

ClearCast FORMS - SAMPLE DRAWINGS
(STEEL GIRDERS)

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GENERAL NOTES

DESIGN NOTES

1. THE DESIGN CONTAINED IN THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY OTHERS. ON THE BASIS OF THE INFORMATION, TRUETECH BRIDGE® IS RESPONSIBLE FOR THE DESIGN OF THE CLEARCAST FORMS FOR THE PURPOSE OF PREVENTING ANY APPRECIABLE VERTICAL DEFLECTION OF THE BRIDGE DECK DURING THE PLACING OF CONCRETE UNTIL THE CONCRETE HAS SET UP.

2. THE DESIGN, MATERIALS AND CONSTRUCTION ARE BASED ON THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION (WITH CURRENT INTERIMS), AND THE AISI S100-12 (NORTH AMERICAN SPECIFICATION OF COLD-FORMED STEEL, STRUCTURAL MEMBERS), AND ACI 318-14 (BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE), AND AISC 360-10 (SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS).

3. THE MAXIMUM DEFLECTION IN THE FORM IS TO BE LIMITED TO THE PERMISSIBLE DEFLECTION, CALCULATED BASED ON THE SELF-WEIGHT OF THE FORM AND THE FOLLOWING:

UNIT WEIGHT OF REINFORCED CONCRETE: 150 PCF
CONSTRUCTION LIVE LOAD: 50 PSF
DESIGN SPAN (L) = CLEAR DISTANCE BETWEEN EDGES OF GIRDERS LESS MIN. BEARING LENGTH
Δ = L/180

INSTALLATION NOTES

1. CONTRACTOR TO SET THE ELEVATION OF THE FORM SUPPORTS TO MEET THE REQUIRED SCREED ELEVATIONS, DECK THICKNESS AND PLAN PROFILE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ADJUST SUPPORTS AS NEEDED PRIOR TO INSTALLING CLEARCAST FORMS.

2. WELDING OF FORM SUPPORTS TO TENSION FLANGES IS NOT PERMITTED.

3. IF WELDS OR WELDING IS REQUIRED, IT MUST BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SPECIAL PROVISIONS AND PERFORMED BY A QUALIFIED WELDER.

4. ANY PERMANENTLY EXPOSED STEEL WITH DAMAGED GALVANIZED COATING MUST BE CLEANED AND REPAIRED AT THE DISCRETION OF THE ENGINEER (RE).

5. PLACE CLEARCAST FORMS ON FORM SUPPORTS TO MEET THE MINIMUM BEARING LENGTHS SHOWN IN THE PLANS. DO NOT SET AND ATTACH FORMS DIRECTLY ON THE TOP OF BEAM FLANGES.

6. JOINTS BETWEEN ADJACENT CLEARCAST FORMS AND THE SUPPORT ANGLE SHALL BE MORTAR TIGHT. JOINTS LARGER THAN 0.50 INCHES SHALL BE SEALED WITH AN APPROVED MATERIAL (PROVIDED BY CONTRACTOR) TO PREVENT LEAKAGE OF THE CONCRETE.

7. CONNECT CLEARCAST FORMS TO THE FORM SUPPORTS BEFORE APPLYING ANY LOAD OR WALKING ON THE FORM, AND BEFORE THE END OF EACH WORK SHIFT. IT IS RECOMMENDED TO CONNECT CLEARCAST FORMS TO THE FORM SUPPORTS IMMEDIATELY UPON PLACEMENT TO PREVENT MOVEMENT OR UPLIFT.

8. IT IS RECOMMENDED THAT CONNECTIONS WITH SCREWS BE INSTALLED WITH TORQUE-LIMITING DEVICES TO PREVENT STRIPPING.

9. CUTTING OR DRILLING OF THE CLEARCAST FORM MAY ONLY BE DONE BY ACCEPTABLE METHODS WITH APPROVAL BY TRUETECH BRIDGE® AND THE ENGINEER (RE). CUTTING BY TORCH OR BURNING IS NOT PERMITTED. STEP DRILL BITS TO BE USED FOR DRILLING HOLES IN ACRYLIC.

10. THE MASKING, PROVIDED ON THE TOP SURFACE OF THE CLEARCAST FORM, SHOULD BE LEFT IN PLACE DURING INSTALLATION OPERATIONS TO PROVIDE PROTECTION OF THE TRANSPARENT SURFACE. USE ONLY PLASTIC PUTTY KNIVES OR SCRAPERS TO REMOVE MASKING AND TAKE CARE NOT TO SCRATCH THE SURFACE OF THE CLEARCAST FORM.

11. REMOVE THE MASKING JUST PRIOR TO SETTING REINFORCING STEEL.

12. IF MOISTURE OR FROST IS PRESENT ON THE CLEARCAST FORM, TAKE PRECAUTIONS TO AVOID SLIPPING. IT IS RECOMMENDED TO REMOVE WATER BEFORE WORKING ON THE SURFACE.

13. ALL SCREWS MUST BE PLACED SUCH THAT THERE IS A MINIMUM DISTANCE OF 0.30 INCHES BETWEEN THE CENTER OF SCREW AND ANY MATERIAL EDGE.

14. THE CONTRACTOR SHALL PROTECT THE INSTALLED CLEARCAST FORMS FROM ANY CLEANING SOLUTIONS, SOLVENTS SUCH AS ACETONE, GASOLINE, ALCOHOL OR THINNERS AS THEY MAY DAMAGE THE FORM. THE FORM SURFACE SHALL BE PROTECTED DURING STUD WELDING FOR SHEAR CONNECTORS. ANY FORMS THAT ARE DAMAGED FROM LACK OF PROTECTION SHALL BE REPAIRED OR REPLACED, AS DIRECTED BY THE ENGINEER (RE).

15. SUPPORTS FOR REINFORCEMENT BARS IN THE DECK MAY BE EITHER METAL OR PLASTIC (PLASTIC PREFERRED). BARS IN THE BOTTOM OF THE DECK ARE RECOMMENDED TO BE SUPPORTED ON CONTINUOUS BAR SUPPORTS PLACED TRANSVERSELY TO THE BOTTOM BARS AT A MAXIMUM SPACING OF 30 IN. BARS IN THE TOP OF THE DECK ARE RECOMMENDED TO BE SUPPORTED ON EITHER CONTINUOUS OR INDIVIDUAL HIGH CHAIRS PLACED ON THE FORM TRANSVERSE TO THE BOTTOM BARS OF THE TOP AT A MAXIMUM OF 24 IN. IF HIGH CHAIRS ARE SUPPORTED FROM THE BOTTOM REINFORCING BARS, NOT DIRECTLY ON THE FORM, SPACING MAY BE INCREASED TO 3 FEET. HIGH CHAIRS WITH 4 LEGS ARE RECOMMENDED. ALL CHAIRS SHALL BE AT LEAST 6 IN. FROM THE EDGE OF THE CLEARCAST FORM TRACK, UNLESS PLACED DIRECTLY ON THE STEEL TRACK.

16. PRIOR TO POURING CONCRETE, REMOVE ALL DEBRIS AND EXTRANEOUS MATTER FROM THE FORMS.

17. CONTROL THE PLACEMENT AND THICKNESS OF CONCRETE SUCH THAT THE PRESSURE APPLIED DOES NOT EXCEED THE DESIGN PRESSURE.

18. DO NOT DROP CONCRETE FROM A HEIGHT GREATER THAN 10 INCHES ABOVE THE CLEARCAST FORM.

19. MINIMIZE OR AVOID CONTACT OF EQUIPMENT, TOOLS, VIBRATORS WITH THE TOP OF CLEARCAST FORM TO PREVENT DAMAGE TO THE TRANSPARENT SURFACE. RUBBER TIPPED VIBRATORS SHALL BE USED.

20. CONCRETE WITH CALCIUM CHLORIDE (OR ANY ADMIXTURE CONTAINING SALTS) SHALL NOT BE USED.

21. TRUETECH BRIDGE® SUPPLIES THE CLEARCAST FORM AND COMPONENTS FOR THE STRUCTURE DETAILED HEREIN. IT IS THE CONTRACTORS OBLIGATION TO PREPARE AND EXECUTE A PROJECT SPECIFIC INSTALLATION SEQUENCE, MATERIAL UNLOADING, HANDLING AND BRACING AND FALL PROTECTION SYSTEM. THE NOTES AND DRAWINGS HEREIN DO NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO CONSTRUCT THE BRIDGE DECK ACCORDING TO THE PROJECT PLANS AND SPECIFICATIONS AND CONTRACT DOCUMENTS OR COMPLIANCE WITH ALL FALL PROTECTION, SAFETY, LAWS, STANDARDS AND PROCEDURES REQUIRED.

STORAGE & HANDLING

1. STORE PALLETS OF CLEARCAST FORMS AT LEAST THREE INCHES OFF THE GROUND WITH ONE END ELEVATED TO ALLOW FOR DRAINAGE.

2. KEEP WRAP ON CLEARCAST FORMS UNTIL THEY ARE READY FOR INSTALLATION TO REDUCE POTENTIAL FOR DAMAGE.





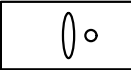


3. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CLEARCAST FORMS DURING HANDLING AND INSTALLATION. DO NOT STACK MATERIALS, DROP TOOLS OR RUN HEAVY EQUIPMENT OVER THE FORMS. ANY DAMAGED FORMS MUST BE REPLACED BY THE CONTRACTOR PRIOR TO CONTINUING WITH DECK CONSTRUCTION.

4. LIFT CLEARCAST FORMS FROM BENEATH THE STEEL TRACK. DO NOT LIFT FROM THE PLASTIC SHEET.

MATERIAL NOTES

1. ONLY THE MATERIALS SHOWN IN THE TABLE "MATERIALS PROVIDED BY TRUETECH BRIDGE®" WILL BE SUPPLIED BY TRUETECH BRIDGE®. ANY OTHER MATERIALS REQUIRED TO CONSTRUCT THE BRIDGE DECK ACCORDING TO THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE SUPPLIED BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO JOINT FILLER, CAULK, ADHESIVES, DUNNAGE AND END SUPPORTS, CANTILEVERED DECK SUPPORTS OR ANY OTHER SPECIAL MATERIALS.

MATERIALS PROVIDED BY TRUETECH BRIDGE®

ClearCast Forms		*MEMBER LENGTH (INCHES)	*MEMBER DEPTH (INCHES)	WIDTH (INCHES)	MIL THICKNESS MILS (1/1000")	YIELD STRENGTH (MIN.) (KSI)	DESIGNATION/ PART ID	COATING	MATERIAL SPECIFICATION
STRUCTURAL STEEL JOIST		VARIES	3.625	1.375	54	50	362S137-54	G90	ASTM A653
<div></div> <div>C-SECTION</div>									
STRUCTURAL STEEL TRACK		48.00	3.625	1.50	33	33	362T150-33	G90	ASTM A653
<div></div> <div>C-SECTION</div>									
STRUCTURAL STEEL ANGLE		96	4.00	3.00	7 Ga.	50	L4X3-7 Ga.	HDG	ASTM A1011
<div></div> <div>SUPPORT</div>									
STRUCTURAL STEEL PLATE		VARIES		2.00	10 Ga.	50	PL2 - 10 Ga.	G90	ASTM A653
<div></div> <div>TENSION STRAP</div>									
STRUCTURAL STEEL PLATE		3.00		1.5	12 Ga.	33	PL3 - 12 Ga.	G90	ASTM A653
<div><div></div><div>HOLD-DOWN PLATE</div></div>									
#12 SELF-TAPPING SCREW		1.00 (MIN.) TO 2.00 (MAX.)					X 1S1216 OR SSPCD1B1216	CLEAR-ZINC OR STAINLESS	ASTM C1513
<div></div>									
TRANSPARENT ACRYLIC		VARIES		47.5 (MIN.) TO 48 (MAX.)	177				ASTM D4802
<div></div>									

*FOR TYPICAL ClearCast UNITS. DIMENSIONS FOR NON-TYPICAL ClearCast WILL BE DETAILED WITHIN THIS DRAWING SET IF REQUIRED.

