

EXISTING	LEGEND Symbology	PROPOSED
(NOT ALL SYMBOLS MAY BE SHOWN ON PLANS)		
HYD	FIRE HYDRANT	EASEMENTS
GV	GAS VALVE	LIMITS OF DISTURBANCE
CP	HANDICAP PARKING SPACE	PROPOSED PAVING
SD	SATLITE DISH	SPOT ELEVATION
TR	TREE CONIFER	BORING
BL	BOLLARD	TEST PIT
SC	SEWER CLEAN OUT	VALVE
EB	ELECTRIC BOX	FIRE HYDRANT
GW	GUY WIRE	WATER MAIN
LP	LIGHT POLE	WATER SERVICE CONNECTION
MB	MAILBOX	3/4" DIAMETER UNLESS SHOWN OTHERWISE
SM	STORM MANHOLE	PAVEMENT PATCH FOR REMOVED VALVE VAULT
WM	SANITARY MANHOLE	
WM	WATER MANHOLE	
MW	MONITORING WELL	
PB	PAPER BOX	
PP	POWER POLE	
SR	SHRUB	
TP	TELEPHONE PEDISTAL	
TD	TREE DECIDUOUS	
WM	WATER METER	
SN	SIGN	

## EROSION AND SEDIMENT CONTROL

(SOME SYMBOLS SHOWN MAY NOT BE USED)

SAFETY FENCE	
TEMPORARY STONE CONSTRUCTION ENTRANCE	
STRAW BALE BARRIER	
SILT FENCE	
STORM DRAIN INLET PROTECTION	
CULVERT INLET PROTECTION	
TREE PRESERVATION AND PROTECTION	
TEMPORARY SEEDING	
PERMANENT SEEDING	
OUTLET PROTECTION	

## ABBREVIATIONS

(NOT ALL SYMBOLS MAY BE SHOWN ON PLANS)

AASHTO	AMERICAN ASSOCIATION OF HIGHWAY TRANSPORTATION OFFICIALS	MSL	MEAN SEA LEVEL
ARV	AIR RELEASE VALVE	MJ	MECHANICAL JOINT
AR/ARV	AIR RELEASE/AIR VACUUM VALVE	MIN	MINIMUM
ALT	ALTERNATE	NPT	AMERICAN NATIONAL TAPER PIPE THREAD
ASSY	ASSEMBLY	N	NORTH
BF	BLIND FLANGE	NBL	NORTH BOUND LANE
BV	BALL VALVE	NITC	NOT IN THIS CONTRACT
BO	BLOW OFF	NTS	NOT TO SCALE
BFV	BUTTERFLY VALVE	NO.	NUMBER
CL	CENTER LINE	OC	ON CENTER
CV	CHECK VALVE	OD	OUTSIDE DIAMETER
CL	CLASS	PRV	PRESSURE REGULATED VALVE
CLR	CLEARANCE	PROP	PROPOSED
CI	CAST IRON	R	PROPERTY LINE
CONC	CONCRETE	RWTM	RAW WATER TRANSMISSION MAIN
CORP. STOP	CORPORATION STOP	RCP	REINFORCED CONCRETE PIPE
CONN	CONNECTION	REQ'D	REQUIRED
CY	CUBIC YARD	RJ	RESTRAINED JOINT
DIA	DIAMETER	ROW	RIGHT OF WAY
DI	DUCTILE IRON	RD	ROAD
DIP	DUCTILE IRON PIPE	SAN	SANITARY
ESMT	EASEMENT	SFM	SANITARY FORCE MAIN
E	EAST	SS	SANITARY SEWER
ECC	ECCENTRIC	SCHED OR SCH	SCHEDULE
EOP	EDGE OF PAVEMENT	SB	SOUTH BOUND LANE
EL	ELEVATION	STA	STATION
EX	EXISTING	SD	STORM DRAIN
FLG	FLANGE	ST S	STORM SEWER
FT	FOOT OR FEET	SQ	SQUARE
FM	FORCE MAIN	SY	SQUARE YARD
FWM	FINISHED WATER MAIN	ST, STL, S.S.	STAINLESS STEEL
GAL	GALLON	STD	STANDARD
GS	GALVANIZED STEEL	STL	STEEL
GV	GATE VALVE	STRUCT	STRUCTURAL
HEX	HEXAGON	SCV	SURGE CHECK VALVE
ID	INSIDE DIAMETER	TBD	TO BE DETERMINED
INV	INVERT	TRANS	TRANSMISSION MAIN
IRR	IRRIGATION LINE	TS	TEST STATION
JT	JOINT	TYP/TP	TYPICAL
LF	LINEAR FOOT (FEET)	UD	UNDER DRAIN
LG	LONG	UGE	UNDERGROUND ELECTRIC
MB	MAILBOX	USGS	UNITED STATES GEOLOGICAL SURVEY
MH	MANHOLE	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
MAR	MANUAL AIR RELEASE	W	WATER OR WEST
MAX	MAXIMUM	WM	WATER MAIN OR WATER METER
		WSC	WATER SERVICE CONNECTION
		WSC2	WATER SERVICE CONNECTION (SEE GENERAL NOTE 10)
		W/O	WITH
			WITHOUT

