#### QUANTITY + COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT	PRICE		COST	BOI	NDABLE
CLEARING AND GRUBBING		ACRES						
EXCAVATION		C.Y.						
EMBANKMENT		C.Y.						
						_		
CURB INLET DI-3B, L=8'	1	EACH	\$	2,400	\$	2,400	\$	2,4
CURB INLET DI-3B, L=12'	1	EACH	\$	2,800	\$	2,800	\$	2,8
DROP INLET DI-7	1	EACH	\$	1,200	\$	1,200	\$	1,2
MANHOLE MH-1	5	EACH	\$	1,500	\$	3,000	\$	3,0
								<del></del>
15 -IN. STORM DRAIN		LIN. FT.	<u> </u>					
-IN, STORM DRAIN		LIN. FT.	ļ					
			<u> </u>		<u></u>			
		<u> </u>					ļ	
			ļ					
15 -IN, CULVERT	176	LIN, FT,	\$	22.00	\$	3,872	\$	3,8
-IN. CULVERT		LIN. FT.		<del></del>				
			<u> </u>		-			
		<u> </u>					, <del></del>	
							ļ	
BEIX CULVERT		LUMP SUM						
D.11 (MD. P.T.A.)	_		<del> </del>			<u></u>		
PAVED DITCH		LIN. FT.	<del> </del>	•				
DIDDAD OLACO I			<u> </u>					<del></del>
RIPRAP - CLASS I		TON						
CURRED OVALE		<b>A</b> V	<del> </del>	·			<u> </u>	<del></del>
SODDED SWALE		S.Y.	<u> </u>			<del></del>		<del></del>
THE OFFICE FURNISH STA		F. 61	ļ				<u> </u>	
-IN. CONCRETE ENDWALL EW-		EACH	<u> </u>			<del></del>	<u> </u>	
		<del> </del>		<del></del>			<u> </u>	
4E IN END SCOTION ES 4	_	FACUL				<del></del>		_
15-IN. END SECTION ES-1		EACH		<del> </del>		<del></del>		
		<del> </del>				<del></del> -		
AUD 0.0			<del> </del>		<u> </u>			
CURB & GUTTER CG-2	760	LIN. FT.	<u> </u>	16.00	-	10.160	<u></u>	10.1
CURB & GUTTER CG-6	760	LIN. FT.	\$	16.00	→	12,160	<del>*</del>	12,1
VALLEY GUTTER		EACH	<u> </u>	·	<u> </u>	<del></del>	<u> </u>	
GRAVEL BASE		S.Y.						·
GRAVEL SHOULDER		S.Y.	<del> </del>	1	<del> </del>			
SURFACE TREATMENT			<u> </u>		<b></b> -			
8" 21-B AGGREGATE	1,404	S.Y.	\$	5.00	<b>4</b>	7,020	4	7,0
2" SM-9.5A ASPHALT PAVEMENT	1,404	S.Y.	\$	5.00		7,020	1	7,0
E SH FIJH HOFFHELL PHYENENT	2,704	3,1,	-	5.00	_	7,020	<u> </u>	,,0
CONCRETE SIDEWALK		S.F	<del>                                     </del>				<del>                                     </del>	<del></del>
CONCRETE DUMPSTER PAD		S.F.	<u> </u>		-		<del>                                     </del>	·····
CHICKLIC DON STEN THE		Sil i				1	<u> </u>	<del></del>
8' WATER LINE		LIN, FT.	<del> </del>				<del> </del>	
6' WATER LINE		LIN. FT.	<del> </del>	15.00	\$	5,700		5,7
	1 380		125	****		3.7 UU	\$	
	380 160	LIN. FT.	\$		\$			
2' WATER LINE	160	LIN. FT.	\$	12.00	\$	1,920		
2' WATER LINE					\$			
2' WATER LINE FIRE HYDRANT ASSEMBLIES	160	EACH	\$	12.00		1,920	\$	1,9
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER				12.00	\$	1,920	\$	1,9
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE	160 1 7	EACH EACH EACH	\$	12.00 1,200 400	\$ \$	1,920	\$	1,9
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER	160	EACH EACH	\$ \$ \$	12.00	\$ \$	1,920 1,200 2,800	\$	1,9
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE	160 1 7	EACH EACH EACH	\$ \$ \$	12.00 1,200 400	\$ \$	1,920 1,200 2,800	\$	1,9 1,2 2,8
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE	160 1 7	EACH EACH EACH	\$ \$ \$	12.00 1,200 400	\$ \$	1,920 1,200 2,800	\$	1,9 1,2 2,8
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE	160 1 7	EACH EACH EACH	\$ \$ \$	1,200 400 300	\$ \$	1,920 1,200 2,800 600	\$	1,9 1,2 2,8 60
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE	160 1 7 2	EACH EACH EACH	\$ \$ \$	12.00 1,200 400	\$ \$	1,920 1,200 2,800	\$	1,9 1,2 2,80
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER	160 1 7 2	EACH EACH EACH EACH	\$ \$ \$	1,200 400 300	\$ \$ \$	1,920 1,200 2,800 600	\$	1,9 1,2 2,8 60
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER	160 1 7 2	EACH EACH EACH LIN. FT.	\$ \$ \$	1,200 400 300 20,00	\$ \$ \$	1,920 1,200 2,800 600 7200	\$	1,9 1,2 2,8 60
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER	160 1 7 2 360	EACH EACH EACH EACH	\$ \$ \$	1,200 400 300 20,00	\$ \$ \$	1,920 1,200 2,800 600 7200	\$	1,9 1,2 2,8 60
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER	160 1 7 2 360	EACH EACH EACH LIN. FT.	\$ \$ \$	1,200 400 300 20,00	\$ \$ \$	1,920 1,200 2,800 600 7200	\$	1,9 1,2 2,8 60
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT	160 1 7 2 360	EACH EACH EACH LIN. FT. EACH EACH	\$ \$ \$	1,200 400 300 20,00	\$ \$ \$	1,920 1,200 2,800 600 7200	\$ \$	1,9 1,2 2,80 60
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW DFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER  LATERAL, CLEANOUT, STUBOUT	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT. EACH EACH	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER  LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT. EACH EACH	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2 2,8 60 6,4
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER  LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT. EACH EACH	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2 2,8 60 6,4
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER  LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS  LANDSCAPING	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2 2,8 60 6,4
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER  LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS  LANDSCAPING	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2
2' WATER LINE  FIRE HYDRANT ASSEMBLIES  BLOW OFFS W/VAULT, FRAME & COVER  DOUBLE WATER SERVICE  SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER  LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS  LANDSCAPING	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$	1,2
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS LANDSCAPING  STORMWATER MANAGEMENT	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$ \$	1,2 2,8 60 6,4
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS LANDSCAPING  STORMWATER MANAGEMENT  SUBTOTAL	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800 600	\$ \$ \$	1,2 2,8 60 6,4
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS LANDSCAPING  STORMWATER MANAGEMENT	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800	\$ \$ \$	1,2 2,89 60 6,4 58,7 5,5
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS  LANDSCAPING  STORMWATER MANAGEMENT  SUBTOTAL  10% CONTINGENCY	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800 600	\$ \$ \$	1,2 2,80 60 6,4
PIRE HYDRANT ASSEMBLIES BLOW OFFS W/VAULT, FRAME & COVER DOUBLE WATER SERVICE SINGLE WATER SERVICE  8' SANITARY SEWER  STANDARD MANHOLE W/FRAME & COVER LATERAL, CLEANOUT, STUBOUT  AS-BUILT PLANS LANDSCAPING  STORMWATER MANAGEMENT  SUBTOTAL	160 1 7 2 360 2 16	EACH EACH EACH LIN. FT.  EACH EACH LUMP SUM	\$ \$ \$ \$	1,200 400 300 20,00 1500 300	\$ \$ \$ \$	1,920 1,200 2,800 600 7200 3000 4800 600	\$ \$ \$ \$ \$	1,2 2,8 6,4 6,4 58,7 5,5