PATENT NUMBER: 8,739,496

ClearCast FORMS - SAMPLE DRAWINGS (STEEL GIRDERS)

ClearCast Forms

GENERAL NOTES & SPECIFICATIONS

01/31/2024

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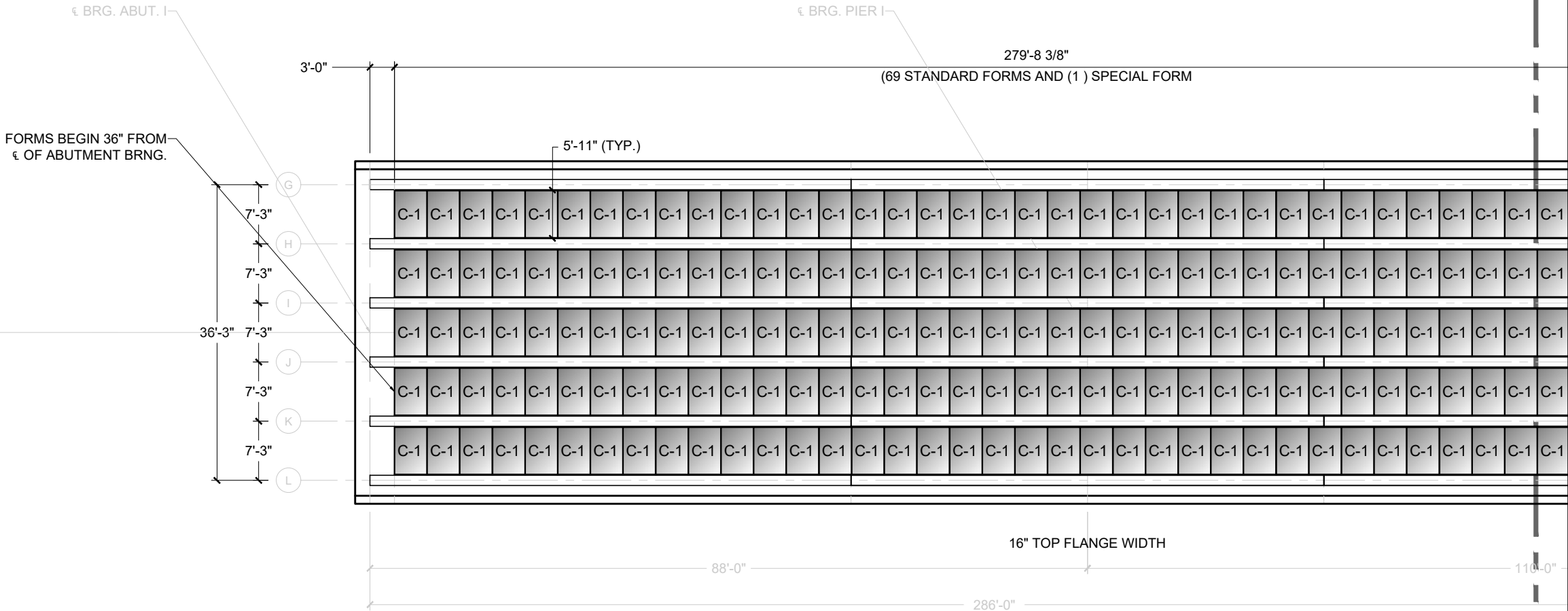


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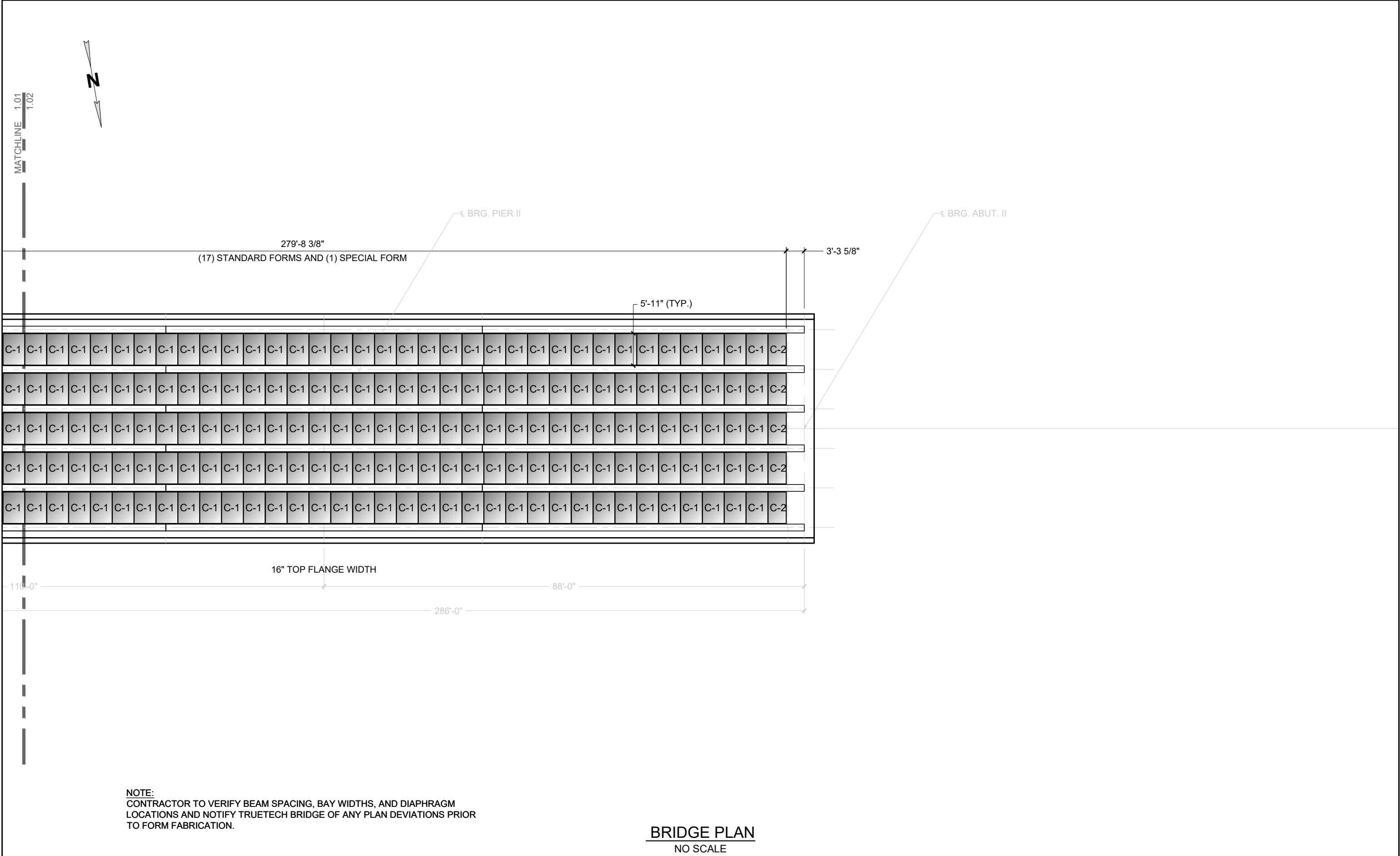


NOTE:
CONTRACTOR TO VERIFY BEAM SPACING, BAY WIDTHS, AND DIAPHRAGM
LOCATIONS AND NOTIFY TRUETECH BRIDGE OF ANY PLAN DEVIATIONS PRIOR
TO FORM FABRICATION.

BRIDGE PLAN
NO SCALE

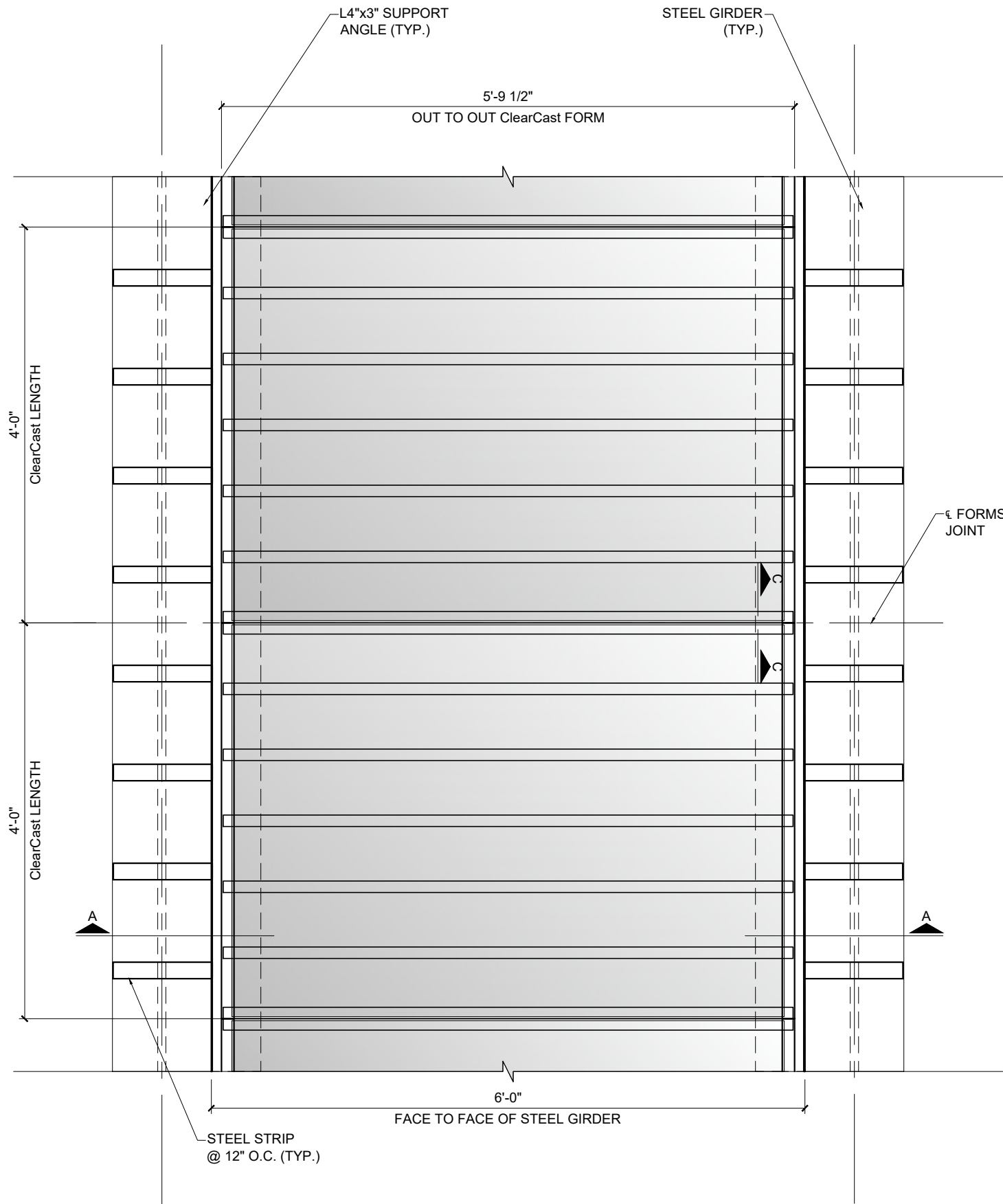
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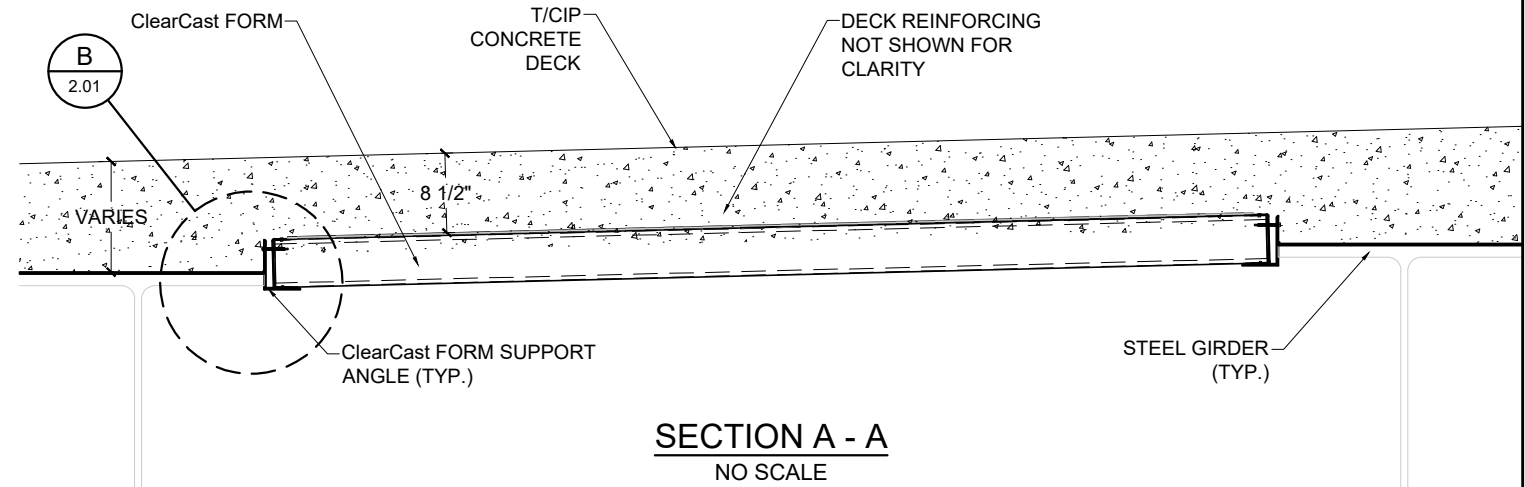


