

# SURESPAN STRUCTURES LTD.

DRAWING LIST			
DRAWING NUMBER	DESCRIPTION	REV.	DATE
20152319-08-3-101	GENERAL NOTES	0	2015/01/28
20152319-08-3-102	STRUCTURE DETAILS - SHEET 1	0	2015/01/28
20152319-08-3-103	STRUCTURE DETAILS - SHEET 2	0	2015/01/28

## 70' x 16' - L165 ALL STEEL PORTABLE BRIDGE

AE Project Number: 20152319-08

ASSOCIATED ENGINEERING	
QUALITY MANAGEMENT SIGN-OFF	
Signature:	<i>[Handwritten Signature]</i>
Date:	17/3/2015

# 04-15-042



**Associated  
Engineering**

GLOBAL PERSPECTIVE.  
LOCAL FOCUS.

16-11-892

DRAWING NUMBER	REV. NO.	SHEET
20152319-08-3-100	0	1

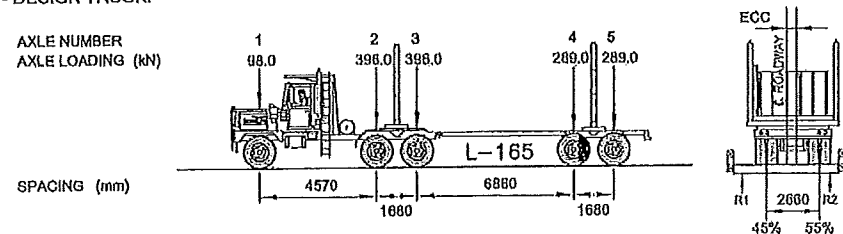
This Drawing is For The Use Of The Client And Project Indicated. No Representations Of Any Kind Are Made To Other Parties.

**GENERAL**

- FOR INSTALLATION BY OTHERS; NO RESPONSIBILITY CAN BE ACCEPTED FOR WORK BY OTHERS.
- DEFINITIONS
  - MINISTRY REFERS TO THE MINISTRY OF FORESTS, LANDS & NATURAL RESOURCE OPERATIONS, BRITISH COLUMBIA.
- THE PROVISION OF FABRICATION AND FIELD INSPECTION SERVICES OF THIS BRIDGE IS NOT INCLUDED IN THE SCOPE OF SERVICES BEING PROVIDED BY ASSOCIATED ENGINEERING (B.C.) LTD. IN ACCORDANCE WITH APEGBC GUIDELINES, ASSOCIATED ENGINEERING (B.C.) LTD. RECOMMENDS THE COMPLETION OF THESE SERVICES.
- DESIGN AND CONSTRUCTION TO CONFORM TO THE MINISTRY'S "FOREST SERVICE BRIDGE DESIGN AND CONSTRUCTION MANUAL" 1999 AND THE "FOREST ROAD ENGINEERING GUIDEBOOK" 2002.
- THIS ASSIGNMENT ONLY COVERS THE DETAILED DESIGN OF BRIDGE COMPONENTS SHOWN IN THE DRAWINGS.
- ANY DESIGN CHANGES PROPOSED DURING CONSTRUCTION SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM ASSOCIATED ENGINEERING.

**BRIDGE DESIGN**

- CONFORM TO CAN/CSA-S6-06 (MODIFIED) AND THE MINISTRY'S, "FOREST SERVICE BRIDGE DESIGN AND CONSTRUCTION MANUAL", 1999.
- ALL BRIDGE COMPONENTS SHALL GENERALLY CONFORM TO THE MINISTRY'S STANDARD DRAWINGS UNLESS APPROVED BY THE OWNER.
- LOADING: BCFS L165 (149 700 KG G.V.W.) ECCENTRICITY IN ACCORDANCE WITH "FOREST SERVICE BRIDGE DESIGN AND CONSTRUCTION MANUAL", 1999.
- DESIGN TRUCK:



- FATIGUE: TO CAN/CSA-S6-06 (BCFS - L150 TRUCK CENTRED IN ROADWAY; 50:50 LOAD DISTRIBUTION) - 500,000 CYCLES. DYNAMIC LOAD ALLOWANCE INCLUDED.
- MAXIMUM LIVE LOAD DEFLECTION: SPAN/350 (BCFS - L150 TRUCK CENTRED IN ROADWAY; 50:50 LOAD DISTRIBUTION; INCLUDES DYNAMIC LOAD ALLOWANCE.)
- GUARDRAIL DELINEATES DECK EDGE ONLY.

