

# ABBREVIATIONS

ABAN	ABANDON, ABANDONED	MECH	MECHANICAL
ABUT	ABUTMENT	MFR	MANUFACTURER
ADJ	ADJACENT	MH	MANHOLE
AGOR	AGGREGATE	MIN	MINIMUM
ANC	ANCHOR	MJ	MECHANICAL JOINT
APPROX	APPROXIMATE	MON	MONUMENT
BIT	BITUMINOUS	MTL	METAL
BJ	BELL JOINT	N & C	NAIL AND CAP
BL	BASE LINE	NA	NOT APPLICABLE
BEG	BEGIN, BEGINNING	NIC	NOT IN CONTRACT
BLDG	BUILDING	NO	NUMBER
BM	BENCH MARK	NPW	NON POTABLE WATER
BSP	BLACK STEEL PIPE	NTS	NOT TO SCALE
BV	BUTTERFLY VALVE	OC	ON CENTERS
BVCE	BEGIN VERTICAL CURVE ELEVATION	OD	OUTSIDE DIAMETER
BVCS	BEGIN VERTICAL CURVE STATION	PVMT	PAVEMENT
C & G	CURB AND GUTTER	PC	POINT OF CURVE
CI	CAST IRON	POC	POINT OF COMPOUND CURVE
CL	CENTER LINE	PER	PERIMETER
CONST	CONSTRUCTION	PERF	PERFORATED
CMP	CORRUGATED METAL PIPE	PERP	PERPENDICULAR
CMU	CONCRETE MASONRY UNITS	PI	POINT OF INTERSECTION
CND	CONDUIT	PL	PLATE, PROPERTY LINE
CO	CLEANOUT	POL	POINT ON LINE
COMB	COMBINATION	PT	POINT OF TANGENCY
CONC	CONCRETE (PORTLAND CEMENT)	POT	POINT ON TANGENT
CONN	CONNECT, CONNECTION	PP	POWER POLE
CONTR	CONTRACTOR	PRC	POINT OF REVERSE CURVE
CONV	CONVEYOR	PSI	POUNDS PER SQUARE INCH
COR	CORNER	PT	POINT OF TANGENT
CR STONE	CRUSHED STONE	PVC	POLYVINYL CHLORIDE
CTR	CENTER	PM	POINT OF VERTICAL INTERSECTION
CULV	CULVERT	PUE	PUBLIC UTILITY EASEMENT
D	DEPTH OR DEGREE OF CURVE	R	RADIUS, RISER
DE	DRAINAGE EASEMENT	RR	RAILROAD
DI	DROP INLET, DUCTILE IRON	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	RD	ROAD
DIM	DIMENSION	RDCR	REDUCER
DISC	DISCONNECT	REINF	REINFORCE, REINFORCEMENT
DMH	DROP MANHOLE	REF	REFERENCE
DN	DOWN	REL	RELOCATED
DTL	DETAIL	REQD	REQUIRED
DW, D/W	DRIVEWAY	REV	REVISION
DWL	DWELLING	RTE	ROUTE
DWG	DRAWING	RT	RIGHT
EA	EACH	R/W	RIGHT OF WAY
E.B.L.	EASTBOUND LANE	SS	SANITARY SEWER
EL, ELEV	ELEVATION	SAN	SANITARY
ELEC	ELECTRICAL	S/W	SIDEWALK
ENGR	ENGINEER	SD	STORM DRAIN
ENTR	ENTRANCE	SE	SLOPE EASEMENT
EOL	END OF LINE	SECT	SECTION
EP	EDGE OF PAVEMENT	SER	SERVICE
EQ	EQUAL	SH	SHEET
EQPT	EQUIPMENT	SPEC	SPECIFICATION
EVCE	END VERTICAL CURVE ELEVATION	SPECS	SPECIFICATIONS
EVCS	END VERTICAL CURVE STATION	SQ	SQUARE
EW	EACH WAY, ENDWALL	SSTL	STAINLESS STEEL
EXIST	EXISTING	STR	STREET
FES	FLARED END SECTION	STA	STATION
FF	FINISH FLOOR	STD	STANDARD
FFE	FINISHED FLOOR ELEVATION	STL	STEEL
FIG	FIGURE	STRUCT	STRUCTURAL
FL	FLOOR	SUR	SURVEY
FLEX	FLEXIBLE	T & B	TOP AND BOTTOM
FLG	FLANGE	TELE	TELEPHONE
FT	FOOT	TEMP	TEMPORARY
FTG	FOOTING	THK	THICK
FUT	FUTURE	TP	TELEPHONE POLE
GAL	GALLON	TRTD	TREATED
GALV	GALVANIZED	TV	TELEVISION
GAR	GARAGE	TW	TOP OF WALL
GND	GROUND	TYP	TYPICAL
GR	GRAVEL	UG	UNDERGROUND
GOVT	GOVERNMENT	UON	UNLESS OTHERWISE NOTED
GPM	GALLONS PER MINUTE	U.S.C.&G.S	UNITED STATES COAST AND GEODETIC SURVEY
GRG	GRATING	V.VAL	VALVE, VENT
GV	GATE VALVE	VAR	VARIABLE
H&T	HUB AND TAC	VC	VERTICAL CURVE
HORIZ	HORIZONTAL	VERT	VERTICAL
HPT	HIGH POINT	VERT	VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS
HYD	HYDRANT	VOL	VOLUME
ID	INSIDE DIAMETER	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
IN	INCH	V.S.D.	VERTICAL SIGHT DISTANCE
INSUL	INSULATION	W.B.L.	WESTBOUND LANE
INV	INVERT	W	WIDE FLANGE, WIDE, WASTE, WATER
IP	IRON PIN (FOUND OR SET NOTED)	W/	WITH
L	LENGTH, LONG	WL	WATER LINE
LF	LINEAL FOOT	W/O	WITHOUT
LG	LONG	WS	WATER SURFACE
LP	LIGHT POLE	WT	WATERTIGHT, WEIGHT
LR	LONG RADIUS	WVWA	WESTERN VIRGINIA WATER AUTHORITY
MAS	MASONRY OF HIGHWAYS MATL MATERIAL	WVDH	WEST VIRGINIA DEPARTMENT OF HIGHWAYS
MAX	MAXIMUM		
MB	MAIL BOX		
MBL	MINIMUM BUILDING LINE		

