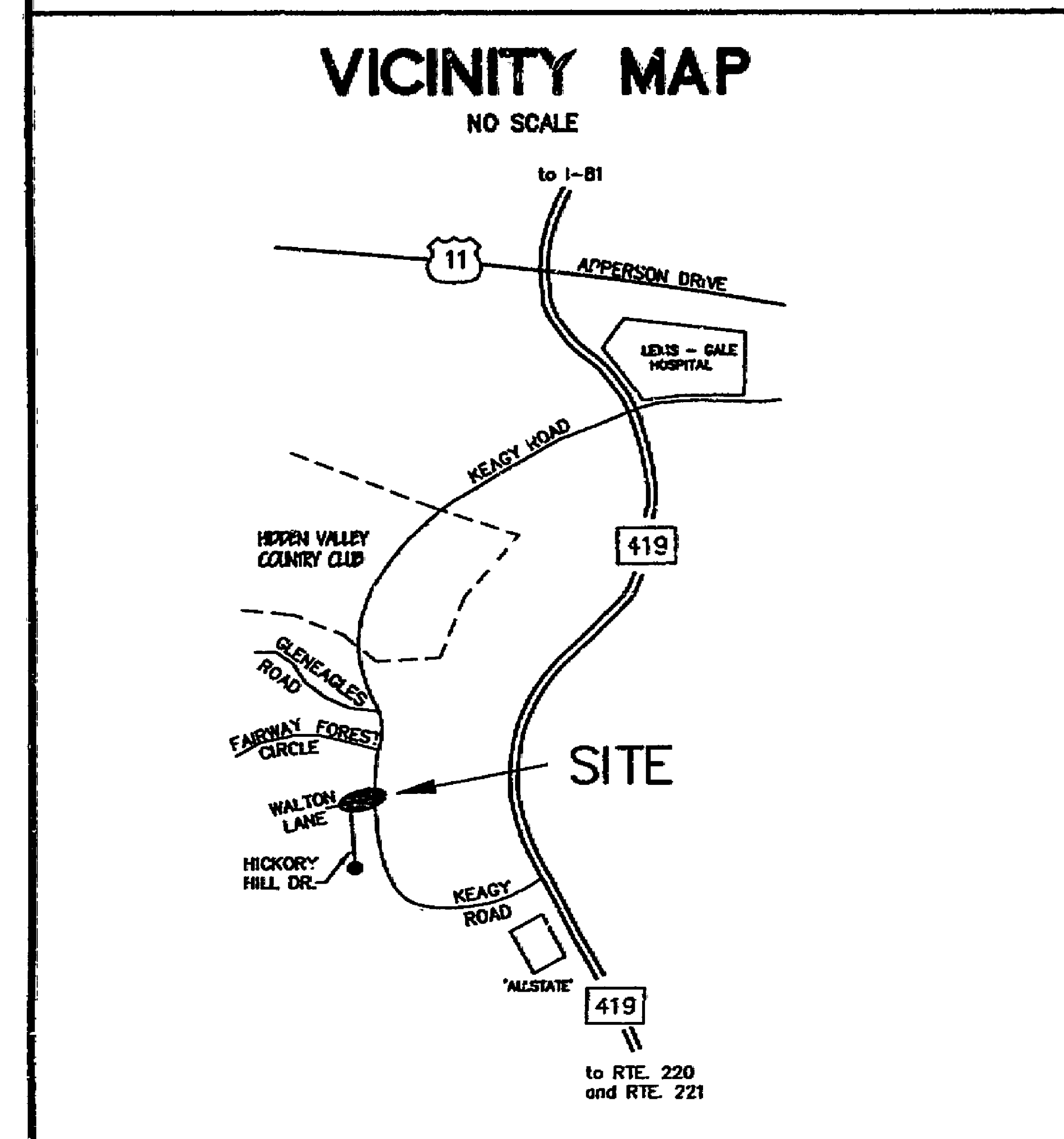


QUANTITY AND COST ESTIMATE				
Item	Quantity	Unit	Unit Price	Bondable Cost
CLEARING AND GRUBBING		ACRES		
EXCAVATION		CY		
EMBANKMENT		CY		
CURB INLET DI-		EACH		
CURB INLET DI-		EACH		
MANHOLE MH-		EACH		
MANHOLE MH-		EACH		
-IN. CONCRETE PIPE, CLASS		LF		
-IN. CONCRETE PIPE, CLASS		LF		
-IN. C.M. CULVERT		LF		
-IN. C.M. CULVERT		LF		
BOX CULVERT		LS		
PAVED DITCH		LF		
RIPRAP-CLASS		SF		
SONDED SWALE		SY		
-IN. CONCRETE ENDWALL, EW-		EACH		
-IN. END SECTION, ES-		EACH		
DRIVEWAY, ENTRANCE TYPE		EACH		
SIDEWALK, -FT. WIDE		LF		
HEADER CURB & GUTTER, CG-		LF		
CURB & GUTTER, CG-		LF		
VALLEY GUTTER		EACH		
PAVEMENT DESIGN				
CATEGORY		SY		
CATEGORY		SY		
STREET SIGNS		EACH		
-IN. WATER LINE		LF		
-IN. WATER LINE		LF		
FIRE HYDRANT ASSEMBLIES		EACH		
BLOW-OFFS w/VAULT, FRAME & COVER		EACH		
-IN. GATE VALVES w/VAULT, FRAME & COVER		EACH		
-IN. GATE VALVES w/VAULT, FRAME & COVER		EACH		
SERVICE CONNECTIONS		EACH		
MISCELLANEOUS FITTINGS		EACH		
6 -IN. SANITARY SEWER	143.3	LF	15	2150.00
-IN. SANITARY SEWER		LF		
STD. MANHOLE w/FRAME & COVER	1	EACH	1500	1500.00
SERVICE CONNECTIONS w/CLEANOUTS	1	EACH	350	350.00
PAVEMENT RESTORATION	24	SY	10	240.00
AS-BUILT PLANS		LS		250.00
SUBTOTAL				4490.00
CONTINGENCY				450.00
ESTIMATED TOTAL				4940.00
				3440.00



GENERAL NOTES				
ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF ROANOKE CO. AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION.				
THE CONTRACTOR OR DEVELOPER IS REQUIRED TO NOTIFY THE ROANOKE CO. ENGINEERING DIVISION 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. PLACING GRAVEL BASE.				
E. PLACING ANY ROADWAY SURFACE.				
F. INSTALLING SANITARY SEWER LINES.				
A PRECONSTRUCTION CONFERENCE SHOULD BE SCHEDULED WITH THE ROANOKE COUNTY ENGINEERING DIVISION, TO BE HELD AT LEAST ONE DAY PRIOR TO ANY CONSTRUCTION.				
