

TOWN OF SIMSBURY

REQUEST FOR PROPOSAL

POWER PURCHASE AGREEMENT FOR SOLAR PHOTOVOLTAIC SYSTEMS

The Town of Simsbury is requesting sealed proposals from solar energy service providers to design, install, finance, own, operate and maintain solar photovoltaic systems at two Town facilities under a power purchase agreement:

1. Department of Public Works Facility – 66 Town Forrest Rd, West Simsbury, CT 06092
2. Simsbury Ice Rink – 100 Old Farms Rd., Simsbury, CT 06070

The Request for Proposals (RFP) is available online at:

<http://www.simsbury-ct.gov/finance/pages/public-bids-and-rfp>

The Town of Simsbury reserves the right to accept or reject, without prejudice, any or all proposals or to waive any irregularities therein, or to accept the proposal deemed to be in the best interest of Town of Simsbury.

Questions regarding this RFP should be directed to Thomas J. Roy, PE – Director of Public Works via email at pubworks@simsbury-ct.gov. In order to receive consideration, all questions must be submitted by the close of business on June 6, 2017. A response to all salient questions will be provided via addendum that will be posted on the Town's web site under the Finance page, RFQ's and RFP's prior to the close of business on June 8, 2017.

Interested and qualified consultants are to submit three (3) copies and one flash drive of their proposals in a sealed envelope, clearly marked "RFP Power Purchase Agreement for Solar Photovoltaic Systems" and addressed to Sean Kimball, Director of Finance, Town of Simsbury, 933 Hopmeadow Street, Simsbury, CT 06070. **Proposals will be accepted until 10:00 AM on June 13, 2017.** No Statement of Qualifications will be accepted after the date and time specified. No fax or email submissions will be accepted.

TOWN OF SIMSBURY



**DEPARTMENT OF PUBLIC WORKS
933 HOPMEADOW STREET
SIMSBURY, CONNECTICUT 06070**

REQUEST FOR PROPOSALS

POWER PURCHASE AGREEMENT FOR SOLAR PHOTOVOLATAIC SYSTEMS

Submission Deadline:

Tuesday, June 13, 2017

Submission Contact and Address:

Thomas J. Roy, P.E.
Director of Public Works
933 Hopmeadow Street
Simsbury, CT 06070
Fax: 860-658-3206
Email: pubworks@simsbury-ct.gov

Purpose:

In an effort to reduce the Town of Simsbury's carbon emissions and utility costs, the Town of Simsbury is soliciting a proposal from a Solar Energy Services Provider ("Solar Provider") to design, install, finance, own, operate and maintain solar photovoltaic systems at two Town facilities. The projects are to meet the terms and conditions of a Solar Energy Power Purchase Agreement ("PPA"). This document outlines the requirements, selection process and documentation necessary to submit to this Request for Proposal (RFP).

**REQUEST FOR QUALIFICATIONS
POWER PURCHASE AGREEMENT FOR SOLAR PHOTOVOLTAIC
SYSTEMS
TOWN OF SIMSBURY**

GENERAL

The Town of Simsbury is interested in the installation of solar photovoltaic (“PV”) systems at two of the Town facilities to optimize the rates paid for electricity. The Town is seeking a qualified Solar Energy Service Provider to design, install, finance, own, operate and maintain the proposed solar PV system in accordance to the terms and conditions of a Solar Energy Power Purchase Agreement (“PPA”). Respondents may submit for one or both sites. As such the Town may hire one or more Solar Providers for the projects. The Town will purchase from the selected Solar Providers all of the energy output generated by the projects in accordance with the terms and conditions of the PPA.

Under the terms of the PPA, the sale and purchase of electricity is conditioned upon the selected Solar Provider’s successful participation in the Connecticut Zero Emissions and Low Emissions Renewable Energy Credit Auction Program (“ZREC/LREC Program”).

Proposals are considered valid for ninety (90) days after the submission deadline. Proposals may not be withdrawn, canceled or modified during the ninety (90) day period after submission.

KEY DATES

Date	Event
Friday, May 19, 2017	RFP Release Date
Friday, May 26, 2017	Voluntary Site Visit
Tuesday, June 6, 2017	Deadline For All Questions
Thursday, June 8, 2017	Addendum Issued Responding To Questions
Tuesday, June 13, 2017	RFP Proposals Due by 10:00 AM EST

PROJECT LOCATIONS

The Town has determined and is interested in the following potential sites for solar PV systems:

1. Department of Public Works Facility – 66 Town Forrest Rd, West Simsbury, CT 06092
2. Simsbury Ice Rink – 100 Old Farms Rd., Simsbury, CT 06070

The Department of Public Works Facility has four buildings that may be evaluated by the Solar Provider for potential solar PV sites: the Maintenance Garage, Truck Wash Facility, Custodial Building and Vehicle Storage Building. The facility has three separate meters monitoring the electrical supply of the buildings. The Town is open to Projects that will provide power to some or all of the buildings. Annual usage of each of the facilities can be found in the following chart:

Site	Address	Annual Usage (kWh)
Ice Rink	100 Old Farms Rd., Simsbury, CT	550,000 kWh
Truck Wash	64 Town Forrest Rd, Simsbury CT	5000 kWh
Maintenance Garage & Vehicle Storage Facility	66 Town Forrest Rd, Simsbury CT	85000kWh
Custodial Building	68 Town Forrest Rd, Simsbury CT	50000kWh

A more detailed chart of annual energy usage can be found in Appendix 1. The Truck Wash and pump station are new facilities and have limited history of electrical use. The Town has not provided the electricity cost per site in order to induce the lowest PPA pricing.

The selected Solar Provider will design, install, finance, own, operate, and maintain solar PV systems that will maximize the solar resources at these project sites. Each facility's electrical demand and load patterns, installation site, available solar resource, installation costs and other relevant factors, must be evaluated before approval of installation. Additional sites at Town facilities may be taken under consideration upon execution of these projects.

POWER PURCHASE AGREEMENT

Proposers should provide a draft of the PPA that the Proposer expects the Town will be required to negotiate and execute.

The Town expects that the Projects will be designed, installed, financed, owned, operated, and maintained pursuant to the terms and conditions of a PPA between the Town and the Solar Provider. The PPA will apply to each of the project sites. The PPA is expected to be for a 15 or 20-year term with options to extend and with available buyout options. The Town will pay no up-front fees in connection with the installation of the projects.

The Town requests that each Proposer provide pricing for 15 and 20 year terms for each System. For each term, please provide a fixed PPA rate and a rate assuming an escalator of 1%. For purposes of the PPA Price and comparison to other proposals, the Proposer should assume that the Systems will receive a ZREC or LREC contract of \$.09/kWh for 15 years. Proposers shall include the amount the PPA price will change, plus or minus, in the event the ZREC or LREC contract is reduced or increased by a cent/kWh. Each Proposer shall complete the PPA Pricing

and Equipment Form in Appendix 3 for each facility the Proposer wishes to submit to the Town on. Proposers may provide additional versions of the PPA Pricing Tables, as needed, to account for different terms and pricing structures.

Proposers should provide confirmation that the PPA price includes all costs and expenses associated with the engineering, permitting, construction, interconnection, testing and all other costs associated with the construction and operation of the Systems.

For each rooftop system, the Town will require in the PPA, the ability to have the System removed from the rooftop or otherwise moved to allow for the roof replacement or repairs for a period of six weeks. The removal of the System, and any lost revenue associated will be at the expense of the Proposer and the costs associated should be included in the requested pricing quote for each rooftop solar System. The Town will limit the amount of down-time to six weeks and will cooperate with the selected Proposer to minimize the lost production and cost associated with the roof replacement. Roof information for the facilities can be found in Appendix 2.

At the end of the PPA term or any renewal term, if the Town chooses not to purchase the solar PV systems, the Solar Provider will remove the Solar PV systems and return the Project sites to pre-existing conditions, at the Solar Provider's sole cost and expense.

SOLAR PROVIDER QUALIFICATIONS

The selected Solar Provider will be selected based upon relevant expertise and a thorough knowledge of the professional services, functions, activities and related responsibilities to successfully perform its role in the solar PV installations. The selected Solar Provider shall possess all applicable valid and pertinent State of Connecticut contractor construction licenses for the installation of commercial solar PV systems.

SCOPE OF WORK

The selected Solar Provider will be responsible for all required planning, engineering, labor, materials, delivery, installation and commissioning, as well as all warranties, and maintenance as described in this RFP and to be drafted in the Proposers PPA. The projects require the following:

1. Solar panels are to be located on the roofs of the Town facilities selected
2. All solar panels, tracks and anchoring equipment shall meet all State and local building codes
3. Solar production shall include web-based monitoring and shall monitor the electrical use of the facilities in real time. Solar production and avoided emissions of the projects shall be electronically displayed for public viewing via a monitor and/or website located at the facility.

SUBMITTAL REQUIREMENTS

Proposals shall include the following and shall be organized using each of the elements listed below as section headings:

- A. Firm Description: Provide a brief description of the firm including firm size and area of specialization, location of corporate headquarters, and location of office proposed to handle this project.
- B. Project Team: Provide names, resumes, and office locations of key staff who will be assigned to the project. Each team member's education and qualifications shall be listed. The project manager shall be clearly identified. If different consultants will be teaming together, indicate the lead consultant and identify any sub-consultants.
- C. Project Understanding: Provide a statement summarizing how the consultant and/or project team is particularly qualified for this project. Provide an overview of the principal elements of the proposal. A description of the proposer's approach to solar PV systems, any suggestions or concerns the Town should be aware of, proposed configuration of equipment, and any additional scope of work tasks proposed as necessary for the successful completion
- D. Scope of Services: Describe the consultant's approach and technical plan for accomplishing the work listed herein. The Solar Provider is encouraged to elaborate and improve on the tasks listed in the RFP; however, the consultant shall not delete any requested scope tasks without clearly noting this in the submission.
- E. Schematic Design: layouts of the solar PV systems, including PV model type and model no., wattage, number of modules, year 1 production, degradation percentage, inverter type and model, mounting system type, azimuth, tilt, system size AC and DC, and the impact on time demand-related charges on the Town's utility bills and daily demand charges (peak demand and time tariff). Details about the estimated kWh generated by the proposed PV systems including all necessary assumptions, for example sun light availability, dark time, maintenance down time, efficiency of the system purposes, efficiency losses, net metering, etc.
- F. Project Schedule: The Consultant shall submit a schedule, itemized by task, for completing the scope of work.
- G. Maintenance: A description of the Solar Provider's ability to respond quickly, efficiently and cost effectively to service calls so the photovoltaic systems are operating at optimum output.
- H. Comparable Projects: Description of related project experience, especially with other municipalities over the last 5 years. Include the client's name, a brief summary of the work, and role of key staff in each project.
- I. References: Three (3) references, including current contact name and phone number for similar projects.

SELECTION PROCESS

The materials submitted by the Proposers will be reviewed and ranked by Town Staff. Evaluation will be based upon qualifications and cost. Cost will be a factor in determining the best Solar Provider for the Town.

The process will incorporate without limitation the following criteria:

- PPA price/energy payment rate proposal
- Drafted PPA commitment
- Relevant project experience
- Financial strength and stability
- Proposal completeness and compliance with the RFP's requirements
- Recent prior PPA experience
- Photovoltaic performance monitoring capabilities
- Customer service and maintenance capabilities
- Likelihood that the proposal will win the ZREC/LREC Auction
- References from past clients

Following the review by Town staff, a short list of qualified firms may be invited to participate in an interview process. Following this process, a preliminary selection will be made, where the Town will negotiate and enter into a contract with one firm to conduct the services.

END

APENDIX 1 FACILITY ENERGY USAGE

The following chart is the energy usage of the facilities for the project on a monthly basis. The bill total has been left out to induce the best PPA pricing.

Ice Rink		100 Old Farms Rd, Simsbury, CT 06070	
Provider	From	To	Usage
Eversource Energy: CL&P - CT	3/24/2017	4/26/2017	9440
Eversource Energy: CL&P - CT	2/24/2017	3/24/2017	9600
Eversource Energy: CL&P - CT	1/26/2017	2/24/2017	10080
Eversource Energy: CL&P - CT	12/28/2016	1/26/2017	10720
Eversource Energy: CL&P - CT	11/28/2016	12/28/2016	10400
Eversource Energy: CL&P - CT	10/26/2016	11/28/2016	13760
Eversource Energy: CL&P - CT	9/27/2016	10/26/2016	11680
Eversource Energy: CL&P - CT	8/26/2016	9/27/2016	20800
Eversource Energy: CL&P - CT	7/27/2016	8/26/2016	35040
Eversource Energy: CL&P - CT	6/27/2016	7/27/2016	34240
Eversource Energy: CL&P - CT	5/25/2016	6/27/2016	29760
Eversource Energy: CL&P - CT	4/27/2016	5/25/2016	11200
Total			206720(KWH)

Ice Rink		100 Old Farms Rd, Simsbury, CT 06070	
Provider	From	To	Usage
Eversource Energy: CL&P - CT	3/24/2017	4/26/2017	5568
Eversource Energy: CL&P - CT	2/24/2017	3/24/2017	44352
Eversource Energy: CL&P - CT	1/26/2017	2/24/2017	63360
Eversource Energy: CL&P - CT	12/28/2016	1/26/2017	64320
Eversource Energy: CL&P - CT	11/28/2016	12/28/2016	65856
Eversource Energy: CL&P - CT	10/26/2016	11/28/2016	81792
Eversource Energy: CL&P - CT	9/27/2016	10/26/2016	3264
Eversource Energy: CL&P - CT	8/26/2016	9/27/2016	1344
Eversource Energy: CL&P - CT	7/27/2016	8/26/2016	1536
Eversource Energy: CL&P - CT	6/27/2016	7/27/2016	1920
Eversource Energy: CL&P - CT	5/25/2016	6/27/2016	1920
Eversource Energy: CL&P - CT	4/27/2016	5/25/2016	1536
Total			336768 (KWH)

Maintenance Garage & Storage		66 Town Forest Rd, West Simsbury, CT 06092	
Provider	From	To	Usage
Eversource Energy: CL&P - CT	3/21/2017	4/21/2017	7557
Eversource Energy: CL&P - CT	2/21/2017	3/21/2017	7728
Eversource Energy: CL&P - CT	1/23/2017	2/21/2017	9007
Eversource Energy: CL&P - CT	12/21/2016	1/23/2017	8023

Eversource Energy: CL&P - CT	11/21/2016	12/21/2016	7765
Eversource Energy: CL&P - CT	10/21/2016	11/21/2016	6799
Eversource Energy: CL&P - CT	9/22/2016	10/21/2016	5565
Eversource Energy: CL&P - CT	8/23/2016	9/22/2016	5660
Eversource Energy: CL&P - CT	7/22/2016	8/23/2016	6609
Eversource Energy: CL&P - CT	6/22/2016	7/22/2016	6059
Eversource Energy: CL&P - CT	5/20/2016	6/22/2016	6573
Eversource Energy: CL&P - CT	4/22/2016	5/20/2016	5550
Total			82895 (KWH)

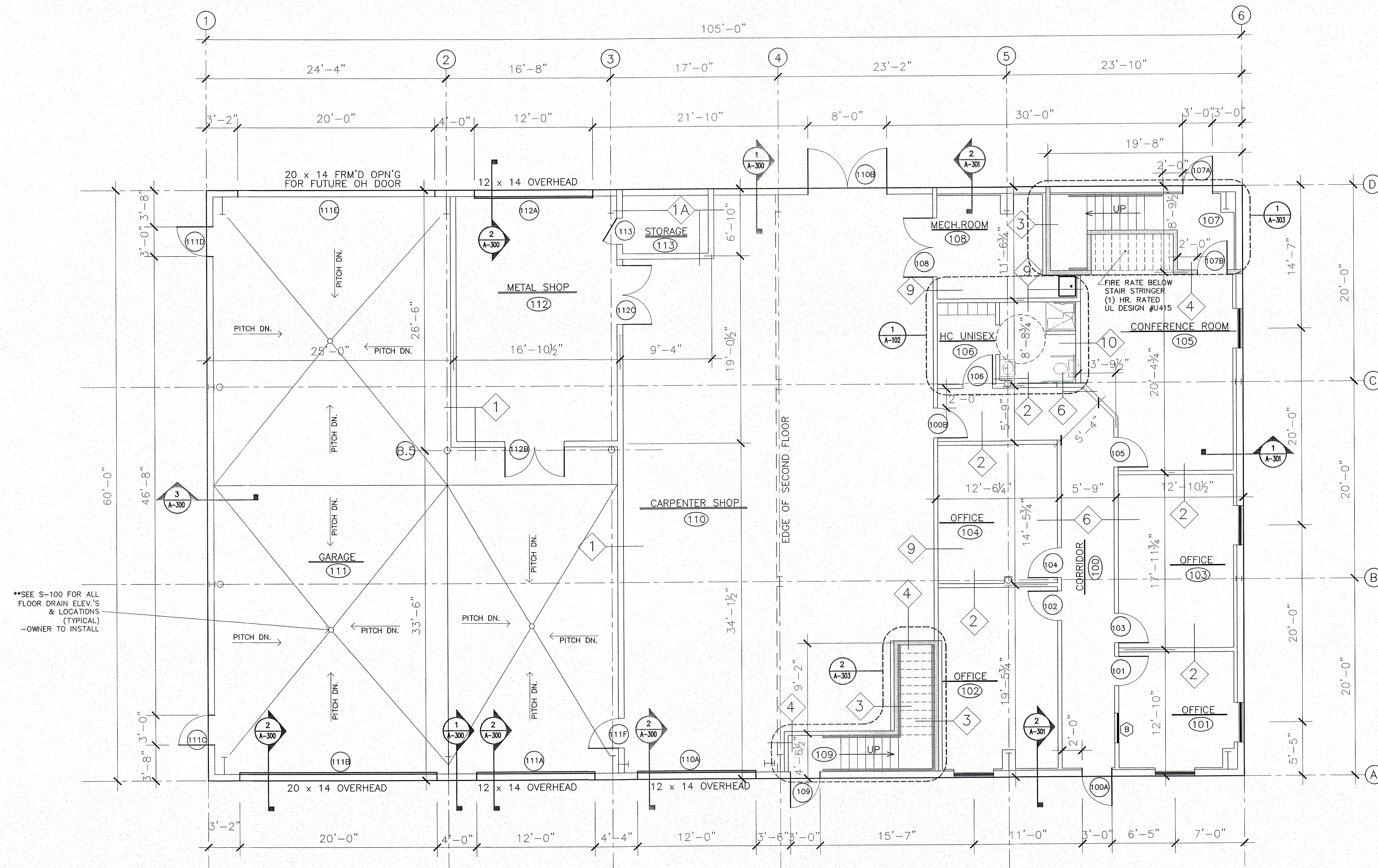
Custodial Building	68 Town Forest Rd, Simsbury, CT 06070		
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Provider	From	To	Usage
Eversource Energy: CL&P - CT	3/21/2017	4/21/2017	3952
Eversource Energy: CL&P - CT	2/21/2017	3/21/2017	4035
Eversource Energy: CL&P - CT	1/23/2017	2/21/2017	4433
Eversource Energy: CL&P - CT	12/21/2016	1/23/2017	4687
Eversource Energy: CL&P - CT	11/21/2016	12/21/2016	4435
Eversource Energy: CL&P - CT	10/21/2016	11/21/2016	3946
Eversource Energy: CL&P - CT	9/22/2016	10/21/2016	3213
Eversource Energy: CL&P - CT	8/23/2016	9/22/2016	3598
Eversource Energy: CL&P - CT	7/22/2016	8/23/2016	4692
Eversource Energy: CL&P - CT	6/22/2016	7/22/2016	4267
Eversource Energy: CL&P - CT	5/20/2016	6/22/2016	3587
Eversource Energy: CL&P - CT	4/22/2016	5/20/2016	3073
Total			47918(KWH)

Truck Wash	64 Town Forest Rd, Simsbury, CT 06070		
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Provider	From	To	Usage
Eversource Energy: CL&P - CT	3/21/2017	4/21/2017	435
Eversource Energy: CL&P - CT	2/21/2017	3/21/2017	304
Eversource Energy: CL&P - CT	1/23/2017	2/21/2017	216
Total			955(KWH)

APPENDIX 2
FACILITIES ROOF INFORMATION



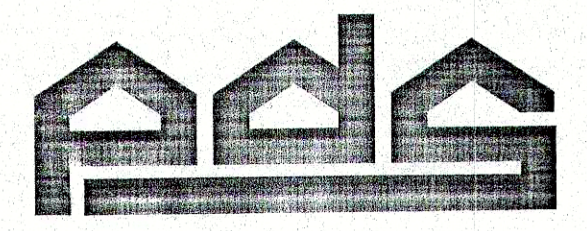
**SEE S-100 FOR ALL FLOOR DRAIN ELEV'S & LOCATIONS (TYPICAL) -OWNER TO INSTALL

FLOOR PLAN
3/16"=1'-0"

CUSTODIAL BUILDING

'AS-BUILT DRAWING'

DATE	ISSUE
3-15-02	OWNER REVIEW
4-17-02	REV.FLOOR PLAN
5-21-02	OWNER REQUEST
5-29-02	PERMIT SUBMISSION
6-17-02	FOR PERMIT
8-27-02	FOR CONSTRUCTION
10-3-02	REVISE FLOOR DRAIN LAYOUT
2-7-03	AS BUILTS



PDS ENGINEERING & CONSTRUCTION, INC.

107 Old Windsor Road
Bloomfield, Connecticut 06002
Telephone: (860) 242-8586
FAX (860) 242-8587

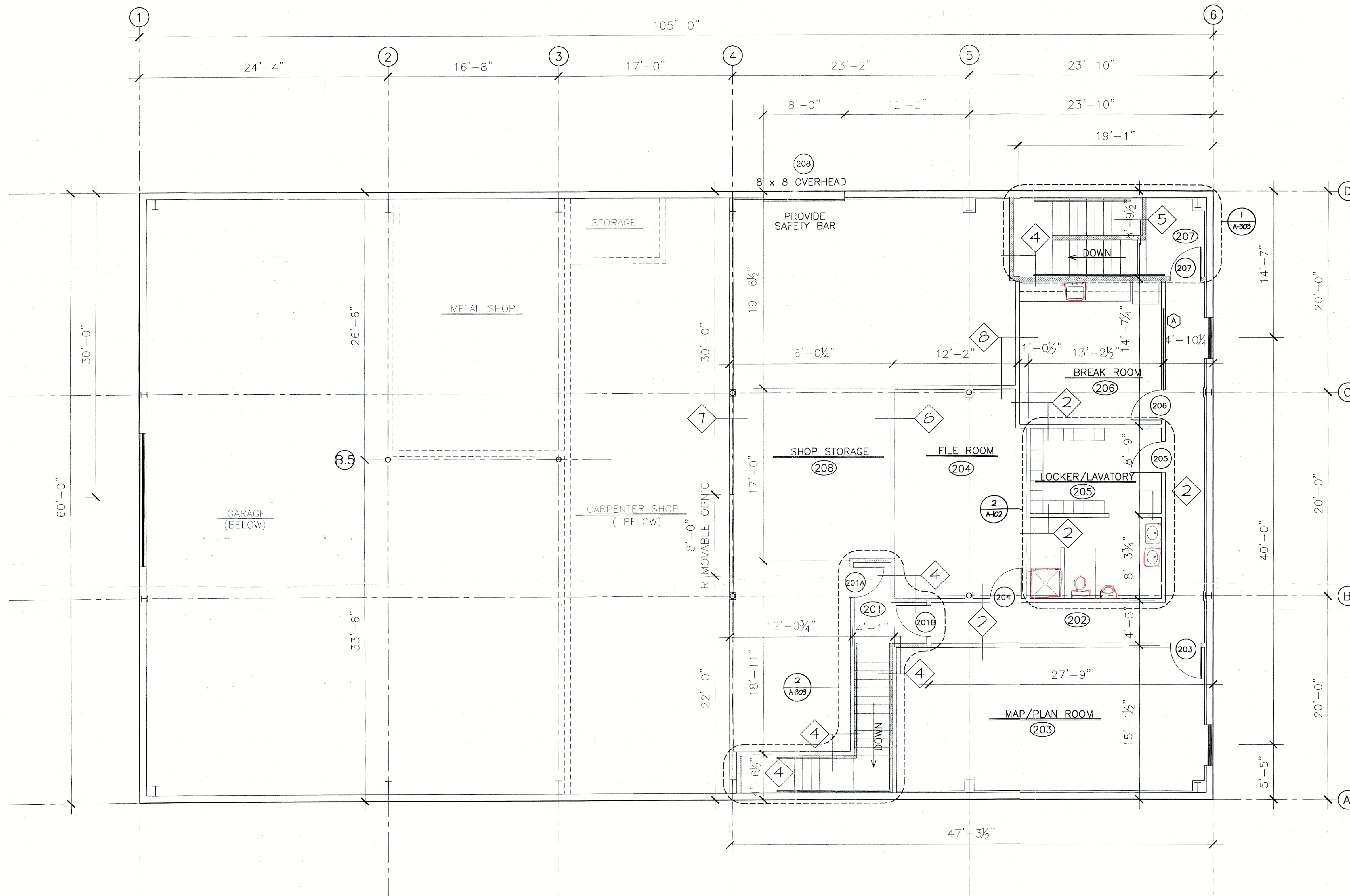
CONSULTANTS:

PROJECT NAME:
TOWN OF SIMSBURY
BUILDING & GROUND SERVICE
TOWN FOREST ROAD
SIMSBURY, CONNECTICUT 06070

DRAWING TITLE:
FLOOR PLAN

SEAL
ENGINEER: FB
ARCHITECT: BS
PROJECT MGR: PE
DRAFTED BY: JB

A-100



SECOND FLOOR PLAN
3/16"=1'-0"

CUSTODIAL BUILDING

'AS-BUILT DRAWING'
STRUCTURAL & FRAMING

DATE	ISSUE
3-12-02	OWNER REVIEW
4-17-02	REVISED FLOOR PLAN
5-21-02	OWNER REQUEST
5-29-02	PERMIT SUBMISSION
6-17-02	FOR PERMIT
8-27-02	FOR CONSTRUCTION
2-7-03	AS BUILTS



PDS ENGINEERING & CONSTRUCTION, INC.

107 Old Windsor Road
Bloomfield, Connecticut 06002
Telephone: (860) 242-8566
FAX (860) 242-8587

CONSULTANTS:

PROJECT NAME:

**TOWN OF SIMSBURY
MAINTENANCE GARAGE**

TOWN FOREST ROAD
SIMSBURY, CONNECTICUT 06070

DRAWING TITLE:

SECOND FLOOR PLAN

SEAL

ENGINEER: FB
ARCHITECT: BS
PROJECT MGR: PE
DRAFTED BY: JB

A-101

WATER CLOSETS :
TOP OF SEAT 17" TO 19" ABOVE FIN. FLOOR

URINALS :
RIM HEIGHT 17" MAX. ABOVE FIN. FLOOR

LAVATORIES:
RIM HEIGHT 34" MAX. ABOVE FIN. FLOOR
CLEARANCE OF 29" ABOVE FIN. FLOOR AT FRONT EDGE

GRAB BARS:
TOP OF BAR 33" - 36" ABOVE FIN. FLOOR

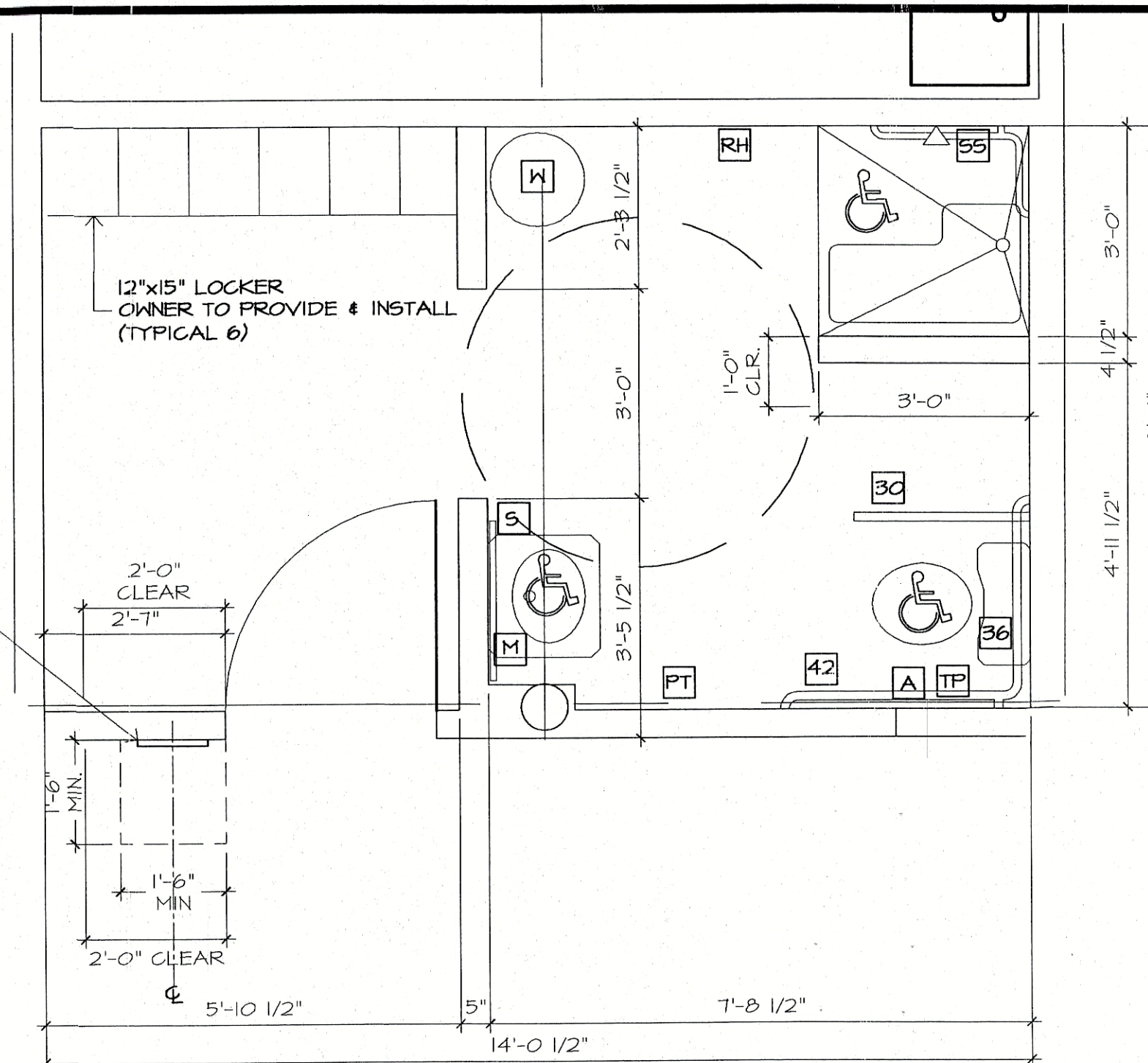
MIRRORS:
BOTTOM EDGE 38" MAX. ABOVE FIN. FLOOR

PAPER TOWEL DISPENSER:
BOTTOM OF DISPENSER 38" MAX. ABOVE FIN. FLOOR

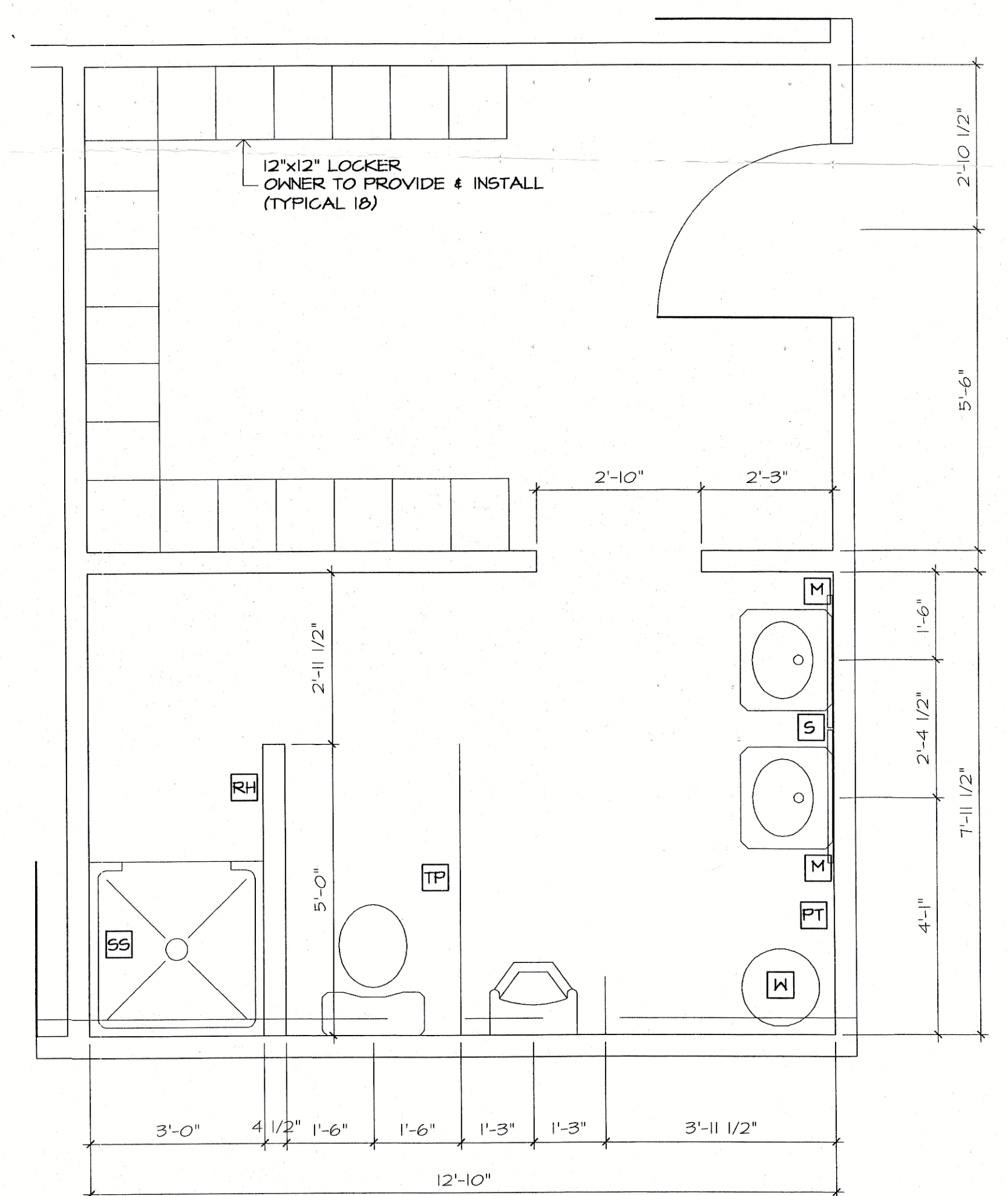
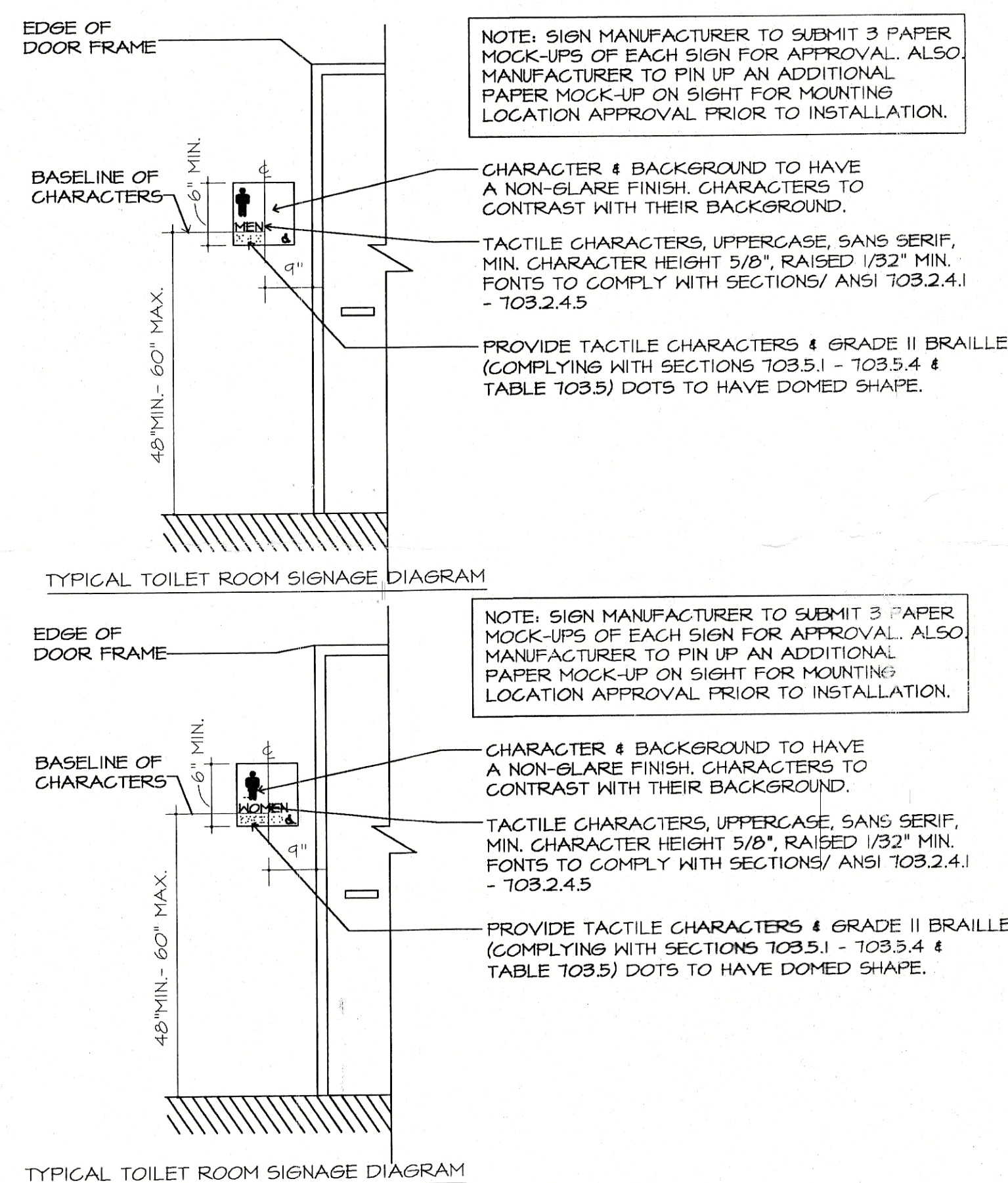
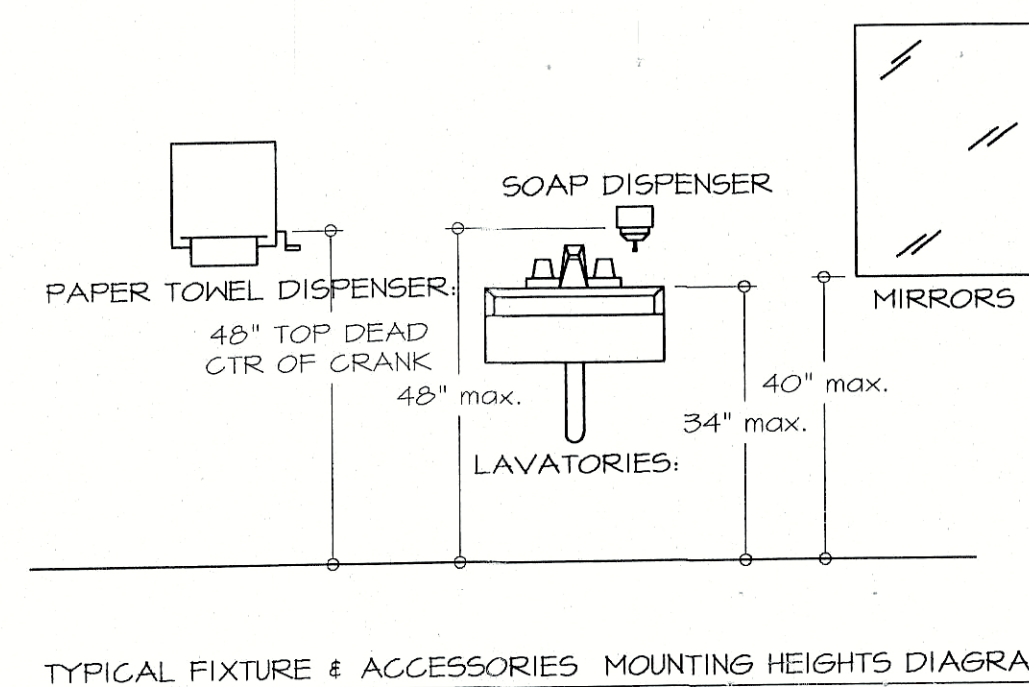
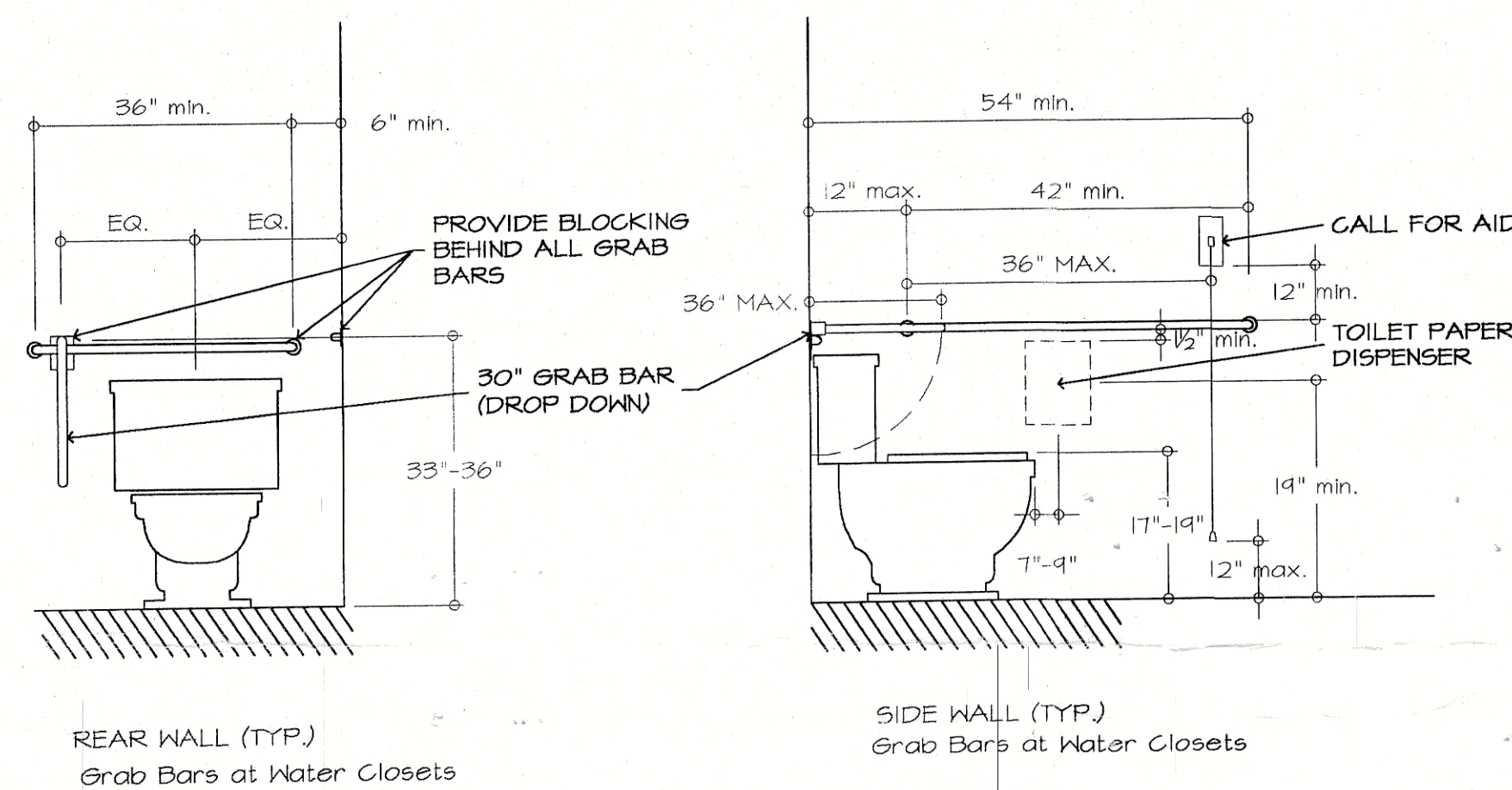
TOILET TAPER DISPENSER:
7" - 9" IN FRONT OF WATER CLOSET
15"-48" ABOVE FIN. FLOOR
1 1/2" CLEARANCE BELOW GRAB BAR
12" CLEARANCE ABOVE GRAB BAR

M	SURFACE MOUNTED MIRROR 18"x24"
PT	SURFACE MOUNTED PAPER TOWEL DISPENSER
TP	SURFACE MOUNTED TOILET PAPER DISPENSER
42	42" GRAB BAR
36	36" GRAB BAR
30	30" SWING DOWN GRAB BAR
A	WALL MOUNTED EMERGENCY CALL FOR AID
S	SOAP DISPENSER
SS	SOAP SHELF
RH	ROBE HOOK
W	FREE STANDING WASTE CAN (BY OWNER)

MOUNT TOILET ROOM SIGN AS PER
ICC/ANSI SECTION 703. GRAPHICS,
TACTILENESS, TEXT, SYMBOLS, FINISH,
CONTRAST, MOUNTING HEIGHT AS PER
ANSI TABLE 4.2.4 (TYP.)

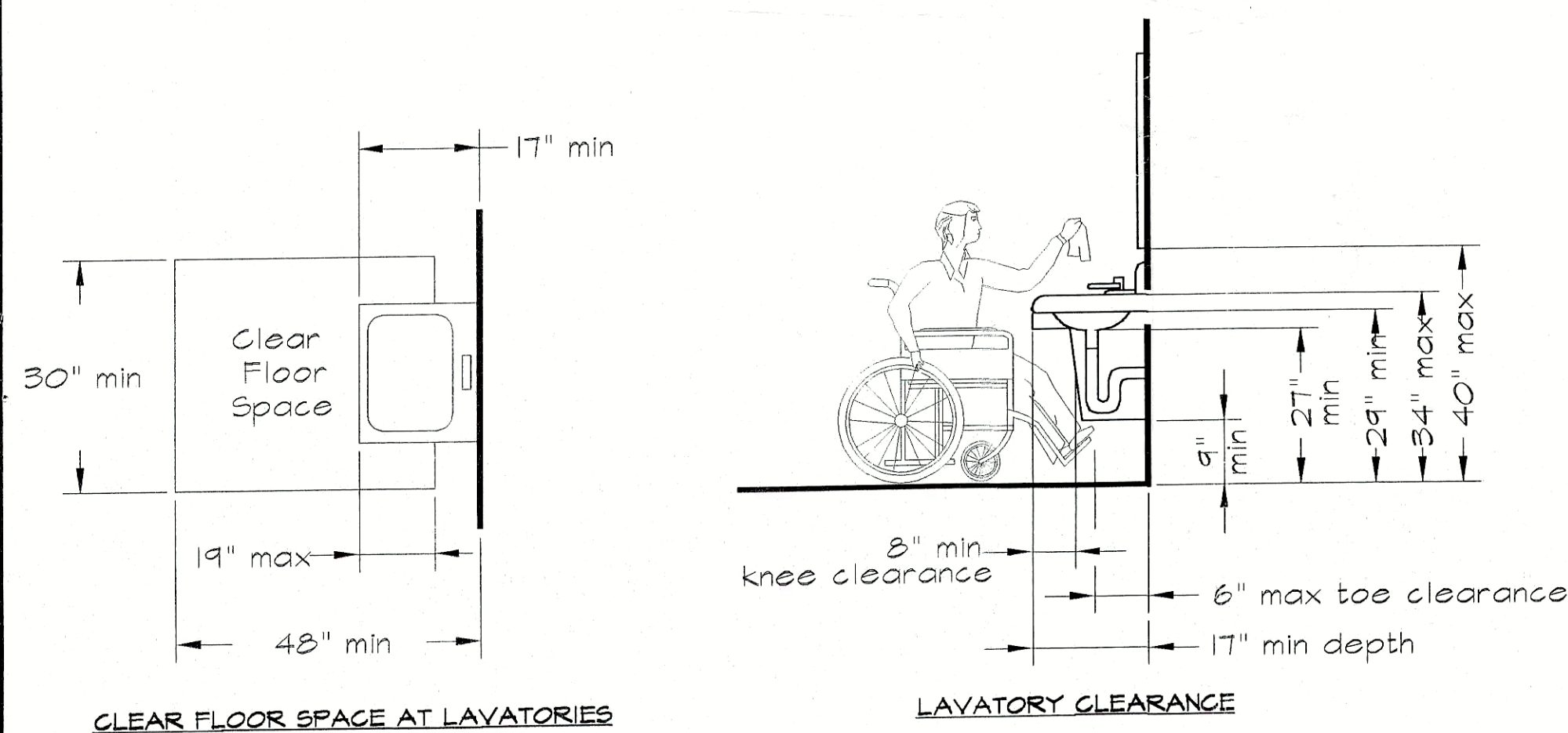


NOTE:
ALL MATERIAL & LABOR FOR ROUGH
BLOCKING OF TOILET ACC'S, TOILET
PARTITIONS, LOCKERS, ETC. IS BY OWNER



NOTE:
ALL MATERIAL & LABOR FOR ROUGH
BLOCKING OF TOILET ACC'S, TOILET
PARTITIONS, LOCKERS, ETC. IS BY OWNER

'AS-BUILT' DRAWING

[illegible]

**PDS ENGINEERING &
CONSTRUCTION, INC.**

107 Old Windsor Road
Bloomfield, Connecticut 06002
Telephone: (860) 242-8586
FAX (860) 242-8587

CONSULTANTS:

BUILDING DEPT.
TOWN OF SIMSBURY
Approved In _____ 5/16 19 2007
By AY nba

**TOWN OF SIMSBURY
MAINTENANCE GARAGE**

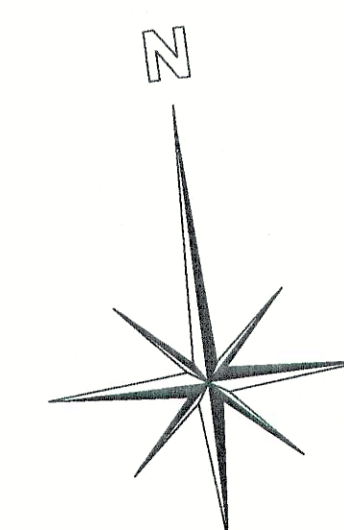
TOWN FOREST ROAD
SIMSBURY , CONNECTICUT 06070

**DRAWING TITLE:
ENLARGED BATH LAYOUT**

SEAL

ENGINEER: FB
ARCHITECT: BS
PROJECT MGR: PE
DRAFTED BY: JB
DRAWING NUMBER

A-102

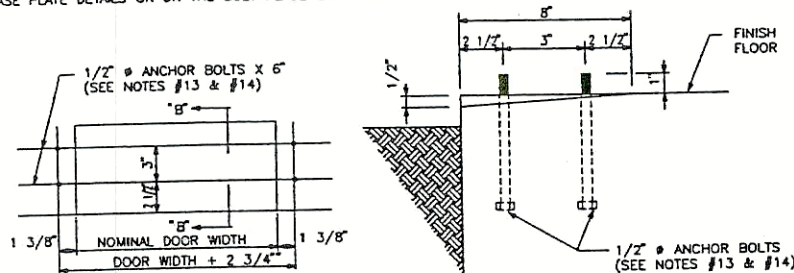


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GENERAL FOUNDATION NOTES AND CONCRETE DETAILS

- AMERICAN BUILDINGS COMPANY ASSUMES NO RESPONSIBILITY OR LIABILITY FOR FOUNDATION, FLOOR OR SLAB DESIGN OR CONSTRUCTION.
- THE FOUNDATION DESIGN SHOULD BE DONE WITH DUE REGARD TO THE SPECIFIC SOIL CONDITIONS PRESENT AT THE ACTUAL JOBSITE.
- FOUNDATION MUST BE DESIGNED FOR THE APPLICABLE REACTIONS AS THEY APPLY TO A PARTICULAR BUILDING AND MUST BE ADEQUATE TO RESIST ALL OF THE CRITICAL COMBINATIONS FOR EACH OF THE VARIOUS LOADING CONDITIONS. THESE REACTIONS REPRESENT THE MINIMUM DESIGN LOADS TO BE RESISTED BY THE FOUNDATIONS.
- REINFORCING BARS, WIRE MESH, ANCHOR BOLT SHEAR ANGLES, THE RODS AND / OR HAIRPINS (HOOK BARS) SHOULD BE INCORPORATED AS REQUIRED INTO THE FOUNDATION DESIGN. THE HORIZONTAL THRUST AT THE COLUMN BASE ACTING IN CONJUNCTION WITH APPLICABLE VERTICAL REACTIONS, MUST BE SUSTAINED BY HAIRPINS, THE RODS, BUTTRESSES, OR OTHER DEPENDABLE MEANS.
- COLUMN FOOTING SHOULD EXTEND A MINIMUM OF 12 INCHES INTO NATURAL SOIL, OR WHERE FILL IS USED, THE FILL MUST BE PROPERLY COMPACTED OR THE FOOTING SHALL EXTEND TO THE NATURAL GRADE. IN ALL CASES THE FOOTING SHALL EXTEND AT LEAST 6 INCHES BELOW THE LOCAL FROST LINE.
- EXPANSION OR CONSTRUCTION JOINTS SHALL BE LOCATED AS REQUIRED IN FOUNDATION WALLS AND SLAB.
- THE TOP OF THE FOUNDATION OR FLOOR SHALL BE SQUARE, LEVEL AND SMOOTH. ANCHOR BOLTS SHALL BE ACCURATELY SET TO A TOLERANCE $\pm 1/16$ INCH ON DIMENSIONS WITHIN THE GROUP SPACING FOR AN INDIVIDUAL COLUMN. ALL OTHER DIMENSIONS SHALL HAVE A $\pm 1/8$ INCH TOLERANCE.
- COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED THE ALLOWABLE BEARING STRESS OF CONCRETE THAT HAS A MINIMUM COMPRESSIVE STRENGTH OF 2500 P.S.I. AT 28 DAYS.
- UNLESS EXPLICITLY NOTED OTHERWISE, ALL EMBEDDED STRUCTURAL STEEL (INCLUDING ANCHOR BOLTS), OTHER MATERIALS, AND LABOR SHALL BE SUPPLIED BY THE FOUNDATION CONTRACTOR.
- ANCHOR BOLTS SHOULD BE AS SHOWN AND CALLED FOR, INCLUDING PROJECTION FROM CONCRETE, DIAMETER AND QUANTITY.
- THE EMBEDMENT OF THE ANCHOR BOLTS IN THE CONCRETE IS THE RESPONSIBILITY OF THE FOUNDATION DESIGNER. THE FRAME REACTIONS ARE CONSIDERED THE MINIMUM LOADS TO BE DEVELOPED.
- ALL ANCHOR BOLTS SHALL BE ASTM A307 OR EQUAL IN ORDER TO CONFORM TO A.B.C. DESIGN ASSUMPTIONS BASED ON THE ALLOWABLE STRESSES GIVEN IN THE AISC MANUAL OF STEEL CONSTRUCTION.
- ALL ANCHOR BOLTS SHALL HAVE A 3 INCH PROJECTION (UNLESS NOTED) ABOVE THE CONCRETE BEARING SURFACE, EXCEPT 1/2 INCH DIAMETER BOLTS LOCATED AT DOORS WHICH SHALL HAVE A PROJECTION OF 1 INCH. ALL BOLTS SHALL HAVE A MINIMUM THREAD LENGTH 1/4 INCH LESS THAN THE PROJECTION. PROJECTING THREADS SHOULD BE GREASED OR OTHERWISE PROTECTED PRIOR TO COLUMN ERECTION.
- ANCHOR BOLTS FOR FRAMED OPENINGS SHALL BE 1/2 INCH DIAMETER UNLESS OTHERWISE NOTED. ANCHOR BOLT DIAMETERS FOR THE PRIMARY FRAMING AND ENDWALL FRAMING ARE DENOTED AT RESPECTIVE BASE PLATE DETAILS OR ON THE BOLT PLACEMENT PLAN.



