

**RAPID SPAN STRUCTURES LTD.**

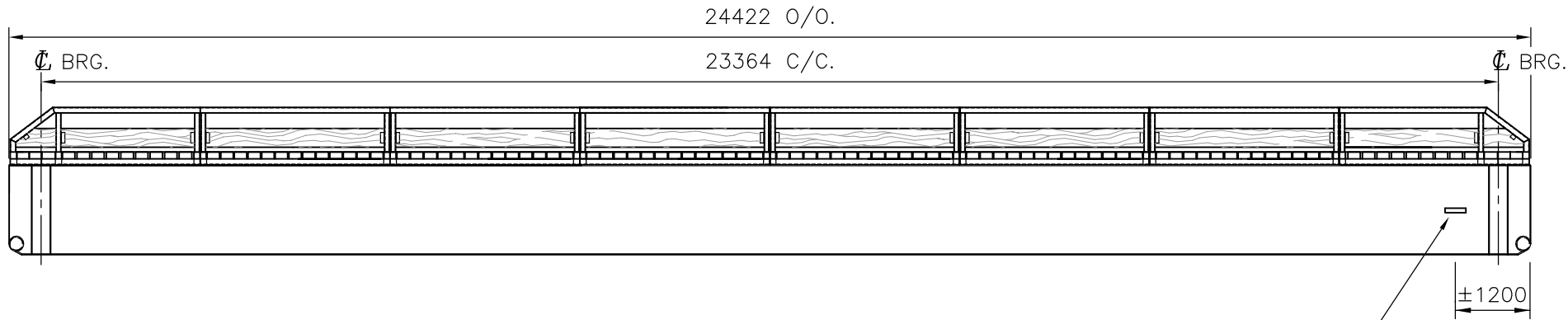
**24.384m OILFIELD PORTABLE  
PANELIZED TIMBER DECK**

**ASSOCIATED  
ENGINEERING**



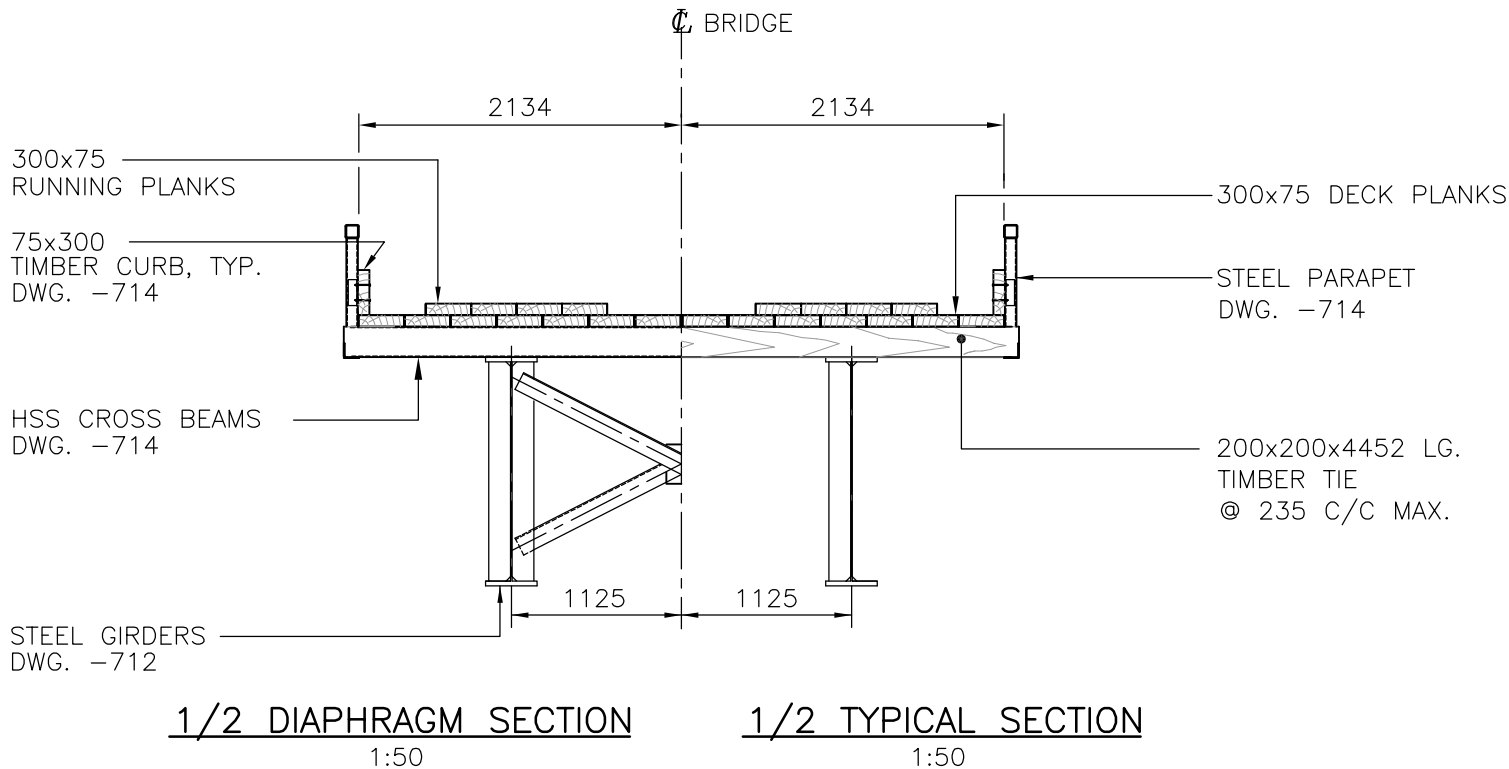
DRAWING SCHEDULE			
DRAWING No.	DESCRIPTION	REV.	DATE
3751-SK-711	GENERAL ARRANGEMENT	2	04/09/20
3751-SK-712	STEEL DETAILS - SHT.1	4	04/12/14
3751-SK-713	STEEL DETAILS - SHT.2	3	04/10/20
3751-SK-714	PANELIZED TIMBER DECK DETAILS	1	04/11/05

GEOTECHNICAL ENGINEERING IS NOT INCLUDED WITHIN THE SCOPE OF SERVICES BEING PROVIDED BY ASSOCIATED ENGINEERING (AB.) LTD. THEREFORE THIS DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL FIELD INVESTIGATION OR ADVICE. GROUND CONDITIONS MAY VARY. THE FOUNDATION REQUIREMENTS AND BRIDGE CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION. ASSOCIATED ENGINEERING (AB.) LTD. ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DELAY OR ADDITIONAL COSTS WHICH MAY RESULT IF GROUND CONDITIONS VARY FROM THOSE ASSUMED. PLEASE CONTACT ASSOCIATED ENGINEERING (AB.) LTD. IF GEOTECHNICAL DATA AND RECOMMENDATIONS ARE AVAILABLE FOR THIS BRIDGE CROSSING OR IF THE OWNER WISHES TO EXPAND THE ENGINEERING SERVICES TO INCORPORATE THIS EXTRA WORK.



