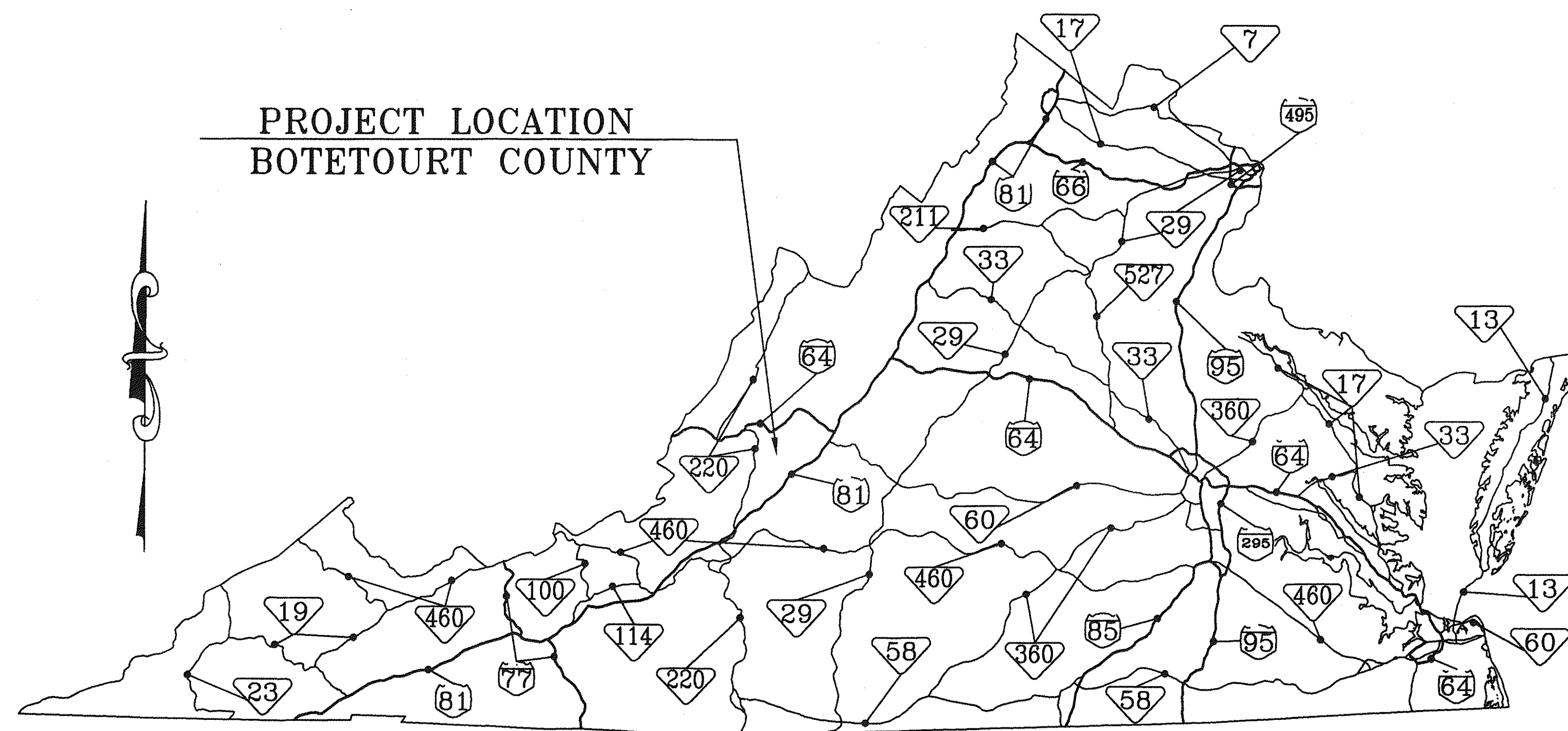


ASHLEY PLANTATION RESIDENTIAL DEVELOPMENT SECTION #1 SANITARY SEWER & WATER UTILITY PLAN

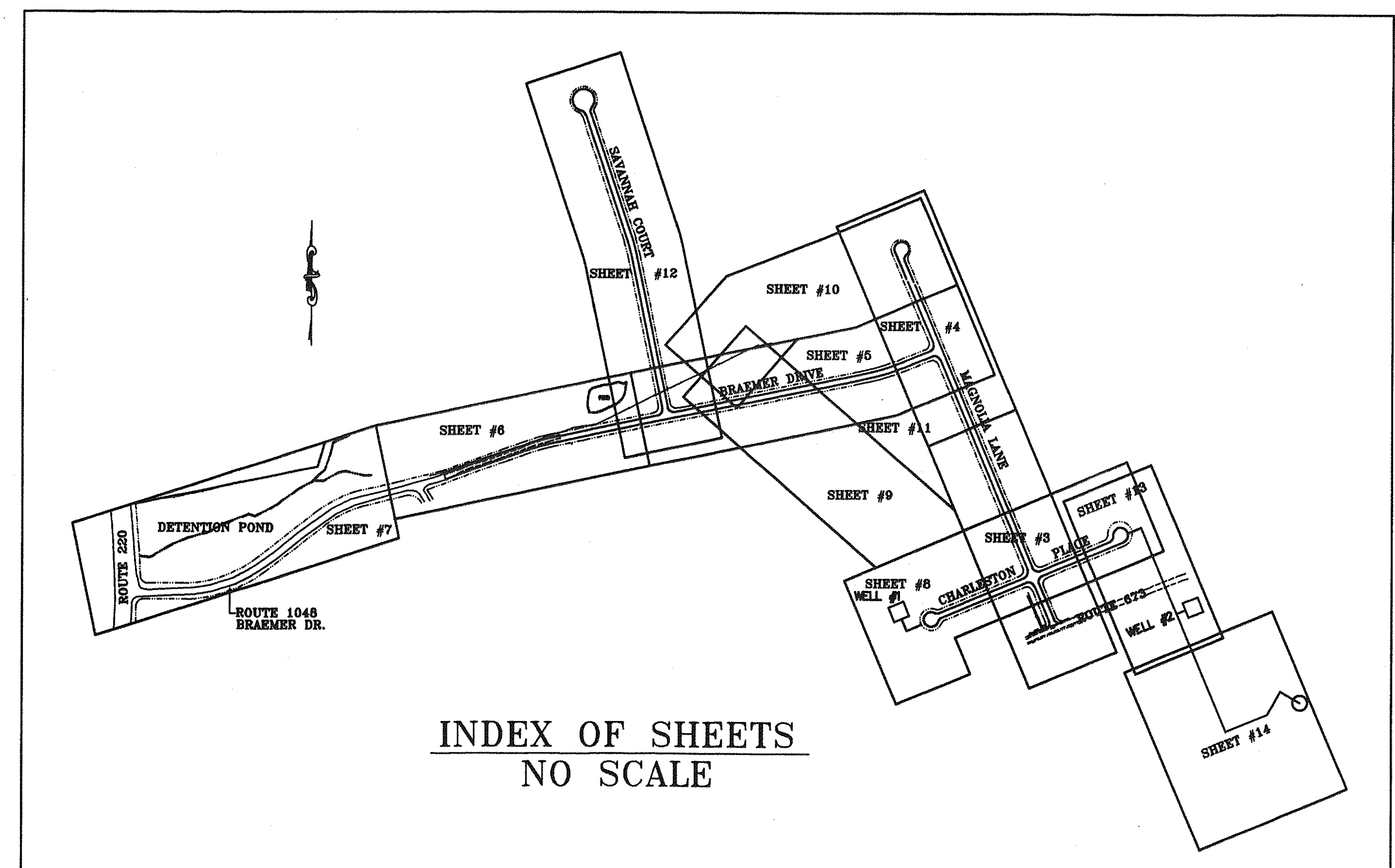
BOTETOURT COUNTY, VIRGINIA

OWNER

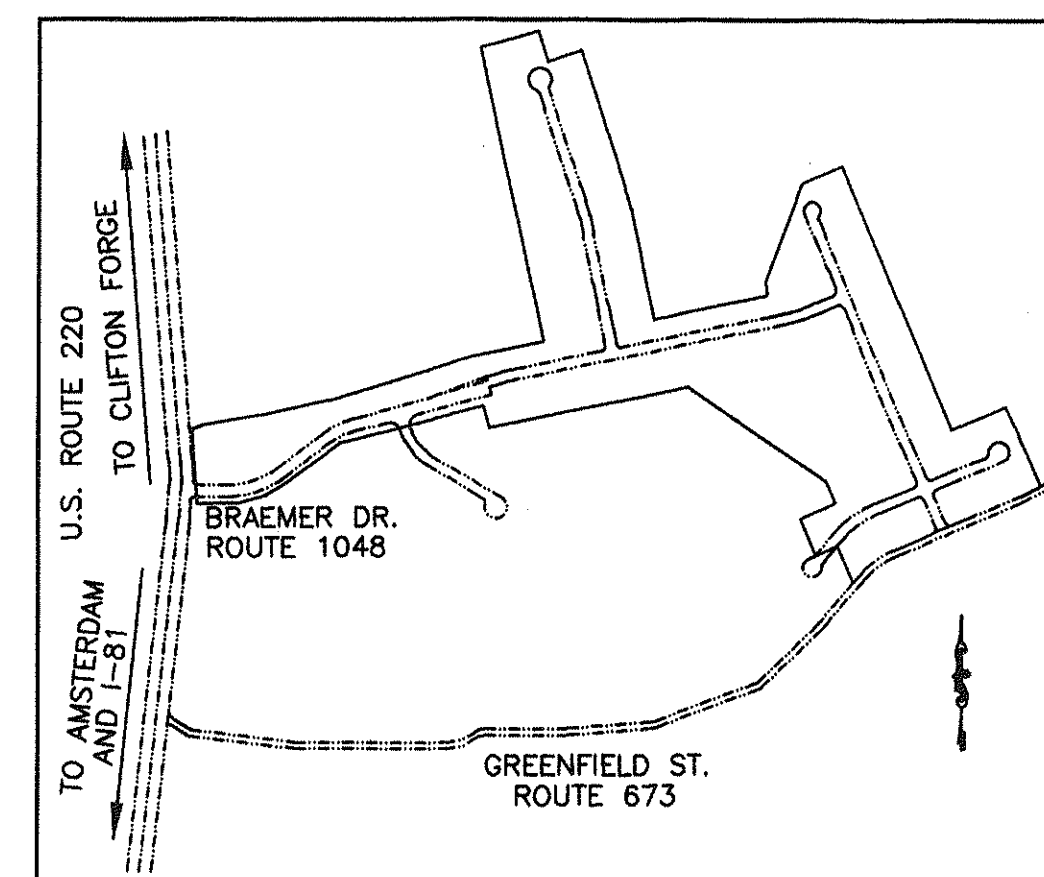
A.R. OVERBAY DEVELOPER



LOCATION MAP
NO SCALE



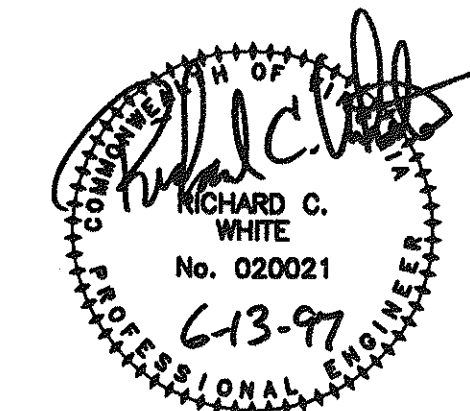
INDEX OF SHEETS
NO SCALE



VICINITY MAP
NO SCALE

LMWP.C.
ENGINEERING - SURVEYING

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



COMM. NO. #1070
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	PERIMETER
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	PSI	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
OR SHED STONE	CRUSHED STONE	RR	RAILROAD
CTR	CENTER	RCP	REINFORCED CONCRETE PIPE
CULV	CULVERT	RD	ROAD DRAIN, ROAD
CY	CUBIC YARD	RDOR	REDUCER
D	DEPTH OR DEGREE OF CURVE	RECPT	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	RTG	ROUTE
DNH	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	TDC	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	VR	VOLUME
GOVT	GOVERNMENT	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
GPM	GALLONS PER MINUTE	V.S.D.	VERTICAL SIGHT DISTANCE
GRG	GRATING	W.B.L.	WESTBOUND LANE
GV	GATE VALVE	W	WIDE FLANGE, WIDE, WASTE, WATER
