## DTM Drainline (Location and Surveys)

**Description:**

Linear element used to show the drainline at bottom of curbing.

**Cadd Parameters**



Feature Code:	4003	Cell Name:	DTM Drainline (Location and Surveys)
Style:	ByLevel 0	Level Name:	Exist DTM Drainline
Color:	ByLevel 1		
Weight:	ByLevel 0		

**Plan** Plot at curb bottom.  
**Collect:**

Topo *This feature not shown in topo.*  
Collect:

**Plan** None  
**Classify:**

Topo *This feature not shown in topo.*  
Classify:

**Plotting**  
**Example:**





# NCDOT Mapping Manual

## DTM Regular Point (Location and Surveys)

**Description:**

Point element used to define gentle sloping or rolling earth surfaces.

**Cadd Parameters**



Feature Code: 4001

Style: **ByLevel** 0

Color: **ByLevel** 3 (red)

Weight: **ByLevel** 0

Cell Name: DTM Regular Point (Location and Surveys)

Level Name: Exist DTM Regular Point CELL

**Plan**

Plot within project corridor as needed to define earth surface.

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

None

**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**



## DTM Regular Point Underwater

**Description:**

Point element used to define under water sloping or rolling earth surfaces.

**Cadd Parameters**



Feature Code: 4008

Style: **ByLevel** 0

Color: **ByLevel** 9

Weight: **ByLevel** 1

Cell Name: DTM Regular Point Underwater

Level Name: Exist DTM Regular Point Underwater CELL

**Plan**

Plot with project corridor as needed to define underwater earth surface.

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

None

**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## DTM Ridgeline (Location and Surveys)

**Description:**

Linear element used to show extreme changes in earth surface along ridgelines of hills and mountains.

**Cadd Parameters**



Feature Code: 4002  
Style: **ByLevel** 0  
Color: **ByLevel** 2  
Weight: **ByLevel** 0

Cell Name: DTM Ridgeline (Location and Surveys)  
Level Name: Exist DTM Ridgeline

Plan Plot at ridgeline.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## DTM Spot Elevation (Location and Surveys)

**Description:**

Point element, plotted on a topo map, used to depict exact elevation on earth surface.

**Cadd Parameters**



Feature Code: 4000  
Style: **ByLevel** 0  
Color: **ByLevel** 0  
Weight: **ByLevel** 1

Cell Name: DTM Spot Elevation (Location and Surveys)  
Level Name: Exist DTM Spot Elevation CELL

Plan Plot in appropriate situation.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## DTM Tidal Ditch (Location and Surveys)

**Description:**

Linear element used to show ditches where water level changes with tide patterns.

**Cadd Parameters**



Feature Code: 4004  
Style: **ByLevel** 0  
Color: **ByLevel** 1  
Weight: **ByLevel** 0

Cell Name: DTM Tidal Ditch (Location and Surveys)  
Level Name: Exist DTM Tidal Ditch

Plan Plot at ditch centerline.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## DTM Top of Rail (Location and Surveys)

**Description:**

Linear element used to depict the top elevation of the rail surface on railroad tracks.

**Cadd Parameters**



Feature Code: 4006  
Style: **ByLevel** 3  
Color: **ByLevel** 7  
Weight: **ByLevel** 1

Cell Name: DTM Top of Rail (Location and Surveys)  
Level Name: Exist DTM Top of Rail

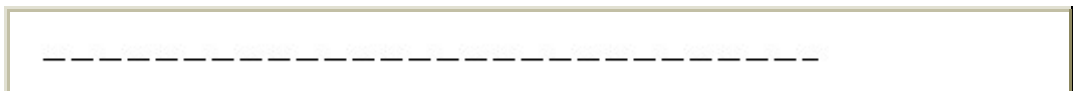
Plan Plot on all rail lines that cross or impact project alignment.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

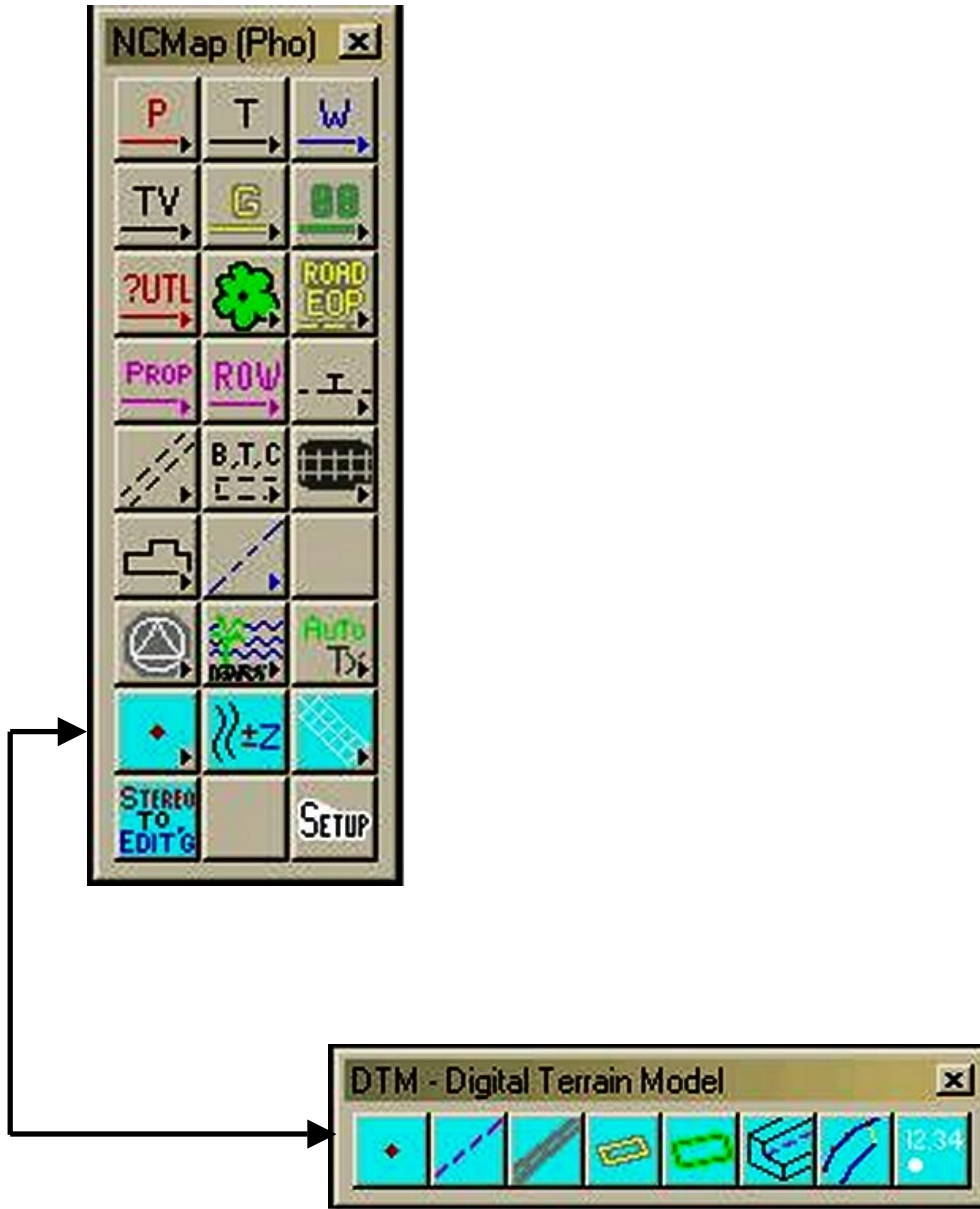
Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



# Photogrammetry DTM



# NCDOT Mapping Manual

## DTM Boundary (Photogrammetry)

**Description:**

A line delineating the digital terrain model boundary.

**Cadd Parameters**



Feature Code:	none assigned		
Style:	ByLevel	4	
Color:	ByLevel	4 (yellow)	Cell Name: DTM Boundary (Photogrammetry)
Weight:	ByLevel	2	Level Name: PH Exist DTM Boundary

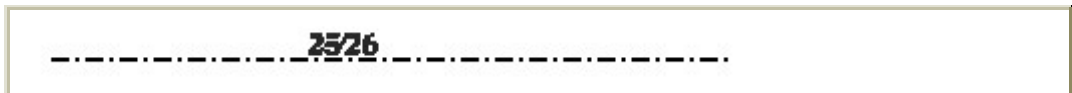
Plan Copy of plan mapping boundary or from limits shown on photos. Use neat model lines as a guide.  
Collect:

Topo *Same as Plan Collect*  
Collect:

Plan Label Model number.  
Classify:

Topo *Label Model number.*  
Classify:

Plotting  
Example:



## DTM Break Conflict Line (Photogrammetry)

**Description:**

A line delineating a discrepancy with an existing breakline.

**Cadd Parameters**



Feature Code:	none assigned		
Style:	ByLevel	2	
Color:	ByLevel	131	Cell Name: DTM Break Conflict Line (Photogrammetry)
Weight:	ByLevel	0	Level Name: PH Exist DTM Break Conflict Line

Plan Compile along a break in the earth surface.  
Collect:

Topo *N/A*  
Collect:

Plan *N/A*  
Classify:

Topo *N/A*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## DTM Breakline (Photogrammetry)

**Description:**

Linear element used to show extreme changes in earth surface during photogrammetric compilation.

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	DTM Breakline (Photogrammetry)
Style:	ByLevel 2	Level Name:	PH Exist DTM Breakline
Color:	ByLevel 5 (purple)		
Weight:	ByLevel 0		

Plan Compile along all major breaks in earth surface.  
Collect:

Topo *Compile along all major breaks in earth surface.*  
Collect:

Plan N/A  
Classify:

Topo N/A  
Classify:

Plotting  
Example:



## DTM Curb Bottom (Photogrammetry)

**Description:**

Linear element used to show the drainline at bottom of curbing during photogrammetric compilation.

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	DTM Curb Bottom (Photogrammetry)
Style:	ByLevel 2	Level Name:	PH Exist DTM Curb Bottom
Color:	ByLevel 5 (purple)		
Weight:	ByLevel 0		

Plan Program used to generate bottom of curb.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan N/A  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## DTM Obscure Area (Photogrammetry)

**Description:**

Linear element used to depict areas blocked from visual photogrammetric compilation such as deep shadows, dense foliage, overhanging rock and large structures.

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	DTM Obscure Area (Photogrammetry)
Style:	ByLevel 1	Level Name:	PH Exist DTM Obscure Area
Color:	ByLevel 2 (green)		
Weight:	ByLevel 1		

Plan Compile the outer limits of obstructions.  
Collect:

Topo *Compile the outer limits of obstructions.*  
Collect:

Plan Label "OBSURED" inside obscured area.  
Classify:

Topo *Label "OBS" inside obscured area.*  
Classify:

Plotting  
Example:



## DTM Place Stream Bed

**Description:**

NCMAP program for copying stream lines from one side to the other while maintaining elevation on each vertice.

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	DTM Place Stream Bed
Style:	ByLevel varies	Level Name:	PH Exist DTM Place Stream Bed
Color:	ByLevel varies		
Weight:	ByLevel varies		

Plan Program generated.  
Collect:

Topo *Program generated.*  
Collect:

Plan N/A  
Classify:

Topo *N/A*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## DTM Point (Photogrammetry)

**Description:**

Point element used to define gentle sloping or rolling earth surfaces during photogrammetric compilation.

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	DTM Point (Photogrammetry)
Style:	ByLevel 0	Level Name:	PH Exist DTM Point
Color:	ByLevel 3 (red)		
Weight:	ByLevel 3		

Plan Plot within project corridor as needed to define earth surface.  
Collect:

Topo *Plot within project corridor as needed to define earth surface.*  
Collect:

Plan N/A  
Classify:

Topo N/A  
Classify:

Plotting  
Example:



## DTM Spot Elevation (Photogrammetry)

**Description:**

Program to generate spot elevation symbol with text elevation value for any DTM point (mass point or breakline point).

**Cadd Parameters**



Feature Code:	none assigned	Cell Name:	DTM Spot Elevation (Photogrammetry)
Style:	ByLevel 0	Level Name:	PH Exist DTM Spot Elevation CELL
Color:	ByLevel 0 (white)		
Weight:	ByLevel 1		

Plan Program generated from DTM points.  
Collect:

Topo *Program generated from DTM points.*  
Collect:

Plan N/A  
Classify:

Topo N/A  
Classify:

Plotting  
Example:





# Photogrammetry Model



# NCDOT Mapping Manual

## Model Boundary Lines (Photogrammetry)

**Description:**

A line delineating the mapping limits within the photogrammetric neat model.

**Cadd Parameters**



Feature Code:	none assigned		
Style:	ByLevel	1	
Color:	ByLevel	0 (white)	Cell Name: Model Boundary Lines (Photogrammetry)
Weight:	ByLevel	1	Level Name: Model Boundary Lines

Plan Lines connecting fiducial marks on photos with offset limits from design centerline.  
Collect:

Topo Lines connecting fiducial marks on photos with offset limits from design centerline.  
Collect:

Plan Label Model number.  
Classify:

Topo Label Model number.  
Classify:

Plotting  
Example:



## Model Layout Flight Strip

**Description:**

NCMap program to generate model layout using known locations of the photo centers (e.g. ESP file).

**Cadd Parameters**



Feature Code:	none assigned		
Style:	ByLevel	varies	
Color:	ByLevel	varies	Cell Name: Model Layout Flight Strip
Weight:	ByLevel	2	Level Name: Model Layout Flight Strip 1

Plan Program generated.  
Collect:

Topo Program generated.  
Collect:

Plan None  
Classify:

Topo None  
Classify:

Plotting  
Example:



# Photogrammetry Parallel Distance and Elevation



# NCDOT Mapping Manual

## Parallel Distance and Elevation

**Description:**

Program to create a parallel element using a specific horizontal and vertical offset.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** varies

Color: **ByLevel** varies

Weight: **ByLevel** varies

Cell Name: Parallel Distance and Elevation

Level Name: Parallel Distance and Elevation

Plan Select original element and follow program prompts.

Collect:

Topo *Select original element and follow program prompts.*

Collect:

Plan N/A

Classify:

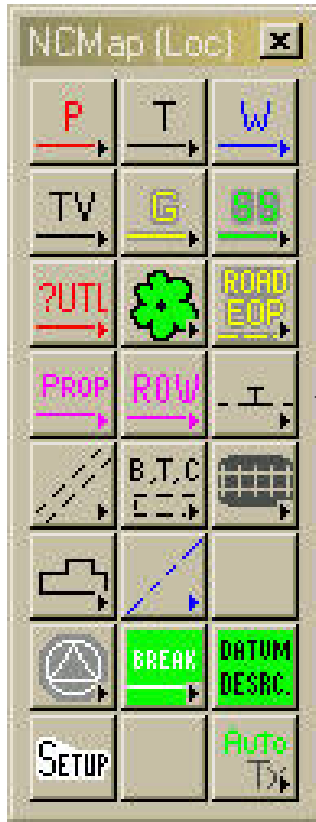
Topo N/A

Classify:

Plotting  
Example:



# Guardrail



# NCDOT Mapping Manual

## Guardrail

**Description:**

A protective barrier placed outside of travel lanes, between divided travel lanes of the roadway and a safety hazard.

**Cadd Parameters**



Feature Code: 3301  
Style: **ByLevel** ncmmap Gr Exi  
Color: **ByLevel** 6 (orange) Cell Name: Guardrail  
Weight: **ByLevel** 1 Level Name: Exist Guardrail

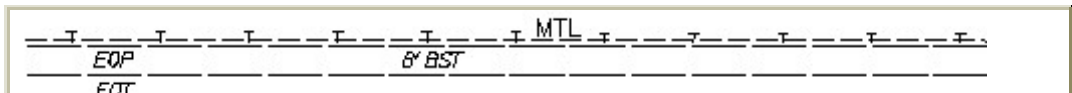
**Plan** Plot rails/cables and pattern.  
**Collect:**

[Topo](#) *This feature not shown in topo.*  
[Collect:](#)

**Plan** Label material type.  
**Classify:**

[Topo](#) *This feature not shown in topo.*  
[Classify:](#)

**Plotting Example:**



## Guardrail Cable Guide Rail

**Description:**

A protective barrier placed between travel lanes of the roadway.

**Cadd Parameters**



Feature Code: 3302  
Style: **ByLevel** ncmmap CGR Exi  
Color: **ByLevel** 6 (orange) Cell Name: Guardrail Cable Guide Rail  
Weight: **ByLevel** 1 Level Name: Exist Guardrail Cable Guide Rail

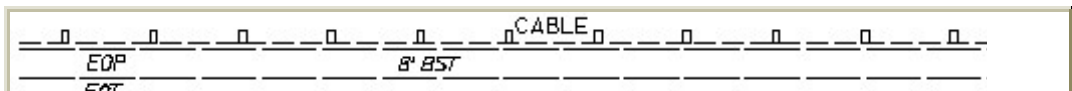
**Plan** Plot rails/cables and pattern.  
**Collect:**

[Topo](#) *This feature not shown in topo.*  
[Collect:](#)

**Plan** Label material type.  
**Classify:**

[Topo](#) *This feature not shown in topo.*  
[Classify:](#)

**Plotting Example:**



# NCDOT Mapping Manual

## Guardrail Post Topo

**Description:**

Post for a protective barrier placed outside of travel lanes, between divide travel lanes of the roadway and a safety hazard.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 6 (orange)

Weight: **ByLevel** 1

Cell Name: Guardrail Post Topo

Level Name: Exist Guardrail Post Topo CELL

Plan Plot center of post.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan none.

Classify:

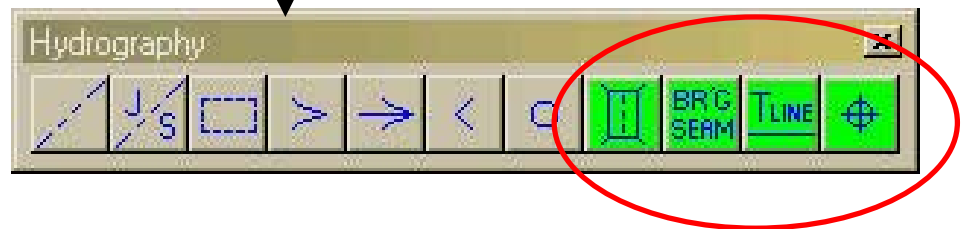
Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



# Hydrography



Location Version only



# NCDOT Mapping Manual

## Hydro Disappearing Stream

**Description:**

Use when stream goes underground or fans out into many small drains. Also use when streams disappear under vegetation and are no longer visible, but may possibly still be there.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 1 (blue)  
 Weight: **ByLevel** 1  
 Cell Name: Hydro Disappearing Stream  
 Level Name: Exist Hydro Disappearing Stream CELL

**Plan** Plot.  
**Collect:**

**Topo** Place symbol on down hill end of last definable point of stream.  
**Collect:**

**Plan** None.  
**Classify:**

**Topo** Identify.  
**Classify:**

**Plotting**  
**Example:**

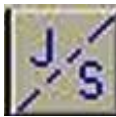


## Hydro Jurisdictional Stream or Body of Water

**Description:**

Jurisdictional boundaries of water, either moving (drainage) or still (naturally or artificially contained).

**Cadd Parameters**



Feature Code: 3621  
 Style: **ByLevel** Hyd JS  
 Color: **ByLevel** 1 (blue)  
 Weight: **ByLevel** 1  
 Cell Name: Hydro Jurisdictional Stream or Body of Water  
 Level Name: Exist Hydro Jurisdictional Stream or Body of Water

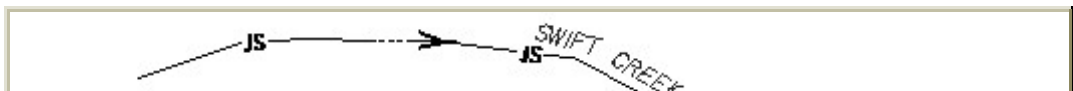
**Plan** Plot all drainage shown on the approval map or diagram. Use a single line if drainage is less than 3 feet in width. Jurisdictional status supplied by PDEA or found on official maps published by Corp of Engineers.  
**Collect:**

**Topo** N/A  
**Collect:**

**Plan** Give name when available, show direction of flow.  
**Classify:**

**Topo** N/A  
**Classify:**

**Plotting**  
**Example:**



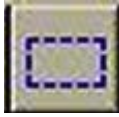
# NCDOT Mapping Manual

## Hydro Pool or Reservoir

**Description:**

A pool of water collected and stored for treatment or future use in a natural or artificial confinement. Also used for in-ground swimming pool. Do not plot above ground pools. Use Other culture Area Outline for concrete areas around in-ground pools.

**Cadd Parameters**



Feature Code: 3625  
 Style: **ByLevel** ncmmap Res  
 Color: **ByLevel** 1 (blue)  
 Weight: **ByLevel** 1  
 Cell Name: Hydro Pool or Reservoir  
 Level Name: Exist Hydro Pool or Reservoir

**Plan** Plot water outline as it appears on the photography.  
**Collect:**

*Topo* Plot water outline as it appears on the photography.  
*Collect:*

**Plan** Give usage.  
**Classify:**

*Topo* Give usage.  
*Classify:*

**Plotting**  
**Example:**



## Hydro River Flow Arrow

**Description:**

Symbol used to show direction of flow on rivers and large streams.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 1 (blue)  
 Weight: **ByLevel** 2  
 Cell Name: Hydro River Flow Arrow  
 Level Name: Exist Hydro River Flow Arrow CELL

**Plan** Place in center of river.  
**Collect:**

*Topo* Place in center of river. Flow arrows should only be used in the absence of contours.  
*Collect:*

**Plan** Indicate direction.  
**Classify:**

*Topo* Indicate direction.  
*Classify:*

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Hydro Spring

**Description:**

A natural fountain or flow of water from the ground.

