MINNESOTA DEPARTMENT OF TRANSPORTATION

City of Rochester, Minnesota

Department Of Public Works

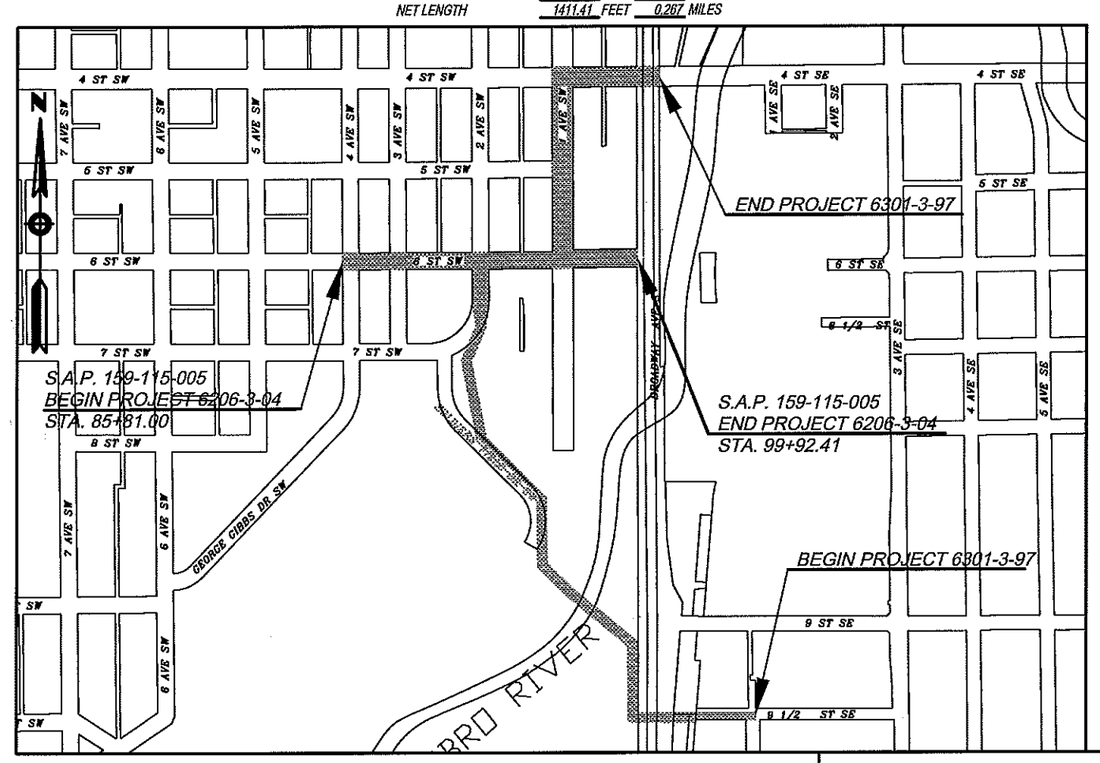
CONSTRUCTION PLANS FOR GRADING, AGG. BASE,
CONCRETE PAVEMENT, C&G, SDIEWALK, BIKE LANES,
SANITARY SEW., STORM SEWER, AND WATERMAIN LOCATED
ON 6TH ST SW BETWEEN 4TH AVE SW & S. BDWY AND FROM
9 1/2 ST & 1ST AVE SE TO 4TH ST & S. BDWY

TOWNSHIP 106 **RANGE** 14 **SECTION** 2

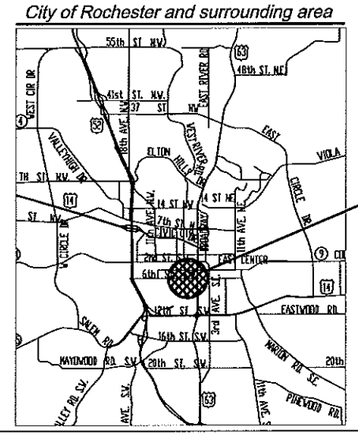
GROSS LENGTH	1411.41 FEET	0.267 MILES
BRIDGE LENGTH	0.00 FEET	0.000 MILES
EXCEPTION LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	1411.41 FEET	0.267 MILES

UTILITY QUALITY LEVEL

The subsurface utility information in this plan is utility quality level D
This quality level was determined according to the guidelines of CI/ASCE 38-.2, entitled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data."



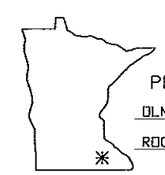
City of Rochester and surrounding area



APPROXIMATE PROJECT LOCATION

THIS PROJECT HAS BEEN GRANTED A VARIANCE FROM MINNESOTA RULE 8820.9936(c) DATED MARCH 2012, SO AS TO PERMIT 8FT PARKING LANE IN LIEU OF THE REQUIRED 10FT PARKING LANE. THE VARIANCE WAS SIGNED BY JULIE SKALLMAN ON 3/38/2012.

LEGAL DESCRIPTION: SAP 159-115-005
From SW Cor Sec 2 T106 R14 North 987.48' then East 127.89' to a point of begining to a point from SE Cor of SW 1/4 Sec 2 T106 R14 North 996.88' then East 145.44'



PROJECT LOCATION
OLMSTED COUNTY
ROCHESTER DISTRICT

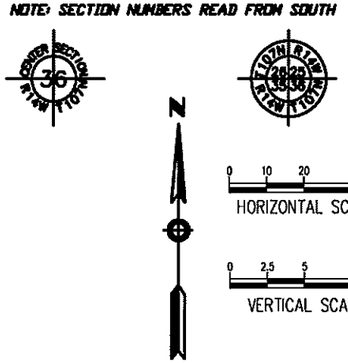
Project No 6301-3-97 &

CONVENTIONAL SIGNS AND ABBREVIATIONS

CORPORATE LIMITS	
SECTION LINE	
RIGHT OF WAY LINE (STATE)	
PROPERTY LINE (STREET)	
ADDITION LINE	
SURVEY LINE	.1 .2
CENTER LINE	
WIRE FENCE	
STONE WALL OR FENCE	
HEDGE	
GUARD RAIL	
CREEK OR RIVER	
DRY RUN	
RAILROAD	
RAILROAD RIGHT OF WAY LINE	
CURB & GUTTER INP.	
SIDEWALK INP.	
SANITARY SEWER INP.	
STORM SEWER INP.	
WATERMAIN, GATEVALVE & BOX INP.	
ELECTRIC UNDERGROUND INP.	E
TELEPHONE UNDERGROUND INP.	T
STEAM MAIN INP.	S
GAS MAIN INP.	
CURB INP.	
HYDRANT INP.	
TELEPHONE, POWER POLES	
LIGHT POLES	
TRAFFIC SIGNAL	
FIRE ALARM BOX	
RAILROAD CROSSING SIGN	RXR
RAILROAD CROSSING BELL	
TREE	
STUMP	
BUILDING	S-F
IRON PIPE	
STONE MONUMENT	
MANHOLE INP.	
BRICK INP.	
BRIDGE INP.	
CULVERT INP.	
CATCH BASIN INP.	
CURB & GUTTER CONST.	
SIDEWALK CONST.	
SANITARY, STORM SEWER CONST.	
WATERMAIN CONST.	
MANHOLE CONST.	
CATCH BASIN CONST.	
HYDRANT CONST.	
CROSS	
TEE	
TAPPING MACHINE SLEEVE & VALVE	
BEND, ELBOW	
INCREASER, DECREASER	
CONCRETE	
SAND	
CRUSHED ROCK	
BITUMINOUS	
CLEAR & GRUB TREE	
SW, C&G, CONC BASE, DRWY-REMOVE(GRD & ALIGN)	
SW, C&G, CONC BASE, DRWY-REMOVE(CONDEMED SW)	
SOIL BORING LOCATION	NO. 2

ACRE	A.
ADJUST	ADJ.
AGGREGATE	AGG.
APPROACH	APP.
BENCH MARK	B.M.
BITUMINOUS	BIT.
BRIDGE	BR.
BUILDING	BLDG.
CAST IRON PIPE	C.I.P.
CATCH BASIN	C.B.
CENTER LINE	℄
CENTER TO CENTER	C TO C
CLAY SEWER PIPE	C.S.P.
CONCRETE	CONC.
CONSTRUCT	CONST.
CORNER	COR.
CORRUGATED METAL PIPE	C.M.P.
CORRUGATED METAL PIPE ARCH	C.M.P.-A
CRUSHED ROCK	CR. RK.
CURB & GUTTER	C & G
DEFLECTION LEFT	D L
DEFLECTION RIGHT	D R
DEGREE OF CURVE	D
DELTA OR INTERSECTION ANGLE	Δ
DRIVE	DR.
DRIVEWAY	DRWY.
DROP INLET	D.I.
DUCTILE IRON PIPE	D.I.P.
EAST	E.
ELEVATION	EL.
EMBANKMENT	EMB.
ENTRANCE	ENT.
EQUATION	EQ.
ESTIMATE	EST.
EXCAVATION	EXC.
EXPANSION	EXP.
FLOW LINE	F.L.
FOOT	FT.
FOUNDATION	FD'N.
FRAME	FR.
FURNISH AND INSTALL	F. & I.
GALLON	GAL.
GATEVALVE	GV
GRATE	GR.
HIGH WATER	H.W.
HIGHWAY	HWY.
HORIZONTAL	HORIZ.
HYDRANT	HYD.
INLET	INL.
INPLACE	INPL.
INSTALL	INST.
INVERT	INV.
IRON PIPE	I. P.
JUNCTION	JCT.
LEFT	LT.
LENGTH OF CURVE	L.
LINEAL	LIN.
LOW WATER	L.W.
MANHOLE	M.H.
MINIMUM	MIN.
MISCELLANEOUS	MISC.
MONUMENT	MON.
NORTH	N.
NORTH EAST	N.E.
NORTH WEST	N.W.
NUMBER	NO.
OUTLET	OUTL.
PERFORATED	PERF.
POINT OF CURVATURE	P.C.
POINT OF INTERSECTION	P.I.
POINT OF TANGENCY	P.T.
POINT ON TANGENT	P.O.T.
RADIUS, ROCK, RANGE	R.
RAILROAD	R.R.
REINFORCED	REINF.
REINFORCED CONCRETE PIPE	R.C.P.
RETURN	RET.
RIGHT	RT.
SANITARY	SAN.
SEWER	SEW.
SIDEWALK, SOUTH WEST	S.W.
SOUTH	S.
SOUTH EAST	S.E.
SPECIFICATION, SPECIAL	SPEC.
STANDARD	STD.
STATION	STA.
STORM, STATE, STUCCO	ST.
STREET, STONE, STEEL	ST.
SUBDRAIN	SD,SUBD
SURFACE	SURF.
TANGENT	TAN.
TURNING POINT, TELEPHONE POLE	T.P.
VARIABLE	VAR.
VEHICULAR MEASURE	V.M.
VERTICAL	VERT.
VERTICAL CURVE	V.C.
VETRIFIED	VIT.
WEST, WATER	W.

NOTE: SECTION NUMBERS READ FROM SOUTH



GOVERNING SPECIFICATIONS

State of Minnesota
The 2005 edition of the Minnesota Department of Transportation "Standard Specifications for Construction" shall govern except as modified by special provision.

City of Rochester
The 2011 edition of the Standard for Street and Utility Construction shall govern except as modified by special provision.

DESIGN DESIGNATION

ADT (Current Year)	2012	9,100
ADT (Future Year)	2032	12,740
HCADT (Future Year)	2032	5.9%
DESIGN LOADING		10 - TON
R - VALUE		10
SIGMA N_{18} (20)		2,817,000
FUNCTIONAL CLASSIFICATION		Minor Arterial
NO. AND WIDTH OF TRAFFIC LANES		2 @ 11 FT
NO. AND WIDTH OF PARKING LANES		2 @ 8 FT
DESIGN SPEED		30 MPH
BASED ON SIGHT DISTANCE		STOPPING
HEIGHT OF EYE		3.5 FT
HEIGHT OF OBJECT		2.0 FT
STOP CONDITION AT:		

DESIGN SPEED NOT ACHIEVED AT:
STA. TO . MPH

INDEX TO PLANS

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This plan contains 139 Total sheets

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Room 108 - City Hall
Rochester, MN 55904
Phone: (507) 328-2400
Fax: (507) 328-2401

Calvin Feine & Ron Wallace , Design Technician — Date 5-15-12

Russell Kelm, Design Engineer: I hereby certify that this plan was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Date: 5-15-12 Registration Number 24667

Approved: Douglas Nelson, Assist. City of Rochester Engineer — Date 5/15/12

Approved: Richard Freese, City of Rochester Engineer — Date 5/15/12

Recommended for Approval: — Date

District State Aid Engineer: Reviewed for Compliance with State-Aid Rules/Policy — Date

State Aid Engineer: Approved for Federal & State Aid Funding — Date

S.A.P. No. 159-115-005
Project No 6206-3-04 J 7732
Sheet 1 of 139 Sheets

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ELECTRONIC FILE

ESTIMATED QUANTITIES

NOTES	159-115-005 TABLE	159-115-005 SHEET NO	2170 TABLE	2170 SHEET NO	MNDOT	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL ESTIMATED QUANTITY	QUANTITY PARTICIPATING 159-115-005	QUANTITY NON-PARTICIPATING 159-115-005	QUANTITY NON-PARTICIPATING CITY 2170	QUANTITY STORM SEWER
					1 STREET (350)							
					2021.501/00010	MOBILIZATION	LS	1.00	0.26	0.09	0.60	0.05
	P	10	C	S-1	2101.502/00010	CLEARING	TREE	43.00	1.00		42.00	
	P	10	C	S-1	2101.507/00010	GRUBBING	TREE	43.00	1.00		42.00	
	G	7	D	S-1	2104.501/00022	REMOVE CURB AND GUTTER	LF	5,192.00	2,947.00		2,245.00	
	F	7	D	S-1	2104.505/00100	REMOVE PAVEMENT	SY	12,357.00	5,664.00		6,693.00	
	C	7	D	S-1	2104.505/00108	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	435.00	317.00		118.00	
	F	7	D	S-1	2104.505/00110	REMOVE CONCRETE PAVEMENT	SY	9,958.00	3,351.00		6,607.00	
			B	S-1	2104.505/00121	REMOVE BITUMINOUS SURFACING	SY	4,959.00			4,959.00	
	F	7	D	S-1	2104.511/00011	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	312.00	290.00		22.00	
	F	7	B	S-1	2104.513/00011	SAWING BIT PAVEMENT (FULL DEPTH)	LF	1,604.00	213.00		1,391.00	
			E	S-1	2104.521/00050	SALVAGE CHAIN LINK FENCE	LF	90.00			90.00	
			E	S-1	2104.521/00219	SALVAGE GUARD RAIL	LF	66.00			66.00	
	Y	11	E	S-1	2104.523/00539	SALVAGE SIGN	EACH	16.00	8.00		8.00	
	V	11	I	S-3	2105.501/00010	COMMON EXCAVATION (P)	CY	7,097.00	5,474.00		1,623.00	
	Q	11	M	S-3	2105.522/00031	SELECT GRANULAR BORROW MOD (CV) (P)	CY	6,634.00	4,874.00		1,760.00	
	T	11	K	S-3	2105.525/00010	TOPSOIL BORROW (LV) (P)	CY	1,116.00	130.00		986.00	
			K	S-3	2105.526/00030	SELECT TOPSOIL BORROW (CV)	CY	382.00		100.00	282.00	
			M	S-3	2211.501/00050	AGGREGATE BASE CLASS 5	TON	150.00	50.00	50.00	50.00	
	Q	11	M	S-3	2211.503/00050	AGGREGATE BASE (CV) CLASS 5 (P)	CY	2,895.00	1,406.00		1,489.00	
	Q	11	M	S-3	2301.501/00010	CONCRETE PAVEMENT	SY	12,687.00	7,408.00		5,279.00	
	Q	11	M	S-3	2301.511/00010	STRUCTURAL CONCRETE	CY	3,004.00	1,754.00		1,250.00	
2			M	S-3	2301.513/00010	STRUCTURAL CONCRETE HE	CY	200.00	100.00		100.00	
	Q	11	M	S-3	2301.529/00011	REINFORCEMENT BARS (EPOXY COATED)	LB	8,754.00	6,413.00		2,341.00	
	Q	11	M	S-3	2301.538/00010	DOWEL BAR	EACH	8,475.00	4,874.00		3,601.00	
			G	S-3	2301.541/00206	INTEGRANT CURB DESIGN B6	LF	213.00			213.00	
			G	S-3	2301.541/00207	INTEGRANT CURB DESIGN B6 MOD	LF	969.00			969.00	
					2301.545/00010	CONCRETE CORING	EACH	6.00	4.00		2.00	
	Q	11	M	S-3	2301.602/00016	DRILL & GROUT DOWEL BAR (EPOXY COATED)	EACH	266.00	187.00		79.00	
	Q	11	M	S-3	2301.602/00021	DRILL & GROUT REINF BAR (EPOXY COATED)	EACH	367.00	42.00		325.00	
	Q	11	M	S-3	2301.604/00111	CONCRETE PAVEMENT SPECIAL 1	SY	808.00	697.00		111.00	
	Q	11	M	S-3	2301.607/00101	STRUCTURAL CONCRETE (SPECIAL 1)	CY	192.00	165.00		27.00	
	Q	11	M	S-3	2360.501/12200	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	319.00	43.00		276.00	
	Q	11	M	S-3	2360.502/22200	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	571.00	143.00		428.00	
			N,P	S-4	2508.516/00010	CASTING ASSEMBLY	EACH	7.00			7.00	
6	R	11	G	S-3	2531.501/02320	CONCRETE CURB & GUTTER DESIGN B624	LF	3,142.00	1,984.00		1,158.00	
3	R	11	G	S-3	2531.501/02321	CONCRETE CURB & GUTTER DESIGN B624 (MOD)	LF	1,413.00	1,168.00		245.00	
	U	11	E	S-3	2531.507/00070	7" CONCRETE DRIVEWAY PAVEMENT	SY	500.00	172.00		328.00	
			A	S-1	2554.603/00022	INSTALL GUARDRAIL	LF	26.00			26.00	
			A	S-1	2557.603/00049	INSTALL SALVAGED FENCE	LF	90.00			90.00	
					2563.601/00010	TRAFFIC CONTROL	LS	1.00	0.26	0.09	0.60	0.05
	W	11			2564.531/00130	SIGN PANELS TYPE C	SF	145.00	145.00			
	X	11			2564.531/00140	SIGN PANELS TYPE D	SF	12.00	12.00			
	Y	11	E	S-1	2564.602/00015	INSTALL SIGN	EACH	12.00	8.00		4.00	
			L	S-3	2573.502/00040	SILT FENCE TYPE MACHINE SLICED	LF	3,129.00			3,129.00	
			L	S-3	2573.520/00010	SEDIMENT REMOVAL BACKHOE	HOUR	11.00			11.00	
4	T	11	L	S-3	2573.530/00010	STORM DRAIN INLET PROTECTION	EACH	32.00	20.00		12.00	
					2573.550/00010	EROSION CONTROL SUPERVISOR	LS	1.00	0.26	0.09	0.60	0.05
			L	S-3	2573.602/00020	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH	6.00			6.00	
	T	11	K	S-3	2575.505/00060	SODDING TYPE MINERAL	SY	9,800.00	1,200.00		8,600.00	
	S	11	T	S-5	2582.602/03001	PAVT MSSG (LT ARROW) EPOXY (WR)	EACH	10.00	8.00		2.00	
	S	11	T	S-5	2582.602/03002	PAVT MSSG (RT ARROW) EPOXY (WR)	EACH	3.00	2.00		1.00	
	S	11	T	S-5	2582.602/03116	PAVT MSSG (BIKE SYMBOL) EPOXY (WR)	EACH	8.00	8.00			
	S	11	T	S-5	2582.603/61104	4" SOLID LINE WHITE-EPOXY (WR)	LF	5,317.00	3,455.00		1,862.00	
	S	11	T	S-5	2582.603/61106	6" SOLID LINE WHITE-EPOXY (WR)	LF	1,517.00	1,318.00		199.00	
	S	11	T	S-5	2582.603/61204	4" BROKEN LINE WHITE-EPOXY (WR)	LF	98.00	60.00		38.00	
			T	S-5	2582.603/61524	24" STOP LINE WHITE-EPOXY (WR)	LF	87.00			87.00	
	S	11	T	S-5	2582.603/62404	4" DOUBLE SOLID LINE YELLOW-EPOXY (WR)	LF	1,985.00	1,031.00		954.00	
	S	11	T	S-5	2582.618/00140	CROSSWALK MARKING-EPOXY (WR)	SF	2,116.00	1,778.00		338.00	
					2 PED FACILITIES (550)							
	G	7	D	S-1	2104.505/00021	REMOVE CONCRETE WALK	SY	4,282.00	1,208.00		3,074.00	
	R	7	F	S-3	2521.501/00050	5" CONCRETE WALK	SF	32,091.00	6,405.00		25,686.00	
	R	7	F	S-3	2521.501/00051	5" CONCRETE WALK-EXPOSED AGGREGATE	SF	8,307.00	1,094.00		7,213.00	
	R	7	F	S-3	2521.501/00060	6" CONCRETE WALK	SF	5,049.00	5,049.00			
	R	7	F	S-3	2521.501/00070	7" CONCRETE WALK	SF	2,942.00	240.00		2,702.00	
			I	S-3	2521.603/00030	BITUMINOUS BIKE PATH	LF	549.00			549.00	
	R	7	F	S-3	2531.618/00010	TRUNCATED DOMES	SF	517.00	353.00		164.00	
					3 TRAFFIC (650)							
	K	9			2104.509/00155	REMOVE LIGHT BASE FOUNDATION	EACH	11.00	5.00		6.00	
					2104.509/00320	REMOVE SIGNAL SYSTEM	EACH	1.00	1.00			
					2104.509/00399	REMOVE HANDHOLE	EACH	5.00			5.00	
					2104.523/00421	SALVAGE LUMINAIRE	EACH	11.00	5.00		6.00	
	K	9			2104.523/00422	SALVAGE LIGHTING UNIT	EACH	1.00			1.00	
					2545.501/00001	ELECTRIC LIGHT SYSTEM	LS	1.00			1.00	
					2545.509/00005	CONDUIT SYSTEM	LS	1.00			1.00	
					2545.511/00102	LIGHTING UNIT TYPE SPECIAL 2	EACH	1.00			1.00	
					2545.511/00104	LIGHTING UNIT TYPE SPECIAL 4	EACH	1.00			1.00	
					2545.513/00010	LUMINAIRE	EACH	1.00			1.00	
					2545.515/00001	LIGHT BASE DESIGN A	EACH	20.00			20.00	
					2545.515/00004	LIGHT BASE DESIGN D	EACH	1.00			1.00	
					2565.511/00010	TRAFFIC CONTROL SIGNAL SYSTEM	SIGS	1.00	1.00			
					2565.602/00003	PVC HANDHOLE	EACH	9.00	2.00		7.00	
					2565.603/00130	3" NON-METALLIC CONDUIT	LF	2,100.00	600.00		1,500.00	
					2565.616/00101	REVISE SIGNAL SYSTEM A	SYS	1.00	1.00			
					2565.616/00102	REVISE SIGNAL SYSTEM B	SYS	1.00			1.00	

STANDARD DETAIL PLATES

CITY OF ROCHESTER

NO.	DETAIL PLATE
1-01	STRUCTURE TYPE 1
1-03	STRUCTURE TYPES 3 AND 3A
1-04	STRUCTURE TYPE 4 (XX)
1-05	STRUCTURE TYPE 5 (XX)
1-07	MANHOLE WATERPROOFING
1-10	CURB BOX COVER
1-11	CASTING REFERENCE NUMBERS
1-12	STANDARD CASTINGS ASSEMBLIES
1-13	STRUCTURE ADJUSTING RINGS
1-14	BLIND-TIE FIELD CONNECTION FOR R.C.P. STORM SEWER
2-01	CONCRETE CURB & GUTTER
2-02	CONCRETE SILL
2-06	CURB & GUTTER REINFORCEMENT AT CATCH BASINS
2-07	CONCRETE DRIVE APPROACH TYPE A
2-13	PEDESTRIAN CURB RAMP
2-14	SIDEWALK DETAILS
5-02	POLYSTYRENE INSULATION
6-04	HYDRANT BRANCH DETAIL
6-05	RESTRAINED JOINT DETAIL
6-06	POLYETHYLENE ENCASEMENT
7-05	INLET PROTECTION

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

STATE OF MINNESOTA

NO.	DETAIL PLATE
1103J	TYPICAL DOWEL BAR ASSEMBLY
1141D	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION
1150Q	CONSTRUCTION OF HEADER JOINTS
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R.C. PIPE
7020J	CONCRETE CURB
7036E	PEDESTRIAN CURB RAMP
8000I	STANDARD BARRICADES

ESTIMATED QUNATITIES NOTES:
(P) PLANNED QUANTITY
(1) BITUMINOUS MATERIAL FOR TACKCOAT INCIDENTAL
(2) INCLUDES AS A TOKEN AMOUNT NOT SUBJECT TO THE PROVISIONS OF 1903
(3) TO BE USED IN AREAS WHERE SIDEWALK ABUTS CURB AND GUTTER
(4) SEE CITY OF ROCHESTER STANDARD DETAIL PLATE 7-05
(5) TO BE POLYETHENE ENCASED SEE CITY DETAIL PLATE 6-06
(6) INCLUDES TRANSITION CURB

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-3401

Title: ESTIMATED QUANTITIES ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 2 of 139 Sheets

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ESTIMATED QUANTITIES

NOTES	159-115-005 TABLE	159-115-005 SHEET NO	2170 TABLE	2170 SHEET NO	MNDOT	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL ESTIMATED QUANTITY	QUANTITY PARTICIPATING 159-115-005	QUANTITY NON-PARTICIPATING 159-115-005	QUANTITY NON-PARTICIPATING CITY 2170	QUANTITY STORM SEWER
					4 STORM SEWER (450)							
	D	7	N	S-4	2104.501/00016	REMOVE SEWER PIPE (STORM)	L F	2,728.00			1,161.00	1,567.00
	D	7	N	S-4	2104.509/00101	REMOVE MANHOLE	EACH	15.00			1.00	14.00
	D	7	N	S-4	2104.509/00102	REMOVE CATCH BASIN	EACH	31.00			11.00	20.00
	O	10	V	S-6	2503.511/90125	12" RC PIPE SEWER CLASS V	L F	658.00			146.00	512.00
	O	10	V	S-6	2503.511/90153	15" RC PIPE SEWER CLASS III	L F	522.00			449.00	73.00
	O	10	V	S-6	2503.511/90183	18" RC PIPE SEWER CLASS III	L F	199.00				199.00
	O	10	V	S-6	2503.511/90243	24" RC PIPE SEWER CLASS III	L F	545.00				545.00
	O	10	V	S-6	2503.511/90363	36" RC PIPE SEWER CLASS III	L F	977.00				977.00
			V	S-6	2503.511/90483	48" RC PIPE SEWER CLASS III	L F	295.00			295.00	
			V	S-6	2503.571/00014	INSTALL PIPE SEWER	L F	60.00			60.00	
			U	S-6	2503.602/00042	CONNECT TO EXISTING STORM SEWER	EACH	5.00			5.00	
			V	S-6	2503.603/06150	15" HDPE PIPE SEWER	L F	60.00			60.00	
			V	S-6	2503.603/06240	24" HDPE PIPE SEWER	L F	35.00			35.00	
	I	8			2506.502/00300	CONST DRAINAGE STRUCTURE DESIGN SPECIAL	EACH	3.00				3.00
	I	8	U	S-6	2506.502/00301	CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	33.00			8.00	25.00
	I	8	U	S-6	2506.502/00304	CONST DRAINAGE STRUCTURE DESIGN SPEC 4	EACH	16.00			6.00	10.00
	I	8			2506.502/00305	CONST DRAINAGE STRUCTURE DESIGN SPEC 5	EACH	5.00				5.00
	I	8			2506.502/00306	CONST DRAINAGE STRUCTURE DESIGN SPEC 6	EACH	2.00				2.00
	I	8			2506.502/00307	CONST DRAINAGE STRUCTURE DESIGN SPEC 7	EACH	2.00				2.00
	I	8			2506.602/00024	CONNECT INTO EXISTING CATCH BASIN	EACH	2.00				2.00
			U	S-6	2506.602/00025	CONNECT INTO EXISTING MANHOLE	EACH	4.00			4.00	
			V	S-6	S100.520/00080	FURNISH & INSTALL 8IN ALTERNATE PIPE SEWER	L F	13.00			13.00	
					5 SANITARY SEWER (250)							
	H	7			C150.569/00010	RECONNECT EXISTING SEWER SERVICE CONNECTIONS	EACH	7.00		7.00		
	H	7	O	S-4	C150.570/00010	RECONSTRUCT EXISTING SEWER SERVICE CONNECTIONS	EACH	8.00		1.00	7.00	
					S100.501/00610	TRENCH EXCAVATION FOR PIPE 24IN & UNDER 6FT TO 10FT DEEP	LIN FT	691.00		691.00		
					S100.501/01013	TRENCH EXCAVATION FOR PIPE 24IN & UNDER 10FT TO 13FT DEE	LIN FT	213.00		213.00		
					S100.502/01013	TRENCH EXCAVATION FOR PIPE OVER 24IN 10FT TO 13FT DEEP	L F	1,275.00			1,275.00	
					S100.502/01315	TRENCH EXCAVATION FOR PIPE OVER 24IN 13FT TO 15FT DEEP	L F	444.00			444.00	
					S100.502/01517	TRENCH EXCAVATION FOR PIPE OVER 24IN 15FT TO 17FT DEEP	L F	181.00			181.00	
					S100.502/01719	TRENCH EXCAVATION FOR PIPE OVER 24IN 17FT TO 19FT DEEP	L F	480.00		263.00	217.00	
					S100.502/01921	TRENCH EXCAVATION FOR PIPE OVER 24IN 19FT TO 21FT DEEP	L F	425.00		111.00	314.00	
					S100.502/02123	TRENCH EXCAVATION FOR PIPE OVER 24IN 21FT TO 23FT DEEP	L F	553.00			553.00	
					S100.502/02325	TRENCH EXCAVATION FOR PIPE OVER 24IN 23FT TO 25FT DEEP	L F	474.00			474.00	
					S100.502/02527	TRENCH EXCAVATION FOR PIPE OVER 24IN 25FT TO 27FT DEEP	L F	120.00			120.00	
					S100.505/00200	SIPHON SYSTEM	LS	1.00			1.00	
					S100.507/00010	SOLID ROCK EXCAVATION	C Y	3,087.00		664.00	2,423.00	
					S100.510/00020	GRANULAR MATERIAL FOR BACKFILL (LV)	C Y	200.00		100.00	100.00	
					S100.511/00010	AGGREGATE FOR PIPE FOUNDATION GRADATION A	C Y	200.00		100.00	100.00	
	L	9	S	S-5	S100.520/00080	FURNISH & INSTALL 8IN ALTERNATE PIPE SEWER	LIN FT	1,626.00		904.00	722.00	
			S	S-5	S100.520/00150	FURNISH & INSTALL 15IN ALTERNATE PIPE SEWER	L F	39.00			39.00	
			S	S-5	S100.520/00210	FURNISH & INSTALL 21IN ALTERNATE PIPE SEWER	L F	278.00			278.00	
			S	S-5	S100.520/00360	FURNISH & INSTALL 36IN ALTERNATE PIPE SEWER	L F	520.00			520.00	
	L	9	S	S-5	S100.520/00420	FURNISH & INSTALL 42IN ALTERNATE PIPE SEWER	L F	3,295.00		374.00	2,921.00	
			S	S-5	S100.538/00360	JACK & AUGER 36IN CASING	L F	221.00			221.00	
	J	9			S100.545/30010	CONSTRUCT STRUCTURE TYPE 3 6FT TO 10FT DEEP	STR	1.00		1.00		
	J	9	R	S-5	S100.545/30013	CONSTRUCT STRUCTURE TYPE 3 10FT TO 13FT DEEP	STR	5.00		2.00	3.00	
			R	S-5	S100.545/30017	CONSTRUCT STRUCTURE TYPE 3 15FT TO 17FT DEEP	STR	1.00			1.00	
			R	S-5	S100.545/40619	CONSTRUCT STRUCTURE TYPE 4 (72IN) 17FT TO 19FT DEEP	STR	1.00			1.00	
			R	S-5	S100.545/50513	CONSTRUCT STRUCTURE TYPE 5 (60IN) 10FT TO 13FT DEEP	STR	1.00			1.00	
			R	S-5	S100.545/50613	CONSTRUCT STRUCTURE TYPE 5 (72IN) 10FT TO 13FT DEEP	STR	6.00			6.00	
			R	S-5	S100.545/50615	CONSTRUCT STRUCTURE TYPE 5 (72IN) 13FT TO 15FT DEEP	STR	1.00			1.00	
			R	S-5	S100.545/50617	CONSTRUCT STRUCTURE TYPE 5 (72IN) 15FT TO 17FT DEEP	STR	1.00			1.00	
			R	S-5	S100.545/50623	CONSTRUCT STRUCTURE TYPE 5 (72IN) 21FT TO 23FT DEEP	STR	2.00			2.00	
	J	9	R	S-5	S100.545/55621	CONSTRUCT STRUCTURE TYPE 5A (72IN) 19FT TO 21FT DEEP	STR	2.00		1.00	1.00	
	J	9	R	S-5	S100.545/55623	CONSTRUCT STRUCTURE TYPE 5A (72IN) 21FT TO 23FT DEEP	STR	2.00		1.00	1.00	
			R	S-5	S100.545/55725	CONSTRUCT STRUCTURE TYPE 5A (84IN) 23FT TO 25FT DEEP	STR	1.00			1.00	
			R	S-5	S100.545/55921	CONSTRUCT STRUCTURE TYPE 5A (108IN) 19FT TO 21FT DEEP	STR	2.00		1.00	1.00	
	A	9	P	S-4	S100.564/00020	REMOVE MANHOLE	EACH	19.00		6.00	13.00	
	A	9	P	S-4	S100.564/10080	REMOVE PIPE SEWER	L F	3,667.00		1,331.00	2,336.00	
	A	9	P	S-4	S100.566/10080	ABANDON PIPE SEWER	L F	396.00		208.00	188.00	
	J	9	R	S-5	S100.572/00020	CONNECT INTO EXISTING SANITARY SEWER	EACH	4.00		3.00	1.00	
					6 WATERMAIN (150)							
	E	7	Q	S-4	2104.501/00013	REMOVE WATER MAIN	L F	3,489.00		1,723.00	1,766.00	
	E	7	Q	S-4	2104.509/00108	REMOVE GATE VALVE & BOX	EACH	28.00		14.00	14.00	
	E	7	Q	S-4	2104.509/00111	REMOVE HYDRANT	EACH	6.00		5.00	1.00	
	H	7	O	S-4	2504.602/00002	WATER SERVICE SYSTEM	EACH	7.00		3.00	4.00	
	H	7	O	S-4	2504.602/00007	RECONNECT WATER SERVICE	EACH	14.00		7.00	7.00	
	N	10	W	S-6	2504.602/00020	HYDRANT	EACH	7.00		6.00	1.00	
	N	10	W	S-6	2504.602/00806	6" GATE VALVE AND BOX	EACH	12.00		7.00	5.00	
	N	10	W	S-6	2504.602/00808	8" GATE VALVE AND BOX	EACH	17.00		12.00	5.00	
			W	S-6	2504.602/00812	12" GATE VALVE AND BOX	EACH	1.00			1.00	
5	N	10	W	S-6	2504.603/01062	6" WATERMAIN DUCTILE IRON CL 52	L F	350.00		206.00	144.00	
5	N	10	W	S-6	2504.603/01082	8" WATERMAIN DUCTILE IRON CL 52	L F	2,625.00		1,714.00	911.00	
			W	S-6	2504.603/01122	12" WATERMAIN DUCTILE IRON CL 52	LF	310.00			310.00	
	N	10	W	S-6	2504.608/00015	WATERMAIN FITTINGS	LB	3,068.00		1,447.00	1,621.00	

ESTIMATED QUNATITIES NOTES:
(P) PLANNED QUANTITY
(1) BITUMINOUS MATERIAL FOR TACKCOAT INCIDENTAL
(2) INCLUDES AS A TOKEN AMOUNT NOT SUBJECT TO THE PROVISIONS OF 1903
(3) TO BE USED IN AREAS WHERE SIDEWALK ABUTS CURB AND GUTTER
(4) SEE CITY OF ROCHESTER STANDARD DETAIL PLATE 7-05
(5) TO BE POLYETHENE ENCASED SEE CITY DETAIL PLATE 6-06
(6) INCLUDES TRANSITION CURB

Revision comment: —
Reissue: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24967

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: ESTIMATED QUANTITIES ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 3 of 139 Sheets

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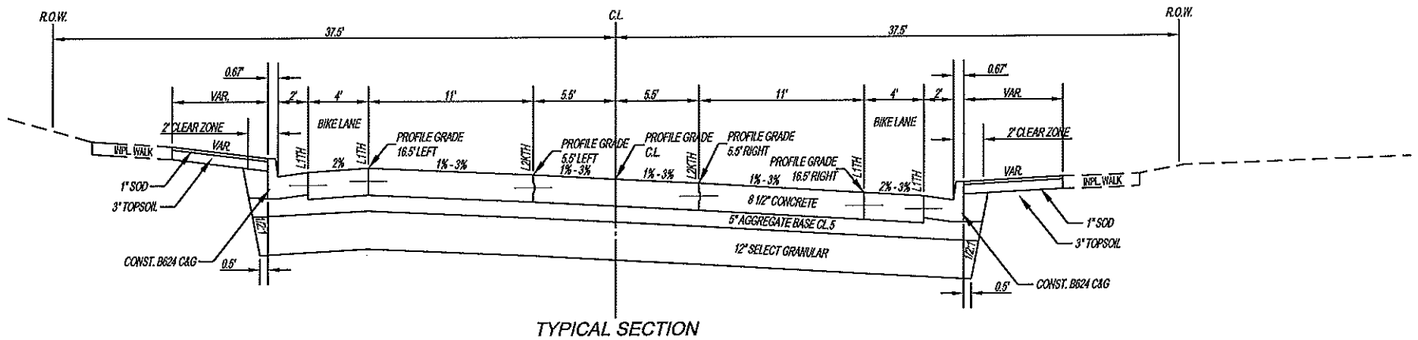
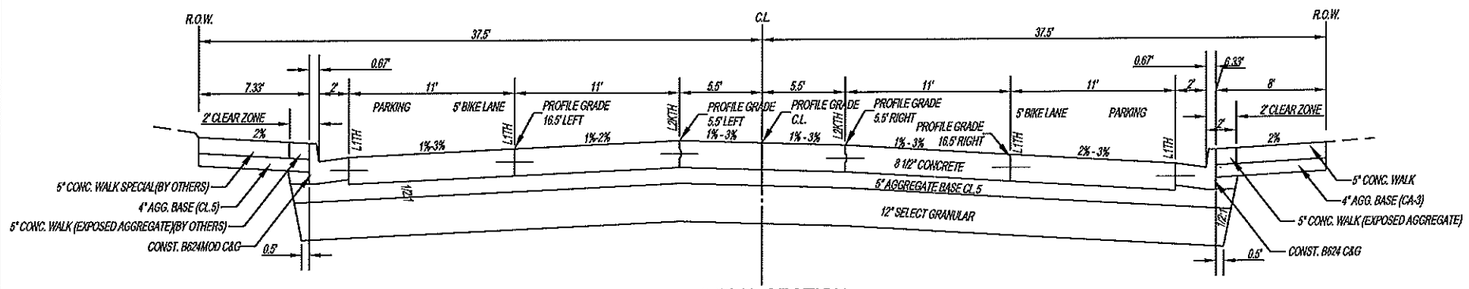
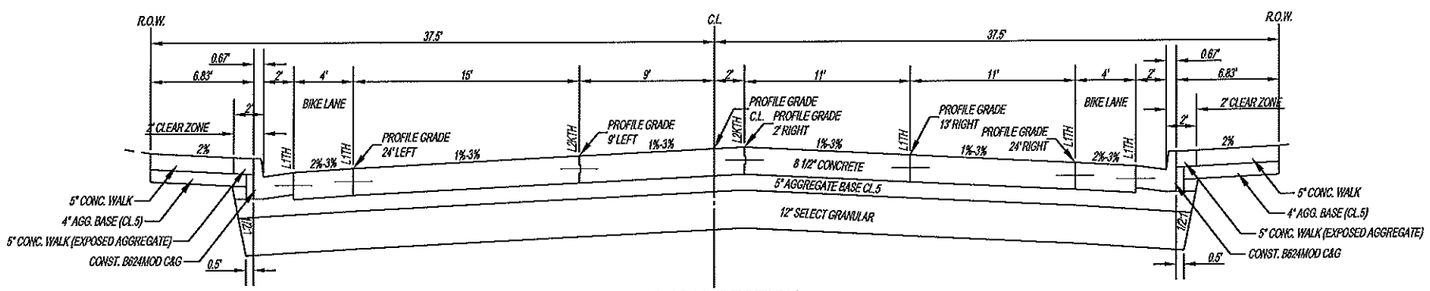


TYPICAL SECTION
FROM 4TH AVE SW TO 2ND AVE SW
STA. 85+95.00 TO STA. 92+41.09

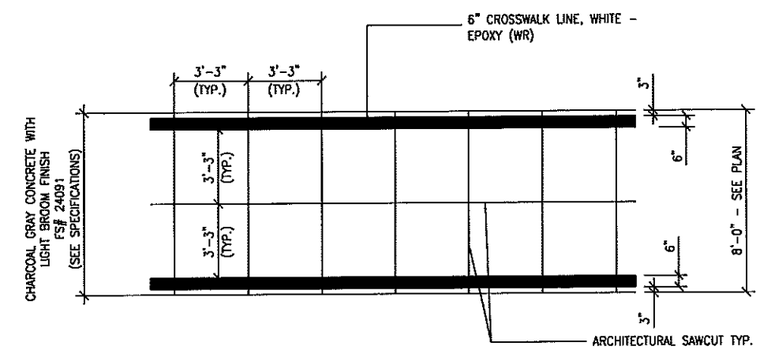


TYPICAL SECTION
FROM 2ND AVE SW TO 1ST AVE SW
STA. 92+41.09 TO STA. 96+14.39

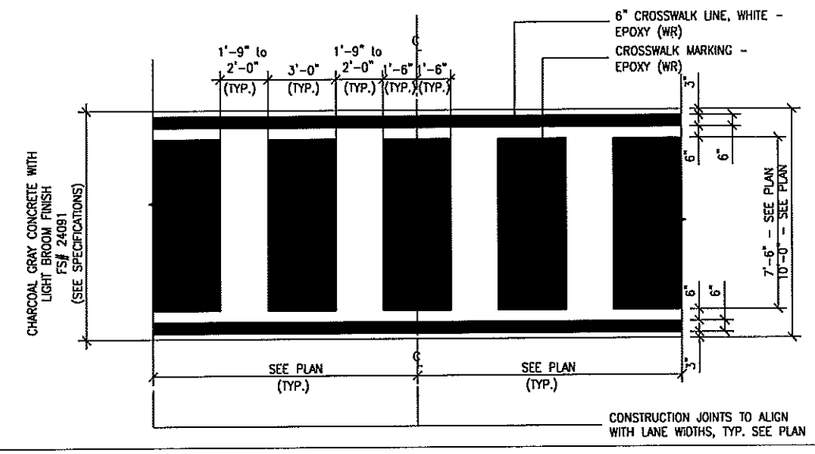


TYPICAL SECTION
FROM 1ST AVE SW TO SOUTH BROADWAY
STA. 96+14.39 TO STA. 99+92.41

TYPICAL CROSSWALK PLAN DETAIL AVENUE



TYPICAL CROSSWALK PLAN DETAIL STREET



Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
231 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: TYPICAL SECTIONS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 4 of 139 Sheets

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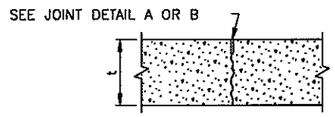
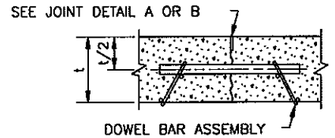
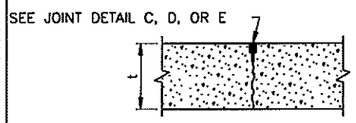


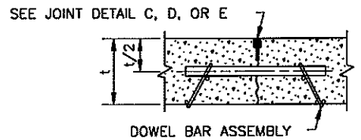
C1U & C2H



C1U–D & C2H–D



C3P, C4S, C5H



C3P–D, C4S–D, C5H–D

CONTRACTION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

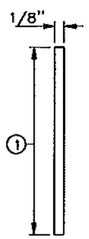
JOINT REFERENCE		JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
WITHOUT DOWELS	WITH DOWELS			
C1U	C1U–D	A	UNSEALED	1/8"
C2H	C2H–D	B	3725	1/8"
C3P	C3P–D	C	3721	3/8"
C4S	C4S–D	D	3722	3/8"
C5H	C5H–D	E	3725	3/8"

LEGEND
C = CONTRACTION JOINT
NO. = JOINT REFERENCE
U = UNSEALED
H = HOT POURED
P = PREFORMED
S = SILICONE
–D = DOWEL BARS

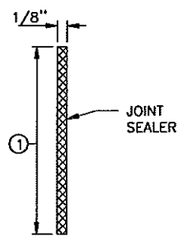
EXAMPLE
C2H–D

DOWEL BAR DIAMETER TABLE

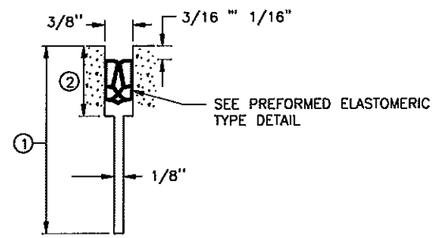
PAVEMENT THICKNESS t	DOWEL BAR DIAMETER
LESS THAN 6"	NONE
6" – 6 1/2"	1"
7" – 10"	1 1/4"
10 1/2" – 14"	1 1/2"



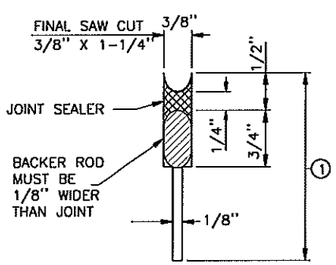
JOINT DETAIL A
SAWED & UNSEALED



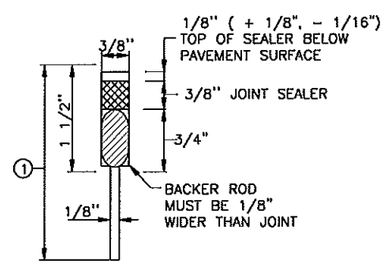
JOINT DETAIL B ③
SAWED & SEALED



JOINT DETAIL C ③
SAWED AND SEALED



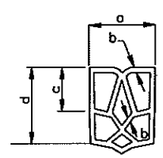
JOINT DETAIL D ③④
SAWED AND SEALED



JOINT DETAIL E ③⑤
SAWED AND SEALED

REQUIRED DIMENSIONS

JOINT TYPE	TRANSVERSE
NOMINAL SEALER SIZE USE IN ALL 3/8" JOINTS	11/16"
a 0.69"	+ 0.13" – 0.05"
b	0.08" ± 0.02"
c	0.25" MIN.
d	0.63" MIN.



SPEC. REFERENCE 3721

TYPICAL SHAPE FOR SATISFACTORY INSTALLATION IN JOINT (5 CELL MIN.)

PREFORMED ELASTOMERIC TYPE DETAIL

CONTRACTION JOINTS
DESIGN C

NOTES:

SEE STANDARD PLATE 1103 FOR DOWEL BAR ASSEMBLY.

SEE STANDARD PLATE 1150 FOR CONSTRUCTION OF HEADER JOINTS.

JOINT WIDTH TOLERANCE IS + 1/16" TO – 1/32"

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SEE STANDARD PLANS 5-297.217 AND 5-297.219, FOR CONCRETE MAINLINE/RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATION TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

① JOINT DEPTH SHALL BE:
FOR CONCRETE OVERLAYS – 1/3 THE PAVEMENT THICKNESS
FOR CONCRETE PAVEMENT – 1/4 THE PAVEMENT THICKNESS

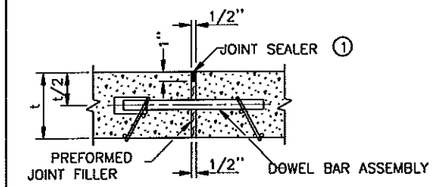
② SEE CONTRACTION JOINT SEALER DETAIL. WHEN USING PREFORMED JOINT SEALER, THE DEPTH SHALL BE 1/4" MORE THAN THE PREFORMED SEALER, WHEN COMPRESSED, TO FIT THE JOINT DESIGN WIDTH. "a" DIMENSION SHALL APPLY AT ANY POINT THROUGHOUT "c" DEPTH. SHARP INTERNAL CORNERS WILL NOT BE PERMITTED. ALL CORNERS SHALL BE PROVIDED WITH SUITABLE FILLET.

