

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING & BITUMINOUS SURFACE

County State Aid Highway No. 14

Between 8TH ST. IN CENTERVILLE And TOUCHDOWN POINT 35E.
A POINT 1330.10' SO. & 2745.25' WEST A POINT 1330.10' SO. & 1254.75' EAST
From OF S.E. COR. SEC. 14 T.31N. R.22W. To OF S.E. COR. SEC. 14 T.31N. R.22W.
Give proper reference to Sections, Township and Range

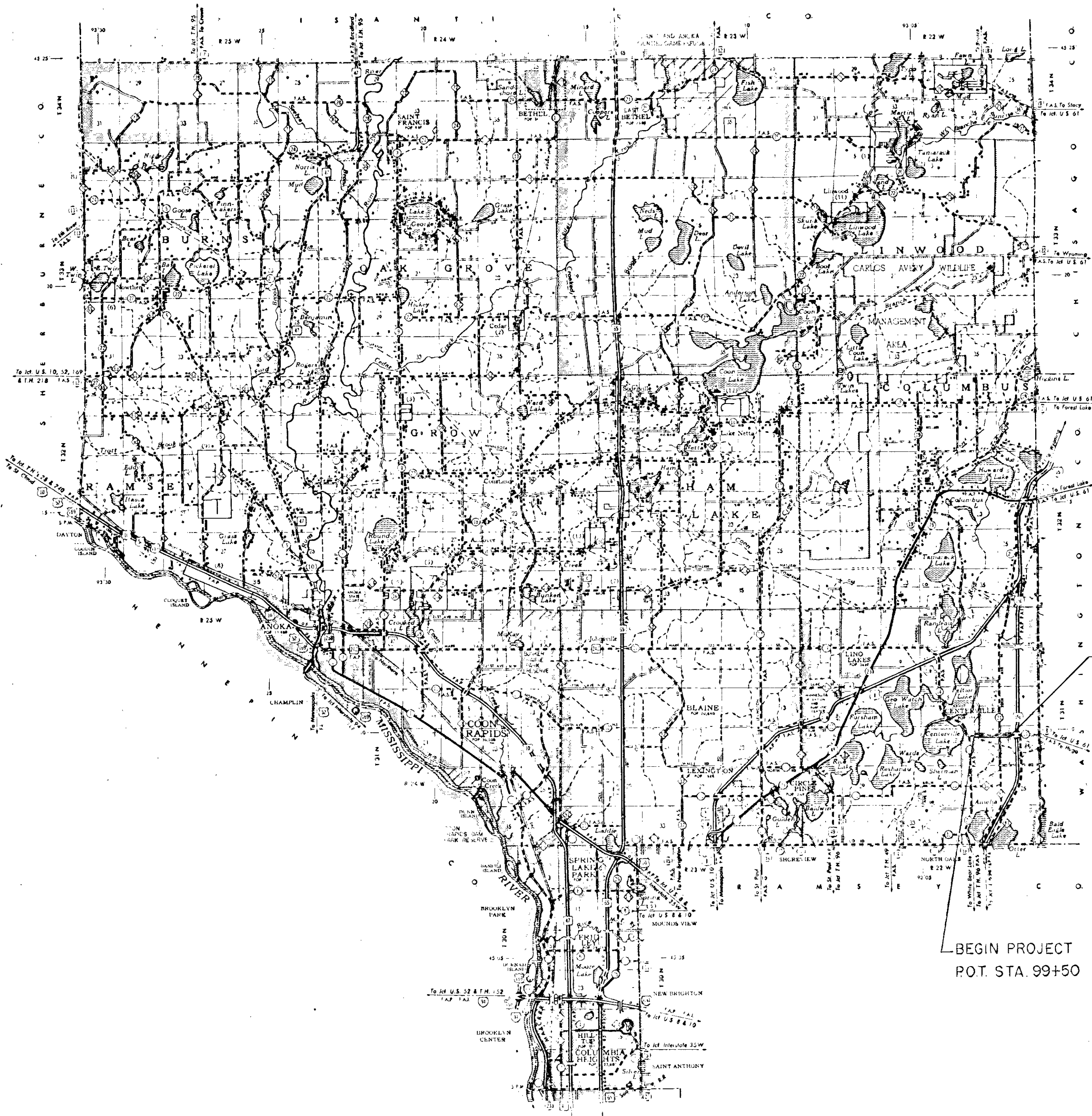
GROSS LENGTH 3950 FEET 0.76 MILES
BRIDGES LENGTH 0 FEET 0 MILES
EXCEPTIONS LENGTH 0 FEET 0 MILES
NET LENGTH 3950 FEET 0.76 MILES

INDEX OF SHEETS

- Sheet No. 1. Title Sheet & Layout Map
- No. 2. Est. Quantities & Typical Sec.
- No. 3. To 4. Plan & Profile
- No. 5. To 11. Cross Sections

