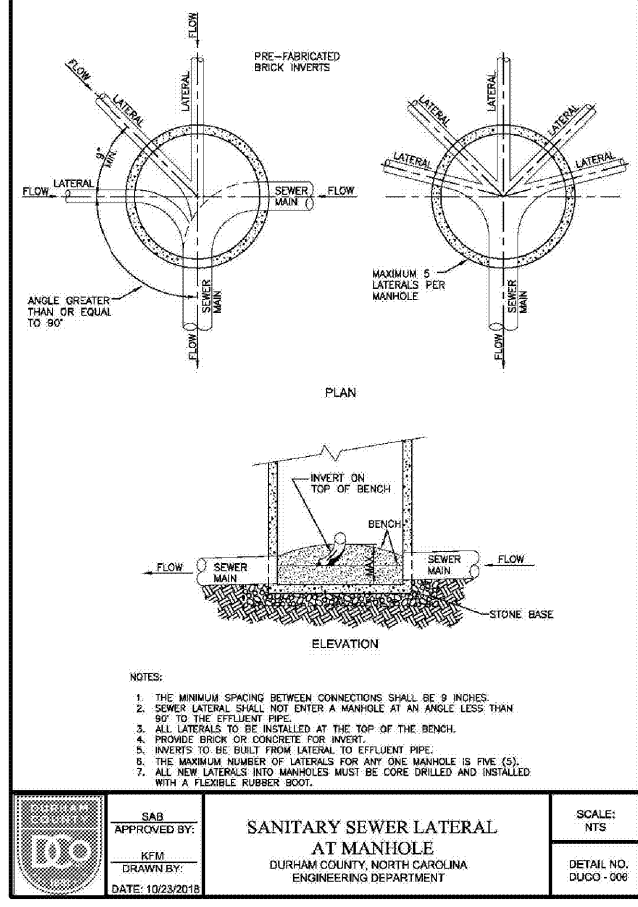


SAB APPROVED BY: **SANITARY SEWER MANHOLE INVERT** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 004



SAB APPROVED BY: **SANITARY SEWER LATERAL AT MANHOLE** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 006

GENERAL NOTES

1. ALL GRAVITY MAINS SHALL BE SUBJECT TO LOW PRESSURE AIR TESTING (CONFORMING TO ASTM F1417-11A) A MINIMUM OF 10 DAYS FOLLOWING INSTALLATION. ALL GRAVITY SEWER MAINS SHALL BE CLEANED BEFORE AIR TESTING.
2. ALL PVC GRAVITY MAINS SHALL BE MANDREL TESTED A MINIMUM OF 30 DAYS FOLLOWING INSTALLATION. SHOULD ANY SECTION FAIL THE MANDREL TEST, COUNTY STAFF WILL REQUIRE RETESTING OF THAT SECTION AFTER REPAIRS TO THE PIPE SECTION ARE MADE. IN ALL CASES, RETESTING WILL NOT OCCUR UNTIL 48 HOURS HAVE PASSED FROM THE DATE OF THE PREVIOUS TESTING.
3. MANHOLE INVERTS AND BENCHES SHALL ALSO BE CLEAN AND FREE OF DEBRIS PRIOR TO ACCEPTANCE.
4. ALL SANITARY SEWER MAIN SHALL BE CLEANED PRIOR TO ACCEPTANCE. THE SANITARY SEWER SHALL BE FREE OF CONSTRUCTION DEBRIS, SOIL, TRASH AND ALL OTHER FOREIGN PARTICULATES.
5. THE CLEANED SANITARY SEWER MAIN SHALL BE INSPECTED BY CCTV. THE VIDEO SHALL SHOW THE LINE TO BE FREE OF SILT, FOREIGN OBJECTS, AND DEBRIS. A COPY OF THE VIDEO SHALL BE GIVEN TO DURHAM COUNTY INSPECTIONS AS A CONDITION OF ACCEPTANCE.
6. MANHOLES SHALL HAVE NO-FLO INFLOW SHIELDS.