H	HOT	W/	WITH
HB	HOSE BIBB	WD	WOOD
HK	HOOK	WL	WATER LINE
HM	HOLLOW METAL	W/O	WITHOUT
HOR, HORIZ	HORIZONTAL	WS	WATER SURFACE
HP	HORSE POWER	WT	WATER TIGHT, WEIGHT
HPT	HIGH POINT	WYD	WEST VIRGINIA DEPARTMENT OF HIGHWAYS
HYD	HYDRANT	WWF	WELODED WIRE FABRIC
ID	INSIDE DIAMETER	COR	CORNER
IN	INCH	DW, D/W	DRIVEWAY
INSUL	INSULATION	PP	POWER POLE
INV	INVERT	TP	TELEPHONE POLE
IP	IRON PIN	S/W	SIDEWALK

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

SYMBOL	DESCRIPTION
	EROSION CONTROL STONE
	STRAW BALE BARRIER
	STORM DRAIN INLET PROTECTION
	TEMPORARY DIVERSION DIKE
	TEMPORARY SEDIMENT TRAP
	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
	RIPRAP
	SILTY FENCE
	PERMANENT SEEDING
	TEMPORARY SEEDING
	ROCK CHECK DAMS
	OUTLET PROTECTION
	CONSTRUCTION ROAD STABILIZATION

MATERIALS SYMBOLS

SYMBOL	DESCRIPTION
	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.

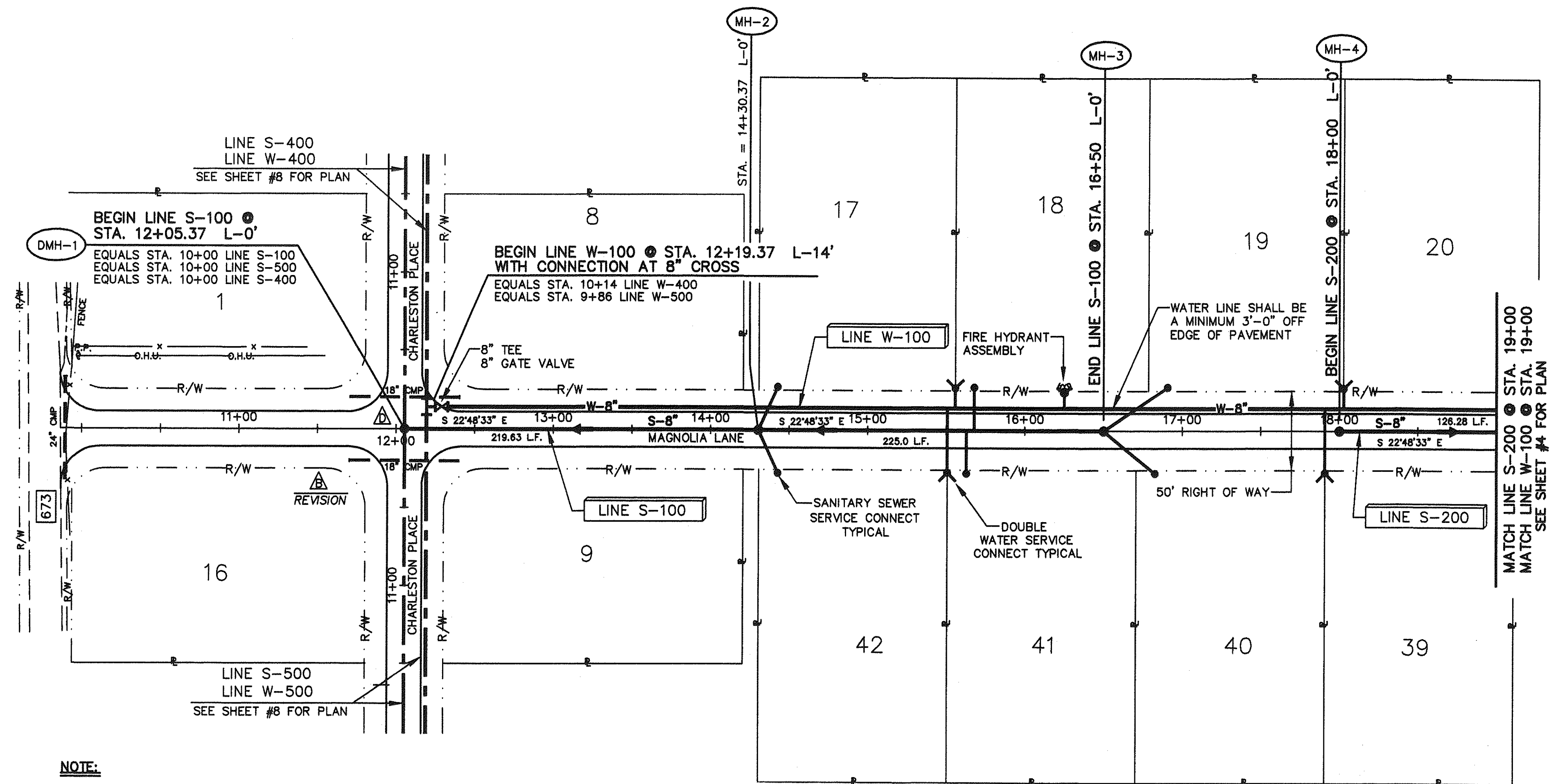
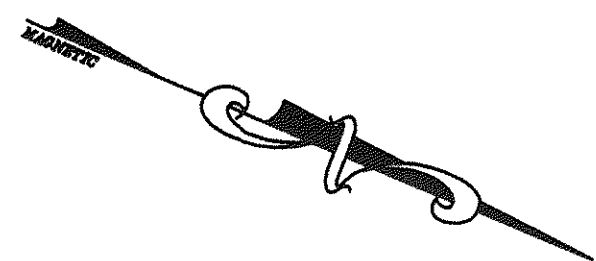
THE CONTRACTOR IS DIRECTED TO DIG AND LOCATE ALL UTILITIES IN ADVANCE OF PIPELAYING TO ALLOW FOR ADJUSTMENTS DUE TO CONFLICTS WITH EXISTING UTILITIES. SHOULD A CONFLICT ARISE THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.

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.

