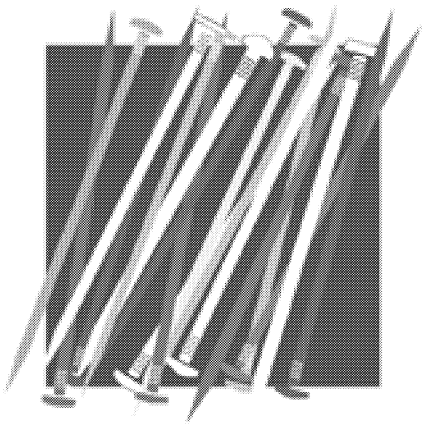
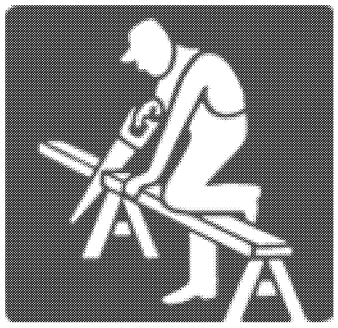
013

Engineered Structural Systems
Tilt Up
Reference Plans Specifications





CONCRETE SPECIFICATIONS

AUTOMOBILE DEALERSHIP FOR

EASTBAY BMW

4355 ROSEWOOD DRIVE, PLEASANTON, CA 94566

HOLLIS LOGUE, JR., ARCHITECT
1213 LINCOLN AVENUE, SUITE 203B
SAN JOSE, CA 95125

CHARLES POSTON
STRUCTURAL ENGINEER
3550 SAN FELIPE ROAD
SAN JOSE, CA

WALTER SIMROCK, CONSULTING ENGINEER
1153 WEST SAN CARLOS
SAN CARLOS, CA

ABE ZARCONE, CONSULTING ENGINEER
615 SOUTH MAIN STREET
MILPITAS, CA 95035

A.S. DUTCHOVER, LANDSCAPE ARCHITECT
147 BERNAL AVENUE
PLEASANTON, CA 94566

CONCRETE WORK

1. SCOPE:

1.1 Complete installation of all concrete work, indicated on the drawings and/or herein specified, including forms and installation of all materials to be embedded in same, except as otherwise provided.

1.2 This contractor shall install all inserts, curbs, and such other items as angle guards, etc. as indicated on the drawings to be furnished by others.

2. MATERIALS:

2.1 Cements shall be equal to Permanente Type II portland Cement in accordance with ASTM C-150.

2.2 Aggregates: ASTM Specification C33-46 and C40.

2.3 Vapor Barrier under all floors having a finished floor other than concrete. 6 mil. Polyethylene or as called for.

2.4 Reinforcing Bars: Intermediate grade (fy-60KSI) per ASTM 615-75 Grade 60 with deformation per ASTM A305. Welded wire fabric shall conform to ASTM A82 and A185.

2.5 Floor shall be sealed with 2 coats of approved sealer which shall be impervious to oil, brake fluid, gasoline. (Service Area only)

3. CAST IN PLACE CONCRETE:

3.1 Concrete for footings, slabs shall obtain a minimum 28 day compressive strength of 2000 psi and 2500 psi respectfully with a maximum aggregate size of 1/2" and 3/4" respectfully. Walls/3000 psi 3/4" max and colums.

3.2 Ready mixed concrete shall be mixed and delivered in accordance with ASTM C-94-54T standards.

3.3 Concrete shall be placed and cured per ACI 318-63.

3.4 Concrete shall be tested in accordance with ASTM C-31. Not less than 3 idential test cylinders from each 100 cu. yds. of concrete or fraction thereof, placed each day, shall be tested.

3.5 All concrete shall be placed with a maximum slump of 4".

4. CONSTRUCTION JOINTS:

4.1 Expansion Joints: Celotex Corp. "Flexe II" unless otherwise detailed.

4.2 Cold Joints: Burke "Keyed Kold Joint Form" with removable cap unless otherwise detailed.

5. CONCRETE FINISHES:

5.1 Interior floor slab unless otherwise called for shall receive a monolithic steel trowel finish.

6. CONCRETE FLOOR HARDENER:

6.1 Curing compound used shall be compatible with final floor hardener, i.e., sealer. (See 2.5)

7. PRE-CAST CONCRETE WORK:

7.1 Complete installation of all pre-cast wall panels indicated on the drawings, including forms and all embedded items as required including such items as are required for lifting and erection.

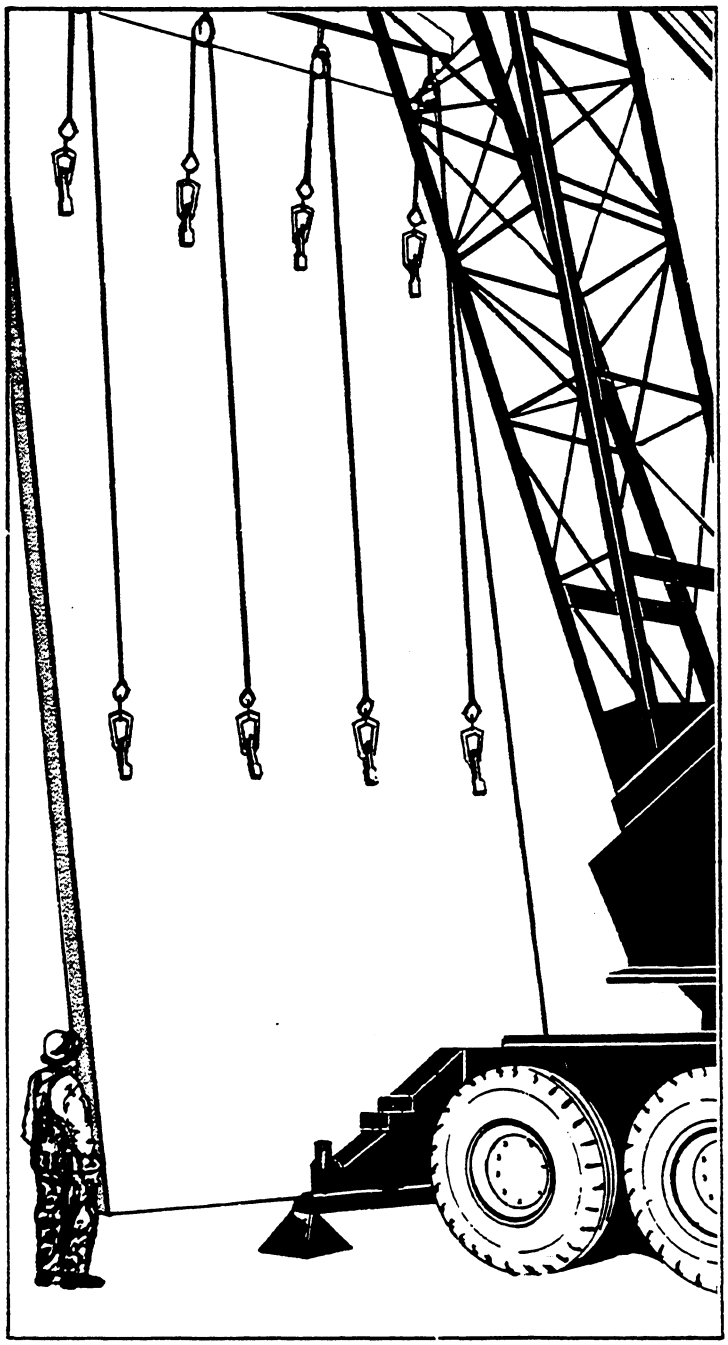
7.2 Materials per appropriate sections of these specifications.

7.3 Panels poured on slabs shall be coated with an approved bond-breaker that is not detrimental to subsequent painting.

7.4 Panels shall be poured outside face down. Inside face-up surface shall be steel trowelled to a monolithic finish.

DAYTON SUPERIOR™

TILT-UP ERECTION DETAILS FOR PRECAST CONCRETE PANELS SHOWING PICKUP POINTS, BRACING & RIGGING



Job Number: 3710

Project: East Bay B.M.W

4355 Rosewood Dr.

Location: Pleasanton Ca.

Contractor: Galletti & Sons

Presented By: Larry Derr

Distributor: Muller S.F

Dayton Superior Corporation
Technical Service Centers

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721 Richard Street
Miamisburg, OH 45342
Telephone (513) 866-0711

Western Office
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Santa Fe Springs, CA 90670
Telephone (213) 946-5504
(714) 522-3442

WARNING, SAFETY NOTES & WARRANTY

WARNING

The enclosed erection details were professionally designed under the direction of a registered professional civil engineer. Read and study all notes, details and designs carefully. If any information contained in this booklet is not fully understood, contact Dayton Superior Corporation for clarification. Failure to comply with these notes, details and designs or any deviation from them may result in exposure of workers to safety hazards resulting in the possibility of injury or death to workers in the vicinity of the lifting operation or erected panels.

SAFETY NOTES

Liability

Dayton Superior guarantees its products as shipped from the factory and when used within the scope of this handbook. These products are, however, intended for use by qualified and experienced workmen. Even slight misuse or lack of supervision and inspection can contribute to serious accidents. Refer to Warranty Section below.

Worn Working Parts

It is the user's responsibility to continually inspect working hardware for wear and to discard the parts when wear is noted. DO NOT straighten bent bolts, rather discard and replace. Discard any bolts known to have been used at loads of 70% ultimate strength or more. Such bolts may have been stretched sufficiently to become brittle-hard.

Shop, Field Arc Welding

DO NOT WELD TO ANY CASTING unless in the opinion of a qualified engineer such weld is in a no load—non-critical area. Welding to castings causes carbides and extreme brittleness near the weld point and destroys nearly all load value.

WIRE PRODUCTS are often tack welded for positioning. Since we cannot control either the workmanship or conditions under which this work is done, Dayton Superior DOES NOT GUARANTEE any product altered in the field by welding, bending, or any modification.

Design Changes

Dayton Superior reserves the right to change product designs, working load ratings and product dimensions at any time without prior notice to users. (Such changes will be made only for product improvement or further safety.)

Interchangeability

Many of the products that Dayton Superior manufactures and supplies are designed as a system. Dayton Superior cannot guarantee that the components from systems supplied by other manufacturers are completely interchangeable with components supplied by Dayton Superior.

WARRANTY

The Dayton Superior Corporation ("the Company") will refund the price of or replace, at its election, any product which it finds to be defective provided the product has been used properly. EXCEPT AS EXPRESSLY STATED ABOVE, THE COMPANY MAKES NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE NOR DOES IT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, OF ANY NATURE WHATSOEVER WITH RESPECT TO THE PRODUCT OR THE USE THEREOF, BY WAY OF ILLUSTRATION AND NO LIMITATION. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR DELAY CAUSED BY DEFECTS, FOR LOSS OF USE, FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY CHARGES OR EXPENSES OF ANY NATURE INCURRED WITHOUT ITS WRITTEN CONSENT. THE FOREGOING IS THE FULL EXTENT OF THE RESPONSIBILITY OF THE COMPANY EVEN THOUGH THE COMPANY MAY HAVE BEEN NEGLIGENT.

GENERAL INSTRUCTIONS AND DESIGN CRITERIA

1. The information in this booklet is furnished solely for the purpose of clarifying the proper use, installation and application of products supplied only by Dayton Superior Corporation. No responsibility is assumed by Dayton Superior Corporation for the correctness of structural designs or dimensions furnished by others. Any drawings supplied by Dayton Superior Corporation are intended merely to supplement the architectural and structural drawings and are to be used only in conjunction with them. In no way are the drawings furnished by Dayton Superior Corporation to be interpreted as shop drawings for panel fabrication.

2. Panel contractor shall furnish the crane contractor a copy of these details prior to lifting panels.

3. Insert and brace layout depends upon panel configuration. Dayton Superior Corporation must be advised immediately if any panel is redesigned or changed in any way from the configuration shown in this booklet.

4. Panel analysis and layout assumes no discontinuities due to shrinkage cracks. The panel contractor is advised to properly strongback any significant cracks which may develop prior to the lifting sequence. Contact Dayton Superior Corportion for repair recommendations.

5. Panel analysis assumes zero bond between casting surface and panel. A bond breaker shall be used wherever it is necessary.

6. Panel analysis assumes zero impact (no sudden load application) during panel erection. Insert design provides a safety factor for normal dynamic erection loads only.

7. Panel analysis assumes trim bars around all openings and at least minimum code steel in all precast sections.

8. All reinforcing steel shown on the panel layout sheets is for erection purposes only and is in addition to the reinforcing steel shown on architect/engineer's plans, unless otherwise indicated. Additional reinforcing steel called for on the panel layout sheet shall be ASTM Grade 40 or Grade 60 as noted on "Special Instruction Sheet: Panel Contractor" and must be provided, properly located and with concrete cover as noted.

9. Strongbacks, when required, shall be either lumber with a minimum f_s of 1500 p.s.i., free of knots and defects; or ASTM A-36 steel members as specified on the panel layout sheets.

10. Rigging configuration and minimum cable lenghts must be as indicated on panel layout sheets, "special instruction sheet — crane contractor," and unless otherwise noted should conform to the rigging configuration shown on the "Rigging" Illustration sheet.

11. All inserts shall be accurately located and firmly wired in place so that the centerline of the insert is perpendicular to the lifting surface except as otherwise noted.

12. All bolted hardware shall have full bearing on the concrete surface and all attachment bolts shall bear fully on the hardware. Cut washers must be used with T8 and T27 double lifting plates.

13. Erection and attachment bolts shall be of proper length and well tightened to prevent slippage. Bolts should project at least ¾" beyond the bottom of the insert coil, but must not bear on concrete at the bottom of the void.

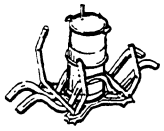
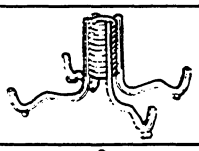
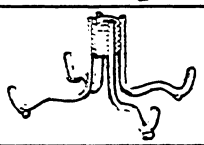
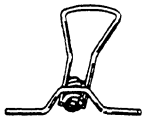
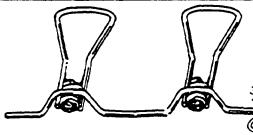
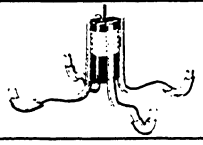
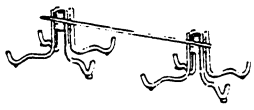
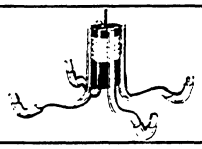
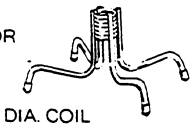
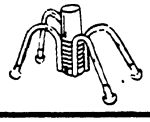
14. The precast elements must be tilted to a near vertical position before any movement of the bottom.

15. See the insert installation sheet contained herein for proper use and application of the insert and lifting hardware to be used on this project.

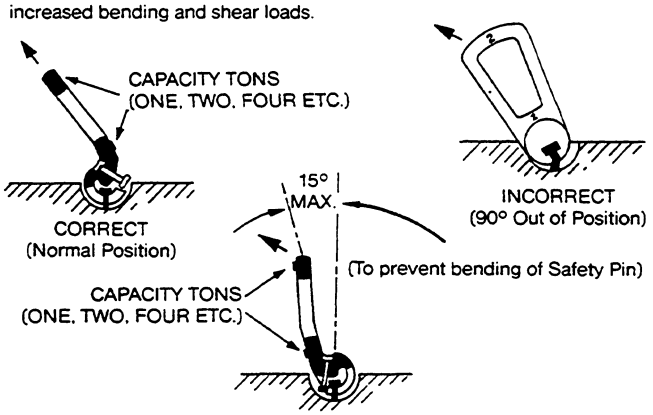
16. In the event weld plates, beam pockets, or other miscellaneous items interfere with insert placements or panel erection, contact DSC for recommendations.

17. Prior to lifting any panel apply initial cable tension making certain that the bail of the lifting hardware is aligned in the direction of the load at all times.

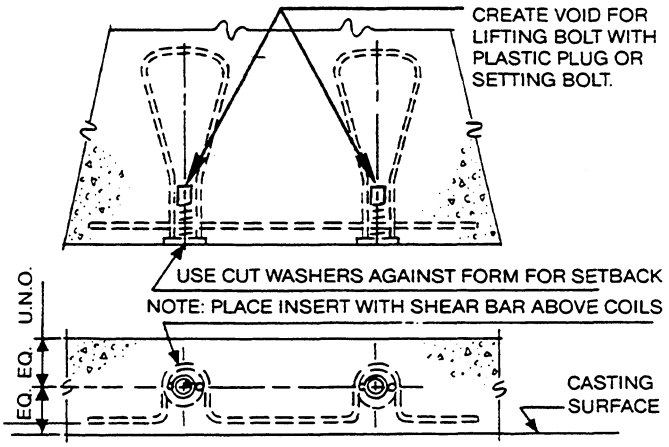
SYMBOL GUIDE AND INSERT ILLUSTRATIONS

SYMBOL	DESCRIPTION	ILLUSTRATION
	T-41 SL GROUND RELEASE INSERT	
	T-31 TWIST-LIFT PICKUP INSERT	
	T-1, T-24 SPLIT-LIFT PICKUP INSERT	 1¼" or 1½" DIA. COILS
	T-1 SINGLE PICKUP INSERT	 1¼" or 1½" DIA. COIL
	T-3-A EDGE PICKUP INSERT, SINGLE See **Detail #2** opposite page.	 ¾" or 1" DIA. COILS
	T-3 EDGE PICKUP INSERT, DOUBLE See **Detail #2** opposite page.	 ¾" or 1" DIA. COILS @ 12" CENTERS
	P-52 SL ANCHOR (EDGE ONLY) Dashed Line indicates special shear bar. See **Detail #3** opposite page.	 TYPE SL
	T-1 SINGLE STRONGBACK INSERT See **Detail #4** opposite page.	 ¾" or 1" DIA. COIL
	T-2 DOUBLE STRONGBACK INSERT See **Detail #5** opposite page. Also used as pickup insert.	 1" DIA. COILS @ 12" CENTERS
	T-6 WALL BRACE ANCHOR (Leg construction may be similar to TYPE T-1.)	 OR  ¾" DIA. COIL
	T-5-A INVERTED WALL BRACE ANCHOR	 ¾" DIA. COIL

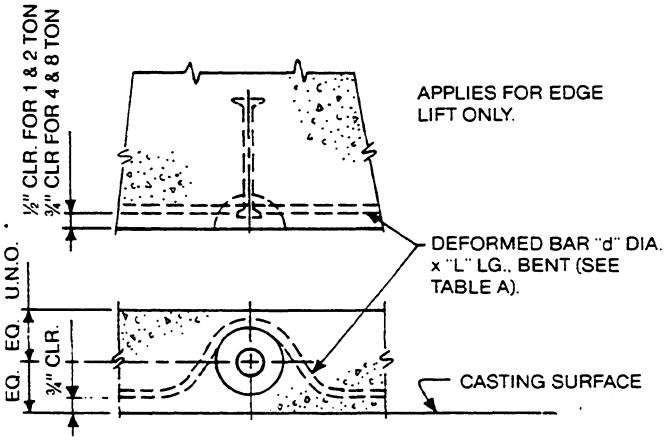
If the SL LIFTING EYE is used when its relative position is 90° or 180° from the normal position, the SL ANCHOR will be overloaded due to increased bending and shear loads.



