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NOTES:

- ALL WATER AND SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE WESTERN VIRGINIA WATER AUTHORITY'S WATER AND SANITARY SEWER STANDARDS.
- ALL DIMENSIONS ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.
- SANITARY SEWER MATERIAL SHALL BE PVC, SDR 35, EXCEPT AS NOTED, OR APPROVED EQUAL.
- WORKING PRESSURE OF THE EXISTING 12" WATER MAIN ALONG HOLLINS ROAD IS LESS THAN 100 PSI. NEW WATER LINE MAIN MATERIAL SHALL BE C900 PVC DR14, UNLESS OTHERWISE NOTED, OR APPROVED EQUAL. 2" DOMESTIC WATER SERVICE SHALL BE TYPE "K" COPPER, OR APPROVED EQUAL.
- WET TAPS TO THE EXISTING WATER MAIN ARE TO BE PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY AFTER THE CONTRACTOR HAS PERFORMED EXCAVATION AND SHORING PER OSHA REGULATIONS. THE CONTRACTOR SHALL FURNISH AND INSTALL THE TAPPING SLEEVE AND TAPPING VALVE.
- NEW SANITARY SEWER MANHOLES No. 1 and No. 4 TO BE SET ON THE EXISTING SANITARY SEWER LINE. WILL REQUIRE BYPASS PUMPING OF THE EXISTING SANITARY SEWER FLOWS PER THE CONDITIONS OF SECTION 3.5 OF SPECIFICATION 02731 OF THE WESTERN VIRGINIA WATER AUTHORITY'S WATER AND SANITARY SEWER STANDARDS. A DETAILED BYPASS PUMPING PLAN MUST BE SUBMITTED AND APPROVED BY WVWA BEFORE THE CONTRACTOR WILL BE ALLOWED TO CONNECT TO THE EXISTING SANITARY SEWER. A WESTERN VIRGINIA WATER AUTHORITY INSPECTOR MUST BE ON SITE DURING INSTALLATION OF THE NEW MANHOLES.
- ABANDONMENT OF EXISTING SANITARY SEWER PIPE SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE WESTERN VIRGINIA WATER AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS FOR DAMAGE TO EXISTING STRUCTURES AS A RESULT OF CONSTRUCTION IN ACCORDANCE WITH VDOT, WESTERN VIRGINIA WATER AUTHORITY, AND/OR ROANOKE CITY, ROANOKE COUNTY STANDARDS AND SPECIFICATIONS.
- POLE MOUNTED LIGHTS TO BE PROVIDED BY AEP. MOUNTING HEIGHT TO BE 30' ABOVE GRADE. COORDINATE INSTALLATION WITH AEP. LUMINAIRES ARE SPECIFIED ON SHEET 3.

LEGEND	
ITEM	EXISTING
Pavement	---
Curb and Gutter	---
Qurb	---
Storm Drain Line	---
Sanitary Sewer Manhole	---
Sanitary Sewer Line	---
Waterline	---
Hydrant	---
Gate Valve	---
Underground Electric Line	---
Overhead Electric Line	---
Underground Telephone Line	---
Underground Gas Line	---
Utility Pole	---
Fence	---
Contours	---
Spot Elevation	---
Tie Line	---

ABBREVIATIONS	
D.E.	DRAINAGE EASEMENT
W.E.	WATER LINE EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
P.U.E.	PUBLIC UTILITY EASEMENT
ESMT.	EASEMENT
M.B.L.	MINIMUM BUILDING LINE
R/W	RIGHT OF WAY
VAR.	VARIABLE
EXIST.	EXISTING
D.B.	DEED BOOK
P.B.	PLAT BOOK
P.C.	PAGE
No.	NUMBER
STA.	TYPICAL STATION
LT.	LEFT
RT.	RIGHT
RCP	REINFORCED CONCRETE PIPE
SD	STORM DRAIN
SSMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
W	WATER LINE
TC	TOP OF CURB
TP	TOP OF PAVEMENT
BTW	BOTTOM OF WALL
CO	SANITARY SEWER CLEANOUT