③ WHEN SEALING, THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

④ PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2"BELOW THE SURFACE OF THE PAVEMENT. NON SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEAL AND BEAD THICKNESS OF 1/4".

⑤ PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF PAVEMENT.

STATE PROJ. NO. 159-116-005



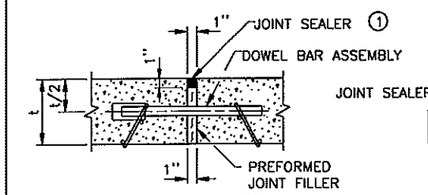
E1H–D (W/DOWELS) E1H (W/O DOWELS)
JOINT DETAIL A

EXPANSION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

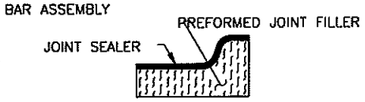
JOINT REFERENCE		JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
WITHOUT DOWELS	WITH DOWELS			
E1H	E1H–D	A	3725	1/2"
E2H	E2H–D	B	3725	1"
E4H		C	3725	2"
	E4H–D	D	3725	2"
E8H		STANDARD PLAN 5-297.229	3725	4"

LEGEND
E = EXPANSION JOINT
NO. = JOINT REFERENCE
H = HOT POURED
–D = DOWEL BARS

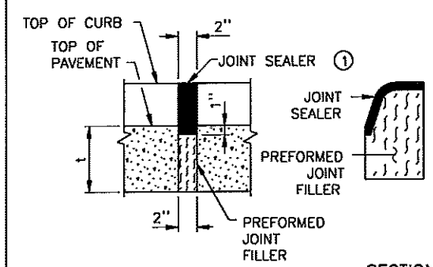
EXAMPLE
E4H–D



E2H–D (W/DOWELS) E2H (W/O DOWELS)
JOINT DETAIL B

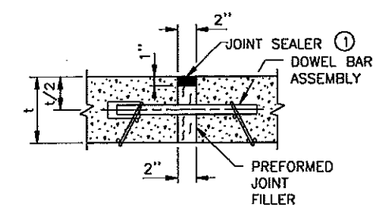


SECTION THRU CURB

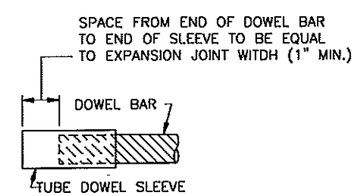


E4H (W/O DOWELS)
JOINT DETAIL C

SECTION THRU CURB



E4H–D (W/DOWELS)
JOINT DETAIL D



DOWEL BAR SLEEVE DETAIL

NOTES:

PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.

FOR DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.

① JOINT SEALER SPEC. 3725. THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. TOP OF SEALER, FLUSH TO 1/8" BELOW TOP OF PAVEMENT SURFACE. MAKE TOP OF SEALER FOR CURB SECTION D JOINTS FLUSH WITH SURFACE '1/8".

EXPANSION JOINTS
DESIGN E

STANDARD SHEET NO. 5-297.221 (1 OF 2)
STANDARD APPROVED: APRIL 14, 2010

TITLE: PAVEMENT JOINTS
CONTRACTION (DESIGN C) AND EXPANSION (DESIGN E)

PROJ. NO. 6206-3-04 J7732 SHEET NO. 5 OF 139 SHEETS

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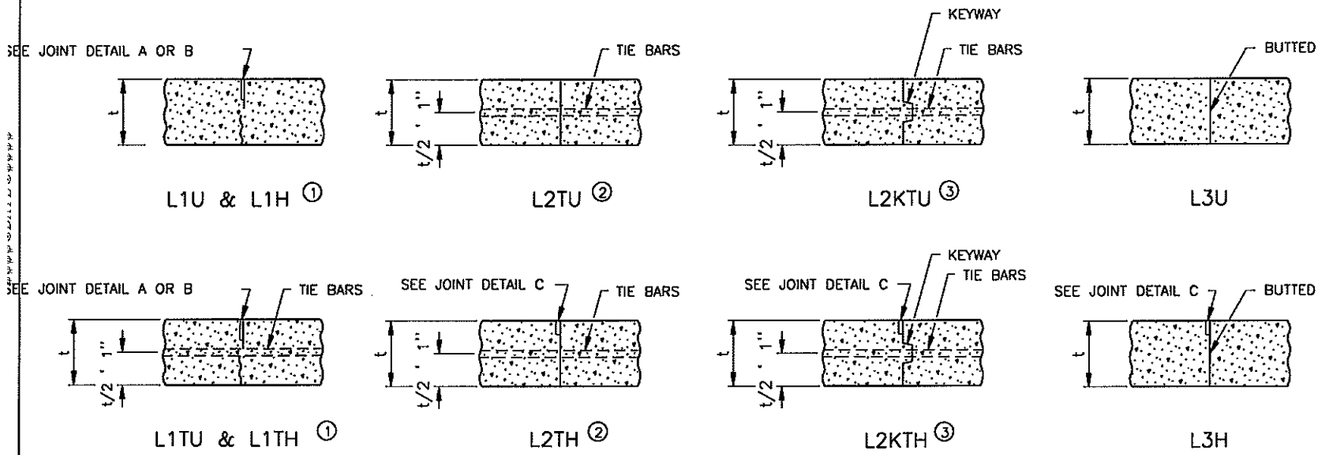
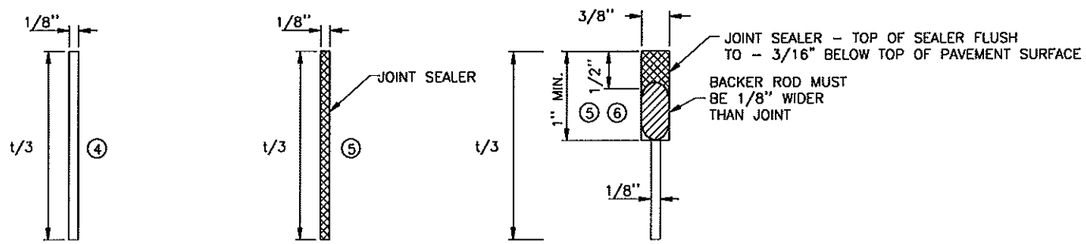
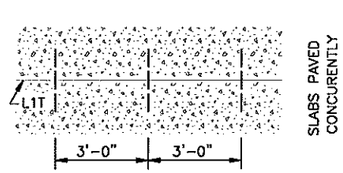
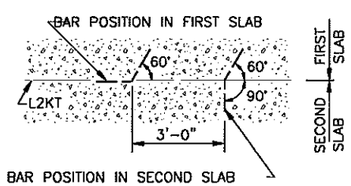


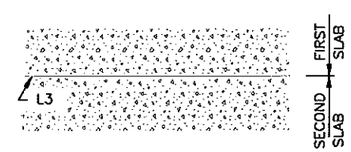




L1T PAVING DETAIL



L2T & L2KT TIE BAR BENDING AND PAVING DETAIL



L3 PAVING DETAIL

TIEBAR TABLE

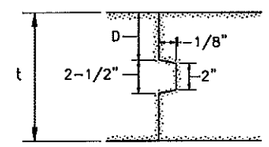
PAVEMENT THICKNESS	TIEBAR SIZE	LENGTH
< 10-1/2"	NO. 13	30"
≥ 10-1/2"	NO. 16	36"
ALL THICKNESS WHEN TYING TO CURB AND GUTTER	NO. 13	30"

ALL REBARS ARE IN METRIC DESIGNATIONS

THE TIE BAR SPACING FOR ALL L2T AND L2KT JOINTS SHALL BE 3'-0" CENTER TO CENTER AND BENT 60' AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

TIE BARS IN THE L2T AND L2KT JOINTS SHALL BE THE SAME SIZE AND LENGTH AS USED FOR THE L1T JOINTS, WHEN TYING PAVEMENT TO PAVEMENT. TIE BARS IN THE L2KT JOINTS SHALL BE NO. 13 X 2' – 6", WHEN TYING CURB & GUTTER TO PAVEMENT.

ALL TIE BARS SHALL BE EPOXY COATED AND COMPLY WITH SPEC. 3301.



PAVEMENT KEYWAY DETAIL

KEYWAY DIMENSION TABLE

t PAVEMENT THICKNESS	D (TOLERANCE ' 1/4")
< 7"	NO KEYWAY
7"TO 7-1/2"	3"
8"TO 10"	4"
≥ 10-1/2"	5"

KEYWAY (1-1/8" x 2" x 2-1/2") MAY BE FORMED WITH MOLD OR METAL FORM. OTHER APPROVED KEYWAY SHAPES GIVING EQUIVALENT CONSTRUCTION FEATURES MAY BE USED WITH APPROVAL OF THE ENGINEER.

LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE

JOINT REFERENCE			JOINT DETAIL	JOINT SEALER SPEC	JOINT WIDTH
WITHOUT TIE BARS	WITH TIE BARS	WITH KEYWAY & TIE BARS			
L1U	L1TU		A	UNSEALED	1/8"
L1H	L1TH		B	3725	1/8"
	L2TU	L2KTU	NONE	UNSEALED	
	L2TH	L2KTH	C	3725	3/8"
L3U			NONE	UNSEALED	
L3H			C	3725	3/8"

LEGEND — EXAMPLE: L2KTH

- L = LONGITUDINAL JOINT
- NO. = JOINT REFERENCE
- 1 = PAVED CONSTRUCTION JOINT
- 2 = TIED/KEYED CONSTRUCTION JOINT
- 3 = BUTTED CONSTRUCTION JOINT
- K = KEYWAY
- T = TIE BARS
- U = UNSEALED
- H = HOT POURED

NOTES:

NORMALLY, TIED PAVEMENT WIDTHS SHALL NOT EXCEED FOUR LANES, EXCEPT BRIDGE APPROACH PANELS AND PAVEMENT TAPERS.

JOINT WIDTH TOLERANCE IS + 1/16 IN. TO – 1/32 IN.

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

TIED/KEYED AND BUTTED CONSTRUCTION JOINTS SHALL BE UNSEALED EXCEPT AS OTHERWISE NOTED IN THE PLAN OR REQUIRED BY THE ENGINEER.

SEE STANDARD PLANS 5-297.217 AND 5-297.219 FOR CONCRETE MAINLINE AND RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATIONS TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

WHEN CURB AND GUTTER IS PLACED ADJACENT TO CONCRETE MAINLINE, THE TIEBARS SHALL BE PLACED A MINIMUM OF 2" ABOVE THE CURB AND GUTTER GRADE.

① SEE THE LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE TO DETERMINE JOINT DETAIL.

② CONCRETE PAVEMENTS LESS THAN 7" SHALL USE L2TU AND L2TH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

③ CONCRETE PAVEMENTS GREATER THAN OR EQUAL TO 7" SHALL USE L2KTU AND L2KTH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

④ THE JOINT FACES SHALL BE CLEANED WITH WATER DURING THE SAW CUTTING OPERATION OR BY WATER BLASTING AFTER SAWING.

⑤ THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

⑥ PRIOR TO SEALING THE JOINT, A 1/2" DIAMETER CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF THE PAVEMENT.

STANDARD SHEET NO. 5-297.221 (2 OF 2)	TITLE: PAVEMENT JOINTS LONGITUDINAL (DESIGN L)
STANDARD APPROVED: APRIL 14, 2010	

STATE PROJ. NO. 159-116-005 | PROJ. NO. 6206-3-04 | J7732 | SHEET NO. 6 OF 139 SHEETS

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INPLACE SANITARY SEWER STRUCTURES (A)

STATION-LOCATION	STRUCT TYPE	INPLACE CASTING EL.	REMOVE MH	REMOVE PIPE (LIN FT)	ABANDON PIPE (LIN FT)	INL EL	INV EL	REMARKS
85+26.8-0.4 RT	MH	1020.08		108.4			1005.61	
86+54.2-0.1 RT	MH	1016.43	1	271.8			1004.82	
88+69.3-0.1 RT	MH	1011.95	1	372.4			1003.45	
90+55.5-42.3 LT	MH	1008.03					1002.22	
92+41.7-0.0 LT	MH	1002.82	1	185.0		992.33-W	987.26	
94+26.7-0.0 RT	MH	1000.37	1	186.7			986.92	
96+13.4-0.9 RT	MH	999.37	1	206.1			986.26	
98+19.5-0.4 RT	MH	998.45	1		207.7		985.81	PLUG PIPE TO EAST
100+27.2-0.0 RT	MH	997.35				985.31-W	980.99	PLUG PIPE TO WEST
			6	1331	208	TOTALS		

INPLACE UTILITY STRUCTURES (B)

STATION-LOCATION	STRUCT TYPE	CASTING ELEV	ADJUST CASTING	REMARKS
92+64.5-24.3 RT	TELE_MH	1001.98	1001.76	
92+73.2-25.9 RT	TELE_MH	1001.70	1001.44	
93+97.9-36.8 RT	ELEC_MH	1000.14	1000.10	
95+88.2-26.9 RT	TELE_MH	999.09	998.78	
96+47.7-49.9 RT	ELEC_MH	998.71	999.10	
96+49.4-42.1 RT	ELEC_MH	998.73	999.10	

CONCRETE DRIVE REMOVALS (C)

ADDRESS	(SQ YD)	REMARKS
#315 6TH ST SW	8.0	
#316 6TH ST SW	11.9	
#304 6TH ST SW	12.9	
#519 3RD AVE SW	11.5	
#526 3RD AVE SW	21.2	
#210 6TH ST SW	22.6	
ALLEY W. OF #205 6TH ST SW	16.9	
#205 6TH ST SW WEST DR.	20.9	
#205 6TH ST SW EAST DR.	22.7	
#205 6TH ST SW DR. ON AVE.	19.4	
#119 6TH ST SW	21.6	
ALLEY E. OF #119 6TH ST SW	14.9	
#519 1ST AVE SW	19.6	
#601 1ST AVE SW	19.5	
#24 6TH ST SW	19.4	
FIRE HOUSE #1	40.7	
ALLEY E. OF #16 6TH ST SW	12.7	
	317	

INPLACE STORM SEWER STRUCTURES (D)

STATION-LOCATION	STRUCT TYPE	INPLACE CASTING EL.	REMOVE MH	REMOVE CB	REMOVE PIPE (LIN FT)	INL EL	INL EL	INL EL	OUTL EL	REMARKS
86+15.0-8.6 RT	STO_MH	1016.79	1			1011.0-S	1011.0-N	1010.22-W	1010.22-E	
86+15.0-21.9 RT	3'_CB	1015.80		1	13.3				1011.67-N	
86+15.1-22.2 LT	3'_CB	1017.35		1	30.9			1013.34-NE	1013.29-S	
86+33.6-40.6 LT	3'_CB	1017.66		1	26.0				1013.58-SW	
86+68.6-40.8 LT	3'_CB	1016.68		1	48.2				1012.58-S	
88+29.8-8.0 RT	STO_MH	1012.53	1			1007.0-S	1007.0-N	1006.35-W	1006.35-E	
88+29.9-22.0 RT	3'_CB	1011.87		1	14.0				1008.29-N	
88+30.0-22.1 LT	3'_CB	1012.07		1	30.1			1008.68-NE	1008.51-S	
88+48.4-40.7 LT	3'_CB	1012.38		1	26.2				1008.87-SW	
88+75.7-8.1 RT	STO_MH	1011.70	1		4.0		1006.85-N	1005.98-W	1005.18-E	
88+88.6-41.1 LT	3'_CB	1011.25		1	17.4				1008.23-SW	
90+36.6-8.3' RT	STO_MH	1007.22	1					1000.60-W	1000.60-E	
92+00.6-8.4' RT	STO_MH	1002.57	1		44.8		998.17-S	996.92-W	996.12-SE	
92+00.6-22.1 RT	3'_CB	1001.78		1	13.7				998.30-N	
92+00.8-22.0 LT	2'_CB	1002.68		1	30.4			1000.49-NW	1000.19-E	
92+18.7-40.6 LT	3'_CB	1002.50		1	5.8				1000.28-E	
92+19.2-40.2 RT	2'_CB	1001.45		1	13.3				997.59-E	
92+24.0-16.1 LT	STO_MH	1003.19	1		67.6		999.44-W	999.00-N	998.82-S	
92+24.7-16.7 RT	DI MH	1002.59	1		194.0			997.29-N	996.72-E	
92+32.5-39.8 RT	STO_MH	1002.10	1				997.27-W	995.22-NW	995.22-S	
92+66.2-49.0 LT	3'_CB	1002.60		1	44.0				1000.79-W	
94+18.2-30.2 LT	2'_CB	999.50		1	47.2			997.46-N	996.67-S	
94+18.6-17.0 RT	STO_MH	999.98	1		216.0	994.85-N	994.84-S	994.44-W	994.44-W	
94+18.9-30.1 RT	3'_CB	999.16		1	13.1				994.99-N	
95+59.9-30.1 LT	3'_CB	998.48		1	32.6				996.02-NE	
95+62.0-30.3 RT	3'_CB	998.01		1	10.9			995.07-S	994.87-N	
95+84.3-51.7 LT	3'_CB	998.67		1	10.0			995.67-SW	995.49-N	
95+88.1-60.9 LT	STO_MH	998.61			57.6			995.44-S	994.12-SE	
96+34.0-26.0 LT	STO_MH	999.22	1		46.6		993.13-NW	995.48-NE	992.14-S	
96+34.6-20.6 RT	STO_MH	999.20	1		168.8		990.84-W	989.52-NE	989.52-S	
96+45.3-45.3 LT	3'_CB	998.71		1	22.4				996.38-SW	
97+19.9-38.2 LT	2'_CB	998.54							995.27-E	
97+56.7-41.2 LT	DI MH	998.48			56.0		991.84-N	992.03-NE	991.99-SE	
98+01.0-41.4 RT	DI MH	997.90			47.7			992.64-S	992.51-N	
98+01.3-6.3 LT	STO_MH	998.47	1		9.0	991.73-S	990.45-NW	988.17-W	988.17-E	
98+10.2-7.7 LT	STO_MH		1		142.9			992.1-W	992.1-E	
99+37.1-30.2 RT	2'_CB	997.02		1	62.3				993.75-N	
99+51.3-30.5 LT	STO_MH	996.88	1			989.55-N	989.55-S	986.64-W	986.64-E	
			14	20	1567	TOTALS				

INPLACE WATERMAIN FITTINGS (E)

STATION-LOCATION	GATE VALVE	HYD	REMOVE HYD	CURB BOX	REMOVE PIPE	REMARKS
86+03.1 TO 86+53.8					176.1	
86+09.4-7.4 LT	1					
86+18.7-60.6 LT				X		SPRINKLER HEAD
86+19.0-34.9 LT				X		SPRINKLER HEAD
86+39.6-8.8 LT	1					
86+41.8-6.1 LT	1					
86+53.8 TO 88+68.5					378.7	
86+94.3-28.5 LT		X	1			
87+03.5-28.8 LT				X		
88+03.1-30.7 RT				X		
88+32.0-7.7 LT	1					
88+41.6-44.3 LT		X	1			
88+43.7-44.2 LT	1					
88+57.5-5.9 LT	1					
88+63.1-13.4 LT	1					
88+68.5 TO 92+41.1					438.3	
89+70.0-14.7 LT	1					
91+63.6-29.3 LT				X		
91+95.2-37.6 LT				X		MONITORING WELL
92+01.9-81.1 LT				X		MONITORING WELL
92+13.9-37.6 LT		X	1			
92+31.1-13.1 LT	1					
92+41.1 TO 98+14.4					530.1	
94+57.7-30.6 RT				X		
94+59.0-30.9 RT				X		
96+01.0-18.6 LT	1					
96+05.8-21.4 LT	1					
96+14.4 TO 99+92.41					199.6	ABANDON WM OUT SIDE OF CONST. LIMITS
96+48.2-64.5 LT		X	1			
97+81.3-40.3 LT	1					6" DIP TO FIRE HALL
99+28.7-43.5 LT	1					
99+29.0-39.9 LT		X	1			
99+49.8-11.3 LT	1					
99+85.9-54.5' LT						16" X 6" TEE (PLUG 6")
	14		5		1723	TOTALS

PAVEMENT REMOVALS (F)

7TH STREET NW LOCATION		(1) REMOVE CONC. PAVEMENT	(2) REMOVE PAVEMENT	SAW CUT CONCRETE	SAW CUT BITUMINOUS	REMARKS
FROM	TO	(SQ YD)	(SQ YD)	(LIN FT)	(LIN FT)	
85+81.00	4TH AVE	327.6	0.0	35.5	58.4	
4TH AVE	3RD AVE	1182.2	0.0	32.3	33.0	
3RD AVE	2ND AVE	1570.2	458.2	18.1	40.5	
2ND AVE	1ST AVE	0.0	2911.6		53.0	
1ST AVE	S. BROADWAY	271.1	2293.2	203.8	28.2	
		3351	5664	290	213	SUB-TOTAL

(1) APPROXIMATE CONCRETE DEPTH 8"
(2) APPROXIMATE BIT. DEPTH 4" CONC. BASE DEPTH 8"

CURB & GUTTER AND SIDEWALK REMOVALS (G)

6TH STREET SW LOCATION		SIDE	REMOVE C&G	REMOVE SIDEWALK
FROM	TO		(LIN FT)	(SQ YD)
85+81.00	4TH AVE	NORTH	98.4	29.6
85+81.00	4TH AVE	SOUTH	80.8	25.0
4TH AVE	3RD AVE	NORTH	246.2	57.2
4TH AVE	3RD AVE	SOUTH	218.8	72.8
3RD AVE	2ND AVE	NORTH	429.1	49.0
3RD AVE	2ND AVE	SOUTH	413.9	51.2
2ND AVE	1ST AVE	NORTH	376.9	209.4
2ND AVE	1ST AVE	SOUTH	380.8	238.1
1ST AVE	S. BROADWAY	NORTH	345.3	234.8
1ST AVE	S. BROADWAY	SOUTH	356.2	240.7
		TOTALS	2947	1208

SANITARY AND WATER SERVICES (H)

ADDRESS	SAN	WATER	WATER SERVICE SYSTEM	RECONNECT WATER SERVICE	RECONNECT SANITARY SERVICE	RECONSTRUCT SANITARY SERVICE	REMARKS
#315 6TH ST SW	X	3/4" LEAD	1		1		
#316 6TH ST SW	X	3/4" GAL	1		1		
#304 6TH ST SW	X	3/4" GAL	1		1		
#205 6TH ST SW	X	1" CU		1	1		
#119 6TH ST SW	X	3/4: CU					ABANDONED
#114 6TH ST SW	X	1" CU		1	1	1	
#519 1ST AVE SW	X	6" CIP					ABANDONED
#601 1ST AVE SW	X	2-1" CU					ABANDONED
#500 1ST AVE SW	X	X					OFF 1ST AVE SW
#24 6TH ST SW	X	1" CU		1	1		
#16 6TH ST SW	X	3/4" CU		1	1		
FIRE STATION #1	X	6" DIP					SEE WM CHART
#617 SOUTH BROADWAY	6" CLAY						
			3	4	7	1	

RECONNECT WATER SERVICE INCLUDES NEW CORPORATION STOP AND UP TO 10' OF COPPER PIPE
RECONSTRUCT SANITARY SERVICE INCLUDES A RISER AND PIPE TO CONNECT TO INPLACE SERVICE

Revision comment: —
Revision: —
Creation Date:

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Ronald J. Klein Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: TABULATIONS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005 J7732
Project No. 6206-3-04
Sheet 7 of 139 Sheets

CONSTRUCT STORM SEWER STRUCTURES (I)

NO.	6TH ST SW STATION-LOCATION	AVENUE SW STATION-LOCATION	TYPE SPECIAL 1 (1)	TYPE SPECIAL 4 (2)	TYPE SPECIAL 5 (3)	TYPE SPECIAL 6 (4)	TYPE SPECIAL 7 (5)	CONNECT TO INPL. CB	TYPE SPECIAL (6)	CAST. EL	CAST ASSEM	T.C. ELEV	DEPTH	C-INL EL	C-INL EL	C-INL EL	C-OUTL EL	REMARKS
S-101	86+09.24-21.67 LT		1							1017.09	B	1017.74	4.00			1013.15 NE	1013.09 S	
S-102	86+09.36-21.67 LT		1							1016.24	B	1016.89	4.00				1012.24 N	
S-103	86+15.0-8.6' RT				1					1016.75	2		6.53	1011.97 N	1011.47 S	1010.47 W	1010.22 E	
S-104	86+36.79-60.45 LT		1							1018.41	B	1019.06	4.00				1014.41 S	
S-104A	86+38.07-50.53 LT		1							1017.90	B	1018.55	4.00			1014.00-N	1013.90 SW	
S-105	86+69.42-43.20 LT		1							1016.82	B	1017.47	4.00				1012.82 S	
S-108	86+69.56-11.00 RT				1					1015.79	2		6.53		1010.26 N	1009.26-W	1009.26 E	
S-106A	87+72.52-22.17 LT		1							1013.88	B	1014.53	4.00				1009.88 E	
S-108B	87+82.52-22.17 LT		1							1013.66	B	1014.31	4.00			1009.76-W	1009.66 S	
S-106C	87+82.52-11.00 RT				1					1013.50	2		6.29		1008.41-N	1007.21-W	1007.21 E	
S-107	88+24.00-22.17 RT		1							1012.23	B	1012.88	4.00				1008.23 N	
S-108	88+29.78-22.17 LT		1							1012.58	B	1013.23	4.78			1007.80 NE	1007.80 S	
S-109	88+29.78-11.00 RT				1					1012.65	2		6.30	1007.90 S	1007.47 N	1006.35 W	1006.35 E	
S-110	88+52.12-51.01 LT		1							1012.29	B	1012.94	4.00				1008.29 S	
S-110A	88+52.78-41.01 LT		1							1012.10	B	1012.75	4.00			1008.19 N	1008.10 SW	
S-111	88+75.61-50.98 LT			1						1011.92	2		4.88		1007.24 E	1007.04 N	1007.04 S	
S-111A	88+75.65-11.00' RT				1					1011.53	2		6.35		1005.68-N	1005.18-W	1005.18 E	
S-112	88+84.11-50.98 LT		1							1011.44	B	1012.09	4.00				1007.44 W	
S-112A	90+33.24-22.17 LT		1							1007.45	B	1008.10	4.00			1003.45-N	1003.45 S	
S-112B	90+36.87-11.00 RT									1007.04	2		6.44		1001.60 N	1000.60-W	1000.60 E	REPAIR PIPE ABOUT 4' SECTION
S-113	91+86.66-22.17 LT		1							1003.15	B	1003.80	4.00				999.15 E	
S-113A	91+96.66-22.17 LT		1							1002.87	B	1003.52	4.00			998.97 W	998.87 S	
S-114	91+96.72-11.00 RT								1						997.63-S	996.63 W	996.63 E	
S-114A	91+96.74-22.17 RT		1							1001.94	B	1002.59	4.00				997.94 N	
S-115	92+10.16-11.00 RT						1			1002.50	2		6.30		998.62 N	996.30 W	996.20 SE	
S-116	92+23.60-60.75 LT			1						1002.92	B	1003.57	5.61			999.99-N	997.31 S	
S-116A	92+26.24-50.96 LT			1						1002.42	B	1003.07	5.21		998.21 E	997.21-N	997.21 S	
S-117	92+25.30-11.00 RT			1						1002.17	2		5.68			996.59-N	996.49 E	
S-118	92+25.58-50.92 RT	26+02.61-15.67' LT - 2ND AVE SW	1							1001.42	B	1002.07	4.00				997.42 E	
S-119	92+32.45-37.46 RT	26+16.05-8.26 LT - 2ND AVE SW					1			1011.27	2		17.96			994.12 NW	993.31 S	
S-119A	92+32.48-50.99 RT	26+02.52-8.77' LT - 2ND AVE SW							2						994.67-E&W	993.17-N	993.17 S	PIPE SOUTH TO BE CONSTRUCTED ON 2ND AVE PROJECT
S-120	92+56.84-50.94'RT	26+02.62-15.67' RT - 2ND AVE SW	1							1000.56	B	1001.21	4.00				996.56 W	
S-121	92+56.92-51.08 LT		1							1002.53	B	1003.18	4.00				998.53 W	
S-122	94+07.49-29.17' LT		1							999.54	B	1000.19	4.25			995.54-N	995.29 S	
S-123	94+18.00-11.00 RT			1						999.86	2		5.79	994.87-N	995.03 S	994.17-W	994.07 E	
S-124	94+18.00-29.17 RT		1							999.21	B	999.86	4.00				995.21 N	
S-125	94+95.00-37.50' LT																992.73 S	PLUGGING PIPE IS INCIDENTAL TO PIPE
S-126	94+95.00-11.00' RT			1						999.19	2		7.95		992.24-N	991.34-W	991.24 E	
S-127	95+71.78-22.17 RT		1							997.91	B	998.56	4.00				993.91 N	
S-128	95+72.00-22.17 LT		1							998.32	B	998.97	4.00				994.32 S	
S-129	95+72.00-11.00 RT			1						998.36	2		7.85	992.51 N	992.51 S	990.57-W	990.51 E	
S-9	96+36.39-58.41 LT	76+38.68-22.08' RT-1ST AVE SW								999.22	2		4.83		994.49 N	994.49 W	994.39 S	M.H. TO BE CONSTRUCTED ON 1ST AVE PROJECT
S-130	96+36.39-13.85 RT			1						999.07	2		10.03		993.04 N	989.14 W	989.04 E	
S-131	97+56.6-40.8 LT							1		998.48			6.49		992.03 NE	991.84 N&W	991.99 SE	
S-131A	97+74.29-29.92 LT			1						997.57	B	998.22	5.78			991.79-NW	991.79 SE	
S-132	98+01.22-13.00 RT			1						998.13	2		10.08	992.24 S	991.30 NW	988.05 W	988.05 E	
S-133	98+01.1-41.2 RT							1		997.90			5.39			992.64 S	992.51 N	
S-134	99+29.40-29.67 LT		1							996.86	B	997.51	4.00				992.86 E	
S-135	99+39.61-13.00 RT					1				997.55	2		10.36		989.64 S	987.19 W	987.19 NE	
S-136	99+39.61-29.67 RT		1							996.97	B	997.62	4.00				992.97 N	
S-137	99+51.2-30.5 LT					1				996.88	2		10.24		988.64 W	986.74 SW	986.64 E	
			25	10	5	2	2	2	3	TOTALS								

NOTES:
(1) SEE CITY OF ROCHESTER DETAIL PLATE 1-01
(2) SEE CITY OF ROCHESTER DETAIL PLATE 1-04 (48" DIA.)
(3) SEE CITY OF ROCHESTER DETAIL PLATE 1-04 (60" DIA.)
(4) SEE CITY OF ROCHESTER DETAIL PLATE 1-04 (72" DIA.)
(5) SEE CITY OF ROCHESTER DETAIL PLATE 1-04 (84" DIA.)
(6) SEE CITY OF ROCHESTER DETAIL PLATE 1-14

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24607

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: TABULATIONS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 8 of 139 Sheets

P:\PROJECTS\J-PROJ\J7732\Design\Dwgs\7732C8-45-60.dwg, Layout1, 5/15/2012 12:30:17 PM, 1:2

P:\PROJECTS\J-PROJ\J7732\Design\Dwgs\7732C9-45-60.dwg, Layout1, 5/15/2012 12:31:07 PM, 1:2

CONSTRUCT SANITARY SEWER PIPE (L)

FROM	TO	PIPE SIZE (LIN. FT.) 8" ALT.	PIPE SIZE (LIN. FT.) 42" ALT	SLOPE (%) C.C.
NO. 100	M.H. NO.102	61.20		-0.62
NO. 101	M.H. NO.102	47.20		-5.48
M.H. NO.102	M.H. NO.104	217.50		-0.63
NO. 103	M.H. NO.104	55.70		-1.90
M.H. NO.104	NO. 10	371.79		-2.99
NO. 10	NO. 11		373.30	-0.08
M.H. NO.105	NO. 11	150.61		0.40
		904	374	TOTALS

CONTROL & TRAVERSE POINTS (M)

NODE ID	LOCATION	DESCRIPTION	NORTHING	EASTING
23	86+16.35-37.50 RT	BLK_COR	167059.8828	617955.8695
22	86+27.96-39.41 LT	TRAV_STA	167136.8464	617967.1474
21	87+43.70-37.30 LT	PROP_COR	167135.244	618082.8884
19	88+31.09-176.87 RT	PROP_COR	166919.4599	618171.2377
34	88+41.58-39.17 LT	TRAV_STA	167137.549	618180.7666
15	88+41.60-39.16 LT	TRAV_STA	167137.5419	618180.7856
16	89+05.98-37.49 RT	BLK_COR	167061.1742	618245.4853
17	89+06.18-37.38 LT	BLK_COR	167136.0456	618245.3701
12	92+03.64-37.48 LT	BLK_COR	167137.4594	618542.8308
10	92+03.70-37.49 RT	BLK_COR	167062.4913	618543.2223
11	92+03.73-132.08 LT	PROP_COR	167232.0547	618542.4983
13	92+04.70-226.53 RT	PC	166873.4582	618545.0525
1	96+57.22-36.94 LT	TRAV_STA	167139.4793	618998.4749
14	96+57.74-37.50 LT	BLK_COR	167140.0449	618998.9956
3	96+59.10-37.81 RT	TRAV_STA	167064.7361	618998.5429
2	99+50.07-37.50 RT	BLK_COR	167065.7806	619289.5111

EXISTING POLES (K)

STATION LOCATION	OFFSET LT	OFFSET RT	INPLACE UTILITY	LEAVE AS IS	RELOCATE	REMOVE LIGHT BASE	SALVAGE LUMINAIRE	NOTES
85+46.7		28.0	PP					
86+70.3	77.1		ANCHOR					
86+70.7	85.5		PP		X			
86+71.0		36.4	TELE_POLE					
86+71.2		50.8	ANCHOR					
87+82.2		27.9	PP					
88+92.8	104.5		PP					
88+94.0		28.5	PP		X			
88+94.4		44.0	ANCHOR					
89+73.4		27.7	PP					
90+70.6		27.1	PP					
90+73.0		43.4	ANCHOR					
90+75.0	38.2		YRD_LT					
91+90.1		26.7	PP					
92+04.1		26.4	ANCHOR		X			
93+40.2		31.6	TELE_POLE		X			
94+00.9		59.2	ANCHOR					
94+01.0		31.5	TELE_POLE		X			
94+07.0	31.9		LP		X	1	1	
94+38.2		40.4	PP					
94+38.4	77.1		ANCHOR					
94+38.5	87.3		PP					
94+42.0	88.1		ANCHOR					
94+48.1		41.0	ANCHOR					
95+56.1	31.8		LP		X	1	1	
96+46.3	51.8		LP		X	1	1	
96+73.2		32.5	LP		X	1	1	
97+86.2	40.6		LP					
98+50.8		32.2	LP		X	1	1	
						5	5	TOTALS

NOTES:
THE "LEAVE AS IS" AND "RELOCATE" COLUMNS ARE BASED UPON THE BEST INFORMATION AVAILABLE AND MAY NOT REFLECT THE
THE ACTUAL EFFECTS ON THE UTILITIES CONSTRUCTION. ACTUAL DETERMINATION WILL BE MADE IN THE FIELD DURING CONSTRUCTIC
UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRATOR SHALL DETERMINE
THE ACTUAL LOCATION OF ALL UTILITIES IN THE FIELD.
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS UNLESS NOTED.

CENTERLINE ALIGNMENT

ITEM	CONTROL POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DEFLECTION ANGLE
L1	BOP	85+00.00	167096.8879	617839.3594	N 89°44'48" E	741.09	
L2	PI	92+41.09	167100.1452	618580.4409	N 89°38'54" E	373.30	00°05'54"
L3	PI	96+14.39	167102.4359	618953.7341	N 89°51'21" E	435.61	-00°12'27"
	EOP	100+50.00	167163.5319	619389.3450			

CONSTRUCT SANITARY SEWER STRUCTURES (J)

NO.	STATION-LOCATION	EQUATION STATIONING	CONNECT INTO EXISTING SAN. SEWER	TYPE 3 (1) 8'-10'	TYPE 3 (1) 10'-13'	TYPE 5A (72")(2) 19'-21'	TYPE 5A (72")(2) 21'-23'	CAST. EL.	CAST ASSEM	C-INL EL	C-INV EL	REMARKS
NO. 100	85+93.0-0.3' RT		1								1005.20	INPL. 8" PIPE
NO. 101	86+51.8-47.0' LT		1								1007.40	INPL. 8" PIPE
M.H. NO.102	86+54.2-0.1' RT				1			1016.40	2		1004.82	
NO. 103	88+69.3-55.5' LT		1								1004.50	INPL. 6" PIPE
M.H. NO.104	88+69.3-0.1' RT			1				1011.80			1003.45	
MH NO 10	92+41.09-C.L.	STA. 26+33.94-CL. 2ND AVE SW					1	1002.27	2	992.33-W	980.26	
MH NO 11	96+14.39-C.L.	STA. 75+80.82-C.L. 1ST AVE SW				1		999.26	2	985.54-E	979.97	
M.H. NO.105	97+65.0-C.L.				1			998.23			986.14	
	TOTALS		3	1	2	1	1					

NOTES:
1 SEE CITY OF ROCHESTER DETAIL PLATE 1-03
2 SEE CITY OF ROCHESTER DETAIL PLATE 1-05 THE MANHOLE SHAL BE PVC LINED & JOINTS PVC WELDED (INCIDENTAL)

Revision comment:
Revision#: —
Creation Date: 1

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: TABULATIONS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 9 of 139 Sheets

CONSTRUCT WATERMAIN PIPE (N)

FITTING NO.	STATION-LOCATION	DESCRIPTION	WGT (LBS)	HYDRANT 6"	HYDRANT B.O. EL.	GATE VALVE 6"	GATE VALVE 8"	PIPE SIZE AND TYPE 6" DIP (L.F.)	PIPE SIZE AND TYPE 8" DIP (L.F.)	TO	REMARKS
W-1	86+03.1-12.0' LT	8" GATEVALVE & BOX					1		39.8	W-4D	
W-2	86+39.7-68.0' LT	6" BEND 45D	32					4.2		W-4A	
W-3	86+41.9-55.1' RT	6" BEND 22 1/2D	32					3.0		W-4G	
W-4A	86+42.8-65.0' LT	6" BEND 45D	32					3.0		W-4B	
W-4B	86+42.8-62.0' LT	8" X 6" REDUCER	36						3.0	W-4C	
W-4C	86+42.8-59.0' LT	8" GATEVALVE & BOX					1		48.0	W-4D	
W-4D	86+42.8-11.0' LT	8" X 8" CROSS	111						48.9	W-5C	
W-4E	86+42.8-57.0' RT	8" GATEVALVE & BOX					1		57.1	W-4D	
W-4F	86+42.8-60.0' RT	8"X 6" REDUCER	36						3.0	W-4E	
W-4G	86+42.8-63.0' RT	6" BEND 22 1/2D	32					3.0		W-4F	CONNECT TO EXITING WM
W-5A	86+91.7-27.4' LT	6" HYDRANT		1	1016.90			3.0		W-5B	
W-5B	86+91.7-24.4' LT	6" GATEVALVE & BOX				1		13.4		W-5C	
W-5C	86+91.7-11.0' LT	8" X 6" TEE	72						141.4	W-6	
W-6	88+33.1-11.0' LT	8" GATEVALVE & BOX					1		24.4	W-7D	
W-7A	88+57.5-55.5' LT	6" BEND 45D	32					3.0		W-7B	
W-7B	88+57.5-52.5' LT	8" X 6" REDUCER	36						3.0	W-7C	
W-7C	88+57.5-49.5' LT	8" GATEVALVE & BOX					1		38.5	W-7D	
W-7D	88+57.5-11.0' LT	8" X 8" CROSS	111						51.0	W-9	
W-7E	88+57.5-60.0' RT	8" GATEVALVE & BOX					1		71.0	W-7D	
W-7F	88+57.5-63.0' RT	8" X 4" REDUCER	32						3.0	W-7E	
W-8	88+61.1-59.2' LT	6" BEND 45D	32					5.2		W-7A	
W-9	89+08.4-11.0' LT	8" GATEVALVE & BOX					1		3.0	W-10C	
W-10A	89+11.4-27.3' LT	6" HYDRANT		1	1012.00			3.0		W-10B	
W-10B	89+11.4-24.3' LT	6" GATEVALVE & BOX				1		13.3		W-10C	
W-10C	89+11.4-11.0' LT	8" X 6" TEE	72						278.2	W-11	
W-11	91+89.6-11.0' LT	8" GATEVALVE & BOX					1		40.5	W-14E	
W-12	92+14.9-44.9' LT	6" HYDRANT		1	1003.90			3.0		W-13	
W-13	92+17.9-44.9' LT	6" GATEVALVE & BOX				1		12.3		W-14D	
W-14A	92+30.1-65.3' LT	6" BEND 11 1/4D	30					3.0		W-14B	
W-14B	92+30.1-62.3' LT	8" X 6" REDUCER	36						3.0	W-14C	
W-14C	92+30.1-59.3' LT	8" GATEVALVE & BOX					1		14.6	W-14D	
W-14D	92+30.1-44.8' LT	8" X 6" TEE	72						33.8	W-14E	
W-14E	92+30.1-11.0' LT	8" X 8" TEE	86						331.9	W-17	
W-15	92+31.2-70.1' LT	6" BEND 11 1/4D	30					4.9		W-14A	
W-17	95+62.0-11.0' LT	8" GATEVALVE & BOX					1		41.4	W-21B	
W-18	95+91.6-49.6' RT	6" HYDRANT		1	999.10			3.0		W-19	
W-19	95+94.6-49.6' RT	6" GATEVALVE & BOX				1		8.7		W-21C	
W-20	96+02.3-66.1' RT	CONNECT TO INPL. WM.						10.5		W-21E	
W-21A	96+03.4-55.0' LT	END WM							44.0	W-21B	
W-21B	96+03.4-11.0' LT	8" X 8" CROSS	111						44.9	W-22C	
W-21C	96+03.4-49.6' RT	8" X 6" TEE	72						60.6	W-21B	
W-21D	96+03.4-52.6' RT	8" GATEVALVE & BOX					1		3.0	W-21C	
W-21E	96+03.4-55.6' RT	8" X 6" REDUCER	36						3.0	W-21D	
W-22A	96+48.3-57.0' LT	6" HYDRANT		1	999.60			3.0		W-22B	
W-22B	96+48.3-54.0' LT	6" GATEVALVE & BOX				1		43.0		W-22C	
W-22C	96+48.3-11.0' LT	8" X 6" TEE	72						11.7	W-23	
W-23	96+60.0-11.0' LT	8' GATEVALVE & BOX					1		121.2	W-24B	
W-24A	97+81.2-41.0' LT	6" GATEVALVE & BOX				1		30.0		W-24B	
W-24B	97+81.2-11.0' LT	8" X 6" TEE	72						142.8	W-25C	
W-25A	99+24.0-41.5' LT	6" HYDRANT		1	997.90			3.0		W-25B	
W-25B	99+24.0-38.5' LT	6" GATEVALVE & BOX				1		27.4		W-25C	
W-25C	99+24.0-11.1' LT	8" X 6" TEE	72						3.8	W-26	
W-26	99+27.8-11.2' LT	12" X 8" REDUCER	60								CONNECT TO EXITING WM
		TOTALS	1447	6		7	12	206	1714		

CONSTRUCT STORM SEWER PIPE (O)

FROM	TO	12" RCP C.C. LENGTH (FT)	15" RCP C.C. LENGTH (FT)	18" RCP C.C. LENGTH (FT)	24" RCP C.C. LENGTH (FT)	36" RCP C.C. LENGTH (FT)	SLOPE (%) C. TO C.
S-101	S-103			24.98			4.32
S-102	S-103	7.37					10.45
S-103	S-106					54.58	1.76
S-104	S-104A	45.23					1.66
S-104A	S-101	10.00					4.10
S-105	S-106	51.68					5.84
S-106	S-106C					112.96	1.81
S-106A	S-106B	10.00					1.20
S-106B	S-106C	33.17					3.77
S-106C	S-109					46.26	1.82
S-107	S-109	12.58					2.62
S-108	S-109			33.17			1.00
S-109	S-111A					45.87	2.55
S-110	S-110A	10.00					1.00
S-110A	S-108	29.72					1.00
S-111	S-111A				61.98		2.19
S-111A	S-112B					161.22	2.84
S-112	S-111	8.50					2.35
S-112A	S-112B	33.37					5.54
S-112B	S-114					159.87	2.48
S-113	S-115	35.81					1.48
S-114	S-115					13.42	2.48
S-114A	S-114	11.17					2.78
S-115	S-119					34.59	6.01
S-116	S-116A				9.92		1.00
S-116A	S-117				61.91		1.00
S-117	S-123				192.72		1.20
S-118	S-119	6.90					17.20
S-120	S-119	24.44					1.51
S-121	S-116	31.59					1.00
S-122	S-123			41.51			1.00
S-123	S-126				124.05		2.20
S-124	S-123	18.17					1.00
S-125	S-126	48.50					1.00
S-126	S-129				29.95		2.10
S-127	S-129	11.17					12.53
S-128	S-129	33.17					5.46
S-129	S-130				64.41		2.13
S-9	S-130		72.27				1.87
S-130	S-132					164.83	0.60
S-131	S-131A			20.29			0.97
S-131A	S-132			50.67			0.97
S-132	S-135					138.39	0.62
S-133	S-132			28.21			1.00
S-134	S-137	21.83					19.33
S-135	S-137					44.99	1.00
S-136	S-135	16.67					20.00
		512	73	199	545	977	TOTALS

EXISTING TREES (P)

STATION LOCATION	OFFSET LT	OFFSET RT	CLEAR & GRUB
86+27.76		44.4	
86+71.18	55.9		
86+88.92	26.8		1
87+11.03		26.6	
87+87.89	26.0		
88+11.10		26.8	
88+42.87		39.7	
88+96.10	61.6		
90+11.91		26.7	
90+19.69	26.2		
90+97.65		26.2	
91+53.18		26.0	
92+67.44	66.6		
93+74.06		59.2	
93+79.63	48.9		
94+06.91	48.2		
			1

Revision comment: —
Revision: —
Creation Date:

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Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
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Phone: (507) 328-2450
FAX: (507) 328-2401

Title: TABULATIONS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 10 of 139 Sheets

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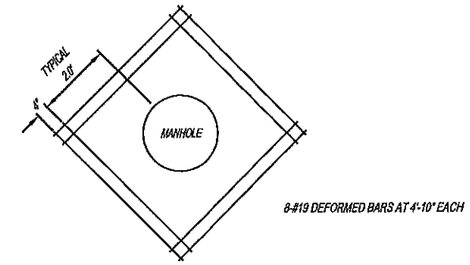
CONSTRUCT ROADWAY (Q)

6TH STREET SW		SELECT GRANULAR BORROW	AGG. BASE CL. 5 UNDER CONC. (5)	AGG. BASE CL.5 UNDER BIT.	CONC. PAVEMENT	STRUCTURAL CONCRETE	CONC. PAVEMENT SPECIAL 1 (6)	STRUCTURAL CONCRETE (SPECIAL 1) (6)	(2) REINF. #13 BARS (EXOPY COATED)	DOWEL BARS	(1)(4) TYPE SP 9.5 WEARING SPWEA230B	(1)(3) TYPE SP 12.5 NON-WEARING SPNWB230B	DRILL & GROUT 1" DOWEL BAR (EPOXY COATED)	DRILL & GROUT NO.13 REBAR (EPOXY COATED)
FROM	TO	(CU YD)	(CU YD)	(CU YD)	(SQ YD)	(CU YD)	(SQ YD)	(CU YD)	(POUND)	(EACH)	(TON)	(TON)	(EACH)	(EACH)
85+81.00	4TH AVE	255.62	50.16	31.61	247.12	58.48	67.47	15.97	235	112	10.98	36.59	18	7
4TH AVE	3RD AVE	722.72	190.91	16.91	1029.71	243.70	155.37	36.77	1077	769	5.69	18.97	18	5
3RD AVE	2ND AVE	1200.09	313.44	33.34	1786.05	422.70	164.10	38.84	1703	1015	11.47	38.23	18	
2ND AVE	1ST AVE	1371.60	362.18	32.29	2165.83	512.58	150.14	35.53	1700	1423	10.89	36.31		
1ST AVE	S. BROADWAY	1323.69	363.38	10.70	2179.10	515.72	159.59	37.77	1698	1555	3.65	12.18	133	30
		4874	1281	125	7408	1754	697	165	6413	4874	43	143	187	42