## LEGEND

### Line Patterns

(SOME SYMBOLS SHOWN MAY NOT BE USED)

Existing Contours	-----1032-----	Proposed Contours	-----35-----
Above Ground Cable TV Line	-----C-----	Underground Cable TV Line	-----C-----
Above Ground Electric Line	-----EHE-----	Underground Electric Line	-----E-----
Underground Fuel Line	-----F-----	Underground Storm Drain Line	-----SD-----
Above Ground Telephone Line	-----T-----	Underground Telephone Line	-----T-----
Underground Gas Line	-----GAS-----	Underground Water Line	-----W-----
Underground Steam Line	-----STM-----	Underground Sanitary Sewer Line	=====
Wetlands	W	Underground Fiber Optics	FO
R/W And Property Boundary		Treeline	
Depression		Brushline	
Obscured Depression		Water	
Railroad - Active		Fence	
Guardrail		Railroad - Abandon	

## STORM STRUCTURE TABLE

(A.D.) = APPROXIMATE PIPE DIRECTION SHOWN HEREON.

GRATE INLET # 2000  
TOP= 1135.19'  
INV IN (S)= 1132.36' (15" RCP TO # 2001)

GRATE INLET # 2001  
TOP= 1134.88'  
INV IN (S)= 1131.37' (15" RCP TO # 2000)  
INV OUT (E)= 1131.20' (15" RCP TO # 2002)

GRATE INLET # 2002  
TOP= 1135.17'  
INV IN (W)= 1130.63' (15" RCP TO # 2001)  
INV OUT (N)= 1130.54' (15" RCP TO # 2003)

STORM MH # 2003  
TOP= 1131.97'  
INV IN (S)= 1127.85' (15" RCP TO # 2002)  
INV OUT (W)= 1127.74' (15" RCP TO # 2004)

GRATE INLET # 2004  
TOP= 1130.14'  
INV IN (E)= 1126.68' (15" RCP TO # 2003)  
INV OUT (N)= 1126.54' (15" RCP TO # 2005)

STORM MH # 2005  
TOP= 1130.17'  
INV IN (S)= 1125.06' (15" RCP TO # 2004)  
INV OUT (W)= 1124.99' (15" RCP TO # 2006)

STORM MH # 2006  
TOP= 1130.66'  
INV IN (E)= 1122.79' (15" RCP TO # 2005)  
INV OUT (N)= 1122.70' (15" RCP TO # 2007)

STORM MH # 2007  
TOP= 1122.74'  
INV IN (S)= 1118.47' (15" RCP TO # 2006)  
INV OUT (W)= 1115.57' (15" RCP TO # 2008)

STORM MH # 2008  
TOP= 1121.34'  
INV IN (E)= 1114.81' (15" RCP TO # 2007)  
INV OUT (W)= 1114.74' (15" RCP TO # 2009)

