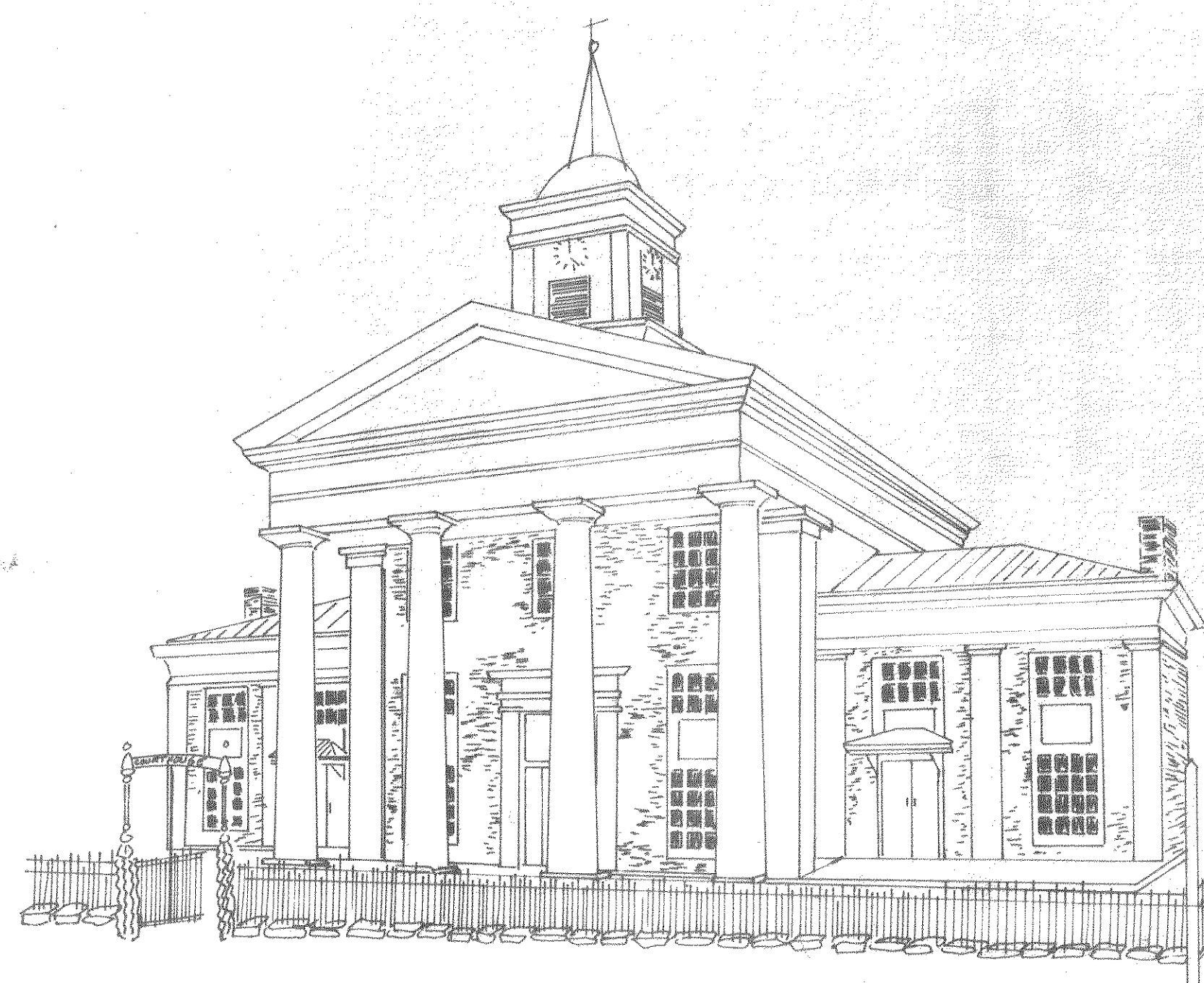


TINKER CREEK COLLECTOR

PHASE ONE

SECTIONS 1, 2, & 3



BOTETOURT COUNTY SERVICE AUTHORITY

Clean Water Engineers, Inc.

35 S. Roanoke Street

Fincastle, Virginia 24090

C.W.E. Project Number 7949

Date: Dec. 1981

Sheet: 1 of 41

NOTE:

PLANS WERE PREPARED BASED ON:

AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

HORIZONTAL AND VERTICAL GROUND CONTROL BY CHARLES R. MCMURRAY, C.L.S., 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

"AS-BUILT" INFORMATION WAS BASED ON EXISTING GROUND CONDITIONS AT COMPLETION OF CONSTRUCTION

PLAN VIEWS, SEWERLINE GRADES, MANHOLE INVERTS ARE ALL CORRECT BASED ON APPROVED "CUT-SHEET" DATA AS SUPPLIED TO CLEAN WATER ENGINEERS, INC., BY THE CONTRACTOR. THE GROUND PROFILE WAS NOT ADJUSTED TO REFLECT AS-BUILT CONDITIONS, THEREFORE THE PROFILES MAY NOT BE TO SCALE HORIZONTALLY OR VERTICALLY. REFER TO THE NUMERICAL NOTES FOR HORIZONTAL DISTANCE AND SEWERLINE GRADES, DO NOT SCALE.

GENERAL NOTES

1. VERTICAL CONTROL: NATIONAL GEODETIC VERTICAL DATUM MEAN SEA LEVEL 1929
HORIZONTAL CONTROL: STATE PLANE CO-ORDINATE SYSTEM (SOUTH ZONE)
2. SEWER LINES ARE LAID AT SUCH DEPTHS AS TO SERVE GROUND FLOOR PLUMBING ONLY AND TO PICK UP SEPTIC TANK DISCHARGE LINES.
3. ROCK QUANTITIES ARE THE ENGINEER'S ESTIMATE ONLY. THEY ARE TO BE USED BY THE CONTRACTOR AS AN AID TO PRICING THE LINE WORK AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SATISFY HIMSELF AS TO ALL CONDITIONS OF WORK BEFORE BIDDING.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY "UNDERGROUND CABLE LOCATION", 1-703-982-2400, AT LEAST 48 HOURS IN ADVANCE OF EXCAVATION IN ORDER TO VERIFY LOCATION OF UNDERGROUND UTILITIES.
5. EXISTING SURFACES DISTURBED BY CONTRACTOR'S WORK SHALL BE RESTORED TO THEIR PRESENT CONDITION.
6. HIGHWAY TRAFFIC SHALL BE PROTECTED AT ALL TIMES BY ADEQUATE LIGHTS, BARRICADES, AND CONSTRUCTION SIGNS. SIGNS SHALL BE IN ACCORDANCE WITH "VIRGINIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND ARE TO BE LOCATED AS DIRECTED BY THE RESIDENT ENGINEER OF THE DEPARTMENT OF HIGHWAYS. CONTRACTOR SHALL PROVIDE FLAGPERSONS AS REQUIRED.
7. CONTRACTOR SHALL PERFORM WORK IN SUCH A MANNER AS TO MINIMIZE EROSION OF SOILS.
8. THERE SHALL BE 10' MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES AND 18" MINIMUM VERTICAL SEPARATION WHERE SPECIFIED.

NOTES:

1. PLAN & PROFILE SHEETS 17-34: FUTURE PROJECT (NOT INCLUDED IN THIS CONTRACT) SHEETS 17-34 OMITTED FROM PLAN SET.
2. PROFILE SHEET 10: FUTURE PROJECT (NOT INCLUDED IN THIS CONTRACT) SHEET 10 OMITTED FROM PLAN SET.

NOTE:

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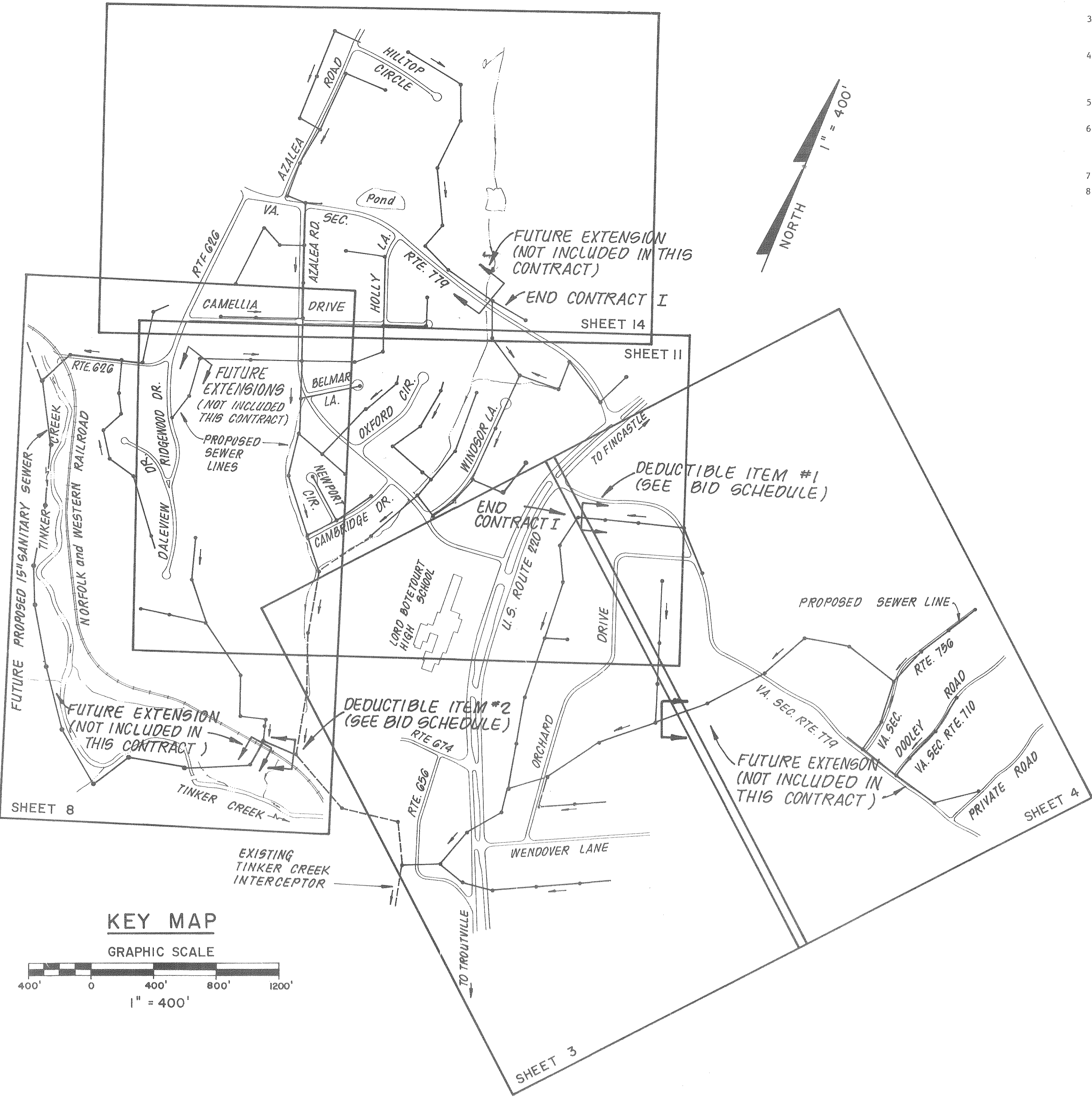
"AS-BUILT" INFORMATION WAS BASED ON EXISTING GROUND CONDITIONS AT COMPLETION OF CONSTRUCTION

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CONTRACT I

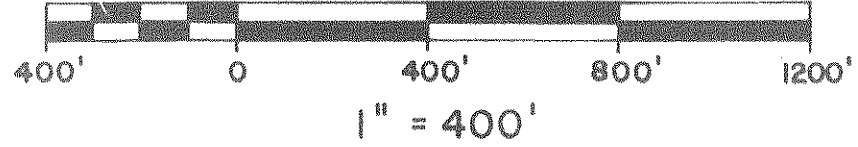
SHEETS 2-16 EXCLUDING
SHEETS 9 & 10.

NOTE: THESE PLANS WERE PREPARED FROM AN AERIAL SURVEY BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND. AND FROM VARIOUS STATE AND PRIVATE SURVEYS.
ALL HORIZONTAL AND VERTICAL CONTROL SET BY CHARLES McMURRAY C.L.S., BOTETOURT COUNTY, VIRGINIA.



KEY MAP

GRAPHIC SCALE



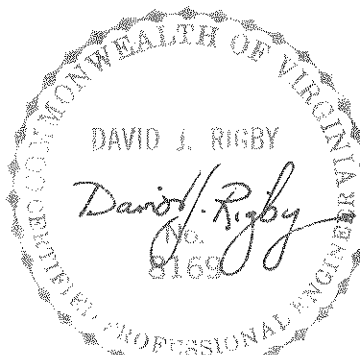
Designed: DJR
Drafted: CFA
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.

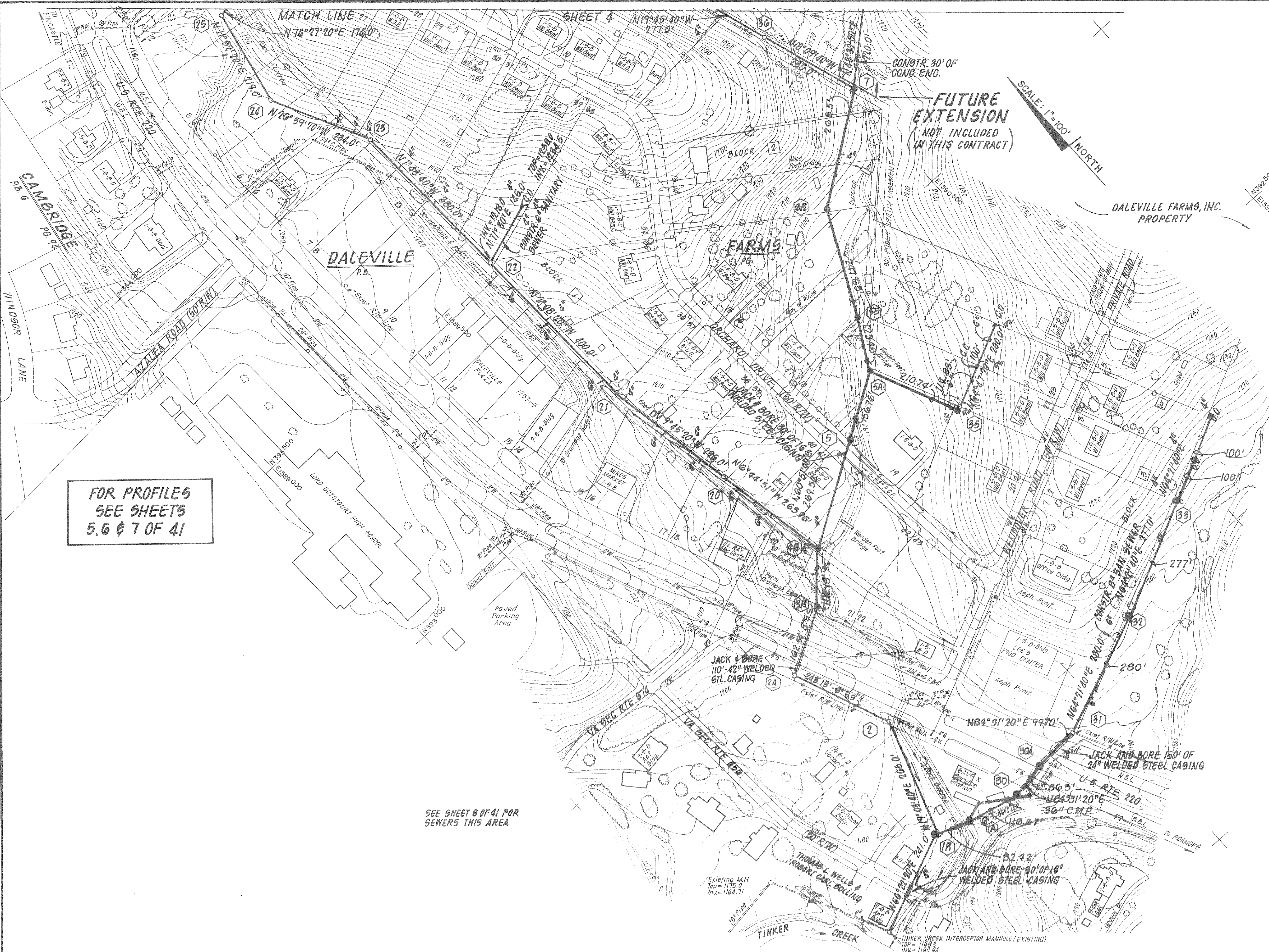
Fincastle, Virginia

TINKER CREEK COLLECTOR
PHASE ONE SECTION ONE

FOR
BOTETOURT COUNTY SERVICE AUTHORITY



Sheet: 2 of 41
Scale: 1" = 400'
Date: DEC. 1981
Project: 7949



NOTE:

PLANS WERE PREPARED BASED ON:

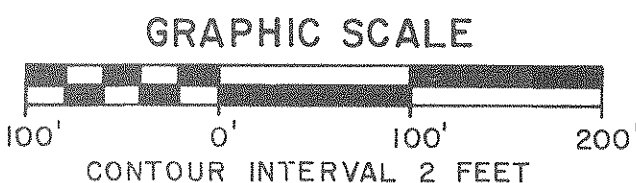
AERIAL TOPOGRAPHY MAPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

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DROP MANHOLES THIS SHEET : 30.
WATERTIGHT MANHOLES THIS SHEET:
4, 7, 20, 21, 22, 24, 25.



Designed: JMD
Drafted: CFA/RSM
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.
Fincastle, Virginia

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

Danoff Rigby

Sheet: 3 of 41
Scale: AS SHOWN
Date: DEC. 1981
Project: 7949

NOTE:

PLANS WERE PREPARED BASED ON:

AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

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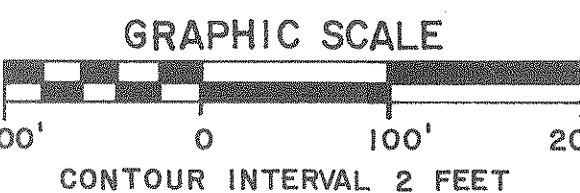
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SCALE: 1"=100'
NORTH



DROP MANHOLES THIS SHEET: 26.
WATERTIGHT MANHOLES THIS SHEET: 8, 42.



Designed: JMD
Drafted: CFA/RSM
Checked: JMD
Approved: DJR

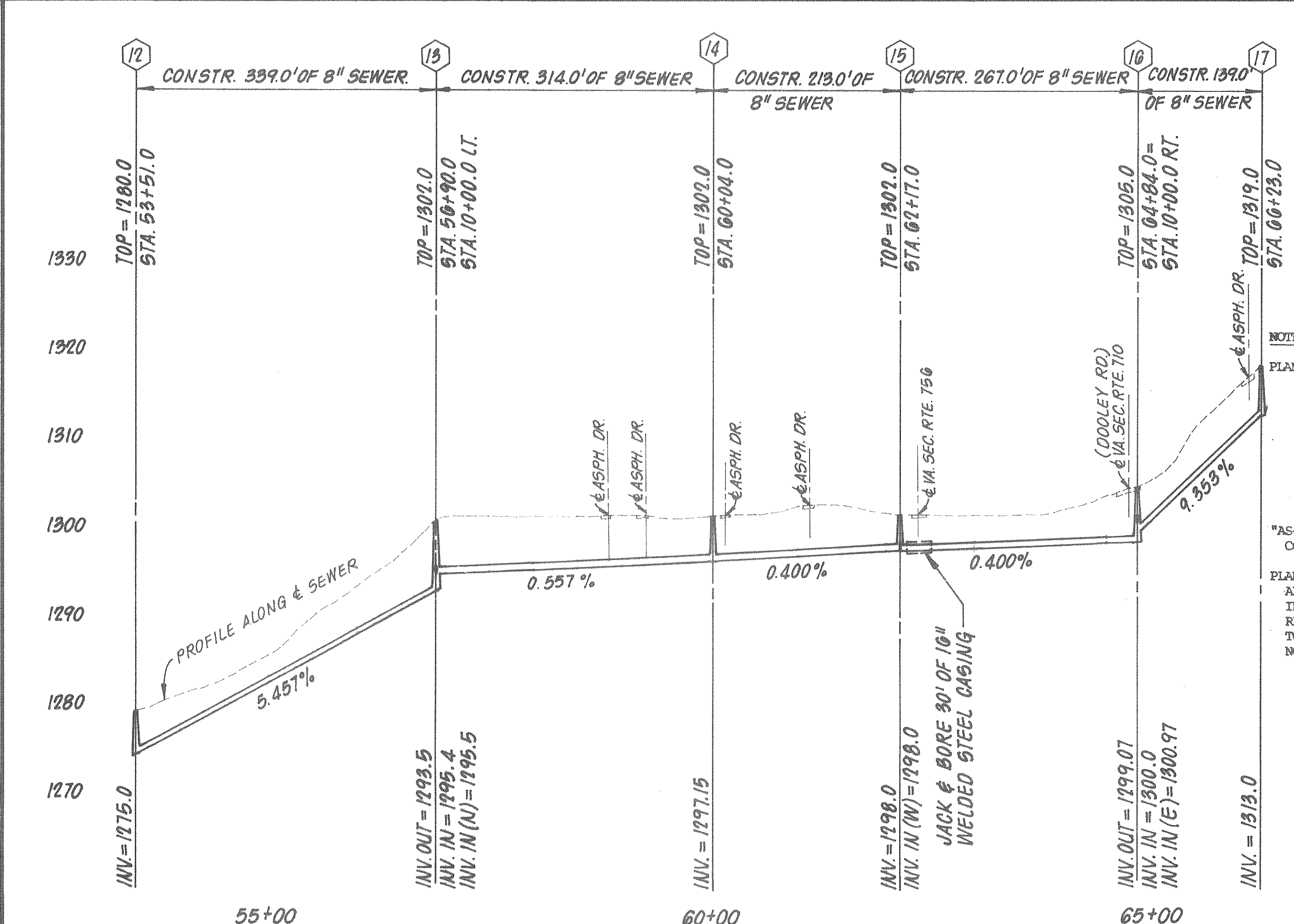
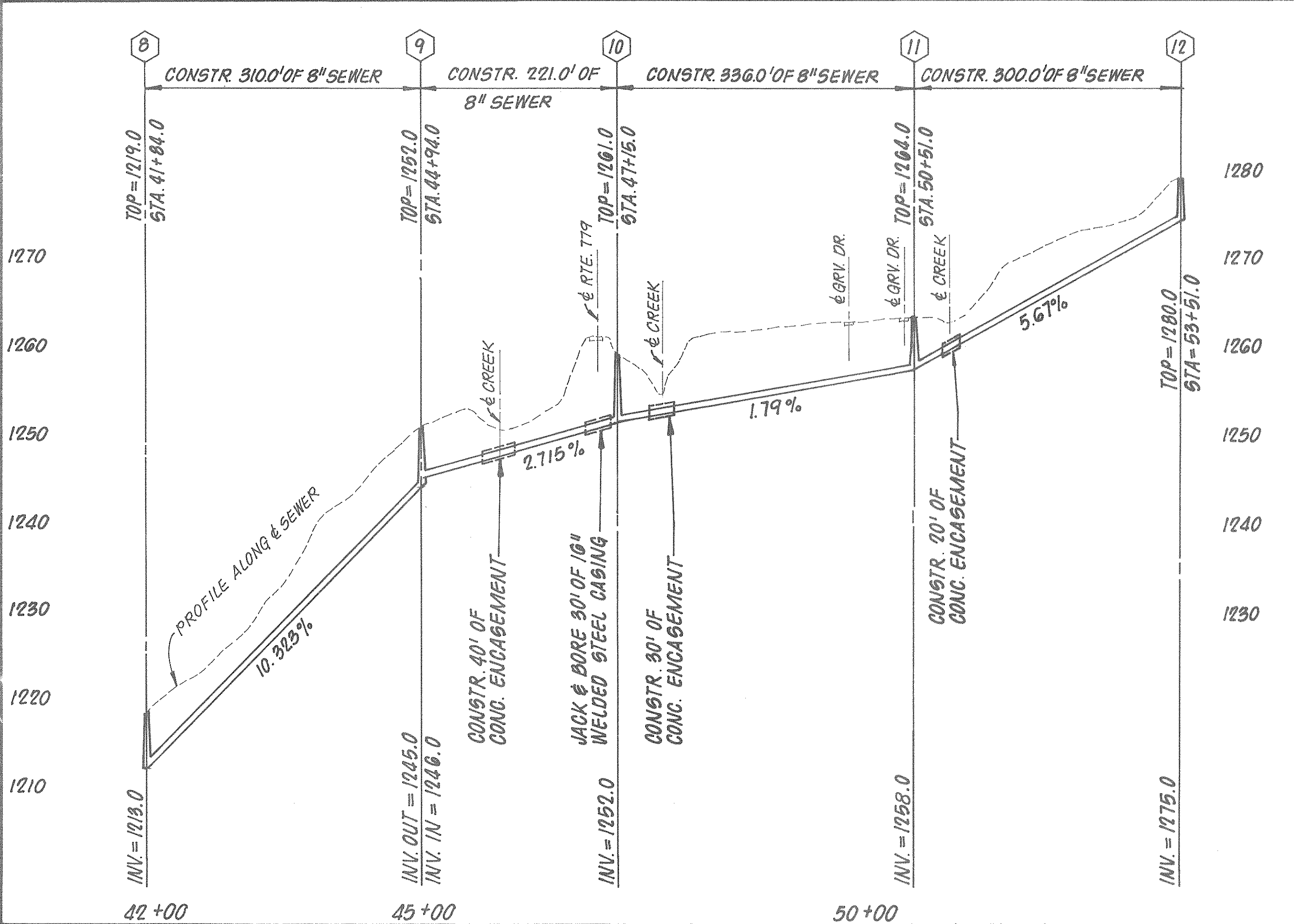
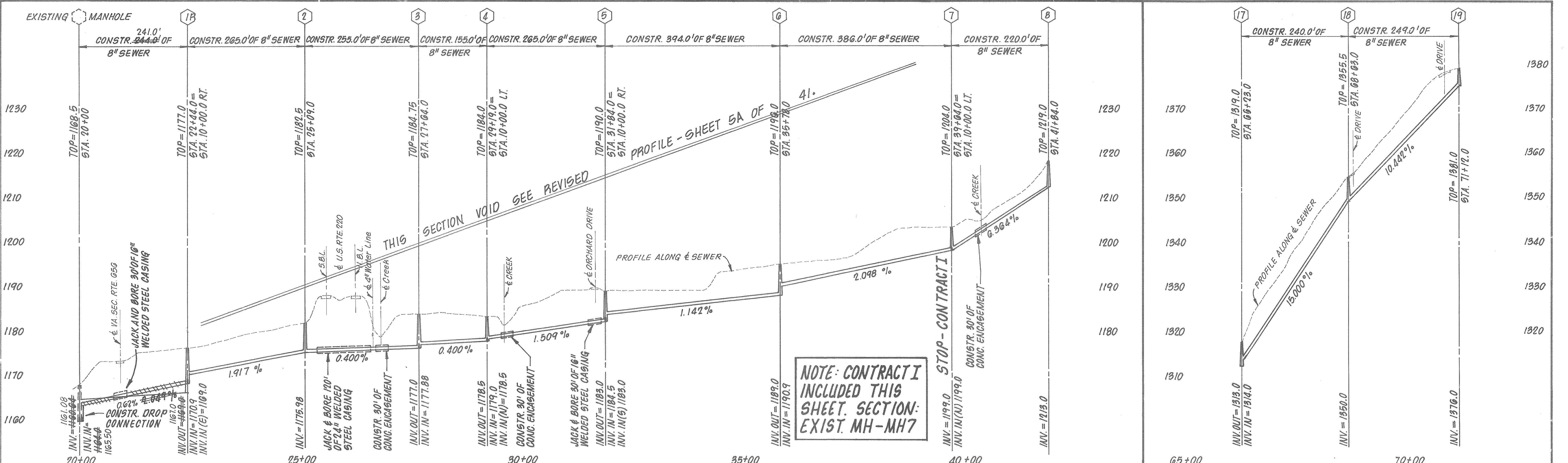
Clean Water Engineers, Inc.
Fincastle, Virginia

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"



Sheet: 4 of 41
Scale: AS SHOWN
Date: DEC. 1981
Project: 7949



**NOTE: FUTURE EXTENSIONS
THIS SHEET.
MANHOLES 8-19
NOT INCLUDED IN
THIS CONTRACT.**

NOTE:
PLANS WERE PREPARED BASED ON:
AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING,
ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED
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C.L.S., 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE
AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.
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COMPLETION OF CONSTRUCTION
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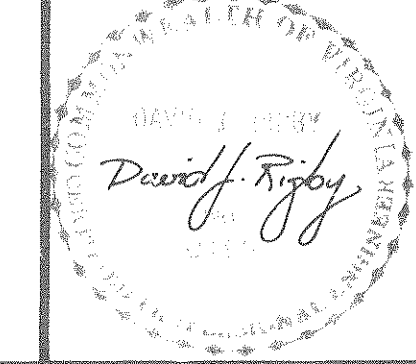
**FOR PLANS SEE
SHEETS 3 and 4 OF 41
DALEVILLE FARMS**

Designed: JMD
Drafted: RSM
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.
Fincastle, Virginia

