

# MOUNTAINBROOK ROAD @ CHUNNS COVE

## GENERAL SEWER REHABILITATION (PROJECT NO. 2010112) MSD OF BUNCOMBE COUNTY

### INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
C-1	INDEX OF DRAWINGS AND LOCATION MAP
PL-1	SANITARY SEWER OVERALL PLAN
PL-2	SANITARY SEWER PLAN & PROFILE LINE "A"
PL-3	SANITARY SEWER PLAN & PROFILE LINE "B" & "C"
PL-4	SANITARY SEWER PLAN & PROFILE LINE "D" & "E"
PL-5	SANITARY SEWER PLAN & PROFILE LINE "F"
D-1	SANITARY SEWER DETAILS
D-2	SANITARY SEWER EROSION CONTROL DETAILS

### LEGEND

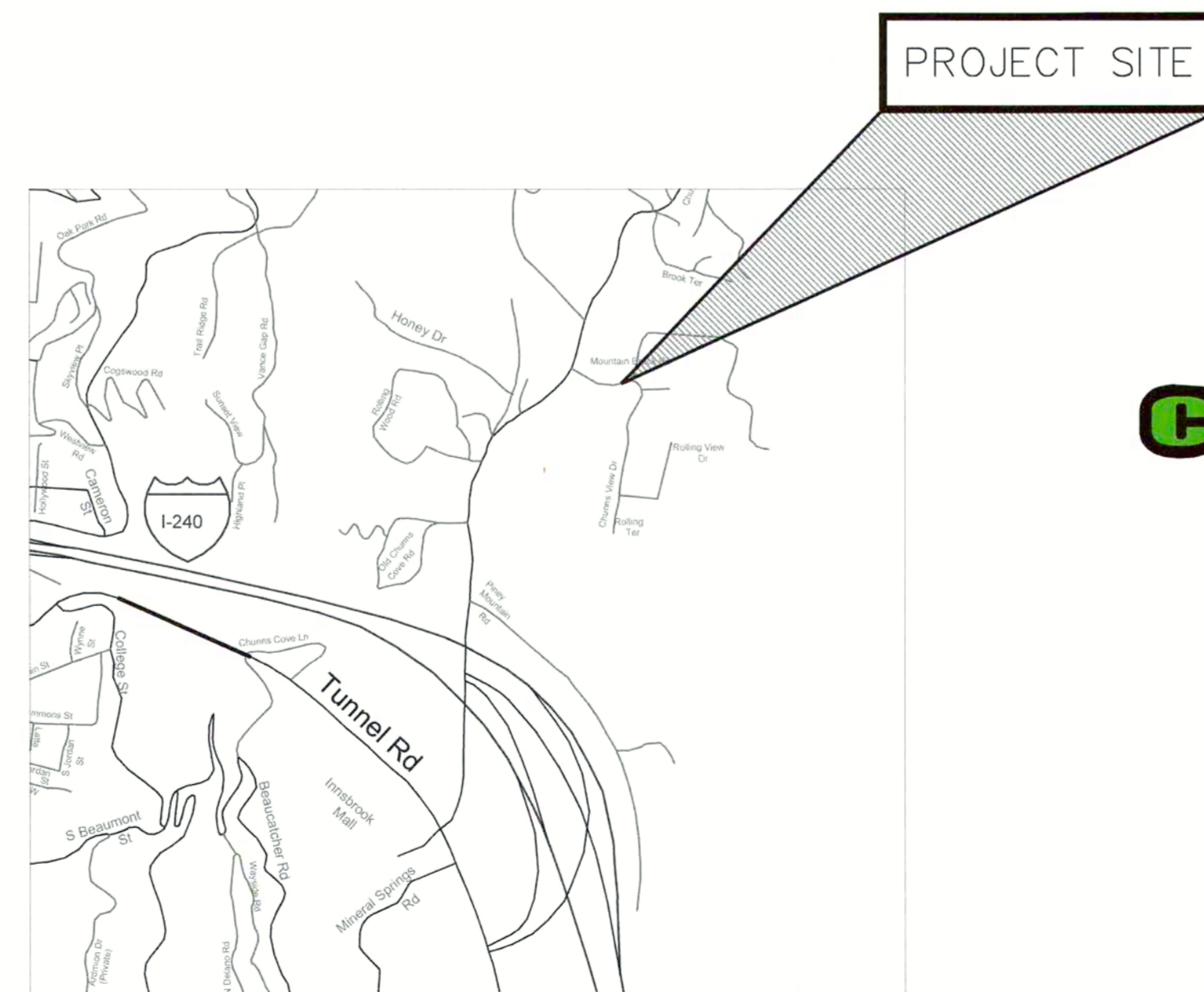
+	FFE = FINISHED FLOOR ELEV.	1	PROPOSED ABANDON PLUG
CM	CM = CONCRETE MONUMENT	2	PROPOSED MANHOLE NUMBER
CMRW	CONCRETE MONUMENT RIGHT OF WAY	CO	PROPOSED ABANDON SEWER MANHOLE
DOT MON	DOT MON = DOT MONUMENT	CO	CO = PROPOSED CLEANOUT
PK FIND	PK FIND = PK NAIL FOUND	●	EXISTING SANITARY SEWER MANHOLE
EIP	EIP = EXISTING IRON PIN FOUND	●	EXISTING CLEANOUT
REBAR FOUND	REBAR FOUND	●	WV = WATER VALVE
△ CIV	SIGN	●	FH = FIRE HYDRANT
△	GAS VALVE	●	WM = WATER METER
○	GAS METER	●	SPIGOT
○	TRAVERSE	●	UTILITY POLE
○	SHRUB	●	GUY WIRE
○	TREE	●	ELECTRICAL JUNCTION BOX
		●	ELECTRIC MANHOLE
		●	LIGHT POLE/UTILITY
		●	CURB INLET
		●	STORM MANHOLE
		●	CATCH BASIN



—	PROPOSED SANITARY SEWER LINE
- - -	EXISTING SANITARY SEWER LINE
- - -	EXISTING PERMANENT EASEMENT
- - -	PROPOSED PERMANENT EASEMENT
- - -	PROPOSED TEMPORARY EASEMENT
▨	PROPOSED ASPHALT SURFACE REPAIR
—	PROPERTY LINE
—	RIGHT OF WAY LINE
- - -	EXISTING WATER LINE
- - -	EXISTING STREAM/CREEK
- - -	EXISTING GAS LINE
- - -	EXISTING OVER HEAD UTILITY LINE
- - -	EXISTING STORM DRAINAGE PIPE
- - -	EXISTING FENCE LINE
- - -	DITCH LINE
- - -	TOE/TOP OF SLOPE
- - -	TREE LINE
- - -	SHRUB LINE
- - -	CONCRETE
- - -	GRAVEL AREA (RIP-RAP)
- - -	ASPHALT ROADWAY
- - -	EXISTING BUILDINGS
- - -	EXISTING MAJOR CONTOUR
- - -	EXISTING MINOR CONTOUR

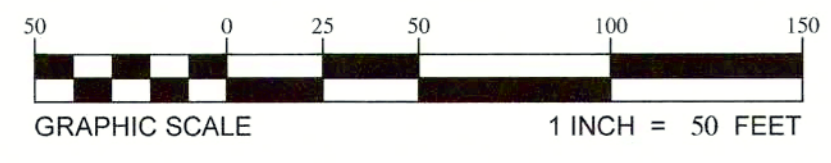
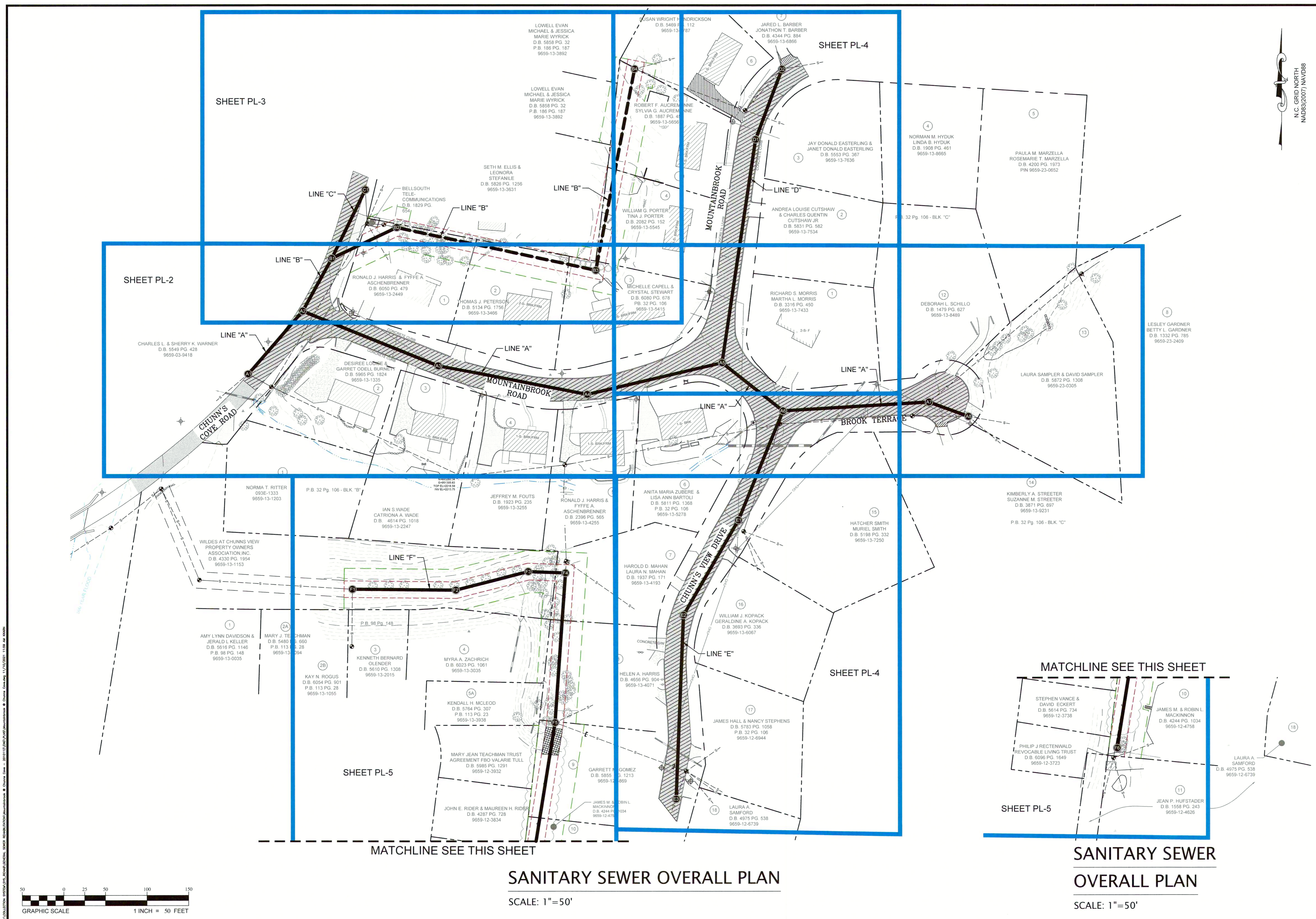
### GENERAL NOTES:

- 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.
- 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.
- ALL WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, AS MAY BE APPLICABLE TO THIS PROJECT AND THE WORK DONE HEREUNDER.
- 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.
- ANY MODIFICATIONS TO THESE CONSTRUCTION PLANS OR SPECIFICATIONS SHALL BE APPROVED BY THE MSD PROJECT ENGINEER.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- 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.
- 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).
- THE CONTRACTOR SHALL RESTORE ALL STREETS, PROPERTIES, AND IMPROVEMENTS TO AS GOOD OR BETTER CONDITION THAN EXISTED PRIOR TO CONSTRUCTION.
- PROPERTY LINES SHOWN ON PLANS ARE APPROXIMATE ONLY. PROPERTY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A LICENSED NC PROFESSIONAL LAND SURVEYOR.
- DESIGN BASED ON SURVEY INFORMATION PROVIDED BY CIPER, INGLE, ANDERS, & ASSOCIATES SURVEYING, INC. (828) 258-0297.