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Easement Line)
- VACATED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RESTRICTION WALL
- RAILROAD
- RAILROAD RIGHT OF WAY LINE
- RIVER OR CREEK
- DRY RUN
- DRAINAGE DITCH
- ELECTRIC POWER LINE
- TELEPHONE OR TELEGRAPH LINE
- JOINT TELEPHONE AND POWER
- CONDUIT
- TELEPHONE CABLE (Aerial)
- TELEPHONE CABLE UNDERGROUND
- POWER CABLE UNDERGROUND
- SAND TRAIL
- CULVERT
- DROP INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- HEDGE
- WATER PIPE
- SEWER PIPE
- DRAIN TILE
- SPRINGS
- MUSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT
- STREET LIGHT
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- CATTLE GUARD
- OVERPASS (Highway Over)
- UNDERPASS (Highway Under)
- BRIDGE
- BUILDING (One Story Frame)
- P FRAME
- C CONCRETE
- S STONE
- T TILE
- B BRICK
- ST STUCCO
- IRON PIPE OR ROD
- MONUMENT (STONE, CONCRETE, OR METAL)
- WOODEN PILE
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY
- MEANDER CORNER



END PROJECT
P.O.T. STA. 139+00

BEGIN PROJECT
P.O.T. STA. 99+50

SOIL FACTOR 100%

DESIGN DESIGNATION

ADT (CURRENT YEAR) 1420
 ADT (FUTURE YEAR) 3266
 T (HEAVY COMMERCIAL) 200
9 Ton Design
 Design Speed 50 MPH (LOCALLY CONTROLLED)
 Design Speed not achieved at:
 STA. _____ TO STA. _____ MPH _____
 STA. _____ TO STA. _____ MPH _____

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, DATED JAN. 1, 1972, SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

E. J. Sundheim COUNTY ENGINEER DATE April 14, 1973

ANOKA COUNTY REG. NO. 2551

RECOMMENDED FOR APPROVAL C. W. Dahlman 5-1, 1973
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL W. J. Tolson 6-7, 1973

APPROVED 6-7 1973 A. T. Brantley STATE AID ENGINEER

Minn. Proj. No. _____ County Proj. No. _____
State Proj. No. _____ S.A.P. 02-614-05

STATEMENT OF ESTIMATED QUANTITIES			
ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
2031.503	FIELD LAB, TYPE B	EACH	1
2101.502	CLEARING	TREE	21
2101.507	GRUBBING	TREE	32
2104.501	REMOVE PORTABLE CULVERT	LIN. FT.	542
2104.501	SALVAGE FENCE	LIN. FT.	572
2104.521	SALVAGE PORTABLE CULVERT	LIN. FT.	685
2104.505	REMOVE CONC. STRUCTURE	SQ. YD.	28
557.621	RESET FENCE	LIN. FT.	572
2105.501	COMMON EXCAVATION	CU. YD.	12,269
2105.531	SALVAGED BITUMINOUS MIXTURE (E.V.)	CU. YD.	1,048
2130.501	WATER	M - GAL.	170
2211.501	AGGREGATE BASE CL. 5	TON	7,150
2221.501	AGG. SHOULDERING CL. 1	TON	1,100
2331.504	BIT. MATERIAL FOR MIX	TON	93
2331.508	WEARING COURSE MIX	TON	51
2331.510	BINDER COURSE MIX	TON	700
2357.502	BITUMINOUS MATERIAL FOR TACK	GALLON	555
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GALLON	3,200
2451.507	GRANULAR BEDDING	CU. YD.	516
2501.501	INSTALL 30" R.C. PIPE SEWER	LIN. FT.	270
2501.501	CULVERT EXCAVATION CL. U	CU. YD.	907
2501.571	INSTALL 15" C.M. PIPE CULVERT	LIN. FT.	432
2501.571	INSTALL 18" C.M. PIPE CULVERT	LIN. FT.	44
2501.571	INSTALL 24" C.M. PIPE CULVERT	LIN. FT.	196
2501.571	INSTALL 30" C.M. PIPE CULVERT	LIN. FT.	146
2501.571	INSTALL 65" SPAN C.M.P. ARCH	LIN. FT.	88
2501.573	INSTALL 15" C.M.P. APRONS	EACH	25
2501.573	INSTALL 18" C.M.P. APRONS	EACH	2
2501.573	INSTALL 24" C.M.P. APRONS	EACH	5
2501.573	INSTALL 30" C.M.P. APRON	EACH	1
2501.573	INSTALL 65" SPAN ARCH APRONS	EACH	2
2506.506	CONST. M.H. DES. BY CORG.	LIN. FT.	9.6
2506.516	CASTING ASSEMBLIES	EACH	2
2575.501	ROADSIDE SEEDING	ACRE	17
2575.505	SODDING	SQ. YD.	3,830
2575.511	MULCH MATERIAL TYPE 1	TON	11