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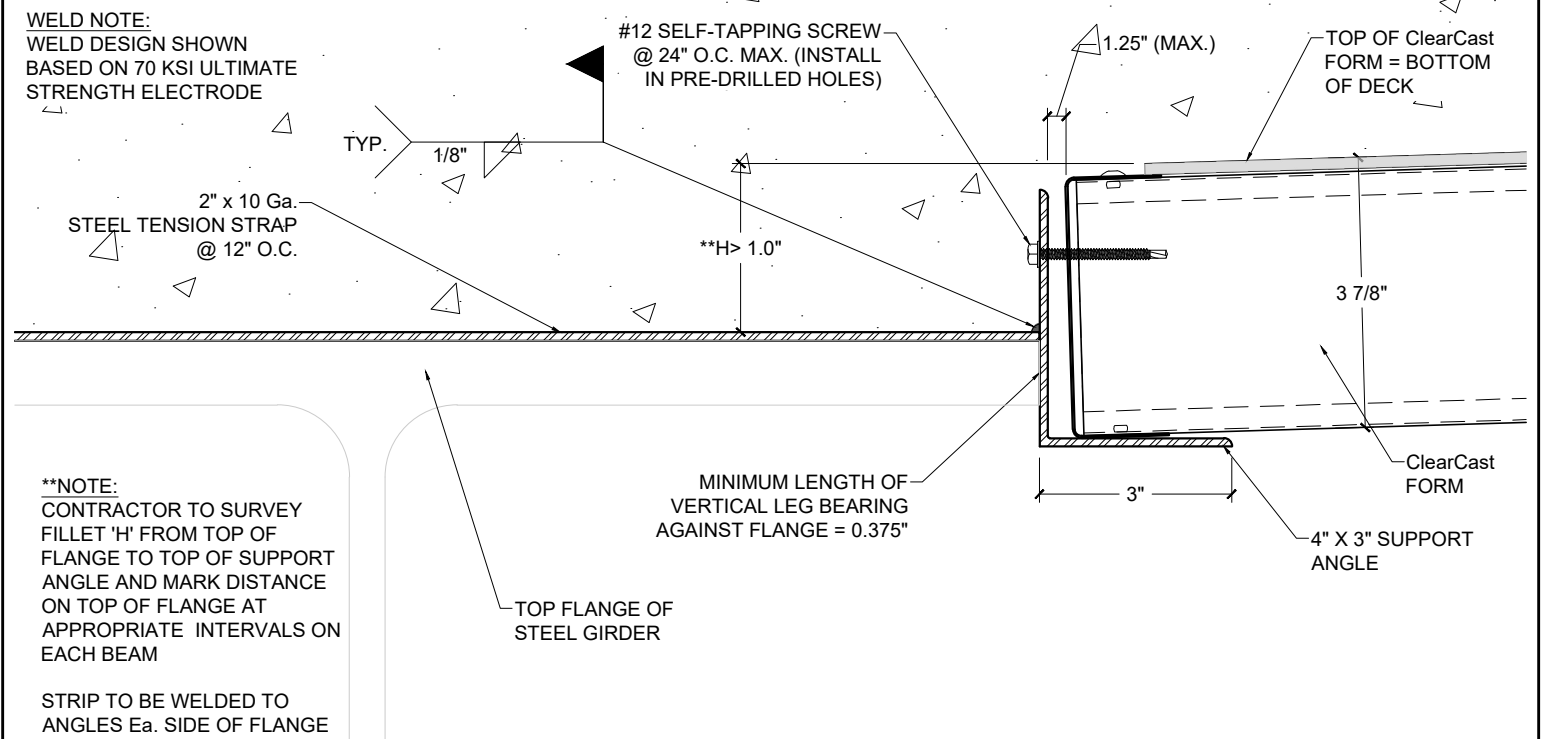
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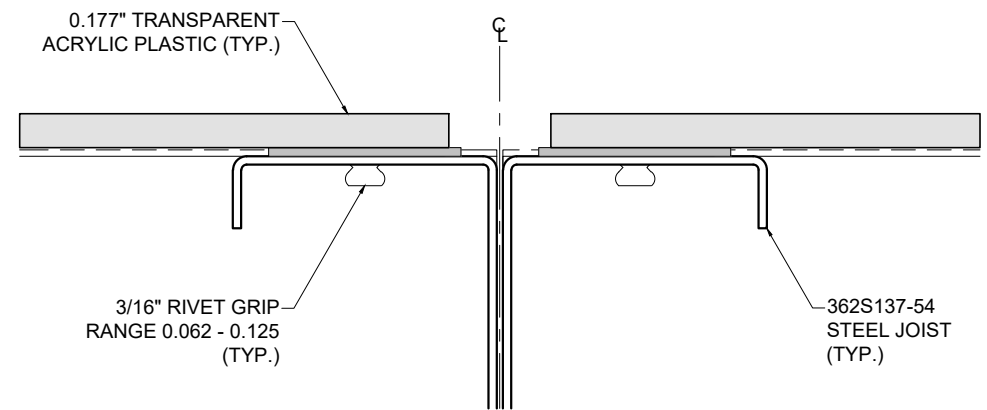
TYPICAL PLAN VIEW (C-1 FORM)
NO SCALE



SECTION A - A
NO SCALE



DETAIL B: FORM BEARING SUPPORT FILLET HEIGHT >= 1" TO 3 5/8"
NO SCALE



SECTION C - C: JOINT DETAIL
NO SCALE

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PATENT NUMBER: 8,739,496

ClearCast Forms

PAGE NAME:
TYPICAL ClearCast INSTALLATION PLAN SECTIONS & CONN. DET'LS.

