04-25-2025 LETTING ITEM 001

F.A RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	D7 SIGN MAINTENANCE -	VARIOUS	11	1
	ILLINOIS	CONTRACT NO. 46657		

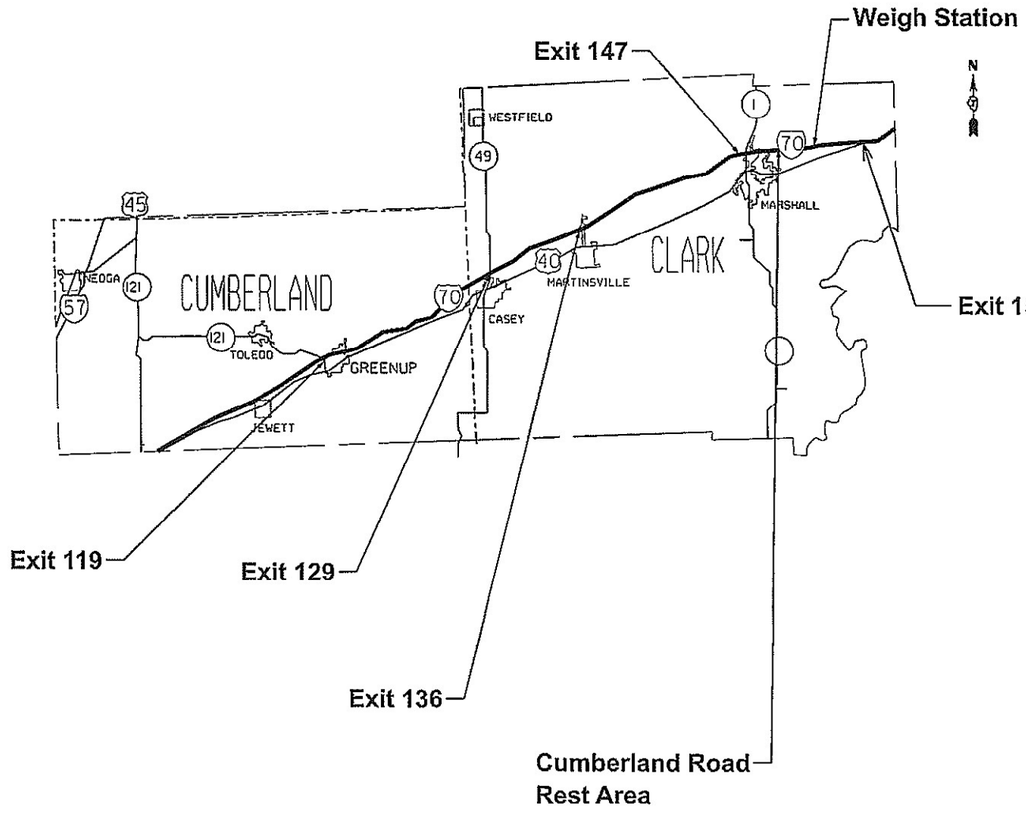
FOR INDEX OF SHEETS, SEE SHEET NO. 2

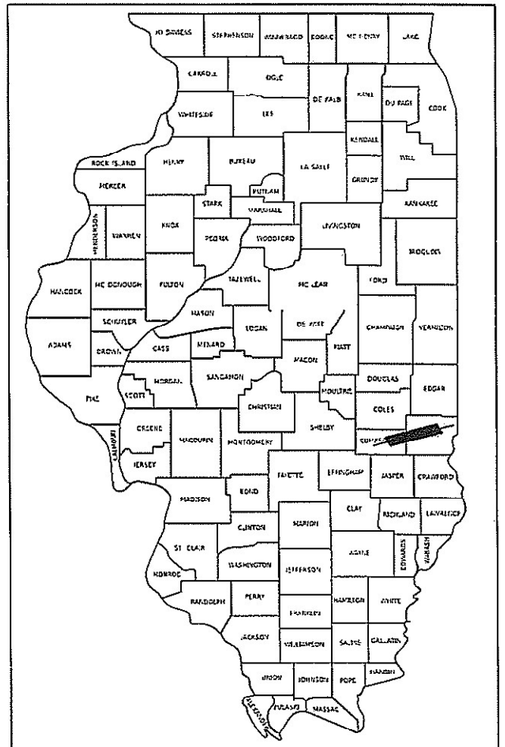
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

ROUTE I-70
SECTION D7 SIGN MAINTENANCE 25-14
SIGN REPLACEMENT
VARIOUS COUNTIES

M-60-017-25





0 100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER DEWAYNE SEACHRIST
PROJECT MANAGER BRYAN HARRINGTON

CONTRACT NO. 46657

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 6 20 25
Lora Rensing
REGIONAL ENGINEER

March 21 20 25
ENGINEER OF DESIGN AND ENVIRONMENT

March 21 20 25
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

THE WORK ON THIS PROJECT CONSISTS OF THE REMOVAL AND REPLACEMENT OF EXISTING INTERSTATE GUIDE SIGNS AND LOGO SIGNS, TO INCLUDE THE TRANSFER OF THE BUSINESS SIGNS.

THE WORK ON THIS PROJECT IS LOCATED IN CUMBERLAND AND CLARK COUNTIES ON I-70 AND OVERHEADS AT EXIT 119 (GREENUP), EXIT 129 (CASEY), EXIT 136 (MARTINSVILLE), EXIT 147 (MARSHAL), EXIT 154 (US 40), WEIGHT STATION IN CLARK COUNTY CUMBERLAND RD REST AREA IN CLARK COUNTY.

THIS PROJECT SHALL FOLLOW THE FABRICATION OF HIGHWAY SIGN POLICY TYPE ZZ SHEETING WILL BE USED FOR ALL FREEWAY GUIDE SIGNS AND OVERHEAD SIGN INSTALLATIONS. TYPE ZZ SHEETING IS TYPICALLY DEFINED AS AN EXTREMELYHIGH INTENSITY SHEETING THAT PROVIDES GOOD RETROREFLECTIVITY VALUES AT BOTHLONG AND SHORT DISTANCES AS WELL AS WITH HIGH OBSERVATION ANGLES.

GENERAL SIGN REQUIREMENTS

Freeway & Expressway	Sheeting Type	Comments
*Guide Signs		
Green	ZZ**	Legend, Border, Background, Symbols & Route Shields mounted on sign
Fluorescent Yellow	ZZ**	Legend, Border, Background & Symbols
Blue	AP & ZZ	Background – AP Legend & Border – ZZ
Brown	AP & ZZ	Background – AP Legend & Border – ZZ
		* Includes Specific Service Signs, Recreational/Cultural Interest Area Signs, and Emergency ManagementSigning

INDEX OF SHEETS

701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) AWAY
701201-05	LANE CLOSURE, 2L 2W, DAY ONLY FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L,2W, MOVING OPERATIONS-DAY ONLY
701400-12	APPROACH TO LANE CLOSURE, FREEWAY / EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY / EXPRESSWAY
701406-13	LANE CLOSURE, FREEWAY / EXPRESSWAY, DAY OPERATIONS ONLY
701411-09	LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER. FOR SPEEDS ≥ 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER. FOR SPEEDS ≤ 40 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY / EXPRESSWAY
701451-05	RAMP CLOSURE, FREEWAY / EXPRESSWAY
701456-05	PARTIAL EXIT RAMP CLOSURE, FREEWAY / EXPRESSWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-10	TRAFFIC CONTROL DEVICES
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS

REV - MS

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	DRAWN -	REVISED -	
PLOT SCALE = 55CALES	CHECKED -	REVISED -	
PLOT DATE = 1/22/2025	DATE -	REVISED -	

INDEX OF SHEETS & STANDARDS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	D7 SIGN MAINTENCE 25-14	VARIOUS	11	2
		CONTRACT NO. 46657		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0021 100% STATE		
67100100	MOBILIZATION	EACH	1.0	1.0		
72000200	SIGN PANEL T2	SQ FT	18.0	18.0		
72000300	SIGN PANEL T3	SQ FT	10967.0	10967.0		
72400320	REMOVE SIGN PANEL TYPE 2	SQ FT	15.0	15.0		
72400330	REMOVE SIGN PANEL TYPE 3	SQ YD	16677.0	16677.0		
X7200096	F & E SIGN PAN-LOGO	SQ FT	5671.0	5671.0		
X7270005	RE-E STR ST SN SUP BA	EACH	10	10		
X7270015	FUR BRKWAY COUP SET	EACH	10	10		
X7270020	FUR HINGE PLATE SET	EACH	10	10		
Z0030902	TIGHTEN FUSE & BSE PL	EACH	300	300		
Z0030905	INS SER SN OR MILE PL	EACH	8	8		
Z0030907	REM SER OR MILE PLATE	EACH	8	8		
Z0030910	TRANSFER SERVICE SIGN	EACH	145.0	145.0		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0021		