DETAIL 1



DETAIL 2

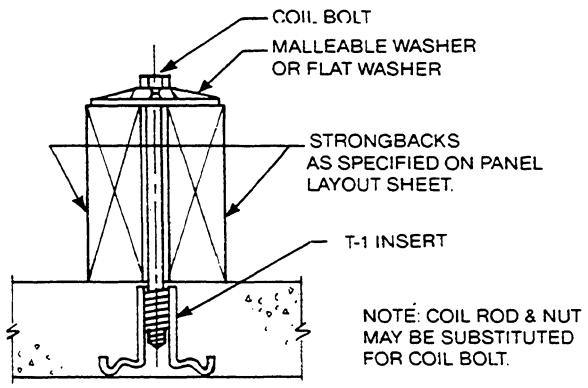


DETAIL 3

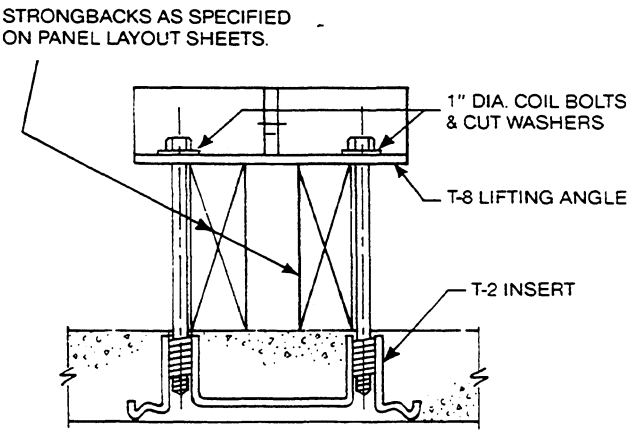
TABLE A

SWIFT LIFT INSERT SIZE	LENGTH	PART NO.	MINIMUM PANEL THK.	DEFORMED BAR SIZE	LENGTH
1T x	4¾"	467110	5"	#3 x	1'-6"
2T x	6¾"	467145	6"	#4 x	2'-0"
4T x	9½"	467170	7"	#4 x	2'-6"
8T x	13⅜"	467185	9"	#6 x	3'-0"

WARNING: DO NOT USE GR SWIFT LIFT HARDWARE FOR EDGE LIFTING. USE ONLY SL LIFTING EYE FOR EDGE LIFTING.



DETAIL 4



DETAIL 5

WIND BRACE LOADING

Bracing recommendations shown in this booklet are for the sole purpose of bracing the precast elements in the fully erected position against windloads only. The windload for which this project has been designed may be found in Note 4 of the section titled "Special Instructions: Panel Contractor."

Bracing anchors and braces are not designed or intended to sustain impact loads. Precaution must be taken to arrange the panel erection sequence so as to avoid the potential for impacting upright panels.

Bracing recommendations for other loads or forces that might be applied to the braces or precast element is beyond the scope of the Dayton Superior Corporation function.

For bracing recommendations other than windload, the user should engage a design agency with capabilities of performing such a service. Dayton Superior Corporation will be more than willing to provide any needed brace data to such a design agency, in an effort to provide this project with a safe bracing system.

Panel should be plumb with braces and knee braces installed before crane releases the panel.

Lateral and end bracing should be installed as soon as crane and crew are clear and should not be more than one panel behind the last panel erected.

All bracing members must always be in place and secured at the end of each day.

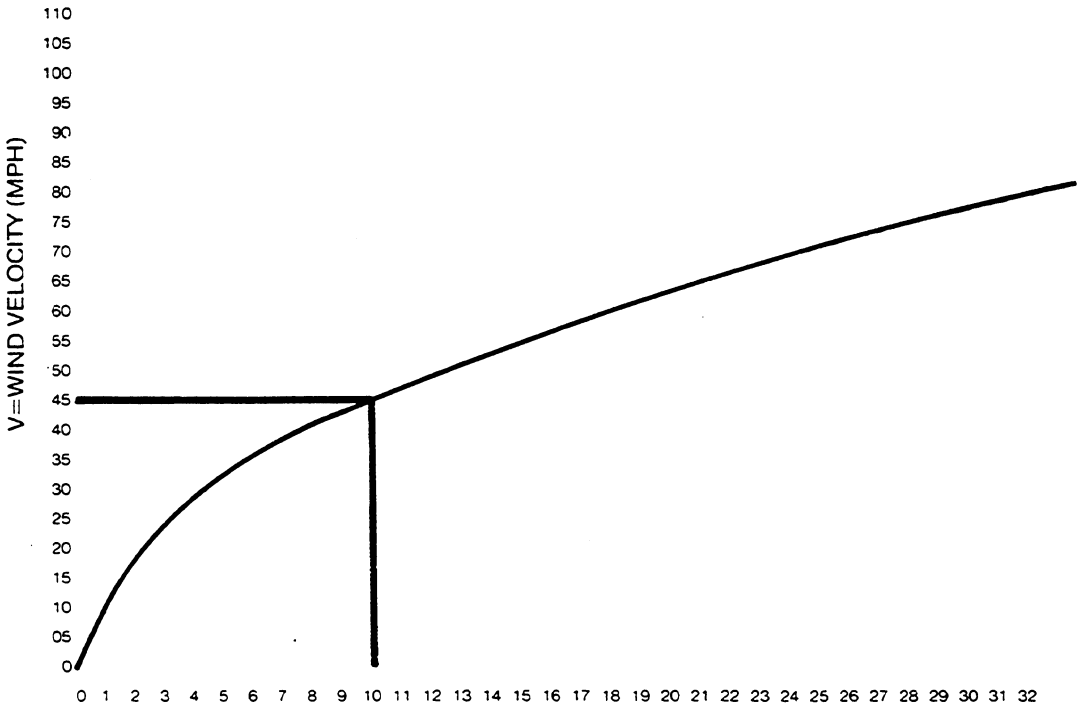
Welding or bolting the precast or tilt-up elements in place might preclude the use of braces.

Panel bracing is designed to withstand specified windloads for this project until panels are connected to the structural system of the building. Do not remove any members of the bracing system until the roof structure is completed.

Do not erect panels in windy or adverse weather conditions.

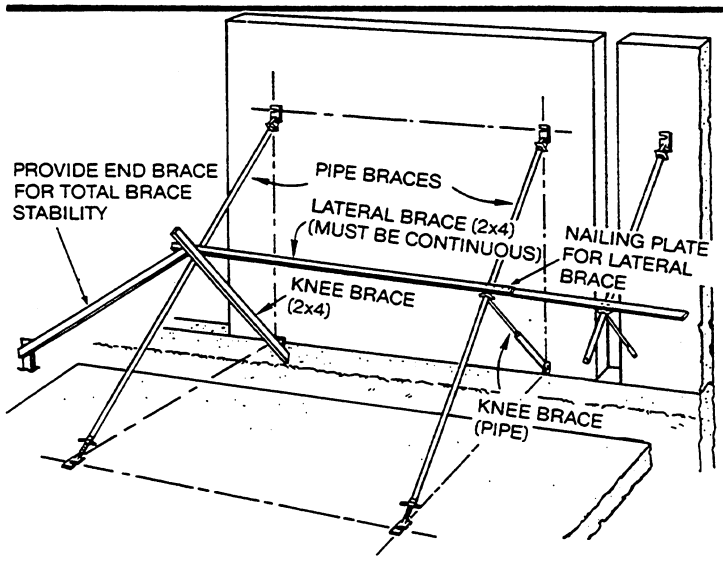
Use only the brace type as noted on the panel layout sheet. No substitute brace hardware shall be used and all braces must be positioned at only the specified locations.

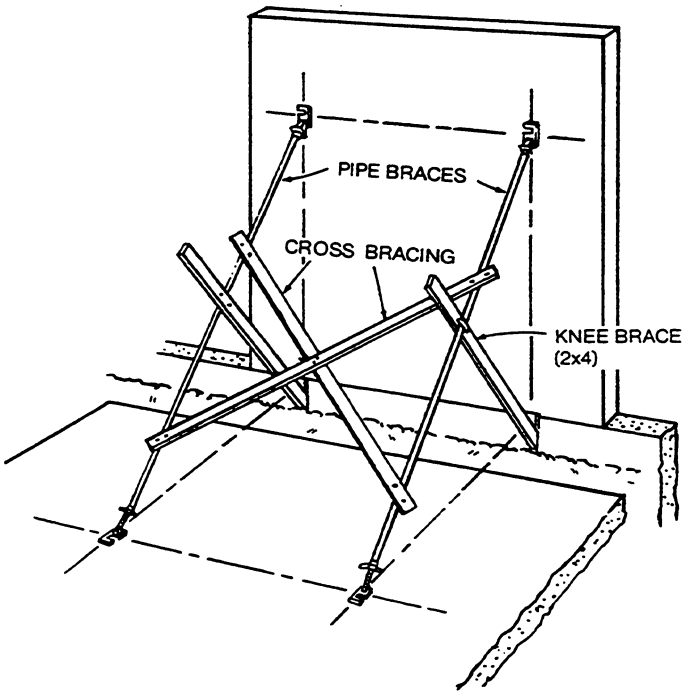
$$P=V^2 \times 0.00495$$



Normal bracing design is based on the minimum OSHA requirement of 10 lbs. per square foot.

The accompanying chart is based on the OSHA standard specifying that a 10 lb. per square foot windload is generated by a wind velocity of 45 miles per hour.

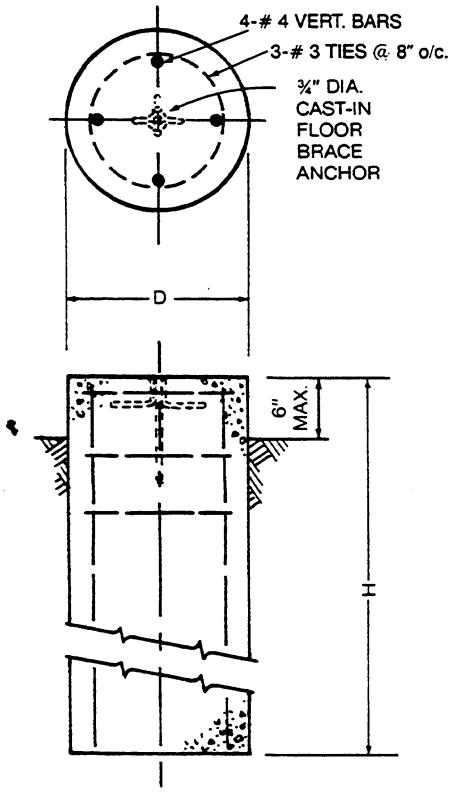




Cross bracing is an acceptable alternative to lateral bracing and end bracing. This system provides excellent panel stability when the erection sequence dictates that there are no adjacent panels that would make continuous lateral bracing possible. Knee bracing must be applied.

CYLINDRICAL DEADMAN

HAND OR AUGER EXCAVATED



MIN. ALLOWABLE SOIL BEARING: 1500 PSF.

MIN. CONCRETE COMP. STRENGTH f'_c=2000 PSI AT USE.

DIAMETER D= _____

HEIGHT H= _____

WEIGHTS OF DEADMEN, KIPS.

HEIGHT	24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.
2'-0"	.94	1.47	2.12	2.89	3.77
2'-6"	1.18	1.84	2.65	3.61	4.71
3'-0"	1.41	2.21	3.18	4.33	5.65
3'-6"	1.65	2.58	3.71	5.05	6.60
4'-0"	1.89	2.95	4.24	5.77	7.54
4'-6"	2.12	3.31	4.77	6.49	8.48
5'-0"	2.36	3.68	5.30	7.22	9.42
5'-6"	2.59	4.05	5.83	7.94	10.37
6'-0"	2.83	4.42	6.36	8.66	11.31
6'-6"	3.06	4.79	6.89	9.38	12.25
7'-0"	3.30	5.15	7.42	10.10	13.19
7'-6"	3.54	5.52	7.95	10.82	14.14
8'-0"	3.77	5.89	8.48	11.54	15.08
8'-6"	4.01	6.26	9.01	12.27	16.02
9'-0"	4.24	6.63	9.54	12.99	16.96
9'-6"	4.48	6.99	10.07	13.71	17.91
10'-0"	4.71	7.36	10.60	14.43	18.85

If your project requires the use of a deadman for brace attachment in lieu of an Anchor cast into a floor slab use the adjacent chart to select the proper size deadman.

How to select the proper size deadman:

1. See Note 5 under "Special Instructions: Panel Contractor" for maximum applied brace load for this project.
2. The proper size deadman must weigh at least 80% of the maximum brace load.
3. Determine the proper deadman weight.
4. Find a number on the adjacent chart that is equal to or greater than your required deadman weight. Follow the column that number is in to the top of the chart and to the left of the chart for the proper diameter and height of deadman.

Example

Maximum Applied Brace Load=3200 lbs.
80% of 3200 lbs. = 2560 lbs. (Min. Deadman Weight Required.)
Acceptable deadman sizes

Dia.	Ht.
24"	5'6"
30"	3'6"
36"	2'6"

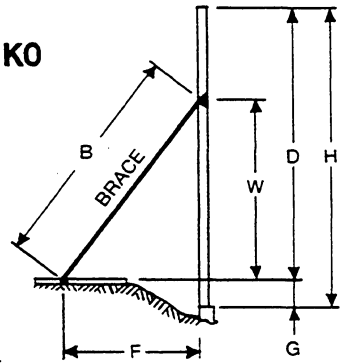
BRACE LENGTH CALCULATION CHART AND INSERT LOCATION

BRACE DESIGNATIONS

Type	Description	Length
B0	Lumber brace (Contractor designed)	any
B1	On-Site pipe brace	7'-6" – 8'-10"
B2	Regular pipe brace	13'-0"–20'-6"
B3	Regular pipe brace + 10' extension	21'-6"–29'-6"
B4	Heavy duty regular pipe brace	15'-6"–23'-6"
B5	Heavy duty extra long pipe brace	22'-6"–39'-0"
B6	Short pipe brace	10'-0"–14'-0"

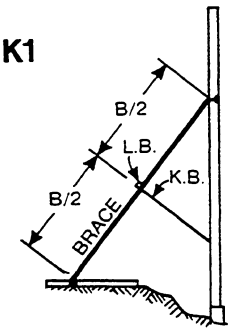
KNEE BRACE & LATERAL BRACE DESIGNATIONS

K0



K0 indicates specified brace may be used without knee or lateral bracing. (Refer to Detail Sheets)

K1



K1 indicates specified brace must be used with knee bracing, lateral bracing and end bracing. (Refer to Detail Sheets)

NOTE

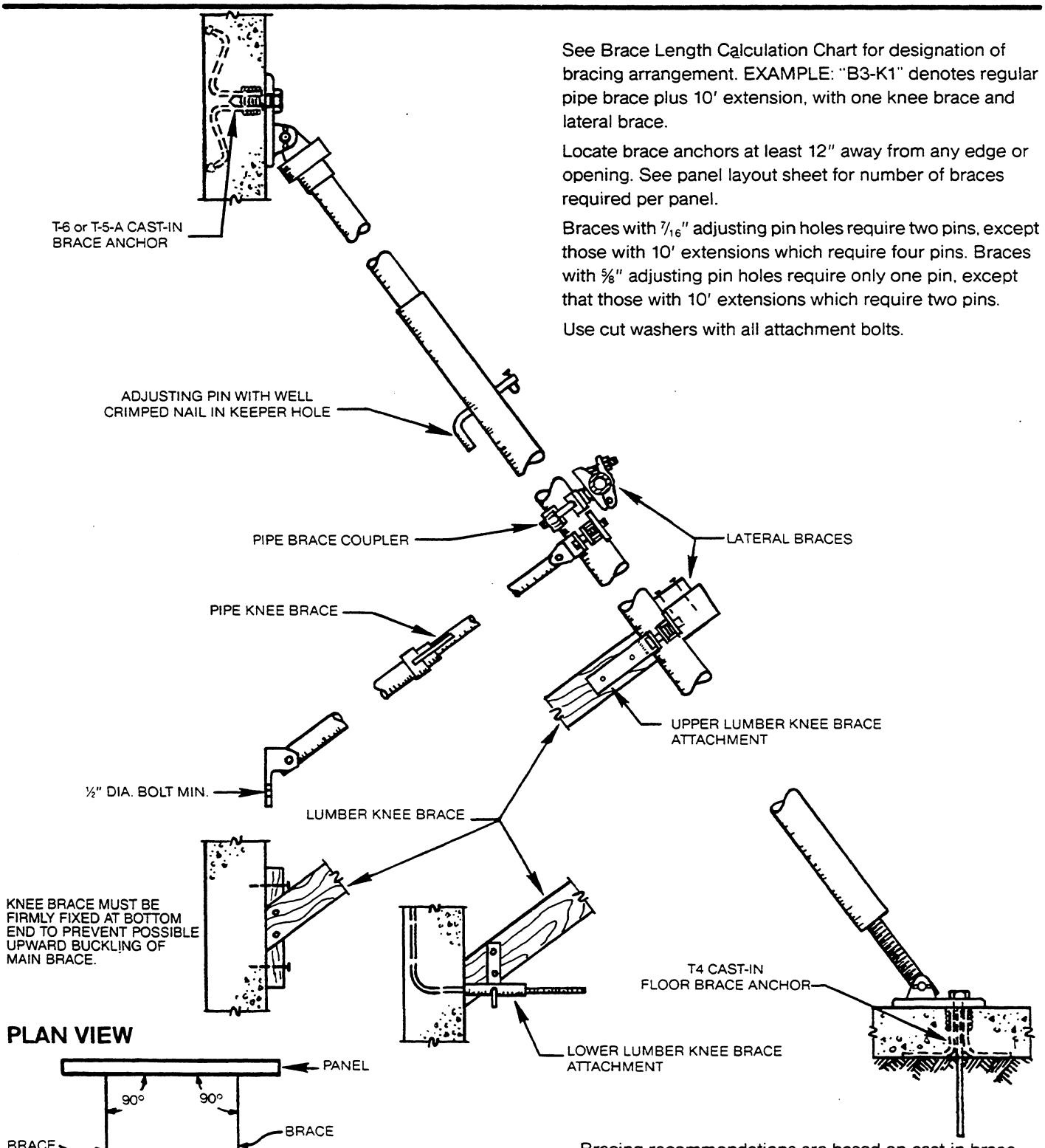
It is common to refer to the main brace "support" system as "Knee Bracing". The user is to be aware that when "Knee Bracing" is required this also means that lateral bracing and end bracing must be included. If the main brace "support" system is missing any one of these three elements its value as a bracing system is severly reduced. Such a reduction in support value could result in a panel collapse that could be injurious to workers.