NOTES:
(1) QUANTITIES COMPUTED AT A RATE OF 113/LBS/SQ YD/INCH
(2) QUANTITIES COMPUTED AT A RATE OF 0.668LBS/LIN FT
(3) TO BE PLACED AT DEPTH OF 1 1/2"
(4) TO BE PLACE AT A DEPTH OF 4 1/2"
(5) TO BE PLACED AT A DEPTH OF 8"
(6) TO BE USED AT CROSSWALKS



TYPICAL REINFORCEMENT AT MANHOLES

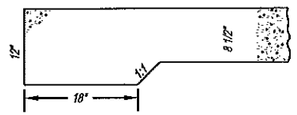
CONST. CURB & GUTTER AND SIDEWALK (R)

6TH STREET SW LOCATION		SIDE	CONST B624 C&G	CONST B624MOD C&G	CONST 5" CONC WALK	CONST 6" CONC WALK (1)	CONST 7" CONC WALK	CONST 5" EXP. AGG.CONC WALK	TRUNCATED DOMES
FROM	TO		(LIN FT)	(LIN FT)	(SQ FT)	(SQ FT)		(SQ FT)	(SQ FT)
85+81.00	4TH AVE	NORTH	105.18		97.23	352.97			16.00
85+81.00	4TH AVE	SOUTH	89.50		61.38	341.86			16.00
4TH AVE	3RD AVE	NORTH	248.29		207.52	464.99			73.26
4TH AVE	3RD AVE	SOUTH	254.54		320.94	500.38			32.00
3RD AVE	2ND AVE	NORTH	430.63		76.77	538.26			32.00
3RD AVE	2ND AVE	SOUTH	424.21		68.76	579.76			32.00
2ND AVE	1ST AVE	NORTH	109.93	303.17	52.54	290.09			16.00
2ND AVE	1ST AVE	SOUTH	139.21	295.48	2331.23	776.03		392.99	32.00
1ST AVE	S. BROADWAY	NORTH	78.50	279.58	1643.19	548.58	105.98	320.00	71.59
1ST AVE	S. BROADWAY	SOUTH	103.73	289.64	1544.54	655.82	133.97	380.41	32.00
		TOTALS	1984	1168	6405	5049	240	1094	353

(1) FOR CONCRETE PEDESTRAIN CURB RAMP
(2) INCLUDES 4" CA-3 BASE
(3) INCLUDES 4" CL. 5 AGG. BASE

CONSTRUCT 7" CONCRETE DRIVE APPROACHES (U)

ADDRESS	WIDTH (FT)	SQ YARDS (SY)
#315 6TH ST SW	11.2	8.9
#316 6TH ST SW	12	10.0
#304 6TH ST SW	16	12.8
#519 3RD AVE SW	18.8	14.3
#526 3RD AVE SW	26	20.4
ALLEY BETWEEN 3RD & 2ND AVE	18	14.8
#210 6TH ST SW	25	19.5
#205 6TH ST SW	24	19.0
ALLEY BETWEEN 2ND & 1ST AVE	18	10.7
#601 1ST AVE SW		
#24 6TH ST SW	24	12.1
FIRE STATION #1	33.1	18.8
ALLEY BETWEEN 1ST AVE & S BDWY	20	10.4
	TOTALS	172



THICKENED EDGE WITH TEMPORARY HEADER

PAVEMENT MARKINGS AND STRIPING (S)

11TH AVENUE NW LOCATION		PAVEMENT MESSAGE LEFT ARROW	PAVEMENT MESSAGE RIGHT ARROW	4" SOLID LINE WHITE	6" SOLID LINE WHITE	CROSSWALK MARKING	4" BROKEN LINE WHITE	4" DOUBLE SOLID LINE YELLOW	BICYCLE LANE SYMBOLS
FROM	TO	EACH	EACH	LIN FT	LIN FT	SQ FT	LIN FT	LIN FT	LIN FT
4TH AVE	3RD AVE	2		383.03	416.36	495.00		153.78	2
3RD AVE	2ND AVE	2		817.14	307.16	360.00		291.75	2
2ND AVE	1ST AVE	2		1450.76	289.52	382.50		294.21	2
1ST AVE	S. BROADWAY	2	2	803.72	304.12	540.00	60.00	290.73	2
	TOTALS	8	2	3455	1318	1778	60	1031	8

EARTHWORK SUMMARY (V)

	6th St SW
CROSS SECTION VOLUME (BM)	8,110
REMOVE PAVEMENT (BIT OVER CONC.)	748
REMOVE CONCRETE PAVEMENT	1,888
COMMON EXCAVATION (CV)	5,474
EMBANKMENT (CV)	0
EXCESS MATERIAL AVAILABLE (CV)	5,474
EXCESS MATERIAL AVAILABLE (LV) (1)	7,116
TOPSOIL REQUIRED (CV)	77
TOPSOIL BORROW (LV) (1)	100

NOTES:
(1) 1.3 SHRINKAGE FACTOR FROM COMPACTED VOLUME (CV) TO LOOSE VOLUME (LV)

SALVAGE AND INSTALL SIGNS (Y)

6TH STREET SW LOCATION		SIDE	SALVAGE	INSTALL
FROM	TO		EACH	EACH
85+81.00	4TH AVE	NORTH	1	1
85+81.00	4TH AVE	SOUTH	1	1
4TH AVE	3RD AVE	NORTH	2	2
4TH AVE	3RD AVE	SOUTH	1	1
3RD AVE	2ND AVE	NORTH	1	1
3RD AVE	2ND AVE	SOUTH	1	1
2ND AVE	1ST AVE	NORTH		
2ND AVE	1ST AVE	SOUTH	1	1
1ST AVE	S. BROADWAY	NORTH		
1ST AVE	S. BROADWAY	SOUTH		
		TOTALS	8	8

TOPSOIL, SODDING, & EROSION CONTROLS (T)

6TH STREET SW LOCATION		SIDE	TOPSOIL (LV),(2105)	SOD MINERIAL	INLET PROTECTION	REMARKS
FROM	TO		(CU YD)	(SQ YD)	(EACH)	
85+81.00	4TH AVE	NORTH	9.4	86.5	2	
85+81.00	4TH AVE	SOUTH	7.1	65.6	1	
4TH AVE	3RD AVE	NORTH	15.5	143.2	3	
4TH AVE	3RD AVE	SOUTH	17.2	158.5	1	
3RD AVE	2ND AVE	NORTH	29.5	272.5	3	
3RD AVE	2ND AVE	SOUTH	28.4	262.3	2	
2ND AVE	1ST AVE	NORTH	4.8	44.3	3	
2ND AVE	1ST AVE	SOUTH	13.3	122.4	3	
1ST AVE	S. BROADWAY	NORTH	2.9	26.5	1	
1ST AVE	S. BROADWAY	SOUTH	2.0	18.2	1	
			130	1200	20	TOTALS

FURNISH & INSTALL SIGN TYPE C (W)

PANEL DESIGNATION NUMBER	PANEL LEGEND	NOTES	QUANTITY 6TH STREET SW	PANEL SIZE (IN)	PANEL AREA (SQ FT)	PANEL TOTAL AREA (SQ FT)
M2-X1	BEGIN		2	30x15	3.13	6.25
R1-1	STOP		8	30x30	6.25	50.00
R1-4	ALL WAY		5	18X6	0.75	3.75
R3-17	BIKE LANE		10	30x24	5.00	50.00
R3-17b	ENDS		2	30x12	2.50	5.00
R6-1L	ONE WAY	LEFT ARROW	1	36X12	3.00	3.00
R8-3a	NO PARKING		12	18x18	2.25	27.00
		TOTAL	40			145

FURNISH & INSTALL SIGN TYPE D (X)

PANEL LEGEND	NOTES	QUANTITY 6TH STREET SW	PANEL SIZE (IN)	PANEL AREA (SQ FT)	PANEL TOTAL 6TH STREET SW
STREET SIGN - 9"x30"	GREEN	6	9x30	1.88	11.25
	TOTAL	6			12

Revision comment: —
Revision: —

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Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: TABULATIONS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005 J7732
Project No. 6206-3-04
Sheet 11 of 139 Sheets

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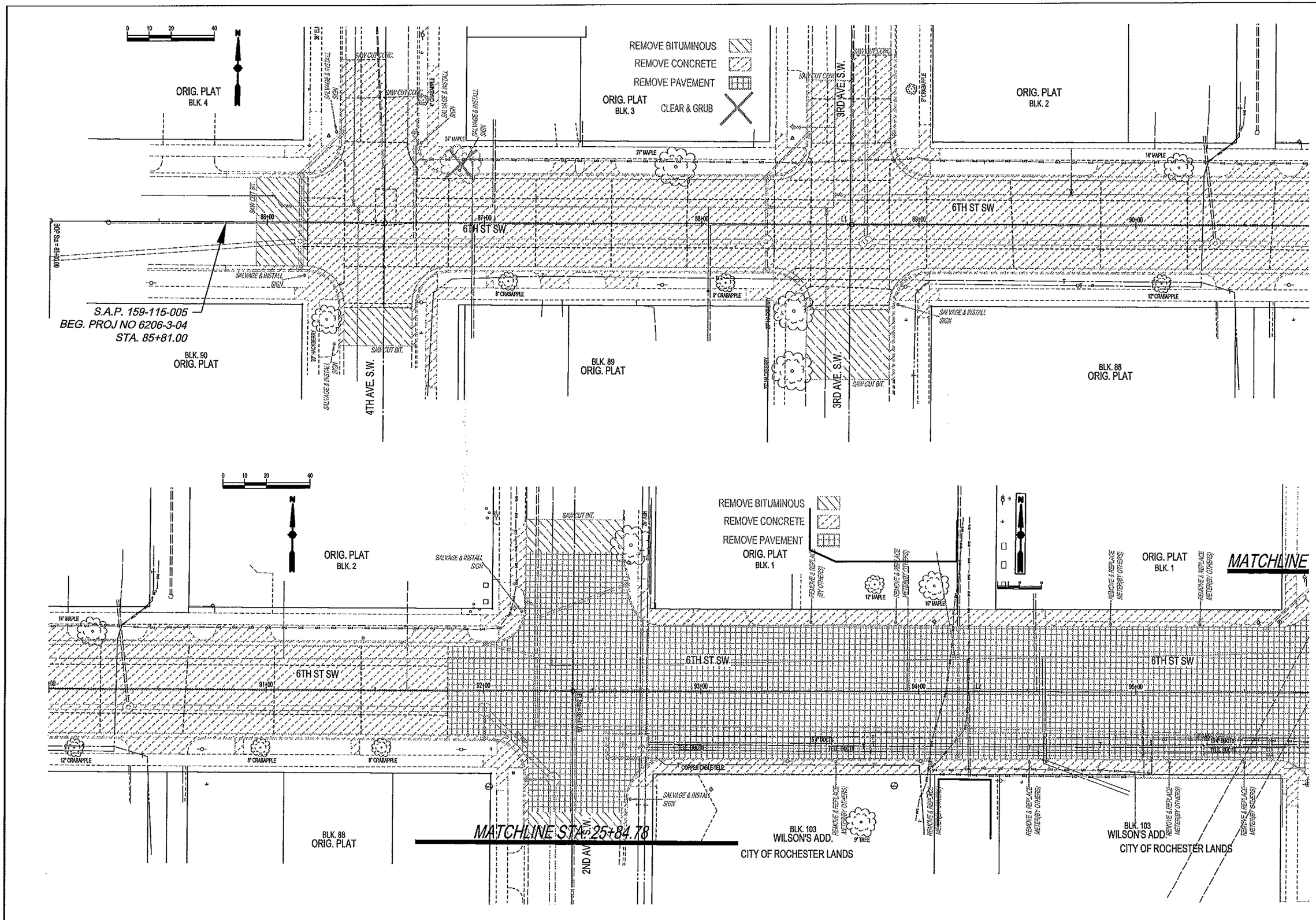
REMOVE BITUMINOUS
REMOVE CONCRETE
REMOVE PAVEMENT
CLEAR & GRUB
ORIG. PLAT
BLK. 4
ORIG. PLAT
BLK. 3
ORIG. PLAT
BLK. 2
ORIG. PLAT
BLK. 1
6TH ST SW
3RD AVE. S.W.
4TH AVE. S.W.
2ND AVE. S.W.
S.A.P. 159-115-005
BEG. PROJ NO 6206-3-04
STA. 85+81.00
BLK. 90
ORIG. PLAT
BLK. 89
ORIG. PLAT
BLK. 88
ORIG. PLAT
MATCHLINE
MATCHLINE STA. 25+84.78
BLK. 103
WILSON'S ADD.
CITY OF ROCHESTER LANDS
SALVAGE & INSTALL SIGN
SAW CUT BIT.
SAW CUT CONC.
27" MAPLE
24" MAPLE
14" MAPLE
16" MAPLE
12" MAPLE
8" CRABAPPLE
9" CRABAPPLE
12" CRABAPPLE
20" HACKBERRY
9" TREE
REMOVE & REPLACE METER(BY OTHERS)
REMOVE & REPLACE (BY OTHERS)
15" DUCTS
TILE DUCTS
1" CONDUIT CABLE TELE.
Creation Date:
Revised:
Revision comment:
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24697
City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216
Title:
REMOVALS ON 6TH STREET SW FROM 4TH AVENUE SW TO 1ST AVENUE SW
Designer: CWF
Checker: RJK
S.A.P. No. 159-115-005
Project No. 6206-3-04
J7732
Sheet 12 of 139 Sheets
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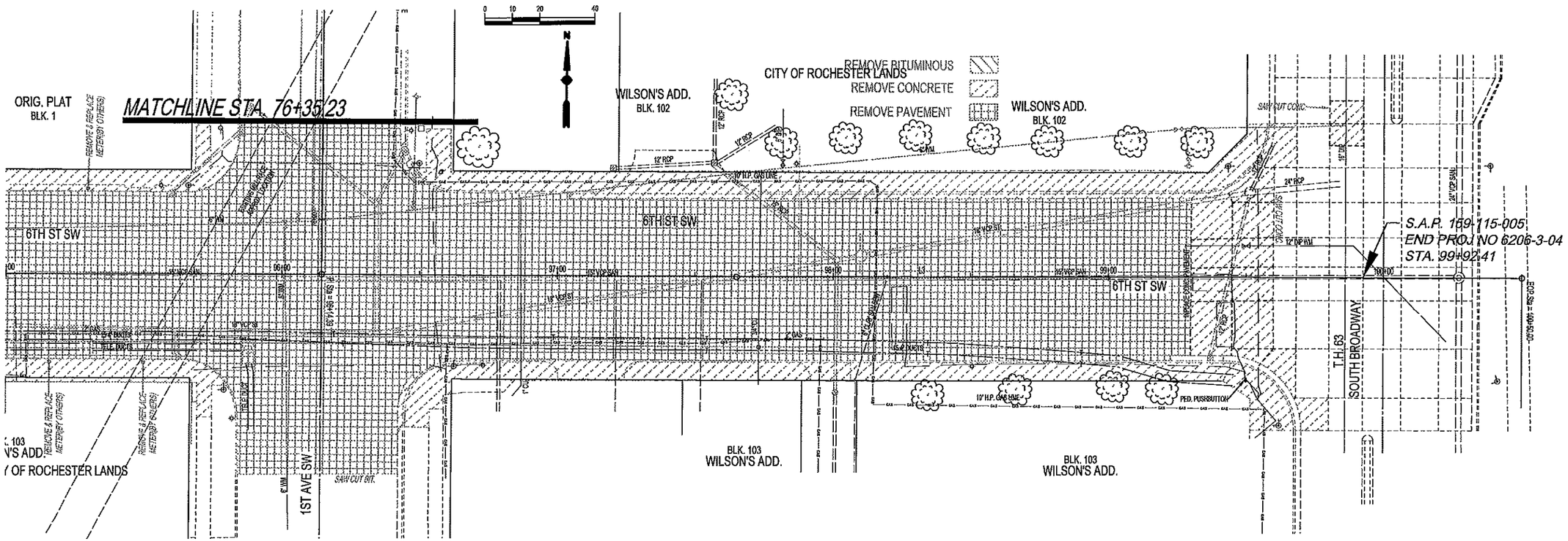

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Date: 5-15-12 Reg. No. 24607

City of Rochester, Minnesota
Department Of Public Works
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Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: REMOVALS ON 6TH STREET SW FROM 1ST AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 13 of 139 Sheets

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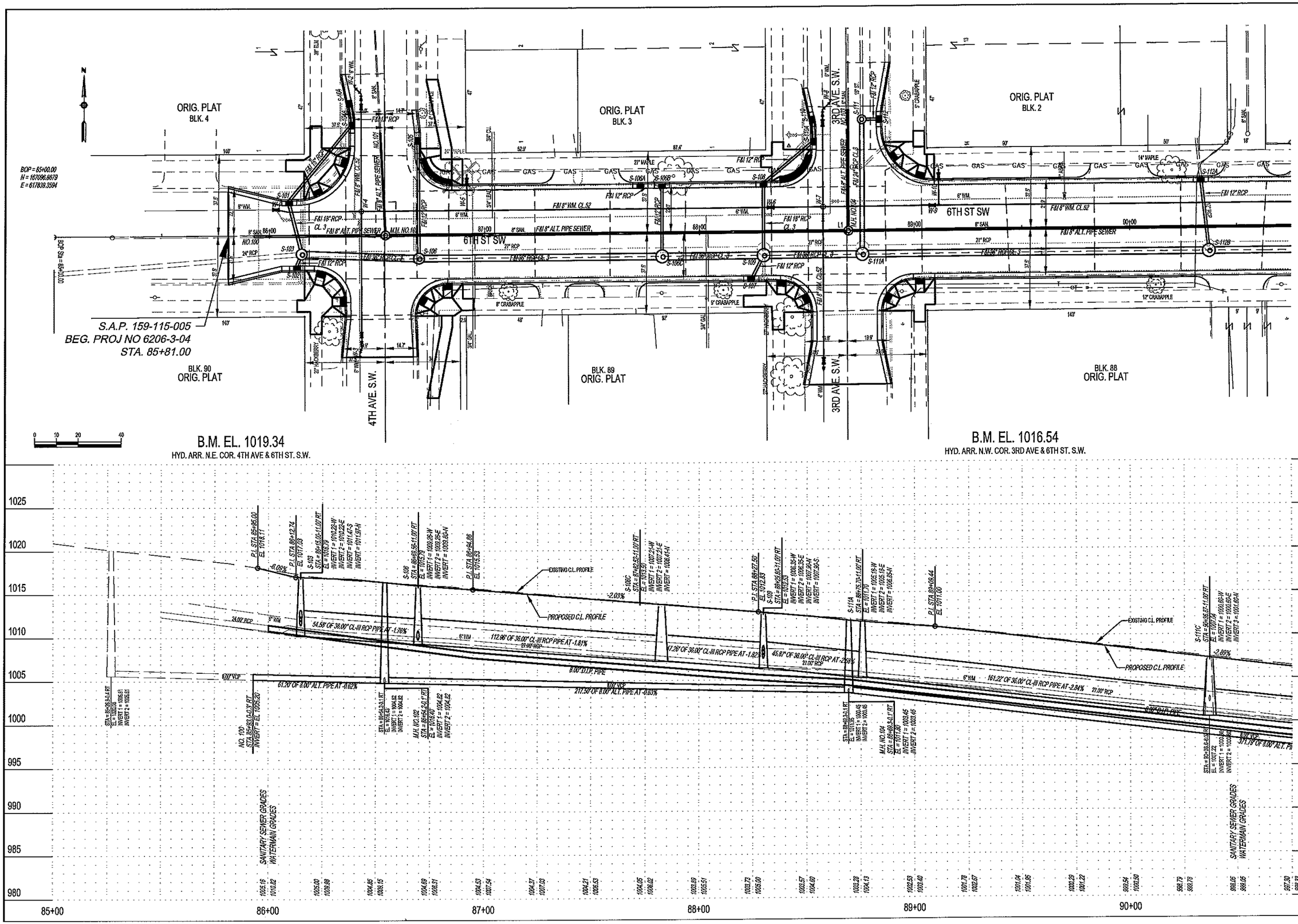

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City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STORM SEWER AND WATERMAIN ON 6TH STREET SW FROM 4TH AVENUE SW TO 2ND AVENUE SW

Designer: CWF

Checker: RJK

S.A.P. No. 159-115-005

Project No. 6206-3-04 J 7732

Sheet 14 of 139 Sheets

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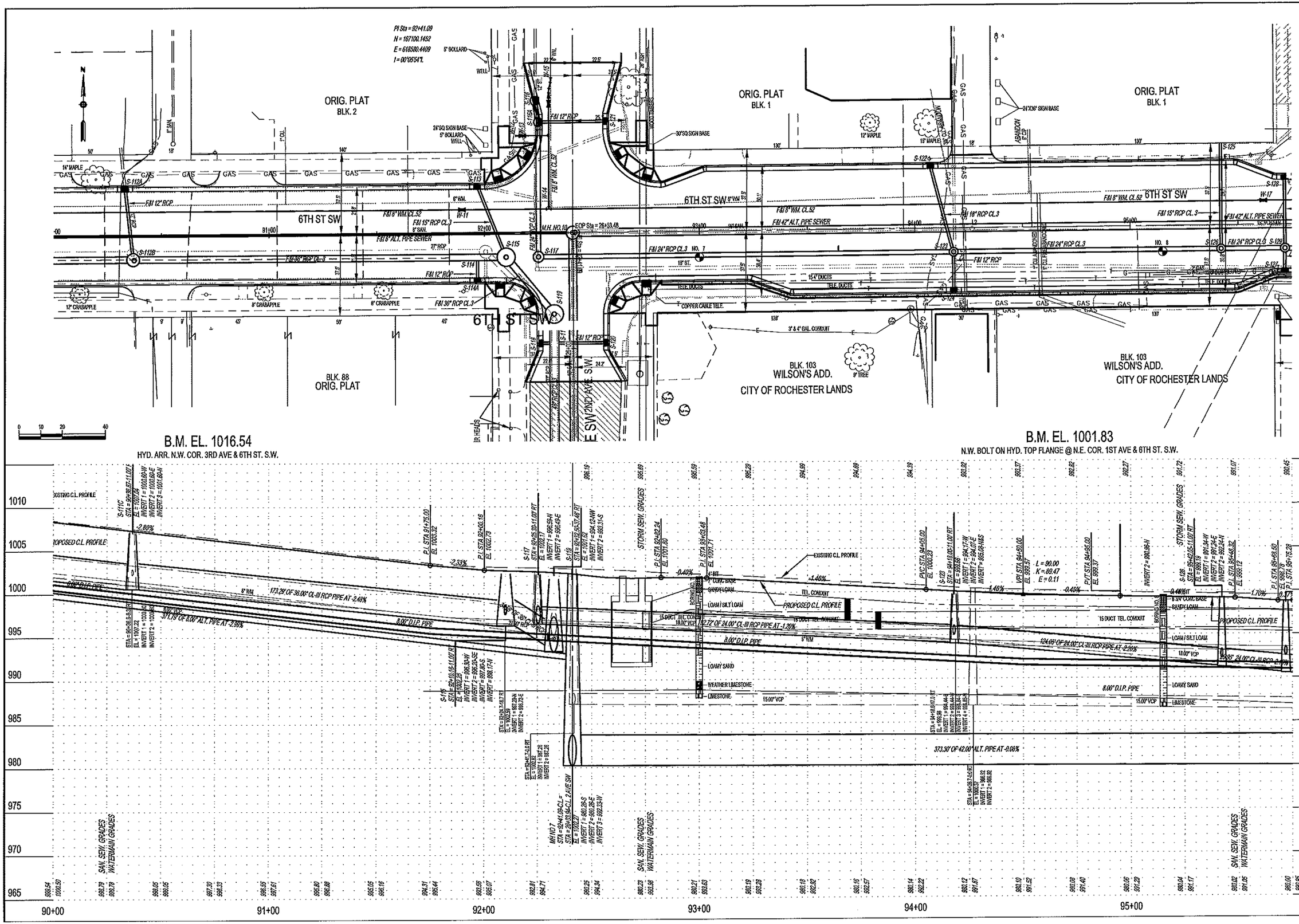

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City of Rochester, Minnesota
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Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STORM SEWER, SANITARY SEWER, AND WATERMAIN ON 6TH STREET SW FROM 2ND AVENUE SW TO 1ST AVENUE SW

Designer: CWP
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 15 of 139 Sheets

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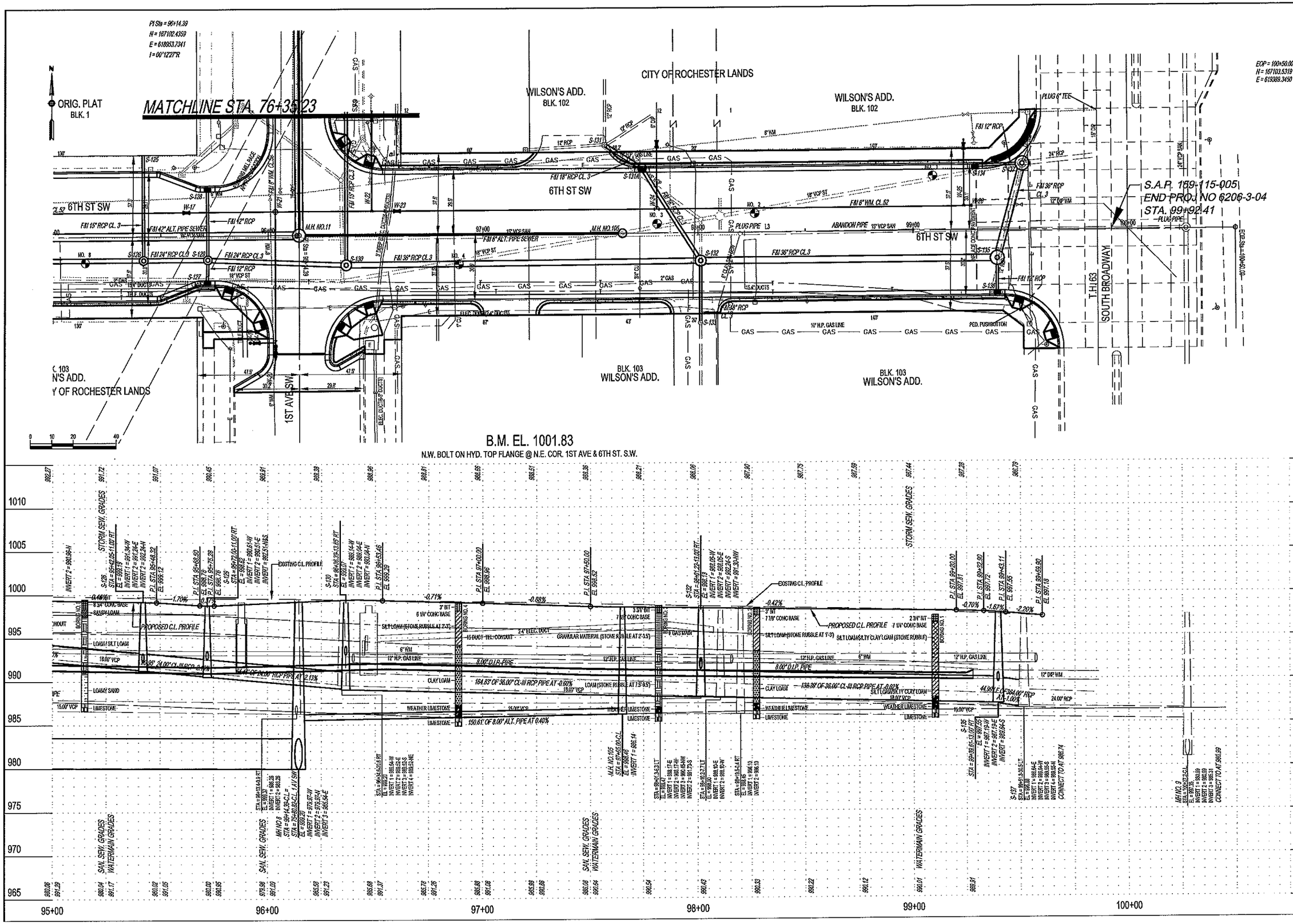

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Title: STORM SEWER AND WATERMAIN ON 6TH STREET SW FROM 1ST AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

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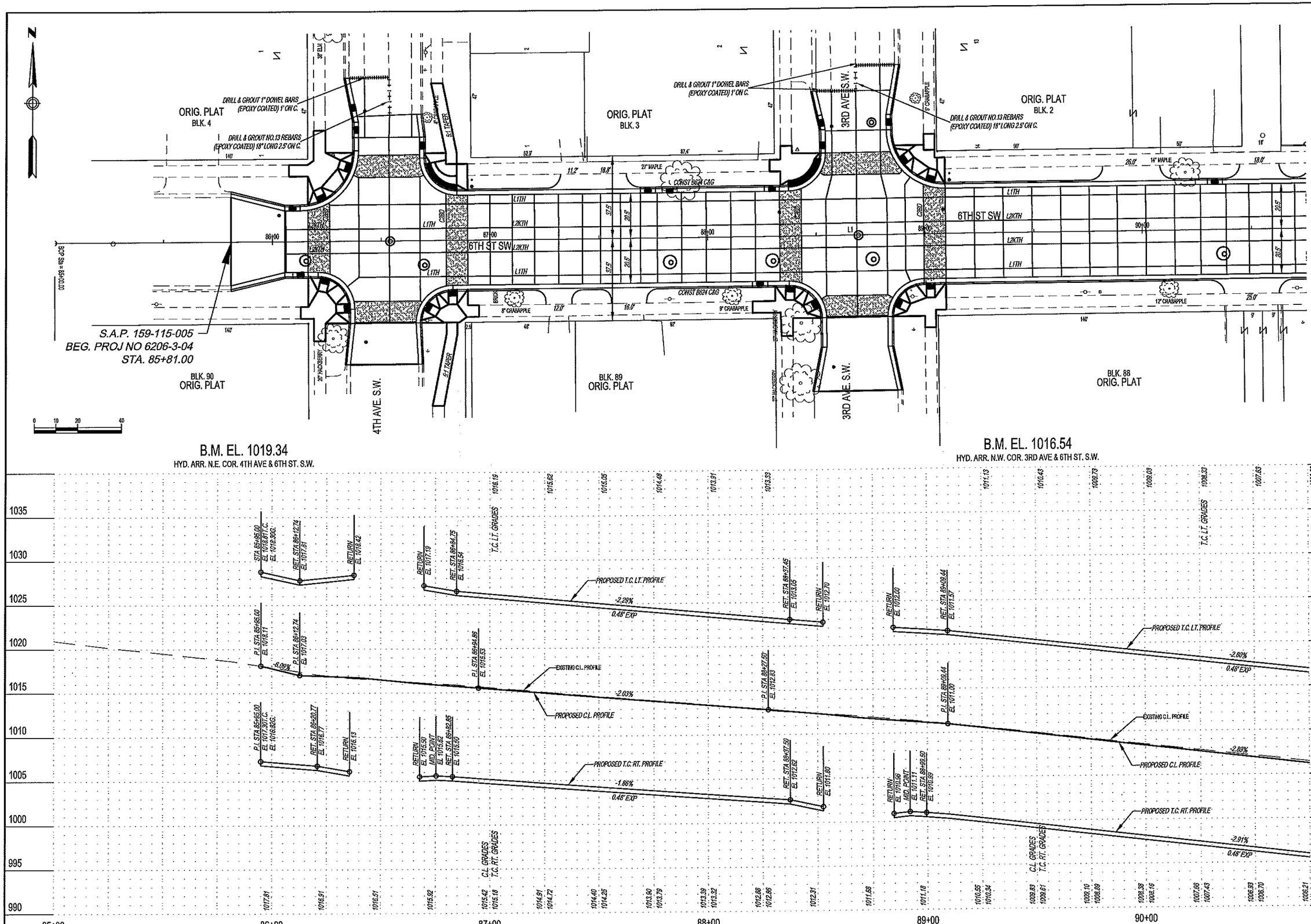

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City of Rochester, Minnesota
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Rochester, MN 55904
Phone: (507) 328-2469
FAX: (507) 328-2401

Title: CONCRETE PAVEMENT, CURB AND GUTTER AND SIDEWALK ON 6TH STREET SW FROM 4TH AVENUE SW TO 2ND AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 17 of 139 Sheets

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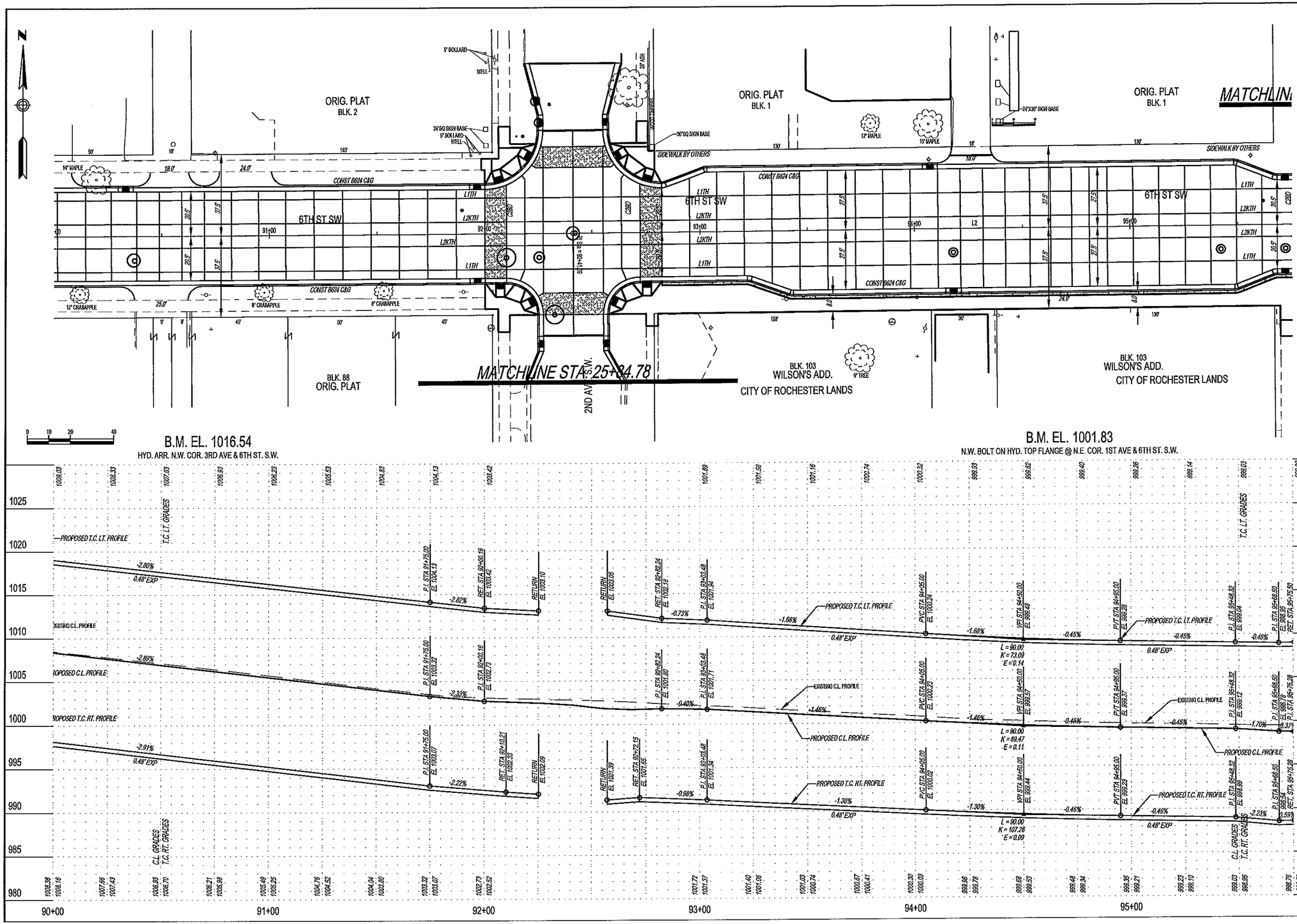

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FAX: (507) 328-2401

Title: CONCRETE PAVEMENT, CURB AND GUTTER, AND SIDEWALK ON 6TH STREET SW FROM 2ND AVENUE SW TO 1ST AVENUE SW

Designer: CWF

Checker: RJK

S.A.P. No. 159-115-005

Project No. 6206-3-04 J7732

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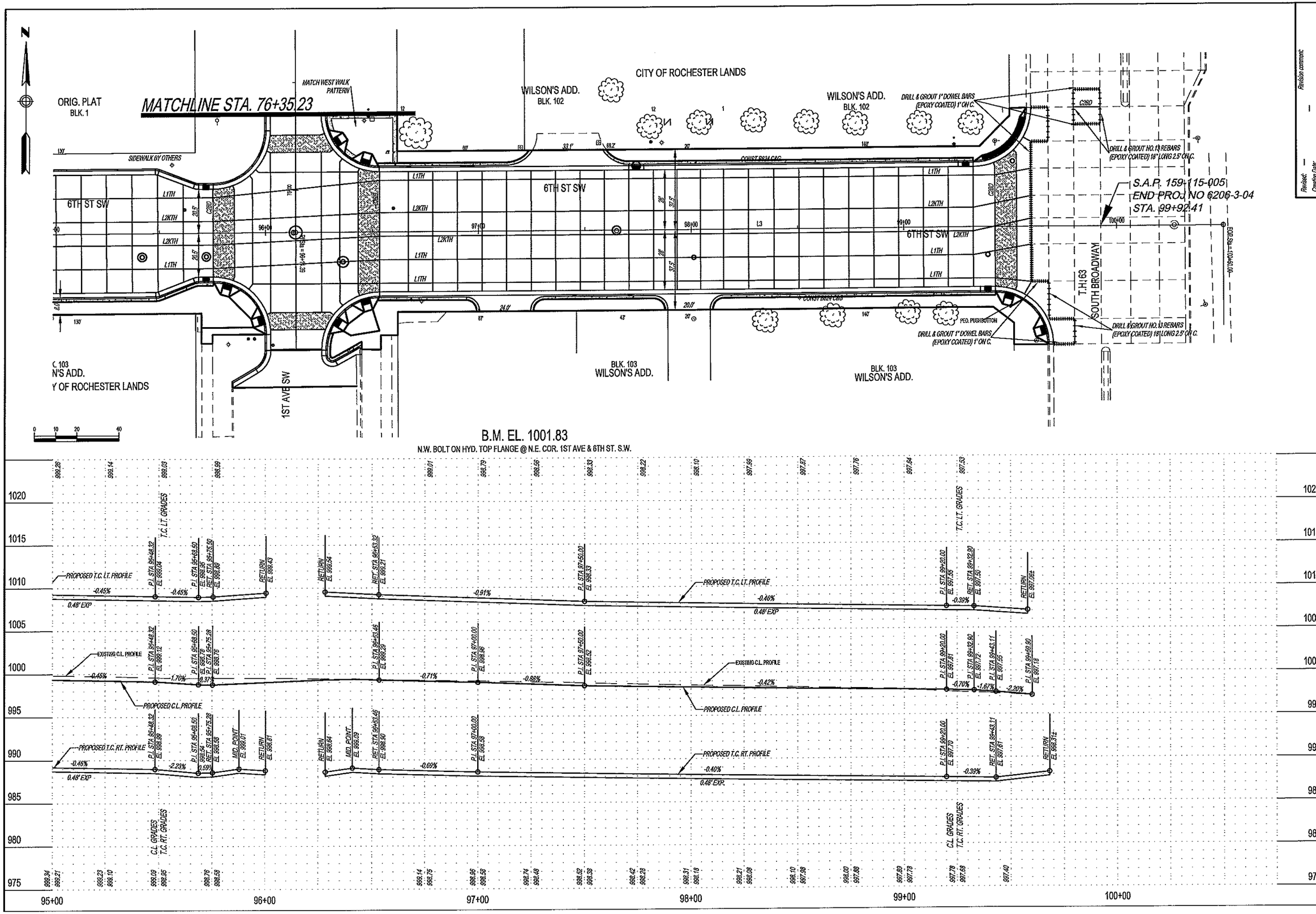

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Title: CONRETE PAVEMENT, CURB AND GUTTER, AND SIDEWALK ON 6TH STREET SW FROM 1ST AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

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Project No. 6206-3-04 J7732
Sheet 19 of 139 Sheets

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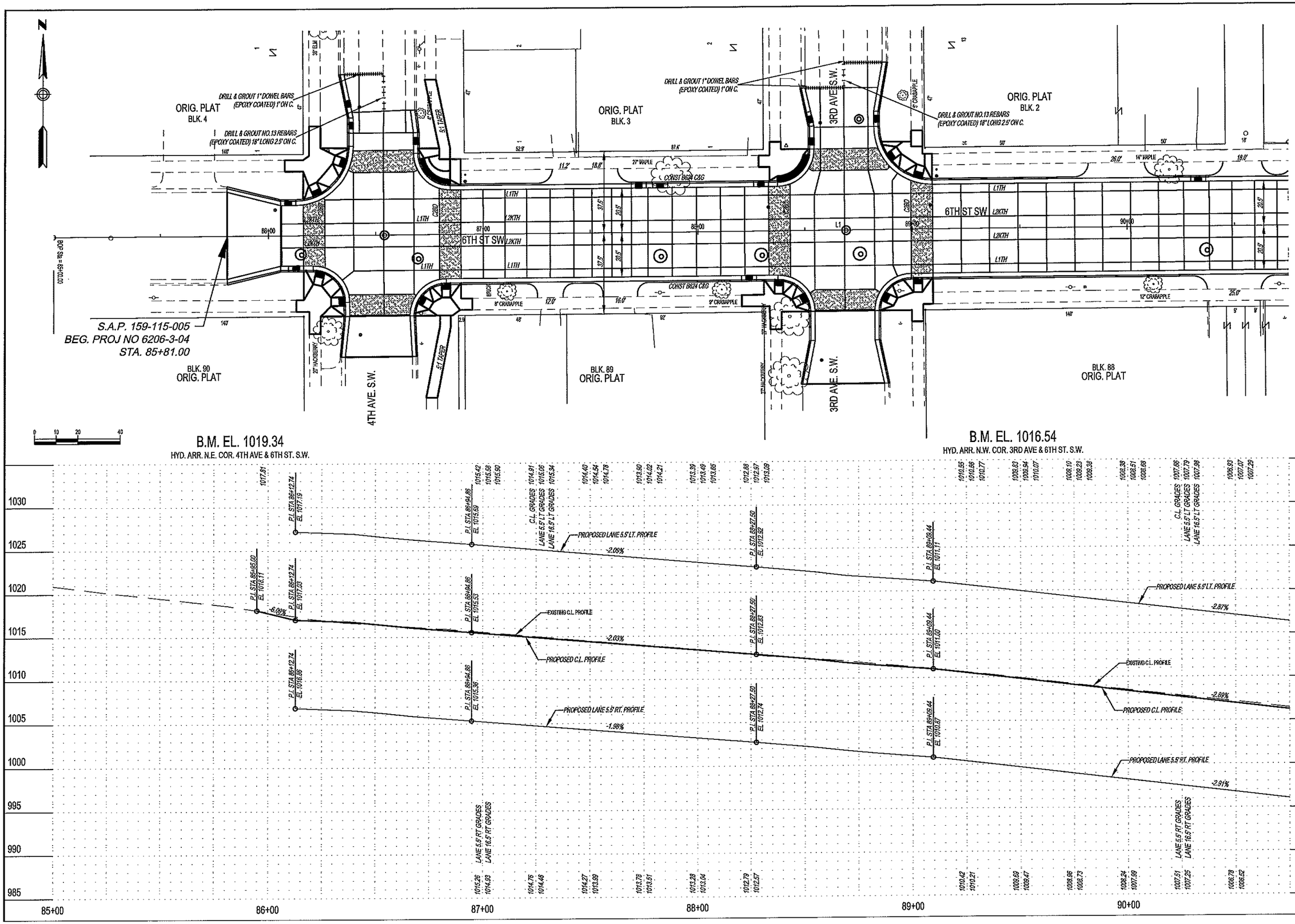

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201 4th Street S.E.
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Phone: (507) 328-2457
Fax: (507) 328-2401

Title: CONCRETE PAVEMENT LANE GRADES ON 6TH STREET SW FROM 4TH AVENUE SW TO 2ND AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 20 of 139 Sheets

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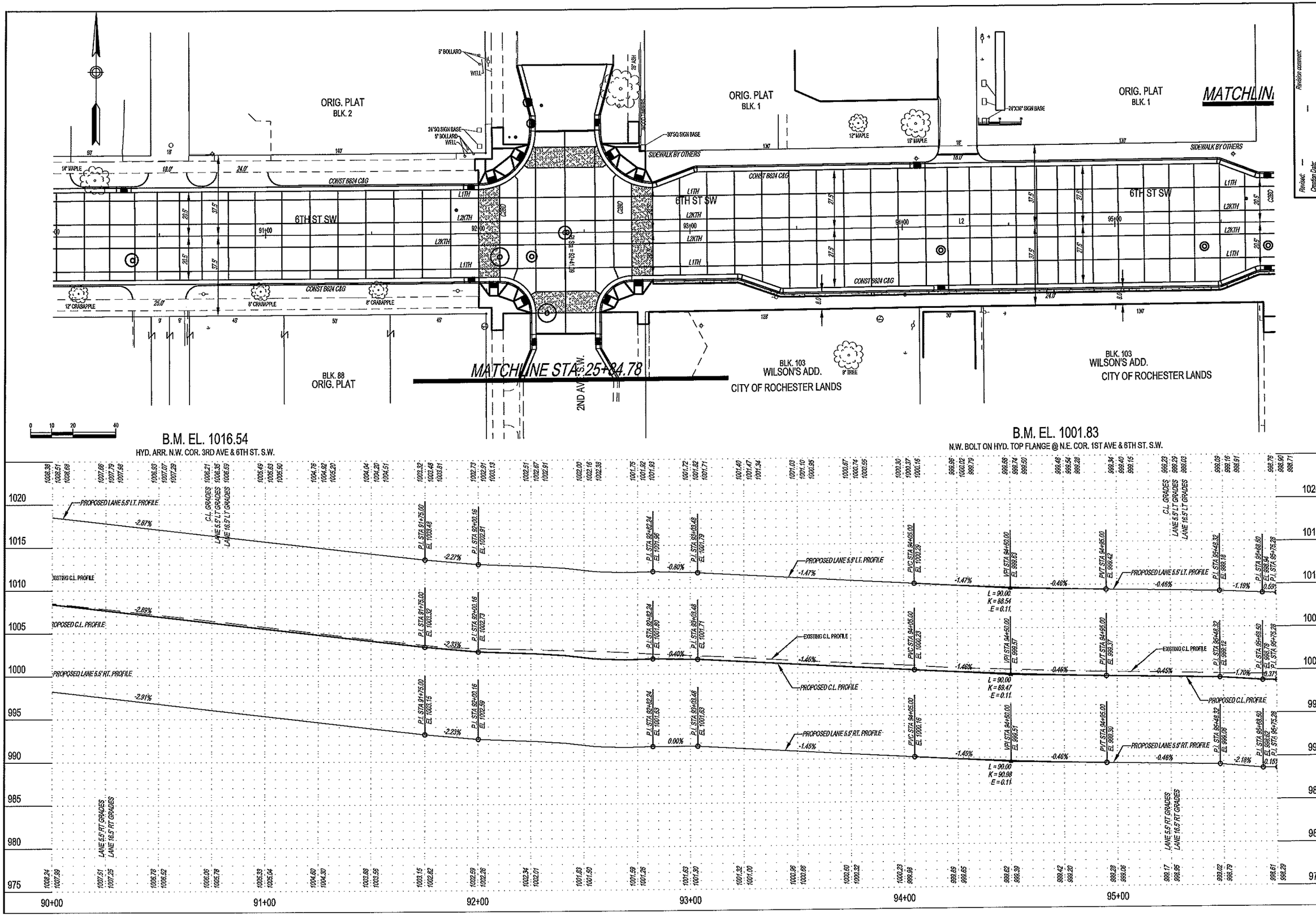

Revision comment:
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Creation Date:

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: CONCRETE PAVEMENT LANE GRADES ON 6TH STREET SW FROM 2ND AVENUE SW TO 1ST AVENUE SW

Designer: CMF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 21 of 139 Sheets

