MINN. PROJ. NO. STP 5081(003)

MINN. PROJ. NO. MPR 5081(003)

PLANS SYMBOLS

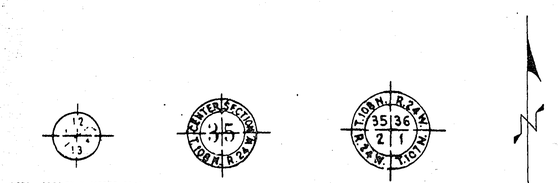
STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SLOPE EASEMENT (CONST. LIMITS)

SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN
FIRE HYDRANT
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 HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH POLE LINE
JOINT TELEPHONE AND POWER OR POWER POLES
OR TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN
WATER MAIN

CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

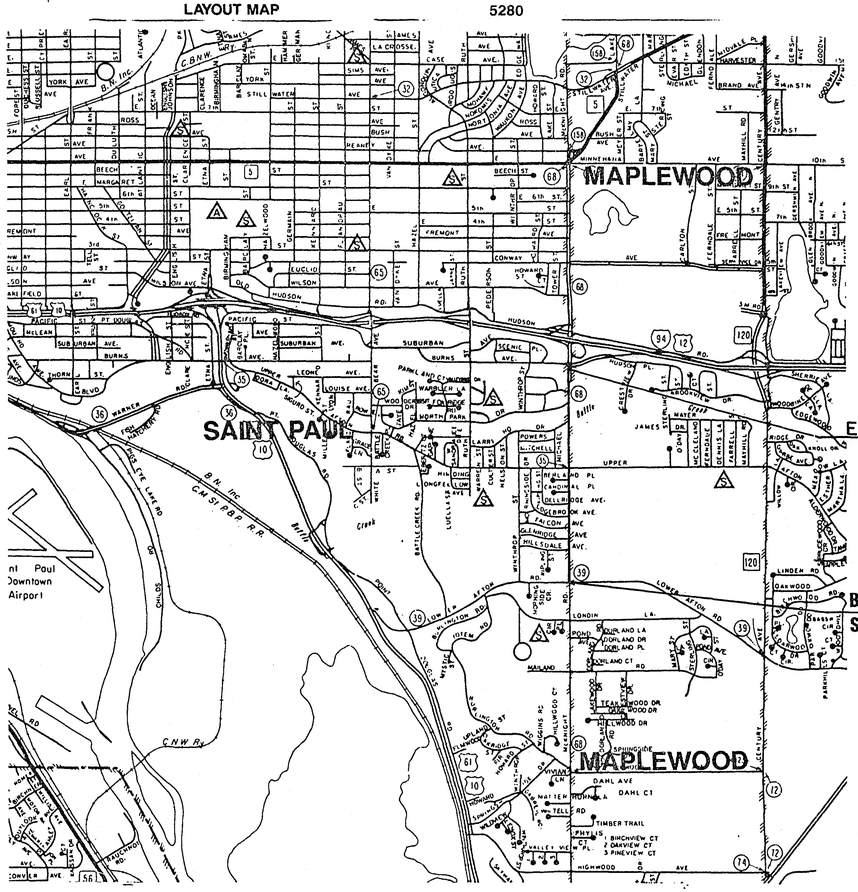


NOTE SECTION NUMBERS READ FROM THE SOUTH

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

	FEET	MILES
GROSS LENGTH	5,604.00	1.061
NET LENGTH	5,604.00	1.061
EXCEPTION	0	0

PLAN 0 25 50 75 100
PROFILE HORIZ. 0 25 50 75 100
PROFILE VERTICAL 0 5 10
CROSS SECTIONS 0 5 10
LAYOUT MAP 5280



DESIGN DESIGNATION

PRESENT ADT	(1993)	10,750 VPD
FUTURE ADT	(2013)	13,975 VPD
DESIGN SPEED		30 MPH (1)
FUNCTIONAL CLASSIFICATION		LOW DENSITY ARTERIAL
NUMBER OF TRAFFIC LANES		2
NUMBER OF PARKING LANES		2

(1) BASED ON 3.50' HEIGHT OF EYE, 0.5' HEIGHT OF OBJECT

MINNESOTA DEPARTMENT OF TRANSPORTATION
The County of RAMSEY

McKNIGHT ROAD BITUMINOUS WALK

CONSTRUCTION PLAN FOR A DETACHED BITUMINOUS WALK

BETWEEN LOWER AFTON RD. AND I-94 IN MAPLEWOOD

S.P. 62-668-29

FROM: A POINT 289.82 FEET SOUTH OF THE NORTHWEST CORNER OF SECTION 12, TOWNSHIP 28 NORTH, RANGE 22 WEST.

TO: A POINT 80.44 FEET SOUTH & 80.00 FEET EAST OF THE SOUTHWEST CORNER OF SEC. 36, TOWNSHIP 29 NORTH, RANGE 22 WEST.

ACCOUNT NO. 47393

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES, SILT FENCE CHART, STANDARD PLATES, CONSTRUCTION NOTES
3	TYPICAL SECTION, EXISTING STRUCTURES CHART, MISC. DETAILS
4-7	PLAN & PROFILE
8	SPECIAL WALL DETAILS
9-32	CROSS SECTIONS

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: J. Stuart
DATE: 3/6/95

DESIGN SQUAD _____ DATE _____
DRAWN BY _____ DATE _____
CHECKED BY _____ DATE _____

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 2-21-90 REG. NO 14257 ENGR David T. Bholl

RAMSEY COUNTY

RECOMMENDED FOR APPROVAL DES TRAFFIC ENGR DATE 2-21-90
RECOMMENDED FOR APPROVAL KMR ENV ENGR DATE 2-21-90
RECOMMENDED FOR APPROVAL DJD MAINT ENGR DATE 2-21-90
RECOMMENDED FOR APPROVAL DHP CONST ENGR DATE 2-22-90
RECOMMENDED FOR APPROVAL PLR DESIGN ENGR DATE 2-21-90
RECOMMENDED FOR APPROVAL JMB SURVEY ENGR DATE 2-21-90
RECOMMENDED FOR APPROVAL [illegible] DATE 11-16-90
RECOMMENDED FOR APPROVAL [illegible] ASSISTANT CO. ENGINEER DATE 12/13/90

RECOMMENDED FOR APPROVAL Kenneth B. Elwell COUNTY ENGINEER DATE 12-13-90
APPROVED _____ CHAIR, OF THE RAMSEY COUNTY BOARD DATE _____
APPROVED Kathy S. Hasse CITY OF MAPLEWOOD DATE 1/11/93
APPROVED _____ RAMSEY COUNTY PARKS & RECREATION DEPT. DATE _____

MINNESOTA DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL [illegible] STATE AID PLANS & SPECS DATE 6-9-93
RECOMMENDED FOR APPROVAL Mark L. Bissinger METRO-ASSISTANT DIVISION ENGINEER-STATE AID DATE 1/26/93
APPROVED Mark D. Kubasch for STATE AID ENGINEER DATE 6-9-93

PLAN REVISIONS		
DATE	SHEET NO.	BY
12-3-90	Removed Bridge Seal	TL
1/11/91	ADDITION TO SIGNATURE BLOCK	TL
1/11/91	DECIMAL POINT ON STA.	TL
1/11/93	MnDOT Plan Review Rev.	TL

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

28-133

S.P.62-668-29

Sheet No. 1 of 32 Sheets

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	CONTRACT ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES	ESTIMATED QUANTITIES
2101.502	CLEARING	TREE	6	14	6
2101.507	GRUBBING	TREE	4	0	4
2104.501	REMOVE CURB & GUTTER	LF	128	104	128
2104.511	SAWING CONCRETE PAVEMENT	LF	12	28	12
2104.513	SAWING BITUMINOUS PAVEMENT	LF	4	90	4
2105.501	COMMON EXCAVATION	CY	712(P)	712	712(P)
2105.521	GRANULAR BORROW (LV)	CY	1090	1136	1090
2211.503	AGGREGATE BASE PLACED CL.5	CY	917(P)	1064.5	917(P)
2340.508	TYPE 31 WEARING COURSE MIXTURE	TON	405	449	405
2340.510	TYPE 31 BINDER COURSE MIXTURE	TON	405	449	405
(1) 2357.502	BITUMINOUS MAT. FOR TACK COAT	GAL	245	0	245
0412.604	~~BLOCK RETAINING WALL~~ ELIMINATED	SF	1025	ELIMINATED	1025
2502.541	4" PE CORR PERF PIPE DRAIN	LF	57	114	57
2506.522	ADJUST FRAME AND RING CASTING	EACH	4	3	4
0531.602	PEDESTRIAN CURB RAMP	EACH	7	3	7
(2) 2573.503	SILT FENCE - PRE-ASSEMBLED	LF	5533	4802	5533
(3) 2575.505	SODDING TYPE LAWN	SY	6628	10916	6628
2575.531	COMM. FERT. ANALYSIS 12-12-12	TON	0.24	0	0.24
2531.501	CONCRETE CURB & GUTTER DES B624	LF	275	248	275
0564.602	PAVEMENT MESSAGE-BIKER-POLY PREFORM	EACH	4	4	4
0564.603	4" BROKEN LINE YELLOW POLY PREFORMED	LF	1375	1368	1375
0565.602	ADJUST HANDHOLE	EACH	3	0	3
0564.602	PAVEMENT MESSAGE-THRU ARROW-POLY PREFORM	EACH	8	8	8
0412.602	RELOCATE PLANTER	EACH	1	ELIMINATED	1

(1) 2357.502 - BITUMINOUS MATERIAL FOR TACK COAT ESTIMATED AT 0.05 GAL. PER SQUARE YARD.
(2) 2573.502 - SILT FENCE, PRE-ASSEMBLED - SEE SILT FENCE CHART
(3) 2575.505 - AREAS TO BE TOPSOILED AND SODDED HAVE BEEN INCREASED 10% TO ALLOW FOR ADDITIONAL AREA ON SLOPES.

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

PLATE NO.	DESCRIPTION
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES
4010G	CONCRETE ADJUSTING RING
7036D	PEDESTRIAN CURB RAMP
7065C	BITUMINOUS CURB
7100F	CONCRETE CURB & GUTTER
8000I	STANDARD BARRICADES
8117F	PRECAST CONCRETE HANDHOLE

BASIS OF ESTIMATED QUANTITIES

AGGREGATE BASE SPEC 2211. – COMPACTED DRY DENSITY, 140 LBS/CU YD
BITUMINOUS MIXTURE SPEC. 2340– 110 LBS/SQ YD/INCH OF DEPTH
BITUMINOUS MATERIAL FOR TACK COAT SPEC. 2357 – ESTIMATED AT 0.05 GAL/SQ YD
COMMERCIAL FERTILIZER ANALSIS SPEC. 2575 – ESTIMATED AT 350 LBS/ACRE

SILT FENCE CHART

STATION	LOCATION RT/LT OF PATH ℄			L.F.
13+50 TO 14+50	RT.			100
14+50 TO 39+00	LT.			2450
26+00 TO 27+50	RT.			150
36+50 TO 38+50	RT.			200
40+00 TO 42+00	RT.			200
42+00 TO 57+00	LT.			1500
57+00 TO 66+33	RT.			933
		SILT FENCE TOTAL =		5533

CONSTRUCTION NOTES

THE CONTRACTOR SHALL OBTAIN FROM THE UTILITY COMPANIES THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES WHICH MAY EXIST WITHIN, OR ADJACENT TO, THE CONSTRUCTION AREA.

PEDESTRIAN CURB RAMPS SHALL BE INSTALLED AT ALL STREET RADII. THE EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

TOP OF "GRADING GRADE" IS DEFINED AS THE TOP OF THE EMBANKMENT MATERIAL OR THE BOTTOM OF THE AGGREGATE BASE COURSE.

STRIP TOPSOIL FROM ALL AREAS TO BE DISTURBED BY CONSTRUCTION AND STOCKPILE [illegible] FOR REPLACEMENT LATER AS SLOPE DRESSING.

THE CONTRACTOR SHALL DISPOSE OF [illegible] CONCRETE CURB AND GUTTER IN ACCORDANCE WITH THE REQUIREMENTS OF 2104.3C3

THE ORDINARY COMPACTION METHOD SHALL BE USED ON THIS PROJECT.

PROVIDE DRAINAGE OUTLETS FOR ALL EXCAVATION DURING CONSTRUCTION. DITCHES WILL BE DEEPER THAN EXCAVATION TO PROVIDE OUTLET DRAINAGE.

PROVIDE A TACK COAT, SPEC. 2357.2A, BETWEEN BITUMINOUS COURSES.

UNSUITABLE GRADING MATERIAL SHALL CONSIST OF TOPSOIL, OTHER ORGANIC SOIL, AND DEBRIS.

SILT FENCE SHALL BE INSTALLED AT ALL APRONS & SURFACE DRAINS AS INDICATED ON SHEET 2.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: [illegible]
DATE: 3/5/96

28-133

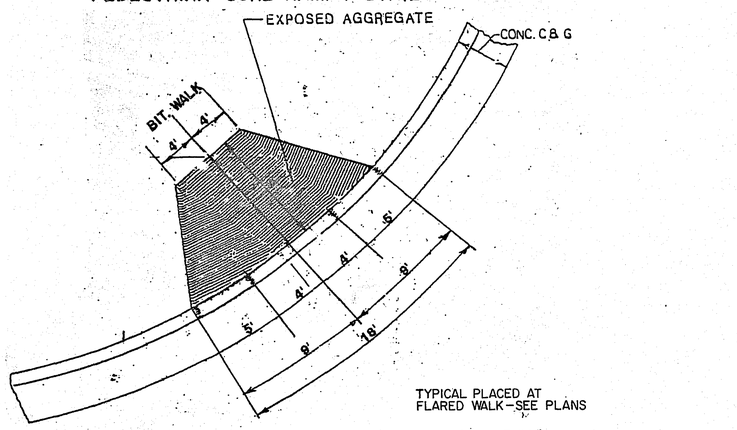
REVISIONS	DATE	BY
BASIS OF QUANTITES, CONST. NOTE	1/11/91	TLL
PLATES	1/11/91	TLL
B 624 CURB & GUTTER	9/16/92	TL
MoDOT Plan Review Rev.	1/11/93	TLL
QUANTITY & NOTES	5/24/93	TLL

S.P. 62-668-29

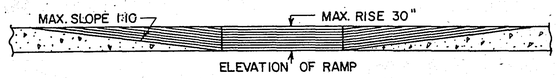
Sheet No. 2 of 32 Sheets

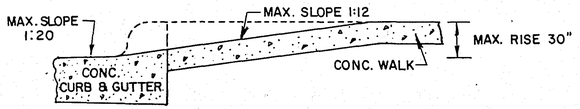
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PEDESTRIAN CURB RAMP DETAIL

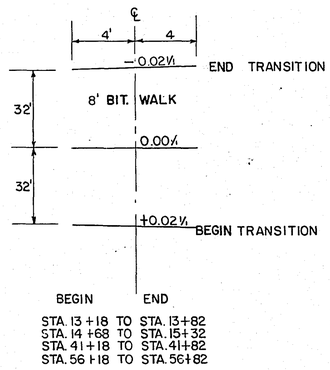


TYPICAL PLACED AT FLARED WALK – SEE PLANS





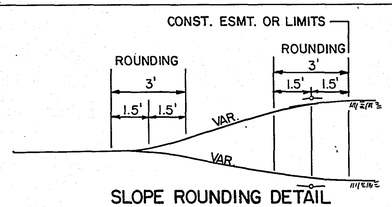
PEDESTRIAN CURB RAMP DETAIL



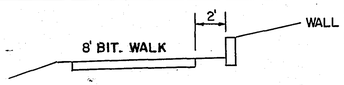
STA. 13+18 TO STA. 13+82
STA. 14+68 TO STA. 15+32
STA. 41+18 TO STA. 41+82
STA. 56+18 TO STA. 56+82

