MODULE 3: SUPPORT

Participant Guide
spatialNET Standard Users Workbook
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Version 1.0
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OVERVIEW:

This module provides an overview of modeling different support structures and routes supported in spatialNET.

OBJECTIVES:

By completing this module, participants will be able to:

- Add and modify underground support structures.
- Create and edit aerial support structures.
- Update and create conduit information.
- Associate addresses to support structures and add drop lines.

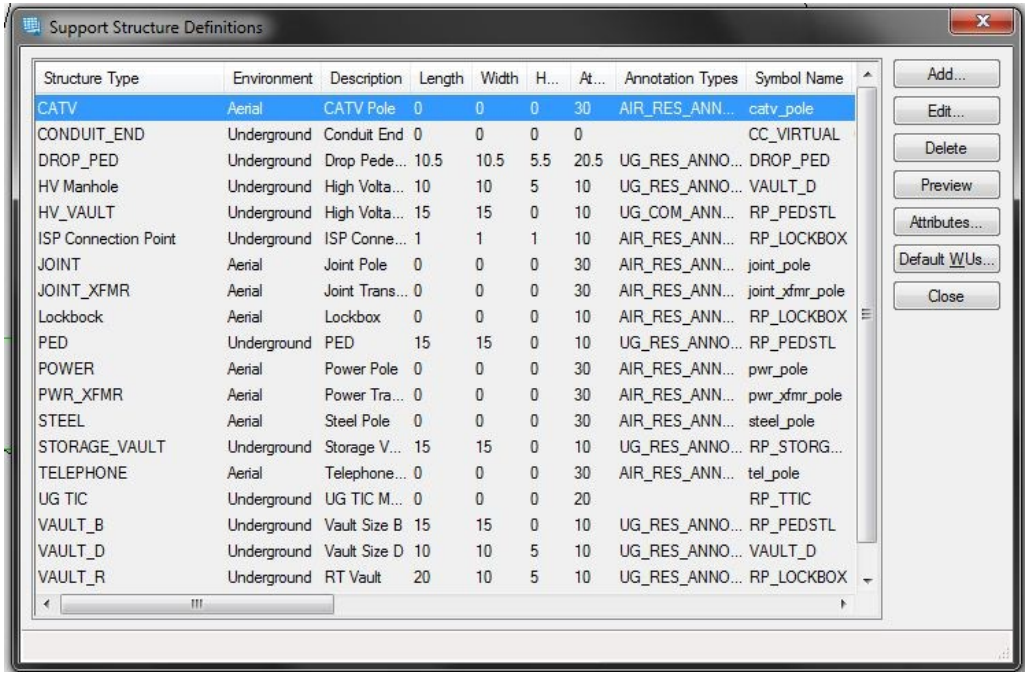
NOTES

SUPPORT STRUCTURE CONFIGURATION

NOTES

spatialNET generally supports two types of support structures: aerial and underground. There is a subset of underground supports involving conduits. Configuring support structures in the dictionary will based on those two types of support structures and then the process of updating the following definitions:

- Support Structure Definitions
- Support Structure Annotation Definitions
- Cable Support Definitions
- Support Drop Definitions
- Support Duct Type Definitions
- Support Structure Boundary Definitions
- Support Anchor Definitions
- Cable Support Annotation Definitions
- Support Duct Templates
- Support Duct Radius Definitions



Areas of Discussion:

- Type of support structures
- Support environments
- Duct standards
- Drafting standards for support