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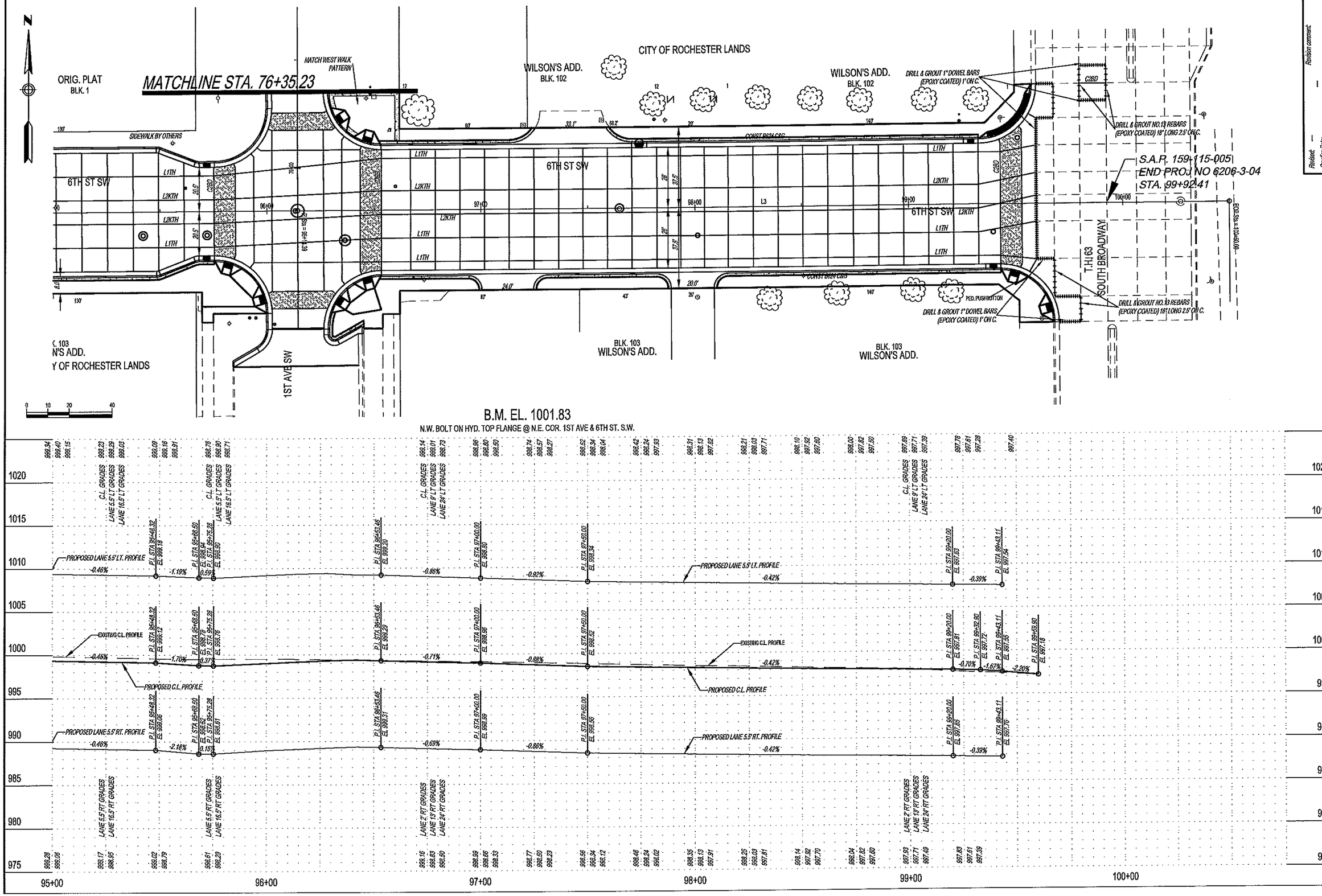

Revision: —
Revision comment: —
Creation Date: —

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Date: 5-15-12 Reg. No. 24627

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: CONRETE PAVEMENT LANE GRADES ON 6TH STREET SW FROM 1ST AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04
J7732
Sheet 22 of 139 Sheets

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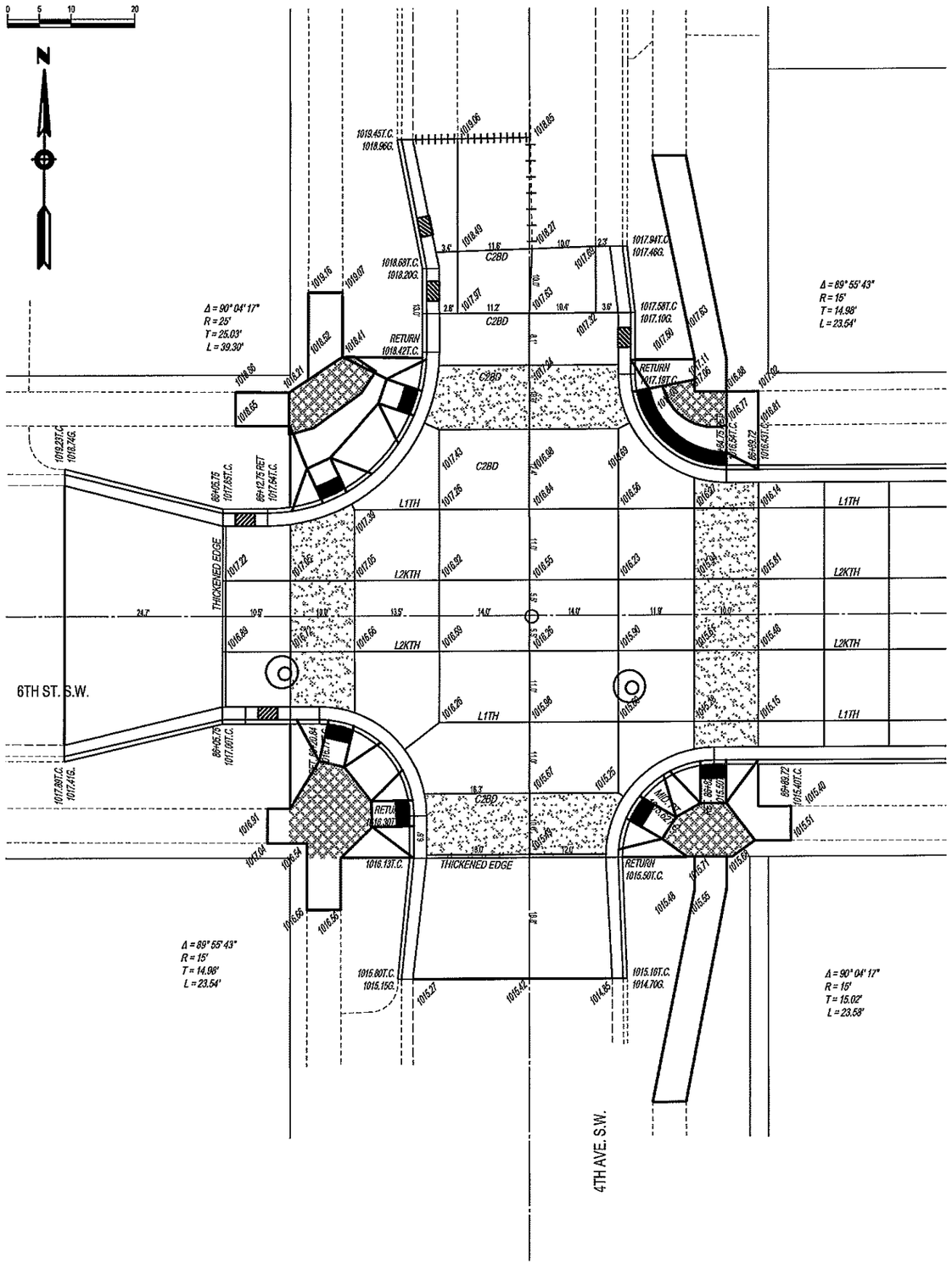

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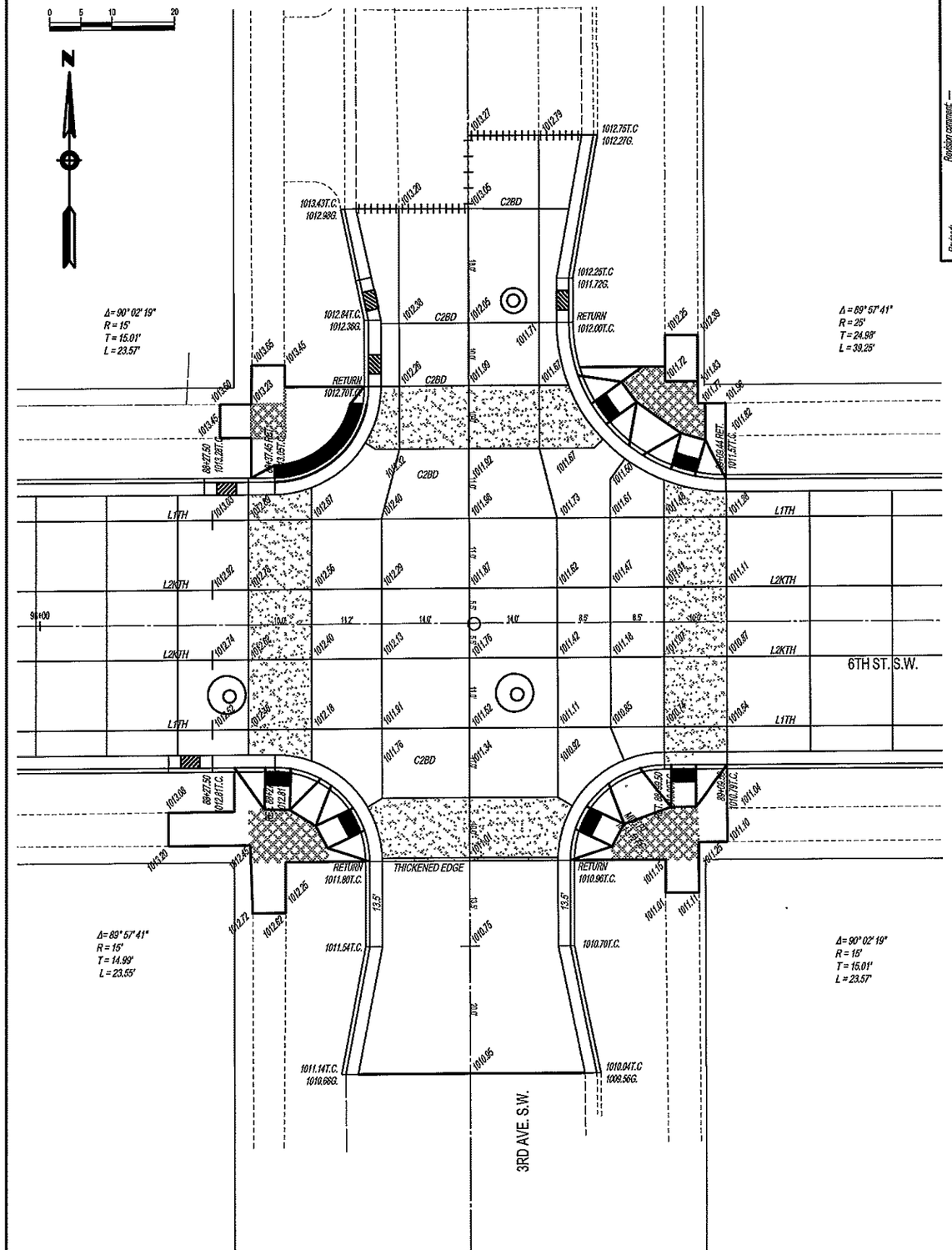

B.M. EL. 1016.54
HYD. ARR. N.W. COR. 3RD AVE & 6TH ST. S.W.

Revised: —
Revision comment: —
Creation Date: 10/18/2011

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Date: 5/15/12 Reg. No. 24997

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: INTERSECTION LAYOUT ON 6TH STREET SW AT 4TH AVENUE SW AND 3RD AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J 7732
Sheet 23 of 139 Sheets

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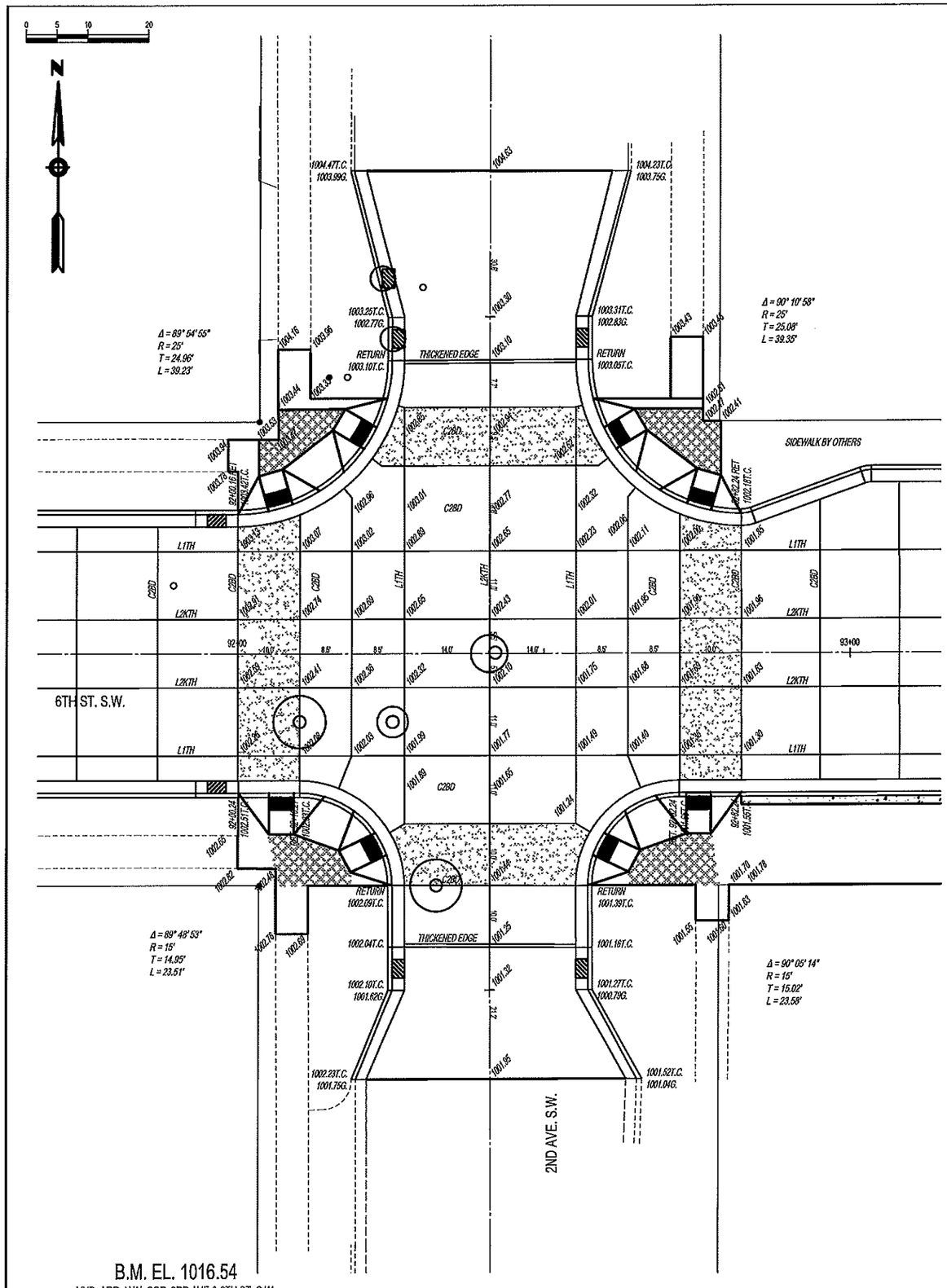

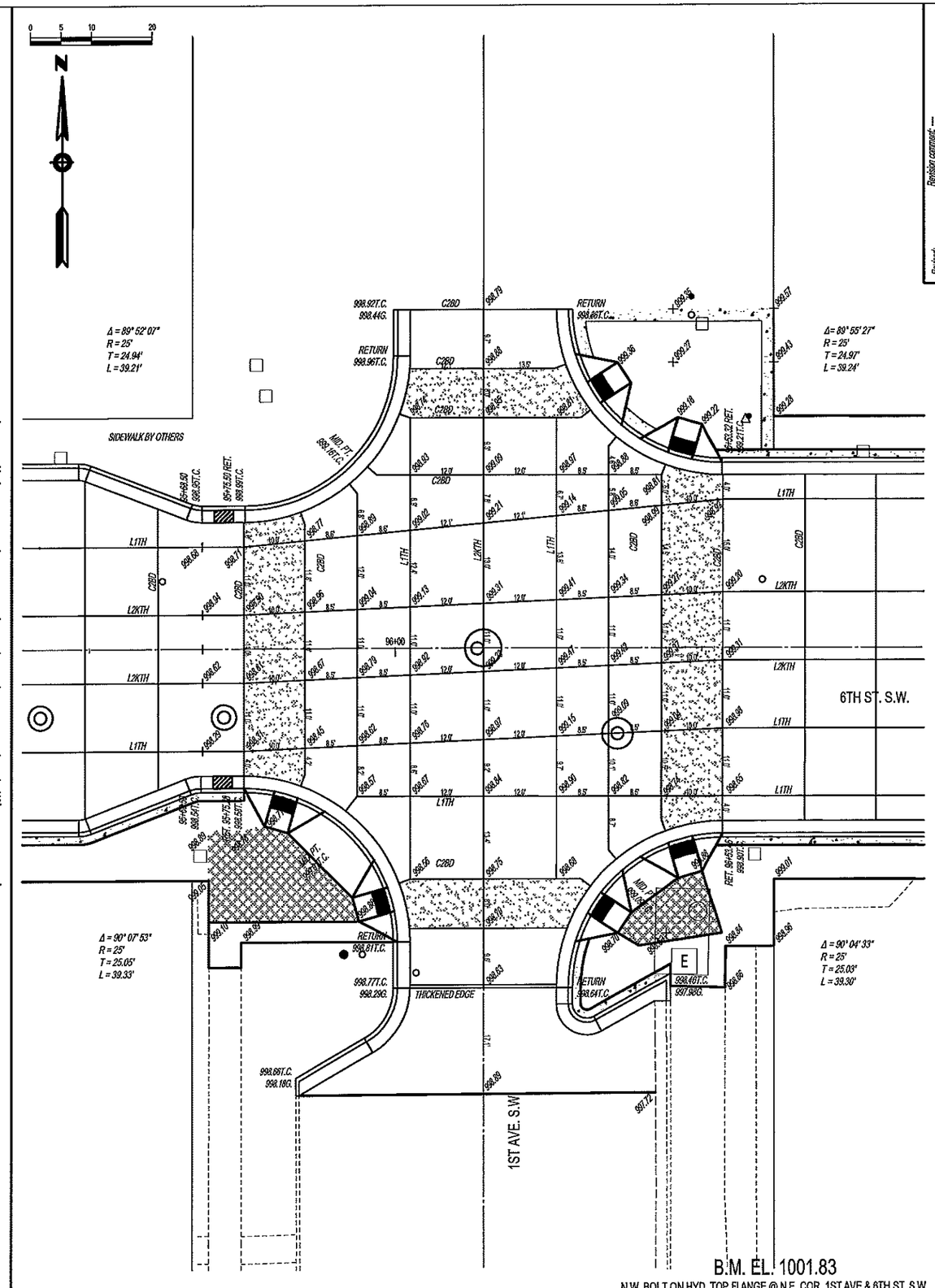

Revision: —
Revision comment: —
Creation Date: 10/19/2011

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Russell A. Klein Date: 5/15/12 Reg. No. 24057

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: INTERSECTION LAYOUT ON 6TH STREET SW AT 2ND AVENUE SW AND 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J 7732
Sheet 24 of 139 Sheets

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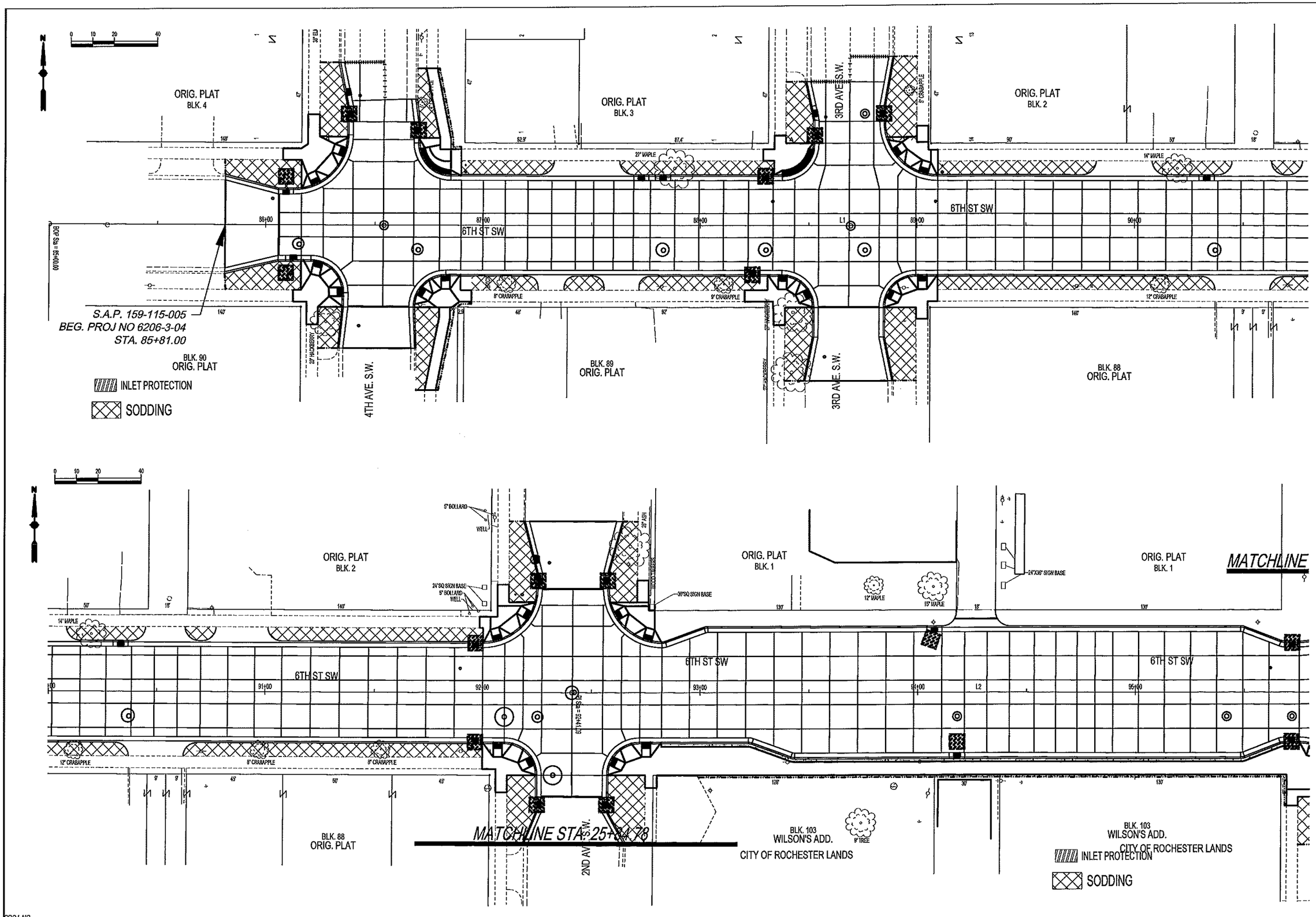


PROJ. NO.
6206-3-04

Creation Date:

Revised:
Revision comment:

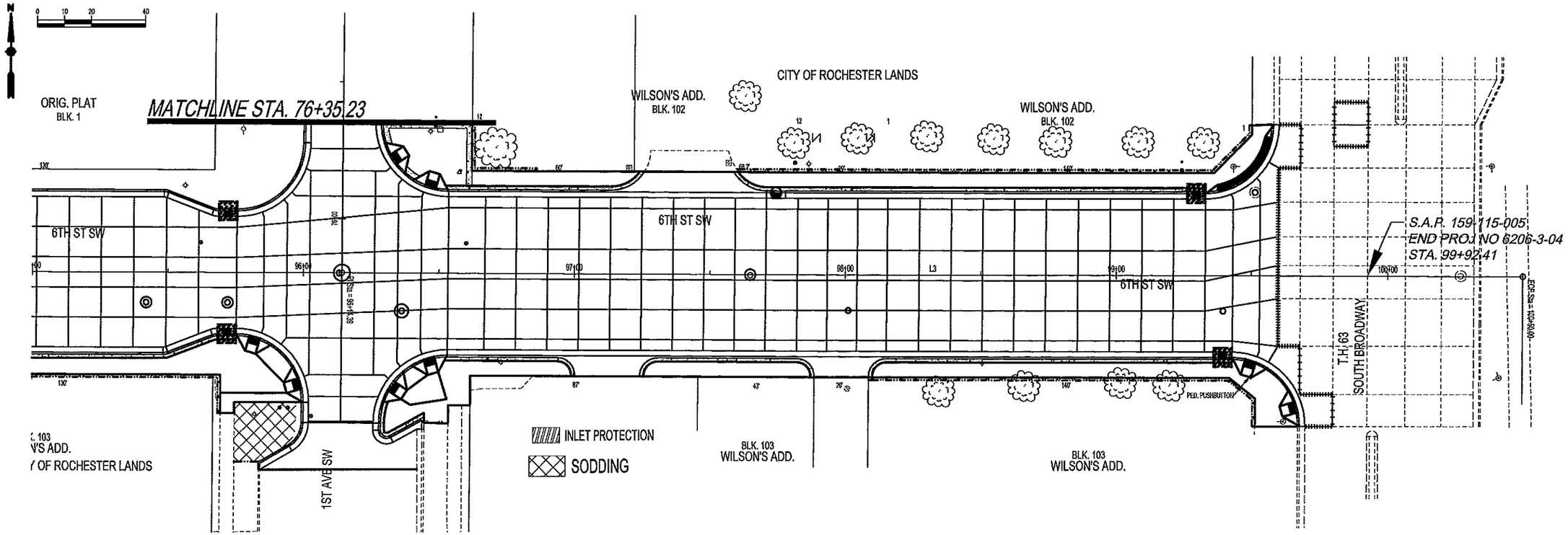
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7000
FAX: (507) 281-6216

Title: TURF ESTABLISHMENT AND EROSION CONTROL ON 6TH STREET SW FROM 4TH AVENUE SW TO 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 25 of 139 Sheets



Revision#: 1/18/05
Revision comment:
Creation Date: 1/3/12

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 26607

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7600
FAX: (507) 281-6216

Title: TURF ESTABLISHMENT AND EROSION CONTROL ON 6TH STREET SW FROM 1ST AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 26 of 139 Sheets

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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

THE PROJECT SITE IS ALONG THE EXISTING PINEWOOD ROAD AND 30TH AVE SE, A RURAL ROADWAY BETWEEN 11TH AVE (CSAH 1) AND MARION ROAD SE (CSAH 36).

ROAD CONSTRUCTION WILL BE 2 LANE AND WILL INCLUDE THE ADDITION OF BIKE LANES, AND ALONG PINEWOOD ROAD, THE CONSTRUCTION OF SIDEWALK ALONG TWO SIDES OF TH RIGHT OF WAY FOR A PORTION OF THE PROJECT LENGTH AND ONE SIDE OF THE RIGHT OF WAY FOR THE REMAINING LENGTH.

THIS PROJECT WILL REPLACE THE EXISTING DEFICIENT 22-FOOT WIDE, 5-TON TOWNSHIP ROAD WITH NARROW SHOULDERS, AND LIMITED PEDESTRIAN FACILITIES AND INCREASE THE LOAD RATING TO 9-TON DESIGN. DRAINAGE DEFICIENCIES EXIST AND THIS PROJECT WILL CORRECT THESE EXISTING DEFICIENCIES.

THIS PROJECT DOES NOT INCLUDE WORK ON BRIDGE #55J06 OVER BADGER RUN CREEK WHICH WAS RECONSTRUCTED IN 1996

SEE ALSO THE GRADING AND UNDERGROUN PLAN SHEETS FOR PROJECT FEATURES.

SPECIAL AND IMPAIRED RECEIVING WATERS

THERE ARE NO SPECIAL OR IMPAIRED WATERS LOCATED WITHIN ONE MILE OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE.

NAME OF WATER BODY	TYPE (DITCH,POND,WETLAND, LAKE,STREAM,RIVER)	SPECIAL WATER	IMPAIRED WATER
BEAR CREEK	CREEK	YES NO	YES NO
ZUMBRO RIVER	RIVER	YES NO	YES NO
SILVER LAKE	LAKE	YES NO	YES NO

SWPPP TRAINING III.A.2

THIS SWPPP WAS PREPARED BY CITY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE ON FILE WITH MN/DOT AND ARE AVAILABLE UPON REQUEST. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A CERTIFIED EROSION CONTROL SUPERVISOR THAT IS RESPONSIBLE FOR OVERSEEING THE IMPLEMENTATION OF TH SWPPP.

EROSION CONTROL SUPERVISOR

IN ACCORDANCE WITH SPEC. 2573.3 A1 THE CONTRACTOR WILL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. (THE EROSION CONTROL SUPERVISOR IS INCEDENTAL TO THE PROJECT)

THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION , INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMS BEFORE, DURING AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA.

THE EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR COMPLYING WITH ALL THE INSPECTION AND MAINTENANCE REQUIREMENTS STATED IN THE NPDES PERMIT PART IV. F. INSPECTIONS OF THE ENTIRE CONSTRUCTION SITE WILL OCCUR A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE EROSION CONTROL SUPERVISOR WILL THOROUGHLY INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS OF EACH BMP. ALL IN SPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED ON THE CITY OF ROCHESTER'S WEBSITE (PERMITRACK) AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. INSPECTION REPORTS MUST BE SUBMITTED TO THE PROJECT ENGINEER IN A FORMAT THAT MEETS OR EXCEEDS THE PROJECT ENGINEERS EXPECTATIONS . RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:

A. DATE AND TIME OF INSPECTIONS;
B. NAME OF PERSONS CONDUCTING INSPECTIONS;
C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
D. CORRECTIVE ACTIONS TAKEN INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES;
E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHS IN 24 HOURS;
F. DOCUMENTS AND CHANGES MADE TO THE SWPPP.

SOIL TYPES

SOIL TYPES TYPICALLY FOUND ON THIS PROJECT ARE SAND, SANDY LOAM, LOAMY SAND, LOAM, CLAY, CLAY LOAM, SANDY CLAY, SILTY CLAY, SILTY CLAY LOAM, SILTY LOAM, SANDY CLAY LOAM, LIMESTONE, LOAMY FINE SAND, SANDSTONE, BEDROCK

LAND FEATURE CHANGES

TOTAL DISTURBED AREA: 0.00 ACRES
TOTAL EXISTING IMPERVIOUS SURFACE AREA: 0.00 ACRES
TOTAL PROPOSED IMPERVIOUS SURFACE AREA: 0.00 ACRES
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS SURFACE AREA: 0.00 ACRES

PROJECT CONTACTS INFORMATION

ORGANIZATION	CONTACT NAME	PHONE
MPCA	ROBERTA GETMAN	(507) 280-2996
ROCHESTER	DOUG NELSON	(507) 328-2423
CONTRACTOR	CONTRACTOR	(000) 000-0000
STATE DUTY OFFICER		(800) 422-0798

MPCA 24 HOUR EMERGENCY NOTIFICATION: 651-649-5451
800-422-0798

CREEK WORK EROSION AND SEDIMENTATION CONTROL

1. SLOPES WITHIN 200 FEET OF A SURFACE WATER REQUIRE RAPID STABILIZATION FOR CRITICAL AREAS AS PER MN/DOT SPEC. 2575.3N.
2. USE OF FLOATING SILT CURTAINS ARE REQUIRED DOWNSTREAM OF CREEK WORK.
3. TEMPORARY ROCK BERMS SHALL BE USED TO SEPARATE WORK AREAS FROM FLOWING WATER TO MINIMIZE FILL FROM WASHING DOWNSTREAM.
4. CONCRETE WASH AREAS WILL NOT BE ALLOWED WITHIN 200 FEET OF CRITICAL AREAS.

Revised: — Revision comment: —
Creation Date:

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Date: 5-15-12 Reg. No. 24687

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: EROSION CONTROL DETAILS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 27 of 139 Sheets

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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. THE CONTRACTOR WILL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

2. THE CONTRACTOR WILL PREPARE WEEKLY AND EVENT DRIVEN EROSION INSPECTION ON A WEBSITE PROVIDED BY THE CITY (PERMITRACK) FOR DOCUMENTATION OF THE CONDITION OF THE ACTIVITIES AND NOTE ANY REPAIRS NEEDED AND ACTIONS TAKEN.

3. THE CONTRACTOR WILL COMPLY WITH THE REQUIREMENTS REGARDING POLLUTION PREVENTION MANAGEMENT DURING CONSTRUCTION, WHICH WILL INCLUDE, BUT NOT LIMITED TO, PROVIDING:
   A. CONCRETE WASHOUT AREAS FOR USE BY ALL SUBCONTRACTORS AND MN/DOT PERSONNEL. LOCATION OF WASHOUT AREAS MUST BE IDENTIFIED BY SIGNAGE AND MUST BE AT LEAST 200' FROM SITE PLAN REQUIREMENT AREAS OR ENVIRONMENTALLY SENSITIVE AREAS, AND UTILIZE A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER THAT PREVENTS RUNOFF ONTO ADJACENT SOILS. AN ENGINEERED COLLECTION SYSTEM CAN ALSO BE USED IF IT IS APPROVED BY THE PROJECT ENGINEER.
   B. SOLID WASTE COLLECTION AND REMOVAL
   C. SECONDARY CONTAINMENT
   D. SECURED HAZARDOUS WASTE STORAGE CONTAINERS
   E. CHEMICAL SPILL KITS
   F. PORTABLE RESTROOM FACILITIES THAT ARE ANCHORED TO PREVENT TIPPING

4. CHEMICALS MUST BE KEPT IN A SECURE STORAGE AREA WHEN NOT IN USE. CHEMICAL STORAGE CONTAINERS MUST HAVE SECONDARY CONTAINMENT WHEN BEING USED OR STORED ON THE PROJECT SITE. CHEMICAL SPILLS OF ANY KIND (OIL, FUEL, FERTILIZER, ETC.) MUST BE CLEANED UP AND REMOVED FROM THE SITE IMMEDIATELY. THE CONTRACTOR MUST HAVE A SPILL KIT ON SITE AT ALL TIMES.

5. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN THE CITY OF ROCHESTER.

6. THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE INPLACE PRIOR TO ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES COMMENCE AND SHALL BE MAINTAINED UNTIL THE POTENTIAL FOR EROSION HAS BEEN ELIMINATED.

7. SEDIMENT CONTROL DEVICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. SEDIMENT CONTROL DEVICES INCLUDE, BUT ARE NOT LIMITED TO:
   A. PERIMETER CONTROL SHALL BE LOCATED ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS WITH THE BMP J-HOOKED AT A MAXIMUM OF 100 FOOT INTERVALS AND SHALL CONTAIN NO MORE THAN 1/4 ACRE OF DRAINAGE AREA.
   B. DITCH CHECKS WILL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION. TEMPORARY DITCH CHECKS WILL CONSIST OF USING ROCK DITCH CHECKS, BIOLOGS AND ROCK WEEPERS IN FRONT OF CULVERT INLETS.
      2. FILTER LOGS WILL BE PLACED DURING PERMANENT TURF ESTABLISHMENT AT THE INTERVALS IDENTIFIED IN THE PLAN.
   C. SEDIMENT DAMAGE FROM STOCKPILES WILL BE MINIMIZED BY PLACING A ROW OF SILT FENCE A MINIMUM 5 FEET FROM THE TOE.

8. STORM SEWER INLETS WILL BE PROTECTED AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION FOR EACH SPECIFIC PHASE OF CONSTRUCTION. INLET PROTECTION DEVICES MAY NEED TO BE PLACED MULTIPLE TIMES IN THE SAME LOCATION OVER THE LIFE OF THE CONTRACT. INLET PROTECTION DEVICES WILL BE PAID FOR ONCE PER INLET REGARDLESS OF THE NUMBER OF TIMES THE BMP IS PLACED. ALL STORM SEWER INLET PROTECTION DEVICES WILL BE KEPT IN GOOD FUNCTIONAL CONDITION AT ALL TIMES. IF THE PROJECT ENGINEER DEEMS AN INLET PROTECTION DEVICE TO BE NONFUNCTIONAL, IN POOR CONDITION, INEFFECTIVE OR NOT APPROPRIATE FOR THE CURRENT CONSTRUCTION ACTIVITIES IT WILL BE REPLACED WITH A SUITABLE ALTERNATIVE AT NO COST TO THE CITY OF ROCHESTER.

9. OUTLETS INTO SURFACE WATERS SHALL BE STABILIZED WITH ENERGY DISSIPATION PRIOR TO BEING CONSTRUCTED.

10. THE CONTRACTOR WILL PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES AND IN COMPLIANCE WITH PART IV OF THE NPDES PERMIT. CONSTRUCTION EXITS WILL BE SUFFICIENTLY SIZED AND MAINTAINED TO PREVENT TRACK OUT.

11. THE CONTRACTOR SHALL CLEAN ALL TRACKED MATERIALS ON ADJACENT ROADWAYS ON A DAILY BASIS AND AS NEEDED AT THE DISCRETION OF THE CITY ENGINEER AND/OR HIS DESIGNATED REPRESENTATIVES.

12. THE CONTRACTOR MUST USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, SAW CUT SLURRY, PLANING WASTE AND OTHER OR FUTURE VEGETATED AREAS OR ENTERING STORMWATER CONVEYANCE SYSTEM INCLUDING INLETS AND CURB FLOW LINES.

13. ALL EXPOSED SOIL AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED NO MORE THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

14. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
   A. SILT FENCE MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WHEN IT BECOMES NON-FUNCTIONAL OR SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE. REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY.
   B. INLET PROTECTION DEVICES SHOULD BE REPAIRED WHEN THEY BECOME NON-FUNCTIONAL OR SEDIMENT REACHES 1/3 THE HEIGHT AND/OR THE DEPTH OF THE DEVICE.
   C. TEMPORARY SEDIMENT BASIN MUST HAVE THE SEDIMENT REMOVED ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME WITHIN 72 HOURS OF DISCOVERY.
   D. TRACKED SEDIMENT MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY OF TRACKING ONTO PAVED SURFACES.
   E. ALL OTHER NON-FUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITHIN 24 HOURS OF DISCOVERY.
   F. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA IN ACCORDANCE WITH PART II.B.5 OF THE CONSTRUCTION GENERAL PERMIT.

15. TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED FOR THE UTILITY WORK. THEREFORE, IT IS POSSIBLE THAT A PERMIT FOR THE TEMPORARY APPROPRIATION OF WATERS OF THE STATE, NON-IRRIGATION FROM MN/DNR WILL BE REQUIRED FOR THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THIS PERMIT. ALL TEMPORARY DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO THE RECEIVING WATER. THE CONTRACTOR IS REQUIRED TO SUBMIT SITE PLANS TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK ACCORDING TO SPEC. 1717.2E.

POLLUTION PREVENTION

16. IF A SPILL OCCURS, OBSERVE THE SAFETY PRECAUTIONS ASSOCIATED WITH THE SPILLED MATERIAL. STOP THE SOURCE OF THE SPILL, IF POSSIBLE. CALL THE LOCAL FIRE AND/OR POLICE DEPARTMENTS IF FIRE OR PUBLIC SAFETY HAZARDS ARE CREATED. CONTAIN THE SPILLED MATERIAL. DIRT, SAND, OR ANY SEMI IMPERMEABLE MATERIAL MAY BE USED TO CREATE A CONTAINMENT STRUCTURE TO PREVENT THE MATERIAL FROM FLOWING. REPORT THE SPILL TO THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) THROUGH THE STATE DUTY OFFICER. 24 HOUR TELEPHONE NUMBERS ARE: 651/649-5451 OR 800/422-0798. CLEANUP THE SPILLED MATERIAL AND DISPOSE OF THE WASTES PROPERLY. WITH THE EXCEPTION OF USED OIL, WASTES GENERATED FROM PETROLEUM SPILLS THAT HAVE BEEN REPORTED AND CLEANED UP IMMEDIATELY ARE EXEMPT FROM MINNESOTA'S HAZARDOUS WASTE RULES. WASTE GENERATED FROM USED OIL SPILLS MUST BE SENT TO A FACILITY FOR ENERGY RECOVERY.

17. IF CONTAMINATED SOILS ARE DISCOVERED DURING THE COURSE OF THE PROJECT, THE STATE DUTY OFFICER SHALL IMMEDIATELY BE CALLED AT THE NUMBER(S) STATED ABOVE AND EMERGENCY CONTAINMENT ACTIONS TAKEN. THE CITY SHALL ALSO BE NOTIFIED IMMEDIATELY.

18. TRASH AND CONSTRUCTION DEBRIS SHALL BE DISPOSED OF PROPERLY. PROPER MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO KEEP DEBRIS FROM SURFACE WATERS DURING BRIDGE CONSTRUCTION.

Revision comment:
Revision: –
Creation Date: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2400
FAX: (507) 328-2401

Title: EROSION CONTROL DETAILS ON 6TH STREET SW FROM 4TH AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J 7732
Sheet 28 of 139 Sheets

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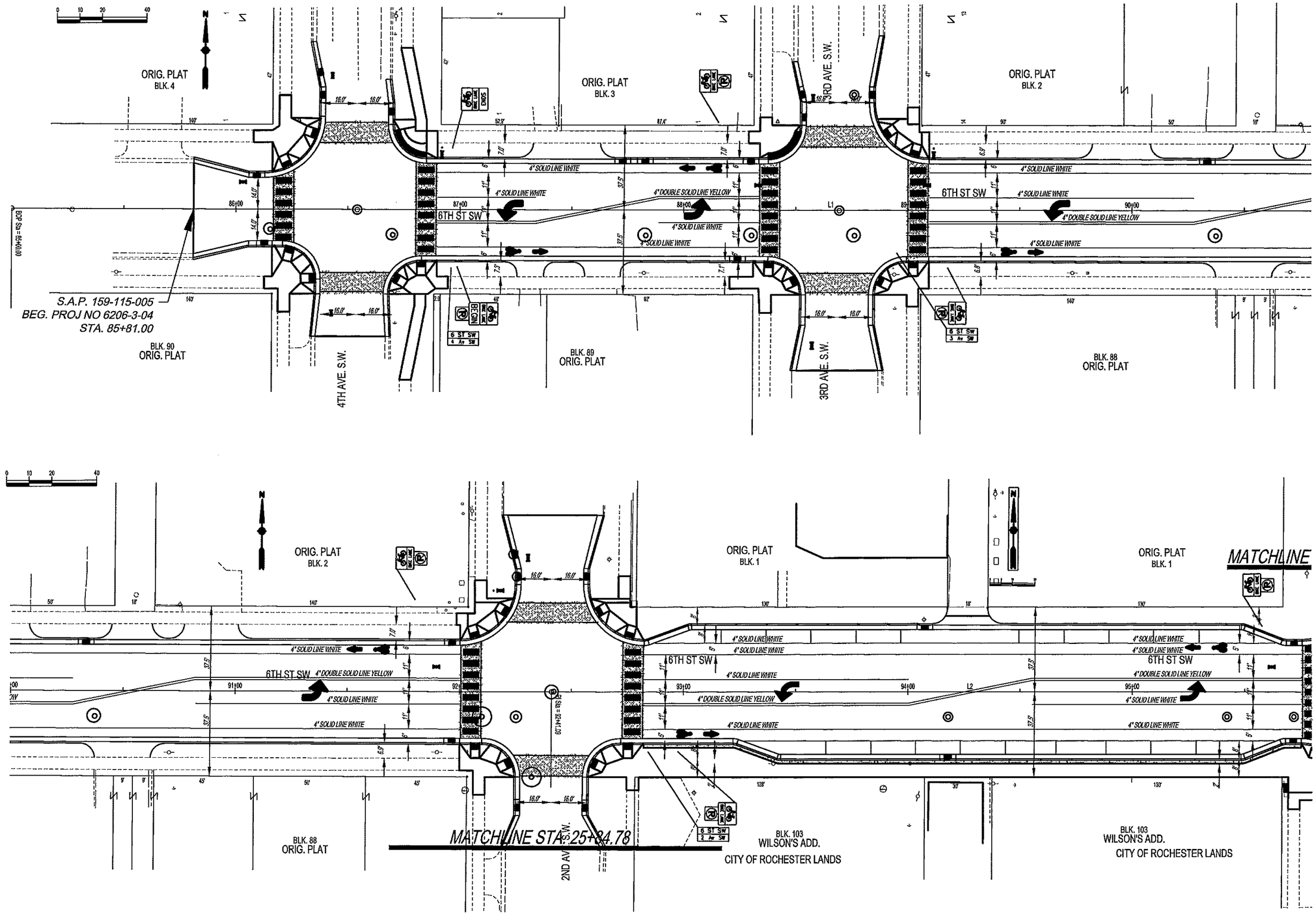

Revised: 1/13/05
Revision comment:

Creation Date: 11/29/11

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Date: 5-15-12 Reg. No. 26657

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: STRIPING ON 6TH STREET SW FROM 4TH AVENUE SW TO 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 29 of 139 Sheets

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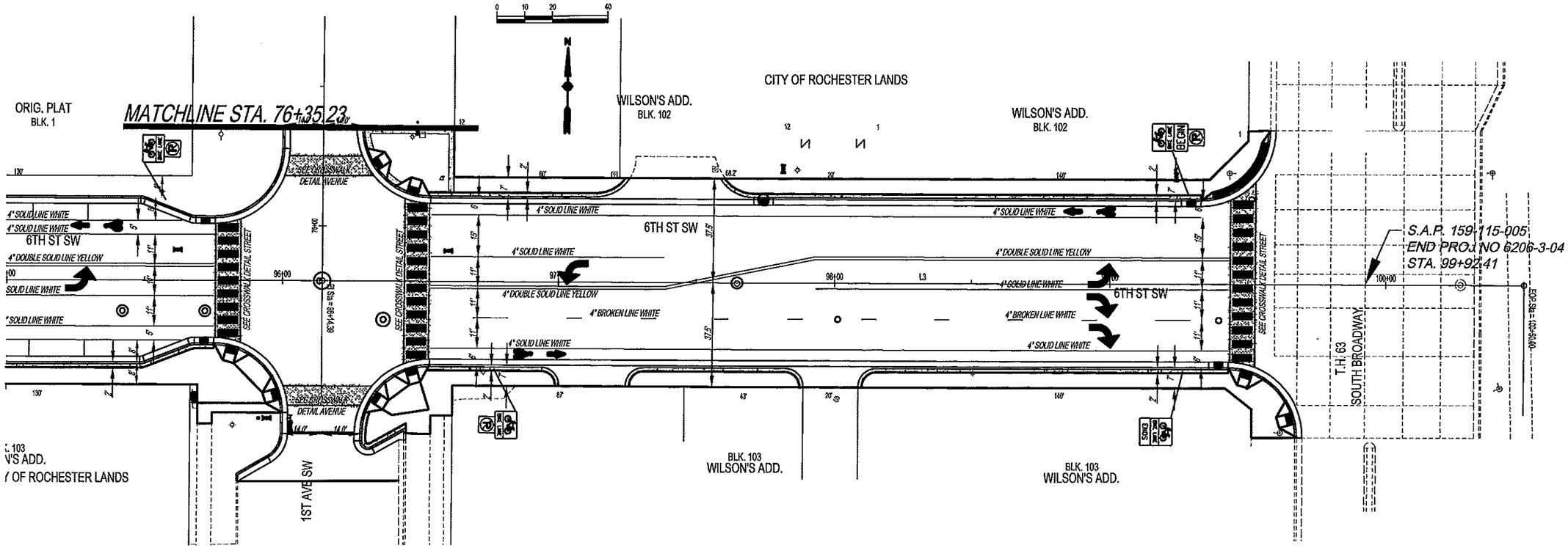

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Revised:
Revision comment:

Creation Date:

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Russell A. Klein Date: 5-15-12 Reg. No. 24687

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: STRIPING ON 6TH STREET SW FROM 1ST AVENUE SW TO SOUTH BROADWAY

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 30 of 139 Sheets

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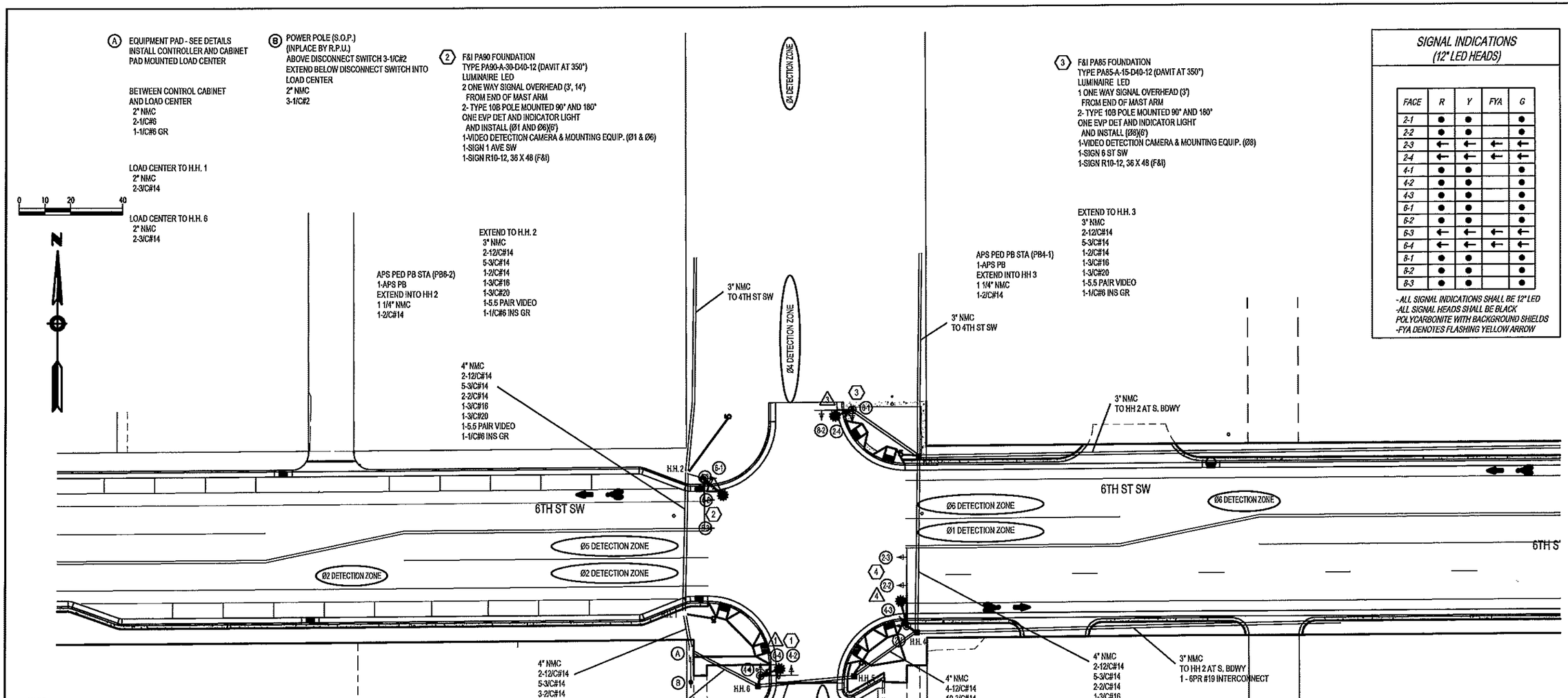
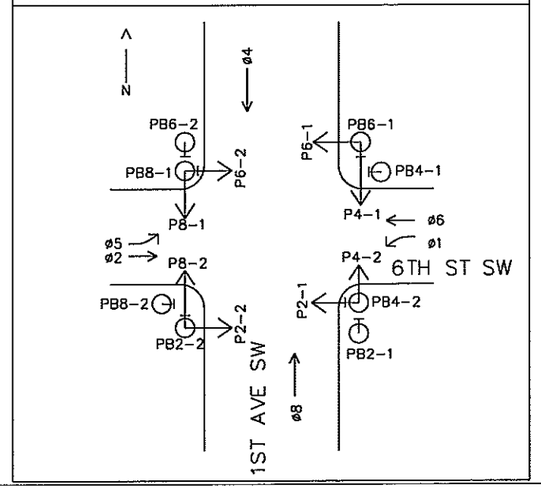


SIGNAL INDICATIONS (12" LED HEADS)

FACE	R	Y	FYA	G
2-1	●	●		●
2-2	●	●		●
2-3	←	←	←	←
2-4	←	←	←	←
4-1	●	●		●
4-2	●	●		●
4-3	●	●		●
6-1	●	●		●
6-2	●	●		●
6-3	←	←	←	←
6-4	←	←	←	←
8-1	●	●		●
8-2	●	●		●
8-3	●	●		●

- ALL SIGNAL INDICATIONS SHALL BE 12" LED
- ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS
- FYA DENOTES FLASHING YELLOW ARROW

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS LAYOUT



NOTES:

1. LOCATION OF POLES, VIDEO DETECTION ZONES, EQUIPMENT PAD AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
3. EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION HAND/WALKING PERSON INDICATION, WITH COUNT DOWN TIMER THE HAND INDICATION BEING AN LED INDICATION. SEE SPECIAL PROVISIONS. THE CITY SHALL PROVIDE PEDESTRIAN PUSHBUTTON SIGNS.
4. ALL HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS (PER MnDOT STANDARD PLATE NO. 8114A).
5. SEE SPECIAL PROVISIONS REGARDING SIGN PANELS TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
6. SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING AND CITY FURNISHED MATERIALS.
7. A 7/8" HALF COUPLING, 7/8" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED APPROX. 71" FROM LEFT END OF ALL MAST ARMS.
8. ALL VEHICLE SIGNAL INDICATIONS SHALL BE LED. SEE SPECIAL PROVISIONS.
9. EVP EQUIPMENT, VIDEO DETECTION EQUIPMENT AND BRACKETING, CABINET AND CONTROLLER WILL BE PROVIDED BY THE CITY.
10. ALL NEW CONDUIT SHALL BE NMC - SCHEDULE 80 OR HDPE SCHEDULE 80 AND CARRY 1-1/C #6 INSULATED GROUNDING CONDUCTOR AS SHOWN IN PLAN.
11. DOUBLE HUBS AT 90°, 180°, AND 240°
12. SEE DIVISION SS FOR BRACKETING REQUIREMENTS
13. THE CONTRACTOR SHALL INSTALL ELECTRICAL EQUIPMENT AND SIGNAL CABINET - FURNISHED BY THE CITY - AND SHALL MAKE ALL FIELD CONNECTIONS TO MAKE THE SIGNAL SYSTEM OPERATIONAL
14. THE CONTRACTOR SHALL LOCATE AND VERIFY INPLACE UTILITIES PRIOR TO COMMENCING WORK.
15. FOR SIGN TYPE "D" SEE MAST ARM SIGNING DETAILS.
16. FOR PAVEMENT MARKING SEE CONSTRUCTION LAYOUT.
17. EVP DETECTION & CONFIRMATORY LIGHTS SHALL BE MOUNTED 6' FROM END OF THE MAST ARM . A1-3/C #20 CABLE SHALL BE WIRED DIRECT TO THE EVP DETECTOR - CONTINUOUS WITHOUT SPLICES FROM THE CABINET. 2 - 1/C #14 SHALL BE WIRED FROM THE CONFIRMATORY LIGHT TO THE TERMINAL BLOCK IN IN EACH POLE BASE.
18. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION.

