

CITY OF ROSEVILLE MINNESOTA

NOTE: PROPOSED WORK ON FAIRVIEW AVENUE INCLUDES A BITUMINOUS OVERLAY FOR WHICH PLANS HAVE BEEN PRODUCED BY RAMSEY COUNTY, UNDER S.A.P. 62-648-14. THE OVERLAY PLAN AND THE WIDENING PLAN (THIS PLAN) ARE TO BE CONSIDERED ONE PROJECT. THEY SHALL BE BID AS ONE, AND CONSTRUCTED BY THE SAME CONTRACTOR.

FAIRVIEW AVENUE WIDENING PROJECT

CONSTRUCTION PLANS FOR : GROUP A

SURFACING, CURB AND GUTTER, AND TRAFFIC SIGNAL INSTALLATIONS.

CITY PROJECT M-P-90-15

KEY

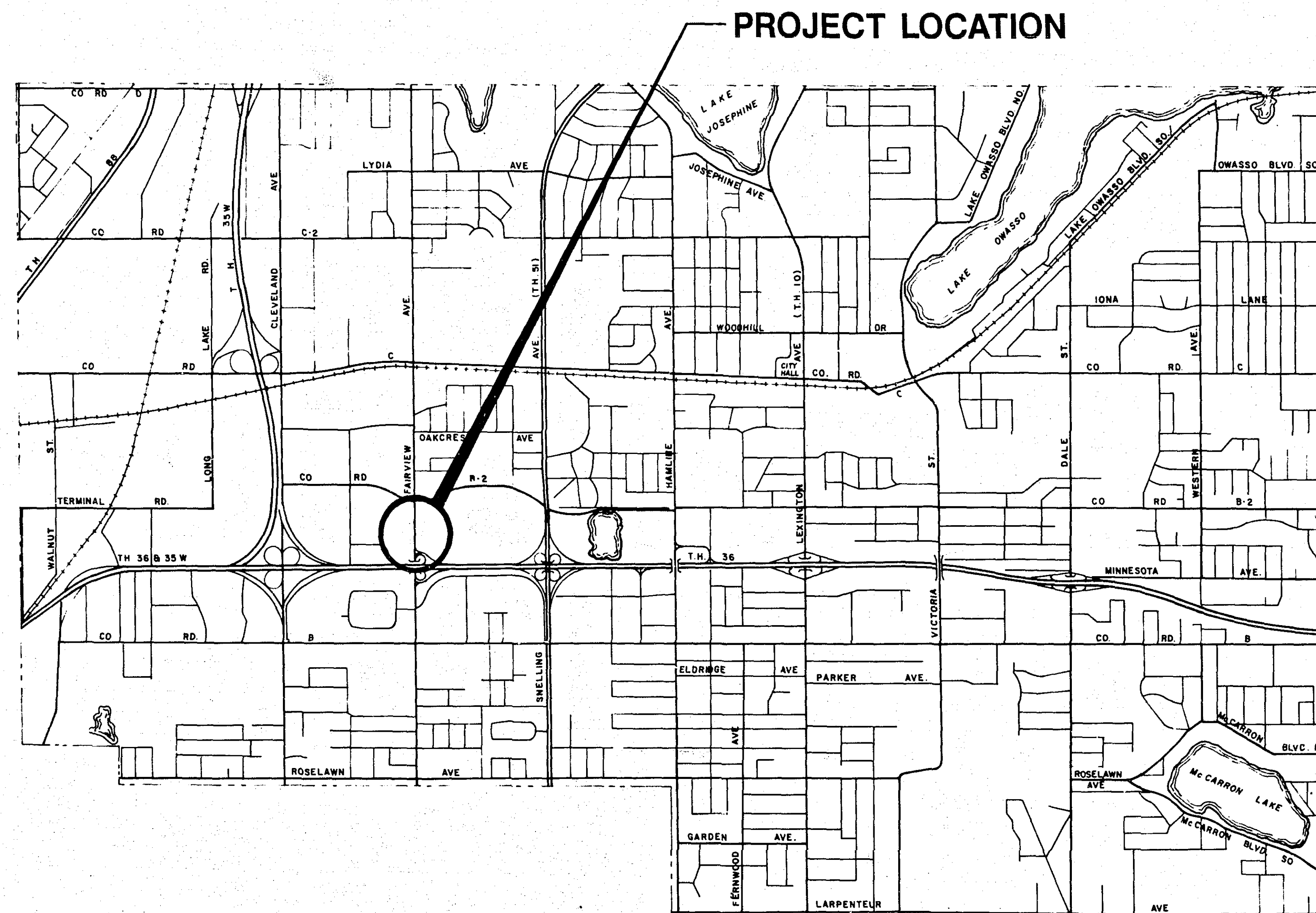
- Existing Watermain, Size & Type Labeled
- Proposed Watermain, Size & Type Labeled
- Existing Gate Valve
- ☼ Existing Hydrant & Hydrant Gate Valve
- Existing Curb Box
- Manhole, Barrel Type, For Sanitary or Storm Sewer
- SS— Existing Sanitary Sewer, Size & Type Labeled
- Proposed Sanitary Sewer, Size & Type Labeled
- ST.S— Existing Storm Sewer, Size & Type Labeled
- Proposed Storm Sewer, Size & Type Labeled
- Power Pole
- Fence - Type Labeled
- Coniferous Trees - Type & Size Labeled
- Deciduous Trees - Type & Size Labeled
- + Street Sign - Type Labeled
- [2660] House Number
- Existing Curb & Gutter
- Proposed Curb & Gutter
- Existing Catch Basin
- Proposed Catch Basin
- Concrete
- Bituminous
- Gravel
- G— Underground Gas Main, Size & Type Labeled
- T— Underground Telephone Line
- Underground Pipeline, Name, Size & Type Labeled

SPECIFICATIONS

THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" 1988 EDITION AND ALL SUPPLEMENTS THEREAFTER, SHALL GOVERN.

PLANS PREPARED BY

B Barton-Aschman Associates, Inc.
111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401



ROSEVILLE, MINNESOTA

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ASBUILT
3-3-91
J.B.C.

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

RAMSEY COUNTY
RECOMMENDED FOR APPROVAL D.E. Schuler DATE 5/21/90
Traffic Engr
RECOMMENDED FOR APPROVAL KMR DATE 5/21/90
Env Engr
RECOMMENDED FOR APPROVAL J. J. Schult DATE 5/21/90
Maint Engr
RECOMMENDED FOR APPROVAL RHP LKF DATE 5/21/90
Const Engr
RECOMMENDED FOR APPROVAL DLR DATE 5/21/90
Design Engr
RECOMMENDED FOR APPROVAL JOB DATE 5-21-90
ROW Engr
RECOM'D Wynne R. Jensen DATE 5-21-90
Coordinating Engr
RECOM'D Paul K. Hill DATE 5-21-90
Assistant Co Engineer
RECOMMENDED FOR APPROVAL Paul K. Hill DATE _____
COUNTY ENGINEER

APPROVED John O. Mark DATE 5-15-90
CITY OF ROSEVILLE

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 3-30-90 REG. NO. 18235 ENGR. Kenneth W. Harris

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: [Signature]
DATE: 7/2/91

STATEMENT OF ESTIMATED QUANTITIES				
ITEM NO.	ITEM	UNIT	TOTAL CONTRACT	
			EST.	FINAL
2021.501	MOBILIZATION 5% MAX.	L.S.	1	1
2101.502	CLEARING	TREE	14	8
2101.507	GRUBBING	TREE	14	8
2104.501	REMOVE BITUMINOUS CURB	L.F.	195	195
2104.501	REMOVE CHAIN LINK FENCE	L.F.	290	290
2104.501	REMOVE R.C. PIPE (INCLUDES APRON)	L.F.	40	40
2104.501	REMOVE CONCRETE CURB AND GUTTER	L.F.	2,700	2469
2104.505	REMOVE CONCRETE MEDIAN OR WALK	S.Y.	610	538
2104.505	REMOVE BITUMINOUS PAVEMENT	S.Y.	760	890
2104.505	REMOVE BITUMINOUS WALK	S.Y.	310	200
2104.505	REMOVE CONCRETE PAVEMENT	S.Y.	235	345
2104.509	REMOVE CATCH BASIN	EA.	1	1
2104.509	REMOVE TRAFFIC CONTROL SYSTEM	EA.	1	1
2104.509	REMOVE TIMBER RETAINING WALL	EA.	1	1
2104.509	REMOVE LIGHT BASE	EA.	1	1
2104.511	SAWING CONCRETE PAVEMENT	L.F.	250	186
2104.513	SAWING BITUMINOUS PAVEMENT	L.F.	1,100	963
2104.523	SALVAGE CASTING ASSEMBLY	EA.	5	5
2104.523	SALVAGE LIGHT STANDARD	EA.	1	1
2105.505	COMMON EXCAVATION	C.Y.	5,100	6839
2105.521	GRANULAR BORROW	C.Y.	2,100	2700
2105.522	SELECT GRANULAR BORROW	C.Y.	1,020	1169
2211.501	AGGREGATE BASE CLASS 5	TON	1,000	1206.12
2211.501	AGGREGATE BASE CLASS 4	TON	920	939
2211.501	AGGREGATE BASE CLASS 3	TON	1,220	1238
2301.503	CONCRETE PAVEMENT IRREGULAR WIDTH (2)	S.Y.	350	526
2301.511	STRUCTURAL CONCRETE	C.Y.	78	117
2331.510	BINDER COURSE MIXTURE (2331 MODIFIED)	TON	340	304.72
2331.512	LEVELING COURSE MIXTURE (2331 MODIFIED)	TON	250	0
2331.514	BASE COURSE MIXTURE (2331 MODIFIED)	TON	620	827.12
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	130	0
2341.508	WEARING COURSE MIXTURE (2341 MODIFIED)	TON	2	0
2411.503	KEYSTONE RETAINING WALL SYSTEM	S.F.	1,200	1939
2571.502	2" SKYLINE HONEYLOCUST	EA.	8	8
2571.504	5 GAL. MINT JULEP JUNIPER	EA.	134	134
2571.505	5 GAL. SHIBORI SPIREA	EA.	126	126
2575.505	SODDING / TYPE A LAWN AND BOULEVARD SOD	S.Y.	660	2491
2575.513	3" LANDSCAPE STONE MULCH WITH FIBER MAT WEED BARRIER	C.Y.	42	42
0504.604	UNDERGROUND IRRIGATION SYSTEM RETROFIT	L.S.	1	0
0575.603	STEEL EDGER	L.F.	40	0

① REMOVAL OF INPLACE SIGNAL SYSTEMS UNDER SEPERATE PAY ITEM 2104.509--REMOVE TRAFFIC CONTROL SYSTEM. INCLUDES REMOVING ALL MAST ARM POLES, SIGNAL FACES, FOUNDATIONS, HANDHOLES R.S.C., DETECTORS, GUARD POSTS, WOOD POLES, AND OTHER APPURTANCES TO THE INPLACE TRAFFIC CONTROL SIGNAL SYSTEMS.

② INCLUDES ALL JOINTS, REINFORCEMENT BARS, AND DOWEL BARS, AND D4 CURB & GUTTER. SEE JOINT LAYOUT SHEET 8.

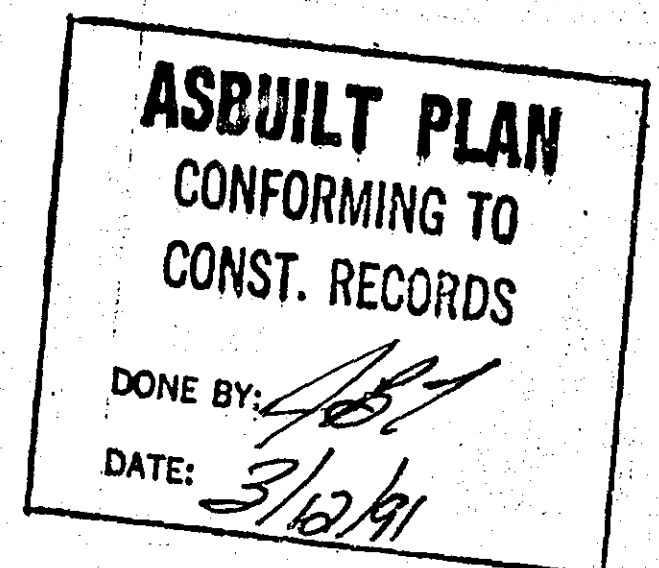
③ INCLUDES REINSTALLING LIGHT STANDARD. SEE SHEET 26.

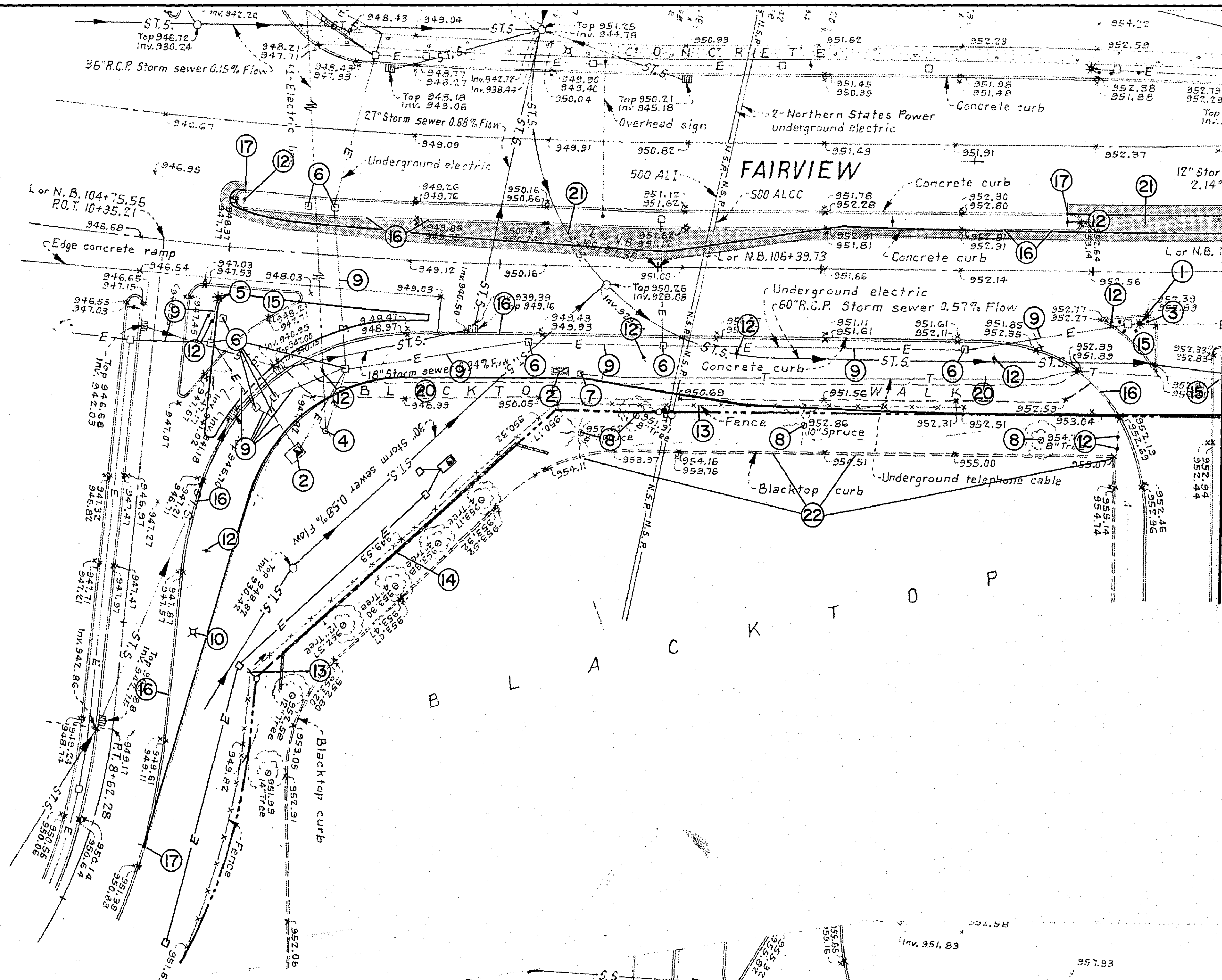
④ INCLUDES CONNECTIONS TO EXISTING DRAINAGE STRUCTURES.

STATEMENT OF ESTIMATED QUANTITIES				
ITEM NO.	ITEM	UNIT	TOTAL CONTRACT	
			EST.	FINAL
2503.511	12" R.C. PIPE SEWER (CL. 5) (4)	L.F.	239	239
2506.509	CONSTRUCT CATCH BASIN DESIGN C-G-H	L.F.	12.0	11.9
2506.509	CONSTRUCT CATCH BASIN DESIGN C-G	L.F.	12.4	12.2
2506.509	CONSTRUCT CATCH BASIN DESIGN M	L.F.	10.4	10.4
2506.516	CASTING ASSEMBLY 805/816	EA.	2	0
2506.516	CASTING ASSEMBLY 802/816	EA.	3	3
2506.516	CASTING ASSEMBLY 700-7/712	EA.	2	4
2506.516	CASTING ASSEMBLY 731	EA.	1	1
2506.521	INSTALL CASTING	EA.	11	11
2506.522	ADJUST FRAME AND RING CASTING	EA.	16	1
2521.501	4" CONCRETE WALK	S.F.	8,820	7883
2521.511	2.5" BITUMINOUS WALK	S.F.	300	240
2531.501	CONCRETE CURB AND GUTTER DESIGN B624	L.F.	2,640	2561
2531.501	CONCRETE CURB AND GUTTER DESIGN B612	L.F.	250	54
2545.515	LIGHT BASE DESIGN H	EA.	1	1
0563.601	TRAFFIC CONTROL	L.S.	1	1
2564.561	SIGNS	S.F.	75.5	75.5
2565.511	FULL ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM "A" (1)	SYSTEM	1	1
0565.601	ATR SYSTEM	L.S.	1	1
0565.601	INTERCONNECT SYSTEM	L.S.	1	.85
0565.604	REVISED SIGNAL SYSTEM "B"	SYSTEM	1	1
0565.604	TEMPORARY SIGNAL SYSTEM "C"	SYSTEM	1	1

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.	
STANDARD PLATES *	
PLATE NO.	DESCRIPTION
1103I	TYPICAL BAR DOWEL ASSEMBLY
1141C	PAVEMENT KEYWAY FOR KEYED CONSTRUCTION JOINT
1150N	HEADER JOINT
3000K	REINFORCED CONCRETE PIPE - WALL C
4002E	MANHOLE OR CATCH BASIN
4006K	MANHOLE OR CATCH BASIN
4010G	CONCRETE SHORT CONE AND ADJUSTING RING
4013A	CATCH BASIN
4101C	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4129F	CATCH BASIN FRAME & CASTING
4132E	CATCH BASIN FRAME CASTING
4143D	STOOL GRATE AND CONCRETE FRAME
4154B	CATCH BASIN GRATE CASTING
7000E	INTEGRANT CURB
7035J	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036C	PEDESTRIAN CURB RAMP
7100F	CONCRETE CURB AND GUTTER
7102G	CONCRETE CURB AND GUTTER
7110E	CURB AND GUTTER CONSTRUCTION AT CATCH BASIN
7111G	INSTALLATION & REINFORCEMENT OF CATCH BASIN CASTINGS
7112A	INSTALLATION & REINFORCEMENT OF CATCH BASINS AND MANHOLES

* SEE SHEET 22 FOR ADDITIONAL STD. PLATES FOR SIGNAL CONSTRUCTION.

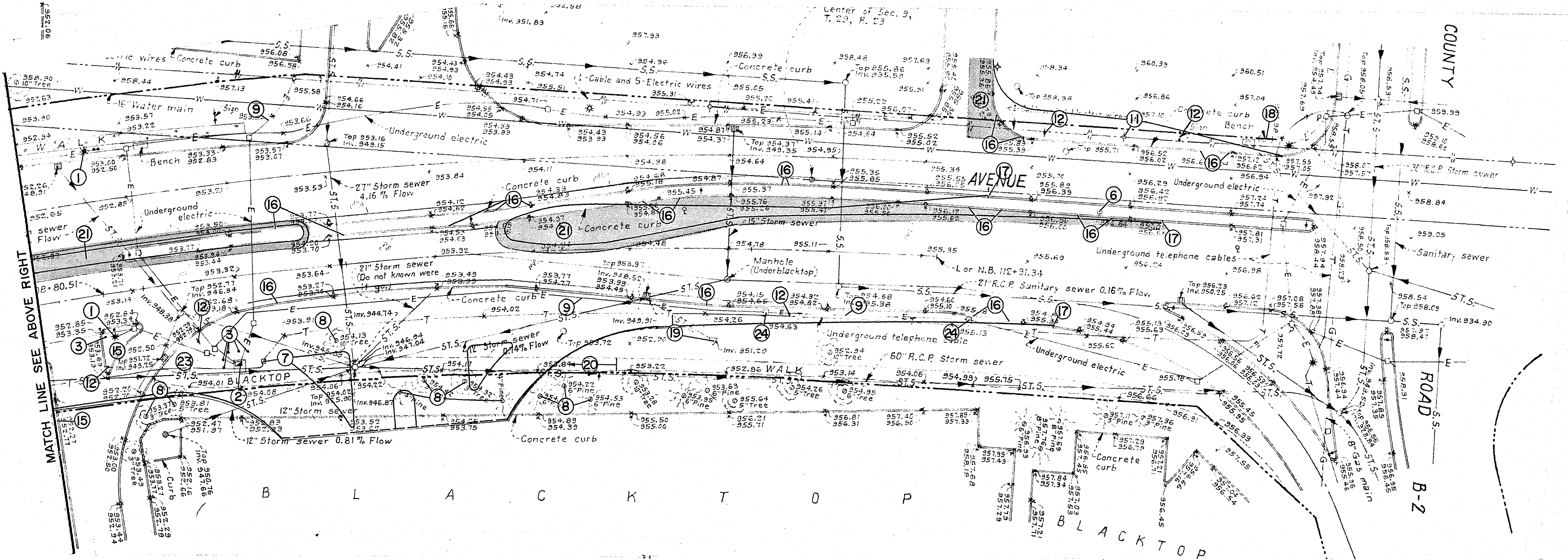
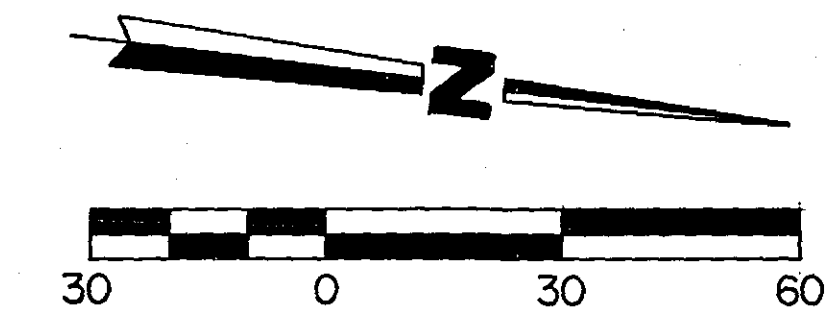




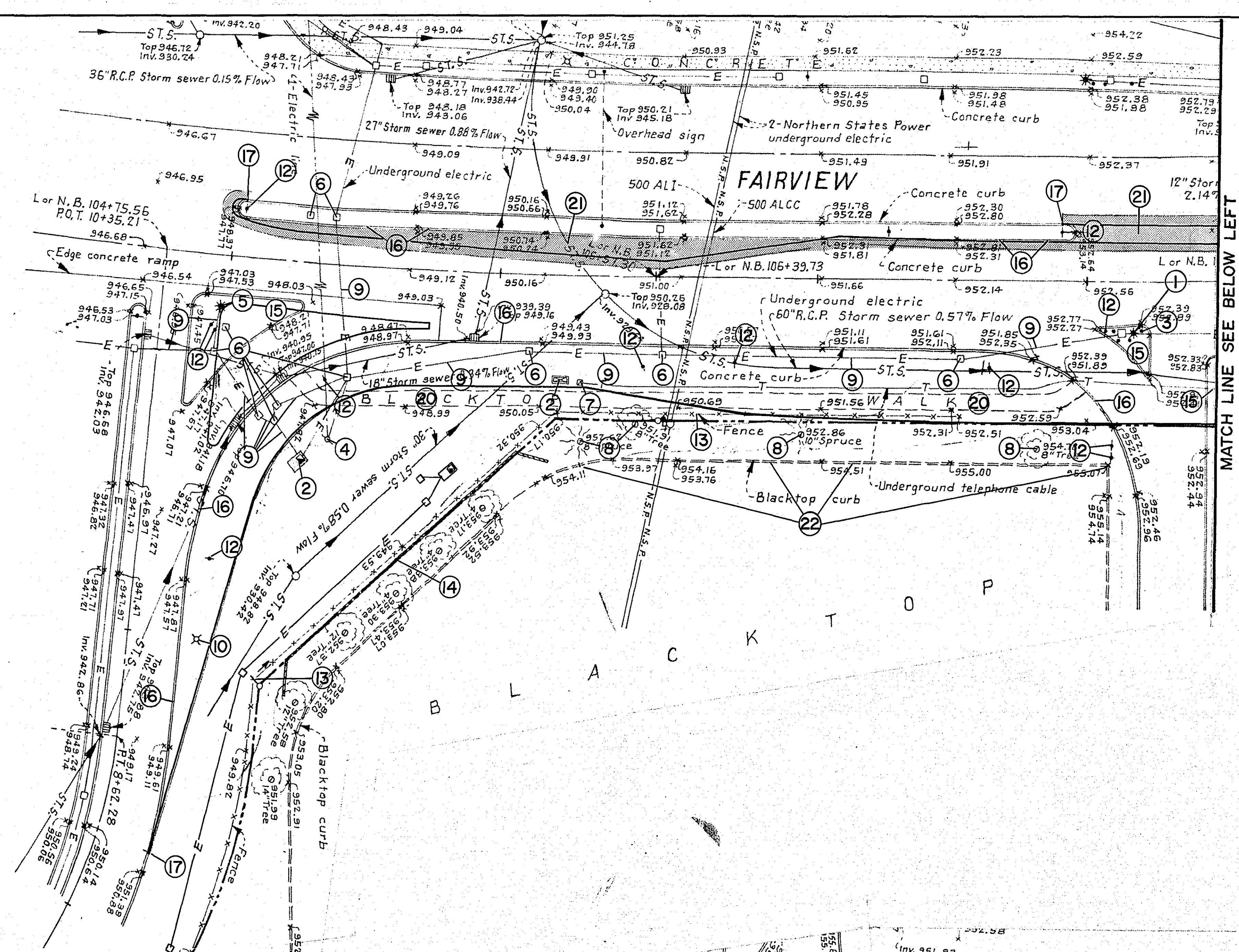
- LEGEND**
- ① REMOVE SIGNAL SYSTEM AT EXISTING ROSEDALE ENTRANCE
DELIVER ALL MAST ARM POLES AND SIGNAL FACES
TO RAMSEY COUNTY PUBLIC WORKS.
 - ② REMOVE CONTROLLER CABINET, SALVAGE FOR REUSE
REMOVE CONCRETE FOUNDATION
 - ③ REMOVE STEEL GUARD POSTS
 - ④ REMOVE 45' WOOD POLE - SALVAGE FOR REUSE
 - ⑤ REMOVE MAST ARM POLE - SALVAGE FOR REUSE
 - ⑥ REMOVE HANDHOLE
 - ⑦ TELEPHONE SERVICE TO BE RELOCATED BY OTHERS
 - ⑧ REMOVE TREE
 - ⑨ REMOVE BURIED R.S.C.
 - ⑩ REMOVE LIGHT STANDARD - SALVAGE FOR REUSE
 - ⑪ WOOD POLE TO BE RELOCATED BY OTHERS
 - ⑫ REMOVE SIGN
 - ⑬ REMOVE FENCE
 - ⑭ REMOVE TIMBER RETAINING WALL
 - ⑮ REMOVE CONCRETE ISLAND, INCLUDING CURB & GUTTER
 - ⑯ REMOVE CONCRETE CURB & GUTTER
 - ⑰ SAWCUT CONCRETE CURB & GUTTER
 - ⑱ RELOCATE BUS STOP BENCH
 - ⑲ REMOVE STORM SEWER PIPE & APRON
 - ⑳ REMOVE BITUMINOUS WALK
 - ㉑ REMOVE BITUMINOUS PAVEMENT
 - ㉒ REMOVE BITUMINOUS CURB
 - ㉓ REMOVE CATCH BASIN
 - ㉔ SALVAGE HANDHOLE

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *[Signature]*
DATE: 3/12/91



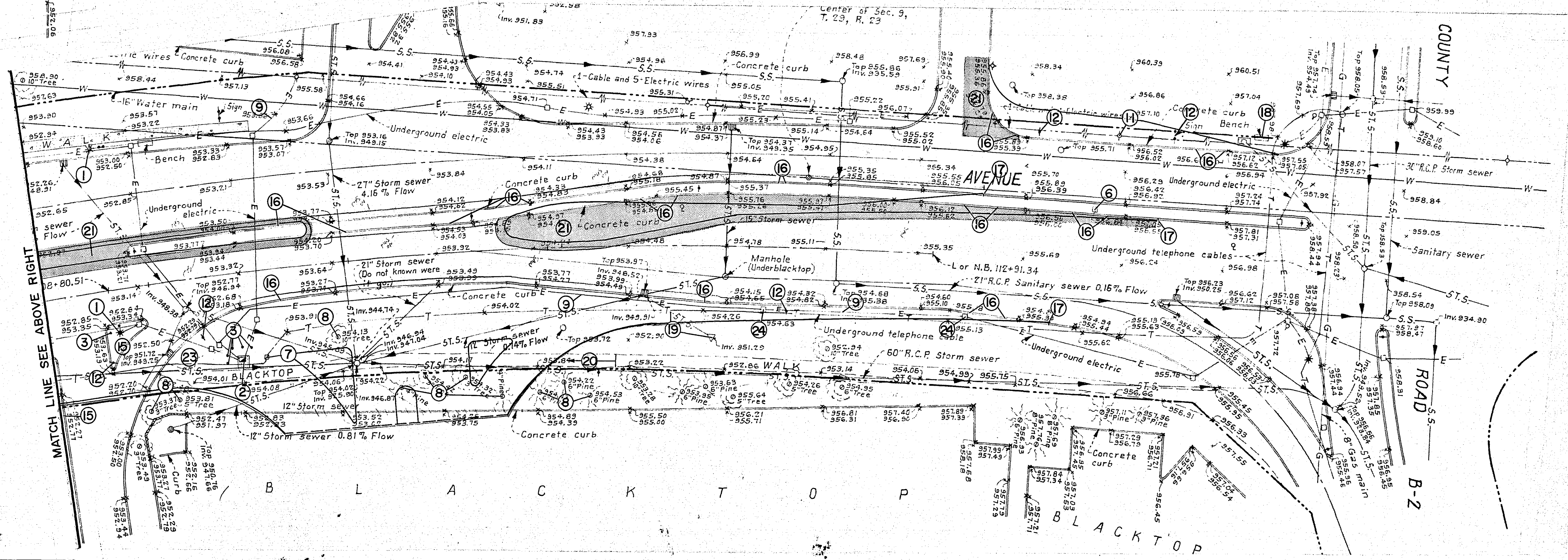
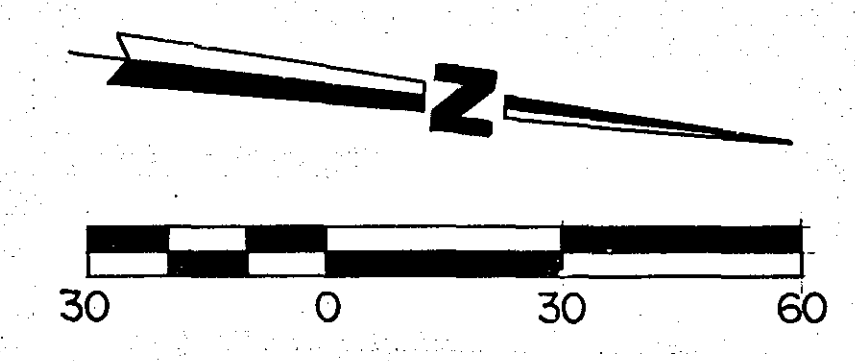
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Barton-Aschman Associates, Inc. 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401					
FAIRVIEW AVENUE WIDENING ROSEVILLE, MINNESOTA					
REMOVALS PLAN					
State Proj No.			FILE NO. 5326-09-01 DATE 3/30/90		
			SHEET NO. 3 OF 40		



- LEGEND**
- ① REMOVE SIGNAL SYSTEM AT EXISTING ROSEDALE ENTRANCE DELIVER ALL MAST ARM POLES AND SIGNAL FACES TO RAMSEY COUNTY PUBLIC WORKS.
 - ② REMOVE CONTROLLER CABINET, SALVAGE FOR REUSE
REMOVE CONCRETE FOUNDATION
 - ③ REMOVE STEEL GUARD POSTS
 - ④ REMOVE 45' WOOD POLE - SALVAGE FOR REUSE
 - ⑤ REMOVE MAST ARM POLE - SALVAGE FOR REUSE
 - ⑥ REMOVE HANDHOLE
 - ⑦ TELEPHONE SERVICE TO BE RELOCATED BY OTHERS
 - ⑧ REMOVE TREE
 - ⑨ REMOVE BURIED R.S.C.
 - ⑩ REMOVE LIGHT STANDARD - SALVAGE FOR REUSE
 - ⑪ WOOD POLE TO BE RELOCATED BY OTHERS
 - ⑫ REMOVE SIGN
 - ⑬ REMOVE FENCE
 - ⑭ REMOVE TIMBER RETAINING WALL
 - ⑮ REMOVE CONCRETE ISLAND, INCLUDING CURB & GUTTER
 - ⑯ REMOVE CONCRETE CURB & GUTTER
 - ⑰ SAWCUT CONCRETE CURB & GUTTER
 - ⑱ RELOCATE BUS STOP BENCH
 - ⑲ REMOVE STORM SEWER PIPE & APRON
 - ⑳ REMOVE BITUMINOUS WALK
 - ㉑ REMOVE BITUMINOUS PAVEMENT
 - ㉒ REMOVE BITUMINOUS CURB
 - ㉓ REMOVE CATCH BASIN
 - ㉔ SALVAGE HANDHOLE

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *[Signature]*
DATE: 3/12/91



DESIGN	PSM	SCALE	NO.	DATE	REVISION
CHECKED	KWH	AS SHOWN			
DRAWN	SAP				

Barton-Aschman Associates, Inc.
111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401

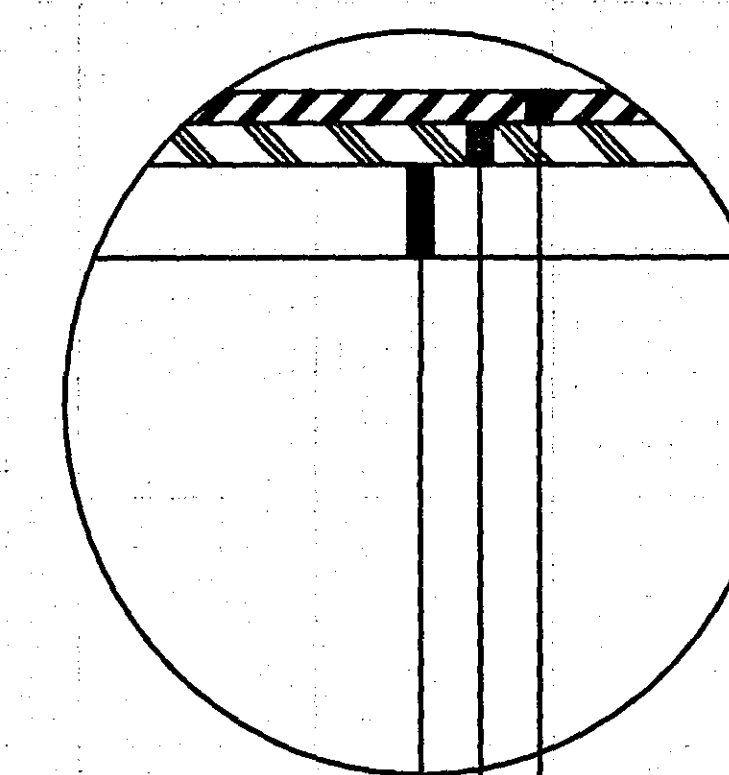
FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA

REMOVALS PLAN

FILE NO. 5326-09-01
DATE 3/30/90
SHEET NO. 3 OF 40

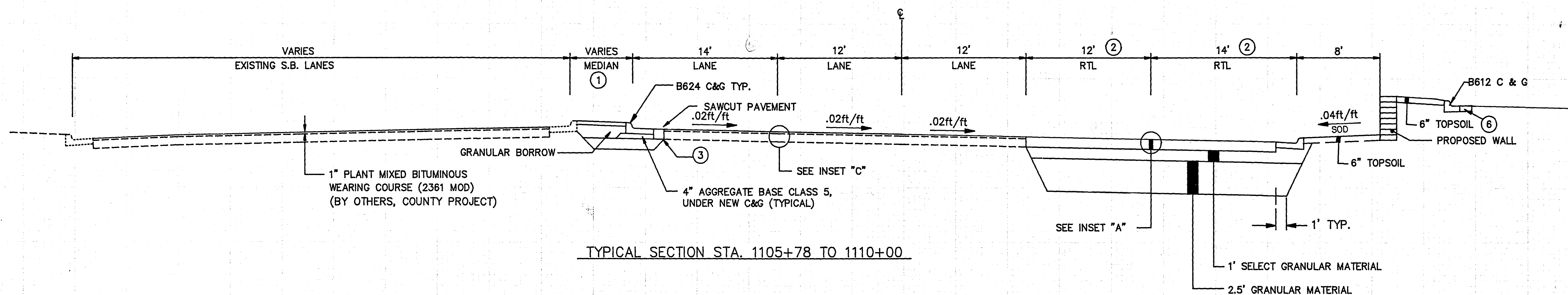
State Proj No.

- NOTES:**
- ① 4" CONCRETE WALK, SEE CONSTRUCTION PLAN FOR EXTENTS. PLACE 1/2" PREFORMED JOINT FILLER BETWEEN WALK AND BACK OF CURB.
 - ② WIDTH OF NEW PAVEMENT VARIES, SEE CONSTRUCTION PLAN.
 - WHERE NEW CURB & GUTTER IS CONSTRUCTED NEXT TO EXISTING PAVEMENT, SAWCUT EXISTING PAVEMENT 3' FROM FACE OF NEW CURB. CONSTRUCT NEW PAVEMENT AS SHOWN IN INSET "A" TO FILL 1' SPACE BETWEEN NEW CURB AND EXISTING PAVEMENT. NO SAWED EDGE MAY BE USED AS A FORM FOR NEW CURB & GUTTER.
 - ④ SEE CONSTRUCTION PLAN FOR LIMITS OF NEW AND EXISTING CURB.
 - ⑤ SEE DRAINAGE PLAN FOR SWALE ELEVATION.
 - ⑥ WHERE NEW CURB & GUTTER IS CONSTRUCTED NEXT TO EXISTING PAVEMENT, SAWCUT EXISTING PAVEMENT 2' FROM FACE OF NEW CURB. CONSTRUCT NEW PAVEMENT AS SHOWN IN INSET "D" TO FILL 1' SPACE BETWEEN NEW CURB AND EXISTING PAVEMENT. NO SAWED EDGE MAY BE USED AS A FORM FOR NEW CURB & GUTTER.

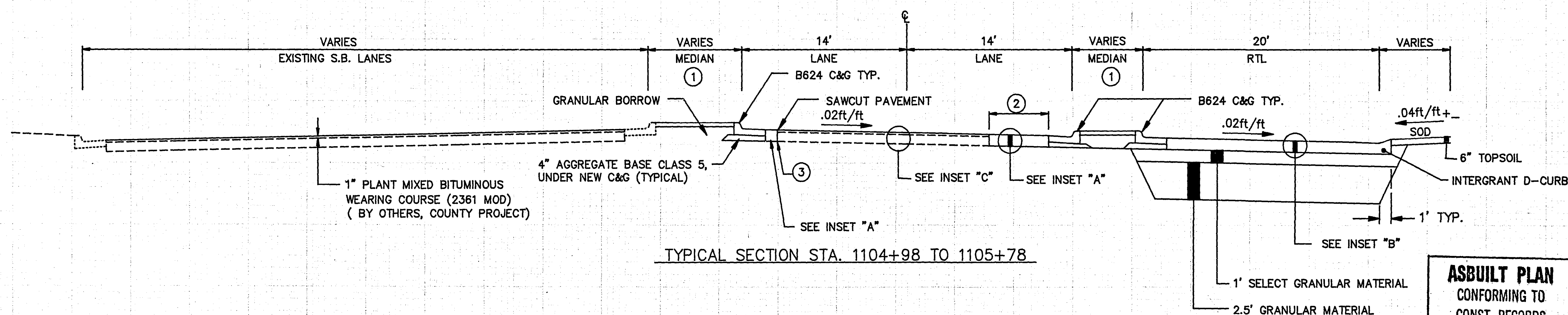


1-1/2" PLANT MIXED BITUMINOUS WEARING COURSE, (2341 MOD.), TACK COAT, (2357).
 1-1/2" PLANT MIXED BITUMINOUS BINDER COURSE, (2331 MOD.) TACK COAT, (2357).
 6" AGGREGATE BASE, CLASS 5 (MOD.), (2211)

INSET "D" - PARKING LOT PAVEMENT



TYPICAL SECTION STA. 1105+78 TO 1110+00



TYPICAL SECTION STA. 1104+98 TO 1105+78

ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *[Signature]*
 DATE: 3/12/91

DESIGN	KWH	SCALE	NO.	DATE	REVISION
CHECKED	DBW	AS SHOWN			
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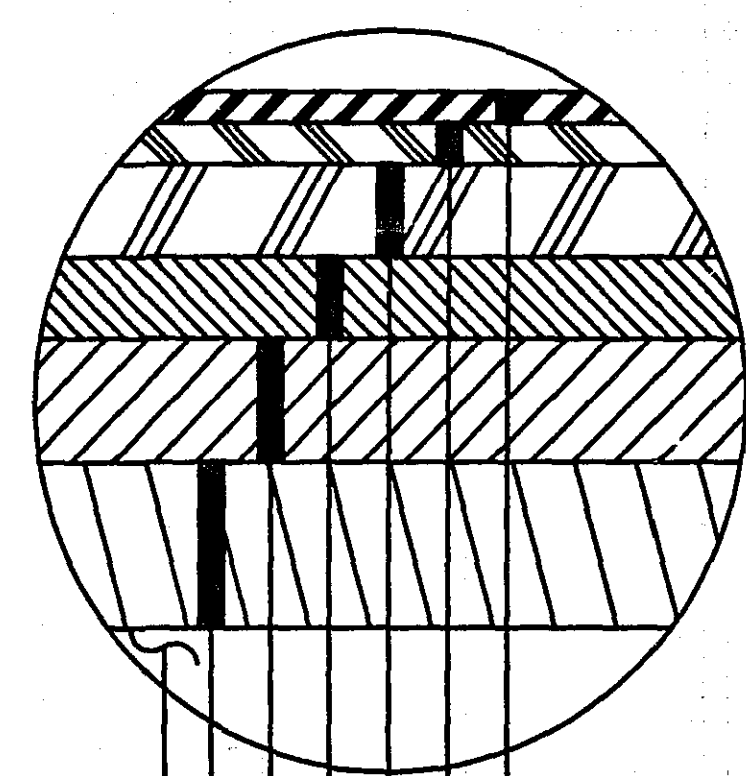
Barton-Aeschman Associates, Inc.
 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401

FAIRVIEW AVENUE WIDENING
 ROSEVILLE, MINNESOTA

TYPICAL SECTIONS

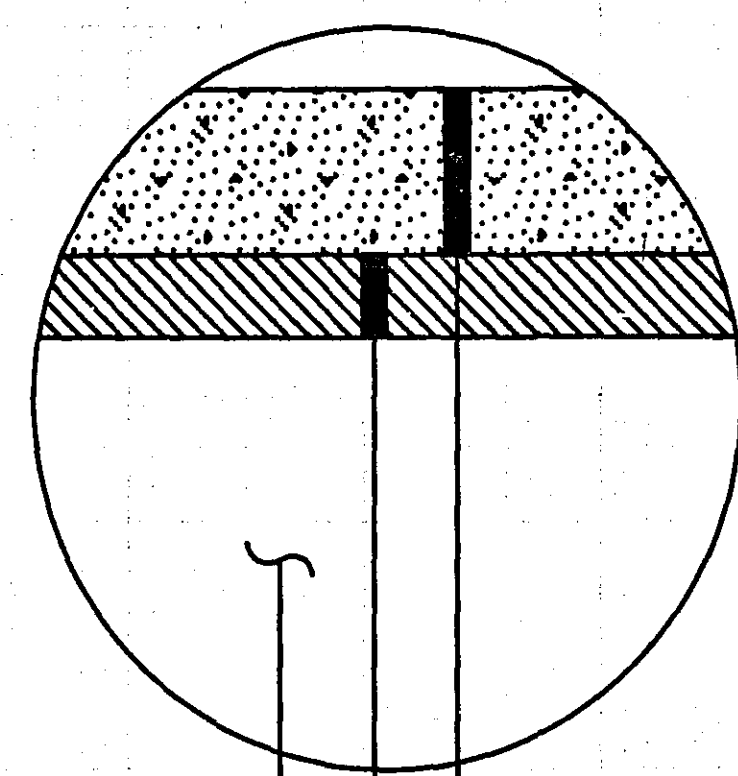
PROJECT NO. 532609
 SHEET NO. 4
 DATE: 3/30/90
 OF 40

State Proj No.



