

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR STORM SEWER, GRADING, BASE AND BITUMINOUS SURFACING

County State Aid Highway No. 31

Between JACKSON STREET And GRANT STREET

From A PT. 905' E. AND 310' N. OF SW. COR. SEC. 6 T. 31 R. 24 To A PT. 895' E. AND 770' S. OF N.W. COR. SEC. 6 T. 31 R. 24

Give proper reference to Sections, Township and Range

GROSS LENGTH 4,270.000 FEET 0.809 MILES
BRIDGES LENGTH 152.000 FEET 0.029 MILES
EXCEPTIONS LENGTH 152.000 FEET 0.029 MILES
NET LENGTH 4,118.000 FEET 0.780 MILES

INDEX OF SHEETS

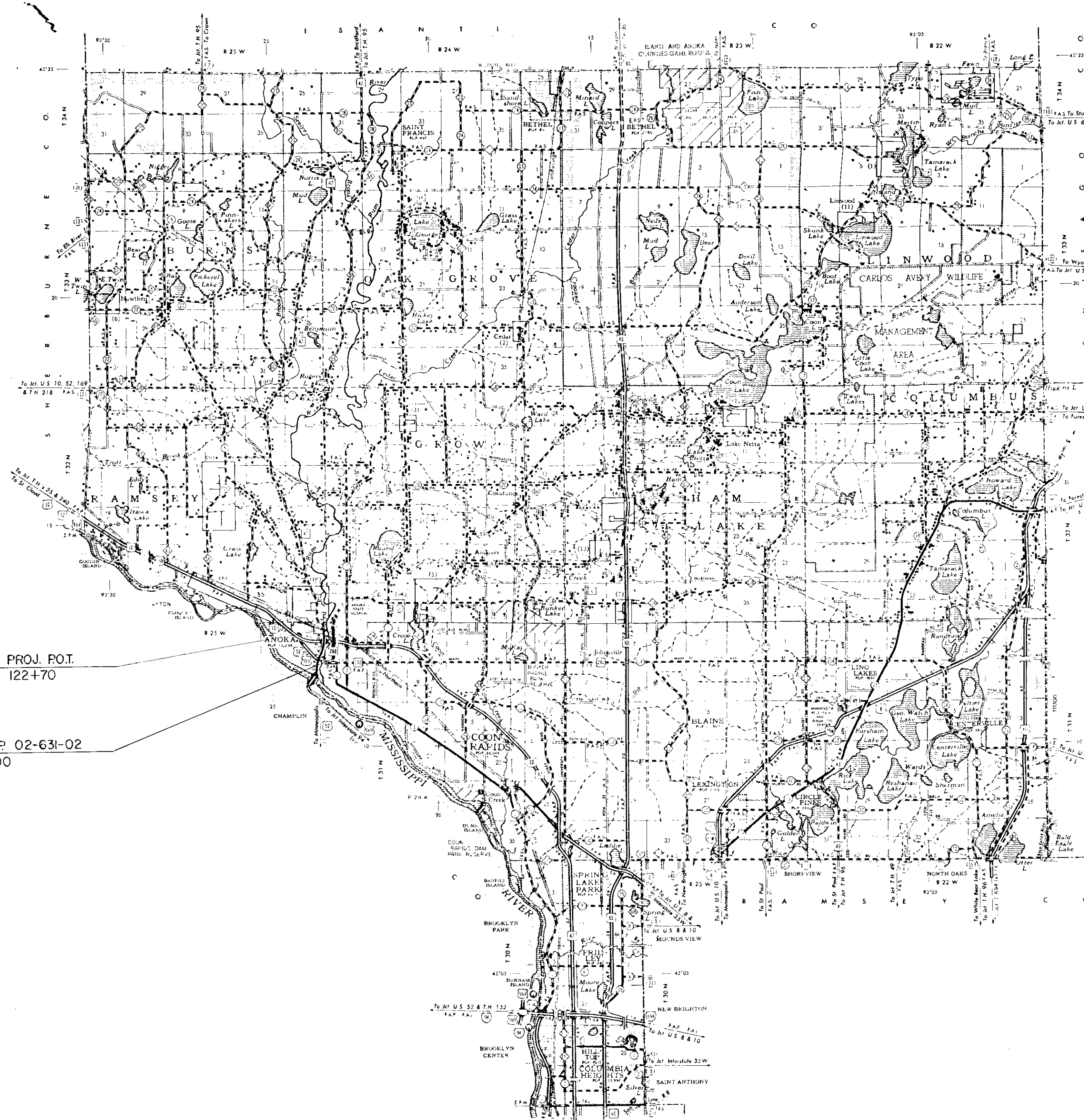
- Sheet No. 1. Title Sheet & Layout Map
- No. 2-5 Est. Quantities & Typical Sec.
- No. 6-13 Plan & Profile
- No. 14 Storm Sewer
- No. 15-24 Cross Sections
- No. 25-29 Tree Planting Layouts
- No. 30-31 CITY OF ANOKA - SANITARY SEWER & WATERMAIN

SCALE

INDEX MAP 2 Mi.
 PLAN & PROFILE 5'
50'
 CROSS SECTIONS 10'

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- PRES. RIGHT OF WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Lines)
- IMPROVED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RESIDING 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
- GAS MAIN
- CONVERT
- DISP. INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOODEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SIGN FENCE
- STONE WALL OR FENCE
- HEDGE
- WATER PIPE
- SEWER PIPE
- DRAIN TILE
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERIES
- 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)
- F. 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 PROJ. P.O.T.
STA. 122+70

BEGIN PROJ. S.A.P. 02-631-02
P.O.T. STA. 80+00

DESIGN DESIGNATION

ADT (CURRENT YEAR) 3150
 ADT (FUTURE YEAR) 5600
 T (HEAVY COMMERCIAL) 600-1100
9 Ton Design SOIL FACTOR 50%
 Design Speed 40 MPH
 Design Speed not achieved at:
 STA. _____ TO STA. _____ MPH
 STA. _____ TO STA. _____ MPH

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR CONSTRUCTION, 1963 EDITION, 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.

Paul K. Reed
COUNTY ENGINEER DATE 1/4/84

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL *C. E. Wierkeilbaum* 1/18/84
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL *D. W. + A. O. P. 4-2* 1984

APPROVED *[Signature]* 19 84 STATE AID ENGINEER

Minn. Proj. No. _____ County Proj. No. _____
State Proj. No. _____ S.A.P. 02-631-02 CTB

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	1	
2031.501	FIELD OFFICE, TYPE D	EACH	1	
2101.502	CLEARING	TREE	75	
2101.507	GRUBBING	TREE	75	
2104.501	REMOVE CURB AND GUTTER	LIN. FT.	820	
2104.501	REMOVE PIPE SEWER	LIN. FT.	818	
2104.503	REMOVE SIDEWALK	SQ. FT.	29,570	
2104.503	REMOVE CONCRETE RETAINING WALL	SQ. FT.	69	
2104.505	REMOVE PAVEMENT	SQ. YD.	9,689	
2104.505	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	6,922	
2104.505	REMOVE CONCRETE PAVEMENT	SQ. YD.	223	
2184.509	REMOVE MANHOLES OR CATCH BASINS	EACH	16	
2104.521	SALVAGE FENCE	LIN. FT.	388	
0557.603	INSTALL FENCE	LIN. FT.	368	
2104.523	SALVAGE MANHOLE OR CATCH BASIN CASTINGS	EACH	6	
2105.501	COMMON EXCAVATION	CU. YD.	4,347	
2105.525	TOPSOIL BORROW (LV)	CU. YD.	359	
2130.501	WATER	100 GAL.	75	
2211.503	AGGREGATE BASE PLACED, CLASS 5A	CU. YD.	3,419	
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	278	
2331.510	BINDER COURSE MIXTURE	TON	2,470	
2331.514	BASE COURSE MIXTURE	TON	3,700	
0331.601	2" THICK WEARING COURSE PLACED	SQ. YD.	510	
2331.531	TEMPORARY LANE MARKING	RD. STA.	123	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	112	
2341.503	WEARING COURSE MIXTURE	TON	1,365	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	2,230	
2461.501	CONCRETE, MIX. NO. 3A32	CU. YD.	1	
2501.515	15" R.C. PIPE APRONS	EACH	1	
2503.541	12" R.C. PIPE SEWER, DESIGN 3006D CLASS 3	LIN. FT.	560	
2503.541	15" R.C. PIPE SEWER, DESIGN 3006D CLASS 3	LIN. FT.	439	
2503.541	18" R.C. PIPE SEWER, DESIGN 3006D CLASS 3	LIN. FT.	20	
2503.541	30" R.C. PIPE SEWER, DESIGN 3006D CLASS 4	LIN. FT.	264	
2506.506	CONSTRUCT MANHOLES, DESIGN A OR F	LIN. FT.	32.4	
2506.506	CONSTRUCT MANHOLES, DESIGN C OR G	LIN. FT.	9.6	
2506.507	CONSTRUCT CATCH BASINS, DESIGN A OR F	LIN. FT.	26.4	
2506.507	CONSTRUCT CATCH BASINS, DESIGN C OR G	LIN. FT.	38.1	
2506.507	CONSTRUCT CATCH BASINS, DESIGN H	LIN. FT.	10.7	
2506.511	RECONSTRUCT MANHOLES	LIN. FT.	18.4	
2506.516	CASTING ASSEMBLIES	EACH	22	
2506.521	INSTALL CASTINGS	EACH	1	
2506.522	ADJUST FRAME AND RING CASTINGS	EACH	20	
2511.503	GRAVEL RIPRAP	CU. YD.	2.3	
0504.602	ADJUST WATER GATE HOUSING	EACH	14	
2521.501	4" CONCRETE WALK	SQ. FT.	25,004	
2521.501	6" CONCRETE WALK	SQ. FT.	820	
2521.501	8" CONCRETE WALK	SQ. FT.	550	
2531.501	CONCRETE CURB AND GUTTER, DESIGN B618	LIN. FT.	7,990	
0531.501	CONCRETE GUTTER	LIN. FT.	260	
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	134.8	
2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	217.1	
0411.603	STONE RETAINING WALL	SQ. FT.	78	
2575.505	SODDING	SQ. YD.	5500	
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-10-10	TON	0.3	

- ① FOR REMOVAL OF CONCRETE PAVEMENT AND THE BITUMINOUS OVERLAY THEREON.
- ② INCLUDES 2,144 SQ. YDS. FOR STREET APPROACHES AND 497 SQ. YDS. FOR ENTRANCES.
- ③ PROVIDED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
- ④ INCLUDES 368 CU. YDS. FOR ALLEY AND STREET APPROACHES, 14 CU. YDS. FOR DRIVEWAY RESTORATION AND 49 CU. YDS. FOR RESTORATION AT STORM SEWER OUTLET LT. 110+25.
- ⑤ INCLUDES 315 TON FOR ALLEY AND STREET APPROACHES.
- ⑥ INCLUDES 470 TON FOR ALLEY AND STREET APPROACHES.
- ⑦ PROVIDED FOR DRIVEWAY RESTORATION & BLVD PAVING. PAYMENT BY SQ. YD. INCLUDES BITUMINOUS MATERIAL & 3" CL-5 AGG. BASE.
- ⑧ INCLUDES 255 TON FOR ALLEYS, STREET APPROACHES, AND STORM SEWER OUTLET LT. 110+25.
- ⑨ PROVIDED FOR REPLACEMENT OF CONCRETE STEPS.
- ⑩ TIE APRON AND TWO PIPE JOINTS.
- ⑪ BASED ON 500 LBS. PER ACRE.

BASIS OF PLANNED QUANTITIES

2331 PLANT MIXED BASE AND BINDER COURSE
BITUMINOUS MIXTURE 110 LBS./SQ. YD. PER 1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 4.5% BY WEIGHT

2341 PLANT MIXED WEARING COURSE
BITUMINOUS MIXTURE 110 LBS./SQ. YD. PER 1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 6.0% BY WEIGHT

PAVEMENT REMOVAL (INCLUDES 7" CONCRETE WITH 3/4" BITUMINOUS OVERCOAT),
IS BASED ON A WIDTH OF 32' FROM STATION 80+23 TO 102+04 AND 103+56
TO 109+00.

BITUMINOUS PAVEMENT REMOVAL IS BASED ON A WIDTH OF 32' FROM STATION
109+00 TO 114+40, 28' WIDE FROM 114+40 TO 119+03, 28' TO 22' WIDE
STATION 119+03 TO 119+72 AND 22' WIDE FROM STATION 119+72 TO 122+70.
ALSO INCLUDES ALL STREET APPROACHES AND BITUMINOUS DRIVEWAYS.

CONCRETE PAVEMENT REMOVAL IS FOR REMOVAL OF CONCRETE DRIVEWAY APRONS
AND DRIVEWAYS.

SALVAGE & INSTALL FENCE				
STATION	LOC	SALVAGE	INSTALL	REMARKS
101+41 - 102+04	23'-37' RT.	63'	63'	
101+94	25' LT.	8'	0	LINE FENCE
101+94 - 102+04	17'-25' LT.	10'	10'	
103+56 - 104+05	17'-33' RT.	49'	49'	
103+56 - 103+66	17'-27' LT.	14'	10'	
103+66	27' LT.	6'	0	LINE FENCE
111+62 - 113+98	32' RT.	238'	236'	
TOTALS=		388'	368'	INSTALL ALL FENCE AT 33'

MISCELLANEOUS REMOVALS			
STA. TO STA.	LOC.	DESCRIPTION	LIN. FT.
80 + 27 - 84 + 89	RT.	CONCRETE CURB AND GUTTER	544'
81 + 37 - 84 + 87	LT.	CONCRETE CURB AND GUTTER	411'
85 + 24 - 89 + 94	RT.	CONCRETE CURB AND GUTTER	562'
85 + 24 - 89 + 94	LT.	CONCRETE CURB AND GUTTER	552'
90 + 29 - 95 + 61	RT.	CONCRETE CURB AND GUTTER	614'
90 + 29 - 95 + 61	LT.	CONCRETE CURB AND GUTTER	614'
95 + 91 - 99 + 07	RT.	CONCRETE CURB AND GUTTER	388'
95 + 91 - 99 + 08	LT.	CONCRETE CURB AND GUTTER	399'
99 + 38 - 102 + 04	RT.	CONCRETE CURB AND GUTTER	302'
99 + 38 - 102 + 04	LT.	CONCRETE CURB AND GUTTER	302'
103 + 56 - 106 + 80	RT.	CONCRETE CURB AND GUTTER	324'
107 + 25 - 108 + 00	RT.	CONCRETE CURB AND GUTTER	75'
103 + 56 - 105 + 75	LT.	CONCRETE CURB AND GUTTER	219'
106 + 65 - 107 + 70	LT.	CONCRETE CURB AND GUTTER	90'
108 + 00 - 108 + 93	LT.	CONCRETE CURB AND GUTTER	139'
108 + 45 - 114 + 25	RT.	CONCRETE CURB AND GUTTER	580'
109 + 53 - 114 + 35	LT.	CONCRETE CURB AND GUTTER	488'
114 + 75 - 121 + 94	RT.	CONCRETE CURB AND GUTTER	750'
114 + 90 - 122 + 70	LT.	CONCRETE CURB AND GUTTER	800'
122 + 39 - 122 + 70	RT.	CONCRETE CURB AND GUTTER	56'

STANDARD PLATES	
PLATE NO.	DESCRIPTION
0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES (1978)
3000 I	REINFORCED CONCRETE PIPE
3006 D	GASKET JOINT FOR R. C. PIPE
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133 A	RIPRAP FOR R.C.P. OUTLETS
3145 C	CONCRETE PIPE TIES
4000 I	MANHOLE OR CATCH BASIN
4002 E	MANHOLE OR CATCH BASIN
4005 K	MANHOLE OR CATCH BASIN
4006 K	MANHOLE OR CATCH BASIN
4010 F	CONCRETE SHORT COME AND ADJUSTING RING
4011 D	PRECAST CONCRETE BASE
4101 C	RING CASTING FOR MANHOLE OR CATCH BASIN
4110 D	COVER CASTING FOR MANHOLE
4126 E	CATCH BASIN FRAME CASTING
4149 C	GRATE CASTING FOR CATCH BASIN
4161 F	CURB BOX CASTING FOR CATCH BASIN
4180 G	MANHOLE OR CATCH BASIN STEP
7035 J	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
7036 C	PEDESTRIAN CURB RAMP
7100 F	CONCRETE CURB AND GUTTERS
7110 E	CURB AND GUTTER CONSTRUCTION AT CATCH BASIN
7111 F	INSTALLATION OF CATCH BASIN CASTINGS
8000 H	STANDARD BARRICADES
8003 B	BREAKAWAY SIGN SUPPORT (PLASTIC)

SPECIAL DETAILS

INPLACE TOPSOIL SHALL BE SALVAGED AND USED TO THE FULLEST
EXTENT POSSIBLE PRIOR TO THE USE OF TOPSOIL BORROW ON AREAS
DISTURBED BY CONSTRUCTION OPERATIONS. SALVAGE OF INPLACE
TOPSOIL FOR USE IN TURF ESTABLISHMENT SHALL BE CONSIDERED TO
BE INCIDENTAL TO COMMON EXCAVATION AND NO DIRECT COMPENSATION
WILL BE MADE THEREFOR.

DISPOSAL OF ANY EXCESS EXCAVATED MATERIAL SHALL BE THE
RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN
ACCORDANCE WITH THE PROVISIONS OF 8104.

SIDEWALK REMOVAL		
STATION	LOCATION	SQ. FT.
80+28 - 82+38	27'-33' RT.	1296
82+58 - 84+87	27'-33' RT.	1492
81+36 - 81+57	18'-27' LT.	170
84+67 - 84+86	18'-46' LT.	466
85+25 - 87+50	27'-33' RT.	1520
85+25 - 87+55	25'-31' LT.	1604
87+74 - 89+94	27'-32' RT.	1511
87+77 - 89+94	26'-32' LT.	1362
90+29 - 92+85	26'-32' RT.	1621
90+29 - 92+85	27'-33' LT.	1651
93+03 - 95+61	26'-32' RT.	1656
93+03 - 95+61	26'-32' LT.	1632
95+91 - 99+07	26'-32' RT.	2023
95+91 - 99+08	26'-32' LT.	2172
99+38 - 102+04	26'-32' RT.	1696
103+56 - 108+00	15'-33' RT.	2682
108+58 - 114+25	27'-31' RT.	2268
114+74 - 116+44	27'-31' RT.	680
116+76 - 121+93	26'-30' RT.	2068
TOTAL=		29,570

ADJUST WATER GATE HOUSING

STATION	LOCATION
1. 81 + 07	15' RT.
2. 81 + 47	15' RT.
3. 84 + 99	23' RT.
4. 85 + 15	21' RT.
5. 85 + 25	20' RT.
6. 85 + 33	37' LT.
7. 90 + 21	13' RT.
8. 90 + 25	16' RT.
9. 90 + 28	9' RT.
10. 95 + 66	12' RT.
11. 99 + 33	22' RT.
12. 104 + 50	22' RT.
13. 109 + 58	21' RT.
14. 113 + 24	11' RT.

CLEARING AND GRUBBING			
STATION (TO STATION)	LOC.	CLEARING TREE	GRUBBING TREE
80 + 69	22' RT.	1	1
80 + 99	22' RT.	1	1
82 + 66	23' RT.	1	1
82 + 99	22' RT.	1	1
83 + 24	21' RT.	1	1
84 + 21	22' RT.	1	1
85 + 34	21' RT.	1	1
85 + 56	22' RT.	1	1
86 + 07	21' RT.	1	1
86 + 22	22' RT.	1	1
86 + 62	22' LT.	1	1
86 + 65	21' RT.	1	1
86 + 83	22' LT.	1	1
87 + 42	21' RT.	1	1
87 + 84	22' RT.	1	1
88 + 12	21' LT.	1	1
88 + 14	22' RT.	1	1
88 + 34	21' LT.	1	1
88 + 46	22' RT.	1	1
90 + 81	23' LT.	1	1
91 + 21	22' RT.	1	1
91 + 41	22' RT.	1	1
91 + 41	23' LT.	1	1
91 + 56	23.2' RT.	1	1
91 + 63	23' LT.	1	1
91 + 85	23' RT.	1	1
92 + 13	23' RT.	1	1
93 + 45	22' RT.	1	1
93 + 62	22' RT.	1	1
94 + 41	24' LT.	1	1
94 + 42	25' RT.	1	1
94 + 70	24' LT.	1	1
96 + 17	23' RT.	1	1
96 + 24	24' LT.	1	1
96 + 39	24' LT.	1	1
96 + 70	22' RT.	1	1
96 + 71	21' LT.	1	1

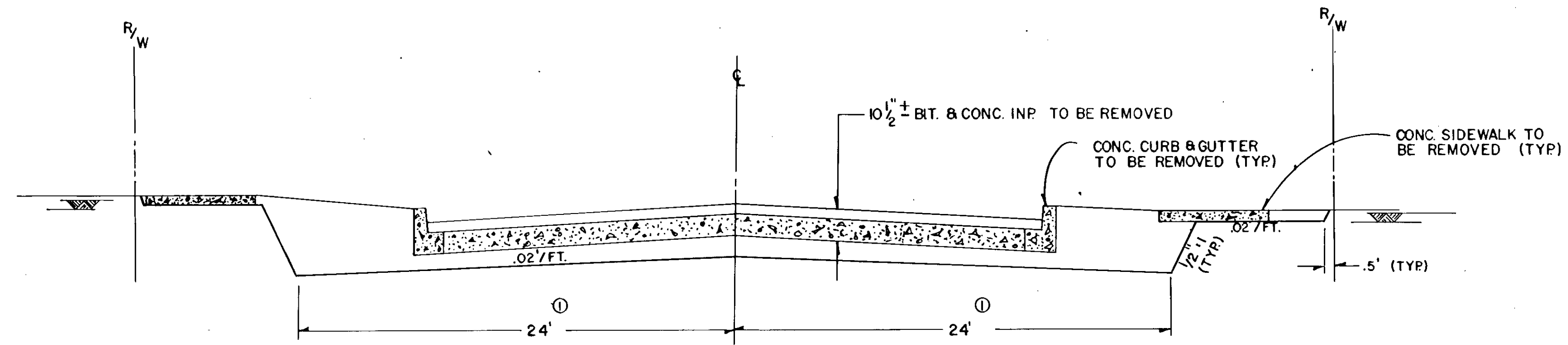
CLEARING AND GRUBBING			
STATION (TO STATION)	LOC.	CLEARING TREE	GRUBBING TREE
97 + 04	21' LT.	1	1
97 + 20	21' LT.	1	1
97 + 44	21' LT.	1	1
97 + 47	21' RT.	1	1
97 + 73	21' LT.	1	1
98 + 00	21' LT.	1	1
98 + 25	21' LT.	1	1
98 + 27	22' RT.	1	1
98 + 62	20' LT.	1	1
98 + 81	22' RT.	1	1
100 + 21	22' RT.	1	1
100 + 51	23.5' RT.	1	1
100 + 70	23.4' RT.	1	1
100 + 89	23' RT.	1	1
117 + 28	17' LT.	1	1
118 + 07	20' RT.	1	1
118 + 47	19' RT.	1	1
118 + 50	18' LT.	1	1
118 + 88	19' RT.	1	1
118 + 89	18' LT.	1	1
119 + 28	18' LT.	1	1
119 + 68	17' LT.	1	1
119 + 68	20' RT.	1	1
120 + 08	17' RT.	1	1
120 + 09	17' LT.	1	1
120 + 47	18' RT.	1	1
120 + 48	18' LT.	1	1
120 + 89	18' RT.	1	1
120 + 90	17' LT.	1	1
121 + 20	18' RT.	1	1
121 + 27	19' RT.	1	1
121 + 29	17' LT.	1	1
122 + 00	17' LT.	1	1
85 + 95	33' LT.	1	1
87 + 80	33' LT.	1	1
93 + 70	33' RT.	1	1
105 + 85	33' RT.	1	1
106 + 15	33' RT.	1	1
TOTAL =		75	75

NOTE: QUANTITIES INCLUDE STREET CROSS GUTTERS

TOTAL = 8,209'

