



Laying Out Utilities in SS4

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Topics Covered

- Retired Utility Levels, QC Legacy
- Laying out utilities using Features and viewing them in Cross Sections
- Explain SUE and SUDA and the licensing
- Laying out utilities using SUE and viewing them in the Cross Sections
- Clash Detection
- Flex Tables
- Drainage Preview

Retired Utility Levels and Updating them

- All utility levels without Quality Levels have been retired.
- Other utility level names have been updated to for consistency:
 - All “power” levels have been changed to “elec”
 - Fiber Optic has been broken out into 3 different types (FOCable, FOElec, and FOTele)
 - Other miscellaneous changes have been made also.

~~EXIST. WATER~~ ~~W~~ - - - - - ~~X~~ - - - - - ~~W~~ - - - - -

~~EXIST. WATER QUALITY LEVEL B~~ ~~W(B)~~ - - - - - ~~W(B)~~ - - - - -

~~EXIST. WATER QUALITY LEVEL C~~ ~~W(C)~~ - - - - - ~~W(C)~~ - - - - -

~~EXIST. WATER QUALITY LEVEL D~~ ~~W(D)~~ - - - - - ~~W(D)~~ - - - - -

Retired Utility Levels and Updating them

- Good News!! There is a tool for locating and updating the out of date levels:

The screenshot shows the QC Legacy software interface. The menu path is: Standard > CellApps > Actions > Design Apps > Drainage > Roadway > QC Legacy. The QC Legacy window displays the following table:

Model	Element Type	Legacy Level
Default	Line	Tale_ep
Default	Line	Tale_ep
Default	Line	Tale_ep
Default	Line	Power_ep
Default	LineString	Power_ep
Default	Line	Power_ep
Default	LineString	Power_ep
Default	LineString	Power_ep

Additional window details: Legacy Levels: 527 elements found out of 1784 elements checked. Rule: utexrd. When correcting levels, set all symbology to ByLevel. Critical File Status: Critical. Level: Tale_ep. Color: ByLevel. Line Weight: ByLevel. Line Style: ByLevel. Hilite Color: [Magenta]. Close button.

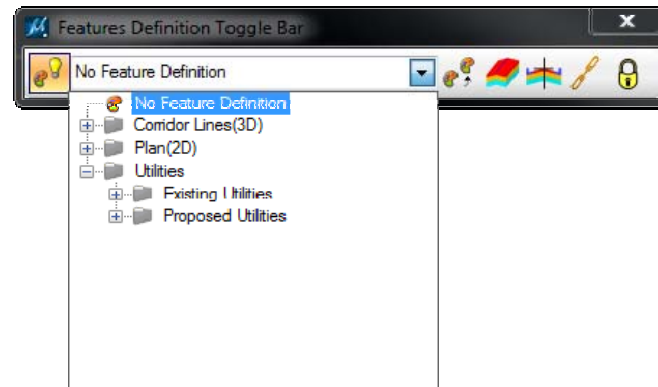
Quality Levels

- **Quality Level D:** Lowest level of accuracy. Information is obtained from existing utility records.
- **Quality Level C:** More accurate than Quality Level D. Information is obtained from topographic surveying of visible utility features.
- **Quality Level B:** More accurate than Quality Level C. Information is obtained from the use of scanning technologies.

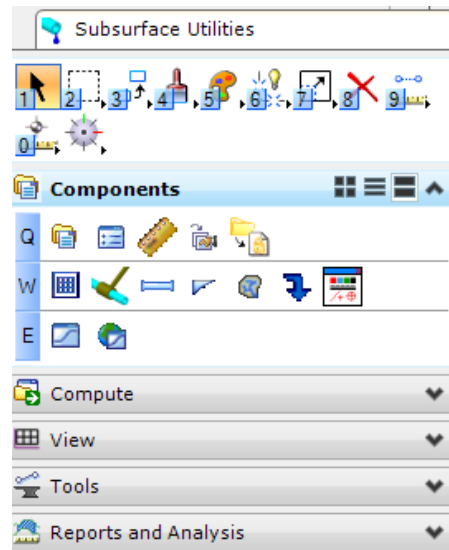
This information can be found in the PPM Ch. 5; Section 5.3: Utility Locates.