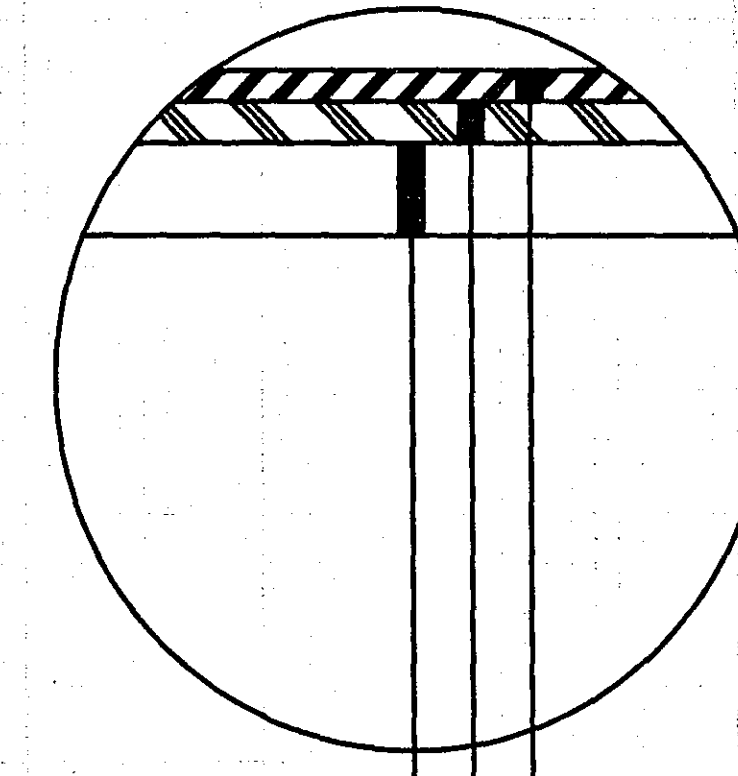
- 1" PLANT MIXED BITUMINOUS WEARING COURSE, (2361 MOD.), TACK COAT, (2357). (BY OTHERS, COUNTY PROJECT)
- 2-1/2" PLANT MIXED BITUMINOUS BINDER COURSE, (2331 MOD.) TACK COAT, (2357).
- 4-1/2" PLANT MIXED BITUMINOUS BASE COURSE, (2331 MOD.)
- 4" AGGREGATE BASE, CLASS 5 (MOD.), (2211).
- 6" AGGREGATE BASE, CLASS 4, (2211).
- 8" AGGREGATE BASE, CLASS 3, (2211).
- 3.5' SUBGRADE CORRECTION, SEE TYPICAL SECTION.

INSET "A" - FULL DEPTH BITUMINOUS PAVEMENT



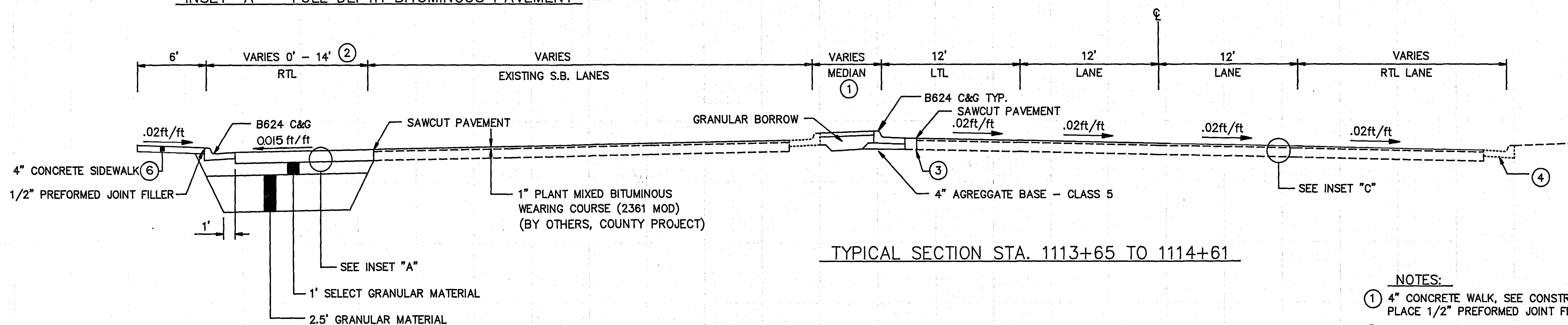
- 8" NON-REINFORCED CONCRETE PAVEMENT (2301).
- 4" AGGREGATE BASE, CLASS 5 (MOD.), (2211).
- 3.5' SUBGRADE CORRECTION, SEE TYPICAL SECTION.

INSET "B" - CONCRETE PAVEMENT

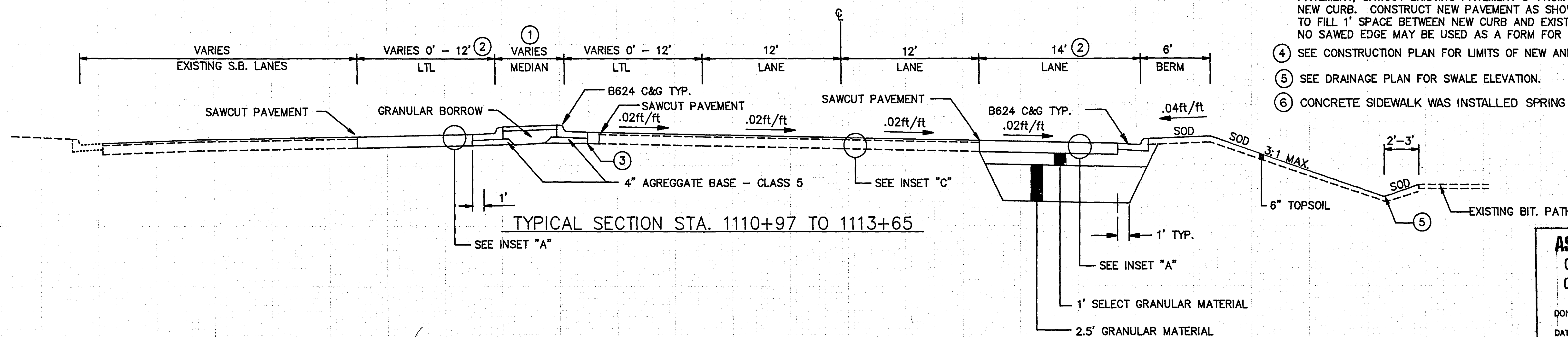


- 1" PLANT MIXED BITUMINOUS WEARING COURSE, (2361 MOD.), TACK COAT, (2357). (BY OTHERS, COUNTY PROJECT)
- 0"-4" PLANT MIXED BITUMINOUS LEVELING COURSE, (2331 MOD.) TACK COAT, (2357).
- INPLACE BITUMINOUS PAVEMENT

INSET "C" - BITUMINOUS OVERLAY
SEE COUNTY PLAN - S.A.P. 62-648-14



TYPICAL SECTION STA. 1113+65 TO 1114+61



TYPICAL SECTION STA. 1110+97 TO 1113+65

- NOTES:
- ① 4" CONCRETE WALK, SEE CONSTRUCTION PLAN FOR EXTENTS. PLACE 1/2" PREFORMED JOINT FILLER BETWEEN WALK AND BACK OF CURB.
 - ② WIDTH OF NEW PAVEMENT VARIES, SEE CONSTRUCTION PLAN.
 - ③ WHERE NEW CURB & GUTTER IS CONSTRUCTED NEXT TO EXISTING PAVEMENT, SAWCUT EXISTING PAVEMENT 3' FROM FACE OF NEW CURB. CONSTRUCT NEW PAVEMENT AS SHOWN IN INSET "A" TO FILL 1' SPACE BETWEEN NEW CURB AND EXISTING PAVEMENT. NO SAWED EDGE MAY BE USED AS A FORM FOR NEW CURB & GUTTER.
 - ④ SEE CONSTRUCTION PLAN FOR LIMITS OF NEW AND EXISTING CURB.
 - ⑤ SEE DRAINAGE PLAN FOR SWALE ELEVATION.
 - ⑥ CONCRETE SIDEWALK WAS INSTALLED SPRING 1990 BY DEVELOPER.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91

DESIGN	KWH	SCALE	NO.	DATE	REVISION
CHECKED	DBW	AS			
DRAWN	CJA	SHOWN			

Barton-Archman Associates, Inc.
111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401

FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA

TYPICAL SECTIONS

PROJECT NO.	SHEET NO.
532609	5
DATE:	3/30/90
	OF 40

State Proj No.

- ① X4-11 SIGN (18" x 18") (1)
- ② R5-1 SIGN (30" x 30") (1)
- ③ W4-3 SIGN (36" x 36") (1)
- ④ R4-7 SIGN (24" x 30") (1)
- ⑤ R6-1 SIGN (36" x 42") (2)
MOUNT ON MAST ARM POLE

EXIST. P.O.C. STA. 103+39.67 =
PROP. P.O.C. STA. 1103+39.67

EXIST. TH. 36 RAMP CURVE DATA

PI. = 7+92.14
Δ = 47° 52' 51" LT.
R. = 179.05'
D. = 32° 00' 00"
T. = 79.49'
L. = 149.63'
P.C. = 7+12.65
P.T. = 8+62.28

EXIST. C. CURVE DATA

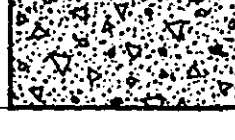
PI. = 102+72.33
Δ = 22° 53' 15" LT.
R. = 1953.28'
D. = 2° 55' 57"
T. = 395.52'
L. = 780.49'
P.C. = 98+76.81
P.T. = 106+57.30

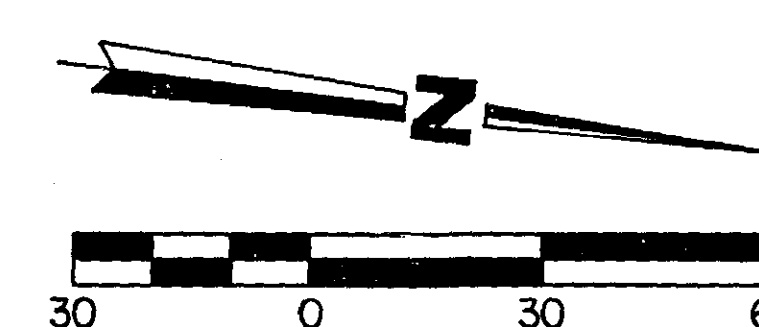
PROP. C. CURVE DATA

PI. = 1105+72.94
Δ = 9° 18' 37" LT.
R. = 2864.789'
D. = 2° 00' 00"
T. = 233.27'
L. = 465.51'
P.C. = 1103+39.67
P.T. = 1108+05.18

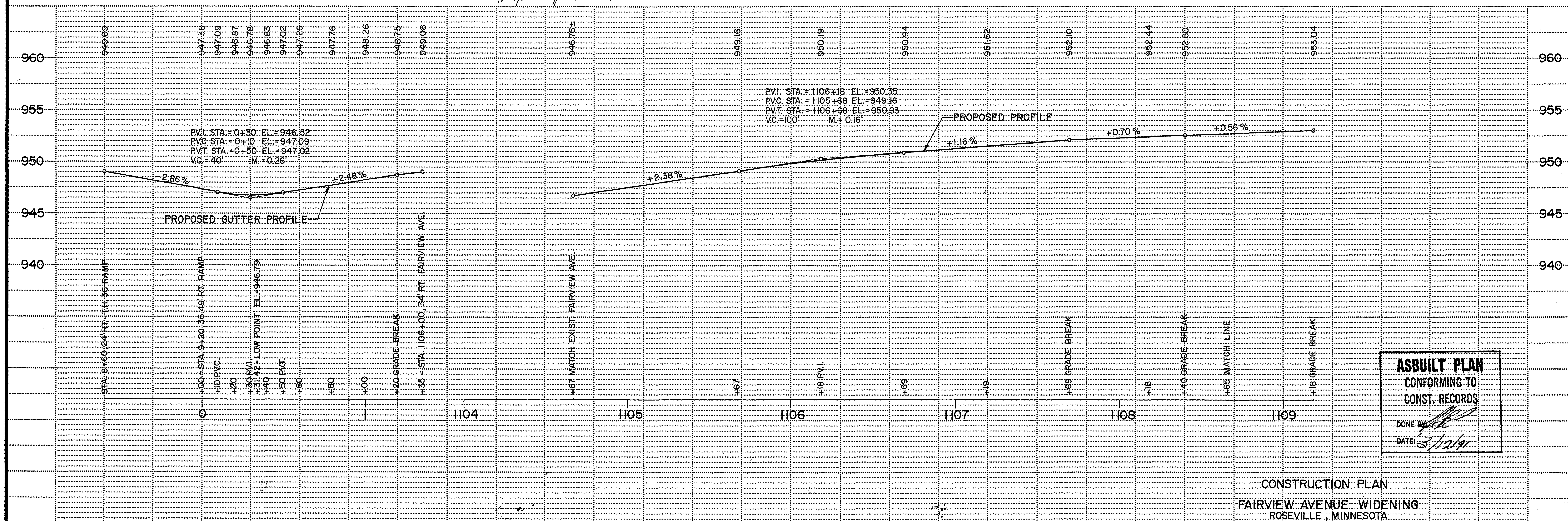
NOTE: ALL DIMENSIONS MEASURED TO FACE OF CURB/FLOWLINE

KEY FOR SHADING

-  CONCRETE PAVEMENT - INSET B
-  FULL DEPTH BITUMINOUS PAVEMENT - INSET A
-  4" CONCRETE WALK

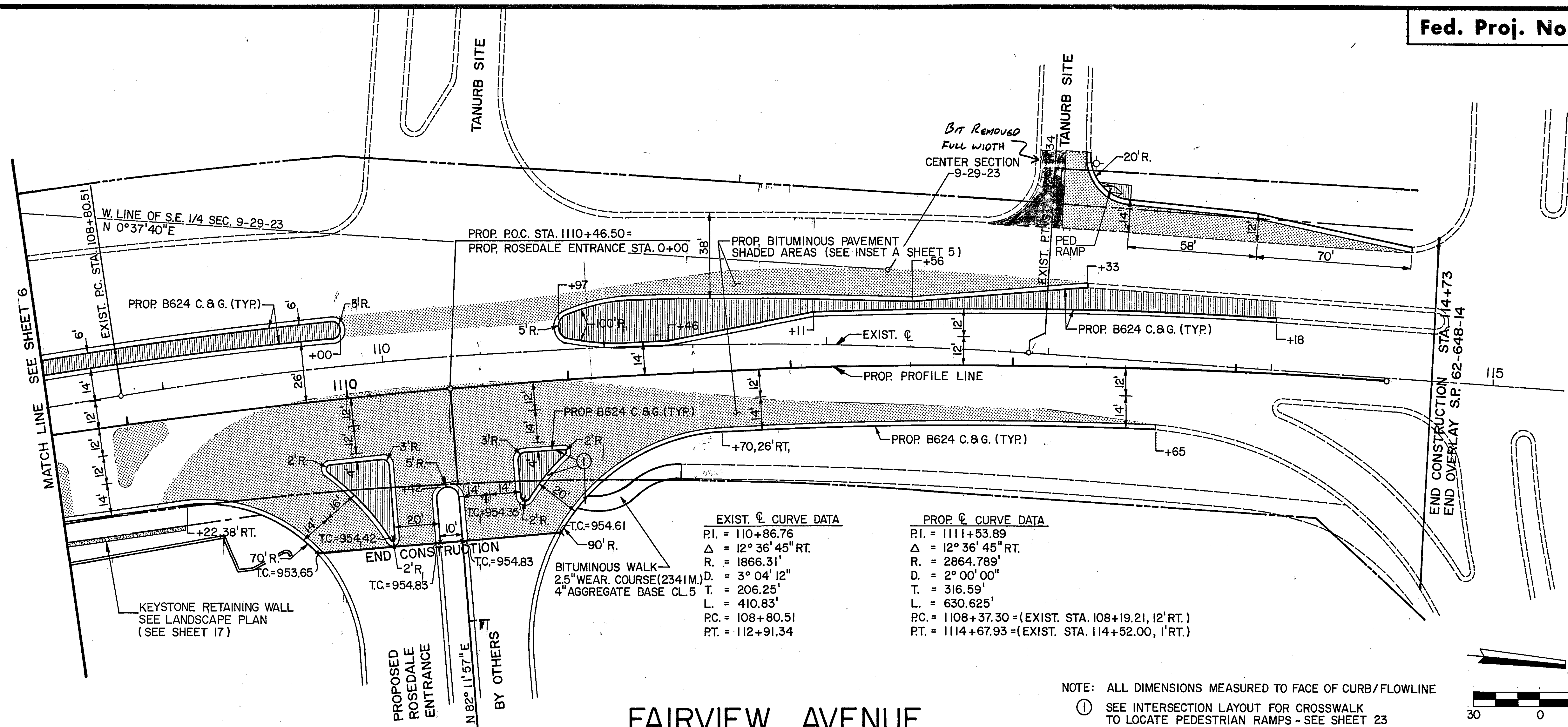


FAIRVIEW AVENUE



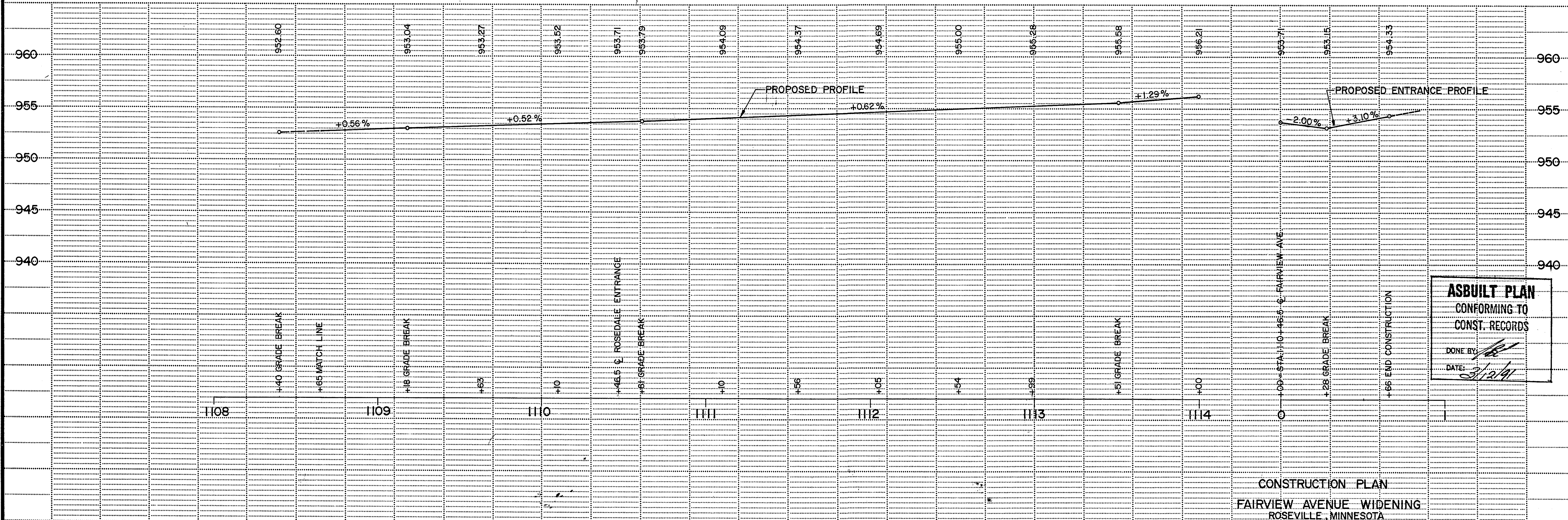
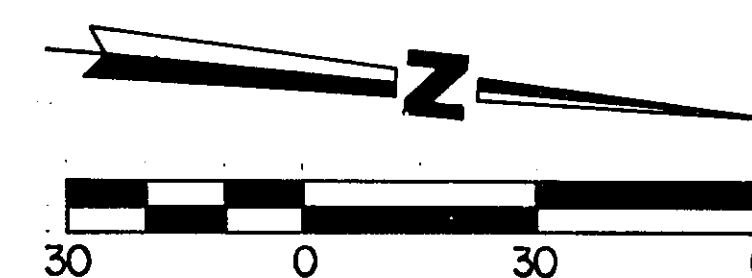
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/2/91

CONSTRUCTION PLAN
FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA



FAIRVIEW AVENUE

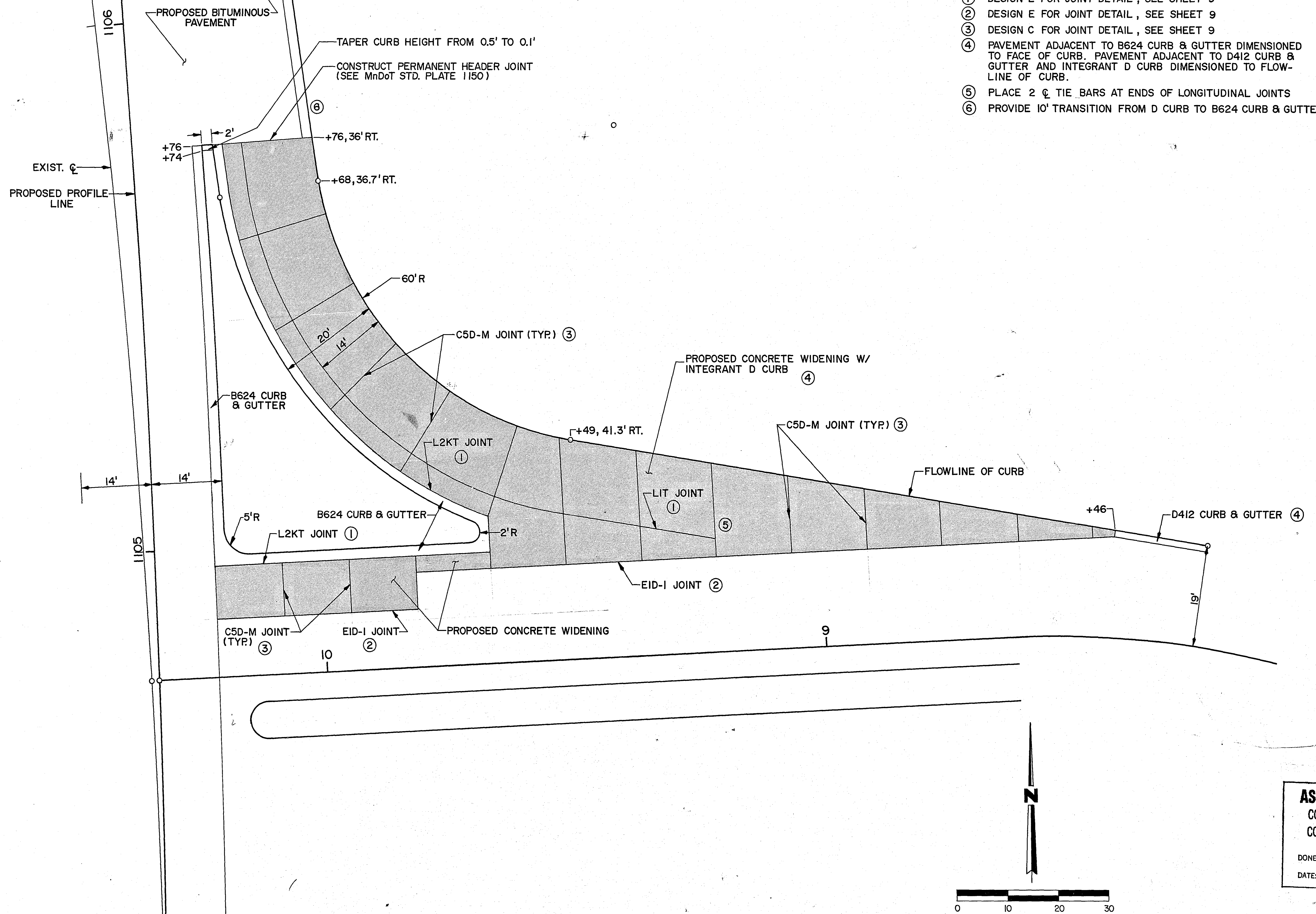
NOTE: ALL DIMENSIONS MEASURED TO FACE OF CURB/FLOWLINE
 ① SEE INTERSECTION LAYOUT FOR CROSSWALK TO LOCATE PEDESTRIAN RAMPS - SEE SHEET 23



ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: [Signature]
 DATE: 2/12/11

CONSTRUCTION PLAN
 FAIRVIEW AVENUE WIDENING
 ROSEVILLE, MINNESOTA

- ① DESIGN L FOR JOINT DETAIL, SEE SHEET 9
- ② DESIGN E FOR JOINT DETAIL, SEE SHEET 9
- ③ DESIGN C FOR JOINT DETAIL, SEE SHEET 9
- ④ PAVEMENT ADJACENT TO B624 CURB & GUTTER DIMENSIONED TO FACE OF CURB. PAVEMENT ADJACENT TO D412 CURB & GUTTER AND INTEGRANT D CURB DIMENSIONED TO FLOWLINE OF CURB.
- ⑤ PLACE 2 ϕ TIE BARS AT ENDS OF LONGITUDINAL JOINTS
- ⑥ PROVIDE 10' TRANSITION FROM D CURB TO B624 CURB & GUTTER



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *AB*
DATE: *3/12/9*

DESIGN	JMW	SCALE	NO.	DATE	REVISION
CHECKED	KWH	AS			
DRAWN	SAP	SHOWN			

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

REGIS. NO. _____
DATE _____

Barton-Aschman Associates, Inc.
111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401

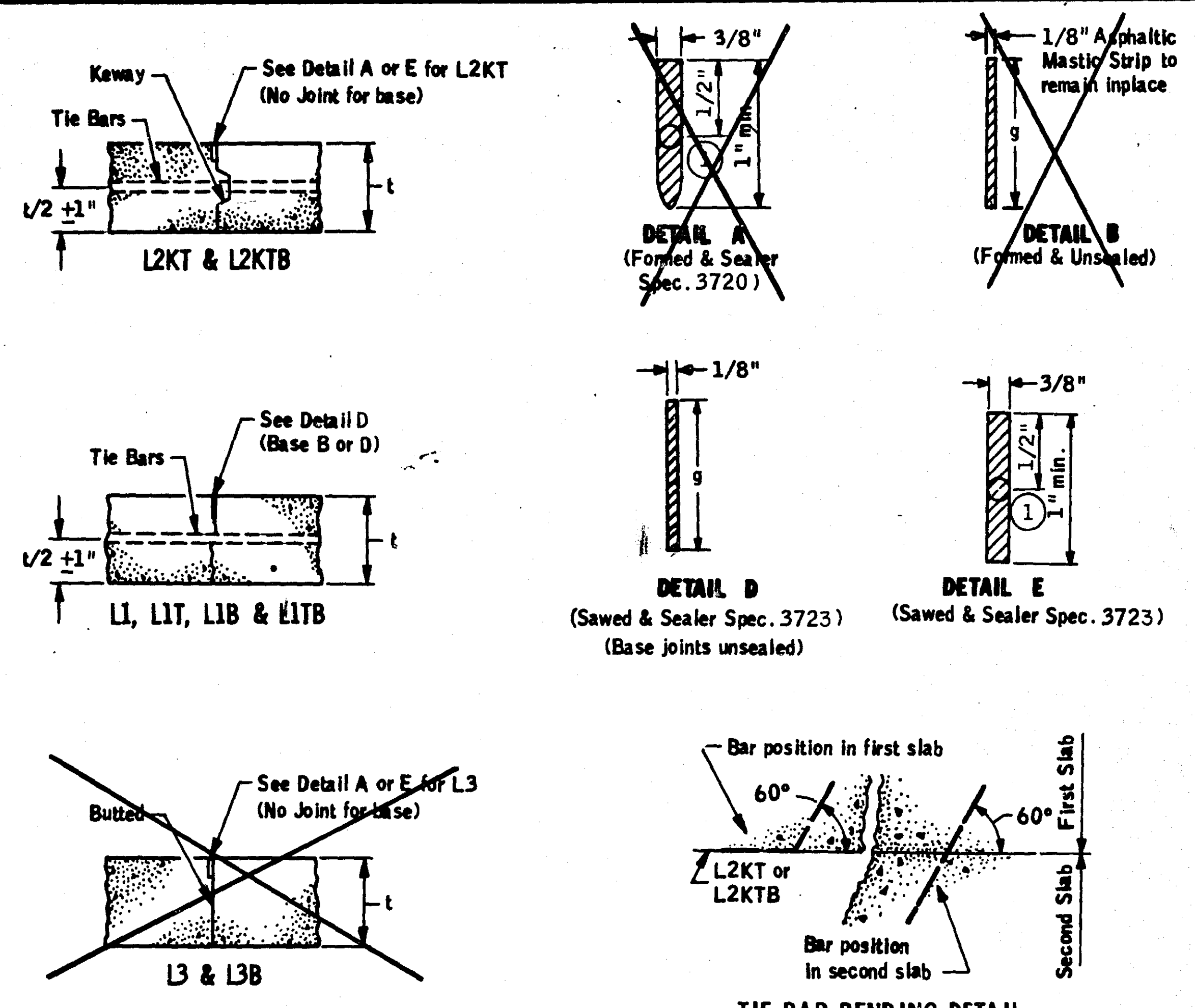
FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA

JOINT LAYOUT PLAN

FILE NO. 5326-09-01	SHEET NO. 8
DATE 3/30/90	OF 40

State Proj No.

127-121



TYPE L1 JOINT DEPTHS		
Pavement Thickness	Concrete Pavement	Concrete Base
t	g	g
6"	2"	2"
6-1/2"	2-1/8"	2"
7"	2-1/4"	2-1/4"
7-1/2"	2-1/2"	2-1/4"
8"	2-5/8"	2-1/2"
8-1/2"	2-7/8"	2-1/2"
9"	3"	2-3/4"
10"	3-1/4"	3"

LONGITUDINAL JOINTS				
CLASS DESIGNATION				JOINT SEALER SPEC.
Without Tie Bars	With Tie Bars	With Keyway & Tie Bars	Butted	
L1	L1T	L2KT	L3	D 3723
L1B	L1TB	L2KTB	L3-M	B or D 3723
				A or E 3723
				Unsealed SILICONE

* SEE DETAIL S FOR CONTRACTION JOINTS

LEGEND

L = Longitudinal Joint
No. = Joint Reference
T = Tie Bars
K = Keyway
B = Concrete Base

EXAMPLE

L2KT Tie Bars
L2KTB Keyway
L3 Joint Reference
L3-M Longitudinal Joint

LONGITUDINAL JOINT NOTES

Tie bars for L1TB joints shall be the same size and spacing as shown on standard plan sheet 5-297.216 - .219.

Except when noted otherwise in the plans the tie bar spacing for all L2KT and L2KTB joints shall be 2' 6" c. to c. and bent 60° as shown.

Tie bars in the L2KT and L2KTB joints shall be the same size and length as used for the L1T or L1TB joints when tying pav't. to pav't. or base to base. Tie bars in the L2KT or L2KTB joints shall be No. 4 x 2' 6" when tying curb and gutter to pav't. or base.

All tie bars shall meet the requirements of Grade 60 for AASHTO M-31 or M-53.

Normally, tied pavement widths shall not exceed 30 feet except bridge approach panels and pavement tapers.

Joint width tolerance, +1/16", -1/32".

Spec. 3720 Sealer - Top of sealer flush to -3/16" below top of pavement surface.

1 Just prior to sealing joint (Detail A&E) a paper rope with a 1/8" larger diameter than the joint opening may be placed 1/2" below the top of the pavement.

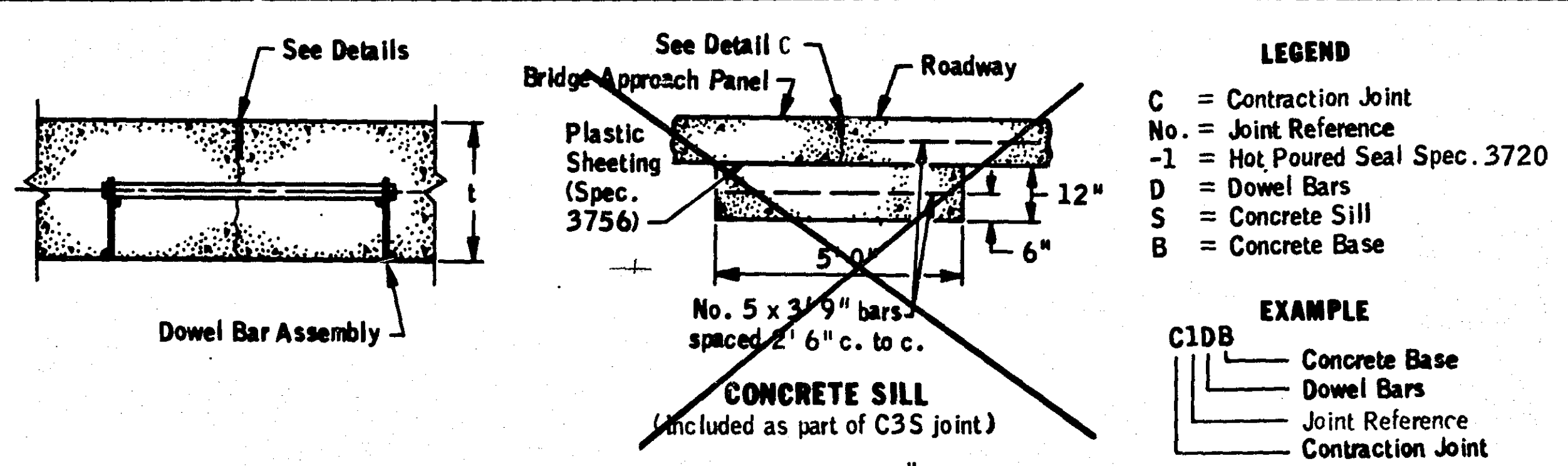
GENERAL NOTES:

See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Pav't. Keyway 1141; and Concrete Pavement with Skewed Joints 5-297.216 - .219.

See paving layouts in the plans for joint class designations to be used and special reinforcement required.

APPROVED June 25, 1985
Raymond J. [Signature]
Acting Director
OFFICE OF ENGINEERING STANDARDS

LONGITUDINAL JOINTS
DESIGN L



CONTRACTION JOINTS			
CLASS DESIGNATION	WITHOUT DOWELS	WITH DOWELS	JOINT SEALER SPEC.
C1	C1B	A or C	3721
C1-1	C1B-1	A or B	3720
C1B	C1DB	D or F	Unsealed
C2-1	C2D-1	B	3723
C3S		C	3721
C4	C4D	C	3721
C5-1	C5D-M	S	SILICONE

MIN. CONTRACTION JOINT DEPTHS		
Pavement Thickness	Concrete Pavement	Concrete Base
t	g	g
6"	1-1/2"	1-1/4"
6-1/2"	1-5/8"	1-1/4"
7"	1-3/4"	1-1/2"
7-1/2"	1-7/8"	1-1/2"
8"	2"	1-1/2"
8-1/2"	2-1/8"	1-1/2"
9"	2-1/4"	1-1/2"
10"	2-1/2"	2"

- 1 Design C1 or C1D: Prior to installing preformed joint sealer in the formed joint, (Detail A) the joint shall be widened to a nominal width of 3/8" by sawing along the full length of the formed joint.
- Design C1-1 or C1D-1: Prior to sealing formed joint (Detail A) with hot poured joint sealer, the joint shall be widened to a nominal width of 5/8" for a depth of 3/4", +1/8", -1/16", by sawing along the full length of the formed joint. Prior to sealing joint (Detail B) with hot poured joint sealer a strip of paper 5/8" wide shall be placed on the bottom of the 5/8" wide joint.
- 2 Design C1-1 or C1D-1, C2-1 or C2D-1: Prior to sealing joint (Detail B) with hot poured joint sealer a strip of paper 5/8" wide shall be placed on the bottom of the 5/8" wide joint.
- 3 Design C2-1 or C2D-1: Use insert for forming joint (no sawing permitted).
- 4 Use 5/16" x 2" insert for forming joint. Final dimensions shall be obtained by sawing.
- 5 Depth shall be 1/4" greater than preformed joint sealer when compressed to fit joint design width.
- 6 Design C5-1 or C5D-1: Prior to sealing joint (Detail E) with hot poured joint sealer a strip of paper 1/2" wide shall be placed on the bottom of the 1/2" wide joint.

CONTRACTION JOINT NOTES

In concrete base construction the contraction joints shall be spaced at 30 foot intervals and at right angles to the longitudinal joints except as noted below. Where concrete base is constructed adjacent to existing pavement or base, the contraction joints in the new base shall match those in the existing pavement or base except that the spacing shall not be less than 15 feet nor more than 30 feet.

Joint width tolerances: +1/16", -1/32".

GENERAL NOTES:

See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Construction of Header Joints 1150, and Concrete Pavement with Skewed Joints 5-297.216 - .219.

See paving layouts in the plans for joint class designation to be used and special reinforcement required.

CONTRACTION JOINTS
DESIGN C

- JOINT NOTES**
- ALL REINFORCEMENT BARS SHALL BE EPOXY COATED
 - ALL JOINTS (EXCEPT EXPANSION JOINTS) SHALL BE FORMED BY SAWING
 - ALL SUPPLEMENTAL STEEL SHALL BE MECHANICALLY PLACED OR PLACED ON CHAIRS
 - SILICONE SEALER SHALL BE APPLIED TO JOINTS ONLY AFTER 7 DAYS OF CURING FOR THE CONCRETE (AFTER 3 DAYS FOR HIGH-EARLY STRENGTH CONCRETE)
 - PANEL LAYOUTS AND JOINT TYPES IN THIS PLAN MAY BE CHANGED IF APPROVED BY THE ENGINEER

JOINT SUMMARY			
JOINT	SEALER	LIN. FT.	PAYMENT
L1T	SPEC 3723		INCIDENTAL
L2KT	SPEC 3723		INCIDENTAL
L3-M	SILICONE		INCIDENTAL
C2-1	SPEC 3723		INCIDENTAL
C5D-M	SILICONE		INCIDENTAL
E1B	UNSEALED		INCIDENTAL
E1D-1	SPEC 3723		INCIDENTAL
E2-1	SPEC 3723	LIN. FT.	
TEMP.	NA	LIN. FT.	
HEADER	NA		INCIDENTAL
PERM.	NA		INCIDENTAL
HEADER			

* TOTAL JOINT LENGTHS ARE APPROXIMATE AND FOR INFORMATION ONLY

ALL JOINTS, REINFORCING BARS, AND DOWEL BAR ASSEMBLIES ARE INCIDENTAL

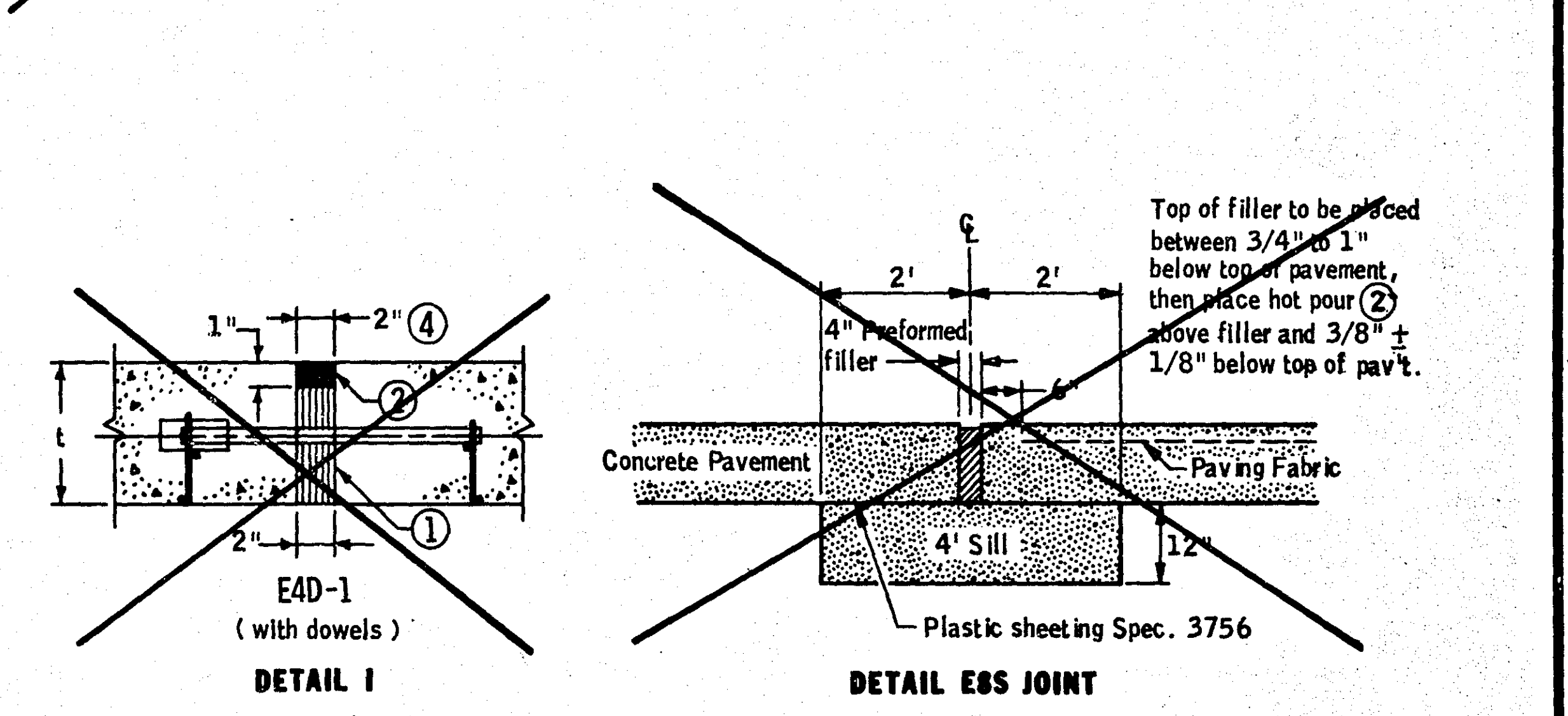
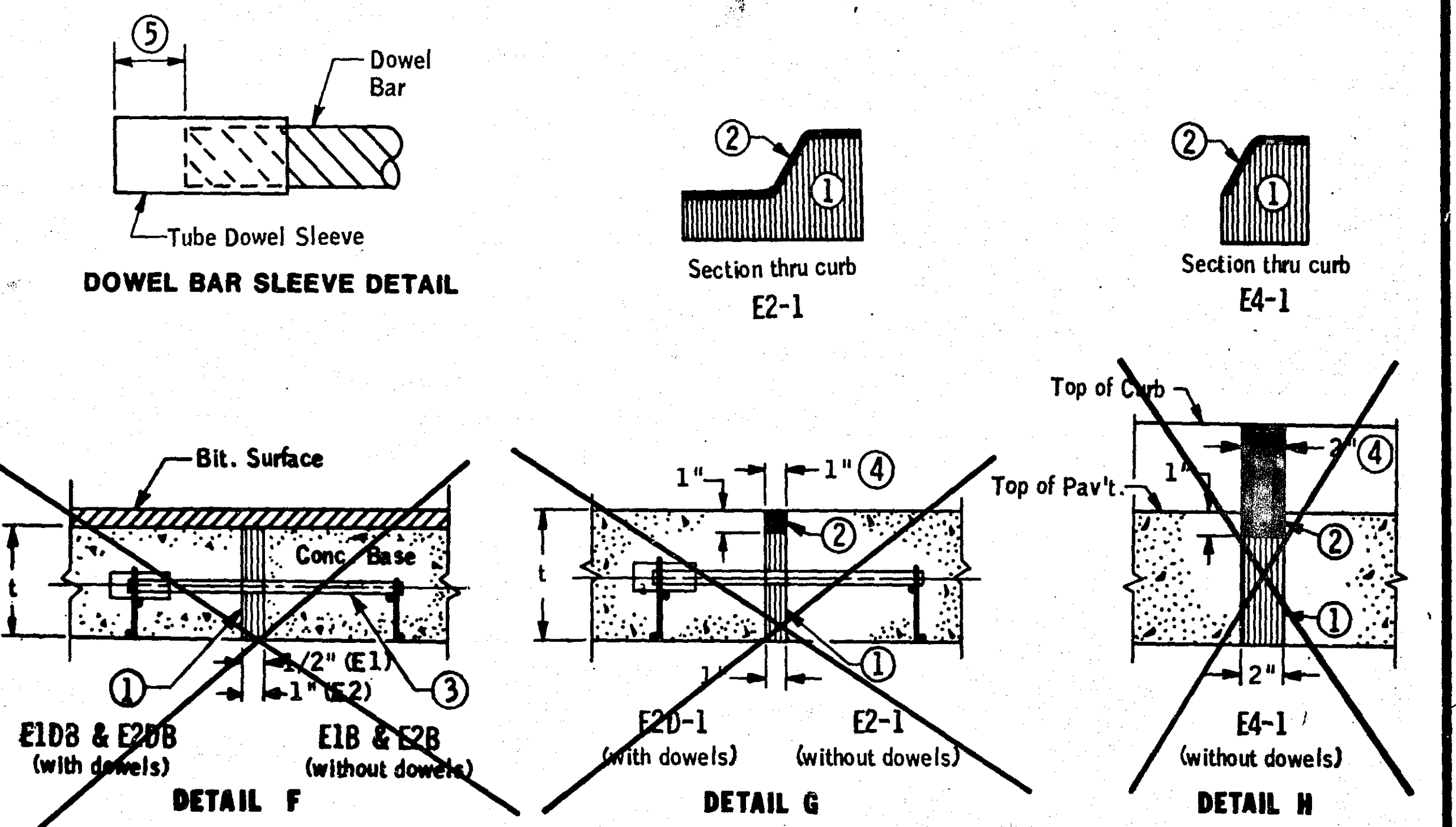
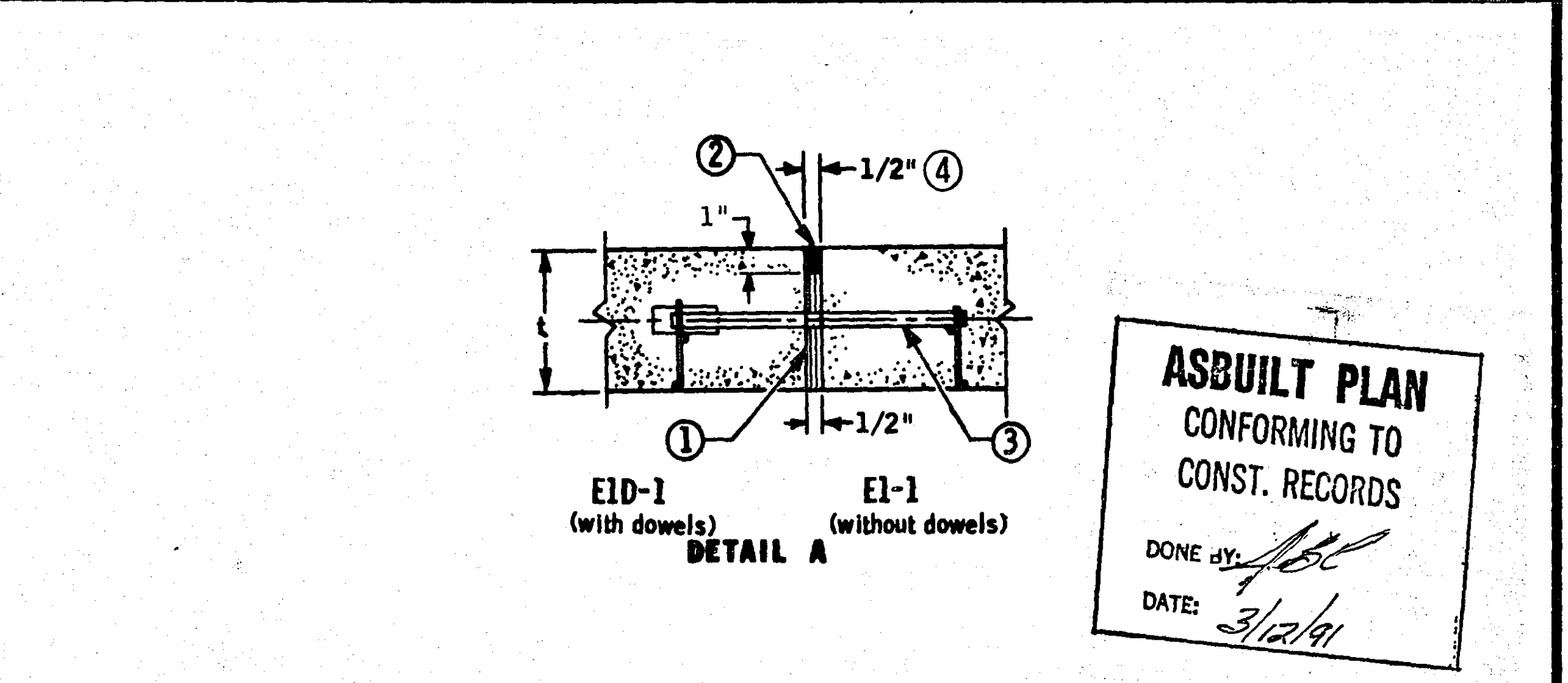
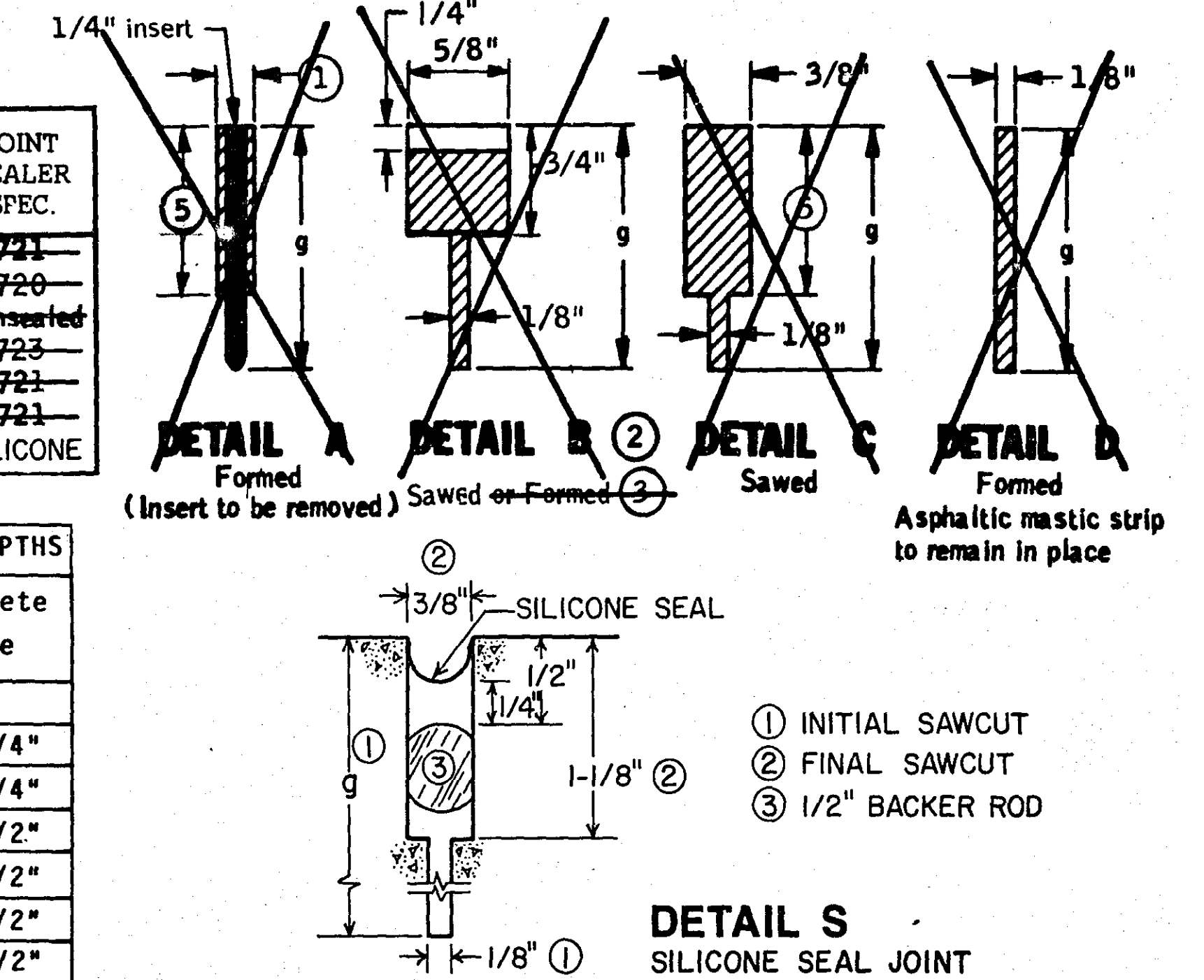
NA: NOT APPLICABLE