**Cadd Parameters**



Feature Code: 3624  
 Style: **ByLevel** 0  
 Color: **ByLevel** 1 (blue)  
 Weight: **ByLevel** 1

Cell Name: Hydro Spring  
 Level Name: Exist Hydro Spring CELL

Plan Plot.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan Identify.  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## Hydro Stream Flow Arrow

**Description:**

Symbol used to show direction of flow on small streams and ditches.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 1 (blue)  
 Weight: **ByLevel** 2

Cell Name: Hydro Stream Flow Arrow  
 Level Name: Exist Hydro Stream Flow Arrow CELL

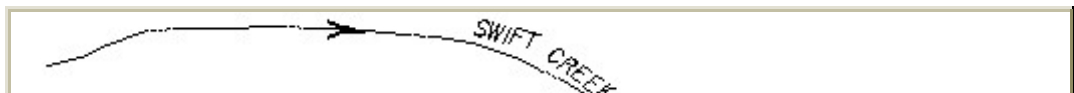
Plan Place on stream line.  
Collect:

Topo *Place on stream line. Flow arrows should only be used in the absence of contours.*  
Collect:

Plan Indicate direction.  
Classify:

Topo *Indicate direction.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Hydro Stream or Body of Water

**Description:**

Boundaries of water, either moving (drainage) or still (naturally or artificially contained) including rivers, streams, ponds, lakes, ditches, canal sounds, or ocean.

**Cadd Parameters**



Feature Code:	3620	Cell Name:	Hydro Stream or Body of Water
Style:	ByLevel ncmmap Wat	Level Name:	Exist Hydro Stream or Body of Water
Color:	ByLevel 1 (blue)		
Weight:	ByLevel 1		

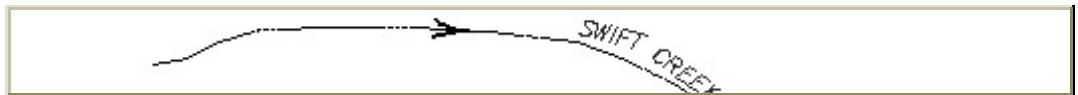
**Plan** Plot all drainage 76 feet in length or longer. Use a single line if drainage is less than 3 feet in width.  
**Collect:**

**Topo** Plot all drainage 1' in length or longer at plot scale. Use a single line if less than .05" in width at plot scale.  
**Collect:** Do not plot ditches parallel to roads. Give elevation of still water. 1:6000 photo scale or larger show elevation to nearest tenth of a foot. 1:12000 photo scale to nearest foot.

**Plan** Give name, when available, and direction of flow.  
**Classify:**

**Topo** Give name for stream or body of water when available and direction of flow.  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Structure Major Bridge Seam

**Description:**

Linear element showing seams on bridge surfaces, emphasis placed on those directly over the bridge seat area.

**Cadd Parameters**



Feature Code: 3103

Style: **ByLevel** 7

Color: **ByLevel** 0 (white)

Weight: **ByLevel** 1

Cell Name: Structure Major Bridge Seam

Level Name: Exist Structure Major Bridge Seam

**Plan**

Collect from intersection of seam with outer edge of bridge to the opposite side.

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

N/A

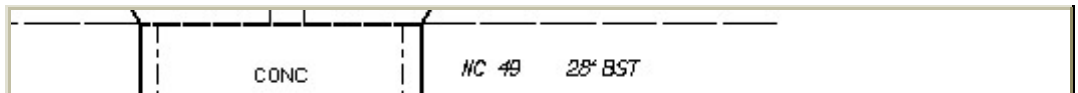
**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**

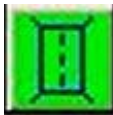


## Structure Major Deck Tunnel Box Culvert Table

**Description:**

A graphical table showing invert and clearance elevation on major box culverts crossing design alignments.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 6

Weight: **ByLevel** 1

Cell Name: Structure Major Deck Tunnel Box Culvert Table

Level Name: Exist Structure Major Deck Tunnel Box Culvert Table CELL

**Plan**

Created by NCMAP

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

N/A

**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**



# Environmental (NEU)



*There are no Buttons on Ncmap for Environmental Features. The old features located in NcMap were moved to the NEU Unit and added to the NEU toolbox shown above. The corresponding levels for these features are now located in the NEU dgnlib.*

# NCDOT Mapping Manual

## Environmental Endangered Animal Boundary (NEU)

**Description:**

Boundaries placed around sensitive areas to protect endangered wildlife from environmental harm of modernization.

**Cadd Parameters**



Feature Code: 3615

Style: **ByLevel** ncmmap EAB

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Environmental Endangered Animal Boundary (NEU)

Level Name: Exist Environmental Endangered Animal Boundary

**Plan** Plot outlines where appropriate.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Label area. Give usage and/or name. This data typically arrives in a reference file.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## Environmental Endangered Plant Boundary (NEU)

**Description:**

Boundaries placed around sensitive areas to protect endangered plantlife from environmental harm of modernization.

**Cadd Parameters**



Feature Code: 3608

Style: **ByLevel** ncmmap EPB

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Environmental Endangered Plant Boundary (NEU)

Level Name: Exist Environmental Endangered Plant Boundary

**Plan** Plot outlines where appropriate.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

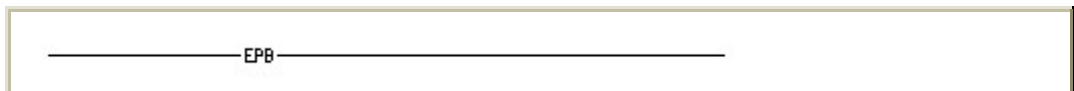
**Plan** Label area. Give usage and/or name. This data typically arrives in a reference file.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## Environmental Wetland Boundary (NEU)

**Description:**

Boundaries placed around sensitive wet land areas to protect from environmental harm of modernization.

**Cadd Parameters**



Feature Code:	3627		
Style:	ByLevel	ncmap WLB Exi	
Color:	ByLevel	1 (blue)	Cell Name: Environmental Wetland Boundary (NEU)
Weight:	ByLevel	1	Level Name: Exist Environmental Wetland Boundary

Plan Plot outlines where appropriate.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan Label area. Give usage and/or name. This data typically arrives in a reference file.  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## Hydro Jurisdictional Stream NEU Mitigable (NEU)

**Description:**

Mitigable Jurisdictional boundaries of water, either moving (drainage) or still (naturally or artificially contained).

**Cadd Parameters**



Feature Code:	3623		
Style:	ByLevel	Hyd JS NEU Mit	
Color:	ByLevel	1 (blue)	Cell Name: Hydro Jurisdictional Stream NEU Mitigable (NEU)
Weight:	ByLevel	1	Level Name: Exist Hydro Jurisdictional Stream or Body of Water NEU Mi

Plan Plot all drainage as determined by Natural Environmental Unit and supporting documents fro governmental agencies.  
Collect:

Topo  
Collect:

Plan  
Classify:

Topo  
Classify:

Plotting  
Example:





# NCDOT Mapping Manual

## Hydro Jurisdictional Stream NEU NonMitigable (NEU)

**Description:**

NonMitigable Jurisdictional boundaries of water, either moving (drainage) or still (naturally or artificially contained).

**Cadd Parameters**



Feature Code: 3626  
Style: **ByLevel** Hyd JS NEU NonMit  
Color: **ByLevel** 1 (blue) Cell Name: Hydro Jurisdictional Stream NEU NonMitigable (NEU)  
Weight: **ByLevel** 1 Level Name: Exist Hydro Jurisdictional Stream or Body of Water NEU NonMitiga

**Plan Collect:** Plot all drainage as determined by Natural Environmental Unit and supporting documents fro governmental agencies.

[Topo Collect:](#)

**Plan Classify:**

[Topo Classify:](#)

**Plotting Example:**



## Hydro Swamp or Marsh (NEU)

**Description:**

Symbol used to indicate a lowland region saturated with water.

**Cadd Parameters**



Feature Code: 3622  
Style: **ByLevel** 1  
Color: **ByLevel** 1 (blue) Cell Name: Hydro Swamp or Marsh (NEU)  
Weight: **ByLevel** 1 Level Name: Exist Hydro Swamp or Marsh CELL

**Plan Collect:** This data is now provided by outside wetland and water management agencies. See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.

[Topo Collect:](#) *This feature not shown in topo.*

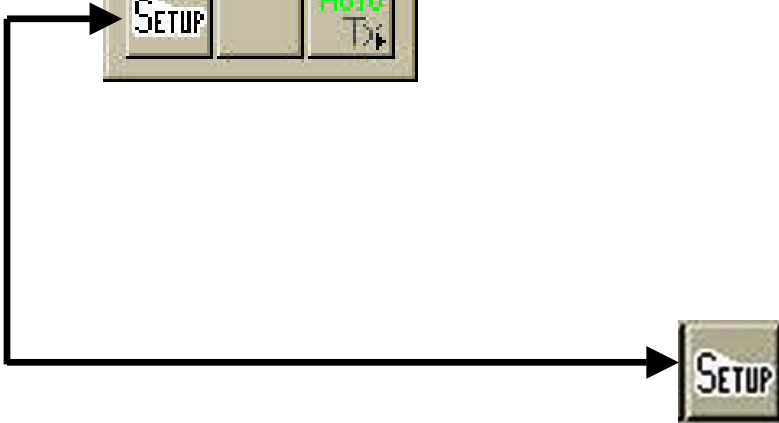
**Plan Classify:** N/A

[Topo Classify:](#) *This feature not shown in topo.*

**Plotting Example:**



# NCMap Setup



# NCDOT Mapping Manual

## NCMAP Setup

**Description:**

Program used to set desired mapping scale for NCMAP.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** varies

Color: **ByLevel** varies

Weight: **ByLevel** varies

Cell Name: NCMAP Setup

Level Name: NCMAP Setup

Plan Select appropriate scale.

Collect:

Topo *Select appropriate scale.*

Collect:

Plan N/A

Classify:

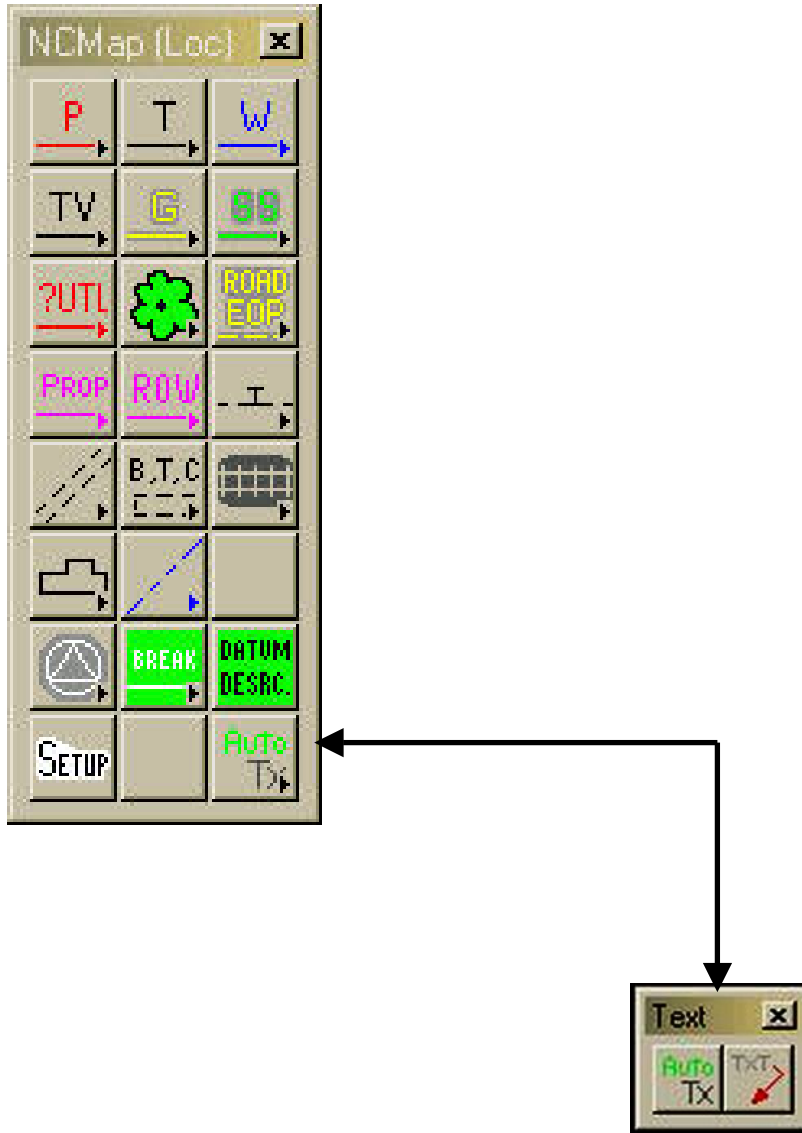
Topo N/A

Classify:

Plotting  
Example:



# NCMap Text



# NCDOT Mapping Manual

## NCMAP Auto Text

### Description:

Program used to generate text and labels along mapping features. Auto Text determines the correct level, font, and symbology for the text or label. Many elements can have different types of text labels associated with them, so the User needs to monitor the MicroStation Tool Settings dialog for prompts. An example would be Property lines, when selected and the dialog prompts for Deed Book, Bearing-Distance or Owner's name.

### Cadd Parameters



Feature Code:	none assigned	Cell Name:	NCMAP Auto Text
Style:	ByLevel varies	Level Name:	NCMAP Auto Text
Color:	ByLevel varies		
Weight:	ByLevel varies		

Plan Select mapping features and fill in required text.  
Collect:

Topo *Select mapping features and fill in required text.*  
Collect:

Plan N/A  
Classify:

Topo N/A  
Classify:

Plotting  
Example:



## NCMAP Text Leader

### Description:

Line and arrow head connecting disjointed label or text to its appropriate feature.

### Cadd Parameters



Feature Code:	none assigned	Cell Name:	NCMAP Text Leader
Style:	ByLevel varies	Level Name:	NCMAP Text Leader
Color:	ByLevel varies		
Weight:	ByLevel varies		

Plan Usually generated through Auto Text.  
Collect:

Topo *Usually generated through Auto Text.*  
Collect:

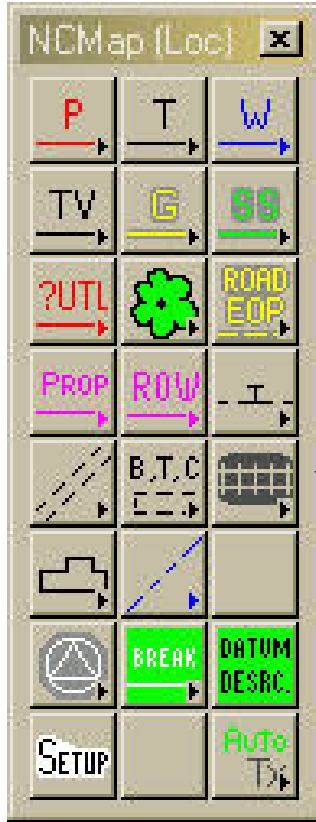
Plan N/A  
Classify:

Topo N/A  
Classify:

Plotting  
Example:



# Railroads



# NCDOT Mapping Manual

## Railroads Abandoned

**Description:**

Railroad no longer in use, but the tracks remain.

**Cadd Parameters**



Feature Code:	3030		
Style:	ByLevel	ncmap RR Aba	
Color:	ByLevel	7 (gray)	Cell Name: Railroads Abandoned
Weight:	ByLevel	1	Level Name: Exist Railroads Abandoned

**Plan** Along centerline of tracks.

**Collect:**

*Topo* Along centerline of tracks.

*Collect:*

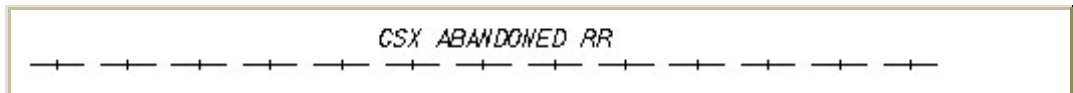
**Plan** Label as "ABANDONED RR ". Show ownership.

**Classify:**

*Topo* Label as "ABANDONED RR ". Show ownership.

*Classify:*

**Plotting Example:**



## Railroads Dismantled

**Description:**

No longer in use as a railroad. Tracks have been removed but grade has been left intact.

**Cadd Parameters**



Feature Code:	3031		
Style:	ByLevel	ncmap RR Dis	
Color:	ByLevel	7 (gray)	Cell Name: Railroads Dismantled
Weight:	ByLevel	1	Level Name: Exist Railroads Dismantled

**Plan** Plot centerline of old track bed. If classified as a road, use proper linestyle.

**Collect:**

*Topo* Plot centerline of old track bed. If classified as a road, use proper linestyle.

*Collect:*

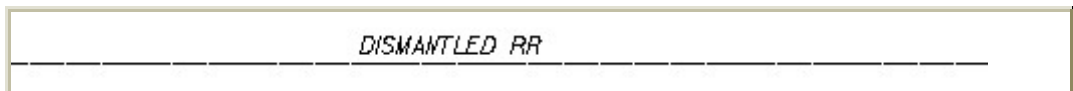
**Plan** Label as "DISMANTLED RR". If the old track bed is in use as a road, label as a road on dismantled railroad,

**Classify:** give width and material type.

*Topo* Label as "DISMANTLED RR". If the old track bed is in use as a road, label as a road on dismantled

*Classify:* railroad, give width and material type.

**Plotting Example:**



# NCDOT Mapping Manual

## Railroads Signal Milepost

**Description:**

A pole that indicates either a railroad crossing or mileage along the railway.

**Cadd Parameters**



Feature Code: 3021  
Style: **ByLevel** 0  
Color: **ByLevel** 7 (gray) Cell Name: Railroads Signal Milepost  
Weight: **ByLevel** 1 Level Name: Exist Railroads Signal Milepost CELL

Plan Plot.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan Label as "RR SIG" or "MP #".  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:

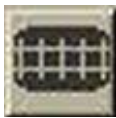


## Railroads Standard Gauge

**Description:**

An engineered facility consisting of parallel steel tracks, supported by ties, which provide for locomotive-drawn trains. A standard gauge railroad is 4 ft. 8.5 in (1.435 m) from the inside edge of the rails. Railroad may be abbreviated as "RR".

**Cadd Parameters**



Feature Code: 3020  
Style: **ByLevel** ncmmap RR Gau Std  
Color: **ByLevel** 7 (gray) Cell Name: Railroads Standard Gauge  
Weight: **ByLevel** 1 Level Name: Exist Railroads Standard Gauge

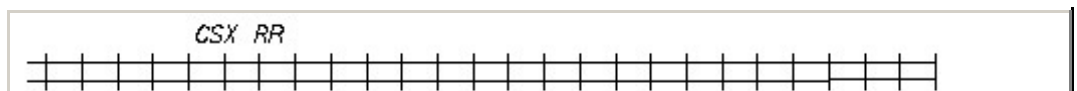
Plan Along centerline of track.  
Collect:

Topo *This features uses this linestyle for mapping scales below 100' = 1". Larger scales use the Standard Gauge*  
Collect: *Topo feature.*

Plan Give ownership, label if narrow gauge.  
Classify:

Topo *This feature not shown in topo. Use similar Topo feature.*  
Classify:

Plotting  
Example:





# NCDOT Mapping Manual

## Railroads Standard Gauge Topo

**Description:**

An engineered facility consisting of parallel steel tracks, supported by ties, which provide for locomotive-drawn trains. A standard gauge railroad is 4 ft. 8.5 in (1.435 m) from the inside edge of the rails. Railroad may be abbreviated as "RR". This symbology is for large scale topography mapping.

**Cadd Parameters**



Feature Code: 3020  
 Style: **ByLevel** ncmmap RR Gau Std 2  
 Color: **ByLevel** 7 (gray) Cell Name: Railroads Standard Gauge Topo  
 Weight: **ByLevel** 1 Level Name: Exist Railroads Standard Gauge Topo

**Plan Collect:** Not a plan sheet feature. Use similar Plan Sheet Feature.

**Topo Collect:** *Along centerline of track. This feature is used for mapping scale equal to or larger than 100" = 1". See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.*

**Plan Classify:** Not a plan sheet feature. Use similar Plan Sheet Feature.

**Topo Classify:** *Give ownership, label if narrow gauge.*

**Plotting Example:**



## Railroads Switch Box

**Description:**

A device used to redirect railroad cars from one track to another, or to signal rail traffic.

**Cadd Parameters**



Feature Code: 3022  
 Style: **ByLevel** 0  
 Color: **ByLevel** 7 (gray) Cell Name: Railroads Switch Box  
 Weight: **ByLevel** 1 Level Name: Exist Railroads Switch Box

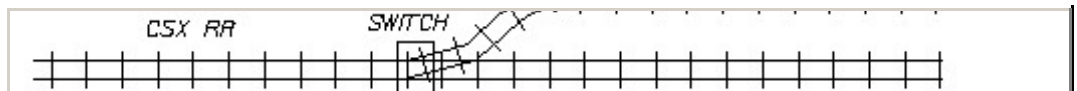
**Plan Collect:** Plot to scale.

