BUILDING CODES AND STANDARDS

2001 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)
2001 CALIFORNIA BUILDING CODE VOLUMES 1, 2 AND 3 (PART 2 TITLE 24, CCR) (1997 EDITION UNIFORM BUILDING CODE WITH 2001 CALIFORNIA AMENDMENTS)
2001 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR) (1999 EDITION NATIONAL ELECTRICAL CODE WITH 2001 AMENDMENTS)
2001 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR) (2000 EDITION IAPMO UNIFORM MECHANICAL CODE WITH 2001 CALIFORNIA AMENDMENTS)
2001 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR) (2000 EDITION IAMPO UNIFORM PLUMBING CODE WITH 2001 CALIFORNIA AMENDMENTS)
2001 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)
2001 CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE (PART 7, TITLE 24, CCR)
2001 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)
2001 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)

NFPA 13, 1999 EDITION, THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS, AS AMENDED
NFPA 14, 2000 EDITION, INSTALLATION OF STANDPIPE, PRIVATE HYDRANT AND HOSE SYSTEMS
NFPA 24, 1995 EDITION, INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
NFPA 72, 1999 EDITION, NATIONAL FIRE ALARM CODE, AS AMENDED

MANUFACTURED RELOCATABLE MODULAR BUILDINGS
STOCKPILE FOR (59) 24'x40' PORTABLE DSA CLASSROOMS
PC 4-104778

WILLSCOT
FROM STOCKPILE TO SITE SPECIFIC RELOCATION PACKAGE FOR
BAKERSFIELD CITY SD
NICHOLS ES
(x1) R.H. 24x40 CLASSROOM BLDG
Sn: 2AH10508-09

MSI
MODULAR STRUCTURES INTERNATIONAL Inc.
920 CITRUS AVE. RIVERSIDE, CA. 92507
(909) 788-3035

RECEIVED JUL 2 4 2003 WESTERN DIVISION

BUILDING DATA

OCCUPANCY:	E-2
TYPE OF CONSTRUCTION:	V-NON RATED
WIND LOAD:	80 M.P.H. EXPOSURE 'C'
FLOOR LIVE LOAD:	50 PSF
ROOF LIVE LOAD:	20 PSF
BUILDING AREA:	24'x40'=960 SQ. FT.
STRUCTURAL DESIGN:	RIGID FRAME WITH CLEAR SPAN TRUSS
MODULES:	12'x40'
SEISMIC ZONE:	4
SEISMIC NEAR SOURCE FACTORS:	Z=0.4, P=1.0, Ca=0.44xNa, Na=1.5 REDUCED TO 1.1 PER TITLE 24 SEC. 1629A.4.2 I=1.0, R=4.5, Cv=0.64xNv, Nv=2.0
ENERGY COMPLIANCE:	CLIMATE ZONE 1 THRU 16

NOTES:
THIS P.C. IS DESIGNED STRUCTURALLY TO SUPPORT THE WEIGHT OF A FIRE SPRINKLER SYSTEM.

THIS P.C. IS NOT APPROVED FOR 'A' OCCUPANCY USES.

A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECT. 4-342, PART 1, TITLE 24, CCR.
MIN INSPECTOR CLASS 2.

REVISION SUMMARY LOG

REVISION	DATE	DESCRIPTION OF REVISION	SHEET #
1.	-	-	-

DRAWING INDEX

SHEET NO.	
	ARCHITECTURAL
CS	COVER SHEET, BLDG DATA, SHEET INDEX
G-1	GENERAL NOTES & SPECIFICATIONS
G-2	CONSTRUCTION NOTES, BLDG. MATERIALS, DOOR, WINDOW & FINISH SCHEDULES
~~G-3~~	~~STANDARD ARCHITECTURAL PLUMBING DETAILS~~
G-4	STANDARD ARCHITECTURAL DETAILS
	~~FLOOR PLAN #1~~
~~A-1-24~~	~~24'x40' FLOOR PLAN, DUAL SLOPE EXTERIOR ELEVATIONS & ROOF PLAN~~
~~A-2-24~~	~~24'x40' INTERIOR ELEVATIONS~~
~~A-3-24~~	~~24'x40' REFLECTED CEILING PLAN & DETAILS~~
~~M-1-24~~	~~24'x40' MECHANICAL PLAN~~
~~E-1-24~~	~~24'x40' ELECTRICAL LIGHTING/POWER PLAN & FIRE ALARM~~
	FLOOR PLAN
A-1.1-24	24'x40' FLOOR PLAN, DUAL SLOPE EXTERIOR ELEVATIONS & ROOF PLAN
A-2.1-24	24'x40' INTERIOR ELEVATIONS
A-3.1-24	24'x40' REFLECTED CEILING PLAN & DETAILS
M-1.1-24	24'x40' MECHANICAL PLAN
E-1.1-24	24'x40' ELECTRICAL LIGHTING/POWER PLAN & FIRE ALARM
	STRUCTURAL
~~S-1~~	~~GENERAL NOTES & SPECIFICATIONS~~
S-5	RIGID FRAME SECTIONS & DETAILS, DUAL SLOPE W/ LIGHT GA. SIDEWALL
S-10	FLOOR FRAMING PLAN & DETAILS W/ PLYWOOD FLOOR (80 & 90 MPH WIND)
S-21	EXTERIOR WALL FRAMING ELEVATIONS (STEEL STUDS 80 & 90 MPH WIND)
~~S-25~~	~~STEEL STUD WALL FRAMING DETAILS (80 & 90 MPH WIND)~~
S-30	WOOD STUD WALL FRAMING DETAILS (80 MPH WIND)
S-41	ROOF FRAMING PLAN W/ 22 GA. ROOF (80 & 90 MPH WIND)
S-51	ROOF FRAMING DETAILS W/ 22 GA. ROOF (80 & 90 MPH WIND)
S-60	DUAL SLOPE TRUSS & DETAILS 20 PSF ROOF (80 MPH WIND)
R-1	RAMP FRAMING PLAN & DETAILS (4'-0" WIDE RAMP)
	FOUNDATION
~~F-1~~	~~WOOD PAD FOUNDATION & DETAILS (50 PSF FLOOR, 20 & 30 PSF ROOF)~~ W/ PLYWOOD FLOOR (80 MPH WIND)
F-1.1	WOOD PAD FOUNDATION & DETAILS (50+20 PSF FLOOR, 20 & 30 PSF ROOF) W/ PLYWOOD FLOOR (80 MPH WIND)
F-2	CONCRETE FOUNDATION PLAN ABOVE GRADE W/ PLYWOOD FLOOR (80 & 90 MPH WIND)
F-2.1	CONCRETE FOUNDATION DETAILS ABOVE GRADE W/ PLYWOOD FLOOR (80 & 90 MPH WIND)
F-4	CONCRETE FOUNDATION PLAN FLUSH W/ GRADE W/ PLYWOOD FLOOR (80 & 90 MPH WIND)
F-4.1	CONCRETE FOUNDATION DETAILS FLUSH W/ GRADE W/ PLYWOOD FLOOR (80 & 90 MPH WIND)

ARCHITECT STAMP

DATE SIGNED JUL 15 2003

REGISTERED PROFESSIONAL ENGINEER [illegible] No. 3602 STRUCTURAL STATE OF CALIFORNIA
LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 105473
AC: K.M. Smith
FLS: [illegible]
SS: S. Fowler

STATE AGENCY STAMP

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA, 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING
TITLE: COVER SHEET

JOB #	03-1012 03-1014
DATE	7/8/03
DRAWN BY	JAG
SCALE	AS NOTED
APPROVED	
REVISIONS	

SHEET NO.
CS

GENERAL SPECIFICATIONS

SECTION 1A

1. GENERAL

A. THE REQUIREMENTS OF THE GENERAL CONDITIONS OF THE AGREEMENT AND THIS GENERA REQUIREMENTS APPLY TO THE SEVERAL TRADE SECTIONS WITH THE SAME FORCE AS THOUGH FULLY REPEATED IN EACH SECTION.

B. NAME BRANDS ARE INDICATED TO ESTABLISH A STANDARD OF QUALITY. ITEMS OF EQUAL OR BETTER QUALITY MAY BE SUBSTITUTED FOR THE LISTED BRAND NAMED PRODUCTS.

C. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF TITLE 19, AND 24 CALIFORNIA CODE OF REGULATIONS. NO CHANGES SHALL BE MADE FROM D.S.A. APPROVED DRAWINGS OR SPECIFICATIONS WITHOUT PRIOR WRITTEN APPROVAL OF D.S.A. AND THE DISTRICT ARCHITECT.

2. SCOPE OF WORK

A. THE WORK CONSISTS OF MANUFACTURING OFF-SITE IN A PLANT, AND INSTALLING ON-SITE, MODULAR RELOCATABLE BUILDING AS DEFINED HEREIN AND SHOWN AND DETAILED ON DRAWINGS.

B. ALL REQUIREMENTS OF TITLE 19 AND 24 OF THE STATE OF CALIFORNIA CODE OF REGULATIONS (C.C.R.) RELATING TO INSPECTIONS AND VERIFIED REPORTS SHALL BE COMPLIED WITH AND SHALL INCLUDE:

1. GENERAL RESPONSIBLE CHARGE OF FIELD ADMINISTRATION BY THE ARCHITECT OF RECORD.
2. INSPECTION IN-PLANT DURING THE COURSE OF CONSTRUCTION BY AN INSPECTOR APPROVED BY THE DIVISION OF THE STATE ARCHITECT AND THE DISTRICT ARCHITECT. THE INSPECTOR SHALL BE RESPONSIBLE FOR AND APPROVED TO INSPECT THE GENERAL CONSTRUCTION, WELDING, MECHANICAL AND ELECTRICAL WORK. COST OF THESE INSPECTIONS SHALL BE BORNE BY THE SCHOOL DISTRICT.
3. ON SITE INSPECTION OF THE BUILDING INSTALLATION ELECTRICAL AND UTILITY OF THE BUILDING INSTALLATION BY AN INSPECTOR APPROVED BY THE DIVISION OF THE STATE ARCHITECT AND RETAINED BY THE SCHOOL DISTRICT.
4. OTHER SPECIAL TESTS OR INSPECTIONS AS MAY BE REQUIRED BY THE DIVISION OF THE STATE ARCHITECT.

3. WORK NOT INCLUDED

A. ALL ON-SITE OR OFF-SITE UTILITIES AND THE CONNECTION OF THEM TO THE BUILDING UNLESS INDICATED ON THE DRAWINGS.

B. ALL LEVELING, GRADING OR OTHER SITE PREPARATION EXCEPT CONCRETE OR WOOD LEVELING STRIPS, WHERE REQUIRED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
C. FIRE ALARM SYSTEM, FIRE EXTINGUISHER, PROGRAM BELL, CLOCK, PUBLIC ADDRESS SYSTEM, INTERCOM SYSTEM, TV SYSTEM UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

4. WHEELS AND HITCH

SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

5. ACCESSIBILITY OF SITE

THE SCHOOL DISTRICT SHALL PROVIDE ACCESS TO THE SITE FOR THE INSTALLATION OF THE BUILDING. REMOVAL OF TREES, SHRUBS, FENCING, SPRINKLERS, ETC. NECESSARY FOR THE MOVE-IN OF BUILDINGS SHALL BE THE RESPONSIBILITY OF THE SCHOOL DISTRICT.

6. GENERAL CONSTRUCTION

A. STRUCTURAL FRAME – EACH MODULE SHALL BE DESIGNED AS A MOMENT FRAME STRUCTURE TO WITHSTAND VERTICAL AND HORIZONTAL LOADS AND COMPLY WITH REQUIREMENTS OF THE DIVISION OF THE STATE ARCHITECT. THE NECESSARY PROVISIONS ARE INCORPORATED IN THE STRUCTURE TO PERMIT THE RELOCATION OF THE STRUCTURAL FRAME IN SECTIONS NOT EXCEEDING 12 FEET IN WIDTH.

B. FLOOR – THE FLOOR SHALL BE STEEL FRAMED WITH A DESIGN LIVE LOAD OF 50 lbs. PER SQUARE FOOT UNLESS OTHERWISE NOTED ON THE DRAWINGS.

SECTION 5A STRUCT. AND MISC. STEEL

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND AS SPECIFIED AND INDICATED ON THE DRAWINGS, SERVICES REQUIRED FOR STRUCTURAL AND MISCELLANEOUS STEEL.

2. MATERIALS

A. STRUCTURAL STEEL SHAPES– ASTM A-36, OPEN HEARTH OR ELECTRIC FURNACE ONLY, ALL REGULAR SHAPES AS DESCRIBED IN AISC CONSTRUCTION MANUAL, UNLESS OTHERWISE NOTED.

B. COLD FORMED LIGHT GAUGE STEEL– ASTM A-570 GRADE 33, MINIMUM YIELD 33,000 PSI.

C. STRUCTURAL PIPE – ASTM A-53 MIN. YIELD OF 35,000 PSI.
STRUCTURAL TUBING – ASTM A-500 MIN. YIELD OF 46,000 PSI.

D. BOLT MATERIAL– BOLTS AND NUTS, AMERICAN STANDARD REGULAR, AS DETAILED IN AISC CONSTRUCTION MANUAL, FABRICATED FROM STRUCTURAL QUALITY STEEL, ASTM A-307.

E. ARC-WELDING ELECTRODES– CLASS E-70 SERIES FOR WELDING A-36 STEEL TO A-36 AND E-60 SERIES FOR WELDING A-570 STEEL TO A-36, CONFORMING TO REQUIREMENTS OF THE "STRUCTURAL WELDING CODE" OF AMERICAN WELDING SOCIETY, LATEST EDITION.

F. ALL WELDS USED IN PRIMARY MEMBERS AND CONNECTIONS IN THE LATERAL FORCE-RESISTING SYSTEMS SHALL BE MADE WITH A FILLER METAL THAT HAS A MINUMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT LBS. AT MINUS 20 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

3. WORKMANSHIP

A. GENERAL – ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF AISC STANDARD SPECIFICATIONS, TITLES 21 AND 24 OF THE CALIFORNIA CODE OF REGULATIONS AND THE AMERICAN IRON AND STEEL INSTITUTE SPECIFICATIONS FOR DESIGN OF LIGHT GAUGE STEEL STRUCTURAL MEMBERS.

B. WELDING– ALL WELDING DONE BY SHIELDING ELECTRIC-ARC OR FLUX CORED-ARC PROCESS COMPLYING WITH THE AMERICAN WELDING SOCIETY. WELDING DONE BY OPERATORS QUALIFIED BY TESTS ACCEPTABLE TO THE DIVISION OF THE STATE ARCHITECT.

C. ERECTION– STRUCTURAL STEEL ERECTED TRUE, STRAIGHT, PLUMB AND TO ITS DESIGNED LOCATIONS. FIELD CONNECTIONS BOLTED OR WELDING AS INDICATED ON THE DRAWINGS.

D. NAILS, BOLTS, SCREWS, NUTS, ETC.– FOR EXTERIOR WORK SHALL BE CADIUM PLATED OR GALVANIZED.

E. HANDRAILS– FABRICATED AS DETAILED, WELDS GROUND SMOOTH.

F. SHOP PAINT–
1. EXPOSED STEEL COATED WITH ONE COAT SHOP COAT.
2. NON-EXPOSED STEEL COATED WITH ONE COAT SHOP COAT
3. ALL SURFACES THOROUGHLY CLEANED BY EFFECTIVE MEANS PRIOR TO APPLICATION OF SHOPS COAT.

G. TESTS– PROVIDE MILL CERTIFICATES OR TEST ALL MEMBERS. WELDS SHALL BE INSPECTED AND/OR TESTED PER T-24 SECTION 2231A.5

SECTION 6A CARPENTRY

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL CARPENTRY.

2. MATERIALS

LUMBER GRADE MARKED IN ACCORDANCE WITH "STANDARD GRADING AND DRESSING RULE NO. 16" OF WEST COAST LUMBER INSPECTION BUREAU OR " GRADING RULES FOR WESTERN LUMBER, 3rd EDITION" OF WESTERN WOOD PRODUCTS ASSOCIATION. PLYWOOD GRADE MARKED IN ACCORDANCE WITH "PRODUCT STANDARD PS 1-95 FOR SOFTWOOD" OF AMERICAN PLYWOOD ASSOCIATION, COMPLYING WITH UBC STANDARD 25-9.

A. HEADERS– HEM FIR STUD GRADE OR BETTER.
B. PLATES– HEM FIR STUD GRADE OR BETTER.
C. BLOCKING– HEM FIR STUD GRADE OR BETTER
D. SILLS AND LUMBER IN CONTACT WITH CONCRETE, MASONRY OR EARTH– HEMLOCK FIR PRESSURE TREATED WITH WOLMAN SALTS, TANALITH U OR CHROMATE COPPER ARSENIC; GRADE– 2x4; NO. 2 GRADE – 2x6, CUT ENDS DIPPED IN PRESERVATIVE (CUPONAL).
E. PLYWOOD ROOF DECKING– APA C-D GRADE, GROUP 1, EXPOSURE 1 WITH EXTERIOR GLUE. ON OVERHANGS, C-C PLUGGED AND TOUCH SANDED.
F. PLYWOOD FLOOR DECKING– APA STURD-I-FLOOR 48" O.C. 1-1/8" TONGUE AND GROOVE FLOOR SHEATHING.
G. EXTERIOR SIDING/SHEATHING– APA TYPE 303, EXTERIOR, M.D.O. 8" O.C., SIDING. SHEATHING 1/2" CDX.
H. STUDS AND POSTS– HEM FIR STUD GRADE.
I. FASTENERS– ALL NAILS SHALL BE CORROSION RESISTANT PER UBC STANDARD 2304A.4.
J. BUILDING TRIM– 1x RESAWN SELECT H.F. OR MASONITE.
K. DOOR/WINDOW TRIM– 1x4 RESAWN H.F.