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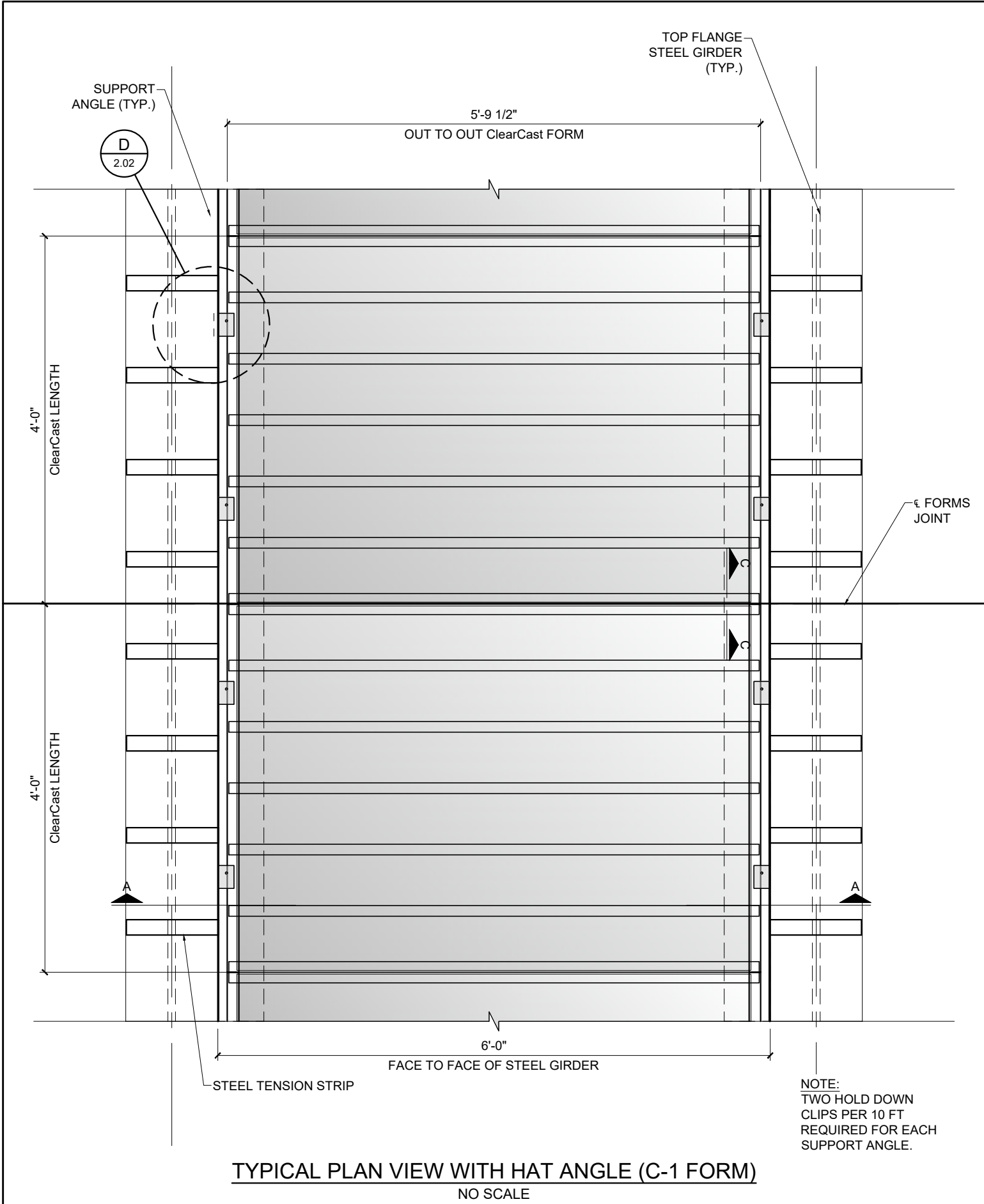
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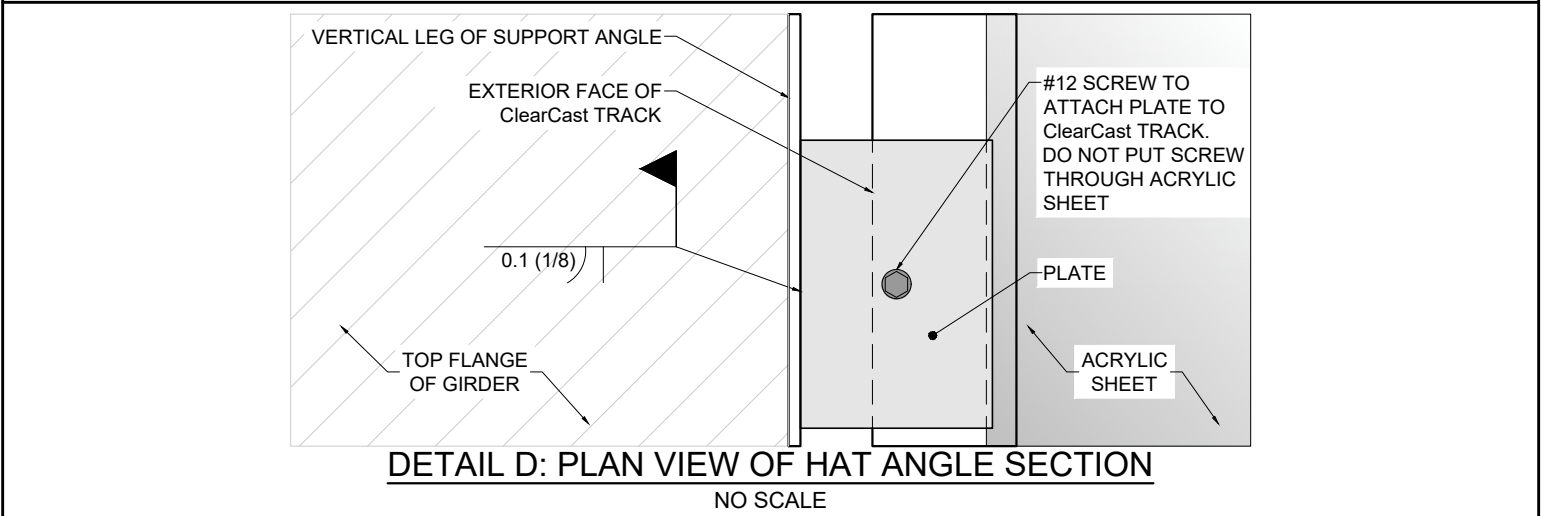
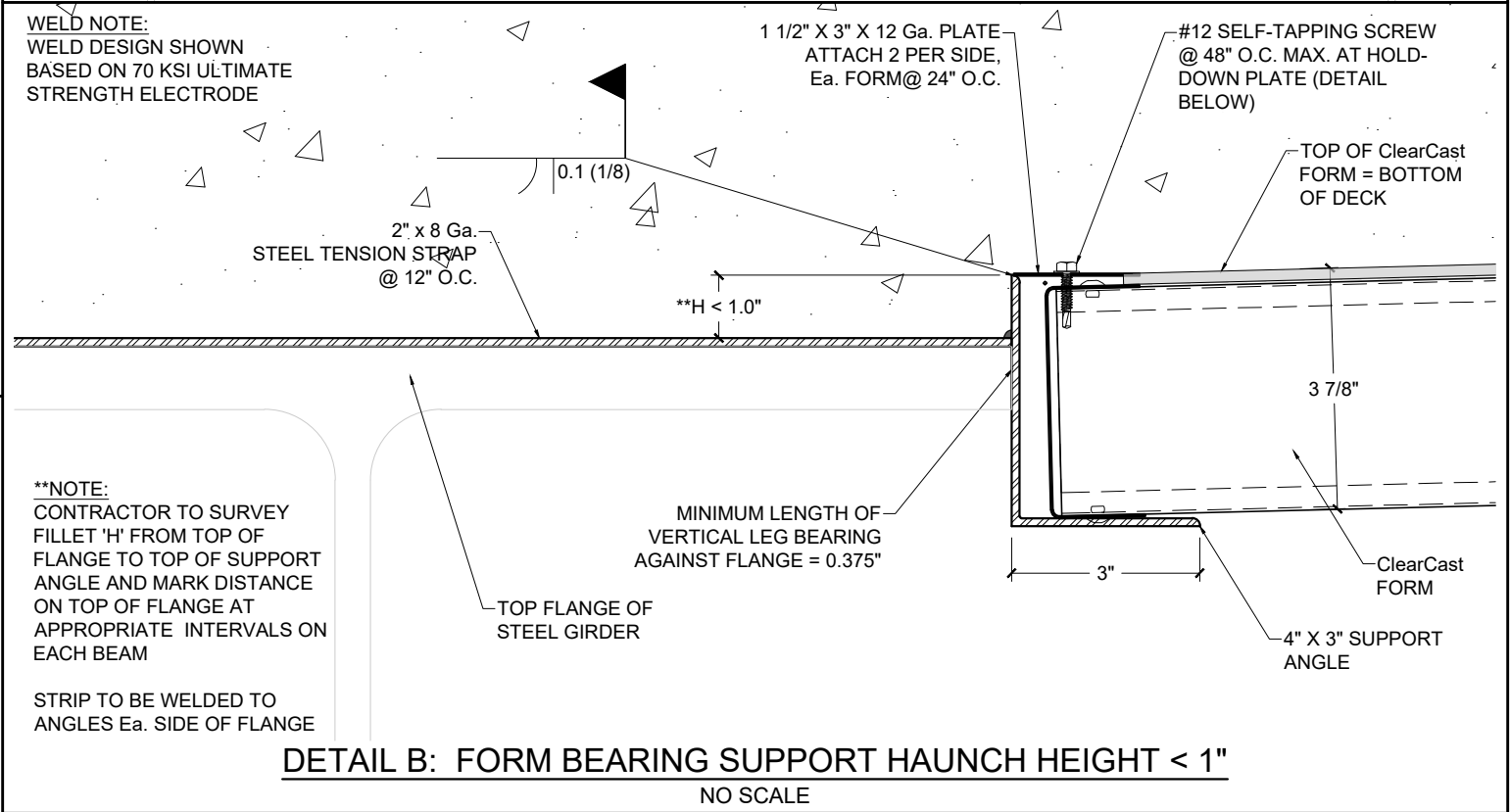
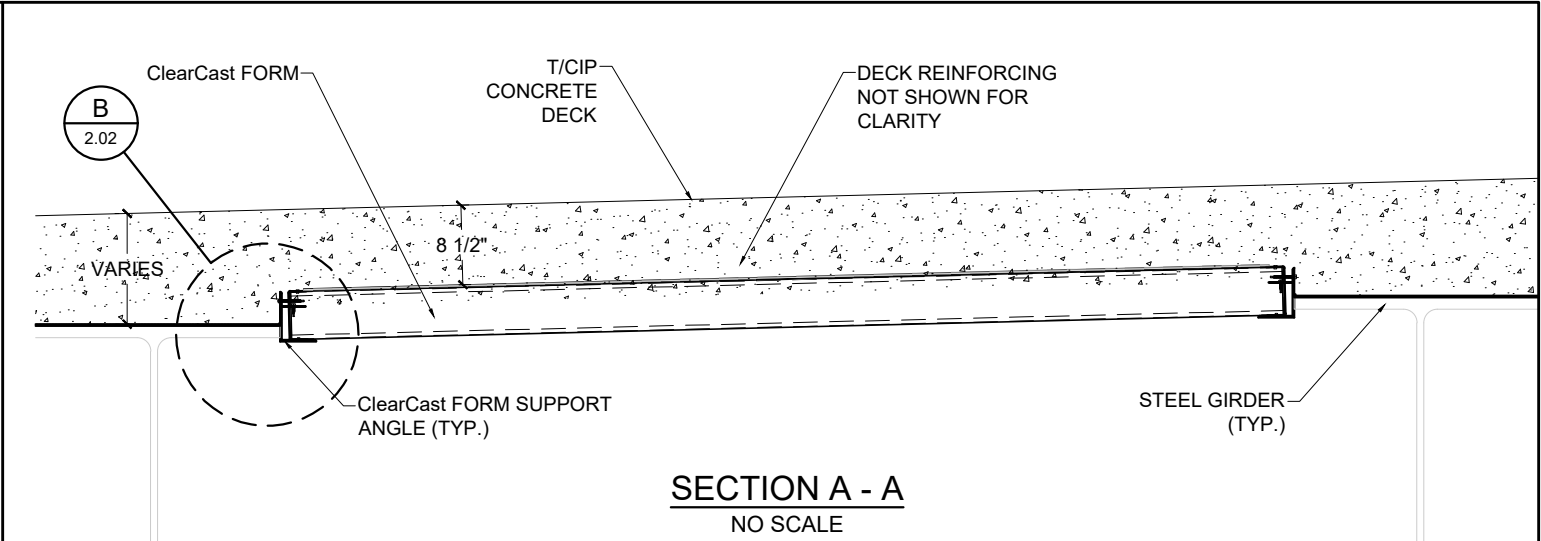