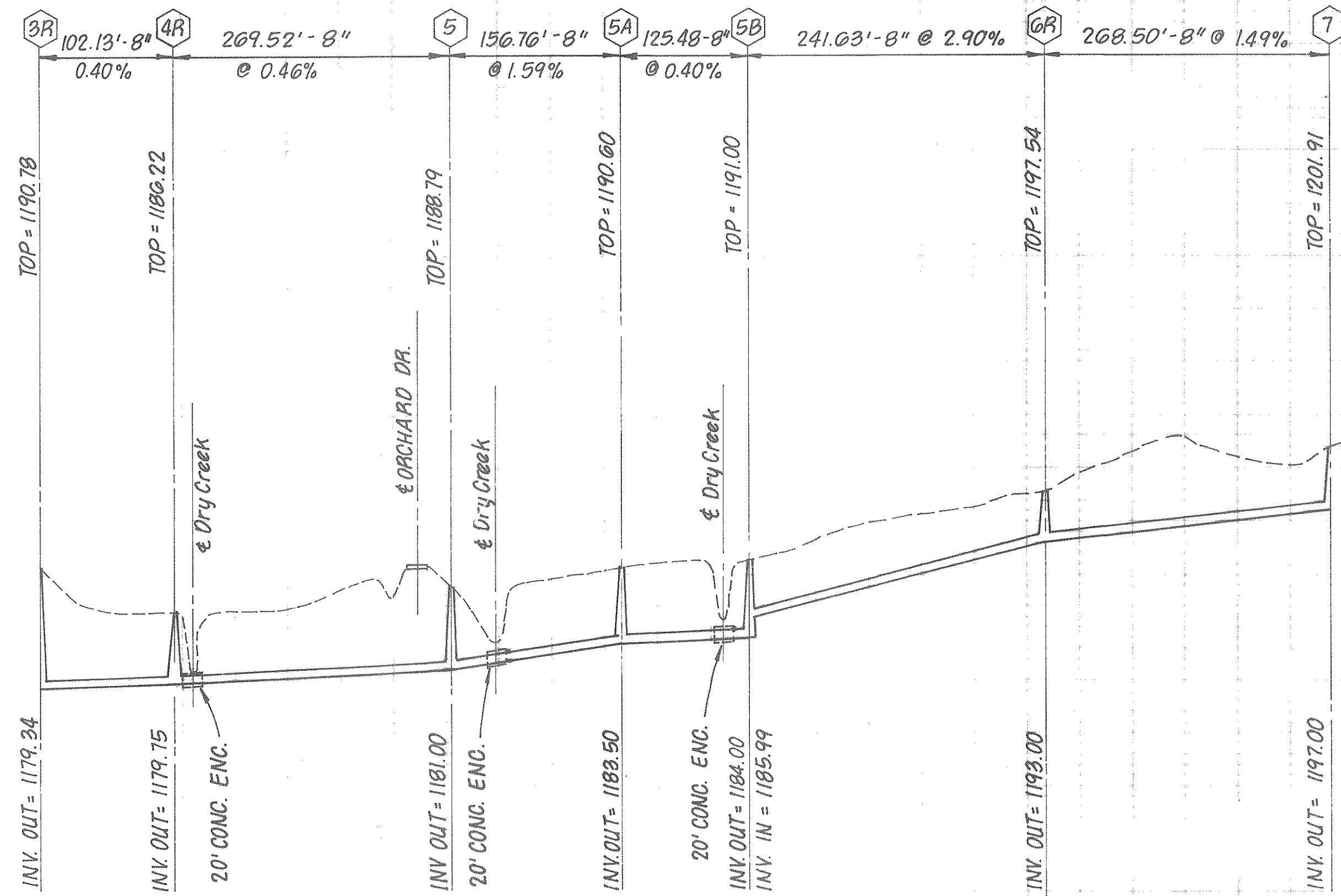
TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

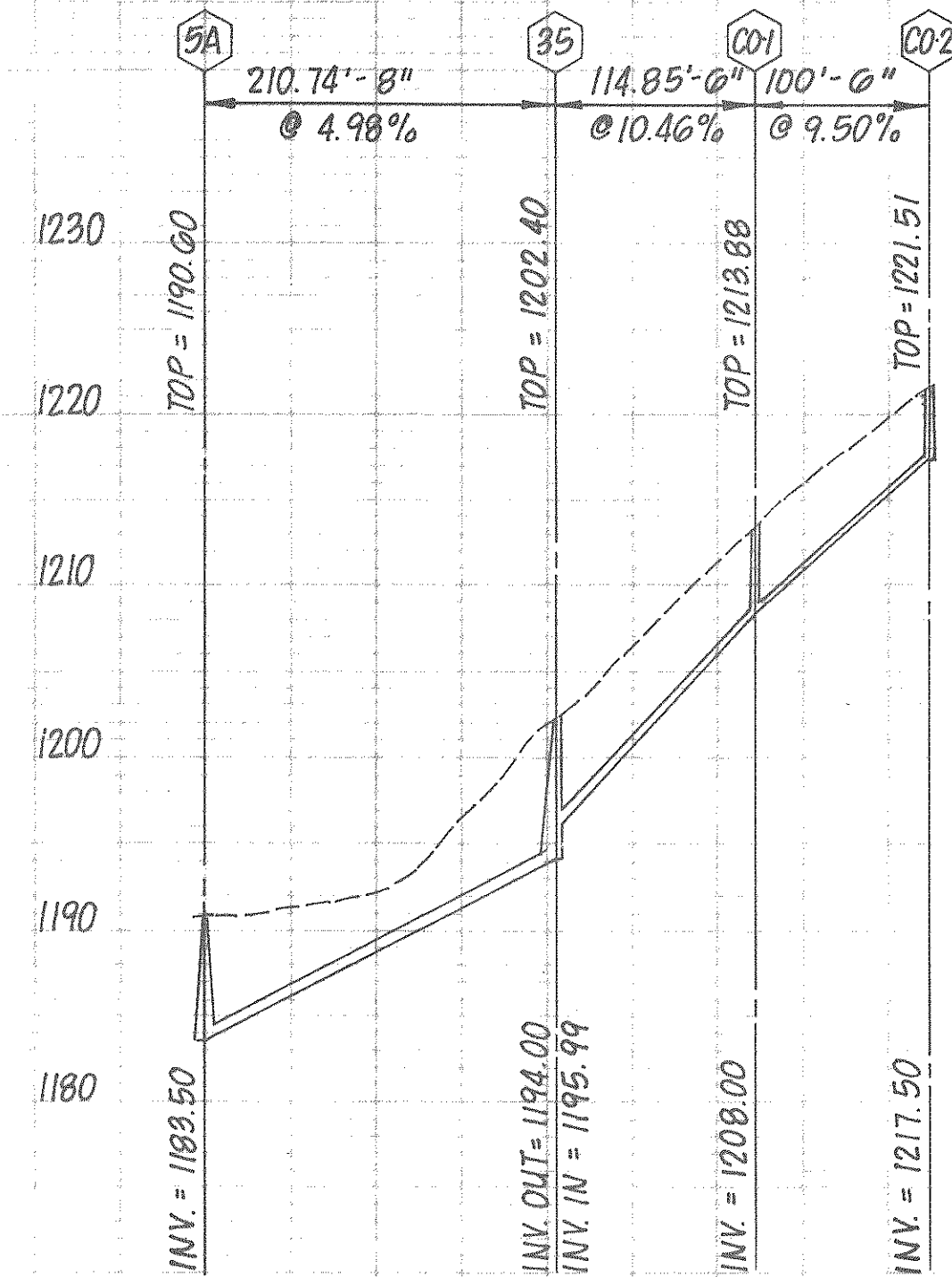


Sheet: 5 of 41
Scale: HORIZ. 1" = 100'
VERT. 1" = 10'
Date: DEC. 1981
Project: 7949

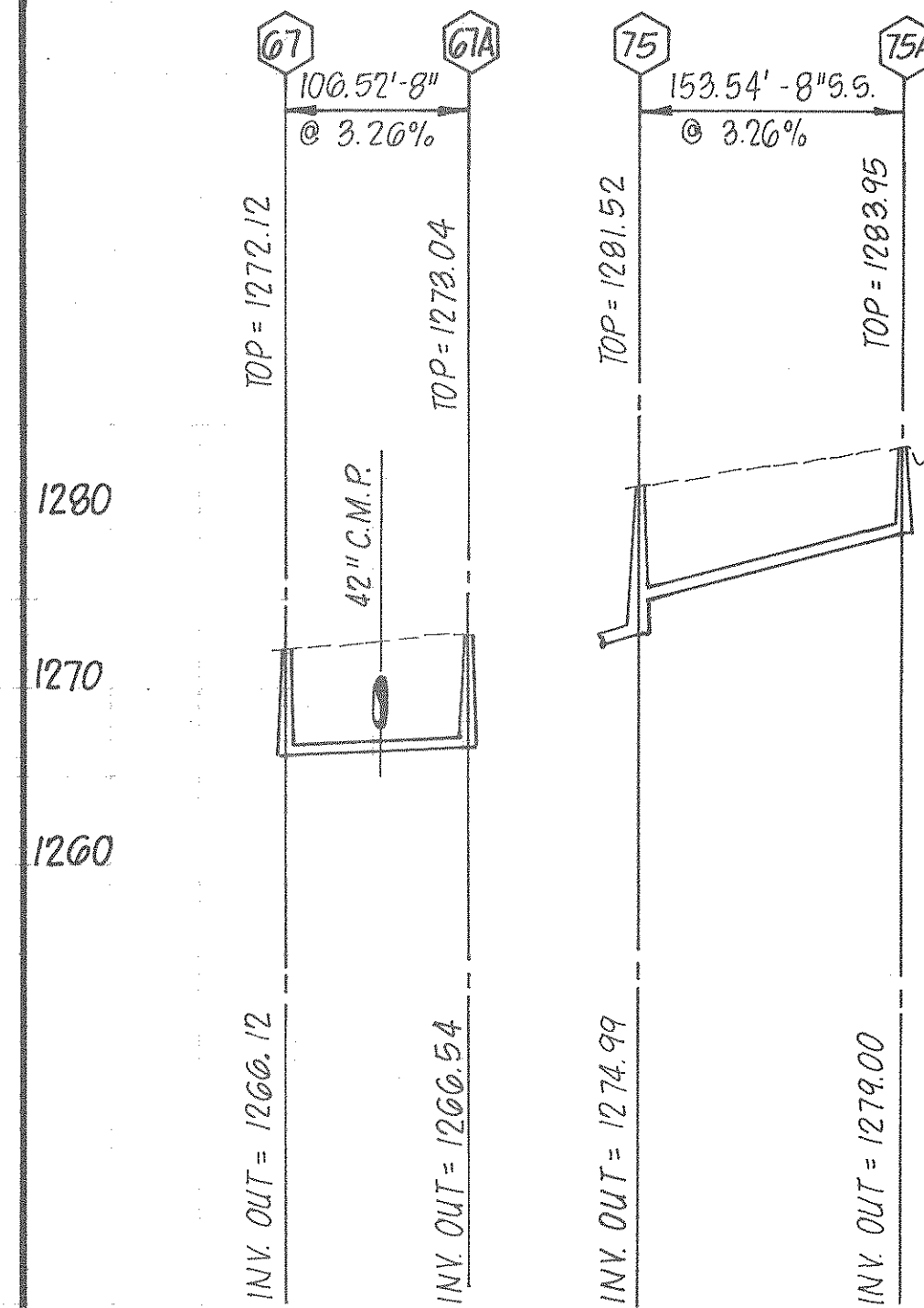
1200
1190
1180
1170



FOR PLAN THIS AREA SEE SHEET 3 OF 41.



FOR PLAN THIS AREA SEE SHEET 3 OF 41.



FOR PLAN THIS AREA SEE SHEET 11 OF 41.

NOTE:

PLANS WERE PREPARED BASED ON:

AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

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Designed: JMD
Drafted: CFA
Checked: JMD
Approved: DJR

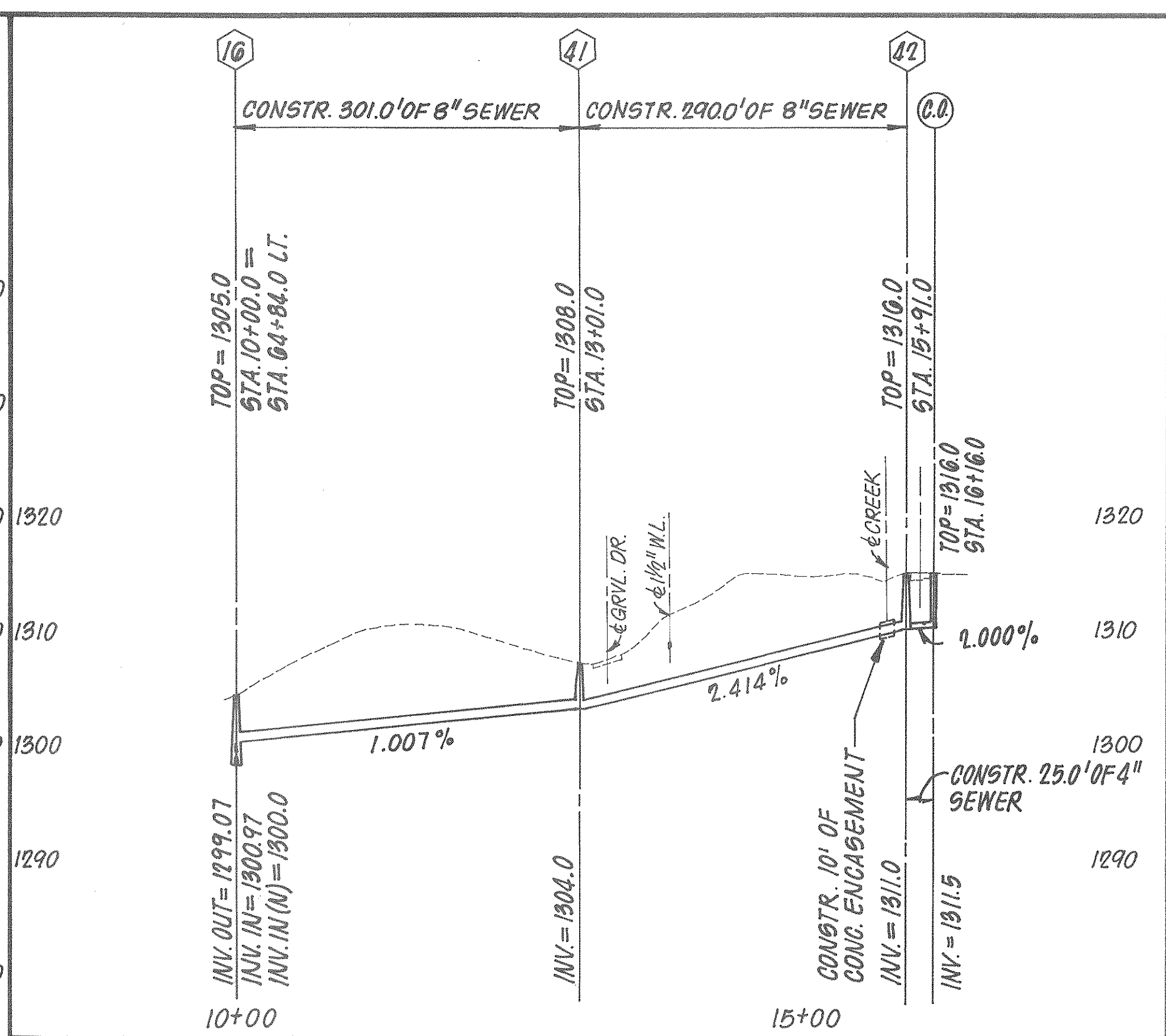
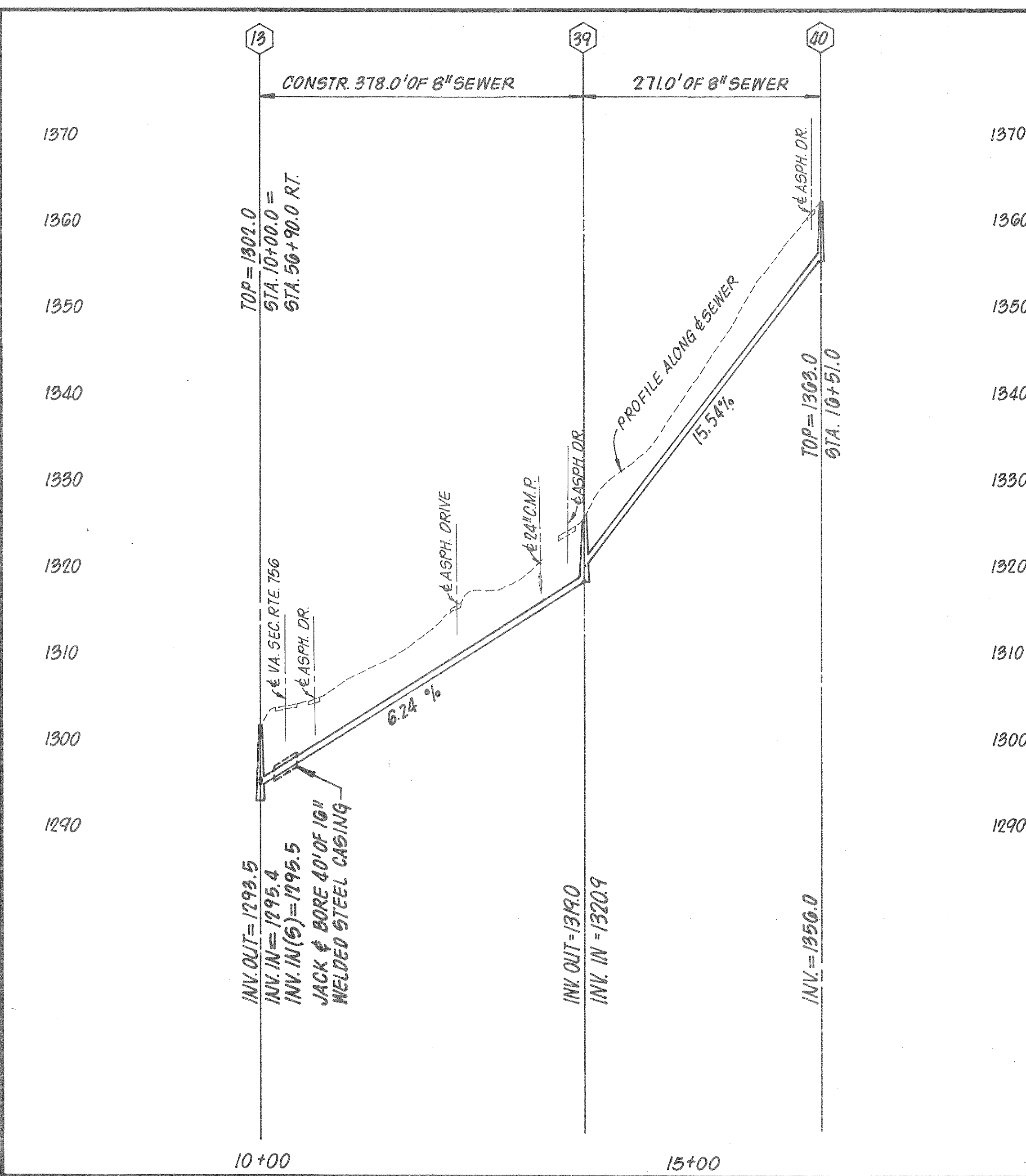
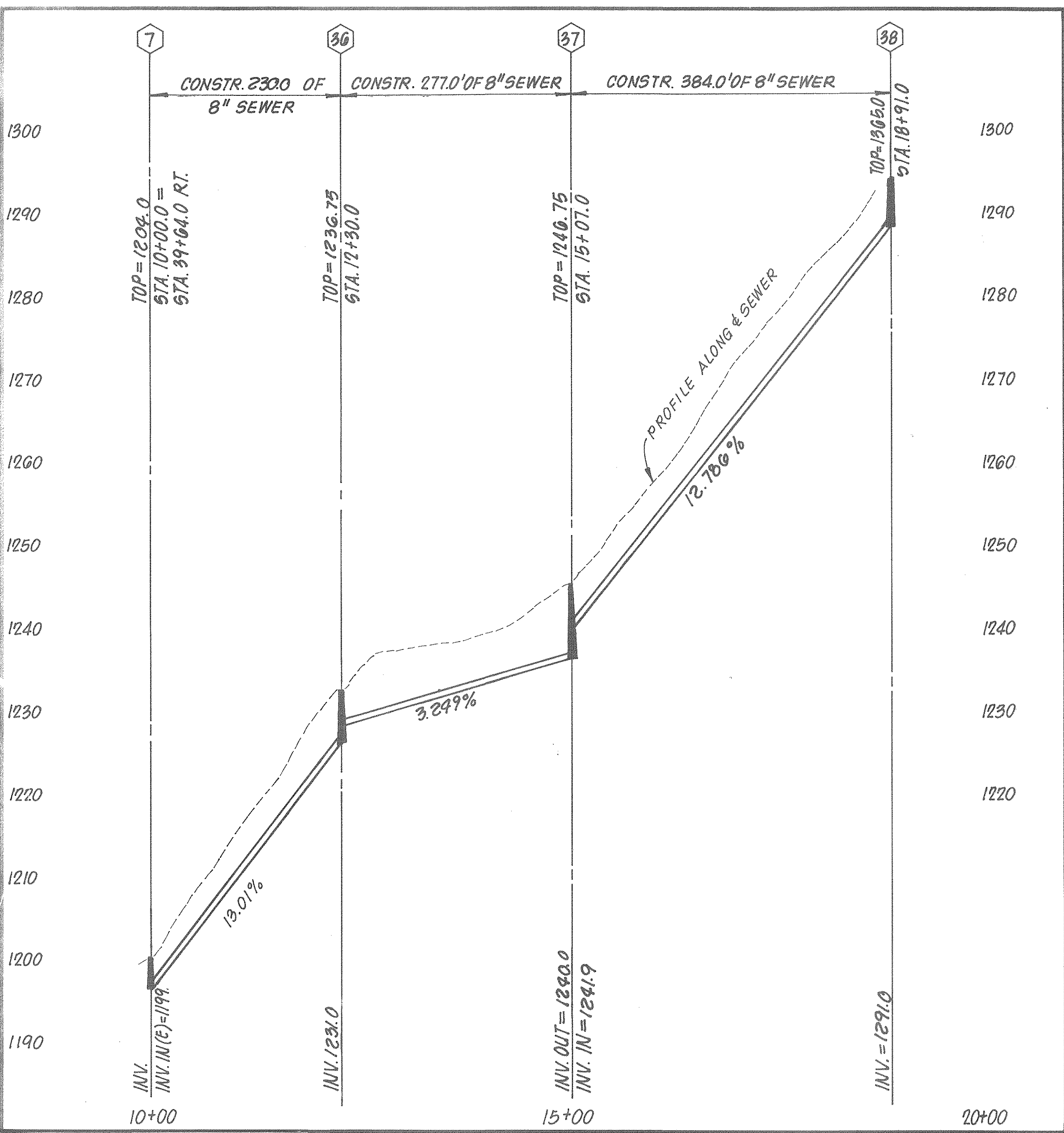
Clean Water Engineers, Inc.
Fincastle, Virginia

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

David J. Rigby

Sheet: 5A of 41
Scale: 1"= 100' HORIZ.
50' VERT.
Date: NOV., 1985
Project: 7949



NOTE:
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NOTE: CONTRACT I INCLUDED THIS SHEET
SECTION: MH 7 - MH 38

NOTE: FUTURE EXTENSIONS THIS SHEET
SECTIONS: MH 13 - 40
MH 16 - 42
(NOT INCLUDED IN THIS CONTRACT)

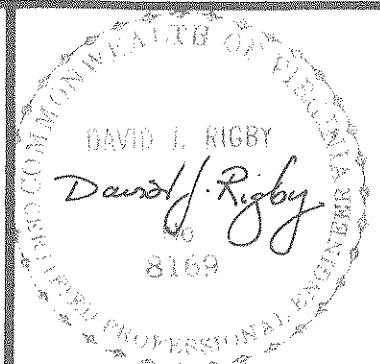
FOR PLANS SEE
SHEETS 3 and 4 OF 41.
DALEVILLE FARMS.

Designed: JMD
Drafted: CFA/RSM
Checked: JMD
Approved: DJR

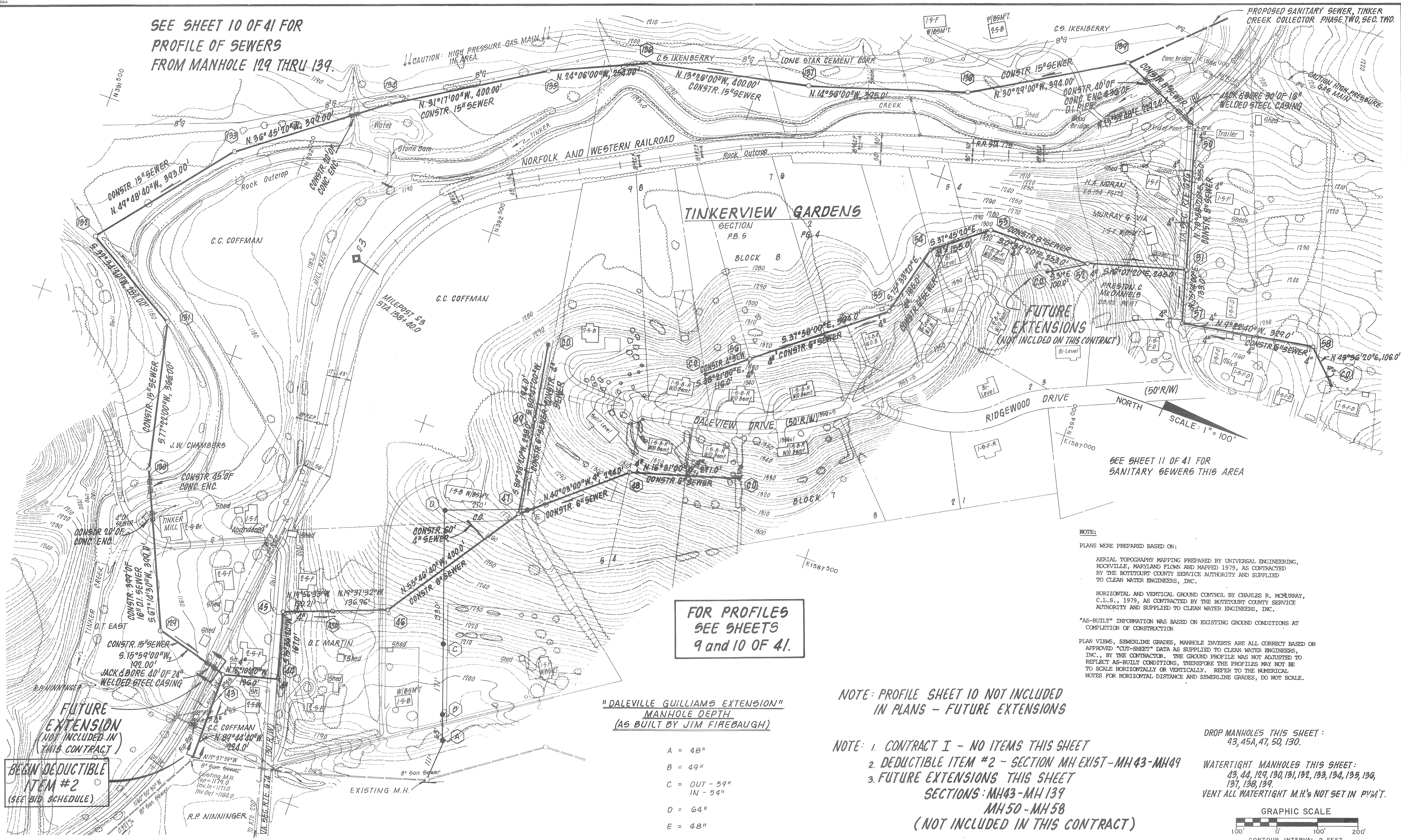
Clean Water Engineers, Inc.
Fincastle, Virginia

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"



Sheet: 7 of 41
Scale: HORIZ. 1" = 100'
VERT. 1" = 10'
Date: DEC. 1981
Project: 7949



"DALEVILLE GUILLIAMS EXTENSION"
MANHOLE DEPTH
(AS BUILT BY JIM FIREBAUGH)

A = 48"

B = 49"

C = OUT - 59"
IN - 54"

D = 64"

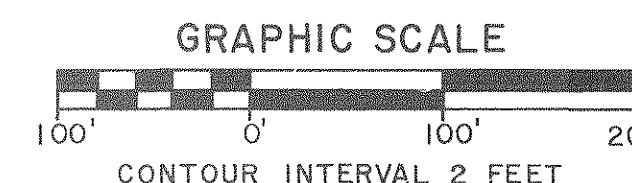
E = 48"

NOTE: PROFILE SHEET IS NOT INCLUDED
IN PLANS - FUTURE EXTENSIONS

NOTE: 1. CONTRACT I - NO ITEMS THIS SHEET
2. DEDUCTIBLE ITEM #2 - SECTION MH EXIST-MH43-MH49
3. FUTURE EXTENSIONS THIS SHEET
SECTIONS: MH43-MH139
MH50-MH58
(NOT INCLUDED IN THIS CONTRACT)

DROP MANHOLES THIS SHEET :
43, 45A, 47, 50, 130.

WATERTIGHT MANHOLES THIS SHEET:
43, 44, 129, 130, 131, 132, 133, 134, 135, 136,
137, 138, 139.
VENT ALL WATERTIGHT M.H.'s NOT SET IN P.V.M.T.



Designed: JMD
Drafted: CFA/RSM
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.