GRADING

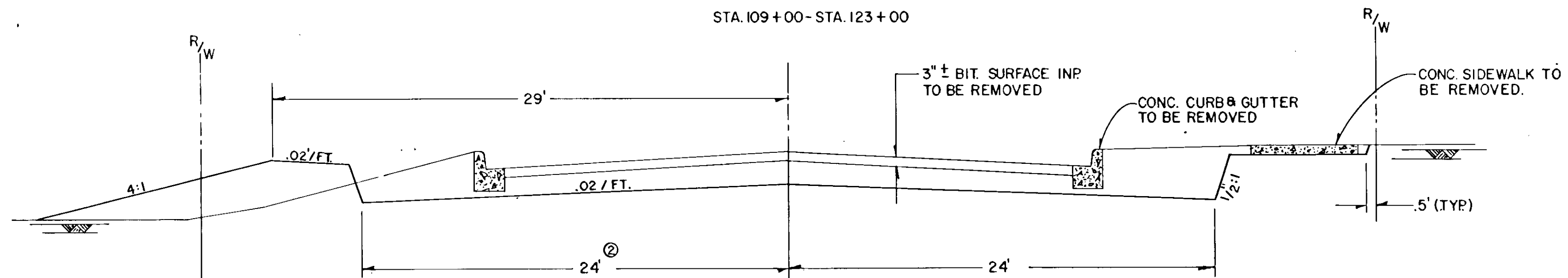
STA. 80+00 - STA. 109+00



① TAPERS FROM 24' TO 17'
 STA. 101+34 TO STA. 102+04
 STA. 103+56 TO STA. 104+26

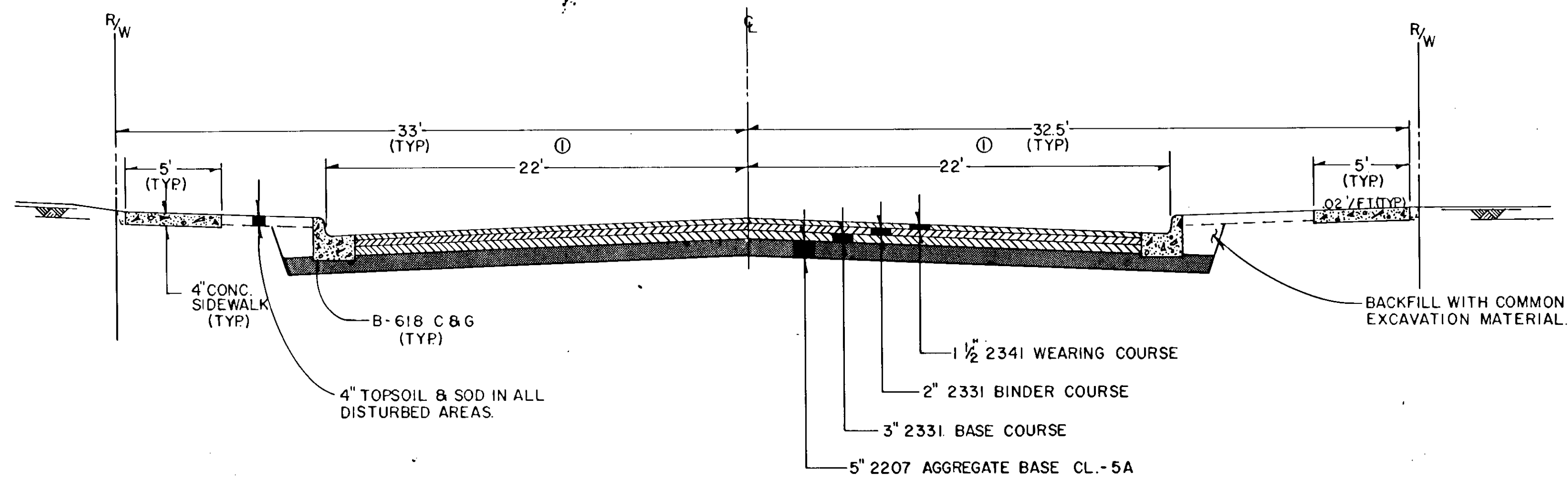
GRADING

STA. 109+00 - STA. 123+00



② TAPERS FROM 24'-14'
 STA. 121+65 TO 122+70

BASE & BITUMINOUS SECTION



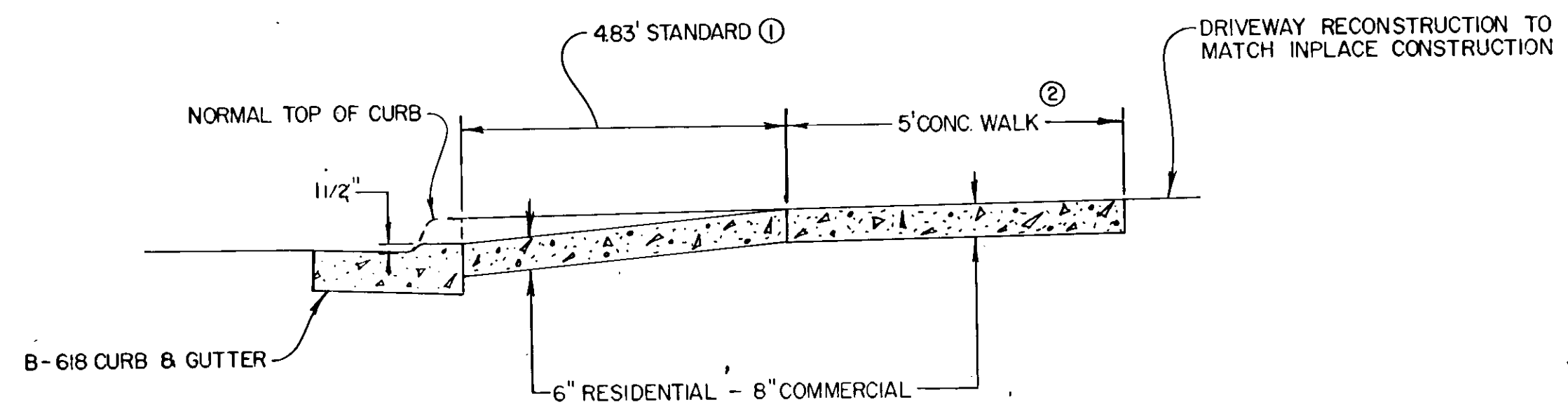
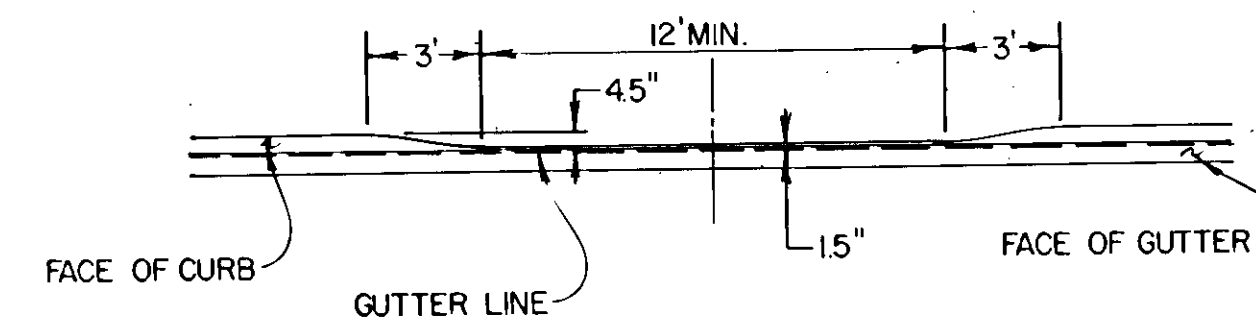
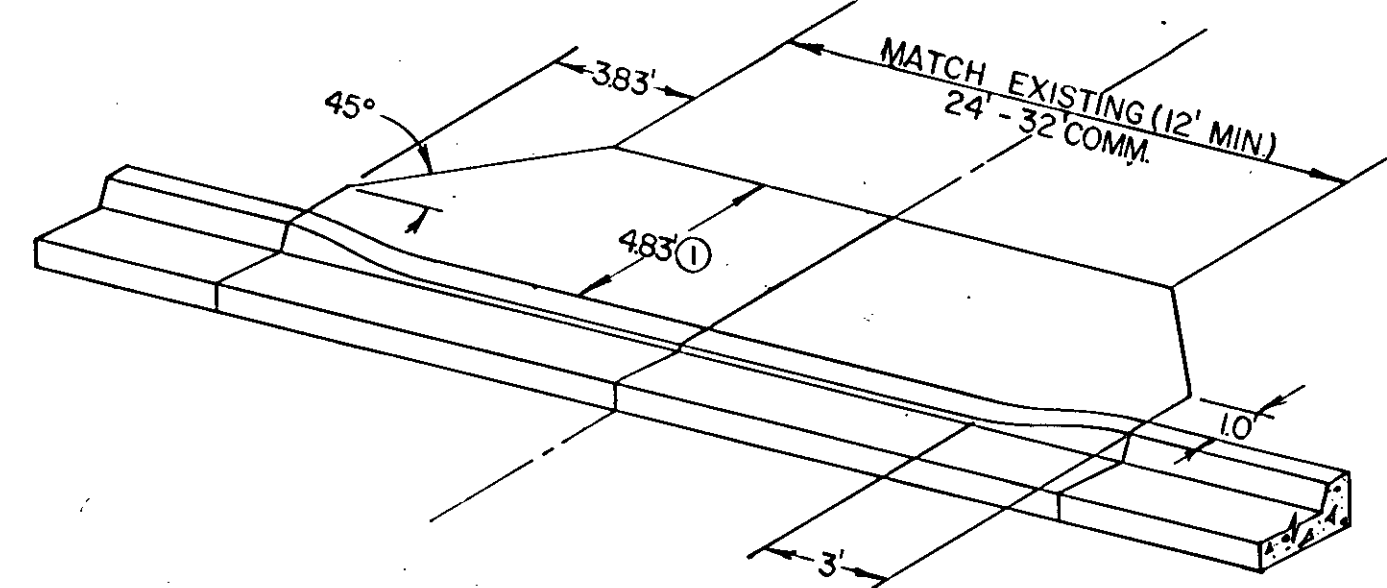
① TAPERS FROM 22' TO 15'
 STA. 101+34 - 102+04 LT. / RT.
 STA. 103+56 - 104+26 LT. / RT.
 TAPERS FROM 22' TO 12'
 STA. 121+65 - STA. 122+70 LT.

DRIVEWAY CONSTRUCTION

STATION	ADDRESS	REMARKS	REMOVE		CONC. DRIVEWAY PAVEMENT				BIT. PVMT.		CL-5 AGG.	
			CONC. SQ.YDS.	BIT. SQ.YDS.	APRON		DRIVEWAY REST.		DRIVEWAY REST. WIDTH	SQ.YDS.	DRIVEWAY REST.	
					WIDTH	SQ. YDS. 6" 8"	WIDTH	SQ. YDS. 6" 8"			WIDTH	CU.YDS. INPLACE
81+25 LT.		CONC. APRON TO REMAIN INPLACE										
81+36 RT.		COMMERCIAL ENTRANCE	34 ①	8 ②	24'	15.3			24'	8		
81+69 LT.	PARKING RAMP	COMMERCIAL ENTRANCE	24 ①		20'	13.1						
93+74 RT.	# 402				12'	8.9					12'	1.0
96+40 RT.	# 403		4 ②	23 ①	16'	11.0	16'	4			12'	1.0
88+62 RT.	# 2224			18 ①	12'	3.9						
88+94 LT.	# 2231		3 ②	14 ①	12'	3.9	12'	3				
91+49 LT.	# 2303		16 ①	3 ②	12'	8.9			12'	3		
91+74 LT.	# 2317		16 ①		14'	9.9					14'	1.0
92+05 RT.	# 2310			16 ①	12'	3.9					12'	1.0
93+82 RT.	# 2332			18 ①	12'	8.9						
94+07 LT.	# 2333		3 ②	18 ①	12'	8.9	12'	3				
94+34 RT.	# 2336		2 ②	16 ①	12'	8.9	10'	2				
97+36 RT.	# 2408	NO ENT. NEEDED		16 ①								
98+15 LT.		NO ENT. NEEDED	14 ①									
100+15 LT.		COMMERCIAL ENTRANCE			24'	15.3					24'	2.0
100+41 RT.		NO ENT. NEEDED	16 ①									
100+80 RT.	# 2516	COMMERCIAL ENTRANCE	16 ①	3 ②	24'	15.3			24'	8		
100+89 LT.		COMMERCIAL ENTRANCE	14 ①		24'	15.3					24'	2.0
101+30 LT.		COMMERCIAL ENTRANCE			24'	15.3						
104+61 RT.			16 ①	3 ②	24'	15.3			24'	8		
105+03 RT.	# 26112		18 ①		12'	3.9					12'	1.0
105+67 RT.	# 2616		3 ②	16 ①	12'	8.9	10'	3				
106+47 LT.		COMMERCIAL ENTRANCE		80 ①②	32'	19.5			32'	21		
107+08 LT.		COMMERCIAL ENTRANCE		50 ①②	28'	17.4			28'	19		
107+84 LT.		COMMERCIAL ENTRANCE		57 ①②	32'	19.5			32'	21		
109+08 RT.		COMMERCIAL ENTRANCE		27 ①	24'	15.3					24'	2.0
110+24 LT.		COMMERCIAL ENTRANCE	12 ①	32 ②	24'	15.3			24'	16		
116+98 RT.		COMMERCIAL ENTRANCE		22 ①②	14'	9.9			14'	5		
111+01 LT.		COMMERCIAL ENTRANCE	12 ①	32 ②	24'	15.3			24'	16		
111+55 RT.	# 2714			25 ①②	14'	9.9			14'	5		
TOTALS =			223	497		119.8 217.1		15		130		14.0

- ① APRON
- ② DRIVEWAY

CONCRETE APRON DETAIL



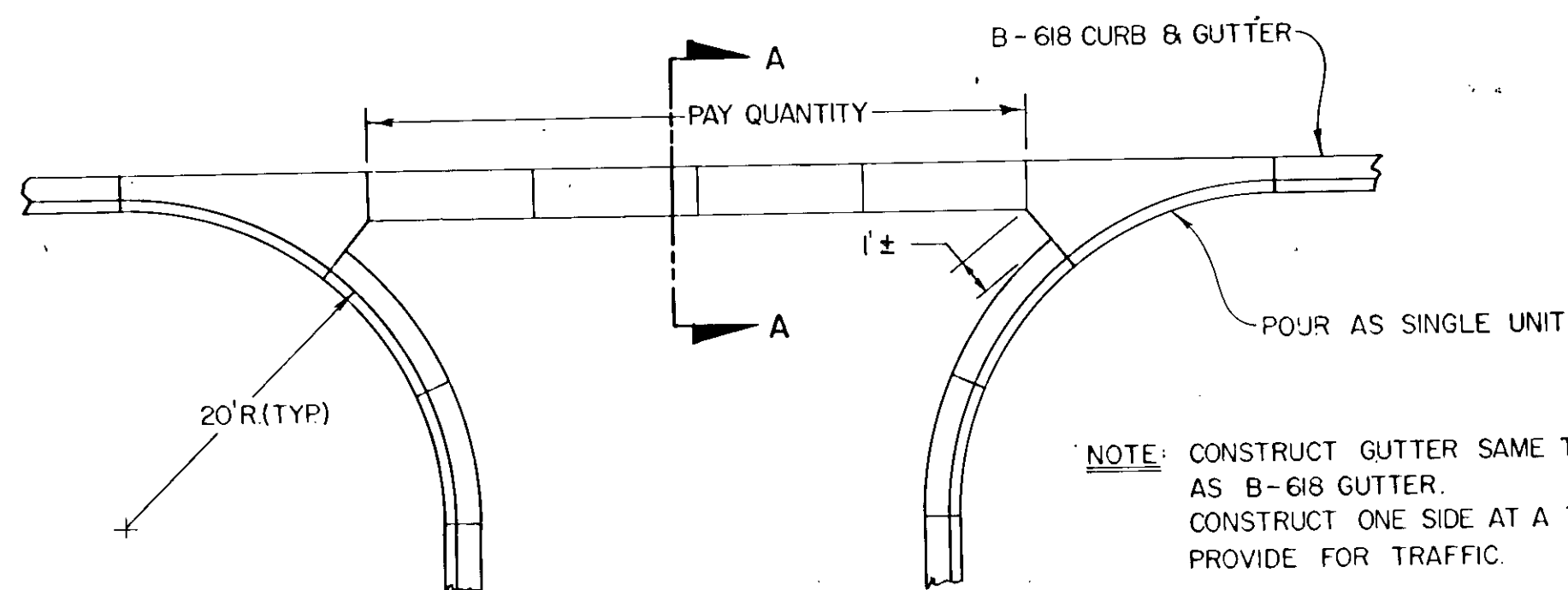
- ① IN SIDEWALK AREAS CONST. CONC. APRON TO MATCH SIDEWALK.
- ② IN AREAS WHERE THERE IS NO SIDEWALK THE APRON SHOULD BE CONSTRUCTED TO MATCH EXISTING DRIVEWAY GRADES.

NOTE: ALSO SEE STD. PLATE NO. 7035 J

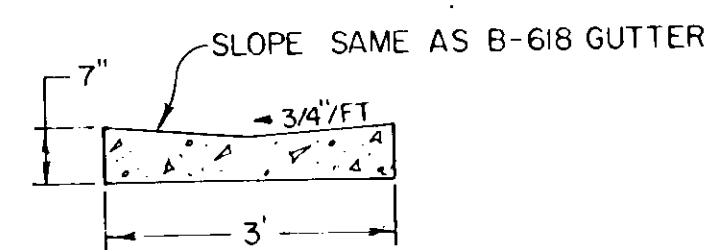
CROSS GUTTER DETAIL

LOCATION

STA. 82+48.85 RT.
STA. 87+63.58 LT. & RT.
STA. 92+93.64 LT. & RT.

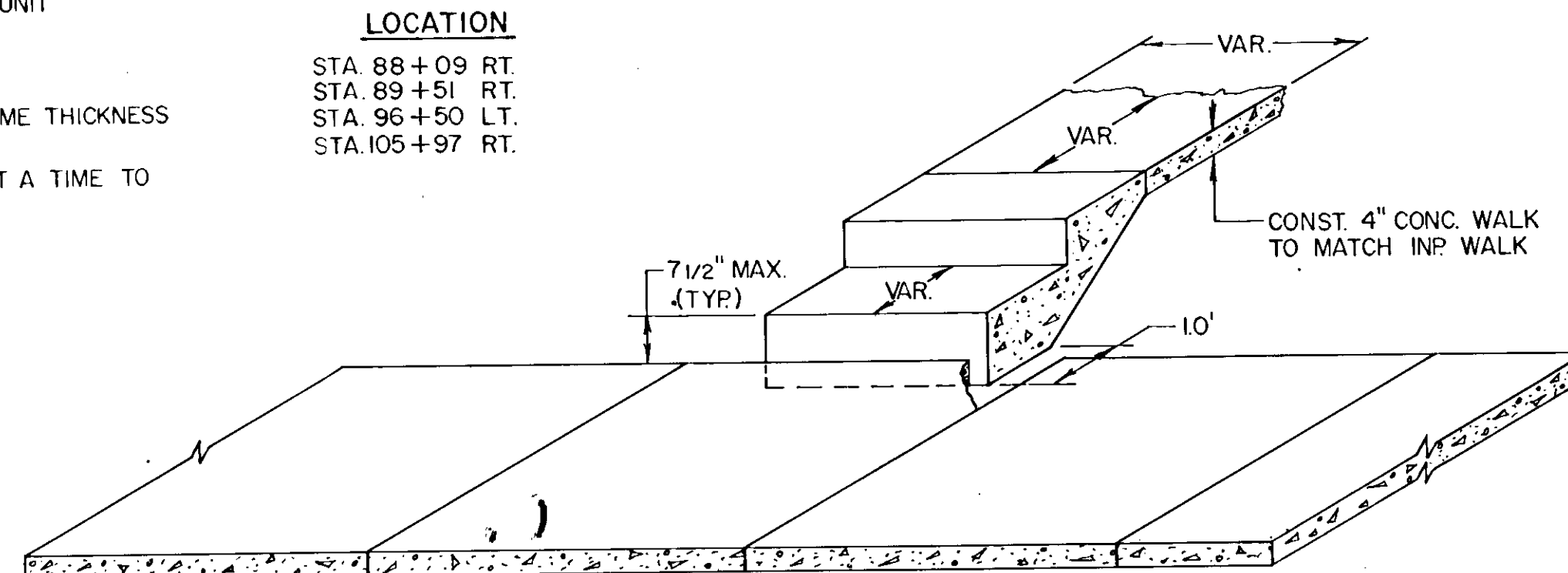


NOTE: CONSTRUCT GUTTER SAME THICKNESS AS B-618 GUTTER. CONSTRUCT ONE SIDE AT A TIME TO PROVIDE FOR TRAFFIC.



SECTION A-A

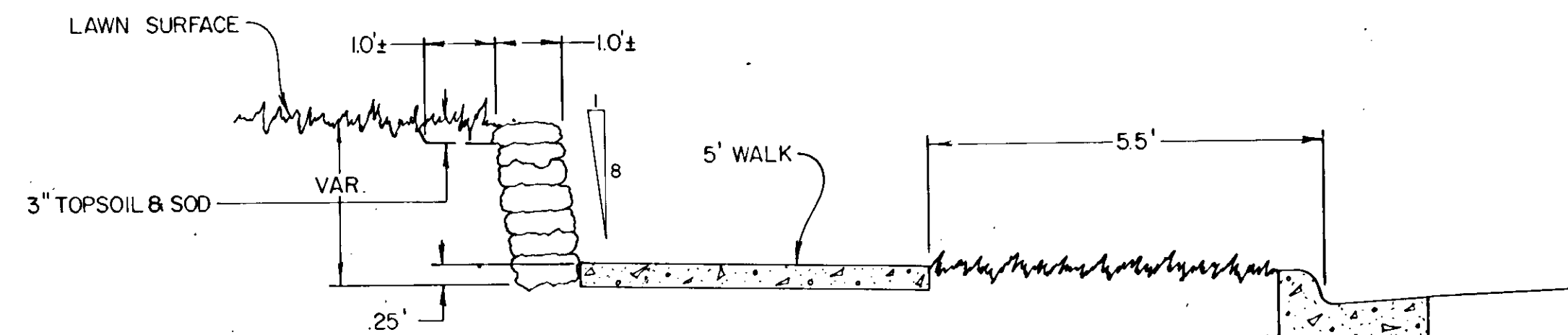
CONCRETE STEP DETAIL



NOTE: STEP CONSTRUCTION TO MATCH SLOPE OF EXISTING YARD. NUMBER OF STEPS VARIABLE. STEP REMOVAL SHALL BE CONSIDERED AS INCIDENTAL TO STEP CONST. & NO ADDITIONAL COMPENSATION SHALL BE MADE.

RETAINING WALL DETAIL

STA. 89+34 TO STA. 89+81 RT.



MORTAR ALL EXCEPT LOWER 2 COURSES (INCIDENTAL TO STONE MASONRY RETAINING WALL)

RANDOM COURSED DRY RUBBLE MASONRY (LANNON STONE QUARRY FACED)

STORM SEWER SYSTEM

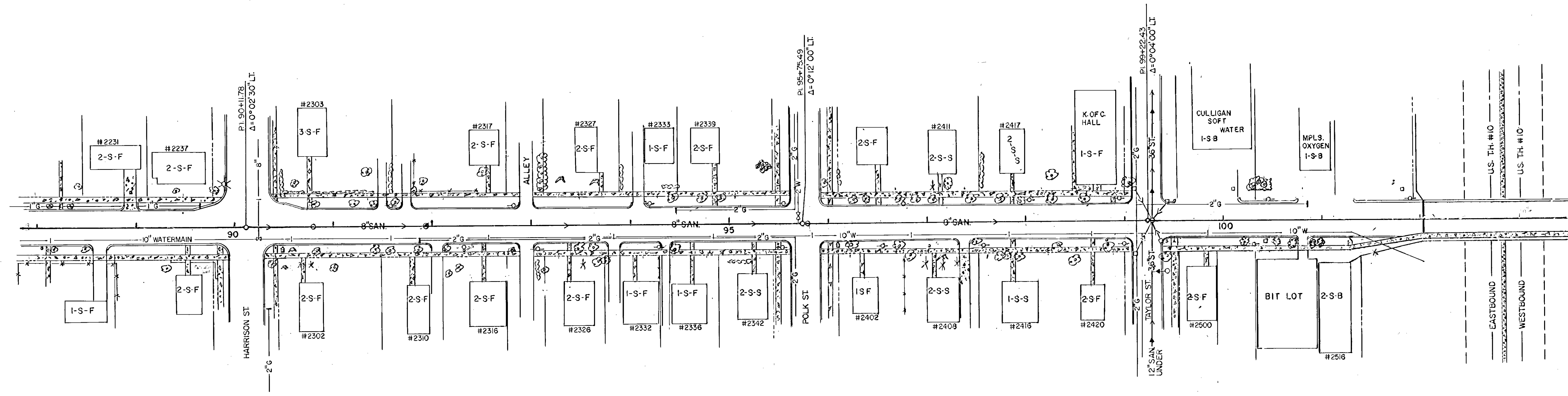
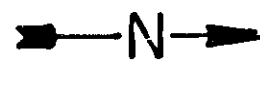
NO	STATION	LOCATION	REMARKS	TYPE	DESIGN	LIN. FT.	REMOVE SEWER PIPE	TOP	INVERT	F&I CASTING ASSEMBLY	DRAINS TO	F&I RC. PIPE					
												12"	15"	18"	30"		
1.	80+54	1' LT.	SALVAGE CAST., REMOVE MH.	MH.			6'		872.24		MH. INPL.				20'		
2.	80+60	10' LT.	ADJ. CASTING <i>reconstruct</i>	MH.		5.3					MH. 1						
3.	80+64	16' LT.	SALVAGE CAST., REMOVE C.B.	C.B.		6.3	7'				MH. 2						
4.	80+64	20.9' LT.		C.B.	C OR G	4.2'		877.46	873.2	B	MH. 2A	1'					
5.	80+64	16' RT.	SALVAGE CAST., REMOVE C.B.	C.B.			20'				MH. 1						
6.	80+64	20.9' RT.		C.B.	C OR G	4.1'		877.46	873.14	B	MH. 2A	3'					
7.	81+31	10' LT.	ADJ. CASTING	MH.							MH. 2						
8.	82+17	10' LT.	ADJ. CASTING	MH.							MH. 7						
9.	82+17	16' LT.	SALVAGE CAST., REMOVE C.B.	C.B.			6'				MH. 8						
10.	82+17	20.9' LT.	INSTALL CASTING FROM #9	C.B.	C OR G	4.7'		877.72	873.86		MH. 8	11'					
11.	83+02	1' LT.	SALVAGE CASTING, REMOVE MH.	MH.			248'				MH. 1						
12.	84+34	9' LT.	ADJ. CASTING <i>reconstruct</i>	MH.		4.0					MH. 8						
13.	85+55	9' LT.		MH.	C OR G	4.7'		878.70	874.07	A	MH. 12		12'				
14.	85+54	1'	SALVAGE CAST., REMOVE MH.	MH.			252'				MH. 11						
15.	85+58	16' LT.	REMOVE C.B.	C.B.			16'										
16.	85+59	20.9' LT.		C.B.	C OR G	3.9'		878.3	874.28	B	MH. 13	13'					
17.	85+58	16' RT.	REMOVE C.B.	C.B.			16'										
18.	85+59	20.9' RT.		C.B.	H	3.7'		878.3	874.45	B	MH. 13	30'					
19.	99+23	1'	ADJ. CASTING	MH.							MH. INPL.						
20.	98+83	20.9' RT.		C.B.	A OR F	5.3'		875.32	869.85	B	MH. 19	45'					
21.	99+08	35' RT.	REMOVE C.B.	C.B.			38'				MH. 19						
22.	99+40	19' RT.	REMOVE C.B.	C.B.			25'				MH. 19						
23.	99+62	20.9' RT.		C.B.	A OR F	5.0'		875.15	869.94	B	MH. 19	44'					
24.	98+83	20.9' LT.		C.B.	A OR F	5.3'		875.32	869.85	B	MH. 19	45'					
25.	99+08	32' LT.	REMOVE C.B.	C.B.			35'				MH. 19						
26.	99+43	21' LT.	REMOVE C.B.	C.B.			29'				MH. 19						
27.	99+62	20.9' LT.		C.B.	A OR F	5.0'		875.15	869.94	B	MH. 19	44'					
28.	05+80	20.9' LT.		C.B.	A OR F	5.8'		870.26	864.28	B	MH. 29	23'					
29.	06+02	16' LT.	REMOVE C.B. STRUCT., CONST. MH	MH.	A OR F	6.3		869.99	863.80	A	15" RCP INPL.						
30.	106+54	16' RT.	REMOVE C.B.	C.B.			62'				MH. 29						
31.	106+54	20.9' RT.		C.B.	C OR G	4.3		869.19	864.69	B	MH. 29	64'					
32.	108+58	20.9' LT.		C.B.	C OR G	4.7		867.67	863.44	B	MH. 33	123'					
33.	109+81	15' LT.		MH.	C OR G	4.9		867.48	862.77	A	MH. 37		44'				
34.	109+77	20.9' LT.		C.B.	C OR G	3.9		867.17	863.07	B	MH. 33	7'					
35.	109+68	20.9' RT.		C.B.	H	3.6'		867.12	863.38	B	MH. 33	38'					
36.	109+60	20.9' RT.		C.B.	H	3.4'		867.07	863.46	B	C.B. 35	8'					
37.	110+25	15' LT.		MH.	A OR F	5.8'		867.74	862.00	A	MH. 38		127'				
38.	1+42	3' LT.	15" RCP APRON & RIP RAP	MH.	A OR F	9.2'		858.06	848.93	A	RIVER		128'				
39.	119+06	15' RT.	REMOVE C.B.	C.B.			30'										
40.	119+06	15' LT.	REMOVE C.B.	C.B.			18'										
41.	119+25	20.9' LT.		C.B.	C OR G	4.3		868.98	864.67	B	C.B. 44	42'					
42.	119+25	20.9' RT.		C.B.	C OR G	4.6		868.98	864.00	B	MH. 45	19'					
43.	119+25	40' RT.		MH.	A OR F	11.8		869.50	858.50	A	30" RCP INPL.					264'	
TOTALS =							818'				22		580'	439'	20'	264'	
① SEWER SURVEY ALIGNMENT LT. STA. 110+28.65																	

STA.	LOC.	TYPE
1. 80+43	1' RT.	MH.
2. 80+60	10' LT.	MH.
3. 81+31	10' LT.	MH.
4. 82+17	10' LT.	MH.
5. 84+34	9' LT.	MH.
6. 90+82	1' RT.	MH.
7. 91+94	1' RT.	MH.
8. 95+76	1' RT.	MH.
9. 99+23	1' RT.	MH.
10. 103+86	4' RT.	MH.
11. 109+43	25' LT.	MH.
12. 109+66	5' RT.	MH.
13. 110+54	31' LT.	MH.
14. 114+00	31' LT.	MH.
15. 116+60	31' LT.	MH.
16. 120+03	14' LT.	MH.
17. 122+11	45' RT.	MH.
18. 122+17	14' LT.	MH.
19. 122+21	9' RT.	MH.
20. 122+22	60' RT.	MH.
109+45	23' LT.	MH.
109+30	23' LT.	MH.
109+35	50' LT.	M.H.

ASSEMBLY	ITEM	CASTING NUMBER	QUANTITY
A	FRAME	700-7	
A	COVER	712	6
B	FRAME	801	
B	GRATE	810	16
B	CURB BOX	821 B	

STATION	LOCATION	LIN. FT.	REMARKS
80+43	16' RT.	5.2'	REMOVED
83+02	1' LT.	4.9'	SAN. SEWER RECONSTRUCT
91+94	1'	8.3'	SAN. SEWER
80+60	10' LT.	6.3	RECONSTRUCT
TOTAL		18.4'	
80+66	10' LT.	5.3	SPAN STRUCT.
81+34	9' LT.	4.0	SPAN STRUCT.

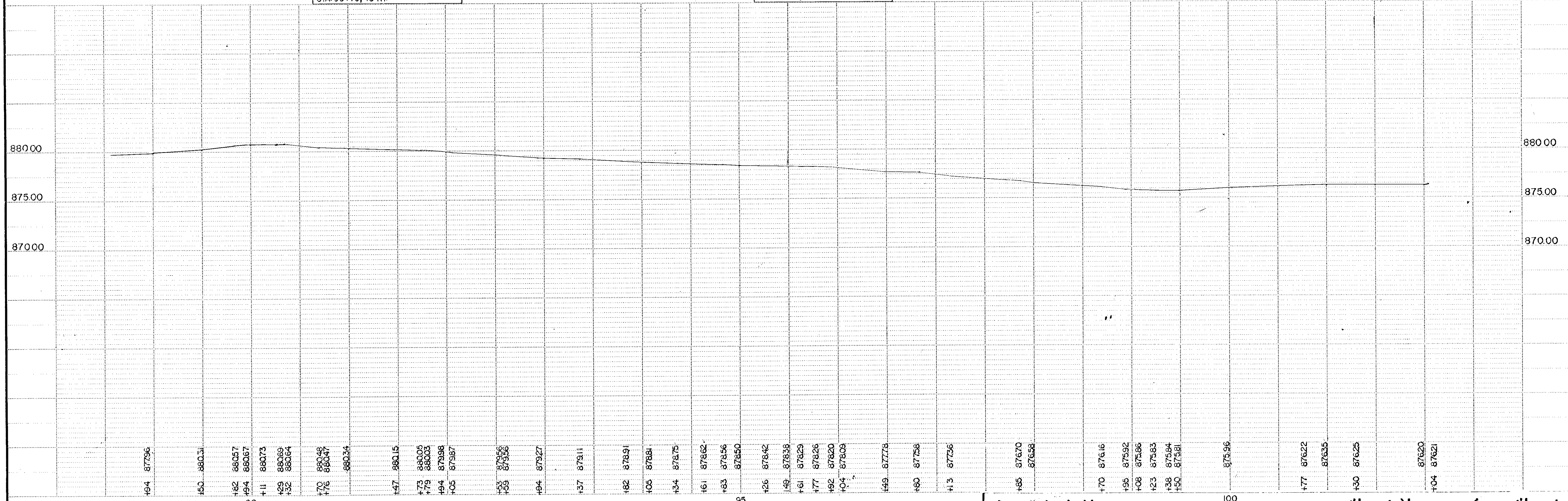
Priority Lines & Sewer Lines Redlined by mns 1/10/05



BENCH MARK #8, ELEV. 881.06
TOP S.W. COR. BOT. STEP HO. #2302
STA. 90+70, 48' RT.