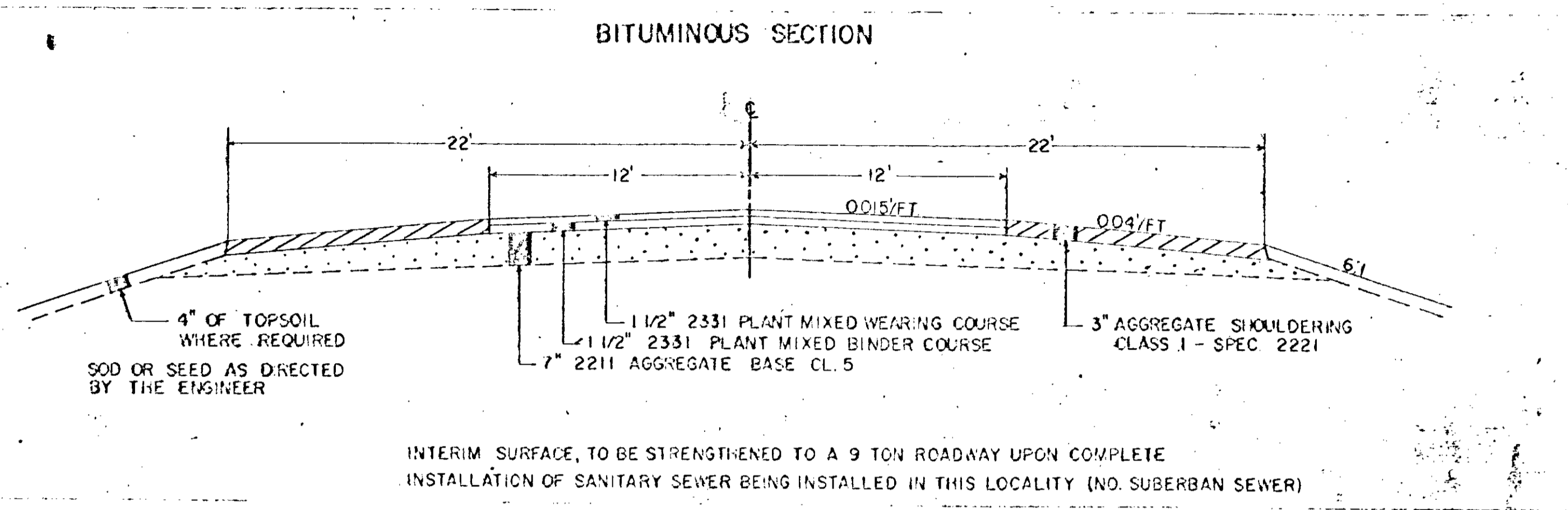
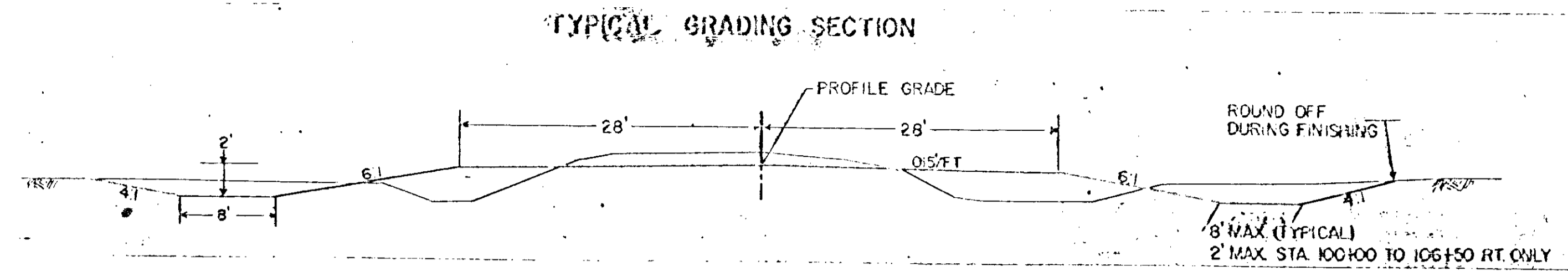
NON PARTICIPATING

