QUANTITY + COST ESTIMATE QUANTITY UNIT: ' UNIT PRICE . COST . . BONDABLE ITEM 2' TYPE K COPPER VATERLINE 55 LF \$550.00 \$550.00 \$10.00 NEW SANITARY SAMPLING MANHOLE EACH \$600.00 \$600.00 \$600.00 NEW SANITARY SEWER CLEANOUT . EACH \$125.00 \$125.00 \$125,00 6' SDR35 PVC SANITARY SEWER LF \$15.00 \$825,00 \$825.00 \$1,050,00 \$1,050,00 LF \$25.00 15" RCP \$900.00 15' END-SECTION, ES-1 \$450,00 \$900,00 EA CONC. BUMPER BLOCKS EΑ 13 \$75.00 \$975,00 **\$975.00** CENC. CURB, CG-2 277 LF \$3,60L00 \$13.00 \$3,601,00 'HANDICAP RAMP EA \$800.00 \$800.00 \$800.00 i 6' HIGH STUCKADE FENCE 8-IN, BIT, CONC. SURFACE COURSE, TYPE SM-9.5 AL. 1,075 \$16,125.00 S.Y. \$16,125.00 **\$15.00** 6-IN AGGREGATE SUBBASE HATERIAL TYPE 1, SIZE 21A 15-IN BIT, CONC. SURFACE COURSE, TYPE SM-95 AL. 3-IN, ASPHALT CONC. BASE COURSE, VOIT TYPE BH-2 1 164 S.Y. \$25.00 \$4,100.00 \$4,100.00 8-IN AGGREGATE SUBBASE MATERIAL TYPE 1, SIZE 21A STANDARD COMMERCIAL ENTRANCE \$1500.00 |·\$1,500.00 | \$1,500.00 EACH RED MAPLE TREE \$160.00 \$800.00 \$800.00 GREEN ASH TREE \$270.00 \$135.00 \$270,00 EACH RED SPRITE VINTERBERRY 34 \$15.00 **\$510.00** \$510.00 EACH HENRYS GARNET SVEETSPIRE \$25.00 **\$500,00** \$500.00 20 EACH SUB-TOTAL \$ 33,771.00 \$ 3,377,00 10% CONTINGENCY TOTAL \$ 37,148,00 /sturmvater management cost estimate total \$ 5,324,00 \$ 42,472.00 I HEREBY CERTIFY THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT. SIGNED

GENERAL NOTES

All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County, the Vestern Virginia Water Authority, and/or the Virginia Department of

The contractor or developer is required to notify the Roanoke County Engineering Division and the Vestern Virginia Vater Authority in writing at least three (3) days prior to any construction, including, but not limited to the following

- A. Installation of approved erosion control devices
- B. Clearing and grubbing
- C. Subgrade excavation D. Installing storm sewers or culverts
- E. Setting curb and gutter forms
- F. Placing curb and gutter G. Placing other concrete
- H. Placing gravel base
- I Placing any roadway surface
- J. Installing water lines K Installing sanitary sewer lines

A pre-construction conference should be scheduled with the Roanoke County Engineering Division and the Western Virginia Water Authority, to be held at least one (1) day prior to any

Measures to control erosion and siltation must be provided prior to plan approval. Plan approval in no way relieves the developer or contractor of the responsibilities contained within the erosion and siltation control policies.

A permit must be obtained from the Roanoke City, prioir to construction in the highway right-of-way

Plan approval does not guarantee issuance of any permits by Roanoke City.

An approved set of plans and all permits must be available at the construction site,

Field construction shall honor proposed drainage divides as shown on plans.

All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

Pavement sections on approved plans are based on a minimum CBR of 10. CBR tests are to be performed by the engineer and submitted to the Roanoke County Engineering Division prior to placement. CBR values < 10 will require revised pavement sections.

All roadside ditches or grades of more than 5 percent shall be paved with cement concrete to the limits as indicated on the plans and as required at the field inspection.

Location of guard rails shall be determined at a joint field inspection by the County and Roanoke City

All springs shall be capped and piped to the nearest storm sewer or natural watercourse. The pipe shall be 6 inch minimum diameter and conform to V.D.D.T. Standard SB-1

Standard street and traffic control signs shall be erected at each Intersection by the developer prior to final street acceptance.