(Normal brace angle and height on panel)

D	W	F	B
12'	8'-0"	6'-0"	10'-0"
13'	8'-8"	6'-6"	10'-10"
14'	9'-4"	7'-0"	11'-8"
15'	10'-0"	7'-6"	12'-6"
16'	10'-8"	8'-0"	13'-4"
17'	11'-4"	8'-6"	14'-2"
18'	12'-0"	9'-0"	15'-0"
19'	12'-8"	9'-6"	15'-10"
20'	13'-4"	10'-0"	16'-8"
21'	14'-0"	10'-6"	17'-6"
22'	14'-8"	11'-0"	18'-4"
23'	15'-4"	11'-6"	19'-2"
24'	16'-0"	12'-0"	20'-0"
25'	16'-8"	12'-6"	20'-10"
26'	17'-4"	13'-0"	21'-8"
27'	18'-0"	13'-6"	22'-6"
28'	18'-8"	14'-0"	23'-4"
29'	19'-4"	14'-6"	24'-2"
30'	20'-0"	15'-0"	25'-0"
31'	20'-8"	15'-6"	25'-10"
32'	21'-4"	16'-0"	26'-8"
33'	22'-0"	16'-6"	27'-6"
34'	22'-8"	17'-0"	28'-4"
35'	23'-4"	17'-6"	29'-2"
36'	24'-0"	18'-0"	30'-0"
37'	24'-8"	18'-6"	30'-10"
38'	25'-4"	19'-0"	31'-8"
39'	26'-0"	19'-6"	32'-6"
40'	26'-8"	20'-0"	33'-4"
41'	27'-4"	20'-6"	34'-2"
42'	28'-0"	21'-0"	35'-0"
43'	28'-8"	21'-6"	35'-10"
44'	29'-4"	22'-0"	36'-8"
45'	30'-0"	22'-6"	37'-6"
46'	30'-8"	23'-0"	38'-4"
47'	31'-2"	23'-5"	39'-0"

1. For special bracing conditions that require deviation from the chart dimensions or the bracing dimensions shown on the panel layout sheet contact Dayton Superior Corporation for recommendations.
2. See panel layout sheet for type of brace, number of braces per panel, as well as knee and lateral bracing requirements. Example B2-K1.
3. Brace anchors must be positioned a minimum of 12" from any opening or edge.
4. Braces are designed for use with T-4 cast-in floor brace anchors only.
5. Dayton Superior Corporation does not recommend expansion type inserts for brace attachment and assumes no responsibility when used. *If a user chooses to use an attachment anchor other than a Dayton Superior Corporation cast-in anchor, he must choose one that will safely develop the maximum applied brace load noted in Note 5 of "Special Instructions: Panel Contractor".*
6. Unless otherwise noted, panels require a minimum of two braces each.
7. Braces are designed with a minimum safety factor of 1.5 to 1.

BRACING DETAILS



See Brace Length Calculation Chart for designation of bracing arrangement. EXAMPLE: "B3-K1" denotes regular pipe brace plus 10' extension, with one knee brace and lateral brace.

Locate brace anchors at least 12" away from any edge or opening. See panel layout sheet for number of braces required per panel.

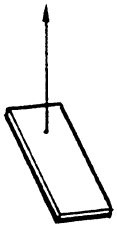
Braces with $^{7}/_{16}$" adjusting pin holes require two pins, except those with 10' extensions which require four pins. Braces with $^{5}/_{8}$" adjusting pin holes require only one pin, except that those with 10' extensions which require two pins.

Use cut washers with all attachment bolts.

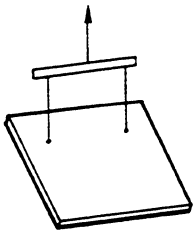
Bracing recommendations are based on cast-in brace anchors in 4" minimum concrete thickness unless otherwise noted.

RIGGING

See "Special Instructions" for minimum length of cable to be used in basic arrangement for all rigging shown on this sheet.



R-11



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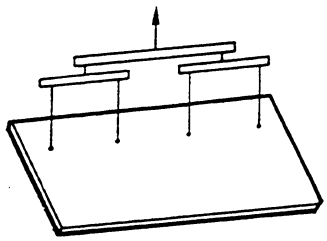

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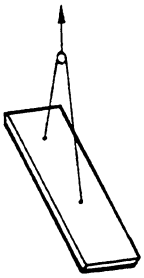

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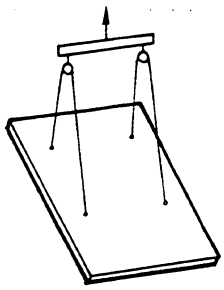

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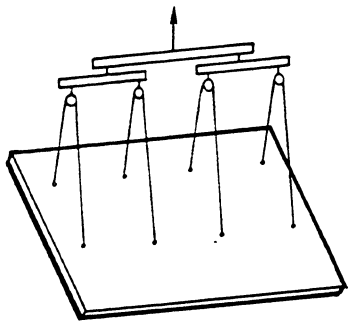
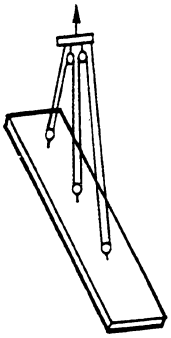


R-24



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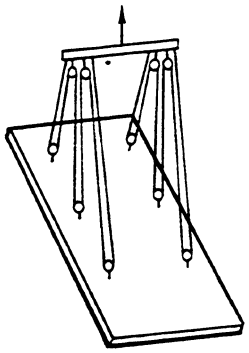
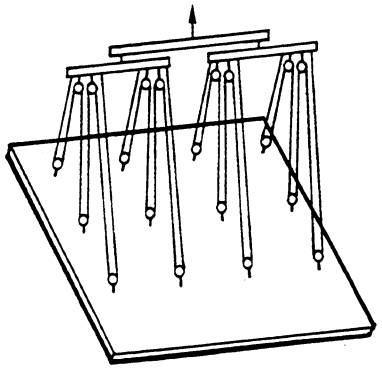


R-32



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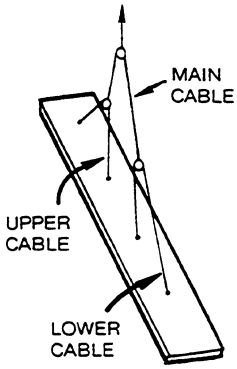
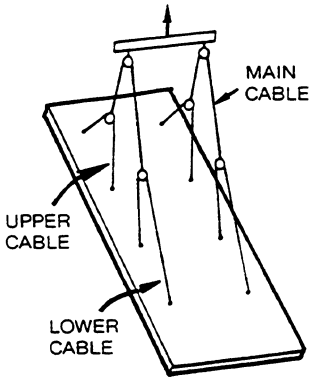
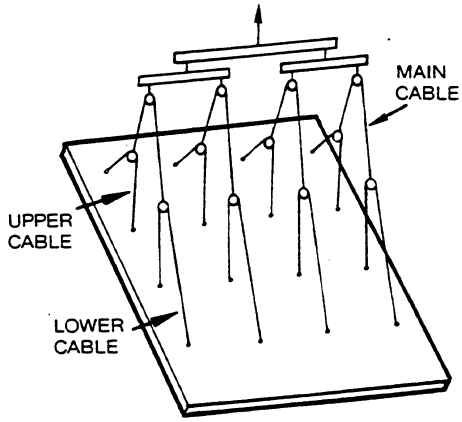


R-41



R-42



R-44

DAYTON SUPERIOR™

CAL/OSHA

STATE OF CALIFORNIA

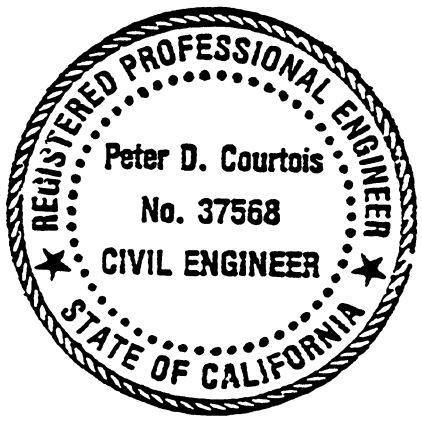
DEPARTMENT OF INDUSTRIAL RELATIONS

DIVISION OF INDUSTRIAL SAFETY

CONSTRUCTION SAFETY ORDER SECTION 1715 (e) (1)

"PRIOR TO THE COMMENCEMENT OF PANEL ERECTION, A DETAILED LIFTING PLAN SHALL BE PREPARED BY A CURRENTLY REGISTERED CIVIL ENGINEER. ALL PANEL ERECTION SHALL BE PERFORMED IN ACCORDANCE WITH SUCH PLAN."

IN ORDER TO COMPLY WITH THE ABOVE SAFETY ORDER DAYTON SUPERIOR CORPORATION CERTIFIES THAT THIS ERECTION DETAIL BOOK AND ANY AND ALL SUBSEQUENTLY PREPARED CHANGES, ADDITIONS OR REVISIONS HAVE BEEN AND WILL BE PREPARED UNDER THE DIRECTION OF A REGISTERED CIVIL ENGINEER FOR:



Job Number: 3710

Project: EAST BAY B.M.W.

Location: 4355 Rosewood Dr.
PLEASANTON, CA.

Contractor: GALLETTI & SONS

DAYTON SUPERIOR

SPECIAL INSTRUCTIONS:

Project: EAST BAY B.M.W.

Location: 4355 Rosewood Dr. PLEASANTON, CA.

Contractor: GALLETTI & SONS

Job No.: 3710

Date: 12-17-85

Bldg. No.:

PANEL CONTRACTOR

1. Panels are viewed as noted on the panel layout sheet.
2. Concrete modulus of rupture (as determined by test beam break) shall be at least 408 P.S.I. prior to erecting panels, corresponding approximately to a compressive strength of 2500 P.S.I. Test specimens shall be truly representative of the actual condition of the concrete in the panel at the time of erection.
3. Panel layouts are based on concrete having a unit weight of 150 lbs. per cubic foot.
4. Bracing designs are based on windload pressure of 10 lbs. per square foot. If this windload pressure does not satisfy local conditions or code requirements contact Dayton Superior Corporation for additional recommendations.
5. Maximum applied brace load 3000 lbs. per brace.
6. All reinforcing steel shown on the attached panel layouts shall be grade 40, and is in addition to the reinforcing steel shown on the Architect/Engineer's Plans unless otherwise noted.

CRANE CONTRACTOR

1. Maximum panel weight 21.0 tons. Maximum insert load 4.6 tons.
2. Maximum panel height 20'-8"
3. Use spreader beams of such length that rigging is at a 90° ± 5° angle with the spreader beam, unless shown or noted otherwise on panel layout sheet. Rigging must be modified when called for on panel layout sheet.
4. Minimum effective cable lengths: (except when noted otherwise on panel layout sheet) shall be:

   For flat pick _____ ft. For 4-high upper cable _____ ft.

   For 2-high 25' ft. Lower cable _____ ft.

   For 3-high _____ ft. Main cable _____ ft.

When clarification or additional information about these erection details is required, please contact the Technical Service Office as indicated below:

☐ **HOME OFFICE**
721 Richard St.
Miamisburg, Ohio 45342
Telephone (513) 866-0711
(800) 252-3680

☑ **WESTERN OFFICE**
9415 Sorensen Ave.
Santa Fe Springs, Cal. 90670
Telephone (213) 946-5504 (714) 522-3442
(800) 423-4665

DAYTON SUPERIOR

MATERIALS LIST

Project: EAST BAY B.M.W.

Location: 4355 Rosewood Dr.
PLEASANTON, CA.

Contractor: GALLETTI & SONS

Job: 3710

Date: 12-17-85

Bldg. No.:

Due to factors often unknown at the time of completion of the erection details it is the responsibility of the user to make arrangements to generate a material list of rental items required.

EXPENDABLE (SALE) ITEMS ONLY

_____ T-1, T-24 _____ dia. **split-bolt inserts** for _____ panel

_____ T-1, T-24 _____ dia. **split-bolt inserts** for _____ panel

_____ T-1, T-24 _____ dia. **split-bolt inserts** for _____ panel

_____ T-31 **twist lift inserts** for _____ panel

_____ T-31 **twist lift inserts** for _____ panel

_____ T-31 **twist lift inserts** for _____ panel

96 T-41 **ground release swift lift inserts** for 6" panel

_____ T-41 **ground release swift lift inserts** for _____ panel

_____ T-41 **ground release swift lift inserts** for _____ panel

_____ T-1 _____ dia. **pick-up inserts** for _____ panel

_____ T-1 _____ dia. **pick-up inserts** for _____ panel

_____ T-1 _____ dia. **pick-up inserts** for _____ panel

_____ T-3 ___ dia. **double edge pick inserts**

_____ T-3-A ___ dia. **single edge pick inserts**

49 T-4 ¾" dia. **floor brace inserts** for 5" slab

_____ T-5-A ¾" dia. **inverted brace inserts**

49 T-6 ¾" dia. **brace inserts** for 6" panel

_____ T-6 ¾" dia. **brace inserts** for _____ panel

_____ T-6 ¾" dia. **brace inserts** for _____ panel

_____ T-1 ___ dia. **single strongback inserts** for _____ panel

_____ T-1 ___ dia. **single strongback inserts** for _____ panel

_____ T-2 1" dia. **double strongback inserts** for _____ panel

_____ T-2 1" dia. **double strongback inserts** for _____ panel

_____ P-52 _____ ton x _____ **swift-lift anchors**

_____ P-52 _____ ton x _____ **swift-lift anchors**

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

DAYTON SUPERIOR™

WARNING

The user of Dayton Superior Corporation's GR System is required to read these instructions before installing the inserts and/or hardware. The instructions contain all necessary information relating to proper:

a) installation of the inserts,
b) removal of the recess plug,
c) installation and removal of GR Hardware.

Failure to read, understand and follow these instructions can lead to dangerous and hazardous working conditions.

If these instructions are not clear to you before proceeding with construction, call the Dayton Superior Corporation dealer from whom you obtained this material for clarification.

Headquarters & Sales Service Center
721 Richard Street
Miamisburg, OH 45342
Telephone (513) 866-0711
Telex 288274

Sales Service Centers
Birmingham
1400 Fifth Avenue South
Birmingham, AL 35233
Telephone (205) 328-9180

Dallas
4835 Reading Street
Dallas, TX 75247
Telephone (214) 634-2370

Denver
4975 Pontiac Street
Commerce City, CO 80022
Telephone (303) 289-4808

Houston
6417 Toledo
Houston, TX 77008
Telephone (713) 869-8571

Los Angeles
9415 Sorensen Avenue
Santa Fe Springs, CA 90670
Telephone (213) 946-5504
(714) 522-3442
TWX (910) 586-1698

Miami
9745 N.W. 80th Avenue
Hialeah Gardens, FL 33015
Telephone (305) 823-6330
(800) 533-5551 in Florida

Orlando
10101 C General Drive
Orlando, FL 32821
Telephone (305) 859-4541
(800) 362-2037 in Florida

Oregon
1st Street & Adams
Oregon, IL 61061
Telephone (815) 732-3136

Parsons
1900 Wilson
Parsons, KS 67357
Telephone (316) 421-3000

Philadelphia
3 Horne Drive
Folcroft, PA 19032
Telephone (215) 532-7786

Canadian Sales Service Centers

Toronto
Dayton Superior Canada Ltd.
230 Belfield Road
Rexdale, Ontario M9W 1H3
Telephone (416) 249-7441
Telex 06-989440

Montreal
Dayton Superior Canada Ltee.
8152 Est, Boul. Metropolitain
Montreal, Quebec H1J 1Z6
Telephone (514) 354-1171
Telex 05-828881

If the local dealer is unable to answer your inquiry, then call any of the following:

(800) 823-4665

Robert Truitt
Eddie Javanbakht
Bill Jagger, Jr.
Jim Metz
Dick Lee
Clyde Black
Connie Giron

(513) 866-0711

Peter D. Courtois
Roy Edgar
Steve Brashear
Tom Sayre
Kevin Couch

For proper GR hardware attachment, it is necessary that the arrows on the directional label point to the top/bottom of the panel, or be parallel to the vertical sides of the panel as shown in Fig 1. All figures show the minimum distances for insert location in relation to ledgers, openings and edges. During placement of concrete, displacement of insert must be avoided.