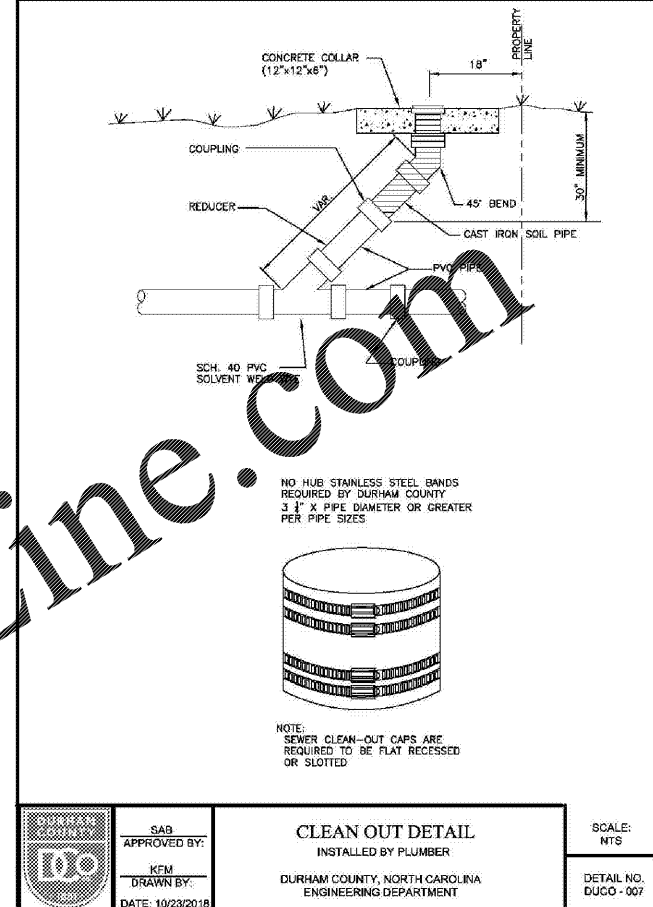
INDUSTRIAL USERS

1. APPROVAL OF PLANS DOES NOT AUTHORIZE CONSTRUCTION OF THE PRETREATMENT SYSTEM. THE COUNTY COMPLIANCE MANAGER SHALL ISSUE AN AUTHORIZATION TO CONSTRUCT FOR ALL DISCHARGE COMPONENTS RELATED TO PRETREATMENT AND DISCHARGE. THESE COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO: SEDIMENT TANKS, GREASE INTERCEPTORS, FLUMES, FLOW METERS, pH NEUTRALIZATION SYSTEMS, CARBON FILTRATION, THERMOKILL/BOKILL SYSTEMS, AND CHEMICAL INJECTION.
2. INDUSTRIES INCORPORATING RAIN HARVESTING FOR USES OTHER THAN IRRIGATION, SHALL BE REQUIRED TO GET WRITTEN COUNTY APPROVAL, PRIOR TO OPERATION OF THE SYSTEM.
3. ANY SYSTEM MODIFICATION THAT ALTERS THE QUANTITY OF DISCHARGE, CHEMICAL COMPOSITION OF DISCHARGE, OR LOCATION OF SITE DISCHARGE WILL REQUIRE COUNTY APPROVAL.

