

## GENERAL NOTES

- PROVIDE NEW MATERIALS AND WORKMANSHIP IN CONFORMANCE WITH ALL APPLICABLE CODES, STATE AND FEDERAL LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS, AND OTHER CRITERIA WHICH WOULD NORMALLY APPLY TO WORK OF THIS NATURE. NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERING A CONFLICT IN CODES, ORDINANCES, STANDARDS, OR OTHER CRITERIA. APPLICABLE CODES AND STANDARDS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, THE FOLLOWING:
  - BOCA - BASIC CODES
  - ROANOKE COUNTY
  - VDOT - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS-LATEST EDITION
  - VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS AND HANDBOOK, LATEST EDITION
  - OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
  - ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
- MAINTAIN A SET OF APPROVED PLANS ON SITE AT ALL TIMES DURING CONSTRUCTION.
- OBTAIN EACH REQUIRED PERMIT PRIOR TO COMMENCING THAT PART OF THE WORK. PAY REQUIRED FEES.
- NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF CONDITIONS WHICH DIFFER FROM THOSE SHOWN ON THE PLANS.
- COMPLY WITH LOCAL ORDINANCES FOR BURNING OF WASTE. TRANSPORT WASTE MATERIALS AND UNSUITABLE MATERIALS FROM OWNER'S PROPERTY.
- A PRECONSTRUCTION MEETING MUST TAKE PLACE PRIOR TO COMMENCING WORK. AS A MINIMUM, THE CONTRACTOR, OWNER'S AGENT AND COUNTY'S AGENT MUST ATTEND.
- VERIFY THE LOCATION AND ELEVATION OF EACH EXISTING UNDERGROUND UTILITY IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF WORK. CONTACT ENGINEER IMMEDIATELY IF THERE APPEARS TO BE A CONFLICT. UPON DISCOVERY OF A UTILITY WHICH IS NOT SHOWN, AND UPON DISCOVERY OF A LOCATION OR ELEVATION WHICH DIFFERS FROM THAT SHOWN. TO LOCATE UTILITIES, CALL "MISS UTILITY", 1-800-552-7001. UTILITY LOCATIONS SHOWN ARE THE RESULT OF A COMBINATION OF FIELD LOCATION AND EXISTING INFORMATION. LOCATIONS ARE APPROXIMATE.
- REPAIR ALL DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO OWNER.
- NOTIFY OWNERS OF UTILITIES IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION.
- SIGNAGE SHALL COMPLY WITH THE APPLICABLE REGULATIONS OF THE COUNTY. A SEPARATE PERMIT IS REQUIRED.
- PROVIDE STANDARD VDOT DRIVEWAY APRONS FOR EACH LOT, OWNER TO DETERMINE LOCATION.
- VDOT WILL NOT BE RESPONSIBLE FOR REPAIR OF STORMWATER MANAGEMENT FACILITY OR STRUCTURES.
- VDOT APPROVAL OF SUBDIVISION ROAD PLANS DOES NOT PRECLUDE THE RIGHT TO ADD ADDITIONAL FACILITIES SUCH AS SEEDING, PAVING SEDIMENT CONTROL ITEMS, AS MAY BE DEEMED NECESSARY BY THE DEPARTMENT PRIOR TO THE ACCEPTANCE OF SUCH ROADS IN ORDER TO LIMIT SITUATION AND POLLUTION OF NEARBY LAKES, PONDS, STREAMS AND ADJACENT PROPERTY.
- THE DEPARTMENT'S APPROVAL OF THESE PLANS EXPIRE THREE YEARS FROM DATA APPROVAL.

