# MONTFORD AVE. @ MONTFORD PARK

# SANITARY SEWER REHABILITATION (PROJECT NO. 2017144) MSD OF BUNCOMBE COUNTY

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1.	
D-1	SANITARY SEWER DETAILS
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## DEQ GENERAL NOTES:

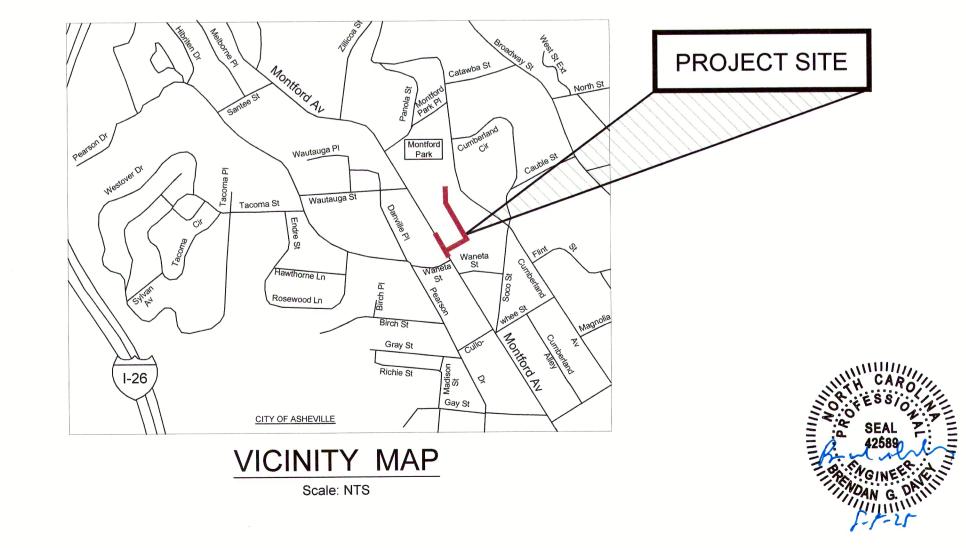
- A. EROSION CONTROL MATTING THAT INCORPORATES PLASTIC MESH AND/OR PLASTIC TWINE SHALL NOT BE USED ALONG STREAMBANKS OR WITHIN WETLANDS.
- B. ALL WORK IN OR ADJACENT TO STREAMS SHALL BE CONDUCTED SO THAT THE FLOWING STREAM DOES NOT COME IN CONTACT WITH THE DISTURBED AREA. APPROVED BEST MANAGEMENT PRACTICES FROM THE MOST CURRENT VERSION OF THE NC SEDIMENT AND EROSION CONTROL MANUAL, OR THE NC DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MAINTENANCE MANUAL, SUCH AS SAND BAGS, ROCK BERMS, COFFERDAMS, AND OTHER DIVERSION STRUCTURES SHALL BE USED TO MINIMIZE EXCAVATION IN FLOWING WATER.
- C. IF CONCRETE IS USED DURING CONSTRUCTION, THEN ALL NECESSARY MEASURES SHALL BE TAKEN TO PREVENT DIRECT CONTACT BETWEEN UNCURED OR CURING CONCRETE AND WATERS OF THE STATE. WATER THAT INADVERTENTLY CONTACTS UNCURED CONCRETE SHALL NOT BE DISCHARGED TO WATERS OF THE STATE.