ADDING AERIAL SUPPORT

NOTES

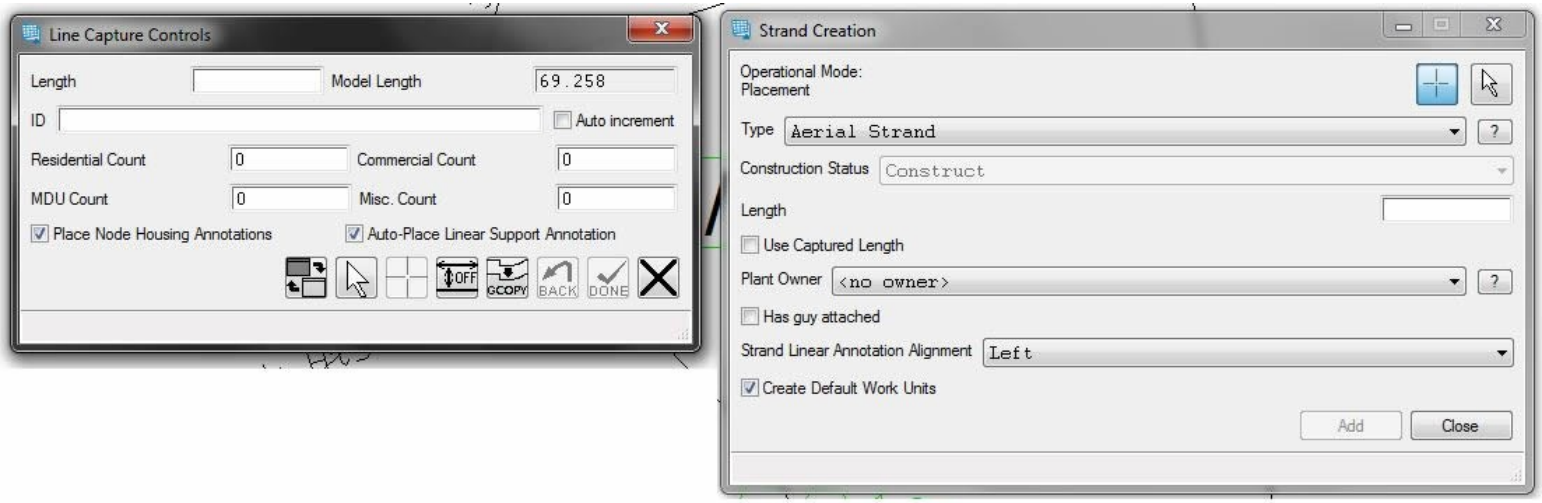
spatialNET users can add aerial support in a design mode or in as-built mode.

	Function	Use
	Set Guy	Adds guy wire information to the strand.
	Remove Guy	Removes the guy wire information from the strand.
	Add Telephone Pole	Places telephone pole on the map.
	Add Power Pole	Places power utility pole on the map.
	Add Joint Pole	Places joint utility pole on the map.
	Add Power Transformer Pole	Places power transformer pole on the map.
	Add Joint Transformer Pole	Places joint utility transformer pole on the map.
	Add CATV Pole	Places cable pole on the map.
	Add Steel Pole	Places steel pole on the map.
	Add Anchor	Places anchor on the selected pole.
	Draw Strand	Draws aerial strand between selected poles.
	Add Strand	Allows for design and drafting of aerial support structures.

ADDING AERIAL STRAND

NOTES

Generally, spatialNET users will draft using the Add Aerial Strand tool when designing and modeling as-built networks.



Areas of Discussion:

- Length versus Use Captured Length
- Right-click functionality
- Placement versus Selection mode

Notes:

ADDING UNDERGROUND STRUCTURES

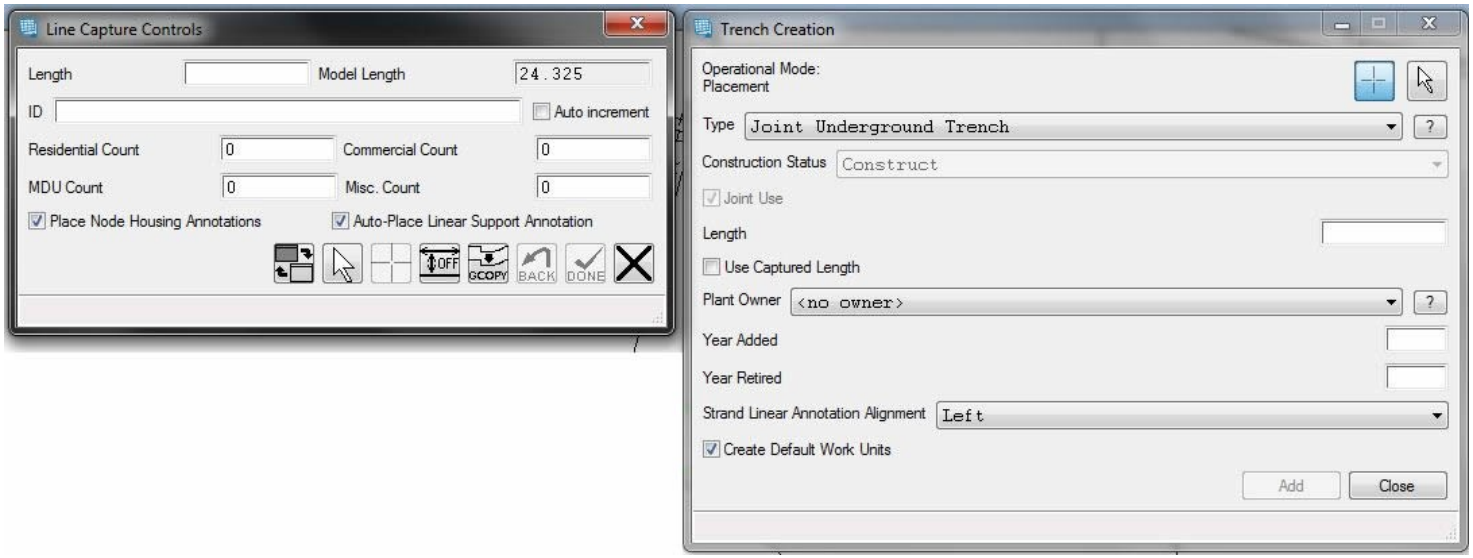
NOTES

	Function	Use
	Set Joint Trench	Adds a joint utility trench in the map view.
	Clear Joint Trench	Removes the selected joint utility trench from the map.
	Add B Vault	Adds a B Vault on the map.
	Add D Vault	Adds a D Vault on the map.
	Add RT Vault	Adds a RT Vault on the map.
	Add Drop Pedestal	Creates a drop pedestal on the selected location on the map.
	Add UG Structure with Terminal Block	Adds an underground structure with a terminal on the map.
	Draw Trench	Draws underground trench between selected structures.
	Add Trench	Allows for design and drafting of underground support structures.
	Add Duct	Creates a duct for the underground trench.
	Add Sub-Duct	Adds a set of sub-ducts to the selected duct/.
	Add Duct Cross Section	Creates duct cross section and displays a cross section view.

ADDING UNDERGROUND TRENCH

NOTES

Generally, spatialNET users will draft using the Add Trench Strand tool when designing and modeling as-built networks.



Areas of Discussion:

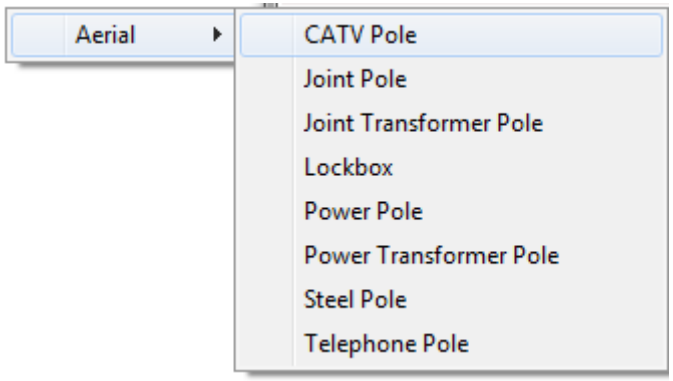
- Length versus Use Captured Length
- Aerial and Underground Right-Click Placement
- Placement versus Selection mode

Notes:

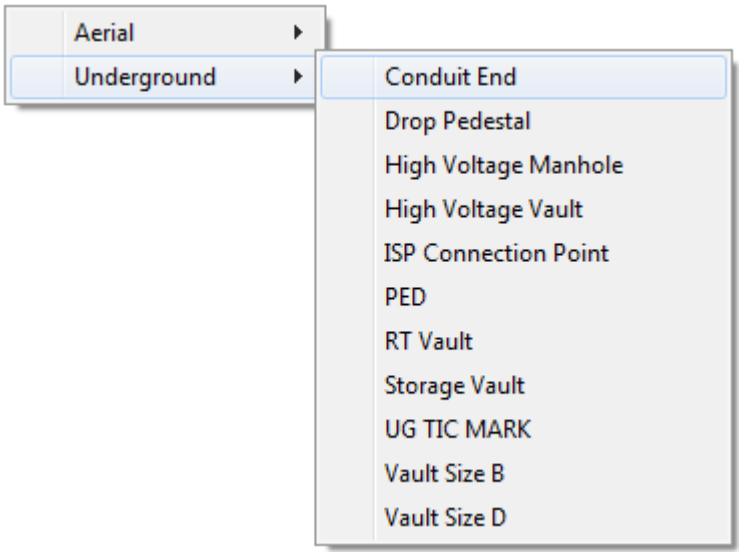
ADDING SUPPORT STRUCTURE

NOTES

When drafting in spatialNET, users can use right-click functionality to add different support structures when using the Draw Strand or Draw Trench functionality.



Draw Strand Right-Click Placement



Draw Trench Right-Click Placement

Generally, this is done as a design or "on the fly" placement of supports. spatialNET support strands and trenches can be drafted between structures already placed on the map. Use the Selection Mode to select the support structure to start drafting from.

Users can also choose to use direct placement of the support structure on the map. Usually, this is completed when drafting an as-built design. However, it is generally up to the individual user on which approach works best for them.

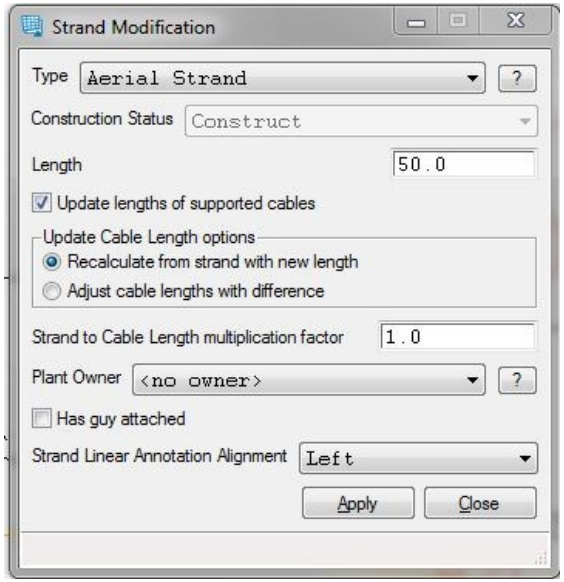
 Add Joint Pole

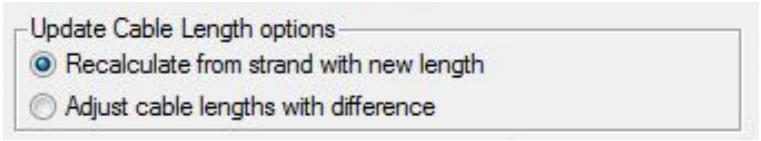
 Add Drop Pedestal

EDITING SUPPORT STRUCTURES

NOTES

spatialNET users can modify the support structures and route after it has been placed on the map.





When updating the aerial strands or underground trenches, users will have options to update the lengths of the support network segments. Depending on the version of spatialNET being used, this will reflect with any associated network cable.

Users can choose to update the length of the support segment by entering a new length (such as an as-built situations) or have spatialNET adjust the length based on the input on the map.

Areas of Discussion:

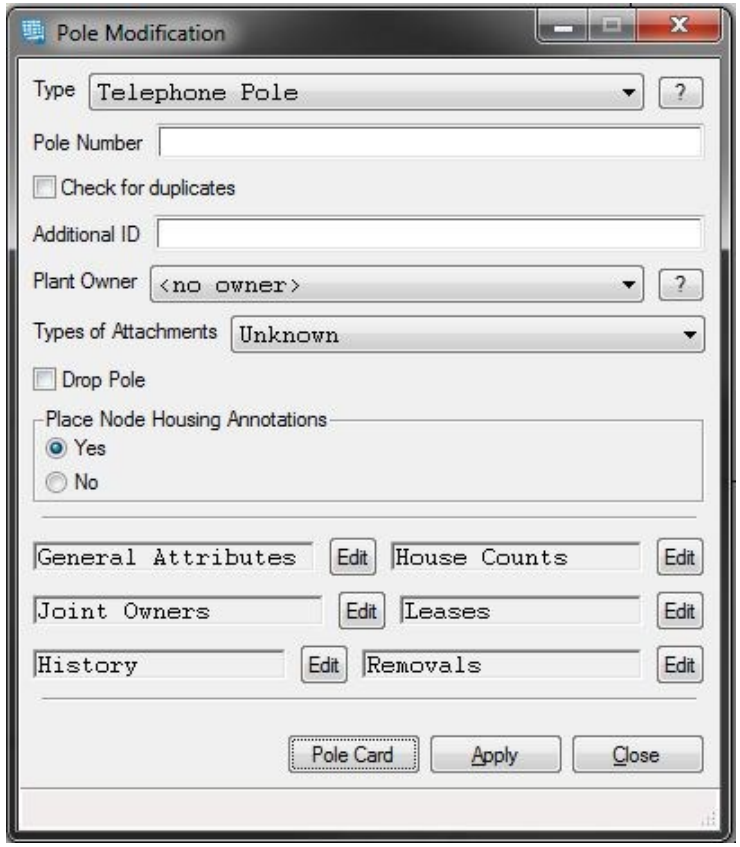
- Underground Ducts
- Recalculate from strand with new length
- Adjust cable lengths with difference

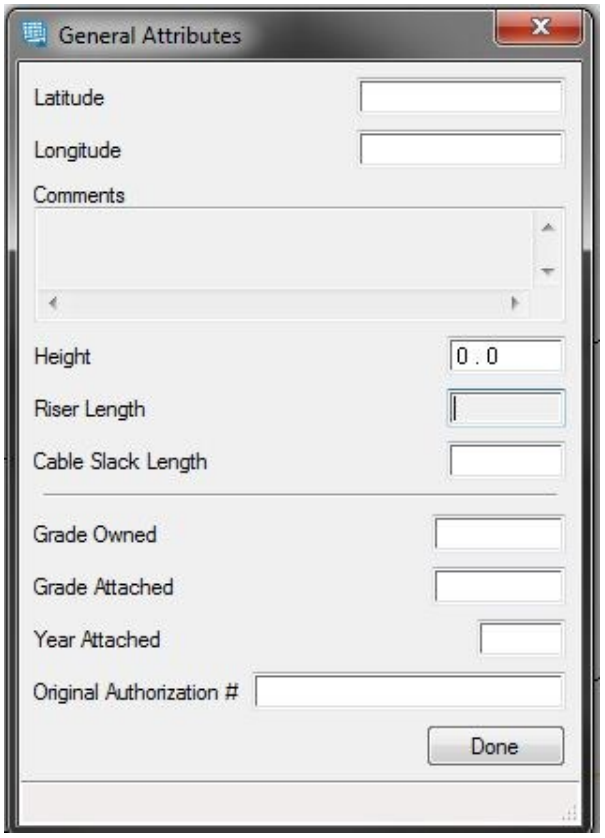
Notes:

POLE MODIFICATION

NOTES

Poles are different than underground support structures. In general, there are more attributes to document with poles, and for spatialNET riser information is part of the attributes for poles.



