MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

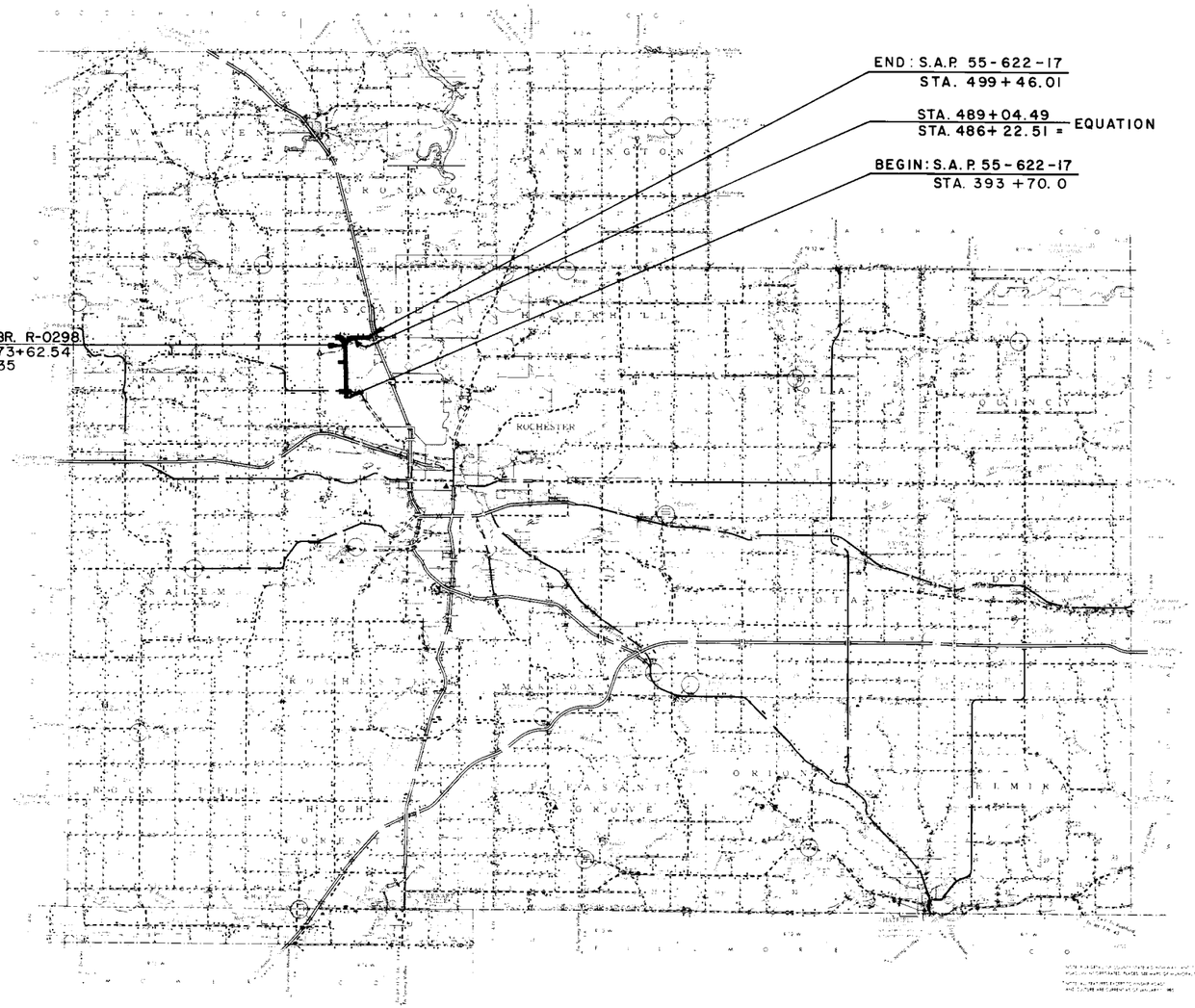
CONSTRUCTION PLAN FOR GRADING AND AGGREGATE BASE

LOCATED ON C.S.A.H. 22 **BETWEEN** C.S.A.H. 4 **AND** T.H. 52 **(GEOGRAPHIC DESCRIPTION)**

FROM APPROX. 1324.85'W. OF THE N.E. COR. S.E. 1/4 AND 272.50'S. OF SEC. 20 T.107N. – R.14 W. **TO** APPROX. 926.69'W. OF THE N.E. COR. N.W. 1/4 OF SEC. 16 T.107N. – R.14 W. **(LEGAL DESCRIPTION)**

~~STATE PROJ. NO.~~ S.A.P. 55-622-17				
GROSS LENGTH	88.19	FEET	0.017	MILES
BRIDGES-LENGTH	0	FEET	0	MILES
EXCEPTIONS-LENGTH	0	FEET	0	MILES
NET LENGTH	88.19	FEET	0.017	MILES

~~STATE PROJ. NO.~~ S.A.P. 55-622-17				
GROSS LENGTH	10,294.03	FEET	1.950	MILES
BRIDGES-LENGTH	0	FEET	0	MILES
EXCEPTIONS-LENGTH	88.19	FEET	0.017	MILES
NET LENGTH	10,205.84	FEET	1.933	MILES



PLANS SYMBOLS

UTILITIES SYMBOLS

SCALES

PLAN	50'
PROFILE	50' HORIZ. & 10' VERT.
INDEX MAP	10,560'
CROSS SECTIONS	10' HORIZ. & 10' VERT.

ALBINSON MPLS 55401

72065

MINN. PROJ. NO.

GOVERNING SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AS AMENDED BY THE JANUARY 2, 1991 SUPPLEMENTAL SPECIFICATIONS SHALL GOVERN.

INDEX

SHEET NO. 1 TITLE
SHEET NO. 2-3 ESTIMATE OF QUANTITIES
SHEETS NO. 4-5 TYPICAL SECTIONS
SHEETS NO. 6-18 PLAN AND PROFILE
SHEET NO. 19 TRAFFIC CONTROL PLAN
SHEETS NO. 20-48 CROSS SECTIONS
SHEETS NO. 49-53 PRECAST BOX CULV. AND END SECTIONS
SHEETS NO. 54-58 TEMPORARY TRANSITION FROM 4-LANE TO 2-LANE PLAN, PROFILE AND CROSS SECTIONS.

APPROVED 4-17 1992 Roger E. Klemme
DIRECTOR OF PUBLIC SERVICES, CITY OF ROCHESTER

*Traffic Projection Year 2000 A.D.T. 9500 (From Project Development Report)

DESIGN DESIGNATION

Functional Classification: Minor Arterial

ADT (Current Year) = * **Design Speed** 55 **MPH**
ADT (Future Year) = * **Based on** Stopping **Sight Distance**
DHV (Design Hr. Vol.) = **Height of eye** 3.5 **Height of object** 0.5
D (Directional Distr.) = % **Design Speed not achieved at:**
T (Heavy Commercial) = EST. 6 %
SOIL FACTOR 130
10 Ton Design Shoulder Width 8'
No. Of Traffic Lanes 4 Lanes
No. Of Parking Lanes None

STA.	TO STA.	MPH
STA.	TO STA.	MPH
STA.	TO STA.	MPH

STOP CONDITIONS:
CSAH 4 AT CSAH 22
CSAH 22 AT TH 52

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.

DATE 4/30/92 REG. NO. 17397 ENGR. Michael Thuban

COUNTY Olmsted

Recommended for Approval ..... 19...
DISTRICT STATE AID ENGINEER

Recommended for Approval ..... 5/12 19...
STATE AID PLANS AND SPECS ENGINEER

Approved ..... 19...
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-622-17 & 55-622-18
~~STATE PROJ. NO.~~

SHEET NO. 1 **OF** 58 **SHEETS**

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	PARTICIPATING RURAL	NON PARTICIPATING RURAL	PARTICIPATING MUNICIPAL	NON PARTICIPATING MUNICIPAL	STORM SEWER RURAL	STORM SEWER MUNICIPAL	TOTAL STORM SEWER	S.A.P. 55-622-17 TOTAL ESTIMATED QUANTITIES	S.A.P. 55-622-18 TOTAL ESTIMATED QUANTITIES
(1)	2101.501	CLEARING	ACRE	2.8		2.4					5.2	
(1)	2101.502	CLEARING	TREE	342		47					389	
(1)	2101.506	GRUBBING	ACRE	2.8		2.4					5.2	
(1)	2101.507	GRUBBING	TREE	212		38					250	
(16)	2103.501	BUILDING REMOVAL	LUMP SUM		1						1	
(2)	2104.501	REMOVE PIPE CULVERTS	LIN. FT.	194		289					483	
(3)	2104.501	REMOVE FENCE	LIN. FT.	7,018							7,018	
	2104.501	REMOVE GUARD-RAIL PLATE BEAM	LIN. FT.			96					96	
	2104.505	REMOVE CONCRETE PAVEMENT	SQ. YD.	4,541							4,541	
(17)	2104.509	REMOVE UNDERGROUND PETROLEUM TANK	EACH		1						1	
	2104.513	SAWING BITUMINOUS PAVEMENT	LIN. FT.	44		190					234	
	2104.513	SAWING CONCRETE PAVEMENT	LIN. FT.	48							48	
(18)	2104.525	ABANDON & SEAL WELL SHAFT	EACH		1						1	
	2105.511	COMMON CHANNEL EXCAVATION	CU. YD.			3,161						(P) 3,161
(4)	2105.515	UNCLASSIFIED EXCAVATION	CU. YD.	219,780		39,121					(P)258,901	
(5)	2123.508	15 CU. YD. SCRAPER	HOUR			15					15	
(5)	2123.509	DOZER	HOUR			15					15	
(6)	2130.501	WATER	M-GAL.	76		14					90	
(7)	2211.501	AGGREGATE BASE CLASS 2	TON	9,596		6,377	956				16,929	
(8)	2211.501	AGGREGATE BASE CLASS 5 (MODIFIED)	TON	8,884		6,513					15,397	
	2412.511	129 PRECAST CONC. BOX CULVERT	LIN. FT.									780
(9)	2412.512	129 PRECAST CONC. BOX CULV. END SECTION	EACH									8
(10)	2442.501	REMOVE OLD BRIDGE	LUMP SUM			1					1	
	2451.507	GRANULAR BEDDING (CV)	CU. YD.									(P) 486
	2501.511	18" C.S. PIPE CULVERT	LIN. FT.	140							140	
	2501.511	24" C.S. PIPE CULVERT	LIN. FT.	68		138					206	
	2501.511	30" C.S. PIPE CULVERT	LIN. FT.			96					96	
	2501.511	24" R.C. PIPE CULVERT CLASS 2	LIN. FT.	68		90					158	
	2501.511	24" R.C. PIPE CULVERT CLASS 3	LIN. FT.	94							94	
	2501.511	42" R.C. PIPE CULVERT CLASS 3	LIN. FT.	248							248	
	2501.515	18" G.S. PIPE APRON	EACH	6							6	
	2501.515	24" G.S. PIPE APRON	EACH	2		4					6	
	2501.515	30" G.S. PIPE APRON	EACH			2					2	
	2501.515	12" R.C. PIPE APRON (OUTLET)	EACH						1		1	
	2501.515	24" R.C. PIPE APRON	EACH	3		1					4	
	2501.515	42" R.C. PIPE APRON	EACH	2							2	
	2501.521	21" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.	68							68	
	2501.521	28" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.	68							68	
(11)	2501.521	35" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.	110							110	
	2501.521	57" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.			56					56	
	2501.521	28" SPAN R.C. PIPE-ARCH CULVERT CL. 2A	LIN. FT.	622		152					774	
	2501.521	88" SPAN R.C. PIPE-ARCH CULVERT CL. 2A	LIN. FT.	228							228	
	2501.525	21" SPAN G.S. PIPE-ARCH APRON	EACH	2							2	
	2501.525	28" SPAN G.S. PIPE-ARCH APRON	EACH	2							2	
	2501.525	35" SPAN G.S. PIPE-ARCH APRON	EACH	2							2	
	2501.525	57" SPAN G.S. PIPE-ARCH APRON	EACH			2					2	
	2501.525	28" SPAN R.C. PIPE-ARCH APRON	EACH	18		6					24	
	2501.525	88" SPAN R.C. PIPE-ARCH APRON	EACH	2							2	
	2501.541	60" HIGH R.C. CATTLE PASS CULV.	LIN. FT.	78							78	
	2501.545	60" HIGH R.C. CATTLE PASS APRON	EACH	2							2	
	2503.511	12" R.C. PIPE SEWER CLASS 4	LIN. FT.						67	67	67	
	2506.502	CONSTRUCT DRAINAGE STRUCTURE, DESIGN C	EACH						2	2	2	
	2506.502	CONSTRUCT DRAINAGE STRUCTURE, DESIGN I	EACH						2	2	2	
	2506.522	ADJUST FRAME AND RING CASTING	EACH				2				2	
(12)	0506.602	CONNECT INTO EXIST STORM SEWER	EACH						2	2	2	
(13)	2511.502	RANDOM RIPRAP CLASS 3	TON	32							32	179
	0563.601	TRAFFIC CONTROL	LUMP SUM	0.85		0.15					1	
	2575.501	ROADSIDE SEEDING	ACRE	20.5		9.5					(P) 30	
(14)	2575.502	SEED MIXTURE 500	POUND	800		400					1,200	
	2575.502	SEED MIXTURE 1100	POUND	1,640		760					2,400	
	2575.502	SEED CROWN VETCH	POUND	112.5		37.5					150	
	2575.505	SODDING TYPE EROSION	SQ. YD.	15,916		15,649					31,565	
	2575.511	MULCH MAT'L TYPE 1	TON	41		19					60	
	2575.519	DISC ANCHOR	ACRE	16		8					(P) 24	
	2575.531	COMMERCIAL FERTILIZER ANALYSIS 10-10-10	TON	2.05		0.95					3.0	
(15)	0503.603	16" STEEL CASING PIPE	LIN. FT.		480						480	
15	0503.603	24" STEEL CASING PIPE	LIN. FT.		1.072						1.072	