TYPICAL OVERHEAD DOOR LAYOUT

SECTION "B" - "B"
(OF TYPICAL OVERHEAD DOOR LAYOUT)

BASIC MATERIAL SPECIFICATIONS

PRIMARY FRAMING STEEL

STEEL FOR HOT-ROLLED STRUCTURAL SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION ASTM A36 OR ASTM A572 - GRADE 50. STEEL FOR BUILT-UP SECTIONS SHALL CONFORM TO ONE OR MORE OF THE FOLLOWING:

FLANGE AND WEB MATERIAL SHALL MEET AS APPLICABLE THE PHYSICAL AND CHEMICAL REQUIREMENTS OF ASTM A572 GRADE 50 WITH A MINIMUM YIELD OF 55 KSI, OR ASTM A607 GRADE 55, OR ASTM A570 GRADE 55, OR ASTM A529 GRADE 55.

STEEL FOR ALL ENDWALL "C" SECTIONS SHALL MEET THE PHYSICAL AND CHEMICAL PROPERTIES OF ASTM A570, GRADE 55.

STEEL FOR TUBE SECTIONS SHALL CONFORM TO ASTM A500-GRADE B.

STEEL FOR PIPE SECTIONS SHALL CONFORM TO ASTM A53-GRADE B.

SECONDARY FRAMING STEEL

STEEL USED TO FORM PURLINS, GIRTS, EAVE STRUTS AND "C" SECTIONS SHALL MEET THE PHYSICAL AND CHEMICAL PROPERTIES OF ASTM A570, GRADE 55.

STEEL USED TO FORM ZINC-COATED (GALVANIZED) PURLINS AND GIRTS SHALL MEET THE PHYSICAL AND CHEMICAL PROPERTIES OF ASTM A653 GRADE D AND G 90 COATING DESIGNATION AS DESCRIBED IN ASTM A525.

ROOF AND WALL PANEL MATERIAL

EXTERIOR PANELS SHALL CONFORM TO ONE OF THE FOLLOWING:

PANEL MATERIAL AS SPECIFIED SHALL BE 26 GAUGE ZINC-COATED (GALVANIZED) STEEL, COATING DESIGNATION G 90, CONFORMING TO THE REQUIREMENTS OF ASTM A653 GRADE E. MINIMUM YIELD STRESS SHALL BE 80 KSI.

PANEL MATERIAL AS SPECIFIED SHALL BE 24 GAUGE ZINC-COATED (GALVANIZED) STEEL, COATING DESIGNATION G 90, CONFORMING TO THE REQUIREMENTS OF ASTM A653 GRADE D. MINIMUM YIELD STRESS SHALL BE 50 KSI.

PANEL MATERIAL AS SPECIFIED SHALL BE 26 GAUGE ALUMINUM ZINC ALLOY-COATED STEEL, COATING DESIGNATION AZ 55, CONFORMING TO THE REQUIREMENTS OF ASTM A792. MINIMUM YIELD STRESS SHALL BE 80 KSI.

PANEL MATERIAL AS SPECIFIED SHALL BE 24 GAUGE ALUMINUM-ZINC ALLOY-COATED STEEL, COATING DESIGNATION AZ 55, CONFORMING TO THE REQUIREMENTS OF ASTM A792. MINIMUM YIELD STRESS SHALL BE 50 KSI.

BRACE MATERIALS:

BRACE CABLES: ASTM-A475, 7-STRAND EHS WIRE CABLE

BC4 = 1/4" DIA.

BC5 = 5/16" DIA.

BC6 = 3/8" DIA.

BC8 = 1/2" DIA.

CERTIFICATION AND SCHEDULE OF DRAWINGS

THIS IS TO CERTIFY THAT THE METAL BUILDING COMPONENTS AND BUILDING SYSTEM FURNISHED BY A.B.C. ARE DESIGNED TO COMPLY WITH THE FOLLOWING CRITERIA:

DESIGN LOADS ARE:

- 5.0 psf METAL BUILDING DEAD LOAD (D)
- 3.0 psf COLLATERAL LOAD (C)
- 35.0 psf ROOF LIVE LOAD (L)
- 35.0 psf FRAME LIVE LOAD (L)
- 35.0 psf GROUND SNOW LOAD (Pg)
- 30.0 psf ROOF SNOW LOAD (S)
SNOW EXPOSURE FACTOR = 0.78
SNOW IMPORTANCE FACTOR = 1.10
- 80.0 mph WIND VELOCITY (W)
WIND EXPOSURE CATEGORY = C
WIND IMPORTANCE FACTOR = 1.20
- SEISMIC LOAD DATA (E)
S=2.0 I=N/A Av=0.11 Ag=0.15
SEISMIC HAZARD EXP. GROUP=II
SEISMIC PERFORMANCE CAT.=C
RIGID FRAME: R=4.5 Cd=4.0
CONCEN. BRACING: R=5.0 Cd=4.5

DESIGN LOAD COMBINATIONS ARE:

- D + C + L
- D + C + S
- D + W
- 1.2(D + C) + 0.25 + E
- D + C + 3/4L + 3/4W
- D + C + 3/4S + 3/4W
- 0.9(D + C) + E

- NOTES:
- ROOF DESIGN IS BASED ON THE LARGER ROOF LIVE LOAD OR ROOF SNOW LOAD.
 - ALL FIELD WELDING IS TO BE PERFORMED BY AN AWS CERTIFIED WELDER USING E70XX ELECTRODES.

THIS PROJECT IS DESIGNED AS AN OPEN BUILDING AND THE WALL AREAS ARE TO REMAIN UNOBSTRUCTED.

THESE DESIGN LOADS AND COMBINATIONS ARE APPLIED IN ACCORDANCE WITH THE FOLLOWING BUILDING CODE.

1996 BOCA National Building Code w/99 "CT" SUPPLEMENT

SERVICEABILITY LIMITS OF THE A.I.S.C. STEEL GUIDE SERIES 3 HAVE BEEN INCORPORATED UNLESS ABOVE BUILDING CODE RESTRICTIONS PREVAIL OR ARE OTHERWISE NOTED.

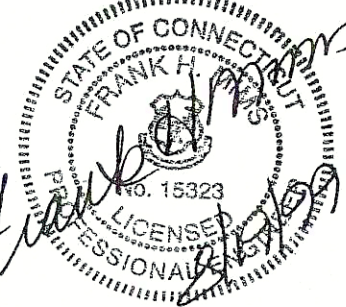
THIS CERTIFICATION IS LIMITED TO THE STRUCTURAL DESIGN OF THE FRAMING AND COVERING PARTS MANUFACTURED BY AMERICAN BUILDINGS COMPANY. ACCESSORY ITEMS SUCH AS DOORS, WINDOWS, LOUVERS, TRANSLUCENT PANELS AND VENTILATORS ARE NOT INCLUDED. ALSO EXCLUDED ARE OTHER PARTS OF THE PROJECT NOT PROVIDED BY AMERICAN BUILDINGS COMPANY SUCH AS FOUNDATIONS, MASONRY WALLS, MECHANICAL EQUIPMENT AND THE ERECTION AND INSPECTION OF THE BUILDING. THE BUILDING SHALL BE ERECTED ON A PROPERLY DESIGNED FOUNDATION IN ACCORDANCE WITH THE AMERICAN BUILDINGS COMPANY "GENERAL ERECTION GUIDE". THE MBMA MANUAL, LATEST EDITION, AND THE JOB ERECTION DRAWINGS. THE DRAWINGS LISTED ON THIS SHEET SHALL REMAIN WITH AND BECOME PART OF THIS CERTIFICATION.

PRODUCT APPROVALS AND CERTIFICATIONS:

- STANDARD BUILDING CODE - SBCI #94100, 12 BASIC STYLES.
- UNIFORM BUILDING CODE (ICBO) - # FA-285-CARSON CITY, NEVADA PLANT.
- INDIANA - 12 BASIC STYLES AS BELOW.
 - M-190860 - SSF
 - M-190857 - LRF, RF, LRF-M
 - M-190858 - LSS, LSS-M
 - M-190863 - LT
 - M-190862 GC, LP2, LP4, LP2-M, LP4-M
- WISCONSIN - # 960032-M; 13 BASIC STYLES.
- CITY OF CLEVELAND, OHIO DOCKETS S-52-82.
- CANADIAN WELDING BUREAU DIVISION I CERTIFICATION AT EL PASO & CARSON CITY.
- AISC QUALITY CERTIFICATION, CATEGORY MB.
- PLANT CERTIFICATION AT CARSON CITY FOR CITY OF SEATTLE.
- PLANT CERTIFICATION AT CARSON CITY FOR OGDEN, UTAH.
- CITY OF LOS ANGELES FABRICATORS LICENSE #1390 AT CARSON CITY PLANT.
- CITY OF HOUSTON, TEXAS FABRICATOR APPROVAL #478.
- STANDING SEAM 360 WIND UPLIFT-CLASS 90 (UL 90) CONSTRUCTION NO. 93 AS LISTED IN UNDERWRITERS LABORATORIES ROOFING MATERIALS AND SYSTEM DIRECTORY.
- STANDING SEAM II WIND UPLIFT-CLASS 90 (UL 90) CONSTRUCTION NO. 93 AS LISTED IN UNDERWRITERS LABORATORIES ROOFING MATERIALS AND SYSTEM DIRECTORY.
- LOC-SEAM WIND UPLIFT-CLASS 90 (UL 90) CONSTRUCTION NOS. 93 AS LISTED IN UNDERWRITERS LABORATORIES ROOFING MATERIALS AND SYSTEM DIRECTORY.
- LONGSPAN PANEL WIND UPLIFT-CLASS 90 (UL 90) CONSTRUCTION NO. 93 AS LISTED IN UNDERWRITERS LABORATORIES ROOFING MATERIALS AND SYSTEM DIRECTORY.
- 22 GA. STANDING SEAM 360 HAS MET FACTORY MUTUAL CLASS I-60, I-90 AND I-120.
- 24 GA. STANDING SEAM 360 HAS MET FACTORY MUTUAL CLASS I-60.
- 24 GA. LONGSPAN HAS MET FACTORY MUTUAL CLASS I-120.
- 24 GA. LOC-SEAM MODIFIED WITH 3M-VHB TAPE #4950 OR 3/16" BOLTS MEETS CORPS OF ENGINEERS GUIDE SPECIFICATION 07416.
- 24 GA. STANDING SEAM 360 MEETS CORPS OF ENGINEERS GUIDE SPECIFICATION 07416.
21. 24 GA. STANDING SEAM 360 HAS BEEN TESTED IN ACCORDANCE WITH ASTM E-1592.
22. DADE COUNTY FLORIDA ACCEPTANCE NO. 96-0319.03 - 24 GA. STRUCTURAL STEEL 1 3/16" X 36" ARCHITECTURAL II WALL PANEL.
23. DADE COUNTY FLORIDA ACCEPTANCE NO. 96-0319.04 - 24 GA. STRUCTURAL STEEL 1 3/16" X 36" LONGSPAN WALL PANEL.
24. DADE COUNTY FLORIDA ACCEPTANCE NO. 96-0319.05 - 24 GA. STRUCTURAL STEEL 1 3/16" X 36" LONGSPAN ROOF PANEL.

ICE RINK

THE CERTIFYING ENGINEER HEREWITH IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT AND IS ONLY CERTIFYING THAT THE DESIGN OF THE METAL BUILDING COMPONENTS FURNISHED BY AMERICAN BUILDINGS COMPANY SATISFY THE DESIGN REQUIREMENTS SPECIFIED ABOVE AND ON THE A.B.C. CONTRACT. THIS CERTIFICATION EXCLUDES THE ERECTION OF THE STRUCTURE.



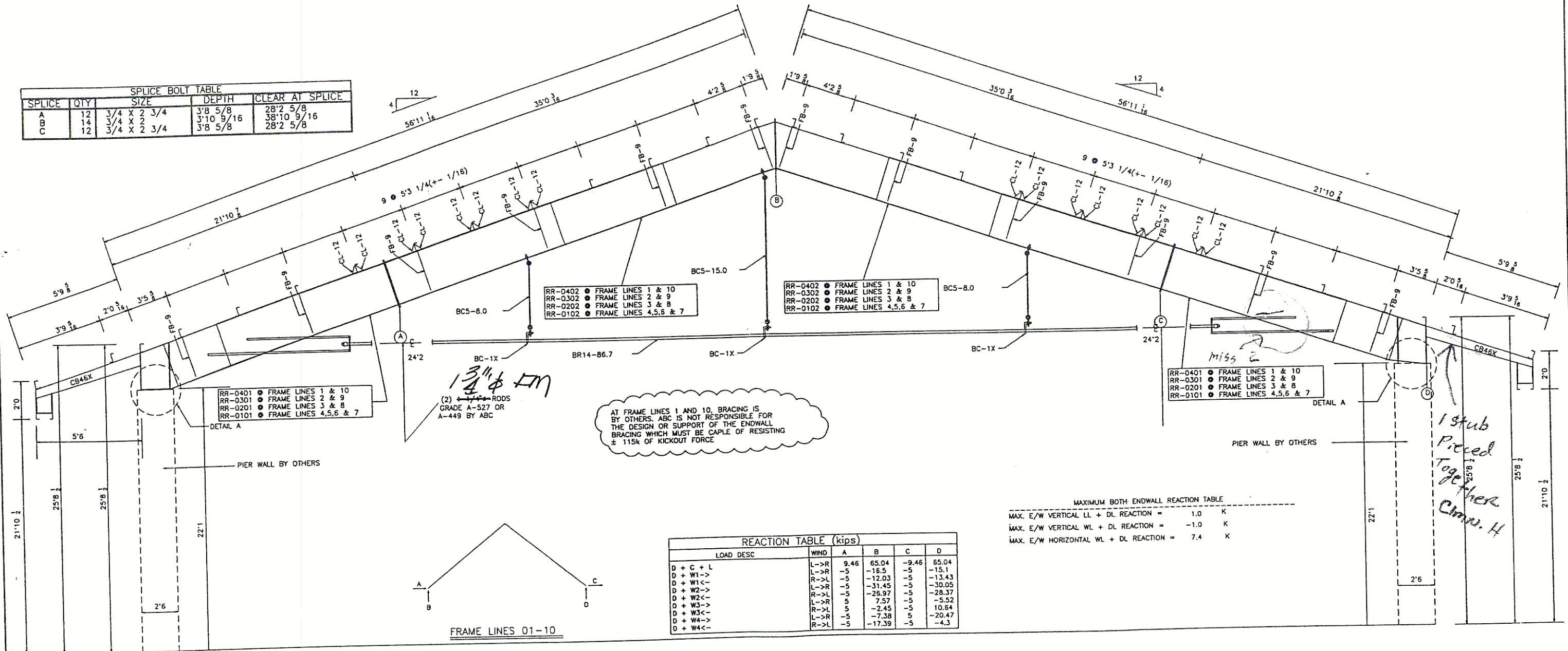
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1	FINAL ERECTION PLANS/ISSUED FOR CONST.	BCE	CD	08/13/99	JA	8/17/99							

DRAWING SUBMITTAL STATUS	SCALE:	NONE	DATE
[X] FOR CONSTRUCTION	DRAWN BY: JA		07/16/99
[] FOR APPROVAL	CHECKED BY: JPH		07/19/99
[] FOR PERMIT ONLY	DESIGN APPD BY: BWJ		8/17/99
[] FOR PRELIMINARY			
CAD BY: JA	07/16/99 13:09:29	Ver. 13.0	

SIMSBURY FARMS
OLD FARMS ROAD
SIMSBURY, CT
PDS ENGINEERING & CONST

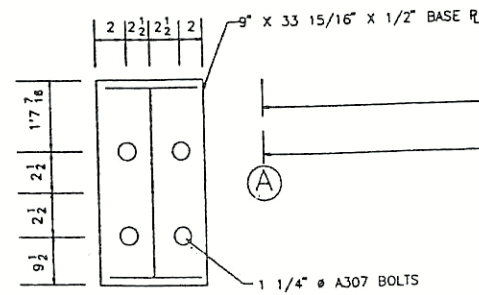
ROCKY MOUNT NORTH CAROLINA
AMERICAN BUILDINGS COMPANY
DRAWING NUMBER: 71793701 ABC-1
REV. NO. 1

SPICE BOLT TABLE				
SPLICE	QTY	SIZE	DEPTH	CLEAR AT SPLICE
A	12	3/4 X 2 3/4	3'8 5/8	28'2 5/8
B	14	3/4 X 2	3'10 9/16	38'10 9/16
C	12	3/4 X 2 3/4	3'8 5/8	28'2 5/8



REACTION TABLE (kips)				
LOAD DESC	WIND	A	B	C
D + C + L	L->R	9.46	65.04	-9.46
D + W1->	L->R	-5	-18.5	-5
D + W1<-	R->L	-5	-12.03	-5
D + W2->	L->R	-5	-31.45	-5
D + W2<-	R->L	-5	-26.97	-5
D + W3->	L->R	5	7.57	-5
D + W3<-	R->L	5	-2.45	-5
D + W4->	L->R	-5	-7.38	5
D + W4<-	R->L	-5	-17.39	-5


MAXIMUM BOTH ENDWALL REACTION TABLE		
MAX. E/W VERTICAL LL + DL REACTION	=	1.0 K
MAX. E/W VERTICAL WL + DL REACTION	=	-1.0 K
MAX. E/W HORIZONTAL WL + DL REACTION	=	7.4 K



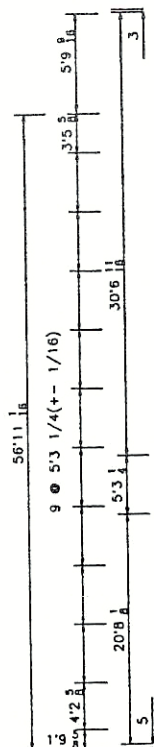
RIGID FRAME CROSS SECTION CS01-A

FRAME ID: 71793701.01F
FRAME LINES 01-10

ICE RINK

DETAIL "A"										REVISIONS										DRAWING SUBMITTAL STATUS		SCALE:		NONE		DATE		<div>SIMSBURY FARMS OLD FARMS ROAD SIMSBURY, CT PDS ENGINEERING & CONST</div>		<div>ROCKY MOUNT NORTH CAROLINA  AMERICAN BUILDINGS COMPANY</div>		<div>DRAWING NUMBER: 71793701 E-01 REV. NO. 1</div>	
NO.	REVISIONS		MADE	CK'D	DATE	ENGR	DATE	NO.	MADE	CK'D	DATE	ENGR	DATE																				
1	ISSUED FOR CONST.		BCE	CD	08/13/99	BWP	7/17/99																										

ROCKY MOUNT NORTH CAROLINA
AMERICAN BUILDINGS COMPANY
SIMSBURY FARMS
OLD FARMS ROAD
SIMSBURY, CT
PDS ENGINEERING & CONST




→

1'2 1/2	
LAST PANEL RIB	

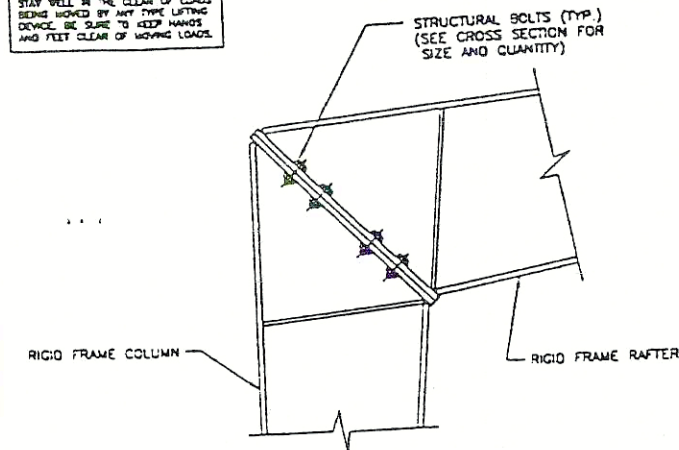
229'7 OUT TO OUT OF PURLIN LINE

1'2 1/2
FIRST PANEL RIE

ROOF SHEETING PLAN RF01S-A

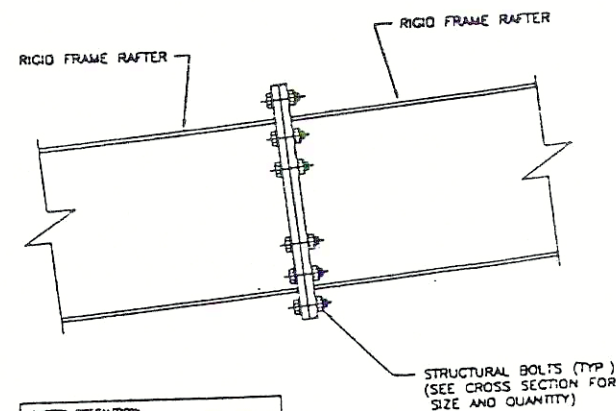
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1		ISSUED FOR CONST.	BCE	CD	08/13/99		<i>ben</i>	8/17/99									<input checked="" type="checkbox"/> FOR CONSTRUCTION <input type="checkbox"/> FOR APPROVAL <input type="checkbox"/> FOR PERMIT ONLY <input type="checkbox"/> FOR PRELIMINARY	DRAWN BY:	JA	07/16/99				
																	<input type="checkbox"/> FOR APPROVAL <input type="checkbox"/> FOR PERMIT ONLY <input type="checkbox"/> FOR PRELIMINARY	CHECKED BY:	JPH	07/19/99				
																	DESIGN APPD BY:	<i>ben</i>	8/17/99					
																	CAD BY:	JA	07/16/99 15:51:15	Ver. 13.0				
																						DRAWING NUMBER	71793701 E-03	REV.NO. 1

SAFETY PRECAUTION:
STAY WELL IN THE CLEAR OF LOADS
BEING MOVED BY ANY TYPE LIFTING
DEVICE. BE SURE TO KEEP HANDS
AND FEET CLEAR OF MOVING LOADS.



DIAGONAL HAUNCH CONNECTION AT BLDG. EAVE
RIGID FRAME

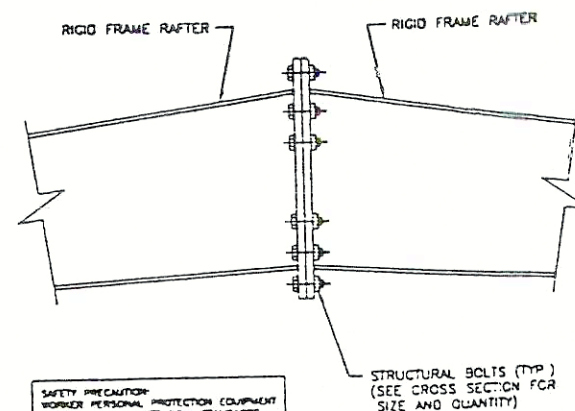
MF11
AA



SAFETY PRECAUTION:
AMERICAN BUILDINGS COMPANY RECOMMENDS
THAT ALL WORKERS WEAR STEEL TOE SHOES
WITH METatarsal GUARD, EYE PROTECTION
AND HARD HATS.

INTERMEDIATE RAFTER CONNECTION DETAIL
RIGID FRAME RAFTER

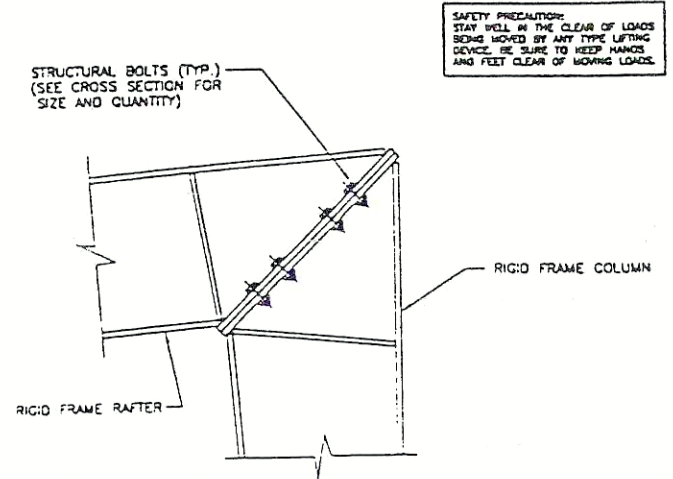
MF21
AA



SAFETY PRECAUTION:
WORKERS PERSONAL PROTECTION EQUIPMENT
SHOULD ALWAYS MEET OSHA STANDARDS.

RIDGE RAFTER CONNECTION DETAIL
RIGID FRAME RAFTER

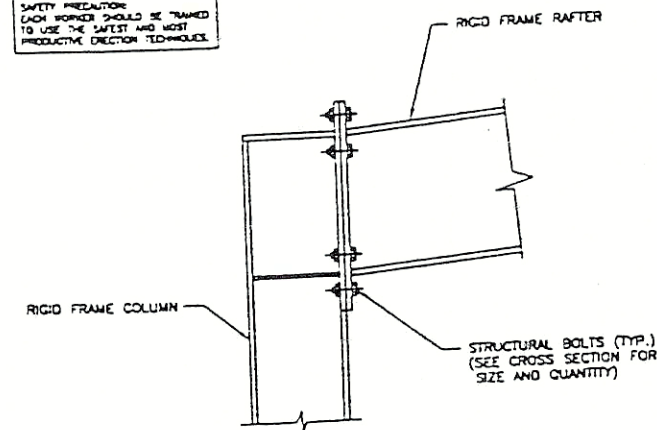
MF22
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DIAGONAL HAUNCH CONNECTION AT HIGHSIDE EAVE
RIGID FRAME

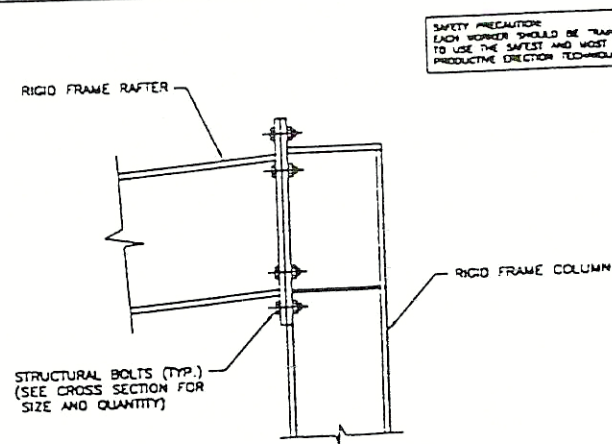
MF16
AA

SAFETY PRECAUTION:
EACH WORKER SHOULD BE TRAINED
TO USE THE SAFEST AND MOST
PRODUCTIVE DIRECTION TECHNIQUES.



VERTICAL HAUNCH CONNECTION AT BLDG. EAVE
RIGID FRAME

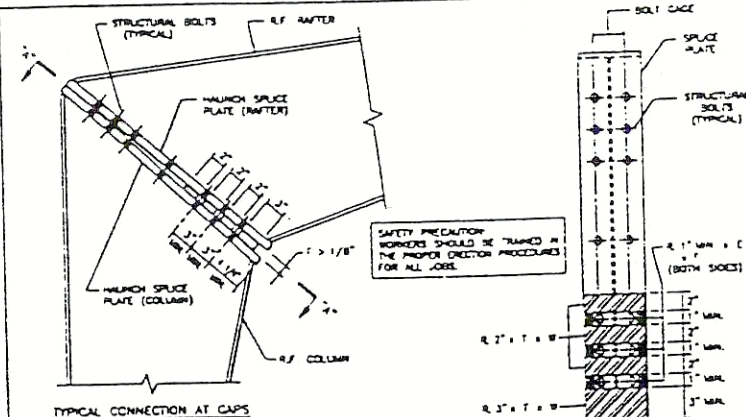
MF12
AA



SAFETY PRECAUTION:
EACH WORKER SHOULD BE TRAINED
TO USE THE SAFEST AND MOST
PRODUCTIVE DIRECTION TECHNIQUES.

VERTICAL HAUNCH CONNECTION AT HIGHSIDE EAVE
RIGID FRAME

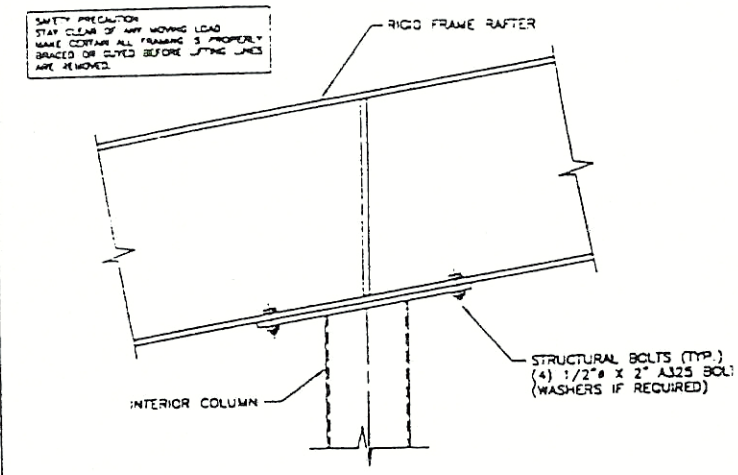
MF17
AA



- TYPICAL CONNECTION AT CAPS
1. SHIMS REQUIRED AT CAPS $> 1/8"$.
 2. PLACE NON-TAPERED SHIMS BETWEEN BOLT PAIRS AS REQUIRED IN CAPS IN COMPRESSION AREA GREATER THAN $1/8"$ AND TACK WELD.
 3. TACK WELD NON-TAPERED SHIMS $1" \text{ MIN.} \times 1/2" \times 1/2"$ BOTH SIDES BETWEEN $2" \times 1/2" \times 1/2"$ NON-TAPERED SHIMS TO MEET AISC "TWO-BOLT" STYLE.
 4. ALL SHIMMING MATERIAL WELD STEEL.
 5. RIDGE SHIMMING DETAILS SIMILAR.

TYPICAL HAUNCH SHIMMING DETAILS
RIGID FRAME

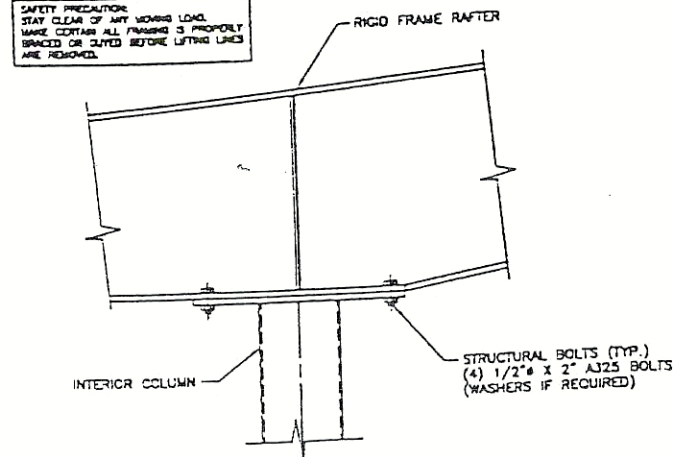
MF19
AA



INTERIOR COLUMN CAP CONNECTION
CONNECTION AT PRISMATIC RIGID FRAME RAFTER

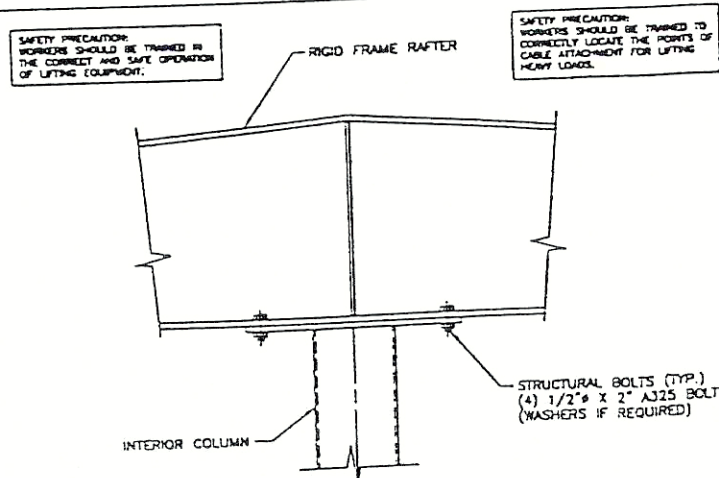
MF2
AA

SAFETY PRECAUTION:
STAY CLEAR OF ANY MOVING LOAD.
TAKE CERTAIN ALL FRAMING IS PROPERLY
BRACED OR CLIPPED BEFORE LIFTING LINES
ARE REMOVED.



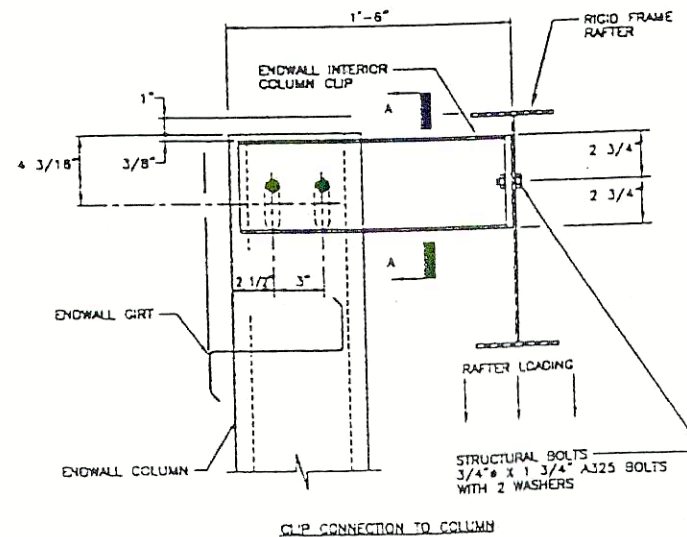
INTERIOR COLUMN CAP CONNECTION
CONNECTION AT RIGID FRAME RAFTER W/FLAT BOTTOM FLANGE

MF26
AA

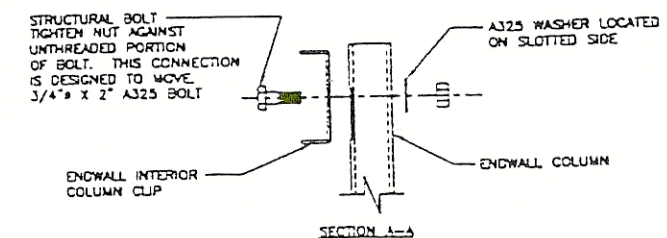


INTERIOR COLUMN CAP CONNECTION AT RIDGE
CONNECTION AT RIGID FRAME RIDGE RAFTER

MF28
AA



CLIP CONNECTION TO COLUMN



INTERIOR COLUMN CONNECTION
RIGID FRAME ENDWALL

MF2
AA

ICE RINK

SCALE:	DATE
DRAWN BY: TON	
CHECKED BY: BLJ	
DESIGN APP'D BY:	
ISSUED:	12-1-97

TYPICAL MAIN FRAMING
CONNECTION DETAILS

INSTALLATION:
BOLTS IN CONNECTIONS SUBJECT TO TENSION LOADS SHALL BE TIGHTENED TO PROVIDE, WHEN ALL FASTENERS IN THE JOINT ARE TIGHT, AT LEAST THE MINIMUM TENSION SHOWN IN THE SCHEDULE BELOW. BOLTS IN CONNECTIONS NOT SUBJECT TO TENSION LOADS AND WHERE LOOSENING OR FATIGUE DUE TO VIBRATIONS OR LOAD FLUCTUATIONS ARE NOT DESIGN CONSIDERATIONS NEED ONLY TO BE TIGHTENED TO THE SNUG-TIGHT CONDITION.

TURN OF THE NUT METHOD: A METHOD FOR PRE-TENSIONING HIGH STRENGTH BOLTS. THE NUT IS TURNED FROM THE "SNUG-TIGHT" POSITION CORRESPONDING TO A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. THE AMOUNT OF ROTATION REQUIRED BEING A FUNCTION OF THE BOLT DIAMETER AND LENGTH (SEE NUT ROTATION IN THE SCHEDULE BELOW).

NOTES:

1. AMERICAN BUILDINGS COMPANY NOR ITS SUBSIDIARIES WILL NOT ASSUME ANY RESPONSIBILITY FOR IMPROPER BOLT LOCATION.
2. SPECIAL CARE MUST BE TAKEN TO INSURE CORRECT BOLT WILL BE INSTALLED IN ITS PROPER LOCATION AS SHOWN ON THE DETAIL GIVEN OR NOTED ON ERECTION DRAWINGS.
3. ALL 1/2" DIAMETER A325 BOLTS IN CONNECTION NOT SUBJECT TO TENSION LOADS ARE REQUIRED TO BE TIGHTENED TO "SNUG-TIGHT" CONDITION ONLY.

BOLT SCHEDULE			
SIZE	ASTM DESIGNATION	PRE-TENSION KIPS	NUT ROTATION
1/2"	A325 HIGH TENSILE	12.0	1/3 TURN
3/4"	A325 HIGH TENSILE	28.0	1/3 TURN
7/8"	A325 HIGH TENSILE	39.0	1/3 TURN
1"	A325 HIGH TENSILE	51.0	1/3 TURN

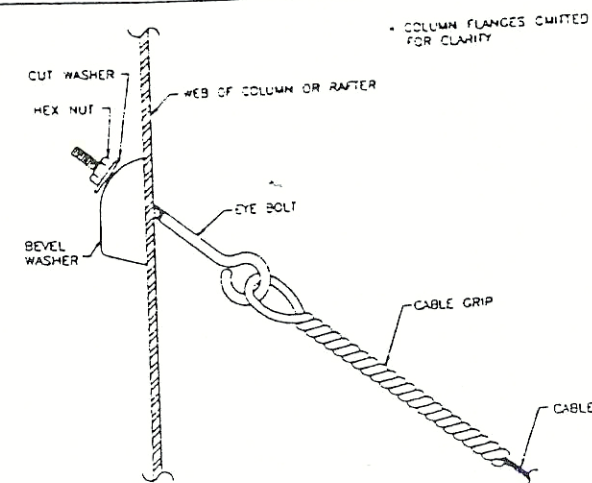
• AMERICAN SOCIETY FOR TESTING AND MATERIALS

INSPECTION:
BOLTS TIGHTENED BY THE "TURN OF THE NUT METHOD" MAY HAVE THE OUTER FACE OF THE NUT MATCH-MARKED WITH THE PROTRUDING BOLT POINT BEFORE FINAL TIGHTENING. THUS AFFORDING THE INSPECTOR VISUAL MEANS OF NOTING THE ACTUAL NUT ROTATION. SUCH MARKS CAN BE MADE BY THE WRENCH OPERATOR WITH A CRAYON OR OAB OF PAINT AFTER THE BOLTS HAVE BEEN BROUGHT UP SNUG-TIGHT.

THE SIDES OF BOLT HEADS AND NUTS TIGHTENED WITH AN IMPACT WRENCH WILL APPEAR SLIGHTLY PEENED AND THUS INDICATE THAT THE WRENCH HAS BEEN APPLIED TO THE FASTENER. GENERALLY, NO FURTHER INSPECTION IS NECESSARY FOR BOLTS IN BEARING-TYPE CONNECTIONS BECAUSE THE PERFORMANCE OF THE BOLTS IN BEARING IS NOT DEPENDENT UPON HIGH TENSION. VISUAL EVIDENCE OF WRENCH IMPACTING IS ADEQUATE INDICATION THAT THE NUT HAS BEEN TIGHTENED SUFFICIENTLY TO PREVENT IT FROM LOOSENING AND FALLING OFF ACCIDENTALLY.