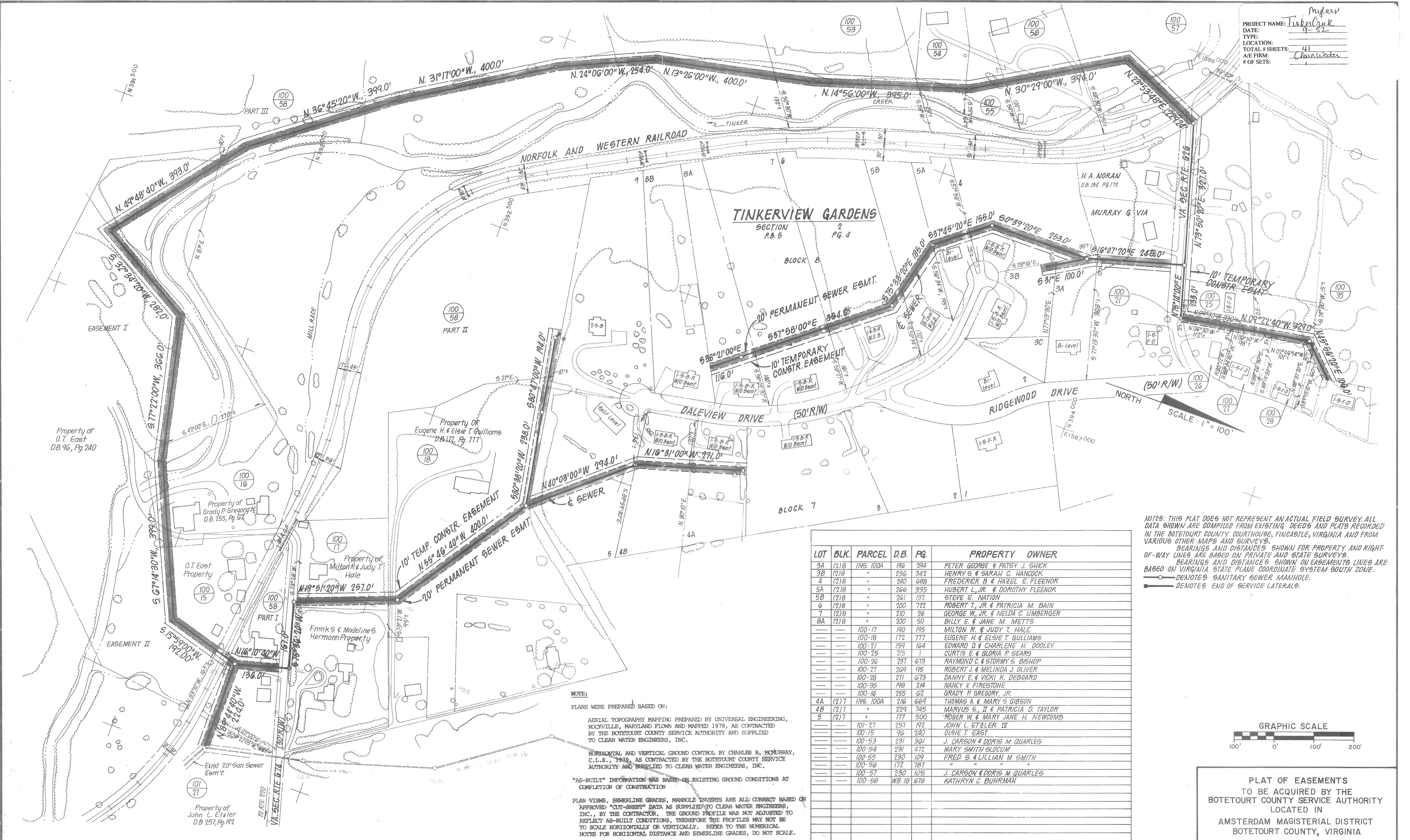
Fincastle, Virginia

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILT"

David Ripby

Sheet: 8 of 41
Scale: AS SHOWN
Date: DEC. 1981
Project: 7949



PROJECT NAME: Tinker Creek
DATE: 4-82
TYPE: PLAT
LOCATION: 41
TOTAL # SHEETS: 41
A/E FIRM: Clean Water
OF SETS: 1

NOTES: THIS PLAT DOES NOT REPRESENT AN ACTUAL FIELD SURVEY. ALL DATA SHOWN ARE COMPILED FROM EXISTING DEEDS AND PLATS RECORDED IN THE BOTETOURT COUNTY COURTHOUSE, FINCASTLE, VIRGINIA AND FROM VARIOUS OTHER MAPS AND SURVEYS.
BEARINGS AND DISTANCES SHOWN FOR PROPERTY AND RIGHT-OF-WAY LINES ARE BASED ON PRIVATE AND STATE SURVEYS.
BEARINGS AND DISTANCES SHOWN ON EASEMENTS LINES ARE BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE.
—○— DENOTES SANITARY SEWER MANHOLE.
— END OF SERVICE LATERAL.

LOT	BLK.	PARCEL	D.B.	Pg.	PROPERTY OWNER
3A	(2)8	1N5. 100A	196	244	PETER GEORGE & PATSY J. SHICK
3B	(2)8	"	236	342	HENRY S. & SARAH C. HANCOCK
4	(2)8	"	240	688	FREDERICK B. & HAZEL E. FLEENOR
5A	(2)8	"	266	335	HUBERT L. JR. & DOROTHY FLEENOR
5B	(2)8	"	261	132	STEVE E. NATION
6	(2)8	"	200	722	ROBERT T. JR. & PATRICIA M. BAIN
7	(2)8	"	210	26	GEORGE W. JR. & NELDA C. UMBERGER
8A	(2)8	"	200	50	BILLY E. & JANE M. METTS
"	100-17	190	195	"	MILTON R. & JUDY T. HALE
"	100-18	172	777	"	EUGENE H. & ELSIE T. GUILLIAMS
"	100-21	159	164	"	EDWARD D. & CHARLENE H. DOOLEY
"	100-25	215	1	"	CURTIS E. & GLORIA P. SEARS
"	100-26	297	673	"	RAYMOND C. & STORMY S. BISHOP
"	100-27	269	95	"	ROBERT J. & MELINDA J. OLIVER
"	100-28	271	673	"	DANNY E. & VICKI K. DEBOARD
"	100-35	198	214	"	NANCY V. FIRESTONE
"	100-16	255	62	"	GRADY P. GREGORY, JR.
4A	(2)7	1N5. 100A	216	669	THOMAS A. & MARY S. GIBSON
4B	(2)7	"	229	745	MARYUS S. II & PATRICIA D. TAYLOR
5	(2)7	"	177	500	ROBER W. & MARY JANE H. NEWCOMB
"	101-27	257	192	"	JOHN L. ETZLER, II
"	100-15	96	240	"	OLGIE T. EAST
"	100-53	231	361	"	J. CARSON & DORIS M. QUARLES
"	100-54	231	472	"	MARY SMITH GUDCUM
"	100-55	230	109	"	FRED S. & LILLIAN M. SMITH
"	100-56	172	787	"	"
"	100-57	230	105	"	J. CARSON & DORIS M. QUARLES
"	100-58	WB 18	678	"	KATHRYN C. BUHRMAN

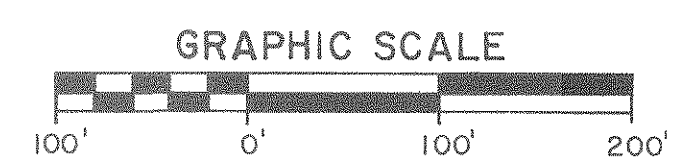
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PLAT OF EASEMENTS
TO BE ACQUIRED BY THE
BOTETOURT COUNTY SERVICE AUTHORITY
LOCATED IN
AMSTERDAM MAGISTERIAL DISTRICT
BOTETOURT COUNTY, VIRGINIA

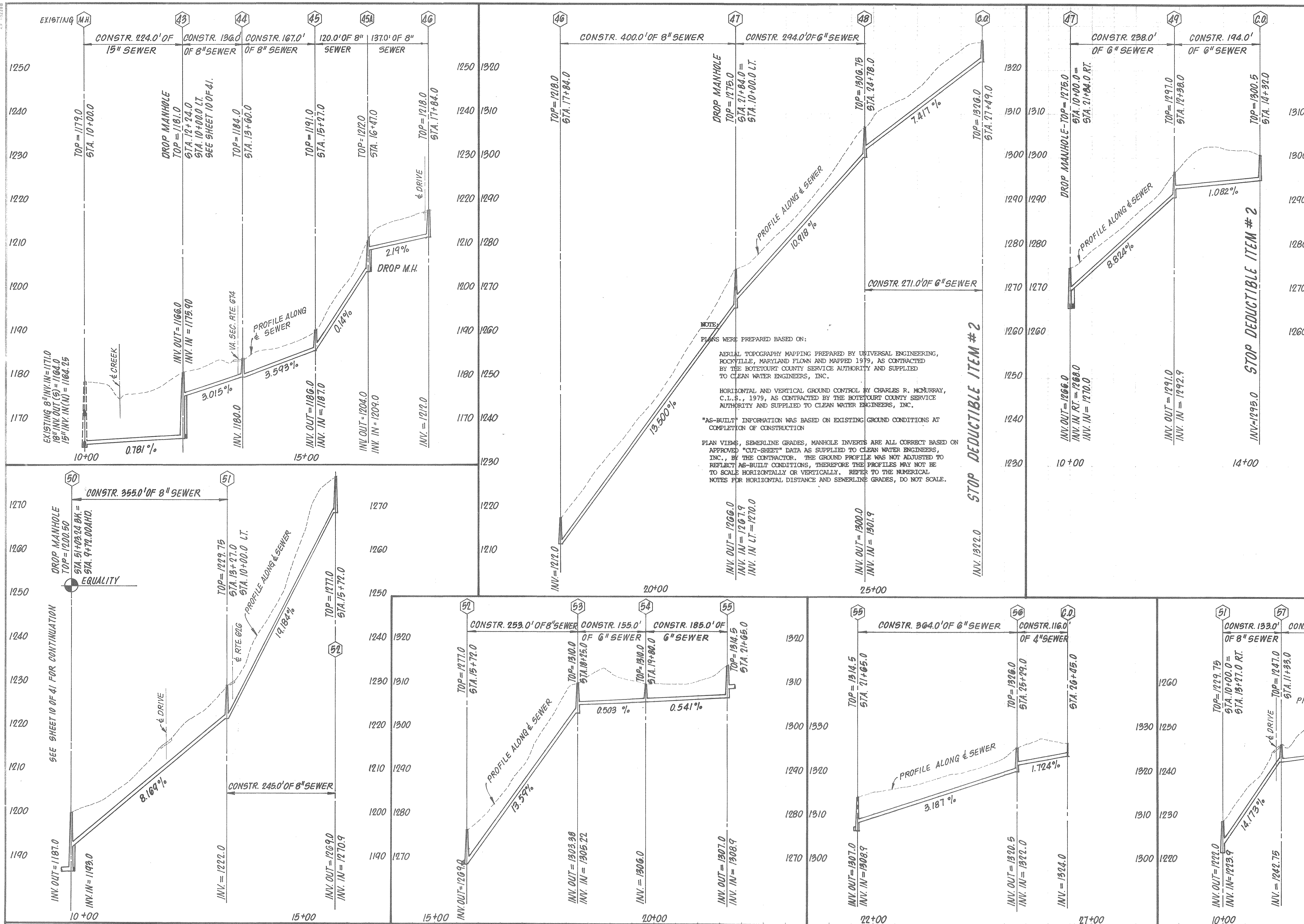
Designed: DJR
Drafted: CFA
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.

Fincastle, Virginia

TINKER CREEK COLLECTORS
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

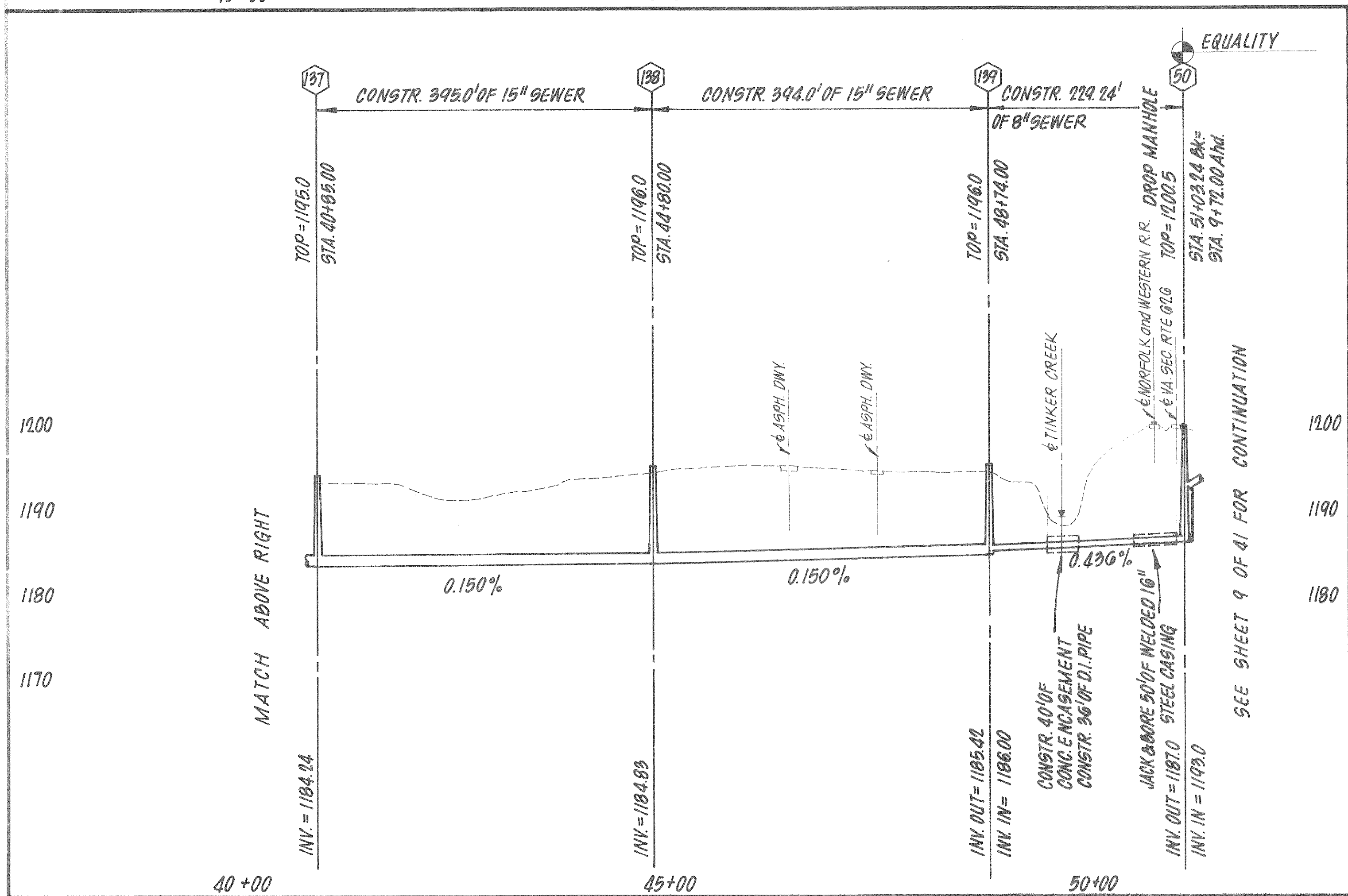
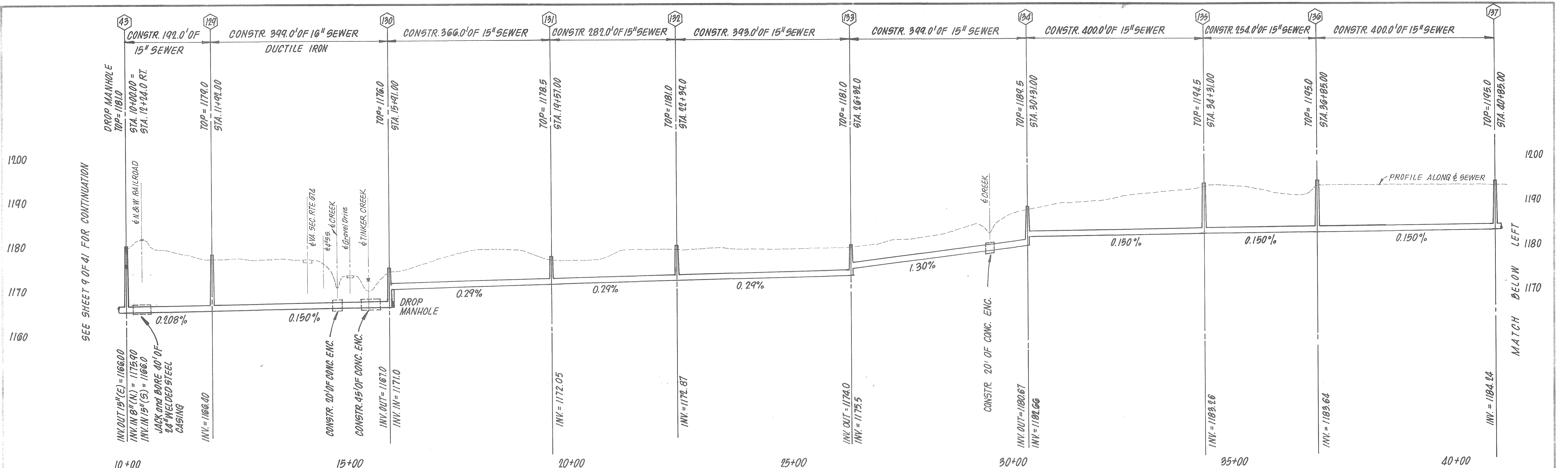
Sheet: 8 of 41
Scale: AS SHOWN
Date: SEPT. 30, 1982
Project: 7949



NOTE:

1. CONTRACT I - NO ITEMS THIS SHEET
2. DEDUCTIBLE ITEM # 2 SECTIONS:
EXIST MH-MH48-C.O.
MH 47-MH49-C.O.
(SEE BID SCHEDULE)
3. FUTURE EXTENSIONS THIS SHEET SECTIONS:
MH 50-MH56
MH 51-MH58
(NOT INCLUDED IN THIS CONTRACT)

FOR PLAN SEE SHEET 8 OF 41.



NOTE:

PLANS WERE PREPARED BASED ON:

AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

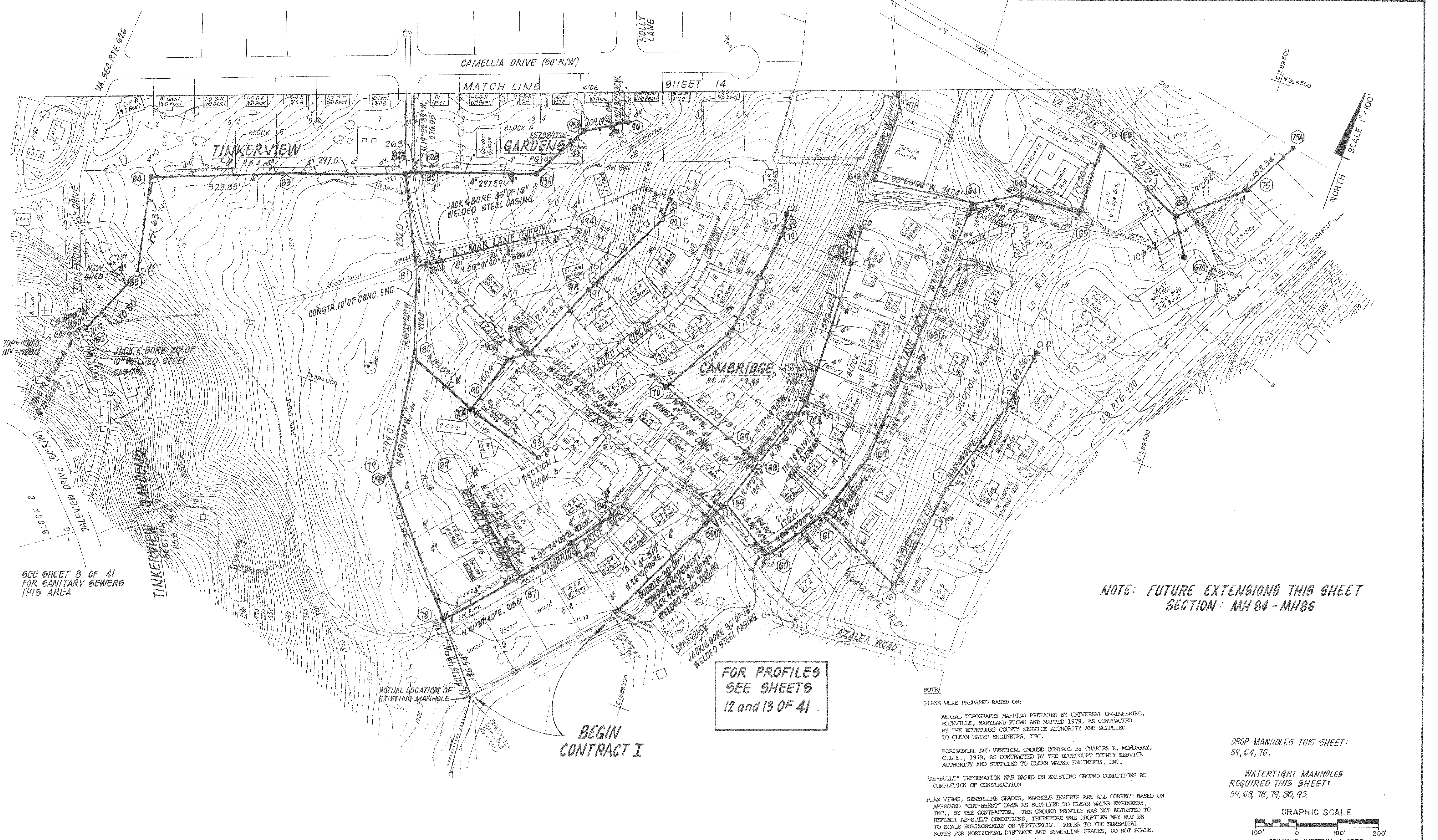
HORIZONTAL AND VERTICAL GROUND CONTROL BY CHARLES R. McMURRAY, C.L.S., 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

"AS-BUILT" INFORMATION WAS BASED ON EXISTING GROUND CONDITIONS AT COMPLETION OF CONSTRUCTION

PLAN VIEWS, SEWERLINE GRADES, MANHOLE INVERTS ARE ALL CORRECT BASED ON APPROVED "CUT-SHEET" DATA AS SUPPLIED TO CLEAN WATER ENGINEERS, INC., BY THE CONTRACTOR. THE GROUND PROFILE WAS NOT ADJUSTED TO REFLECT AS-BUILT CONDITIONS, THEREFORE THE PROFILES MAY NOT BE TO SCALE HORIZONTALLY OR VERTICALLY. REFER TO THE NUMERICAL NOTES FOR HORIZONTAL DISTANCE AND SEWERLINE GRADES, DO NOT SCALE.

FOR PLAN SEE SHEET
8 OF 41.

Designed: JMD	Clean Water Engineers, Inc. Fincastle, Virginia	TINKER CREEK COLLECTOR FOR BOTETOURT COUNTY SERVICE AUTHORITY	Daniel R. Rigby	Sheet: 10 of 41
Drafted: CFA				Scale: HORIZ. 1" = 100'
Checked: JMD				Date: DEC. 1981
Approved: DJR				Project: 7949



SEE SHEET 8 OF 41
FOR SANITARY SEWERS
THIS AREA

NOTE: FUTURE EXTENSIONS THIS SHEET
SECTION: MH 84 - MH 86

FOR PROFILES
SEE SHEETS
12 and 13 OF 41

NOTE:
PLANS WERE PREPARED BASED ON:

AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING,
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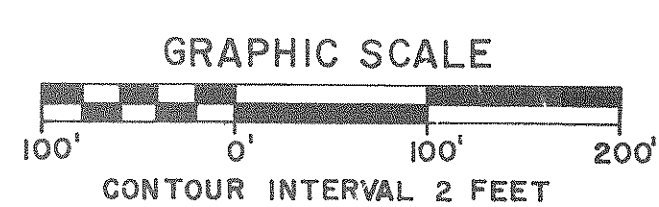
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"AS-BUILT" INFORMATION WAS BASED ON EXISTING GROUND CONDITIONS AT
COMPLETION OF CONSTRUCTION

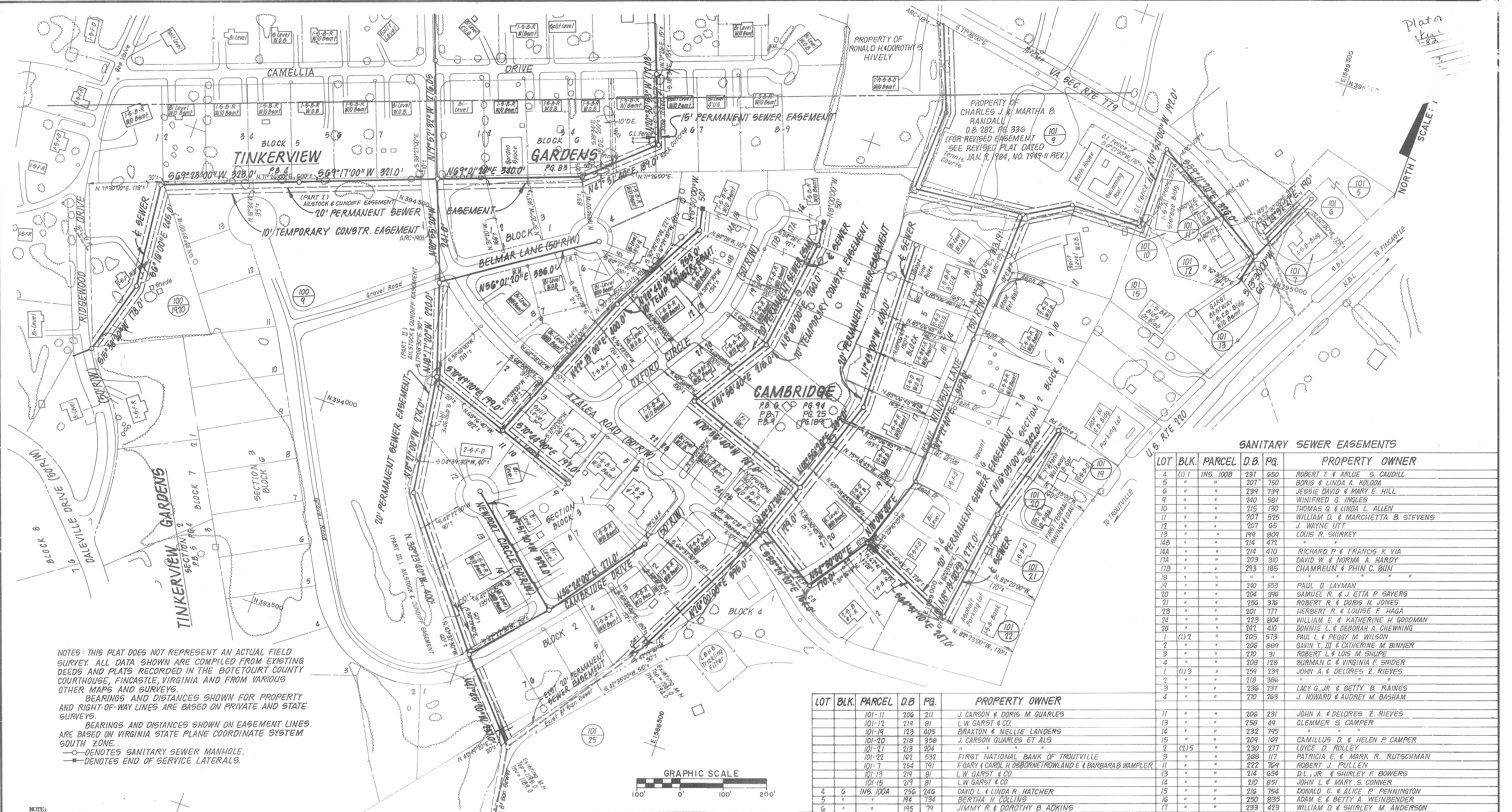
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NOTES FOR HORIZONTAL DISTANCE AND SEWERLINE GRADES, DO NOT SCALE.

DROP MANHOLES THIS SHEET:
59, 64, 76.

WATERTIGHT MANHOLES
REQUIRED THIS SHEET:
59, 68, 78, 79, 80, 95.



Designed: JMD Drafted: CFA Checked: JMD Approved: DJR	Clean Water Engineers, Inc. Fincastle, Virginia	TINKER CREEK COLLECTOR FOR BOTETOURT COUNTY SERVICE AUTHORITY	REVISED: 8-9-84 CFA REVISED: 8-21-84 JTR "AS BUILTS" 	Sheet: 11 of 41 Scale: AS SHOWN Date: DEC. 1981 Project: 7949
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NOTES: THIS PLAT DOES NOT REPRESENT AN ACTUAL FIELD SURVEY. ALL DATA SHOWN ARE COMPILED FROM EXISTING DEEDS AND PLATS RECORDED IN THE BOTETOURT COUNTY COURTHOUSE, FINCASTLE, VIRGINIA AND FROM VARIOUS OTHER MAPS AND SURVEYS.

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BEARINGS AND DISTANCES SHOWN ON EASEMENT LINES ARE BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE.

○ DENOTES SANITARY SEWER MANHOLE.
— DENOTES END OF SERVICE LATERALS.