QUANTITY NOTES:

(P) PLAN QUANTITY

(1) TREES FOR REMOVAL WILL BE DESIGNATED BY THE ENGINEER.

(2) REMOVAL INCLUDES STONE HEADWALLS AT STA. 409+61 AND CONCRETE HEADWALLS AT . STA. 413+95.

(3) REMOVE FENCE IN THE AREA'S AS DIRECTED BY THE ENGINEER.

(4) UNCLASSIFIED EXCAVATION INCLUDES SUBGRADE TREATMENT AS SHOWN IN TYPICAL SECTIONS AND CROSS SECTIONS. 9941 CUBIC YARDS UNCLASSIFIED EXCAVATION TO BE USED AS SALVAGED TOPSOIL AND PLACED AS SHOWN IN THE PLANS.

(5) EQUIPMENT HOURS FOR OBLITERATING OLD ROAD AS DIRECTED BY THE ENGINEER.

(6) WATER TO BE USED AS A DUST PREVENTATIVE AS DIRECTED BY THE ENGINEER.

(7) INCLUDES 10,567 TONS FOR MAINLINE ON C.S.A.H. 22, 1,243 TONS FOR MAINLINE ON C.S.A.H. 4, 448 TONS FOR ENTRANCE LEFT STA. 446+00, 600 TONS FOR 55TH STREET N.W., 1,357 TONS FOR TURN LANES AND RAMPS, 1,758 TONS FOR 15 APPROACHES, AND 956 TONS FOR TRAIL.

(8) INCLUDES 11,536 TONS FOR MAINLINE ON C.S.A.H. 22, 1,356 TONS FOR MAINLINE ON C.S.A.H. 4, 489 TONS FOR APPROACH LEFT STA. 446+00, 643 TONS FOR 55TH STREET N.W., AND 1,373 TONS FOR 21 TURN LANES AND RAMPS.

(9) FOUR INLET APRONS ARE MODIFIED. SEE PRECAST CONCRETE END SECTION PLAN SHEETS.

(10) BRIDGE LOCATED ON OLD ROAD THAT IS TO BE OBLITERATED NORTH OF STA. 462+00.

(11) INCLUDES 1-10° BEND

(12) LOCATED AT C.B. 3 AND C.B. 4.

(13) PLACE RIPRAP ON GRANULAR FILTER OR GEOTEXTILE FILTER MATERIAL. FILTER MATERIAL OF EITHER TYPE USED, WILL BE CONSIDERED TO BE INCIDENTAL TO RIPRAP CONSTRUCTION AND NO DIRECT COMPENSATION WILL BE MADE THEREFOR.

(14) INCLUDES 24 ACRES FOR SEED MIXTURE 500 AND 1100 AND 6 ACRES FOR SEED CROWN VETCH AND SEED MIXTURE 1100.

(15) MINIMUM WALL THICKNESS OF 5/16 INCH

(16) ALL BUILDING AS LISTED IN SPECIAL PROVISIONS.

(17) INCLUDES GAS PUMP 43' RIGHT STA. 477+55.

(18) LOCATED 10' RIGHT OF STA. 478+00. WELL SHAFT SHALL BE REMOVED TO ELEV. 1023.0.

BASIS OF PLANNED QUANITIES

AGGREGATE BASE CLASS 2	-	140 LBS. / CU. FT. COMPACTED
AGGREGATE BASE CLASS 5 (MOD.)	-	140 LBS. / CU. FT. COMPACTED
GRANULAR BEDDING	-	67.36'W x 195'L x 1.0'D ÷ 27= 486 CU. YDS
RANDOM RIPRAP	-	2000 LBS. / CU. YD.
SEED MIXTURE 500	-	50 LBS. / ACRE
SEED MIXTURE 1100	-	80 LBS. / ACRE
CROWN VETCH	-	25 LBS. / ACRE
MULCH MATERIAL	-	2 TONS / ACRE
DISC ANCHOR	-	ALL AREA'S WITH SEED MIXTURE 500
COMMERCIAL FERTILIZER	-	200 LBS. / ACRE

UTLITY LOCATIONS

GOPHER STATE ONE CALL 1-800-252-1166

NOTE: CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ALL INPLACE UTILITIES MAY NOT BE SHOWN ON THIS PLAN.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
0005 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 L	REINFORCED CONCRETE PIPE
3007 B	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3014 J	REINFORCED CONCRETE PIPE ARCH DETAIL
3020 F	REINFORCED PRECAST CONCRETE CATTLE PASS (60' & 72')
3040 F	CORRUGATED METAL PIPE CULVERT
3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3122 K	METAL APRON FOR C.M. PIPE-ARCH CULVERT
3123 J	METAL APRON FOR C.S. PIPE
3124 B	METAL APRON CONNECTION
3133 B	RIPRAP AT R.C.P. OUTLETS
3145 E	CONCRETE PIPE EYE BOLT TIE
3221 C	CORRUGATED STEEL PIPE COUPLING BAND
4002 E	MANHOLE OR CATCH BASIN
4008 E	CATCH BASIN
4010 G	CONC. SHORT CONE & ADJUSTING RING
4011 D	PRECAST CONCRETE BASE
4129 F	CATCH BASIN FRAME CASTING
4154 B	CATCH BASIN GRATE CASTING
4160 D	CURB BOX CASTING FOR CATCH BASIN
8000 I	STANDARD BARRICADES
9000 B	APPROACHES AND ENTRANCES

SEED MIXTURE 500 - SEED MIXTURE 1100 - MULCH - DISC ANCHOR - & FERTILIZER

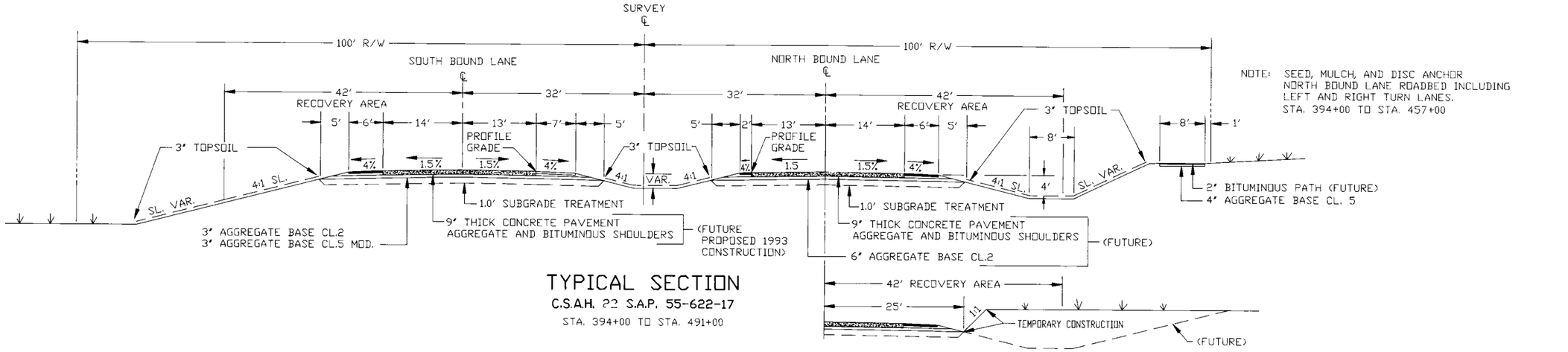
LOCATION		ACRES
N.B. ROADWAY	STA. 393+70 TO STA. 464+00	8.68
DITCH & SLOPES	LT. & RT. STA. 393+70 TO STA. 406+00	1.90
DITCH & SLOPES	LT. STA. 410+00 TO STA. 414+00	0.30
DITCH & SLOPES	LT. & RT. STA. 414+00 TO STA. 421+00	0.85
DITCH & SLOPES	LT. STA. 421+00 TO STA. 426+00	0.39
DITCH & SLOPES	LT. & RT. STA. 437+00 TO STA. 446+00	1.03
DITCH & SLOPES	RT. STA. 446+00 TO STA. 461+00	1.38
DITCH & SLOPES	LT. & RT. STA. 461+00 TO STA. 480+00	4.08
DITCH & SLOPES	RT. STA. 480+00 TO STA. 499+46	1.26
DITCH & SLOPES	LT. & RT. STA. 353+00 TO STA. 369+00 C.S.A.H. 4	1.90
DITCH & SLOPES	RT. STA. 4+00 TO STA. 9+00 55TH STREET N.W.	0.12
DITCH & SLOPES	LT. & RT. STA. 9+00 TO STA. 10+87 55TH STREET N.W.	0.29
OBLITERATE OLD ROAD	LT. STA. 462+00 TO 1200' NORTH	1.82
	TOTAL ACRES	24.00