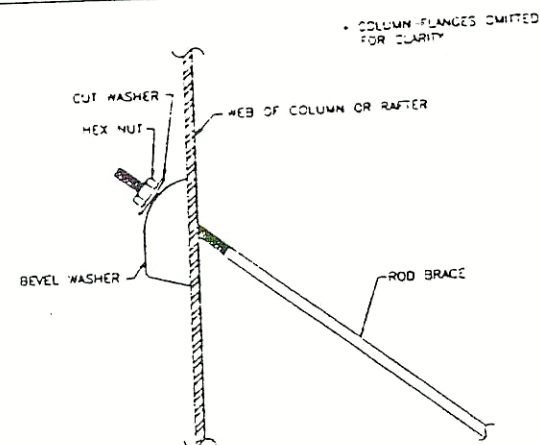
BOLT INSTALLATION & INSPECTION NOTES

1/2", 3/4", 7/8" & 1" STRUCTURAL BOLTS



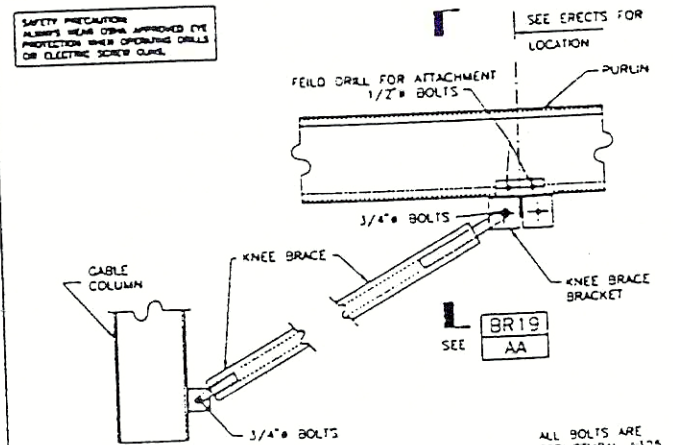
CABLE BRACE DETAIL

ROD BRACE DETAIL

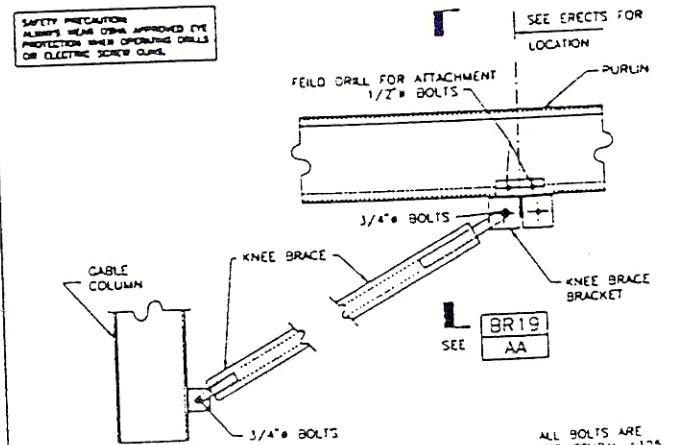


ICE RINK

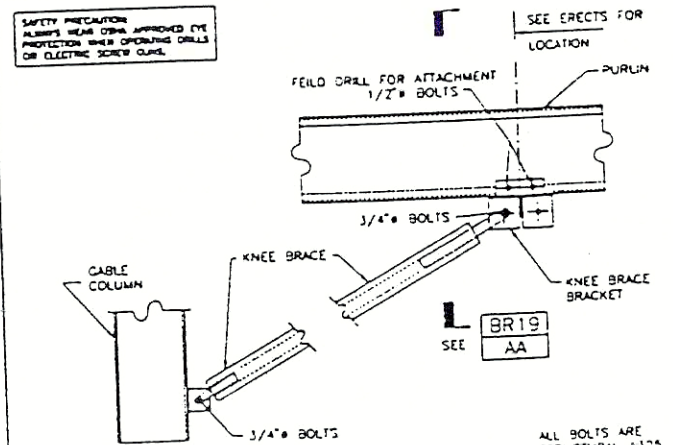
ROD BRACE DETAIL



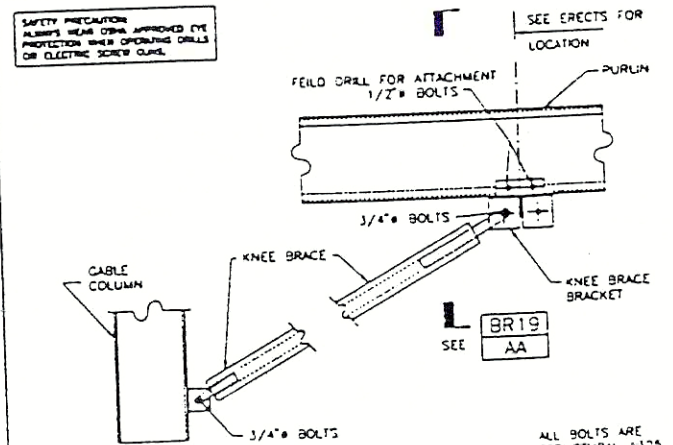
KNEE BRACE DETAIL



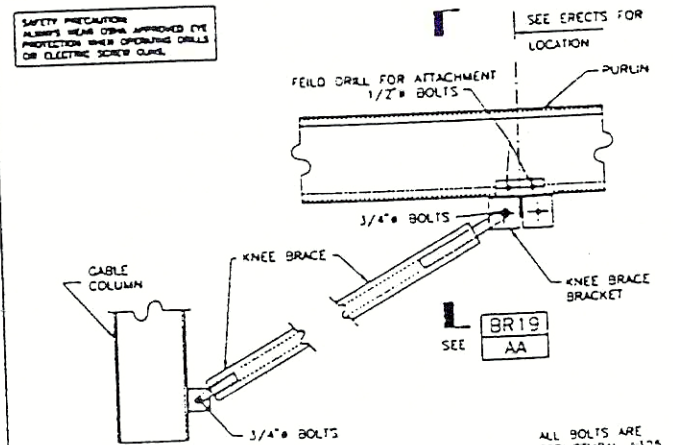
KNEE BRACE DETAIL



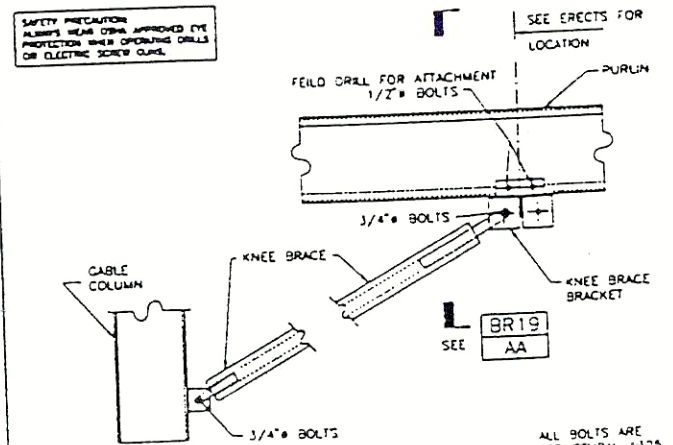
KNEE BRACE DETAIL



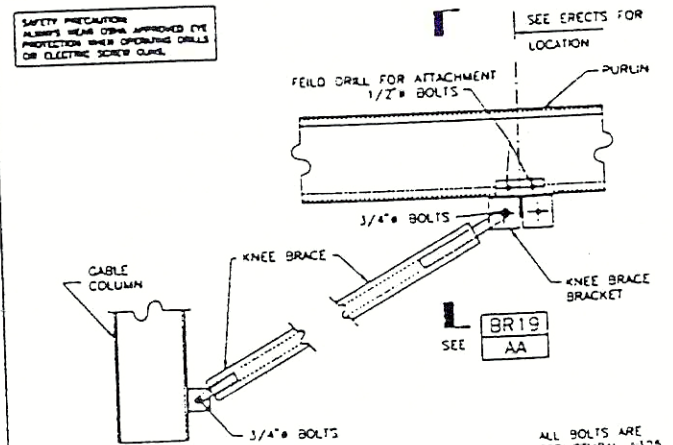
KNEE BRACE DETAIL



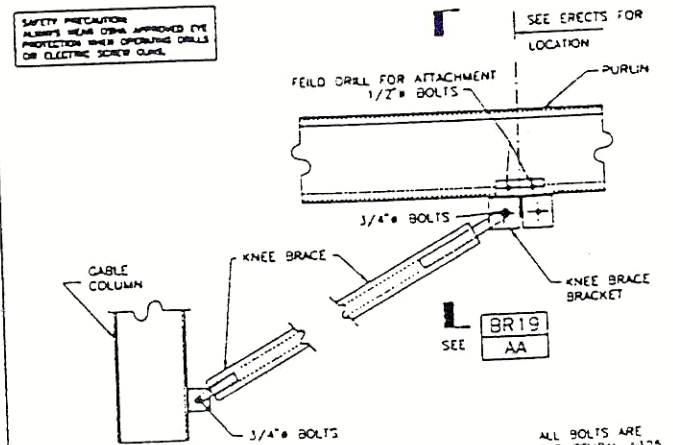
KNEE BRACE DETAIL



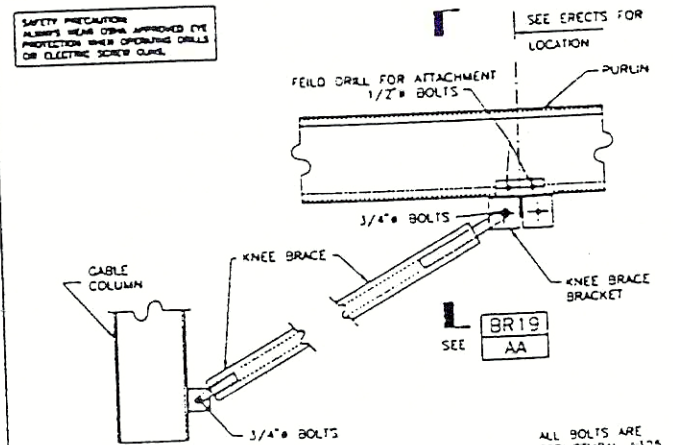
KNEE BRACE DETAIL



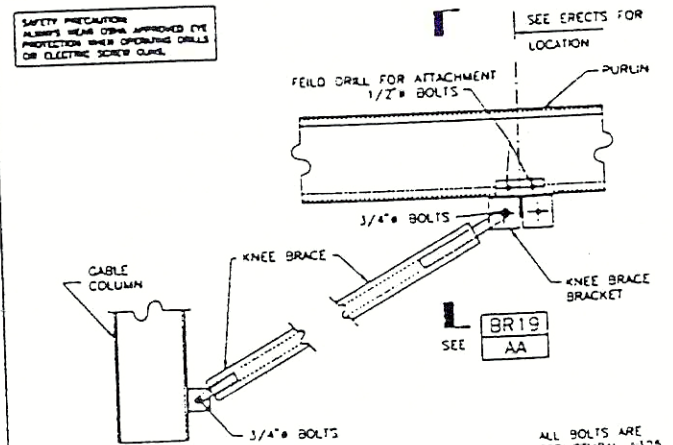
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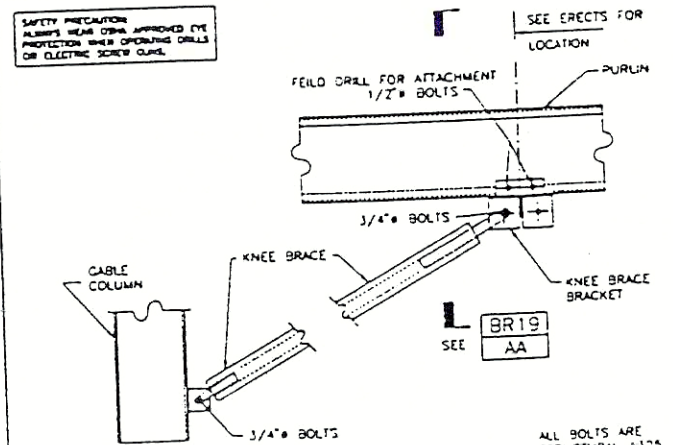
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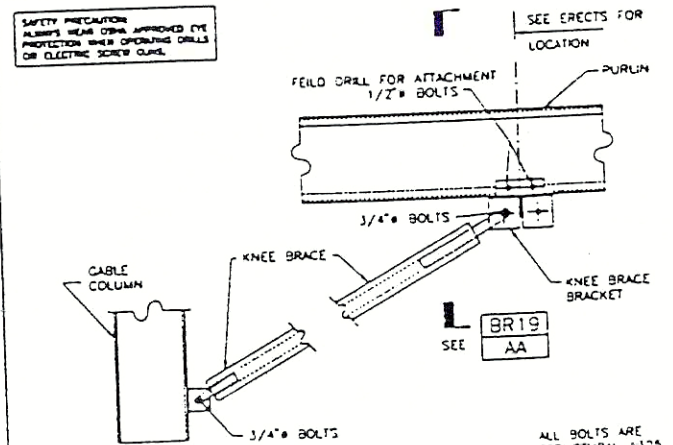
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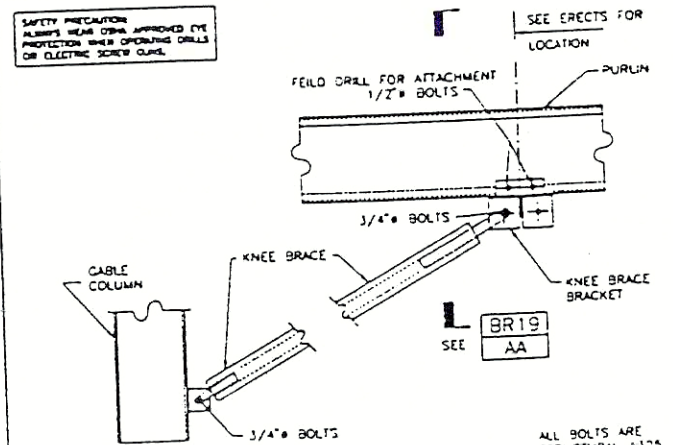
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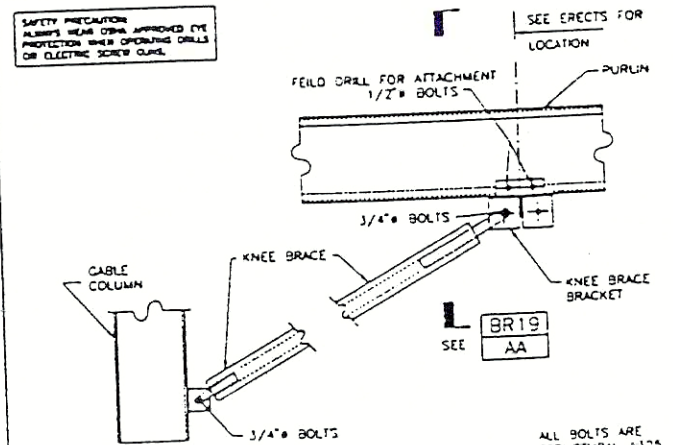
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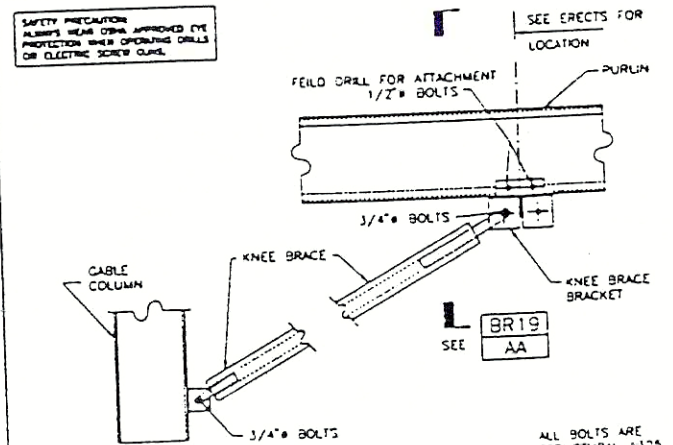
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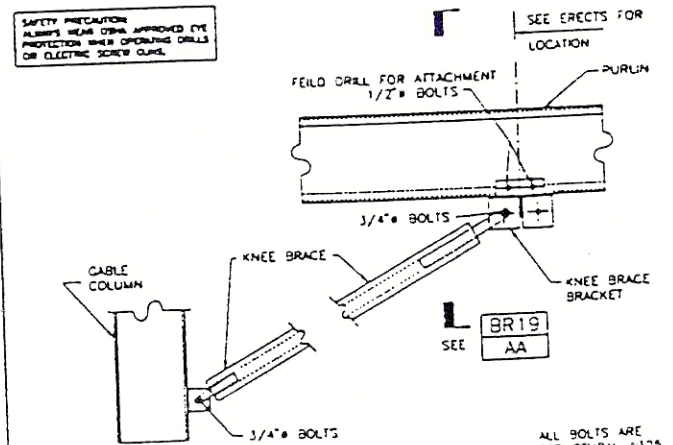
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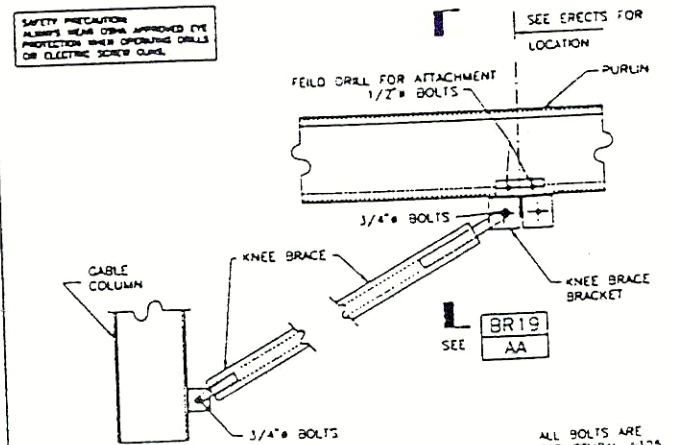
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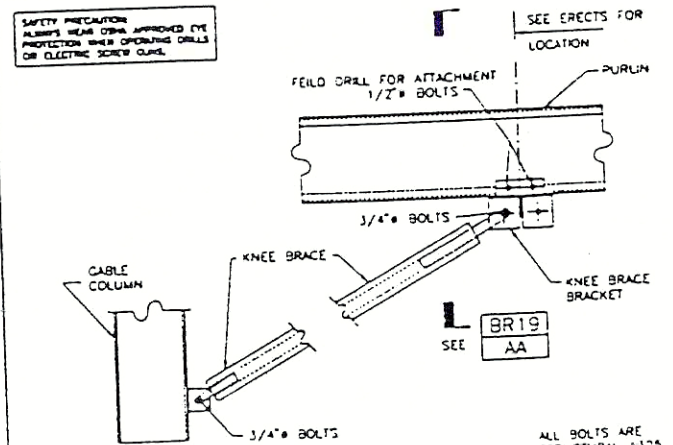
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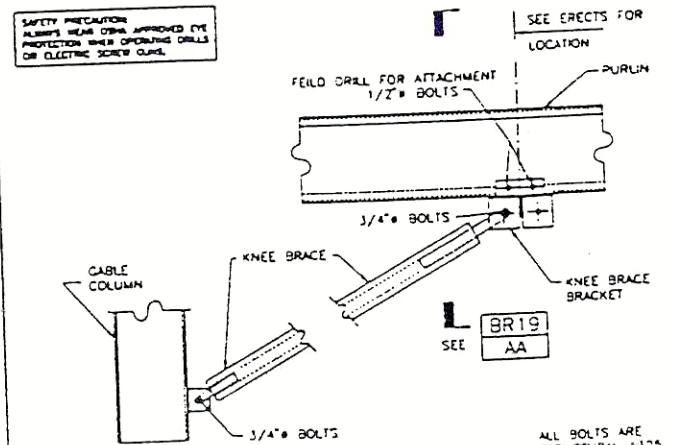
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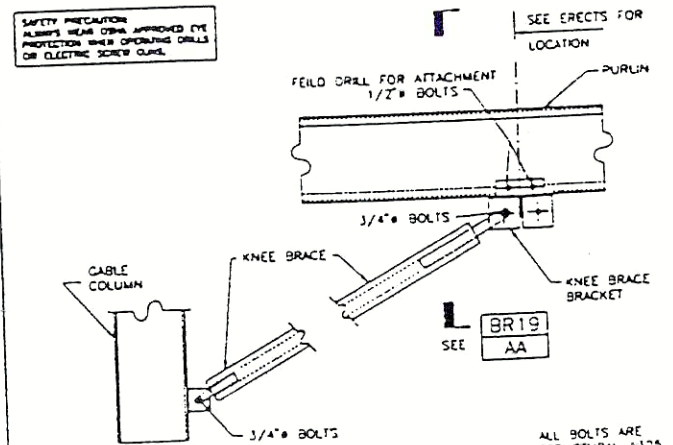
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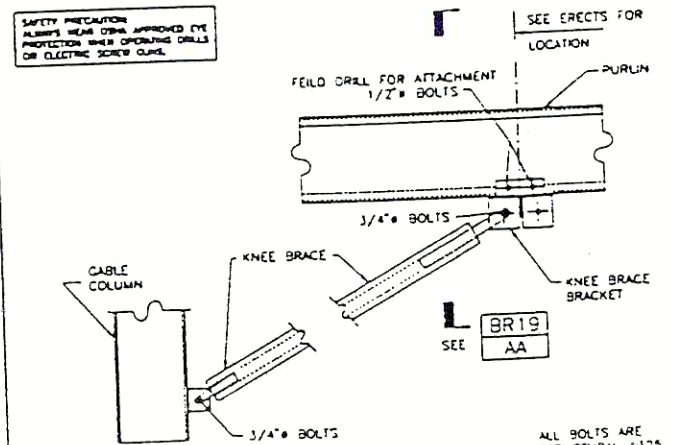
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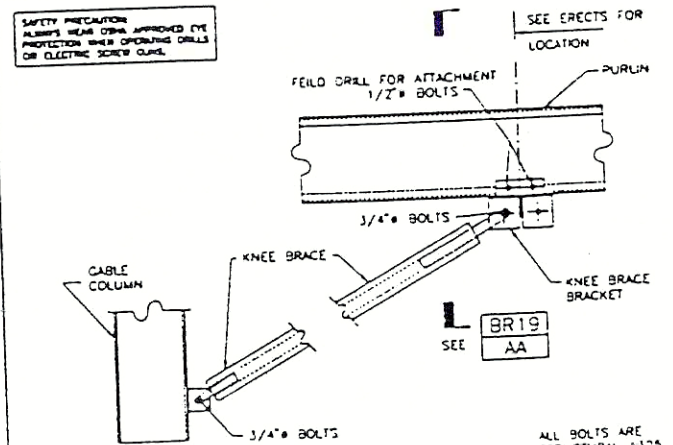
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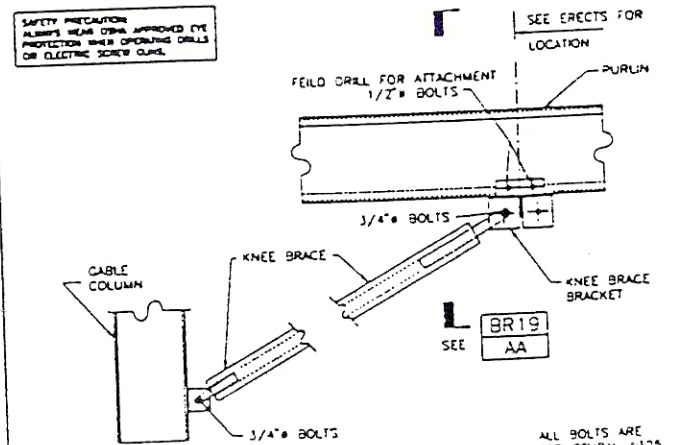
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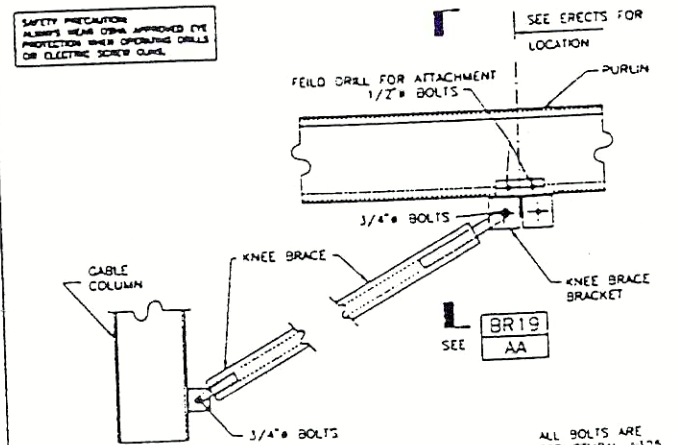
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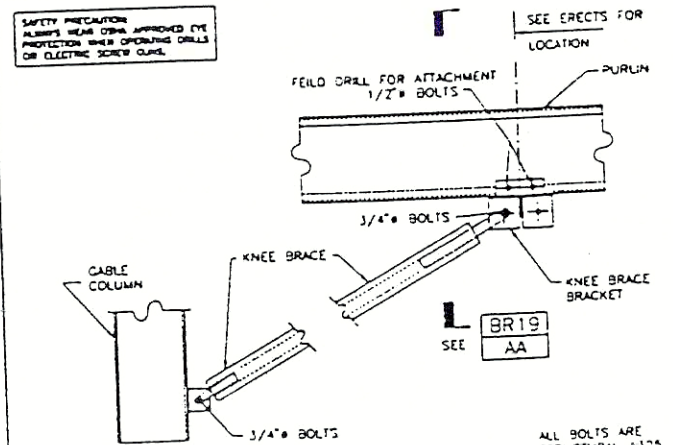
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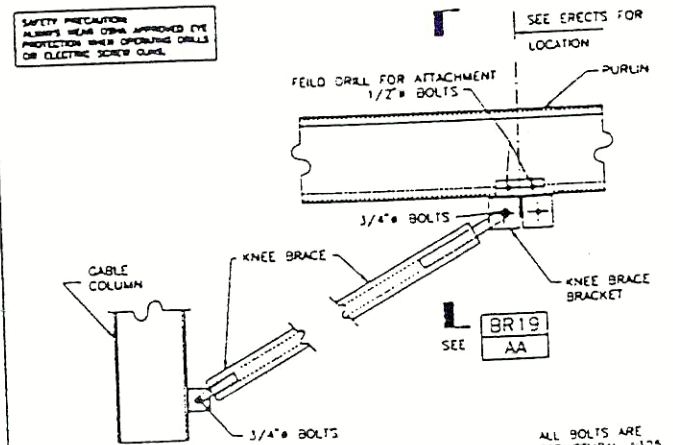
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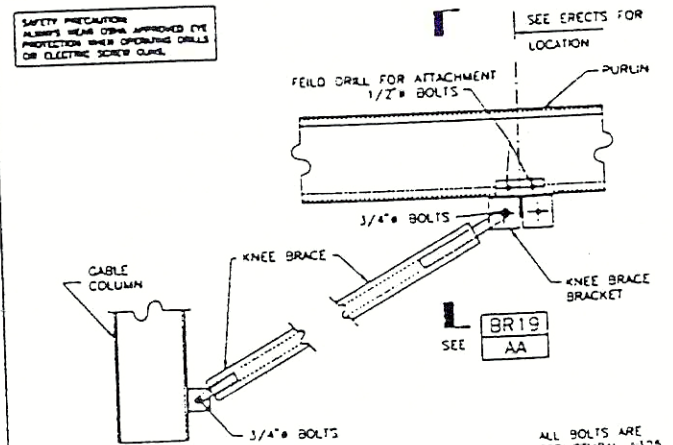
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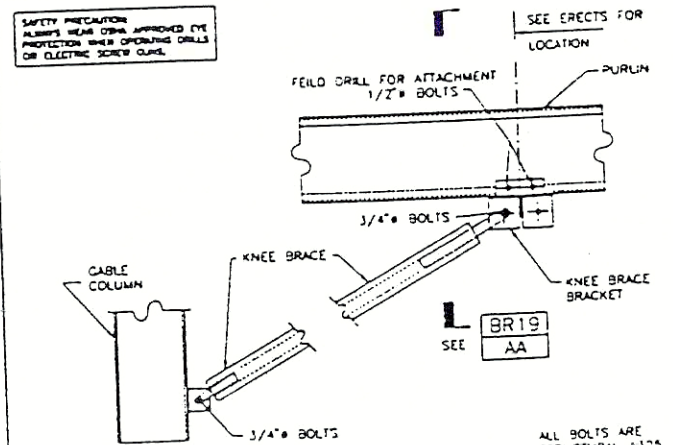
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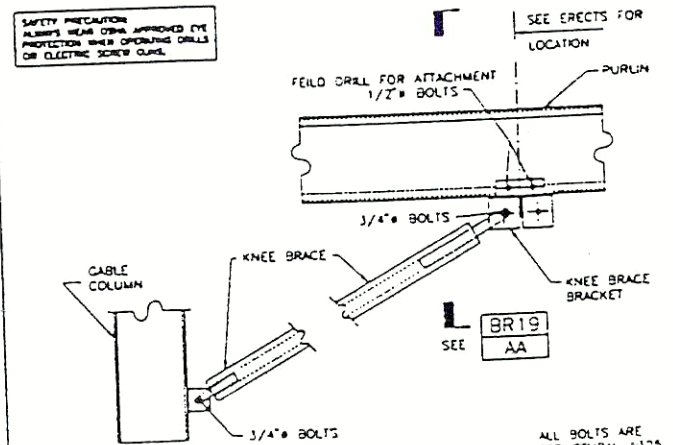
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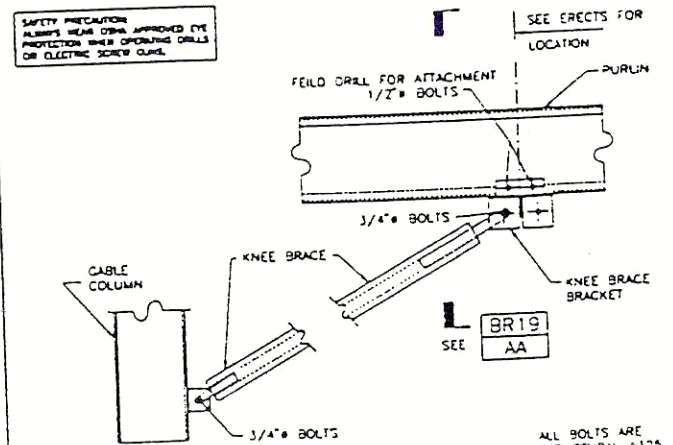
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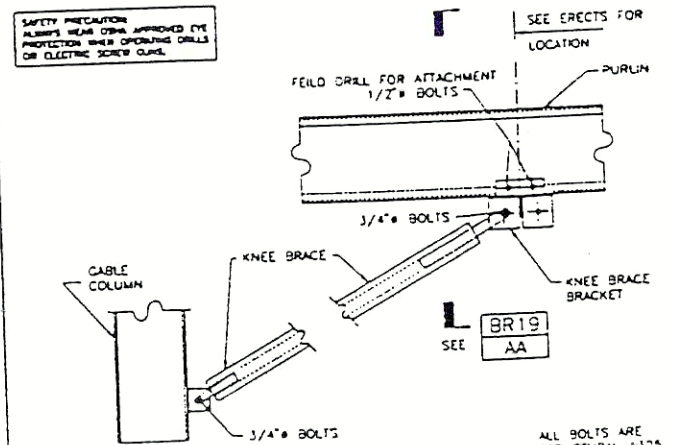
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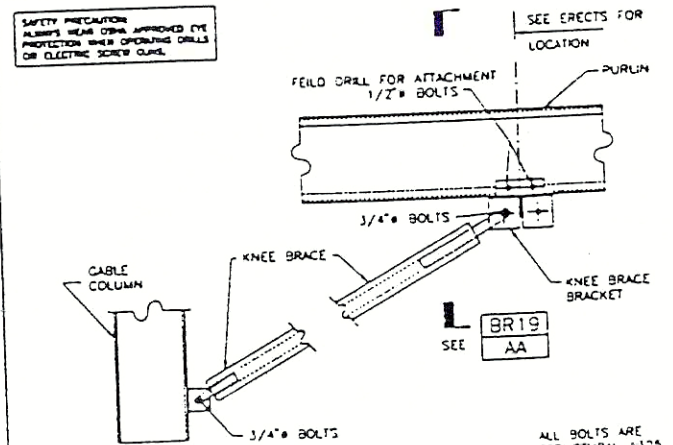
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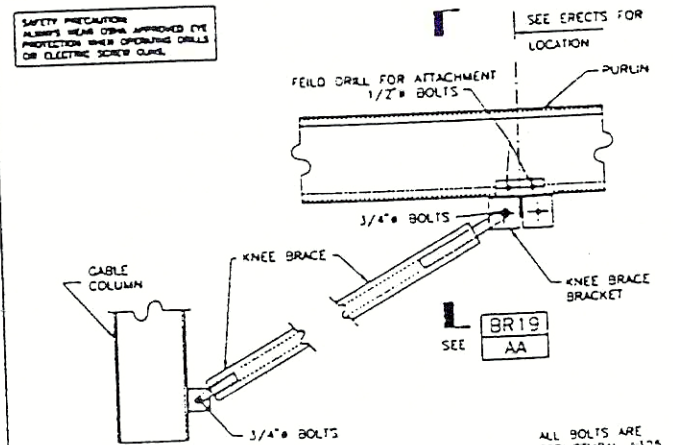
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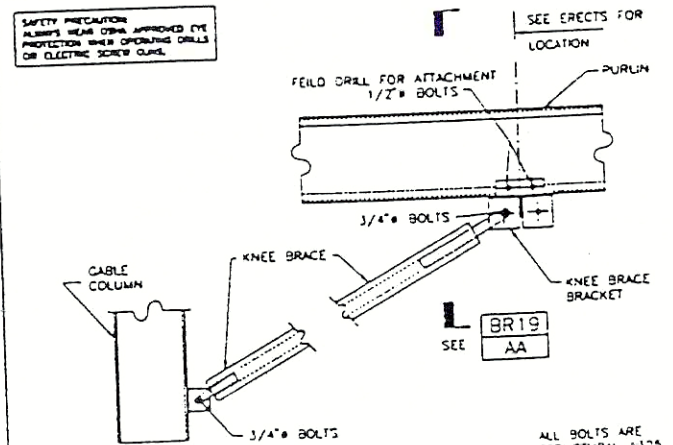
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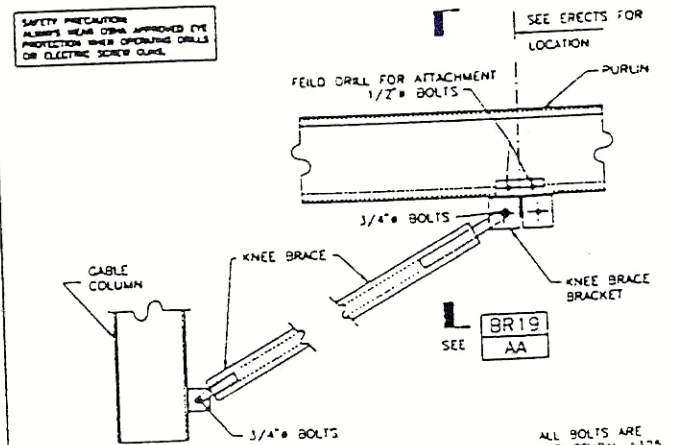
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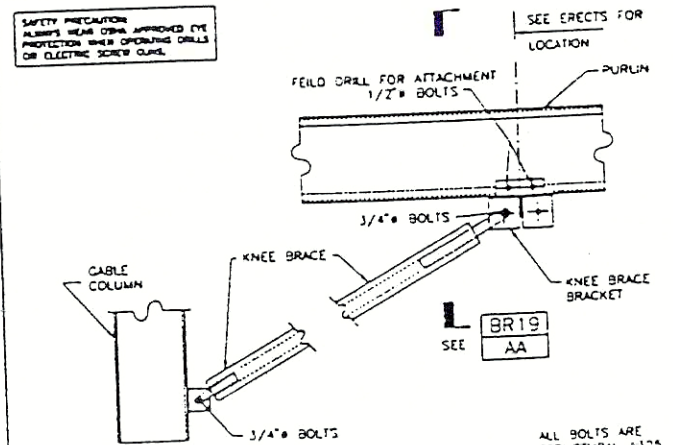
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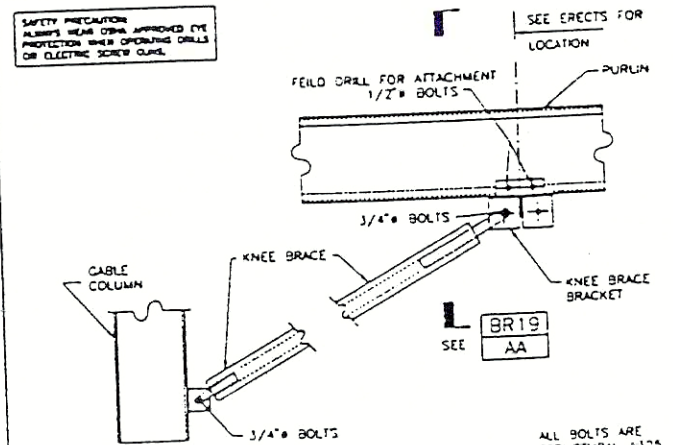
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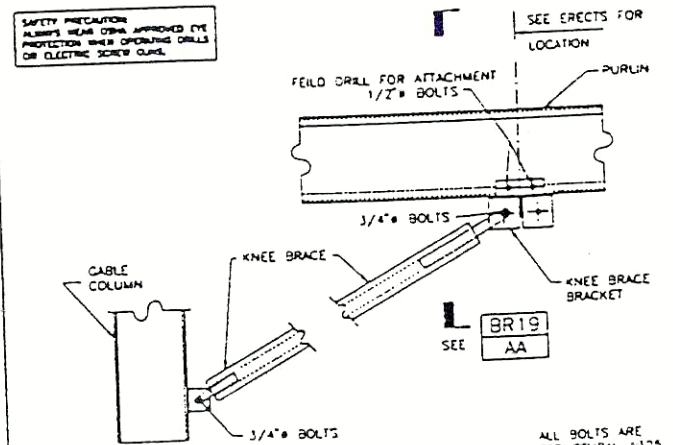
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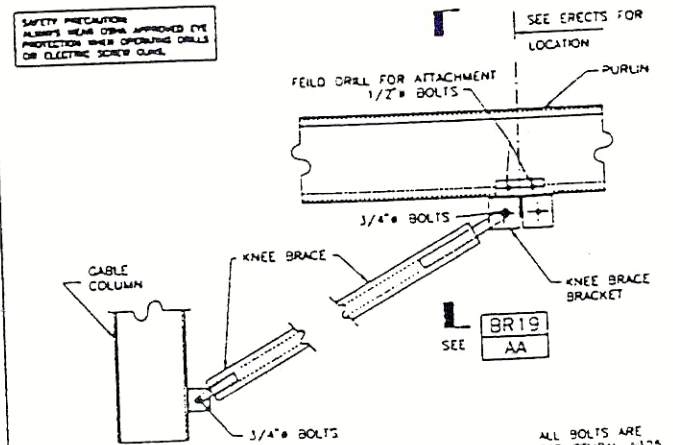
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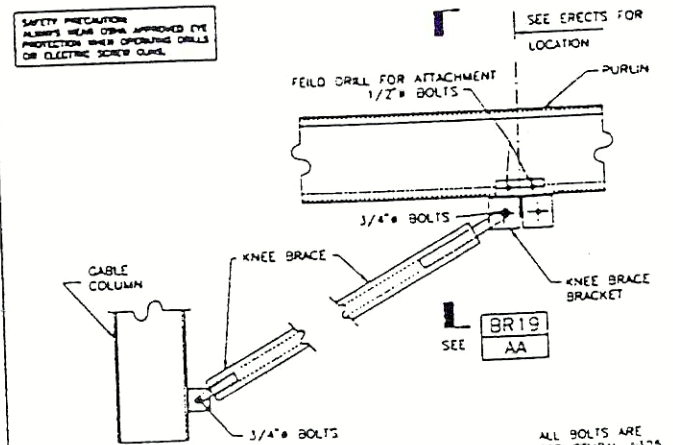
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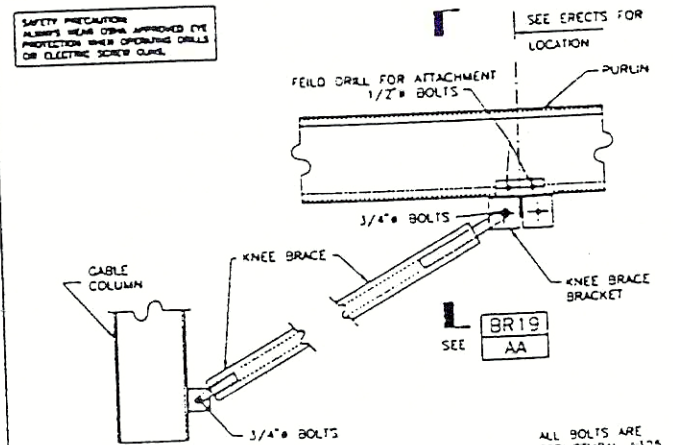
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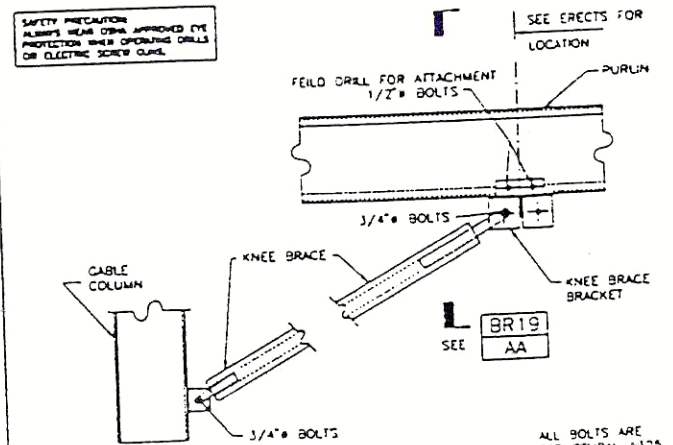
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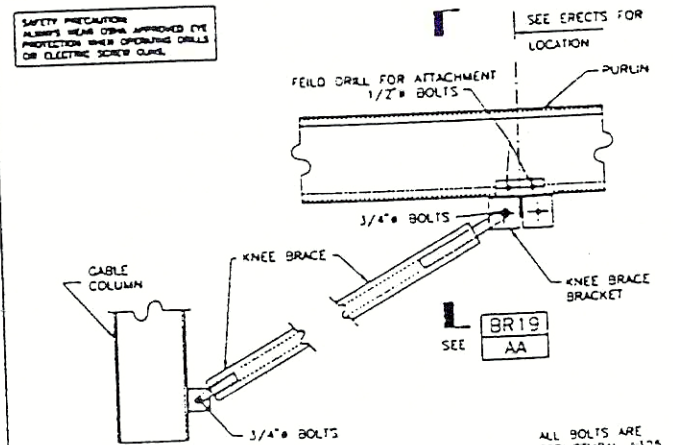
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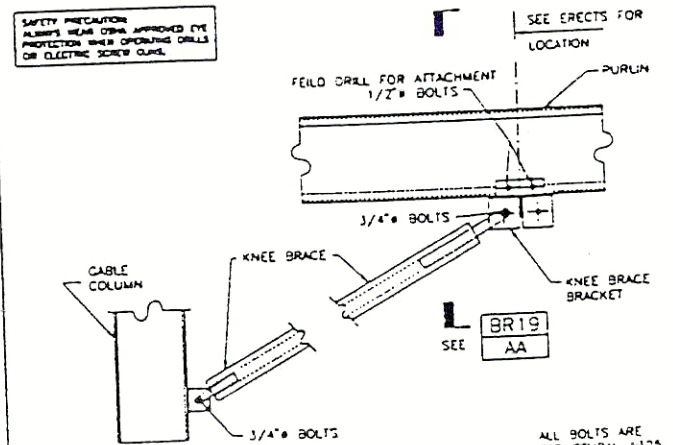
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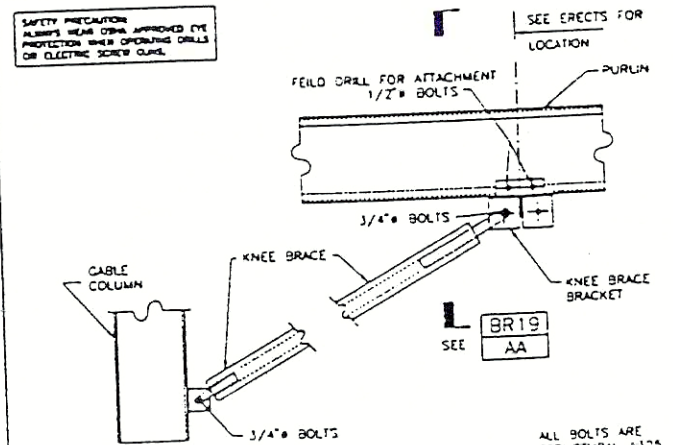
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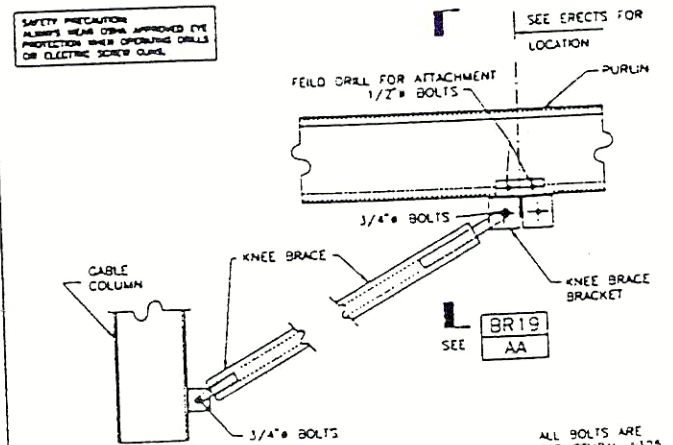
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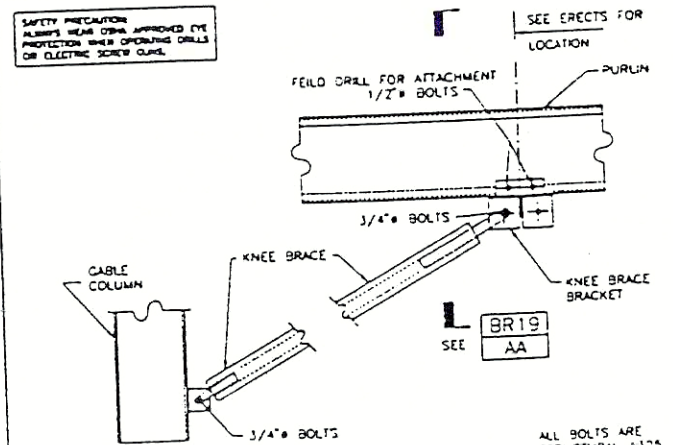
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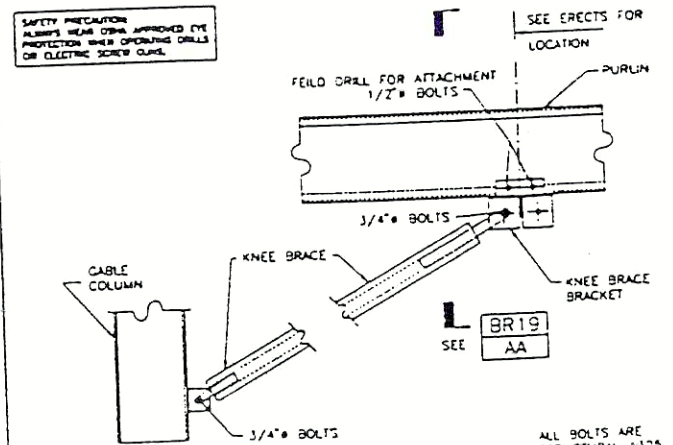
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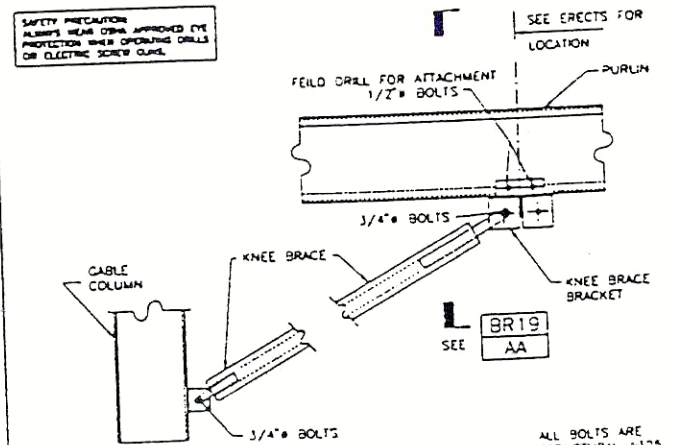
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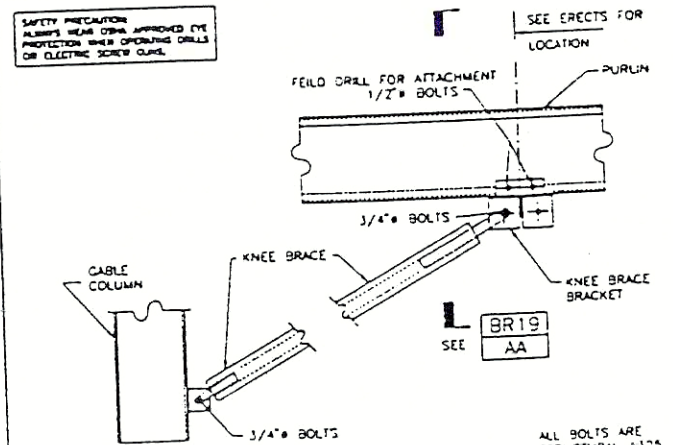
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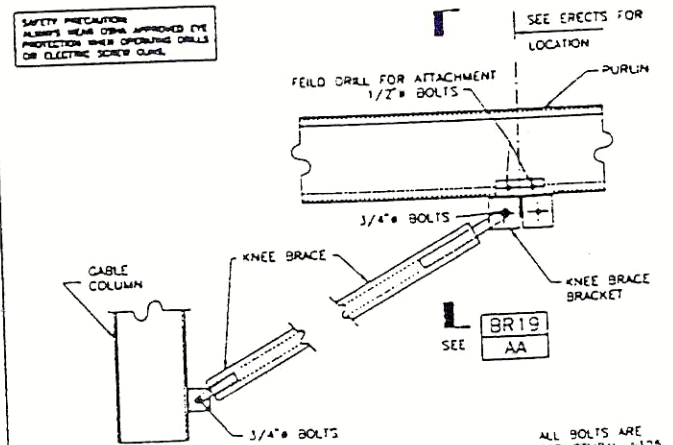
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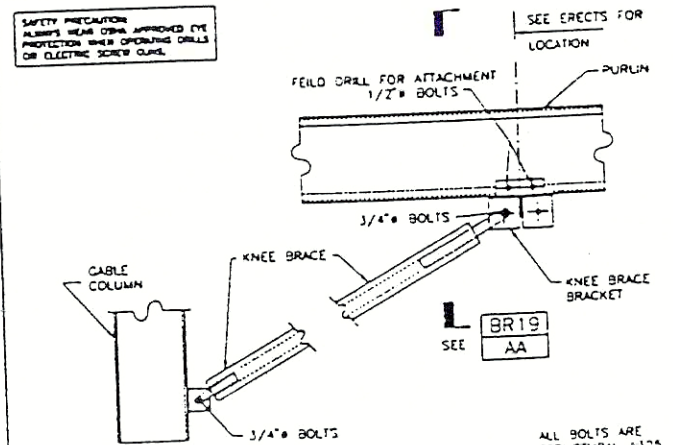
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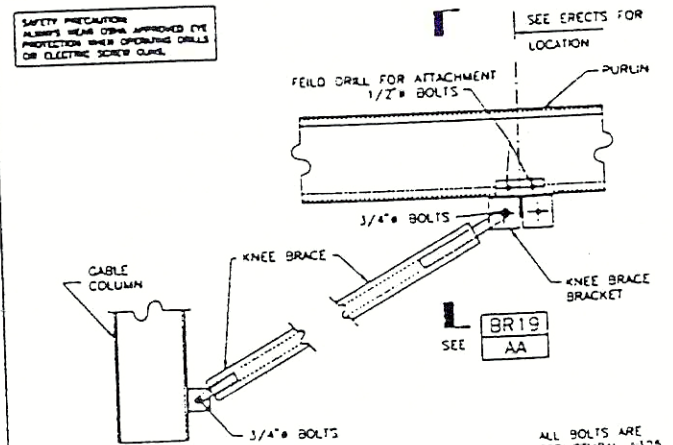
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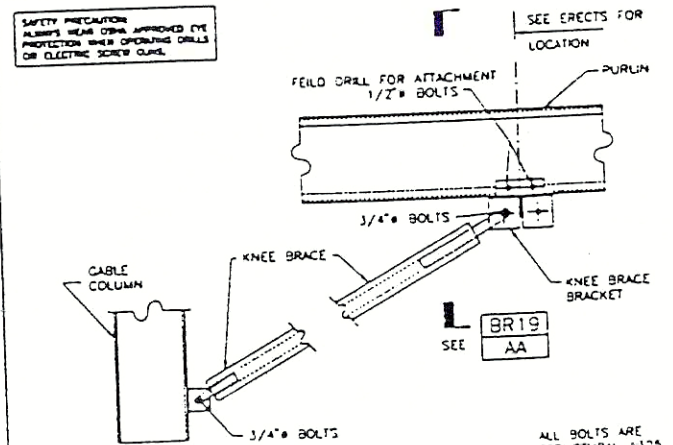
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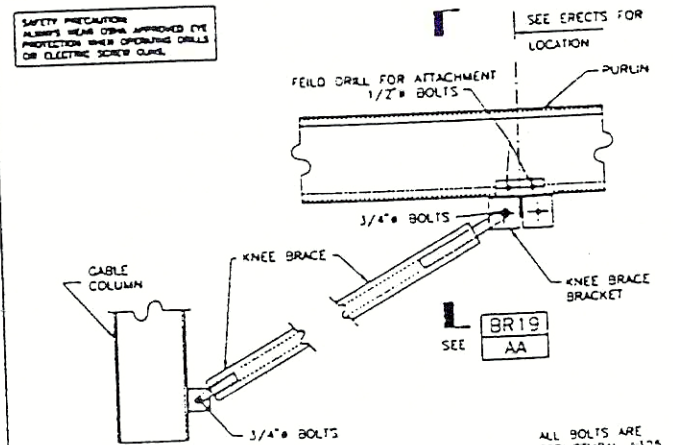
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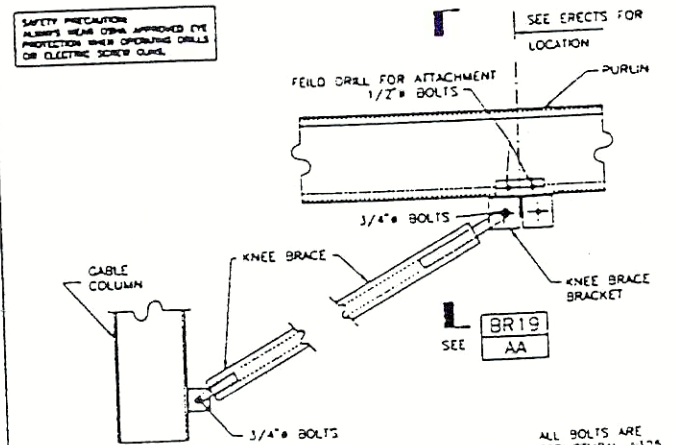
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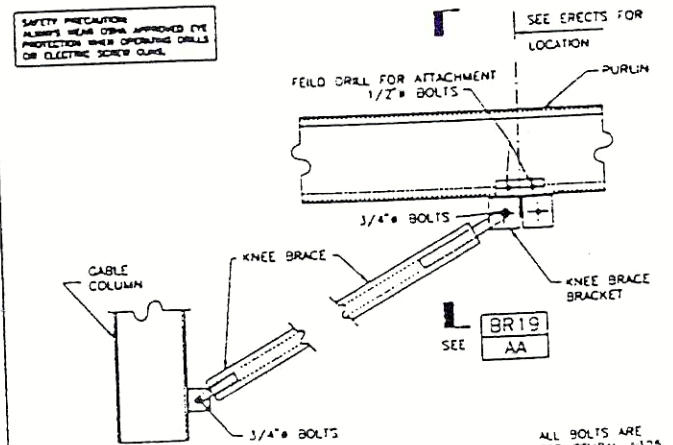
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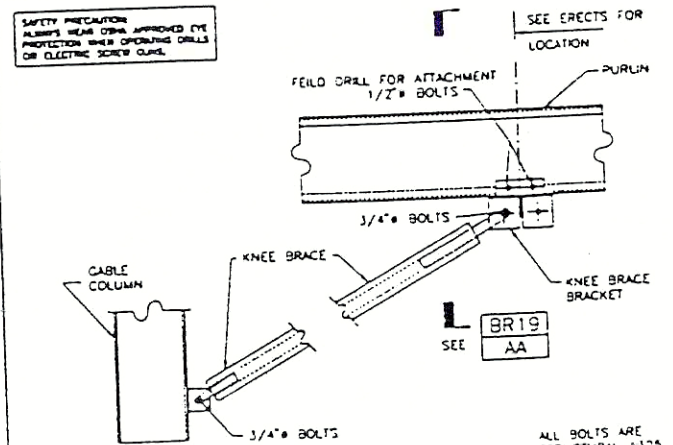
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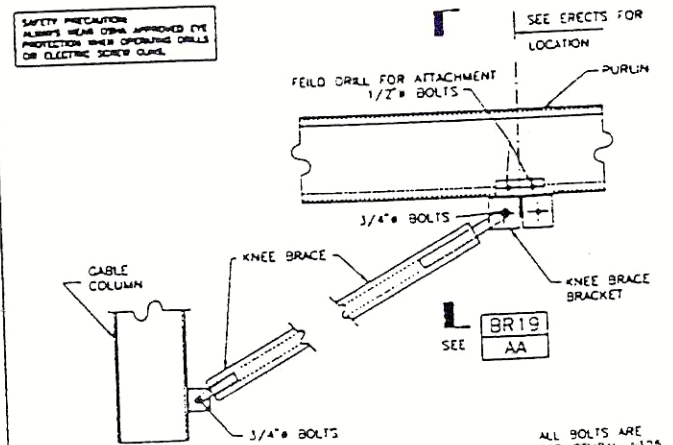
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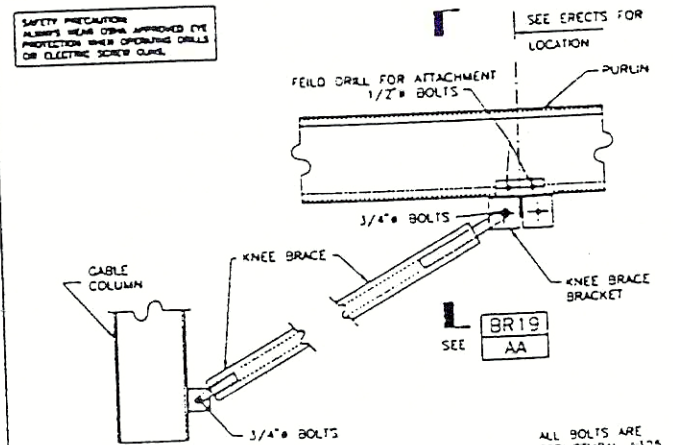
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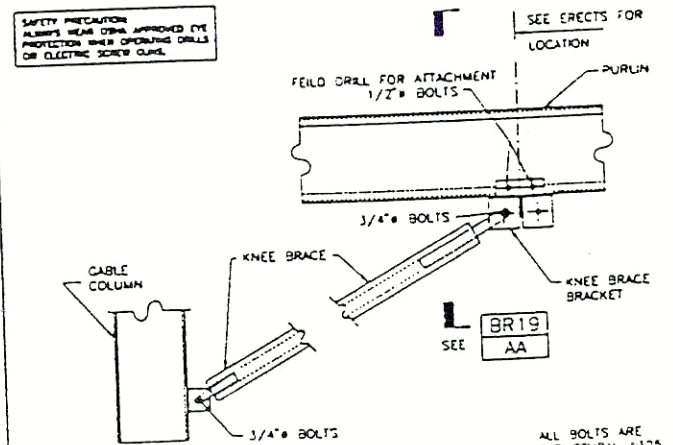
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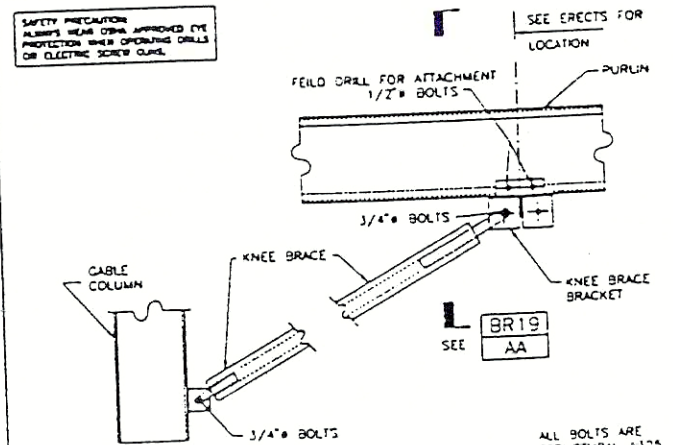
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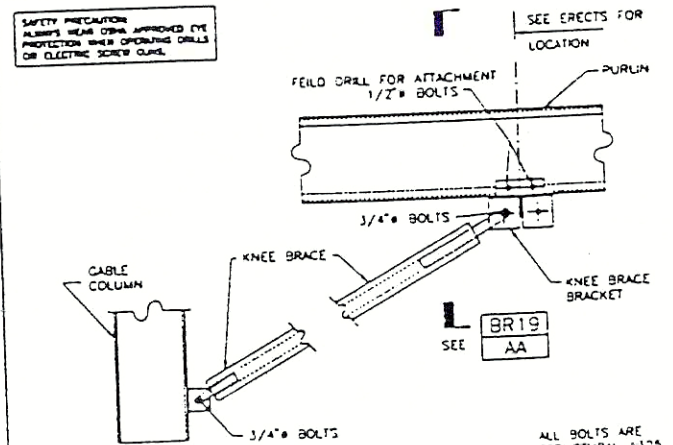
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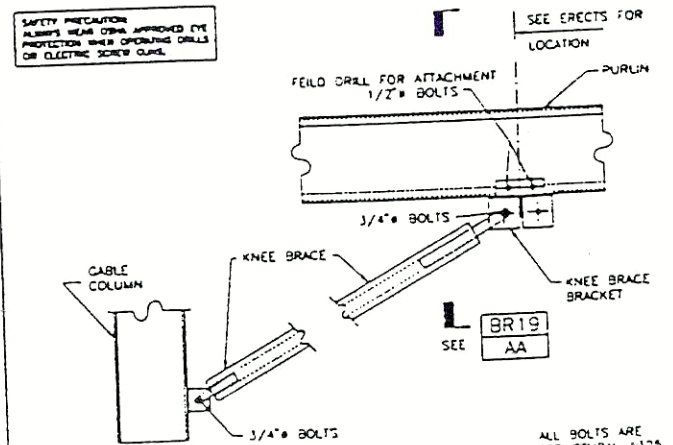
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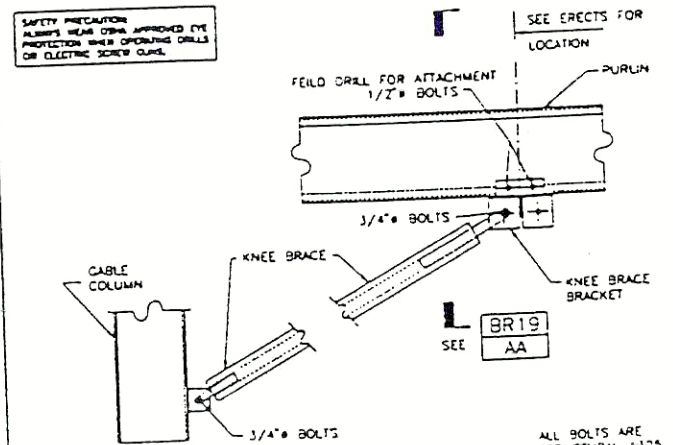
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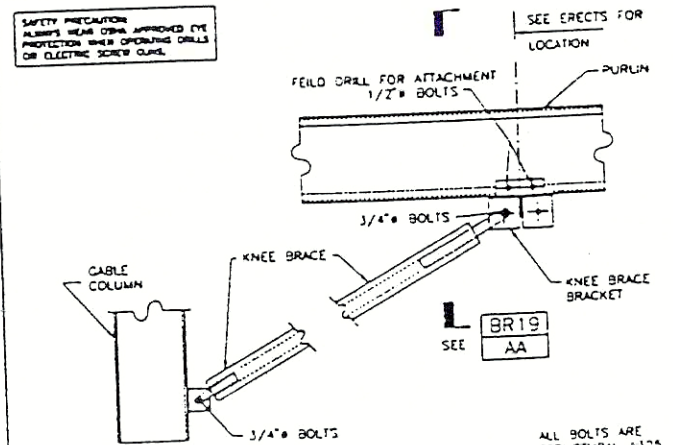
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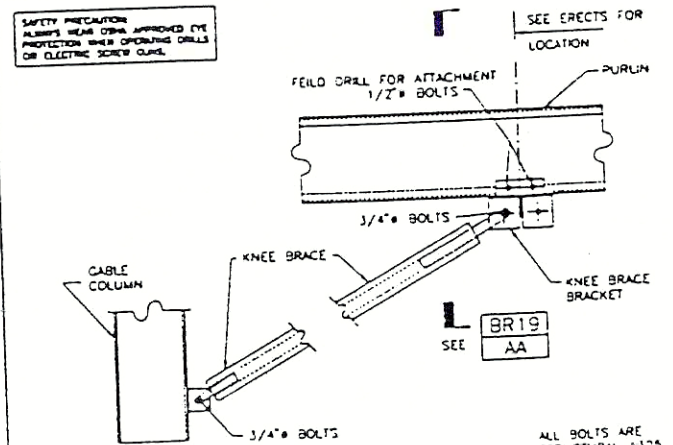
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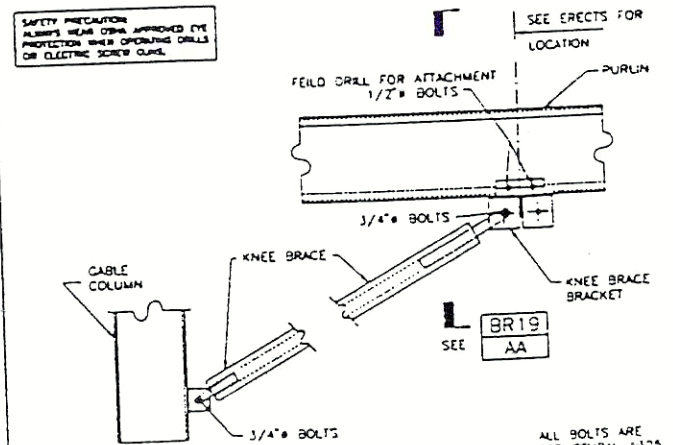
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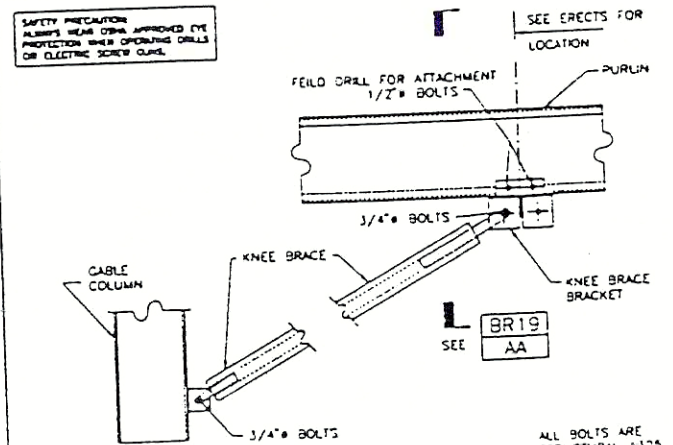
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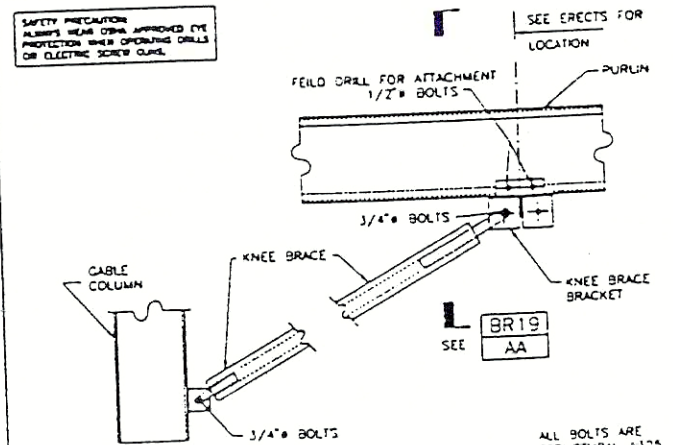
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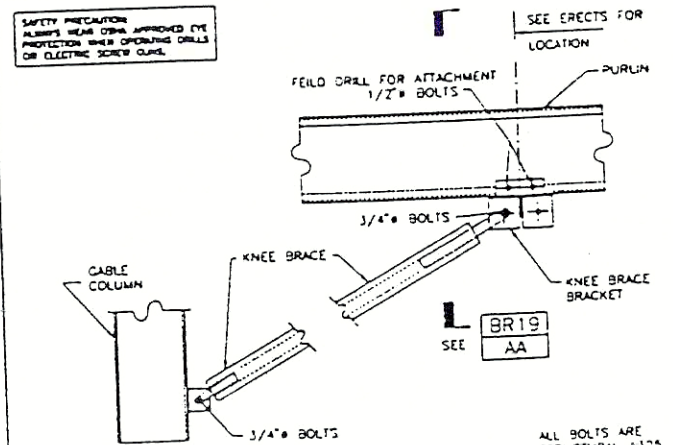
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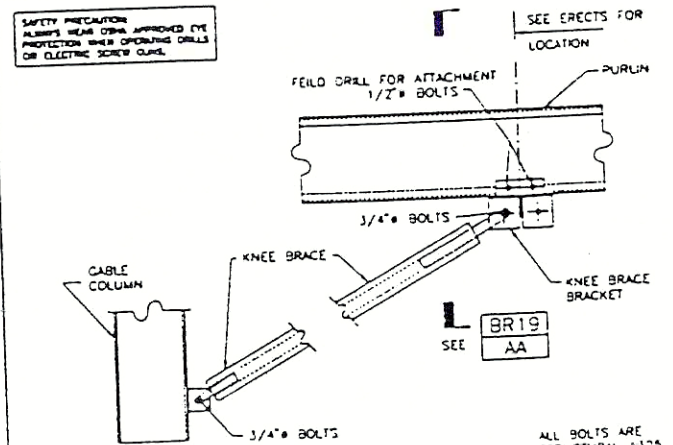
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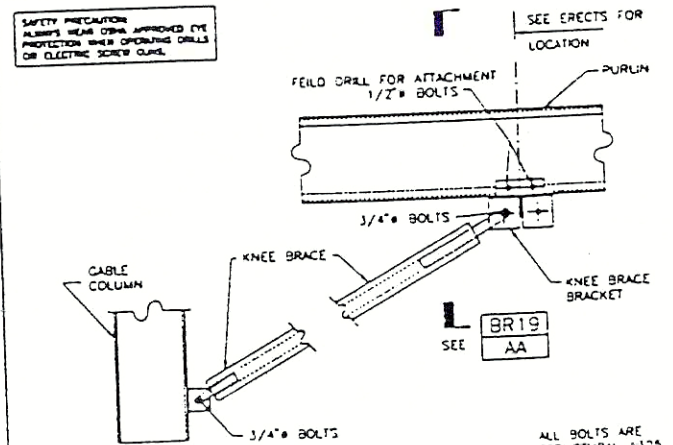
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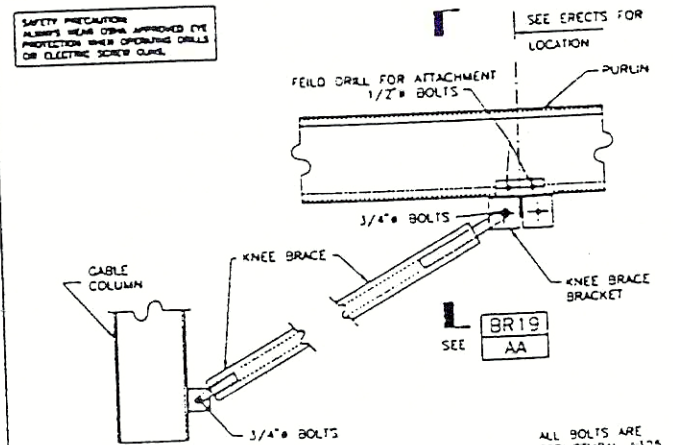
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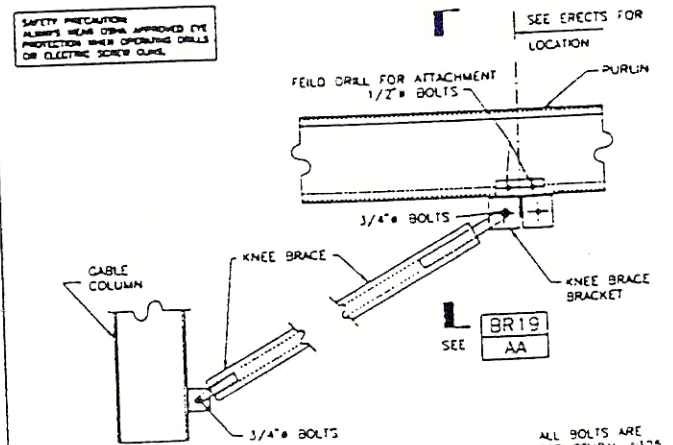
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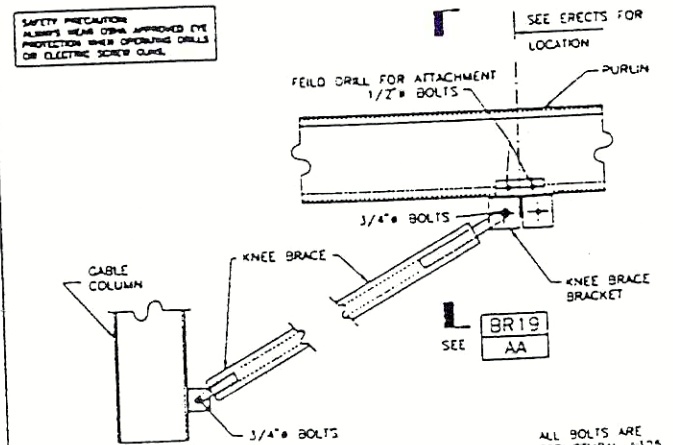
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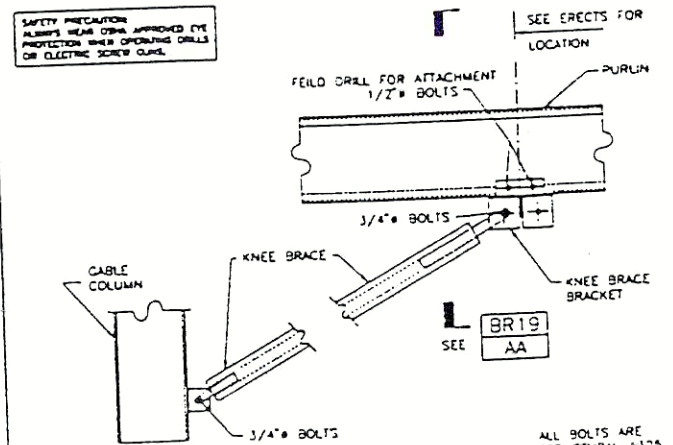
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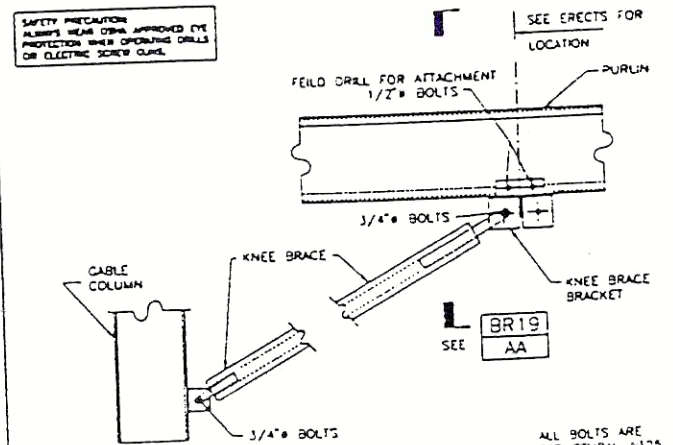
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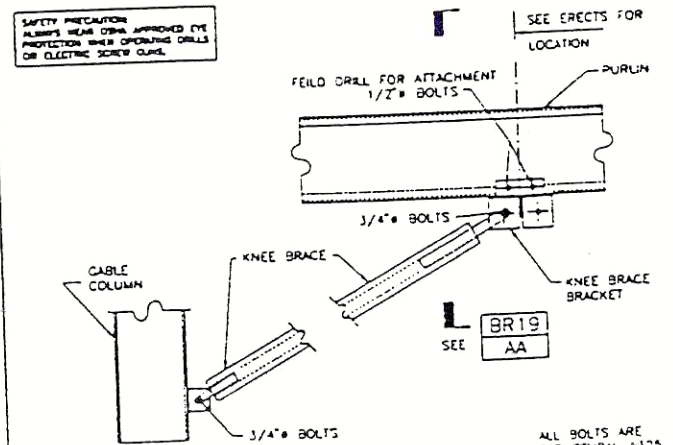
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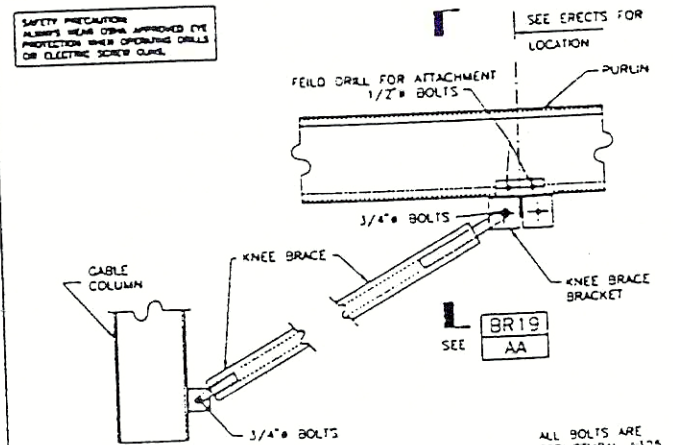
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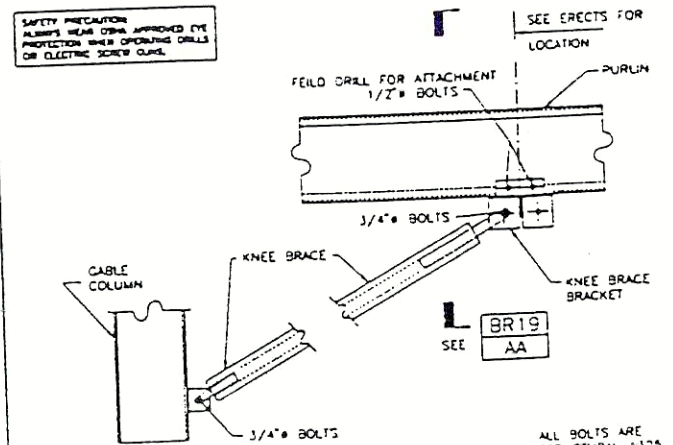
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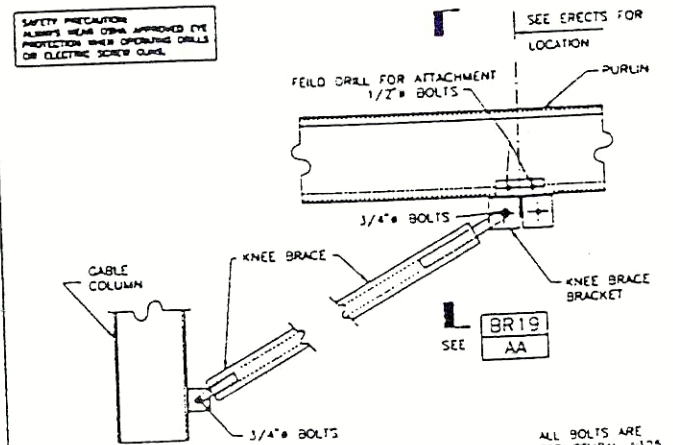
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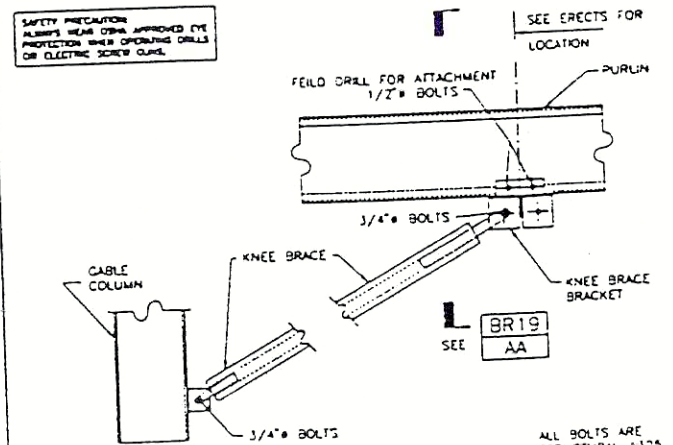
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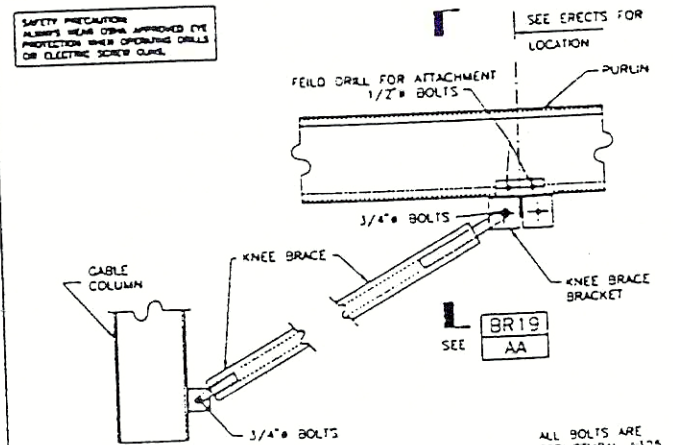
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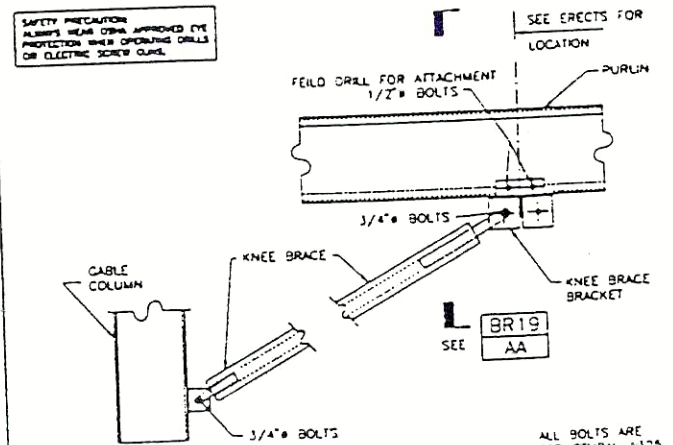
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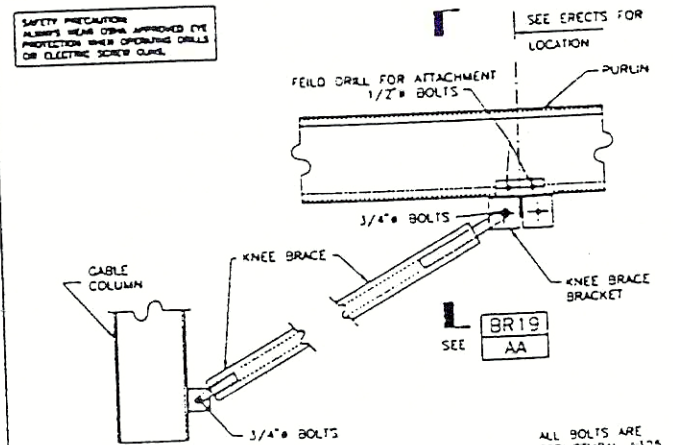
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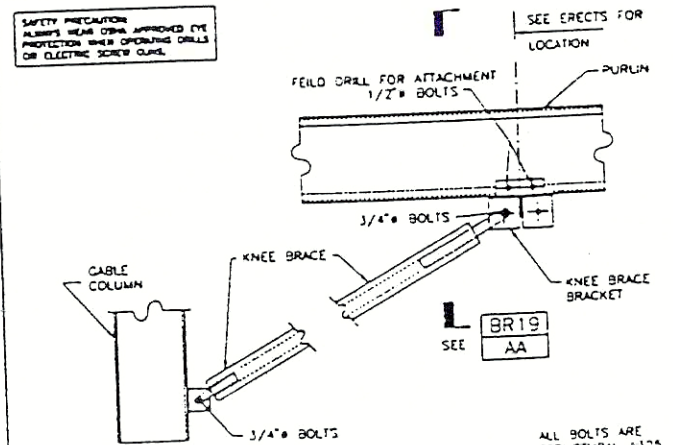
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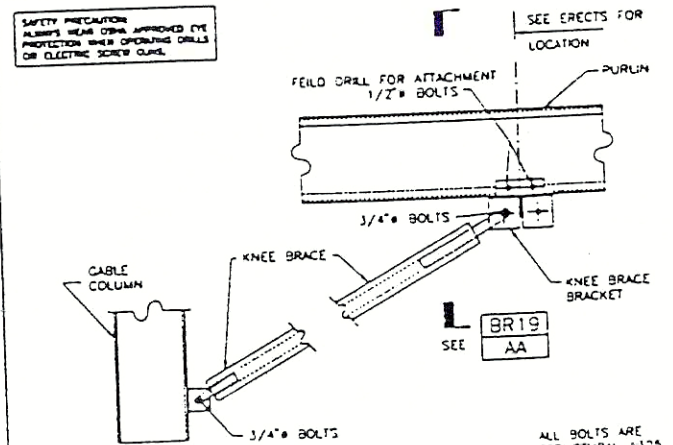
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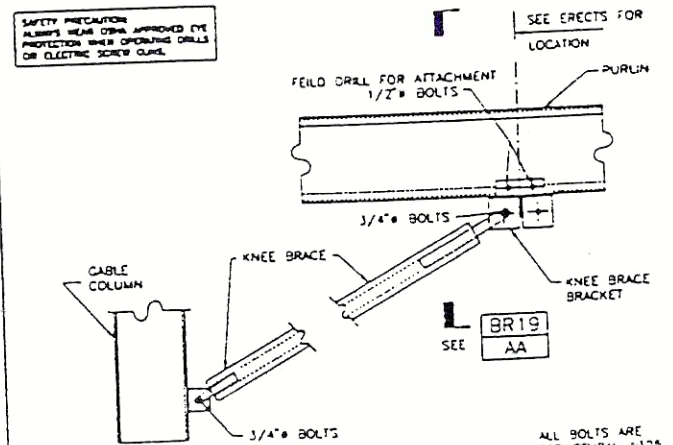
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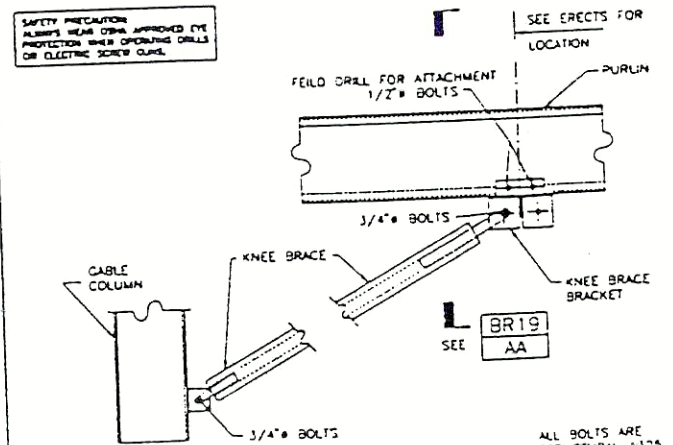
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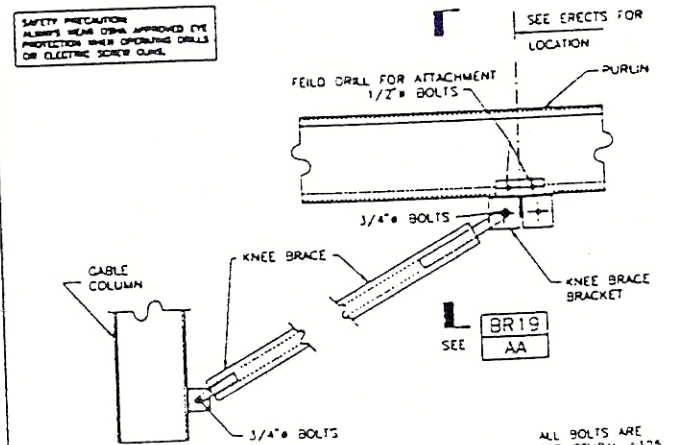
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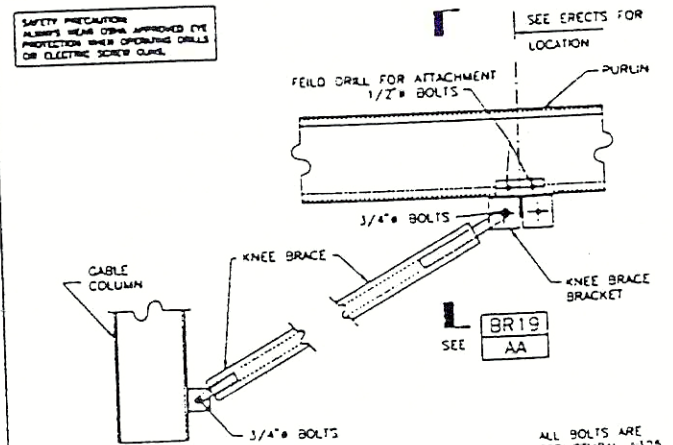
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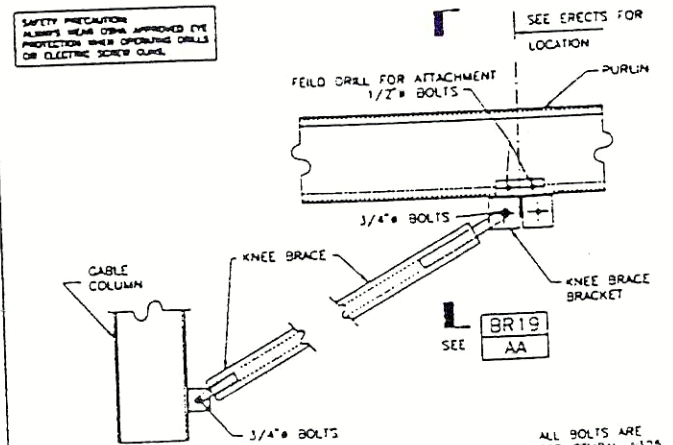
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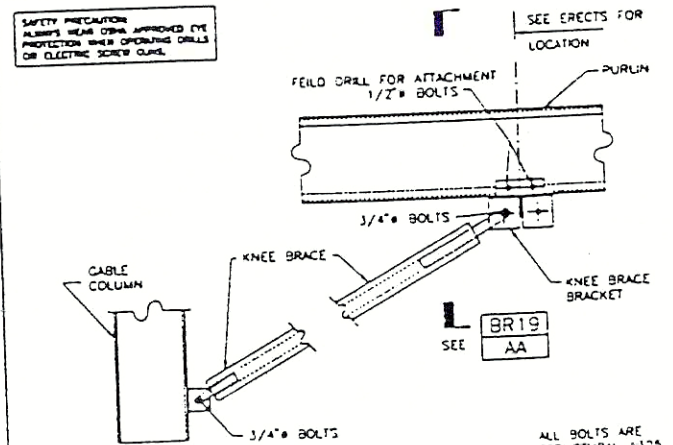
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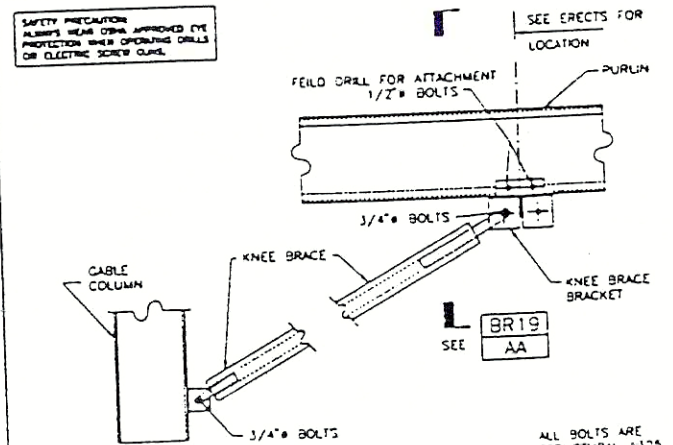
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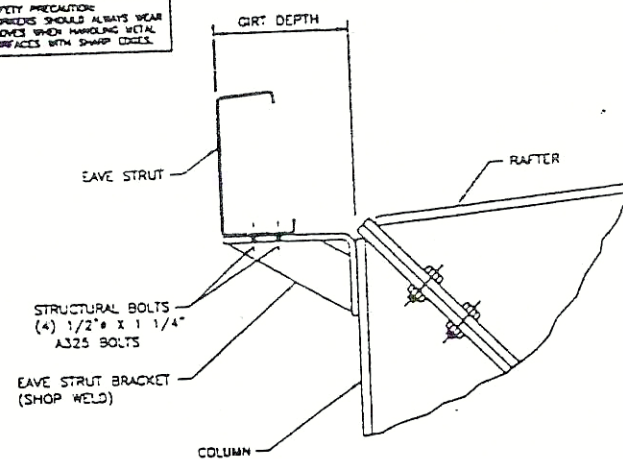
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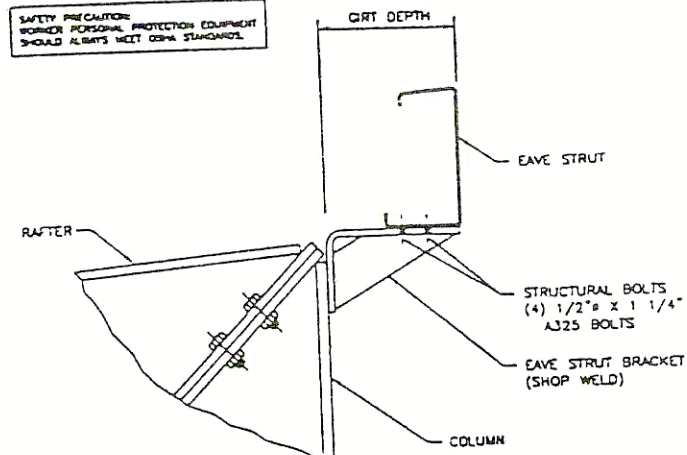
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION
BY-PASS GIRTS / DIAGONAL HAUNCH SPACE