MEASURES TO CONTROL EROSION AND SILTATION MUST BE PROVIDED FOR PRIOR TO PLAN APPROVAL. PLAN APPROVAL IN NO WAY RELIEVES THE DEVELOPER OR CONTRACTOR OF THE RESPONSIBILITIES CONTAINED IN EROSION AND SILTATION CONTROL POLICIES.				
A PERMIT MUST BE OBTAINED FROM THE VDOT RESIDENCY OFFICE, SALEM PRIOR TO CONSTRUCTION IN THE HIGHWAY RIGHT OF WAY.				
PLAN APPROVAL DOES NOT GUARANTEE THE ISSUANCE OF ANY PERMITS BY VDOT.				
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.				
PAVEMENT SECTIONS ON APPROVED PLANS ARE BASED ON A MINIMUM CBR OF 10. CBR TESTS ARE TO BE ACQUIRED BY THE OWNER AND SUBMITTED TO THE VDOT AND TO THE COUNTY ENGINEERING DIVISION PRIOR TO PLACEMENT. CBR VALUES LESS THAN 10 WILL REQUIRE REVISED PAVEMENT SECTIONS.				
CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AT THE JOB SITE.				
CONSTRUCTION DEBRIS SHALL BE CONTAINED 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.				
CONTRACTORS SHALL NOTIFY UTILITIES OF PROPOSED CONSTRUCTION AT LEAST TWO, BUT NOT MORE THAN TEN WORKING DAYS IN ADVANCE. AREA PUBLIC UTILITIES MAY BE NOTIFIED THROUGH MISS UTILITY AT (800) 552-7001.				
THE DEVELOPER OR CONTRACTOR SHALL PROVIDE THE COUNTY WITH CORRECT AS-BUILT PLANS BEFORE FINAL ACCEPTANCE.				
ALL WORK SHALL BE SUBJECT TO INSPECTION BY ROANOKE CO. AND/OR VDOT INSPECTORS.				
FIELD CORRECTIONS SHALL BE APPROVED BY THE ROANOKE COUNTY ENGINEERING DIVISION PRIOR TO SUCH CONSTRUCTION.				
LOCATION OF UNDERGROUND UTILITIES IS BASED ON FIELD SURVEYS, AS SHOWN BY AVAILABLE RECORDS, AND AS LOCATED BY THE UTILITY LOCATOR SERVICE. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.				
THE SITE WORK AND LANDSCAPING CONTRACTOR(S) SHALL COMPLY WITH LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES, BOTH ON AND OFF THE SITE. REFER TO THE VIRGINIA UNIFORM CODING SYSTEM CONTAINED IN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION, FOR DETAILS AND SPECIFICATIONS OF EROSION CONTROL ITEMS SHOWN ON THESE PLANS.				

