KENWORTH

	Description
	Circuit breakers replacing fuses Does not apply to any 5-amp fuse box position Breakers include: Stop/Brake/Turn, Tail Lamp, High & Low Beams, Marker/Clearance Lamps, Horn, Fuel Heat, Gauges, Wipers, Air Dryer, HVAC Controls, Panel Lamps, HD Trailer Turn Signal
Air Equipment	
	Air Dryer Bendix AD-IS Extended Purge
	Moisture Ejection Valve Two Bendix DV-2 drain valves on service tanks use with AD-IS only. Heated
	Air & Electrical Supply Kits: Full truck kit. Gladhands mounted at end-of-frame. Seven-way female receptacle mounted at end-of-frame in taillamp bracket.
	AIR OIL & FUEL HOSE TO -60 DEG F
	Air tanks clear of transmission area
	Additional 7-way ISO 3731 connector for trailer ABS power: One additional, without light line, for full truck & tractor
Extended Warranty	
	SEVERE SERVICE WARRANTY
Miscellaneous	
	Domestic severe service package
	OFF HIGHWAY/SPECIALTY COMPONENT TRUCK
	U.S. certification decals for Canadian trucks
Paint	
	PAINT COLOR NUMBER N97020 A - N0006EA WHITE N97400 SUNVISOR N0006EA WHITE N97200 FRAME N0001EA BLACK
	IMRON solid 1 color non-sleeper SPEC A
Total Weight	24702#

Prices and Specifications Subject to Change Without Notice.

Unpublished options may require review/approval.
Dimensional and performance data for unpublished options may vary from that displayed in PROSPECTOR.

Printed:	7/21/2006 2:25:51 PM	*Complete*	Model Number:	T800B	CONVENTIONAL
Effective Date:	Jan 1, 2006		Quote/DTPO/CO:		Q51600420
Prepared by:	Ken Jodoin		Version Number:		16.13

KENWORTH

Edmonton Kenworth Ltd. E009
17335 118 Avenue

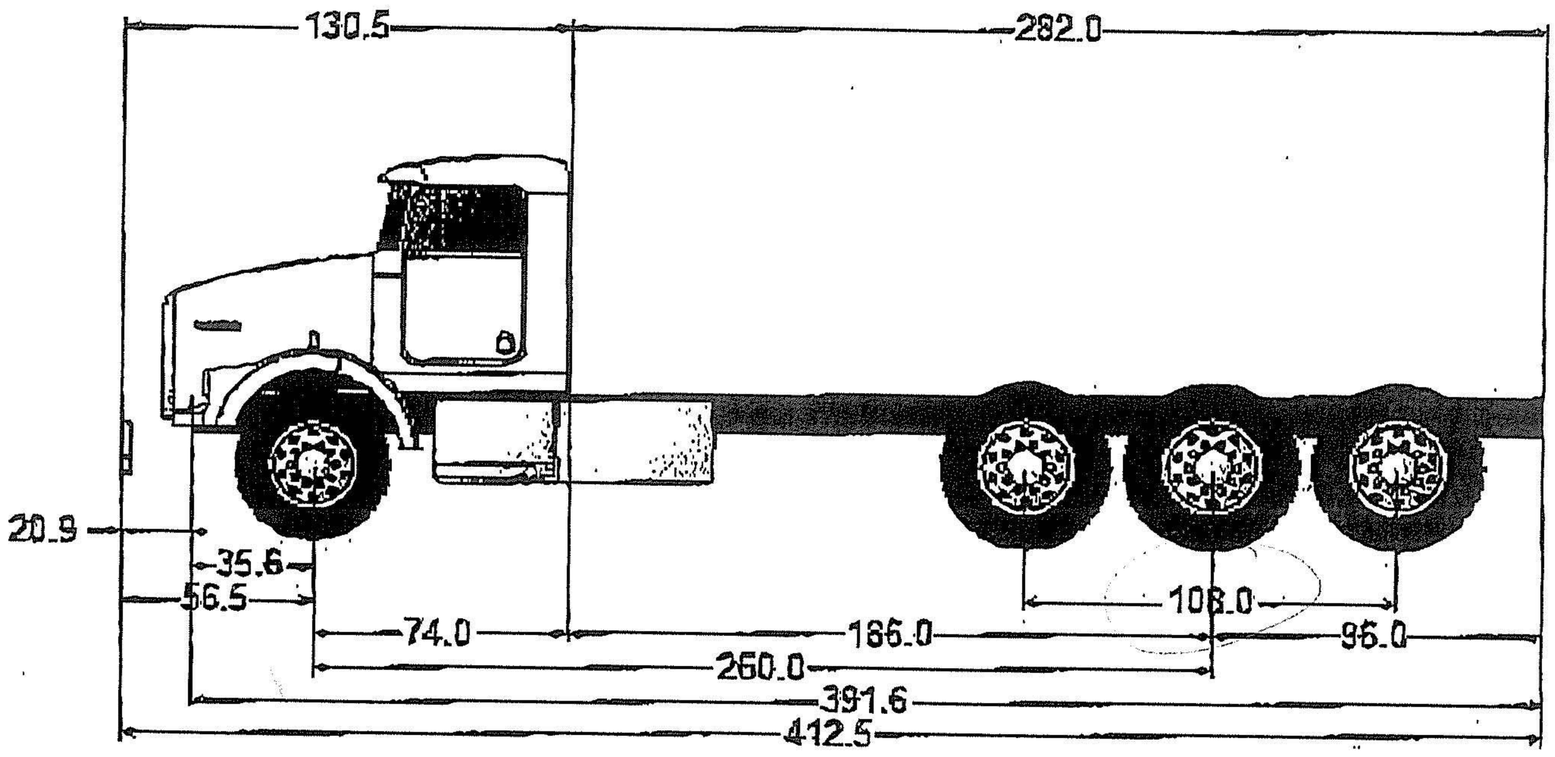
Edmontlon, Alberta Canada T5S 2P5
Phone: (780) 453-3431
Fax: (780) 454-6124
Email: kjodoin@edmkw.com

NUNA LOGISTICS
9839-31 AVENUE

EDMONTON, Alberta Canada T6N 1C5
Phone:
Fax:
Contact Email:
Prepared for: KEITH MCGRATH

Horizontal Dimensions

Model: T800B CONVENTIONAL
Quote/DTPO/CO Number: Q51600420



Unpublished options may require review/approval.
Dimenslonal and performance data for unpublished options may vary from that displayed in PROSPECTOR.

Printed:	7/21/2006 2:26:07 PM	*Complete*	Model Number:	T800B	CONVENTIONAL
Effective Date:	Jan 1, 2006		Quote/DTPO/CO:		Q51600420
Prepared by:	Ken Jodoin		Version Number:		16.13

RENN TRIDEM PONY PUP TRAILER

PRODUCT GROUP – SMP - MODEL SL1700 (Short Pole)

SPECIFICATIONS :

Overall Length:	31 ft. 5 in.	Box Length:	17 ft. 0 in.	Weight 5790 Kg
Overall Width:	8 ft. 6 in.	Box Width:	8 ft. 0 in.	12760 Lb
Overall Height:	8 ft. 0 in	Box Sides:	30 in..	
Tailgate Height:	42 in.	Box Front:	42 in.	