BENCH MARK #9, ELEV. 879.90
TOP N.W. COR. TOP STEP HO. #2342
STA. 95+20, 44' RT.

BENCH MARK #10, MHD B.M. #0215-C
BRASS PLUG IN TOP S.E. CORNER OF WINGWALL
STA. 102+03, 22' RT. ELEV. 876.714



TELETYPE UNIT - SINGLE PLAN - PROFILE - 1/2" = 1' - 1/2" = 1'

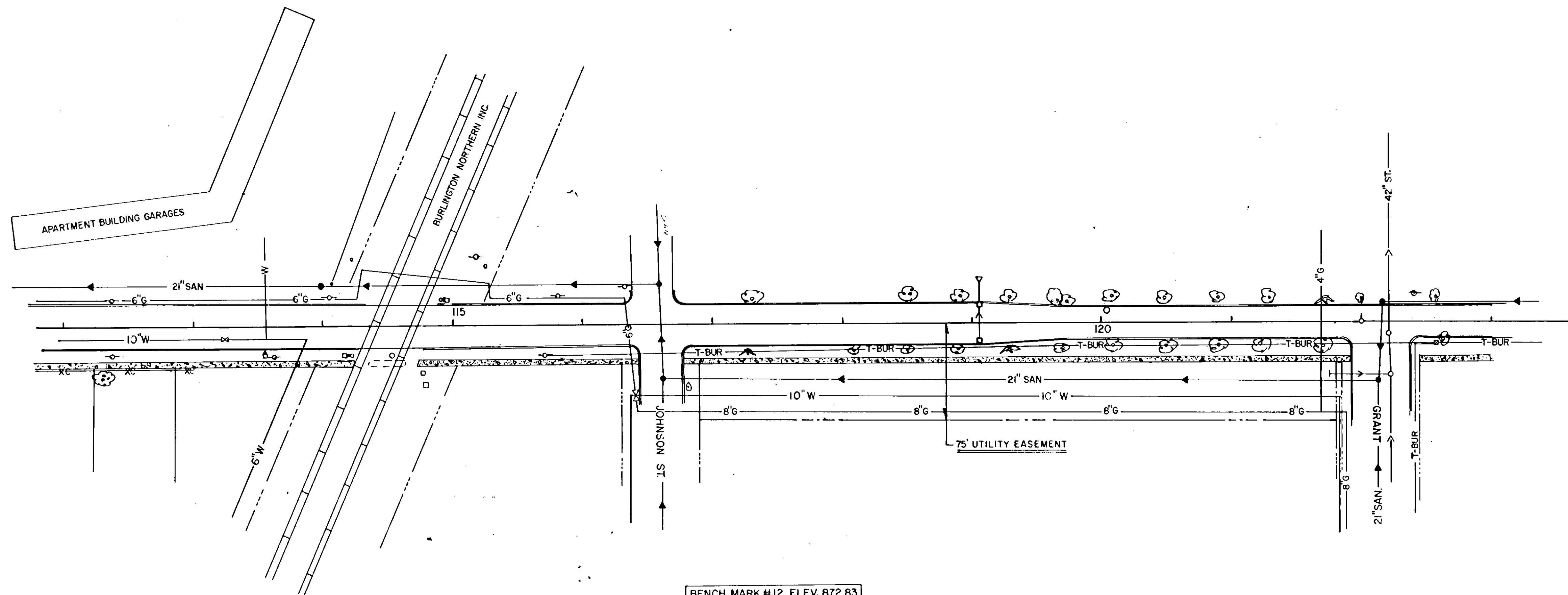
State Proj. No.

SAP 02-631-02 C.T.B.

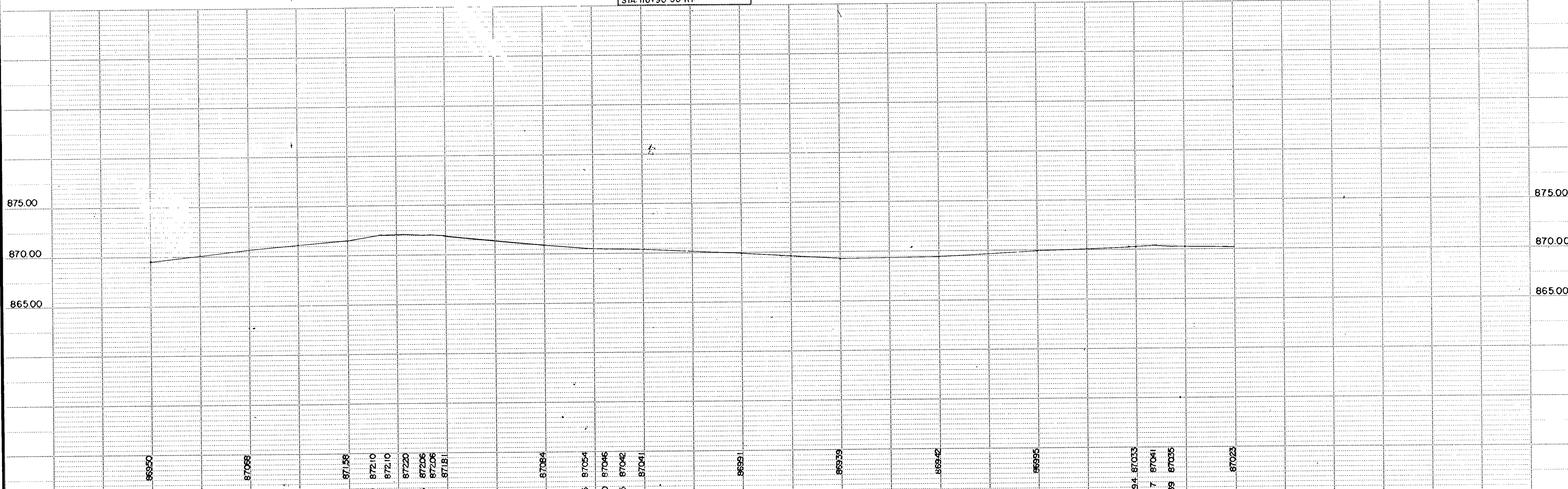
Sheet No. 7 of 29 Sheets

EXISTING

12-53



BENCH MARK #12, ELEV. 872.83
 TOP OF HYDRANT
 STA. 116+90.50 RT

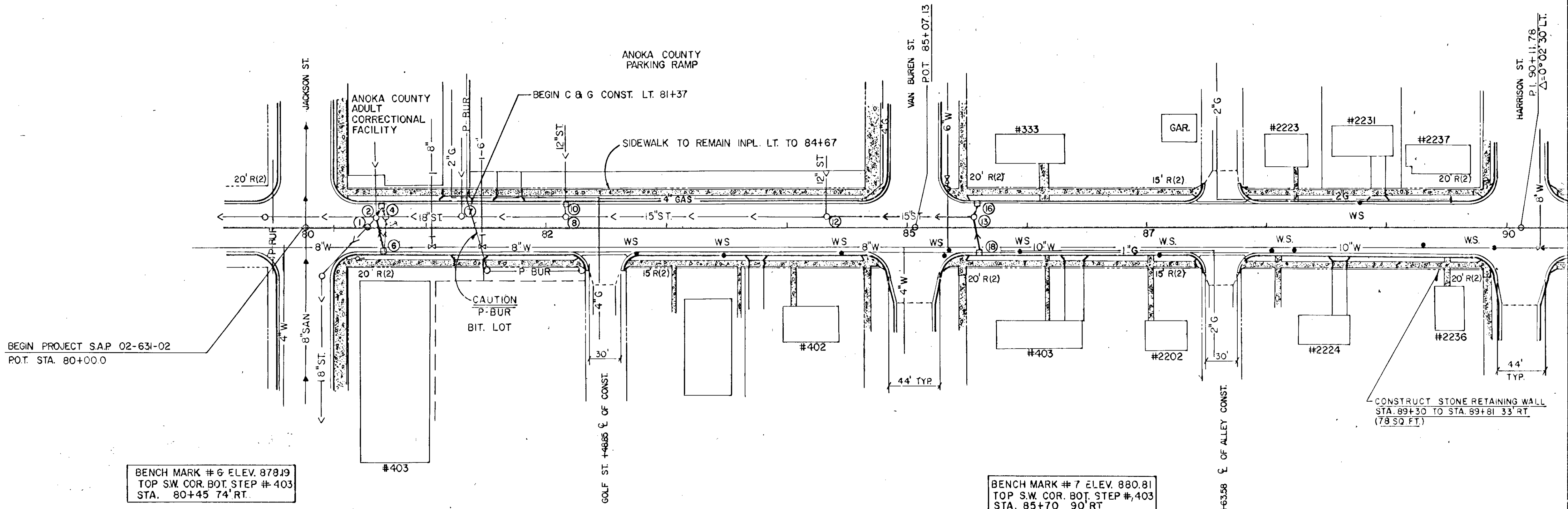
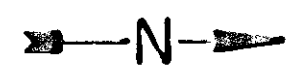


TELETYPE POST - SINGLE PLAN - PROFILE - 10" M

State Proj. No.

SAP 02-631-02 CTB.

Sheet No. 9 of 29 Sheets

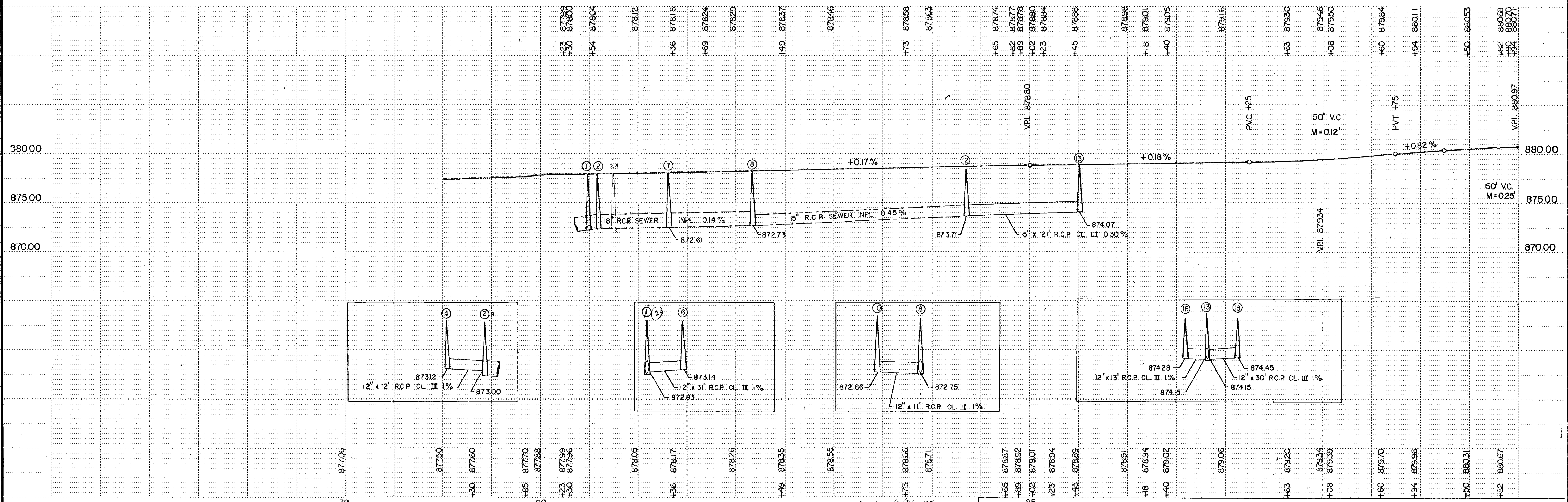


BEGIN PROJECT S.A.P. 02-631-02
P.O.T. STA. 80+00.0

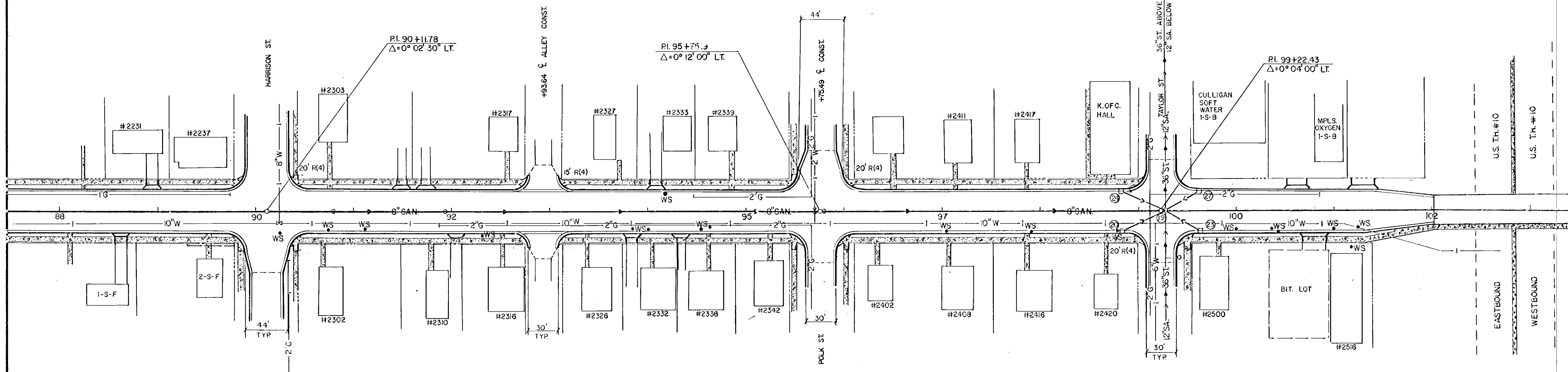
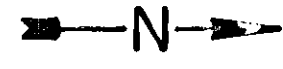
BENCH MARK # 6 ELEV. 878.19
TOP SW. COR. BOT. STEP # 403
STA. 80+45 74' RT.

BENCH MARK # 7 ELEV. 880.81
TOP SW. COR. BOT. STEP # 403
STA. 85+70 90' RT.

CONSTRUCT STONE RETAINING WALL
STA. 89+30 TO STA. 89+81 33' RT.
(78.50 FT.)



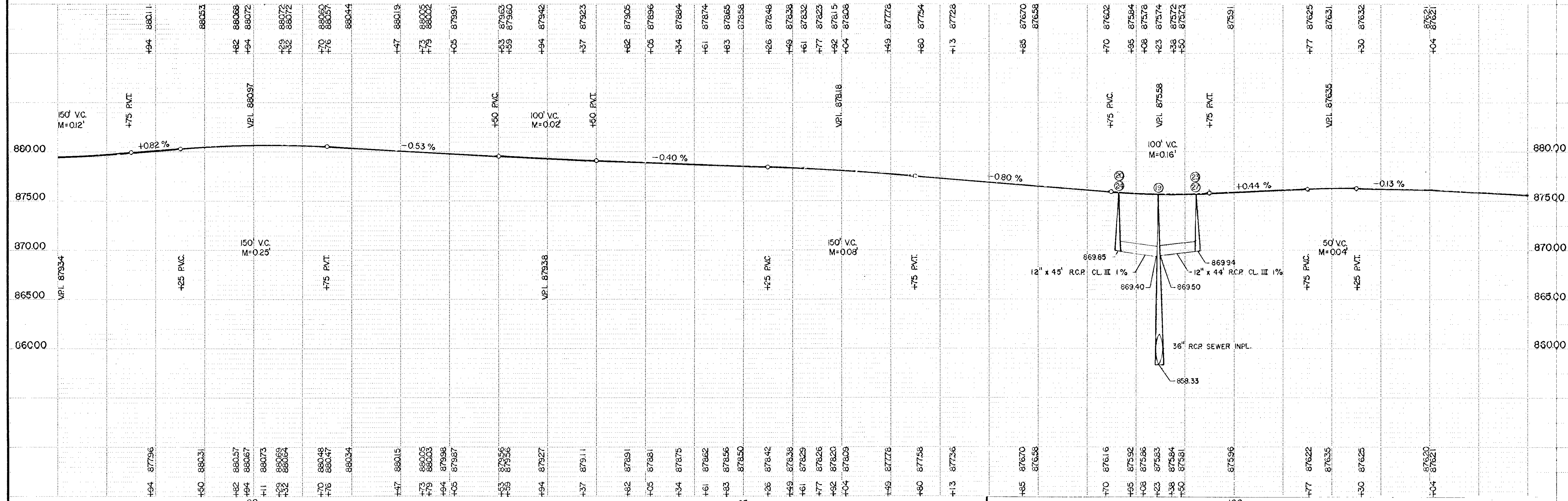
TELLEVIN POST - SINGLE PLAN - PROFILE - 1/2\"/>



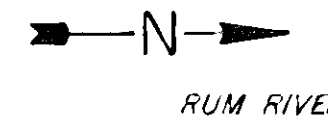
BENCH MARK #8, ELEV. 881.08
TOP S.W. COR. BOT. STEP HO. #2302
STA. 90+70, 48' RT.

BENCH MARK #9, ELEV. 879.90
TOP N.W. COR. TOP STEP HO. #2342
STA. 95+20, 44' RT.

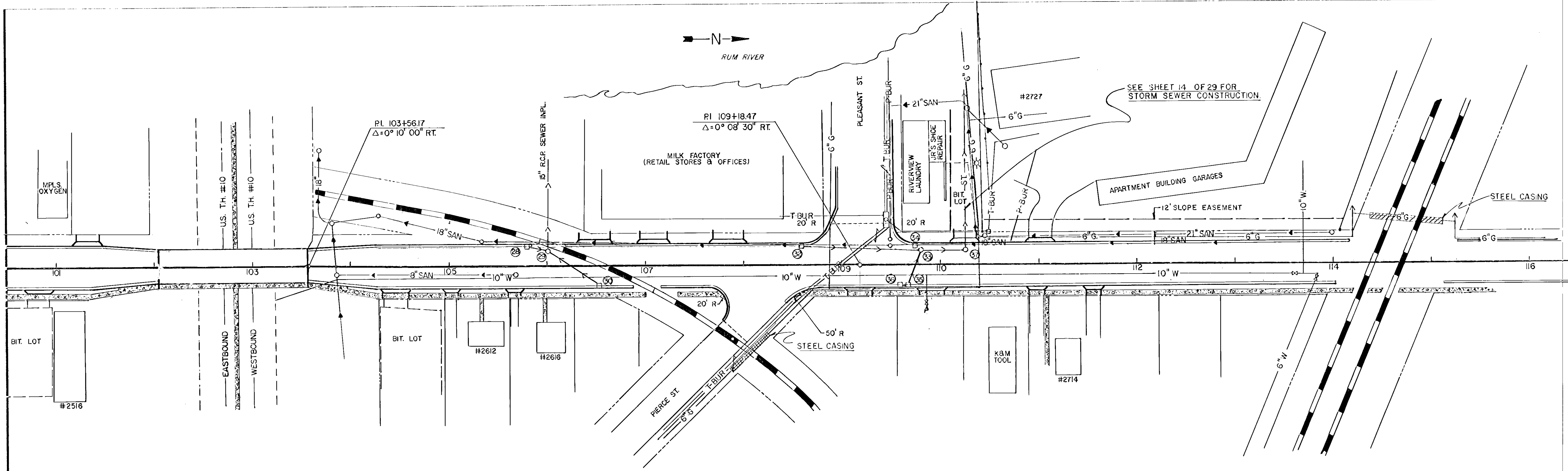
BENCH MARK #10, M.H.D. B.M. #0215-C
BRASS PLUG IN TOP S.E. CORNER OF WINGWALL
STA. 102+03, 22' RT., ELEV. 876.714



TELEPHONE POST - SINGLE PLAN - PROFILE - 10204

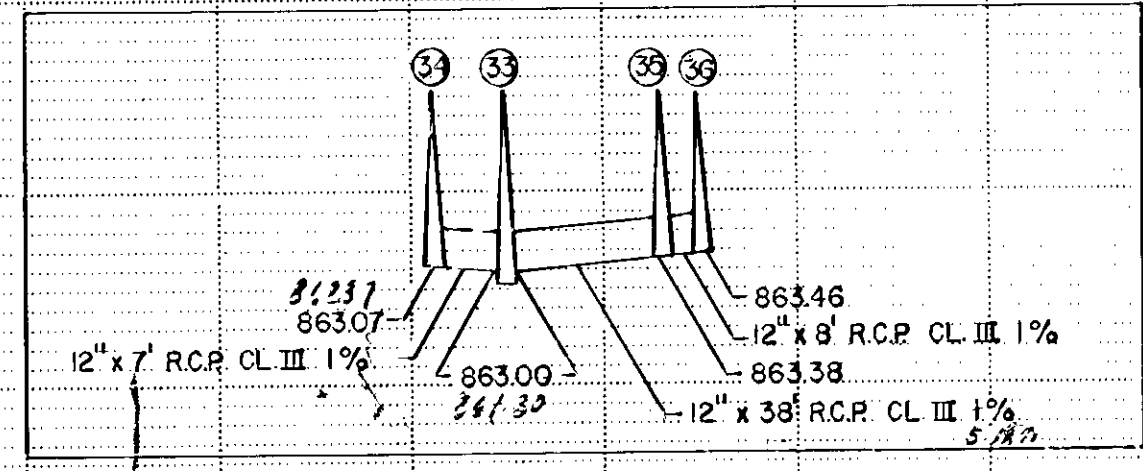
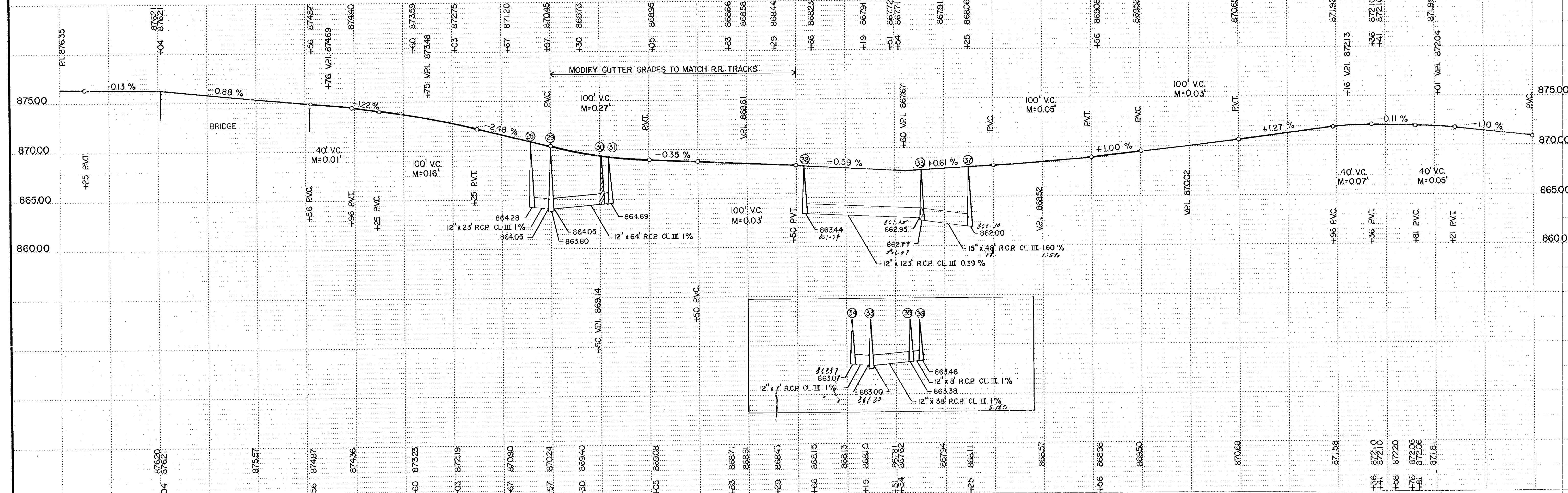


RUM RIVER



SEE SHEET 14 OF 29 FOR STORM SEWER CONSTRUCTION.

BENCH MARK II, ELEV. 869.83
TOP S.E. COR. BOT. STEP (NLY SET)
STA. 107+81, 45' LT.



TELEPHONE POST - SINGLE PLAN - PROFILE - 1/2" = 10' - 1/2" = 10'

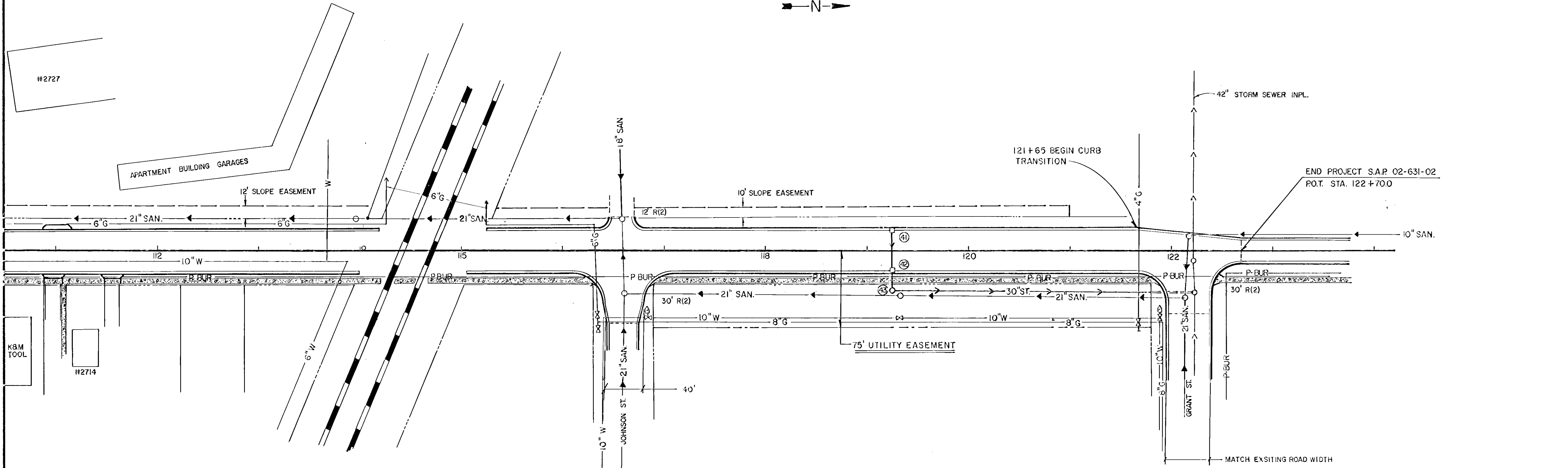
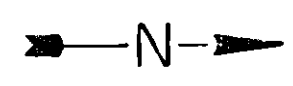
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S.A.P. 02-631-02 CTB.