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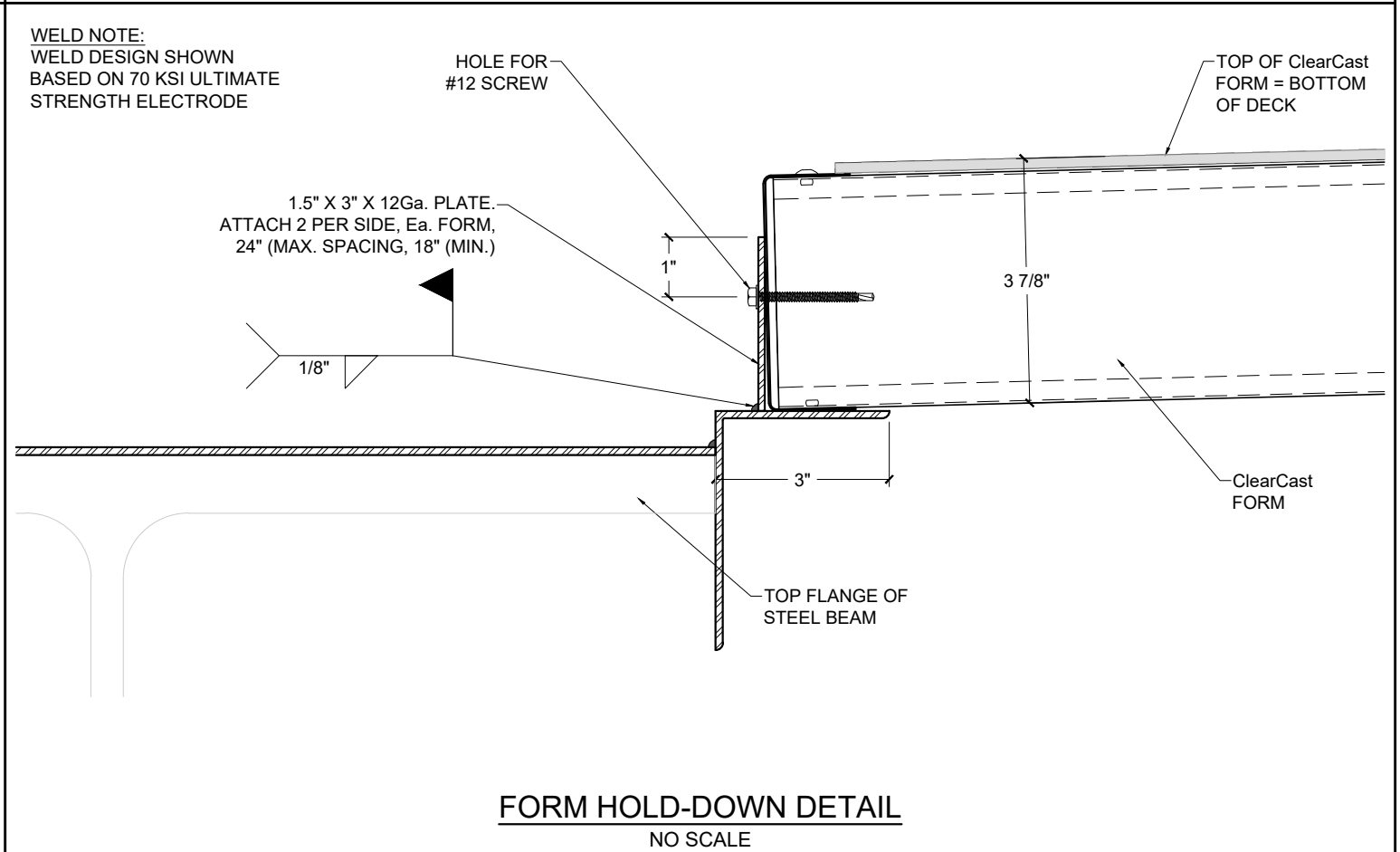
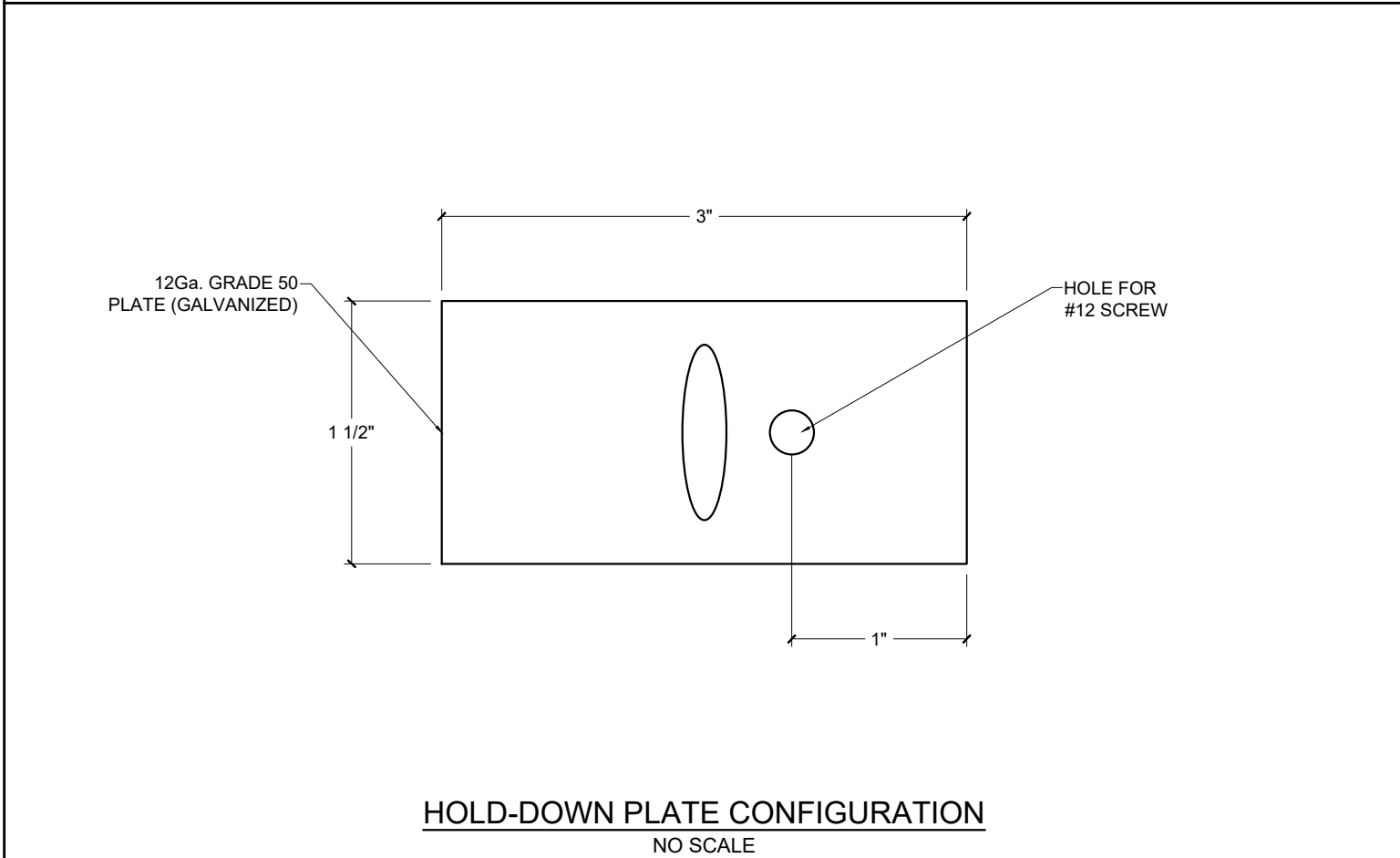
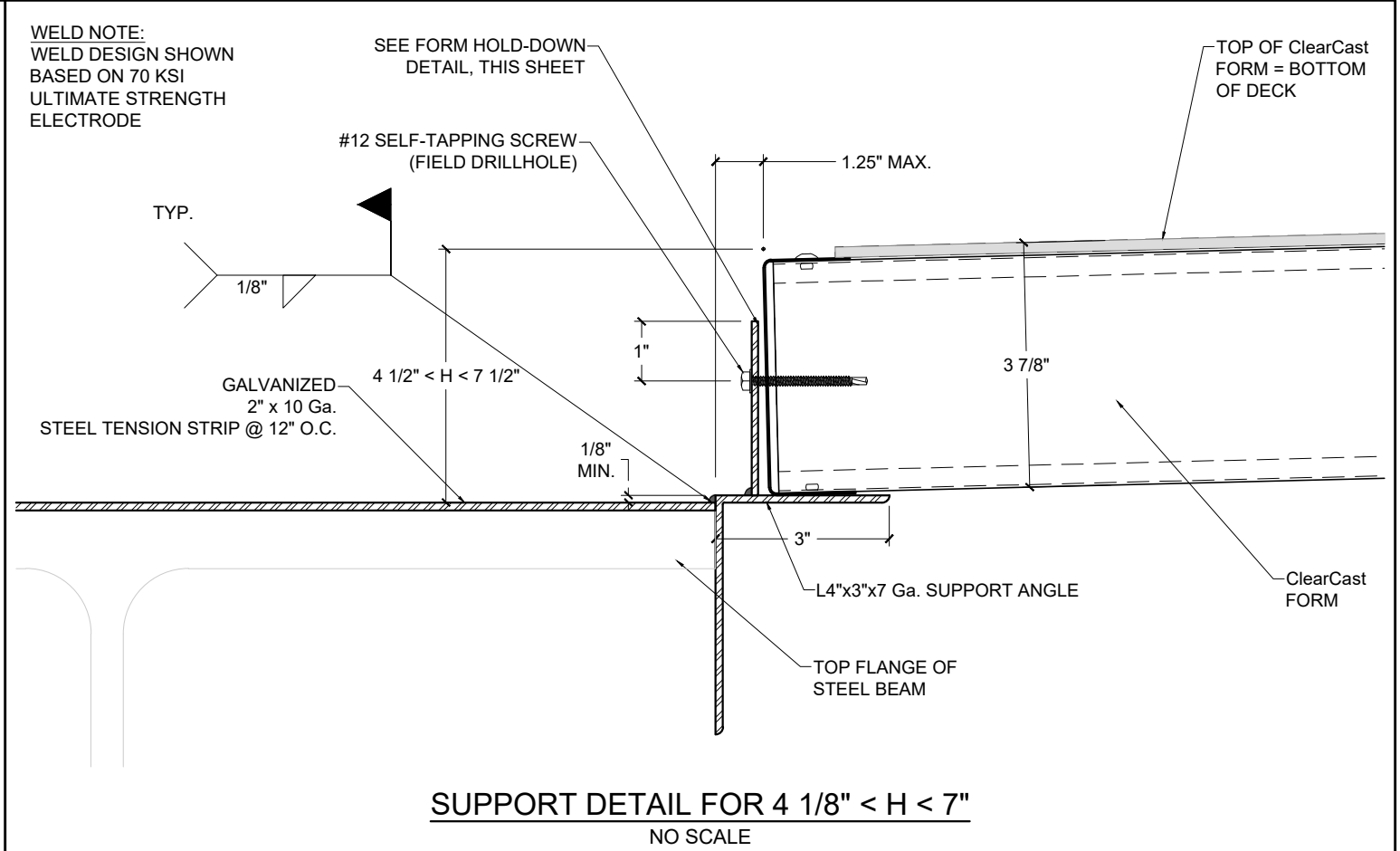
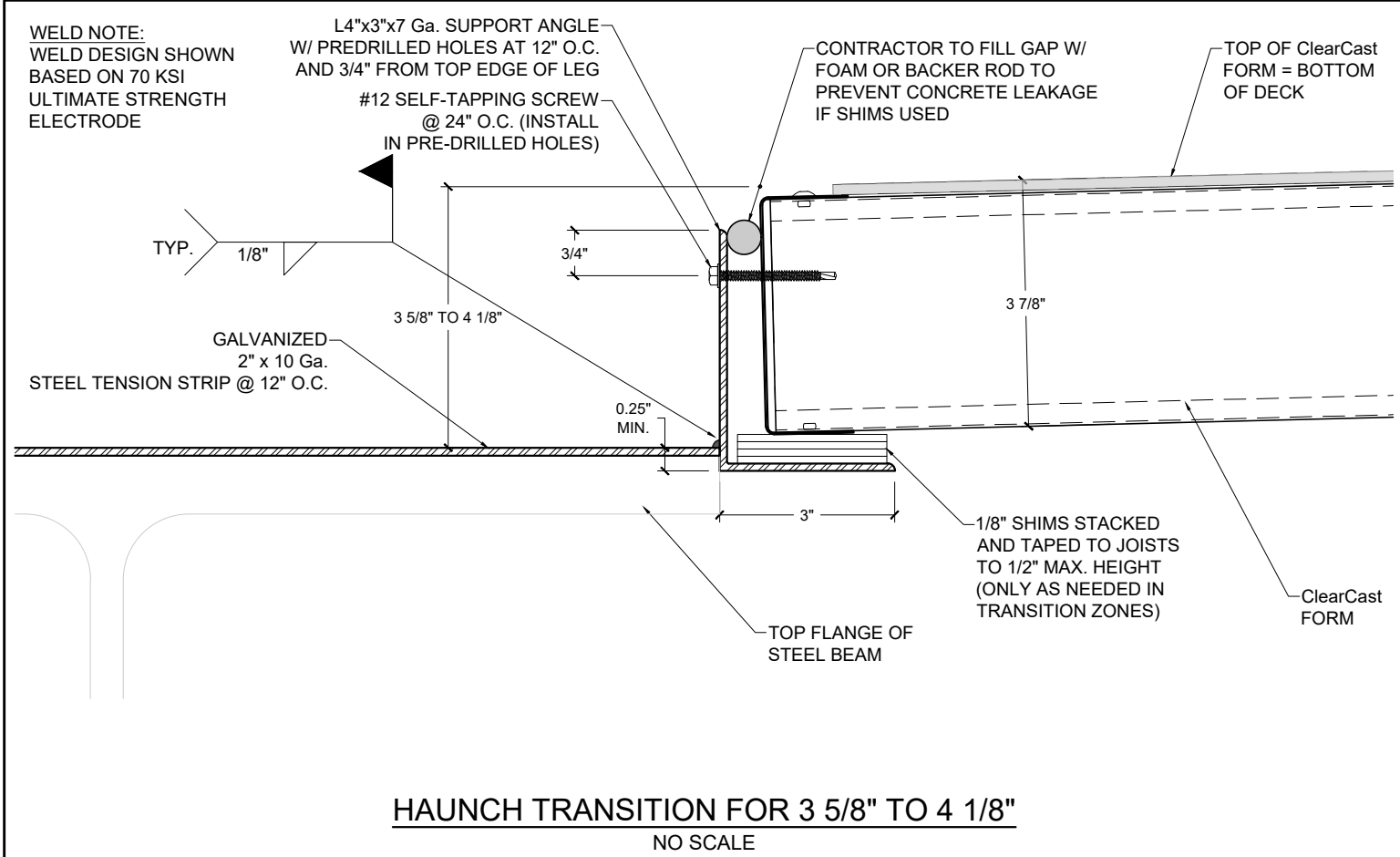
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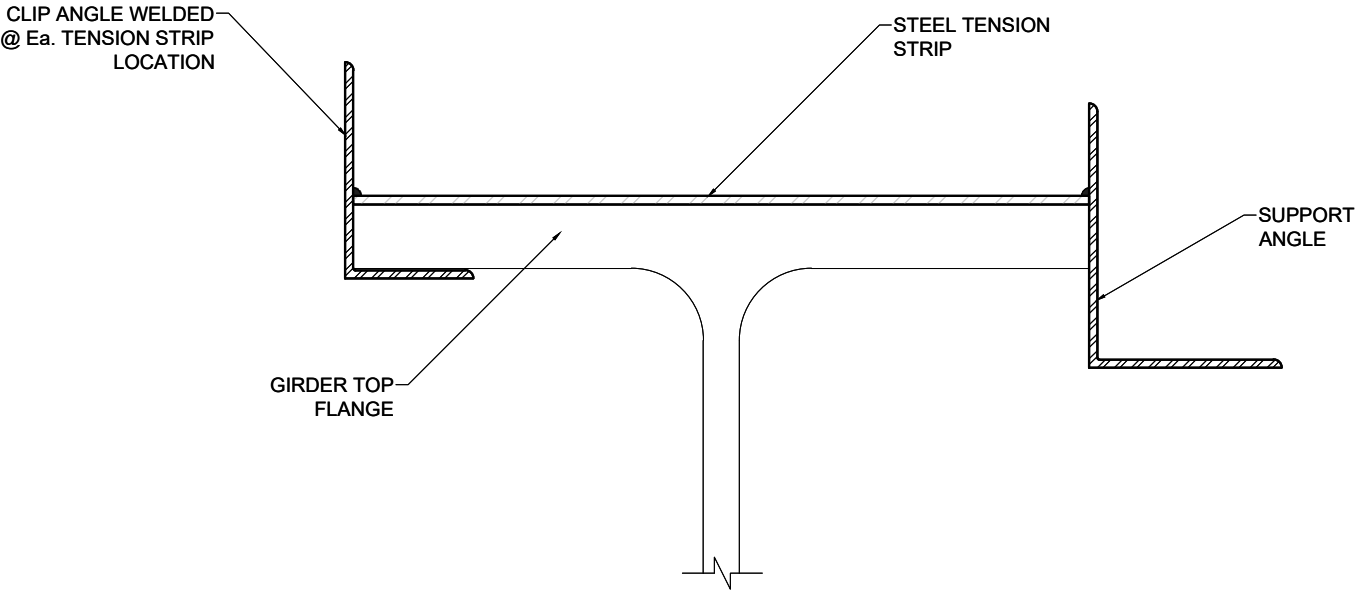