SEED CROWN VETCH - SEED MIXTURE 1100 - MULCH - & FERTILIZER

LOCATION		ACRES
DITCH & SLOPES	LT. & RT. STA. 406+00 TO STA. 410+00	0.86
DITCH & SLOPES	RT. STA. 410+00 TO STA. 414+00	0.44
DITCH & SLOPES	RT. STA. 424+00 TO STA. 426+00	0.31
DITCH & SLOPES	LT. & RT. STA. 426+00 TO STA. 437+00	3.44
DITCH & SLOPES	LT. STA. 456+00 TO STA. 461+00	0.95
	TOTAL ACRES	6.00

SODDING LOCATIONS

LOCATION		SQ. YD.
MEDIAN	STA. 393+70 TO STA. 493+00	17,342
DITCH & SLOPES	RT. STA. 421+00 TO STA. 424+00	578
DITCH & SLOPES	LT. STA. 446+00 TO STA. 456+00	3,756
DITCH & SLOPES	LT. STA. 480+00 TO STA. 499+46	7,200
DITCH & SLOPES	ENT. LT. STA. 446+00	1,756
DITCH & SLOPES	LT. STA. 5+00 TO STA. 9+00 55TH STREET N.W.	933
	TOTAL SQ. YDS.	31, 565



NOTE: SEED, MULCH, AND DISC ANCHOR NORTH BOUND LANE ROADBED INCLUDING LEFT AND RIGHT TURN LANES. STA. 394+00 TO STA. 457+00

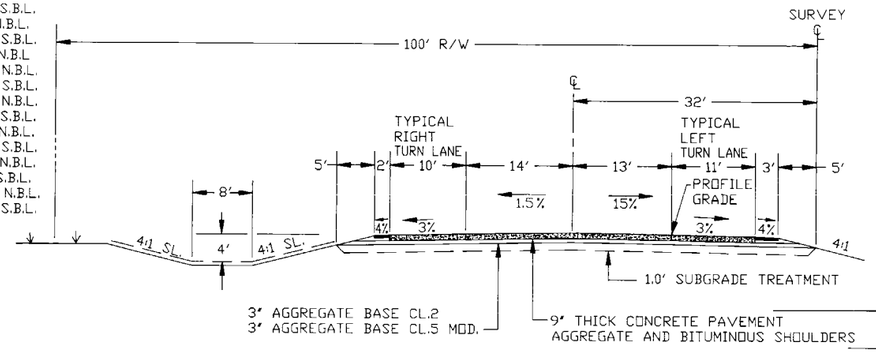
TYPICAL SECTION

C.S.A.H. 22 S.A.P. 55-622-17

STA. 394+00 TO STA. 491+00

TEMPORARY CONSTRUCTION RIGHT STA. 421+55 TO STA. 423+75 N.B. LANE

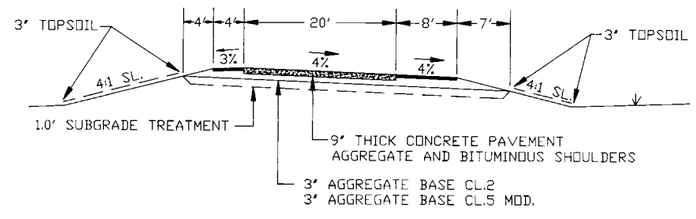
RIGHT TURN LANES:
STA. 397+00 TO STA. 402+00 S.B.L.
STA. 411+00 TO STA. 416+20 N.B.L.
STA. 417+25 TO STA. 422+15 S.B.L.
STA. 418+90 TO STA. 421+30 N.B.L
STA. 430+80 TO STA. 435+80 N.B.L.
STA. 436+70 TO STA. 441+55 S.B.L.
STA. 440+60 TO STA. 445+50 N.B.L.
STA. 446+50 TO STA. 451+40 S.B.L.
STA. 455+00 TO STA. 460+00 N.B.L.
STA. 460+90 TO STA. 465+70 S.B.L.
STA. 470+20 TO STA. 476+00 N.B.L.
STA. 477+10 TO STA. 481+00 S.B.L.
STA. 484+80 TO STA. 499+46 N.B.L.
STA. 492+00 TO STA. 496+60 S.B.L.



LEFT TURN LANES:
STA. 394+00 TO STA. 396+10 N.B.L.
STA. 397+00 TO STA. 402+00 S.B.L.
STA. 411+10 TO STA. 416+20 N.B.L.
STA. 417+25 TO STA. 422+15 S.B.L.
STA. 430+65 TO STA. 435+80 N.B.L.
STA. 436+70 TO STA. 441+80 S.B.L.
STA. 440+60 TO STA. 445+50 N.B.L.
STA. 446+50 TO STA. 451+40 S.B.L.
STA. 455+00 TO STA. 460+00 N.B.L.
STA. 460+90 TO STA. 465+90 S.B.L.
STA. 470+20 TO STA. 476+00 N.B.L.
STA. 477+10 TO STA. 482+00 S.B.L.
STA. 493+50 TO STA. 498+30 S.B.L.
STA. 497+66 TO STA. 499+46 N.B.L.

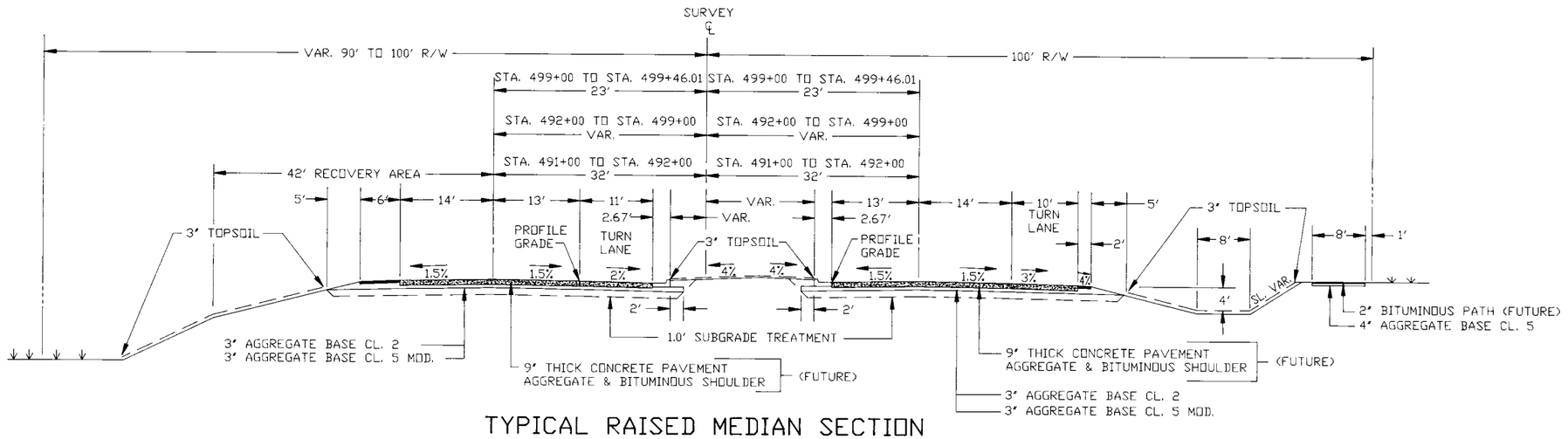
TYPICAL TURN LANE DETAILS

C.S.A.H. 22 S.A.P. 55-622-17



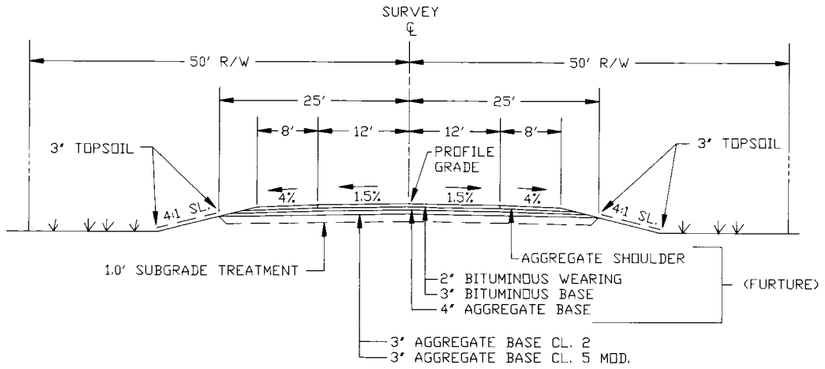
TYPICAL RAMP SECTION

OFF C.S.A.H. 4 ONTO C.S.A.H. 22 (ALL AGGREGATE BASE, SURFACE AND SHOULDERS FUTURE)
OFF C.S.A.H. 22 ONTO 55 STREET N.W. (ALL SURFACE AND SHOULDERS FUTURE)



