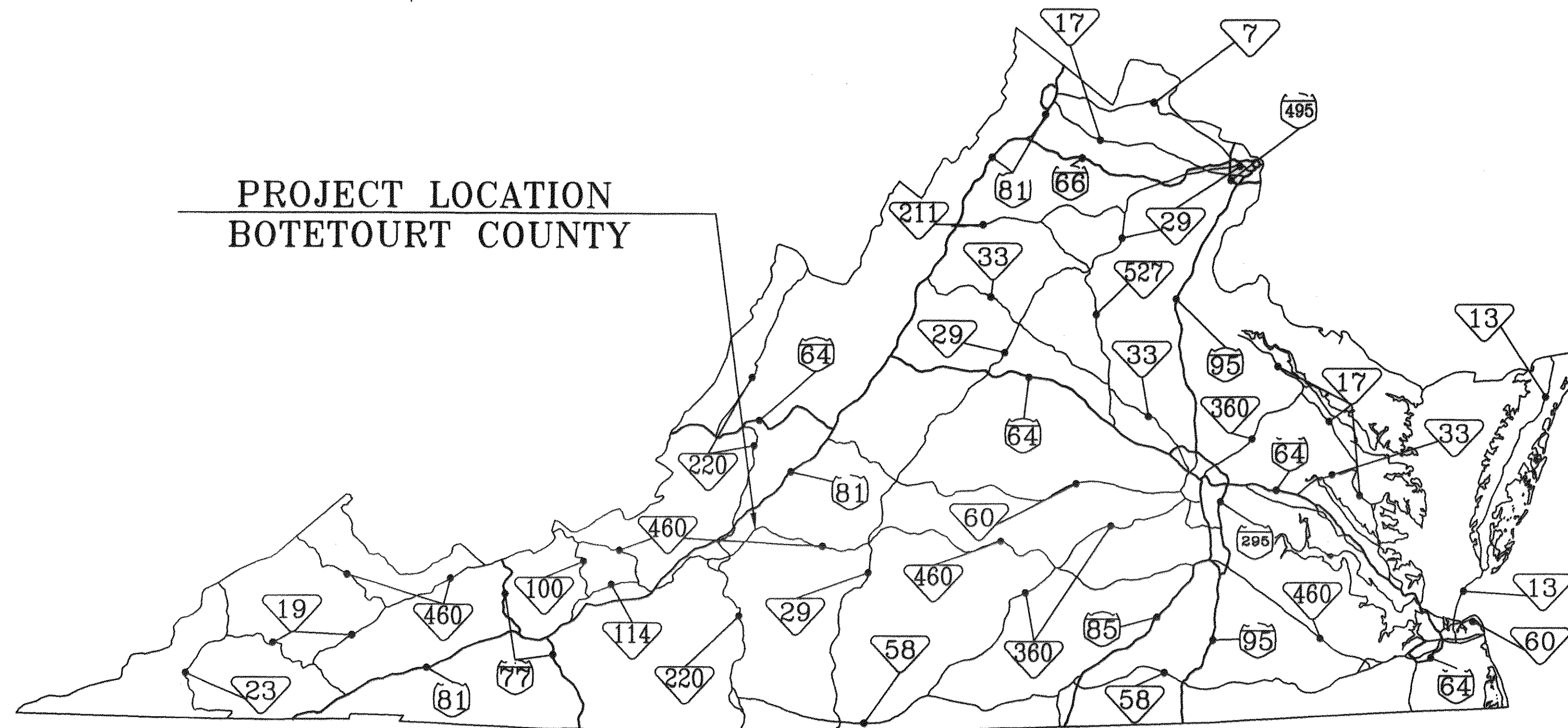


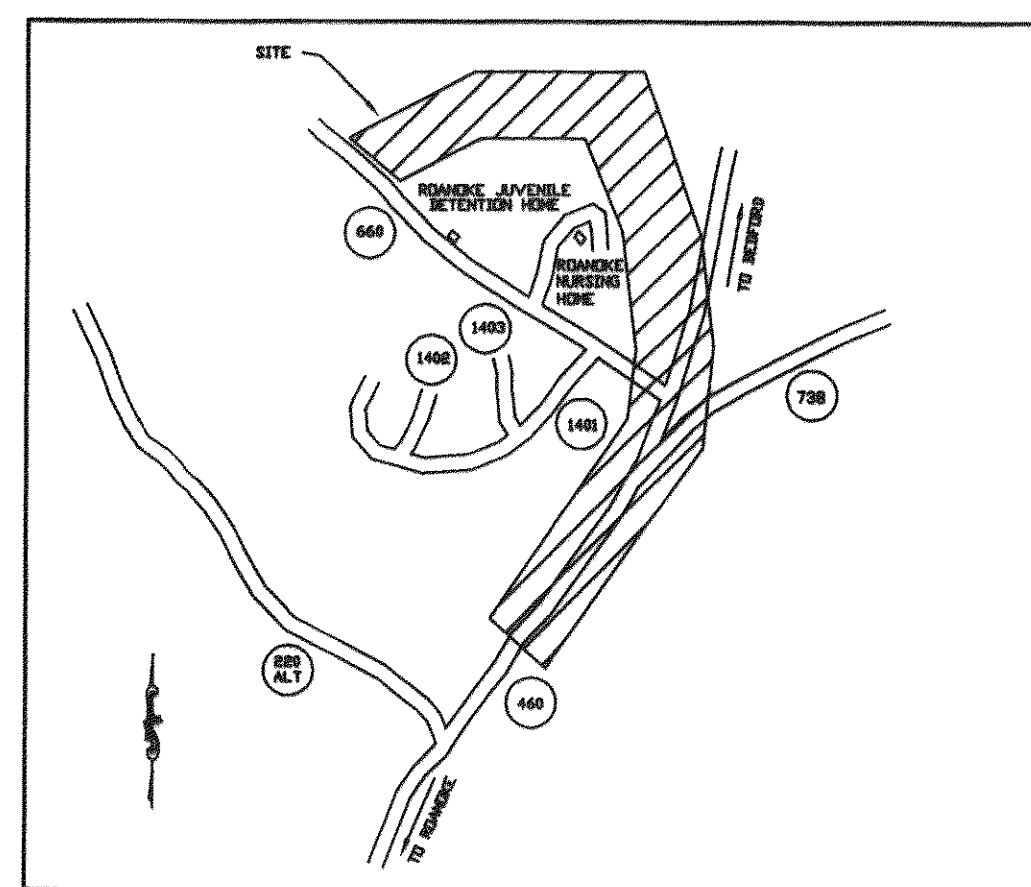
BROOKFIELD SECTION III BOTETOURT COUNTY, VIRGINIA

OWNER
BIDDEL CORPORATION
JOHN GRIFFIN
4053 LITTLE VALLEY DRIVE
TROUTVILLE, VIRGINIA 24175

PROJECT LOCATION
BOTETOURT COUNTY



LOCATION MAP
NO SCALE



VICINITY MAP
NO SCALE

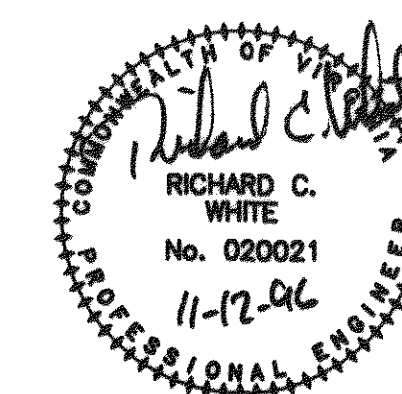
LMWP.C.
ENGINEERING - SURVEYING

1401 2nd STREET
ROANOKE, VA. 24016
PHONE: (540) 345-0675
FAX (540) 342-4456

SHEET INDEX

- #1 COVER SHEET
- #2 ABBREVIATION, LEGENDS & GENERAL NOTES
- #3 TRANSPORTATION NOTES
- #4 PLAN & PROFILE STREET NO.1 S-100/W-200
- #5 PLAN & PROFILE STREET NO.1 S-100/W-200
- #6 PLAN & PROFILE STREET NO.3 S-300/W-400
- #7 PLAN & PROFILE STREET NO.3 S-300/W-400
- #8 PLAN & PROFILE LINE S-400
- #9 PLAN & PROFILE LINE S-460
- #10 PLAN & PROFILE LINE S-460
- #11 PLAN & PROFILE LINE S-500
- #12 PLAN & PROFILE LINE S-500
- #13 PLAN & PROFILE LINE S-500
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- #17 EROSION & SEDIMENT CONTROL DETAILS

INDEX OF SHEETS
NO SCALE



COMM. NO. 942C-III
SET NO.