RF31R
AA

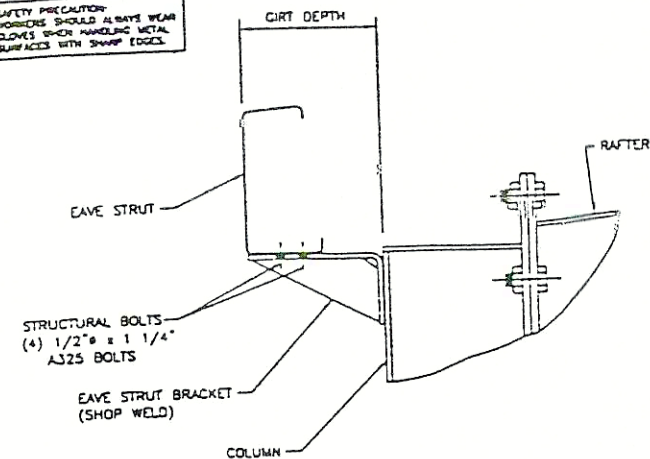
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION AT HIGH SIDE
BY-PASS GIRTS / DIAGONAL HAUNCH SPACE

RF36R
AA

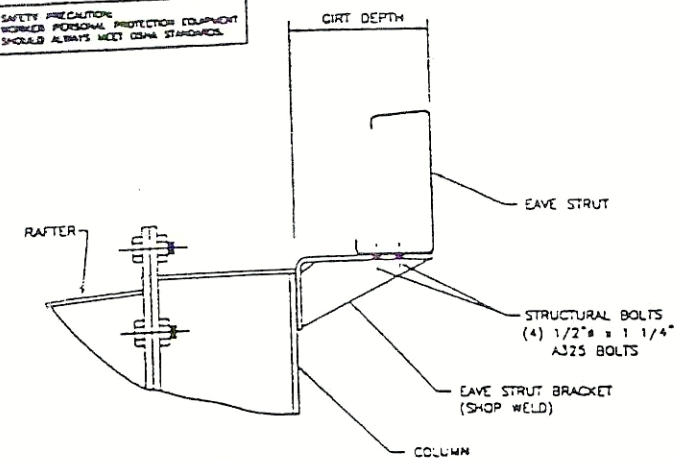
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION
BY-PASS GIRTS / VERTICAL HAUNCH SPACE

RF32R
AA

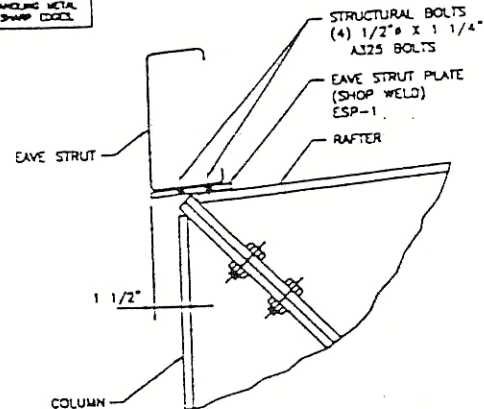
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION AT HIGH SIDE
BY-PASS GIRTS / VERTICAL HAUNCH SPACE

RF37R
AA

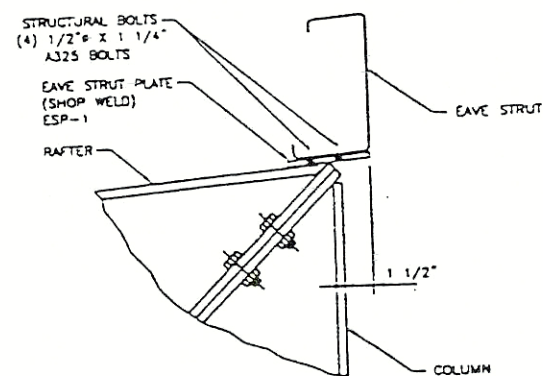
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION
INSET GIRTS / DIAGONAL HAUNCH SPACE

RF31Q
AA

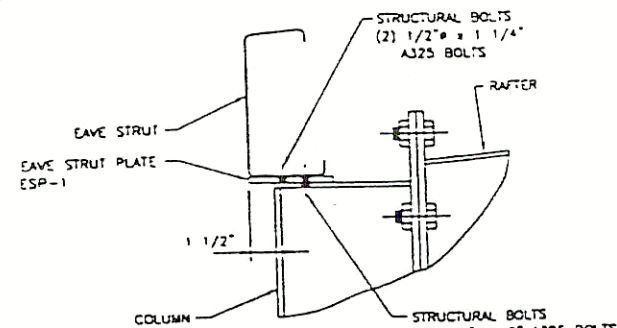
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION AT HIGH SIDE
INSET GIRTS / DIAGONAL HAUNCH SPACE

RF36Q
AA

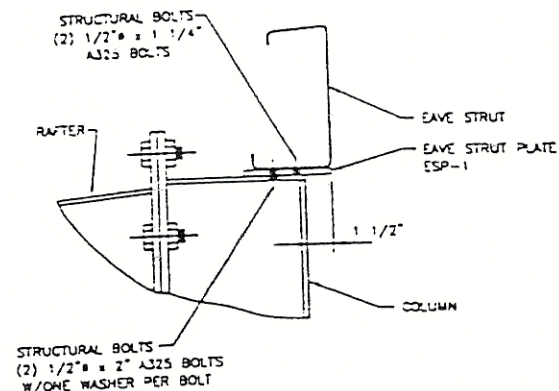
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION
INSET GIRTS / VERTICAL HAUNCH SPACE

RF32Q
AA

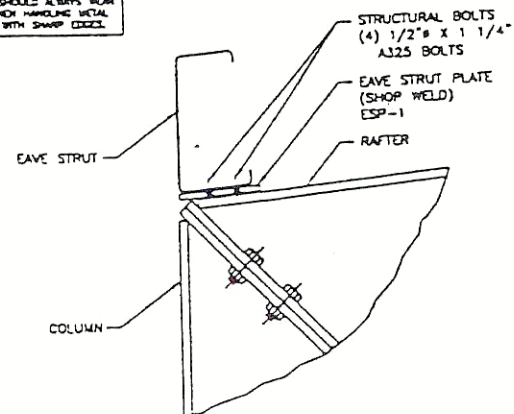
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION AT HIGH SIDE
INSET GIRTS / VERTICAL HAUNCH SPACE

RF37Q
AA

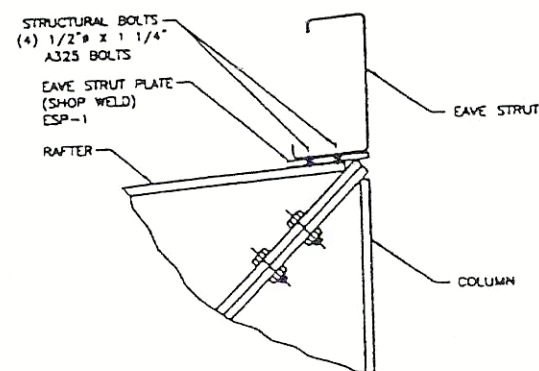
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION
FLUSH GIRTS / DIAGONAL HAUNCH SPACE

RF31P
AA

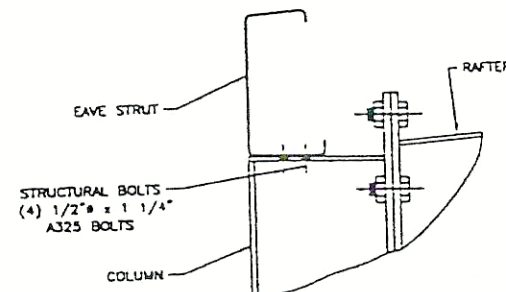
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION AT HIGH SIDE
FLUSH GIRTS / DIAGONAL HAUNCH SPACE

RF36P
AA

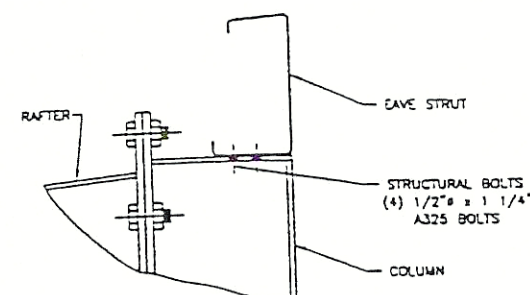
SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION
FLUSH GIRTS / VERTICAL HAUNCH SPACE

RF32P
AA

SAFETY PRECAUTION:
WORKERS SHOULD ALWAYS WEAR
GLOVES WHEN HANDLING METAL
SURFACES WITH SHARP EDGES.



EAVE STRUT CONNECTION AT HIGH SIDE
FLUSH GIRTS / VERTICAL HAUNCH SPACE

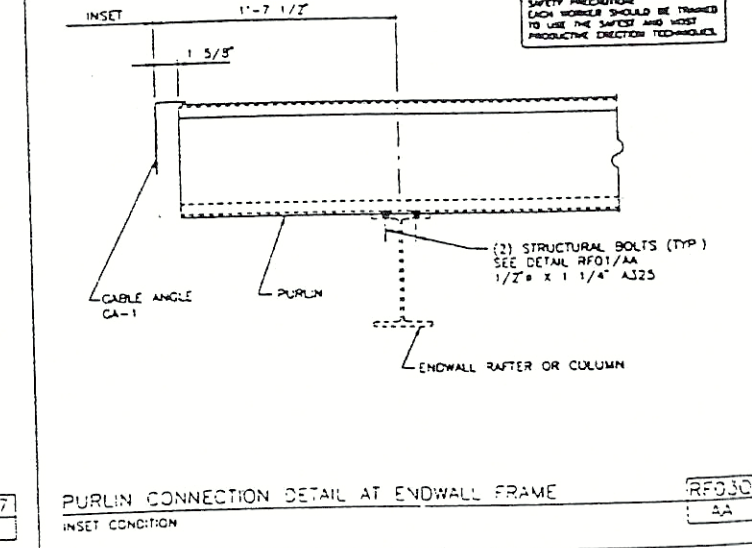
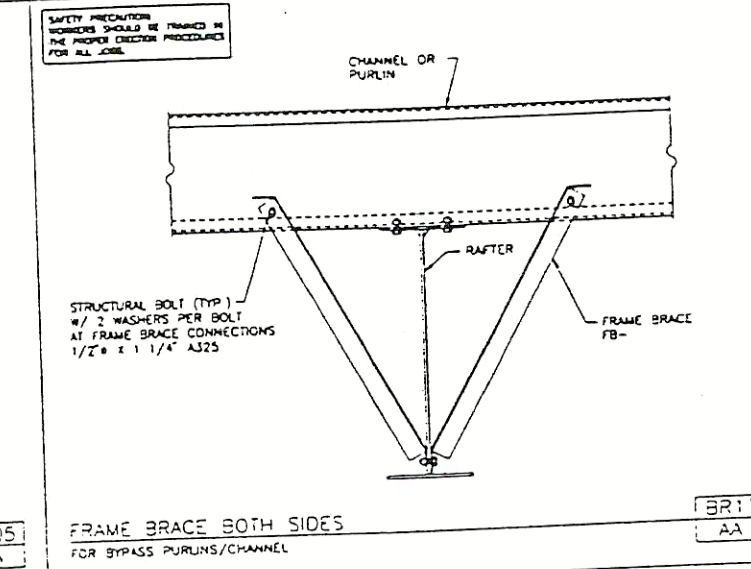
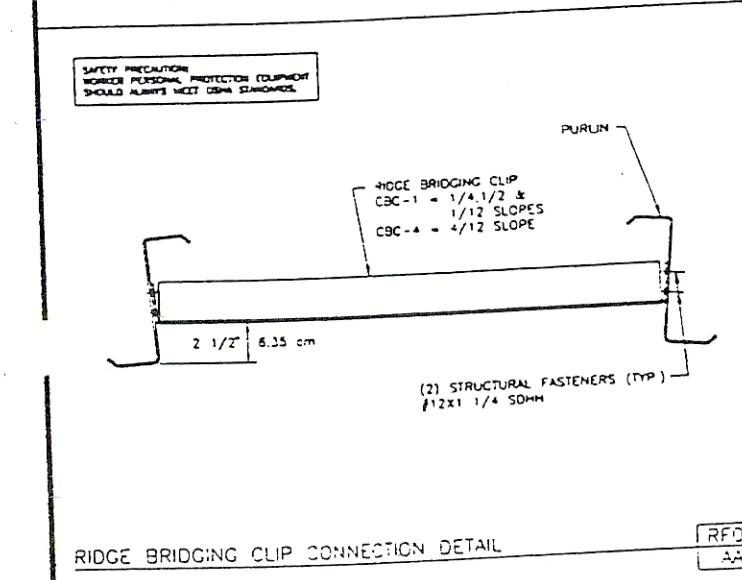
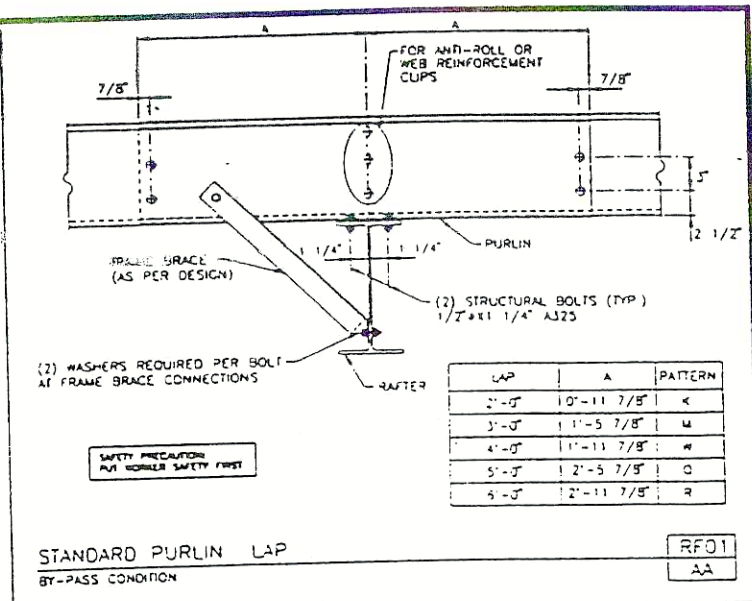
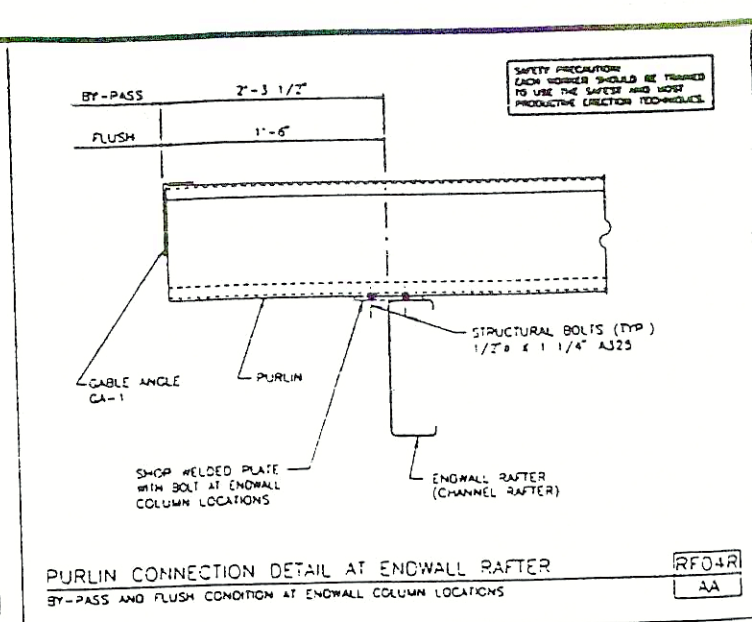
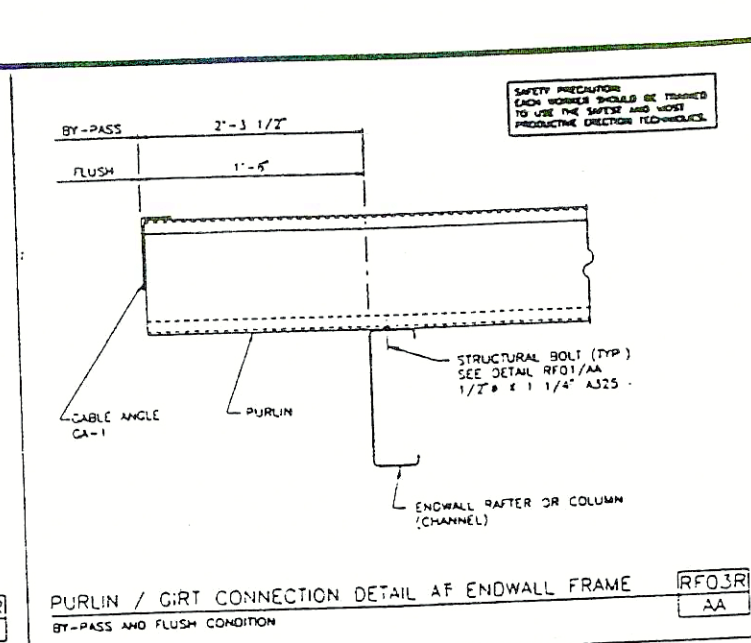
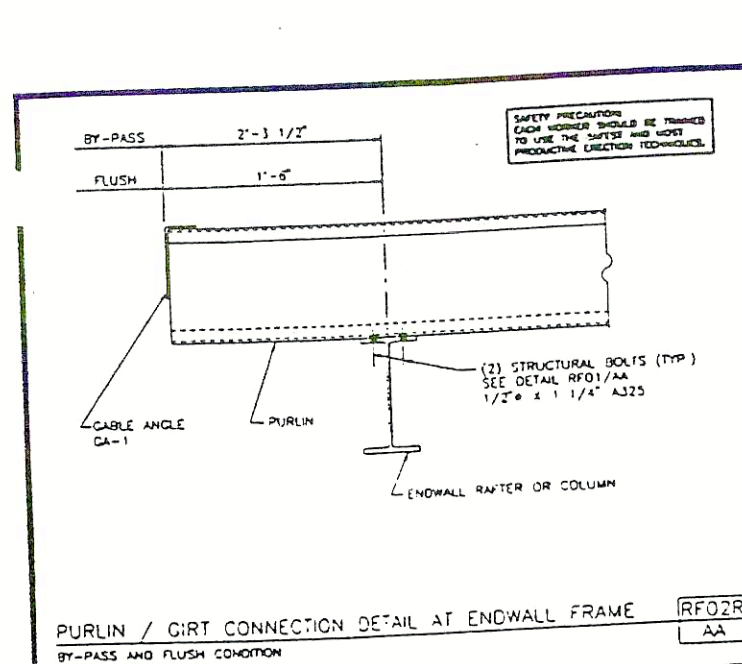
RF37P
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ICE RINK


SCALE: DATE
DRAWN BY: TON
CHECKED BY: BLJ
DESIGN APP'D BY:
ISSUED: 12-1-97

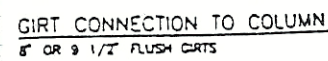
TYPICAL EAVE STRUT
CONNECTION DETAILS

KUPAULA
DRAWING NUMBER: DRF-1.0
REV



ICE RINK

										SCALE:		DATE		TYPICAL ROOF FRAMING CONNECTION DETAILS		EUPAULA				ALLIANCE			
										DRAWN BY: THG													
										CHECKED BY: BLJ													
										DESIGN APP'D BY:													
										ISSUED:		12-1-97				DRAWING NUMBER :		DRF-2.0		R2			



WF01P	13
AA	13



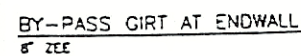
WFO10	AA
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RF02
AA

LAP	A	PATTERN
2'-0"	0'-11 7/8"	K
3'-0"	1'-5 7/8"	M
4'-0"	1'-11 7/8"	W
5'-0"	2'-5 7/8"	Q
6'-0"	2'-11 7/8"	R

ICE RINK



WF58P
AA



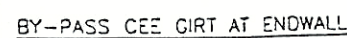
WF59R
AA



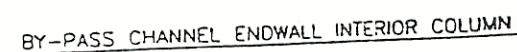
WF5SR
AA



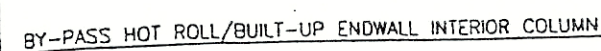
WF56R
AA



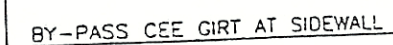
WF12R	
AA	



WF60R
AA



WF51R
AA



WF11R8
AA

3	REVISED WF01PAA, WF01QAA	ADDED WF12RAA	TBG	BLJ	7-98
	WF11RAA	REMOVED WF01AA, WF57RAA			
2	ADDED WF01AA		TBG	THG	4-98
			TBG	THG	2-98
1	REVISED RFD2AA				

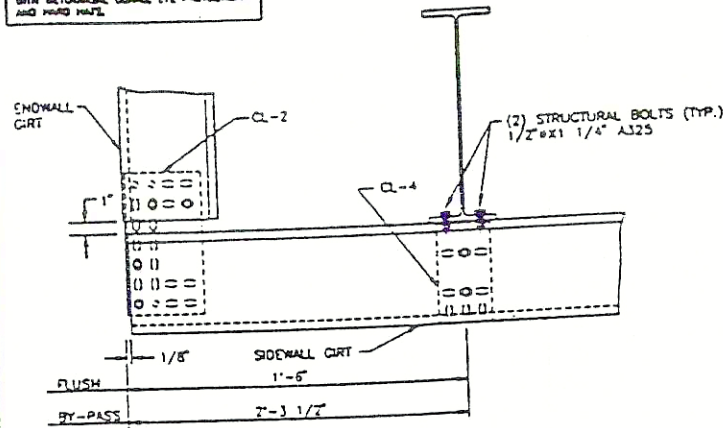
SCALE:	DATE
DRAWN BY: TON	
CHECKED BY: BLJ	
DESIGN APP'D BY:	
ISSUED:	12-9

TYPICAL PURLIN / GIRT
CONNECTION DETAILS
8" & 9 1/2" GIRTS



DRAWING NUMBER :	DWF-1.0	REV. NO. 3
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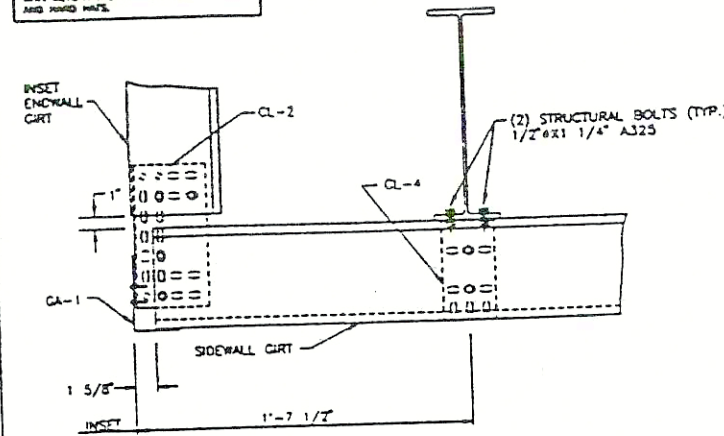
SAFETY PRECAUTION
AMERICAN BUILDING COMPANY RECOMMENDS
THAT ALL WORKERS WEAR STEEL TOE SHOES
WITH METEORICAL GUARD, EYE PROTECTION
AND HARD HATS.



