INDEX OF SHEETS:

- 1 COVER SHEET
- 2 GENERAL PLAN & ELEVATION (S.N. 098-6004)
- 3-4 EXPANSION JOINT DETAILS (S.N. 098-6004)
- 5 PIER REPAIR DETAILS (S.N. 098-6004)
- 6 PREFORMED JOINT STRIP SEAL (S.N. 098-6004)
- 7 GENERAL PLAN & ELEVATION (S.N. 098-6005)
- 8-9 EXPANSION JOINT DETAILS (S.N. 098-6005)
- 10 PIER REPAIR DETAILS (S.N. 098-6005)
- 11 PREFORMED JOINT STRIP SEAL (S.N. 098-6005)
- 12-20 EXISTING PLANS (S.N. 098-6004 & 098-6005)

PLANS FOR PROPOSED BRIDGE REHABILITATION LOCAL FUNDS

AVENUE G BRIDGES OVER RAILROADS & WALLACE STREET STRUCTURE NUMBERS 098-6004 & 098-6005 CITY OF STERLING 2017

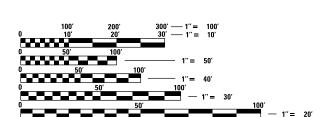
STANDARDS:

O00001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
701901-06 TRAFFIC CONTROL DEVICES
B.L.R. 17-4 TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
B.L.R. 21-9 DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

_ INCLUDED IN PROPOSAL

UTILITIES:

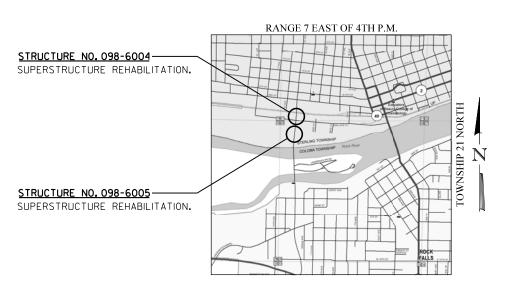




FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

PROJECT ENGINEER: BKC PROJECT MANAGER: BKC





SUMMARY OF QUANTITIES

ITEM NO	. ITEM	UNIT	TOTAL QUANTITY
1	CONCRETE REMOVAL	CU YD	26.4
2	CONCRETE SUPERSTRUCTURE	CU YD	26.4
3	PREFORMED JOINT STRIP SEAL	FOOT	154
* 4	CLEANING & PAINTING STEEL BRIDGE S.N. 089-6004	L SUM	1
5	CLEANING & PAINTING STEEL BRIDGE S.N. 089-6005	L SUM	1
6	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES S.N. 098-6004	SQ FT	344
* 7	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES S.N. 098-6005	SQ FT	137
* 8	SLOPE WALL SLURRY PUNPING	CU YD	20
9	CONTAINMENT & DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES S.N. 089-6004	L SUM	1
10	CONTAINMENT & DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES S.N. 089-6005	L SUM	1
* 11	BRIDGE CLEANING AND PAINTING WARRANTY S.N. 098-6004	L SUM	1
12	BRIDGE CLEANING AND PAINTING WARRANTY S.N. 098-6005	L SUM	1
13	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

^{*}SEE SPECIAL PROVISIONS





ENGINEERING ARCHITECTURE LAND SURVEYING

809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3381 DESIGN FIRM: #184-000918

ATTENTION CONTRACTORS

THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF MATERIALS AND PHYSICAL RESEARCH, *PROJECT PROCEDURES GUIDE* IS APPLICABLE TO THIS PROJECT.

EXISTING STRUCTURE: S.N. 098-6004 A seven span (468'-0" bk.-bk.) steel girder bridge on reinforced concrete pile bent abutments and piers. Joint replacement, pier & slopewall repair. Roadway shall be closed to traffic during construction.

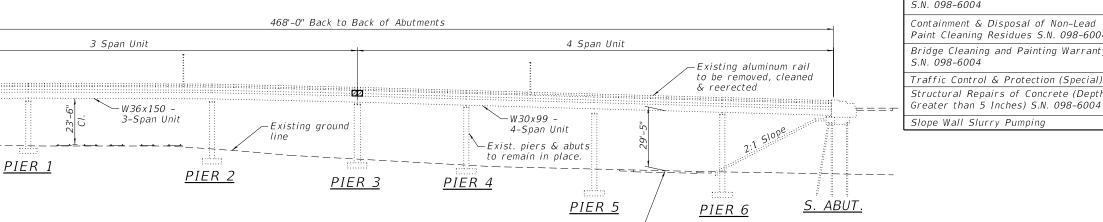
- Fxisting

Roadway

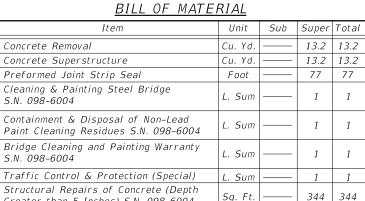
N. ABUT.

BENCH MARK: Chiseled "" on concrete light

base 24' Rt. of Station 7+71; Elev. 673.57

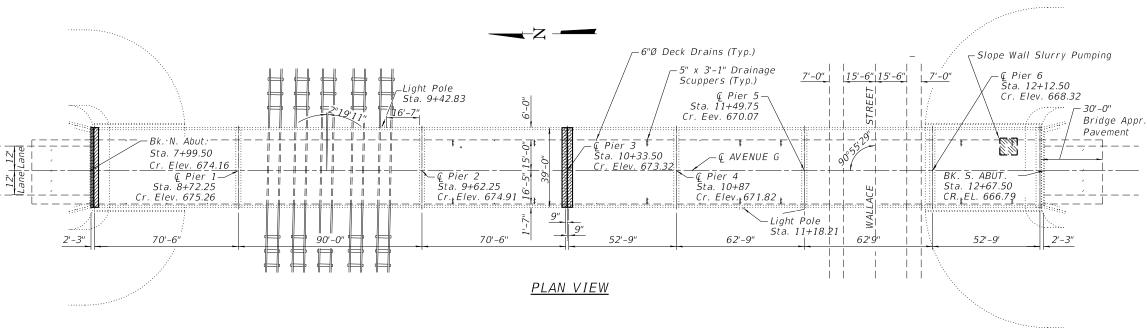


Wallace Street -Sta. 11+84.5



Cu. Yd.

20 20



ELEVATION

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting Bridge Appr. new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work

> Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All steel for a distance of 5'-0" from the expansion joints at Pier #3, the North Abutment & the South Abutment shall be cleaned per Near White Blast Cleaning - SSP -SP10. All blast cleaned steel shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final coat for all steel surfaces shall be Reddish Brown, Munsell 2.5 YR 3/4.

Containment of cleaning residue is required to control nuisance dust. See Special Provisions.

All structural steel shall be AASHTO M270 Grade 36.

Contractor to clean tops of the expansion pier, North Abutment & South Abutment by pressure washing. Cost shall be included

A full set of existing plans in PDF format can be requested. Please contact: Brian Frickenstein at 815-626-3861.

Range 7E 4th. PM LOCATION SKETCH

GENERAL PLAN & ELEVATION AVENUE G OVER UNION PACIFIC RAILROAD AND WALLACE STREET SECTION 93-00116-00-BR CITY OF STERLING WHITESIDE COUNTY STATION 10+33.50

STRUCTURE NO. 098-6004



Section Begir Sta. 7+00

V.C. = 346.00'

DESIGNED	-	BKC	REVISED	-
CHECKED	-	MAC	REVISED	-
DRAWN	-	DAN	REVISED	-
CHECKED	-	BKC	REVISED	-

K = 43

ex = 3.50'

PROFILE GRADE

CITY OF STERLING AVENUE G OVER UNION PACIFIC RAILROAD AND WALLACE STREET

DESIGN LOADING HS20-44

Allow 25 #/sq. ft. for future

wearing surface.

DESIGN SPECIFICATIONS Designed in acoordance with

AASHTO Specifications dated 1992

DESIGN STRESSES

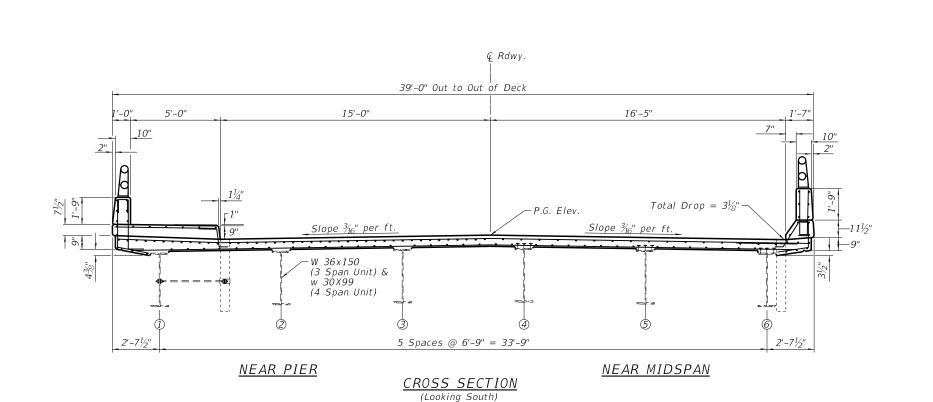
FIELD UNITS

fy = 60,000 psi (Reinforcement)

f'c = 4,000 psi

	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	93-00116-00-BR	WHITESIDE	20	2
	CITY OF STERLING	WHA*	1123Z17	
STRUCTURAL SHEET NO. 1 OF 1 SHEETS	ILLINOIS			

PARTIAL PLAN - DECK SLAB



BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	13.2
Concrete Superstructure	Cu. Yd.	13.2

NOTE:

Reinforcement bars designated (E) shall be epoxy coated.

Hatched areas indicates Concrete Removal.

¾" concrete sawcuts shall be incidental to Concrete Superstructure.

Removal of existing 2½" neoprene expansion joints shall be incidential to the cost of Concrete Removal.

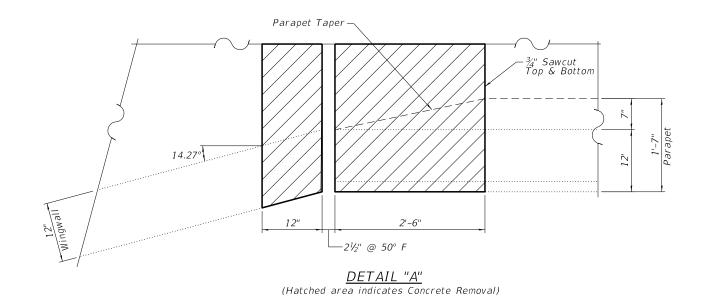
Steel railing posts & anchors shall not be damaged during Concrete Removal operations & anchors incorporated back into proposed concrete. Cost incidential to Concrete Superstructure.

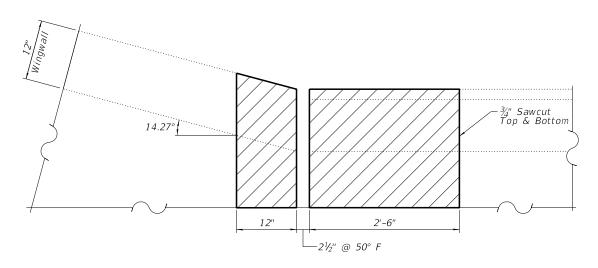
WILLETT HOFMANN
& A S S O C I A T E S I N C
809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 315-284-3381 DESIGN FIRM: #184-000918

DESIGNED	-	BKC	REVISED -
CHECKED	-	MAC	REVISED -
DRAWN	-	DAN	REVISED -
CHECKED	-	BKC	REVISED -

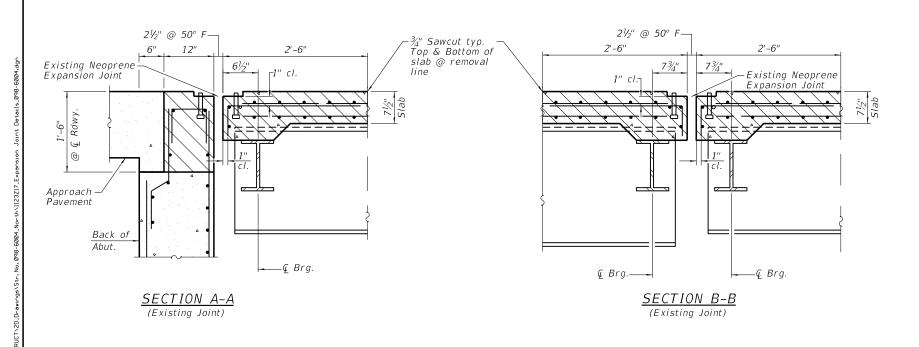
CITY OF STERLING AVENUE G OVER UNION PACIFIC RAILROAD AND WALLACE STREET

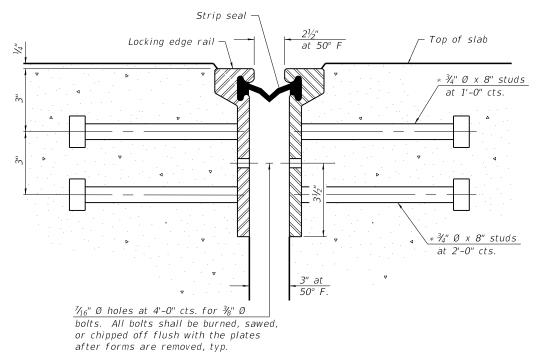
EXPANSION JOINT DETAILS STRUCTURE NO. 098-6004		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		93-00116-00-BR	WHITESIDE	20	3
		CITY OF STERLING	WHA#	1123Z17	
STRUCTURAL SHEET NO. 1 OF 2 SHEETS		ILLINOIS			





<u>DETAIL "B"</u> (Hatched area indicates Concrete Removal)



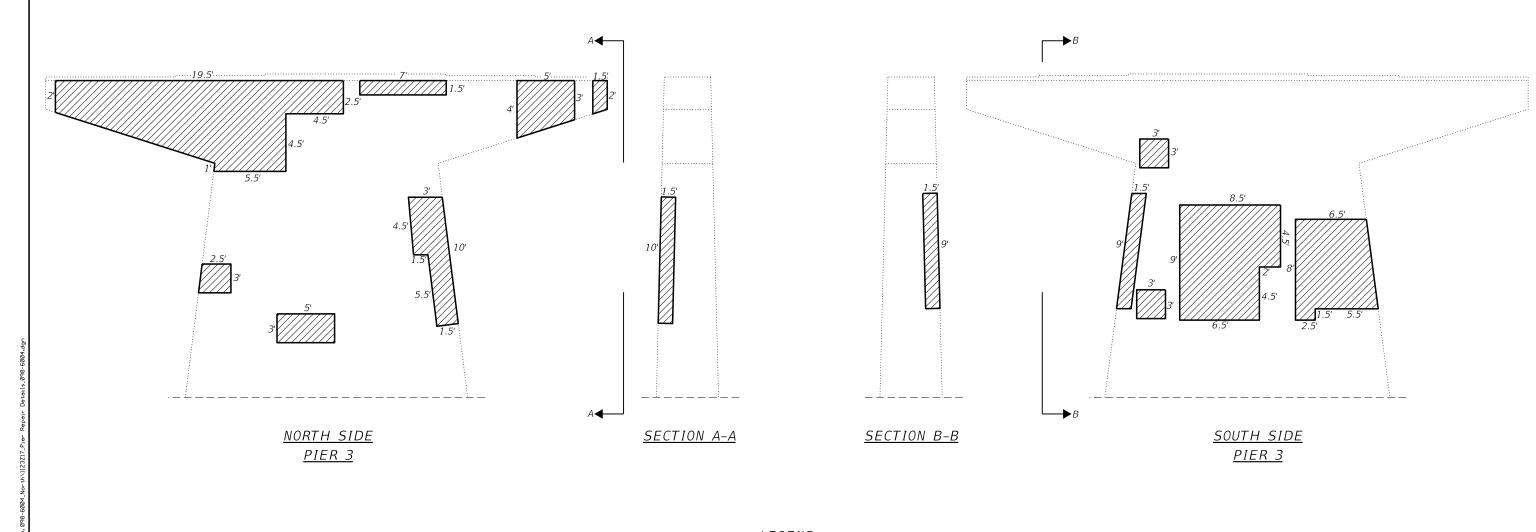


<u>SECTION THRU</u> <u>ROLLED RAIL JOINT (TYP.)</u> (Proposed Preformed Joint Strip Seal)

