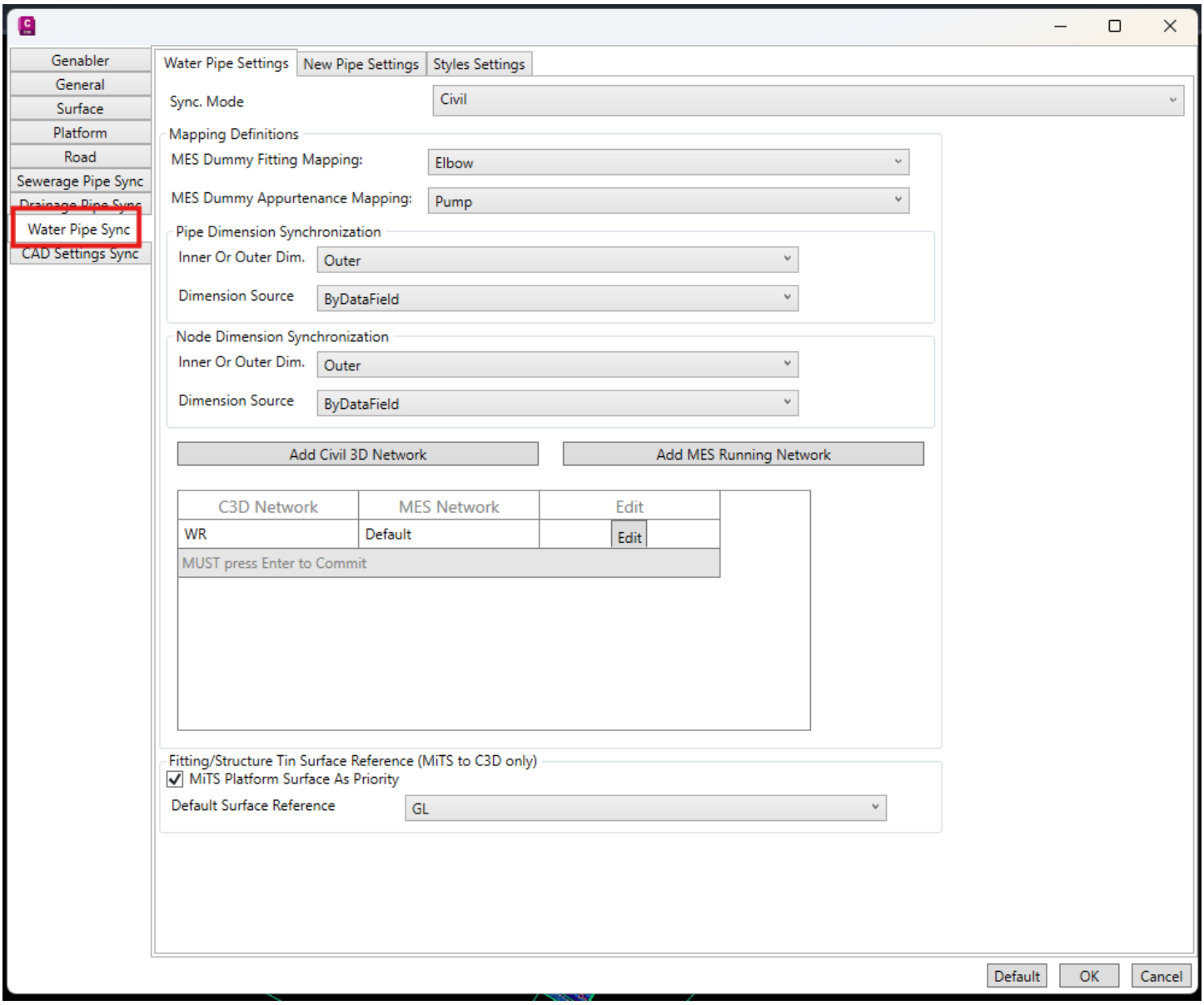
Pressure Pipe Network (MCIntegrator-Genabler Synchronization): Guide for Water Reticulation

Gravity and Pressure Networks · https://mes100.com/docs/pressure-pipe-network-mcintegrator-genabler-synchronization-guide-for-water-reticulation/

Pressure Network Mapping Definition:

Please refer to the guide-- ***Required Mapping Definition for Pressure Network (Water Reticulation)***.