TYPICAL PLAN VIEW WITH HAT ANGLE (C-1 FORM)
NO SCALE

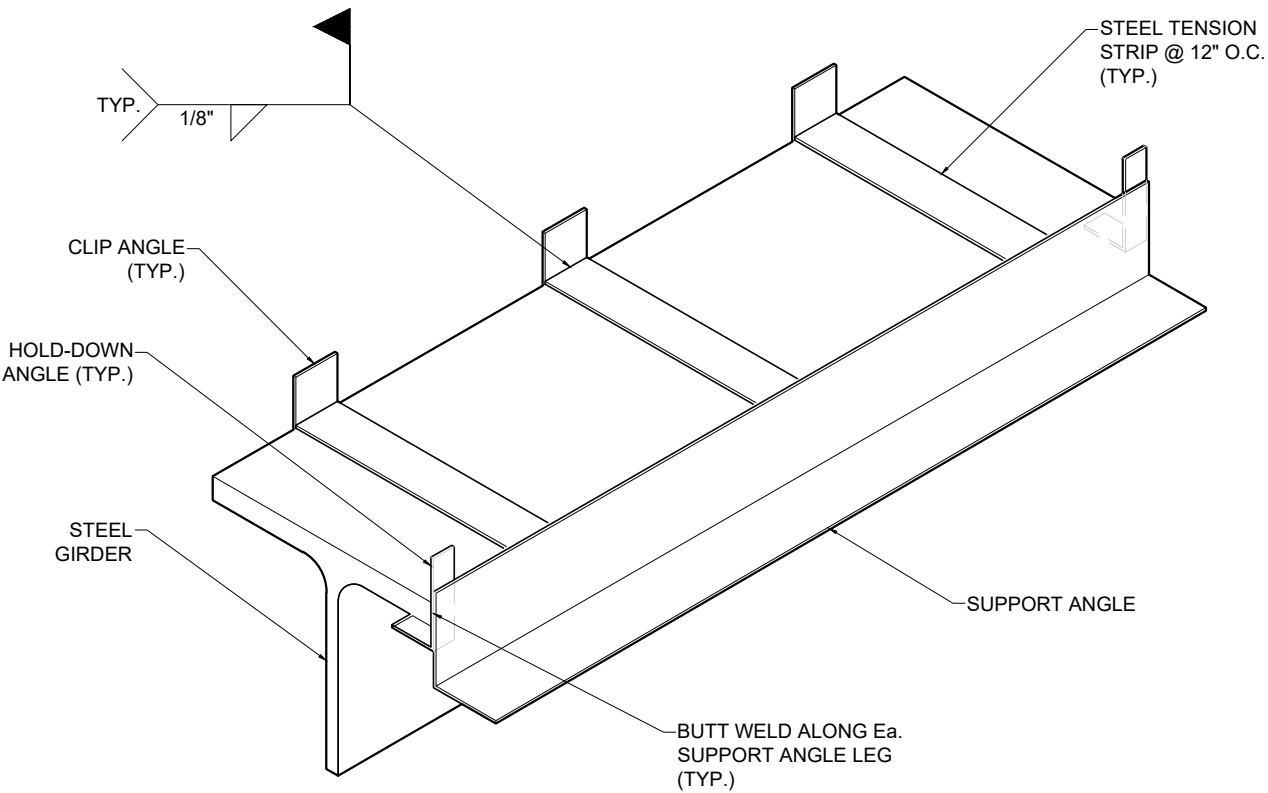




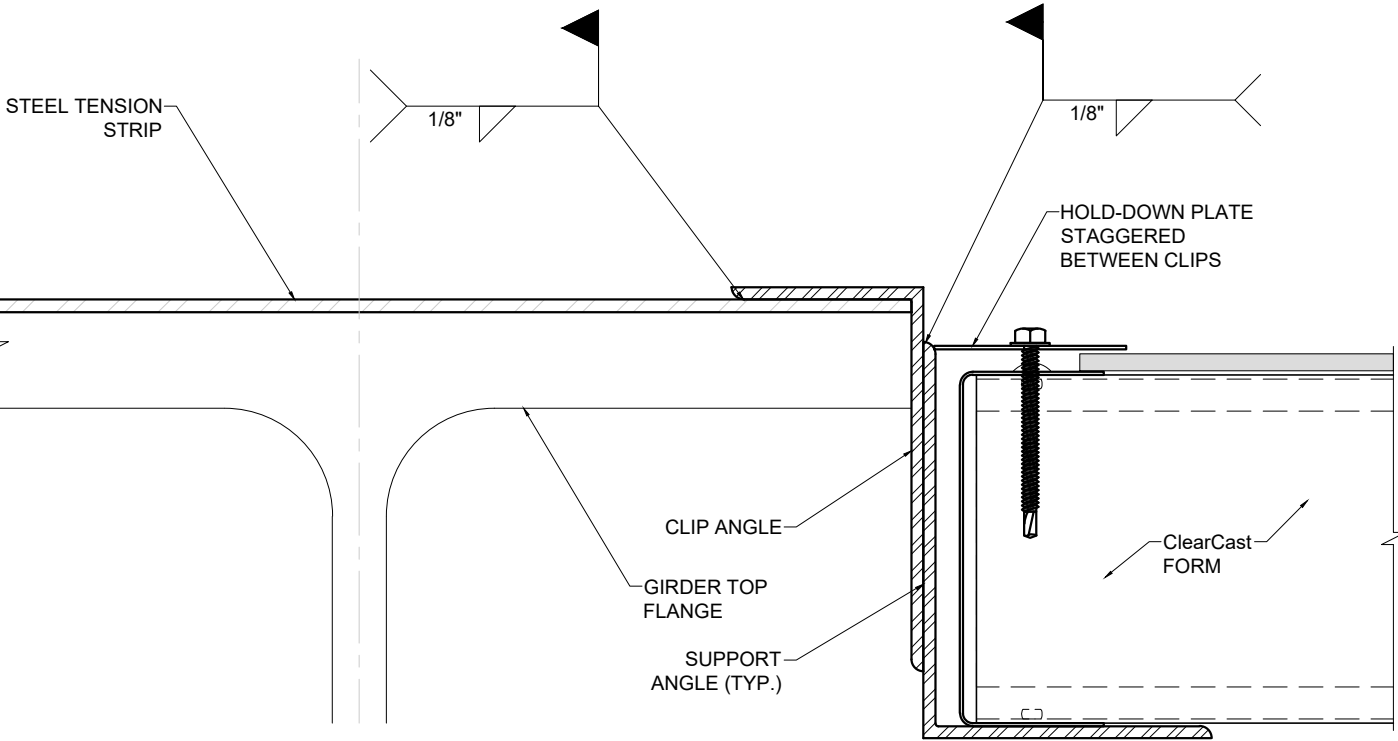
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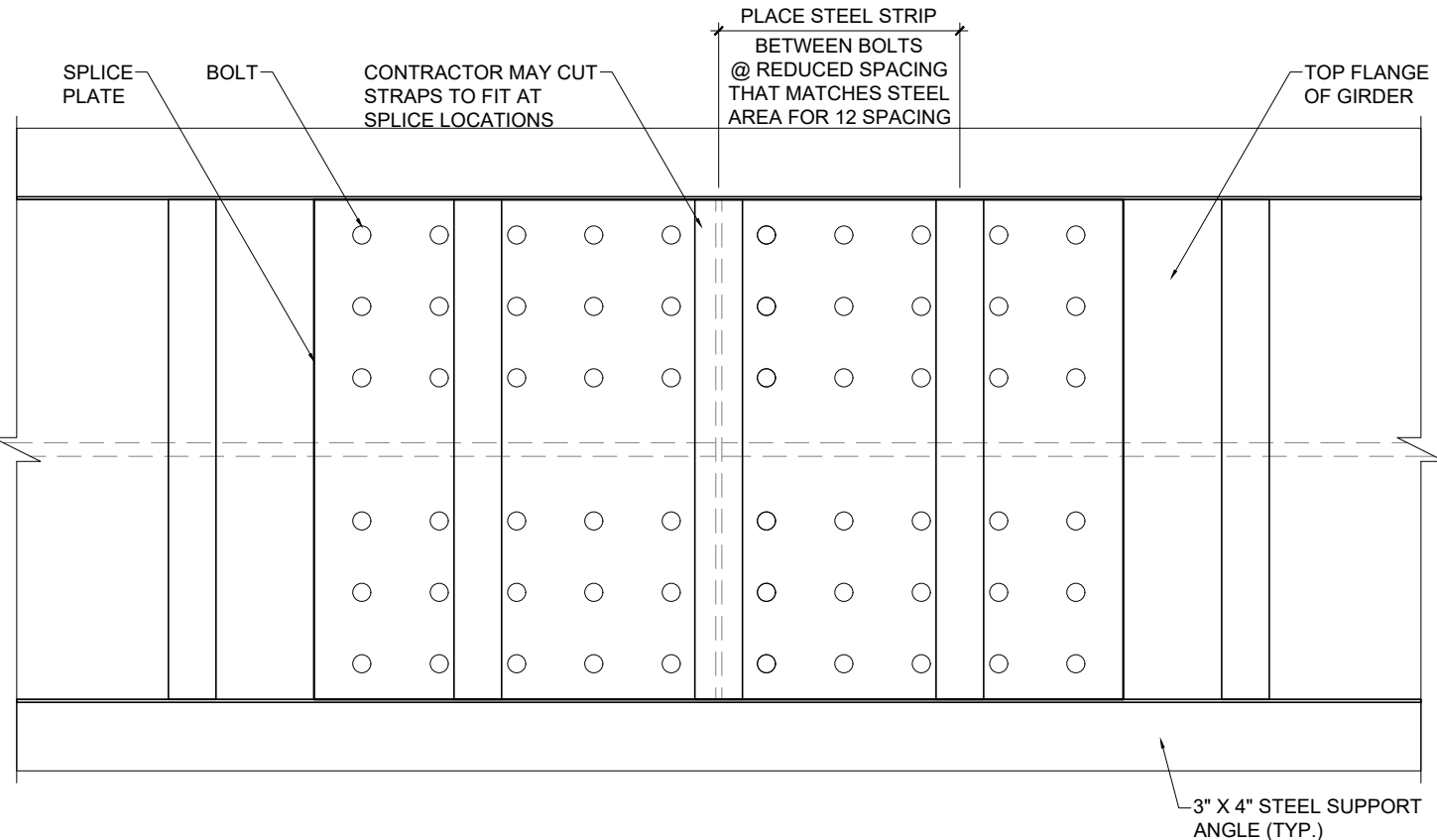
GIRDER CLIP ANGLE ATTACHMENT
NO SCALE