SEE CROSS SECTIONS

SLOPE TRANSITION DETAIL



SLOPE ROUNDING DETAIL



MINIMUM 2' CLEAR ZONE FROM EDGE OF WALK TO WALL

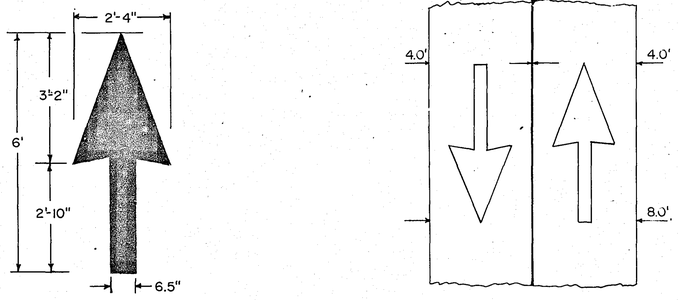
RETAINING WALLS

FROM	TO
NO.1 STA 29+50	STA 31+30
NO.2 STA. 31+70	STA. 32+20
NO.3 STA. 33+70	STA. 34+35
NO.4 STA. 52+15	STA. 53+20

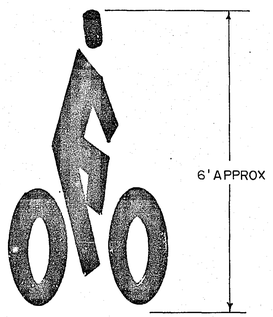
WALL LOCATIONS

4" BROKEN LINE YELLOW POLY PREFORMED SEE SPECIAL PROVISIONS

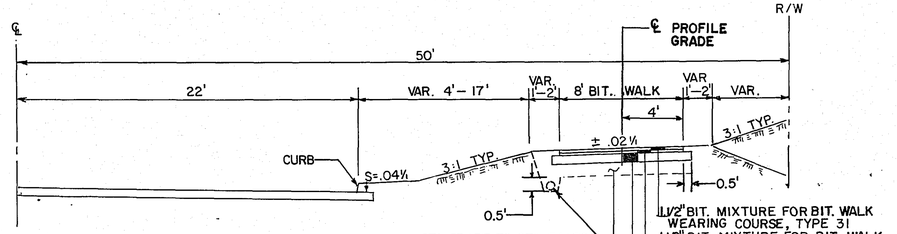
PLACEMENT OF LANE MARKINGS WILL BE IN 3' SECTIONS WITH 9' SKIPS



PAVEMENT MESSAGE PLACEMENT



ALL STRIPING & PAVEMENT MESSAGES WILL BE PLACE BY CONTRACTOR.



TYPICAL SECTION

2.0' CLEAR ZONE REQUIRED FROM ALL OBSTACLES
PLACE 3.0" TOPSOIL AND SOD ALL DISTURBED AREAS

EXISTING STRUCTURES

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION PROFILE	ELEVATION ORIGNAL GRATE OR RING	ELEVATION NEW GRATE OR RING	ELEVATION C.B. OR M.H. INVERT	ADJUST CASTING ASSEMBLY	RECONSTRUCT CATCH BASIN OR MANHOLE LIN. FT.	INSTALL CASTING ASSEMBLY	REMARKS
11+50	RT. 26'	1	C.B.	STORM		3"		908.87		902.37				
14+90	RT. 44'	2	VAULT	TEL.		11"		917.54		——	1			ADJUST BY OTHERS
22+82	RT. 41'	3	VAULT	TEL.		9"		931.27		——	1			ADJUST BY OTHERS
26+95	RT. 25	4	C.B.	STORM		3"		928.32		923.72				
30+81	RT. 41'	5	VAULT	TEL.		9"		943.53		——	1			ADJUST BY OTHERS
36+77	RT. 21'	6	C.B	STORM		11"		922.18		918.98				
38+98	RT. 21'	7	C.B.	STORM		11"		913.81		909.31				
39+11	RT. 35'	8	M.H.	STORM		7"		914.08		908.68				
39+34	RT. 42'	9	M.H.	SAN.		9"		913.74		901.94				
39+35	RT. 70'	10	M.H.	STORM		11"		913.44		907.34				
39+55	RT. 70'	11	C.B.	STORM		9"		912.88		906.18				
39+55	RT. 91'	12	C.B.	STORM		9"		913.06		900.66				
43+35	RT. 41'	13	M.H.	SAN.		9"		909.49		899.99	1			ADJUST
46+90	RT. 21'	14	C.B.	STORM		11"		902.32		897.22				
46+90	RT. 29'	15	M.H.	STORM		7"		903.12		895.92				
47+34	RT. 41'	16	M.H.	SAN.		9"		903.88		897.48	1			ADJUST
50+05	RT. 32'	17	M.H.	TEL.		——		901.60		——				
50+82	RT. 31'	18	M.H.	SAN.		7"		900.56		895.06				
51+68	RT. 42	19	M.H.	SAN.		11"		900.07		894.67	1			ADJUST
51+88	RT. 53'	20	M.H.	SAN.		9"		900.58		888.68				
52+04	RT. 86'	21	M.H.	SAN.		9"		907.08		889.28				
52+06	RT. 63'	22	M.H.	SAN.		——		902.76		——				
52+35	RT. 50'	23	M.H.	STORM		9"		902.75		891.05	1			ADJUST
53+79	RT. 24'	24	C.B.	STORM		——		898.31		888.31				
53+79	RT. 29'	25	M.H.	STORM		7"		898.65		888.65				
57+48	RT. 25'	26	C.B.	STORM		10"		905.94		902.54				
61+49	RT. 28'	27	C.B.	STORM		10"		920.17		914.77				
64+90	RT. 48'	28	C.B.	STORM		10"		936.71		931.91				

TOTAL –

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: G. Stowe
DATE: 3/14/16

28-133

ST. PAUL

LOWER AFTON ROAD

0 50 100

N

SECTION LINE

STA. 13+12.82

DITCH

CB

END B624 CURB & GUTTER

CB

CLOSE ENT.

CONSTRUCTION LIMITS

CATTLE PASS

SAWCUT & REMOVE CONC. CURB
CONSTRUCT PED. RAMP AS DIRECTED

BEGIN B624 CURB & GUTTER

BEGIN S.P 62-668-29
STA. 10+23.00

SECTION LINE - SURVEY ℄

BIT. CURB

TEL. BOX

TEL. MH. 2

McKNIGHT ROAD

BIT. CURB

CONSTRUCTION LIMITS

CONSTRUCT 8' BITUMINOUS WALK

SECTION LINE - SURVEY ℄

TEL. M.H. 3
TEL. BOX

CONSTRUCTION LIMITS

HILLSDALE AVE.

GLENRIDGE AVE.

FALCON AVE.

60'

32'

BIT. CURB

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

50' 22' 4' 8' 16'

MAPLEWOOD

BATTLE CREEK REGIONAL PARK

WOODS

13+00 P.I. BIT. WALK

STA. 13+18 BEGIN SLOPE TRANSITION

STA. 13+82 END SLOPE TRANSITION

14+00 P.I. BIT. WALK

STA. 14+68 BEGIN SLOPE TRANSITION

STA. 15+32 END SLOPE TRANSITION

REVISIONS	DATE	BY
PROPOSED PROFILE GRADE	1/11/91	TL

940 935 930 925 920 915 910 905 900 895

BEGIN BIT. WALK EL. 910.01

P.I. EL. 910.66

CB

EL. 909.56

EL. 910.14

EL. 909.42

EXISTING PROFILE GRADE ℄

0.0%

-0.33%

2.88%

VC=50'
M=0.2006

1' SUBCUT FOR UNIFORMITY & COMPACTION

VC=100'
M=0.1138

1.97%

TEL. MH. 2

EL. 920.22

EL. 921.66

EL. 922.64

EL. 925.59

℄ PROPOSED WALK PROFILE GRADE

2.09%

EL. 930.92

EL. 932.38

EL. 931.94

EXISTING PROFILE GRADE ℄

VC=150'
M=0.5025

-0.59%

TEL. MH. 3

STA. 10+23

STA. 10+59

P.C. STA. 12+66

P.I. STA. 12+25

P.T. STA. 12+66

P.C. STA. 16+60

P.I. STA. 16+85

P.T. STA. 17+00

P.I. STA. 16+50

P.C. STA. 20+60

P.I. STA. 21+75

P.T. STA. 22+50

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: J. Sauer
DATE: 3/6/96

28-133

S.P 62-668-29

ST. PAUL

0 50 100

N

EDGEBROOK AVE. 60' 32

DELLRIDGE AVE. 60' 32

CARDINAL PLACE 60' 32

BERLAND PLACE 60' 32

UPPER AFTON ROAD 80' 40 40 22' 22'

EQUATION
STA. 39+42 =
STA. 39+32
Δ = 0°05'52" LT.

T.28N. R.22W. T.27N. R.22W. 1 2

25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

McKNIGHT ROAD

SECTION LINE - SURVEY ℄

BIT. CURB

C.B.4

C.B.6

C.B.7

EXISTING PED. RAMPS

M.H.8

M.H.9

CB.11

CB.12

M.H.10

MATCH WITH EXISTING BIT. PATH

EXISTING BIT PATH

EXISTING 8' BIT PATH

EXISTING 8' BITUMINOUS PATH

PERMANENT EASEMENT

28' 2' 33' 18' 26'

50' 22' 8' 16' 4' R/W

CONSTRUCTION LIMITS

TEL. M.H. 5

CONSTRUCT 8' BITUMINOUS WALK

STA. 29+50 BEGIN SPECIAL WALL NO. 1 ~~WALL ELIMINATED~~

STA. 31+30 END SPECIAL WALL NO. 1 ~~WALL ELIMINATED~~

STA. 31+70 BEGIN SPECIAL WALL NO. 2 ~~WALL ELIMINATED~~

STA. 32+20 END SPECIAL WALL NO. 2 ~~WALL ELIMINATED~~

STA. 33+70 BEGIN SPECIAL WALL NO. 3 ~~WALL ELIMINATED~~

STA. 34+35 END SPECIAL WALL NO. 3 ~~WALL ELIMINATED~~

MAPLEWOOD

BATTLE CREEK REGIONAL PARK

REVISIONS	DATE	BY
GEOMETRICS AT UPPER AFTON	1/11/91	TL
PROPOSED PROFILE GRADE NOTE	1/11/91	TL

940 935 930 925 920 915 910 905 900 895

EL. 933.13 EL. 935.47 EL. 938.21 EL. 940.88 EL. 942.26 EL. 944.28 EL. 946.15 EL. 947.18 EL. 945.72

EL. 929.23 EL. 928.93 EL. 931.11 (930.71) EL. 941.47 EL. 945.18 EL. 947.34 EL. 940.91

EL. 916.04 EL. 914.85 EL. 914.22 EL. 913.54 EL. 913.52 EL. 913.56

EXISTING PROFILE GRADE ℄

VC = 100'
M = 0.6175

0.59%

518'
VC = 270'
M = 3.0748

4.76%

1' SUBCUT FOR UNIFORMITY & COMPACTION

℄ PROPOSED WALK PROFILE GRADE

VC = 50'
M = 0.1413

2.5%

0%

EXISTING STORM SEWER

S. EDGE BIT. UPPER AFTON RD.

N. EDGE BIT. UPPER AFTON RD.

CB.7 M.H.8 M.H.9 M.H.10 EQUATION STA. 39+42 = STA. 39+32 CB.12

PC STA. 27+10
PT STA. 27+60
PI STA. 27+60
PC STA. 28+10
PT STA. 28+60
PI STA. 28+60
PC STA. 30+48
TEL. M.H. 5
PC STA. 32+08
PT STA. 32+83
PI STA. 32+83
PT STA. 33+18
PC STA. 38+40.5
PT STA. 38+65.5
PI STA. 38+90.5
STA. 39+20
STA. 39+55
PT STA. 40+00

AS BUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: D. Jaus
DATE: 3/2/95

28-133

S.P. 62-668-29

Sheet No. 5 of 32 Sheets

0 50 100

N

ST. PAUL

LARRY HO DRIVE 60' 32'

NORTH PARK DRIVE 60'

BIT. CURB

SECTION LINE - SURVEY ℄

BIT. CURB

McKNIGHT ROAD

BIT. CURB

SECTION LINE - SURVEY ℄

BIT. CURB

ELEC. BOX

STA. 53+77 TO STA. 54+30 4" PE CORR. PERF. PIPE DRAIN

40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

50' 22'

WOOD SIGN

8' 16' 4'

San

M.H.13

CONSTRUCT 8' BITUMINOUS WALK

CONSTRUCTION LIMITS

SAVE

C.B.14

M.H.15

M.H.16

CONSTRUCTION LIMITS

TEL. M.H.17

M.H.18

M.H. 19

M.H. 20

M.H.21

M.H.22

M.H. 23

C.B.24

M.H.25

PLANTER

TO BE MOVED BY OTHERS

CONTRACTOR WILL RELOCATE PLANTER AS DIRECTED BY THE ENGINEER IN THE FIELD

MAPLEWOOD

BATTLE CREEK REGIONAL PARK

— STA. 41+18 BEGIN SLOPE TRANSITION

— STA. 41+82 END SLOPE TRANSITION

STA. 52+15 BEGIN SPECIAL WALL NO. 4 WALL ELIMINATED

STA. 53+29 END SPECIAL WALL NO. 4 WALL ELIMINATED

REVISIONS	DATE	BY
CORRECT M AT STA. 42+00	1/11/91	T.L.
PROPOSED PROFILE GRADE NOTE	1/11/91	T.L.

940 935 930 925 920 915 910 905 900 895

EL 913.60 EL 913.66 EL 912.25 EL 912.66 EL 911.50 EL 908.00 EL 907.20 EL 906.40 EL 904.76 EL 903.42 EL 902.60 EL 902.85 EL 902.95 EL 903.20 EL 903.72 EL 906.77 EL 898.10

PI STA 40+00 PI STA 41+66 PC STA 41+75 PI STA 42+00 PT STA 42+25 PI STA 44+00 PC STA 45+00 PI STA 46+00 PT STA 47+00 PC STA 47+82 PI STA 48+32 PT STA 48+82 PC STA 49+00 PI STA 49+50 PT STA 50+00 PC STA 52+01 PI STA 54+76

M.H.13 C.B.14 M.H.15 M.H.16 TEL. M.H.17 M.H.18 M.H.19 M.H.20 M.H.21 M.H.22 M.H.23 C.B.24 M.H.25

EXISTING PROFILE GRADE ℄

-0.50% -1.0% -2.0% -0.8% -1.64% 0.51% -0.97%

1' SUBCUT FOR UNIFORMITY & COMPACTION

VC = 50' M = 0.0625

VC = 200' M = 0.2100'

VC = 100' M = 0.2688'

VC = 100' M = 0.1850'

℄ PROPOSED WALK PROFILE GRADE

VC = 550' M = 2.7431'

EXISTING SANITARY SEWER

EXISTING SANITARY SEWER

PIPE DRAIN DETAIL STA. 53+77

MH 25

898.6±

4" PE CORR. PERF. PIPE DRAIN AT 4.0% GRADE

898.1±

MAKE APPROPRIATE CONNECTION AT MH 25

EXISTING PROFILE GRADE ℄

57 L.F. 4" P.E. CORR. PERF. PIPE DRAIN 18" BELOW GRADE ON THE WEST EDGE OF BITUMINOUS WALK. MAKE APPROPRIATE CONNECTION TO MANHOLE NO. 25.

28-133

S.P. 62-668-29

0 50 100

N

ST. PAUL

BURNS AVE.