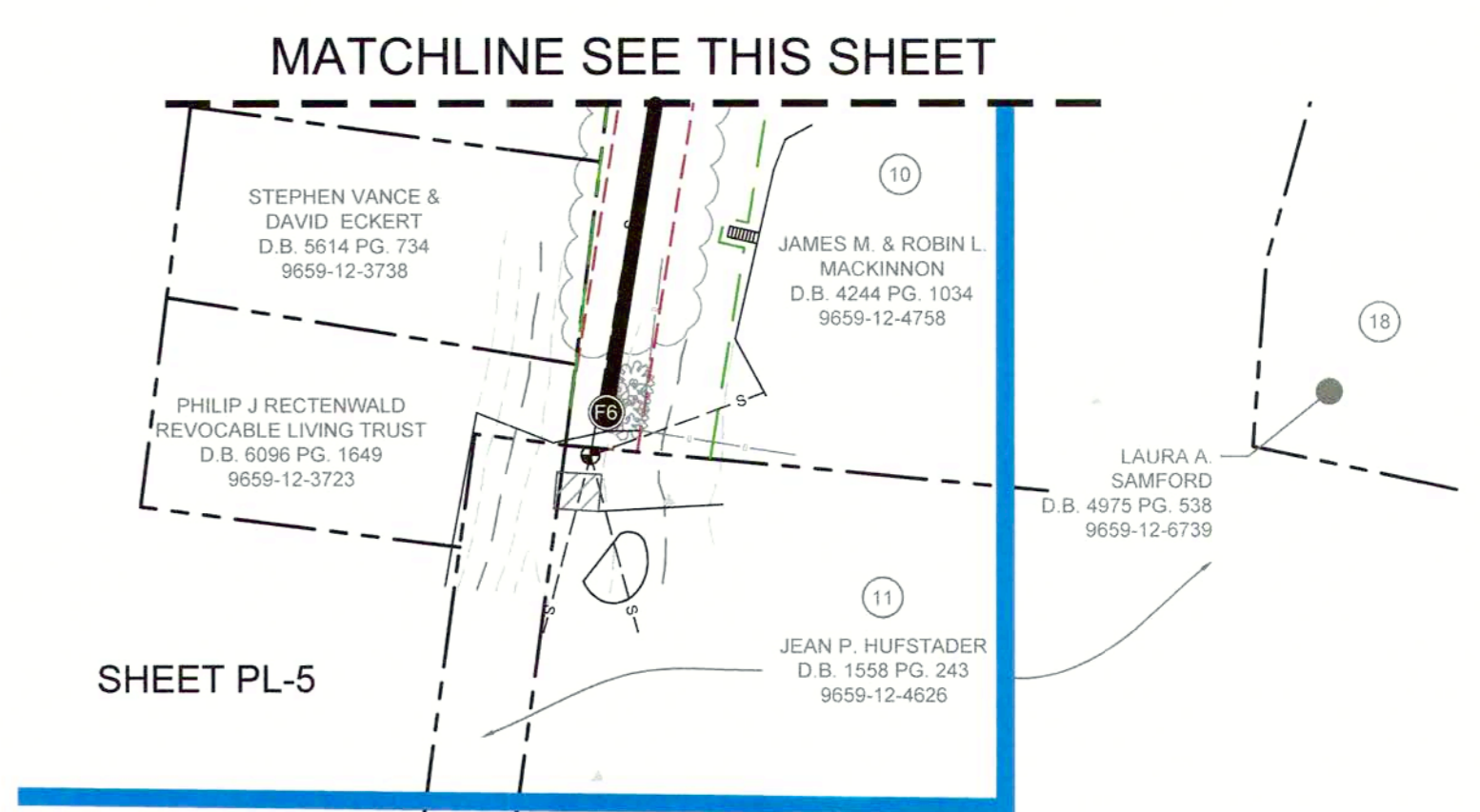


NC ONE CALL  
(TOLL FREE)  
**North Carolina 811**  
www.nc811.org  
DIAL 811 BEFORE  
YOU DIG!  
(or 1-800-632-4949)  
IT'S THE LAW



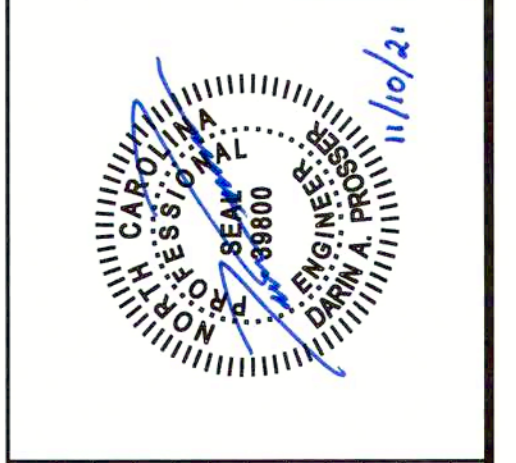


**SANITARY SEWER OVERALL PLAN**  
SCALE: 1"=50'



**SANITARY SEWER OVERALL PLAN**  
SCALE: 1"=50'

Metropolitan Sewerage District  
of Buncombe County  
MOUNTAINBROOK ROAD  
@ CHUNNS COVE  
Sanitary Sewer Overall Plan  
PL-1



