

SITE NOTES:

1. THIS PROJECT REQUIRES THE INSTALLATION OF SANITARY SEWER MAIN AND SANITARY SEWER LATERALS. THE INSTALLATION ANTICIPATES THE USE OF DIRECTIONAL DRILL INSTALLATION TO AVOID THE RECONSTRUCTION OF WHITE EAGLE LANE. ACTUAL LENGTH OF DIRECTIONAL DRILL IS AT THE DISCRETION OF THE CONTRACTOR. INSTALLATION OF SEVEN (7) LATERALS ARE ANTICIPATED.

2. THE CONTRACTOR SHALL INSTALL THE PROPOSED SANITARY SEWER MAIN FROM MANHOLE 3 (PROVIDED BY OTHERS), INSTALLING THE MAIN TO MANHOLE 6 (A NEW DROP MANHOLE), INSTALL SEWER MAIN AND LATERAL TO MANHOLE 6A1 (NEW MANHOLE) AND INSTALL SEWER MAIN AND LATERALS TO MANHOLE 6A2 (UTILIZE MANHOLE ONSITE). THIS PROJECT INCLUDES ALL WORK NECESSARY TO INSTALL THE SEWER MAIN, MANHOLES AND LATERALS AS SHOWN.

3. THE CONTRACTOR SHALL PROVIDE EROSION & SEDIMENT CONTROL MEASURES AS REQUIRED TO CONSTRUCT THE SANITARY SEWER MAIN, LATERALS, AND MANHOLES. THE MINIMUM REQUIRED EROSION CONTROL MEASURES ARE SHOWN ON

4. THIS PROJECT IS AN ADJUSTMENT OF A PORTION AND A CONTINUATION OF THE WESTERN VIRGINIA WATER AUTHORITY CHEROKEE HILLS SEWER 4900 BLOCK

1. THE LOCATION OF EXISTING UTILITIES IS APPROXIMATE BASED UPON MAPPING PROVIDED BY WVWA AND VISUAL INSPECTION. THE CONTRACTOR SHALL ANTICIPATE ENCOUNTERING UNDERGROUND ELECTRIC, TELEPHONE, CABLE LINES, EXISTING WATERLINES, AND GAS LINES. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" PRIOR TO ANY EXCAVATION.

2. PAVEMENT RECONSTRUCTION IS NOT ANTICIPATED, HOWEVER, SHOULD PAVEMENT RECONSTRUCTION OCCUR, THE CONTRACTOR SHALL PROVIDE A NEAT, VERTICAL SAW CUT ALONG THE PAVEMENT EDGE TO BE REMOVED. THE CONTRACTOR SHALL PROTECT THE SAW CUT FOR THE PAVEMENT RECONSTRUCTION PROCESS IN ACCORDANCE WITH VDOT AND THE WESTERN VIRGINIA WATER AUTHORITY (WVWA).

3. REFERENCE IS DIRECTED TO THE BENCHMARKS SHOWN ON THE PLAN IF ANY. THESE BENCHMARKS ARE BASED ON A PROJECT DATUM. SEE WVWA PROJECT FOR BENCHMARK INFORMATION. CONTOURS SHOWN WITHIN THE SANITARY SEWER ALIGNMENT ARE BASED ON AERIAL MAPPING BY ROANOKE COUNTY.

4. REFERENCE IS DIRECTED TO THE REQUIRED EROSION CONTROL MEASURES FOR THE SANITARY SEWER INSTALLATION.

THE CONTRACTOR SHALL BE FAMILIAR WITH THE FOLLOWING WESTERN VIRGINIA WATER AUTHORITY (WVWA) DETAILS:

S-01 4' STANDARD MANHOLE - 2 TOTAL

S-04 5' DROP MANHOLE - 1 TOTAL

S-08 SANITARY SEWER LATERALS - 6 TOTAL

S-30/G01 STONE BEDDING - 100 TONS

OTHER GENERAL ITEMS INCLUDE THE FOLLOWING ITEMS:

DIRECTIONAL DRILLING OF LATERALS
WORKING IN CLOSE PROXIMITY TO EXISTING WATERLINES
TREE REMOVAL & DISPOSAL
TREE ROOT PROTECTION