NE 1/4 SEC. 2 T28N R22W

CONSTRUCT PEDESTRIAN RAMP

CONCRETE CURB & GUTTER

REMOVE CURB & GUTTER

SECTION LINE - SURVEY ℄

CONSTRUCT PED. RAMP

END B624 C&G

C.B.26

C.B.27

C.B.28

McKNIGHT ROAD

SECTION LINE

TEL. BOX

BEGIN B624 CURB & GUTTER

BUS SHELTER

CONSTRUCT 8' BITUMINOUS WALK

CONSTRUCTION LIMITS

WOODS

CLEAR & GRUB TREE AS DIRECTED

BEGIN B624 C&G SAWCUT & REMOVE CONCRETE C&G AS DIRECTED

PROTECT

CONSTRUCTION LIMITS

CLEAR & GRUB TREE

BIT CURB

RAMP 194

CONC CURB

CONC. CURB

STA. 55+00 P.I. BIT. WALK

STA. 56+18 BEGIN SLOPE TRANSITION

STA. 56+82 END SLOPE TRANSITION

STA. 57+00 P.I. BIT. WALK

MAPLEWOOD

BATTLE CREEK REGIONAL PARK

REVISIONS	DATE	BY
PROPOSED PROFILE GRADE NOTE	1/11/91	TL
B624 CURB + GUTTER	9/16/92	TL

EL. 941.17 EL 942.14 EL 942.84

EXISTING PROFILE GRADE ℄

EL 906.41 EL 910.91 EL 916.16

VC=40' M=C.0675

corrected 9/15/93 BJ & MR

4.72%

3.58%

1' SUBCUT FOR UNIFORMITY & COMPACTION

℄ PROPOSED WALK PROFILE GRADE

VC=550' M=2.7431'

EXISTING PROFILE GRADE ℄

3.50%

3.02%

PT STA 57+41 PI STA 59+00 PI STA 60+59 PC STA 63+80 PI STA 66+00 PT STA 66+20

940 935 930 925 920 915 910 905 900 895

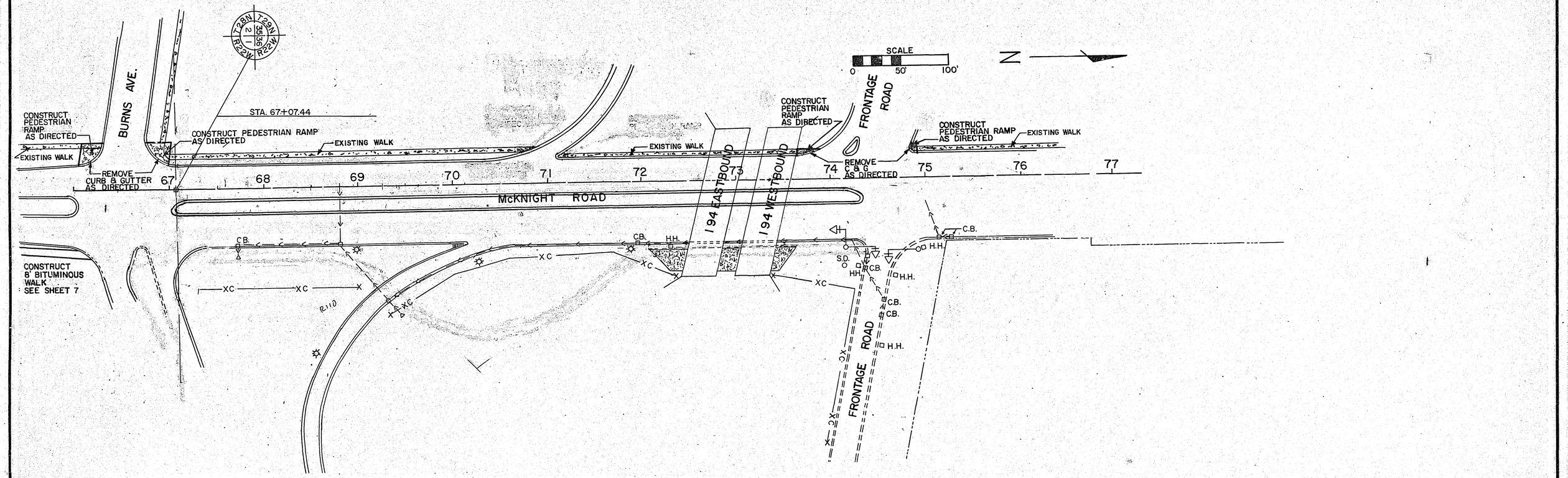
55 56 57 58 59 60 61 62 63 64 65 66 67 68

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: G. Jones
DATE: 3/6/96

28-133

S.P. 62-668-29

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965
960
955
950
945
940

66 67 68 69 70 71 72 73 74 75 76 77

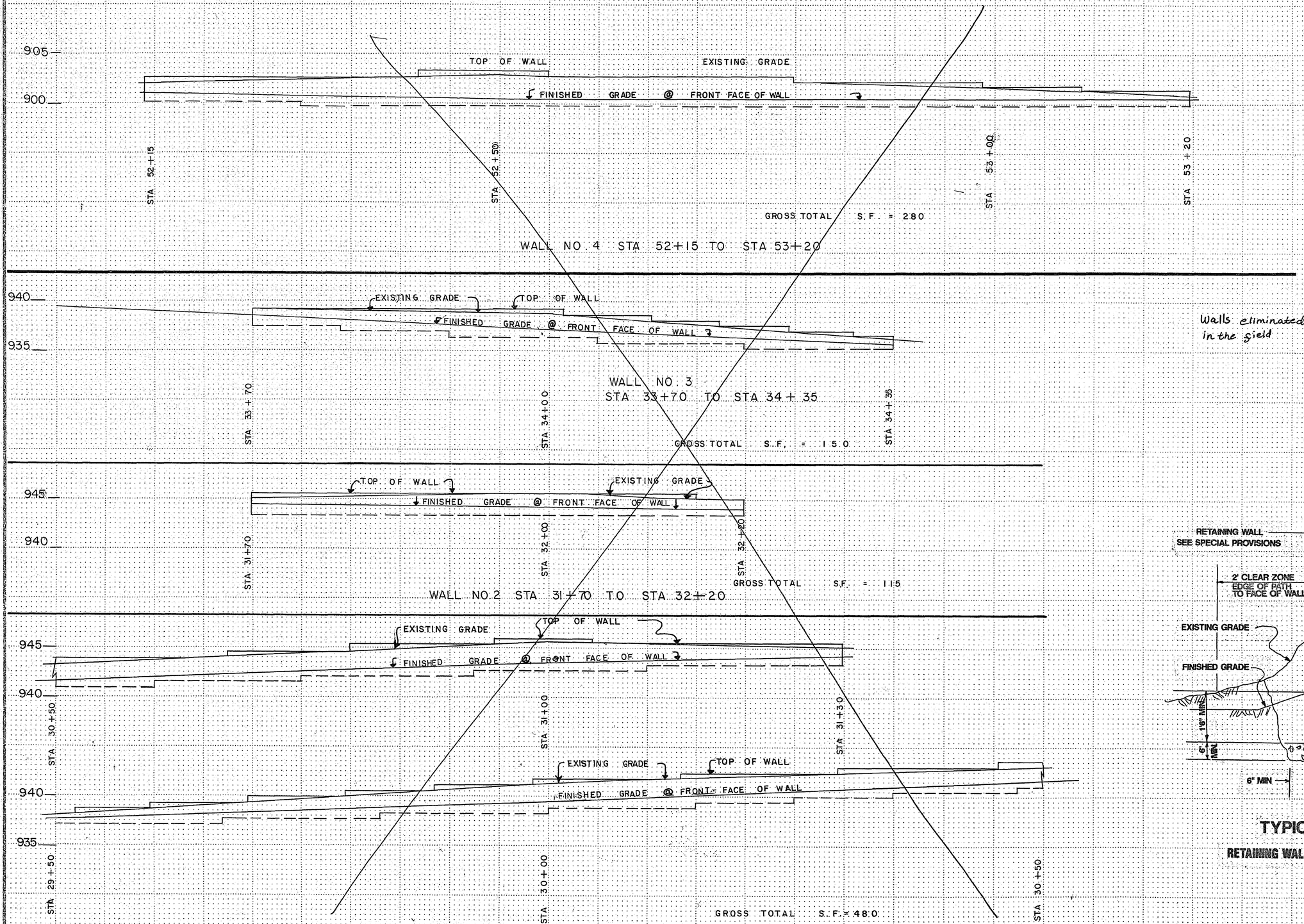
ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: J. Jaquet
DATE: 3/6/95

28-133

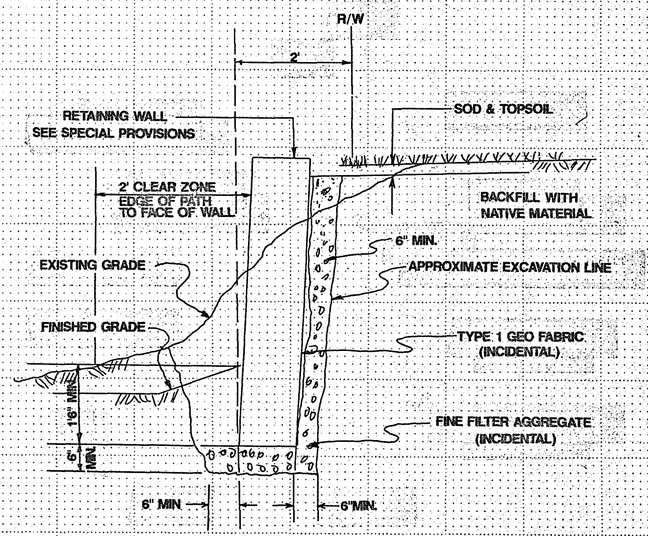
S.P. 62-668-29

Sheet No. 7A of 32 Sheets

Fed. Proj. No.



Walls eliminated in the field



TYPICAL SECTION

RETAINING WALL, SPECIAL #1, #2, #3, #4

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: Q. Jones
DATE: 3/6/96

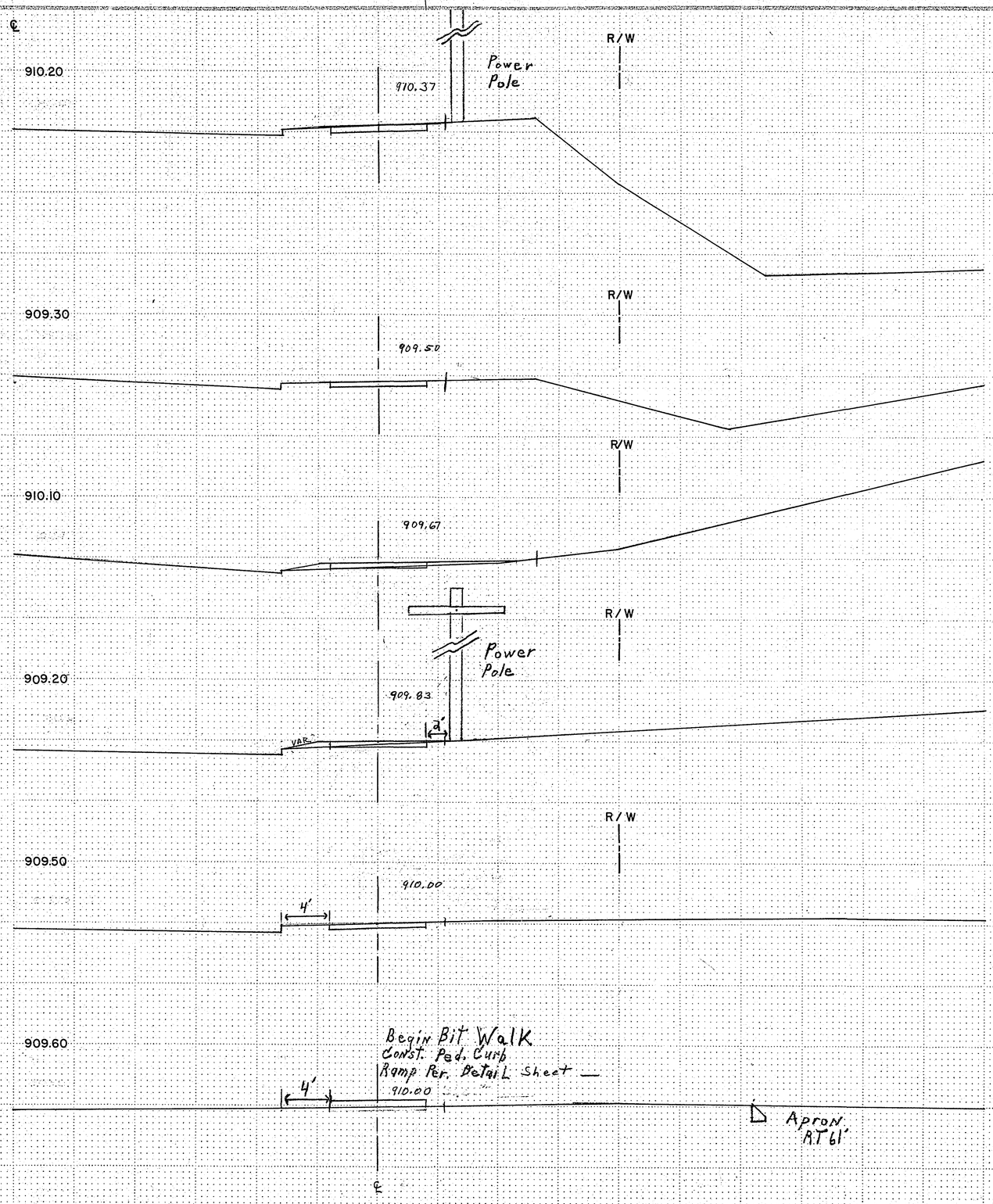
WALL DETAILS
28-133

State Proj. No. 662-668-29

Sheet No. 8 of 32 Sheets

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Fed. Proj. No.



		EXC.	EMB
12+58	910.20	6.7	0
12+00	909.30	6.7	0
11+50	910.10	2.0	7.4
11+00	909.20	3.3	3.5
10+50	909.50	6.7	0
10+23	909.60	6.7	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS.
DONE BY:
DATE 5/6/98

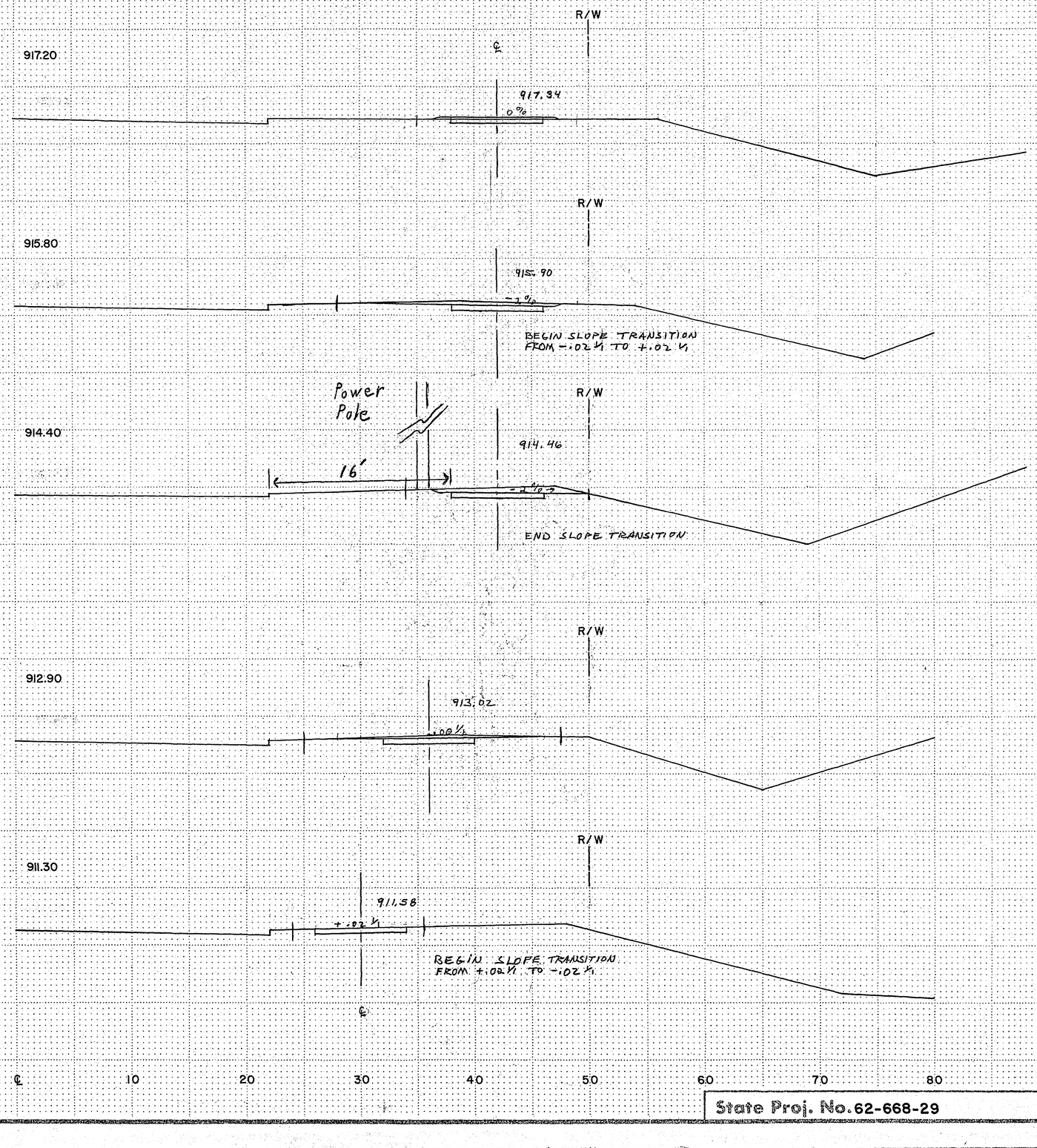
28-133

STA. 10+23 TO STA. 12+58

State Proj. No. 62-668-29 Sheet No. 9 of 32 Sheets

Fed. Proj. No.