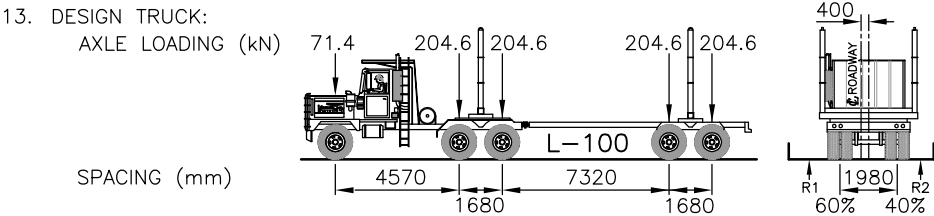
ELEVATION  
1:100

MANUFACTURER:  
DATE:  
DESIGN LOADING:  
SERIAL NUMBER:



NOTES

- FOR INSTALLATION BY OTHERS, ONTO SUBSTRUCTURE BY OTHERS, NO RESPONSIBILITY CAN BE ACCEPTED FOR WORK BY OTHERS.
- DESIGN: CAN/CSA-S6-88 (MODIFIED).  
LOADING: L100 (90,680kg. G.V.W.) e=400, DIST.=60/40.
- DESIGN LIFE: 50 YEARS (EXCEPT DECK).
- FATIGUE: 500,000 CYCLES.
- STEEL: CSA G40.21M GRADE 350AT CAT. 3 (PLATE)  
GRADE 350A (ANGLES)  
GRADE 350W (HSS & W-SECTIONS)  
FABRICATE GIRDERS AS FRACTURE CRITICAL MEMBERS.  
NON-WEATHERING STEEL SECTIONS TO BE PAINTED USING APPROVED PAINT SYSTEM
- WELDING: CSA W59, WELDS TO BE 6mm FILLET WELDS U/N., X-RAY TENSION FLANGE BUTT WELDS, STEEL FABRICATORS SHALL BE QUALIFIED TO CSA W47.1, DIV. 1 OR DIV. 2
- PIPE: ASTM A252 GRADE 2.
- BOLTS: ASTM A325 TYPE 3 M22 U/N. JOB INSPECTION TORQUE 810 N m
- DECK HARDWARE: HOT DIP GALVANIZED OR GRADE 350A, BOLTS ASTM A307 GALVANIZED.
- DECK CONSTRUCTION: TO MOF DWG. NOS. ENG-94-1-01,02,04 EXCEPT AS NOTED.
- TIMBER: SPF NO. 2 GRADE OR BETTER, ROUGH SAWN. TIES AND DECK PLANKS TO BE CCA TREATED; CURBS & RUNNING PLANKS, UNTREATED.
- BRIDGE IDENTIFICATION: THE BRIDGE SHALL HAVE ITS LOAD RATING, DATE OF MANUFACTURE, MANUFACTURER'S NAME, AND THE SERIAL NUMBER CLEARLY STAMPED ON PLATE FIXED TO ONE SIDE OF THE STRUCTURE. THE HEIGHT OF LETTERING USED SHALL BE A MINIMUM OF 60mm UNLESS OTHERWISE SPECIFIED.



PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING ALBERTA LTD.  
Signature \_\_\_\_\_  
Date \_\_\_\_\_  
PERMIT NUMBER : P 3979  
The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
1	04	01	05	UPDATED TITLE	M.S.	P.L.
2	04	09	20	TIMBER DECK	AY	CKL

RAPID SPAN STRUCTURES LTD.