REVISIONS	
No.	DATE
1. BID SET	11/08/2021

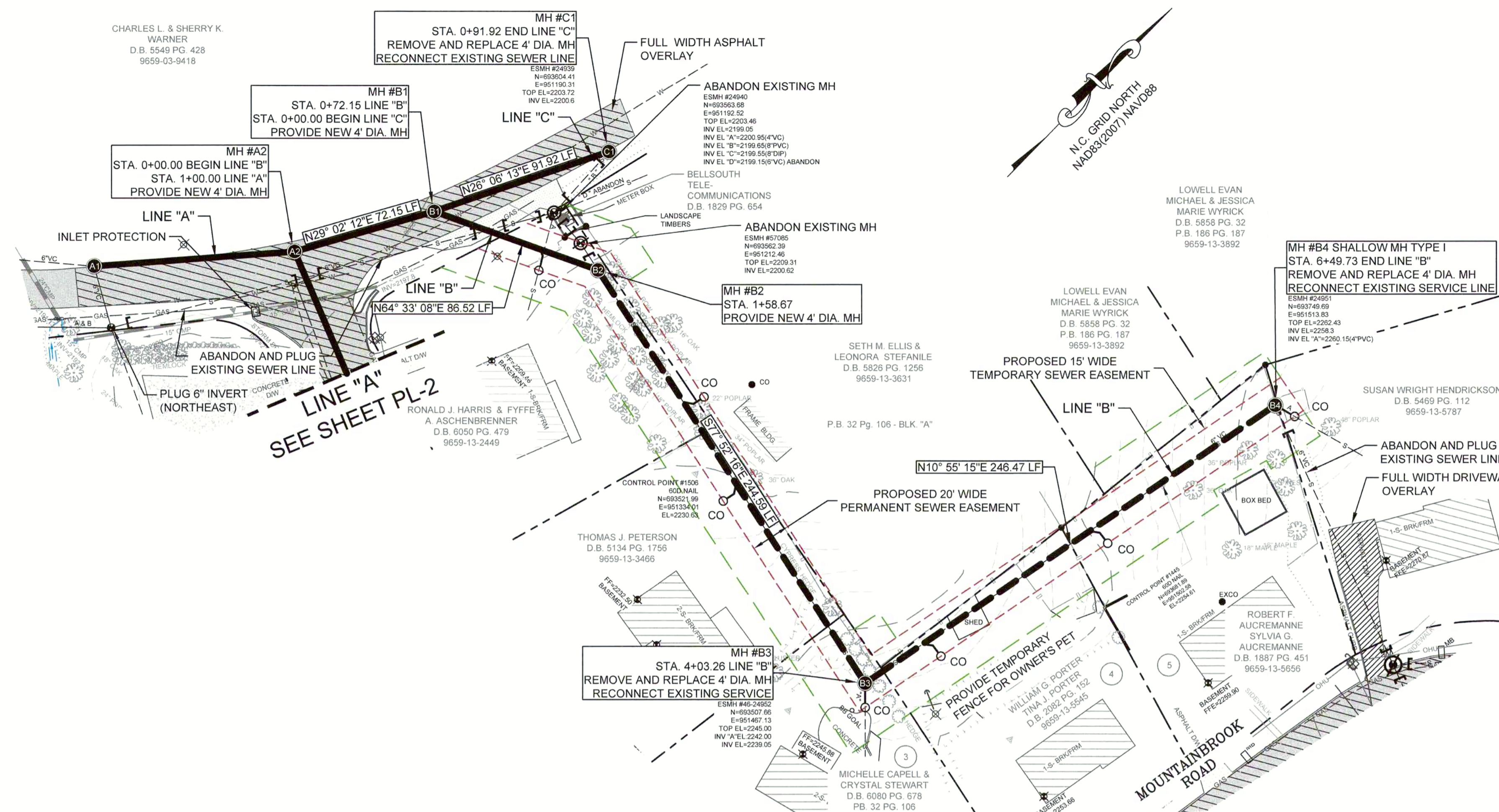
**MSD**

Metropolitan Sewerage District  
of Buncombe County

Engineering Division

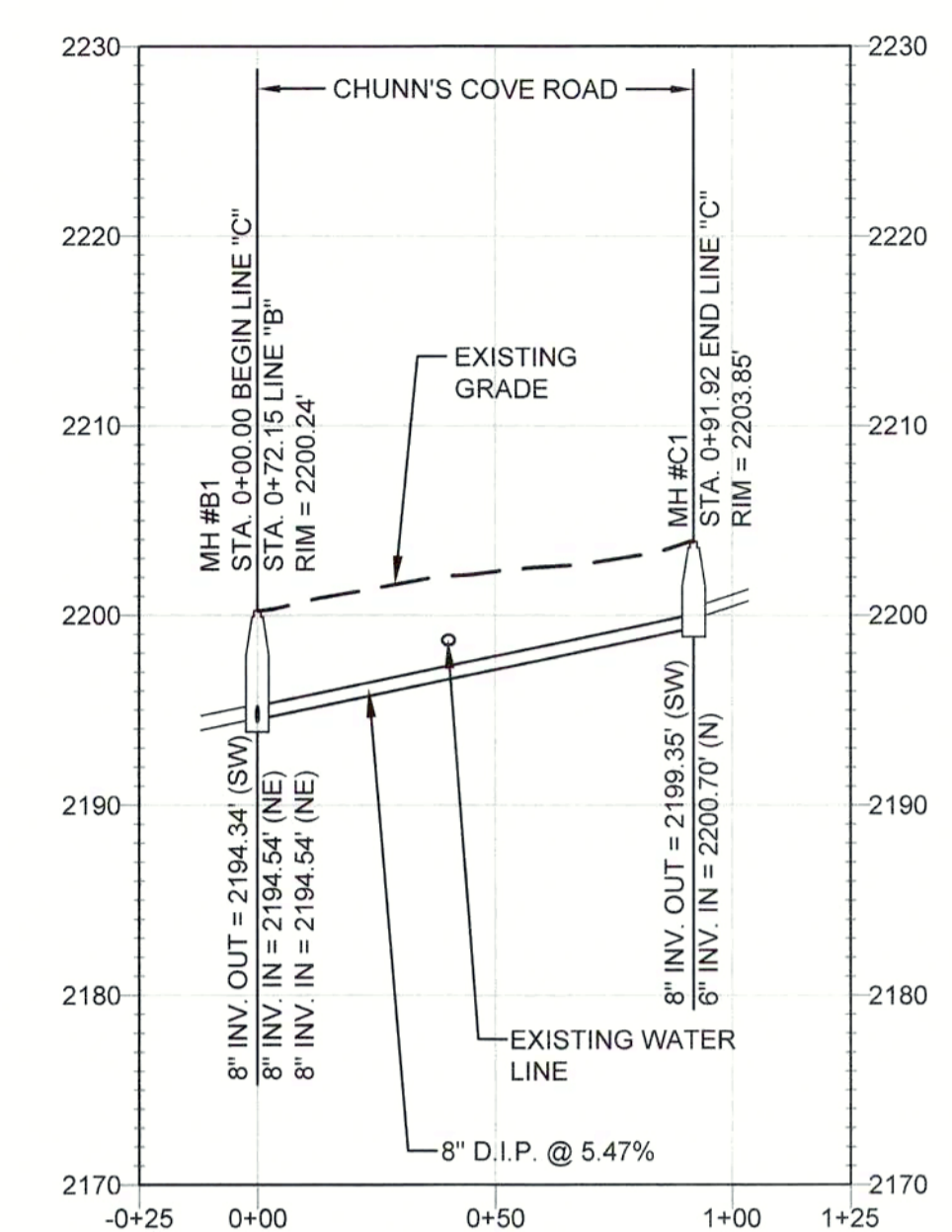
PL-1 COLLECTOR: 2/23/2021, 11:58 AM  
 DATE: 11/10/21  
 TIME: 11:58 AM  
 PROJECT: MOUNTAINBROOK ROAD @ CHUNNS COVE  
 SHEET: PL-1





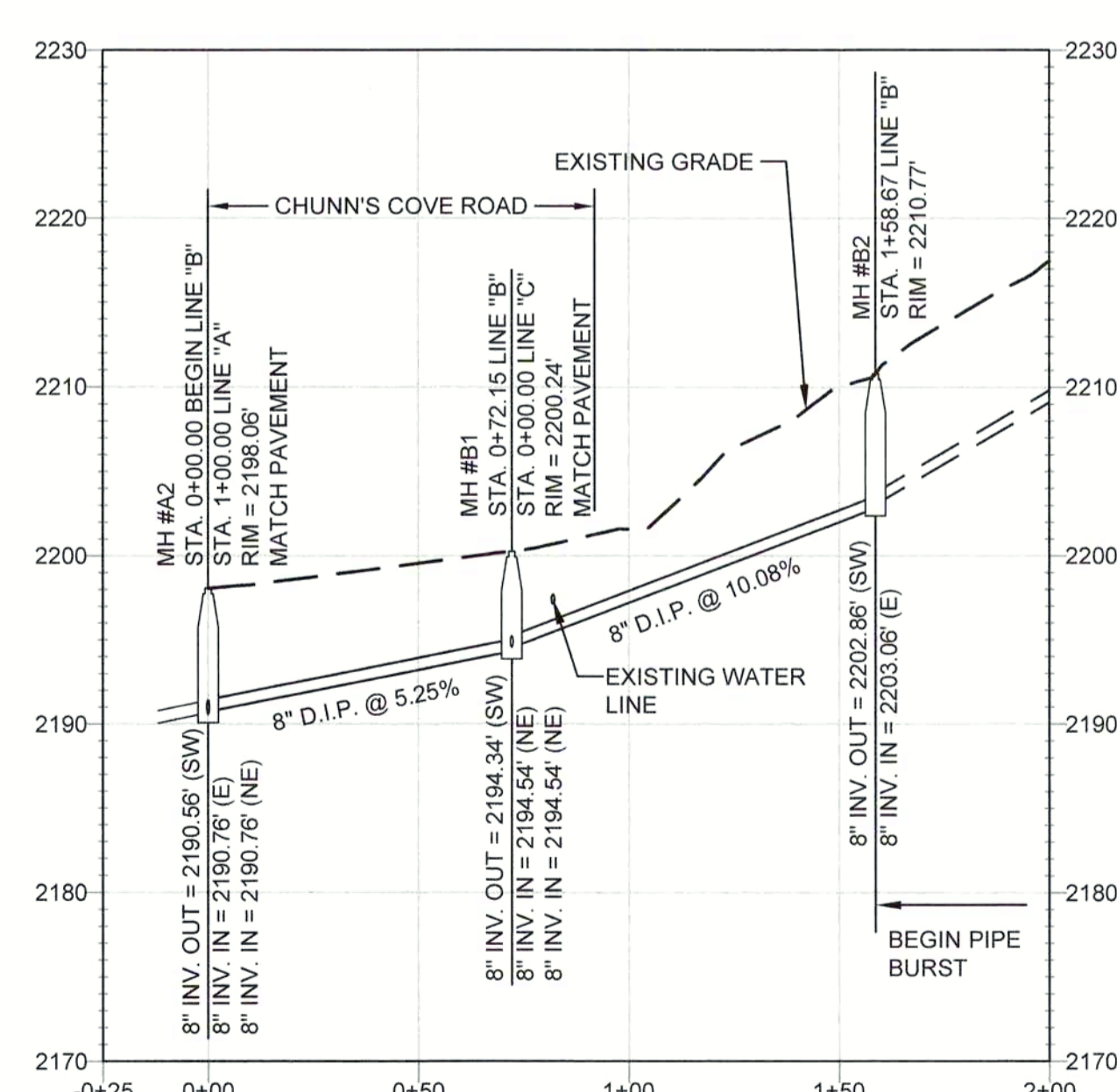
**SANITARY SEWER PLAN - LINE "B" & "C"**

SCALE: 1"=40'



**SANITARY SEWER PROFILE LINE "C"**

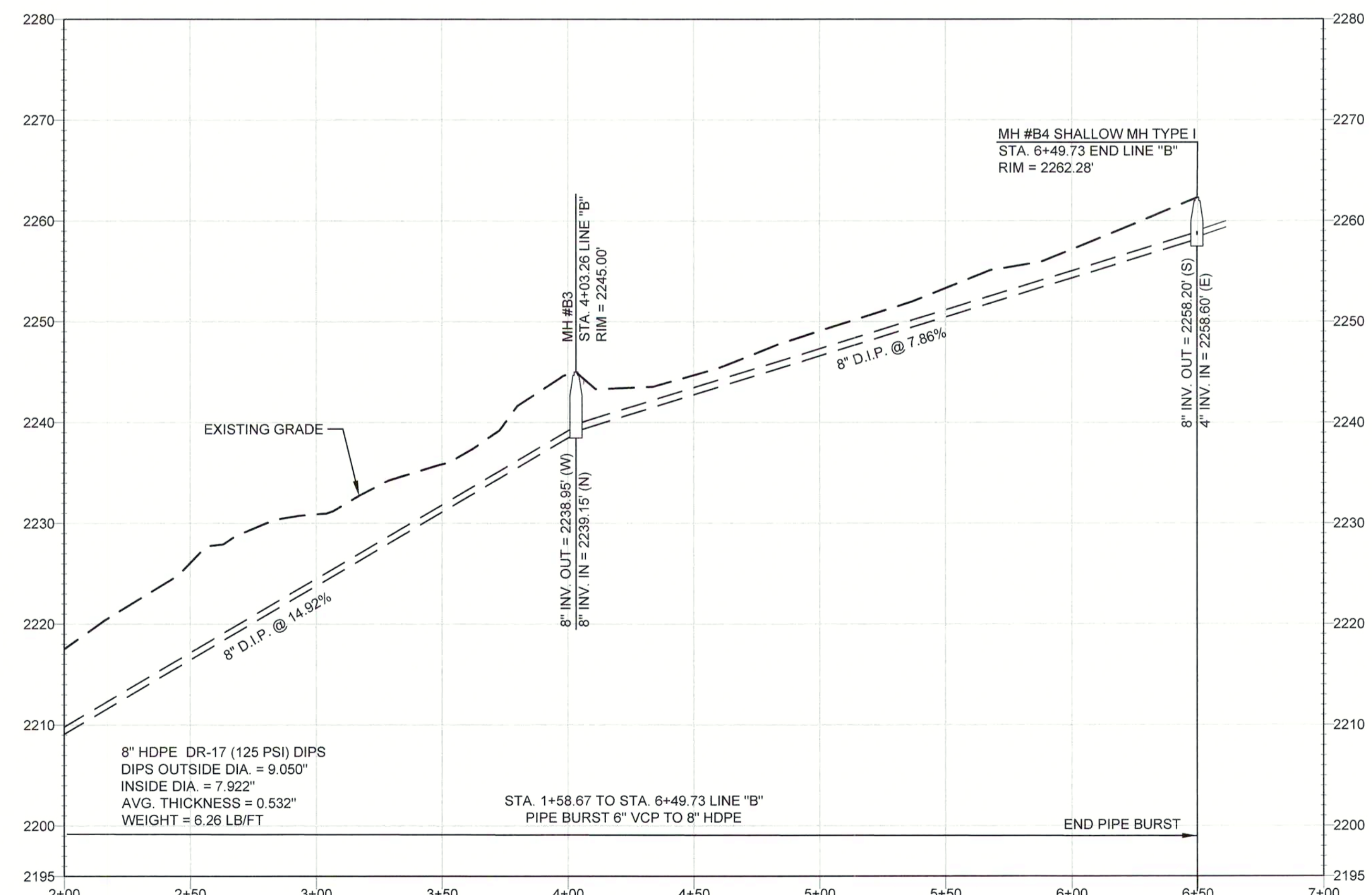
SCALE. HORIZ: 1"=40' VERT.:1"=10'



**SANITARY SEWER PROFILE LINE "B"**

STA. 0+00.00 TO STA. 2+00.00

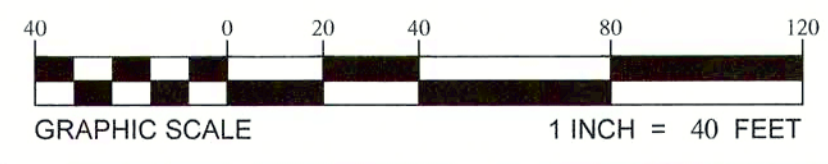
SCALE. HORIZ: 1"=40' VERT.:1"=10'



**SANITARY SEWER PROFILE LINE "B"**

STA. 2+00.00 TO STA. 6+50.00

SCALE. HORIZ: 1"=40' VERT.:1"=10'



Metropolitan Sewerage District  
of Buncombe County  
MOUNTAINBROOK ROAD  
@ CHUNNS COVE  
Sanitary Sewer Plan & Profile Line "B" & "C"

DATE: 09/18/2020  
SCALE: 1"=40'