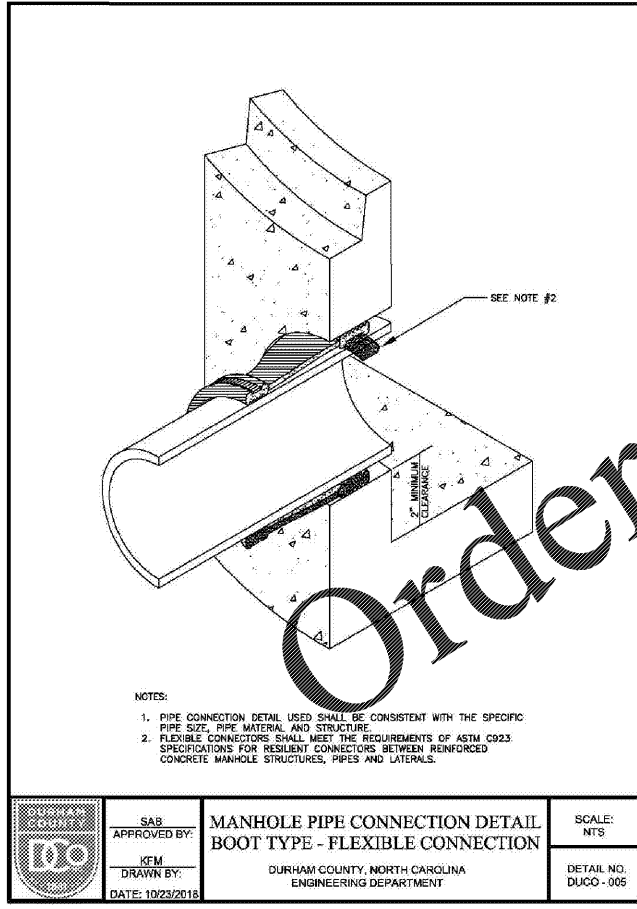
PLUG PROCEDURE

1. DURING CONSTRUCTION OF SEWER EXTENSIONS OR GRADING OF SEWER EASEMENTS, THE CONTRACTOR/OWNER WILL BE RESPONSIBLE TO INSPECT AND VERIFY THAT INFLOW WILL NOT OCCUR (I.E. MANHOLES AT SUFFICIENT GRADE SO AS NOT TO ALLOW STORM WATER AND DEBRIS TO ENTER THE SYSTEM; NO GRADING, DITCHES, OR EROSION CONTROL DEVICES CONSTRUCTED SO AS TO ALLOW STORM WATER OR DEBRIS INTO THE SYSTEM) AS A RESULT OF CONSTRUCTION.
2. AN APPROVED PLUG MUST BE INSTALLED ON THE DOWNSTREAM SIDE OF THE FIRST MANHOLE UP FROM LIVE SEWER OR A MANHOLE APPROVED BY THE UTILITY DIVISION. THE PLUG MUST BE SECURED TO THE MANHOLE STEPS OR OTHER SECURED OBJECT TO PREVENT THE PLUG FROM MOVING DUE TO HYDRAULIC FORCE. THE MANHOLE TO BE PLUGGED WILL BE DESIGNATED AT PRE-CONSTRUCTION MEETINGS.
3. THE UTILITY DIVISION WILL MONITOR THE PLUG FOR COMPLIANCE.
4. THE CONTRACTOR IS REQUIRED TO IMPLEMENT A ROUTINE SCHEDULE OF MAINTENANCE AND DOCUMENT THAT THE PLUG IS FUNCTIONING AS REQUIRED ON A DAILY BASIS. THE CONTRACTOR/OWNER MUST REMOVE THE PLUG REMAINS IN PLACE UNTIL AUTHORIZED FOR REMOVAL BY THE UTILITY DIVISION.
5. ALL WATER AND DEBRIS WILL BE PUMPED OR REMOVED FROM THE MANHOLE. THE SYSTEM MUST BE FLUSHED CLEAN PRIOR TO REMOVING THE PLUG. A REPRESENTATIVE FROM THE UTILITY DIVISION MUST BE PRESENT TO INSPECT THE SYSTEM DURING THIS PROCEDURE, AND PRIOR TO PLUG REMOVAL, CONTACT THE UTILITY DIVISION FOR SCHEDULES OF THIS PROCEDURE.
6. ANY DAMAGE TO THE COLLECTION SYSTEM, INCLUDING BUT NOT LIMITED TO, MANHOLE FRAME & COVER, LINES, LIFT STATIONS, FORCE MAINS, POWER LINES, AND TELEMETRY DEVICES CAUSED BY THE CONTRACTOR, MUST BE REPORTED TO THE UTILITY DIVISION WITHIN TWO HOURS OF THE INCIDENT.