STORM MH # 2009  
TOP= 1120.41'  
INV IN (E)= 1112.16' (15" RCP TO # 2008)  
INV OUT (W)= 1112.08' (A.D. 15" RCP TO OFFSITE)

INLET # 2010  
TOP= 1096.90'  
INV OUT (NE)= 1093.60' (12" RCP TO # 2012)  
INV IN (SE)= 1094.15' (A.D. 12" PVC)  
INV IN (W)= 1093.65' (15" RCP TO # 2011)

INLET # 2011  
TOP= 1096.52'  
INV OUT (E)= 1094.17' (15" RCP TO # 2010)

STORM MH # 2012  
TOP= 1097.73'  
INV IN (S)= 1092.17' (12" RCP TO # 2010)  
INV OUT (E)= 1091.85' (A.D. 12" RCP TO OFFSITE)

INLET # 2013  
TOP= 1060.20'  
INV OUT (N)= 1056.76' (15" RCP TO # 2014)

STORM MH # 2014  
TOP= 1058.55'  
INV IN (SW)= 1056.28' (15" RCP TO # 2013)  
INV OUT (W)= 1055.22' (18" RCP TO # 2015)

GRATE INLET # 2015  
TOP= 1055.77'  
INV IN (E)= 1052.77' (18" RCP TO # 2014)  
INV OUT (W)= 1052.62' (A.D. TO OFFSITE)

INLET # 2016  
TOP= 1034.36'  
INV OUT (N)= 1028.43' (18" RCP TO # 2017)

STORM MH # 2017  
TOP= 1032.54'  
INV IN (S)= 1028.03' (18" RCP TO # 2016)  
INV OUT (N)= 1027.94' (18" RCP TO # 2019)

GRATE INLET # 2018  
TOP= 1030.25'  
INV OUT (N)= 1027.00' (18" RCP TO OUTFALL)  
INV IN (E)= 1027.27' (A.D. 8" PVC)  
INV IN (SE)= 1026.97' (A.D. 4" PVC)

INLET # 2019  
TOP= 1032.23'  
INV IN (S)= 1027.85' (18" RCP TO # 2017)  
INV IN (W)= 1027.68' (18" CMP TO # 2020)  
INV OUT (E)= 1027.58' (18" CMP TO OUTFALL)

INLET # 2020  
TOP= 1033.04'  
INV OUT (E)= 1029.76' (18" CMP TO # 2019)

## SANITARY SEWER STRUCTURE TABLE

(A.D.) = APPROXIMATE PIPE DIRECTION SHOWN HEREON.

(C.O.) = CLEANOUT

SAN MH # 2021  
TOP= 1124.30'  
INV IN (S)= 1114.00' (8" D.I. TO APPROX. PAVED OVER MH)  
INV OUT (N)= 1113.92' (8" D.I. TO # 2022)

SAN MH # 2022  
TOP= 1119.07'  
INV IN (S)= 1107.12' (8" D.I. TO # 2021)  
INV OUT (N)= 1106.88' (8" D.I. TO # 2023)

SAN MH # 2023  
TOP= 1109.02'  
INV IN (S)= 1097.83' (8" D.I. TO # 2022)  
INV IN (E)= 1099.12' (A.D. 8" D.I.)  
INV OUT (N)= 1097.77' (8" D.I. TO # 2024)

SAN MH # 2024  
TOP= 1098.66'  
INV IN (S)= 1088.00' (8" D.I. TO # 2023)  
INV IN (E)= 1088.51' (A.D. 6" D.I.)  
INV OUT (N)= 1087.92' (8" D.I. TO # 2025)

SAN MH # 2025  
TOP= 1099.05'  
INV IN (S)= 1086.55' (8" D.I. TO # 2024)  
INV OUT (N)= 1086.42' (8" D.I. TO # 2026)

SAN MH # 2026  
TOP= 1096.59'  
INV IN (S)= 1084.97' (8" D.I. TO # 2025)  
INV IN (W)= 1086.45' (4" D.I. TO # C.O.)  
INV OUT (N)= 1084.93' (8" D.I. TO # 2027)