BOX FRONT	3/16" min. 50,000 yield steel – external trunion mount (no doghouse).
BOX SIDES	12-gauge high tensile steel (A607) c/w 10 gauge full sideliner.
BOX FLOOR	3/16" AR200 plate one-piece floor.
TAILGATE	3/16" AR200 plate inner skin c/w formed sloped stiffeners.
TIPPING SILL	3/16 formed "hat"sills, 4" high
PLANK BRACKETS	3 each side – 2 x 12 boards.
FRAME	WF10 @ 22 - wide flange beam (reinforced).
PARKING LEG	7000# Top Wind Jack
SUSPENSION	Reyco 91 tridem spring - 49" axle spread
AXLES	77.5" track, min. 22,500 lb. capacity - Haldex ABS - 2S1M.
RUBBER & WHEELS	BF Goodrich – ST 565 11R24.5 – steel unimount wheels
HOIST	35 Ton Capacity - 3 Stage 150 – 5.5 – 3.
ELECTRICAL SYSTEM	Fully enclosed sealed light system. All wiring connections soldered and shrink wrapped for protection.
PAINT	Sandblast, prime & paint – Endure urethane - white or KAC silver with black frame

AVAILABLE OPTIONS:

Box Size	Tires	Paint Color
Side Boards	Budd Wheels	Air Ride
Tire Carrier	Suspension	Document Holder
Rubber Cushion (Front)	Roll Tarp	Aluminum rims

Southland Trailers reserves the right to substitute standard specification items. Confirmation will be provided.

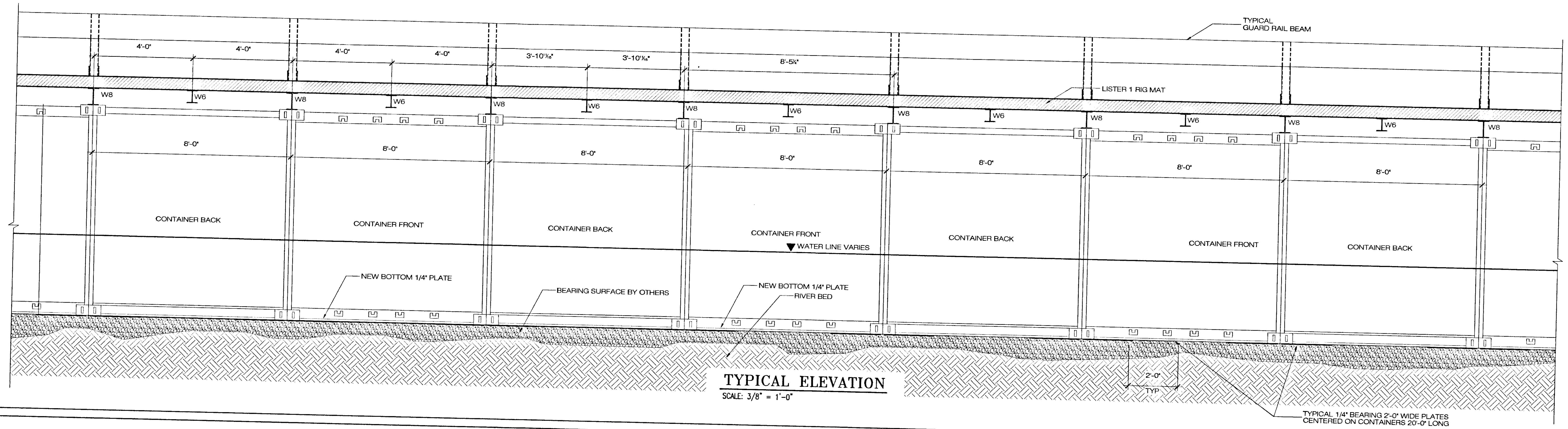
Revised FEB 2004

Knight Piésold
CONSULTING

APPENDIX D

DESIGN OF SEA CONTAINER CULVERTS

- Typical Sea Container Crossing 1 page



TYPICAL ELEVATION
SCALE: 3/8" = 1'-0"

NOTES

1- General

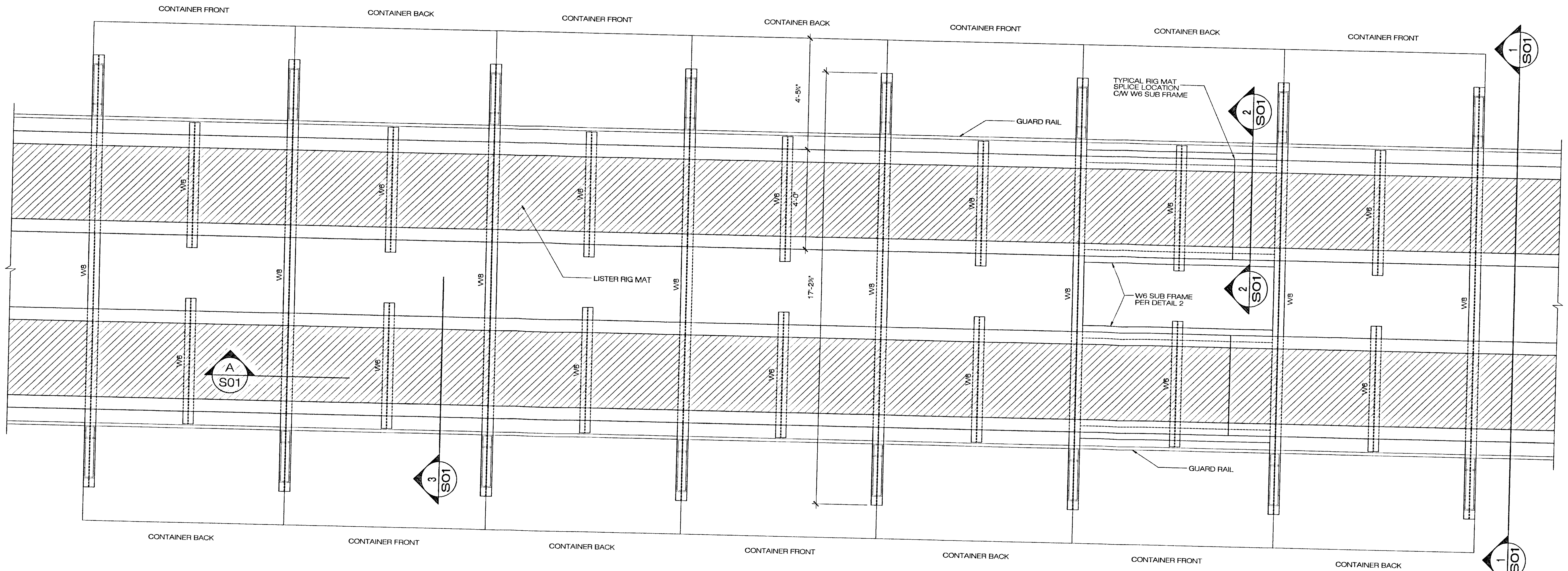
1.1 Confirm condition of existing containers for use. Contact engineer should any damage or issues are apparant.
1.2 Containers are to be placed on a level surface throughout the stream bed.
1.3 Speed limit of 20Km/hr on bridge.
1.4 Rig mats to be to ends supported at W8 to containers or to have end support frame per detail 2