WILLETT HOFMANN
ENGNEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 315-284-3381 DESIGN FIRM: #184-000918

DESIGNED	-	BKC	REVISED -
CHECKED	-	MAC	REVISED -
DRAWN	-	DAN	REVISED -
CHECKED	-	BKC	REVISED -

EXPANSION JOINT DETAILS STRUCTURE NO. 098-6004		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		93-00116-00-BR	WHITESIDE	20	4
		CITY OF STERLING	WHA#	1123Z17	
STRUCTURAL SHEET NO. 2 OF 2 SHEETS		ILLINOIS			



<u>LEGEND</u>

Delamination

BILL OF MATERIAL

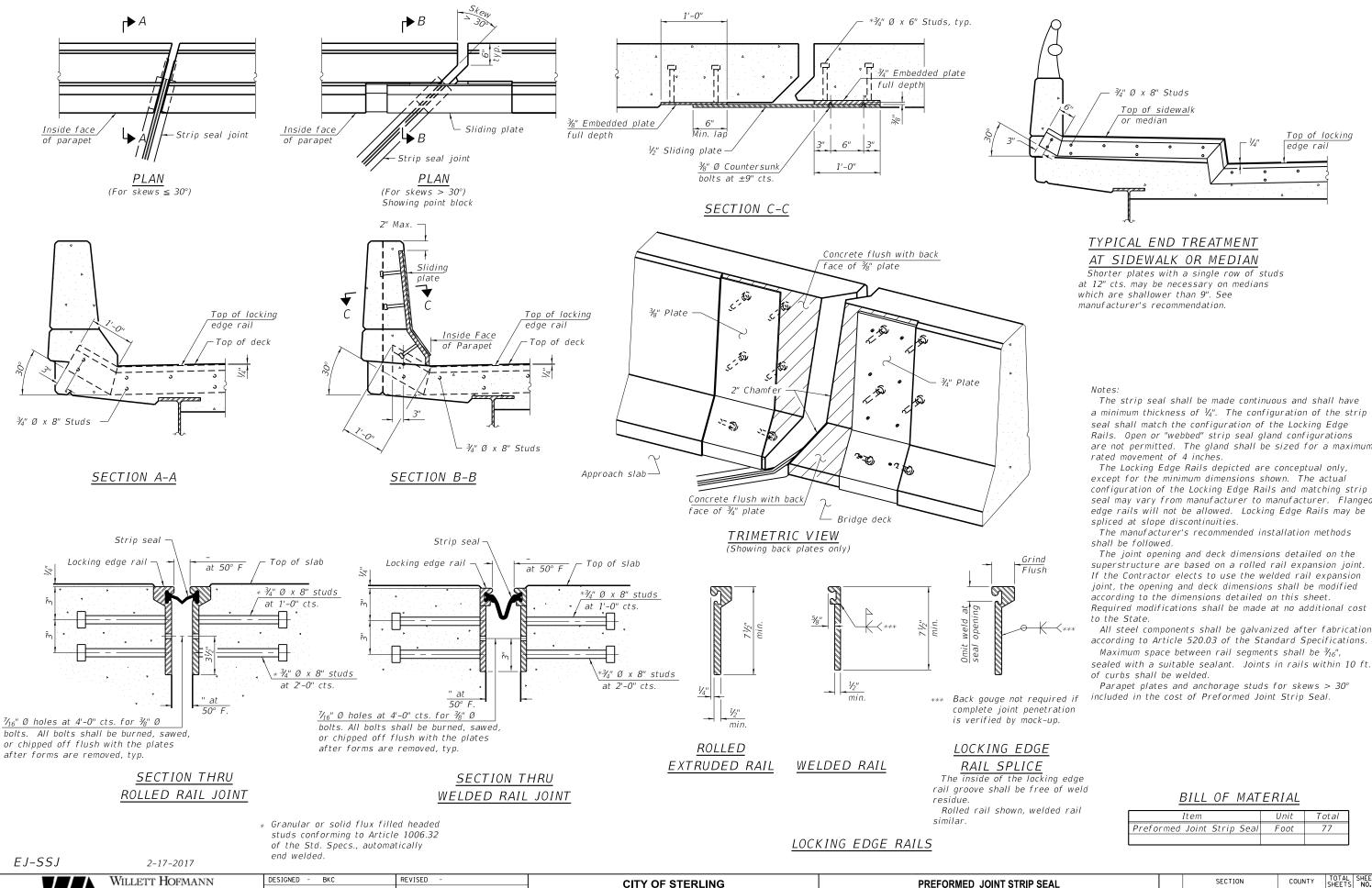
Item	Unit	Quantity
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	344



DESIGNED	-	BKC	REVISED -	
CHECKED	-	MAC	REVISED -	
DRAWN	-	DAN	REVISED -	
CHECKED	-	BKC	REVISED -	

CITY OF STERLING
AVENUE G OVER UNION PACIFIC
RAILROAD AND WALLACE STREET

PIER REPAIR DETAILS		SECTION	COUNTY	TOTAL SHEETS	SH N
STRUCTURE NO. 098-6004 STRUCTURAL SHEET NO. 1 OF 1 SHEETS		93-00116-00-BR	WHITESIDE	20	
		CITY OF STERLING	WHA#	1123Z17	
		ILLINOIS	•		



BILL OF MATERIAL

Top of locking

edge rail

Item	Unit	Total	
Preformed Joint Strip Seal	Foot	77	
			ı

CITY OF STERLING AVENUE G OVER UNION PACIFIC RAILROAD AND WALLACE STREET

CHECKED -

CHECKED

DRAWN

MAC

DAN

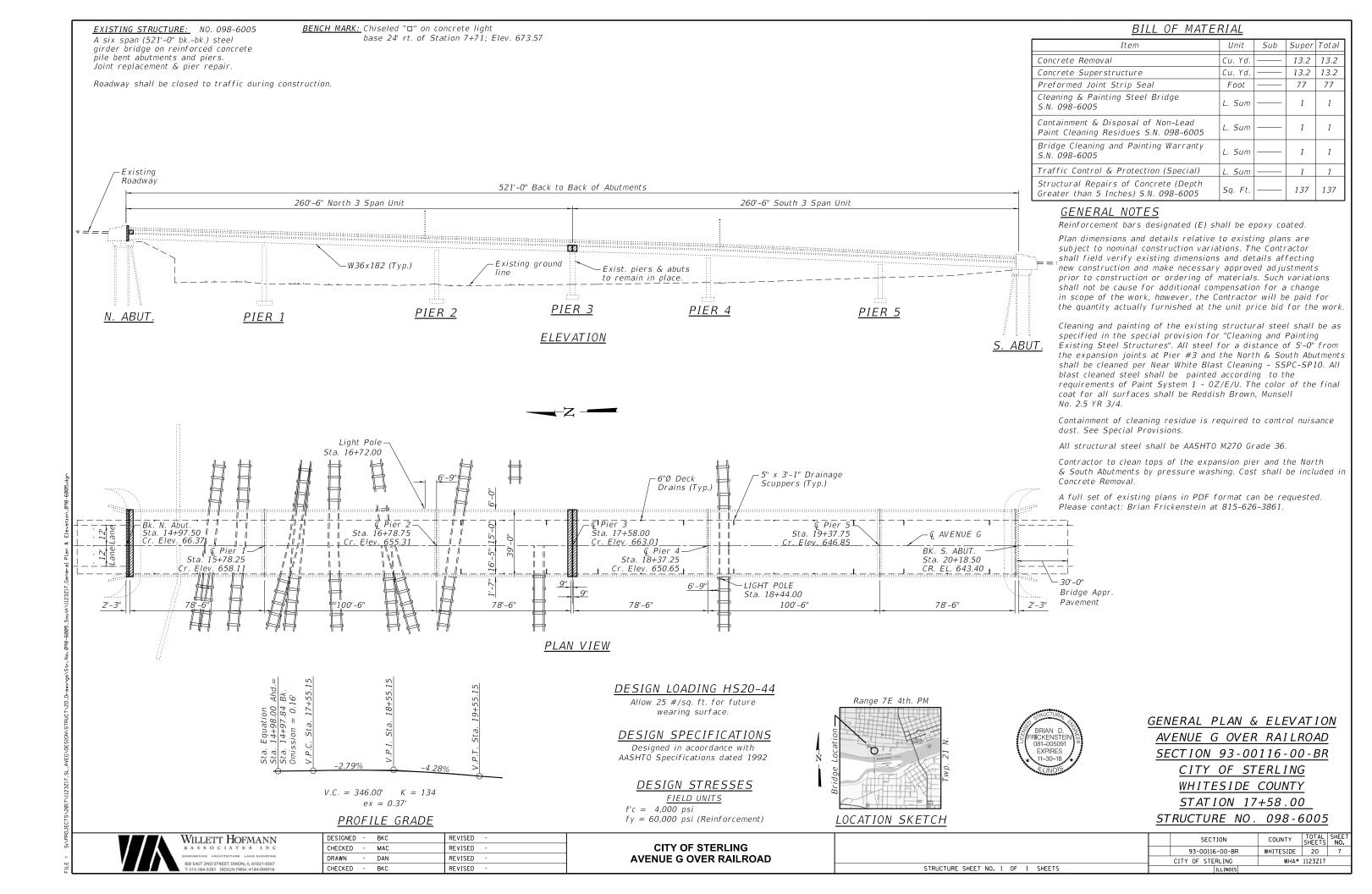
BKC

REVISED

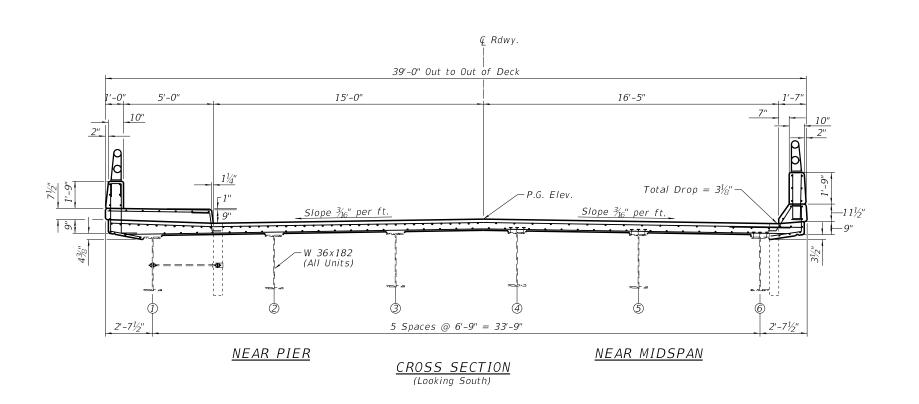
REVISED

REVISED

SECTION COUNTY PREFORMED JOINT STRIP SEAL 93-00116-00-BR WHITESIDE 20 6 **STRUCTURE NO. 098-6004** CITY OF STERLING WHA# 1123Z17 STRUCTURAL SHEET NO. 1 OF 1 SHEETS



PARTIAL PLAN - DECK SLAB



BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	13.2
Concrete Superstructure	Cu. Yd.	13.2

NOTE:

Reinforcement bars designated (E) shall be epoxy coated.

Hatched areas indicates Concrete Removal.

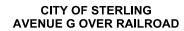
 $\ensuremath{\mathcal{Y}}\xspace''$ concrete sawcuts shall be incidental to Concrete Superstructure.

Removal of existing $2\frac{1}{2}$ " neoprene expansion joints shall be incidential to the cost of Concrete Removal.

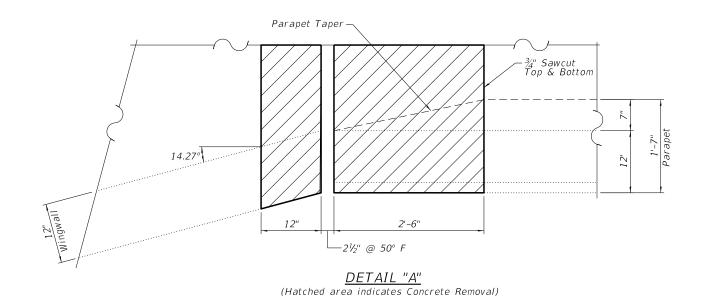
Steel railing posts & anchors shall not be damaged during Concrete Removal operations & anchors incorporated back into proposed concrete. Cost incidential to Concrete Superstructure.

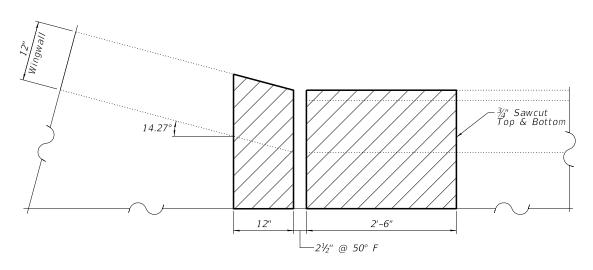


DESIGNED	-	BKC	REVISED -
CHECKED	-	MAC	REVISED -
DRAWN	-	DAN	REVISED -
CHECKED	-	BKC	REVISED -

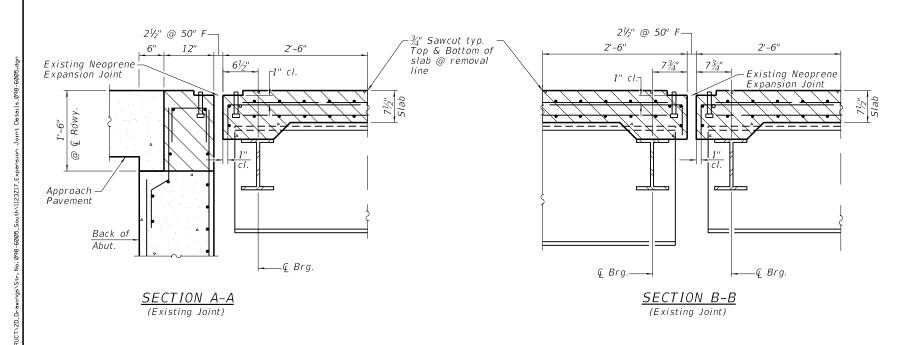


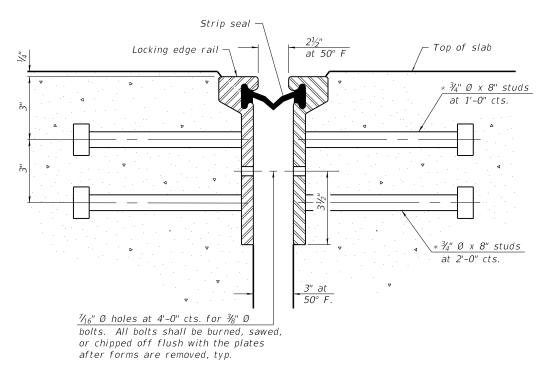
EXPANSION JOINT DETAILS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 098-6005		93-00116-00-BR	WHITESIDE	20	8
		CITY OF STERLING	WHA#	1123Z17	
STRUCTURE SHEET NO. 1 OF 2 SHEETS	ILLINOIS				





<u>DETAIL "B"</u> (Hatched area indicates Concrete Removal)





<u>SECTION THRU</u> <u>ROLLED RAIL JOINT (TYP.)</u> (Proposed Preformed Joint Strip Seal)

WILLETT HOFMANN
& A S S O C I A T E S I N C
ENONERING ARCHITECTURE LAND SURVEYING
800 EAST 2ND STREET, DOWN, II, 61021-0167
T:151-284-3311 DESIGN FRIM: #184-000918