CORNER GIRT CONNECTION
BY-PASS SIDEWALL GIRTS/FLUSH OR BY-PASS ENDWALL

WF04
AA

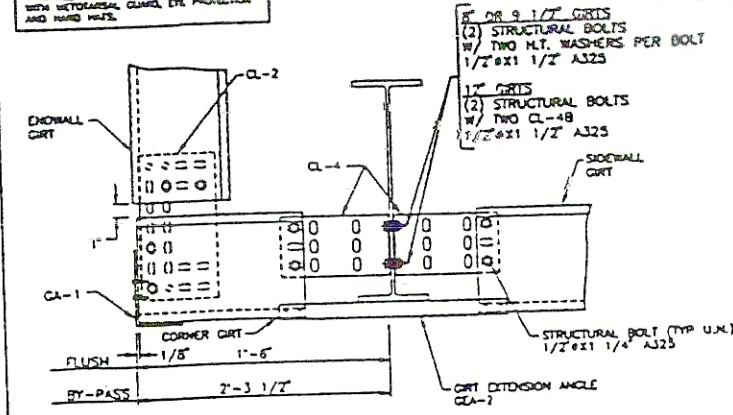
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AND HARD HATS.



CORNER GIRT CONNECTION
BY-PASS SIDEWALL GIRTS/INSET ENDWALL

WF04C
AA

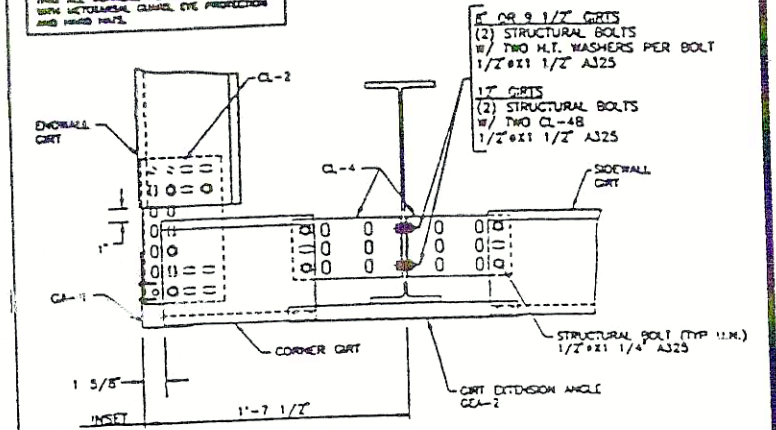
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AND HARD HATS.



CORNER GIRT CONNECTION
INSET SIDEWALL GIRTS/FLUSH OR BY-PASS ENDWALL

WF05B
AA

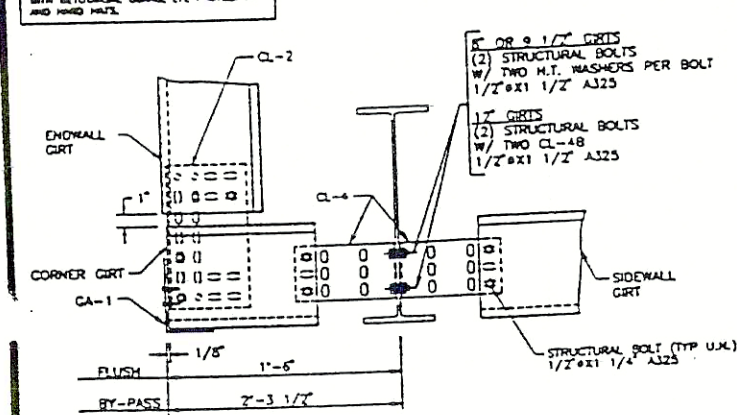
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AND HARD HATS.



CORNER GIRT CONNECTION
INSET SIDEWALL GIRTS/INSET ENDWALL

WF05C
AA

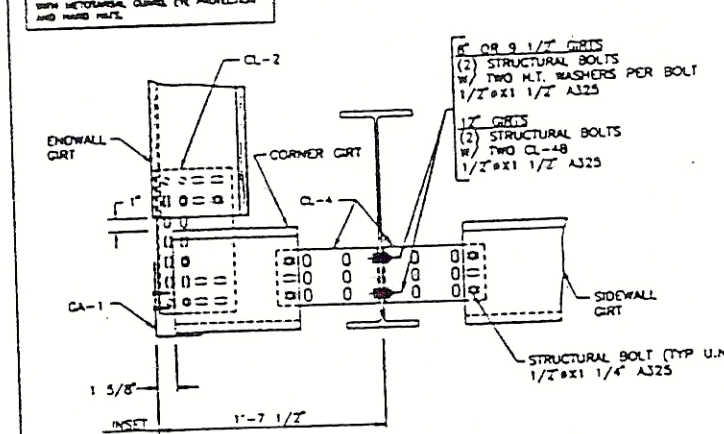
SAFETY PRECAUTION
AMERICAN BUILDING COMPANY RECOMMENDS
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WITH METEORICAL GUARD, EYE PROTECTION
AND HARD HATS.



CORNER GIRT CONNECTION
FLUSH SIDEWALL GIRTS/FLUSH OR BY-PASS ENDWALL

WF06B
AA

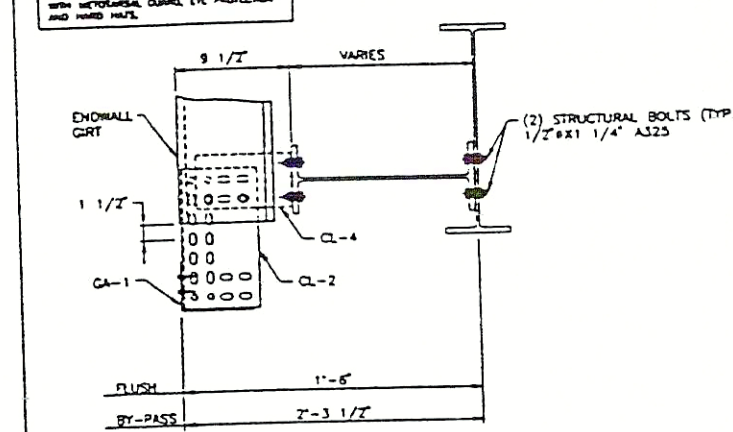
SAFETY PRECAUTION
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WITH METEORICAL GUARD, EYE PROTECTION
AND HARD HATS.



CORNER GIRT CONNECTION
FLUSH SIDEWALL GIRTS/INSET ENDWALL

WF06C
AA

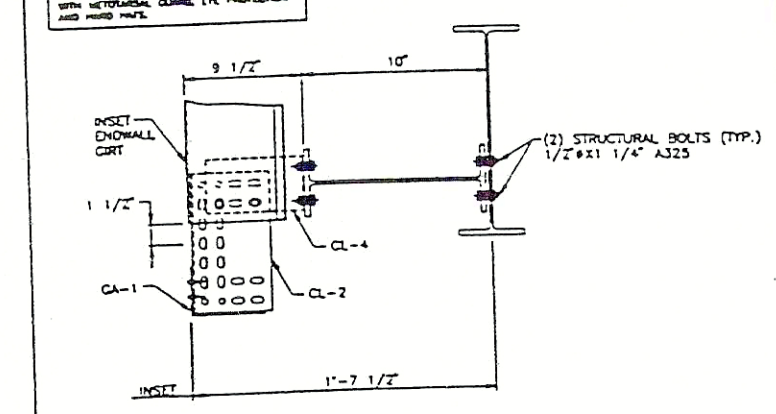
SAFETY PRECAUTION
AMERICAN BUILDING COMPANY RECOMMENDS
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WITH METEORICAL GUARD, EYE PROTECTION
AND HARD HATS.



CORNER GIRT CONNECTION AT WIND COLUMN
OPEN BY-PASS SIDEWALL GIRTS/FLUSH OR BY-PASS ENDWALL

WF04W
AA

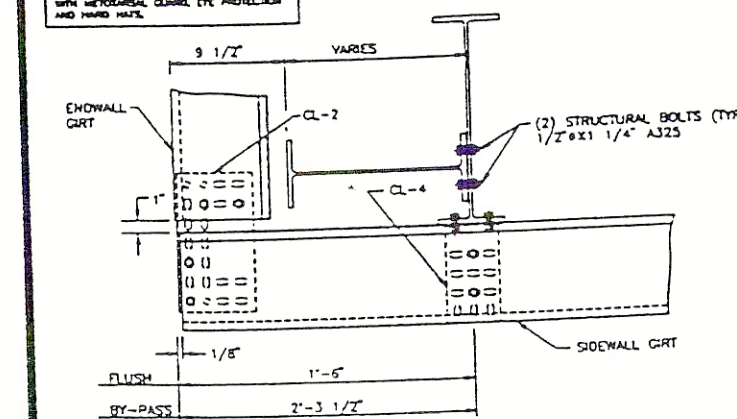
SAFETY PRECAUTION
AMERICAN BUILDING COMPANY RECOMMENDS
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WITH METEORICAL GUARD, EYE PROTECTION
AND HARD HATS.



CORNER GIRT CONNECTION AT WIND COLUMN
OPEN BY-PASS SIDEWALL GIRTS/INSET ENDWALL

WF04Z
AA

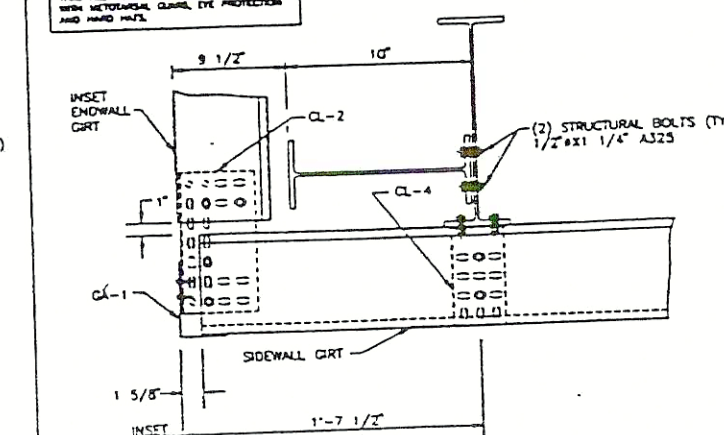
SAFETY PRECAUTION
AMERICAN BUILDING COMPANY RECOMMENDS
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AND HARD HATS.



CORNER GIRT CONNECTION AT WIND COLUMN
BY-PASS SIDEWALL GIRTS/FLUSH OR BY-PASS ENDWALL

WF04X
AA

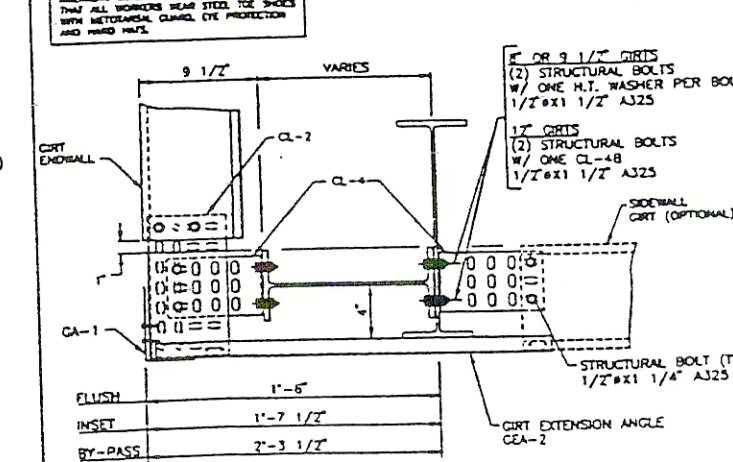
SAFETY PRECAUTION
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AND HARD HATS.



CORNER GIRT CONNECTION AT WIND COLUMN
BY-PASS SIDEWALL GIRTS/INSET ENDWALL

WF04Y
AA

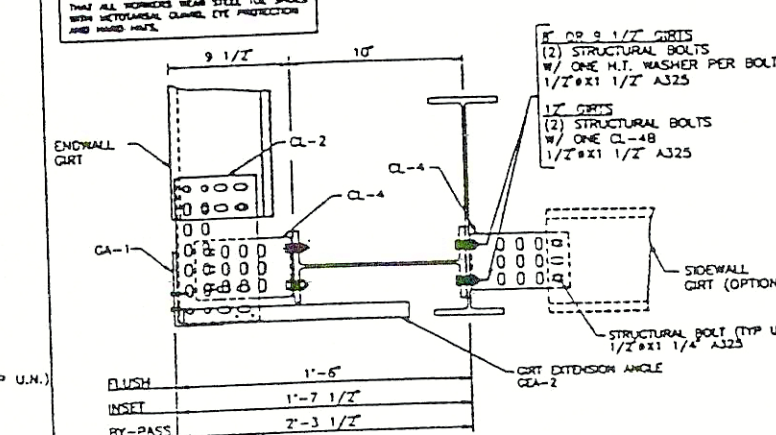
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CORNER GIRT CONNECTION AT WIND COLUMN
INSET SIDEWALL GIRTS/FLUSH, INSET, BY-PASS ENDWALL

WF05Z
AA

SAFETY PRECAUTION
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AND HARD HATS.



CORNER GIRT CONNECTION AT WIND COLUMN
FLUSH SIDEWALL GIRTS/FLUSH, INSET, BY-PASS ENDWALL

WF06Z
AA

SCALE: DATE
DRAWN BY: THG
CHECKED BY: BLJ
DESIGN APP'D BY:
ISSUED: 12-1-97

ICE RINK

EUPAULA ALABAMA
DRAWING NUMBER: DWF-2.0
REV. NO. 1

VISION
(P98-081)

MADE CK'D DATE NO.1

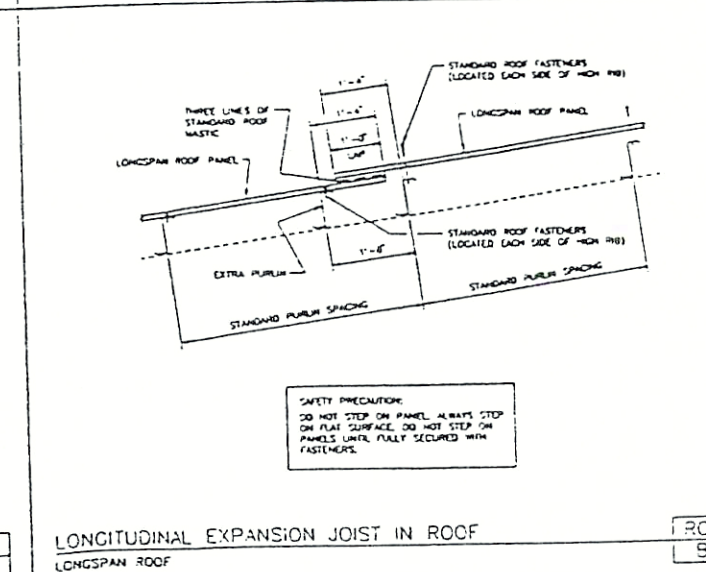
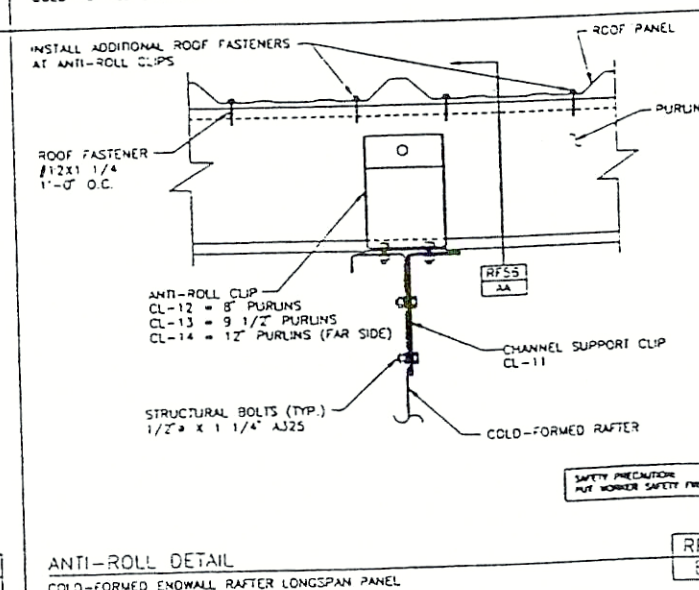
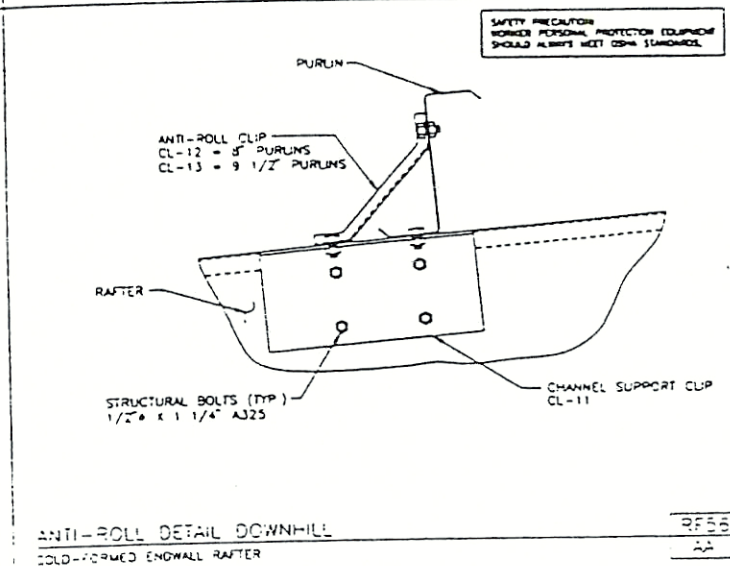
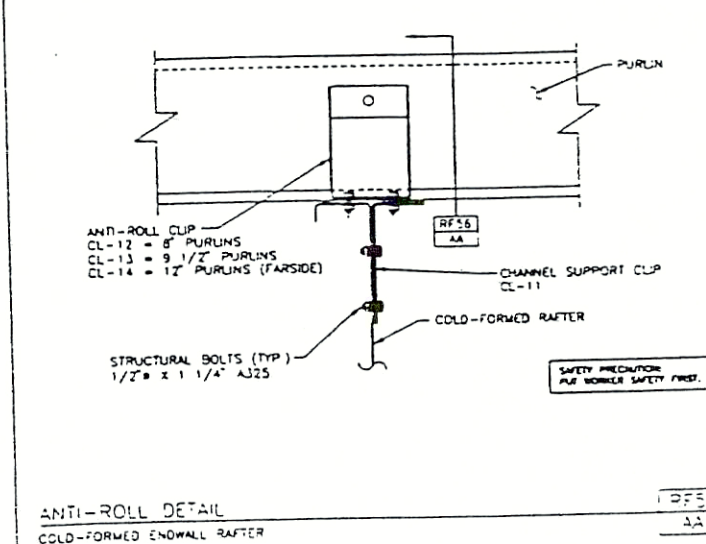
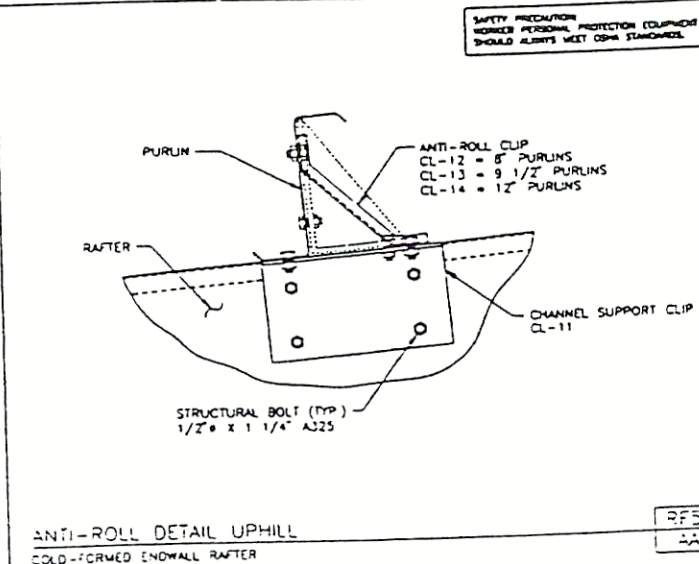
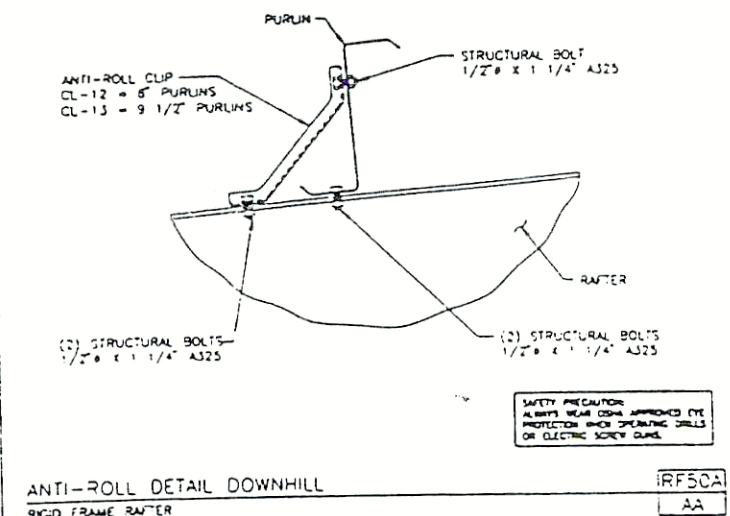
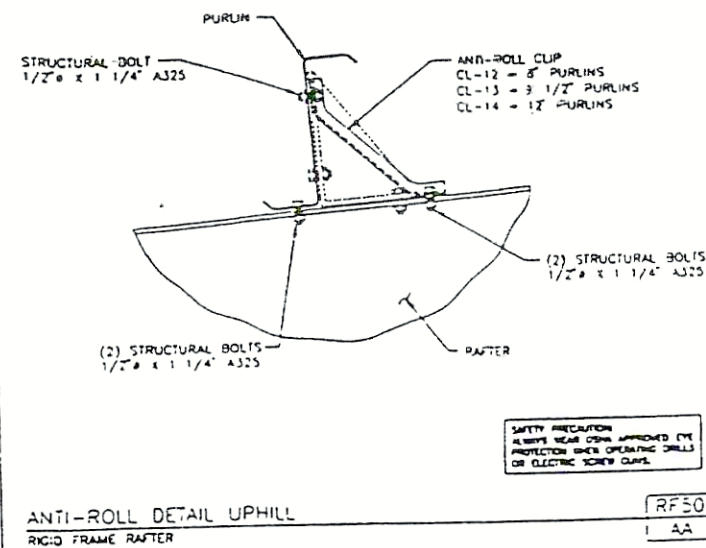
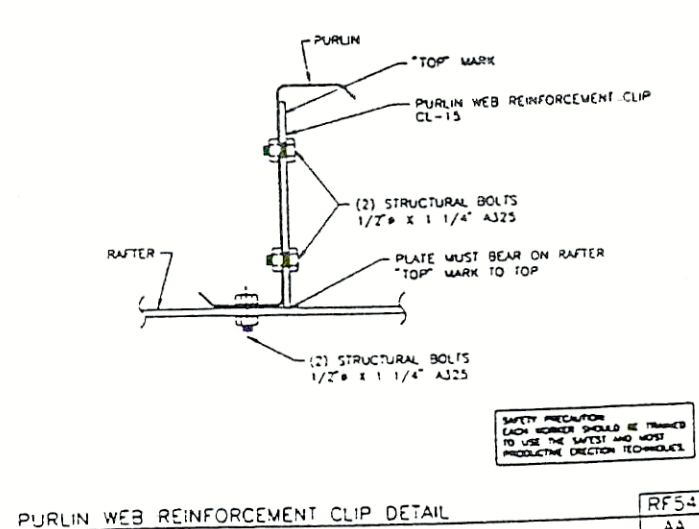
REVISION

MADE CK'D DATE NO.1

REVISION

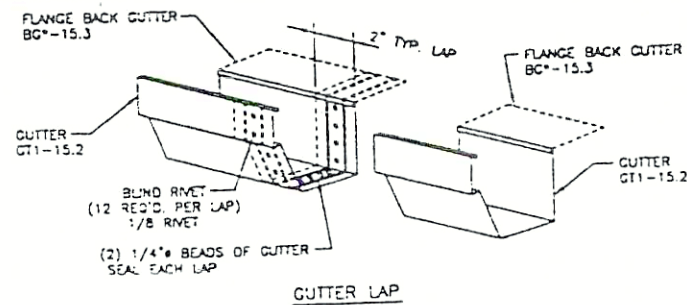
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1 REVISED WF05AA, WF05CA, WF06AA, WF06CA, TEG BLJ 7-98
WF05ZAA, WF06ZAA



ICE RINK

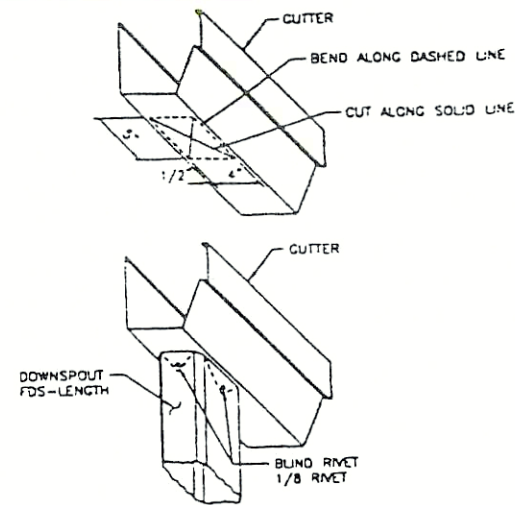
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FASTENERS AT GUTTER LAP AND ENDCAP

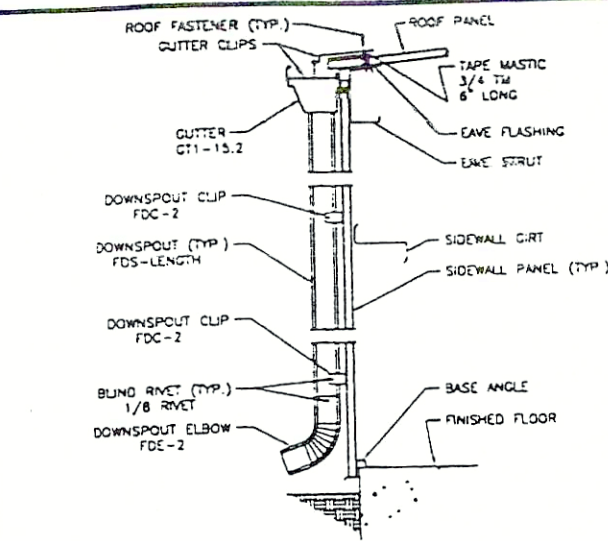
GUTTER LAP AND GUTTER ENDCAP FASTENER DETAIL

GT07
AA



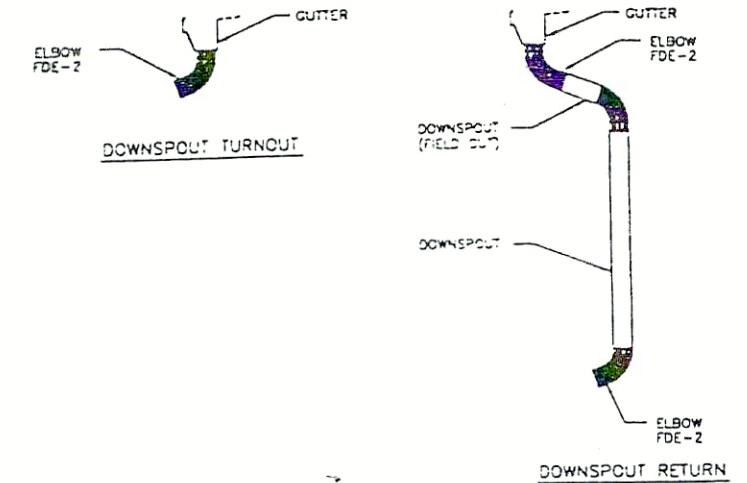
DOWNSPOUT OUTLET DETAIL

GT01
AA



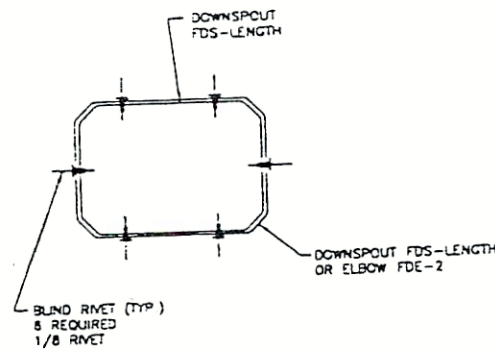
DOWNSPOUT DETAIL

GT02
AA



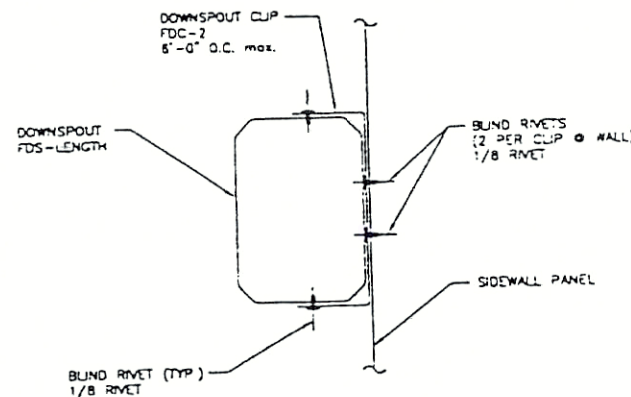
DOWNSPOUT DETAILS

GT08
AA



RIVET LOCATIONS AT DOWNSPOUT LAP OR ELBOW

GT04
AA



SECTION THROUGH DOWNSPOUT

GT03
AA

ROOF SLOPE	WIDTH	LOCATION
UP TO 40°	40° O.C.	
41° TO 50°	35° O.C.	
51° TO 60°	30° O.C.	
61° TO 80°	25° O.C.	
81° TO 125°	20° O.C.	
126° TO 180°	15° O.C.	
181° TO 240°	10° O.C.	

ICE RINK

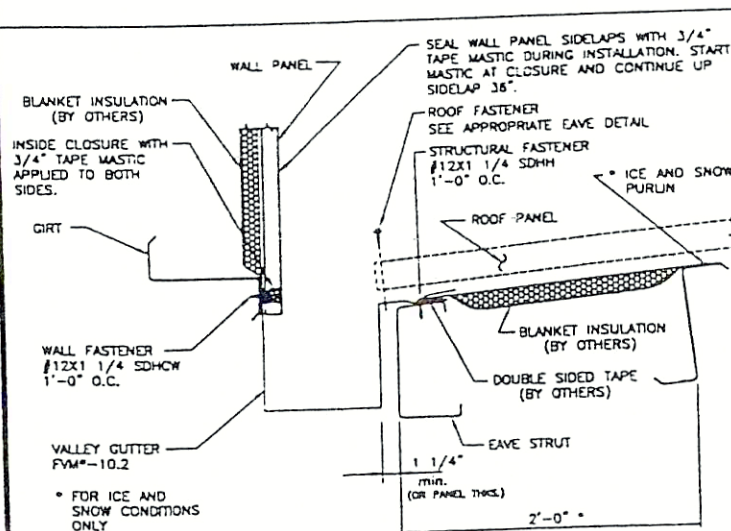
DOWNSPOUT LOCATION

GT05
AA

EAVE	DOWNSPOUTS	DOWNSPOUT CLIPS (FDC-2)
10'	1 PC. FDS-14.4 & 1 PC. FDE-2	2
12'	1 PC. FDS-14.4 & 1 PC. FDE-2	2
14'	1 PC. FDS-14.4 & 1 PC. FDE-2	3
16'	1 PC. FDS-14.4 & 1 PC. FDE-2	3
18'	1 1/2 PC. FDS-14.4 & 1 PC. FDE-2	4
20'	1 1/2 PC. FDS-14.4 & 1 PC. FDE-2	4
22'	1 1/2 PC. FDS-14.4 & 1 PC. FDE-2	4
24'	2 PC. FDS-14.4 & 1 PC. FDE-2	5
26'	2 PC. FDS-14.4 & 1 PC. FDE-2	5
28'	2 PC. FDS-14.4 & 1 PC. FDE-2	6
30'	2 PC. FDS-14.4 & 1 PC. FDE-2	6
32'	2 1/2 PC. FDS-14.4 & 1 PC. FDE-2	6
34'	2 1/2 PC. FDS-14.4 & 1 PC. FDE-2	7
36'	2 1/2 PC. FDS-14.4 & 1 PC. FDE-2	7
38'	3 PC. FDS-14.4 & 1 PC. FDE-2	8
40'	3 PC. FDS-14.4 & 1 PC. FDE-2	8

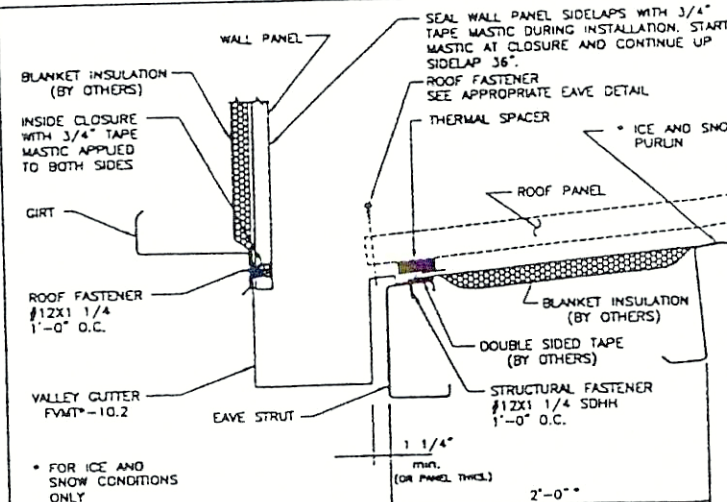
DOWNSPOUT SCHEDULE

GT06
AA



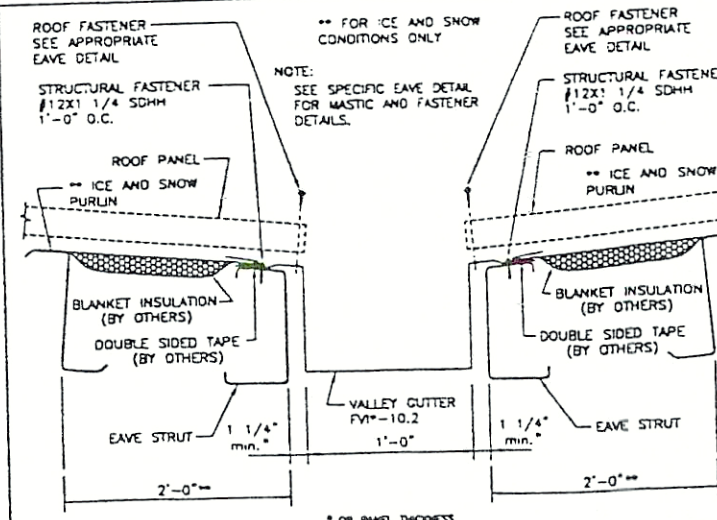
VALLEY GUTTER DETAIL

EA08
AA



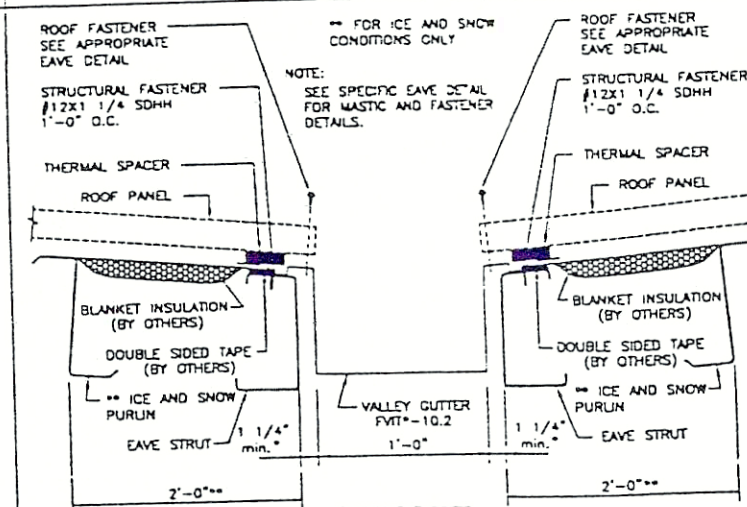
VALLEY GUTTER DETAIL WITH THERMAL SPACERS

EA08C
AA



VALLEY GUTTER DETAIL

EA09
AA



VALLEY GUTTER DETAIL WITH THERMAL SPACERS

EA09C
AA

SCALE:	DATE
DRAWN BY: THG	
CHECKED BY: BLJ	
DESIGN APP'D BY:	
ISSUED:	12-1-97

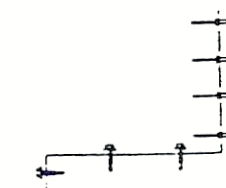
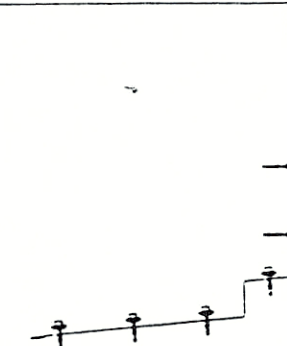
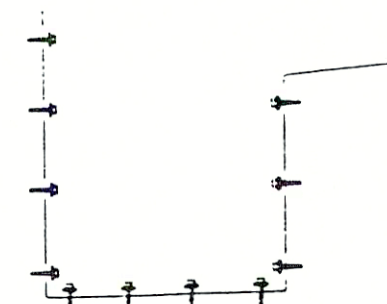
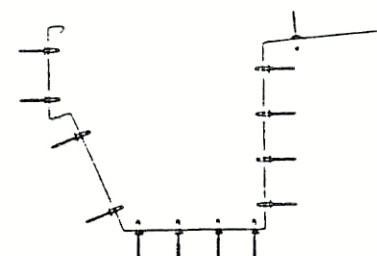
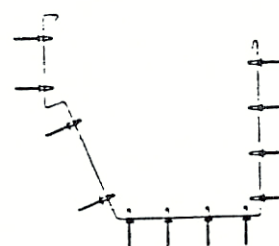
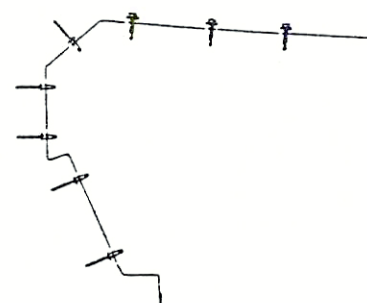
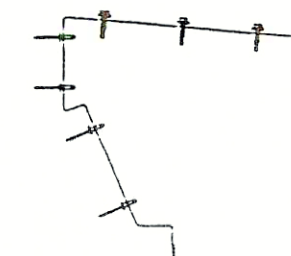
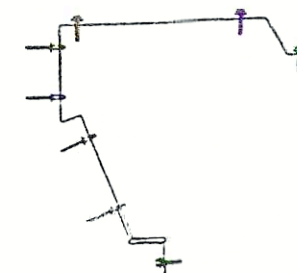
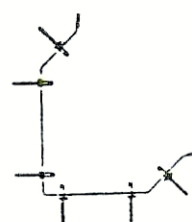
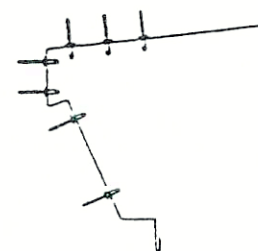
GUTTER AND DOWNSPOUT DETAILS





REVISED	DATE	BY	REASON

DRAWING NUMBER: GTD-1.0

REV. NO.