3. WORKMANSHIP

A. FRAMING– SECURELY NAILED, BRIDGED AND BLOCKED TO FORM RIGID STRUCTURE. WORK CUT, FITTED AND ASSEMBLED LEVEL, PLUMB AND TRUE TO LINE. TRIM IN AS LONG LENGTHS AS POSSIBLE WITH ALL STANDING TRIM IN ONE PIECE. TRIM SEALED AT ALL EDGES.
B. NAILING– IN ACCORDANCE WITH TITLE 24 C.C.R.– TABLE 23-II-B-1. NAILS SHALL BE CORROSION RESISTANT BOX NAILS.
C. EXTERIOR WALLS– FACTORY FABRICATED. CAULKING PROVIDED BETWEEN PERIMETER OF WALLS AND STRUCTURAL MEMBERS PROVIDING WEATHERPROOF AND WATERTIGHT SEAL. NECESSARY CLOSURES, SEALS, FLASHING PLACED AT TOP AND BASE SUPPORT OF PANELS AND AROUND OPENINGS.
D. MACHINE APPLIED NAILING– SHALL HAVE PRIOR DEMONSTRATION AND APPROVAL BY DSA FIELD INSPECTOR AND THE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUES SATISFACTORY PERFORMANCE. PLYWOOD SHALL HAVE A MINIMUM THICKNESS OF 3/8". IF NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
E. TRIM SEALED AT ALL EDGES. SEALANT PAINTED TO MATCH TRIM OR SIDING.
F. RETIGHTEN ALL BOLTS BEFORE CLOSING IN.
G. THE DESIGN MOISTURE CONTENT OF LUMBER IS 19% OR LESS BEFORE FABRICATION, OTHER REVISION THRU CHANGE ORDER WILL BE REQUIRED.

SECTION 7B SHEET METAL

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL INDICATED SHEET METAL.

2. MATERIALS

A. SHEET METAL– STEEL SHEETS HOT DIP GALVANIZED WITH 1.25 OZ. PER SQUARE FOOT ZINC COATING CONFORMING TO ASTM A123. MINIMUM 26 GA.
B. SOLDER– OF STANDARD BRAND, GRADE A OF EQUAL PARTS LEAD AND TIN ASTM B32.
C. FLUX– ZINC SATURATED MURATIC ACID.

3. WORKMANSHIP

SHEET METAL ACCURATELY FORMED TO DIMENSIONS AND SHAPES DETAILED WITH TRUE STRAIGHT LINES, CORNERS AND ANGLES. FLASHING INSTALLED IN LONGEST LENGTHS POSSIBLE. EXTERIOR WORK FORMED, FABRICATED AND INSTALLED SO THAT IT ADEQUATELY PROVIDES FOR EXPANSION AND CONTRACTION IN THE COMPLETED WORK AND FINISHES WATER AND WEATHER TIGHT.

SECTION 7J SEALANT

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO SEAL THE BUILDINGS.

2. MATERIALS

"VULKEM" SEALANT, POLYURETHANE, MANUFACTURED BY MAMECO INTERNATIONAL OR APPROVED EQUAL, TO BE USED @ ALL STANDING SEAM ROOFING DETAILS.

SEALANT APPLIED TO DRY CLEAN SURFACES, WHEREVER INDICATED ON DETAILS AND AS NEEDED TO MAKE BUILDING WATERTIGHT, IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

SECTION 8B HOLLOW METAL DOORS & FRAMES

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL HOLLOW METAL DOORS & FRAMES.

2. MATERIALS

A. DOORS– TYPE L FULL FLUSH INSULATED, MANUFACTURED BY 'STEELCRAFT' MANUFACTURING COMPANY OR APPROVED EQUAL, 18 GA. 1-3/4" THICK.
B. FRAMES– 16 GA. COLD ROLLED 2" FACES.

SECTION 8D FINISH HARDWARE

1. SCOPE OF WORK

CONTRACTOR SHALL SUPPLY AND INSTALL HARDWARE AS SPECIFIED AND AS REQUIRED.

2. DOOR SCHEDULE– SEE SHEET G-2

3. SPECIAL REQUIREMENTS

A. CLOSURE FOR EXTERIOR DOORS SHALL BE SET FOR A MAXIMUM OPENING PRESSURE OF 5 LBS.
B. DEADBOLTS ARE NOT PERMITTED UNLESS OPERABLE WITH A SINGLE EFFORT USING LEVER HANDLE.
C. HARDWARE SHALL BE CENTERED BETWEEN 30" AND 44" ABOVE FINISHED FLOOR.
D. ALL EXIT DOORS SHALL BE OPEN ABLE FROM INSIDE WITHOUT ANY EFFORT, SPECIAL TOOL, OR KNOWLEDGE.

SECTION 9E PAINTING

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO PAINT BUILDINGS. ALL EXPOSED SURFACES OF BUILDING AND RAMP SHALL BE PAINTED EXCEPT ALUMINUM WINDOW FRAMES AND THRESHOLDS.

2. MATERIALS

A. EXTERIOR WOOD– VISTA BRAND 4100 PRIMER, 6000 FINISH. (OR EQUAL)
B. INTERIOR TRIM– VISTA BRAND 7000 FINISH. (OR EQUAL)
C. METAL– VISTA BRAND 7000 FINISH. (OR EQUAL)

3. WORKMANSHIP

A. EXTERIOR– WOOD SIDING, TRIM AND SKIRTING– APPLY TWO COATS OF EXTERIOR FLAT ACRYLIC PAINT SPRAYED ON.
B. INTERIOR TRIM– TRIM NOT PRECOATED SHALL BE PAINTED WITH TWO COATS OF SEMIGLOSS LATEX OVER PRIMER.
C. METAL– ALL METAL SURFACES SHALL BE PAINTED WITH TWO COATS OF ALKYD FINISH COAT OVER SHOP COAT.
D. RAMP– ONE COAT OF NON-SKID SURFACING.

SECTION 13F SITE ASSEMBLY

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO PREPARE THE BUILDING ELEMENTS, TRANSPORT THEM FROM THE PLANT TO THE SITE AND TO COMPLETE THE ASSEMBLY AT THE SITE.

THE CONDITION OF THE SITE, SUCH AS DRAINAGE AND SOIL BEARING CAPACITY, SHALL BE THE RESPONSIBILITY OF THE SCHOOL DISTRICT.

2. ASSEMBLY OF ELEMENTS

A. IN A LOCATION AS DETERMINED BY THE SCHOOL DISTRICT, THE CONTRACTOR SHALL PLACE CONCRETE LEVELING STRIPS OR OTHER SUITABLE SUPPORTS AS DETAILED ON THE DRAWINGS.
B. THE ELEMENTS SHALL BE BROUGHT TO THE SITE ON WHEEL ASSEMBLY AND TRANSFERRED TO THE PREPARED SITE. GREAT CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ELEMENTS BY RACKING OR BUMPING.
C. CONNECTION OF THE ELEMENTS TOGETHER SHALL BE DONE ACCORDING TO INSTRUCTIONS ON THE DRAWINGS. FLASHING, TRIM AND OTHER LOOSE ITEMS SHALL BE INSTALLED PER DETAILS ON THE DRAWINGS.

SECTION 15A MECHANICAL

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES TO INSTALL THE AIR CONDITION SYSTEM AS SHOWN ON THE DRAWINGS INCLUDING A/C UNITS AND ACCESSORIES, REMOTE THERMOSTAT, GRILLS AND POWER WIRING COMPLETE TO LOAD CENTER. CONTRACTOR SHALL INSTRUCT OWNER'S OPERATORS ON OPERATION AND MAINTENANCE OF A/C SYSTEM.

2. EQUIPMENT– SEE A/C INFORMATION SCHEDULE FOR SIZE AND TYPE

3. WORKMANSHIP

UNITS SHALL BE INSTALLED COMPLETE AND OPERATING WITH ALL ACCESSORIES IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

SECTION 16A ELECTRICAL

1. SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES FOR ELECTRICAL INSTALLATION COMPLETE WITH ASSOCIATED EQUIPMENT AND FIXTURES IN OPERATING CONDITION READY FOR USE. THE WORK INCLUDES: LIGHT AND POWER SYSTEMS, LIGHTING FIXTURES COMPLETE WITH LAMPS, CONNECTIONS AND DISCONNECTS TO A/C EQUIPMENT.

2. MATERIALS– ALL NEW COMPLYING WITH REQUIREMENTS OF CBC AND NFPA

A. ELECTRIC METALLIC TUBING– COUPLINGS AND FLEX CONDUIT GALVANIZED OR SHERARDIZED.
B. PANELBOARDS– FLUSH MOUNTED WITH HINGED DOORS AND INDEXED CARD HOLDERS.
C. CONDUCTORS– COPPER, INSULATED FOR 600 VOLTS, TYPE THHN FOR SIZES #12 TO #6, TYPE THW FOR LARGER SIZES. MINIMUM SIZE– #12.
D. RECEPTACLE– GENERAL ELECTRIC 5242-2 OR EQUAL, +18".
E. CLOCK RECEPTACLE– EAGLE OR EQUAL.
F. SWITCHES– GENERAL ELECTRIC 5901-2 OR EQUAL, +48".
G. 2'x4' FLOURESCENT DROP IN LIGHT FIXTURE ACRYLIC PRISMATIC LENS, DBL. BALLAST, MAGNETIC ENERGY EFFICIENT (3) 34 WATT T-12 TUBES WEIGHT 27 LBS.

3. WORKMANSHIP

MATERIAL AND EQUIPMENT INSTALLED IN A SECURE, NEAT, WORKMANLIKE MANNER IN ACCORDANCE WITH CODE REQUIREMENTS, PANEL BOARD CARDS FILLED OUT. CONDUIT AND CABLE INSTALLED IN WALL AND CEILING SPACES. WORK PIERCING WATERPROOFED AREAS FLASHED AND SEALED TO A WATERTIGHT CONDITION.

NAILING SCHEDULE[1]

JOIST OR RAFTERS TO SIDES OF STUDS 8" JOIST OR LESS (3) 16d: FOR EACH ADDITION 4" IN DEPTH OF JOIST (1) 16d

BRIDGING TO JOIST, TOENAILS EACH END (2) 8d
A. BLOCKING BETWEEN JOIST OR RAFTERS TOENAILS EACH SIDE, EACH END (2) 10d[12]
B. BLOCKING BETWEEN STUDS, EA. END (2) 16d OR (2) 10d TOENAILS

SOLE PLATE TO JOIST OR BLOCKING FACE NAIL 16d AT 16" O/C

TOP PLATE TO STUD, END NAIL (2) 16d

STUD TO SOLE PLATE (4) 8d TOENAILS OR (2) 16d ENDNAIL

DOUBLE STUDS, FACE NAIL 16d AT 24" O/C

DOUBLE TOP PLATES, FACE NAIL 16d AT 16" O/C

DOUBLE TOP PLATES, LAP SPLICE (8) 16d

CONTINUOUS HEADER, TWO PIECES 16d AT 16" O/C ALONG EACH EDGE

CEILING JOIST TO PLATE, TOENAIL (3) 8d

CONTINUOUS HEADER TO STUD, TOENAIL (4) 8d

CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL (3) 16d

CEILING JOIST TO PARALLEL RAFTERS FACE NAIL (3) 16d

JOIST OR RAFTERS AT ALL BEARINGS, TOENAILS EACH SIDE (2) 10d

1" BRACE TO EA. STUD AND PLATE, FACE NAIL (2) 8d

BUILT UP CORNER STUDS 16d AT 24" O/C

PLYWOOD

SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING:[2]
1/2" OR LESS 6d[3]
19/32" – 3/4" 8d[4] OR 6d[5]
7/8" – 1" 8d[3]
1 1/8" – 1 1/4" 10d[4] OR 8d[5]

COMBINATION SUBFLOOR/UNDERLAYMENT TO FRAMING:
3/4" OR LESS 6d[5]
7/8" – 1" 8d[5]
1 1/8" – 1 1/4" 10d[4] OR 8d[5]

PANEL SIDING TO FRAMING:[2]
1/2" OR LESS 6d[6]
5/8" 8d[6]

FOOTNOTES

[1] COMMON OR BOX NAILS MAY BE USED EXCEPT WHERE OTHERWISE STATED.

[2] NAILS SPACED AT 6" O/C AT EDGES, 12" O/C AT INTERMEDIATE SUPPORTS EXCEPT 6" O/C AT ALL SUPPORTS WHERE SPANS ARE 48" OR MORE. FOR NAILING PLYWOOD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2315A.3.3 & 2315A.4. NAILS FOR WALL SHEATHING MAY BE COMMON, BOX OR CASING.

[3] COMMON OR DEFORMED SHANK.

[4] COMMON

[5] DEFORMED SHANK.

[6] CORROSION RESISTANT SIDING OR CASING NAILS CONFORMING TO THE REQ. OF SECTION 2304A.3.

[7] FASTENERS SPACED 3" O/C AT EXT. EDGES AND 6" O/C AT INTERMEDIATE SUPPORTS.

[8] CORROSION RESISTANT ROOFING NAILS WITH 7/16"ø HEAD AND 1 1/2" LENGTH FOR 1/2" SHEATHING AND 1 3/4" LENGTH FOR 25/32" SHEATHING CONFORMING TO THE REQUIREMENTS OF SECTION 2304A.3.

[9] CORROSION RESISTANT STAPLES WITH NOMINAL 7/16" CROWN AND 1 1/8" LENGTH FOR 1/2" SHEATHING AND 1 1/2" LENGTH FOR 25/32" SHEATHING CONFORMING TO THE REQUIREMENTS OF SECTION 2304A.3.

[10] PANEL SUPPORTS AT 16". CASING OR FINISH NAILS SPACED 6" ON PANEL EDGES, 12" AT INTERMEDIATE SUPPORTS.

[11] PANEL SUPPORTS AT 24". CASING OR FINISH NAILS SPACED 6" ON PANEL EDGES, 12" AT INTERMEDIATE SUPPORTS.

[12] WHEN POSSIBLE, NAILS DRIVEN PERPENDICULAR TO THE GRAIN SHALL BE USED INSTEAD OF TOENAILS.

A. MATERIALS AND WORKMANSHIP:

ALL WORKMEN SHALL BE SKILLED AND QUALIFIED FOR THE WORK WHICH THEY PERFORM. ALL MATERIALS USED, UNLESS OTHERWISE SPECIFIED, SHALL BE NEW AND OF THE TYPES AND GRADES SPECIFIED.

WORKMANSHIP SHALL BE EQUAL OR BETTER IN QUALITY TO THAT REQUIRED BY THE CONSTRUCTION TRADES FOR A FINISHED PRODUCT.

THE CONTRACTOR SHALL CERTIFY THAT NO ASBESTOS-CONTAINING BUILDING MATERIALS WHICH EXCEED STATE AND FEDERAL MANDATED SAFE ASBESTOS LEVELS HAVE BEEN USED IN THE CONSTRUCTION OF RELOCATABLE FACILITIES.

B. GENERAL DESIGN REQUIREMENTS:

EACH MODULE SHALL BE PERMANENTLY IDENTIFIED WITH A METAL IDENTIFICATION TAG 3" x 1 1/2" MINIMUM SIZE WITH THE FOLLOWING INFORMATION:

A. D.S.A. APPROVAL NUMBER
B. DESIGN WIND LOAD
C. DESIGN ROOF LIVE LOAD
D. DESIGN FLOOR LIVE LOAD
E. BUILDER'S NAME
F. PLANT INSPECTOR/ID MARK

EACH MODULE SHALL BE CAPABLE OF RESISTING ALL VERTICAL AND LATERAL LOADS DURING TRANSPORTATION AND RELOCATION. (NORMAL INDUSTRY PRACTICE FOR BRACING MODULES DURING TRANSPORTATION IS ACCEPTABLE). WHEN MODULES ARE ASSEMBLED, JOINTS SHALL BE SEALED WITH REMOVABLE CLOSING STRIPS OR OTHER METHOD TO PRESENT A FINISHED APPEARANCE AND BE PERMANENTLY WATERPROOF.

EACH 12'-0" WIDE MODULE SHALL BE SUFFICIENTLY RIGID TO BE JACKED UP AT THE FRONT AND BACK CORNERS FOR RELOCATION WITHOUT DAMAGE OR THE MODULE SHALL HAVE LIFT LUGS AT FRONT AND BACK LOCATED AS REQUIRED SO THAT THE MODULE MAY BE JACKED UP FOR RELOCATION IN ONE PIECE WITHOUT ADDITIONAL SUPPORTS OF ANY TYPE. EVIDENCE OF EXCESSIVE BOWING DURING THE INSTALLATION OF THE MODULES WHICH, IN THE OPINION OF THE AGENCY ARCHITECT OR STRUCTURAL ENGINEER, CAUSES EXCESSIVE WORKING AT ANY JOINT OR COMPROMISES THE STRUCTURAL INTEGRITY OF THE MODULE, SHALL BE SUFFICIENT REASON FOR REJECTION OF THE MODULE.

C. FRAMING: ROOF, WALLS AND FLOOR:

FRAMING MEMBERS SHALL BE OF THE GRADE AND SIZE CALLED FOR ON THE STRUCTURAL PLANS.