# GENERAL NOTES:

- 1. LENGTHS SHOWN ARE NOT ACTUAL PIPE LENGTHS BUT ARE DISTANCES STATION TO STATION. SLOPES SHOWN ON THE PROFILE ARE CALCULATED USING LENGTHS FROM INSIDE EDGES OF MANHOLE.
- 2. ALL WORK ON THIS PROJECT SHALL COMPLY WITH THE CURRENT STANDARD DETAILS AND SPECIFICATIONS OF THE METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY. SPECIAL CONDITIONS AND SPECIAL PROVISIONS MAY APPLY TO THIS PROJECT SEE SPECIFICATIONS.
- 3. ALL WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, AS MAY BE APPLICABLE TO THIS PROJECT AND THE WORK DONE HEREUNDER.
- 4. WHERE FEDERAL, STATE, OR LOCAL LAWS REQUIRE THAT A PERMIT BE ISSUED AND OBTAINED FOR WORK DONE UNDER THIS PROJECT, ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE TERMS AND CONDITIONS SET FORTH IN THE PERMIT.
- 5. ANY MODIFICATIONS TO THESE CONSTRUCTION PLANS OR SPECIFICATIONS SHALL BE APPROVED BY THE MSD PROJECT ENGINEER.
- 6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- 7. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO KEEP THE SEWER AND ALL OTHER UTILITIES IN SERVICE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF ANY KIND FOR DAMAGES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.
- 8. THE CONTRACTOR SHALL LOCATE ALL SERVICES CURRENTLY SERVED BY THE EXISTING SEWER AND RECONNECT TO THE NEW SEWER, INSTALLING A CLEANOUT ASSEMBLY AS REQUIRED (SEE DETAIL).
- 9. THE CONTRACTOR SHALL RESTORE ALL STREETS, PROPERTIES, AND IMPROVEMENTS TO AS GOOD OR BETTER CONDITION THAN EXISTED PRIOR TO CONSTRUCTION.
- 10. PROPERTY LINES SHOWN ON PLANS ARE APPROXIMATE ONLY. PROPERTY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A LICENSED NC PROFESSIONAL LAND SURVEYOR.
- 11. DESIGN BASED ON SURVEY INFORMATION PROVIDED BY COLE SURVEYING & DESIGN, (828) 251-7025.







### LEGEND

FFE FINISHED FLOOR ELEVATION
CM CONCRETE MONUMENT
CMRW CONCRETE MONUMENT RIGHT-OF-WAY
DOT DEPT. OF TRANSPORTATION MONUMENT
PK FIND
PK NAIL FOUND
EIP EXISTING IRON PIN FOUND
SIGN
GAS GAS VALVE
GAS METER/TEST STATION
TRAVERSE
ICI CURB INLET
STORM MANHOLE