ABBREVIATIONS

AB	ANCHOR BOLT	JT	JOINT
ABAN	ABANDON OR ABANDONED	JB	JUNCTION BOX
ABUT	ABUTMENT	L	LENGTH, LONG
ABV	ABOVE	LF	LINEAL FOOT
ACT	ACOUSTICAL	LG	LONG
ADD	ADDITIONAL	LP	LIGHT POLE
ADJ	ADJACENT	LR	LONG RADIUS
AFF	ABOVE FINISH FLOOR	LT	LEFT
AGGR	AGGREGATE	LTG	LIGHTING
AHR	ANCHOR	MACH	MACHINERY
ALUM	ALUMINUM	MAS	MASONRY
ALT	ALTERNATE	MATL	MATERIAL
ANC	ANCHOR	MAX	MAXIMUM
APPROX	APPROXIMATE	MB	MAIL BOX
AARCH	ARCHITECTURAL	MECH	MECHANICAL
AWWA	AMERICAN WATER WORKS ASSOCIATION	MFR	MANUFACTURER
B	BRICK	MH	MANHOLE, MOUNTING HEIGHT
BIT	BITUMINOUS	MIN	MINIMUM
BJ	BELL JOINT	MISC	MISCELLANEOUS
BL	BASE LINE	MJ	MECHANICAL JOINT
BEG	BEGIN OR BEGINNING	MON	MONUMENT
BLDG	BUILDING	MTD	MOUNTED
BLKG	BLOCKING	MTG	MOUNTING
BM	BENCH MARK, BEAM	MTL	METAL
BOTT	BOTTOM	N & C	NAIL AND CAP
BP	BYPASS	NIC	NOT IN CONTRACT
BRG	BEARING	NO	NUMBER
BSMT	BASEMENT	NPW	NON POTABLE WATER
BSP	BLACK STEEL PIPE	NTS	NOT TO SCALE
BUR	BUILT UP ROOF	OC	ON CENTERS
BV	BUTTERFLY VALVE	OD	OUTSIDE DIAMETER
C	CHANNEL, COLD	OPER	OPERATOR
C/C, C TO C	CENTER TO CENTER	OPNG	OPENING
CAB	CABINET	OPP	OPPOSITE
CAP	CAPACITY	PC	POINT OF CURVE
CF	CUBIC FEET	PCC	POINT OF COMPOUND CURVE
CG	CHANGE OF GRADE	PER	PERMETER
C & G	CURB AND GUTTER	PERF	PERFORATED
CI	CAST IRON	PERP	PERPENDICULAR
CIRC	CIRCULAR	PI	POINT OF INTERSECTION
CKT	CIRCUIT	PIV	POST INDICATOR VALVE
CL	CENTER LINE	PL	PLATE, PROPERTY LINE
CLR	CLEAR	PLYWD	PLYWOOD
CONST	CONSTRUCTION	POL	POINT ON LINE
CMP	CORRUGATED METAL PIPE	PT	POINT OF TANGENCY
CMU	CONCRETE MASONRY UNITS	POT	POINT ON TANGENT
CND	CONDUIT	PRC	POINT OF REVERSE CURVE
CO	CLEANOUT	PRS	POUNDS PER SQUARE INCH
COMB	COMBINATION	PT	POINT OF TANGENT
CONC	CONCRETE (PORTLAND CEMENT)	PVC	POLYVINYL CHLORIDE
CONN	CONNECT, CONNECTION	PVI	POINT OF VERTICAL INTERSECTION
CONT	CONTINUOUS, CONTROL	PVMT	PAVEMENT
CONTR	CONTRACTOR	PVT	PRIVATE
CONV	CONVEYOR	R	RADIUS, RISER
CR STONE	CRUSHED STONE	RR	RAILROAD
CTR	CENTER	RCP	REINFORCED CONCRETE PIPE
CULV	CULVERT	RD	ROOF DRAIN, ROAD
CY	CUBIC YARD	RDCR	REDUCER
D	DEPTH OR DEGREE OF CURVE	RECP	RECEPTACLE
DEPT	DEPARTMENT	RECT	RECTANGULAR
DF	DRINKING FOUNTAIN	REINF	REINFORCE, REINFORCEMENT
DI	DROP INLET, DUCTILE IRON	REF	REFERENCE
DIA	DIAMETER	REL	RELOCATED
DIM	DIMENSION	REQD	REQUIRED
DISC	DISCONNECT	REV	REVISION
DMH	DROP MANHOLE	RTE	ROUTE
DN	DOWN	RT	RIGHT
DR	DRIVE	R/W	RIGHT OF WAY
DS	DOWN SPOUT	S	SANITARY SEWER, SOUTH, STORY, SWITCH
DTL	DETAIL	SAN	SANITARY
DWL	DWELLING	SCH	SCHEDULE
DWG	DRAWING	SD	STORM DRAIN
E	EAST	SECT	SECTION
EA	EACH	SER	SERVICE
E.B.L.	EASTBOUND LANE	SH	SHEET
EF	EACH FACE	SHTG	SHEETING
EJ	EXPANSION JOINT	SIM	SIMILAR
EL. ELEV	ELEVATION	SPEC	SPECIFICATION
ELEC	ELECTRICAL	SPECS	SPECIFICATIONS
ENGR	ENGINEER	SQ	SQUARE
ENTR	ENTRANCE	SS	STAINLESS STEEL
EOL	END OF LINE	ST	STREET
EP	EDGE OF PAVEMENT	STA	STATION
EQ	EQUAL	STD	STANDARD
EQPT	EQUIPMENT	STL	STEEL
EW	EACH WAY, ENDWALL	STRUCT	STRUCTURAL
EXIST	EXISTING	STY	STORY
EXP	EXPANSION	SUR	SURVEY
EXT	EXTERIOR	SURF	SURFACE
FR	FRAME	SYMM	SYMMETRICAL
FD	FLOOR DRAIN	T	TREAD
FDN	FOUNDATION	T & B	TOP AND BOTTOM
FES	FLARED END SECTION	TD	TURNED DOWN CURB
FF	FINISH FLOOR	TELE	TELEPHONE
FFE	FINISHED FLOOR ELEVATION	TEMP	TEMPORARY
FIG	FIGURE	THK	THICK
FIN	FINISH	TRTD	TREATED
FIXT	FIXTURE	TV	TELEVISION
FL	FLOOR	TW	TOP OF WALL
FLEX	FLEXIBLE	TYP	TYPICAL
FLG	FLANGE	UG	UNDERGROUND
FT	FOOT	UON	UNLESS OTHERWISE NOTED
FTG	FOOTING	U.S.C.&G.S	UNITED STATES COAST AND GEODETIC SURVEY
FUT	FUTURE	V. VAL	VALVE, VENT
GAL	GALLON	VAP BAR	VAPOR BARRIER
GALV	GALVANIZED	VC	VERTICAL CURVE
GAR	GARAGE	VERT	VERTICAL
GND	GROUND	VOL	VOLUME
GR	GRAVEL	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
GOVT	GOVERNMENT	V.S.D.	VERTICAL SIGHT DISTANCE
GPM	GALLONS PER MINUTE	W.B.L.	WESTBOUND LANE
GRTG	GRATING	W	WIDE FLANGE, WIDE, WASTE, WATER
GV	GATE VALVE	W/	WITH
H	HOT	WD	WOOD
HB	HOSE BIBB	WL	WATER LINE
HK	HOOK	W/O	WITHOUT
HM	HOLLOW METAL	WS	WATER SURFACE
HOR, HORIZ	HORIZONTAL	WT	WATERTIGHT, WEIGHT
HP	HORSE POWER	WVDH	WEST VIRGINIA DEPARTMENT OF HIGHWAYS
HPT	HIGH POINT	WWF	WELDED WIRE FABRIC
HYD	HYDRANT	COR	CORNER
ID	INSIDE DIAMETER	DRWAY	DRIVEWAY
IN	INCH	PP	POWER POLE
INSUL	INSULATION	TP	TELEPHONE POLE
INV	INVERT	S/W	SIDEWALK
IP	IRON PIN		

LEGEND

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
		CENTERLINE CREEK, SWALE, DITCH
		PROPERTY LINE
		CENTERLINE OR BASELINE
		LIMIT OF WORK LINE
		FIELD SURVEY TRAVERSE POINT
		P.O. OR P.T.
		GEOLOGIC BORE HOLE
		STORM DRAIN AND ENDWALL
		SANITARY SEWER
		FORCE MAIN
		GAS MAIN OR SERVICE LINE
		WATER MAIN OR SERVICE LINE
		ELECTRICAL LINE
		UNDERGROUND TELEPHONE LINE
		UNDERGROUND ELECTRICAL LINE
		PIPE FITTINGS
		FIRE HYDRANT
		GATE VALVE
		CLEANOUT
		MANHOLE
		DROP INLET (CURB AND GRATING TYPES)
		G.M. - GAS METER, W.M. - WATER METER
		TELEPHONE LINE
		TELEPHONE POLE, GUY AND ANCHOR
		POWER POLE, GUY AND ANCHOR
		LIGHT POLE
		TELEPHONE PEDESTAL
		BURIED TELEPHONE VAULT
		ABANDON OR REMOVE
		PAVED DITCH
		DRIVEWAY CULVERT
		CULVERT WITH FLARED END SECTION
		WATER VALVE
		HUB AND TACK
		AIR RELEASE VALVE

EROSION AND SEDIMENT CONTROL SYMBOLS

EC1		EROSION CONTROL STONE
STB		STRAW BALE BARRIER
IP		STORM DRAIN INLET PROTECTION
DD		TEMPORARY DIVERSION DIKE
ST		TEMPORARY SEDIMENT TRAP
CE		TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
RR		RIPRAP
SF		SILT FENCE
PS		PERMANENT SEEDING
TS		TEMPORARY SEEDING
CD		ROCK CHECK DAMS
OP		OUTLET PROTECTION

MATERIALS SYMBOLS

	METAL
	BRICK
	CONCRETE MASONRY
	CONCRETE
	GROUT OR FINISHED CONCRETE
	INSULATION (RIGID)
	WOOD BLOCKING
	FINISHED WOOD OR PLYWOOD
	GRAVEL OR STONE
	EARTH

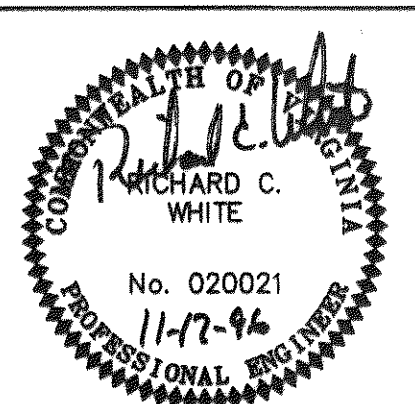
GENERAL NOTES

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 THE 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 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.

THE CONTRACTOR IS REQUIRED TO NOTIFY "MISS UTILITY" AT 1-800-552-7001 AT LEAST TWO, BUT NOT MORE THAN TEN, WORKING DAYS IN ADVANCE OF CONSTRUCTION.



ENGINEER'S SEAL

REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW	BROOKFIELD - SECTION III ABBREVIATIONS, LEGEND, GENERAL NOTES, & INDEX BOTETOURT COUNTY, VIRGINIA		
DRAWN	MLL/REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			
IMW P.C. ENGINEERING - SURVEYING		SCALE: NONE	COMM. NO. 942C-III	
PHONE (540) 345-0675 1401 2ND STREET S.W. FAX (540) 342-4456 ROANOKE, VIRGINIA 24016		DATE: 11/4/96	SHEET 2	

VIRGINIA DEPARTMENT OF TRANSPORTATION NOTES:

1. QUALITY CONTROL

STREETS TO BE GRADED, PAVED AND ALL STRUCTURAL COMPONENTS ERECTED IN ACCORDANCE WITH CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS AND ROAD DESIGN STANDARDS, ROANOKE COUNTY, VIRGINIA DESIGN STANDARDS SPECIFICATIONS. ALL MATERIALS USED SHALL BE TESTED IN ACCORDANCE WITH STANDARD POLICIES. THE DEVELOPER MUST CONTACT THE OFFICE OF THE RESIDENT ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION AT WHICH TIME AN INSPECTION AND TESTING PROCEDURE POLICY WILL BE DRAWN. THE DEVELOPER WILL PRODUCE TEXT REPORTS FROM APPROVED INDEPENDENT LABORATORIES AT THE DEVELOPER'S EXPENSE.

THE PAVEMENT DESIGNS SHOWN ARE BASED ON A SUBGRADE CBR VALUE OF 10 OR GREATER. THE SUBGRADE 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 SUBGRADE CBR VALUES BE LESS THAN 10, THEN ADDITIONAL BASE MATERIAL WILL BE REQUIRED IN ACCORDANCE WITH DEPARTMENTAL SPECIFICATIONS.

THE SUBGRADE MUST BE APPROVED BY VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO PLACEMENT OF THE BASE. BASE MUST BE APPROVED BY VIRGINIA DEPARTMENT OF TRANSPORTATION FOR DEPTH, TEMPLATE AND COMPACTION BEFORE SURFACE IS APPLIED.

2. UTILITIES

ALL NECESSARY UTILITY LATERALS ALONG WITH PROVISIONS FOR CONDUITS (I.E. WATER, SEWER, STORM, GAS, AND TELEPHONE) WILL BE CONSTRUCTED PRIOR TO PLACEMENT OF BASE MATERIAL.

GAS OR PETROLEUM TRANSMISSION LINES WILL NOT BE PERMITTED WITHIN THE PAVEMENT OR SHOULDER ELEMENT (BACK OF CURB TO BACK OF CURB) OF THIS DEVELOPMENT. SERVICE LATERALS CROSSING AND PIPE LINES LOCATED OUTSIDE THE PAVEMENT BUT INSIDE THE RIGHT OF WAY WILL BE CONSTRUCTED IN CONFORMITY WITH ASA B 31.8 SPECIFICATIONS AND SAFETY REGULATIONS. DISTRIBUTION LINES WITH PRESSURES LESS THAN 120 LBS. ARE UNAFFECTED BY THE ABOVE.

PERMITS WILL BE REQUIRED FOR ALL UTILITIES WITHIN STREET RIGHT OF WAY PRIOR TO ACCEPTANCE INTO THE SECONDARY HIGHWAY SYSTEM.

ANY EASEMENTS GRANTED TO A UTILITY COMPANY FOR PLACEMENT OF POWER, TELEPHONE, ETC. MUST BE RELEASED PRIOR TO ACCEPTANCE.

3. PRIVATE ENTRANCES

MODIFIED CG-9D GUTTER WILL BE PROVIDED AT ALL ENTRANCES TO PRIVATE LOTS WHERE STANDARD CG-6 CURB AND GUTTER IS APPROVED FOR USE. DRIVEWAYS CONNECTING TO ROADS WITHOUT CURB & GUTTER SHALL CONFORM TO THE PAVEMENT, SHOULDER & SLOPE. PERMITS WILL BE REQUIRED FOR ALL PRIVATE ENTRANCES CONSTRUCTED ON STREET RIGHTS OF WAY AFTER ACCEPTANCE INTO THE SECONDARY HIGHWAY SYSTEM.

