

QUANTITY & COST ESTIMATE				
ITEM	QUANTITY	UNIT	UNIT PRICE	COST
EXCAVATION		C.Y.		
YARD DROP INLET		EACH	1,000	
CURB INLET DI-3A		EACH	1,500	
CURB INLET DI-3C		EACH		
OUTLET CONTROL STRUCTURE		EACH	2,500	
MANHOLE MH-1		EACH	1,300	
MANHOLE MH-		EACH		
-IN. CONCRETE PIPE, CLASS IV		LIN. FT.		
-15 -IN. CONCRETE PIPE, CLASS III		LIN. FT.	20	
-24 -IN. CONCRETE PIPE, CLASS III		LIN. FT.	50	
-IN. C.M. CULVERT		LIN. FT.		
PAVEMENT PATCH	189	LIN. FT.	100	18,900
BOX CULVERT		LUMP SUM		
RETAINING WALL		LIN. FT.	40	
RIPRAP - CLASS III		S.Y.	50	
SODDED SWALE		S.Y.		
-IN. CONCRETE ENDWALL EW-		EACH		
18-IN. END SECTION ES-		EACH	600	
CURB CG-2		LIN. FT.	8	
CURB AND GUTTER CG-6		LIN. FT.	12	
VALLEY GUTTER		EACH		
GRAVEL BASE		S.Y.		
GRAVEL SHOULDER		S.Y.		
SURFACE TREATMENT		S.Y.		
-IN. BIT. CONC.: TYPE B-		S.Y.		
2-IN. BIT CONC.: TYPE SM-2A		S.Y.	8	
6 IN. AGGREGATE MATERIAL		S.Y.	12	
-IN. SUBBASE MATERIAL		C.Y.		
CONC. SIDEWALK		S.Y.	8	
TIE TO EX. WATER	1	EACH	500	500
8" WATER LINE	378	LIN. FT.	20	7,560
6" WATER LINE	25	LINE FT.	16	400
FIRE HYDRANT ASSEMBLIES	1	EACH	1,500	1,500
BLOW OFF W/VAULT, FRAME & COVER	1	EACH	600	600
8 -IN. GATE VALVES, W/VAULT, FRAME & COVER	1	EACH	700	700
AUTOMATIC AIR RELEASE VALVE	1	EACH	700	700
2" SERVICE CONNECTION	2	EACH	800	1,600
TIE TO EX. SANITARY	1	EACH	700	700
6" SANITARY SEWER	138	LIN. FT.	18	2,484
8" SANITARY SEWER	275	LIN. FT.	20	5,500
SAN. SERVICE CONN. W/CLEANOUTS	2	EACH	600	1,200
STANDARD MANHOLE W/FRAME & COVER	1	EACH	1,300	1,300
AS-BUILT PLANS	1	LUMP SUM	3,000	3,000
STORMWATER MANAGEMENT		LUMP SUM	19,360	
SUBTOTAL				\$46,644
10% CONTINGENCY				\$4,664
ESTIMATED TOTAL				\$51,308
I HEREBY CERTIFY THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT.				
SIGNED: <i>[Signature]</i> DATE: <i>[Date]</i>				

### GENERAL NOTES

ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CONSTRUCTION STANDARDS AND SPECIFICATION OF ROANOKE COUNTY, WESTERN VIRGINIA WATER AUTHORITY (WVWA), AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION.

THE CONTRACTOR OR DEVELOPER IS REQUIRED TO NOTIFY THE ROANOKE COUNTY ENGINEERING DIVISION AND WVWA 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 AND WVWA, 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 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 WVWA WITH CORRECT AS-BUILT PLANS BEFORE FINAL ACCEPTANCE.

ALL WORK SHALL BE SUBJECT TO INSPECTION BY ROANOKE COUNTY, WVWA, AND/OR V.D.O.T. INSPECTORS.

FIELD CORRECTIONS SHALL BE APPROVED BY THE ROANOKE COUNTY ENGINEERING DIVISION AND WVWA 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.

### 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.

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 WVWA DESIGN AND CONSTRUCTION STANDARDS.