**Topo Collect:** *This feature not shown in topo.*

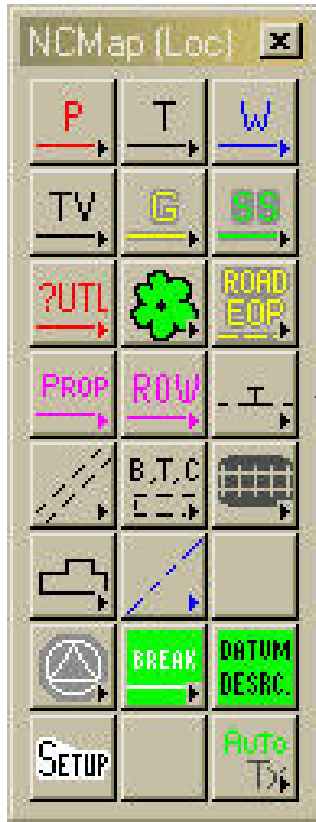
**Plan Classify:** Label as "SWITCH".

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# Right of Way



# NCDOT Mapping Manual

## Right of Way Control of Access CA Symbol

**Description:**

A symbol used to indicate a control of access line.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 5 (purple)

Weight: **ByLevel** 1

Cell Name: Right of Way Control of Access CA Symbol

Level Name: Exist Right of Way Control of Access CA Symbol CELL

Plan Reference file.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan Reference file.

Classify:

Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



## Right of Way Control of Access Line

**Description:**

Regulated limitation to ingress and egress for a highway facility.

**Cadd Parameters**



Feature Code: 3707

Style: **ByLevel** 0

Color: **ByLevel** 5 (purple)

Weight: **ByLevel** 1

Cell Name: Right of Way Control of Access Line

Level Name: Exist Right of Way Control of Access Line

Plan Reference file.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan Reference file.

Classify:

Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Right of Way Easement Line

**Description:**

The right to cross or access a strip or area of land including surface, overhead, or underground, granted by deed or easement, for construction and maintenance according to designated use. Easement lines are supplied by municipalities.

**Cadd Parameters**



Feature Code: 3724  
 Style: **ByLevel** ncmmap Eas Exi  
 Color: **ByLevel** 5 (purple) Cell Name: Right of Way Easement Line  
 Weight: **ByLevel** 1 Level Name: Exist Right of Way Easement Line

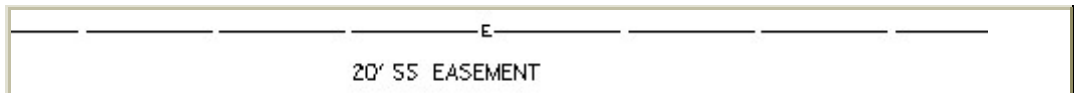
Plan Reference file.  
Collect:

Topo *Reference file.*  
Collect:

Plan Easement ownership (if possible).  
Classify:

Topo *Easement ownership (if possible).*  
Classify:

Plotting  
Example:



## Right of Way Line

**Description:**

Lines which indicate a right of passage over property owned by another, and any strip or area of land including surface, overhead, or underground, granted by deed or easement, for construction and maintenance according to designated use. The land over which facilities such as highways, railroads, or power lines are built.

**Cadd Parameters**



Feature Code: 3722  
 Style: **ByLevel** ncmmap ROW Exi  
 Color: **ByLevel** 5 (purple) Cell Name: Right of Way Line  
 Weight: **ByLevel** 1 Level Name: Exist Right of Way Line

Plan According to classification, if not in a reference file.  
Collect:

Topo *Reference file. R/W lines should be trimmed so that they do not go through buildings.*  
Collect:

Plan By field.  
Classify:

Topo *Reference file.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Right of Way Monument

**Description:**

A monument that defines the limit of state right of way.

**Cadd Parameters**



Feature Code: 3703

Style: **ByLevel** 0

Color: **ByLevel** 5 (purple)

Weight: **ByLevel** 1

Cell Name: Right of Way Monument

Level Name: Exist Right of Way Monument CELL

Plan Reference file.

Collect:

Topo *This feature not shown in topo.*

Collect:

Plan Reference file.

Classify:

Topo *This feature not shown in topo.*

Classify:

Plotting  
Example:



## Right of Way Symbol

**Description:**

A symbol used to identify right of way lines.

**Cadd Parameters**



Feature Code: none assigned

Style: **ByLevel** 0

Color: **ByLevel** 5 (purple)

Weight: **ByLevel** 1

Cell Name: Right of Way Symbol

Level Name: Exist Right of Way Symbol CELL

Plan Reference file.

Collect:

Topo *Reference file. Symbol may be used when R/W is coincident with fence, wall or edge of water.*

Collect:

Plan Reference file.

Classify:

Topo *Reference file.*

Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Right of Way Width

**Description:**

A dimension showing the width of right-of-way or easement

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** ncmmap Leader  
 Color: **ByLevel** 5 (purple) Cell Name: Right of Way Width  
 Weight: **ByLevel** 1 Level Name: Exist Right of Way Width CELL

**Plan** Plot on each end of right of way line or easement line.

**Collect:**

*Topo* Plot on each end of right of way line or easement line.

*Collect:*

**Plan** As measured from reference file features.

**Classify:**

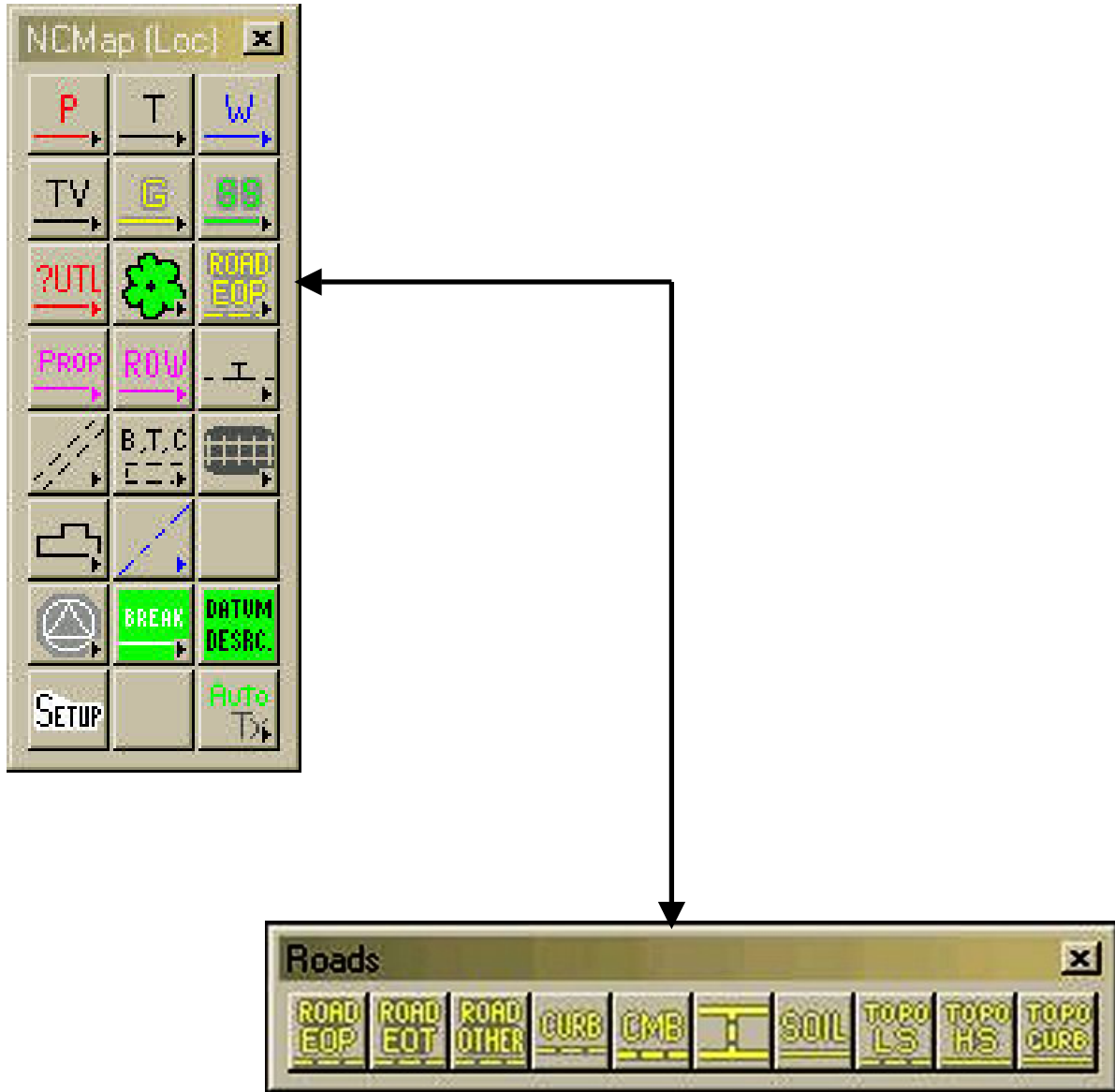
*Topo* As measured from reference file features.

*Classify:*

**Plotting Example:**



# Roads



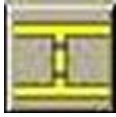
# NCDOT Mapping Manual

## Roads Change in Surface

**Description:**

Point of change in road pavement material, along the road. Change may be abrupt or tapering.

**Cadd Parameters**



Feature Code: 3006  
 Style: **ByLevel** ncmmap Rd Sur Chg  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Change in Surface  
 Weight: **ByLevel** 1 Level Name: Exist Roads Change in Surface

**Plan** Plot along point of change.

**Collect:**

**Topo** Plot along the point of change between BST and CONCRETE surface and in areas when the sides are  
**Collect:** greater than 0.08" at plotting scale.

**Plan** None.

**Classify:**

**Topo** none  
**Classify:**

**Plotting Example:**



## Roads Concrete Median Barrier

**Description:**

A permanent concrete barrier which divides lanes of opposing traffic.

**Cadd Parameters**



Feature Code: 3009  
 Style: **ByLevel** ncmmap Med Bar Conc  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Concrete Median Barrier  
 Weight: **ByLevel** 4 Level Name: Exist Roads Concrete Median Barrier

**Plan** Plot along bottom edge of wall when 2 feet wide or greater, and along the centerline of the wall when less  
**Collect:** than 2 feet wide.

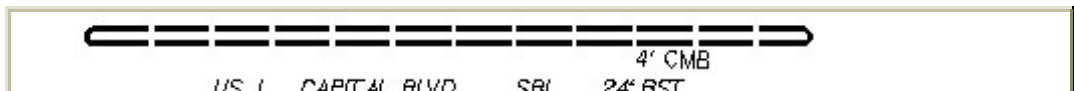
**Topo** This feature not shown in topo.  
**Collect:**

**Plan** Give width and material.

**Classify:**

**Topo** This feature not shown in topo.  
**Classify:**

**Plotting Example:**





# NCDOT Mapping Manual

## Roads Curb Topo

**Description:**

A concrete, stone, or asphalt raised border along a road or parking lot.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Curb Topo  
 Weight: **ByLevel** 3 Level Name: Exist Roads Curb Topo

**Plan** Not used on Plan Sheets.

**Collect:**

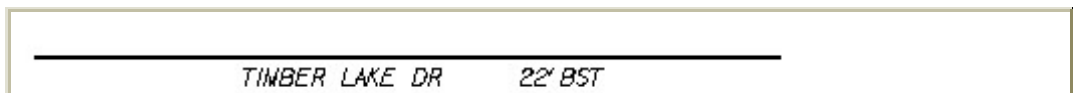
**Topo** *Plot the centerline of all curbs and median barrier walls for 1"=100' scale mapping only. Continue curb*  
**Collect:** *across openings of loose surface driveways and loose surface parking areas.*

**Plan** N/A

**Classify:**

**Topo** *Label and "CURB" or "WALL". Give road width from face of curb to face of curb.*  
**Classify:**

**Plotting**  
**Example:**



## Roads Curbs

**Description:**

A concrete, stone, or asphalt raised border along a road or parking lot.

**Cadd Parameters**



Feature Code: 3004  
 Style: **ByLevel** ncmmap Crb  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Curbs  
 Weight: **ByLevel** 3 Level Name: Exist Roads Curbs

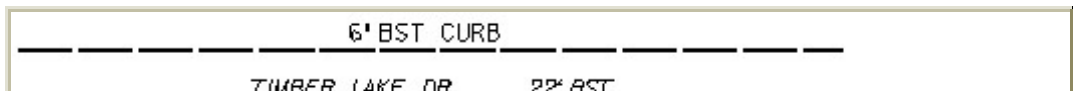
**Plan** Along back edge of curb. Curb can be automatically generated from edge of pavement using the menu's  
**Collect:** user command.

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Give curb detail; height and material if curb only as 6" BST CURB or 6" CONC CURB. Label curb and  
**Classify:** gutter as C&G and label width as 30" C&G. Give wheel guard detail; length and material as 6' CONC  
 WHEEL GUARD.

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Roads EOP

**Description:**

The extreme edge of pavement (EOP) including shoulders with surveyed alignments, where the paved surface abuts non-paved surface.

**Cadd Parameters**



Feature Code: 3001  
 Style: **ByLevel** ncmmap EOP  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads EOP  
 Weight: **ByLevel** 1 Level Name: Exist Roads EOP

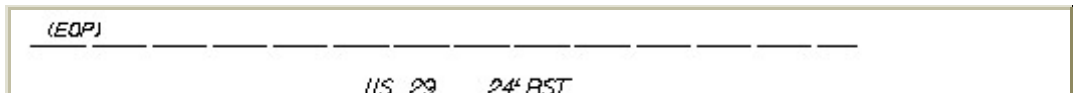
**Plan Collect:** See "Bookmarks" located in this document for various context examples.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** See "Bookmarks" located in this document for various context examples.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Roads EOP Other

**Description:**

Includes paved roads without surveyed alignments, parking lots, sidewalks parallel to roads, concrete gutters, boat ramps and paved areas.

**Cadd Parameters**



Feature Code: 3003  
 Style: **ByLevel** ncmmap EOP  
 Color: **ByLevel** 32 (yellow) Cell Name: Roads EOP Other  
 Weight: **ByLevel** 1 Level Name: Exist Roads EOP Other

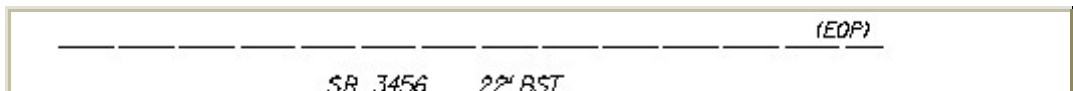
**Plan Collect:** Along edge of pavement in order to delineate the feature. Some examples would be paved roads without surveyed alignment, driveways, parking lots, sidewalks parallel to the road, and golf cart paths. (Note: Sidewalks parallel roads, Walkways do not! See "Buildings and Other Culture".)

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** For driveways, sidewalks, and paths, give width and material. For concert gutters give width only. For roads with no surveyed alignment, give route number, local name (when available), width, and material type. For areas (parking lot or gas station lot) give material type.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Roads EOT

**Description:**

The edge of the travelway (EOT) is generally defined by a painted line on the paved surface.

**Cadd Parameters**



Feature Code: 3002  
 Style: **ByLevel** ncmap EOP  
 Color: **ByLevel** 18 (yellow) Cell Name: Roads EOT  
 Weight: **ByLevel** 1 Level Name: Exist Roads EOT

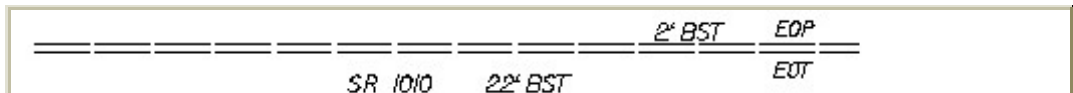
**Plan** Collect the painted stripe. See "Bookmarks" located in this document for various context examples.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** See "Bookmarks" located in this document for various context examples.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Roads Hard Surface Topo

**Description:**

Hard surfaces that accommodate vehicular traffic. This includes roads, driveways, parking areas, and boat ramps.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Hard Surface Topo  
 Weight: **ByLevel** 1 Level Name: Exist Roads Hard Surface Topo

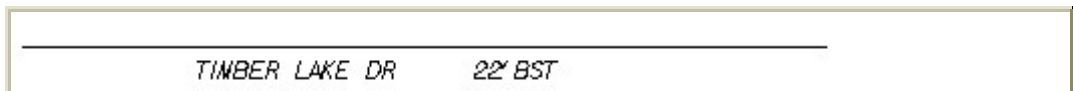
**Plan** Not used on Plan Sheets.  
**Collect:**

**Topo** *Plot along edges of pavement, any median openings and driveways that are 1" or longer at plot scale.*  
**Collect:**

**Plan** Not used on Plan Sheets.  
**Classify:**

**Topo** *Give route number, local name (when available), width (nearest foot), and material type. Do not classify paved shoulders separately.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Roads Loose Surface Topo

**Description:**

Non-paved surfaces that handle vehicular or pedestrian traffic. Improved loose surface roads are graded and/or drained. Unimproved loose surface roads are considered logging roads, field roads, trails, driveways, parking areas, boat ramps, fire roads and roads under construction.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** ncmmap LSR  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Loose Surface Topo  
 Weight: **ByLevel** 1 Level Name: Exist Roads Loose Surface Topo

**Plan Collect:** Not used on Plan Sheets.

**Topo Collect:** *Plot edges of travel way to classified width for loose surface roads. Improved loose surface roads less than 0.04" wide at plot scale will be enlarged to 0.04". Unimproved loose surface roads less than 8" wide are not shown. Plot centerline of major trails. Plot driveways if length is 1" or longer at plot scale.*

**Plan Classify:** Not used on Plan Sheets.

**Topo Classify:** *Give route number and local name ofr improved roads. Give average width and material for driveways and boat ramps. Label Parking Areas (PA). Label major trails when name is known.*

**Plotting Example:**



## Roads Soil

**Description:**

Soil / Gravel Road is non-paved surface that handles vehicular or pedestrian traffic. Soil Path is soil surface that handles highway approved vehicle or farm tractor and related equipment and is 8 feet in width or greater. Trail is designed for pedestrians, horses, trail bikes, four wheelers, and bicycles use and is less than 8 feet in width. May be graded and drained or have no improvements.

**Cadd Parameters**



Feature Code: 3005  
 Style: **ByLevel** 2  
 Color: **ByLevel** 4 (yellow) Cell Name: Roads Soil  
 Weight: **ByLevel** 2 Level Name: Exist Roads Soil

**Plan Collect:** Plot edges of travelway to the classified width (if given). Plot center-line for trails.

**Topo Collect:** *This feature not shown in topo.*

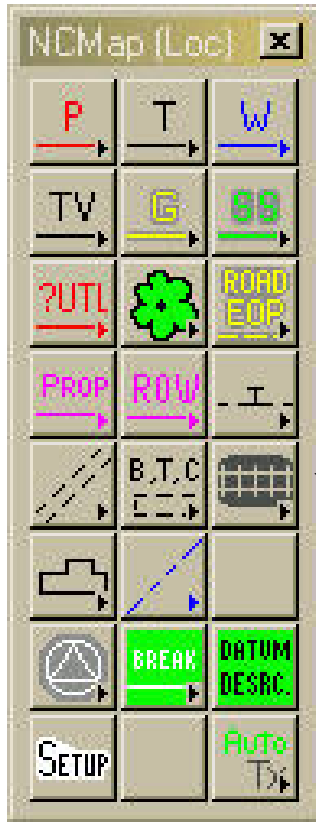
**Plan Classify:** Give route number, local name (when available), average width, and material. Label as U/C if under construction.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# Structure Major



# NCDOT Mapping Manual

## Structure Major Box Culvert or Tunnel Topo

**Description:**

A tunnel passage through a barrier for roads or railroads. A major culvert for drainage under a road or railroad larger than 8 feet in diameter or box culvert.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 5  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Major Box Culvert or Tunnel Topo  
 Weight: **ByLevel** 1 Level Name: Exist Structure Major Box Culvert or Tunnel Topo

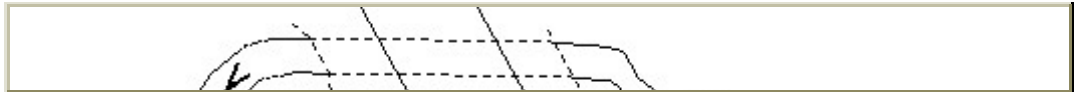
**Plan Collect:** Not a plan sheet feature. Use similar Plan Sheet Feature.

**Topo Collect:** *Plot ends (at scale) and connect.*

**Plan Classify:** Not a plan sheet feature. Use similar Plan Sheet Feature.

**Topo Classify:** *Label tunnels as "TUNNEL". For box culverts give size, material type, and number of barrels.*

**Plotting Example:**



## Structure Major Bridge Seat Cogo Point

**Description:**

A surveyed point to give an elevation to bridge seats.