D. MOISTURE BARRIER:

ALL WEATHER-EXPOSED SURFACES SHALL HAVE A WEATHER-RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING. SUCH BARRIER SHALL BE EQUAL TO THAT PROVIDED FOR IN THE U.B.C. STANDARD NO. 14.1 FOR KRAFT WATERPROOF FELT. BARRIER SHALL BE FREE FROM HOLES AND BREAKS OTHER THAN THOSE CREATED BY FASTENERS AND CONSTRUCTION SYSTEM DUE TO ATTACHING OF THE BUILDING PAPER.

E. ZBAR:

ALL HORIZONTAL JOINTS IN SIDING SHALL BE PROTECTED BY GALVANIZED "Z BAR– 3/4 x 5/8 x 3/4" FLASHING.

FLASHING NEED NOT BE USED WHERE SKIRTING MEETS THE UNDERSIDE OF AN EXPOSED METAL FRAME AND THE SKIRTING IS RECESSED SUFFICIENTLY TO PROTECT THE TOP EDGE OF PLYWOOD.

F. ROOF OVERHANG:

ALL OVERHANGS SHALL PRESENT A PLEASING AND FINISHED APPEARANCE. SOFFIT MATERIAL, WHEN USED, SHALL BE 3/8" MIN. EXTERIOR SIDING. PLYWOOD SOFFIT MATERIAL SHALL BE APPLIED WITH EXPOSED GRAIN RUNNING PARALLEL TO THE LENGTH OF THE BUILDING. SOFFIT SHALL BE NEATLY AND CLOSELY FITTED AND TRIMMED TO COVER GAPS. ALL ENCLOSED SOFFIT AREAS SHALL BE VENTILATED PER THE C.B.C.

G. ENTRY LANDING AND RAMP:

EACH MODULE SHALL HAVE A LANDING(s) AND RAMP(s) TO CONFORM TO TITLE 24, C.C.R. SECTION 1007. THE LANDING(s) AND RAMP(s) STRUCTURE INCLUDING HANDRAIL AND WHEEL GUIDES. PREFABRICATED METAL LANDINGS AND RAMPS SHALL BE BUILT IN SECTIONS THAT ARE DEMOUNTABLE FOR MOVING AND REINSTALLATION AT A NEW SITE. THERE SHALL BE SUFFICIENT CROSS BRACING UNDER THE RAMP SURFACE TO PREVENT BOUNCE OR OIL CANNING OR THE RAMP SURFACE. DESIGN SHALL BE SUCH THAT HEIGHT ADJUSTMENT CAN BE MADE AT THE INSTALLATION SITE.

RAMP SHALL HAVE SKID RESISTANT METAL OR WOOD SURFACE.

H. ELECTRICAL MATERIALS:

ALL ELECTRICAL WIRING 110V AND GREATER SHALL BE IN CONDUIT SYSTEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF C.E.C. MINIMUM SIZE CONDUIT IS 1/2" MIN.

ACCEPTABLE CONDUIT:
RIGID ELECTRICAL METALLIC TUBING (EMT); GALVANIZED THIN WALL
FLEXIBLE (INTERIOR); GALVANIZED STEEL
FLEXIBLE (EXTERIOR); GALVANIZED STEEL WITH FACTORY APPLIED PVC

ALL CONDUITS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND SHALL BE SECURED IN CONFORMANCE WITH C.E.C. FIELD BENDS SHALL BE AVOIDED WHEREVER POSSIBLE. WHERE BENDS MUST BE MADE, USE AN APPROPRIATE "HICKEY" OR BENDING MACHINE. REAM AND DEBUR ALL CONDUIT PRIOR TO INSTALLATION AND TERMINATE IN APPROPRIATE BUSHINGS OR CONNECTORS, JACKET. WIRING SHALL BE #14 MIN. COPPER TYPE TW, THW, THWN AS APPLICABLE. CONDUIT FILL SHALL NOT EXCEED REQUIREMENTS OF C.E.C. A SEPARATE GROUNDING CONDUCTOR SHALL BE PULLED THROUGHOUT THE ENTIRE SYSTEM. CARE SHALL BE TAKEN TO AVOID DAMAGE TO WIRE OR INSULATION DURING PULLING. POWDERED SOAPSTONE OR A PULLING COMPOUND SUCH AS "YELLOW 77" LUBRICANT MAY BE USED IF NECESSARY.

GENERAL NOTES:

A. ALL WORK TO BE IN ACCORDANCE WITH REQUIREMENTS OF CALIFORNIA BUILDING CODE; TITLE 24, PART 2,3,4,5,9 AND TITLE 24, PART 1, GROUP 1. A COPY OF THESE REGULATIONS SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.

B. PLANS AND SPECIFICATIONS: CHANGES IN PLANS AND SPECIFICATIONS SHALL BE MADE BY THE ADDENDUM OR CHANGE ORDER, SIGNED BY THE ARCHITECT AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE ANY RELATED WORK CAN BEGIN. CHANGE ORDERS SHALL ALSO BE SIGNED BY THE OWNER PRIOR TO APPROVAL BY DSA.

C. TESTING: TESTS OF MATERIALS SHALL BE BY A PERSON OR TESTING LABORATORY SELECTED BY THE OWNER WITH THE APPROVAL OF DSA AND ARCHITECT. THE OWNER SHALL BE RESPONSIBLE FOR THE COST OF TESTING, EXCEPT FOR THE RETESTING REQUIRED BY THE FAILURE OF ANY MATERIAL TO PASS.

D. ERECTION AT THE SITE: THE BUILDING SHALL BE TRANSPORTED, ERECTED AND SET ON FOUNDATION AS REQUIRED BY A LICENSED TRANSPORTER. ALL REQUIRED FINISH WORK SHALL BE COMPLETED BY SKILLED LABOR OF THE MANUFACTURER/CONTRACTOR, BUT WILL NOT INCLUDE UTILITIES SERVICE CONNECTION.

E. SITE WORK: THE OWNER, UNLESS OTHERWISE SHOWN ON THE APPROVED PLANS, WILL PROVIDE SITE(s) SATISFACTORY TO THE ARCHITECT OR ENGINEER FOR THE INSTALLATION OF THE RELOCATABLE BUILDING(s) THAT ARE LEVEL AND HAVE STABLE SOIL CONDITIONS WITH ADEQUATE SITE DRAINAGE, EXCEPT IF DESIGNATED IN THE CONTRACT DOCUMENTS AS THE RESPONSIBILITY OF THE MANUFACTURER/CONTRACTOR. IF ADDITIONAL GRADING AND/OR LEVELING IS NECESSARY FOR PROPER INSTALLATION OF MODULAR UNITS, THE ADDITIONAL CHARGE WILL BE THE RESPONSIBILITY OF THE OWNER.

F. UTILITIES: THE OWNER WILL BE RESPONSIBLE FOR ANY AND ALL UTILITY, FIRE ALARM OR SPECIAL ELECTRICAL SIGNAL SYSTEM CONNECTIONS EXCEPT IF DESIGNATED IN THE CONTRACT DOCUMENTS AS THE RESPONSIBILITY OF THE MANUFACTURER/CONTRACTOR.

G. FIRE EXTINGUISHER: UL2A-10BC, PRESSURE TYPE, MAX. 48" TO EXTINGUISHER HANDLE – SEE SPECIFICATION SHEET.

H. BUILDING INSULATION:
SHALL COMPLY WITH CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL. FLAME SPREAD –MAX. 25, SMOKE DEVELOP –MAX. 450 CBC SEC. 1510. SEE SPECIFICATION SHEET.

I. T-GRID CEILING:
SUSPENDED T-BAR SYSTEM WITH LAY-IN PANELS
FLAME SPREAD – MAX. 0-25, SMOKE DEVELOP – MAX. 450
SEE SPECIFICATION SHEET.

J. FIRE ALARM SYSTEM: – SEE SPECIFICATION SHEET
1. "THE FIRE ALARM SYSTEM SHALL CONFORM TO CALIFORNIA BUILDING CODE SECTION 305.9, AND CALIFORNIA ELECTRIC CODE ARTICLE 760, CALIFORNIA FIRE CODE, ARTICLE 10."
2. INSTALLATION OF THE FIRE PROTECTIVE SIGNALING SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBER FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY DSA.
3. UPON COMPLETION OF THE INSTALLATION OF THE PROTECTIVE SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING FIRE AGENCY.
4. ALARMS– SECTION 1006.2.4, CALIFORNIA FIRE CODE.
IF EMERGENCY WARNING SYSTEMS ARE REQUIRED, THEY SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL WARNING SHALL HAVE A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE.
(A) LOCATE PER CFC 1006.2.4

K. GROUNDING OF BUILDING COMPONENTS
1. THE OWNER, UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMANTS, SHALL RESPONSIBLE FOR PROVIDING THE NECESSARY GROUNDING OF THE BUILDING ELECTRICAL SYSTEM PER CEC 250-50, 250-52 AND 250-56.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY GROUNDING OF THE METAL PORTION BUILDING COMPONENTS (METAL FRAMED STEEL RAMP, ETC.) TO MEET THE REQUIREMENTS OF IR NO 16-1, ISSUED BY D.S.A.
3. THE PROJECT INSPECTOR SHALL WITNESS AND VERIFY THE GROUNDING TESTS.

L. MECHANICAL
1. FACTORY-MADE AIR DUCTS. FACTORY-MADE AIR DUCTS SHALL BE APPROVED FOR THE USE INTENDED OR SHALL CONFORM TO THE REQUIREMENTS OF C.M.C. STANDARD NO. 10-1. EACH PORTION OF A FACTORY-MADE AIR DUCT SYSTEM SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A LABEL OR OTHER SUITABLE IDNETIFICATION INDICATING COMPLIANCE WITH C.M.C STANDARD NO. 10-1 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR LISTING.
2. INSULATION APPLIED TO THE EXTERIOR SURFACE OF DUCTS LOCATED IN BUILDINGS SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE DENSITY OF NOT MORE THAN 50 WHEN TESTED AS A COMPOSITE INSTALLATION INCLUDING INSULATION, FACING MATERIALS, TAPES AND ADHESIVES AS NORMALLY APPLIED.
3. MATERIAL EXPOSED WITHIN DUCTS OR PLENUMS SHALL HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPMENT RATING OF NOT MORE THAN 50.
4. AIR FILTERS. AIR FILTERS SHALL BE LISTED UNITS PER U.F.C. STANDARD NO. 9-6. AIR FILTERS SHALL COMPLY WITH ALL REQUIREMENTS OF STATE STANDARD NO. 12-71-1.
5. PIPE AND TUBING. INSULATION AND COVERING ON PIPE AND TUBING SHALL HAVE A FLAME SPREAD-RATING NOT TO EXCEED 25 AND A SMOKE DENSITY NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH CBC SECTION 707.2

JOHNS MANVILLE BUILT-UP ROOFING
REGION 1, REGION 2 + REGION 3

RECEIVED
JUL 24 2003
WESTERN DIVISION

DATE SIGNED
JUL 15 2003

No. 3602
LICENSE EXPIRES 6-30-2004

MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA. 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

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ARCHITECT STAMP

~~DATE SIGNED~~
~~MAY 21 2003~~
~~LICENSE EXPIRES 6-30-2004~~

STRUCTURAL ENGINEER STAMP

~~IDENTIFICATION STAMP~~
~~DIV. OF THE STATE ARCHITECT~~
~~OFFICE OF REGULATION SERVICES~~
~~04 103459~~
~~AC FLS SS~~
~~DATE JUL 17 2003~~

STATE AGENCY STAMP

~~PC~~
~~IDENTIFICATION STAMP~~
~~DIV. OF THE STATE ARCHITECT~~
~~OFFICE OF REGULATION SERVICES~~
~~4-104778~~
~~AC FLS MY SS KB~~
~~DATE: 5-30-03~~

STATE AGENCY STAMP

PROJECT
MODULAR CLASSROOM BUILDING

TITLE
GENERAL NOTES & SPECIFICATIONS

JOB #
DATE 12-1-02
DRAWN BY RDL
SCALE AS NOTED
APPROVED
REVISIONS

SHEET NO.
G-1

CONSTRUCTION NOTES & MATERIALS:

CHASSIS CONSTRUCTION: CHECK ONE
BOX SIZE: 12'x40'
FRAME: PERIMETER
MAIN RAIL/SIZE: 7"x9.8# C-CHANNEL @ PLYWOOD FLOOR ☒ OR
10"x15.3# C-CHANNEL @ CONCRETE FLOOR ☐
No. OF AXLES: –
REFERENCE DETAIL SHEET: –
MISC: –

FLOOR FRAMING: CHECK ONE
FLOOR LOAD: 50 PSF ☒ 50+20 PSF ☐ 100 PSF ☐ 125 PSF ☐
JOIST SIZE & GRADE: 7"x11 GA. Z-MEMBER @ PLYWOOD FLOOR ☐ OR
6"x8.2 C-CHANNEL @ CONCRETE FLOOR ☐
JOIST SPACING: SEE CHART ON FLOOR FRAMING PLAN 48" O.C.
INSULATION: R-11 UNFACED ☒ OR R-19 UNFACED ☐
BOTTOM ENCLOSURE: CANVEX CW-600
FLOOR DECK: PLYWOOD DECKING ☒ OR LIGHTWEIGHT CONCRETE ☐
REFERENCE DETAIL SHEET: –
MISC.: –

EXTERIOR WALLS WOOD STUD OPTION: CHECK ONE ☐ USED ☒ NOT USED
WIND LOAD: 80 MPH EXP. C ☐ OR 90 MPH EXP. C ☐
STUD SIZE & GRADE: 2"x4" H.F. #2 ☐ OR 2"x6" H.F. #2 ☐
SPACING: 16" O.C.
SIDE WALL HEIGHT: 9'-0"
INSULATION: R-13 UNFACED ☐ OR R-19 UNFACED ☐
FIRE RESISTIVE CONSTRUCTION: –
REFERENCE DETAIL SHEET: –
MISC.: –

EXTERIOR WALLS STEEL STUD OPTION: CHECK ONE ☒ USED ☐ NOT USED
WIND LOAD: 80 MPH EXP. C ☒ OR 90 MPH EXP. C ☐
STUD SIZE & GRADE: 3 1/2" x 20 GAUGE ☒ OR 5 1/2" x 20 GAUGE ☐
SPACING: 16" O.C.
SIDE WALL HEIGHT: 9'-0"
INSULATION: R-13 UNFACED ☒ OR R-19 UNFACED ☐
FIRE RESISTIVE CONSTRUCTION: –
REFERENCE DETAIL SHEET: –
MISC.: –

EXTERIOR WALL SIDING: CHECK ONE
5/8" THK. DURATEMP APA RATED GROOVED @ 8" O.C. ☒
1/2" CDX PLYWOOD W/ STUCCO ON-SITE ☐
REFERENCE DETAIL SHEET: FOR STUCCO SIDING SEE DETAILS #16 & #17 SHEET G-4
MISC.: I.C.B.O.# FOR DURATEMP SIDING (ER-4856)

INTERIOR WALLS: CHECK ONE
STUD SIZE & GRADE: 2"x4" H.F. #2 ☒ OR 3 1/2"x20 GAUGE STEEL STUDS ☐
STUD SPACING: 16" O.C.
PARTITION HEIGHT: TO RAFTERS ☐ OR BELOW RAFTERS ☐
INSULATION: YES ☐ OR NO ☐
FIRE RESISTIVE CONSTRUCTION: –
REFERENCE DETAIL SHEET: –
MISC.: –

ROOF DETAILS:
TYPE OF DRAIN SYSTEM: 26 GA. GUTTERS AND DOWN SPOUTS
REFERENCE DETAIL SHEET: –
MISC.:

ROOF FRAMING: CHECK ONE
ROOF LOAD: 20 PSF ☒ OR 30 PSF ☐
RAFTER SIZE/GRADE: 6"x2"x14 GA. Z-MEMBER ☒ OR 7"x1 1/2"x11 GA. Z-MEMBER ☐
RAFTER SPACING: 48" O.C.
INSULATION: R-19 UNFACED ☒ OR R-30 UNFACED
FINISH ROOFING: 22 GAUGE GALV. STANDING SEAM ROOF ☒
26 GAUGE GALV. STANDING SEAM ROOF ☐
BUILT-UP 3-PLY ROOFING ☐ EPDM W/ 1/4" DENSDECK UNDERLAYMENT ☐
ROOF SHEATHING: 3/4" C-D PLYWOOD @ NON 22 GAUGE ROOFING
ROOF SLOPE: 1/4" PER 12" DOUBLE SLOPE
REFERENCE DETAIL SHEETS: –
DRAFT STOP CONSTRUCTION: –
ROOF MOUNT HVAC: CHECK ONE ☐ YES ☒ NO
MISC:

STEEL COLUMNS: CHECK ONE
CORNER COLUMNS: 3 1/2"x3 1/2"x1/4" ☒ OR 4"x4"x1/4" ☐
MIDSPAN COLUMN @ SIDEWALL: N.A.
STEEL POST HEIGHT: 9'-0"
REFERENCE DETAIL SHEET:
MISC: (NOTE: THE STEEL POST HEIGHT IS FROM TOP OF FLOOR TO BTM. OF SIDEWALL BEAM/HEADER.)