Laying Out Utilities

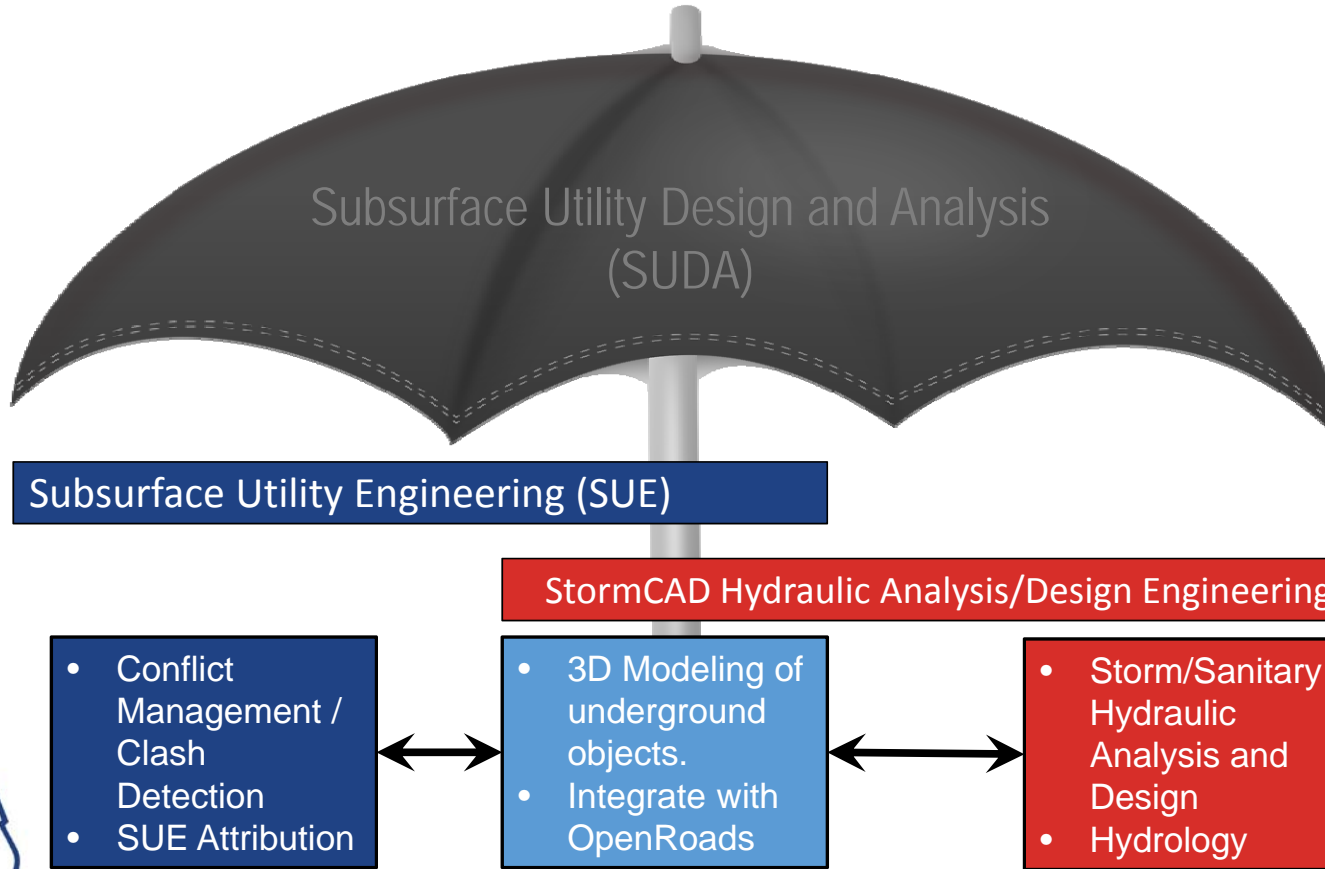
1. Utility Features:



2. SUE:



What is SUE or SUDA?