REV - MS

USER NAME = Bryan Harrington	DESIGNED - LMH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - LMH	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = 1/23/2025	DATE - 1/23/2025	REVISED -	

SUMMARY OF QUANTITIES

SCALE: NO SCALE | SHEET OF 4 SHEETS | STA TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	D7 SIGN MAINTENCE 25-14	VARIOUS	11	3

CONTRACT NO. 46657

ILLINOIS | FED. AID PROJECT

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WORK ORDER

District 7 Sign Maintenance 25-14

Sheet 1 of 3

WORK ORDER NO. _____ Date of Issue _____ ROUTE I-70

LOCATION DESCRIPTION _____

CONTRACT NO. 46657 CLAIM NO.: _____

CODE NUMBER		UNIT	QUANTITY	UNIT PRICE	ITEM COST
72000200	SIGN PANEL T2	SQ FT	18.00		
72000300	SIGN PANEL T3	SQ FT	10,967.00		
72400320	REMOV SIGN PANEL T2	SQ FT	15.00		
72400330	REMOV SIGN PANEL T3	SQ FT	16,677.00		
X7200096	F & E SIGN PAN - LOGO	SQ FT	5,671.00		
X7270005	RE-E STR ST SN SUP BA	EACH	10.00		
X7270015	FUR BRKWAY COUP SET	EACH	10.00		
X7270020	FUR HINGE PLATE SET	EACH	10.00		
Z0030902	TIGHTEN FUSE & BSE PL	EACH	300.00		
Z0030905	INS SER SN OR MILE PL	EACH	8.00		
Z0030907	REM SER OR MILE PLATE	EACH	8.00		
Z0030910	TRANSFER SERVICE SIGN	EACH	145.00		
				Total	

DISTRICT CONTACT

NAME: Phil Boyer

TELEPHONE: 217-342-8291

CELL PHONE: 217-500-7139

EMAIL ADDRESS: phillip.boyer@illinois.gov

SUBMITTED BY: _____

Deputy Director, Division of Highways,
Regional Engineer

DATE: _____

APPROVED BY: _____

Traffic Operations Engineer, Central Office

DATE: _____

MODEL: Default
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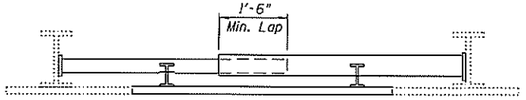
	DRAWN - LMH	REVISED -	
PLOT SCALE = 55CALE5	CHECKED -	REVISED -	
PLOT DATE = 1/23/2025	DATE - 1/23/2025	REVISED -	

EXAMPLE OF W.O.

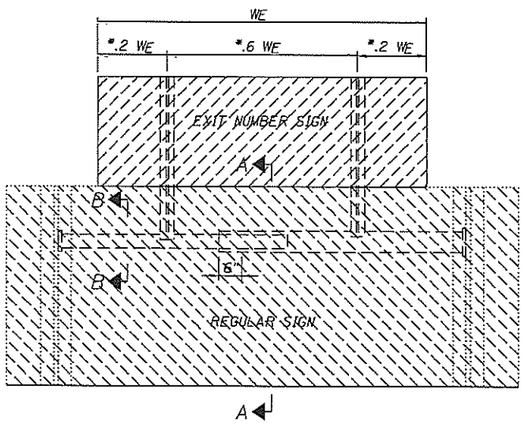
SCALE: NO SCALE | SHEET OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	D7 SIGN MAINTENCE 25-14	VARIOUS	11	4
		CONTRACT NO. 46657		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



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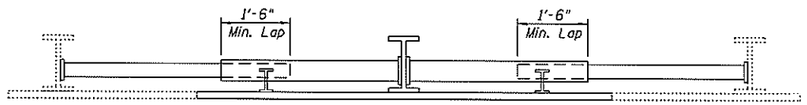

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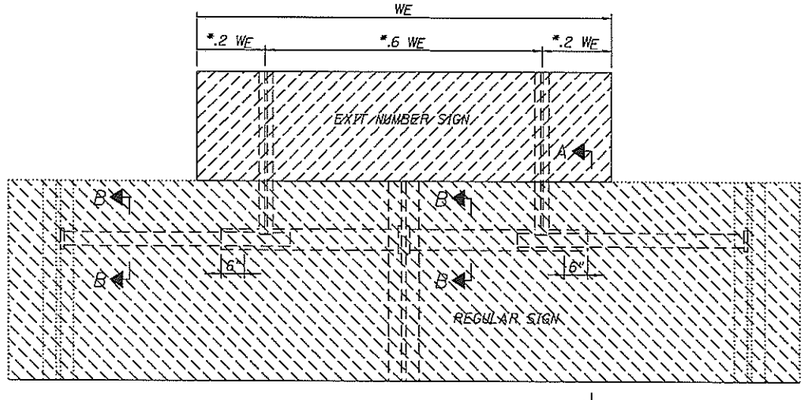

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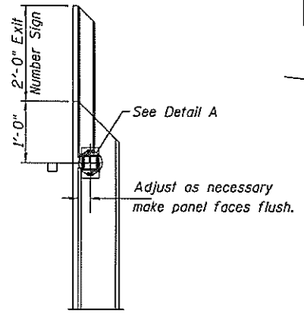
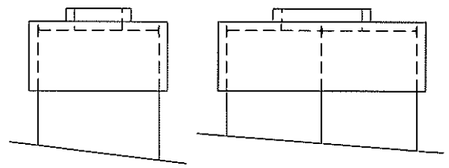
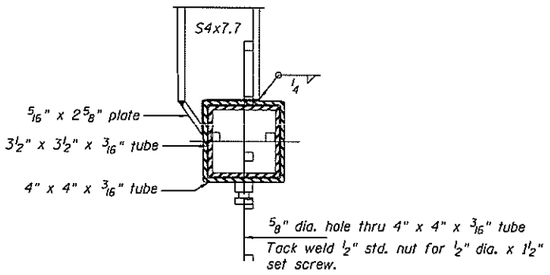


SECTION A-A



New or Existing Structures which have been designed for the additional 2' Exit Number Sign.

TYPICAL INSTALLATIONS

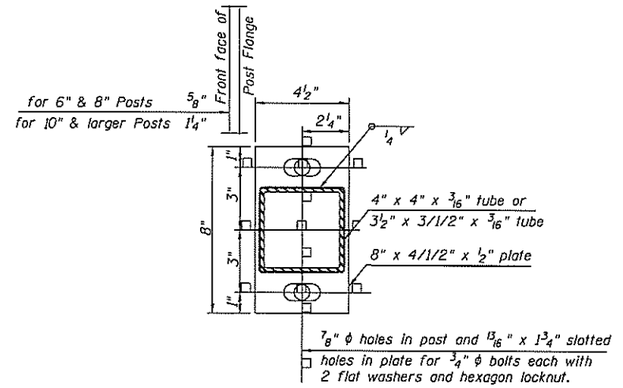


DETAIL A

BILL OF MATERIAL

EXIT PANEL MOUNTING BRACKET TYPE B	EACH	2

SEE SIGN SCHEDULE FOR LOCATIONS



SECTION B-B

General Notes

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering of materials and construction.

Hollow structural steel shapes and plates shall conform to the requirements of ASTM designation A-500 Grade B or A-501 structural steel tubing.

All structural steel shapes and plates shall conform to the requirements of ASTM designation A-36.

All bolts, nuts, cap screws, washers, lockwashers and locknuts shall conform to ASTM A-325 and shall be galvanized in accordance with ASTM designation A-153.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

All welding shall be done in accordance with current AWS Specifications.

METHOD OF MEASUREMENT: The Exit Panel Mounting Bracket Type B shall consist of the telescoping tubes, one or two stub posts, bracing plates, end plates and hardware.