## WATER NOTES:

- ALL MATERIALS, CONSTRUCTION, ETC. SHALL MEET ALL THE SPECIFICATIONS AND REQUIREMENTS OF THE COMMONWEALTH OF VIRGINIA/STATE BOARD OF HEALTH "WATERWORKS REGULATIONS", LATEST EDITION, AS WELL AS THOSE OF THE LOCAL GOVERNING AUTHORITY. PROVIDE QUALITY WORKMANSHIP.
- MINIMIZE ANY DISTURBANCE TO EXISTING UTILITY SERVICES DURING CONSTRUCTION.
- PROVIDE 3.0 FEET MINIMUM COVER.
- WATER MAINS SHALL BE D.I.P. CLASS 52 AS A MINIMUM.
- WATER LINES SHALL BE DR-14 PVC CONFORMING TO AWWA C900 AS A MINIMUM. INSTALL METER BOXES BEYOND THE CURB LINE AND SUBJ THE SERVICE LINE. THE COUNTY SHALL INSTALL THE METER 5/8" EACH LOT.
- MAKE ALL PIPE JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- PRESSURE TEST THE WATER MAINS AT TWO TIMES THE WORKING PRESSURE FOR AT LEAST TWO HOURS WITH NO LEAKAGE.
- LOCATE AND UNCOVER VALVE VAULTS AFTER PAVING
- ALL TAPS TO EXISTING WATER UTILITIES TO BE PERFORMED BY ROANOKE COUNTY UTILITY DEPARTMENT.
- REFERENCE THE ROANOKE COUNTY UTILITY DEPARTMENT WATER AND SEWER REGULATIONS, LATEST EDITION.
- THE MAIN LINE CONNECTION TO THE 18" WATER LINE SHALL BE A "WET TAP" PERFORMED BY ROANOKE COUNTY UTILITY DEPARTMENT. THE COORDINATION FOR THESE TAPS SHALL BE DONE AT THE PRE-CONSTRUCTION MEETING. A 72 HOUR NOTIFICATION IS REQUIRED.
- WATER MAIN SHALL BE LOCATED A MINIMUM OF 2' BEHIND CURB INLETS.
- THE EXISTING 8" WATER MAIN THAT RUNS ALONG RED LANE IS TO BE REPLACED WITH A 10" WATER MAIN WHERE INDICATED ON PLANS. THIS WORK SHALL BE COORDINATED AT THE PRECONSTRUCTION MEETING.

## SANITARY SEWER NOTES

- SEWER PIPE SHALL BE PVC SDR-35.
- ALL SANITARY LATERALS WITHIN RIGHTS-OF-WAY AND EASEMENTS SHALL BE FOUR (4) INCH DIAMETER WITH A MINIMUM GRADE OF 2.08%, (1/4"=1'). MATERIAL TO BE PVC SDR-35. THE COUNTY SHALL TAP THE EXISTING SANITARY LINE AND BRING LATERAL TO THE RIGHT-OF-WAY LINE; HOWEVER, THE COUNTY MAY ALLOW THE CONTRACTOR TO DO SEWER CONNECTIONS WITH COUNTY APPROVED MATERIALS AND COUNTY INSPECTION.
- REFERENCE THE ROANOKE COUNTY UTILITY DEPARTMENT WATER AND SEWER REGULATIONS, THIRD EDITION, SEPTEMBER 2002.
- ROANOKE COUNTY WILL MAKE THE TAP TO THE EXISTING SANITARY SEWER.
- SANITARY SEWER MANHOLE #8 WILL BE INSTALLED AS A PART OF SECTION 1. SANITARY SEWER MANHOLE #12 WILL BE INSTALLED AS A PART OF SECTION 2.
- IF 18" OF VERTICAL SEPARATION CAN NOT BE OBTAINED BETWEEN THE INVERT OF THE WATER LINE AND THE TOP OF THE SEWER LATERALS, THE SEWER LATERALS SHALL BE CONSTRUCTED OF AWWA APPROVED WATERPIPE. THIS PIPE IS TO BE HYDROSTATICALLY PRESSURE TESTED IN PLACE WITHOUT LEAKING AT 30PSI BEFORE BACKFILLING, AS PER SECTION 02665 OF THE ROANOKE COUNTY WATER AND SEWER REGULATIONS.

