

ACO SlabDrain H300K/H300KS

Subassembly Installation and Reference Guide

User Guide for Autodesk AutoCAD Civil 3D files

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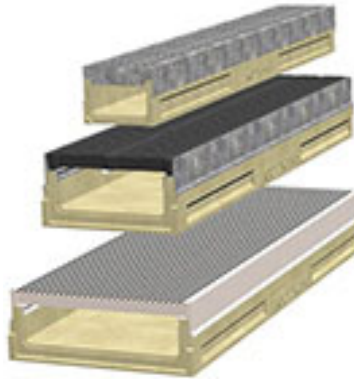
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1. Introduction

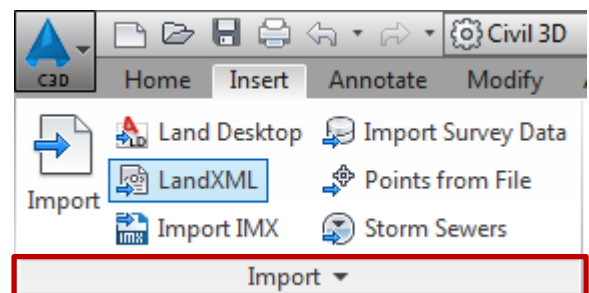
This document describes the installation, configuration and use of the ACO SlabDrain subassembly component for AutoCAD Civil 3D Sub Assembly Composer.



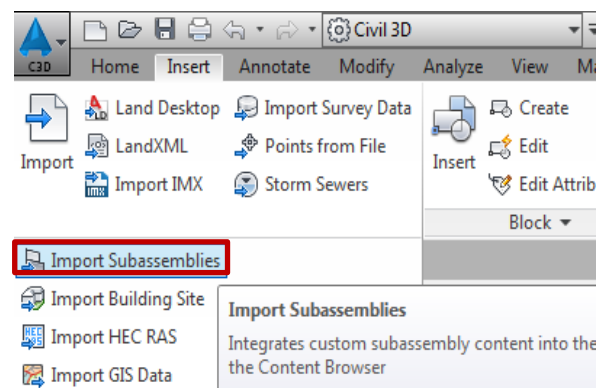
2. Installing the ACO SlabDrain subassembly

The SlabDrain sub-assembly is available as a .pkt file which contains the subassembly .dll file and associated configuration files for installing the subassembly in Civil 3D.

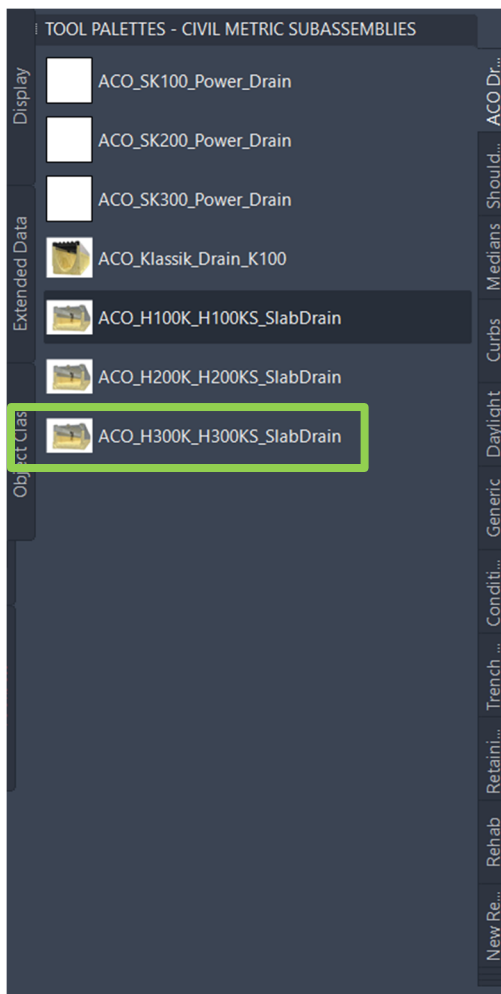
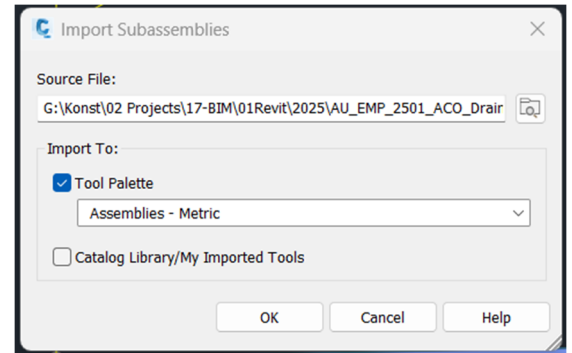
To install the subassembly, click on the Import panel title on the Insert ribbon.