GAS MANHOLE

GAS MANHOLE

GAS MANHOLE

GAS MANHOLE

GAS MANHOLE

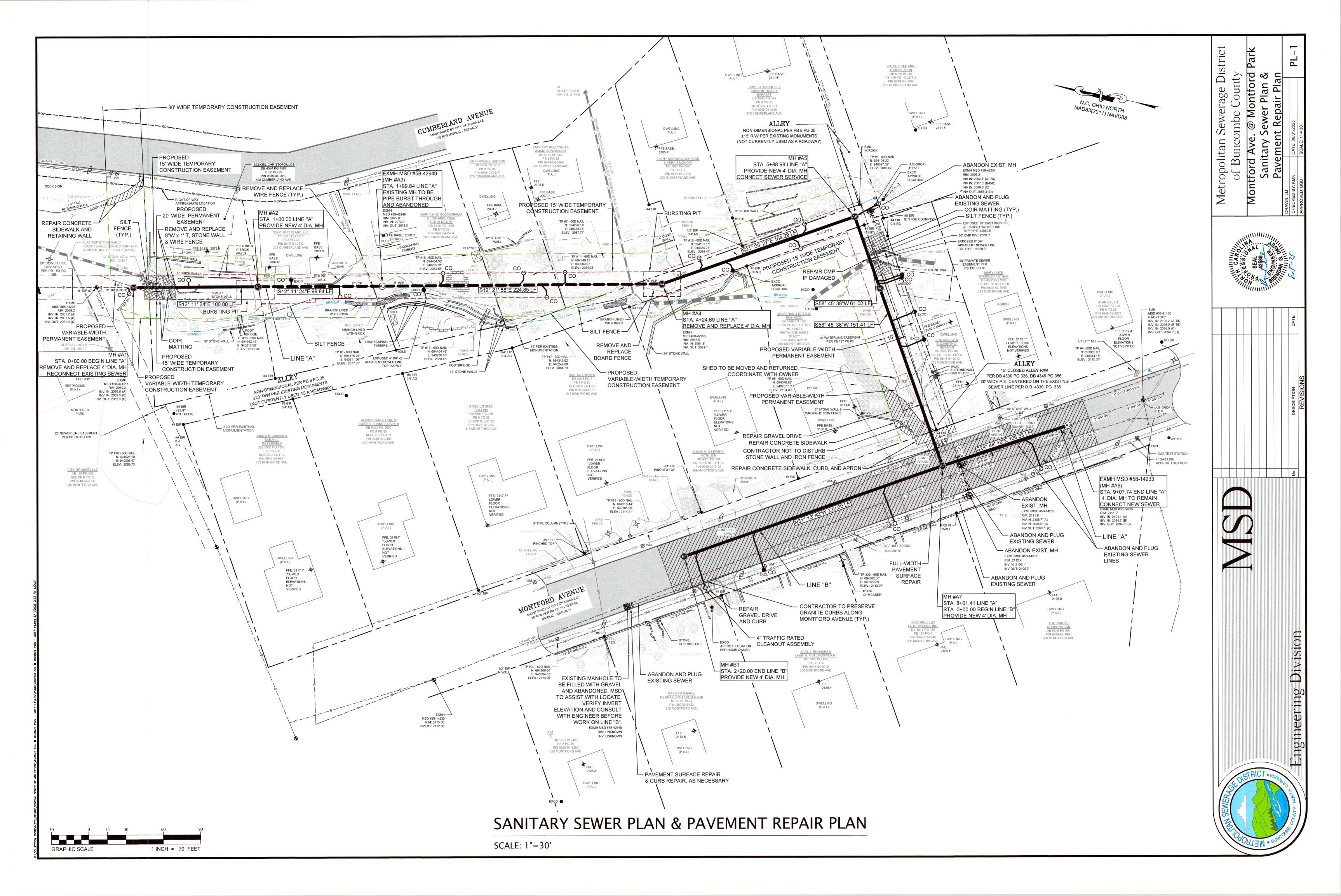
GUY WIRE
GUY WIRE
GUY WIRE
ELECTRICAL JUNCTION BOX

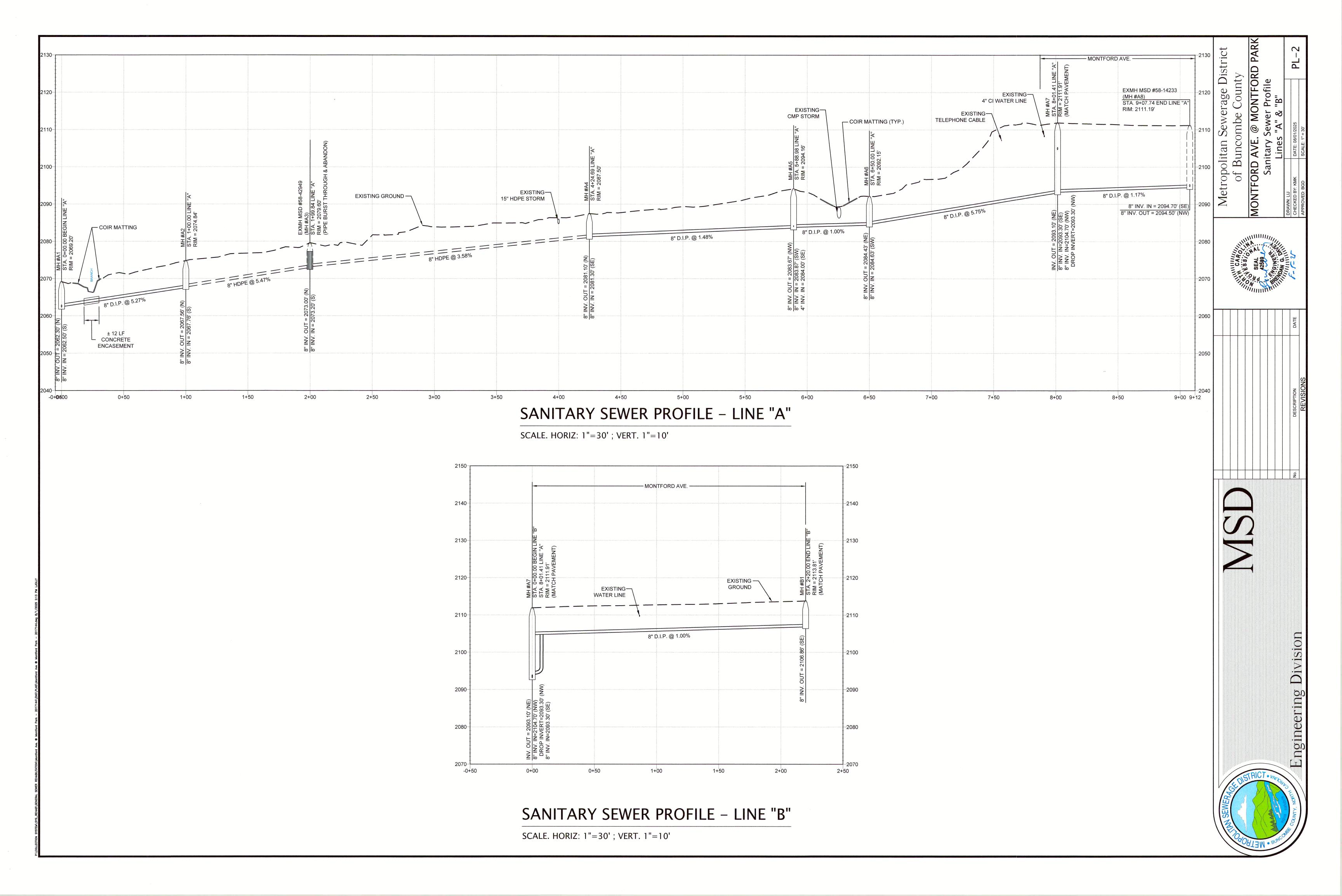
PROPOSED SANITARY SEWER LINE (DIG & REPLACE) PROPOSED SANITARY SEWER LINE (PIPE BURST) ---- s--- s-- EXISTING SANITARY SEWER LINE — — — EXISTING PERMANENT EASEMENT ---- PROPOSED PERMANENT EASEMENT — — — — PROPOSED TEMPORARY EASEMENT PROPOSED SILT FENCE LINE PROPOSED COIR MATTING /////////////////// PROPOSED ASPHALT SURFACE REPAIR —— — — — EXISTING PROPERTY LINE EXISTING RIGHT-OF-WAY LINE \_ \_ \_ w\_ \_ w\_ \_ \_ EXISTING WATER LINE . OOOOOOOOOOOOOOOOO EXISTING ROCK WALL LINE EXISTING STREAM/CREEK EXISTING FEMA LINE (100 yr) EXISTING FEMA LINE (500 yr) EXISTING OVER HEAD UTILITY LINE ---- UGU---- EXISTING UNDERGROUND UTILITY EXISTING STORM DRAINAGE PIPE EXISTING FENCE LINE --> ---> EXISTING DITCH LINE EXISTING TOE/TOP OF SLOPE EXISTING TREE LINE 合合合合合合合合合合合合合合。 EXISTING SHRUB LINE EXISTING CONCRETE EXISTING GRAVEL AREA (RIP-RAP) EXISTING ASPHALT ROADWAY EXISTING BUILDING EXISTING MAJOR CONTOUR