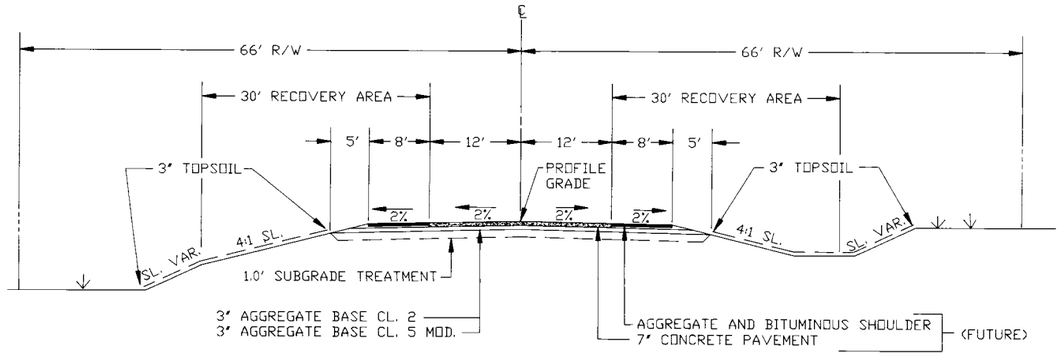
TYPICAL RAISED MEDIAN SECTION

C.S.A.H. 22 S.A.P. 55-622-17
STA. 491+00 TO STA. 499+46.01



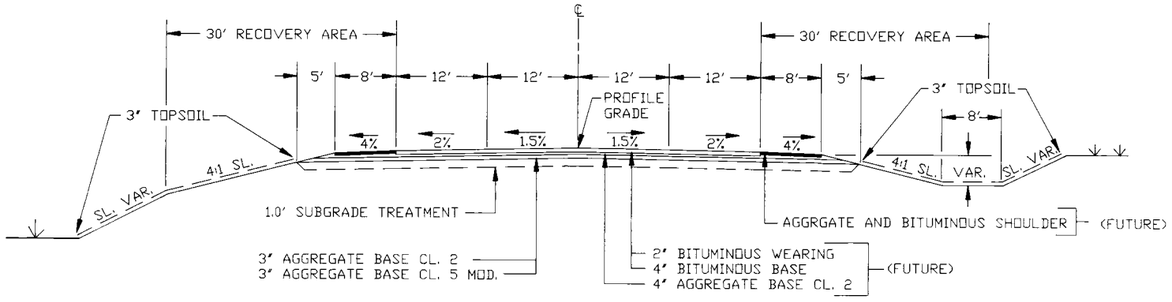
TYPICAL SECTION

DRIVE LT. STA. 446+00



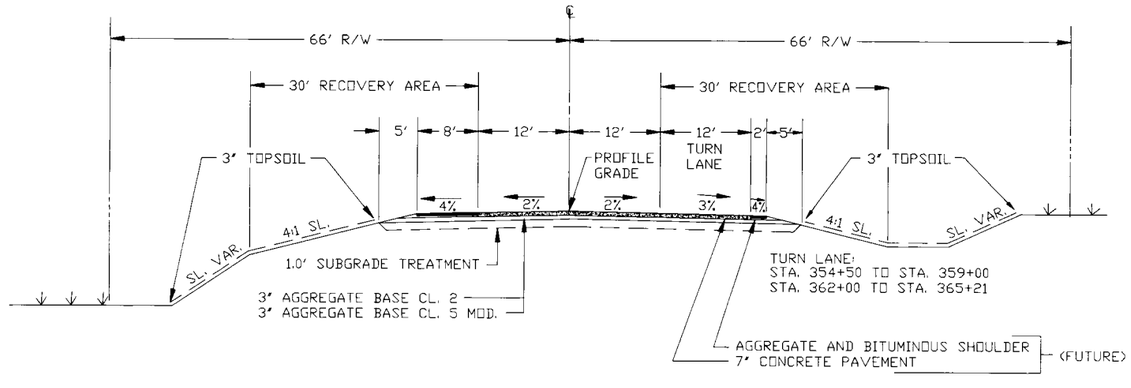
TYPICAL SECTION

C.S.A.H. 4



TYPICAL SECTION

55TH STREET



TYPICAL TURN LANE DETAIL

C.S.A.H. 4

SEE SHEETS NO. 16, 17, 47 & 48 FOR C.S.A.H. 4 DETAILS

BEGIN S.A.P. 55-622-17
STA. 393+70.00

P.O.T. 396+58.09 C.S.A.H. 22
P.I. 359+75.0 C.S.A.H. 4
P.O.T. 396+93.66

End Concrete
Temporary Headwall
Sta. 395+82

P.T. 394+51.79

FUTURE

P.C. 385+84.24

P.I. 390+71.14
Δ RT. 12° 44' 28"
D = 1° 40' 00"
T = 385.82'
L = 784.42'
R = 3437.75'
RATE OF SUPERELEVATION 3.7%

Δ 82° 30'
D 27°
T 186.10'
L 305.56'
R 212.21'
RATE OF SUPERELEVATION 4%

CONST. CULV.
28" SPAN x 70' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING
INLET EL. 08.2 OUTLET EL. 96.5

B.M. EL. 1111.22
TOP 1" SQ. ROD
P.I. 390+71.18

B.M. EL. 1112.86
TOP PK. NAIL
P.O.T. 396+58.09

P.I. 389 +00.00
ELEV. 1150.02
390' V.C.
M = 3.3 %
S1 = 3.9 %
S2 = -3.1 %

+3.9%
-3.1%

SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA 394+00 TO STA 405+50

NOTE: UNCLASSIFIED EXCAVATION QUANTITY FOR CSAH 4 APPROACH GRADING IS INCLUDED IN BALANCE QUANTITIES FROM STA 393+70 TO STA 402+50

UNCLASSIFIED EXC. 26995 CU. YDS.
EMB. 19814 CU. YDS.

FINISHED C. PROFILE

C. PROFILE
100' LT.
100' RT.

1140 1130 1120 1110 1100 1090 1080 1070

385 390 391 392 393 394 395 396 398 399

~~State Proj. No.~~ S.A.P. 55-622-17

CONST. 60" CATTLE PASS S.B. LANE STA. 410 + 35
48"x 60"x 78' REINFORCED PRECAST CONC. CATTLE PASS
2-48"x60" REINF. PRECAST CONC. CATTLE PASS END SECTIONS
PLACE CATTLE PASS ON "B" BEDDING.
CONST. 6' WIDE DIRT CATTLE RAMP FROM 15' TO 200' EAST
OF SURVEY CENTERLINE.

℄ CULV. 409 + 61
INPL. 18"x 28' CMP
NO APRONS
W/ STONE HDWL.
REMOVE

CONST. CULV. AT STA. 410+00 SKEW 45°
42"x 248' R.C. PIPE CL. III
2-42" R.C. PIPE APRONS
PLACE ON "B" BEDDING

300' TURN LANE +180 TAPER

300' TURN LANE +180 TAPER

CONST. DITCH, BLOCK

CONST. CATTLE RAMP 5% GRADE

CONST. F.E. RT. STA. 404 + 85
18"x 28' C.S. PIPE.
2-18" G.S. PIPE APRONS.

CONST. ℄ CULV. N.B. LANE STA. 406+00
28" SPAN x 56' R.C. PIPE-ARCH CL. 2 A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE CULVERT ON "B" BEDDING.

CL. 11 TREES — GR. 6 TREES

CL. 13 TREES — GR. 6 TREES

B.M. EL. 1079.15
SPK. IN PP 44653
STA. 407+50 Rt. 60'

FINISHED PROFILE

GRADE ABOUT EL. 1081

INLET EL. 93.1
OUTLET EL. 90.1

42" R.C.P. INLET EL. 73.0
42" R.C.P. OUTLET EL. ~~66.1~~ 67.1

CATTLE PASS INLET EL. 76.70
OUTLET EL. 75.5

42" R.C. PIPE

-3.1%

℄ PROFILE
100' LT.
100' RT.

UNCLASSIFIED EXCAVATION 10225 CU. YDS.
EMB. 7491 CU. YDS.

SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 410+50 TO STA. 411+80

~~State Proj. No.~~ S.A.P. 55-622-17

Sheet No. 7 of 58 Sheets

℄ CULV. 413+95
INPL. 48"x 28' CMP
NO APRONS
W/CONC. HDWLS.
REMOVE

CONST. CULV. STA. 415+05 SKEW 45°
88"SPAN x 228' R.C.PIPE-ARCH CL. 2A
2-88" SPAN R.C. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING.

CONST. RIPRAP AT OUTLET APRON
32 TON RANDOM RIPRAP CL. III 15" DEPTH.
7" GRANULAR FILTER OR GEOTEXTILE FILTER MATERIAL.

West End 1061.05
East End 1059.0

F.&I. 24"x 190' STEEL CASING PIPE STA. 416+80 SAN. SEWER
EL. 1062.0 90' LT. 100' RT.
F.&I. ~~24"x190' STEEL CASING PIPE~~ STA. 416+92 WATERMAIN
EL. W. ~~1062.0~~ EL. E. ~~1061.02~~ 1058.05
90' LT. 100' RT.
12" x 190' Duct IRON Water Main

APPROACH LT. STA. 416+80
(FUTURE)

F.&I. 16"x160' STEEL CASING PIPE STA. 424+79.97 SAN. SEWER
EL. 1075.0 80' LT. 80' RT. 1074.2 East End
West End

F.&I. ~~16"x160' STEEL CASING PIPE~~ STA. 424+91.97 WATERMAIN
EL. W. ~~1083.0~~ EL. E. ~~1082.20~~ 1079.20
80' LT. 1080.0 80' RT.
12" x 160' Duct Iron Water main

P.C. 421+36.14

100'
130'
415
420
425
+80
+35
+15
+95
+90
+50
+00
300' TURN LANE + 180' TAPER
300' TURN LANE
CONST. DITCH BLOCK
CONST. DITCH SECTION IN N.B.L.
BERM
WOODS
120'

CONST. ℄ CULV. N.B.L. STA. 416+00
28"SPAN x 78' R.C.PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING.

PROPOSED 41st. ST. N.W. 416+80

APPROACH RT. STA. 416+80
(FUTURE)

CONST. ℄ CULV. N.B. LANE STA. 417+45
28" SPAN x 48' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING

RES. DR. RT. 421+50
INPL. 18"x 24' CMP
NO APRONS 24"x38' cm Pipe
REMOVE 2-24" C.S. Pipe Aprons

CONST. ENT. RT. STA. 421+50
21"SPAN x 68' C.S. PIPE-ARCH
2-21"SPAN G.S. PIPE-ARCH APRONS
PLACE IN MEDIAN.

Install
~~(FUTURE)~~ CONST. ℄ CULV. N.B.L. 424+00
28"SPAN x 48' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE ON "B" BEDDING.

P.I. 426+00.20
Δ RT. 3° 05' 35"
D = 0° 20' 00"
T = 464.06'
L = 927.90'
R = 17,188.73'

CL. 5 TREES GR. 2 TREES — CL. 2 TREES - GR. 2 TREES — CL. 1 TREE - GR. 1 TREE — CL. 4 TREES - GR. 3 TREES — CL. 11 TREES - GR. 7 TREES — CL. 0.7 ACRE - GR. 0.7 ACRE

B.M. EL. 1107.39
TOP OF REROD
P.I. 426+00

FINISHED PROFILE
78.72 78.63 75.98 74.01 72.80 72.36 72.69 73.79 75.65 78.28 81.67 81.78 84.33 85.45 88.93 92.00 94.67 96.94

P.I. 416+52.90
ELEV. 1064.68
900' V.C.
M = 7.763

P.V.C. 412+02.90
P.V.T. 421+02.90
P.V.C. 421+69.92
+3.8%

℄ PROFILE
100' LT.
100' RT.

