

# QUANTITY + COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CLEARING AND GRUBBING	19	ACRES	\$2,000	\$38,000	NO
EXCAVATION	298,000	C.Y.	\$3.00	\$894,000	YES
CURB INLET DI-3C	7	EACH	\$1,500	\$10,500	YES
CURB INLET DI-3A	3	EACH	\$1,500	\$4,500	YES
CURB INLET DI-7	4	EACH	\$1,500	\$6,000	YES
MANHOLE MH-1	2	EACH	\$1,500	\$3,000	YES
42-IN. RCP	238	LIN. FT.	\$60.00	\$14,280	YES
30-IN. RCP	937	LIN. FT.	\$45.00	\$42,165	YES
24-IN. RCP	202	LIN. FT.	\$40.00	\$8,080	YES
15-IN. RCP	105	LIN. FT.	\$35.00	\$3,675	YES
30-IN. HDPE	389	LIN. FT.	\$36.00	\$14,004	YES
24-IN. HDPE	600	LIN. FT.	\$30.00	\$18,000	YES
18-IN. HDPE	655	LIN. FT.	\$25.00	\$16,375	YES
15-IN. HDPE	410	LIN. FT.	\$21.00	\$8,610	YES
CURB CG-2	8,350	LIN. FT.	\$15.00	\$125,250	NO
GRAVEL SHOULDER		S.Y.			
SURFACE TREATMENT		S.Y.			
2-IN. BIT. CONC.: TYPE SM-9.5	35,708	S.Y.	\$8.00	\$285,664	NO
-IN. BIT. CONC.: TYPE S-		S.Y.			
8-IN. BASE MATERIAL	7,935	C.Y.	\$30.00	\$238,050	NO
-IN. SUBBASE MATERIAL		C.Y.			
8" WATER LINE	760	LIN. FT.	\$80.00	\$60,800	NO
12" WATER LINE	800	LIN. FT.	\$100.00	\$80,000	NO
FIRE HYDRANT ASSEMBLIES	5	EACH	\$1,500.00	\$7,500	YES
BLOW OFFS W/VAULT, FRAME & COVER		EACH			
-IN. GATE VALVES, W/VAULT, FRAME & COVER		EACH			
-IN. GATE VALVES, W/VAULT, FRAME & COVER		EACH			
8" SANITARY SEWER	1,677	LIN. FT.	\$110.00	\$184,470	NO
STANDARD MANHOLE W/FRAME & COVER	9	EACH	\$1,250	\$11,250	NO
AS-BUILT PLANS	1	LUMP SUM	\$2,000	\$2,000	YES
LANDSCAPING	1	LUMP SUM	\$171,535	\$171,535	YES
STORMWATER MANAGEMENT	1	LUMP SUM	\$176,440	\$176,440	YES
10% CONTINGENCY				\$140,066	YES
ESTIMATED TOTAL				\$1,540,730	

I HEREBY CERTIFY THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT.

SIGNED: *Michael C. White*

DATE: 7-23-07

## GENERAL NOTES

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

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

- Installation of approved erosion control devices
- Clearing and grubbing
- Subgrade excavation
- Installing storm sewers or culverts
- Setting curb and gutter forms
- Placing curb and gutter
- Placing other concrete
- Placing gravel base
- Placing any roadway surface
- Installing water lines
- Installing sanitary sewer lines

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

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 V.D.O.T. Residency Office, Roanoke County, prior to construction in the highway right-of-way.

Plan approval does not guarantee issuance of any permits by V.D.O.T.

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.

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 V.D.O.T.

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.O.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": 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 V.D.O.T. inspectors.

Field corrections shall be approved by the Roanoke County Engineering Division and/or the Western Virginia Water Authority prior to such construction.

100 year floodway and floodplain information shall be shown where applicable.

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

## INDEX

- COVER
- ABBREVIATIONS, LEGEND, AND GENERAL NOTES
- EROSION & SEDIMENT CONTROL DETAILS
- EXISTING SITE AND DEMOLITION PLAN
- PHASE I GRADING AND EROSION CONTROL PLAN
- PHASE II GRADING AND EROSION CONTROL PLAN
- FINAL GRADING PLAN
- UTILITY PLAN
- DIMENSIONAL PLAN
- OFF-SITE IMPROVEMENTS
- CENTERLINE PROFILES
- ELECTRICAL PLAN
- STORMDRAIN PROFILES 1
- STORMDRAIN PROFILES 2
- SANITARY SEWER PROFILES
- WATER PROFILES
- LANDSCAPE PLAN
- LANDSCAPE, SCHEDULE, NOTES AND DETAILS
- WATER AUTHORITY AND SEWER DETAILS
- MISC. DETAILS 1
- MISC. DETAILS 2
- STORMWATER MANAGEMENT DETAILS

## SEWER NOTES

- All sanitary sewer facilities shall be installed according to the Western Virginia Water Authority Design and Construction Standards. (Latest Edition).
- 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 their exact location. The contractor shall comply with (State Water Works Regulations, Section 12.05.03, where lines cross.)
- 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.