 DESIGNED BKC
 REVISED

 CHECKED MAC
 REVISED

 DRAWN DAN
 REVISED

 CHECKED BKC
 REVISED

CITY OF STERLING AVENUE G OVER RAILROAD EXPANSION JOINT DETAILS

STRUCTURE NO. 098-6005

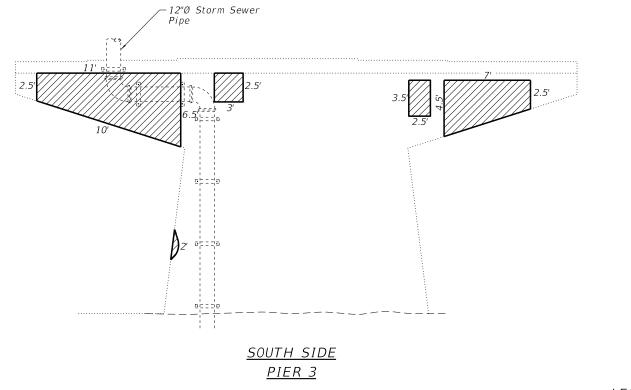
STRUCTURE SHEET NO. 1 OF 2 SHEETS

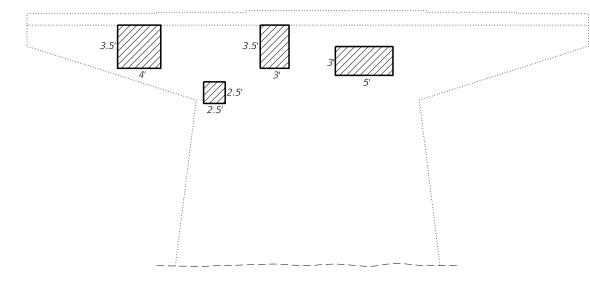
SECTION

SECTION

COUNTY

TOTAL
SHEET NO.
93-00116-00-BR
WHITESIDE
20
9
CITY OF STERLING
WHA* 1123Z17





NORTH SIDE PIER 3

<u>LEGEND</u>



Delamination

BILL OF MATERIAL

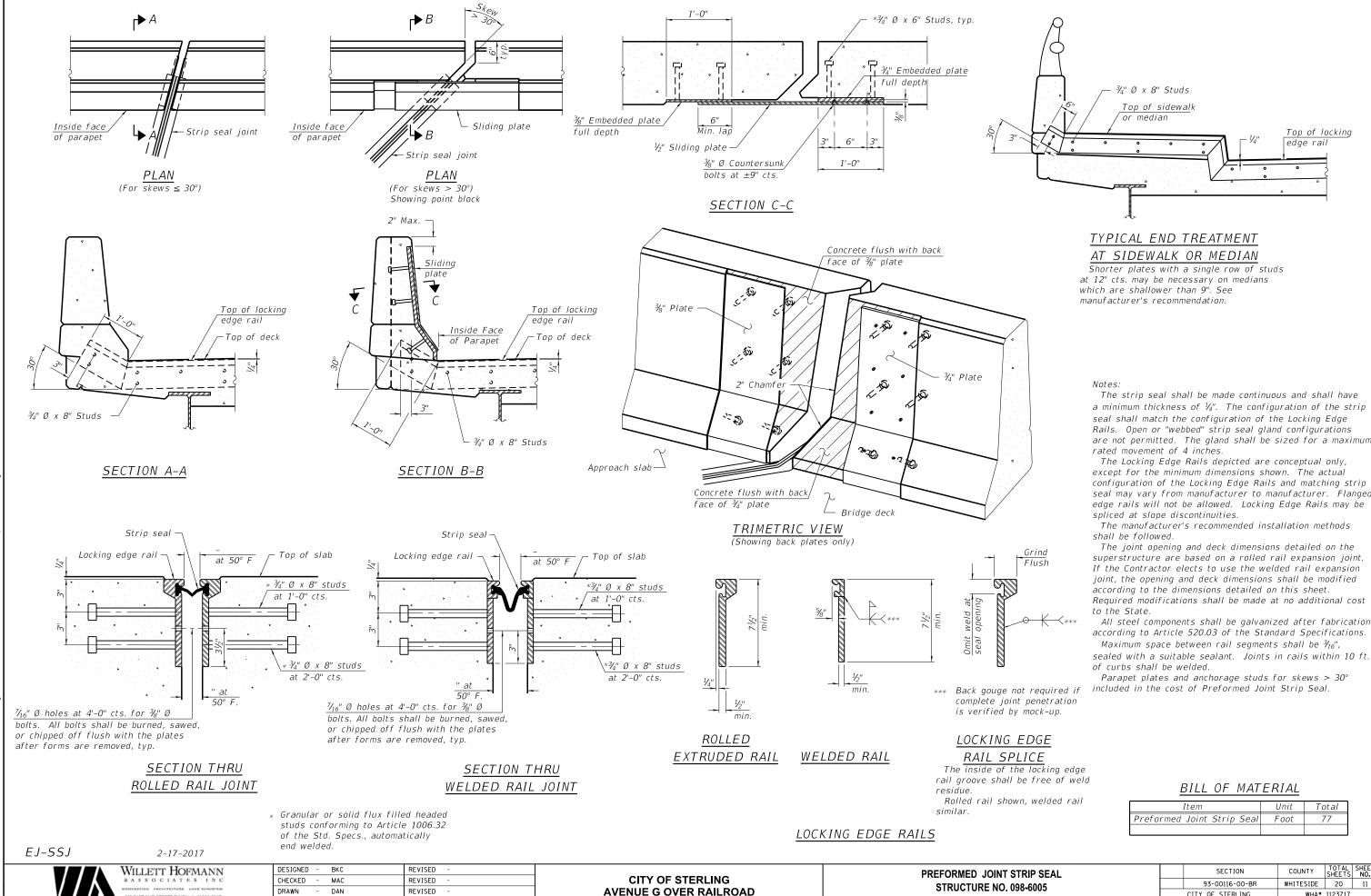
Item	Unit	Quantity
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	137



	DESIGNED	-	BKC	REVISED	-
	CHECKED	-	MAC	REVISED	-
	DRAWN	-	DAN	REVISED	-
	CHECKED	-	BKC	REVISED	-
-					

CITY OF STERLING AVENUE G OVER RAILROAD

PIER REPAIR DETAILS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 098-6005		93-00116-00-BR	WHITESIDE	20	10
31100101C NO. 030-0003		CITY OF STERLING	WHA#	1123Z17	
STRUCTURE SHEET NO. 1 OF 1 SHEETS		ILLINOIS			



CHECKED

BKC

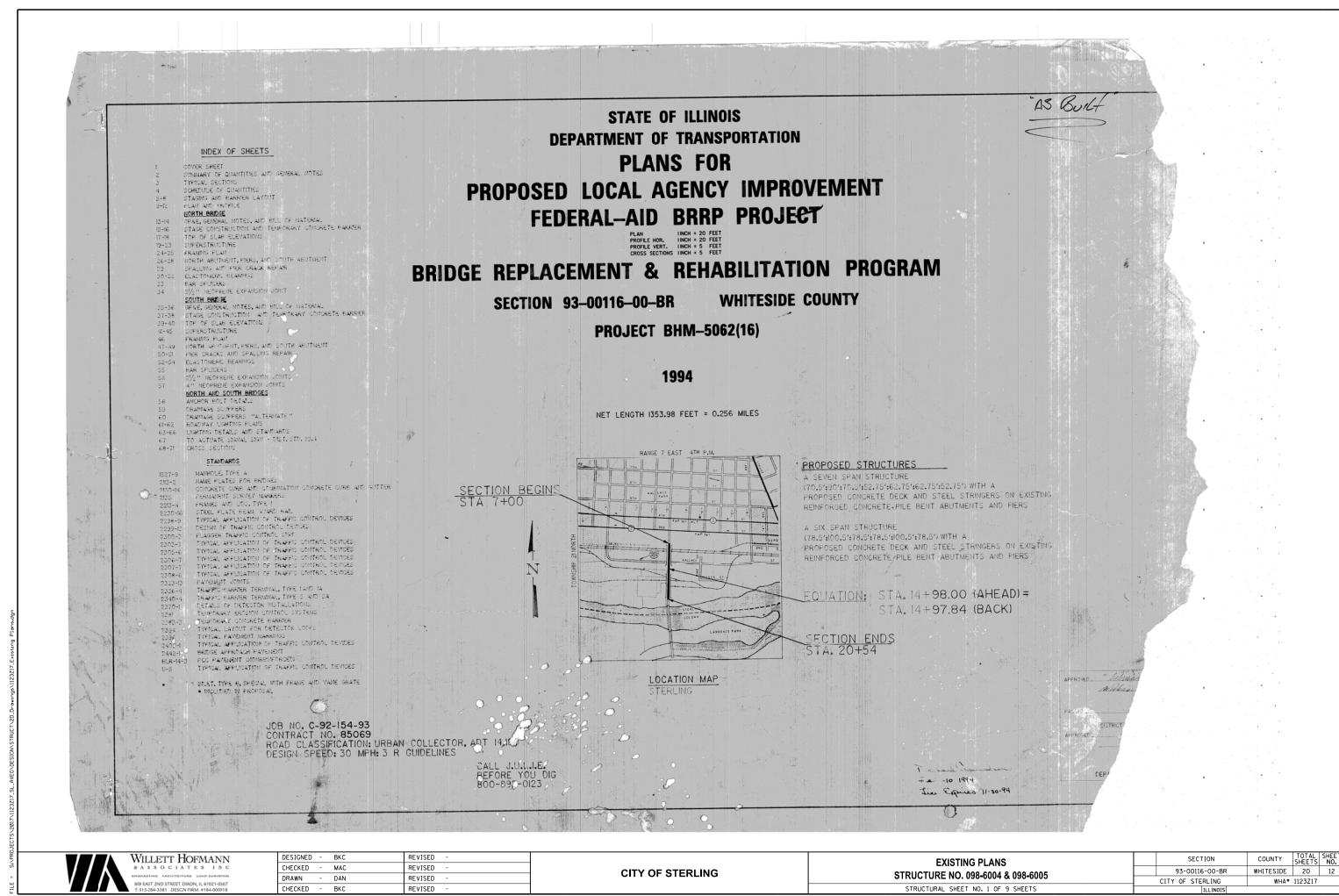
REVISED

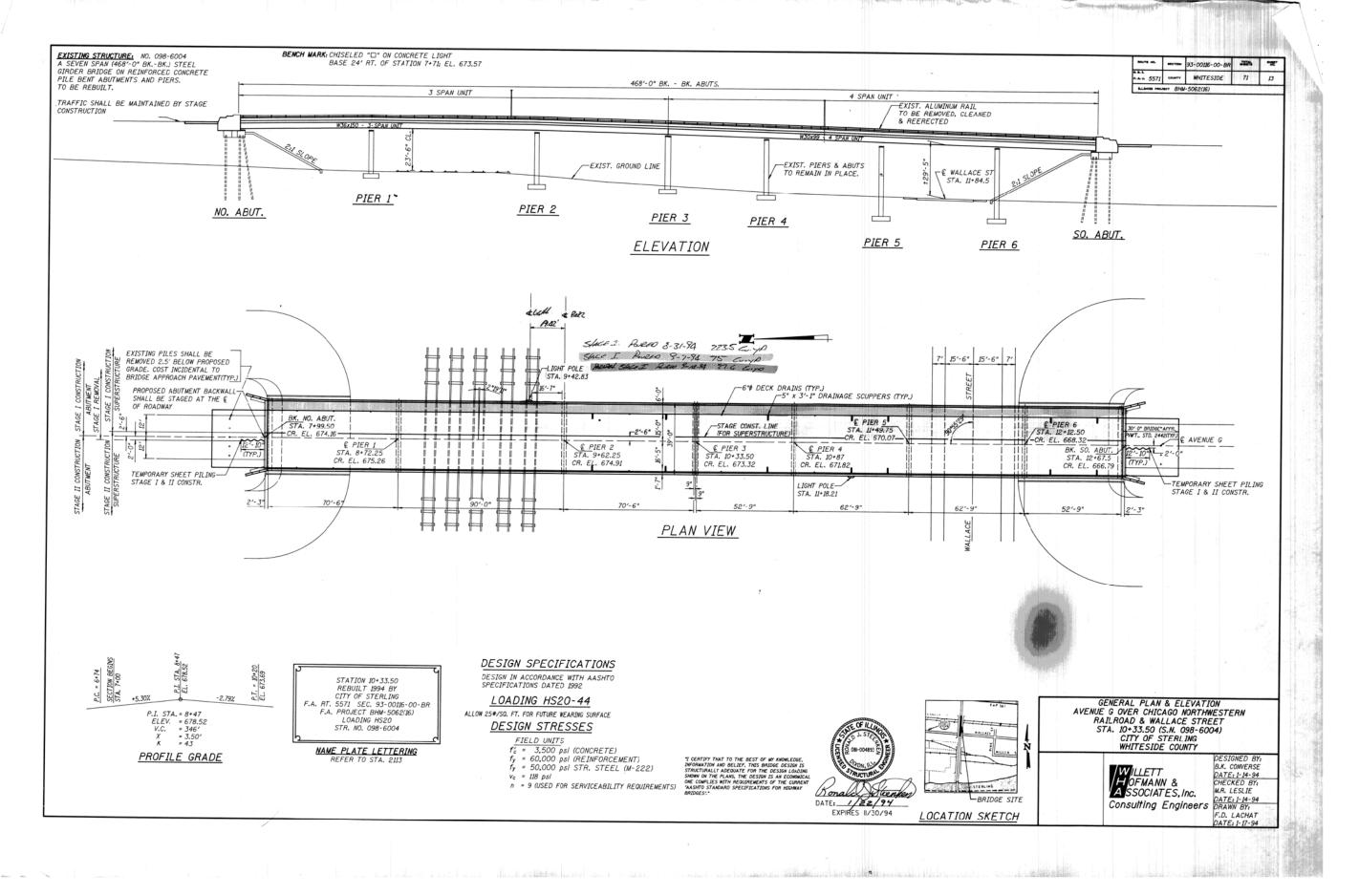
CITY OF STERLING

STRUCTURAL SHEET NO. 1 OF 1 SHEETS

77

WHA# 1123Z17





WILLETT HOFMANN
& A S S O C I A T E S I N C
ENGREENING ARCHITECTURE LAND SUMPERING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T:315-28-3381 DESOR PIRM: #184-000718