Do not use this system for edge lifting.

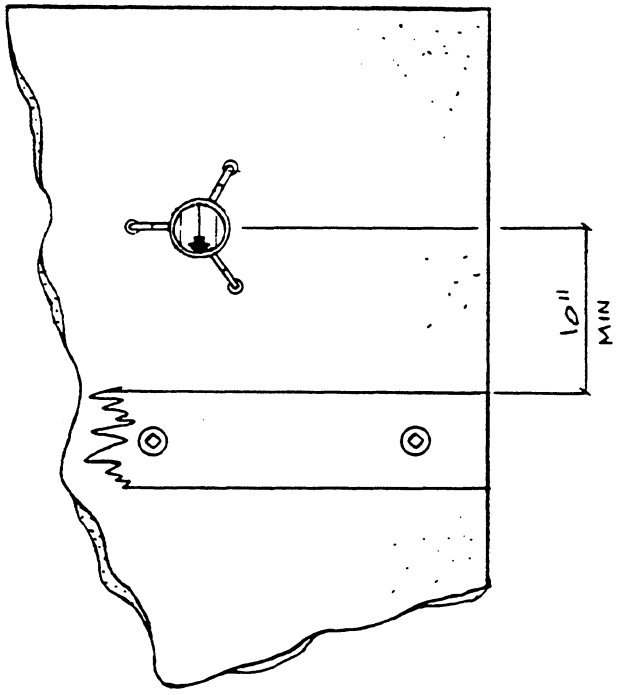


Figure 1

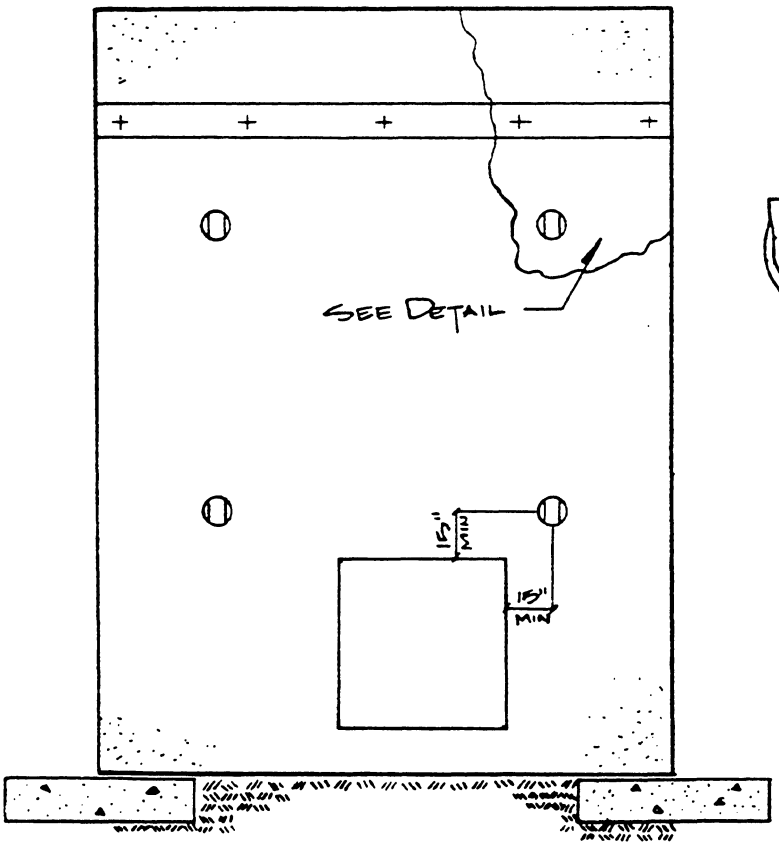


Figure 2

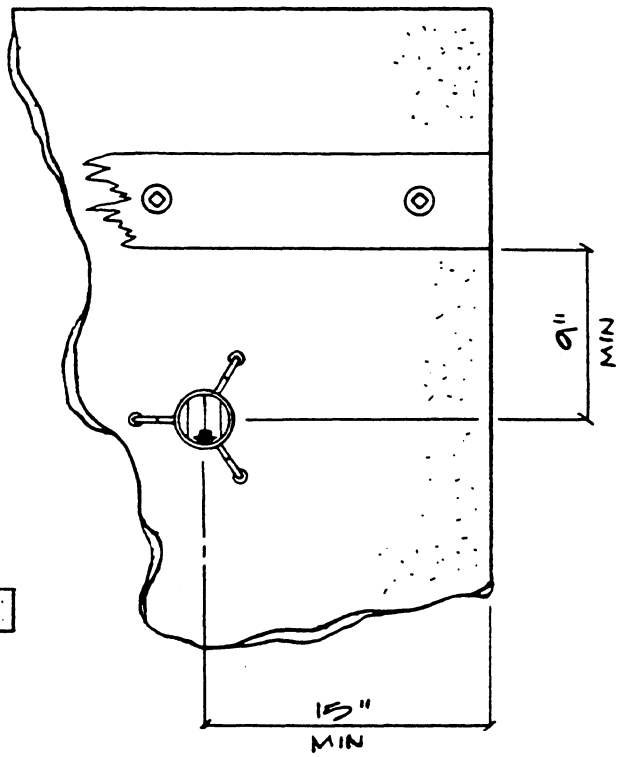
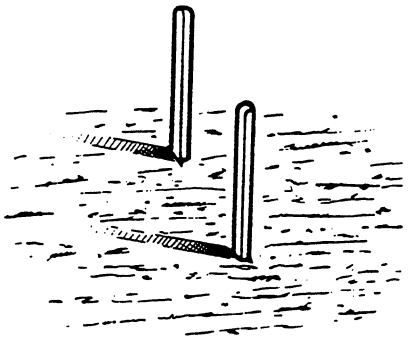
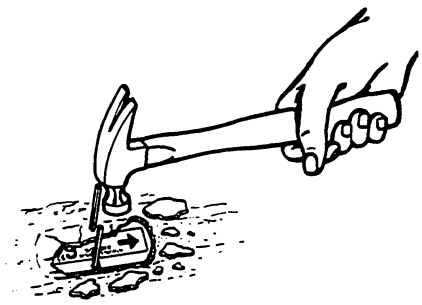


Figure 3

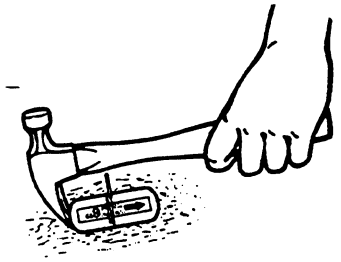
How to Remove the GR Swift Lift Plastic Recess Plug



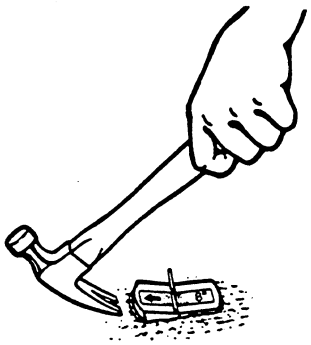
1. The GR Swift Lift insert's location in the panel is easily found by locating the two antennae which will project through the surface of the concrete.



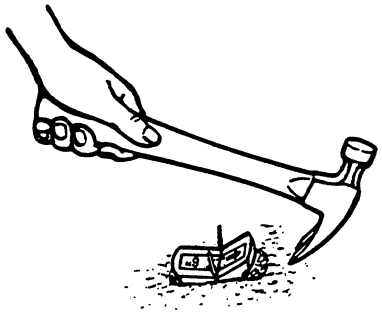
2. Using an ordinary claw hammer tap lightly around the antennae breaking through the thin skin of concrete to expose the insert. Avoid striking the concrete too hard so as not to break through the plastic recess plug.



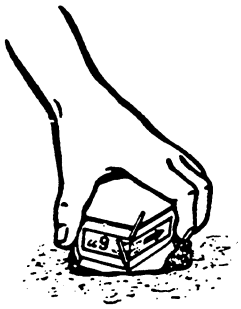
3. Drive the claws of the hammer down about ⅜", between the end of the recess plug and the concrete.



4. Pry up on the end of the recess plug until one half of it "pops up" to a point where it is about ⅓rd of the way out of the concrete. For the time being leave it as it is and proceed with step #5.



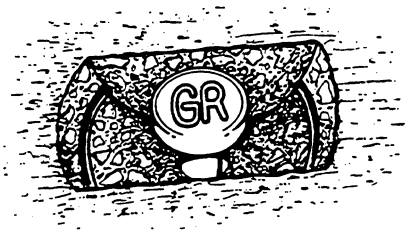
5. Repeat steps #3 and #4 to loosen the opposite half of the recess plug.



6. Grasp both halves of the recess plug between the thumb and finger and squeeze.

7. Both halves of the recess plug should now be easily removed, exposing the insert.

8. If one half of the recess plug should be hard to remove, drive the claws of the hammer as deeply as possible, between the recess plug and the top of the insert, as shown above. Push forward on the hammer with one quick motion. This will remove the recess plug.

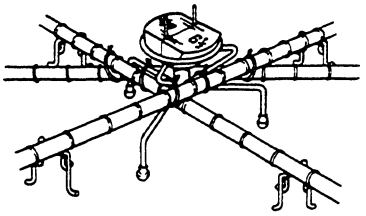


9. Use a blower to remove all debris from around the insert and the recess plug. The insert is now ready to receive the lifting hardware.

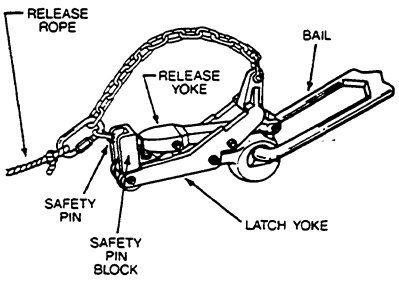
How to use the GR Swift Lift System

Do Not Use For Edge Lifting
Do Not Use this System on Top Surface, Seeded, Exposed Aggregate 3/4" or larger.

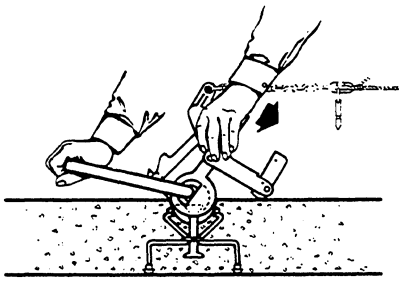
Precheck all insert holes with hardware prior to erection date, following instruction steps 2, 3, 4 and 5, so that during tilting proper hardware action is assured. See reverse side for proper procedure for removal of plastic recess plug.



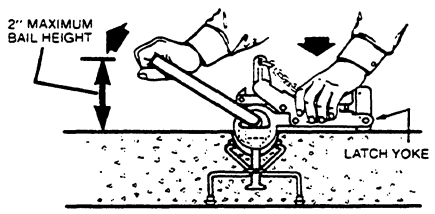
1. Place plastic recess plug with arrow point to top or bottom of panel with two legs of insert against the vertical reinforcement. Wire tie those legs of insert to re-bar. Place ½" x 18" lg. re-bar diagonally, tying to horiz. and vert. re-bars and third leg of insert. Place additional re-bar supports around insert as shown to prevent vertical displacement. Place concrete.



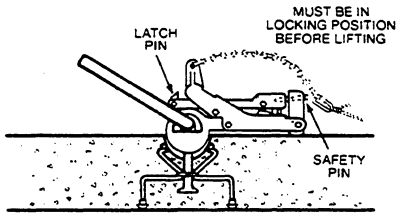
2. The above illustration lists the various parts of the T-43 Ground Release Lifting Hardware unit.



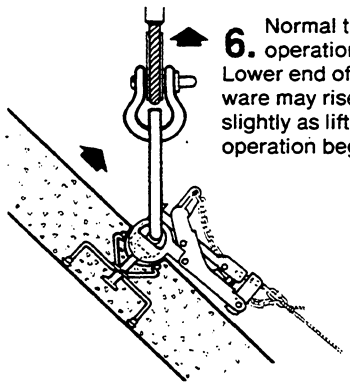
3. Hold hardware by the bail and latch yoke. Turn into the recess, rotating downward and connecting to the head of the GR Swift Lift Insert.



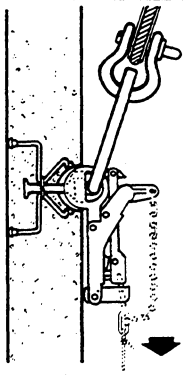
4. Apply a downward force to the latch yoke while pulling forward on bail, allowing the hardware unit to be positioned in cavity and on Insert head. If bail height is in excess of 2" maximum, chip sides of recess hole, allowing sufficient downward bail movement to satisfy 2" maximum.



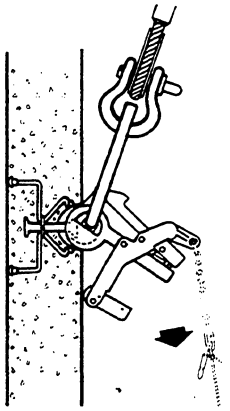
5. After setting hardware place the safety pin through the hole in the safety pin block and into the hole in the release yoke. Slight 'jiggling' of the hardware might be required to insure holes are in proper alignment. DANGER–DO NOT proceed with lifting until this step is completed.



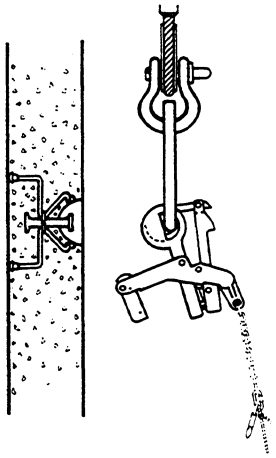
6. Normal tilting operation. Lower end of hardware may rise slightly as lifting operation begins.



7. Brace and secure panel. Crane line should be slackened slightly to permit release of hardware. First phase of hardware release is to grasp the release rope, step away from the panel a few paces and pull on the release rope to disengage the safety pin.



8. After releasing the safety pin, apply a SINGLE QUICK downward force on the release rope, activating mechanism of hardware and rotation of hardware off insert head.



9. Hardware remains in "open" position ready to be attached to the GR Insert of next panel.

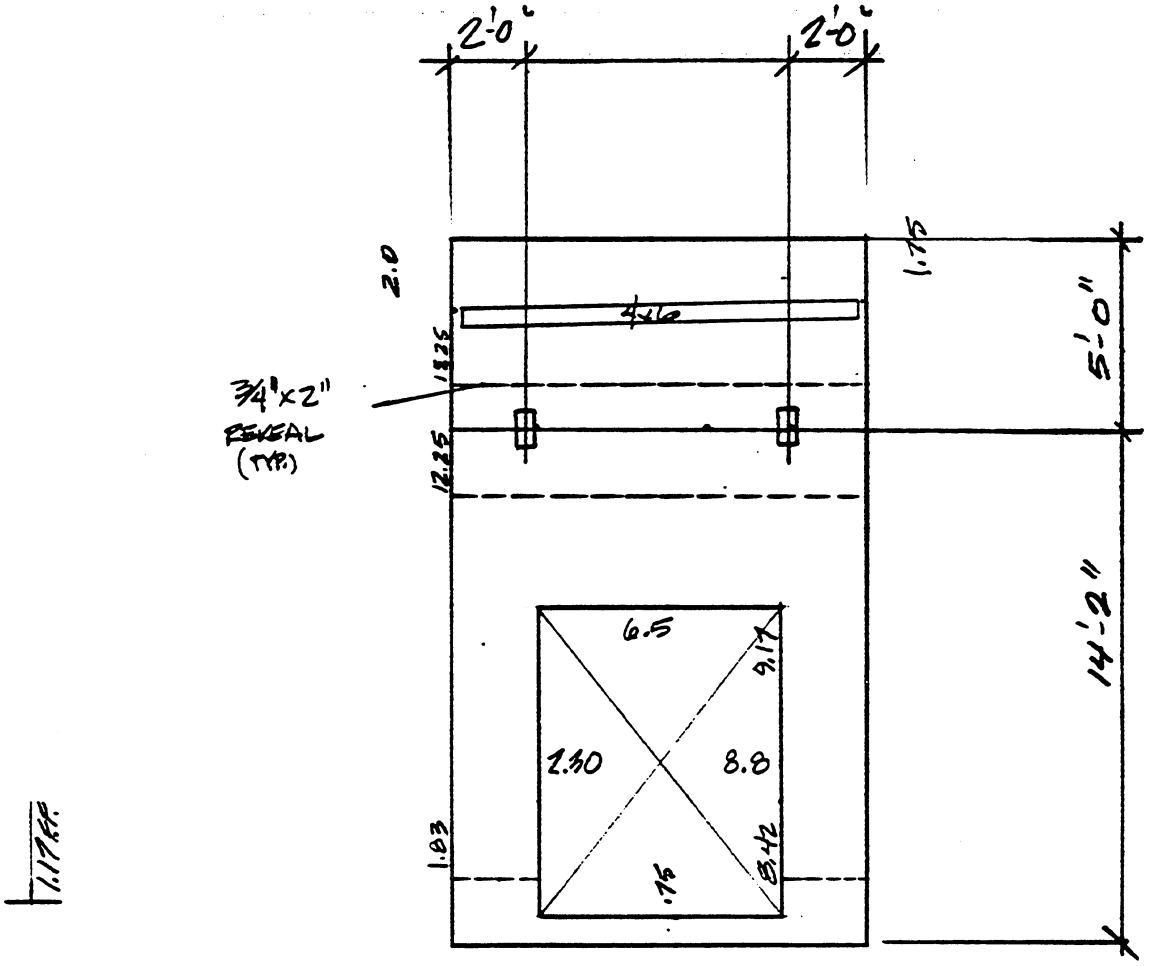
*WARNING: CRANE LINE LOADS AND BAIL OF LIFTING HARDWARE MUST BE TURNED IN DIRECTION OF CABLE FORCES BEFORE LIFTING OPERATION BEGINS. CRANE LINE LOADS MUST NOT BE ALLOWED TO APPLY SIDEWARD LOADS TO BAIL AS THIS CONDITION IS DANGEROUS AND COULD LEAD TO FAILURE OF HARDWARE.