Choose import subassemblies



Browse to the location of the ACO SlabDrain H300K/H300KS.pkt file, and choose a tool palette to import to, or create a new palette. The subassembly can also optionally be added to the user Catalog Library. The tool palette in civil 3D will now show the ACO SlabDrain H300K/H300KS subassembly. Note that by right-clicking in the tool palette, the palette can be customized by creating a separate item for the ACO SlabDrain H300K/H300KS, as shown here.



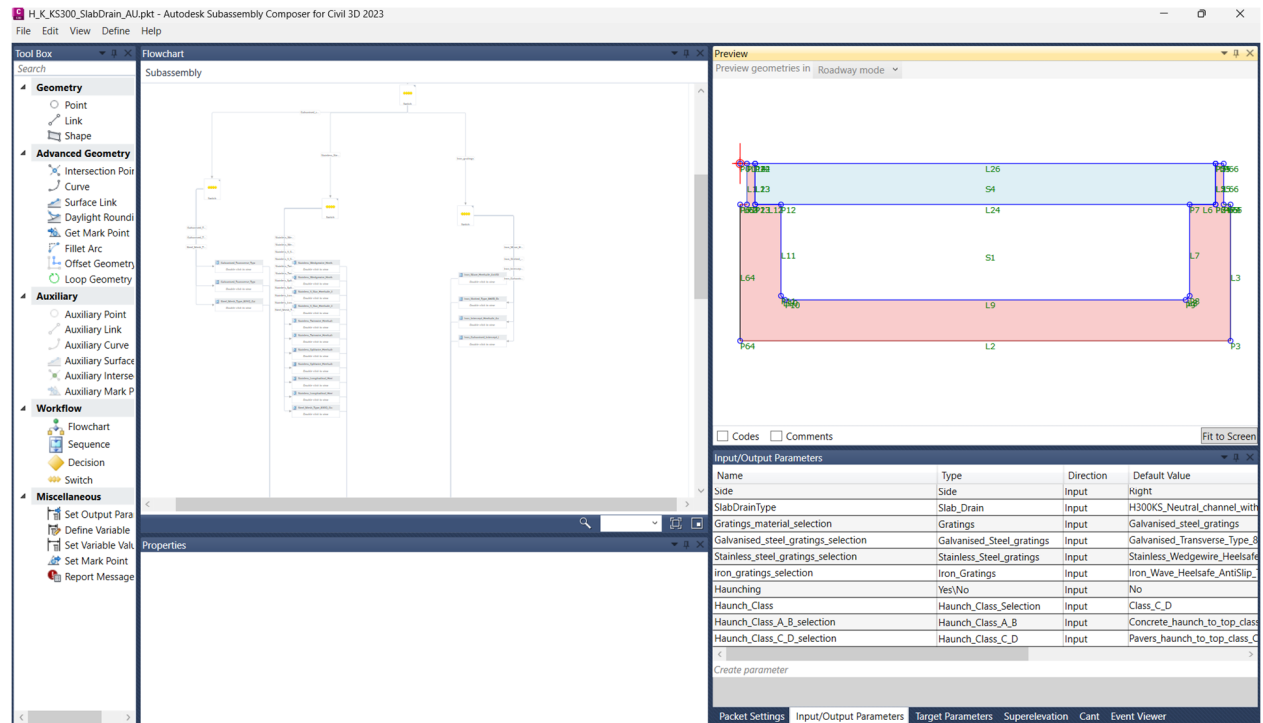
3. Using the ACO SlabDrain H300K/H300KS subassembly