1. BID SET  
No. 11/08/2021  
DATE

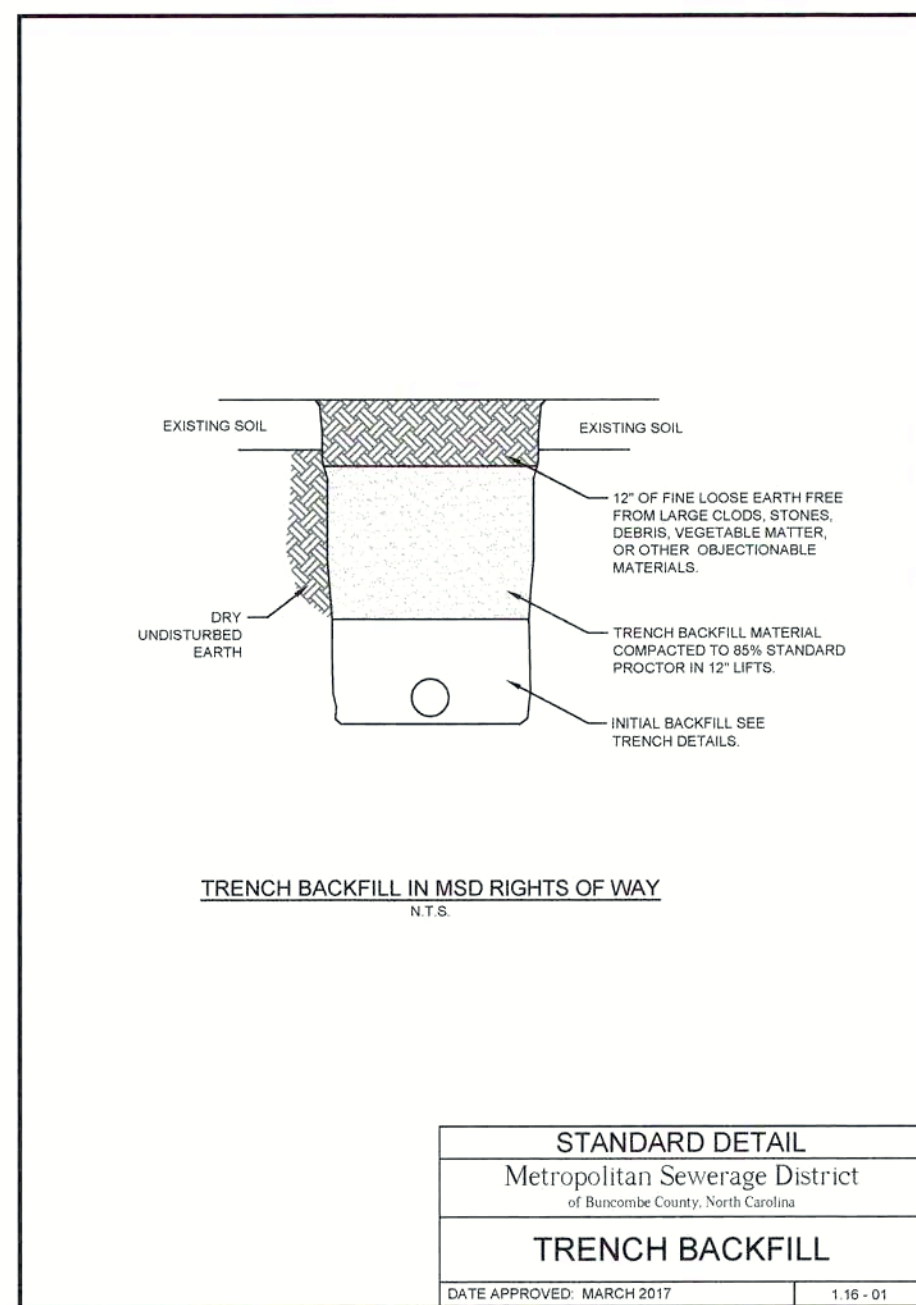
DESCRIPTION  
REVISIONS

**MSD**  
Metropolitan Sewerage District of Buncombe County  
Engineering Division

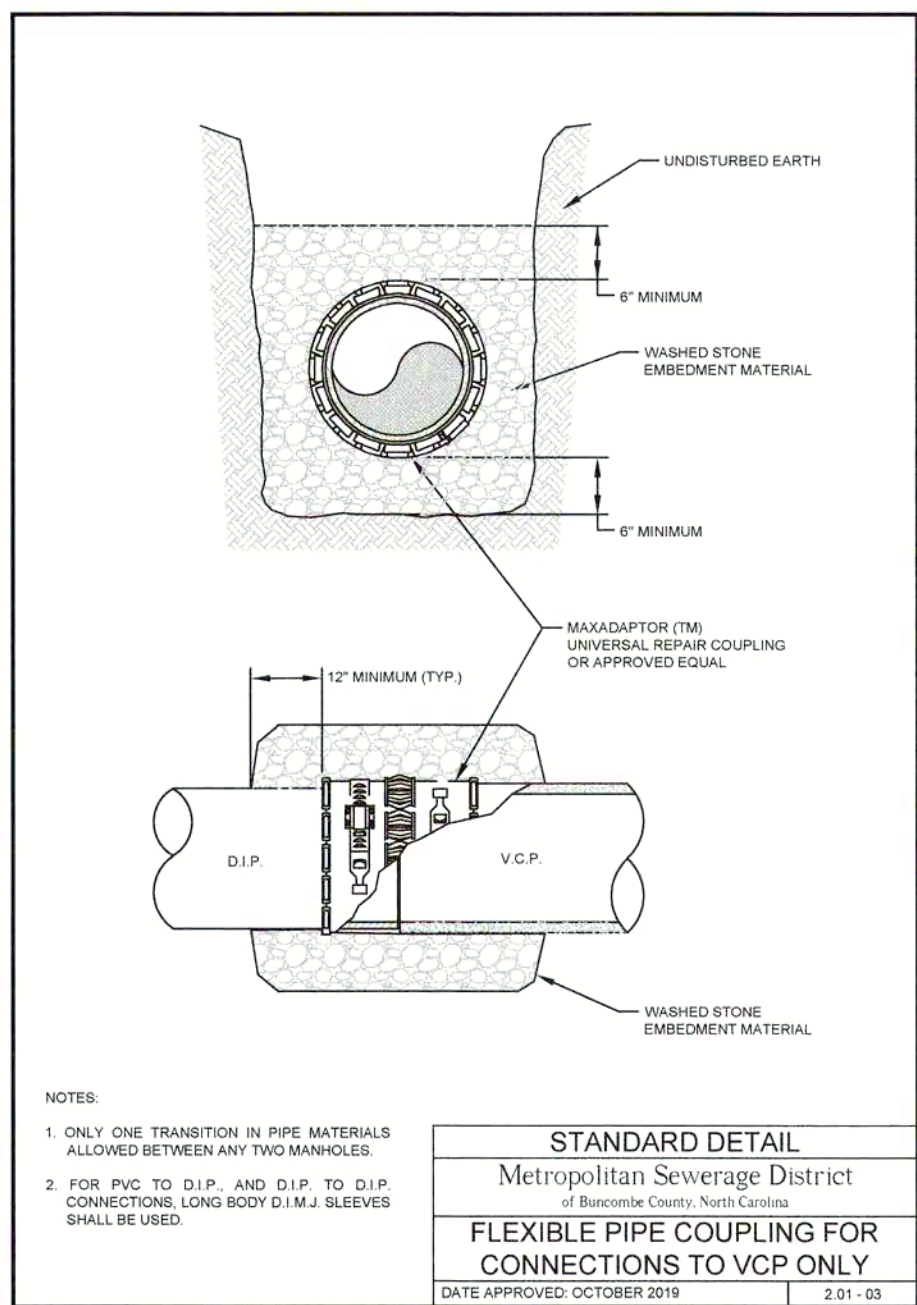
PL-3



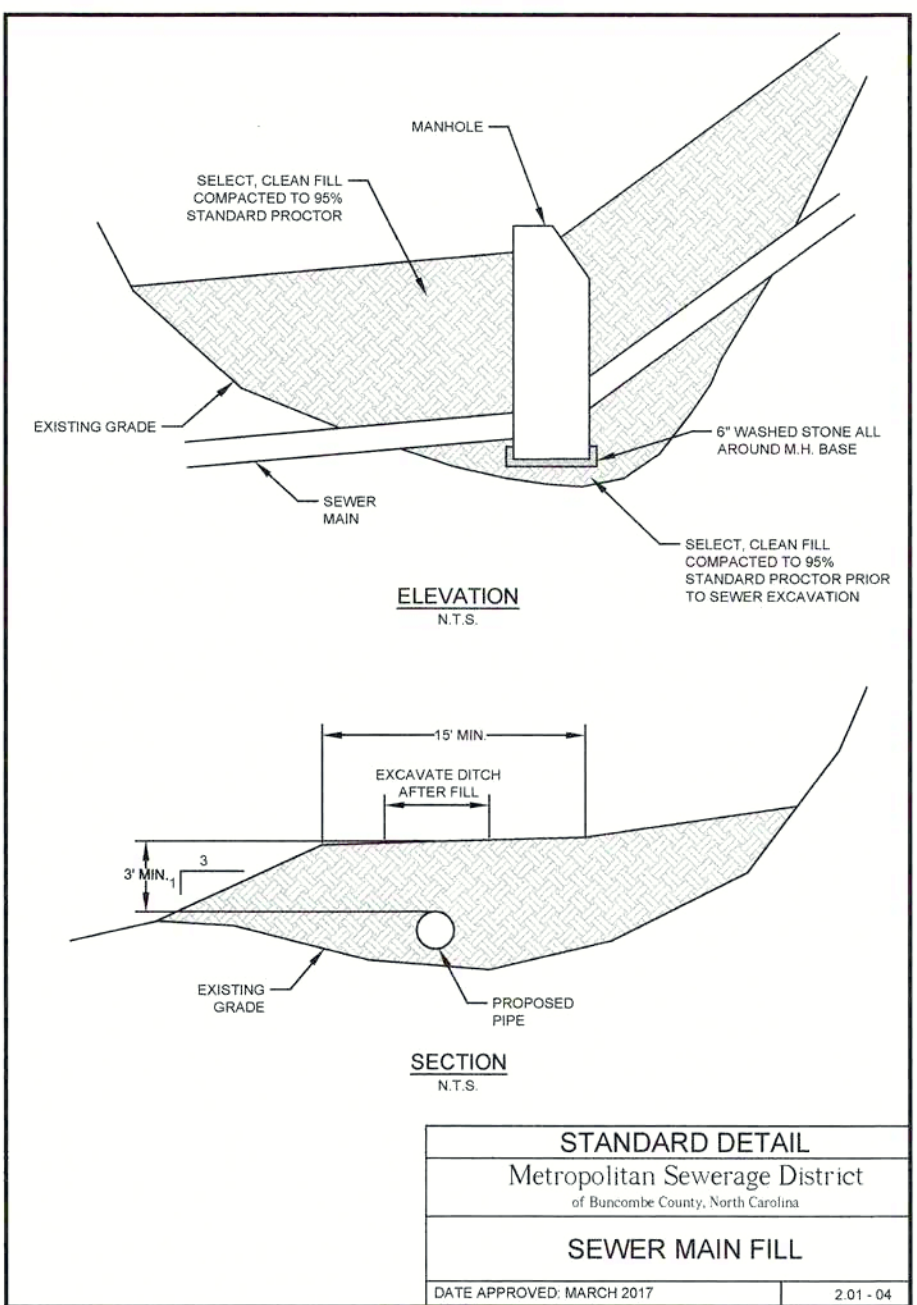




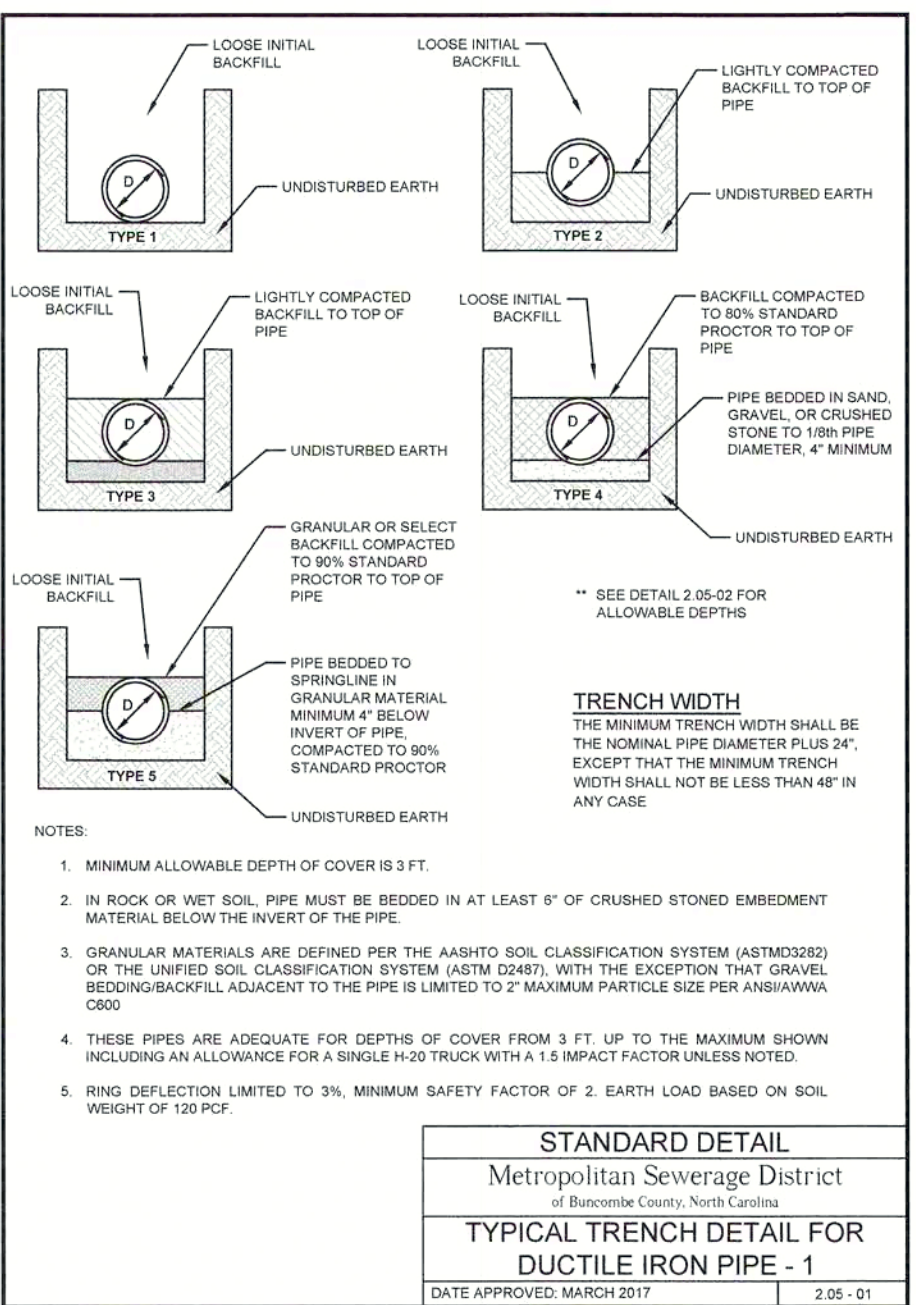
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**TRENCH BACKFILL**  
DATE APPROVED: MARCH 2017 1.16-.01



