



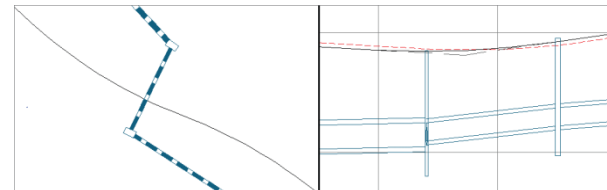
# Chapter 14

- Creating Pipe Networks
  - Topics
    - Understanding gravity pipe networks
    - Creating gravity pipe networks
    - Editing gravity pipe networks
    - Understanding pressure pipe networks
    - Creating pressure pipe networks
    - Editing pressure pipe networks



# Understanding Gravity Networks

- Structures provide access to pipes underground for the following:
  - People
  - Runoff
- Structures are also used to enable a bend in a pipeline.
- Pipes convey water to a predetermined destination.
- Usually they flow by gravity and therefore must be
  - Sloped enough
  - Large enough
  - Deep enough



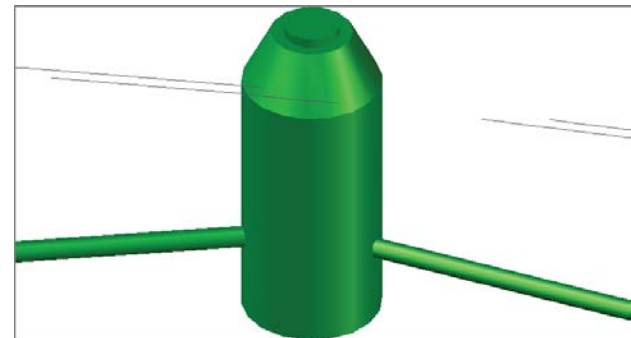


# Exploring the Gravity Network

- Civil 3D objects represent structures and pipes.
- Relationships:
  - Between structures and pipes within a network
  - Between a network and other objects
- Pipes and structures can be browsed in Prospector.
- Shape, dimensions, and behavior of a pipe or structure originates with a *part*.
- Parts are stored in a *parts list*.

# Pipe Networks from Objects

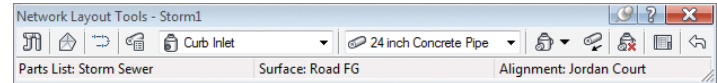
- Sometimes it is easier to lay out a schematic of a pipe network using basic AutoCAD commands and entities.
- Pipe networks can be created from the following:
  - AutoCAD polylines
  - Civil 3D alignments
  - Civil 3D feature line
- The disadvantage is that the same parts are used throughout the network.



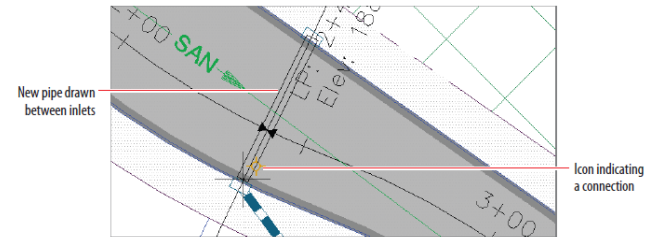


# Pipe Networks by Layout

- Similar to alignments and profiles, there is a Network Layout Tools toolbar.



- From this toolbar you can do the following:
  - Select parts
  - Draw pipes
  - Draw structures
  - Draw both pipes and structures



- You can use different parts as you go.
- A special cursor icon (glyph) shows when you are connecting parts to each other.

