

Inspecting the Installation of Permanent Stormwater Treatment Measures

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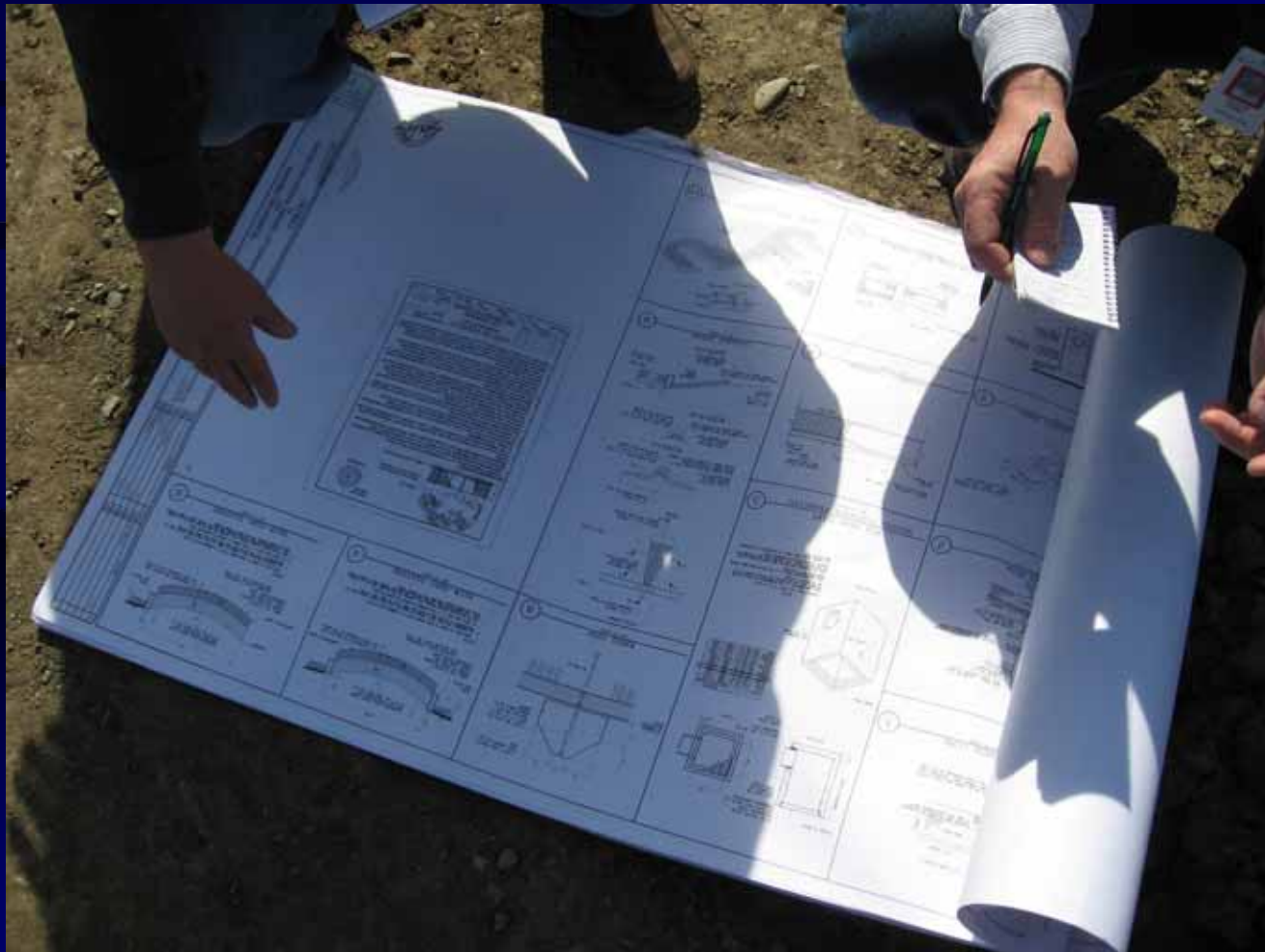
Presentation Elements

- Meet with Site Superintendent
- Inspections of Mechanical Devices
- Inspections of Landscape Based Measures
- Final Approval
- Q & A

Meet With Site Superintendent

- Meet ASAP – Even If There Was a PreCon Meeting
- Intro – Who You Are & Why Your There
- Go Over Plans & City Spec's
- Make Sure They Know What You Want To Inspect & When You Want To Inspect it

I Was Wondering How That Was Going To Work



Inspection of Mechanical Devices

- CDS – Media Canister Units, Vortex, Up-Flow Units, Etc.
 - Inspect Unit (Prior to Installation if Possible)
 - Location, Elevation, Pipe Connections & Cover
 - Collaring of Pipes
 - Cleaning or Pumping Out of Unit
 - Activation of Unit

CDS Filter Unit



The Godzilla of All CDS Units



When Good CDS Units Turn To The Dark Side



Up-Flow Units



Inspection of Landscape Based Treatment Measures

- Filter Strips
- Swales
- Flow-Through Planters
- Below Grade Flow Through
- Tree Wells

What To Look For

- Try to be There During All Phases of the Installation
- Proper Location (Treating All the Area Required In the Plans)
- Sizing – Width, Length, Depth
- Slope
- Piping (and connections)
- Depth & Type of Rock , Liners/filter fabric
- Imported Soil
- Location and Height of Risers
- Location & Correct Installation of Bubble-Ups & Area Drains, Clean-Outs
- Location and Correct Installation of Curb Cuts (Scuppers) & Cobbles
- Locations and Operational Status of Any Pumps Installed.
- Sod, Vegetation Cover, Ground Cover, Irrigation
- Possible Conflicts With Other Improvements

Other Issues That Can Blind Side You

- Language Barrier
- Details Not On Landscaping Plans
- Many Landscapers are Constructing These Measures for the First Time and/or Have Trouble Reading Plans
- Site Superintendents Change

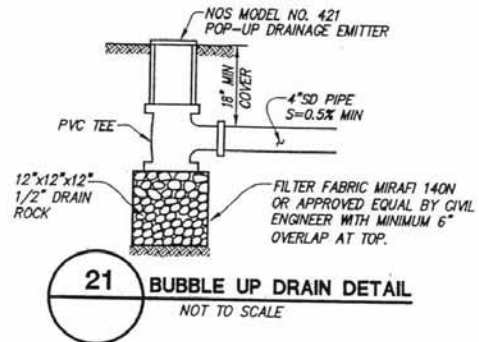
Filter Strips



Filter Strips (cont)



Bubble-Up Spec



Dig It Up!



Swales – What Imported Dirt?



Swales – Problem, What Problem?



Below Grade Flow Through



Long Below Grade Flow Through



Flow Through Planter



Long Flow Through (cont)



Tree Wells



Tree Well (cont)



More Tree Wells



Final Approval

- All Treatment Measures Must be Installed and Working Properly Prior to Occupancy Being Granted by the City.
- Treatment Measures Must Treat All Required Impervious Surfaces
 - Structures
 - Parking
 - Roads
 - Other

Final Approval (cont)

- All Punch List items must be implemented prior to Acceptance of Treatment Measures
- Sign-Off of Treatment Measure
- Submittal of Stormwater Treatment Measure Installation Compliance Statement

Questions & Answers

Easy Ones Only