**Cadd Parameters**

Feature Code: 3104  
 Style: **ByLevel** 0  
 Color: **ByLevel** 0 (white) Cell Name: Structure Major Bridge Seat Cogo Point  
 Weight: **ByLevel** 1 Level Name: Exist Structure Major Bridge Seat Cogo Point CELL

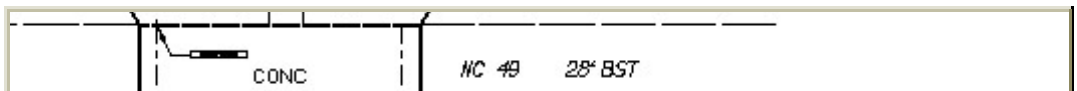
**Plan Collect:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Structure Major Bridge Topo

**Description:**

A bridge span that provides passage for roads or railroads over water or other obstacles.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 2  
 Cell Name: Structure Major Bridge Topo  
 Level Name: Exist Structure Major Bridge Topo

**Plan Collect:** Not a plan sheet feature. Use similar Plan Sheet Feature.

**Topo Collect:** *Plot ends and sides to scale.*

**Plan Classify:** Not a plan sheet feature. Use similar Plan Sheet Feature.

**Topo Classify:** *For bridges give material type. If bridge is a draw bridge, label as "DRAW BRIDGE", "LIFT SPAN", or "SWING SPAN". If Railroad, do not classify.*

**Plotting Example:**



## Structure Major Bridge WW

**Description:**

Structure(s) used with bridges, tunnels, and box culverts to retain fill and/or keep earth from spilling into streams or other areas.

**Cadd Parameters**



Feature Code: 3119  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 3  
 Cell Name: Structure Major Bridge WW  
 Level Name: Exist Structure Major Bridge WW

**Plan Collect:** Plot to scale. Plot retaining walls associated with bridges with the same parameters.

**Topo Collect:** *Plot to scale.*

**Plan Classify:** Give material type and length of walls.

**Topo Classify:** *N/A*

**Plotting Example:**



# NCDOT Mapping Manual

## Structure Major Deck Tunnel Box Culvert

**Description:**

These structures are considered as large, engineered, highway or railroad features. A bridge is a span that provides passage for roads or railroads. A tunnel is a passage through a barrier for roads or railroads. A box culvert is for drainage under a road or railroad.

**Cadd Parameters**



Feature Code: 3101  
 Style: **ByLevel** ncmap Brg  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 3  
 Cell Name: Structure Major Deck Tunnel Box Culvert  
 Level Name: Exist Structure Major Deck Tunnel Box Culvert

**Plan**

**Collect:**

Plot to scale. For tunnels, box culverts, and bridges use B.T.C. only for the sides and connect to wing, head, and end walls (WALL). For bridges, roads/utilities will stop and start at the bridge deck, do not plot anything on bridges. Do not plot anything under the bridge unless: 1) an item occurs there (manhole, DI), or 2) a change in the alignment for a utility or pipe occurs. In which case show this change.

**Topo**

**Collect:**

*This feature not shown in topo.*

**Plan**

**Classify:**

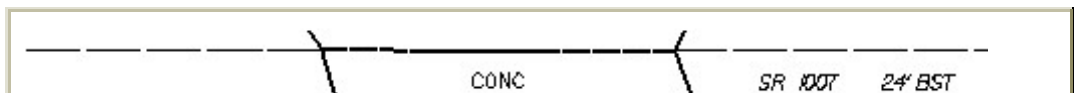
For bridges give material type. If bridge is a draw bridge, label as "DRAW BRIDGE", "LIFT SPAN", or "SWING SPAN". Label tunnels. For box culverts give size, material type, and alignment.

**Topo**

**Classify:**

*This feature not shown in topo.*

**Plotting Example:**



## Structure Major Ferry

**Description:**

A nautical route in which a ferry boat is used to carry persons or things from one body of land to another body of land.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 5  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Structure Major Ferry  
 Level Name: Exist Structure Major Ferry

**Plan**

**Collect:**

Plot points at centerline ends of route.

**Topo**

**Collect:**

*Plot points at centerline ends of route.*

**Plan**

**Classify:**

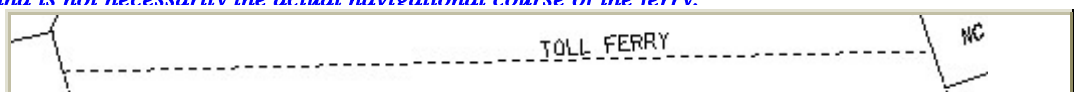
Label.

**Topo**

**Classify:**

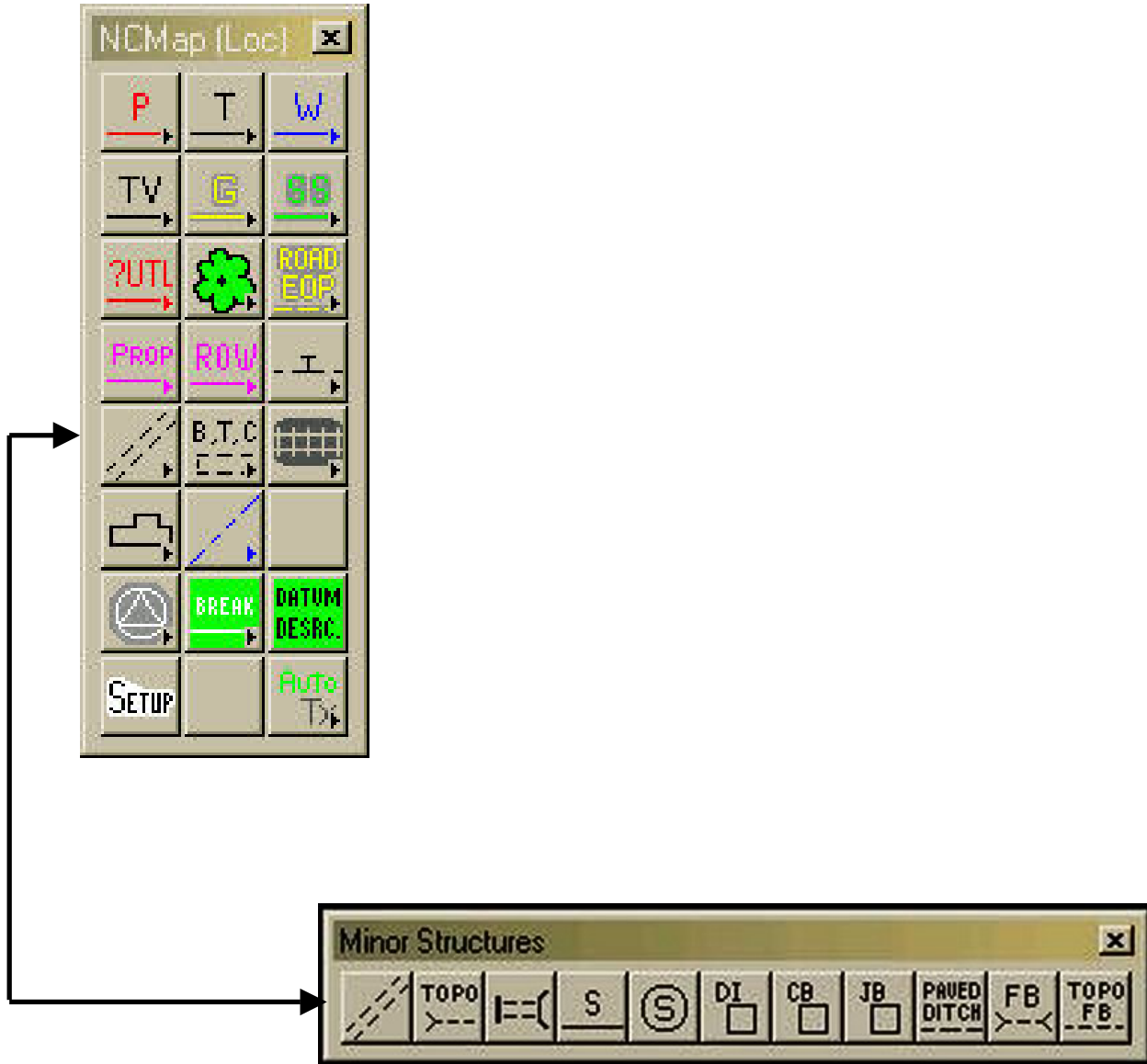
*Label slips as "FERRY SLIP". Plot ferry slips (point of embarkment) using head wall symbology. When possible connect ferry slips with appropriate line. This line connects the slips between which the ferry operates and is not necessarily the actual navigational course of the ferrv.*

**Plotting Example:**





# Structure Minor



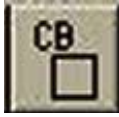
# NCDOT Mapping Manual

## Structure Minor Catch Basin

**Description:**

A catch basin is an opening into a storm drain system used with curb and gutters.

**Cadd Parameters**



Feature Code: 3122  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Structure Minor Catch Basin  
 Level Name: Exist Structure Minor Catch Basin

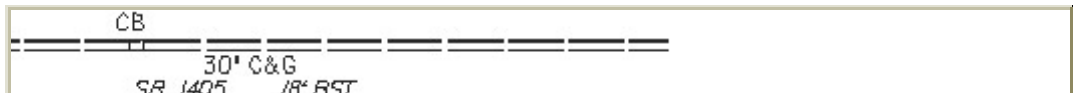
**Plan** Plot to scale.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Label feature.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Structure Minor Culvert Topo

**Description:**

A conduit crossing under a road or railroad.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 1  
 Color: **ByLevel** 6  
 Weight: **ByLevel** 1  
 Cell Name: Structure Minor Culvert Topo  
 Level Name: Exist Structure Minor Culvert Topo

**Plan** Not used on Plan Sheets.  
**Collect:**

**Topo** *Culverts less than 8 feet in diameter. Over 8 feet use Major Structure culverts Tunnels. Do not show headwalls or culverts under driveways.*  
**Collect:**

**Plan** Not used on Plan Sheets.  
**Classify:**

**Topo** *Give Alignment Only*  
**Classify:**

**Plotting**  
**Example:**



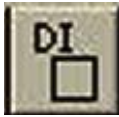
# NCDOT Mapping Manual

## Structure Minor Drop Inlet

**Description:**

A drop inlet is an opening into a storm drain system used in areas subject to pedestrian traffic.

**Cadd Parameters**



Feature Code: 3125  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Structure Minor Drop Inlet  
 Level Name: Exist Structure Minor Drop Inlet

**Plan** Plot to scale.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Label feature.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting Example:**



## Structure Minor Footbridge

**Description:**

A bridge designed to carry pedestrians.

**Cadd Parameters**



Feature Code: 3102  
 Style: **ByLevel** ncmmap Brg FT  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 3  
 Cell Name: Structure Minor Footbridge  
 Level Name: Exist Structure Minor Footbridge

**Plan** Plot points at centerline ends of bridge.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Give material type.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Structure Minor Footbridge Topo

**Description:**

A bridge designed to carry pedestrians.

**Cadd Parameters**



Feature Code: none assigned  
 Style: **ByLevel** 1  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 3  
 Cell Name: Structure Minor Footbridge Topo  
 Level Name: Exist Structure Minor Footbridge Topo

**Plan** Not used on Plan Sheets.

**Collect:**

**Topo** *Plot points at centerline ends of bridge.*

**Collect:**

**Plan** Not used on Plan Sheets.

**Classify:**

**Topo** *Give material type.*

**Classify:**

**Plotting Example:**



## Structure Minor Head and End Wall

**Description:**

Used to retain fill and keep soil from falling into streams, also used to retain fill for bridge head walls.

**Cadd Parameters**



Feature Code: 3120  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 3  
 Cell Name: Structure Minor Head and End Wall  
 Level Name: Exist Structure Minor Head and End Wall

**Plan** Plot to scale.

**Collect:**

**Topo** *This feature not shown in topo.*

**Collect:**

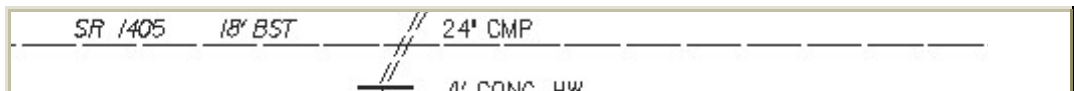
**Plan** Give length and material.

**Classify:**

**Topo** *This feature not shown in topo.*

**Classify:**

**Plotting Example:**



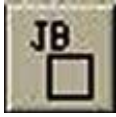
# NCDOT Mapping Manual

## Structure Minor Junction Box

**Description:**

A junction box is used to join pipes or to accommodate significant turns.

**Cadd Parameters**



Feature Code: 3126  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Structure Minor Junction Box  
 Level Name: Exist Structure Minor Junction Box

**Plan** Approximate the size of the  
**Collect:** junction box and plot.

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Label feature.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Structure Minor Paved Ditch or Gutter

**Description:**

A paved drainage area that facilitates water flow into a storm drain system. Often used to prevent erosion of soil.

**Cadd Parameters**



Feature Code: 3123  
 Style: **ByLevel** ncmmap Dit Pav  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Structure Minor Paved Ditch or Gutter  
 Level Name: Exist Structure Minor Paved Ditch or Gutter

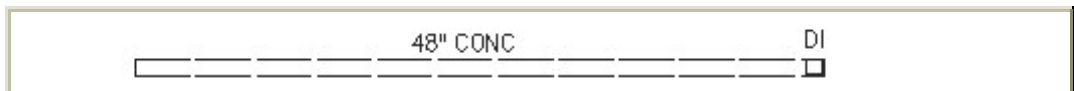
**Plan** Plot outline to scale.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Label width and material type.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Structure Minor Pipes CMAP

**Description:**

A corrugated metal arch pipe crossing under a road, driveway, or railroad.

**Cadd Parameters**



Feature Code: 32(pipe size)  
 Style: **ByLevel** ncmmap CMAP(pipe size)  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Minor Pipes CMAP  
 Weight: **ByLevel** 0 Level Name: Exist Structure Minor Pipes CMAP

**Plan Collect:** Plot points at centerline ends of pipe. Select appropriate material & pipe size.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Give size and material. Label if flared end section (FES).

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Structure Minor Pipes CMP

**Description:**

A corrugated metal pipe crossing under a road, driveway, or railroad.

**Cadd Parameters**



Feature Code: 52(pipe size)  
 Style: **ByLevel** ncmmap CMP(pipe size)  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Minor Pipes CMP  
 Weight: **ByLevel** 0 Level Name: Exist Structure Minor Pipes CMP

**Plan Collect:** Plot points at centerline ends of pipe.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Give size and material. Label if flared end section (FES).

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Structure Minor Pipes HDPE

**Description:**

A high density Polyethylene pipe crossing under a road, driveway, or railroad.

**Cadd Parameters**



Feature Code: 62(pipe size)  
 Style: **ByLevel** ncmmap HDPE(pipe size)  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Minor Pipes HDPE  
 Weight: **ByLevel** 0 Level Name: Exist Structure Minor Pipes HDPE

**Plan** Plot points at centerline ends of pipe.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Give size and material. Label if flared end section (FES).

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## Structure Minor Pipes RCP

**Description:**

A reinforced concrete pipe crossing under a road, driveway, or railroad.

**Cadd Parameters**



Feature Code: 42(pipe size)  
 Style: **ByLevel** ncmmap RCP(pipe size)  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Minor Pipes RCP  
 Weight: **ByLevel** 0 Level Name: Exist Structure Minor Pipes RCP

**Plan** Plot points at centerline ends of pipe.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Give size and material. Label if flared end section (FES).

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## Structure Minor Storm Sewer Line

**Description:**

A conduit to carry off rain water.

**Cadd Parameters**



Feature Code: 3121  
 Style: **ByLevel** ncmmap Sew Stm  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Minor Storm Sewer Line  
 Weight: **ByLevel** 1 Level Name: Exist Structure Minor Storm Sewer Line

**Plan** Plot according to classified location.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

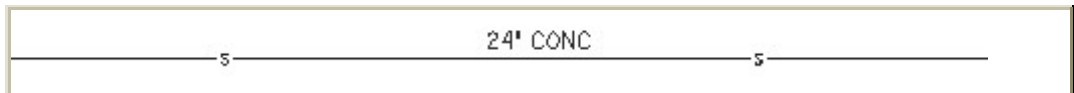
**Plan** Give size and material. Show location of line(s).

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## Structure Minor Storm Sewer Manhole

**Description:**

An opening into the storm drain system used for physical access only.

**Cadd Parameters**



Feature Code: 3124  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Structure Minor Storm Sewer Manhole  
 Weight: **ByLevel** 1 Level Name: Exist Structure Minor Storm Sewer Manhole CELL

**Plan** Plot.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** N/A.

**Classify:**

Topo *This feature not shown in topo.*

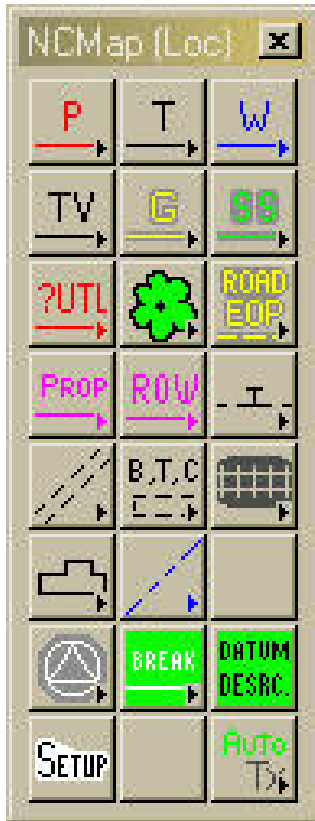
Classify:

**Plotting Example:**





# Survey



*No Buttons on Ncmap for Survey Features. These features are used by field offices only, and thus are still shown in this manual. Location and Surveys replaced the use of these features with the alignment features within Geopak Design and Computation Manager.*

# NCDOT Mapping Manual

## Survey Centerline

**Description:**

A linear feature used to show the approx. centerline of a roadway where recorded as built information is unavailable.

**Cadd Parameters**

Feature Code:	3007	Cell Name:	Survey Centerline
Style:	ByLevel 0	Level Name:	Exist Survey Centerline
Color:	ByLevel 0 (white)		
Weight:	ByLevel 3		

Plan Field data.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan N/A  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## Survey Centerline Point

**Description:**

A point feature shown along the centerline of a roadway where recorded as built information is unavailable.

**Cadd Parameters**

Feature Code:	3010	Cell Name:	Survey Centerline Point
Style:	ByLevel 0	Level Name:	Exist Survey Centerline Point CELL
Color:	ByLevel 0 (white)		
Weight:	ByLevel 2		

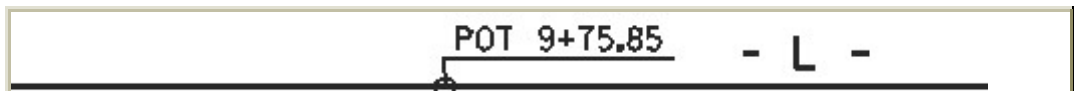
Plan Field data.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

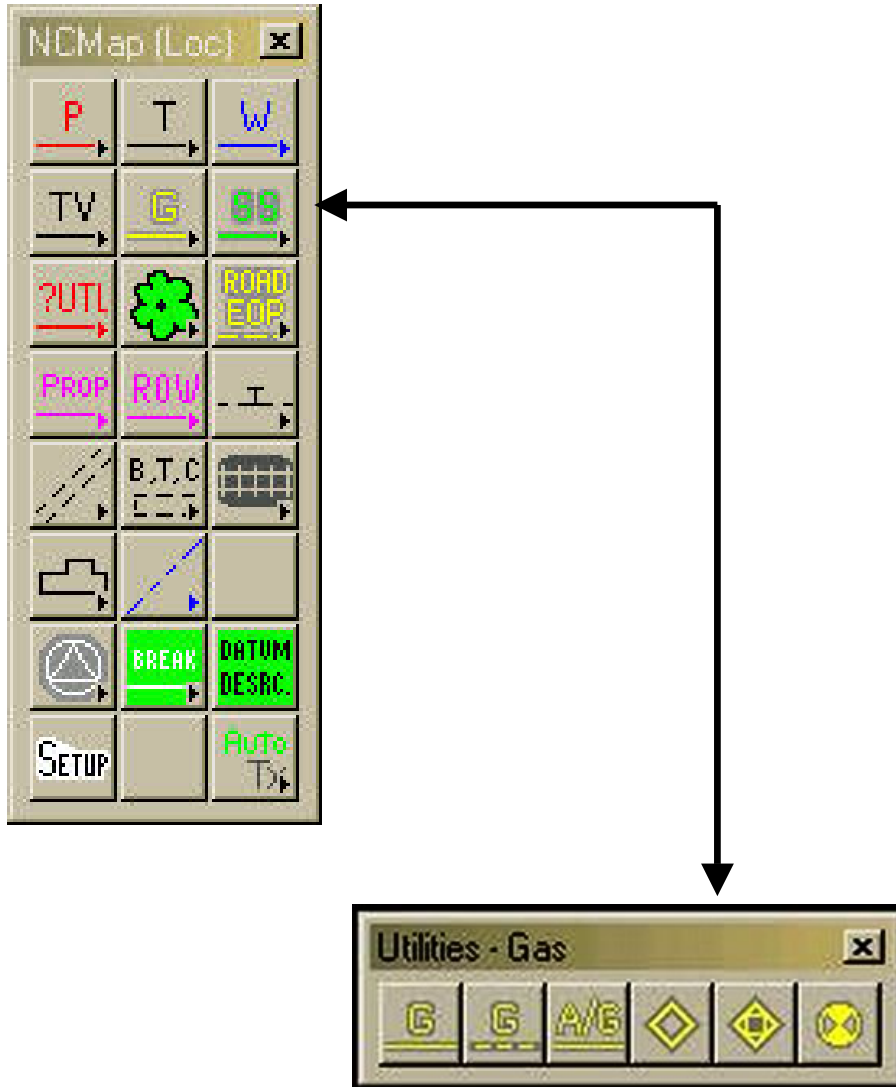
Plan N/A  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



# Utilities Gas



# NCDOT Mapping Manual

## Utilities Gas AG Line

**Description:**

An above ground pipe designed to carry and distribute gas (petroleum, natural). Pipes vary in size and material.

