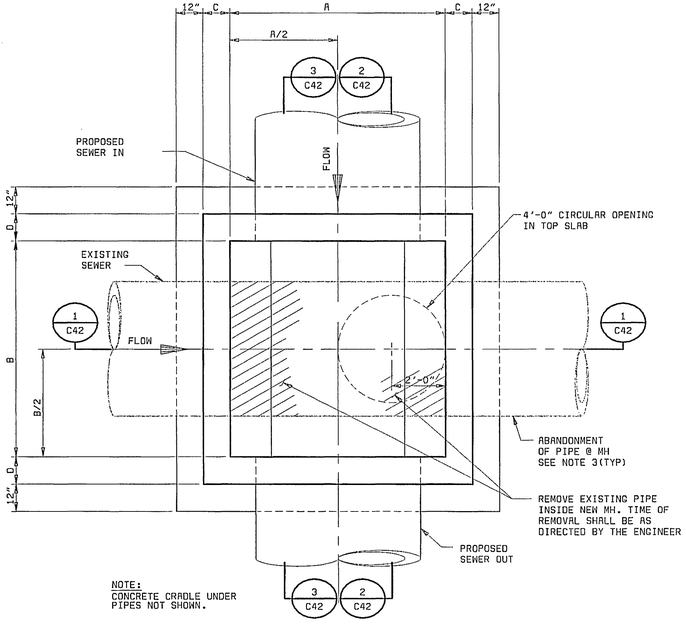
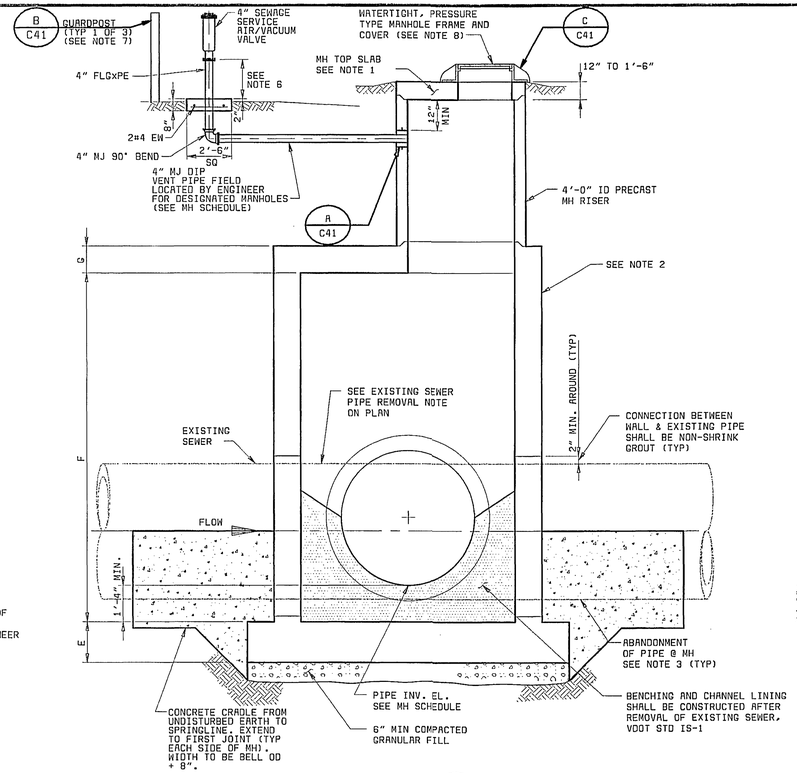