Two posts installations will require one braket: three or more posts installations will require two brackets. Special cases of four, six and eight posts installations may require one bracket, depending on the width of the Exit Panel and spacing of main posts.

BASIS OF PAYMENT: This work will be paid for at the contract unit price each for Exit Panel Mounting Bracket Type B for shoulder mounted sign posts.

* THIS DIMENSION MAY VARY BY ±06 WE.

FILE NAME =	USER NAME = olsonm	DESIGNED -	REVISED - -
		DRAWN -	REVISED - -
	PLOT SCALE = 189.8946 ' / in.	CHECKED - ___	REVISED - -
	PLOT DATE = 5/19/2022	DATE -	REVISED - -

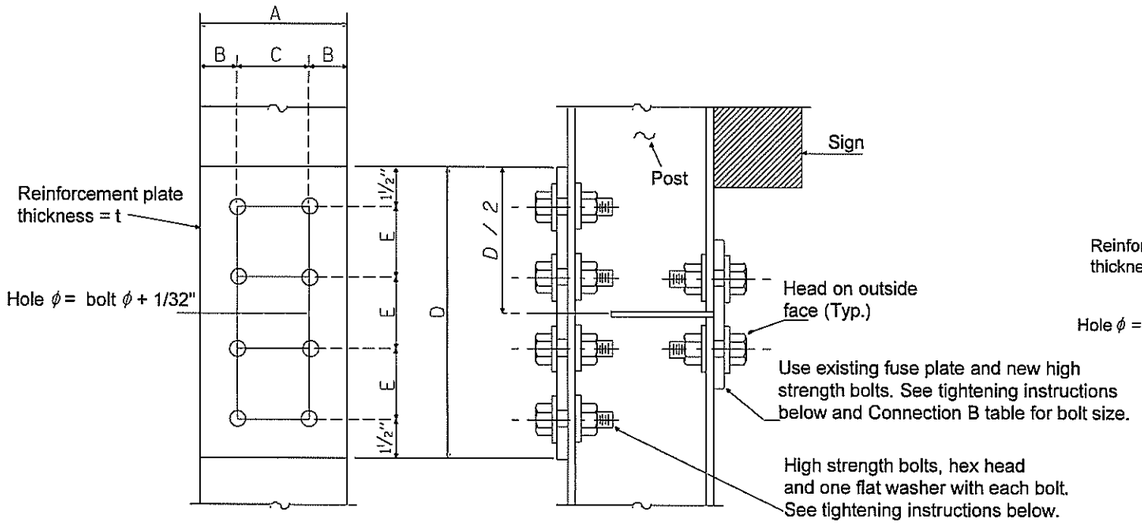
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR MOUNTING EXIT NUMBER SIGN PANELS ON SHOULDER MOUNTED SIGN POSTS (MOUNTING BRACKET TYPE B)

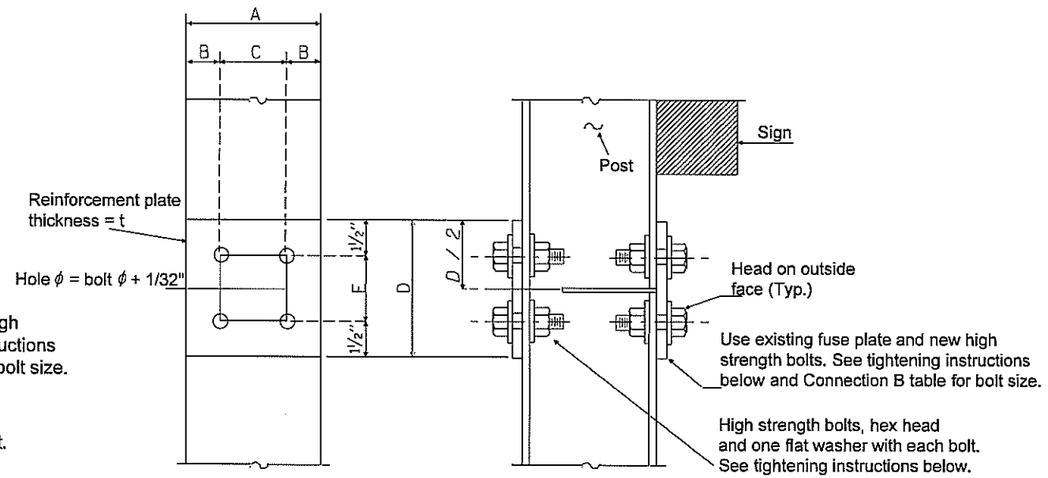
SCALE: _____ | SHEET NO. 1 OF 1 SHEET | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70 &	07 SIGN MAINTENANCE 25-14	VARIOUS	11	5
		CONTRACT NO. 46657		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CONNECTION A (8 BOLTS)



CONNECTION B (4 BOLTS)

POST	CONNECTION A (8 BOLTS)						
	A	B	C	D	E	t	Bolt ϕ
W 6 X 9	———	———	———	———	———	———	———
W 6 x 15	6"	1 1/4"	3 1/2"	10 1/2"	2 1/2"	1/4"	1/2"
W 8 X 18	5 1/4"	1 1/4"	2 3/4"	10 1/2"	2 1/2"	3/8"	1/2"
W 10 X 22	5 3/4"	1 1/2"	2 3/4"	12"	3"	3/8"	5/8"
W 10 X 26	5 3/4"	1 1/2"	2 3/4"	12"	3"	1/2"	5/8"
W 12 X 26	6 1/2"	1 1/2"	3 1/2"	12"	3"	1/2"	5/8"
W 14 X 30	6 3/4"	1 5/8"	3 1/2"	12"	3"	1/2"	5/8"
W 14 X 38	6 3/4"	1 5/8"	3 1/2"	12"	3"	1/2"	5/8"
W 16 X 45	7"	1 3/4"	3 1/2"	12"	3"	1/2"	5/8"

POST	CONNECTION B (4 BOLTS)						
	A	B	C	D	E	t	Bolt ϕ
W 6 X 9	4"	7/8"	2 1/4"	3"	2"	1/4"	1/2"
W 6 x 15	6"	1 1/4"	3 1/2"	3 1/2"	2 1/2"	1/4"	3/4"
W 8 X 18	5 1/4"	1 1/4"	2 3/4"	3 1/2"	2 1/2"	3/8"	3/4"
W 10 X 22	5 3/4"	1 1/2"	2 3/4"	6"	3"	3/8"	7/8"
W 10 X 26	5 3/4"	1 1/2"	2 3/4"	6"	3"	1/2"	7/8"
W 12 X 26	6 1/2"	1 1/2"	3 1/2"	6"	3"	1/2"	7/8"
W 14 X 30	6 3/4"	1 5/8"	3 1/2"	6"	3"	1/2"	7/8"
W 14 X 38	6 3/4"	1 5/8"	3 1/2"	6"	3"	1/2"	7/8"
W 16 X 45	7"	1 3/4"	3 1/2"	6"	3"	1/2"	7/8"

INSTRUCTIONS FOR INSTALLING REINFORCEMENT PLATE AND FUSE PLATE WITH HIGH STRENGTH BOLTS

If the beam flanges are not in full contact with the reinforcement plate due to burrs, galvening runs or misallignment of the flanges, the plate or plates shall be removed and flanges ground, straightened or corrected until full contact is obtained.

The bolts shall be brought to a "snug tight" condition to insure that the reinforcement or fuse plate is in full contact with the flange of the post. "Snug tight" shall be obtained by a few impacts on an impact wrench or the full effort of a man using an ordinary spud wrench. After all the bults are "snug tight", each shall be tightened by an additional one - third roatation. The hardened washer specified shall be under the bolt head which shall be turned in the tightening process rather than the nut.

GENERAL NOTES

The Contractor shall have the choice of using the eight (8) bolt Connection A or the four (4) bolt Connection B for the reinforcement plate, unless specified.

The steel reinforcement plate shall conform to AASHTO M270 Gr. 36. (CVN not required).

High strength bolts, nuts, and washers shall conform to AASHTO M164.

The steel reinforcement plate, new high strength bolts, nuts, and hardened washers and areas of damaged or missing paint on fuse plates shall be painted with an approved zinc rich paint (two coats) after assembly.