**Cadd Parameters**



Feature Code:	3533	Cell Name:	Utilities Gas AG Line
Style:	ByLevel 0	Level Name:	Exist Utilities Gas AG Line
Color:	ByLevel 4 (yellow)		
Weight:	ByLevel 2		

**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label size, material and depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Gas Meter

**Description:**

A meter placed along a gas line prior to its entrance into a residence or business for the sole purpose of metering the amount of gas used.

**Cadd Parameters**



Feature Code:	3532	Cell Name:	Utilities Gas Meter
Style:	ByLevel 0	Level Name:	Exist Utilities Gas Meter CELL
Color:	ByLevel 4 (yellow)		
Weight:	ByLevel 1		

**Plan Collect:** Plot center of meter.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** By field.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Gas Test Hole SUE

**Description:**

The accurate xyz location of an excavation created by an approved underground engineering consultant in the determination and location of underground gas utilities.

**Cadd Parameters**



Feature Code:	2940	Cell Name:	Utilities Gas Test Hole SUE
Style:	ByLevel 0	Level Name:	Exist Utilities Gas Test Hole SUE CELL
Color:	ByLevel 4 (yellow)		
Weight:	ByLevel 1		

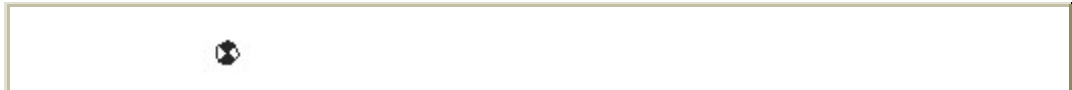
**Plan Collect:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Gas UG Line

**Description:**

An under ground pipe designed to carry and distribute gas (petroleum, natural). Pipes vary in size and material.

**Cadd Parameters**



Feature Code:	3530	Cell Name:	Utilities Gas UG Line
Style:	ByLevel ncmmap Gas U/G	Level Name:	Exist Utilities Gas UG Line
Color:	ByLevel 4 (yellow)		
Weight:	ByLevel 1		

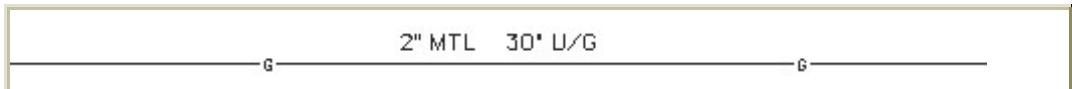
**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label size, material and depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Gas UG Line SUE

**Description:**

An under ground pipe designed to carry and distribute gas (petroleum, natural) as determined by a approved underground engineering consultant.

**Cadd Parameters**



Feature Code: 2941  
 Style: **ByLevel** ncmmap Gas U/G SUE  
 Color: **ByLevel** 4 (yellow) Cell Name: Utilities Gas UG Line SUE  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Gas UG Line SUE

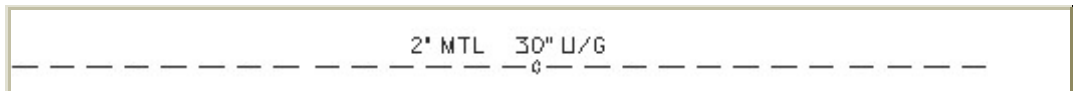
**Plan** Reference file only. This data is collected by consultants and should not be revised.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Reference file only. This data is collected by consultants and should not be revised.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Utilities Gas Valve

**Description:**

A valve placed along a gas line which allows gas flow in the line to be turned on and off.

**Cadd Parameters**



Feature Code: 3531  
 Style: **ByLevel** 0  
 Color: **ByLevel** 4 (yellow) Cell Name: Utilities Gas Valve  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Gas Valve CELL

**Plan** Plot center of valve.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

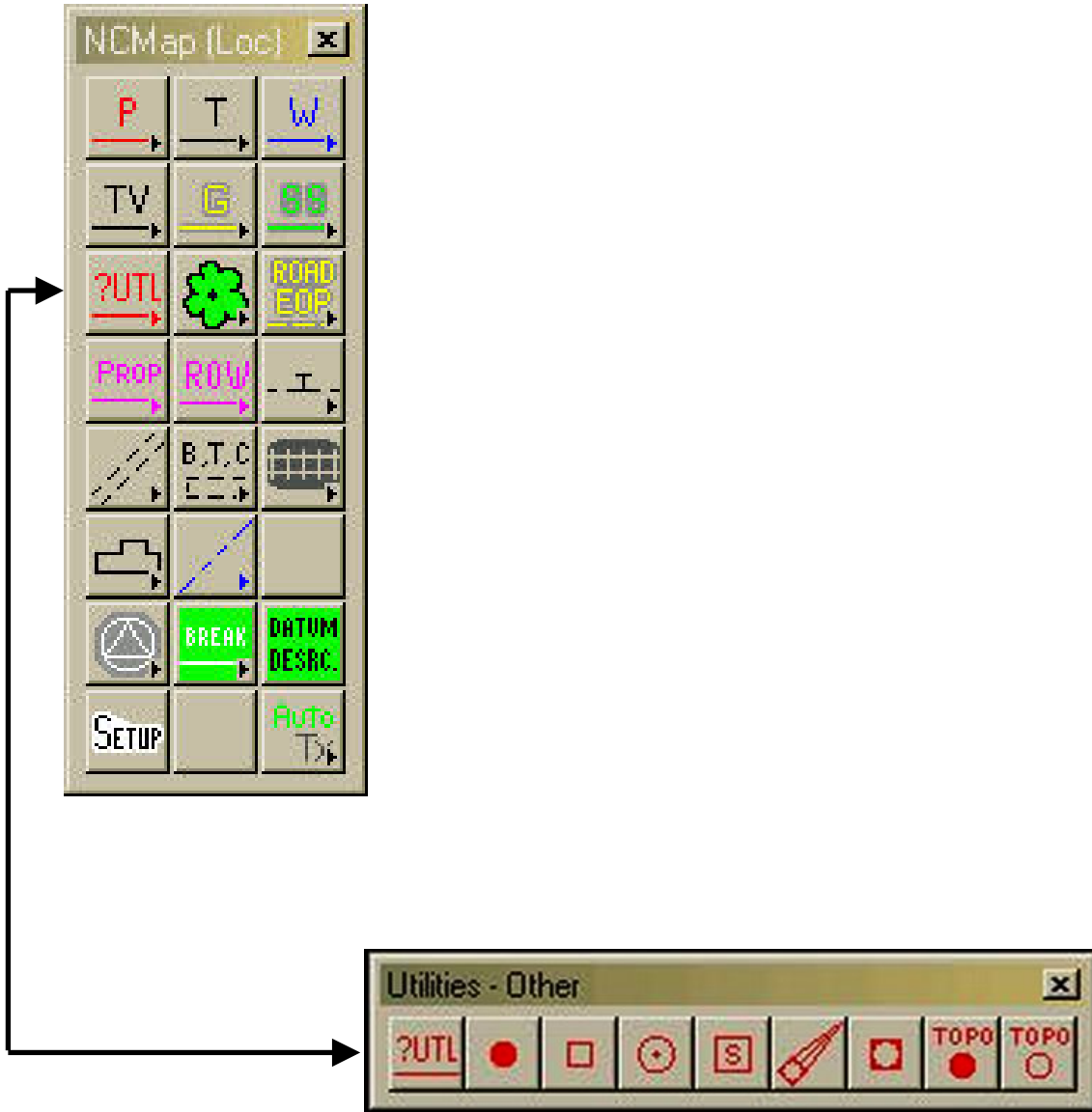
**Plan** By field.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# Utilities Other



# NCDOT Mapping Manual

## Utilities Other Located Object

**Description:**

Used to denote a variety of map features associated with utilities.

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red) Cell Name: Utilities Other Located Object  
Weight: **ByLevel** 1 Level Name: Exist Utilities Other Located Object CELL

**Plan Collect:** Plot and label these features. See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Identify.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Other Pole

**Description:**

Used to support a variety of cables, lights, signals, etc.

**Cadd Parameters**



Feature Code: 3505  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red) Cell Name: Utilities Other Pole  
Weight: **ByLevel** 1 Level Name: Exist Utilities Other Pole CELL

**Plan Collect:** Plot center of pole.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label as to what the pole supports.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**





# NCDOT Mapping Manual

## Utilities Other Pole Located Topo

**Description:**

Used to support a variety of utilities.

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red) Cell Name: Utilities Other Pole Located Topo  
Weight: **ByLevel** 1 Level Name: Exist Utilities Other Pole Located Topo CELL

**Plan** Not used on Plan Sheets.

**Collect:**

**Topo** *1"=100' Show all utility poles. 1"=200' Show only utility poles that are cross-country in nature. See "Fixed Collect: Scales" in the General Instructions section of this manual for feature scaling specifications.*

**Plan** Not used on Plan Sheets.

**Classify:**

**Topo** *Give ownership and width of easment when it can be determined either from classification or property data.*  
**Classify:**

**Plotting Example:**



## Utilities Other Pole Metal Strain

**Description:**

Metallic utility pole used to support traffic signals.

**Cadd Parameters**



Feature Code: 3528  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red) Cell Name: Utilities Other Pole Metal Strain  
Weight: **ByLevel** 1 Level Name: Exist Utilities Other Pole Metal Strain CELL

**Plan** Plot center of pole.

**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** None

**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Other Pole Metal with Mast Arm

**Description:**

Metallic utility pole with large mast arm used to support traffic signals overhead.

**Cadd Parameters**



Feature Code: 3527  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red) Cell Name: Utilities Other Pole Metal with Mast Arm  
Weight: **ByLevel** 1 Level Name: Exist Utilities Other Pole Metal with Mast Arm CELL

**Plan** Plot center of pole  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** None  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Utilities Other Pole Symbolized Topo

**Description:**

Pole placed in obscured area used to support a variety of utilities.

**Cadd Parameters**



Feature Code: none assigned  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red) Cell Name: Utilities Other Pole Symbolized Topo  
Weight: **ByLevel** 1 Level Name: Exist Utilities Other Pole Symbolized Topo CELL

**Plan** Not used on Plan Sheets.  
**Collect:**

**Topo** *Use Symbolized pole when pole is not visible but is needed for continuity of the alignment. 1"=100' Show all utility poles. 1"=200' Show only utility poles that are cross-country in nature. See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.*  
**Collect:**

**Plan** Not used on Plan Sheets.  
**Classify:**

**Topo** *Give ownership and width of easment when it can be determined either from classification or property data.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Utilities Other Pole With Base

**Description:**

A pole with a support constructed at its base.

**Cadd Parameters**



Feature Code: 3507  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red)  
Weight: **ByLevel** 1

Cell Name: Utilities Other Pole With Base  
Level Name: Exist Utilities Other Pole With Base CELL

Plan Plot center of pole.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan Label usage.  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## Utilities Other Traffic Signal Box

**Description:**

Located near a traffic signal and controls the functioning of the traffic signal.

**Cadd Parameters**



Feature Code: 3404  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red)  
Weight: **ByLevel** 1

Cell Name: Utilities Other Traffic Signal Box  
Level Name: Exist Utilities Other Traffic Signal Box CELL

Plan Plot center of junction box.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Utilities Other Unknown UG SUE

**Description:**

An under ground utility line, type unknown, as determined by a approved underground engineering consultant.

**Cadd Parameters**



Feature Code:	3509
Style:	ByLevel ncmmap Utl Other Ukn U/G SUE
Color:	ByLevel 3 (red)      Cell Name: Utilities Other Unknown UG SUE
Weight:	ByLevel 1      Level Name: Exist Utilities Other Unknown UG SUE

**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

Topo Collect: *This feature not shown in topo.*

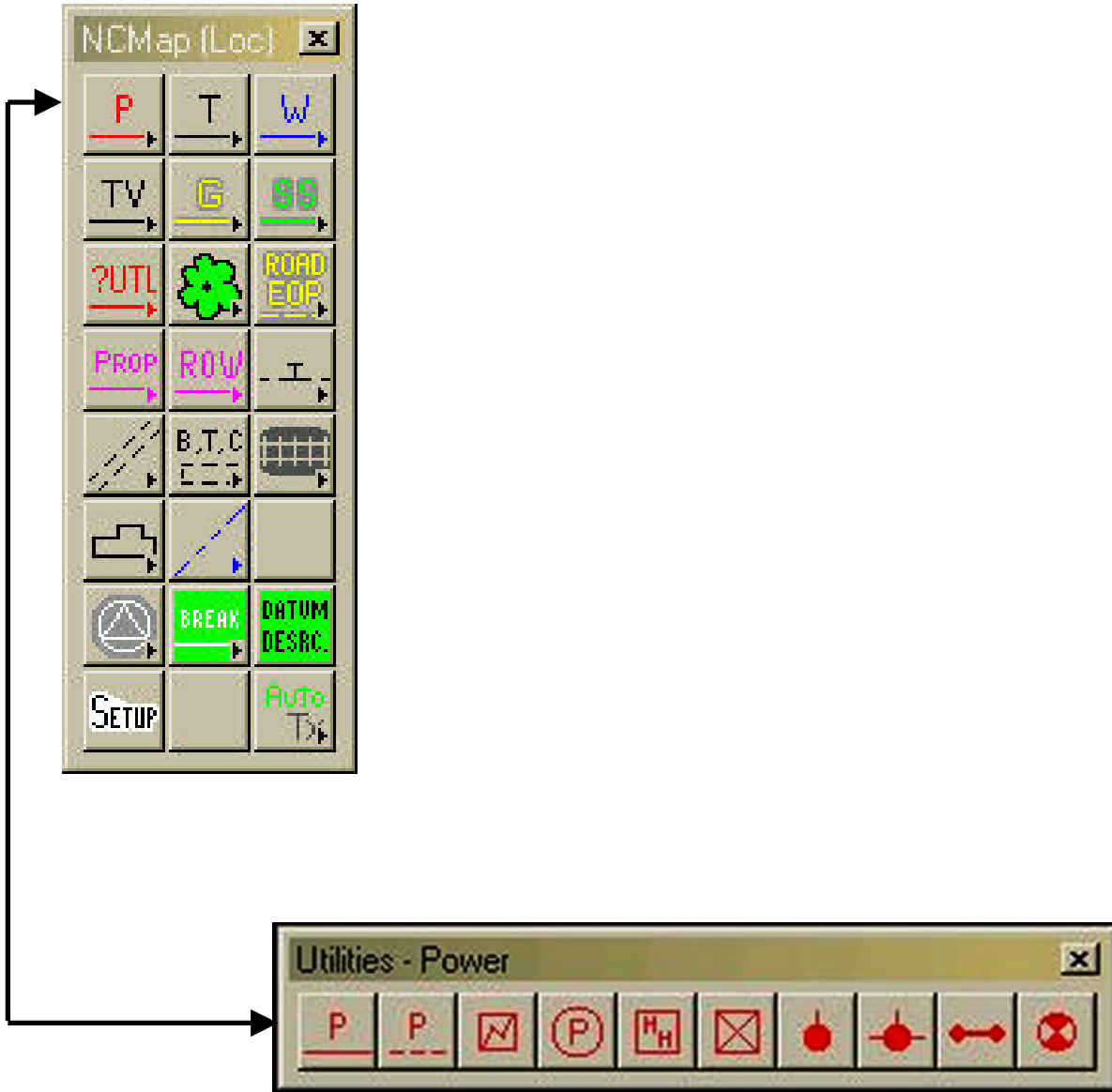
**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# Utilities Power



# NCDOT Mapping Manual

## Utilities Power H-Frame Pole

**Description:**

A pair of poles connected with cross-braces, used to carry power lines

**Cadd Parameters**



Feature Code: 3506  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red) Cell Name: Utilities Power H-Frame Pole  
 Weight: **ByLevel** 2 Level Name: Exist Utilities Power H-Frame Pole CELL

**Plan Collect:** Plot centers of poles. Where applicable, plot poles outside of mapping limits to establish alignment.

**Topo Collect:** *Same as Plan Sheets. See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.*

**Plan Classify:** None

**Topo Classify:** *Give ownership and width of easement when it can be determined from either classification or property data. Easement lines and text come from the R/W pallet.*

**Plotting Example:**



## Utilities Power Hand Hole

**Description:**

A covered opening large enough for hand access to underground power.

**Cadd Parameters**



Feature Code: 3554  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red) Cell Name: Utilities Power Hand Hole  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Power Hand Hole CELL

**Plan Collect:** Plot center of hand hole. This data typically is supplied to Photogrammetry as a reference file.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** None

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Power Joint Use Telephone

**Description:**

A power pole used for power and power which may have a light or phone lines attached.

**Cadd Parameters**



Feature Code: 3503  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red)  
 Weight: **ByLevel** 1

Cell Name: Utilities Power Joint Use Telephone  
 Level Name: Exist Utilities Power Joint Use Telephone CELL

**Plan Collect:** Plot the center of the pole. This data typically is supplied to Photogrammetry as a reference file with associated pole tag numbers.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** No label needed unless the power pole has a light attached. If light is attached label "W/LT".

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Utilities Power Manhole

**Description:**

A covered opening used to gain access to underground power lines.

**Cadd Parameters**



Feature Code: 3552  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red)  
 Weight: **ByLevel** 1

Cell Name: Utilities Power Manhole  
 Level Name: Exist Utilities Power Manhole CELL

**Plan Collect:** Plot the center of the manhole. This data typically is supplied to Photogrammetry as a reference file.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** None

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Power Pole

**Description:**

A utility pole used for power utilities.

**Cadd Parameters**



Feature Code: 3501  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red)  
 Weight: **ByLevel** 1  
 Cell Name: Utilities Power Pole  
 Level Name: Exist Utilities Power Pole CELL

**Plan Collect:** Plot the center of the pole. This data typically is supplied to Photogrammetry as a reference file with associated pole tag numbers.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** No label needed for pole unless light is attached, then label "W/LT"

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Utilities Power Test Hole SUE

**Description:**

The accurate xyz location of an excavation created by an approved underground engineering consultant in the determination and location of underground power utilities.

**Cadd Parameters**



Feature Code: 2950  
 Style: **ByLevel** 0  
 Color: **ByLevel** 3 (red)  
 Weight: **ByLevel** 1  
 Cell Name: Utilities Power Test Hole SUE  
 Level Name: Exist Utilities Power Test Hole SUE CELL

**Plan Collect:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**





# NCDOT Mapping Manual

## Utilities Power Tower

**Description:**

A tall framework or structure used to carry high voltage power lines

**Cadd Parameters**



Feature Code: 3553  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red)  
Weight: **ByLevel** 1

Cell Name: Utilities Power Tower  
Level Name: Exist Utilities Power Tower CELL

**Plan** Plot to scale. Where applicable, plot towers outside of mapping limits to establish alignment.  
**Collect:**

**Topo** *Same as Plan Sheets*  
**Collect:**

**Plan** None  
**Classify:**

**Topo** *Give ownership and width of easement when it can be determined from either classification or property data.*  
**Classify:** *Easement lines and text come from the R/W pallet.*

**Plotting Example:**



## Utilities Power Transformer

**Description:**

A device used to transfer electric energy from one circuit to another.

**Cadd Parameters**



Feature Code: 3551  
Style: **ByLevel** 0  
Color: **ByLevel** 3 (red)  
Weight: **ByLevel** 1

Cell Name: Utilities Power Transformer  
Level Name: Exist Utilities Power Transformer CELL

**Plan** Plot center of transformer.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** None  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Power UG Cable

**Description:**

A buried cable used to conduct electrical current.

**Cadd Parameters**



Feature Code:	3550	Cell Name:	Utilities Power UG Cable
Style:	<b>ByLevel</b> ncmmap Pow U/G	Level Name:	Exist Utilities Power UG Cable
Color:	<b>ByLevel</b> 3 (red)		
Weight:	<b>ByLevel</b> 1		

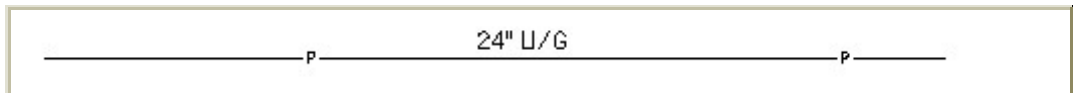
**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

[Topo Collect:](#) *This feature not shown in topo.*

**Plan Classify:** Label depth.

[Topo Classify:](#) *This feature not shown in topo.*

**Plotting Example:**



## Utilities Power UG Cable SUE

**Description:**

A buried cable used to conduct electrical current as determined by a approved underground engineering consultant.