2- Structural Steel

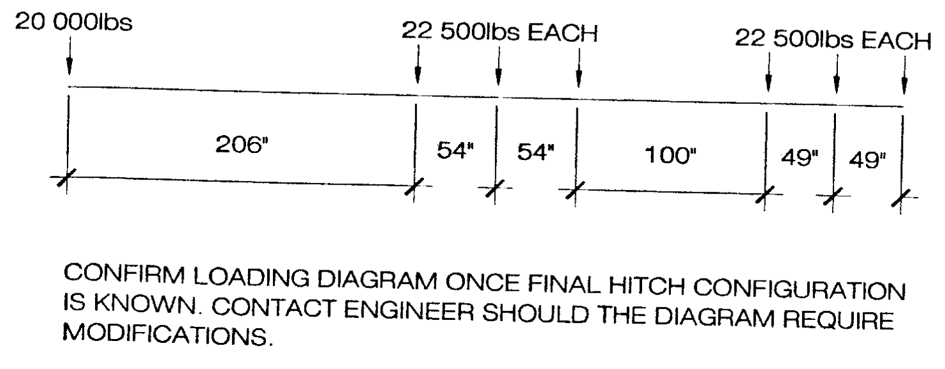
2.1 Structural Steel unless otherwise noted shall be 50W to CSA G40.21.
2.2 Miscellaneous plates and base plates shall be minimum A36 grade.
2.3 All welding shall be by CWB certified fabricator to CSA-W59.
2.4 All field welding shall be with E4918 rods.
2.5 Provide 3/8"Ø weeper hole in all HSS columns 1" above base plate.

3- Timber

3.1 All timber to CSA 086.
3.2 All timber to be SPF #2 or better.

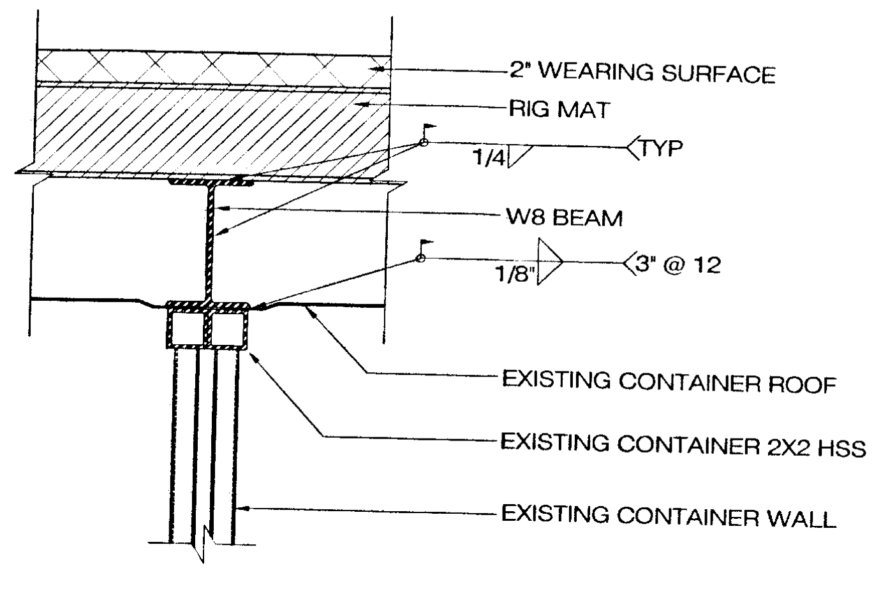


TYPICAL PLAN VIEW
SCALE: 3/8" = 1'-0"

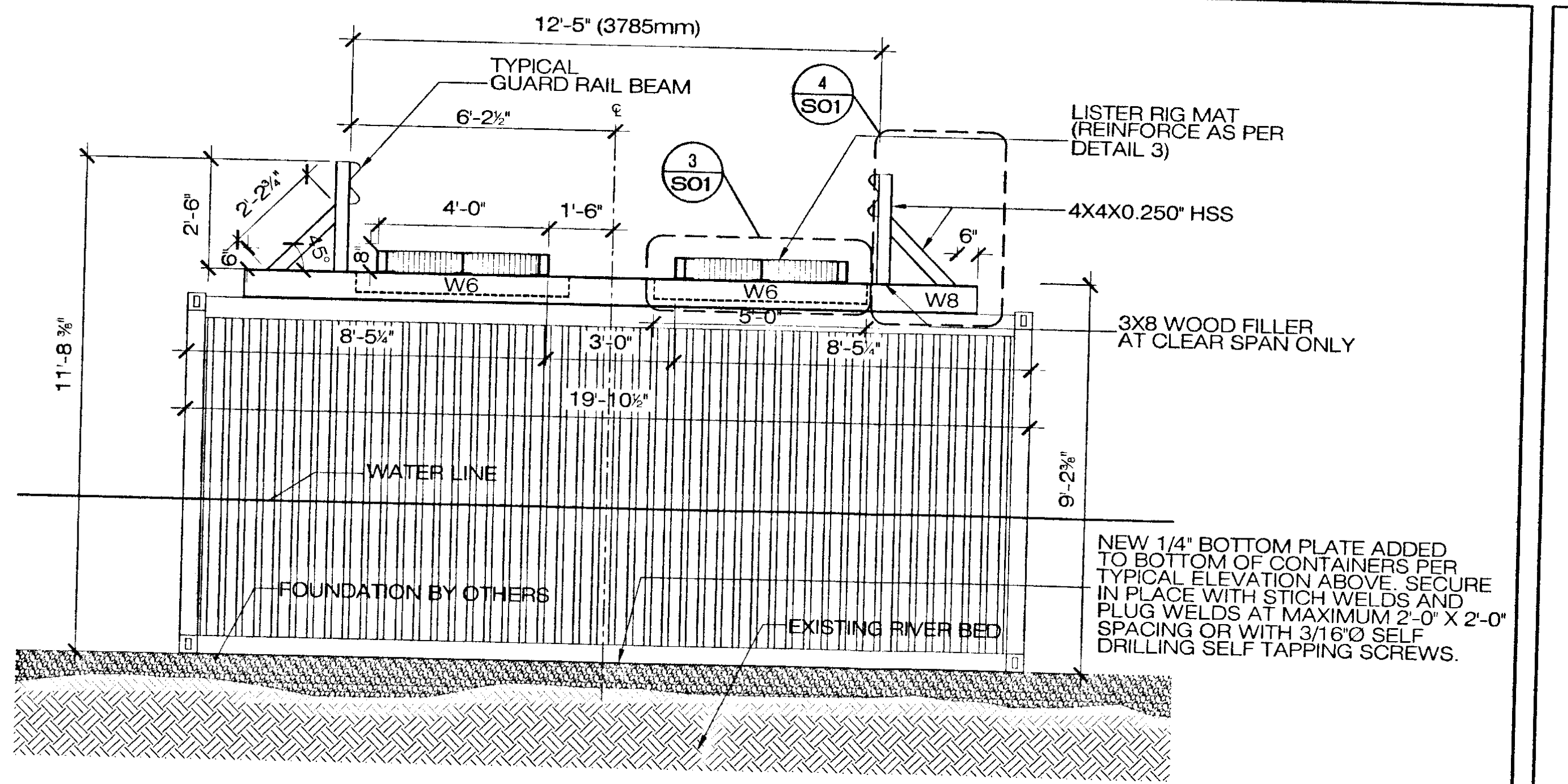


CONFIRM LOADING DIAGRAM ONCE FINAL HITCH CONFIGURATION IS KNOWN. CONTACT ENGINEER SHOULD THE DIAGRAM REQUIRE MODIFICATIONS.