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		DRAWN -	REVISED -
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	PLOT DATE = 5/19/2022	DATE -	REVISED -

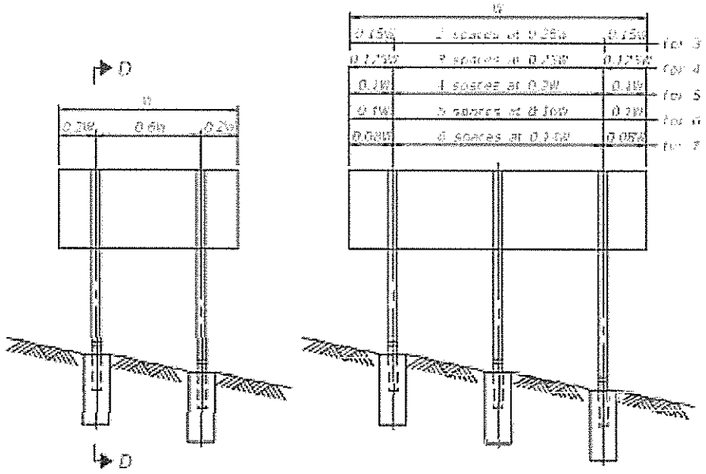
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REINFORCEMENT PLATE DETAILS
"BREAK-AWAY" SIGN POSTS

SCALE: _____ | SHEET NO. 1 OF 1 SHEET | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70 &	07 SIGN MAINTENANCE 25-14 &	VARIOUS	11	6

CONTRACT NO. 46657
ILLINOIS | FED. AID PROJECT



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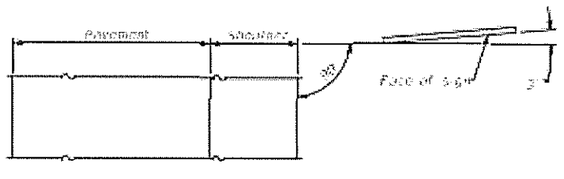

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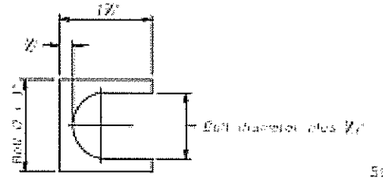
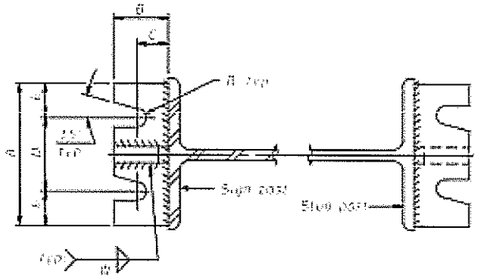
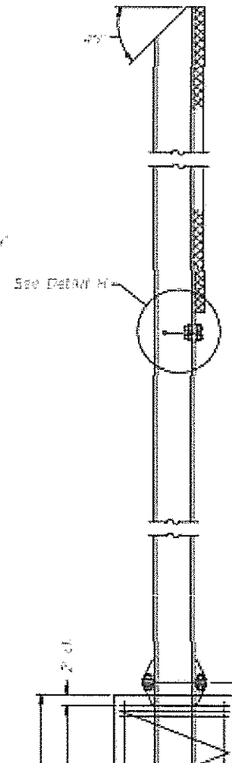


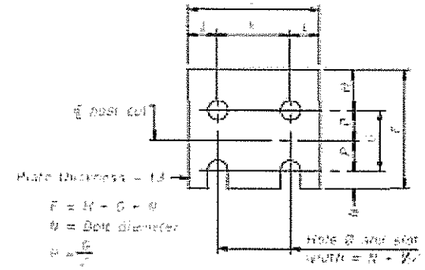
SHIM DETAIL

Furnish two 0.09" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.



SECTION A-A SECTION B-B

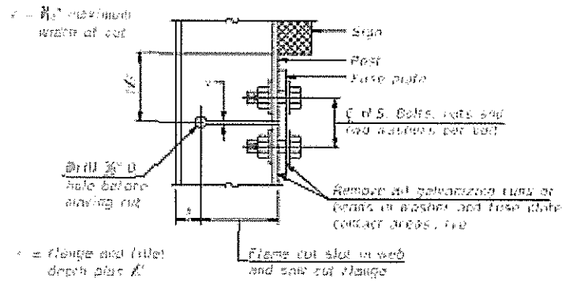




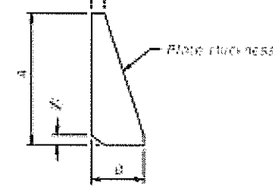
FUSE PLATE DETAIL

(Install with nonslope down)

FUSE PLATE DATA		
θ = Bolt Diameter	G	H
⅝"	3"	1¾"
¾"	3½"	1¾"
⅞"	3½"	1¾"
1"	3½"	1¾"
1"	3"	1¾"
1¼"	3½"	1¾"
1½"	3½"	1¾"

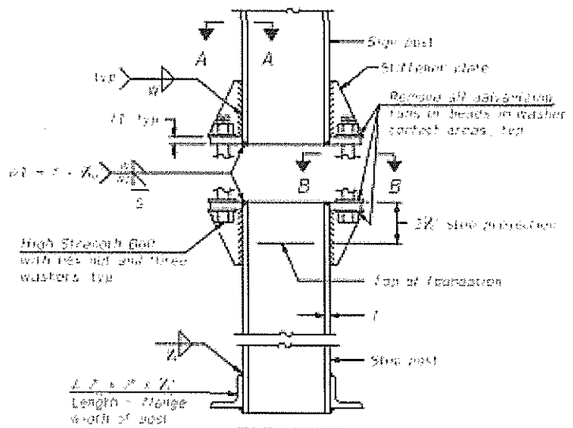


DETAIL H



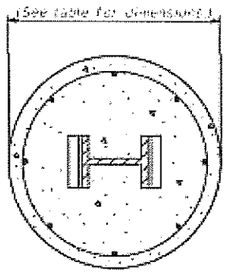
STIFFENER PLATE DETAIL

Diagram

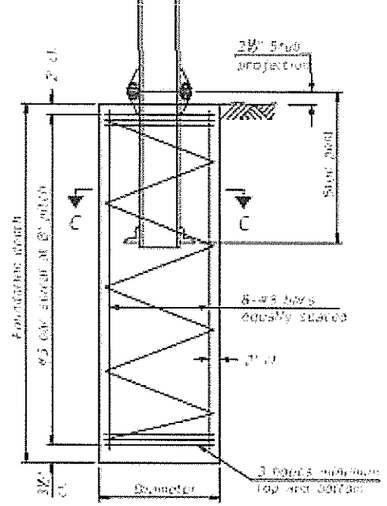


ELEVATION

SIGN POST & STUB POST



SECTION C-C



SECTION D-D

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 mph wind with 30% gust factor, normal to sign.

DESIGN STRESSES
Structural steel - 20,000 p.s.i.
Reinforcing steel - 20,000 p.s.i.
Concrete - 1,400 p.s.i.
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6" min of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

BAW-A-1 2-17-2017

(Sheet 1 of 2)

FILE NAME =	USER NAME = elsenm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 109.8945 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 5/19/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE STEEL SIGN POST TABLES

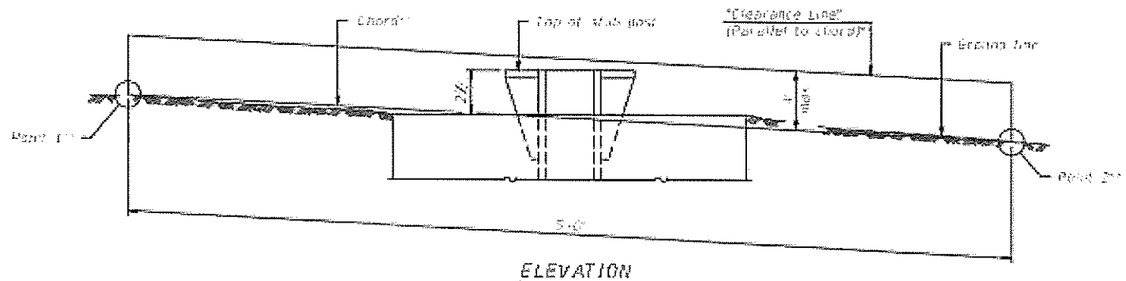
SCALE: _____ | SHEET NO. 1 OF 1 SHEET | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARR	SIGN 4 & 5 SIGN MAINTENANCE 23-13	VARIOUS	11	7
		CONTRACT NO. 46657		
		ILLINOIS FED. AID PROJECT		