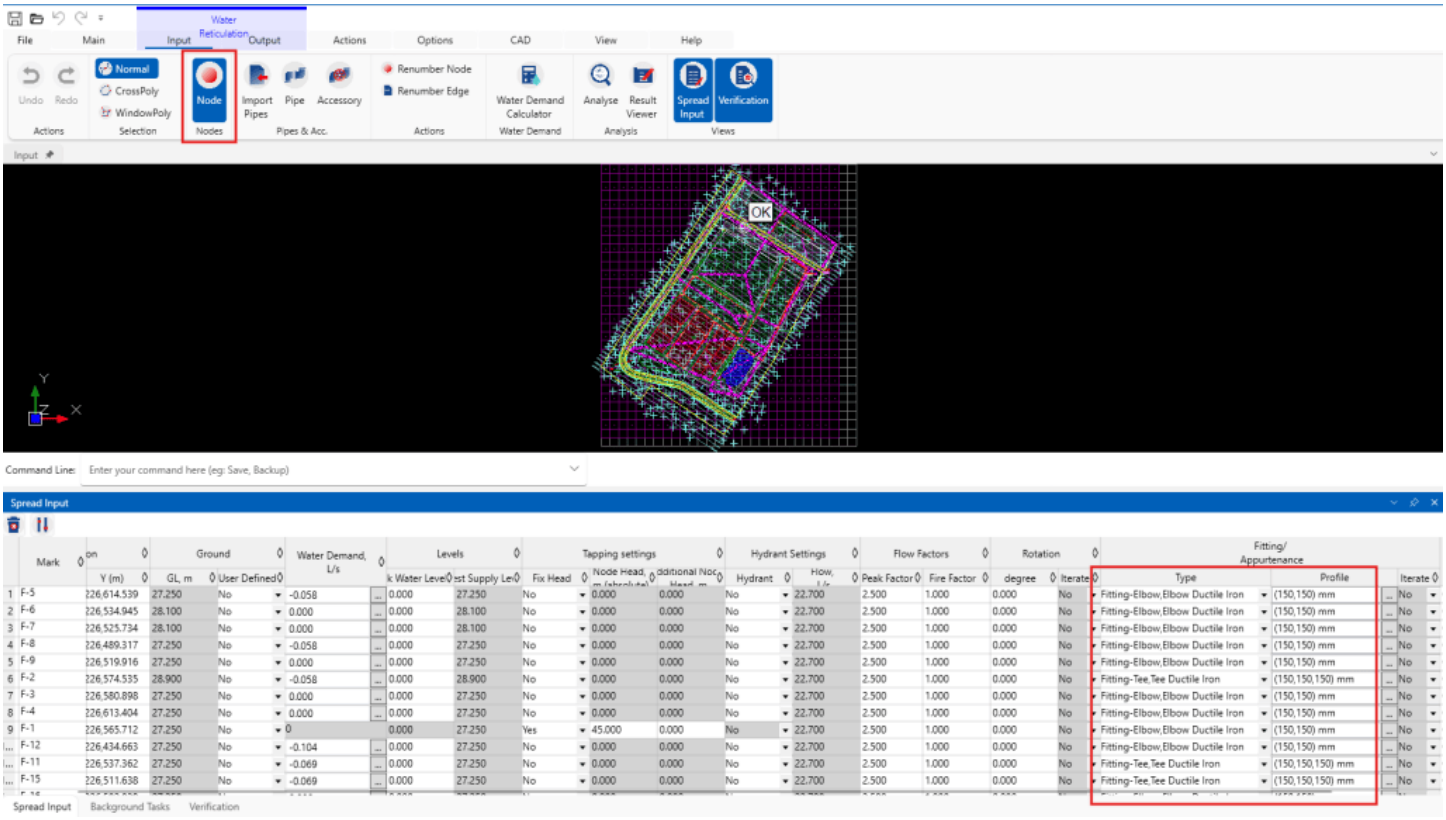


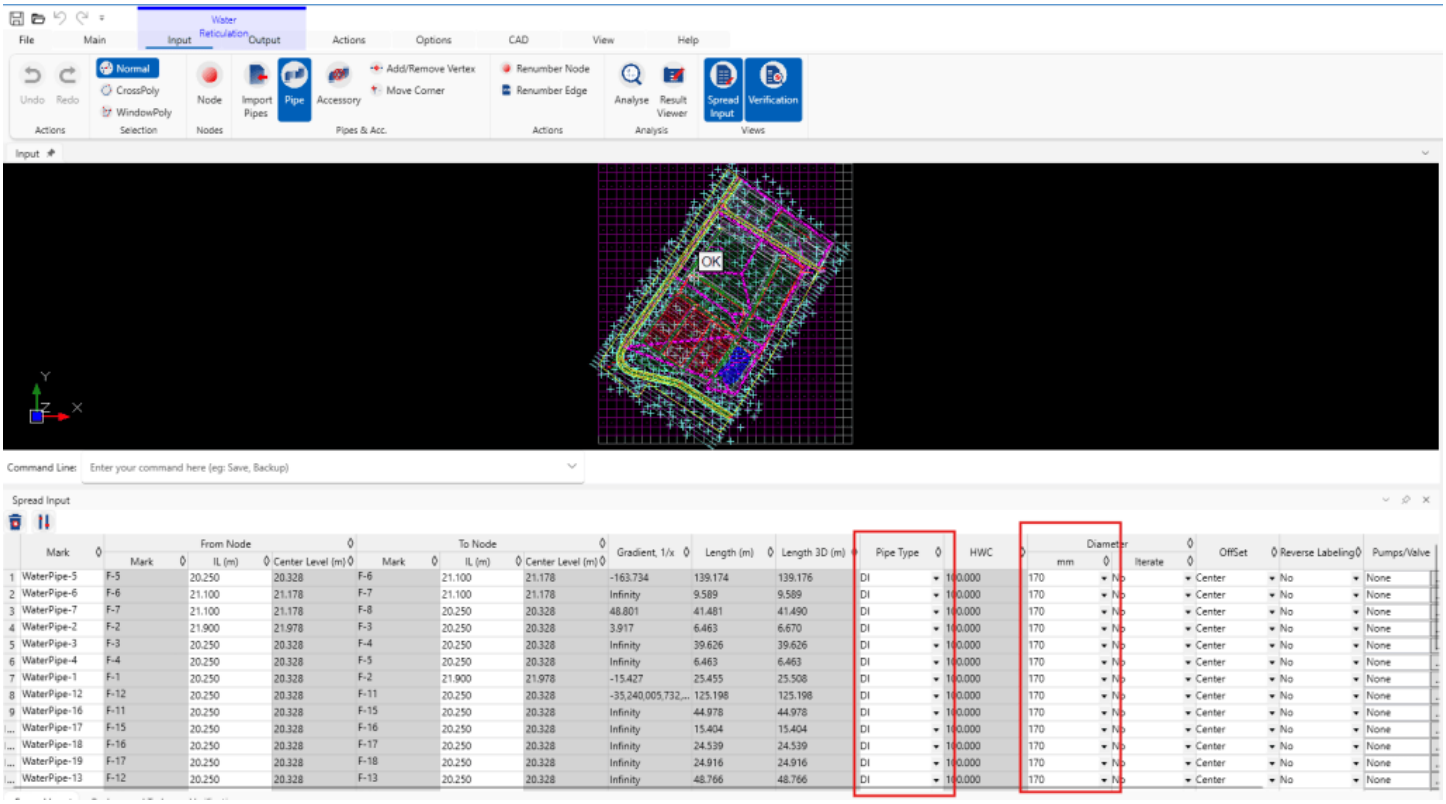
Sync Steps:

In MiTS

1. Go to the Water Module and check the Fittings and Pipes information below:
    - Tapping Node and Hydrant Node
    - Fitting Type and Profile
    - Pipe Type and Diameter
    - Running Pipe System

2. Do note that for the Water Module, there is no Genieko Category. Hence, the Fitting and Pipe Type can be set as usual. However, it is recommended to always ensure the type applied to your network **is available in the Civil 3D GeniekoMin Part List** for pressure pipe networks.