INDEX OF SHEETS

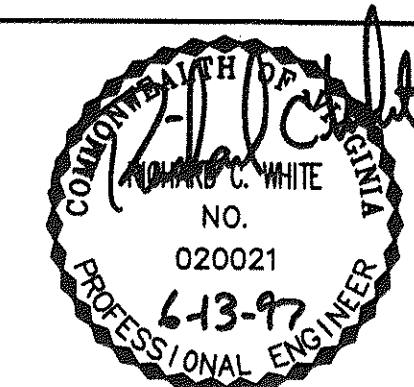
#1	COVER SHEET
#2	ABBREVIATION, LEGENDS & GENERAL NOTES
#3	PLAN & PROFILE LINE S-100 PLAN & PROFILE LINE S-200 PLAN & PROFILE LINE W-100
#4	PLAN & PROFILE LINE S-200 PLAN & PROFILE LINE S-300 PLAN & PROFILE LINE W-100
#5	PLAN & PROFILE LINE S-900 PLAN & PROFILE LINE W-900
#6	PLAN & PROFILE LINE S-900
#7	PLAN & PROFILE LINE S-900
#8	PLAN & PROFILE LINE S-400 PLAN & PROFILE LINE S-500 PLAN & PROFILE LINE W-400 PLAN & PROFILE LINE W-400A PLAN & PROFILE LINE W-500 PLAN & PROFILE LINE W-500A
#9	PLAN & PROFILE LINE S-600 PLAN & PROFILE LINE W-600A
#10	PLAN & PROFILE LINE S-700
#11	PLAN & PROFILE LINE S-800
#12	PLAN & PROFILE LINE S-1000 PLAN & PROFILE LINE W-1000
#13	PLAN & PROFILE LINE W-40
#14	PLAN & PROFILE LINE W-40
#15	WATER TANK SPECIFICATIONS / DETAILS
#16	WATER AND SEWER STANDARD DETAILS
#17	WATER AND SEWER STANDARD DETAILS
#18	UTILITY SPECIFICATION SHEET
#19	WELL HOUSE PLAN WELL NO. 1/WELL NO. 2 SPECIFICATIONS / DETAILS

DESIGNED	RCW	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER ABBREVIATIONS, LEGEND, GENERAL NOTES, & INDEX BOTETOURT COUNTY, VIRGINIA
DRAWN	REH	
CHECKED	DRM	
APPROVED	RCW	
SUBMITTED	RCW	
		SCALE: PLOT 1"=30' DATE: 04-15-97
ENGINEER'S SEAL		COMM. NO. LMW #1070 SHEET 2

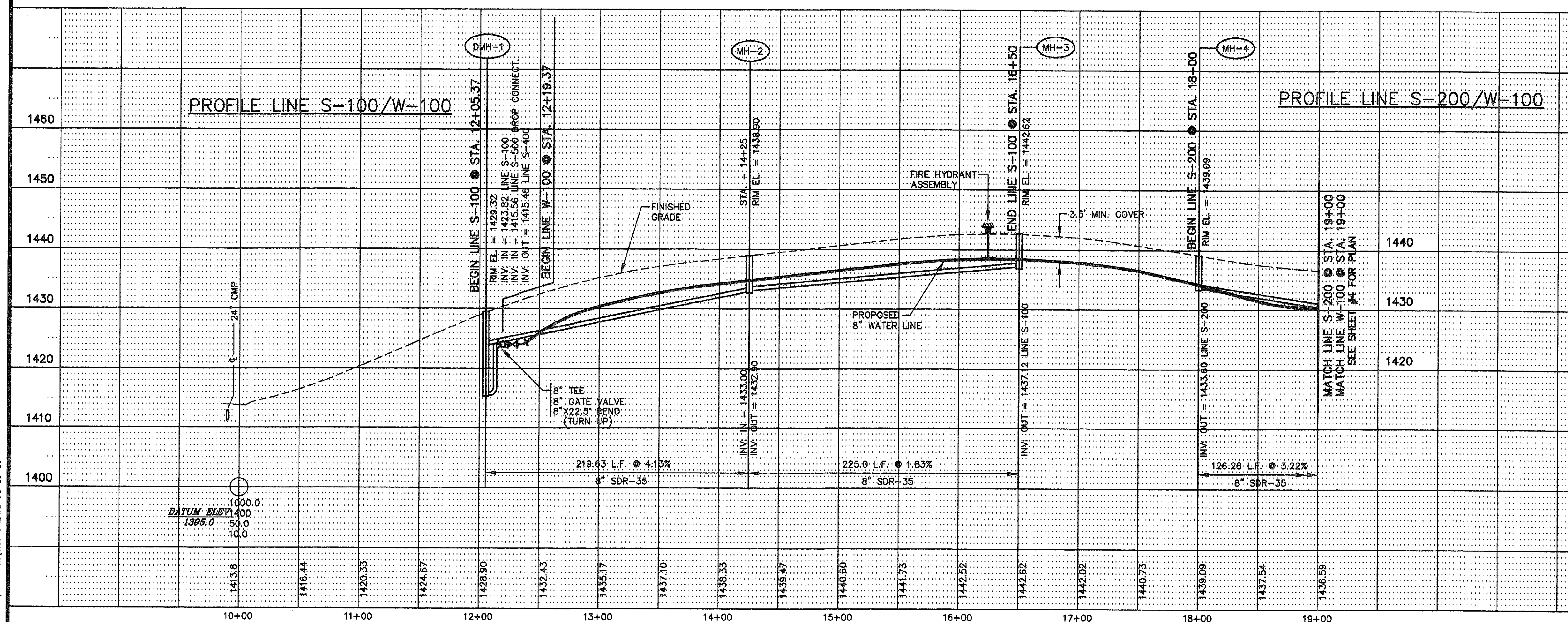


NOTE:
ALL PROPOSED WATER AND SEWER LINE STATION/OFFSET
ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT.
EXCEPT WHERE OTHERWISE SHOWN ON PLANS.