		EXC.	EMB.
15+00	917.20	4.4	3.5
14+50	915.80	7.8	3.5
14+00	914.40	11	0
13+50	912.90	9.3	0
13+00	911.30	6.7	0



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: Q. Faust
DATE: 7/6/76

28-133

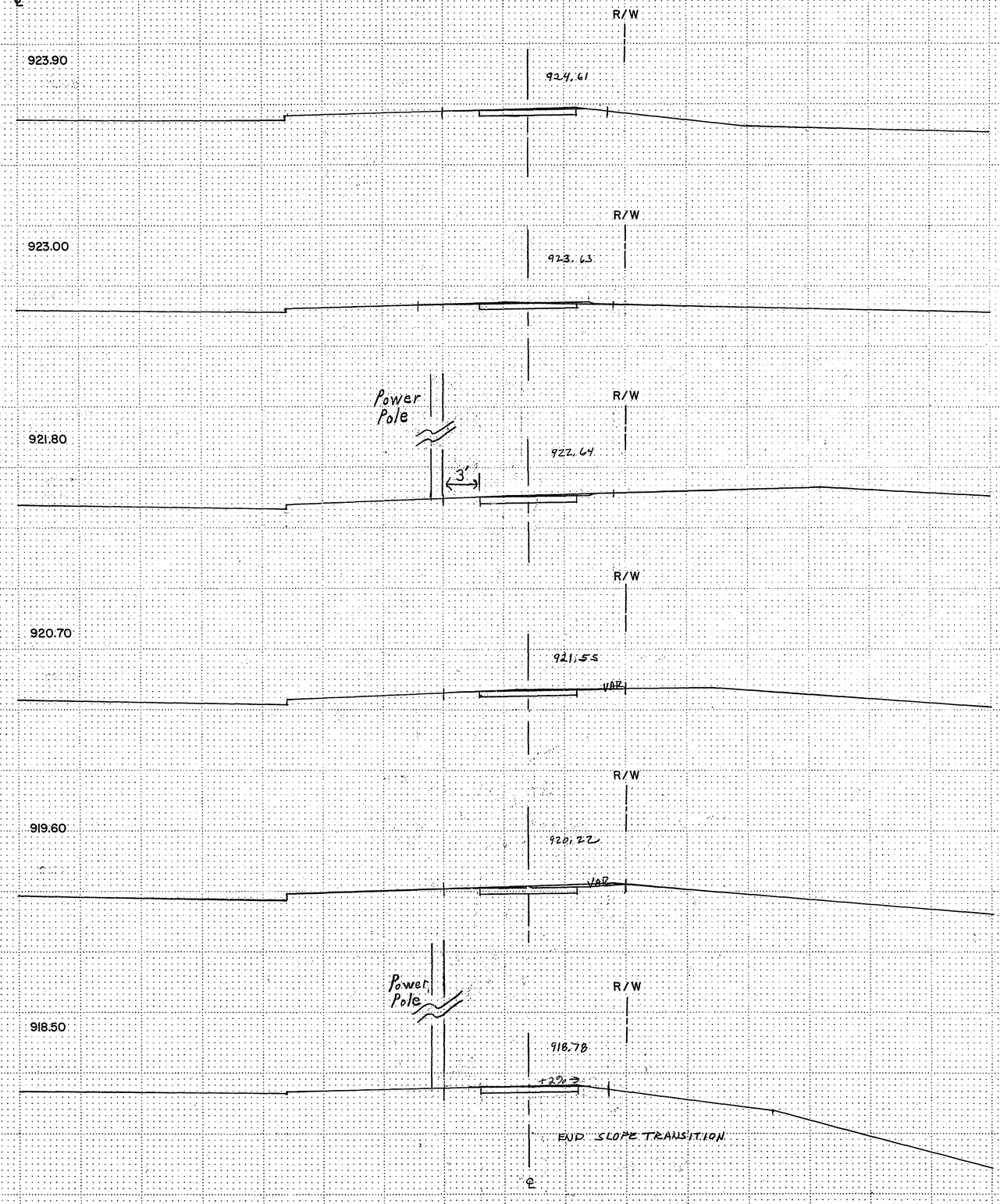
STA. 13+00 TO STA. 15+00

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ASBUILT PLAN
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DONE BY: C. Scott
DATE: 5/4/05

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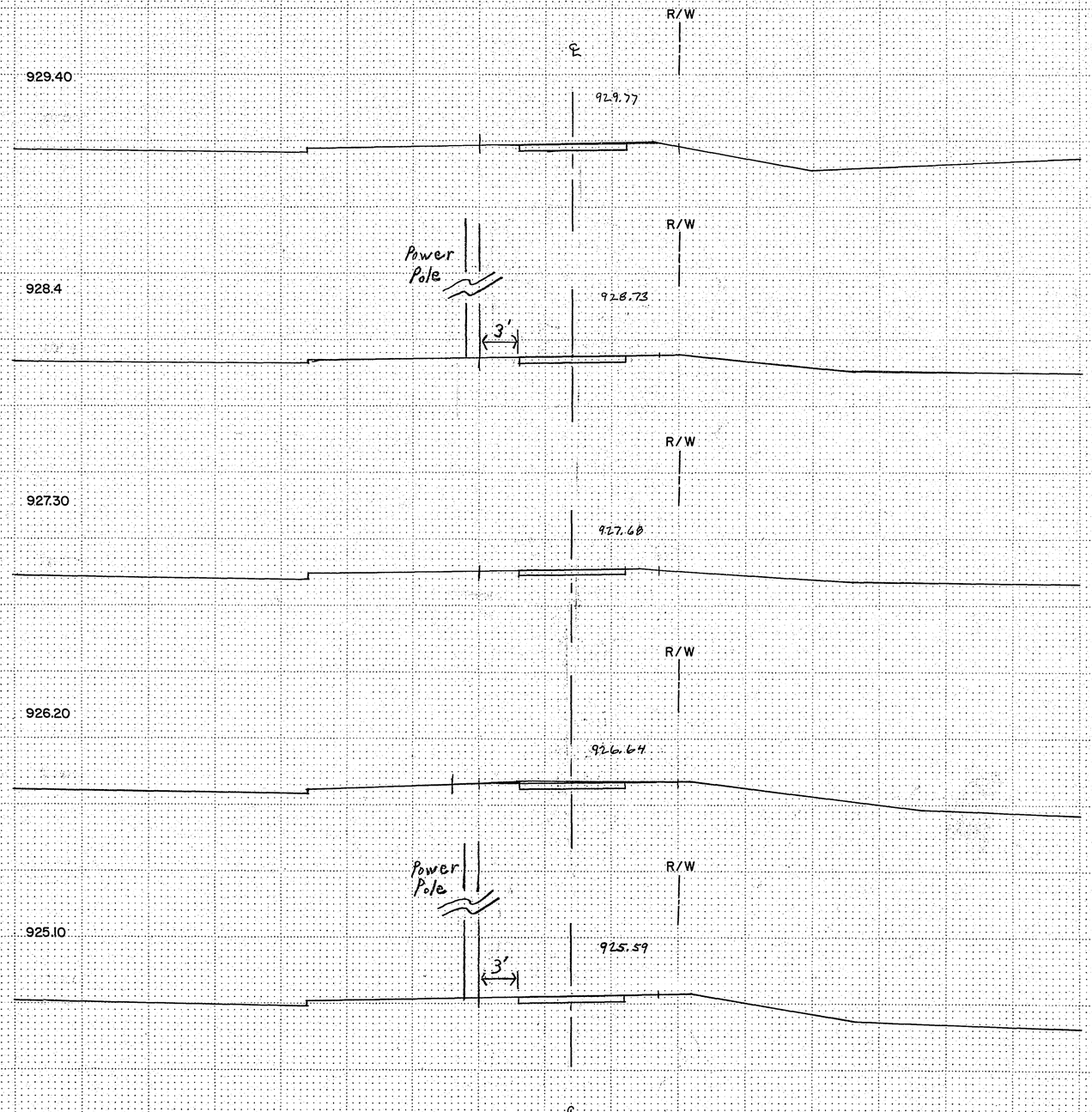
STA. 15+50 TO STA. 18+00

State Proj. No. 62-668-29

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COPY EQUIPMENT FORM #1

Fed. Proj. No.



	EXC	EMB
20+50	6.8	D
20+00	6.7	D
19+50	6.7	D
19+00	6.9	D
18+50	6.7	D

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: Q. Saucier
DATE: 1/6/95

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STA. 18+50 TO STA. 20+50

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COPY EQUIPMENT FORM #1

Fed. Proj. No.

23+50	930.80	931.35	7.0	0	EMB
23+00	931.00	931.64	6.4	3.1	
22+50	931.20	931.44	6.0	3.9	
22+00	931.40	932.02	6.4	0	
21+50	931.00	931.64	6.4	0	
21+00	930.30	930.82	7.0	0	

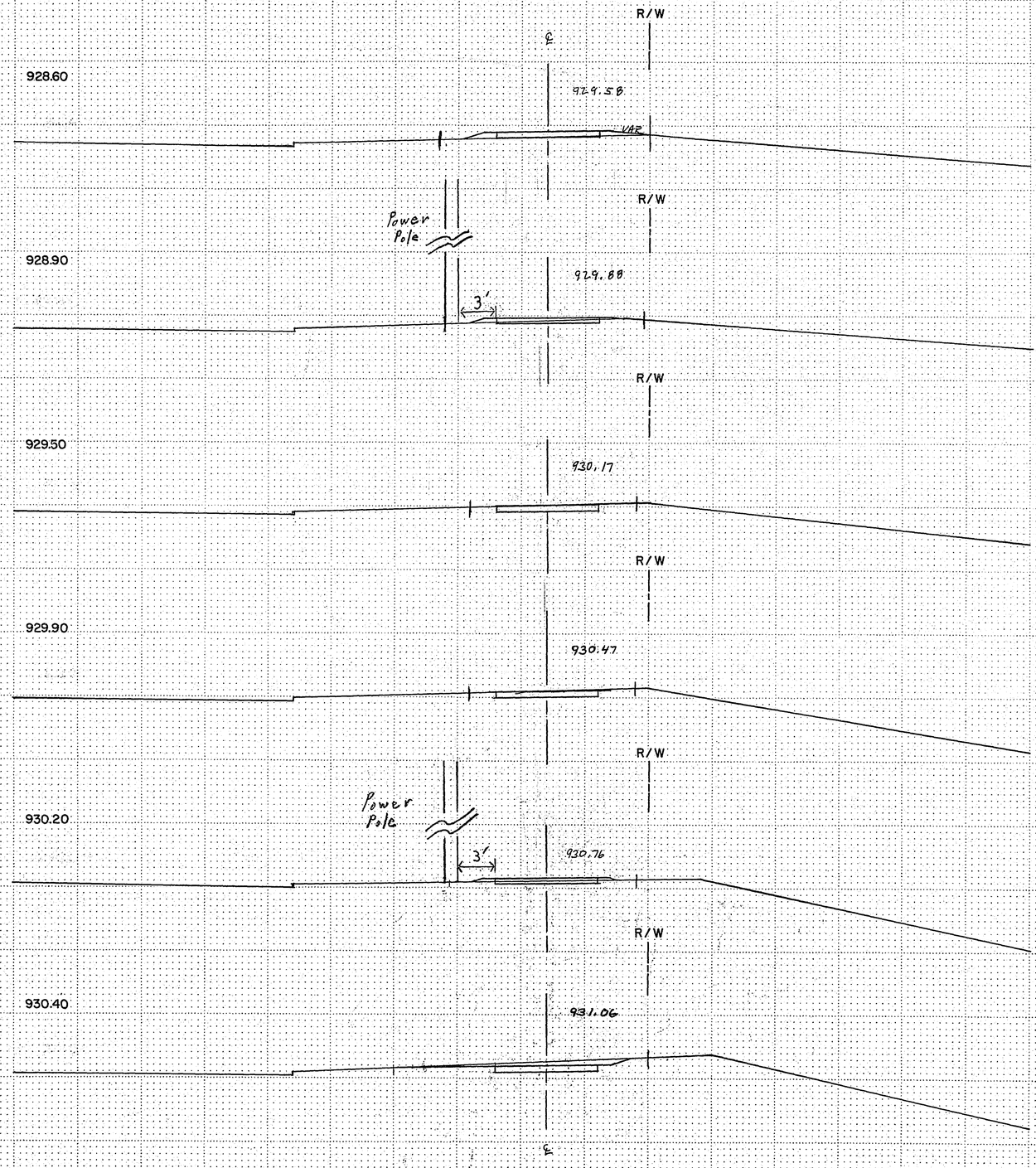
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: [illegible]
DATE: 3/[illegible]

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COPY COURTESY LOCH #1

Fed. Proj. No.