The ACO SlabDrain subassembly includes definitions for the following Edge rail type:

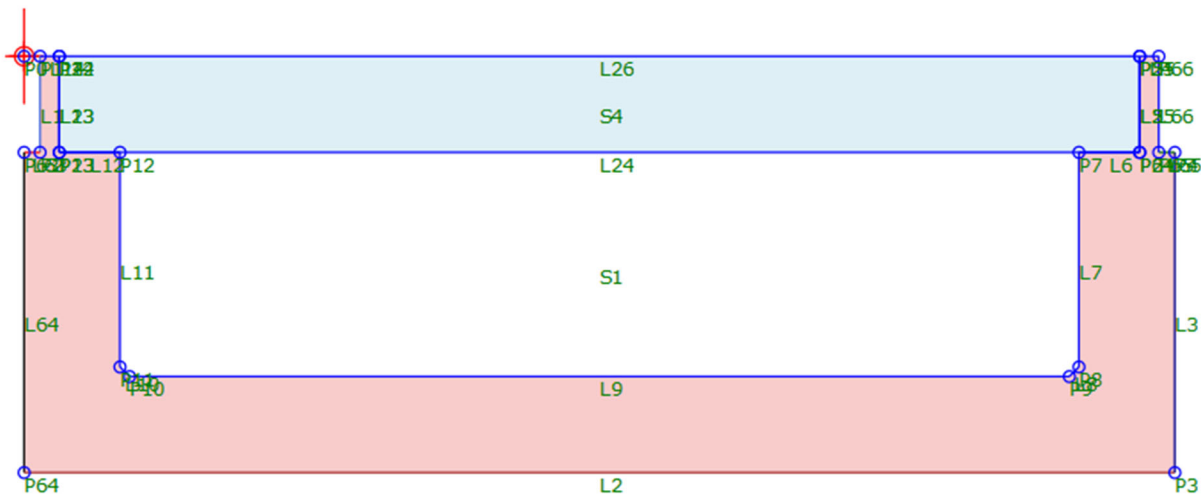
SlabDrain H300K/H300KS with Edge rail types:-

H300K_Neutral_channel_with_galvanised_steel_edge_rails_1m_141791

H300KS_Neutral_channel_with_Stainless_steel_edge_rails_1m_141792



The subassembly also optionally includes haunching detail.



3.1 User Defined Parameter

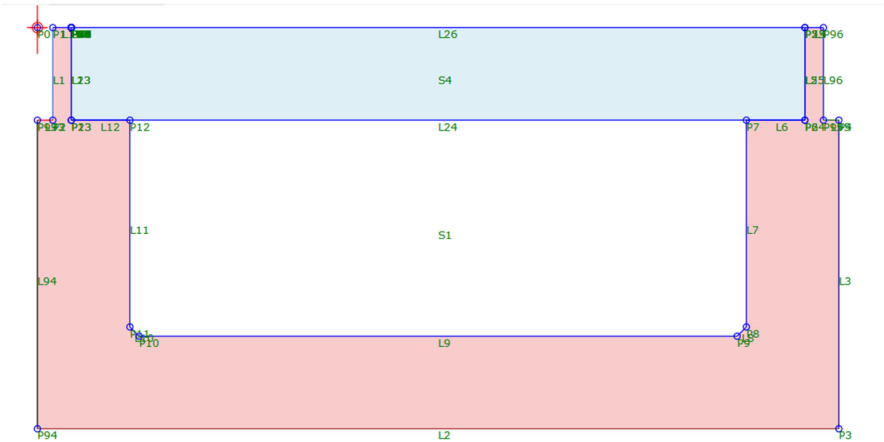
Input/Output Parameters			
Name	Type	Direction	Default Value
Side	Side	Input	Right
SlabDrainType	Slab_Drain	Input	H300KS_Neutral_channel_with_Stainless_steel_edge_rails_1m_141792
Gratings_material_selection	Gratings	Input	Galvanised_steel_gratings
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Galvanised_Transverse_Type_807Q_Galvanised_142413
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Stainless_Wedgewire_Heelsafe_Type_847D_Grade_304_stainless_142223
iron_gratings_selection	Iron_Gratings	Input	Iron_Wave_Heelsafe_AntiSlip_Type_880D_Ductile_iron_142463
Haunching	Yes\No	Input	No
Haunch_Class	Haunch_Class_Selection	Input	Class_C_D
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Concrete_haunch_to_top_class_A_B
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Pavers_haunch_to_top_class_C_D