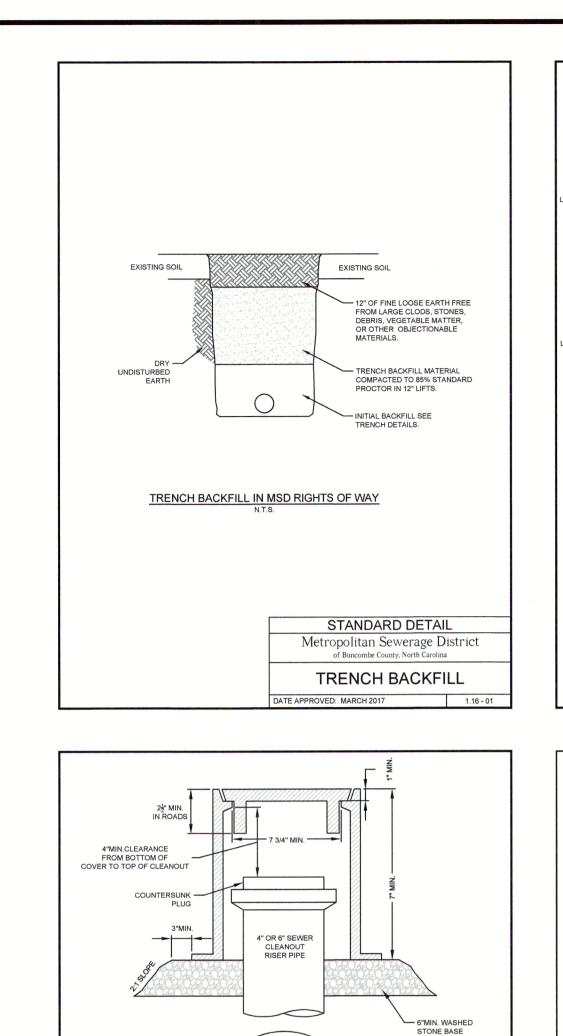


EXISTING MINOR CONTOUR

BID SET 08/01/2025 MONTFORD AVE. @ MONTFORD PARK PROJECT NO. 2017144







ALL SANITARY SEWER CLEANOUT BOXES AND COVERS SHALL BE MANUFACTURED FROM GRAY IRON (CAST IRON) MEETING THE REQUIREMENTS

ALL SANITARY SEWER CLEANOUT BOXES AND COVERS SHALL CONFORM TO PARAGRAPH 2.01(d) OF ITEM II, SECTION VI OF MSD'S TECHNICAL SPECIFICATIONS (MADE IN THE U.S.A.)

NON-TRAFFIC LOCATIONS; SANITARY SEWER CLEANOUT BOXES AND COVERS SHALL BE AS MANUFACTURED BY EAST JORDAN IRON WORKS MODEL 1566 (OR APPROVED EQUAL)

TRAFFIC LOCATIONS; SANITARY SEWER CLEANOUT BOXES AND COVERS SHALL BE AS MANUFACTURED BY EAST JORDAN IRON WORKS MODEL 1574 (OR APPROVED EQUAL)

STANDARD DETAIL

Metropolitan Sewerage District

**CLEANOUT BOX** 

DATE APPROVED: MARCH 28, 2019 2.07 - 05

RIVER FLOOR

TYPE II CONCRETE

STANDARD DETAIL

Metropolitan Sewerage District

CONCRETE ENCASEMENT DETAIL

FILL WITH NATIVE
 MATERIAL TO RIVER
 FLOOR

CONCRETE ENCASEMENT DETAIL

N.T.S

OF AWWA C110 AND ASTM A536.

OSE INITIAL -BACKFILL

OOSE INITIAL — BACKFILL

NOTES:

SPRINGLINE IN GRANULAR MATERIA MINIMUM 4" BELOW INVERT OF PIPE,

1. MINIMUM ALLOWABLE DEPTH OF COVER IS 3 FT.

MATERIAL BELOW THE INVERT OF THE PIPE.

FRAME & COVER

STANDARD PROCTOR

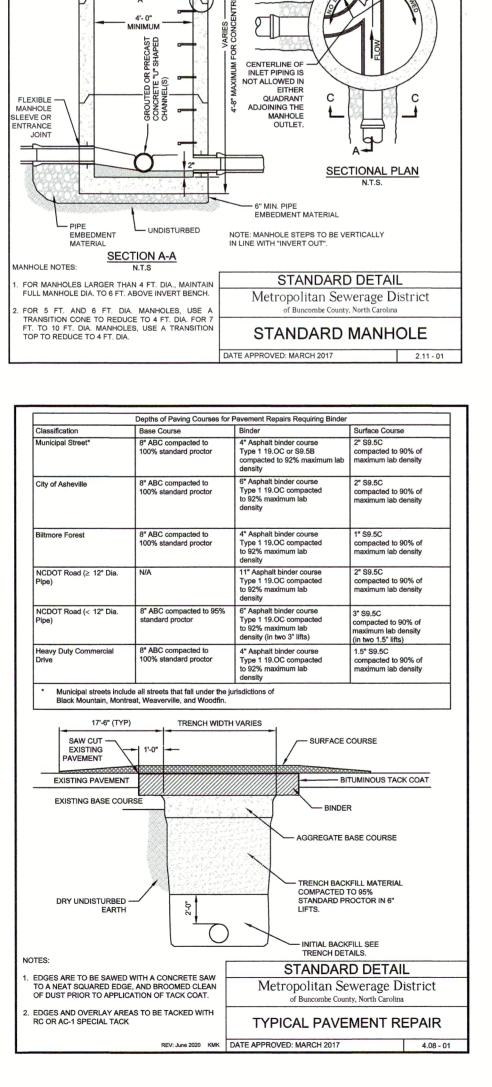
2. IN ROCK OR WET SOIL, PIPE MUST BE BEDDED IN AT LEAST 6" OF CRUSHED STONED EMBEDMENT