TRUSS TYPE 20 PSF ROOF LOAD: ☒ YES OR ☐ NO
SIDEWALL BEAM TYPE: 18/23/18x3 1/2"x10 GA. CHANNEL @ DOUBLE SLOPE OR
~~18/28x3 1/2"x10 GA. CHANNEL @ SINGLE SLOPE~~
ENDWALL HEADER: 18 x 3 1/2" x 12 GA. CHANNEL @ DOUBLE SLOPE AND
~~18 x 28" x 3 1/2" x 12 GA. CHANNEL @ HIGH SIDE OF SINGLE SLOPE~~
TRUSS CONFIGURATION @ MODLINE: DOUBLE SLOPE ☒ OR SINGLE SLOPE ☐
TOP CHORD: L 3"x3"x3/8"
BOTTOM CHORD: L 3"x3"x3/8"
WEBS: L 2"x2"x3/16" @ 1ST TWO BAYS, L 1 1/2"x1 1/2"x3/16" @ ALL OTHERS
OVERHANGS: 5'-0" @ FRONT & 2'-0" @ REAR
OVERHANG MATERIAL: L 4"x3"x3/8" ☒ OR 10"x3"x12 GAUGE C-CHANNEL ☐
SOFFITS: OPEN SOFFITS ☒ OR CLOSED SOFFITS ☐
REFERENCE DETAIL SHEET:
MISC:

TRUSS TYPE 30 PSF ROOF LOAD: ☐ YES OR ☒ NO
TRUSS CONFIGURATION: DOUBLE SLOPE ☐ OR SINGLE SLOPE ☐
SIDEWALL BEAM TYPE: 18/23/18x3 1/2"x10 GA. CHANNEL @ DOUBLE SLOPE OR
18/28x3 1/2"x10 GA. CHANNEL @ SINGLE SLOPE
ENDWALL HEADER: 18"x3 1/2"x12 GA. CHANNEL @ DOUBLE SLOPE AND
18"x28"x3 1/2"x12 GA. CHANNEL @ HIGH SIDE OF SINGLE SLOPE
TRUSS TOP CHORD: L 4"x3"x3/8"
TRUSS BOTTOM CHORD: L 4"x3"x3/8"
TRUSS WEBS: L 2"x2"x3/16" @ 1ST TWO BAYS, L 1 1/2"x1 1/2"x3/16" @ ALL OTHERS
OVERHANGS: 5'-0" @ FRONT & 2'-0" @ REAR
OVERHANG MATERIAL: L 5"x3"x3/8" ☐ OR 10"x3"x12 GAUGE C-CHANNEL ☐
SOFFITS: OPEN SOFFITS ☐ OR CLOSED SOFFITS ☐
REFERENCE DETAIL SHEET:
MISC:

SITE CONDITIONS: CHECK ONE
FOUNDATION TYPE: WOOD PAD ☒ OR CONCRETE ☐
FLASHING REQUIRED: CONCRETE FLUSH W/ GRADE ☐ OR CONCRETE ABOVE W/ GRADE ☐
RAMP & LANDING: SEE FLOOR PLAN FOR RAMP AND LANDING
SKIRTING REQUIRED: YES ☒ OR NO ☐ ROUGH SAWN T-1-11 UNGROOVED
FIXTURE MOUNTING HEIGHTS: ADULT HEIGHT ☐ ELEMENTARY ☐ KIDDIE ☐
MISC.:

ON-SITE SCOPE OF WORK:
1. ALL UNDER FLOOR PLUMBING FURINISHED AND INSTALLED ON-SITE.
2.
3.
4.
5.

VARIABLE MATERIAL SPECIFICATIONS:

ROOFING:
FIRE RATED PER UBC STANDARD 15-2 CLASS 'A'
BASE SHEET FINISHED GRADE 25-30# ASPHALT COATED

MULE-HIDE EPDM MEMBRANE ROOFING SYSTEM:
(ETHYLENE-PROPYLENE-DIENE TERPOLYMER MEMBRANE) ADHESIVELY OR MECHANICALLY ATTACHED OVER INSULATED, COMBUSTIBLE OR NON-COMBUSTIBLE DECKS. CLASS 'A'. THE EPDM MEMBRANES ARE SYNTHETIC RUBBER SINGLE-PLY SHEETS HAVING A MIN. NOMINAL THICKNESS OF 45 MILS (1.1 MM). INSTALL PER MANUFACTURER INSTALLATION INSTRUCTIONS. (I.C.B.O.# ER-5867)
1/4" DENS-DECK ROOF BOARD:
USED AS A UNDERLAYMENT FOR THE EPDM MEMBRANE ROOFING SYSTEM. FLAME SPREAD: 0, SMOKE DEVELOPED: 0 PER, ASTM E 84. INSTALL PER ROOFING MANUFACTURER INSTALLATION INSTRUCTIONS.

WINDOWS:
HORIZONTAL SLIDING , 50% VENTING, ANODIZED ALUMINUM FRAME. PERFORMANCE RATED PER AAMA GS101-88 FOR COMMERCIAL USE AND MEDIUM EXPOSURE, NAIL-ON FIN FASTENED DIRECTLY TO FRAMING AND BEHIND SIDING MATERIAL, REMOVABLE SCREEN AT VENT SASHES. LAMINATED OR TEMPERED GLAZING TO BE NOTED ON FLOOR PLAN. DUAL GLAZED WINDOWS TO HAVE MINIMUM 1/4" AIR SPACE AND 1/8" GLASS (SEE WINDOW SCHEDULE FOR SIZES)

INTERIOR WALL COVERINGS:
APPLIED OVER MINIMUM 1/2" GYPSUM BOARD, OR MINIMUM 3/8" (*)ORIENTED STRAND BOARD. EXPOSED SURFACES FIRE RATED PER ASTM E-84, FLAME SPREAD MAXIMUM 200, SMOKE DEVELOPED MAXIMUM 450. (*PROVIDE FIRE BLOCKING WHEN 3/8" OSB IS USED AS BACKING MATERIAL)
TACKBOARD: VINYL WALL COVERING TO BE CLASS I DOMTAR GYPSUM OR EQUAL, LAMINATED ONTO 1/2" INDUSTRIAL INSULATION BOARD, 4'-0"x9'-0", LONG EDGES BEVELED.
FLAME SPREAD = 65
SMOKE DENSITY = 175

FRP: FIBERGLASS REINFORCED PLASTIC PANELS, 4'-0"x8'-0", WITH COLOR MATCHED PVC MOLDINGS OVER 1/2 GYPSUM
FLAME SPREAD AND SMOKE DEVELOPMENT, CLASS C PER ASTM-E84
SMOKE DENSITY NOT TO EXCEED 450. FLAME SPREAD NOT TO EXCEED 200
CEILING TYPE:
SUSPENDED SYSTEM, PERFORMANCE RATED ASTM C635 HEAVY DUTY
ACOUSTIC LAY-IN CEILING PANELS:
LIGHT REFLECTIVE LR-1, FIRE RATED CLASS-A PER ASTM E84.
VINYL FACED FIBERGLASS, 5/8" THICK, ARMSTRONG OR EQUIV.
CLASS A: FLAME SPREAD 25 (UL LABELED) PER ASTM E 1264
SMOKE DENSITY NOT TO EXCEED 450.
CARPET:
DIRECT GLUE-DOWN, PERFORMANCE RATED PER STATE OF CALIFORNIA SPECIFICATION 7220-21L-01. (GROUP I, TYPE A, CLASS 24) 4600 MIN. DENSITY. THE CARPET IS TO HAVE A MINIMUM CRITICAL FLUX OF .25 WATT/CM .

VINYL SHEET FLOORING:
MINIMUM WEAR LAYER .050" THICK, PERFORMANCE RATED PER ASTM F1303-90 TYPE-II, GRADE-1, CLASS-A, AND ASTM F970 125PSI, FIRE RATED PER ASTM E648 FLAMMABILITY CLASS-I, AND ASTM E662 SMOKE DENSITY MAX. 450. MIN. COEFFICIENT OF FRICTION TO BE 0.5 PER ASTM D2047

VINYL COMPOSITION TILE:
12" SQUARE, MINIMUM 1/8" THICK, PERFORMANCE RATED PER ASTM F1066, COMP-1, CLASS-2, AND ASTM F970 75PSI, FIRE RATED PER ASTM E648 FLAMMABILITY CLASS-1, AND ASTM E662 SMOKE DENSITY MAX. 450. MIN. COEFFICIENT OF FRICTION TO BE 0.5 PER ASTM D2047

TOP SET BASE:
BURKE MOLDED RUBBER 1/8" THICK, 4" HEIGHT, COVE STYLE #502-P, OR EQUIV.

MARKER BOARDS:
1/2" PARTICLE BOARD SUBSTRATE, FULL WIDTH MAP RAIL W/ CORK INSERT AND SIX MAP HOOKS, EXTRUDED ALUMINUM MOLDING WITH FLAG HOLDER.

NOTE:
ALL FINISHES SHALL COMPLY WITH CBC CHAPTERS 7 & 8. CFC AND TITLE 19 CCR

INTERIOR FINISH SCHEDULE

ROOM	FLOOR (BY OTHERS)	FLOOR SHEET VINYL	FLOOR	FLOOR	BASE (BY OTHERS)	BASE 6" SELF COVE	BASE	BASE	WALLS 1/2" VINYL WRAP TACK. BD. OVER 1/2" GYP BD.	WALLS F.R.P. OVER 1/2" M.R. GYP. BD.	CEILING ACOUSTICAL TILE IN HEAVY DUTY GRID @ 8'-6"	CEILING ACOUSTICAL TILE IN HEAVY DUTY GRID @ 8'-0"
CLASSROOMS	●				●				●		●	
~~RESTROOMS~~		●				●				●		●

NOTE:
FINISH WALL COVERING & FINISH CEILING SHALL BE FLAME SPREAD CLASS 1

WINDOW SCHEDULE

⬡	ROUGH OPENING WIDTH	x HEIGHT	WINDOW SIZE	TYPE	FRAME	SCREEN	GLAZING	MANUFACTURE/SERIES/DESCRIPTION
A	VERIFY	VERIFY	8'-0"x4'-0"	XOX	CLEAR ANODIZED ALUM. FRAME	YES	46% GREY TINT	DUAL GLAZE, HORIZONTAL SLIDER, ALUMINUM FRAMED SCREENS
B								
C								

DOOR SCHEDULE

SYM.	WIDTH	HEIGHT	THK.	TYPE	FIRE RATING	FRAME	GLAZING	REMARKS
1	3'-0"	6'-8"	1 3/4"	HOLLOW METAL		16 GA. METAL		18 GA. HOLLOW METAL DOOR
~~2~~	~~3'-0"~~	~~6'-8"~~	~~1 3/4"~~	~~SOLID CORE~~		~~TIMELY~~		~~PREFINISHED INTERIOR LEGACY DOOR & FRAME~~
3								
4								

HARDWARE GROUP 1

QTY.	DESCRIPTION	PART NO.
3	HINGES	HAGAR BB1191 4.5"x4.5" NRP
1	LOCKSET, LEVER HANDLE	TAL LHV75-LFIC SAT
1	CLOSER, 5 LBS CLOSING PRESSURE	NORTON 1601
1	THRESHOLD	PEMCO 271A
1	DOOR BOTTOM	PEMCO 216AV
1	WEATHERSTRIP	PEMCO 279PAV
1	DOOR STOP	QUALITY 431

HARDWARE GROUP 2

QTY.	DESCRIPTION	PART NO.
3	HINGES	HAGAR RC1749 4.0"x4.0" L2
1	PRIVACY LEVER	SCHLAGE D40S RHODES, 26D FINISH

HARDWARE GROUP 3

QTY.	DESCRIPTION	PART NO.
3	HINGES	HAGAR BB1191 4.5"x4.5" NRP
1	PANIC HARDWARE	VON DUPRIN SERIES 22 EXIT DEVICE
1	CLOSER, 5 LBS CLOSING PRESSURE	NORTON 1601
1	THRESHOLD	PEMCO 271A
1	DOOR BOTTOM	PEMCO 216AV
1	WEATHERSTRIP	PEMCO 279PAV
1	DOOR STOP	QUALITY 431
1	EXTERIOR TRIM, LEVER HANDLE	VON DUPRIN 230L

HARDWARE GROUP 4

QTY.	DESCRIPTION	PART NO.
3	HINGES	HAGAR RC1749 4.0"x4.0" L2
1	PASSAGE LEVER	SCHLAGE D10S RHODES, 26D FINISH

NOTE:
PANIC HARDWARE IS REQUIRED TO BE INSTALLED WHEN THE CONFIGURATION OF ANY ROOM PROVIDES AN OCCUPANT LOAD OF 50 OR GREATER, CBC 1007.3.10

DATE SIGNED JUL 15 2003
LICENSE EXPIRES 6-30-2004

ARCHITECT STAMP
DATE SIGNED MAY 2? 2003
LICENSE EXPIRES 6-30-2004
STRUCTURAL ENGINEER STAMP

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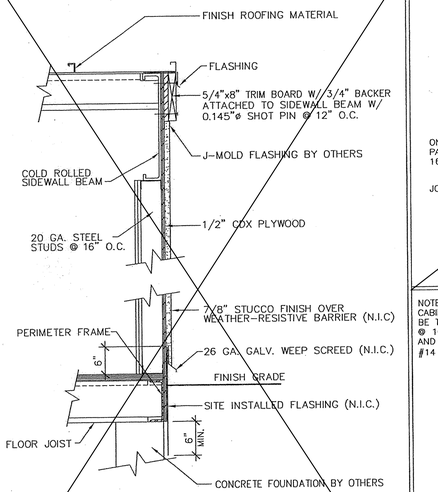
04 105453
STATE AGENCY STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
4-104778
DATE: 5-30-03
STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA. 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING
TITLE: BUILDING SPECIFICATIONS, CONSTRUCTION NOTES & SCHEDULES
JOB #
DATE: 12-1-02
DRAWN BY: R.D.L.
SCALE: AS NOTED
APPROVED
REVISIONS

SHEET NO. G-2



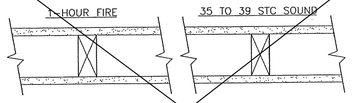
SIDEWALL DETAIL

OPTIONAL STUCCO SIDING DETAIL

[ ] NOT USED IN THIS PROJECT

16

GA FILE NO. WP 3514 GYPSUM WALLBOARD, WOOD STUDS



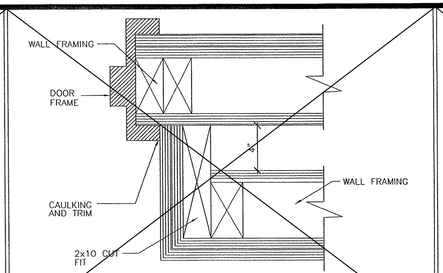
ONE LAYER 5/8" TYPE 'X' GYPSUM WALLBOARD OR VENEER BASE APPLIED PARALLEL OR AT RIGHT ANGLES TO EACH SIDE OF 2x4 WOOD STUDS 16" O.C. WITH 1 1/4" TYPE W DRYWALL SCREWS 12" O.C.

JOINTS STAGGERED 16" ON OPPOSITE SIDES.

1-HOUR RATED WALL WOOD STUDS

[ ] NOT USED IN THIS PROJECT

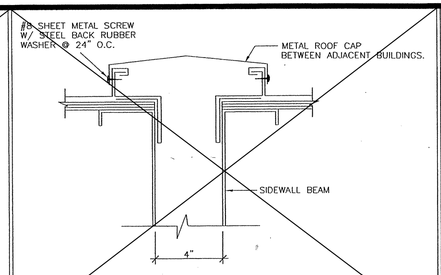
12



COMMON WALL CONNECTION AT DOOR BETWEEN ADJACENT BUILDINGS

[ ] NOT USED IN THIS PROJECT

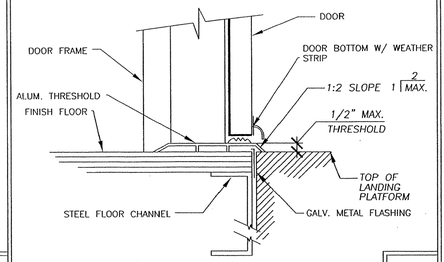
7



CLOSURE AT ROOF

[ ] NOT USED IN THIS PROJECT

4

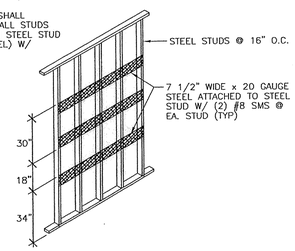


THRESHOLD DETAIL

[ ] NOT USED IN THIS PROJECT

1

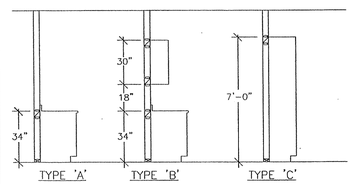
NOTE:
CABINET ATTACHMENT SHALL BE TO DIRECTLY TO WALL STUDS @ 16" O.C. (THROUGH STEEL STUD AND FLAT 20 GA. STEEL) W/ #14 SMS



ALTERNATE CABINET BLOCKING

[ ] NOT USED IN THIS PROJECT

13



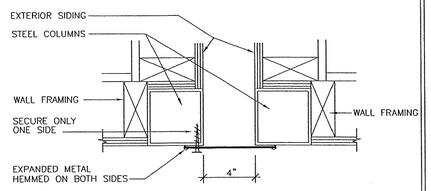
BLOCKING SHALL BE 3x H.F. #2 BETWEEN STUDS WITH (2) "SIMPSON" A-34 ANCHORS TOP & BTM. @ EACH END OF BLOCK TO STUD. ATTACH CABINET W/ #14 SCREWS W/ 2" MIN. PENETRATION INTO STUD OR BLOCKING @ 16" O.C.

ALTERNATE CABINET ATTACHMENT SHALL BE DIRECTLY TO WOOD STUDS @ 16" O.C.

CABINET BLOCKING

[ ] NOT USED IN THIS PROJECT

8



CLOSURE AT ENDWALLS

[ ] NOT USED IN THIS PROJECT

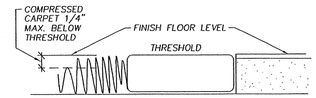
5

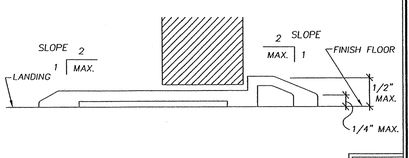
THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION, NOT AS AN ILLUSTRTION OF A SPECIFIC THRESHOLD MODEL OR TYPE.