STAGE LINE AND EXTERIOR GIRDER SUPPORT SYSTEM ISOMETRIC
NO SCALE

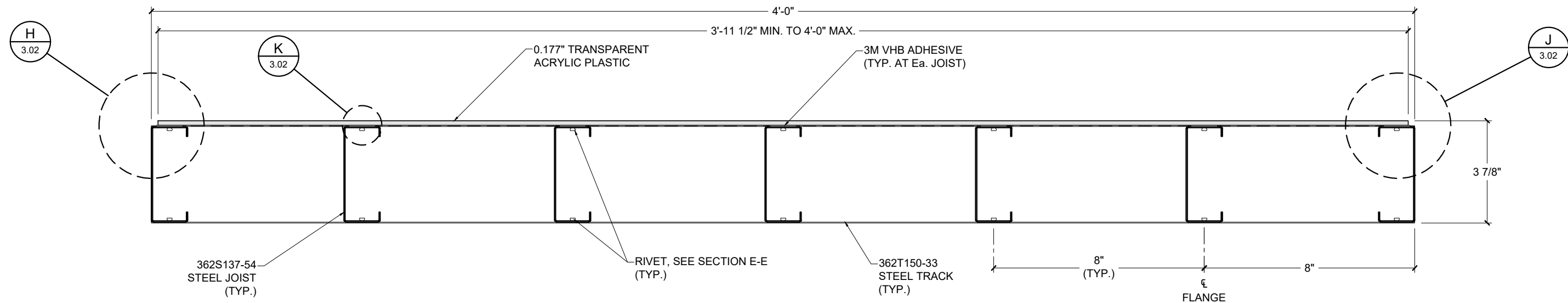
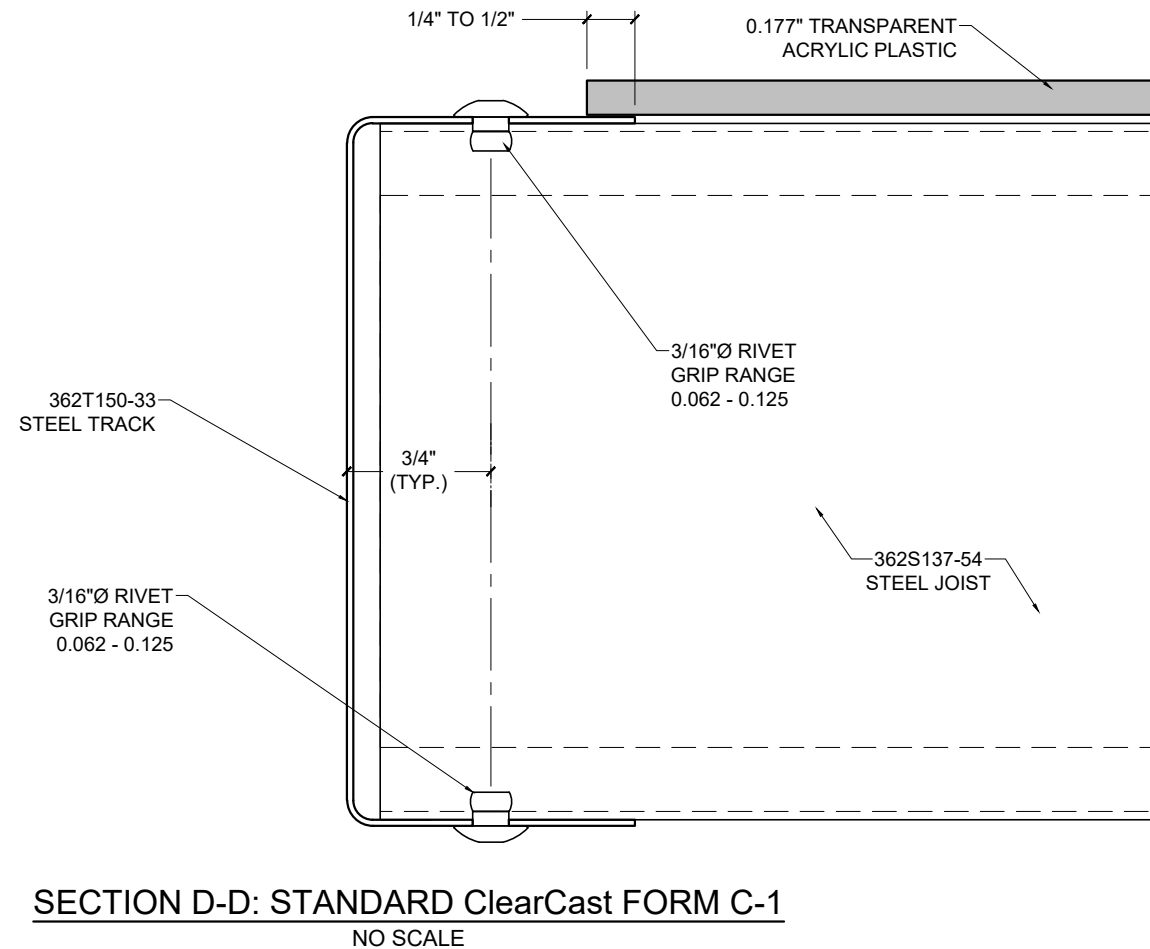
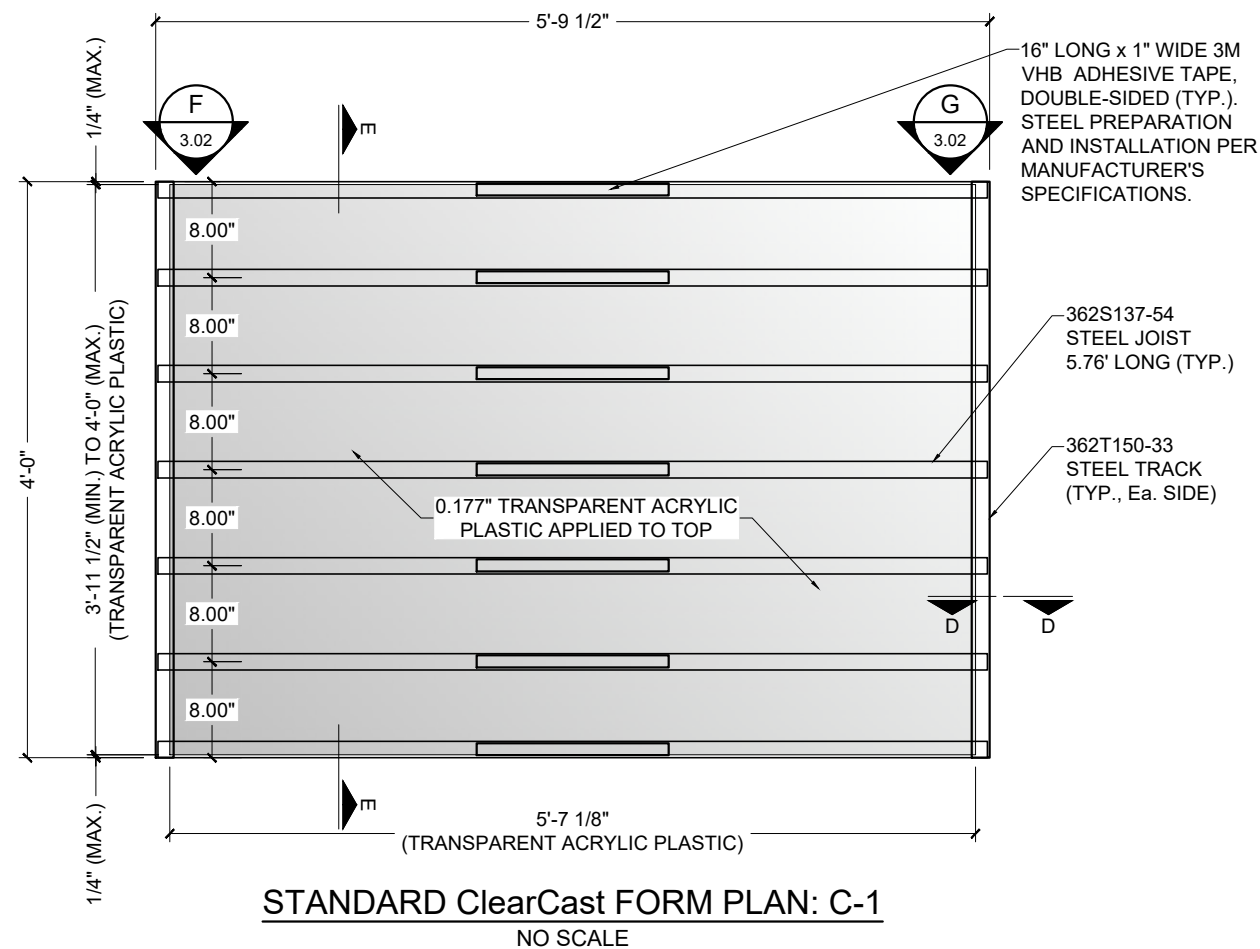