4. EROSION CONTROL AND LANDSCAPING

CARE MUST BE TAKEN DURING CONSTRUCTION TO PREVENT EROSION, DUST AND MUD FROM DAMAGING ADJACENT PROPERTY, CLOGGING DITCHES, STREAMING PUBLIC STREETS AND OTHERWISE CREATING A PUBLIC OR PRIVATE NUISANCE TO SURROUNDING AREAS. THE ENTIRE CONSTRUCTION AREA INCLUDING DITCHES, CHANNELS, BACK OF CURBS AND OR PAVEMENT ARE TO BE BACKFILLED AND SEEDED AT THE EARLIEST POSSIBLE TIME AFTER FINAL GRADING. DRAINAGE EASEMENTS MUST BE DEFINED BY EXCAVATED DITCHES OR CHANNELS FOR THEIR FULL LENGTH TO WELL DEFINED EXISTING NATURAL WATERCOURSES. THE ROAD WILL BE REVIEWED DURING CONSTRUCTION FOR THE NEED OF PAVED DITCHES. IF EROSION IS ENCOUNTERED IN ANY DRAINAGE EASEMENT, IT WILL BE THE RESPONSIBILITY OF THE DEVELOPER TO SOD, RIP RAP, GROUT PAVE OR TO DO WHATEVER IS NECESSARY TO CORRECT THE PROBLEM. ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO THE CONDITIONING (CUTTING AND/OR PREPARATION) OF THE SUBGRADE.

5. INTERSECTION PAVEMENT RADIUS

MINIMUM PAVEMENT RADIUS OF 25 FEET IS REQUIRED AT ALL STREET INTERSECTIONS.

6. CONNECTIONS TO STATE-MAINTAINED ROADS

WHILE THESE PLANS HAVE BEEN APPROVED, SUCH APPROVAL DOES NOT EXEMPT CONNECTIONS WITH EXISTING STATE-MAINTAINED ROADS FROM CRITICAL REVIEW AT THE TIME PERMIT APPLICATIONS ARE MADE. THIS IS NECESSARY IN ORDER THAT THE PREVAILING CONDITIONS BE TAKEN INTO CONSIDERATION REGARDING SAFETY ACCOMPANIMENTS SUCH AS TURNING LANES.

7. GUARDRAILS

STANDARD GUARDRAIL WITH SAFETY END SECTIONS MAY BE REQUIRED ON FILLS AS DEEMED NECESSARY BY THE RESIDENT ENGINEER. AFTER COMPLETION OF ROUGH GRADING OPERATIONS, THE OFFICE OF THE RESIDENT ENGINEER, SHALL BE NOTIFIED SO THAT A FIELD REVIEW MAY BE MADE OF THE PROPOSED LOCATIONS. WHERE GUARDRAILS ARE TO BE INSTALLED THE SHOULDER WIDTH SHALL BE INCREASED IN ACCORDANCE WITH VDOT ROAD AND BRIDGE STANDARDS.

8. STORM DRAINAGE

FIELD REVIEW WILL BE MADE DURING CONSTRUCTION TO DETERMINE THE NEED AND LIMITS OF PAVED DITCHES AND/OR DITCH STABILIZATION TREATMENTS, AND TO DETERMINE THE NEED AND LIMITS OF ADDITIONAL DRAINAGE EASEMENTS. ALL DRAINAGE EASEMENTS MUST BE CUT AND MADE TO FUNCTION TO A NATURAL WATERCOURSE. ANY EROSION PROBLEMS ENCOUNTERED IN AN EASEMENT MUST BE CORRECTED BY WHATEVER DITCH SLOPES ARE TO BE FOUR TO ONE (4:1) FOR SHOULDER WIDTHS OF SIX FEET (6') OR GREATER AND THREE TO ONE (3:1) FOR SHOULDER WIDTHS OF FOUR FEET (4') OR FIVE FEET (5'), UNLESS OTHERWISE SPECIFIED IN THE PLANS.

9. ENTRANCE PERMIT

CONTRACTOR SHALL OBTAIN ENTRANCE PERMIT TO THE EXISTING VIRGINIA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY FROM RESIDENT ENGINEER PRIOR TO ROAD CONSTRUCTION.

10. INSPECTION

AN INSPECTOR WILL NOT BE FURNISHED EXCEPT FOR PERIODIC PROGRESS INSPECTION, THE ABOVE MENTIONED FIELD REVIEWS AND CHECKING FOR REQUIRED STONE DEPTHS. THE DEVELOPER WILL BE REQUIRED TO POST A SURETY TO GUARANTEE THE ROAD FREE OF DEFECTS FOR ONE YEAR AFTER ACCEPTANCE BY THE DEPARTMENT OF TRANSPORTATION.

11. STREET MAINTENANCE

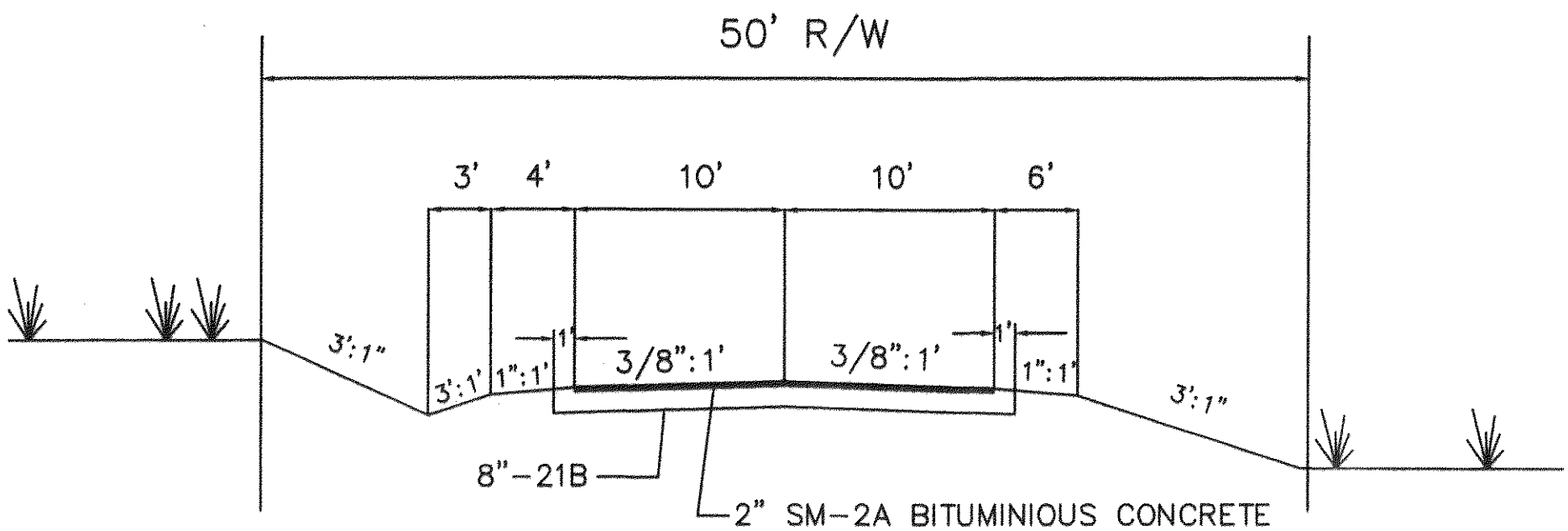
THE STREETS MUST BE PROPERLY MAINTAINED UNTIL ACCEPTANCE. AT SUCH TIME AS ALL REQUIREMENTS HAVE BEEN MET FOR ACCEPTANCE, ANOTHER INSPECTION WILL BE MADE TO DETERMINE THAT THE STREET HAS BEEN PROPERLY MAINTAINED.

12. UNDERGROUND UTILITIES

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK BY CONTACTING MISS UTILITY. CONTACT SITE ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS. IF THERE APPEARS TO BE A CONFLICT AND UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THIS PLAN, CALL "MISS UTILITY" OF CENTRAL VIRGINIA AT 1-800-552-7001.

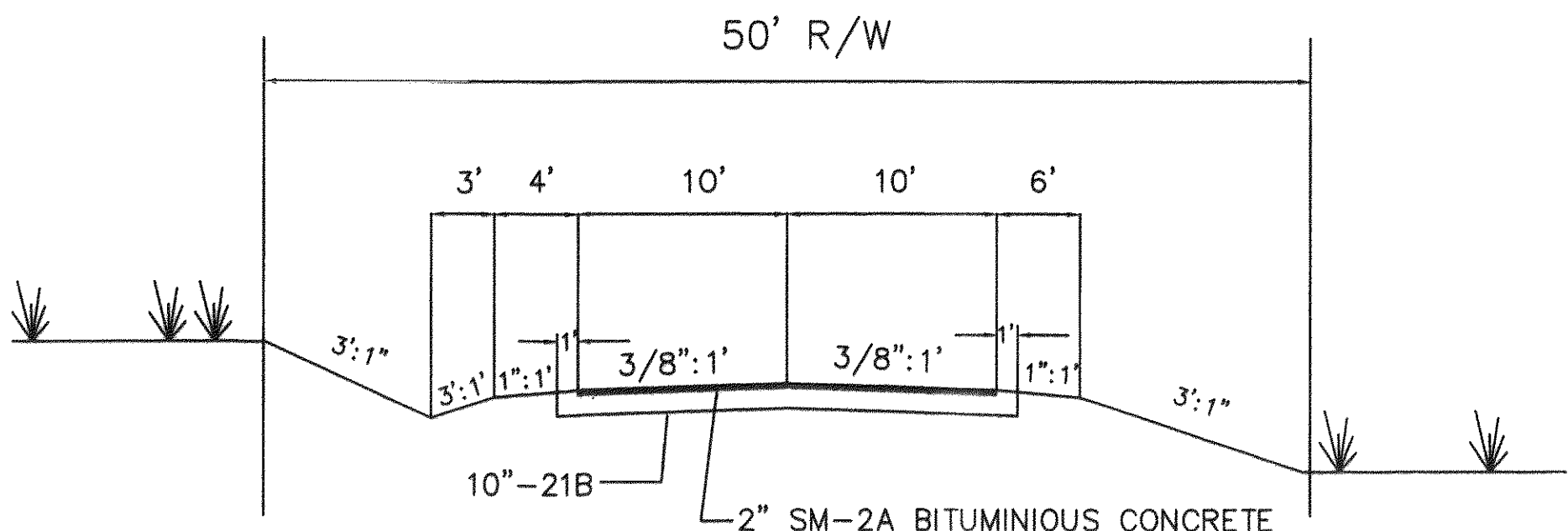
13. REVISIONS OF SPECIFICATIONS AND STANDARDS

APPROVAL OF THESE PLANS WILL BE BASED ON SPECIFICATIONS AND STANDARDS IN EFFECT AT THE TIME OF APPROVAL AND WILL BE SUBJECT, UNTIL COMPLETION OF THE ROADWAY AND ACCEPTANCE BY THE DEPARTMENT, TO FUTURE REVISIONS OF THE SPECIFICATIONS AND STANDARDS.