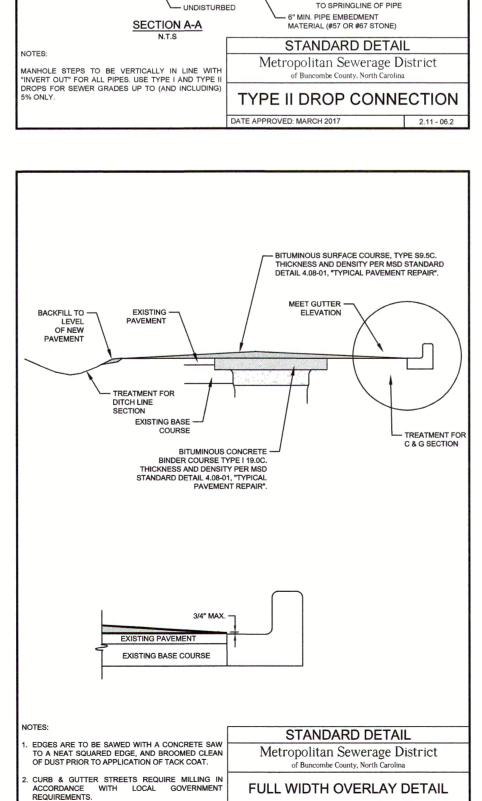
GRANULAR MATERIALS ARE DEFINED PER THE AASHTO SOIL CLASSIFICATION SYSTEM (ASTMD3282)
OR THE UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487), WITH THE EXCEPTION THAT GRAVEL
BEDDING/BACKFILL ADJACENT TO THE PIPE IS LIMITED TO 2" MAXIMUM PARTICLE SIZE PER ANSI/AWWA

4. THESE PIPES ARE ADEQUATE FOR DEPTHS OF COVER FROM 3 FT. UP TO THE MAXIMUM SHOWN

RING DEFLECTION LIMITED TO 3%, MINIMUM SAFETY FACTOR OF 2. EARTH LOAD BASED ON SOIL WEIGHT OF 120 PCF.

GROUT — INSIDE JOINT





REV: June 2020 KMK DATE APPROVED: MARCH 2017

Maximum Depth of Cover for Ductile Iron Pipe w/ Cement Lining

STANDARD DETAIL

Metropolitan Sewerage District

TYPICAL TRENCH DETAIL FOR

(FOUNDATION)

- ALL PIPING OF DROP

SDR 35 PVC OR D.I.P. -

- #57 OR #67 STONE TO

SPRINGLINE OF PIPE (MECHANICALLY TAMPED)

MSD STANDARDS

SEWERS LARGER THAN 15" DIA. REQUIRE DESIGN SUBMITTAL B

**DUCTILE IRON PIPE - 2** 

SEWER PIPE

SECTIONAL PLAN N.T.S.

CENTERLINE OF INLET PIPING IS NOT

ALLOWED IN EITHER QUADRANT ADJOINING THE MANHOLE OUTLET.

of Buncombe County, North Caro

- PIPE BEDDED IN SAN

GRAVEL, OR CRUSH

STONE TO 1/8th PIPE

\*\* SEE DETAIL 2.05-02 FOR ALLOWABLE DEPTHS

TRENCH WIDTH

STANDARD DETAIL

Metropolitan Sewerage District

TYPICAL TRENCH DETAIL FOR

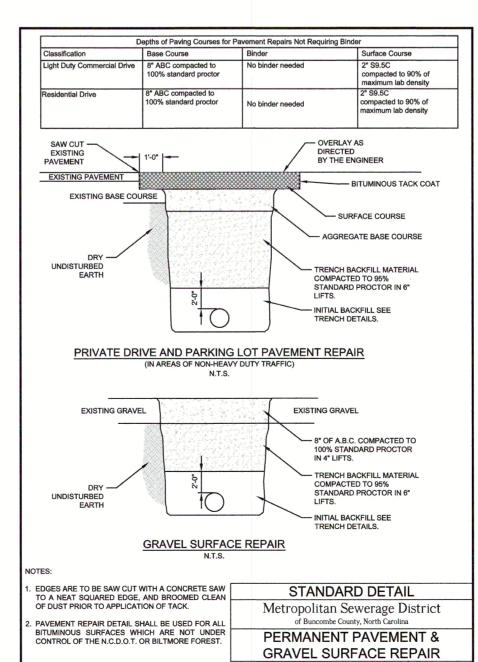
DUCTILE IRON PIPE - 1

DETAIL "A" N.T.S.

