TITHAUY	Y & COST	E2 I IMIA I	<u>E</u> .			GENERAL NUIES
ITEM	QUANTITY		UNIT PRICE	COST	BONDABLE	All construction methods and materials shall conform to the Construction Standards and Specific
EARING AND GRUBBING		LS LS	8000 8000	2000 8000	2,000 8,000	Roanoke County and/or The Virginia Department of Highways and Transportation.
CALATION VBANKMENT		CY	3000	0000	9,555	The contractor or developer is required to notify the Roanoke County Engineering Division in v
AND ALINE A				<del></del>		least three (3) days prior to any construction, including but not limited to the following:  A installation of approved erosion control devices.
- ILET LI- 7 TYPE III GRATE	4	EACH	800	37.00	3200	B Clearing and grubbing C Subgrade excavation
E7 [ -		EACH				D installing storm sewers or culverts  E Setting curb and gutter forms
						F Placing curb and gutter
Hr_E MH -	<u>-</u>	EACH	600	600	600	G Placing other concrete H Placing gravel base
HCLE MH-	<del>`</del>	EACH				i Placing any roadway surface Unstalling water lines
						K Installing santary sewer tines
				<u> </u>		A preconstruction conference should be scheduled with the Roanoke County Engineering Division,
N CONCRETE PIPE, CLASS III	376	LIN FT	15	5460	5460	held at least one day prior to any construction
- N CONGRETE PIPE, CLASS IV		LIN FT				Measures to control erosion and siltation must be provided for prior to plan approval. Plan ap no way relieves the developer or contractor of the responsibilities contained in erosion and si
						control policies.
			· · · · · · · · · · · · · · · · · · ·			A permit must be obtained from the VD.H. G.T. Residency Office, Roonoke County, prior to o
N C M CULVERT		LIN FT				in the highway Right of - Way
IN CH CULVERT		LIN FT				Plan approval does not guarantee issuance of any permits by V.D.H.B.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.
CHART		LUMP SUM				All unsuitable material shall be removed from the construction limits of the roadway before pl
CULVERT						embankment
VE CITCH PG-4	155	LIN FT	12	1860	1860	Pavement sections on approved plans are based on a min CBR of 10 CBR tests are to be by the engineer and submitted to the V.D.H.S.T. and to the Roanoke County Engineering (
EU-1	<u> </u>		600	600	600	prior to placement CBR values < 10 will require revised pavement sections
PRAP - EC-I TYPE B	10	SY	35	<u>350</u>	350	All roadside ditches or grades of more than 5% shall be paved with cement concrete to
DED SWALE		S.Y				limits indicated on the plans and as required at the field inspection.
OFD SWALE		***	· · · · · · · · · · · · · · · · · · ·			Location of guard rails shall be determined at a joint field inspection by the county and
N CONCRETE ENDWALL EW-		EA				V.DH & T.
						All springs shall be capped and piped to the nearest storm sewer or natural water course. The pipe shall be 6" min dia and conform to V.D.H 8iT standard S8-1.
				<u></u>	<del>  </del>	Standard street and traffic control signs shall be erected at each intersection by the devel
"N END SECTION ES-		EA			<del></del>	prior to final street acceptance.
					<del> </del>	Construction debris shall be containerized in accordance with the Virginia Litter Control A
VE WAY, ENTRANCE TYPE		EACH				No less than one litter receptacle shall be provided on site
Te way, but the sace of the						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 t
EWALK, - FT WIDE		LIN, FT				streets are in a clean, mud and dust free condition at all times.
A., - FT WIDE		IN FT				The developer and/or contractor shall supply all utility companies with copies of approved
					<del> </del>	advising them that all grading and installation shall conform to approved plans.
ADER JURB & GUTTER CG -	<del> </del>	LIN. FT			<del> </del>	Contractors shall notify utilities of proposed construction at least two, but not more than tellin advance. Area public utilities may be notified thru. Miss Utility: (800) 552-7001.
ALLY GUTTER CG-		EA	<del></del>	<del> </del>	<del>                                     </del>	The developer or contractor shall supply the county with correct As-Built plans before final of
AVEL BASE		S.Y				
ITI PAVEMENT & BASE	1,080	5.Y.	6	8640	8,640	All work shall be subject to inspection by Roanoke County and/or V.D.H. B.T. inspectors.
RAVEL SHOULDER		ŞY		<u> </u>	<u> </u>	Field corrections shall be approved by the Roanoke County Engineering Division prior to such constr
REACE TREATMENT		S.Y			<del>                                     </del>	100 year floodway and flood plain shall be shown where applicable
IN BIT CONC TYPE 8-		S.Y S.Y		<del> </del>	-	Grade stakes shall be set for all curb & gutter, culvert, sanitary sewer and storm sewer.
IN BASE MATERIAL		C.Y		<del> </del>	<del></del>	
IN SUBBASE MATERIAL	<u> </u>	CY		<u> </u>		•
AT III PAVEMENT & BASE	2700	5.Y.	11	29700	29,700	
REET SIGNS		EA	<u> </u>		<del> </del>	
HAFFIC BARRICADE		EA	1000	15000	15 000	
PUMP STATION	<del> </del>	LS EA	15000	15000	15,000	
IPES AS SHOWN ON PLAT	<u> </u>	EA	<del> </del>	<del>†</del>	<del>                                     </del>	
STORAGE TANK	<del> </del>	LS	45000	45000	.45,000	
4" - IN WATER LINE	300	LIN FT	9	2700	- 2.700	
6" - N WATER LINE	2, 300	LIN FT	10	23000	-23,000	
- IN WATER LINE	ļ	LIN FT	100	100	400	
AIR RELEASE ASSEMBLY	1	ļ <u>.</u>	1400	1400	- 400 - 1,400	
FIRE HYDRANT ASSEMBLIES		EA.	400	400	. 400	
BLOW OFFS W/VAULT, FRAME & COVER  4 -IN GATE VALVES W/VAULT, FRAME & COVER	3	EA.	550	1650	. 1,650	
6 -IN GATE VALVES W/VAULT, FRAME & COVER	8	EΑ	650	5200	- 5.200	
-IN GATE VALVES W/VAULT, FRAME & COVER		EA				
SERVICE CONNECTIONS		EA				
DOUBLE SERVICE	10	<del> </del>	400	4000	- 4,000	
DOUBLE SERVICE	2	, , , , , , , , , , , , , , , , , , , ,	300	25800	25,800	
SINGLE SERVICE		LIN FT	13	1.3000	23,000	
SINGLE SERVICE  8" -IN SAN SEWER	J.720		<del>                                     </del>		1	
SINGLE SERVICE	J. (20	LIN FT	1		6,390	
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER	71		90	6390		
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER	7 <u>1</u>	LIN FT	150	1350	1,350	
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER  MANHOLE BARREL	71	LIN FT				
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER  MANHOLE BARREL  STD MANHOLE W/FRAME & COVER	7 <u>1</u>	LIN FT V.F. EA	150	1350	1,350	
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER  MANHOLE BARREL  STD MANHOLE WYFRAME & COVER  SERVICE CONNECTIONS WY CLEANOUTS	7 <u>1</u>	LIN FT V.F. EA EA	150	1350	1,350	
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER  MANHOLE BARREL  STD MANHOLE W/FRAME & COVER  SERVICE CONNECTIONS W/ CLEANOUTS  AS-BUTET PLANS	7 <u>1</u>	LIN FT V.F. EA	150	1350	1,350	
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER  MANHOLE BARREL  STD MANHOLE W/FRAME & COVER	7 <u>1</u>	LIN FT V.F. EA EA	150	1350	1,350- 2,100- 195,400 19,540	
SINGLE SERVICE  8" -IN SAN SEWER  -IN SAN SEWER  -IN SAN SEWER  MANHOLE BARREL  STD MANHOLE W/FRAME & COVER  SERVICE CONNECTIONS W/ CLEANOUTS  AS-BURET PLANS  TOTAL	7 <u>1</u>	LIN FT V.F. EA EA	150	1350	1,350 2,100 195,400	