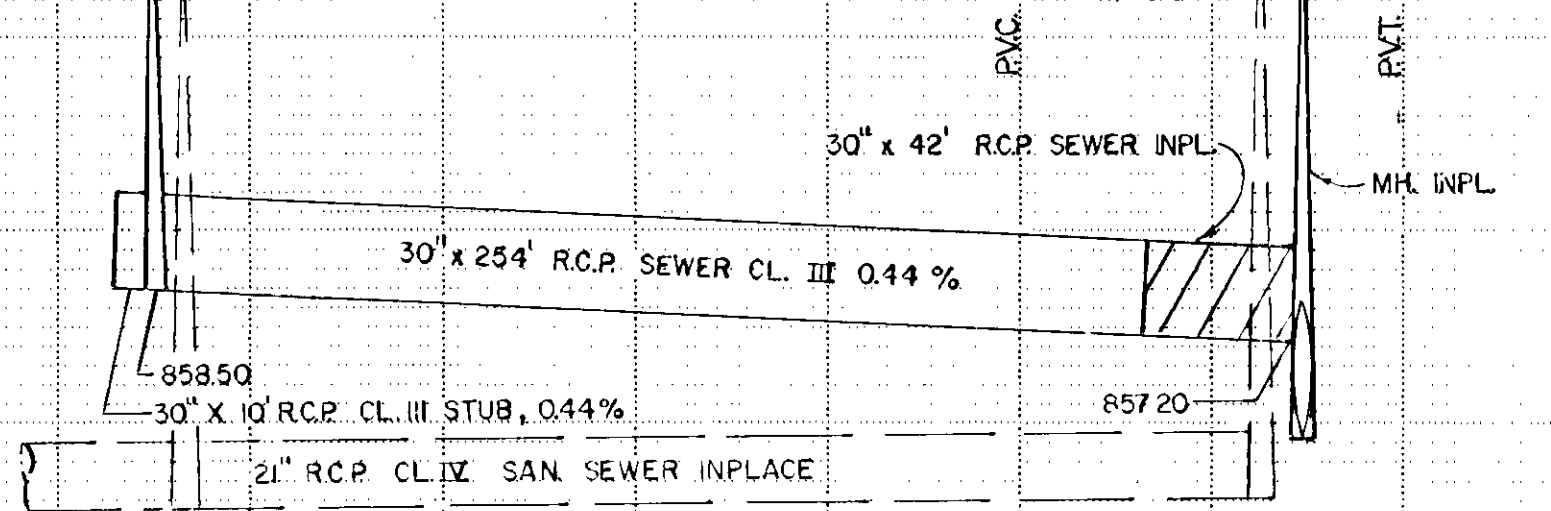
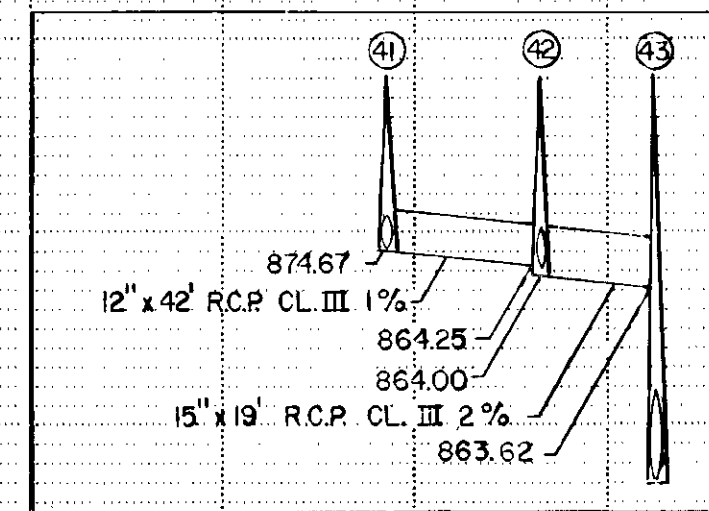
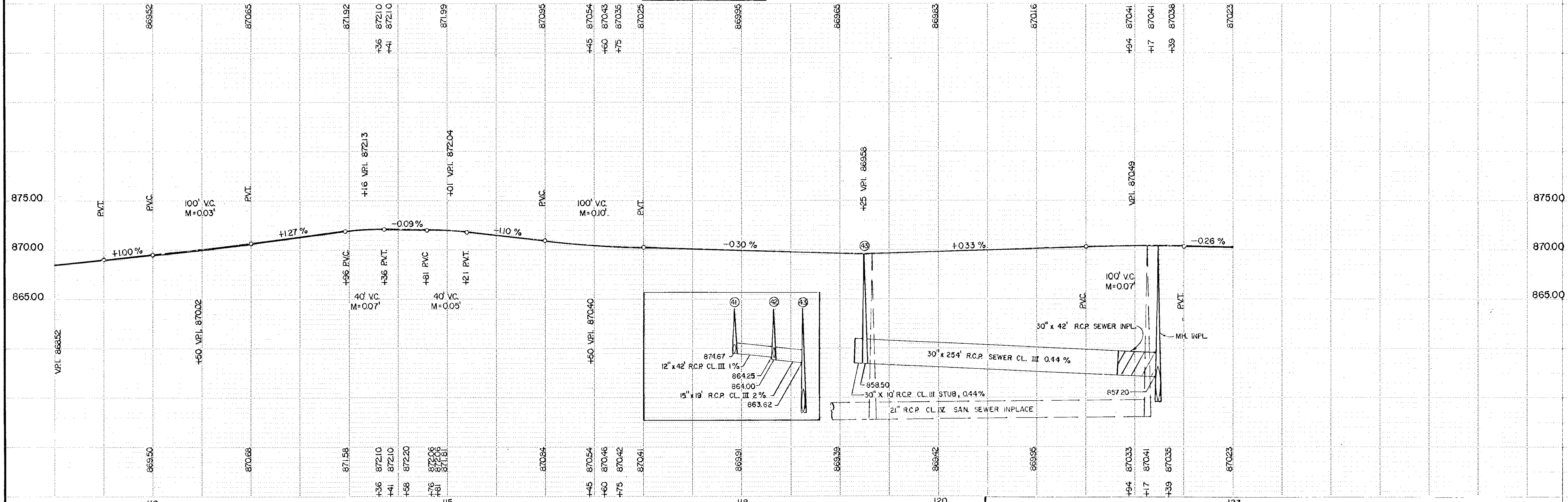
Sheet No. 12 of 29 Sheets

NEW CONSTRUCTION

As shown 12/1/84 JAF



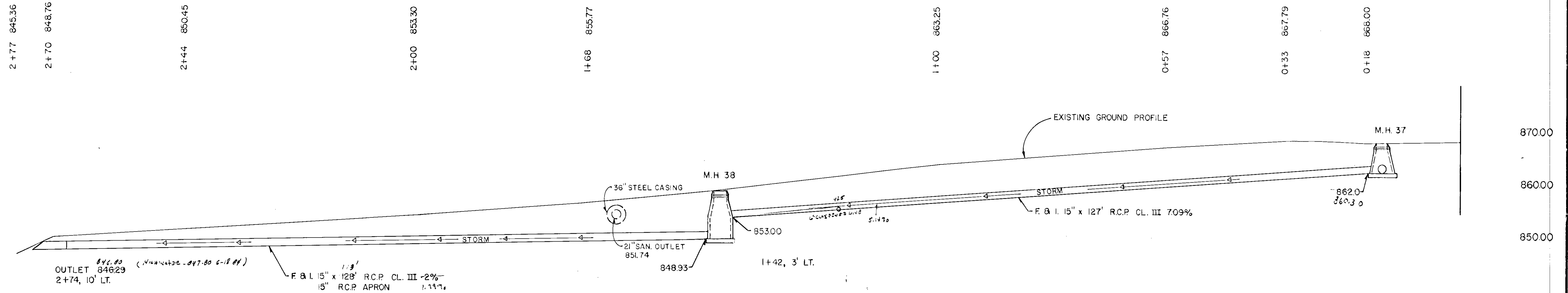
BENCH MARK #12, ELEV. 872.83
TOP OF HYDRANT
STA. 118 + 90 50' RT.



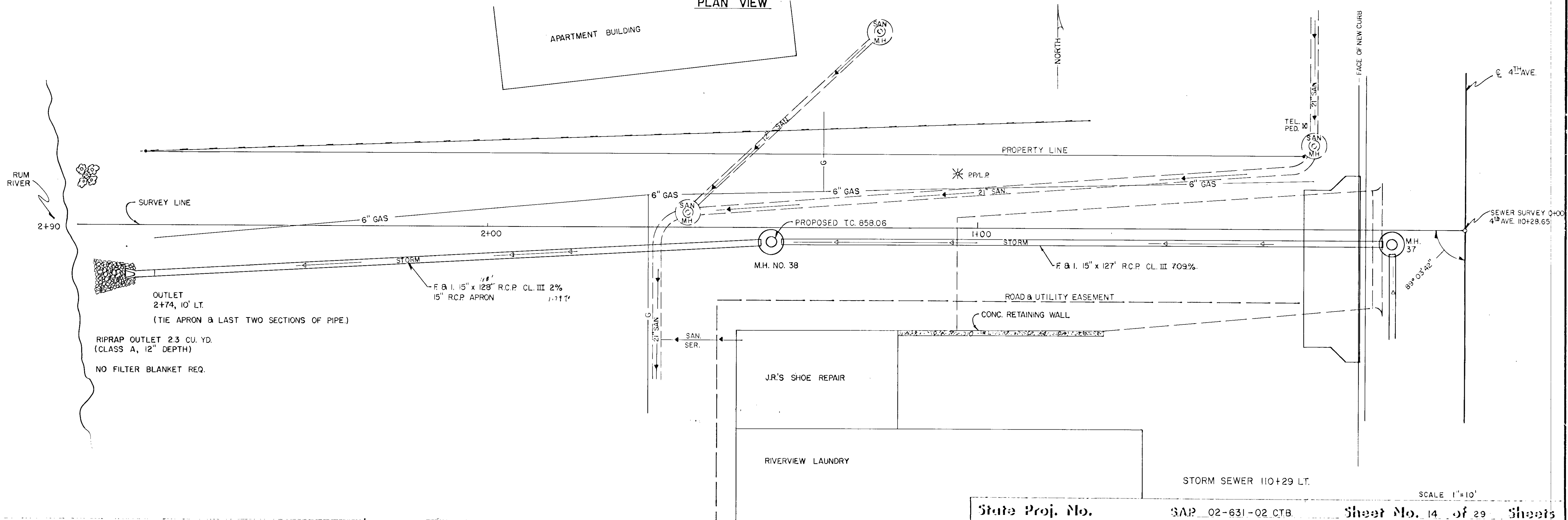
T.L.D. & SONS - SINGLE PLAN - P.O. # 112 - 102/04

PROFILE

Fed. Proj. No.



PLAN VIEW



State Proj. No.

SAP 02-631-02 CTB

Sheet No. 14 of 29 Sheets

SCALE 1"=10'

As noted on 12/6/94 etc.

79+85 877.79 SO. SIDEWALK JACKSON ST.

79+76 877.70 SO. GUTTER JACKSON ST.

79+30 877.60

78+00 877.50

78+00 876.06

82+00 878.26

81+69 878.21 20' ENT.

81+36 878.46 24' ENT.

81+25 878.13 18' ENT.

81+00 878.05

80+30 877.98

80+23 877.99

80+00 877.88

Fed. Proj. No.

EXCAVATION EMBANKMENT

Life P. || +77

36" ELM +65

4" ELM +72

12" ELM +75

Life P. || +86

6" ASH +58

24" ELM +28

6" ASH +06

□ signal case

+164 8" POST END BRICK WALL

+134 8" POST BRICK WALL

+115 6" Locust

+136 Brick (bank)

+119 6" Locust

+19 □ signal cab.

+202 P.P.

+206 □ signal case +79 HYD

RETAINING WALL +42

111 14" PINE

+16 2" MAPLE

+167 18" ELM

+144 P.P. NO. SIDEWALK JACKSON ST.

+125 L.P. NO. GUTTER JACKSON ST.

+125 □ JACKSON ST.

STA. 78+00 TO 82+00

State Proj. No.

S.A.P. 02-631-02 CTB.

Sheet No. 15 of 29 Sheets

TELEPHONE POST CROSS SECTION 10/1 9/76

EXCAVATION EMBANKMENT

18" ELM
15" ELM
P.P. || P.A.

+6.5' 20" ELM
+6.3' 2" MAPLE

+6.0' Hedge

+6.3' 2" MAPLE

86+40 879.02 4' BIT./CONC. DRIVE EXCAVATION EMBANKMENT

84+89 878.92 SO. GUTTER VAN BUREN EAST

84+82 878.90 SO. GUTTER VAN BUREN WEST

127 6

86+18 878.61 4' WALK LT. 2' WALK RT.

55 31

84+65 878.87 30' SIDEWALK VAN BUREN

+77' P.P.

17 6

84+00 878.71

+21' 12" ELM

+16' BUSH

30" ELM +14'

+77' 30" ELM

+77' 12" PINE

85+00 878.91

+74' 6" ELM

+63' 3" MAPLE

85+45 878.83

+56' 3" MAPLE

30' SIDEWALK VAN BUREN

+50' P.P.

83+73 878.66 9' ENT. RT.

12" ELM
+84' STUMP

113 20

36" ELM +31'

P.P. || +41'

+34' 18" ELM

85+45 878.83

+56' 3" MAPLE

30' SIDEWALK VAN BUREN

+50' P.P.

+65' P.P.

+44' 12" ELM

85+23 878.94

NO. GUTTER VAN BUREN

23 2

83+00 878.54

+24' 24" ELM

85+02 879.01

4' VAN BUREN

37 0

82+58 878.37 NO. GUTTER GOLF ST.

82+48 878.37

16" ELM
+46'

101 22

+32' P.P.

82+38 878.33 SO. GUTTER GOLF ST.

28 0

STA. 82+38 TO 86+40

RELATIVE POST CROSS SECTION 101 976

88068 NO. GUTTER HARRISON WEST

24" MAPLE +160
24" ELM +138
24" ELM +111

P.P. || 16

EXCAVATION EMBANKMENT

L.P. P.P. || +37

EXCAVATION EMBANKMENT

88+94 879.96 Q. 10' BIT DRIVE LT.

90+32 880.64 Q. 2' SIDEWALK -37 9' ELM

+79 X X END Fe.

88+60 879.70 Q. 10' DRIVE

90+29 880.69 NO. GUTTER HARRISON EAST

4" BIRCH +12

12" ELM +34

+76 8" ELM

77 38

90+11 880.73 Q. HARRISON

18" ELM +12

88+08 879.39 Q. 2' SIDEWALK

+14 12" ELM

89+94 880.67 SO. GUTTER HARRISON EAST

88+00 879.34

89+90 880.65 SO. GUTTER HARRISON WEST

30" ELM +31

P.P. || +31

+87 24" ELM

38 8

89+82 880.57 Q. 5' SIDEWALK RT.

+12 X X Beg. Fe.

87+63 879.20 Q. SAND LT. BIT RT. ALLEY

+81 END WALL
+68 8" PINE

22" ELM +37

+92 20" ELM

71 7

89+50 880.31 Q. 3' SIDEWALK RT.

87+00 879.06

30" MAPLE +37

+34 Beg. Retaining WALL
+28 24" ELM

+65 20" ELM

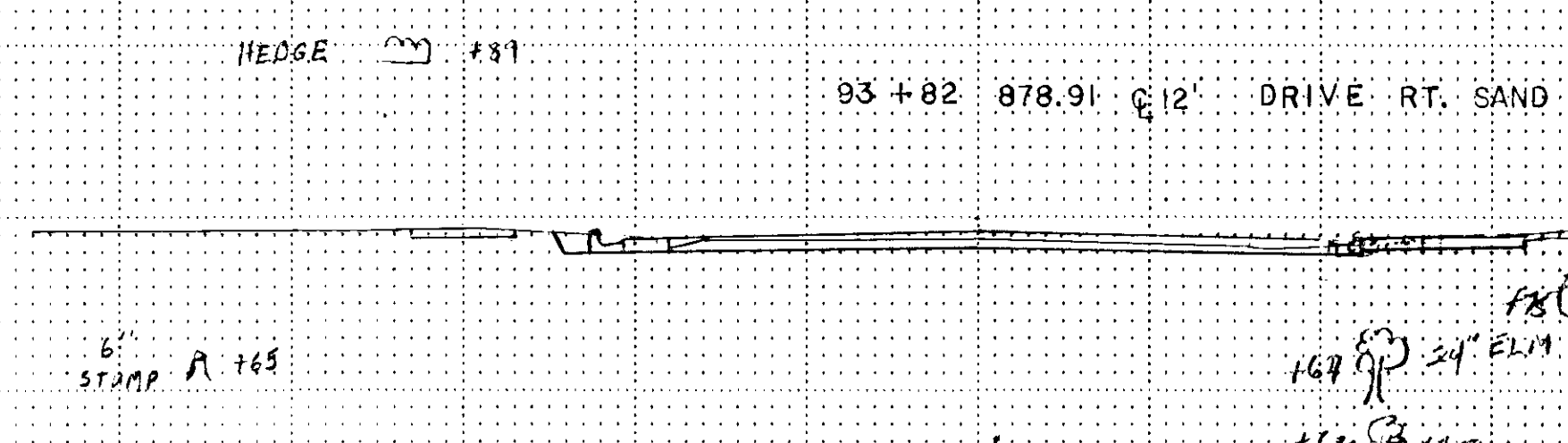
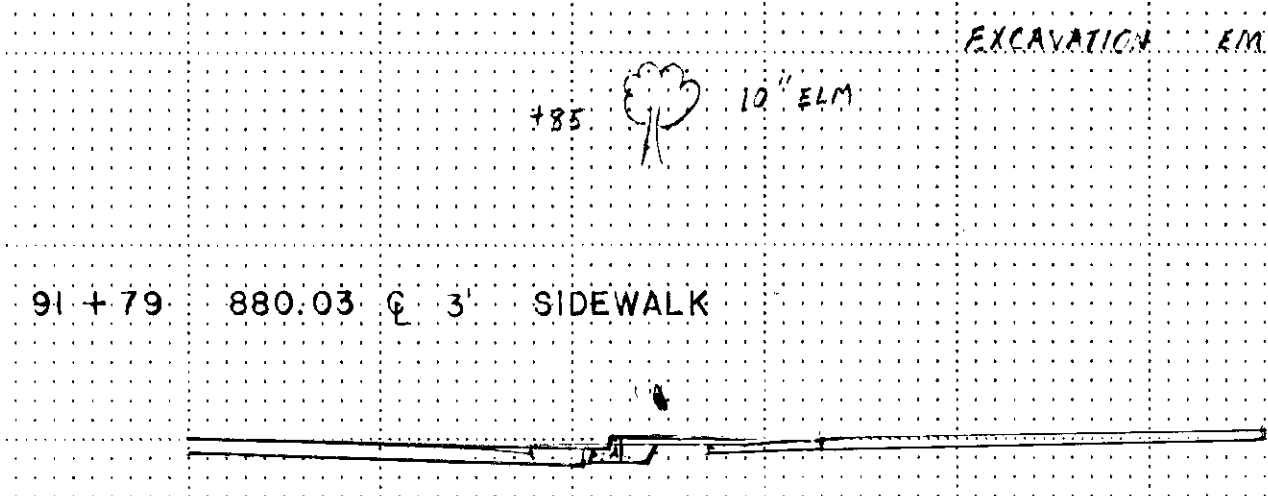
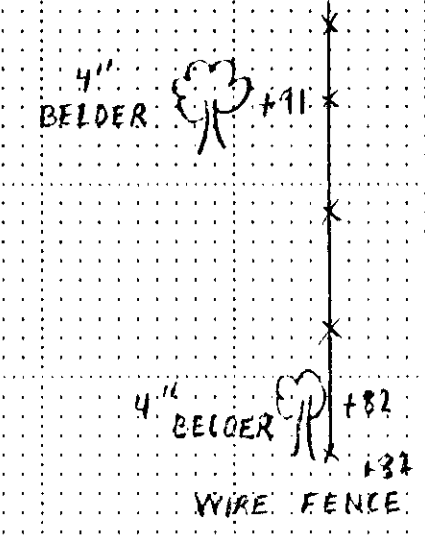
+60 Hedge

+63 4" MAPLE

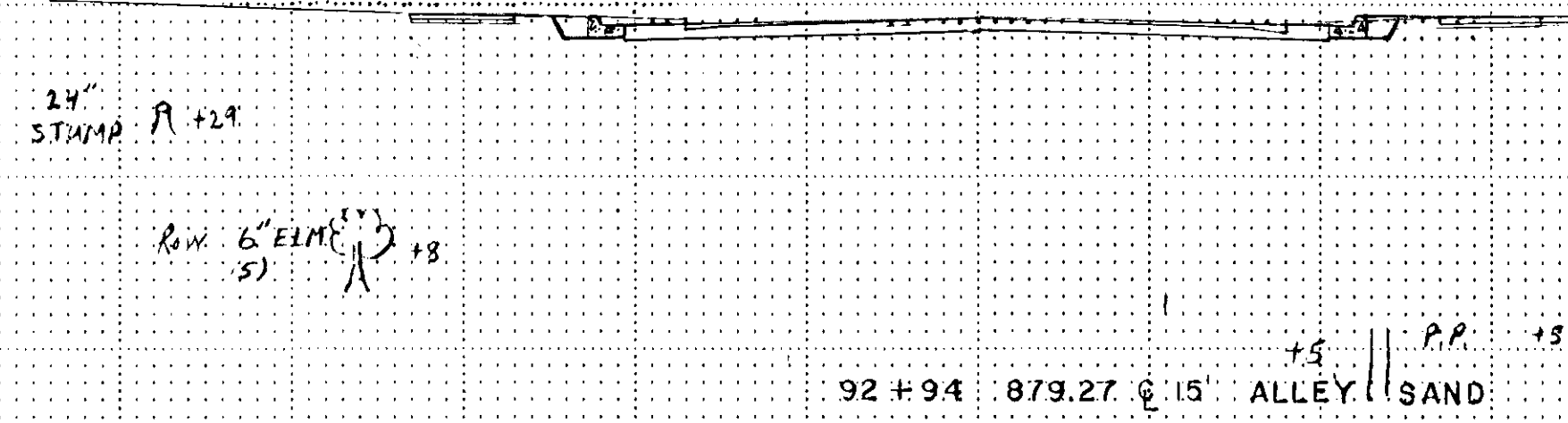
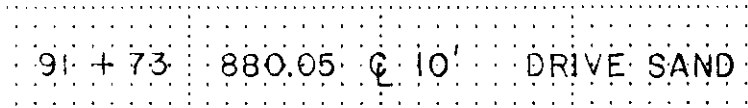
P.P. || +16

STA. 87+00 TO 90+35

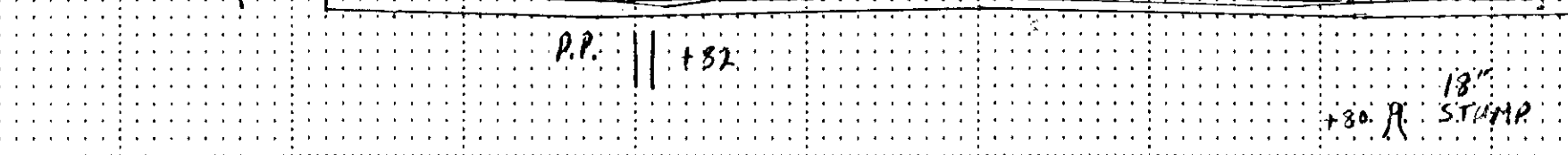
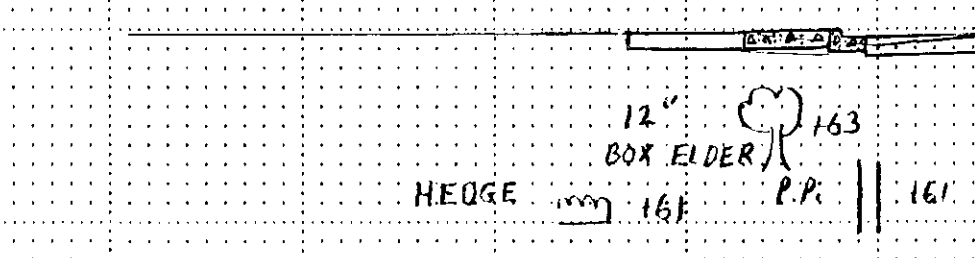
TELETYPE POST CROSS SECTION 1011 9/76



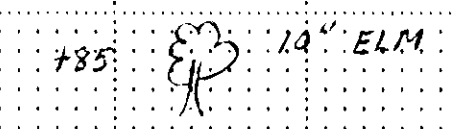
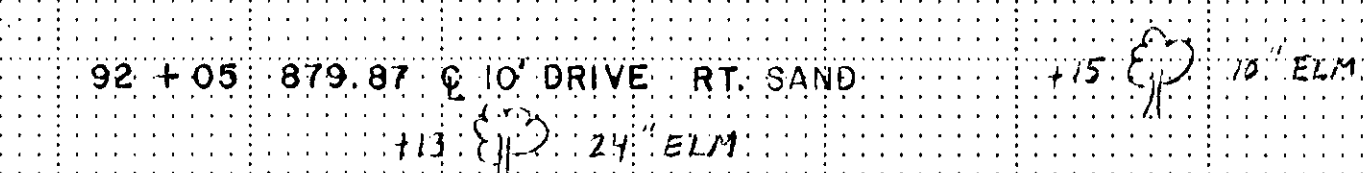
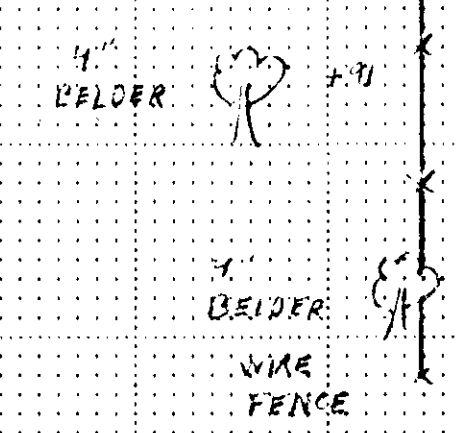
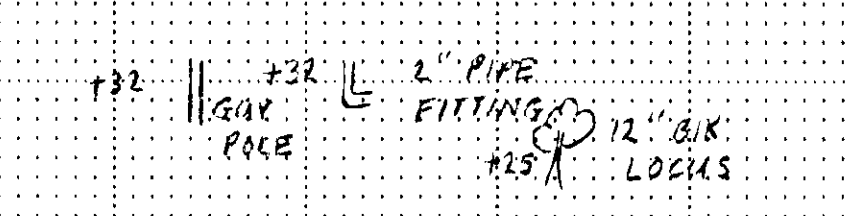
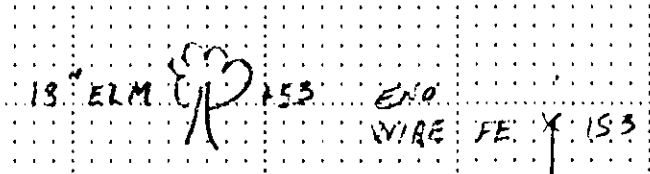
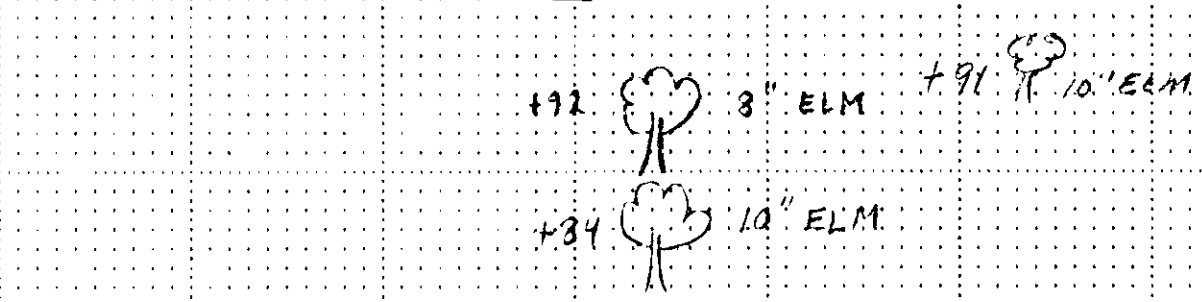
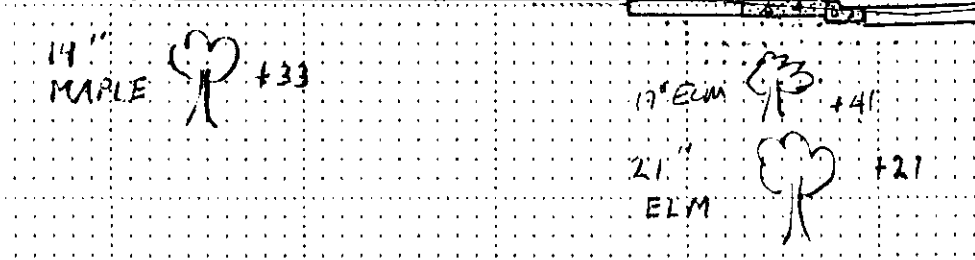
27 29



38 20



37 10



STA. 90+43 TO 93+82

8 CLUMP GREEN ASH +33

95+26 878.42 @ 4' SIDEWALK RT.

