

DESIGN SPECIFICATIONS

- DESIGN CODE:**
- CAN/CSA S6-06 (WITH EXCEPTIONS TO SUIT FORESTRY BRIDGES)
 - MINISTRY OF FORESTS AND RANGE BRIDGE DESIGN & CONSTRUCTION MANUAL AND OTHER MINISTRY BRIDGE DESIGN GUIDELINES
 - DESIGN VEHICLES: BCL-625 & BCFS L100 TRUCK LOADING
- MATERIALS:**
- ALL MATERIALS SHALL BE NEW
- TIMBER:**
- STRINGER SPECIES & GRADES TO BE IN CONFORMANCE WITH THE 'STRINGER SIZE TABLE'
 - CROSS TIES TO BE D.Fir/L or HEM-FIR or SPF No.1 OR BETTER
 - CROSS TIES TO BE 190x190 FOR BCL 625 LOADING & 190x241 FOR BCFS L100 LOADING
 - DECK & SUB-DECK PLANKS TO BE D.Fir/L, HEM-Fir or SPF No.2 OR BETTER
 - CURBS TO BE No.2 OR BETTER ANY SPECIES
 - TIMBER SILLS TO BE No.2 OR BETTER ANY SPECIES
- STRUCTURAL STEEL:**
- TO COMPLY WITH CAN3/CSA G40.21-M 300W
 - WELDING TO BE IN ACCORDANCE WITH CSA W59 BY FABRICATOR CERTIFIED TO W47.1 DIV 1 OR 2.1
- HARDWARE:**
- ALL THREADED RODS, NUTS, WASHERS AND SPIKES TO BE ASTM A307 (GALVANIZED)
 - 2-32mm GRADE 5 BOLTS TO BOLT BRIDGE HALVES TOGETHER AFTER INSTALLATION
- DECK PLANKING:**
- SUB-DECK TO BE LAID @ 45° TO TRAVEL, RUNNING DECK PARALLEL TO TRAVEL
 - DECK JOINTS SHALL BE CENTERED OVER TIES
 - DECK JOINTS ON ADJACENT PLANKS SHALL BE STAGGERED MINIMUM OF 2 TIE SPACES
 - DECK NAILING PATTERN TO BE AS SHOWN ON DRAWINGS
- TIMBER TREATMENT:**
- PRESERVATIVE TREATMENT TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF MINISTRY OF FORESTS AND RANGE
 - STRINGERS, CROSS TIES AND SUB-DECK TO BE PRESERVATIVE TREATED FOR AN EXPECTED SERVICE LIFE OF GREATER THAN 10 YEARS
 - STRINGERS AND CROSS TIES OF D.Fir/L ONLY MAY BE UNTREATED FOR AN EXPECTED SERVICE LIFE (SUBJECT TO USE) OF LESS THAN 10 YEARS
 - TIMBER SILLS TO BE TREATED

LABELLING

- EACH BRIDGE HALF SHALL HAVE A METAL LABEL ATTACHED TO THE EXTERIOR STRINGER NOTING THE FOLLOWING:
 - BRIDGE NUMBER AND 'PART A' OR 'PART B'
 - DATE OF FABRICATION
 - DESIGN VEHICLE LOAD
- LETTERING SHALL BE A MINIMUM OF 50mm IN HEIGHT