DESIGN LOAD DIAGRAM

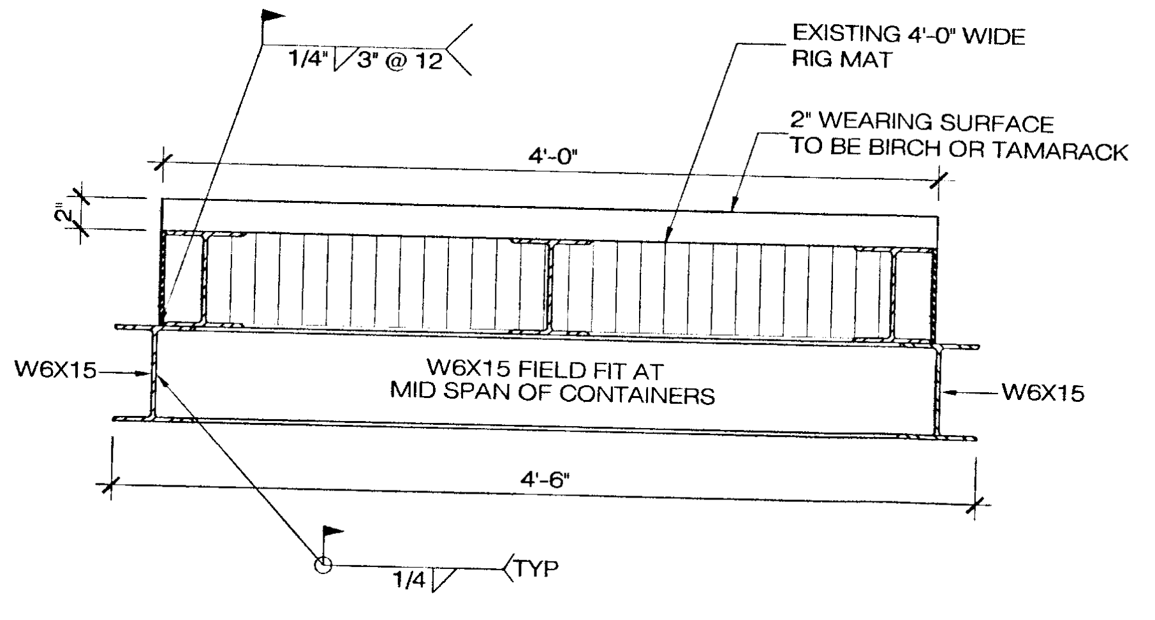


CONTAINER CONNECTION DETAIL 5 S01
SCALE: 1/4" = 1'-0"

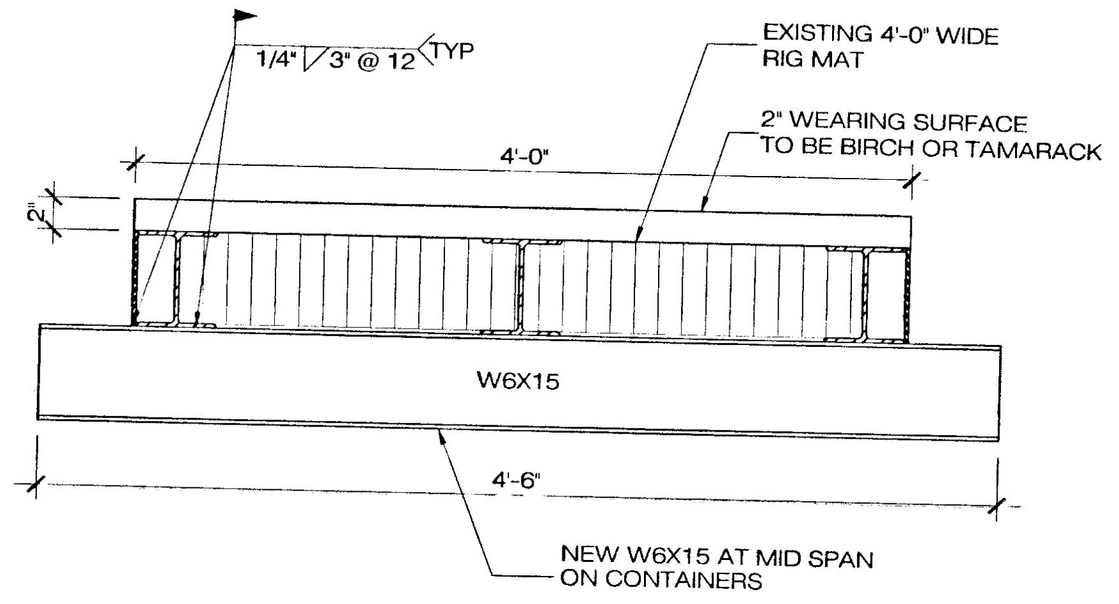


NEW 1/4" BOTTOM PLATE ADDED TO BOTTOM OF CONTAINERS PER TYPICAL ELEVATION ABOVE. SECURE IN PLACE WITH STICH WELDS AND PLUG WELDS AT MAXIMUM 2'-0" X 2'-0" SPACING OR WITH 3/16"Ø SELF DRILLING SELF TAPPING SCREWS.

SECTION 1 S01
SCALE: 1/4" = 1'-0"

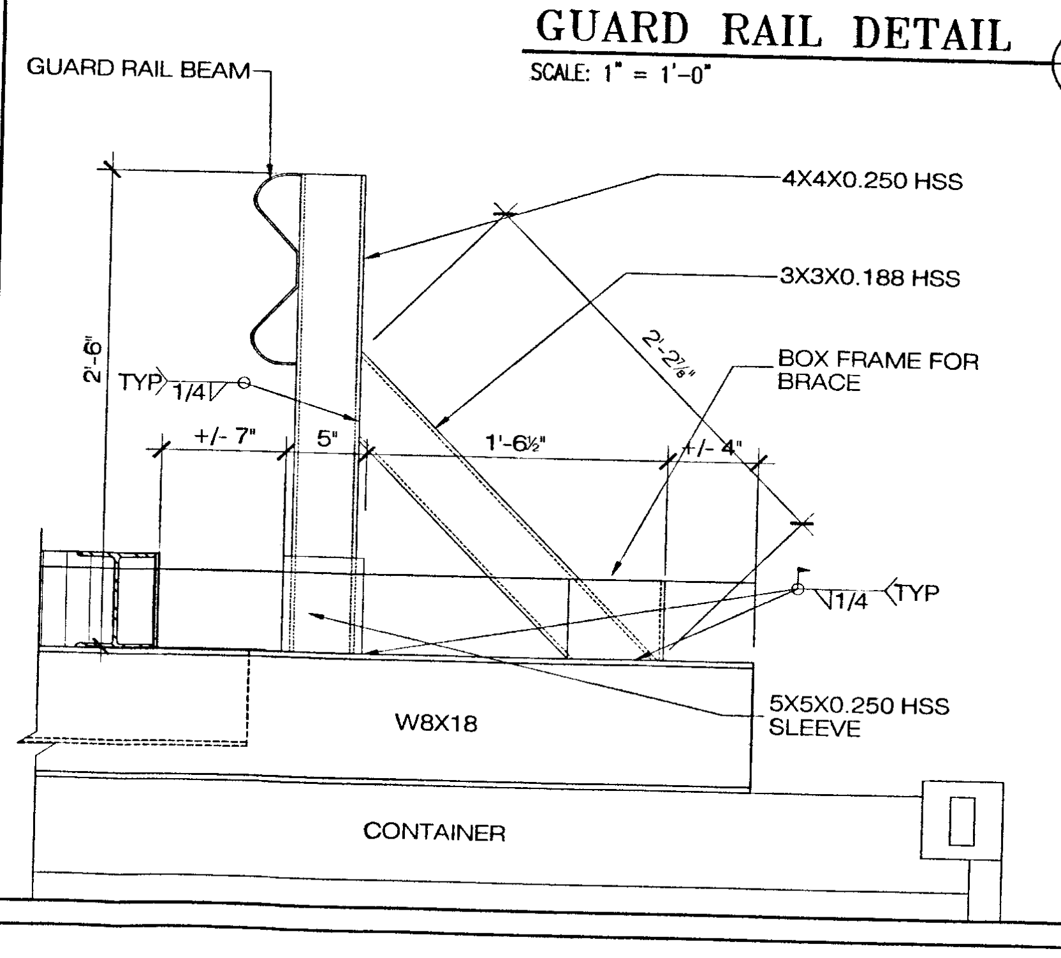


TYPICAL RIG MAT SPLICE SUPPORT FRAME DETAIL 2 S01
SCALE: 1" = 1'-0"