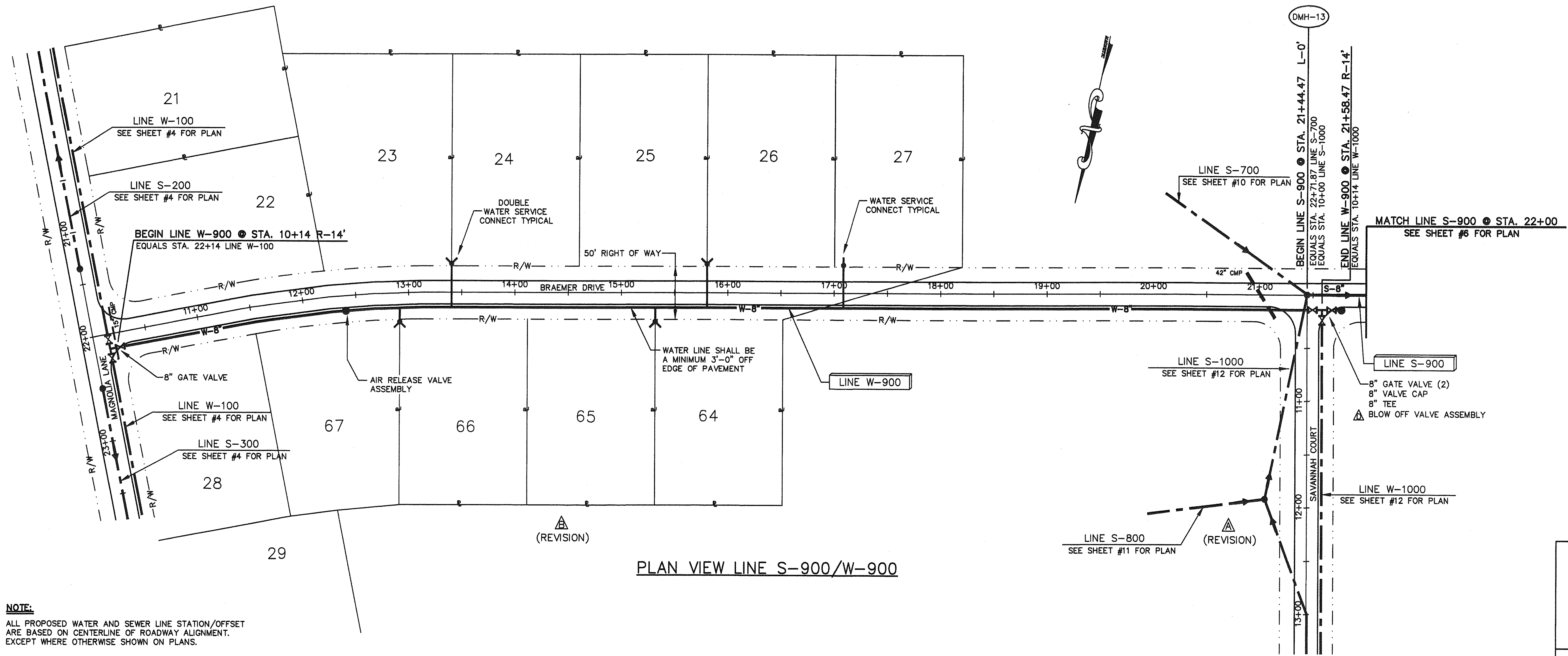
PLAN VIEW LINE S-100/S-200 & W-100



ENGINEER'S SEAL

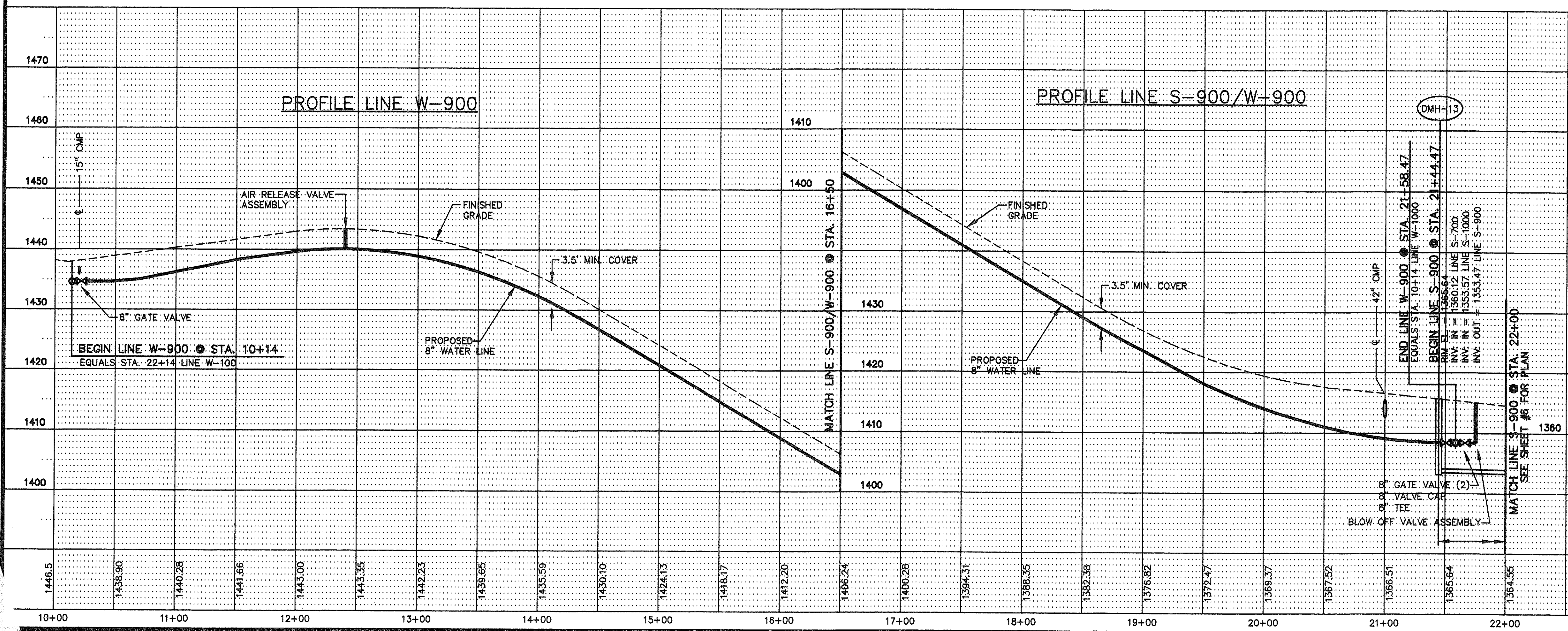
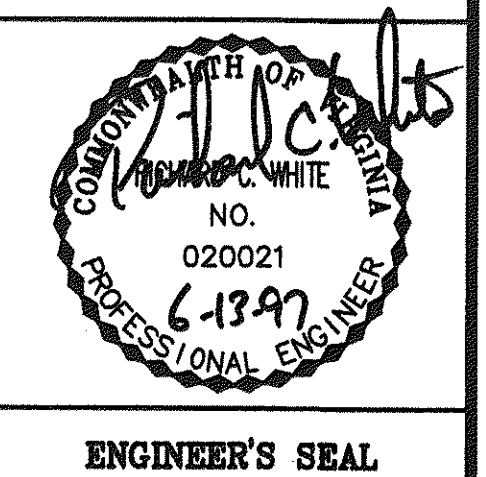


DESIGNED	RCW/REH	06-12-97	MODIFIED PER VDOH COMMENTS DATED 6/4/97	VLW	RCW
DRAWN	REH	03-27-97	CHG. 8" TEE FOR 8" CROSS TO CONNECT W-10	REH	RCW
CHECKED	RCW				
APPROVED	DRM				
SUBMITTED	RCW				
ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER AND WATER LINE PLAN AND PROFILE LINE S-100/S-200 & W-100 BOTETOURT COUNTY, VIRGINIA					
SCALE: HORZ: 1"=50' VERT: 1"=10'		DATE: 04-15-97		SHEET 3	

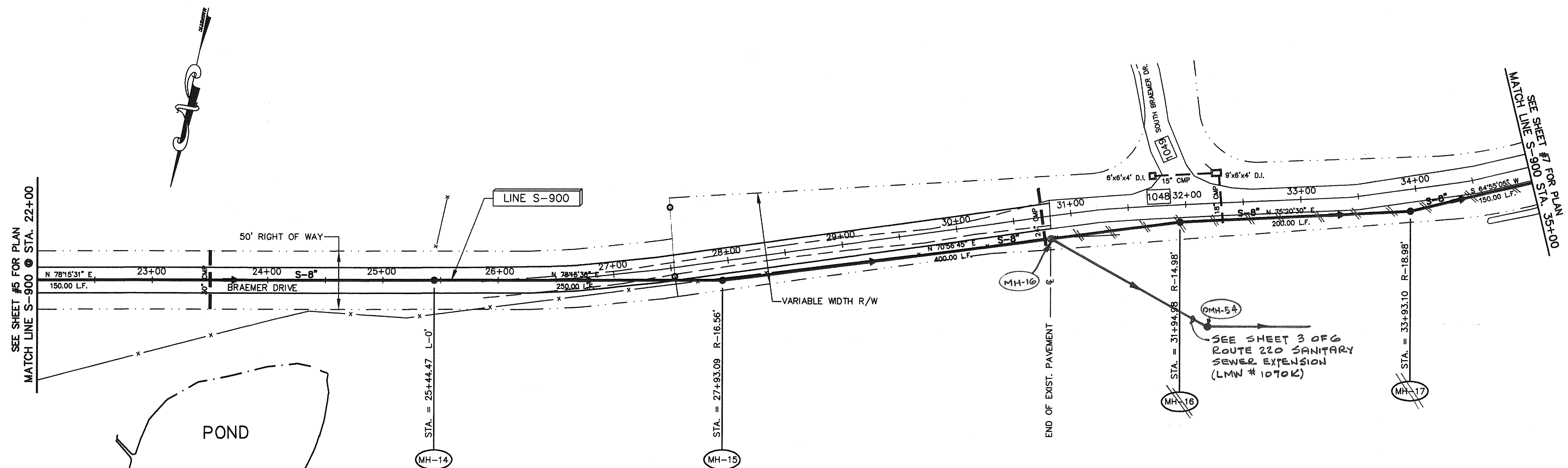


NOTE:
ALL PROPOSED WATER AND SEWER LINE STATION/OFFSET ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT. EXCEPT WHERE OTHERWISE SHOWN ON PLANS.

PLAN VIEW LINE S-900/W-900



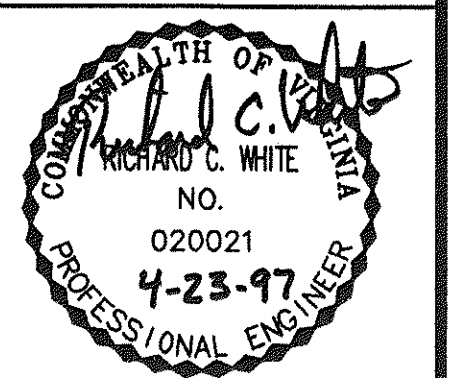
REVISION	DATE	DESCRIPTION	BY	APP.
1-8-97		REROUTE LINE S-800 AND LINE S-1000 PER OWNER	REH	RCW
4-22-97		ADDED DOUBLE WATER METER SERVICE TO LOTS 67-64	REH	RCW
6-12-97		MODIFIED PER VDOH COMMENTS DATED 6/4/97	VLW	RCW
DESIGNED	RCW/REH	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER AND WATER LINE PLAN AND PROFILE LINE S-900/W-900 BOTETOURT COUNTY, VIRGINIA		
DRAWN	REH			
CHECKED	RCW			
APPROVED	DRM			
SUBMITTED	RCW			
SCALE:		HORIZ: 1"=50'	VERT: 1"=10'	DATE: 04-22-97
SHEET		5		



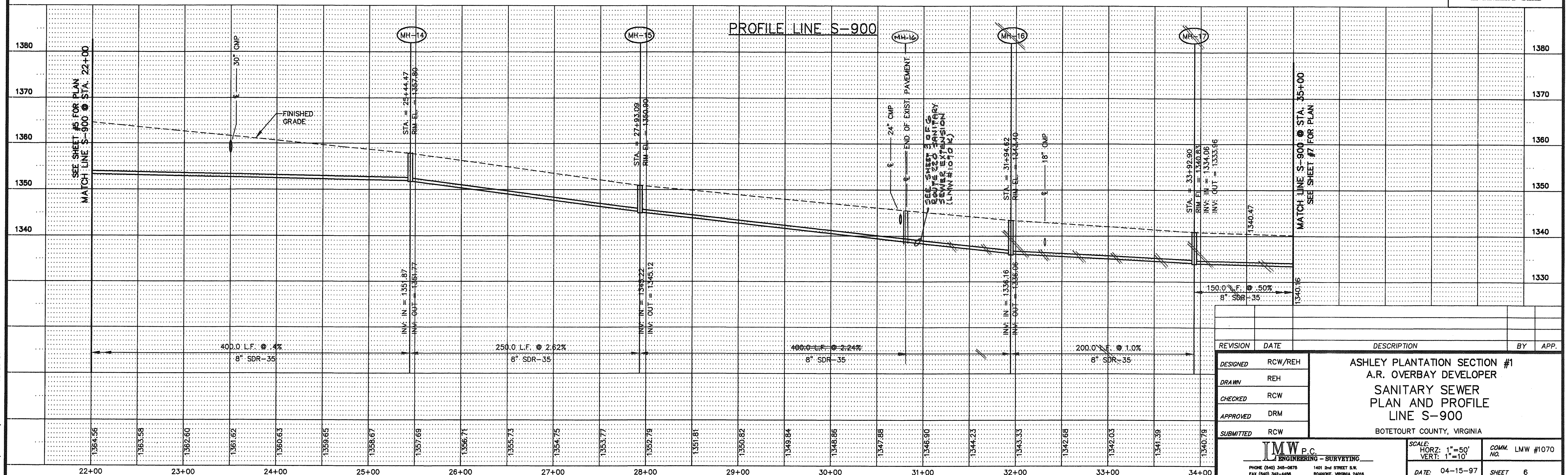
PLAN VIEW LINE S-900

NOTE:

ALL PROPOSED WATER AND SEWER LINE STATION/OFFSET
ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT.
EXCEPT WHERE OTHERWISE SHOWN ON PLANS.