## WATER NOTES

- All water facilities shall be installed according to the Western Virginia Water Authority Design and Construction Standards/ (Latest Edition).
- A minimum 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 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 V.D.O.T. standards.
- Lines shall be staked prior to construction.
- Water main shall be minimum Class 350 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.
- Ductile Iron Pipe in accordance with the Western Virginia Water Authority Design and Construction Standards shall be required for all pipe with a working pressure equal to or greater than 100 p.s.i.

Availability letter number 07-235

## ZONING TABULATION TABLE

Tax No. = 50.01-01-05.08  
Zoning: C2  
Legal Description: TR A 1 Valley Gateway Business PK  
Proposed Use: Commercial  
Minimum Lot Size: 15,000 Square feet.  
Lot Size Provided: 18.02 Acres  
Minimum Frontage: 75 Feet on a publicly owned and maintained street  
Maximum Lot Coverage: 90% of Total Lot Area  
Lot Coverage Proposed: 71%  
Maximum Building Coverage: 50% of Total Lot Area  
Building Coverage Proposed: 13%  
Maximum Building Height: 45 Feet  
Proposed Building Height: 39 Feet  
Setback Requirements: Front Yard = 30 feet  
Side Yard = None  
Rear Yard = 15 Feet  
Parking Required: 4.4 Spaces/1,000 Sq.Ft. Retail & 1 Space/5,000 Sq.Ft. Storage  
Kroger = 4.4\*68 + 1\*3 = 302 Spaces Required  
Shops 1&2 = 4.4\*17.8 + 1\*1 = 79 Spaces Required  
Fuel Center = 1 per Employee = 1 Spaces Required  
Total Parking Required: 382 Spaces  
Parking Provided: 448 Regular Spaces, and 11 H/C Spaces = 459 Spaces  
Total H/C Parking Required = 9 H/C Spaces  
Total H/C Parking Provided = 11 H/C Spaces  
Required stacking spaces at Drive-Thru = 3 spaces  
Provided stacking spaces at Drive-Thru = 3 spaces  
Flood Zone: AE, Shaded X, and Unshaded X  
(FEMA map# 51161C0029D dated Oct. 15, 1993)

## SURVEY INFORMATION

Horizontal and vertical control surveys were performed in (year) 2006 by MATTERN & CRAIG

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

Source of topographic mapping is FIELD SURVEY MATTERN & CRAIG dated 08/07/2006

Boundary was performed by MATTERN & CRAIG dated 11/10/2006

The professional seal and signature below certifies the boundary survey and topographic mapping to be accurate and correct.

# COUNTY OF ROANOKE

NAME OF DEVELOPMENT KROGER R-391

MAGISTERIAL DISTRICT(S) VINTON

OWNER (name, address, telephone) F & W PROPERTIES II INC, PO BOX 20069 ROANOKE VA 24018

DEVELOPER (name, address, telephone) F & W PROPERTIES II INC, PO BOX 20069 ROANOKE VA 24018

ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone) LMW, P.C. 102 ALBEMARLE AVE, ROANKE, VA 24013 540-345-0675

TAX MAP NO(S) 50.01

BLOCK NO(S) 01

PARCEL NO(S) 05.08.01.915107

I, *[Signature]* OWNER/DEVELOPER, AM AWARE OF THE SITE DESIGN REQUIREMENTS IMPOSED BY THIS SITE DEVELOPMENT PLAN AND OTHER APPLICABLE COUNTY CODES. I HEREBY CERTIFY THAT I AGREE TO COMPLY WITH THESE REQUIREMENTS, UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.

DEVELOPMENT PLAN  
APPROVED  
FOR CONSTRUCTION  
BY ROANOKE COUNTY

Department Date  
Development Review *[Signature]* 9/5/07  
Engineering *[Signature]* 9/5/07  
Water & Sewer *[Signature]* 9/10/07