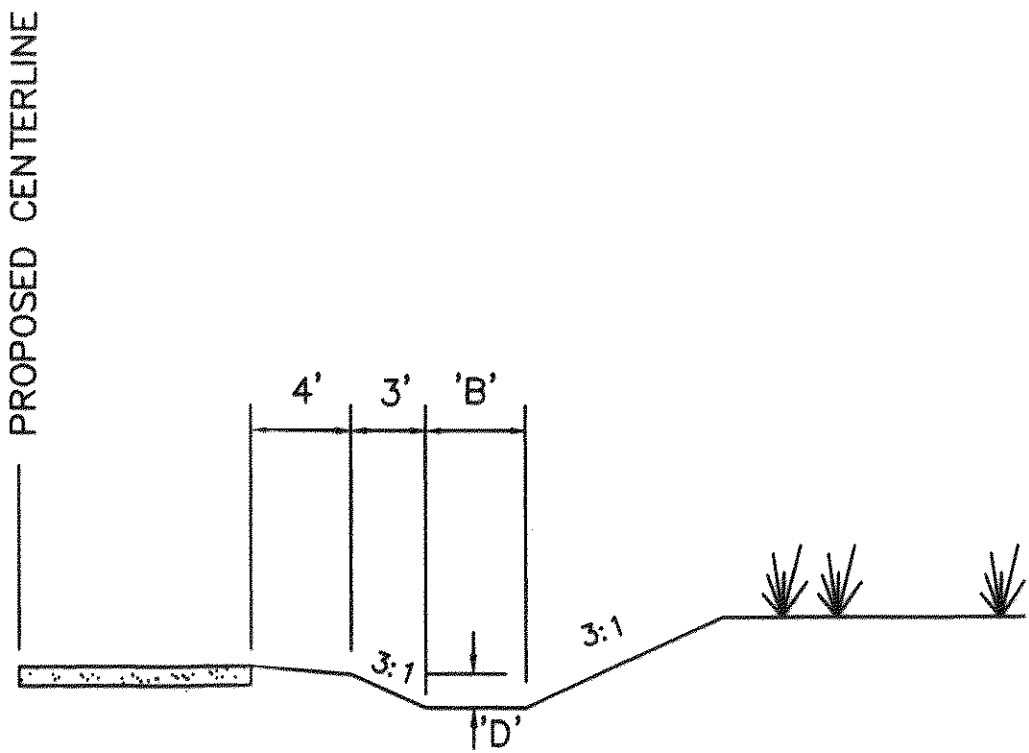
CATEGORY II
TYPICAL PAVEMENT SECTION
NO SCALE

STA. 5+11.50 TO STA. 20+16.50 - STREET '3'



CATEGORY III
TYPICAL PAVEMENT SECTION
NO SCALE

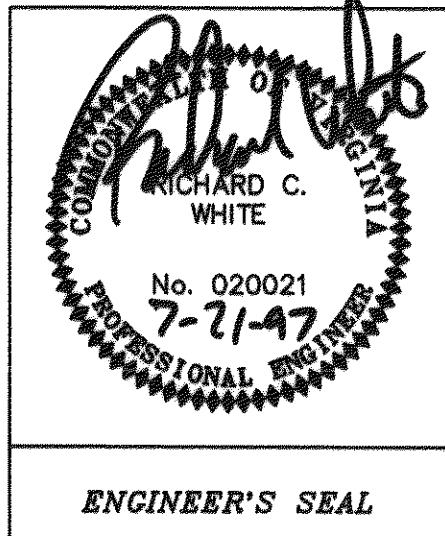
STA. 12+20.88 TO STA. 28+49.03 - STREET '1'



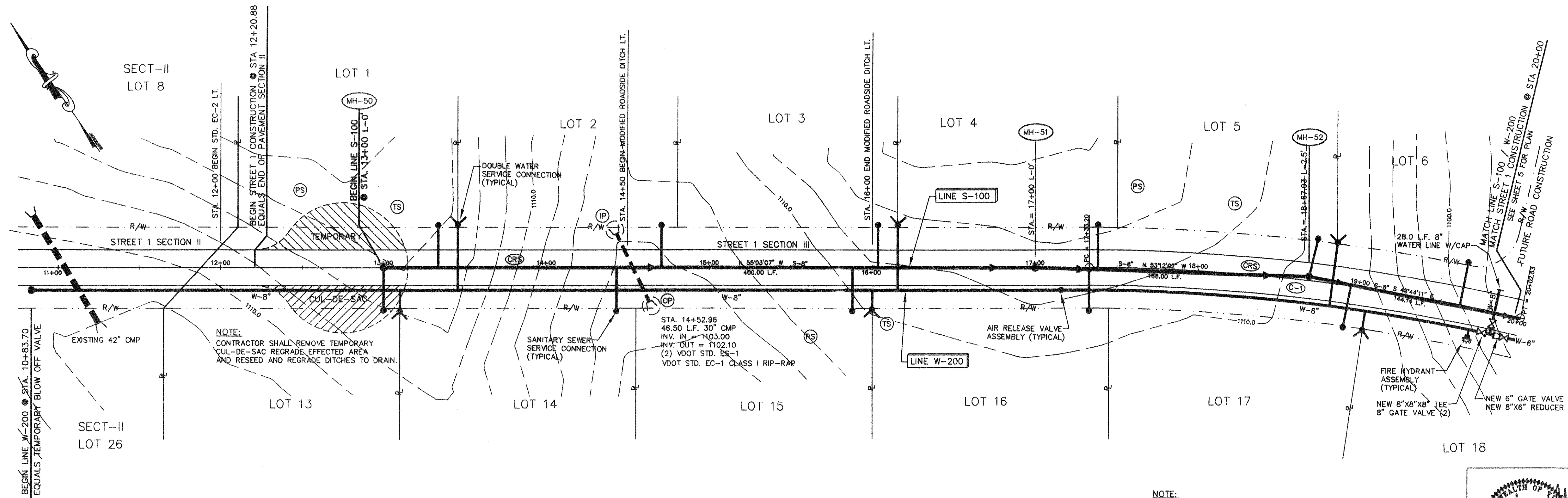
DETAIL 'A'

MODIFIED ROADSIDE DITCH
NO SCALE

BASELINE	STA	TO	STA	'B'	'D'
STREET '1'	14+50		16+00	2'	2'
STREET '1'	21+00		22+00	2'	2'



REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	DME			
DRAWN	DME			
CHECKED	RCW			
APPROVED	RCW			
SUBMITTED	DRM			
BROOKFIELD - SECTION III				
ROADWAY CONSTRUCTION AND GENERAL NOTES				
ROANOKE COUNTY, VIRGINIA				
IMW P.C. ENGINEERING - SURVEYING			SCALE: NONE	COMM. NO. 942C-III
PHONE (703) 945-0675 1401 8th STREET S.W. ROANOKE, VIRGINIA 24006			DATE: 07-18-97	SHEET 3

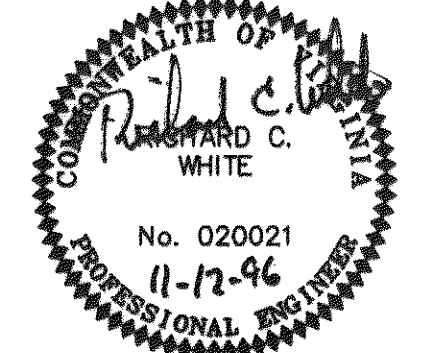


$\Delta = 13^\circ 28' 18''$ $D = 05' 00' 00''$
 $T = 135.34'$ $PC = 17+33.20$
 $L = 269.43'$ $PI = 18+68.54$
 $R = 1145.93'$ $PT = 20+02.63$

PLAN VIEW STREET 1 / S-100 / W-200

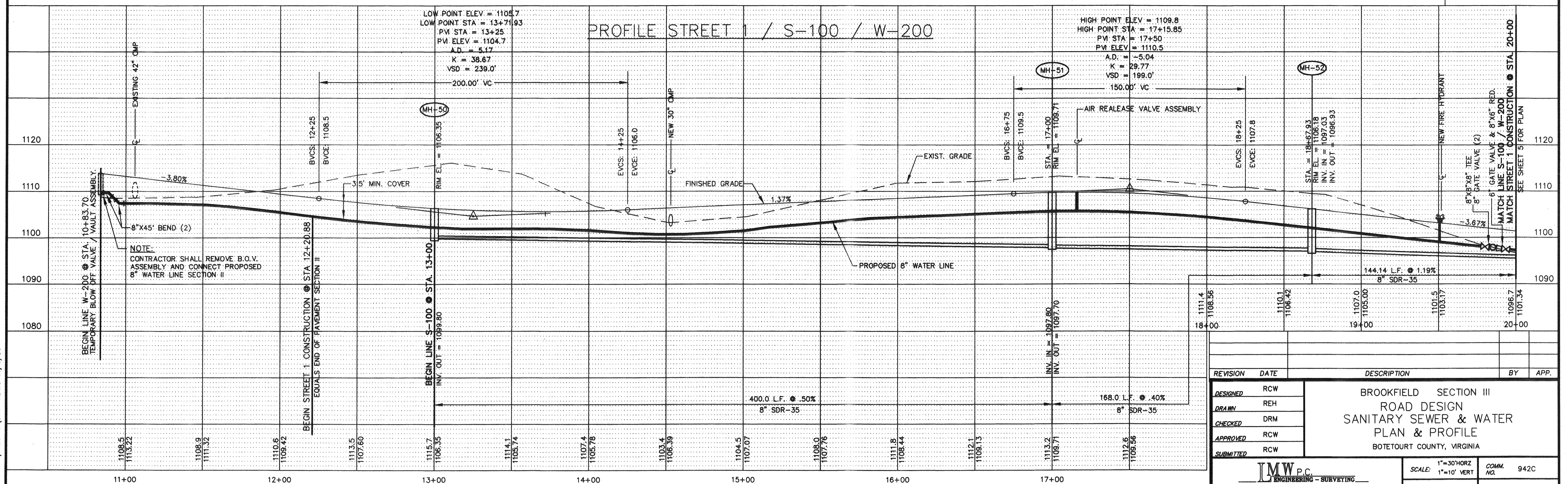
NOTE:

1. PLAN AND PROFILE SHEETS ARE A CONTINUATION OF BROOKFIELD II PROJECT. ALL PROPOSED WATER AND SEWER LINE STATIONS, OFFSETS, AND MATCH LINES ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT EXCEPT WHERE OTHERWISE MAY BE NOTED ON PLANS.
2. ALL RIGHT OF WAY WIDTHS ARE 50' UNLESS OTHERWISE NOTED ON PLANS.
3. CONTRACTOR SHALL INSTALL WATER LINE A MINIMUM OF 3'-0" OFF EDGE OF PAVEMENT.
4. SEE SHEET NO. 3 FOR MODIFIED ROADSIDE DITCH DETAIL.



ENGINEER'S SEAL

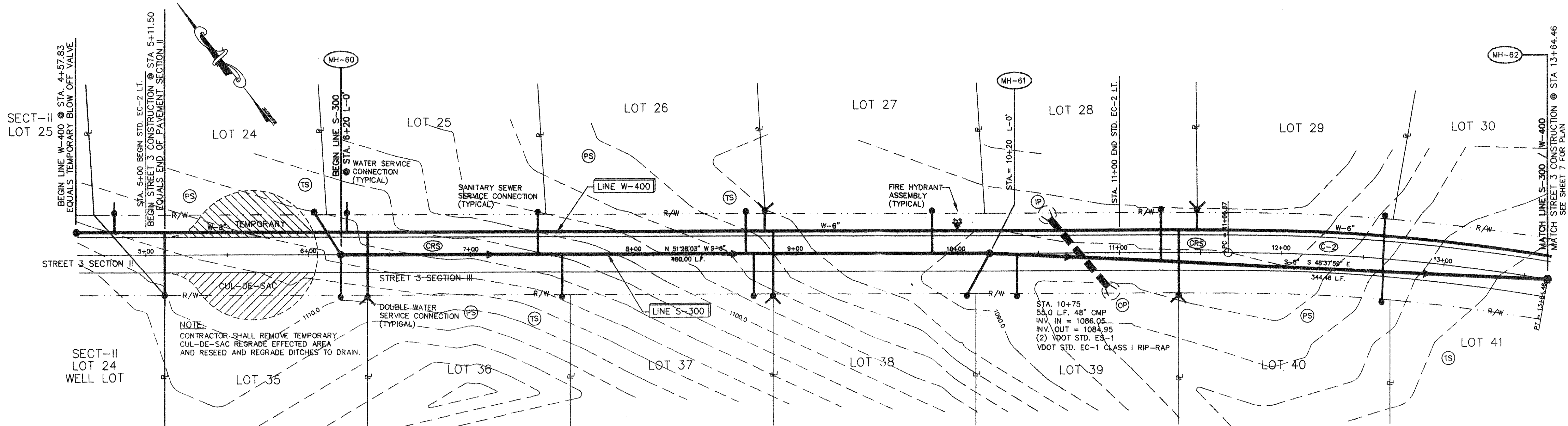
PROFILE STREET 1 / S-100 / W-200



REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III	
ROAD DESIGN	
SANITARY SEWER & WATER	
PLAN & PROFILE	
BOTETOURT COUNTY, VIRGINIA	