12-84H

98901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	11.9K	11'-1½"	19'-2"	1	P1

5" CONC. SLAB

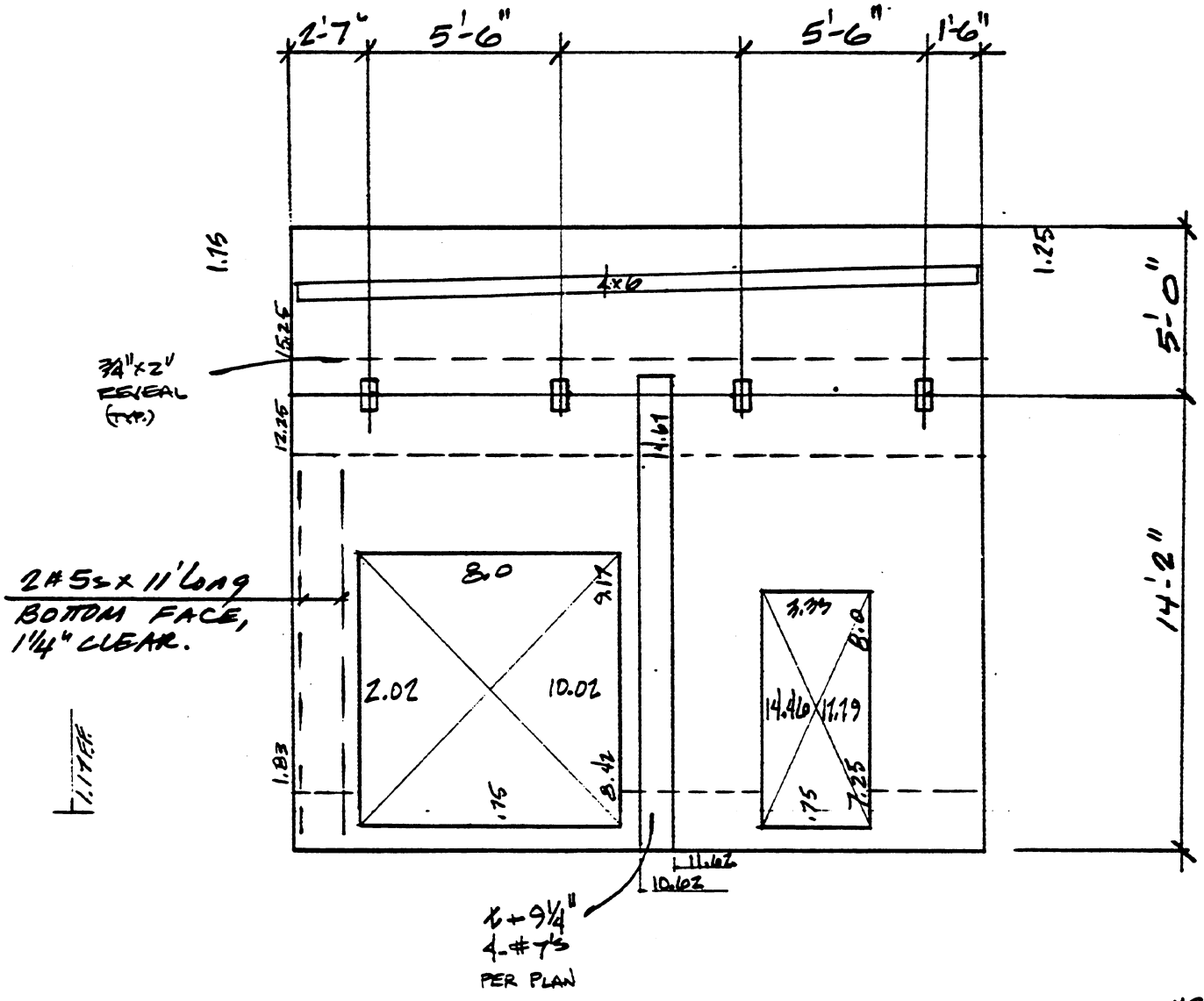


2227#

BRACE TYPE REQ'D.
B2-K0

DAYTON SUPERIOR	$\bar{x}$	ΔX		SCALE: 3"/16	RIGGING DETAILS
This drawing is furnished solely for the purpose of clarifying the proper use, installation and application of products supplied only by Dayton Superior Corporation. No responsibility is assumed by Dayton Superior Corporation for the correctness of structural designs or dimensions furnished by others. These drawings are intended merely to supplement the architectural and structural drawings and are to be used only in conjunction with them. In no way are these drawings to be interpreted as shop drawings for panel fabrication.	$\bar{Y}$	2ΔX			R-12
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE	TAKEOFF BY W.L.	DATE 11-22-85	JOB NO. 3710	SHEET 1 OF 16	
- 21 -	LAYOUT BY RST	DATE 12-17			

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	25.2#	21'-1½"	19'-2"	1	P2



4361#

BRACE TYPE REQ'D. B2-1C0

DAYTON SUPERIOR

$\bar{x}$	Δx .55		SCALE: 3"/16
$\bar{y}$	2Δx 1'-1"		RIGGING DET R-14

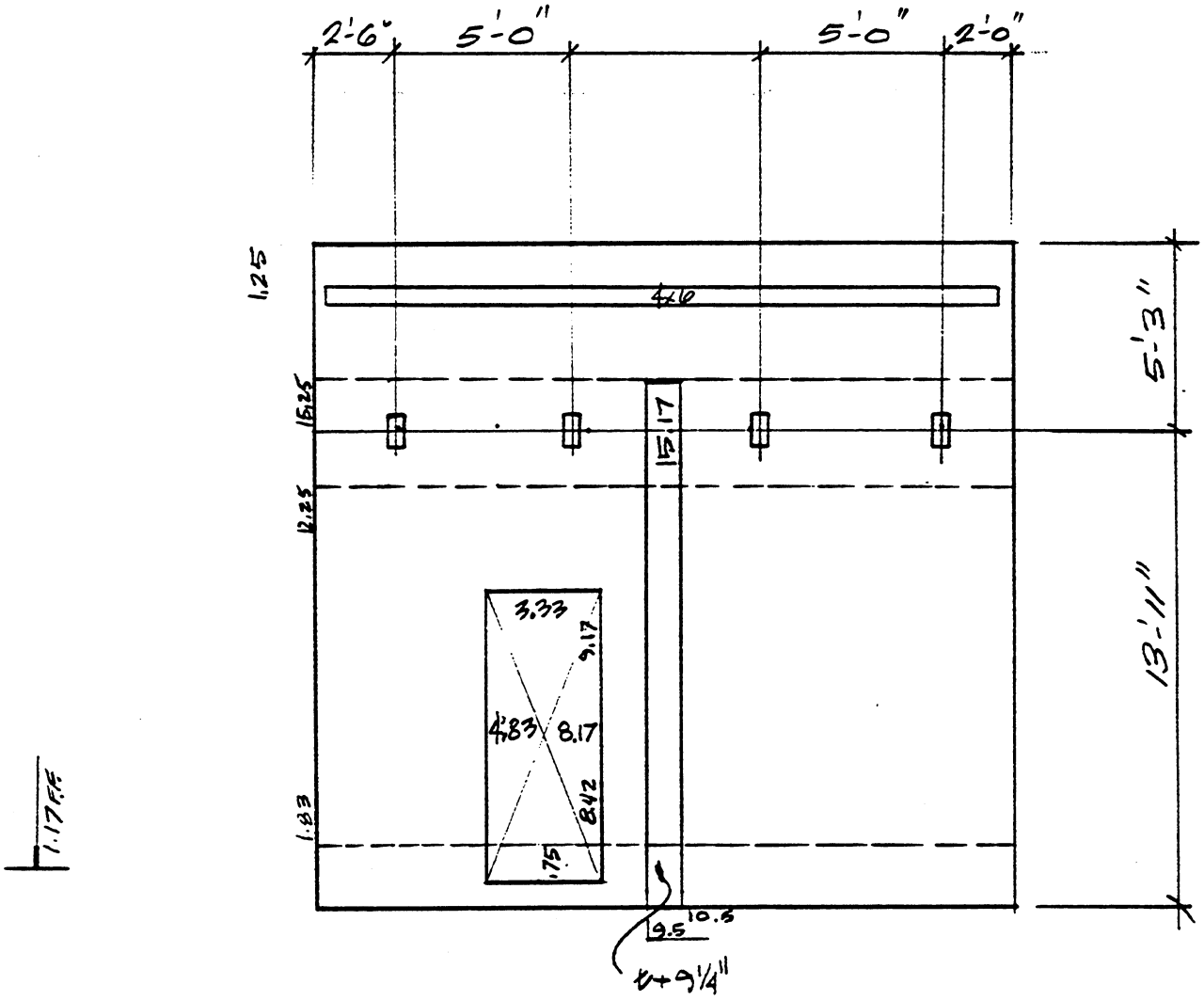
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3710	2 OF 16
LAYOUT BY: RST	DATE: 12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	28.4K	20'-0"	19'-2"	1	P-3 & P-8

REVISION
2-11-86



4699#

BRACE TYPE REQ'D. B2+0

DAYTON SUPERIOR

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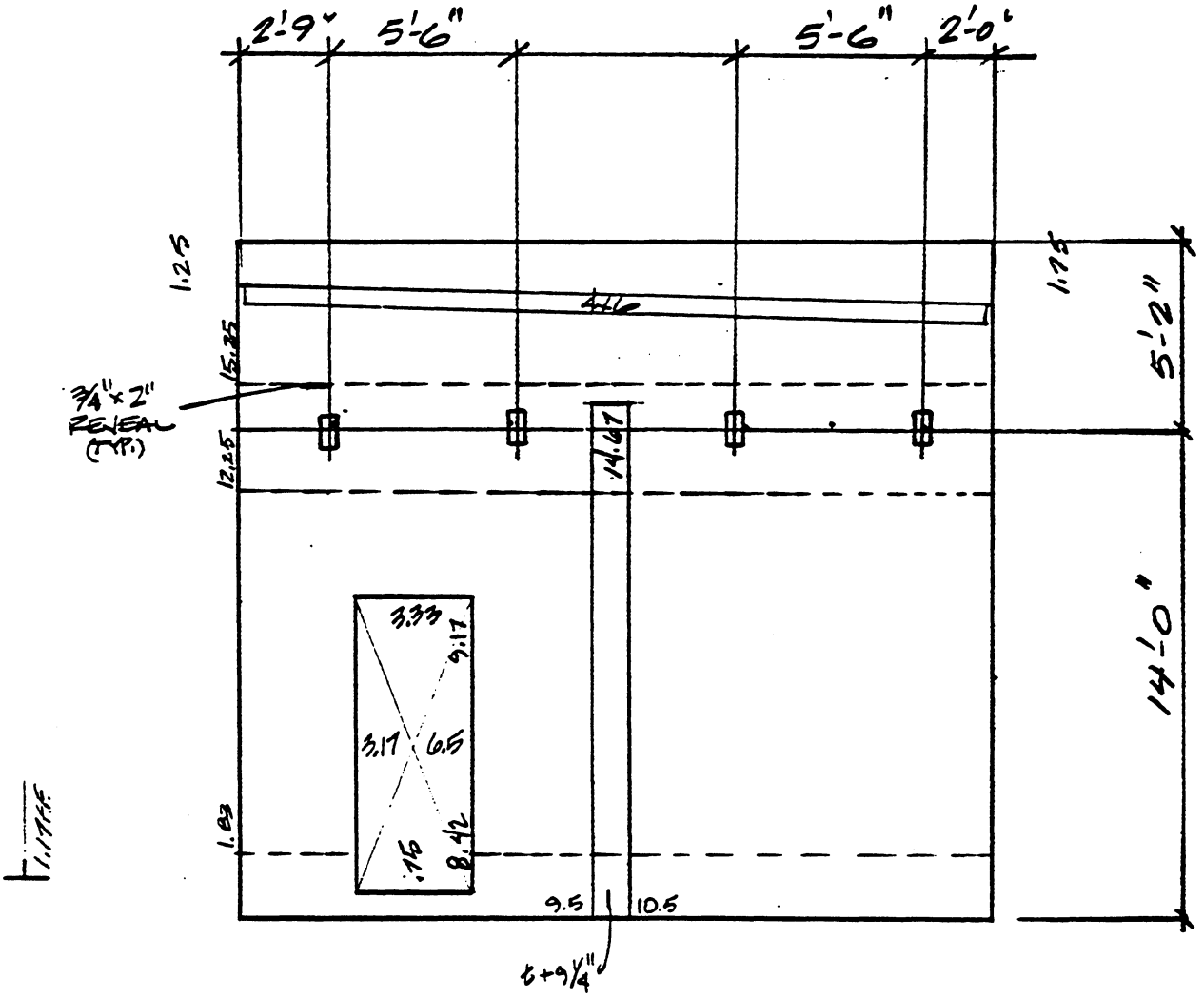
$\bar{x}$ 10.26	Δx 0.26 →		SCALE: 3/16"	RIGGING DETAILS R-14	
$\bar{y}$ 9.80	2Δx 6" ←				
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE	TAKEOFF BY W.L.	DATE 11-26-86	JOB NO. 3710	SHEET 3A OF 16	
	LAYOUT BY RST	DATE 2-11			

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	30.0K	21'-1½"	19'-2"	1	P-4



4928#

BRACE TYPE REQ'D. B2-140

DAYTON SUPERIOR

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$\bar{x}$	Δx 0.37 →		SCALE: 3" / 16
$\bar{y}$	2Δx 9" →		RIGGING DETAILS: R-14

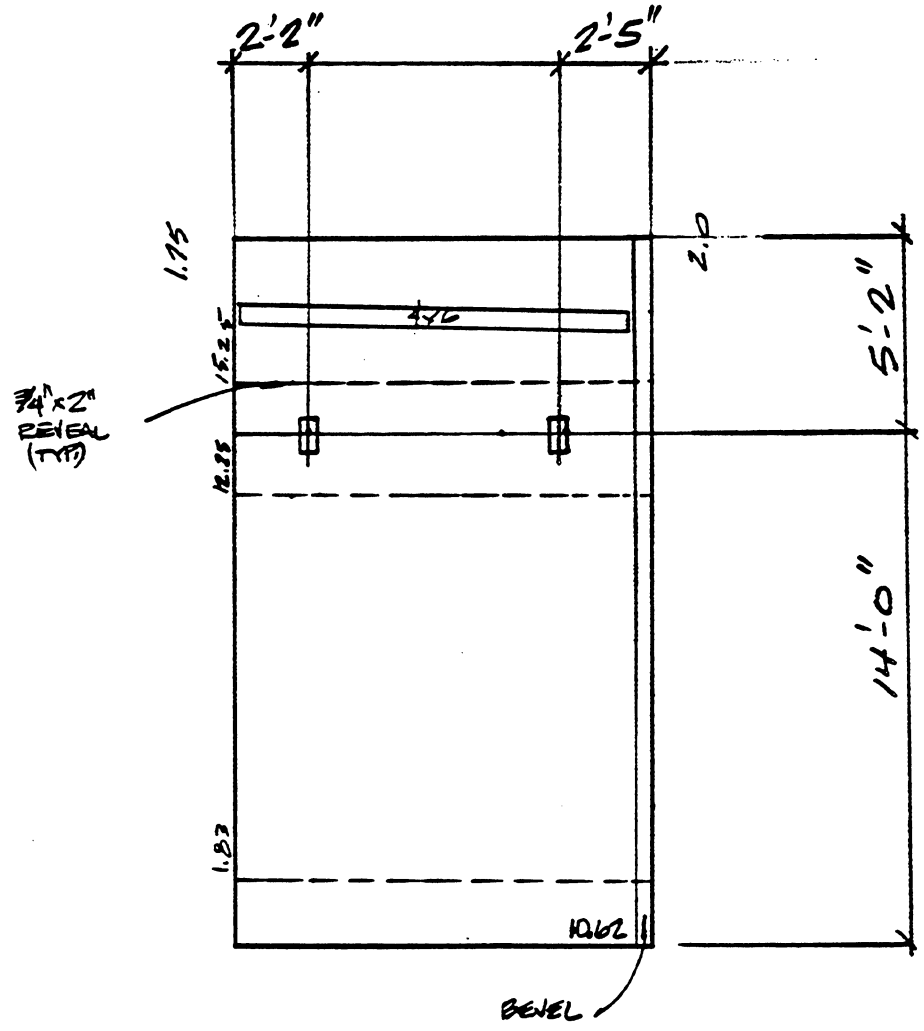
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

- 24 -

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-26-85	3710	4 OF 16
LAYOUT BY: RST	DATE: 12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE	
	6"	15.9c	11'-1½"	19'-2"	2	P-5, P-10	(AS SHOWN)
	✓	✓	✓	✓	1	P-6	(OPP. HAND)