ASSUME NOT TO SCALE

INSTALLATION

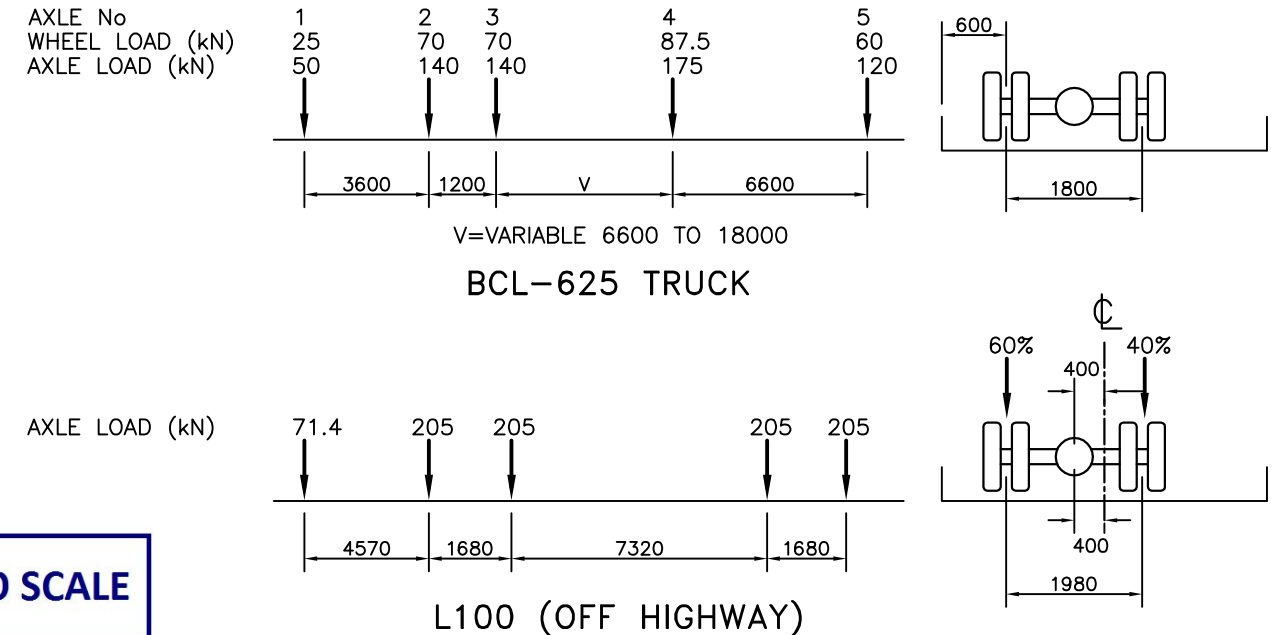
- THE ENTIRE CROSSING TO BE DESIGNED AS PER APEGBC/ABC FP "GUIDELINES FOR PROFESSIONAL SERVICES IN THE FOREST SECTOR-CROSSINGS"
- INSTALLATIONS SHALL BE INSPECTED AND ASSURED BY A QUALIFIED REGISTERED PROFESSIONAL CONSISTENT APEGBC/ABC FP GUIDELINES AND MINISTRY POLICY PRIOR TO BEING PLACED IN SERVICE. INSTALLATION IS TO BE IN CONFORMANCE WITH THE MINISTRY OF FORESTS AND RANGE 'FOREST SERVICE BRIDGE DESIGN AND CONSTRUCTION MANUAL'. THE SUBSTRUCTURE SHALL BE DESIGNED SUCH THAT IT IS CONTINUOUS OVER THE WIDTH OF THE TWO SUPERSTRUCTURE HALVES
- BRIDGE IS TO BE INSTALLED ON SUITABLE LEVEL ABUTMENTS DESIGNED BY OTHERS (EG. FLATTENED SILL LOG OR CONCRETE BLOCKS)
- BRIDGE GRADIENT SHALL NOT EXCEED 4%
- PRIOR TO INSTALLATION ALL HARDWARE IS TO BE CHECKED AND ALL BOLTS TO BE RE-TORQUED AS REQUIRED
- RETAIN BRIDGE PAIRS TOGETHER FOR FUTURE INSTALLATIONS
- RIGGING SHALL BE IN CONFORMANCE WITH WORKSAFE BC REGULATIONS, MAXIMUM ANGLE OF SLINGS FROM VERTICAL SHALL BE 30 DEGREES