RIG MAT DETAIL 3 S01
SCALE: 1" = 1'-0"

GUARD RAIL DETAIL 4 S01
SCALE: 1" = 1'-0"



No.	Revisions	By	Date

DETAIL NUMBER
LOCATION SHEET

THE CONTRACTOR MUST CHECK ALL DRAWINGS AND VERIFY ALL DIMENSIONS ON THE JOB. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION WORK OR SHOP FABRICATION.

A.N. RIVARD
LICENSEE
July 6/07
NWT/NU

Rivard
Engineering

2090 RIVERSIDE DRIVE P.O. Box 223
TIMMINS, ONTARIO, P4N 7C9
TEL: (705) 268-5501
FAX: (705) 268-5502

PROJECT NAME
MARY RIVER PROJECT
TYPICAL SEA CONTAINER CROSSING

BAFFIN ISLAND NUNAVUT

DRAWING TITLE
TYPICAL PLAN, ELEVATION AND DETAILS

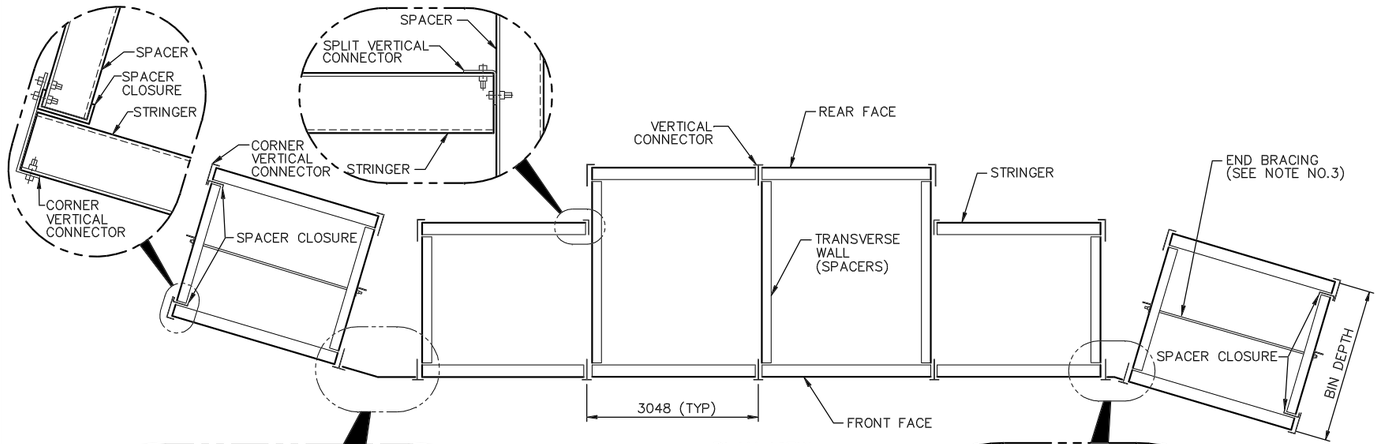
DRAWN BY	P.D/K.P.	JOB No.	07-149
CHECKED BY	A.N.R.		
SCALE	AS SHOWN	DWG. No.	REV. No.
DATE D/M/Y	26/06/2007	S101	V00

Knight Piésold
CONSULTING

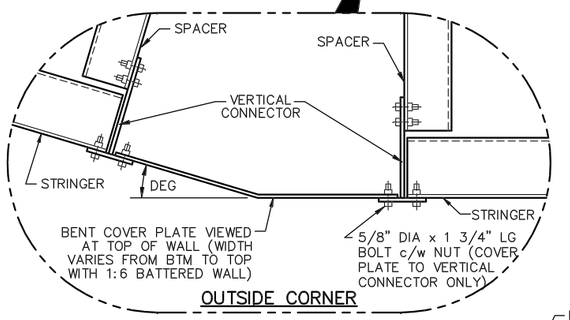
APPENDIX E

BIN WALL ABUTMENT - DRAWINGS AND TECHNICAL SPECIFICATIONS (BY ARMTEC)

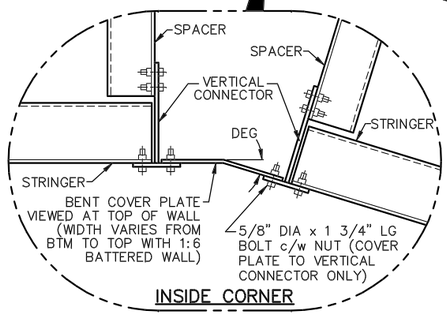
- Drawings and Installation Instructions 12 pages