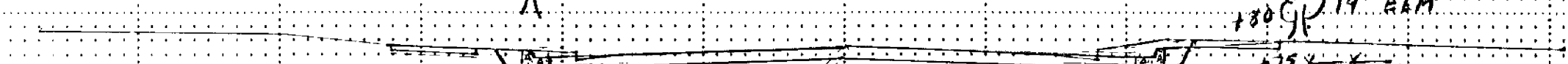
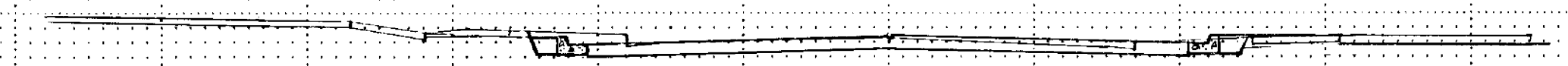
EXCAVATION EMBANKMENT

96+80 877.58

3" ELM +37

14" ELM

EXCAVATION EMBANKMENT



95+00 878.50

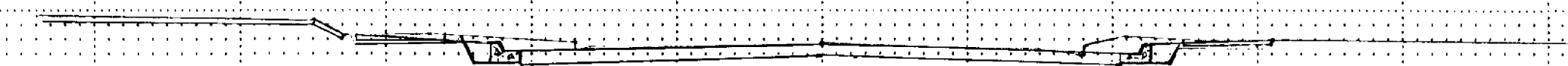
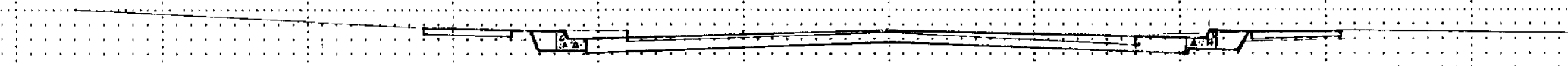
17 10

96+49 877.78 @ SIDEWALK LT.

22" ELM +39
14" ELM +24

18" ELM

26 15



13" ELM +38

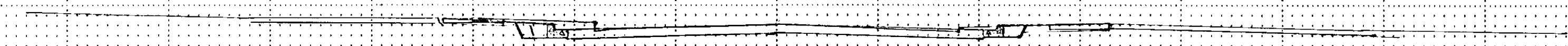
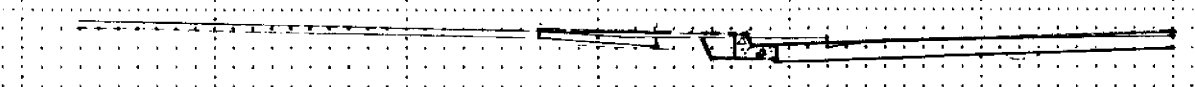
94+83 878.56 @ 2' SIDEWALK

12" ELM +76

96+04 878.09 @ 4' SIDEWALK LT./RT.

21" ELM

10 17



30" ELM +70

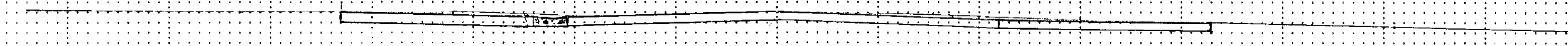
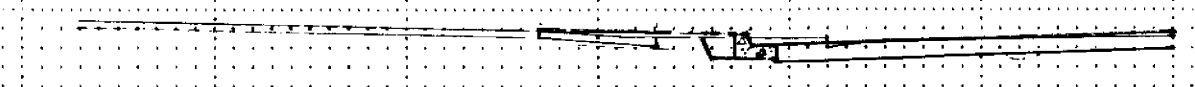
94+61 878.62 @ 3' SIDEWALK RT.

22 16

95+92 878.20 NO GUTTER POLK ST.

12" ELM +76

15 1



END HEDGE +96
40" ELM +71
HEDGE +33

94+34 878.75 @ 10' DRIVE

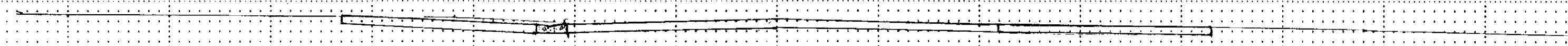
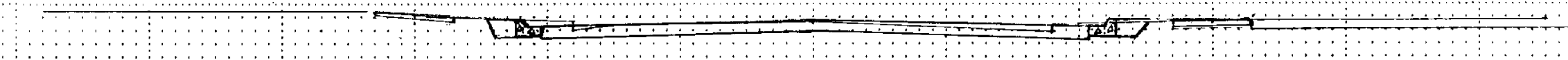
36" ELM +72

37 18

95+77 878.26 @ POLK ST.

6

23 0



P.P. +21

94+05 878.81 @ DRIVE LT. 2' SIDEWALK RT.

WIRE FENCE

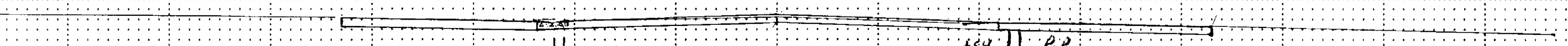
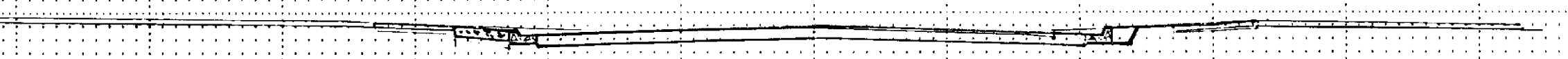
17 6

P.P. +56

95+49 878.38 @ 4' SIDEWALK RT.

P.P. +54

14 1



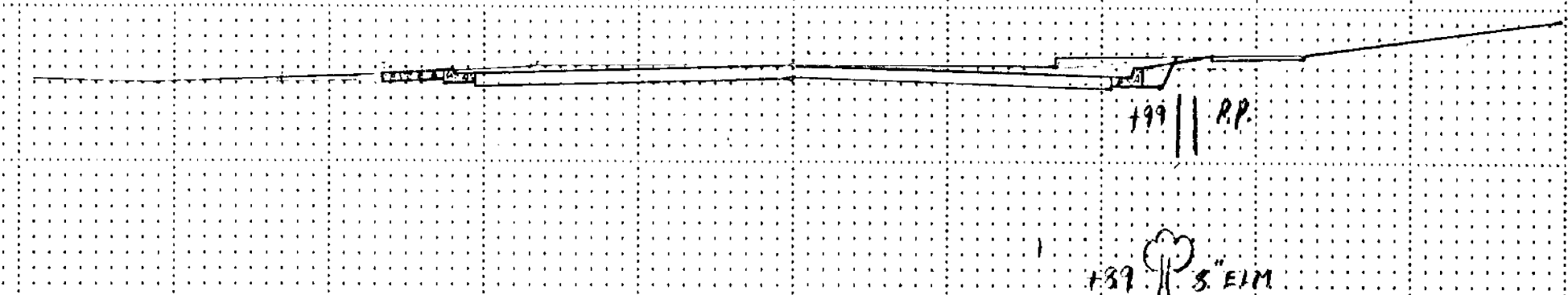
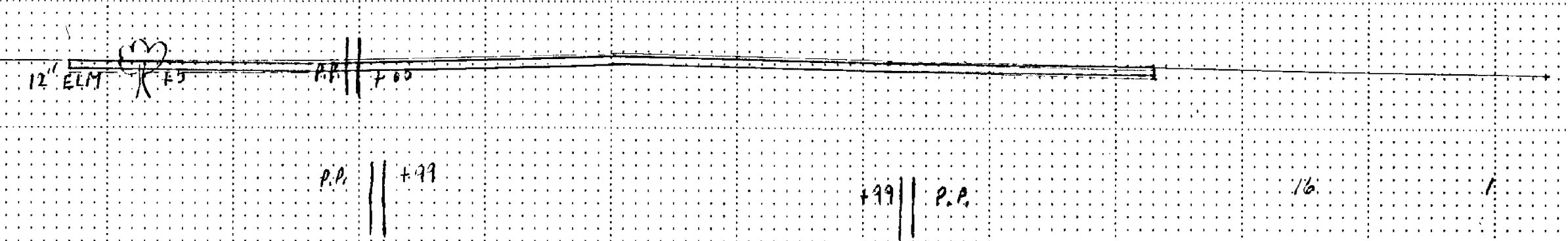
STA. 94+05 TO 96+80

EXCAVATION EMBANKMENT

EXCAVATION EMBANKMENT

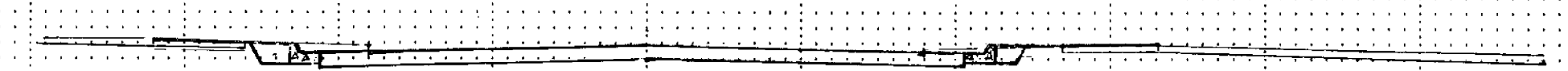
99+08 875.88 SO. GUTTER TAYLOR ST.

101+00 876.35 C. DRIVE LT.



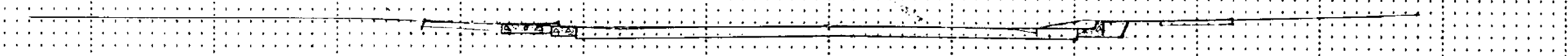
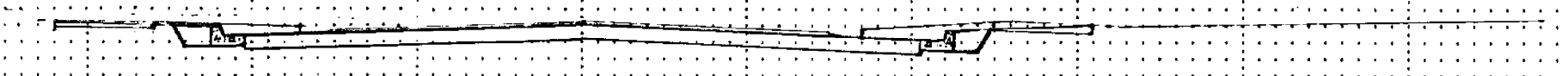
99+95 875.92 C. 4RT / 6LT SIDEWALK

100+77 876.22 C. 12' DRIVE (CONC./BIT)



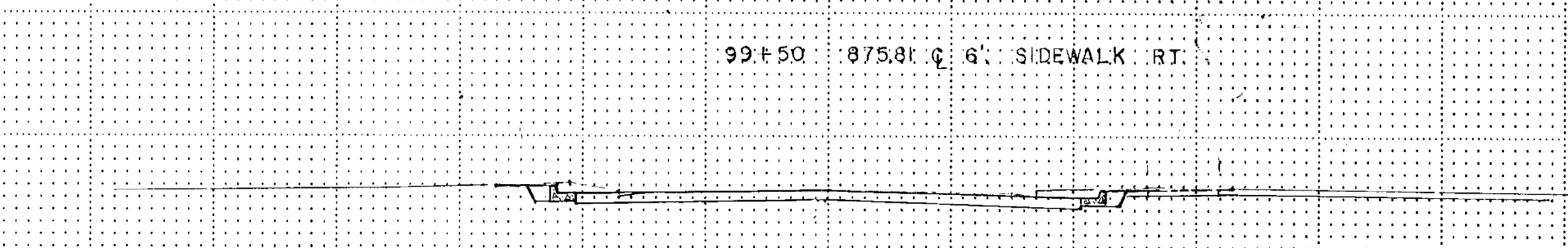
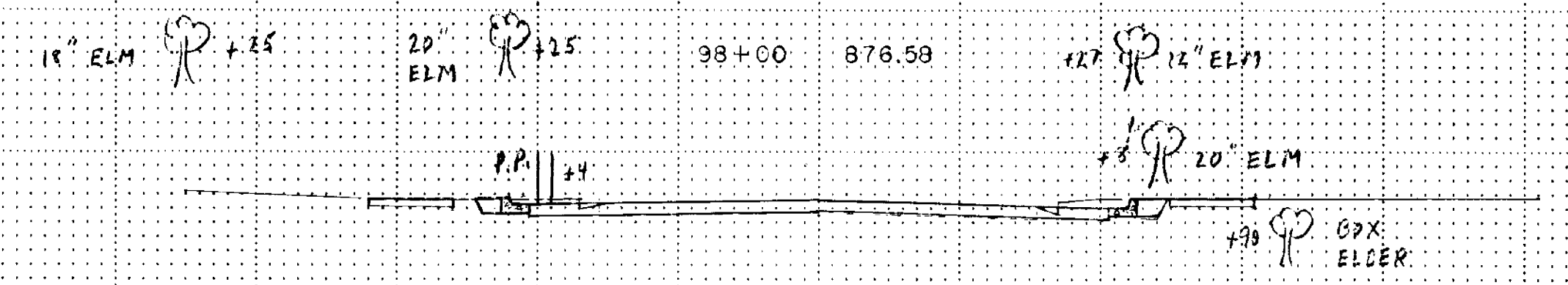
98+70 876.16

100+00 875.96 C. 12' DRIVE LT. SAND



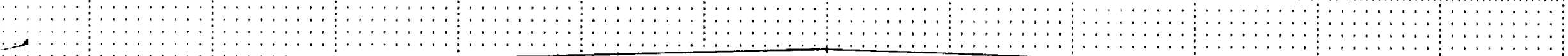
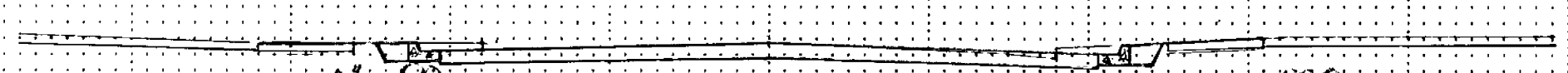
98+00 876.58

99+50 875.81 C. 6' SIDEWALK RT.



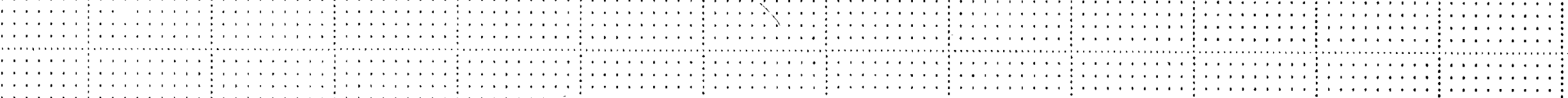
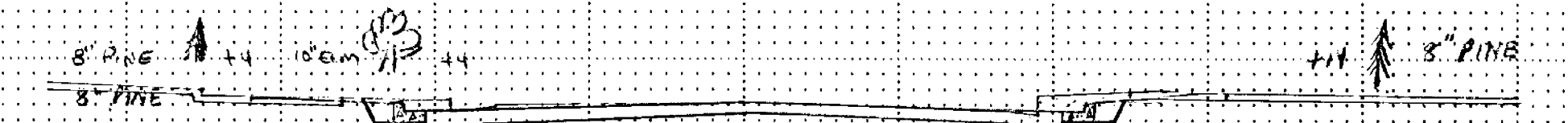
97+65 876.70 C. 3' LT / RT SIDEWALK

99+38 875.84 NO. GUTTER TAYLOR ST.



97+13 877.36 C. 4' SIDEWALK

99+23 875.93 C. TAYLOR ST.



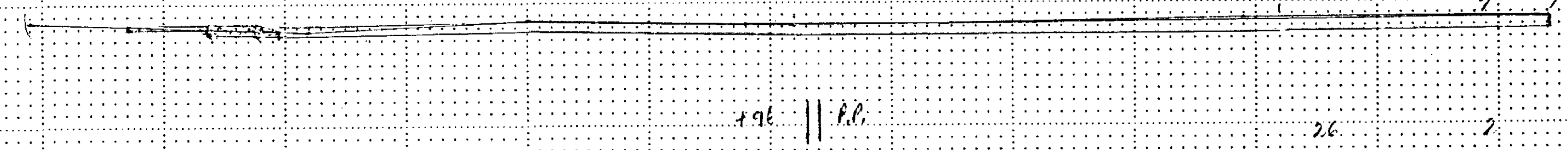
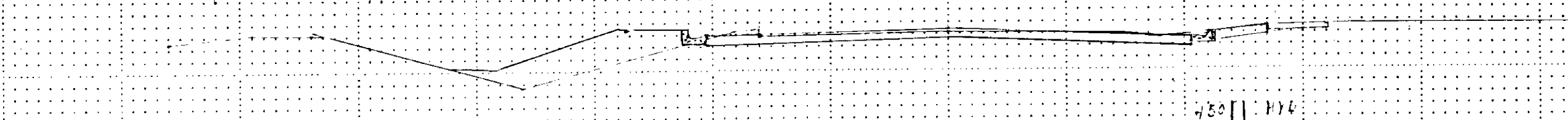
STA. 97+13 TO 101+00

104+60 873.23 C DRIVE (CONC./BIT) RT.

108+00 868.61

EXCAVATION EMBANKMENT

EXCAVATION EMBANKMENT



104+00 874.36

107+63 868.71

EMR. FENCE

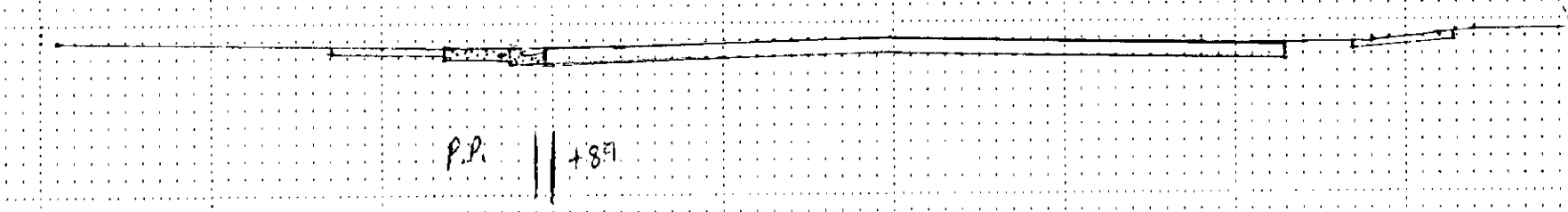
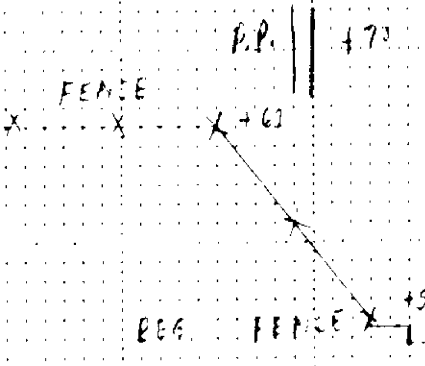
P.P. || 196

103+56 874.87

107+05 869.08

NO. END BRIDGE

C 30' BIT. ENT. LT.



103+00 875.57

106+30 869.40

C BRIDGE

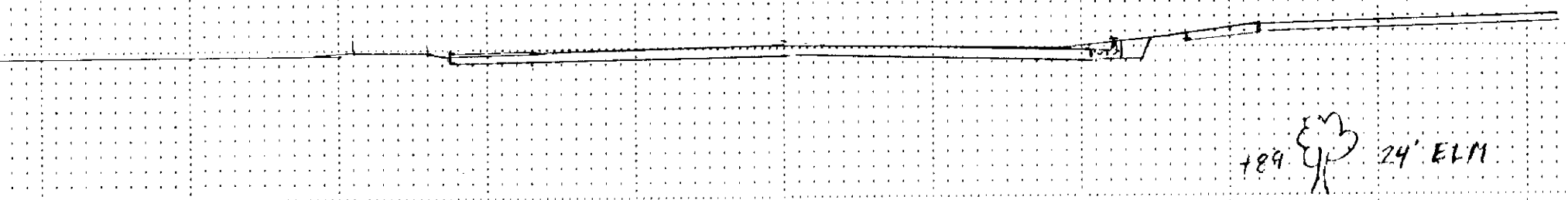
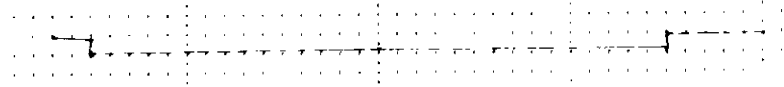
C 10' ENT. LT.

102+04 876.21

105+97 870.24

SO END BRIDGE (OVERPASS No. 10)

22" ELM

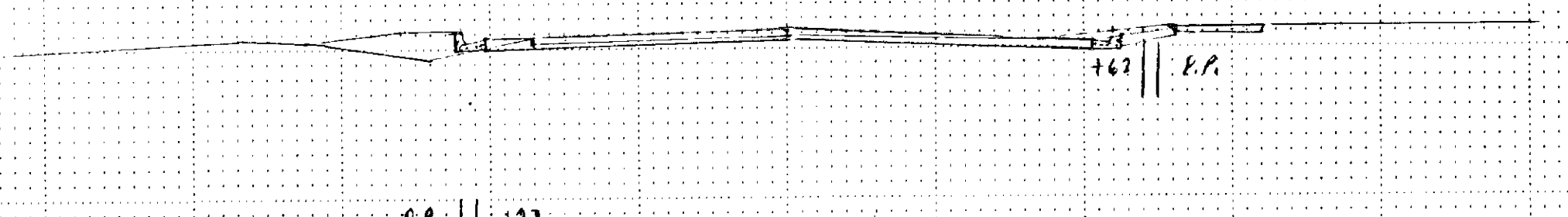
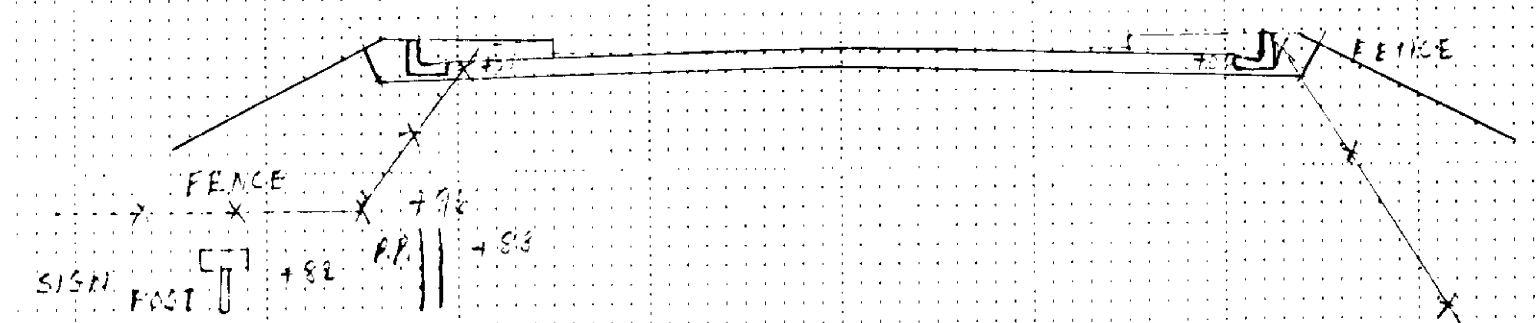


102+00 876.20

105+67 870.90

5 0

24" ELM

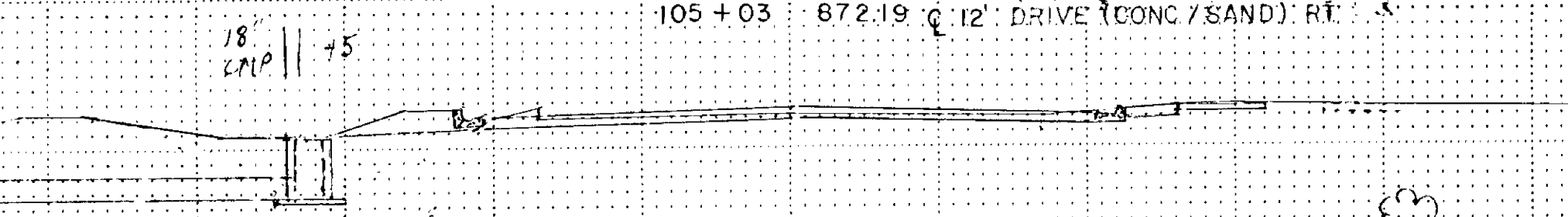
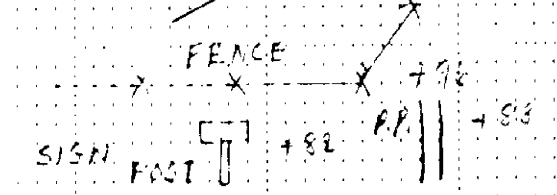


101+30 876.25

105+03 872.19

C SAND ENT. LT. TO BIT LOT?

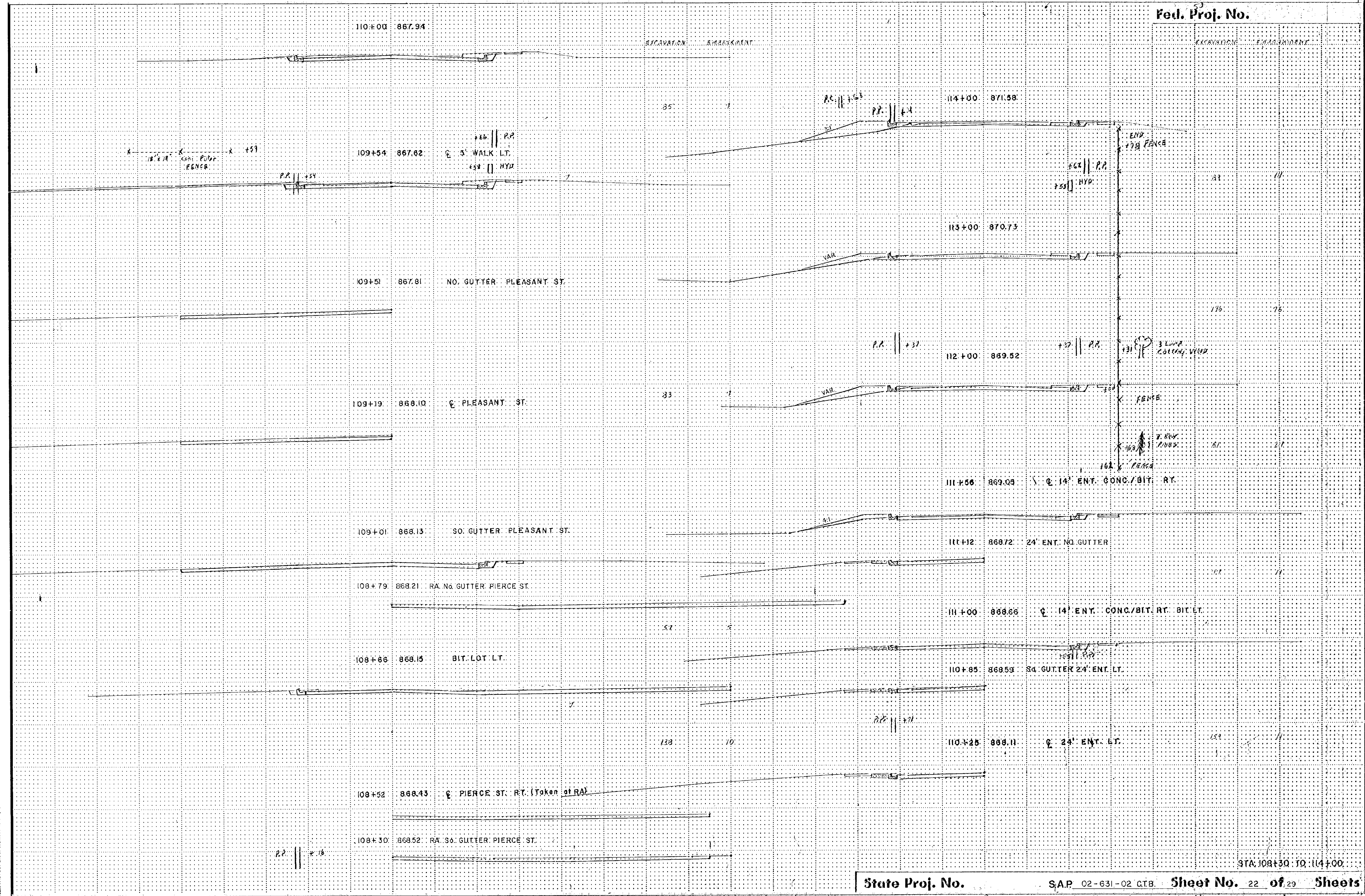
10" ELM



91 3

32 2

STA. 101+30 TO 108+00



STA. 108+30 TO 114+00

TELETYPE POST CROSS SECTION UNIT 1/16

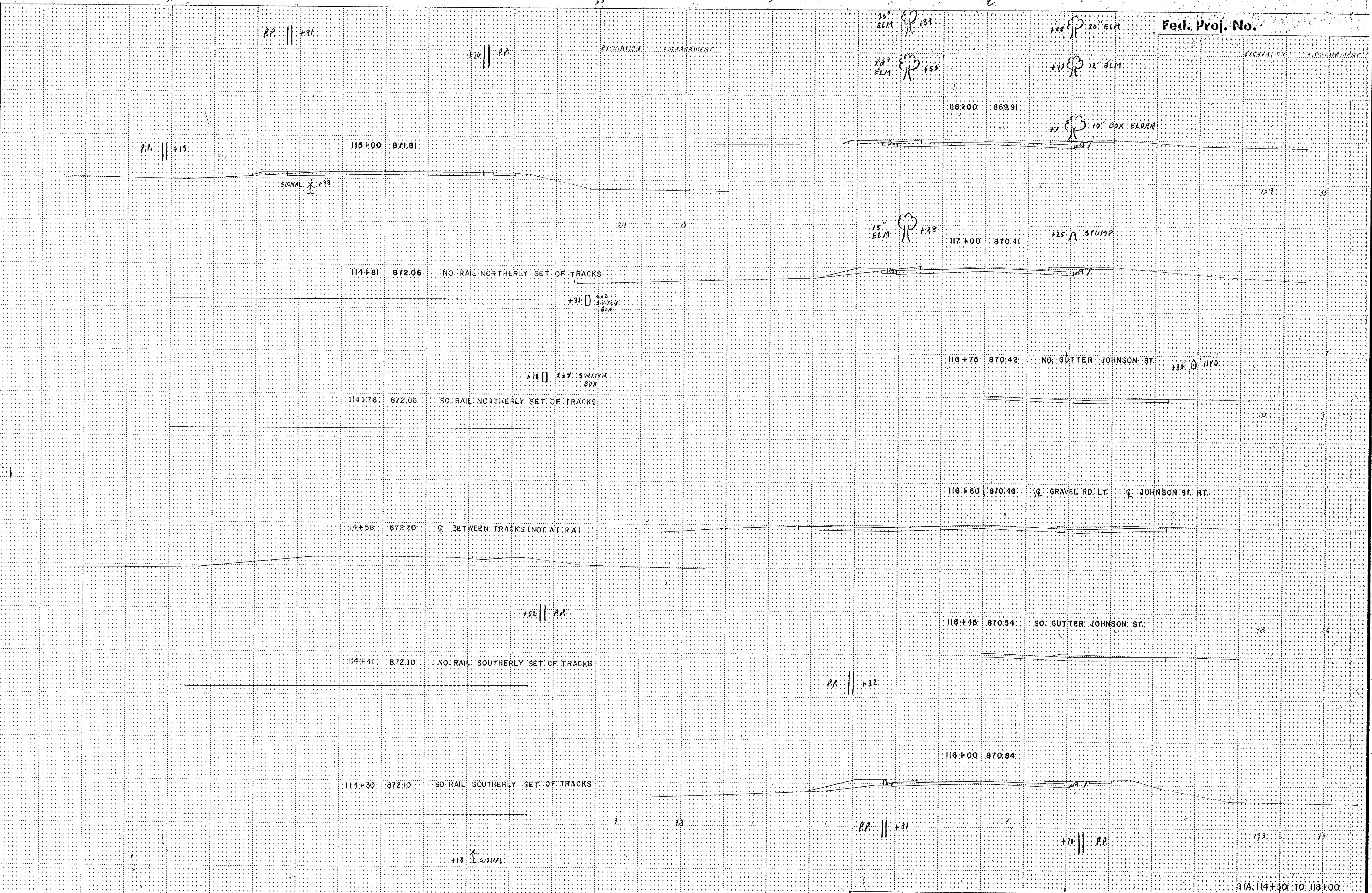


ILLUSTRATION POST CARD SECTION - NOT FINISHED

EXCAVATION EMBANKMENT

EXCAVATION EMBANKMENT

122+17 870.41 E. GRANT ST. RT.