ENGINEER'S SEAL



REVISION	DATE	DESCRIPTION	BY	APP.
DESIGNED	RCW/REH	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER PLAN AND PROFILE LINE S-900 BOTETOURT COUNTY, VIRGINIA		
DRAWN	REH			
CHECKED	RCW			
APPROVED	DRM			
SUBMITTED	RCW			

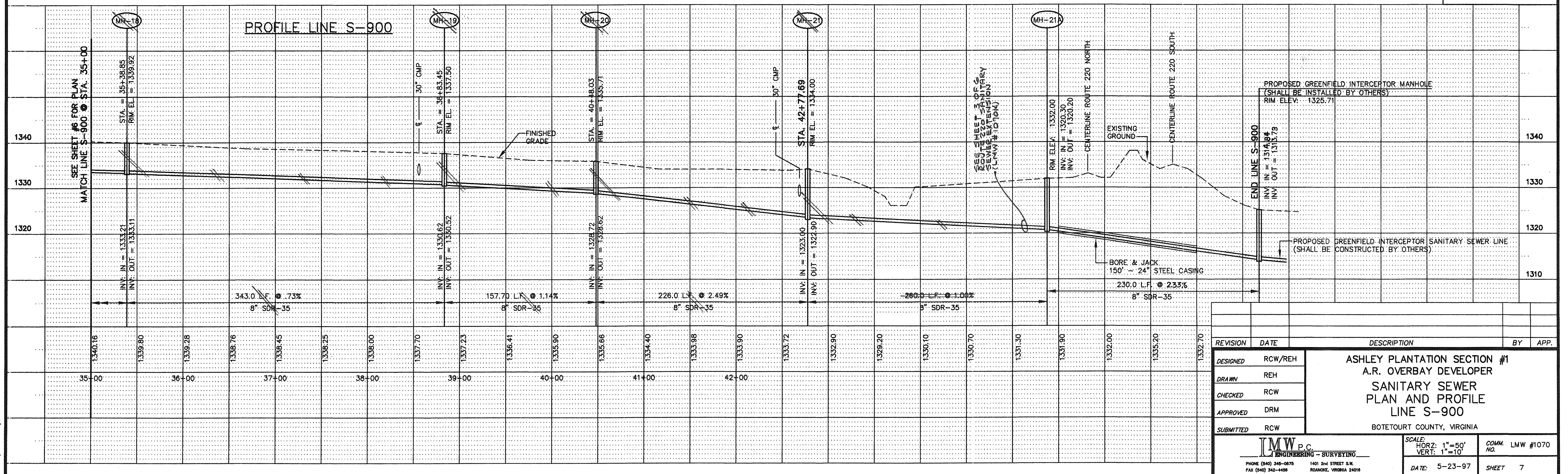
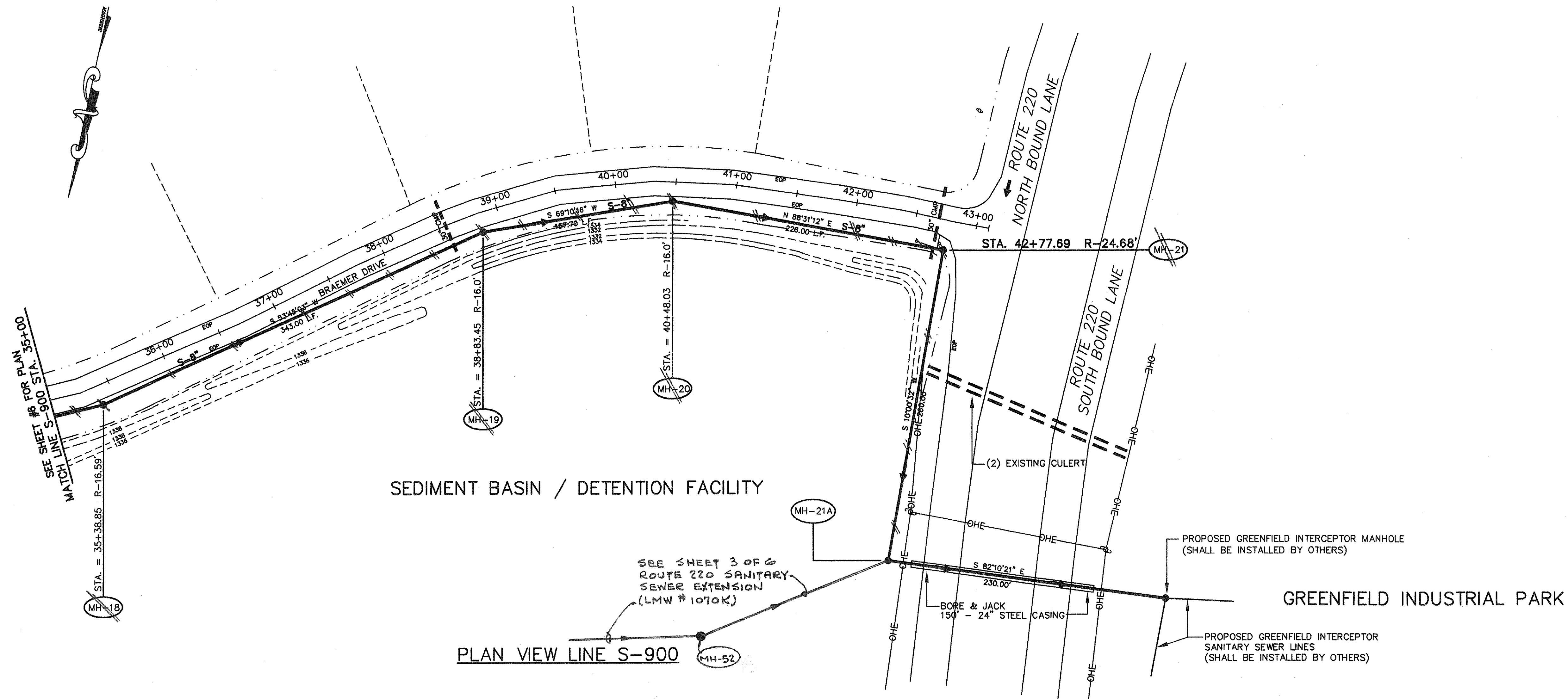
IMW P.C.
ENGINEERING - SURVEYING
PHONE (540) 340-0678
FAX (540) 340-4450
1401 BAY STREET SE
ROANOKE, VIRGINIA 24016

SCALE:
HORIZ. 1"=50'
VERT. 1"=10'