**STEEL PORTABLE STRUCTURE**

- BRIDGE TO BE FABRICATED IN ACCORDANCE WITH MINISTRY'S BRIDGE DESIGN AND CONSTRUCTION MANUAL (INCLUDING LATEST REVISIONS NOTED ON THE MINISTRY'S WEBSITE) AND THE CONTRACT SPECIFICATIONS.
- NAME PLATE: ALL BRIDGES SHALL HAVE THEIR STRUCTURE NUMBER, DATE OF FABRICATION, LOAD RATING, MANUFACTURERS NAME AND "MINISTRY OF FOREST" PERMANENTLY MARKED ON AT LEAST ONE SIDE OF THE STRUCTURE (MIN. HEIGHT OF LETTERING 50 MM).
- STEEL FABRICATION: FABRICATOR TO BE CERTIFIED FOR DIVISION 1 OR 2 IN ACCORDANCE WITH CSA W47.1
- STEEL: CSA G40.21M GRADE 350AT CAT 3 (STEEL PLATE)  
GRADE 350A (ROLLED SECTIONS)  
GRADE 350W (TUBE)
- BOLTS: ASTM A325 TYPE 3
- WELDING:
  - ALL WELDS TO BE COMPLETED IN ACCORDANCE WITH CSA W59.
  - ALL BUTT WELDS TO BE INSPECTED BY ULTRASONIC EXAMINATION IN ACCORDANCE WITH CSA W59.
- WEARING SURFACE: SURFACE PREPARATION SANDBLAST TO SSPC-SP6, COATING AMERLOCK 400 (OR EQUIVALENT EPOXY COATING APPROVED BY ENGINEER) C/W 16 GRIT SAND TO PROVIDE ANTI-SKID WEARING SURFACE, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
- BRIDGE TO BEAR ON D/FIR TIMBER SILL.