**Cadd Parameters**



Feature Code:	2951	Cell Name:	Utilities Power UG Cable SUE
Style:	<b>ByLevel</b> ncmmap Pow U/G SUE	Level Name:	Exist Utilities Power UG Cable SUE
Color:	<b>ByLevel</b> 3 (red)		
Weight:	<b>ByLevel</b> 1		

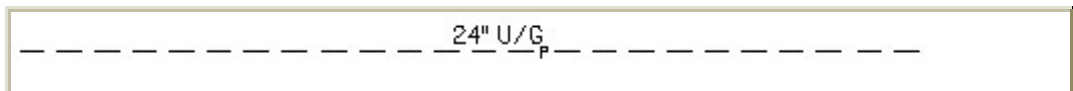
**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

[Topo Collect:](#) *This feature not shown in topo.*

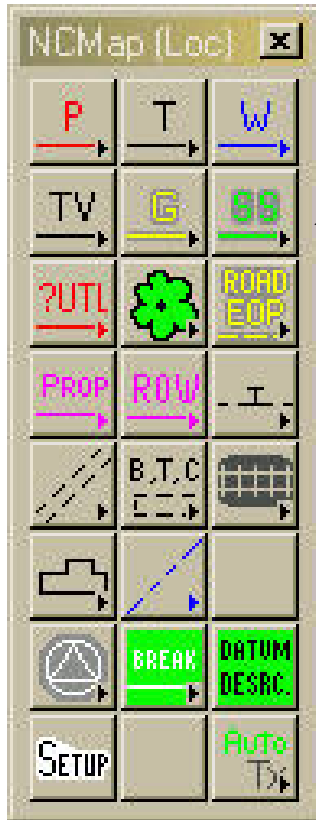
**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

[Topo Classify:](#) *This feature not shown in topo.*

**Plotting Example:**



# Utilities Sanitary Sewer



# NCDOT Mapping Manual

## Utilities Sanitary Sewer AG Line

**Description:**

An above ground, artificial conduit for carrying sewage (liquid and solid waste).

**Cadd Parameters**



Feature Code: 3541  
 Style: **ByLevel** 0  
 Color: **ByLevel** 2 (green) Cell Name: Utilities Sanitary Sewer AG Line  
 Weight: **ByLevel** 2 Level Name: Exist Utilities Sanitary Sewer AG Line

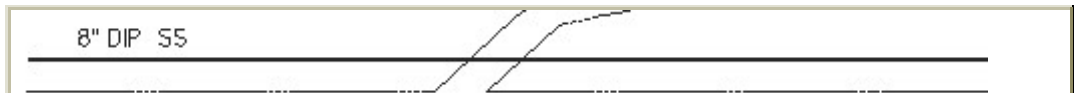
**Plan Collect:** Collect according to classification. Typically arrives in a reference file.

[Topo Collect:](#) *This feature not shown in topo.*

**Plan Classify:** Label size, material and depth.

[Topo Classify:](#) *This feature not shown in topo.*

**Plotting Example:**



## Utilities Sanitary Sewer Clean-Out

**Description:**

A capped opening along the sewer line used to provide access to the interior of the line for cleaning purposes. Trim lines to accommodate symbol.

**Cadd Parameters**



Feature Code: 3544  
 Style: **ByLevel** 0  
 Color: **ByLevel** 2 (green) Cell Name: Utilities Sanitary Sewer Clean-Out  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Sanitary Sewer Clean-Out CELL

**Plan Collect:** Plot center of cleanout. This data typically is supplied to Photogrammetry as a reference file.

[Topo Collect:](#) *This feature not shown in topo.*

**Plan Classify:** None

[Topo Classify:](#) *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Sanitary Sewer Forced Main

**Description:**

A conduit, usually underground, for carrying sewage (liquid and solid waste) that is under pressure from a pump.

**Cadd Parameters**



Feature Code: 3542  
Style: **ByLevel** ncmmap SS FM  
Color: **ByLevel** 2 (green) Cell Name: Utilities Sanitary Sewer Forced Main  
Weight: **ByLevel** 1 Level Name: Exist Utilities Sanitary Sewer Forced Main

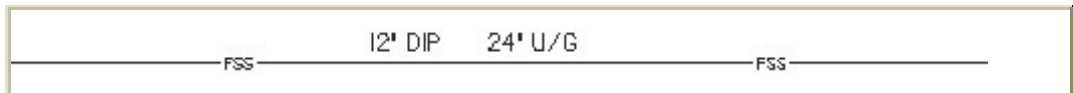
**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label size, material and depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Sanitary Sewer Forced Main SUE

**Description:**

A conduit, usually underground, for carrying sewage (liquid and solid waste) that is under pressure from a pump as determined by an approved underground engineering consultant.

**Cadd Parameters**



Feature Code: 2961  
Style: **ByLevel**  
Color: **ByLevel** 2 (green) Cell Name: Utilities Sanitary Sewer Forced Main SUE  
Weight: **ByLevel** 1 Level Name: Exist Utilities Sanitary Sewer Forced Main SUE

**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Sanitary Sewer Manhole

**Description:**

A covered opening used to gain access to underground sanitary sewer lines. Trim lines to accommodate symbol.

**Cadd Parameters**



Feature Code: 3543  
 Style: **ByLevel** 0  
 Color: **ByLevel** 2 (green)      Cell Name: Utilities Sanitary Sewer Manhole  
 Weight: **ByLevel** 1      Level Name: Exist Utilities Sanitary Sewer Manhole CELL

**Plan** Plot center of manhole. Typically arrives in a reference file to Photogrammetry.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting**  
**Example:**



## Utilities Sanitary Sewer Test Hole SUE

**Description:**

The accurate xyz location of an excavation created by an approved underground engineering consultant in the determination and location of underground sanitary sewer utilities.

**Cadd Parameters**



Feature Code: 2960  
 Style: **ByLevel** 0  
 Color: **ByLevel** 2 (green)      Cell Name: Utilities Sanitary Sewer Test Hole SUE  
 Weight: **ByLevel** 1      Level Name: Exist Utilities Sanitary Sewer Test Hole SUE CELL

**Plan** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Utilities Sanitary Sewer UG Line

**Description:**

An underground, artificial conduit for carrying sewage (liquid and solid waste).

**Cadd Parameters**



Feature Code:	3540	Cell Name:	Utilities Sanitary Sewer UG Line
Style:	ByLevel ncmmap SS U/G	Level Name:	Exist Utilities Sanitary Sewer UG Line
Color:	ByLevel 2 (green)		
Weight:	ByLevel 2		

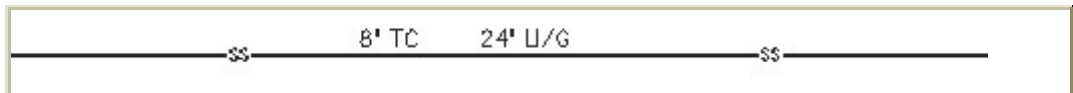
**Plan Collect:** Collect according to classification. Typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

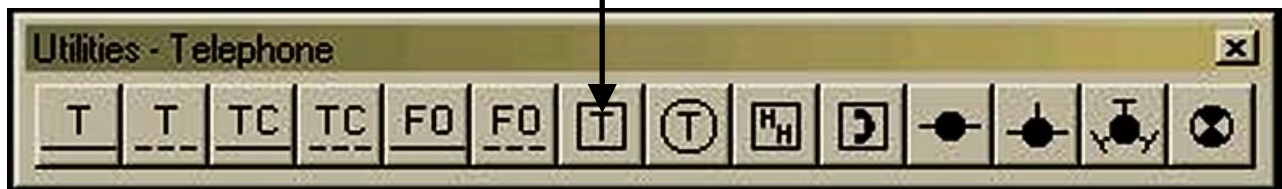
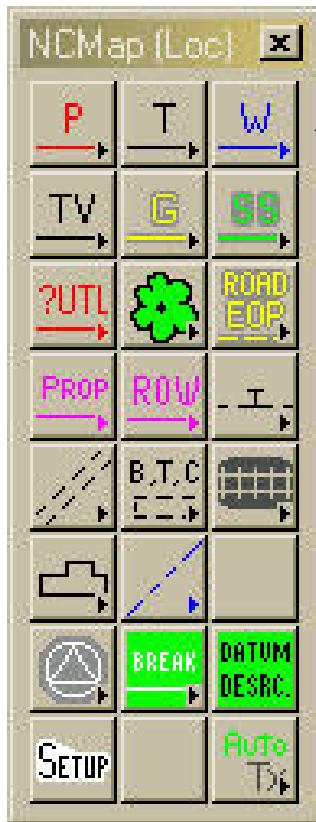
**Plan Classify:** Label size, material and depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# Utilities Telephone





# NCDOT Mapping Manual

## Utilities Telephone Booth

**Description:**

An outdoor public pay phone enclosed in a partial shelter or booth.

**Cadd Parameters**



Feature Code:	3511	Cell Name:	Utilities Telephone Booth
Style:	ByLevel 0	Level Name:	Exist Utilities Telephone Booth CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

**Plan Collect:** Plot center of booth. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** None

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Telephone Cell Tower

**Description:**

A structure tower who's main use is for telephone utilities.

**Cadd Parameters**



Feature Code:	3519	Cell Name:	Utilities Telephone Cell Tower
Style:	ByLevel 0	Level Name:	Exist Utilities Telephone Cell Tower CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

**Plan Collect:** Plot center of tower.

Topo Collect: *Same as Plan Sheets*

**Plan Classify:** None

Topo Classify: *Give ownership when it can be determined from classification or property data.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Telephone Hand Hole

**Description:**

A covered opening large enough for hand access to underground telephone cables access.

**Cadd Parameters**



Feature Code: 3517  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone Hand Hole  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone Hand Hole CELL

**Plan** Plot center of hand hole. This data typically arrives in a reference file.  
**Collect:**

[Topo](#) *This feature not shown in topo.*  
[Collect:](#)

**Plan** None  
**Classify:**

[Topo](#) *This feature not shown in topo.*  
[Classify:](#)

**Plotting**  
**Example:**



## Utilities Telephone Joint Use Power

**Description:**

A telephone pole which is used for telephone and power which may have a light attached.

**Cadd Parameters**



Feature Code: 3504  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone Joint Use Power  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone Joint Use Power CELL

**Plan** Plot center of pole. This data typically is supplied to Photogrammetry as a reference file with associated tag numbers.  
**Collect:**

[Topo](#) *This feature not shown in topo.*  
[Collect:](#)

**Plan** No label needed unless the pole has a light attached. If a light is attached label a "W/LT".  
**Classify:**

[Topo](#) *This feature not shown in topo.*  
[Classify:](#)

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Utilities Telephone Manhole

**Description:**

A covered opening used to gain access to underground telephone cables.

**Cadd Parameters**



Feature Code: 3513  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone Manhole  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone Manhole CELL

**Plan** Plot center of manhole. Typically arrives in a reference file.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting**  
**Example:**



## Utilities Telephone Pedestal

**Description:**

Access to an underground telephone cable.

**Cadd Parameters**



Feature Code: 3512  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone Pedestal  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone Pedestal CELL

**Plan** Plot center of pedestal. Typically arrives in a reference file.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

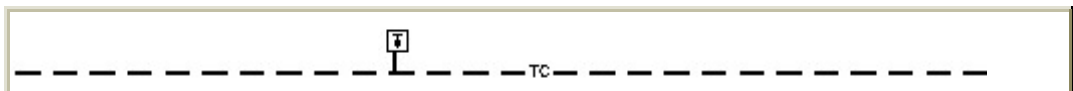
**Plan** None

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Utilities Telephone Pole

**Description:**

A utility pole used for telephone utilities and may have a light attached.

**Cadd Parameters**



Feature Code:	3502	Cell Name:	Utilities Telephone Pole
Style:	ByLevel 0	Level Name:	Exist Utilities Telephone Pole CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

**Plan Collect:** Plot center of pole. This data typically is supplied to Photogrammetry as a reference file with associated tag numbers.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** No label is needed unless the pole has a light attached, then label "W/LT".

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Utilities Telephone Test Hole SUE

**Description:**

The accurate xyz location of an excavation created by an approved underground engineering consultant in the determination and location of underground telephone utilities.

**Cadd Parameters**



Feature Code:	2970	Cell Name:	Utilities Telephone Test Hole SUE
Style:	ByLevel 0	Level Name:	Exist Utilities Telephone Test Hole SUE CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

**Plan Collect:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Telephone UG Cable

**Description:**

The means by which communication signals are transmitted to remote locations via an extensive network of underground cables.

**Cadd Parameters**



Feature Code: 3510  
Style: **ByLevel** ncmmap Tel Cab U/G  
Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone UG Cable  
Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone UG Cable

**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Telephone UG Cable SUE

**Description:**

The means by which communication signals are transmitted to remote locations via an extensive network of underground cables as determined by an approved underground engineering consultant.

**Cadd Parameters**



Feature Code: 2971  
Style: **ByLevel** ncmmap Tel Cab U/G SUE  
Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone UG Cable SUE  
Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone UG Cable SUE

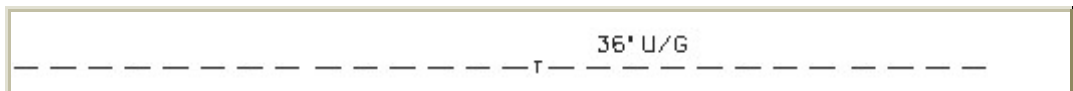
**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



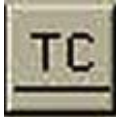
# NCDOT Mapping Manual

## Utilities Telephone UG Conduit

**Description:**

The means by which communication signals are transmitted to remote locations via an extensive network of underground conduits.

**Cadd Parameters**



Feature Code: 3516  
Style: **ByLevel** ncmmap Tel Con U/G  
Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone UG Conduit  
Weight: **ByLevel** 2 Level Name: Exist Utilities Telephone UG Conduit

**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Telephone UG Conduit SUE

**Description:**

The means by which communication signals are transmitted to remote locations via an extensive network of underground conduits as determined by an approved underground engineering consultant.

**Cadd Parameters**



Feature Code: 2972  
Style: **ByLevel** ncmmap Tel Con U/G SUE  
Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone UG Conduit SUE  
Weight: **ByLevel** 2 Level Name: Exist Utilities Telephone UG Conduit SUE

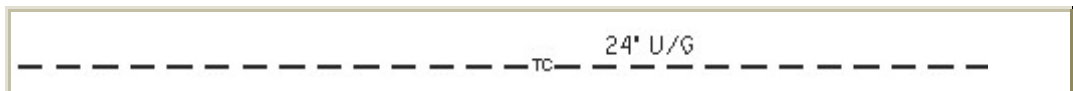
**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Telephone UG FO

**Description:**

The means by which communication signals are transmitted to remote locations via an extensive underground network of fiber optics.

**Cadd Parameters**



Feature Code: 3515  
Style: **ByLevel** ncmmap Tel FOC U/G  
Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone UG FO  
Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone UG FO

**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

Topo Collect: *This feature not shown in topo.*

**Plan Classify:** Label depth.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



## Utilities Telephone UG FO SUE

**Description:**

The means by which communication signals are transmitted to remote locations via an extensive underground network of fiber optics as determined by an approved underground engineering consultant.

**Cadd Parameters**



Feature Code: 2973  
Style: **ByLevel** ncmmap Tel FOC U/G SUE  
Color: **ByLevel** 6 (orange) Cell Name: Utilities Telephone UG FO SUE  
Weight: **ByLevel** 1 Level Name: Exist Utilities Telephone UG FO SUE

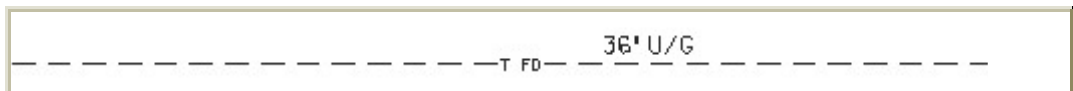
**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

Topo Collect: *This feature not shown in topo.*

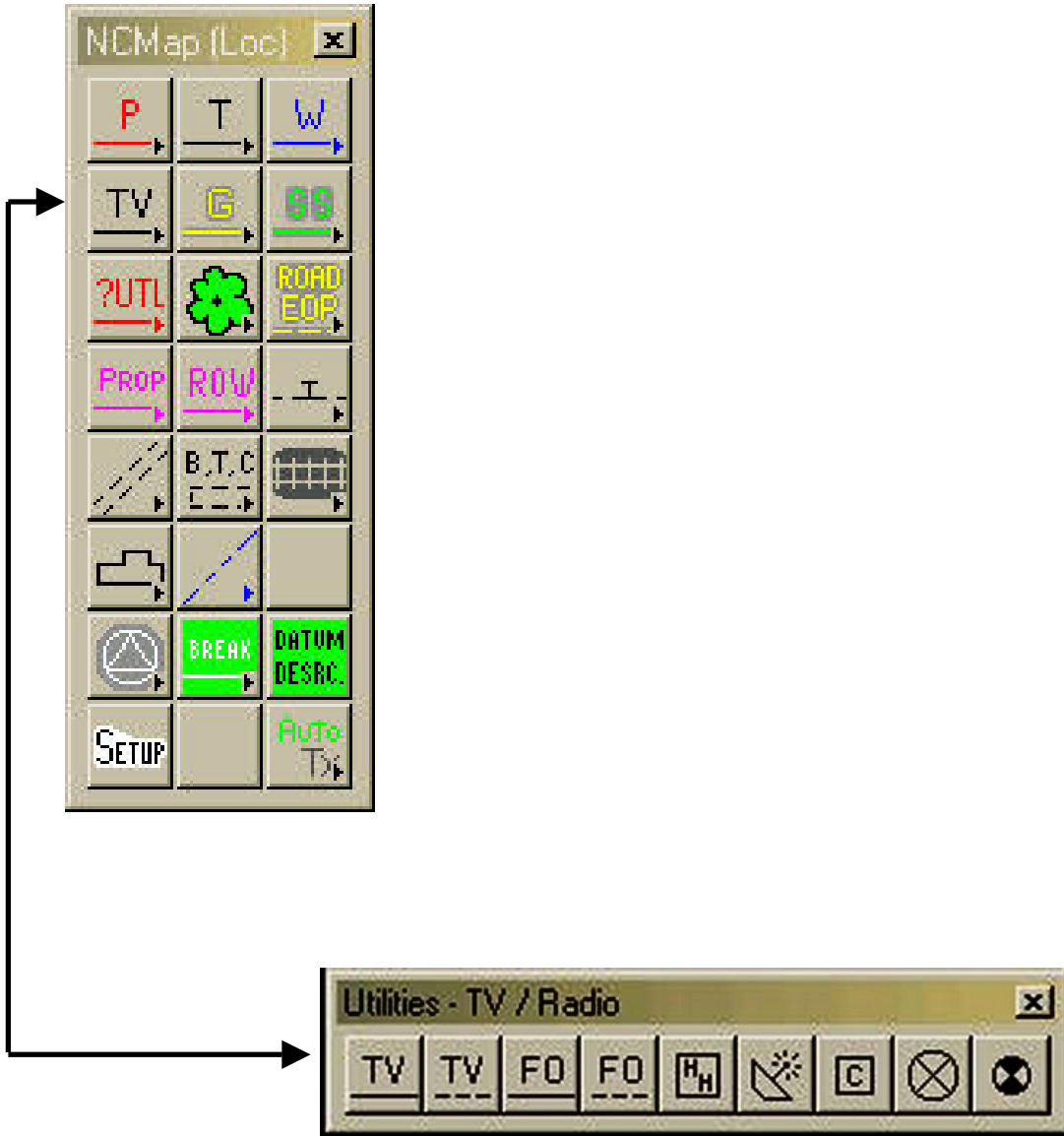
**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# Utilities TV





# NCDOT Mapping Manual

## Utilities TV Hand Hole

**Description:**

A covered opening large enough for hand access to underground TV cables.

**Cadd Parameters**



Feature Code:	3565	Cell Name:	Utilities TV Hand Hole
Style:	ByLevel 0	Level Name:	Exist Utilities TV Hand Hole CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

Plan Plot center of handhole. This data typically arrives in a reference file.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



## Utilities TV Pedestal

**Description:**

Access to an underground TV cable.

**Cadd Parameters**



Feature Code:	3561	Cell Name:	Utilities TV Pedestal
Style:	ByLevel 0	Level Name:	Exist Utilities TV Pedestal CELL
Color:	ByLevel 6 (orange)		
Weight:	ByLevel 1		

Plan Plot center of pedestal. This data typically arrives in a reference file.  
Collect:

Topo *This feature not shown in topo.*  
Collect:

Plan None  
Classify:

Topo *This feature not shown in topo.*  
Classify:

Plotting  
Example:



# NCDOT Mapping Manual

## Utilities TV Satellite Dish

**Description:**

A device designed to receive waves and transmit them to a medium for interpretation.

**Cadd Parameters**



Feature Code: 3562  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6 (orange)  
 Weight: **ByLevel** 1  
 Cell Name: Utilities TV Satellite Dish  
 Level Name: Exist Utilities TV Satellite Dish CELL

**Plan** Plot center of dish.  
**Collect:**

**Topo** *Same as Plan Sheets*  
**Collect:**

**Plan** None  
**Classify:**

**Topo** *N/A*  
**Classify:**

**Plotting**  
**Example:**



## Utilities TV Test Hole SUE

**Description:**

The accurate xyz location of an excavation created by an approved underground engineering consultant in the determination and location of underground television utilities.

**Cadd Parameters**



Feature Code: 2980  
 Style: **ByLevel** 0  
 Color: **ByLevel** 6  
 Weight: **ByLevel** 1  
 Cell Name: Utilities TV Test Hole SUE  
 Level Name: Exist Utilities TV Test Hole SUE CELL

**Plan** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Utilities TV Tower Radio

**Description:**

A tall metal framework used to transmit or receive electronic signals through the air.

**Cadd Parameters**



Feature Code: 3563  
Style: **ByLevel** 0  
Color: **ByLevel** 6 (orange) Cell Name: Utilities TV Tower Radio  
Weight: **ByLevel** 1 Level Name: Exist Utilities TV Tower Radio CELL

**Plan**

Plot center of tower. See "Fixed Scales" in the General Instructions section of this manual for feature scaling specifications.

**Topo**

*Same as Plan Sheets*

**Collect:**

**Plan**

Give type and usage.