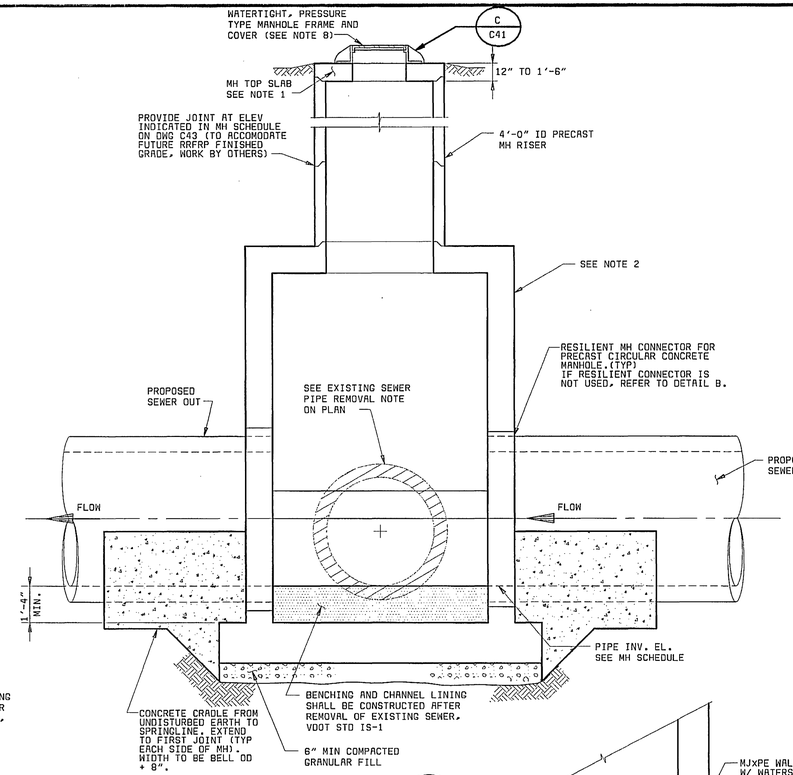
MH BUILT OVER EXISTING SEWER (A)

3/8" = 1'-0"



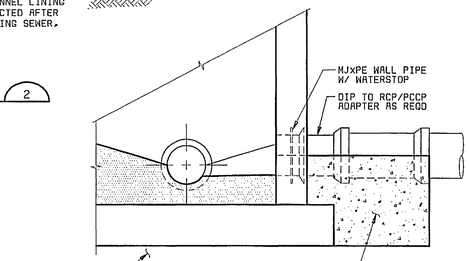
SECTION (1)

3/8" = 1'-0"



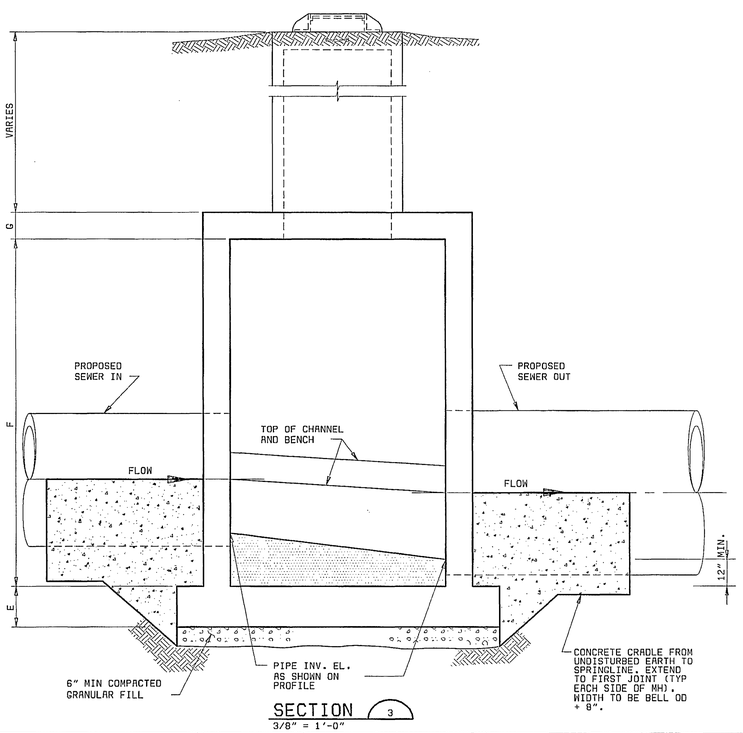
SECTION (2)

3/8" = 1'-0"



DETAIL (B)

NO SCALE



SECTION (3)

3/8" = 1'-0"