**GUARDRAIL & POSTS**

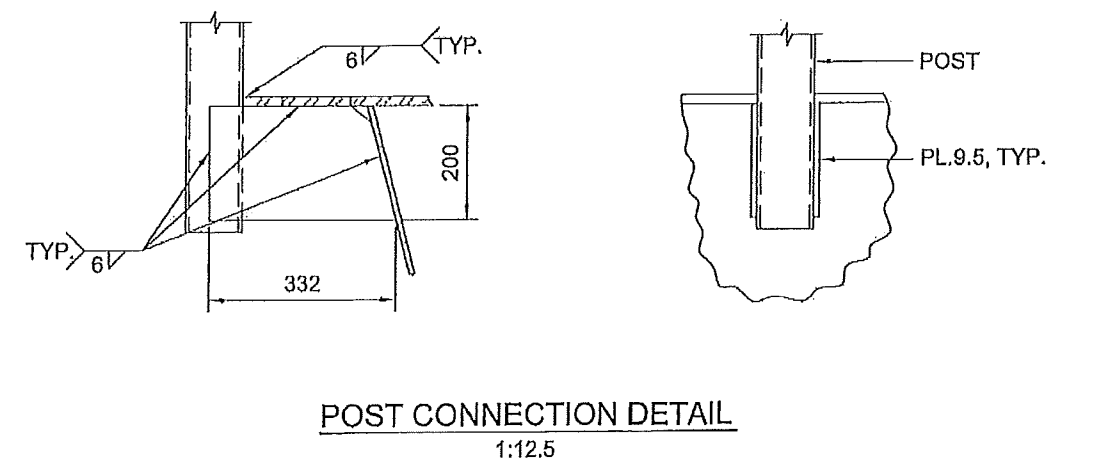
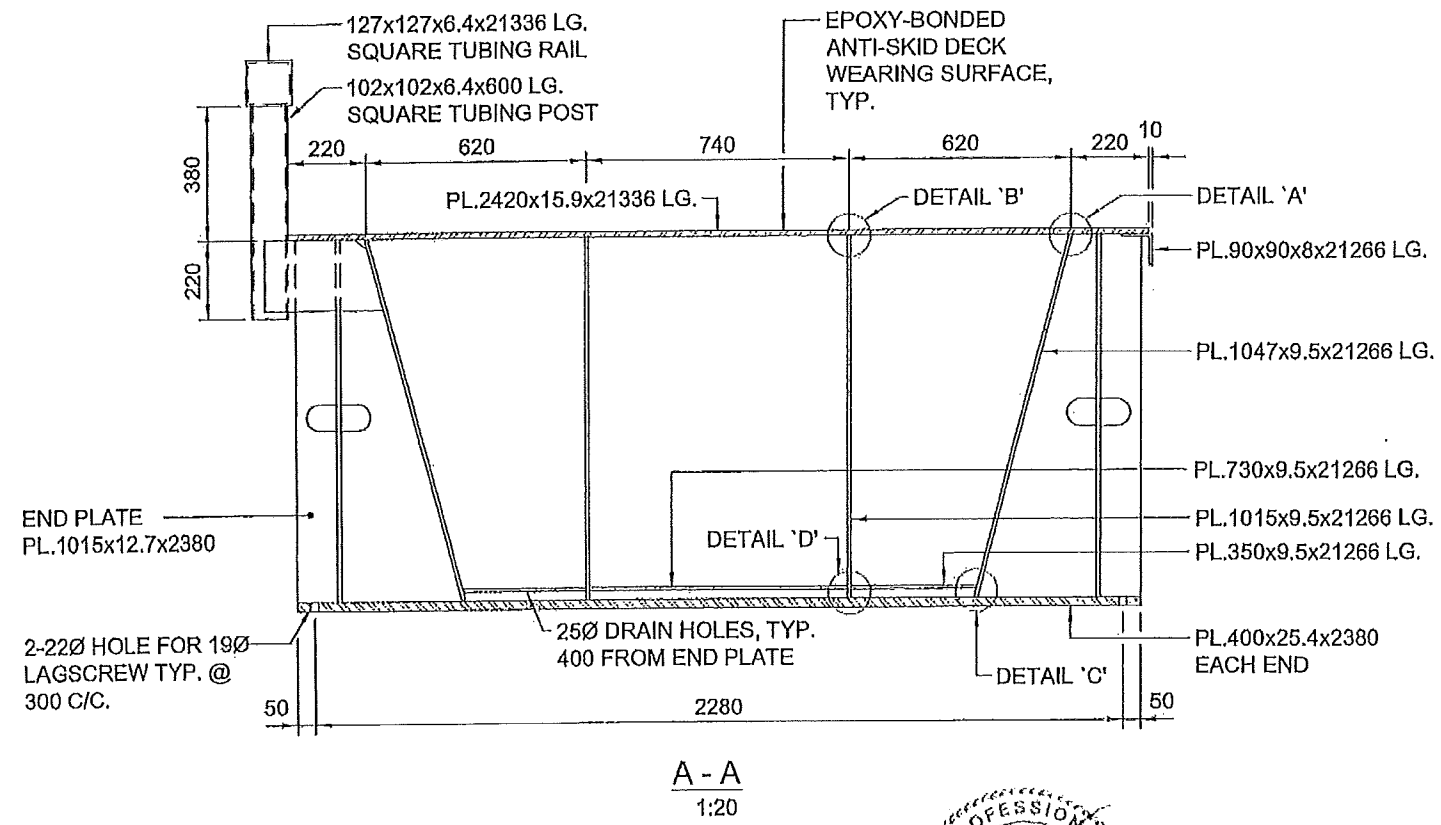
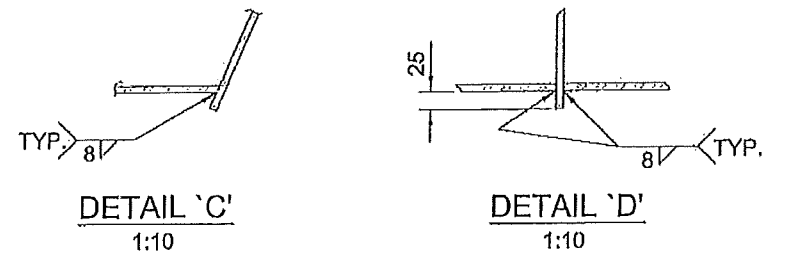
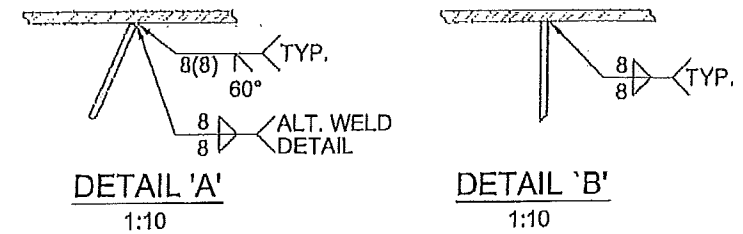
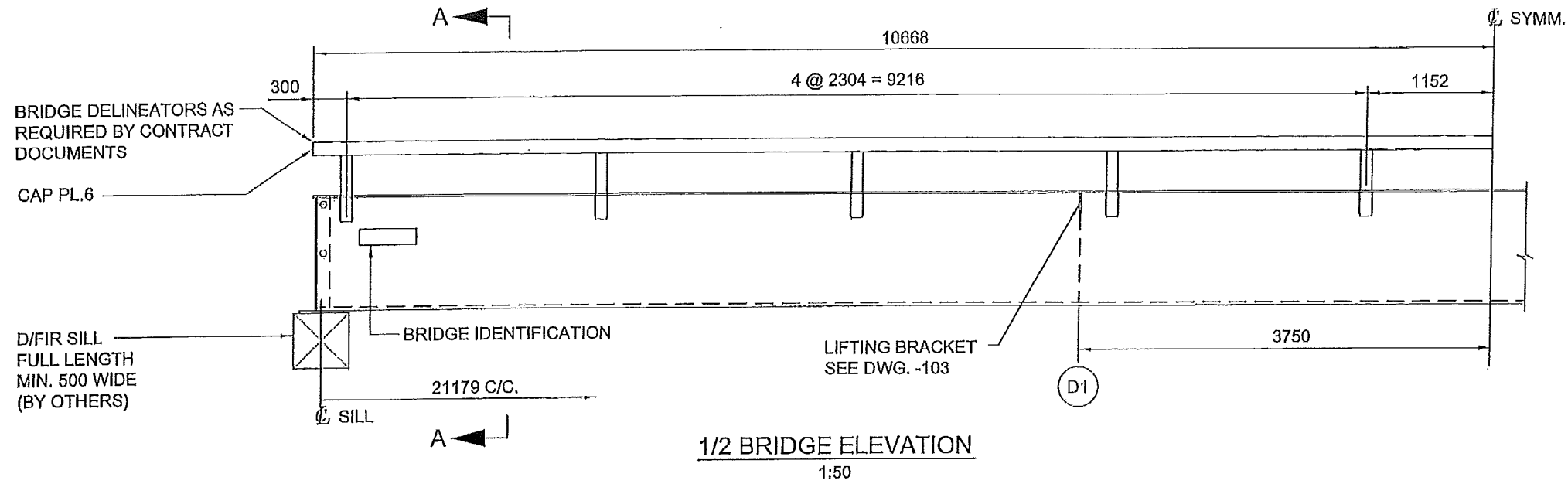
- STEEL SURFACE PREPARATION: BLAST CLEAN TO SSPC SP-6
- PAINT:
  - HIGH SOLIDS, SELF-PRIMING EPOXY OR MOISTURE CURE URETHANE
  - SPECIFIC PAINT PRODUCT TO BE AMERLOCK 400 OR ALTERNATIVE EQUIVALENT PRODUCT
  - EQUIVALENT PRODUCTS MUST BE APPROVED BY MFR BRIDGE ENGINEER PRIOR TO USAGE
  - PAINT SHALL BE UTILIZED IN ACCORDANCE WITH BOTH MANUFACTURER'S AND CONTRACT SPECIFICATIONS.
  - MINIMUM 2 COATS
  - MINIMUM 0.2mm DRY FILM THICKNESS
  - "SAFETY YELLOW" COLOUR