	EXC	EMB
26+50	0	10
26+00	6.0	3.5
25+50	6.7	0
25+00	6.7	0
24+50	6.3	3.1
24+00	14.5	

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY:
DATE:

28-133

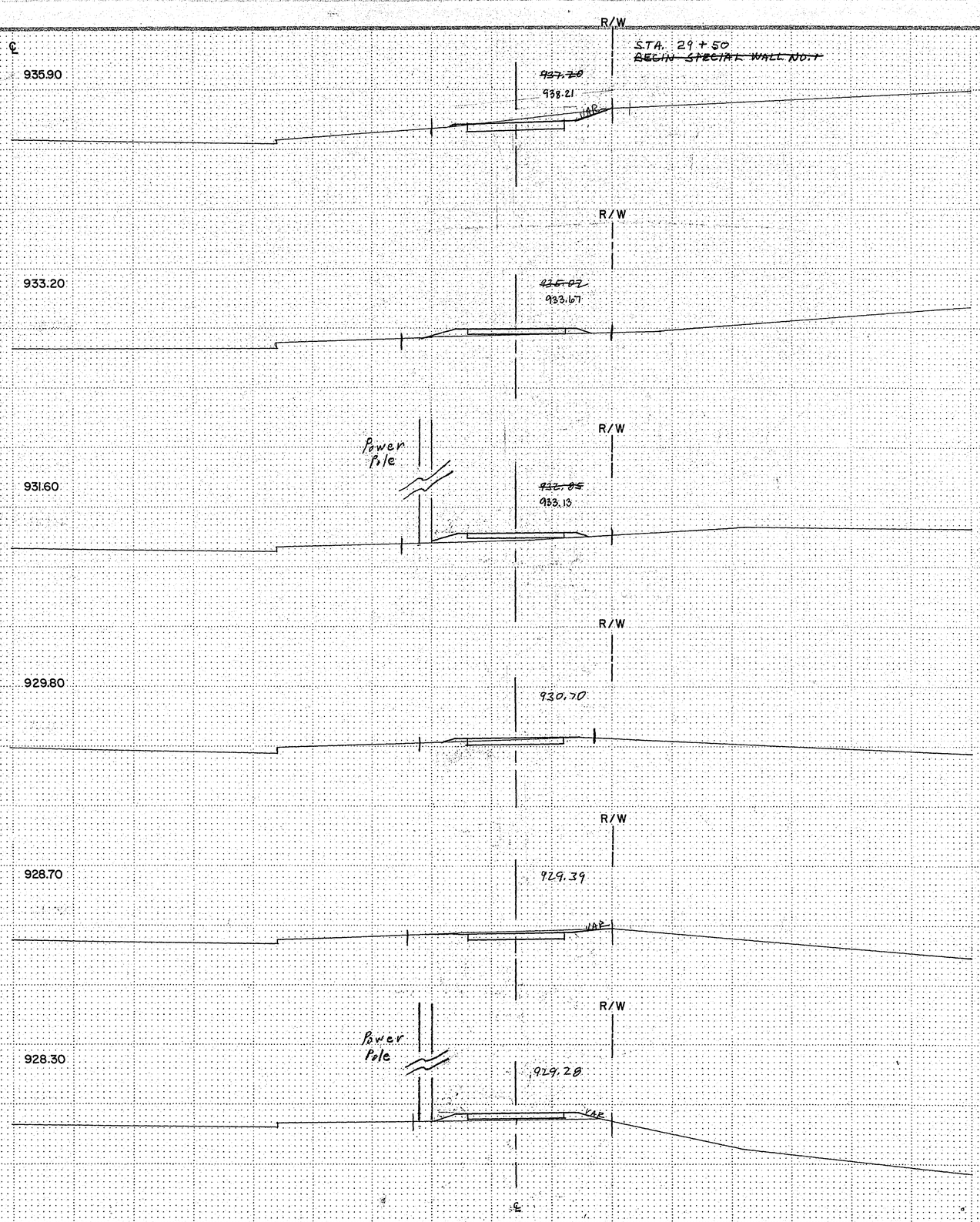
STA. 24+00 TO STA. 26+50

State Proj. No. 62-668-29

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COPY EQUIVALENT FORM #1

Fed. Proj. No.



EXC EMB

AS BUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: [illegible]
DATE: 3/6/06

28 -133

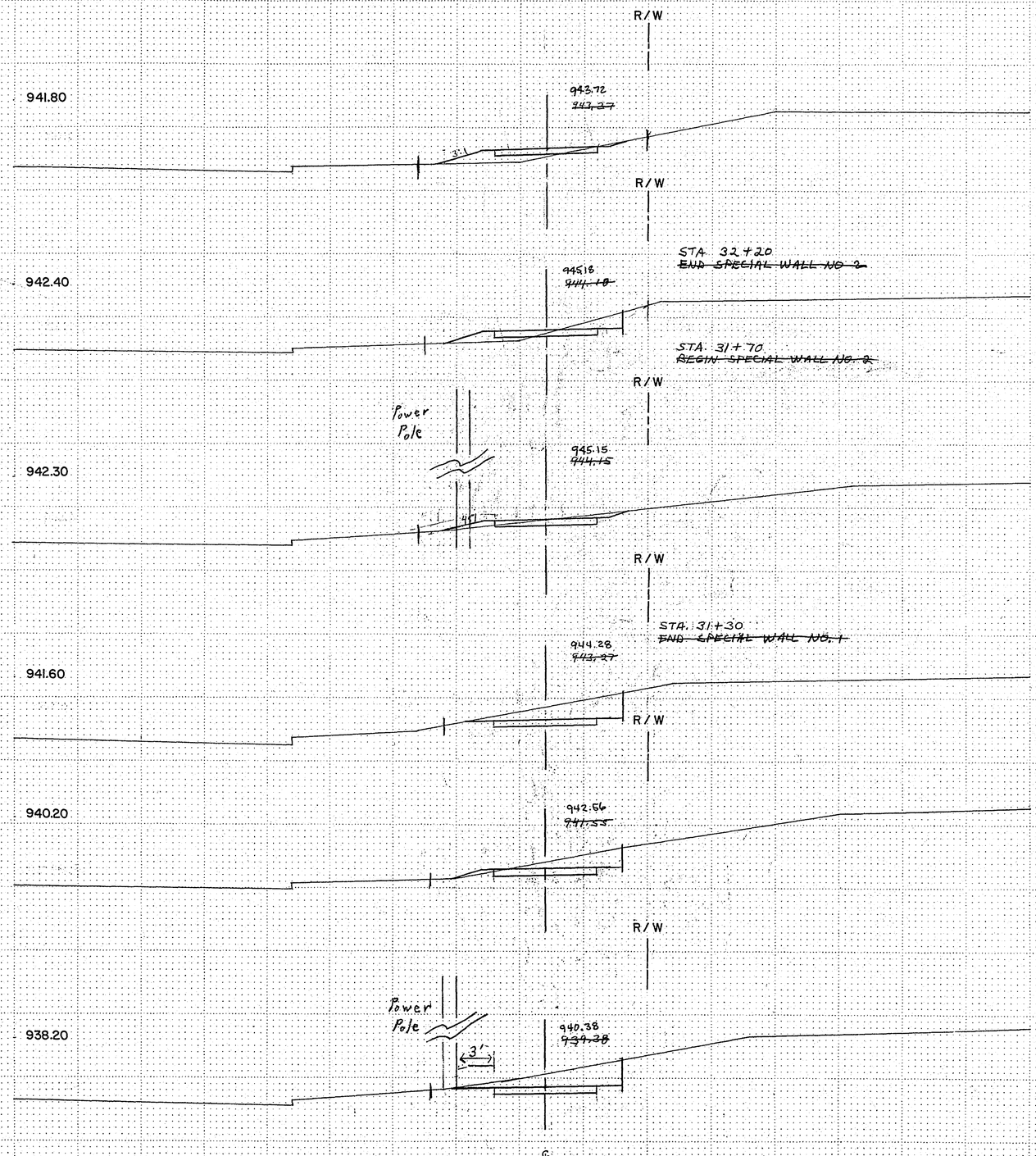
STA. 27+00 TO STA. 29+50

State Proj. No. 62-668-29

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CSP-1 EQUIPMENT FORM #1

Fed. Proj. No.



EXC	EMB
2.	8.1
9.0	5.1
9.0	2.
20.0	0
14.8	2.0
22.2	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: O.
DATE: 2-6-95

28-133

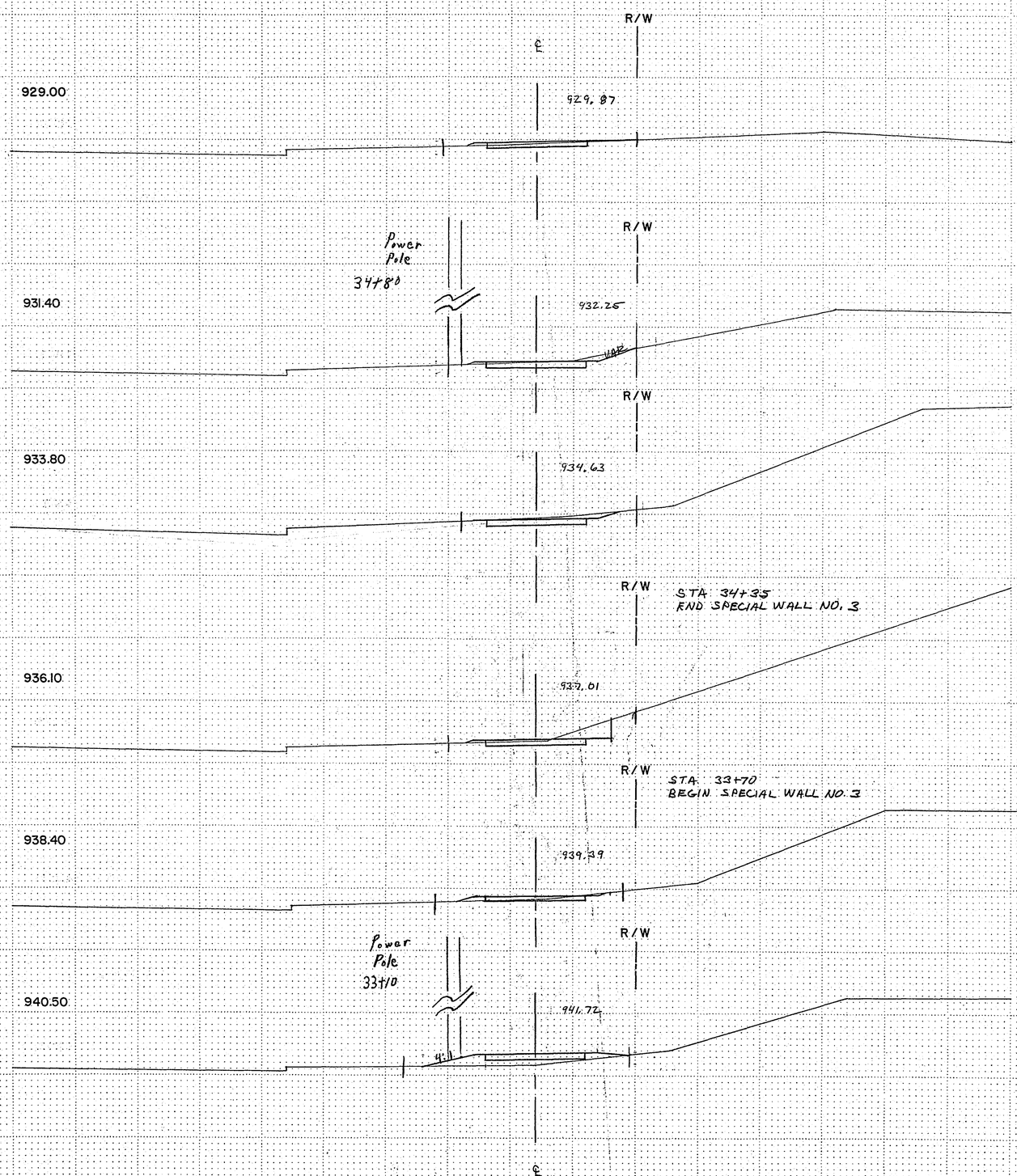
STA.30+00 TO STA.32+50

State Proj. No.62-668-29

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COPY EQUIPMENT FORM #1

Fed. Proj. No.



EXC.	EMB.
6.	1
7	1
6.9	0
9.7	2
3.5	5.9
0	11.2

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

28-133

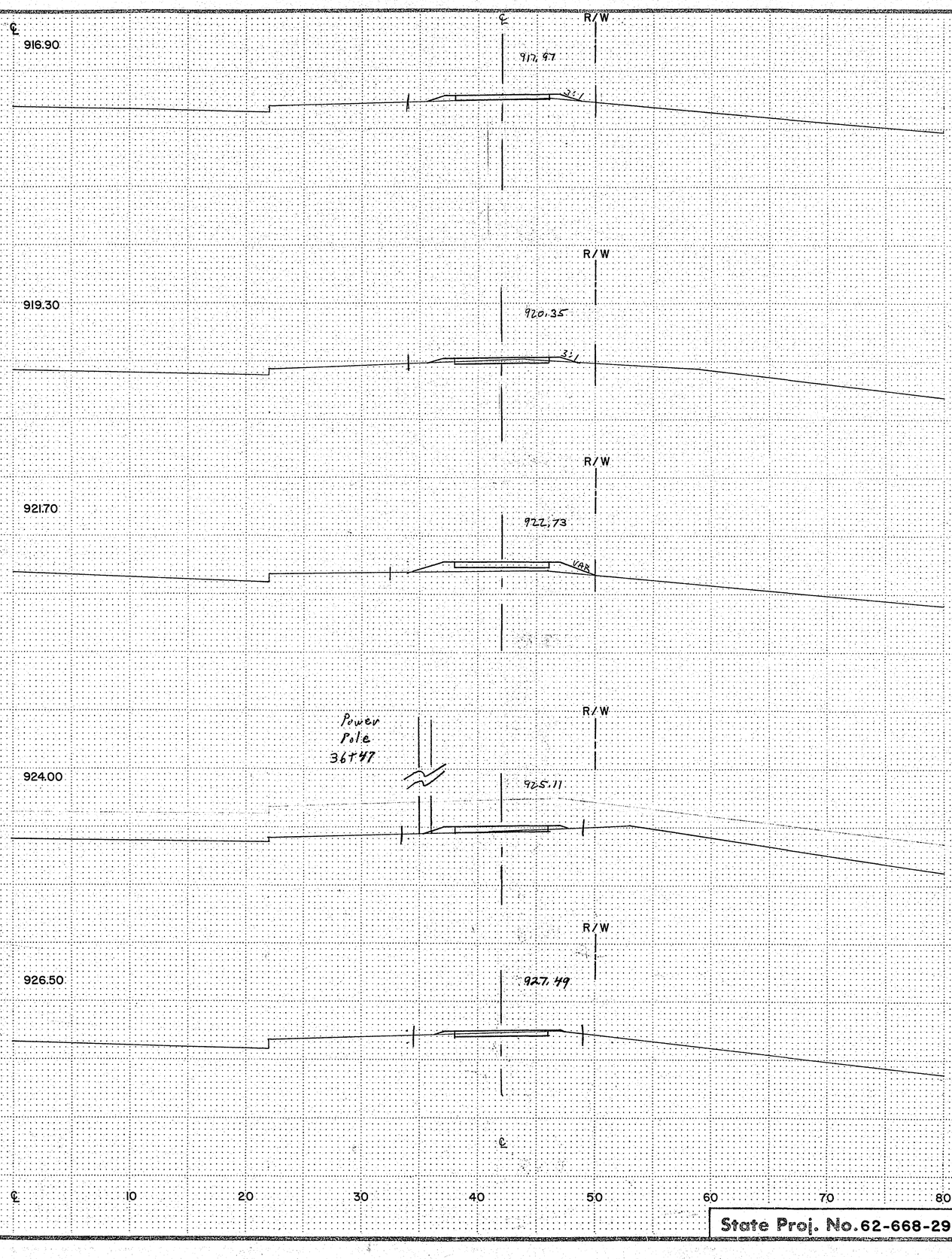
STA. 33+00 TO STA. 35+50

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ASBUILT PLAN
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STA. 36+00 TO STA. 38+00

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COPY EQUIPMENT FORM #1

Fed. Proj. No.

