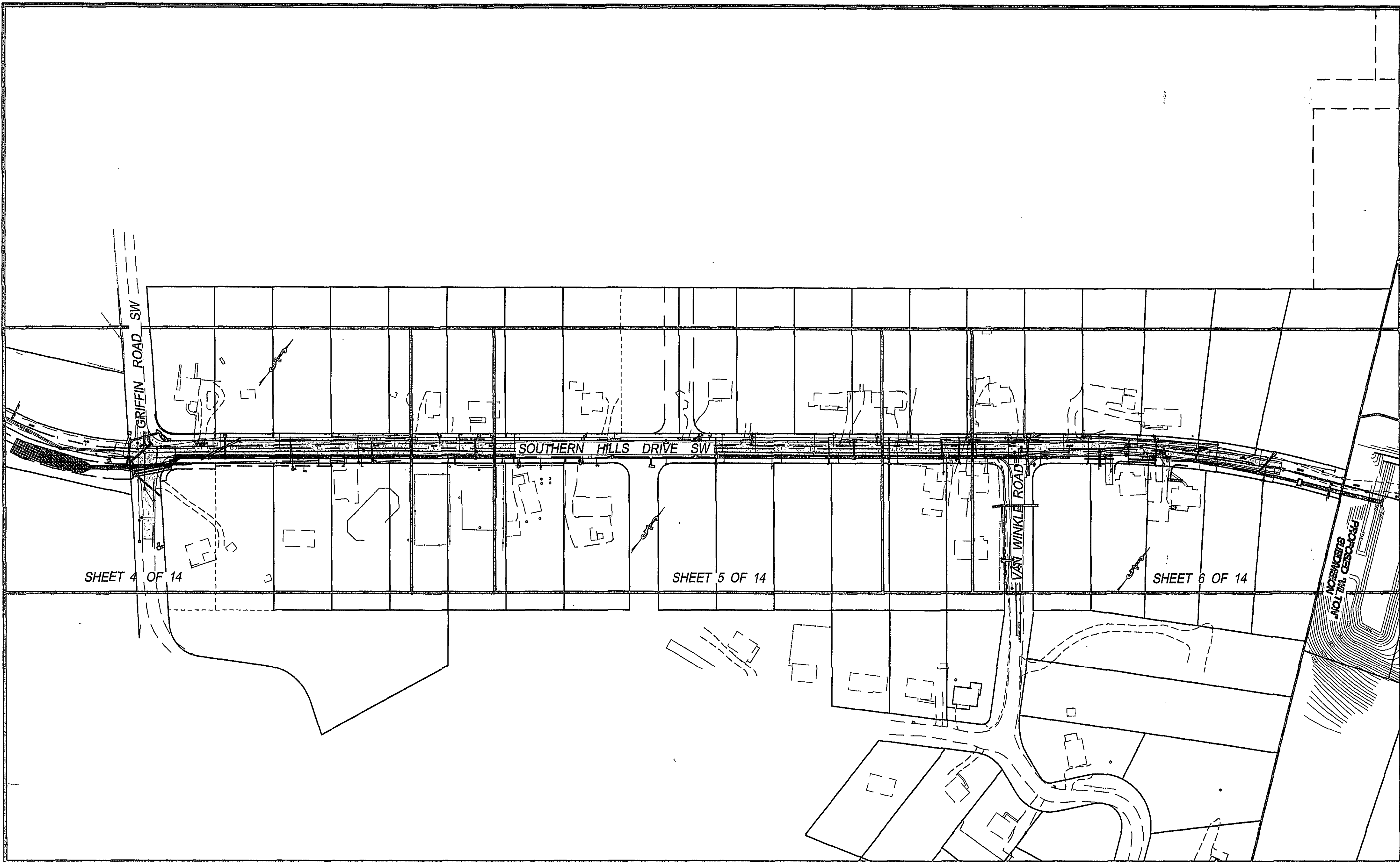


w:\Drawings\2003\03374\eng\ofsite drainage\03374xcomp-fm-hb.dwg

03374xcomp-fm-hb-is.plt



## GENERAL NOTES

- TOPOGRAPHIC DATA OBTAINED FROM AERIAL MAPPING PERFORMED BY MACKENZIE, SNYDER, INC.
- NO SUBSOIL DATA WAS FURNISHED TO THE ENGINEER.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO VERIFY EXISTING CONDITIONS.
- THE LOCATION AND EXISTENCE OF UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON A COMBINATION OF FIELD SURVEY AND EXISTING RECORDS AND ARE FOR INFORMATIONAL PURPOSES ONLY. THESE CONTRACT DOCUMENTS DO NOT GUARANTEE THAT ALL UTILITIES THAT EXIST ARE SHOWN ON THE DRAWINGS OR THAT THOSE THAT ARE SHOWN ARE DEPICTED IN THEIR PROPER LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE THE NECESSARY INVESTIGATIONS TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED TO EXISTING UTILITIES AS A RESULT OF THIS CONSTRUCTION PROJECT. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES INDICATED ON THE DRAWINGS TO REMAIN. THE CONTRACTOR SHALL CONTACT MISS UTILITY (1-800-552-7001) TO VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA PRIOR TO THE START OF CONSTRUCTION. IF EXISTING CONDITIONS ARE DIFFERENT FROM THOSE SHOWN ON THESE DOCUMENTS, CONTACT THE PROJECT ENGINEER.
- ALL WATER AND SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE WESTERN VIRGINIA WATER AUTHORITY'S WATER AND SANITARY SEWER STANDARDS, REGULATIONS, AND DETAILS.
- THE EROSION CONTROL PERMIT IS THE RESPONSIBILITY OF THE CONTRACTOR. TOTAL DISTURBED AREA FOR THE PROJECT IS 3.65 ACRES.
- ALL BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH THE CITY OF ROANOKE RIGHT-OF-WAY EXCAVATION STANDARDS. ALL UTILITIES UNDER PAVEMENT SHALL BE BACKFILLED WITH VDOT 21-A AGGREGATE PLACED IN 6" LOOSE LIFTS NOT EXCEEDING 6" AND COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY WITHIN TWO PERCENTAGE POINTS OF OPTIMUM MOISTURE (UTM-1) WITH THE USE OF MECHANICAL TAMPERS OR VIBRATORY ROLLERS.
- BENCHMARK:  
ARROWHEAD ON EXISTING FIRE HYDRANT  
STATION 09+42.10, 22.33' RIGHT  
ELEVATION = 1148.7656  
NORTHING: 9106.2636, EASTING: 55881.4094

## LEGEND

ITEM	EXISTING	PROPOSED
PAVEMENT	---	---
CURB AND GUTTER	---	---
MANHOLE	15"	15" CONC
STORM DRAIN	8" SD	8" SS
SANITARY SEWER	8" SS	8" SS
WATER LINE	---	---
GATE VALVE	⊗	⊕
FIRE HYDRANT	⊙	⊙
UTILITY POLE	⊙	⊙
GUY WIRE	---	---
LIGHT POLE	⊙	⊙
ELECTRIC LINE - OVERHEAD	---	---
CONTOUR	---1020---	---1020---
FENCE	---	---
CONCRETE	---	---
RIP RAP	---	---

## CONSTRUCTION NOTES

All Landowners, Developers and Contractors