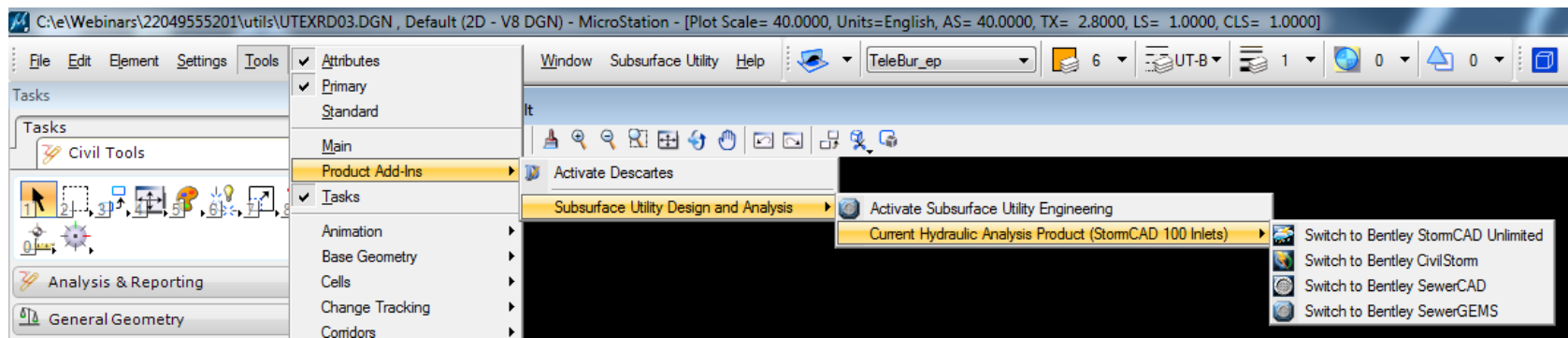


SUDA/SUE Licensing

If you own this license:	Drainage Functions	Utility Functions
Any OpenRoads product: <ul style="list-style-type: none"> • GEOPAK • PowerGEOPAK 	<ul style="list-style-type: none"> • StormCAD which includes storm water design and analysis. • Maximum 100 Inlets per drainage model. • Storm Water Attributes. 	<ul style="list-style-type: none"> • Utilities can be modeled in 3D. • No SUE Attributes. • No Utility Conflict Tools
OpenRoads plus any of the following: <ul style="list-style-type: none"> • StormCAD Unlimited • SewerCAD • CivilStorm • SewerGEMS 	<ul style="list-style-type: none"> • Additional hydraulic calculations depending on which license is activated. 	<ul style="list-style-type: none"> • Utilities can be modeled in 3D. • No SUE Attributes. • No Utility Conflict Tools
Any of the products above plus a SUE license.	<ul style="list-style-type: none"> • Same hydraulic calculations capabilities as above. 	<ul style="list-style-type: none"> • SUE Attributes • Utility Conflict Tools

SUDA/SUE Product Add-Ins Activation

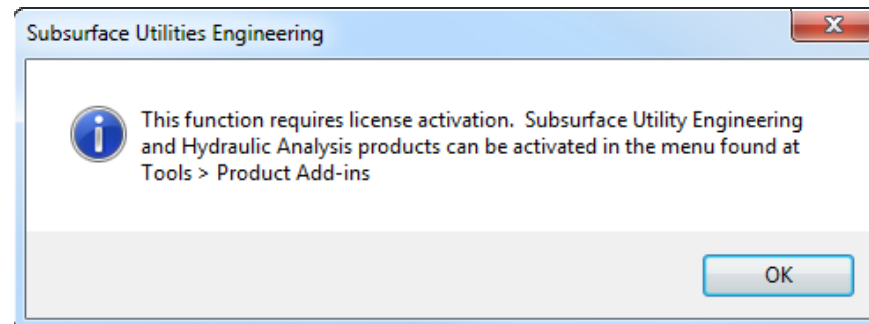
- To activate the different product add-ins use Tools > Product Add-Ins menu.