BASIS OF PLANNED QUANTITIES

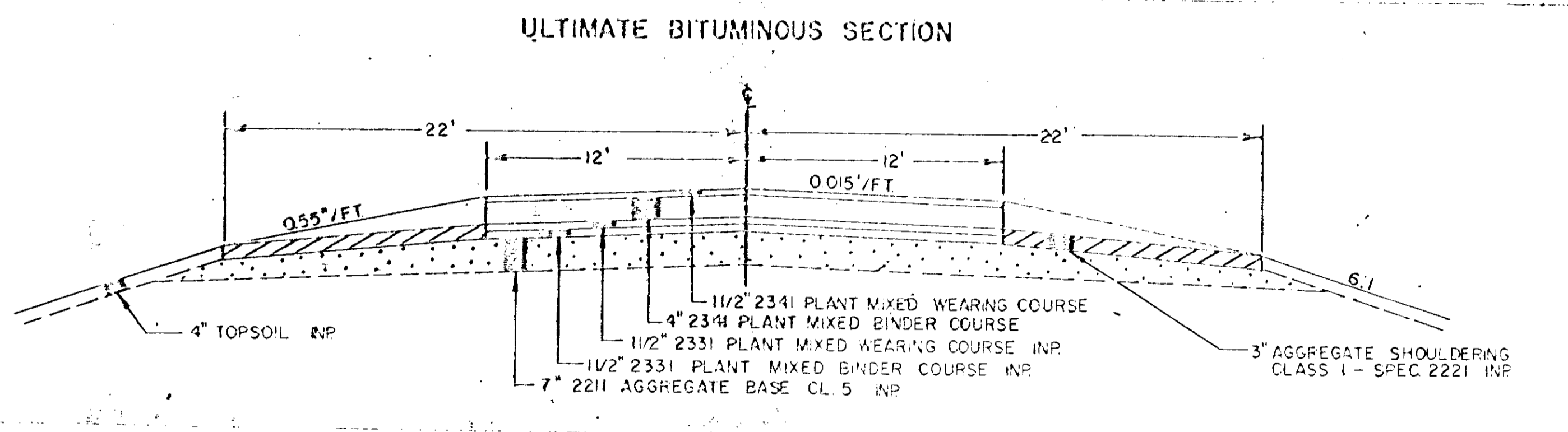
- 2221 AGGREGATE SHOULDERING 140 LBS. PER CU. FT. (COMPACTED).
- 2331 PLANT MIXED BITUMINOUS WEARING COURSE BITUMINOUS MIXTURE 165 LBS. PER SQ. YD. BITUMINOUS MATERIAL 6.5% OF MIXTURE BY WT.
- 2331 PLANT MIXED BITUMINOUS BINDER COURSE BITUMINOUS MIXTURE 165 LBS. PER SQ. YD. BITUMINOUS MATERIAL 5.0% OF MIXTURE BY WT.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. PER SQ. YD.
- 2358 BITUMINOUS MATERIAL FOR PRIME COAT 0.3 GAL. PER SQ. YD.

NOTE: BITUMINOUS ITEMS INCLUDE QUANTITIES FOR ALL STREET APPROACHES AND DRIVEWAYS.