THRESHOLD – TYPICAL
"ALL THRESHOLDS TO CONFORM TO DIMENSIONS IN DETAIL #2

DOOR HARDWARE: EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY OTHER SPECIAL KNOWLEDGE OR EFFORT. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE-EFFORT BY LEVER HARDWARE (NOT TO EXCEED 8.5 LBS. FOR EXTERIOR DOORS, 5 LBS. FOR INTERIOR DOORS; PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.

CALIFORNIA BUILDING CODE, SECTION 1004.3, 1004.4

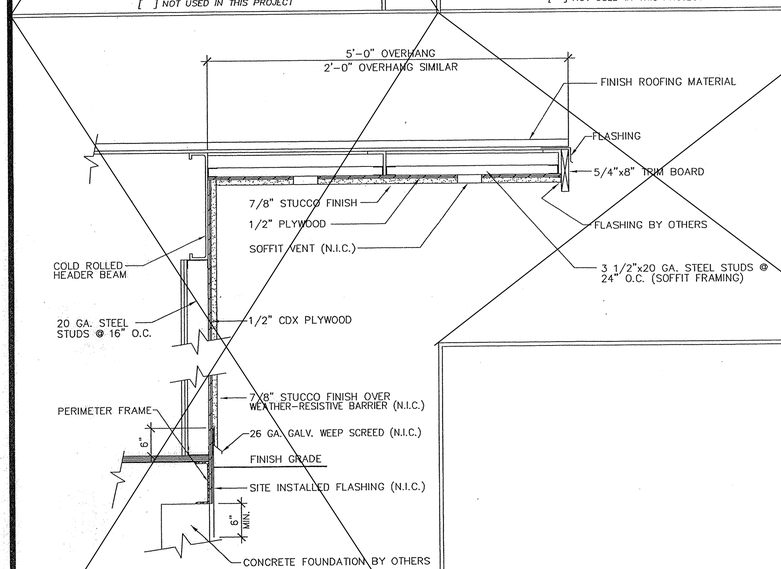




THRESHOLD DETAIL

[ ] NOT USED IN THIS PROJECT

2



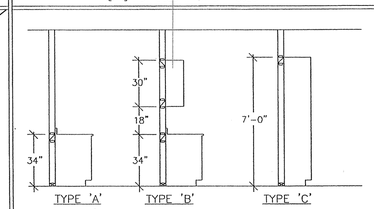
ENDWALL DETAIL

OPTIONAL STUCCO SIDING DETAIL

[ ] NOT USED IN THIS PROJECT

17

14



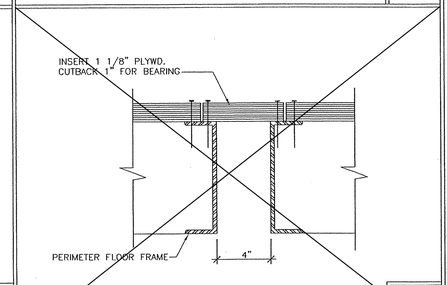
BLOCKING SHALL BE 4x4 H.F. #2 BETWEEN STUDS WITH (2) "SIMPSON" A-34 ANCHORS TOP & BTM. @ EACH END OF BLOCK TO STUD. ATTACH CABINET W/ #14 SCREWS W/ 2" MIN. PENETRATION INTO STUD OR BLOCKING @ 16" O.C.

ALTERNATE CABINET ATTACHMENT SHALL BE DIRECTLY TO WOOD STUDS @ 16" O.C.

CABINET BLOCKING

[ ] NOT USED IN THIS PROJECT

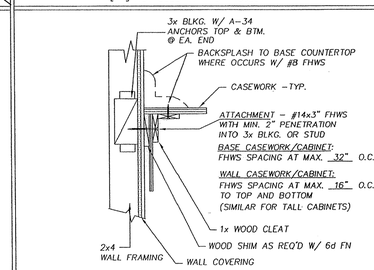
9



COMMON FLOOR CONNECTION AT BOTTOM BETWEEN ADJACENT BUILDINGS

[ ] NOT USED IN THIS PROJECT

6



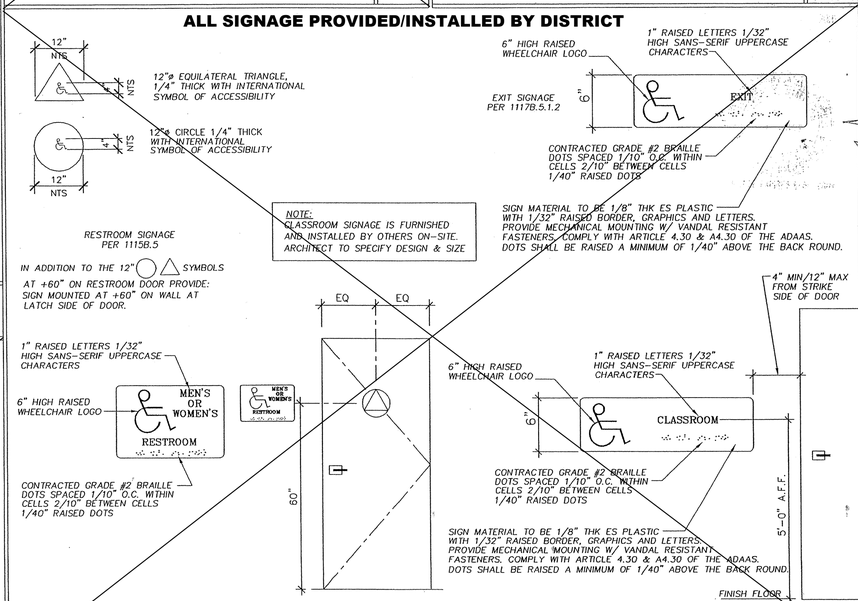
(BASE CASEWORK SHOWN, WALL AND TALL CASEWORK SIMILAR)

CASEWORK TO WALL

[ ] NOT USED IN THIS PROJECT

10

ALL SIGNAGE PROVIDED/INSTALLED BY DISTRICT



NOTE:
CLASSROOM SIGNAGE IS FURNISHED AND INSTALLED BY OTHERS ON-SITE. ARCHITECT TO SPECIFY DESIGN & SIZE

RESTROOM/ENTRANCE SIGNAGE

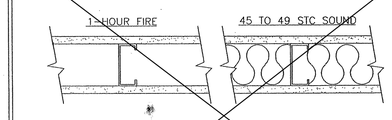
[ ] NOT USED IN THIS PROJECT

3

18

15

GA FILE NO. WP 1072 GYPSUM WALLBOARD, STEEL STUDS



ONE LAYER 5/8" TYPE 'X' GYPSUM WALLBOARD OR VENEER BASE APPLIED PARALLEL OR AT RIGHT ANGLES TO EACH SIDE OF 3 5/8"x20 GA. STEEL STUDS 16" O.C. WITH 1" TYPE S DRYWALL SCREWS 8" O.C. AT VERTICAL JOINTS AND 12" O.C. AT FLOOR AND CEILING RUNNERS AND INTERMEDIATE STUDS.

JOINTS STAGGERED 24" ON EACH SIDE AND ON OPPOSITE SIDES. SOUND TESTED WITH 3 1/2" GLASS FIBER FRICTION FIT IN STUD SPACE.

1-HOUR RATED WALL STEEL STUDS

[ ] NOT USED IN THIS PROJECT

11

RECEIVED
JUL 24 2003
WESTERN DIVISION

DATE SIGNED
JUL 15 2003

REGISTERED PROFESSIONAL ENGINEER
No. 3602
STRUCTURAL
STATE OF CALIFORNIA
LICENSE EXPIRES 6-30-2004

ARCHITECT STAMP

DATE SIGNED
MAY 2 1 2003

REGISTERED PROFESSIONAL ENGINEER
No. 3602
STRUCTURAL
STATE OF CALIFORNIA
LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 104659
AC FLS SS
DATE JUL 1 1 2003

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
4-104778
AC FLS SS
DATE 6-30-04

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT
MODULAR CLASSROOM BUILDING