## **GENERAL NOTES**

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

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

- 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 K. Installing sanitary sewer lines

A pre-construction conference should be scheduled with the Roanoke County Engineering Division and the Western Virginia Water Authority, 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.C.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

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.C.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/or V.D.O.T. inspectors.

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

## SEWER NOTES

All sanitary sewer connections to existing lines shall be coordinated with and performed by the Western Virginia Water Authority.

All sanitary sewer facilities are to be installed according to the Western Virginia Water Authority Design and Construction Standards.

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 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**

All water connections to existing lines shall be coordinated with and performed by the Western Virginia Water Authority.

All water facilities are to be installed according to the Western Virginia Water Authority Design and Construction Standards.

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 350 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Availability number\_\_\_\_

# **LEGEND**

Property Line	
Right-of-way	R/ <b>V</b>
Centerline	
Minimum Building Line	M.B.L.
Existing Storm Sewer	18' S.D18' S.D
Existing Sanltary Sewer	=====8' SAN.=======8' SAN.======
Existing Water Main	4' V4' V
Existing Contour	1045
Proposed Contour	<del>1</del> 045 <del></del>
Proposed Drainage Divide	
Proposed Limits of Clear	Ing
Proposed Storm Sewer	24° S.D.
Proposed Sanitary Sewer	8° MH.
Proposed Water Main	HYDRANT BLOWDFF BLOWDFF

SEE LUMSDEN ASSOCIATES, P.C. COVER SHEET

## VICINITY MAP

#### SURVEY INFORMATION

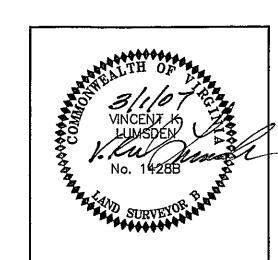
orizontal	and	vertical	control	surveys	were	performed	in	(year)	September	2006	_
. Lumsden	Asso	ociates, P.O	C.			_					

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

Source of topographic mapping	is Lumsden Associates, P.C.
dated September 2006	

Boundary	was performed	by Lumsden	Associates, P.C.
dated	•		-

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



PROFESSIONAL SEAL AND SIGNATURE

# COUNTY OF ROANOKE

# **INDEX**

SEE LUMSDEN ASSOCIATES, P.C. COVER SHEET

'WEDGWOOD' - SECTION 3

MAGISTERIAL DISTRICT(S)

NAME OF DEVELOPMENT

HOLLINS

STRAUSS DEVELOPMENT CORPORATION

THIS SITE DEVELOPMENT PLAN AND OTHER APP-LICABLE COUNTY CODES. I HEREBY CERTIFY THAT I AGREE TO COMPLY WITH THESE REQUIREMENTS, UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.

OWNER/DEVELOPER, AM AWARE

OF THE SITE DESIGN REQUIREMENTS IMPOSED BY

**OWNER** (name, address, telephone)

P.O. BOX 20287, ROANOKE, VIRGINIA 24018

**IC/O STEVE STRAUSSI** [540] 989-7060

DEVELOPER (name, address, telephone) SAME AS ABOVE

LUMSDEN ASSOCIATES, P.C. ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone) P.O. BOX 20669

ROANOKE, VIRGINIA 24018

[540] 774-4411

PARCEL NU(S)

TAX MAP NO(S)\_

40.13

BLOCK NO(S)

01.00

COMMISSION NUMBER: 2004-336

SHEET 2 OF 11