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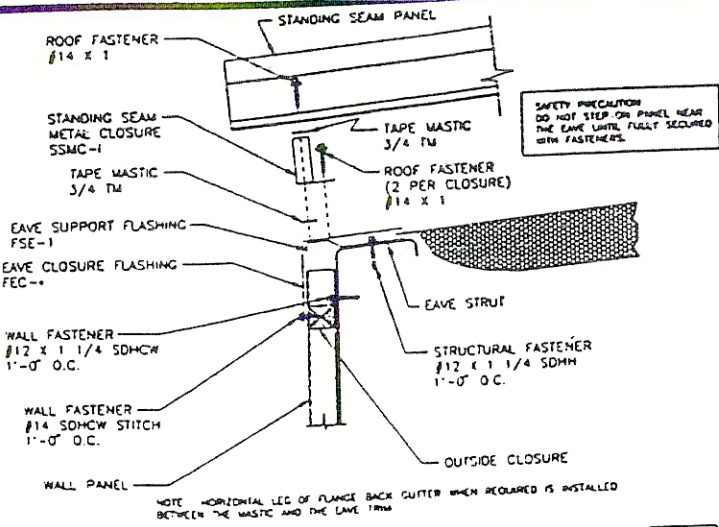


-  - BLIND RIVET
1/8 RIVET
-  - ROOF FASTENER
14x1 SCARF (SELF DRILLING)
-  - ROOF FASTENER
14x1 SDHMW (SELF DRILLING)
-  - ROOF FASTENER
14x7/8 SDHCM (SELF DRILLING)

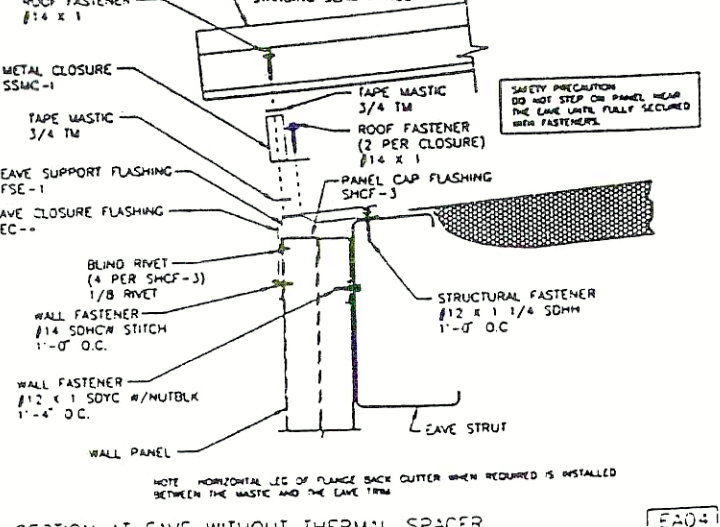
4075

- 1 ALL FLASHING LAPS (EXCEPT CORNER FLASHING) SHALL BE CAULKED WITH (2) 1/4" BEADS OF GUTTER SEAL (URETHANE CAULK)
- 2 ALL FLASHING LAPS SHALL BE THREE INCHES EXCEPT CORNER FLASHING LAPS WHICH SHALL BE ONE INCH
- 3 VALLEY GUTTER LAPS SHALL BE SEALED WITH 2 X 3/16" TAPE MASTIC AND SHALL BE STITCHED WITH #14 ROOF FASTENERS TWO INCHES ON CENTER QUANTITY WILL VARY WITH GUTTER SIZE
- 4 FOR FLASHING LAPS NOT SHOWN, USE THE FOLLOWING AS A GUIDE, FLASHINGS THAT ARE EXPOSED TO ROOF CONDITIONS, USE #14 ROOF FASTENERS THREE INCHES IN CENTER ALL OTHER CONDITIONS USE 1/8 INCH BUND RIVETS THREE INCHES IN CENTER

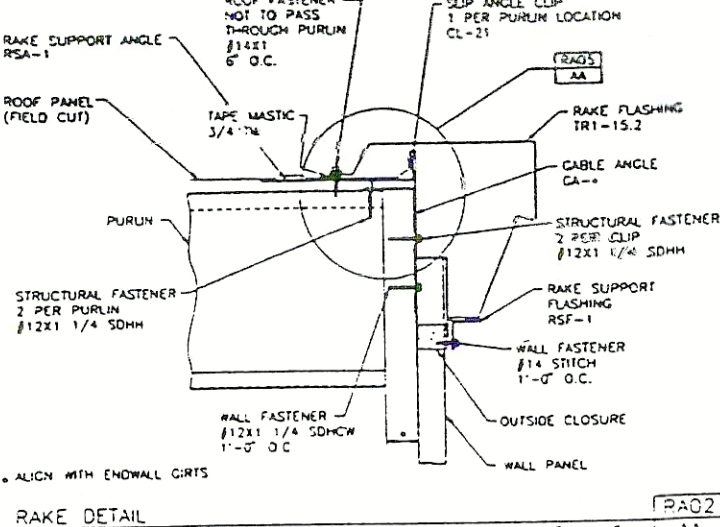
										SCALE:		DATE		STANDARD FLASHING LAPS	EUPAULA				ALABAMA	
										DRAWN BY: THG					DRAWING : SFL-1.0	REV. 1				
										CHECKED BY: JKC										
										DESIGN APP'D BY:										
										ISSUED:		12-1-97								
1 UNIVERSAL RAKE, EAVE TRIM REVISIONS										THG THG 11-98										
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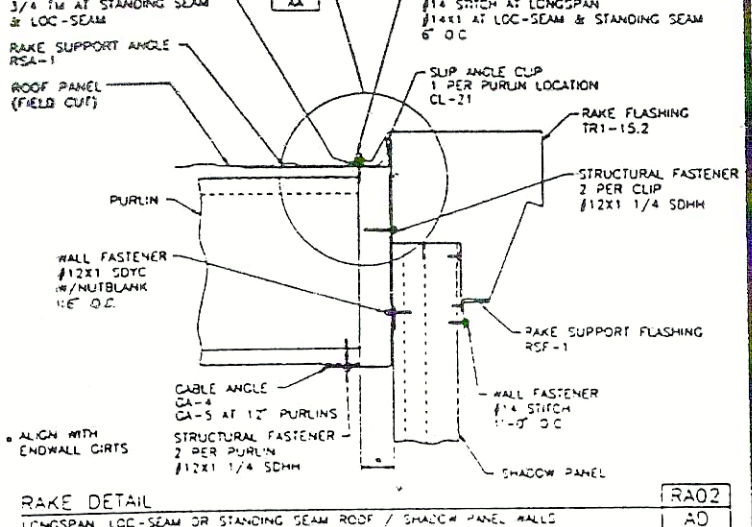
SECTION AT EAVE WITHOUT THERMAL SPACER
STANDING SEAM ROOF / ARCHITECTURAL OR LONGSPAN WALLS



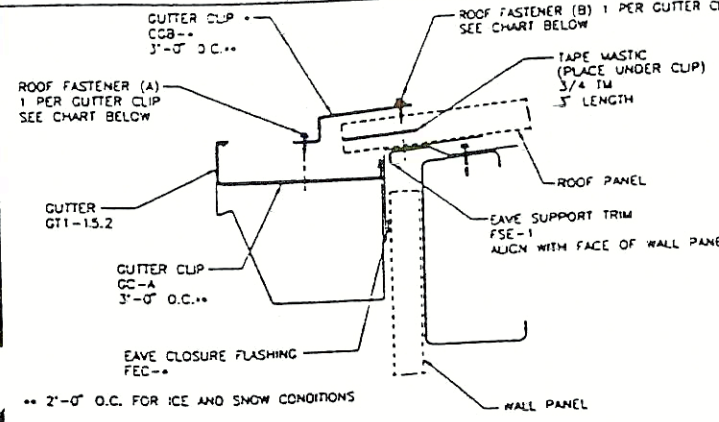
SECTION AT EAVE WITHOUT THERMAL SPACER
STANDING SEAM ROOF / SHADOW PANEL WALLS



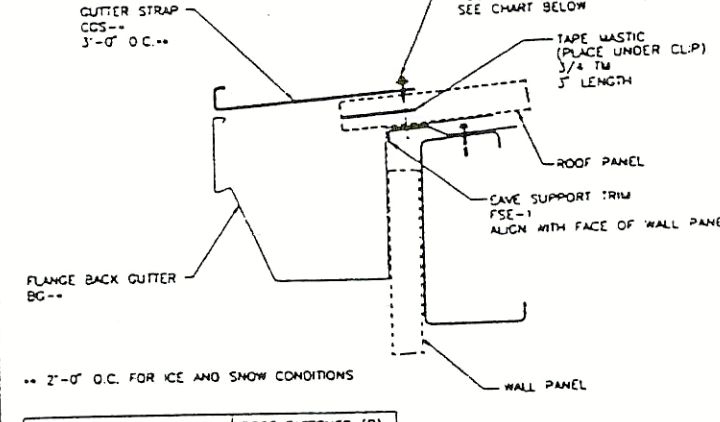
RAKE DETAIL
LONG-SPAN OR STANDING SEAM ROOF / ARCHITECTURAL OR LONGSPAN PANEL WALLS



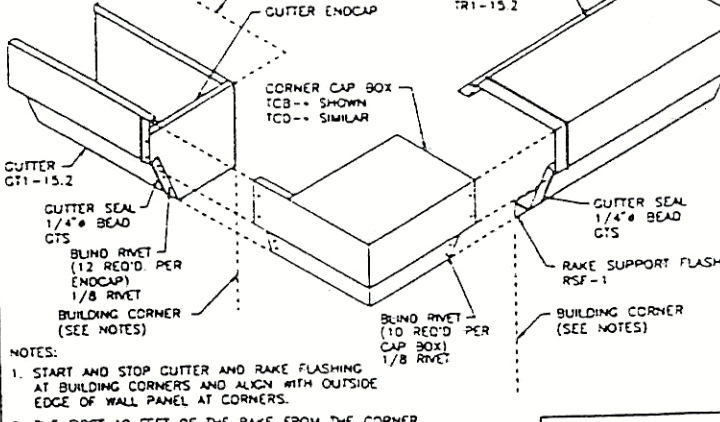
RAKE DETAIL
LONGSPAN, LOC-SEAM OR STANDING SEAM ROOF / SHADOW PANEL WALLS



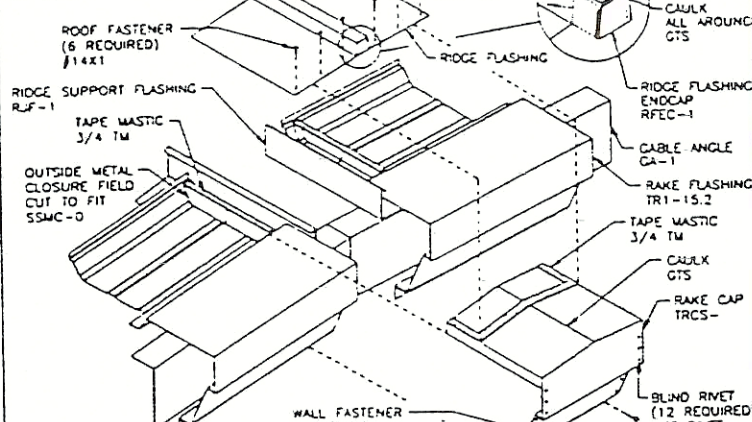
STANDARD GUTTER DETAIL WITH GUTTER CLIP ATTACHMENT



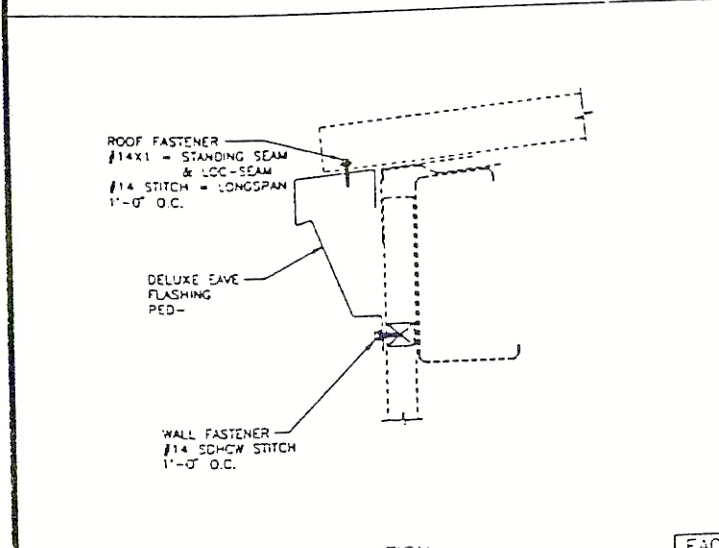
FLANGE BACK GUTTER DETAIL WITH GUTTER STRAP ATTACHMENT



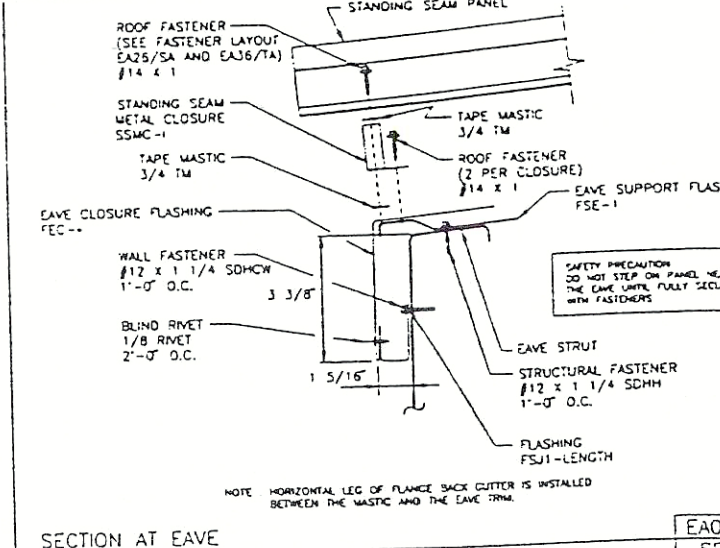
CORNER CAP BOX INSTALLATION



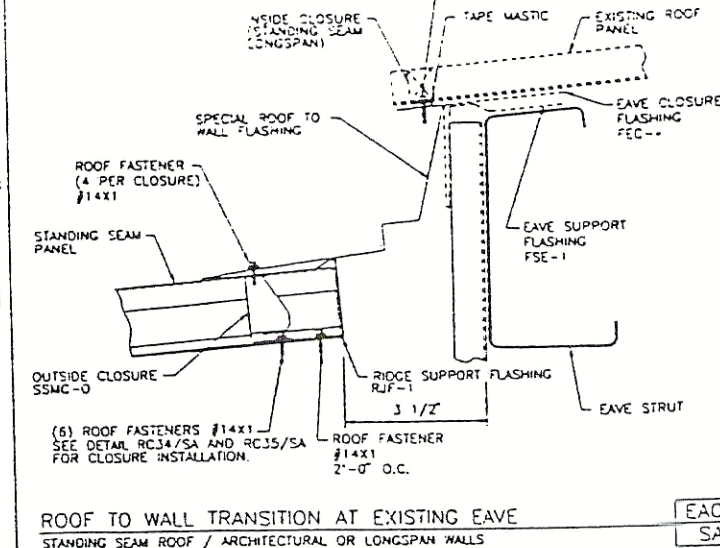
RAKE CAP INSTALLATION
STANDING SEAM ROOF



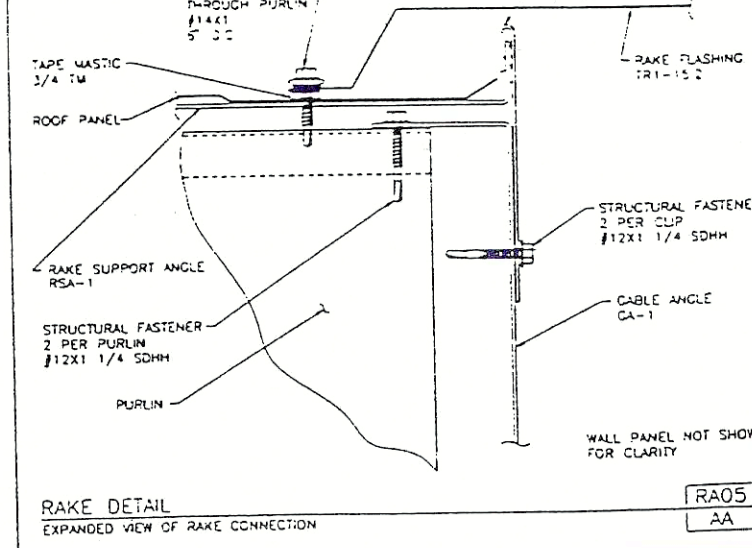
DELUXE EAVE FLASHING INSTALLATION



SECTION AT EAVE
STANDING SEAM ROOF / OPEN SIDEWALL



ROOF TO WALL TRANSITION AT EXISTING EAVE
STANDING SEAM ROOF / ARCHITECTURAL OR LONGSPAN WALLS



RAKE DETAIL
EXPANDED VIEW OF RAKE CONNECTION

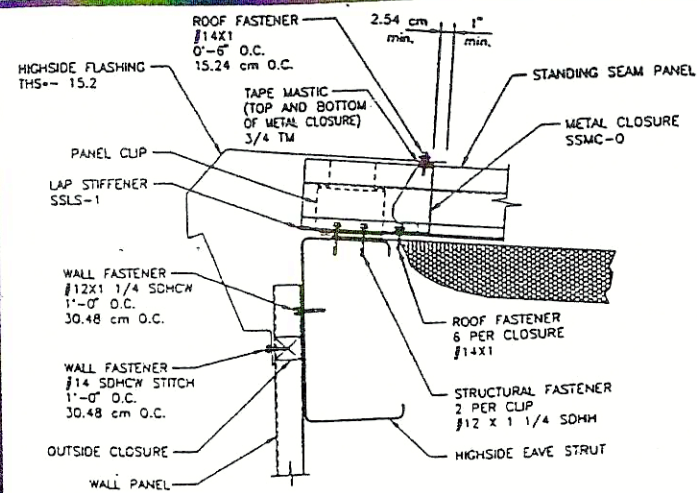
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	REVISION								

SCALE: DATE
DRAWN BY: THG
CHECKED BY: BLJ
DESIGN APP'D BY:
ISSUED: 12-1-97

STANDING SEAM ROOF PANEL
BASIC ERECTION

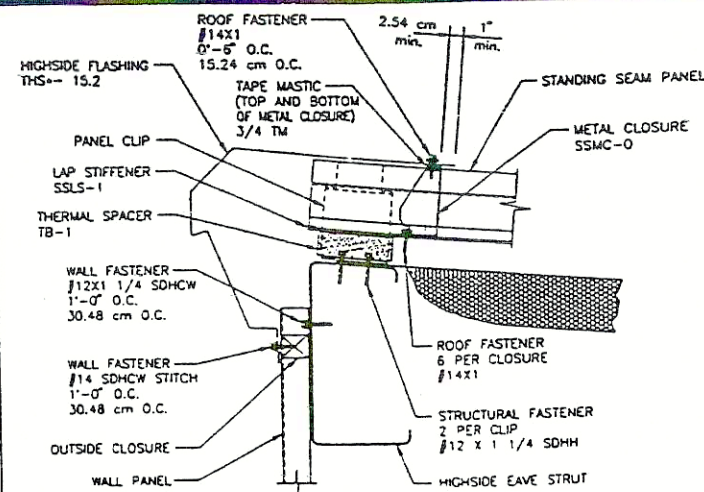
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DRAWING NUMBER: SSG-1.0

ICE RINK



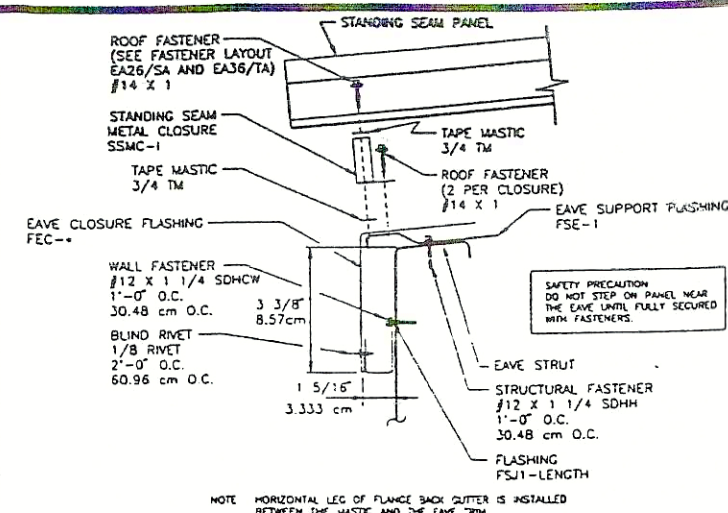
HIGHSIDE EAVE FLASHING ATTACHMENT
STANDING SEAM ROOF / ARCHITECTURAL OR LONGSPAN WALLS

EA05
SB



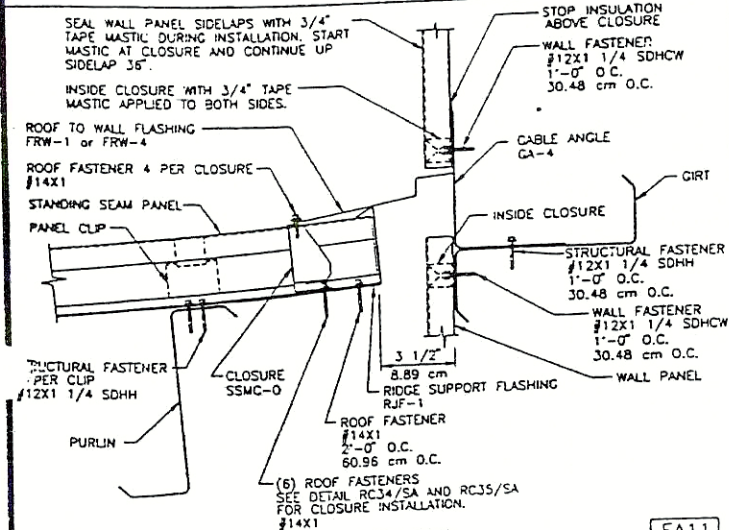
HIGHSIDE EAVE FLASHING ATTACHMENT WITH THERMAL SPACER
STANDING SEAM ROOF / ARCHITECTURAL OR LONGSPAN WALLS

EA05C
SB



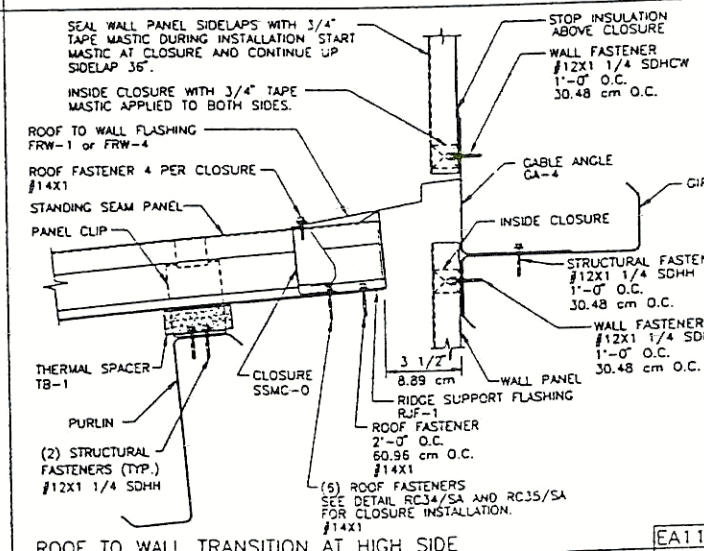
SECTION AT EAVE
STANDING SEAM ROOF / OPEN SIDEWALL

EA04
SF



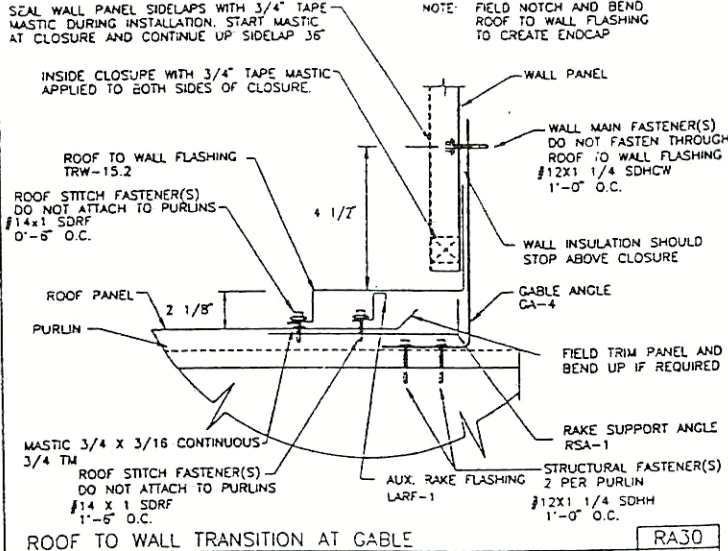
ROOF TO WALL TRANSITION AT HIGH SIDE
STANDING SEAM ROOF / ARCHITECTURAL OR LONGSPAN WALLS

EA11
SB



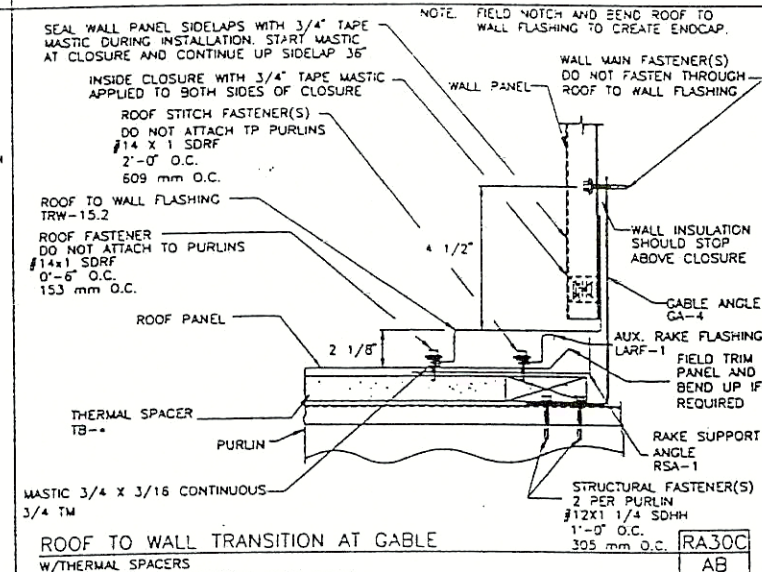
ROOF TO WALL TRANSITION AT HIGH SIDE
STANDING SEAM ROOF W/THERMAL SPACERS
ARCHITECTURAL OR LONGSPAN WALLS

EA11C
SB



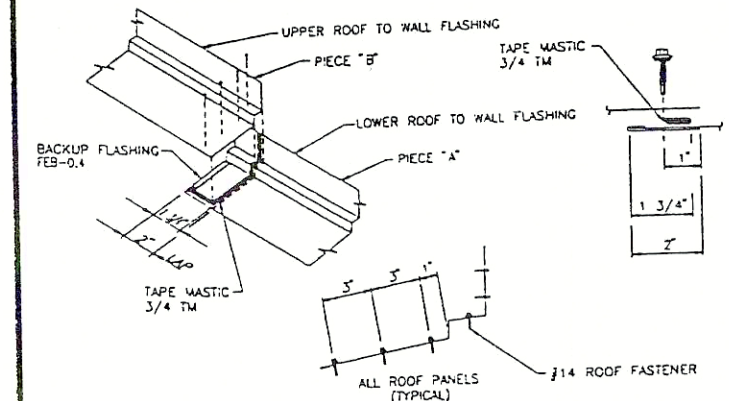
ROOF TO WALL TRANSITION AT CABLE
ARCHITECTURAL OR LONGSPAN WALLS

RA30
AB



ROOF TO WALL TRANSITION AT CABLE
W/THERMAL SPACERS
ARCHITECTURAL OR LONGSPAN PANEL WALLS

RA30C
AB



HOLES MUST BE DRILLED PRIOR TO APPLYING MASTIC. TEMPORARILY LAP PIECE "B" OVER PIECE "A". PRE-DRILL THE REQUIRED NUMBER OF 1/4" HOLES THROUGH BOTH PIECES OF ROOF TO WALL FLASHING BUT NOT BACKUP FLASHING. SLIDE PIECE "B" BACK AND APPLY TAPE MASTIC AND BACKUP FLASHING ON PIECE "A" AS SHOWN. LAP PIECE "B" OVER PIECE "A" BEING CAREFUL TO ALIGN HOLES. INSTALL ROOF FASTENERS AS SHOWN. CONTINUE PROCESS ALONG ROOF TO WALL CONDITION.

EXPANSION JOINT AT ROOF TO WALL FLASHING

RC35
AA

ICE RINK

NO.	REVISION	MADE	CK'D	DATE	NO.	REVISION	MADE	CK'D	DATE	NO.	REVISION	MADE	CK'D	DATE
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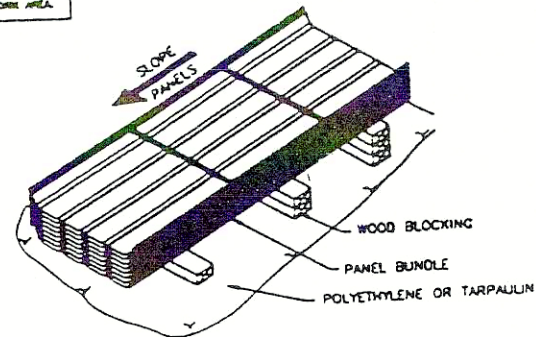
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CHECKED BY: BLJ	
DESIGN APP'D BY:	
ISSUED:	12-1-97

STANDING SEAM ROOF PANEL
BASIC ERECTION

REV. NO.	2
DRAWING NUMBER :	SSG-2.0

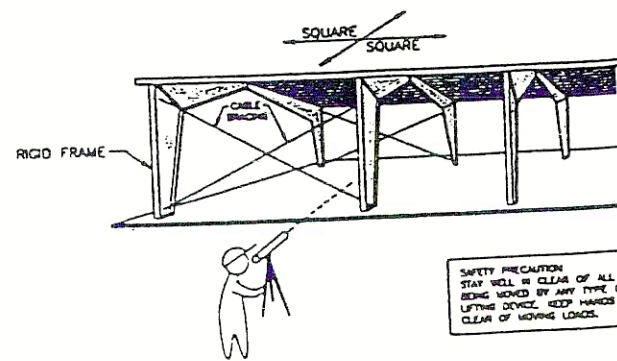
USE WOOD BLOCKING TO ELEVATE AND SLOPE THE PANELS IN A MANNER THAT WILL ALLOW MOISTURE TO DRAIN. WOOD BLOCKING PLACED BETWEEN PANEL BUNDLES WILL PROVIDE ADDITIONAL AIR CIRCULATION. COVER THE AREA BETWEEN PANELS WITH POLYETHYLENE OR TARPULIN TO PREVENT DIRT AND DEBRIS FROM ENTERING FEMALE SEAM.

SAFETY PRECAUTION
MAINTAIN A CLEAR AND
ORDERLY WORK AREA.



PANEL STORAGE
STANDING SEAM

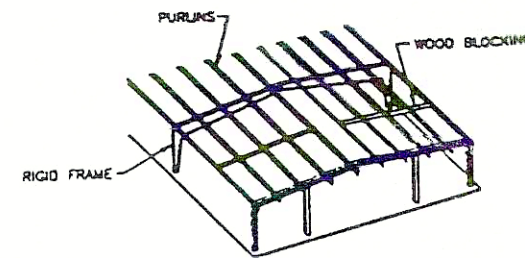
RC51
SA



THE FIRST STEP IN THE SUCCESSFUL INSTALLATION OF THE ROOF OR WALLS IS TO HAVE THE PRIMARY FRAMING PLUMB AND SQUARE. FOR BEST RESULTS, IT IS RECOMMENDED THAT A TRANSIT BE USED WHEN ERECTING THE STRUCTURAL STEEL.

BUILDING ALIGNMENT

GE01
AA



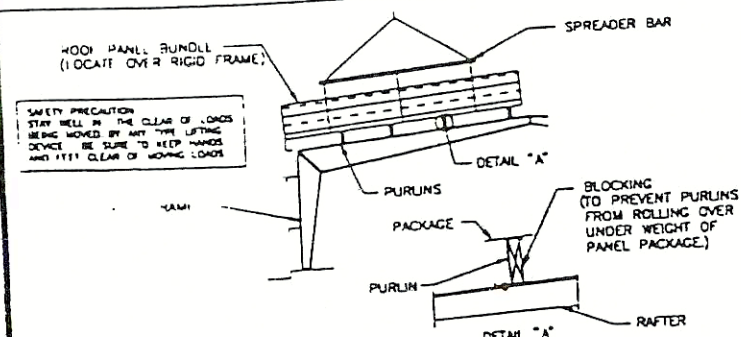
STRAIGHT PURLINS ARE A NECESSITY. ZEE SECTIONS HAVE A NATURAL TENDENCY TO ROLL OUT OF PLANE AND DEFLECT HORIZONTALLY. THIS MUST BE CORRECTED BY FORCING THE PURLINS INTO PROPER PLANE AND SPACING. WOOD BLOCKING IS RECOMMENDED AS ONE METHOD TO ACCOMPLISH THIS.

BEFORE SHEETING BEGINS IN ANY BAY, PLACE BLOCKING IN THAT BAY ACROSS THE FULL WIDTH OF THE BUILDING. AT LEAST ONE ROW IN THE CENTER OF THE BAY SHOULD ALWAYS BE USED. USE ADDITIONAL ROWS OF BLOCKING IF NEEDED TO MAINTAIN STRAIGHT PURLINS. ALLOWING THE PURLIN TO ROTATE OR SWEEP OUT OF PLANE COULD PREVENT THE ROOF PANEL FROM PROPERLY ATTACHING TO THE PURLINS AND HAS THE EFFECT OF LOWERING THE LOAD BEARING CAPACITY OF THESE ROLLED PURLINS LEADING TO POTENTIAL PURLIN FAILURE UNDER MAXIMUM DESIGN LOADS.

PURLIN BLOCKING

GE02
AA

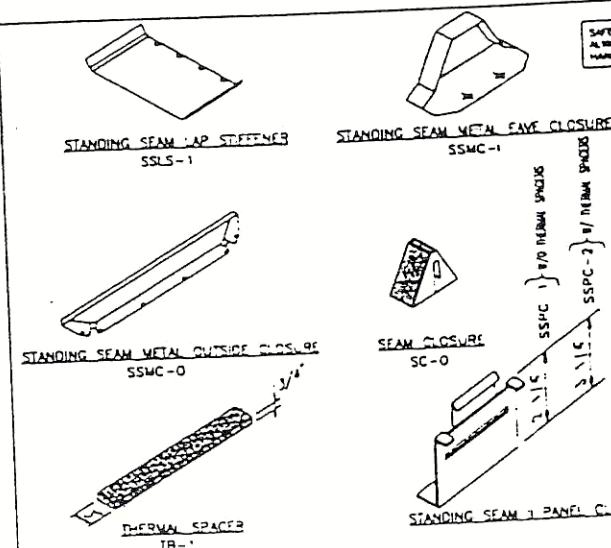
TYPICAL CONSTRUCTION OF THE WOOD BLOCKING IS SHOWN ABOVE. A 2 X 6 MINIMUM BOARD SIZE SHOULD BE USED. REFER TO THE CROSS SECTION FRAMING DRAWINGS THAT ACCOMPANIED THE BUILDING TO DETERMINE THE PURLIN SIZE AND SPACINGS.



TO FACILITATE THE HANDLING OF THE ROOF PANELS, PANEL BUNDLES CAN BE LIFTED AND PLACED ON THE ROOF IF LOCATED AT A RIGID FRAME AND WITH BLOCKING IN PLACE TO PREVENT THE PURLINS FROM ROLLING OVER. DO NOT SLIDE BUNDLED PANELS ALONG ROOF FRAMING. WHEN LIFTING BUNDLED SHEETS, MAKE CERTAIN THAT THE BUNDLE IS ADEQUATELY SUPPORTED. PANELS LESS THAN 20' IN LENGTH CAN NORMALLY BE LIFTED WITH A SPREADER BAR AND SLINGS BE USED. AS A RULE WHEN LIFTING, NO MORE THAN 1/3 OF THE LENGTH OF THE PANEL SHOULD BE LEFT UNSUPPORTED. REFER TO ERECTION DRAWINGS FOR THE ROOF PANEL MARKINGS AND STAGE BUNDLES ACCORDINGLY. THIS WILL MINIMIZE PANEL HANDLING AND SPEED THE ERECTION PROCEDURE.

PANEL STORAGE ON ROOF

RC54
AA

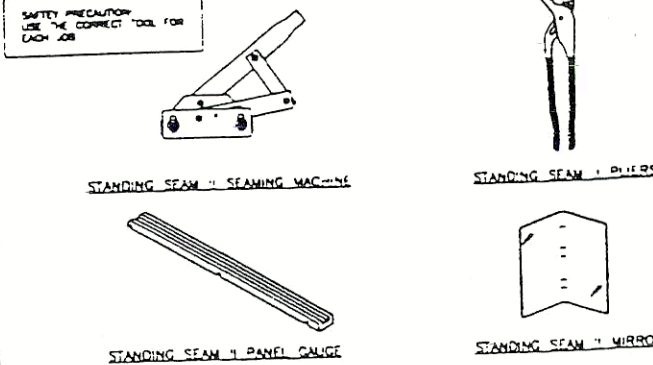


BASIC PARTS AND PIECES
STANDING SEAM

RC51
EA

AMERICAN'S STANDING SEAM II PANEL ROOF SYSTEM HAS UNIQUE SIDELAP SEAMS WHICH ENGAGE THE ADJACENT PANEL TO FORM A TIGHT PENETRATION FREE CONNECTION. THE PANEL IS ATTACHED TO THE SUPPORT FRAMING BY A SPECIAL STANDING SEAM II PANEL CLIP WHICH IS INTERLOCKED WITHIN THE SEAM AND FASTENED TO THE PURLIN WITH SELF-DRILLING FASTENERS. THE PROPER INSTALLATION OF THE PANEL WILL REQUIRE TOOLS SPECIALLY DESIGNED FOR THIS PURPOSE.

ILLUSTRATED BELOW ARE THE TOOLS USED ON A STANDING SEAM II ROOF PANEL SYSTEM



STANDING SEAM II TOOLS

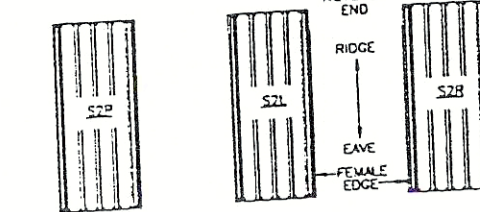
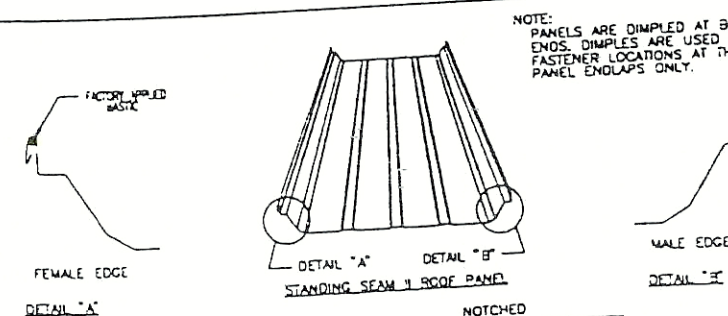
RC52
EA

ERECTION NOTES:

1. ALL AREAS WHERE MASTIC IS TO BE APPLIED SHOULD BE WIPED CLEAN WITH A MILD DETERGENT OR AN ALL PURPOSE CLEANER BEFORE MASTIC APPLICATION. THIS WILL INSURE A GOOD SEALING SURFACE AND IMPROVE WEATHER TIGHTNESS.
2. THE BLANKET INSULATION MANUFACTURER RECOMMENDS THAT DOUBLE SIDED TAPE BE USED TO SECURE THE INSULATION TO THE EAVE. AMERICAN BUILDINGS COMPANY IS NOT RESPONSIBLE FOR THE INSTALLATION OR ATTACHMENT OF THE INSULATION.
3. DO NOT USE THE DIMPLES IN THE END OF THE PANELS TO LOCATE FASTENERS AT THE EAVE. DIMPLES ARE FOR THE FASTENERS AT THE PANEL ENLAPS ONLY.
4. ALL EXPOSED FASTENERS SHOULD PENETRATE THE SEALANT FOR THE MOST WEATHER TIGHT CONNECTION.
5. WHEN FIELD CUTTING PANELS OR TRIM DO NOT USE ABRASIVE SAWS OR OTHER CUTTING METHODS WHICH PRODUCE HOT METAL PARTICLES OR BURN THE CUT EDGES. THESE METHODS WILL DAMAGE THE PAINTED AND GALVALUME FINISH AND VOID ANY WARRANTIES. USE DOUBLE CUT SHEARS, NIBBLERS OR OTHER CUTTING DEVICES WHICH DO NOT PRODUCE HOT METAL PARTICLES OR BURNED EDGES.

ERECTION NOTES - STANDING SEAM

RC9
SA



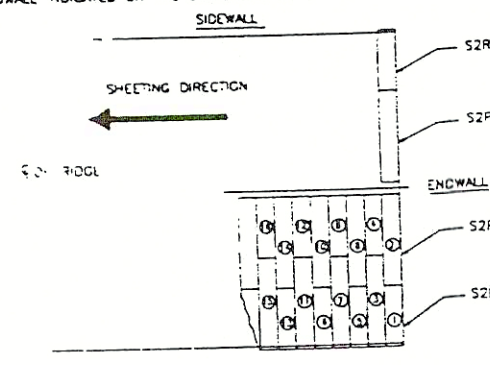
NOTE: PANELS ARE DIMPLED AT BOTH ENDS. DIMPLES ARE USED FOR FASTENER LOCATIONS AT THE PANEL ENLAPS ONLY.

THE STANDING SEAM II PANELS MAY BE DELIVERED WITH THREE DIFFERENT MARKING PREFIXES. THE RIDGE PANELS MARKED AS S2P WILL BE VOID OF ANY NOTCHES IN THE SEAM AND WILL BE THE RIDGE PANEL OF ANY SINGLE OR MULTI-PANEL RUN. PANELS MARKED S2L AND S2R WILL BE NOTCHED FOR PANEL ENLAPS ON THE UPPER END, AND WILL BE THE EAVE PANEL OR THE INTERMEDIATE PANEL OF MULTI-PANEL RUNS, AND WILL BE LOCATED ON THE LEFT AND RIGHT SIDE OF THE RIDGE RESPECTIVELY.

PANEL MARKING AND NOTCHING
STANDING SEAM

RC63
EA

THE STANDING SEAM ROOF PANELS HAVE BEEN DESIGNED SO THAT BOTH SIDES OF A GABLED BUILDING CAN BE SHEETED SIMULTANEOUSLY. IF THE ROOF OF THE BUILDING IS SYMMETRICAL ABOUT THE RIDGE, THE SHEETING CAN BEGIN AT EITHER ENDWALL. HOWEVER, IF THE BUILDING IS NOT SYMMETRICAL ABOUT THE RIDGE OR IF THE BUILDING IS SINGLE SLOPED FROM THE EAVE TO EAVE, THE SHEETING MUST BEGIN AT THE ENDWALL INDICATED ON THE BUILDING ERECTION DRAWINGS.



DIRECTION OF ROOF PANEL ERECTION
STANDING SEAM

RC54
SA

SAFETY NOTES:

- AMERICAN BUILDINGS COMPANY STRONGLY RECOMMENDS THAT SAFE WORKING CONDITIONS AND ACCIDENT PREVENTION PRACTICES BE THE TOP PRIORITY ON ANY JOB SITE.
- LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS SHOULD ALWAYS BE FOLLOWED TO HELP INSURE WORKER SAFETY.
- MAKE CERTAIN ALL EMPLOYEES KNOW THE SAFEST AND MOST PRODUCTIVE WAY OF ERECTING A BUILDING. EMERGENCY TELEPHONE NUMBERS, LOCATIONS OF FIRST AID STATIONS AND EMERGENCY PROCEDURES SHOULD BE KNOWN TO ALL EMPLOYEES.
- DAILY MEETINGS HIGHLIGHTING SAFETY PROCEDURES, THE USE OF HARD HATS, RUBBER SOLE SHOES FOR ROOF WORK, PROPER EQUIPMENT FOR HANDLING MATERIAL AND SAFETY NETS WHERE POSSIBLE ARE RECOMMENDED ERECTION PRACTICES.
- AMERICAN BUILDINGS COMPANY INTENDS THAT THESE DRAWINGS BE INTERPRETED AND ADMINISTERED WITH SOUND JUDGEMENT CONSISTENT WITH GOOD SAFETY PRACTICES.
- ALL SAFETY PRECAUTIONS, OSHA SAFETY REQUIREMENTS, OR ANY OTHER APPROPRIATE SAFETY REQUIREMENTS, CUSTOMARY OR STATUTORY, MUST BE ADHERED TO, TO INSURE MAXIMUM WORKER SAFETY.
- IF OIL OR OTHER SLIPPERY SUBSTANCES ARE SPILLED ON THE ROOF PANELS, WIPE THEM OFF IMMEDIATELY TO PREVENT SLIPPING OR FALLING.
- YOU SHOULD MAINTAIN A FIRM, SAFE POSITION WHEN USING ANY TOOL.
- YOU SHOULD MAINTAIN A CONSTANT AWARENESS OF YOUR LOCATION IN RELATION TO THE ROOF EDGE WHEN USING TOOLS AND MACHINES OR PERFORMING ANY OTHER FUNCTION ON THE ROOF AREA.
- DO NOT UNDER ANY CIRCUMSTANCES STEP OR WALK ON THE SURFACE OF ANY FIBERGLASS SKYLIGHT. IF FOOT TRAFFIC IS NECESSARY OVER SKYLIGHT, USE WALK BOARDS THAT ARE PROPERLY SUPPORTED BY THE BUILDING PURLINS.

SAFETY COMMITMENT

GE
AA

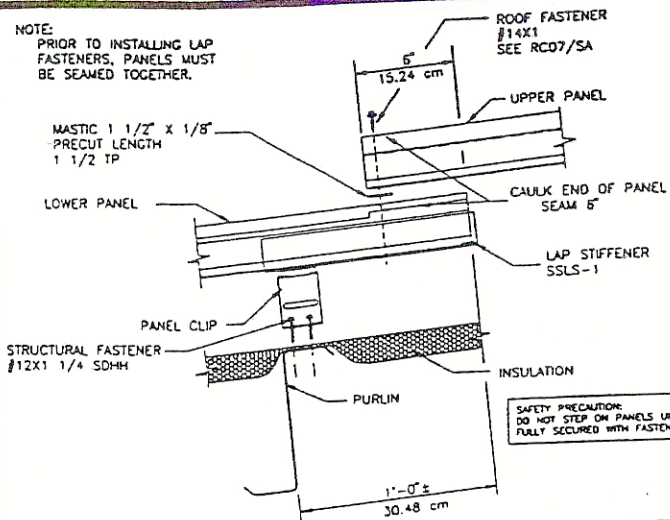
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DESIGN APP'D BY:	
ISSUED:	12-1-97

STANDING SEAM II ROOF PANEL
BASIC ERECTION

ICE RINK

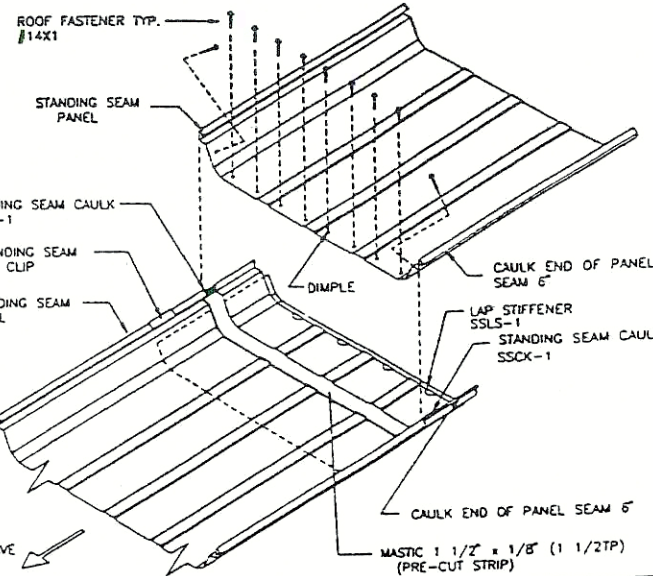
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NOTE:
PRIOR TO INSTALLING LAP
FASTENERS, PANELS MUST
BE SEALED TOGETHER.



ROOF PANEL ENDLAP
STANDING SEAM

RC06
SA



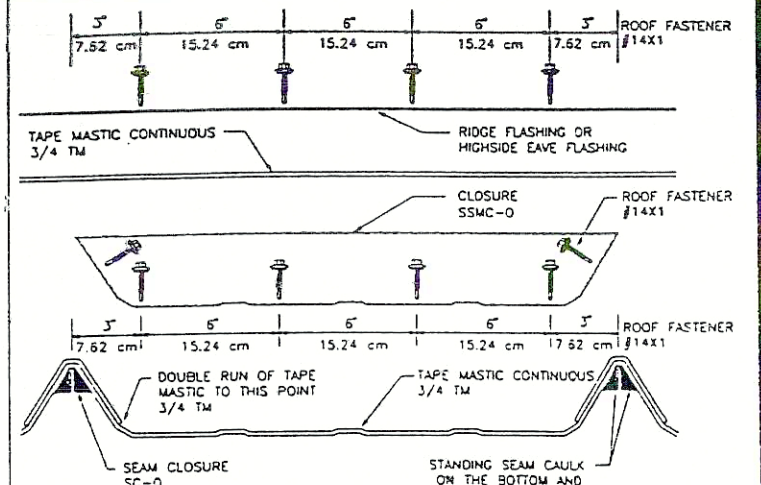
ALL AREAS ON ALUMINUM COATED PANELS THAT REQUIRE MASTIC SHOULD BE WIPED CLEAN WITH A MILD ALL PURPOSE DETERGENT CLEANER BEFORE MASTIC APPLICATION.

WHEN ENDLAPS ARE REQUIRED THE UPPER 6 INCHES OF THE LOWER PANEL SEAMS ARE NOTCHED TO ACCEPT THE UPPER PANEL. THIS LAP WILL OCCUR APPROXIMATELY 12 INCHES ABOVE A PURLIN. PRIOR TO SETTING THE UPPER PANEL, INSTALL THE LAP STIFFENER, SSLS-1 AS SHOWN ABOVE. THEN PLACE PRECUT LENGTH OF SPECIAL 1 1/2 x 1/8 STANDING SEAM LAP MASTIC ACROSS THE WIDTH OF THE PANEL BEGINNING AND ENDING AT THE VERTICAL SEAMS. APPLY SSCK-1 (STANDING SEAM LAP CAULK) TO INNER FACE OF BOTH MALE AND FEMALE SEAMS, MAKING SURE THAT BACK EDGE OF MALE NOTCH IS COVERED. INSTALL THE UPPER PANEL WITH ITS LOWER EDGE FLUSH TO THE BACK SIDE OF THE NOTCH IN THE LOWER PANEL. SECURE THE LAP WITH #14 x 1" ROOF FASTENERS INSTALLED AT THE PRE-DIMPLED LOCATIONS AFTER PANELS ARE SEALED TOGETHER.

SAFETY PRECAUTION
DO NOT STEP ON RIB OF PANEL. ALWAYS STEP ON FLAT SURFACE. DO NOT STEP ON PANELS UNTIL FULLY SECURED WITH FASTENERS.

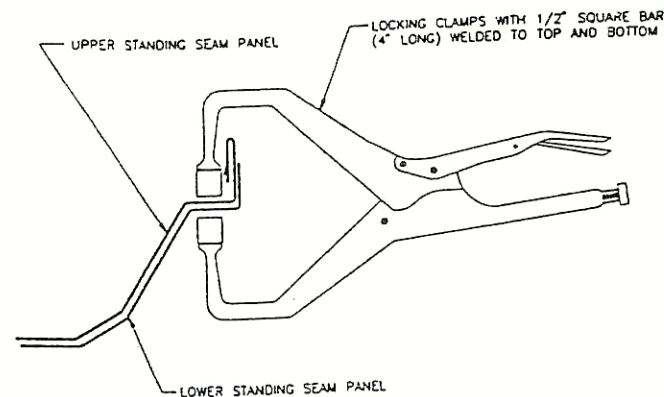
PANEL LAP DETAIL
STANDING SEAM

RC07
SA



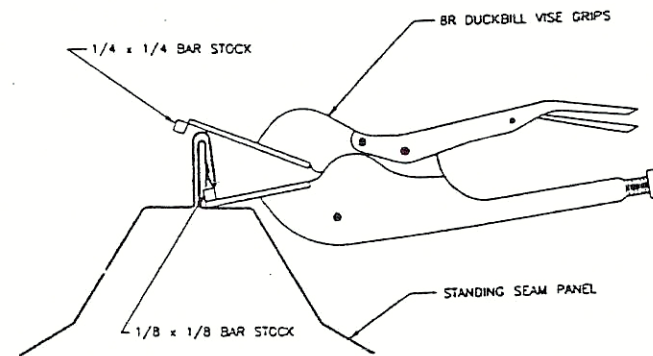
RIDGE FLASHING OR HIGH SIDE EAVE ATTACHMENT
STANDING SEAM

RC35
SA



CLAMPING DETAIL AT ENDLAP
STANDING SEAM II

RC66
EA

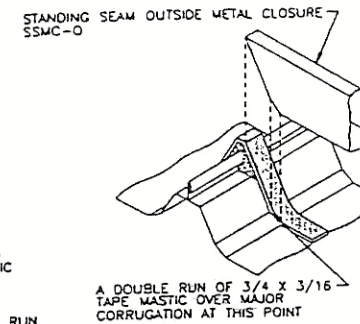
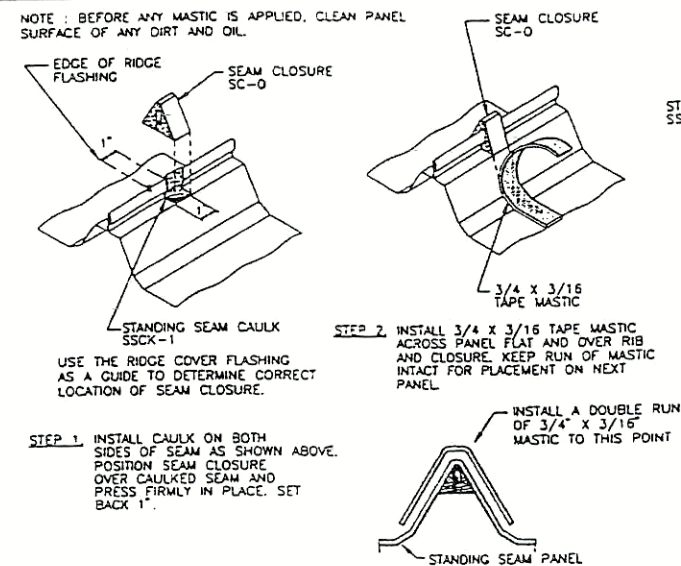


SPECIAL SEAM LOCKING VISE GRIPS MAY BE USED IN LIEU OF THE STANDING SEAM PLIERS. POSITION VISE GRIPS AS SHOWN AND SQUEEZE HANDLES TOGETHER TO SEAM PANEL. THIS TOOL MAY ALSO BE USED AT FEMALE LEG AT ENDLAP DURING PANEL LAP INSTALLATION (POSITION VISE GRIPS AS SHOWN BEFORE INSTALLING ANY FASTENERS).

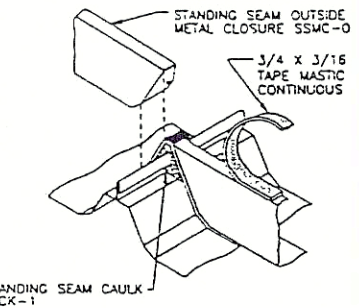
SPECIAL SEAM LOCKING VISE GRIPS
STANDING SEAM II

RC65
EA

NOTE: BEFORE ANY MASTIC IS APPLIED, CLEAN PANEL SURFACE OF ANY DIRT AND OIL.

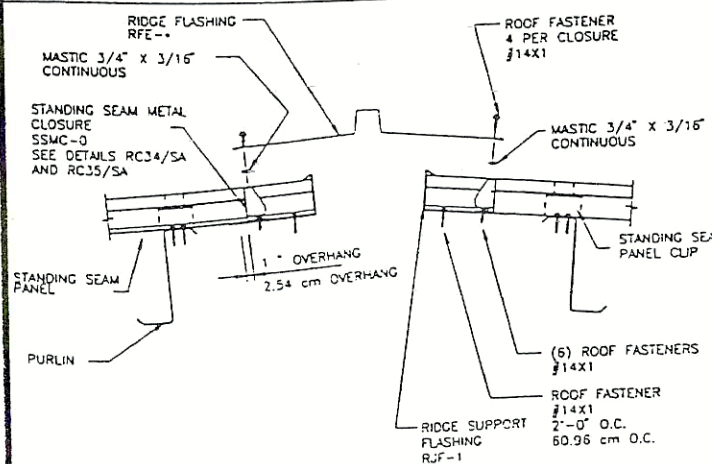


STEP 3. INSTALL METAL CLOSURE FLUSH WITH EDGE OF MASTIC. SECURE IN PLACE WITH (6) #14x1" ROOF FASTENERS IN PRE-PUNCHED HOLES.