**Classify:**

**Topo**

*Same as Plan Sheets.*

**Classify:**

**Plotting Example:**



## Utilities TV UG Cable

**Description:**

A buried cable used to transmit television signals.

**Cadd Parameters**



Feature Code: 3560  
Style: **ByLevel** ncmmap TV Cab U/G  
Color: **ByLevel** 6 (orange) Cell Name: Utilities TV UG Cable  
Weight: **ByLevel** 1 Level Name: Exist Utilities TV UG Cable

**Plan**

Collect according to classification. This data typically arrives in reference file.

**Collect:**

**Topo**

*This feature not shown in topo.*

**Collect:**

**Plan**

Label depth.

**Classify:**

**Topo**

*This feature not shown in topo.*

**Classify:**

**Plotting Example:**



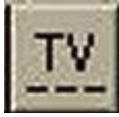
# NCDOT Mapping Manual

## Utilities TV UG Cable SUE

**Description:**

A buried cable used to transmit television signals as determined by an approved underground engineering consultant.

**Cadd Parameters**



Feature Code: 2981  
 Style: **ByLevel** ncmmap TV Cab U/G SUE  
 Color: **ByLevel** 6 Cell Name: Utilities TV UG Cable SUE  
 Weight: **ByLevel** 1 Level Name: Exist Utilities TV UG Cable SUE

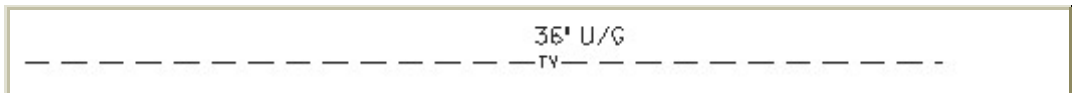
**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Utilities TV UG FO Cable

**Description:**

A buried fiber optic cable used to transmit television signals.

**Cadd Parameters**



Feature Code: 3564  
 Style: **ByLevel** ncmmap TV FOC U/G  
 Color: **ByLevel** 6 (orange) Cell Name: Utilities TV UG FO Cable  
 Weight: **ByLevel** 1 Level Name: Exist Utilities TV UG FO Cable

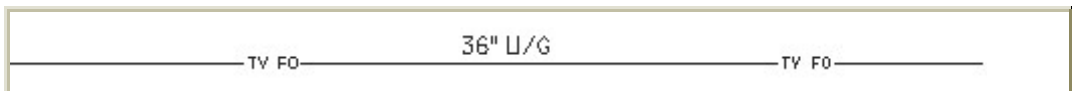
**Plan Collect:** Collect according to classification. This data typically arrives in reference file format.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Label depth.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities TV UG FO Cable SUE

**Description:**

A buried fiber optic cable used to transmit television signals as determined by an approved underground engineering consultant.

**Cadd Parameters**



Feature Code:	2982		
Style:	ByLevel	ncmap TV FOC U/G SUE	
Color:	ByLevel	6	Cell Name: Utilities TV UG FO Cable SUE
Weight:	ByLevel	1	Level Name: Exist Utilities TV UG FO Cable SUE

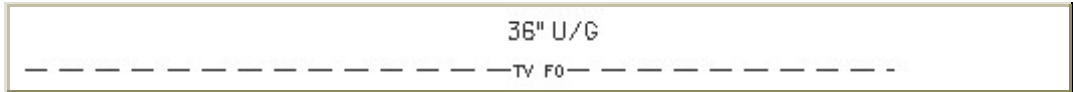
**Plan Collect:** Reference file only. This data is collected by consultants and should not be revised.

Topo Collect: *This feature not shown in topo.*

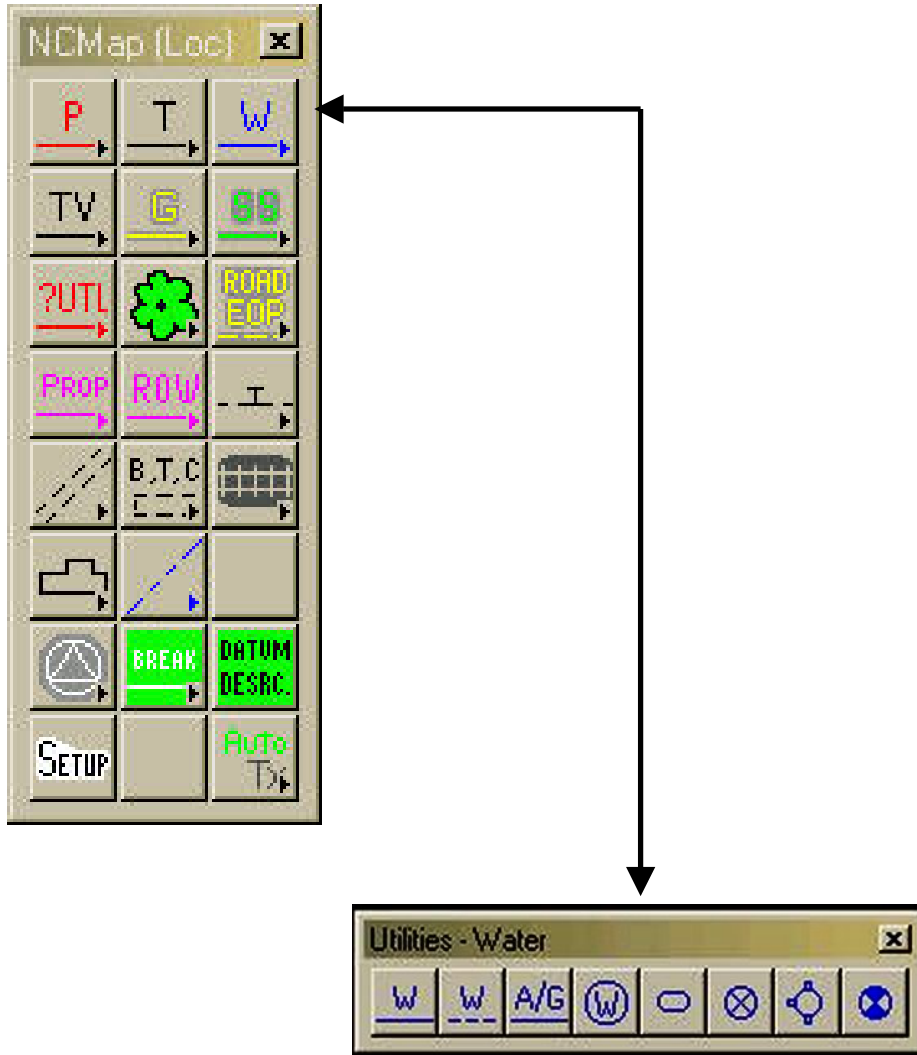
**Plan Classify:** Reference file only. This data is collected by consultants and should not be revised.

Topo Classify: *This feature not shown in topo.*

**Plotting Example:**



# Utilities Water



# NCDOT Mapping Manual

## Utilities Water AG Line

**Description:**

An above ground pipe designed to carry and distribute water. Pipes will vary in size and materials.

**Cadd Parameters**



Feature Code: 3525

Style: **ByLevel** 0

Color: **ByLevel** 1 (blue)

Weight: **ByLevel** 2

Cell Name: Utilities Water AG Line

Level Name: Exist Utilities Water AG Line

**Plan**

**Collect:**

Collect according to classification. This data typically arrives in a reference file.

**Topo**

*This feature not shown in topo.*

**Collect:**

**Plan**

Label size, material and depth.

**Classify:**

**Topo**

*This feature not shown in topo.*

**Classify:**

**Plotting Example:**



## Utilities Water Fire Hydrant

**Description:**

A device to which a fire hose can be connected. It allows large volumes of water to pass through it.

**Cadd Parameters**



Feature Code: 3523

Style: **ByLevel** 0

Color: **ByLevel** 1 (blue)

Weight: **ByLevel** 1

Cell Name: Utilities Water Fire Hydrant

Level Name: Exist Utilities Water Fire Hydrant CELL

**Plan**

**Collect:**

Plot center of hydrant. This data typically arrives in a reference file.

**Topo**

*This feature not shown in topo.*

**Collect:**

**Plan**

None

**Classify:**

**Topo**

*This feature not shown in topo.*

**Classify:**

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Water Manhole

**Description:**

A covered opening used to provide access to underground water lines. Trim line to accommodate symbol.

**Cadd Parameters**



Feature Code: 3524

Style: **ByLevel** 0

Color: **ByLevel** 1 (blue)

Weight: **ByLevel** 1

Cell Name: Utilities Water Manhole

Level Name: Exist Utilities Water Manhole CELL

**Plan** Plot center of manhole. This data typically arrives in a reference file.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** None

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**



## Utilities Water Meter

**Description:**

A meter placed along a water line prior to its entrance into a residence or business for the sole purpose of metering the amount of water used.

**Cadd Parameters**



Feature Code: 3521

Style: **ByLevel** 0

Color: **ByLevel** 1 (blue)

Weight: **ByLevel** 1

Cell Name: Utilities Water Meter

Level Name: Exist Utilities Water Meter CELL

**Plan** Plot center of meter. This data typically arrives in a reference file.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

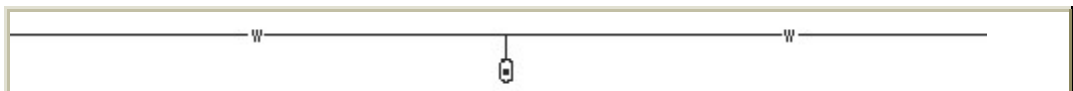
**Plan** None

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting Example:**





# NCDOT Mapping Manual

## Utilities Water Test Hole SUE

**Description:**

The accurate xyz location of an excavation created by an approved underground engineering consultant in the determination and location of underground water utilities.

**Cadd Parameters**



Feature Code: 2990  
Style: **ByLevel** 0  
Color: **ByLevel** 1 (blue)  
Weight: **ByLevel** 1

Cell Name: Utilities Water Test Hole SUE  
Level Name: Exist Utilities Water Test Hole SUE CELL

**Plan Collect:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Data collected by Location field parties or their consultants and is supplied to Photogrammetry as reference files only.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



## Utilities Water UG Line

**Description:**

An underground pipe designed to carry and distribute water. Pipes will vary in size and materials.

**Cadd Parameters**



Feature Code: 3520  
Style: **ByLevel** ncmmap Wat U/G  
Color: **ByLevel** 1 (blue)  
Weight: **ByLevel** 1

Cell Name: Utilities Water UG Line  
Level Name: Exist Utilities Water UG Line

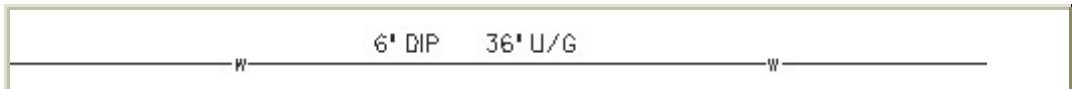
**Plan Collect:** Collect according to classification. This data typically arrives in a reference file.

**Topo Collect:** *This feature not shown in topo.*

**Plan Classify:** Label size, material and depth.

**Topo Classify:** *This feature not shown in topo.*

**Plotting Example:**



# NCDOT Mapping Manual

## Utilities Water UG Line SUE

**Description:**

An underground pipe designed to carry and distribute water as determined by an approved underground engineering consultant. Pipes will vary in size

**Cadd Parameters**



Feature Code: 2991  
 Style: **ByLevel** ncmmap Wat U/G SUE  
 Color: **ByLevel** 1 (blue) Cell Name: Utilities Water UG Line SUE  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Water UG Line SUE

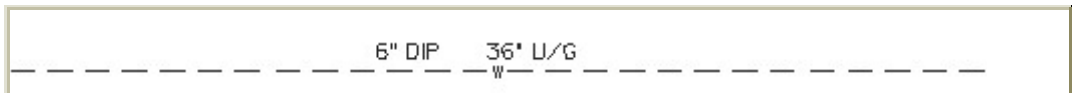
**Plan** Reference file only. This data is collected by consultants and should not be revised.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

**Plan** Reference file only. This data is collected by consultants and should not be revised.  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



## Utilities Water Valve

**Description:**

A valve placed along a water line which allows water flow in the line to be turned on and off. Trim line to accommodate symbol.

**Cadd Parameters**



Feature Code: 3522  
 Style: **ByLevel** 0  
 Color: **ByLevel** 1 (blue) Cell Name: Utilities Water Valve  
 Weight: **ByLevel** 1 Level Name: Exist Utilities Water Valve CELL

**Plan** Plot center of valve. This data typically arrives in a reference file.  
**Collect:**

**Topo** *This feature not shown in topo.*  
**Collect:**

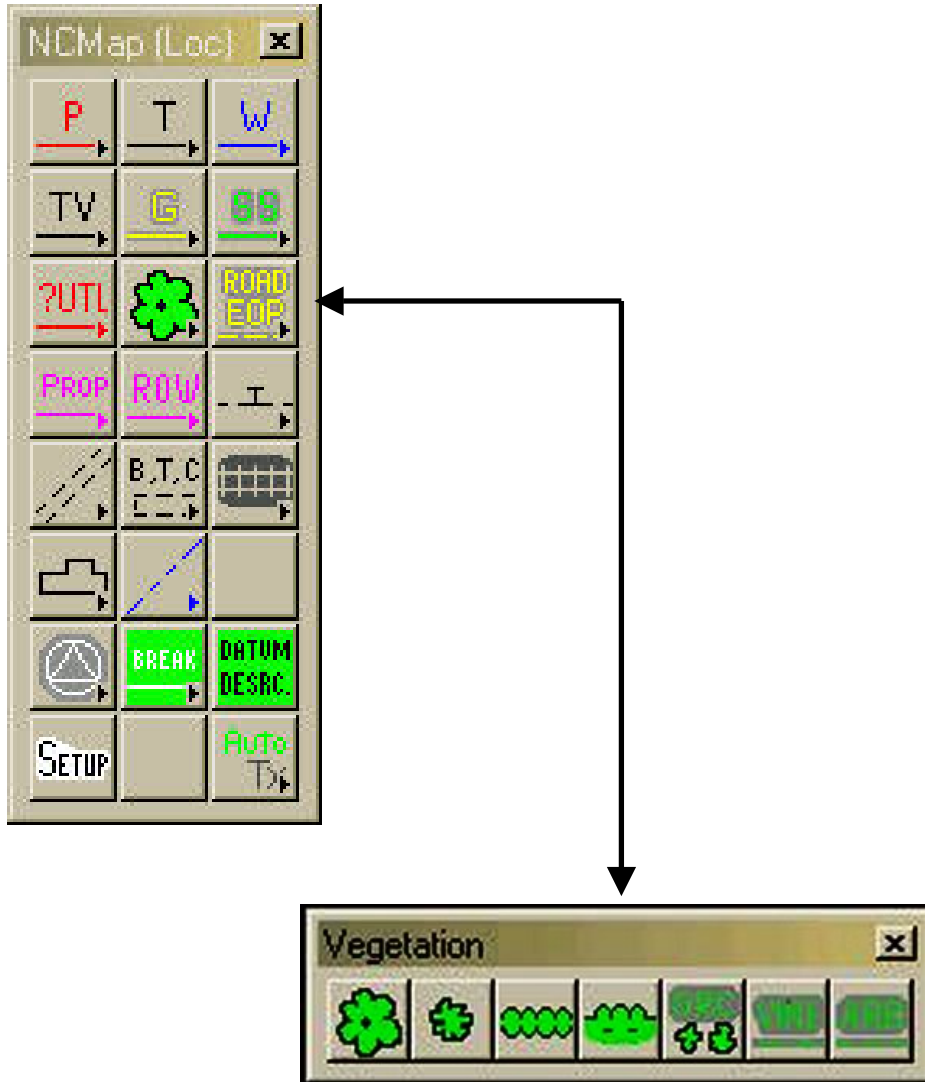
**Plan** None  
**Classify:**

**Topo** *This feature not shown in topo.*  
**Classify:**

**Plotting**  
**Example:**



# Vegetation



# NCDOT Mapping Manual

## Vegetation Arbor

**Description:**

A structure usually made of rustic work or latticework on which plants such as climbing shrubs are grown.

**Cadd Parameters**



Feature Code: 3607

Style: **ByLevel** 2

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Vegetation Arbor

Level Name: Exist Vegetation Arbor

**Plan** Plot outline of area.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

**Plan** Label as "Arbor".

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting**  
**Example:**

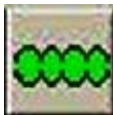


## Vegetation Hedge Row

**Description:**

Used to represent a hedgerow, low growth and scrub.

**Cadd Parameters**



Feature Code: 3603

Style: **ByLevel** ncmaphdg

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Vegetation Hedge Row

Level Name: Exist Vegetation Hedge Row

**Plan** Plot all hedges. Sometimes used as roadside beautification.

**Collect:**

Topo *This feature not shown in topo.*

Collect:

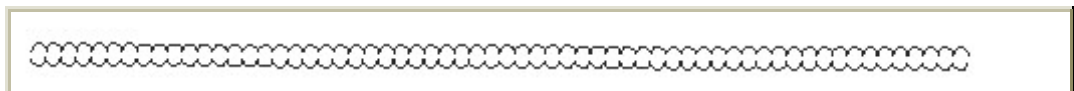
**Plan** No label is needed unless it is used for Roadside Beautification which is then labeled "WILDFLOWERS".

**Classify:**

Topo *This feature not shown in topo.*

Classify:

**Plotting**  
**Example:**



# NCDOT Mapping Manual

## Vegetation Orchard

**Description:**

An area of organized, cultivated trees.

**Cadd Parameters**



Feature Code: 3605

Style: **ByLevel** ncmmap Orc

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Vegetation Orchard

Level Name: Exist Vegetation Orchard

**Plan** Plot outline of area.

**Collect:**

Topo Plot if any side measures 0.5 inches in length or more at plotting scale.

Collect:

**Plan** Label as "Orchard / Tree Farm".

**Classify:**

Topo Same as Plan Sheets

Classify:

**Plotting Example:**



## Vegetation Shrub

**Description:**

Used to represent a single shrub.

**Cadd Parameters**



Feature Code: 3602

Style: **ByLevel** 0

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Vegetation Shrub

Level Name: Exist Vegetation Shrub CELL

**Plan** Plot all shrubs.

**Collect:**

Topo This feature not shown in topo.

Collect:

**Plan** None.

**Classify:**

Topo This feature not shown in topo.

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## Vegetation Tree

**Description:**

Used to represent a single tree.

**Cadd Parameters**



Feature Code: 3601

Style: **ByLevel** 0

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Vegetation Tree

Level Name: Exist Vegetation Tree CELL

**Plan**

Plot all trees, and group into woods whenever possible.

**Collect:**

Topo

*This feature not shown in topo.*

Collect:

**Plan**

Type and size if appropriate.

**Classify:**

Topo

*This feature not shown in topo.*

Classify:

**Plotting Example:**



## Vegetation Vineyard

**Description:**

An area of organized, cultivated vines.

**Cadd Parameters**



Feature Code: 3606

Style: **ByLevel** 3

Color: **ByLevel** 2 (green)

Weight: **ByLevel** 1

Cell Name: Vegetation Vineyard

Level Name: Exist Vegetation Vineyard

**Plan**

Plot outline of area.

**Collect:**

Topo

*Plot if any side measures 0.5 inches in length or more at plotting scale.*

Collect:

**Plan**

Label as "Vineyard".

**Classify:**

Topo

*Same as Plan Sheets*

Classify:

**Plotting Example:**



# NCDOT Mapping Manual

## Vegetation Woods Line

**Description:**

A line delineating the boundary of a group of trees.

**Cadd Parameters**



Feature Code: 3604  
 Style: **ByLevel** ncmmap Wds  
 Color: **ByLevel** 2 (green) Cell Name: Vegetation Woods Line  
 Weight: **ByLevel** 1 Level Name: Exist Vegetation Woods Line

**Plan**

Plot all groups of trees. Woods line must be spaded for all R/W clearings, all engineered roads, railroads, double line streams, and around all buildings. Woods lines are not spaded for unimproved roads and single line streams. Close out all wood lines which are within the mapping area.

**Collect:**

**Topo**

*Plot all groups of trees. Omit isolated trees, low scattered growth. Sade woods for all easement clearings, engineered roads, railroads, double line streams and around buildings. Do not spade woods for single line streams. See "Fixed Scales" in the General Instructions section for feature scaling specifications.*

**Collect:**

**Plan**

None.

