

CHAPTER EIGHT

SUMMARY OF QUANTITIES IN PLANS

ELMINATION OF THE SUMMARY OF QUANTITIES SHEET

8-1

Starting with the January 21, 2014 letting, traditional sheet number 3, Summary of Quantities, will be eliminated from the let plans. The elimination of this sheet will increase the Department's efficiency when electronically signing and sealing final plans.

DRAINAGE ITEMS

8-2

Drainage items are summarized on standard summary sheets, which outline detailed drainage information. The drainage summary sheets will include alternative types of pipe for cross drains under low type pavement. (High type pavement is any portland cement concrete pavement, or any asphalt concrete pavement at least 2" thick.)

The expanded use of alternate drainage pipe materials is discussed in Section 305, Drainage Pipe, of the 2012 Specifications Book. Also, Article 310-4 of the Specifications Book has been updated to expand the definition of "side drain pipe" to include more than driveway pipe. The standard specifications states: "define "side drain pipe" as storm drain pipe running parallel to the roadway to include pipes in medians, outside ditches, driveways, and under shoulder berm gutter along outside shoulders greater than four feet wide".

"Where shown in the plans, side drain pipe may be Class II reinforced concrete pipe, aluminized corrugated steel pipe, corrugated aluminum alloy pipe, HDPE pipe or PVC pipe. Use of corrugated steel pipe is restricted in the counties listed in Article 310-2."

There are two different drainage summary sheets, one for the Statewide Tier facilities and one for the Regional/Subregional Tier facilities. The Regional/Subregional Tier drainage summary sheets will have columns for Drainage Pipe and Side Drain Pipe. These pay items will allow the Contractor to select the specific type of material used and eliminate the need for alternate bid items. However, if there are specific restrictions of certain materials, it should be designated as "Do Not Use" on the drainage summary sheet. The associated pay items will be designated as Drainage Pipe and Side Drain Pipe. The use of the "drainage pipe" pay item will be limited to pipes located on the Regional and Subregional Tier facilities. Statewide Tier facilities will have a Statewide Tier drainage summary sheet and will not use the "drainage pipe" pay item, but will continue to use the "side drain pipe" pay item with the above referenced expanded definition.

Drainage Pipe Restrictions

Drainage pipe restrictions are intended to be used by the designer when preparing the drainage summary sheets that contain the pay item “Drainage Pipe”. There are three restrictions for use of the “Drainage Pipe” pay item. If these conditions exist, the particular type of pipe should be specified on the plans and in the drainage summary:

1. Do not use “Drainage Pipe” pay item when fill height is greater than 20’.
2. Do not use “Drainage Pipe” pay item when fill height is less than 2’.
3. Do not use “Drainage Pipe” pay item on Statewide Tier Routes. The “Drainage Pipe” pay item is restricted to Regional and Sub-Regional Tier Routes.

A comprehensive listing of all fill height restrictions for flexible and rigid pipe types is denoted in the current Roadway Standard Drawing, Standard 300.01. Fill height restrictions for steel and aluminum pipes are listed in the North Carolina DOT Fill Height Tables for Corrugated Metal Pipe and North Carolina DOT Corrugated Aluminum Arch Pipe Cover Heights.

Side Drain Pipe Restrictions

This guidance is intended to be used by the designer when preparing the drainage summary sheets that contain the pay item “Side Drain Pipe”. The following exceptions should be considered when preparing the plans.

1. Do not use the pay item of “Side Drain Pipe” for fill heights greater than 10’. Specify a particular pipe type or use the “Drainage Pipe” pay item in this case.
2. Do not use the pay item of “Side Drain Pipe” for Commercial Driveways. Specify a particular pipe type for this application.
3. If there is known future widening that will lead to the “Side Drain Pipe” being under future pavement, specify a particular pipe type or use the “Drainage Pipe” pay item in this case.

For cross drains under high type pavement and special situations, the Hydraulics Unit will provide pipe classifications.

DRAINAGE ITEMS (Continued)

8-2

The persons responsible for preparing and checking the drainage summary sheets shall initial and date them in the upper left corner.

Pipe removal is included on the drainage summary sheets.

OTHER SUMMARIES

8-3

It is necessary to show a separate summary for the items listed below:

- Earthwork
- Guardrail
- Guiderail
- Fence summary (urban projects)
- Pavement Removal
- Breaking of Existing Pavement
- Shoulder Drains
- Subsurface Drainage (subsurface drains, underdrains and/or blind drains)
- Rock Plating
- Reinforced Soil Slopes (RSS)
- Bridge Waiting Periods
- Embankment Waiting Periods
- Geotextile for Pavement Stabilization
- Settlement Gauges
- Surcharges and Surcharge Waiting Periods
- Aggregate Subgrade / Stabilization
- Parcel Index of Sheets
- Any Miscellaneous Summaries Not Included Above