## PAVING NOTES

- SEE ROAD SECTION AND SCHEDULE SHEET 10 - DETAILS.
- SAW CUT EDGE OF EXISTING PAVEMENT WHERE NEW IS TO MEET EXISTING.
- PROVIDE SMOOTH TRANSITION FROM EXISTING TO NEW PAVEMENT AND CURB.
- THE PAVEMENT DESIGN SHOWN IS BASED ON A SUBGRADE RATING OF CBR 10 OR GREATER. SHOULD THE ACTUAL SUB GRADE CBR VALUES BE LESS THAN 10, AN ALTERNATE PAVEMENT DESIGN MUST BE APPROVED BY THE COUNTY OF ROANOKE.
- DO NOT LAY PAVEMENT BASE STONE UNTIL ALL UTILITIES, INCLUDING STORM SEWER, ARE IN PLACE.

## SITE SUMMARY

OWNER / HOUSESMART ATTN: ROBERT P. FRALIN  
DEVELOPER: P.O. BOX 8911  
ROANOKE, VA 24018  
PHONE: 540-381-9700  
FAX: 540-381-3871

TAX MAP NUMBER: 35.00-1-27  
SIZE: 31.21 ACRES  
ZONING: R1  
PROPOSED ZONING: R1 ZERO LOT LINE OPTION  
MINIMUM LOT SIZE REQUIRED: 5,760 SF  
MINIMUM LOT FRONTAGE REQUIRED: 48 FEET  
SETBACKS: FRONT 24 FEET  
SIDE 10 FEET  
REAR 25 FEET

## GENERAL UTILITY NOTES

- SUPPLY AND INSTALL ALL MATERIALS AND METHODS FOR WATERLINES, SANITARY SEWERS AND STORM DRAINAGE IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS OF ROANOKE COUNTY AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION "ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS", LATEST EDITION.
- OBTAIN ALL REQUIRED PERMITS AND NOTIFY APPROPRIATE OFFICIALS 48 HOURS PRIOR TO COMMENCEMENT OF WORK. OBTAIN INFORMATION FROM ROANOKE COUNTY CONCERNING PERMITS AND CONNECTIONS TO EXISTING LINES.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY ROANOKE COUNTY. NOTIFY APPROPRIATE OFFICIALS PRIOR TO COMMENCEMENT OF WORK.
- SITE SHALL BE TO SUB GRADE PRIOR TO INSTALLATION OF UTILITIES. ALL UTILITIES SHALL BE IN PLACE PRIOR TO PLACEMENT OF PAVEMENT BASE MATERIAL.
- USE SELECT MATERIAL FREE FROM FROST, LARGE CLODS, STONES, AND DEBRIS FOR BACK FILL FROM THE BOTTOM OF THE TRENCH TO TWELVE (12) INCHES ABOVE THE PIPE.
- MINIMIZE ANY DISTURBANCE TO EXISTING WATER SERVICE, SEWER LINES OR ANY OTHER UTILITY DURING CONSTRUCTION AND PROVIDE QUALITY WORKMANSHIP.
- MAKE ALL PIPE JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE COUNTY'S SPECIFICATIONS. MAKE JOINTS BETWEEN DIFFERENT PIPE MATERIALS WITH STANDARD FITTINGS MANUFACTURED FOR THE PURPOSE.
- MAINTAIN ALL WATER LINES AT TEN (10) FEET HORIZONTAL SEPARATION FROM SEWER LINES AND MANHOLES; MEASURE THE DISTANCE EDGE-TO-EDGE. WHEN LOCAL CONDITIONS PREVENT THE DESIRED HORIZONTAL SEPARATION, THE WATERLINE MAY BE LAID CLOSER TO THE SEWER OR MANHOLE PROVIDED THAT THE BOTTOM OF THE WATERLINE SHALL BE AT LEAST EIGHTEEN (18) INCHES ABOVE THE TOP OF THE SEWER. WHERE THIS VERTICAL SEPARATION CANNOT BE OBTAINED, CONSTRUCT THE SEWER OF AWWA APPROVED WATER PIPE AND PRESSURE TREAT IN PLACE PRIOR TO BACKFILLING. THE SEWER MANHOLE SHALL BE OF WATERTIGHT CONSTRUCTION TESTED IN PLACE.
- SEWER AND WATER TAPS SHALL BE LOCATED BY THE CONTRACTOR AND MADE BY THE COUNTY AT THE DEVELOPER'S EXPENSE.
- LOCATE AND UNCOVER VALVE VAULTS AND MANHOLES AFTER PAVING AND ADJUST TO FINAL GRADE, IF NECESSARY.
- VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE ENGINEER IMMEDIATELY IF:  
  