INSPECTION

- INSPECTIONS SHALL BE CARRIED OUT BY INDIVIDUALS QUALIFIED AND EXPERIENCED IN ASSESSING TIMBER BRIDGE CONDITION
 - A MINIMUM OF EVERY TWO YEARS FOR ROUTINE CONDITION INSPECTIONS WHILE THE BRIDGE IS IN SERVICE
 - INSPECTED FOR STRUCTURAL DAMAGE:
 - PRIOR TO PLACING IN STORAGE
 - PRIOR TO PLACING IN SERVICE
- INSPECTION RECORDS SHALL BE RETAINED OVER THE LIFE OF THE BRIDGE

STORAGE

- ALL TIMBER PORTABLE BRIDGE COMPONENTS SHALL BE SWEEP CLEAN OF DEBRIS PRIOR TO STORAGE
- BRIDGE COMPONENTS SHALL BE PLACED ON TIMBERS TO BE ABOVE AND NOT IN DIRECT CONTACT WITH THE GROUND OR DEBRIS AND SLOPED TO PROVIDE DRAINAGE OF WATER



Ministry of Forests and Range

ENGINEERING BRANCH, FIELD OPERATIONS DIVISION

SCALE AS SHOWN		Designed: ABS Checked: LY Drawn: ABS	Date: 2010/03/17 Date: 2010/03/17 Date: 2010/03/17	STANDARD BRIDGE DRAWING	
Rev	Date	DESCRIPTION	Init	6.1 M SPAN TIMBER PORTABLE BRIDGE GENERAL NOTES	
1	10/04/06	L100 STRINGER SIZE MODIFICATIONS	ABS	ORIGINAL SIGNED and SEALED BY: A. B. SWAN, P.Eng	MFR ENGINEER: GARY McCLELLAND, P. ENG DREW ALWAY, P. ENG, RPF
0	10/03/26	ISSUED FOR FABRICATION	ABS	DESIGN ENGINEER: A. B. SWAN P. ENG DATE: FEB 12, 2010	APPROVED BY: BRIAN CHOW, P. ENG, CHIEF ENGINEER DATE:
A	10/03/17	FOR MINISTRY APPROVAL	ABS	FILE No.	DRAWING No. STD-E-025-01
REVISIONS					