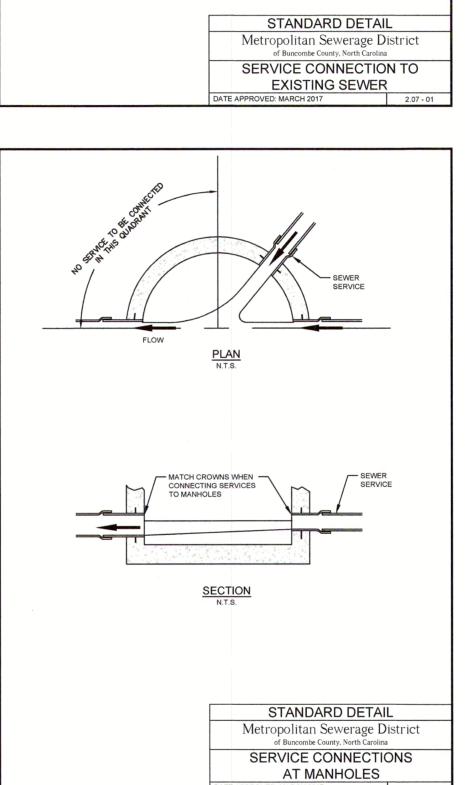
EMBEDMENT MATERIAL

THE NOMINAL PIPE DIAMETER PLUS 24".

WIDTH SHALL NOT BE LESS THAN 48" IN



REV: June 2020 KMK DATE APPROVED: MARCH 2017



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NOTE: FITTINGS SHALL BE THE

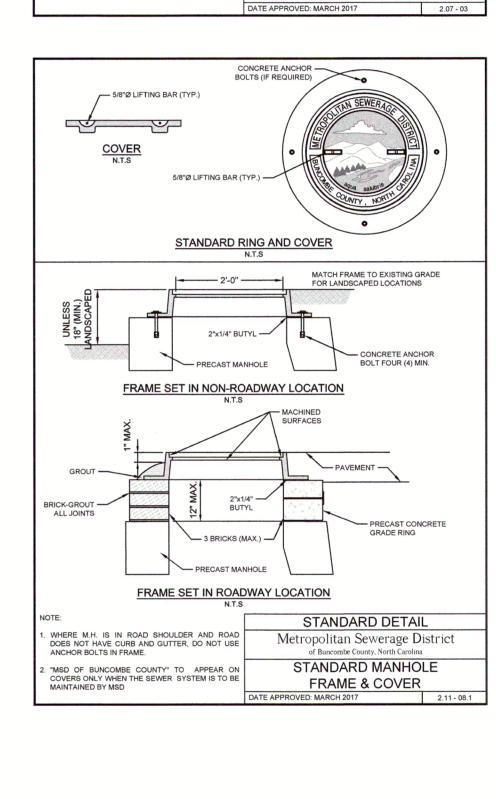
NOT FOR USE ON NEW CONSTRUCTION.