DATE: 04-15-97

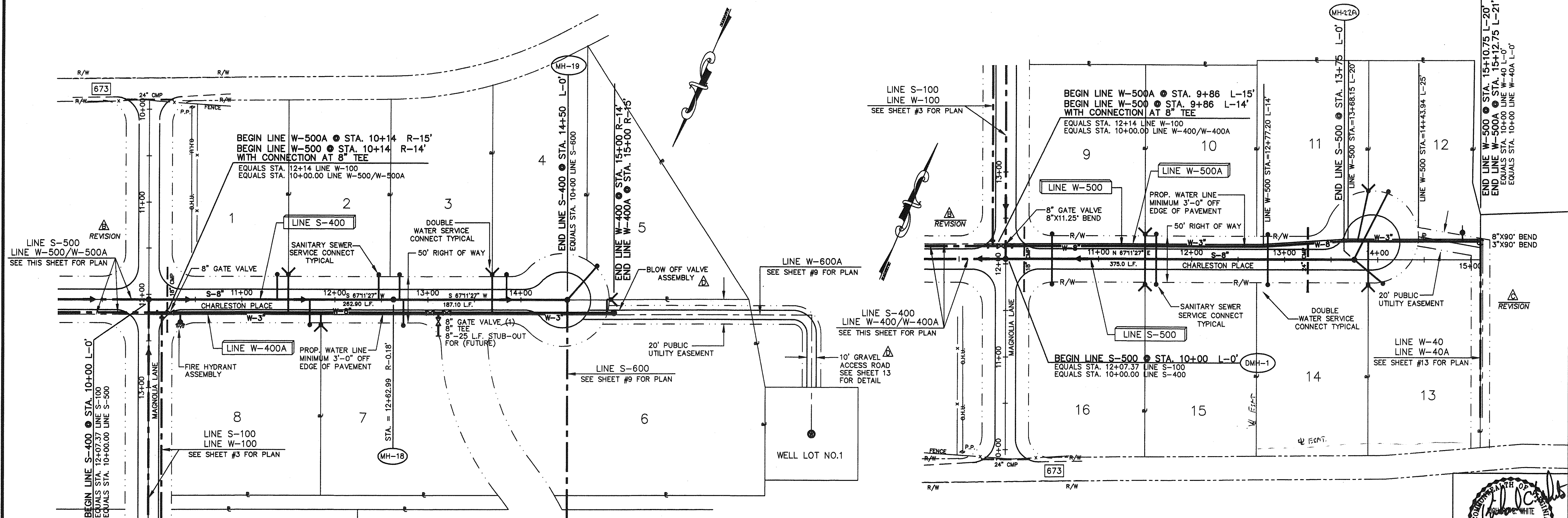
COMM. NO. LMW #1070

SHEET 6



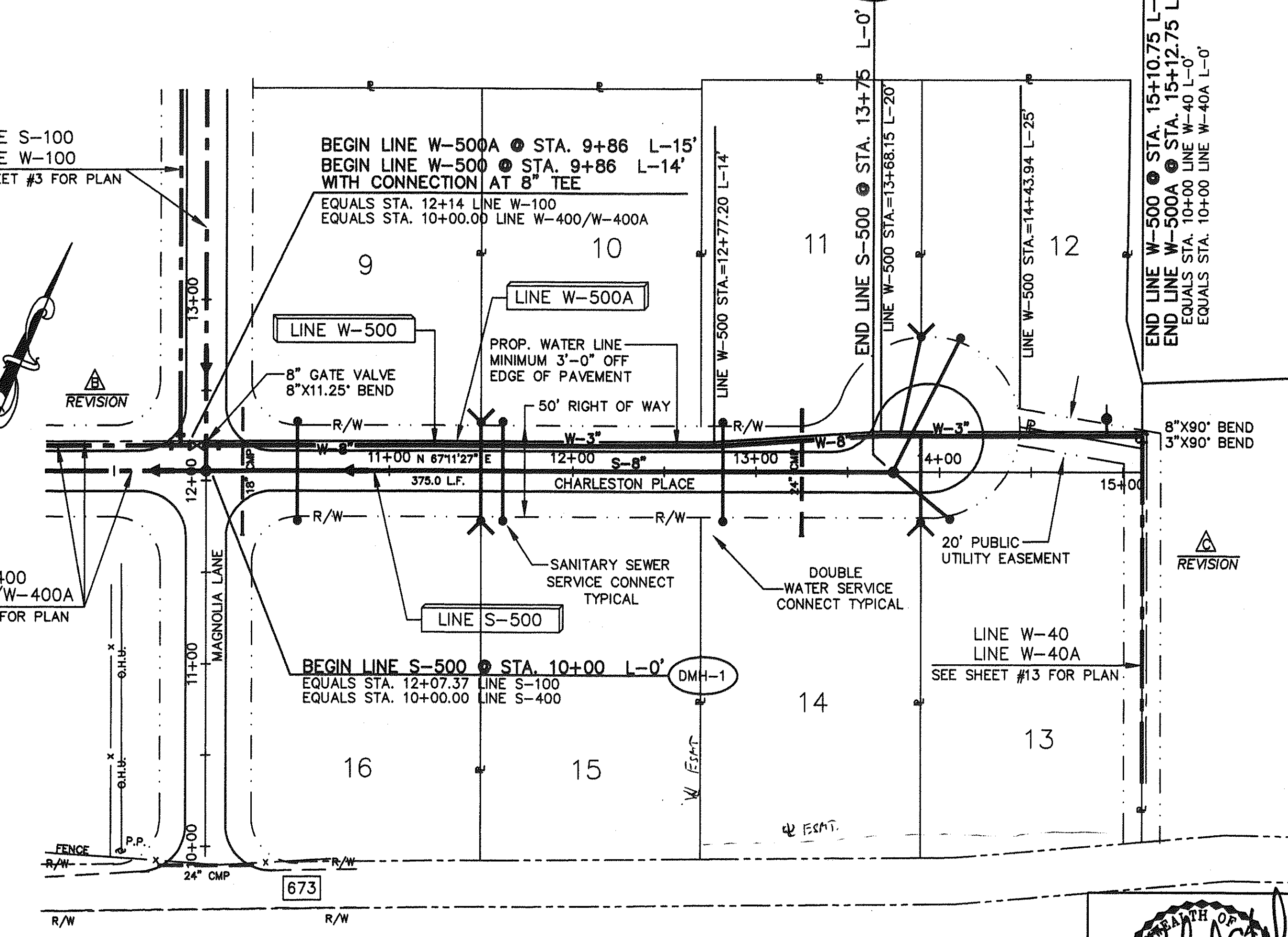
COMMONWEALTH OF VIRGINIA
Richard C. White
 RICHARD C. WHITE
 NO.
 020021
 5-23-97
 PROFESSIONAL ENGINEER

REVISION	DATE	DESCRIPTION	BY	APP.	
DESIGNED	RCW/REH	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER PLAN AND PROFILE LINE S-900 BOTETOURT COUNTY, VIRGINIA			
DRAWN	REH				
CHECKED	RCW				
APPROVED	DRM				
SUBMITTED	RCW				
 P.C. <u>ENGINEERING - SURVEYING</u>		SCALE: HORZ: 1"=50' VERT: 1"=10'	COMM. NO. LMW #1070		
PHONE (540) 345-0875 FAX (540) 342-4406		DATE: 5-23-97	SHEET 7		
1401 2nd STREET S.W. ROANOKE, VIRGINIA 24016					

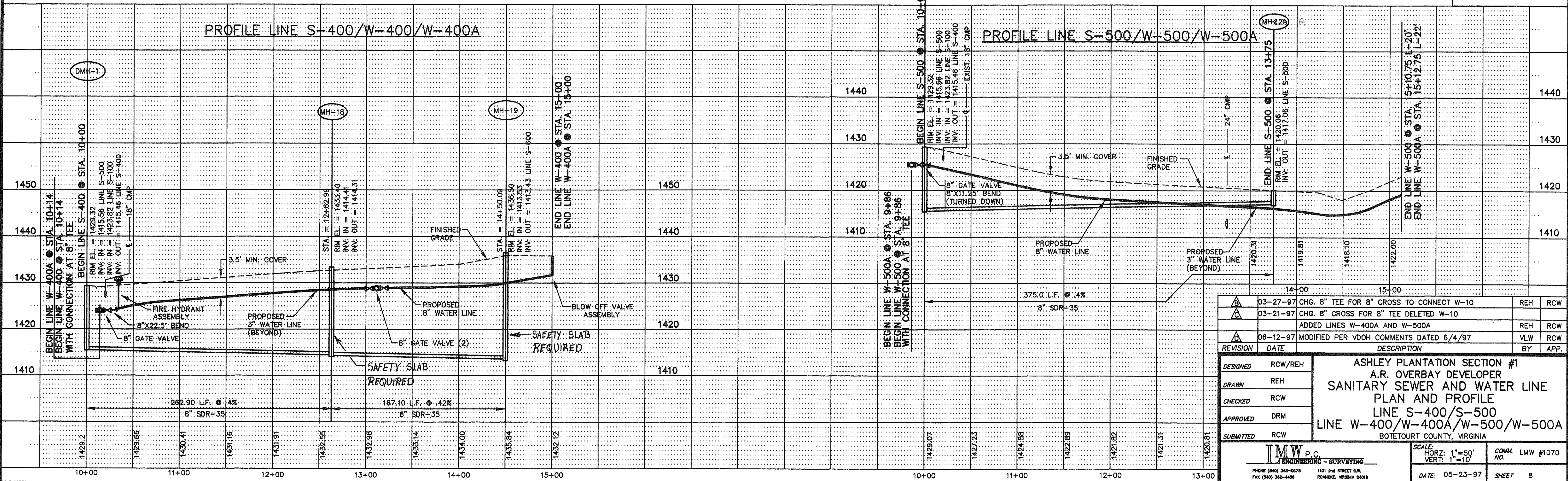
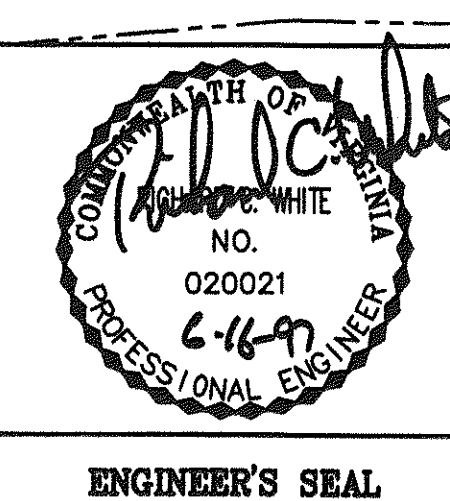


PLAN VIEW LINE S-400/W-400/W-500A

NOTE:
ALL PROPOSED WATER AND SEWER LINE STATION/OFFSET ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT, EXCEPT WHERE OTHERWISE SHOWN ON PLANS.