18" ELM +100

121+94 870.33 SO. GUTTER GRANT ST.

STUMP +77

+76 8" ELM

18" ELM +124

121+00 869.95

+127 8" ELM

18" ELM +90

+159 20" ELM

20" ELM +143

+147 14" ELM

20" ELM +94

120+00 869.42

+18 20" ELM

16" ELM +68

ELM +73

+68 20" ELM

14" ELM +28

+28 STUMP

119+08

16" RCP & Z CB's

119+00 869.39

20" ELM +89

+88 20" ELM

20" ELM +51

+17 12" ELM

+17 14" BOX ELDER

123+00 870.23

10" ELM +56

122+39 870.35

+61 12" ELM

NO. GUTTER GRANT ST.

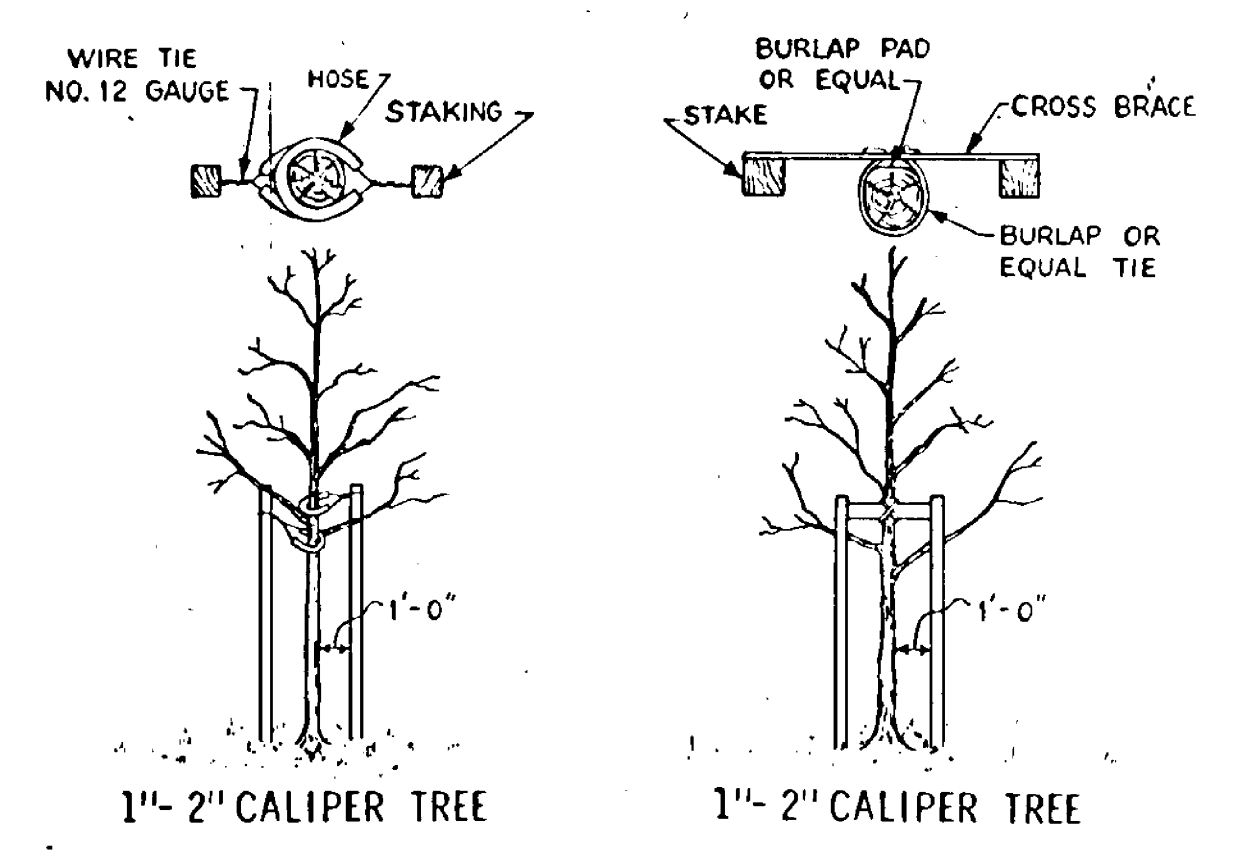
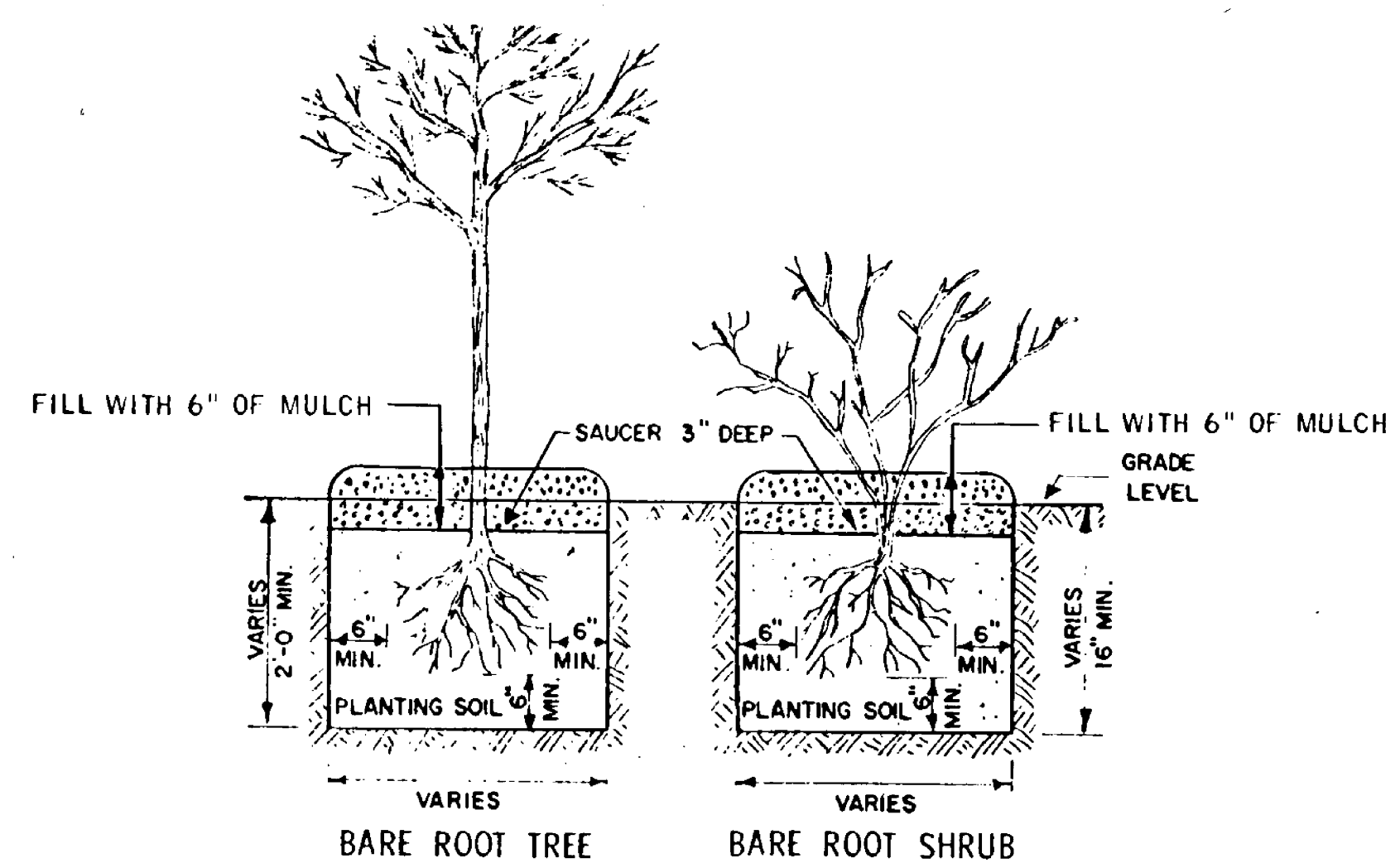
4. AVE. TOTALS

EXC.	EMB.
4347 CY	1356 CY
	X 155%
	2102 CY EMB.

NOTE: QUANTITIES SHOWN DO NOT INCLUDE BIT. & CONC. PAVEMENT INPL. THESE QUANTITIES ARE INCLUDED WITH REMOVAL ITEMS.

STA. 119+00 TO 123+00

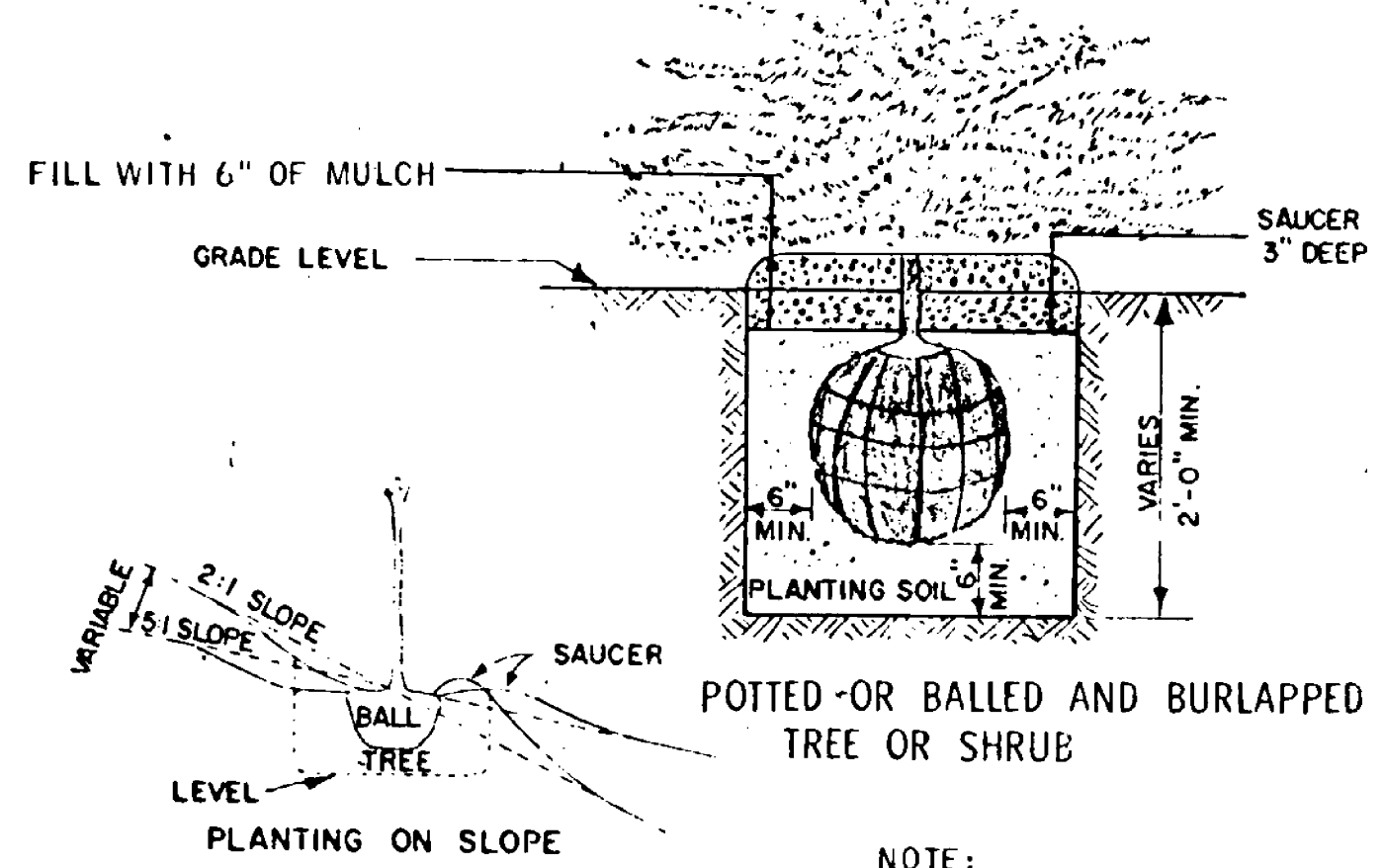
ILLUSTRATIVE POST CROSS SECTION SHEET NUMBER



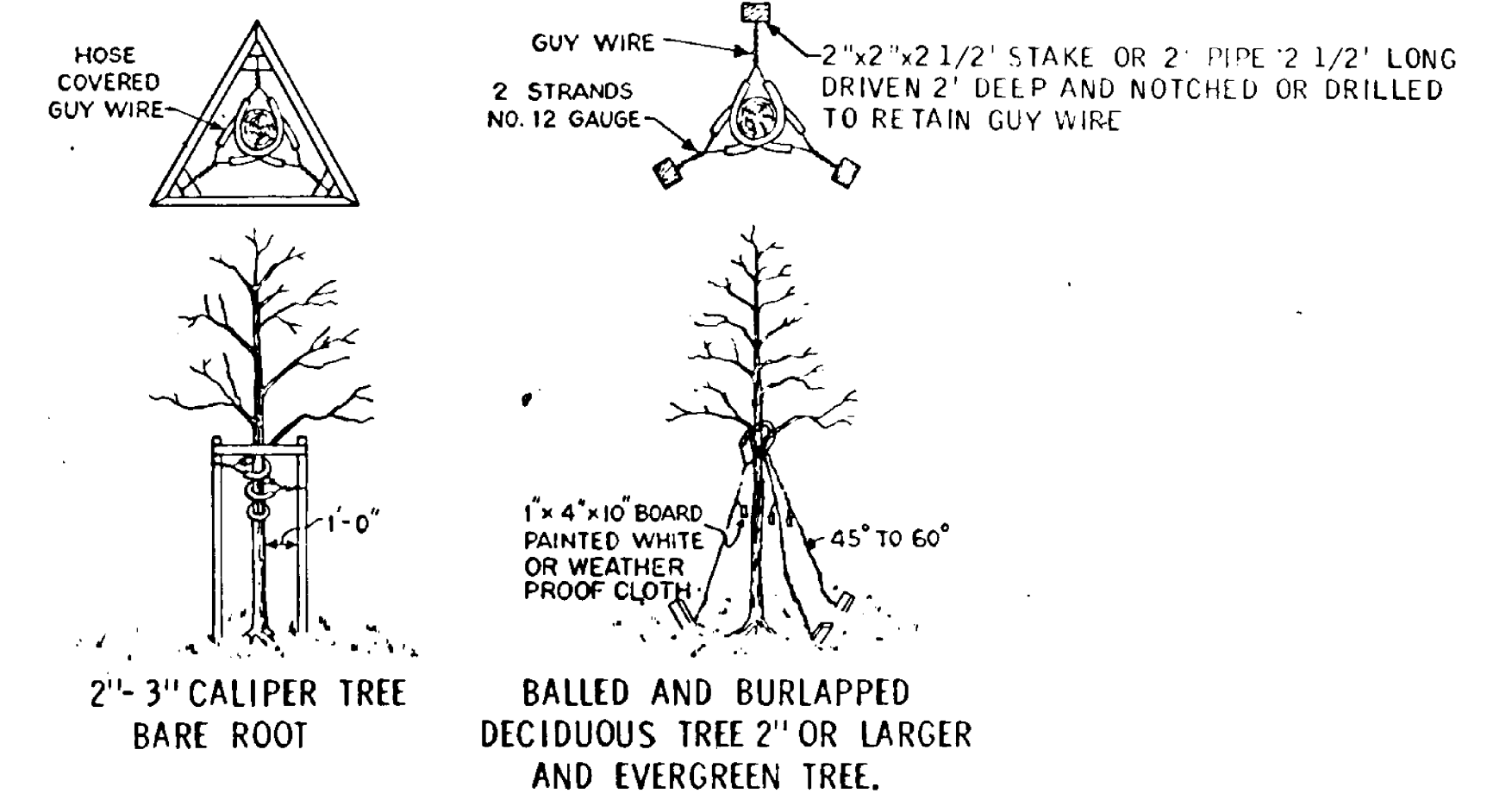
ALL STAKES ARE NOMINAL 2"x2" OR 2 1/2" DIAMETER, 8' LONG WITH 2' IN THE GROUND. CROSS BRACES ARE NOMINAL 1"x3" MATERIAL.

STATEMENT OF ESTIMATED QUANTITIES				
ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
2571.500	FURNISH AND PLANT SHADE TREES (CLEVELAND NORWAY MAPLE 3" F&B)	TREE	9	
2571.500	FURNISH AND PLANT SHADE TREES (SCHWEDLER NORWAY MAPLE 3" F&B)	TREE	11	
2571.500	FURNISH AND PLANT SHADE TREES (AMT. MAPLE 2 1/2" F&B)	TREE	10	
2571.500	FURNISH AND PLANT SHADE TREES (GREENING LINDEN 3 1/2" F&B)	TREE	14	
2571.500	FURNISH AND PLANT SHADE TREES (LINDEN CORDATA 3" F&B)	TREE	7	
2571.500	FURNISH AND PLANT SHADE TREES (SUMMIT ASH 3 1/2" F&B)	TREE	7	
2571.500	FURNISH AND PLANT SHADE TREES (SIGNAL LOCUST 2 1/2" F&B)	TREE	3	
2571.500	FURNISH AND PLANT SHADE TREES (IMPERIAL LOCUST 3" F&B)	TREE	5	
2571.500	FURNISH AND PLANT SHADE TREES (MARSHALL ASH 3" F&B)	TREE	20	
2571.500	FURNISH AND PLANT SHADE TREES (HOP HORNBEAM 3" F&B)	TREE	5	
2571.500	FURNISH AND PLANT FLOWERING TREES (RADIANT STAR 2 1/2" F&B)	TREE	6	
2571.500	FURNISH AND PLANT FLOWERING TREES (CANADA RED CHERRY 2 1/2" F&B)	TREE	4	
2571.541	TRANSPLANT TREES (SIGNAL LOCUST 3 1/2")	TREE	1	

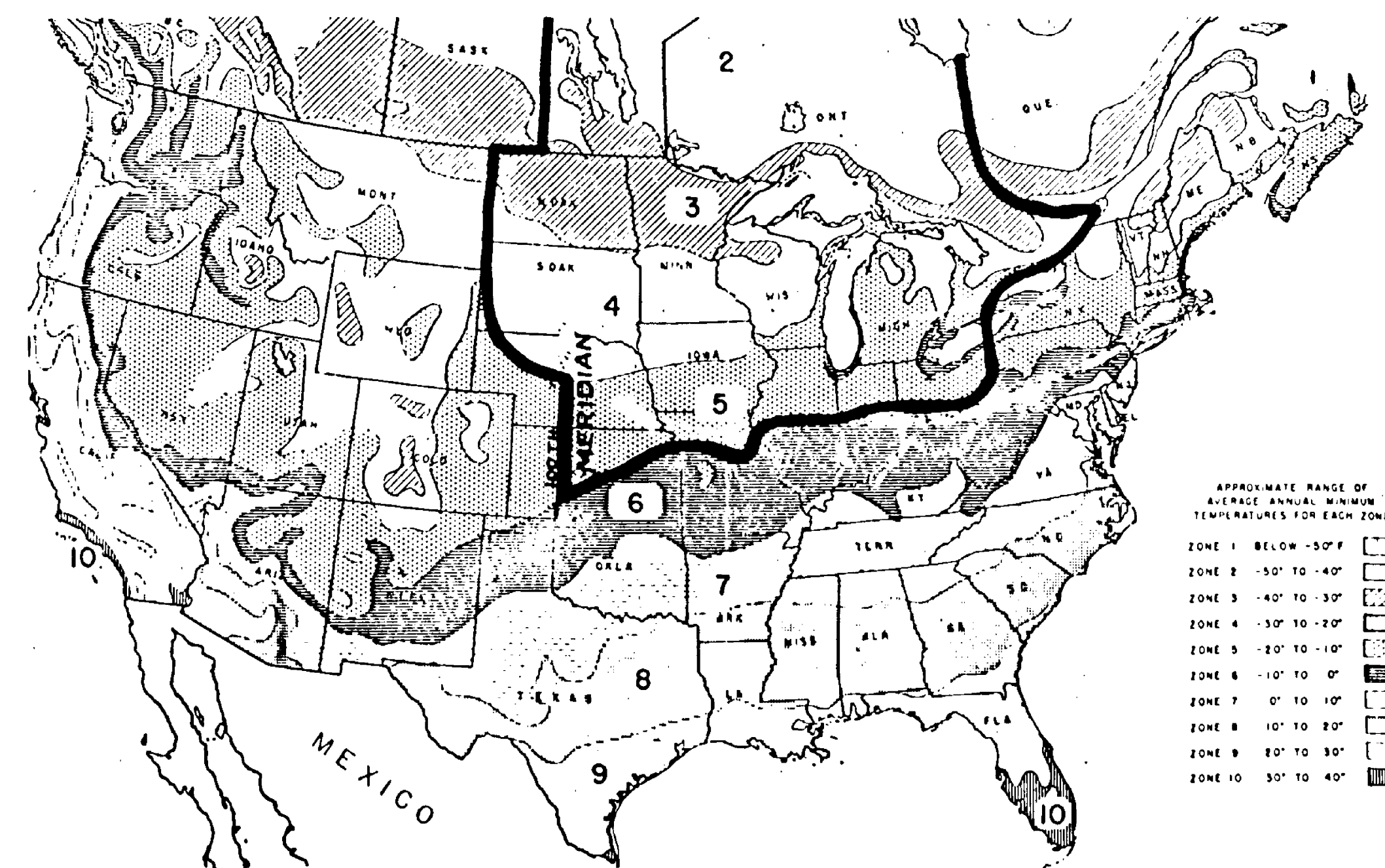
NOTE: TREES ARE TO BE PLANTED 3' BEHIND THE BACK OF THE CURB EXCEPT: 6' STA. 111+00 TO 122+70 LT.



NOTE: SET PLANTS AT THE SAME OR SLIGHTLY LOWER DEPTH AS THEY GREW IN THE NURSERY OR FIELD. ALL PLANTS SHALL BE PLACED IN A PLUMB POSITION.



STAKING AND GUYING METHODS

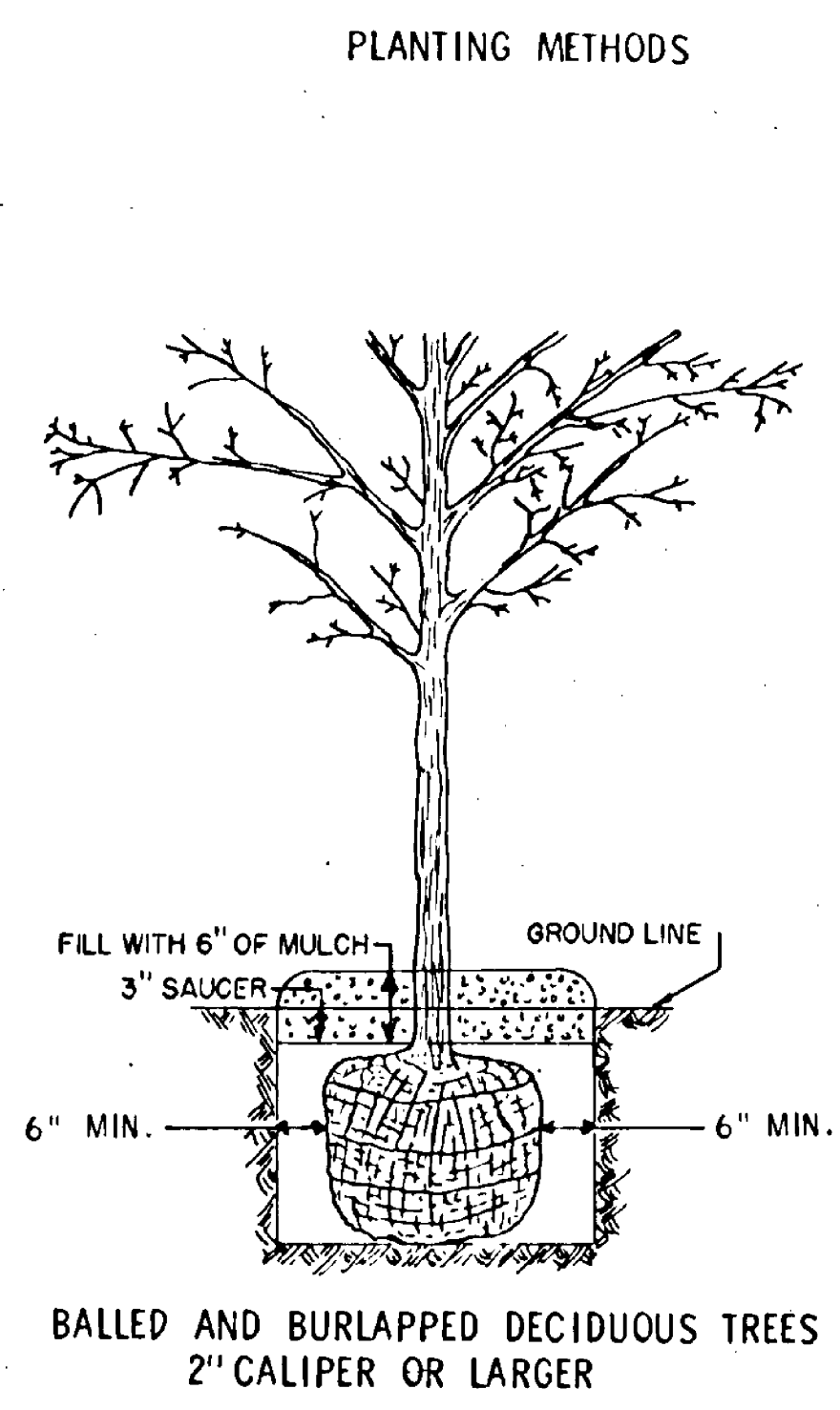


The Zones of Plant Hardiness—This is an adapted version of the color map on the reverse side. It may be useful for small-scale reproduction in books, magazines, and nursery catalogs. This map is not copyrighted, and permission for reproducing it is not required.

GENERAL NOTES

FERTILIZER: Shall be Nitrogen analysis at the rate of 0.05 LB per cu yd of planting soil. Shall be considered incidental.

MULCH MATERIAL: All plant installations shall be mulched to a minimum depth of 6 inches and 24 inches in diameter with wood chips, unless noted otherwise on this plan.