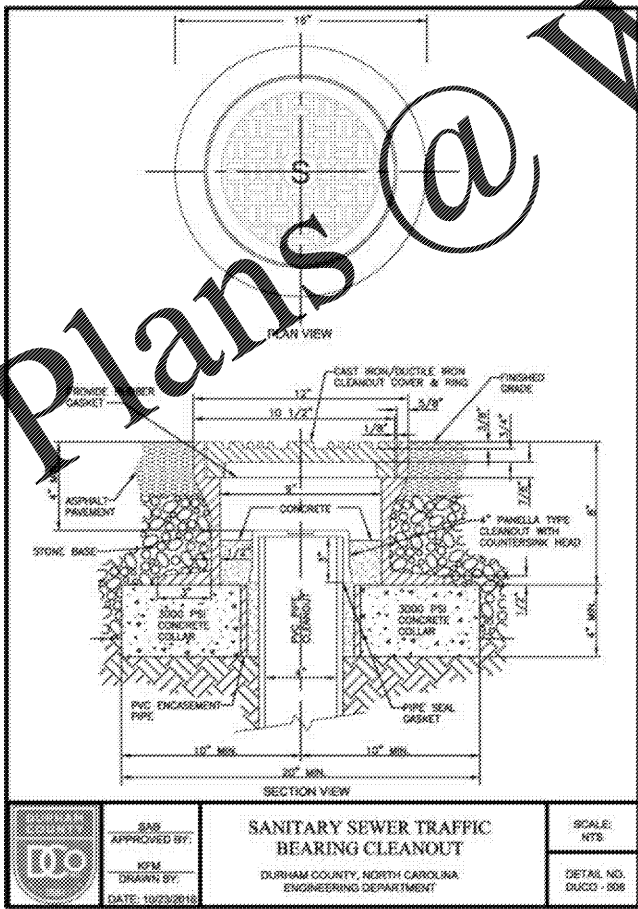
SAB APPROVED BY: **STANDARD SANITARY SEWER NOTES** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 016



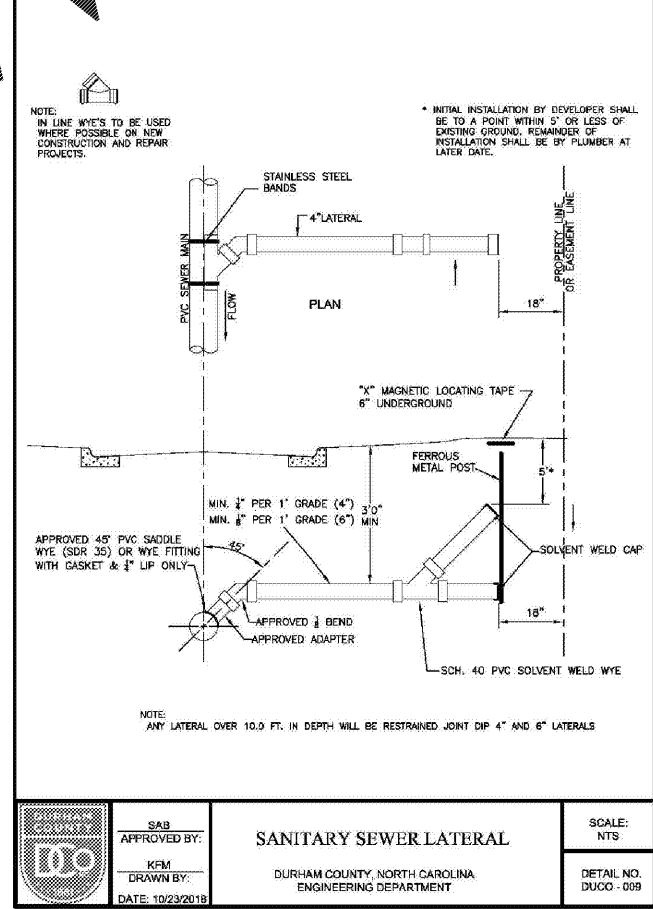
SAB APPROVED BY: **CLEAN OUT DETAIL** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 007