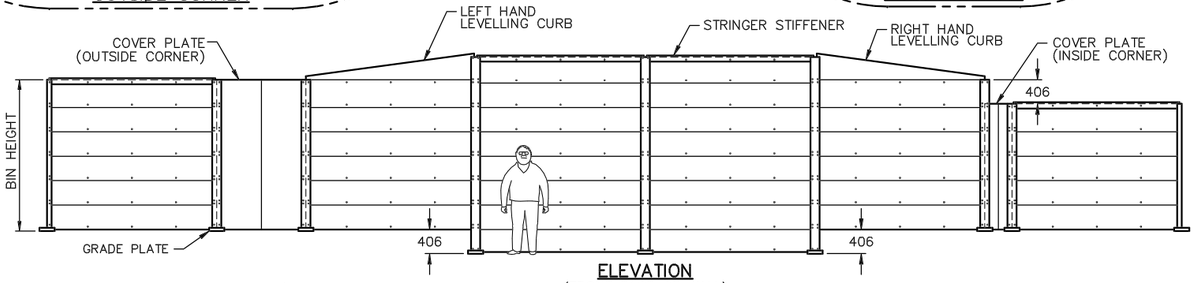
PLAN VIEW



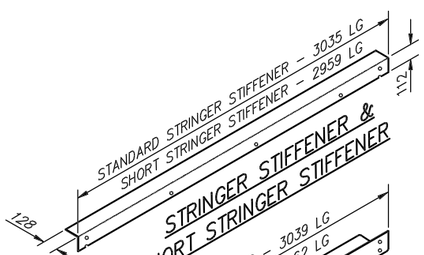
OUTSIDE CORNER

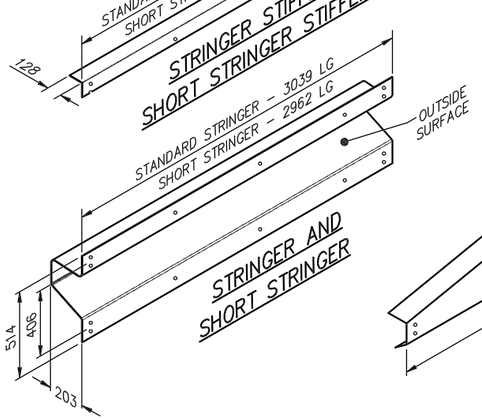


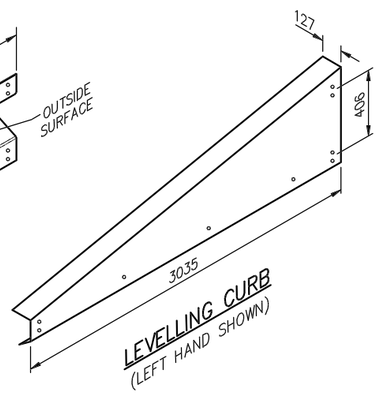
INSIDE CORNER

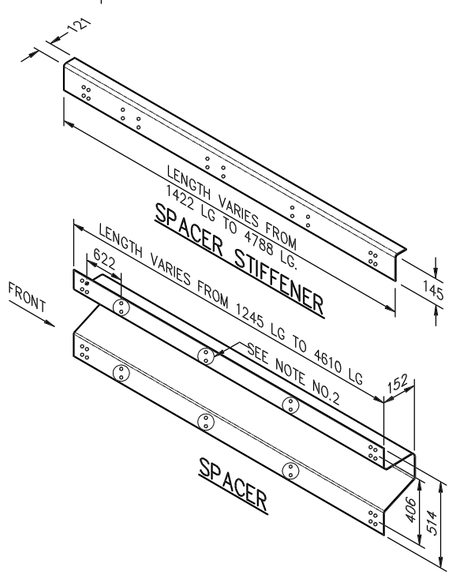


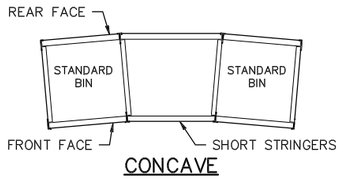
ELEVATION
(FRONT FACE OF WALL)



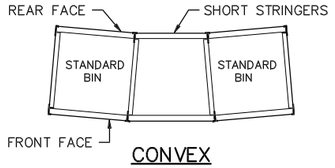






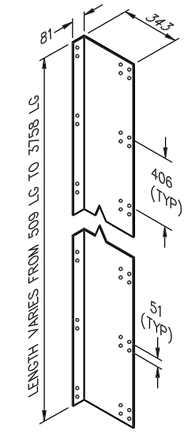


CONCAVE

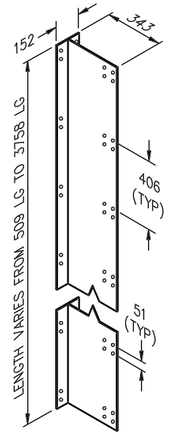


CONVEX

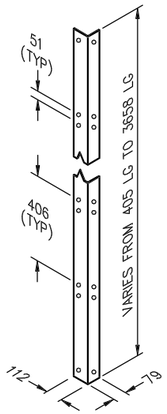
BIN–WALL ON CURVES



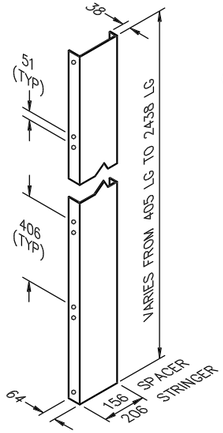
CORNER VERTICAL CONNECTOR



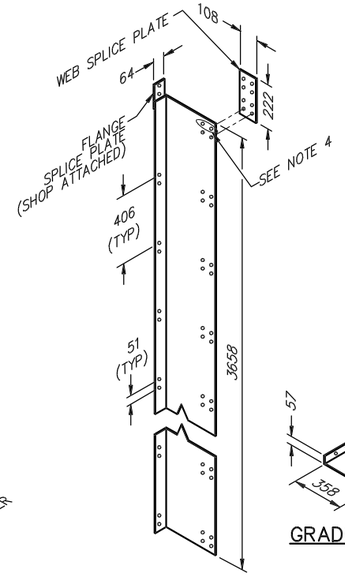
VERTICAL CONNECTOR



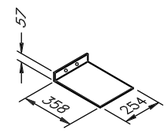
SPLIT VERTICAL CONNECTOR



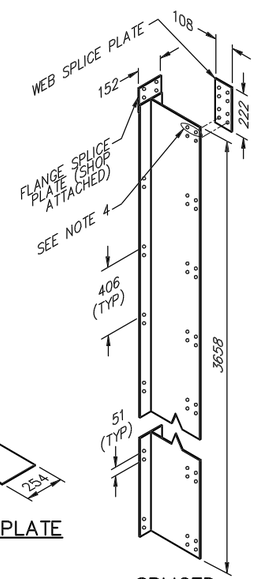
SPACER AND STRINGER CLOSURE



SPLICED CORNER VERTICAL CONNECTOR



GRADE PLATE



SPLICED VERTICAL CONNECTOR

NOTES

1. SPECIAL VERTICAL CONNECTORS ARE USED ON WALLS HIGHER THAN 3758. FOR THESE WALLS THE VERTICAL CONNECTORS WILL CONTAIN TWO OR MORE PIECES. THE 3658 LG SPECIAL VERTICAL CONNECTOR SHOULD BE USED FIRST, WITH THE ATTACHED SPLICE PLATE AT THE TOP. SPECIAL CORNER VERTICAL CONNECTORS ARE USED EITHER THE SAME OR WITH THE SPLICE PLATE AT THE BOTTOM, DEPENDING ON WHETHER IT IS ON A LEFT OR RIGHT HAND CORNER. SEE DWG BW–40002E FOR MAKE–UP.
2. ONLY ONE OF THE TWO HOLES SHOWN THUS ⊙ IN THE SPACERS IS USED FOR BOLTING THE SPACERS TOGETHER EXCEPT FOR THE END WALLS WHERE BOTH HOLES ARE USED.
3. IN CERTAIN CONDITIONS THE END BIN(S) WILL REQUIRE BRACING SEE CHART ON DWG NO. BW–40002E
4. BOLT WEB SPLICE WITH 6 – 5/8" DIA. x 1 1/4" LG BIN–WALL BOLT AND NUT. (TOP TWO HOLES ARE NOT FILLED ON SPLICED CORNER VERTICAL AND VERTICAL CONNECTOR WEBS)
5. ALL BOLTS & NUTS ARE 5/8" DIA x 1 1/4" LG UNLESS NOTED
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED.

NO.	DATE	DESCRIPTION OF REVISION	BY	CK'D
4	01/11/08	UPDATED DRAWING	TCB	
3	AUG 29/96	ADDED NOTE 4	D.L.	K.A.
2	DEC 7/87	NEW DWG NO, REV CO NAME & ADDED LEVELLING CURB DTL	K.A.	