All the default value of the parameter can be edited by end-user. User can able to select their required SlabDrain, Grating and Haunch type.

3.2 SlabDrain H300K/H300KS with different Edge rail channel types

User can able to select their required slabdrain channel by using the parameter SlabDrainType which has dropdown menu, with types of salbdrain channel stainless steel and galvanized edge rail.

SlabDrainType	Slab_Drain	Input	H300KS Neutral channel with Stainless steel edge rails 1m 141792
Gratings_material_selection	Gratings	Input	H300K_Neutral_channel_with_galvanised_steel_edge_rails_1m_141791
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	H300KS_Neutral_channel_with_Stainless_steel_edge_rails_1m_141792



3.3 SlabDrain H300K/H300KS grating types

Users be able to select their required gratings; gratings have been segregated as per material its due to enumeration restriction in SAC. In parameter table there is a parameter with drop down menu “Grating load selection and Brikslot” from this user can select their required grating material and brickslot.

Gratings_material_selection	Gratings	Input	Galvanised steel gratinas
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Galvanised_steel_gratings
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Stainless_Steel_gratings
iron_gratings_selection	Iron_Gratings	Input	Iron_gratings

After Selection of material and brickslot just below that with preferred selection there will be a parameter. From that user can able to select their preferred gratings.

Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Galvanised Transverse Tvpe 807Q Galvanised 142413
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Galvanised_Transverse_Type_807Q_Galvanised_142413
iron_gratings_selection	Iron_Gratings	Input	Galvanised_Transverse_Type_808Q_Galvanised_142414
Haunching	Yes\No	Input	Steel_Mesh_Type_805Q_Galvanised_142409

Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Stainless Wedgewire Heelsafe Tvpe 847D Grade 304 stainless 142223
iron_gratings_selection	Iron_Gratings	Input	Stainless_Wedgewire_Heelsafe_Type_847D_Grade_304_stainless_142223
Haunching	Yes\No	Input	Stainless_Wedgewire_Heelsafe_Type_848D_Grade_304_stainless_142224
Haunch_Class	Haunch_Class_Selection	Input	Stainless_5_Star_Heelsafe_AntiSlip_Type_843D_Grade_304_stainless_142225
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Stainless_5_Star_Heelsafe_AntiSlip_Type_844D_Grade_304_stainless_142226
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Stainless_Twinwire_Heelsafe_AntiSlip_Type_841D_Grade_304_stainless_142560
< Create parameter			Stainless_Twinwire_Heelsafe_AntiSlip_Type_842D_Grade_304_stainless_142561
			Stainless_Splitwire_Heelsafe_AntiSlip_Type_839D_Grade_304_stainless_142573
			Stainless_Splitwire_Heelsafe_AntiSlip_Type_840D_Grade_304_stainless_142574
			Stainless_Longitudinal_Heelsafe_AntiSlip_Type_816D_Grade_304_stainless_143138
			Steel_Mesh_Type_830Q_Grade_304_stainless_142410
Packet Settings Input/Output Parameters Target Parameters Superelevation Cant Ever			

iron_gratings_selection	Iron_Gratings	Input	Iron Wave Heelsafe AntiSlip Tvpe 880D Ductile iron 142463
Haunching	Yes\No	Input	Iron_Wave_Heelsafe_AntiSlip_Type_880D_Ductile_iron_142463
Haunch_Class	Haunch_Class_Selection	Input	Iron_Slotted_Type_860D_Ductile_iron_13870
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Iron_Intercept_Heelsafe_AntiSlip_Type_876D_Ductile_iron_142175
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Iron_Galvanised_Intercept_Heelsafe_AntiSlip_Type_875D_Galvanised_iron_142176