NOTE:
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PLAT OF EASEMENTS
TO BE ACQUIRED BY THE
BOTETOURT COUNTY SERVICE AUTHORITY
LOCATED IN
AMSTERDAM MAGISTERIAL DISTRICT
BOTETOURT COUNTY, VIRGINIA

LOT	BLK.	PARCEL	D.B.	Pg.	PROPERTY OWNER
		101-11	206	211	J. CARSON & DORIS M. QUARLES
		101-12	219	81	L.W. GARST & CO.
		101-14	123	405	BRAXTON & NELLIE LANDERS
		101-20	218	358	J. CARSON QUARLES ET ALS
		101-21	213	204	"
		101-22	162	532	FIRST NATIONAL BANK OF TROUTVILLE
		101-7	254	191	F. GARY & CAROL H. OSBORNE ROWLAND E. & BARBARA B. WAMPLER
		101-13	219	81	L.W. GARST & CO.
		101-15	219	81	L.W. GARST & CO.
4	6	INS. 100A	256	246	DAVID L. & LINDA R. HATCHER
5	"	"	194	734	BERTHA H. COLLINS
6	"	"	195	79	JIMMY R. & DOROTHY B. ADKINS
		101-5	254	193	F. GARY OSBORNE & ROWLAND E. WAMPLER
		101-6	"	"	"
1	(1)1	INS. 100B	193	631	JAMES E. AILSTOCK & W.E. CUNDIFF ET ALS
2	"	"	217	645	J. CARSON QUARLES ET ALS
3	"	"	193	631	JAMES E. AILSTOCK & W.E. CUNDIFF ET ALS
2	(2)4	"	"	"	"
7	(1)2	"	"	"	"
1	(3)6	"	"	"	"
12	(1)3	"	"	"	"
13	(3)6	"	"	"	"

SANITARY SEWER EASEMENTS					PROPERTY OWNER
LOT	BLK.	PARCEL	D.B.	Pg.	
4	(1)1	INS. 100B	237	650	ROBERT T. & ARLUE S. CAUDILL
5	"	"	207	750	DORIS & LINDA A. KOLODA
6	"	"	239	739	JESSIE DAVID & MARY E. HILL
9	"	"	240	581	WINIFRED G. INGLES
10	"	"	215	130	THOMAS G. & LINDA L. ALLEN
11	"	"	207	525	WILLIAM D. & MARCHETTA B. STEVENS
12	"	"	207	65	J. WAYNE LITT
13	"	"	199	809	LOUIS R. SHIRKEY
14B	"	"	214	472	"
14A	"	"	214	470	RICHARD B. & FRANCIS K. VIA
17A	"	"	203	310	DAVID W. & NORMA A. HARDY
17B	"	"	293	185	CHAMREUN & PHIN C. BUN
18	"	"	"	"	"
19	"	"	240	553	PAUL D. LAYMAN
20	"	"	204	396	SAMUEL R. & J. ETIA P. SAYERS
21	"	"	256	376	ROBERT R. & DORIS H. JONES
23	"	"	201	777	HERBERT R. & LOUISE F. HAGA
24	"	"	223	804	WILLIAM E. & KATHERINE H. GOODMAN
25	"	"	142	410	DOMINIE L. & DEBORAH A. CHEWNING
1	(1)2	"	205	573	PAUL L. & PEGGY M. WILSON
2	"	"	206	889	GAVIN T. III & CATHERINE M. BINNER
3	"	"	270	31	ROBERT L. & LOIS M. SHUPE
4	"	"	208	128	BURMAN C. & VIRGINIA F. SNIDER
1	(1)3	"	259	239	JOHN A. & DELORES Z. RIEVES
2	"	"	218	386	"
3	"	"	236	737	LACY G. JR. & BETTY B. RAINES
4	"	"	270	263	J. HOWARD & AUDREY M. BASHAM
11	"	"	206	231	JOHN A. & DELORES Z. RIEVES
13	"	"	258	49	CLEMMER S. CAMPER
14	"	"	232	795	"
15	"	"	209	169	CAMILLUS D. & HELEN P. CAMPER
2	(2)5	"	230	277	LOYCE D. ROLLEY
3	"	"	268	117	PATRICIA E. & MARK R. RUTSCHMAN
11	"	"	222	764	ROBERT J. FULLEN
13	"	"	214	654	D.L. JR. & SHIRLEY E. BOWERS
14	"	"	210	851	JOHN L. & MARY S. CONNER
15	"	"	216	754	DONALD E. & ALICE P. PENNINGTON
16	"	"	250	835	ADAM E. & BETTY A. WEINBENDER
17	"	"	233	423	WILLIAM D. & SHIRLEY M. ANDERSON
18	"	"	222	205	ALEXANDER MITCHELL JR.
19	"	"	241	754	PAUL T. & PATRICIA M. PURCELL
20	"	"	260	475	THOMAS W. & DOROTHY B. FINCHUM
21	"	"	266	368	JACK R. & JUANITA L. DUVALL
		100-9	193	1	J.E. AILSTOCK & W.E. CUNDIFF
		100-19	227	606	MORRIS M. & ELAINE C. GILL
		101-9	282	336	CHARLES J. & MARTHA B. RANDALL
		101-10	236	615	BOTETOURT WAREHOUSE ASSOCIATES
		101-25	193	151	THE SCHOOL BOARD OF BOTETOURT COUNTY

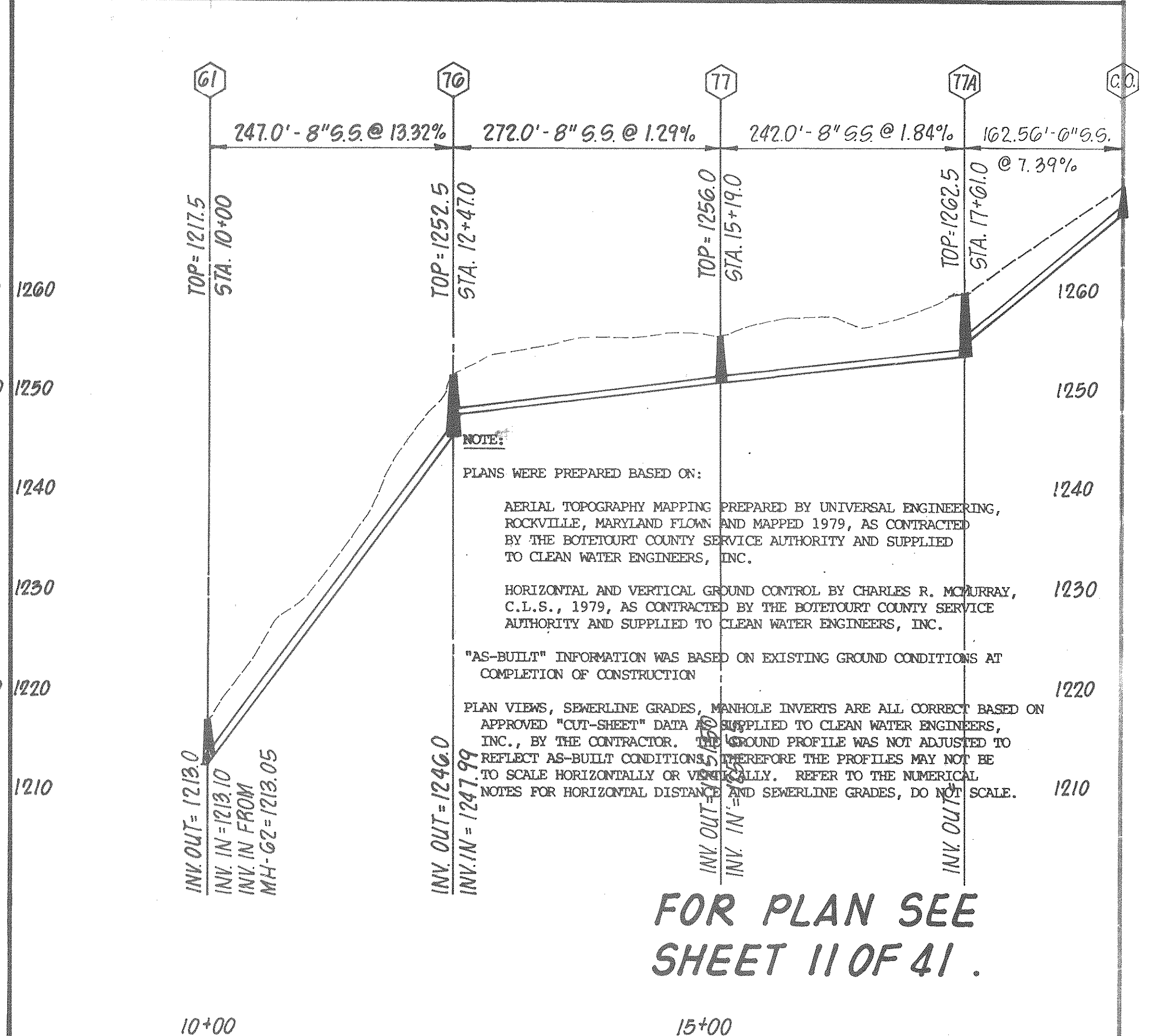
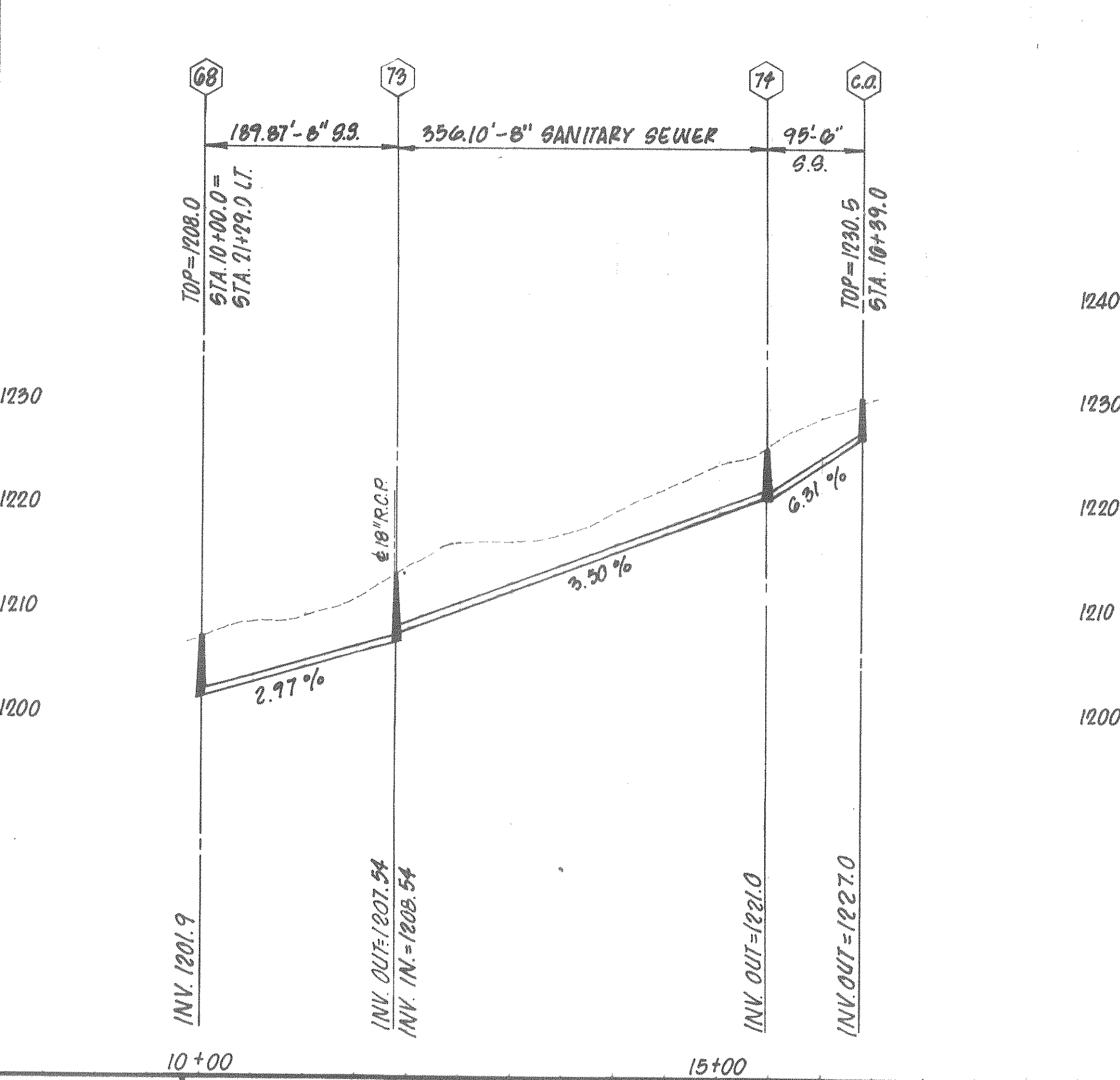
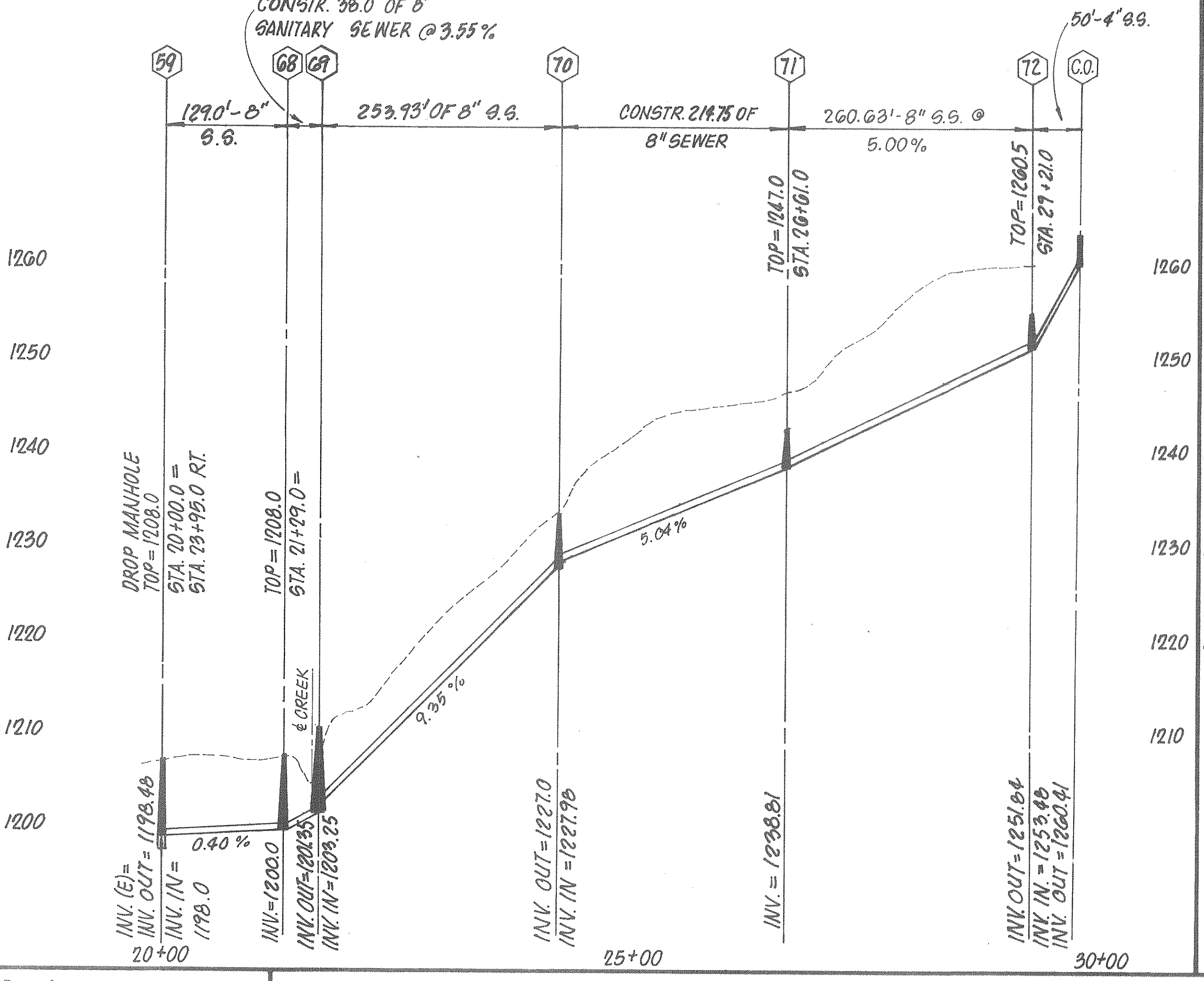
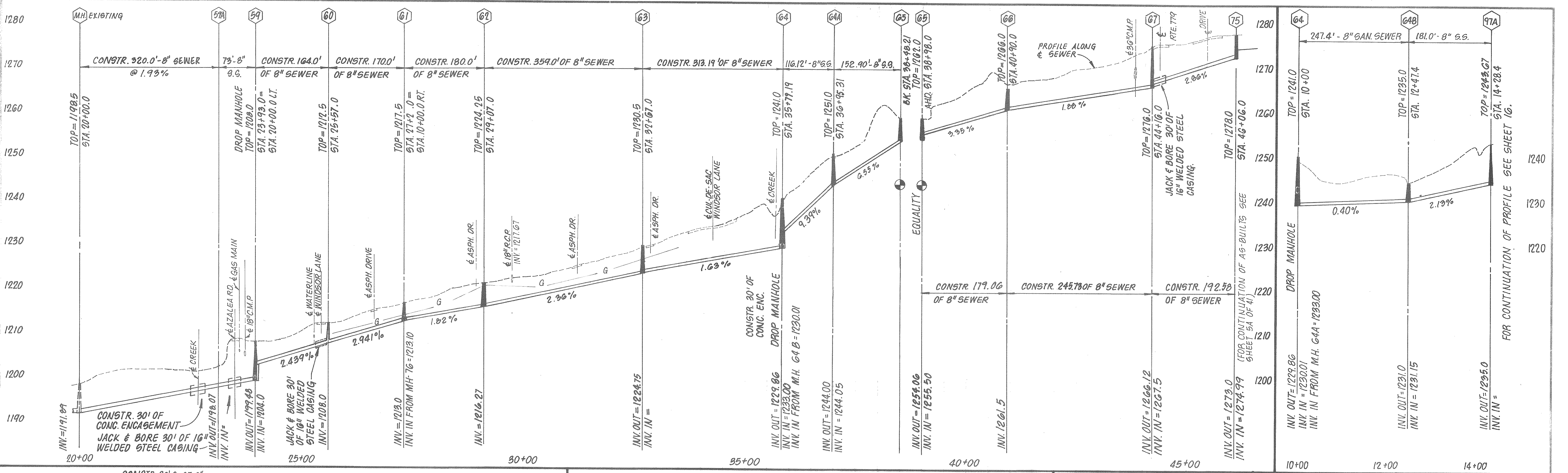
Designed: CEP
Drafted: CFA
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.

Fincastle, Virginia

TINKER CREEK COLLECTORS
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

Sheet: 11 of 41
Scale: AS SHOWN
Date: SEPT. 30, 1982
Project: 7949



NOTE:
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FOR PLAN SEE SHEET 11 OF 41.

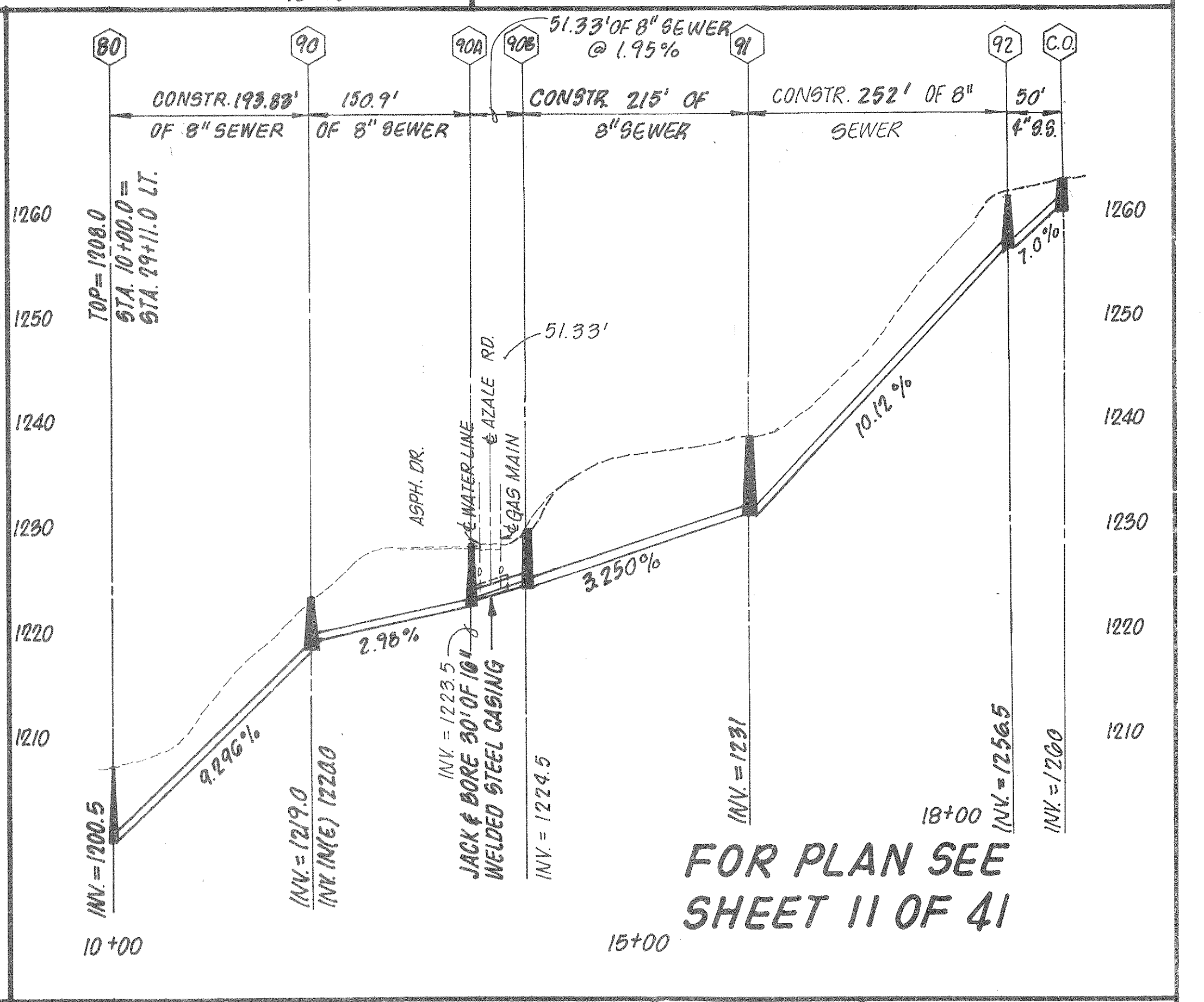
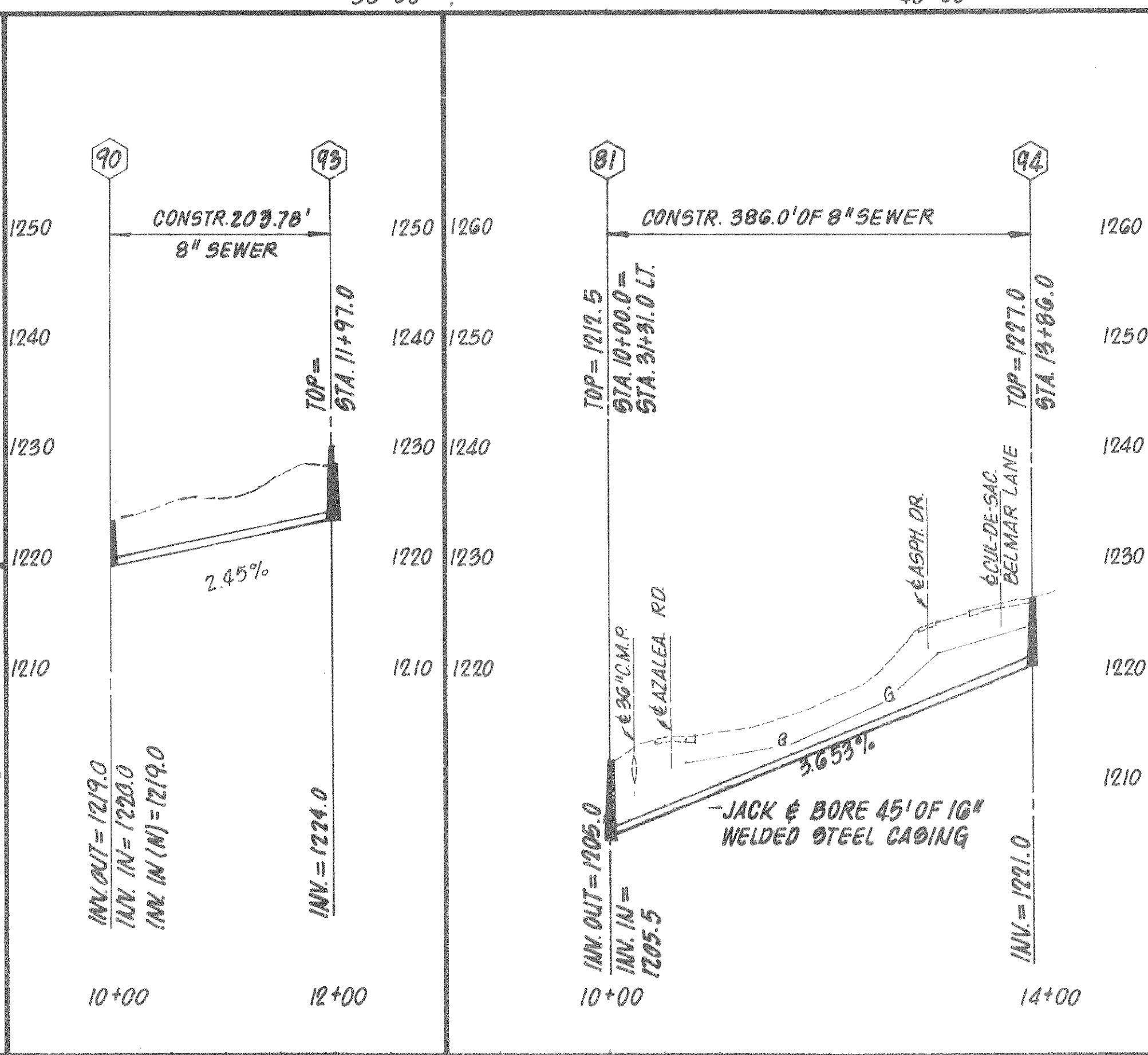
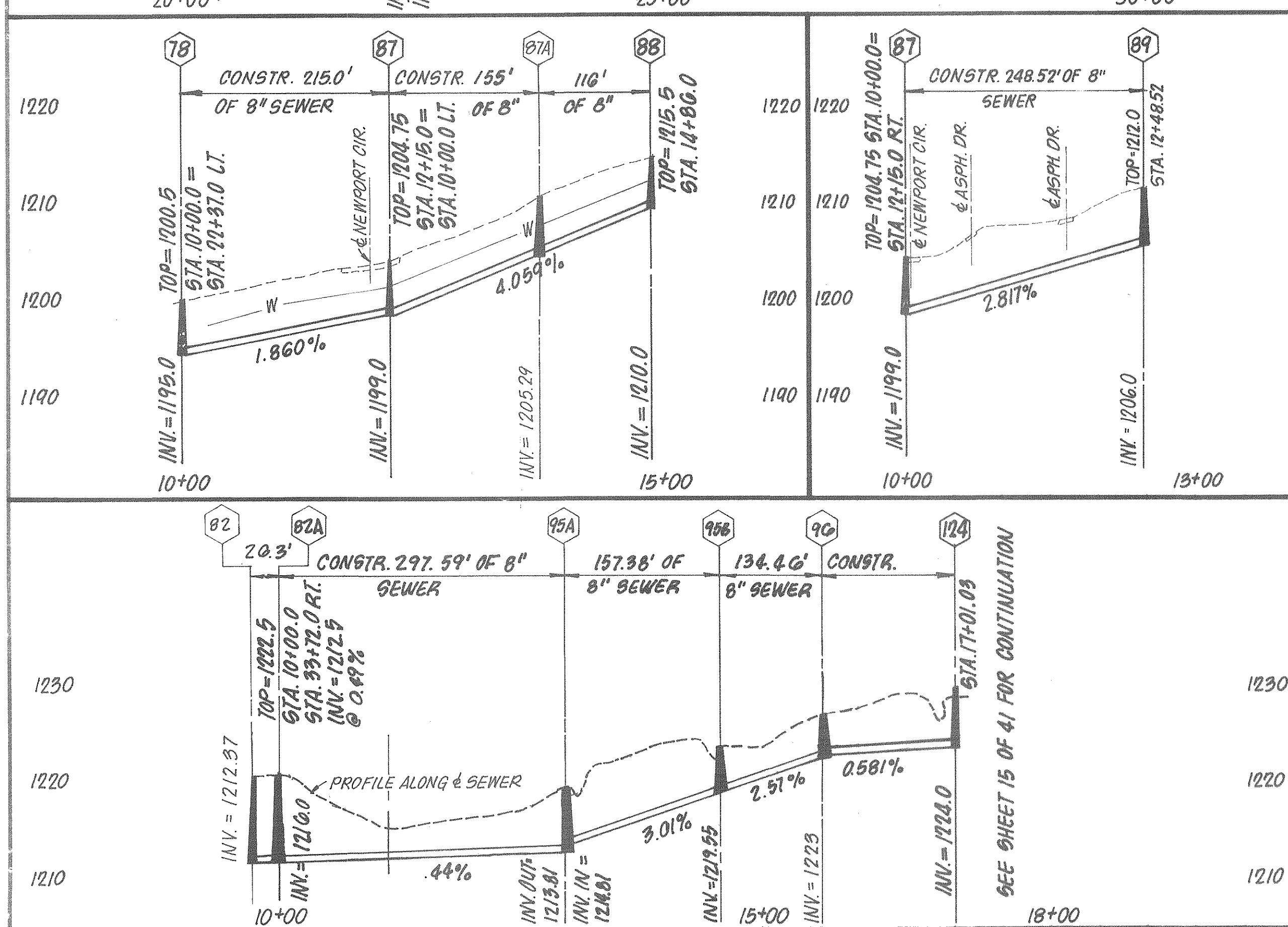
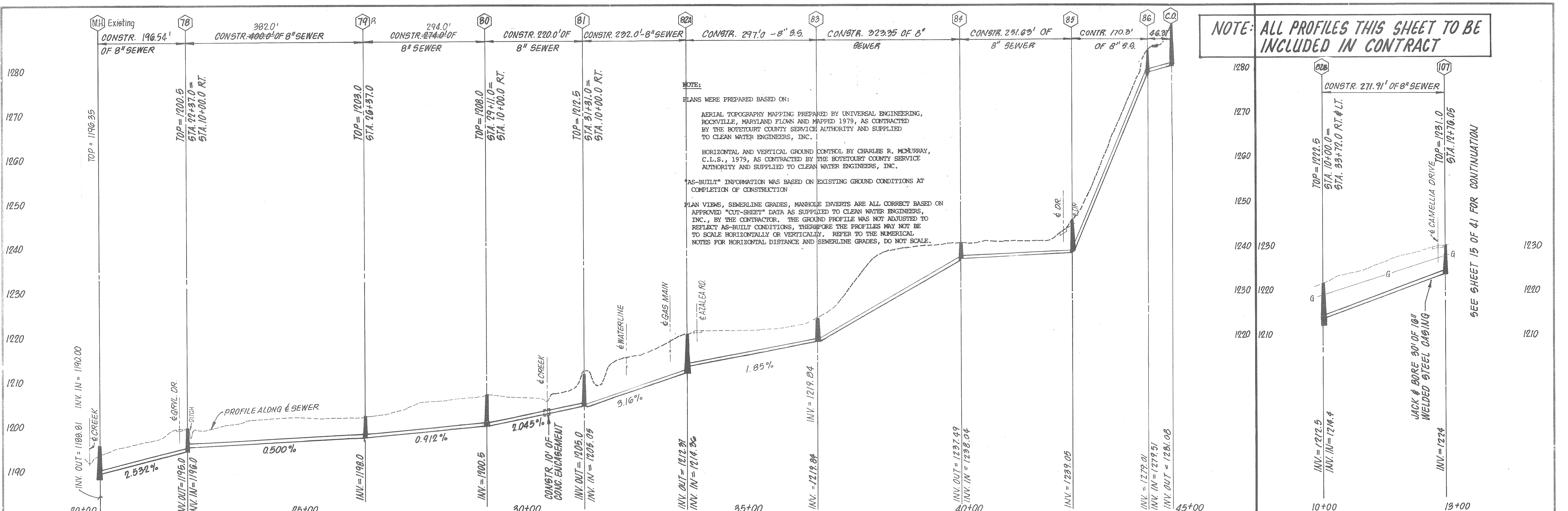
Designed: JMD
Drafted: RSM/CFA
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.
Fincastle, Virginia

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

REVISED: 8-9-84 CFA
"AS BUILTS"

Sheet: 12 of 41
Scale: HORIZ. 1" = 100'
VERT. 1" = 10'
Date: DEC. 1981
Project: 7949





NOTE:
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NOTE: 1. CONTRACT I THIS SHEET SECTIONS:

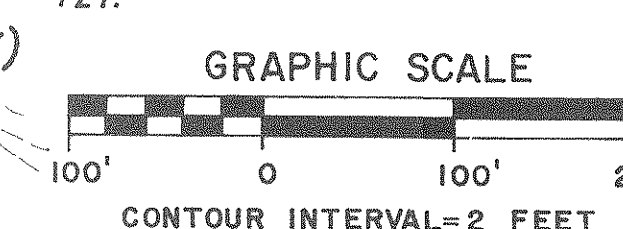
- MH 107-109
- MH 107-120
- MH 111-114
- MH 118-123
- MH 124-126
- MH 124-C.O.
- MH 124-128

2. FUTURE EXTENSIONS THIS SHEET SECTION: MH 97-106

DROP MANHOLES THIS SHEET:
118, 119, 122.