ANY LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS.  
  
IF THERE APPEARS TO BE ANY CONFLICT.  
  
UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS.  
  
TO MISS UTILITIES, CALL "MISS UTILITY" OF VIRGINIA (TOLL FREE 1-800-552-7001) 48 HOURS BEFORE YOU DIG. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE CAUSED TO ANY UTILITY, PUBLIC OR PRIVATE, AS A RESULT OF THIS WORK. EXISTING UTILITY LOCATIONS SHOWN ARE A RESULT OF A COMBINATION OF EXISTING INFORMATION AND FIELD LOCATION OF SURFACE FEATURES. LOCATIONS ARE APPROXIMATE.
- REPAIR ALL DAMAGE CAUSED TO ANY UTILITY, PUBLIC OR PRIVATE, AS A RESULT OF THIS WORK AT NO ADDITIONAL COST TO OWNER.
- PROVIDE A CONTINUOUS AND UNIFORM BEDDING IN THE TRENCH FOR ALL PIPE. REMOVE STONES AND ROCKS FOUND IN THE TRENCH FOR A DEPTH OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE AND TAMP SELECT FILL BEDDING PROVIDED. AFTER THE PIPE HAS BEEN PLACED IN THE TRENCH, BACK FILL THE TRENCH WITH SELECT MATERIAL, THOROUGHLY COMPACT TO 90% (95% UNDER PAVEMENT OR CONCRETE SLAB) OF THE STANDARD PROCTOR (ASTM D-698) USING CARE NOT TO DAMAGE THE PIPE. USE VDOT STANDARD PB-1 TRENCH FOR STORM SEWER AND UB-1 FOR SANITARY SEWER AND WATER.
- PLACE BACK FILL FOR ALL UTILITIES IN ACCORDANCE WITH THE COUNTY'S SPECIFICATIONS, AND THE FOLLOWING CRITERIA:
  - BACK FILL NO TRENCH UNTIL AUTHORIZED BY THE COUNTY. MATERIALS USED FOR BACK FILL FROM THE BOTTOM OF THE TRENCH TO TOP OF THE PIPE SHALL BE CRUSHER RUN, OR APPROVED EQUAL MATERIAL THOROUGHLY AND CAREFULLY COMPACT THE BACK FILL MATERIAL.
  - COMPACT BACK FILL BY MECHANICAL TAMPING THROUGHOUT THE DEPTH OF THE TRENCH TO INSURE A SUITABLE SUBBASE ACCEPTABLE TO THE ROAD ENGINEER. IF THE MATERIAL TAKEN FROM THE DITCH IS NOT SUITABLE FOR BACK FILLING, REMOVE IT AND USE AN ACCEPTABLE MATERIAL FOR BACK FILLING THE TRENCH.
- IN AREAS OF WATER LINE CONSTRUCTION, GRADES SHALL BE WITHIN SIX (6) INCHES OF FINISHED SUB GRADE PRIOR TO THE COMMENCEMENT OF THIS WORK.
- MINIMUM COVER OVER WATER AND SANITARY SEWER LINES SHALL BE THREE (3) FEET.
- THE COUNTY OF ROANOKE COUNTY SHALL MAKE ALL CONNECTIONS TO EXISTING WATER MAINS. NOTIFY ROANOKE COUNTY UTILITY DEPARTMENT TWO WORKING DAYS PRIOR TO WHEN THE TAP IS NEEDED.
- THE CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS AND METER BOXES.
- PIPES AND FITTINGS SHALL BE POLYVINYL.
- CONNECT PIPE TO MANHOLES THROUGH PRE CAST OPENINGS AND JOIN WITH EITHER A FLEXIBLE BOOT ADAPTER OR A PIPE SEAL GASKET.
- MAKE RESIDENTIAL SERVICE CONNECTIONS WITH A FOUR (4) INCH PIPE THROUGH A WYE OR TEE-WYE BRANCH FITTING AND SHALL BE INSTALLED ON A MINIMUM GRADE OF ONE-QUARTER (1/4") INCH PER ONE (1) FOOT FROM THE SEWER PIPE OR MANHOLE TO THE PROPERTY OR EASEMENT LINE WHERE A CLEANOUT SHALL BE PLACED AND THE SERVICE LATERAL PLUGGED / CAPPED UNTIL EXTENSION.
- FIELD MARK FUTURE SERVICE CONNECTIONS BY A TREATED, SOLID WOODED (2"x4") MARKER THREE (3) FEET LONG SET VERTICALLY PLUMBE WITH THE END OF THE CAPPED EXTENSION. PAINT THE TOPS OF THE MARKERS YELLOW AND SET FLUSH WITH THE FINISHED GRADE. SHOW THE LOCATION AND INVERT DEPTH OF THE SERVICE CONNECTION ON THE AS-BUILT PLANS.
- A MINIMUM VERTICAL SEPARATION AT ALL UTILITY CROSSINGS WILL BE 1.5 FEET.