Construction debris shall be containerized in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site,

The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at all times.

The developer and/or contractor shall supply all utility companies with copies of approved plans, advising them that all grading and Installation shall conform to approved plans.

Contractors shall notify utilities of proposed construction at least

two (2), but not more than ten (10) working days in advance. Area public utilities may be notified thru 'Miss Utility's 1-800-552-7001. The developer or contractor shall supply the county and the Western Virginia Water Authority with correct As-Built plans

before final acceptance All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority, and/or Roanoke City

Field corrections shall be approved by the Roanoke County Engineering Division and the Western Virginia Water Authority prior to

100 year floodway and floodplain information shall be shown where

Grade stakes shall be set for all curb and gutter, culvert, sonltary sewer and storm sewer.

<u>INDEX</u>

SHEET SP-I ROANOKE COUNTY COVER 4 NOTES

SHEET SP-2 SITE LAYOUT, LANDSCAPING & UTILITY PLAN

SHEET SP-8 GRADING, DRAINAGE & EROSION CONTROL PLAN

SHEET SP-4 SITE DETAILS

Inspectors,

SHEET SP-5 ROANOKE COUNTY EROSION 4 SEDIMENT CONTROL DETAILS

PLEASE NOTE THE 2001 GENERAL ASSEMBLY REVISIONS TO VA EROSION & SEDIMENT CONTROL LAW EFFECTIVE JULY 1, 2001, ALL LAND DISTURBING PROJECTS THAT REQUIRE APPROVAL OF AN EROSION AND SEDIMENT CONTROL PLAN, GRADING PERMIT OR CLEARING PERMIT SMALL REQUIRE THAT THE APPLICANT PROVIDE THE NAKE OF AN INDIVIDUAL, WHO WILL BE RESPONSIBLE FOR LAND DISTURBING ACTIVITIES, HOLDING, A RESPONSIBLE LAND DISTURBER CERTIFICATE TO ROANCKE COUNTY. THE RESPONSIBLE LAND DISTURBER CAN BE ANYONE FROM THE PROJECT TEAM OR DEVELOPMENT TEAM HOLDING A RESPONSIBLE LAND DISTURBER CERTIFICATE THAT VILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING DUT THE LAND DISTURBING ACTIVITY FOR THE PROJECT

CERTIFIED LAND DISTURBER CERTIFICATE NUMBER

SEWER NOTES

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering all manholes after paving. Manhole tops shall be adjusted to grade if necessary.

All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with State Water Works Regulations, Section 12.05.03, where lines cross.

House connections are to be made with 4' pige installed at a minimum grade of 1/4 inch to 1 fact in R/V.

Laterals from manholes shall be PVC or Ductile Iron of sufficient length to provide two (2) feet of bearing on natural ground. The transition from ductile iron to asbestos cement or concrete pipe shall be made with an adapter coupling in R/W.

All trenches in existing or future rights-of-way shall be compacted according to V.D.O.T. standards.

Lines shall be staked prior to construction

All sewer facilities are to be installed according to the Western Virginia Water Authority design and construction standards.

WATER NOTES

A ninimum cover of three (3) feet is required over proposed lines. Contractor shall be responsible for locating and uncovering valve vaults after paving and adjustment to final grade if necessary. All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with the State Water Works Regulations, Section 12.05.03, where lines cross

All trenches in existing or future highway right-of-ways shall be compacted according to VD.OT. standards.

Lines shall be staked prior to construction.

Water main shall be minimum Class 52 Ductile Iron in accordance to AVWA CISI or DR-14 PVC in accordance with AVWA C-900

All water facilities are to be installed according to the Western Virginia Water Authority design and construction standards

Contact Jamie Morris at 853-1588 to obtain an availability letter. Availability number 05-213

LEGEND

Property Line	
Right-of-way	— — R/V— — —
Centerline	
Minimum Building Line	
Existing Storm Sewer	18' S.D18' S.D
Existing Sanitory Sewer	OB* SAN
Existing Vater Main	— —4' V— —— —— ———
Existing Contour	— — — — — — — 1045 — — — — — — —
Proposed Contour	1045
Proposed Drainage Divide	
Proposed Limits of Clear	ing
Proposed Storm Sewer	24° S.D.
Proposed Sanitary Sewer	E' NH.
Proposed Vater Kaln	HYDRANT BLOVDEP