Revision comment: —
Revision#: —
Creation Date:

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Ronald J. Klein Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: TRAFFIC SIGNAL AT 6TH STREET SW AND 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 31 of 139 Sheets

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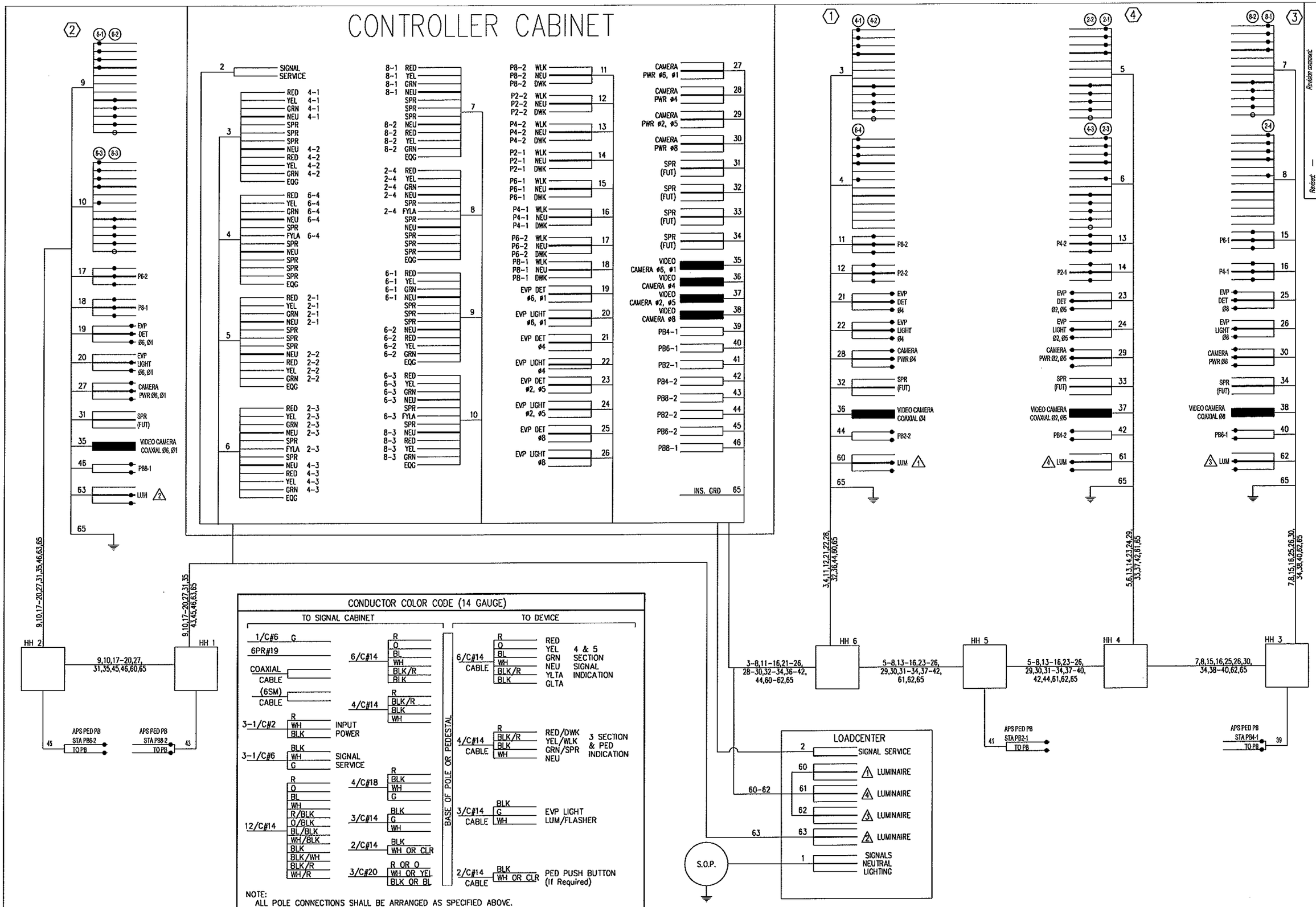
CONTROLLER CABINET



Revision comment: —

Revised: —

Creation Date:

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Date: 5-15-12 Reg. No. 24657

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: TRAFFIC SIGNAL WIRING DIAGRAM AT 6TH STREET SW AND 1ST AVENUE SW

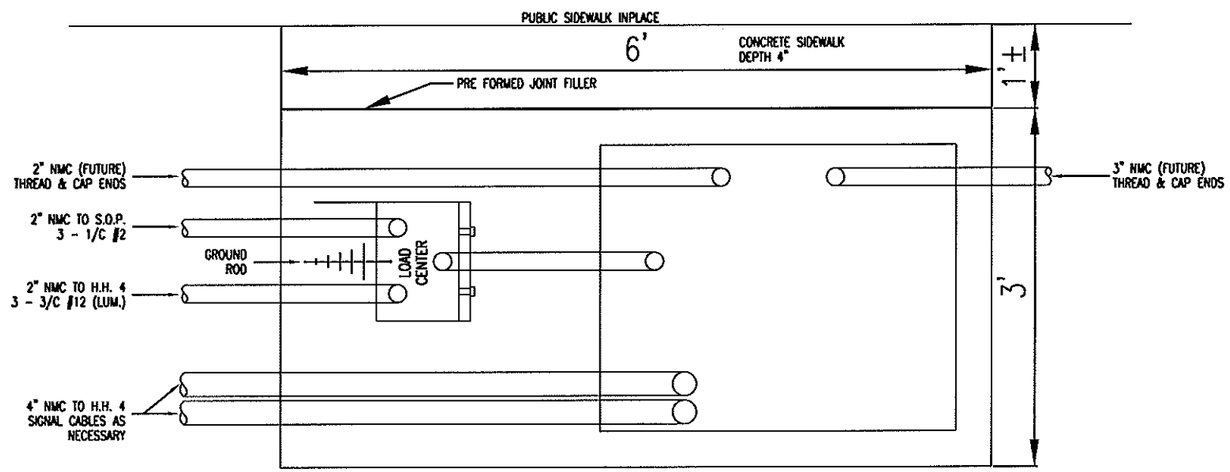
Designer: CWF
Checker: RJK

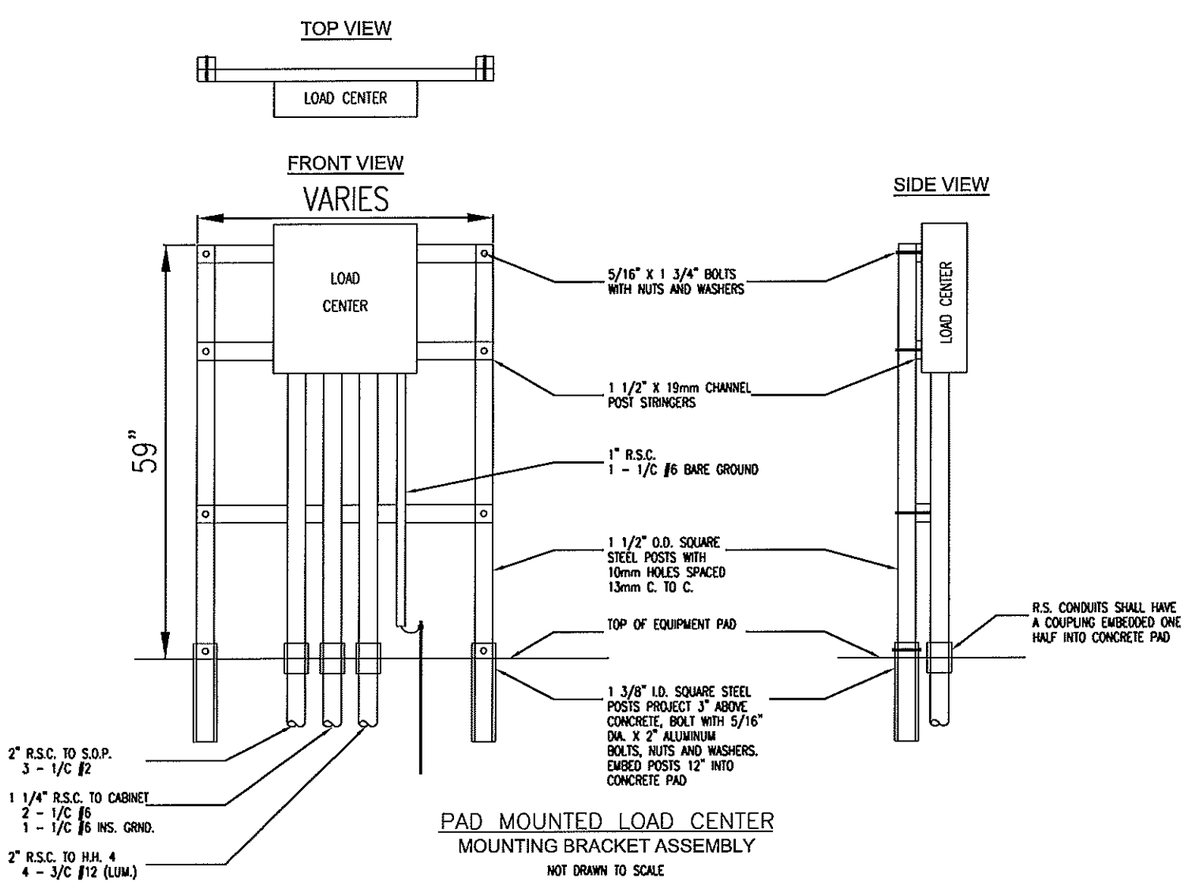
J 7732

S.A.P. No. 159-115-005
Project No. 6206-3-04
Sheet 32 of 139 Sheets

NOT DRAWN TO SCALE

EQUIPMENT PAD LAYOUT DETAIL

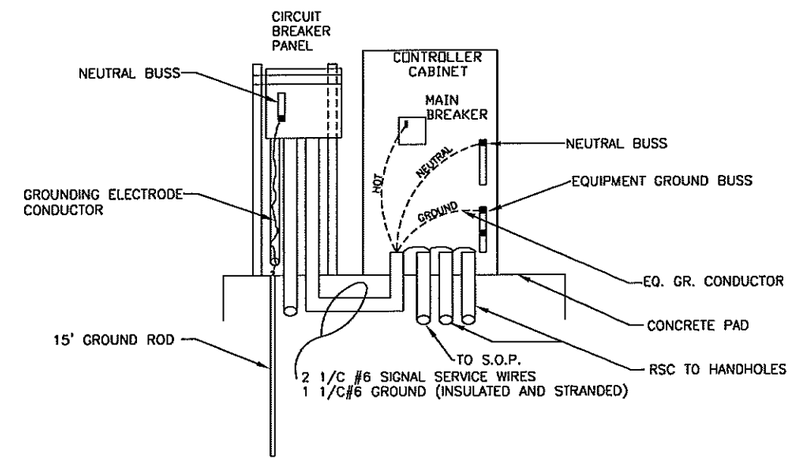




PAD MOUNTED LOAD CENTER
MOUNTING BRACKET ASSEMBLY

NOT DRAWN TO SCALE

GROUND ROD WIRING DETAIL FOR PAD WITH RACK MOUNTED SERVICE EQUIPMENT



NOTES:

WHEN RACK MOUNTED SERVICE EQUIPMENT AND CONTROLLER CABINET ARE BOTH ON THE SAME PAD, THE GROUNDING ELECTRODE (15' GROUND ROD) SHALL BE LOCATED RIGHT UNDER THE SERVICE EQUIPMENT RACK.

A GROUNDING ELECTRODE CONDUCTOR (#6 BARE) SHALL RUN FROM THE NEUTRAL BUSS IN THE CIRCUIT BREAKER PANEL THROUGH A 1" CONDUIT TO THE GROUND ROD. THE CONDUIT SHALL TERMINATE APPROXIMATELY 2" ABOVE THE GROUND ROD.

2-1/C #6 SIGNAL SERVICE WIRES AND 1-1/C #6 INSULATED AND STRANDED GROUND WIRE SHALL RUN FROM THE ENCLOSED CIRCUIT BREAKER TO THE CONTROLLER CABINET THROUGH A SEPARATE RSC.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE CONNECTED TO THE EQUIPMENT GROUND BUSS IN THE CONTROLLER CABINET. THE NEUTRAL WIRE OF THE SIGNAL SERVICE WIRES SHALL GO TO THE NEUTRAL BUSS OF THE CONTROLLER CABINET.

A #6 BARE EQUIPMENT GROUNDING CONDUCTOR SHALL BE CONNECTED FROM THE EQUIPMENT GROUND BUSS TO EACH CONDUIT GROUND BUSHING LUG IN THE CONTROLLER CABINET.

Revision comment: ----
Revised: ----
Creation Date:

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Russell A. Klein Date: 4-15-12 Reg. No. 24557

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: LOAD CENTER DTAILS AT 6TH STREET SW AND 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04
J7732
Sheet 33 of 139 Sheets

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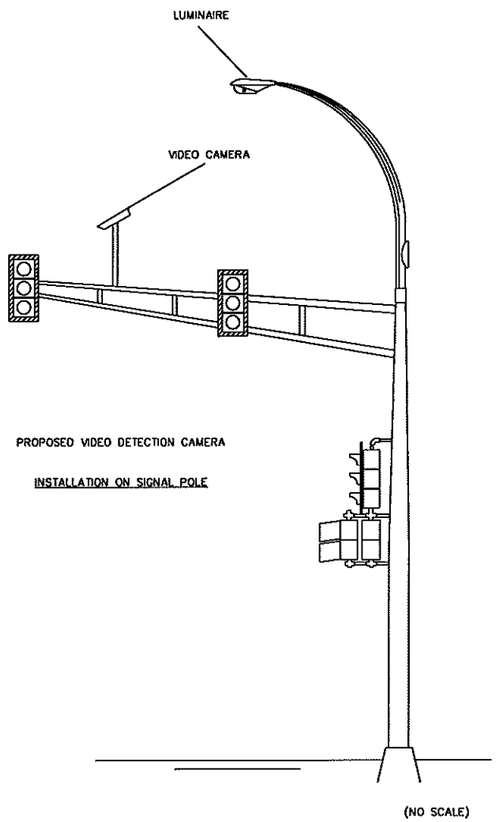
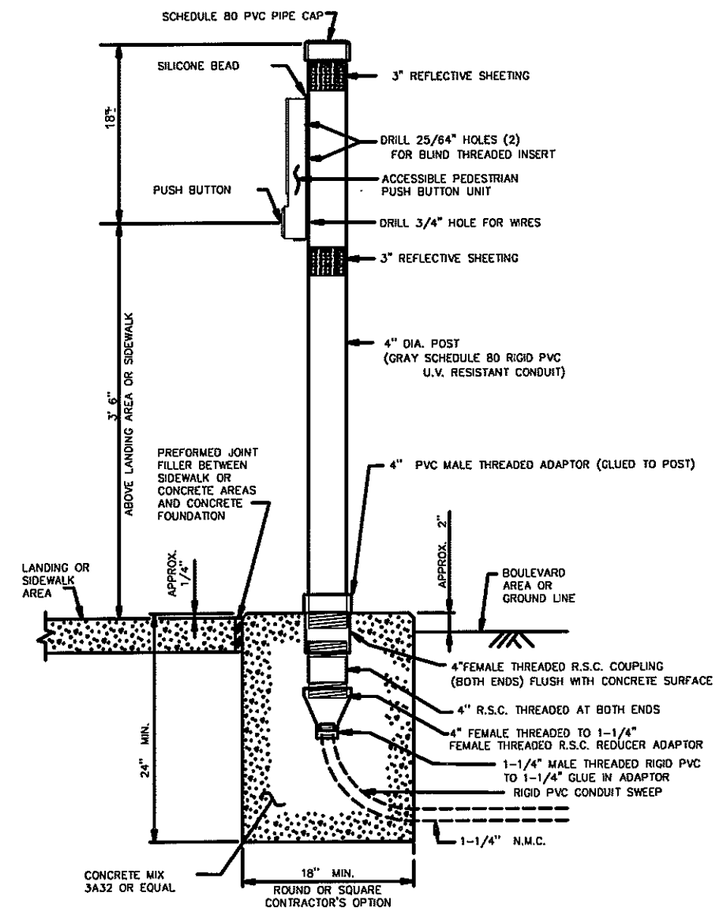


VIDEO DETECTION DETAILS

NOTES:

1. ALL CAMERA DETECTION DEVICES AND EQUIPTMENT SHALL BE FURNISHED BY THE CITY AND INSTALLED BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL RUN ONE CONTINUOUS PULL (WITHOUT SPLICES) OF VIDEO CABLE BETWEEN THE CAMERA AND THE TRAFFIC SIGNAL CONTROLLER CABINET FOR EACH CAMERA.
3. CABLES FOR CAMERA OPERATION SHALL MEET THE FOLLOWING SPECIFICATION: "Belden 8281"
4. CAMERA'S SHALL BE MOUNTED ON MAST ARMS WITH ASTRO BRACKET AND EXTENSION



PEDESTRIAN PUSH BUTTON STATION

NOTES:

1. PLACEMENT AND ORIENTATION OF THE PUSH BUTTON STATION IS CRITICAL. THE BUTTON ARROW DIRECTION MUST POINT TO THE DIRECTION OF THE APPROPRIATE CROSSING. SCREW IN POST TO A TIGHTENED POSITION BEFORE MOUNTING ACCESSIBLE PEDESTRIAN PUSH BUTTON UNIT TO THE POST.
2. BLIND THREADED INSERTS (RIVET NUT) MUST BE INSTALLED USING MANUFACTURERS SPECIFIC INSTALLATION TOOL. NO OTHER METHOD OF INSTALLATION IS ACCEPTABLE.
3. BLIND THREADED INSERTS SHALL BE ZINC PLATED STEEL WITH 1/4 – 20 UNC THREADS. INSERT SHALL BE SUITABLE FOR USE ON A MOUNTING SURFACE WALL THICKNESS OF .337". APPROVED BLIND THREADED INSERTS CAN BE FOUND ON THE MN/DOT QUALIFIED PRODUCTS LIST.
4. MOUNTING BOLTS SHALL BE 1/4 – 20 STAINLESS STEEL. APPLY BRUSH ON ANTI SEIZE COMPOUND TO BOLTS PRIOR TO ASSEMBLY.
5. APPLY A BEAD OF 100% SILICONE SEALANT ALONG THE TOP OF THE PUSH BUTTON UNIT WHERE IT COMES IN CONTACT WITH THE 4" POST.
6. THE REFLECTIVE SHEETING SHALL BE WHITE AT INTERSECTION CORNERS AND SHALL BE YELLOW WHEN USED IN CENTER MEDIANS. SEE MN/DOT SIGNING QUALIFIED PRODUCTS LIST (QPL) FOR APPROVED SIGN SHEETING.

Revision comment:

Revision: —
Creation Date: —

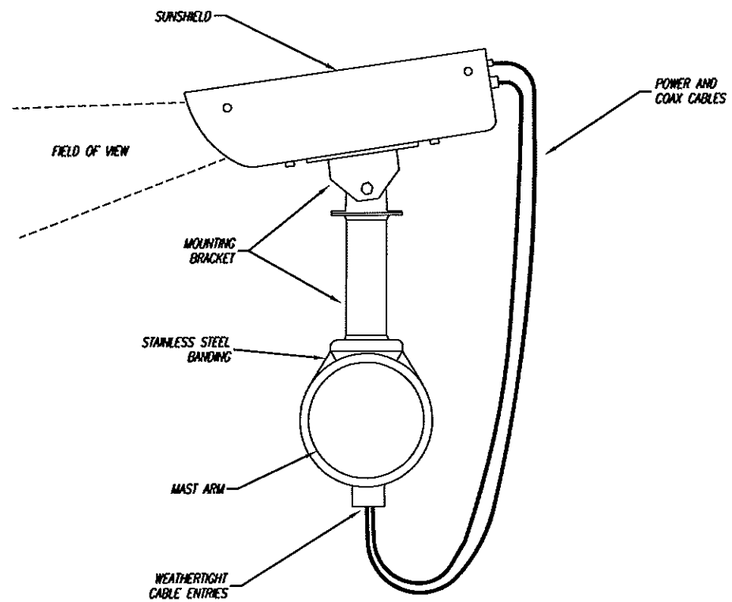
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24057

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

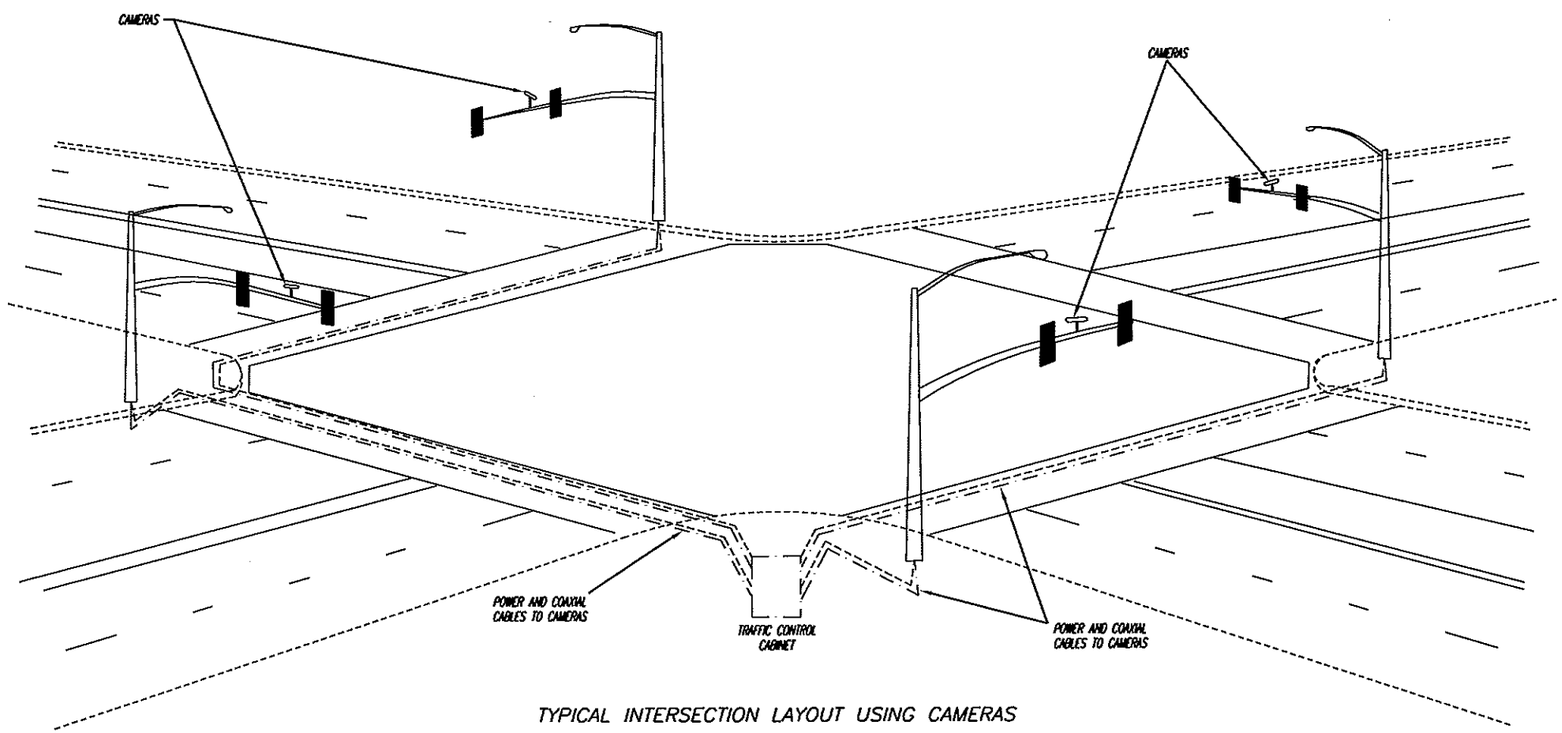
Title: TRAFFIC SIGNAL VIDEO DETAILS AT 6TH STREET SW AND 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04
J 7732
Sheet 34 of 139 Sheets



INSTALLED CAMERA



TYPICAL INTERSECTION LAYOUT USING CAMERAS

NOTES:

ALL CAMERA DETECTION DEVICES WILL BE FURNISHED BY THE CITY OF ROCHESTER TRAFFIC DEPARTMENT. THE CONTRACTOR IS REQUIRED TO PROVIDE WIRE AND INSTALL CAMERAS ON MAST ARM PER FIELD ENGINEERS LOCATIONS AND PER DIAGRAM

RUN ONE CONTINUOUS PULL (WITHOUT SPLICES) OF COAXIAL MN 2565.6J1 CABLE AND POWER CABLE BETWEEN THE CAMERA MOUNTING LOCATION AND THE TRAFFIC CONTROL CABINET. THE CABLES NEED TO MEET TH FOLLOWING SPECIFICATION:

*BELDEN 8281 COAXIAL CABLE
*POWER FOR THE CAMERA WILL BE FROM THE CABINET TO CAMERA 3 CONDUCTOR 16 GAUGE OUTDOOR RATED

Revision comment: ----
Revised: ----
Creation Date:

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Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

Title: TRAFFIC SIGNAL DETAILS AT 6TH STREET SW AND 1ST AVENUE SW

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04
J7732
Sheet 35 of 139 Sheets

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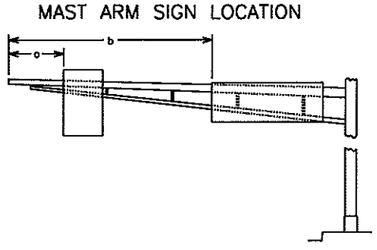
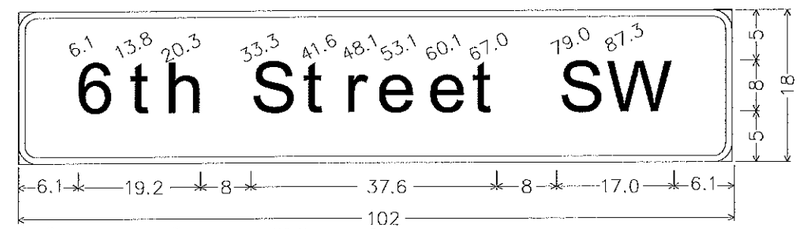
SIGNS – F & I							
SIGN PANEL	SIGN TYPE	a (FT)	b (FT)	SIZE (in.)	NO. REQ.	SQ. FT. PER SIGN	POLE NO.
6th STREET S.W.	D		5	102 x 18	2	12.8	2&4
1ST AVENUE S.W.	D		15	102 x 18	2	12.8	1&3
LT. TURN	R10–12	4		36 x 48	2	5.0	1&3

SPECIFIC NOTE:
(1) SPACING BETWEEN STIFFENERS SHALL NOT EXCEED 36 INCHES AND SHALL BE UNIFORMLY SPACED. SEE STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE 7/06/07) FOR BRACKET SPACING REQUIREMENTS.

GENERAL NOTES:
1. CORNERS OF STANDARD SIGN PANELS WITH MARGINS SHALL BE TRIMMED.
2. TYPE D SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
3. FOR STRUCTURAL DETAILS 0F MAST ARM MOUNTED SIGNS SEE STANDARD SIGNS MANUAL, PAGE 105A.
4. FOR TYPE "D" STRINGER AND PANEL JOINT DETAILS SEE STANDARD SIGNS MANUAL, PAGE 105.
5. THE MAST ARM MOUNTED SIGNS ARE INCIDENTAL TO THE SIGNAL SYSTEM PAY ITEM.

MAST ARM SIGN LOCATION





3.0" Radius, 1.0" Border, White on Green;
[6th Street SW] E Mod;

3.0" Radius, 1.0" Border, White on Green;
[1ST Avenue SW] E Mod;

Revised: – Revision comment: –
Creation Date:

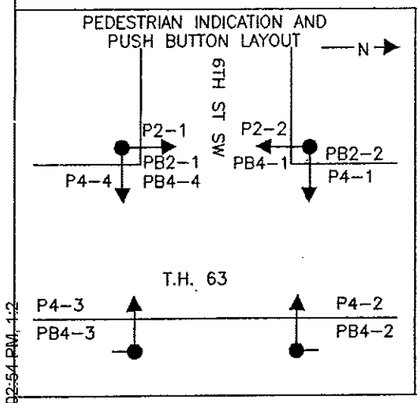
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 26597

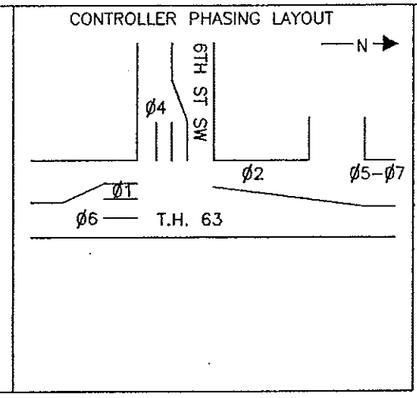
City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 287-7800
FAX: (507) 281-6216

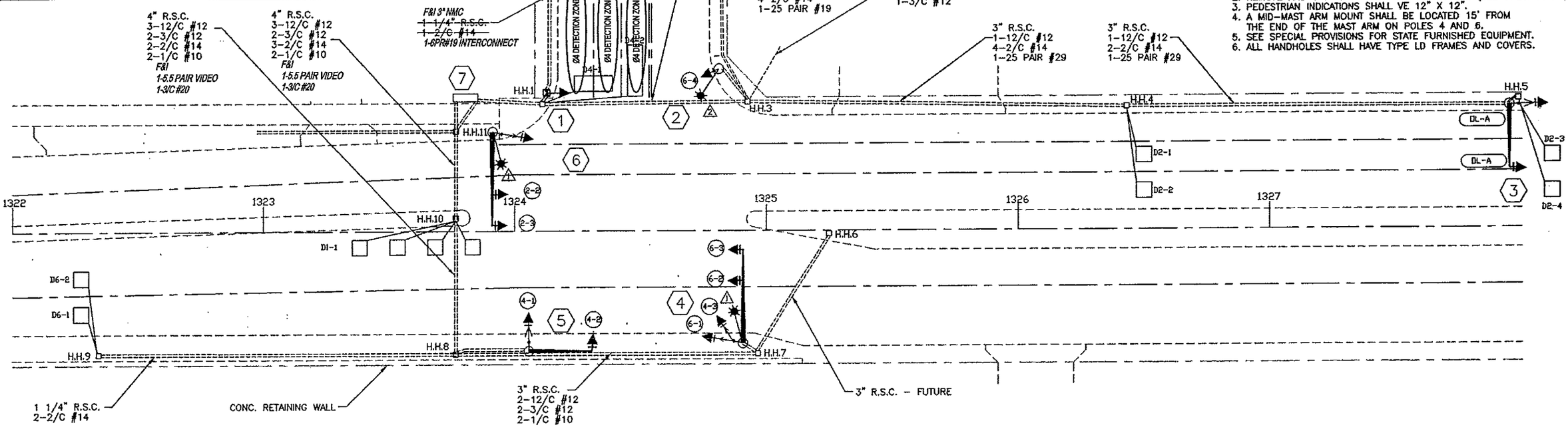
Title: TRAFFIC SIGNAL SIGN DETAILS AT 6TH STREET SW AND 1ST AVENUE SW

Designer: CWF Checker: RJK

S.A.P. No. 159-115-005 J 7732
Project No. 6206-3-04
Sheet 36 of 139 Sheets



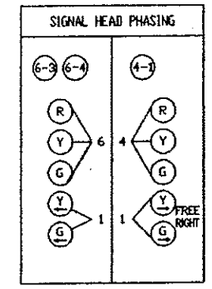


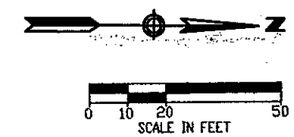


SIGNAL INDICATION CHART							
FACE	PHASE	FLASH	INDICATION SIZE				
			R	Y	G	Y ←	G ←
6-4	1+6	R	12"	12"	12"	12"	12"
6-3	1+6	R	12"	12"	12"	12"	12"
6-2	6	R	12"	12"	12"	—	—
6-1	6	R	12"	12"	12"	—	—
2-3	2	R	12"	12"	12"	—	—
2-2	2	R	12"	12"	12"	—	—
2-1	2	R	12"	12"	12"	—	—
OLA	5+7	R	12"	12"	12"	—	—
OLA	5+7	R	12"	12"	12"	—	—
4-1	4	R	12"	12"	12"	12"	12"
4-2	4	R	12"	12"	12"	—	—

DETECTOR CHART			
LOOP	PHASE	SIZE	FUNCTION
D1-1	1	MULTI-LOOP	1
D2-1	2	6'X 6'	1
D2-2	2	6'X 6'	1
D2-3	2	6'X 6'	1
D2-4	2	6'X 6'	1
D6-1	6	6'X 6'	1
D6-2	6	6'X 6'	1
~~D4-1~~	~~4~~	~~16'X6~~	1
~~D4-2~~	~~4~~	~~6'X20~~	1
~~D4-3~~	~~4~~	~~16'X 6'~~	1

FUNCTION:
1. CALL AND EXTEND.
REMOVE DETECTOR LOOPS D4-1, D4-2, AND D4-3





NOTES:
1. SIGNAL MAST ARM POLES SHALL HAVE CANTILEVER TYPE MAST ARMS AND ROTATABLE BASES.
2. REMOVE AND SALVAGE INPLACE SIGNAL SYSTEM. (SEE SPEC. PROV.)
3. PEDESTRIAN INDICATIONS SHALL VE 12" X 12".
4. A MID-MAST ARM MOUNT SHALL BE LOCATED 15' FROM THE END OF THE MAST ARM ON POLES 4 AND 6.
5. SEE SPECIAL PROVISIONS FOR STATE FURNISHED EQUIPMENT.
6. ALL HANDHOLES SHALL HAVE TYPE LD FRAMES AND COVERS.

(1) TYPE 4A
8 FT SIGNAL PEDESTAL
1-SET PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON AND SIGN
EXTEND INTO H.H. 1
3" R.S.C.
2-3/C #12
1-1/C #6 BARE GROUND - CONNECT TO PED BASE FOR GROUNDING

(2) TYPE P90-A-D30
ONE WAY SIGNAL (TYPE 10C-POLE MOUNTED 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTON AND SIGN
LUNINAIRE (345°) 250 WATT H.P.S.

EXTEND INTO H.H. 3
3" R.S.C.
1- 12/C #12
2- 3/C #12
1- 1/C #6 BARE GROUND

(7) EQUIPMENT PAD - SEE DETAIL SHEET
SERVICE EQUIPMENT
EXTEND INTO CITY UTILITY H.H.
1 1/4" R.S.C.
3-1/C #2
EXTEND INTO H.H.11
1 1/4" R.S.C.
2-1/C #10
CONTROLLER AND CABINET
EXTEND INTO H.H.1
4" R.S.C.
2-12/C #12
5-3/C #12
7-2/C #14
1-25 PAIR #29 *1-6PR#19 INTERCONNECT*
EXTEND INTO H.H.11
4" R.S.C.
5-12/C #12
2-3/C #12
3-2/C #14

(3) TYPE P90-A25
ONE WAY SIGNAL (OVERHEAD)
ONE WAY SIGNAL (TYPE 10A-POLE MOUNTED 270°)
EXTEND INTO H.H.5
3" R.S.C.
1-12/C #12

(4) TYPE P90-A35-D30-12
2-ONE WAY SIGNAL (OVERHEAD)
ONE WAY SIGNAL (TYPE 10B-POLE MOUNTED 270°)
1-SET PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON AND SIGN
LUMINAIRE (345°) 400 WATT H.P.S. WITH PEC/CH SW
EXTEND INT H.H.7
3" R.S.C.
2-12/C #12
3-3/C#12
2-1/C # 10
1-RIO-12 SIGN (36"X48")

(5) TYPE P90-A35
ONE WAY SIGNAL (OVERHEAD)
ONE WAY SIGNAL (TYPE 10B-POLE MOUNTED 270°)
1-SET PEDESTRIAN INDICATION
1-PEDESTRIAN PUSH BUTTON AND SIGN
EXTEND INTO H.H. 8
3" R.S.C.
1-12/C #12
4-3/C #12
F&I 1- VIDEO DETECTION CAMERA & MOUNTING EQUIP. (Ø4)
F&I
1-5.5 PAIR VIDEO
1-3/C #20

(6) TYPE P90-A35-D30-12
2-ONE WAY SIGNAL (OVERHEAD)
ONE WAY SIGNAL (TYPE 10B-POLE MOUNTED 270°)
1-SET PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON AND SIGN
LUMINAIRE (345°) 400 WATT H.P.S. WITH PEC/CH SW
EXTEND INTO H.H.11
3" R.S.C.
2-12/C #12
4-S/C #12
4-1/C #12

City of ROCHESTER Minnesota
Department of Public Works

REVISE SIGNAL SYSTEM AT 6TH STREET SW AND SOUTH BROADWAY

DRAWN BY WW
CHECKED BY JR
SCALE: 1" = 20'

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 REG. NO.