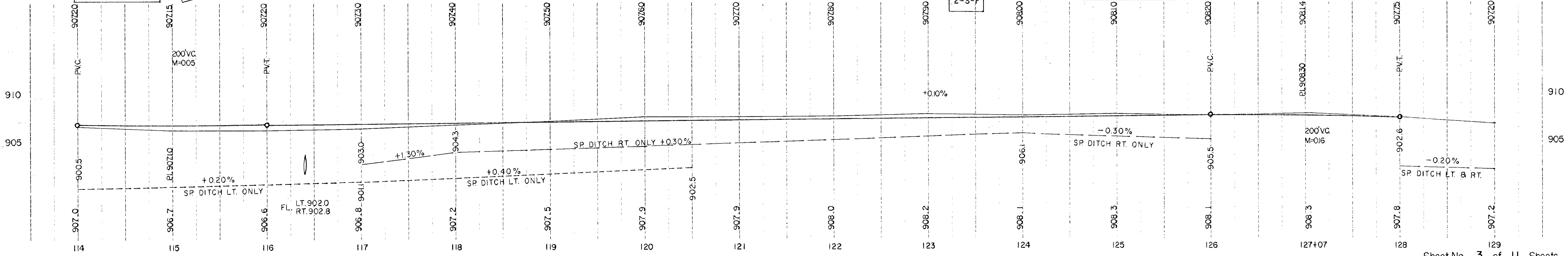
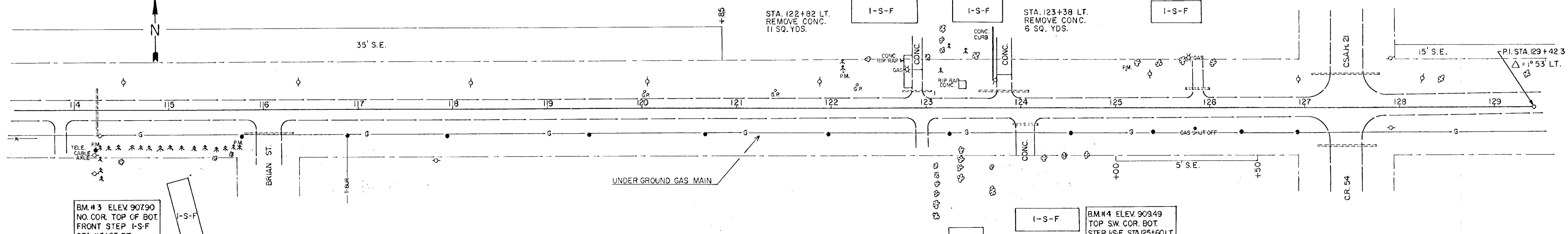
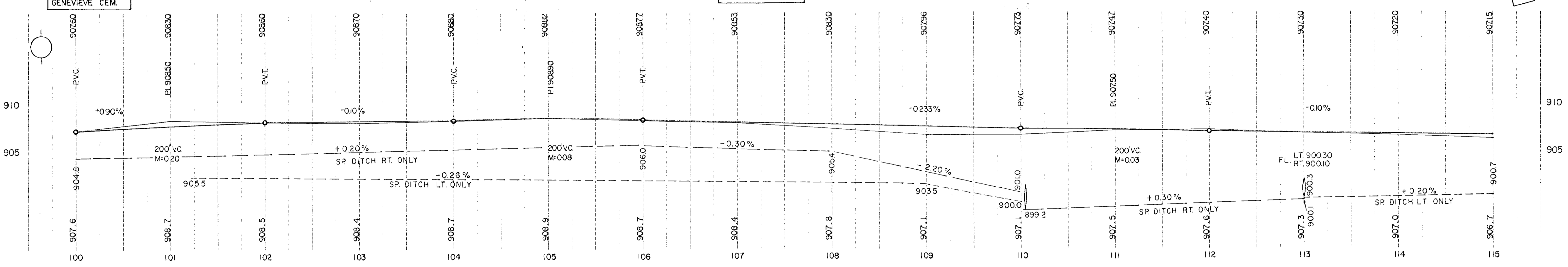
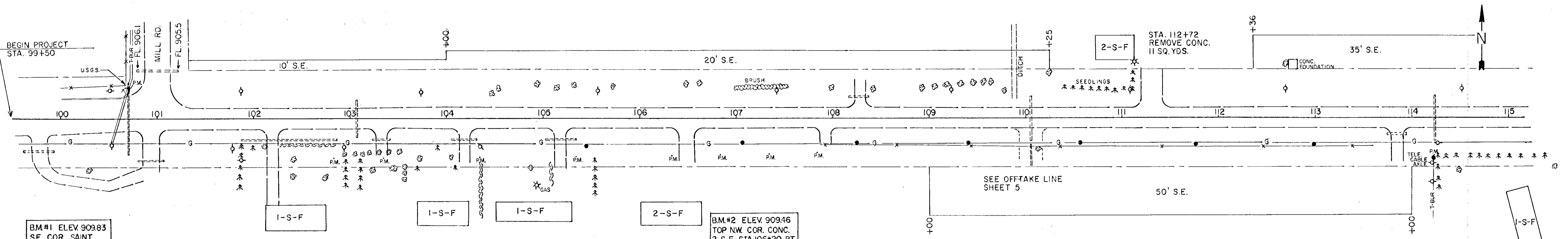
CLEAR & GRUBS			
STATION	LOCATION	CLEAR TREE	GRUBS
102150	40' RT.	1	1
102163	32' LT.	0	1
101187	27' RT.	0	1
101178	31' RT.	0	1
102111	10' RT.	0	1
102124	35' RT.	1	1
102115	42' RT.	1	1
103110	32' RT.	1	1
103167	42' RT.	1	1
103173	42' RT.	1	1
103170	29' RT.	1	1
104101	42' RT.	1	1
108193-109163	30' - 24' LT.	0	0
109176	28' LT.	1	1
110112	32' LT.	1	1
110123	40' LT.	1	1
112169	50' LT.	1	1
123135	47' RT.	1	1
130130	32' LT.	1	1
TOTAL		11	11



INTERIM SURFACE, TO BE STRENGTHENED TO A 9 TON ROADWAY UPON COMPLETE INSTALLATION OF SANITARY SEWER BEING INSTALLED IN THIS LOCALITY (NO. SUBURBAN SEWER)