EXC EMB

39+46 ℄ 914.10 NO. EDGE BIT. UPPER AFTON ROAD

39+34 914.30 ℄ UPPER AFTON ROAD

39+32 914.20 SO. EDGE BIT. UPPER AFTON ROAD

39+00 914.20 R/W 913.98 9.0 D

38+50 915.70 R/W Power Pole 38+20 915.61 6.7 D

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

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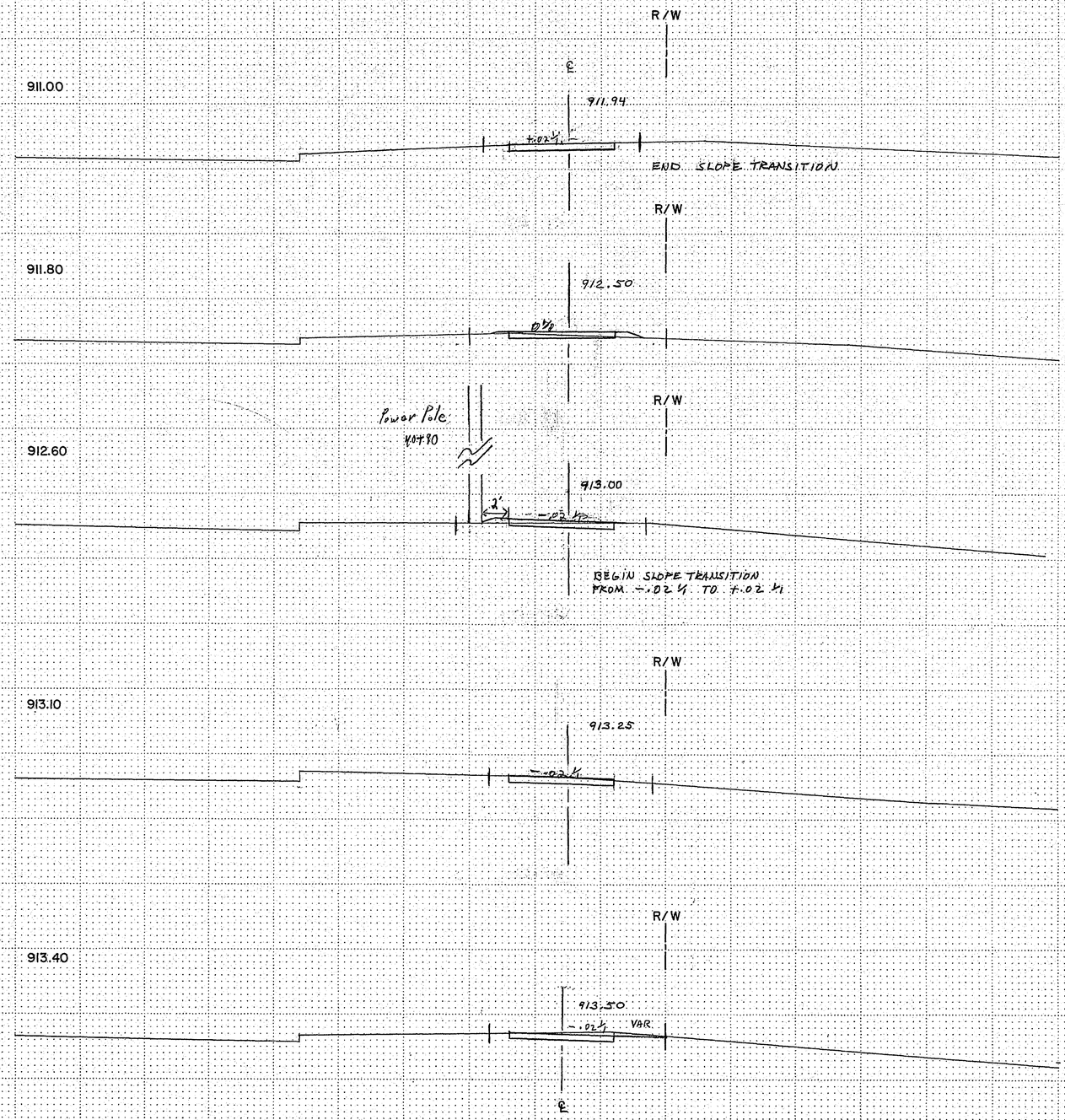
℄ 10 20 30 40 50 60 70 80 STA. 38+50 TO STA. 39+46

State Proj. No. 62-668-29 Sheet No. 19 of 32 Sheets

COPY EQUIPMENT FORM #1

Fed. Proj. No.

		EXC	EMB
42+00	911.00	6.7	0
41+50	911.80	5.5	5.4
41+00	912.60	4.9	3.5
40+50	913.10	6.7	0
40+00	913.40	7.4	0



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE: 1/6/95

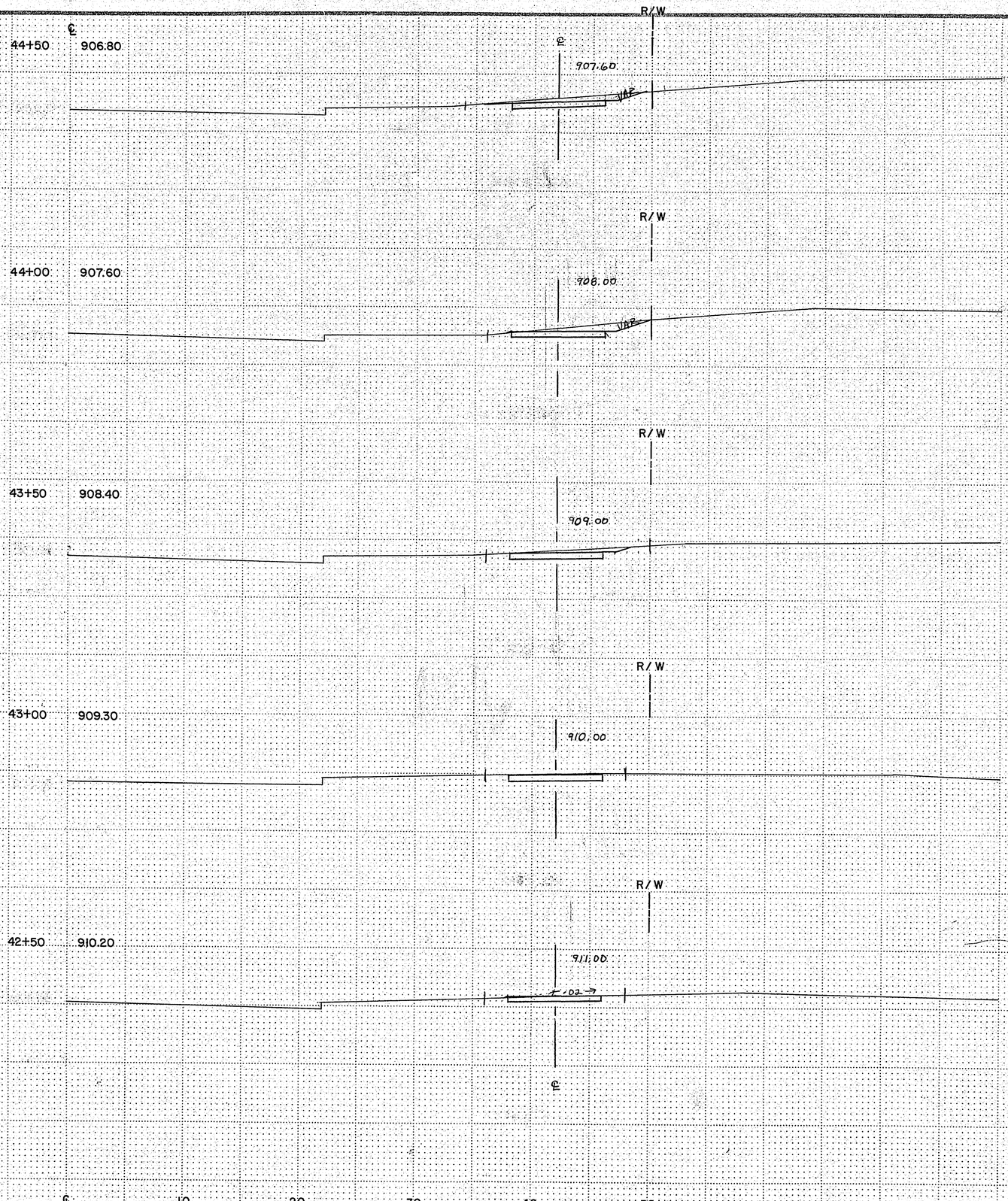
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STA.40+00 TO STA.42+00

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COPY EQUIPMENT FORM #1



Fed. Proj. No.	
EXC	EMB
11.4	0
9.3	0
8.7	0
6.7	0
6.7	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: [illegible]
DATE: 8/16/50

28-133

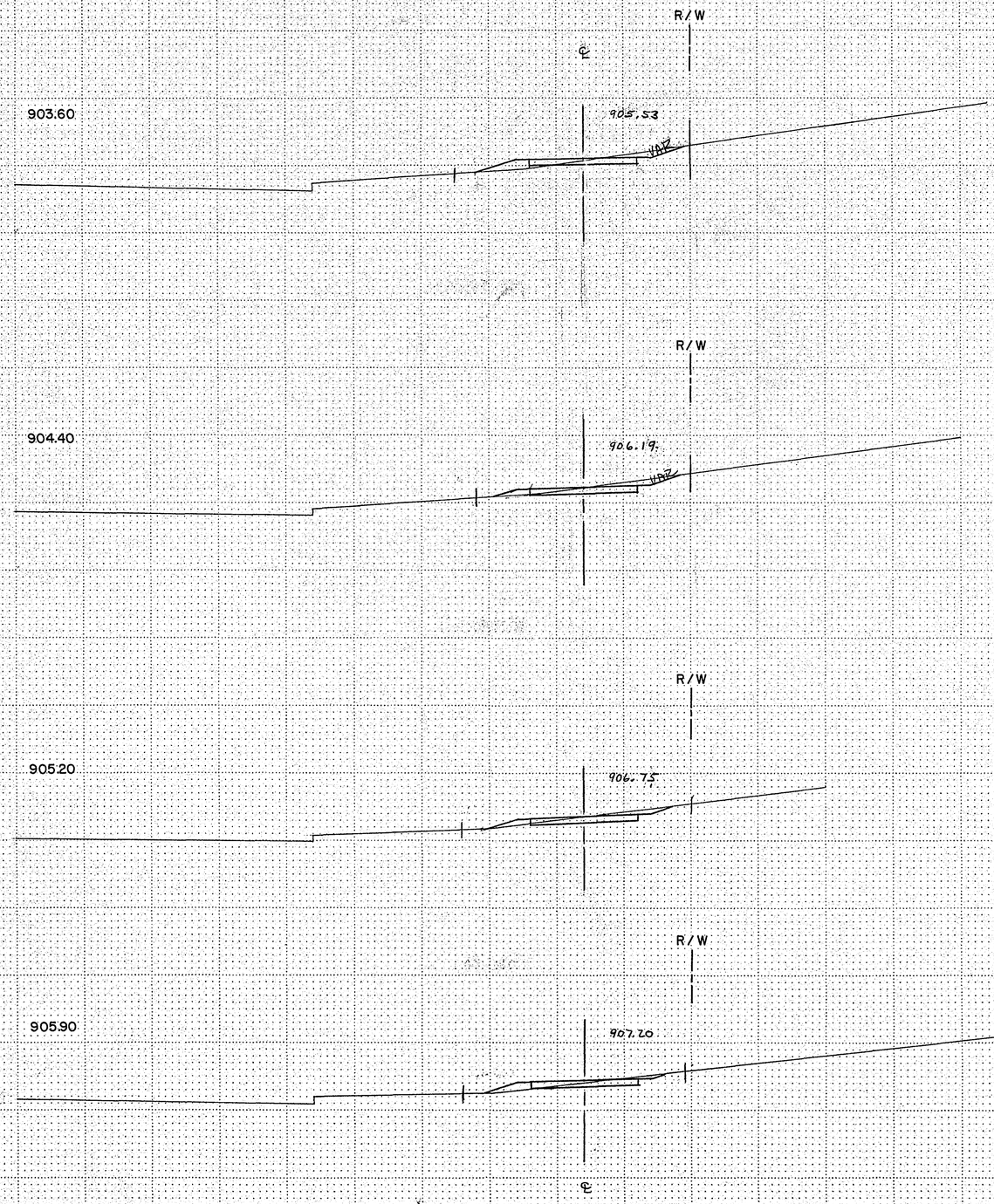
STA. 42+50 TO STA. 44+50

State Proj. No. 62-668-29

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Fed. Proj. No.

		Exc	Emb
46+50	903.60	7.0	6.2
46+00	904.40	5.8	2.0
45+50	905.20	5.8	2.7
45+00	905.90	4.7	5.4



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

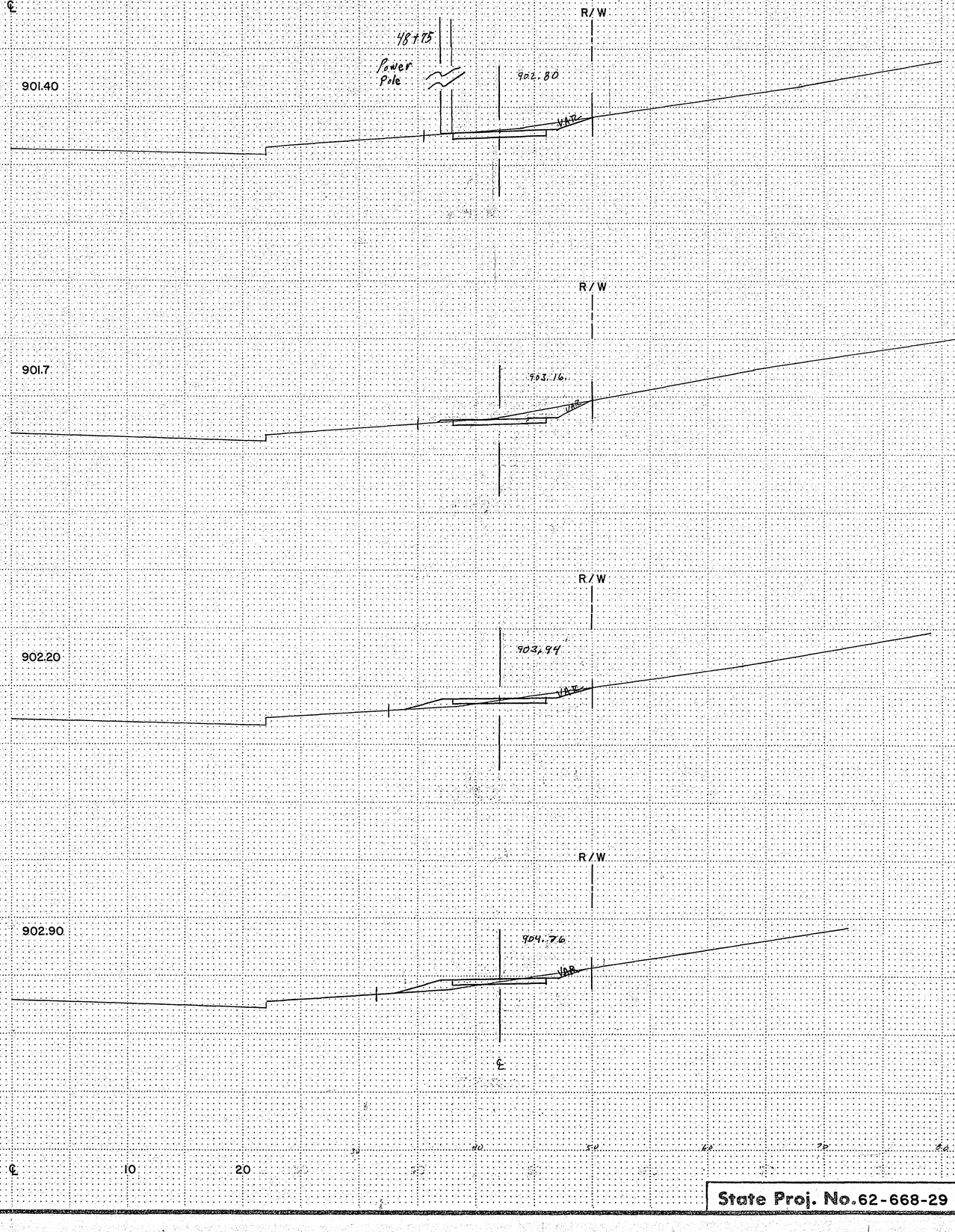
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STA. 45+00 TO STA. 46+50

State Proj. No. 62-668-29

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COPY EQUIPMENT FORM #1



Fed. Proj. No.