POST	CONCRETE FOUNDATION TABLE							Stub Post	POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA			
	Foundation			Reinforcement																		
	Diameter	Minimum Depth	Concrete cu. yds.①	Vertical Bar Length	Per Spirals Diameter	Per Spirals Length	Lbs. ②	Length	Bolt Size	A	B	C	D	E	H1	H2	K	W	J	K	L	H3
W6x9	2'-0"	6'-0"	0.78	5'-9"	1'-8½"	78'-0"	78	2'-3"	¾" x 32½"	6"	2½"	1½"	3½"	1¾"	¾"	½"	1¾"	¾"	4"	2¾"	¾"	¾"
W6x15	2'-0"	6'-0"	0.78	5'-8"	1'-8½"	78'-0"	78	2'-4"	¾" x 32½"	6"	2½"	1½"	3½"	1¾"	⅞"	½"	1¾"	⅞"	4"	3½"	1⅛"	¾"
W8x18	2'-0"	6'-0"	0.79	5'-5"	1'-8½"	78'-0"	79	2'-8"	⅞" x 32½"	6"	3½"	1⅝"	5⅛"	1¾"	1"	½"	2⅛"	1"	5½"	2¾"	1⅛"	¾"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2½"	105'-0"	92	3'-0"	⅞" x 32½"	6"	3½"	1⅝"	5⅛"	1¾"	1"	½"	2⅛"	1"	5½"	2¾"	1⅛"	¾"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2½"	112'-0"	98	3'-0"	⅞" x 4"	7"	3½"	1⅝"	4"	1¾"	1"	½"	2⅛"	1"	6½"	3½"	1⅝"	¾"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2½"	118'-0"	107	3'-8"	⅞" x 4"	7"	3½"	1⅝"	4"	1¾"	1"	½"	2⅛"	1"	6½"	3½"	1⅝"	¾"
W14x30	3'-0"	7'-3"	1.66	7'-0"	2'-8½"	145'-0"	113	3'-0"	⅞" x 4"	7"	3½"	1⅝"	4"	1¾"	1"	½"	2⅛"	1"	6½"	3½"	1⅝"	¾"
W14x38	3'-0"	8'-0"	2.03	7'-9"	2'-8½"	163'-0"	124	3'-0"	1" x 4½"	7½"	3"	1½"	4"	1¾"	1¼"	½"	2⅛"	1"	6½"	3½"	1⅝"	¾"
W16x45	3'-0"	8'-0"	2.23	8'-3"	2'-8½"	180'-0"	130	3'-0"	1" x 4½"	7½"	3"	1½"	4"	1¾"	1¼"	½"	2⅛"	1"	7"	3½"	1⅝"	¾"

*Dimensional changes required for varying soil conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE — Stub Height																					
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"
W6x9	¾" x 1½"	¾" x 1½"	¾" x 1½"	¾" x 1½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
W6x15	¾" x 1½"	¾" x 2½"	¾" x 1½"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	—	—	—	—	—	—	—	—	—	—	—	—
W8x18	¾" x 1½"	¾" x 1½"	¾" x 1½"	¾" x 1½"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	—	—	—	—	—	—	—	—	—	—	—
W10x22	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	—	—	—	—	—	—	—	—
W10x26	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	—	—	—	—	—	—	—
W12x26	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	—	—	—	—	—	—
W14x30	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	—	—	—	—
W14x38	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	1" x 2½"	1" x 2½"	1" x 2½"	1" x 2½"
W16x45	—	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	1" x 2½"	1" x 2½"	1" x 2½"	1" x 2½"



ELEVATION
GROUND LINE & STUB POST

** For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post

① Quantity includes all concrete necessary for one foundation

② Includes reinforcement bars and spiral banding for one foundation

BAW-A-2 2-17-2017

(Sheet 2 of 2)

FILE NAME =	USER NAME = olsonm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 109.8948 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/19/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

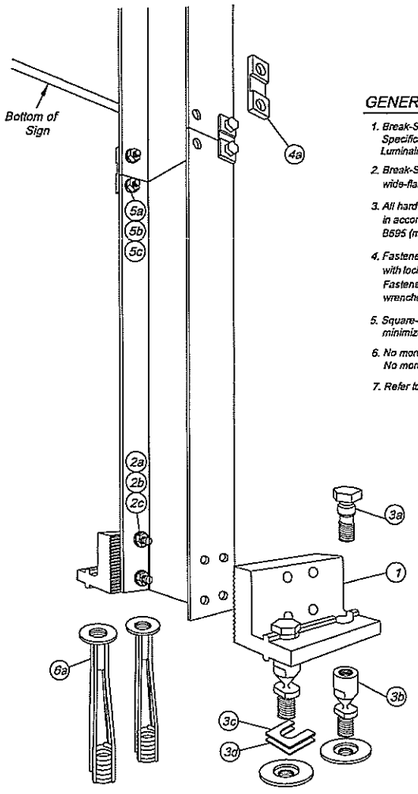
BREAK-AWAY WIDE FLANGE STEEL SIGN POST TABLES

SCALE: _____ | SHEET NO. 1 OF 1 SHEET | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	D7 SIGN MAINTENANCE 25-14	VARIOUS	11	8
		CONTRACT NO. 46657		
		ILLINOIS FED. AID PROJECT		

PARTS LIST

ITEM	DESCRIPTION	SIZE/SPECIFICATIONS	QTY/ POST	PART NUMBER
2a	Bolt	12.7mm(1/2")-13UNCx57.2mm(2-1/4"), Hex Head, ASTM A325, Galv. ASTM A153	8	
2b	LockWasher	12.7mm(1/2"), ANSI B18-21-1, Galv. ASTM A153	8	
2c	Nut	12.7mm(1/2")-13UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	8	
3a	Special Bolt	15.9mm(5/8")-11UNC, ASTM A449, Galv. ASTM A153/B695	4	
3b	Coupling	15.9mm(5/8")-11UNC, LP, AMS 6378D, Galv. ASTM A153, Polyester Coat	4	
3c	Shim	15.9mm(5/8") Horseshoe, 14 Gauge, Galv. Steel Sheet	2	
3d	Shim	15.9mm(5/8") Horseshoe, 18 Gauge, Galv. Steel Sheet	2	
4a	Hinge Plate	Type A, AISI 4130 Steel, Galv. ASTM A 123	4	
5a	Bolt	12.7mm(1/2")-13UNCx37.2mm(1-1/2"), Hex Head, ASTM A325, Galv.ASTM A153	8	
5b	LockWasher	12.7mm(1/2"), ANSI B18-21-1, Galv. ASTM A153	8	
5c	Nut	12.7mm(1/2")-13UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	8	
6a	Anchor	15.9mm(5/8")-11UNC, 304 S.S. Ferrule, AISI 1045 Rod, AISI 1008 Coil	4	



GENERAL NOTES:

1. Break-Safe meets all requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."
2. Break-Safe Model AI6 is designed to fit W150x14 (W6x9) wide-flange steel I-Beam signposts.
3. All hardware items are American Standard sizes, galvanized in accordance with ASTM A153 (hot dipped) or ASTM B695 (mechanically applied).
4. Fasteners, except for special bolt and coupling, are installed with lockwashers, and do not have specific torque requirements. Fasteners should be secured as tight as possible with conventional wrenches, unless noted otherwise.
5. Square-up and level individual components, particularly Anchors to minimize the need for shimming between the Couplings and Anchors.
6. No more than two shims shall be placed under any one coupling. No more than three shims underneath any pair of couplings.
7. Refer to other side of page for complete installation instructions.

Patent Nos. 4,528,786 and 5,596,845

W6X9

Break-Safe Model AI6

Breakaway Support System for Sign Posts

Scale: Not To Scale	Date: July 2000
Drawing No. BS-AI6-1	Sheet: 1 of 2

INSTALLATION INSTRUCTIONS

ANCHOR ASSEMBLY:

Note: Precise positioning of the anchors is critical to proper assembly of the system. It is recommended that actual posts be used to locate the correct position of the anchors.