24.384m OILFIELD PORTABLE PANELIZED TIMBER DECK  
GENERAL ARRANGEMENT

ASSOCIATED  
ENGINEERING

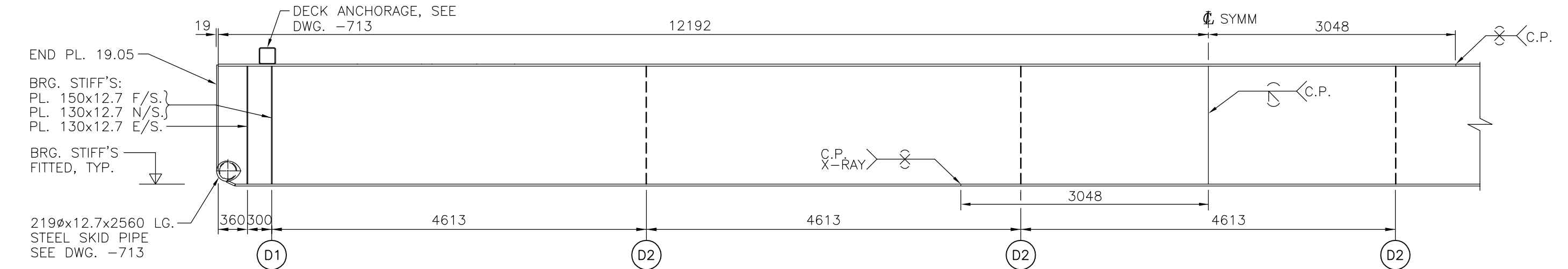
AE

ALL DRAWINGS SUPERSEDED PRIOR TO REVISION →

DESIGN: M.R.S.	
CHECK: M.G.J.	
DRAWN: P.L.	
DATE: JANUARY 2004	
SCALE: AS SHOWN	
JOB No. 993751	
DWG. No. 3751-SK-711	2

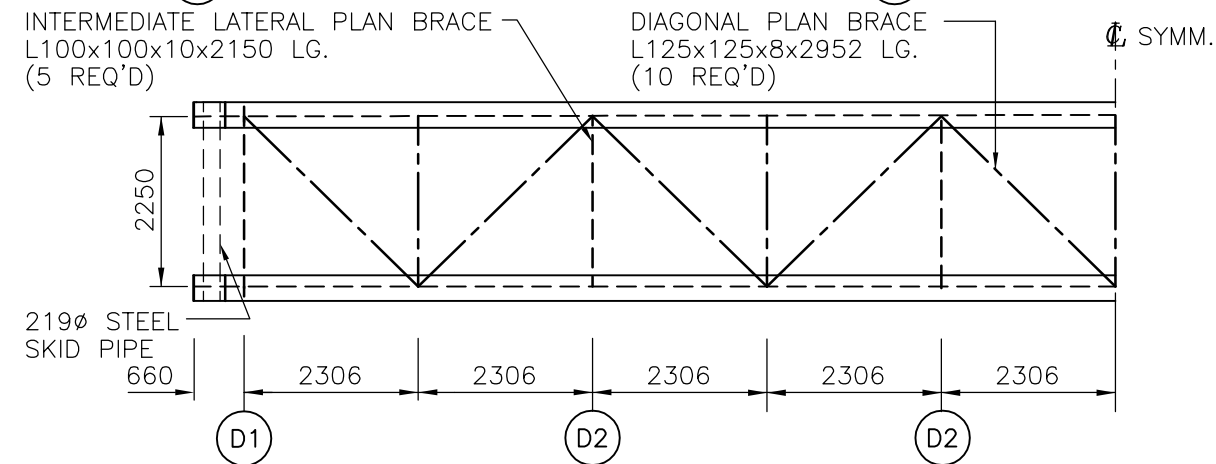
AUTOCADD DRAWING No. 3751-712.DWG

X-REF. ATTACHMENTS:



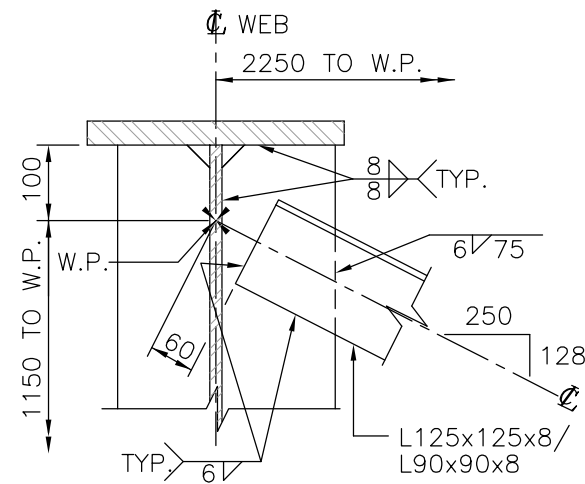
1/2 GIRDER ELEVATION

1:50



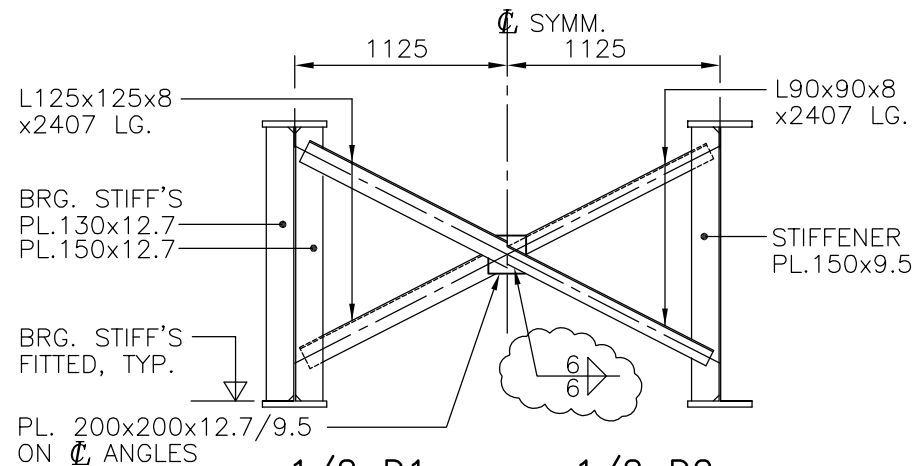
1/2 GIRDER PLAN

1:100



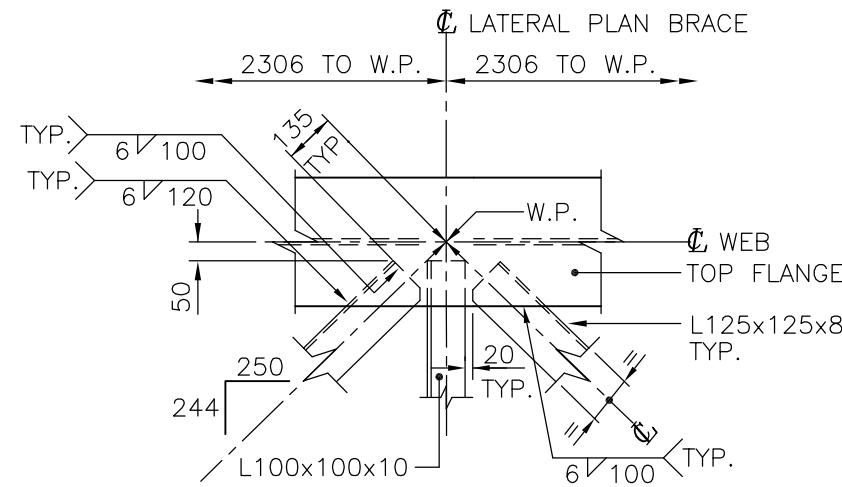
DIAPHRAGM CONN. DETAIL

1:10



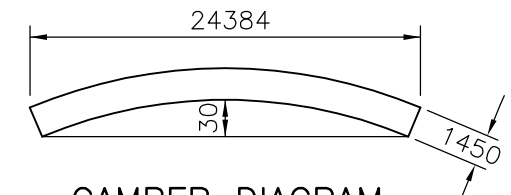
DIAPHRAGM DETAILS

1:40



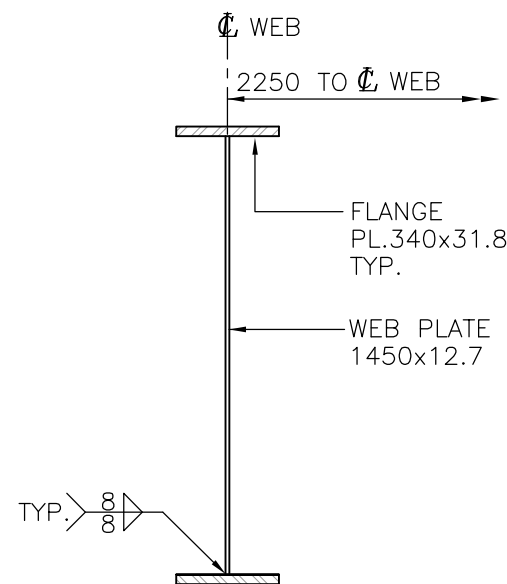
PLAN BRACE CONNECTION DETAILS

1:20



CAMBER DIAGRAM

N.T.S.



TYP. GIRDER SECTION

1:25

PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING ALBERTA LTD.