EXC.	EMB.
9.3	0
10	1
8.1	3.9
3.1	6.2

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

28-133

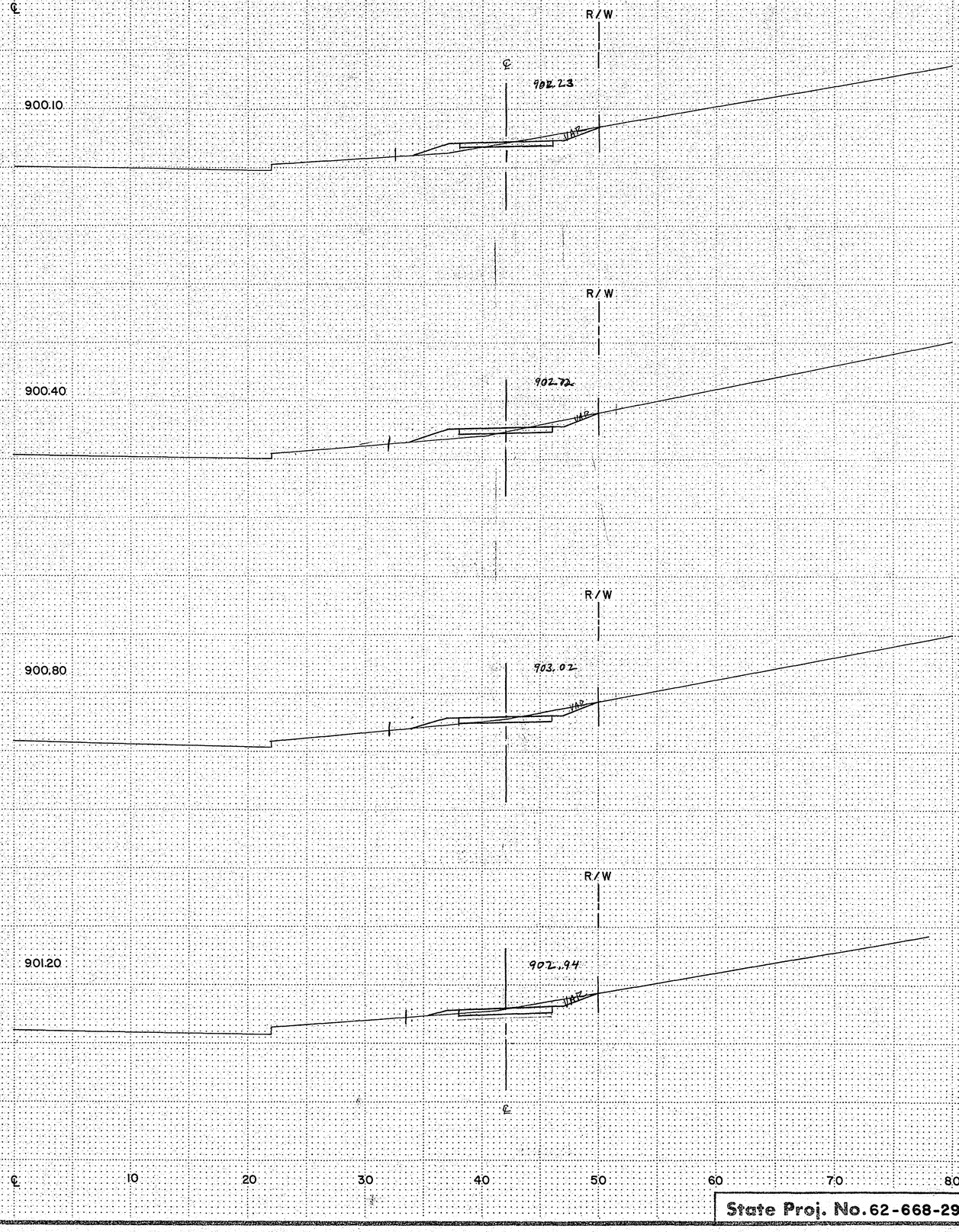
STA. 47+00 TO STA. 48+50

State Proj. No. 62-668-29

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COPY COURTESY FORM #1

Fed. Proj. No.



EX.C EMB

5.8 4.3

5.1 5.8

8.1 4.3

9.3 3.1

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE: 3/1/95

28-133

STA. 49+50 TO STA. 50+50

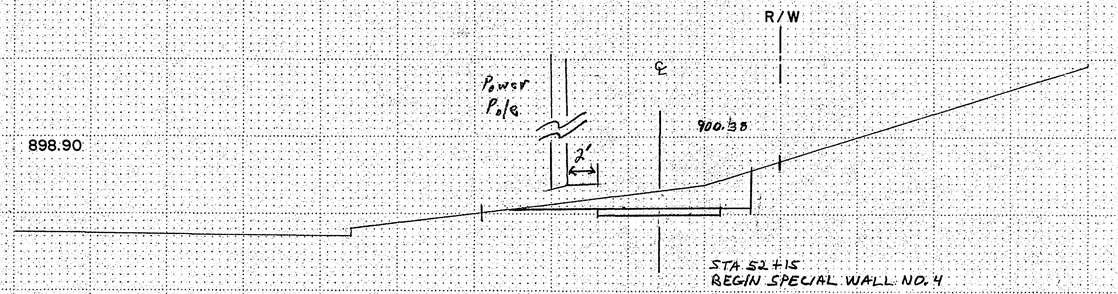
State Proj. No. 62-668-29

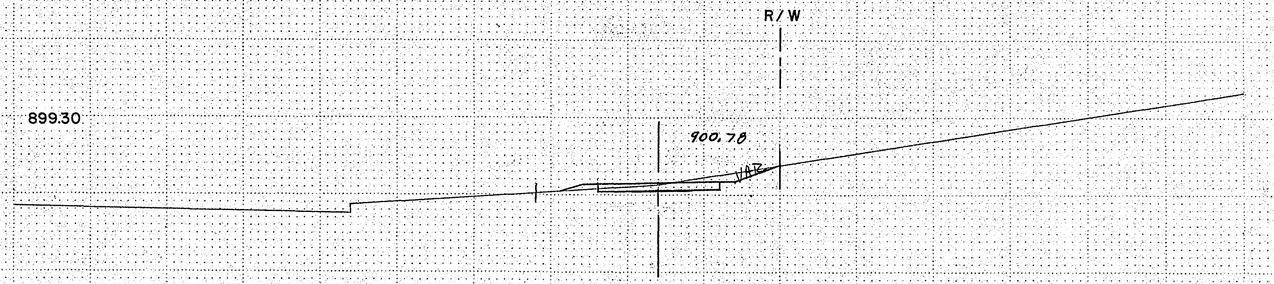
Sheet No. 24 of 32 Sheets

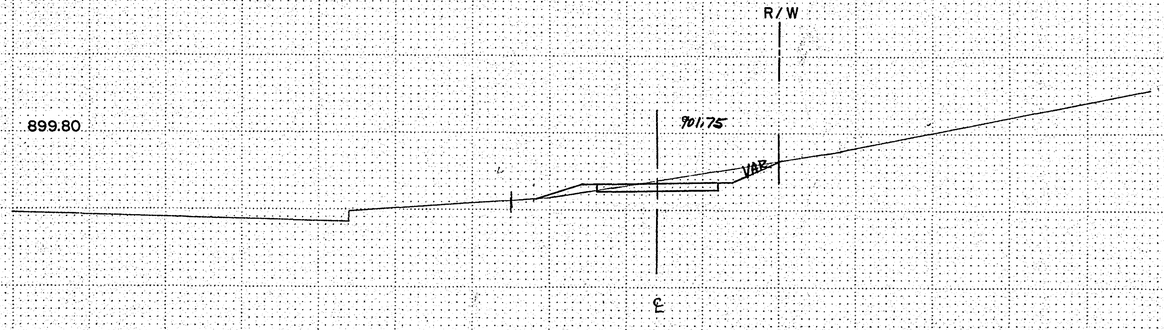
COPY EQUIPMENT FORM #1

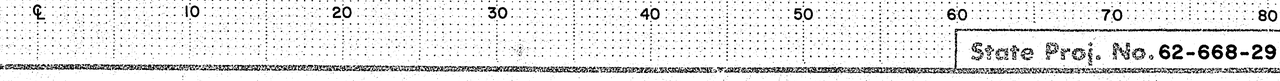
Fed. Proj. No.

		EXC	EMB
52+50	898.90	22	0
52+00	899.30	7.8	2.0
51+50	899.60	5.8	5.8
51+00	899.80	8.5	3.1









ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY
DATE: 9/14/95

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STA.51+00 TO STA. 52+50

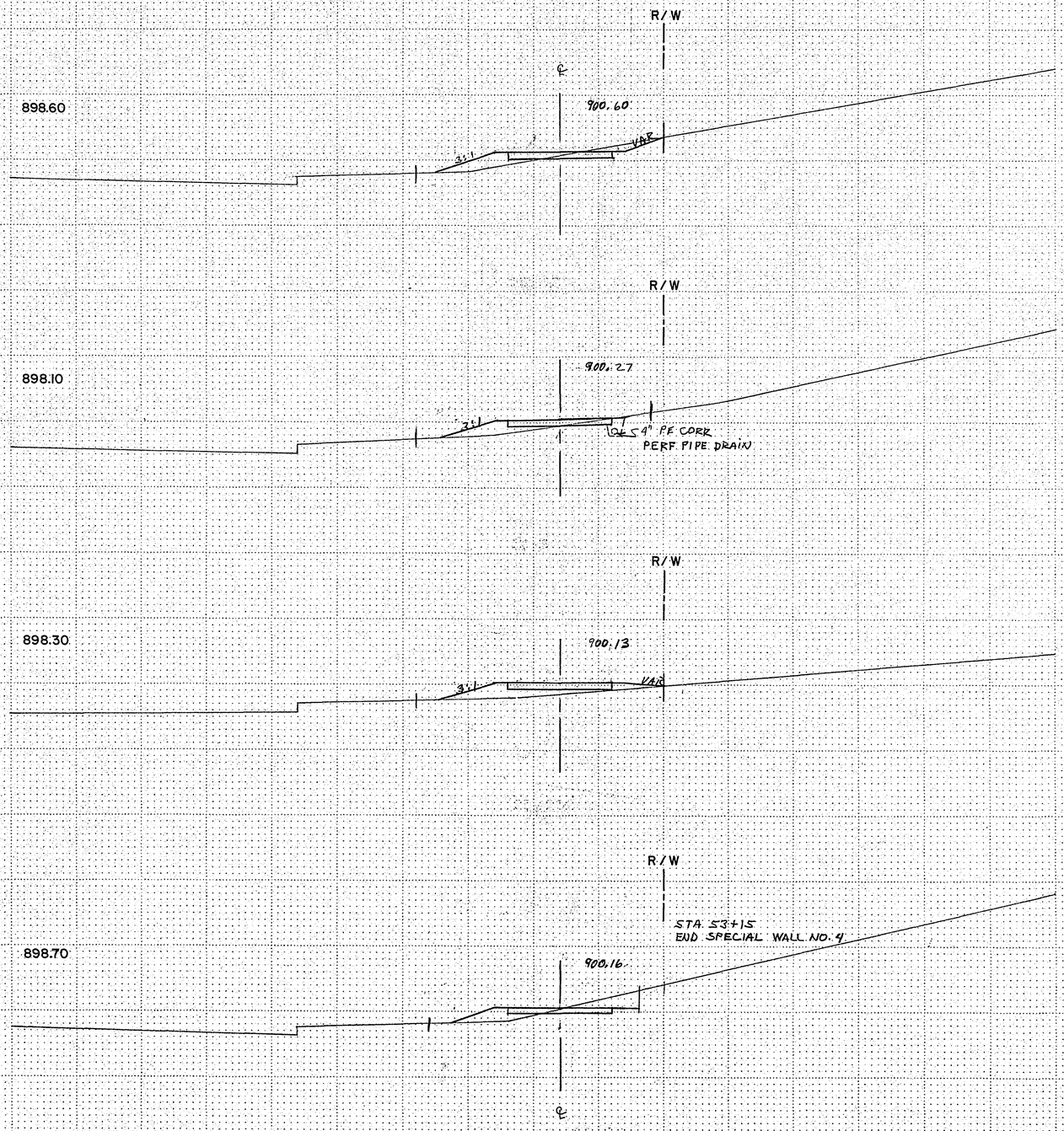
State Proj. No. 62-668-29

Sheet No. 25 of 32 Sheets

COPY, EQUIVALENT FORM #1

Fed. Proj. No.

	EXC	EMB
54+50 898.60	5.4	7.8
54+00 898.10	1	7.8
53+50 898.30	0	13.5
53+00 898.70	8.5	7.0



ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY
DATE 3/4/95

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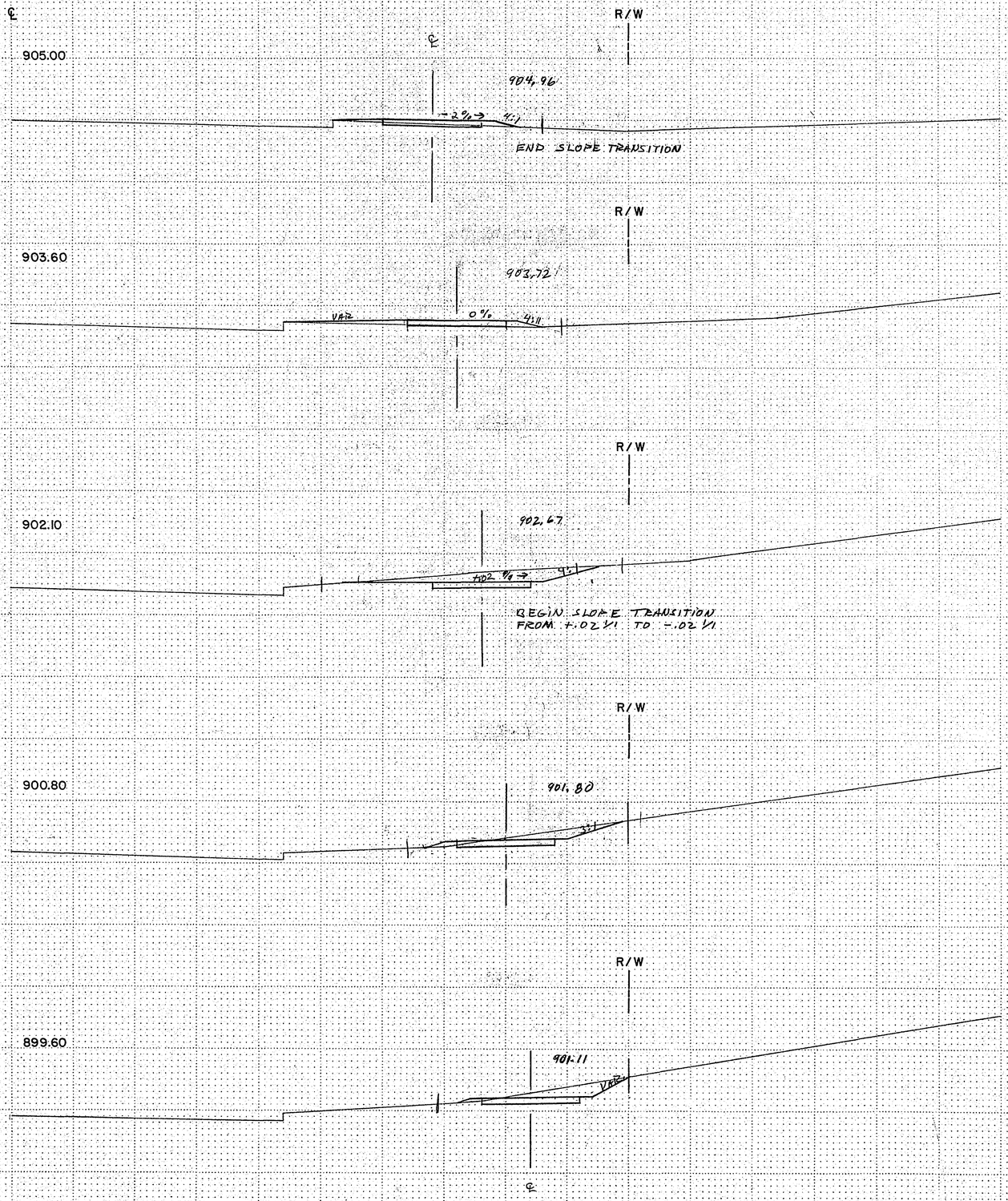
STA.53+00 TO STA.54+50

State Proj. No.62-668-29

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Fed. Proj. No.