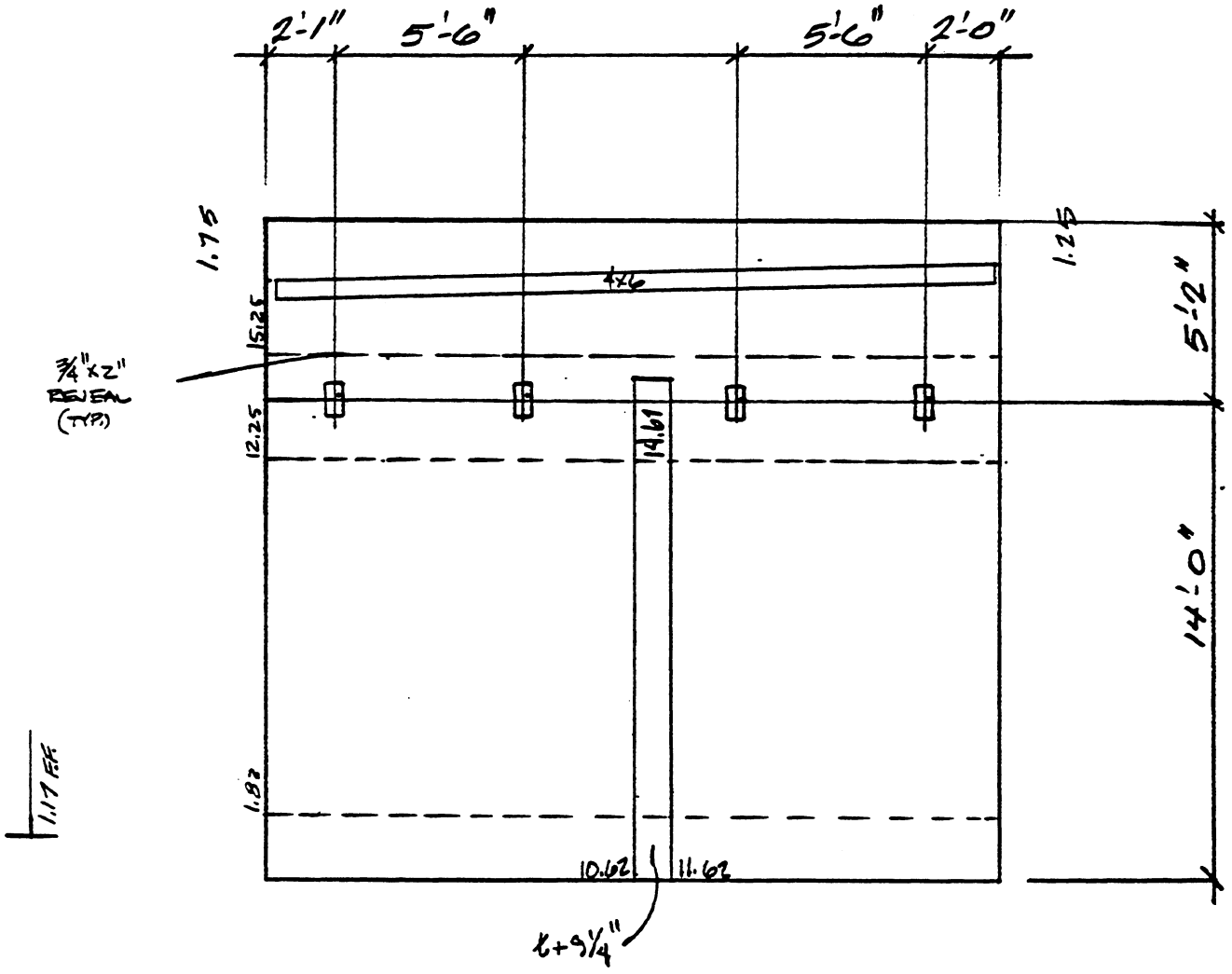


BRACE TYPE REQ'D. B2-KO				
$\bar{X}$	ΔX		SCALE: 3" / 16	RIGGING DETAILS R-12
$\bar{Y}$	2ΔX 3"			
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE	TAKEOFF BY W.L.	DATE 11.25.85	JOB NO. 3710	SHEET 5 OF 16
	LAYOUT BY RST	DATE 12-17		

DAYTON SUPERIOR

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE	
	6"	32.1K	2'-1 1/2"	19'-2"	1	P-7	(AS SHOWN)
	✓	✓	✓	✓	1	P-9	(OPP. HAND)



5148 #

BRACE TYPE REQ'D. B2-140

DAYTON SUPERIOR

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$\bar{x}$ 10.59	Δx .03		SCALE: 3"/16
$\bar{y}$ 9.47	2Δx 1"		RIGGING DETAILS R-14

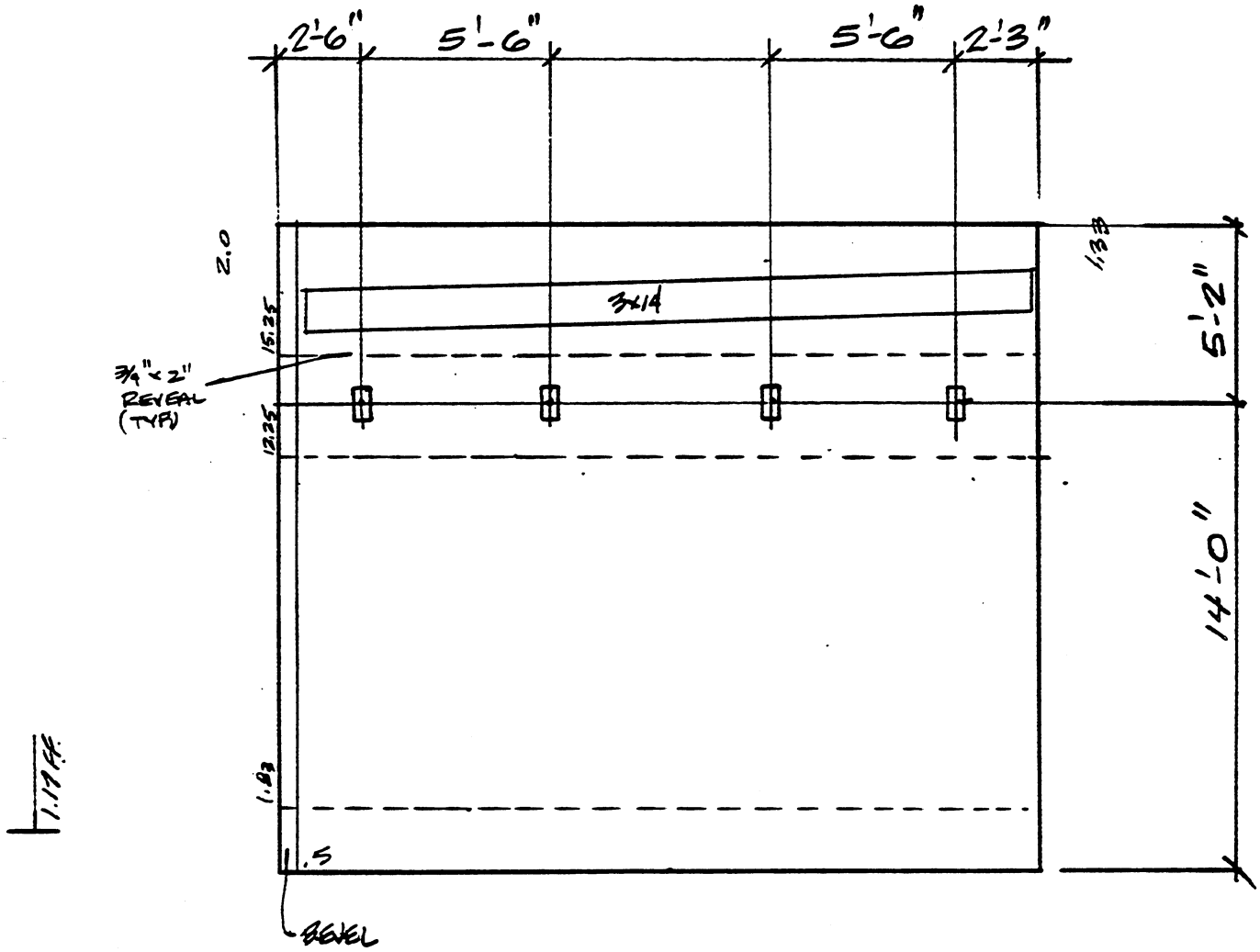
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3710	6 OF 16
LAYOUT BY RST	DATE 12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	31.6K	22'-2 3/4"	19'-2"	2	P-11, P-14

group



BRACE TYPE REQ'D. B2-140

$\bar{X}$	ΔX		SCALE: 3" TG
$\bar{Y}$	2ΔX 3" →		RIGGING DETAILS R-14

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

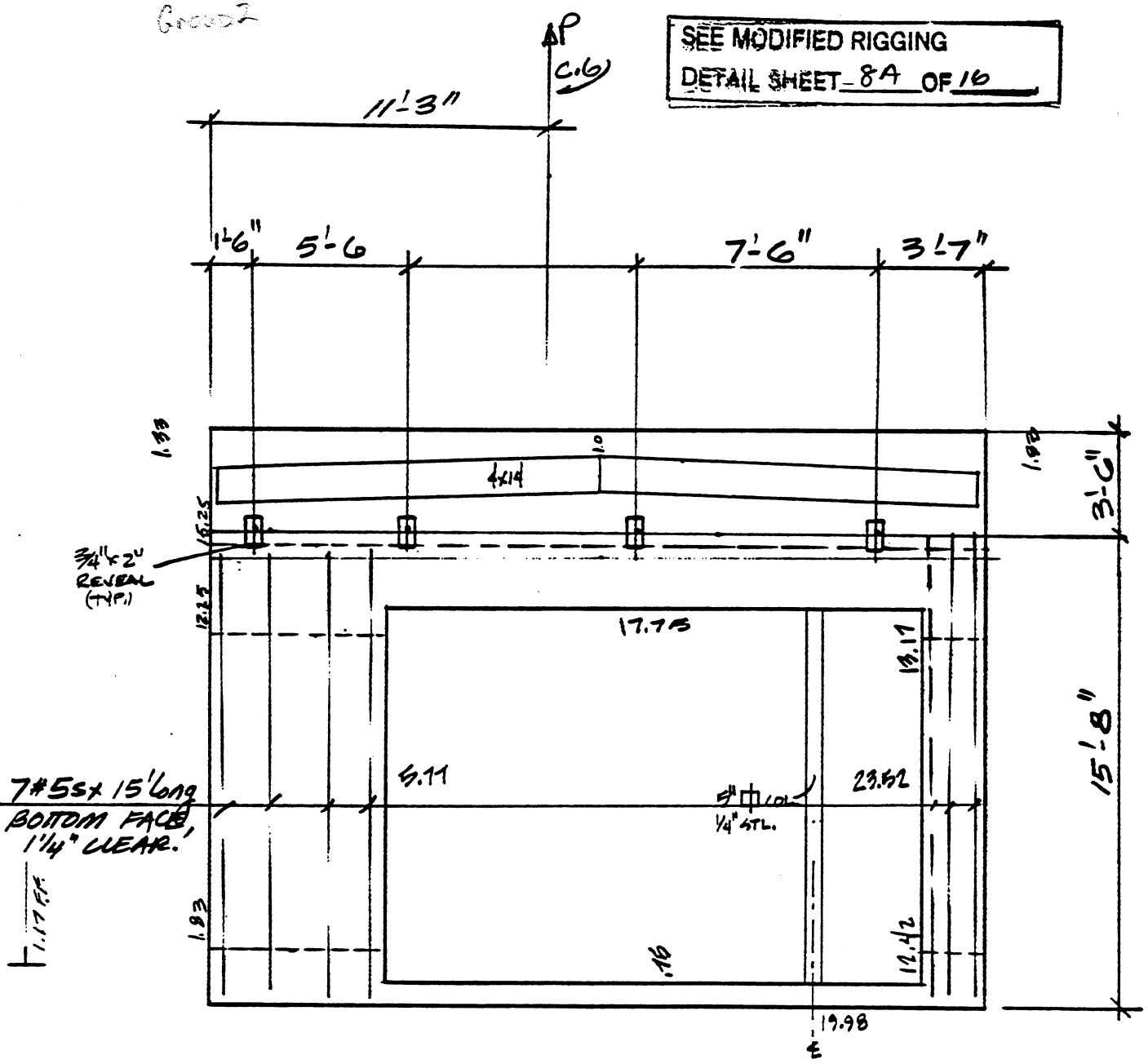
TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3110	1 OF 16
LAYOUT BY	DATE		
RST	12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE	
	6"	20.2k	25'-6 1/2"	19'-2"	1	P-12	(AS SHOWN)
	✓	✓	✓	✓	1	P-15	(OPP. HAND)

GROUP 2

SEE MODIFIED RIGGING DETAIL SHEET 8A OF 16



3852 #

BRACE TYPE REQ'D. B4-K0

DAYTON SUPERIOR

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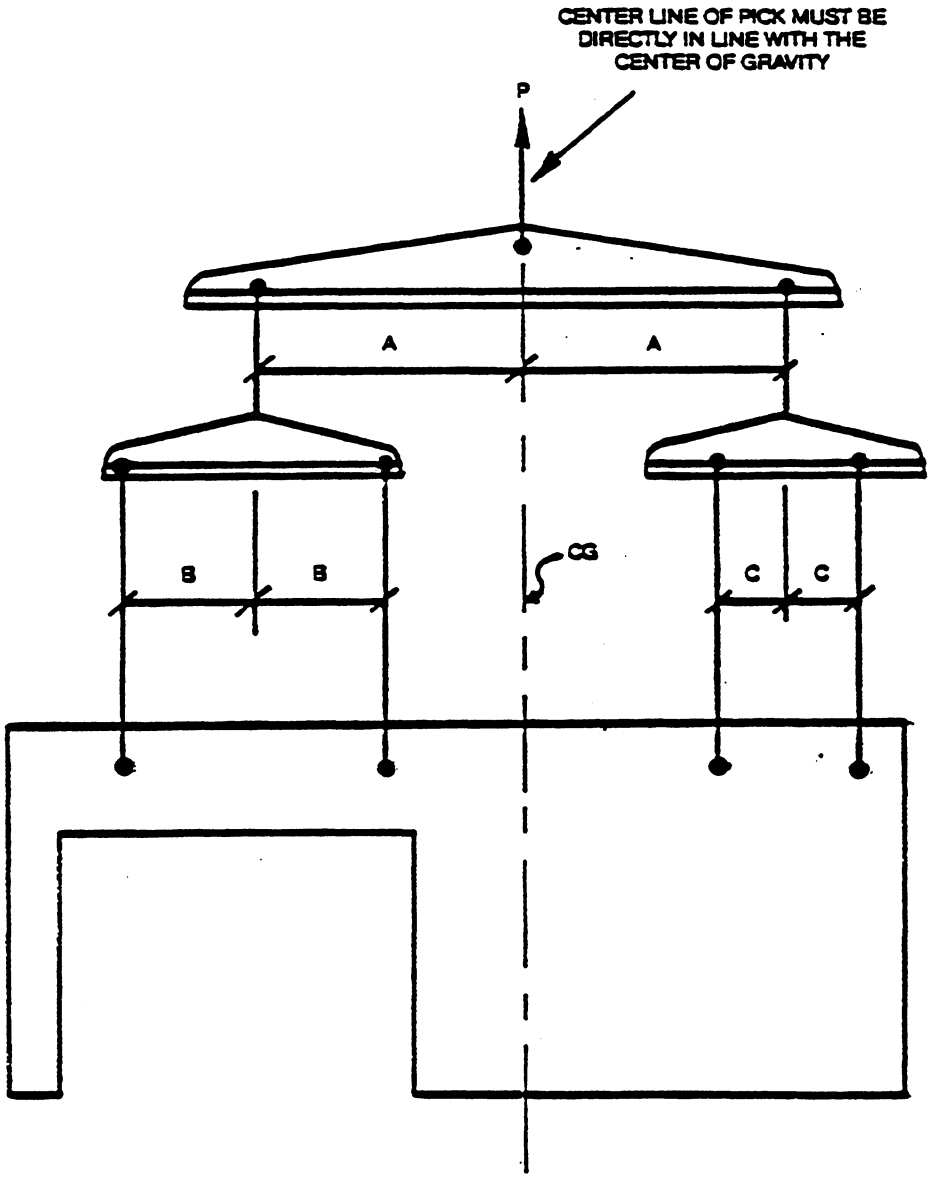
$\bar{x}$ 11.23	ΔX 1.54		SCALE: 3" / 16
$\bar{y}$ 11.74	2ΔX 3'-1"		RIGGING DETAIL R-14

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-86	3710	8 OF 16
LAYOUT BY RST	DATE 12-17		

DAYTON SUPERIOR

MODIFIED RIGGING



"MODIFIED RIGGING" AS USED IN THIS INSTANCE DENOTES UNEQUAL HORIZONTAL SPACING OF LIFT POINTS ON EITHER SIDE OF THE CENTER OF GRAVITY, SUFFICIENT TO REQUIRE ADJUSTMENT OF THE SPREADER BAR ARRANGEMENT. CABLES ARE TO BE PERPENDICULAR TO THEIR SPREADER BAR WITHIN 6 INCHES AND EQUIDISTANT FROM THE CENTER OF THEIR SPREADER, UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR SHOULD MARK THE CENTER OF GRAVITY LOCATION ON THE FACE OF THE PANEL PRIOR TO ERECTION TO AID THE CRANE CONTRACTOR IN ACCURATELY POSITIONING THE RIGGING.