 DESIGNED
 BKC
 REVISED

 CHECKED
 MAC
 REVISED

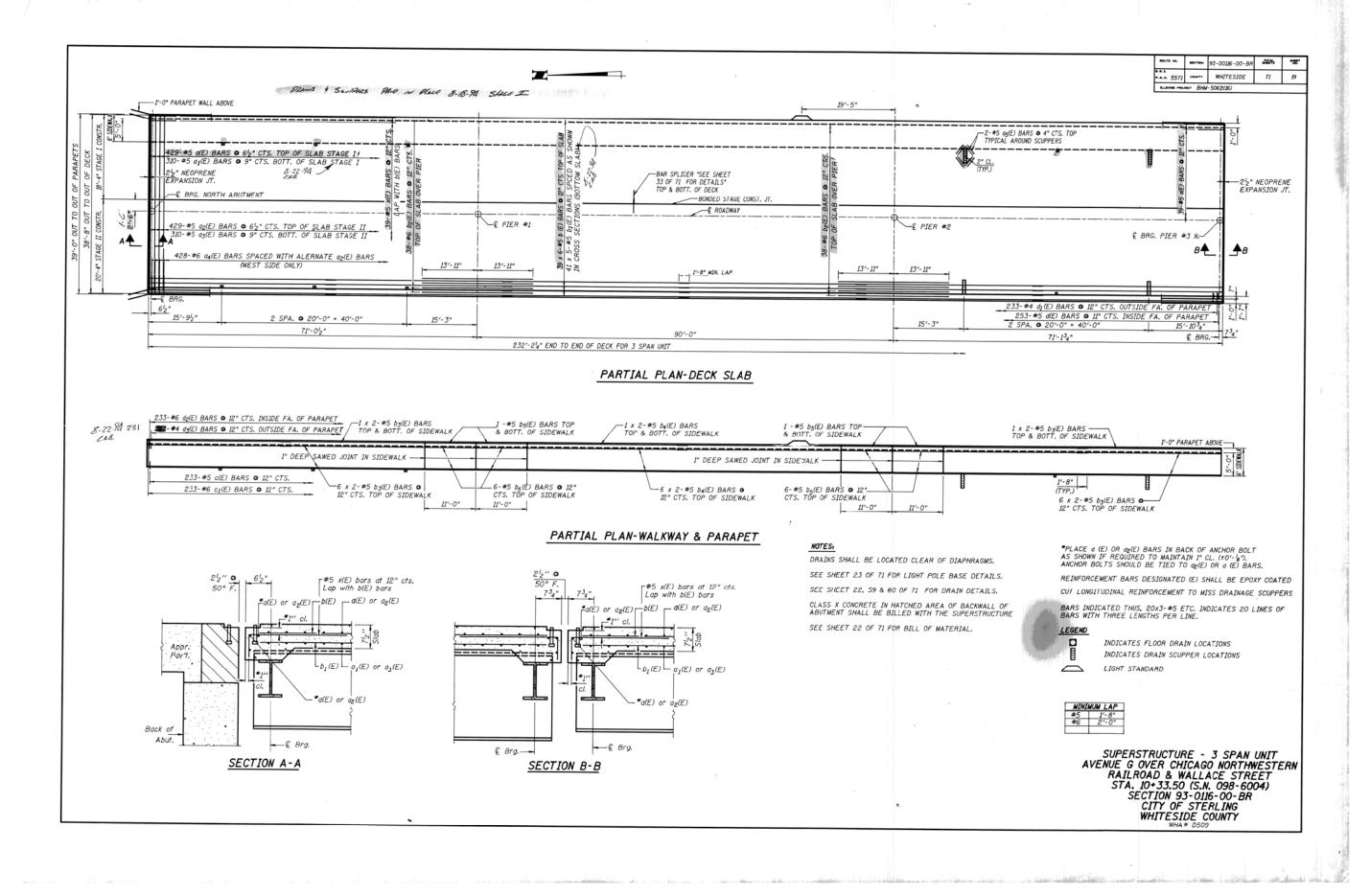
 DRAWN
 DAN
 REVISED

 CHECKED
 BKC
 REVISED

CITY OF STERLING

EXISTING PLANS
STRUCTURE NO. 098-6004 & 098-6005
STRUCTURAL SHEET NO. 2 OF 9 SHEETS

SECTION	COUNTY	SHEETS	NO.
93-00116-00-BR	WHITESIDE	20	13
CITY OF STERLING	WHA# 1123Z17		



WILLETT HOFMANN
& A S S O C I A T E S I N C
ENGMERSHIG ANCHITECTURE LAND SURVEYING
809 EAST ZND STREET, DIXON, IL. 61021-0367
T:315-284-3381 DESIGN FRIM: #84-000918

 DESIGNED
 BKC
 REVISED

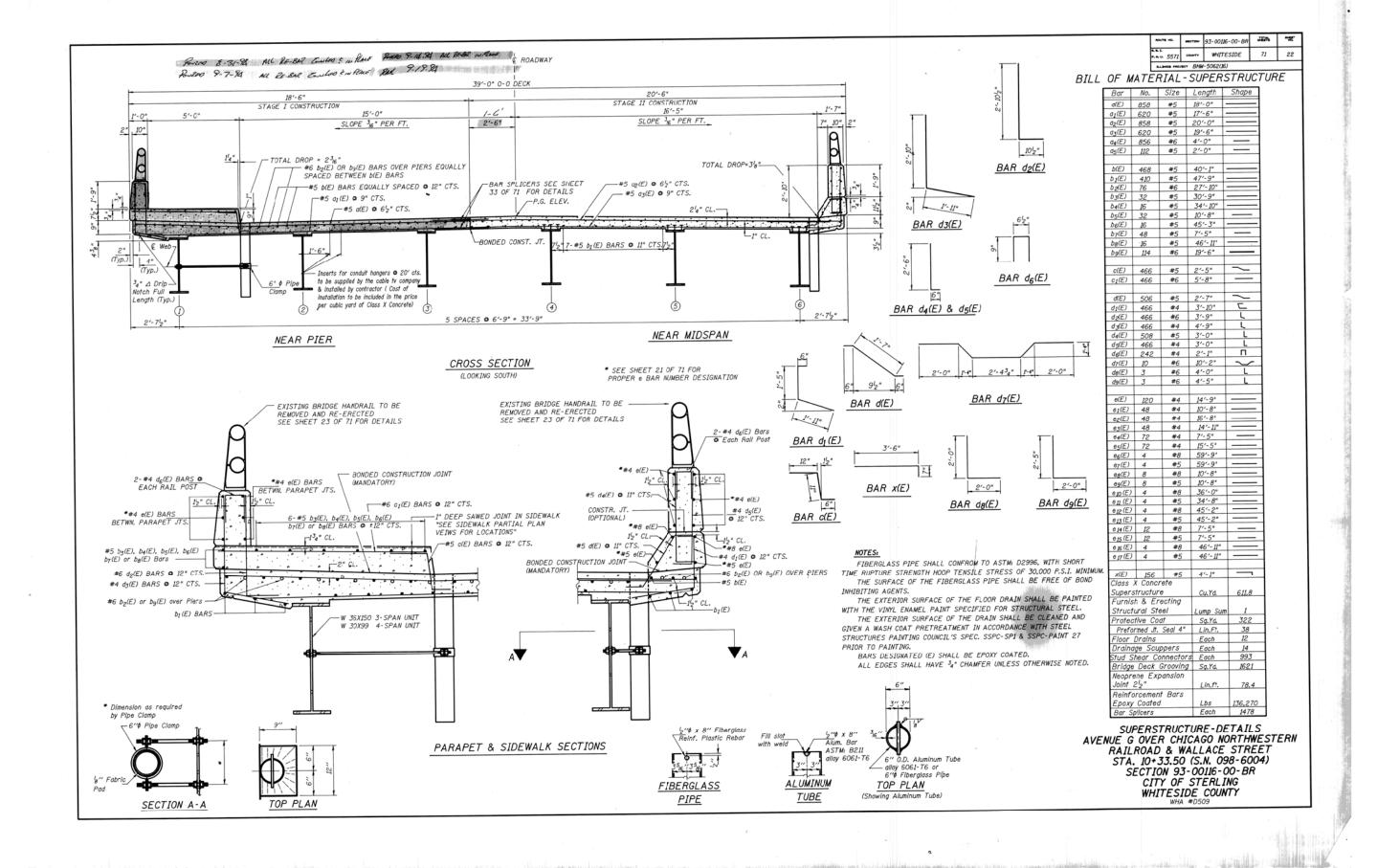
 CHECKED
 MAC
 REVISED

 DRAWN
 DAN
 REVISED

 CHECKED
 BKC
 REVISED

CITY OF STERLING

EXISTING PLANS
STRUCTURE NO. 098-6004 & 098-6005
STRUCTURAL SHEET NO. 3 OF 9 SHEETS



 $\overline{
m W}$ illett ${
m Ho}$ fmann

DESIGNED - BKC REVISED CHECKED -MAC REVISED DRAWN DAN REVISED CHECKED BKC REVISED

CITY OF STERLING

EXISTING PLANS STRUCTURE NO. 098-6004 & 098-6005 STRUCTURAL SHEET NO. 4 OF 9 SHEETS

SECTION COUNTY 93-00116-00-BR WHITESIDE 20 15 CITY OF STERLING WHA# 1123Z17

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1½" Min.
21/2"	21/2"	134" Min.
4"	3"	21/2" Min.

INSTALLATION NOTES

- Install sponge mandrels into positions shown to form flap convolution.
- ② Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
- Install continuous seal in roadway.
- 4 Install anchor blocks as indicated.

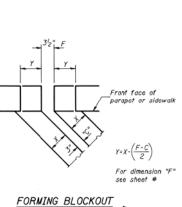
NOTE A: Maximum spacing of anchor bolts shall be 12"

SKEW LIMITATIONS

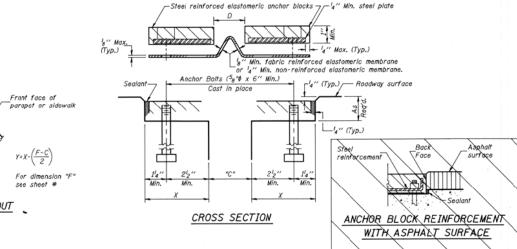
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D". might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the

Std. Anchor Bolts Cast in place

AT CURB



SKETCH



GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Special Provisions. The elastomeric membrane shall be premolded with a single or a

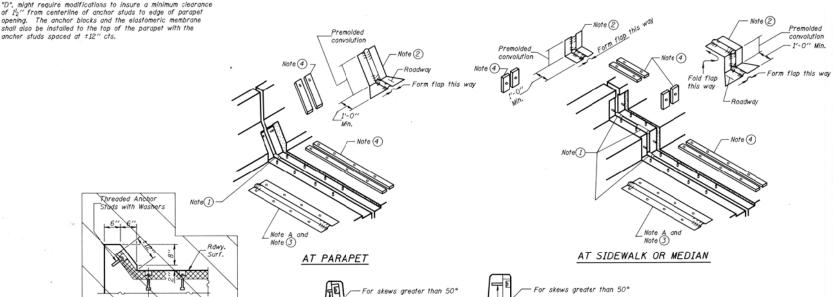
ne elasioneric membrane situli be premioled with a single of a double upward convolution that will have a "membry" to return to its molded position upon joint closure. The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete

blocks when asphalt surfaces are used but is optional in concrete blockout.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Jaint openings shall be adjusted in accordance with Article 503.07c.0 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

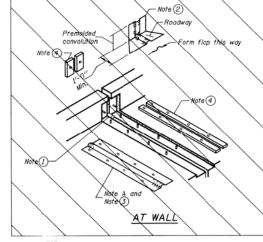
The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Endineer.

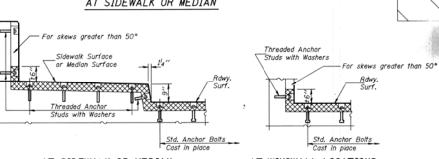


Std. Anchor Bolts

Cast in place

AT PARAPET





AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS

AT WINGWALL LOCATIONS

NEOPRENE EXPANSION JOINT 2'2" AVENUE G OVER CHICAGO NORTHWESTERN RAILROAD & WALLACE STREET STA. 10+33.50 (S.N. 098-6004) SEC. 93-00116-00-BR CITY OF STERLING WHITESIDE COUNTY

WILLETT HOFMANN

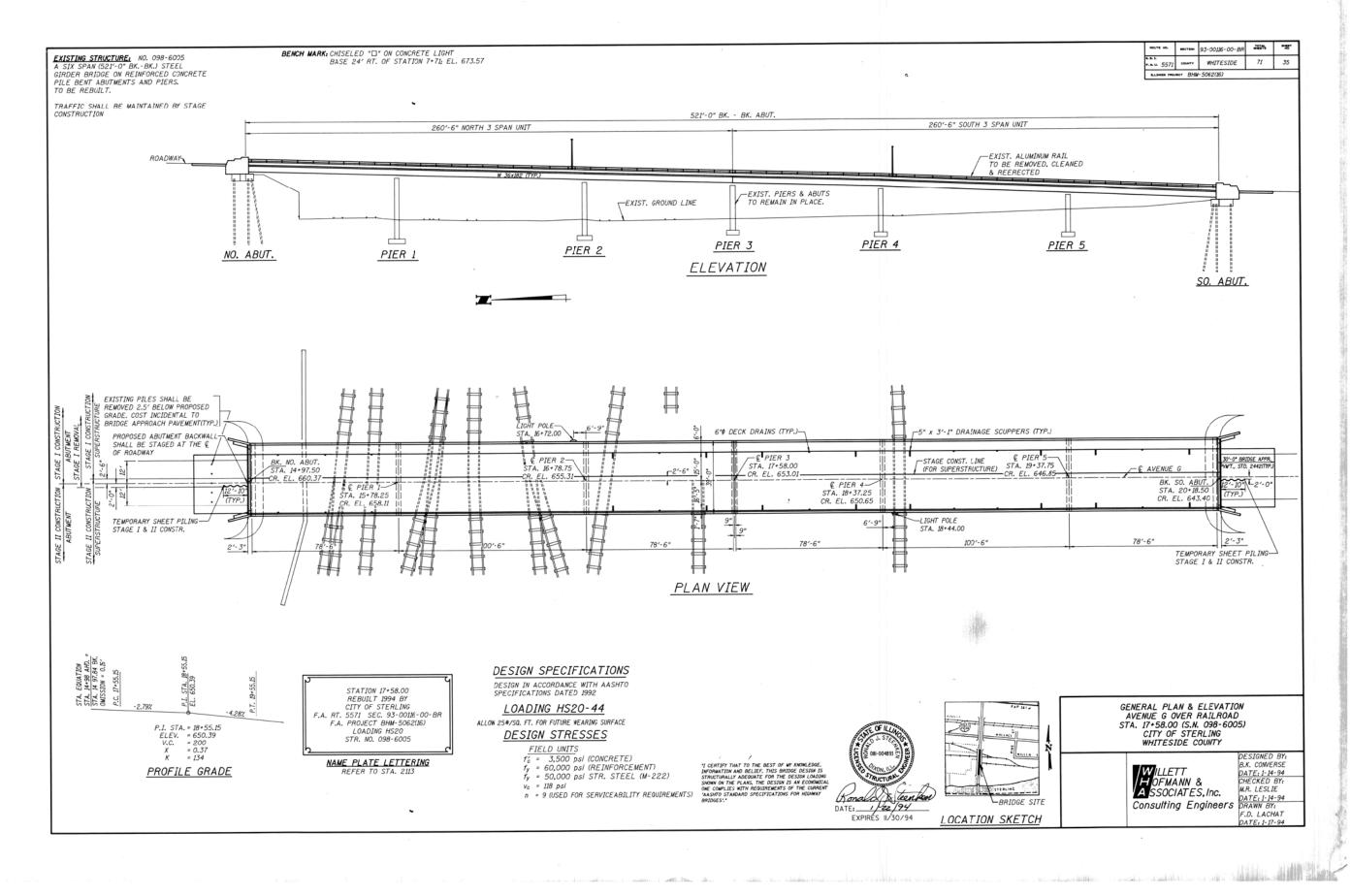
DESIGNED	-	BKC	REVISED -
CHECKED	-	MAC	REVISED -
DRAWN	-	DAN	REVISED -
CHECKED	-	BKC	REVISED -

Threaded Anchor

CITY OF STERLING

EXISTING PLANS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 098-6004 & 098-6005	93-00116-00-BF	R WHITESIDE	20	16
31 RUCTURE NO. 030-0004 & 030-0003	CITY OF STERLING	WHA*	1123Z17	
STRUCTURAL SHEET NO. 5 OF 9 SHEETS	ILLINOIS			

The second state of the south the day that the state of the second state of the second