			EXC.	EMB.
57+00	905.00	904.96	4.3	5.4
56+50	903.60	903.72	1	7.4
56+00	902.10	902.67	19	0
55+50	900.80	901.80	11.6	1
55+00	899.60	901.11	12.8	1



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

28-133

STA. 55+00 TO STA. 57+00

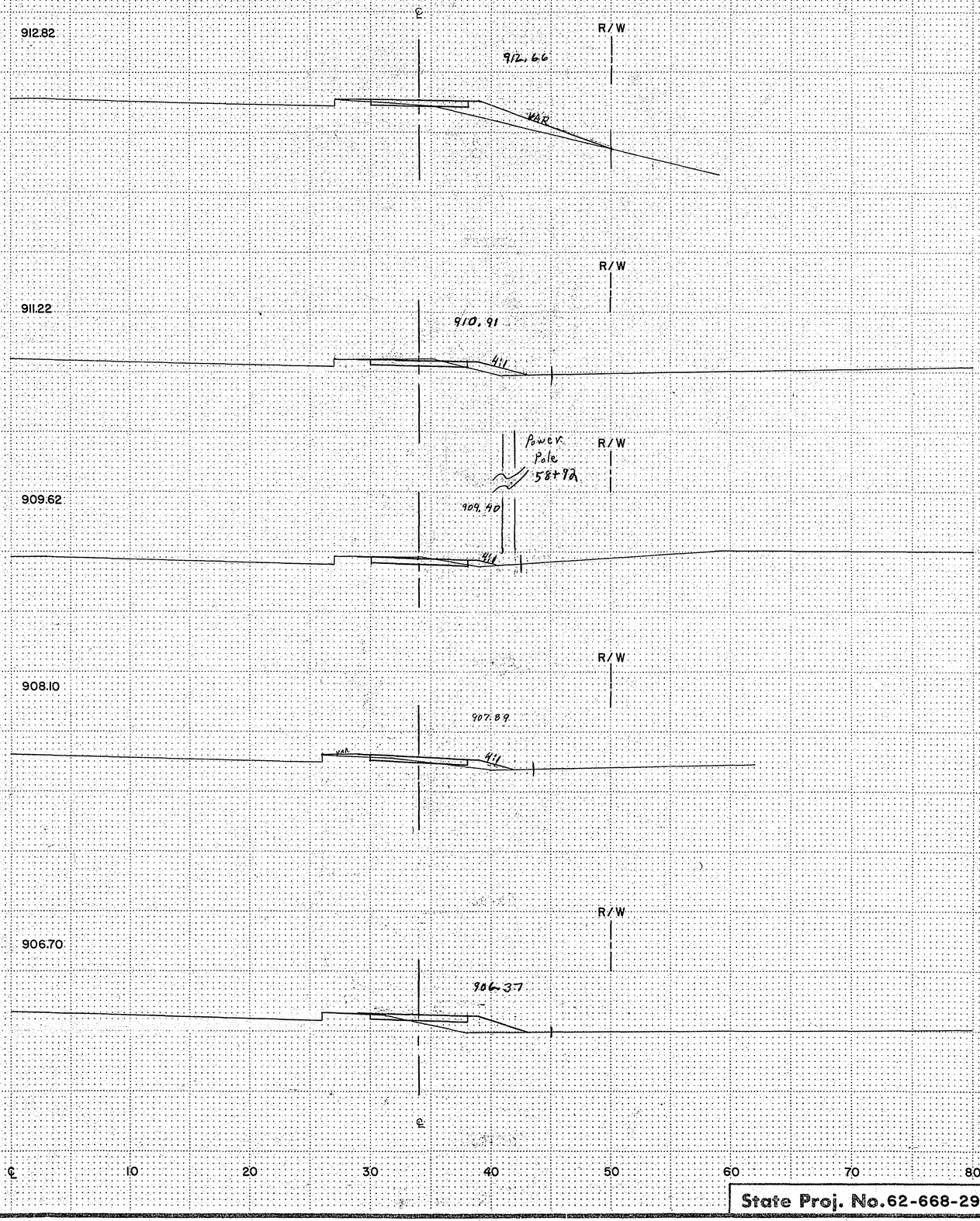
State Proj. No. 62-668-29

Sheet No. 27 of 32 Sheets

COPY EQUIPMENT FORM #1

Fed. Proj. No.

		EXC	EMB
59+50	912.82	5.8	17
59+00	911.22	6.6	5.0
58+50	909.62	5.8	2
58+00	908.10	3.5	6.2
57+50	906.70	1	10.8



ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: C. Co.
DATE: 3/15

28-133

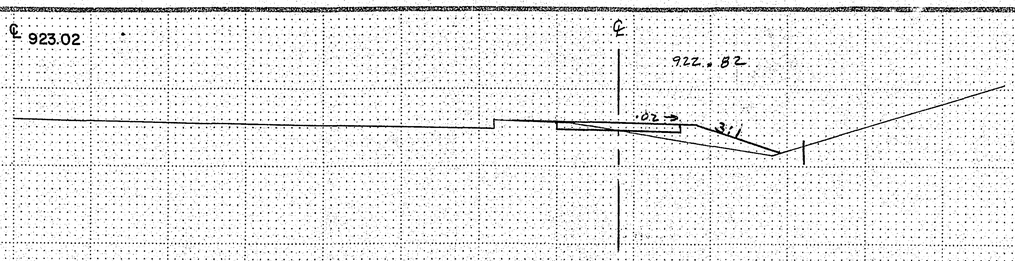
STA. 58+00 TO STA. 59+50

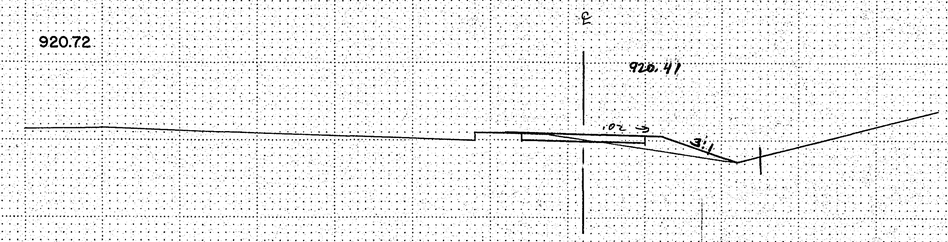
State Proj. No. 62-668-29

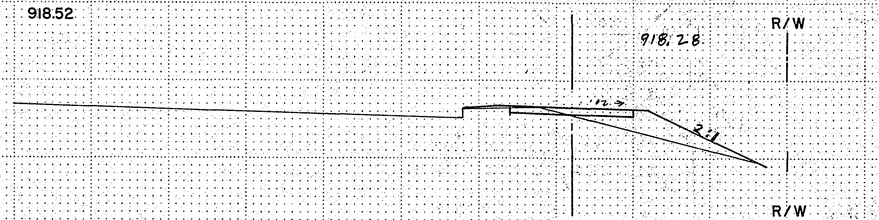
Sheet No. 28 of 32 Sheets

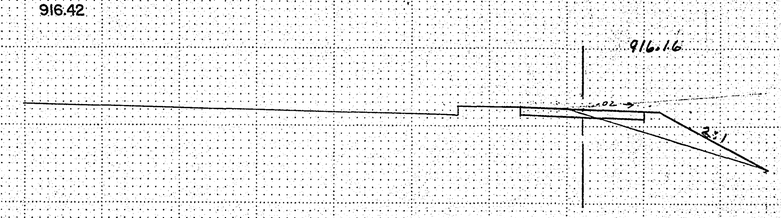
COPY EQUIPMENT FORM #1

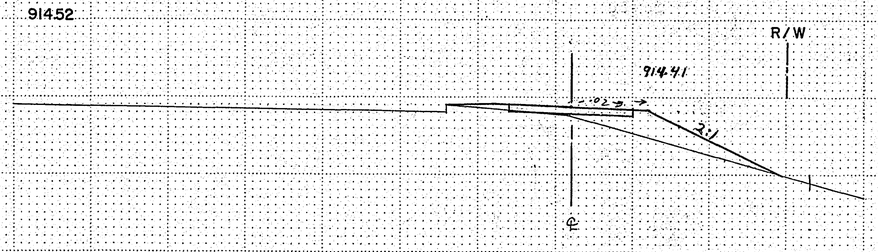
Fed. Proj. No.











ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: G. Smith
DATE: 3/16/95

28-133

℄ 10 20 30 40 50 60 70 80 90 100 STA.60+00 TO STA.62+00

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COPY EQUIPMENT FORM #1

Fed. Proj. No.

EXC. EMB

64+00 932.82

℄ 932.48

0 136.4

R/W

3:1

63+50 930.42

930.07

3.5 73.2

R/W

3:1

63+00 927.92

R/W

927.66

3:1

3.5 14.

R/W

62+50 925.42

925.24

3:1

4.7 62

℄

℄ 10 20 30 40 50 60 70 80 90 100

28-133

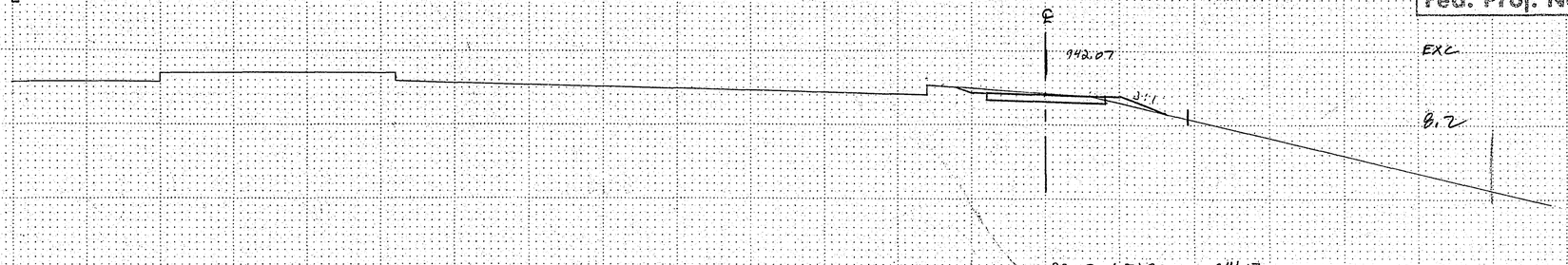
STA.62+50 TO STA.64+00

State Proj. No.62-668-29 Sheet No. 30 of 32 Sheets

COPY EQUIPMENT FORM #1

Fed. Proj. No.

66+00 ℄ 942.84

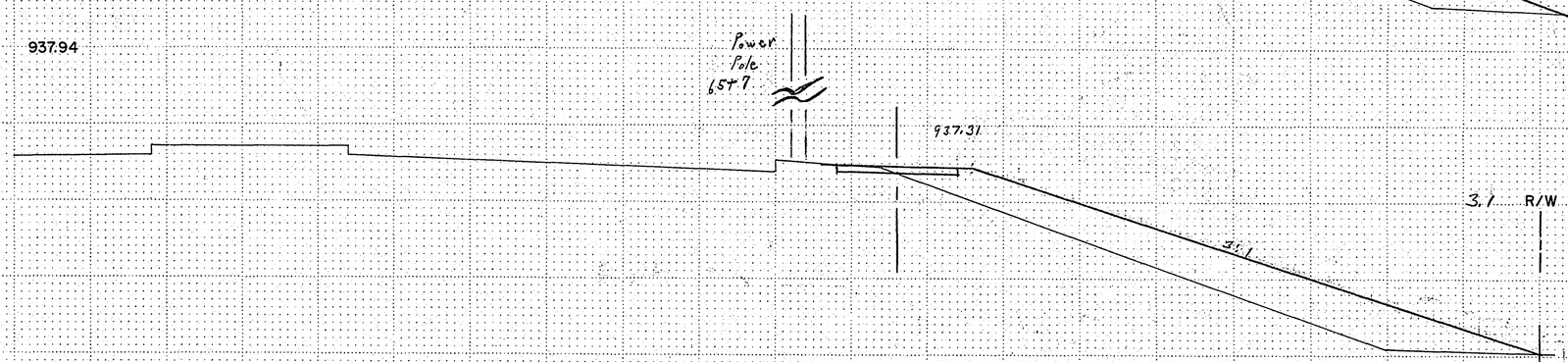


BC @ 65+80 = 941.17

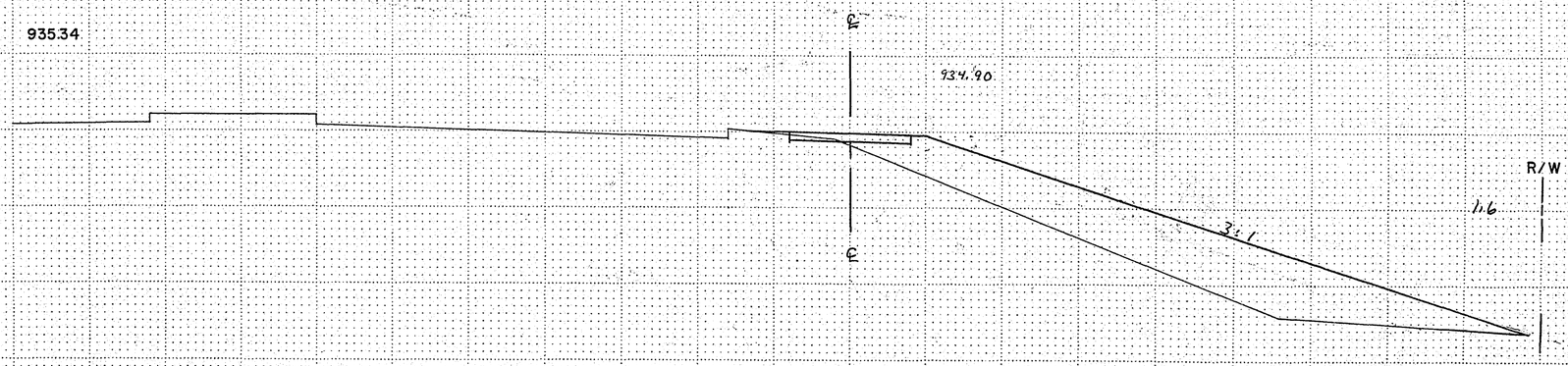
65+50 940.44



65+00 937.94



64+50 935.34



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

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0 10 20 30 40 50 60 70 80 90 100 STA.64+50 TO STA.66+00

State Proj. No. 62-668-29 Sheet No. 31 of 32 Sheets

COPY EQUIPMENT FORM #1

Fed. Proj. No.

Exc. Emb.

EARTHWORK QUANTITIES SUMMARY

COMMON EXCAVATION	890	CY
EMBANKMENT	1223	CY
EMBANKMENT 1223 X 1.3 =	1590	CY
MINUS		
COMMON EXCAVATION	890	CY
EMBANKMENT	700	CY

66+33 944.20±

SO. EDGE OF 194 RAMP

0 0

℄ 10 20 30 40 50 60 70 80 90 100 STA. 66+33

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE: 1/9/95

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COPY EQUIPMENT FORM #1