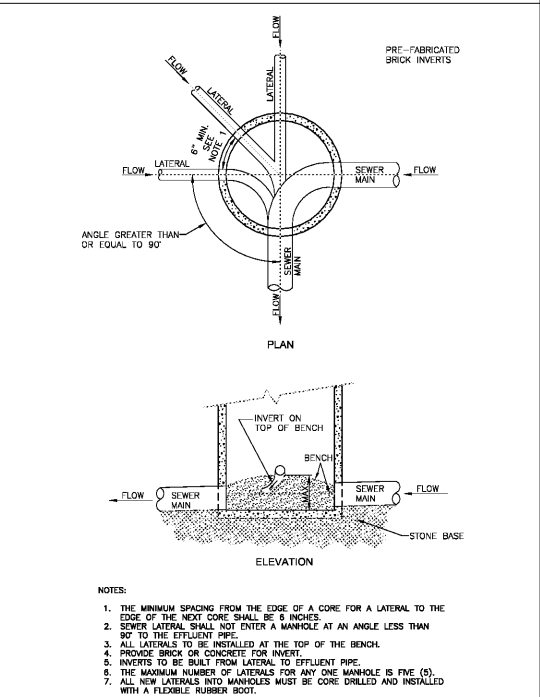
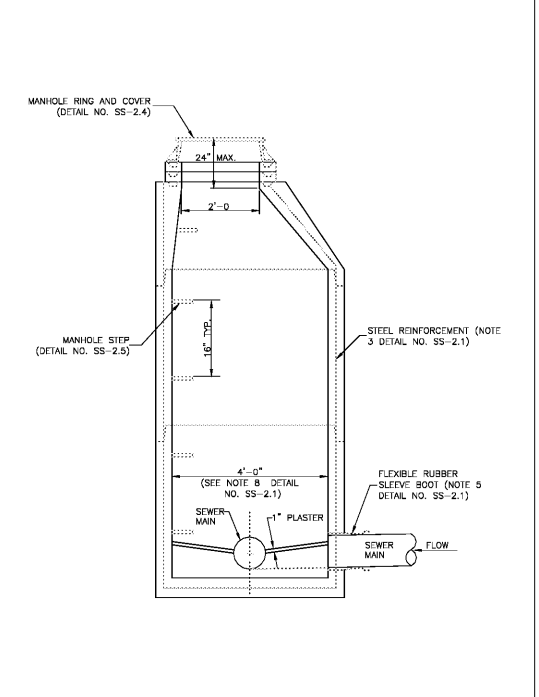


DURHAM CITY OF DURHAM	REVISION DATE: 05/21/2009	<b>SANITARY SEWER LATERAL</b> 6" SEWER LATERAL	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-1.1



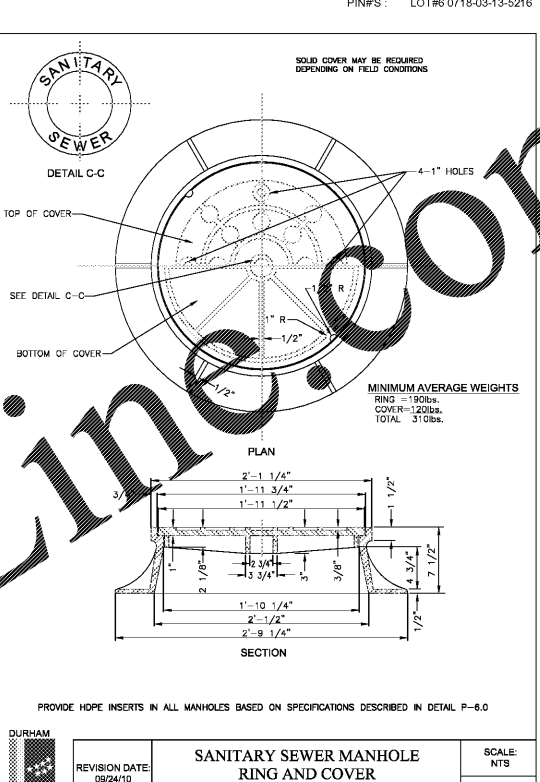
DURHAM CITY OF DURHAM	REVISION DATE: 03/18/2010	<b>SANITARY SEWER LATERAL AT MANHOLE</b>	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-1.2