WILLETT HOFMANN

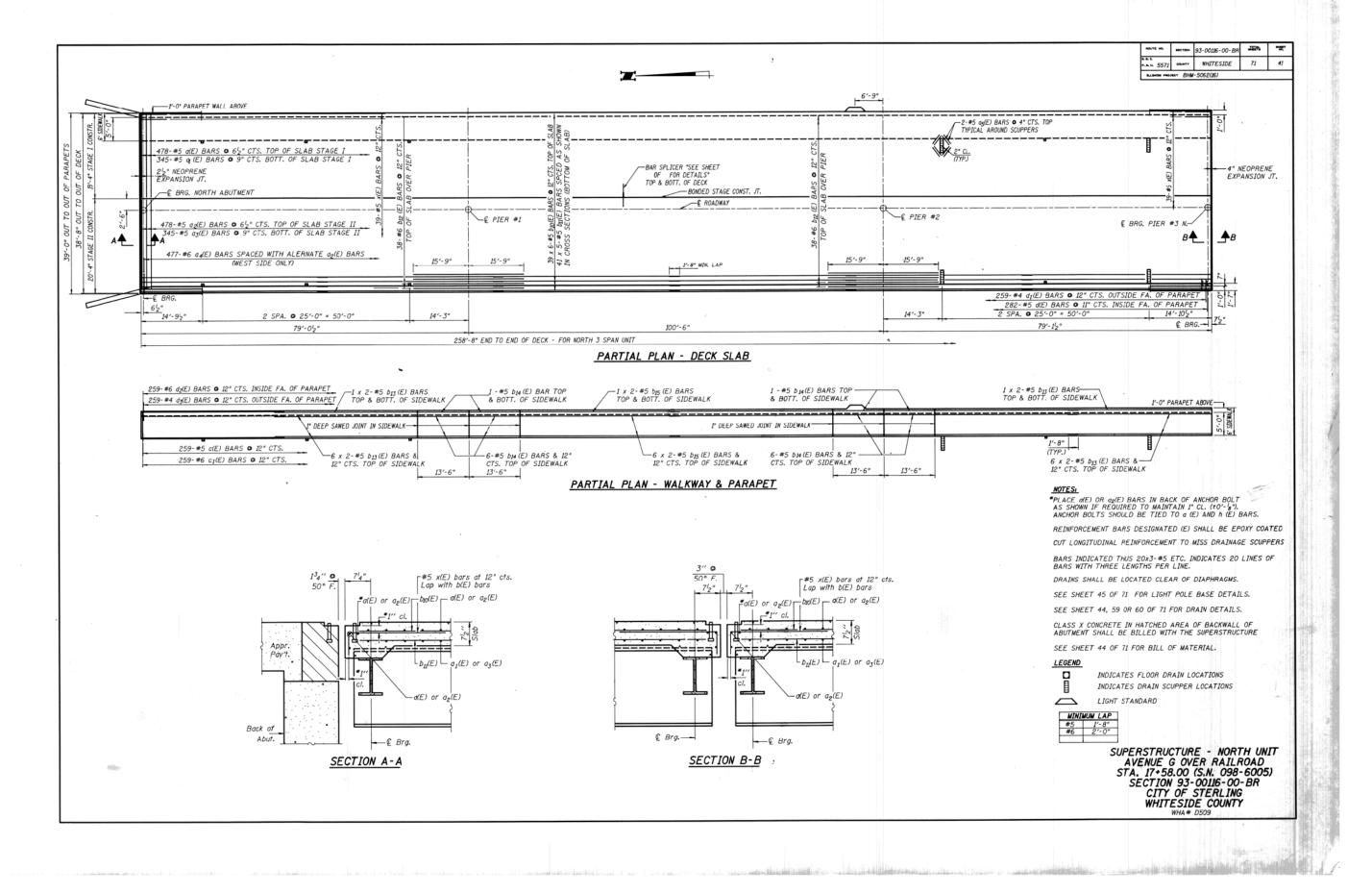
DESIGNED - BKC REVISED CHECKED -MAC REVISED DRAWN DAN REVISED CHECKED REVISED BKC

CITY OF STERLING

EXISTING PLANS STRUCTURE NO. 098-6004 & 098-6005

SECTION COUNTY 93-00116-00-BR WHITESIDE 20 17 CITY OF STERLING WHA# 1123Z17

STRUCTURAL SHEET NO. 6 OF 9 SHEETS



WILLETT HOFMANN
& A S S O C I A T E S I N C
ENDNEEDING ARCHITECTURE LAND SURVEYING
80 FAST 2ND STREET, DOXON, IL 61021-0367
T:315:284-3381 DESCRIPTIRES :1846-000918

 DESIGNED
 BKC
 REVISED

 CHECKED
 MAC
 REVISED

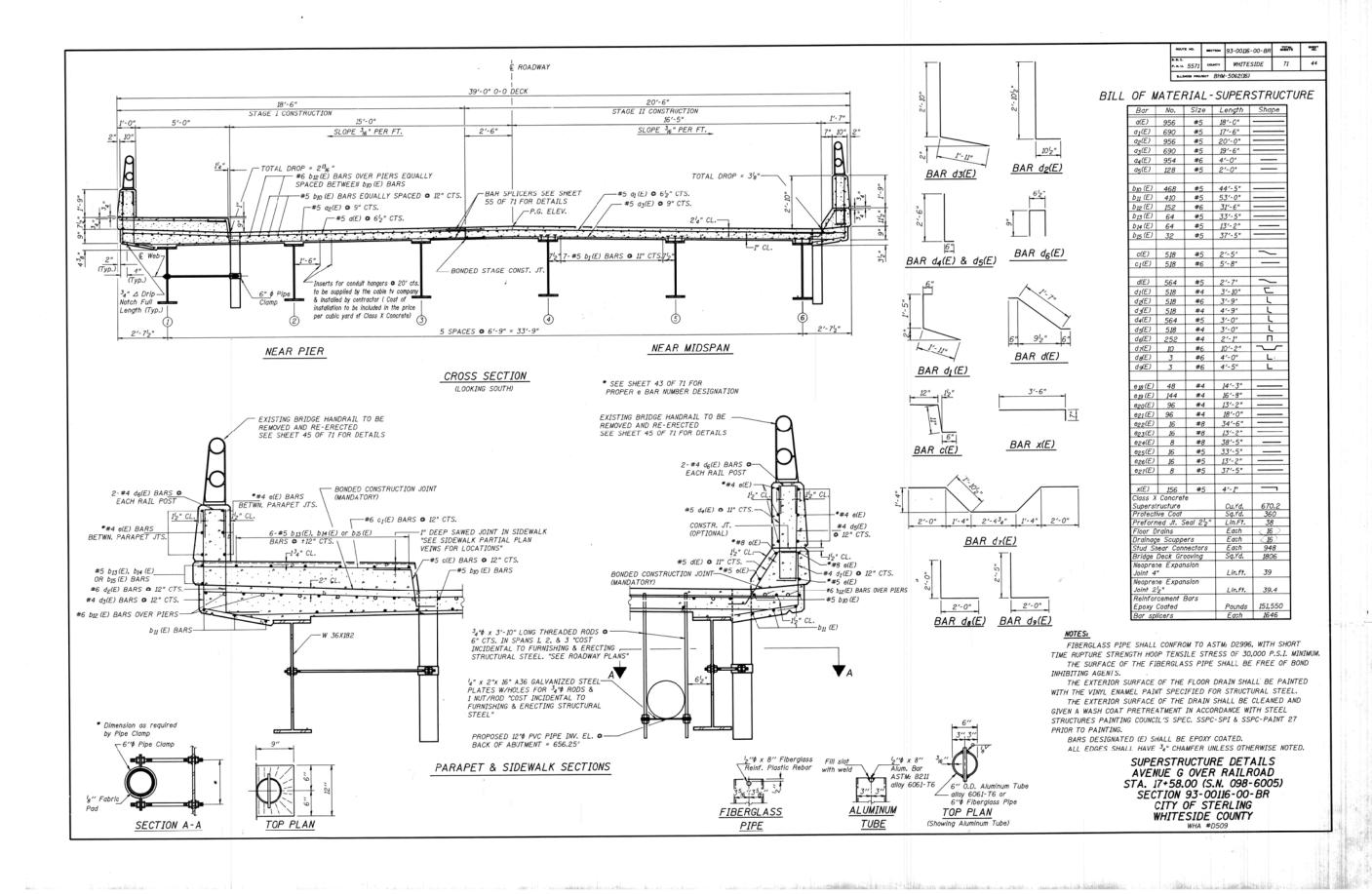
 DRAWN
 DAN
 REVISED

 CHECKED
 BKC
 REVISED

CITY OF STERLING

EXISTING PLANS
STRUCTURE NO. 098-6004 & 098-6005
STRUCTURAL SHEET NO. 7 OF 9 SHEETS

CITY OF STE



 $\overline{
m W}$ illett ${
m Ho}$ fmann

DESIGNED - BKC REVISED CHECKED -MAC REVISED DAN REVISED CHECKED BKC REVISED

CITY OF STERLING

EXISTING PLANS STRUCTURE NO. 098-6004 & 098-6005 STRUCTURAL SHEET NO. 8 OF 9 SHEETS

SECTION COUNTY 93-00116-00-BR WHITESIDE 20 19 CITY OF STERLING

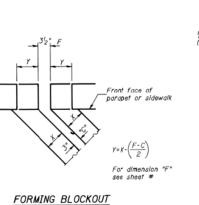
Joint Size	"C" at 50°F	"D" at 50°F		
2"	2"	1 ¹ 2" Min. 1 ³ 4" Min. 2 ¹ 2" Min.		
212"	21/2"			
4"	3"			

INSTALLATION NOTES

- Install sponge mandrels into positions shown to form flap convolution.
- Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
- Install continuous seal in roadway.
- (4) Install anchor blocks as indicated.

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.

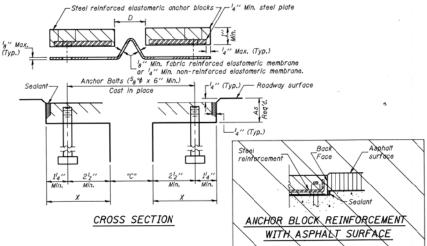


AT PARAPET

AT PARAPET

Threaded Anchor Studs with Washers

Anchor Bolts (58 \$ x 6" Min.) Cast in place # **SKETCH**



AT WALL

GENERAL NOTES Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Special Provisions.

The elastomeric membrane shall be premolded with a single or a

double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blocks when asphalt surfaces are used but is optional in concrete

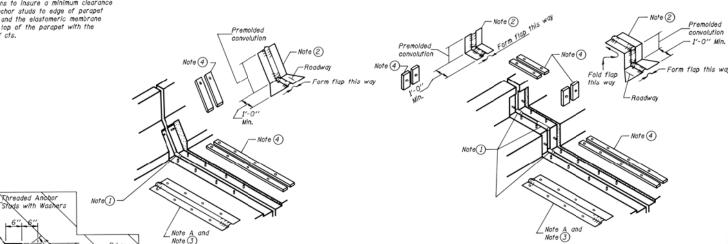
blocks when asphalt surfaces are used but is optional in concrete blockout.

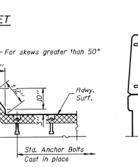
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not portured above the anchor blocks when the joint is fully compressed.

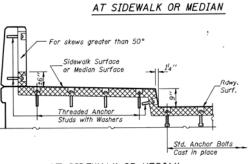
Joint openings shall be adjusted in accordance with Article 50.3.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

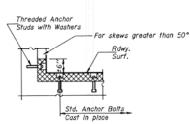
The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintuined and the process and method meet the approval of the Endineer.

Engineer.









AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS AT WINGWALL LOCATIONS

NEOPRENE EXPANSION JOINT 212" AVENUE G OVER RAILROAD STA. 17+58.00 (S.N. 098-6005) SEC. 93-00116-00-BR CITY OF STERLING WHITESIDE COUNTY



DESIGNED	-	BKC	REVISED -
CHECKED	-	MAC	REVISED -
DRAWN	-	DAN	REVISED -
CHECKED	-	BKC	REVISED -

	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	93-00116-00-BR	WHITESIDE	20	20
	CITY OF STERLING	WHA#	1123Z17	
Ξ	ILLINOIS			