**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**FLEXIBLE PIPE COUPLING FOR CONNECTIONS TO VCP ONLY**  
DATE APPROVED: OCTOBER 2016 2.01-.03



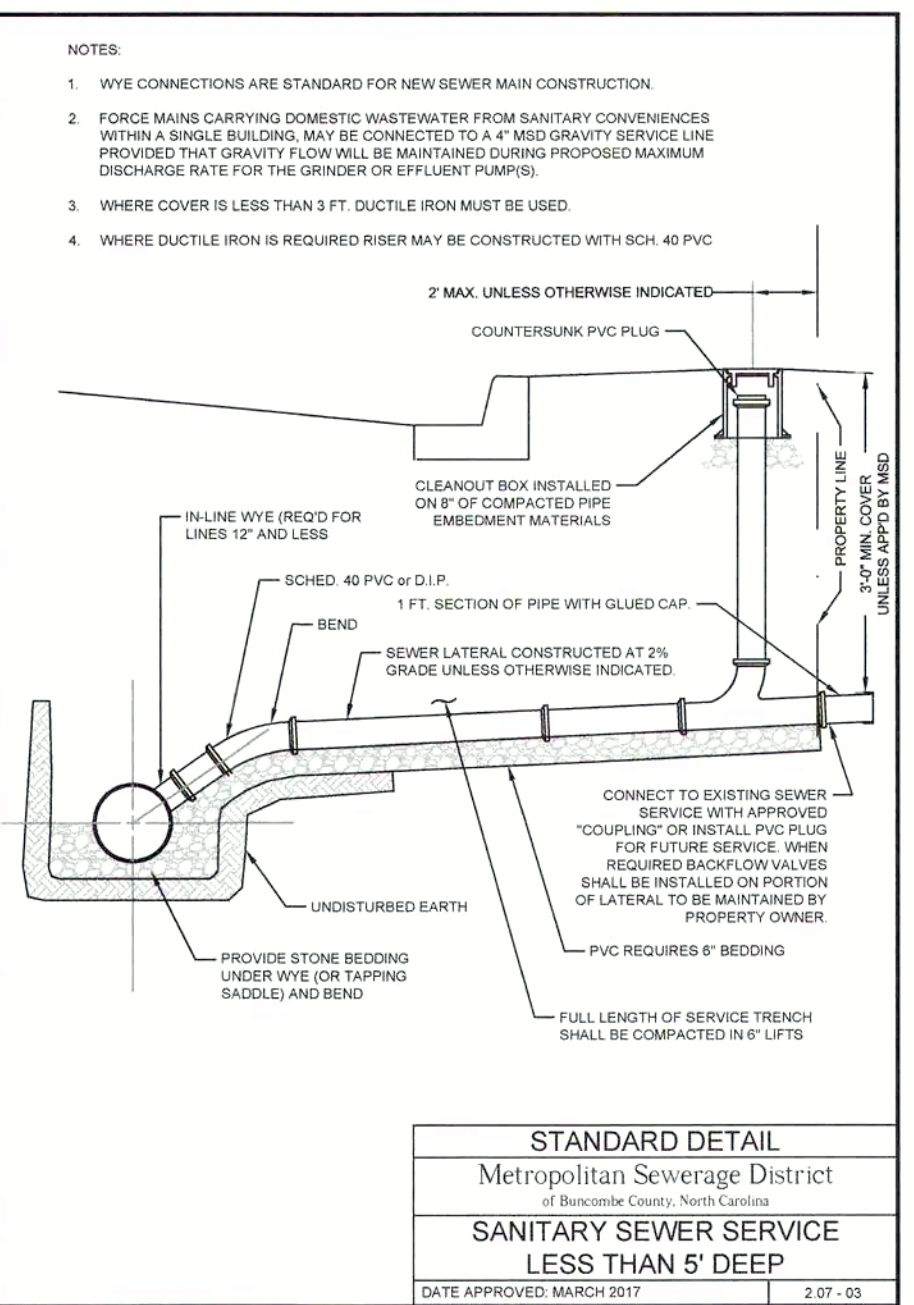
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**SEWER MAIN FILL**  
DATE APPROVED MARCH 2017 2.01-.04



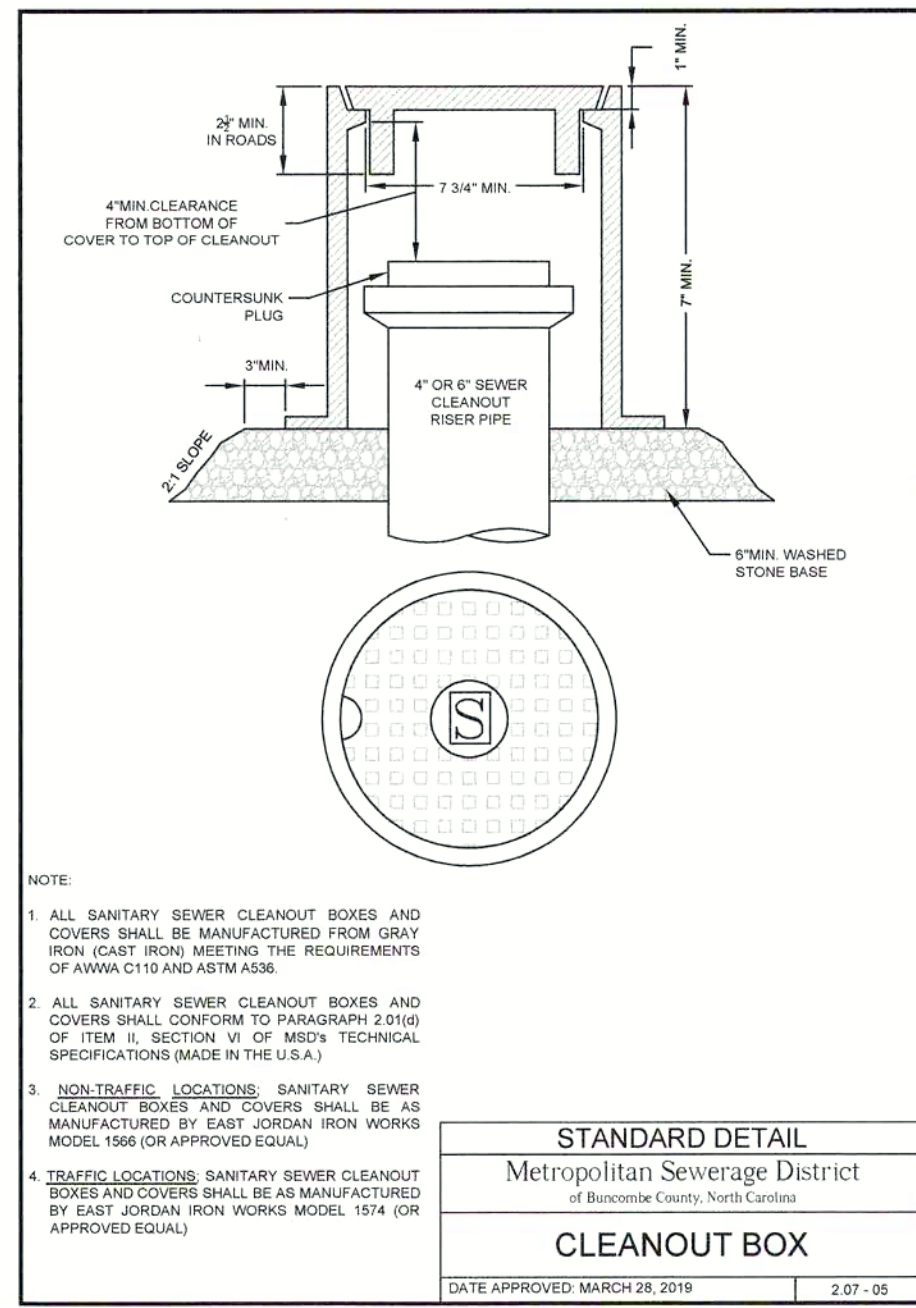
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**TYPICAL TRENCH DETAIL FOR DUCTILE IRON PIPE - 1**  
DATE APPROVED: MARCH 2017 2.05-.01