3.4 Haunch types

To include Haunching we have provided decision option so user can select yes/or from the parameter Haunching. There are two different classes for haunching A-B and C-D

Haunching	Yes\No	Input	Yes
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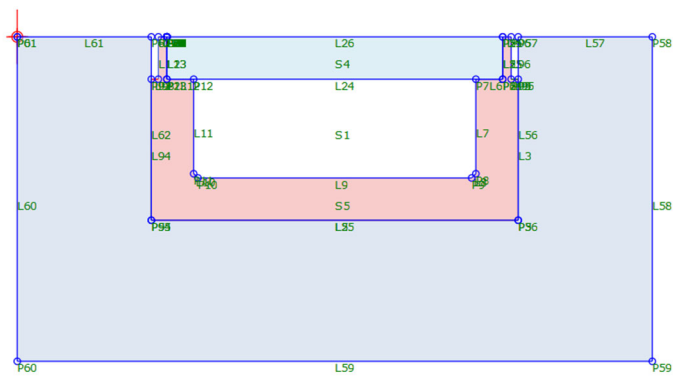
There are two different classes for haunching A-B and C-D it can be decided by user, using Haunch class parameter drop down menu.

Haunch_Class	Haunch_Class_Selection	Input	Class A B
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Class_A_B
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Class_C_D

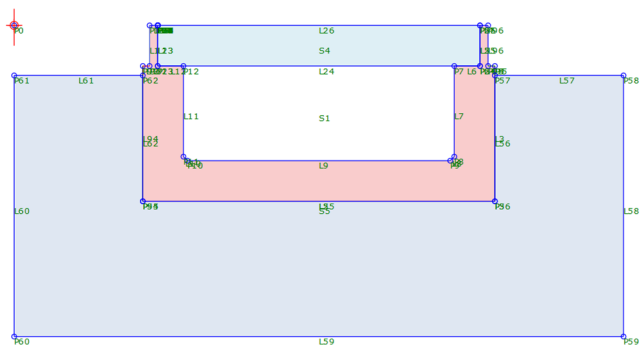
Haunch class A-B which has four types of haunch and C-D which have different types of haunch user can easily select their haunch type with provided parameters.

Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Asphalt sloped haunch class A B
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Grass_haunch_to_top_Class_A_B
Create parameter			Pavers_to_edge_class_A_B
Packet Settings			Asphalt_sloped_haunch_class_A_B
Input/Output Parameters			Concrete_haunch_to_top_class_A_B
Target Parameters			
Superelevation			
Cant			
Ever			

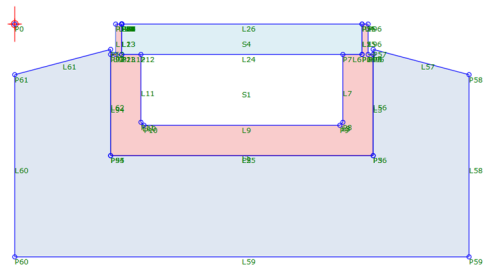
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Concrete haunch to top class C D
Create parameter			Pavers_to_edge_class_C_D
Packet Settings			Pavers_haunch_to_top_class_C_D
Input/Output Parameters			Asphalt_sloped_haunch_class_C_D
Target Parameters			Asphalt_haunch_to_top_class_C_D
Superelevation			Concrete_haunch_to_top_class_C_D
Cant			
Ever			