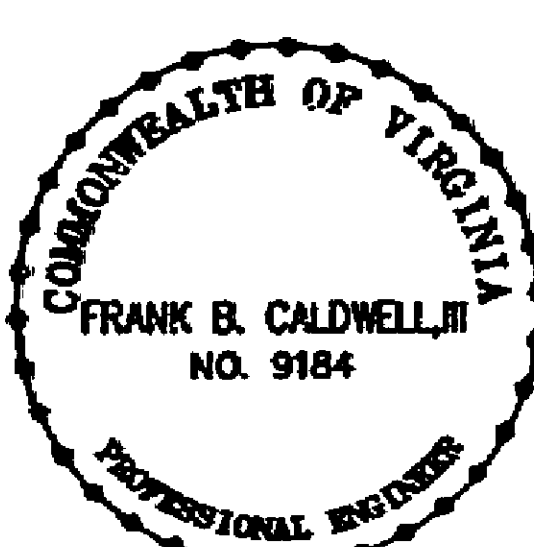
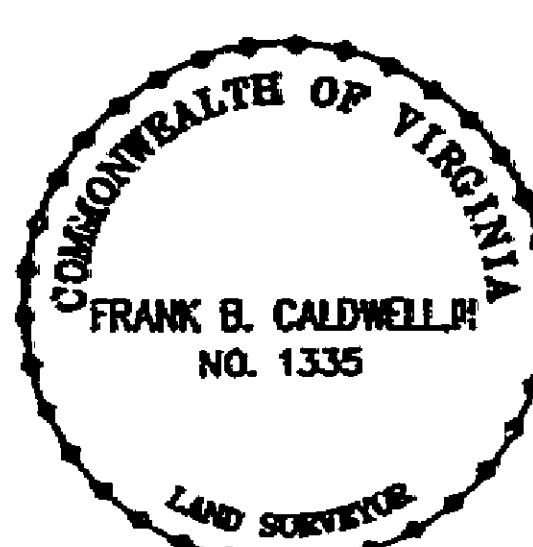

SEWER NOTES				
A MINIMUM COVER OF THREE (3) FEET IS REQUIRED OVER PROPOSED LINES.				
CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND UNCOVERING ALL MANHOLES AFTER PAVING. MANHOLE TOPS SHALL BE ADJUSTED TO GRADE.				
ALL EXISTING UTILITIES MAY NOT BE SHOWN, OR MAY NOT BE SHOWN IN THE EXACT LOCATION. 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 ON A MINIMUM GRADE OF 1/4 INCH TO 1 FOOT IN THE RIGHT OF WAY.				
ALL TRENCHES IN EXISTING OR FUTURE HIGHWAY RIGHT OF WAYS SHALL BE COMPACTED ACCORDING TO VIRGINIA DEPT. OF TRANSPORTATION STDs.				
LINES SHALL BE STAKED PRIOR TO CONSTRUCTION.				
IF NECESSARY.				