BIN TYPE RETAINING WALL
TYPE 2
STANDARD DETAILS
AND COMPONENTS

DATE	
DRAWN	
CHECKED	
REVIEWED	
APPROVED	
SCALE	N.T.S.
DRAWING NO.	BW–40001E
REV.	4

armtec LIMITED

CORNER VERTICAL & VERTICAL CONNECTORS GREATER THAN 3758 LG ARE BUILT UP AS FOLLOWS (UNLESS NOTED)

4167 LG –1x3658
1x509
1 WEB SPLICE PLATE

4572 LG –1x3658
1x914
1 WEB SPLICE PLATE

4977 LG –1x3658
1x1320
1 WEB SPLICE PLATE

5386 LG –1x3658
1x1728
1 WEB SPLICE PLATE

5791 LG –1x3658
1x2134
1 WEB SPLICE PLATE

6197 LG –1x3658
1x2539
1 WEB SPLICE PLATE

6605 LG –1x3658
1x2947
1 WEB SPLICE PLATE

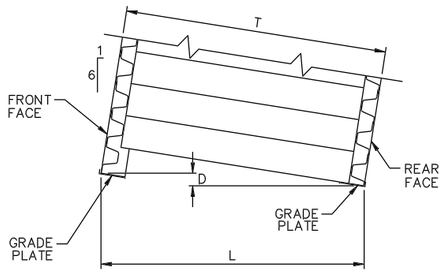
7010 LG –1x3658
1x3353
1 WEB SPLICE PLATE

7416 LG –1x3658
1x3758
1 WEB SPLICE PLATE

7824 LG –2x3658
1x509
2 WEB SPLICE PLATES

8320 LG –2x3658
1x914
2 WEB SPLICE PLATES

8635 LG –2x3658
1x1320
2 WEB SPLICE PLATES



GRADE PLATE PLACEMENT

WALL DESIGN	DIMENSIONS		
	T	D	L
A	1689	–124 *	1734
B	2362	–13 *	2397
C	3035	98	3064
D	3708	210	3724
E	4382	318	4391
F	5055	429	5055

* FRONT GRADE PLATE LOWER THAN REAR PLATE

MAXIMUM HEIGHTS AND LOADS FOR UNBRACED SPACER WALLS

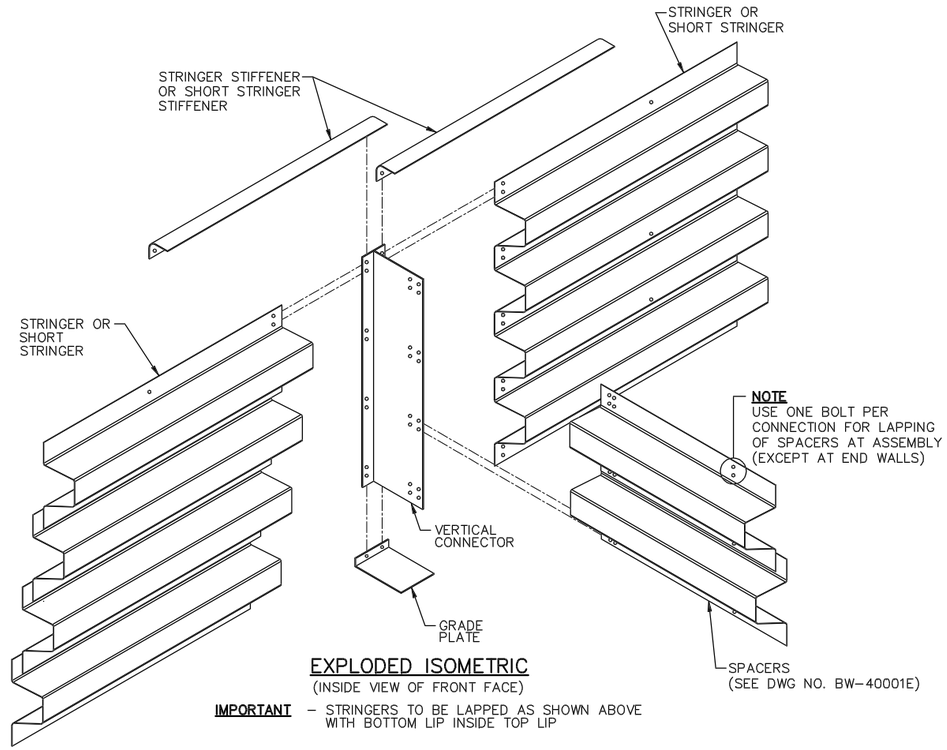
BIN DESIGN	(p max) ALLOWABLE		MAXIMUM HEIGHT WITHOUT BRACING	
	psf	k Pa	ft	mm
A	1728	83	48.0	14630
B	728	35	20.2	6160
C	498	24	13.8	4215
D	438	21	12.2	3715
E	301	14	8.4	2550
F	220	11	6.1	1860

MAXIMUM ALLOWABLE PRESSURE ON EXPOSED SPACER WALLS (p max) BASED ON LENGTH OF SPACER AND SECTION MODULUS.

MAXIMUM HEIGHT WITHOUT BRACING BASED ON SOIL DENSITY = 19 kN/m³ (120pcf) AND Φ=33° AND NO LIVE LOAD SURCHARGES.

STRINGER LOCATION & PART NO.

FRONT WALL STRINGER LOCATION	REAR WALL STRINGER LOCATION	THK mm	PART NO. STANDARD STRINGER 3039 LG	PART NO. SHORT STRINGER 2962 LG
1 THROUGH 8	1 THROUGH 6	1.6	WSA1601	WSB1601
9 THROUGH 12	7 THROUGH 10	2.0	WSA2001	WSB2001
13 THROUGH 19	11 THROUGH 17	2.8	WSA2801	WSB2801
20 AND 21	18 AND 19	3.5	WSA3501	WSB3501

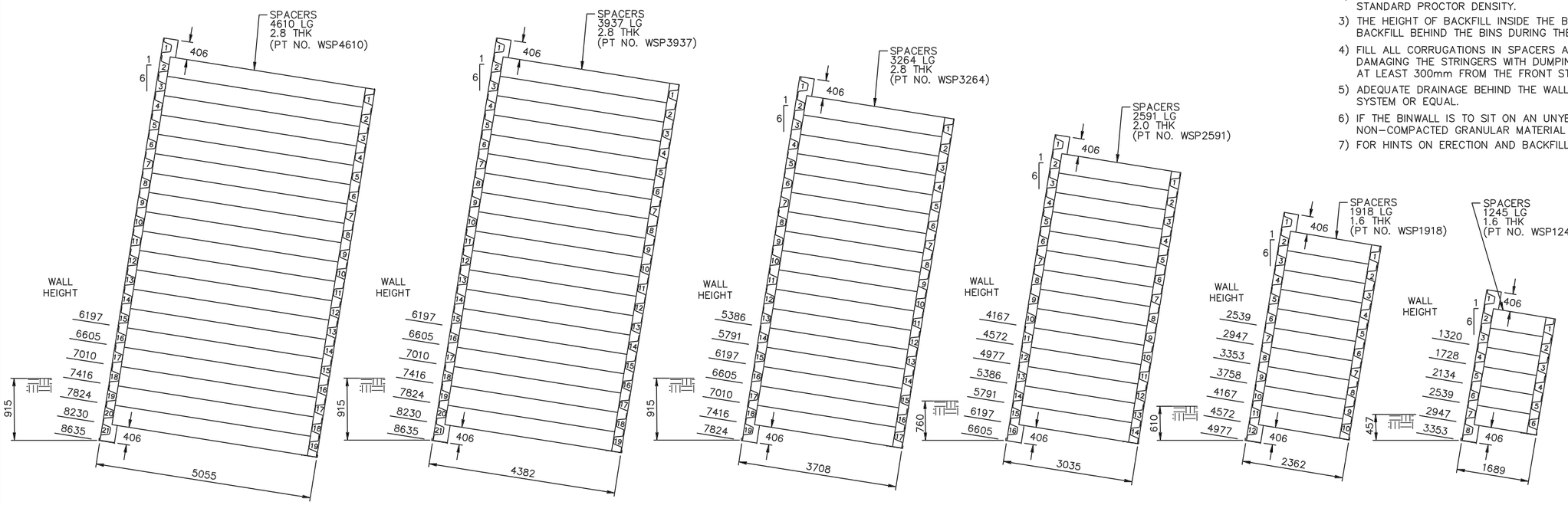


EXPLODED ISOMETRIC
(INSIDE VIEW OF FRONT FACE)