AT CURB

CITY OF STERLING

STRUCTURAL SHEET NO. 9 OF 9 SHEETS

ABV	ABOVE	CU YD	CUBIC YARD	HD	HEAD	PED	PEDESTAL	STD	STANDARD
A/C	ACCESS CONTROL	CULV	CULVERT	HDW	HEADWALL	PNT	POINT	SBI	STATE BOND ISSUE
AC	ACRE	C&G	CURB & GUTTER	HDUTY	HEAVY DUTY	PC	POINT OF CURVATURE	SR	STATE ROUTE
ADJ	ADJUST	D	DEGREE OF CURVE	ha	HECTARE	PΙ	POINT OF INTERSECTION OF HORIZONTAL	STA	STATION
AS	AERIAL SURVEYS	DC	DEPRESSED CURVE	НМА	HOT MIX ASPHALT		CURVE	SPBGR	STEEL PLATE BEAM GUARDRAIL
AGG	AGGREGATE	DET	DETECTOR	HWY	HIGHWAY	PRC	POINT OF REVERSE CURVE	SS	STORM SEWER
АН	AHEAD	DIA	DIAMETER	HORIZ	HORIZONTAL	PT	POINT OF TANGENCY	STY	STORY
APT	APARTMENT	DIST	DISTRICT	HSE	HOUSE	POT	POINT ON TANGENT	ST	STREET
ASPH	ASPHALT	DOM	DOMESTIC	IL	ILLINOIS	POLYETH	POLYETHYLENE	STR	STRUCTURE
AUX	AUXILIARY	DBL	DOUBLE	IMP	IMPROVEMENT	PCC	PORTLAND CEMENT CONCRETE	е	SUPERELEVATION RATE
AGS	AUXILIARY GAS VALVE (SERVICE)	DSEL	DOWNSTREAM ELEVATION	IN DIA	INCH DIAMETER	PP	POWER POLE OR PRINCIPAL POINT	S.E. RUN.	SUPERELEVATION RUNOFF LENGTH
AVE	AVENUE	DSFL	DOWNSTREAM FLOWLINE	INL	INLET	PRM	PRIME	SURF	SURFACE
AX	AXIS OF ROTATION	DR	DRAINAGE OR DRIVE	INST	INSTALLATION	PE	PRIVATE ENTRANCE	SMK	SURVEY MARKER
BK	BACK	DI	DRAINAGE INLET OR DROP INLET	IDS	INTERSECTION DESIGN STUDY	PROF	PROFILE	T	TANGENT DISTANCE
В-В	BACK TO BACK	DRV	DRIVEWAY	INV	INVERT	PGL	PROFILE GRADELINE	T.R.	TANGENT RUNOUT DISTANCE
BKPL	BACKPLATE	DCT	DUCT	ΙP	IRON PIPE	PROJ	PROJECT	TEL	TELEPHONE
В	BARN	EA	EACH	IR	IRON ROD	P.C.	PROPERTY CORNER	TB	TELEPHONE BOX
BARR	BARRICADE	EB	EASTBOUND	JT	JOINT	PL	PROPERTY LINE	TP	TELEPHONE POLE
BGN	BEGIN	EOP	EDGE OF PAVEMENT	kg	KILOGRAM	PR	PROPOSED	TEMP	TEMPORARY
ВМ	BENCHMARK	E-CL	EDGE TO CENTERLINE	km	KILOMETER	R	RADIUS	TBM	TEMPORARY BENCH MARK
BIND	BINDER	E-E	EDGE TO EDGE	LS	LANDSCAPING	RR	RAILROAD	TD	TILE DRAIN
BIT	BITUMINOUS	EL	ELEVATION	LN	LANE	RRS	RAILROAD SPIKE	TBE	TO BE EXTENDED
ВТМ	BOTTOM	ENTR	ENTRANCE	LT	LEFT	RPS	REFERENCE POINT STAKE	TBR	TO BE REMOVED
BLVD	BOULEVARD	EXC	EXCAVATION	LP	LIGHT POLE	REF	REFLECTIVE	TBS	TO BE SAVED
BRK	BRICK	EX	EXISTING	LGT	LIGHTING	RCCP	REINFORCED CONCRETE CULVERT PIPE	TWP	TOWNSHIP
BBOX	BUFFALO BOX	EXPWAY	EXPRESSWAY	LF	LINEAL FEET OR LINEAR FEET	REINF	REINFORCEMENT	TR	TOWNSHIP ROAD
BLDG	BUILDING	E	EXTERNAL DISTANCE OF HORIZONTAL CURVE	L	LITER OR CURVE LENGTH	REM	REMOVAL	TS	TRAFFIC SIGNAL
CIP	CAST IRON PIPE	Ē _	OFFSET DISTANCE TO VERTICAL CURVE	LC	LONG CHORD	RC	REMOVE CROWN	TSCB	TRAFFIC SIGNAL CONTROL BOX
CB	CATCH BASIN	F-F	FACE TO FACE		LONGITUDINAL	REP	REPLACEMENT	TSC	TRAFFIC SYSTEMS CENTER
C-C	CENTER TO CENTER	FA FAI	FEDERAL AID FEDERAL AID INTERSTATE	L SUM MACH	LUMP SUM	REST RESURF	RESTAURANT RESURFACING	TRVS	TRANSVERSE TRAVEL
CL CL-E	CENTERLINE OR CLEARANCE CENTERLINE TO EDGE	F A I	FEDERAL AID INTERSTATE FEDERAL AID PRIMARY	MACH MB	MACHINE MAIL BOX	RET	RETAINING	TRVL TRN	TURN
CL-E	CENTERLINE TO EDGE CENTERLINE TO FACE	FAS	FEDERAL AID FRIMARY	MH	MANHOLE	RT	RIGHT	TY	TYPE
CTS	CENTERS	FAUS	FEDERAL AID URBAN SECONDARY	MATL	MATERIAL	ROW	RIGHT-OF-WAY	T-A	TYPE A
CERT	CERTIFIED	FP FP	FENCE POST	MED	MEDIAN	RD	ROAD	TYP	TYPICAL
CHSLD	CHISELED	FE	FIELD ENTRANCE	m	METER	RDWY	ROADWAY	UNDGND	UNDERGROUND
CS	CITY STREET	FH	FIRE HYDRANT	METH	METHOD	RTE	ROUTE	USGS	U.S. GEOLOGICAL SURVEY
CP	CLAY PIPE	FL	FLOW LINE	M	MID-ORDINATE	SAN	SANITARY	USEL	UPSTREAM ELEVATION
CLSD	CLOSED	FB	FOOT BRIDGE	mm	MILLIMETER	SANS	SANITARY SEWER	USFL	UPSTREAM FLOWLINE
CLID	CLOSED LID	FDN	FOUNDATION	mm DIA	MILLIMETER DIAMETER	SEC	SECTION	UTIL	UTILITY
СТ	COAT OR COURT	FR	FRAME	MIX	MIXTURE	SEED	SEEDING	VBOX	VALVE BOX
сомв	COMBINATION	F&G	FRAME & GRATE	MBH	MOBILE HOME	SHAP	SHAPING	VV	VALVE VAULT
С	COMMERCIAL BUILDING	FRWAY	FREEWAY	MOD	MODIFIED	S	SHED	VLT	VAULT
CE	COMMERCIAL ENTRANCE	GAL	GALLON	MFT	MOTOR FUEL TAX	SH	SHEET	VEH	VEHICLE
CONC	CONCRETE	GALV	GALVANIZED		NAIL & BOTTLE CAP	SHLD	SHOULDER	VP	VENT PIPE
CONST	CONSTRUCT	G	GARAGE	N & C	NAIL & CAP	SW	SIDEWALK OR SOUTHWEST	VERT	VERTICAL
CONTD	CONTINUED	GM	GAS METER		NAIL & WASHER	SIG	SIGNAL	VC	VERTICAL CURVE
CONT	CONTINUOUS	GV	GAS VALVE	NOAA	NATIONAL OCEANIC ATMOSPHERIC	SOD	SODDING	VPC	VERTICAL POINT OF CURVATURE
COR	CORNER	GRAN	GRANULAR		ADMINISTRATION	SM	SOLID MEDIAN	VPI	VERTICAL POINT OF INTERSECTION
CORR	CORRUGATED	GR	GRATE	NC	NORMAL CROWN	SB	SOUTHBOUND	VPT	VERTICAL POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	GRVL	GRAVEL	NB	NORTHBOUND	SE	SOUTHEAST	WM	WATER METER
CNTY	COUNTY	GND	GROUND	NE	NORTHEAST	SPL	SPECIAL	WV	WATER VALVE
CH	COUNTY HIGHWAY	GUT	GUTTER	NW	NORTHWEST	SD	SPECIAL DITCH	WMAIN	WATER MAIN
CSE	COURSE	GP GW	GUY POLE	OLID	OPEN LID	SQ FT	SQUARE FEET	WB	WESTBOUND
XSECT m ³	CROSS SECTION	GW HH	GUY WIRE	PAT	PATTERN	m ²	SOUARE METER	WILDFL	WILDFLOWERS
mm 3	CUBIC METER CUBIC MILLIMETER		HANDHOLE HATCHING	PVD PVMT	PAVED PAVEMENT	mm ² SQ YD	SQUARE MILLIMETER SQUARE YARD	W WO	WITH WITHOUT
""""	CODIC MITETIME LEV	HAICH	HATCHING	PM	PAVEMENT MARKING	STB	STABILIZED	***	WITHOUT
1				i ivi	I A FMENT MANNITHO	טוט	3 ADILIZED		

Illinois Department of Transportat	ion
PASSED January 1, 2011 Michael Brand ENGINEER OF POLICY AND PROCEDURES	ISSUED
APPROVED January 1. 2011 South 250 XX ENCINEED OF DESIGN AND ENVIRONMENT	1-1-97

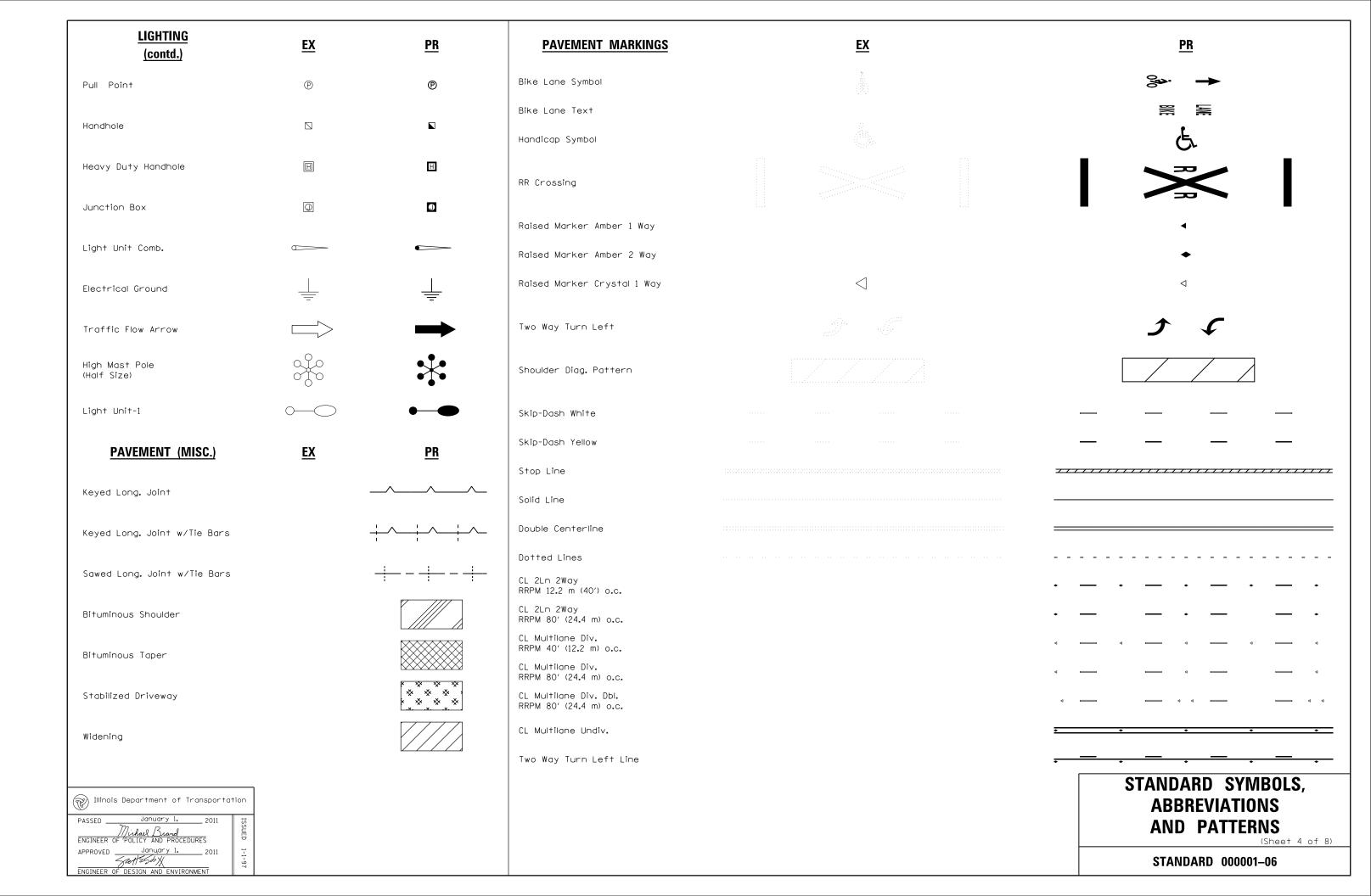
DATE	REVISIONS	
1-1-11	Updated abbreviations	
	and symbols.	
1-1-08	Updated abbreviations	
	and symbols.	
		1

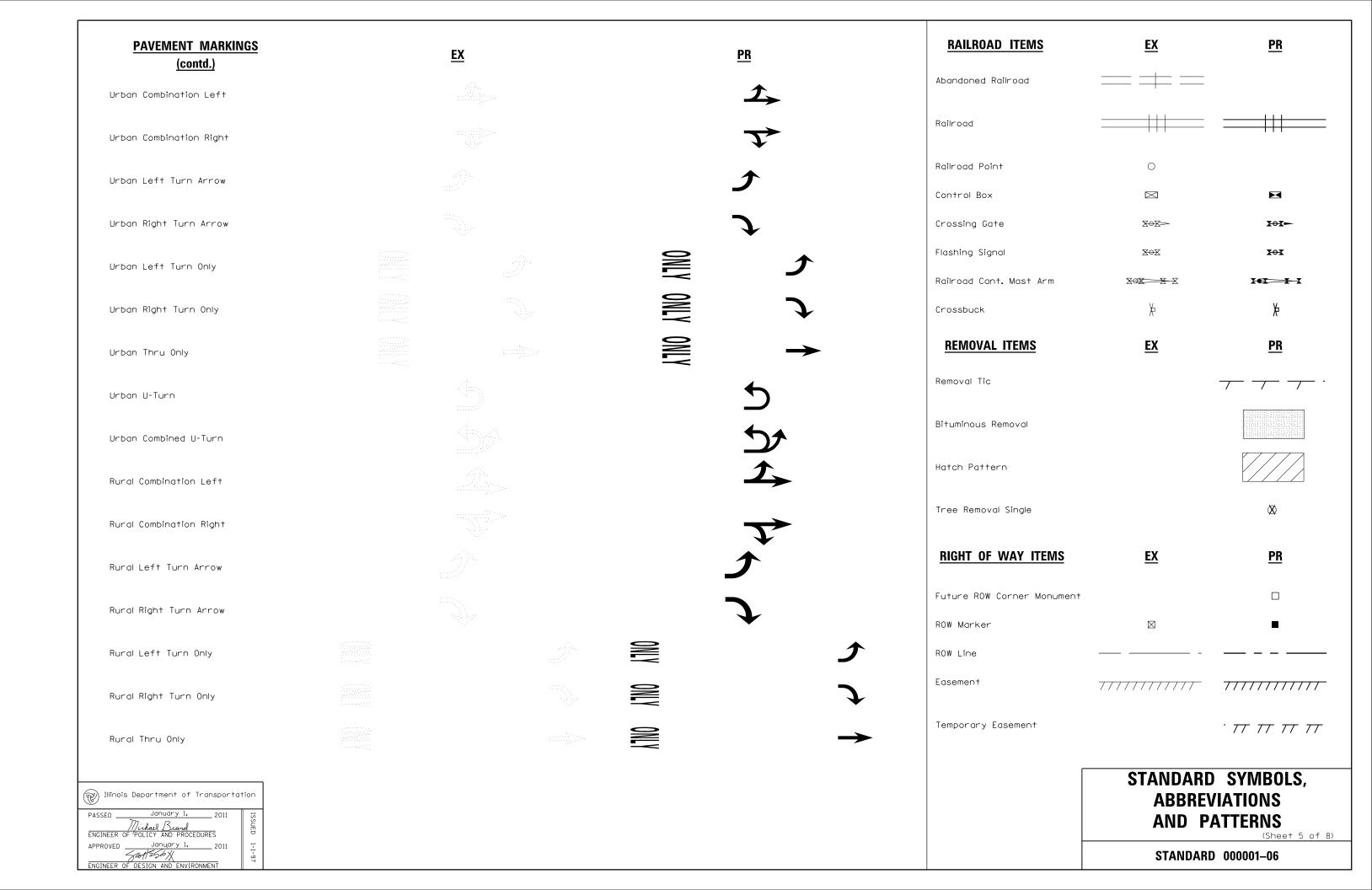
STANDARD SYMBOLS, **ABBREVIATIONS** AND PATTERNS (Sheet 1 of 8)