WATERTIGHT MANHOLES REQUIRED THIS SHEET:
99, 115, 116, 117, 118, 119, 97, 124, 127.

FUTURE EXTENSIONS (NOT INCLUDED IN THIS CONTRACT) SECTIONS: MH 97-106



Designed: JMD
Drafted: CFA/RSM
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.
Fincastle, Virginia

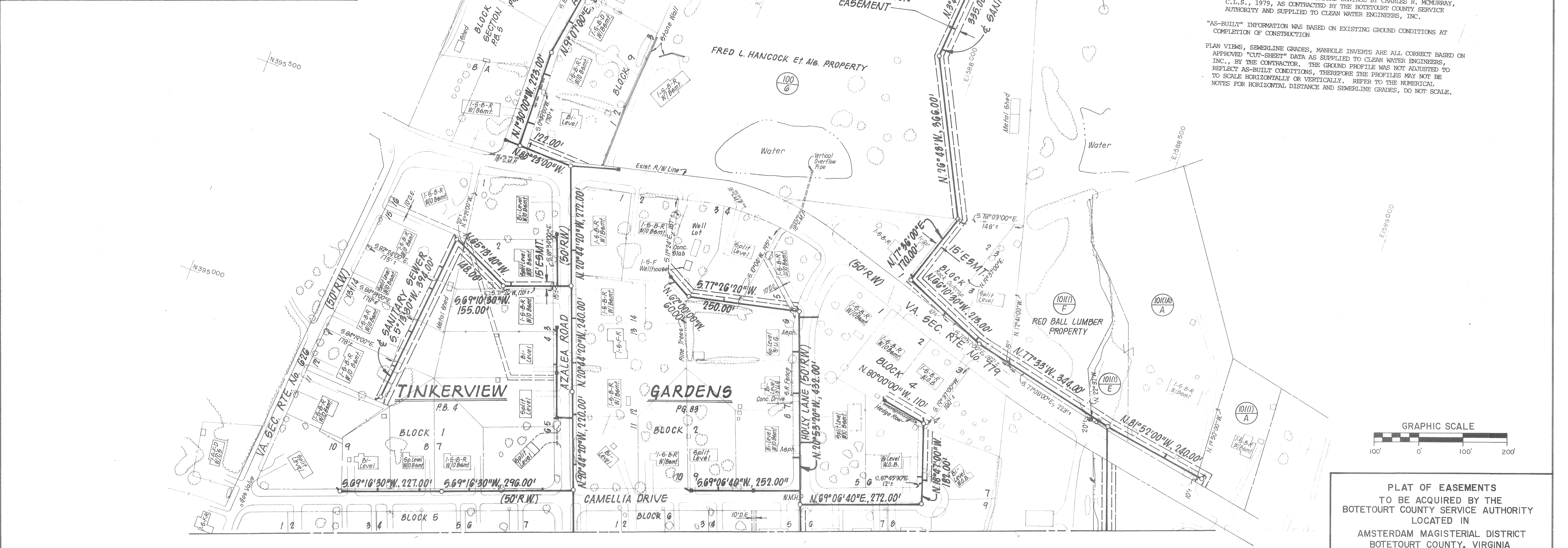
TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

David J. Roby

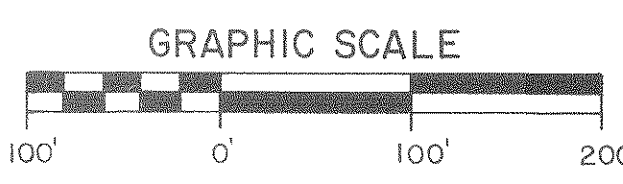
Sheet: 14 of 41
Scale: AS SHOWN
Date: DEC. 1981
Project: 7949

SANITARY SEWER EASEMENT					
LOT	BLK.	PARCEL	D.B.	Pg.	PROPERTY OWNER
2	1	106.100A	167	45	JAMES D. & BARBARA T. GRIFFIN
12	"	"	103	500	F.V. CLARKSON
13	"	"	148	327	ROBERT S. & DORIS H. NOEL
14	"	"	107	454	BOBBY G. & GERALDINE S. MINTER
15	"	"	103	548	LOUIS C. & BUE W. BILCOX
4	2	"	203	701	W. GENE & PAMELA M. LOWENTHAL
5	"	"	239	119	JAMES R. & JUA. W. BUSHONG
3	"	"	141	224	TINKERVIEW WATER COMPANY
8	4	"	185	190	HERSCHEL W. & CHARLENE H. COMMER
7	4	"	195	161	JOHN G. & MARGUERITE BLAKE
2	3	"	198	364	NETTIE CLARK
3	"	"	202	411	GERALD L. & JUDITH GARNETT
1	(3) 9	"	219	738	WALTER R. III & MARGIA K. CARPENTER
4	(4) 11	"	182	051	BESSIE F. THOMPSON FERRILL
6	"	"	178	067	BERNIE D. & LOU J. FERRILL
9	"	"	231	258	FITZGERALD G. & MARY I. REED
10	"	"	231	258	"
11	"	"	241	537	CLAUDE G. & DEBRA R. HANCOCK
12	"	"	195	785	ALFRED H. JR. & MARY V. ANDREWS
13	"	"	195	734	"
1	(4) 12	"	236	224	WANDA H. LONG
2	"	"	203	339	MICHAEL L. & LORETTA K. WOLFE
3	"	"	251	826	CLIFTON F. & LYNN D. HARRIS
4	"	"	196	714	"
5	"	"	206	38	JENNETTE L. BRYANT
6	"	"	179	384	PAUL F. & BETHANY T. LOGAN
7	"	"	191	825	EDGAR K. & JOANN S. BAKER
	100A-1	240	397		KENNETH E. & NANCY R. ERICKSON
	100-G	143	1		FRED L. HANCOCK ET AL
	101(1) F	180	391		RED BALL LUMBER CO.
	101(1) E	150	78		W. J. & DESSIE H. PAINTER
	101(1) A	205	202		"
	101(1) A	197	354		MARGARET R. GRAY



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—○— DENOTES SANITARY SEWER MANHOLE
— DENOTES END OF SERVICE LATERALS

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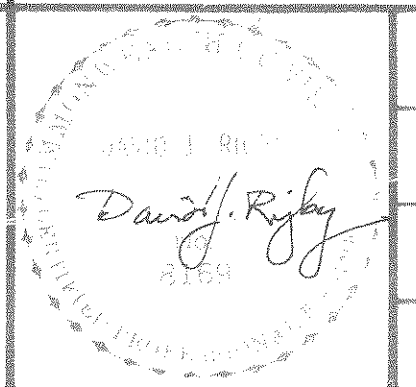


PLAT OF EASEMENTS
TO BE ACQUIRED BY THE
BOTETOURT COUNTY SERVICE AUTHORITY
LOCATED IN
AMSTERDAM MAGISTERIAL DISTRICT
BOTETOURT COUNTY, VIRGINIA

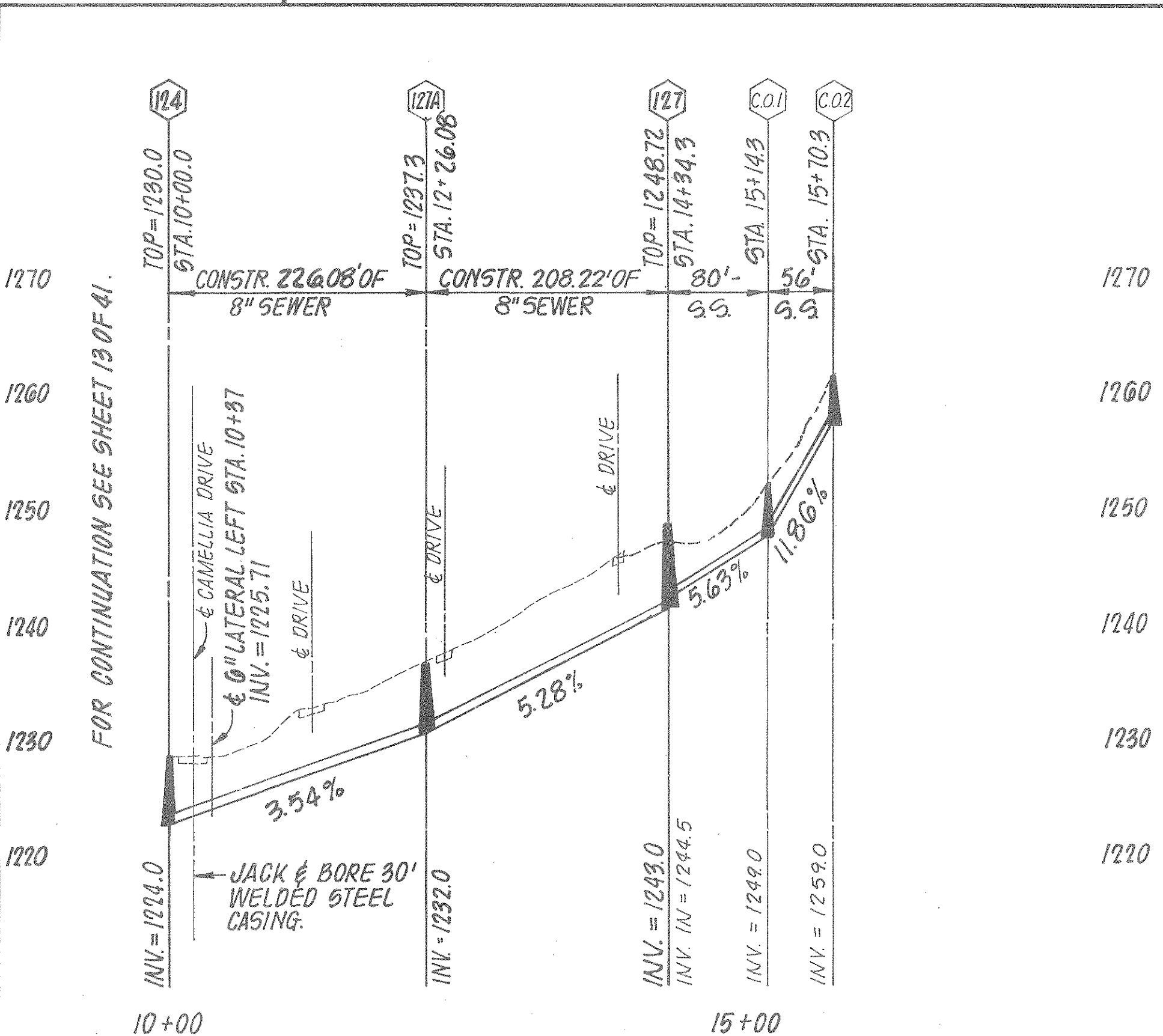
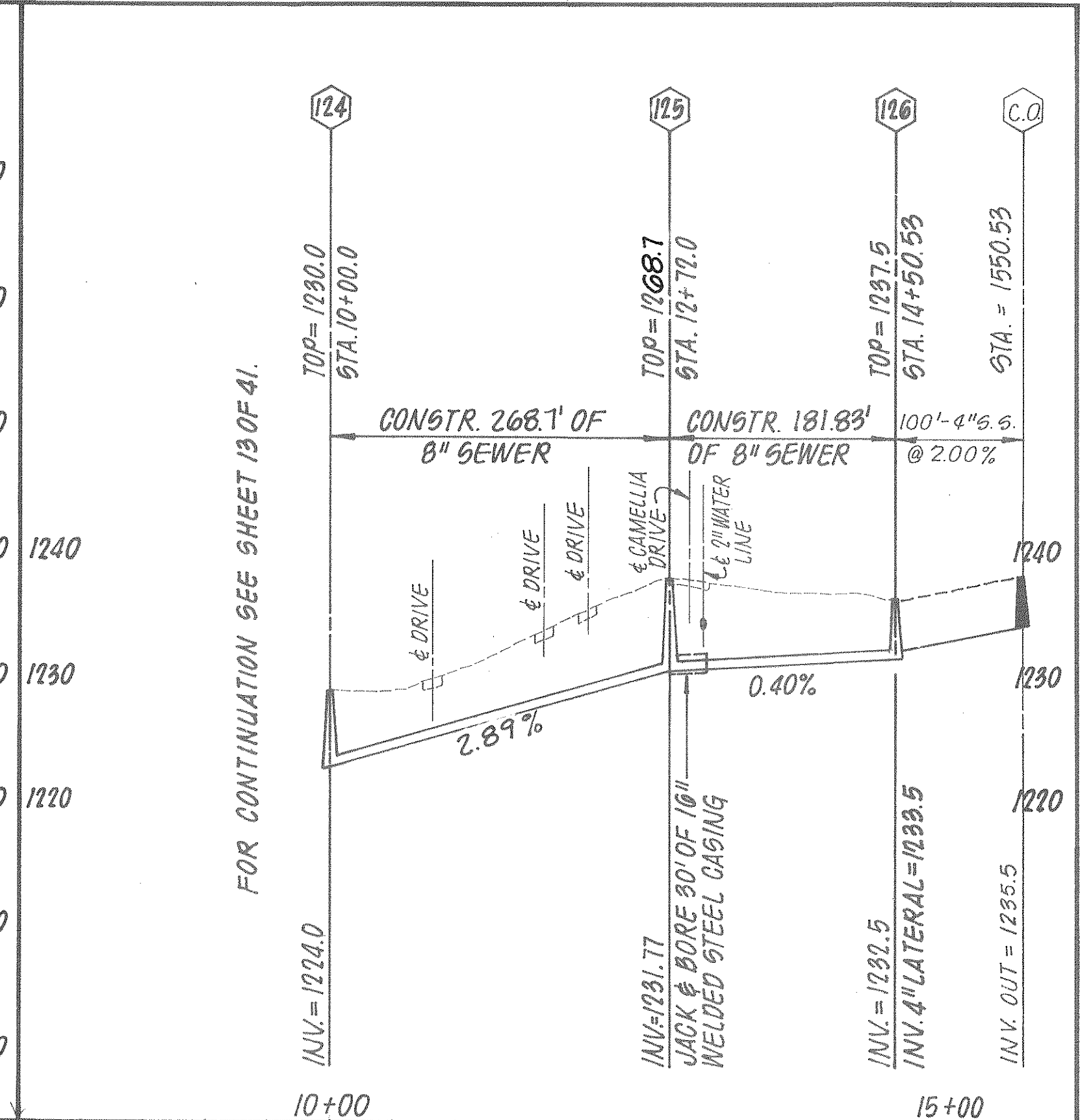
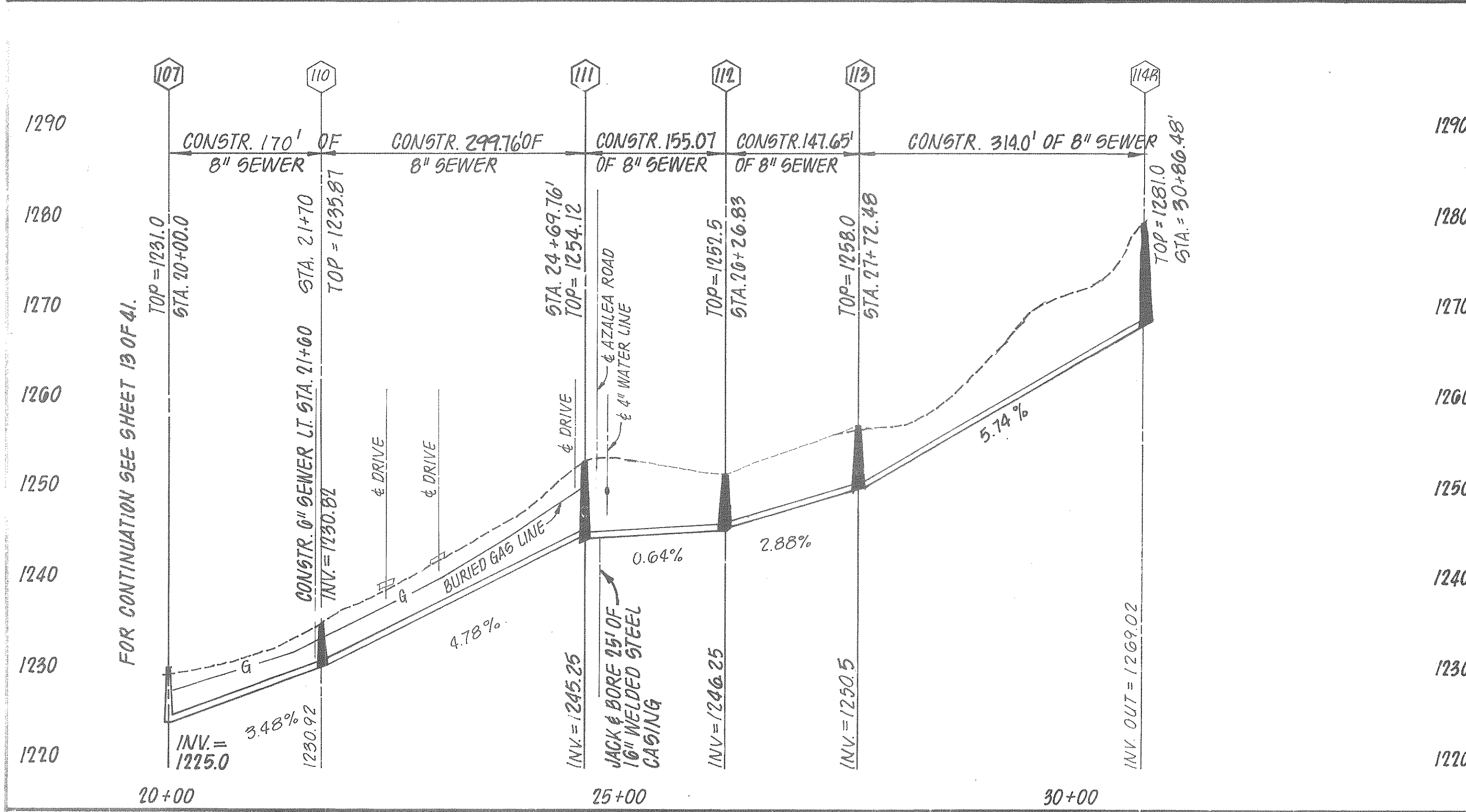
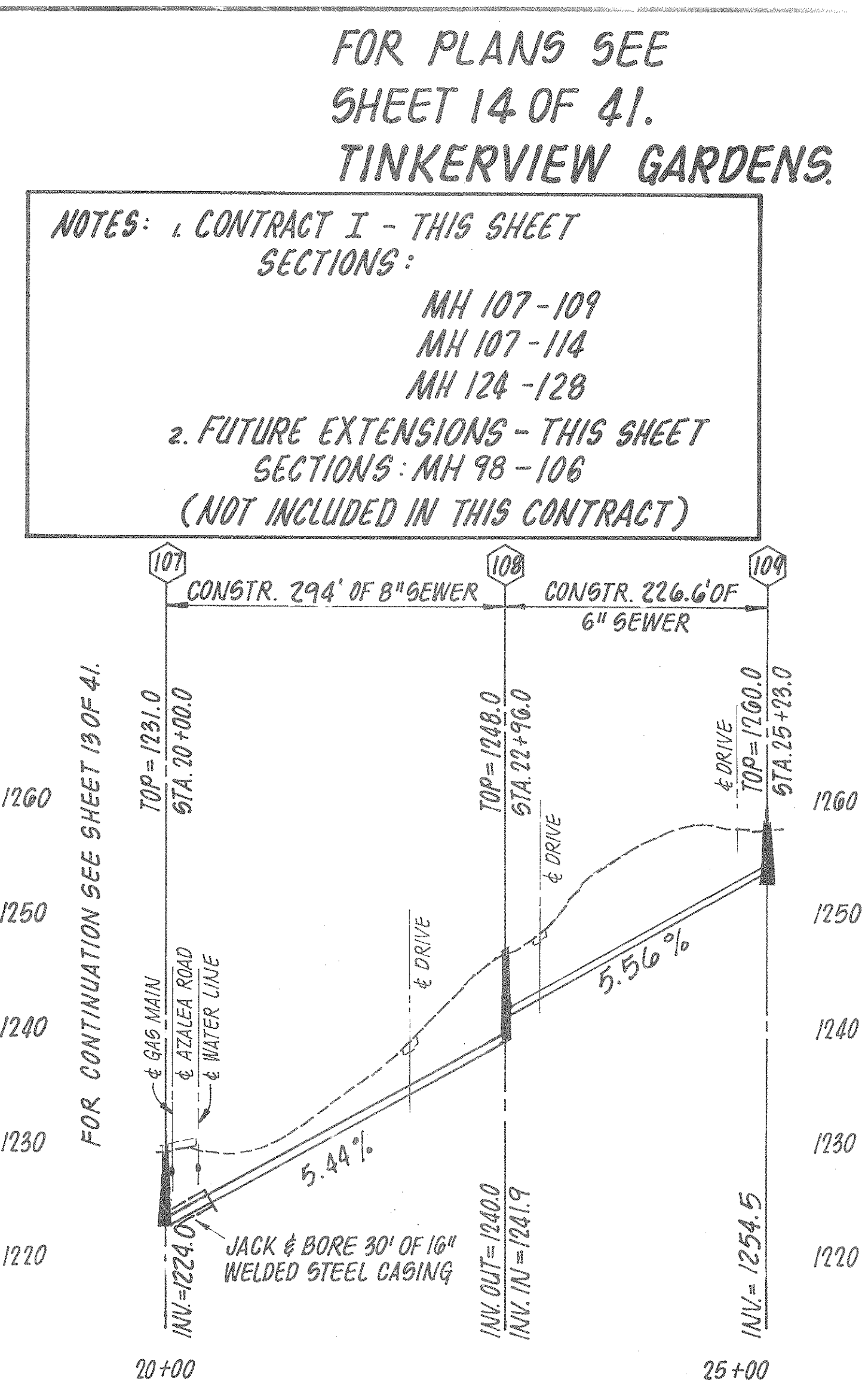
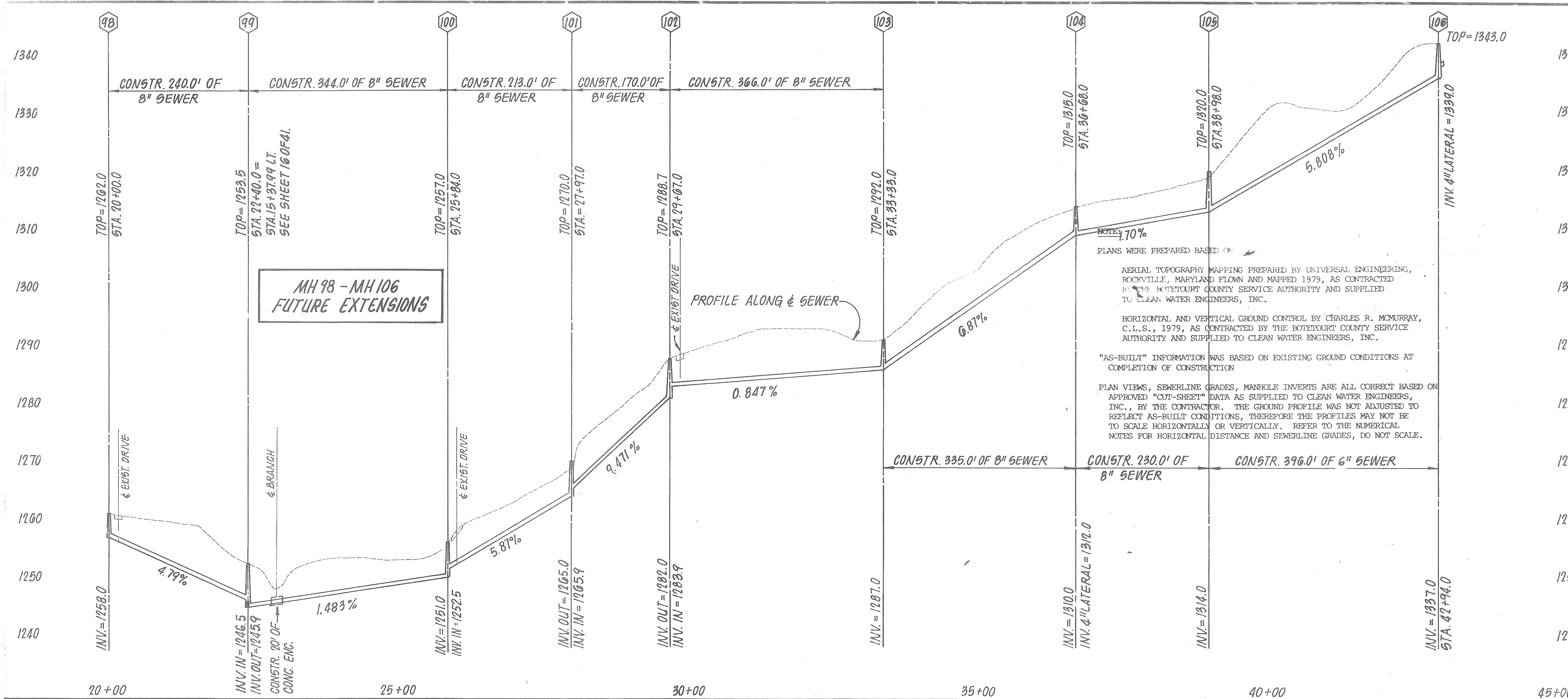
Designed: CEP
Drafted: CFA
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.
Fincastle, Virginia

TINKER CREEK COLLECTORS
FOR
BOTETOURT COUNTY SERVICE AUTHORITY



Sheet: 14 of 41
Scale: AS SHOWN
Date: SEPT. 30, 1982
Project: 7949



FOR PLAN SEE
SHEET 14 OF 41.
TINKERVIEW GARDENS.