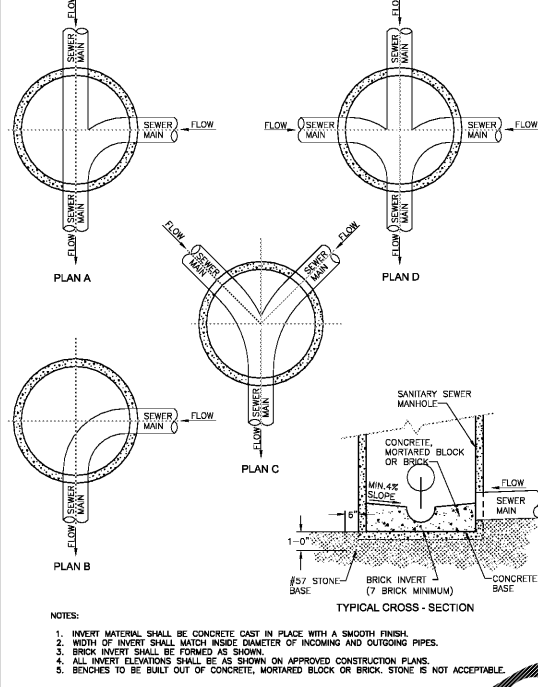
DURHAM CITY OF DURHAM	REVISION DATE: 03/18/2010	<b>PRECAST CONCRETE SANITARY SEWER MANHOLE</b>	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-2.0

**NOTES**

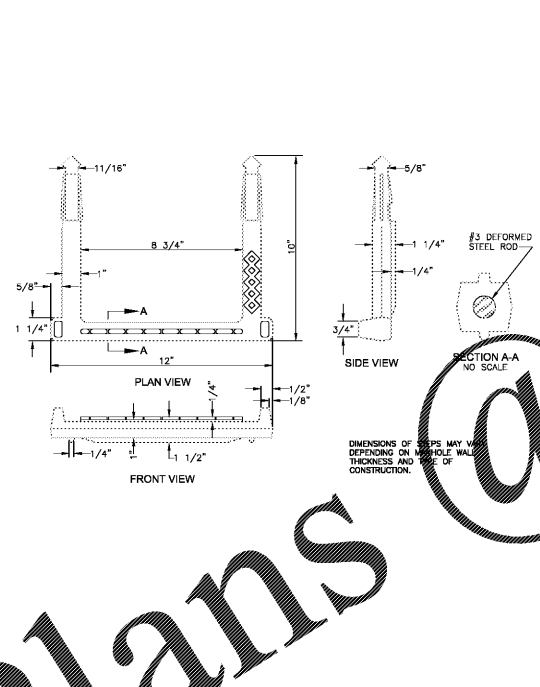
- ALL PRE-CAST CONCRETE MANHOLES SHALL CONFORM TO THE LATEST REVISION OF ASTM C478.
- CONCRETE SHALL BE 4000 PSI AT 28 DAYS MINIMUM.
- STEEL REINFORCEMENT SHALL BE GRADE 40 BILLET STEEL CONFORMING TO THE LATEST REVISION OF ASTM-A-185 FOR WALL REINFORCEMENT, AND THE LATEST REVISION OF ASTM-A615 FOR THE BASE REINFORCEMENT.
- STANDARD JOINTS SHALL BE SEALED WITH PUTTY TYPE PLASTIC CEMENT PER FED. SPEC. SS-C-153 OR AN O-RING TYPE JOINT CONFORMING TO THE LATEST REVISION OF ASTM-C443.
- MANHOLE INLETS AND OUTLETS SHALL BE CAST IN PLACE FLEXIBLE RUBBER SLEEVE BOOTS PER THE LATEST REVISION OF ASTM-C923.
- INVERTS TO BE CONSTRUCTED OF BRICK WITH A CONCRETE BENCH (DETAIL NO. SS-2.2).
- THE MAXIMUM SEPARATION OR INVERT IN TO INVERT OUT WITHIN A MANHOLE IS 0.50 FEET. WHEN THE SEPARATION IS GREATER THAN 0.5 FEET A DROP MANHOLE MUST BE USED.
- MANHOLES GREATER THAN 18 FEET IN DEPTH SHALL HAVE AN INSIDE DIAMETER OR 5'-0" FOR SANITARY SEWER MAINS GREATER THAN EIGHTEEN INCHES (18") IN DIAMETER, MANHOLES SHALL BE A MINIMUM OF 5'-0" IN DIAMETER.
- RIM ELEVATIONS SHALL BE AT GRADE IN STREETS & PARKING LOTS.
- RIM ELEVATIONS ALONG OUTFALLS SHALL BE A MINIMUM OF 3' ABOVE EXISTING GROUND ELEVATION. IF THE OUTFALL IS LOCATED WITHIN THE FLOOD PLAIN, RIM ELEVATIONS SHALL BE 2' ABOVE THE 100-YEAR FLOOD ELEVATION (WHILE STILL MAINTAINING THE 3' ABOVE THE EXISTING GROUND ELEVATION MINIMUM REQUIREMENT). THE 100-YEAR FLOOD ELEVATION SHALL BE NOTED ON THE CONSTRUCTION DRAWINGS.
- DEPENDING UPON THE HEIGHT OF THE MANHOLE, THE CITY OF DURHAM ENGINEERING DIVISION MAY REQUIRE FLAT MANHOLES, EXTERIOR STEPS AND SAFETY BARS ON TOP OF THE MANHOLE.