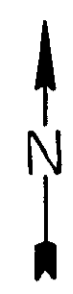
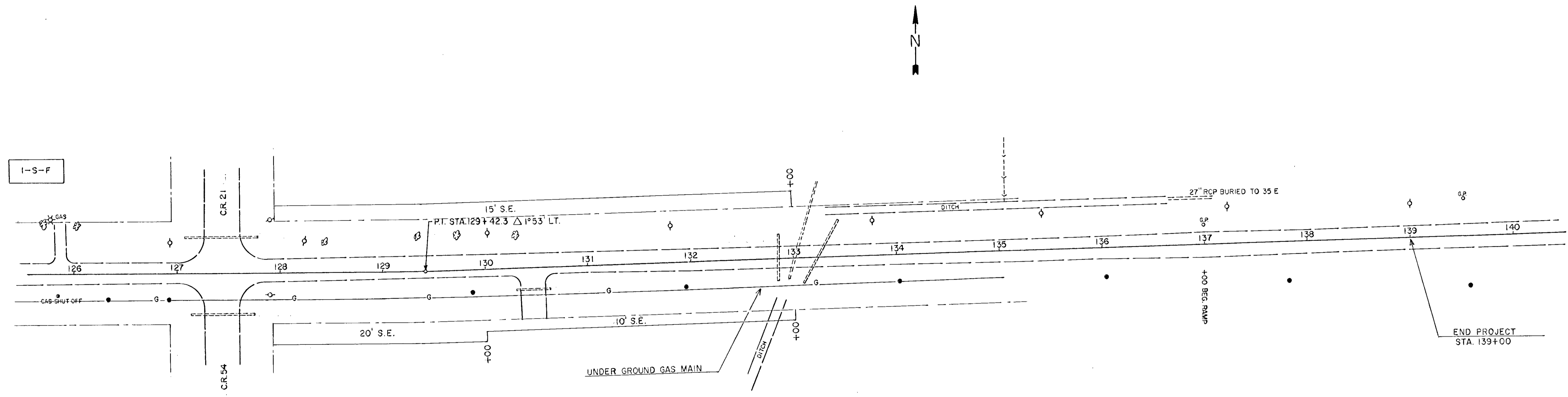


STANDARD - DETAIL PLATES	
PLATE NO.	DESCRIPTION
SPECIFICATION REFERENCE TO STANDARD PLATES	
3000 F	REINFORCED CONCRETE PIPE
3006 A	BASKET JOINT FOR R.C. PIPE
3010 P	CORRUGATED METAL PIPE ARCH
3122 F	METAL APRON FOR C.M. PIPE ARCH CULV.
3123 F	METAL APRON FOR C.M. PIPES
4002 D	MANHOLE OR CATCH BASIN
4006 H	MANHOLE OR CATCH BASIN
4101 B	RING CASTING FOR MANHOLES
8000 D	STANDARD BARRICADES
8000 O	CONTRACTORS SIGN



NOTE: ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED.
 ALL DISTANCES ARE MEASURED ALONG THE CENTERLINE OF THE ROAD.
 ALL ELEVATIONS ARE IN FEET ABOVE MEAN SEA LEVEL UNLESS OTHERWISE SPECIFIED.
 ALL UTILITY LINES ARE SHOWN AS APPROXIMATE LOCATIONS.
 ALL STRUCTURES ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY AVAILABLE.
 ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.
 ALL NOTES SHALL BE READ IN CONJUNCTION WITH THE DRAWING.
 ALL DIMENSIONS SHALL BE TO THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.
 ALL ELEVATIONS SHALL BE TO THE TOP OF THE FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
 ALL UTILITY LINES SHALL BE DEEPENED TO A MINIMUM OF 4 FEET BELOW THE FINISHED GRADE.
 ALL STRUCTURES SHALL BE CONSTRUCTED TO A MINIMUM OF 4 FEET ABOVE THE FINISHED GRADE.
 ALL MATERIALS SHALL BE TESTED AND APPROVED BY THE ENGINEER.
 ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
 ALL COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.
 ALL NOTES SHALL BE READ IN CONJUNCTION WITH THE DRAWING.
 ALL DIMENSIONS SHALL BE TO THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.
 ALL ELEVATIONS SHALL BE TO THE TOP OF THE FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
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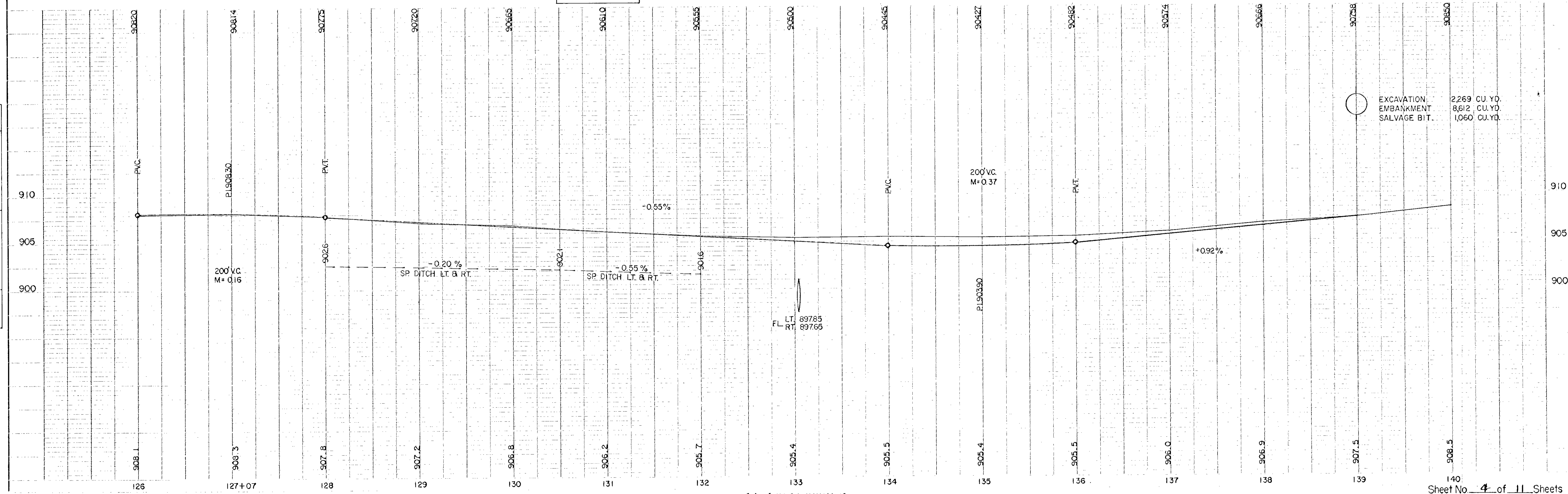
2. PLAN SURVEYED
 PLOTTED & CHECKED
 NOTE BOOK PLotted & CHECKED
 NO. OF WAT. CHECKED
 NO.