## GENERAL NOTES

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

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  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

- preconstruction conference should be scheduled with the Roanake County Engineering Division, to be eld 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 way relieves the developer or contractor of the responsibilities contained in erosion and siltation
- permit must be obtained from the VD.H.B.T. Residency Office, Roonoke County, prior to construction the highway Right of Way
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- All springs shall be capped and piped to the nearest storm sewer or natural water course. The pipe shall be 6" min dia and conform to V.D.H & 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
- 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, but not more than ten working
- Grade stakes shall be set for all curb & gutter, culvert, sanitary sewer and storm sewer.

## SURVEY INFORMATION

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

Source of topographic mapping is AFRIAL PHOTOGRAPHY Boundary survey was performed by <u>BUFORO T. LUMSDEN & ASSOCIATES, P.C.</u>
dated <u>SEPT 1979</u>

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

## 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 the exact location. The contractor shall comply with State Water Works Regulations, Section 12 05.03, where

All trenches in existing or tuture highway right of ways shall be compacted according to V.D.H & T. standards.

Lines shall be staked prior to construction Water mains shall be class 50 min., ductile iron pipe.



## 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 paying

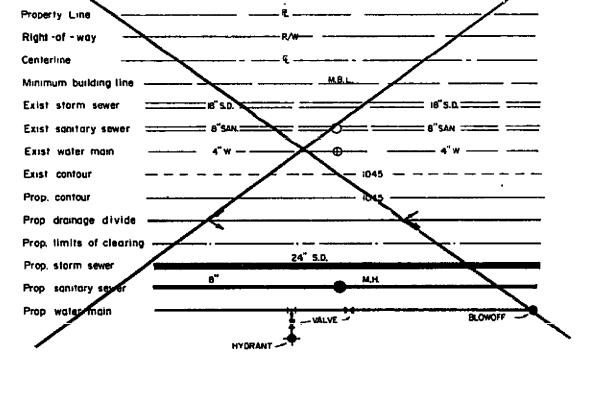
Manhole tops shall be adjusted to grade if necessary. All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with State Water Works Regulations, Section 12.05.03, where lines cross.

House connections are to be made with 4" pipe installed on a minimum grade of 1/4 inch

Laterals from manholes shall be PV.C. 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 pips shall be made with an adapter coupling in R/W

All trenches in existing or future highway right of ways shall be compacted according

to V.D.H. & T standards. Lines shall be staked prior to construction.



	C	OUNT	Y OF	ROANO	KE	
ME OF DEVELOPMENT	CANTERBU	RY PARK,	SECTION	<b>#</b> 3		
AGISTERIAL DISTRICT(S)	CAVE SPRIM	IG MAGISTER	IAL DISTRIC	Т		
YNER (name, address, telephone)	BOONE, I	BOONE & LO	EB, INC.			
EVELOPER (name, address, teleph	one) SAME					
NGINEER, ARCHITECT OR SURV	EYOR (name, address, phone)	BUFORD T.	LUMSDEN &	ASSOCIATES, P.C.	•	
AX MAP NO(S) 8	607	BLOCK NO(S)	1	PARCEL NO(S)	, 3	

RC-1240

Sheet 2 of 14