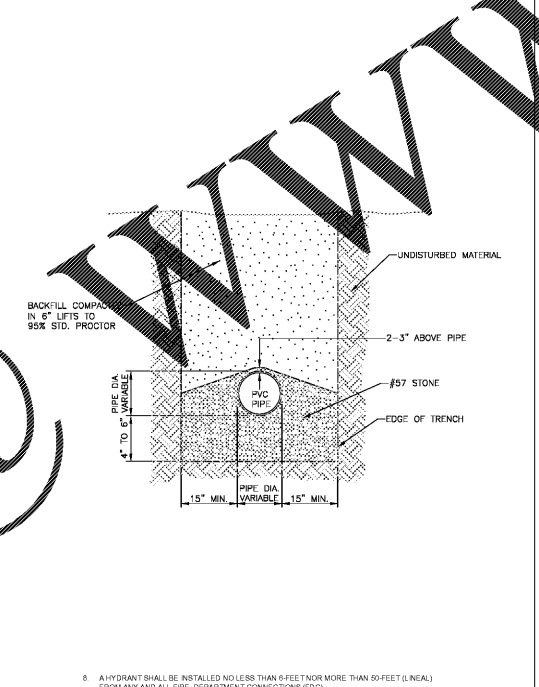
DURHAM CITY OF DURHAM	REVISION DATE: 02/24/10	<b>SANITARY SEWER MANHOLE RING AND COVER</b>	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-2.4



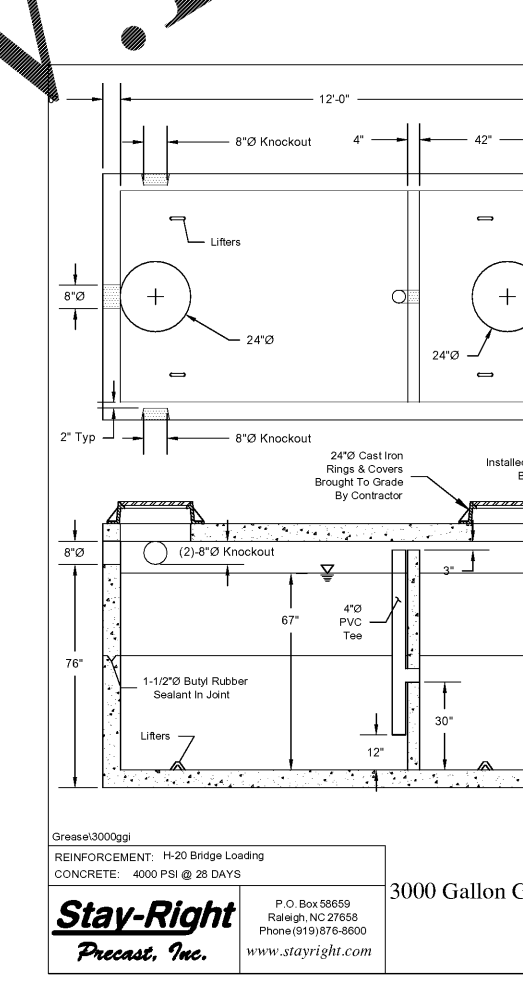
DURHAM CITY OF DURHAM	REVISION DATE: 12/07/2009	<b>SANITARY SEWER MANHOLE INVERT</b>	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-2.6



DURHAM CITY OF DURHAM	REVISION DATE: 12/07/2009	<b>PLASTIC COATED SANITARY SEWER MANHOLE STEPS</b>	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-2.5



DURHAM CITY OF DURHAM	REVISION DATE: 12/07/2009	<b>PVC PIPE BACKFILL</b>	SCALE: NTS
		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. SS-5.0



**FINAL DESIGN NOT RELEASED FOR CONSTRUCTION**

CITY OF DURHAM  
PUBLIC WORKS DEPARTMENT  
APPROVED

ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_  
STORM WATER \_\_\_\_\_ DATE \_\_\_\_\_  
TRANSPORTATION \_\_\_\_\_ DATE \_\_\_\_\_

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**LOT 6 CONSTRUCTION PLANS FOR WESTPOINT AT 751**  
NC HIGHWAY 751 SOUTH, TRIANGLE TOWNSHIP, DURHAM, NC 27713

**UTILITY DETAILS**

Date:	MARCH, 2017
Scale:	N/A
Drawn:	JPD
Checked:	MPA
Project No.:	200-103
Computer Dwg. Name:	200-103_Sht-10-13-Details-031617
Sheet No.:	10
	Of