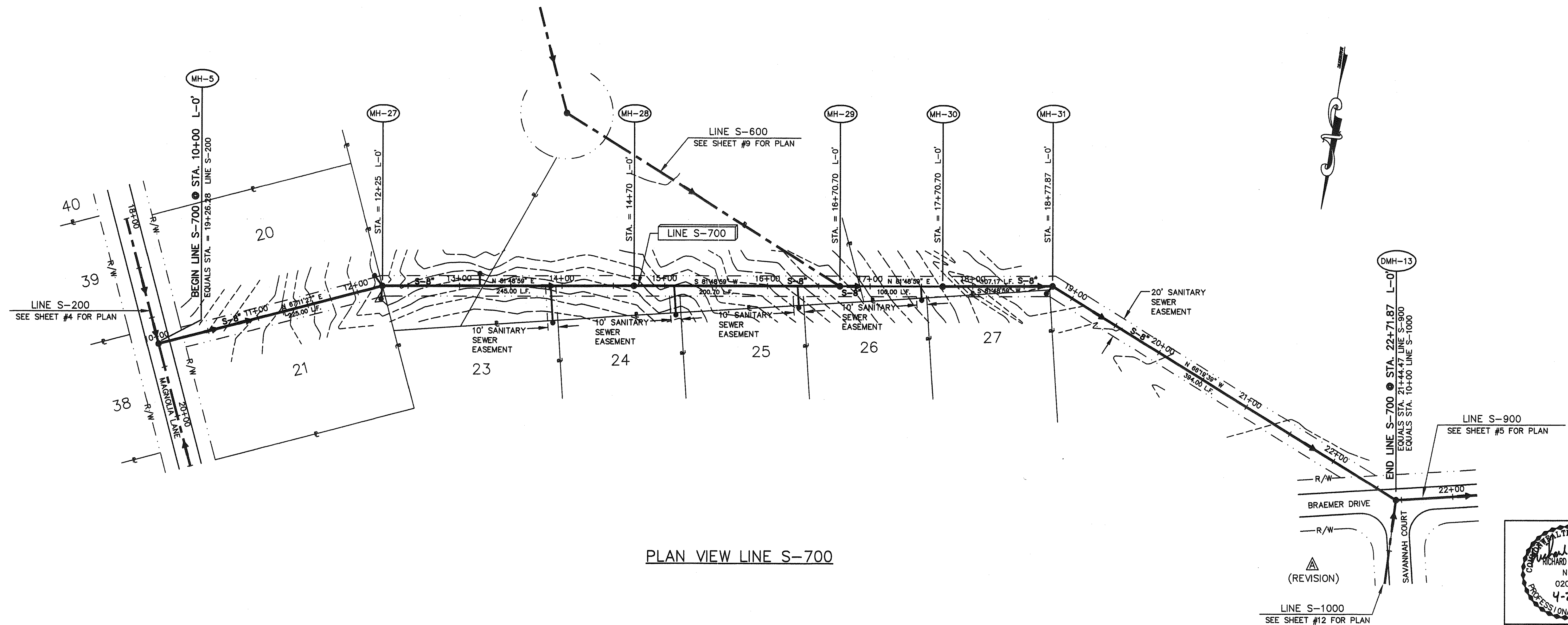
PLAN VIEW LINE S-500/W-500/500A



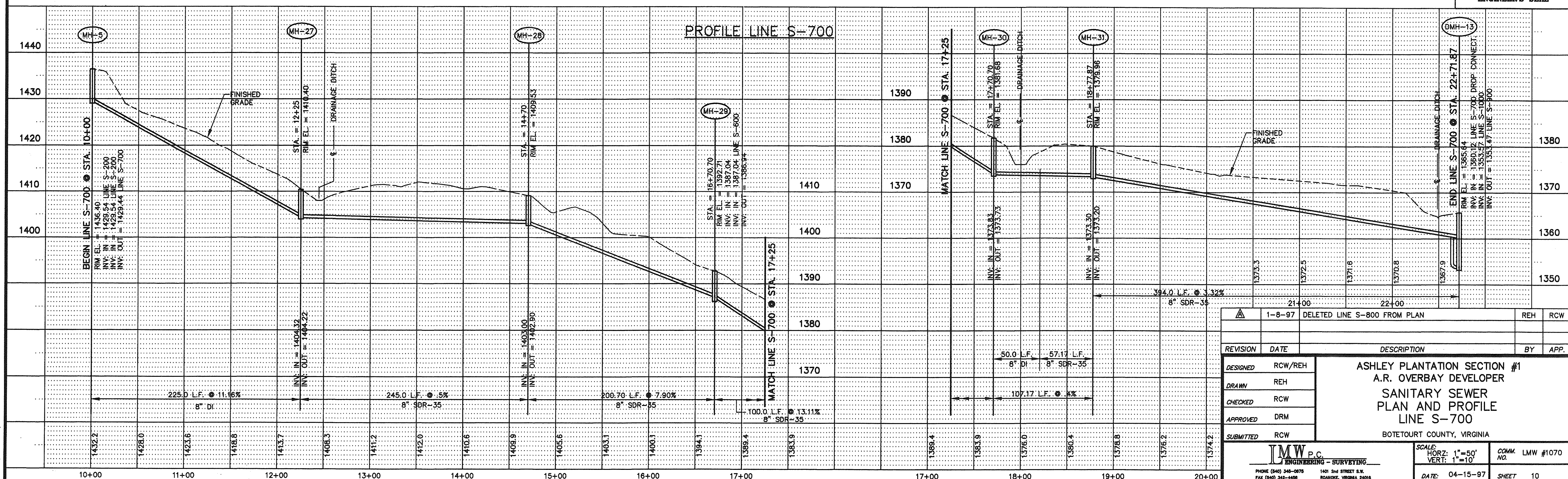
PROFILE LINE S-400/W-400/W-500A

PROFILE LINE S-500/W-500/W-500A

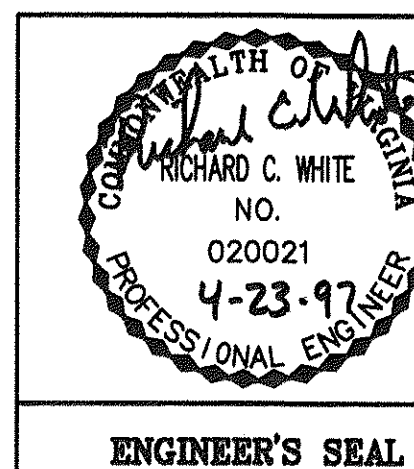
REVISION	DATE	DESCRIPTION	BY	APP.
03-27-97	CHG.	8" TEE FOR 8" CROSS TO CONNECT W-10	REH	RCW
03-21-97	CHG.	8" CROSS FOR 8" TEE DELETED W-10	REH	RCW
		ADDED LINES W-400A AND W-500A	REH	RCW
06-12-97	MODIFIED	PER VDOH COMMENTS DATED 6/4/97	VLW	RCW
DESIGNED	RCW/REH	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER AND WATER LINE PLAN AND PROFILE LINE S-400/S-500 LINE W-400/W-400A/W-500/W-500A BOTETOURT COUNTY, VIRGINIA		
DRAWN	REH			
CHECKED	RCW			
APPROVED	DRM			
SUBMITTED	RCW			
SCALE:		HORIZ: 1"=50'		
		VERT: 1"=10'		
DATE:		05-23-97		
		SHEET 8		



PLAN VIEW LINE S-700

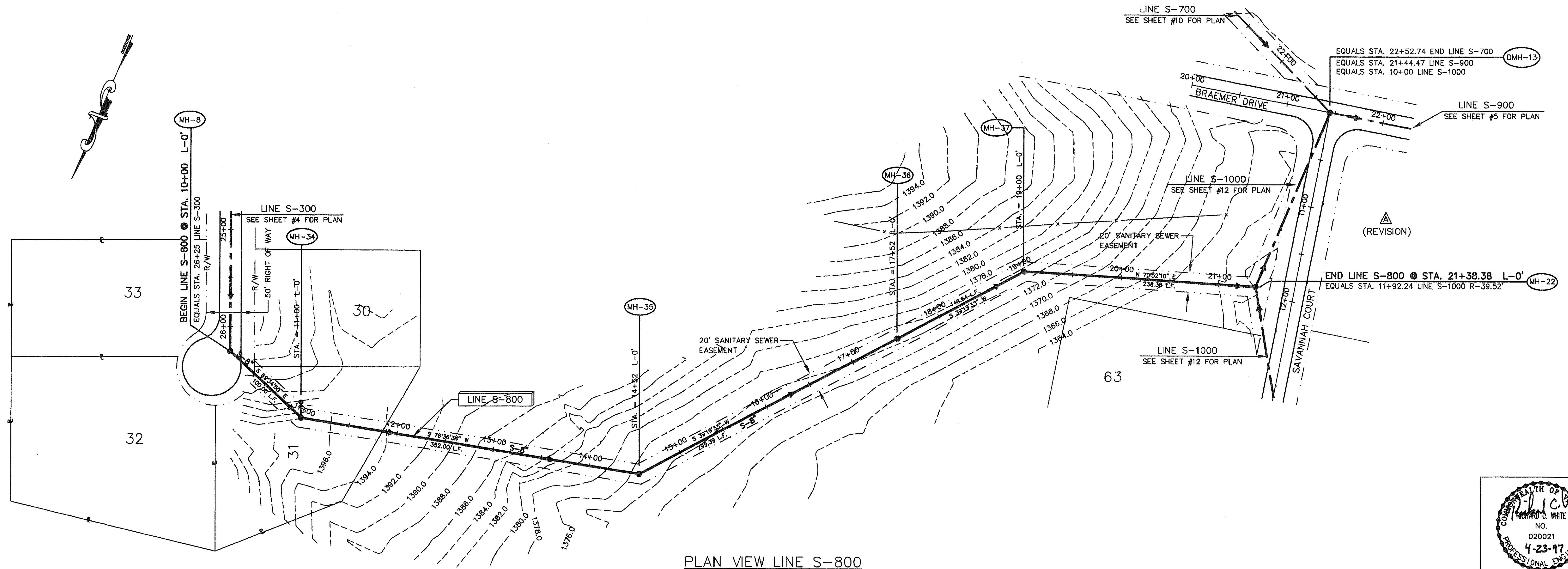


PROFILE LINE S-700

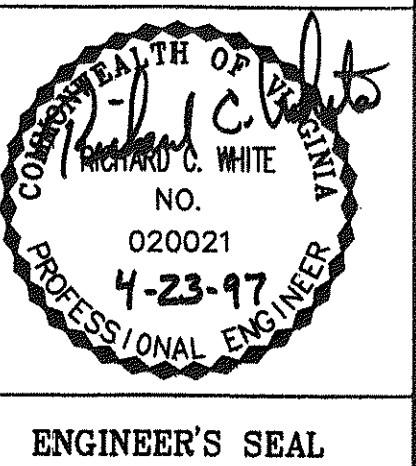
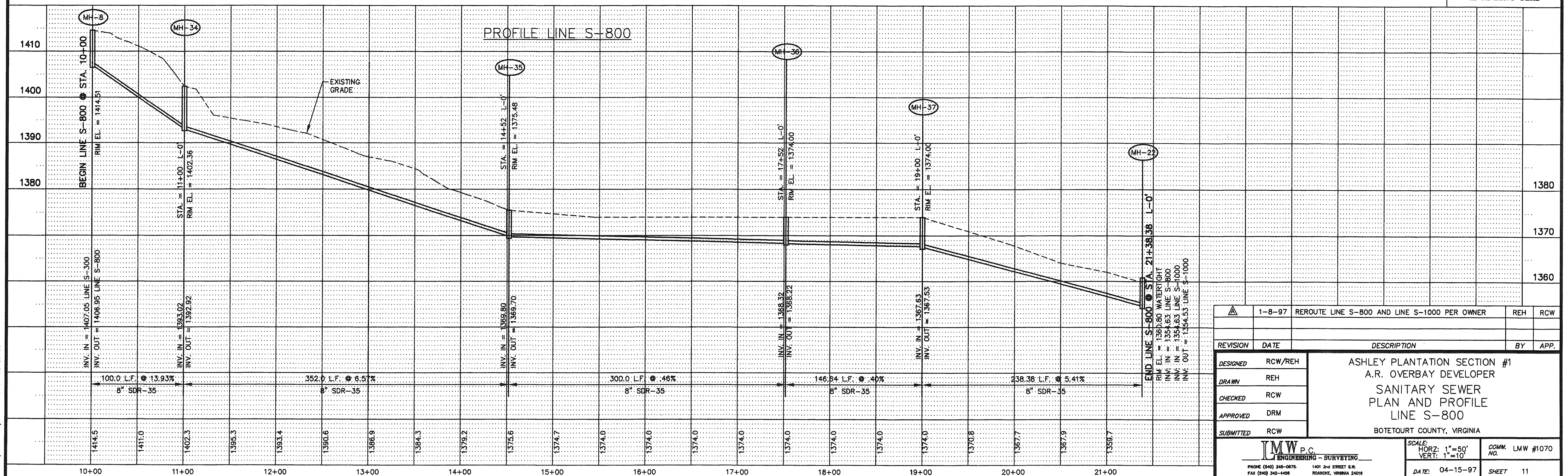