NAME OF DEVELOPMENT

MAGISTERIAL DISTRICT(S)

TAX MAP NO(S)_

DWNER (name, address, telephone)

DEVELOPER (name, address, telephone)

ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone)

037 0B-1-2

NEW OFFICE BUILDING

655 COMPUTER TECHNOLOGY

ROANOKE, VIRGINIA 24019

ROANOKE, YRGINIA 24019

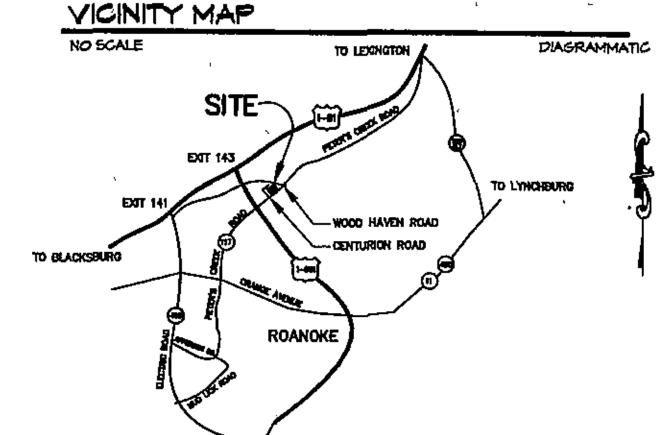
PO BOX 19279

PO BOX 19279

SCOTT & SNYDER SERVICE BUREAU INC.

SCOTT 4 SNYDER SERVICE BUREAU RIC

CATAMBA



HUGHES ARCHITECTS Architecture • Planning • Consulding 658 ELM AVENUE, SW P O BOX 1034 ROANOKE, VIRGINIA 24005-1034

TEL (640) 342-4002 FAX (540) 342-2060

www.HughesArchitects.com

SURVEY INFORMATION

lori	zontal	and	vertic	al co	ontrol	surveys	M61.6	performed	ln _	
v	ROAND	KE CI	YTNUE	g.LS.	INFOR	MATION		•		_

TO ROCKY MOUNT

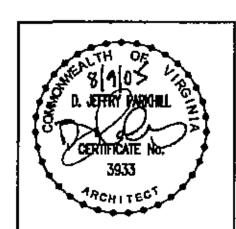
All elevations must be referenced to the National Geodetic Vertical Datum of 1929.

Source of topographic mapping is _	RUANUKE COUNTY	G.I.S. INFORMATION
dated		

Boundary was performed by ______PHILLIP W. NESTER

topographic nappling to be accurate and correct.

The professional seal and signature below certifies the boundary survey and



dated <u>AUGUST 29, 1987</u>

ARCHITECT SEAL AND SIGNATURE

COUNTY OF ROANOKE

CONTACT: TIM SNYDER

CONTACT: TIM SNYDER

Hughes associates architects

656 ELM AVENUE, S.M.

P.O. BOX 1034

ROANOKE, VIRGINIA 24005

BLOCK NO(S)

TEL. 540-962-7686

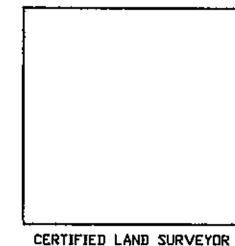
CONTACT MIKE MOOLWINE

(540) 542-4002 TEL.

(540) B42-2060 PAX

PARCEL NO(S)

TEL, 540-362-7686



SEAL AND SIGNATURE

SHEET____

, MILL DEVELOPER, AM AVARE

OF THE SITE DESIGN REQUIREMENTS IMPOSED BY

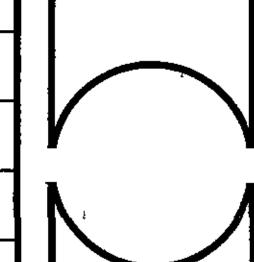
THIS SITE DEVELOPMENT PLAN AND OTHER APP-

LICABLE COUNTY CODES, I HEREBY CERTIFY THAT I AGREE TO COMPLY WITH THESE REQUIREMENTS,

UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.



ROANOKE COUNTY COVER & NOTES



COMMISSION No 04076 SHEET

WVWAID# GTEQN9

COPYRIGHE 2005
HERITS ASSOCIATE AMOUNTS