### 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.

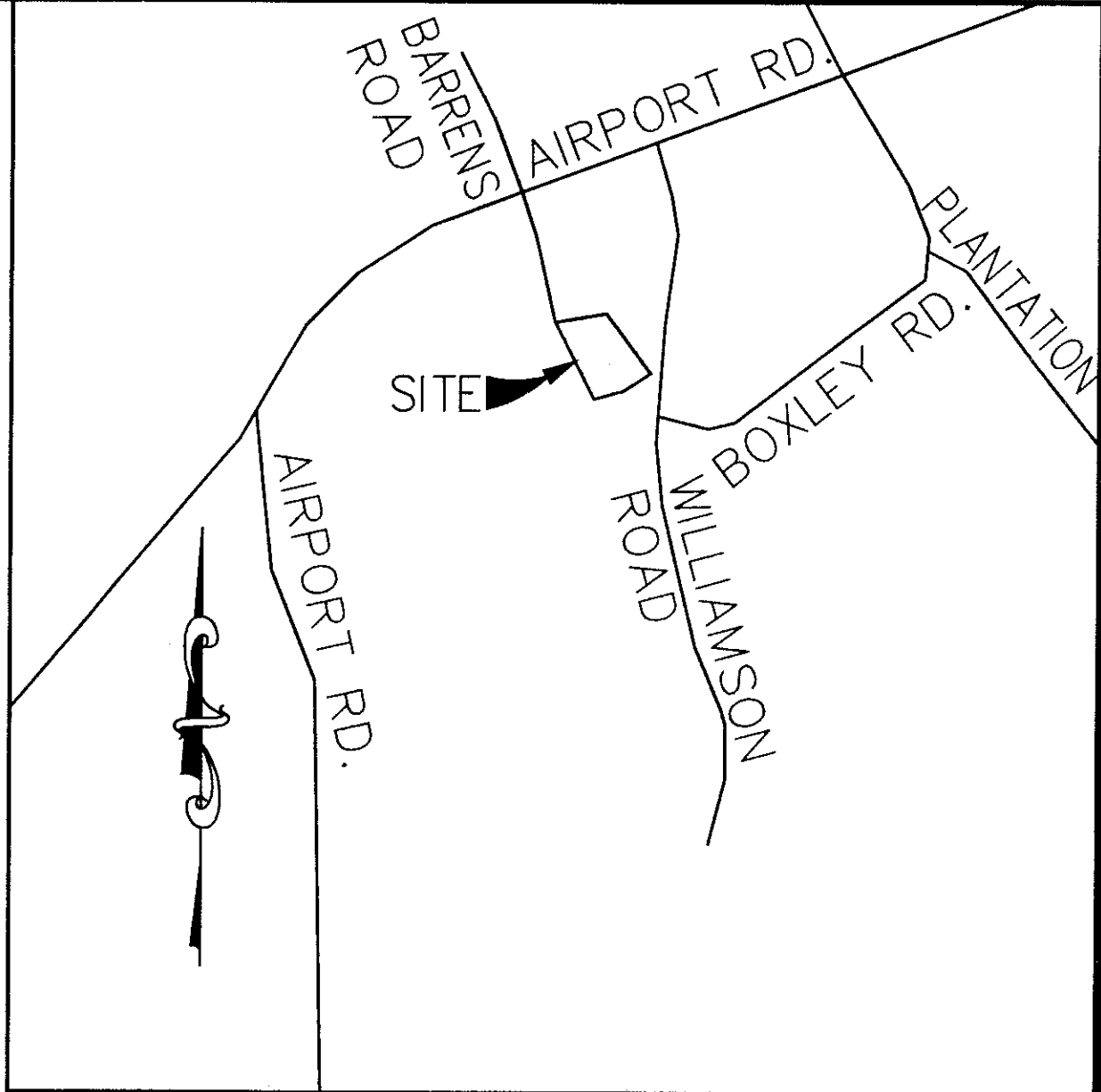
WATER MAIN SHALL BE MINIMUM CLASS 52 DUCTILE IRON IN ACCORDANCE TO AWWA C151 OR DR-14 PVC IN ACCORDANCE WITH AWWA C-900.

AVAILABILITY NUMBER FOR PROJECT: CALL JAMIE MORRIS AT 540-853-1588 TO CONFIRM WATER AND SEWER AVAILABILITY AND TO SUBMIT A NEW APPLICATION IF REQUIRED.

ALL WATER FACILITIES ARE TO BE INSTALLED ACCORDING TO THE WVWA DESIGN AND CONSTRUCTION STANDARDS.

### SHEET INDEX

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4	GRADING PLAN
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6	UTILITY PROFILES
7	LANDSCAPE PLAN
8	GENERAL DETAILS AND EROSION AND SEDIMENT CONTROL NARRATIVE
9	EROSION AND SEDIMENT CONTROL DETAILS
10	SEWER DETAILS
11	WATER DETAILS



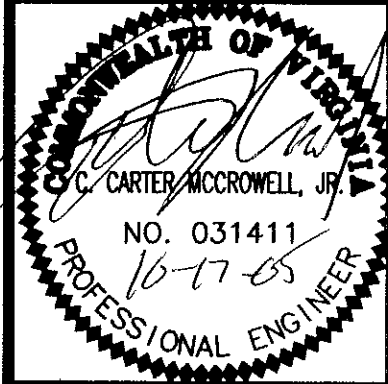
VICINITY MAP  
SCALE : 1" = 1000'

SITE IMPROVEMENT ASSOCIATES, INC.

Civil Engineers & Site Contractors  
168 Business Park Drive, Suite 100  
Virginia Beach, Va. 23462

PHONE # (757) 671-9000 FAX (757) 671-9288

SIA



COVER SHEET FOR  
PETERS CREEK APARTMENTS  
PHASE II  
HOLLINS MAGISTERIAL DISTRICT  
ROANOKE COUNTY, VIRGINIA

## COUNTY OF ROANOKE

NAME OF DEVELOPMENT	PETERS CREEK APARTMENTS (PHASE III)	I, _____ 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 MAGISTERIAL DISTRICT	
OWNER (NAME, ADDRESS, TELEPHONE)	PETERS CREEK ASSOCIATES, L.P. 167 WEST LANDING WILLIAMSBURG, VIRGINIA 23185	PHONE: (757) 220-6628 FAX: (757) 220-6828
DEVELOPER (NAME, ADDRESS, TELEPHONE)	CASTLE DEVELOPMENT CORPORATION 167 WEST LANDING WILLIAMSBURG, VIRGINIA 23185	PHONE: (757) 220-6628 FAX: (757) 220-6828
ENGINEER, ARCHITECT OR SURVEYOR (NAME, ADDRESS, TELEPHONE)	SITE IMPROVEMENT ASSOCIATES, INC. 168 BUSINESS PARK DR. VIRGINIA BEACH, VIRGINIA 23462	PHONE: (757) 671-9000 FAX: (757) 671-9288

TAX MAP NO(S) 27-14-2-7.1 BLOCK NO(S) 4 AND 2 PARCEL NO(S) 13 AND PORTION OF 7

JOB # 05184

DWG FILE: 01-COVER

DATE: 07-24-05

SCALE: AS SHOWN

SHEET NUMBER

1 OF 11