- GRADE RING IF NECESSARY VARIES /ARIES STEP SHALL BE ALLIGNED VERTICALLY -4.00'---VARIES VARIES FLEXIBLE BOOT-SERVICE CONNECTION CONCENTRIC MANHOLE WITH PRECAST INVERT WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS 4' STANDARD MANHOLE S-01 1. ALL MANHOLE FRAMES AND COVERS SHALL BE EAST JORDAN IRON WORKS, INC. WATERTIGHT
MANHOLE FRAME MODEL #1045Z, WATERTIGHT
COVER MODEL #1040AGS AND BOLT-DOWN MANHOLE
COVER MODEL #1040ACLGS, OR APPROVED EQUAL.
BOLT-DOWN MODEL TO BE USED IN AREAS SUBJECTED
TO FLOODING OR AS DIRECTED BY THE AUTHORITY. . STEPS TO BE VERTICALLY ALIGNED 3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE - STAINLESS STEEL MANHOLE STRUCTURE AND BOLTED IN PLACE. 4. RELINER BY DURAN INSIDE DROP WILL BE ALLOWED. L FLEXIBLE BOOT 5. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE. SECTION A-A 6. STEPS SHALL BE A MINIMUM OF 90 DEGREES **BUTYL MASTIC** JOINT SEALER (NO MORTAR) BETWEEN F&C 3/4" THREADED RODS - GRADE RING IF NECESSARY 2'-0" CONE CENTRIC RISER REQUIRED CUT OUT THREADED END CAP WITH PLUG 1" STAINLESS STEEL BAND @ 24" O.C. W/ 5/8" S.S. ANCHOR BOLTS 2.0' OR GREATER **SLUE JOINT** #57 OR EQUIVALENT FLEXIBLE BOOT AND

NOTE: 6' DIAMETER MANHOLE REQUIRED

FOR TWO INSIDE DROP CONNECTIONS

EROSION AND SEDIMENT CONTROL MEASURES

PERMANENT SEEDING, VA ESCH STD. 3.32

SILT FENCE VA ESCH STD. 3.05

(MAIN LINE OR LATERAL)

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS

MAINLINE OR LATERAL INSIDE DROP MANHOLE

(FOR USE WITH PVC PIPE)

1. ALL MANHOLE FRAMES AND COVERS SHALL

2. STEPS TO BE VERTICALLY ALIGNED.

BE EAST JORDAN IRON WORKS, INC. WATERTIGHT MANHOLE FRAME MODEL #1045Z, WATERTIGHT

3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.

4. FLAT TOP MANHOLES MAY ONLY BE SUBSTITUTED WITH THE PERMISSION OF THE UTILITY DIRECTOR

WHEN USED, THE ECCENTRIC OPENING MUST LINE UP WITH THE STEPS.

6. FLEXIBLE JOINT MANHOLE CONNECTION SHALL BE AS MANUFACTURED BY PRES-SEAL GASKET CORPORATION OR EQUAL.

7. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.

5. SAMPLING MANHOLES IN TRAFFIC AREAS SHALL BE CONSTRUCTED AS PER MANHOLE DETAILS.

COVER MODEL #1040AGS AND BOLT-DOWN MANHOLE
COVER MODEL #1040AGS AND BOLT-DOWN MANHOLE
COVER MODEL #1040ACLGS, OR APPROVED EQUAL.
BOLT-DOWN MODEL TO BE USED IN AREAS SUBJECTED
TO FLOODING OR AS DIRECTED BY THE AUTHORITY.

INVERTS WILL BE THE SAME SIZE AS THE PIPE AND SUF-FICIENT SIZE FOR PLUGS AND TESTING EQUIPMENT.