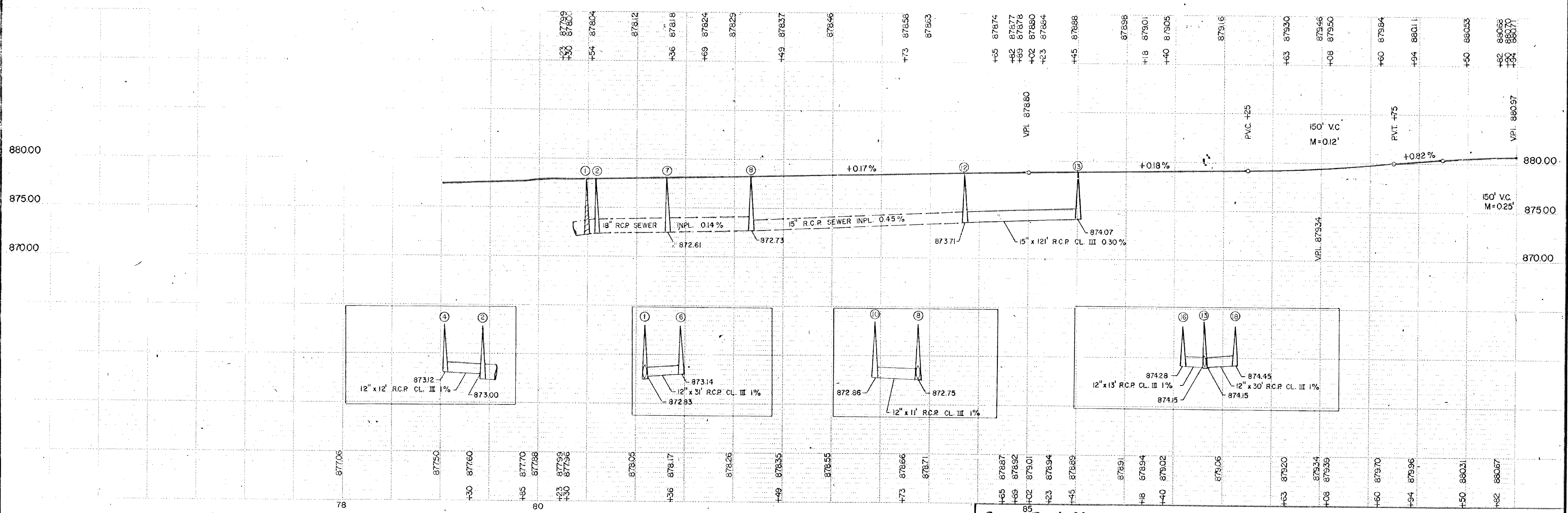
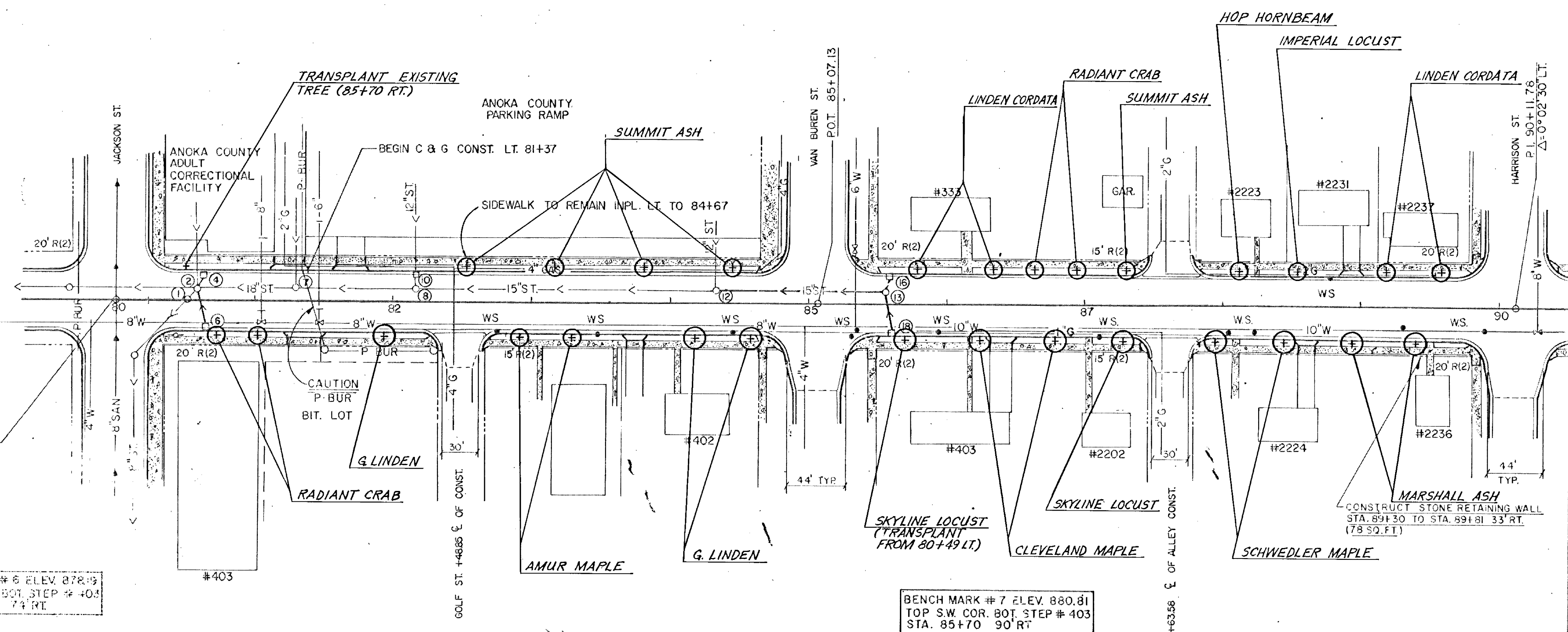
APPROVED FEB. 67
V. J. Peterson
 Design Standards Engineer
 ENGINEERING STANDARDS DIVISION

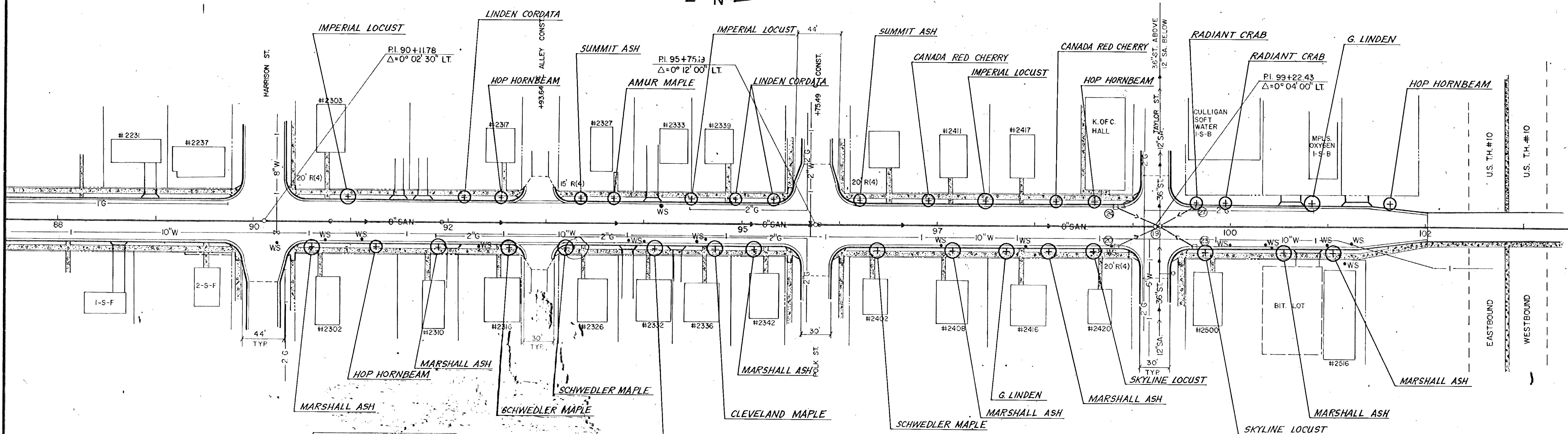
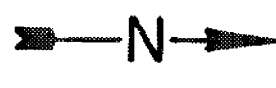


BEGIN PROJECT S.A.P. 02-631-02
P.O.T. STA. 80+00.0

BENCH MARK # 6 ELEV. 878.19
TOP S.W. COR. BOT. STEP # 403
STA. 80+45 74 RT.

BENCH MARK # 7 ELEV. 880.81
TOP S.W. COR. BOT. STEP # 403
STA. 85+70 90 RT.

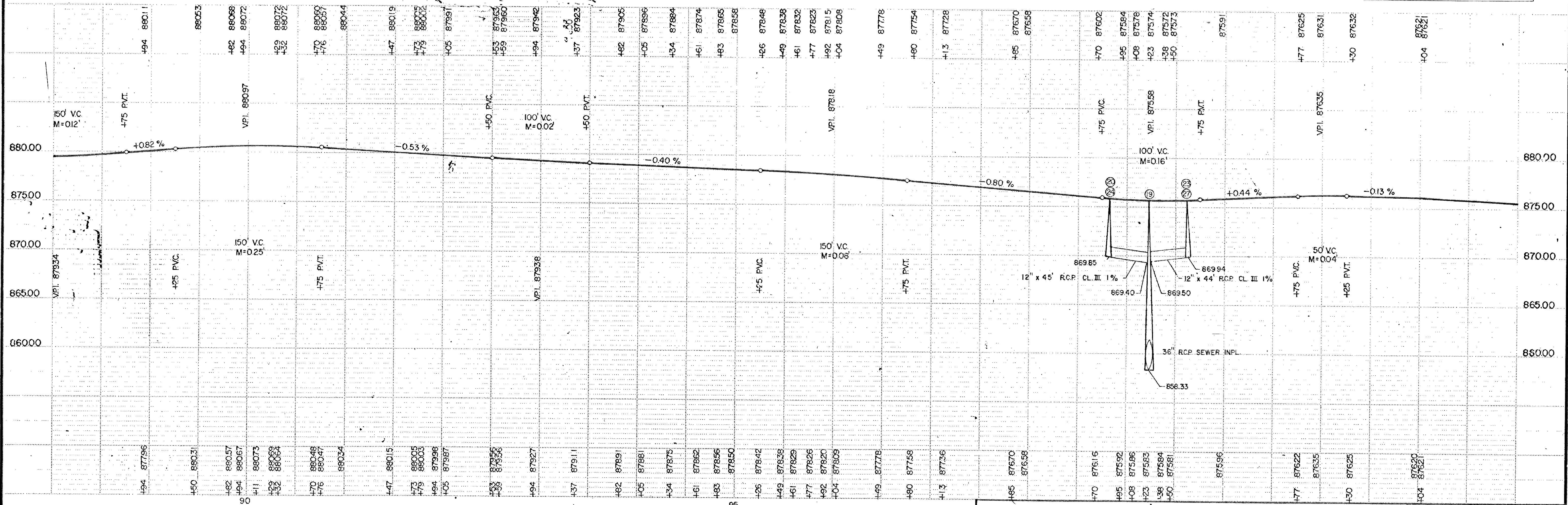




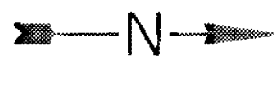
BENCH MARK #8, ELEV. 881.06
TOP SW. COR. BOT. STEP HO. #2302
STA. 90+70, 48' RT.

BENCH MARK #9, ELEV. 879.90
TOP N.W. COR. TOP STEP HO. #2342
STA. 95+20, 44' RT.

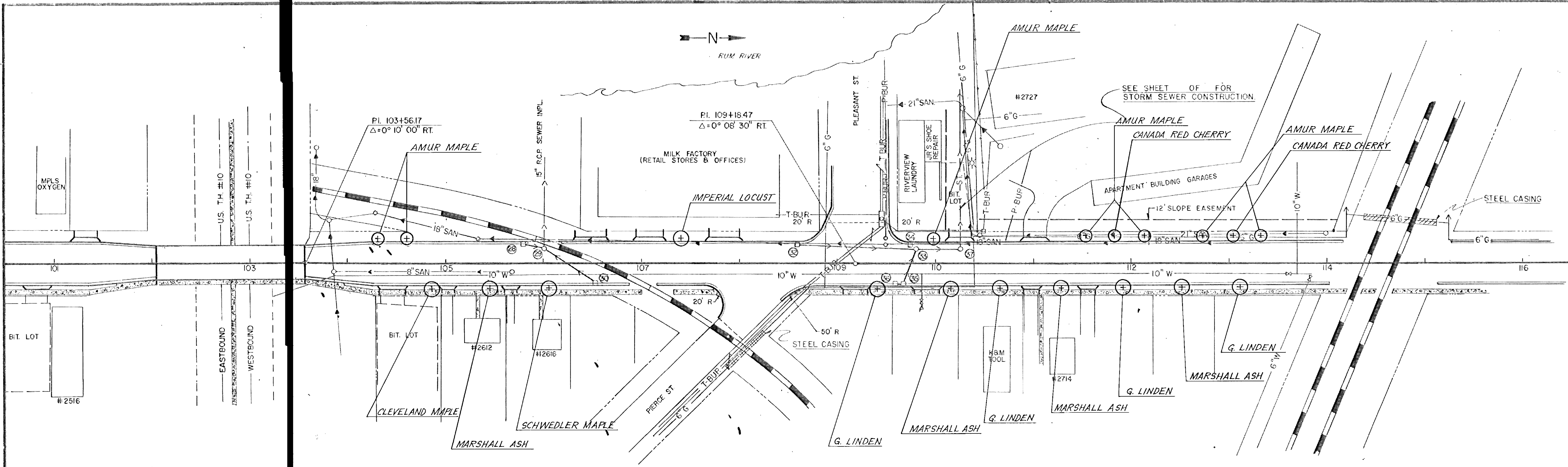
BENCH MARK #10, M.H.D. B.M. #0215-C
BRASS PLUG IN TOP S.E. CORNER OF WINGWALL
STA. 102+03, 22' RT., ELEV. 876.714



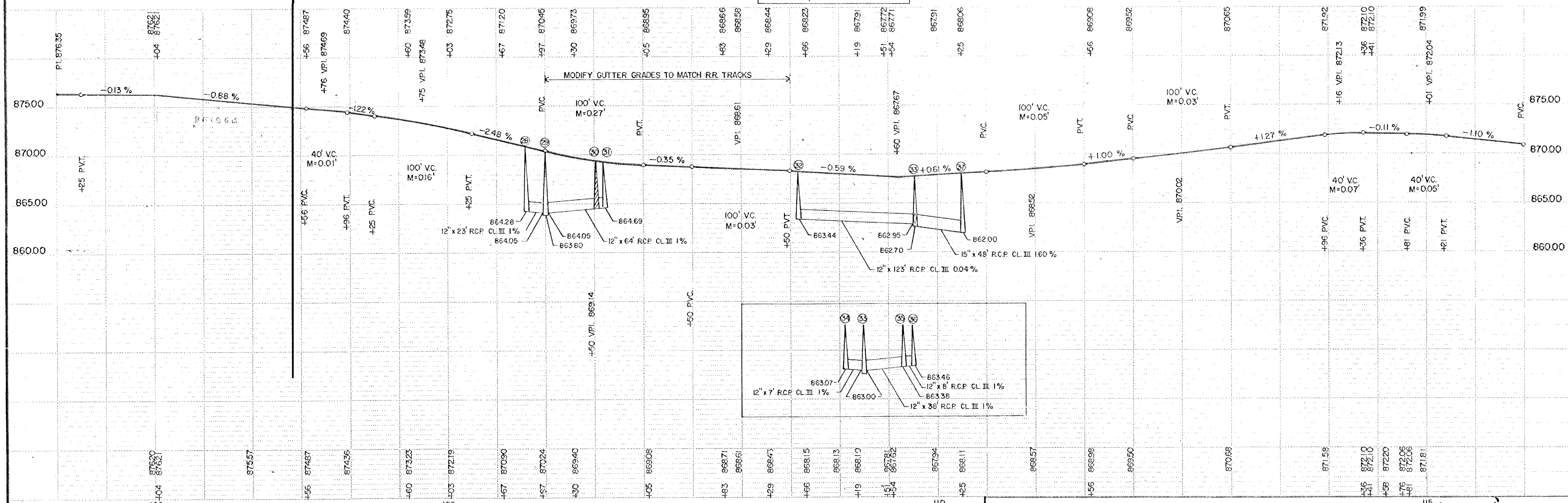
TELETYPE POST - SINGLE PLAN - PROFILE - 107M



RUM RIVER

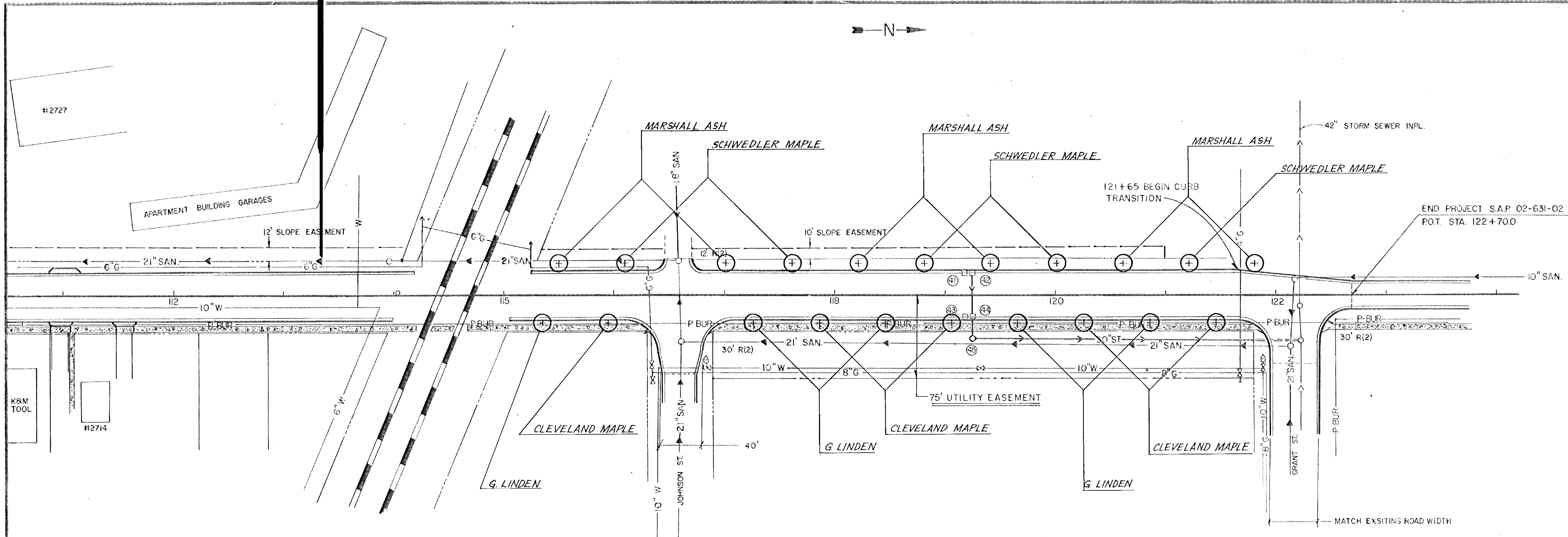


BENCH MARK II, ELEV. 869.83
 TOP S.E. COR. BOT. STEP (NLY SET)
 STA. 107+81, 45' LT.