LEGEND

C = Contraction Joint
No. = Joint Reference
-1 = Hot Poured Seal Spec. 3720
D = Dowel Bars
S = Concrete Sill
B = Concrete Base

EXAMPLE

C1DB Concrete Base
Dowel Bars
Joint Reference
Contraction Joint



- 1 Preformed Joint Filler Material - Spec. 3702
- 2 Joint Sealer Spec. 3723. Top of sealer, flush to 1/8" below top of pavement surface. Top of sealer for curb section E joints flush with surface (0") ± 1/8".
- 3 Dowel Bar Assembly See Std. Pl. 1103
- 4 Joint width. Joint width is equal to half of the Joint No. in 1/2" intervals (i.e. E1 = 1/2", E2 = 1", E3 = 1-1/2", E4 = 2", E8 = 4").
- 5 Space from end of dowel bar to end of sleeve to be equal to expansion joint width.

LEGEND

E = Expansion Joint
No. = Joint Reference
-1 = Hot Poured Seal 3720
D = Dowel Bars
B = Concrete Base

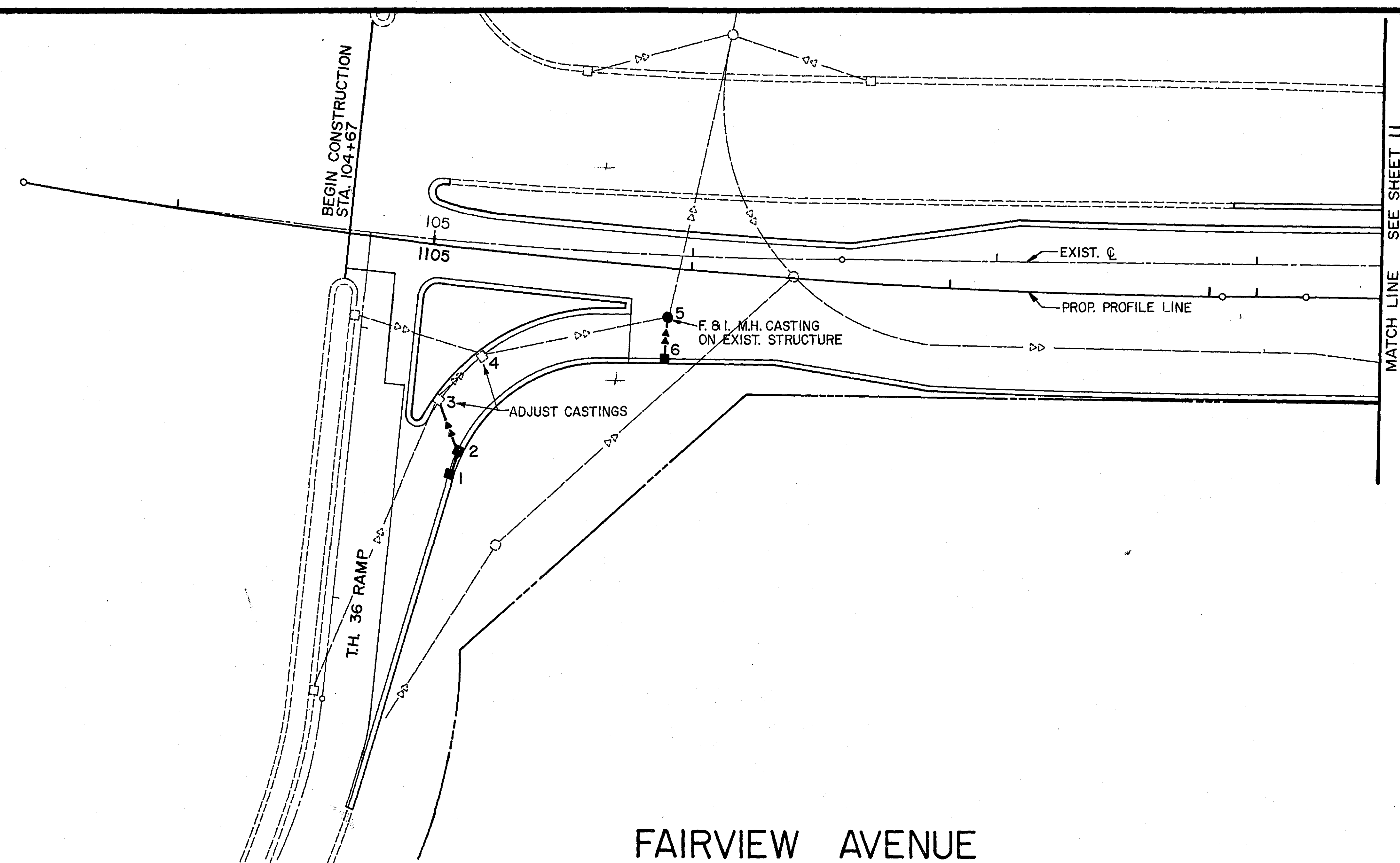
EXAMPLE

E1D-1 Hot Poured Seal 3720
Dowel Bars
Joint Reference
Expansion Joint

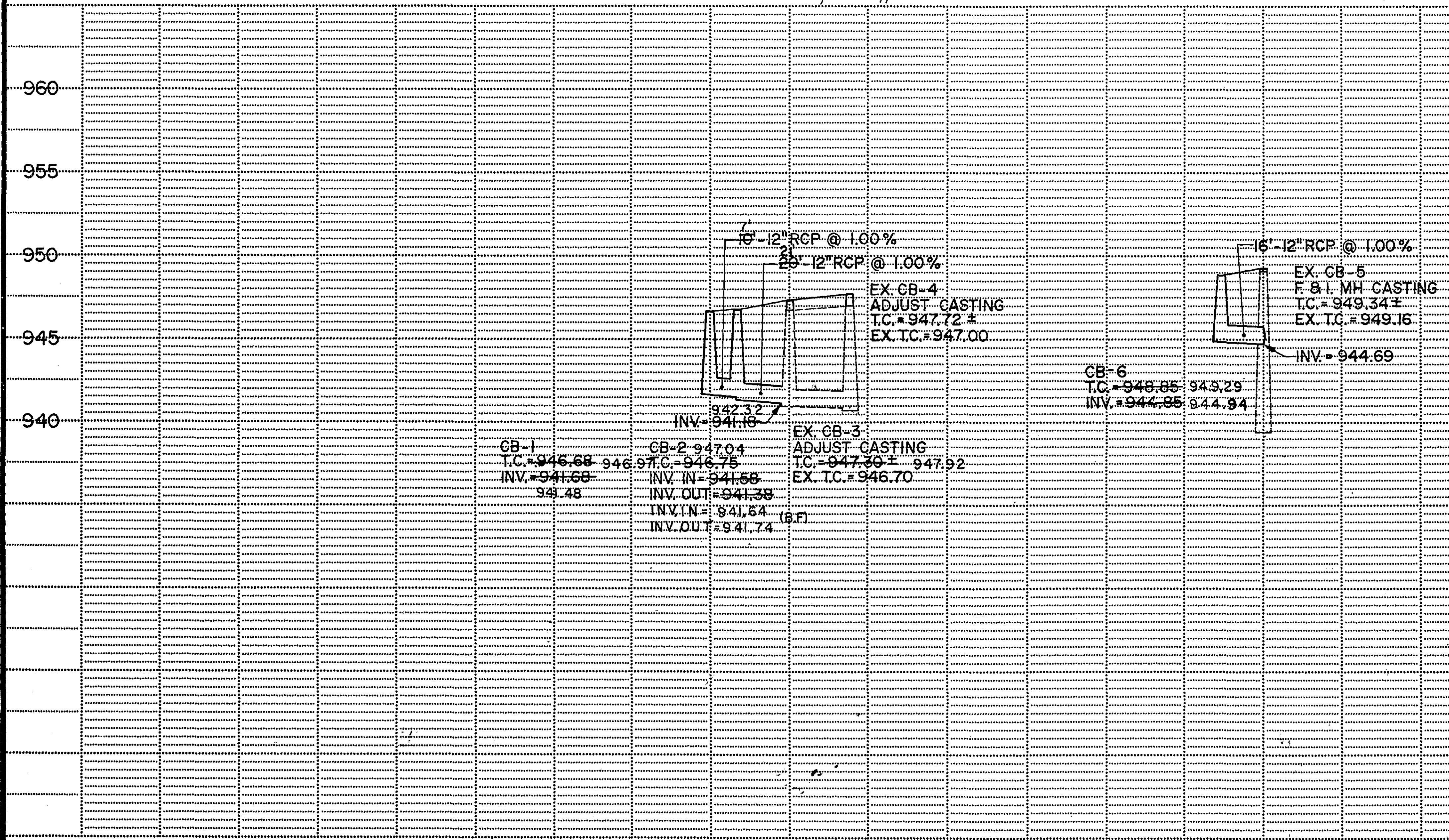
EXPANSION JOINTS			
CLASS DESIGNATION	WITHOUT DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
E1D-1	E1-1	A	2
E1DB	E1B	F	Unsealed
E2D-1	E2-1	G	Unsealed
E2DB	E2B	H	Unsealed
E4D-1	E4-1	I	2

EXPANSION JOINTS
DESIGN E

MODIFIED PAVEMENT JOINTS



FAIRVIEW AVENUE



STORM SEWER TABULATION							
STRUCT. No.	LOCATION	M.H. OR C.B.	DESIGN	FRAME / CASTING TYPE	REMARKS	FURNISH & INSTALL PIPE SEWER	
						12" RCP LIN. FT.	DRAINS TO
1	9+54.6, 47.6' RT.	C.B.	M	SALVAGED	(1)	10	2
2	9+63.9, 46.2' RT.	C.B.	M	SALVAGED	(1)	20	3
3	INPLACE	C.B.	INPLACE	805/816	(2)		4
4	INPLACE	C.B.	INPLACE	805/816	(2)		5
5	INPLACE	M.H.	INPLACE C.B.	700-7/712	(3)		INPLACE
6	1105+92, 33.8' RT.	C.B.	C-G-H	SALVAGED		16	5
7	1109+19, 37' RT.	C.B.	C-G	SALVAGED		18	11
8	INPLACE	M.H.	INPLACE	700-7/712	(4)		INPLACE
9	1109+84, 25' RT.	C.B.	C-G	SALVAGED		25	8
10	1112+08, 39' RT.	C.B.	C-G-H	731		26	12
11	1109+09, 37' RT.	C.B.	C-G-H	802 / 816		10	7
12	1109+94, 25' RT.	C.B.	C-G	802 / 816		10	9
13	1113+52, 73 LT.	C.B.	C-G-H	802 / 816	6	110	INPLACE

(1) SALVAGE CASTING FROM INPLACE C.B.3 OR C.B.4

(2) REMOVE EXISTING CASTING, SALVAGE FOR USE ON C.B. 1 OR C.B. 2 FURNISH AND INSTALL NEW CASTING, ADJUST TO GRADE TO MATCH NEW PAVEMENT.

(3) REMOVE EXISTING CASTING, SALVAGE FOR USE ON C.B. 6. FURNISH AND INSTALL NEW MANHOLE FRAME AND CASTING. (T.C.= 949.37+)

(4) REMOVE EXISTING CASTING, SALVAGE FOR USE ON C.B. 9. FURNISH AND INSTALL NEW MANHOLE FRAME AND CASTING. (T.C.= 954.18+)

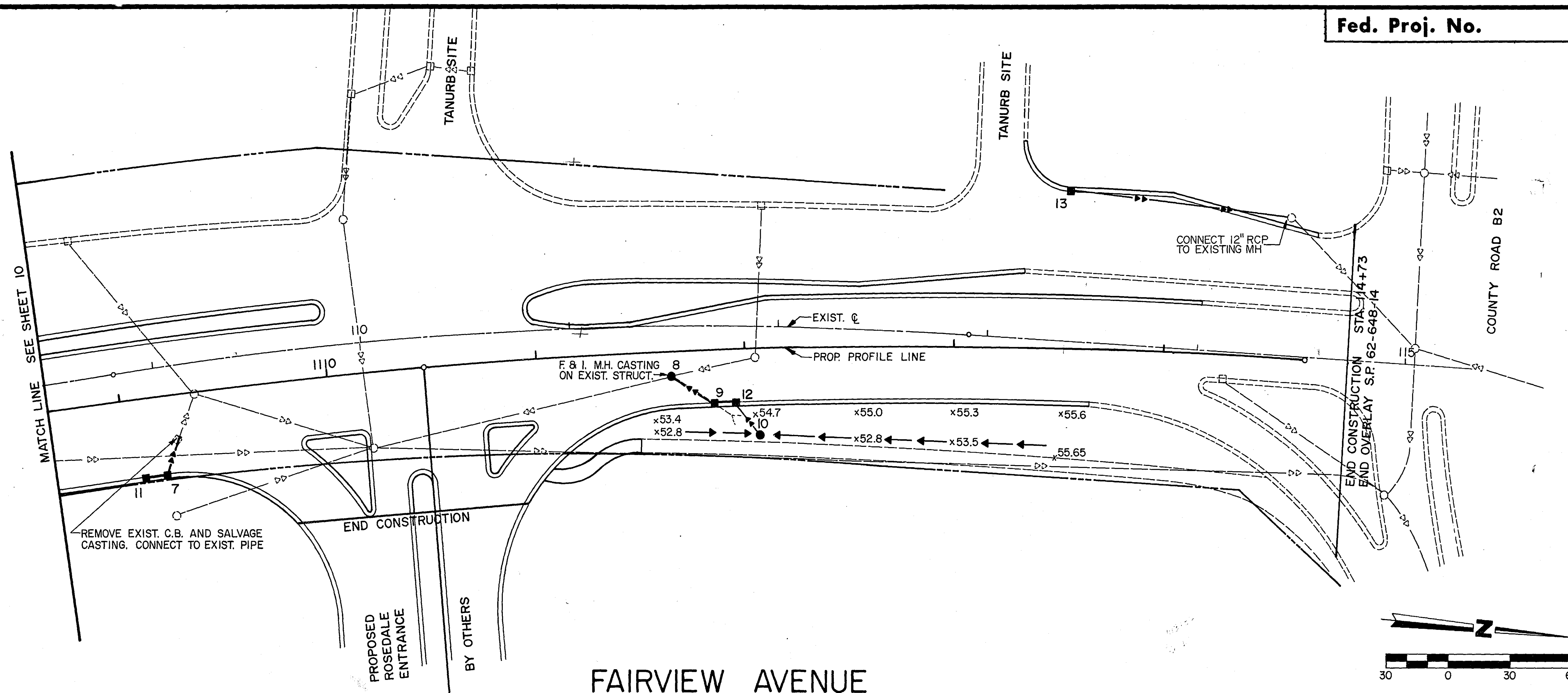
(5) REMOVE INPLACE CATCH BASIN, SALVAGE CASTING FOR USE ON C.B. 7 CONNECT NEW 12"RCP TO EXISTING PIPE.

(6) FIELD VERIFY DISTANCE LEFT FROM C, TO FIT NEW CURB.

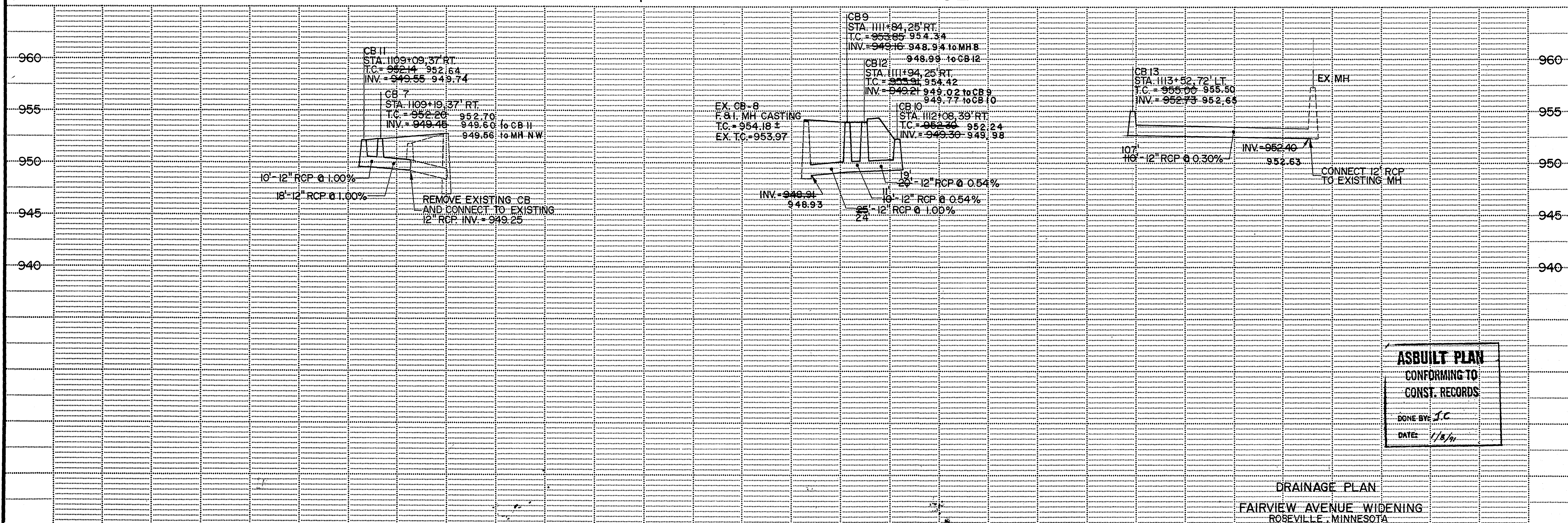
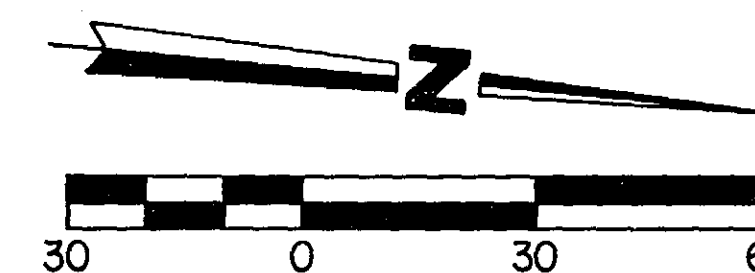
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *ABC*
DATE: *3/2/91*

DRAINAGE PLAN
FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA

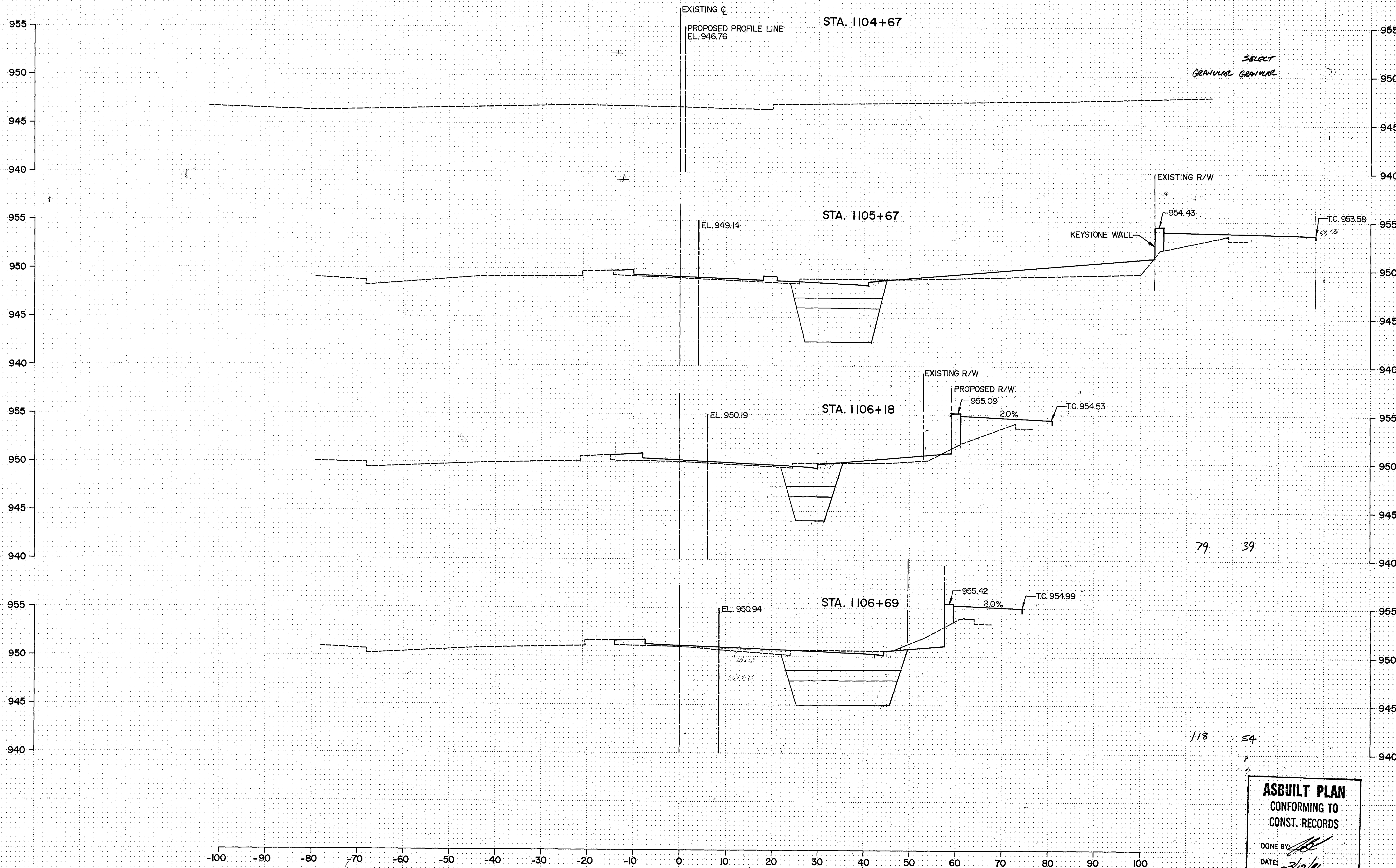


FAIRVIEW AVENUE



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: J.C.
DATE: 1/8/91

DRAINAGE PLAN
FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA

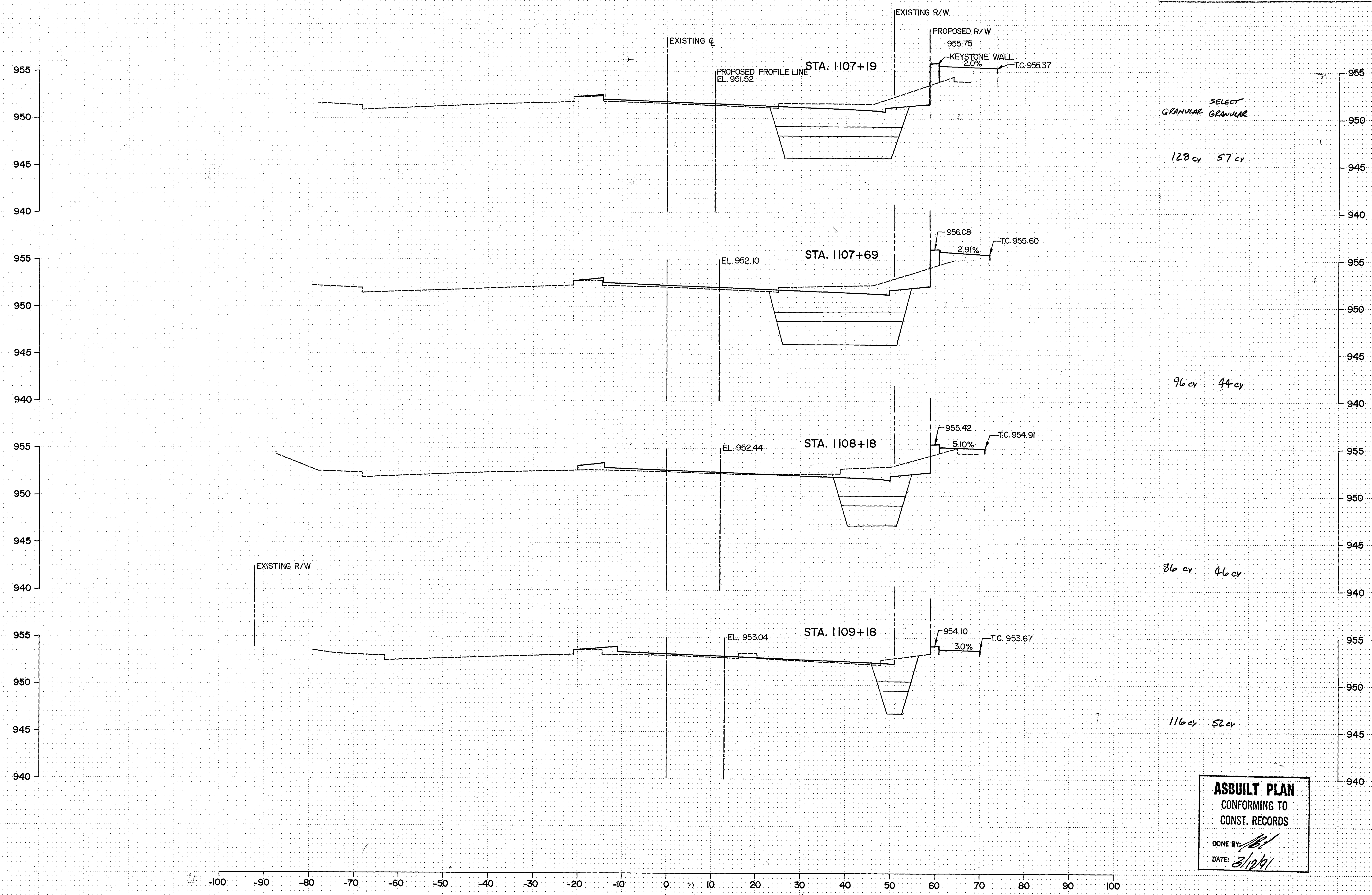


ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *[Signature]*
DATE: 3/10/11

STA. 1104+67 TO STA. 1106+69
FAIRVIEW AVENUE

Fed. Proj. No.



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91

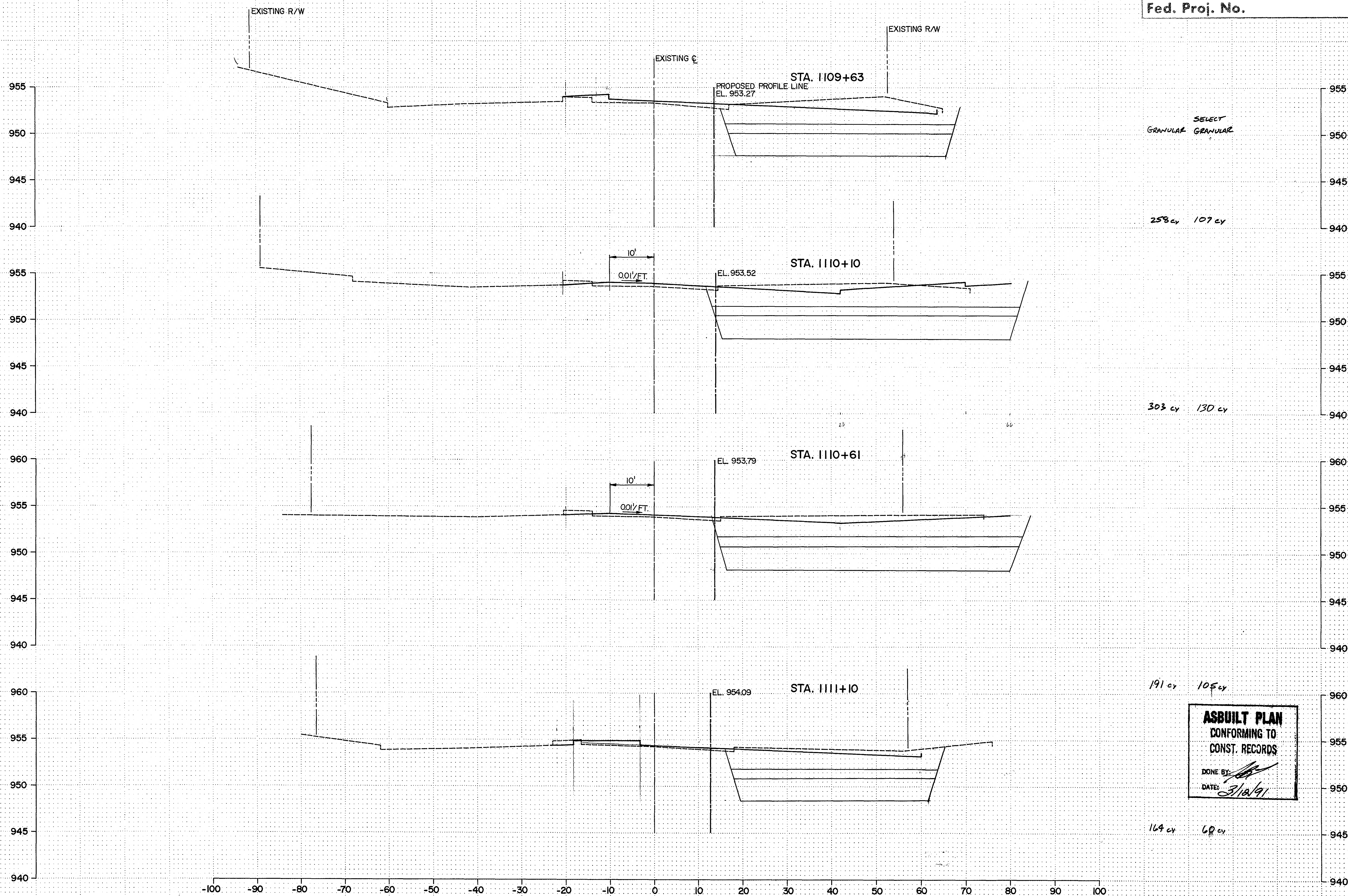
STA. 1107+19 TO STA. 1109+18
FAIRVIEW AVENUE

State Proj. No.

Sheet No. 13 of 40 Sheets

27-121

Fed. Proj. No.



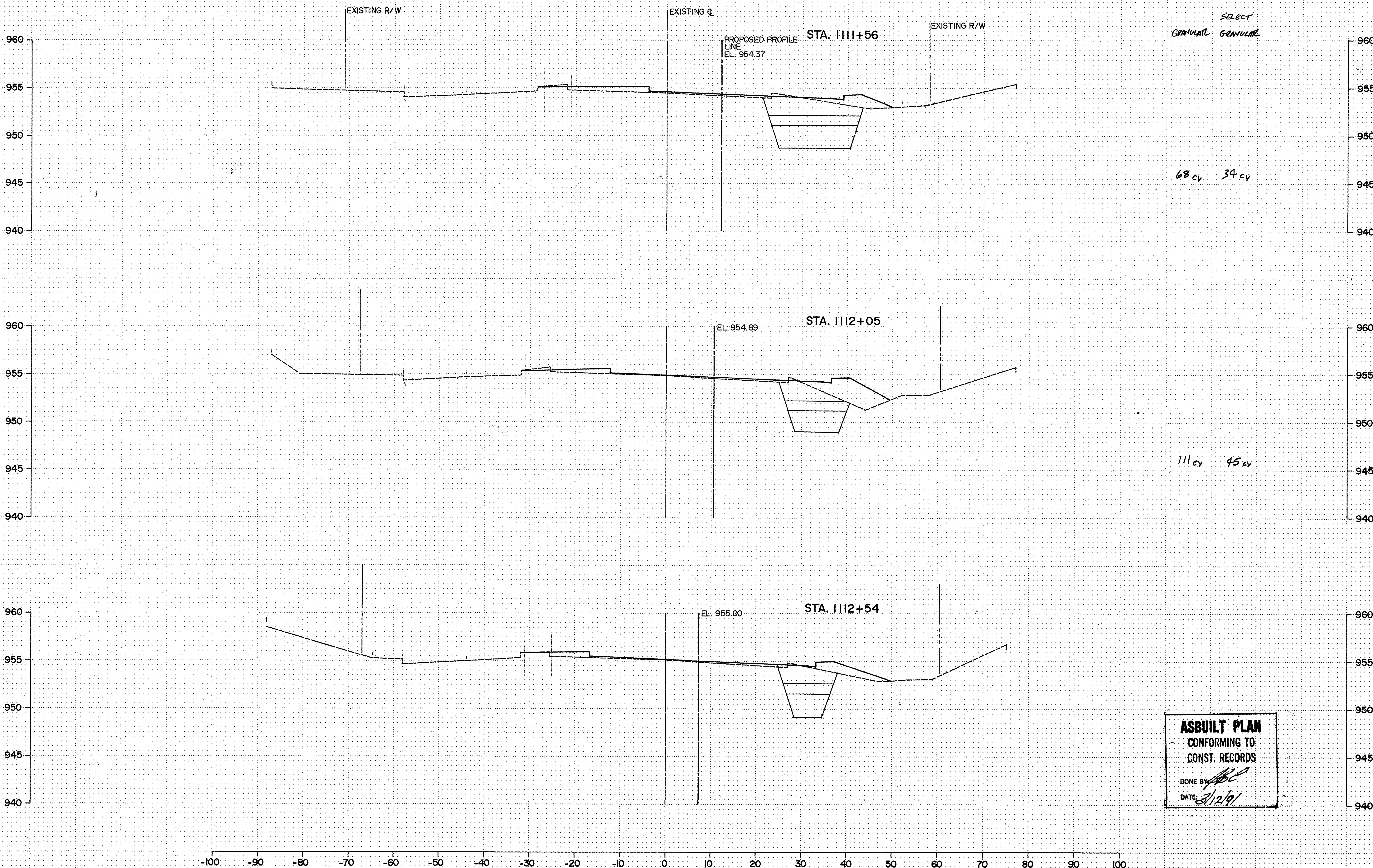
STA. 1109+63 TO STA. 1111+10
FAIRVIEW AVENUE

State Proj. No.

Sheet No. 14 of 40 Sheets

27-121

Fed. Proj. No.



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/2/91

STA. 1111+56 TO STA. 1112+54
FAIRVIEW AVENUE

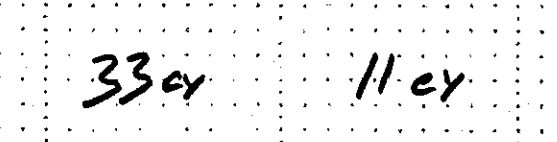
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Sheet No. 15 of 40 Sheets

27-12.1

COPY EQUIPMENT FORM #1

GRANULAR SELECT GRANULAR



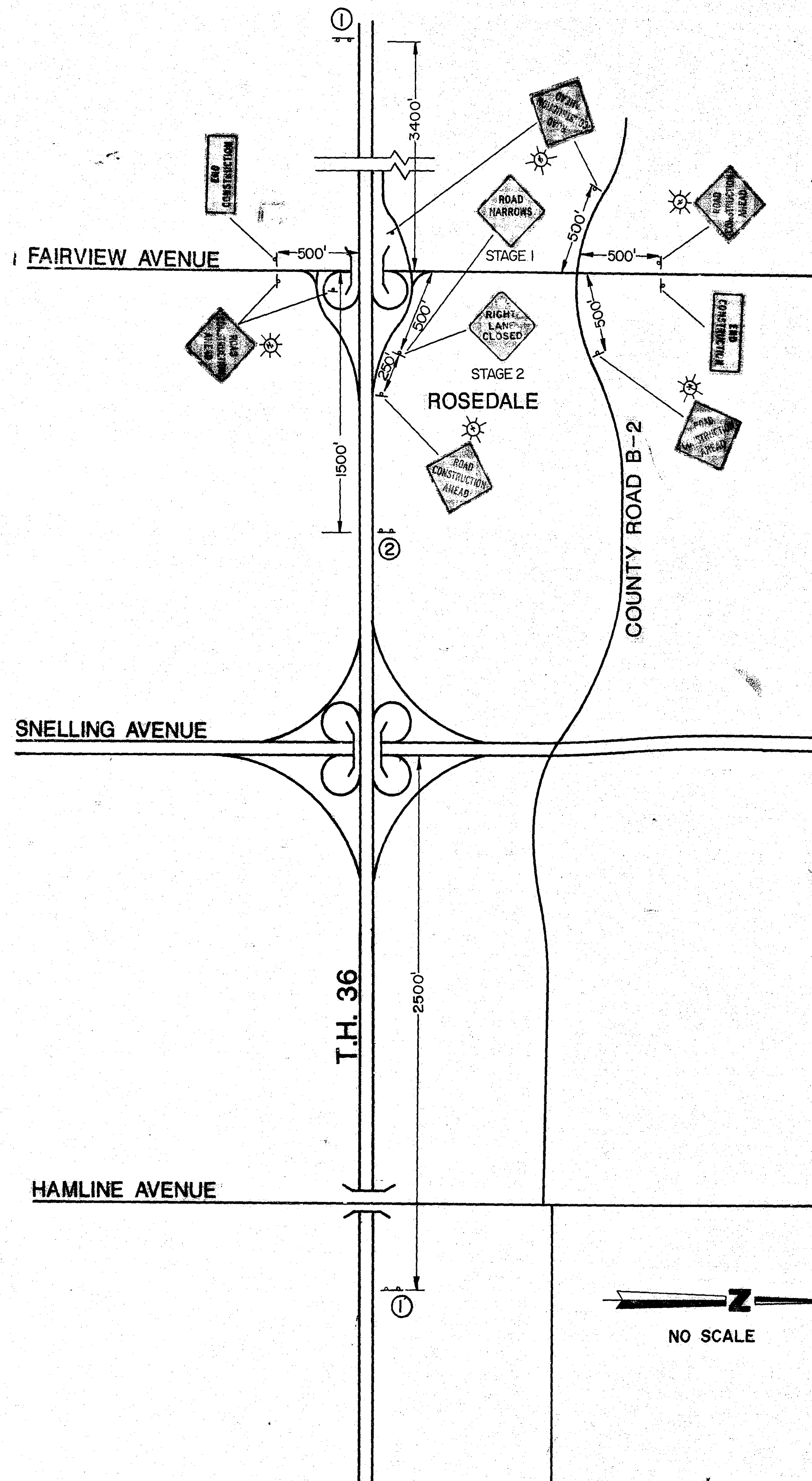
11-2-94

State Proj. No.

Sheet No. 16 of 40 Sheets

27-121.

COPY EQUIPMENT FORM 01



ROAD CONSTRUCTION
Fairview Ave
Minn 36 to County B2
Use Alternate Routes

144" x 84" 3'R 2.0" B

LINE 1 - 8" D CAPS
 LINE 2 10.67" - 8" D
 LINE 3 10.67" - 8" D
 LINE 4 - 8" C

SIGN DETAIL W-1

ROAD CONSTRUCTION
Fairview Ave
Minn 36 to County B2

144" x 60" 3'R 2.0" B

LINE 1 - 8" D CAPS
 LINE 2 10.67" - 8" D
 LINE 3 10.67" - 8" D

SIGN DETAIL W-2

NOTES:

1. THIS SHEET APPLIES TO ALL STAGES OF CONSTRUCTION.
2. SIGN LOCATIONS SHOWN ARE APPROXIMATE. VERIFY LOCATION AND SIGN PLACEMENTS IN FIELD WITH THE ENGINEER.
3. DIAMOND WARNING SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. SIGNS SHALL BE POST-MOUNTED AT A HEIGHT IN ACCORDANCE WITH FEDERAL MUTCD, AND STATE MUTCD APPENDIX "B".