SCALE: 1"=30'HORIZ 1"=10' VERT	DATE: 11/4/96
COMD. NO. 942C	SHEET 4

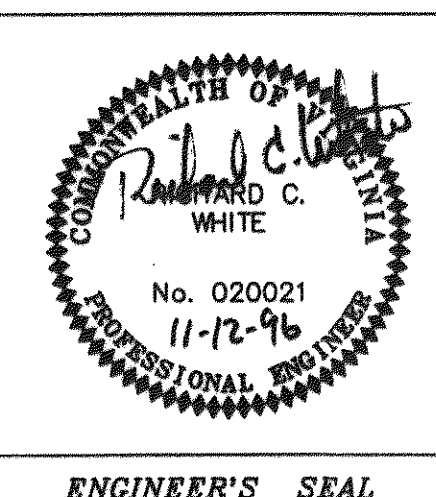


$\Delta = 09^\circ 53' 14''$ $D = 05^\circ 00' 14''$
 $T = 99.04'$ $PC = 11+66.87$
 $L = 197.59'$ $PI = 12+65.91$
 $R = 1145.00'$ $PT = 13+64.46$

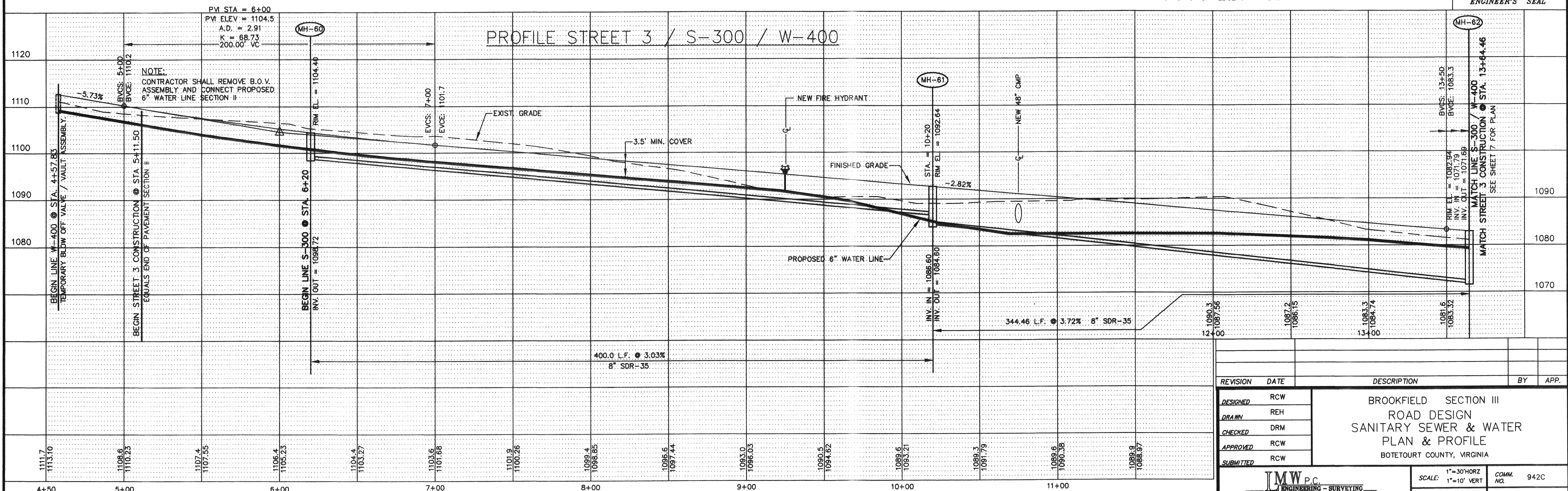
PLAN VIEW STREET 3 / S-300 / W-400

NOTE:

1. PLAN AND PROFILE SHEETS ARE A CONTINUATION OF BROOKFIELD II PROJECT. ALL PROPOSED WATER AND SEWER LINE STATIONS, OFFSETS, AND MATCH-LINES ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT EXCEPT WHERE OTHERWISE MAY BE NOTED ON PLANS.
2. ALL RIGHT OF WAY WIDTHS ARE 50' UNLESS OTHERWISE NOTED ON PLANS.
3. CONTRACTOR SHALL INSTALL WATER LINE A MINIMUM OF 3'-0" OFF EDGE OF PAVEMENT.



PROFILE STREET 3 / S-300 / W-400

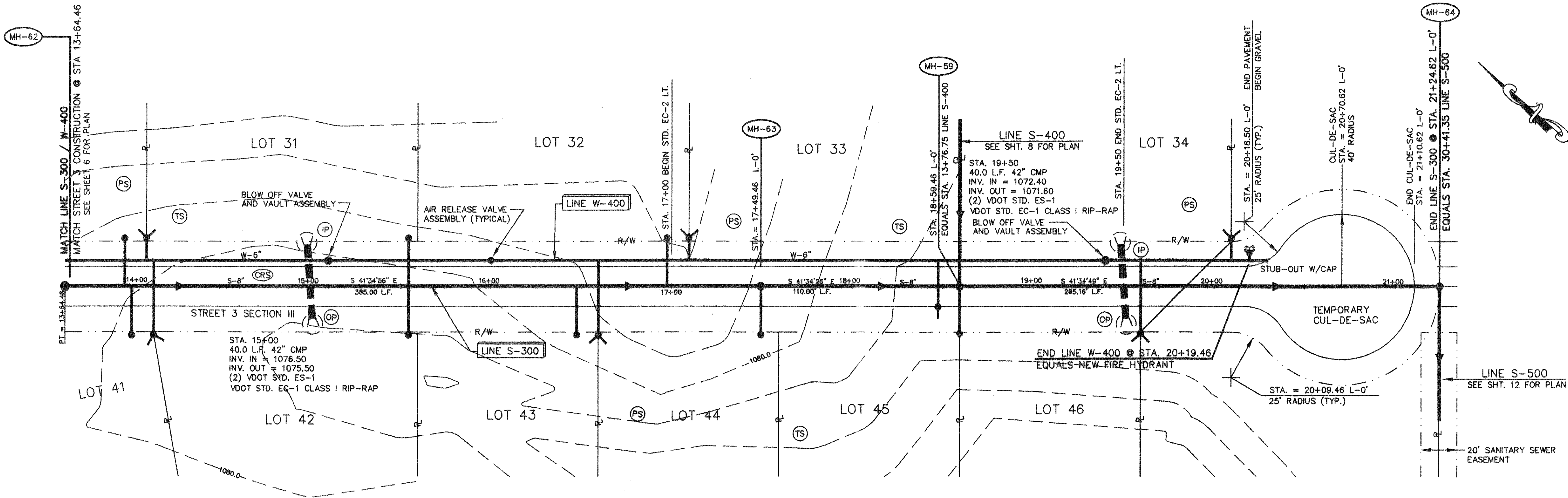


REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III	
ROAD DESIGN	
SANITARY SEWER & WATER	
PLAN & PROFILE	
BOTETOURT COUNTY, VIRGINIA	

IMW P.C. ENGINEERING - SURVEYING PHONE 540-345-0475 FAX 540-345-4456	1411 SW STREET S.W. ROANOK, VIRGINIA 24016
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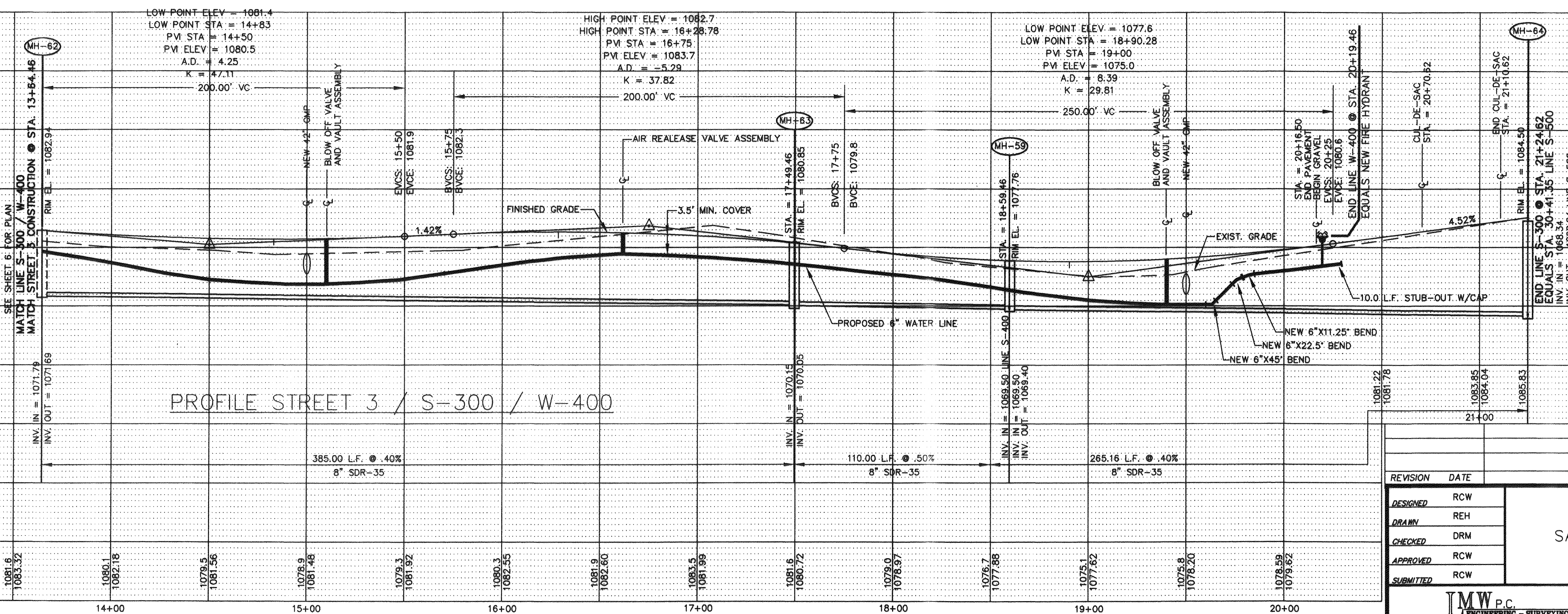
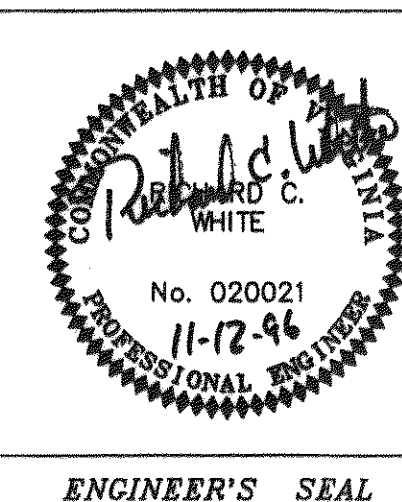
SCALE: 1"=30'HORIZ 1"=10' VERT	DATE: 11/4/96	COMM. NO. 942C	SHEET 6
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PLAN VIEW STREET 3 / S-300 / W-400

NOTE:

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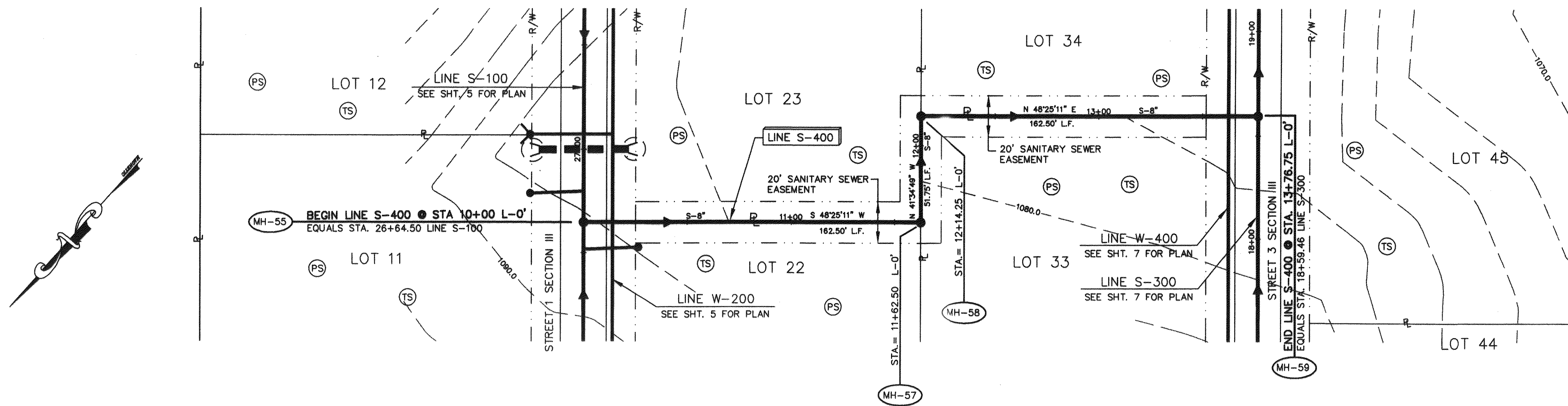