Signature \_\_\_\_\_

Date \_\_\_\_\_

PERMIT NUMBER : P 3979

The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
1	04	01	05	UPDATED TITLE	M.S.	P.L.
2	04	09	20	GENERAL REVISION	AY	CKL
3	04	10	20	DECK ANCHORAGE & WELD ADDED	AY	AY
4	04	12	14	FILLER PLATE WELD	AY	AY

RAPID SPAN STRUCTURES LTD.

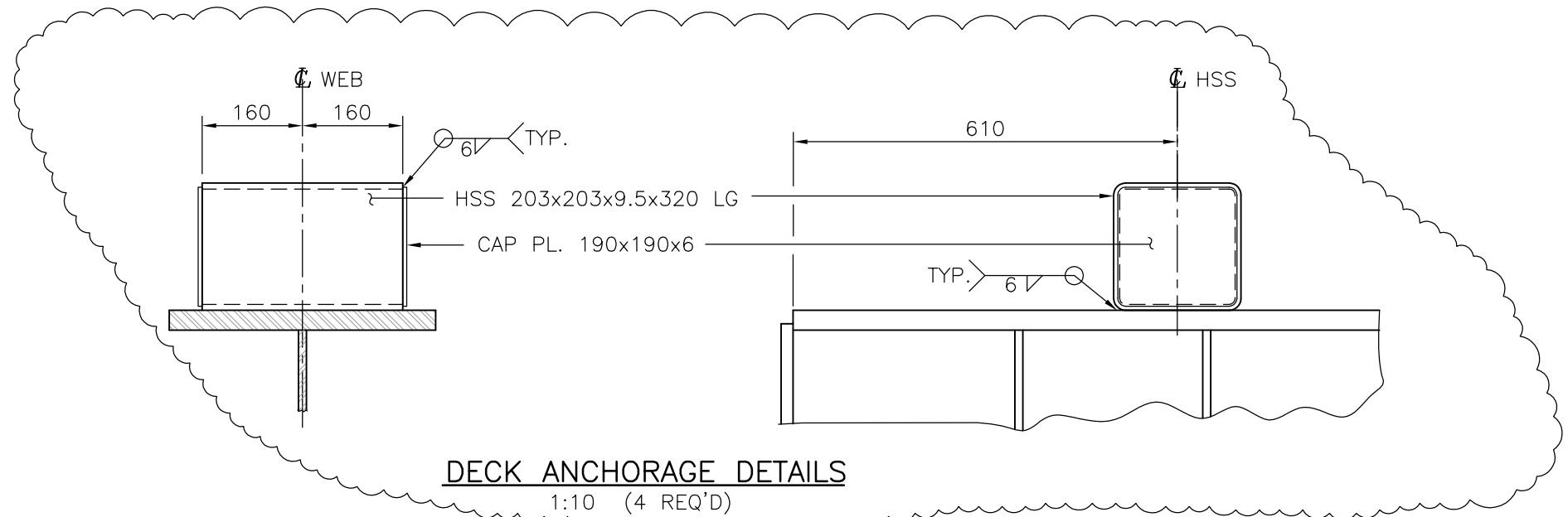
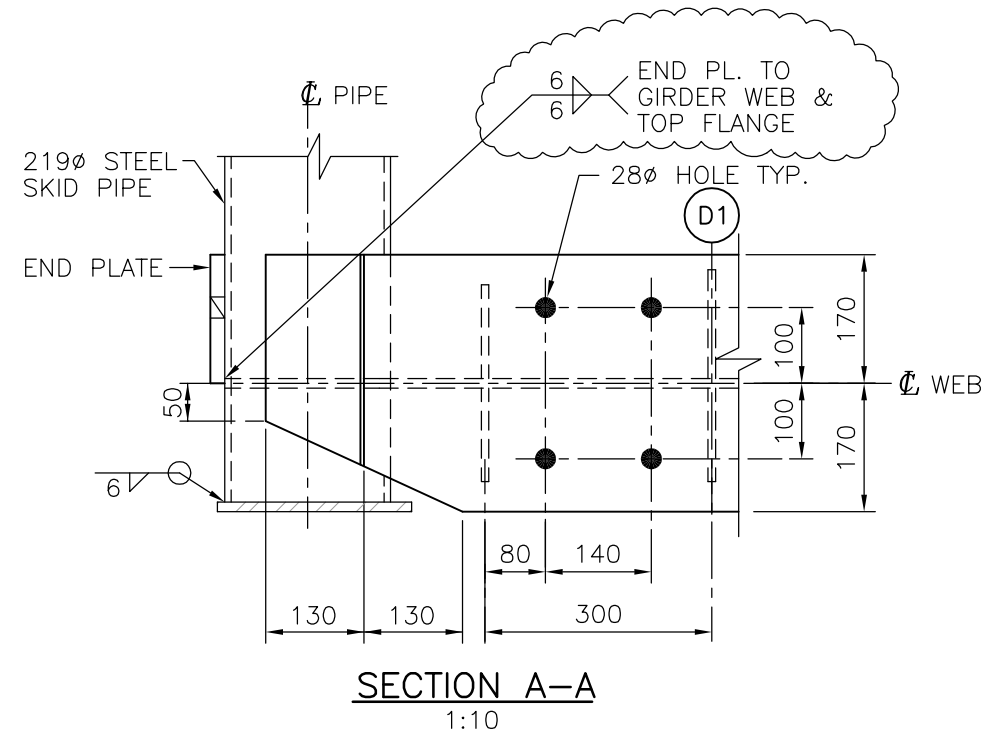
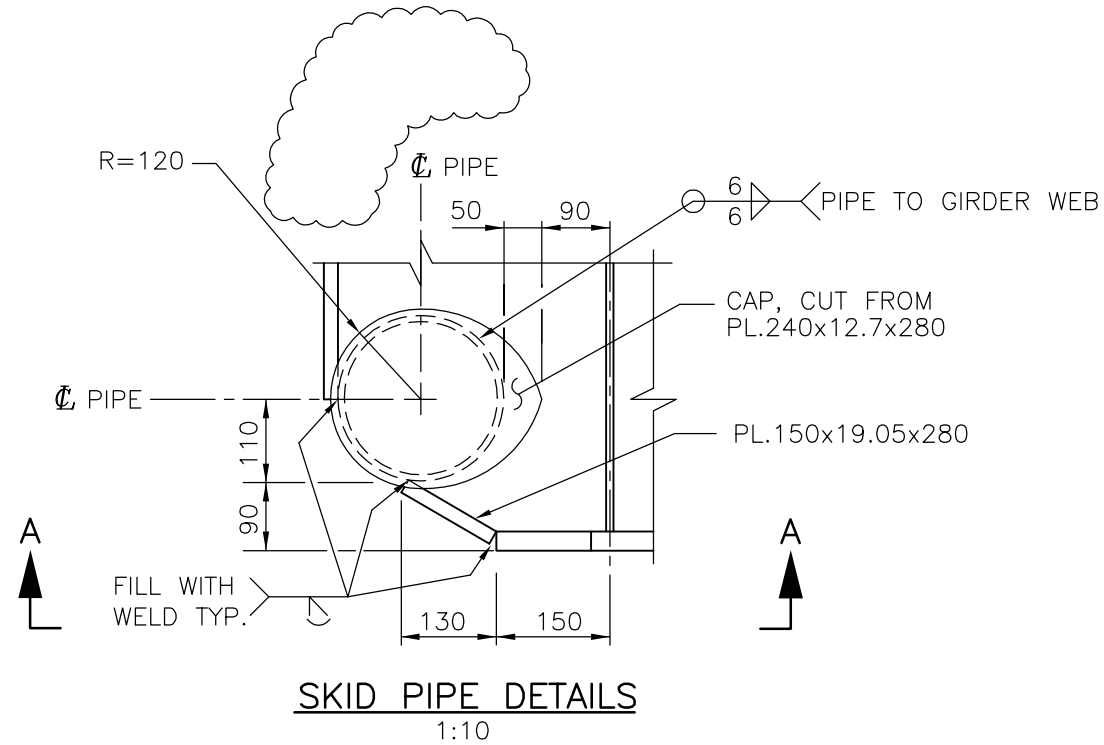
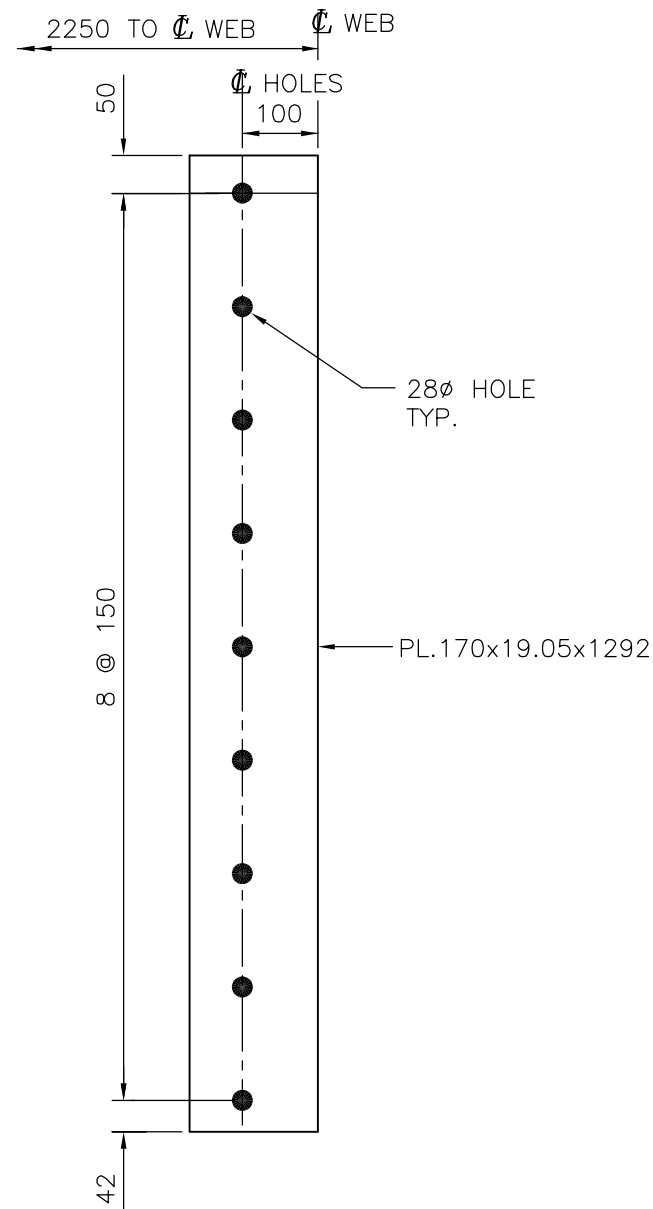
24.384m OILFIELD PORTABLE PANELIZED TIMBER DECK  
STEEL GIRDER DETAILS - SHT.1