1. Fabricate a flat, rigid template with four (4) 16mm (5/8") diameter holes located to match the specified anchor pattern of the Break-Safe Brackets attached to the signpost. See diagram below.
2. Attach four (4) Transpo Type A Female Anchors to the template using four (4) 16mm (5/8") diameter bolts. Ensure that each Anchor Washer is snug against the bottom of the template.
3. Lower Anchor Assembly into fresh concrete foundation, and vibrate into position such that the tops of the Anchor Washers are flush with the finished top surface of the foundation. Support the template such that all Anchors are level and in their proper locations.
4. Allow concrete to cure, and then remove the bolts and template from the top of the foundation.

HINGE ASSEMBLY:

1. Butt upper and lower post sections together on a flat surface.
2. Drill eight (8) 14.3mm (9/16") holes in the flanges of the post sections as shown.
3. Place Hinge Plates on outer surface of the post flanges and secure with bolts, lock washers, and nuts. Ensure that upper and lower post sections are in alignment, and then tighten all nuts 1/2 turn beyond snug.

BRACKET ASSEMBLY:

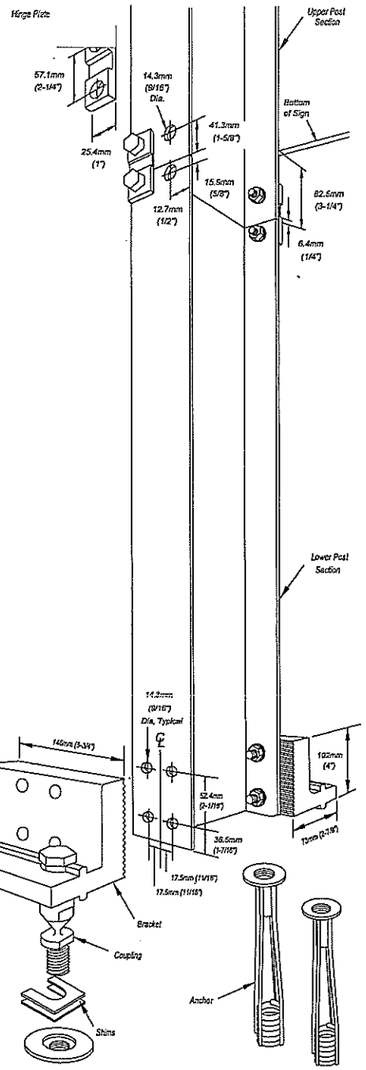
1. Drill eight (8) 14.3mm (9/16") diameter holes in the flanges of the lower post section as shown.
2. Place Brackets squarely on outer surface of the post flanges, and secure with bolts, lock washers, and nuts. Then, tighten all 1/2 turn beyond snug.

COUPLING ASSEMBLY:

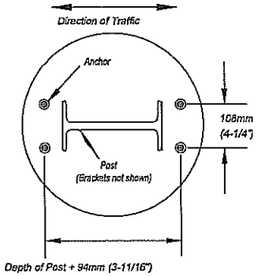
1. Thread four (4) Break-Safe Couplings into Anchors. Do not tighten.
2. Suspend post assembly over foundation, insert Special Bolts through holes in the Brackets, and thread them snug into the Couplings.
3. If post is not plumb, insert Shims (14g and/or 18g) between the Couplings and Anchors, where needed.
4. Use lower wrench flats to tighten Couplings into Anchors as tight as possible using a conventional wrench. Do not use a pipe wrench. Couplings must be seated squarely.
5. Tighten Special Bolts while holding Couplings by the upper wrench flats with an additional wrench to prevent an induced torque stress across the necked portion of the Coupling. All Special Bolts shall also be tightened as tight as possible using conventional wrenches.

SIGN PANEL ASSEMBLY:

1. After all signposts are secured in place, attach sign panel assembly to posts in accordance with the sign manufacturer's recommendations.



PLAN VIEW OF TYPICAL FOUNDATION



Patent Nos. 4,528,786 and 5,596,845

W6X9

Break-Safe Model AI6

Breakaway Support System for Sign Posts

Scale: Not To Scale	Date: July 2000
Drawing No. BS-AI6-2	Sheet: 2 of 2

FILE NAME =	USER NAME = elsonmw	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 109.8945 ' / in.	CHECKED - ___	REVISED -
	PLOT DATE = 5/19/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

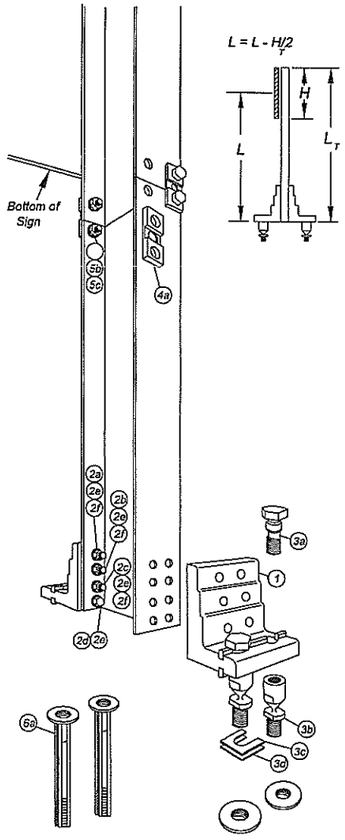
BREAKAWAY COUPLING DEVICES

SCALE: _____ | SHEET NO. 1 OF 1 SHEET | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	D7 SIGN MAINTENANCE 25-14	VARIOUS	11	9
		CONTRACT NO. 46657		
	ILLINOIS FED. AID PROJECT			

PARTS LIST

ITEM	DESCRIPTION	SIZE/SPECIFICATIONS	QTY/ POST	PART NUMBER
2a	Bolt	12.7mm(1/2")-13UNCx63.5mm(2-1/2"), Hex Head, ASTM A325, Galv. ASTM A153	4	
2b	Bolt	12.7mm(1/2")-13UNCx69.8mm(2-3/4"), Hex Head, ASTM A325, Galv. ASTM A153	4	
2c	Bolt	12.7mm(1/2")-13UNCx76.2mm(3"), Hex Head, ASTM A325, Galv. ASTM A153	4	
2d	Cap Screw	12.7mm(1/2")-13UNCx31.7mm(1-1/4"), Hex Head, ASTM A307, Galv. ASTM A153	4	
2e	LockWasher	12.7mm(1/2"), ANSI B18.21-1, Galv. ASTM A153	16	
2f	Nut	12.7mm(1/2")-13UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	12	
3a	Special Bolt	25.4mm(1")-8UNC, ASTM A449, Galv. ASTM A153/B695	4	
3b	Coupling	25.4mm(1")-8UNC, LP, AMS 6378D, Galv. ASTM A153, Polyester Coat	4	
3c	Shim	25.4mm(1") Horseshoe, 14 Gauge, Galv. Steel Sheet	2	
3d	Shim	25.4mm(1") Horseshoe, 18 Gauge, Galv. Steel Sheet	2	
4a	Hinge Plate	Type B525, AISI 4130 Steel, Galv. ASTM A123	4	
5a	Bolt	19.0mm(3/4")-10UNCx57.1mm(2-1/4"), Hex Head, ASTM A325, Galv. ASTM A153	8	
5b	LockWasher	19.0mm(3/4"), ANSI B18.21-1, Galv. ASTM A153	8	
5c	Nut	19.0mm(3/4")-10UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	8	
6a	Anchor	25.4mm(1")-8UNC, 304 S.S. Ferrule, AISI 1038 Rod, AISI 1008 Coil	4	



BRACKET SELECTION TABLE

Select correct Break-Safe bracket number from table, using 'L' value from the longest post. Use figure to the left to determine 'L'.

POST SIZE	BRACKET No. 1		BRACKET No. 2		BRACKET No. 3	
	Min. 'L'	Max. 'L'	Min. 'L'	Max. 'L'	Min. 'L'	Max. 'L'
152mm (6")	3.6m(12')	8.8m(29')	2.7m(9')	3.6m(12')	0	2.7m(9')
203mm (8")	4.3m(14')	8.8m(29')	3.0m(10')	4.3m(14')	0	3.0m(10')

GENERAL NOTES:

1. Break-Safe meets all requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."
2. Break-Safe Model B525 is designed to fit 150mm (6") and 200mm (8") Wide Flange I-Beam, and 127mm (5") and 150mm (6") Square Tube signposts.
3. Select proper Bracket Number by referring to Bracket Selection Table.
4. All hardware items are American Standard sizes, galvanized in accordance with ASTM A153 (hot dipped) or ASTM B695 (mechanically applied).
5. Fasteners, except for special bolt and coupling, are installed with lockwashers, and do not have specific torque requirements. Fasteners should be secured as tight as possible with conventional wrenches, unless noted otherwise.
6. Square-up and level individual components, particularly Anchors to minimize the need for shimming between the Couplings and Anchors.
7. No more than two shims shall be placed under any one coupling. No more than three shims underneath any pair of couplings.
8. Refer to other side of page for complete installation instructions.