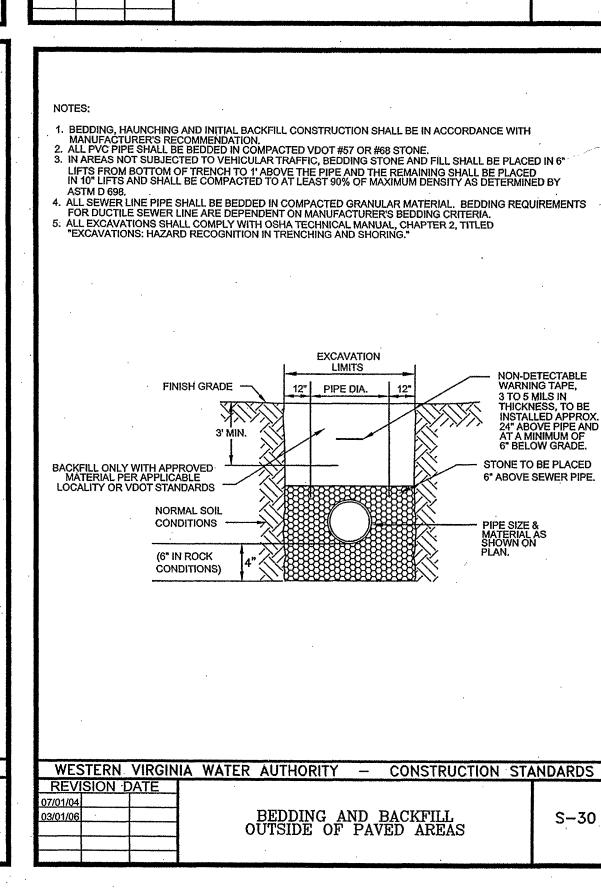
#_STAINLESS STEEL BAND

FLEXIBLE BOOT STAINLESS STEEL BAND

FLEXIBLE BOOT

SECTION A-A

GENERAL NOTES: 1. TRAFFIC BEARING BOX REQUIRED IN TRAFFIC AREAS. 2. ALL PIPE AND FITTINGS SHALL BE OF SIMILAR MATERIAL. 3. ALL PIPE SHALL BE OF SAME SIZE. 4. NO BENDS ARE ALLOWED IN THE LATERAL FROM THE MAIN TO THE CLEANOUT STACK WYE. (EXCEPT AS NOTED) 5. ALL MAIN LINÈ TAPS ON ACTIVE MAINS WILL BE PERFORMED BY WESTERN VIRGINIA WATER AUTHORITY 6. PIPING BEHIND CLEANOUT TO BE INSTALLED PER BOCA CODE. 7. MINIMUM LATERAL SIZE: 4" FOR RESIDENTIAL SERVICE 6" FOR NON-RESIDENTIAL SERVICE 8. MINIMUM COVER FOR ALL SEWER LATERALS SHALL BE THREE(3') FEET. 9. PROPERTY OWNER RESPONSIBLE FOR INSTALLING CLEANOUT ON PROPERTY LINE WHEN MAINTENANCE OCCURS, IN ACCORDANCE WITH THIS STANDARD. 10. FLOWLINE AT CLEANOUT WYE SHALL BE A MINIMUM OF THREE FEET (3') BELOW LOWEST SERVED FINISHED FLOOR. PRIVATE PROPERTY RIGHT OF WAY OR EASEMENT LINE GLUE CAP ROUGH GRADE FINISHED GRADE— MINIMUM GRADE TEE. WYE, TEE/WYE OR -COMBINATION OF WYE & 45° BEND FITTINGS SHALL BE SIZED AS REQUIRED. WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS S-08 SANITARY SEWER LATERAL



SPECIFIC ISSUES TO MS-16:

S-04

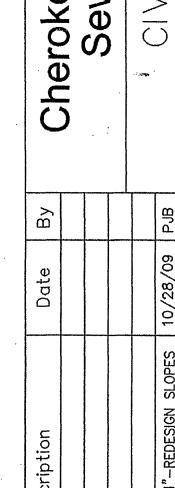
NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPEN AT ONE TIME. THE ENTIRE PROJECT IS 545 LF OF TRENCH. THE CONTRACTOR SHALL PROVIDE OSHA MINIMUM REQUIREMENTS PERTAINING TO OPEN TRENCHES ADJACENT TO ACTIVE AREAS AT THE END OF EACH DAY.

EXCAVATED MATERIALS SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES WHEN POSSIBLE.

EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF—SITE PROPERTY.

MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION & PROMOTE STABILIZATION.

APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.



Designed: DRB/PJB

Drawn:

Approved:

Checked: PJB

DRB

Date: 2 JULY 2009

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Sheet 1 of 1

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