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
 DONE BY: *[Signature]*
 DATE: 3/1/99

DESIGN	PSM	SCALE	NO.	DATE	REVISION
CHECKED	CTR	AS			
DRAWN	SAP	SHOWN			

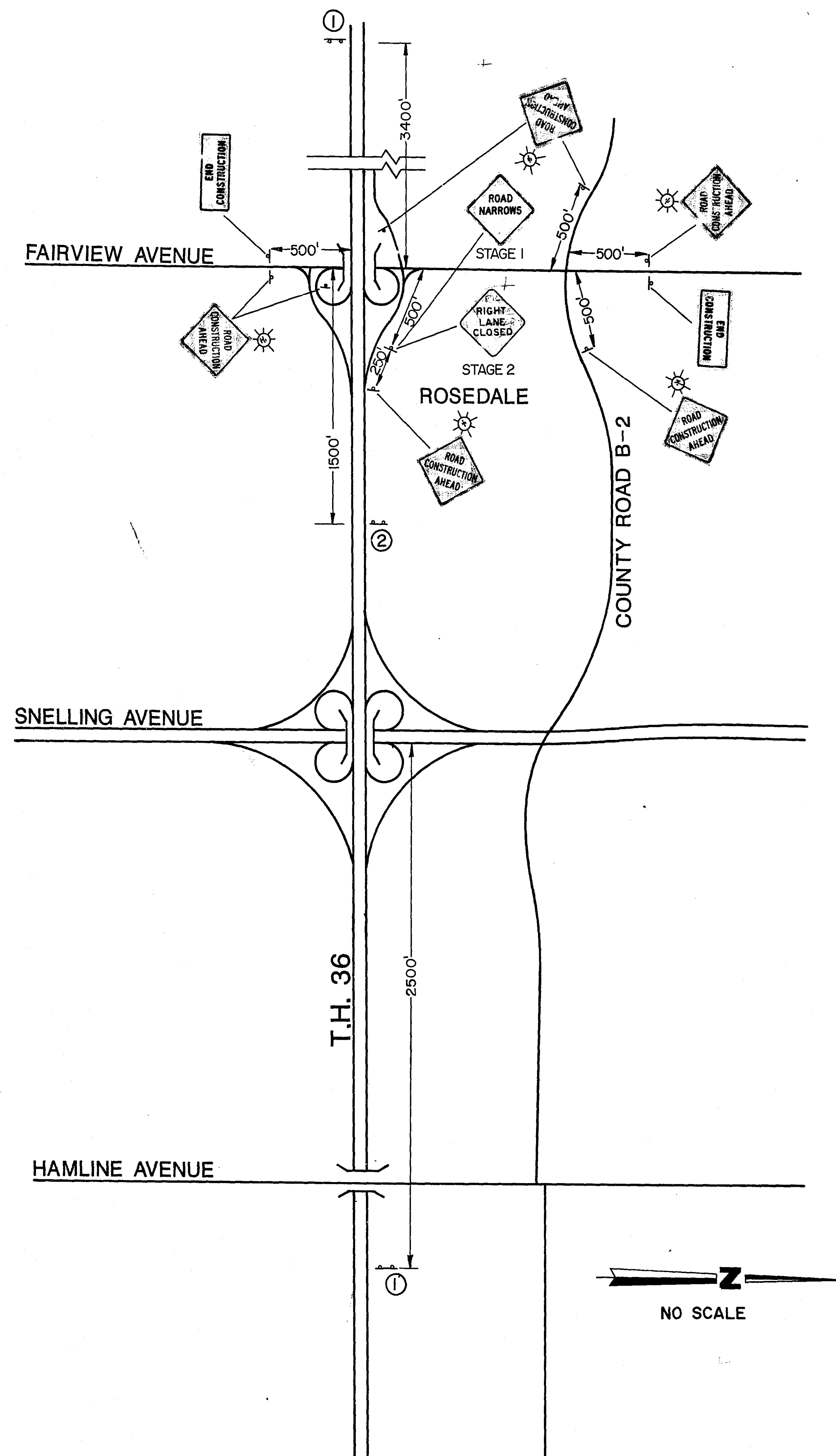
Barton-Aschman Associates, Inc.
 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401

FAIRVIEW AVENUE WIDENING
 ROSEVILLE, MINNESOTA

ADVANCE SIGNING

FILE NO.
 5326-09-01
 DATE
 3/30/90
 SHEET NO.
18
 OF **40**

State Proj No.



ROAD CONSTRUCTION
Fairview Ave
Minn 36 to County B2
Use Alternate Routes

144" x 84" 3'R 2.0" B

LINE 1 - 8" D CAPS
LINE 2 10.67" - 8" D
LINE 3 10.67" - 8" D
LINE 4 - 8" C

SIGN DETAIL W-1

ROAD CONSTRUCTION
Fairview Ave
Minn 36 to County B2

144" x 60" 3'R 2.0" B

LINE 1 - 8" D CAPS
LINE 2 10.67" - 8" D
LINE 3 10.67" - 8" D

SIGN DETAIL W-2

**ASBUILT PLAN
CONFORMING TO
CONST. RECORDS**

DONE BY: *[Signature]*
DATE: *3/12/91*

NOTES:

1. THIS SHEET APPLIES TO ALL STAGES OF CONSTRUCTION.
2. SIGN LOCATIONS SHOWN ARE APPROXIMATE. VERIFY LOCATION AND SIGN PLACEMENTS IN FIELD WITH THE ENGINEER.
3. DIAMOND WARNING SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. SIGNS SHALL BE POST-MOUNTED AT A HEIGHT IN ACCORDANCE WITH FEDERAL MUTCD, AND STATE MUTCD APPENDIX "B"

DESIGN	PSM	SCALE AS SHOWN	NO.	DATE	REVISION
CHECKED	CTR				
DRAWN	SAP				



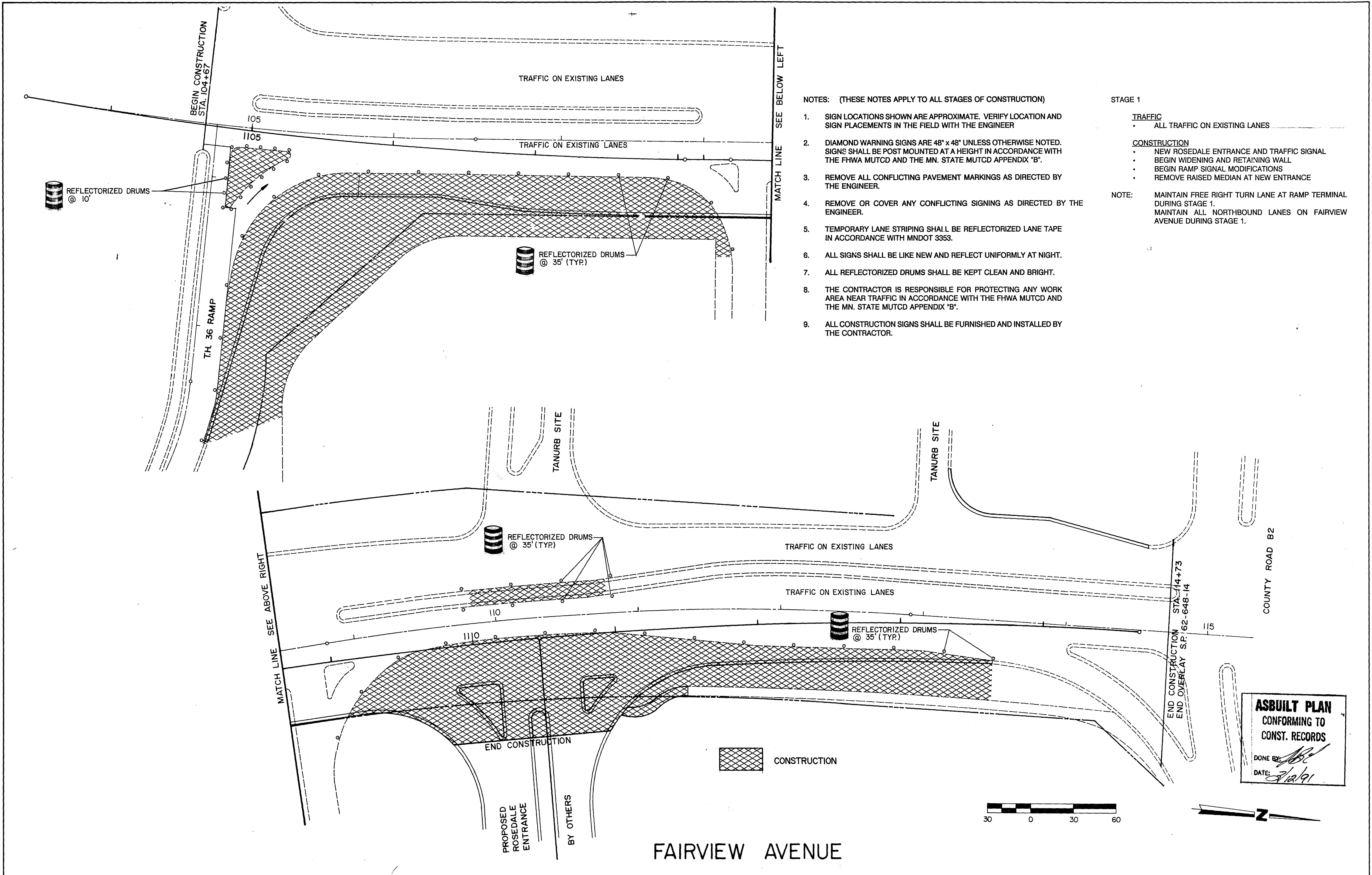
Barton-Aschman Associates, Inc.
111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401

FAIRVIEW AVENUE WIDENING
ROSEVILLE, MINNESOTA

ADVANCE SIGNING

FILE NO.	SHE
5326-09-01	NO.
DATE	18
3/30/90	/

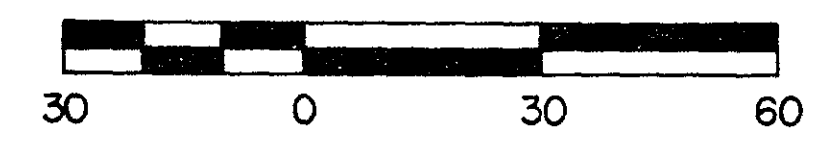
State Proj No.



- NOTES: (THESE NOTES APPLY TO ALL STAGES OF CONSTRUCTION)
- SIGN LOCATIONS SHOWN ARE APPROXIMATE. VERIFY LOCATION AND SIGN PLACEMENTS IN THE FIELD WITH THE ENGINEER
 - DIAMOND WARNING SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED. SIGNS SHALL BE POST MOUNTED AT A HEIGHT IN ACCORDANCE WITH THE FHWA MUTCD AND THE MN. STATE MUTCD APPENDIX "B".
 - REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
 - REMOVE OR COVER ANY CONFLICTING SIGNING AS DIRECTED BY THE ENGINEER.
 - TEMPORARY LANE STRIPING SHALL BE REFLECTORIZED LANE TAPE IN ACCORDANCE WITH MNDOT 3353.
 - ALL SIGNS SHALL BE LIKE NEW AND REFLECT UNIFORMLY AT NIGHT.
 - ALL REFLECTORIZED DRUMS SHALL BE KEPT CLEAN AND BRIGHT.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREA NEAR TRAFFIC IN ACCORDANCE WITH THE FHWA MUTCD AND THE MN. STATE MUTCD APPENDIX "B".
 - ALL CONSTRUCTION SIGNS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

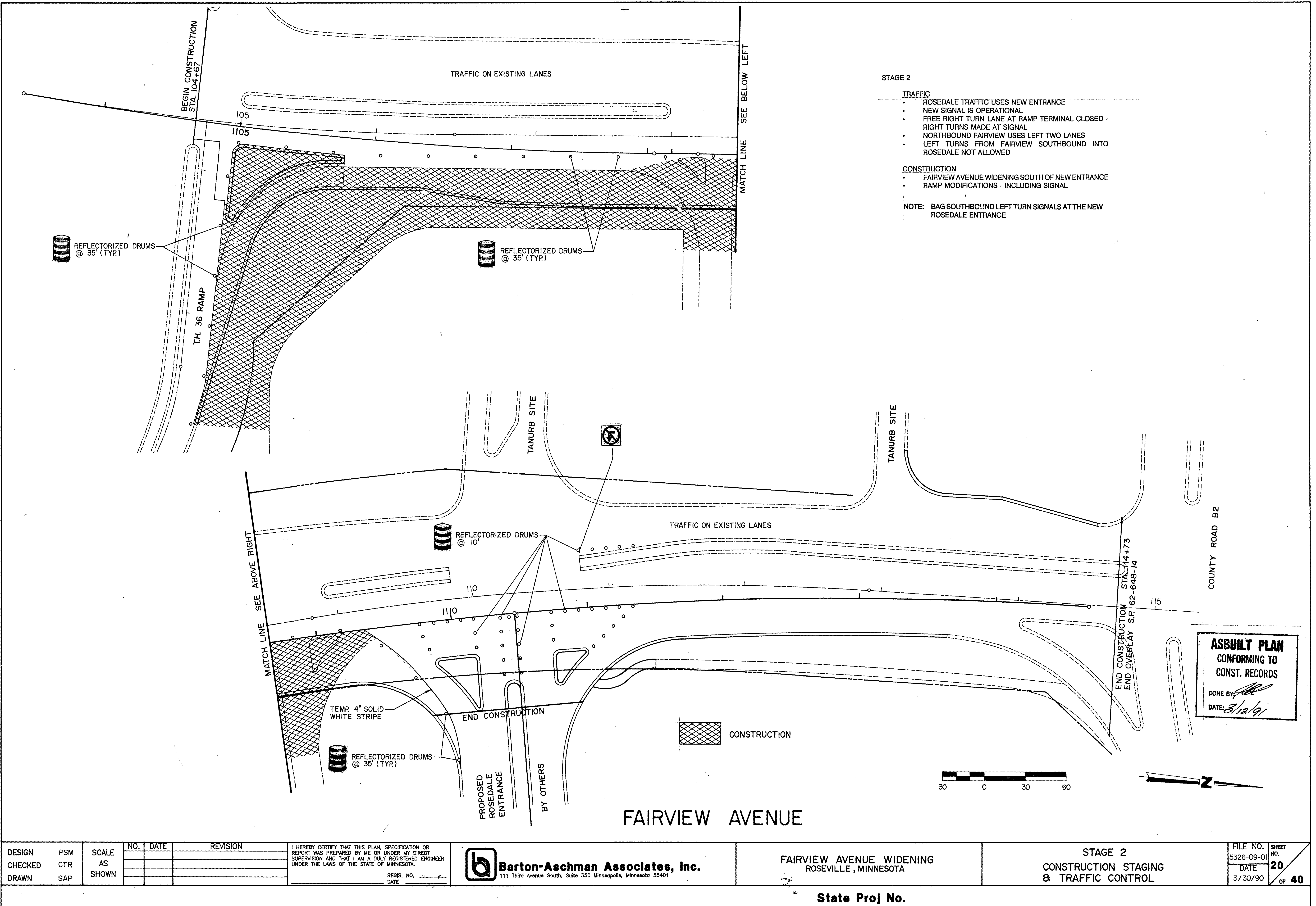
- STAGE 1
- TRAFFIC**
- ALL TRAFFIC ON EXISTING LANES
- CONSTRUCTION**
- NEW ROSEDALE ENTRANCE AND TRAFFIC SIGNAL
 - BEGIN WIDENING AND RETAINING WALL
 - BEGIN RAMP SIGNAL MODIFICATIONS
 - REMOVE RAISED MEDIAN AT NEW ENTRANCE
- NOTE: MAINTAIN FREE RIGHT TURN LANE AT RAMP TERMINAL DURING STAGE 1. MAINTAIN ALL NORTHBOUND LANES ON FAIRVIEW AVENUE DURING STAGE 1.

ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *[Signature]*
 DATE: 3/12/91



DESIGN	PSM	SCALE	NO.	DATE	REVISION	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. REGIS. NO. _____ DATE _____	 Barton-Archman Associates, Inc. 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401	FAIRVIEW AVENUE WIDENING ROSEVILLE, MINNESOTA	STAGE I CONSTRUCTION STAGING & TRAFFIC CONTROL	FILE NO.	SHEET
CHECKED	CTR	AS			5326-09-01					NO.	
DRAWN	SAP	SHOWN			DATE					19	
					3/30/90					OF 40	
State Proj No.											

State Proj No.



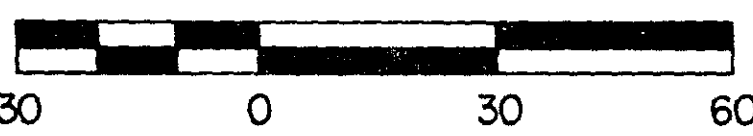
STAGE 2

- TRAFFIC**
- ROSEDALE TRAFFIC USES NEW ENTRANCE
 - NEW SIGNAL IS OPERATIONAL
 - FREE RIGHT TURN LANE AT RAMP TERMINAL CLOSED - RIGHT TURNS MADE AT SIGNAL
 - NORTHBOUND FAIRVIEW USES LEFT TWO LANES
 - LEFT TURNS FROM FAIRVIEW SOUTHBOUND INTO ROSEDALE NOT ALLOWED

- CONSTRUCTION**
- FAIRVIEW AVENUE WIDENING SOUTH OF NEW ENTRANCE
 - RAMP MODIFICATIONS - INCLUDING SIGNAL

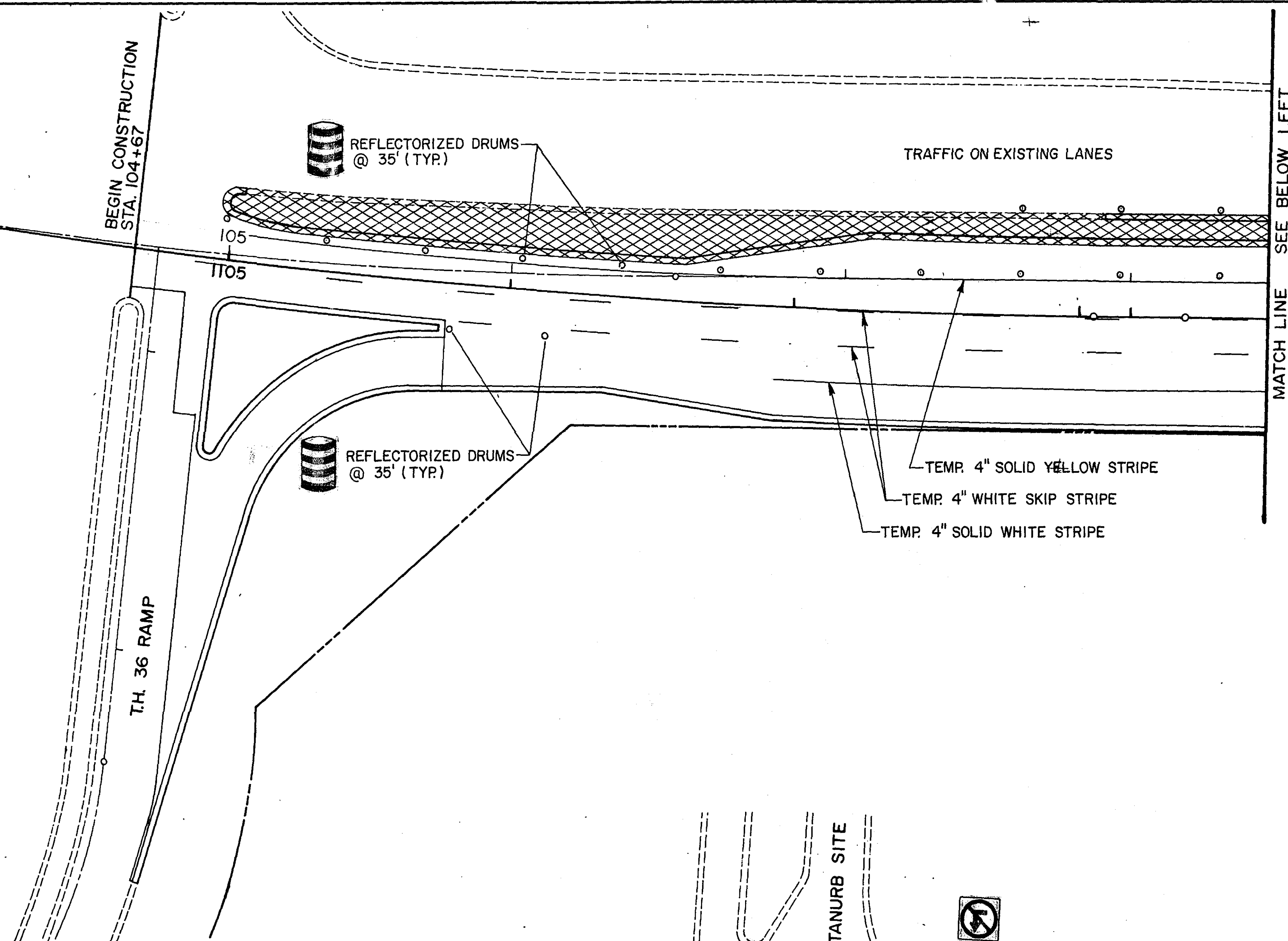
NOTE: BAG SOUTHBOUND LEFT TURN SIGNALS AT THE NEW ROSEDALE ENTRANCE

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91



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CHECKED	CTR	AS			5326-09-01					NO.	
DRAWN	SAP	SHOWN			DATE					20	
					3/30/90					OF 40	
State Proj No.											

State Proj No.



STAGE 3

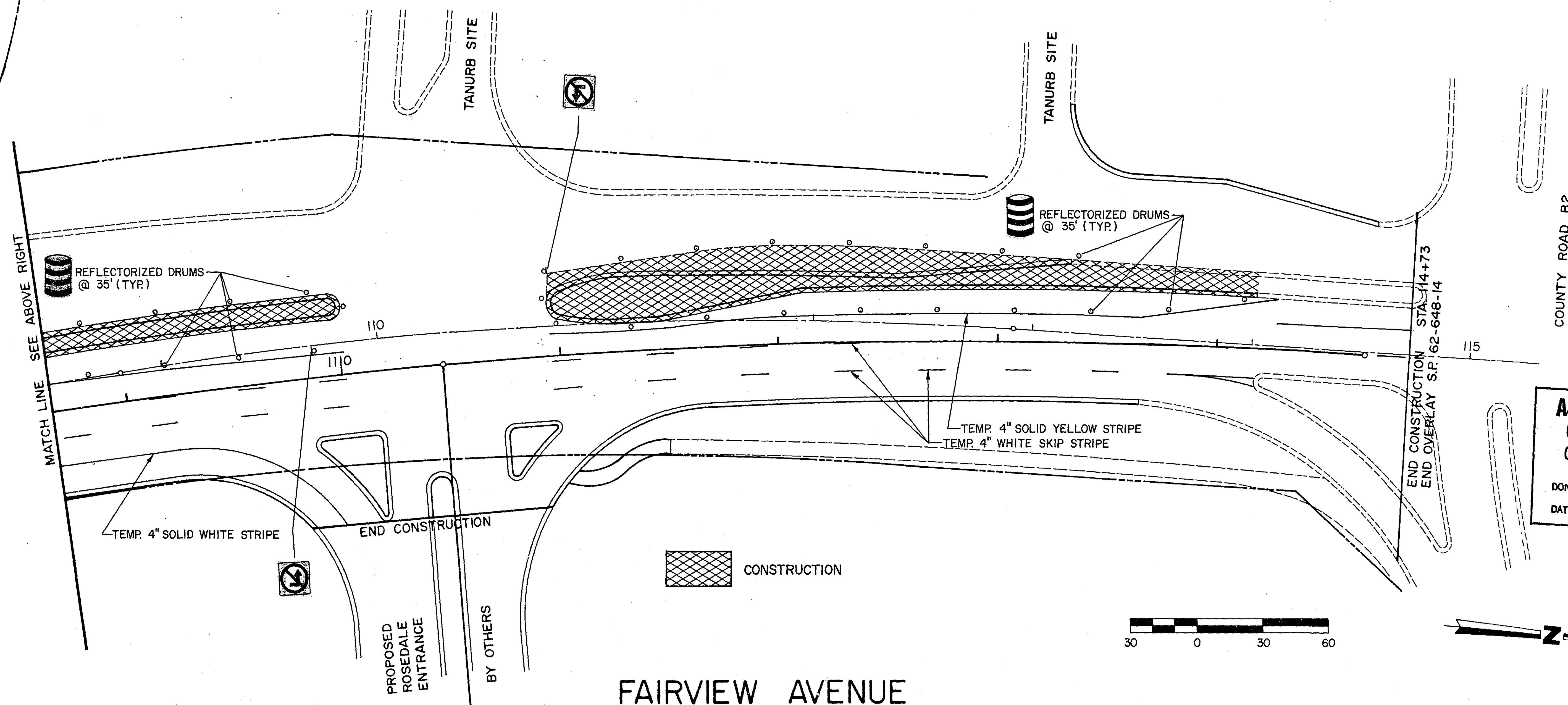
TRAFFIC

- NORTHBOUND LANE ADJACENT TO CENTER MEDIAN CLOSED
- LEFT TURN FROM NORTHBOUND FAIRVIEW INTO TANURB SITE NOT ALLOWED
- LEFT TURNS FROM FAIRVIEW SOUTHBOUND INTO ROSEDALE NOT ALLOWED
- TEMPORARY LANE MARKINGS FOR NORTHBOUND FAIRVIEW AVENUE

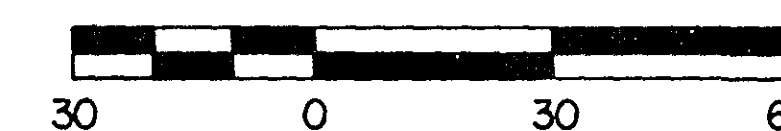
CONSTRUCTION

- RECONFIGURE CENTER MEDIANS AND LEFT TURN LANES

NOTE: BAG NORTHBOUND AND SOUTHBOUND LEFT TURN SIGNALS AT THE NEW ROSEDALE ENTRANCE.



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91



DESIGN	PSM	SCALE	NO.	DATE	REVISION	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. REGIS. NO. _____ DATE _____	 Barton-Aschman Associates, Inc. 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401	FAIRVIEW AVENUE WIDENING ROSEVILLE, MINNESOTA	STAGE 3 CONSTRUCTION STAGING & TRAFFIC CONTROL	FILE NO.	SHEET
CHECKED	CTR	AS								5326-09-01	NO.
DRAWN	SAP	SHOWN								DATE	21
										3/30/90	OF 40

State Proj No.

NOTES

- EACH SIGNAL FACE SHALL BE 3-SECTION, 12 INCH R-Y-G, EXCEPT SIGNAL FACES 2-2, 2-3, 6-2 & 6-3 WHICH SHALL BE 5-SECTION, 12 INCH R-Y-G-YLTA-GLTA, AND SIGNAL FACES 4-2, 4-3, 3-2 & 3-3 WHICH SHALL BE 4-SECTION R-Y-G-GLTA.
- EACH SIGNAL FACE EXCEPT FACES 2-3, 4-3, 6-3 & 3-3 SHALL HAVE A BACKGROUND SHIELD.
- PEDESTRIAN INDICATIONS SHALL BE 12" x 12".
- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- CONTRACTOR SHALL INSTALL LOOP DETECTORS IN ROADWAY AFTER PAVEMENT MARKINGS AND LANE LINES HAVE BEEN ESTABLISHED AT THE INTERSECTION, BUT BEFORE 2361 BITUMINOUS WEARING COURSE HAS BEEN PLACED.
- CONTRACTOR SHALL CONSTRUCT CURB RAMP AS PER Mn/DOT STD. PLATE NO. 7036 AT SIGNAL BASE ①, ② & ③.
- 1-12 PAIR #19 INTERCONNECT CABLE FROM CONTROLLER AT CO. RD. B2 & FAIRVIEW AVE. SHALL BE SALVAGED FOR REUSE.
- ALL HANDHOLES SHALL BE CONCRETE HANDHOLES WITH TYPE "C" COVERS. PVC HANDHOLES ARE NOT ACCEPTABLE.

LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION *
D1-1	2-6' x 15'	CALL & EXTEND (TIME DELAY)	0'
D1-2	6' x 25'	EXTEND ONLY	80'
D2-1	6' x 6'	CALL & EXTEND	260'
D2-2	6' x 6'	CALL & EXTEND	260'
D2-3	6' x 6'	CALL & EXTEND	260'
D3-1	2-6' x 15'	CALL & EXTEND (TIME DELAY)	0'
D4-1	2-6' x 6'	CALL & EXTEND	120'
D4-2	2-6' x 6'	CALL & EXTEND	55'
D4-3	2-6' x 15'	CALL & EXTEND	0'
D5-1	2-6' x 15'	CALL & EXTEND (TIME DELAY)	0'
D5-2	6' x 25'	EXTEND ONLY	80'
D6-1	6' x 6'	CALL & EXTEND	260'
D6-2	6' x 6'	CALL & EXTEND	260'
D1	6' x 6'	SYSTEM DETECTOR	INPLACE
D2	6' x 6'	SYSTEM DETECTOR	INPLACE

* LOCATION IS DISTANCE BACK FROM STOP BAR

① EQUIPMENT PAD (SEE DETAIL SHEET 25)
SALVAGED CONTROLLER & CABINET
LOAD CENTER (PAD MOUNTED)

CABINET TO HH 2:
4" RSC
4-12/C #12
6-3/C #12
1-3/C #20
5-2/C #14
1-12 PAIR #19
(INTERCONNECT)

LOAD CENTER TO HH 2:
1 1/4" RSC
2-1/C #10

LOAD CENTER TO HH 7:
1 1/4" RSC
2-1/C #10

LOAD CENTER TO CABINET:
1 1/4" RSC
2-1/C #6
1-1/C #6 BARE GROUND

LOAD CENTER TO HH 1:
1 1/4" R.S.C.
3-1/C #4

CABINET TO HH 7:
4" RSC
4-12/C #12
2-3/C #12
1-3/C #20
8-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 2 TO HH 3
3" RSC
2-12/C #12
4-3/C #12
4-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 3 TO HH 4
3" RSC
4-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 4 TO HH 5
3" RSC
3-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 5 TO HH 6
2" RSC
2-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 7 TO HH 8
4" RSC
4-12/C #12
2-3/C #12
1-3/C #20
8-2/C #14
2-1/C #10
1-12 PAIR #19
(INTERCONNECT)

HH 8 TO HH 9
1 1/4" RSC
1-2/C #14

HH 8 TO HH 10
4" RSC
4-12/C #12
2-3/C #12
1-3/C #20
6-2/C #14
2-1/C #10
1-12 PAIR #19
(INTERCONNECT)

HH 10 TO HH 11
2" RSC
3-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 11 TO HH 12
2" RSC
3-2/C #14
1-12 PAIR #19
(INTERCONNECT)

HH 10 TO HH 13
3" RSC
2-12/C #12
2-3/C #12
1-3/C #20
3-2/C #14
2-1/C #10

HH 13 TO HH 14
3" RSC
2-12/C #12
2-3/C #12
1-3/C #20
2-1/C #10

HH13 TO HH 15
1 1/4" RSC
2-2/C #14

HH 15 TO HH 16
1 1/4" RSC
1-2/C #14

① TYPE A100-A-35-T40-10
A100 POLE FOUNDATION
2 ONE-WAY SIGNALS OVERHEAD
LUMINAIRE 200-WATT H.P.S. AT 350'
MID ARM MOUNT 14' FROM END
ONE-WAY EVP DETECTOR & LIGHT OVHD
TYPE 20 B (POLE MOUNTED @ 270')
PEDESTRIAN CURB RAMP
EXTEND INTO HH 2:
3" R.S.C.
2-1/C #10
2-12/C #12
1-3/C #12
1-3/C #20

② TYPE P90-A-35
P90 POLE FOUNDATION
ONE-WAY SIGNAL OVERHEAD
TYPE 20C (POLE MOUNTED @ 270')
PEDESTRIAN PUSHBUTTONS & SIGN
(R10-4C) @ 270'
PEDESTRIAN CURB RAMP
EXTEND INTO HH 3:
3" R.S.C.
2-12/C #12
3-3/C #12

HH 6 TO HH 16a
2" RSC
1-12 PAIR #19
(INTERCONNECT)

③ TYPE A100-A-45-T40-10
A100 POLE FOUNDATION
LUMINAIRE 200-WATT H.P.S. AT 350'
2 ONE-WAY SIGNALS OVHD
MID ARM MOUNT 18' FROM END
TYPE 20 B (POLE MOUNTED @ 270')
ONE-WAY EVP DETECTOR & LIGHT OVHD
PEDESTRIAN PUSHBUTTONS & SIGN
(R10-4C) @ 270'
PEDESTRIAN CURB RAMP (SEE NOTE)
EXTEND INTO HH 14:
3" R.S.C.
2-1/C #10
2-12/C #12
2-3/C #12
1-3/C #20

④ TYPE P90-A-15
P90 POLE FOUNDATION
ONE-WAY SIGNAL OVERHEAD
2-TYPE 10B POLE MOUNTED @ 0' & 270'
TYPE 20 A (POLE MOUNTED @ 270')
PEDESTRIAN PUSHBUTTONS & SIGN
(R10-4C) @ 270'
EXTEND INTO HH 10:
3" R.S.C.
2-12/C #12

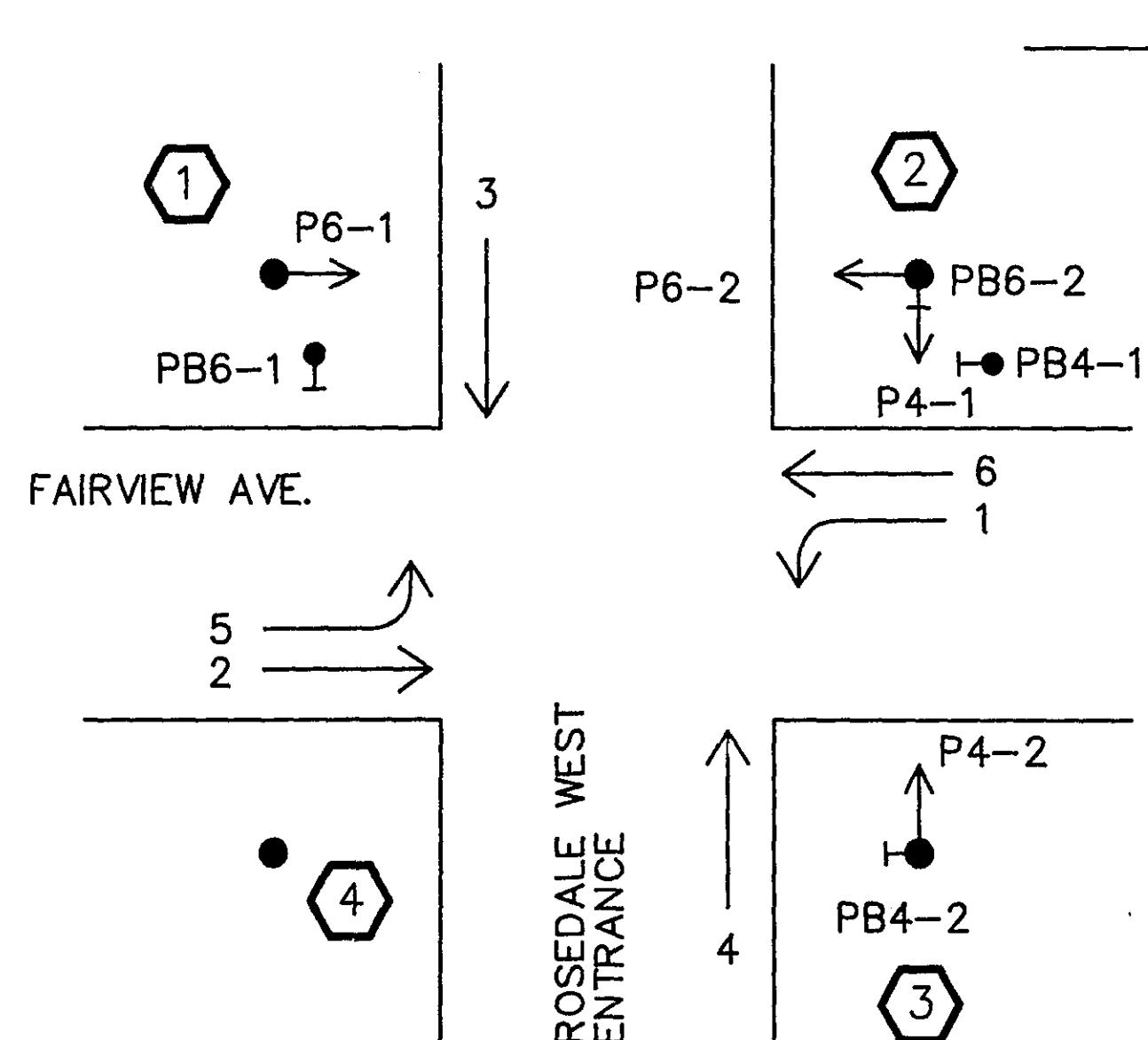
⑤ SOP
NSP WOOD POLE (INPLACE)
1 1/4" RSC RISER & WEATHERHEAD
EXTEND INTO HH 1:
1 1/4" RSC
3-1/C #4

⑥ PEDESTRIAN PUSHBUTTON STATION
(4" RSC)
1-PEDESTRIAN PUSHBUTTON
EXTEND INTO HH 2:
1 1/4" RSC
1-3/C #12

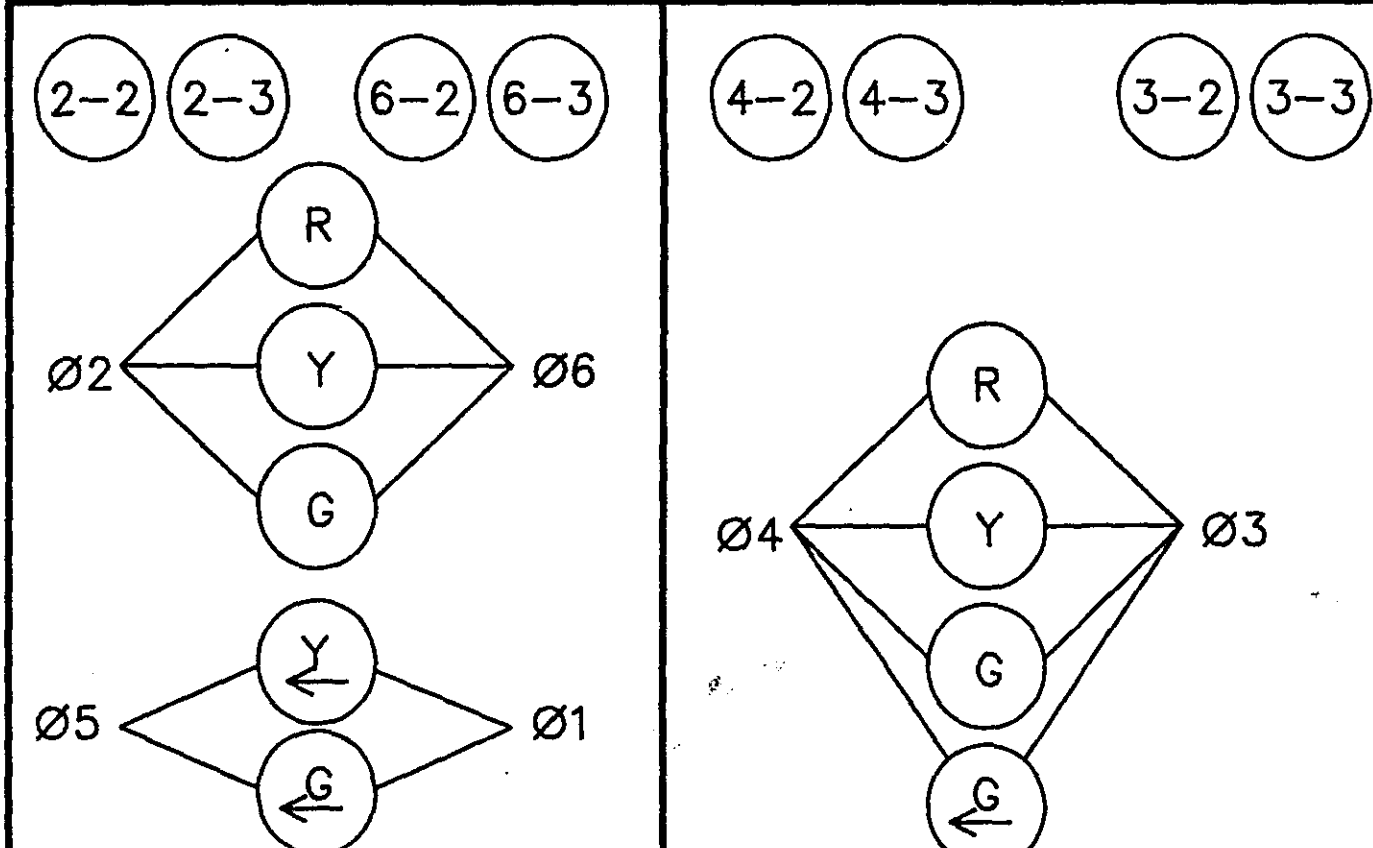
⑦ PEDESTRIAN PUSHBUTTON STATION
(4" RSC)
1-PEDESTRIAN PUSHBUTTON
EXTEND INTO HH 3:
1 1/4" RSC
1-3/C #12

SEE SHEET 29
FOR INTERCONNECT PLAN

CONTROLLER PHASING-PEDESTRIAN INDICATIONS AND PUSH BUTTON LAYOUT



SIGNAL HEAD PHASING



SCALE IN FEET
0 10 20 40

UTILITY EASEMENT FOR
SIGNAL INSTALLATION
AND MAINTENANCE.