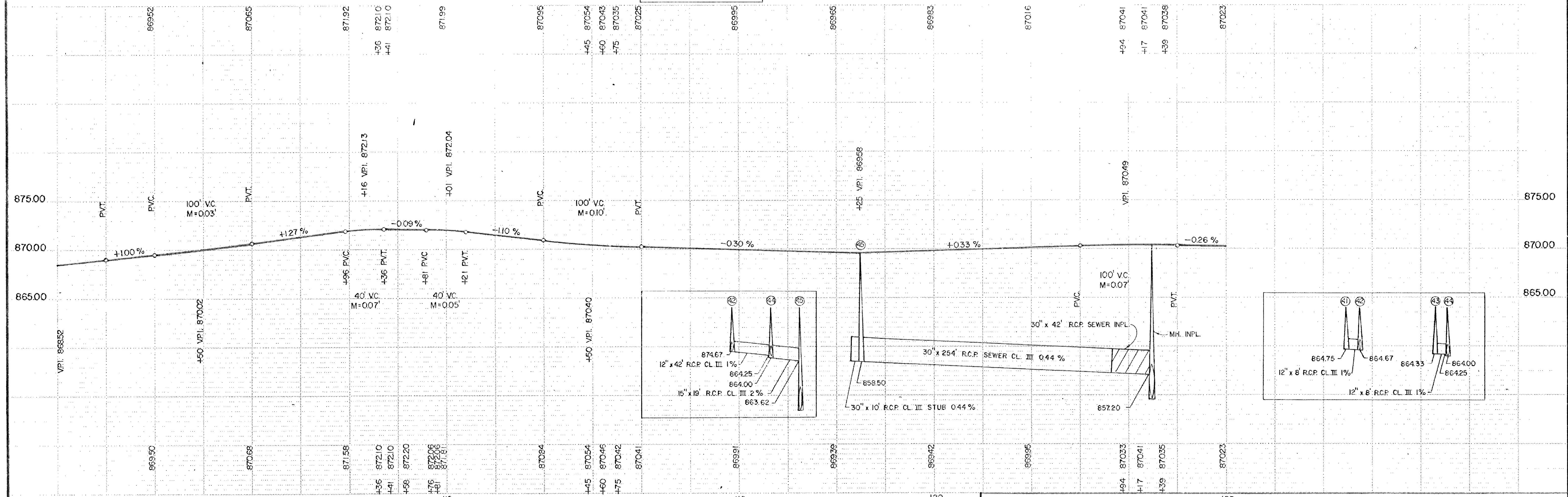


TELEPHONE POST - SINGLE PLAN - PROFILE - 100%

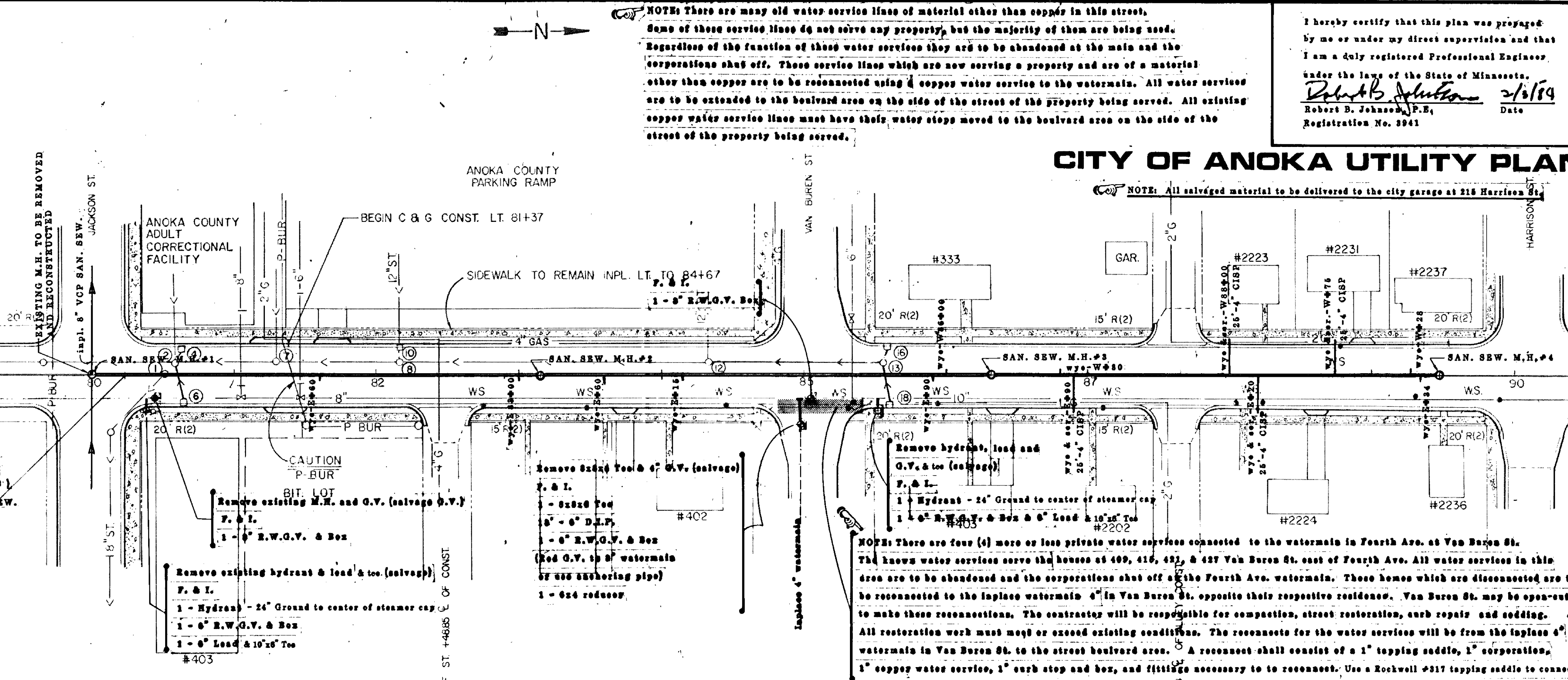
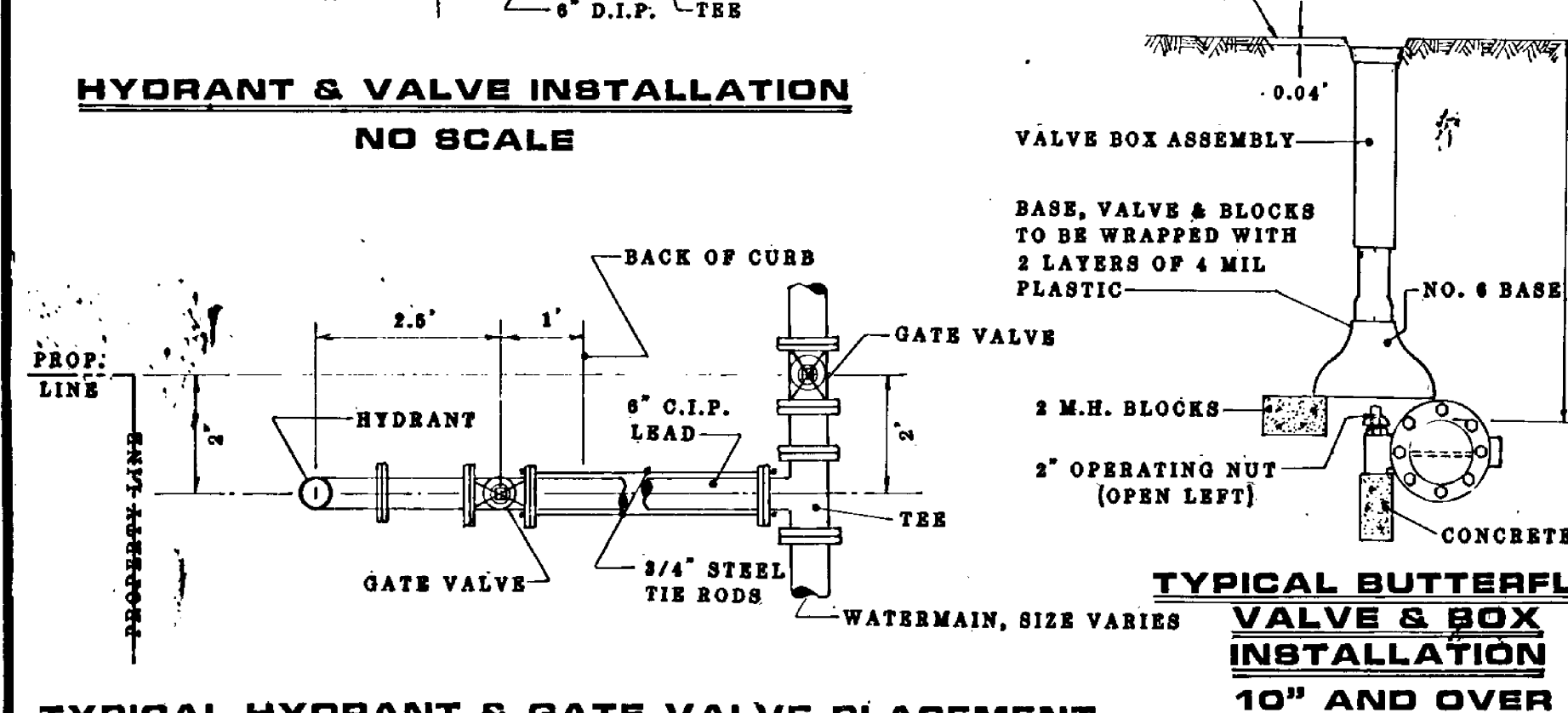
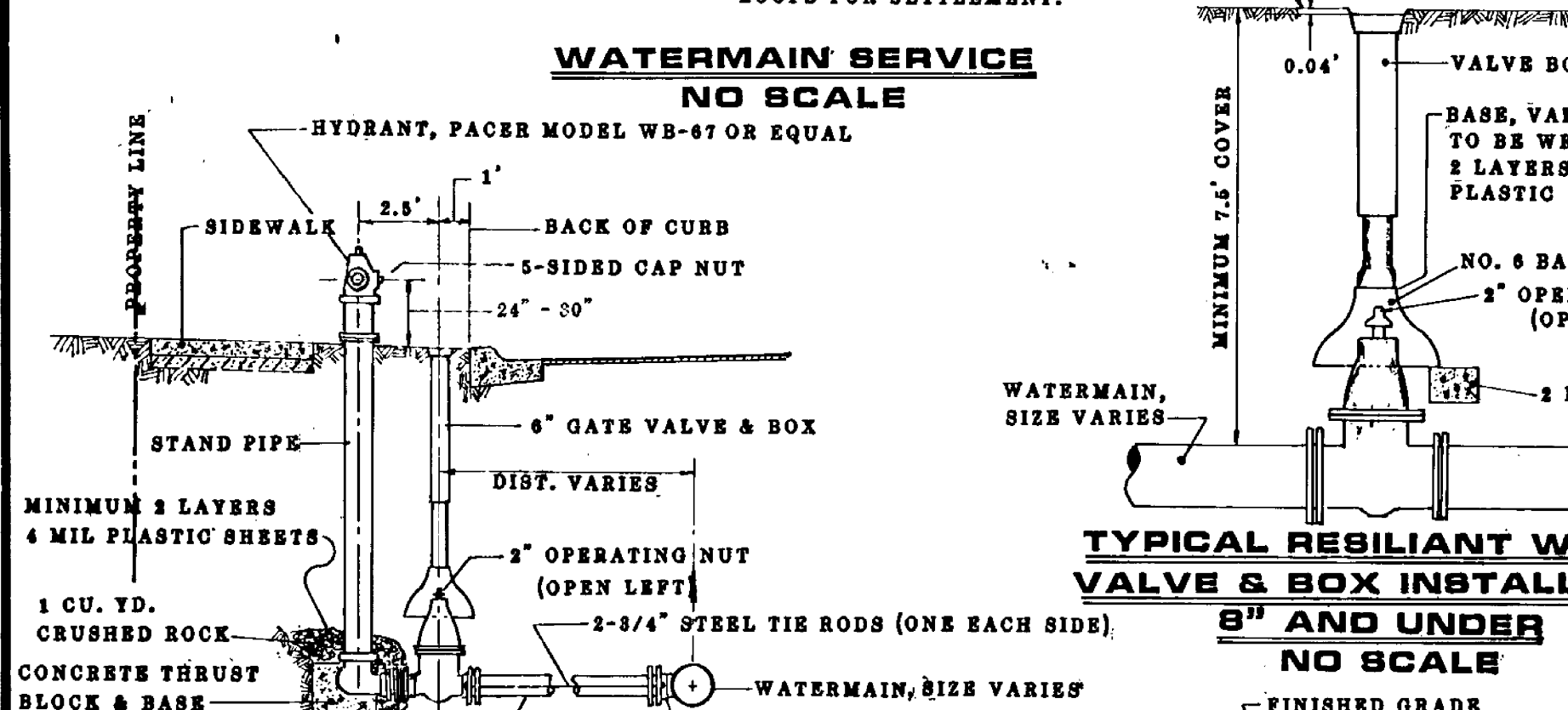
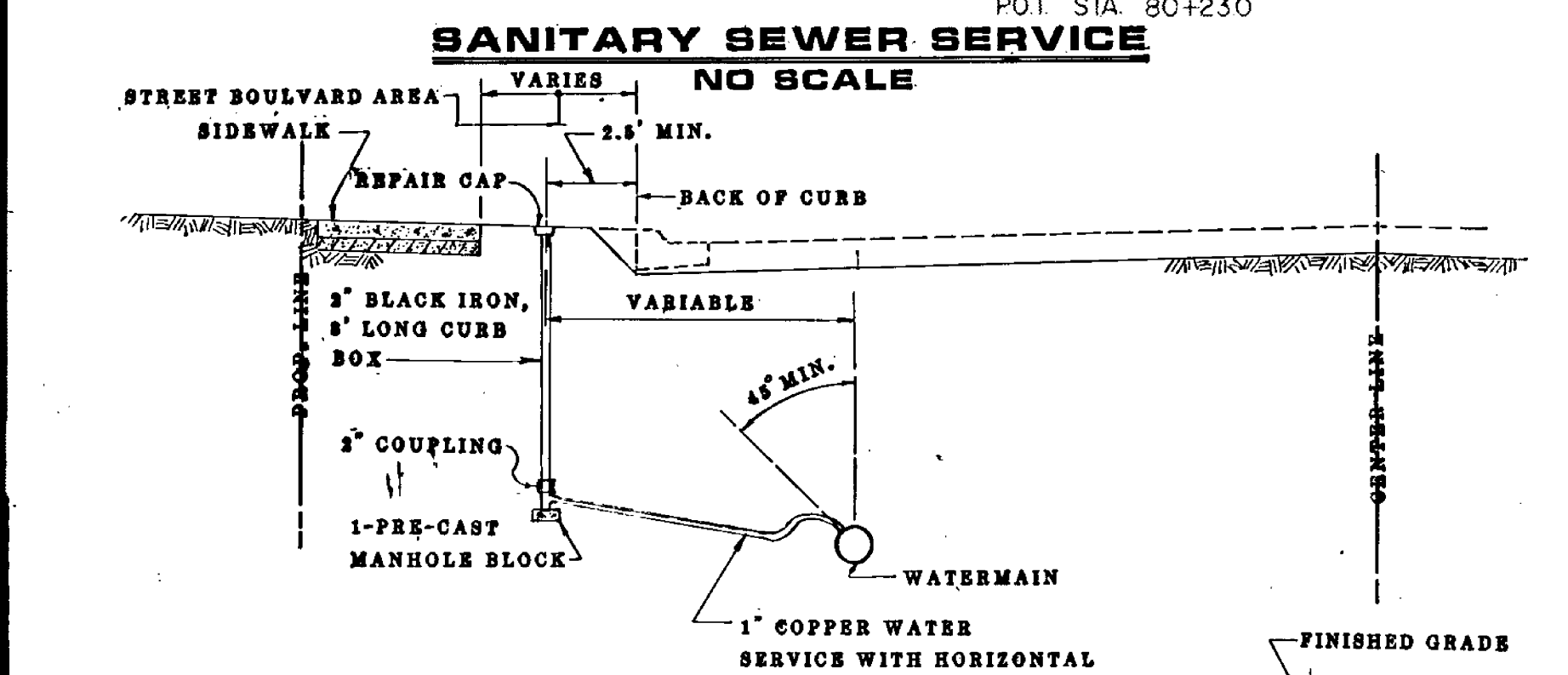
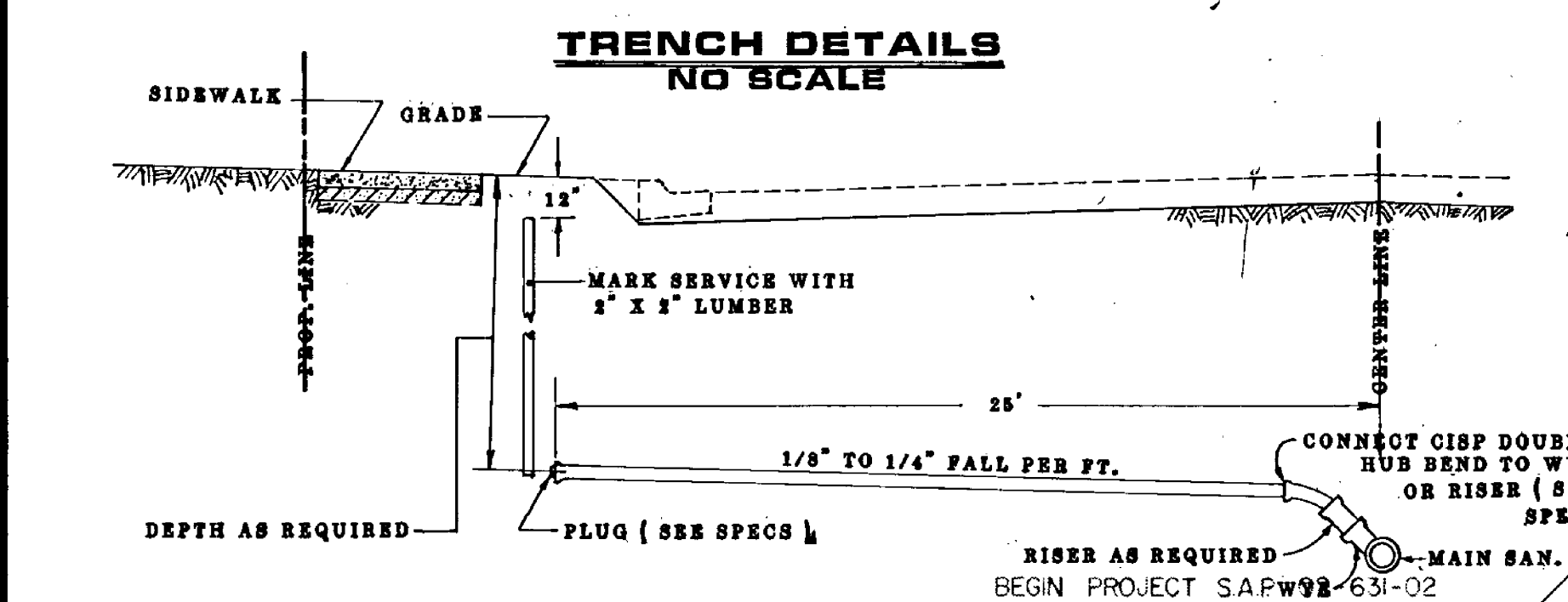
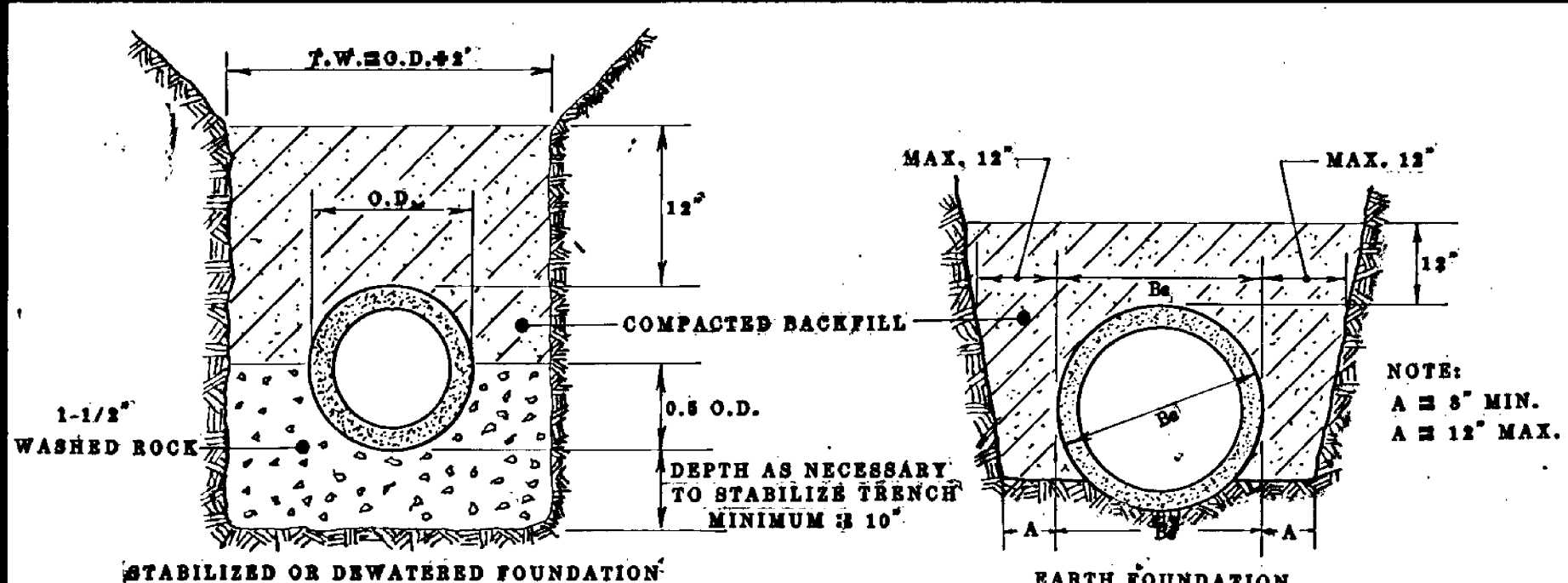
NEW CONSTRUCTION



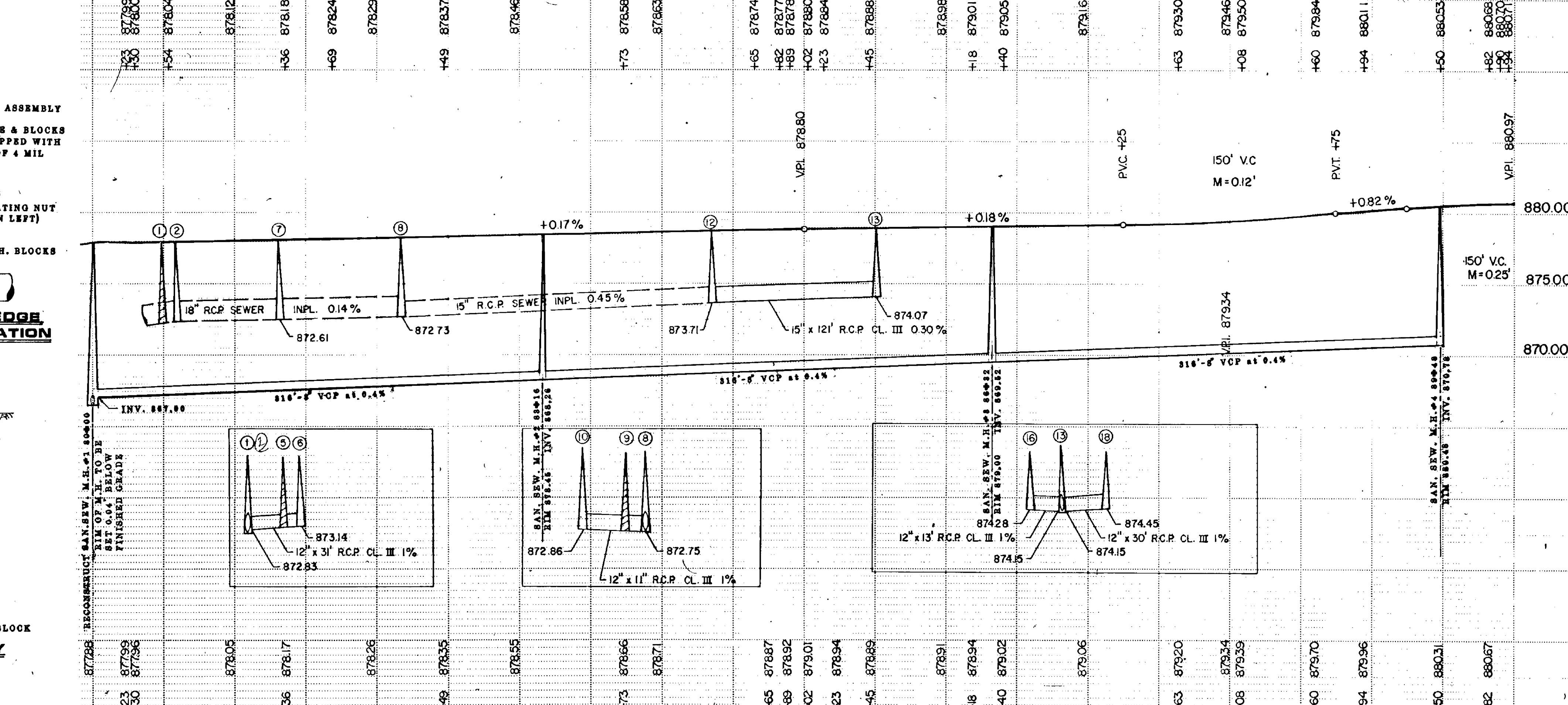
BENCH MARK #12, ELEV 872.83
TOP OF HYDRANT
STA. 116+90 50 RT.



TELETYPE POST - SINGLE PLAN - RUSH - 10/10/02



**CITY OF ANOKA, MINNESOTA
SANITARY SEWER EXTENSION JACKSON ST. TO HARRISON ST. ON FOURTH AVE.**



NOTE: There are many old water service lines of material other than copper in this street. Some of these service lines do not serve any property, but the majority of them are being used. Regardless of the function of these water services they are to be abandoned at the main and the corporations shut off. These service lines which are now serving a property and are of a material other than copper are to be reconnected using copper water service to the watermain. All water services are to be extended to the boulevard area on the side of the street of the property being served. All existing copper water service lines must have their water stops moved to the boulevard area on the side of the street of the property being served.

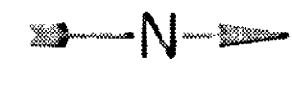
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Minnesota.
Robert B. Johnson, P.E. Date 2/16/89
Registration No. 3941

CITY OF ANOKA UTILITY PLAN

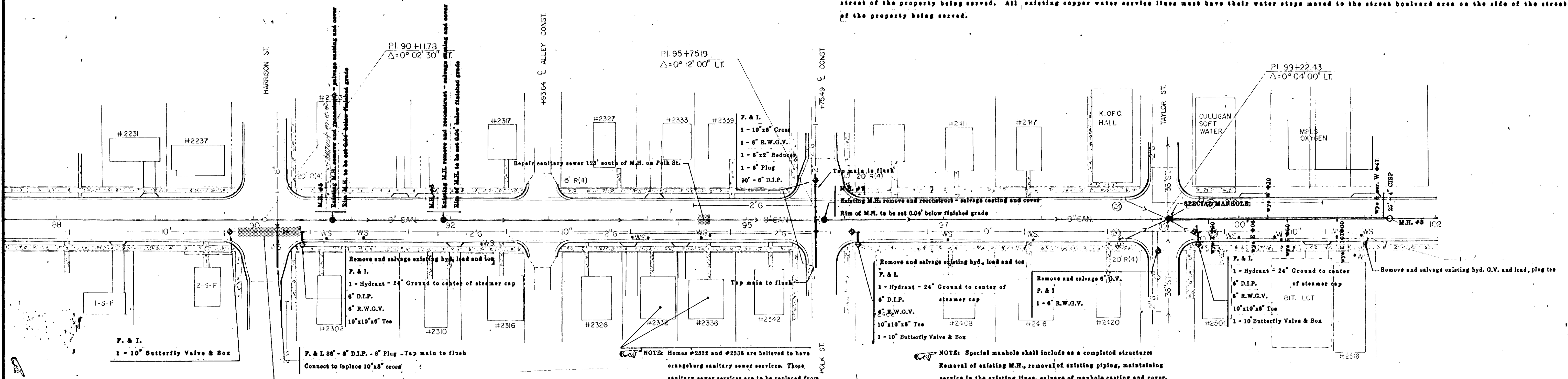
NOTE: All salvaged material to be delivered to the city garage at 216 Harrison St.

NOTE: There are four (4) more or less private water services connected to the watermain in Fourth Ave. at Van Buren St. The known water services serve the houses at 409, 415, 421, & 427 Van Buren St. east of Fourth Ave. All water services in this area are to be abandoned and the corporations shut off at the Fourth Ave. watermain. These homes which are disconnected are to be reconnected to the in-place watermain in Van Buren St. opposite their respective residences. Van Buren St. may be open-cut to make these reconnections. The contractor will be responsible for compaction, street restoration, curb repair and setting. All restoration work must meet or exceed existing conditions. The reconnection for the water services will be from the in-place watermain in Van Buren St. to the street boulevard area. A reconnection shall consist of a 1" tapping saddle, 1" corporation, 1" copper water service, 1" curb stop and box, and fittings necessary to reconnection. Use a Rockwell #317 tapping saddle to connect to 4" watermain.

TELETYPE POST - SINGLE PLAN - PROFILE - 1/2" = 1'



NOTE: There are many old water service lines of material other than copper in this street. Some of these service lines do not serve any property, but the majority of them are being used. Regardless of the function of these water services they are to be abandoned at the main and the corporations shut off. Those service lines which are now serving a property and are of material other than copper are to be reconstructed using a copper water service to the watermain. All water services are to be extended to the boulevard area on the side of the street of the property being served. All existing copper water service lines must have their water stops moved to the street boulevard area on the side of the street of the property being served.



NOTE: There are three (3) more or less private water services connected to the watermain in Fourth Ave. at Harrison St. and serve homes on Harrison St. east of Fourth Ave. All water services in this area are to be shut off at the Fourth Ave. watermain. Those services which are disconnected are to be reconnected to the easterly end of the 6" D.I.P. extended easterly on Harrison St. A reconnect shall consist of 1" corporation, 1" copper service, 1" curb stop and box, and fittings necessary to reconnect.

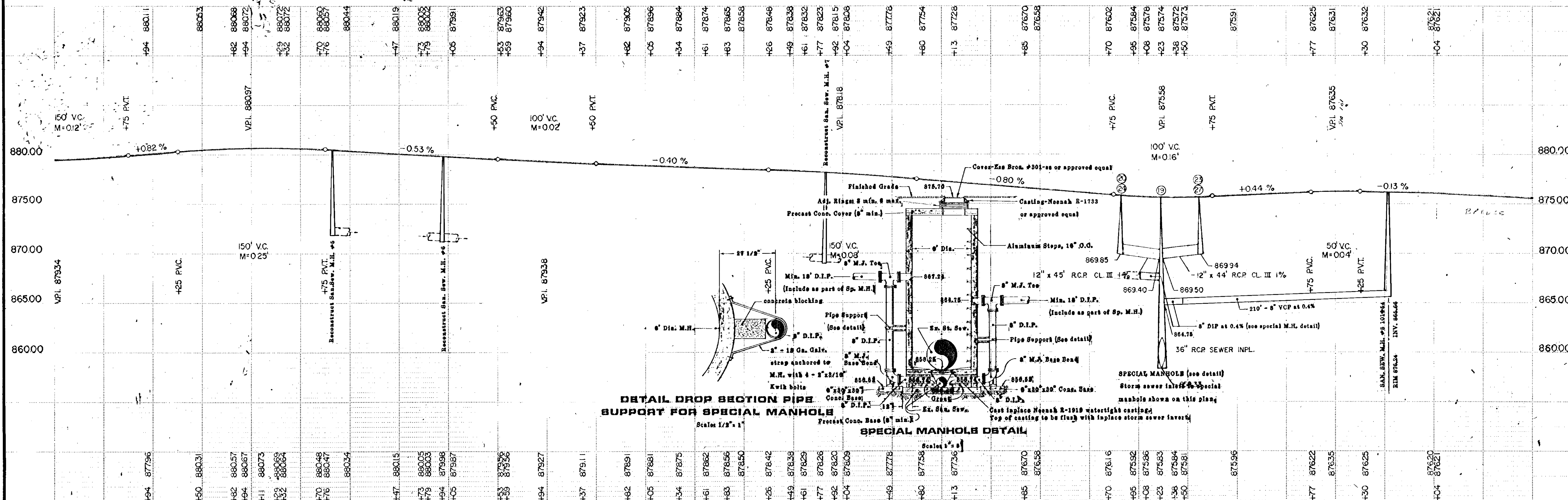
NOTE: Homes #2332 and #2336 are believed to have orangeburg sanitary sewer services. Those sanitary sewer services are to be replaced from the main to the street boulevard area with 4" CISP and reconnected to the in-place sewer.

NOTE: Special manhole shall include as a completed structure: Removal of existing M.H., removal of existing piping, maintaining service in the existing lines, salvage of manhole casting and cover, construction of 6" dia. manhole, drop sections, D.I.P. and any connecting pieces to connect existing sanitary sewer and proposed sanitary sewer to this structure, casting, cover and adjustments.

NOTE: All salvaged material to be delivered to the city garage at 215 Harrison St.

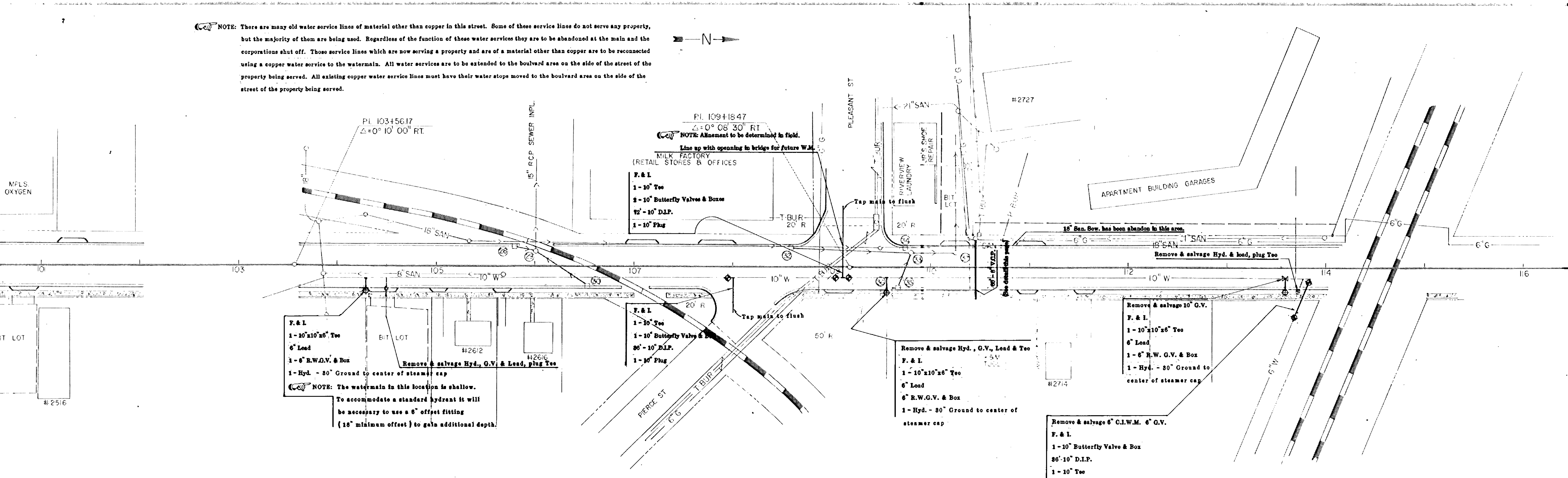
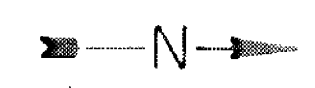
BENCH MARK #8, ELEV. 871.05
TOP SW COR. BOT. STEP, HO. #2302
STA. 90+70, 48' RT.

BENCH MARK #3, ELEV. 873.90
TOP NW COR. TOP STEP, HO. #2342
STA. 95+20, 44' RT.



CITY OF ANOKA UTILITY PLAN

NOTE: There are many old water service lines of material other than copper in this street. Some of these service lines do not serve any property, but the majority of them are being used. Regardless of the function of these water services they are to be abandoned at the main and the corporations shut off. Those service lines which are now serving a property and are of a material other than copper are to be reconnected using a copper water service to the watermain. All water services are to be extended to the boulevard area on the side of the street of the property being served. All existing copper water service lines must have their water stops moved to the boulevard area on the side of the street of the property being served.



PL 10345617
 $\Delta = 0^\circ 10' 00''$ RT

PL 10941847
 $\Delta = 0^\circ 08' 30''$ RT

NOTE: Alignment to be determined in field.
 Line up with opening to bridge for future W.M.

MILK FACTORY
 (RETAIL STORES & OFFICES)

F. & I.
 1-10" Tee
 2-10" Butterfly Valve & Box
 12'-10" D.I.P.
 1-10" Plug

Remove & salvage Hyd., G.V. & Lead, plug Tee

F. & I.
 1-10" Tee
 1-10" Butterfly Valve & Box
 36'-10" D.I.P.
 1-10" Plug

Remove & salvage Hyd., G.V., Lead & Tee
 F. & I.
 1-10" x 10" Tee
 6" Lead
 6" R.W.G.V. & Box
 1-Hyd. - 30" Ground to center of steamer cap

NOTE: The watermain in this location is shallow.
 To accommodate a standard hydrant it will be necessary to use a 6" offset fitting (18" minimum offset) to gain additional depth.

Remove & salvage 10" G.V.
 F. & I.
 1-10" x 10" Tee
 6" Lead
 1-6" R.W.G.V. & Box
 1-Hyd. - 30" Ground to center of steamer cap

Remove & salvage 6" C.I.W.M. 6" G.V.
 F. & I.
 1-10" Butterfly Valve & Box
 36'-10" D.I.P.
 1-10" Tee
 1-10" x 6" Reducer
 1-6" R.W.G.V. & Box

BENCH MARK II, ELEV. 869.83
 TOP S.E. COR. BUT. STEP (N'LY SET)
 STA. 274.5, 45' LT.

NOTE: All salvaged material to be delivered to the city garage at 216 Harrison St.

CITY OF ANOKA UTILITY PLAN