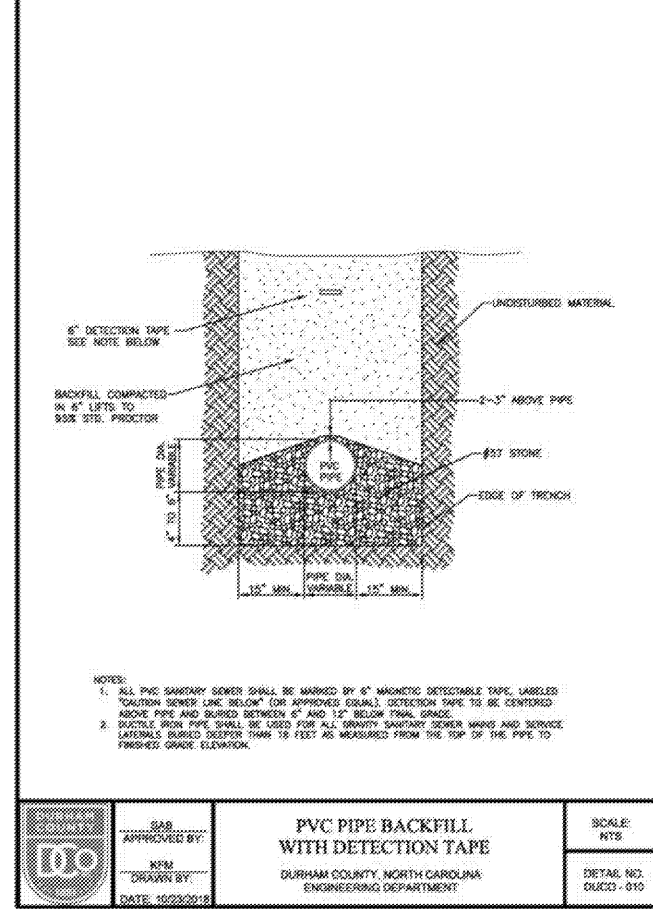
SAB APPROVED BY: **MANHOLE PIPE CONNECTION DETAIL BOOT TYPE - FLEXIBLE CONNECTION** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 005



SAB APPROVED BY: **SANITARY SEWER TRAFFIC BEARING CLEANOUT** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 008



SAB APPROVED BY: **SANITARY SEWER LATERAL** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 009

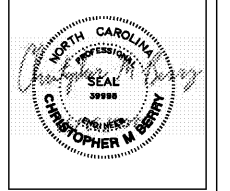


SAB APPROVED BY: **PVC PIPE BACKFILL WITH DETECTION TAPE** SCALE: NTS
 KFM DRAWN BY: DURHAM COUNTY, NORTH CAROLINA ENGINEERING DEPARTMENT
 DATE: 10/23/2018 DETAIL NO. DUCCO - 010

BERRY ENGINEERS LLC
 CIVIL ENGINEER
 3465 BELLEVUE HWY, SUITE 109
 CLEVELAND, TN 37312
 TEL: (615) 790-5880
 DBA BERRY ENGINEERS, PLLC; FIRM LICENSE: P-1188

DEVELOPER:
 BELTERRA PARTNERS, LLC.
 728 SHADES CREEK PKWY
 SUITE 130
 BIRMINGHAM, AL 35209

PROJECT:
 O'REILLY AUTO PARTS
 2801 S MIAMI BLVD
 DURHAM, NC



REVISIONS

NO.	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

SHEET NAME:
 SITE DETAILS

DATE: 06/15/2019

DRAWN BY: CSH

CHECKED BY: CMB

PROJECT NO.: 19065

SHEET NUMBER:
 C-11