PROFILE STREET 3 / S-300 / W-400

REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III	
ROAD DESIGN	
SANITARY SEWER & WATER	
PLAN & PROFILE	
BOTETOURT COUNTY, VIRGINIA	

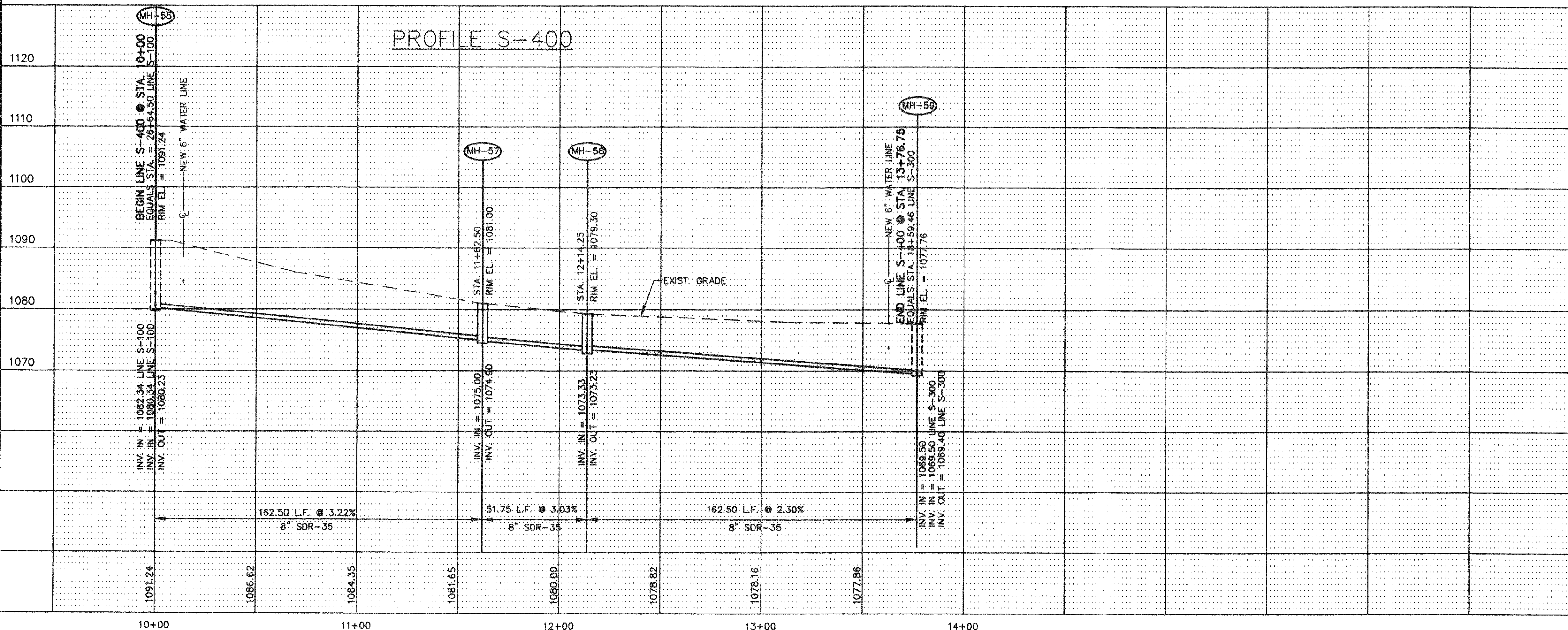
IMW P.C. ENGINEERING - SURVEYING PHONE (540) 345-6675 FAX (540) 345-4425	1401 BAY STREET S.W. ROANOKE, VIRGINIA 24015	SCALE: 1"=30'HORIZ 1"=10' VERT	DATE: 11/4/96	COMM. NO. 942C	SHEET 7
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PLAN VIEW S-400

- NOTE:
1. PLAN AND PROFILE SHEETS ARE A CONTINUATION OF BROOKFIELD II PROJECT. ALL PROPOSED WATER AND SEWER LINE STATIONS, OFFSETS, AND MATCH-LINES ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT EXCEPT WHERE OTHERWISE MAY BE NOTED ON PLANS.
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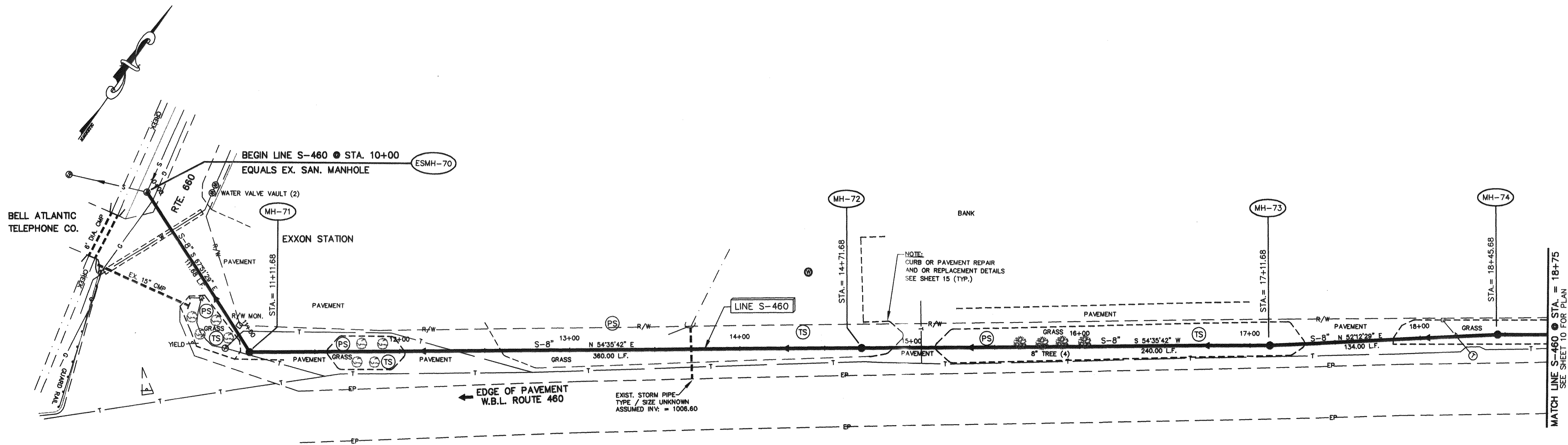
COMMONWEALTH OF VIRGINIA
 BOARD OF PROFESSIONAL ENGINEERS
 No. 020021
 11-12-96
 ENGINEER'S SEAL



REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III ROAD DESIGN SANITARY SEWER & WATER PLAN & PROFILE BOTETOURT COUNTY, VIRGINIA	
 IMW P.C. ENGINEERING - SURVEYING PHONE (540) 345-0675 FAX (540) 345-4456	SCALE: 1"=30'HORIZ 1"=10' VERT DATE: 11/4/96 COMM. NO. 942C SHEET 8

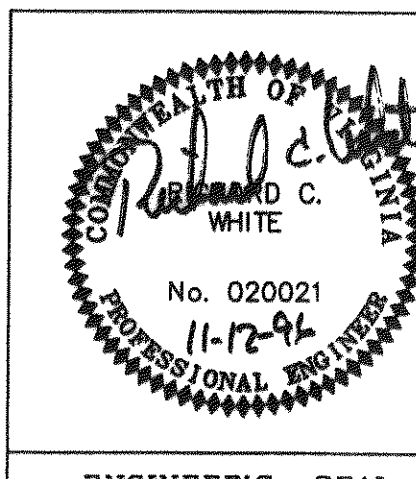
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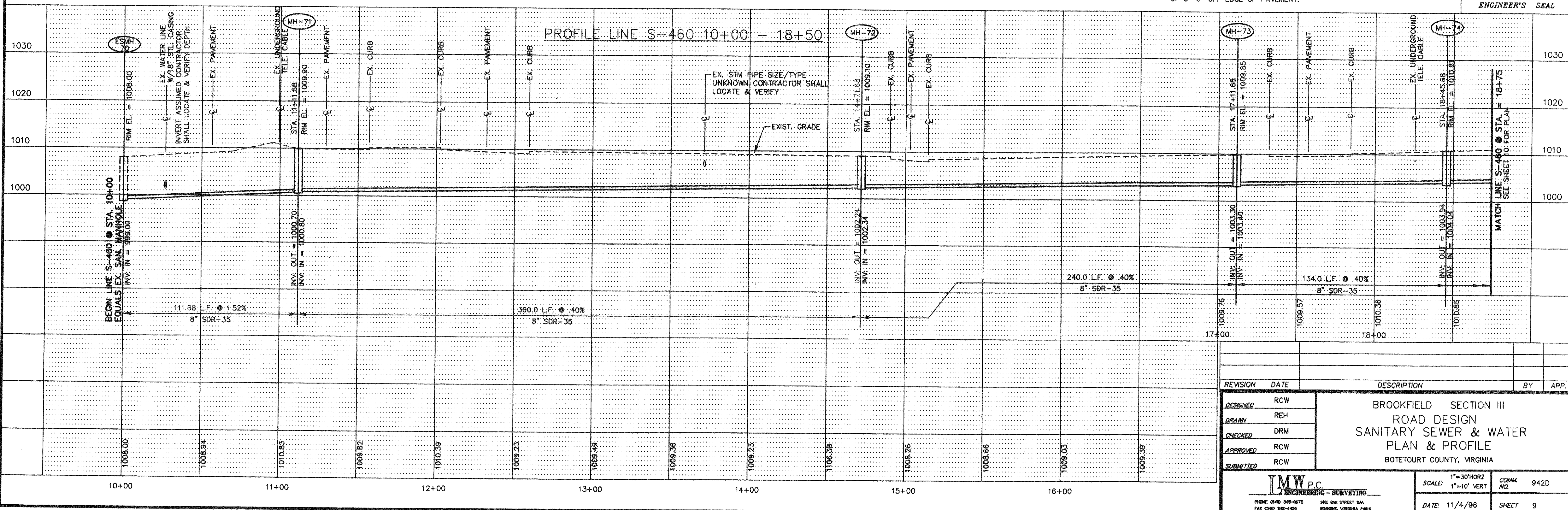
PLAN VIEW LINE S-460

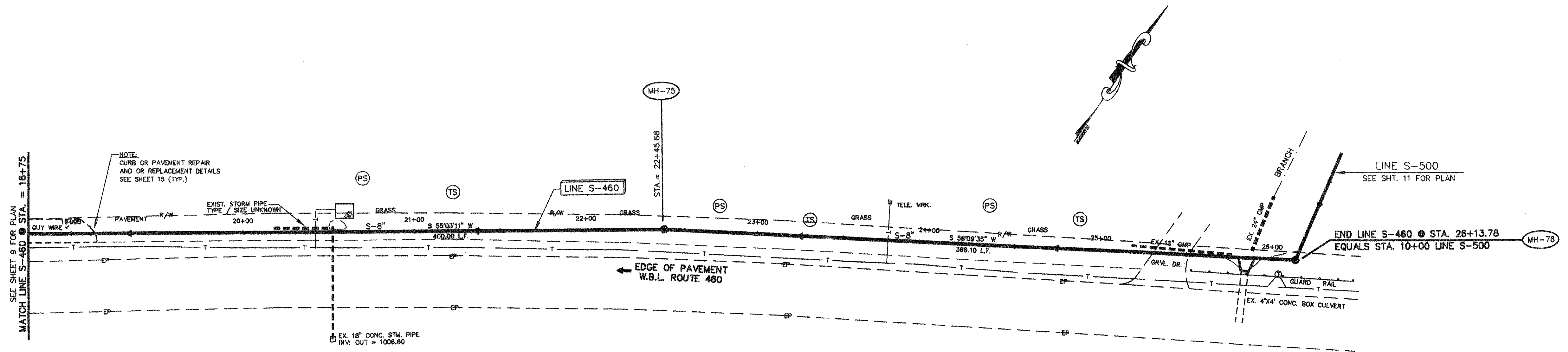
NOTE:

1. PLAN AND PROFILE SHEETS ARE A CONTINUATION OF BROOKFIELD II PROJECT. ALL PROPOSED WATER AND SEWER LINE STATIONS, OFFSETS, AND MATCH-LINES ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT EXCEPT WHERE OTHERWISE MAY BE NOTED ON PLANS.
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ENGINEER'S SEAL

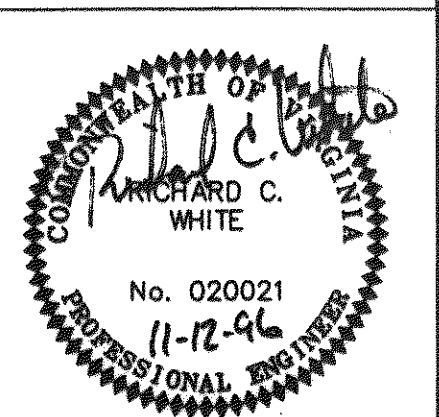




PLAN VIEW LINE S-460 18+75 - 26+13.78

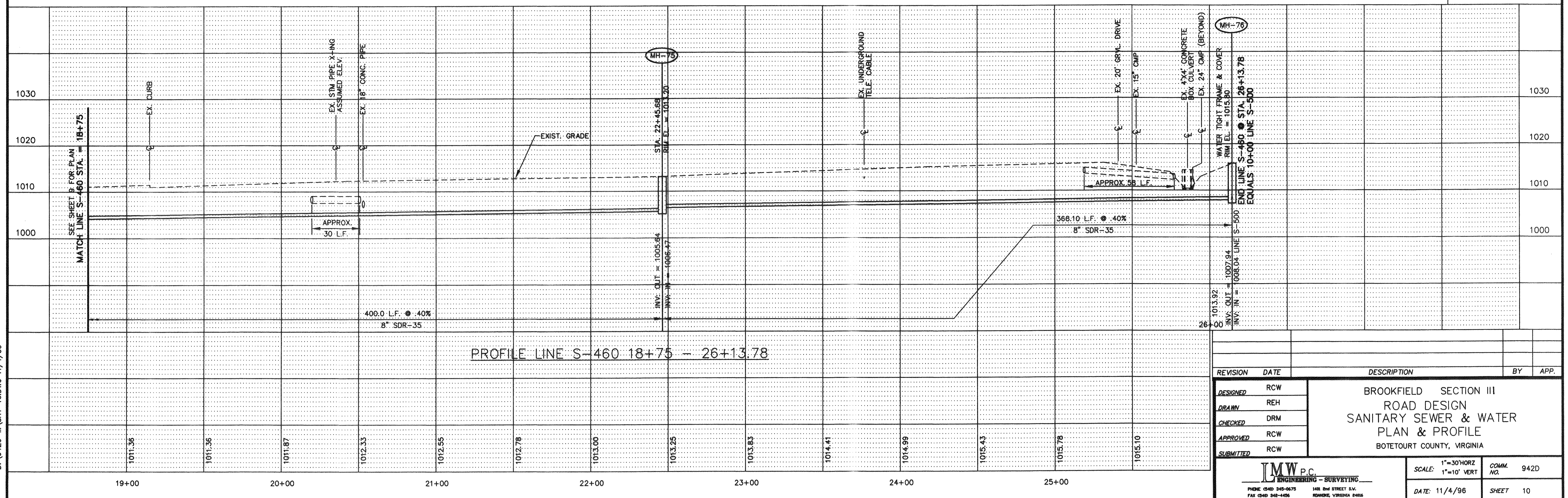
NOTE:

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ENGINEER'S SEAL

PROFILE LINE S-460 18+75 - 26+13.78

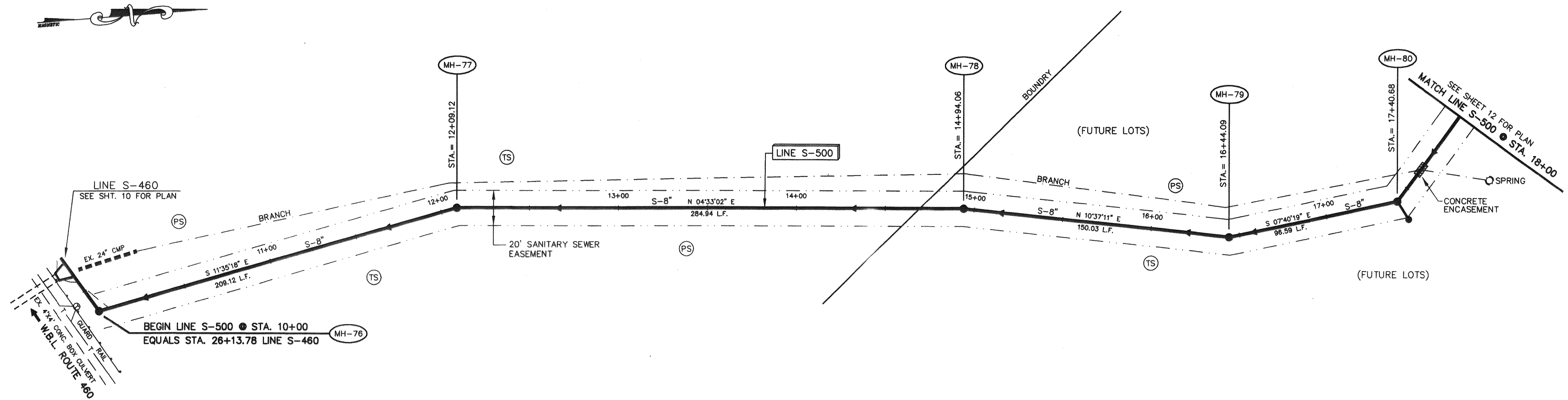


REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III	
ROAD DESIGN	
SANITARY SEWER & WATER	
PLAN & PROFILE	
BOTETOURT COUNTY, VIRGINIA	

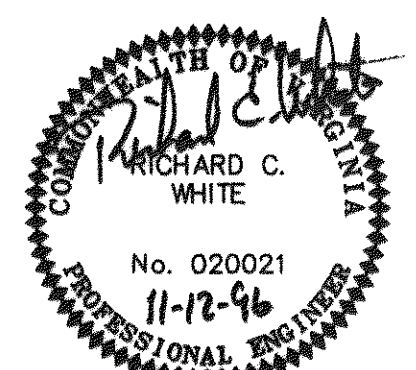
IMW P.C. ENGINEERING - SURVEYING PHONE (540) 340-0675 FAX (540) 340-4026	1401 END STREET S.W. ROANOKE, VIRGINIA 24016
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SCALE: 1"=30'HORIZ 1"=10' VERT	DATE: 11/4/96	COMM. NO. 942D	SHEET 10
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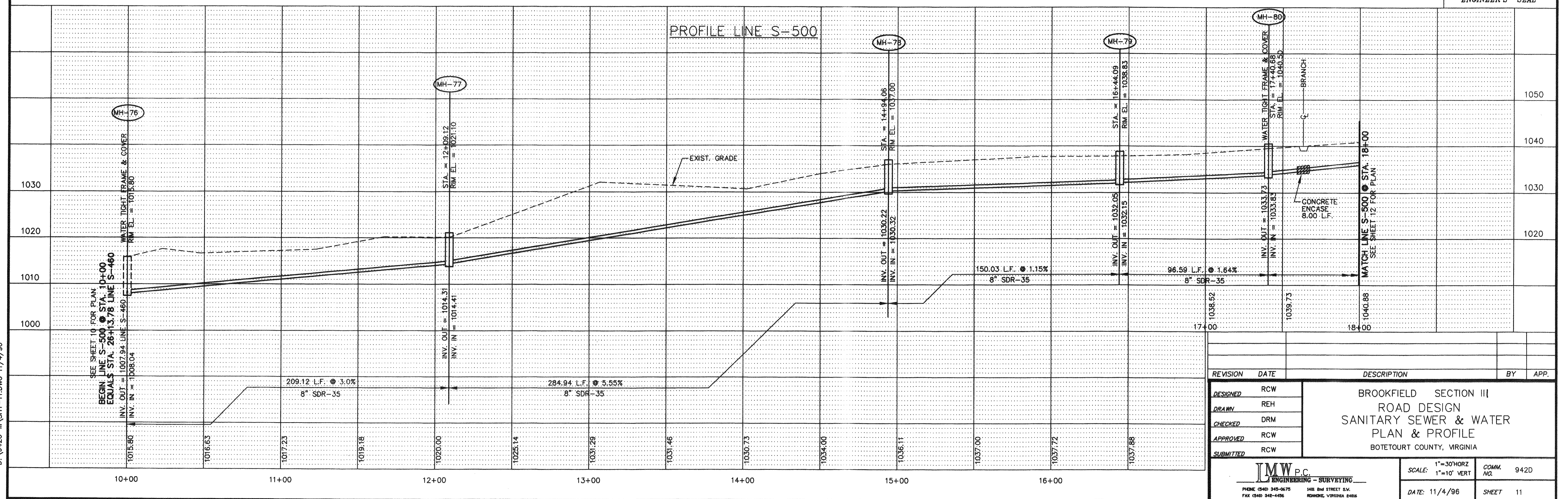


PLAN VIEW LINE S-500

- NOTE:
1. PLAN AND PROFILE SHEETS ARE A CONTINUATION OF BROOKFIELD II PROJECT. ALL PROPOSED WATER AND SEWER LINE STATIONS, OFFSETS, AND MATCH-LINES ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT EXCEPT WHERE OTHERWISE MAY BE NOTED ON PLANS.
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ENGINEER'S SEAL

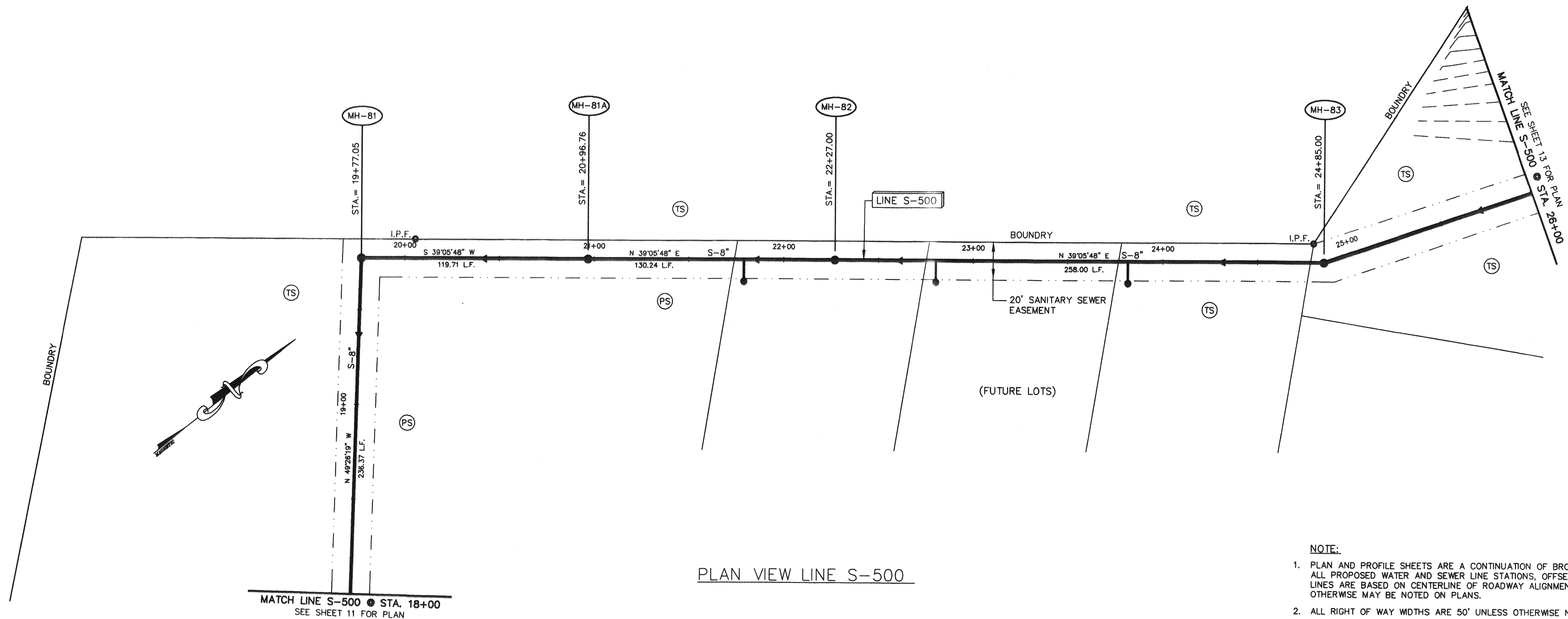


REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III	
ROAD DESIGN	
SANITARY SEWER & WATER	
PLAN & PROFILE	
BOTETOURT COUNTY, VIRGINIA	

