

QUANTITY + COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CLEARING AND GRUBBING		ACRES	\$ 1,200.00		
EXCAVATION		C.Y.	2.00		
DI-7	1	EACH	1,000.00	1,000.00	
DI-7A	0	EACH	1,000.00	---	
DI-3A	0	EACH	1,500.00	---	
DI-3B	4	EACH	2,500.00	10,000.00	
DI-3C	1	EACH	2,500.00	2,500.00	
PG-2A	0	LIN. FT.	150.00	---	
15 IN. HDPE	273	LIN. FT.	35.00	9,555.00	
18 IN. HDPE	0	LIN. FT.	42.00	---	
24 IN. HDPE	275	LIN. FT.	52.00	14,300.00	
30 IN. HDPE	0	LIN. FT.	60.00	---	
36 IN. HDPE	0	LIN. FT.	75.00	---	
RIPRAP - CLASS 1	0	C.Y.	40.00	---	
15 IN. CONCRETE END SECTION ES-1	0	EACH	750.00	---	
24 IN. CONCRETE END SECTION ES-1	0	EACH	1,150.00	---	
30 IN. CONCRETE END SECTION ES-1	0	EACH	1,300.00	---	
36 IN. CONCRETE END SECTION ES-1	0	EACH	1,500.00	---	
15 IN. CONCRETE ENDWALL EW-1	0	EACH	1,500.00	---	
STANDARD MANHOLE W/FRAME & COVER	2	EACH	2,000.00	4,000.00	
CONCRETE ENTRANCE CG-9	1	EACH	1,000.00	1,000.00	
CURB & GUTTER CG-6	600	LIN. FT.	12.50	7,500.00	
CURB & GUTTER CG-7	515	LIN. FT.	13.50	6,952.50	
GRAVEL BASE	99	C.Y.	3.50	346.50	
PUBLIC ROADS:					
2 IN. BIT. CONC.: TYPE SM-9.5	205	TON	42.00	8,610.00	
1.5 IN. BIT. CONC.: TYPE SM-9.5D	0	TON	42.00	---	
BASE MATERIAL TYPE BM-25.0	104	TON	40.00	4,160.00	
8 IN. SUBBASE MATERIAL (#21B)	839	TON	12.00	10,068.00	
8" WATER LINE	570	LIN. FT.	35.00	19,950.00	
FIRE HYDRANT ASSEMBLIES	1	EACH	2,500.00	2,500.00	
BLOW OFFS W/VAULT, FRAME & COVER	0	EACH	2,500.00	---	
8 IN. GATE VALVES, W/VAULT, FRAME & COVER	2	EACH	750.00	1,500.00	
5/8" WATER METER - SINGLE SERVICE	2	EACH	500.00	1,000.00	
5/8" WATER METER - DOUBLE SERVICE	6	EACH	600.00	3,600.00	
22 1/2" BEND	0	EACH	500.00	---	
45" BEND	2	EACH	500.00	1,000.00	
TEMPORARY END OF LINE ASSEMBLY	1	EACH	500.00	500.00	
TAPS/CONNECTIONS TO MAIN	2	EACH	2,500.00	5,000.00	
8" SANITARY SEWER	512	LIN. FT.	25.00	12,800.00	
8" SANITARY SEWER SDR-21	0	LIN. FT.	35.00	---	
STANDARD MANHOLE W/FRAME & COVER	4	EACH	2,000.00	8,000.00	
8" S.S.C.O	12	EACH	500.00	6,000.00	
AS-BUILT PLANS	1	LUMP SUM	1,000.00	1,000.00	
STORMWATER MANAGEMENT:		LUMP SUM	5,000.00	5,000.00	
18" R.C.P.	160	LIN. FT.	45.00	7,200.00	
MANHOLE (4' DIA)	1	EACH	1,250.00	1,250.00	
RISER STRUCTURE	1	EACH	5,000.00	5,000.00	
ANTI-SEEP COLLAR	2	EACH	500.00	1,000.00	
8" DUCTILE IRON PIPE	208	LIN. FT.	65.00	13,520.00	
18" END SECTION & RIP RAP	1	LUMP SUM	2,500.00	2,500.00	
SPILLWAY	1	LUMP SUM	1,500.00	1,500.00	
EXCAVATION	12,000	C.Y.	2.00	24,000.00	
LANDSCAPING	1	LUMP SUM	30,000.00	30,000.00	
SUBTOTAL				1,337,541.50	
10% CONTINGENCY				133,754.15	
ESTIMATED TOTAL				\$1,471,295.65*	
I HEREBY CERTIFY THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT.					
SIGNED:	DATE:				

*NOTICE - SEE UPDATED BOND WORKSHEET FOR PHASE I REVISIONS.

* LS = \$ 906,281.00 (w/contingency)
 E&S = \$ 19,105.00 (w/contingency)

GENERAL NOTES

All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County and/or the Virginia 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.

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 V.D.O.T. and 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 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 contractor's 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 "Misc Utility": 1-800-552-7001.

The developer or contractor shall supply the county with correct As-Built plans before final acceptance.

All work shall be subject to inspection by Roanoke County and/or V.D.O.T. inspectors.

Field corrections shall be approved by the Roanoke County Engineering Division 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.