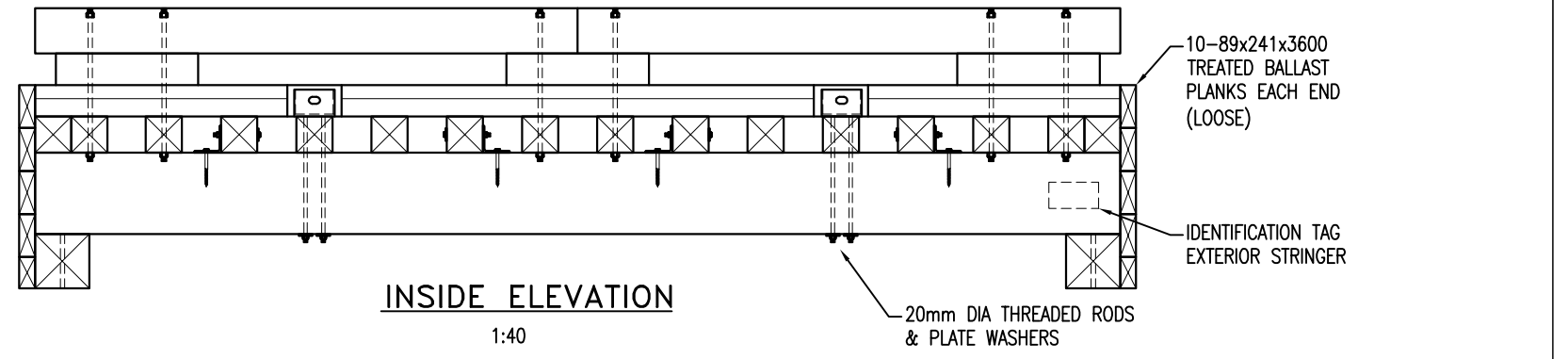
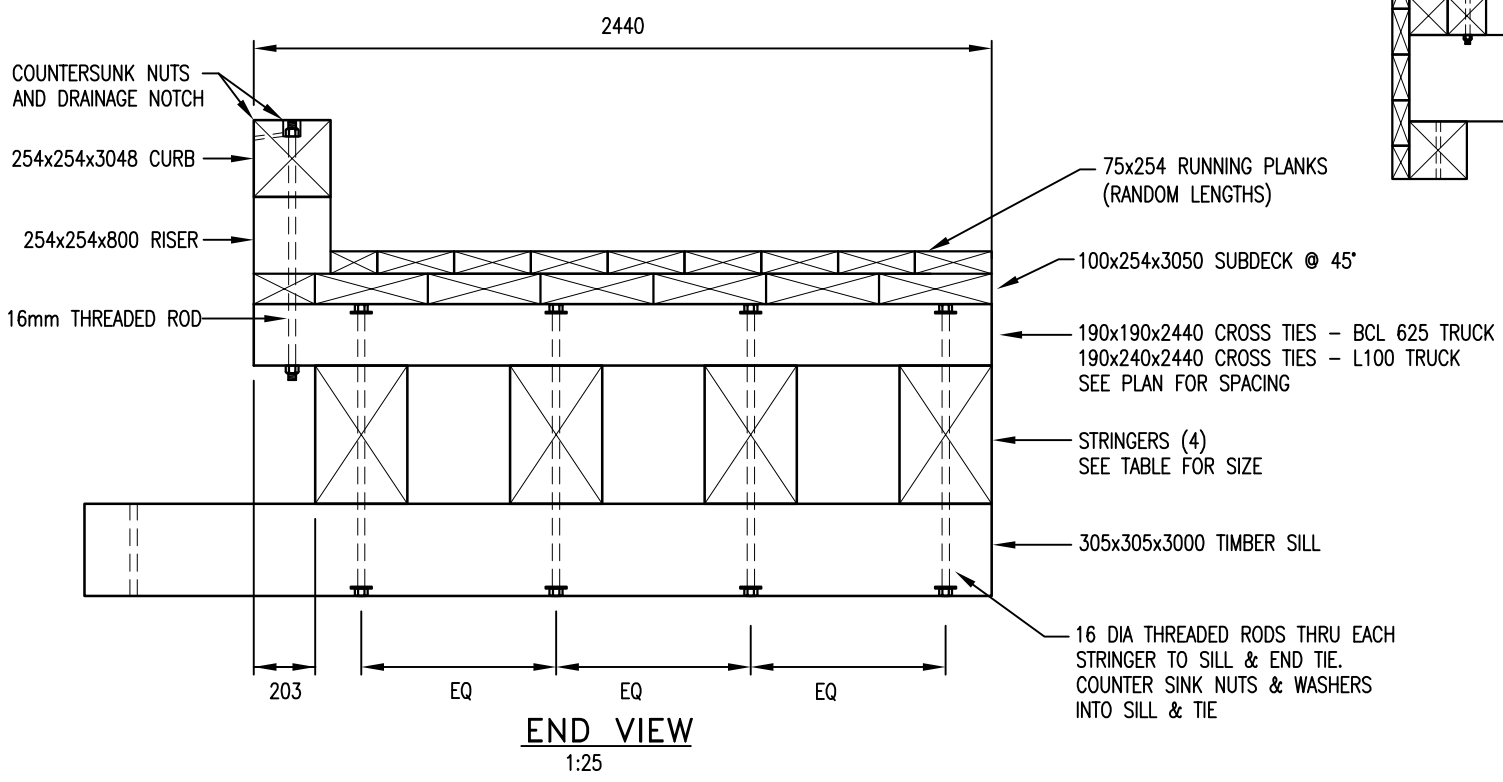