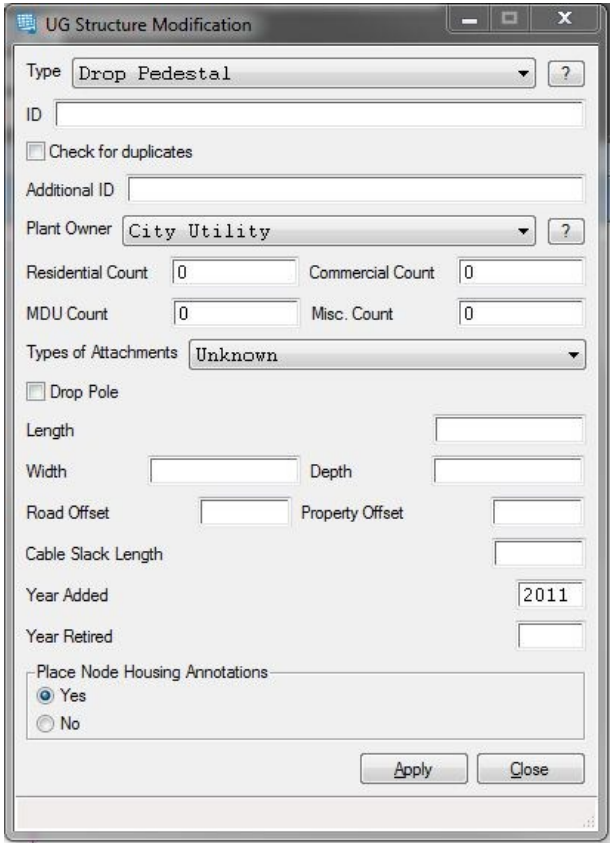


Notes:

UNDERGROUND STRUCTURE MODIFICATION

NOTES

With the amount information contained for poles, the underground structures an unique modification window with the attributes associated to this subcategory of spatialNET entities. House counts are directly displayed with underground support structures. If spatialNET users need to directly override the house counts, one of the ways to complete the change is through the UG Structure Modification window.



Areas of Discussion:

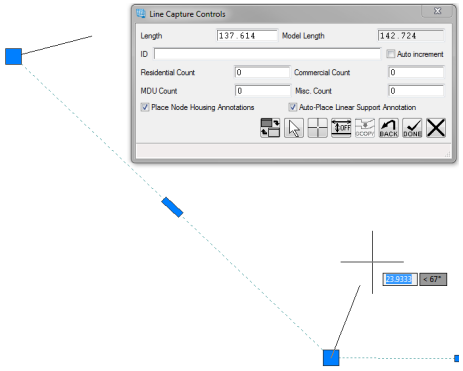
- ID
- Check for Duplicates
- Type of Attachments
- Place Node Housing Annotations

Notes:

CONSTRUCTION TOOLS FOR ROUTE

There are some additional tools to help users draft support structures or route in spatialNET.

GCopy Functionality

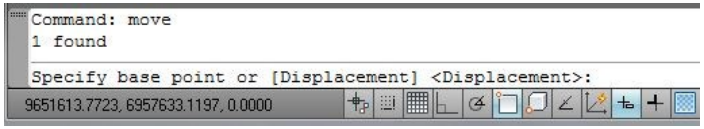


Areas of Discussion:

- Using GCopy to draft support structure route

Notes:

AutoCAD Commands



Areas of Discussion:

- Move
- Rotate
- Scale

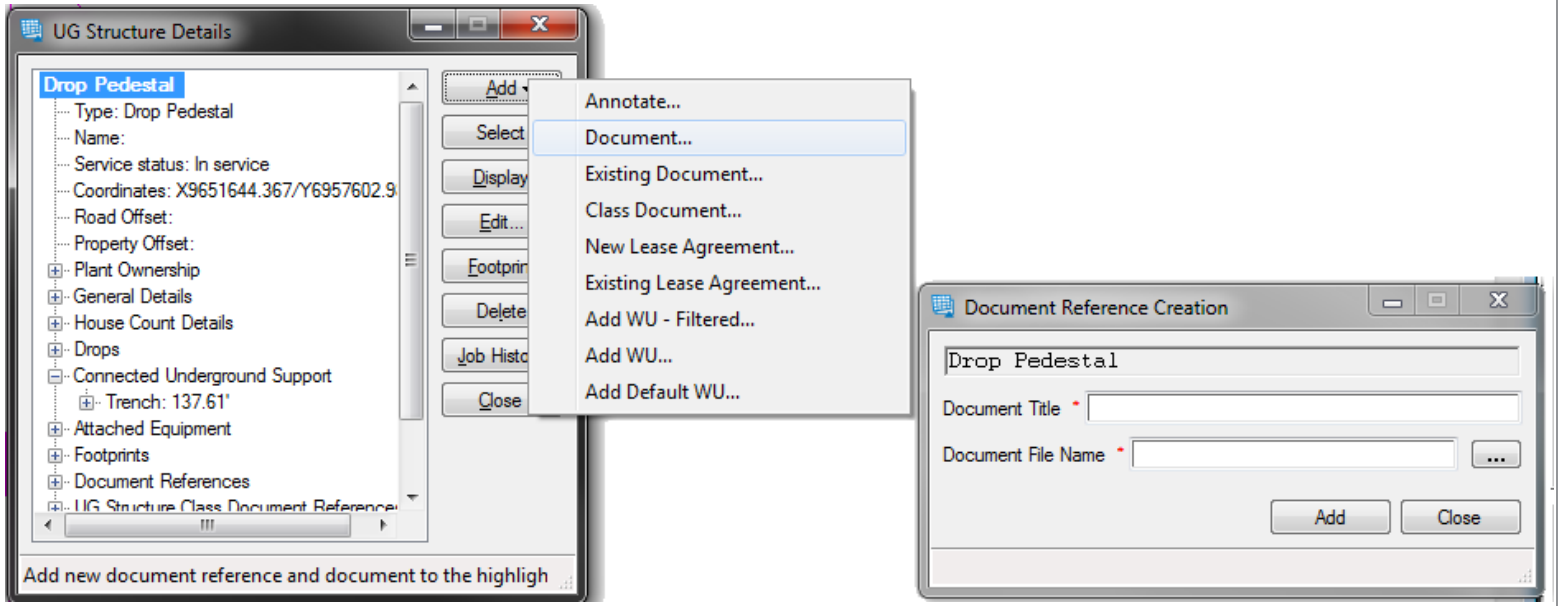
Notes:

NOTES

DOCUMENTATION REFERENCES

NOTES

With joint use and other requirements placed on utilities, agreements, maintenance information and other documentation may need to be recorded with these types of entities. spatialNET provides the ability for users to add these types of files to specific entities allowing them to be added to the overall database.



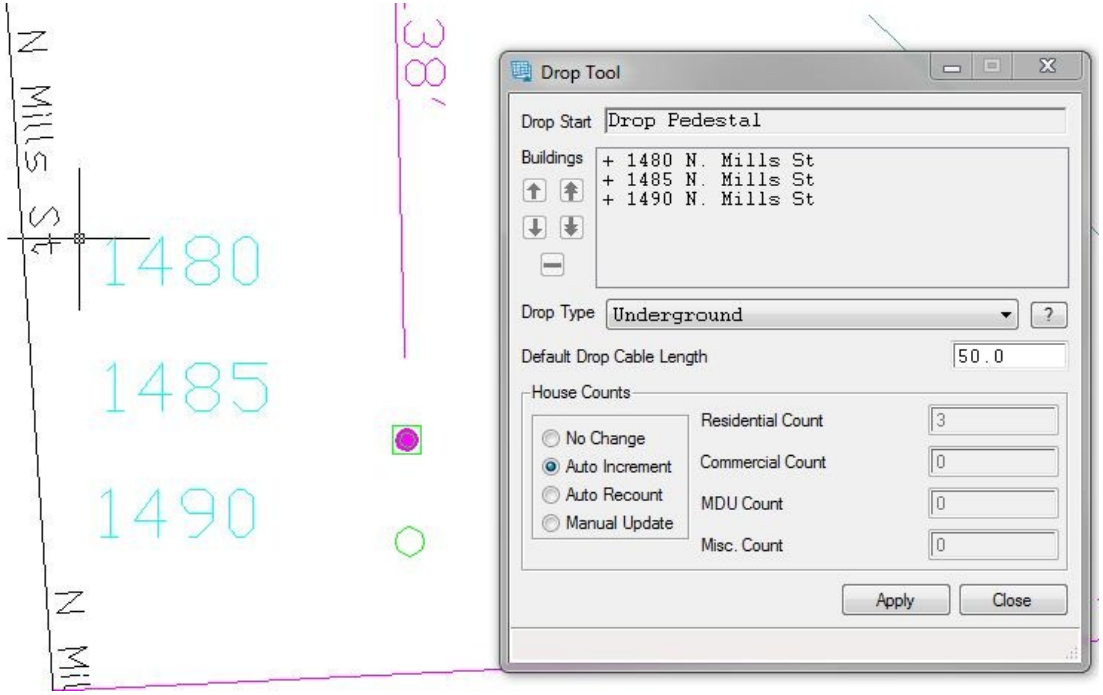
Once added to the entity, any user can access these documents via the Details. File format is not a consideration for spatialNET, but it is recommended to choose a format that is easily accessible by other users of the database such as PDF or Microsoft Office file extensions.