28" Span R.C.P. Arch
Inlet El. 89.0
Outlet 88.0

88" SPAN R.C.P.-ARCH
INLET EL. ~~62.0~~ 62.6
OUTLET EL. ~~61.1~~ 61.5

28" SPAN R.C.P.-ARCH
INLET EL. ~~69.0~~ 69.5
OUTLET EL. ~~63.0~~ 63.5

28" SPAN R.C.P.-ARCH
INLET EL. ~~70.4~~ 70.7
OUTLET EL. ~~67.0~~ 69.5

STREAM: UNNAMED
DRAINAGE AREA: 182 ACRES
DESIGN FLOOD (50 YR.) 190 CFS
HEADWATER EL. 1067.2
BASIC FLOOD (100 YR.) 228 CFS
HEADWATER EL. 1068.2

SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 420+00 TO STA. 437+50

1120 1110 1100 1090 1080 1070 1060 1050 1040

67.6 65.0 64.0 62.5 62.6 62.7 63.7 64.3 64.6 65.4 65.7 66.1 66.7 67.4 69.9 75.8 79.7 81.6 80.3 81.6 83.3 89.4 97.7 06.9

+71 +89 +12 +40 +50 +66 +36 +51 +69

412 413 414 415 416 417 418 419 420 421 422 423 424 425 426

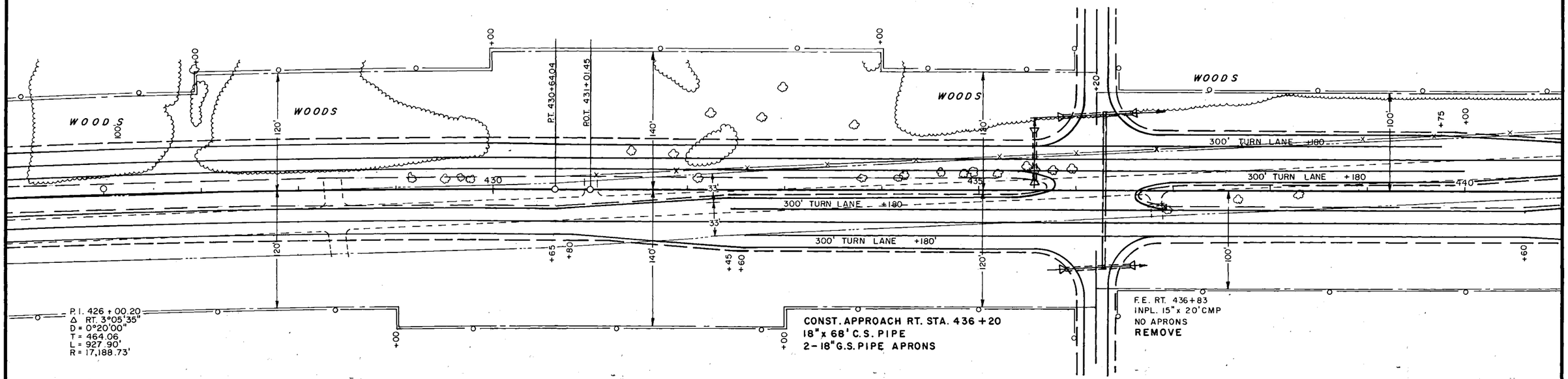
~~State Proj. No.~~ S.A.P. 55-622-17

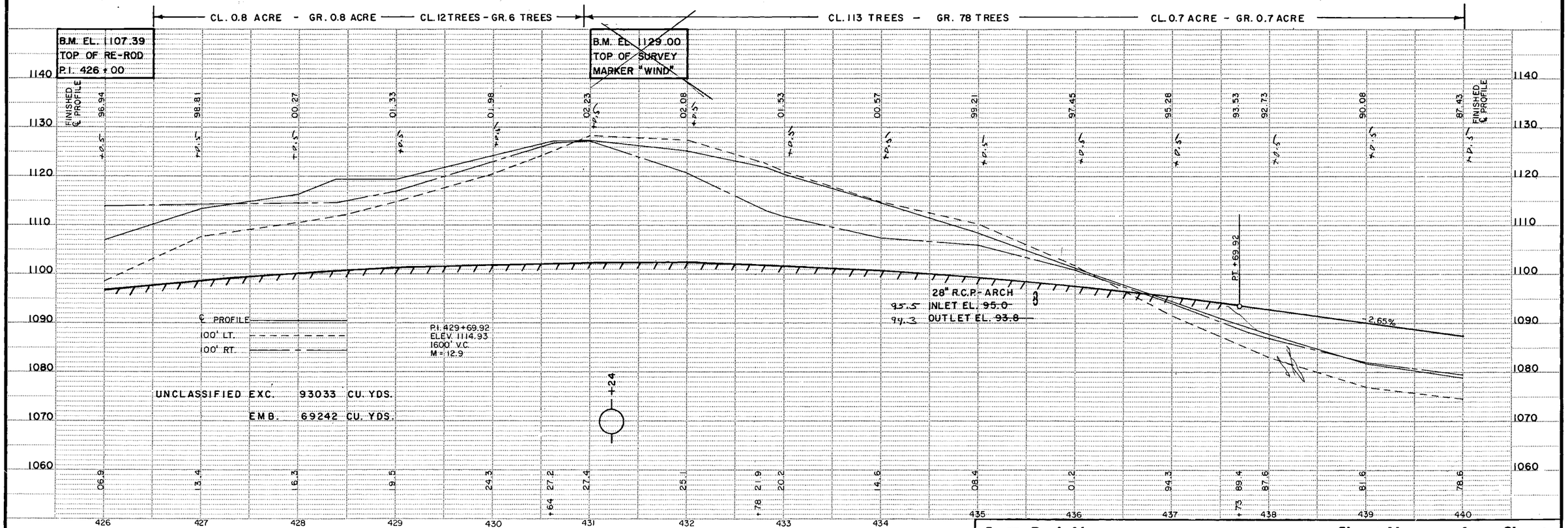
Sheet No. 8 of 58 Sheets

F.B.I. ~~16"x160' STEEL CASING PIPE~~ STA. 436+30 WATERMAIN
EL. W. ~~1086.0~~ EL. E. ~~1085.2~~ 1084.2
100 ~~80' LT.~~ 1085.7 700 ~~80'~~ RT.
12" x 200' Duct IRON Watermain

CONST. ℄ CULV. S.B. LANE STA. 435+58
28" SPAN x 48' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE ON "B" BEDDING.

CONST. APPROACH LT. STA. 436+20
28" SPAN x 68' C.S. PIPE-ARCH
2-28" SPAN G.S. PIPE-ARCH APRONS.





~~State Proj. No.~~ S.A.P. 55-622-17

F&I. 24"x160' STEEL CASING PIPE STA. 446+00 SAN. SEWER.
W EL. 1055.0 80' LT. 80' RT.
E EL. 1059.2

F&I. 24"x160' STEEL CASING PIPE STA. 446+12 WATERMAN
EL. W. 1060.0 80' LT.
EL. E. ~~1059.2~~ 1059.05 80' RT.

CONST. APPROACH LT. STA. 446+00
FOR DETAILS SEE PLAN SHEET NO. 18

F&I 12" x 188' Duct IRON W/M.
Connect to Impalc
F&I 12" Tee + 12" Gate
Valve Lt. STA. 446+12

℄ CULV. 449+25
INPL. 15"x 36' CMP
NO APRONS
REMOVE

Const. Ent. To Wall Horse
Lt. STA 446 to STA 452

CORPORATE LIMITS

Impalc

PROPOSED WELL HOUSE

INPL. 12" D.I.P W/M

300' TURN LANE +180

TCM

ROCHESTER

CONST. DITCH BLOCK

CONST. ℄ CULV. N.B. LANE STA. 445+40
28" SPAN x 66' R.C. PIPE - ARCH CL. 2A
2-28" SPAN R.C. PIPE - ARCH APRONS
PLACE ON "B" BEDDING.

CONST. APPROACH RT. STA. 446+00
24" x 68' C.S. PIPE
2-24" G.S. PIPE APRONS

CONST. ℄ CULV. N.B. LANE STA. 453+00
28" SPAN x 48' R.C. PIPE - ARCH CL. 2A
2-28" SPAN R.C. PIPE - ARCH APRONS
PLACE ON "B" BEDDING.

~~CONST. SERVICE DRIVE 110' RT. FROM STA. 446+00 TO STA. 449+20.~~
~~CONST. AGGREGATE BASE CLASS 2, 6" DEPTH 228 TONS~~

CL. 0.2 ACRE — GR. 0.2 ACRE — CL. 45 TREES - GR. 21 TREES — CL. 2 TREES - GR. 2 TREES

~~B.M. EL. 1068.03~~
~~SPK. IN WOOD~~
~~COR. POST LT.~~

FINISHED ℄ PROFILE

2.65%

28" SPAN R.C.P - ARCH
INLET EL. ~~69.8~~ 70.2
OUTLET EL. ~~67.9~~ 68.7

℄ PROFILE
100' LT.
100' RT.

SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 444+50 TO STA. 457+00.

28" SPAN R.C.P-ARCH
INLET EL. ~~49.5~~ 49.7
OUTLET EL. ~~48.3~~ 48.5

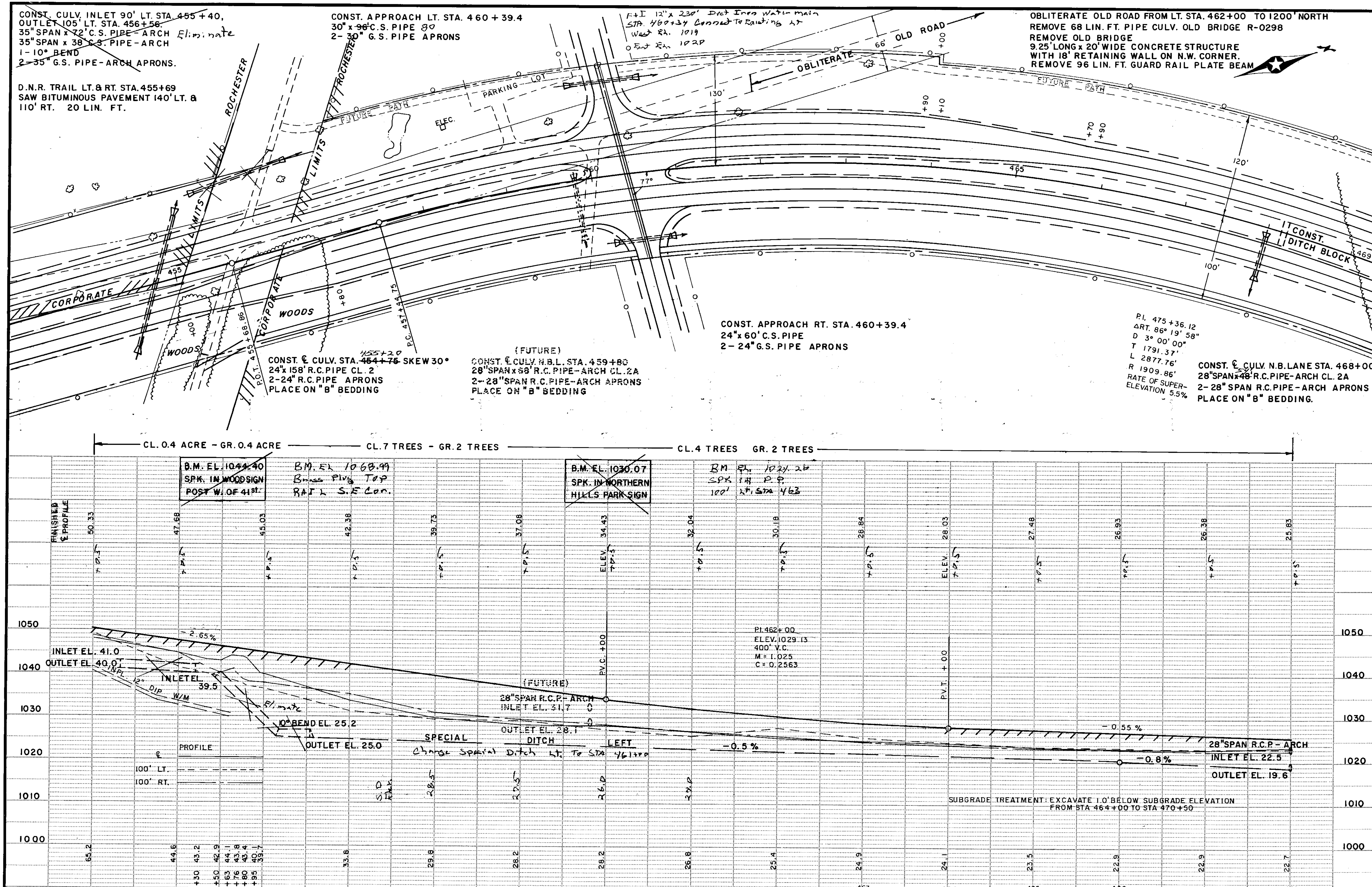
INPL 12" D.I.P W/M

UNCLASSIFIED EXC. 98331 CU. YDS.
EMB. 72302 CU. YDS.
COMMON CHANNEL EXC. 3161 CU. YDS.