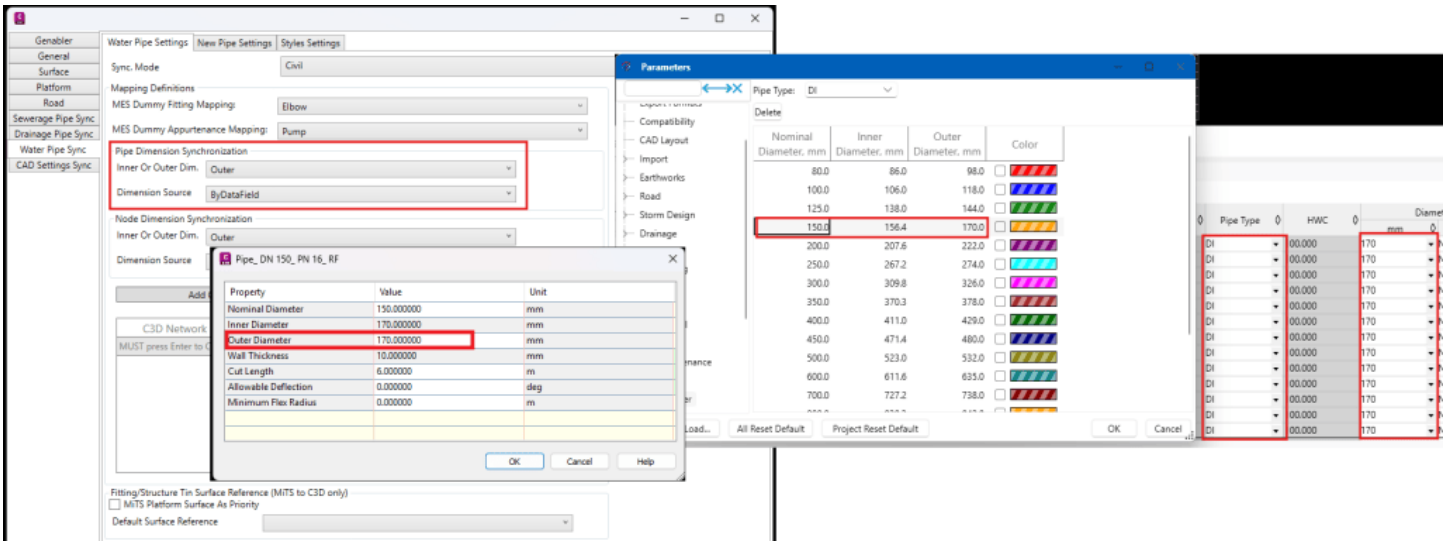


	Mark	From Node			To Node			Gradient, 1/x	Length (m)	Length 3D (m)	Pipe Type	HWC	Diameter		OffSet	Reverse Labeling	Pumps/Valve
		Mark	IL (m)	Center Level (m)	Mark	IL (m)	Center Level (m)						mm	Iterate			
1	WaterPipe-5	F-5	20.250	20.328	F-6	21.100	21.178	-163.734	139.174	139.176	DI	100.000	170	No	Center	No	None
2	WaterPipe-6	F-6	21.100	21.178	F-7	21.100	21.178	Infinity	9.589	9.589	DI	100.000	170	No	Center	No	None
3	WaterPipe-7	F-7	21.100	21.178	F-8	20.250	20.328	48.801	41.481	41.490	DI	100.000	170	No	Center	No	None
4	WaterPipe-2	F-2	21.900	21.978	F-3	20.250	20.328	3.917	6.463	6.670	DI	100.000	170	No	Center	No	None
5	WaterPipe-3	F-3	20.250	20.328	F-4	20.250	20.328	Infinity	39.626	39.626	DI	100.000	170	No	Center	No	None
6	WaterPipe-4	F-4	20.250	20.328	F-5	20.250	20.328	Infinity	6.463	6.463	DI	100.000	170	No	Center	No	None
7	WaterPipe-1	F-1	20.250	20.328	F-2	21.900	21.978	-15.427	25.455	25.508	DI	100.000	170	No	Center	No	None
8	WaterPipe-12	F-12	20.250	20.328	F-11	20.250	20.328	-35,240,005,732,...	125.198	125.198	DI	100.000	170	No	Center	No	None
9	WaterPipe-16	F-11	20.250	20.328	F-15	20.250	20.328	Infinity	44.978	44.978	DI	100.000	170	No	Center	No	None
...	WaterPipe-17	F-15	20.250	20.328	F-16	20.250	20.328	Infinity	15.404	15.404	DI	100.000	170	No	Center	No	None
...	WaterPipe-18	F-16	20.250	20.328	F-17	20.250	20.328	Infinity	24.539	24.539	DI	100.000	170	No	Center	No	None
...	WaterPipe-19	F-17	20.250	20.328	F-18	20.250	20.328	Infinity	24.916	24.916	DI	100.000	170	No	Center	No	None
...	WaterPipe-13	F-12	20.250	20.328	F-13	20.250	20.328	Infinity	48.766	48.766	DI	100.000	170	No	Center	No	None