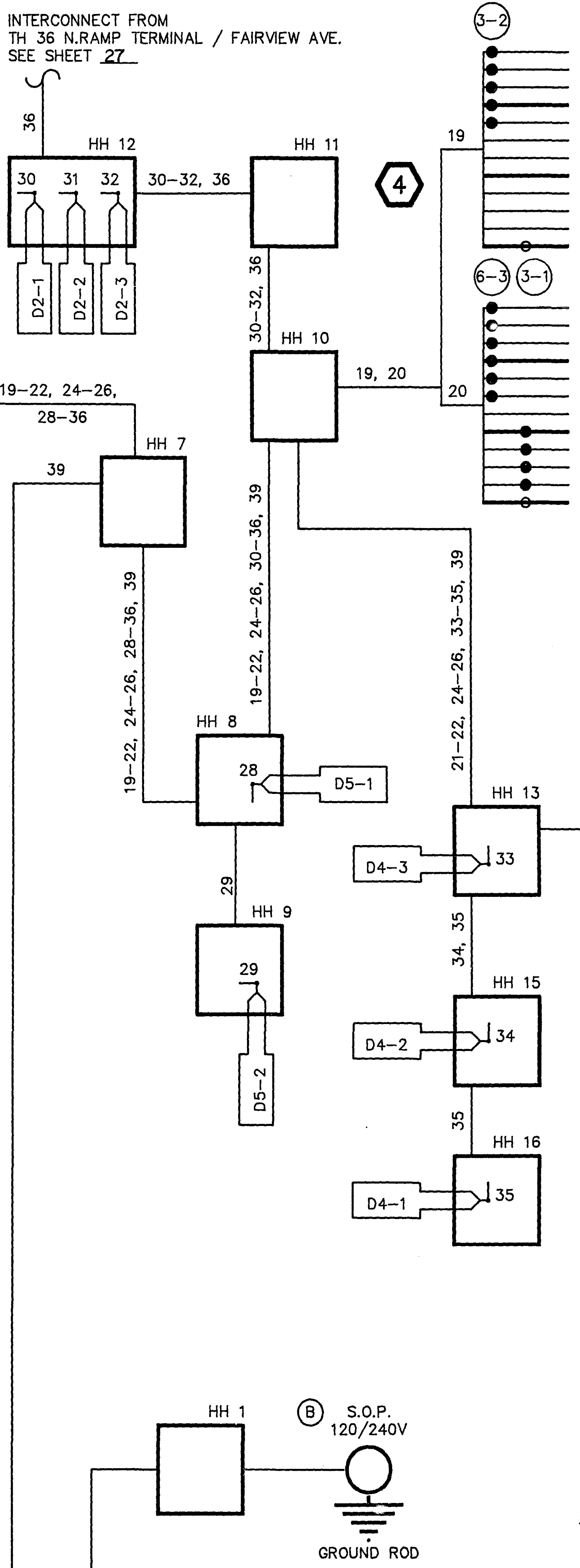
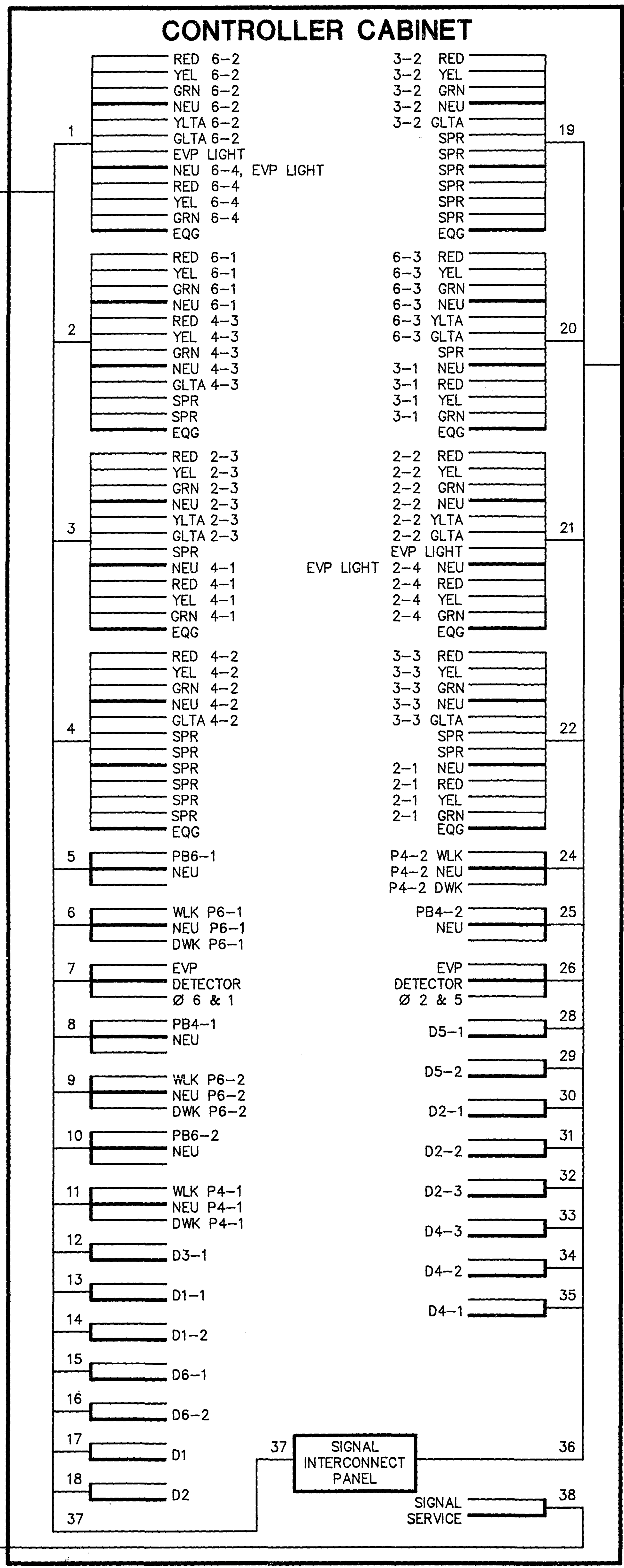
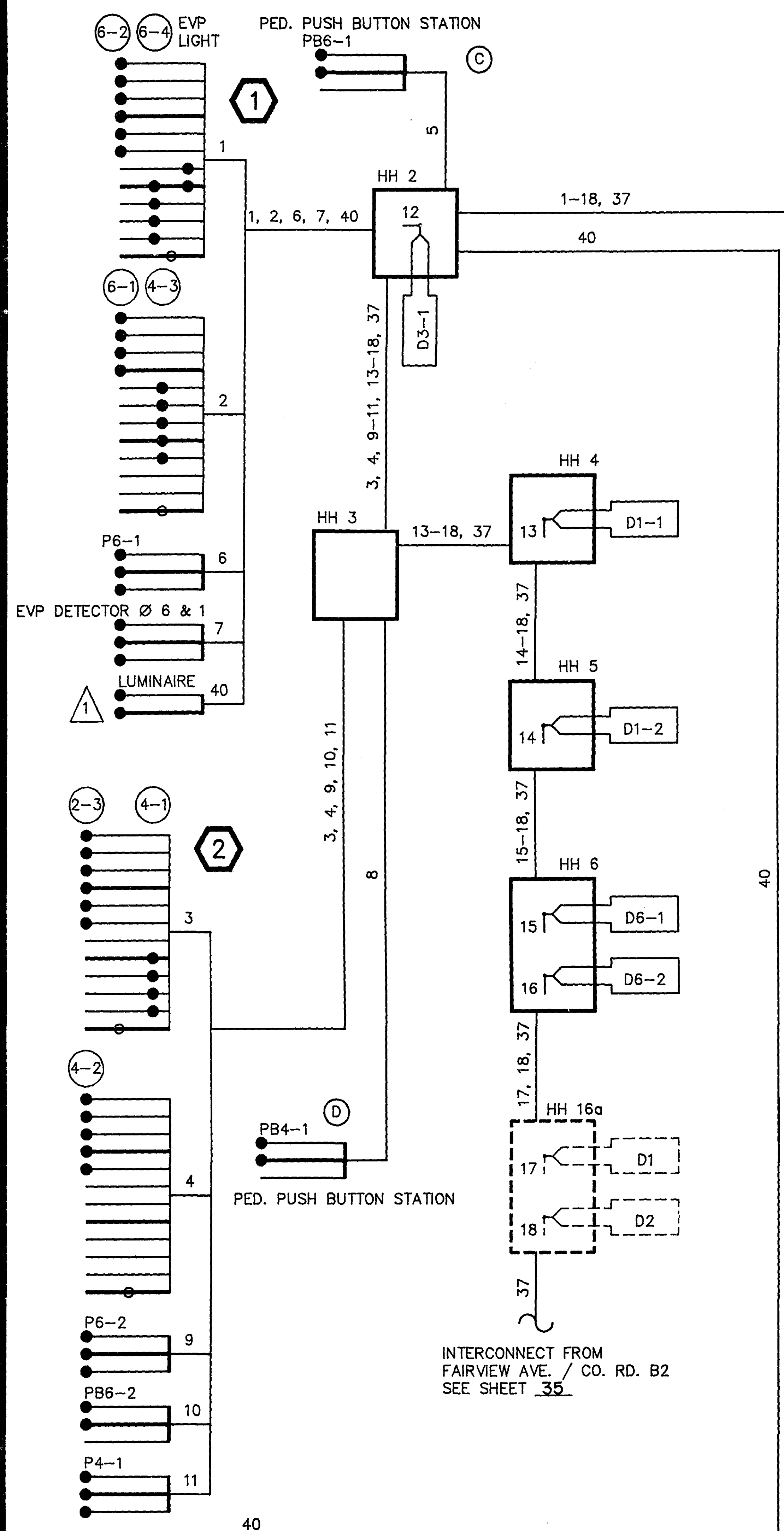
SYSTEM "A" INTERSECTION LAYOUT FAIRVIEW AVE. AT ROSEDALE WEST ENTRANCE ROSEVILLE, MN.

Barton-Aschman Associates, Inc.

State Proj. No.

Sheet No. 23 of 40 Sheets

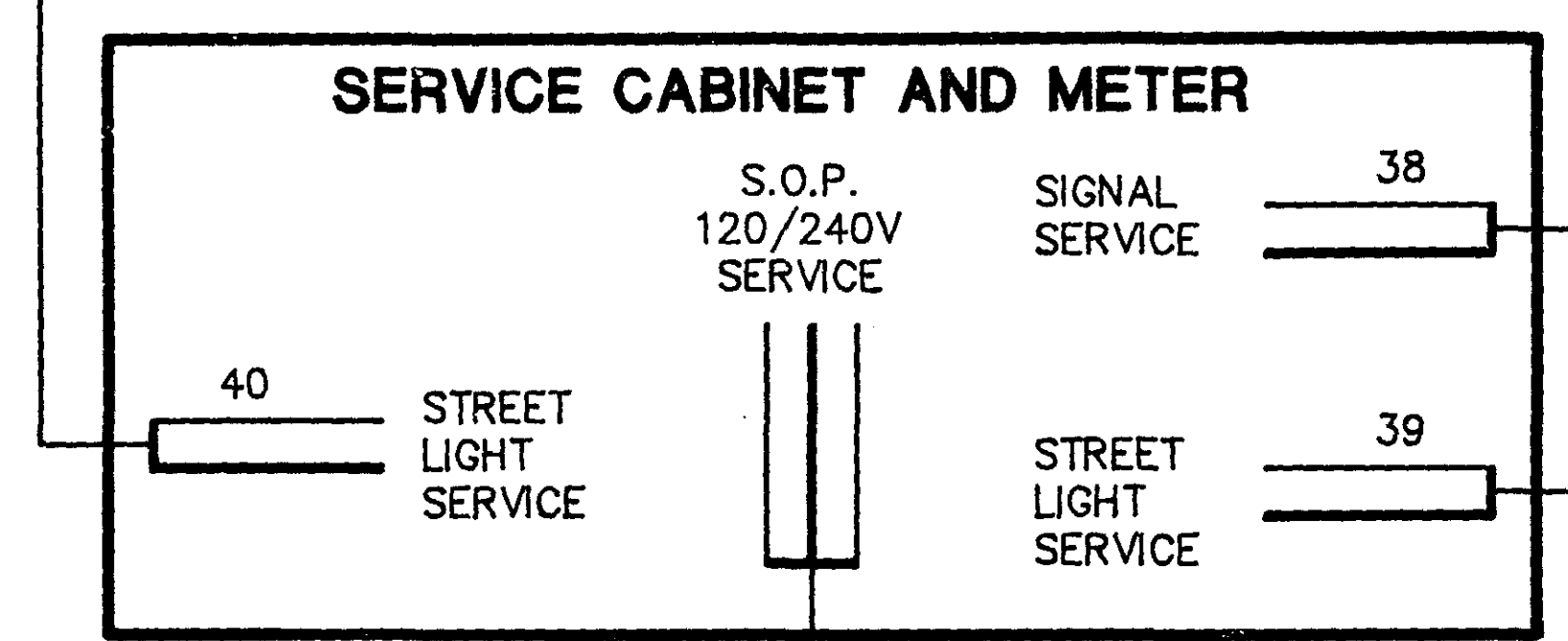
27-121



CONDUCTOR COLOR CODING

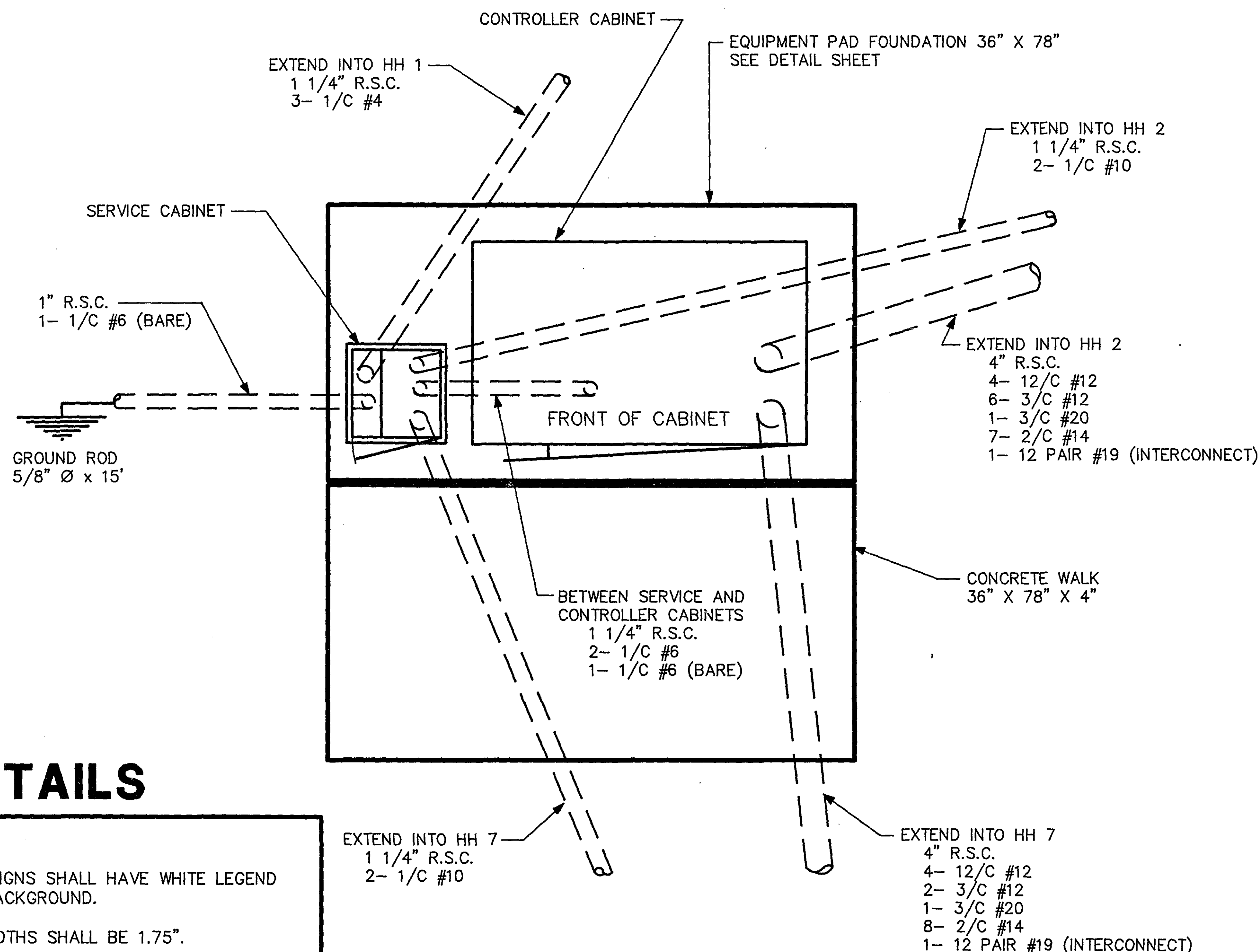
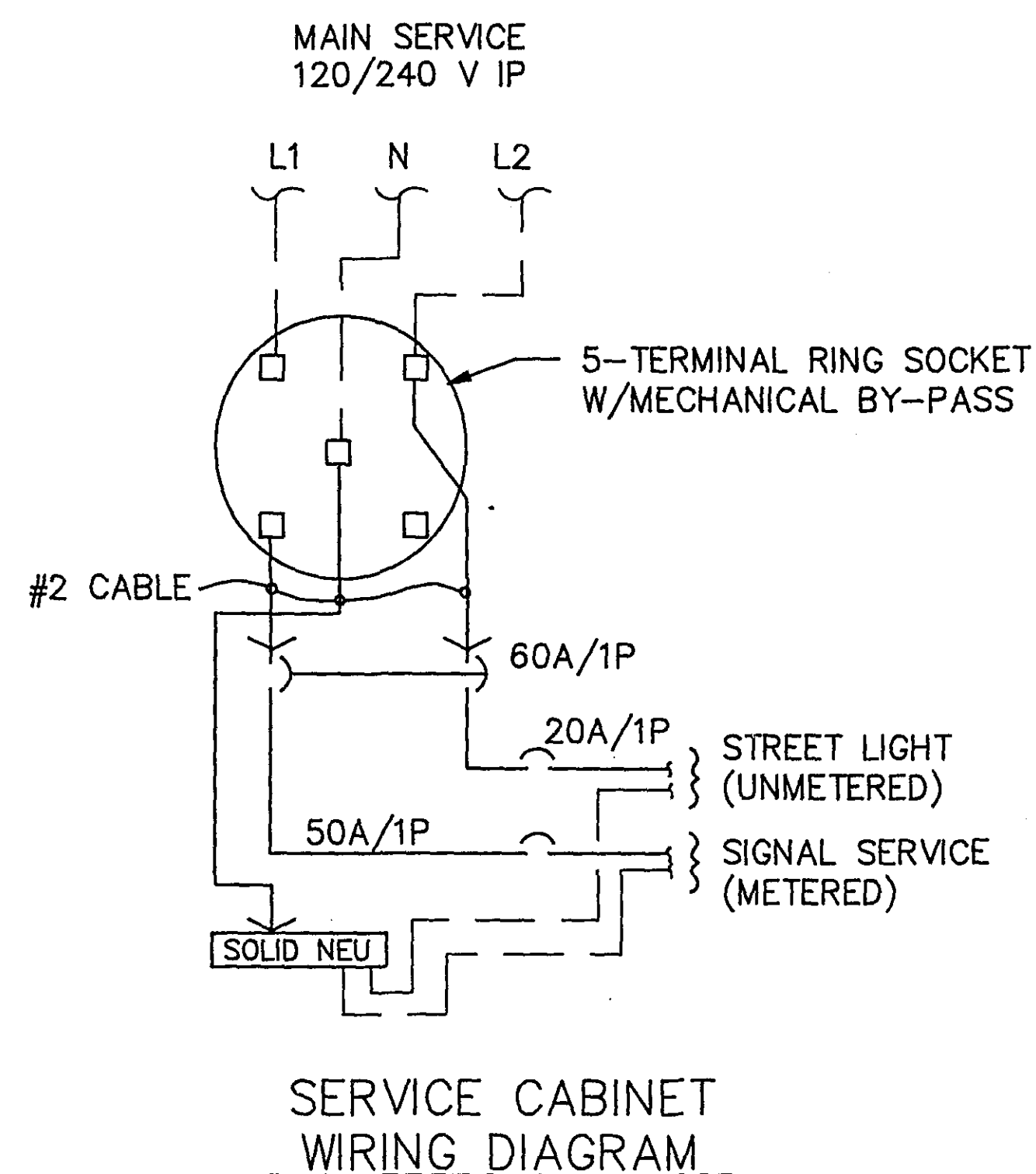
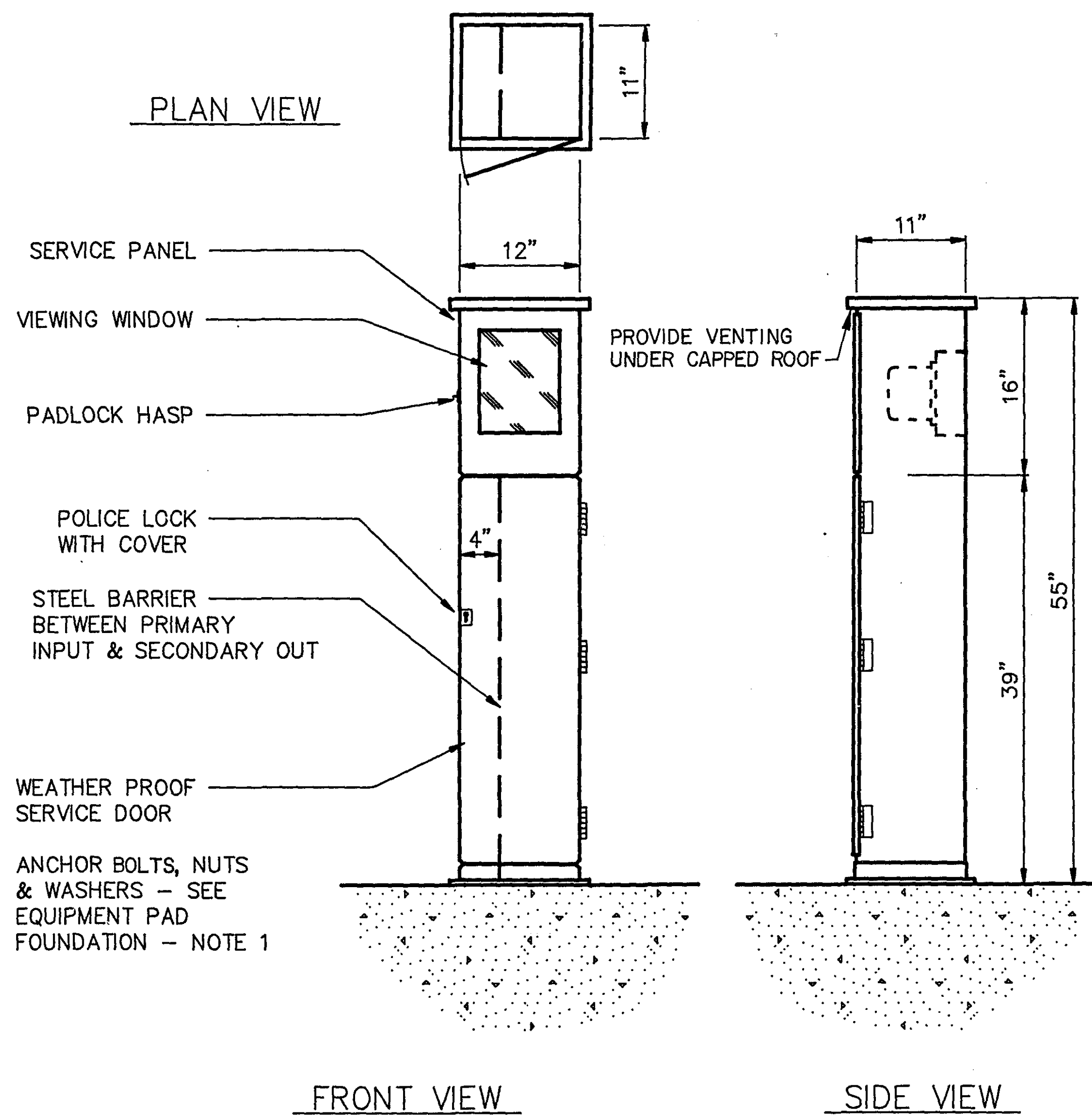
R	BLK	2-1/C#6
O	WH	2-1/C#10
BL	R	3/C#12
WH	WH	3/C#20
R/BLK	BLK	3/C#20
O/BLK	R OR O	3/C#20
BL/BLK	WH OR YEL	3/C#20
WH/BLK	BLK OR BL	3/C#20
BLK	BLK	2/C#14
BLK/WH	CLEAR	2/C#14
G/BLK	GRD	SHEILED CABLE
G		

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

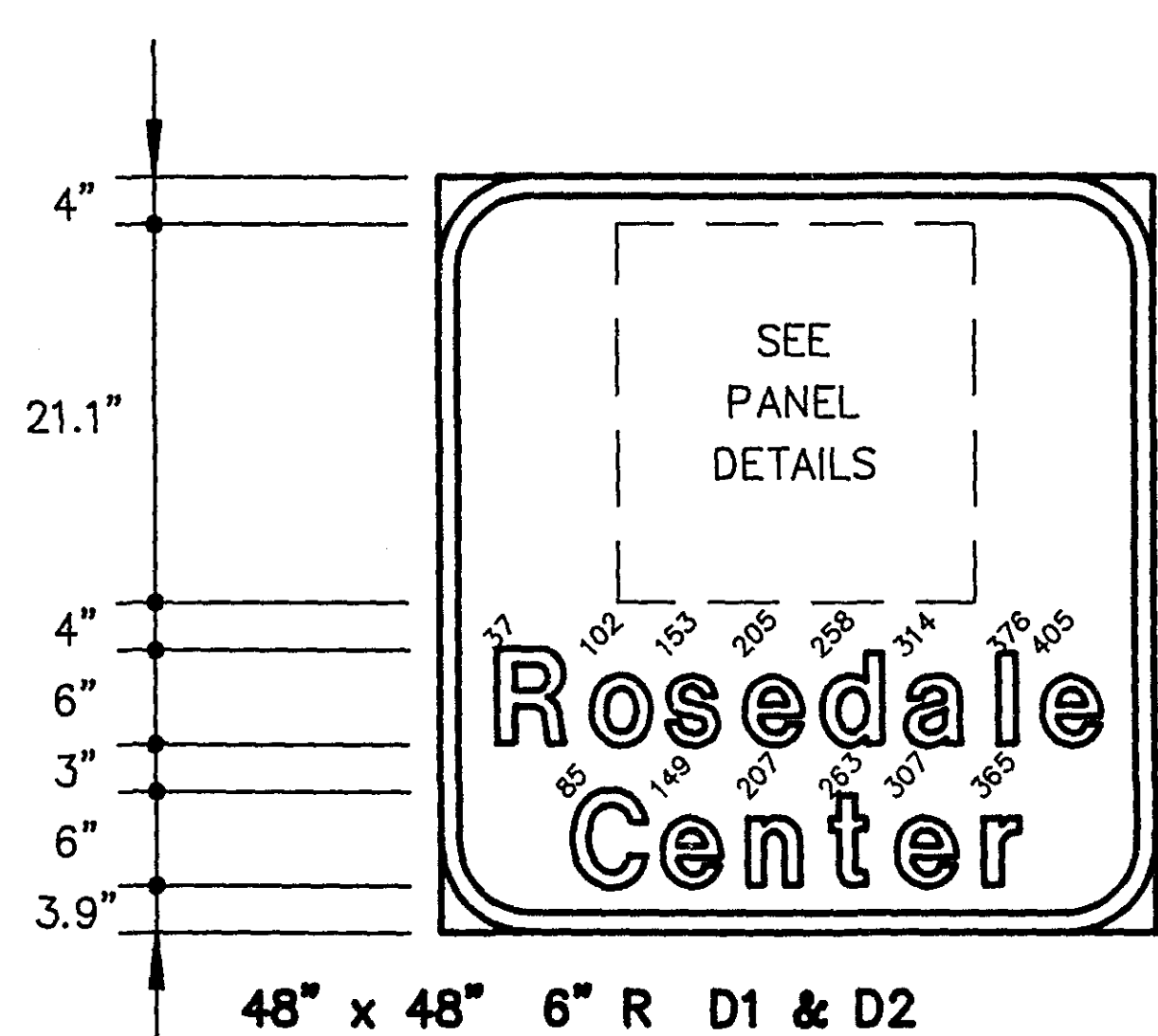


SYSTEM "A"
FIELD WIRING DIAGRAM
 FAIRVIEW AVENUE AT ROSEDALE WEST ENTRANCE
 ROSEVILLE, MN.

ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *[Signature]*
 DATE: 3/12/91



SYSTEM 'A' EQUIPMENT PAD DETAILS



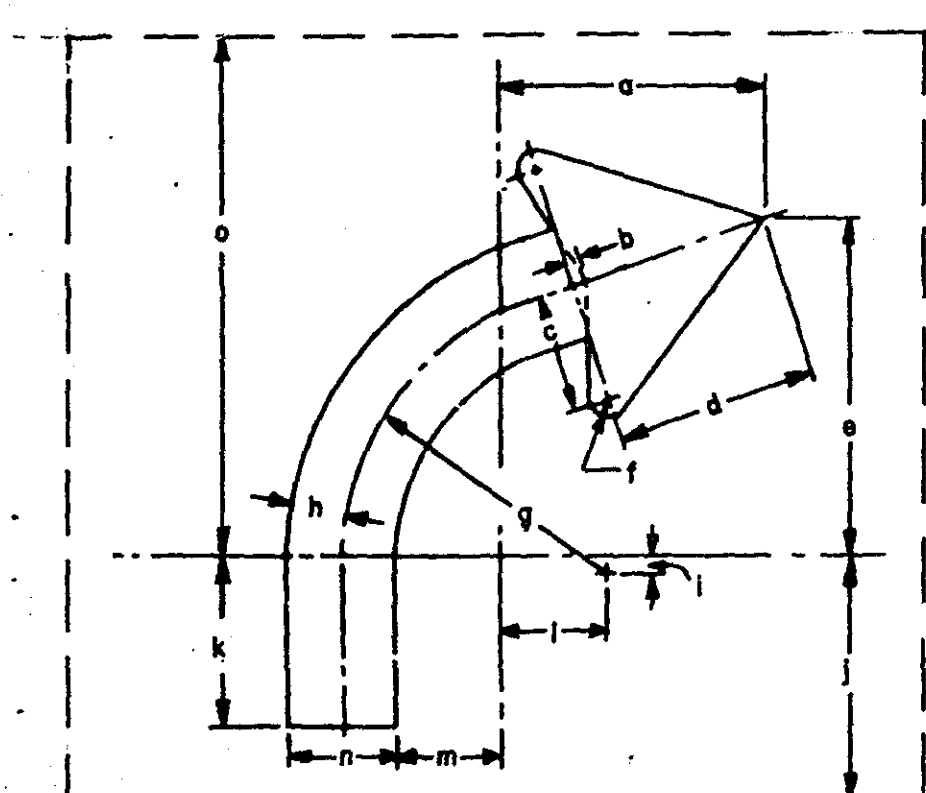
NEW TYPE "D" SIGNS

REFERENCE NUMBER OF INSTALLATION	NUMBER OF INSTALLATIONS	POSTS PER INSTALLATION (QUANTITY-TYPE)	MOUNTING HEIGHT (FEET)	SIGN PANEL SIZE (INCH X INCH)	PANEL AREA (S.F.)	SIGN PANEL CODE NUMBER	SIGN PANEL LEGEND
D-1	1	2-U	7.0	48x48	16.0		ROSEDALE CENTER
D-2	1	2-U	7.0	48x48	16.0		ROSEDALE CENTER

NOTES:

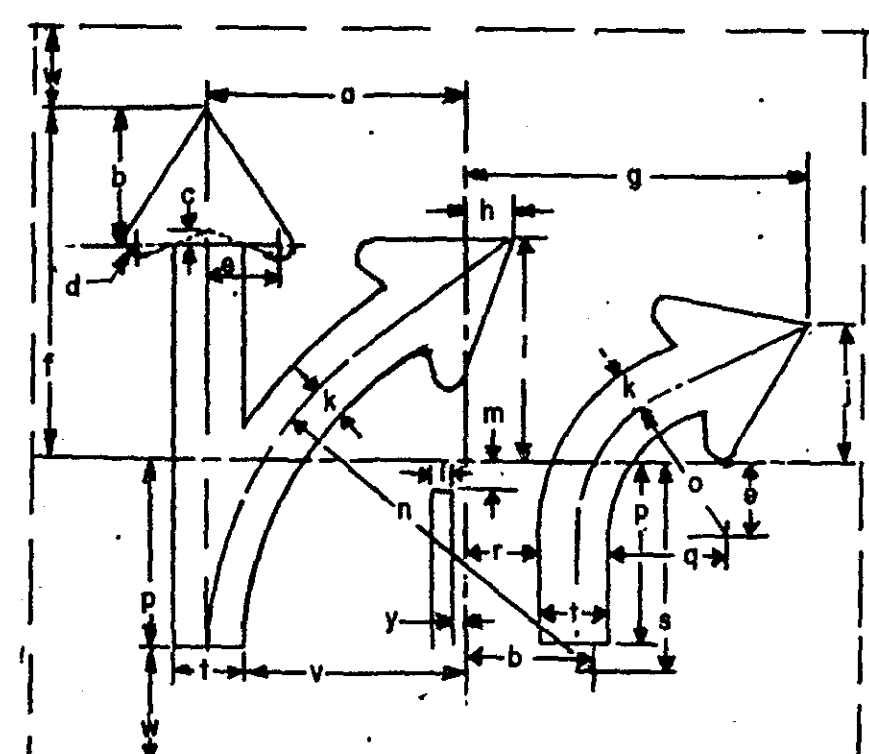
- TYPE "D" SIGNS SHALL HAVE WHITE LEGEND ON GREEN BACKGROUND.
- BORDER WIDTHS SHALL BE 1.75".
- CORNERS OF THE SIGNS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.

48" x 48" 6" R D1 & D2
 LINE 1 ARROW (SEE PANEL DETAIL D-1 & D-2)
 LINE 1 40.7" 6" E MOD
 LINE 2 30.9" 6" E MOD



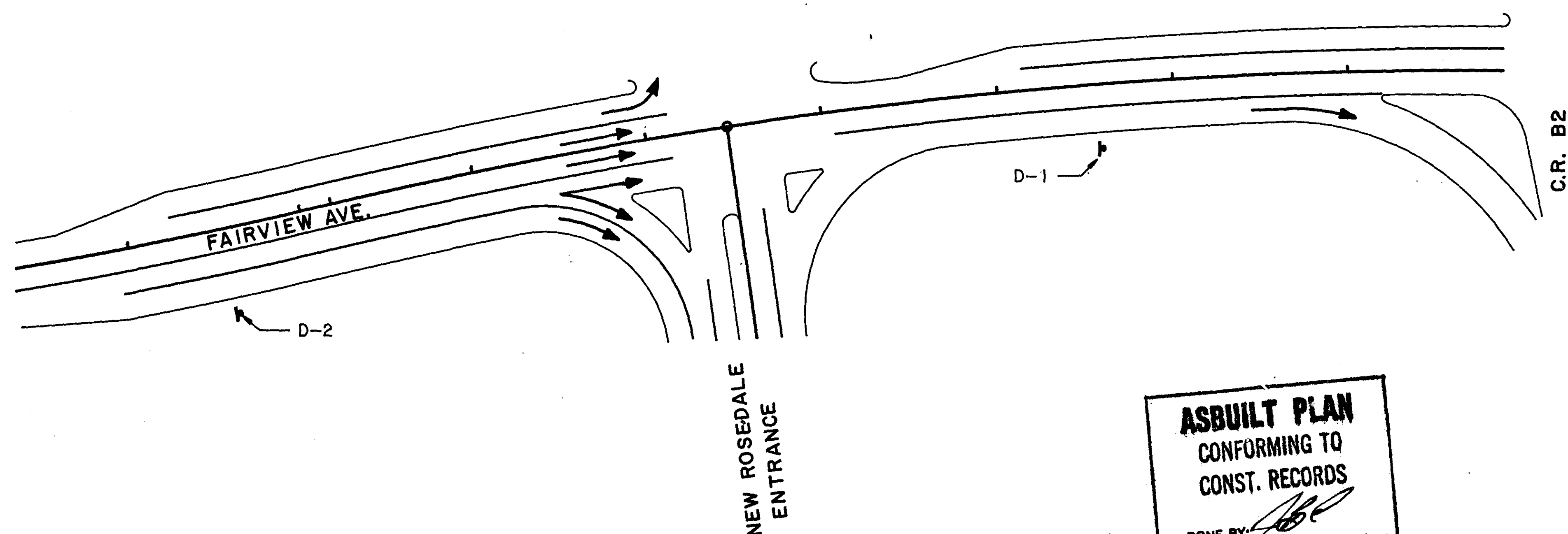
SIGN PANEL D1

MARK	DIM
a	9.2
b	0.5
c	4.3
d	7.6
e	11.2
f	0.75
g	9.5
h	1.9
i	0.5
j	7.3
k	5.7
l	3.7
m	3.9
n	3.8
o	13.8



SIGN PANEL D2

MARK	DIM
a	9.7
b	4.7
c	0.4
d	0.5
e	2.6
f	12.6
g	12.9
h	1.7
i	8
j	5
k	1.2
l	0.75
m	1
n	14.4
o	5.7
p	6.5
q	4.5
r	2.7
s	7.5
t	2.4
v	8.5
w	1.0
y	0.5



ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *AB*
 DATE: 3/12/91

TYPE "D" SIGNS

NOTES

- ALL EQUIPMENT IS EXISTING AND SHALL BE USED INPLACE UNLESS OTHERWISE NOTED.
- WIRING FROM SIGNAL HEADS TO MAST ARM TERMINAL IS INPLACE AND SHALL BE USED INPLACE ON POLES, ①, ② & ④.
- RELOCATE MAST ARM POLE ③, INCLUDING ALL SIGNAL INDICATIONS EXCEPT P4-3.
- RELOCATE CONTROLLER CABINET AND ALL CONTENTS. SALVAGED CABINET TO BE REINSTALLED ON NEW CONCRETE FOUNDATION SEE PLAN FOR LOCATION.
- F&I NEW SIGNAL WIRING FOR COMPLETE SYSTEM, FROM CONTROLLER TO MAST ARM TERMINAL, INCLUDING WIRING FOR SIGNAL FACES, PEDESTRIAN INDICATIONS, PUSHBUTTONS, DETECTORS, AND INTERCONNECT.
- F&I NEW 6' x 20' LOOP DETECTOR FOR D4-3.
- REMOVE HH1, HH 2, HH 11, & HH 12.
- F&I NEW HH 1, HH 2, HH 11, & HH 12.
- EXTEND 4" RSC BETWEEN HH 3-HH 2, AND HH 12 TO HH 11 AS APPROPRIATE.
- RELOCATE SOP WOOD POLE, INCLUDING 3-SETS OF SERVICE EQUIPMENT, RISERS, AND EVP DETECTOR. SEE PLAN FOR NEW LOCATION. ADD DOWN GUY.
- NEW HANDHOLES SHALL BE CONCRETE HANDHOLES WITH TYPE "C" COVERS.
- DETECTOR LOOPS DI-1, D2-1, D5-1, D6-1, D-4 AND D-5 TO BE REPLACED AND PAID FOR UNDER COUNTY PLAN-S.A.P. 62-648-14.
- INSTALL 2" R.S.C. FROM IB TO RELOCATED WOOD POLE S.O.P., INCLUDE IN PRICE BID OF OTHER ITEMS.

- HH 13 TO HH 15:
3" R.S.C. (INPLACE)
2-12/C #12
1-3/C #12
1-3/C #20
2-1/C #10
3-2/C #14
- HH 15 TO HH 16:
3" R.S.C. (INPLACE)
2-12/C #12
1-3/C #12
1-3/C #20
2-2/C #14
2-1/C #10
- HH 16 TO HH 18:
3" R.S.C. (INPLACE)
2-12/C #12
1-3/C #12
1-3/C #20
2-1/C #10
1-2/C #14
- HH 16 TO HH 17:
1 1/4" R.S.C. (INPLACE)
1-2/C #14

- HH 11 TO HH 12:
4" R.S.C. (EXTEND)
4-12/C #12
2-3/C #12
1-3/C #20
9-2/C #14
2-1/C #10
- HH 12 TO HH 13:
3" R.S.C. (INPLACE)
4-12/C #12
2-3/C #12
1-3/C #20
4-2/C #14
2-1/C #10
- HH 13 TO HH 14:
1 1/4" R.S.C. (INPLACE)
1-2/C #14

LOOP DETECTORS

NUMBER	SIZE	FUNCTION	LOCATION *
D1-1	4-6' x 6'	CALL & EXTEND	5'
D2-1	2-6' x 6'	CALL & EXTEND	180'
D4-1	6' x 6'	EXTEND ONLY	180'
D4-2	6' x 20'	CALL & EXTEND	5'
D4-3	6' x 20'	CALL & EXTEND	5'
D5-1	4-6' x 6'	CALL & EXTEND	5'
D6-1	3-6' x 6'	CALL & EXTEND	180'
D8-1	2-6' x 6'	CALL & EXTEND	180'
D8-2	4-6' x 6'	CALL & EXTEND	5'
D8-3	6' x 20'	CALL & EXTEND	5'
D8-4	6' x 20'	DELAYED CALL-IMMEDIATE EXTEND	5'
D-4	6' x 6'	SYSTEM SAMPLING DETECTOR	STA. 1105+25
D-5	6' x 6'	SYSTEM SAMPLING DETECTOR	STA. 1105+25
D-6	6' x 6'	SYSTEM SAMPLING DETECTOR	STA. 1105+50
D-7	6' x 6'	SYSTEM SAMPLING DETECTOR	STA. 1105+60
D-12	6' x 6'	SYSTEM SAMPLING DETECTOR	360'

* LOCATION IS DISTANCE BACK FROM STOP BAR
ALL DETECTORS ARE INPLACE, EXCEPT D4-3.

(A) EQUIPMENT PAD CONTROLLER & CABINET

- EXTEND INTO HH 1:
4" RSC
4-12/C #12
2-3/C #12
2-3/C #20
6-2/C #14
1-25 PAIR #19
(INTERCONNECT)
- EXTEND INTO HH 11:
4" RSC
4-12/C #12
2-3/C #12
2-3/C #20
9-2/C #14
2-1/C #6
1-1/C #6 (BARE)
1-12 PAIR #19
(INTERCONNECT)

(B) RELOCATE SOP 45' WOOD POLE, INCLUDING SERVICE EQUIPMENT, RISER, & EVP DETECTOR. INSTALL DOWN GUY.

- EXTEND INTO HH 11:
2" RSC
2-1/C #6
1-1/C #6 (BARE)
4-1/C #10
- EVP DETECTOR
EXTEND INTO HH 11:
1 1/4" R.S.C.
1-3/C #20

(C) PEDESTRIAN PUSHBUTTON STATION (INPLACE) SALVAGE PUSHBUTTON PB4-2 & SIGN EXTEND INTO HH 13 (INPLACE): 1-3/C #12

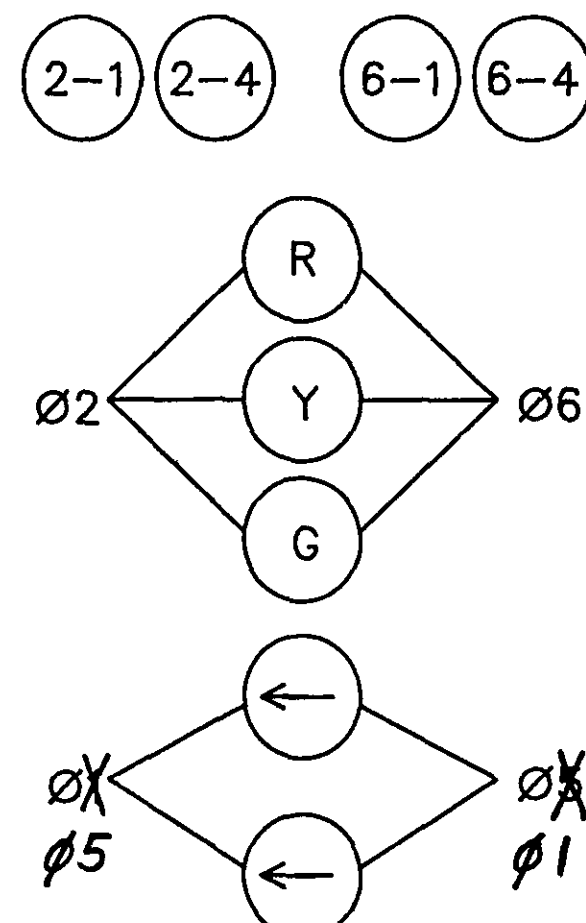
- ① INPLACE MAST ARM POLE
EXTEND INTO HH 18:
3" R.S.C. (INPLACE)
2-12/C #12
1-3/C #12
1-3/C #20
2-1/C #10

- ② INPLACE MAST ARM POLE
EXTEND INTO HH 13:
3" R.S.C. (INPLACE)
2-12/C #12

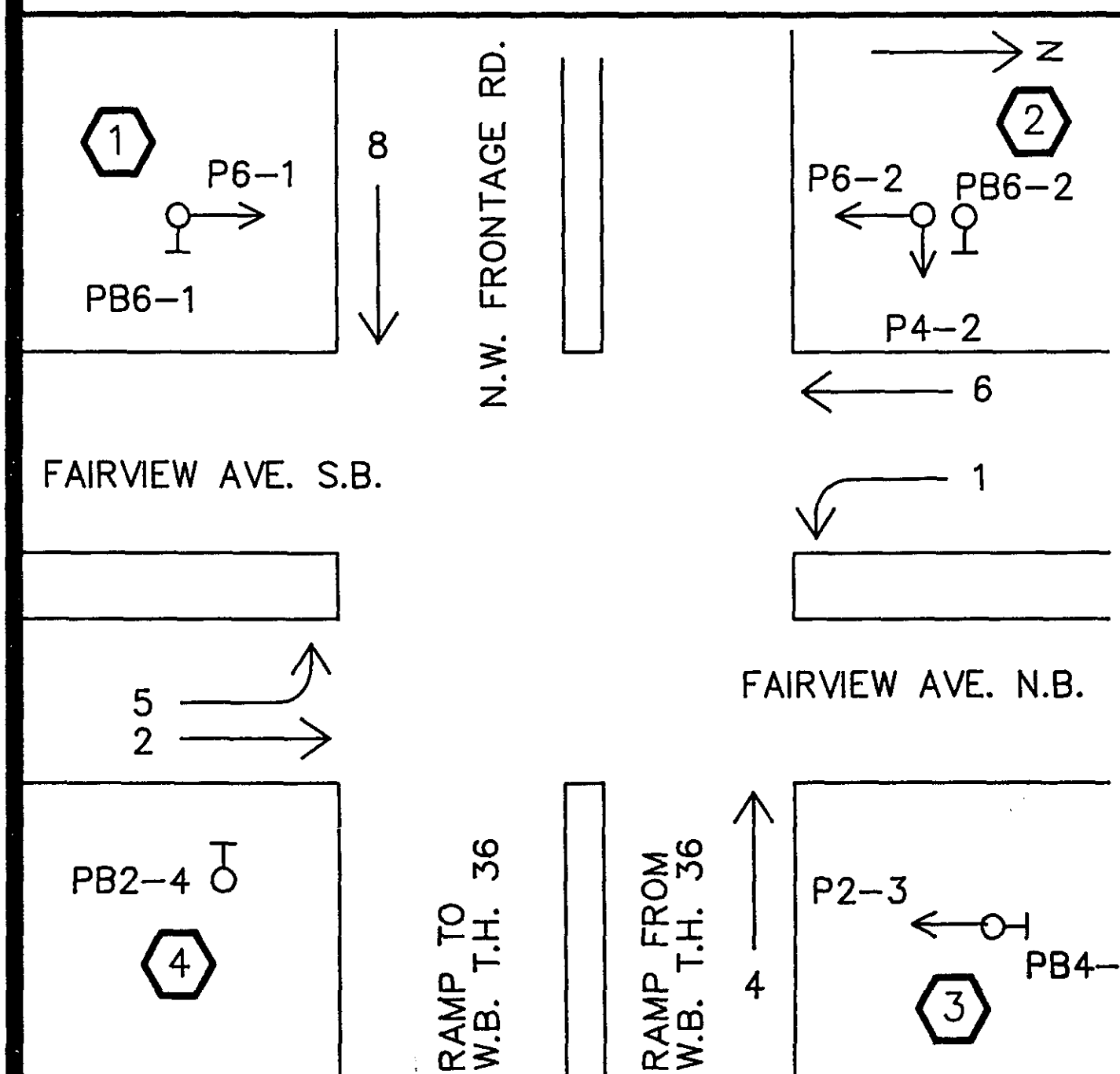
- ④ INPLACE MAST ARM POLE
EXTEND INTO HH 5:
3" R.S.C. (INPLACE)
2-12/C #12
1-3/C #12
1-3/C #20

- HH 1 TO HH 11:
2" R.S.C.
2-1/C #10
- HH 2 TO HH 3:
4" R.S.C. (EXTEND)
2-12/C #12
1-3/C #12
1-3/C #20
6-2/C #14
1-25 PAIR #19
(INTERCONNECT)
- HH 1 TO HH 2:
4" R.S.C.
4-12/C #12
2-3/C #12
2-3/C #20
6-2/C #14
2-1/C #10
1-25 PAIR #19
(INTERCONNECT)
- ③ RELOCATE MAST ARM POLE
P90 POLE FOUNDATION
SALVAGE & REINSTALL ALL SIGNAL FACES,
LUMINAIRE AND PEDESTRIAN PUSHBUTTON
SALVAGE PEDESTRIAN INDICATION P4-3
EXTEND INTO HH 2:
3" R.S.C.
2-12/C #12
1-3/C #12
1-3/C #20
2-1/C #10

SIGNAL HEAD PHASING



CONTROLLER PHASING-PEDESTRIAN INDICATIONS AND PUSH BUTTON LAYOUT



SCALE IN FEET
0 10 20 40

SYSTEM "B" INTERSECTION LAYOUT FAIRVIEW AVE. AT T.H. 36 W.B. RAMPS & FRONTAGE RD. ROSEVILLE, MN.