EXISTING SEWER

SAME MATERIAL AS EXIST. SEWER

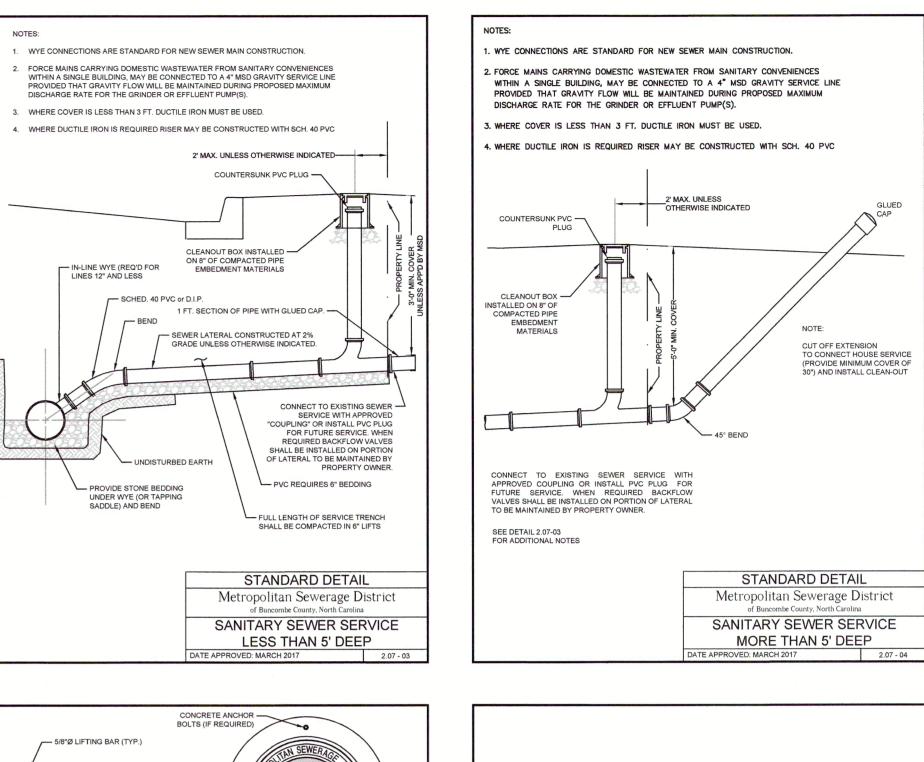
- SLEEVE

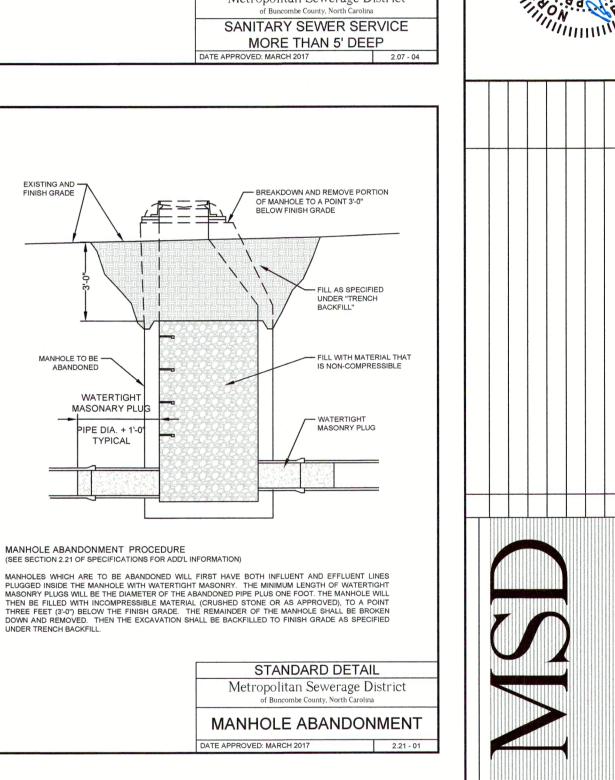
EXISTING SEWER

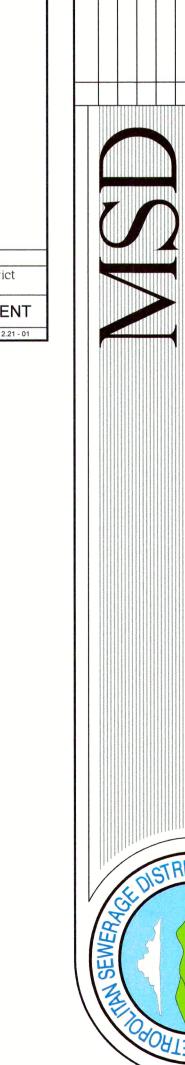


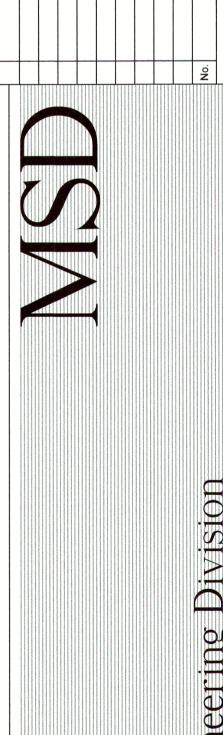
IN-LINE WYE (REQ'D FOR LINES 12" AND LESS

UNDER WYE (OR TAPPING SADDLE) AND BEND









ORD

@

rage