ASSOCIATED  
ENGINEERING



DESIGN: M.R.S.	
CHECK: M.G.J.	
DRAWN: P.L.	
DATE: JANUARY 2004	
SCALE: AS SHOWN	
JOB No. 993751	
DWG. No. 3751-SK-712	4

ALL DRAWINGS SUPERSEDED PRIOR TO REVISION →



**PERMIT TO PRACTICE**  
ASSOCIATED ENGINEERING ALBERTA LTD.

Signature \_\_\_\_\_

Date \_\_\_\_\_

**PERMIT NUMBER : P 3979**

The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
1	04	01	05	UPDATED TITLE	M.S.	P.L.
2	04	09	20	GENERAL REVISION	AY	CKL
3	04	10	20	DECK ANCHORAGE DETAILS ADDED & WELD DETAILS	AY	AY

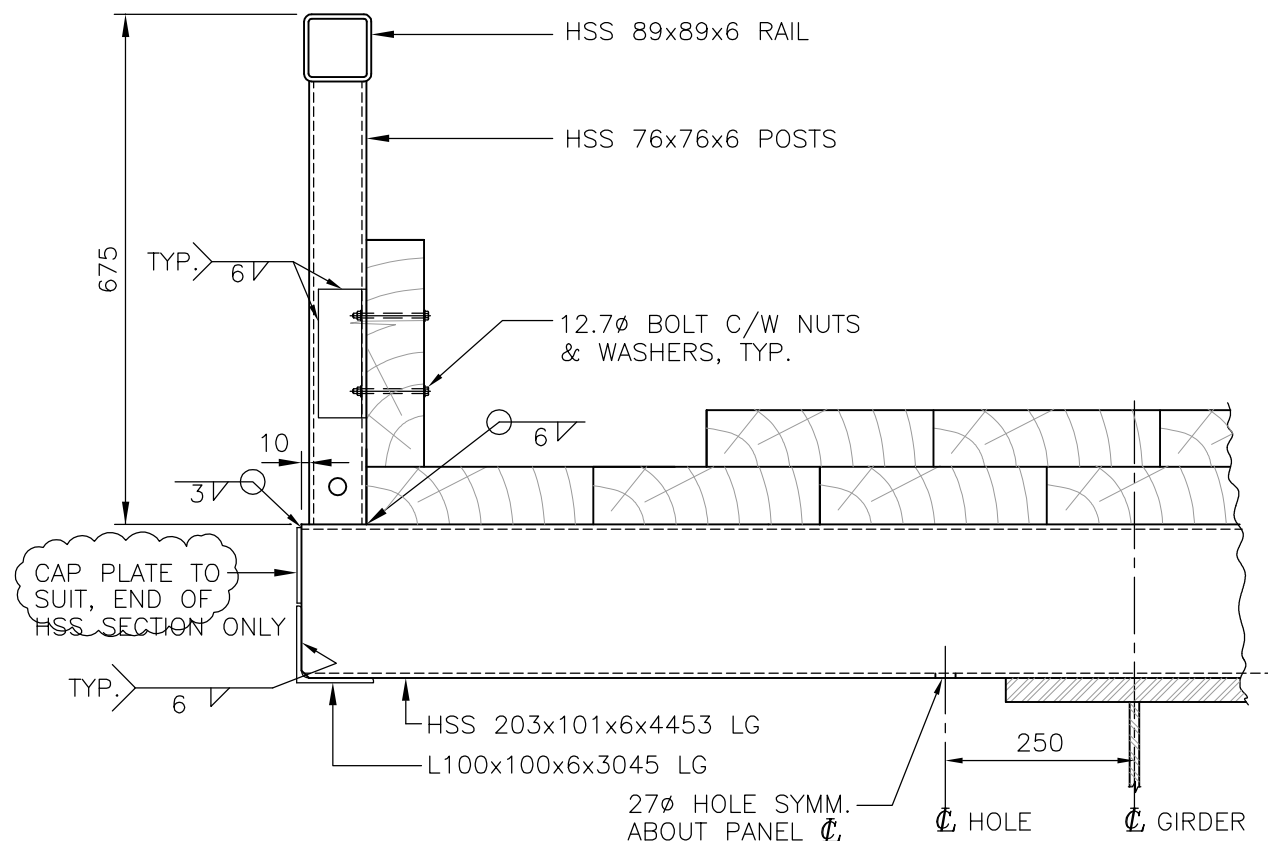
**RAPID SPAN STRUCTURES LTD.**

24.384m OILFIELD PORTABLE PANELIZED TIMBER DECK  
STEEL GIRDER DETAILS – SHT.2

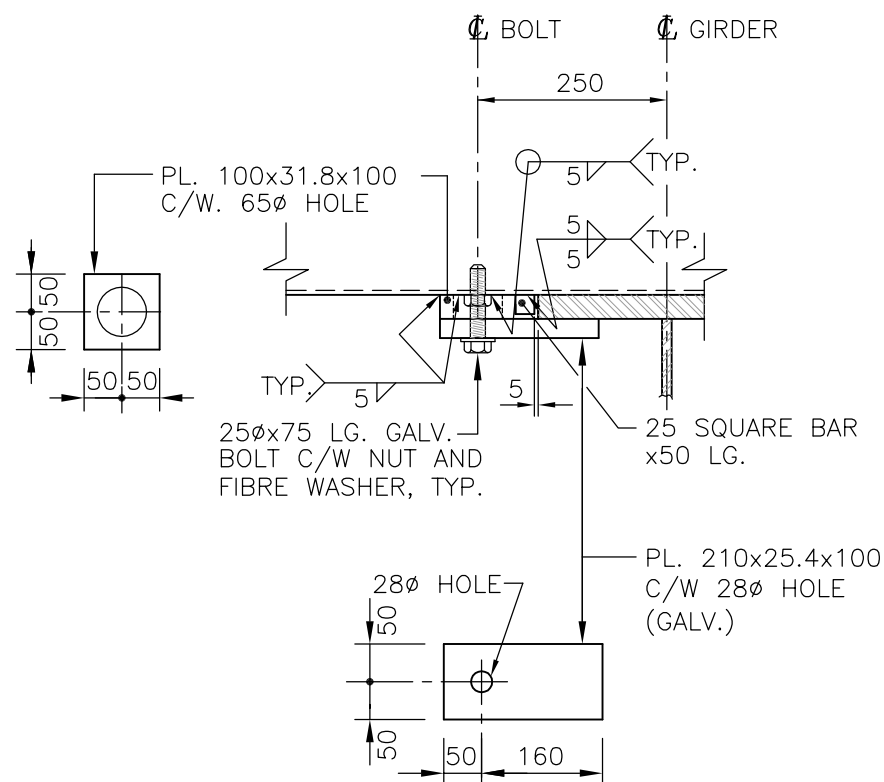
ASSOCIATED  
ENGINEERING **AE**

ALL DRAWINGS SUPERSEDED PRIOR TO REVISION →

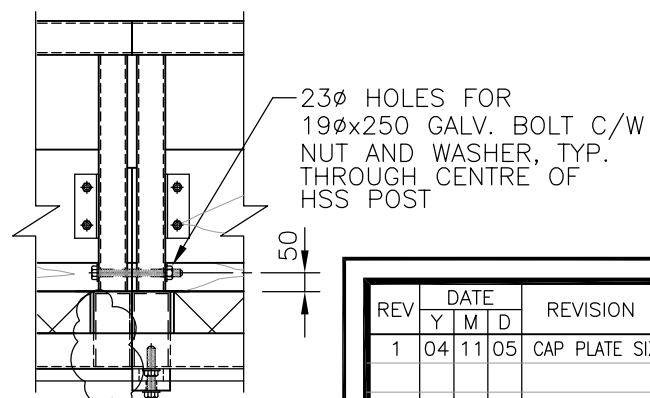
DESIGN: M.R.S.	
CHECK: M.G.J.	
DRAWN: P.L.	
DATE: JANUARY 2004	
SCALE: AS SHOWN	
JOB No. 993751	
DWG. No. 3751-SK-713	3