NEGATIVE HAUNCH DETAIL
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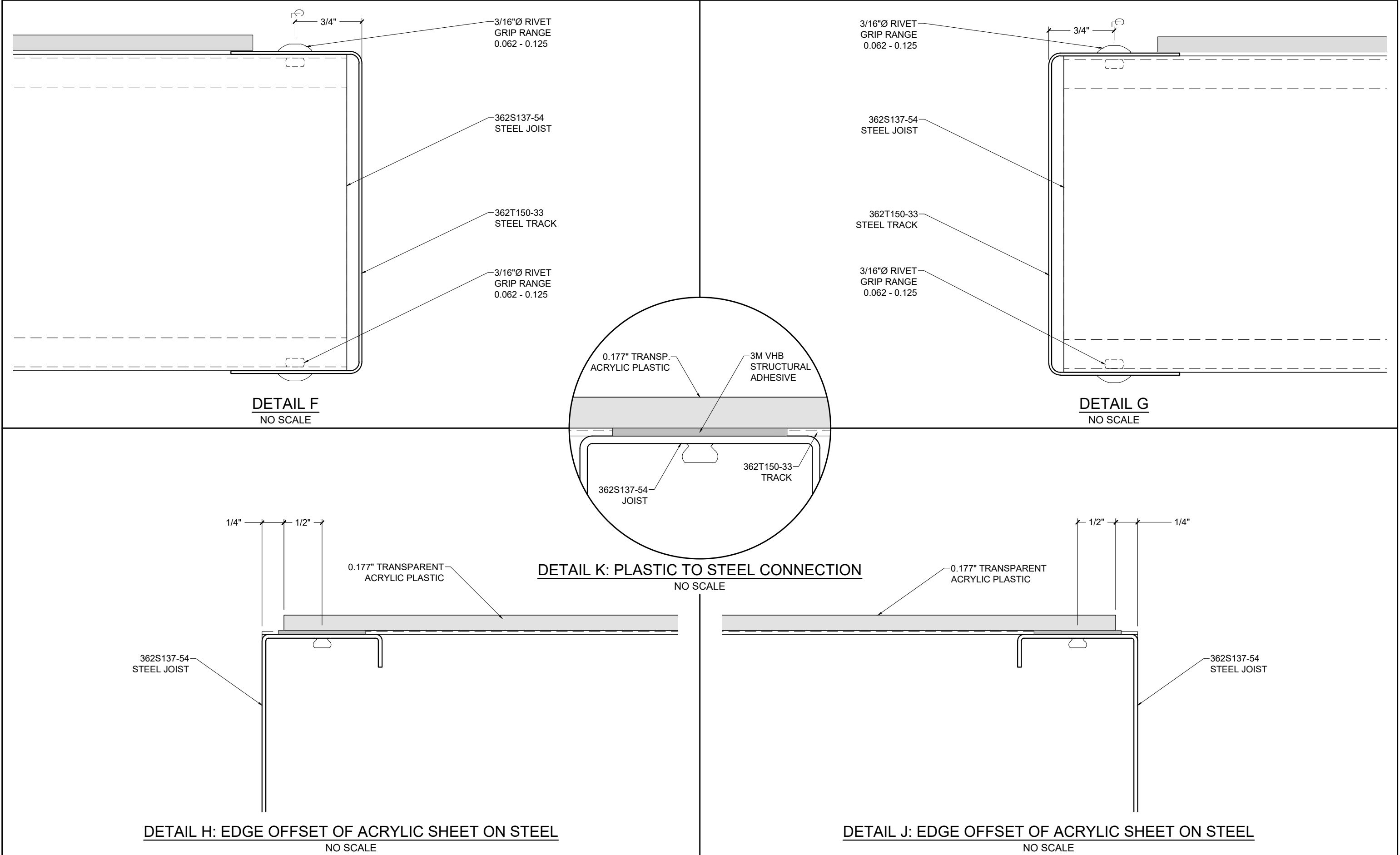
TYPICAL STEEL STRAP LAYOUT FIELD SPLICE
NO SCALE

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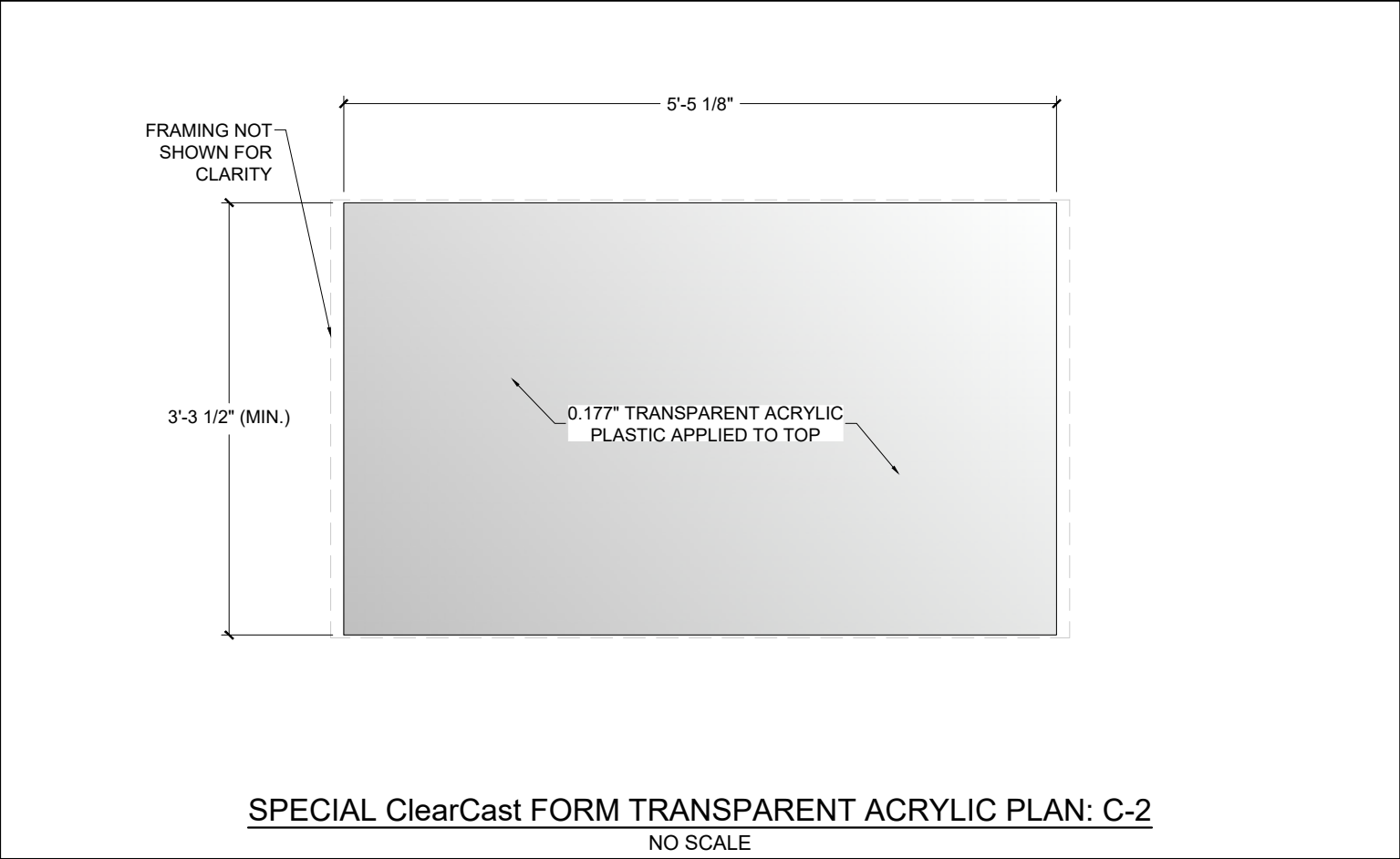
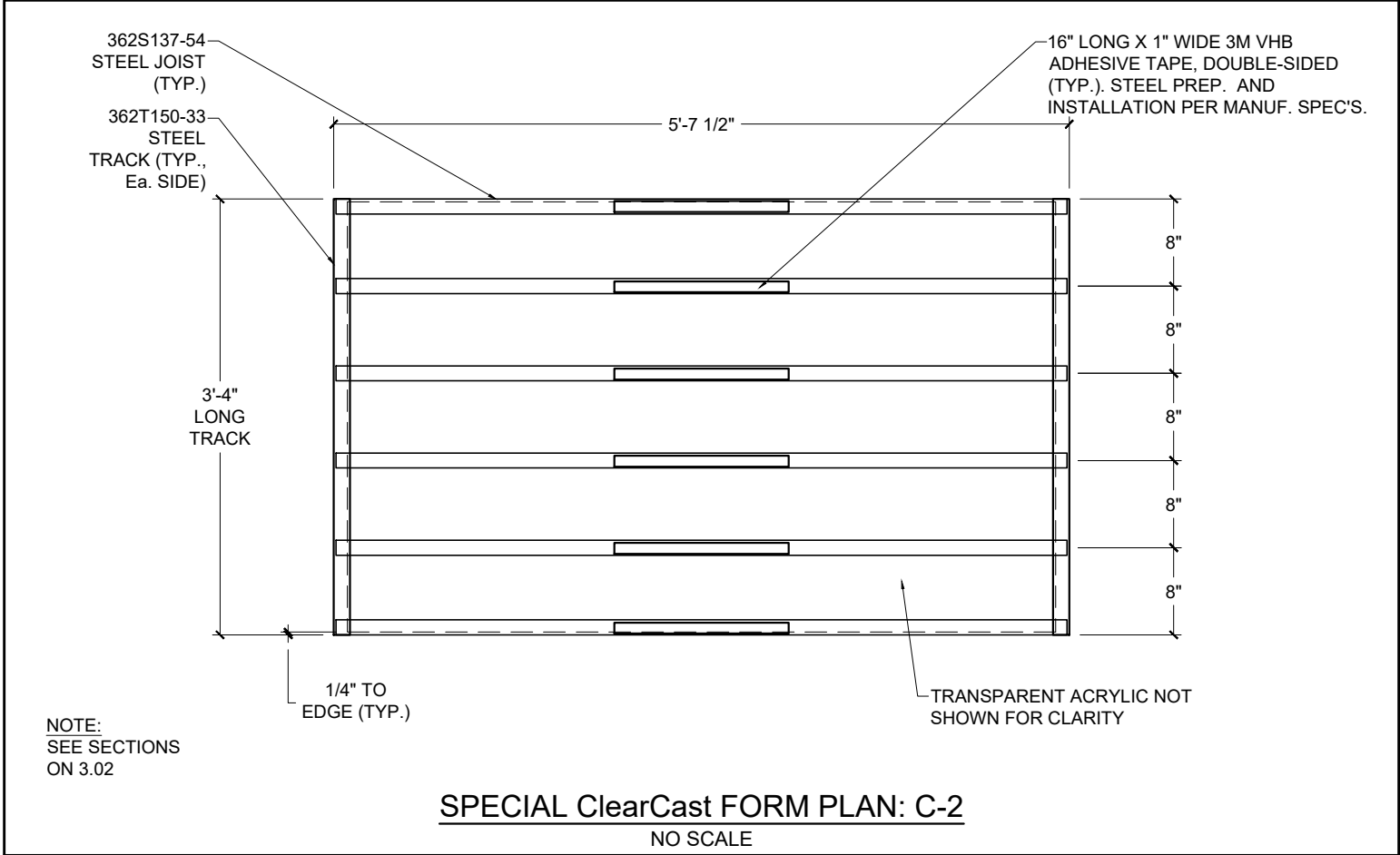


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PATENT NUMBER: 8,739,496

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PAGE NAME: **SPECIAL ClearCast ASSEMBLY DETAILS**

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