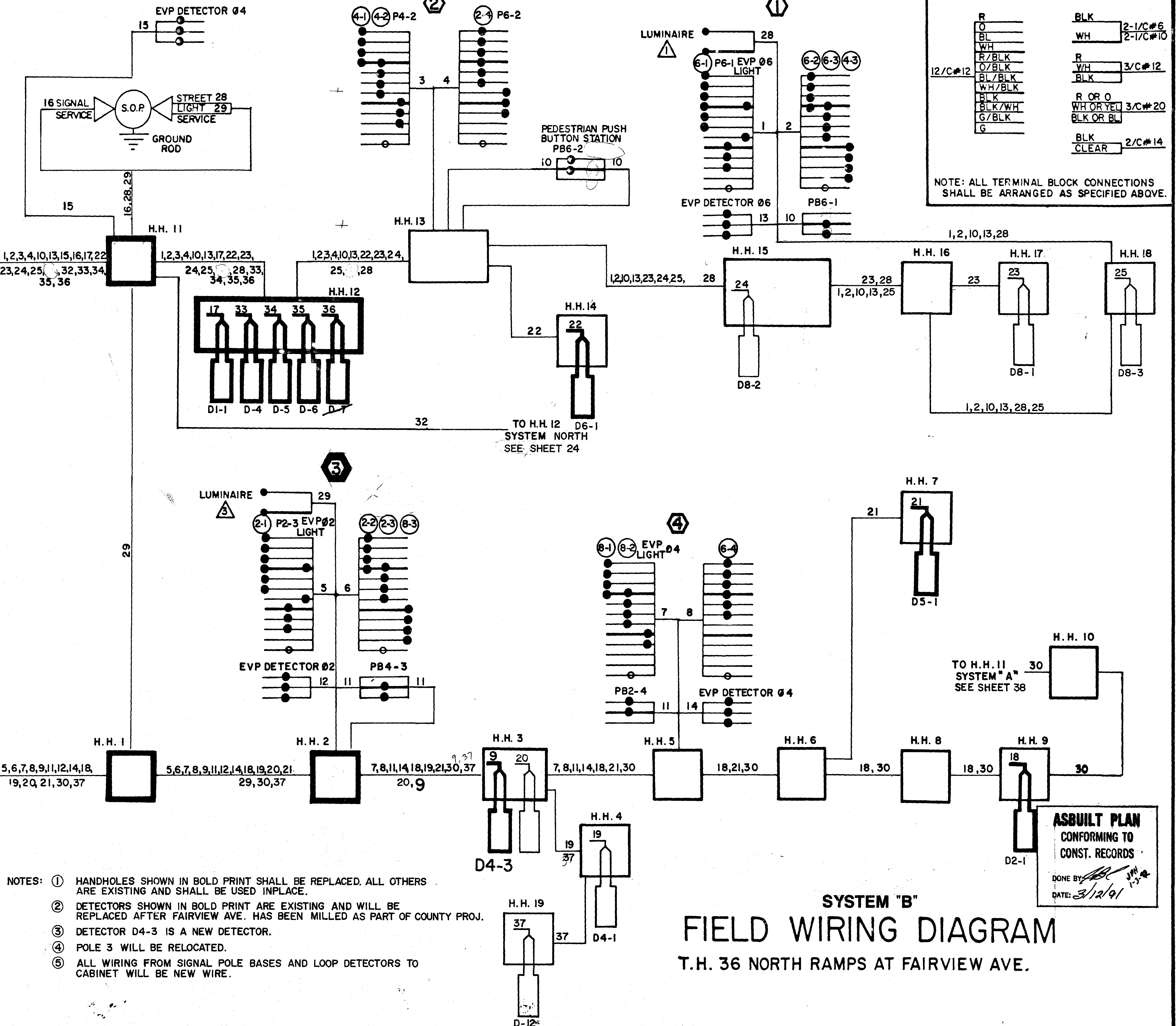
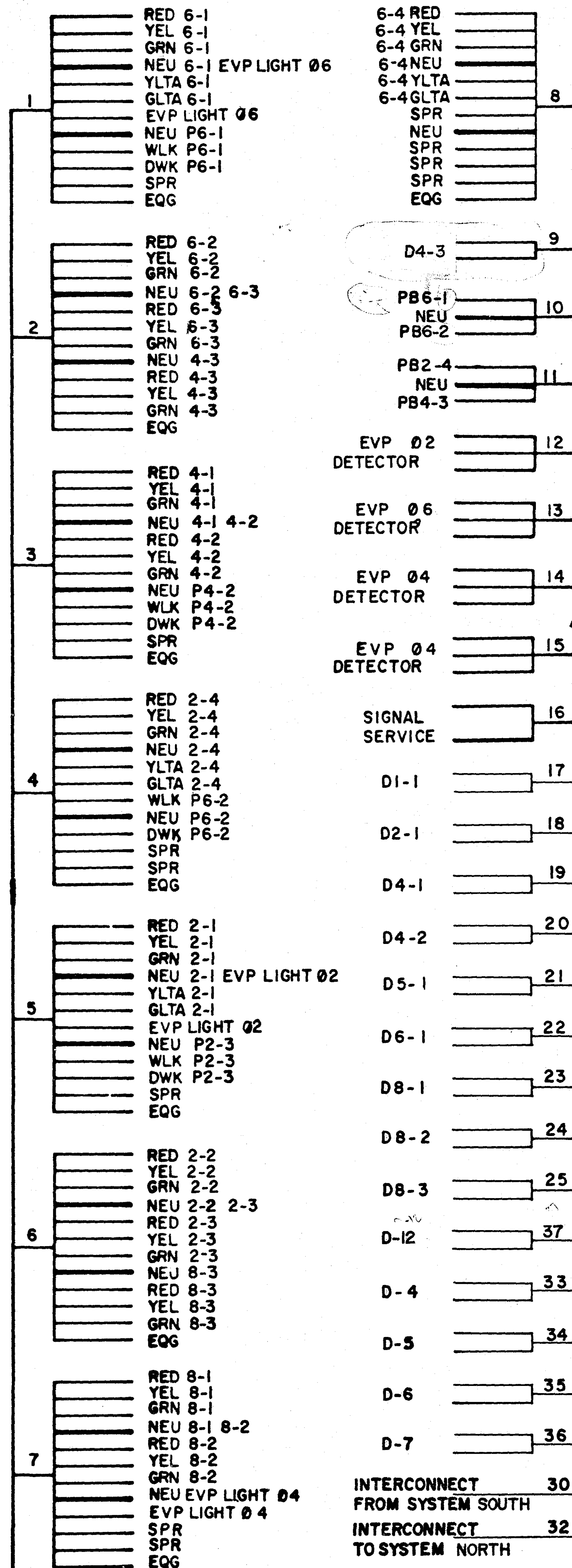
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CONTROLLER CABINET



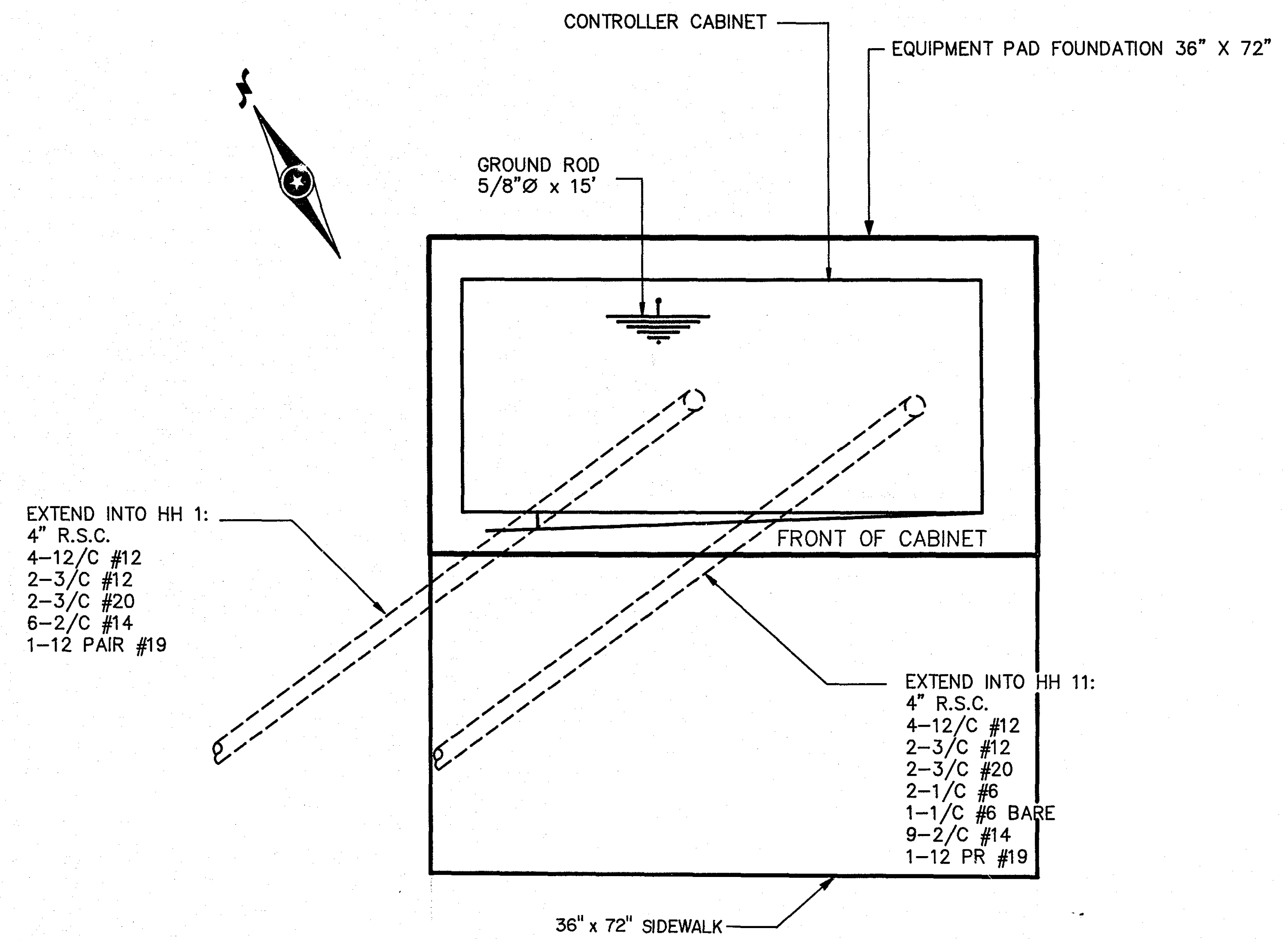
CONDUCTOR COLOR CODING

R	BLK	2-1/C#6
O	WH	2-1/C#10
BL		
WH		
R/BLK	R	3/C#12
O/BLK	WH	3/C#12
BL/BLK	BLK	
WH/BLK		
BLK	R OR O	3/C#20
BLK/WH	WH OR YEL	3/C#20
G/BLK	BLK OR BL	
G	BLK	2/C#14
	CLEAR	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

SYSTEM "B" FIELD WIRING DIAGRAM T.H. 36 NORTH RAMPS AT FAIRVIEW AVE.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: [Signature]
DATE: 3/12/91



ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *[Signature]*
 DATE: 3/18/91

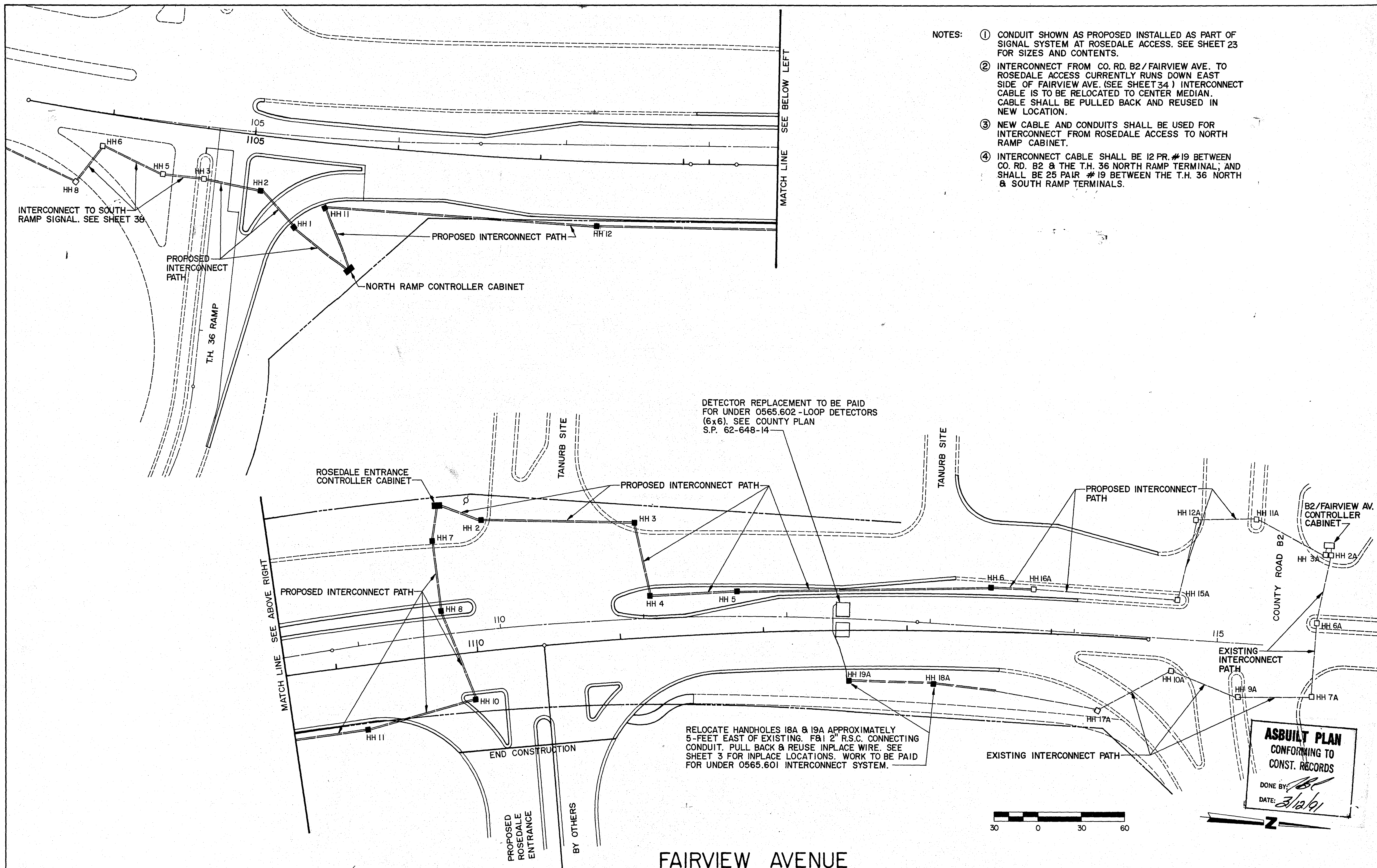
SYSTEM "B"
EQUIPMENT PAD DETAILS
 FAIRVIEW AVE. AT T.H. 36 W.B. RAMPS & W. FRONTAGE RD.
 ROSEVILLE, MN.

Barton-Aschman Associates, Inc.

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- NOTES:
- ① CONDUIT SHOWN AS PROPOSED INSTALLED AS PART OF SIGNAL SYSTEM AT ROSEDALE ACCESS. SEE SHEET 23 FOR SIZES AND CONTENTS.
 - ② INTERCONNECT FROM CO. RD. B2 / FAIRVIEW AVE. TO ROSEDALE ACCESS CURRENTLY RUNS DOWN EAST SIDE OF FAIRVIEW AVE. (SEE SHEET 34) INTERCONNECT CABLE IS TO BE RELOCATED TO CENTER MEDIAN. CABLE SHALL BE PULLED BACK AND REUSED IN NEW LOCATION.
 - ③ NEW CABLE AND CONDUITS SHALL BE USED FOR INTERCONNECT FROM ROSEDALE ACCESS TO NORTH RAMP CABINET.
 - ④ INTERCONNECT CABLE SHALL BE 12 PR. #19 BETWEEN CO. RD. B2 & THE T.H. 36 NORTH RAMP TERMINAL; AND SHALL BE 25 PAIR #19 BETWEEN THE T.H. 36 NORTH & SOUTH RAMP TERMINALS.

DETECTOR REPLACEMENT TO BE PAID FOR UNDER 0565.602 - LOOP DETECTORS (6x6). SEE COUNTY PLAN S.P. 62-648-14

RELOCATE HANDHOLES 18A & 19A APPROXIMATELY 5- FEET EAST OF EXISTING. F&I 2" R.S.C. CONNECTING CONDUIT. PULL BACK & REUSE INPLACE WIRE. SEE SHEET 3 FOR INPLACE LOCATIONS. WORK TO BE PAID FOR UNDER 0565.601 INTERCONNECT SYSTEM.

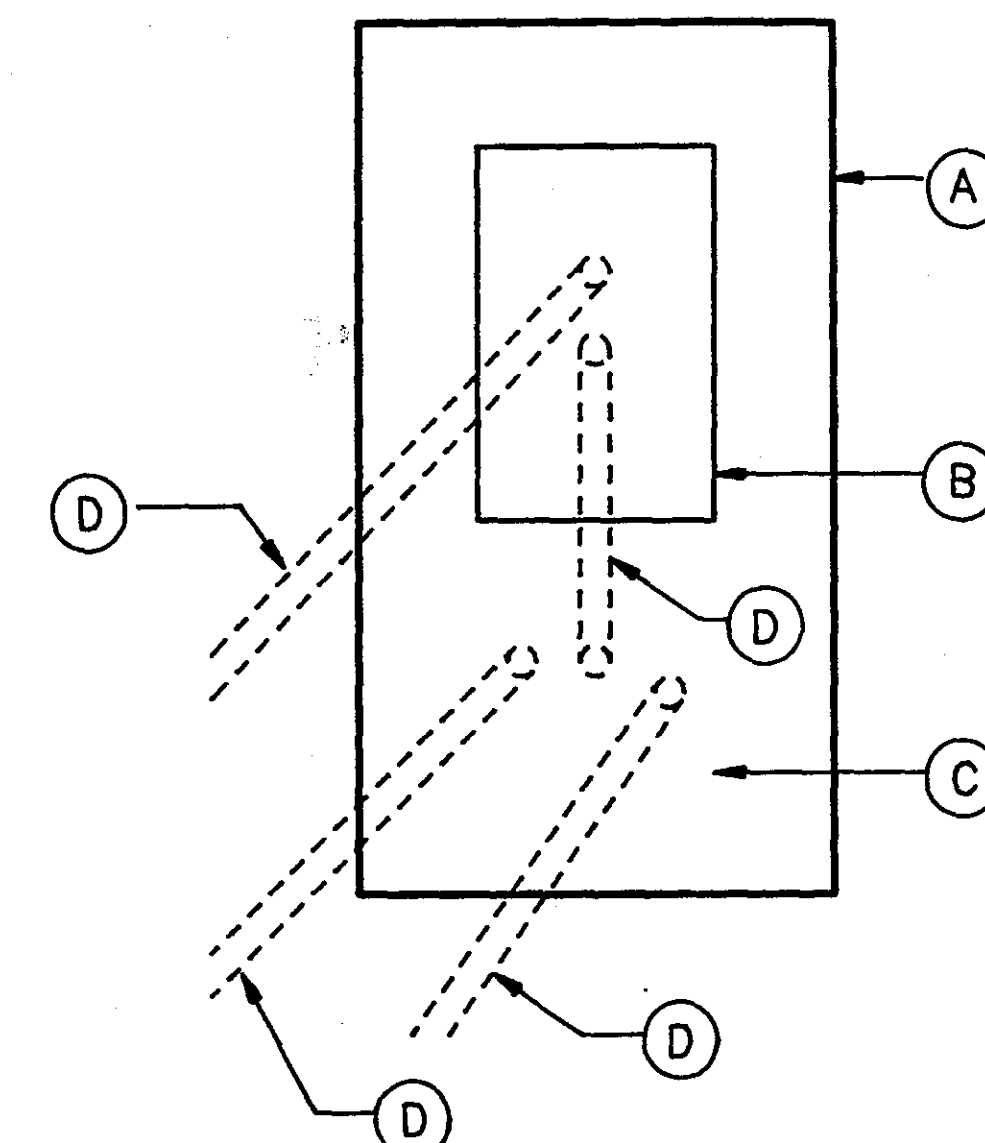
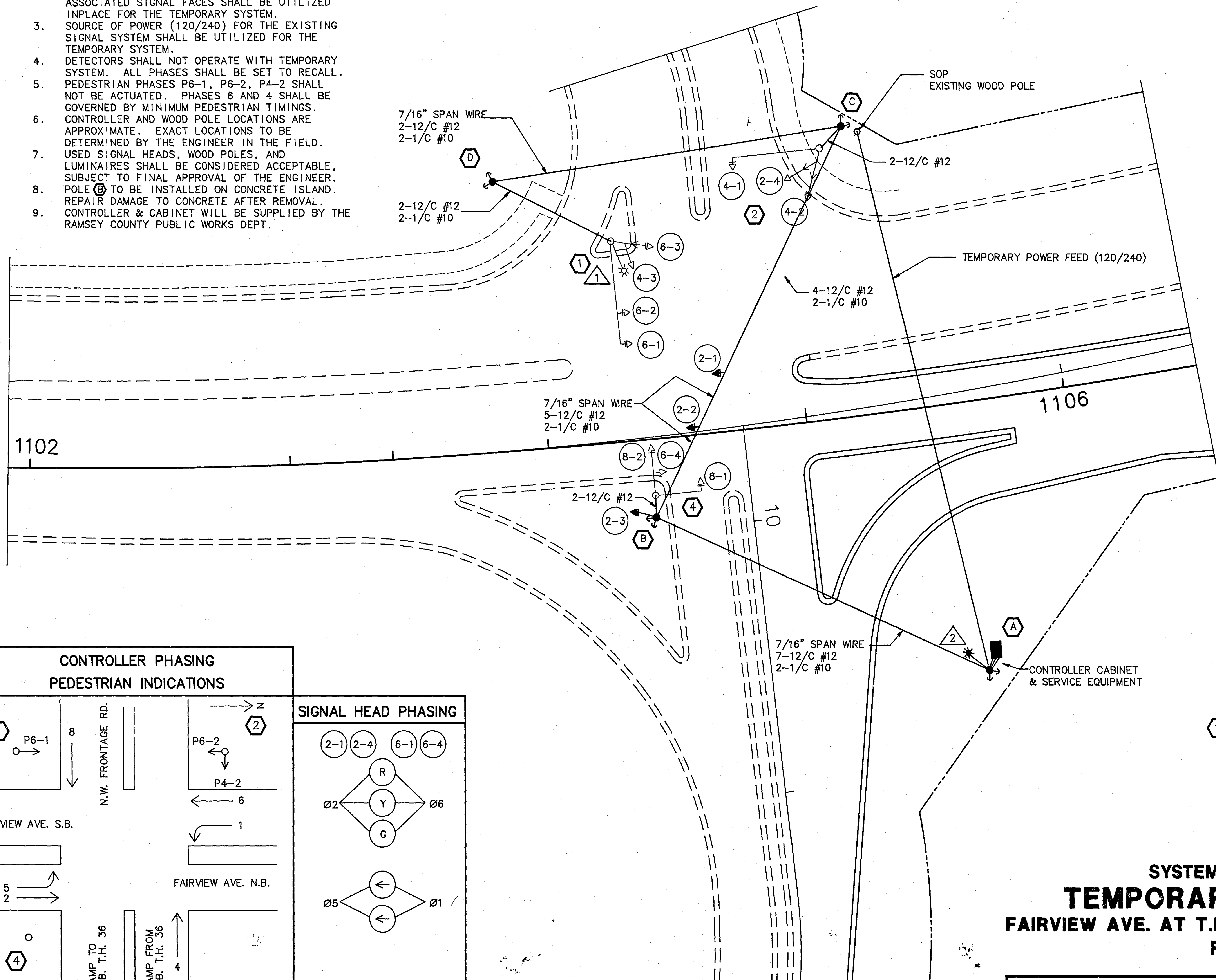
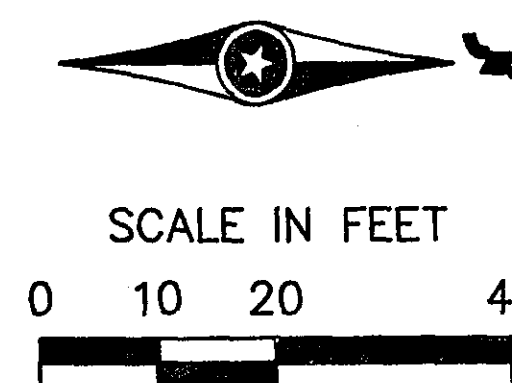
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 2/12/91

DESIGN	PSM	SCALE	NO.	DATE	REVISION	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. #REGIS. NO. _____ DATE _____	Barton-Aschman Associates, Inc. 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401	FAIRVIEW AVENUE WIDENING ROSEVILLE, MINNESOTA	SIGNAL INTERCONNECT PLAN	FILE NO.	SHEET
CHECKED	CTR	AS								5326-09-01	NO. 29
DRAWN	SAP	SHOWN								DATE	3/30/90
											OF 40

State Proj No.

NOTES:

1. SIGNAL FACE 2-1 SHALL BE A 12" 5-SECTION HEAD R-Y-G-YLTA-GLTA. SIGNAL FACE 2-2 & 2-3 SHALL BE A 12" 3-SECTION HEAD R-Y-G. ALL SHALL HAVE BACKGROUND SHIELDS.
2. MAST ARM POLES ①, ② & ④ AND THEIR ASSOCIATED SIGNAL FACES SHALL BE UTILIZED INPLACE FOR THE TEMPORARY SYSTEM.
3. SOURCE OF POWER (120/240) FOR THE EXISTING SIGNAL SYSTEM SHALL BE UTILIZED FOR THE TEMPORARY SYSTEM.
4. DETECTORS SHALL NOT OPERATE WITH TEMPORARY SYSTEM. ALL PHASES SHALL BE SET TO RECALL.
5. PEDESTRIAN PHASES P6-1, P6-2, P4-2 SHALL NOT BE ACTUATED. PHASES 6 AND 4 SHALL BE GOVERNED BY MINIMUM PEDESTRIAN TIMINGS.
6. CONTROLLER AND WOOD POLE LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
7. USED SIGNAL HEADS, WOOD POLES, AND LUMINAIRES SHALL BE CONSIDERED ACCEPTABLE, SUBJECT TO FINAL APPROVAL OF THE ENGINEER.
8. POLE ⑤ TO BE INSTALLED ON CONCRETE ISLAND. REPAIR DAMAGE TO CONCRETE AFTER REMOVAL.
9. CONTROLLER & CABINET WILL BE SUPPLIED BY THE RAMSEY COUNTY PUBLIC WORKS DEPT.



FOUNDATION DETAIL

- (A) CONCRETE FOUNDATION, (SIZE TO BE DETERMINED BY ENGINEER IN THE FIELD).
- (B) SPACE FOR CONTROLLER CABINET
- (C) SPACE FOR LOAD CENTER
- (D) 2" R.S.C.

- (A) 50' WOOD POLE - CLASS 2
2 DOWN GUYS, GUARD, & EXPANDING ANCHORS
LUMINAIRE - 200 WATT HPS
8' LUMINAIRE MAST ARM
METAL JUNCTION BOX
BELOW JUNCTION BOX:
2" R.S.C. TO LOAD CENTER
2-1/C #6
2-1/C #6 (BARE)
ABOVE JUNCTION BOX:
2 R.S.C. RISER & WEATHERHEAD
120/240 POWER FEED

- 2" R.S.C. TO CONTROLLER CABINET
RISER AND WEATHERHEAD
7-1/C #12
- 2" R.S.C. TO LOAD CENTER
RISER & WEATHERHEAD
4-1/C #10

- ① ② ④ INPLACE MAST ARM POLES
- (C) (D) 50' WOOD POLE - CLASS 2
2-DOWN GUYS, GUARD & EXPANDING ANCHORS
- (B) 50' WOOD POLE - CLASS 2
2-DOWN GUYS, GUARD, & EXPANDING ANCHORS
1 TYPE 10A POLE MOUNTED
METAL JUNCTION BOX
2-12/C #12
2" RSC RISER ABOVE JUNCTION BOX
2-12/C #12

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91

SYSTEM "C"
TEMPORARY SIGNAL SYSTEM
FAIRVIEW AVE. AT T.H. 36 W.B. RAMPS & FRONTAGE RD.
ROSEVILLE, MN.

Barton-Aschman Associates, Inc.

State Proj. No.

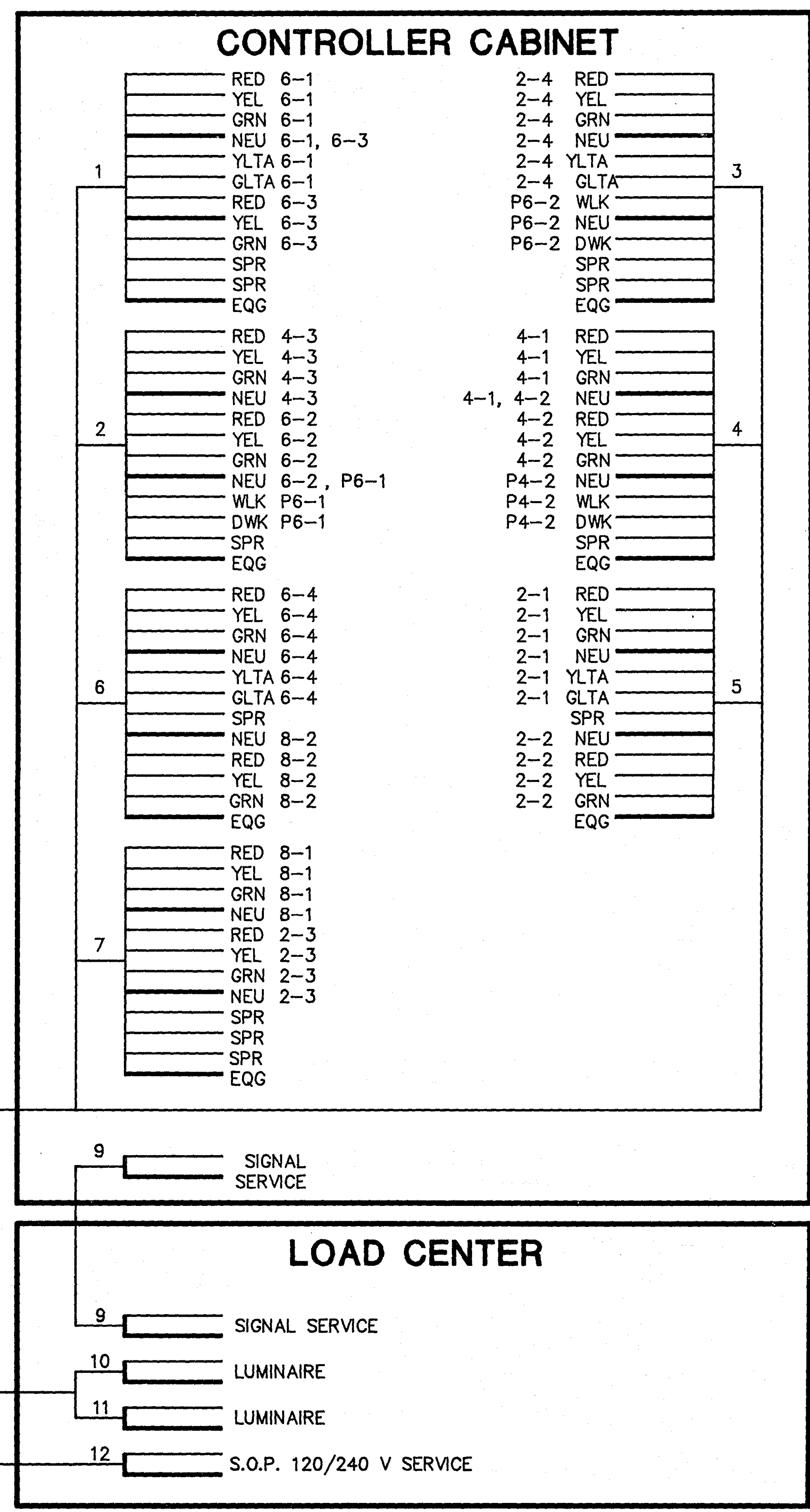
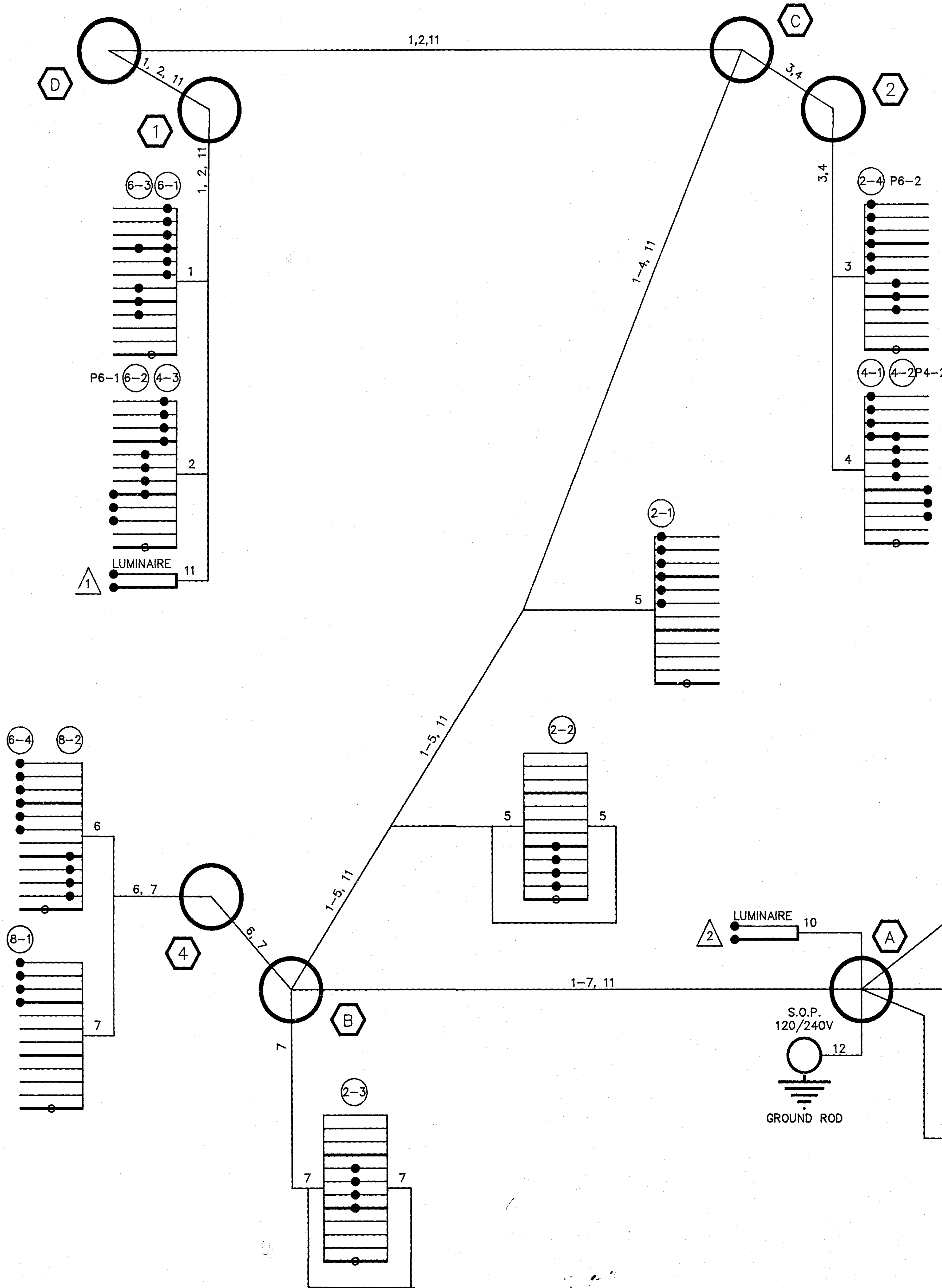
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CONDUCTOR COLOR CODING

R	BLK	2-1/C#6
O	WH	2-1/C#10
BL	R	3/C#12
WH	WH	3/C#20
R/BLK	BLK	
O/BLK	R OR O	
BL/BLK	WH OR YEL	
WH/BLK	BLK OR BL	
BLK	BLK	2/C#14
BLK/WH	CLEAR	
G/BLK	GRD	SHEILDED CABLE
G		

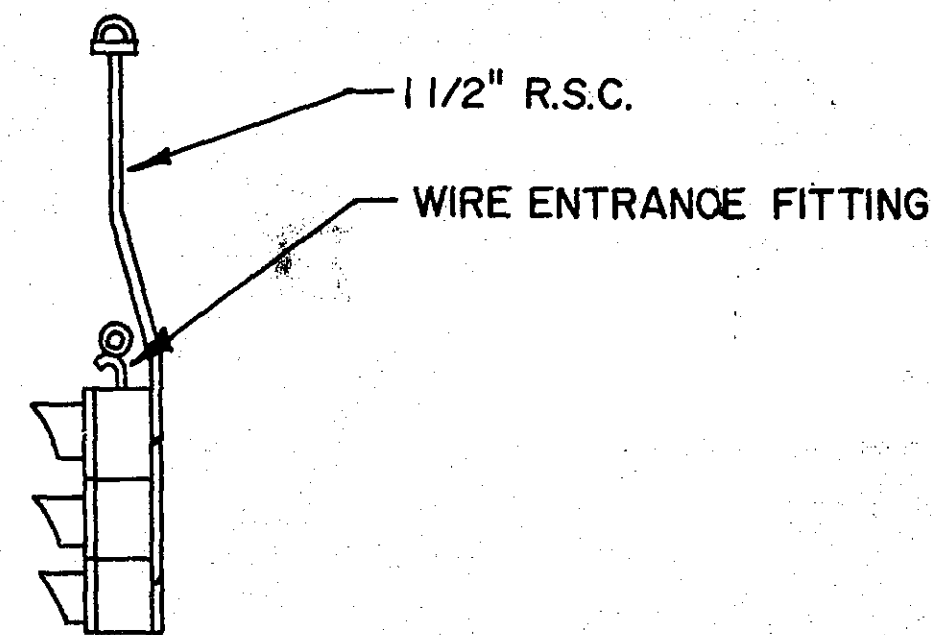
NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE



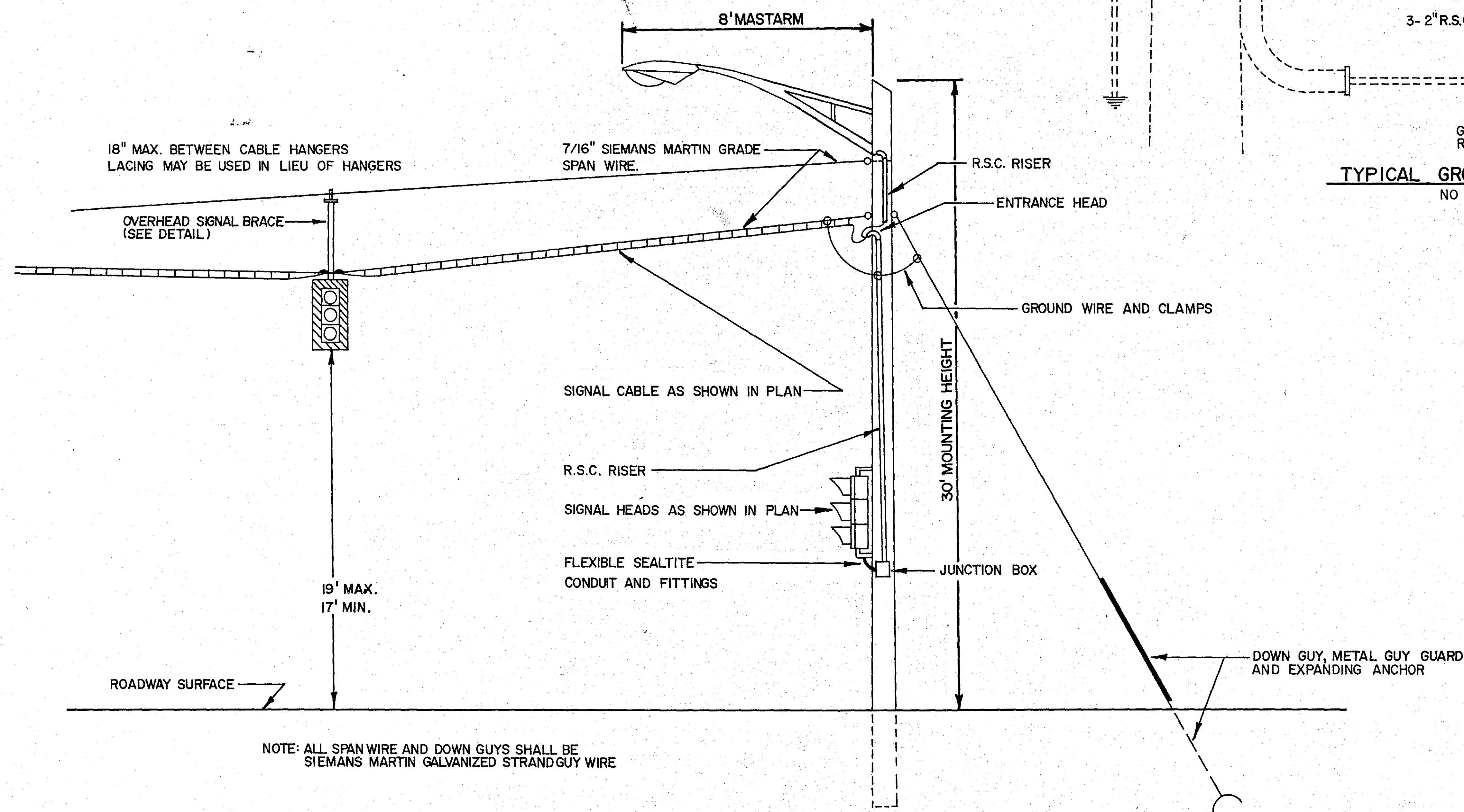
FIELD WIRING DIAGRAM
TEMPORARY SIGNAL SYSTEM
FAIRVIEW AVENUE AT T.H. 36 RAMPS
ROSEVILLE, MN.