ENGINEER'S NOTES				
T.P. PARKER & SON ASSUMES NO RESPONSIBILITY FOR ADEQUACY OF PLANS OR FOR INFORMATION ON PLANS UNTIL SUCH PLANS HAVE BEEN APPROVED BY THE REQUIRED PUBLIC AGENCIES.				
ANY WORK COMMENCED ON A PROJECT PRIOR TO PLAN APPROVAL IS AT SOLE RISK OF THE DEVELOPER.				
T.P. PARKER & SON DOES NOT GUARANTEE THE COMPLETION OR QUALITY OF PERFORMANCE OF THE CONTRACTS OR THE COMPLETION OR QUALITY OF PERFORMANCE OF CONTRACTS BY SUBCONTRACTORS OR OTHER THIRD PARTIES.				
SOURCE OF TOPOGRAPHIC MAPPING IS: T.P. PARKER & SON				
DATED: NOVEMBER 19, 1993				
BOUNDARY SURVEY WAS PERFORMED BY: T.P. PARKER & SON				
DATED: NOVEMBER 19, 1993				

REVISIONS				
No.	Date	Remarks	By	
1	2-7-94	PER ROANOKE COUNTY'S 1-24-94 REVIEW LETTER	JJ	

SHEET INDEX				
SHEET #	TITLE			
1	COVER SHEET			
2	PLAN & PROFILE			
3	SANITARY SEWER DETAILS			

LEGEND				
ABBREVIATIONS		EXISTING		NEW
A/HF	ARROW HEAD TOP OF	MIN	MINIMUM	100 S E
APPROX	APPROXIMATE	NBL	NORTH BOUND LANE	100 S E
ASPH	ASPHALT	PROP	PROPOSED	100 S E
BC	BOTTOM OF CURB	PUE	PUBLIC UTILITY EASEMENT	100 S E
BIT	BITUMINOUS	PWT	PAVEMENT	100 S E
BLDG	BUILDING	R	RADIUS	100 S E
BLK	BLOCK	RT	RIGHT	100 S E
BM	BENCHMARK	R/W	RIGHT OF WAY	100 S E
BW	BOTTOM OF WALL	REQD	REQUIRED	100 S E
CB	CINDER BLOCK	RR	RAILROAD	100 S E
CAG	CURB & GUTTER	RYS	REAR YARD SETBACK	100 S E
CMP	CORRUGATED METAL PIPE	SAN	SANITARY	100 S E
CONC	CONCRETE	SBL	SOUTH BOUND LANE	100 S E
COR	CORNER	SD	STORM DRAIN	100 S E
DBL	DOUBLE	SECT	SECTION	100 S E
DEFL	DEFLECTION	SE	SLOPE, EASEMENT	100 S E
DI	DROP INLET	SS	SANITARY SEWER	100 S E
DIA	DIAMETER	SSE	SANITARY SEWER EASEMENT	100 S E
DE	DRAINAGE EASEMENT	STA	STATION	100 S E
EBL	EAST BOUND LANE	STD	STANDARD	100 S E
ELEC	ELECTRIC	STO	STORAGE	100 S E
ELEV	ELEVATION	SYS	SIDE YARD SETBACK	100 S E
ENTR	ENTRANCE	TBM	TEMPORARY BENCHMARK	100 S E
EP	EDGE OF PAVEMENT	TC	TOP OF CURB	100 S E
EW	EXISTING	TEL	TELEPHONE	100 S E
EXST	EXISTING	TRANS	TRANSFORMER	100 S E
FDN	FOUNDATION	TW	TOP OF WALL	100 S E
FF	FINISHED FLOOR	TYP	TYPICAL	100 S E
HPT	HIGH POINT	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION	100 S E
IP	INVERT	VERT	VERTICAL	100 S E
IP	IRON PIN	WBL	WEST BOUND LANE	100 S E
LT	LEFT	YD	YARD	100 S E
MBL	MINIMUM BUILDING LINE			100 S E
MH	MANHOLE			100 S E

NAME OF DEVELOPMENT		SANITARY SEWER EXTENSION	
LOCATION		KEAGY ROAD & WALTON LANE ROANOKE COUNTY, VIRGINIA	
OWNER		DR. NELSON B. GREENE	
DEVELOPER		DR. NELSON B. GREENE	
TAX NUMBER 67.17-01-02		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.	
		 TPP&S ENGINEERS SURVEYORS PLANNERS	
		T. P. PARKER & SON 816 Boulevard Post Office Box 39 Salem, Virginia 24153 Telephone: 703-387-1153 FAX: 703-389-5767	