BM #5 ELEV 905.94
 DBL. SPIKE IN PP
 STA. 131+85 LT.

BM #6 ELEV 908.08
 DBL. SPIKE IN PP
 STA. 139+00 LT.

3. VERTICAL SURVEYED
 PLOTTED & CHECKED
 NOTE BOOK PLOTTED & CHECKED
 NO. OF WAT. CHECKED
 NO.



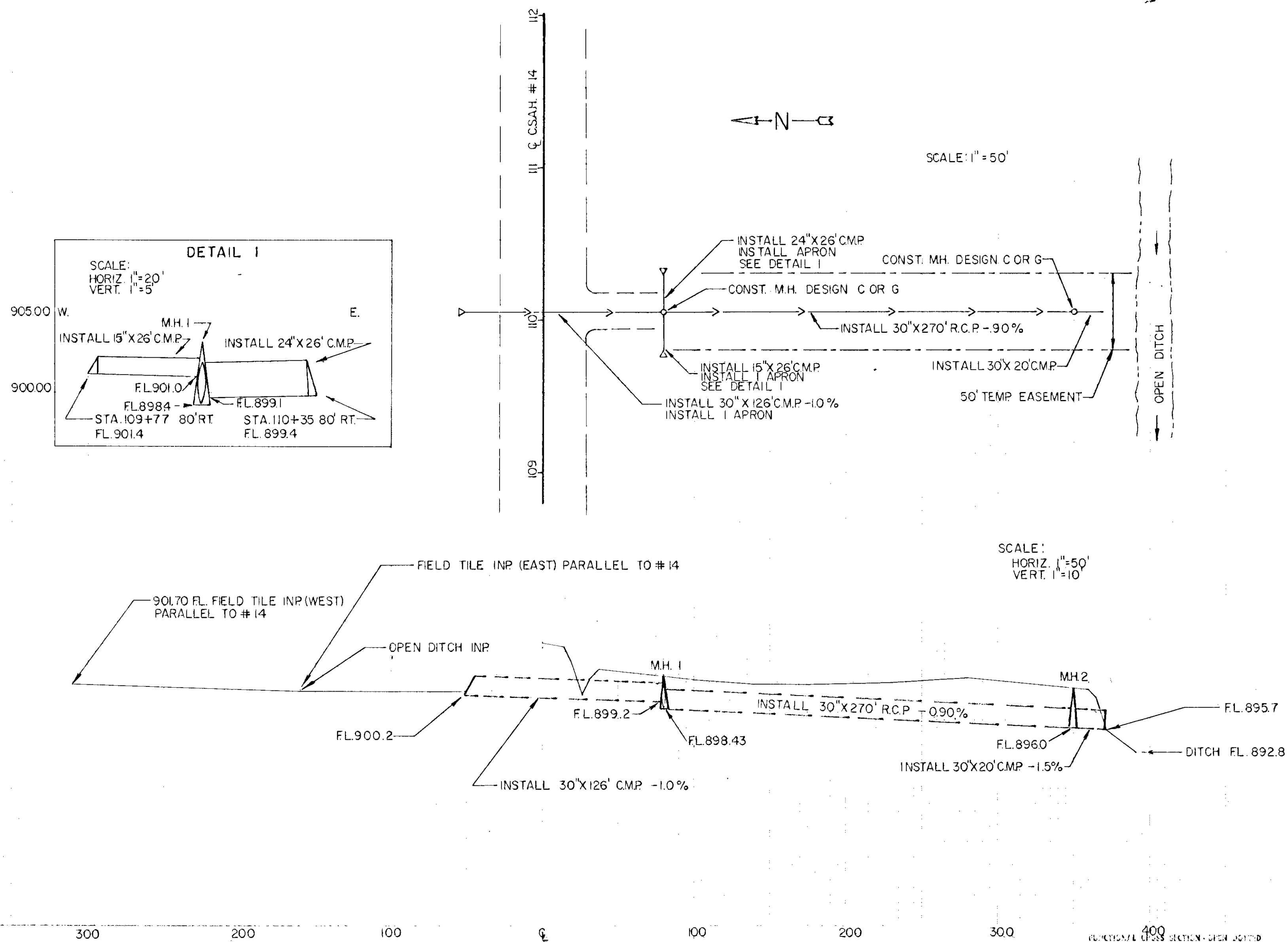
DATE
 SURVEYED
 PLOTTED
 SCALE
 DATE
 AREA CHECKED

DRAINAGE

NO	STATION	LOCATION	TYPE	DESIGN	LIN. FT.	TOP CASTING	OUTLET	CASTING ASSEMBLY	DRAIN TO	30' R.C.P.	30' C.M.P.
1	110+05	80' RT	M.H.	COR G	4.3	902.73	898.43	A	2	270'	
2	110+05	350' RT	M.H.	COR G	5.3	901.30	896.00	A	OUTLET		20'

KEY	COVER	FRAME
A	711	700-7

PIPE X-ING & STORM SEWER STA. 110+05



STATION	LOCATION	INP	REMARKS	SALVAGE	REMOVE	INSTALL 15' C.M.P. APR.	INSTALL 18' C.M.P. APR.	INSTALL 24' C.M.P. APR.	INSTALL 30' C.M.P. APR.	INSTALL 30' R.C.P. APR.	65' SPAN ARCH C.M.P. APR.					
99+80	RT.	24" X 30'	ENT.	30' C.M.P.		26'	2									
100+70	C	18" X 74'	X-CULV.	74' R.C.P.												
100+92	RT.	15" X 28'	ENT.	28' C.M.P.		30'	2									
101+00	LT.		TWP RD.				44'	2								
102+37	RT.	12" X 100'	ENT.	100' C.M.P.												
102+19	RT.		ENT.			26'	2									
103+07	C	18" X 38'	X-CULV.	38' C.M.P.												
103+32	RT.	15" X 20'	ENT.	20' C.M.P.		26'	2									
104+18	RT.	12" X 26'	ENT.		26' C.M.P.	34'	2									