SYSTEM "C"

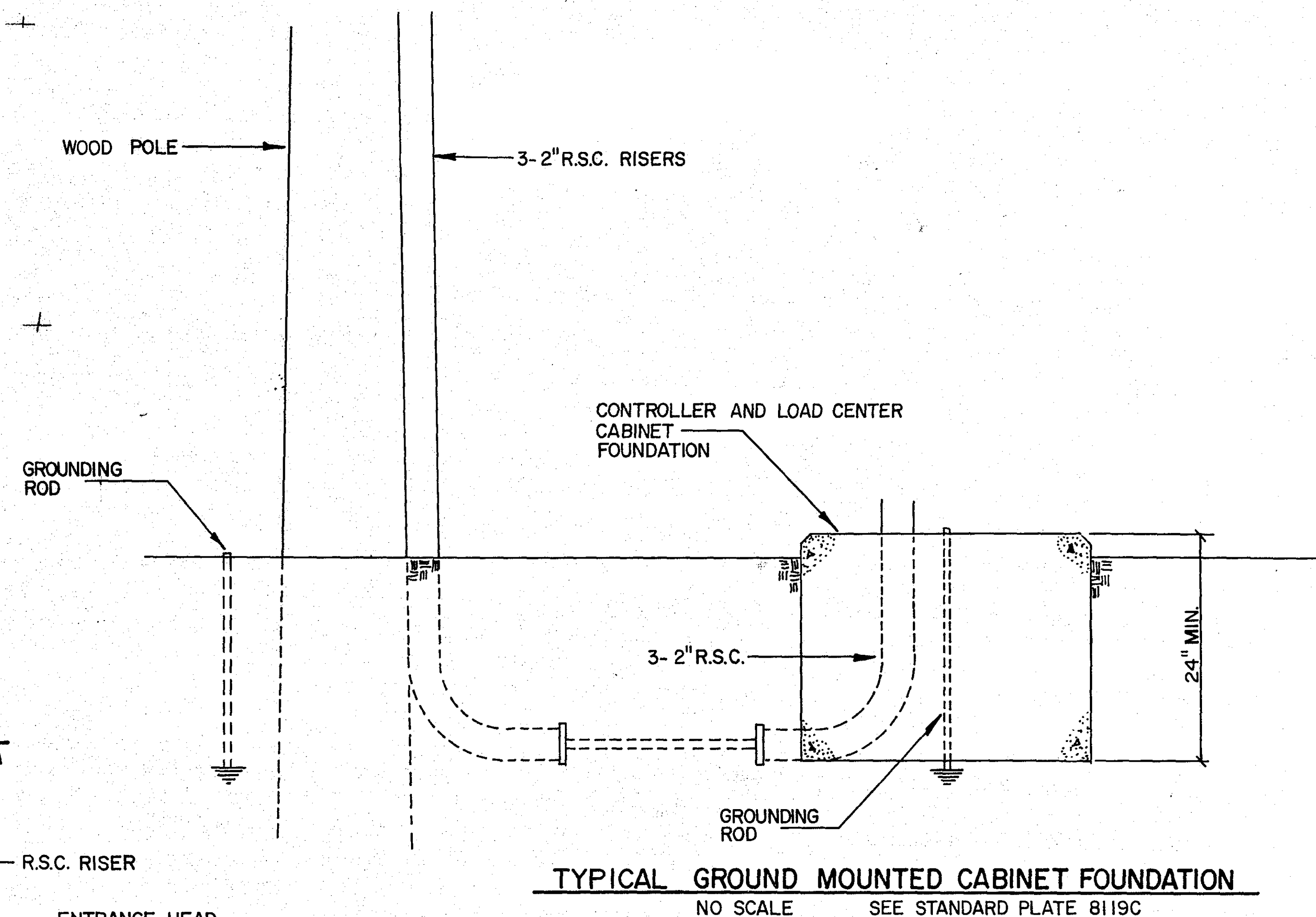
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: [Signature]
DATE: 3/12/91



OVERHEAD SIGNAL BRACE DETAIL
NO SCALE



TYPICAL WOOD POLE AND SPAN WIRE MOUNTED TRAFFIC SIGNALS
NO SCALE

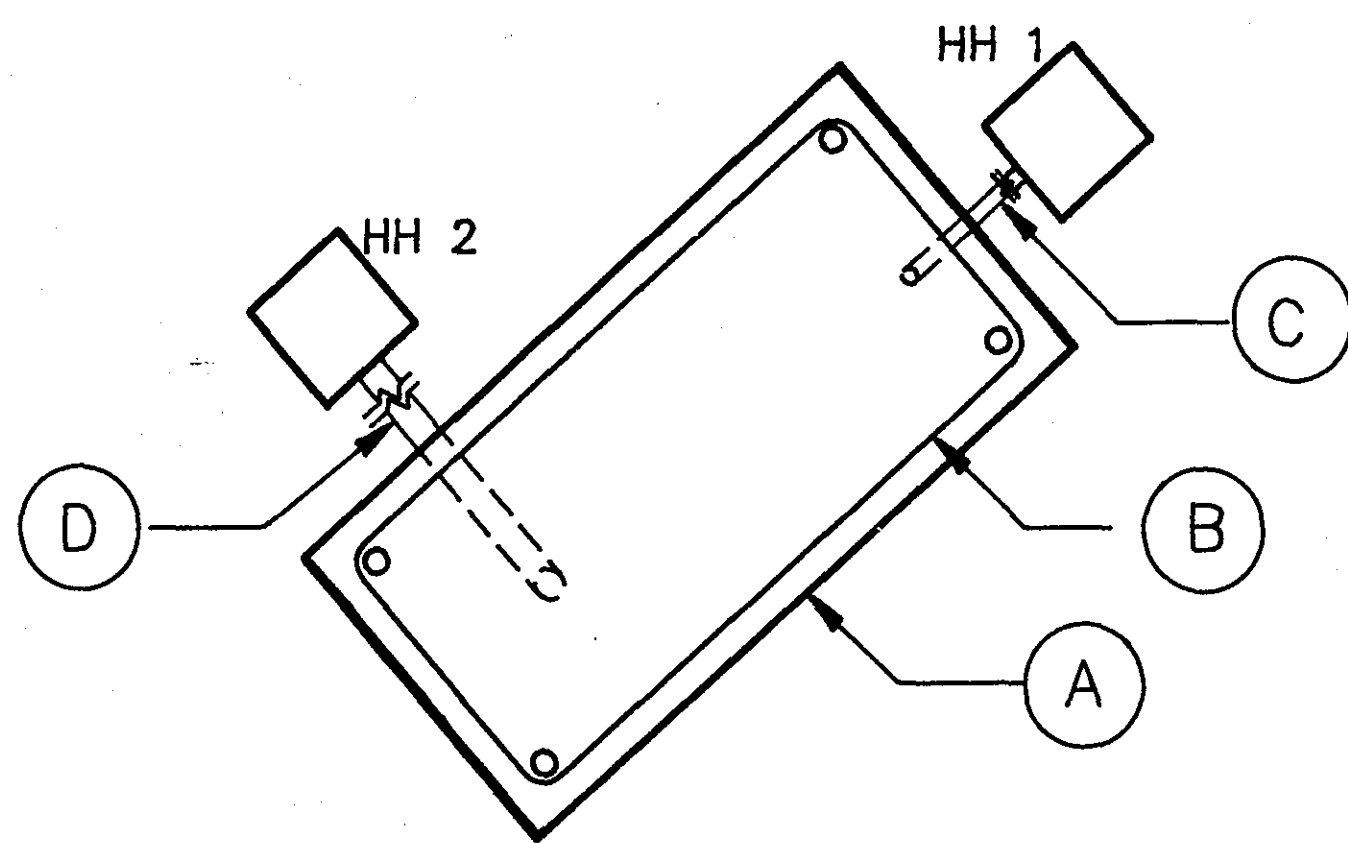


TYPICAL GROUND MOUNTED CABINET FOUNDATION
NO SCALE SEE STANDARD PLATE 8119C

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91

SYSTEM "C"

DESIGN PSM DRAWN SAP CHECKED	SCALE AS SHOWN	NO.	DATE	REVISIONS	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT 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: _____ REG. NO. _____	 Barton-Aschman Associates, Inc. 111 Third Avenue South, Suite 350 Minneapolis, Minnesota 55401	FAIRVIEW AVENUE WIDENING ROSEVILLE, MINNESOTA	TEMPORARY SIGNAL DETAILS	FILE NO. 5326-09-01 DATE 3/30/90	SHEET NO. 32 OF 40
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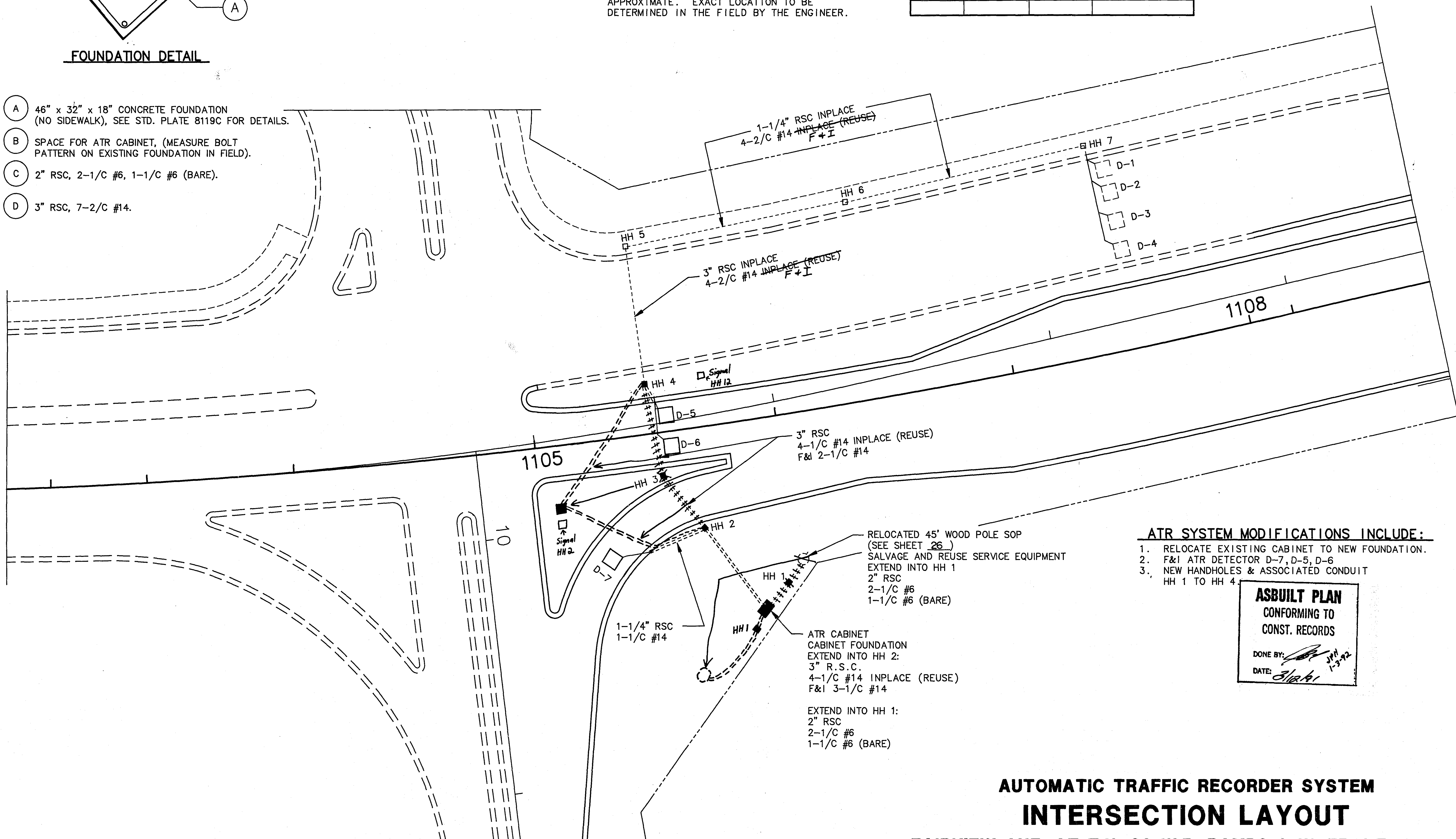
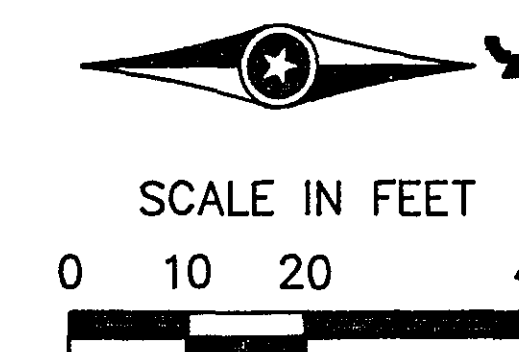
FOUNDATION DETAIL

- (A) 46" x 32" x 18" CONCRETE FOUNDATION (NO SIDEWALK), SEE STD. PLATE 8119C FOR DETAILS.
- (B) SPACE FOR ATR CABINET, (MEASURE BOLT PATTERN ON EXISTING FOUNDATION IN FIELD).
- (C) 2" RSC, 2-1/C #6, 1-1/C #6 (BARE).
- (D) 3" RSC, 7-2/C #14.

NOTES

1. DETECTORS D-1, D-2, D-3, D-4 WILL BE INSTALLED BY OTHERS. (COUNTY PROJECT)
2. 2/C #14 WIRE FOR DETECTORS D-1, D-2, D-3 & D-4 SHALL BE REUSED. PULL BACK TO HH 5 DURING CONSTRUCTION. CONNECT AT NEW CABINET LOCATION.
3. ALL NEW HANDHOLES SHALL BE CONCRETE HANDHOLES WITH TYPE "C" COVERS.
4. TELEPHONE SERVICE TO BE EXTENDED TO ATR CABINET BY OTHERS.
5. LOOP DETECTOR LOCATIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D-1	6' x 6'	COUNT	STA. 107+40 SB
D-2	6' x 6'	COUNT	STA. 107+40 SB
D-3	6' x 6'	COUNT	STA. 107+40 SB
D-4	6' x 6'	COUNT	STA. 107+40 SB
D-5	6' x 6'	COUNT	STA. 1105+50 NB
D-6	6' x 6'	COUNT	STA. 1105+50 NB
D-7	6' x 6'	COUNT	SEE PLAN



ATR SYSTEM MODIFICATIONS INCLUDE:

1. RELOCATE EXISTING CABINET TO NEW FOUNDATION.
2. F&I ATR DETECTOR D-7, D-5, D-6
3. NEW HANDHOLES & ASSOCIATED CONDUIT HH 1 TO HH 4

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *[Signature]*
DATE: *3/12/91*

**AUTOMATIC TRAFFIC RECORDER SYSTEM
INTERSECTION LAYOUT
FAIRVIEW AVE. AT T.H. 36 W.B. RAMPS & W. FRONTAGE RD.
ROSEVILLE, MN.**

Barton-Aschman Associates, Inc.

State Proj. No.

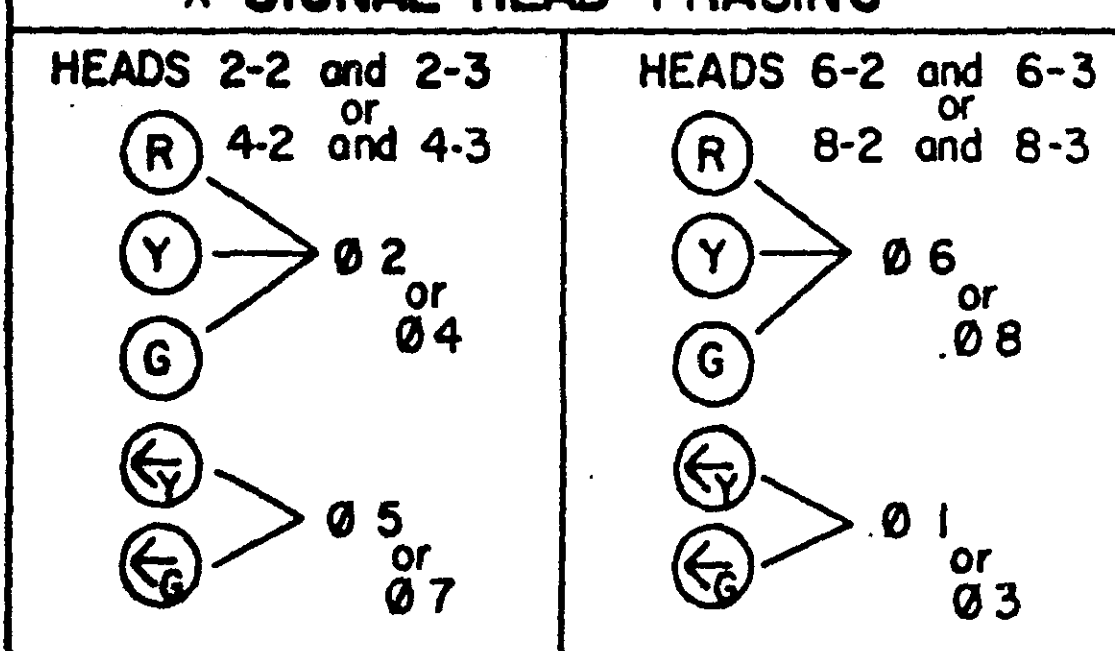
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SIGNAL BASE NO. _____ (5) (4-3)
 SIGNAL FACE NO. _____
 COR. ROLLER AND CABINET _____
 CONTROLLER AND CABINET-INPLACE _____
 HANDHOLE _____
 HANDHOLE-INPLACE _____
 RIGID STEEL CONDUIT (R.S.C.) _____
 RIGID STEEL CONDUIT (R.S.C.)-INPLACE _____
 SIGNAL FACE _____
 SIGNAL FACE WITH BACKGROUND SHIELD _____
 SIGNAL FACE-INPLACE _____
 PEDESTRIAN INDICATIONS _____
 PEDESTRIAN INDICATIONS-INPLACE _____
 PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE _____
 PEDESTRIAN PUSH BUTTON STATION _____
 TRAFFIC SIGNAL PEDESTAL _____
 TRAFFIC SIGNAL PEDESTAL-INPLACE _____
 TRAFFIC SIGNAL POLE AND MAST ARM _____
 TRAFFIC SIGNAL POLE AND MAST ARM-INPLACE _____
 MAST ARM AND LUMINAIRE _____
 MAST ARM AND LUMINAIRE-INPLACE _____
 WOOD POLE _____
 WOOD POLE-INPLACE _____
 SOURCE OF POWER _____
 EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION _____

FACE	PHASE	INDICATION SIZE					
		R	Y	G	Y	G	
2-1	2	12"	12"	12"	-	-	
2-2	2 and 5	12"	12"	12"	12"	12"	
2-3	2 and 5	12"	12"	12"	12"	12"	
2-4	2	12"	12"	12"	-	-	
4-1	4	12"	12"	12"	-	-	
4-2	4 and 7	12"	12"	12"	12"	12"	
4-3	4 and 7	12"	12"	12"	12"	12"	
4-4	4	12"	12"	12"	-	-	
6-1	6	12"	12"	12"	-	-	
6-2	6 and 1	12"	12"	12"	12"	12"	
6-3	6 and 1	12"	12"	12"	12"	12"	
6-4	6	12"	12"	12"	-	-	
8-1	8	12"	12"	12"	-	-	
8-2	8 and 3	12"	12"	12"	12"	12"	
8-3	8 and 3	12"	12"	12"	12"	12"	
8-4	8	12"	12"	12"	-	-	

* SIGNAL HEAD PHASING



*SERVICE CABINET
EXTEND INTO HH 1
*1.25" RSC
*3-1/C #4
EXTEND INTO HH 3
*2" RSC
*4-1/C #10

*CONTROLLER CABINET INPLACE, R & S
*CONTROLLER CABINET

4" RSC INPLACE
 * 4-12/C #12
 * 6-3/C #12
 * 2-3/C #20
 * 9-2/C #14
 * 2-12, PR # 19 -
 (INTERCONNE
 EXTEND INTO HH 3
 4" RSC, INPLACI
 * 4-12/C #12
 * 6-3/C #12
 * 2-3/C #20
 * 12-2/C #14

BETWEEN HH 2 & 3
3" RSC INPLACE
* 3" RSC
* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 9-2/C #14
* 4-1/C #10

* FURNISH AND INSTALL - 1" R.S.C. INTO INPLACE CABINET FOUNDATION, STUB FROM CABINET TO 20' NORTH, WITH DRAIN TEE & 1-2/C TELEPHONE DROP WIRE.

A100-A-35-T30-15 INPLACE
LUMINAIRE - 200 WATT HPS INPLACE
ONE-WAY SIGNAL-OVERHEAD (2-4) INPLACE
* ONE-WAY SIGNAL-OVERHEAD (2-2) INPLACE, R & S
* ONE-WAY SIGNAL-OVERHEAD (2-2)
* TYPE 10C-POLE MOUNTED INPLACE, R & S
* TYPE 10B-POLE MOUNTED 45°
* TYPE 10B-POLE MOUNTED 225°
* 12" PEDESTRIAN INDICATIONS
* 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
EXTEND INTO HH 2
3" RSC, INPLACE
* 2-12/C #12
* 4-3/C #12
* 2-1/C #10
* 2" RSC
* 2-2/C #14

4" RSC, INPLACE
* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 8-2/C #14
* 2-1/C #10
* 2-12 PR #19 -
(INTERCONNECTION)

* PEDESTRIAN PUSH BUTTON STA (4" RSC)
* 1 PEDESTRIAN PUSH BUTTON
EXTEND INTO HH 2
* 1.25" RSC
* 1-3/C #12

S.O.P. (NSP POLE INPLACE) _____
 * SERVICE EQUIPMENT AND
 RSC RISER, R & S
 * 1.25" RSC RISER WITH WEATHERHEAD
 EXTEND INTO HH 1
 * 1.25" RSC
 * 3-1/C #4

* TELE
SER

* 2ⁿ RSC

* VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
* D1-1	2-6'X15'	C&E (TD)	0'
* D1-2	6'X25'	E	80'
* D2-1	6'X6'	C&E	245'
* D2-2	6'X6'	C&E	245'
* D3-1	2-6'X15'	C&E (TD)	0'
* D3-2	6'X25'	E	80'
* D4-1	6'X6'	C&E	260'
* D4-2	6'X6'	C&E	260'
* D4-5	2-6'X8'	C	0'
* D5-1	2-6'X15'	C&E (TD)	0'
* D5-2	6'X25'	E	80'
* D6-1	6'X6'	C&E	260'
* D6-2	6'X6'	C&E	260'
* D6-4	2-6'X8'	C	0'
* D7-1	2-6'X15'	C&E (TD)	0'
* D7-2	6'X25'	E	80'
* D8-1	6'X6'	C&E	260'
* D8-2	6'X6'	C&E	260'
* D8-5	2-6'X8'	C	0'
* D-3	6' X 6'	COUNT	SEE PLAN
* D-4	6' X 6'	COUNT	SEE PLAN

LOCATION = DISTANCE FROM STOP LINE
TO DETECTOR
C&E = CALL AND EXTEND
E = EXTEND ONLY
C = CALL ONLY
(TD) = TIME DELAYED

4 A100-A-35 INPLACE
ONE-WAY SIGNAL-OVERHEAD (8-4) INPLACE
* ONE-WAY SIGNAL-OVERHEAD (8-2) INPLACE, R & S
* ONE-WAY SIGNAL-OVERHEAD (8-2)
* TYPE 18C-POLE MOUNTED INPLACE, R & S
* TYPE 20C-POLE MOUNTED 270°
* 12" PEDESTRIAN INDICATIONS
* 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
2 ONE-WAY EVP DETECTORS AND
LIGHTS-OVERHEAD, INPLACE
EXTEND INTO HH 12
3" RSC INPLACE
* 2-12/C #12
* 4-3/C #12
* 2-3/C #20

I hereby certify that this plan, specification or report was prepared by me or under direct supervision and that I am

I hereby certify that this plan, specification, or report 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. Smith

Date 10/7/87 Reg. No. 12703

2 A10c A-35 INPLACE

- * 2 ONE-WAY SIGNAL-OVERHEAD INPLACE, R & S
- * 2 ONE-WAY SIGNALS-OVERHEAD
- * TYPE 10C-POLE MOUNTED INPLACE, R & S
- * TYPE 10B-POLE MOUNTED 45°
- * TYPE 10B-POLE MOUNTED 225°
- * 12" PEDESTRIAN INDICATIONS
- * 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
ONE-WAY EVP DETECTOR AND
LIGHT-OVERHEAD, INPLACE
EXTEND INTO HH 7

3" RSC, INPLACE

- * 2-12/C #12
- * 4-3/C #12
- * 1-3/C #20

4" RSC, INPLACE
* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 7-2/C #14
* 2-1/C #10
* 2-12 PR #19
(INTERCONNECT)

* PEDESTRIAN PUSH BUTTON STA (4" RSC)
* 1 PEDESTRIAN PUSH BUTTON
EXTEND INTO HH 7
* 1.25" RSC
* 1-3/C #12

* 2" RSC
* 3-2/C #14
* 1-12 PR #19 -
(INTERCONNECT)

3" RSC, INPLACE
* 2-12/C #12
* 3-3/C #12
* 1-3/C #20
* 2-2/C #14
* 2-1/C #10
* 1-12 PR #19 -
(INTERCONNECT)

3" RSC, INPLACE
* 2-12/C #12
* 3-3/C #12
* 1-3/C #20
* 1-2/C #14
* 2-1/C #10
* 1-12 PR #19 -
(INTERCONNECT)

- * PEDESTRIAN PUSH BUTTON STA. (4" RSC)
- * 1 PEDESTRIAN PUSH BUTTON
EXTEND INTO HH 10
- * 1.25" RSC
- * 1-3/C #12

*REPLUMB POLE - SEE SPEC. SPECIAL PROVISIONS.
 (3) *A100-A-35-T30-15 INPLACE
 *LUMINAIRE - 400 WATT MERCURY INPLACE, R & S
 *LUMINAIRE - 200 WATT HPS AT 315°
 ONE-WAY SIGNAL-OVERHEAD (6-4) INPLACE
 *ONE-WAY SIGNAL-OVERHEAD (6-2), INPLACE, R & S
 *ONE-WAY SIGNAL OVERHEAD (6-2)
 *TYPE 10C-POLE MOUNTED INPLACE, R & S
 *TYPE 20C-POLE MOUNTED 270°
 *12" PEDESTRIAN INDICATIONS
 *2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
 ONE-WAY EVP DETECTOR AND
 LIGHT-OVERHEAD, INPLACE
 EXTEND INTO HH 10
 3" RSC INPLACE
 * 4-12/C #12
 * 2-3/C #12
 * 1-3/C #20
 * 2-1/C #10

* INPLACE SIGNAL SYSTEM
 FOR INFORMATION

DETECTOR AND
LEAD, INPLACE
H 10
ACE

*** INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY**

INTERSECTION LAYOUT
COUNTY RD. B2 & FAIRVIEW AVE

SYSTEM C

(27-141) 27-121

**ASBUILT PLAN
CONFORMING TO
CONST. RECORDS**

DONE BY: [Signature]
DATE: 2/2/81

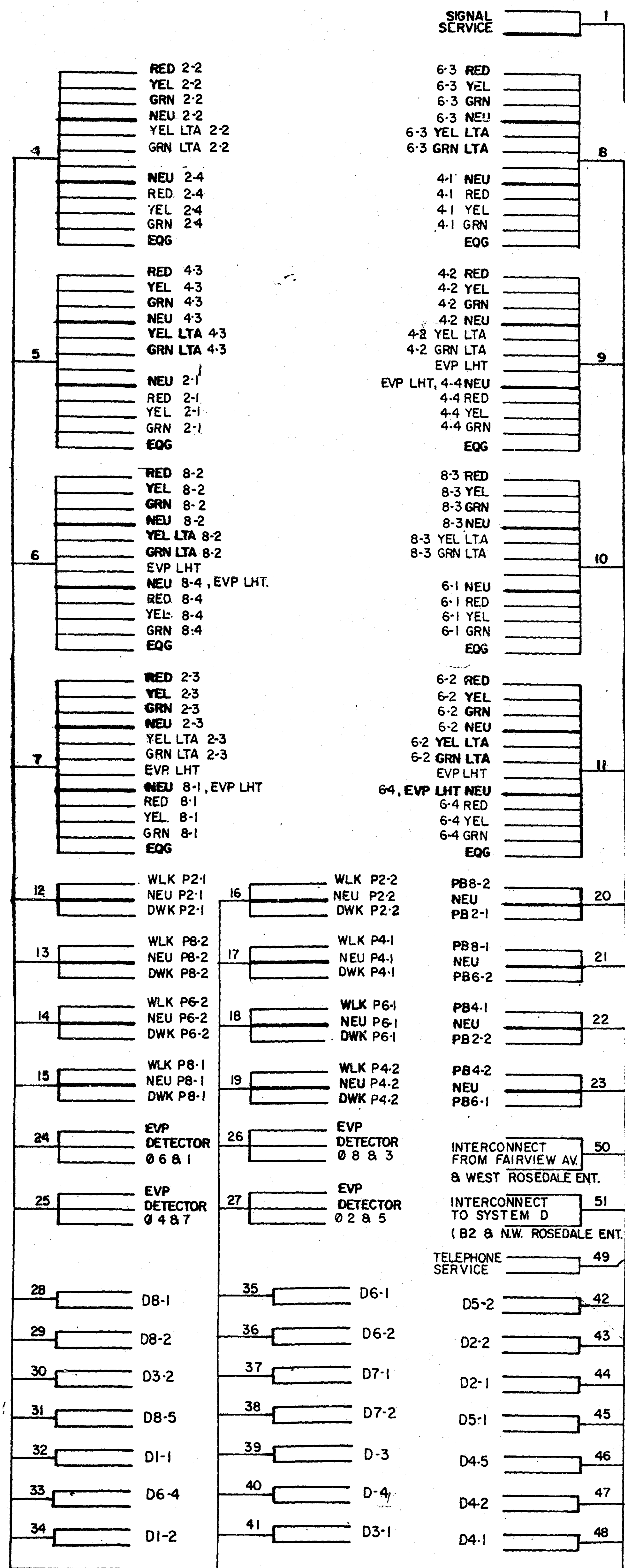
* NOTES:

1. ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE USED INPLACE UNLESS OTHERWISE NOTED WITH A * (* = WORK TO BE DONE, THIS SHEET ONLY).
2. SEE SHEETS 17-20 FOR EXISTING SIGNAL SYSTEM.
3. DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
4. REMOVE AND SALVAGE INPLACE DOWN LIGHTS MOUNTED OVERHEAD (4 TOTAL).
5. WELD NEW 1.25" DIA. HALF COUPLINGS FOR REVISED SIGNAL HEAD MOUNTINGS ON POLES 1 AND 2. PLUG UNUSED MOUNTINGS.
6. R & S DENOTES REMOVE AND SALVAGE.
7. REMOVE AND SALVAGE ALL CONTROL CABLE AND INSTALL NEW.
8. TEMPORARY ALL RED FLASHING OPERATION DURING REVISION WORK. SEE SPECIAL PROVISIONS.

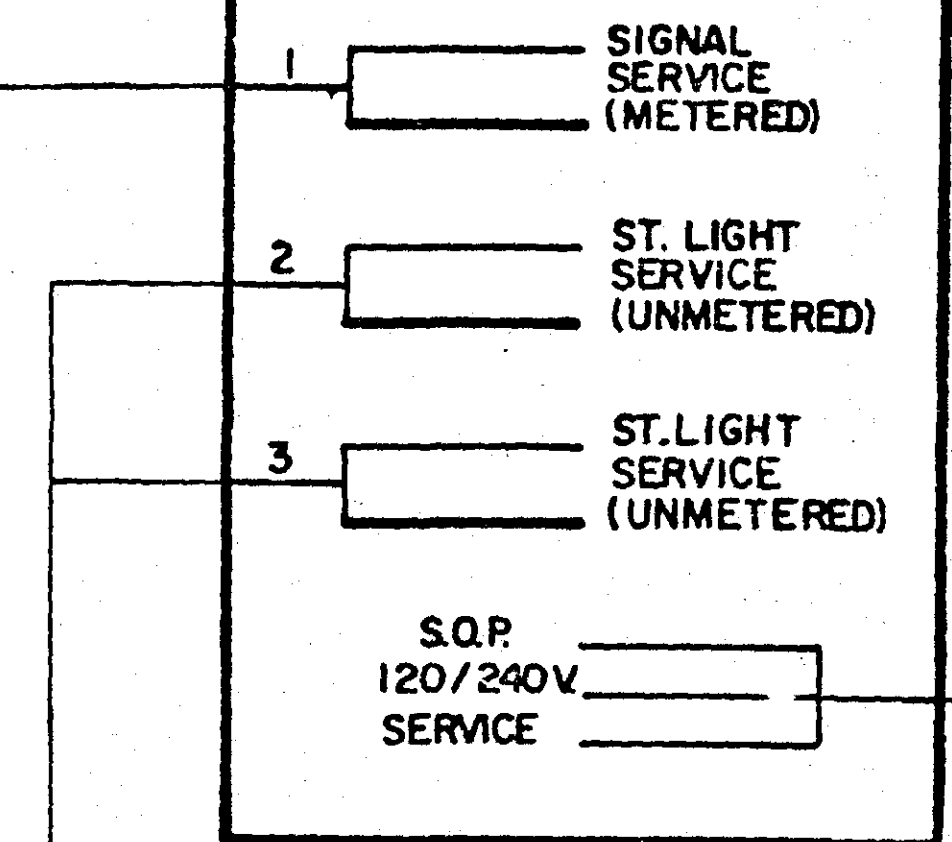
S.A.P. NO. 62-678-06

Sheet No. 34 of 40 Sheets

CONTROLLER CABINET



SERVICE CABINET & METER



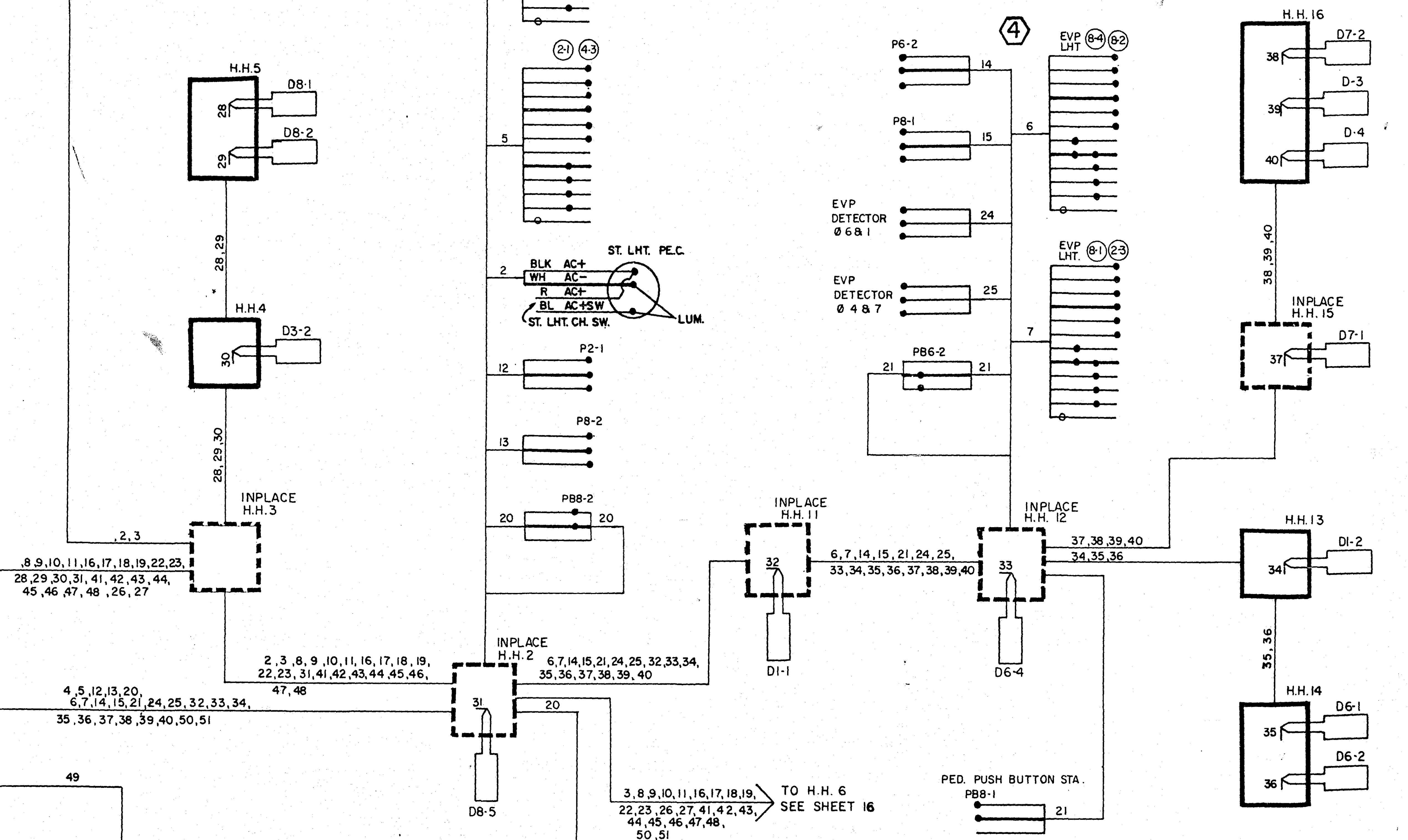
H.H.1
S.O.P.
120/240 VAC

CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O	BL	2-1/C #10
BL	R	3/C #12
WH	WH	2/C #14
R/BLK	BLK	2/C #14
O/BLK	R OR O	3/C #20
BL/BLK	WH OR YEL	3/C #20
WH/BLK	BL OR BLK	
BLK		
BLK/WH		
G/BLK		
G		

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: [Signature]
DATE: 3/12/91

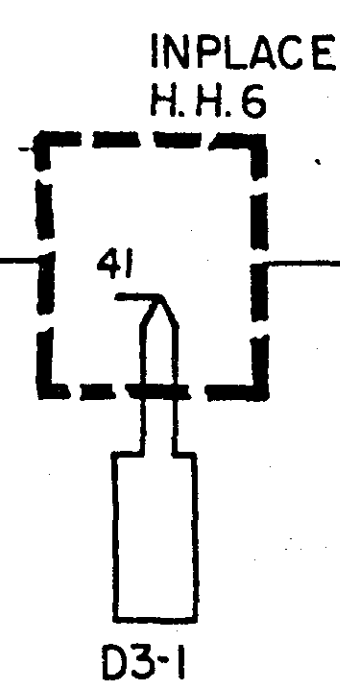


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 12/7/87 Reg. No. 12703

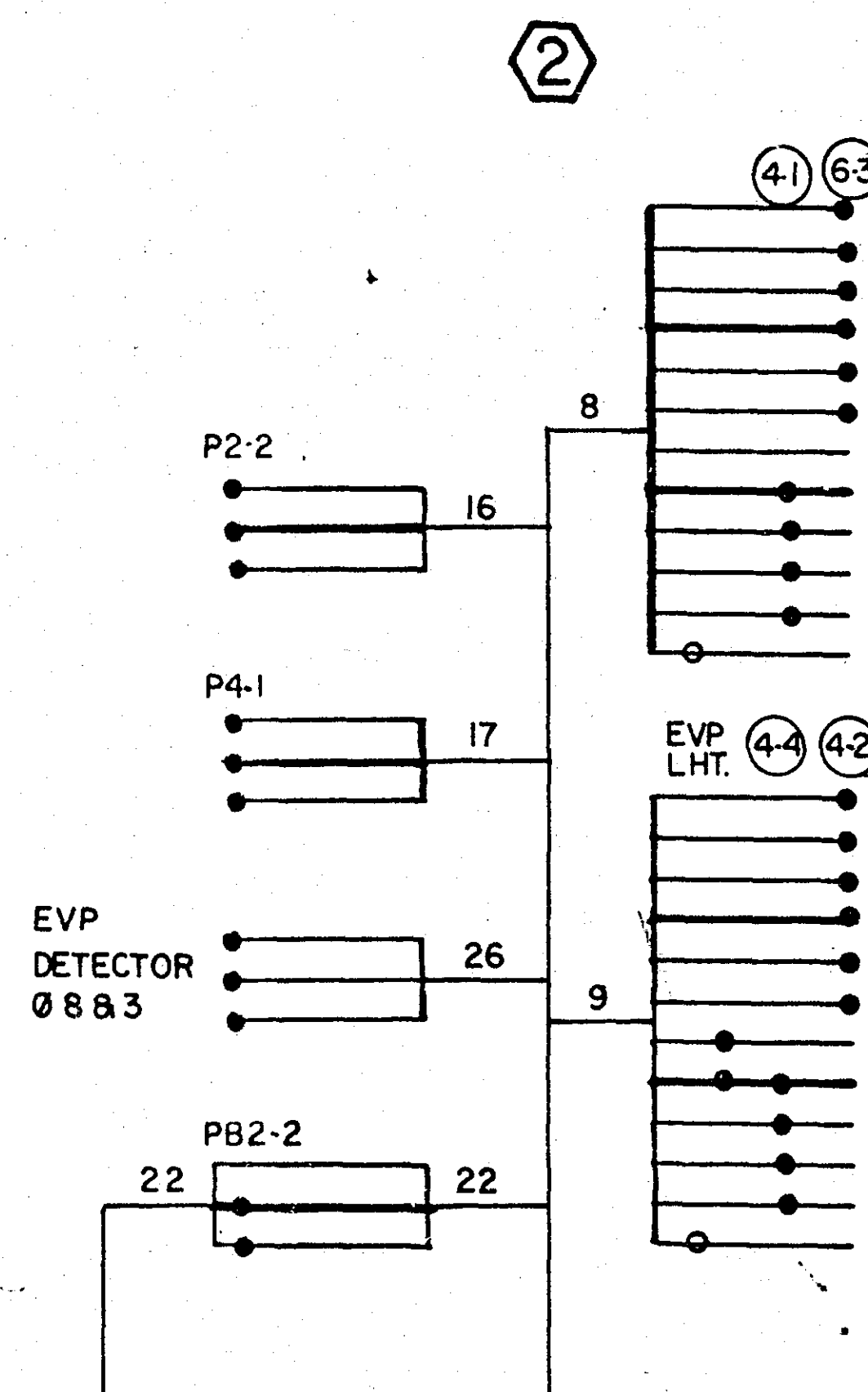
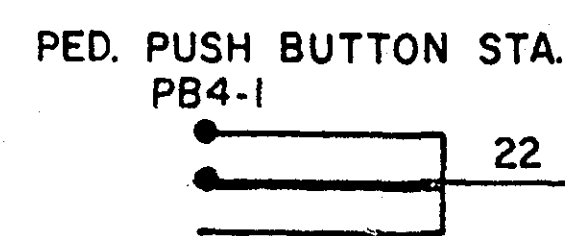
*** INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY**

**FIELD WIRING DIAGRAM
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C**

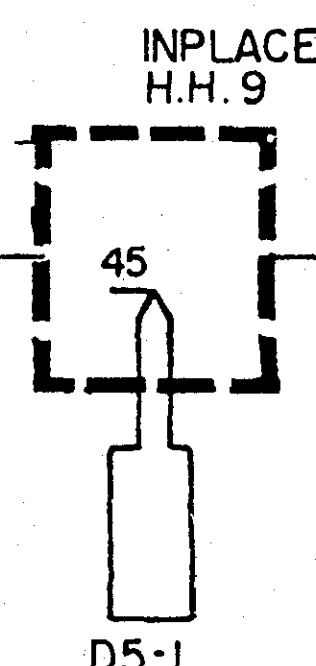
FROM H.H. 6
SEE SHEET 15



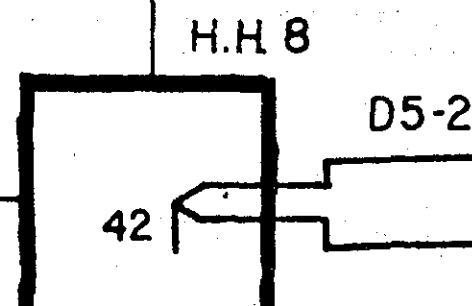
8, 9, 16, 17, 22, 26,
3, 10, 11, 18, 19, 23, 27,
45, 46, 47, 48, 50, 51
42, 43, 44



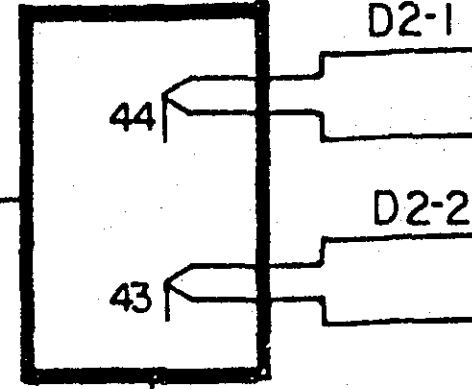
3, 10, 11, 18, 19, 23, 27,
45, 46, 47, 48, 50



42, 43, 44, 51

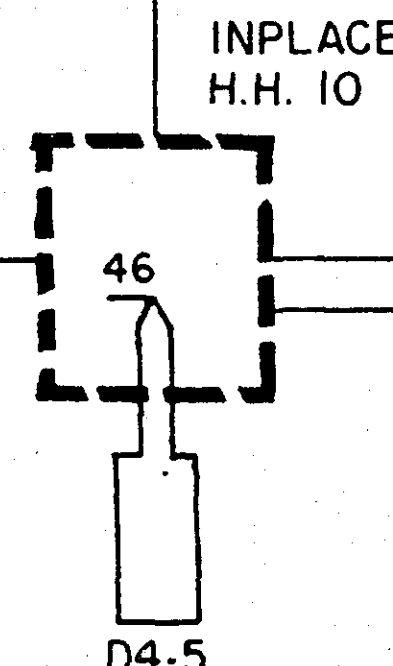
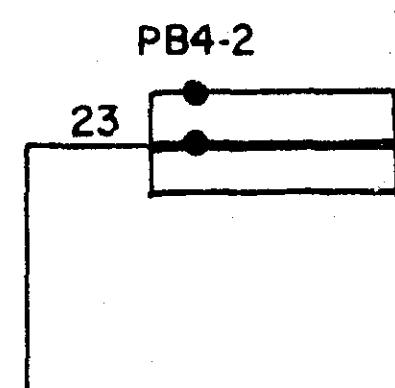


H.H. 8 - SYSTEM D,
CO. RD. B2 & N.W. ENT. TO
ROSEDALE. - SEE SHEET 23

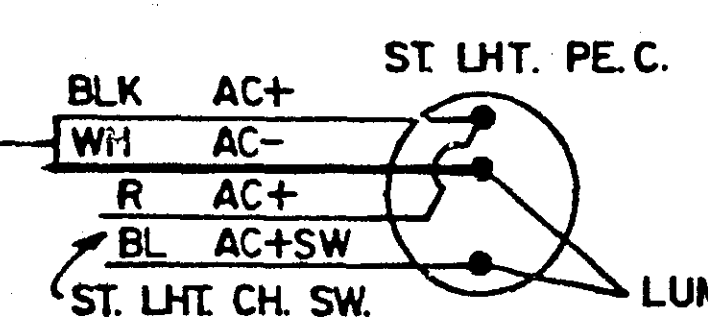
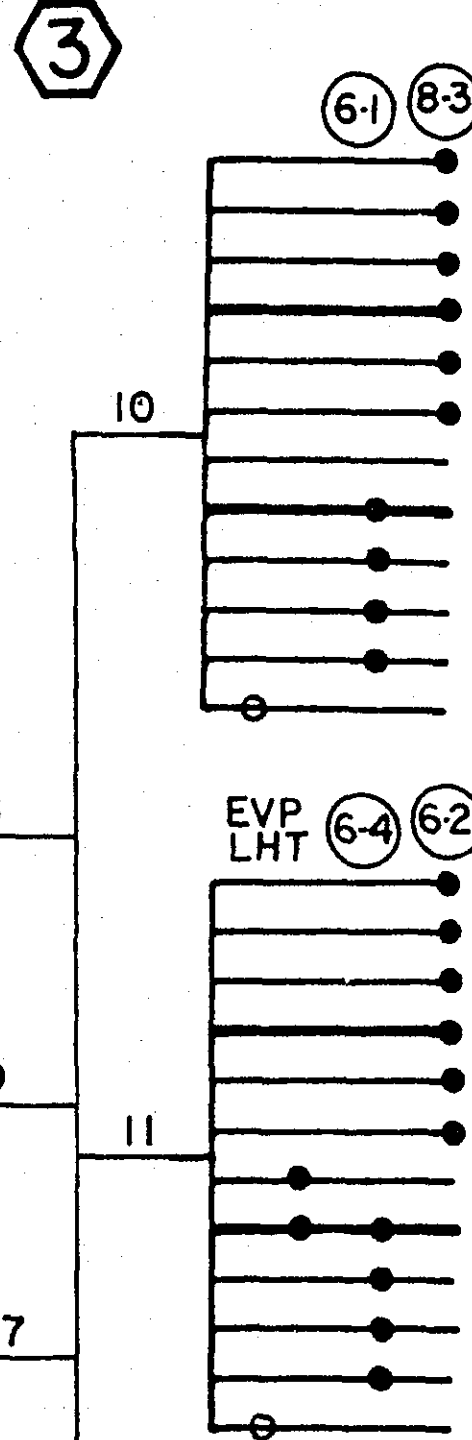
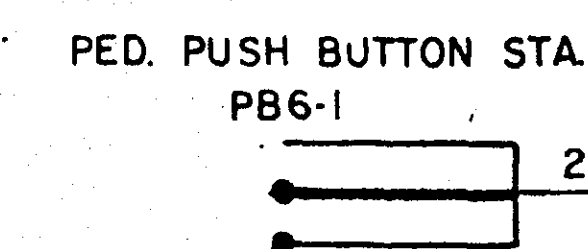


INTERCONNECT
TO SYSTEM D
SEE SHEET 23

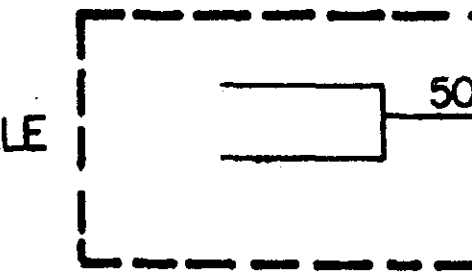
I hereby certify that this plan, specification,
or report was prepared by me or under my
direct supervision and that I am a duly
Registered Professional Engineer under the laws
of the State of Minnesota.
Date 10/15/72 Reg. No. 12703



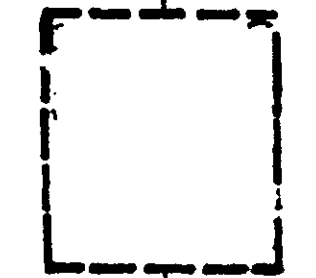
3, 10, 11, 18, 19, 23, 27,
46, 47, 48, 50



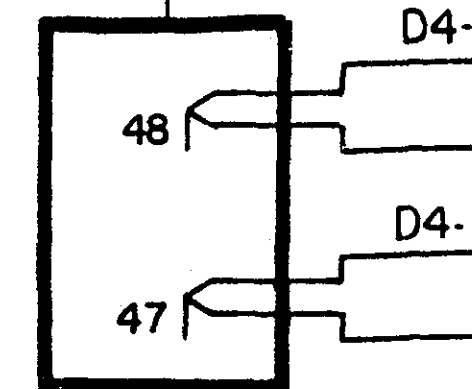
INPLACE
CONTROLLER CABINET
AT FAIRVIEW AVE AND
WEST ENT. TO ROSEDALE
(INTERCONNECT)



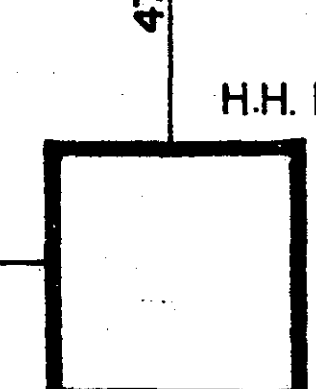
INPLACE H.H. 2 AT
FAIRVIEW & W. ENT. TO
ROSEDALE.