**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**TYPICAL TRENCH DETAIL FOR DUCTILE IRON PIPE - 2**  
DATE APPROVED: MARCH 2017 2.05-.02

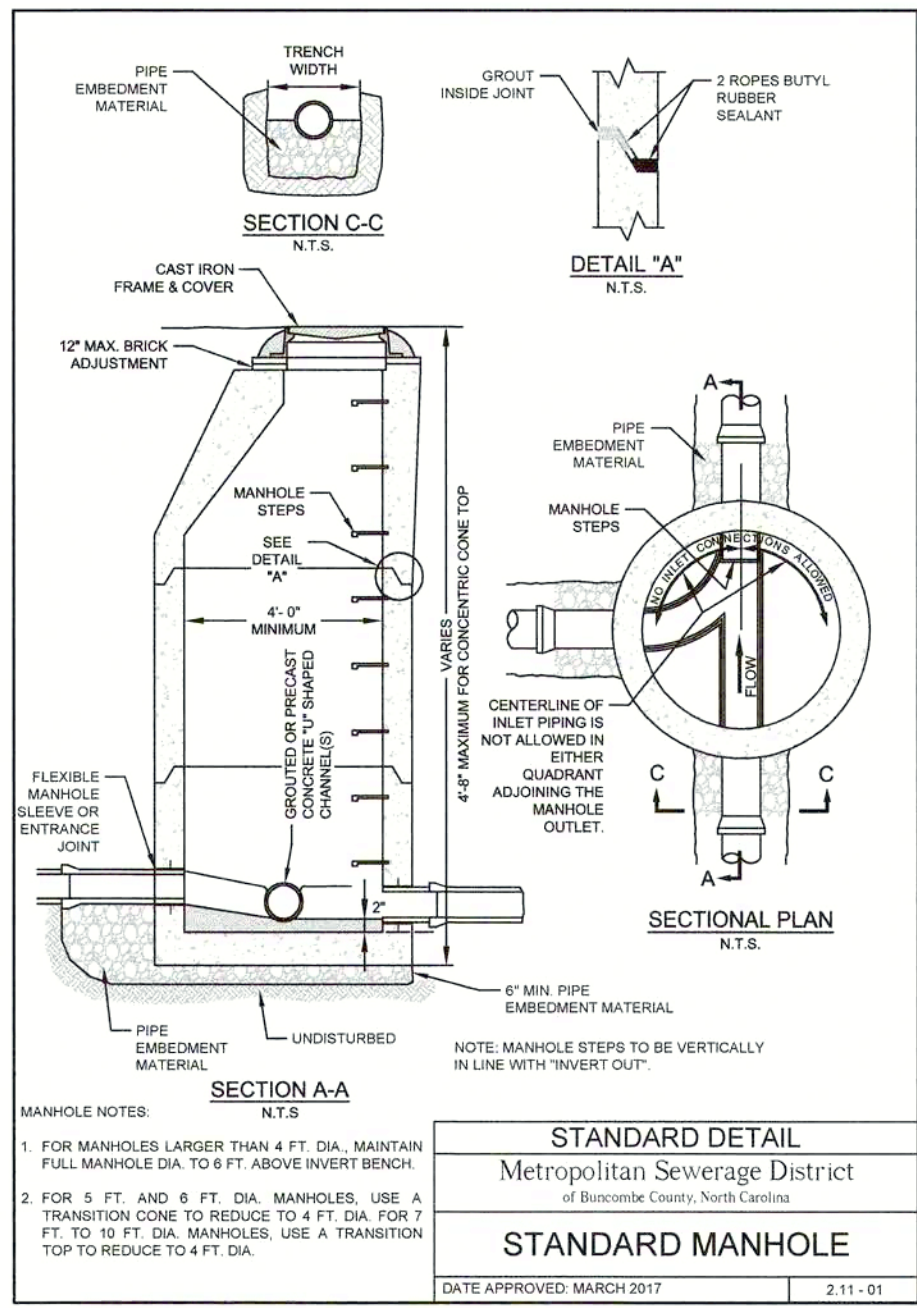
Pipe Size	Class	Type 1	Type 2	Type 3	Type 4	Type 5
4	300	53	61	69	85	100
6	300	26	31	37	47	55
8	300	16	20	25	34	40
10	300	11	15	19	25	30
12	300	10	15	19	25	30
14	300	11	15	19	25	30
16	300	13	17	20	26	32
18	300	14	18	21	27	33
20	300	15	19	22	28	34
24	300	17	21	25	31	37
28	300	19	23	27	33	39
32	300	21	25	29	35	41
36	300	23	27	31	37	43
40	300	25	29	33	39	45
44	300	27	31	35	41	47
48	300	29	33	37	43	49
52	300	31	35	39	45	51
56	300	33	37	41	47	53
60	300	35	39	43	49	55
64	300	37	41	45	51	57
68	300	39	43	47	53	59
72	300	41	45	49	55	61
76	300	43	47	51	57	63
80	300	45	49	53	59	65
84	300	47	51	55	61	67
88	300	49	53	57	63	69
92	300	51	55	59	65	71
96	300	53	57	61	67	73
100	300	55	59	63	69	75



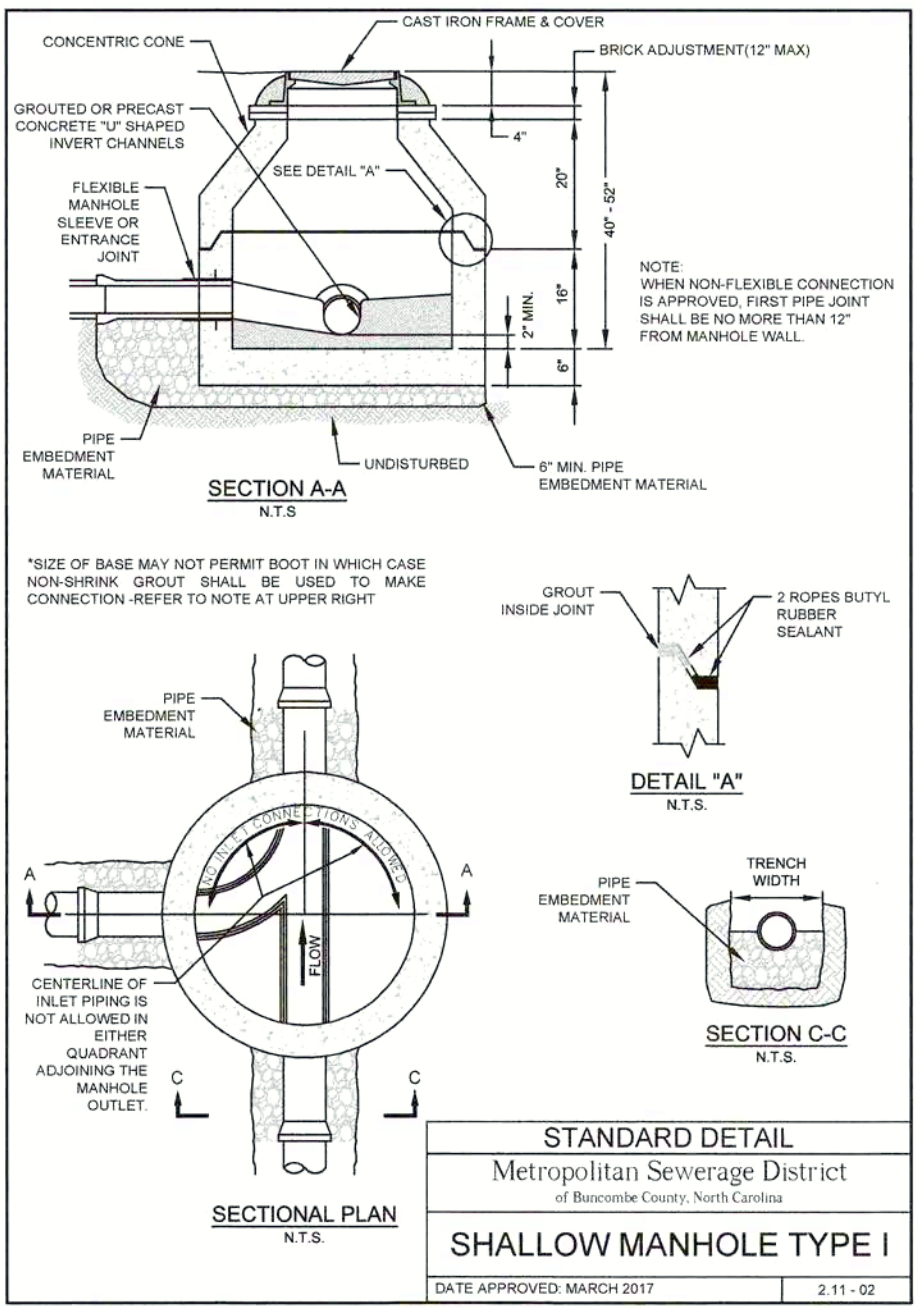
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**SANITARY SEWER SERVICE LESS THAN 5' DEEP**  
DATE APPROVED: MARCH 2017 2.07-.03