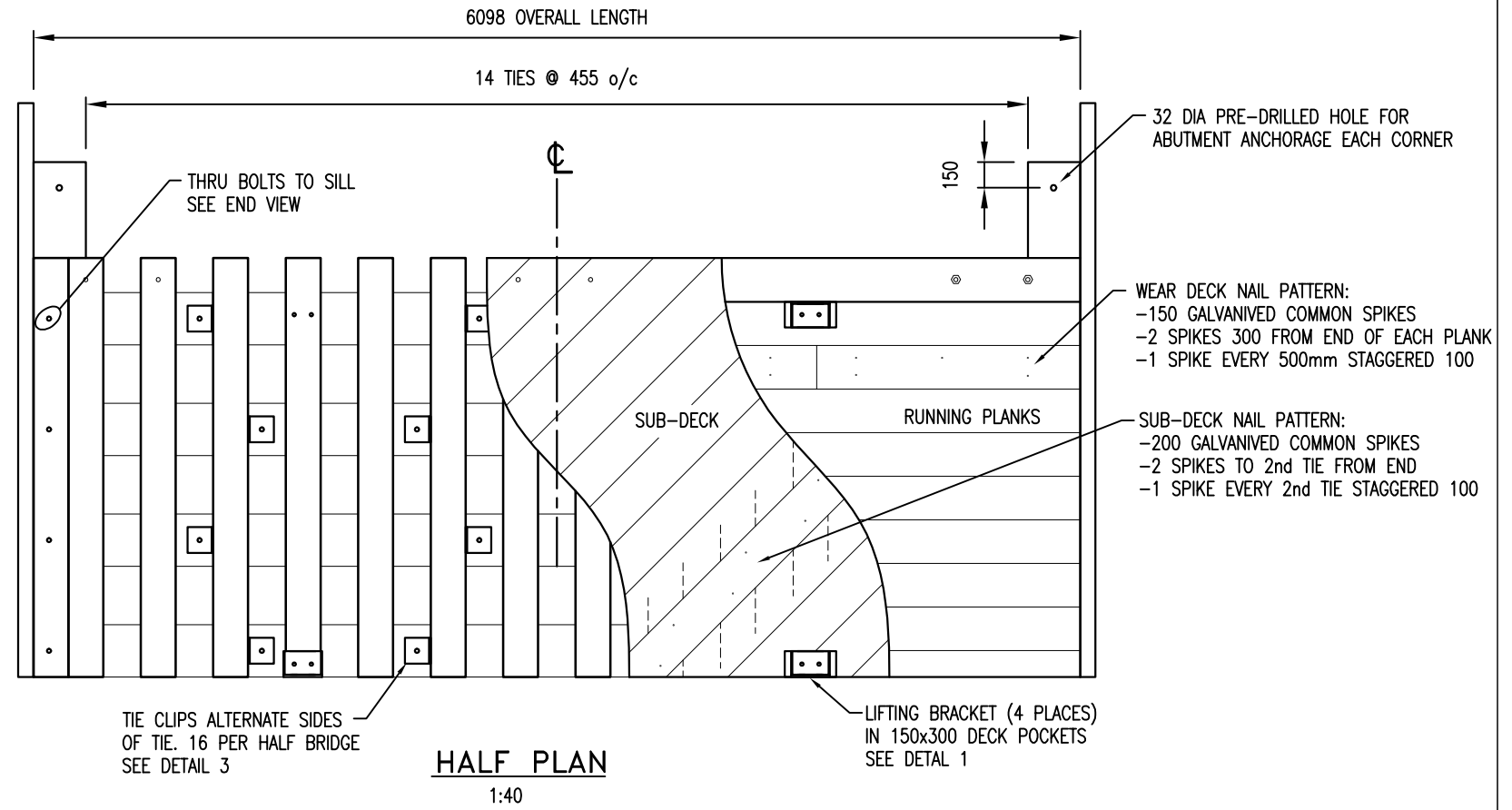
CANCEL PRINTS BEARING PREVIOUS LETTER