ENGINEER'S SEAL

DESIGNED	RCW/REH	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER PLAN AND PROFILE LINE S-700 BOTETOURT COUNTY, VIRGINIA	SCALE:	DATE:	SHEET
DRAWN	REH		HORIZ: 1"=50'	04-15-97	10
CHECKED	RCW		VERT: 1"=10'		
APPROVED	DRM		CONV NO.		
SUBMITTED	RCW		LMW #1070		



PLAN VIEW LINE S-800

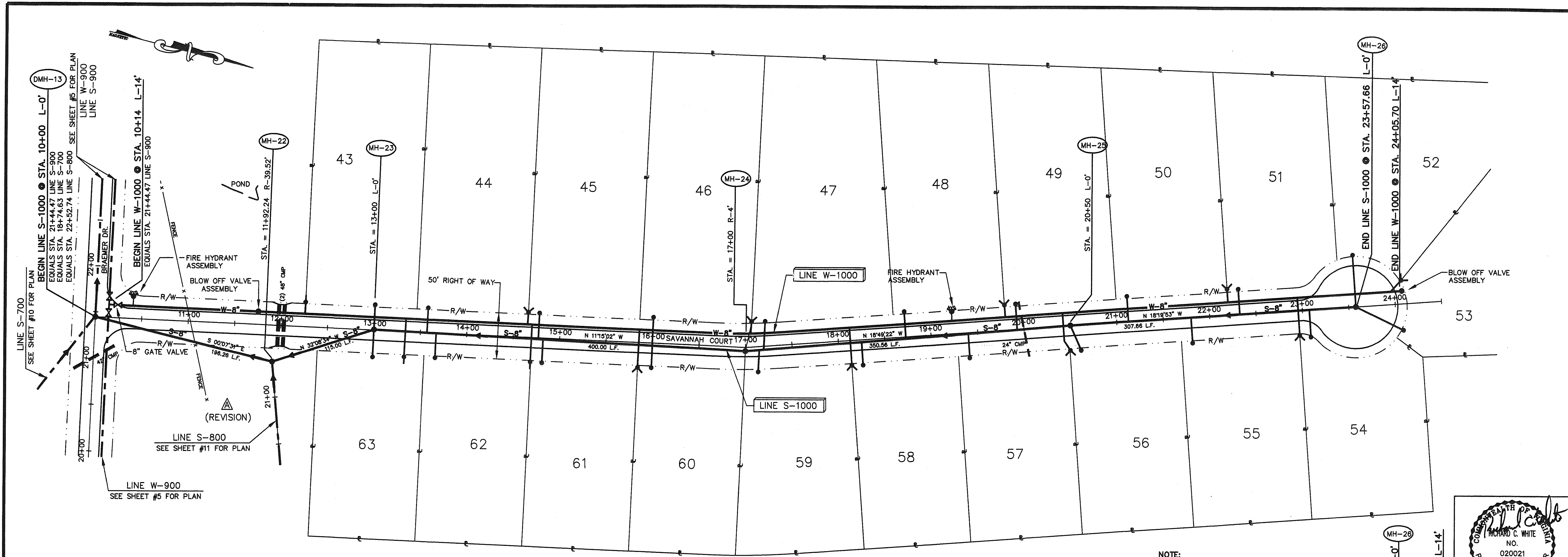


ENGINEER'S SEAL

DESIGNED	RCW/REH	ASHLEY PLANTATION SECTION #1 A.R. OVERBAY DEVELOPER SANITARY SEWER PLAN AND PROFILE LINE S-800 BOTETOURT COUNTY, VIRGINIA
DRAWN	REH	
CHECKED	RCW	
APPROVED	DRM	
SUBMITTED	RCW	

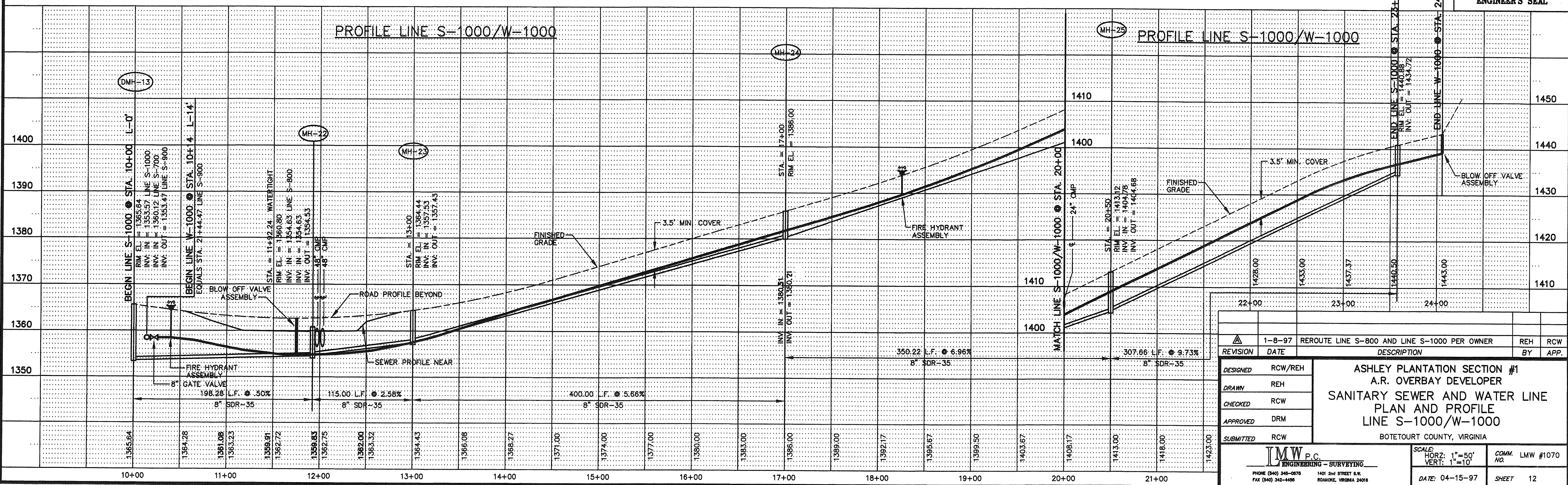
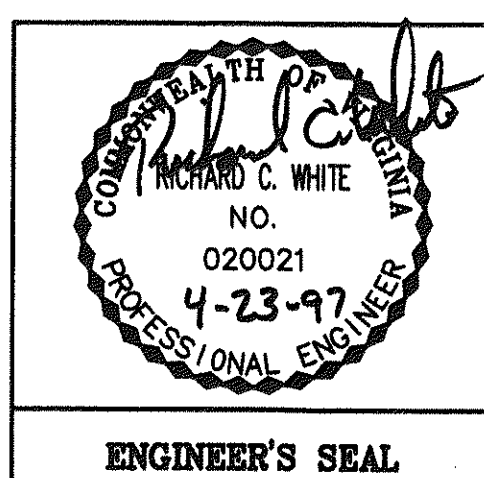
REVISION	DATE	DESCRIPTION	BY	APP.
1-B-97		REROUTE LINE S-800 AND LINE S-1000 PER OWNER	REH	RCW

SCALE:	HORIZ: 1"=50'	VERT: 1"=10'
DATE:	04-15-97	SHEET 11



PLAN VIEW LINE S-1000/W-1000

NOTE:
ALL PROPOSED WATER AND SEWER LINE STATION/OFFSET
ARE BASED ON CENTERLINE OF ROADWAY ALIGNMENT.
EXCEPT WHERE OTHERWISE SHOWN ON PLANS.



PROFILE LINE S-1000/W-1000

PROFILE LINE S-1000/W-1000

REVISION	DATE	DESCRIPTION	BY	APP.
1	1-8-97	REROUTE LINE S-800 AND LINE S-1000 PER OWNER	REH	RCW
DESIGNED	RCW/REH			
DRAWN	REH			
CHECKED	RCW			
APPROVED	DRM			
SUBMITTED	RCW			

ASHLEY PLANTATION SECTION #1
A.R. OVERBAY DEVELOPER
SANITARY SEWER AND WATER LINE
PLAN AND PROFILE
LINE S-1000/W-1000
BOTETOURT COUNTY, VIRGINIA

IMW.P.C.
ENGINEERING - SURVEYING
PHONE (840) 342-0878 1401 2ND STREET S.W.
FAX (840) 342-4408 ROANOKE, VIRGINIA 24016

SCALE: HORIZ: 1"=50'
VERT: 1"=10'

DATE: 04-15-97

COMM. NO. LMW #1070
SHEET 12