NOTE: UNCLASSIFIED EXCAVATION QUANTITIES FOR APPROACH LEFT STA 446+00 IS INCLUDED IN BALANCE QUANTITIES FROM STA. 431+24 TO STA. 474+86.

~~State Proj. No.~~ S.A.P. 55-622-17

Sheet No. 10 of 58 Sheets



~~State Proj. No.~~ S.A.P. 55-622-17 **Sheet No.** 11 **of** 58 **Sheets**

F.& I. 24"x ~~186'~~ STEEL CASING PIPE STA. 475+40 SAN. SEWER
~~EL. 1008.0~~ 114' RT. 72' LT.
SKEW 15° 190'
Connect to New

~~F.& I. 24"x186' STEEL CASING PIPE~~ STA. 475+45 WATERMAIN
EL. N. ~~1011.0~~ EL. S. ~~1010.07~~
72' LT. 114' RT.
SKEW 15°
F+I 12" Duct Iron Watermain 190'
Connect to New

SEE SHEETS NO. 15 & 46 FOR 55th STREET N.W. DETAILS

110' T.E.

COMMON CHANNEL EXC.

BEGIN S.A.P 55-622-18 STA. 472+74.35

END S.A.P 55-622-18 STA. 473+62.54

CORPORATE LIMITS ROCHESTER

CORN CRIB

SHED

BARN

SILO

SILO

GAR

MILK HO.

WATER HYD.

SILO

SILO

EXIT RAMP (30 M.P.H.) T 47.0' L 119.63' R 223.81' D 21° 272.84'

NO DRWY. REQ'D.

DRWY.

RES. DR. LT. 479+80
INPL. 12"x 43' C.M.P.
APRON ON INLET
NO CHANGE

FARMSTEAD BETWEEN STA. 475+00 & STA. 480+00 TO BE REMOVED BY CONTRACTOR

OBLITERATE OLD ROAD

ROCHESTER

Elimate
~~CONST. LANDSCAPE MOUND~~

FUTURE PATH

WOODS

8' BITUMINOUS BIKE PATH

300' TURN LANE + 180' TAPER

PT. 472+72.71

PI. 475+36.12
Δ RT. 86° 19' 58"
D 3° 00' 00"
T 1791.37'
L 2877.76'
R 1909.86'
RATE OF SUPER-ELEVATION 5.5%

STA. 476+50.0 C.S.A.H. 22 STA. 114+43.3 55th St. N.W.

CONST. ℄ CULV. N.B. LANE STA. 469+50
28" SPAN x ~~46'~~ R.C. PIPE-ARCH CL-2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE ON "B" BEDDING

S.A.P. 55-622-18 BR. 97435
CONST. CULV'S. SKEWED 45°
STA. 472+83.78 12x9x195' P.C. BOX CULV.
STA. 473+06.89 12x9x195' P.C. BOX CULV.
STA. 473+30.00 12x9x195' P.C. BOX CULV.
STA. 473+53.11 12x9x195' P.C. BOX CULV.
8-12x9 P.C. BOX CULV. END SECTIONS (TYPE III C)
PLACE CULV'S. ON 486 CU. YDS. GRANULAR BEDDING (CV) 1.0' DEPTH
PLACE RANDOM RIPRAP CL. III 18" DEPTH ON 9" GRANULAR FILTER OR GEOTEXTILE FILTER MATERIAL

CONST. ℄ CULV. INLET 8' RT. STA. 477+20
OUTLET 81' RT. STA. 476+00
28" SPAN x 130' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE ON "B" BEDDING

CL. 2.2 ACRES – GR. 2.2 ACRES | CL. 23 TREES – GR. 21 TREES | CL. 125 TREES – GR. 80 TREES | CL. 0.2 ACRES – GR. 0.2 ACRES

B.M. EL. 1029.67
SPK. IN RR LT.
STA. 477+94

B.M. EL. 1020.62
Sq. Rd w/ L+P x Sign Post
118' Rt. Sta. 473+00

FINISHED PROFILE

P.V.C. +50 EL. 1025.00 — P.V.T. +50 EL. 1027.50
PI. 469+50
EL. 1025.00
200' V.C.
M = 0.2875
C = 0.2875
-0.55%
28" SPAN R.C.P. ARCH
INLET 22.0
OUTLET 19.2
SPECIAL DITCH LEFT -0.8%

TOP WEIR EL. 15.4
INLET EL. 13.4
473+06.89
Top Weir El. 14.9
Inlet El. 13.9

STREAM: UNNAMED
DESIGN FLOOD (50 YR.) 2870 CFS
HEADWATER EL. 1022.8
BASIC FLOOD (100 YR.) 5555 CFS
HEADWATER EL. 1023.8
DRAINAGE AREA: 7.6 SQ. MI.

OUTLET EL. 13.0
Outlet El. 12.5
473+06.89

+0.6%
28" SPAN R.C.P. – ARCH
INLET EL. 19.2 Outlet
OUTLET EL. 26.8 Inlet

P.V.C. +49.69 EL. 1030.50
PI. 481+99.69
EL. 1032.50
500' V.C.
M = 1.0
C = 0.16

SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 478+00 TO STA 499+46.

NOTE: UNCLASSIFIED EXCAVATION QUANTITY FOR APPROACH LEFT STA. 476+50 IS INCLUDED IN BALANCE QUANTITIES FROM STA. 474+86 TO STA. 485+53.

UNCLASSIFIED EXC. 20558 CU. YDS.
EMB. 14917 CU. YDS.

	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482
Fill	22.7	23.0	22.1	21.5 +55	18.9 +07	18.8 +09	16.2 +12	18.9 +17	18.5 +40	18.4 +65	18.7 +25	16.5 +45	16.5 +47	18.5 +49	16.6	18.1 +50	19.8	19.8	22.7	24.0	26.2	28.1	28.4 +80	28.8	31.4	34.0

~~State Proj. No.~~ S.A.P. 55-622-17 & S.A.P. 55-622-18 **Sheet No.** 12 **of** 58 **Sheets**

F.E. LT. 482 + 26
NO CULV. INPL.

NO F.E. REQ'D.

M.H. Lt. Sta. 483+20
Adjust Frame & Ring Casting
To El. 1029.00

CHATEAU RD. LT. 491+42
INPL. 2-24"x46' C.M.P.
NO APRONS
REMOVE 92 LIN. FEET

57"SPAN x ~~56~~ 58" C.S.PIPE-ARCH
2-57"SPAN G.S.PIPE-APRONS
INLET EL. 21.5 OUTLET EL. 20.8
Includes 30° Bend

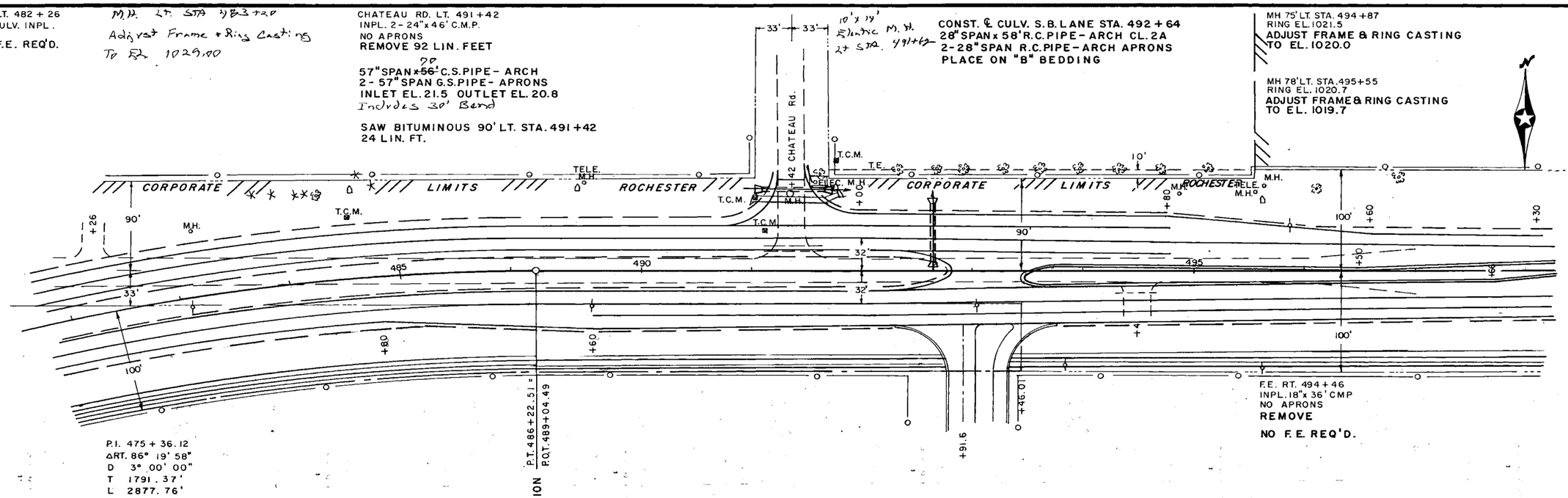
SAW BITUMINOUS 90' LT. STA. 491+42
24 LIN. FT.

10'x 19' Electric M.H. Lt. Sta. 491+62

CONST. ℄ CULV. S.B. LANE STA. 492 + 64
28"SPAN x 58' R.C. PIPE-ARCH CL. 2A
2-28"SPAN R.C. PIPE-ARCH APRONS
PLACE ON "B" BEDDING

MH 75' LT. STA. 494+87
RING EL. 1021.5
ADJUST FRAME & RING CASTING
TO EL. 1020.0

MH 78' LT. STA. 495+55
RING EL. 1020.7
ADJUST FRAME & RING CASTING
TO EL. 1019.7



CL. 8 TREES — GR. 8 TREES

CL. 1 TREE — GR. 1 TREE — CL. 2 TREES — GR. 2 TREES

B.M. EL. 1038.54
TOP NUT HYD. 14'
LT. STA. 480+98

B.M. EL. 1026.91
TOP NUT HYD. 80'
LT. STA. 491+76

FINISHED ℄ PROFILE

P.I. 481+99.69
ELEV. 1032.50
500' V.C.
M = 1.0
C = 0.16

P.V.T. +49.69 ELEV. 30.00

-1.0%

PROFILE
℄
100' LT.
100' RT.