MANHOLE SCHEDULE - TYPE III FOR PCCP

MATERIAL	MH No.	SEWER IN[2] SIZE	SEWER OUT[2] SIZE	CONNECTIONS EXIST[5]	CONNECTIONS NEW[3]	FUTURE OUTLETS[4]	A	B	C	D	E	F1	G	COMMENTS[1]
PCCP	RR-202	66"	66"	16"	-	-	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-214	66"	66"	SIPHONS	-	18"	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-218	66"	66"	-	-	24"	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-224	66"	66"	10"	-	10"	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-237	66"	66"	SIPHONS	-	-	9'-0"	9'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-242	66"	66"	16"	-	36"	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-245	66"	66"	-	-	18"	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-251	66"	66"	SIPHONS	24"	18"	9'-0"	9'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-252A	66"	66"	SIPHONS	-	-	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-253A	48"	48"	-	36"	-	8'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-254	66"	66"	8"	-	-	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-258	66"	66"	-	8"	-	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-262	66"	66"	12"	-	12"	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-264	66"	60"	-	-	-	9'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-267	60"	60"	18"	-	-	8'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-276	60"	60"	-	8"	2-8"	8'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-277	60"	60"	10"	-	18"	8'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-281	60"	60"	-	-	18"	8'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER
PCCP	RR-284	60"	60"	-	10"	-	8'-0"	5'-0"	PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED					FIELD LOCATE OVER EXISTING SEWER

[1]MINIMUM F DIMENSION IS 8'-0"

MANHOLE SCHEDULE NOTES:

1. MINIMUM F DIMENSION IS 8'-0"
2. INVERT ELEVATION FOR NEW SEWER IN AND NEW SEWER OUT SHALL BE AS INDICATED ON DWG C1-C19.
3. INVERT ELEVATION OF NEW MANHOLE CONNECTIONS SHALL BE AS INDICATED IN THE MANHOLE PROFILES ON DWG C34.
4. OUTLETS FOR FUTURE CONNECTIONS CAST INTO TYPE III MANHOLES SHALL BE PExWSxMJ CAST IRON WALL PIPES WITH RESTRAINED MJ PLUGS ON THE EXTERIOR SIDE. ELEVATION AND SIZE OF THE OUTLET SHALL BE AS INDICATED IN THE MANHOLE SCHEDULE ON DWG C43. OUTLETS SHALL FACE THE ROANOKE RIVER SIDE OF THE INTERCEPTOR UNLESS SPECIFIED OTHERWISE ON DWG C1-C19.
5. TYPE III MANHOLES PROPOSED FOR LOCATION OVER EXISTING SEWERS SHALL BE FIELD LOCATED OVER THE SEWER; COORDINATES PROVIDED ON DWG C1-C19 ARE APPROXIMATE FOR THESE MANHOLES; THE EXISTING PIPE SHALL BE SUPPORTED AS NECESSARY AND FLOW MAINTAINED THROUGH THE NEW MANHOLE UNTIL SUCH TIME AS DIRECTED BY ENGINEER; THE EXISTING PIPE INSIDE THE NEW MANHOLES SHALL THEN BE REMOVED, THE DOWNSTREAM CONNECTION PLUGGED, AND BENCHING/CHANNEL LINING CONSTRUCTED AS INDICATED ON DWG C42 FOR MANHOLES RR-202, RR-214, RR-224, RR-242, RR-253A, RR-254, RR-262, RR-267, AND RR-277; EXISTING SEWERS IN MANHOLES RR-237 AND RR-252A ARE PROPOSED TO BE ABANDONED AND SHALL BE PLUGGED ON BOTH SIDES OF THE NEW MANHOLE AS INDICATED ON DWG C42 AT TIME DIRECTED BY ENGINEER.

RECORD DRAWING

THIS DRAWING HAS BEEN MODIFIED TO REFLECT CHANGES MADE DURING CONSTRUCTION BASED UPON INFORMATION AS MAY BE PROVIDED BY THE CONTRACTOR AND CONSTRUCTION OBSERVATION BY THE ENGINEER'S AUTHORIZED REPRESENTATIVE

BY _____ ENGINEER _____ DATE 9/26/98

NOTES:

1. MANHOLE FABRICATOR SHALL DESIGN AND PROVIDE TYPE III MANHOLES DESIGNED TO RESIST AN INTERNAL HYDROSTATIC HEAD OF 30 FEET OF WATER AND SIMULTANEOUS H-20 EXTERNAL LOADING. CONNECTIONS BETWEEN RISER SECTIONS AND BETWEEN RISER SECTION AND MANHOLE TOP SLAB SHALL BE STRAPPED AND BOLTED TOGETHER WITH EXTERNAL TYPE 316 STAINLESS STEEL JOINT HARNESS. A MINIMUM OF 3 JOINT HARNESSES, EQUALLY SPACED AROUND MANHOLE, SHALL BE USED AT EACH JOINT. BOLTS SHALL NOT EXTEND INTO INSIDE OF MANHOLE. MANHOLE FABRICATOR SHALL DESIGN TOP SLABS TO RESIST A MINIMUM EXTERNAL LOAD OF 20 FEET OF WATER COLUMN OR H-20 LOADING, AND FABRICATE AND PROVIDE SLAB BASED ON THE MORE CONSERVATIVE LORDING CONDITION. MANHOLE SHALL BE ANCHORED TO CAST IN PLACE CONCRETE BASE BY EXTENDING EXPOSED BAR CAGE REINFORCING FROM BOTTOM SECTION OF RISER SECTION A MINIMUM OF 18 INCHES INTO MANHOLE BASE AND SPLICING WITH BASE REINFORCING. MANHOLE FABRICATOR SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF VIRGINIA TO DESIGN THE PRESSURE MANHOLE COMPLETE WITH JOINT RESTRAINT AND BASE ANCHORAGE SYSTEMS. CONSTRUCTION DRAWINGS BEARING THE SEAL OF THE REGISTERED ENGINEER SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO BEGINNING MANHOLE FABRICATION.
2. PRECAST CONCRETE MANHOLE DESIGNED PER DIMENSIONS IN MANHOLE SCHEDULE AND LOADINGS IN NOTE 1, OR PRECAST CIRCULAR CONCRETE MANHOLE DESIGNED PER LOADINGS IN NOTE 1, MINIMUM INSIDE DIMENSION A IN MANHOLE SCHEDULE. MANHOLE SHALL HAVE "DOGHOUSE" BASE TO FIT OVER EXISTING SEWER.
3. AT TIME DIRECTED BY ENGINEER, SEWER TO BE ABANDONED SHALL BE COMPLETELY DISCONNECTED FROM MANHOLE BY CUTTING PIPE INSIDE MANHOLE AND PLUGGING ABANDONED SEWER AND MANHOLE WALL WITH WATERTIGHT MASONRY.
4. IF A DROP CONNECTION IS REQUIRED FOR USE WITH TYPE III MH, REFER TO TYPE II MANHOLE "STNDARD DROP MANHOLE" DETAIL ON DRAWING C41.
5. AT CONTRACTOR'S OPTION, TYPE I OR TYPE III MANHOLES MAY BE USED WITH 48" PCCP, RCP, OR DIP. MANHOLE TYPES FOR 66" AND 60" PCCP AND RCP SHALL BE AS SPECIFIED IN MH SCHEDULE ON DRAWING C43.
6. TERMINATE AIR/VACUUM VALVE AT ELEVATION AS INDICATED IN MH SCHEDULE, DWG C43.
7. PLACE 3 GUARDPOSTS 2'-6" UPSTREAM OF CENTERLINE OF VALVE ASSEMBLY, SPACED 2'-0" ON CENTERS.
8. WHERE MANHOLES ARE INSTALLED IN PAVED AREAS, COVER SHALL BE FLUSH WITH FINISHED GRADE.

TYPE III MANHOLE

DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY	CK	APP

DESIGNED JBB,SLF
DETAILED ABW
CHECKED RAF
APPROVED
DATE

Black & Veatch
Charlotte, North Carolina

PROJECT NO. 26444

CITY OF ROANOKE, VIRGINIA
ROANOKE RIVER INTERCEPTOR

MANHOLE DETAILS

THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY BRENT M. REUSS PROFESSIONAL ENGINEER, COMMONWEALTH OF VIRGINIA REGISTRATION NO. 026345 ON 5-30-97

C42

SHEET 28 OF 30

05/28/97 12:28:39 RCD-12_
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Date/Time Plotted = 9/2/98 10:20:10 AM