SAN MH # 2027  
TOP= 1082.31'  
INV IN (S)= 1070.58' (8" D.I. TO # 2026)  
INV OUT (N)= 1070.41' (8" D.I. TO # 2028)

SAN MH # 2028  
TOP= 1070.12'  
INV IN (S)= 1060.60' (8" D.I. TO # 2027)  
INV IN (E)= 1061.04' (6" PVC TO C.O.)  
INV OUT (N)= 1060.51' (8" D.I. TO # 2029)

SAN MH # 2029  
TOP= 1061.50'  
INV IN (S)= 1048.70' (8" D.I. TO # 2028)  
INV OUT (N)= 1048.61' (8" D.I. TO # 2030)

SAN MH # 2030  
TOP= 1058.92'  
INV IN (S)= 1047.18' (8" D.I. TO # 2029)  
INV OUT (N)= 1047.12' (8" D.I. TO # 2041)

SAN MH # 2041  
TOP= 1048.07'  
INV IN (S)= 1035.22' (8" D.I. TO # 2030)  
INV OUT (N)= 1035.14' (8" D.I. TO # 2042)

SAN MH # 2042  
TOP= 1043.58'  
INV IN (S)= 1031.36' (8" D.I. TO # 2041)  
INV OUT (N)= 1031.29' (8" D.I. TO # 2043)

SAN MH # 2043  
TOP= 1037.98'  
INV IN (S)= 1026.10' (8" D.I. TO # 2042)  
INV OUT (N)= 1025.04' (8" D.I. TO # 2044)

SAN MH # 2044  
TOP= 1034.14'  
INV IN (S)= 1023.09' (8" D.I. TO # 2043)  
INV IN (NW)= 1029.74' (6" PVC TO C.O.)  
INV OUT (N)= 1023.06' (8" D.I. TO # 2045)

SAN MH # 2045  
TOP= 1026.99'  
INV IN (S)= UNOBTAINABLE  
INV OUT (N)= UNOBTAINABLE  
(PAVED OVER, UNABLE TO OPEN MANHOLE)

SAN MH # 2046  
TOP= 1006.87'  
INV IN (S)= 998.71' (8" D.I. TO # 2045)  
INV IN (W)= 998.77' (8" D.I. TO # 2047)  
INV OUT (N)= 998.57' (8" D.I. TO # 2048)

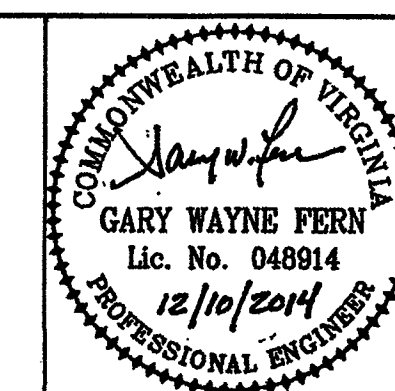
SAN MH # 2047  
TOP= 1030.72'  
INV IN (W)= 1026.97' (A.D. 4" D.I.)  
INV IN (NW)= 1026.52' (A.D. 4" PVC)  
INV IN (SW)= 1026.44' (A.D. 6" PVC)  
INV OUT (E)= 1020.44' (8" D.I. TO # 2046)

SAN MH # 2048  
TOP= 984.03'  
INV IN (S)= 973.14' (8" D.I. TO # 2046)  
INV IN (SE)= 973.11' (A.D. 8" D.I.)  
INV OUT (N)= 973.07' (A.D. 10" D.I. TO OFFSITE)

NO.	DATE	BY	REVISIONS

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VERT: NA	
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CHECKED: G.W.F.	
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**Western Virginia Water Authority**  
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**GARDEN CITY BOULEVARD WATER MAIN REPLACEMENT**  
 Phase 1  
 LEGEND, ABBREVIATIONS & UTILITY SCHEDULES

SHEET
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OF
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