105+17	RT.	12" X 30'	ENT.		30' C.M.P.	32'	2									
106+48	RT.		ENT.			30'	2									
107+92	RT.		ENT.			26'	2									
108+28	LT.	12" X 20'	ENT.		20' C.M.P.	56'	2									
110+05	C	24" X 46'	X-CULV.	46' R.C.P.					126'	1						
110+05	RT.	12" X 344'	MH I-MH 2		344' C.M.P.				20'	270'						
110+05	RT.		ENT.			26'	1									
111+30	LT.		NO CULV. NEEDED													
113+00	C		X-CULV.					96'	2							
113+84	RT.	12" X 20'	ENT.		20' R.C.P.											
114+23	C	18" X 48'	X-CULV.	48' C.M.P.												
116+05	RT.	12" X 50'	VILLAGE ST		50' C.M.P.	50'	2									
116+40	C		X-CULV.					74'	2							
122+90	LT.	18" X 32'	ENT.	32' C.M.P.												
122+95	RT.		ENT.			26'	2									
123+82	LT.	24" X 54'	ENT.	54' R.C.P.												
123+94	RT.	12" X 26'	ENT.		26' C.M.P.											
125+88	LT.	12" X 26'	ENT.		26' C.M.P.											
127+45	LT.	36" X 72'	C.S.A.H. 21													
127+45	RT.	24" X 62'	CR. 54													
130+46	RT.	15" X 30'	ENT.	30' C.M.P.		44'	2									
132+86	C	36" X 46'	X-CULV.	46' R.C.P.												
133+00	C	24" X 70'	X-CULV.	70' R.C.P.												
133+04	C		X-CULV.							88'	2					
133+24	C	27" X 70'	X-CULV.	70' R.C.P.												
TOTAL				686'	542'	432'	25	44'	2	196'	5	146'	1	270'	88'	2