16-11-892

							PROJECT No. 20152319-00 SCALE N/A DRAWN ERFUN FARJOO 2015/01/29 DESIGNED SAEED JAVIDI 2015/01/29 CHECKED JACK JIAO 2015/01/29 APPROVED [Signature] INITIAL [Signature] DATE [ ]		SURESPAN STRUCTURES LTD. 70' x 16' - L165 ALL STEEL PORTABLE BRIDGE	
BAR IS 20mm ON ORIGINAL DRAWING 0 20mm IF NOT 20mm ON THIS SHEET, ADJUST SCALES ACCORDINGLY					GENERAL NOTES		DRAWING NUMBER 20152319-08-3-101 REV. NO. 0 SHEET			
REVISIONS										

ASSOCIATED ENGINEERING (B.C.) LTD. 1000 WEST 10TH AVENUE, VANCOUVER, BC V6H 1T4

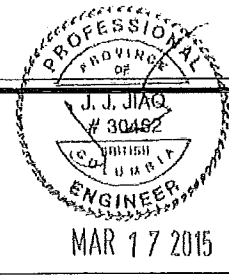
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16-11-892

NO.	DATE	ENG.	BY	SUBJECT
0	2015/12/06	SJ	E.F.	ISSUED FOR CONSTRUCTION
REVISIONS				

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IF NOT 20mm ON THIS SHEET, ADJUST SCALES ACCORDINGLY