IMPORTANT – STRINGERS TO BE LAPPED AS SHOWN ABOVE WITH BOTTOM LIP INSIDE TOP LIP

NOTES

1) BACKFILL MATERIAL TO BE WELL–GRADED FREE–DRAINING GRANULAR MATERIAL, WITH LARGEST PARTICLES IN THE 75mm (MAX) RANGE AND NOT MORE THAN 10 PERCENT FINES PASSING THE NO.200 SIEVE (0.075mm).
2) BACKFILL SHOULD BE PLACED IN 200mm LAYERS (MAX) AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY.
3) THE HEIGHT OF BACKFILL INSIDE THE BINS SHOULD BE AT LEAST 400mm GREATER THAN THE BACKFILL BEHIND THE BINS DURING THE BACKFILLING OPERATIONS.
4) FILL ALL CORRUGATIONS IN SPACERS AND STRINGERS, BUT CARE MUST BE EXERCISED TO AVOID DAMAGING THE STRINGERS WITH DUMPING OR COMPACTING EQUIPMENT, WHICH SHOULD BE KEPT AT LEAST 300mm FROM THE FRONT STRINGERS.
5) ADEQUATE DRAINAGE BEHIND THE WALL MUST BE ENSURED BY USING A PERFORATED CSP DRAINAGE SYSTEM OR EQUAL.
6) IF THE BINWALL IS TO SIT ON AN UNYEILDING FOUNDATION, A MINIMUM CUSHION OF 200mm THICK NON–COMPACTED GRANULAR MATERIAL MUST BE PLACED UNDER THE GRADE PLATES.
7) FOR HINTS ON ERECTION AND BACKFILL SEQUENCE SEE THE SUPPLIED ARMTEC INSTALLATION MANUAL.



DESIGN F | DESIGN E | DESIGN D | DESIGN C | DESIGN B | DESIGN A

NO.	DATE	DESCRIPTION OF REVISION	BY	CK'D
2	DEC 7/87	NEW DRAWING NO. & REVISED COMPANY NAME	K.A.	

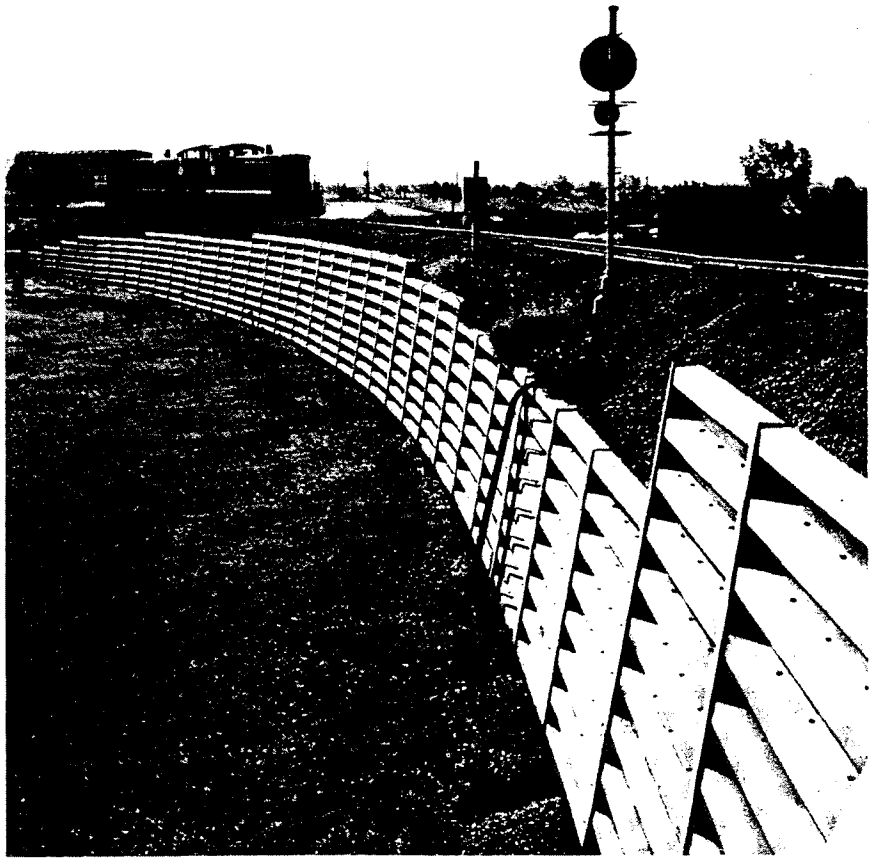
BIN–TYPE RETAINING WALL
TYPE 2
STANDARD DEPTH & HEIGHT COMBINATIONS

DATE
DRAWN
CHECKED
REVIEWED
APPROVED
SCALE
DRAWING NO. BW–40002E
REV. 2

armtec LIMITED

armtec LIMITED

INSTALLATION INSTRUCTIONS



BIN-TYPE RETAINING WALLS

GENERAL INSTRUCTIONS
ARMTEC TYPE 2 BIN WALL

Minimum Tools Required
Structural wrenches (Spud Wrenches)
Drift pins
Socket wrenches with ratchet handles
Transit and level (if line and grade must be established)
Carpenter's level
Ordinary chalklines, tapes, etc.

Desirable Additional Tools
Power or impact wrenches
Mobile crane or "cherry-picker"

Tools Necessary if Field Fabrication Required
3/4" Electric drill with bits and reamers
Hacksaw or other metal cutting saw

ERECTION INSTRUCTIONS

Bin Wall Type 2 (BW2)

A. Preliminary Steps

1. Separate the parts and stack like parts together. See drawings for nomenclature of parts.

Bundles and stacks should be positioned so that water will drain off parts.

After parts are stacked and accessible, **all parts should be checked against the bill of material.**

2. The Part Number is stenciled on each stringer and spacer, for thickness identification see Drawing BW40001E. Drawing BW40002E shows the location of each thickness stringer. Note that stringers are counted from the top of the wall, not the bottom. As an example, a 2.539 m high wall will have 6 - 1.6 mm stringers in the front and 4 - 1.6 mm stringers in the rear face. A 4.572 m high wall will have 8 - 1.6 mm and 3 - 2.0 mm stringers in the front and 6 - 1.6 mm and 3 - 2.0 mm stringers in the rear face.

Spacer thickness does not vary within any one wall depth. All spacers for a Design D wall, for example, are 2.8 mm and 3264 mm long.

3. Establish the front and rear lines of the wall and the location of each vertical connector. If wall is on a curve, or contains specially fabricated corners, a supplemental drawing is furnished.

Prepare a bed for each grade place at the proper elevation, as determined from drawing BW40002E. Note that for Designs A and B walls on a 1 to 6 batter, the front grade plate is lower than the rear plate. On all other 1 to 6 batter walls, the rear grade plate is lower.

If the base of the wall is below existing ground, 450 mm - 600 mm wide trenches may be dug for the lower wall members. Trenches must be wide enough, in relation to depth, to allow for proper compaction of backfill adjacent to the members.