+53

EQUATION P.T. 486+22.51 = P.O.T. 489+04.49

UNCLASSIFIED EXC. 8375 CU.YDS.
EMB. 5748 CU.YDS.

28"SPAN R.C.P.-ARCH
INLET EL. 21.0
OUTLET EL. 19.9

P.I. 497+00
ELEV. 1020.326

1040 1030 1020 1010

482 483 484 485 486 489 490 491 492 493 494 495 496 497

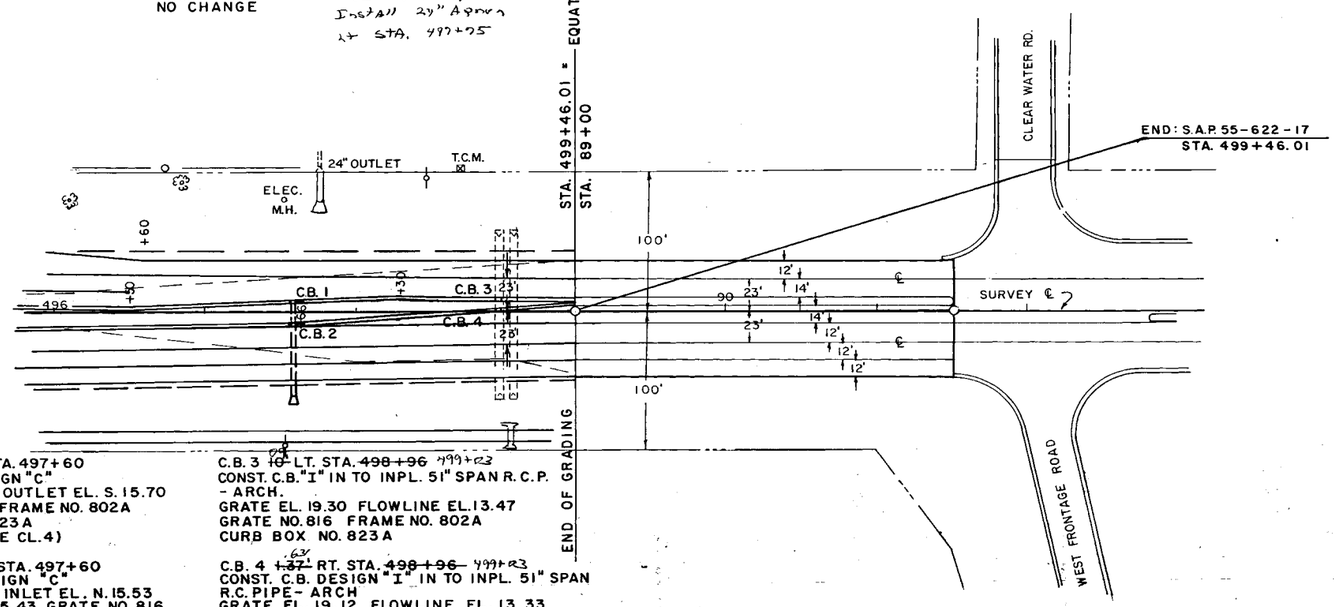
~~State Proj. No.~~ S.A.P. 55-622-17

℄ CULV. 498+96
51"x 106' S.C.P. SPAN
2-51" APRONS
NO CHANGE

℄ CULV. 499+03
51"x 106' S.C.P. SPAN
2-51" APRONS
NO CHANGE

Remove & SALVAGE
29" Apron
FAI 2y"x 2y' R.C.P.
Install 29" Apron
at STA. 497+25

SAW BITUMINOUS STA. 499+46
82 LIN. FT.

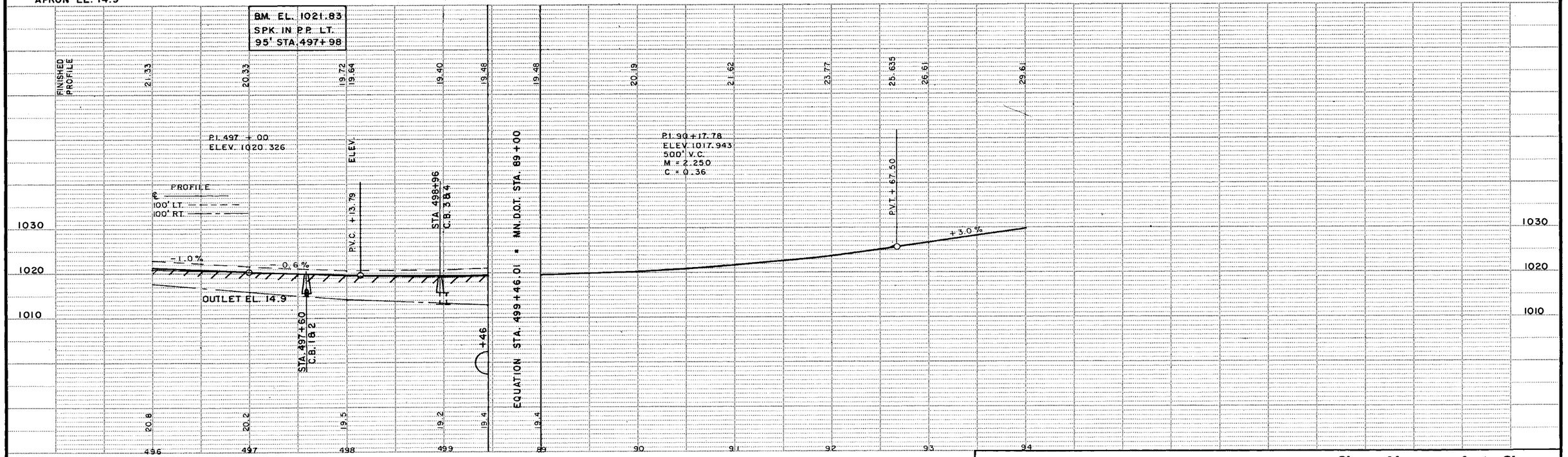


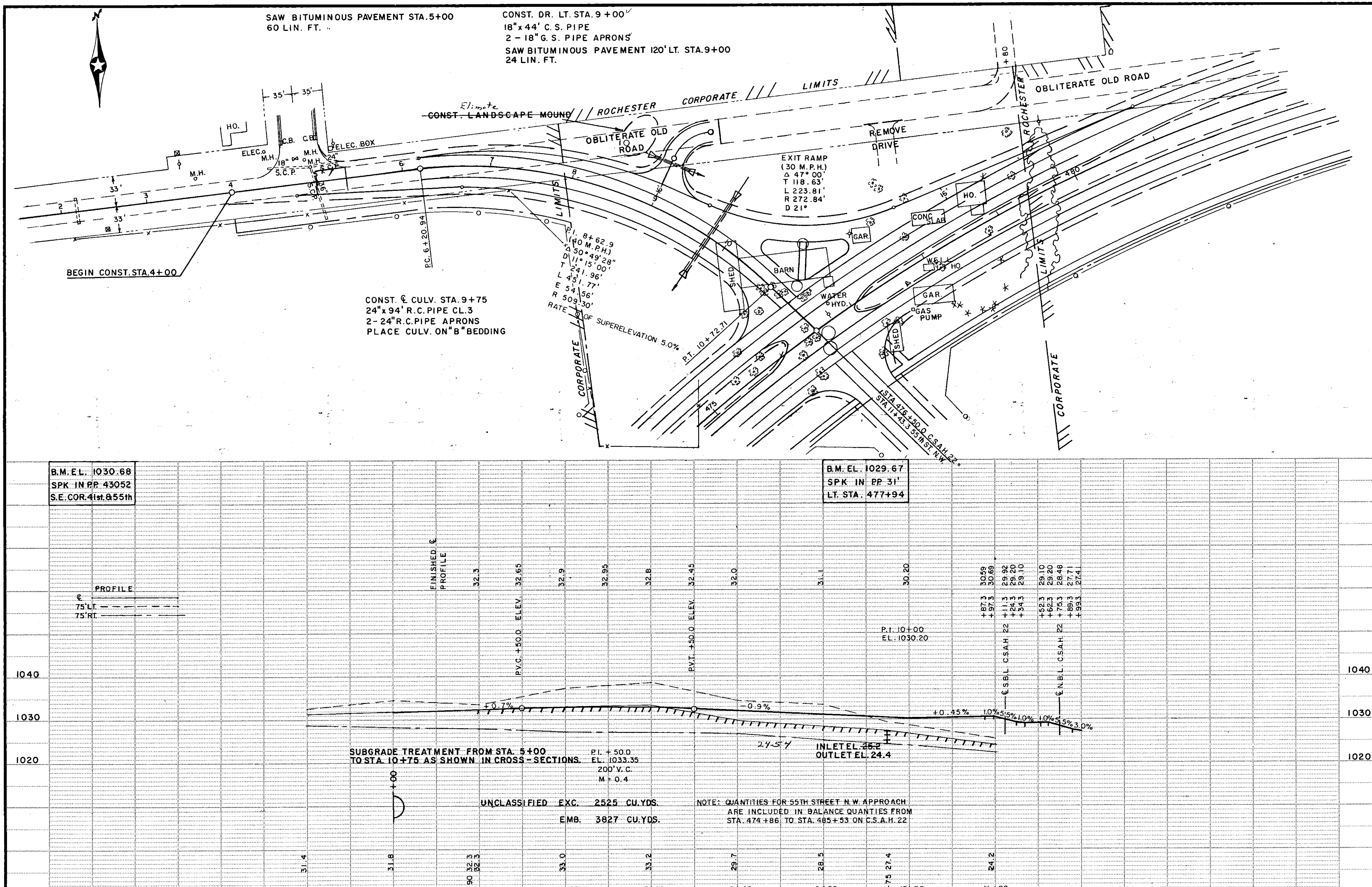
C.B. 1 7.13' LT. STA. 497+60
CONST. C.B. DESIGN "C"
GRATE EL. 19.76 OUTLET EL. S. 15.70
GRATE NO. 816 FRAME NO. 802A
CURB BOX NO. 823 A
(12"x 19' R.C. PIPE CL. 4)

C.B. 2 11.80' RT. STA. 497+60
CONST. C.B. DESIGN "C"
GRATE EL. 19.86 INLET EL. N. 15.53
OUTLET EL. S. 15.43 GRATE NO. 816
FRAME NO. 802A CURB BOX NO. 823A
(12"x 48' R.C. PIPE CL. 4)
(1-12" R.C. PIPE OUTLET APRON)
APRON EL. 14.9

C.B. 3 ~~10~~ LT. STA. ~~498+96~~ 499+03
CONST. C.B. "I" IN TO INPL. 51" SPAN R.C.P. - ARCH.
GRATE EL. 19.30 FLOWLINE EL. 13.47
GRATE NO. 816 FRAME NO. 802A
CURB BOX NO. 823 A

C.B. 4 ~~1.37~~ 1.63' RT. STA. ~~498+96~~ 499+03
CONST. C.B. DESIGN "I" IN TO INPL. 51" SPAN R.C. PIPE - ARCH
GRATE EL. 19.12 FLOWLINE EL. 13.33
GRATE NO. 816 FRAME NO. 802 A
CURB BOX NO. 823 A