S.A.P. NO.159-115-005 | PROJ. NO. 6206-3-04 | J7732 | SHEET 37 OF 139 SHEETS

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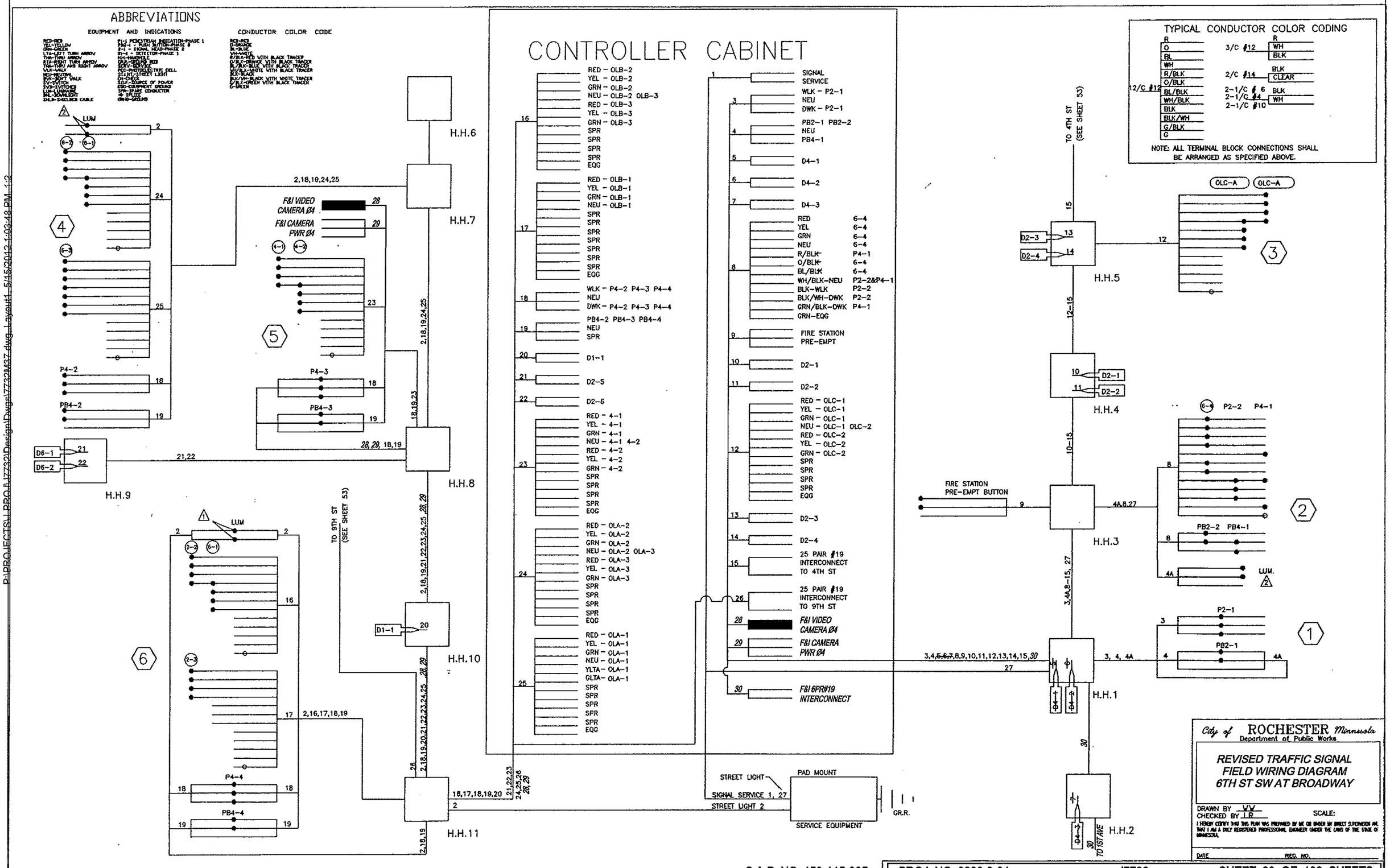

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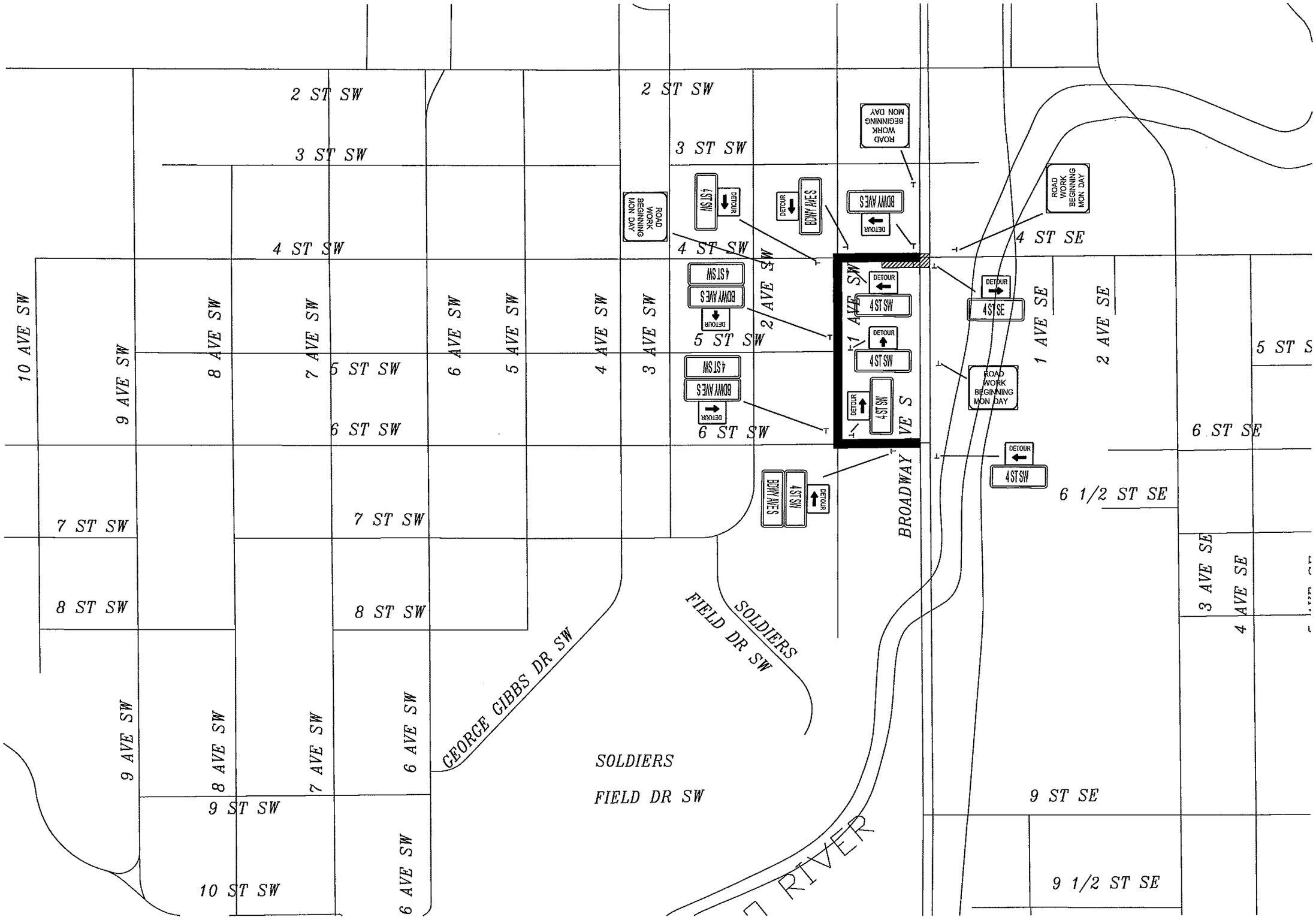

Revision comment: —

Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Ronald J. Klein Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works

201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STAGE I DETOURS

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 39 of 139 Sheets

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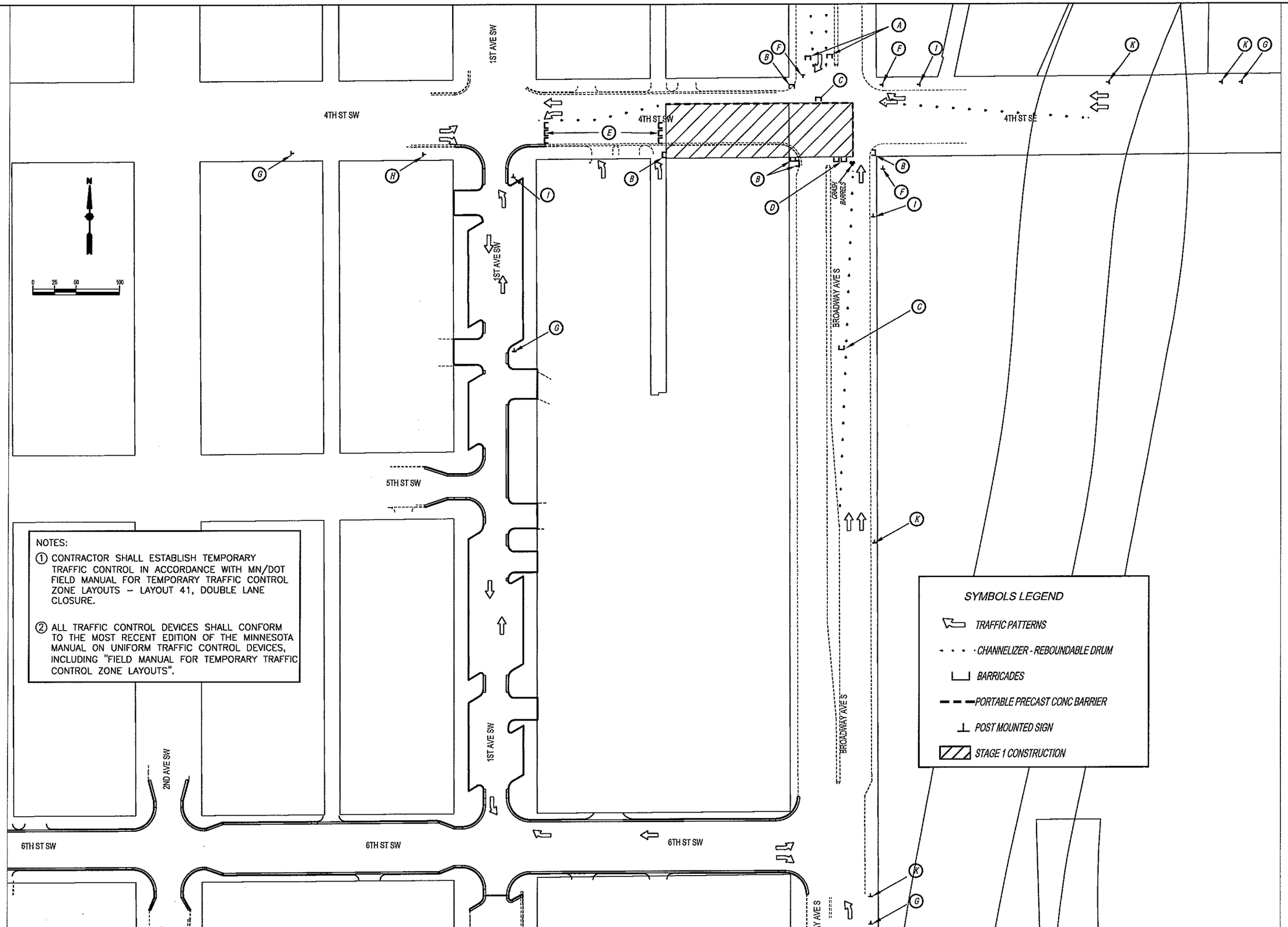

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

Revision comment: –
Revision: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-3450
FAX: (507) 328-3401

Title: STAGE 1 DETOURS
Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 40 of 139 Sheets

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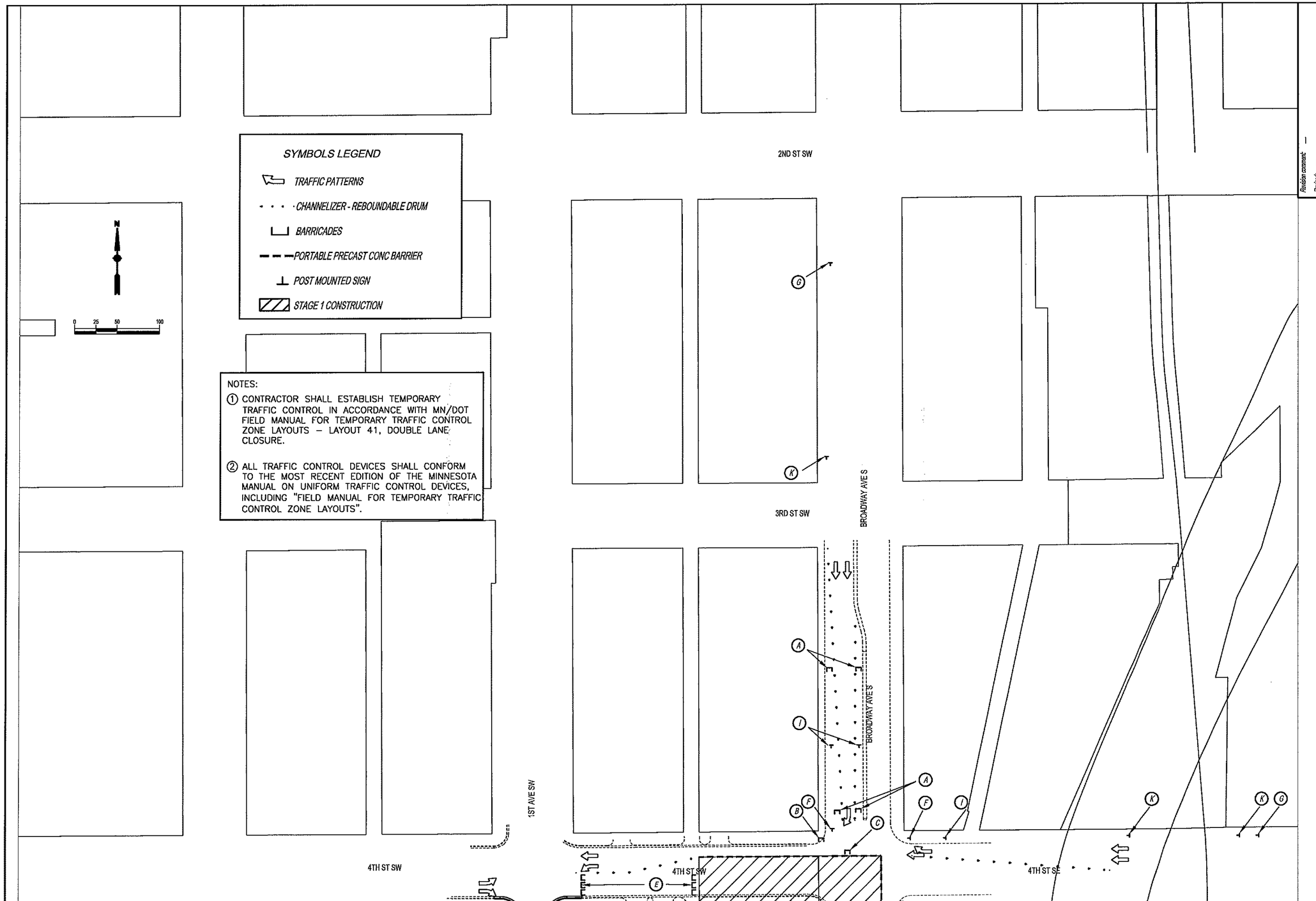

NOTES:

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Revision comment: –
Revised: –

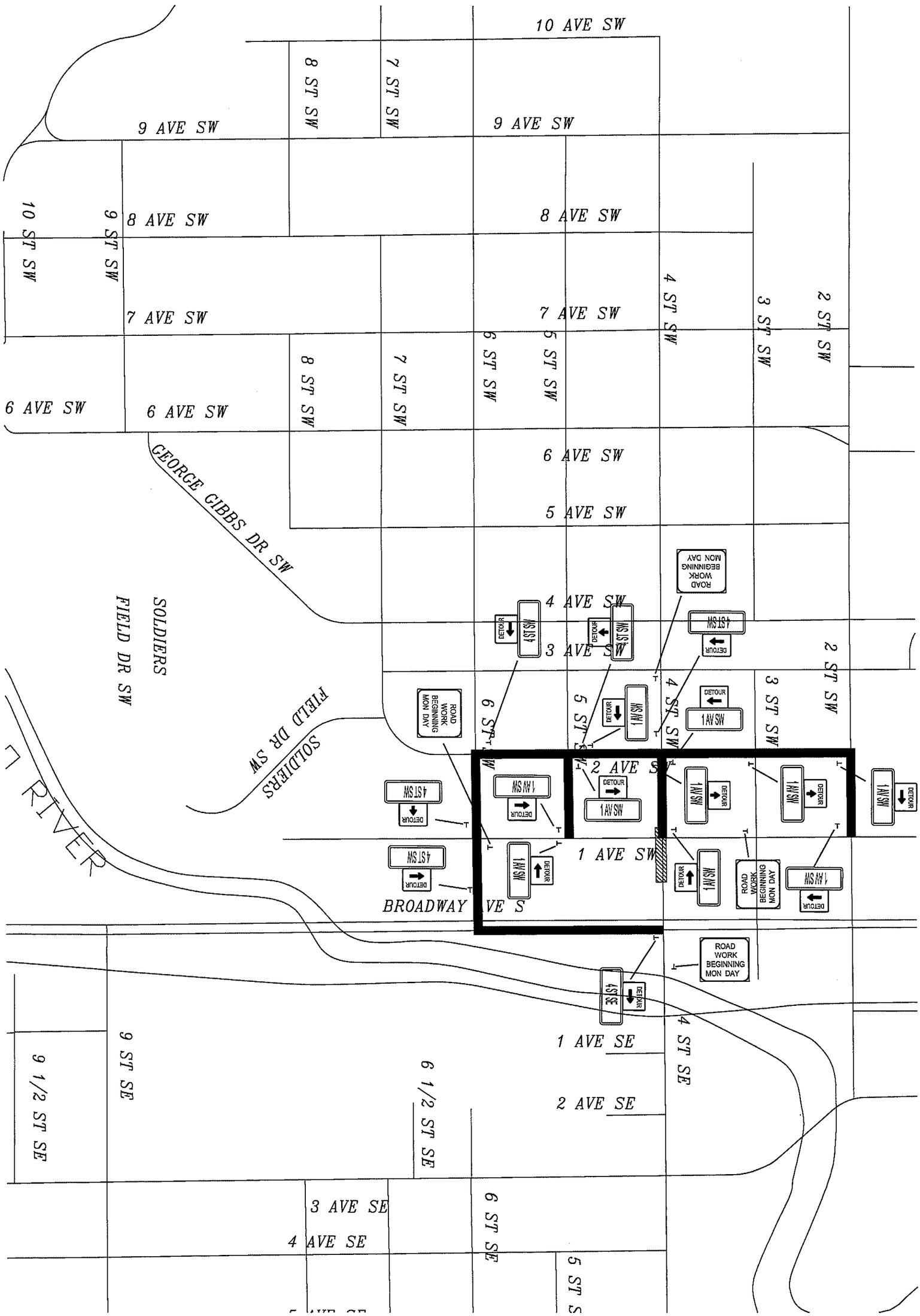
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24687

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-3401

Title:
STAGE 1 DETOURS

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 41 of 139 Sheets



S.A.P. No. 159-115-005 Project No. 6206-3-04 J7732 Sheet 42 of 139 Sheets	Designer: CWF Checker: RJK	Title: STAGE 2 DETOURS	City of Rochester, Minnesota Department Of Public Works 201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Russell J. Klan Date: 5-15-12 Reg. No. 24667

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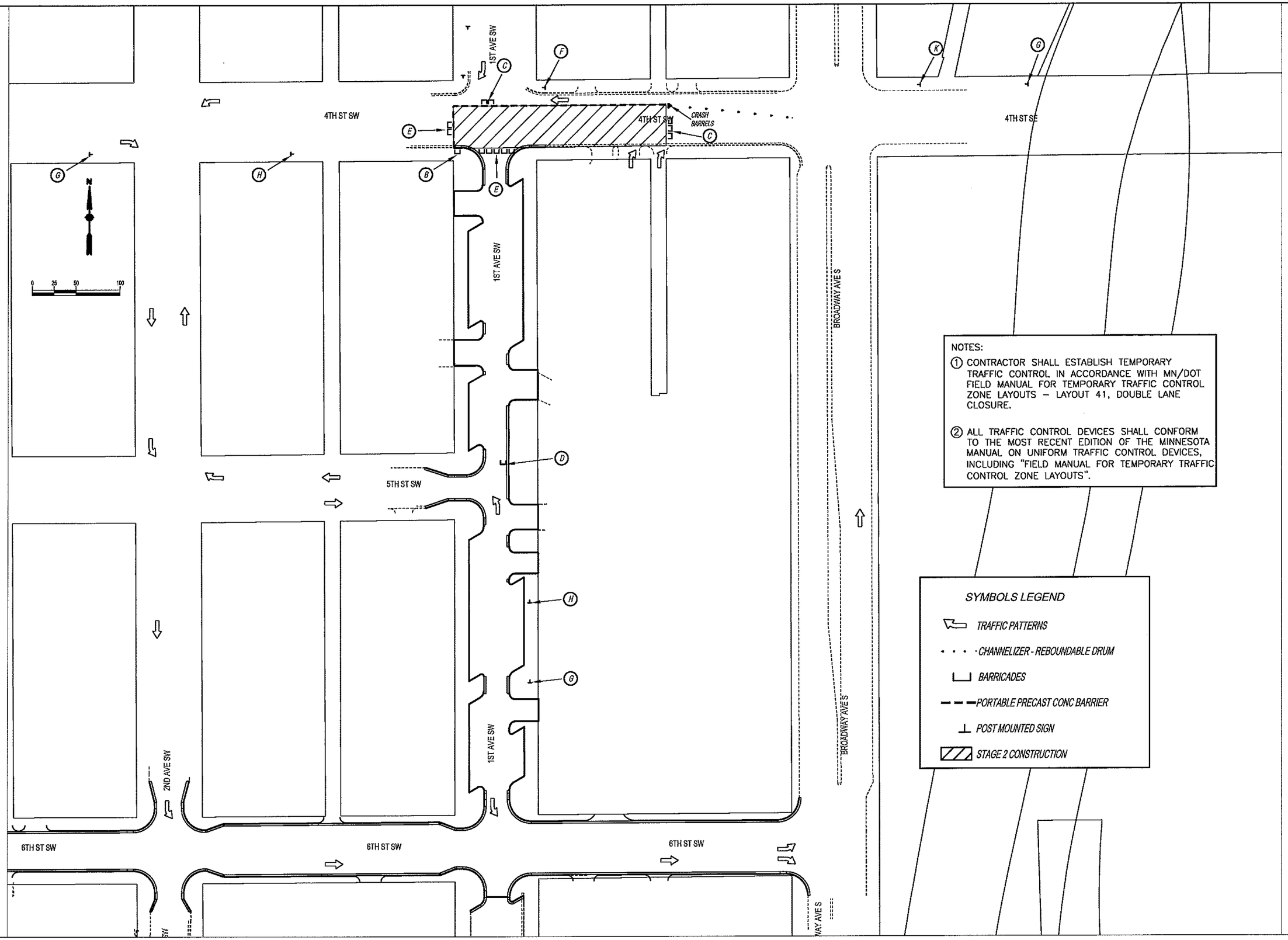

Revision comment: —

Revised: —

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Date: 5-15-12 Reg. No. 24687

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STAGE 2 DETOURS

Designer: CWF

Checker: RJK

S.A.P. No. 159-115-005

Project No. 6206-3-04 J7732

Sheet 43 of 139 Sheets

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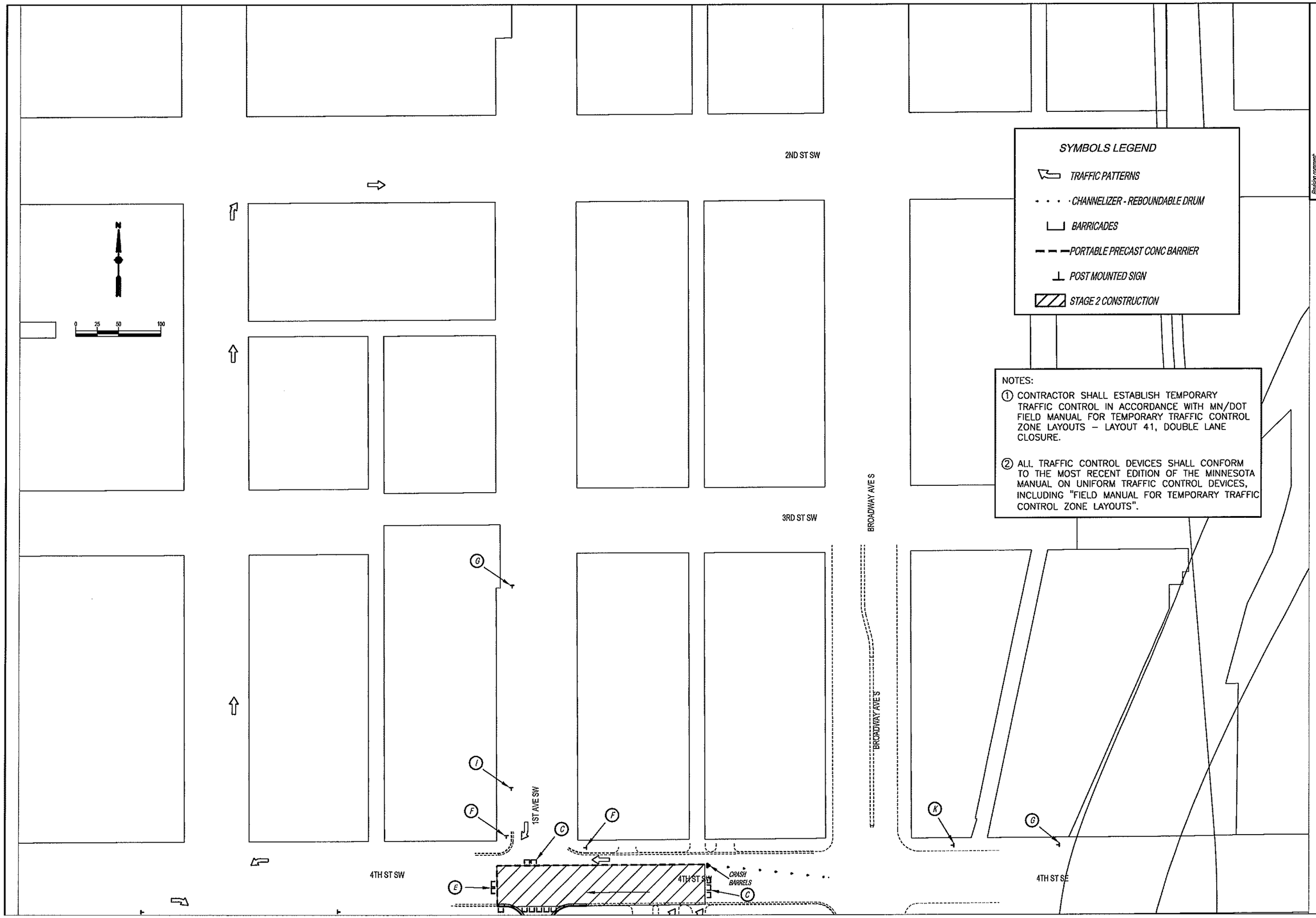

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
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Revision comment: –
Revised: –

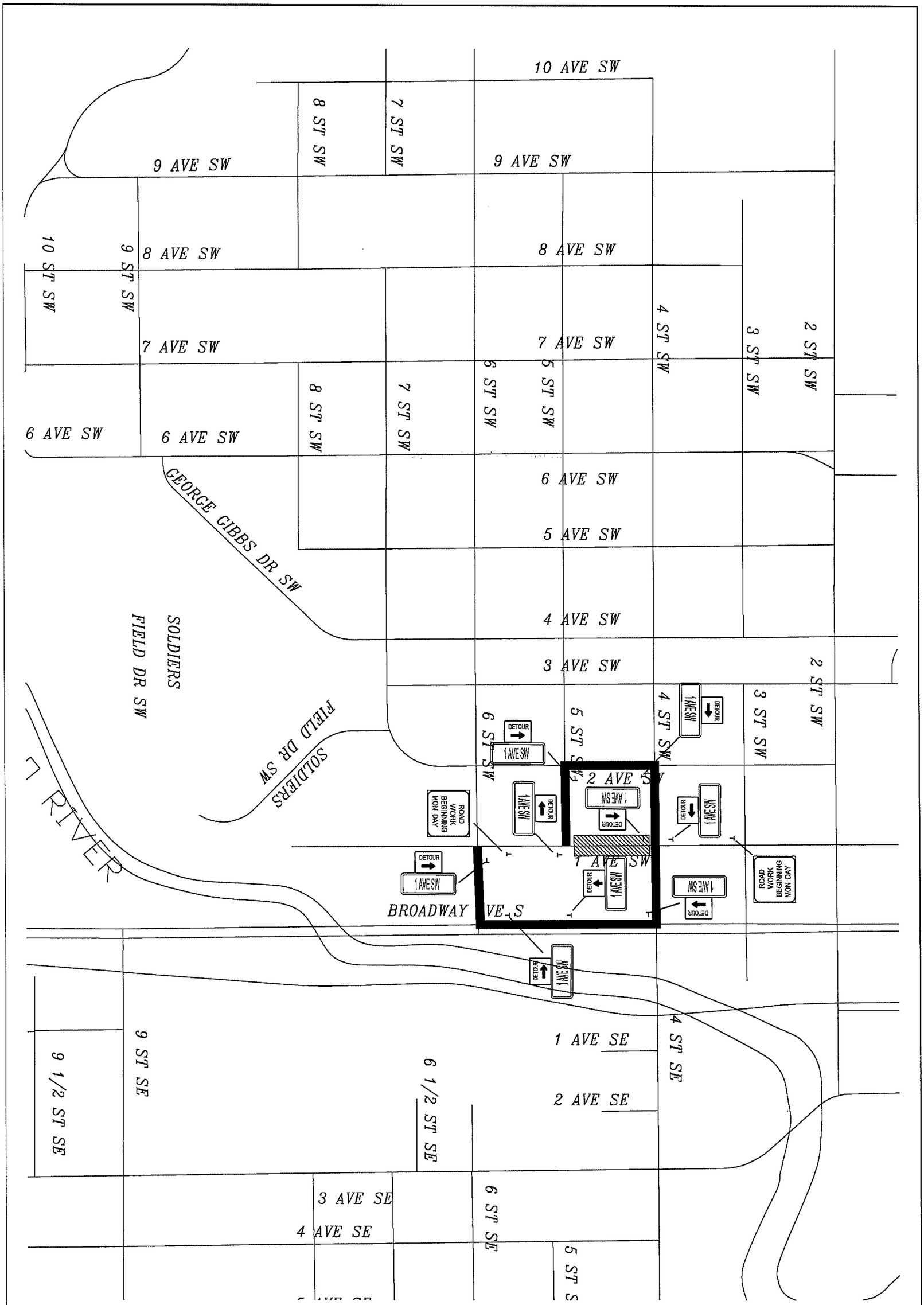
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Ronald J. Klein Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2400
FAX: (507) 328-2401

Title: STAGE 2 DETOURS

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 44 of 139 Sheets



S.A.P. No. 159-115-005 Project No. 6206-3-04 J7732 Sheet 45 of 139 Sheets	Designer: CWF Checker: RJK	Title: STAGE 3	City of Rochester, Minnesota Department Of Public Works	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Russell J. Klein Date: 5-15-12 Reg. No. 24667

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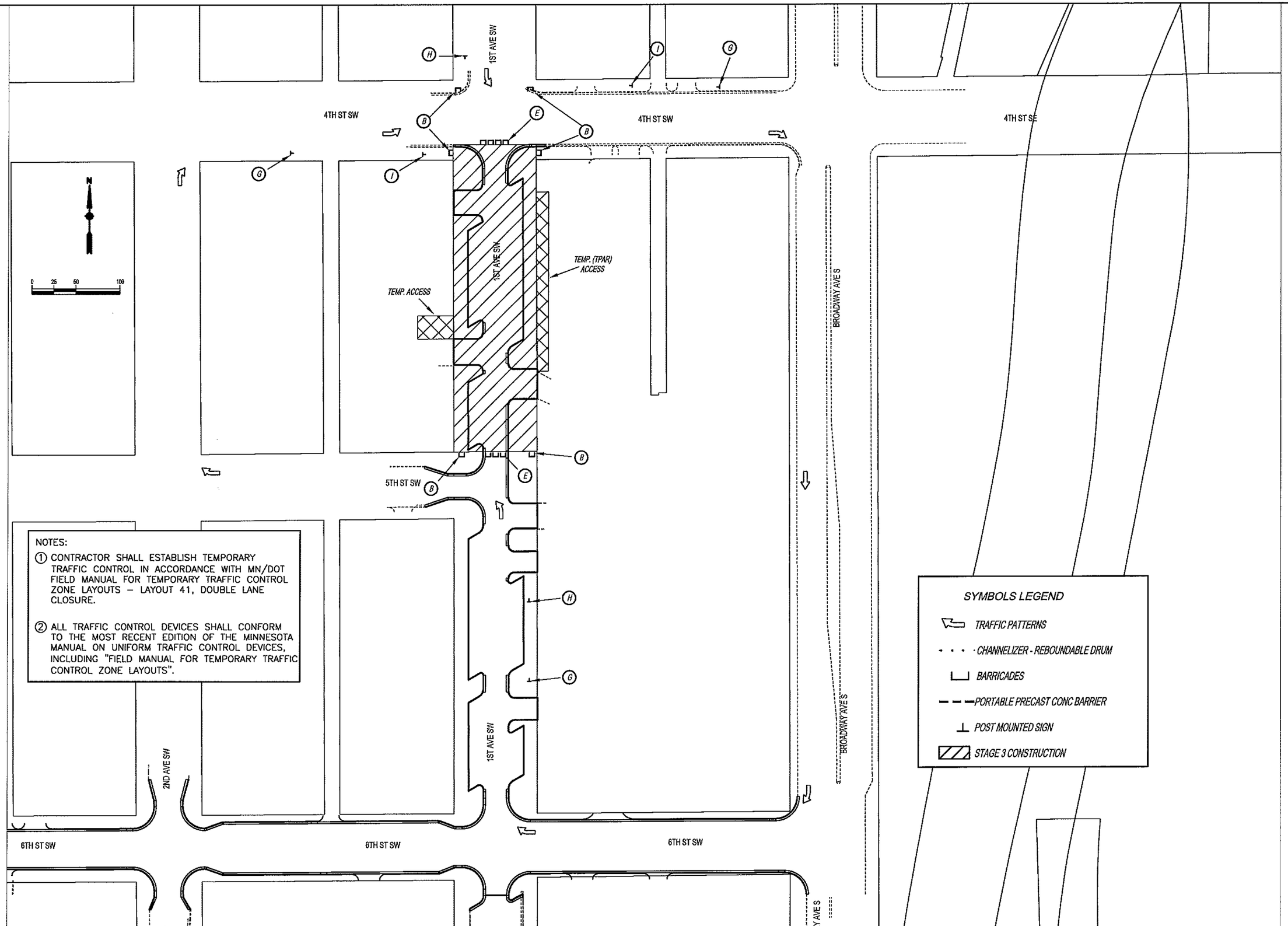

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
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Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2460
FAX: (507) 328-2497

Title: STAGE 3

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 46 of 139 Sheets

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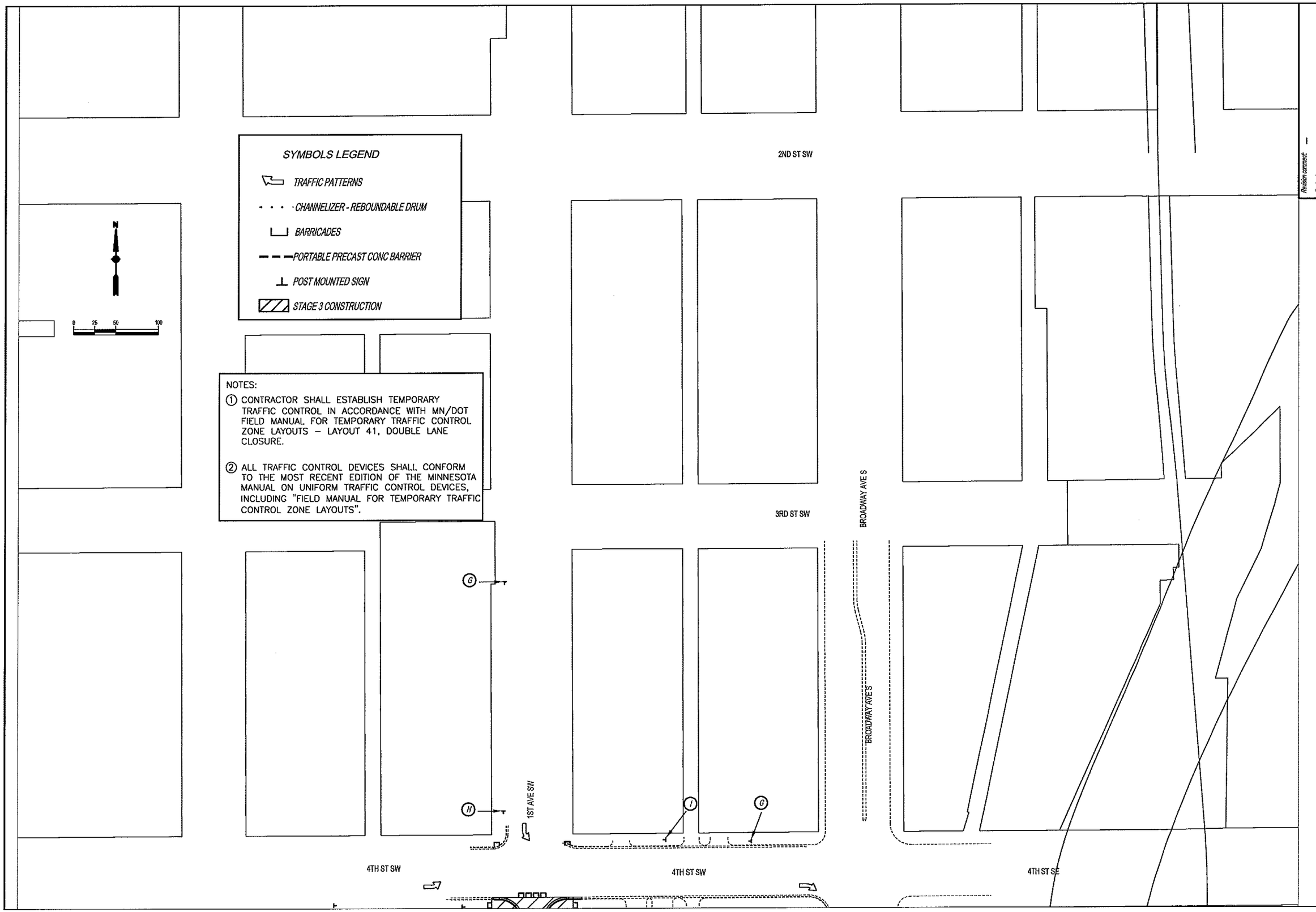

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
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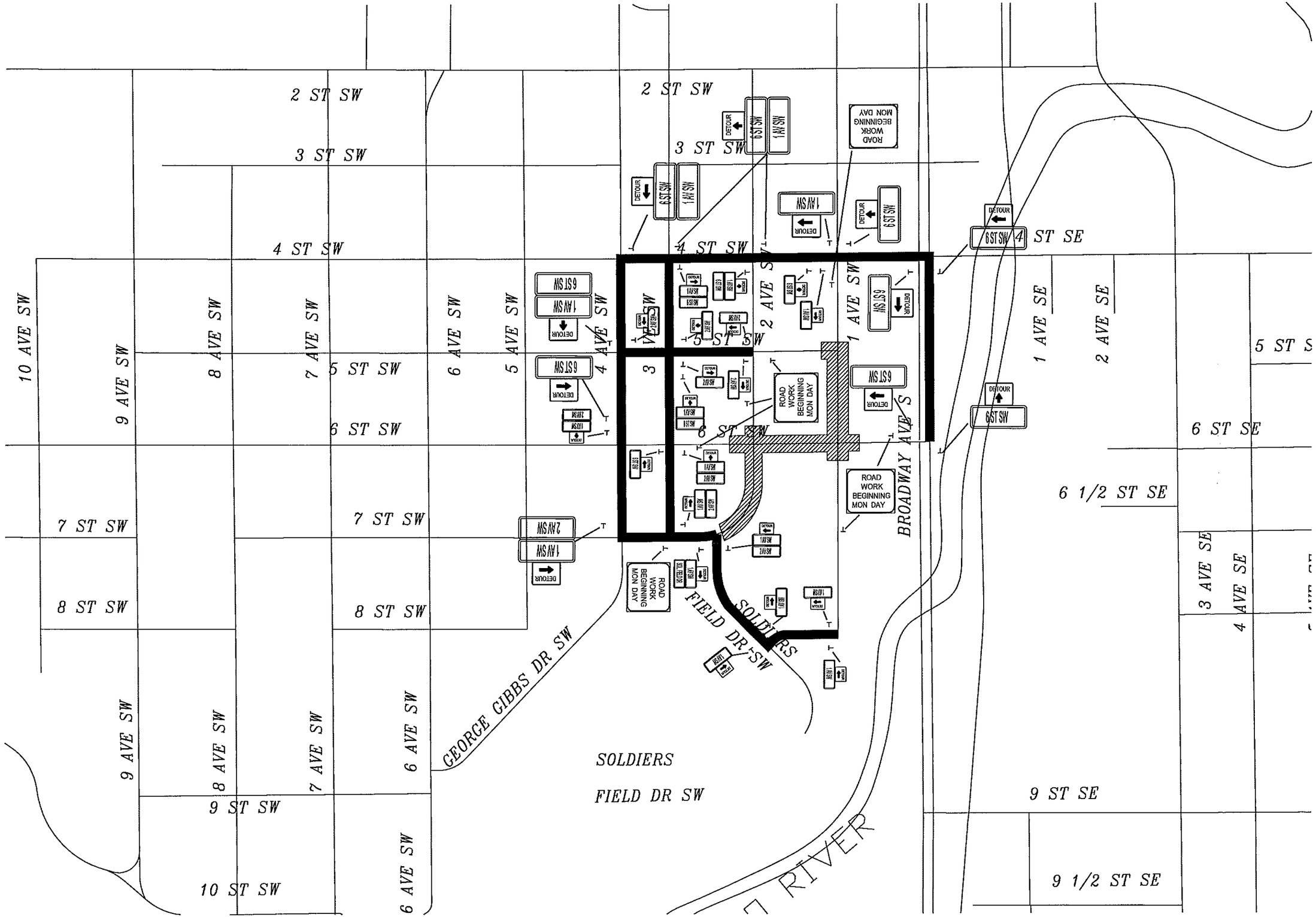
Revision comment: –
Reviewed: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: STAGE 3
Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 47 of 139 Sheets



Revision comment: —

Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Ronald G. Klen Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2409
FAX: (507) 328-2401

STAGE 4

Title:

Designer: GWF

Checker: RJK

S.A.P. No. 159-115-005

Project No. 6206-3-04 J7732

Sheet 48 of 139 Sheets

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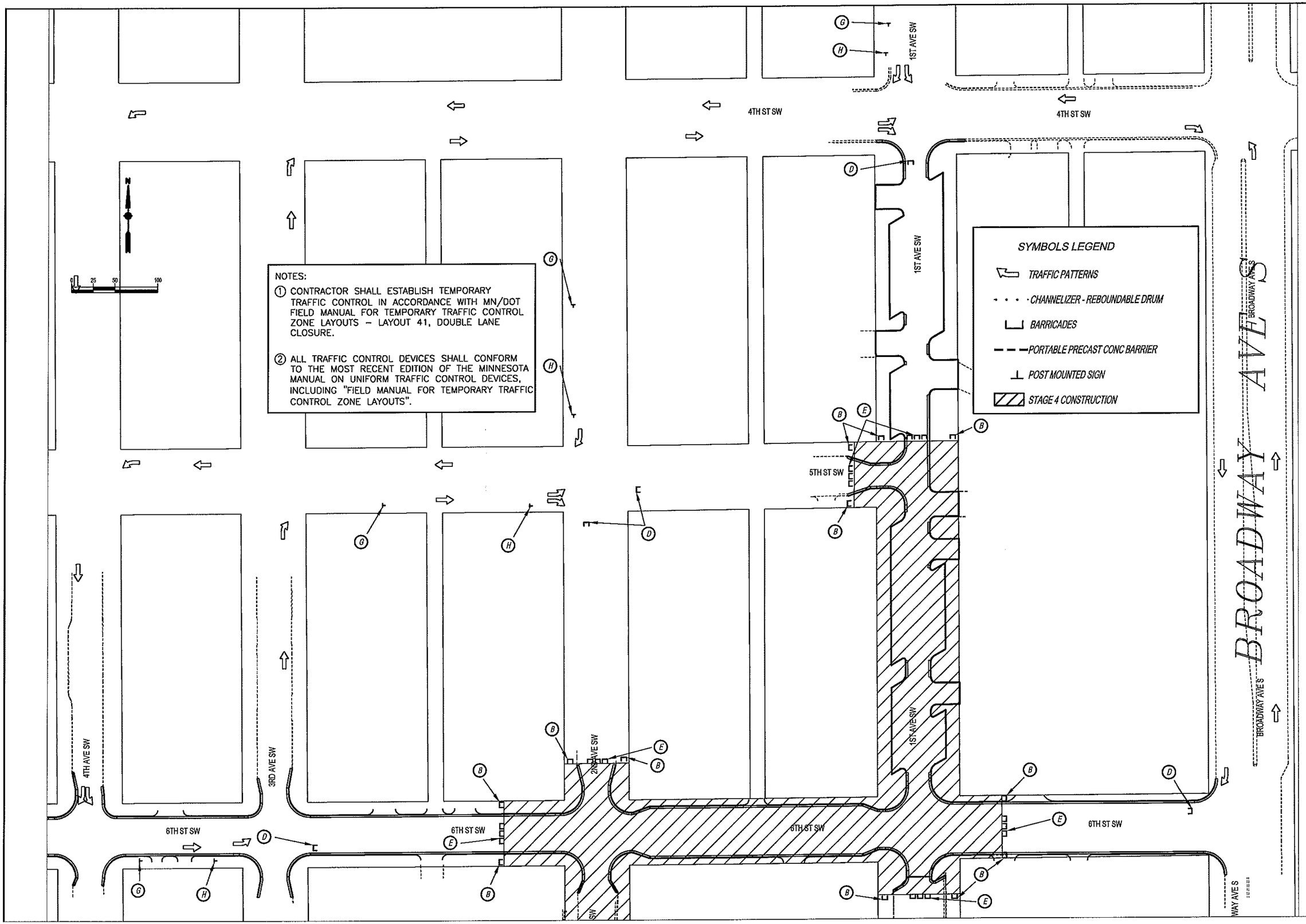

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STAGE 4

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 49 of 139 Sheets

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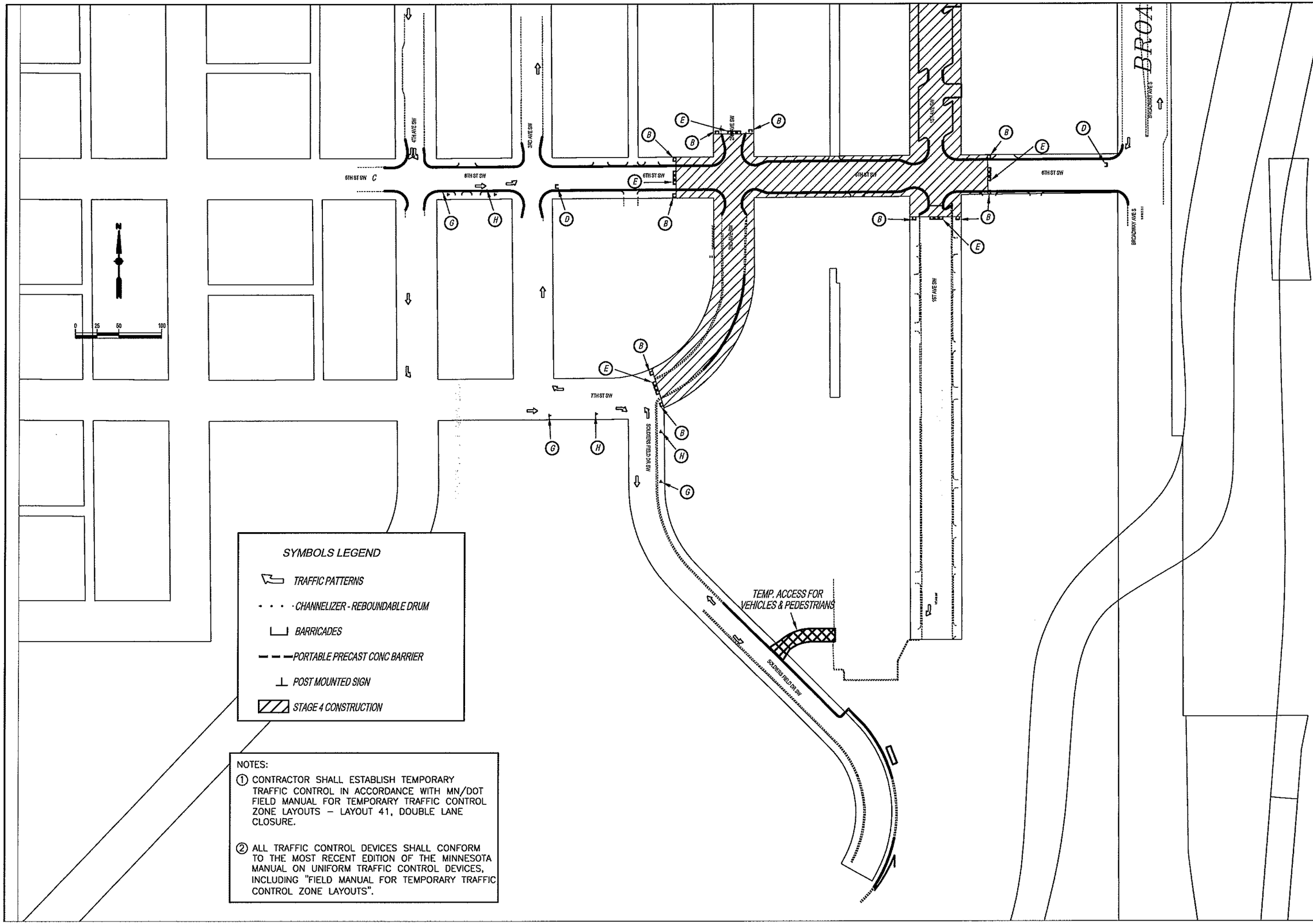

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
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Revision comment: –

Revised: –

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Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-7450
FAX: (507) 328-7401

Title: STAGE 4

Designer: GWF

Checker: RJK

S.A.P. No. 159-115-005

Project No. 6206-3-04 J7732

Sheet 50 of 139 Sheets

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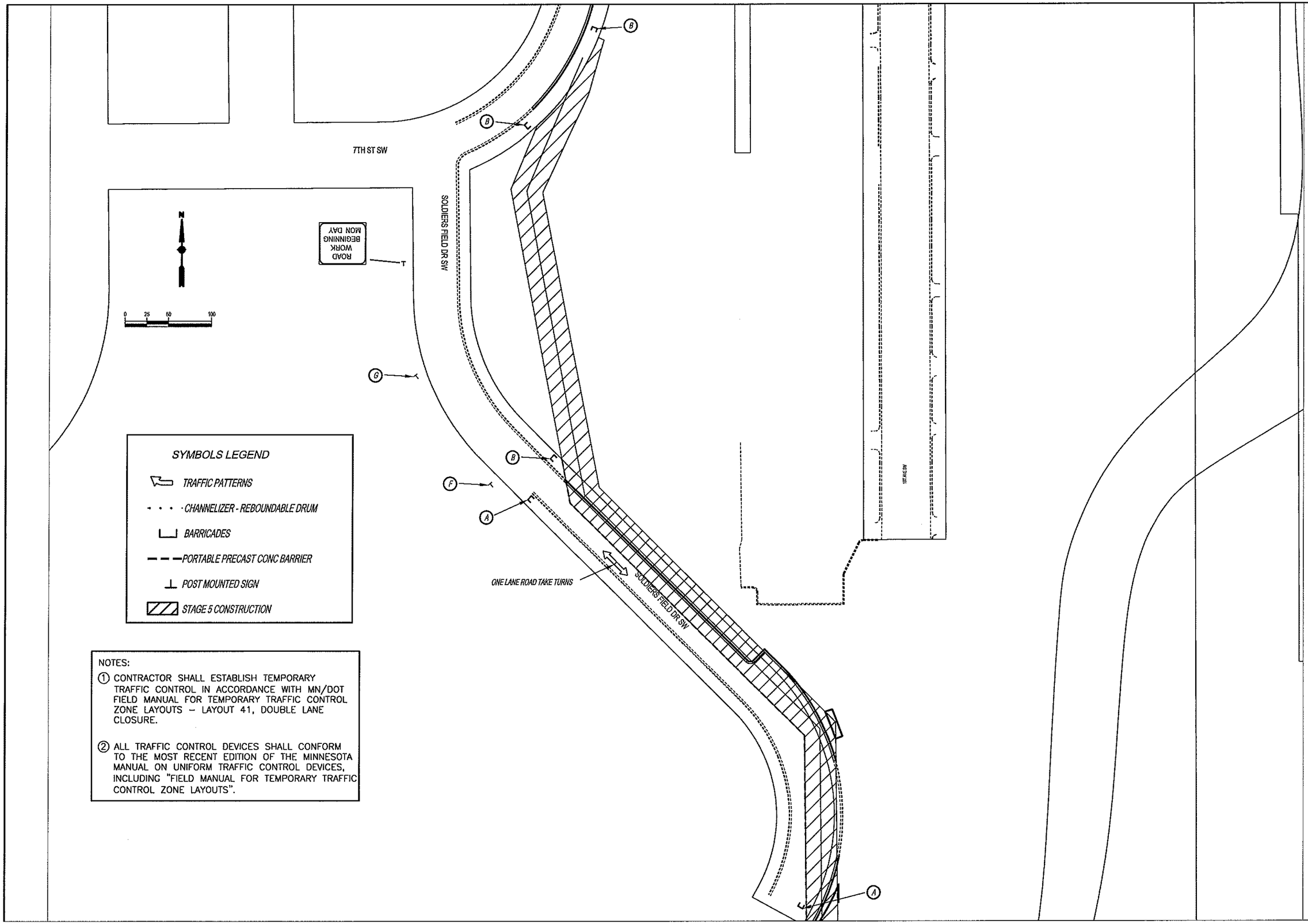