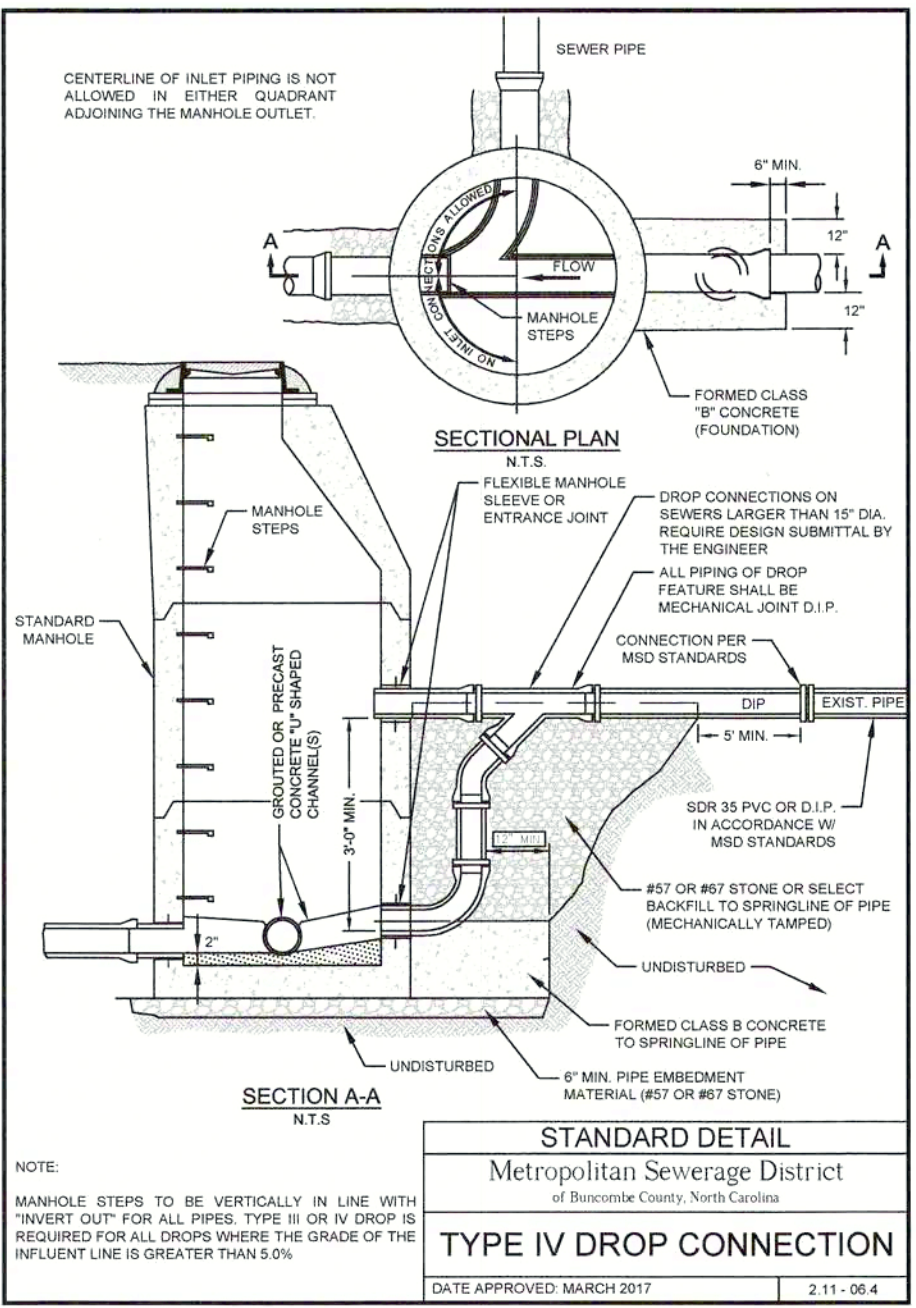
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**CLEANOUT BOX**  
DATE APPROVED: MARCH 26, 2019 2.07-.05



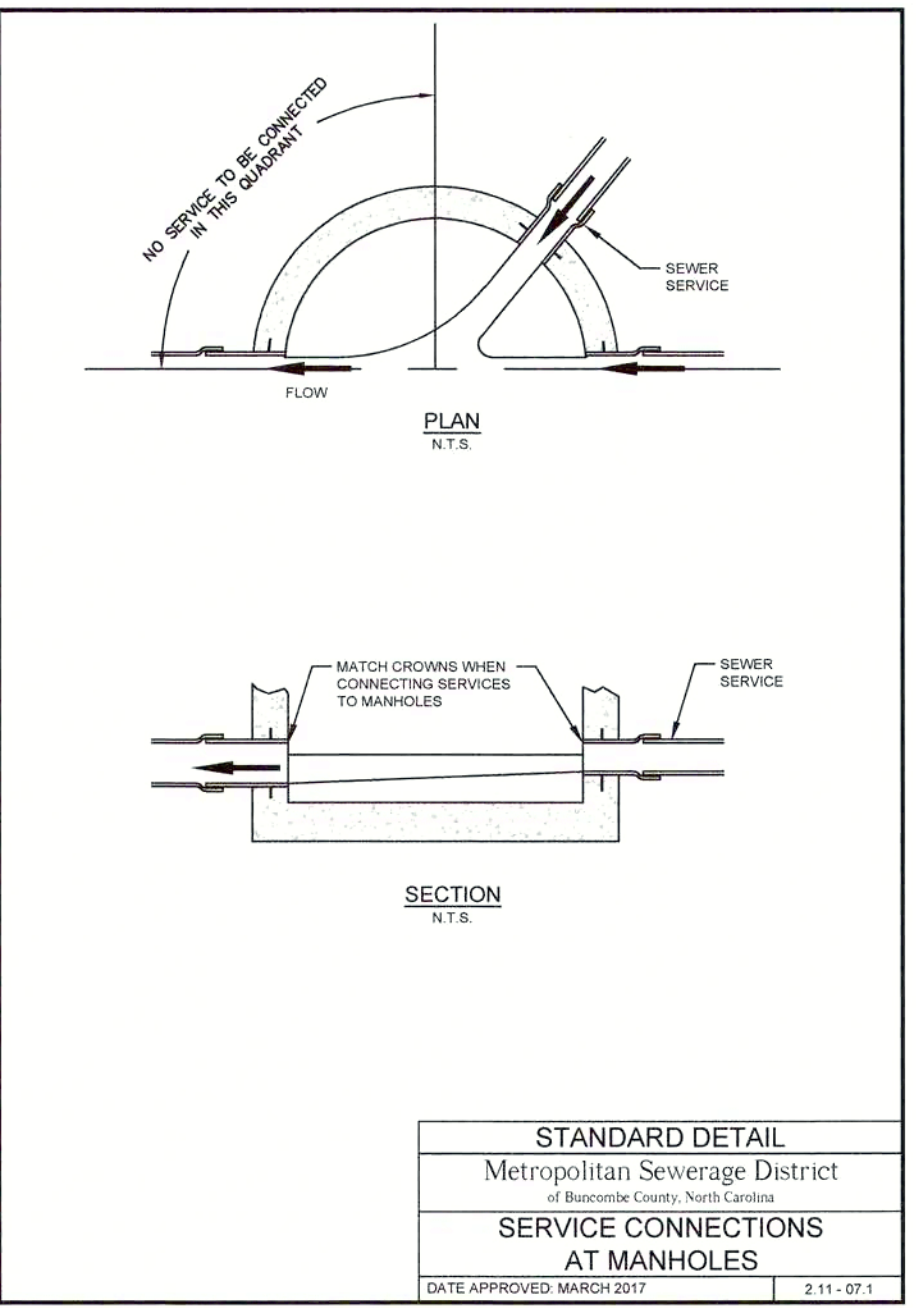
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**STANDARD MANHOLE**  
DATE APPROVED: MARCH 2017 2.11-.01



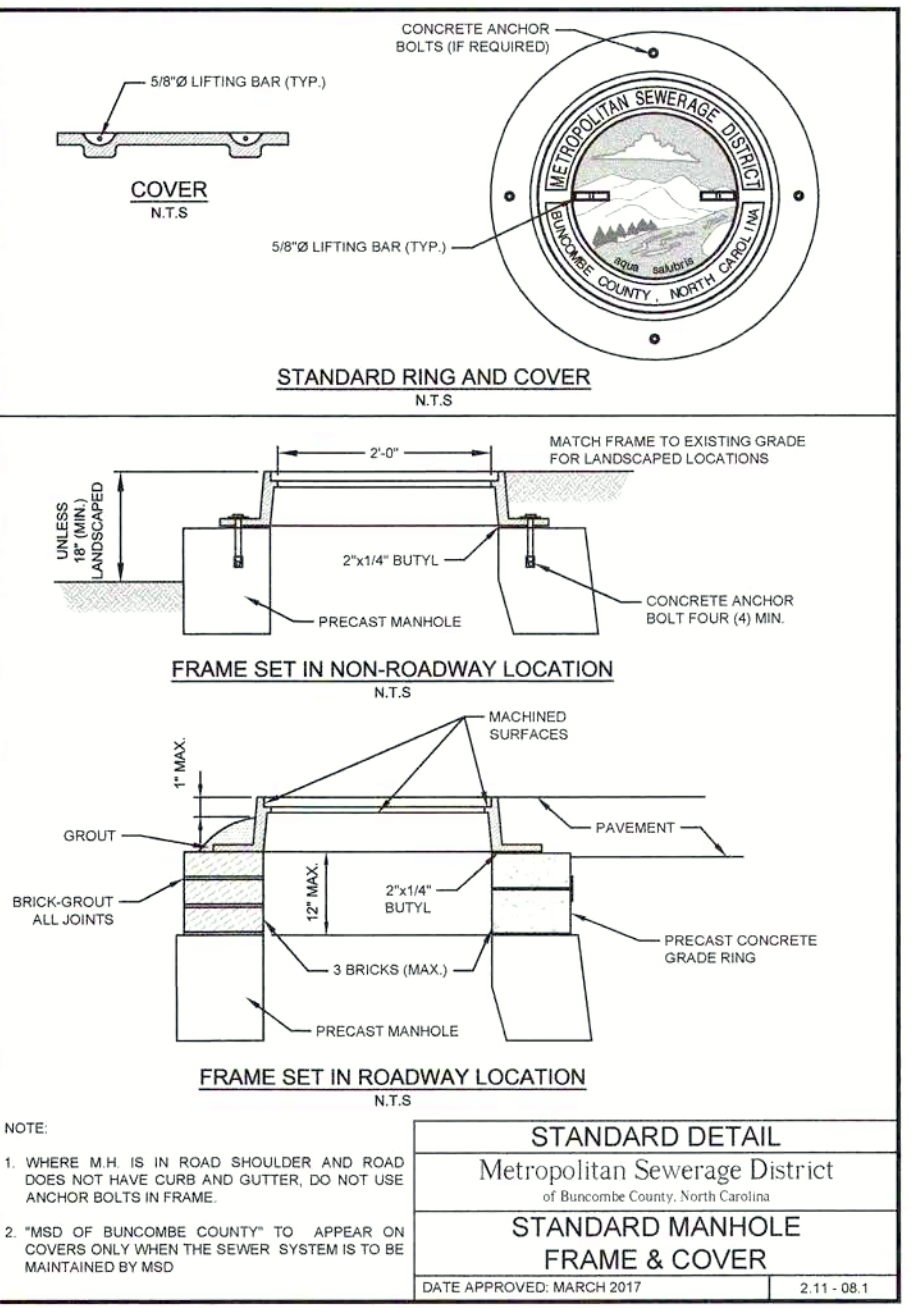
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**SHALLOW MANHOLE TYPE I**  
DATE APPROVED MARCH 2017 2.11-.02



**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**TYPE IV DROP CONNECTION**  
DATE APPROVED: MARCH 2017 2.11-.06.4