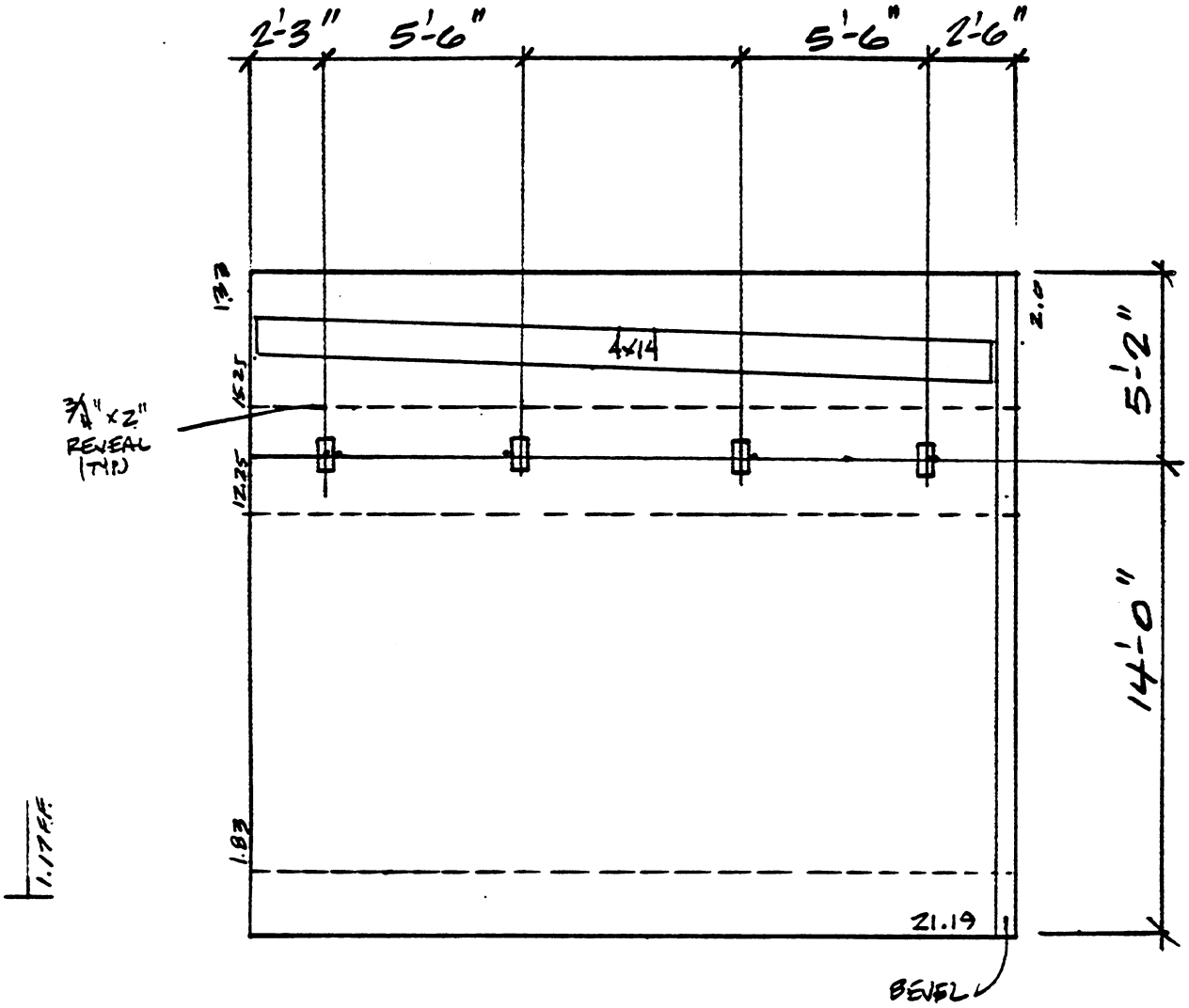
SHEET 8A of 16

Job Number: 3710

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	31.2K	21'-8¼"	19'-2"	1	P-16

22'-2¼" x 6"



BRACE TYPE REQ'D. B2-KO

DAYTON SUPERIOR

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$\bar{X}$	ΔX		SCALE: 3"/16
$\bar{Y}$	2ΔX 3"		RIGGING DETAILS R-14

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY: W.L. DATE: 11-25-86

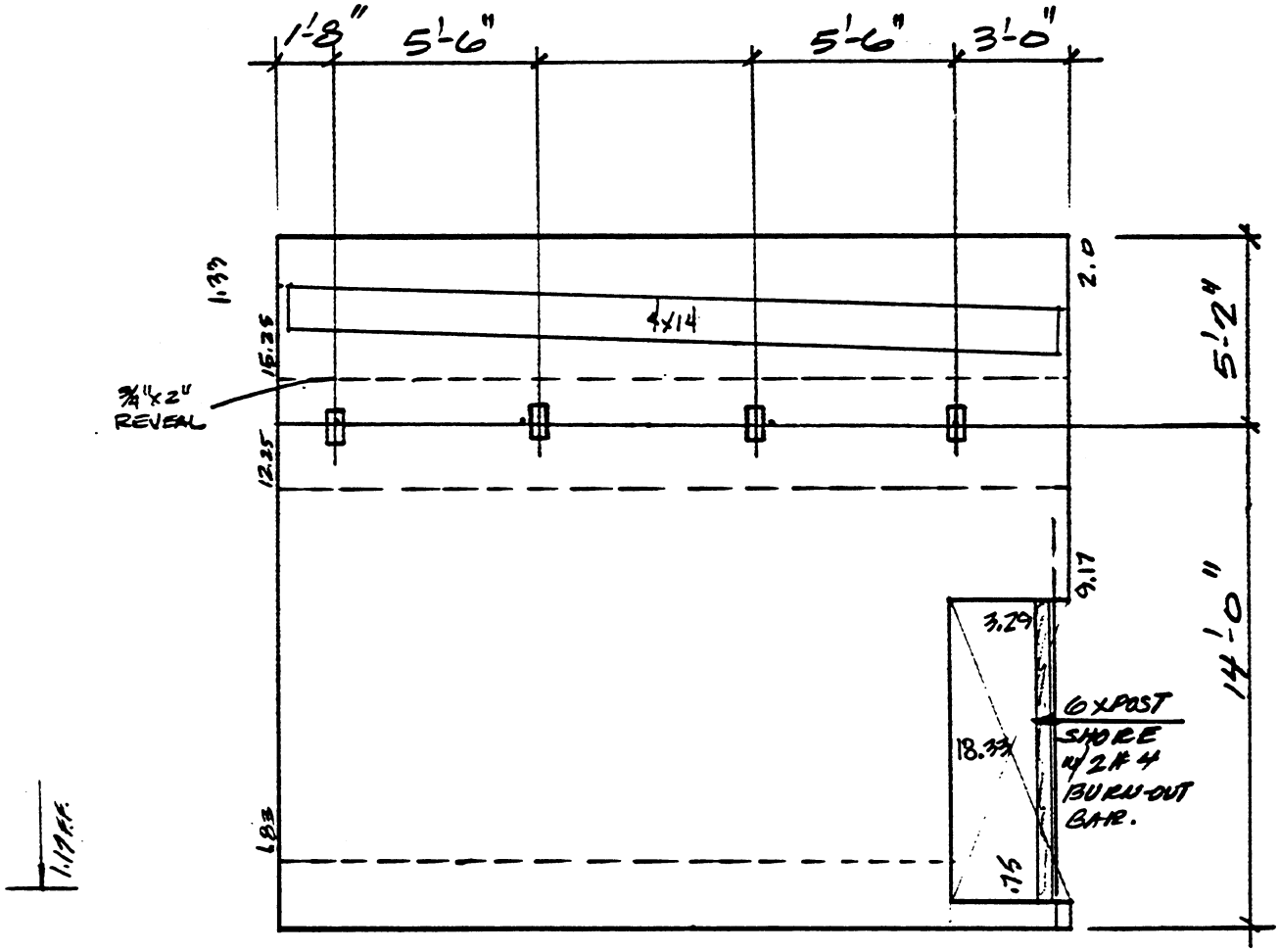
LAYOUT BY: EST DATE: 12-17

JOB NO. 3710

SHEET 10 OF 16

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	29.1K	21'-8¼"	19'-2"	1	P-13



5015#

BRACE TYPE REQ'D. B2-K0

DAYTON SUPERIOR

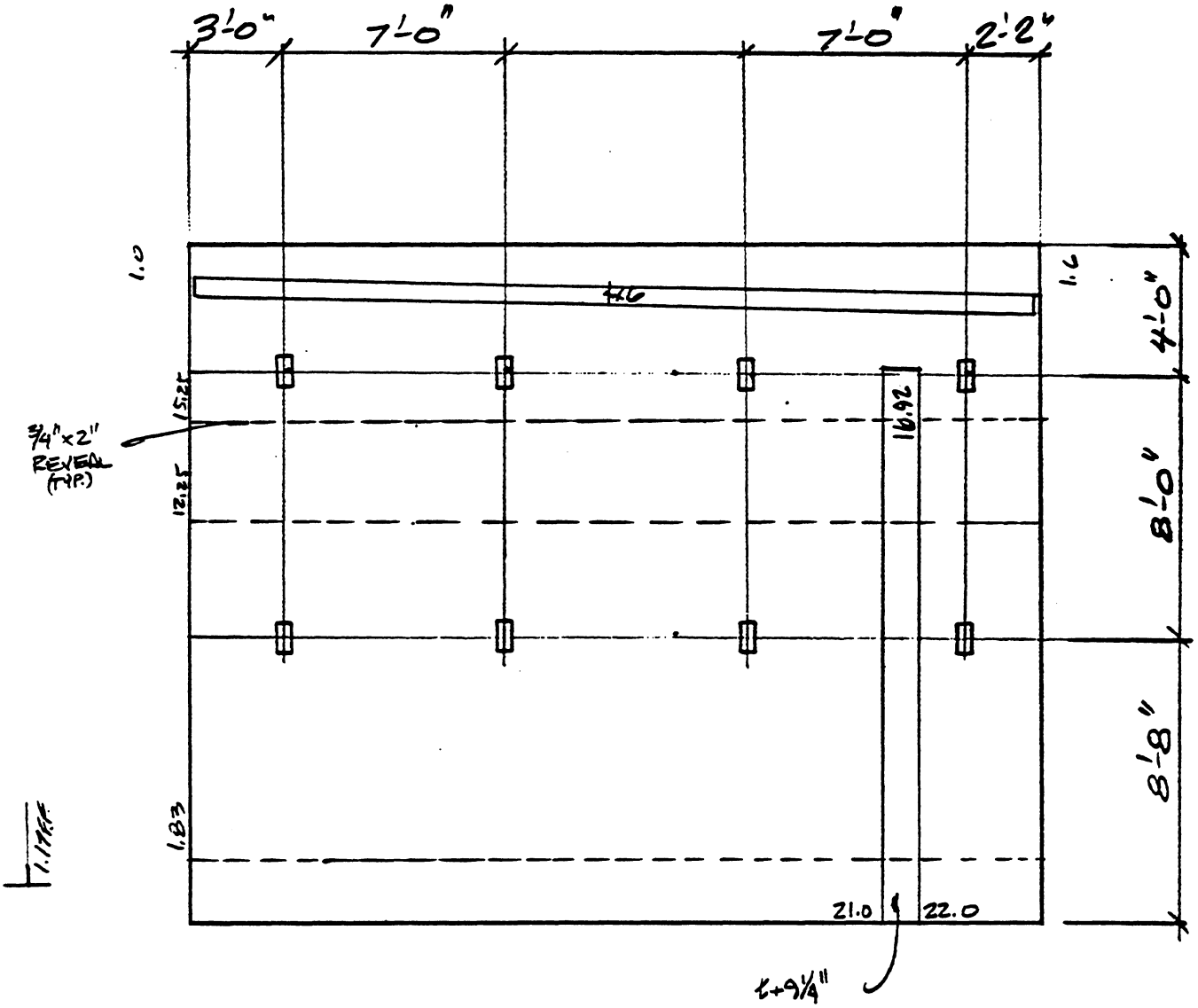
$\bar{x}$ 10.18	Δx .67		SCALE: 3/16"
$\bar{y}$ 9.92	2Δx 1'-4"		RIGGING DETAILS R-14

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3710	9 OF 16
LAYOUT BY: BST	DATE: 12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	41.9K	25'-9"	20'-8"	1	P-17



3 BRACES REQ'D

6751#

BRACE TYPE REQ'D. B2-K0

DAYTON SUPERIOR

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$\bar{x}$ 13.28	Δx .40 →		SCALE: 3/16"
$\bar{y}$ 10.25	2Δx 10" →		RIGGING DETAILS R-24

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY W.L. DATE 11-25-85

LAYOUT BY RST DATE 12-17

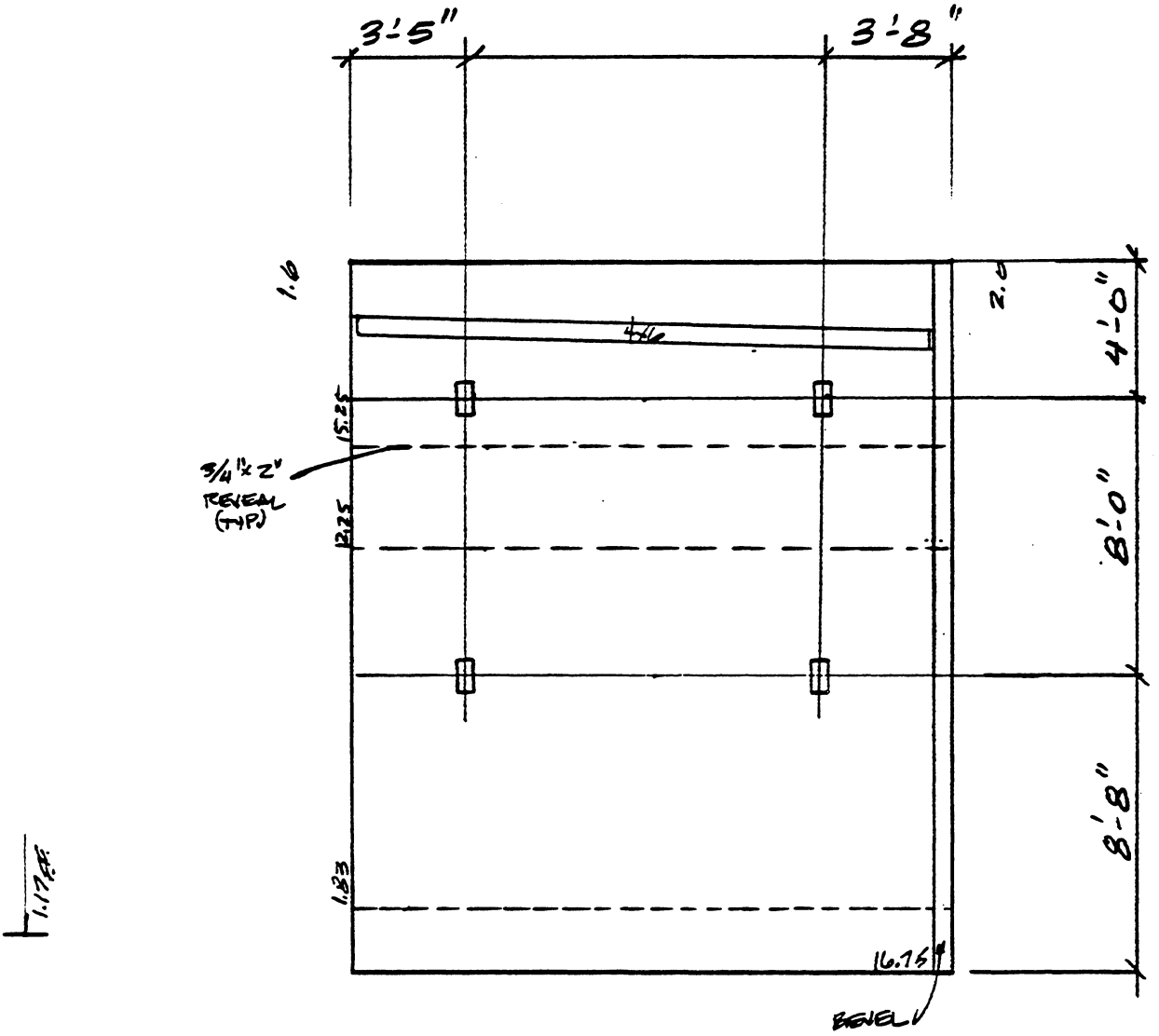
JOB NO. 3710

SHEET 11 OF 16

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE	
	6"	26.7K	17'-3"	20'-8"	1	P-18	(AS SHOWN)
	✓	✓	✓	✓	1	P-19	(OPP. HAND)

2#



BRACE TYPE REQ'D. B2-KO

DAYTON SUPERIOR

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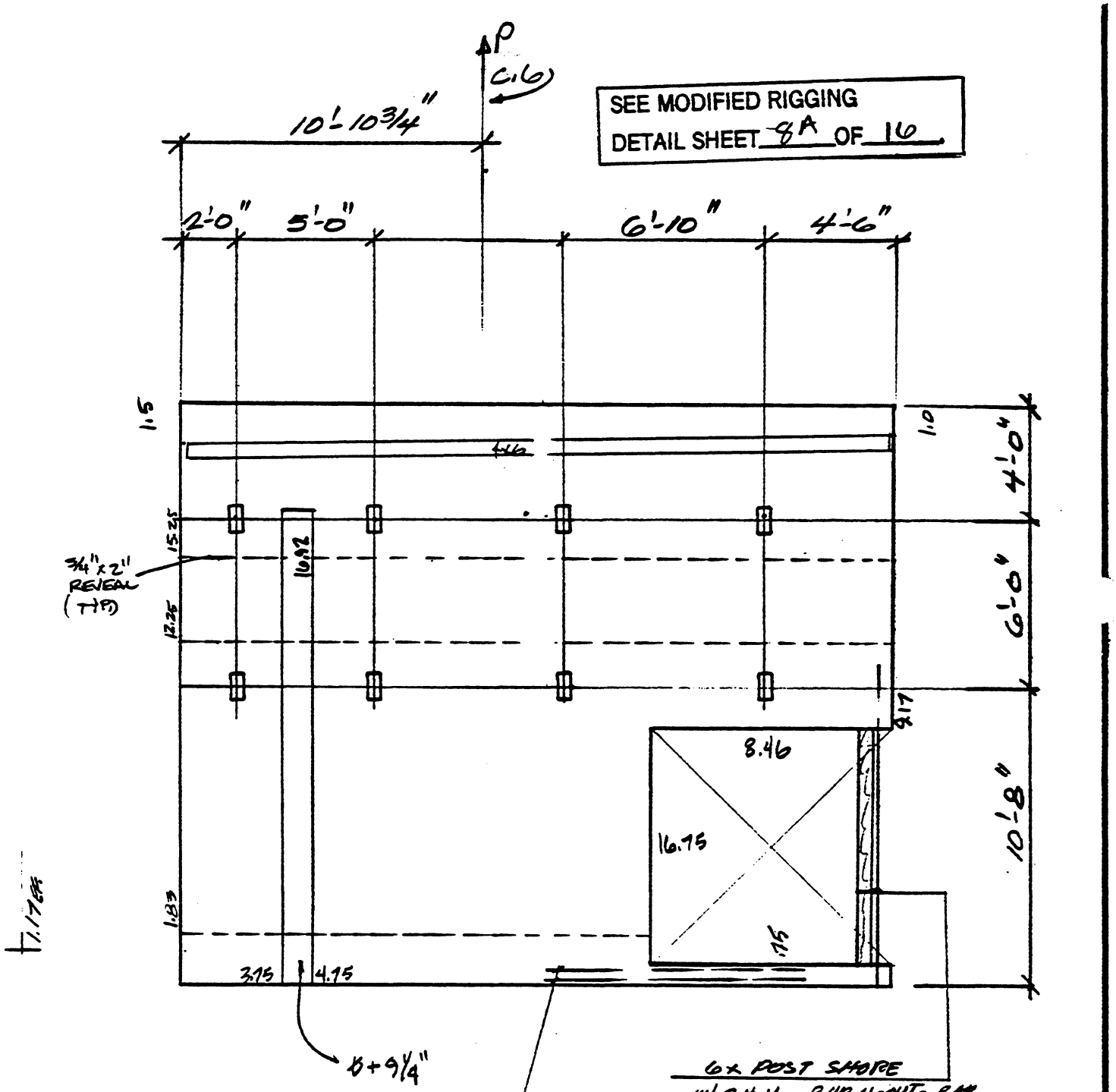
$\bar{x}$	Δx		SCALE: 3"/16
$\bar{y}$	$2\Delta x$ 3"		RIGGING DETAILS R-22