FAILURE TO COMPLY WITH THE CONSTRUCTION PROCEDURE REQUIREMENTS LISTED BELOW MAY RESULT IN THE COSTLY REMOVAL OF STRUCTURES, TIME DELAYS, OR THE ISSUANCE OF A STOP WORK ORDER.

### CONSTRUCTION PROCEDURE REQUIREMENTS

- City inspections:** To ensure the coordination of timely and proper inspections, a preconstruction conference shall be scheduled prior to the issuance of a Land Disturbance Permit. The contractor or developer should be prepared to schedule the meeting when the land disturbance permit is issued.
- Right of Way Excavation Permit:** Prior to the commencement of any digging, alteration, or construction within the public right-of-way (streets, alleys, public easements) a right of way excavation permit shall be applied for and obtained by the contractor from the City of Roanoke.
- Plans and permits:** A copy of the plans approved by the city (signed by the proper City officials) and all permits issued by the City shall be available at the construction site at all times of ongoing construction.
- Location of utilities:** The contractor shall verify the location of all existing utilities prior to the commencement of any construction.
- Construction entrance:** The contractor shall install an adequate construction entrance for all construction-related egress from the site. Size and composition of construction entrance shall be as indicated on plans.
- Streets to remain clean:** It shall be the responsibility of the contractor to insure that the public street adjacent to the construction entrance remains free of mud, dirt, dust, and/or any type of construction materials or litter at all times.
- Barricades/ditches:** The contractor shall maintain the integrity of all excavated ditches and shall furnish and ensure that all barricades proper and necessary for the safety of the public are in place.
- Sewer and pavement replacement:** Installation of sanitary sewers and the replacement of pavement shall be in accordance with the City of Roanoke and the Western Virginia Water Authority standards and specifications.
- Retaining wall permit requirement:** The developer or contractor shall be responsible for obtaining a building permit prior to the commencement of wall construction.
- Approved plans/construction changes:** Any change or variation from construction design as shown on the officially approved plans shall be approved by the Development Engineer prior to said changes or variations in construction being made.
- Final acceptance/city:** The developer or contractor shall furnish the city of Roanoke Planning Department with a final as-built set of plans prior to final acceptance.

## SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
MOBILIZATION	L.S.	LUMP SUM
DEMOLITION	L.S.	LUMP SUM
CLEARING AND GRUBBING	L.S.	LUMP SUM
EARTHWORK, UNCLASSIFIED EXCEPT FOR ROCK	L.S.	LUMP SUM
ROCK	C.Y.	80
TRAFFIC MAINTENANCE	L.S.	LUMP SUM
CONSTRUCTION ENTRANCE	EACH	2
INLET PROTECTION	EACH	28
CULVERT INLET PROTECTION	EACH	2
OUTLET PROTECTION	EACH	2
TEMPORARY DIVERSION DIKES	L.F.	135
SILT FENCE	L.F.	1,260
CONSTRUCTION ROAD STABILIZATION	L.S.	LUMP SUM
ROCK CHECK DAMS	EACH	8
PERMANENT SEEDING	L.S.	LUMP SUM
AGGREGATE BASE COURSE, TYPE 21-A	TONS	2,548
ASPHALTIC CONCRETE PAVEMENT, TYPE BM-25.0	TONS	986
ASPHALTIC CONCRETE PAVEMENT, TYPE SM-9.5A	TONS	667
PAVEMENT TRENCH REPAIRS	L.S.	LUMP SUM
DRIVEWAY REPLACEMENT	EACH	19
STANDARD CITY OF ROANOKE RESIDENTIAL ENTRANCES	EACH	19
CONCRETE CURB AND GUTTER, CG-6	L.F.	3,661
RETAINING WALL	S.F.	1,700
16" CLASS III REINFORCED CONCRETE PIPE	L.F.	204
18" CLASS III REINFORCED CONCRETE PIPE	L.F.	204
24" CLASS III REINFORCED CONCRETE PIPE	L.F.	239
30" CLASS III REINFORCED CONCRETE PIPE	L.F.	90
36" CLASS III REINFORCED CONCRETE PIPE	L.F.	476
42" CLASS III REINFORCED CONCRETE PIPE	L.F.	301
48" CLASS III REINFORCED CONCRETE PIPE	L.F.	275
64" CLASS III REINFORCED CONCRETE PIPE	L.F.	658
60" CLASS III REINFORCED CONCRETE PIPE	L.F.	482
CURB DROP INLETS, TYPE DI-2	EACH	1
CURB DROP INLETS, TYPE DI-3	EACH	8
CURB DROP INLETS, TYPE DI-4	EACH	11
GRATE INLETS, TYPE DI-7	EACH	3
GRATE INLETS, TYPE DI-12 WITH TYPE II GRATE	EACH	6
60" EW-2, WITH ENERGY DISSIPATER	EACH	1
30" END SECTION ES-1	EACH	2
STORM DRAIN MANHOLE, WITH FRAME AND COVER	EACH	6
STORM DRAIN JUNCTION BOX (10' x 8')	EACH	1
EO-3, TYPE A DITCH	S.Y.	277
EO-3, TYPE B DITCH	S.Y.	217
PAVED DITCH	S.Y.	10
RIP RAP DITCH	C.Y.	148
4" DUCTILE IRON WATER LINE	L.F.	37
4" GATE VALVES WITH VAULT	EACH	2
8" DUCTILE IRON WATER LINE	L.F.	446
8" PVC WATER LINE	L.F.	2,106
8" GATE VALVES WITH VAULT	EACH	9
BLOWOFF ASSEMBLY WITH VAULT	EACH	5
SINGLE WATER SERVICE METERS	EACH	22
DOUBLE WATER SERVICE METERS	EACH	6
FIRE HYDRANT ASSEMBLY	EACH	2
8" SANITARY SEWER LINE (PVC SDR-35)	L.F.	622
SANITARY SEWER MANHOLE WITH FRAME AND COVER	EACH	3
SANITARY SEWER SERVICE WITH CLEANOUT	EACH	18
EXISTING SANITARY SEWER MANHOLE ADJUSTMENT	EACH	7
ASBUILT PLANS	L.S.	LUMP SUM

INDEX SHEET,  
SUMMARY OF  
QUANTITIES, AND  
GENERAL NOTES

SOUTHERN HILLS DRIVE ROAD AND  
DRAINAGE IMPROVEMENTS  
PREPARED FOR  
THE CITY OF ROANOKE, VIRGINIA

REVISIONS		DESCRIPTION				
NO.	DATE	1	2	3	4	5

DATE: APRIL 9, 2006

SCALE: 1" = 100'

COMMISSION NO: 2003-374X

SHEET 2 OF 14

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