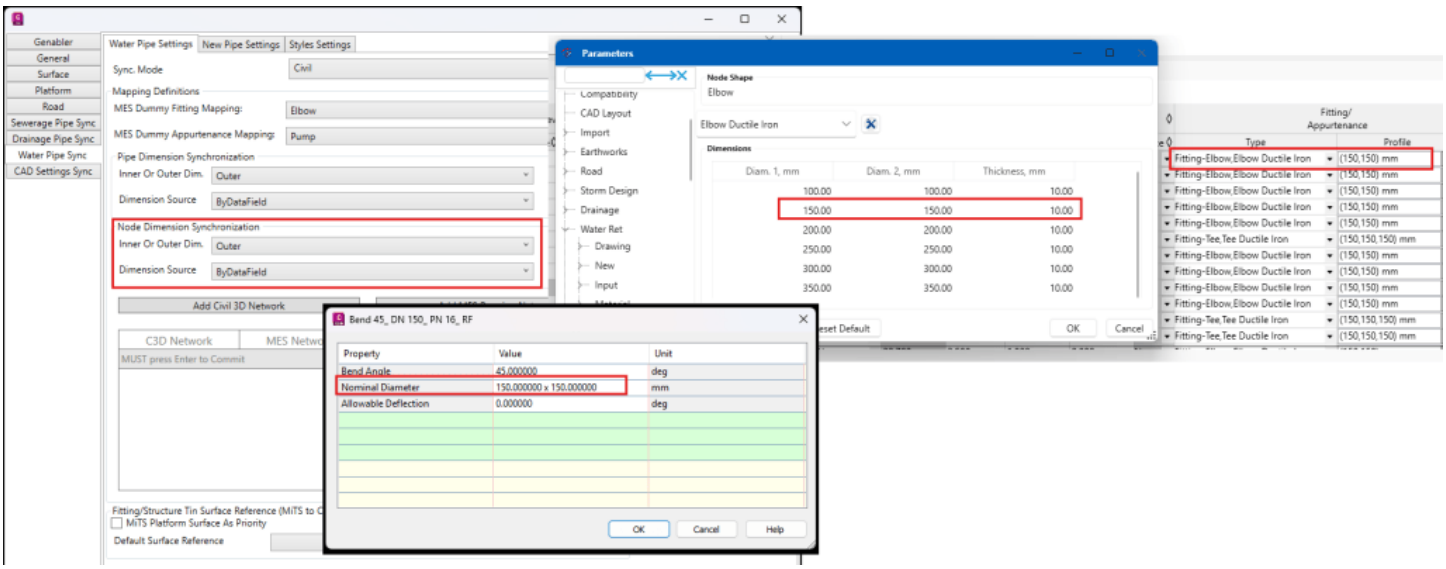
In Civil 3D

1. For pressure pipe network sync, it is highly recommended for users to sync the **Surface** and **Platform** as well to define the Reference Surface of the structures.

2. Under the Project definition, click on the Water Pipe Sync tab and define the **required mapping** above as follows.
   - Set the sync mode to Civil Sync to ensure the entities are integrated as Civil Objects in the drawing file.
   - Set the Pipe and Node Dimension Synchronization according to the numerical value in MiTS and the GeniekoMin part's diameter. By default, the **pipe and structure synchronization is set to Outer Diameter based on ByDataField**.