- If activated, an alert that additional license usage will be logged which may result in additional cost.

SUE Licensing

- The Subsurface Utility Engineering product has three main functions:
 - Model Utilities
 - Clash Detection **(Requires Product Add-In)**
 - Enhanced Utility Attribution **(Requires Product Add-In)**
- Tools > Product Add-Ins > Activate Subsurface Utility Engineering.



Disabling SUDA Products

- A customized DGNLIB is provided with the FDOTSS4 workspace.
 1. Copy the CivilCommands.dgnlib from the \FDOTSS4\RESOURCES\Dgnlibs\General folder on the server to the C:\Program Files (x86)\Common Files\Bentley Shared\Civil Platform\08.11.09 folder on each client PC.
 2. Add these variables to a file named CustomVars.txt file in the \FDOTSS4\Workspace\Users folder on the server.

Config Variables:

FDOT_DISABLE_SUE=TRUE

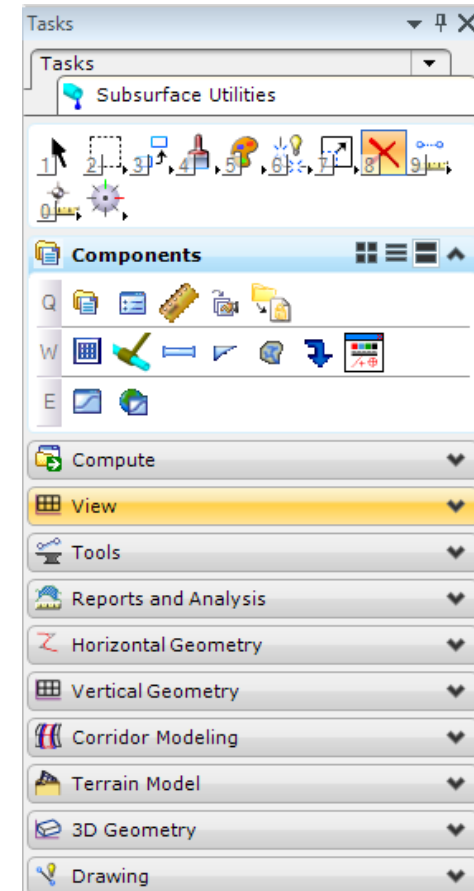
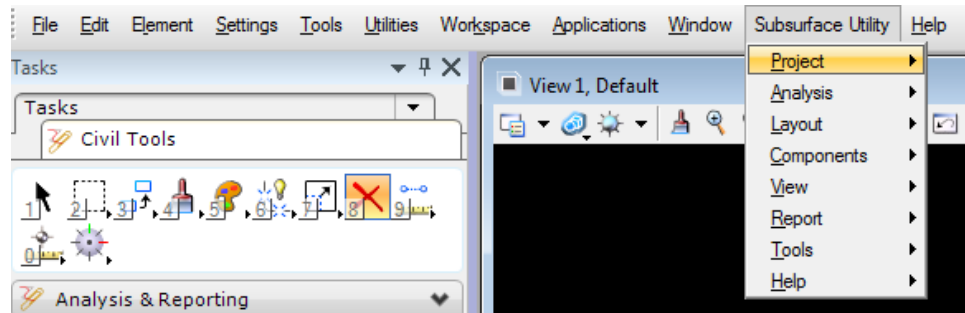
FDOT_DISABLE_STORMCADUNLIMITED=TRUE

FDOT_DISABLE_CIVILSTORM=TRUE

FDOT_DISABLE_SEWERCAD=TRUE

FDOT_DISABLE_SEWERGEMS=TRUE

SUE



Questions?

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