## DIMENSIONAL NOTES

- IN GENERAL DIMENSIONS ARE TO BOTTOM FACE OF CURB, CENTER OF PAINTED LINE, EDGE OF PAVEMENT.
- DO NOT SCALE DIMENSIONS. IF A QUESTION CONCERNING A DIMENSION ARISES, CONTACT THE ENGINEER FOR INTERPRETATION.

## VDOT NOTES

- INSTALLATION OF PIPES CULVERTS AND STORM SEWER BEDDING SHALL CONFORM TO THE 2001 VDOT ROAD AND BRIDGE STANDARDS FOR ANY STRUCTURE LOCATED PARTIALLY OR TOTALLY WITHIN THE VDOT RIGHT-OF-WAY.
- IS-1 INLET SHAPING WILL BE REQUIRED IN ALL PROPOSED DROP INLETS.
- A CONCRETE GRADE IS TO BE USED UNDER THE OUTLET PIPE FROM POND #3 SEE VDOT ROAD AND BRIDGE STANDARD 116.06.

## GRADING NOTES

- REMOVE TREES, SHRUBS, GRASS, AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS AS REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION. REMOVE TREES AND OTHER VEGETATION, INCLUDING STUMPS AND ROOTS, COMPLETELY IN AREAS REQUIRED FOR SUBSEQUENT SEEDING. CUT OFF TREES AND STUMPS IN AREAS TO RECEIVE FILL MORE THAN THREE FEET IN DEPTH TO WITHIN EIGHT INCHES OF THE ORIGINAL GROUND SURFACE.
- BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND OPERATE WARNING LIGHTS AS RECOMMENDED BY AUTHORITIES HAVING JURISDICTION.
- CUT SURFACE UNDER PAVEMENTS TO COMPLY WITH CROSS SECTIONS, ELEVATIONS, AND GRADES AS INDICATED.
- EXCAVATE TRENCHES TO UNIFORM WIDTH CONFORMING TO VDOT STANDARD PB-1 FOR STORM DRAINAGE PIPING. BACKFILL TRENCHES WITH CONTROLLED FILL.
- PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOFTENING OF FOUNDATION BOTTOMS, UNDERCUTTING FOOTINGS, AND SOIL CHANGES DETRIMENTAL TO STABILITY OF SUBGRADES AND FOUNDATIONS. CONVEY WATER REMOVED FROM EXCAVATIONS AND RAIN WATER TO COLLECTING OR RUNOFF AREAS. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS FOR EACH STRUCTURE. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DITCHES.
- PROTECT EXCAVATED BOTTOMS OF ALL FOOTINGS AND TRENCHES AGAINST FREEZING WHEN ATMOSPHERIC TEMPERATURE IS LESS THEN 35°F (1°C).
- UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING INCLUDING ADJACENT TRANSITION AREAS. SMOOTH FINISHED SURFACES WITHIN SPECIFIED TOLERANCES. COMPACT WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. GRADE AREAS ADJACENT TO BUILDING LINES TO DRAIN AWAY FROM STRUCTURES AND TO PREVENT PONDING.