SYMBOLS LEGEND

- TRAFFIC PATTERNS
- CHANNELIZER - REBOUNDABLE DRUM
- BARRICADES
- PORTABLE PRECAST CONC BARRIER
- POST MOUNTED SIGN
- STAGE 5 CONSTRUCTION

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
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Revision comment: –

Revised: –

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Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works

201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2400
FAX: (507) 328-3401

Title: STAGE 5

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 51 of 139 Sheets

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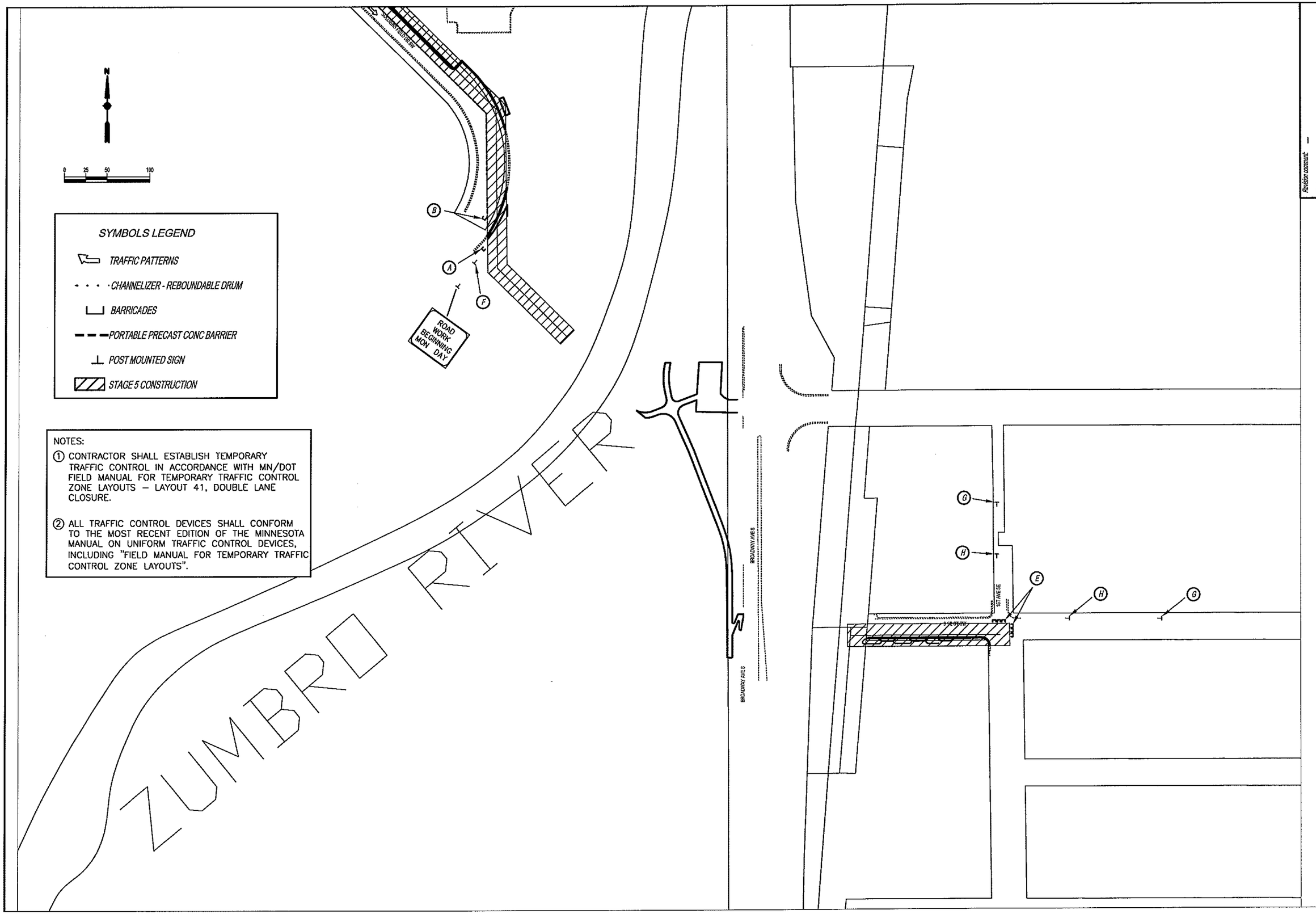


Revision comment: –
Revised: –

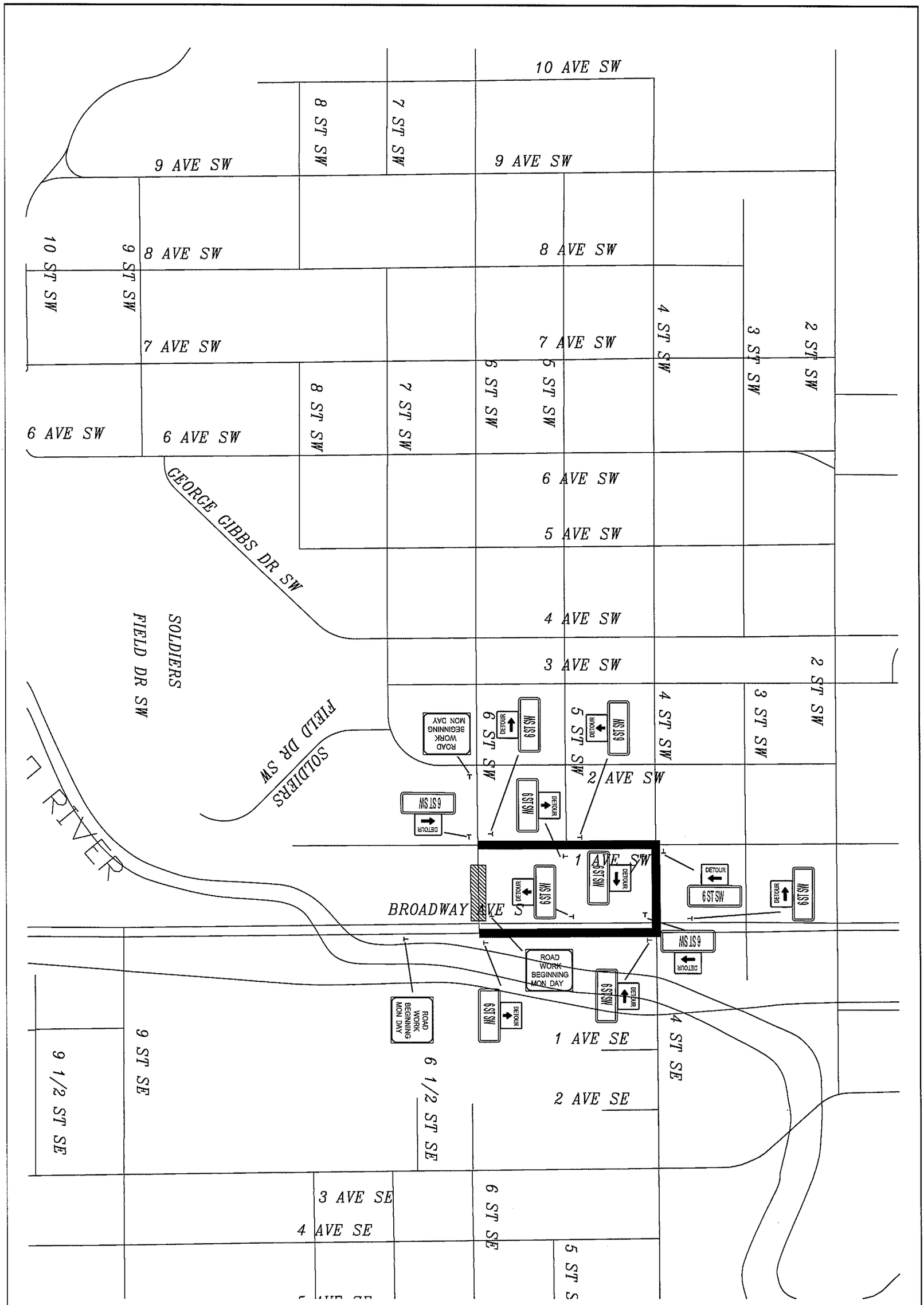
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 223-2401

STAGE 5

Title:
Designer: CWF
Checker: RJK

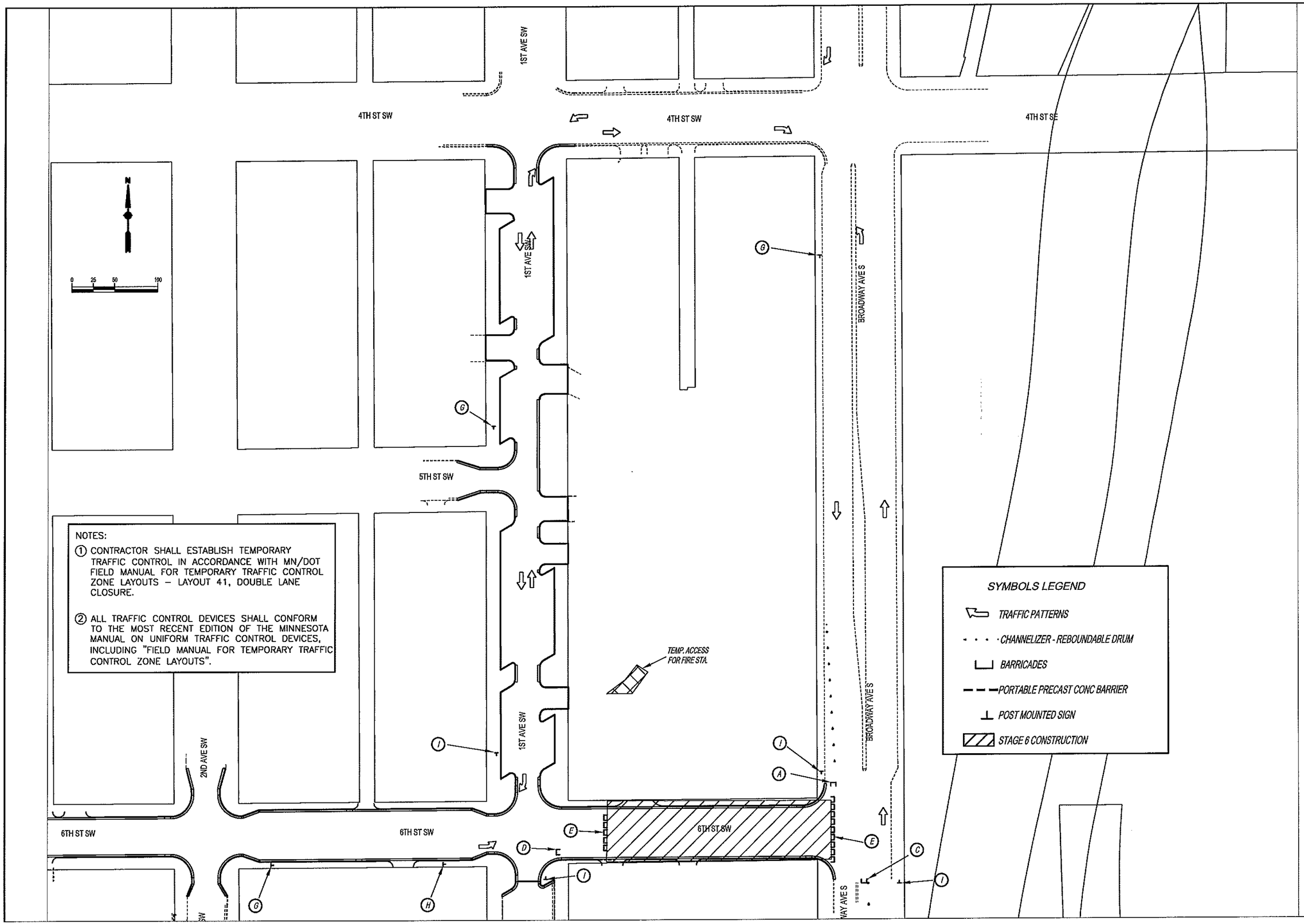
S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 52 of 139 Sheets



S.A.P. No. 159-115-005 Project No. 6206-3-04 J7732 Sheet 53 of 139 Sheets	Designer: CWF Checker: RJK	Title: STAGE 6	City of Rochester, Minnesota Department Of Public Works	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401

Revision comment: —
Revised: —

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Russell J. Klun Date: 5-15-12 Reg. No. 24667



Revision comment: –

Revised: –

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Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: STAGE 6

Designer: CWF

Checker: RJK

S.A.P. No. 159-115-005

Project No. 6206-3-04 J7732

Sheet 54 of 139 Sheets

6TH ST SW

6TH ST SW

6TH ST SW

2ND AVE SW

1ST AVE SW

BROADWAY AVE S

SOLDIERS FIELD DR SW

SOLDIERS FIELD DR SW

0 25 50 100

SYMBOLS LEGEND

- TRAFFIC PATTERNS
- CHANNELIZER - REBOUNDABLE DRUM
- BARRICADES
- PORTABLE PRECAST CONC BARRIER
- POST MOUNTED SIGN
- STAGE 6 CONSTRUCTION

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

Revision comment: –

Revised: –

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Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: STAGE 6

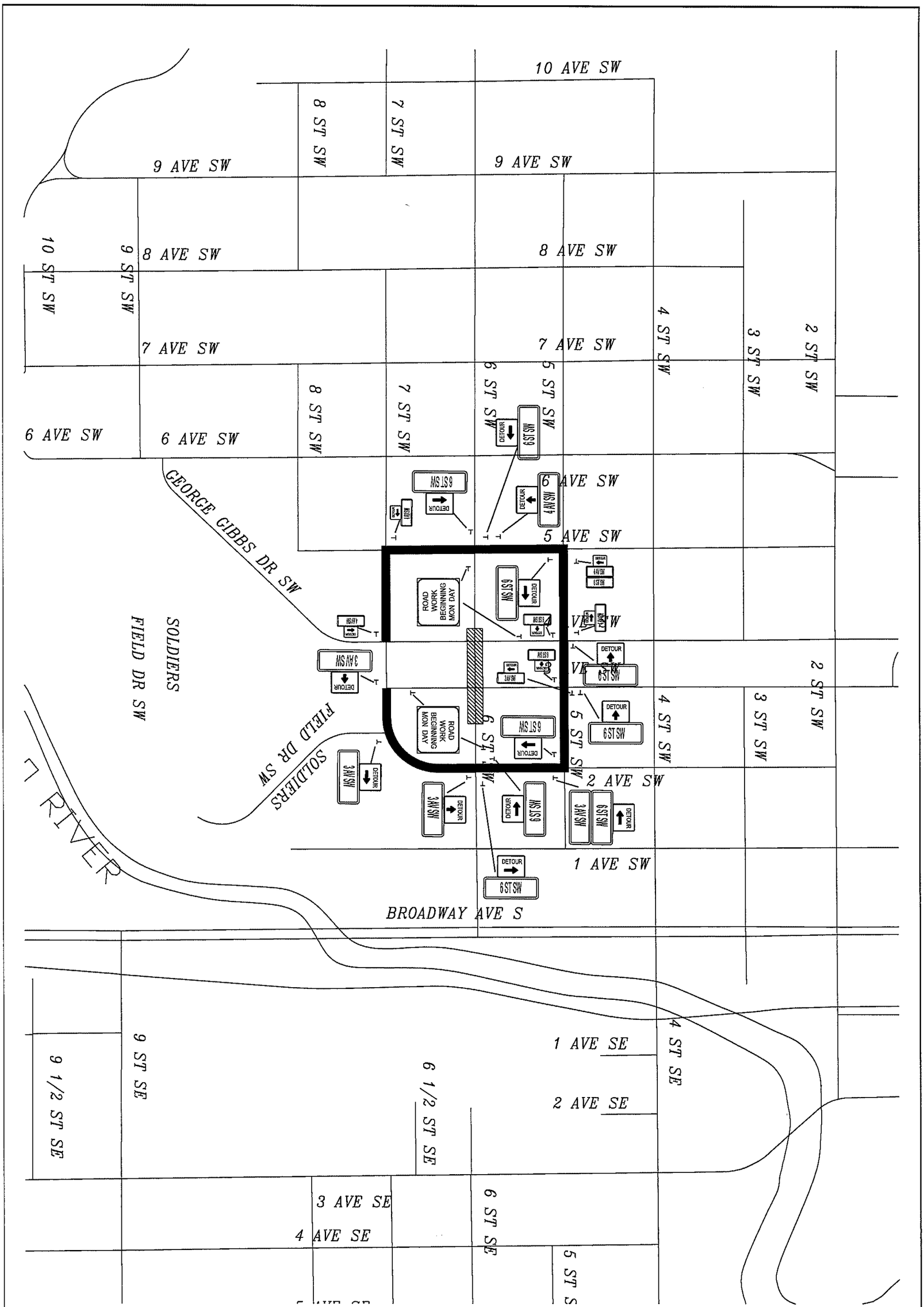
Designer: CWF

Checker: RJK

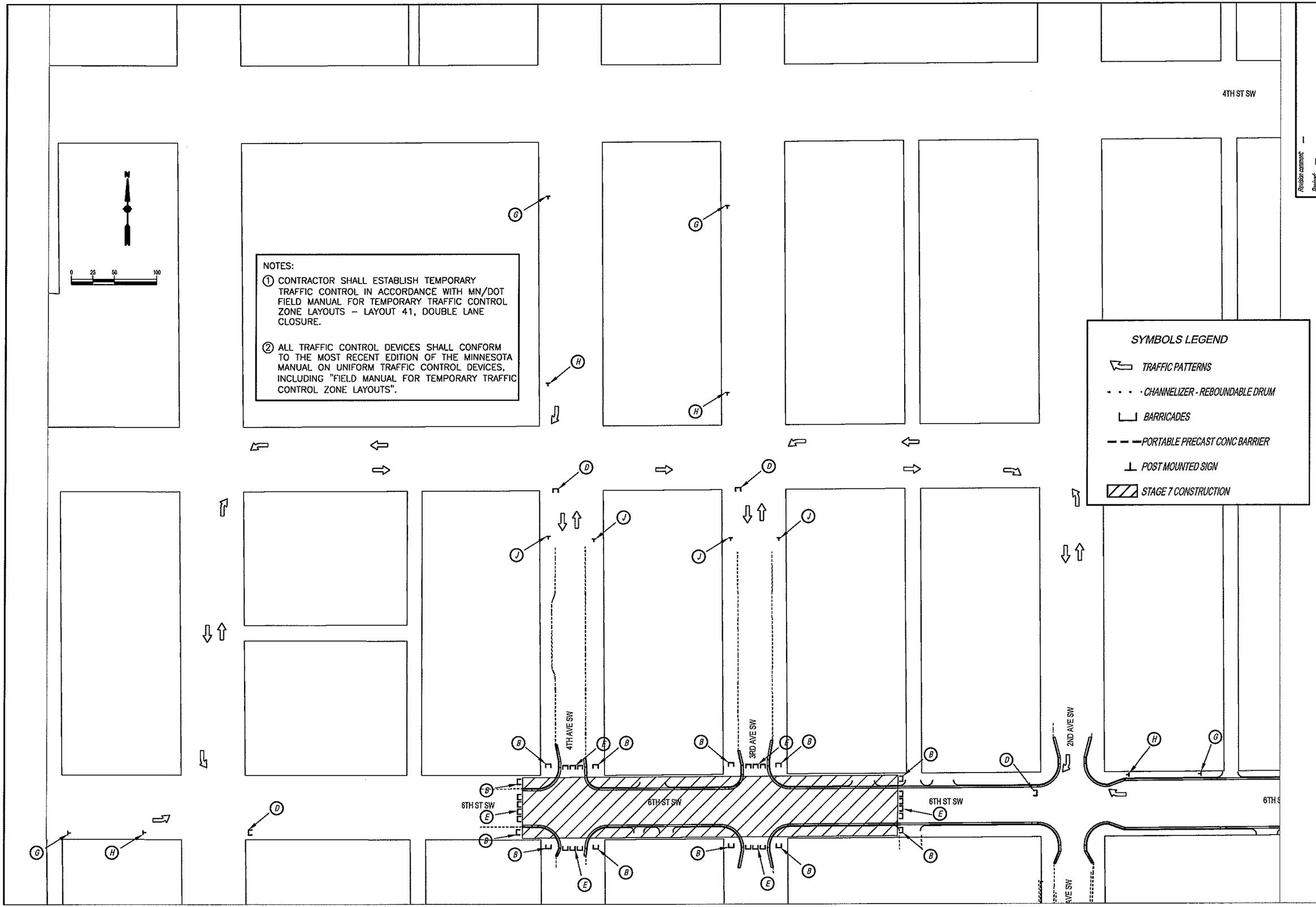
S.A.P. No. 159-115-005

Project No. 6206-3-04 J7732

Sheet 55 of 139 Sheets



S.A.P. No. 159-115-005 Project No. 6206-3-04 J7732 Sheet 56 of 139 Sheets	Designer: CWF Checker: RJK	Title: STAGE 7	City of Rochester, Minnesota Department Of Public Works	201 4th Street S.E. Rochester, MN 55904 Phone: (507) 328-2450 FAX: (507) 328-2401	Revision comment: — Revised: — I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Russell J. Klun Date: 5-15-12 Reg. No. 24667



Revision comment: –
Revised: –

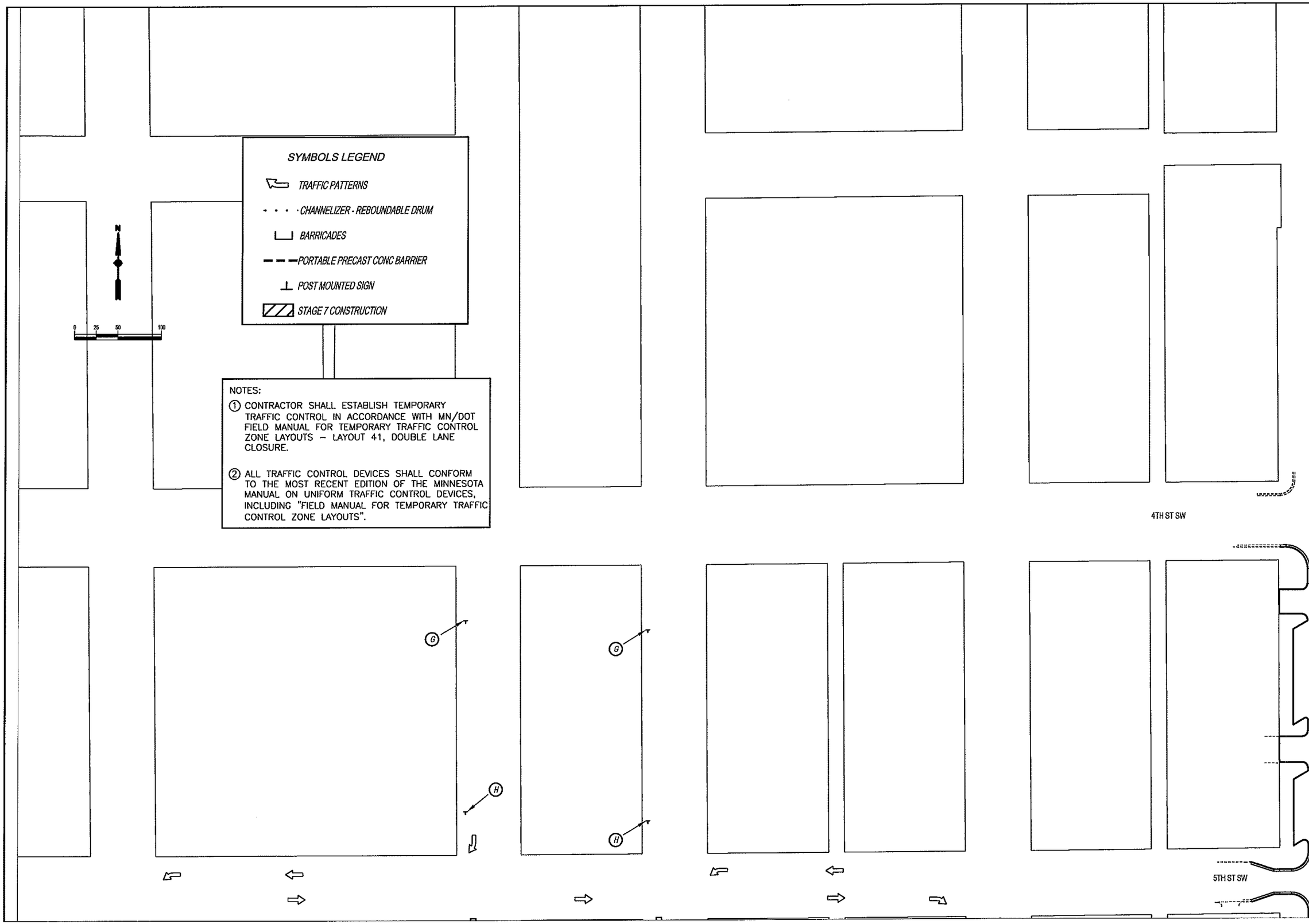
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2459
FAX: (507) 328-2401

Title: STAGE 7

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 57 of 139 Sheets



NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

Revision comment: –
Revised: –

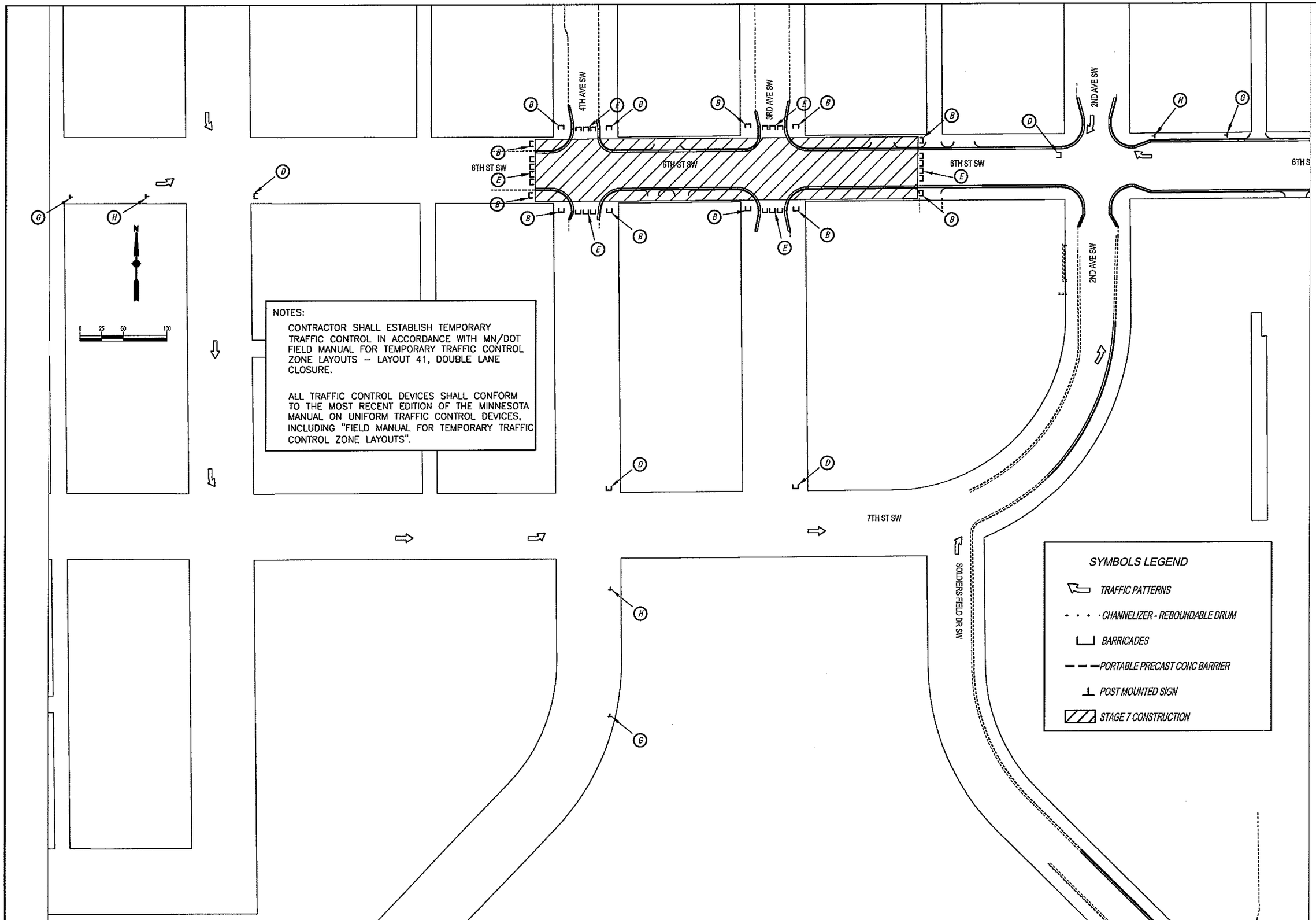
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5/15/12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STAGE 7

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
Sheet 58 of 139 Sheets



NOTES:

CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24667

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STAGE 7

Designer: CWF
Checker: RJK

S.A.P. No. 159-115-005
Project No. 6206-3-04 J7732
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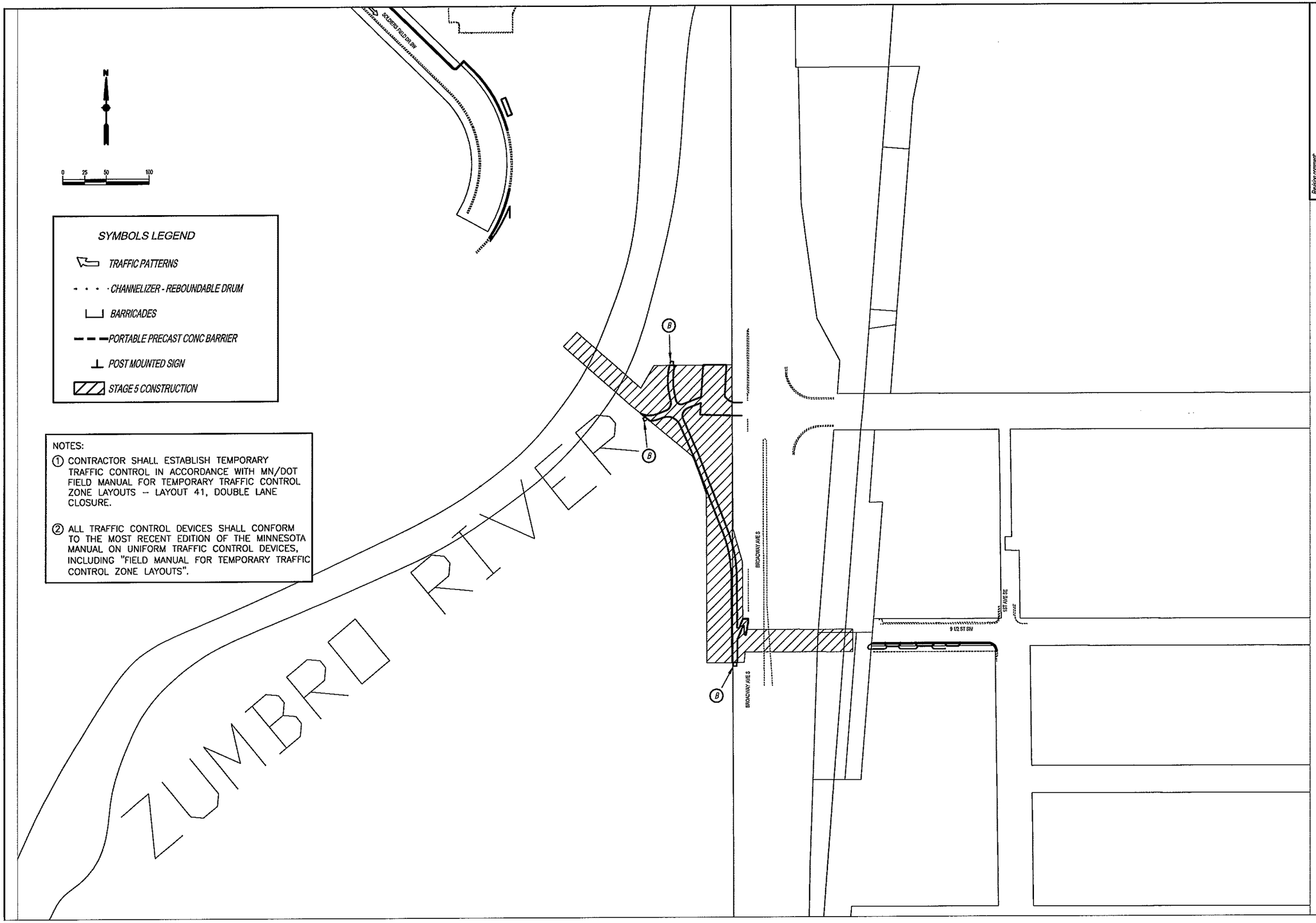

SYMBOLS LEGEND

- TRAFFIC PATTERNS
- CHANNELIZER - REBOUNDABLE DRUM
- BARRICADES
- PORTABLE PRECAST CONC BARRIER
- POST MOUNTED SIGN
- STAGE 5 CONSTRUCTION

NOTES:

1. CONTRACTOR SHALL ESTABLISH TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH MN/DOT FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – LAYOUT 41, DOUBLE LANE CLOSURE.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Ronald A. Klein Date: 5-15-12 Reg. No. 24067

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
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Phone: (507) 328-2450
FAX: (507) 328-2401

Title: STAGE 8

Designer: CWF
Checker: RJK

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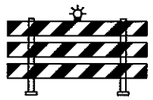
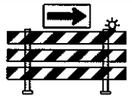
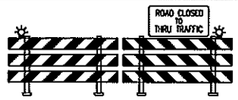
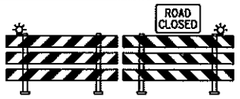
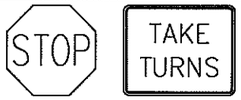
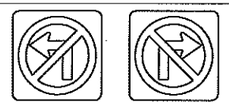
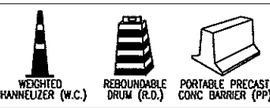
ESTIMATE OF TRAFFIC CONTROL DEVICES

SIGN TYPE	DETAIL	SIGN NUMBER / SIZE	STAGE 1			STAGE 2			STAGE 3			STAGE 4			STAGE 5			STAGE 6			STAGE 7			STAGE 8		
			SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE	SIGN / MARKERS	TYPE F FLASHER	TYPE 3 BARRICADE
			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
TYPE A				4	4											2	2		1	1						
TYPE B		R11-X1 30" X 18"	3	3	3	1	1	1	6	6	6	14	14	14	4	4	4				12	12	12	3	3	3
TYPE C		W1-6R 48" X 24"	1	1	1	2	4	4										1	1	1						
TYPE D		R11-4 60" X 30"	1	2	2	1	1	1				5	10	10				1	1	1	6	6	6			
TYPE E		R11-2 48" X 30"	2	4	4	2	7	7	2	7	7	7	21	21	2	6	6	3	14	14	6	20	20			
TYPE F		R1-1 30" X 30" R1-X3 30" X 24"	3 (S) 3 (TT)			2 (S) 2 (TT)			0 (S) 0 (TT)			0 (S) 0 (TT)			2 (S) 2 (TT)			0 (S) 0 (TT)			0 (S) 0 (TT)			0 (S) 0 (TT)		
TYPE G		W20-1 36" X 36"	5	5		4	4		4	4		6	6		3	3		4	4		5	5				
TYPE H		W20-3 36" X 36"	1	1		2			2	2		6	6		2	2		1	1		5	5				
TYPE I		R3-2L R3-2R 24" X 24"	4 (L) 1 (R)			1 (L) 0 (R)			1 (L) 1 (R)			0 (L) 0 (R)			0 (L) 0 (R)			2 (L) 2 (R)			0 (L) 0 (R)			0 (L) 0 (R)		
TYPE J		W6-3P 24" X 18"																			4					
TYPE K		W20-X3R 48" X 48"	6			1																				
TYPE L			0 (WC) 70 (RD) 41 (PP)			0 (WC) 7 (RD) 44 (PP)			0 (WC) 0 (RD) 0 (PP)			0 (WC) 0 (RD) 0 (PP)			0 (WC) 0 (RD) 96 (PP)			0 (WC) 21 (RD) 0 (PP)			0 (WC) 0 (RD) 0 (PP)			0 (WC) 0 (RD) 0 (PP)		
TOTALS			140	24	18	69	21	17	16	23	17	28	61	49	149	21	16	35	26	21	38	52	42	3	7	7

NOTES:
1. TOTALS INCLUDE FOUR EXTRA BARRICADES AND FOUR EXTRA FLASHERS TO BE ON-SITE AND USED AT THE ENGINEERS DISCRETION.
2. QUANTITIES DO NOT INCLUDE TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED FOR ZONE LAYOUTS.

Revision comment: –
Revised: –

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Date: 5-15-12 Reg. No. 24697

City of Rochester, Minnesota
Department Of Public Works
201 4th Street S.E.
Rochester, MN 55904
Phone: (507) 328-2450
FAX: (507) 328-2401

Title: CONSTRUCTION SIGNING TABULATIONS

Designer: CWF
Checker: RJK

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Project No. 6206-3-04
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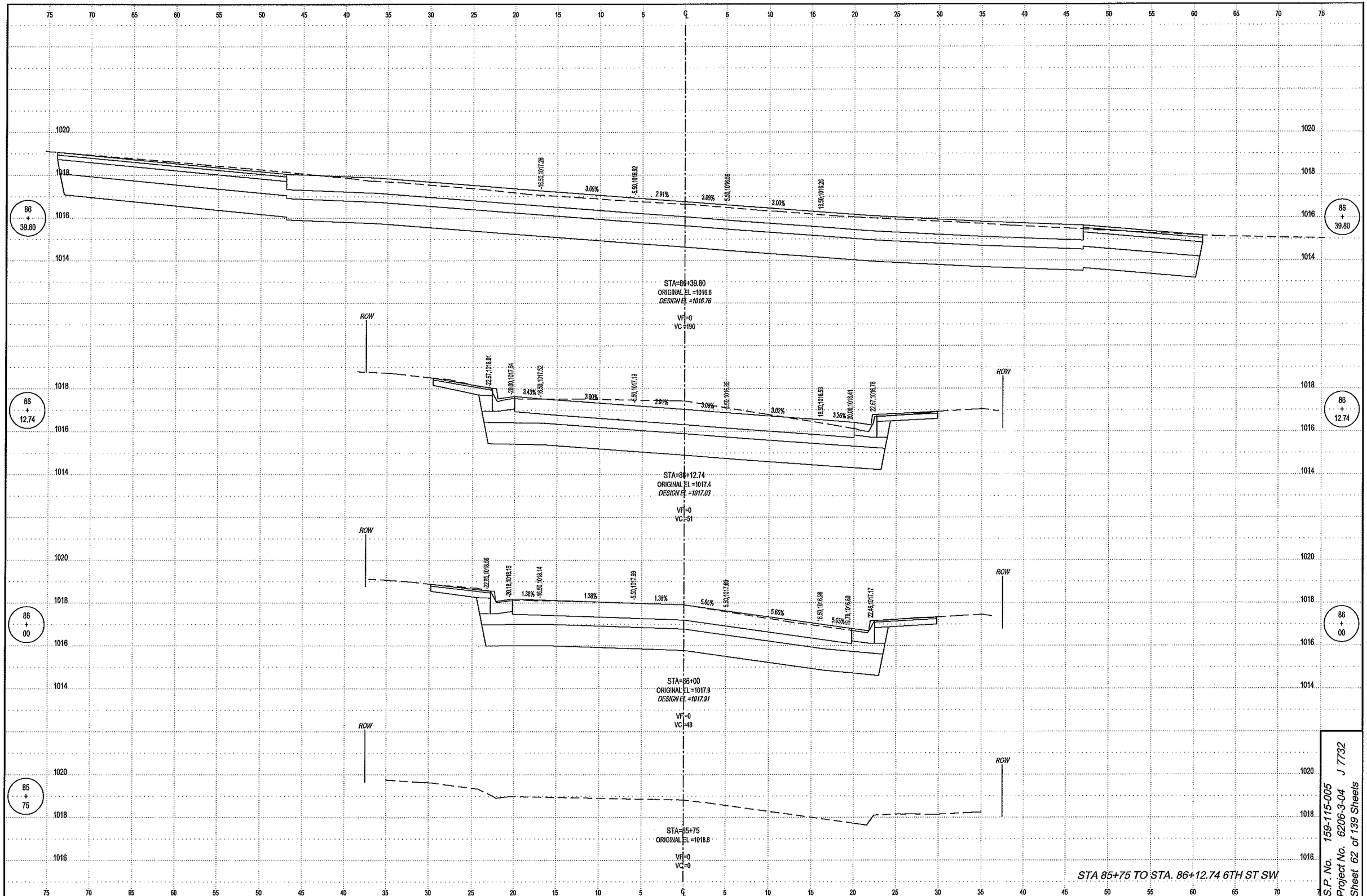

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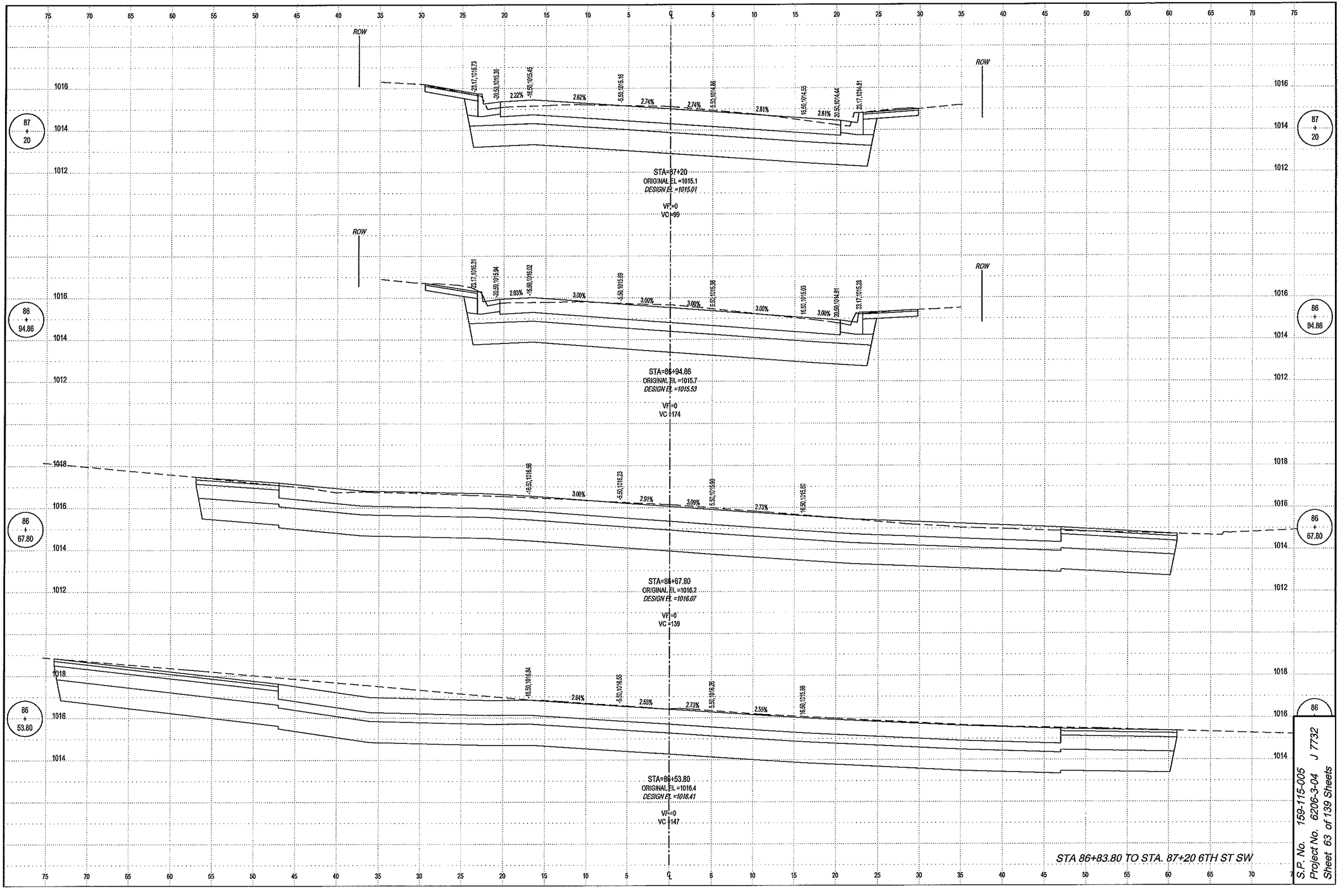

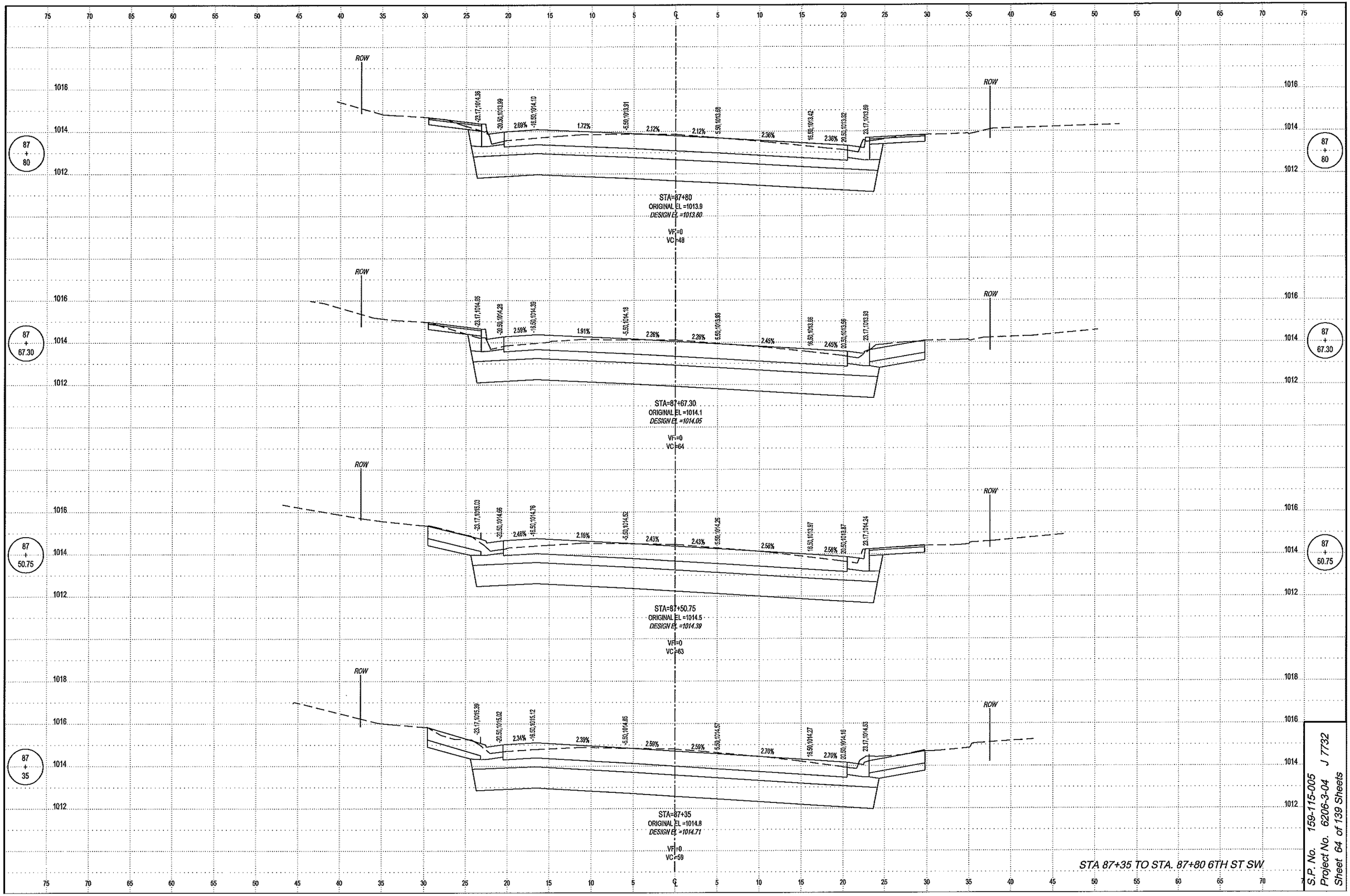

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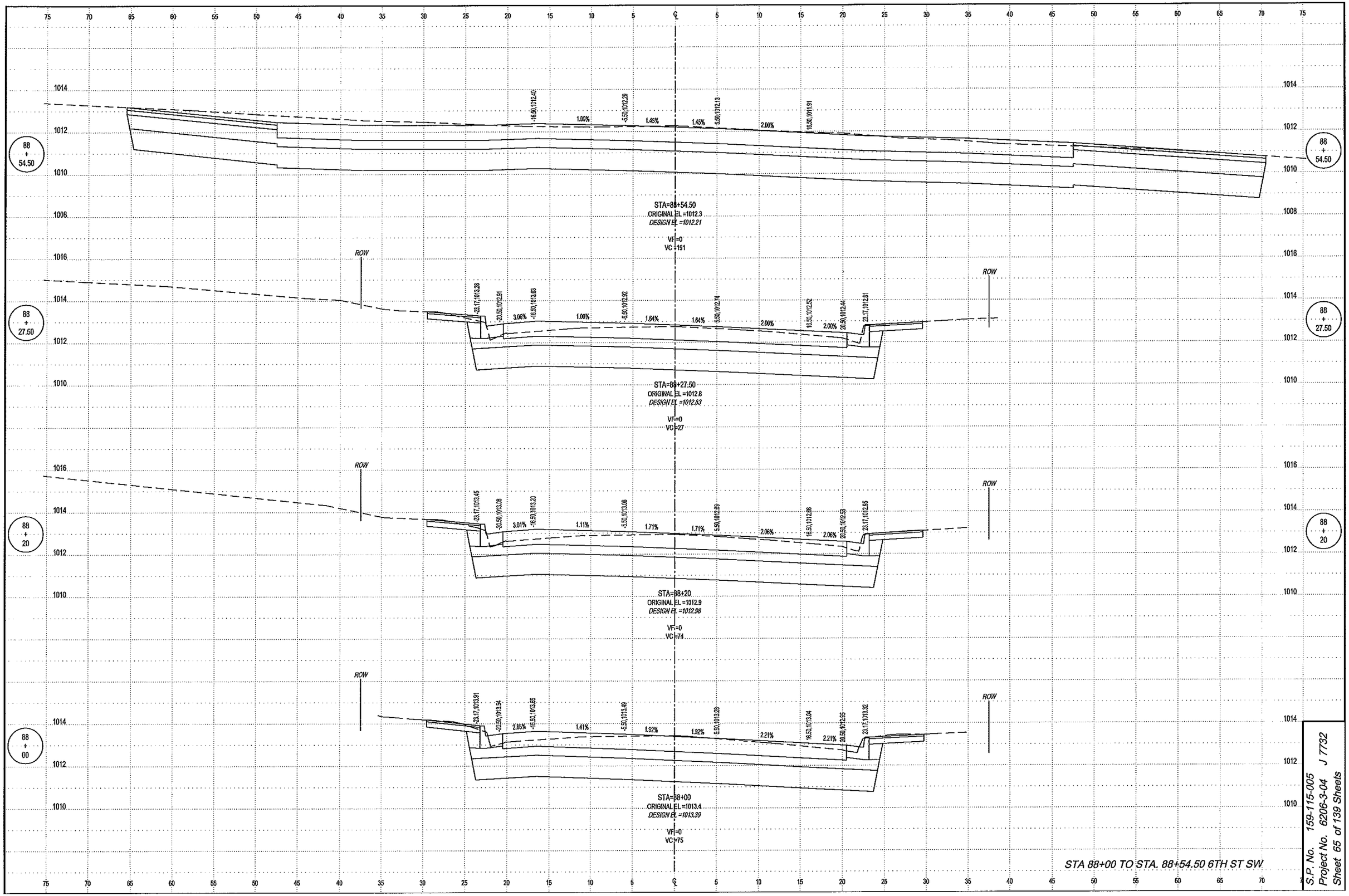