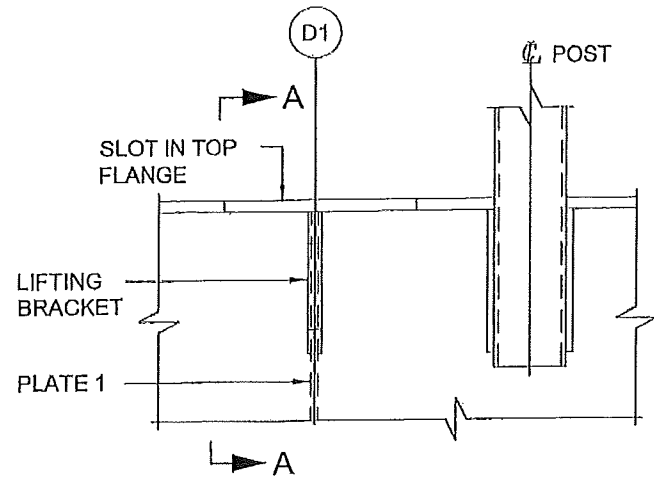


PROJECT No.	20152319-08
SCALE	AS SHOWN
DRAWN	ERFAN FARJOO
DESIGNED	SAEED JAVIDI
CHECKED	JACK JIAO
APPROVED	
DATE	

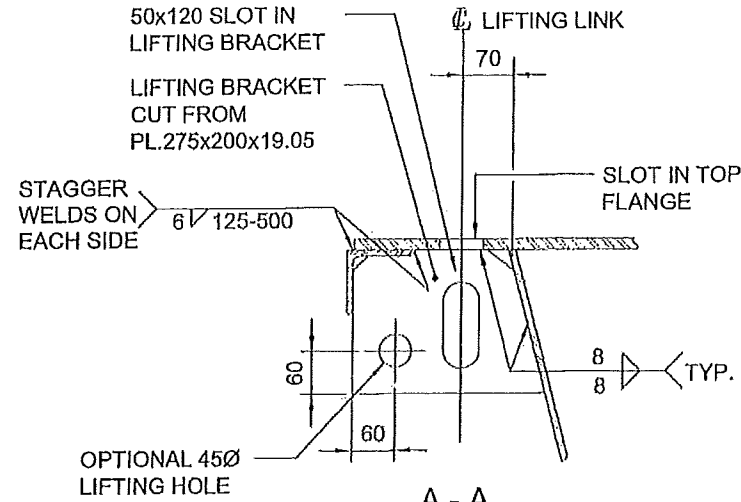
SURESPAN STRUCTURES LTD.  
STRUCTURE DETAILS - SHEET 1