- FINISH LAWN AREAS TO WITHIN ONE INCH ABOVE OR BELOW REQUIRED SUBGRADE ELEVATIONS. SHAPE SURFACES UNDER WALKS AND PAVEMENTS TO LINE, GRADE, AND CROSS SECTION, WITH NOT MORE THAN 1/2" ABOVE OR BELOW REQUIRED SUBGRADE ELEVATION.
- PROTECT GRADED AREAS FROM TRAFFIC AND EROSION. REPAIR AREAS WHICH HAVE SETTLED, ERODED, OR BECOME DAMAGED DUE TO CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO OWNER.
- PLACE ALL FILL AND BACKFILL AS CONTROLLED FILL AS FOLLOWS:
  - ESTABLISH SUITABLE SUBGRADE CONDITIONS PRIOR TO PLACING FILL BY PROOFROLLING, UNDERCUTTING AND COMPACTING AS NECESSARY.
  - PLACE FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" FOR HAND TAMPERS.
  - PRIOR TO COMPACTION, PROVIDE MOISTURE CONTENT TO WITHIN 3% OF OPTIMUM BY MOISTENING OR AERATING EACH LAYER. DO NOT PLACE FILL MATERIAL ON SURFACES WHICH ARE MUDDY, FROZEN OR CONTAIN FROST OR ICE.
  - COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 698 (STANDARD PROCTOR):
    - 95% UNDER PAVEMENT
    - 85% UNDER LAWN OR UNPAVED AREAS
- SPREAD TOPSOIL TO A DEPTH OF 4" OVER ALL DISTURBED AREAS NOT RECEIVING WALKS OR PAVEMENT, INCLUDING TRENCHES. IMMEDIATELY FOLLOWING PLACEMENT OF TOPSOIL, DISK THE ENTIRE TOPSOILED AREA AND RAKE FREE OF STONES AND DEBRIS OVER 1/2" IN ANY DIMENSION. PROVIDE A FINISHED SURFACE FREE OF DEPRESSIONS OR HIGH SPOTS. SEED IMMEDIATELY.
- OWNER (CONTRACTOR) SHALL EMPLOY QUALIFIED SOILS TESTING LABORATORY TO INSPECT EARTHWORK OPERATIONS. NOTIFY LABORATORY PRIOR TO PERFORMING EARTHWORK OPERATIONS.

SANITARY SEWER  
LATERAL CHART

LOT #	MINIMUM SEWERABLE FINISHED FLOOR
1A	496.21
1	497.15
2	501.64
3	504.88
4	507.40
5	511.17
6	514.49
7	518.21
8	519.60
9	524.41
10	527.50
11	530.40
12	534.11
13	537.24
14	541.03
15	544.90
16	549.09
17	552.56
18	556.59
19	559.34
20	562.52
21	566.13
22	568.68
23	572.56
24	577.20
25	580.54
26	585.40
27	590.80
28	619.56
29	630.84
30	635.18
31	637.25
32	638.89
33	642.57
34	647.75
35	651.29
36	655.70
37	660.81
38	664.69
39	666.40
40	680.61
41	681.52
42	674.61
43	668.60
44	663.56
45	657.44
46	651.77
47	645.68
48	633.31
49	623.98
50	608.61
51	620.47
52	620.10
53	633.42
54	647.43
55	665.05
56	647.03