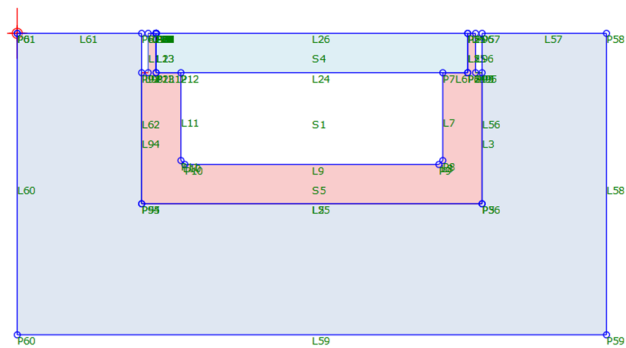
Grass haunch to top



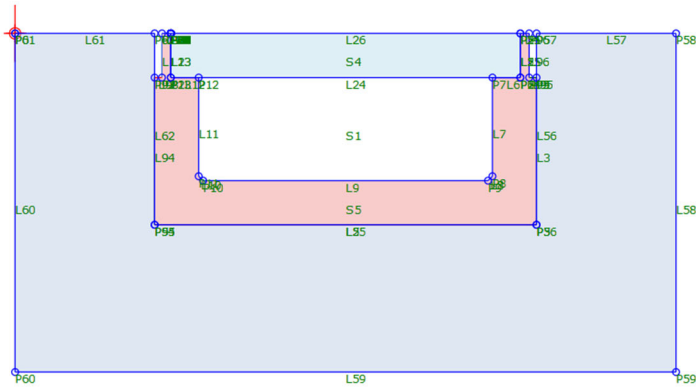
Pavers to edge



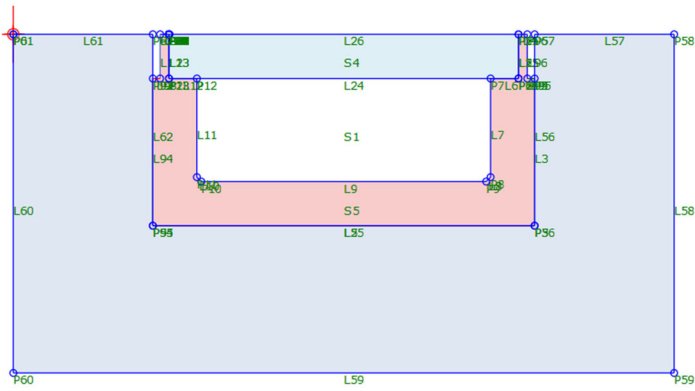
Asphalt sloped haunch



Concrete haunch to top



Pavers haunch to top



Asphalt haunch to top

3.5 Point Codes

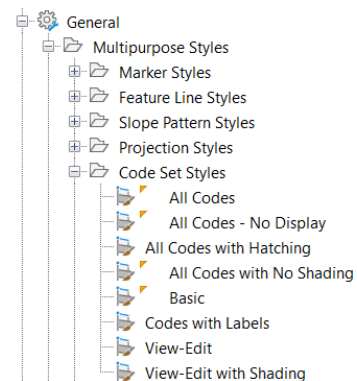
The point codes can be used in the code set styles to generate featurelines at the specific positions on the subassembly. The link codes can be used to display the outline of the subassembly in cross-sections, and also to create surface from the codes. The default values supplied with the subassembly include the standard codes of Top and Formation which are used universally to indicate a Top surface of the corridor model or a Formation surface of the corridor model respectively. The SlabDrain is indicated by the default link code of SlabDrain, and the default shape code of SlabDrain. The grating is indicated by the default link code of edge rail, and the default shape code of edge rail. The haunching is indicated by the default link code of Haunch, and the default shape code of Haunch. All of these codes can be overridden by the user. The shape codes are used to enable hatching to be applied in the cross-section views, and also to enable volumes of materials to be generated.



4. Code Set Styles

Code Set Styles are used to control the appearance and labeling of the individual point, link, and shape components of the subassemblies. The many styles required are grouped into Code Sets. Code Set settings are located in the General collection on the Settings tab of the Tool space.

Different code set styles used in the SlabDrain Code set style template as shown here.



4.1 Import Code Set Styles from one drawing to another

Open the drawing in which SlabDrain Code Set style has to be imported.

- Run command IMPORTSTYLESANDSETTINGS
- Browse to the location of SlabDrain Code Set Style template
- Select Styles as desired, check "Import Settings" toggle and click OK
- Warning will be displaying informing that duplicates styles may be overwritten
- Drawing will import styles and settings from SlabDrain Code Set Style template to this template