Patent Nos. 4,528,786 and 5,596,845

W6 & W8

Break-Safe Model B525

Breakaway Support System for Sign Posts

Scale: Not To Scale	Date: July 2000
Drawing No. BS-B525-1, -2, -3	Sheet: 1 of 2

INSTALLATION INSTRUCTIONS

ANCHOR ASSEMBLY:

Note: Precise positioning of the anchors is critical to proper assembly of the system. It is recommended that actual posts be used to locate the correct postion of the anchors.

1. Determine proper Break-Safe Bracket Number from the Bracket Selection Table. All posts within a sign structure shall use the same Bracket Number, determined by the length of the longest post.
2. Fabricate a flat, rigid template with four (4) 25mm (1") diameter holes located to match the specified anchor pattern of the Break-Safe Brackets attached to the signpost. See diagram below.
3. Attach four (4) Transpo Type B Female Anchors to the template using four (4) 25mm (1") diameter bolts. Ensure that each Anchor Washer is snug against the bottom of the template.
4. Lower Anchor Assembly into fresh concrete foundation, and vibrate into position such that the tops of the Anchor Washers are flush with the finished top surface of the foundation. Support the template such that all Anchors are level and in their proper locations.
5. Allow concrete to cure, and then remove the bolts and template from the top of the foundation.

HINGE ASSEMBLY:

1. Butt upper and lower post sections together on a flat surface.
2. Drill eight (8) 20.6mm (13/16") holes in the flanges of the post sections as shown.
3. Place Hinge Plates on outer surface of the post flanges and secure with bolts, lock washers, and nuts. Ensure that upper and lower post sections are in alignment, and then tighten all nuts 1/2 turn beyond snug.

BRACKET ASSEMBLY:

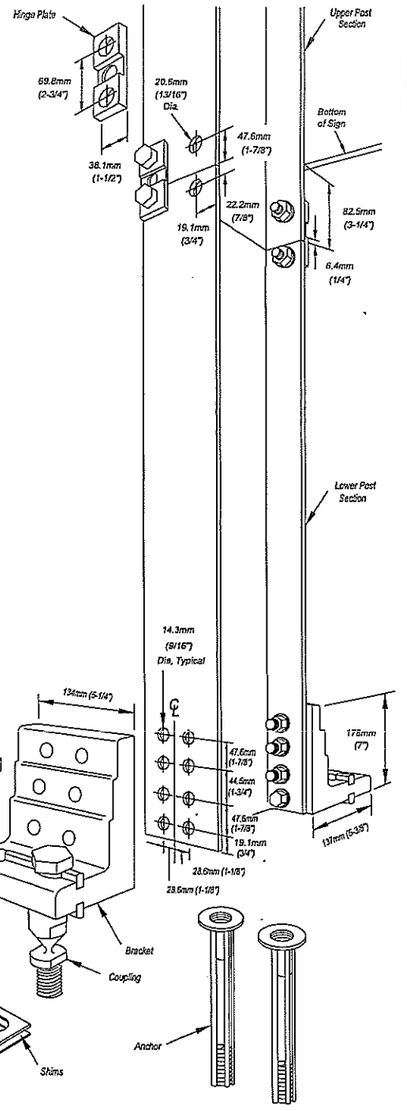
1. Drill sixteen (16) 14.3mm (9/16") diameter holes in the flanges of the lower post section as shown.
2. Place Brackets squarely on outer surface of the post flanges, and secure with bolts, lock washers, nuts, and cap screws. Then, tighten all 1/2 turn beyond snug.

COUPLING ASSEMBLY:

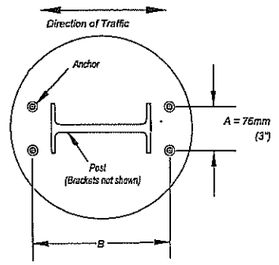
1. Thread four (4) Break-Safe Couplings into Anchors. Do not tighten.
2. Suspend post assembly over foundation, insert Special Bolts through holes in the Brackets, and thread them snug into the Couplings.
3. If post is not plumb, insert Shims (14g and/or 18g) between the Couplings and Anchors, where needed.
4. Use lower wrench flats to tighten Couplings into Anchors as tight as possible using a conventional wrench. Do not use a pipe wrench. Couplings must be seated squarely.
5. Tighten Special Bolts while holding Couplings by the upper wrench flats with an additional wrench to prevent an induced torque stress across the necked portion of the Coupling. All Special Bolts shall also be tightened as tight as possible using conventional wrenches.

SIGN PANEL ASSEMBLY:

1. After all signposts are secured in place, attach sign panel assembly to posts in accordance with the sign manufacturer's recommendations.



PLAN VIEW OF TYPICAL FOUNDATION



B (Bracket No. 1) = Depth of Post + 202mm (7-15/16")
B (Bracket No. 2) = Depth of Post + 205mm (8-1/16")
B (Bracket No. 3) = Depth of Post + 207mm (8-1/8")

Patent Nos. 4,528,786 and 5,596,845

W6 & W8

Break-Safe Model B525

Breakaway Support System for Sign Posts

Scale: Not To Scale	Date: July 2000
Drawing No. BS-B525-1, -2, -3	Sheet: 2 of 2

FILE NAME =	USER NAME = elsomm	DESIGNED -	REVISED -	
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	PLOT SCALE = 189.8946 ' / in.	CHECKED - ___	REVISED -	
	PLOT DATE = 5/19/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

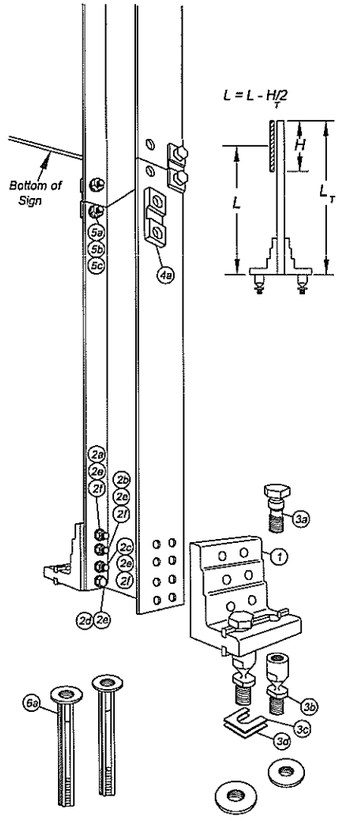
BREAKAWAY COUPLING DEVICES

SCALE: _____ | SHEET NO. 1 OF 1 SHEET | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-70	07 SIGN MAINTENANCE 25-14	VARIOUS	11	10
		CONTRACT NO. 46657		
	ILLINOIS FED. AID PROJECT			

PARTS LIST

ITEM	DESCRIPTION	SIZE/SPECIFICATIONS	QTY/ POST	PART NUMBER
2a	Bolt	15.9mm(5/8")-11UNCx69.9mm(2-3/4"), Hex Head, ASTM A325, Galv. ASTM A153	4	
2b	Bolt	15.9mm(5/8")-11UNCx76.2mm(3"), Hex Head, ASTM A325, Galv. ASTM A153		
2c	Bolt	15.9mm(5/8")-11UNCx82.6mm(3-1/4"), Hex Head, ASTM A325, Galv. ASTM A153	4	
2d	Cap Screw	15.9mm(5/8")-11UNCx31.7mm(1-1/4"), Hex Head, ASTM A307, Galv. ASTM A153	4	
2e	LockWasher	15.9mm(5/8"), ANSI B18.21-1, Galv. ASTM A153	16	
2f	Nut	15.9mm(5/8")-11UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	12	
3a	Special Bolt	25.4mm(1")-8UNC, ASTM A449, Galv. ASTM A153/B695	4	
3b	Coupling	25.4mm(1")-8UNC, LP, AMS 6378D, Galv. ASTM A153, Polyester Coat	4	
3c	Shim	25.4mm(1") Horseshoe, 14 Gauge, Galv. Steel Sheet	2	
3d	Shim	25.4mm(1") Horseshoe, 18 Gauge, Galv. Steel Sheet	2	
4a	Hinge Plate	Type B650, AISI 4130 Steel, Galv. ASTM A123	4	
5a	Bolt	19.0mm(3/4")-10UNCx57.1mm(2-1/4"), Hex Head, ASTM A325, Galv. ASTM A153	8	
5b	LockWasher	19.0mm(3/4"), ANSI B18.21-1, Galv. ASTM A153	8	
5c	Nut	19.0mm(3/4")-10UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	8	
6a	Anchor	25.4mm(1")-8UNC, 304 S.S. Ferrule, AISI 1045 Rod, AISI 1008 Coil	4	



BRACKET SELECTION TABLE

Select correct Break-Safe bracket number from table, using 'L' value from the longest post. Use figure to the left to determine 'L'.