STRINGER SIZE TABLES

BCL-625 TRUCK LOAD (190 x 190 CROSS TIES)			WEIGHT (PER BRIDGE HALF)
SPECIES	GRADE	STRINGER SIZE	
D.Fir/LARCH	No.1	305mm x 460mm (12"x18")	6892 kg (15200 lbs)
HEM-FIR	No.1	330mm x 510mm (13"x20")	6981 kg (15400 lbs)
SPF	No.1	355mm x 510mm (14"x20")	6736 kg (14900 lbs)

BCFS L100 TRUCK LOAD (190 x 241 CROSS TIES)			
SPECIES	GRADE	STRINGER SIZE	
D.Fir/LARCH	No.1	355mm x 508mm (14"x20")	7794 kg (17200 lbs)
HEM-FIR	No.1	380mm x 560mm (15"x22")	7835 kg (17300 lbs)
SPF	No.1	400mm x 560mm (16"x22")	7555 kg (16700 lbs)

ASSUME NOT TO SCALE





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1	10/04/06	L100 STRINGER SIZE MODIFICATIONS	ABS
0	10/03/26	ISSUED FOR FABRICATION	ABS
A	10/03/17	FDR MINISTRY APPROVAL	ABS

SCALE AS SHOWN

Designed: ABS Date 2010/03/17
Checked: LT Date 2010/03/17
Drawn: ABS Date 2010/03/17