PARAPET DETAIL  
1:10



DECK/GIRDER CLIP POINT DETAIL  
1:10



DECK CLIP DETAIL  
1:20

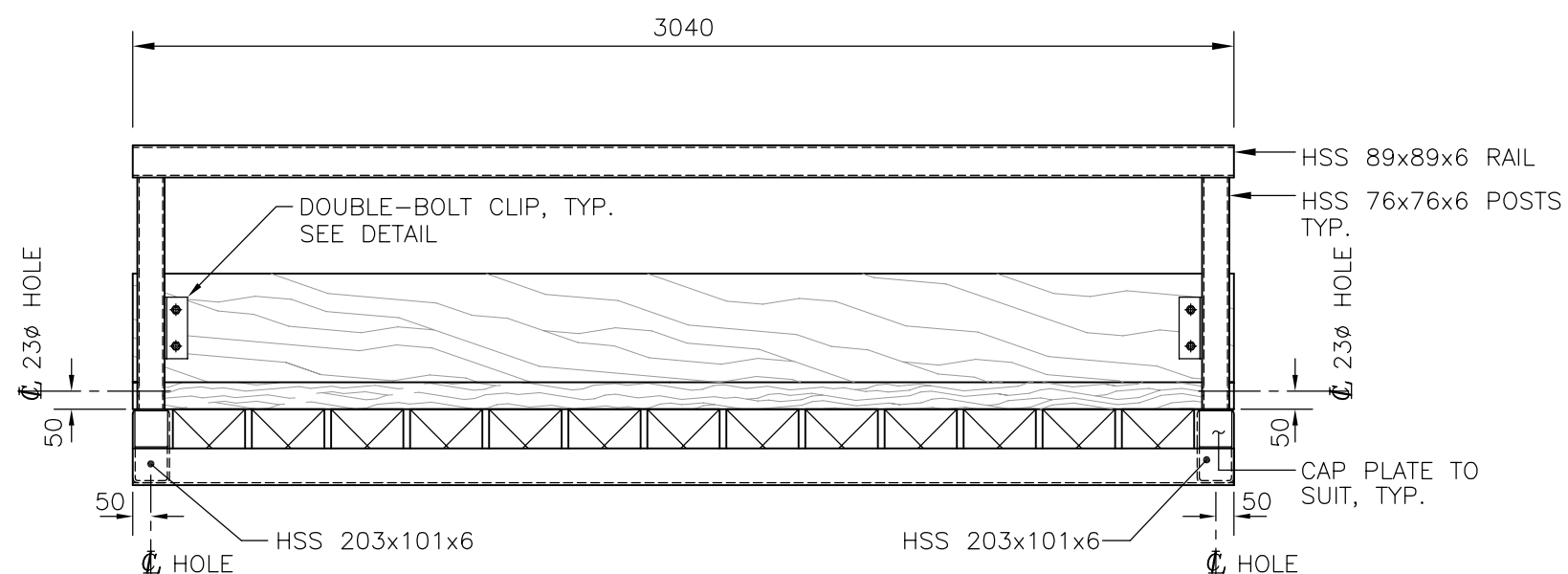
**PERMIT TO PRACTICE**  
**ASSOCIATED ENGINEERING ALBERTA LTD.**

Signature \_\_\_\_\_

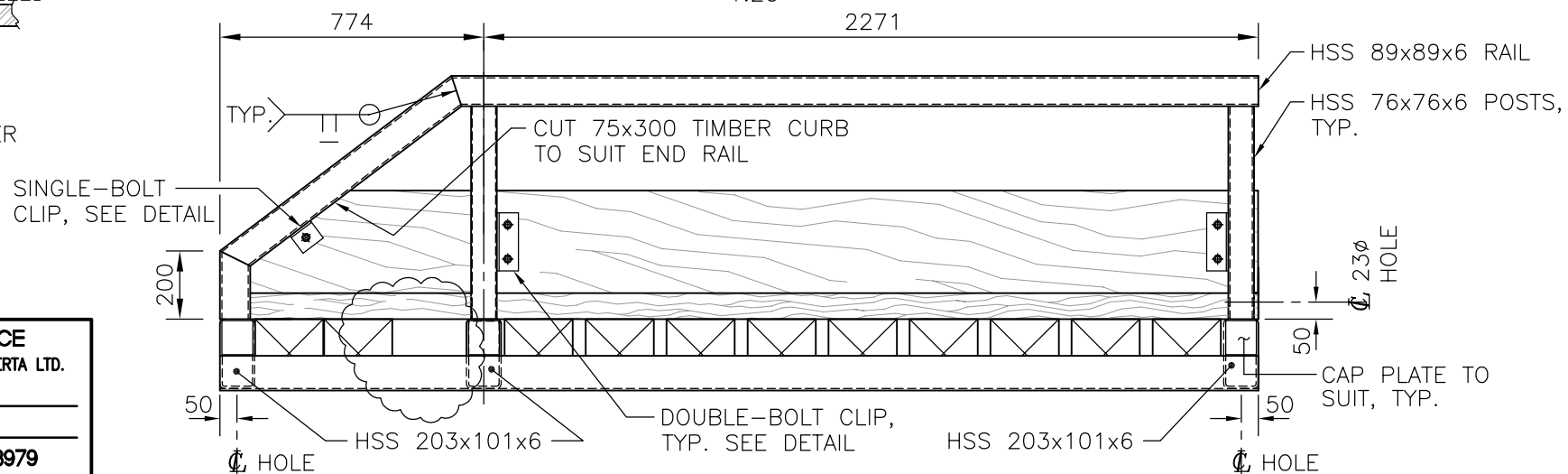
Date \_\_\_\_\_

**PERMIT NUMBER : P 3979**

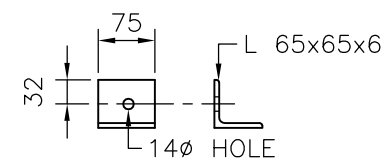
The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta



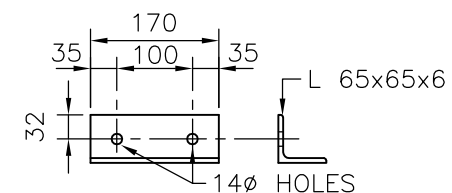
TYPICAL INTERIOR DECK PANEL  
1:20



TYPICAL END DECK PANEL  
1:20



SINGLE-BOLT CLIP  
1:10




DOUBLE-BOLT CLIP  
1:10

[illegible]