SECTION 1  
STRUCTURE CHART

1	36.04 LF 15" HDPE @ 0.50% INV IN=502.51 INV OUT=502.33, ES-1
2	DI-3B, NOSE B TOP=506.73 L=8', H=4.22'
3	40.0 LF-15" HDPE @ 0.50% INV IN=503.81 INV OUT=502.61
4	DI-3B, NOSE B TOP=506.73 L=12', H=3.92'
5	47.65 LF-15" HDPE @ 19.69% INV IN=517.38 INV OUT=508.00, ES-1
6	DI-3B, NOSE B TOP=522.88 L=4' H=5.5'
7	110.50 LF-15" HDPE @ 4.89% INV IN=522.88 INV OUT=517.48
8	DI-3B, NOSE B TOP=527.48 L=4', H=4.5'
9	176.14 LF-15" HDPE @ 3.13% INV IN=530.9 INV OUT=522.98
10	DI-3B, NOSE B TOP=536.86 L=6', H=5.96'
11	40.0 LF-15" HDPE @ 1.50% INV IN=532.00 INV OUT=531.40
12	DI-3B, NOSE B TOP=536.86 L=16', H=4.86'
13	40.0 LF-15" HDPE @ 1.00% INV IN=517.88 INV OUT=517.48
14	DI-3B, NOSE B TOP=522.88 L=14', H=4.5'
15	24" RISER, TOP=504.00 ORIFICE EL=502.25 ORIFICE DIA=0.40'
16	27.00 LF-10" HDPE @ 4.63%, ES-1 INV IN=502.25 INV OUT=501.00
58	154.00 LF-15" RCP @ 0.50%, (2) ES-1 INV IN=497.52, INV OUT=496.75

SECTION 2  
STRUCTURE CHART

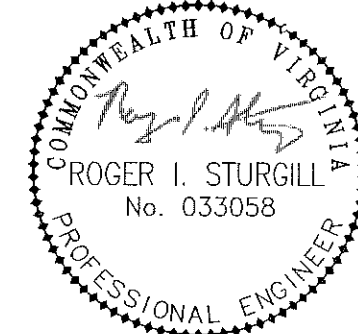
17	36.08 LF-15" HDPE @ 1.25% INV IN=546.45 INV OUT=546.00 ES-1
18	DI-3B, NOSE B TOP=552.40 L=4', H=5.94'
19	40.00 LF-15" HDPE @ 1.13% INV IN=547.00, INV OUT=546.55
20	DI-3B, NOSE B TOP=552.40 L=14', H=5.4'
21	107.25 LF-15" HDPE @ 5.50% INV IN=553.00 INV OUT=547.10
22	DI-3B, NOSE B TOP=559.38 L=12', H=6.38'
23	148.00 LF-18" HDPE @ 10.52%, ES-1 INV IN=563.47, INV OUT=548.00
24	DI-3B, NOSE B TOP=569.07 L=8', H=5.6'
25	40.0 LF-18" HDPE @ 1.00% INV IN=563.97, INV OUT=563.57
26	DI-3B, NOSE B TOP=569.07 L=16', H=5.0'
27	157.11 LF-15" HDPE @ 6.54% INV IN=574.35, INV OUT=564.07
28	DI-3B, NOSE B TOP=579.45 L=14', H=5.0'
29	99.60 LF-15" HDPE @ 8.88% INV IN=583.29, INV OUT=574.45
30	DI-3B, NOSE B TOP=588.29 L=16', H=5.0'
31	41.76 LF- 10" HDPE @ 3.59%, ES-1 INV IN=545.5, INV OUT=544.00 ES-1 AND EW-1 ORIFICE EL=545.5 ORIFICE DIA=0.40'

NOTE:  
1. ALL HDPE PIPE SHALL BE SMOOTH INTERIOR WALL.