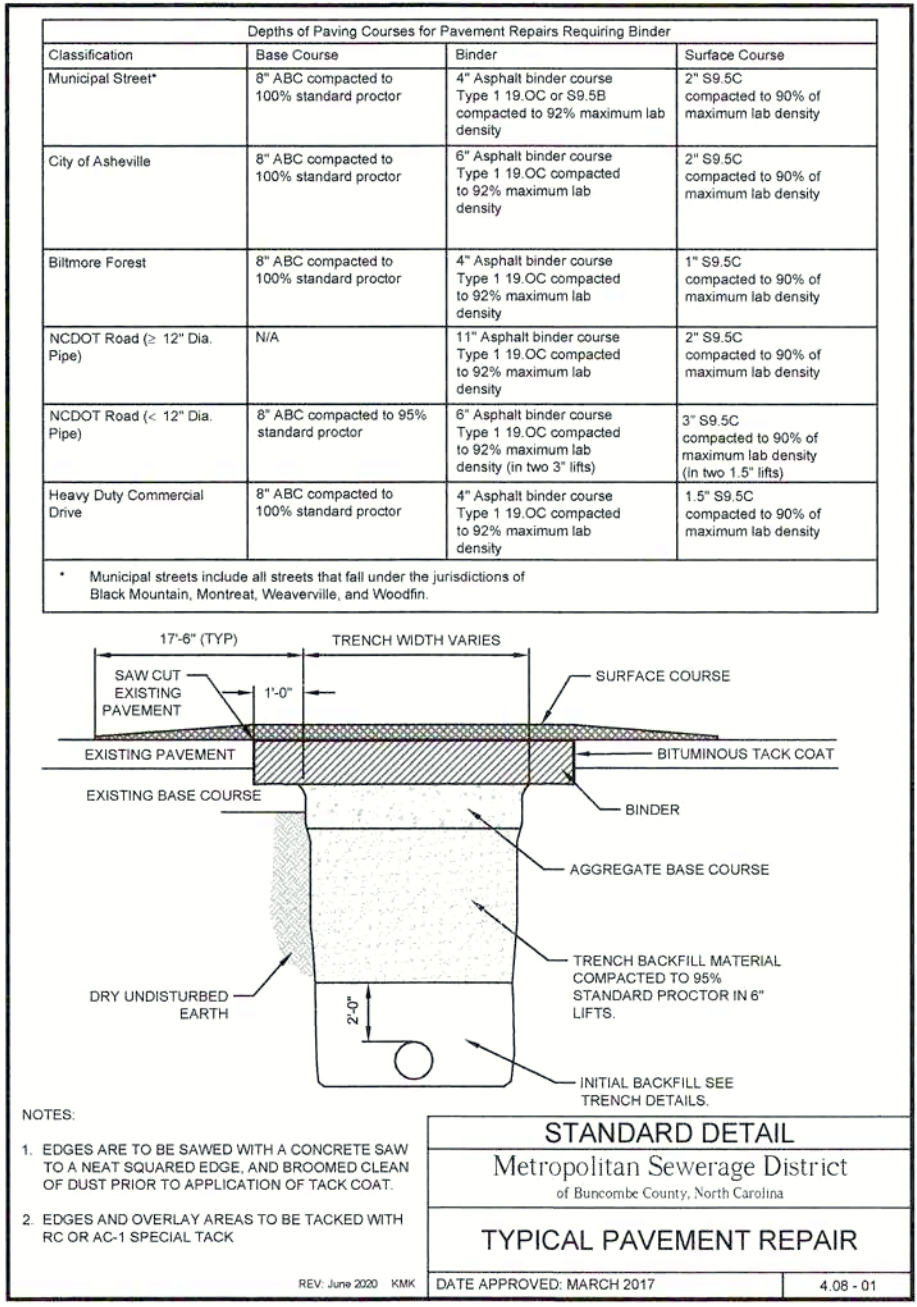
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**SERVICE CONNECTIONS AT MANHOLES**  
DATE APPROVED: MARCH 2017 2.11-.07.1



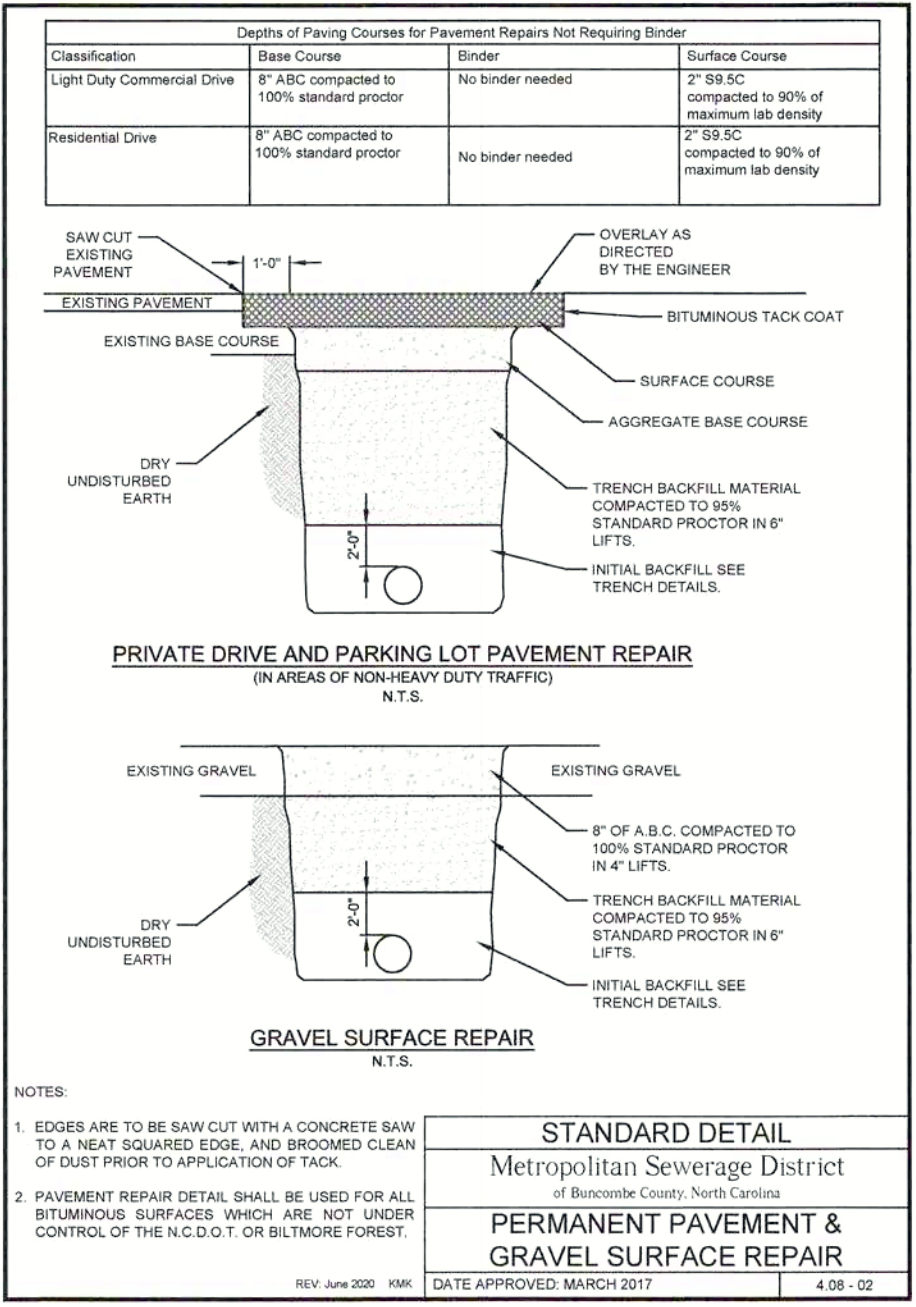
**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**STANDARD MANHOLE FRAME & COVER**  
DATE APPROVED: MARCH 2017 2.11-.08.1

**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**TYPICAL PAVEMENT REPAIR**  
DATE APPROVED: MARCH 2017 4.08-.01

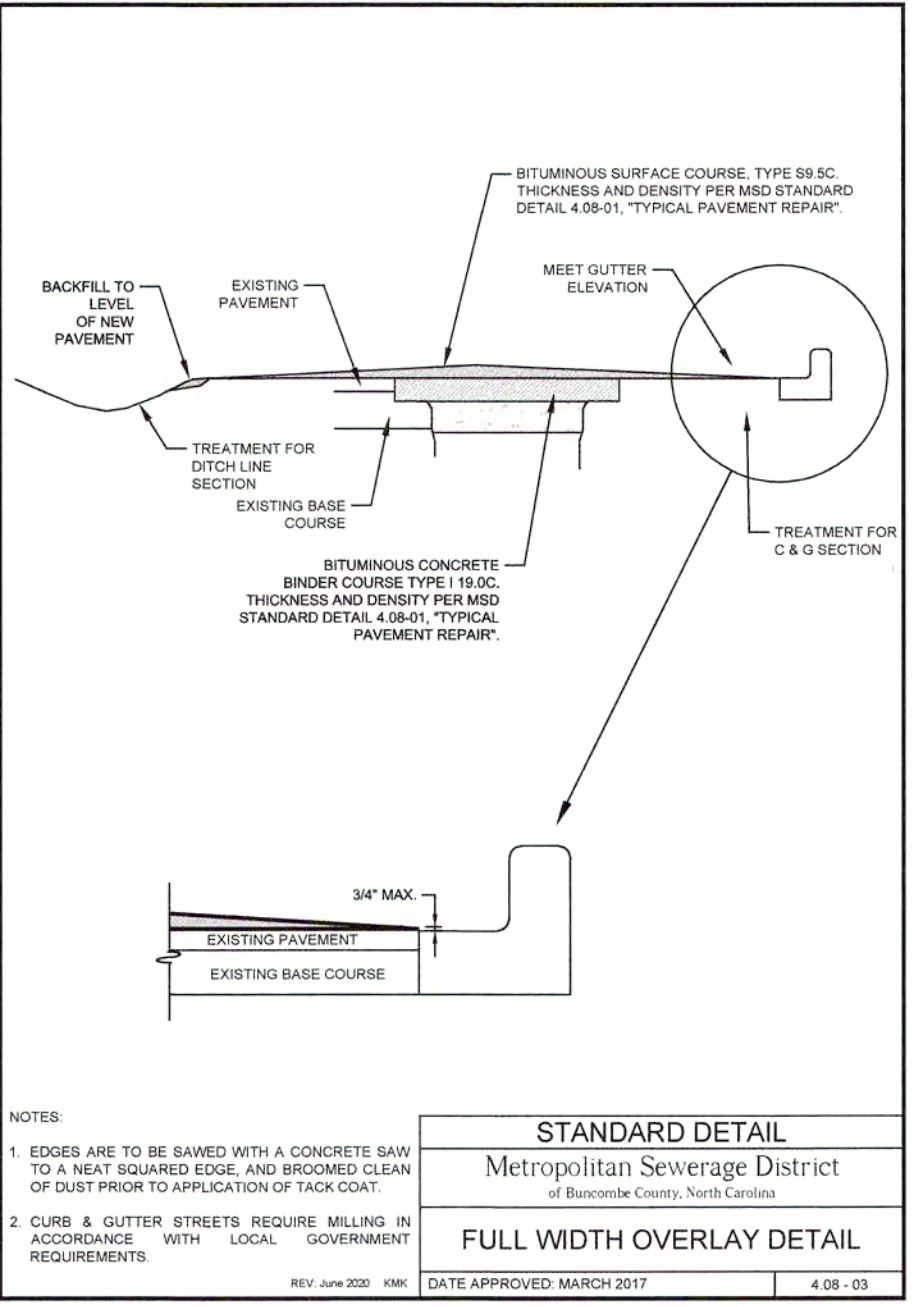
Classification	Depth of Paving Courses for Pavement Repairs Requiring Binder		
	Base Course	Binder	Surface Course
Municipal Street	4\"/>		



**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**PERMANENT PAVEMENT & GRAVEL SURFACE REPAIR**  
DATE APPROVED: MARCH 2017 4.08-.02



**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**FULL WIDTH OVERLAY DETAIL**  
DATE APPROVED: MARCH 2017 4.08-.03



**STANDARD DETAIL**  
Metropolitan Sewerage District  
of Buncombe County, North Carolina  
**MANHOLE ABANDONMENT**  
DATE APPROVED: MARCH 2017 2.21-.03

Metropolitan Sewerage District  
of Buncombe County  
MOUNTAINBROOK ROAD  
@ CHUNNS COVE  
Sanitary Sewer Details

DATE: 09/16/2020  
SCALE: N/A  
DRAWN: KMK  
CHECKED BY: DAP  
APPROVED: DAP

11/08/2021  
1. BID SET

REVISIONS

DESCRIPTION

DATE

NO.

MSD

Engineering Division

Metropolitan Sewerage District  
of Buncombe County, North Carolina