70' x 16' - L165 ALL STEEL PORTABLE BRIDGE		
DRAWING NUMBER	REV. NO.	SHEET
20152319-08-3-102	0	

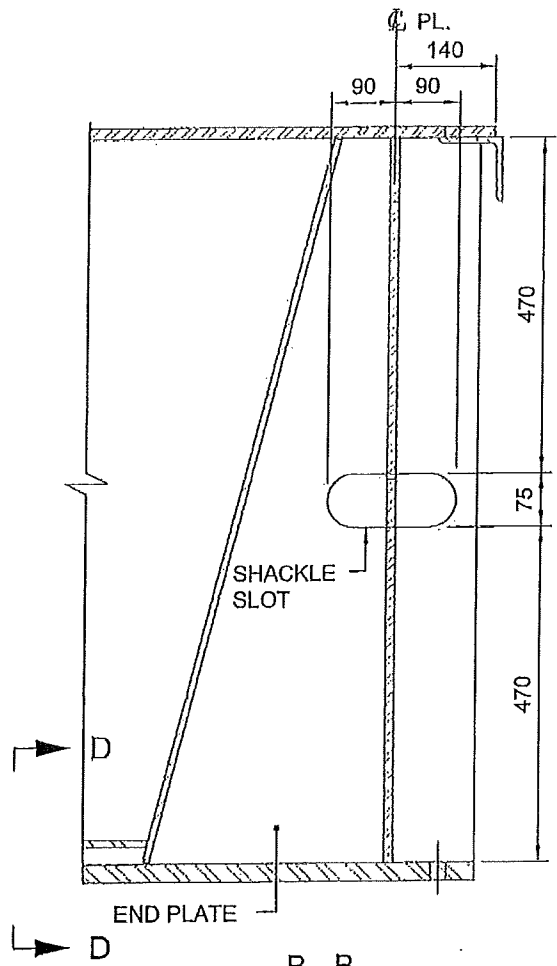
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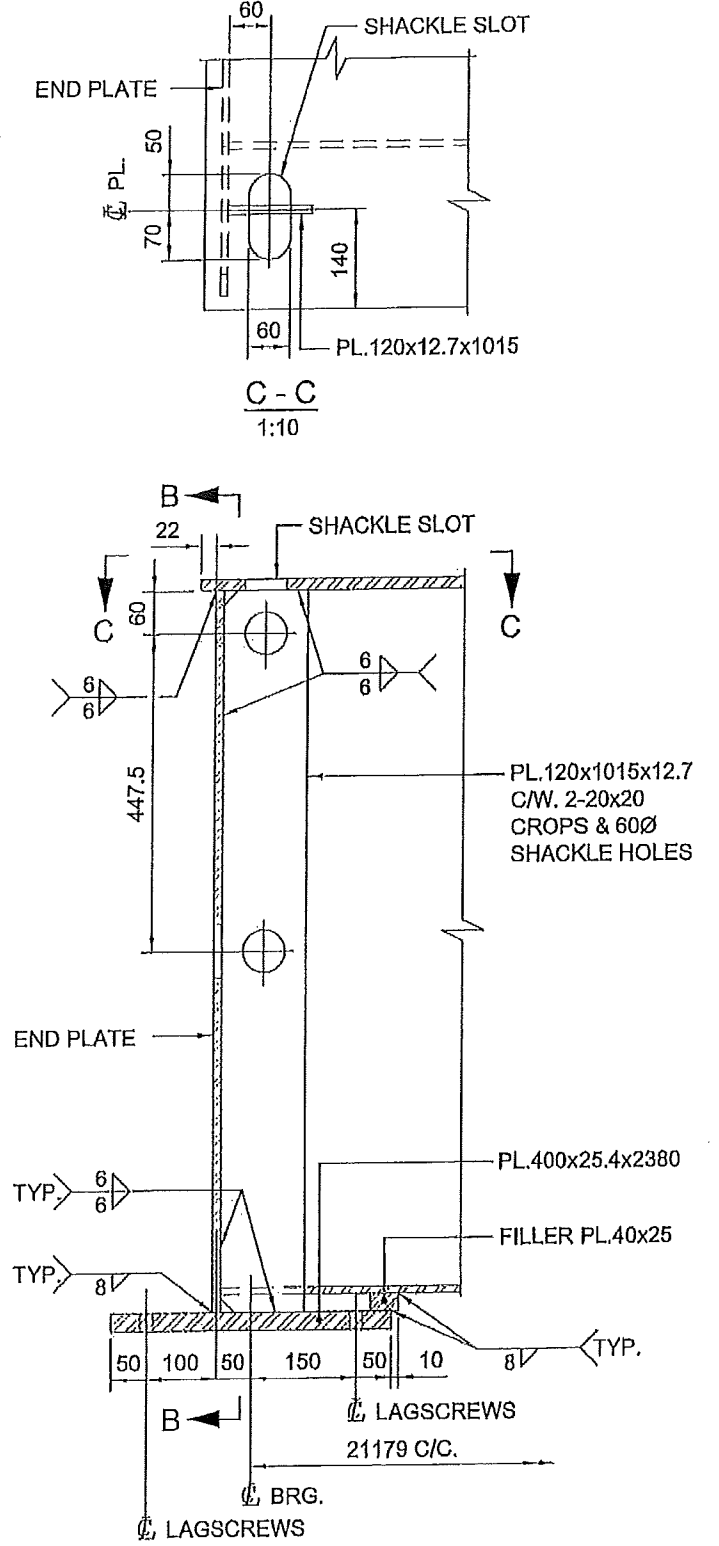
**LIFTING BRACKET DETAIL**  
1:10 (4 REQ'D)