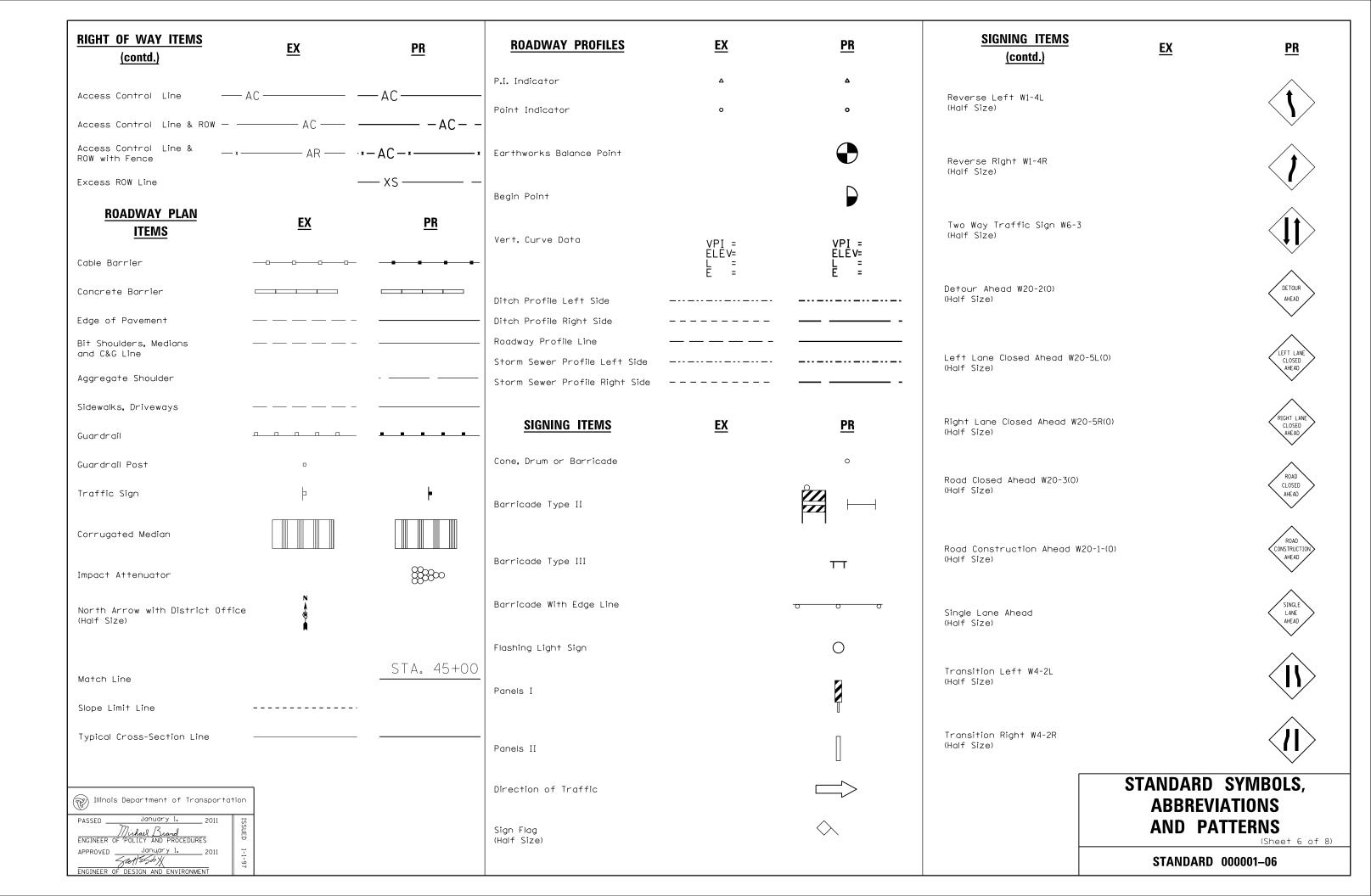
STANDARD 000001-06

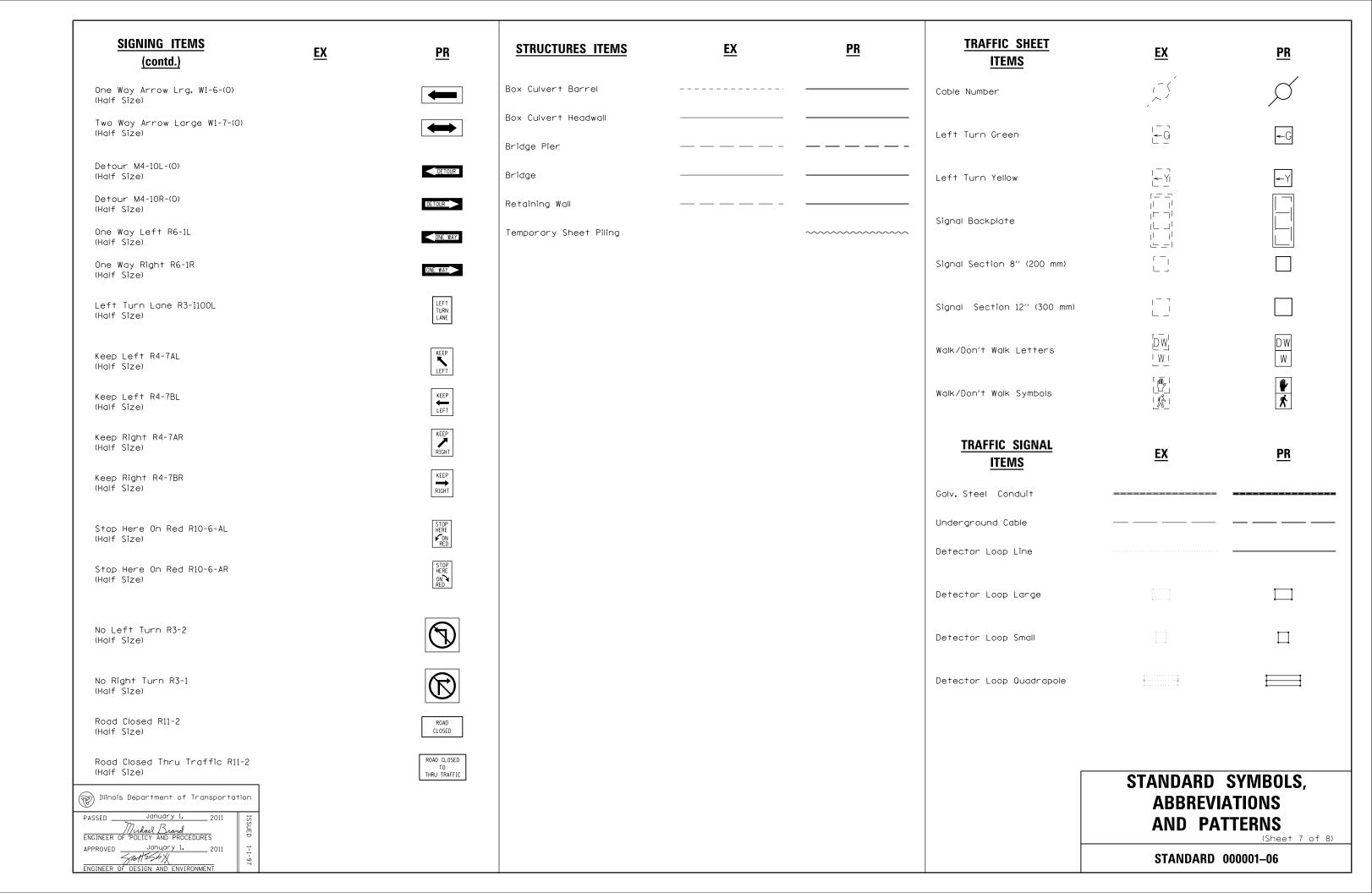
ADJUSTMENT ITEMS	<u>EX</u>	<u>PR</u>	ALIGNMENT ITEMS	<u>EX</u>	<u>PR</u>	CONTOUR ITEMS	<u>EX</u>	<u>PR</u>
Structure To Be Adjusted		ADJ	Baseline			Approx. Index Line		
			Centerline	-		Approx. Intermediate Line		
Structure To Be Cleaned		С	Centerline Break Circle	0	\odot	Index Contour		
Main Structure To Be Filled		FM	Baseline Symbol	B	₽	Intermediate Contour		
			Centerline Symbol	C	\mathbb{C}	DRAINAGE ITEMS	EX	PR
Structure To Be Filled		F	PI Indicator	Δ	Δ	Channel or Stream Line		
Structure To Be Filled Special		FSP	Point Indicator	0	0	Culvert Line	HI	
Structure To Be Removed		R	Horizontal Curve Data	CURVE P.I. STA= △=	CURVE P.I. STA= △=	Grading & Shaping Ditches		
			(Half Size)	D= R= T=	Δ - D= R= T=	Drainage Boundary Line		
Structure To Be Reconstructed		REC		L= E= e= T D -	L= E= e= T.D	Paved Ditch	<u> </u>	Asserted Newspire Newspire
Structure To Be Reconstructed Special		RSP		T.R.= S.E. RUN= P.C. STA= P.T. STA=	e= T.R.= S.E. RUN= P.C. STA= P.T. STA=	Aggregate Ditch	_PintagroSeintagroSeintagr	**************************************
			BOUNDARIES ITEMS	<u>EX</u>	PR	Pipe Underdrain		
Frame and Grate To Be Adjusted		А	Dashed Property Line		<u></u>	Storm Sewer		
Frame and Lid To Be Adjusted		A	Solid Property/Lot Line			Flowline	£	ŧ
Domestic Service Box		\wedge	Section/Grant Line			Ditch Check		-
To Be Adjusted		A	Quarter Section Line			Headwall	_	
Valve Vault To Be Adjusted		A	Quarter/Quarter Section Line			Inlet		-
Special Adjustment		(SP)	County/Township Line			Manhole	0	•
Special Adjustilieri			State Line			Summit	<+->	\longleftrightarrow
Item To Be Abandoned		AB	Iron Pipe Found	0		Roadway Ditch Flow	-√ >	- →
Item To Be Moved		M	Iron Pipe Set	•		Swale		→
			Survey Marker			Catch Basin	0	•
Item To Be Relocated		REL	Property Line Symbol	P		Culvert End Section	⊲	•
Pavement Removal and Replacement			Same Ownership Symbol (Half Size)	7		Water Surface Indicator	$\overline{\underline{iggr}}$	
		V / / / A	Northwest Quarter Corner			Riprap		000000 000000 000000
Illinois Department of Transportation PASSED			(Half Size) Section Corner (Half Size)				STANDARD ABBREVI AND PA	ATIONS
APPROVED January 1, 2011 Fauttesty (2) ENGINEER OF DESIGN AND ENVIRONMENT			Southeast Quarter Corner (Half Size)				STANDARD	

EROSION & SEDIMENT CONTROL ITEMS	<u>EX</u>	<u>PR</u>	NON-HIGHWAY IMPROVEMENT ITEMS	<u>EX</u>	<u>PR</u>	EXISTING LANDSCAPING ITEMS	<u>EX</u>	<u>PR</u>
Cleaning & Grading Limits			Noise Attn./Levee			(contd.) Seeding Class 5		
Dike			Field Line	——— E———		second diese s		
Erosion Control Fence		~~~~~~~	Fence	_ x x x x x		Seeding Class 7		
Perimeter Erosion Barrier		- xxx xxx xxx xxx	Dana of Laura			Seedlings Type 1		
Temporary Fence Ditch Check Temporary			Base of Levee	P		Seedlings Type 2		
		\	Mailbox			Second Jpe L		5000000
Ditch Check Permanent		——	Multiple Mailboxes			Sodding		
Inlet & Pipe Protection		\bigoplus	Pay Telephone			Mowstake w/Sign		
Sediment Basin			Advertising Sign	þ		Tree Trunk Protection		
Erosion Control Blanket		+++++	LANDSCAPING ITEMS	<u>EX</u>	<u>PR</u>	Evergreen Tree	(E)	
Fabric Formed Concrete Revetment Mat			Contour Mounding Line					4
Turf Reinforcement Mat			Fence Post		— x — x — x — x —	Shade Tree	E	+
Mulch Temporary			Shrubs Mowline			<u>LIGHTING</u>	<u>EX</u>	<u>PR</u>
Mulch Method 1		* * * * * * * * * * * * * * * * * * *	Perennial Plants			Duc†		
Mulch Method 2 Stabilized		本本本本本。 本 本 本	Seeding Class 2			Conduit Electrical Aerial Cable	A	A
Mulch Method 3 Hydraulic		4444 444 4444	Seeding Class 2A			Electrical Buried Cable	L	L
						Controller	\boxtimes	
			Seeding Class 4			Underpass Luminaire	2772	=
			Seeding Class 4 & 5 Combined			Power Pole	-0-	-8-
PASSED January 1, 2011 PASSED January 1, 2011 Michael Brand ENGINEER OF POLICY AND PROCEDURES							ABBREV	SYMBOLS, IATIONS ATTERNS
ENGINEER OF POLICY AND PROCEDURES APPROVED January 1. 2011 ENGINEER OF DESIGN AND ENVIRONMENT							STANDARD	(Sheet 3 of 8) 000001-06

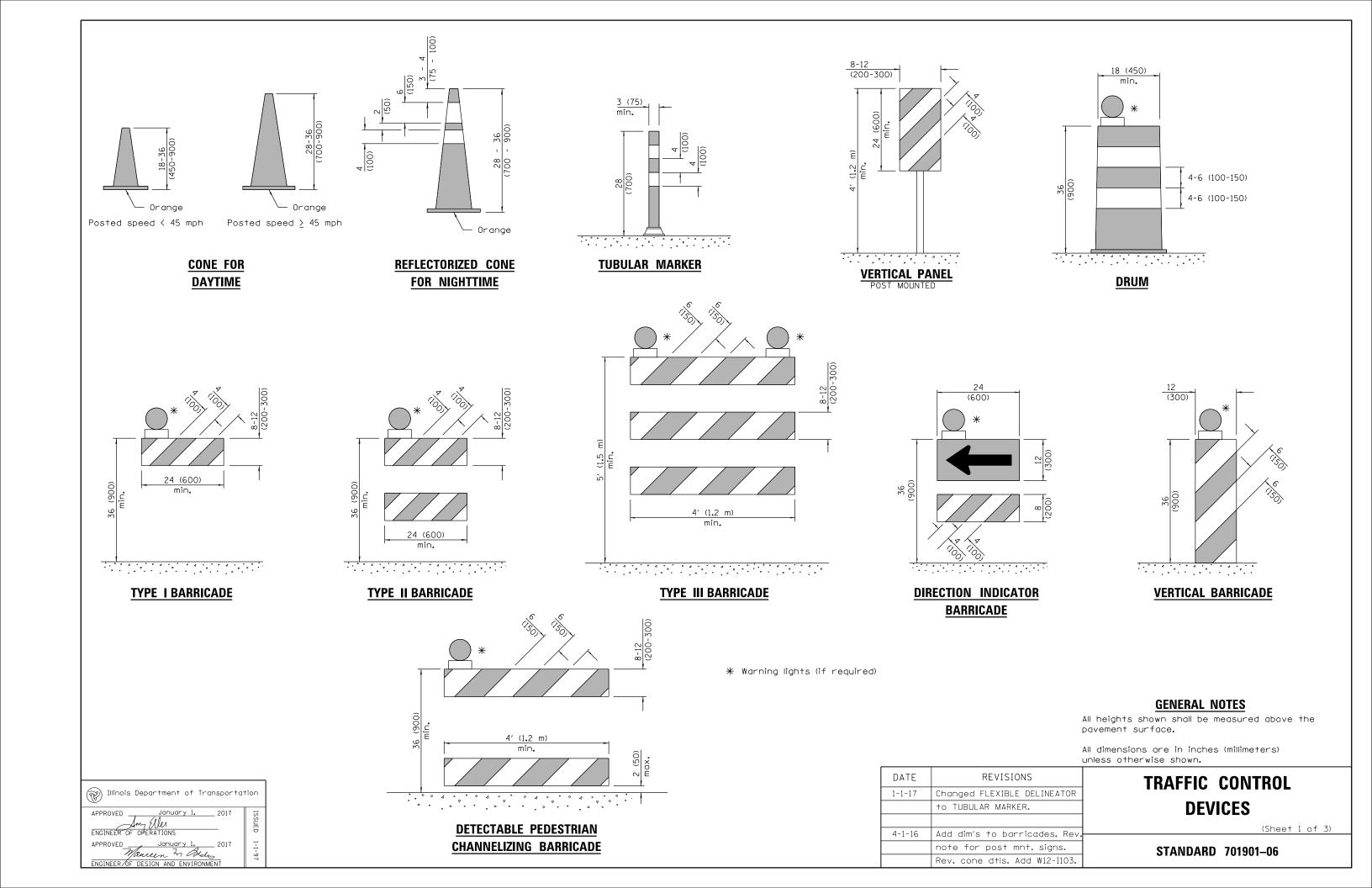


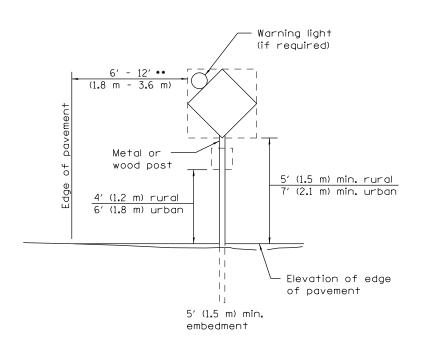






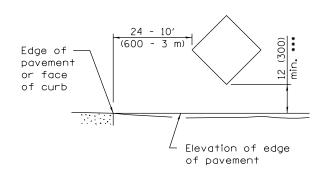
TRAFFIC SIGNAL ITEMS (contd.)	<u>EX</u>	<u>PR</u>	UNDERGROUND UTILITY ITEMS	<u>PR</u>	<u>ABANDONED</u>	UTILITY ITEMS (contd.)	<u>EX</u>	<u>PR</u>
Detector Raceway	"E"		Cable TV ———————————————————————————————————	CTV	CTV	Traffic Signal	;	•
			Electric Cable ————————————————————————————————————	— — E—	- -/E/-	Traffic Signal Control Box] *S]	
Aluminum Mast Arm	0		Fiber Optic — FO —	— F0 —	- -/ F0/	Water Meter	A	
Steel Mast Arm	0	•——	Gas Pipe ————————————————————————————————————	— G —	- -/	Water Meter Valve Box	0	•
			0il Pipe ————————————————————————————————————	— — o —	- -/	Profile Line		
Veh. Detector Magnetic	<u> </u>	-	Sanitary Sewer ->>	->- ->>-	>- /->/->/->/	Aerial Power Line	— А — — — —	— А ———
Conduit Splice	•	•	Telephone Cable ————————————————————————————————————	— — T—	_ _/T/_	VEGETATION ITEMS	EV	PR
Controller	\boxtimes	\blacksquare	Water Pipe ────────────────────────────────────	— W —	— / W I — / —	VEGETATION TIEMS	<u>EX</u>	<u>rn</u>
Gulfbox Junction	0	0				Deciduous Tree	©	
Wood Pole	\otimes	•	UTILITIES ITEMS	<u>EX</u>	<u>PR</u>	Bush or Shrub	Q	
Temp. Signal Head		→	Controller	\boxtimes	×	Evergreen Tree	•	
Handhole		N	Double Handhole			Stump	風	
Double Handhole			Fire Hydrant	Ø	•	Orchard/Nursery Line		
Heavy Duty Handhole	$oxed{\mathbb{H}}$	H	GuyWire or Deadman Anchor	\rightarrow		Vegetation Line		
Junction Box		•	Handhole			Woods & Bush Line		
Ped. Pushbutton Detector	©	©	Heavy Duty Handhole		III	<u>WATER FEATURE</u> ITEMS	<u>EX</u>	<u>PR</u>
Ped. Signal Head	-0	4	Junction Box		•			
Power Pole Service	-0-	-	Light Pole	¤	*	Stream or Drainage Ditch		
Priority Veh. Detector	\bowtie	~	Manhole	©	·	Waters Edge Water Surface Indicator	<u></u>	
Signal Head	>	-	Pipeline Warning Sign	þ				
Signal Head w/Backplate	+⇔	+-	Power Pole	- -	-	Water Point	©	
Signal Post	0	•	Power Pole with Light	\$		Disappearing Ditch	<	
Closed Circuit TV	(C)p	(C)	Sanitary Sewer Cleanout			Marsh	بىللىر	
Video Detector System	(V)	[∑]•	Splice Box Above Ground			Marsh/Swamp Boundary		
Illinois Department of Transportation PASSED			Telephone Splice Box Above Ground Telephone Pole	⊞	<u>-</u>		STANDARD SYN ABBREVIATIO AND PATTER	NS RNS
ENGINEER OF POLICY AND PROCEDURES APPROVED January 1. 2011 June 1550 X						_	STANDARD 00000	(Sheet 8 of 8)