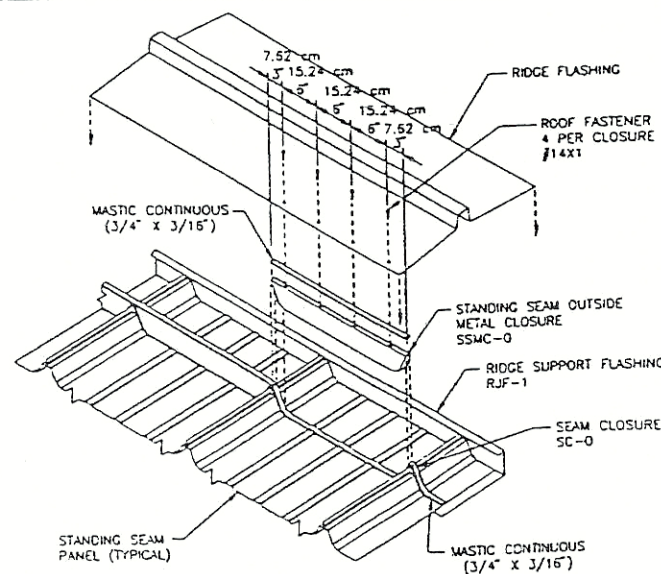
SEAM CLOSURE AND OUTSIDE METAL CLOSURE INSTALLATION
STANDING SEAM

RC34
SA



RIDGE DETAIL
STANDING SEAM

RC32
SA

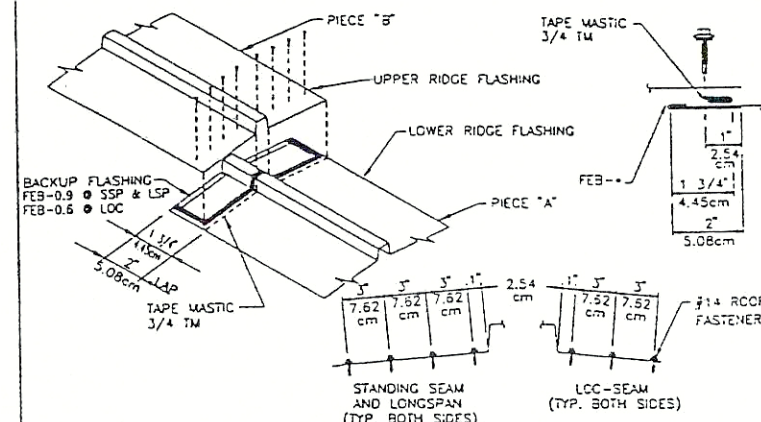


RIDGE FLASHING ATTACHMENT
STANDING SEAM

RC37
SA

SEE DETAIL RC34/SA FOR INSTALLATION INSTRUCTIONS FOR SC-0 AND SSMC-0.
SEE DETAIL RC33/AA FOR RIDGE FLASHING LAP INSTRUCTIONS.

AFTER THE INSTALLATION OF THE ROOF PANELS HAS BEEN COMPLETED, PROCEED WITH THE RIDGE CLOSURE AS SHOWN ABOVE. BEFORE ANY MASTIC IS APPLIED, CLEAN PANELS OF ANY OIL AND DIRT. POSITION RIDGE SUPPORT FLASHING, RJF-1, OVER THE ENDS OF BOTH PANELS AND HOLD IN PLACE WITH VISE GRIP "C" CLAMPS PRIOR TO FASTENING TO END OF PANELS WITH #14 x 1" SDRF FASTENER (2'-0" O.C.). INSTALL 3/4 x 3/16 MASTIC, SEAM CLOSURE (SSMC-0) AS PER DETAIL RC34/SA. REPEAT UNTIL A SUFFICIENT NUMBER OF CLOSURES HAVE BEEN INSTALLED (BOTH SIDES OF RIDGE) TO EQUAL A LENGTH OF RIDGE FLASHING. RUN A CONTINUOUS STRIP OF 3/4 x 3/16 MASTIC OVER THE TOP OF THE CLOSURES AND APPLY THE RIDGE FLASHING.



HOLES MUST BE DRILLED PRIOR TO APPLYING MASTIC. TEMPORARILY LAP PIECE "B" OVER PIECE "A". PRE-DRILL THE REQUIRED NUMBER OF 1/4" HOLES THROUGH BOTH PIECES OF RIDGE FLASHING BUT NOT BACKUP FLASHING. SLIDE PIECE "B" BACK AND APPLY TAPE MASTIC AND BACKUP FLASHING ON PIECE "A" AS SHOWN. LAP PIECE "B" OVER PIECE "A" BEING CAREFUL TO ALIGN HOLES. INSTALL ROOF FASTENERS AS SHOWN. CONTINUE PROCESS ALONG RIDGE.

EXPANSION JOINT AT RIDGE FLASHING

RC33
AA

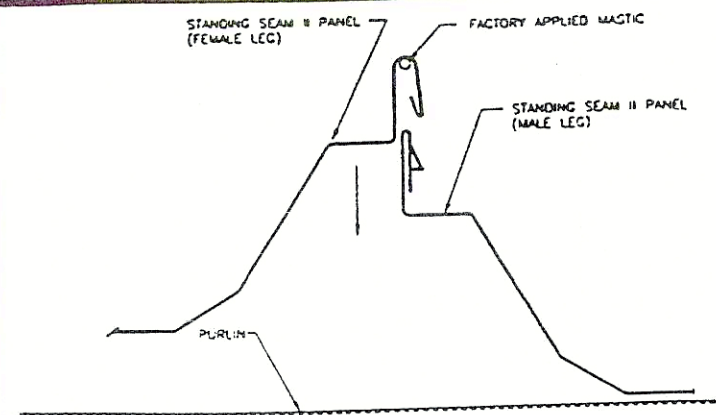
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2	REVISED RC07SA, RC33AA	CKJ	THG	1-99					
1	REVISED RC33AA	CKJ	THG	11-98					

SCALE:	DATE
DRAWN BY: THG	
CHECKED BY: BLJ	
DESIGN APP'D BY:	
ISSUED:	12-1-97

STANDING SEAM II ROOF PANEL
BASIC ERECTION

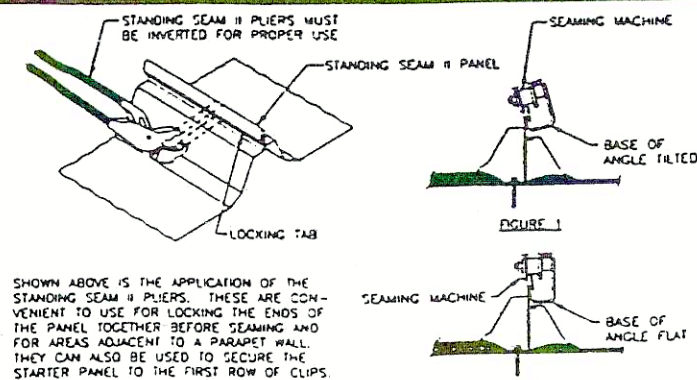
BUFAULA	ALABAMA
DRAWING NUMBER: SS2-3.0	REV. NO. 2

ICE RINK

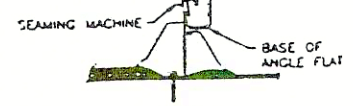


DETAIL AT SIDELAP
STANDING SEAM #1

RC01
EA



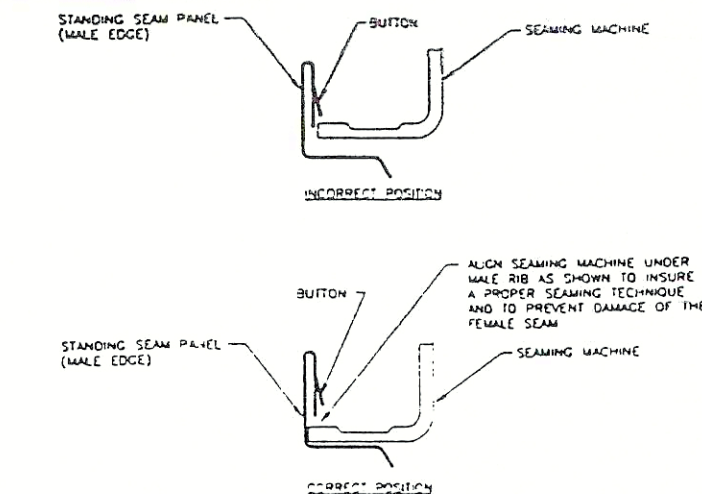
SHOWN ABOVE IS THE APPLICATION OF THE STANDING SEAM #1 PLIERS. THESE ARE CONVENIENT TO USE FOR LOCKING THE ENDS OF THE PANEL TOGETHER BEFORE SEAMING AND FOR AREAS ADJACENT TO A PARAPET WALL. THEY CAN ALSO BE USED TO SECURE THE STARTER PANEL TO THE FIRST ROW OF CLIPS.



IN PREPARATION OF THE SEAMING OPERATION, MOVE THE SEAM MACHINE ONTO THE UNLOCKED SEAM BY LEAVING THE HANDLE AWAY FROM THE OPERATOR AS INDICATED IN FIGURE 1. ROTATE THE SEAMER BACK INTO THE WORKING POSITION ON THE SEAM AS SHOWN IN FIGURE 2 WITH THE LIFTING SHOE UNDER THE BOTTOM EDGE OF THE MALE SEAM.

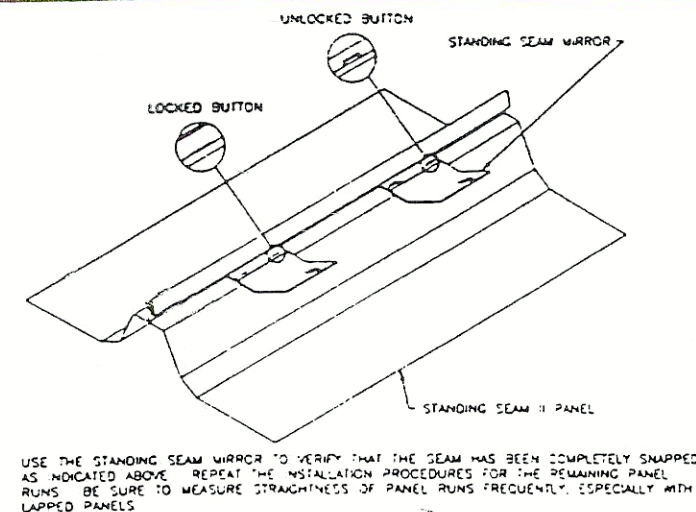
STANDING SEAM #1 PLIERS AND SEAMING APPLICATIONS

RC36
EA



STANDING SEAM SEAMING MACHINE
STANDING SEAM #1

RC68
EA

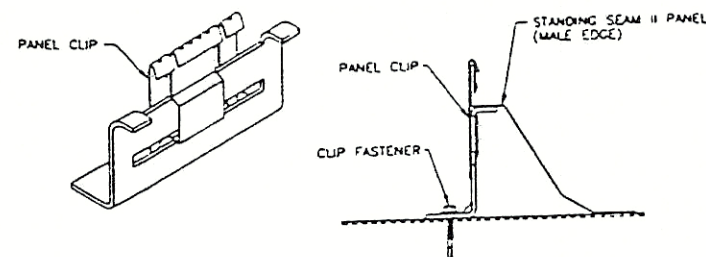


USE THE STANDING SEAM MIRROR TO VERIFY THAT THE SEAM HAS BEEN COMPLETELY SNAPPED AS INDICATED ABOVE. REPEAT THE INSTALLATION PROCEDURES FOR THE REMAINING PANEL RUNS. BE SURE TO MEASURE STRAIGHTNESS OF PANEL RUNS FREQUENTLY, ESPECIALLY WITH LAPPED PANELS.

STANDING SEAM MIRROR
STANDING SEAM #1

RC69
EA

THE STANDING SEAM #1 PANEL CLIP HAS 0.125" HOLES IN THE TAB TO ALLOW FACTORY APPLIED CAULK IN PANEL TO SEEP THROUGH FORMING A WEATHERTIGHT SEAL.

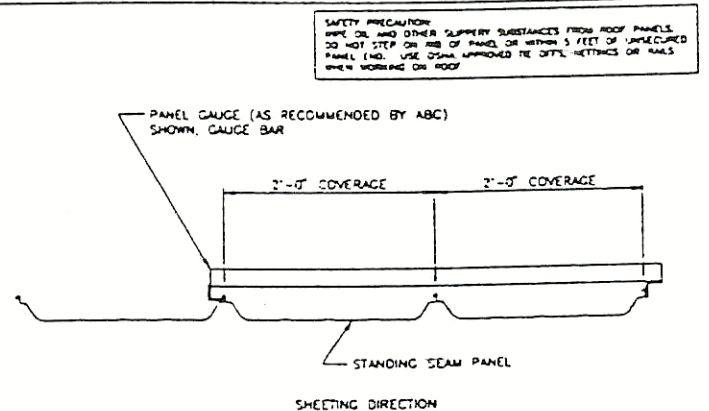


NOTE: BE CERTAIN THE SLIDING PORTION OF THE CLIP IS CENTERED ON CLIP BASE.

THE CLIP IS THEN INSTALLED OVER THE LEADING OR MALE EDGE OF THE PRECEDING PANEL. MAKE SURE THAT THE CLIP TAB IS IN POSITION TO SUPPORT THE RIB. SECURE THE CLIP TO THE PURLIN WITH TWO STANDING SEAM CLIP FASTENERS.

INSTALLATION OF PANEL CLIP
STANDING SEAM #1

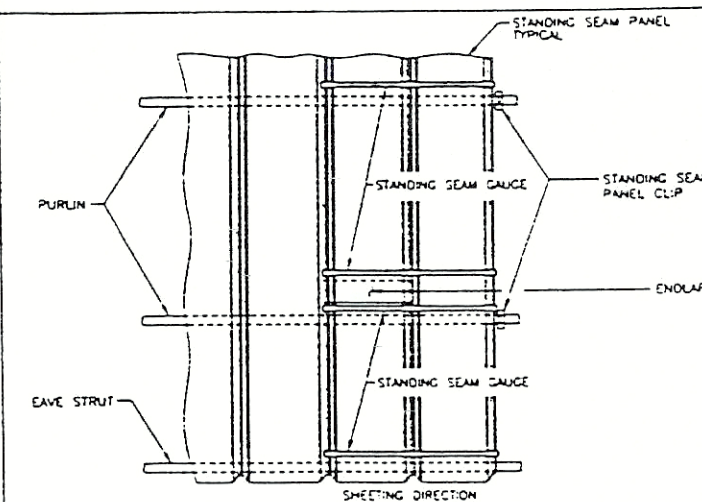
RC67
EA



PANEL COVERAGE GAUGES SUCH AS SHOWN ABOVE WILL HELP TO MAINTAIN CORRECT COVERAGE. PLACE ONE AT EACH END OF THE PANEL. GAUGE EACH PURLIN RUN AND ABOVE OR BELOW THE ENLAP. A STRING LINE SET AT THE NEXT RAFTER IS RECOMMENDED FOR TAKING MEASUREMENTS BACK TO THE PANELS TO INSURE THAT THEY ARE RUNNING STRAIGHT AND SQUARE.

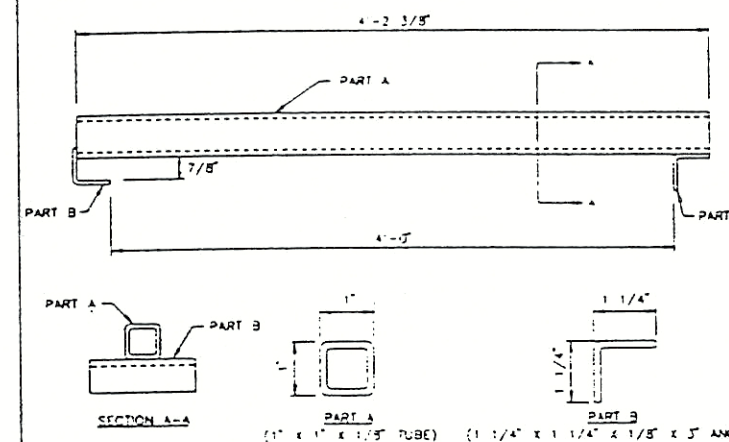
PANEL GAUGING
STANDING SEAM PANEL

RC41
SA



STANDING SEAM PANEL GAUGE LOCATIONS

RC42
SA



STANDING SEAM GAUGE BAR ASSEMBLY DETAIL

RC43
SA

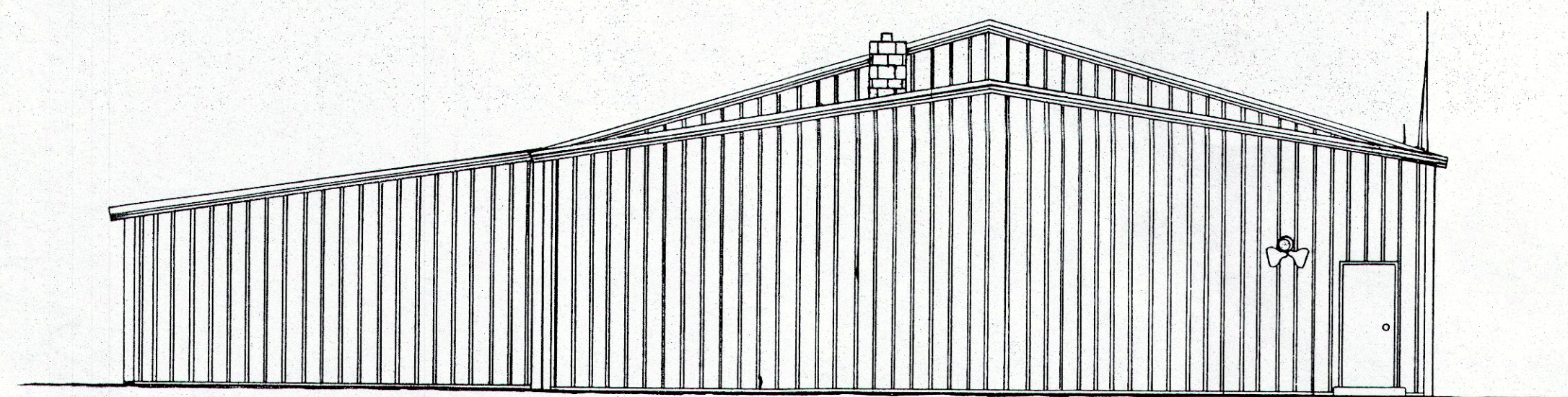
ICE RINK

NO.	REVISION	MADE	BY	DATE	NO.	REVISION	MADE	BY	DATE
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1	REVISED RC67/EA		CKJ	THG	2-98				

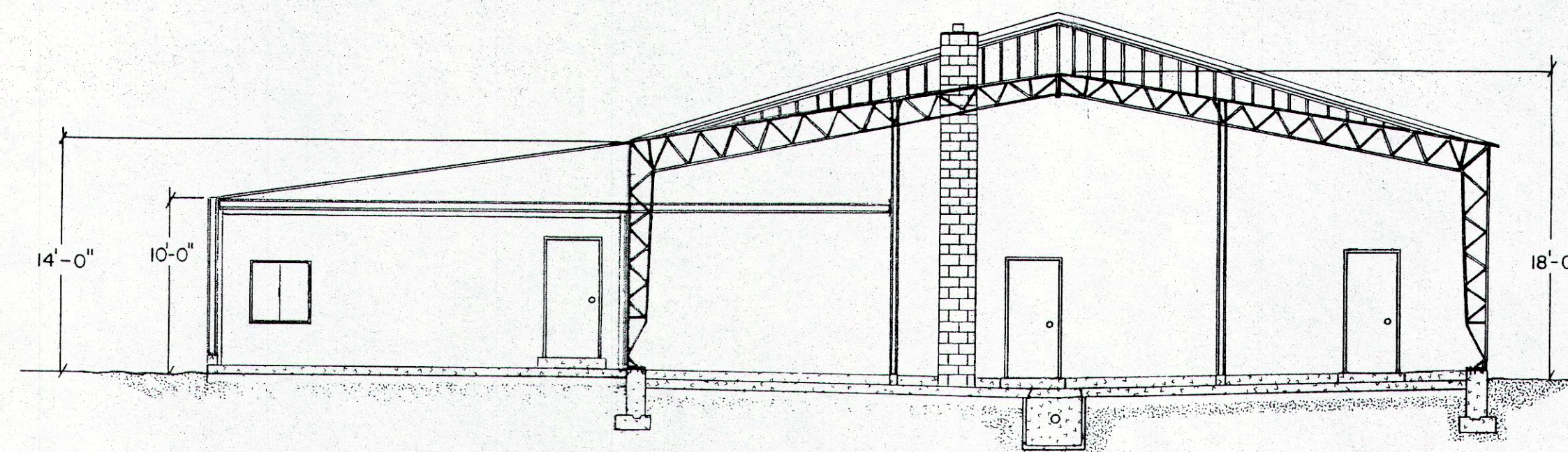
SCALE:	DATE
DRAWN BY: THG	
CHECKED BY: BLJ	
DESIGN APP'D BY:	
ISSUED:	12-1-97

STANDING SEAM #2 ROOF PANEL
BASIC ERECTION

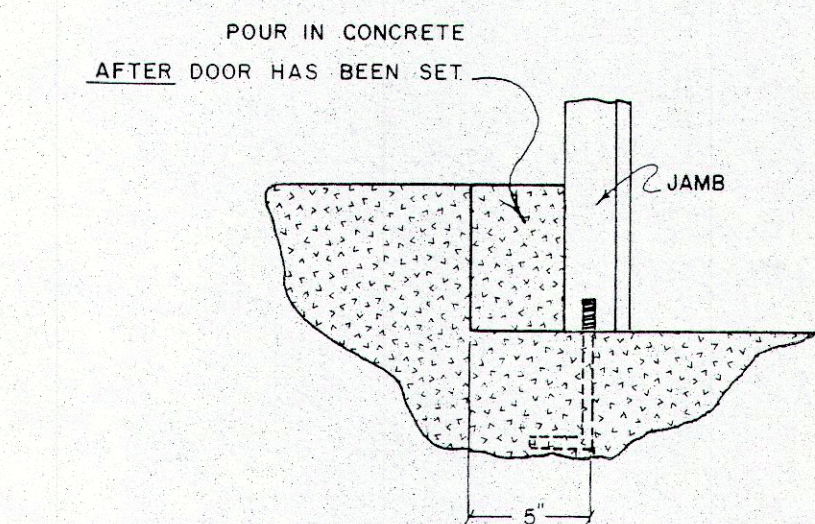
EUPAULA	ALABAMA
DRAWING NUMBER:	SS2-4.0
REV. NO.:	2



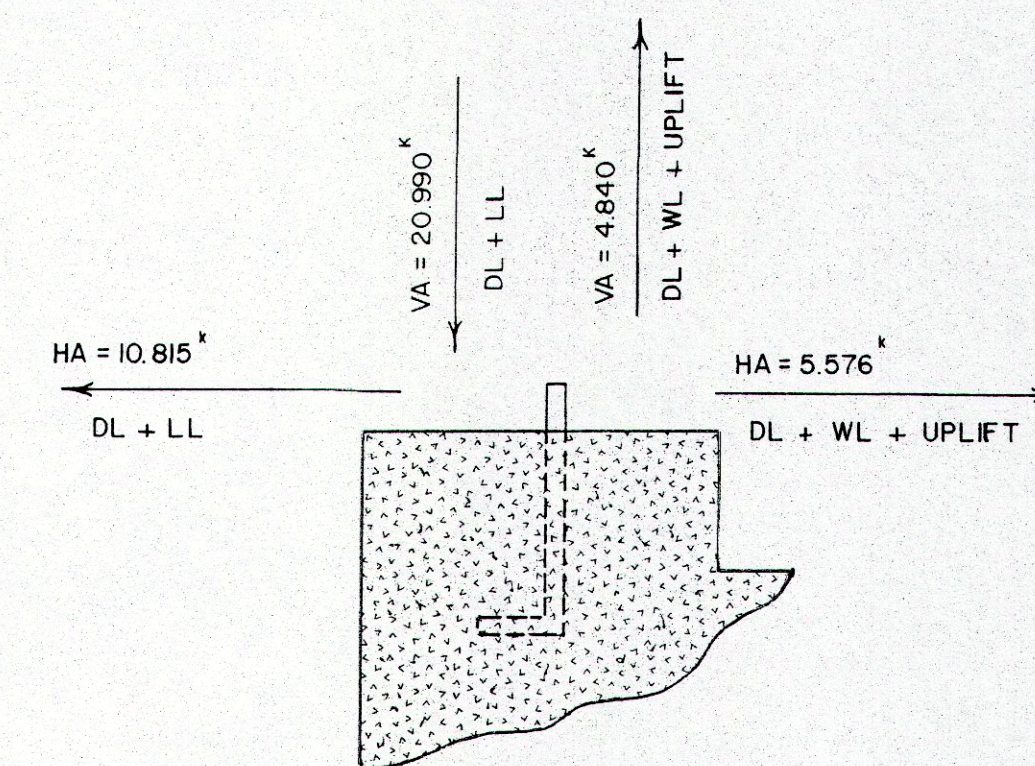
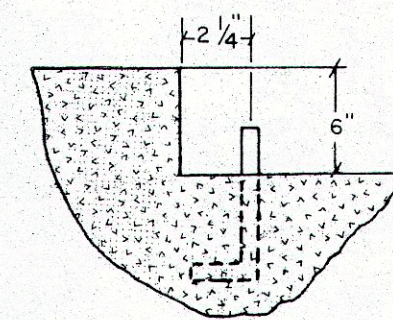
LEFT ELEVATION SCALE: $\frac{1}{8}'' = 1'-0''$



CROSS SECTION SCALE: $\frac{1}{8}'' = 1'-0''$

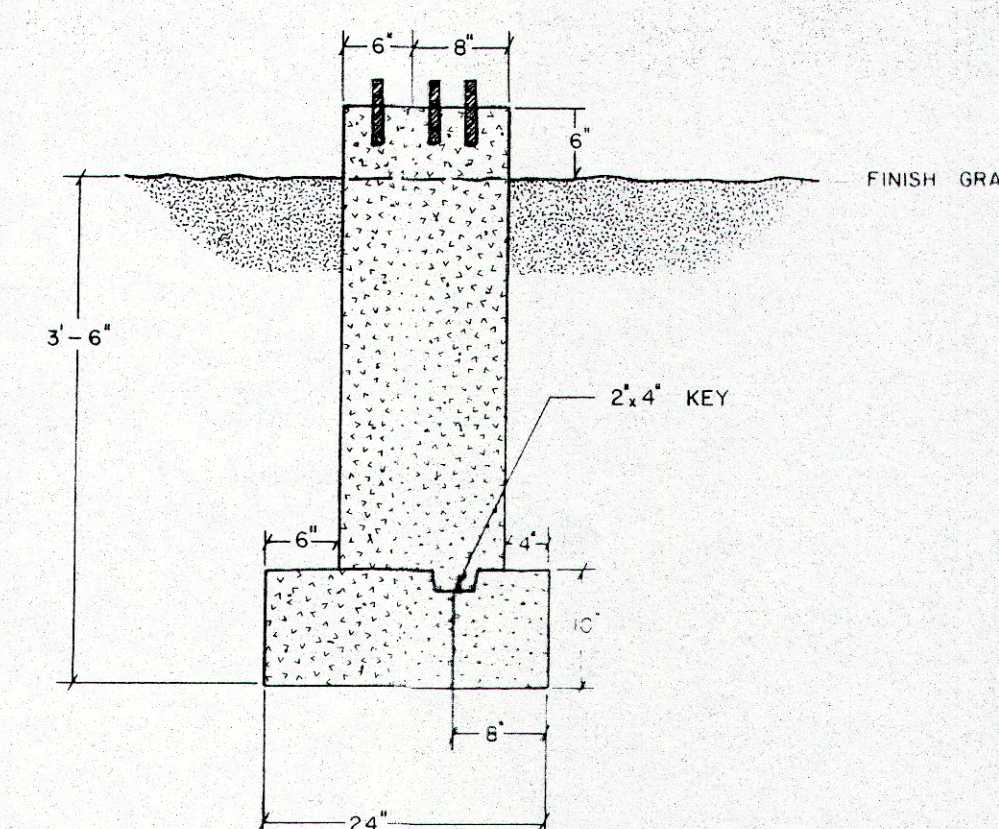


③ TYPICAL SECTION SCALE: $\frac{3}{4}'' = 1'-0''$
ALL O.H. DOORS & WALK DOORS IN SIDEWALL

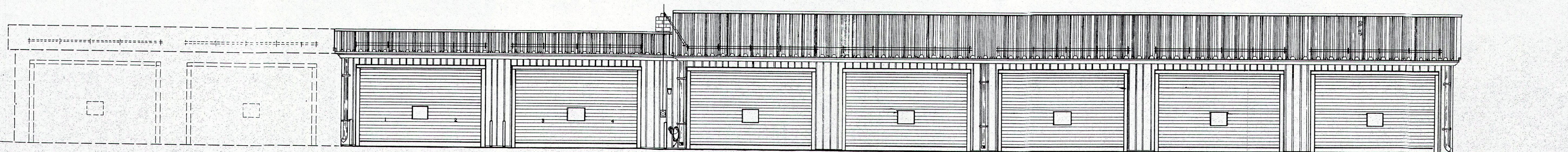


FIELD NOTE: Contractor is responsible for foundation design adequate to resist the VA & HA forces shown above.

② SECTION SCALE: $\frac{3}{4}'' = 1'-0''$

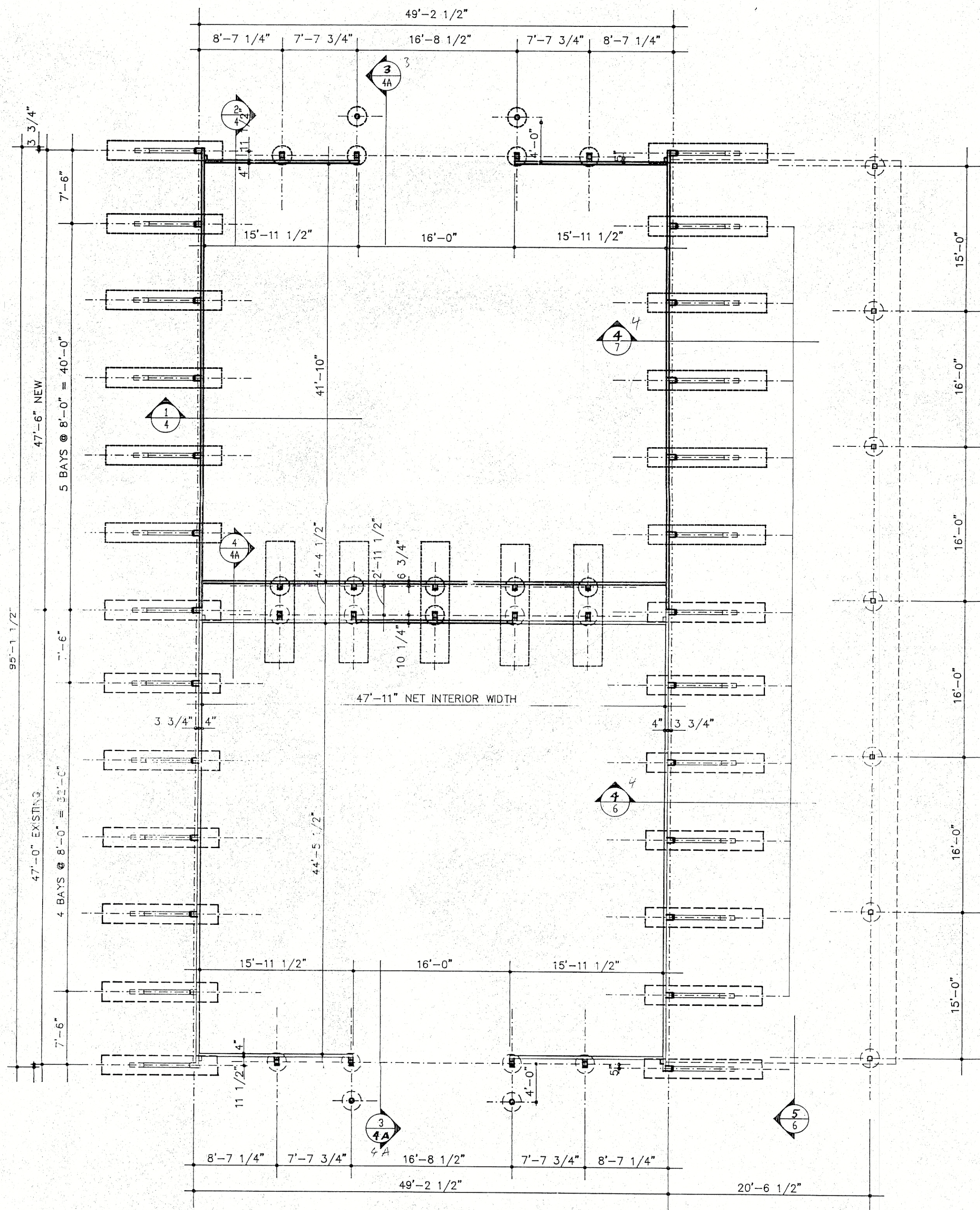


FOUNDATION SIDE ELEVATION SCALE: $\frac{3}{4}'' = 1'-0''$



FRONT ELEVATION SCALE: $\frac{1}{8}'' = 1'-0''$

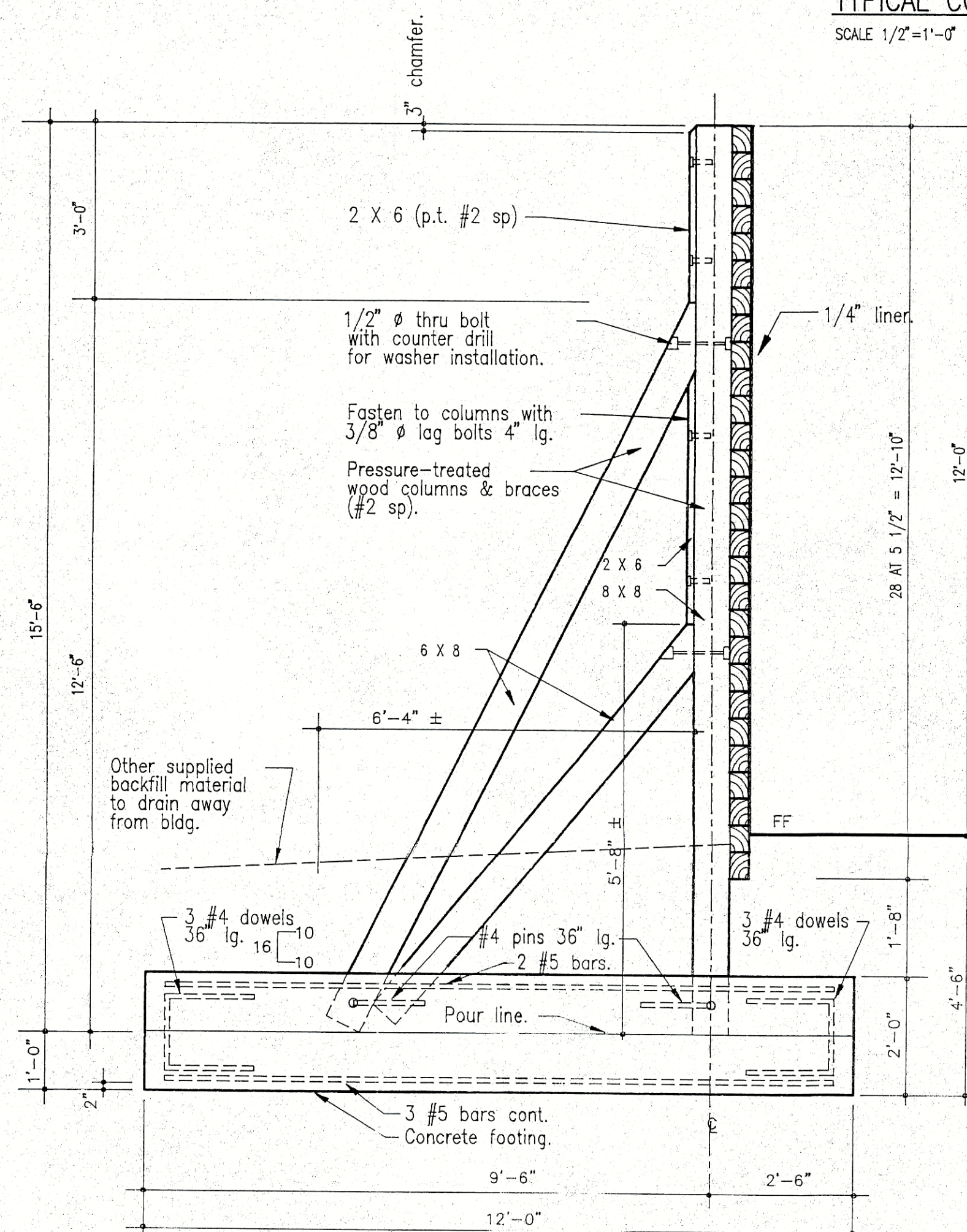
TOWN OF SIMSBURY				
760 HOPMEADOW STREET, PO 495, SIMSBURY, CT., 06070				
ENGINEERING DEPARTMENT				
ELEVATIONS				
DATE: AUGUST, 1983		JOB NUMBER: DPW 2A/83-84		
SCALE: $\frac{1}{8}'' = 1'-0''$	DATE	REVISIONS	PLAN NO.	
SUR BY			A-3	
DRW BY-J. RICHARDSON				
CHK BY				
APP BY F.V. ROSSI P.E.			SH 4 OF 5	



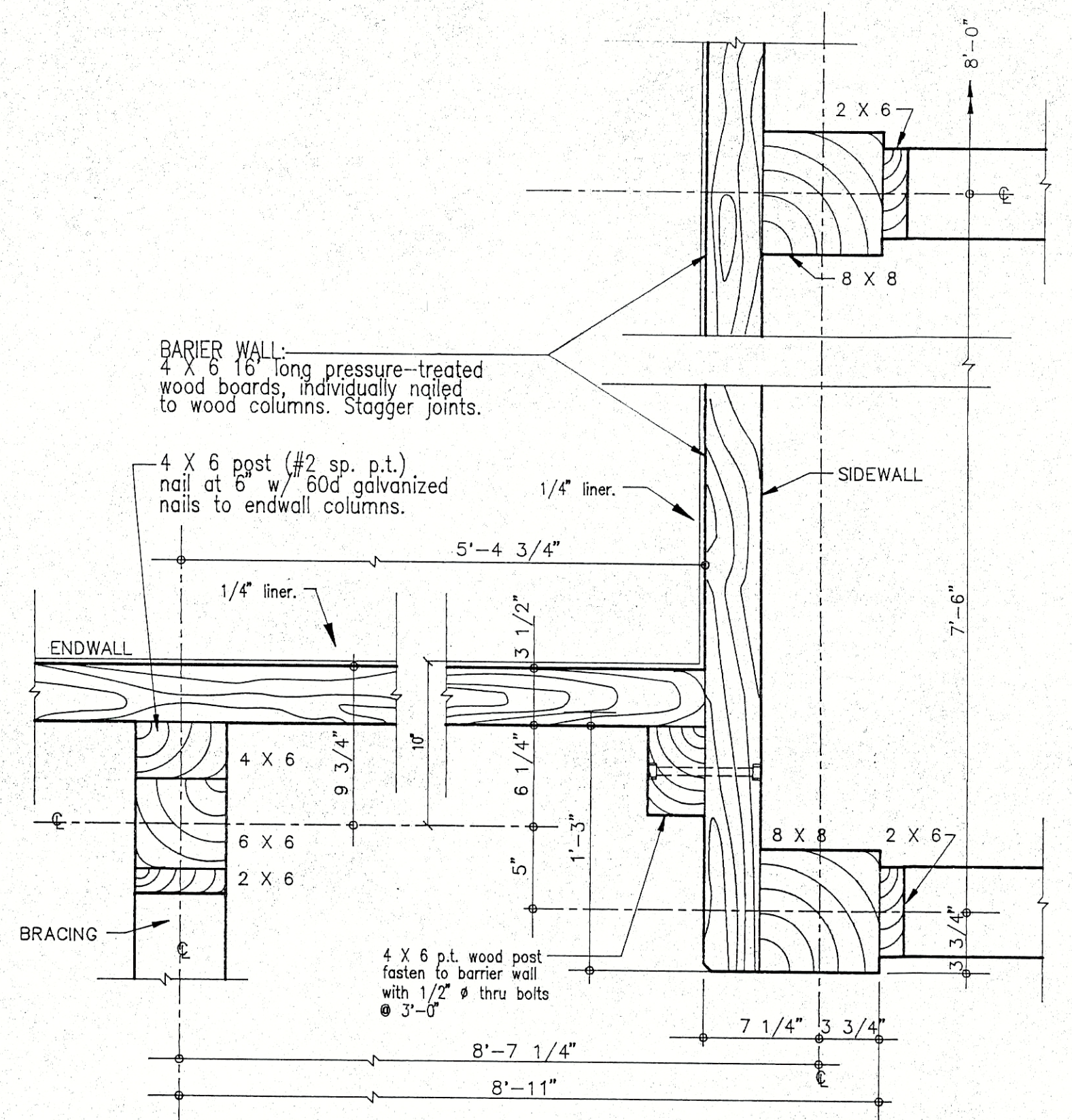
FLOOR/FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

TRUCK WASH

PROPOSED EXPANSION AND LEAN-TO FOR
SALT STORAGE BUILDING
SIMSBURY, CONNECTICUT



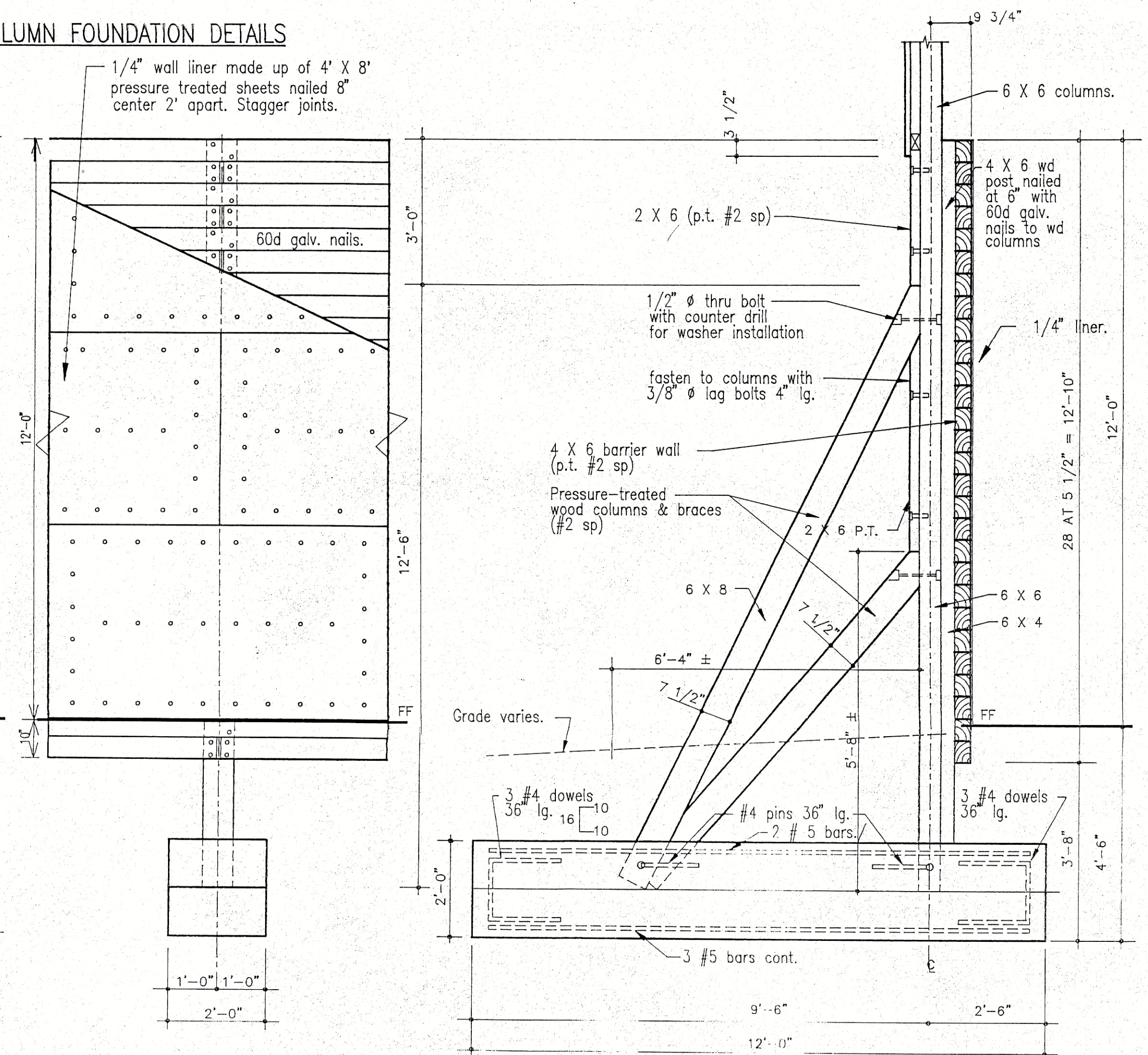
FOUNDATION AT SIDEWALL COLUMNS



BARRIER WALL DETAILS
SCALE 1 1/2" = 1'-0"

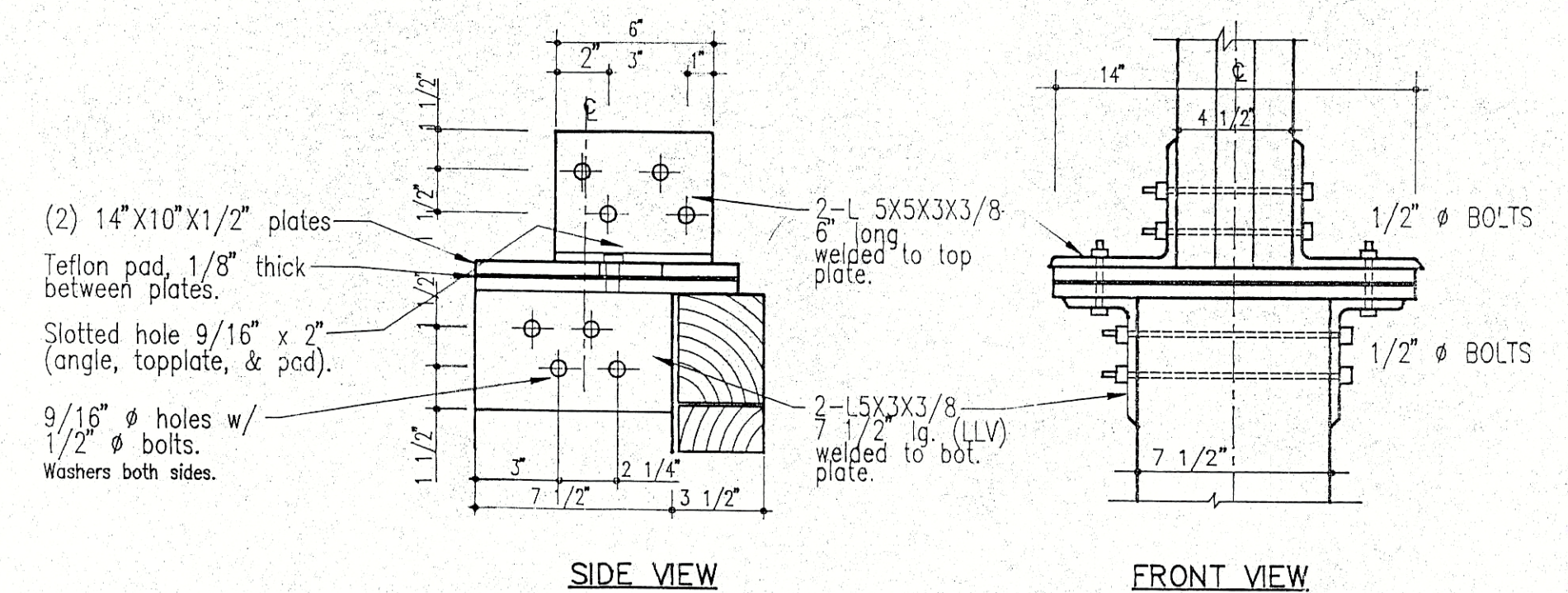
TYPICAL COLUMN FOUNDATION DETAILS

SCALE 1/2" = 1'-0"



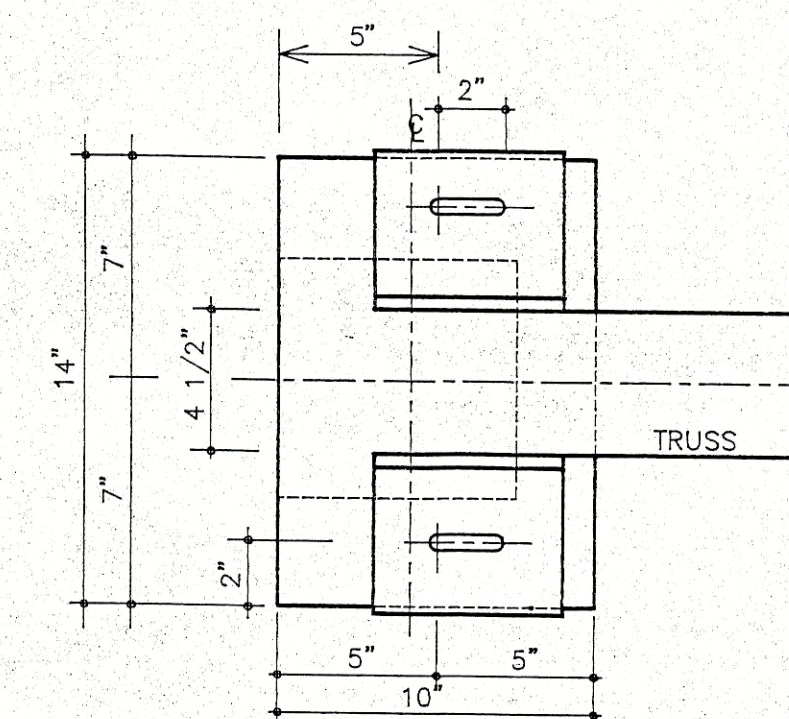
ELEV.: BARRIER WALL

FOUNDATION AT ENDWALL COLUMNS



SIDE VIEW

FRONT VIEW



PLAN

TRUSS BEARING DETAILS
SCALE 2" = 1'-0"

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• AMHERST, NY •

ORFI & UNDERHILL
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ARCHITECTS & ENGINEERS

HIGH-ARCH GAMBREL
U.S. PATENT NO.
4,483,113

DRAWN K.F.
CHECKED M.O.
SCALE AS NOTED
ISSUED 6-30-89

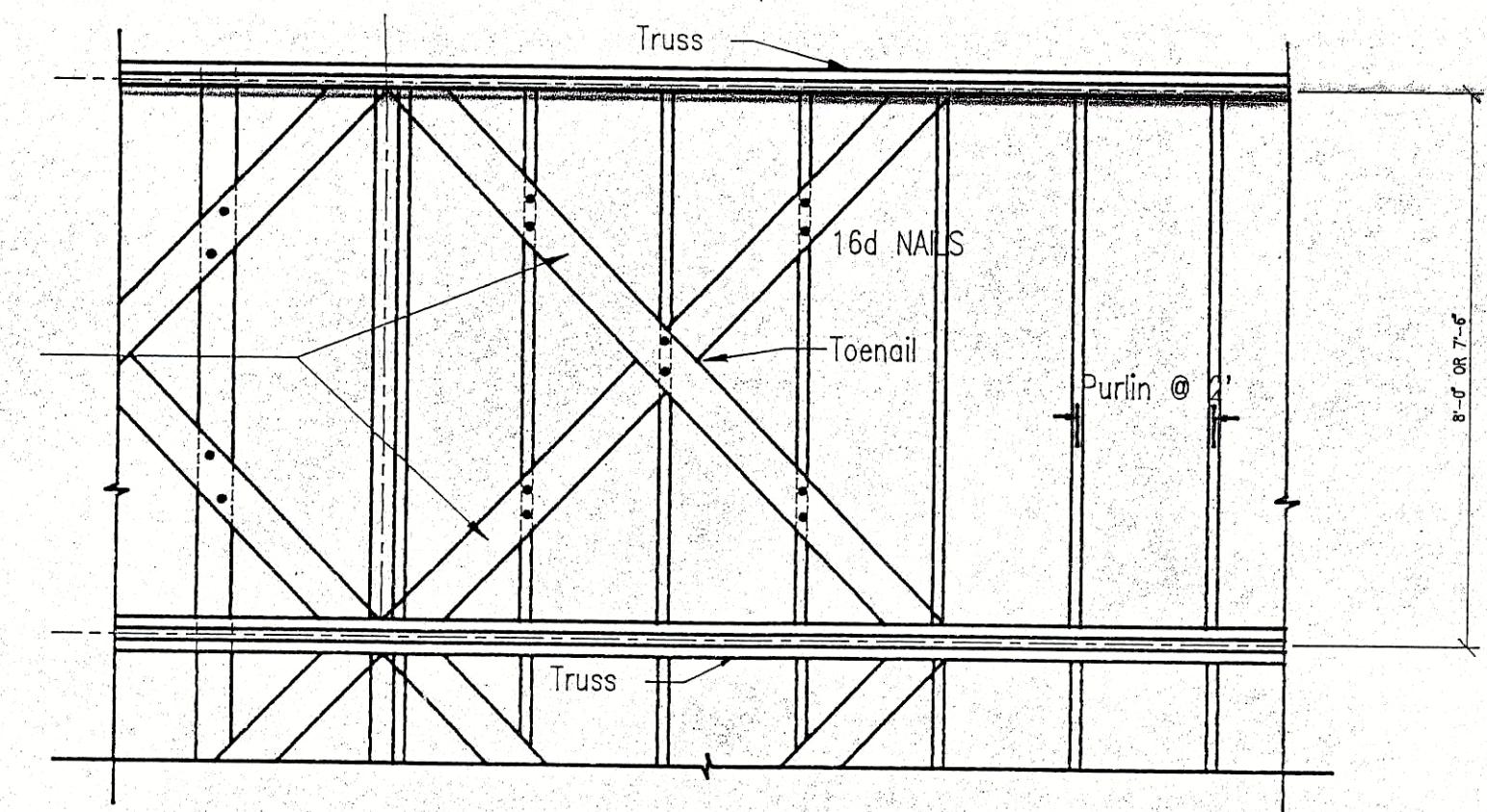
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TOWN OF SIMSBURY
BUILDING DEPT.