SAW BITUMINOUS PAVEMENT STA. 5+00
60 LIN. FT.
CONST. DR. LT. STA. 9+00
18"x 44' C.S. PIPE
2 - 18" G.S. PIPE APRONS
SAW BITUMINOUS PAVEMENT 120' LT. STA. 9+00
24 LIN. FT.
CONST. LANDSCAPE MOUND
Elimate
ROCHESTER CORPORATE LIMITS
OBLITERATE OLD ROAD
REMOVE DRIVE
OBLITERATE OLD ROAD
EXIT RAMP
(30 M.P.H.)
Δ 47° 00'
T 118.63'
L 223.81'
R 272.84'
D 21°
HO.
ELEC.
M.H.
C.B.
ELEC. BOX
18" S.C.P.
24"
36" S.C.P.
33'
BEGIN CONST. STA. 4+00
P.C. 6+20.94
P.I. 8+62.9
(40 M.P.H.)
Δ 50°49'28"
D 11°15'00"
T 241.96'
L 451.77'
E 54.56'
R 509.30'
RATE OF SUPERELEVATION 5.0%
CONST. ℄ CULV. STA. 9+75
24"x 94' R.C. PIPE CL.3
2-24" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
P.T. 10+72.71
SHED
BARN
GAR.
WATER HYD.
WELL
CONC. SLAB
GAS PUMP
STA. 476+50.0 C.S.A.H. 22
STA. 11+43.3 55th ST. N.W.
475
480
+80
CORPORATE LIMITS
B.M. EL. 1030.68
SPK IN P.P. 43052
S.E. COR. 41st & 55th
B.M. EL. 1029.67
SPK IN P.P. 31'
LT. STA. 477+94
PROFILE
℄
75' LT.
75' RT.
FINISHED ℄ PROFILE
32.3
32.65
32.9
32.95
32.8
32.45
32.0
31.1
30.20
30.59
30.69
29.92
29.20
29.10
29.10
29.20
28.48
27.71
27.41
+87.3
+97.3
+11.3
+24.3
+34.3
+52.3
+62.3
+75.3
+89.3
+99.3
℄ S.B.L. C.S.A.H. 22
℄ N.B.L. C.S.A.H. 22
P.V.C. +50.0 ELEV.
P.V.T. +50.0 ELEV.
P.I. 10+00
EL. 1030.20
+0.7%
-0.9%
+0.45%
1.0%
5.5%
1.0%
1.0%
5.5%
3.0%
1040
1030
1020
SUBGRADE TREATMENT FROM STA. 5+00
TO STA. 10+75 AS SHOWN IN CROSS-SECTIONS.
P.I. +50.0
EL. 1033.35
200' V.C.
M = 0.4
24.57
INLET EL. 25.2
OUTLET EL. 24.4
4+00
UNCLASSIFIED EXC. 2525 CU. YDS.
EMB. 3827 CU. YDS.
NOTE: QUANTITIES FOR 55TH STREET N.W. APPROACH
ARE INCLUDED IN BALANCE QUANTIES FROM
STA. 474+86 TO STA. 485+53 ON C.S.A.H. 22
31.4
31.8
+90
32.3
32.3
33.0
33.2
29.7
28.5
+75
27.4
24.2
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00

SAW CONCRETE PAVEMENT STA. 352+00
24 LIN. FT.

REMOVE 6 1/2" THICK CONCRETE PAVEMENT NON-REINFORCED
STA. 352+00 TO STA. 369+00
4541 SQ. YDS.

TWP. RD. LT. 360+05
INPL. 18" x 56' C.S. PIPE
WITH 2-18" G.S. PIPE APRONS
REMOVE 61 LIN. FT.
NO CULV. REQ'D.

Δ 82° 30'
D 27°
T 186.10'
L 305.56'
R 212.21'
RATE OF SUPERELEVATION 4.0%

P.T. 363+43.04 = EQUATION
P.O.T. 363+40

C.S.A.H. 4
CONCRETE SURFACE INPLACE 12'

P.C. 356+59.71

BEGIN CONST. STA. 352+00

FIBER OPTIC

℄ CULV. 353+20
INPL. 24" x 88' R.C.P.
2 - 24" R.C.P. APRONS
NO CHANGE

RES. DR. RT. 353+78
INPL. 18" x 32' C.S.P.
2-18" G.S.P. APRONS
W/CATTLEGUARD
NO CHANGE

CONST. ℄ CULV. STA. 358+90
28" SPAN x 78' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING

C.S.A.H. 22 P.O.T. 396+58.09
C.S.A.H. 4 P.O.T. 359+76.40

F.E. RT. 360+08
INPL. 18" x 28' C.S.P.
2-18" G.S.P. APRONS
REMOVE 33 LIN. FT.

FINISHED ℄ PROFILE

P.I. 354+00
ELEV. 1133.43
400' V.C.
M = 1.025

P.I. 358+00
ELEV. 1114.79
200' V.C.
M = 1.04

P.I. 361+00
ELEV. 1113.85
100' V.C.
M = 0.47

+2.61%
-4.66%
-0.5%
-0.5%
-4.27%

P.V.C. +00
P.V.T. +00
P.V.C. +00
P.V.T. +00
P.V.C. +50
P.V.T. +50

+43 ℄ S.B. LANE
+75 ℄ C.S.A.H. 22
+07 ℄ N.B. LANE

℄ INLET EL. 09.5
OUTLET EL. 09.0

P.T. 363+43.04 = EQUATION
P.O.T. 363+40

UNCLASSIFIED EXC. 10179 CU. YDS.
EMB. 8658 CU. YDS.

NOTE: QUANTITIES FOR C.S.A.H. 4 APPROACHES ARE INCLUDED IN BALANCE QUANTITIES FROM STA 393+70 TO STA. 402+50 ON CSAH 22

SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 354+00 TO STA. 359+19

1140 1135 1130 1125 1120 1115 1110 1105 1100

350 351 352 353 354 355 356 357 358 359 360 361 362 363

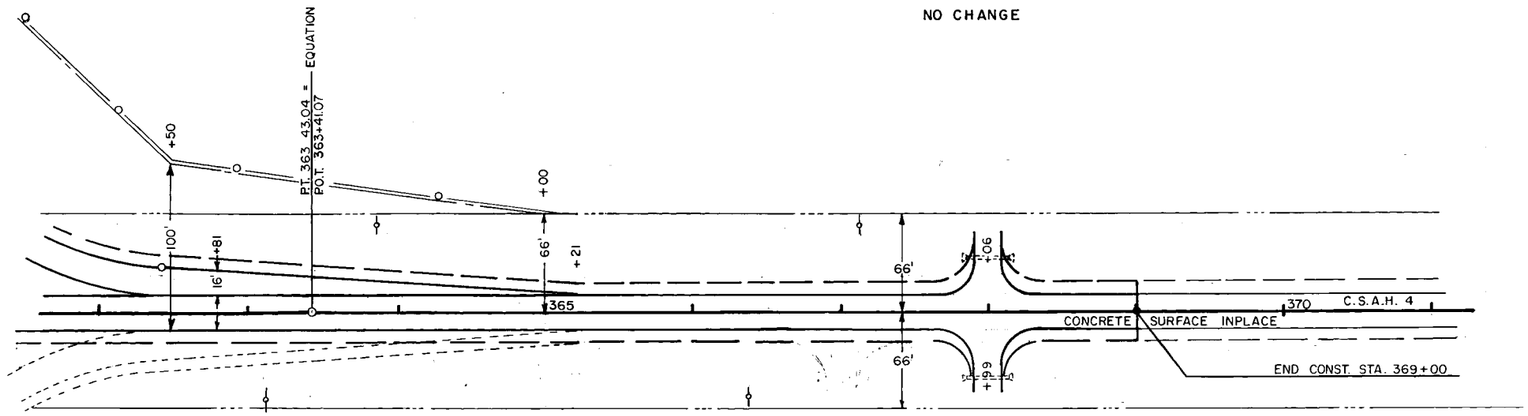
C.S.A.H. 4

~~State Proj. No.~~ S.A.P. 55-622-17

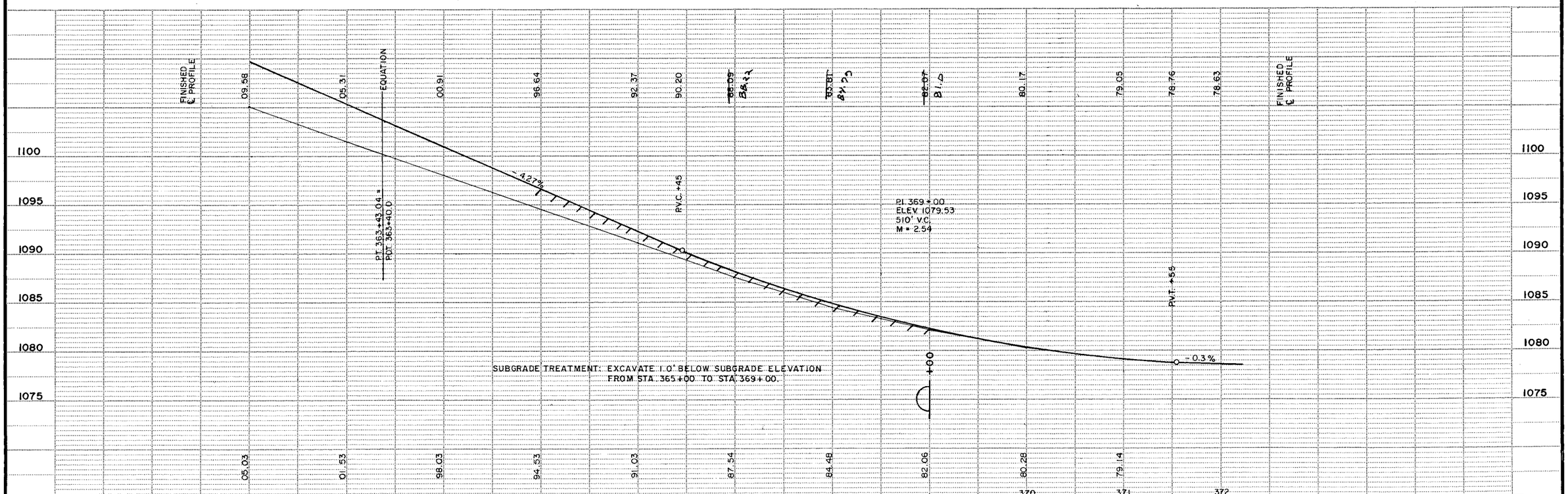
Sheet No. 16 of 58 Sheets

F. ENT. LT. 368+06
INPL. 18" x 28' C.S. PIPE
WITH 2-18" G.S. PIPE APRONS
NO CHANGE

SAW CONCRETE PAVEMENT STA. 369+00
24 LIN. FT.



F.E. RT. 367+99
IN PL. 18" x 28' C.S.P.
2-18" G.S.P. APRONS
NO CHANGE



SUBGRADE TREATMENT: EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 365+00 TO STA. 369+00.

C.S.A.H. 4

~~State Proj. No.~~ S.A.P. 55-622-17