H.H. 20



H.H. 18



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: [Signature]
DATE: 3/12/91

* INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY

FIELD WIRING DIAGRAM
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

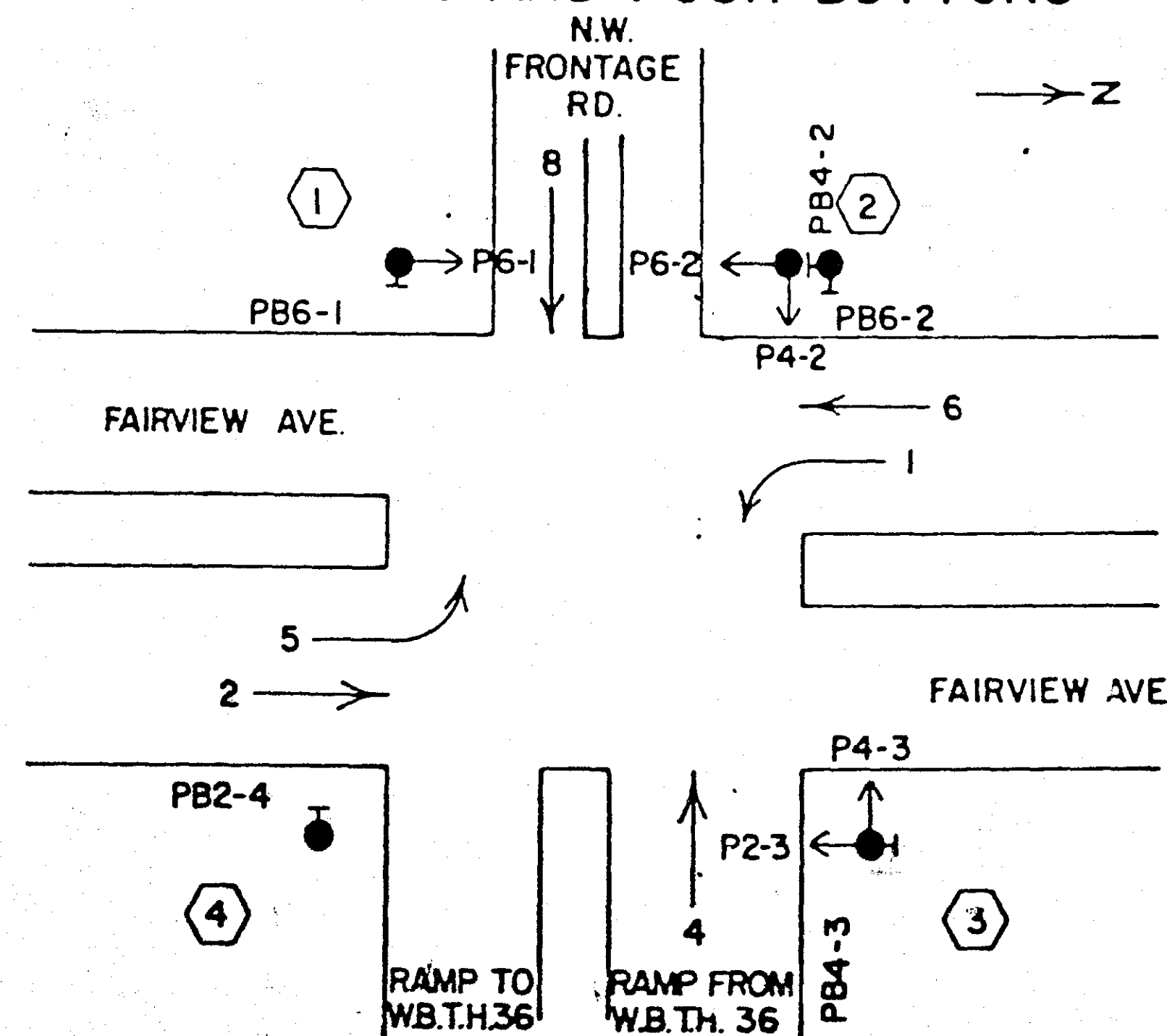
LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	MULTIPLE	1	5'
D2-1	2-6' X 6'	1	180'
D4-1	6' X 6'	3	180'
D4-2	6' X 20'	1	5'
D5-1	MULTIPLE	1	5'
D6-1	3-6' X 6'	1	180'
D8-1	2-6' X 6'	1	180'
D8-2	4-6' X 6'	1	5'
D8-3	6' X 20'	1	5'
D8-4	6' X 20'	2	5'
D-4	6' X 6'	4	Sta 105+25
D-5	6' X 6'	4	Sta 105+25
D-6	6' X 6'	4	Sta 105+50
D-7	6' X 6'	4	Sta 105+61
D-12	6' X 6'	4	360'

LOCATION - DISTANCE FROM STOP LINE
TO DETECTOR

LOOP DETECTOR FUNCTIONS

- 1 CALL AND EXTEND
- 2 DELAYED CALL - IMMEDIATE EXTEND
- 3 EXTEND ONLY
- 4 SYSTEM SAMPLING DETECTOR

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



- ① TYPE P90-A35-D40-9 (DAVIT AT 350°)
P90 POLE FOUNDATION
2 ONE WAY SIGNALS - OVERHEAD
TYPE 20B - POLE MOUNTED 270°
LUMINAIRE - 200 WATT H.P.S.
1 - PEDESTRIAN PUSH BUTTON AND SIGN
ONE WAY EVP DETECTOR AND LIGHT
EXTEND INTO H.H. 13:
3" I.M.C.
2-12/C # 12
1-3/C # 12
1-3/C # 20
2-1/C # 10

- ② TYPE P80-A-30
P80 POLE FOUNDATION
ONE WAY SIGNAL - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
EXTEND INTO H.H. 13:
3" I.M.C.
2-12/C # 12
2-3/C # 12

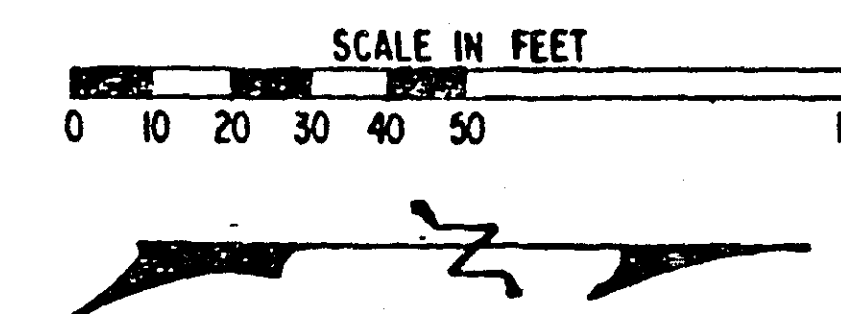
- ④ TYPE P80-A-15
P80 POLE FOUNDATION
ONE WAY SIGNAL - OVERHEAD
TYPE 20A - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AND SIGN
TWO WAY EVP DETECTOR AND LIGHTS
EXTEND INTO H.H. 5:
3" I.M.C.
2-12/C # 12
1-3/C # 12
1-3/C # 20

- ③ TYPE P90-A-30-D40-9 (DAVIT AT 350°)
P90 POLE FOUNDATION
2 ONE WAY SIGNALS - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
LUMINAIRE - 200 WATT H.P.S.
1 - PEDESTRIAN PUSH BUTTON AND SIGN
ONE WAY EVP DETECTOR AND LIGHT
EXTEND INTO H.H. 2:
3" I.M.C.
2-12/C # 12
3-3/C # 12
1-3/C # 20
2-1/C # 10

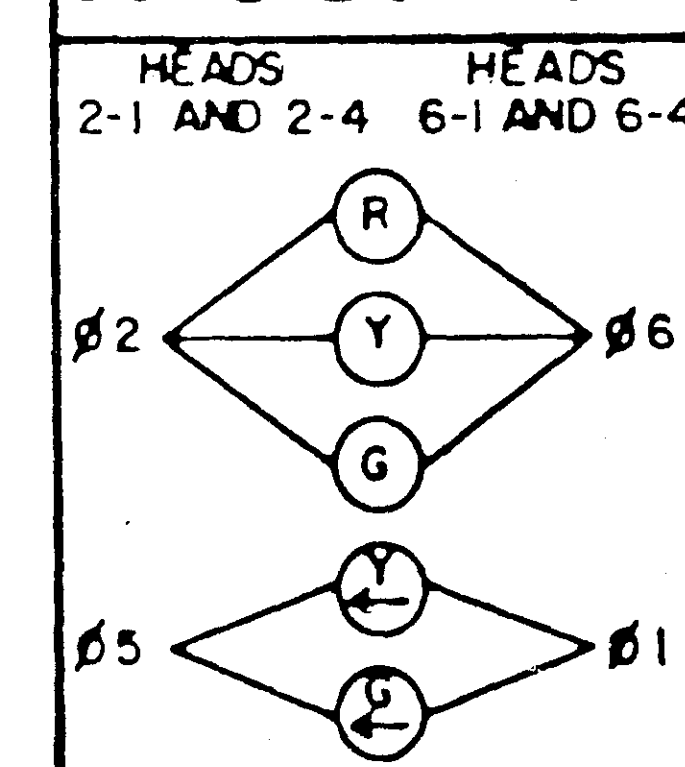
- CONTROLLER AND CABINET
CABINET FOUNDATION
EXTEND INTO H.H. 1:
4" I.M.C.
4-12/C # 12
2-3/C # 12
2-3/C # 20
4-2/C # 14
1-25 PR # 19
1-2/C # 14

- EXTEND INTO H.H. 11:
4" I.M.C.
4-12/C # 12
1-3/C # 12
2-3/C # 20
9-2/C # 14
2-1/C # 6
1-1/C # 6 BR. GR.
1-12 PR # 19
1-25 PR # 19

- PEDESTRIAN PUSH BUTTON STATION
2 - PEDESTRIAN PUSH BUTTONS AND SIGNS
EXTEND INTO H.H. 13:
1 1/4" R.S.C.
2-3/C # 12
4" R.S.C.
4-12/C # 12
1-3/C # 12
1-3/C # 20
9-2/C # 14
2-1/C # 10



SIGNAL HEAD PHASING



- TO H.H. 5 SYSTEM NORTH
SEE SHEET 10
2" R.S.C. IN PLACE
2-2/C # 14 IN PLACE
1-12 PR # 19
1-25 PR # 19

ASBUILT PLAN CONFORMING TO CONST. RECORDS

DONE BY: [Signature]
DATE: 3/1/91

NOTE:

- 1) THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- 2) SEE SPECIAL PROVISIONS FOR FURNISHED EQUIPMENT.
- 3) EACH LUMINAIRE HAS A PHOTOELECTRIC CELL AND CHECK SWITCH.
- 4) ALL PEDESTRIAN INDICATIONS ARE 12" X 12", EXCEPT P2-3 WHICH SHALL BE 9" X 9".
- 5) ALL SIGNAL FACES HAVE BACKGROUND SHIELDS EXCEPT FACE NO.'S 2-4, 4-3, 6-4 AND 8-3.
- 6) ALL SIGNAL FACE ARE 12" 3 SECTION R-Y-G EXCEPT FACE NO.'S 2-1, 2-4, 6-1 AND 6-4 WHICH ARE 12" 5 SECTION R-Y-G - YLTA - GLTA.

NOTE:
ALL ITEMS SHOWN ARE INPLACE AND SHALL BE USED INPLACE UNLESS OTHERWISE SPECIFIED IN BOLD PRINT.

* INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY

I hereby certify that this plan, specification, or report 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.
[Signature]
Date 10/1/92 Reg. No. 12703

S.A.P. NO. 62-648-11

INTERSECTION LAYOUT
FAIRVIEW AVE. & T.H. 36 NORTH RAMP
SYSTEM H

Sheet No. 37 of 40 Sheets

21-12/1

NOTE:

- 1) THE SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- 2) SEE SPECIAL PROVISIONS FOR STATE FURNISHED EQUIPMENT.
- 3) EACH LUMINAIRE SHALL HAVE A PHOTOELECTRIC CELL AND CHECK SWITCH.
- 4) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY FOR EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT SHALL BE FURNISHED AND INSTALLED APPROXIMATELY 4' FROM THE END OF THE MAST ARMS AT POLES 1 AND 3.
- 5) FOR SIGN DETAILS SEE SHEET 4.
- 6) ALL PEDESTRIAN INDICATIONS SHALL BE 9" X 9".
- 7) ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS EXCEPT FACE NO. 4-3.
- 8) ALL SIGNAL FACES SHALL BE 12" 3 SECTION R-Y-G EXCEPT FACE NO. 6-1 AND 6-4 WHICH SHALL BE 12" 5 SECTION R-Y-G-YLTA-GLTA.
- 9) A MID-MAST ARM MOUNT SHALL BE LOCATED 15' FROM THE END OF THE MAST ARM AT POLE NO. 1 FOR SIGNAL FACE 6-2.
- 10) REMOVE AND SALVAGE EXISTING SIGNAL SYSTEM. SEE SHEET 12.
- 11) ONE R9-3A SIGN SHALL BE INSTALLED ADJACENT TO POLE 2 AND TWO R9-3A SIGNS SHALL BE INSTALLED ADJACENT TO POLE 3 EACH A SEPARATE MOUNTING ON A SIGN POST.

LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	MULTIPLE	1	5'
D2-1	2-6' X 6'	1	180'
D4-1	6' X 6'	2	180'
D4-2	6' X 6'	1	5'
D6-1	2-6' X 6'	1	180'
D-1	6' X 6'	3	STA.99+30
D-2	6' X 6'	3	STA.99+30
D-3	6' X 6'	3	STA.99+30

LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

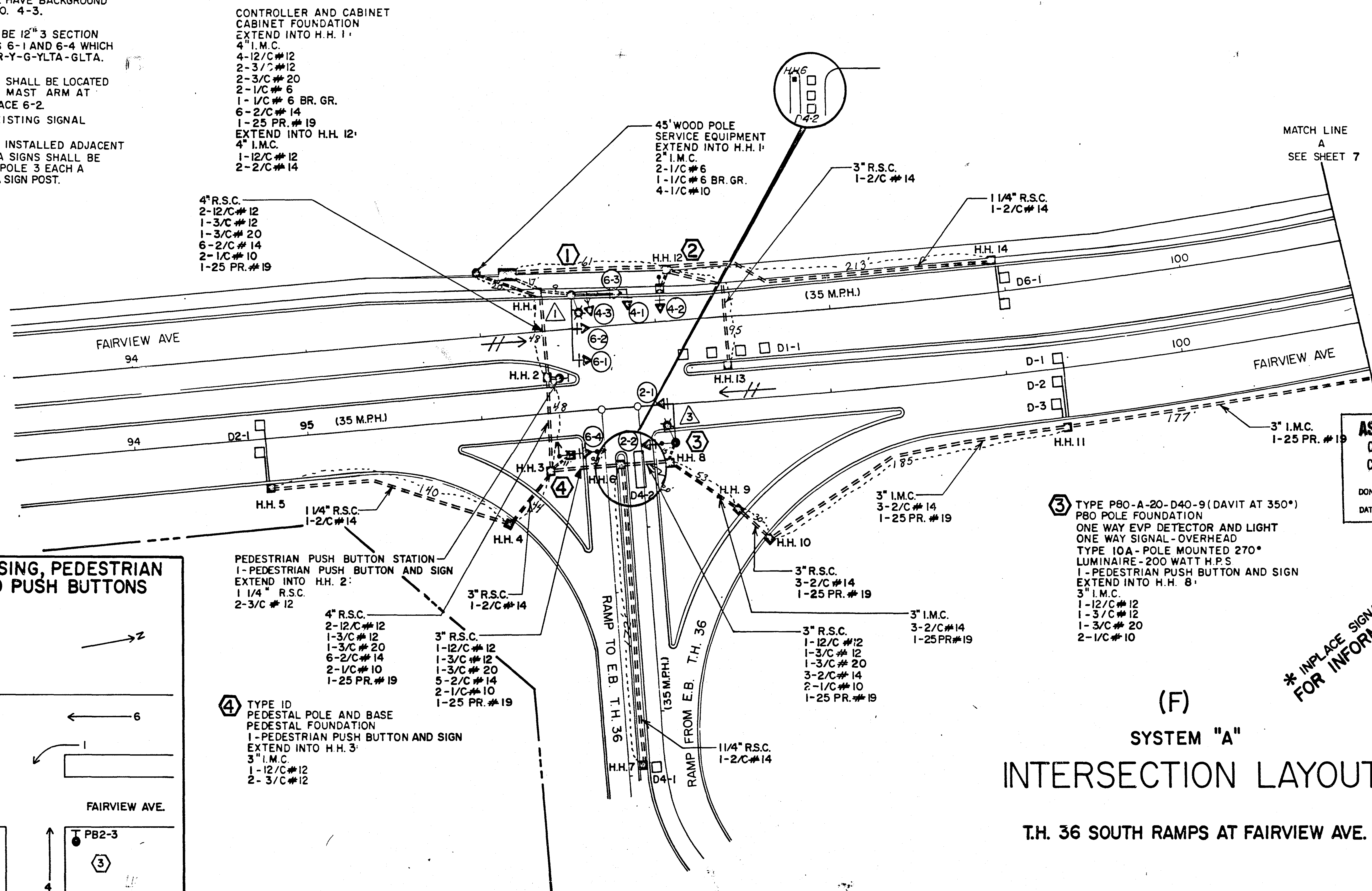
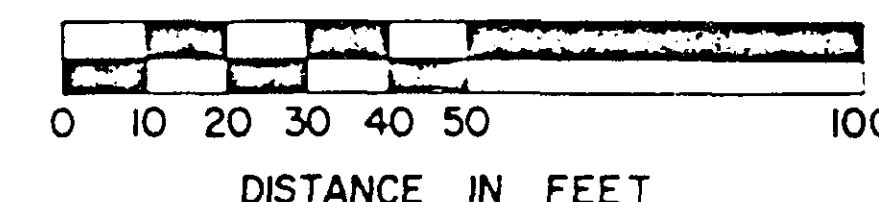
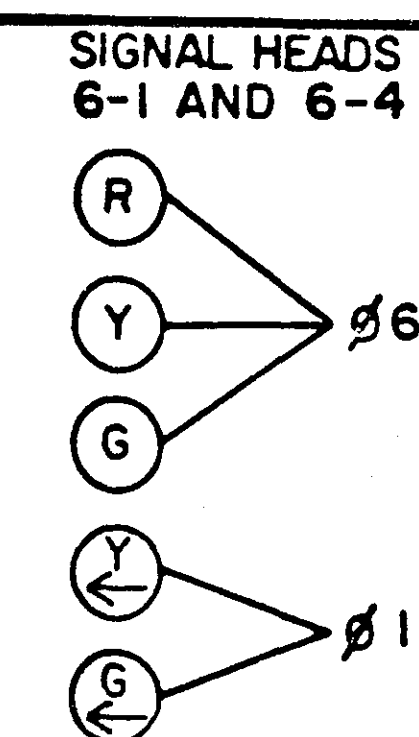
LOOP DETECTOR FUNCTIONS

- 1 CALL AND EXTEND
- 2 EXTEND ONLY
- 3 SYSTEM SAMPLING DETECTOR

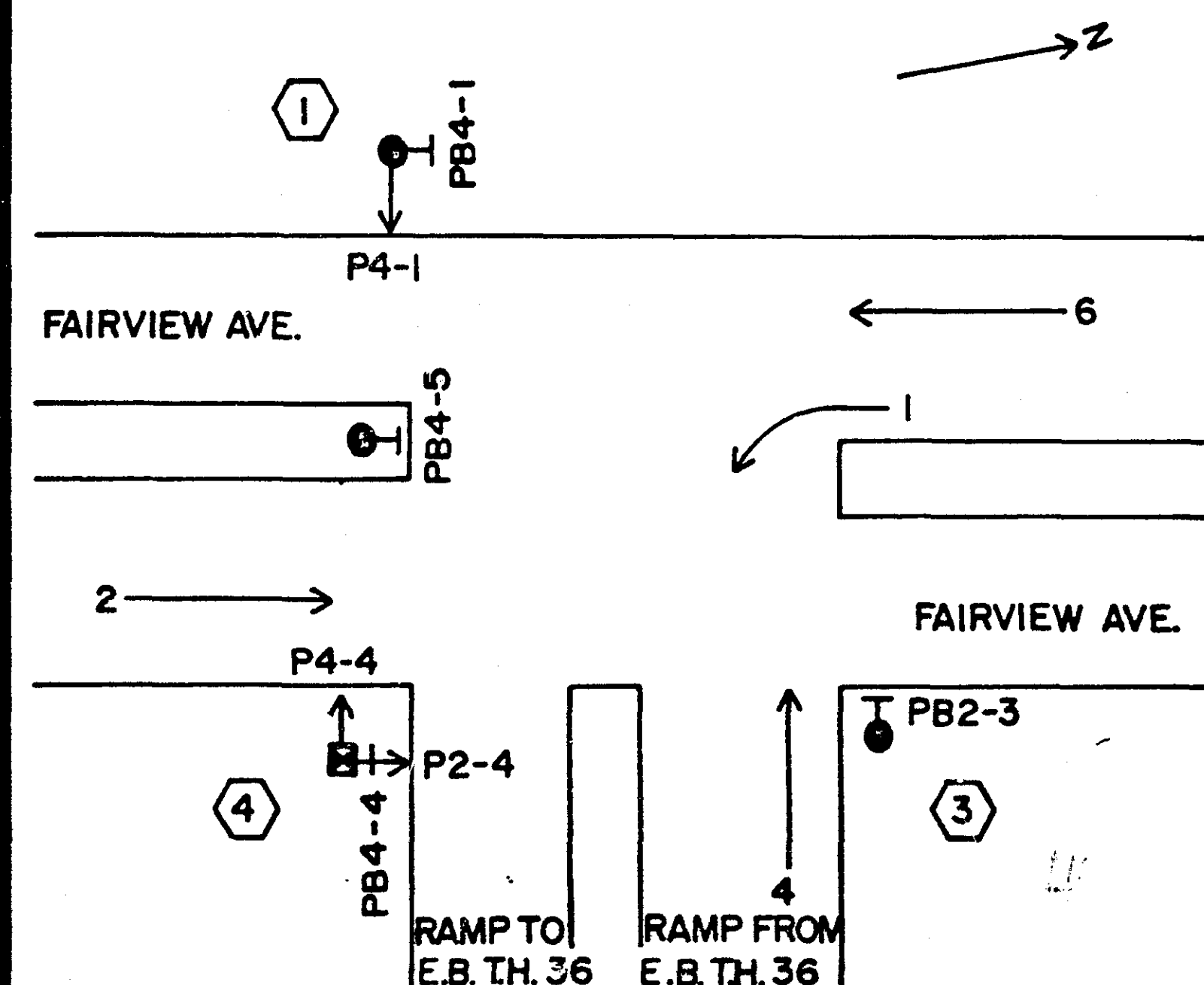
- 2 TYPE 1A PEDESTAL POLE AND BASE PEDESTAL FOUNDATION EXTEND INTO H.H. 12' 3" I.M.C. 1-12/C #12

- 1 TYPE A100-A-35-30-D40-9 (DAVIT AT 350°) A100 POLE FOUNDATION ONE WAY EVP DETECTOR AND LIGHT 3-ONE WAY SIGNALS-OVERHEAD TYPE 20B-POLE MOUNTED 270° LUMINAIRE-200 WATT H.P.S. 1-PEDESTRIAN PUSH BUTTON AND SIGN EXTEND INTO H.H. 1' 3" I.M.C. 2-12/C #12 3-3/C #12 1-3/C #20 2-1/C #10

SIGNAL HEAD PHASING



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *[Signature]*
DATE: 3/12/91

* INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY

(F) SYSTEM "A" INTERSECTION LAYOUT

T.H. 36 SOUTH RAMPS AT FAIRVIEW AVE.

62030036*000979S

State Proj. No. 6212-131

Sheet No. 38 of 40 Sheets

27-121

LEGEND OF SYMBOLS

SIGNAL BASE No.	⑤
SIGNAL FACE No.	②
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (R.S.C.)	
RIGID STEEL CONDUIT (R.S.C.)-INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE-INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS-INPLACE	
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL-INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM-INPLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE-INPLACE	
WOOD POLE	
WOOD POLE-INPLACE	
SOURCE OF POWER	
EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION	

VEHICLE DETECTION

NUMBER	SIZE	REMARKS
D5-1	D1-1	6'x6' CALL & EXTEND
D5-2	D1-2	6'x6' CALL & EXTEND
	D1-3	6'x6' CALL & EXTEND
	D1-4	6'x6' CALL & EXTEND
D5-5	D1-5	6'x18' CALL ONLY
	D1-6	6'x18' CALL ONLY
D6-1	D2-1	6'x40' *CALL & EXTEND
D4-1	D3-1	6'x40' CALL & EXTEND
D4-2	D3-2	6'x20' CALL & EXTEND

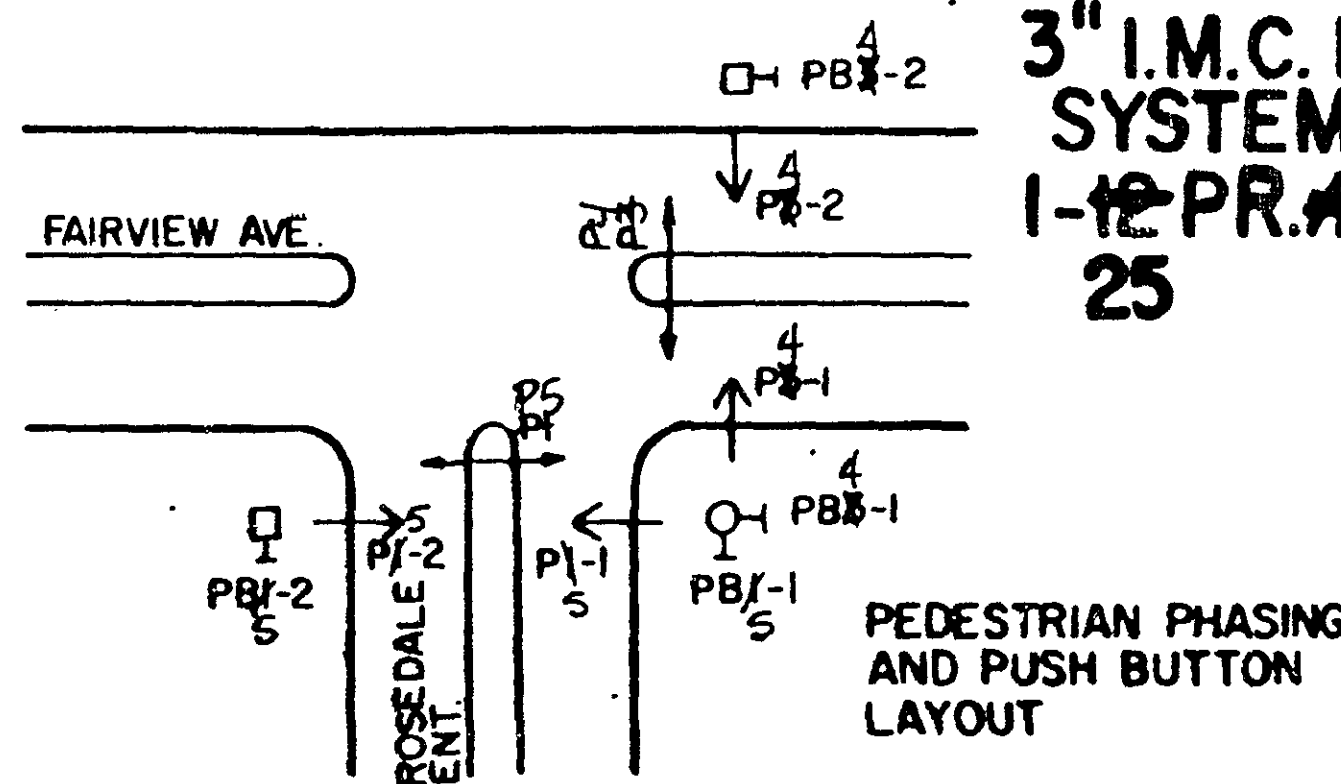
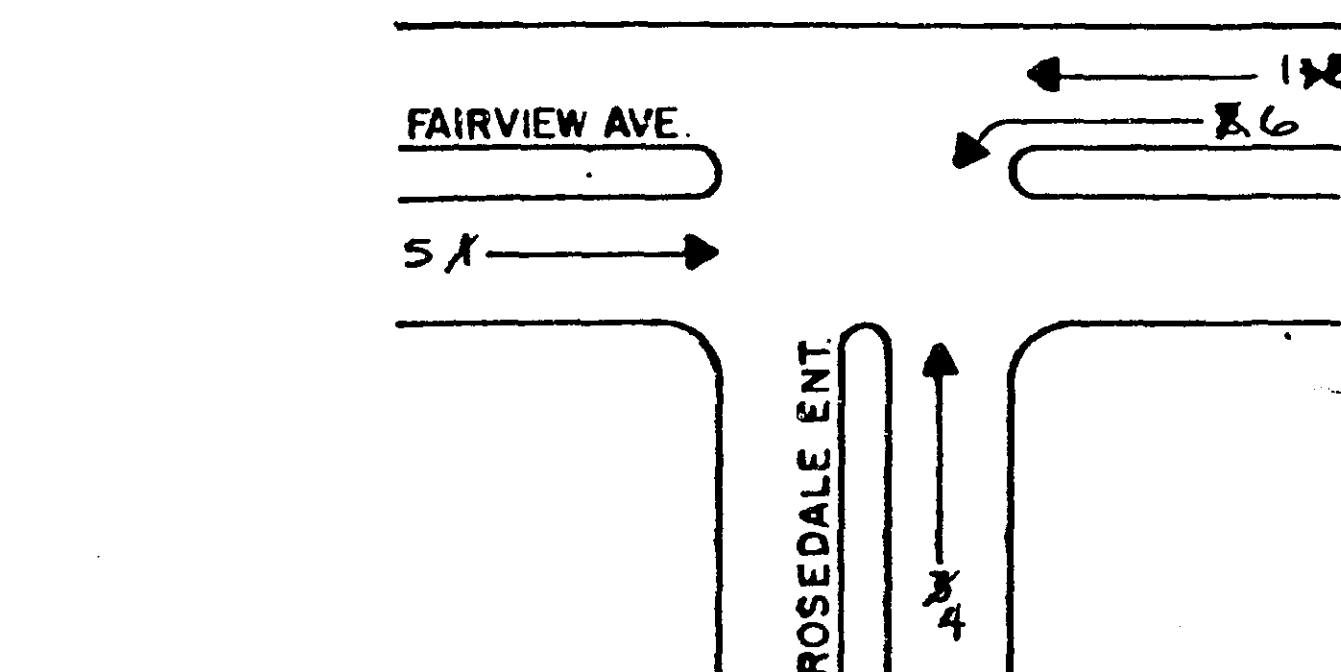
* TIME DELAYED
① SEE DETAIL

SIGNAL HEAD PHASING

HEADS 1-4 & 1-5

(R)	→	Ø 1
(Y)	→	
(G)	→	
(G)	→	Ø 26

CONTROLLER PHASING DIAGRAM



SIGNAL INDICATION CHART

FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
1-1	1	Y	12"	12"	12"	-	-	-
1-2	1	Y	12"	12"	12"	-	-	-
1-3	1	Y	12"	12"	12"	-	-	-
1-4	1+2	Y	12"	12"	12"	12"	-	-
1-5	1+2	Y	12"	12"	12"	12"	-	-
3-1	3	R	12"	12"	12"	-	-	-
3-2	3	R	12"	12"	12"	-	-	-

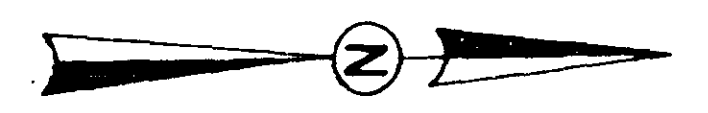
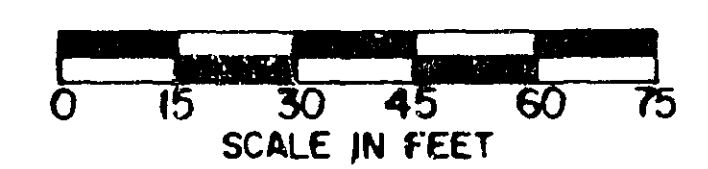
LOCATION CHART

STATION	LOCATION	DESCRIPTION
5+90	RT. 45'	H.H.6
7+53	RT. 45'	H.H.5
7+98	LT. 55'	POLE #3
8+06	LT. 55'	H.H.11
8+08	RT. 35'	H.H.4
8+16	RT. 38'	POLE #2
8+80	LT. 53'	POLE #4
8+84	RT. 38'	POLE #1
8+88	RT. 36'	H.H.3
9+00	℄	H.H.7
9+02	LT. 50'	H.H.8
9+28	RT. 52'	H.H.1
9+32	RT. 49'	H.H.2
9+43	RT. 55'	EQUIP. PAD
9+51	RT. 37'	H.H.13
9+59	LT. 48'	H.H.12
10+00	LT. 44'	H.H.9
11+02	LT. 49'	H.H.10

NOTE: ALL LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.

REVISED	DATE	DESIGNED BY
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NOTE:
ALL ITEMS SHOWN OR NOTED INPLACE SHALL BE USED INPLACE UNLESS OTHERWISE SPECIFIED IN BOLD PRINT.



- NOTES:**
1. LOOP DETECTORS LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
 2. HANDHOLES 3, 4, AND 7 SHALL BE FURNISHED WITH TYPE LD METAL FRAME & COVER.
 3. SUFFICIENT 3/4" #20 TO REACH THE END OF THE MAST ARM SHALL BE INSTALLED IN POLES 1 AND 3.
 4. A 3/4" HALF COUPLING AND PLUG FOR FUTURE EVP EQUIPMENT SHALL BE FURNISHED AND INSTALLED APPROX. 2 FEET FROM THE END OF MAST ARM ON POLES 1 AND 3.

TYPE A-35-T40-10
ONE WAY EVP DETECTOR AND LIGHT LUMINAIRE-250 WATT HIGH PRESSURE SODIUM (APPROX. 350°)
ONE WAY SIGNAL (OVERHEAD MTD.)
TWO WAY SIGNAL (TYPE 20A-POLE MTD 270°)
1-STEEL GUARD POSTS
EXTEND INTO H.H.11
3" R.S.C.
2-12/c #12
1-3/c #20
2-1/c #10

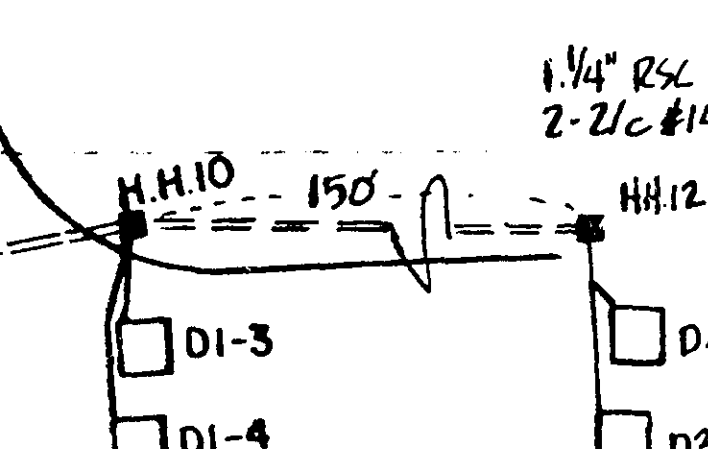
2-STEEL GUARD POSTS
MTD. 4' HIGH WITH 2/O CHAIN BETWEEN (NO PED. X-ING SIGN TO BE MTD. & FURNISHED BY OTHERS.)

SOP (N.S.P. POLE INPLACE)
2" R.S.C. RISER WITH WEATHERHEAD
EXTEND INTO H.H.12
2" R.S.C.
3-1/c #6

1 1/4" R.S.C.
4 X 2/c #14

3" R.S.C.
2-12/c #12
1-3/c #12
5 X 2/c #14
1-3/c #20
2-1/c #10

1 1/4" R.S.C.
4 X 2/c #14



BASE LINE = CENTER OF INPLACE MED. FOR SIGNAL EQUIP. LOCATION ONLY

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY [Signature]
DATE: 3/12/91

EQUIPMENT PAD (SEE DETAIL)
5 STEEL GUARD POSTS
SERVICE CABINET
EXTEND INTO H.H.13
2" R.S.C.
3-1/c #6
EXTEND INTO H.H.2
2" R.S.C.
4-1/c #10

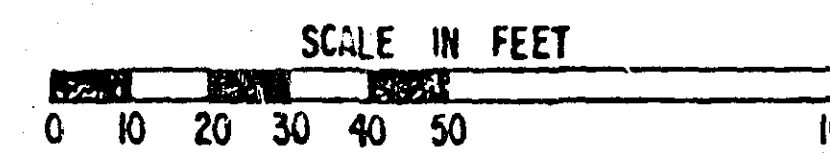
CONTROLLER AND CABINET INPLACE R&S
CONTROLLER AND CABINET INPLACE R&S
CABINET FOUNDATION INPLACE
1 1/4" R.S.C. STUB OUT
EXTEND INTO H.H.1:
3" R.S.C.
2-12/c #12
1-3/c #12
5-2/c #14
1-3/c #20
1-12 PR.#19
EXTEND INTO H.H.2:
3" R.S.C.
2-12/c #12
1-3/c #12
6 X 2/c #14
1-3/c #20
3" R.S.C.
2-1/c #10

SYSTEM "C"
INTERSECTION LAYOUT
FAIRVIEW AVE. & ROSEDALE ENT.

I hereby certify that this plan, specification, or report 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 Mississippi.
[Signature]
Date 3-1-78 Reg. No. 16703

*** INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY**

62030036*000979F
STATE PROJ. NO. 6212-131

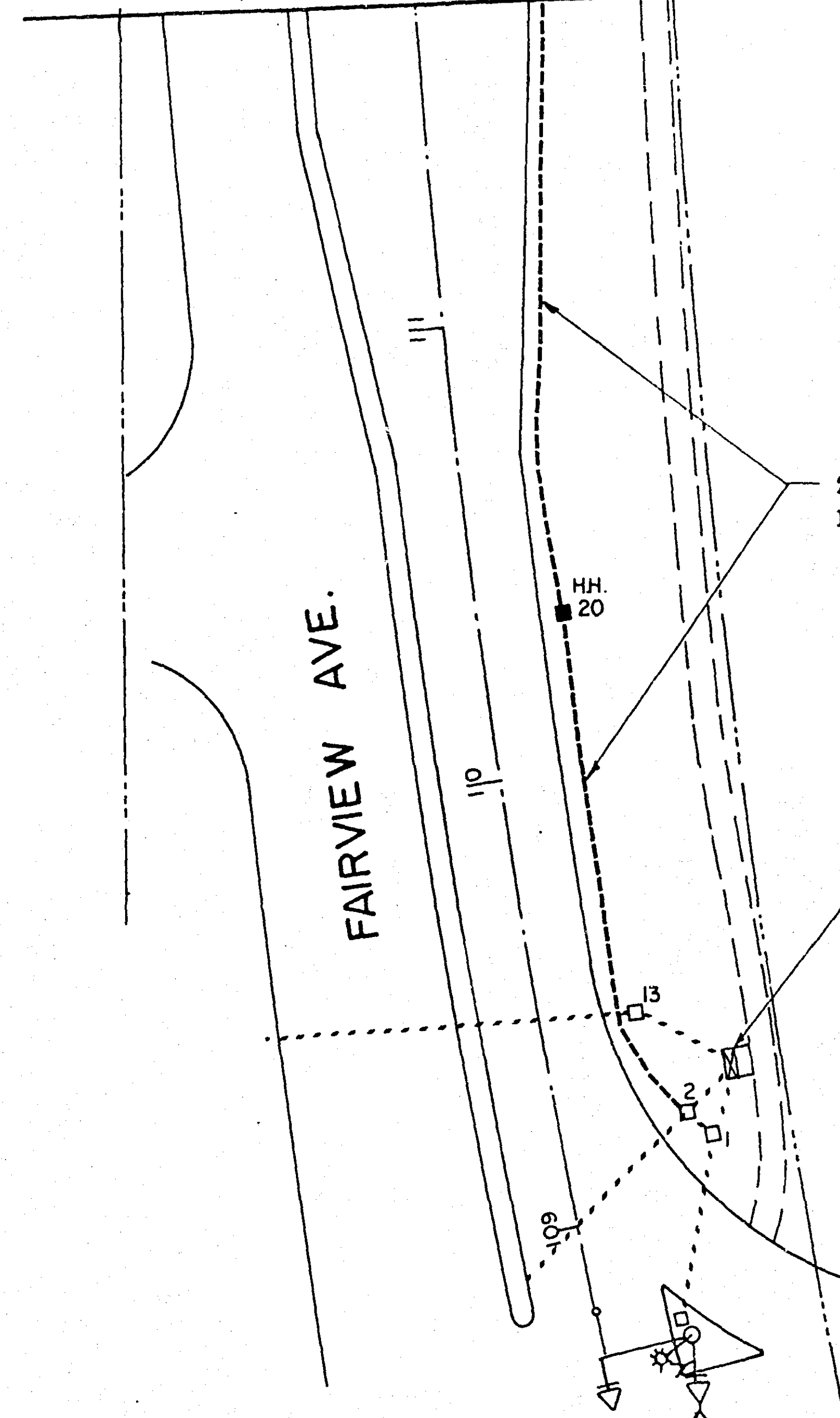


NOTES:

- 1. HANDHOLE 20 SHALL BE PAID FOR UNDER ITEM 0565.602, HANDHOLE TYPE C-(INTERCONNECT)
- 2. (INTERCONNECT)- DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE EST. QUANTITIES & SPECIAL PROVISIONS

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 3/12/91

MATCH LINE 111+72 SEE SHEET 14



CONTROLLER & CABINET INPLACE
EXTEND INTO H.H. 2
3\" RSC
2- 12/c # 12
1- 3/c # 12
1- 3/c # 20
4- 2/c # 14
1- 12PR # 19 -
(INTERCONNECT)
ALL REMAINING CONDUIT & CABLE
SHALL BE USED INPLACE

WEST ENT.
ROSEDALE CENTER

*** INPLACE SIGNAL SYSTEM *
FOR INFORMATION ONLY**

INTERCONNECT LAYOUT
FAIRVIEW AVE.
BETWEEN ROSEDALE W. ENT. & CO. RD. B2

I hereby certify that this plan, specification,
or report 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.
[Signature]
Date 10/7/87 Reg. No. 12703