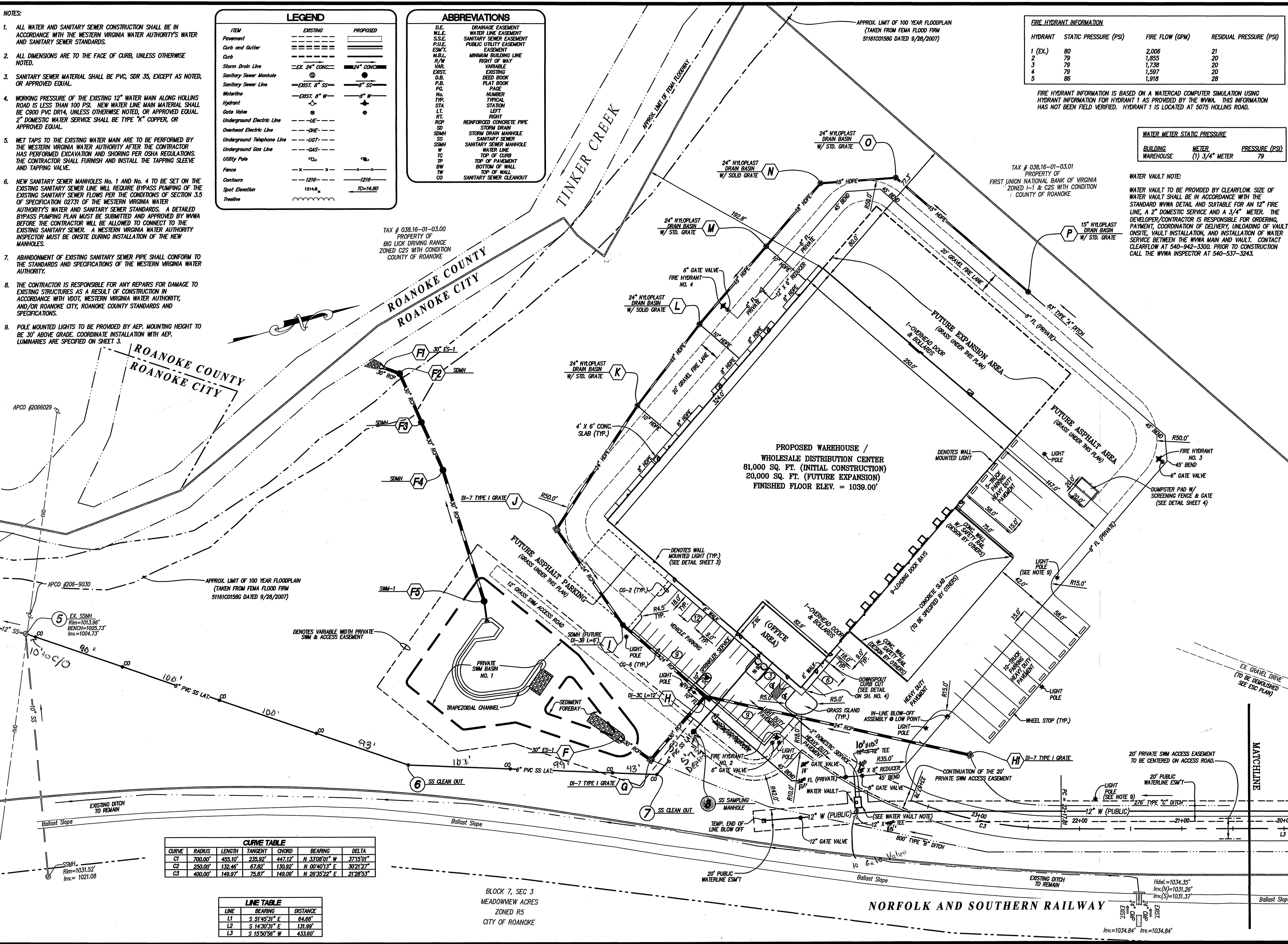
FIRE HYDRANT INFORMATION			
HYDRANT	STATIC PRESSURE (PSI)	FIRE FLOW (GPM)	RESIDUAL PRESSURE (PSI)
1 (EX.)	80	2,006	21
2	79	1,855	20
3	79	1,739	20
4	79	1,597	20
5	86	1,918	28

FIRE HYDRANT INFORMATION IS BASED ON A WATERCAD COMPUTER SIMULATION USING HYDRANT INFORMATION FOR HYDRANT 1 AS PROVIDED BY THE WVWA. THIS INFORMATION HAS NOT BEEN FIELD VERIFIED. HYDRANT 1 IS LOCATED AT 5075 HOLLINS ROAD.

WATER METER STATIC PRESSURE		
BUILDING	METER	PRESSURE (PSI)
WAREHOUSE	(1) 3/4" METER	79

WATER VAULT NOTE:

WATER VAULT TO BE PROVIDED BY CLEARFLOW. SIZE OF WATER VAULT SHALL BE IN ACCORDANCE WITH THE STANDARD WVWA DETAIL AND SUITABLE FOR AN 12" FIRE LINE, A 2" DOMESTIC SERVICE AND A 3/4" METER. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR ORDERING, PAYMENT, COORDINATION OF DELIVERY, UNLOADING OF VAULT ON SITE, VAULT INSTALLATION, AND INSTALLATION OF WATER SERVICE BETWEEN THE WVWA MAIN AND VAULT. CONTACT CLEARFLOW AT 540-942-3300. PRIOR TO CONSTRUCTION CALL THE WVWA INSPECTOR AT 540-537-3243.



CURVE TABLE					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING
C1	700.00'	455.10'	235.92'	447.12'	N 33°08'01" W
C2	250.00'	132.46'	67.82'	130.92'	N 00°40'13" E
C3	400.00'	149.97'	75.87'	149.09'	N 28°35'22" E

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 51°45'31" E	64.68'
L2	S 14°30'31" E	131.99'
L3	S 15°50'56" W	433.60'

BLOCK 7, SEC 3  
MEADOWVIEW ACRES  
ZONED R5  
CITY OF ROANOKE

**LUMSDEN ASSOCIATES, P.C.**  
ENGINEERS-SURVEYORS-PLANNERS  
ROANOKE, VIRGINIA

**COMMONWEALTH OF VIRGINIA**  
B. LEE HENDERSON, JR.  
Lic. No. 017591  
PROFESSIONAL ENGINEER

**DEVELOPMENT PLAN FOR**  
**AMERICAN TIRE DISTRIBUTORS**  
**ROANOKE, VIRGINIA**  
**PREPARED FOR**  
**PINECREST DEVELOPMENT COMPANY**  
**ROANOKE CITY & COUNTY, VIRGINIA**

REVISIONS

NO.	DATE	DESCRIPTION
1	1/22/11	As-Built
2		
3		
4		
5		

DATE: August 5, 2010  
SCALE: 1" = 40'  
COMMISSION NO.: 2010-019  
SHEET 5 OF 20