



GRADING NOTES

- AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION, STRUCTURES, AND OTHER PHYSICAL FEATURES IN PREPARATION OF GRADING.
- TOPSOIL SHALL BE REMOVED FROM THE CLEARED AREA AND STOCKPILED FOR FUTURE USE.
- FILL MATERIAL SHALL BE FREE FROM ORGANIC MATTER AND ROCKS LARGER THAN 6 INCHES IN DIAMETER.
- FILL MATERIAL SHALL BE PLACED AND COMPACTED IN EIGHT (8) INCH LOOSE LIFTS AND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698, STANDARD PROCTOR. MAINTAIN MOISTURE CONTENT OF FILL MATERIAL WITHIN THREE (3) PERCENT OF OPTIMUM TO ATTAIN REQUIRED COMPACTION DENSITY.
- NO SUBSURFACE SOILS INFORMATION HAS BEEN FURNISHED TO THE DESIGNING ENGINEER (LUMSDEN ASSOCIATES, P.C.). A QUALIFIED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF VIRGINIA, SHOULD BE CONSULTED CONCERNING SOIL STABILITY, SLOPE STABILIZATION, SOIL COMPACTION, TESTING, AND OTHER SOIL CHARACTERISTICS. LUMSDEN ASSOCIATES ASSUMES NO RESPONSIBILITY OR LIABILITY RELATING TO FAILURES RESULTING FROM SAME.
- EXCEPT WHERE ADDITIONAL AREA MAY BE DISTURBED AS REQUIRED FOR DIRECTIONAL DRILLING THE LIMITS OF CLEARING AND GRADING SHALL BE ROUGHLY TWENTY FEET WIDE ABOUT THE CENTERLINE OF THE PROPOSED SANITARY SEWER.

CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT COUNTY OF ROANOKE, VDOT, AND WESTERN VIRGINIA WATER AUTHORITY STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.
- NO SUBSOIL INVESTIGATIONS HAVE BEEN FURNISHED TO THE DESIGNING ENGINEER. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
- ALL SANITARY SEWER CONNECTIONS TO EXISTING LINES SHALL BE PERFORMED BY THE CONTRACTOR WITH A WESTERN VIRGINIA WATER AUTHORITY INSPECTOR ON-SITE. THE CONTRACTOR AND/OR OWNER SHALL PROVIDE A STORAGE CONTAINER FOR TEMPORARY STORAGE AND DISPOSAL OF LAND CLEARANCE DEBRIS AND BUILDING MATERIALS. ON-SITE BURIAL OF MATERIAL SHALL NOT BE PERMITTED.
- DURING CONSTRUCTION STAKEOUT THE LOCATIONS OF THE PROPOSED SANITARY SEWER MANHOLES SHALL BE VERIFIED TO BE OUTSIDE VDOT ROADSIDE DITCH SECTIONS AND SHIFTED IF NECESSARY. ALL CHANGES SHALL BE COORDINATED WITH THE WESTERN VIRGINIA WATER AUTHORITY, VDOT, ROANOKE COUNTY ENGINEERING AND LUMSDEN ASSOCIATES, P.C.
- IF CONTRACTOR IS UNABLE TO DIRECTIONAL DRILL FROM MH 18 TO MH 20, OPEN CUT SHALL FOLLOW ORIGINAL ALIGNMENT WITH PERPENDICULAR ROAD CROSSING BETWEEN MH 18 AND MH 19.
- ANY MH WITHIN THE SHOULDER OF A PUBLIC ROADWAY SHALL BE CONSTRUCTED WITH RING & COVER 1-INCH BELOW EDGE OF PAVEMENT, AND SHALL NOT BE LOCATED WITHIN THE ROADSIDE DITCH.
- PER VDOT FLAGGING SHALL BE USED AT THE CONSTRUCTION ENTRANCES DURING INGRESS AND EGRESS FOR THE ENTIRE DURATION OF CONSTRUCTION.
- ALL APPLICABLE PROVISIONS WITHIN THE VDOT LUP-SP AND LUP-OC MUST BE ADHERED TO AT ALL TIMES.

UTILITY STREAM CROSSING NOTES

- DIVERT WATERCOURSE ONLY AS REQUIRED FOR INSTALLATION OF THE SANITARY SEWER LINE.
- USE DIVERSION CHANNEL LING "TYPE B" AS SHOWN ON VESCH PLATE 3.25-2. SEE SHEET 6 OF 6 FOR ADDITIONAL NOTES AND DETAILS.