# LEGEND / SYMBOLS

EXISTING	NEW	DESCRIPTION
		BUILDING WITH PORCH OR STOOP
		FOUNDATION ONLY
		CONTOUR, CONTOUR WITH ELEVATION
		SPOT ELEVATION
		CONCRETE CURB
		CONCRETE CURB & GUTTER
		CONCRETE WALK OR SLAB
		PAVEMENT
		UNPAVED OR GRAVEL ROAD
		CONSTRUCTION EASEMENT
		PERMANENT EASEMENT
		TREE LINE
		TREE OR SHRUB
		FENCE (EXISTING OR PROPOSED NOTED)
		CENTERLINE CREEK, SWALE, DITCH
		PROPERTY LINE
		CENTERLINE OR BASELINE
		FIELD SURVEY TRAVERSE POINT
		P.C. OR P.T.
		GEOLOGIC BORE HOLE
		BENCH MARK (EXISTING OR SET NOTED)
		STORM DRAIN AND ENDWALL
		SANITARY SEWER
		FORCE MAIN
		GAS MAIN OR SERVICE LINE
		WATER MAIN OR SERVICE LINE
		OVERHEAD ELECTRICAL LINE
		OVERHEAD TELEPHONE LINE
		UNDERGROUND ELECTRICAL LINE
		UNDERGROUND TELEPHONE LINE
		PIPE FITTINGS
		FIRE HYDRANT
		GATE VALVE
		CLEANOUT
		MANHOLE
		DROP INLET (CURB AND GRATING TYPES)
		WM - WATER METER
		DWM - DOUBLE WATER METER
		TELEPHONE POLE, GUY AND ANCHOR
		POWER POLE, GUY AND ANCHOR
		LIGHT POLE
		TELEPHONE PEDESTAL
		BURIED TELEPHONE VAULT
		PAVED DITCH
		STORM PIPE (SIZE / TYPE NOTED)
		CULVERT WITH FLARED END SECTION
		AIR RELEASE VALVE / VAULT ASSEMBLY
		BLOW OFF VALVE / VAULT ASSEMBLY
		STEEL ENCASEMENT
		CONCRETE ENCASEMENT
		ABANDON OR REMOVE
		LIMITS OF CONSTRUCTION

# GENERAL NOTES

The location of existing utilities, including underground utilities, is indicated on the drawings in so far as their existence and location were known at the time of preparation of these drawings. However, nothing in these contract documents shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist or that other utilities are not within at area of operations. The contractor shall make all necessary investigations to determine the existence and locations of such utilities. The contractor shall pay for any damage to and for maintenance and protection of existing utilities and structures.

Existing water line locations both horizontal and vertical are approximate. the location is not the result of a current field survey.

The contractor is directed to dig and locate all utilities in advance of pipelaying to allow for adjustments due to conflicts with existing utilities. Should a conflict arise the engineer is to be notified immediately.

No construction/field changes are to be made without approval from the consulting engineer and Roanoke County.

Any new alignments, changes in grades, alternative pipe sizes or manholes, ESC measures, will require a new set of plans stamped by the consulting engineer. Plan sheets can be 8.5"x11" if the information is legible.

The location of all offsite fill or borrow areas associated with the construction of this project will be provided to Roanoke County Department of Community Development. An Erosion Control Plan and/or Erosion control measures may be required for this area.