**Classify:**

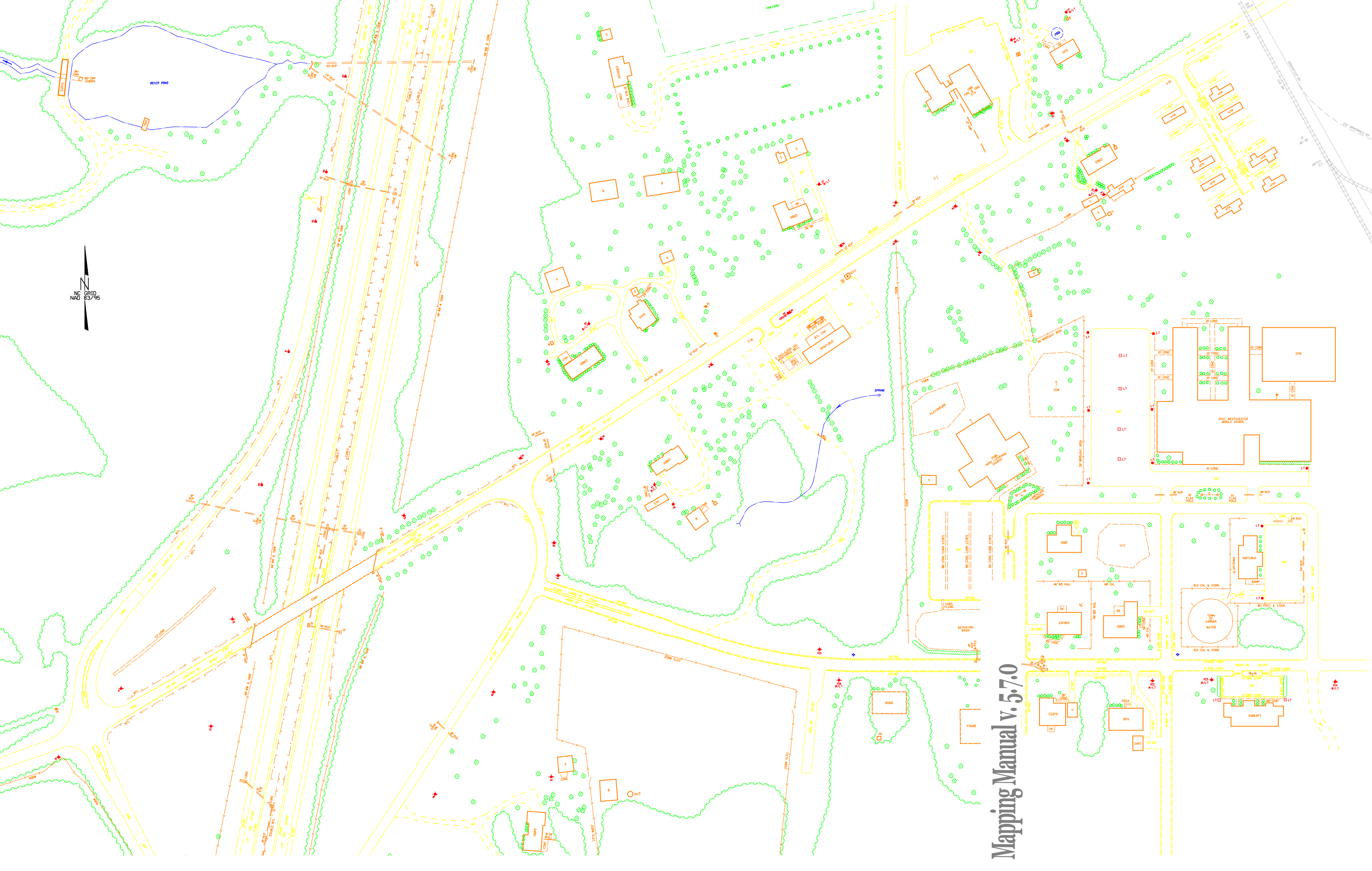
**Topo**

*None.*

**Classify:**

**Plotting Example:**

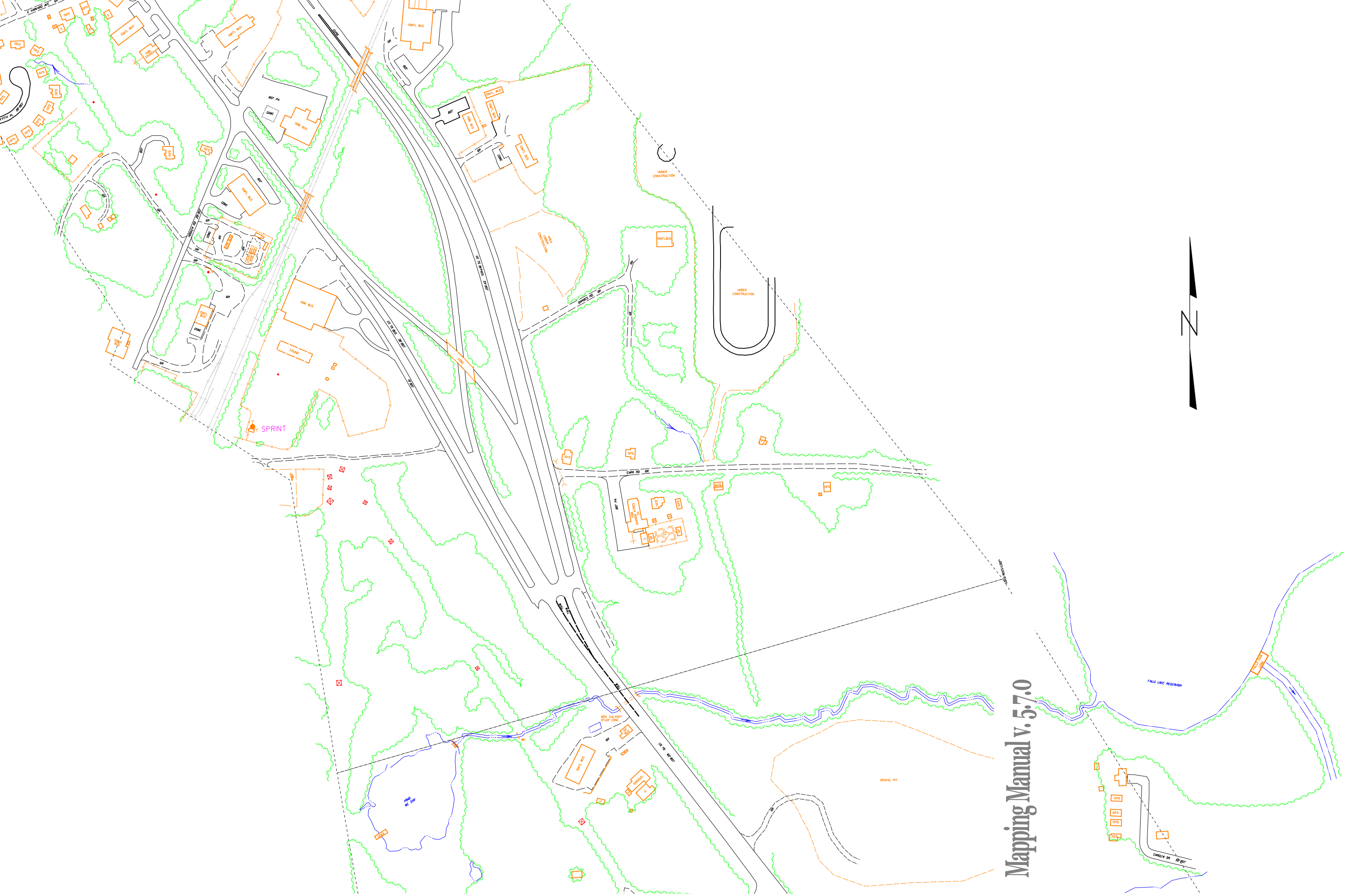




NC GRID  
NAD 83/95

Mapping Manual v.5.7.0





**NCDOT - Feature Codes**

Revision Date 3/13/2009

Description	Code	Description	Code	Description	Code
<b>Boundary and Property</b>		<b>Roads</b>		<b>Vegetation</b>	
Boundary City Limits	3728	Roads Change in Surface	3006	Vegetation Hedge Row	3603
Boundary County Line	3726	Roads Concrete Median Barrier	3009	Vegetation Orchard	3605
Boundary Reservation	3729	Roads Curbs	3004	Vegetation Shrub	3602
Boundary State Line	3725	Roads EOP	3001	Vegetation Tree	3601
Boundary Township Line	3727	Roads EOP Other	3003	Vegetation Vineyard	3606
Property Corner	3708	Roads EOT	3002	Vegetation Woods Line	3604
Property Iron Pin	3701	Roads Soil	3005	Vegetation Arbor	3607
Property Line	3721	<b>Structure Major</b>			
Property Monument	3702	Bridge Seat Cogo Point	3104		
Property Tie Line	3730	Bridge WW	3119		
<b>Building and Other Culture</b>		Deck Tunnel Box Culvert	3101		
Building	3401	<b>Structure Minor</b>		<b>Pipes</b>	
Building Foundations	3402	Drop Inlet	3125	<b>Corrugated Metal Arched</b>	
Building Metal Canopy	3403	Footbridge	3102	40"x31" P A	3231
AG Tank	3423	Bridge Seam	3103	46"x36" P A	3236
Anchor (Guy Wire)	3508	Head and End Wall	3120	53"x41" P A	3241
Area Outline (Decks, Patio, Steps)	3405	Junction Box	3126	60"x46" P A	3246
ATM	3412	Catch Basin	3122	66"x51" P A	3251
Billboard Cableway	3441	Paved Ditch or Gutter	3123	73"x55" P A	3255
Dam	3432	Storm Sewer Line	3121	81"x59" P A	3259
Fence Line	3410	Storm Sewer Manhole	3124	87"x63" P A	3263
Gas Pump Island	3421	<b>Survey</b>		95"x67" P A	3267
Gas Pump or Vent	3422	Survey Centerline	3007	103"x71" P A	3271
Gate	3411	Survey Centerline Point	3010	112"x75" P A	3275
Panel	3902	<b>Utilities Gas</b>		117"x79" P A	3279
Sign	3440	Gas A/G Line	3533	128"x83" P A	3283
UG Tank	3420	Gas Meter	3532	137"x87" P A	3287
Well	3430	Gas Test Hole SUE	2940	142"x91" P A	3291
<b>Control</b>		Gas UG Line	3530	<b>Reinforced Concrete</b>	
Bench Mark	4021	Gas UG Line SUE	2941	8" RCP 200 mm	4208
County Line Monument	4024	Gas Valve	3531	10" RCP 250 mm	4210
GPS Horizontal	4016	<b>Utilities Other</b>		12" RCP 300 mm	4212
GPS Vertical	4017	Pole	3505	15" RCP 375 mm	4215
HARN Monument	4023	Other Pole Metal Strain	3528	18" RCP 450 mm	4218
NCGS Horizontal	4011	Other Pole Metal with Mast Arm	3527	24" RCP 600 mm	4224
NCGS Horizontal and Vertical	4015	Other Pole With Base	3507	30" RCP 750 mm	4230
NCGS Vertical	4013	Other Traffic Signal Box	3404	36" RCP 900 mm	4236
NGS Horizontal	4010	Other Unknown UG SUE	3509	42" RCP 1050 mm	4242
NGS Horizontal and Vertical	4014	<b>Utilities Power</b>		48" RCP 1200 mm	4248
NGS Vertical	4012	Power H-Frame Pole	3506	54" RCP 1350 mm	4254
Supplemental Horizontal	4018	Power Joint Use Telephone	3503	60" RCP 1500 mm	4260
Supplemental Horizontal and Vertical	4020	Power Manhole	3552	66" RCP 1650 mm	4266
Supplemental Vertical	4019	Power Pole	3501	72" RCP 1800 mm	4272
Default Symbol	1	Power Test Hole SUE	2950	78" RCP 1950 mm	4278
<b>DTM Features</b>		Power Tower	3553	84" RCP 2100 mm	4284
DTM Breakline	4005	Power Hand Hole	3554	90" RCP 2250 mm	4290
DTM Breakline Underwater	4007	Power Transformer	3551	96" RCP 2400 mm	4296
DTM Crownline	3008	Power UG Cable	3550	<b>Corrugated Metal</b>	
DTM Drainline	4003	Power UG Cable SUE	2951	8" CMP 200 mm	5208
DTM Regular Point	4001	<b>Utilities Sanitary Sewer</b>		10" CMP 250 mm	5210
DTM Regular Point Underwater	4008	Sanitary Sewer Clean-Out	3544	12" CMP 300 mm	5212
DTM Ridgeline	4002	Sanitary Sewer Forced Main	3542	15" CMP 375 mm	5215
DTM Spot Elevation	4000	Sanitary Sewer Forced Main SUE	2961	18" CMP 450 mm	5218
DTM Tidal Ditch	4004	Sanitary Sewer Manhole	3543	24" CMP 600 mm	5224
DTM Top of Rail	4006	Sanitary Sewer Test Hole SUE	2960	30" CMP 750 mm	5230
<b>Environmental (PDU Unit)</b>		Sanitary Sewer A/G Line	3541	36" CMP 900 mm	5236
Endangered Animal Boundary	3615	Sanitary Sewer UG Line	3540	42" CMP 1050 mm	5242
Endangered Plant Boundary	3608	<b>Utilities Telephone</b>		48" CMP 1200 mm	5248
Wetland Boundary	3627	Telephone Cell Tower	3519	54" CMP 1350 mm	5254
Jurisdictional Stream NEU Mitigable	3623	Telephone Hand Hole	3517	60" CMP 1500 mm	5260
Jurisdictional Stream NEU NonMitigable	3626	Telephone Joint Use Power	3504	66" CMP 1650 mm	5266
Hydro Swamp or Marsh	3622	Telephone Manhole	3513	72" CMP 1800 mm	5272
<b>Guardrail</b>		Telephone Booth	3511	78" CMP 1950 mm	5278
Guardrail	3301	Telephone Pedestal	3512	84" CMP 2100 mm	5284
Guardrail Cable Guide Rail	3302	Telephone Pole	3502	90" CMP 2250 mm	5290
<b>Hydrography</b>		Telephone Test Hole SUE	2970	96" CMP 2400 mm	5296
Jurisdictional Stream or Body of Water	3621	Telephone UG Cable	3510	<b>High Density Polyethylene Extruded</b>	
Hydro Pool or Reservoir	3625	Telephone UG Cable SUE	2971	8" HDPE 200 mm	6208
Hydro Spring	3624	Telephone UG Conduit	3516	10" HDPE 250 mm	6210
Hydro Stream or Body of Water	3620	Telephone UG Conduit SUE	2972	12" HDPE 300 mm	6212
<b>Railroads</b>		Telephone UG FO	3515	15" HDPE 375 mm	6215
Railroads Abandoned	3030	Telephone UG FO SUE	2973	18" HDPE 450 mm	6218
Railroads Dismantled	3031	<b>Utilities TV</b>		24" HDPE 600 mm	6224
Railroads Signal Milepost	3021	TV Pedestal	3561	30" HDPE 750 mm	6230
Railroads Standard Gauge	3020	TV Hand Hole	3565	36" HDPE 900 mm	6236
Railroads Switch Box	3022	TV Satellite Dish	3562	42" HDPE 1050 mm	6242
<b>Right of Way</b>		TV Test Hole SUE	2980	48" HDPE 1200 mm	6248
Right of Way Control of Access Line	3707	TV Tower Radio	3563	54" HDPE 1350 mm	6254
Right of Way Easement Line	3724	TV UG Cable	3560	60" HDPE 1500 mm	6260
Right of Way Line	3722	TV UG Cable SUE	2981	66" HDPE 1650 mm	6266
Right of Way Monument	3703	TV UG FO Cable	3564	72" HDPE 1800 mm	6272
		TV UG FO Cable SUE	2982	78" HDPE 1950 mm	6278
		<b>Utilities Water</b>		84" HDPE 2100 mm	6284
		Water AG Line	3525	90" HDPE 2250 mm	6290
		Water Fire Hydrant	3523	96" HDPE 2400 mm	6296
		Water Manhole	3524		
		Water Meter	3521		
		Water Test Hole SUE	2990		
		Water UG Line	3520		
		Water UG Line SUE	2991		
		Water Valve	3522		

**NC DOT - Feature Codes**

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Boundary State Line	3725	Roads EOP	3001	Vegetation Shrub	3602
Boundary Township Line	3727	Roads EOP Other	3003	Vegetation Tree	3601
Property Corner	3708	Roads EOT	3002	Vegetation Vineyard	3606
Property Iron Pin	3701	Roads Soil	3005	Vegetation Woods Line	3604
Property Line	3721	<b>Structure Major</b>		Vegetation Arbor	3607
Property Monument	3702	Bridge Seat Cogo Point	3104		
Property Tie Line	3730	Bridge WW	3119		
		Deck Tunnel Box Culvert	3101		
<b>Building and Other Culture</b>					
Building	3401	<b>Structure Minor</b>		<b>Pipes</b>	
Building Foundations	3402	Drop Inlet	3125	<b>Corrugated Metal Arched</b>	
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Gas Pump or Vent	3422	Survey Centerline	3007	103"x71" P A	3271
Gate	3411	Survey Centerline Point	3010	112"x75" P A	3275
Panel	3902	<b>Utilities Gas</b>		117"x79" P A	3279
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UG Tank	3420	Gas Meter	3532	131"x87" P A	3287
Well	3430	Gas Test Hole SUE	2940	142"x91" P A	3291
		Gas UG Line	3530		
		Gas Line SUE	2941	<b>Reinforced Concrete</b>	
		Gas Valve	3531	8" RCP 200 mm	4208
<b>Control</b>					
Bench Mark	4021	<b>Utilities Other</b>		10" RCP 250 mm	4210
County Line Monument	4024	Pole	3505	12" RCP 300 mm	4212
GPS Horizontal	4016	Other Pole Metal Strain	3528	15" RCP 375 mm	4215
GPS Vertical	4017	Other Pole Metal with Mast Arm	3527	18" RCP 450 mm	4218
HARN Monument	4023	Other Pole With Base	3507	24" RCP 600 mm	4224
NCGS Horizontal	4011	Other Traffic Signal Box	3404	30" RCP 750 mm	4230
NCGS Horizontal and Vertical	4015	Other Unknown UG SUE	3509	38" RCP 900 mm	4236
NCGS Vertical	4013	<b>Utilities Power</b>		42" RCP 1050 mm	4242
NGS Horizontal	4010	Power H-Frame Pole	3506	48" RCP 1200 mm	4248
NGS Horizontal and Vertical	4014	Power Joint Use Telephone	3503	54" RCP 1350 mm	4254
NGS Vertical	4012	Power Manhole	3552	60" RCP 1500 mm	4260
Supplemental Horizontal	4018	Power Pole	3501	68" RCP 1650 mm	4266
Supplemental Horizontal and Vertical	4020	Power Test Hole SUE	2950	72" RCP 1800 mm	4272
Supplemental Vertical	4019	Power Tower	3553	78" RCP 1950 mm	4278
Default Symbol	1	Power Hand Hole	3554	84" RCP 2100 mm	4284
		Power Transformer	3551	90" RCP 2250 mm	4290
<b>DTM Features</b>					
DTM Breakline	4005	Power UG Cable	3550	96" RCP 2400 mm	4296
DTM Breakline Underwater	4007	<b>Utilities Sanitary Sewer</b>			
DTM Crownline	3008	Sanitary Sewer Clean-Out	3544	<b>Corrugated Metal</b>	
DTM Drainline	4003	Sanitary Sewer Forced Main	3542	8" CMP 200 mm	5208
DTM Regular Point	4001	Sanitary Sewer Forced Main SUE	2961	10" CMP 250 mm	5210
DTM Regular Point Underwater	4008	Sanitary Sewer Manhole	3543	12" CMP 300 mm	5212
DTM Ridgeline	4002	Sanitary Sewer Test Hole SUE	2960	15" CMP 375 mm	5215
DTM Spot Elevation	4000	Sanitary Sewer A/G Line	3541	18" CMP 450 mm	5218
DTM Tidal Ditch	4004	Sanitary Sewer UG Line	3540	24" CMP 600 mm	5224
DTM Top of Rail	4006	<b>Utilities Telephone</b>		30" CMP 750 mm	5230
		Telephone Call Tower	3519	38" CMP 900 mm	5236
<b>Environmental (PDU Unit)</b>					
Endangered Animal Boundary	3615	Telephone Hand Hole	3517	42" CMP 1050 mm	5242
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Jurisdictional Stream NEU Mitigable	3623	Telephone Pedestal	3512	60" CMP 1500 mm	5260
Jurisdictional Stream NEU NonMitigable	3626	Telephone Pole	3502	68" CMP 1650 mm	5266
Hydro Swamp or Marsh	3622	Telephone Test Hole SUE	2970	72" CMP 1800 mm	5272
		Telephone UG Cable	3510	78" CMP 1950 mm	5278
		Telephone UG Conduit	2971	84" CMP 2100 mm	5284
		Telephone UG Conduit SUE	2972	90" CMP 2250 mm	5290
		Telephone UG FO	3515	96" CMP 2400 mm	5296
		Telephone UG FO SUE	2973		
		<b>Utilities TV</b>		<b>High Density Polyethylene Extruded</b>	
		TV Pedestal	3561	8" HDPE 200 mm	6208
		TV Hand Hole	3565	10" HDPE 250 mm	6210
		TV Satellite Dish	3562	12" HDPE 300 mm	6212
		TV Test Hole SUE	2980	15" HDPE 375 mm	6215
		TV Tower Radio	3563	18" HDPE 450 mm	6218
		TV UG Cable	3560	24" HDPE 600 mm	6224
		TV UG Cable SUE	2981	30" HDPE 750 mm	6230
		TV UG FO Cable	3564	36" HDPE 900 mm	6236
		TV UG FO Cable SUE	2982	42" HDPE 1050 mm	6242
		<b>Utilities Water</b>		48" HDPE 1200 mm	6248
		Water AG Line	3525	54" HDPE 1350 mm	6254
		Water Fire Hydrant	3523	60" HDPE 1500 mm	6260
		Water Manhole	3524	68" HDPE 1650 mm	6266
		Water Meter	3521	72" HDPE 1800 mm	6272
		Water Test Hole SUE	2990	78" HDPE 1950 mm	6278
		Water UG Line	3520	84" HDPE 2100 mm	6284
		Water UG Line SUE	2991	90" HDPE 2250 mm	6290
		Water Valve	3522	96" HDPE 2400 mm	6296