All connections between private and public streets shall be constructed in accordance with VDOT standard CG-11 entrances. Each intersection shall provide VDOT standard CG-12 handicap ramp curb indentations.

No field/construction changes to be constructed without the approval of the Consulting Engineer and Roanoke County.

Any new alignments, changes in grades, alternative pipe sizes or manholes, or ESC measures will require a new set of plans stamped by a Consulting Engineer. Plan sheets can be 8.5"x11" if the information is legible.

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" pipe installed at a minimum grade of 1/4 inch to 1 foot in R/W.

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.

WATER NOTES

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 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 V.D.O.T. standards.

Lines shall be staked prior to construction.

Water main shall be minimum Class 52 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Availability number: 01-232

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in (year) 2001 by MATTERN & CRAIG, INC.

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

Source of topographic mapping is MATTERN & CRAIG AND ROANOKE COUNTY TOPOGRAPHIC MAPPING dated 2001

Boundary was performed by MATTERN & CRAIG, INC. dated 2001

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

TO BE COMPLETED BY DEVELOPER/CONTRACTOR:

I AM CERTIFIED BY THE STATE OF VIRGINIA AS A "RESPONSIBLE LAND DISTURBER". I SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN AS SHOWN.

SIGNATURE: _____
 PRINTED NAME: _____
 CERTIFICATE No: _____
 EXPIRATION DATE: _____
 TELEPHONE No: _____
 ADDRESS: _____

SHEET LIST

- *C-1 Roanoke County Standard Cover Sheet
 - C-2 Abbreviations & Legend
 - C-3 Existing Conditions Plan
 - *C-4 Overall Development Plan
 - *C-4A Phasing Plan
 - C-5 Plan - Area A
 - *C-6 Plan - Area B
 - C-7 Plan - Area C
 - C-8 Grading & Storm Drain Plan - Area A
 - *C-9 Grading & Storm Drain Plan - Area B
 - C-10 Grading & Storm Drain Plan - Area C
 - *C-11 Overall Erosion & Sediment Control Plan
 - *C-11A Erosion & Sediment Control Narrative
 - *C-12 Profile - Street 'A'
 - C-13 Cross Sections - Street 'A'
 - C-14 Profiles - Private Streets 'C' - 'H'
 - *C-15 Profiles - Private Streets 'I' - 'N'
 - C-16 Profiles - Sanitary Sewer
 - C-16A Profiles - Sanitary Sewer
 - C-17 Profiles - Storm Drain
 - *C-18 Profiles - Storm Drain
 - C-19 Profiles - Storm Drain
 - C-20 Stormwater Management Pond - Enlarged Plan
 - C-21 Stormwater Management Pond Details & Sections
 - C-22 Off-Site Improvements - Plantation Road (Va. Rte. 115)
 - *C-23 Pavement Details & Typical Sections
 - *C-24 Roanoke County - Erosion & Sediment Control Details
 - C-25 Roanoke County - Sanitary Sewer Details
 - C-26 Western Virginia Water Authority Details
 - C-27 Off-Site Improvements, Striping, & Signage Plan
- * INDICATES SHEETS IN THIS REVISION SET

NOTICE

THESE PLANS SHOW REVISIONS TO PHASE I OF THE VILLAGE AT TINKER CREEK. THESE PLANS WERE PREVIOUSLY APPROVED BY ROANOKE COUNTY AND VDOT IN AUGUST 2002. A SUBSTANTIAL PORTION OF THE IMPROVEMENTS SHOWN ON THESE PLANS HAS ALREADY BEEN CONSTRUCTED AND IS NOT INTENDED TO BE ALTERED BY THESE PLANS. CERTAIN REFERENCES CONTAINED ON THESE PLANS, SUCH AS TAX MAP NUMBERS, PROPERTY OWNERS, AND LOT CONFIGURATIONS, MAY NO LONGER BE VALID AND ARE SHOWN FOR INFORMATION PURPOSES ONLY OR ARE SHOWN AS THEY WERE APPROVED IN AUGUST 2002.

DEVELOPMENT PLAN APPROVED FOR CONSTRUCTION BY ROANOKE COUNTY	
Department	Date
Development Review	1/16/07
Engineering	1/13/07
Water & Sewer	1/25/07
Planning & Zoning	1/16/07



COUNTY OF ROANOKE

NAME OF DEVELOPMENT: THE VILLAGE AT TINKER CREEK - PHASE I		I, <u>Wm. Thomas Austin</u> , 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.	
MAGISTERIAL DISTRICT(S): HOLLINS			
OWNER:	STAR CITY DEVELOPERS 6101 PLANTATION CIRCLE ROANOKE, VA 24019	TELEPHONE: (540) 563-8302 FAX: (540) 563-8303	
DEVELOPER:	SAME AS ABOVE		
ENGINEER, ARCHITECT OR SURVEYOR:	MATTERN & CRAIG, INC. 701 FIRST STREET, ROANOKE, VA 24016 TELEPHONE: (540) 345-9342, FAX: (540) 345-7691		
TAX MAP NO(S) 027.20-01-39.00, 027.20-01-28, & 027.20-01-32.00 BLOCK NO(S)		PARCEL NO(S)	