JOB NO.
89-347a
DWG. NO.
2

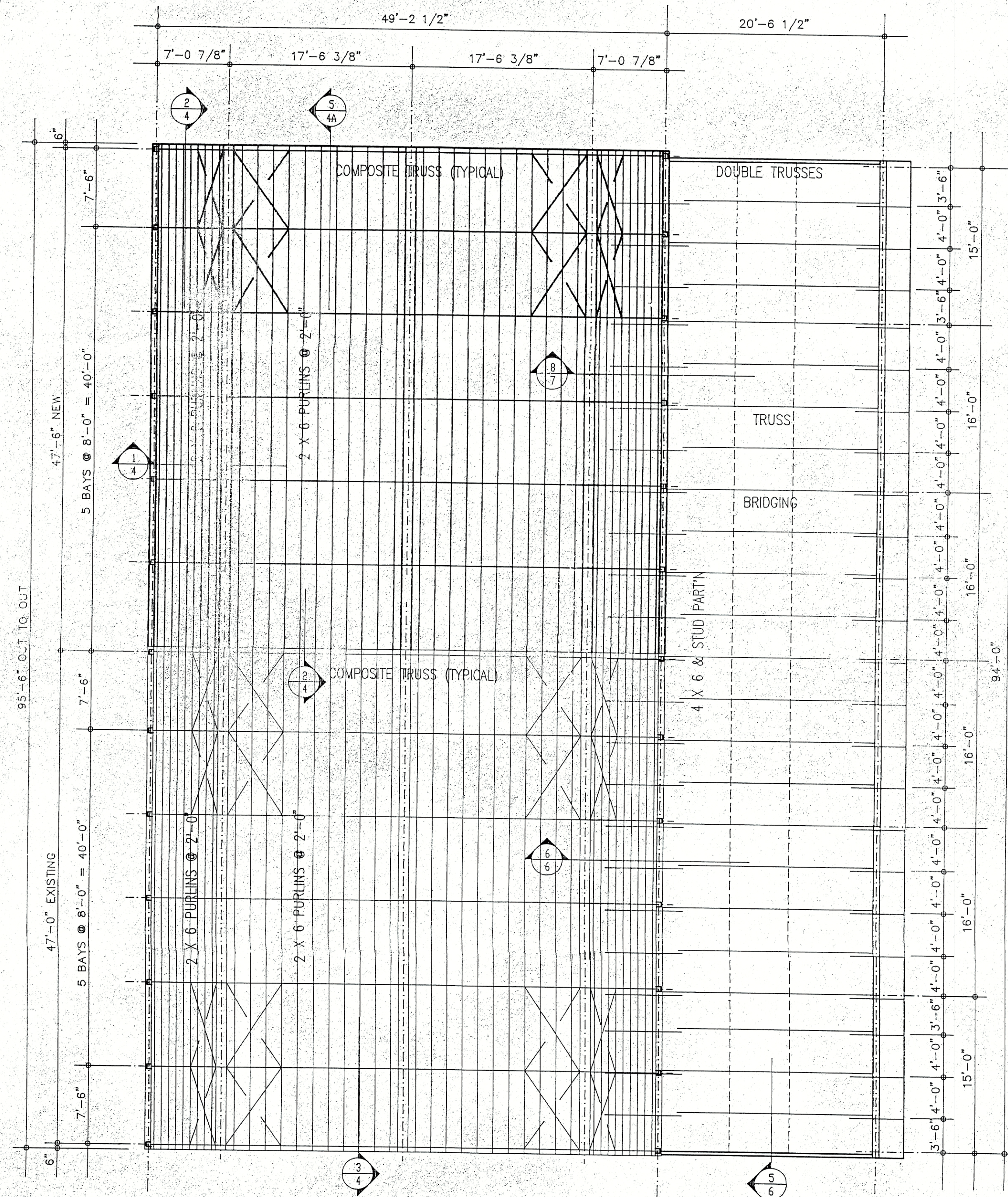
DESIGN PARAMETERS

DEAD LOAD	:	5
LIVE LOAD	:	30
TOTAL LOAD	:	35
WIND LOAD	:	20

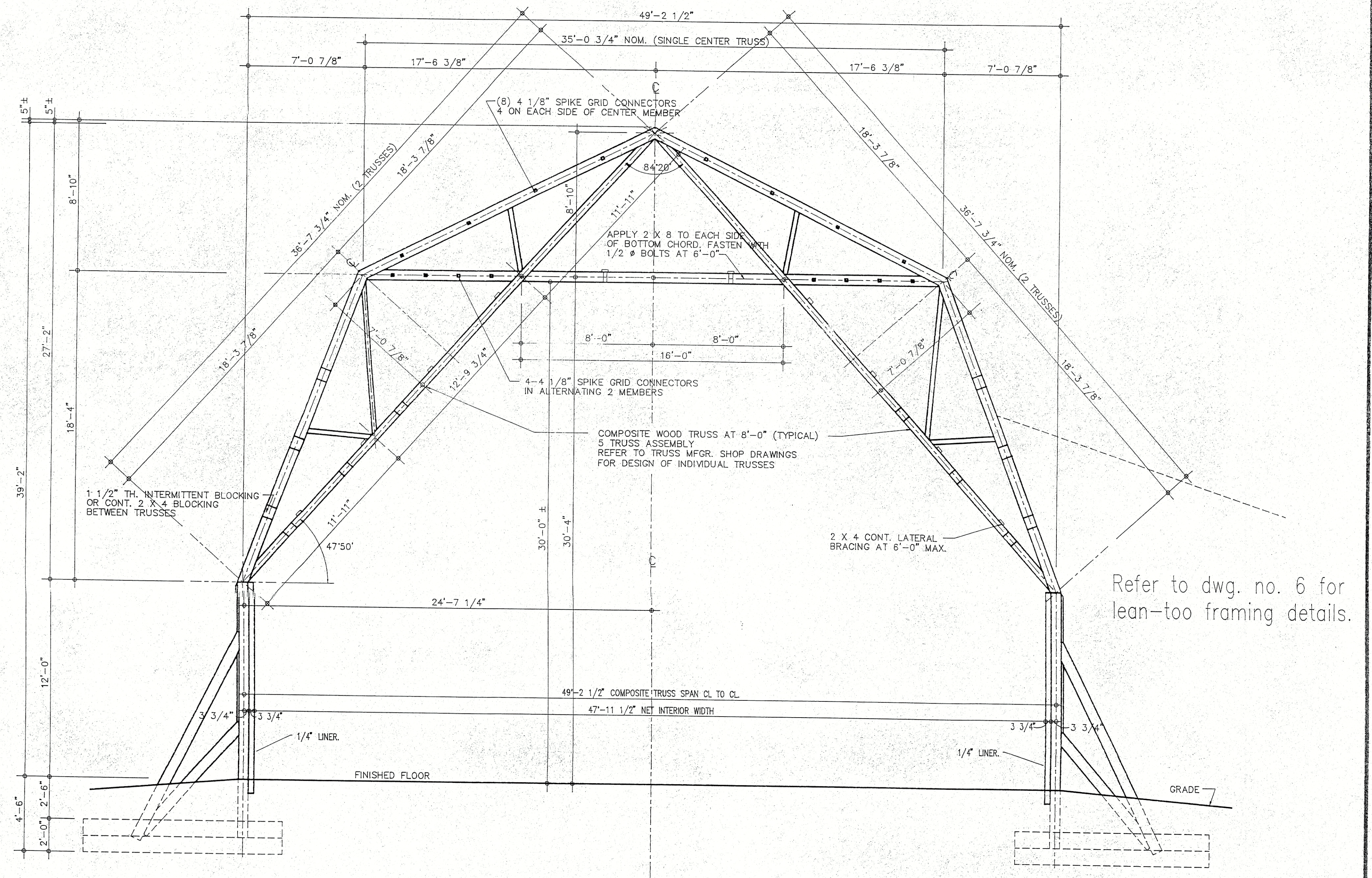
2 X 8's nailed between trusses to underside of roof purlins.



BRACING DETAILS
SCALE: 3/8"=1'-0"



TRUCK WASH



TYPICAL TRANSVERSE SECTION
SCALE: 1/4"=1'-0"

Refer to dwg. no. 6 for lean-to framing details.

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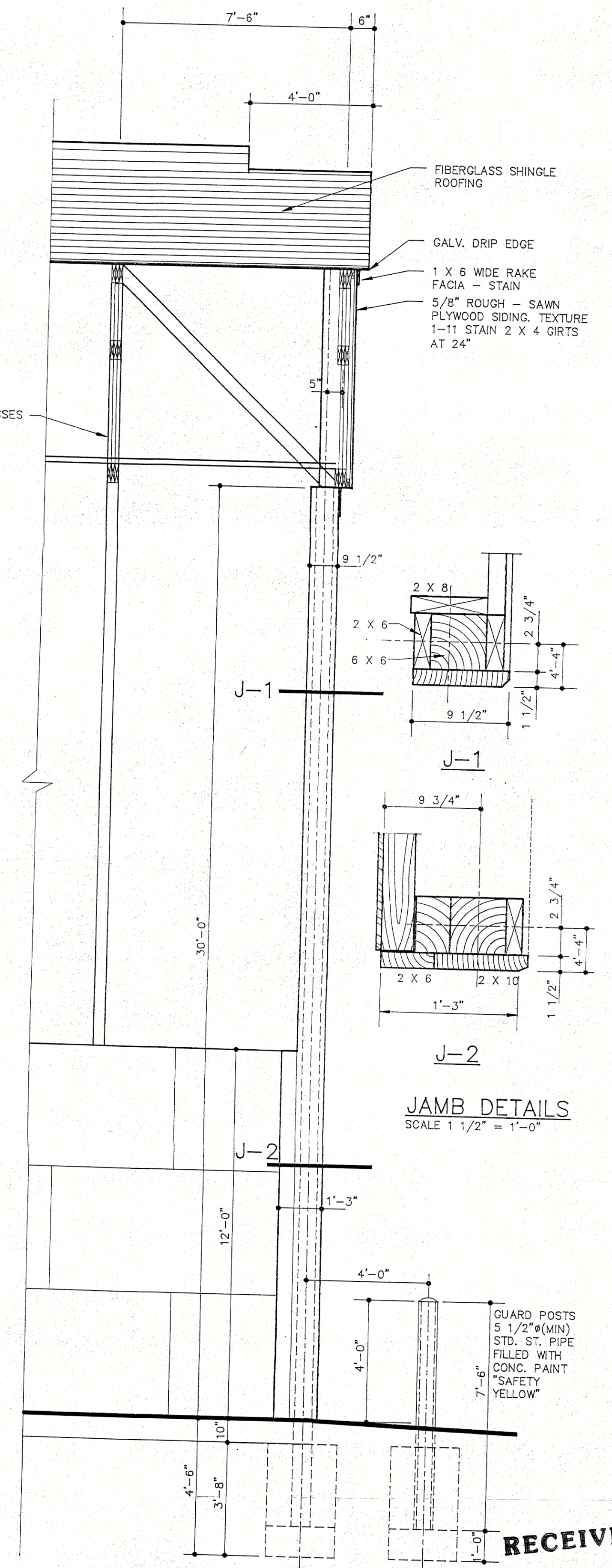
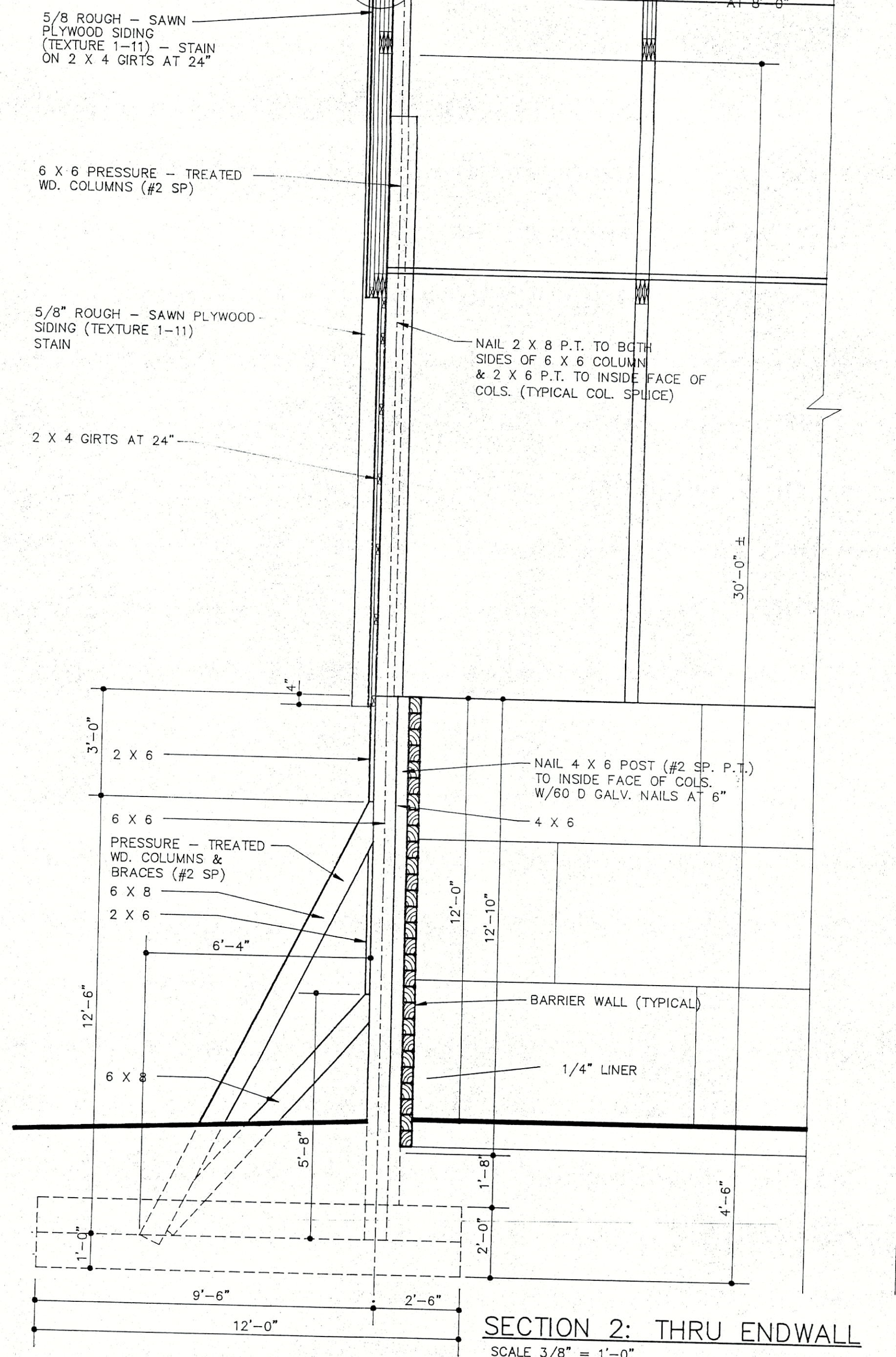
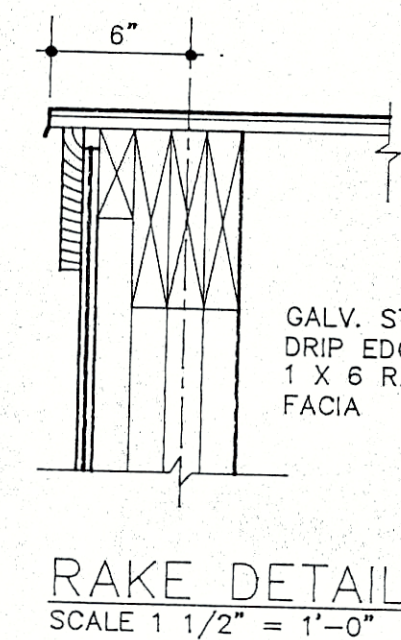
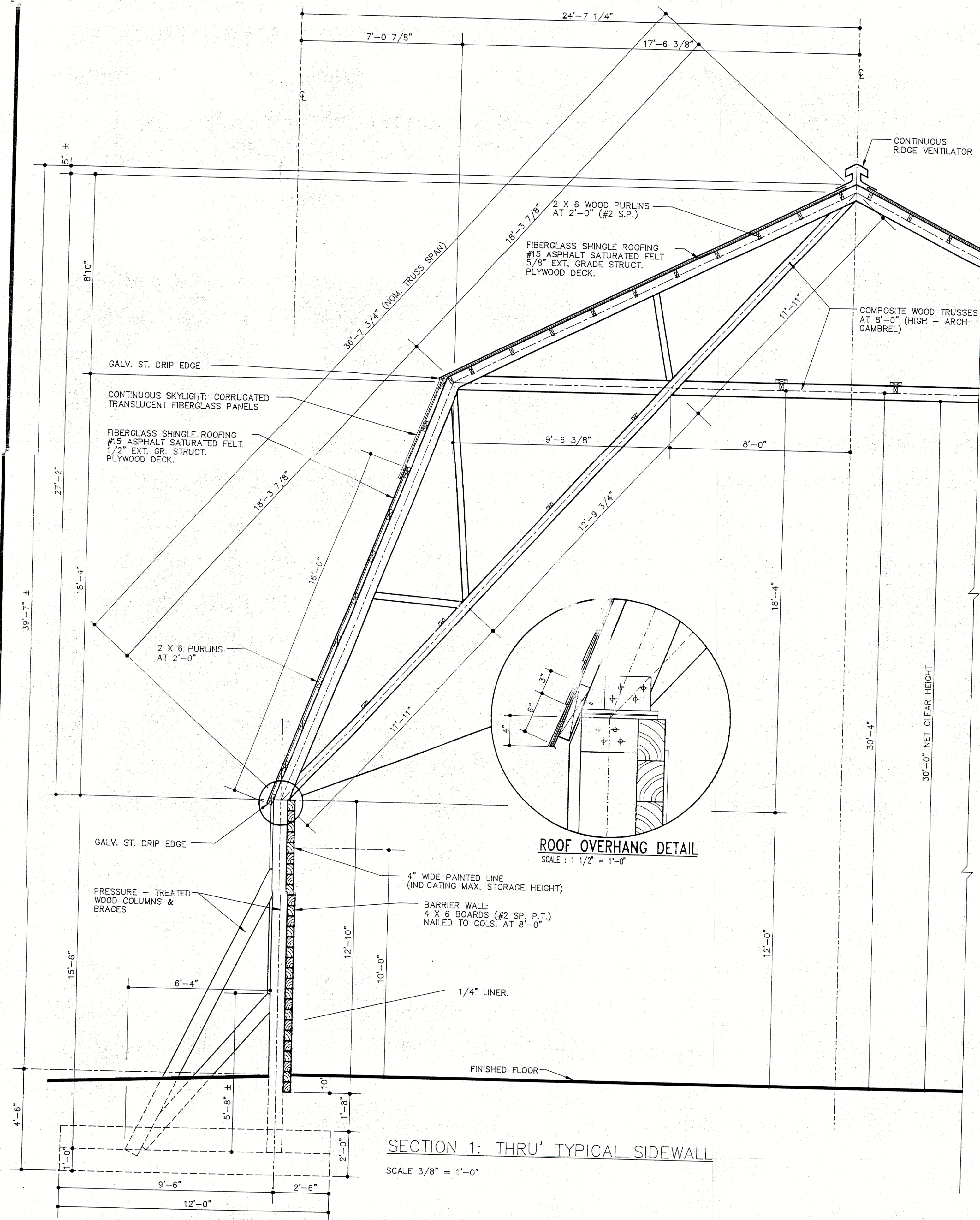
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CHECKED M.O.

JOB NO.
89-347a

REVISIONS

SCALE AS NOTED
ISSUED 6-30-89

DWG. NO.
3



PROPOSED EXPANSION AND LEAN-TO FOR
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SIMSBURY, CONNECTICUT

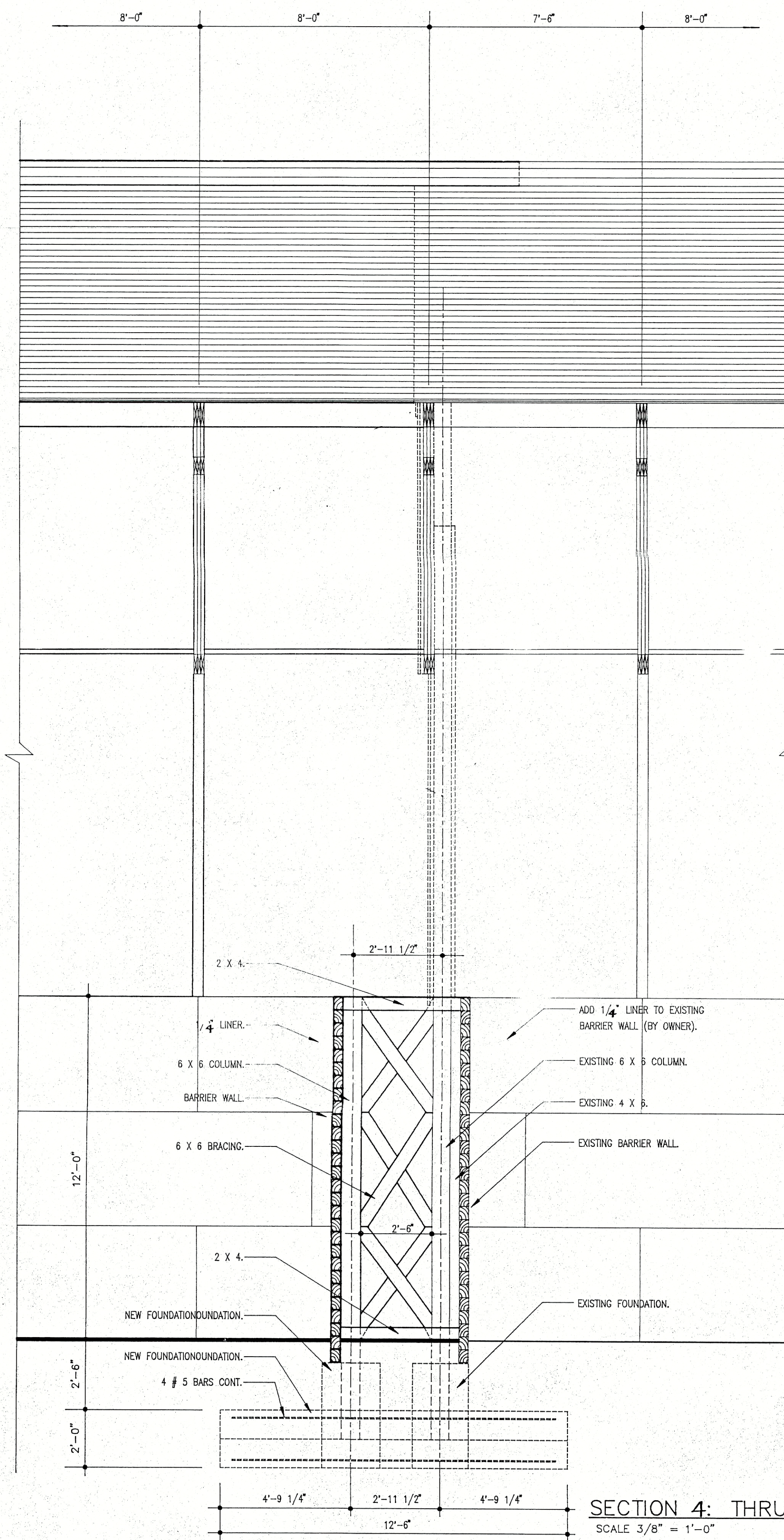
TRUCK WASH

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• ELMIRA, NY
• AMHERST, NY

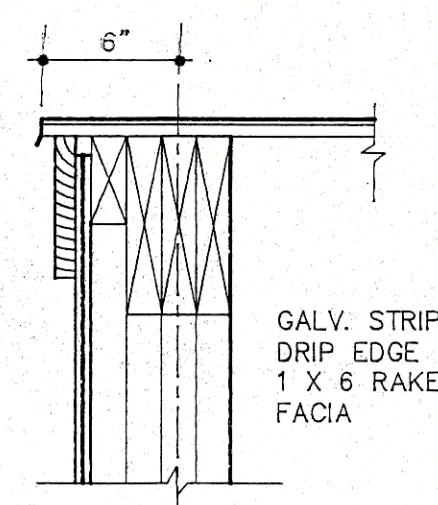
ORFI & UNDERHILL
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REVISIONS	DRAWN	K.F.	JOB NO.
	CHECKED	M.O.	
	SCALE	AS NOTED	DWG. NO.
	ISSUED	6-30-89	4

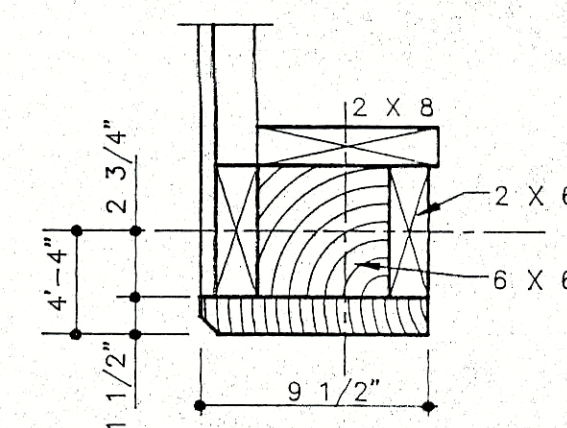
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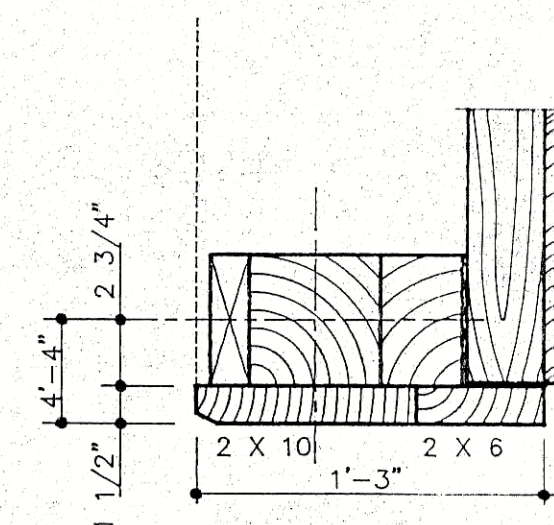
SECTION 4: THRU ENDWALL
SCALE 3/8" = 1'-0"



RAKE DETAIL
SCALE 1 1/2" = 1'-0"



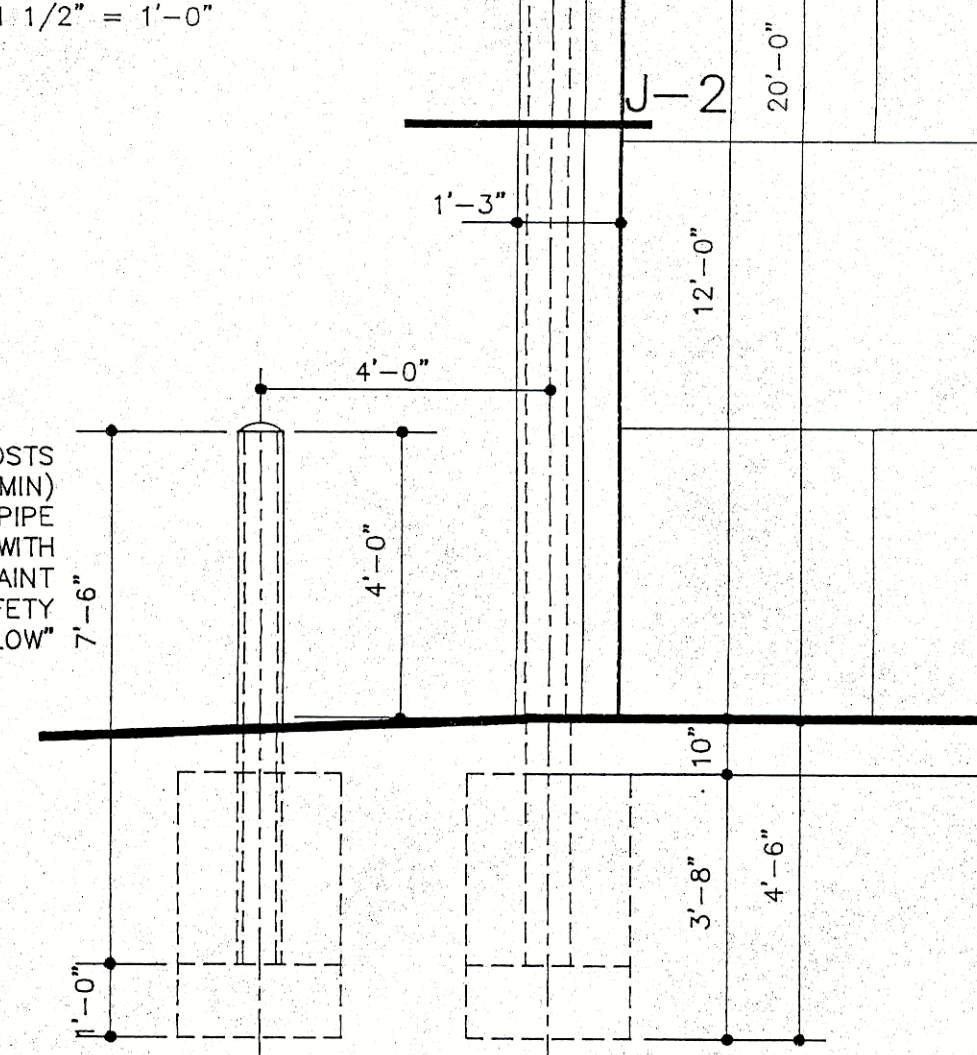
J-1



J-2

JAMB DETAILS
SCALE 1 1/2" = 1'-0"

GUARD POSTS
5 1/2" (MIN)
STD. ST. PIPE
FILLED WITH
CONC. PAINT
"SAFETY
YELLOW"



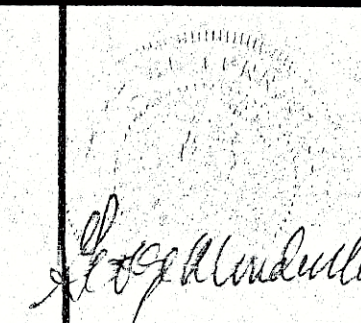
SECTION 3: THRU ENTRANCE
SCALE 3/8" = 1'-0"

TRUCK WASH

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SALT STORAGE BUILDING
SIMSBURY, CONNECTICUT

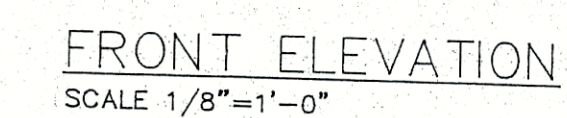
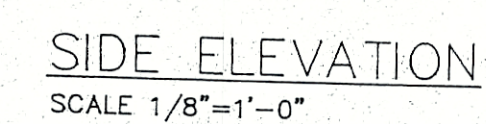
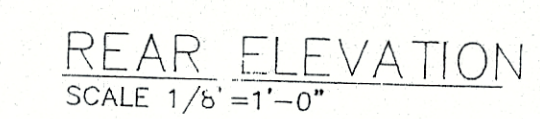
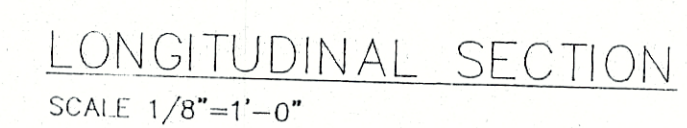
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• AMHERST, NY •

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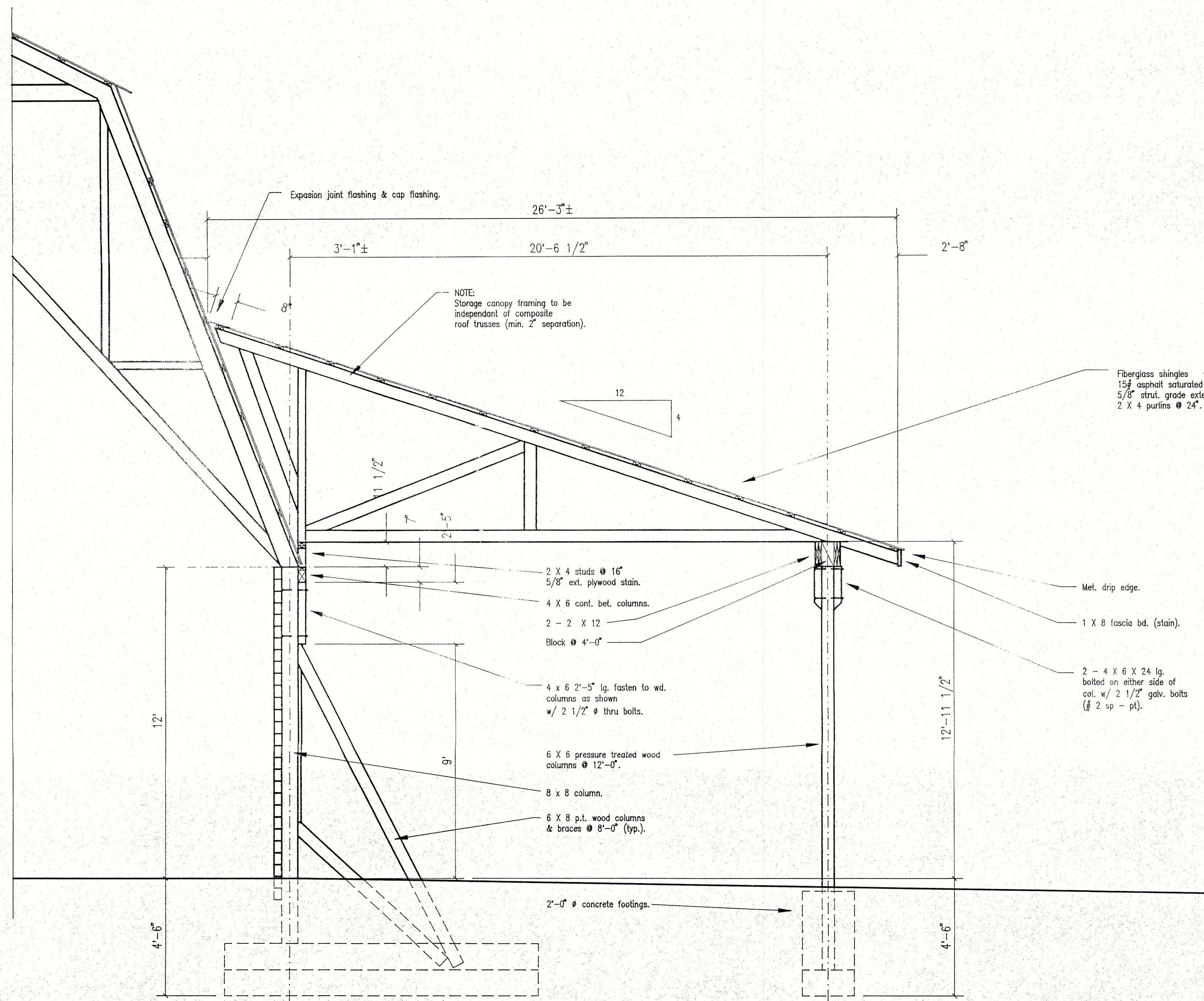


DRAWN	K.F.	JOHNSONS
CHECKED	M.O.	89-347a
SCALE	AS NOTED	DWG. NO.
ISSUED	6-30-89	4A

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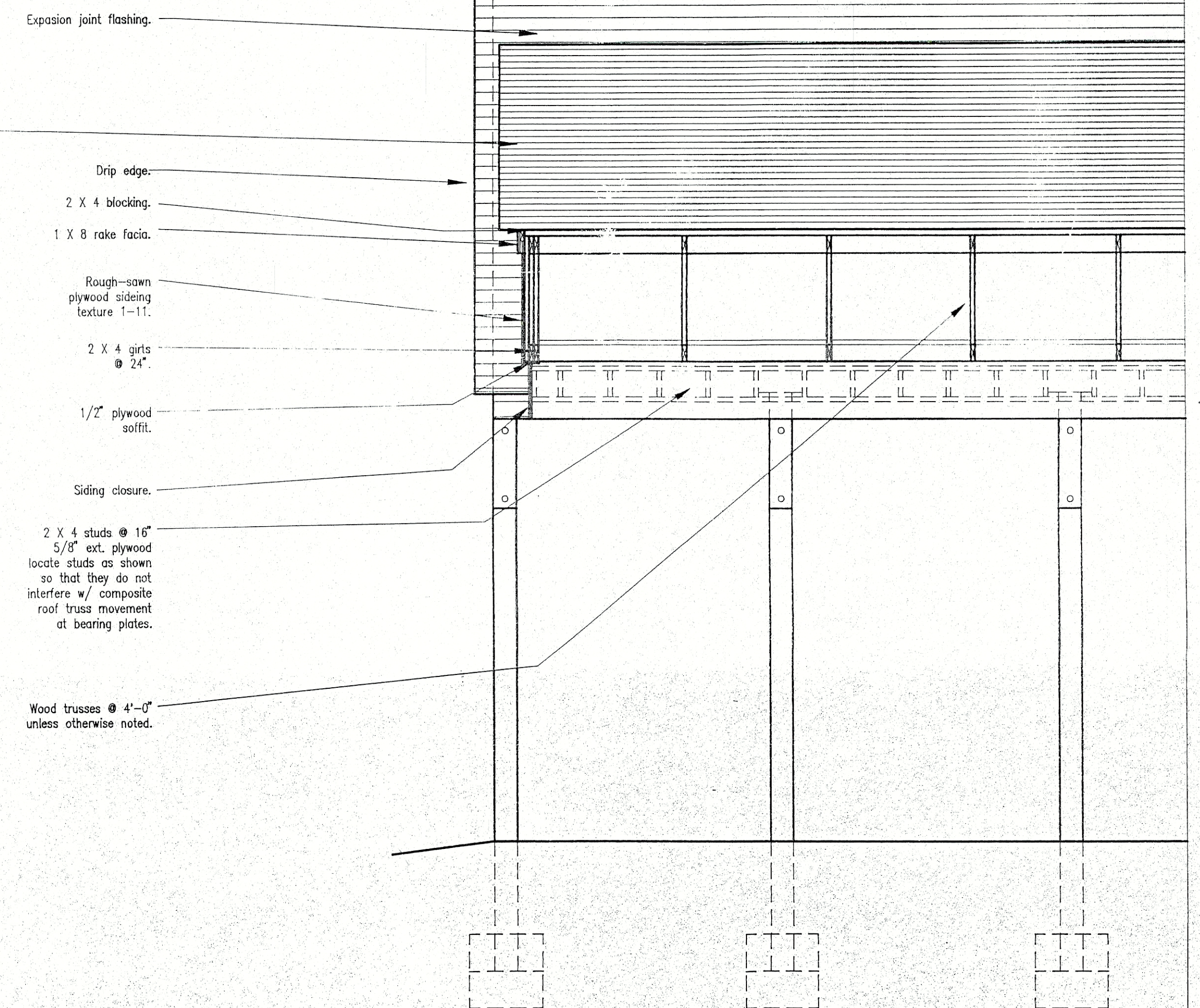


5



SECTION 4 - THRU' STORAGE CANOPY
SCALE : 3/8" = 1'-0"
EXISTING STRUCTURE

TRUCK WASH



SECTION 5
SCALE : 3/8" = 1'-0"

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4,483,113

REVISIONS

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SCALE AS NOTED

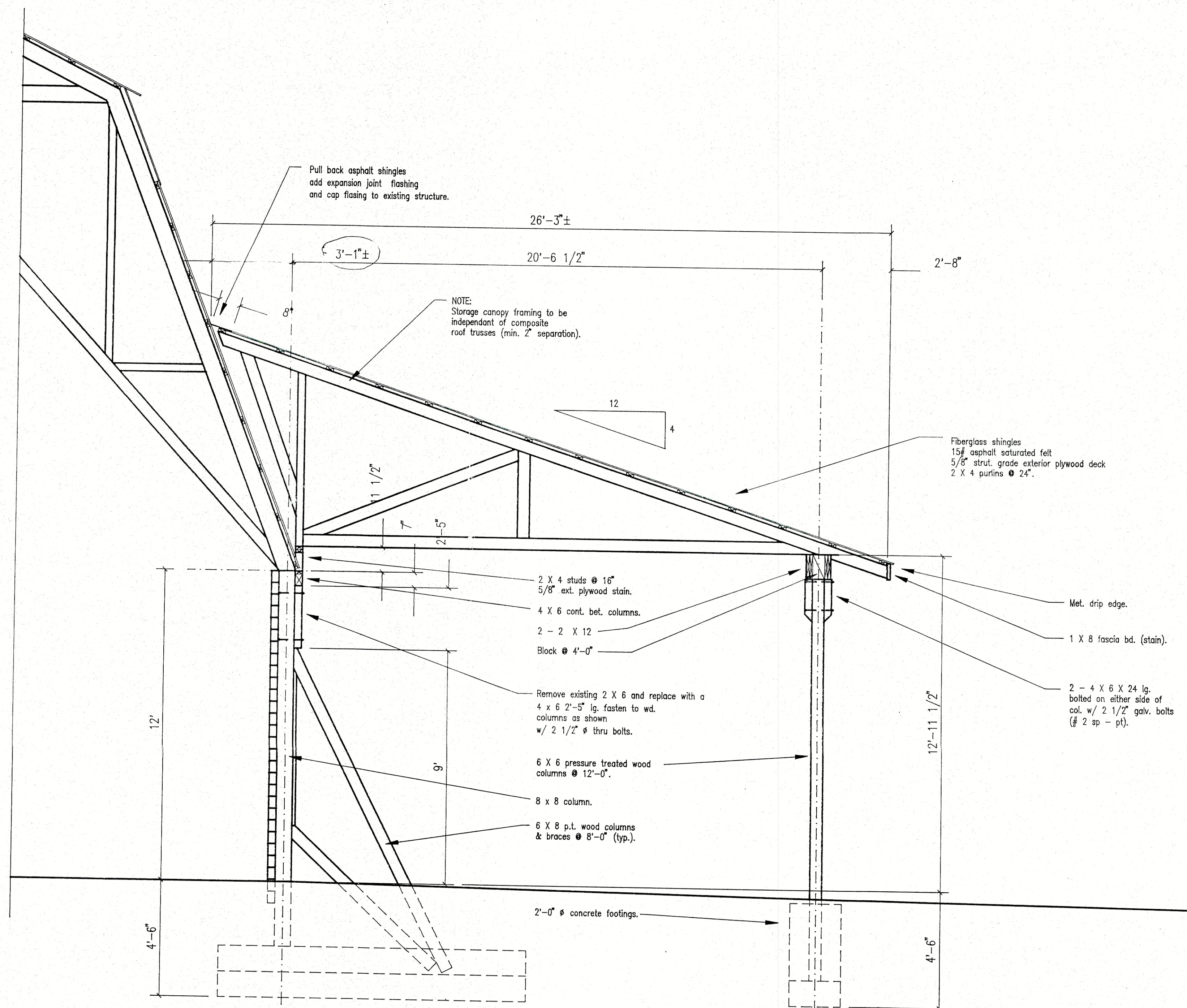
ISSUED 6-30-89

JOB NO.

89-347a

DWG. NO.

6



SECTION 4 - THRU' STORAGE CANOPY
SCALE: 3/8" = 1'-0"
NEW STRUCTURE

TRUCK WASH

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CHECKED M.O.

AS NOTED

ISSUED 6-30-89

JOB NO.

89-347a

7

APPENDIX 3

PPA PRICING AND EQUIPMENT SPECIFICATION FORM

Project Site: _____

Project Size (kW DC): _____

System Price (\$ per watt DC): _____

CT ZREC Incentive Level (cents/kWh): \$.09/kWh

For each +/- \$0.01 change in CT ZREC Incentive Level change in PPA price \$: _____

1% Escalator Option			
\$ ____ kWh ____ % Escalator			
Year	Expected Production (kWh)	PPA Rate (kWh)	Expected Payment
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Fixed PPA Option			
\$ ____ kWh ____ % Escalator			
Year	Expected Production (kWh)	PPA Rate (kWh)	Expected Payment
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Equipment Specifications:

Project Site: _____

Photovoltaic Module:

Manufacturer: _____

Model: _____

Quantity: _____

Inverter:

Type: _____

Manufacturer: _____

Model: _____

Racking System:

Manufacturer: _____

Material (Aluminum/Steel): _____

Monitoring Equipment (if any)

Manufacturer: _____

Item	Cost(\$)	Cost/Watt DC (\$)
PV Modules:		
Inverter:		
Racking System:		
Monitoring Equipment:		
Balance of System:		
Construction Labor:		
Engineering:		
Permitting:		
Operation & Maintenance (15 yrs.)		
Operation & Maintenance (20 yrs.)		
Other Costs and Expenses:		
Total:		

APPENDIX 4 BUY-OUT OPTION

Project Site: _____

Project Size (kW DC): _____

Please complete the table below specifying the amount for the Town to purchase the installed solar PV system from the Provider. The purchase will be a complete transfer of ownership to the Town. All information regarding the solar PV project must be given to the Town upon purchase. The buy-out will constitute a termination of the PPA, and as such, the buy-out price will be inclusive of all liquidated damages of an early termination. The Proposer will not claim any additional amount for any reason in connection with an early termination of the PPA. Please provide a dollar value for each year.

1% Escalator Option			
Year	Termination Amount (kWh)	Termination Amount per kW DC (\$/wDC)	Total Termination Value (\$)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Fixed PPA Option			
Year	Termination Amount (kWh)	Termination Amount per kW DC (\$/wDC)	Total Termination Value (\$)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

BIDDER'S QUALIFICATIONS STATEMENT

The BIDDER shall answer all of the following questions, as part of the Bid, so that the OWNER can judge the BIDDER's ability, experience and facilities for performing the proposed work.

1. Name of BIDDER: _____

2. Bidder's Tax Identification Number: _____

3. What year was company organized/formed? _____

4. How many years has the BIDDER been engaged in business under the present firm or trade name? _____

5. What is the general character or type of work you perform? _____

6. Has a claim ever been brought in court or to arbitration against the BIDDER for failure to complete any contracted work or default on a contract? _____

If yes, explain with whom and why: _____

7. For other similar projects you have under contract at the present time: Attach list with description of work; the name of the client/owner with telephone number; and the approximate value of the work to be performed.

NOTE: The BIDDER is required to have completed a minimum of five (5) similar projects as a demonstration of competency and experience for the project proposed herein. Such projects are to be listed below.

8. Attach a list of all projects that your present organization has completed within the past ten years or is presently working on, including name of project, owner and name and telephone number of the owner's representative. Indicate here how many additional pages attached: _____pages.

9. Attach a list of the names, addresses and the background/experience of all principal or key members of the BIDDERS organization, including its officers:

Indicate the number of pages attached: _____pages

NOTE: If requested, the BIDDER agrees to furnish the OWNER with a detailed financial statement and other relevant information that may be required by the Town of Simsbury to properly evaluate the qualifications of the BIDDER.

NON-COLLUSION AFFIDAVIT OF BIDDER

State of _____, County of _____, being
first duly sworn, disposes and says that:

1. He is the owner, officer, representative or agent of: _____
the BIDDER that has submitted the attached BID;
2. The attached BID is genuine; it is not a collusive or sham BID.
3. He is fully informed respecting the preparation, and contents of, and knowledgeable of all
pertinent circumstances respecting the attached BID.
4. Neither BIDDER nor any of its officers, partners, owners, agents, representatives,
employees, or parties in interest, including this affiant, has in any way colluded, conspired,
connived, or agreed, directly or indirectly, with any other bidder, firm or person to submit a
collusive or sham BID in connection with the AGREEMENT for which the attached BID has
been submitted or to refrain from bidding in connection with any contract, or has in any
manner, directly or indirectly, sought by agreement, collusion, communication or conference
with any other bidder, firm or person to fix the price or prices in the attached BID or of any
other bidder, or to fix any overhead, profit or cost element of the BID prices or the bid price
of any other bidder, or to secure through collusion, conspiracy, connivance or unlawful
agreement any advantage against the Town of Simsbury or any other person interested in the
proposed AGREEMENT.
5. The price(s) quoted in the attached BID are fair and proper and are not tainted by any
collusion, conspiracy, connivance or unlawful agreement on the part of the BIDDER or any
of its agents, representatives, owners, employees, or parties in interest, including this affiant;
and
6. That no elected or appointed official or other officer or employee of the Town of Simsbury,
who is directly or indirectly interested in this BID, or in the supplies, materials, equipment,
work or labor to which it relates, or in any of the profits thereof.

(Signed) _____

(Name of Bidder)

Subscribed and sworn to before me this
_____ day of _____, 2017

Title
My Commission expires _____, 20__

TOWN OF SIMSBURY

**Acknowledgement Form
and
Charter Section 1103
Code of the Town of Simsbury**

ACKNOWLEDGEMENT FORM

I have read Section 1103 of the Charter of the Town of Simsbury, the Code of Ethics Ordinance, and the Guidelines issued thereunder. I understand my responsibilities as a Contractor retained by the Town of Simsbury, and I am in compliance with the Charter and the Code of Ethics. I have indicated in the space below any areas of conflict should they arise in matters before our board, commission, agency or department, and I agree to report any future conflicts under the provisions of Section 1103 of the Charter.

Areas of Exception

**CONFLICTS OF INTEREST
SECTION 1103**

CONFLICTS OF INTEREST. It is hereby declared to be the policy of the Town that any elected or appointed officer, any member of any board or commission or any employee of the Town who has a financial interest, direct or indirect, in any contract, transaction or decision of any officer or agent of the Town or any board or commission, shall disclose that interest to the Board of Selectmen, which shall record such disclosure upon the official record of its meetings. Such disclosure of a financial interest, direct or indirect, in any contract, transaction or decision of any officer or agent of the town or of any board or commission shall disqualify such elected or appointed official or such member of a board of commission or such town employee from participation in the awarding, assignment or discussion of said contract, transaction or decision. Violation by any such official, board or commission member or employee of the provisions of this section shall be grounds for his/her removal.

Signature

Name (Please Print)

Date

A copy of the Town Code is available from the Office of the Town Clerk or is available on line at
http://www.simsbury-ct.gov/sites/simsburyct/files/file/file/towncode_1.pdf

**STATEMENT OF BIDDERS COMPLIANCE WITH
EQUAL EMPLOYMENT OPPORTUNITY LAW AND
REGULATION INCLUDING EXECUTIVE ORDER NO. 3**

This statement must be completed by the Bidder and shall accompany his bid for this project.

IT IS HEREBY CERTIFIED THAT:

NAME OF BIDDER: _____

BUSINESS ADDRESS: _____

To the extent required by law, the Bidder has complied on past Contracts and will fully comply on this project with all applicable laws and regulation regarding equal employment opportunities for minorities and women, and;

Has _____ has not _____ previously performed work under the conditions of the Governor's Executive Order No. 3 of the State of Connecticut, or any preceding similar Executive Order with regards to Non-Discrimination.

Signature

Title

Subscribed and sworn to before me this
_____ day of _____, 2017

Title

My Commission expires _____, 2017_

IMPORTANT: THIS STATEMENT MUST BE SUBMITTED WITH BID

END OF SECTION