**A - A**  
1:10

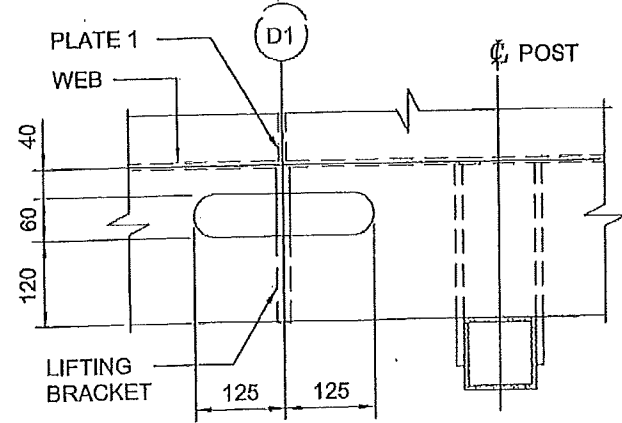


**B - B**  
1:10

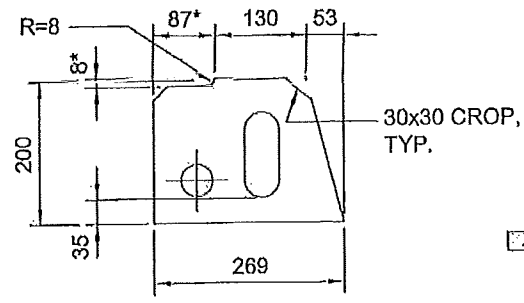


**END DETAIL**  
1:10

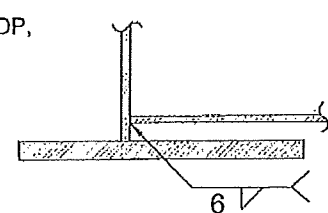
16-11-892



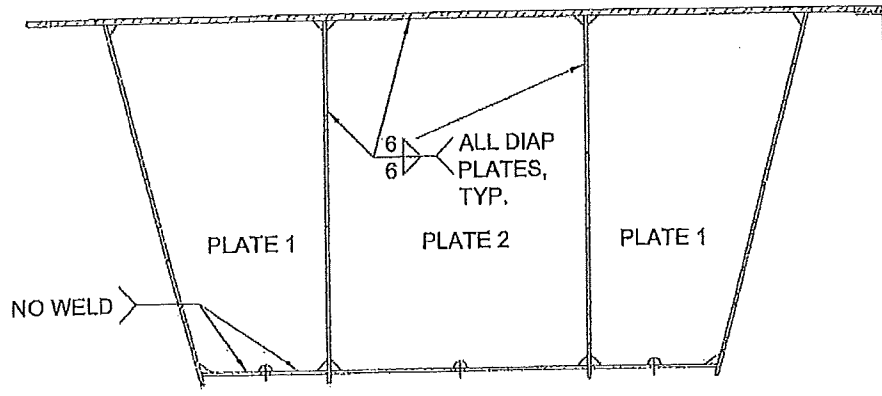
**PLAN OF LIFTING BRACKET**  
1:10



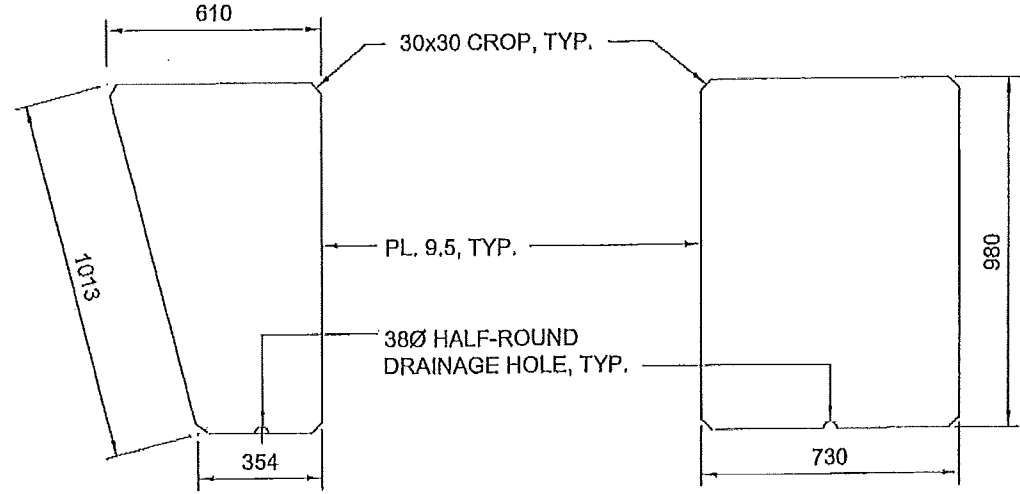
**LIFTING BRACKET**  
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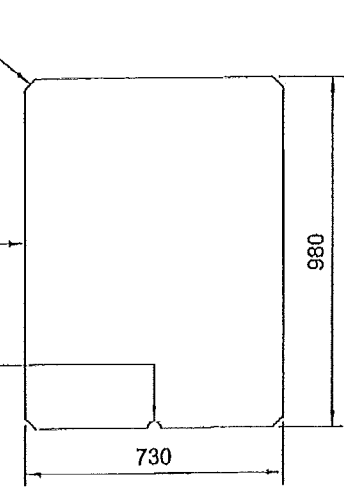
**D - D**  
1:10



**PLATE DIAPHRAGM D1 DETAIL**  
1:20 (2 REQ'D/BOX)



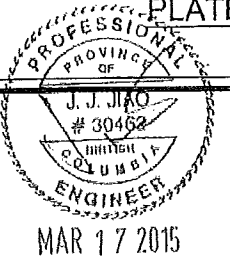
**PLATE 1 DETAIL**  
1:20



**PLATE 2 DETAIL**  
1:20

NO.	DATE	ENG.	BY	REVISIONS
C	2015/01/28	S.J.	E.F.	ISSUED FOR CONSTRUCTION

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CHECKED	JACK JIAO 2015/01/29
APPROVED	
DATE	INITIAL

SURESPAN STRUCTURES LTD.  
STRUCTURE DETAILS - SHEET 2

70' x 16' - L165 ALL STEEL PORTABLE BRIDGE		
DRAWING NUMBER	REV. NO.	SHEET
20152319-08-3-103	0	