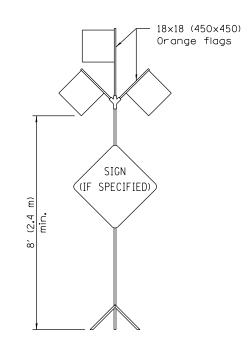
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

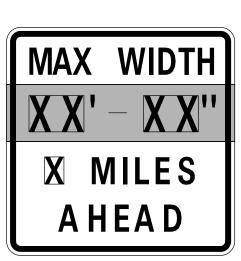


SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



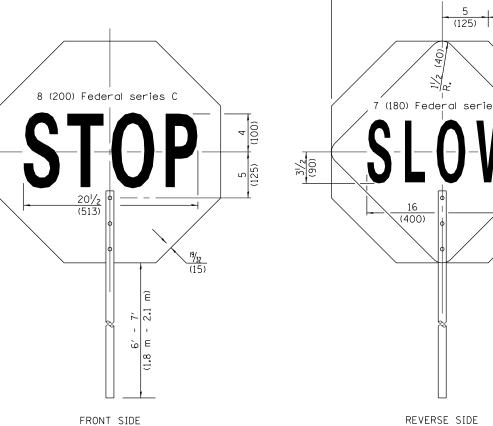
HIGH LEVEL WARNING DEVICE

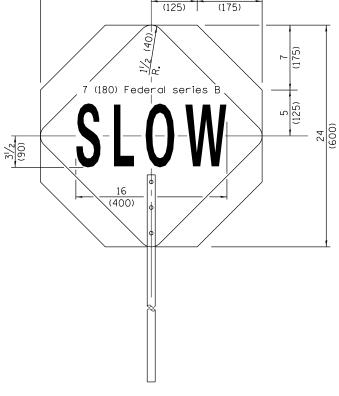


W12-I103-4848

WIDTH RESTRICTION SIGN

XX'-XX'' width and X miles are variable.





(600)

FLAGGER TRAFFIC CONTROL SIGN

ROAD CONSTRUCTION NEXT X MILES

END CONSTRUCTION

G20-I104(0)-6036

G20-I105(0)-6024

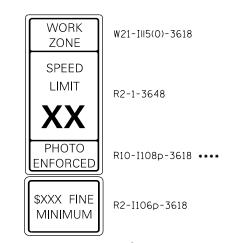
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multilane highways.

WORK LIMIT SIGNING



Sign assembly as shown on Standards or as allowed by District Operations.



This sign shall be used when the above sign assembly is used.

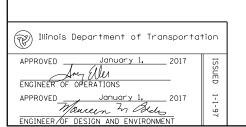
HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

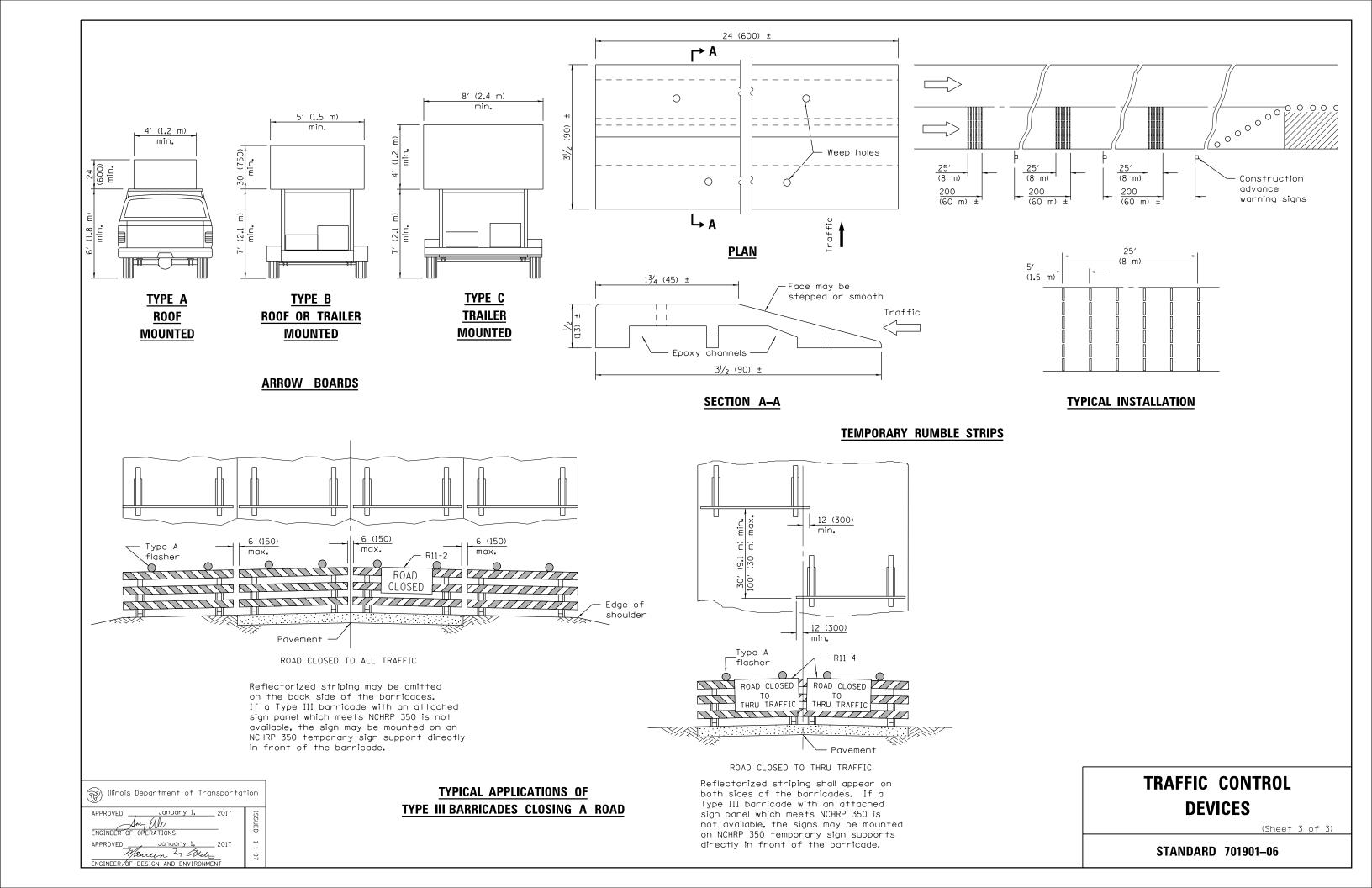
**** R10-I108p shall only be used along roadways under the juristiction of the State.

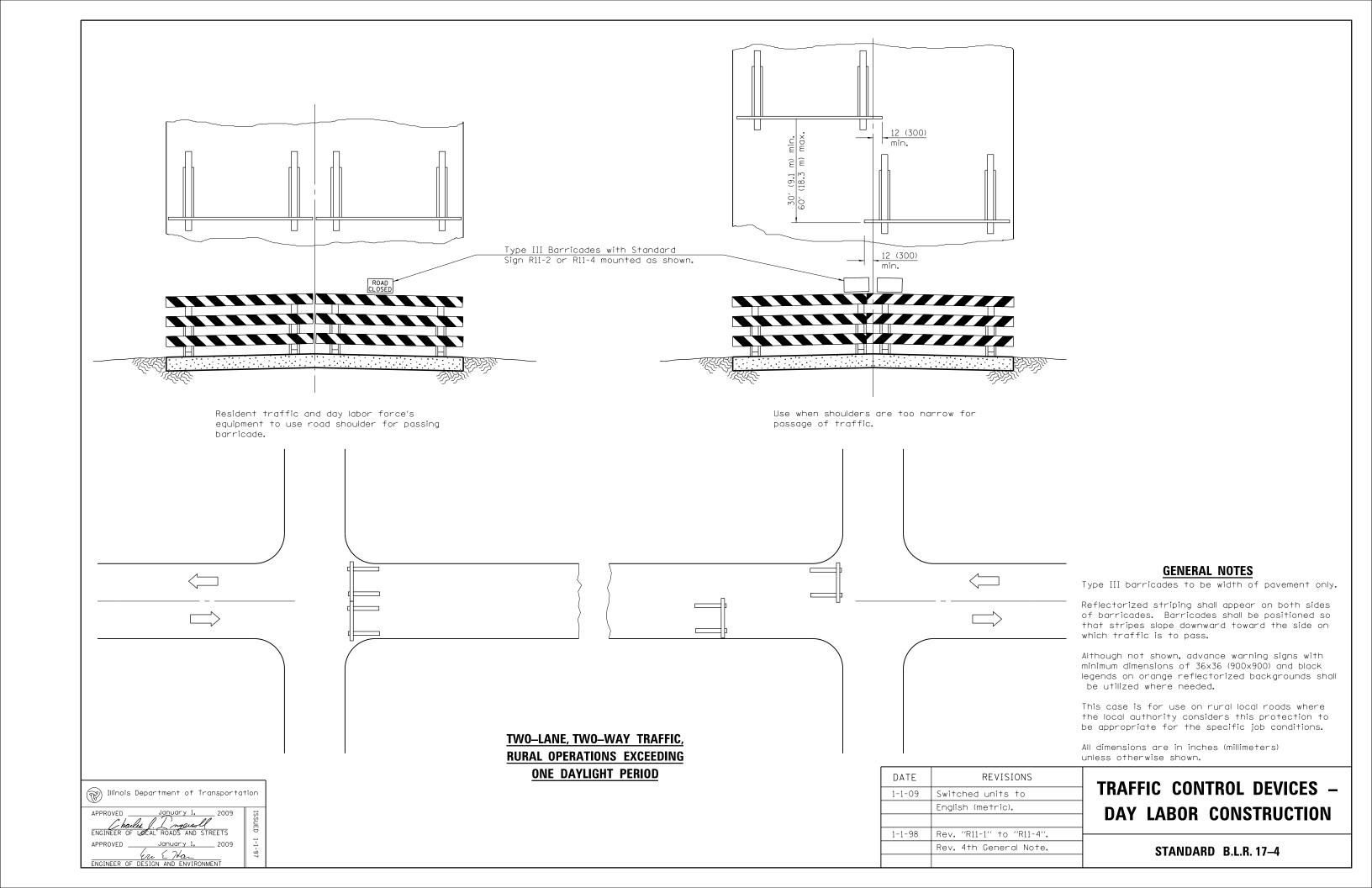
TRAFFIC CONTROL **DEVICES**

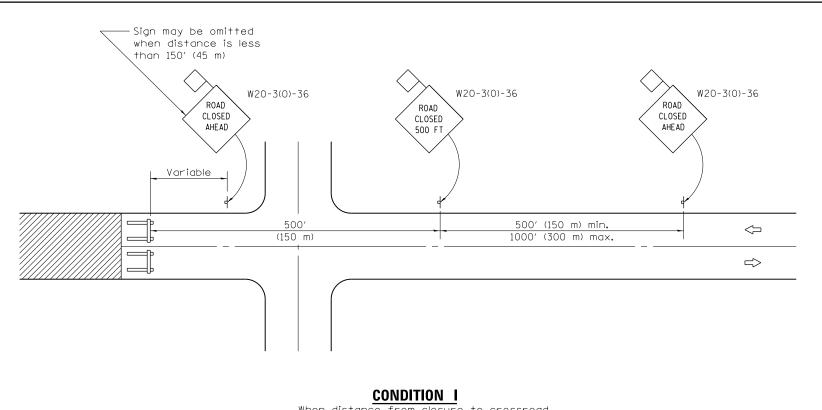
(Sheet 2 of 3)

STANDARD 701901–06

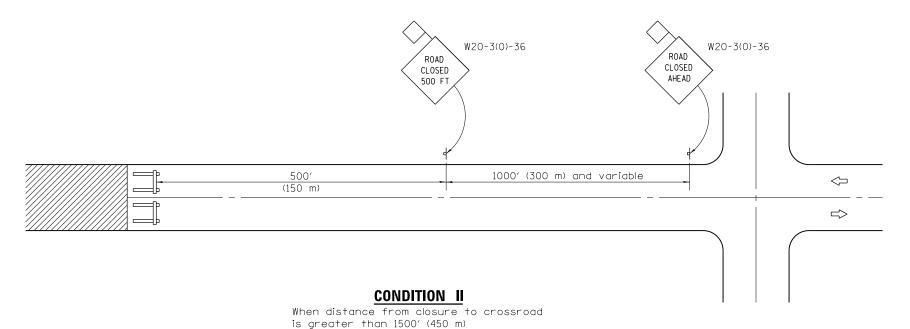








When distance from closure to crossroad is less than 1500' (450 m)





Work area



Type III Barricade

SYMBOLS



Sign with 18x18 (450x450) min. orange flag attached

GENERAL NOTES ades and R11-2-4830

Type III Barricades and R11-2-4830 signs shall be positioned as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

Two Type A Low Intensity Flashing Lights shall be used on each approach in advance of the work area during hours of darkness. One light shall be installed above the barricades and the other above the first advance warning sign.

All warning signs shall have minimum dimensions of $36 \times 36 \ (900 \times 900)$ and have a black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

Longitudinal dimensions may be adjusted to fit field conditions. $\ensuremath{\mathsf{G}}$

When the distance between the barricade and the intersection is between 1500' (450 m) and 2000' (600 m), the advance sign shall be placed at the intersection. When the distance between the barricade and the intersection is over 2000' (600 m), an additional sign shall be placed at the intersection. The additional sign shall give the distance to the barricade in miles or fractions of a mile.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-12	Omitted two notes from
	GENERAL NOTES.
1-1-09	Switched units to
	English (metric).

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

STANDARD B.L.R. 21–9

Illinois Department of Transportation

APPROVED

January 1, 2012

ENGINEER OF LOCAL ROADS AND STREETS

APPROVED

January 1, 2012

January 1, 2