NOTES: 1. CONTRACT I THIS SHEET
SECTIONS: MH111-MH120
MH118-MH123
2. FUTURE EXTENSIONS
SECTIONS: MH97-MH99
(NOT INCLUDED IN THIS CONTRACT)

NOTE:

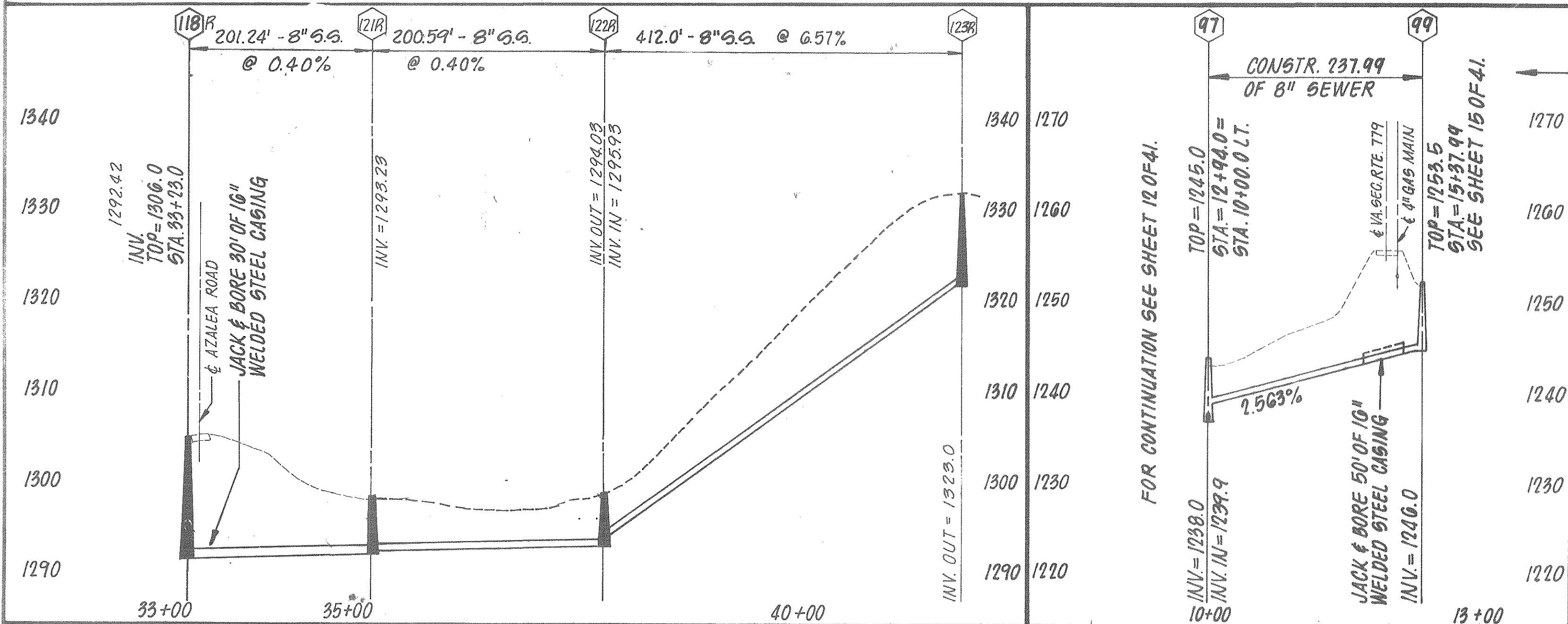
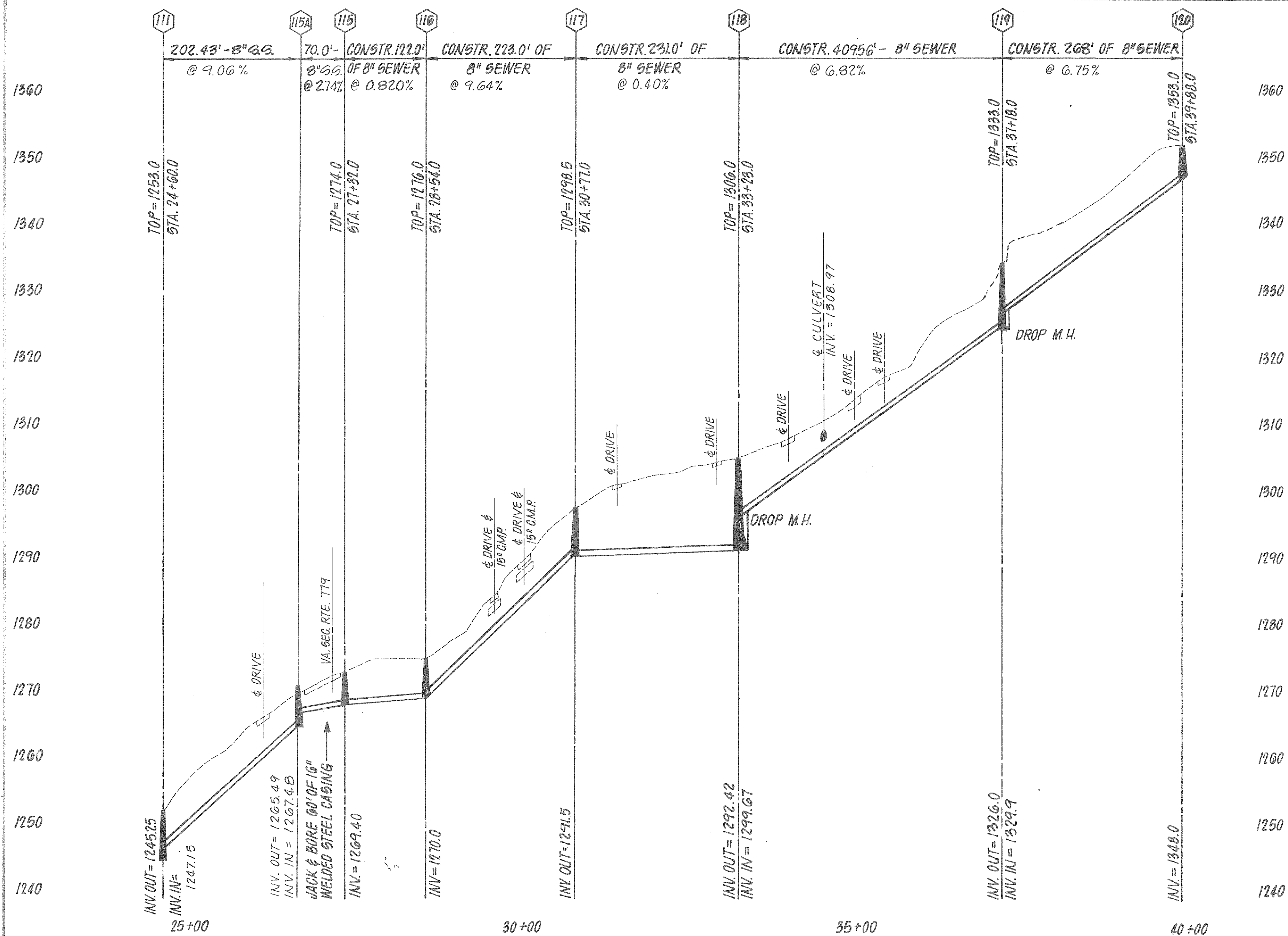
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FUTURE EXTENSION
SECTION: MH 97-MH 99
(NOT INCLUDED IN THIS CONTRACT)

FOR CONTINUATION SEE SHEET 12 OF 41.

SEE SHEET 15 OF 41.

GENERAL NOTES

1. VERTICAL CONTROL: NATIONAL GEODETIC VERTICAL DATUM MEAN SEA LEVEL 1929
HORIZONTAL CONTROL: STATE PLANE CO-ORDINATE SYSTEM (SOUTH ZONE)
2. SEWER LINES ARE LAID AT SUCH DEPTHS AS TO SERVE GROUND FLOOR PLUMBING ONLY AND TO PICK UP SEPTIC TANK DISCHARGE LINES.
3. ROCK QUANTITIES ARE THE ENGINEER'S ESTIMATE ONLY. THEY ARE TO BE USED BY THE CONTRACTOR AS AN AID TO PRICING THE LINE WORK AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SATISFY HIMSELF AS TO ALL CONDITIONS OF WORK BEFORE BIDDING.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY "UNDERGROUND CABLE LOCATION", 1-703-982-2400, AT LEAST 48 HOURS IN ADVANCE OF EXCAVATION IN ORDER TO VERIFY LOCATION OF UNDERGROUND UTILITIES.
5. EXISTING SURFACES DISTURBED BY CONTRACTOR'S WORK SHALL BE RESTORED TO THEIR PRESENT CONDITION.
6. HIGHWAY TRAFFIC SHALL BE PROTECTED AT ALL TIMES BY ADEQUATE LIGHTS, BARRICADES, AND CONSTRUCTION SIGNS. SIGNS SHALL BE IN ACCORDANCE WITH "VIRGINIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND ARE TO BE LOCATED AS DIRECTED BY THE RESIDENT ENGINEER OF THE DEPARTMENT OF HIGHWAYS. CONTRACTOR SHALL PROVIDE FLAGPERSONS AS REQUIRED.
7. CONTRACTOR SHALL PERFORM WORK IN SUCH A MANNER AS TO MINIMIZE EROSION OF SOILS.
8. THERE SHALL BE 10' MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES AND 18" MINIMUM VERTICAL SEPARATION WHERE SPECIFIED.

NOTES NOT FOR CONSTRUCTION

SEWERLINE DESIGN BASED ON EXISTING GROUND CONDITIONS AT THE TIME OF DESIGN. PRESENT DAY CONDITIONS MAY DIFFER FROM THE TOPO INFORMATION SHOWN ON THESE PLANS.

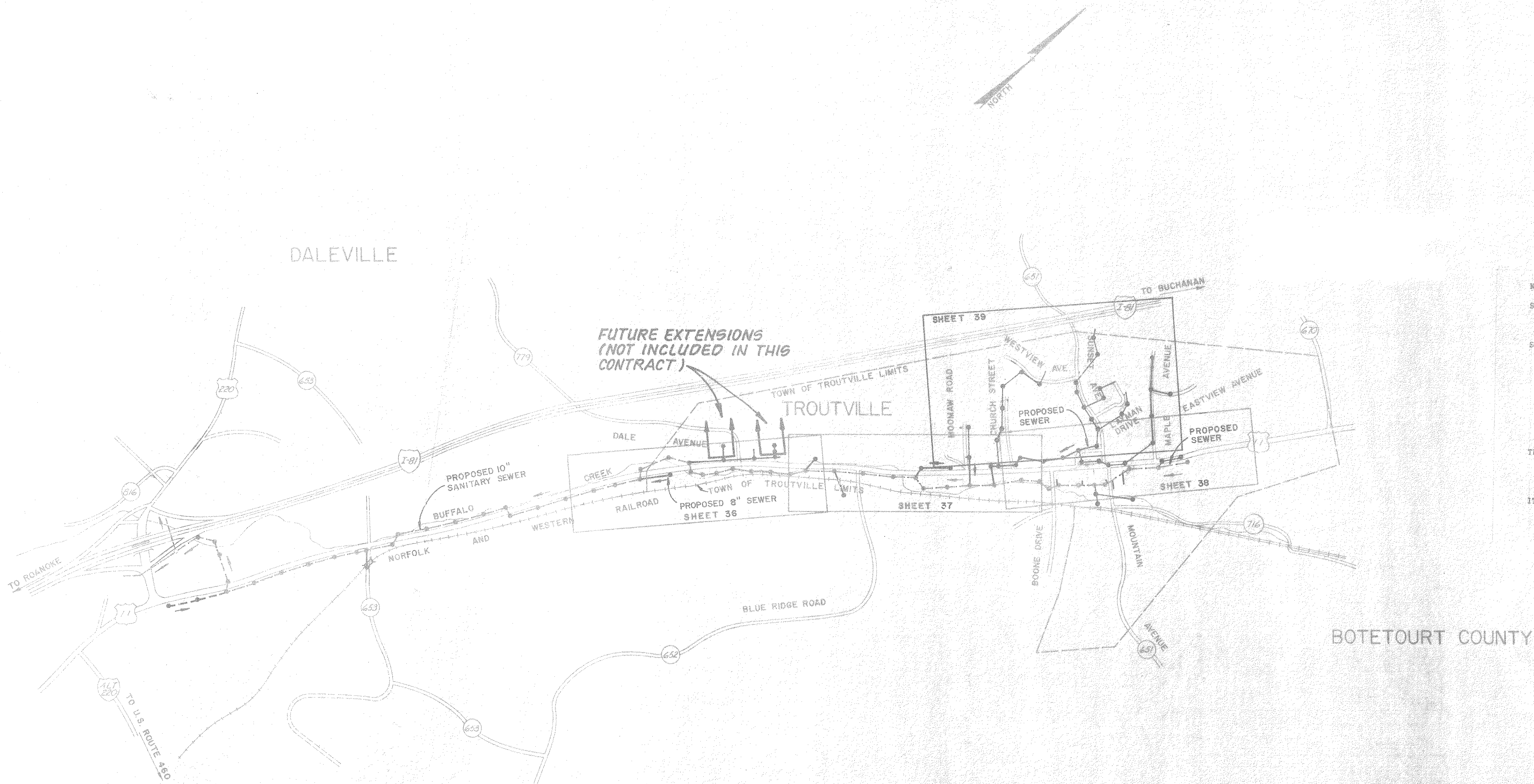
SEWERLINE DESIGN WAS BASED ON:

AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND, 1979, AS CONTRACTED BY THE BOTETOURT COUNTY BOARD OF SUPERVISORS AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

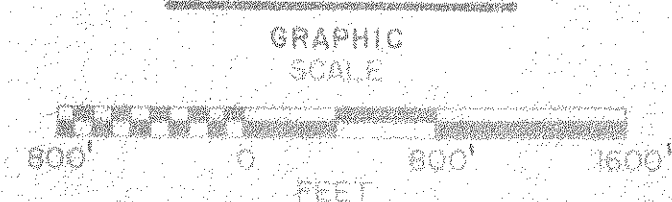
HORIZONTAL AND VERTICAL GROUND CONTROL SURVEY BY CHARLES D. McMURRAY, C.L.S., DALEVILLE, VIRGINIA, 1979, AS CONTRACTED BY THE BOTETOURT COUNTY BOARD OF SUPERVISORS AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

THESE PLANS MAY BE USED AS A GUIDE FOR PROPOSED SEWER SERVICE DEVELOPMENT IN THE TINKER CREEK DRAINAGE BASIN OF BOTETOURT COUNTY. FURTHER FIELD INVESTIGATIONS MUST BE MADE FOR VERIFICATION OF EXISTING TOPOGRAPHY AND STRUCTURES PRIOR TO INCORPORATION INTO A SET OF CONSTRUCTION DRAWINGS.

IT HAS BEEN NOTED IN THE PAST THERE ARE DISCREPANCIES IN THE AERIAL TOPO. VERTICAL DATUM TO THE APPROXIMATE LIMIT OF ONE CONTOUR INTERVAL PLUS OR MINUS.



KEY MAP



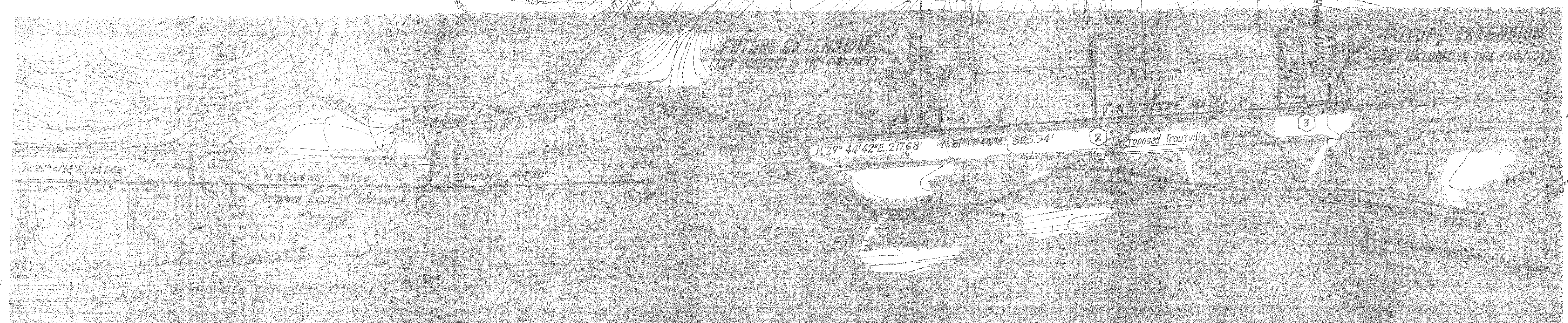
CONTRACT II
SHEETS 35-40

NOTE: THESE PLANS WERE PREPARED FROM AN AERIAL SURVEY BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND AND FROM VARIOUS STATE AND PRIVATE SURVEYS. ALL HORIZ. AND VERT. CONTROL SET BY CHARLES McMURRAY C.L.S., BOTETOURT COUNTY, VA.

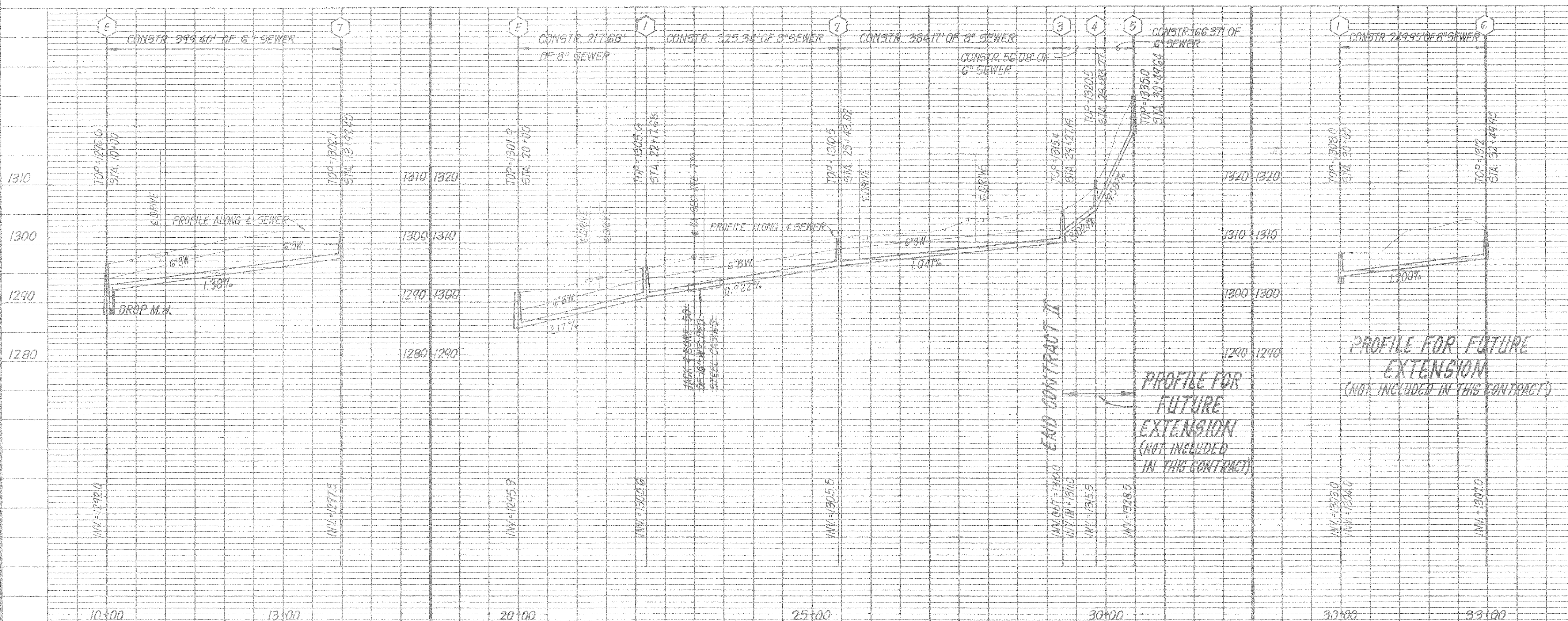
TINKER CREEK COLLECTOR
PHASE ONE FOR SECTION THREE
BOTETOURT COUNTY SERVICE AUTHORITY

Sheet: 35 of 41
Scale: 1" = 800'
Date: DEC. 1981
Project: 7949

NOTES: 1. CONTRACT II - INCLUDED THIS SHEET
 SECTIONS: EXIST MH - MH7
 EXIST MH - MH3
 2. FUTURE EXTENSIONS - THIS SHEET
 SECTIONS: MH3 - MH5
 MH1 - MH6
 (NOT INCLUDED IN THIS CONTRACT)



DROP M.H. THIS SHEET: (E).
 WATERTIGHT MANHOLES THIS SHEET:
 1, 3, 6.



NOTE:
 CONTRACTOR AWARDED CONTRACT II
 SHALL BE RESPONSIBLE FOR ALL
 CONNECTIONS INTO MANHOLES ON THE
 TROUTVILLE INTERCEPTOR.

NOTE: NOT FOR CONSTRUCTION
 SEWERLINE DESIGN BASED ON EXISTING GROUND CONDITIONS AT THE TIME OF DESIGN.
 PRESENT DAY CONDITIONS MAY DIFFER FROM THE TOPO INFORMATION SHOWN ON
 THESE PLANS.
 SEWERLINE DESIGN WAS BASED ON:
 AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE,
 MARYLAND, 1979, AS CONTRACTED BY THE BOTETOURT COUNTY BOARD OF
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 HORIZONTAL AND VERTICAL GROUND CONTROL SURVEY BY CHARLES E. MCMURRAY,
 C.E.S., DAVEVILLE, VIRGINIA, 1979, AS CONTRACTED BY THE BOTETOURT
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 IT HAS BEEN NOTED IN THE PAST THERE ARE DISCREPANCIES IN THE AERIAL TOPO
 VERTICAL DATUM TO THE APPROXIMATE LIMIT OF ONE CONTOUR INTERVAL PLUS OR
 MINUS.

TINKER CREEK COLLECTOR
 FOR
 BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

Sheet: 36 of 41
 Scale: 1" = 10' VERT.
 100' HORIZ.
 Date: DEC. 1981
 Project: 7949

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SEWERLINE DESIGN BASED ON EXISTING GROUND CONDITIONS AT THE TIME OF DESIGN. PRESENT DAY CONDITIONS MAY DIFFER FROM THE TOPO INFORMATION SHOWN ON THESE PLANS.

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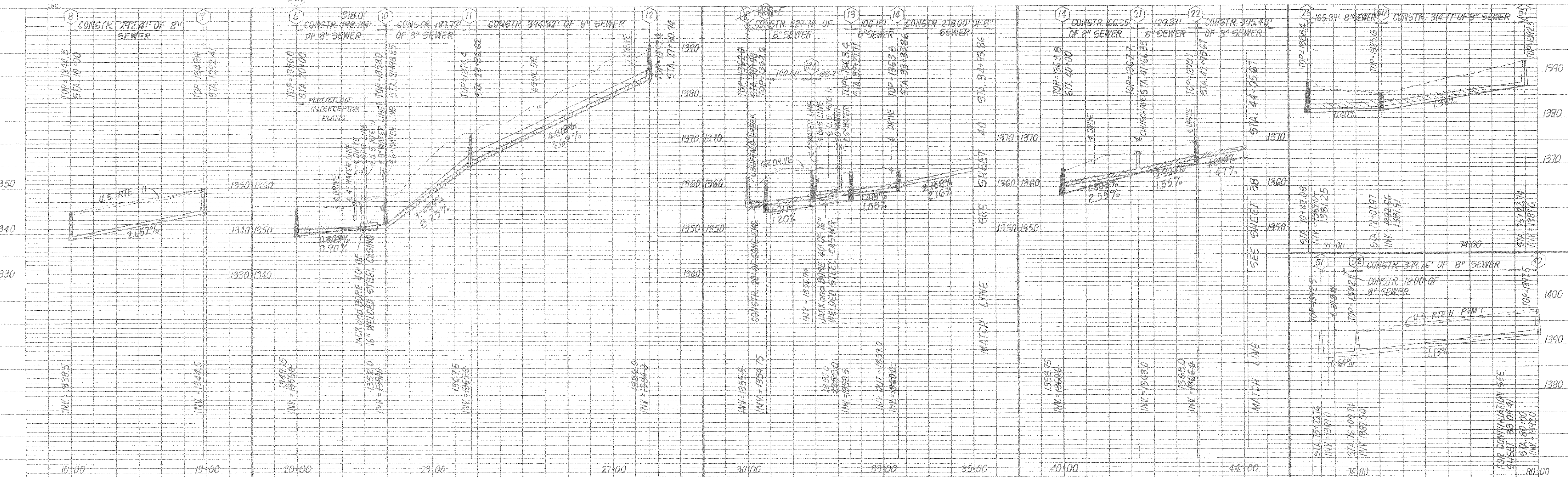
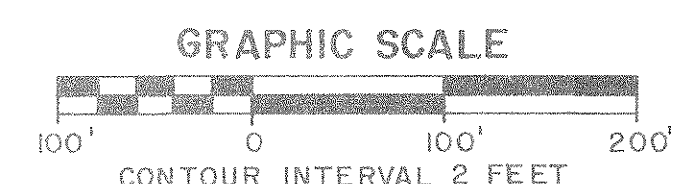
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NOTE: CONTRACTOR AWARDED CONTRACT II SHALL BE RESPONSIBLE FOR ALL CONNECTIONS INTO MANHOLES ON THE TROUTVILLE INTERCEPTOR.

NOTE: ALL PROFILES THIS SHEET TO BE INCLUDED IN CONTRACT II

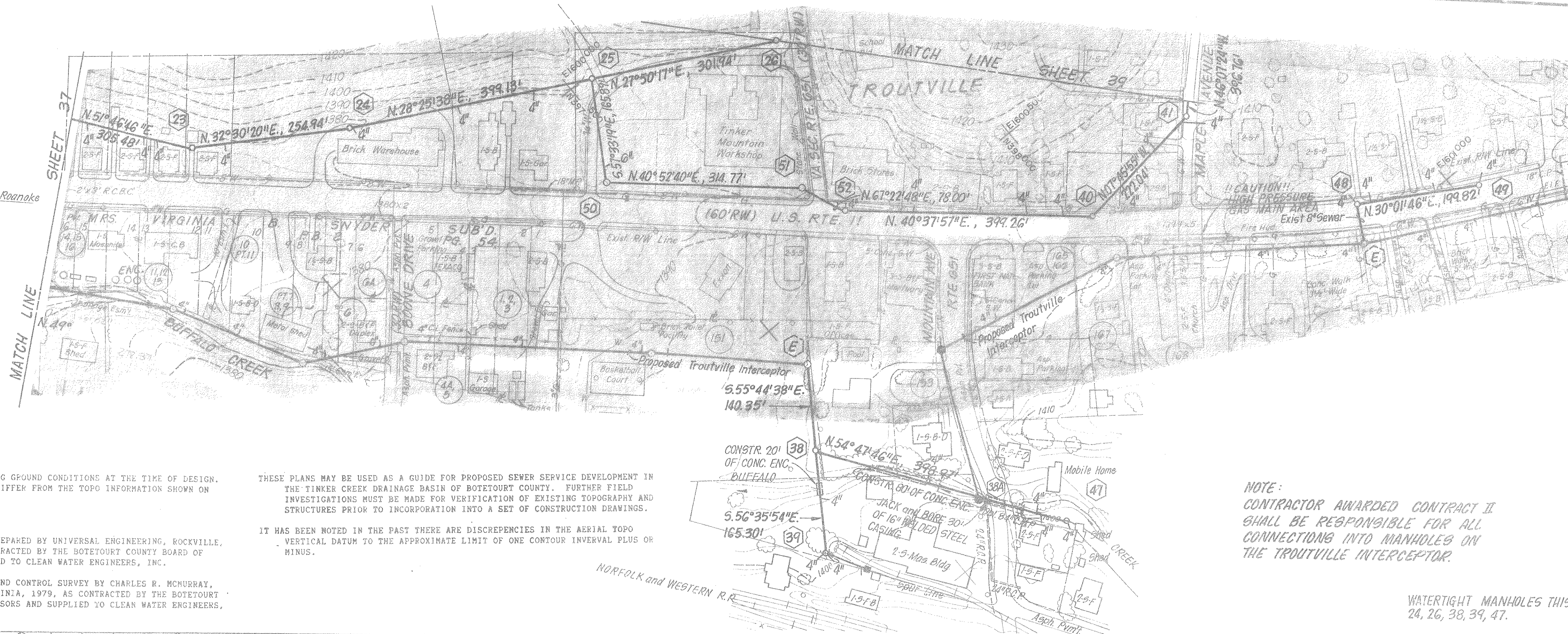
WATERTIGHT MANHOLES THIS SHEET: 10.



TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

Sheet: 37 of 41
Scale: 1" = 10' VERT.
100' HORIZ.
Date: DEC. 1981
Project: 7949



NORTH
SCALE: 1"=100'

NOTE: NOT FOR CONSTRUCTION

SEWERLINE DESIGN BASED ON EXISTING GROUND CONDITIONS AT THE TIME OF DESIGN. PRESENT DAY CONDITIONS MAY DIFFER FROM THE TOPO INFORMATION SHOWN ON THESE PLANS.

SEWERLINE DESIGN WAS BASED ON:

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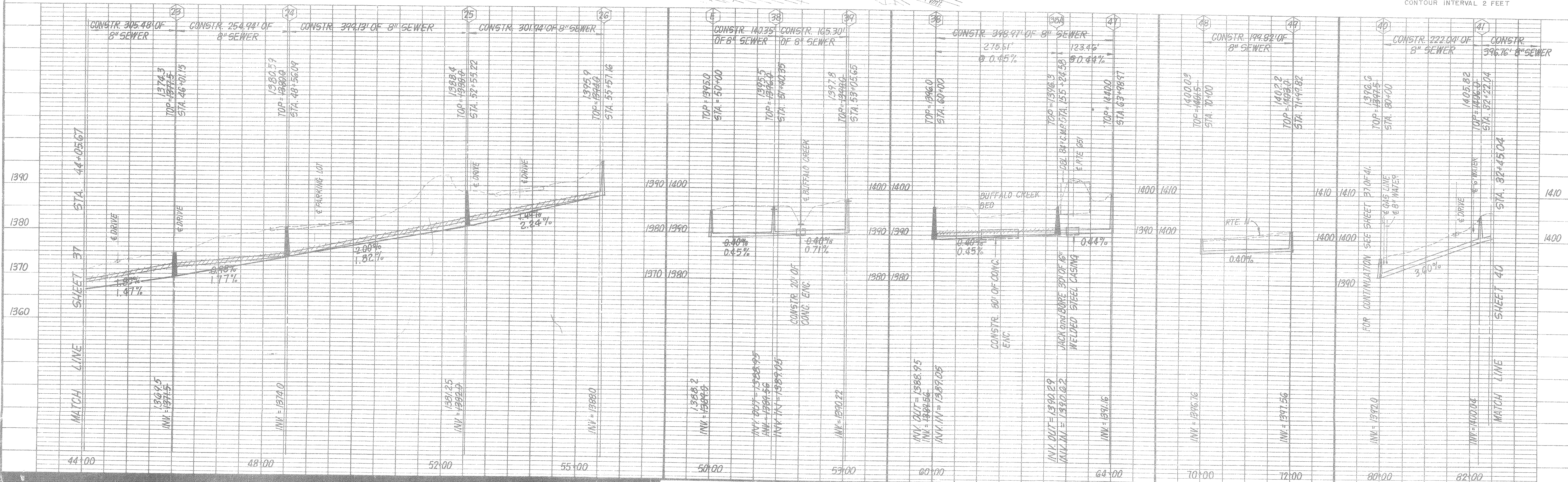
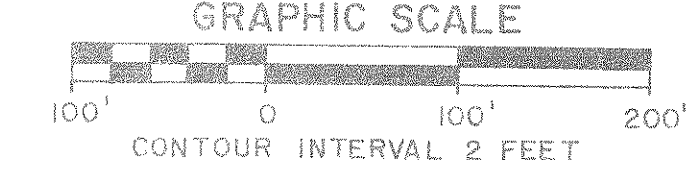
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NOTE:

CONTRACTOR AWARDED CONTRACT II SHALL BE RESPONSIBLE FOR ALL CONNECTIONS INTO MANHOLES ON THE TROUTVILLE INTERCEPTOR.

NOTE: ALL PROFILES THIS SHEET TO BE INCLUDED IN CONTRACT II

WATERTIGHT MANHOLES THIS SHEET: 24, 26, 38, 39, 47.



NOTE: NOT FOR CONSTRUCTION

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SEWERLINE DESIGN WAS BASED ON:

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IT HAS BEEN NOTED IN THE PAST THERE ARE DISCREPANCIES IN THE AERIAL TOPO VERTICAL DATUM TO THE APPROXIMATE LIMIT OF ONE CONTOUR INTERVAL PLUS OR MINUS.

NORTH
SCALE: 1"=100'

DROP MANHOLES THIS SHEET: 34

WATERTIGHT MANHOLES THIS SHEET:
45, 26, 20, 32, 19, 18, 17, 16.



NOTE:
CONTRACTOR AWARDED CONTRACT II
SHALL BE RESPONSIBLE FOR ALL
CONNECTIONS INTO MANHOLES
ON THE TROUTVILLE INTERCEPTOR.