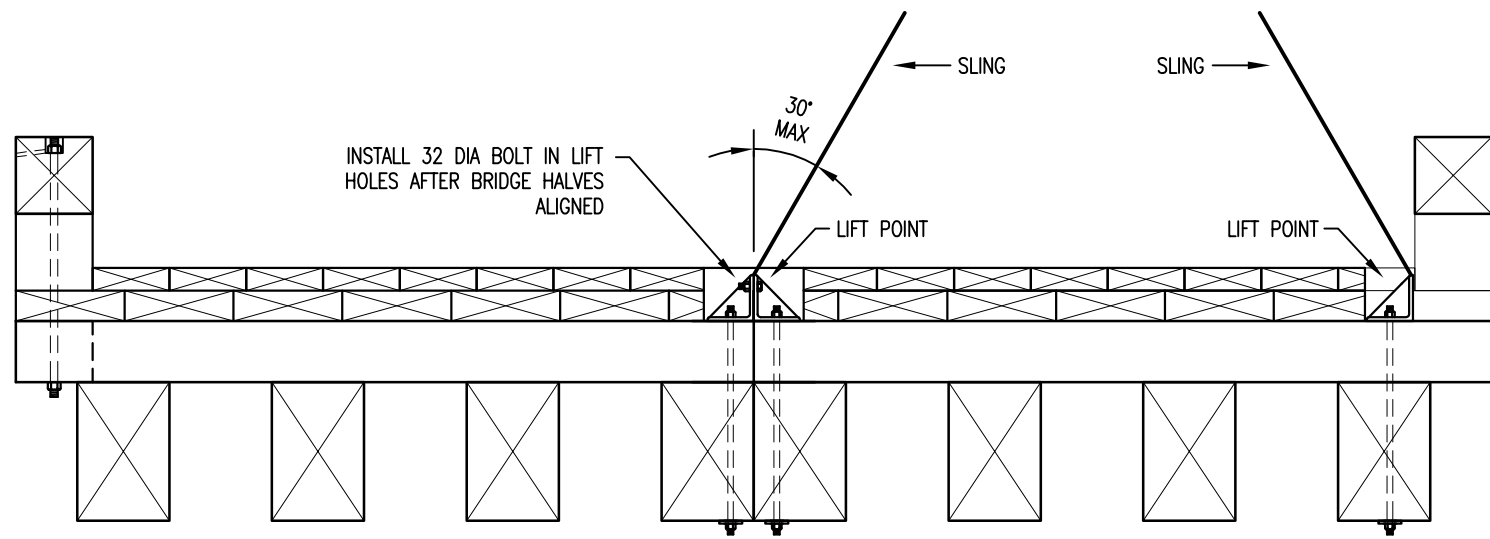
STANDARD BRIDGE DRAWING

6.1 M SPAN TIMBER PORTABLE BRIDGE
PLAN & ELEVATIONS

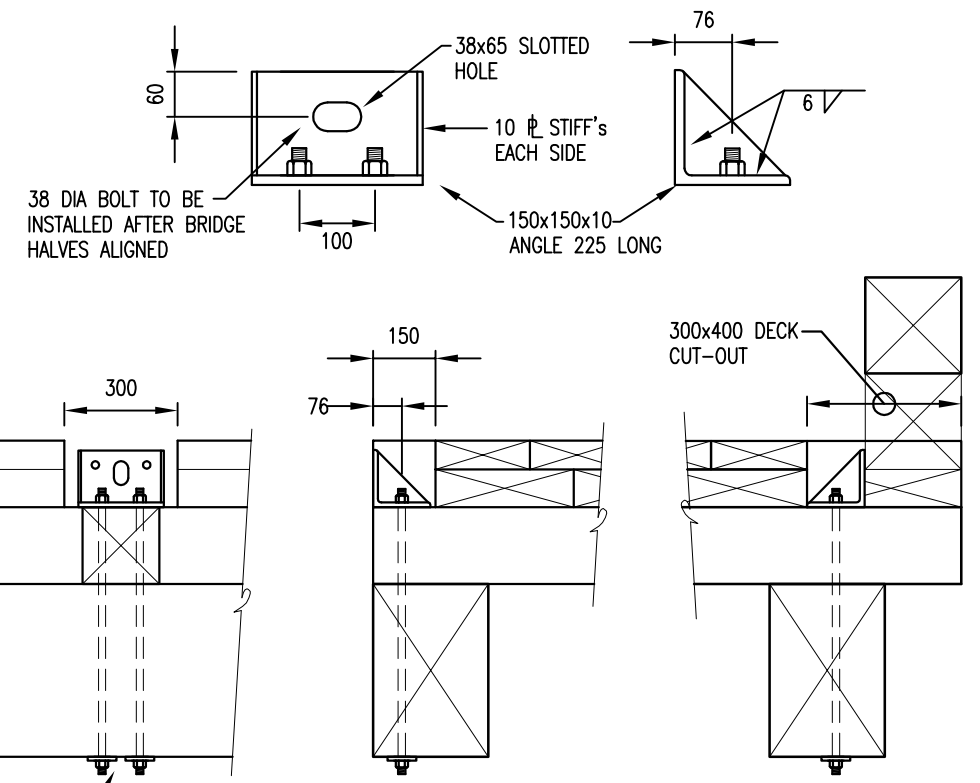
ORIGINAL SIGNED and SEALED BY: A. B. SWAN, P.Eng	MFR ENGINEER: GARY McCLELLAND, P.ENG DREW ALWAY, P. ENG, RPF
DESIGN ENGINEER: DATE	APPROVED BY: BRIAN CHOW, P.ENG, CHIEF ENGINEER DATE
FILE No.	DRAWING No. STD-E-025-02