TITLE
STANDARD ARCHITECTURAL DETAILS

JOB #

DATE 12-1-02

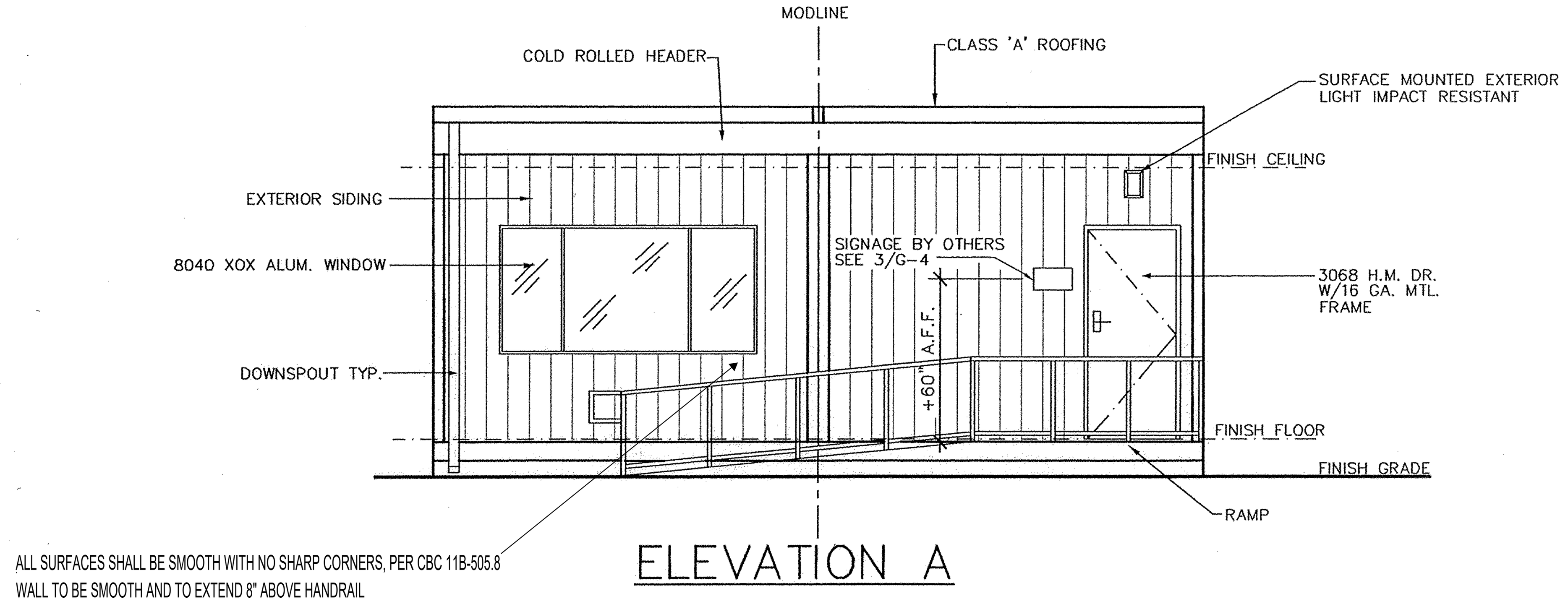
DRAWN BY RDL

SCALE AS NOTED

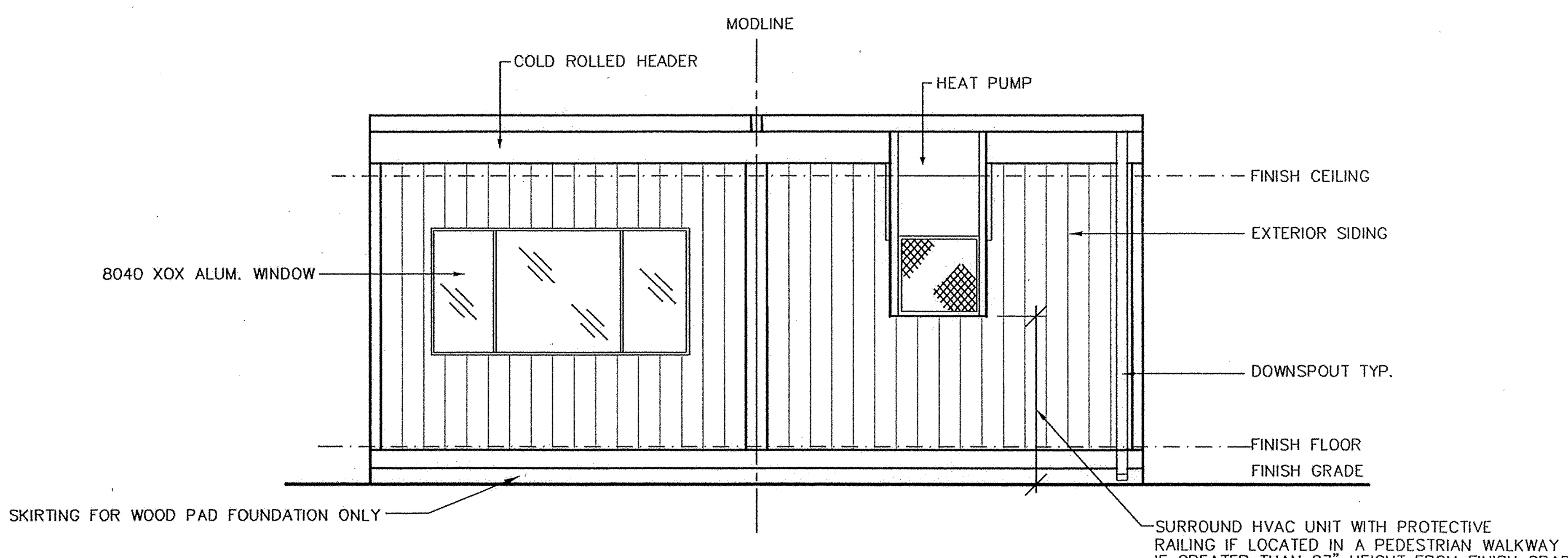
APPROVED

REVISIONS

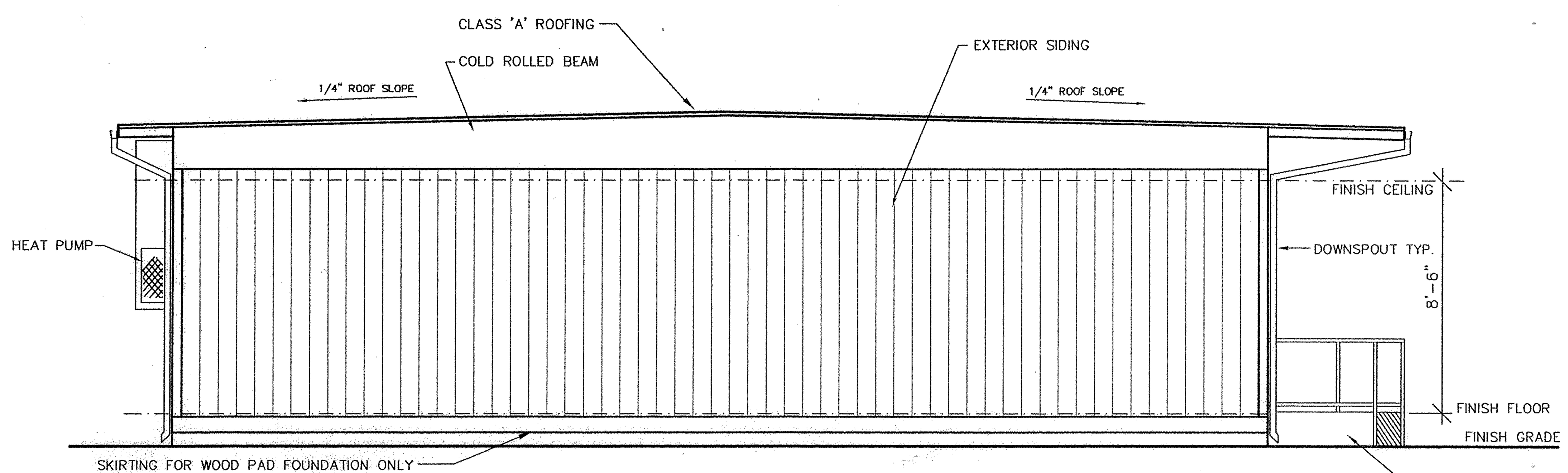
SHEET NO.
G-4



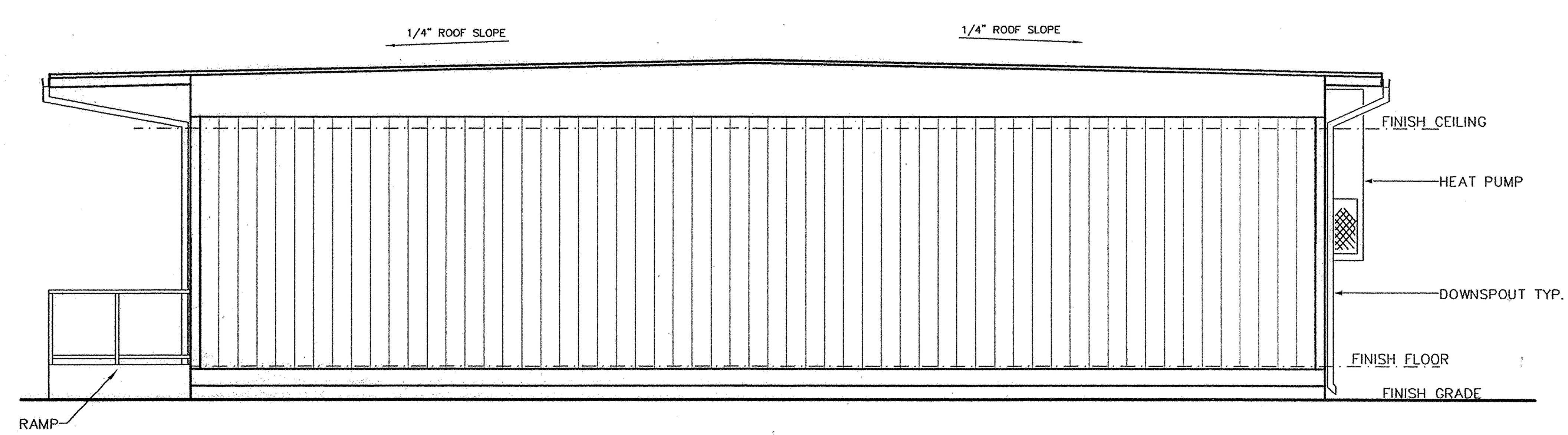
ELEVATION A



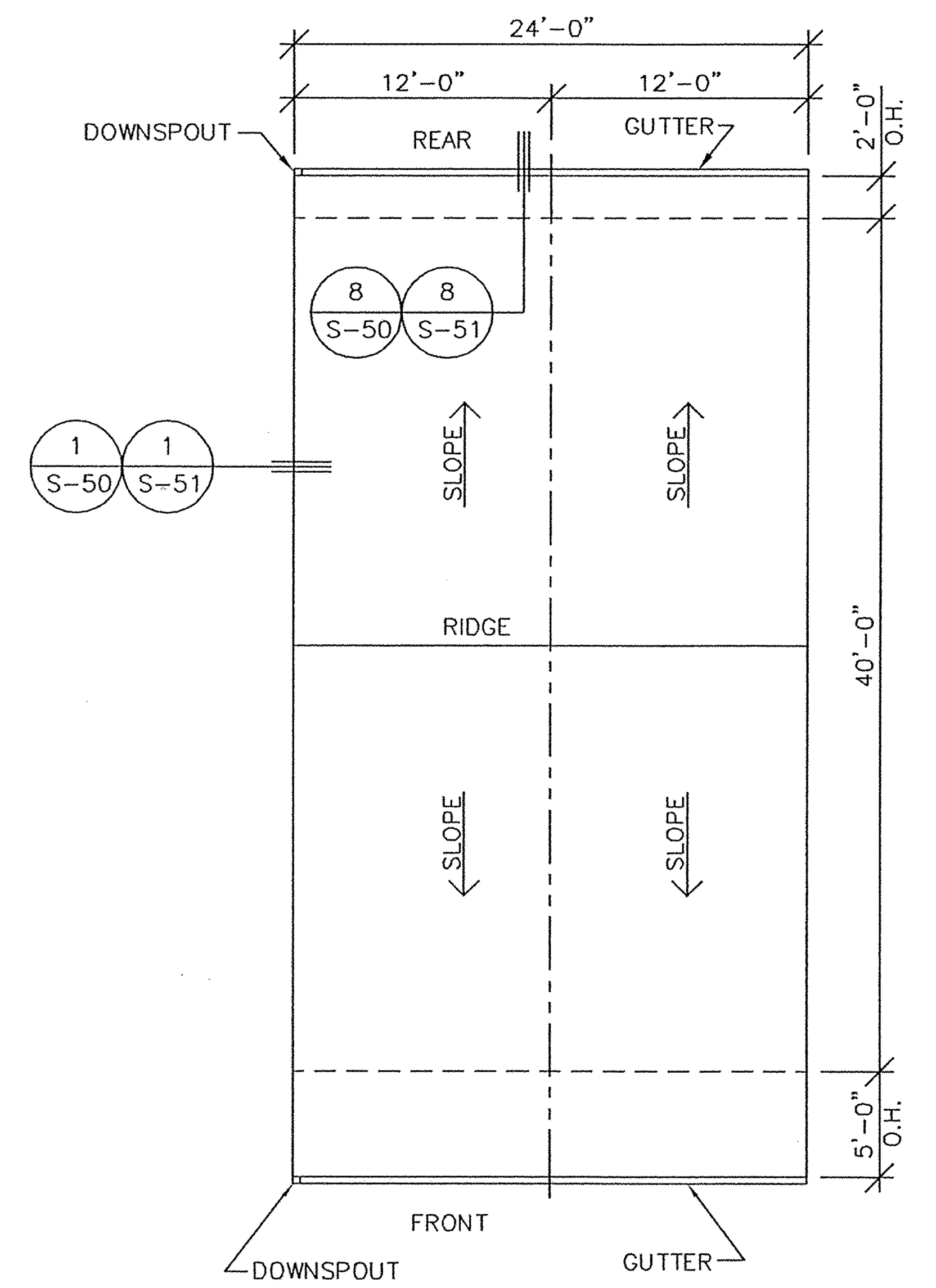
ELEVATION B



ELEVATION C



ELEVATION D



DUAL PITCH ROOF PLAN

SEE SHEET G-2 FOR ROOFING MATERIALS

NOTE:
BUILDING HOUSING GROUP 'E' OCCUPANCIES SHALL HAVE ROOF COVERINGS AS SPECIFIED IN TABLE 15A C.B.C. – CLASS 'A'

NOTE:
PROVIDE FIRE BLOCKING PER C.B.C. 708

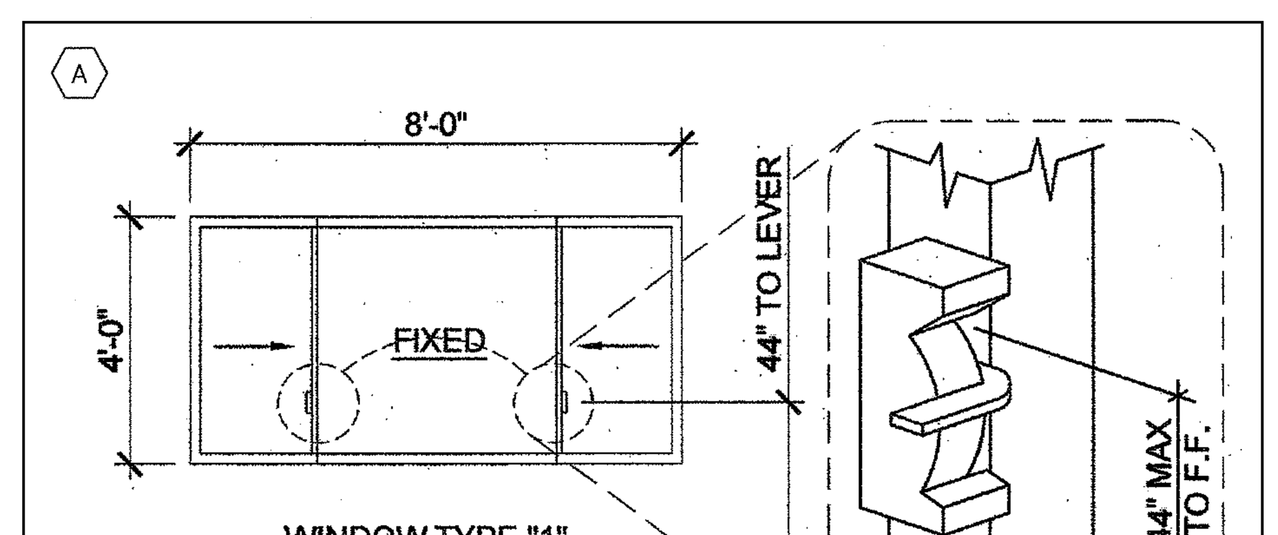
NOTE:
FLOOR PLAN SHOWN IS 'B' BUILDING 'A' BUILDING IS OPPOSITE HANDED

LEGEND

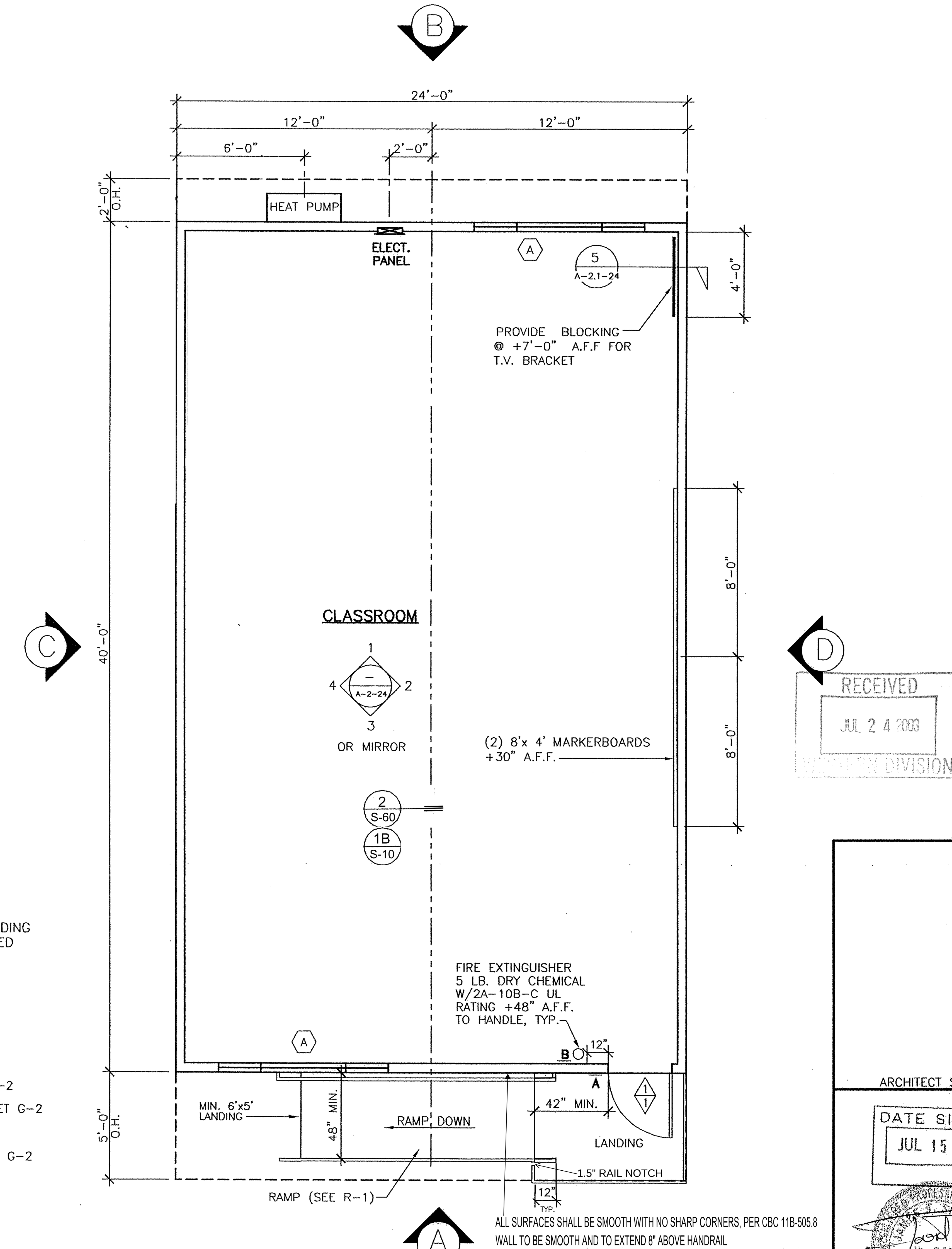
INDICATES DOOR TYPE, SEE SHEET G-2
INDICATES HARDWARE TYPE, SEE SHEET G-2
(A) INDICATES WINDOW TYPE– SEE SHEET G-2
DETAIL #
SHEET #

SIGNAGE LEGEND:
A: ROOM SIGNAGE PER DETAIL #3, SHEET G-4
B: EXIT SIGNAGE PER DETAIL #3, SHEET G-4

SEE NOTE 4 BELOW FOR SIGNAGE REQUIREMENTS



* NOTE:
WINDOW LATCH TO BE ACCESSIBLE PER 11B-309.4 & 11B-308



FLOOR PLAN
1/4"=1'-0"

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NOTES:

1. MANUFACTURER SHALL MECHANICALLY ATTACH METAL TAG TO EXTERIOR OF BUILDING SHOWING DSA APPLICATION NUMBER, MANUFACTURERS NAME, UNIT SERIAL NUMBER, DESIGN LIVE LOADS FOR FLOOR AND ROOF, AND THE DESIGN WIND LOAD.
2. WALL AND CEILING FINISHES SHALL BE MIN. CLASS I MATERIAL
3. FIBERGLAS INSULATION SHALL HAVE THE FOLLOWING: FLAME SPREAD 0–25 SMOKE DEVELOPED, FUEL CONTRIBUTED 0–450
4. SIGNAGE REQUIRED PER APPLICABLE CODES LISTED ON SHEET CS PROVIDED AND INSTALLED BY OTHERS ONSITE. SEE #3/G-4
5. ANY ROOM HAVING AN OCCUPANT LOAD OF 50 OR MORE WHERE FIXED SEATS ARE NOT INSTALLED, AND WHICH IS USED FOR CLASSROOM, ASSEMBLY, DINING OR SIMILAR PURPOSE SHALL HAVE THE CAPACITY OF THE ROOM POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OF THE ROOM. POSTING SHALL BE BY MEANS OF A DURABLE SIGN HAVING CONTRASTING COLOR FROM THE BACKGROUND TO WHICH IT IS ATTACHED.
6. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR ATUOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED NOT TO EXCEED 15 POUNDS.

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ARCHITECT STAMP
DATE SIGNED
JUL 15 2003

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES

STATE AGENCY STAMP

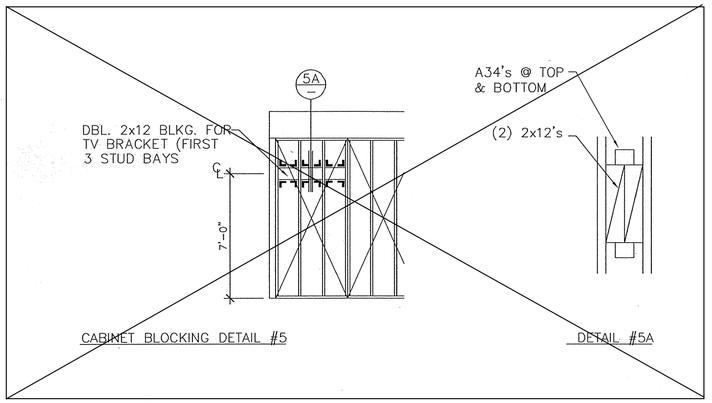
STATE AGENCY STAMP

PROJECT
24'x40'
MODULAR CLASSROOM BUILDING

TITLE
24'x40'
FLOOR PLAN, EXTERIOR ELEVATIONS & ROOF PLAN (DUAL PITCH ROOF)

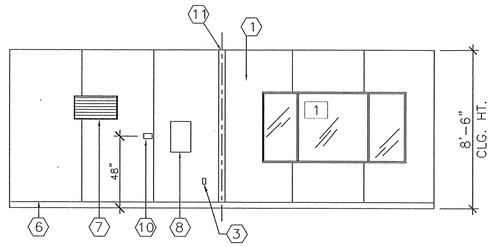
JOB # 03–1014
DATE 7/11/03
DRAWN BY JAG
SCALE 1/4"=1'-0"
APPROVED
REVISIONS

SHEET NO.
A–1.1–24

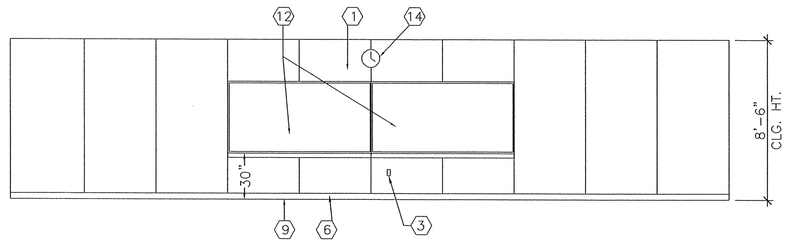


CABINET BLOCKING DETAIL #5

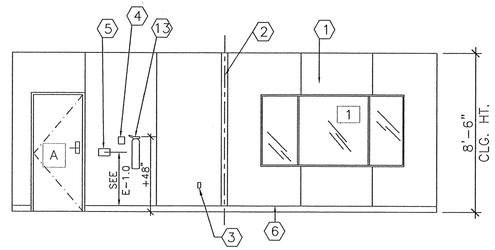
DETAIL #5A



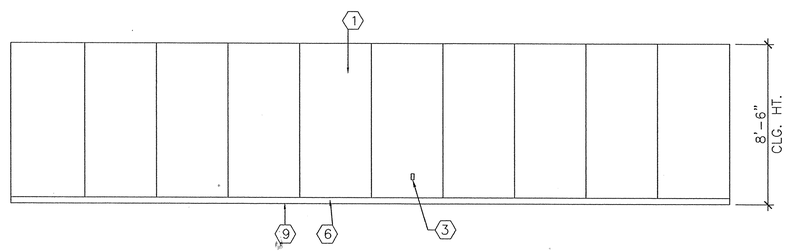
INTERIOR ELEVATION #1
SCALE: 1/4"=1'-0"



INTERIOR ELEVATION #2
SCALE: 1/4"=1'-0"



INTERIOR ELEVATION #3
SCALE: 1/4"=1'-0"



INTERIOR ELEVATION #4
SCALE: 1/4"=1'-0"

KEYNOTES:

- A — EXTERIOR DOOR
- 1 — EXTERIOR WINDOW
- 1 — TYPICAL INTERIOR FINISH
- 2 — CLOSURE AT MODULAR JOINT
- 3 — DUPLEX WALL RECEPTACLE +18" A.F.F. (SEE POWER PLAN)
- 4 — FIRE ALARM PULL STATION (SEE POWER PLAN)
- 5 — LIGHT SWITCH (SEE LIGHTING PLAN)
- 6 — TOP SET BASE (TYPICAL) SEE FINISH SCHEDULE
- 7 — RETURN AIR GRILL
- 8 — ELECTRICAL PANEL
- 9 — FINISH FLOOR
- 10 — THERMOSTAT SEE MECHANICAL PLAN
- 11 — MODULAR JOINT
- 12 — (2) 8'-0" x 4'-0" MARKERBOARD
- 13 — FIRE EXTINGUISHER
- 14 — 12" DIA. ELECTRIC CLOCK (SEE ELECTRICAL POWER PLAN)

RECEIVED
JUL 24 2003
DSA-SS/CC DIVISION

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MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

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DATE SIGNED
JUL 15 2003

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP
OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 105459
DATE JUL 15 2003

STATE AGENCY STAMP

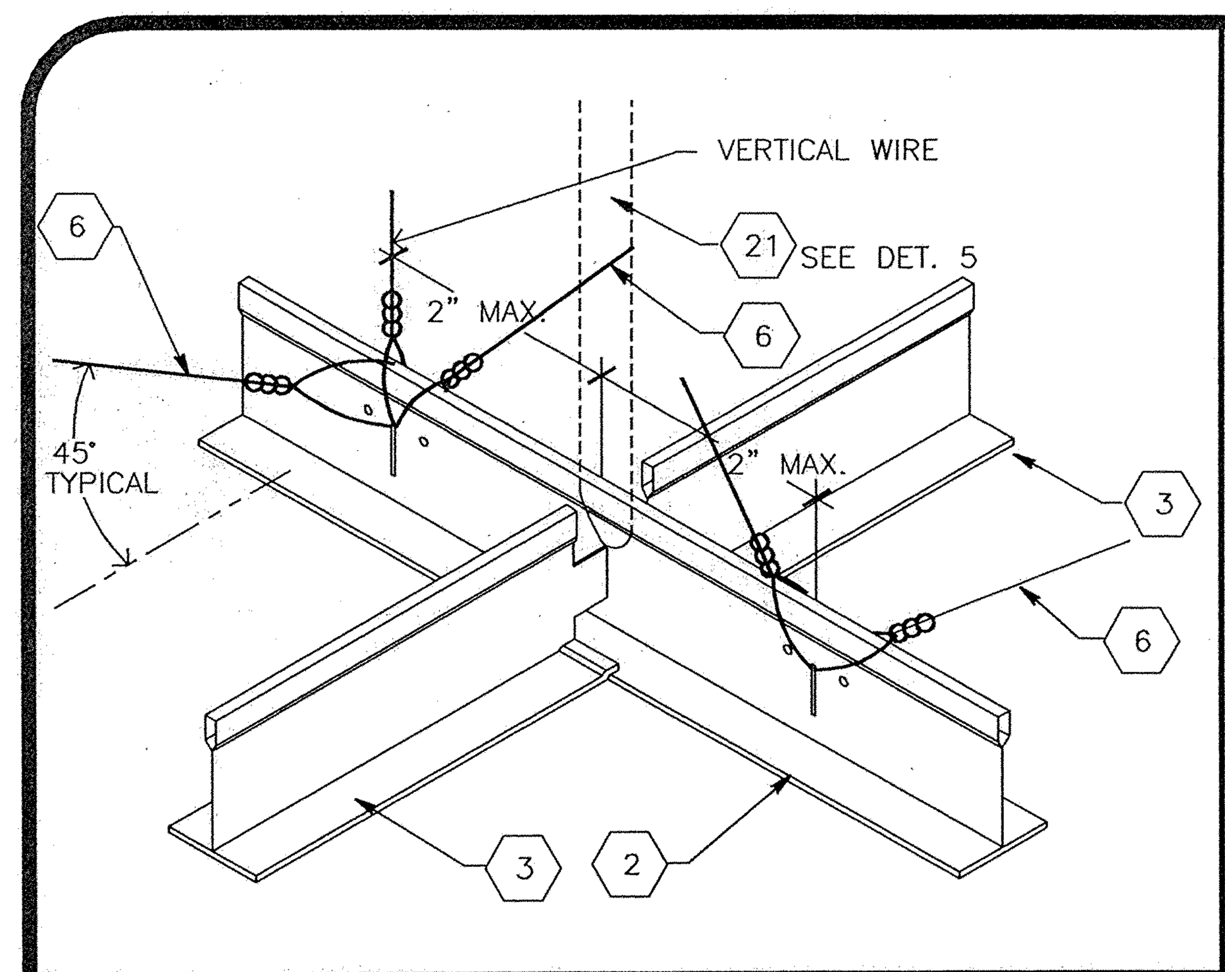
STATE AGENCY STAMP

PROJECT
24'x40' MODULAR CLASSROOM BUILDING

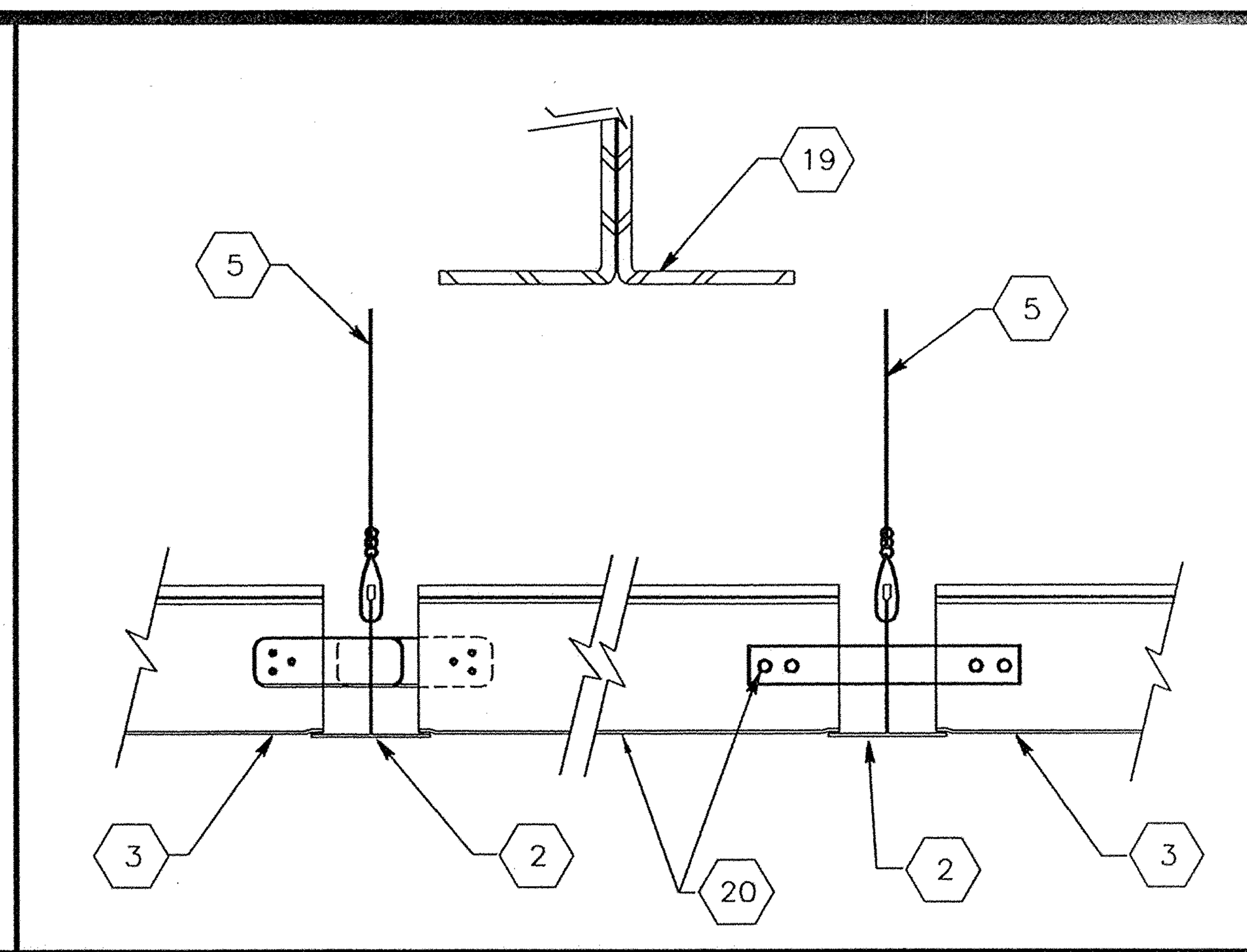
TITLE
24'x40' INTERIOR ELEVATIONS

JOB # 03-1014
DATE 7/11/03
DRAWN BY JAG
SCALE 1/4"=1'-0"
APPROVED
REVISIONS

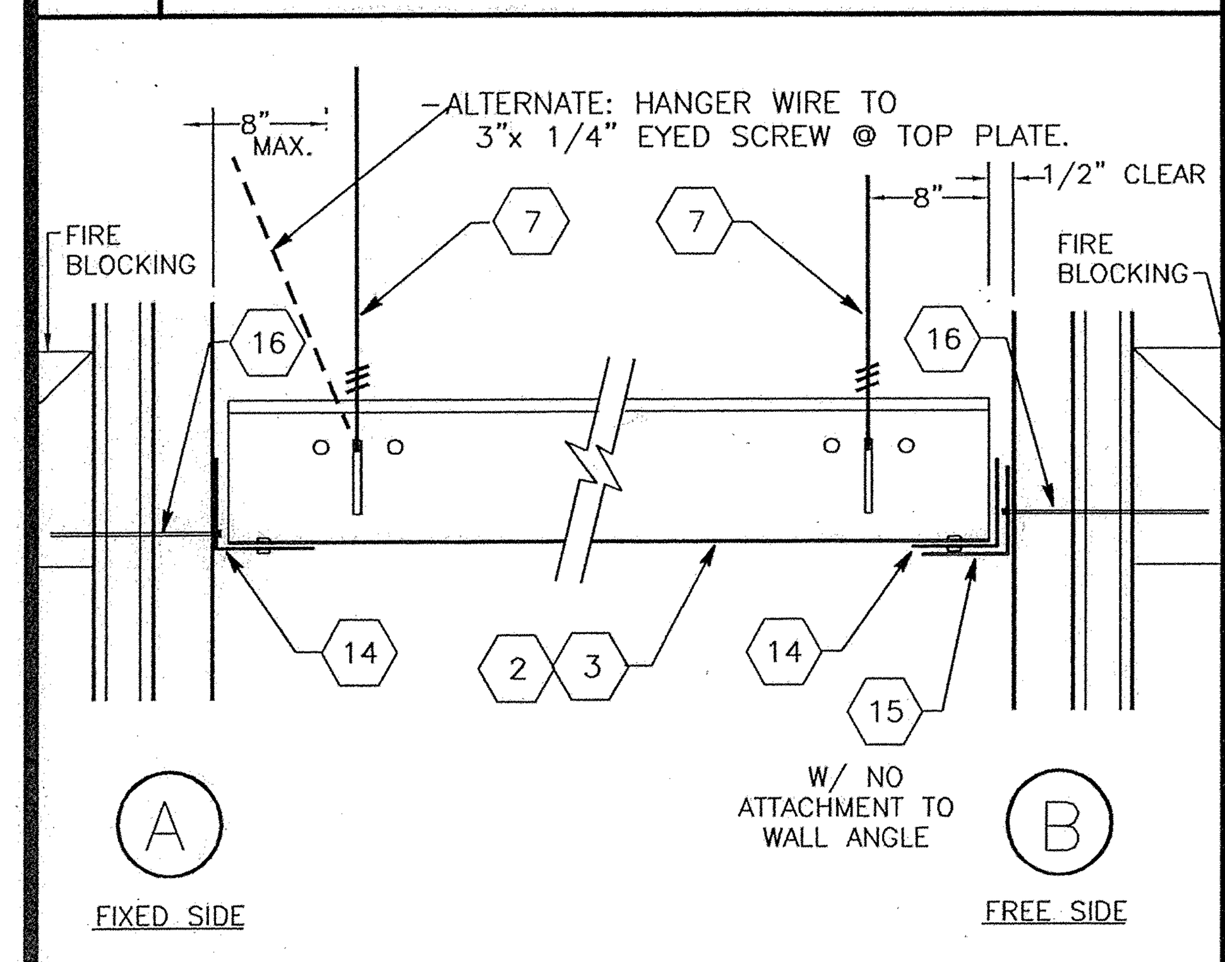
SHEET NO.
A-2.1-24



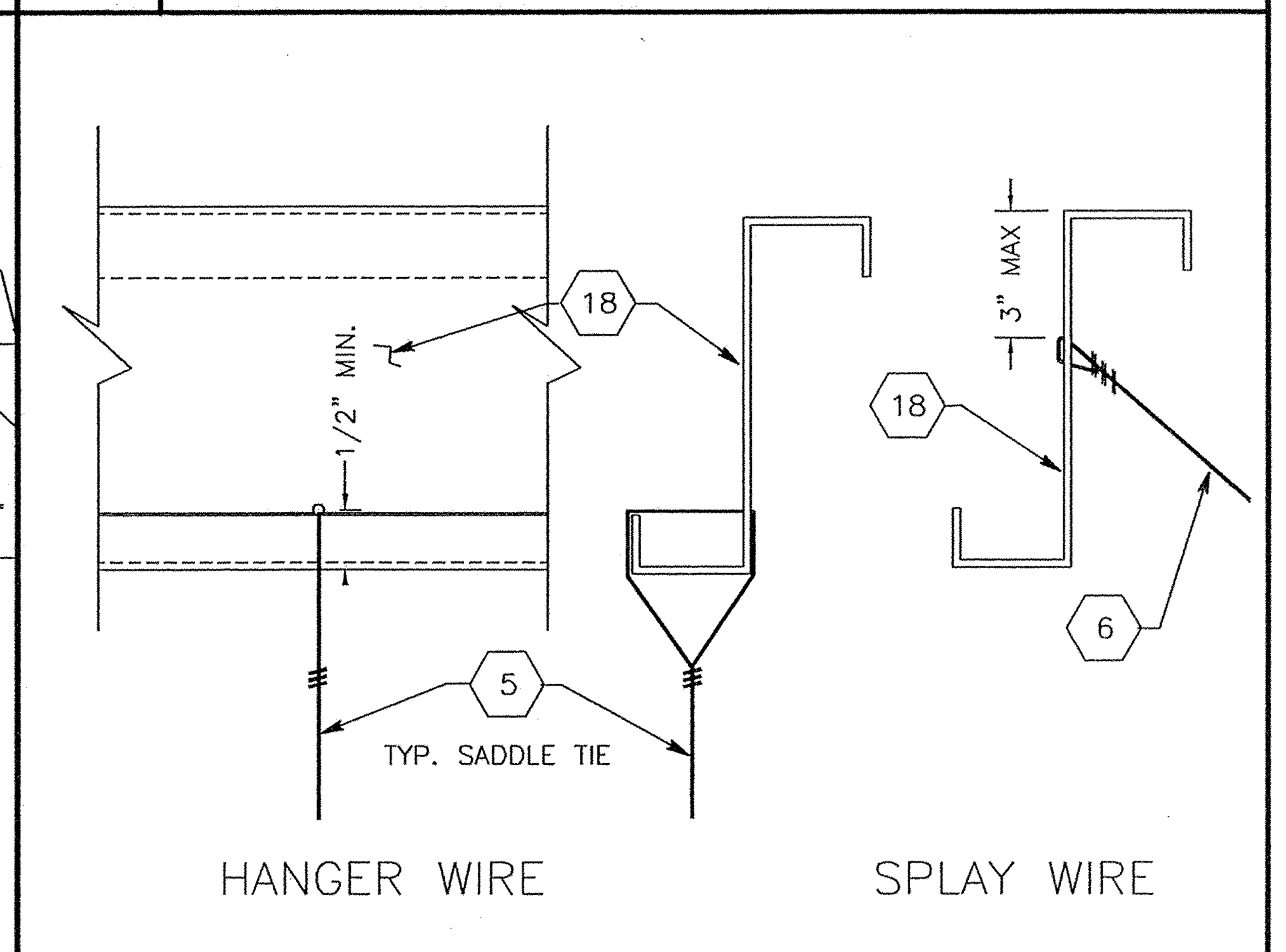
1 SPLAY WIRE



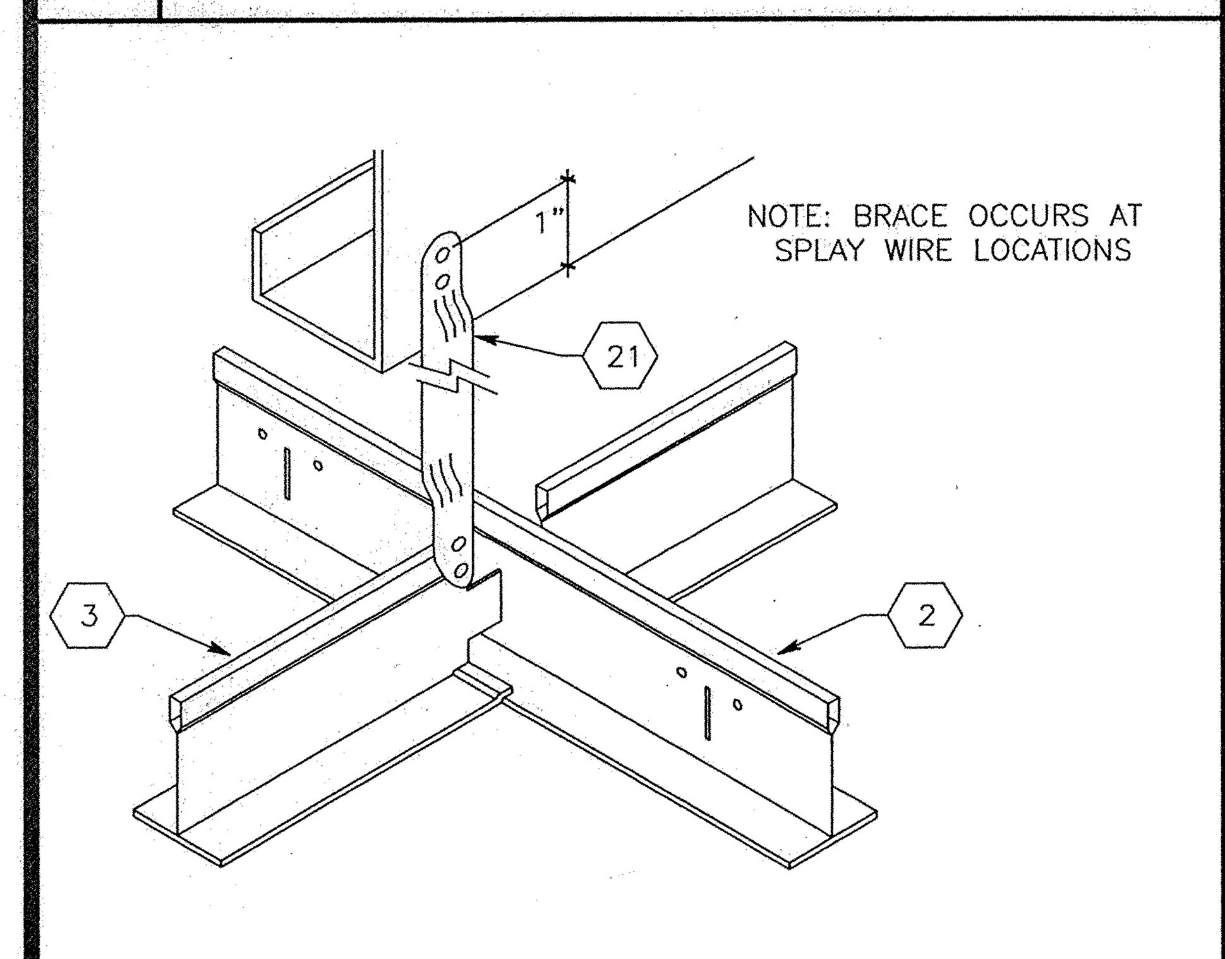
2 GRID AT MODLINE



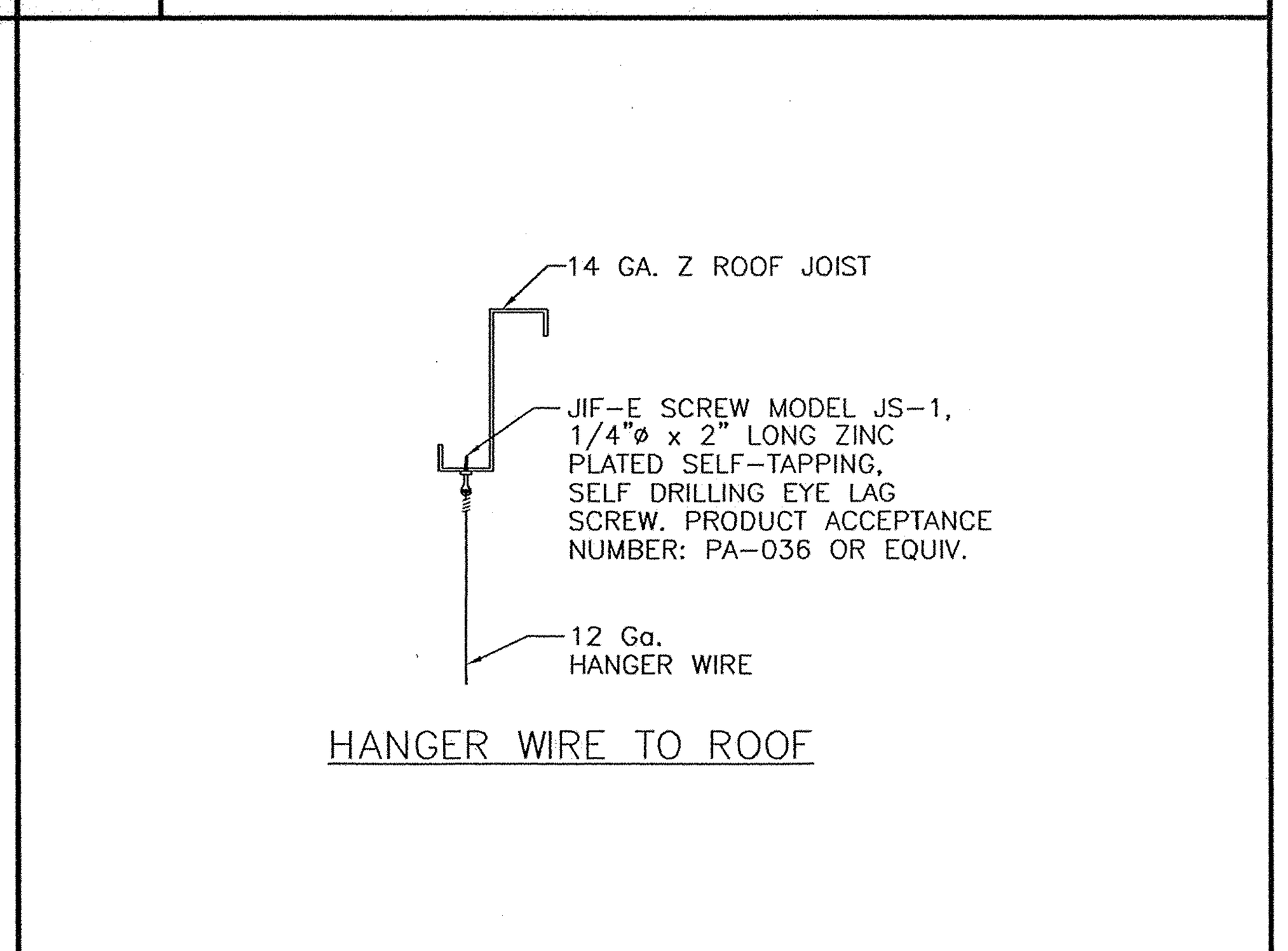
3 GRID AT WALL



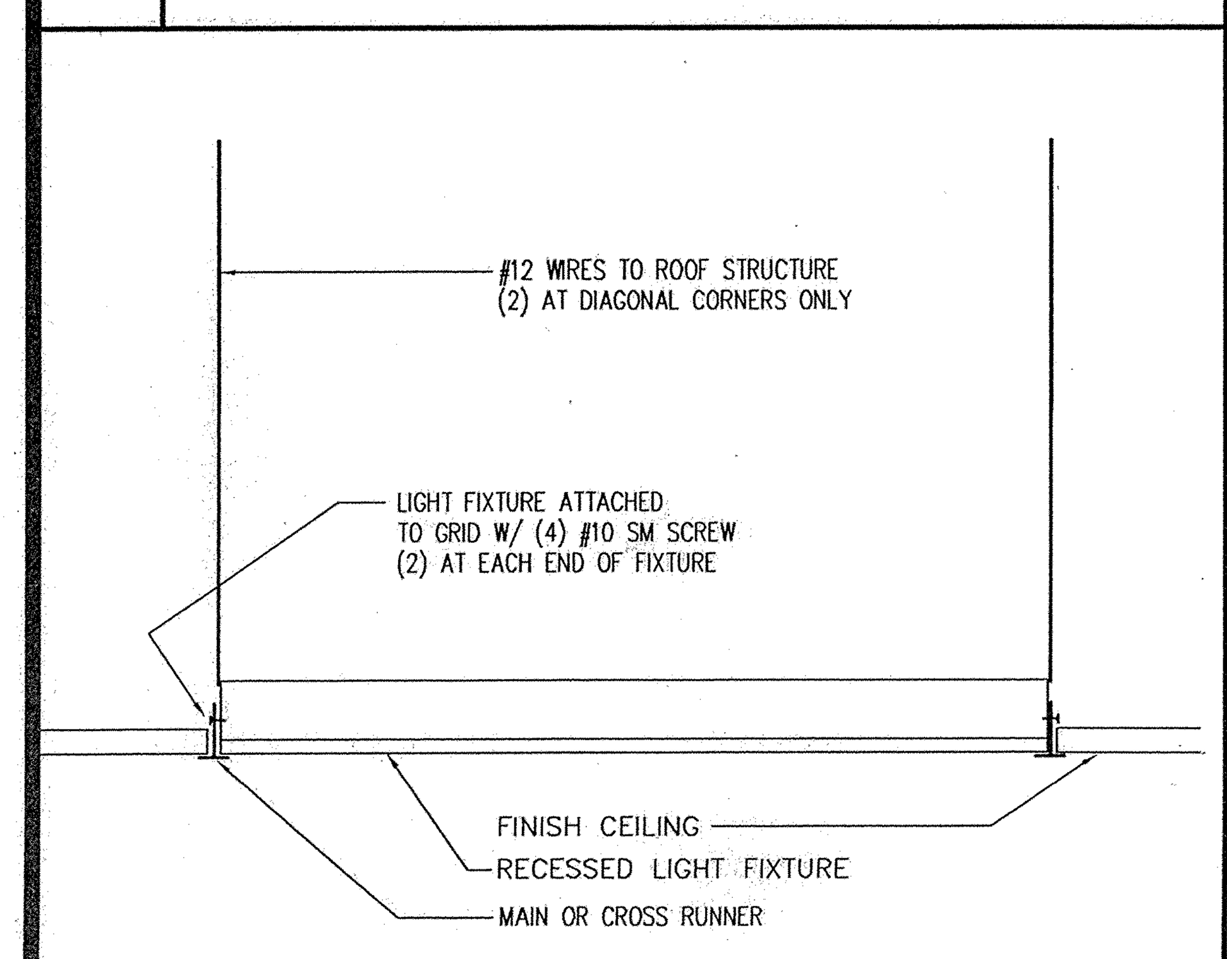
4 WIRE ATTACHMENT



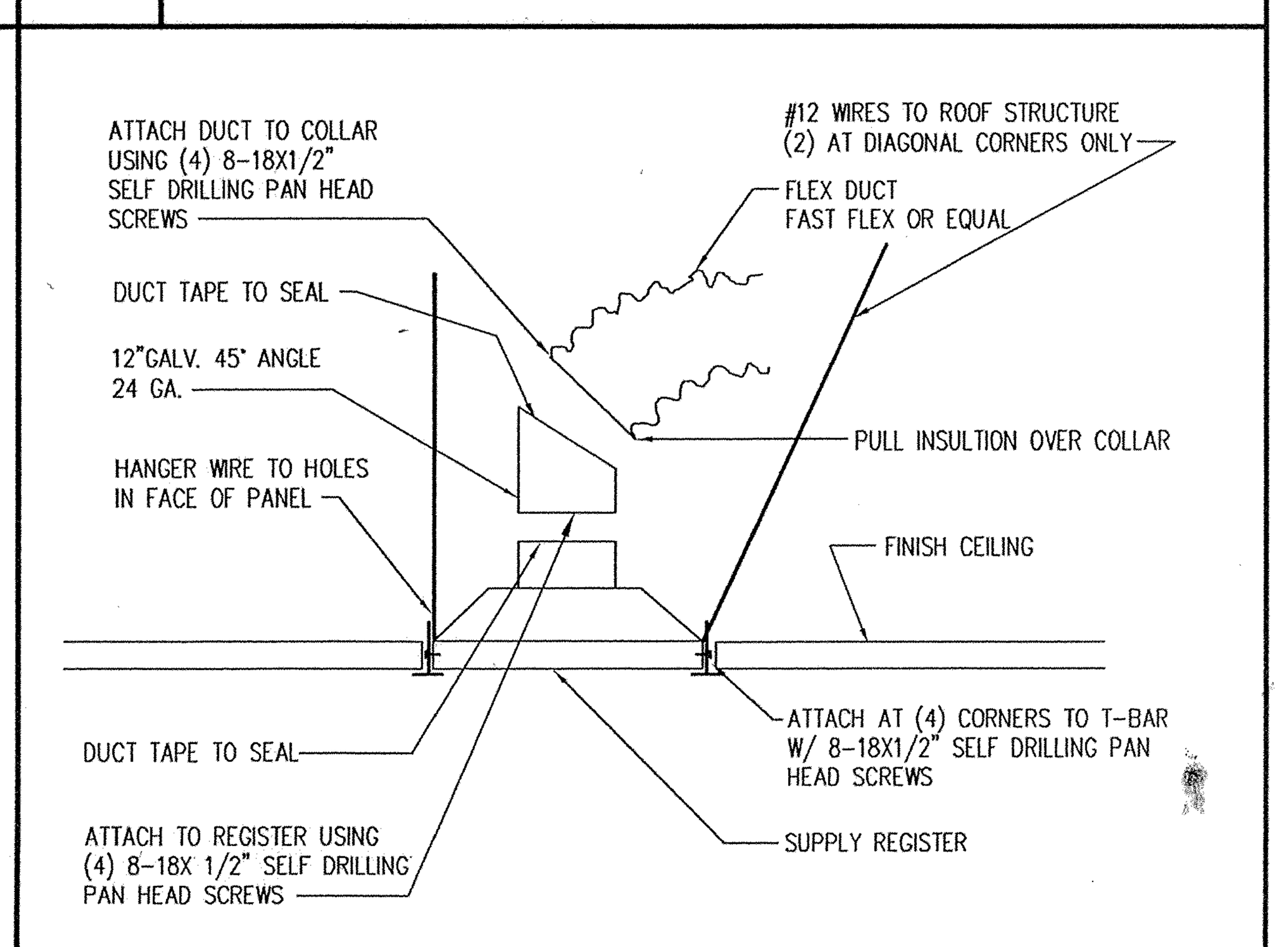
5 VERTICAL BRACE



6 ALTERNATE WIRE ATTACHMENT



7 LIGHTING FIXTURE DETAIL



8 REGISTER BOX DETAIL

KEY NOTES

1 MAIN RUNNERS @ 4'-0" O.C. WITH HANGER WIRES SPACED @ 4'-0" O.C. MAX.

2 MAIN RUNNER: DONN CORP. DX-26 HEAVY DUTY