TINKER CREEK COLLECTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

Sheet: 39 of 41
Scale: AS SHOWN
Date: DEC. 1981
Project: 7949

SANITARY SEWER EASEMENTS					
LOT	BLK.	PARCEL	D.B.	P.G.	
PROPERTY OWNER					
		1010-80	100	63	JONAS A & BETTY W GRAYBILL
5		INS 1010 (3)	192	130	JANET E SMITH
4		"	199	225	G BENNETT, JR. & ALICE G MYERS
		1010-87	114	466	BLAND A & MARTHA S PAINTER
		1010-67	132	515	ROANOKE & BOTETOURT TELEPHONE CO.
		1010-68	172	447	" " "
		1010-66	177	226	VIVIAN B WERTZ
		1010-54A	243	43	MICHAEL L & ALICE H. MORAN
		1010-54B	251	714	" " "
		1010-55	142	295	ARLIE A., SR. & MARGARET G. CORBET
		1010-56	183	405	W GRAHAM & THELMA L STEPHENS
		1010-65A	179	791	LEONARD J. & LOVA H. ROCK
		1010-64	229	732	CHARLES E. BOLTON
		1010-65	220	890	JERRY L. & MARTHA P. RIDDLERBERGER
		1010-85	227	347	HENRY B. & DORIS W. COX
1A		INS 1010 (3)	115	259	FRED R. & VIRGINIA R. WOODIE
A		INS 1010 (2)	155	283	ROBERT J. & AMANDA E. HARRIS
		1010-61	202	674	LEWIS G. & CLAUDINE S. ABBOTT
		1010-60	156	322	GARLAND M. HATCHER
		1010-59	154	363	HOWARD S. JR. & LEN W. MILLER
		1010-24	170	177	BEATRICE W. CARR
		1010-97	132	349	CARL R. & VERA F. WELLS

PLAT OF EASEMENTS
TO BE ACQUIRED BY THE
BOTETOURT COUNTY SERVICE AUTHORITY
LOCATED IN
TOWN OF TROUTVILLE
BOTETOURT COUNTY, VIRGINIA

NOTE:

PLANS WERE PREPARED BASED ON:

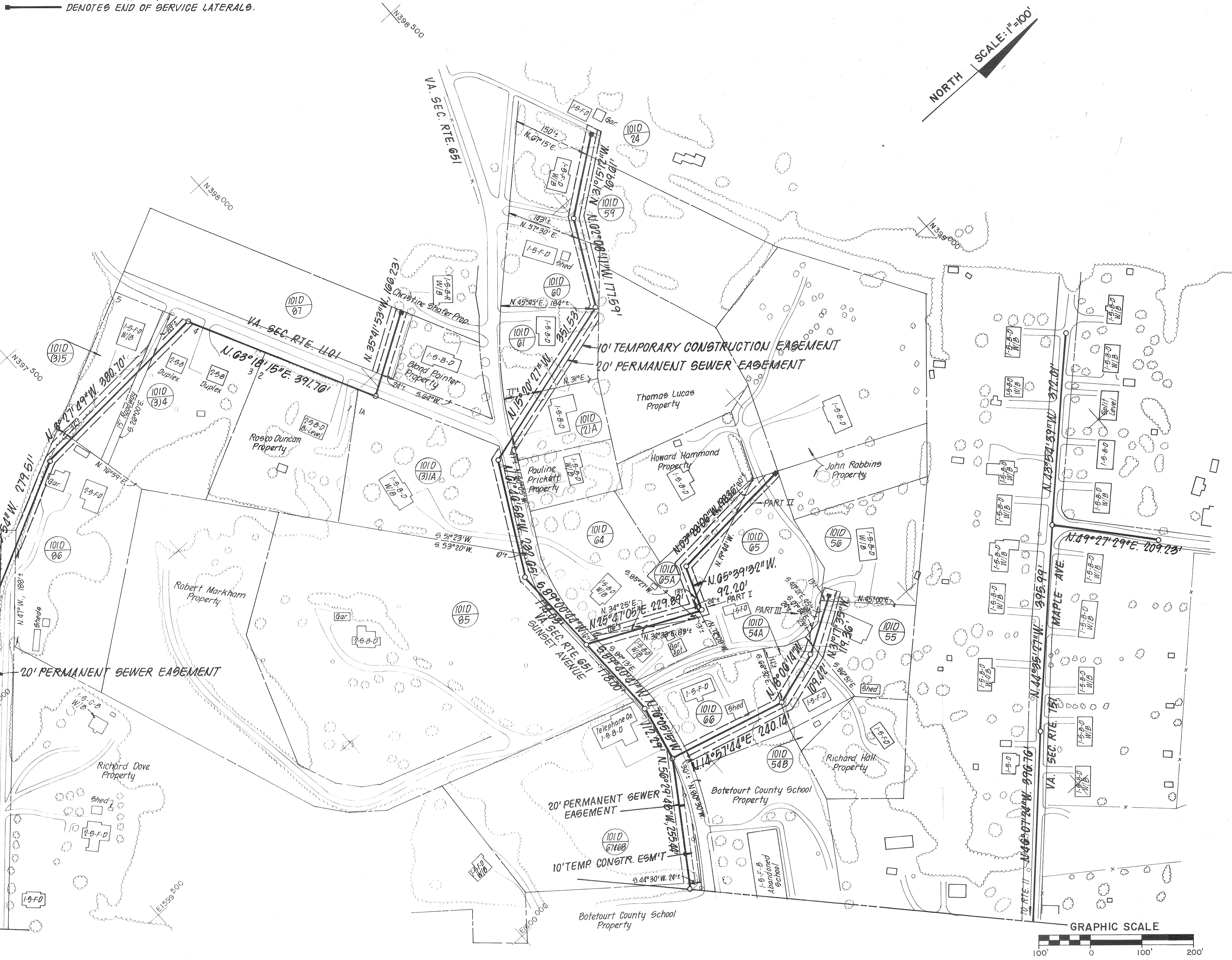
AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

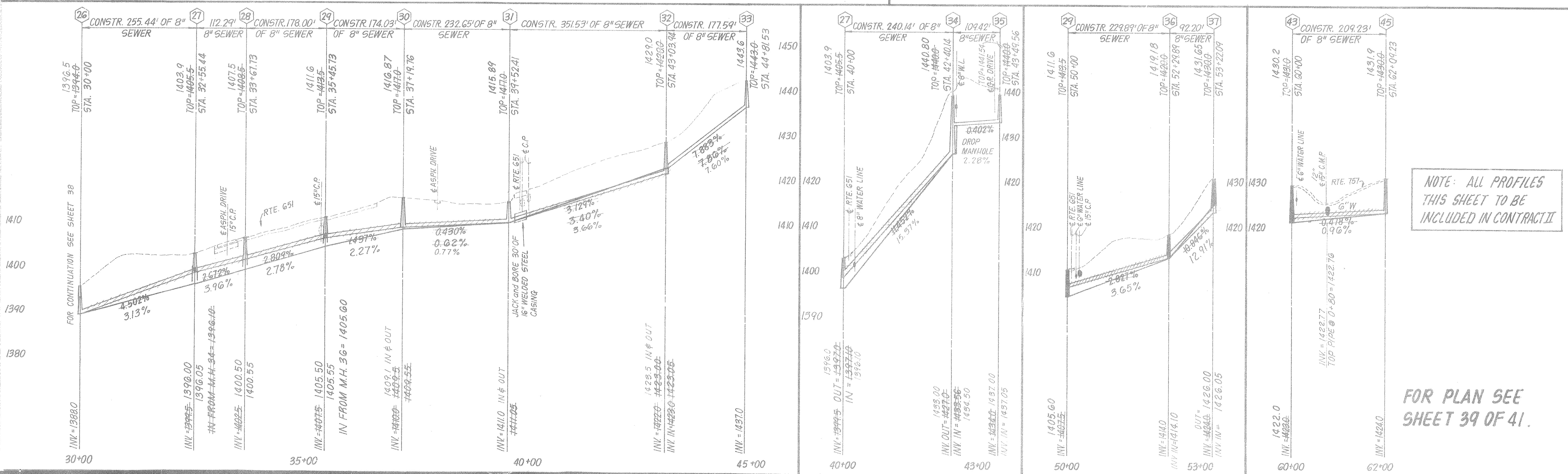
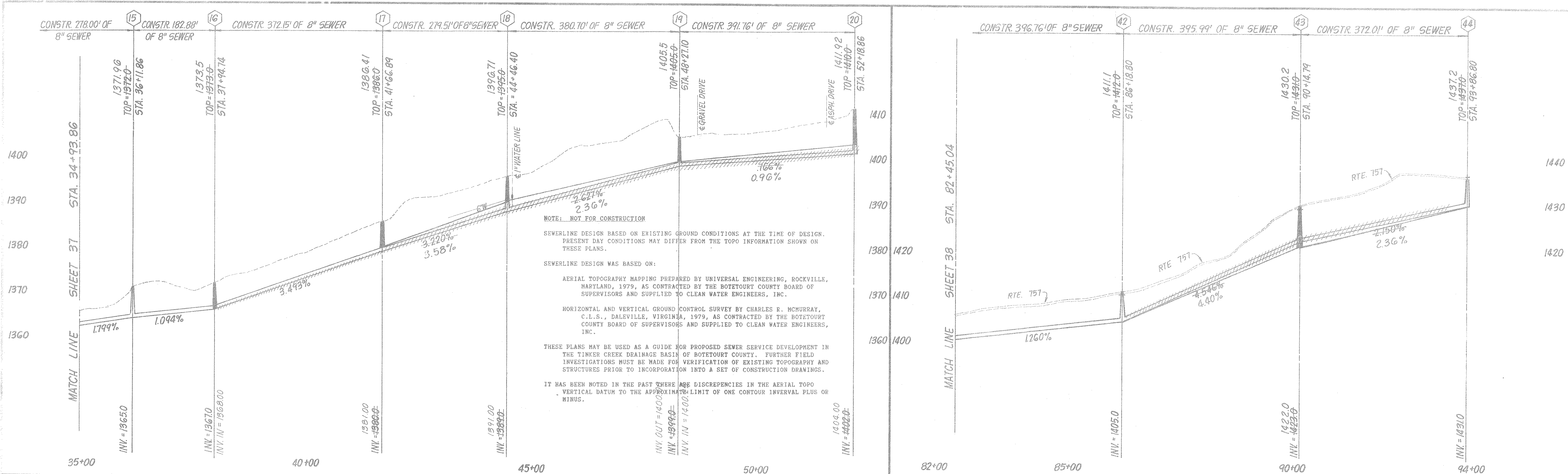
HORIZONTAL AND VERTICAL GROUND CONTROL BY CHARLES R. McMURRAY, C.L.S., 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.

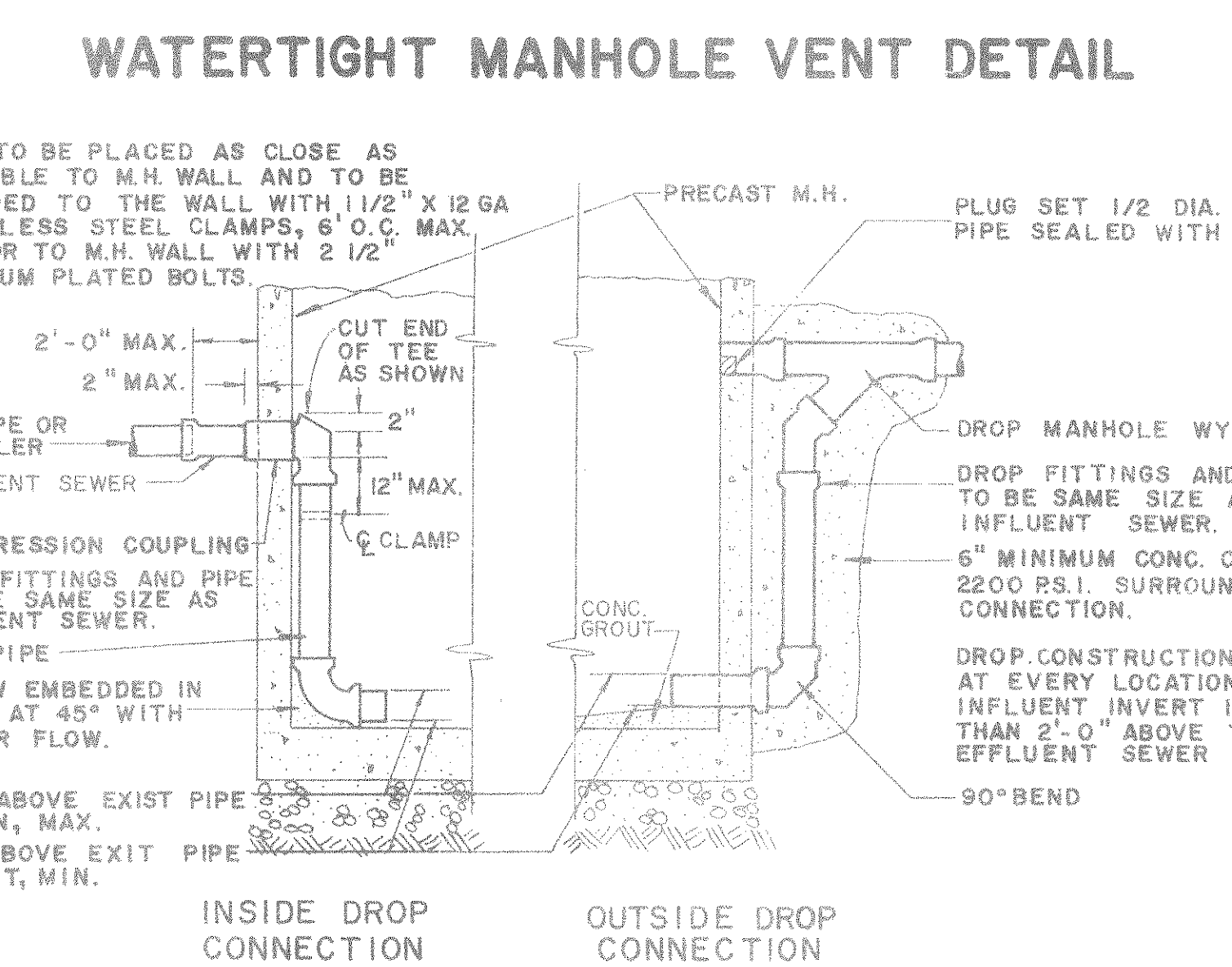
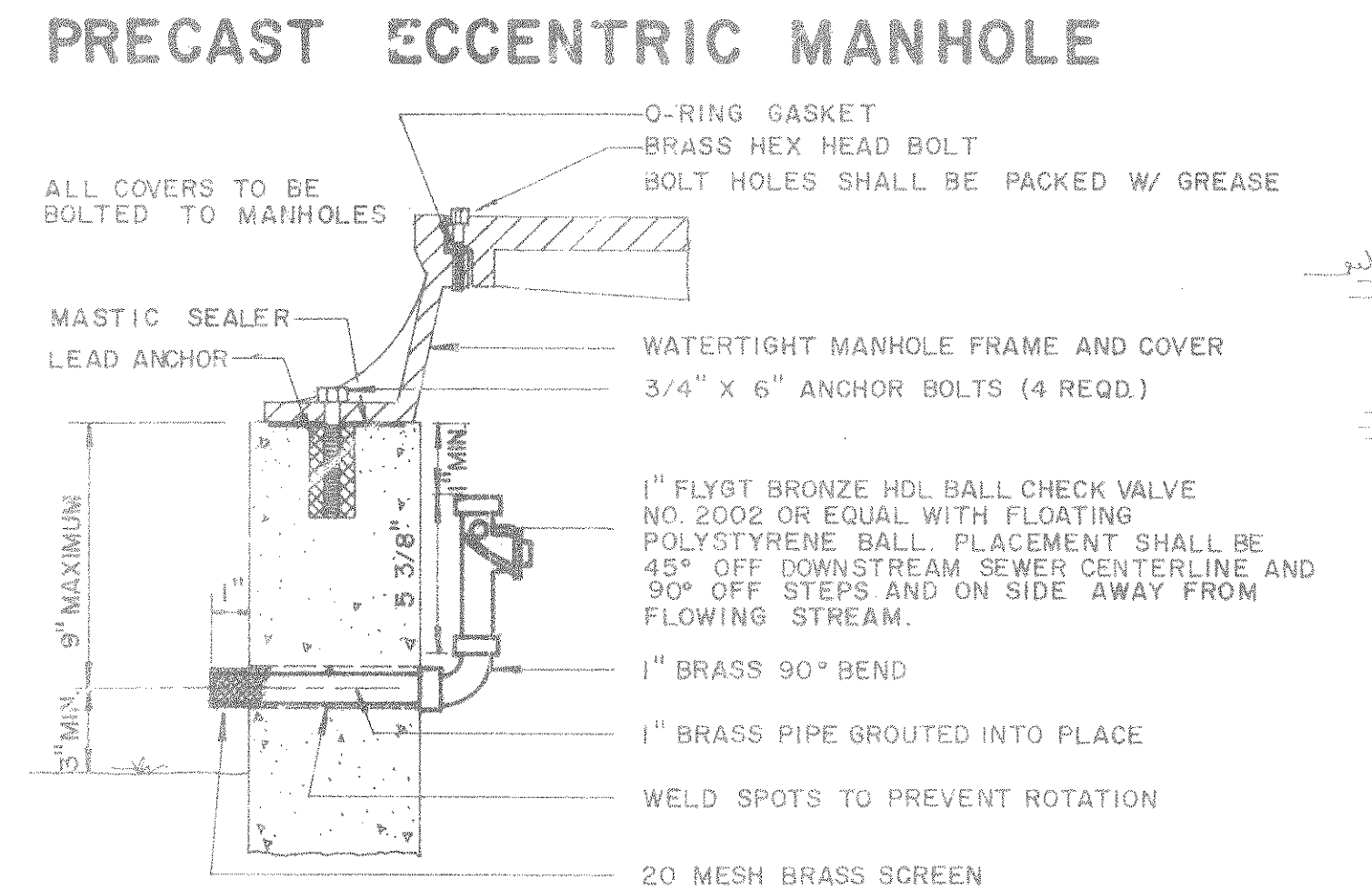
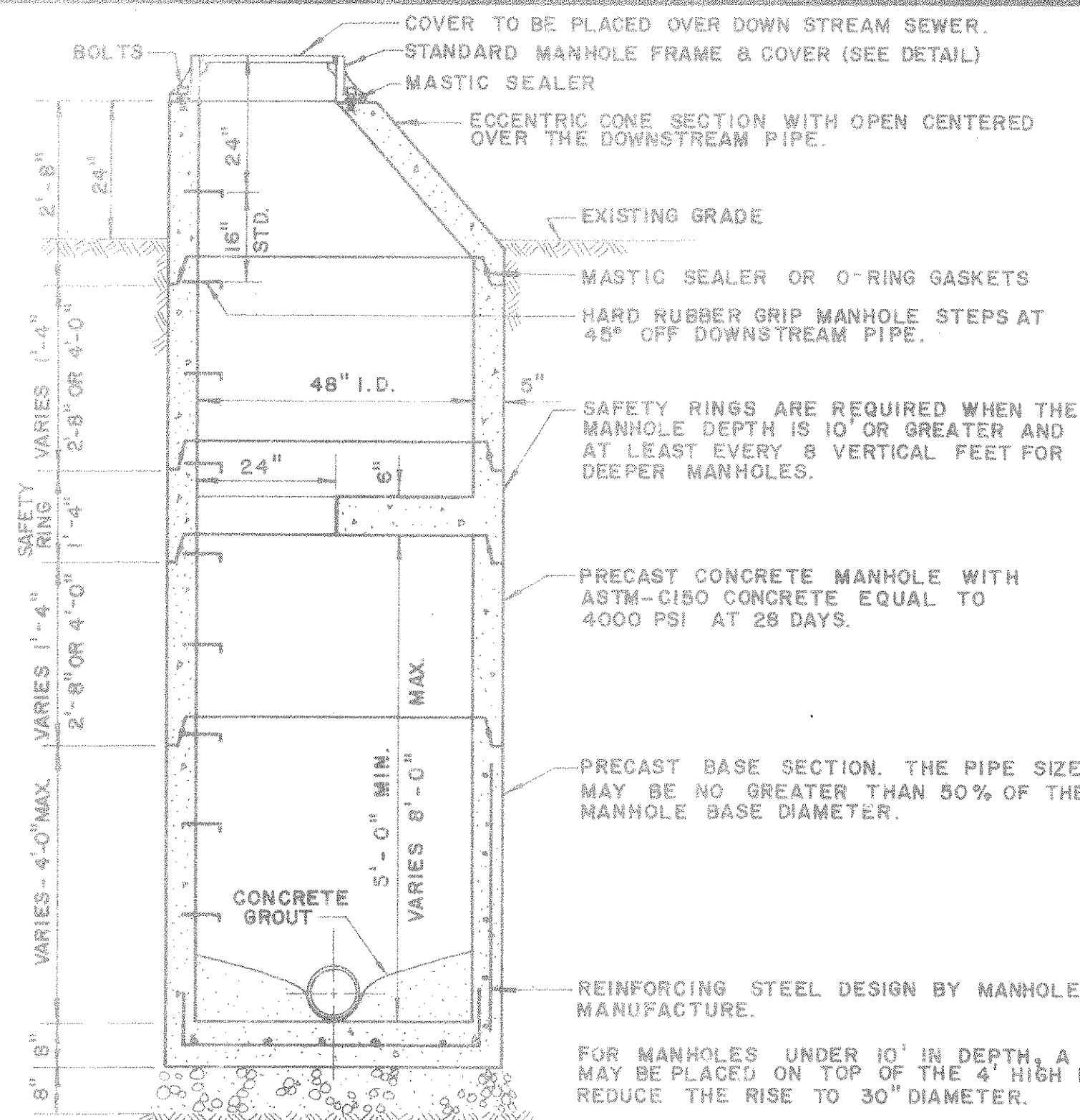
"AS-BUILT" INFORMATION WAS BASED ON EXISTING GROUND CONDITIONS AT COMPLETION OF CONSTRUCTION

PLAN VIEWS, SEWERLINE GRADES, MANHOLE INVERTS ARE ALL CORRECT BASED ON APPROVED "CUT-SHEET" DATA AS SUPPLIED TO CLEAN WATER ENGINEERS, INC., BY THE CONTRACTOR. THE GROUND PROFILE WAS NOT ADJUSTED TO REFLECT AS-BUILT CONDITIONS, THEREFORE THE PROFILES MAY NOT BE TO SCALE HORIZONTALLY OR VERTICALLY. REFER TO THE NUMERICAL NOTES FOR HORIZONTAL DISTANCE AND SEWERLINE GRADES, DO NOT SCALE.

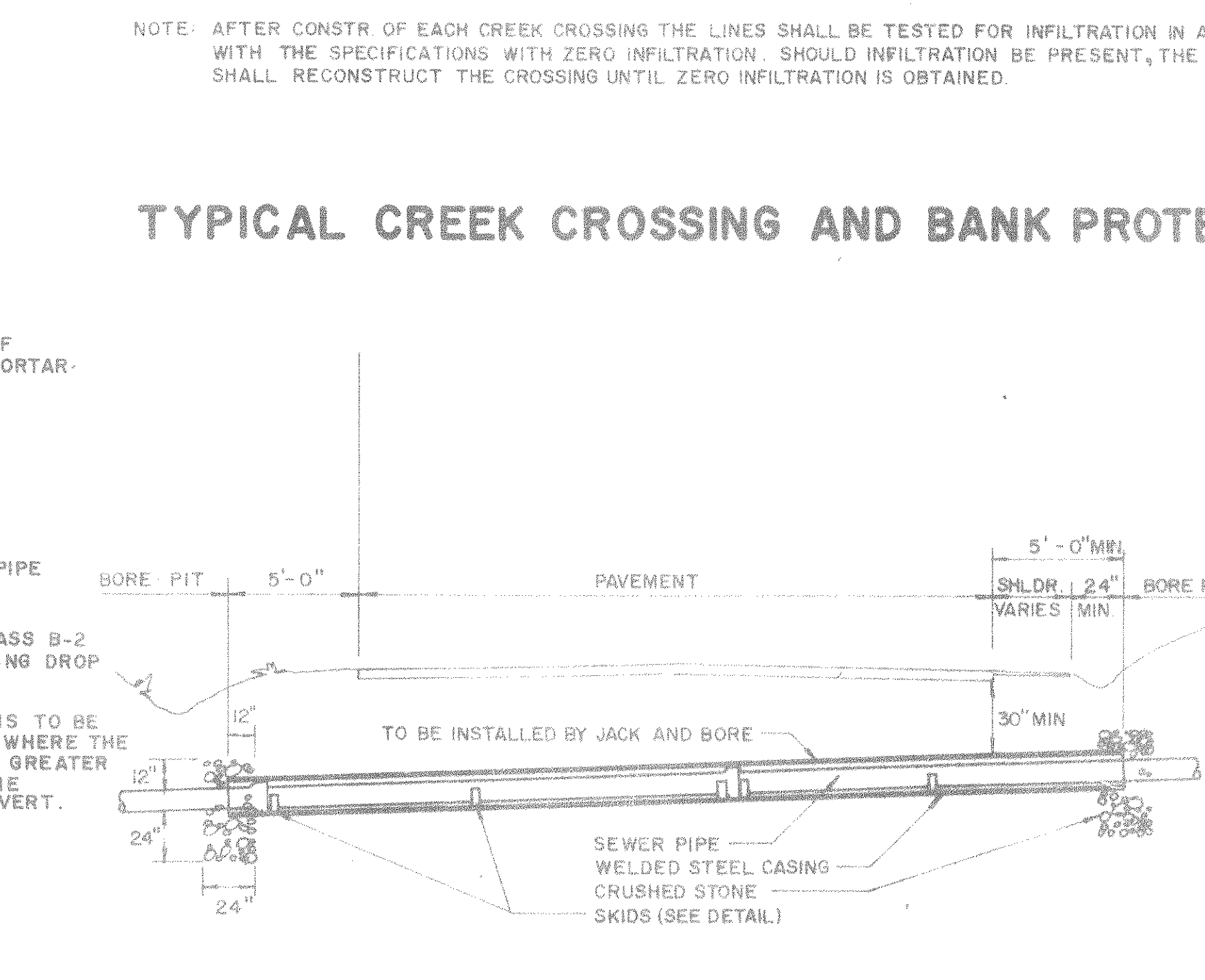
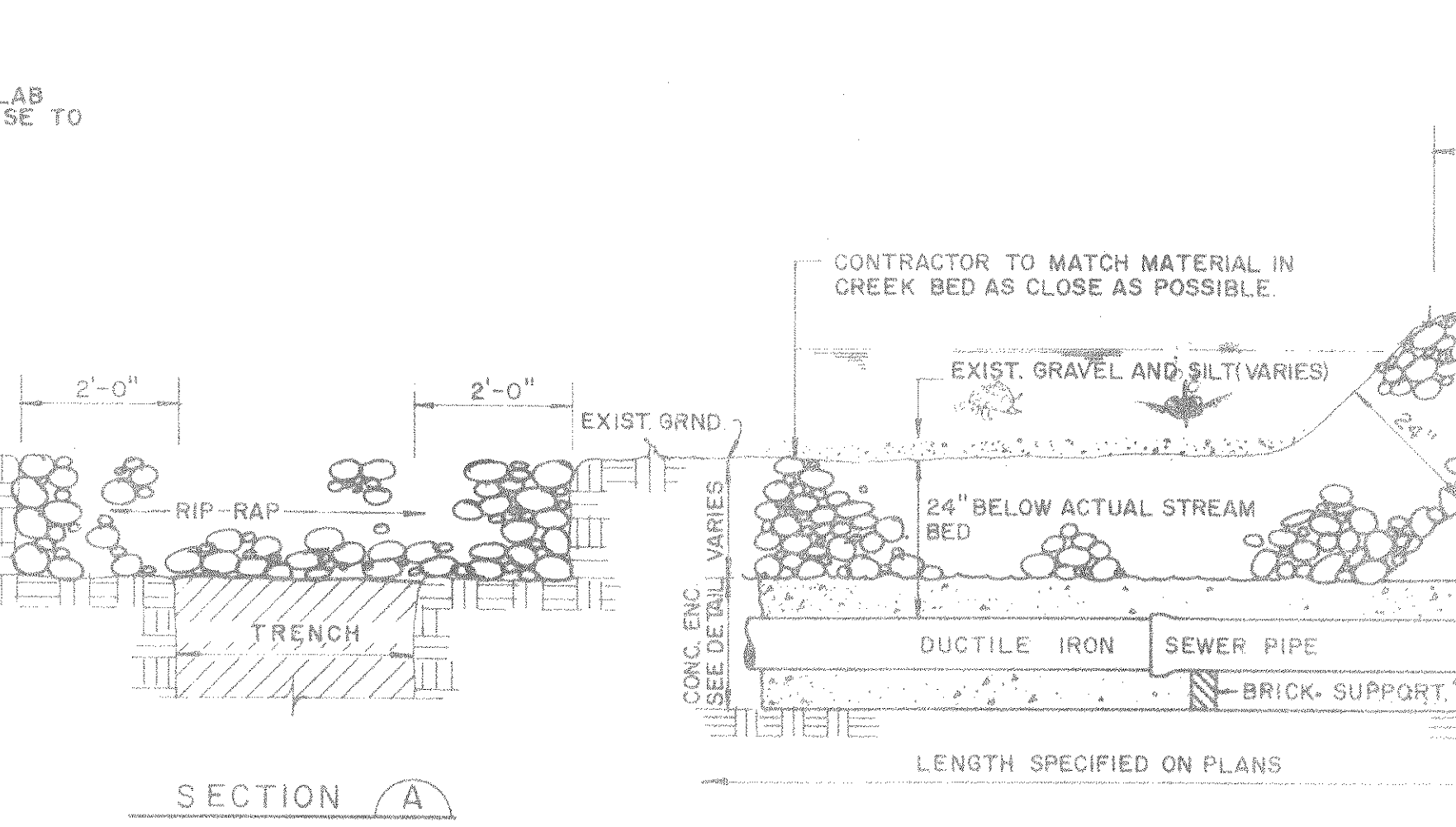
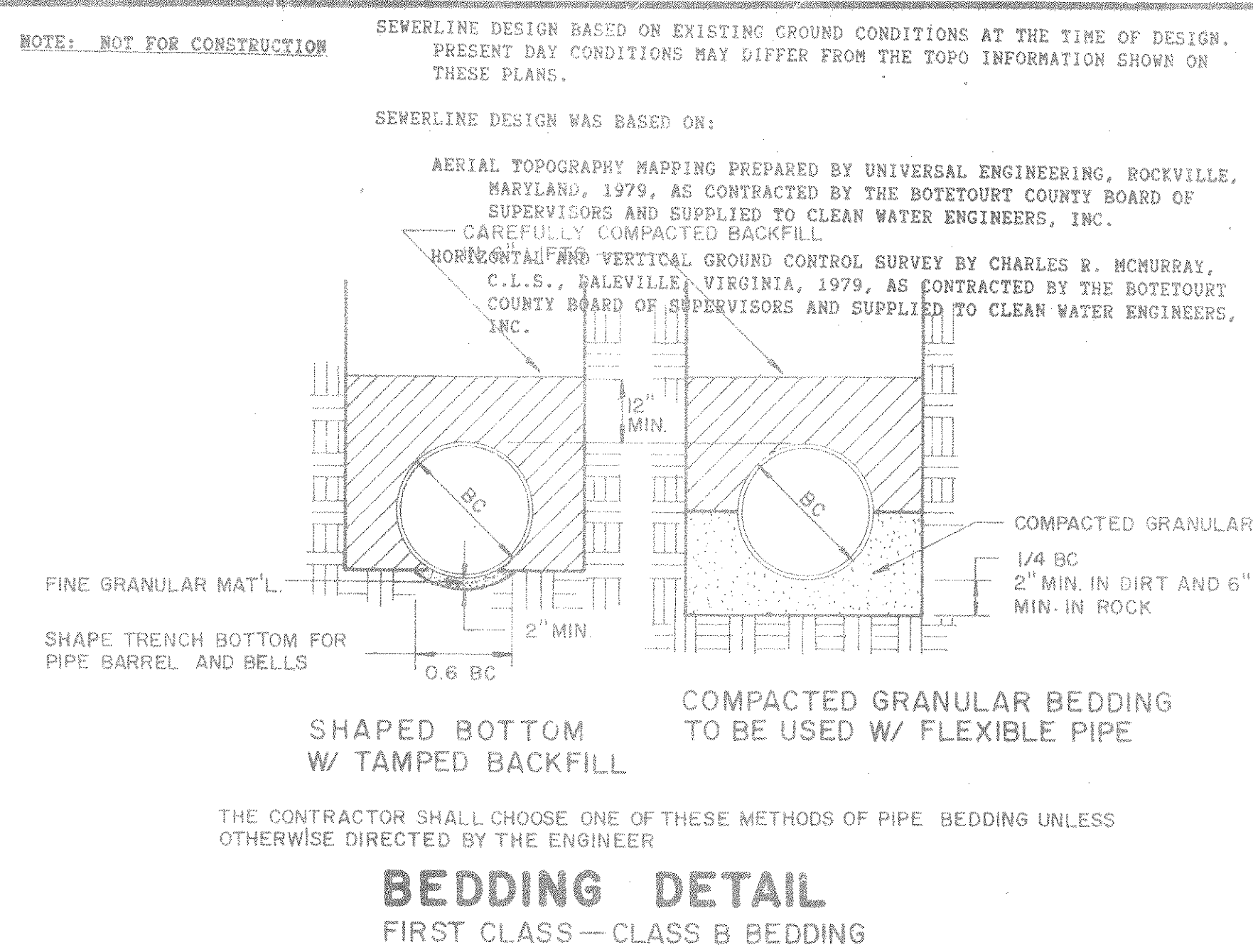
NOTE: THIS PLAT DOES NOT REPRESENT AN ACTUAL FIELD SURVEY. ALL DATA SHOWN ARE COMPILED FROM EXISTING DEEDS AND PLATS RECORDED IN THE BOTETOURT COUNTY COURTHOUSE, FINCASTLE, VIRGINIA AND FROM VARIOUS OTHER MAPS AND SURVEYS.
BEARINGS AND DISTANCES SHOWN FOR PROPERTY AND RIGHT-OF-WAY LINES ARE BASED ON PRIVATE AND STATE SURVEYS.
BEARINGS AND DISTANCES SHOWN ON EASEMENT LINES ARE BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE.
—○— DENOTES SANITARY SEWER MANHOLE.
— END OF SERVICE LATERAL —