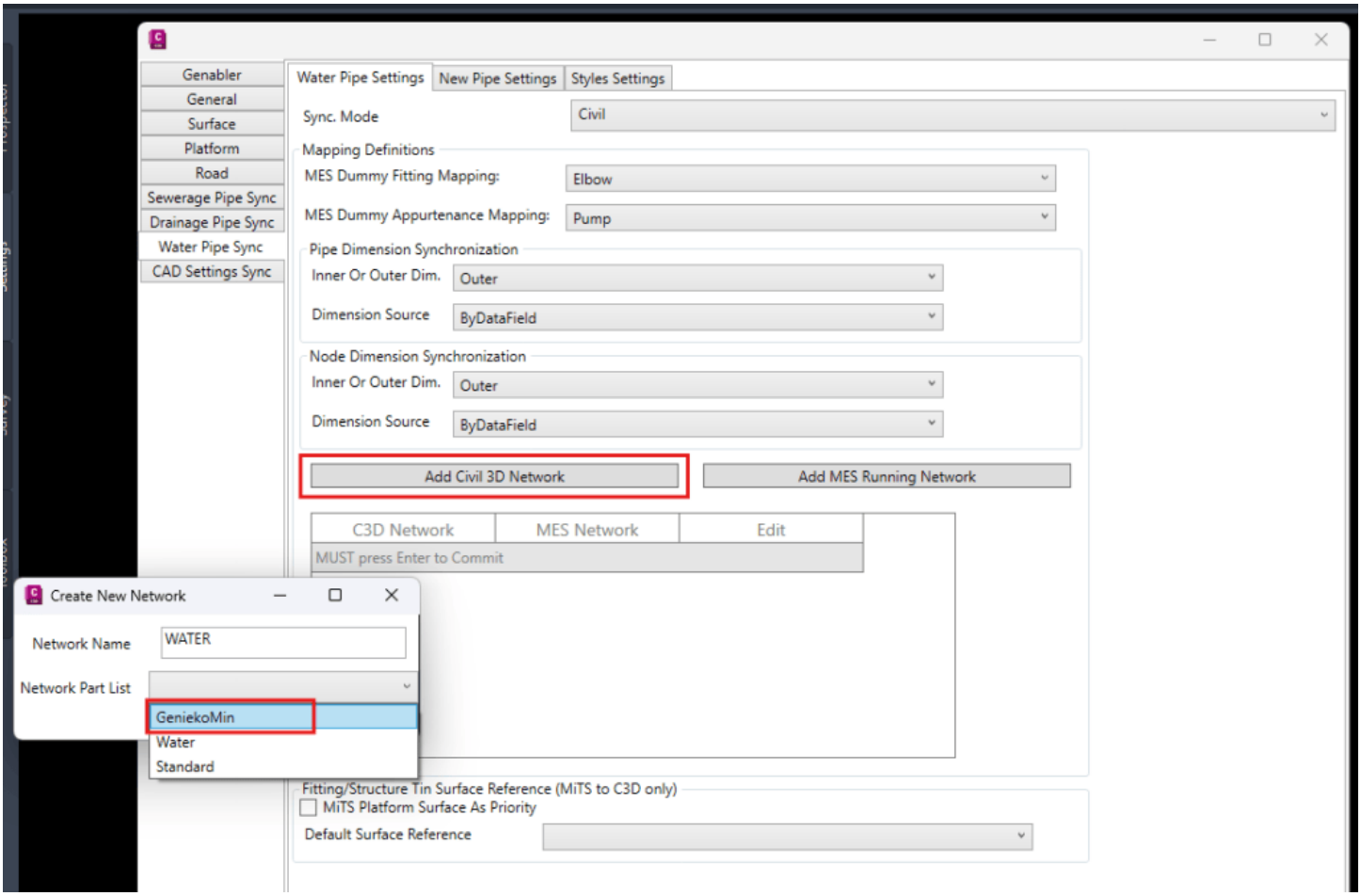


Example of Pipe Dimension Synchronization of Water