LMW P.C. ENGINEERING - SURVEYING PHONE (540) 345-0675 FAX (540) 342-4456	1401 2ND STREET S.W. ROANOKE, VIRGINIA 24016
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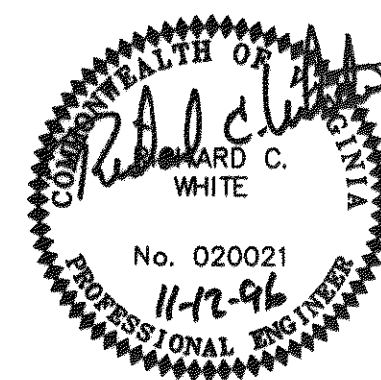
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COMM. NO. 942D	SHEET 11



PLAN VIEW LINE S-500

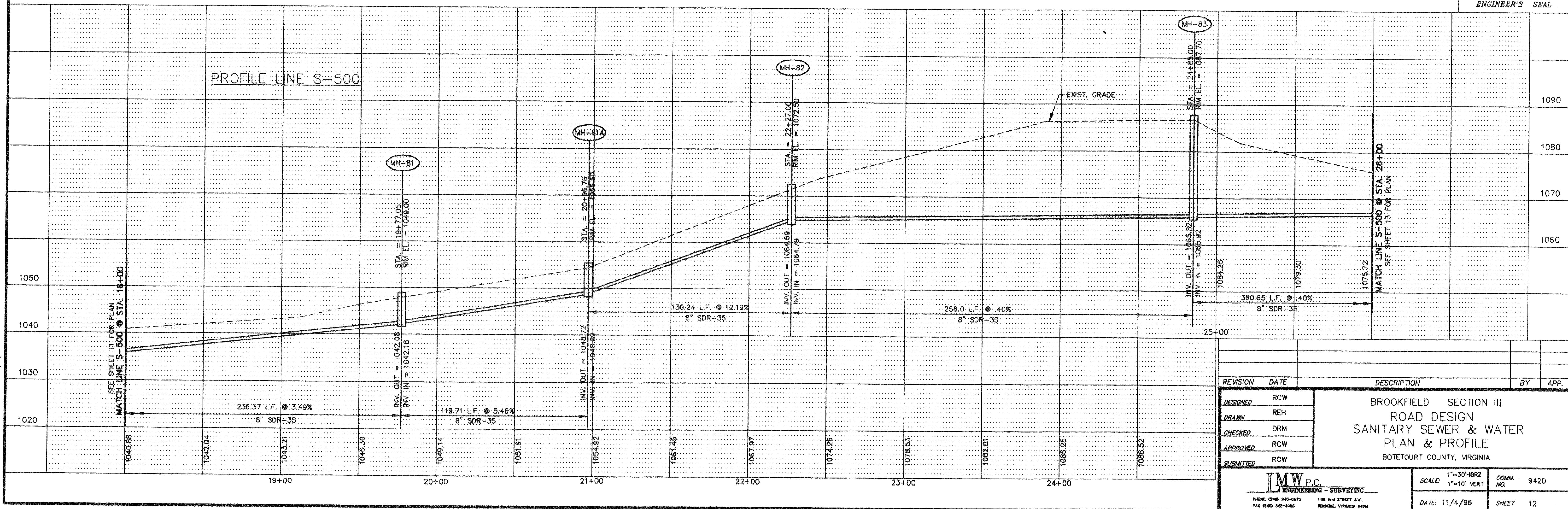
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ENGINEER'S SEAL

PROFILE LINE S-500

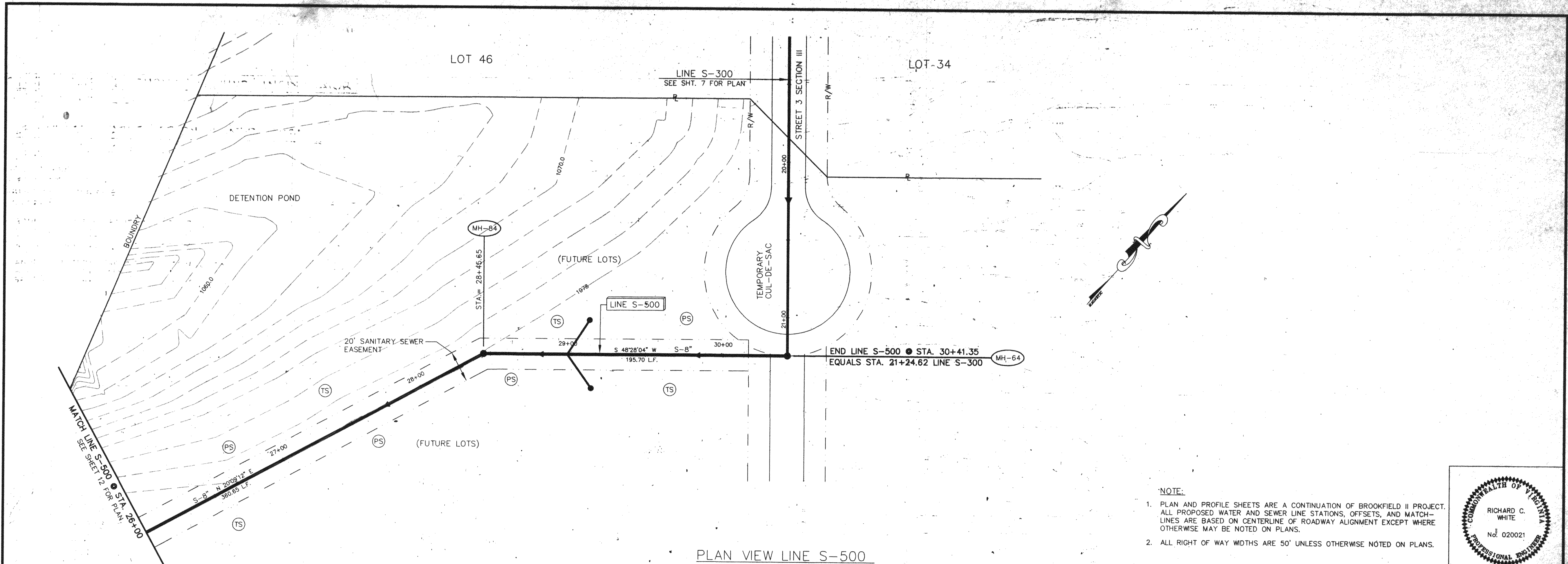


REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III	
ROAD DESIGN	
SANITARY SEWER & WATER	
PLAN & PROFILE	
BOTETOURT COUNTY, VIRGINIA	

 PHONE (540) 345-0673 FAX (540) 345-4106	1400 BIRD STREET S.W. ROANOKE, VIRGINIA 24016
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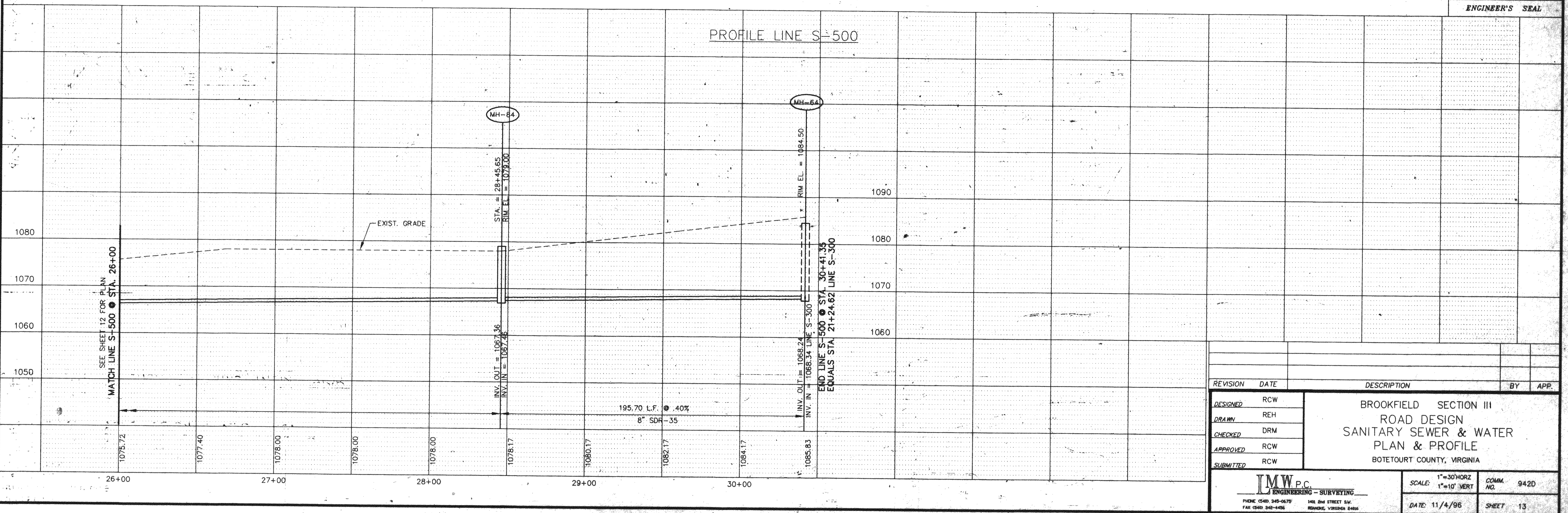
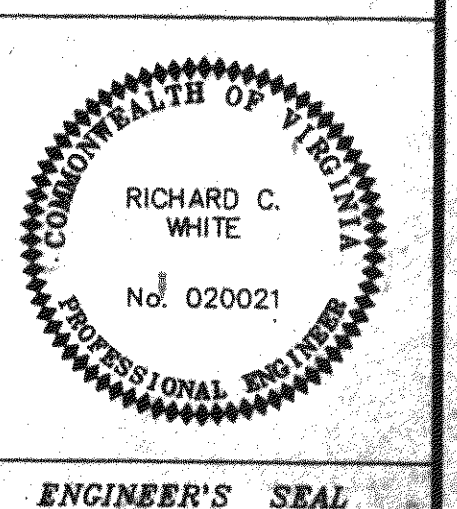
SCALE: 1"=30'HORIZ 1"=10' VERT	DATE: 11/4/96
COMM. NO. 9420	SHEET 12



PLAN VIEW LINE S-500

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1. PLAN AND PROFILE SHEETS ARE A CONTINUATION OF BROOKFIELD II PROJECT. ALL PROPOSED WATER AND SEWER LINE STATIONS, OFFSETS, AND MATCH-LINES ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT EXCEPT WHERE OTHERWISE MAY BE NOTED ON PLANS.
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REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW			
DRAWN	REH			
CHECKED	DRM			
APPROVED	RCW			
SUBMITTED	RCW			

BROOKFIELD SECTION III ROAD DESIGN SANITARY SEWER & WATER PLAN & PROFILE BOTETOURT COUNTY, VIRGINIA	
IMW P.C. ENGINEERING - SURVEYING PHONE (540) 345-0679 FAX (540) 345-1496 1402 2ND STREET SW ROANOKE, VIRGINIA 24016	SCALE: 1"=30' HORIZ 1"=10' VERT DATE: 11/4/96 SHEET 13