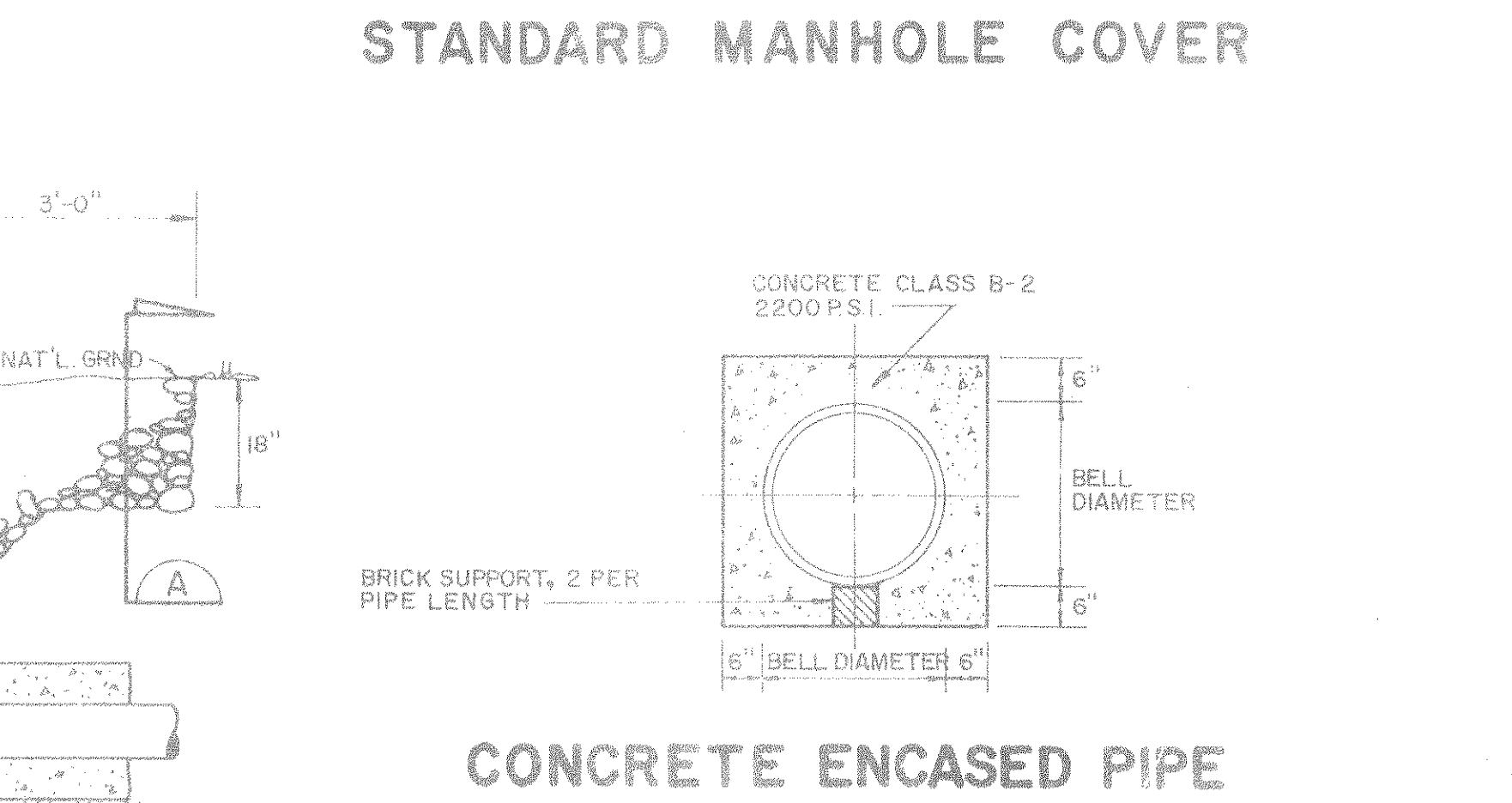
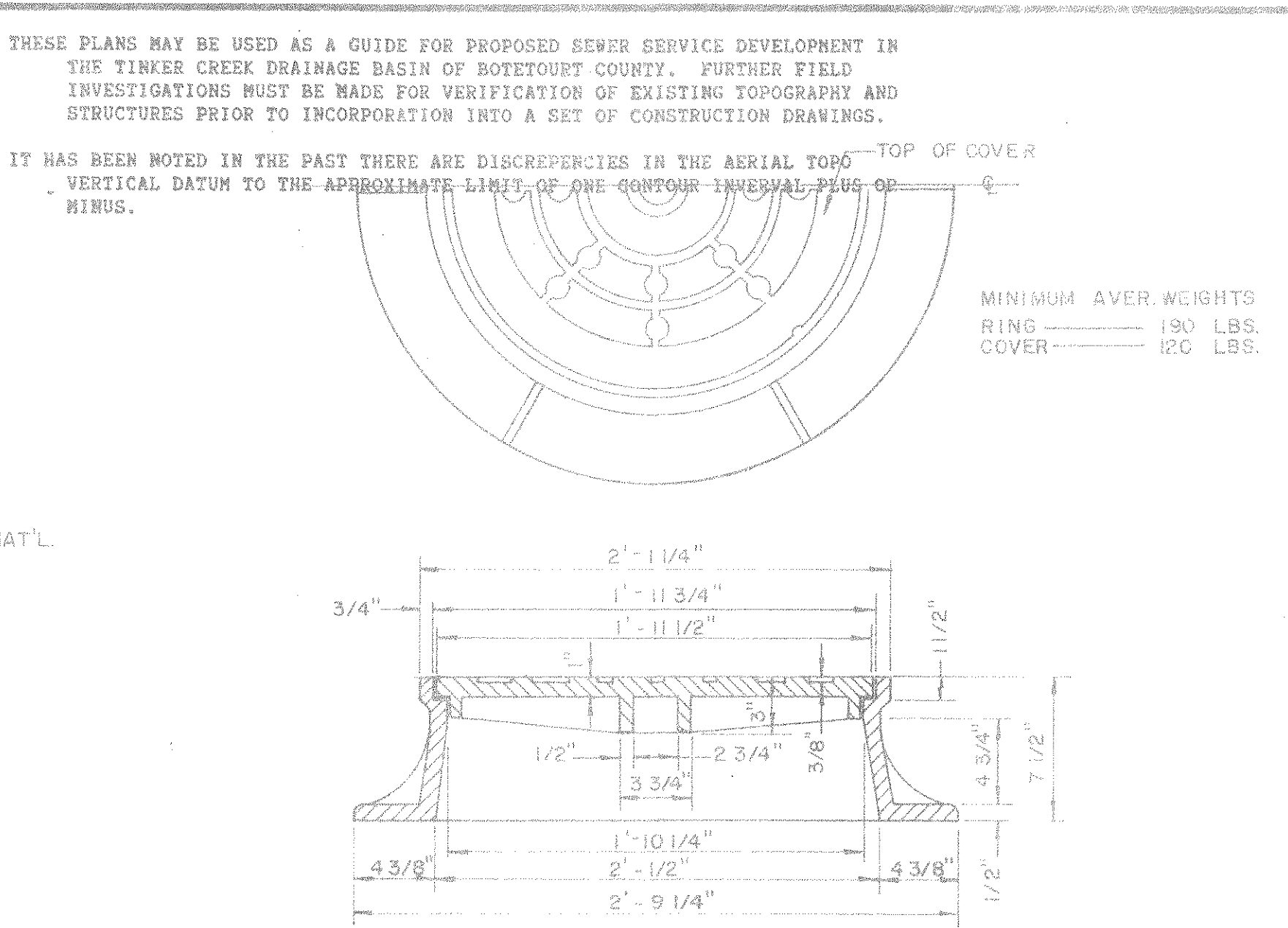




DROP CONSTRUCTION AT STANDARD MANHOLE

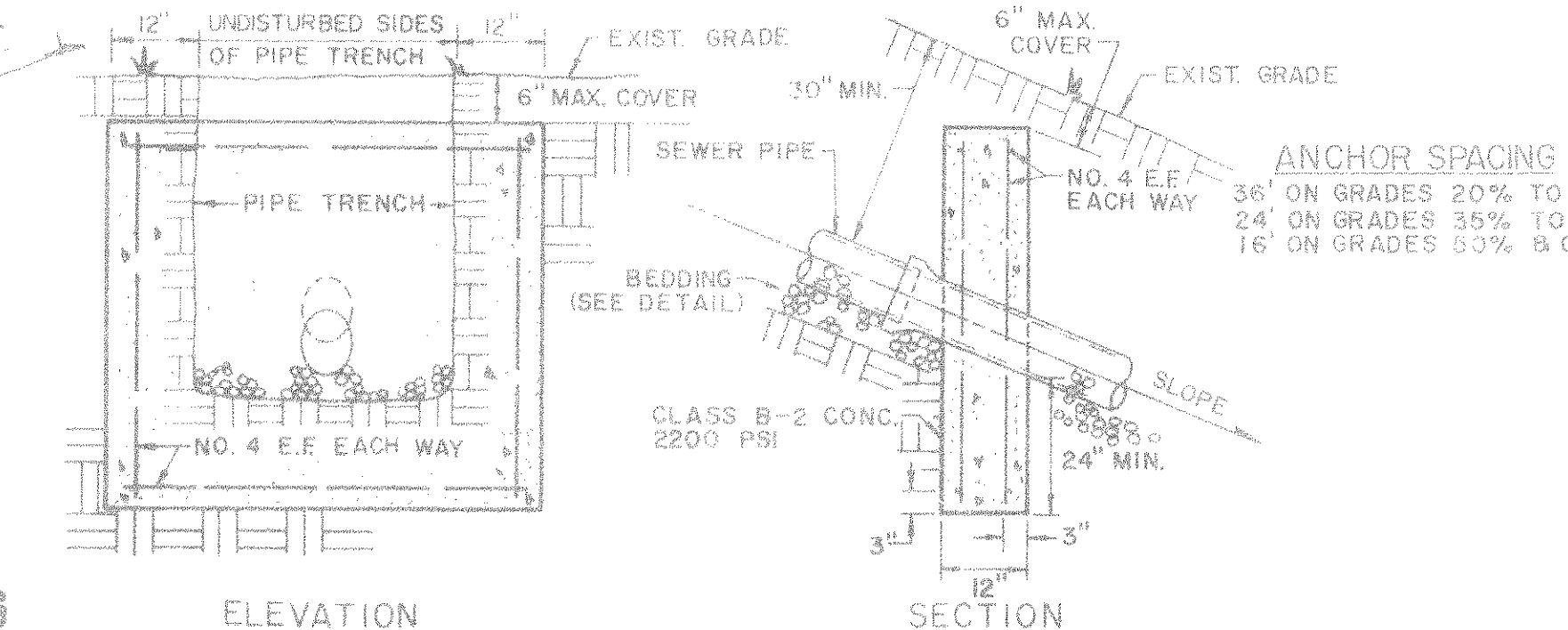


PRIMARY AND SECONDARY ROAD CROSSING

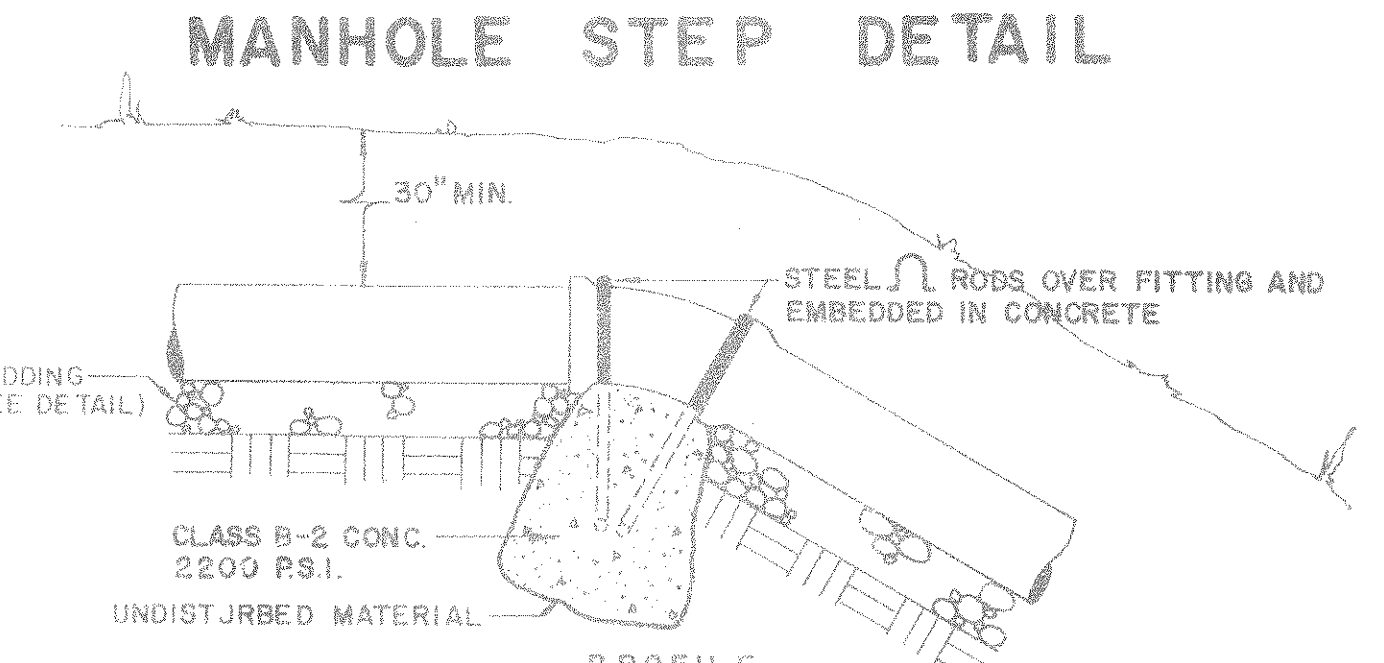
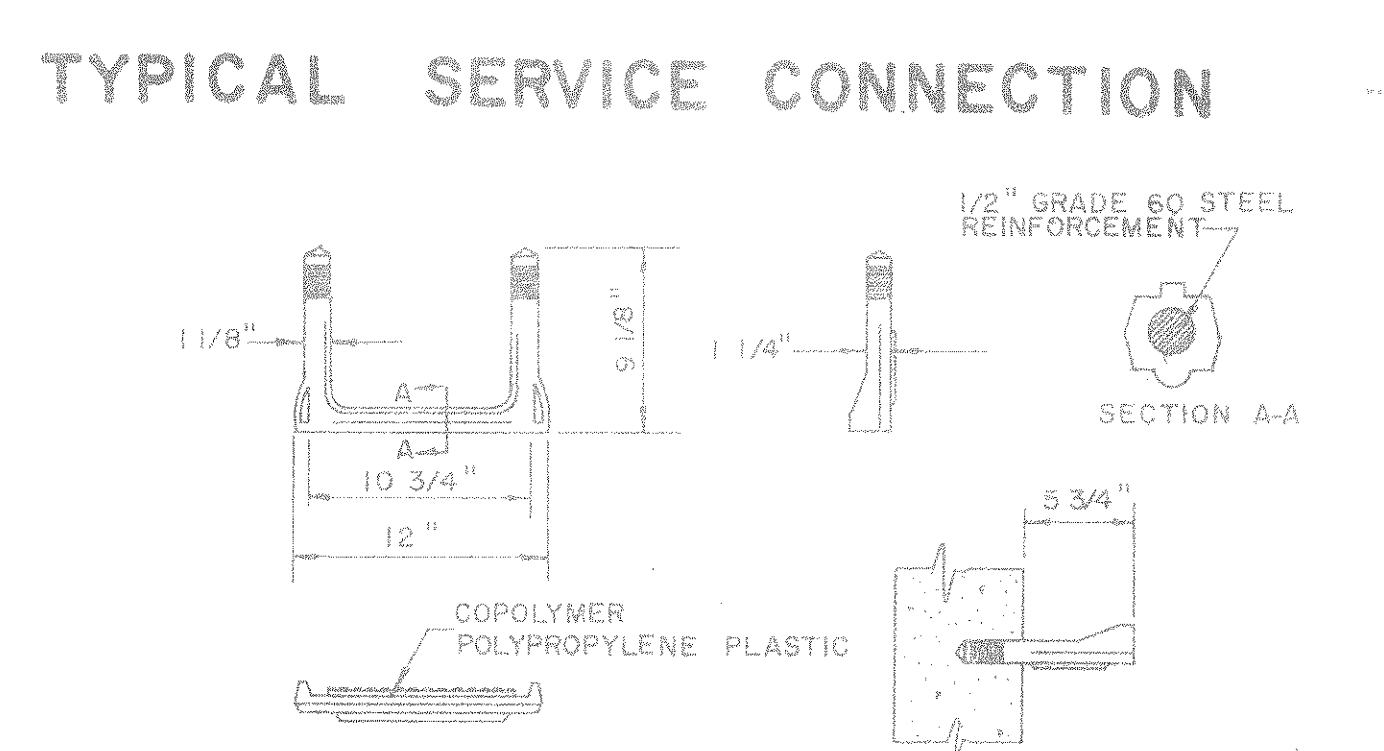
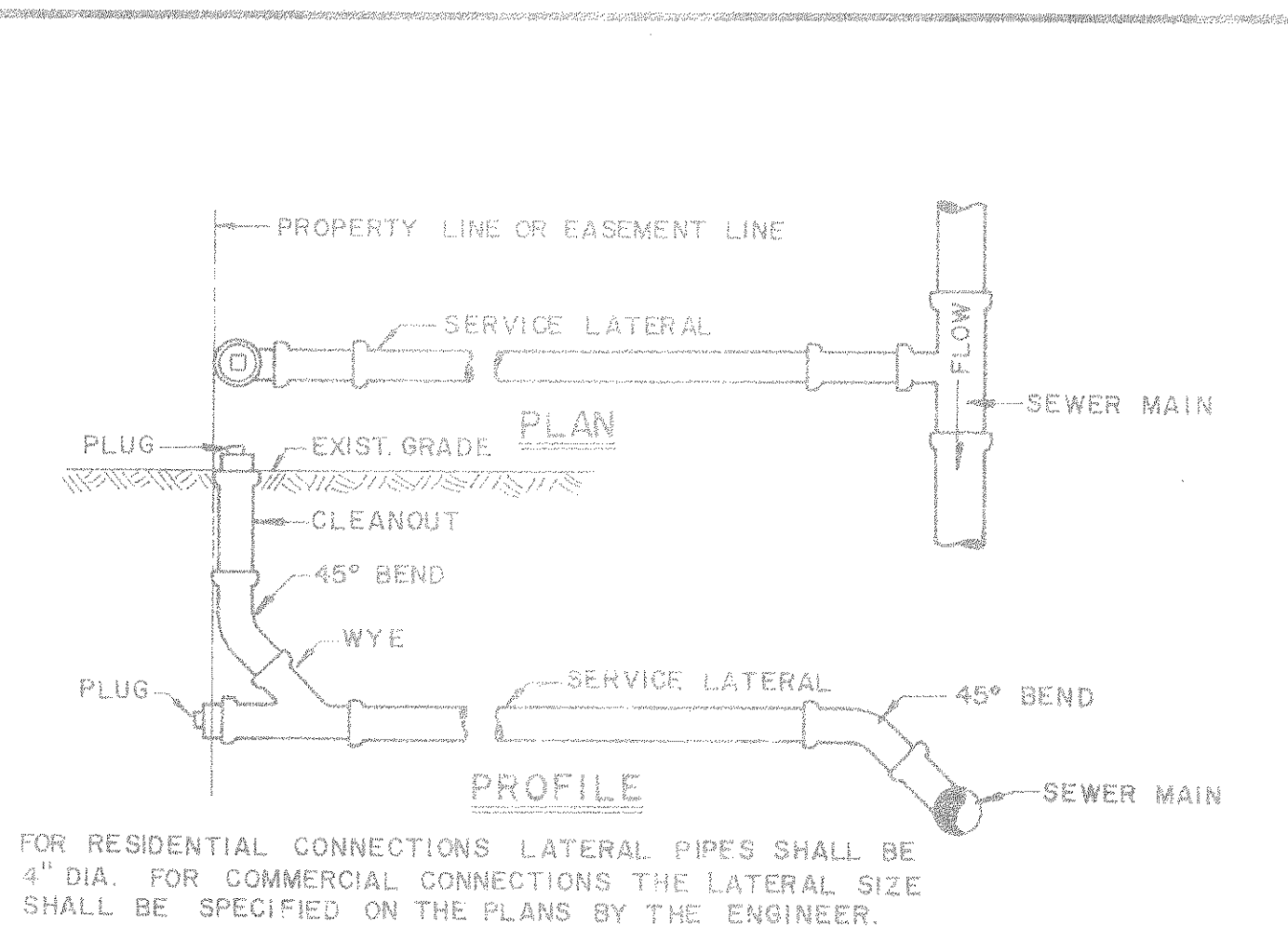


THRUST BLOCK SIZES

PIPE DIAMETER	TEE, CROSS, 90°		45° WYE		22 1/2°	
	A	B	A	B	A	B
4"	12"	12"	12"	12"	12"	12"
6"	12"	12"	12"	12"	12"	12"
8"	15"	24"	18"	18"	18"	18"
10"	18"	24"	18"	18"	18"	18"
12"	24"	30"	24"	18"	18"	18"

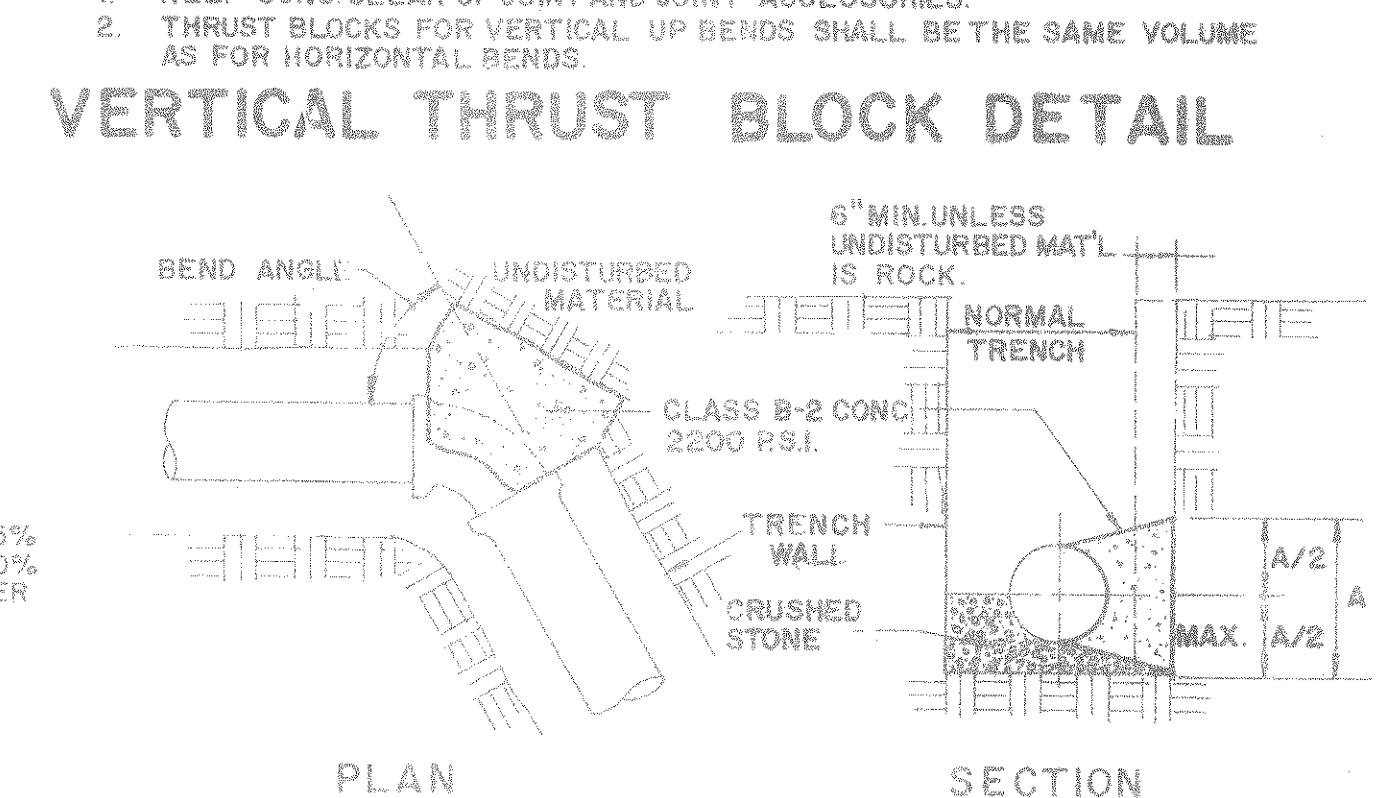


CONCRETE ANCHOR DETAIL



VERTICAL THRUST BLOCK DETAIL

FITTING SIZE	ROD SIZE	NO. OF RODS	EMBEDMENT	
			24"	11 1/4"
4"-6"-8"	No. 4	2	24"	11 1/4"
10"-12"	No. 6	2	24"	11 1/4"
VOLUME OF THRUST BLOCK IN CUBIC YARDS				
FITTING SIZE	90°	45°	22 1/2°	11 1/4°
4	0.25	0.15	0.1	0.1
6	0.5	0.35	0.25	0.2
8	0.9	0.65	0.5	0.35
10	1.4	1.0	0.8	0.55
12	2.0	1.4	1.0	0.7



- NOTES:
- AREA OF THRUST BLOCK BASED ON 1500 P.S.F. LATERAL BEARING PRESSURE AND A TEST PRESSURE WITHIN PIPE OF 150 P.S.I., VELOCITY OF 10 F.P.S.
 - THRUST BLOCKS ARE REQUIRED AT ALL BENDS OF MORE THAN 10°.
 - BEARING SURFACE OF THRUST BLOCKS MUST BE NORMAL TO RESULTANT THRUST OF BEND AND BEAR ON SUITABLE UNDISTURBED MATERIAL.
 - KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.

HORIZONTAL THRUST BLOCK DETAIL