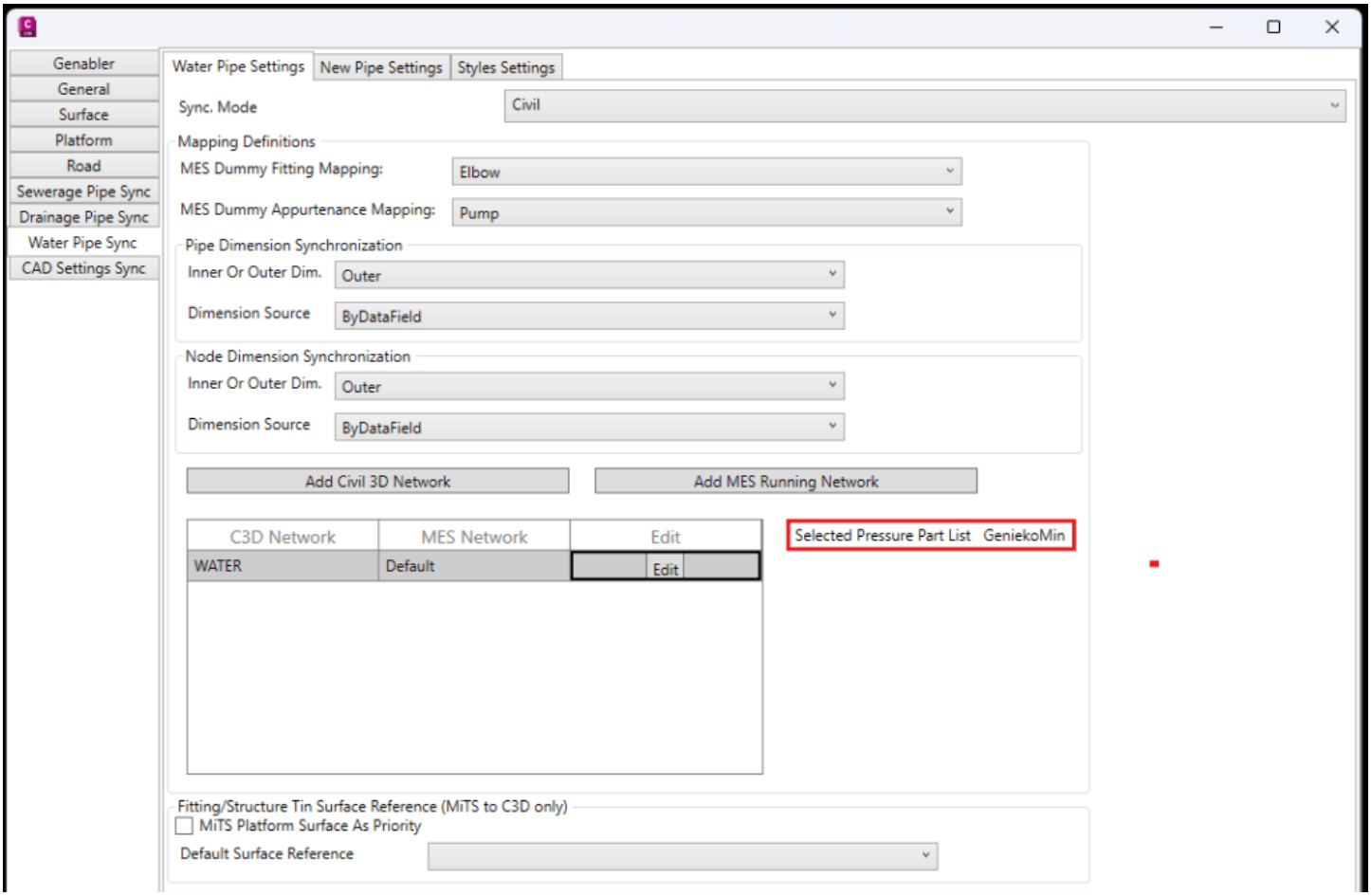
Example of Node Dimension Synchronization