Notes:

DROP TOOL

NOTES

Specific support structures can be modified to show house count manually, or spatialNET users can use the Drop Tool to associate specific addresses and buildings (including MDUs) to those support structures. If defined, spatialNET will also render the network drops between the support structure and the address or building.



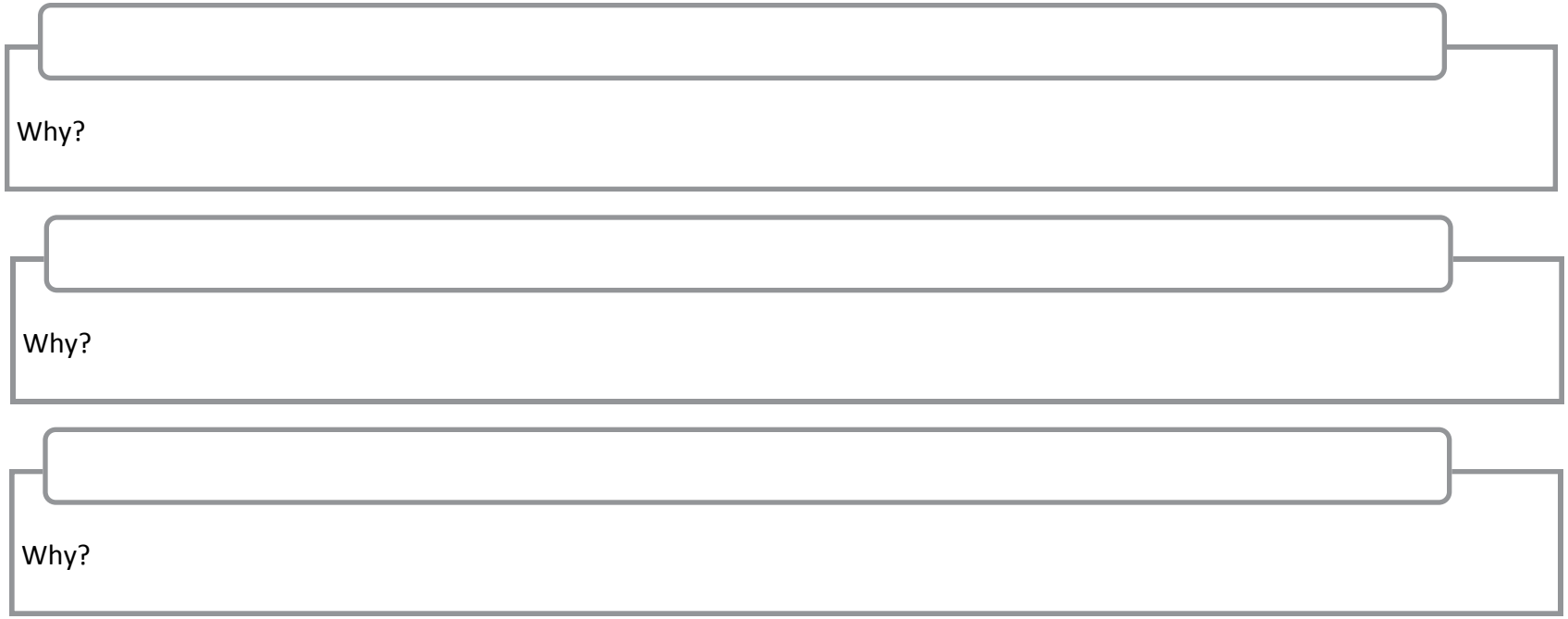
Areas of Discussion:

- Building order and removal
- Drop Length
- House Count Modification

Notes:

LEARNING MOMENTS

What are your top three learning moments from this discussion? Why?



Which topics in this training do you think will be the most challenging to apply?

_____

_____

What will you do differently as a result of this training?

_____

_____