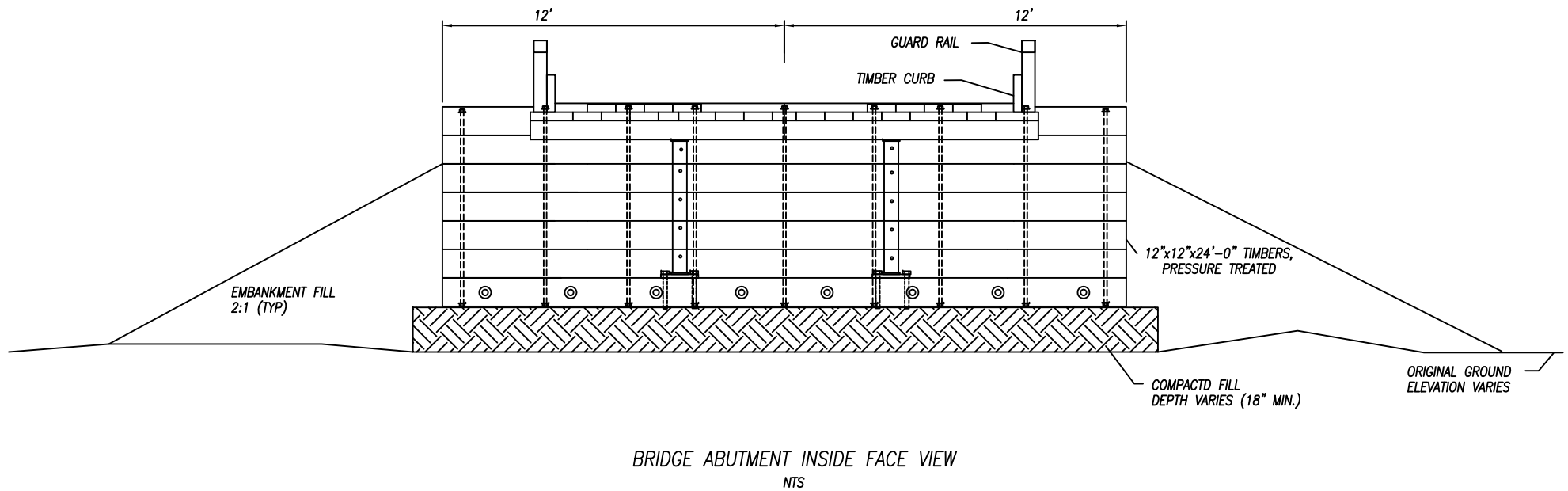
RAPID SPAN STRUCTURES LTD.

24.384m OILFIELD PORTABLE PANELIZED TIMBER DECK  
PANELIZED TIMBER DECK DETAILS

ASSOCIATED  
ENGINEERING   
ALL DRAWINGS SUPERS

DESIGN: M.R.S.	
CHECK: M.G.J.	
DRAWN: C.K.L.	
DATE: SEPTEMBER 2004	
SCALE: AS SHOWN	
JOB No. 993751	
DWG. No. 3751-SK-714	

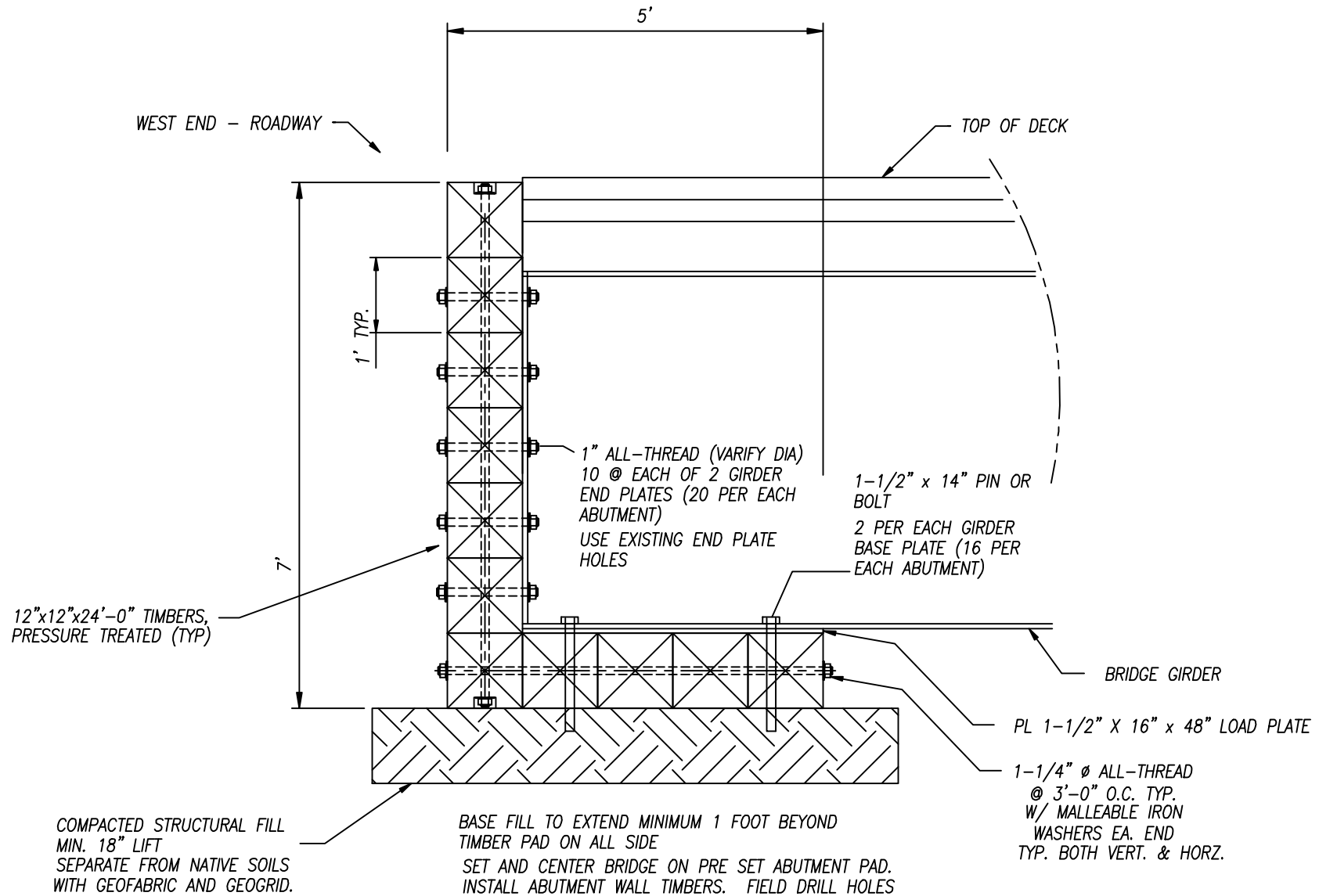
ALL DRAWINGS SUPERSEDED PRIOR TO REVISION —



BY: S ROWLAND, RECON, LLC  
DATE: 4-10-09

NOTES:

BRIDGE ABUTMENT CONSTRUCTION DETAILS FOR BRIDGES AT LITTLE NENANA RIVER, EAST MIDDLE RIVER, WEST MIDDLE RIVER.  
ALL BRIDGES TO BE INSTALLED PER PERMIT REQUIREMENTS AND AT LOCATIONS FIELD STAKED BY PROJECT ENGINEER.



ABUTMENT CROSS SECTION  
NTS

BY: S ROWLAND, RECON, LLC  
DATE: 4-10-09