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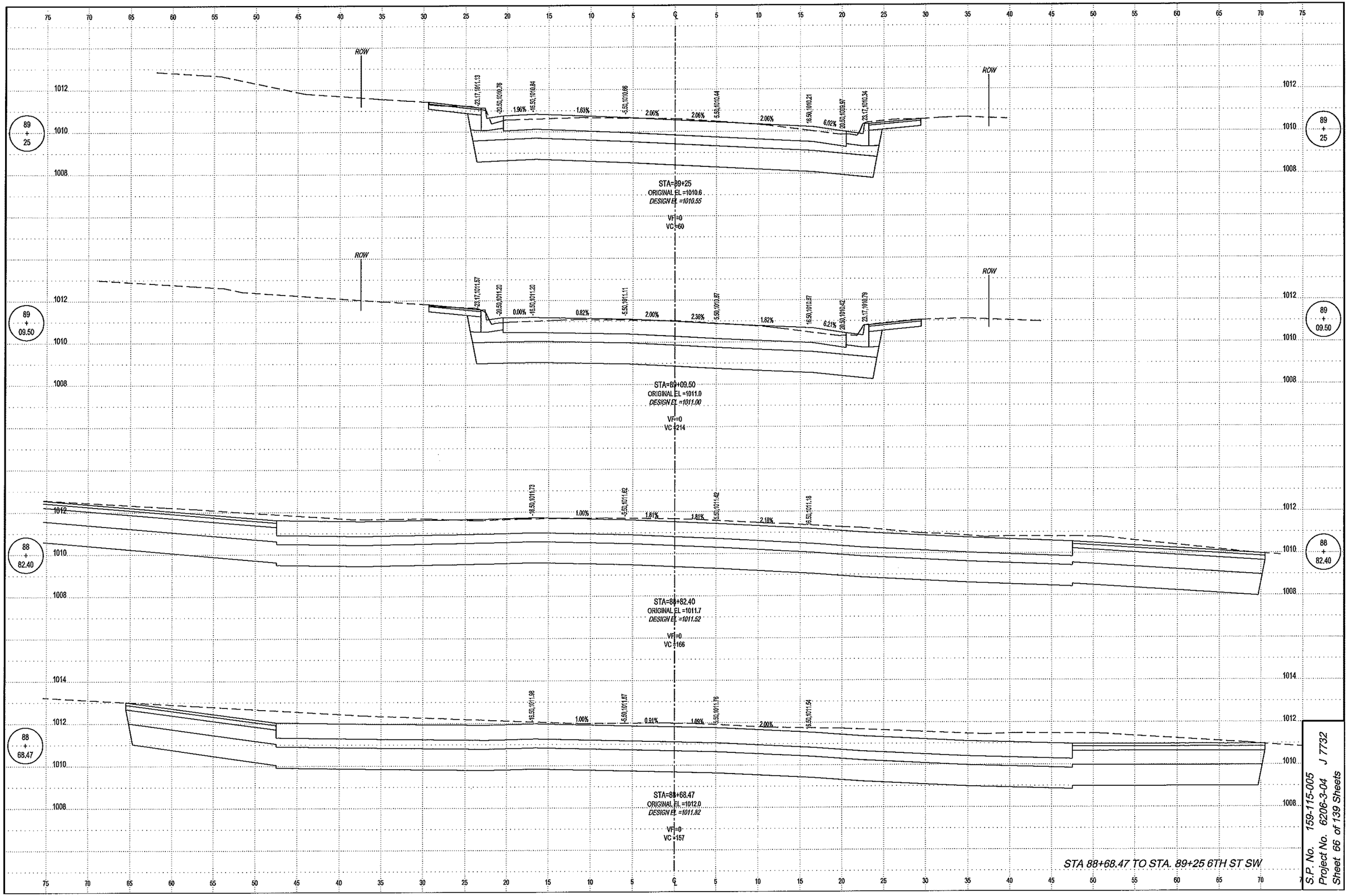

STA 88+68.47 TO STA. 89+25 6TH ST SW

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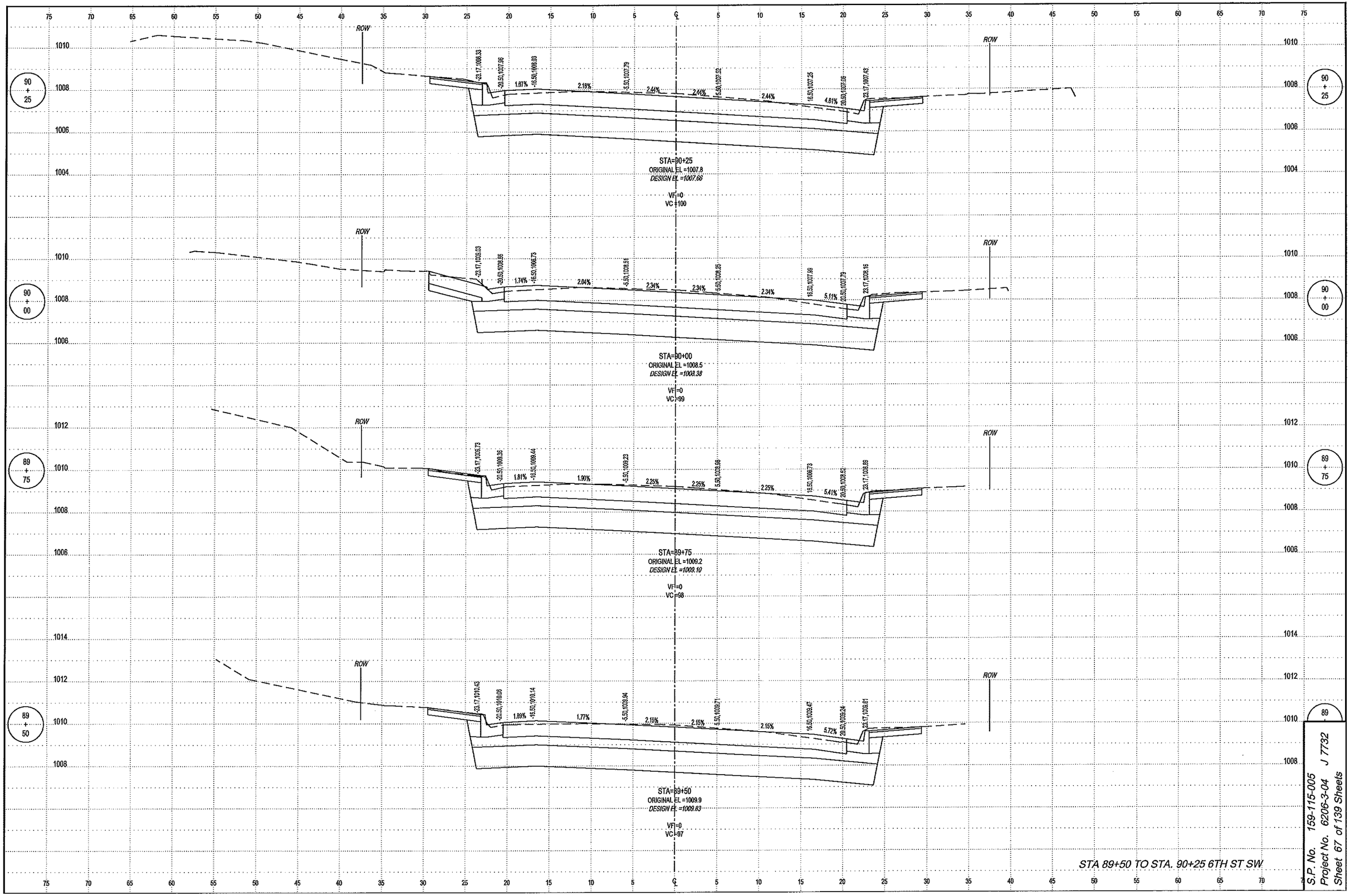

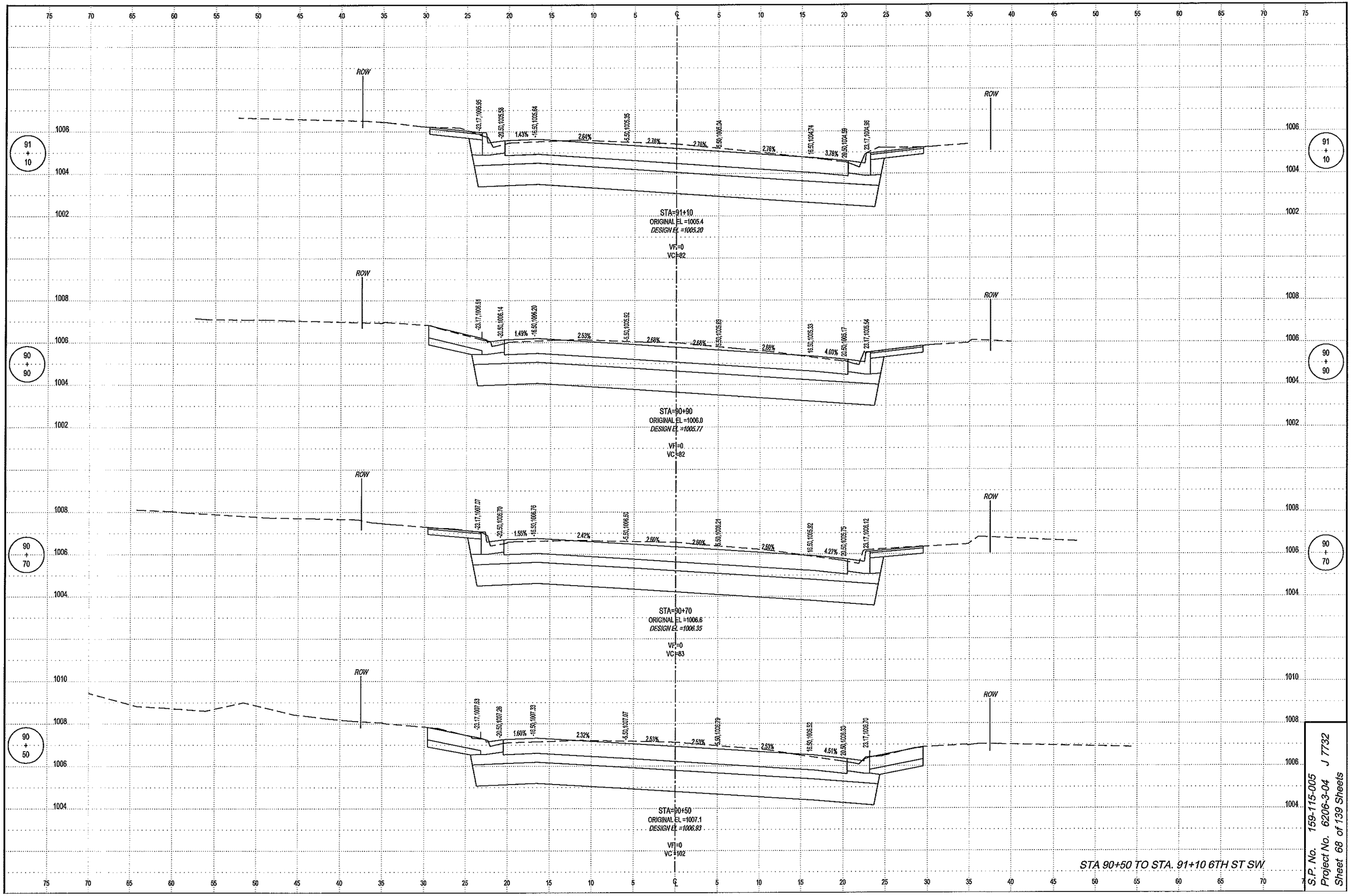

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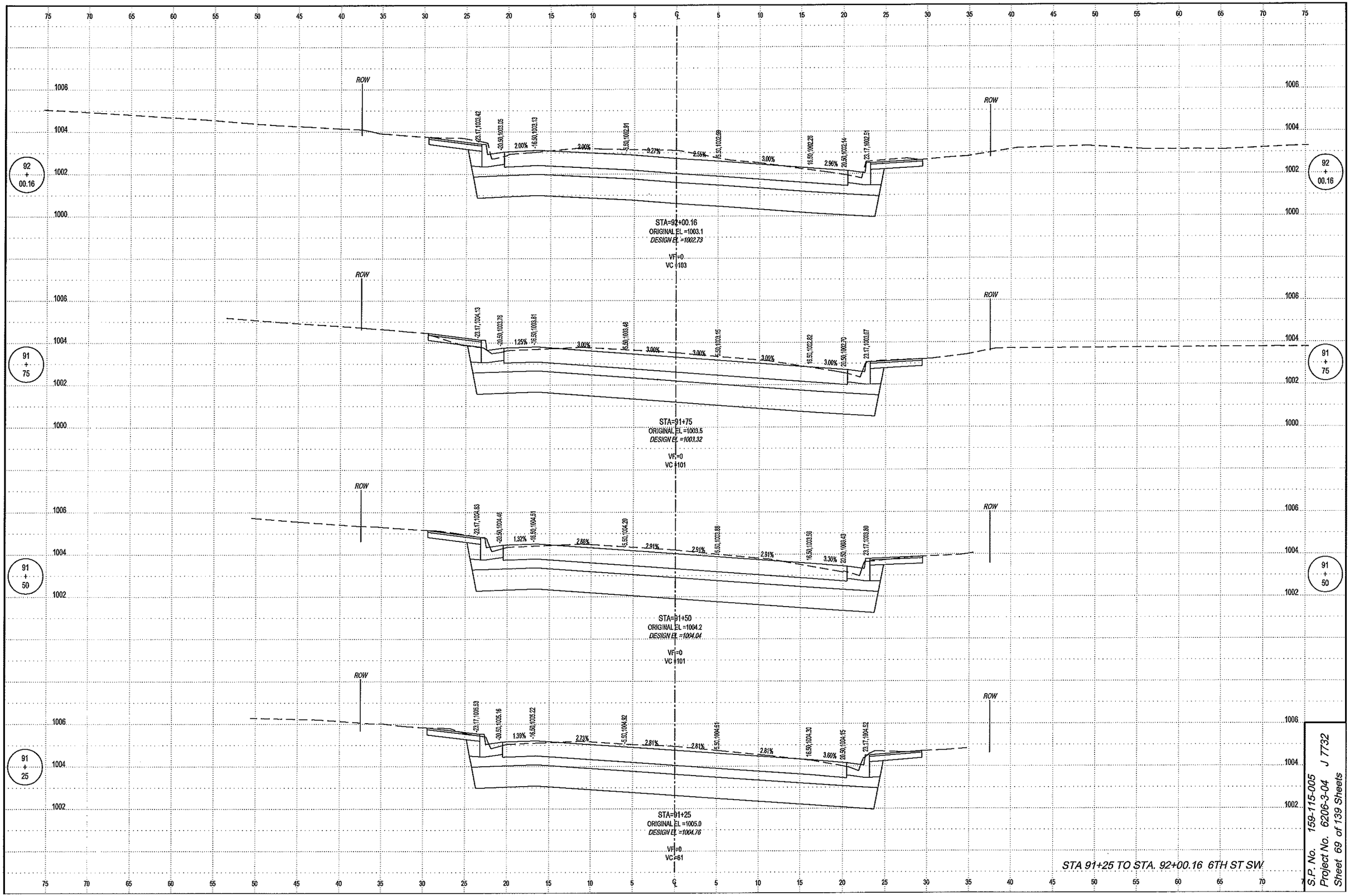

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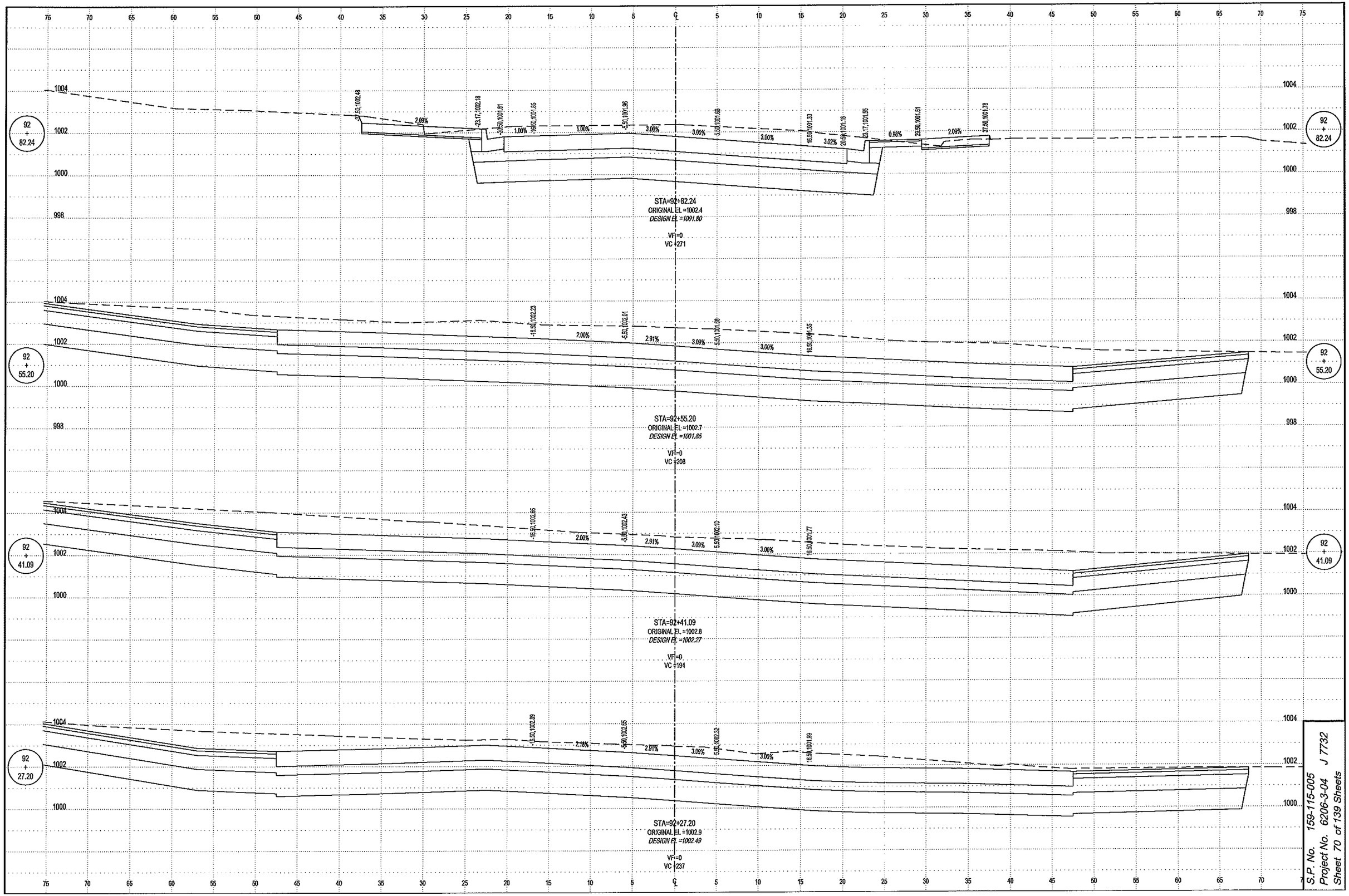

S.P. No. 159-115-005
Project No. 6206-3-04 J 7732
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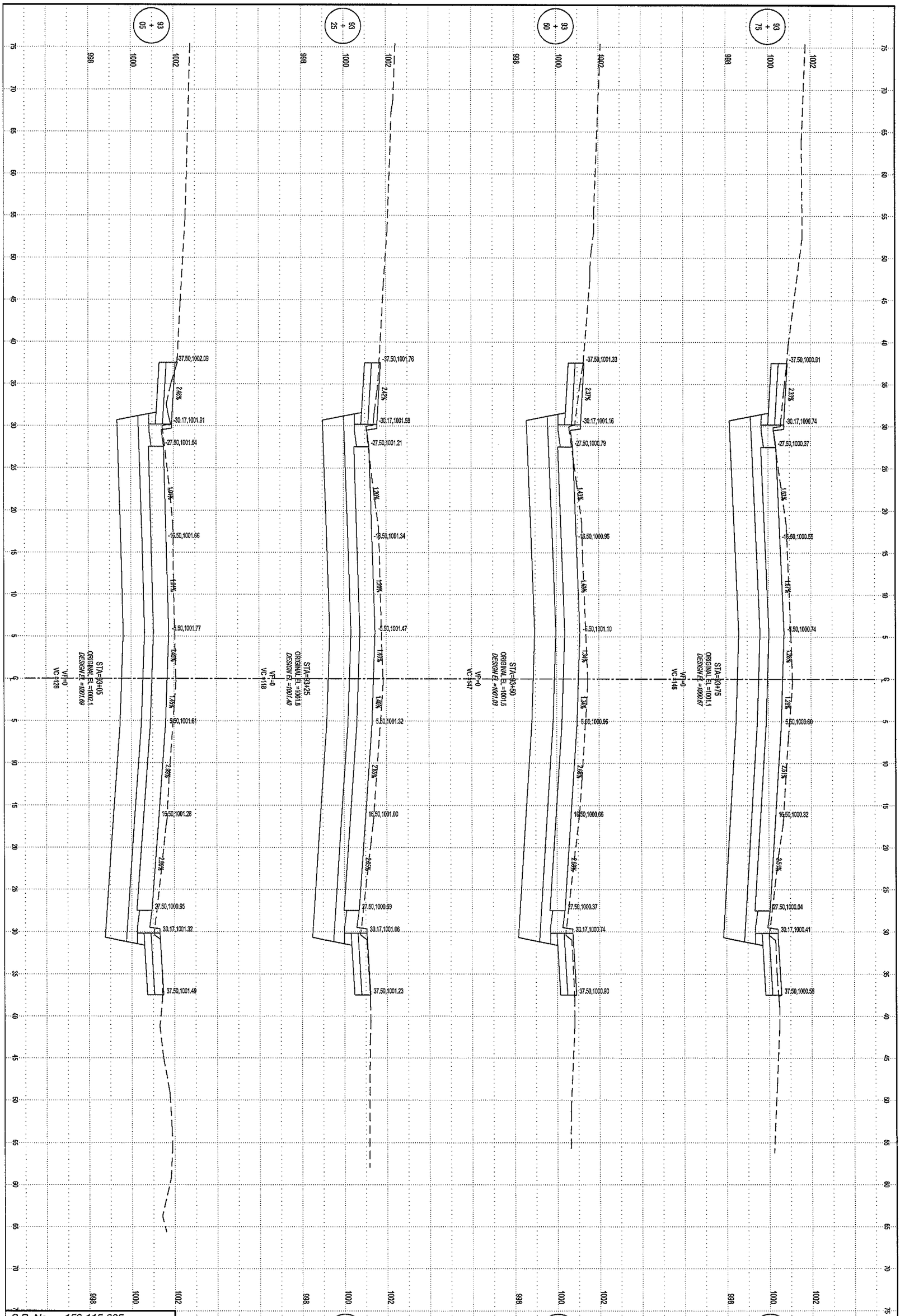

S.P. No. 159-115-005
Project No. 6206-3-04 J 7732
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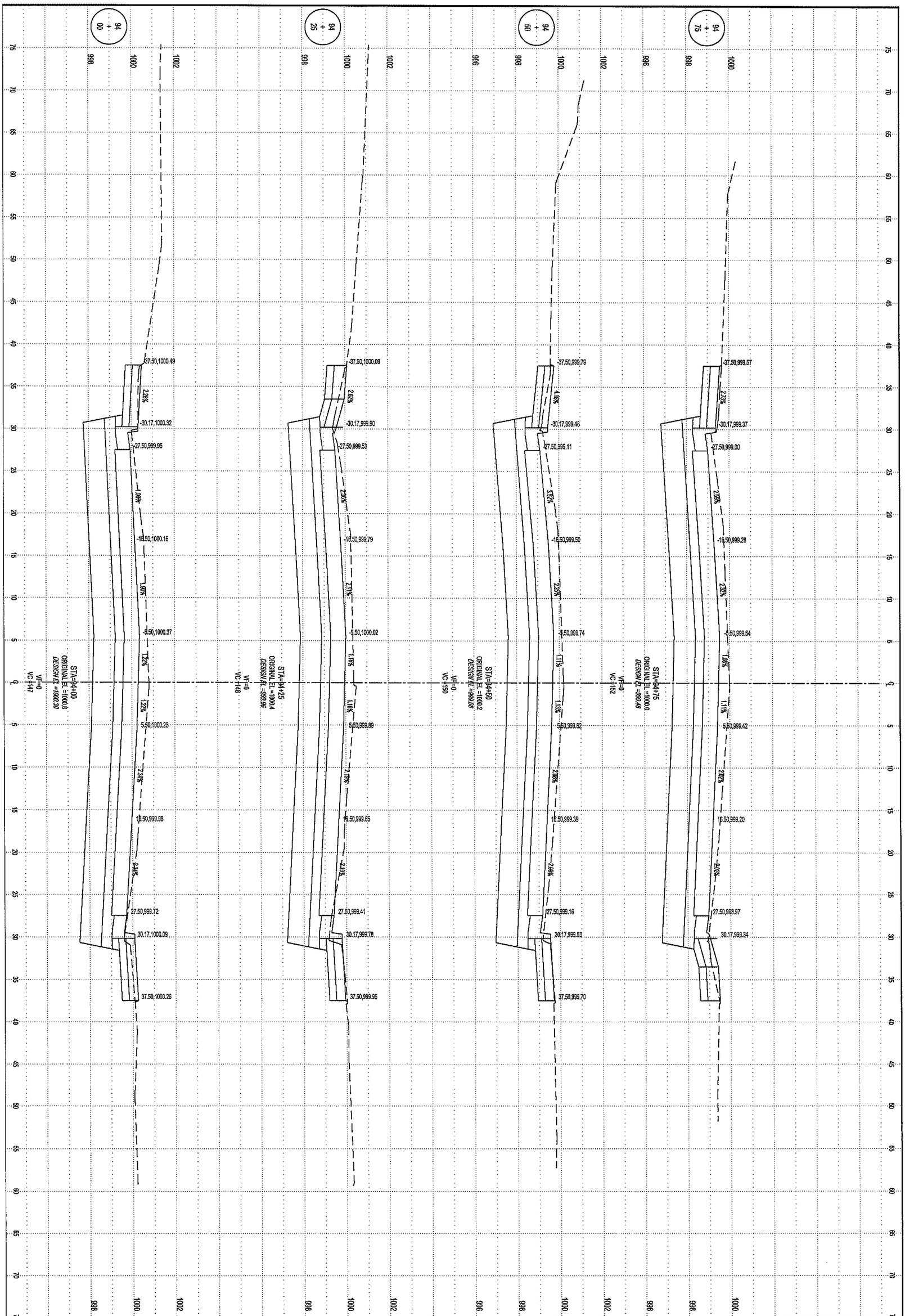

S.P. No. 159-115-005
Project No. 6206-3-04 J 7732
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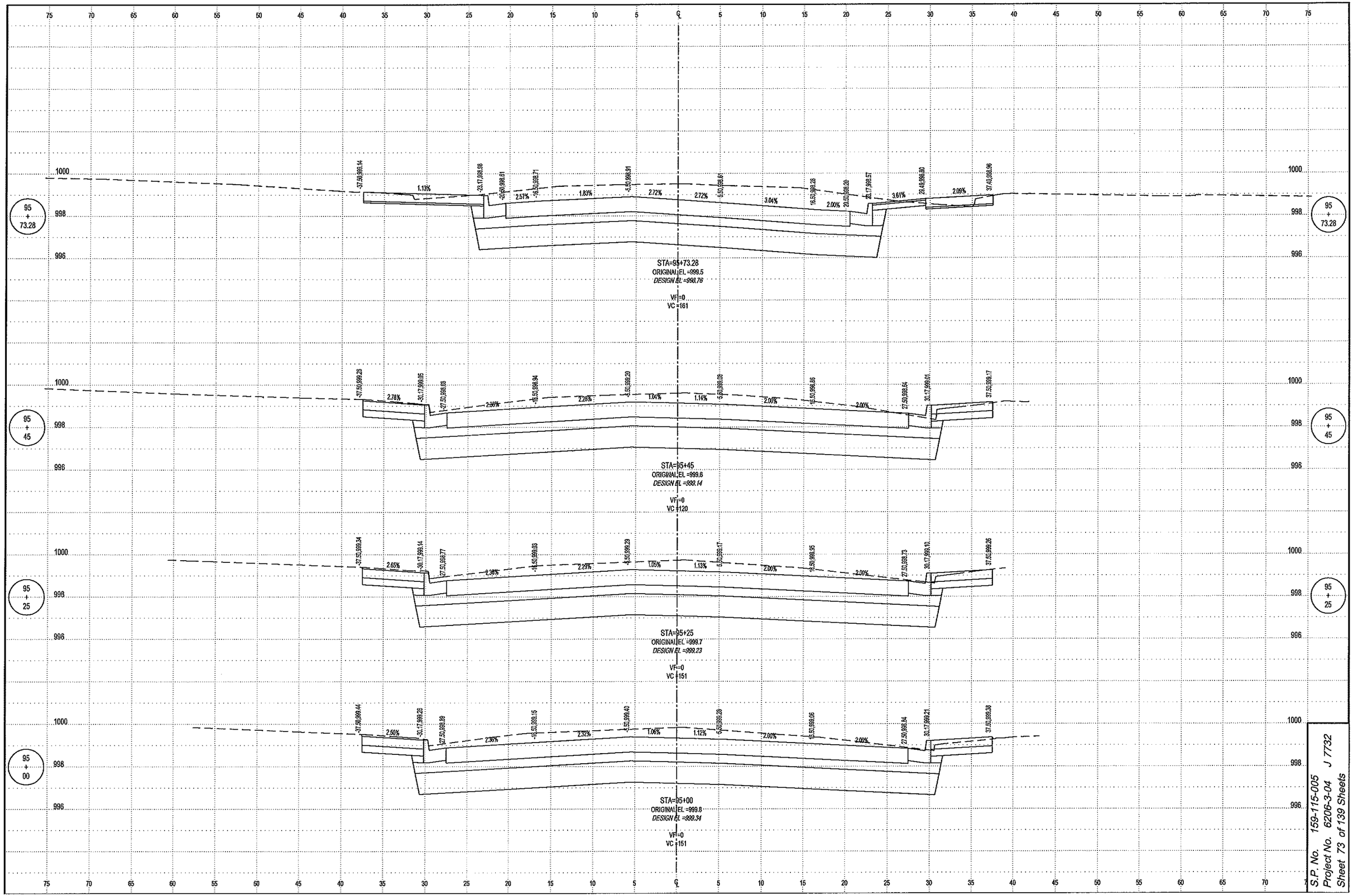

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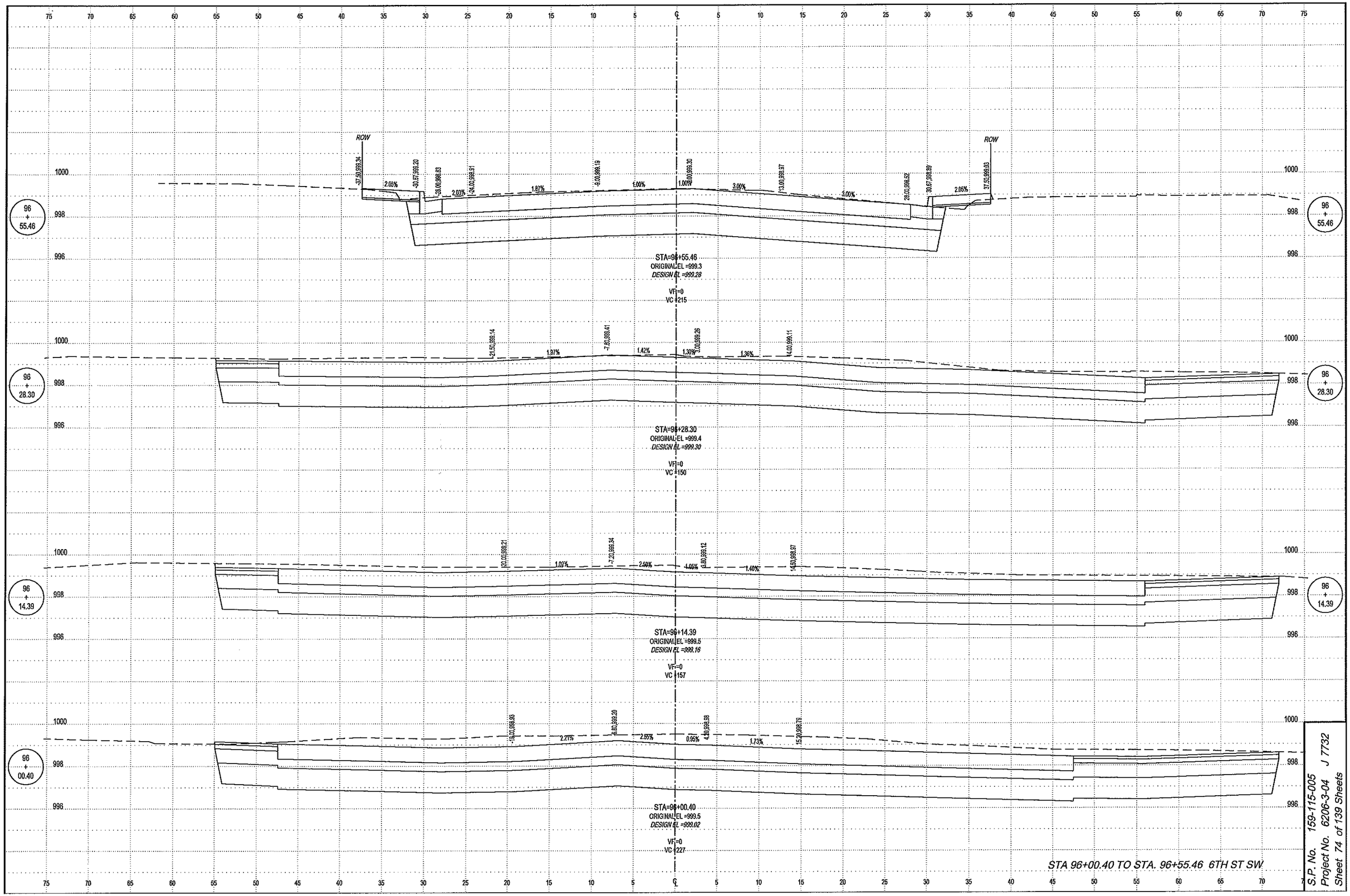

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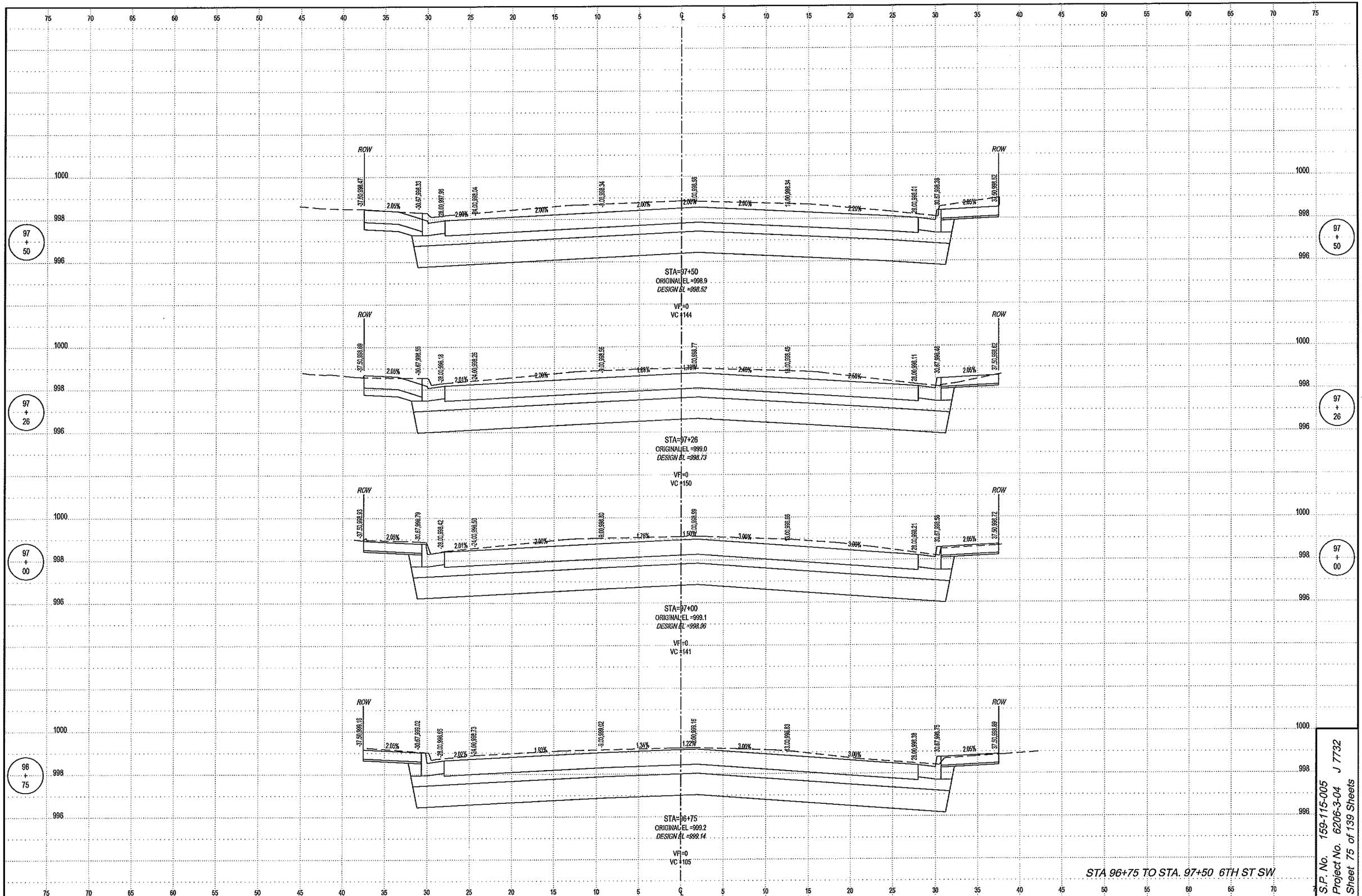

S.P. No. 159-115-005
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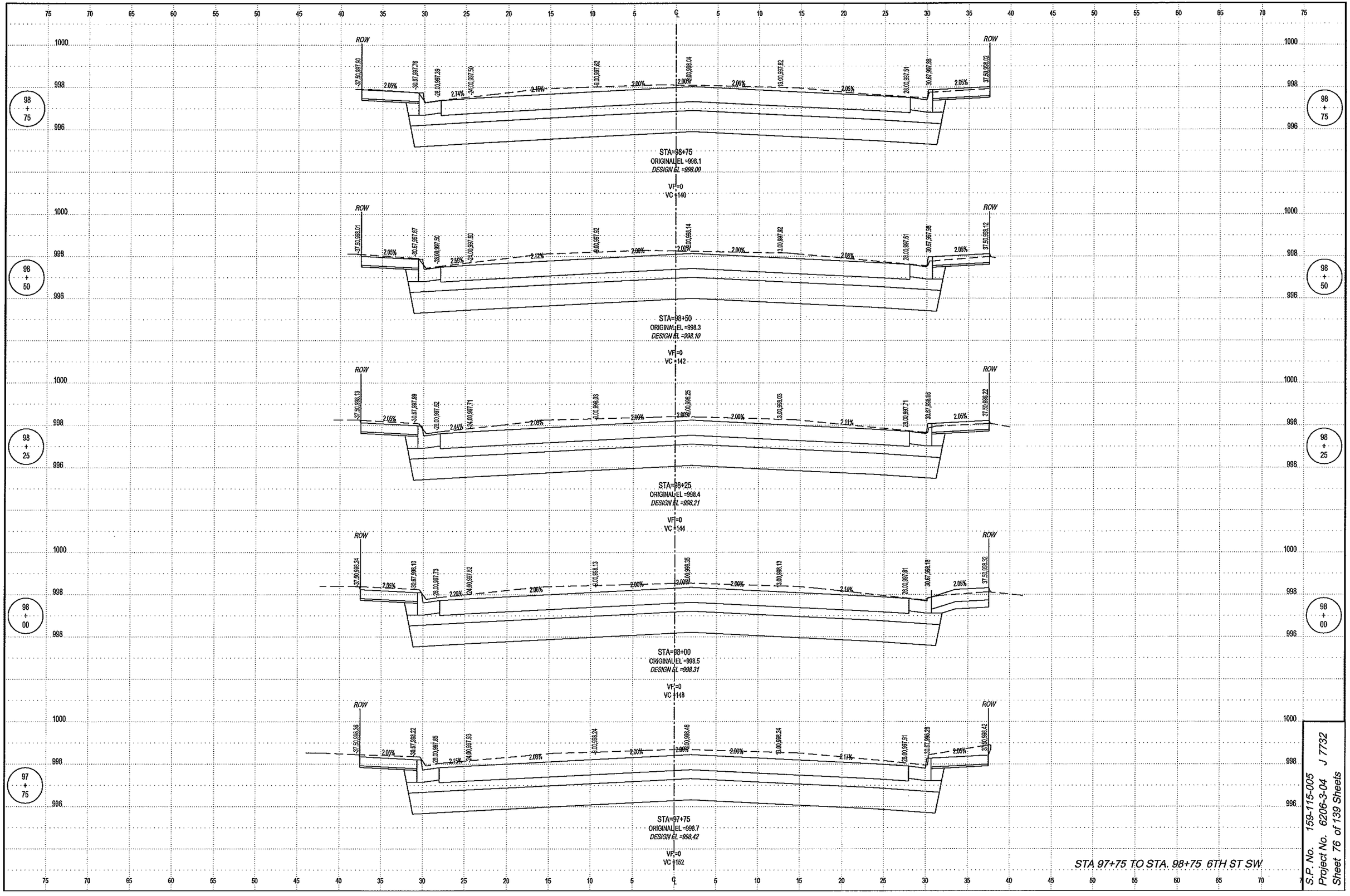

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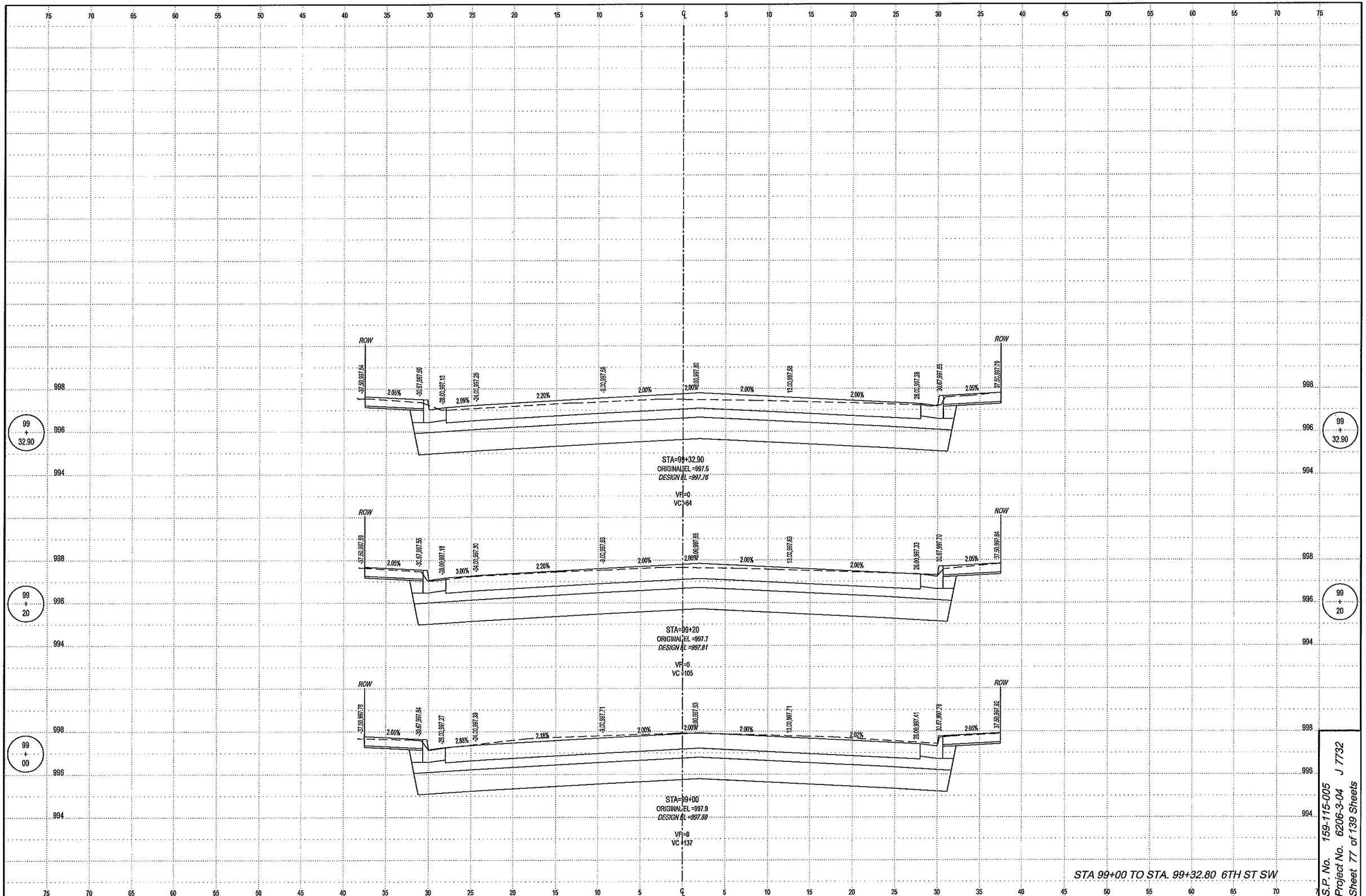

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