REVISIONS

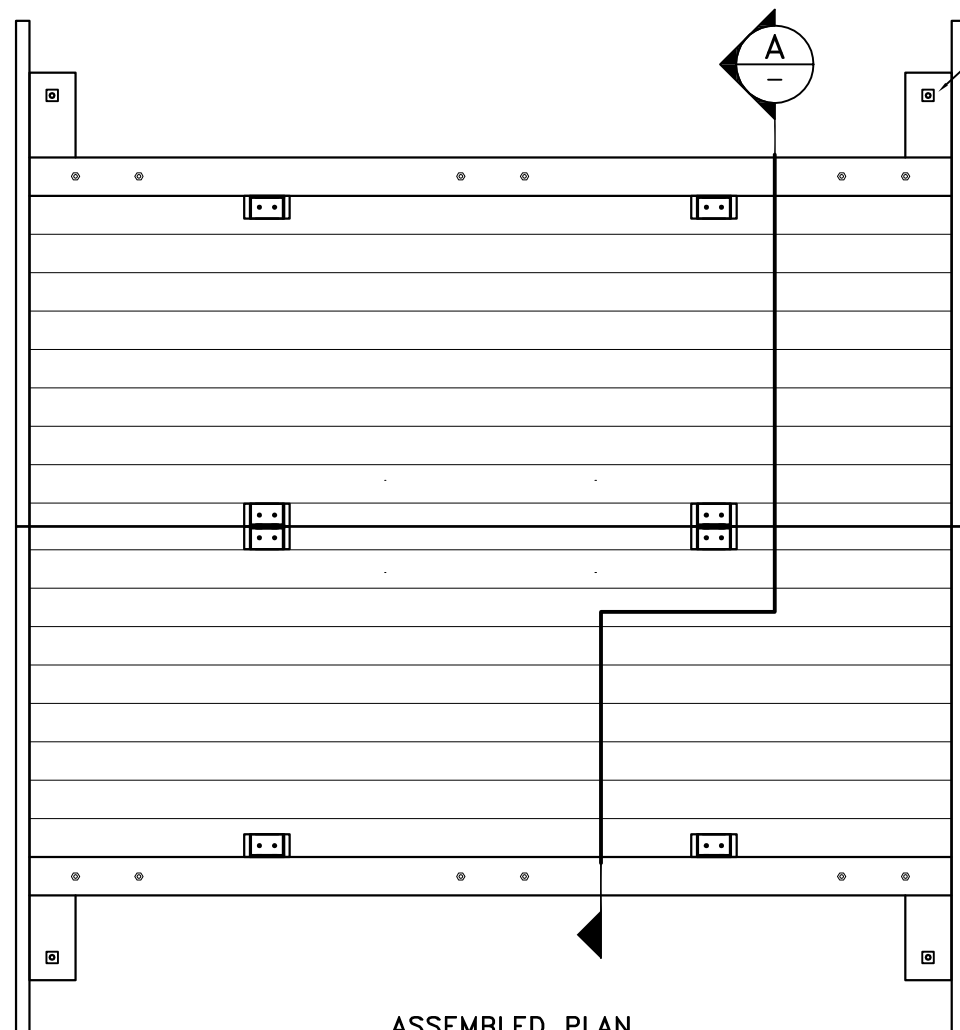
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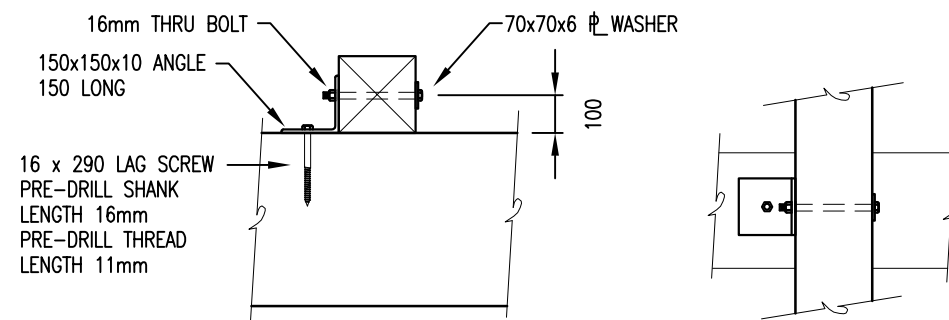
SECTION A
1:25



DETAIL 1: LIFTING BRACKETS
1:20




ASSEMBLED PLAN
1:40



DETAIL 3 TIE CONN
1:20

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		Checked: LY Date: 2010/03/17	
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6.1 M SPAN TIMBER PORTABLE BRIDGE GENERAL ARRANGEMENT & DETAILS			
ORIGINAL SIGNED and SEALED BY:		MFR ENGINEER: GARY McCLELLAND, P. ENG	
A. B. SWAN, P. Eng		DREW ALWAY, P. ENG, RPF	
DESIGN ENGINEER: A. B. SWAN P. ENG		APPROVED BY: BRIAN CHOW, P. ENG, CHIEF ENGINEER	
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		STD-E-025-03 1	
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