WIDE FLANGE I-BEAM POST SIZE	BRACKET No. 1		BRACKET No. 2		BRACKET No. 3	
	Min. 'L'	Max. 'L'	Min. 'L'	Max. 'L'	Min. 'L'	Max. 'L'
250mm(10")	4.9m(16')	8.8m(29')	3.3m(11')	4.9m(16')	0	3.3m(11')
310mm(12")	5.5m(18')	8.8m(29')	4.0m(13')	5.5m(18')	0	4.0m(13')
360mm(14")	5.6m(19')	8.8m(29')	4.3m(14')	5.8m(19')	0	4.3m(14')
410mm(16")	6.4m(21')	8.8m(29')	4.6m(15')	6.4m(21')	0	4.6m(15')
460mm(18")	7.0m(23')	8.8m(29')	4.9m(16')	7.0m(23')	0	4.9m(16')
530mm(21")	7.6m(25')	8.8m(29')	5.5m(18')	7.6m(25')	0	5.5m(18')

GENERAL NOTES:

1. Break-Safe meets all requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."
2. Break-Safe Model B650 is designed to fit 250mm (10") through 530mm (21") Wide Flange I-Beam, and 178mm (7") and 203mm (8") Square Tube signposts.
3. Select proper Bracket Number by referring to Bracket Selection Table.
4. All hardware items are American Standard sizes, galvanized in accordance with ASTM A153 (hot dipped) or ASTM B695 (mechanically applied).
5. Fasteners, except for special bolt and coupling, are installed with lockwashers, and do not have specific torque requirements. Fasteners should be secured as tight as possible with conventional wrenches, unless noted otherwise.
6. Square-up and level individual components, particularly Anchors to minimize the need for shimming between the Couplings and Anchors.
7. No more than two shims shall be placed under any one coupling. No more than three shims underneath any pair of couplings.
8. Refer to other side of page for complete installation instructions.

Patent Nos. 4,528,786 and 5,596,845

W10 through W21

Break-Safe Model B650

Breakaway Support System for Sign Posts

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INSTALLATION INSTRUCTIONS

ANCHOR ASSEMBLY:

Note: Precise positioning of the anchors is critical to proper assembly of the system. It is recommended that actual posts be used to locate the correct position of the anchors.

1. Determine proper Break-Safe Bracket Number from the Bracket Selection Table. All posts within a sign structure shall use the same Bracket Number, determined by the length of the longest post.
2. Fabricate a flat, rigid template with four (4) 25mm (1") diameter holes located to match the specified anchor pattern of the Break-Safe Brackets attached to the signpost. See diagram below.
3. Attach four (4) Transpo Type B Female Anchors to the template using four (4) 25mm (1") diameter bolts. Ensure that each Anchor Washer is snug against the bottom of the template.
4. Lower Anchor Assembly into fresh concrete foundation, and vibrate into position such that the tops of the Anchor Washers are flush with the finished top surface of the foundation. Support the template such that all Anchors are level and in their proper locations.
5. Allow concrete to cure, and then remove the bolts and template from the top of the foundation.

HINGE ASSEMBLY:

1. Butt upper and lower post sections together on a flat surface.
2. Drill eight (8) 20.6mm (13/16") holes in the flanges of the post sections as shown.
3. Place Hinge Plates on outer surface of the post flanges and secure with bolts, lock washers, and nuts. Ensure that upper and lower post sections are in alignment, and then tighten all nuts 1/2 turn beyond snug.

BRACKET ASSEMBLY:

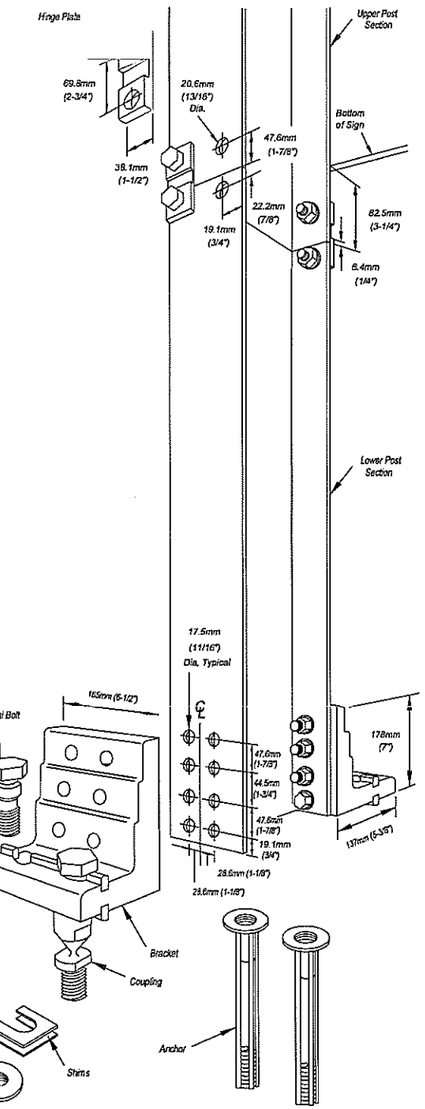
1. Drill sixteen (16) 17.5mm (11/16") diameter holes in the flanges of the lower post section as shown.
2. Place Brackets squarely on outer surface of the post flanges, and secure with bolts, lock washers, nuts, and cap screws. Then, tighten all 1/2 turn beyond snug.

COUPLING ASSEMBLY:

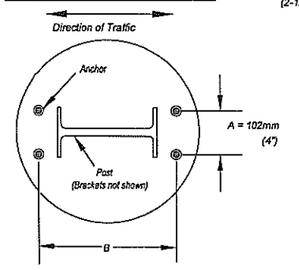
1. Thread four (4) Break-Safe Couplings into Anchors. Do not tighten.
2. Suspend post assembly over foundation, insert Special Bolts through holes in the Brackets, and thread them snug into the Couplings.
3. If post is not plumb, insert Shims (14g and/or 18g) between the Couplings and Anchors, where needed.
4. Use lower wrench flats to tighten Couplings into Anchors as tight as possible using a conventional wrench. Do not use a pipe wrench. Couplings must be seated squarely.
5. Tighten Special Bolts while holding Couplings by the upper wrench flats with an additional wrench to prevent an induced torque stress across the necked portion of the Coupling. All Special Bolts shall also be tightened as tight as possible using conventional wrenches.

SIGN PANEL ASSEMBLY:

1. After all signposts are secured in place, attach sign panel assembly to posts in accordance with the sign manufacturer's recommendations.



PLAN VIEW OF TYPICAL FOUNDATION



B (Bracket No. 1) = Depth of Post + 202mm (7-15/16")
B (Bracket No. 2) = Depth of Post + 205mm (8-1/16")
B (Bracket No. 3) = Depth of Post + 207mm (8-1/8")

Patent Nos. 4,528,786 and 5,596,845

W10 through W21

Break-Safe Model B650

Breakaway Support System for Sign Posts

Scale: Not To Scale	Date: October 2004
Drawing No. BS-B650-1, -2, -3	Sheet: 2 of 2

FILE NAME =	USER NAME = clsonne	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BREAKAWAY COUPLING DEVICES	F.A. RTE.	SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			1-70	D7 SIGN MAINTENANCE, 25-14 / VARIOUS / 11 / 11
	PLOT SCALE = 189.8945 ' / in.	CHECKED -	REVISED -				CONTRACT NO. 46657
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