3. Define Civil 3D Networks corresponding to the available MES Network-- Click 'Add C3D Network' > Define the network name > Select the **GeniekoMin Part List** as the Network Part List.
    - Note: The **GeniekoMin Part List** will contain the pipe and structures for the pressure pipe networks

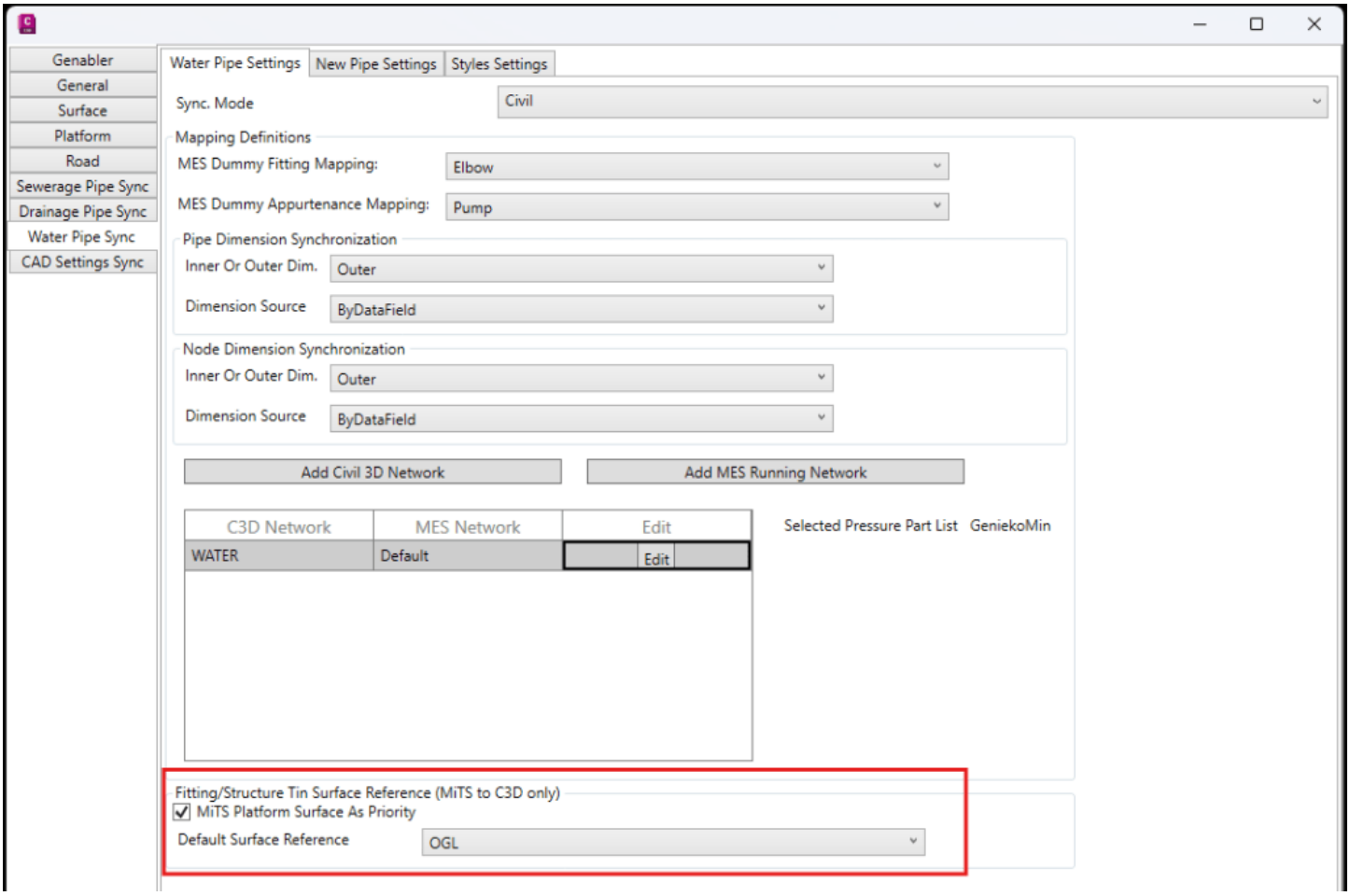


4. For the pressure pipe network, users do not have to define the MES Category and C3D Family Part due to the different design of the gravity components and pressure components in Civil 3D.

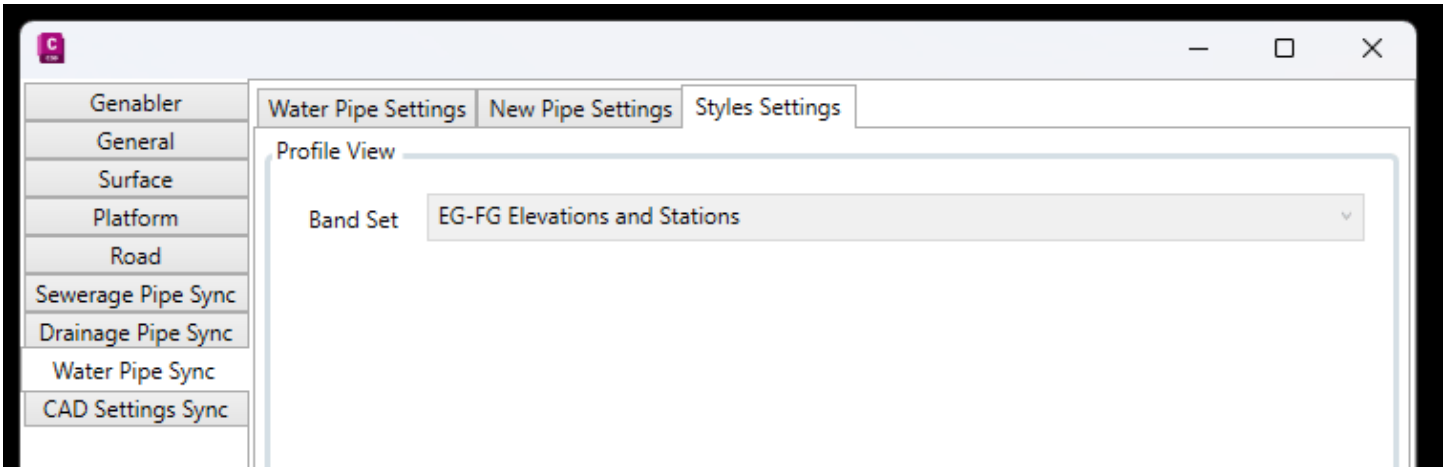
5. The user is only required to click on the 'Edit' button and ensure the stated part list is correct. Then, press Enter to commit the defined networks.



6. It is recommended to tick 'MiTS Platform Surface As Priority' and select the 'Default Surface for Non-User Defined Nodes' to **ensure the insertion point for the structures tallies with the Ground Level detected in MiTS**.



7. Under the Project Dialog, go to the **Style Settings** tab. With Genabler, the **long sections of the pressure networks in MiTS will be synced as the Profile View**. Therefore, the band sets will be set to the dedicated Genabler Stylings (Hence, the options for the Band Set is disabled)



8. If you **wish to only sync the pressure network in MiTS**, you may proceed to set the Sync. Mode for other entities to NoSync.

9. If you wish to sync other entities as well, you may proceed to follow the guides available on our website.

10. Click OK to close the Project Dialog. Then, click on **Load From MiTS** and click OK to sync the entity.

Embedded media: https://www.youtube.com/embed/rJo-ipm2urk?version=3&rel=1&showsearch=0&showinfo=1&iv_load_policy=1&fs=1&hl=en-US&autohide=2&wmode=transparent&enablejsapi=1

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