Signs are proposed with this project. All signs shall comply with all provisions of the Roanoke County Zoning Ordinance(Section 30-93), all applicable provisions of the Uniform Statewide Building Code and all amendments thereto, and all State and Federal Regulations pertaining to the display of signage.

The preliminary pavement designs shown are based on a predicted sub-grade CBR value of 7.0 and with a Resiliency Factor (RF) of 2.0 and shown in Appendix I of the 2002 Virginia Department of Transportation Pavement Design Guide for Subdivision and Secondary Roads. The sub-grade soil is to be tested by an independent laboratory and the results submitted to the Virginia Department of Transportation prior to base construction. Should the sub-grade CBR value and/or the RF value be less than the predicted values, additional base material will be required in accordance with Departmental specifications. Refer to the same manual as the number and locations of the required soil samples to be tested. All pavement designs shall be submitted to the Department for review and approval.

The sub-grade shall be approved by the Virginia Department of Transportation prior to placement of the base. Base shall be approved by the Virginia Department of Transportation for depth, template, and compaction before surface is applied.

All work done in the proposed, or existing right of way, including but not limited to street grading, street paving and all construction of all structural components, shall be done in accordance with current Virginia Department of Transportation Road and Bridge Standards and Specifications. All materials used shall be tested in accordance with VDOT standard policies. The developer shall contract the office of the Salem VDOT Residency Office prior to beginning any construction within the proposed or existing right of way. At that time, the Residency Office shall prepare an inspection and testing schedule. The developer shall produce test reports from approved independent laboratories at the developer's expense.

All grading operations and procedures within the right-of-way must conform to all applicable standards and specification in the VDOT 2002 Road and Bridge Specifications. All required compaction tests shall be submitted to the Salem VDOT Residency Office prior to street acceptance.

Design changes, specified material changes and/or field changes from the approved plans must be submitted to the Salem VDOT Residency Office prior to proceeding with the work. A letter of explanation shall accompany the revised design plans and/or engineering calculations, which must be submitted to VDOT for review and approval by the Salem VDOT Residency Office or Permit Office.

All drainage easements should be made to function, and in accordance with Commission Policy, they must extend to a natural watercourse. We require all proposed drainage easements to be reviewed in the field during and after construction to ensure compliance with minimum standard 19 (MS-19) (Virginia Erosion and Sediment Control Handbook 1992). If erosion or scour is occurring the developer shall be responsible for all corrective measures.

All exterior lighting fixtures within residential zoning districts shall be designed, located and arranged so as not to direct glare on adjoining streets or residential properties. The lighting intensity at adjoining residential properties shall not exceed 0.5 foot candles.

⚠ A permit must be obtained from the Roanoke County Building Department for all retaining walls over two feet in height.

⚠ All refuse service (dumpsters/containers), outdoor storage, and/or ground level mechanical equipment shall be screened from surrounding views per Section 30-92-6(E)1 of the Roanoke County Zoning Ordinance.

⚠ Commercial and industrial use types shall screen from surrounding views all articles and materials being stored, maintained, repaired, processed, erected, fabricated, dismantled, or salvaged. Articles and materials available for retail sale by a commercial use type shall be exempt from this requirement, per Section 30-92-6(E)2 of the Roanoke County Zoning Ordinance.

⚠ All privately owned utility lines are required to be permitted and installed per the International Plumbing Code and the Virginia Uniform Statewide Building Code.

⚠ The double detector check assembly located in the WVWA owned vault may not serve as the code required BFD for the fire service.

⚠ Cut and fill operations are subject to special inspection procedures per International Building Code Section 1704.7.

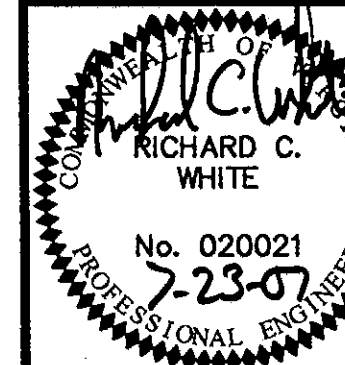
102 Albemarle Ave  
Roanoke, Virginia 24013  
www.lmwpc.com  
ph: 540.345.0875  
fax: 540.342.4456  
lmw@lmwpc.com



Engineering  
Architectural  
Surveying  
Landscape Design

NEW STORE SITE: R-391  
VINTON MAGISTERIAL DISTRICT  
ROANOKE, VIRGINIA

NO.	DATE	DESCRIPTION	BY
1	3/26/07	PER COUNTY & VDOT COMMENTS	CHW



Designed By	RCW
Drawn By	CHW
Checked By	RCW
Approved By	RCW
Submitted By	RCW
Drawing	3155ACover
Date	11/20/06
Scale	NONE
Commission No.	3155a