SECTION 3  
STRUCTURE CHART

32	24.38 LF-18" HDPE @ 9.98%, ES-1 INV IN=610.41, INV OUT=608.00
33	DI-3B, NOSE B TOP=616.32 L=10', H=5.91'
34	40.0 LF-18" HDPE @ 1.00% INV IN=610.91, INV OUT=610.51
35	DI-3B, NOSE B TOP=616.32 L=6', H=5.41'
36	123.56 LF-18" HDPE @ 12.13% INV IN=626.00 INV OUT=611.01
37	DI-3B, NOSE B TOP=631.05 L=8', H=5.0'
38	279.09 LF-18" HDPE @ 10.93% INV IN=656.60 INV OUT=626.10
39	DI-3B, NOSE B TOP=662.10 L=12' H=5.5'
40	32.0 LF-15" HDPE @ 1.25% INV IN=657.10 INV OUT=656.70
41	DI-3B, NOSE B TOP=662.10 L=10', H=5.0'
42	100.88 LF-15" HDPE @ 11.65% INV IN=668.95 INV OUT=657.20
43	DI-3B, NOSE B TOP=673.95 L=12', H=5.0'
44	104.83 LF-15" HDPE @ 5.95% INV IN=624.24 INV OUT=618.00
45	MH-1, TOP=636.00 H=11.76'
46	48.20 LF-15" HDPE @ 1.00% INV IN=624.82 INV OUT=624.34
47	DI-3CC, NOSE B TOP=634.41 L=12' H=9.59'
48	32.00 F-15" HPDE @ 1.5% INV IN=624.4 INV OUT=624.92
49	DI-3CC, NOSE B TOP=634.41 L=8' H=9.01'
50	50.62 LF-15" HDPE @ 15.73% INV IN=628.71 INV OUT=623.7
51	DI-3B, NOSE B TOP=637.40 L=12' H=5.10'
52	91.19 LF-15" HDPE @ 5.04% INV IN=637.00, INV OUT=632.40
53	DI-3BB, NOSE B TOP=645.63 L=12' H=8.63'
54	52.41 LF-15" HDPE @ 8.07% INV IN=641.33 INV OUT=637.10
55	DI-3BB, NOSE B TOP=649.82 L=14' H=8.49'
56	48" CMP RISER, TOP=602.00 W/ TRASH RACK ORIFICE EL=595.5, ORIFICE DIA=1.8'
57	250.00 LF-36" RCP @ 0.92%, ES-1 INV IN=595.50, INV OUT=593.20

SANITARY SEWER TABLE					
LINE	LENGTH	BEARING	SECTION		
EX SSMH -1	27.53'	N62°05'06"W	1		
1-2	62.40'	N18°20'25"E	1		
2-3	106.14'	N08°08'43"E	1		
3-4	31.20'	N53°33'31"W	1		
4-5	144.00'	N69°22'24"W	1		
5-6	283.91'	N25°17'22"W	1		
6-7	163.53'	N38°11'37"W	1		
7-7A	235.00'	N38°10'58"W	1		
7A-8	96.20'	N38°10'58"W	1		
8-9	205.81'	N15°40'13"W	2		
9-10	210.78'	N15°56'31"W	2		
10-11	115.00'	N24°10'20"W	2		
11-12	151.04'	N26°46'42"W	2		
12-13	156.35'	N02°29'22"W	3		
13-14	154.83'	N00°58'02"W	3		
14-15	136.40'	N03°06'18"W	3		
15-16	205.59'	N03°06'18"W	3		
13-17	119.24'	N87°45'49"E	3		
17-18	126.02'	N58°24'24"W	3		
18-19	128.53'	N09°09'14"W	3		
19-20	129.43'	N40°48'08"E	3		
20-21	32.83'	N12°02'33"E	3		



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