MANHOLE DEPTHS		SEWER LINE LENGTHS	
NEW MH 18	8.8'	EX. 7 TO MH 18	84.5'
MH 18	7.3'	MH 18 TO MH 19	125.0'
MH 20	5.5'	MH 19 TO MH 20	139.75'
MH 21	7.1'	MH 20 TO MH 21	48.3'
MH 22	7.7'	MH 21 TO MH 22	230.5'
MH 23	6.8'	MH 22 TO MH 23	76.25'
MH 24	4.1'	MH 23 TO MH 24	167.3'
MH 25	7.2'	MH 24 TO MH 25	82.0'
NEW MH EX. 4	10.8'	MH 25 TO NEW MH (WAS EX. 4)	142.0'

PIPE MATERIALS		
EX. 7 TO MH 18	8" SDR-35 PVC	
MH 18 TO MH 19	8" HDPE DR-17	
MH 19 TO MH 20	8" HDPE DR-17	
MH 20 TO MH 21	8" SDR-35 PVC	
MH 21 TO MH 22	8" SDR-35 PVC	
MH 22 TO MH 23	8" DUCTILE IRON, CONC. ENCASED AS SHOWN	
MH 23 TO MH 24	8" SDR-35 PVC	
MH 24 TO MH 25	8" SDR-35 PVC	
MH 25 TO NEW MH (WAS EX. 4)	8" HDPE DR-17	

GENERAL NOTES

- THE AREA SHOWN ON THESE PLANS IS LOCATED ON OR ABOUT ROANOKE COUNTY TAX ASSESSMENT MAP 086.01-01-04.00-0000.
- OWNER/DEVELOPER: WESTERN VIRGINIA WATER AUTHORITY
801 SOUTH JEFFERSON STREET, SUITE 300
ROANOKE, VA 24011
- TOPOGRAPHY DATA BASED ON SURVEY BY LUMSDEN ASSOCIATES, P.C. APRIL 2006.
- NO CONSTRUCTION CHANGES OR FIELD CHANGES SHALL BE MADE WITHOUT THE APPROVAL OF THE CONSULTING ENGINEER, ROANOKE COUNTY, VDOT, AND THE WESTERN VIRGINIA WATER AUTHORITY.
- ANY NEW ALIGNMENT, CHANGE IN GRADES, ALTERNATE PIPE SIZES OR MANHOLES, AND CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES WILL REQUIRE SUBMISSION OF A NEW SET OF PLANS STAMPED BY THE CONSULTING ENGINEER. PLAN SHEETS MAY BE 8 1/2" X 11" IF ALL INFORMATION IS LEGIBLE.
- ALL CONSTRUCTION AND INSTALLATION, PUBLIC AND/OR PRIVATE, SHALL BE IN ACCORDANCE WITH ROANOKE COUNTY, THE WESTERN VIRGINIA WATER AUTHORITY, AND VDOT STANDARDS AND SPECIFICATIONS.

WESTERN VIRGINIA WATER AUTHORITY GENERAL NOTES

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE WESTERN VIRGINIA WATER AUTHORITY, ROANOKE COUNTY AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION.
- A PRE-CONSTRUCTION CONFERENCE SHOULD BE SCHEDULED WITH ROANOKE COUNTY ENGINEERING DIVISION, AND THE WESTERN VIRGINIA WATER AUTHORITY, TO BE HELD AT LEAST ONE (1) DAY PRIOR TO ANY CONSTRUCTION.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE WESTERN VIRGINIA WATER AUTHORITY, ROANOKE COUNTY AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION INSPECTORS.
- THE DEVELOPER OR CONTRACTOR SHALL SUPPLY THE COUNTY, AND THE WESTERN VIRGINIA WATER AUTHORITY WITH CORRECT AS-BUILT PLANS BEFORE TENTATIVE ACCEPTANCE.
- FIELD CORRECTIONS SHALL BE APPROVED BY THE ROANOKE COUNTY ENGINEERING DIVISION, VDOT, AND THE WESTERN VIRGINIA WATER AUTHORITY PRIOR TO SUCH CONSTRUCTION.

SANITARY SEWER LINE TABLE		
LINE	BEARING	DISTANCE
EX. 7-18	N 163°05' W	179.40'
18-20	N 34°48'21" W	153.08'
20-21	N 28°00'26" E	49.52'
21-22	N 28°00'26" E	215.69'
22-23	N 51°23'41" E	82.83'
23-24	N 12°43'07" E	161.83'
24-25	N 02°09'18" E	79.89'
25-EX. 4	N 61°59'34" W	73.28'
EX. 2-EX. 3	N 57°25'18" W	37.96'

LEGEND		
ITEM	EXISTING	PROPOSED
Pavement	---	---
Concrete curb and gutter	---	---
Storm Drain Line	EX 24" CONC.	8" SDR-35 PVC
Sanitary Sewer Manhole	EX SS	8" SS
Sanitary Sewer Line	---	---
Waterline	W	---
Light Pole	---	---
Overhead Electric Line	EX ONE	ONE
Overhead Telephone Line	EX OHT	OHT
Inter. Curbstone	---	---
Intermittent Curbstone	---	---

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COMMISSIONED BY
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No. 033002
3/13/07
PROFESSIONAL ENGINEER

CANTERBURY PARK SEWER LIFT
STATION REMOVAL PROJECT
PREPARED FOR
WESTERN VIRGINIA WATER AUTHORITY
CAVE SPRING MAGISTERIAL DISTRICT
ROANOKE COUNTY, VIRGINIA

REVISIONS
NO. DATE DESCRIPTION
1 10/21/06 REMOVED SSMH AND PER WESTERN VIRGINIA WATER AUTHORITY
2 04/24/07 REMOVED SET FENCE & NOTES 11 & 12
3 12/11/06 SEWER "AS-BUILT"

DATE: September 29, 2006
SCALE: SCALE 1" = 30'
COMMISSION NO: 2005-203
SHEET 4 OF 6