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3710	12 OF 16
LAYOUT BY	DATE		
RST	12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	35.7K	25'-2½"	20'-8"	1	P-20



5983

BRACE TYPE REQ'D. B2-KO

RIGGING DETAIL R-24

DAYTON SUPERIOR

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$\bar{x}$ 10.89	Δx 1.71		SCALE: 3" / 1'0
$\bar{y}$ 11.04	2Δx 3'-5"		

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY W.L. DATE 11-25-85

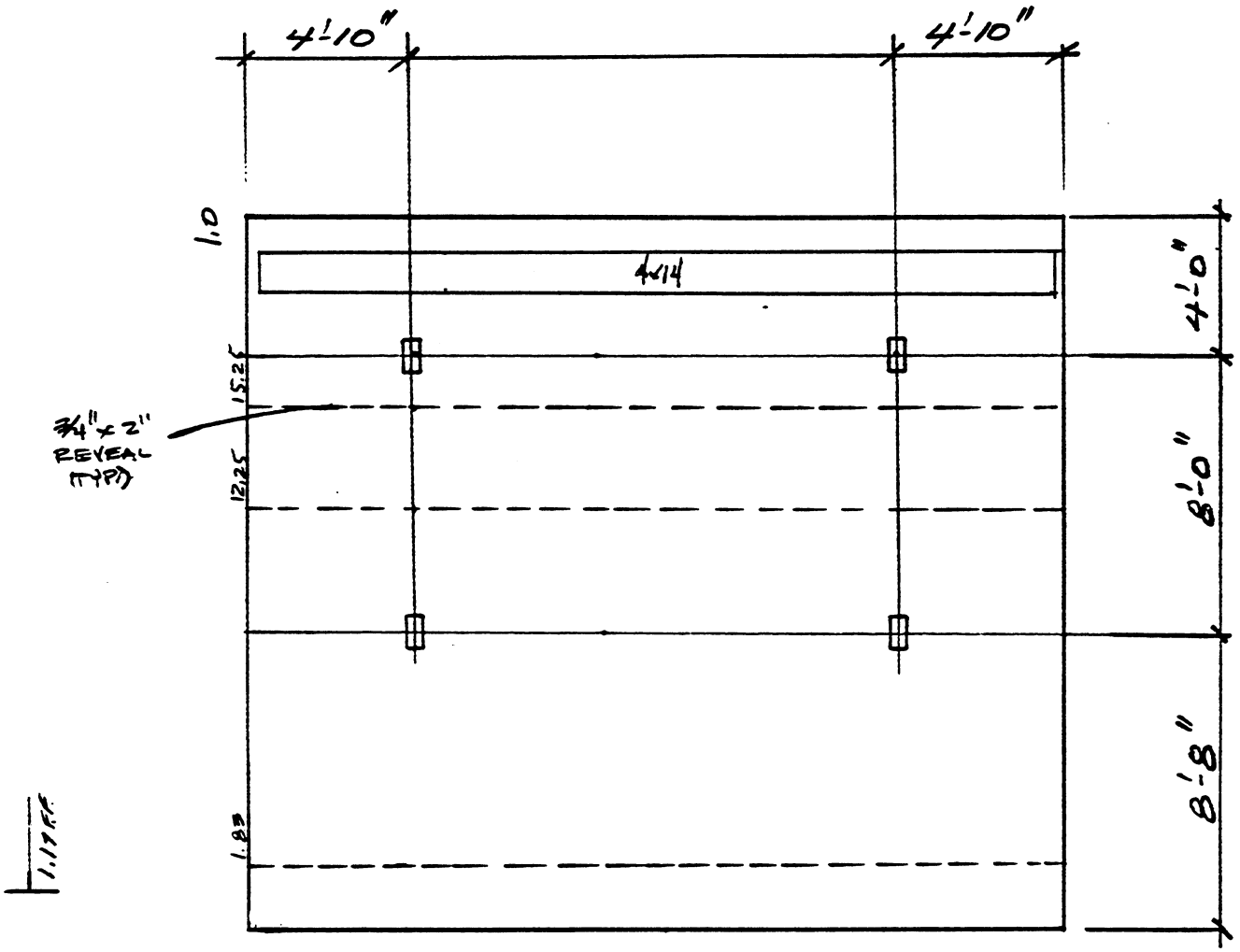
LAYOUT BY POST DATE 12-17

JOB NO. 3710

SHEET 13 OF 16

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	36.5K	23'-6"	20'-8"	1	P-21



BRACE TYPE REQ'D.
B2-K0

$\bar{x}$	ΔX		SCALE: 3" TO
$\bar{Y}$	2ΔX		RIGGING DETAILS: R-22

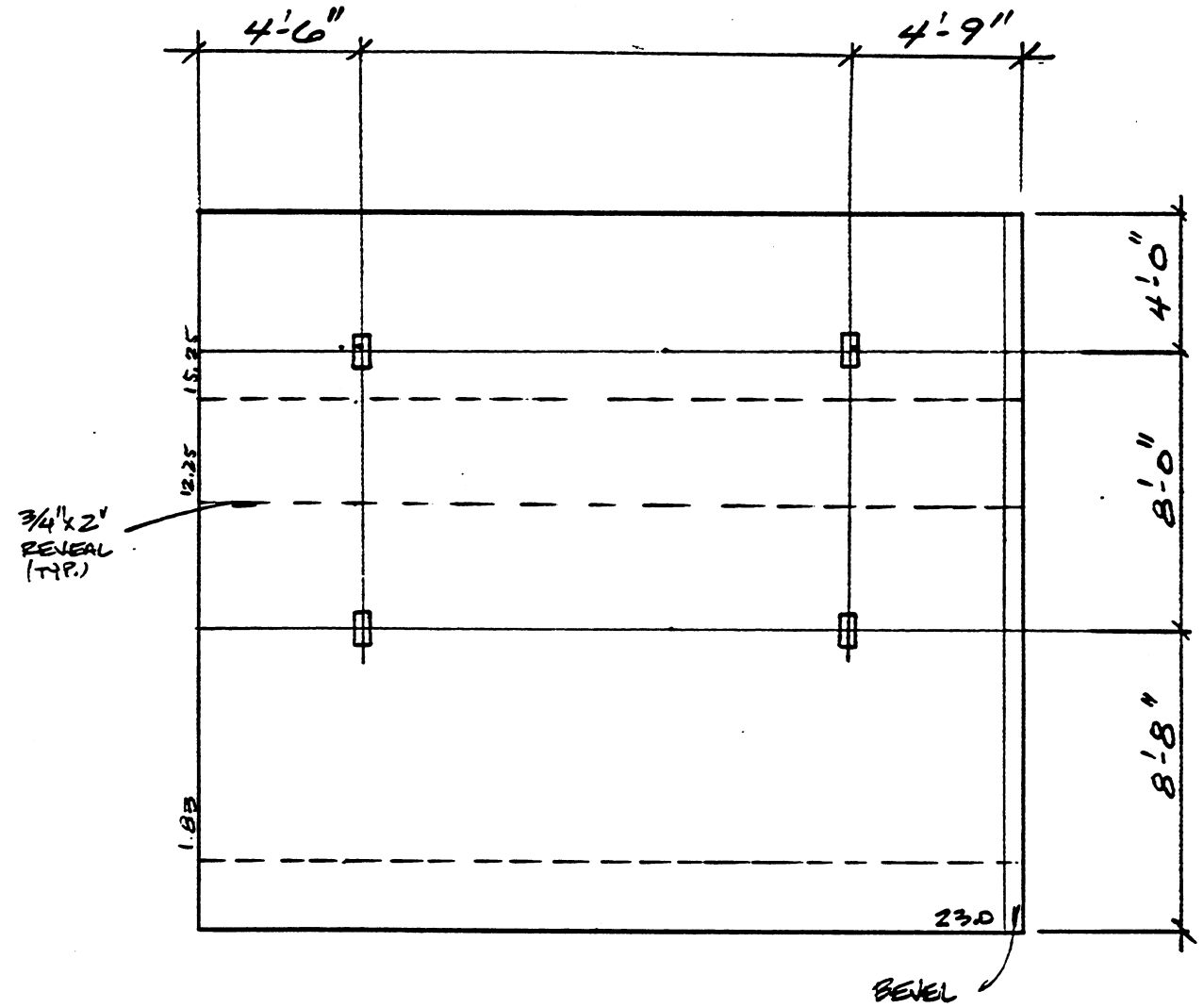
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3710	14 OF 16
LAYOUT BY: RST	DATE: 12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE	
	6"	36.4#	23'-6"	20'-8"	1	P-22	(AS SHOWN)
	✓	✓	✓	✓	1	P-23	(OPP. HAND)

2



BRACE TYPE REQ'D.
B2-KO

DAYTON SUPERIOR

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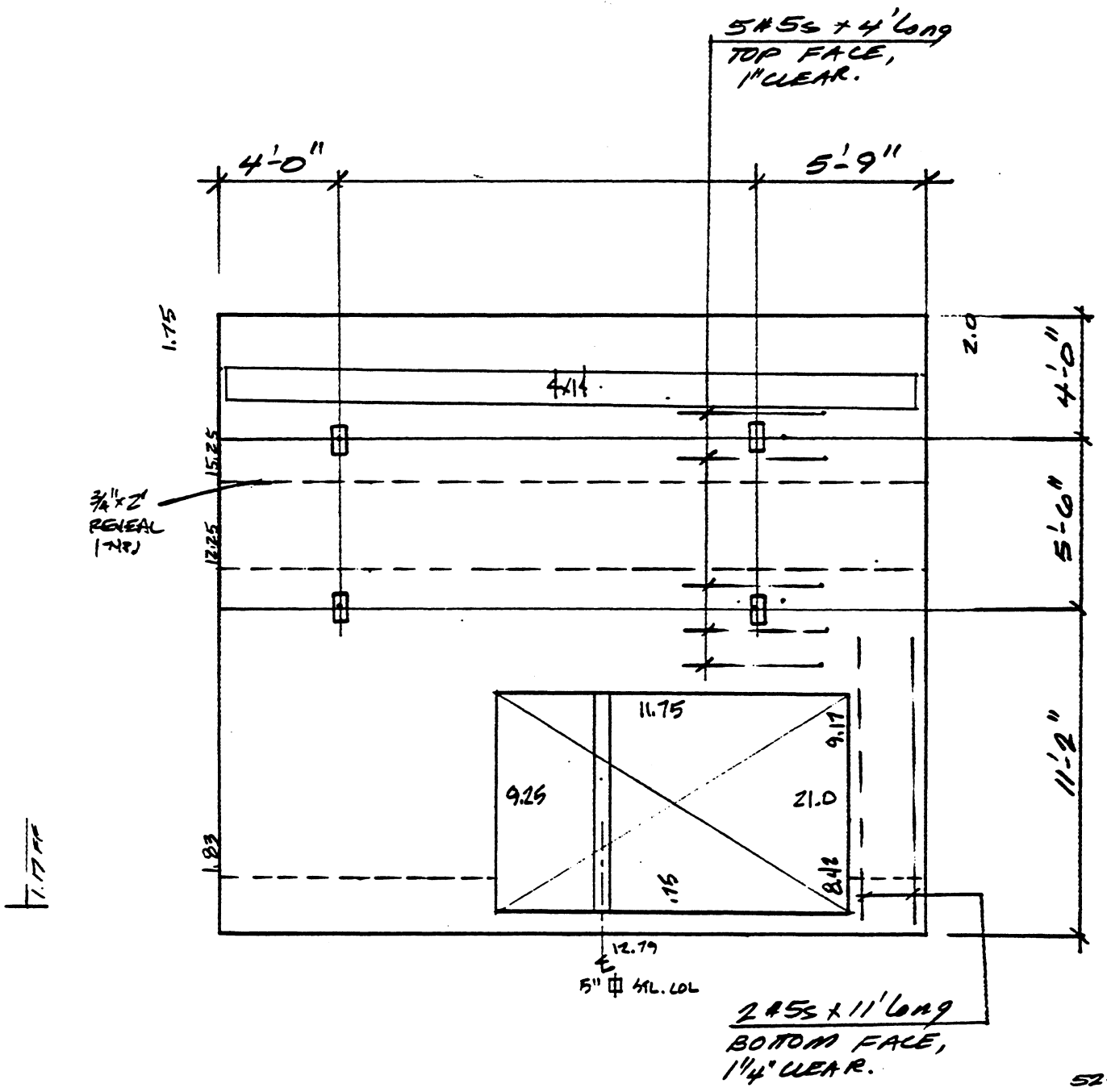
$\bar{x}$	Δx		SCALE: 3" / 16
$\bar{y}$	$2\Delta x$ 3"		RIGGING DETAIL R-22

PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE

TAKEOFF BY	DATE	JOB NO.	SHEET
W.L.	11-25-85	3710	15 OF 16
LAYOUT BY	DATE		
EST	12-17		

95901

EXP. AGG. THK.	STRUCT. THK.	WEIGHT	WIDTH	HEIGHT	NO. REQ'D	PANEL NUMBER OR TYPE
	6"	29.0#	23'-6"	20'-8"	1	P-24



5248#

BRACE TYPE REQ'D. B2-KO

RIGGING DETAILS R-22

DAYTON SUPERIOR

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$\bar{x}$ 10.89	Δx .86		SCALE: 3"/16	RIGGING DETAILS R-22
$\bar{y}$ 11.71	2Δx 1'-9"			
PANEL VIEWED FROM: ☒ INSIDE ☐ OUTSIDE	TAKEOFF BY W.L.	DATE 11-25-85	JOB NO. 3710	SHEET 16 OF 16
	LAYOUT BY RST	DATE 12-17		

TILT-UP CONSTRUCTION—PANEL CHECKLIST

The user must perform the following checks to verify dimensions & conditions before casting or erecting panels:

	Panel Number or Type																	
Check:																		
1. Panel Width & Height																		
2. Panel Opening & Location																		
3. Panel Thickness—Structural & Overall																		
4. Panel Cast Correct Face Up																		
5. Sufficient Bond Breaker Applied																		
6. Reinforcing Size & Location																		
7. Lift Insert Type & Size																		
8. Lift Insert Location																		
9. Brace Anchor Type & Size																		
10. Brace Anchor Location																		
11. Strongback Insert Type & Size																		
12. Strongback Insert Location																		
13. Inserts Correctly Tied in Place																		
14. Exposed Aggregate Size (If Used)																		
15. Specified Compressive Strength																		
16. Sufficient Bolt Penetration																		
17. Proper Lifting Hardware																		
18. Cable Lengths & Rigging Configuration																		
19. Strongback Size & Location																		
20. Proper Brace Type																		

The user must consult with the crane contractor to insure that the crane and rigging is sized properly and that a safe and efficient panel erection sequence will be used.

Additional copies of this check list are available at no charge, upon request, through your local Dayton Superior Corporation dealer or at any Dayton Superior Corporation Technical Service Center.

Job Number: _____

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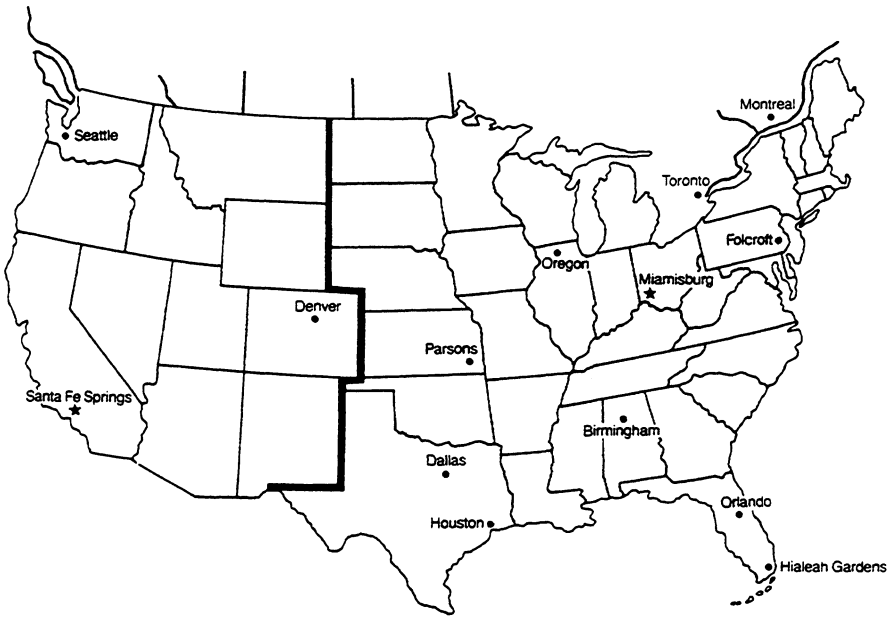
other single source offers you more than 5,000 concrete struction accessories. No matter what the job, from rebar supports to accessories for poured in place, tilt-up and precast construction, Dayton Superior has the accessories, systems, cementitious products and chemicals you need. We also make available to you the most comprehensive Technical Services support in the industry. Whenever you have an accessories-related problem, call us. We'll jump in and help because we work harder at being the best concrete construction accessories company anywhere.



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