3 CROSS RUNNER: DONN CORP. DXO-424 HEAVY DUTY

4 WALL RUNNER: DONN CORP. M7-EV

5 TYPICAL HANGER WIRE TO BE 12 Ga. STEEL WIRE ATTACHED TO STRUCTURE ABOVE AND TO GRID WITH (3) TIGHT TURNS WITHIN 1 1/2" - SEE DETAIL 4

6 TYPICAL SPLAY WIRE TO BE 12 Ga. STEEL WIRE ATTACHED TO STRUCTURE ABOVE AND TO GRID WITH (4) TIGHT TURNS WITHIN 1 1/2" - SEE DETAIL 4

7 AT END OF ROWS OF RUNNERS, A HANGER WIRE SHALL BE ATTACHED WITHIN 8" (OF ANY WALL OR SOFFIT.) OR 1/4 LENGTH OF END TEE WHICHEVER IS LEAST

8 VERTICAL WIRES MORE THAN 1:6 OUT OF PLUMB SHALL HAVE COUNTERBALANCE WIRES INSTALLED. ADJOINING WALLS; AT OTHER WALLS NO ATTACHMENT. A 1/2" CLEARANCE BETWEEN END OF RUNNER AND FACE OF WALL. WIRES INSTALLED AS INDICATED ON PLAN. SPLAY WIRES SHALL BE TAUT BUT NOT DISTORTED.

9 RUNNERS MAY BE ATTACHED TO WALL MOLDING AT (2) ADJOINING WALLS; AT OTHER WALLS NO ATTACHMENT. WHERE THERE IS NO ATTACHMENT THERE SHALL BE A 1/2" CLEARANCE BETWEEN END RUNNER AND FACE OF WALL.

10 CEILING AREAS EVERY 144 SQ. FT. OR LESS SHALL HAVE SPLAY WIRES INSTALLED AS INDICATED ON CEILING PLAN. SPLAY WIRES SHALL BE TAUT BUT SHALL NOT DISTORT GRID.

11 ELECTRICIAN SHALL PROVIDE (2) SLACK HANGER WIRES AT OPPOSITE CORNERS OF ALL LIGHT FIXTURES. WIRES SHALL BE ATTACHED TO STRUCTURE ABOVE PER NOTE 5. LIGHT FIXTURES SHALL BE ATTACHED TO CEILING GRID WITH (1) #8 SHEET METAL SCREW @ EACH CORNER.

12 DUCTWORK, IF REQUIRED, SHALL BE RIGIDLY ATTACHED TO STRUCTURE ABOVE AT INTERVALS NOT TO EXCEED 4'-0" AND SHALL NOT BE CLOSER THAN 6" TO ANY WIRE.

13 CEILING REGISTERS, WHEN INDICATED ON PLANS, SHALL BE ATTACHED TO STRUCTURE ABOVE PER NOTE 5.

14 CONT. WALL ANGLE WITH POP RIVET TO EACH MEMBER.

15 CONTINUOUS WALL ANGLE.

16 6d NAIL @ 16" O.C. INTO BLOCK OR STUD.

17

18 ROOF JOIST

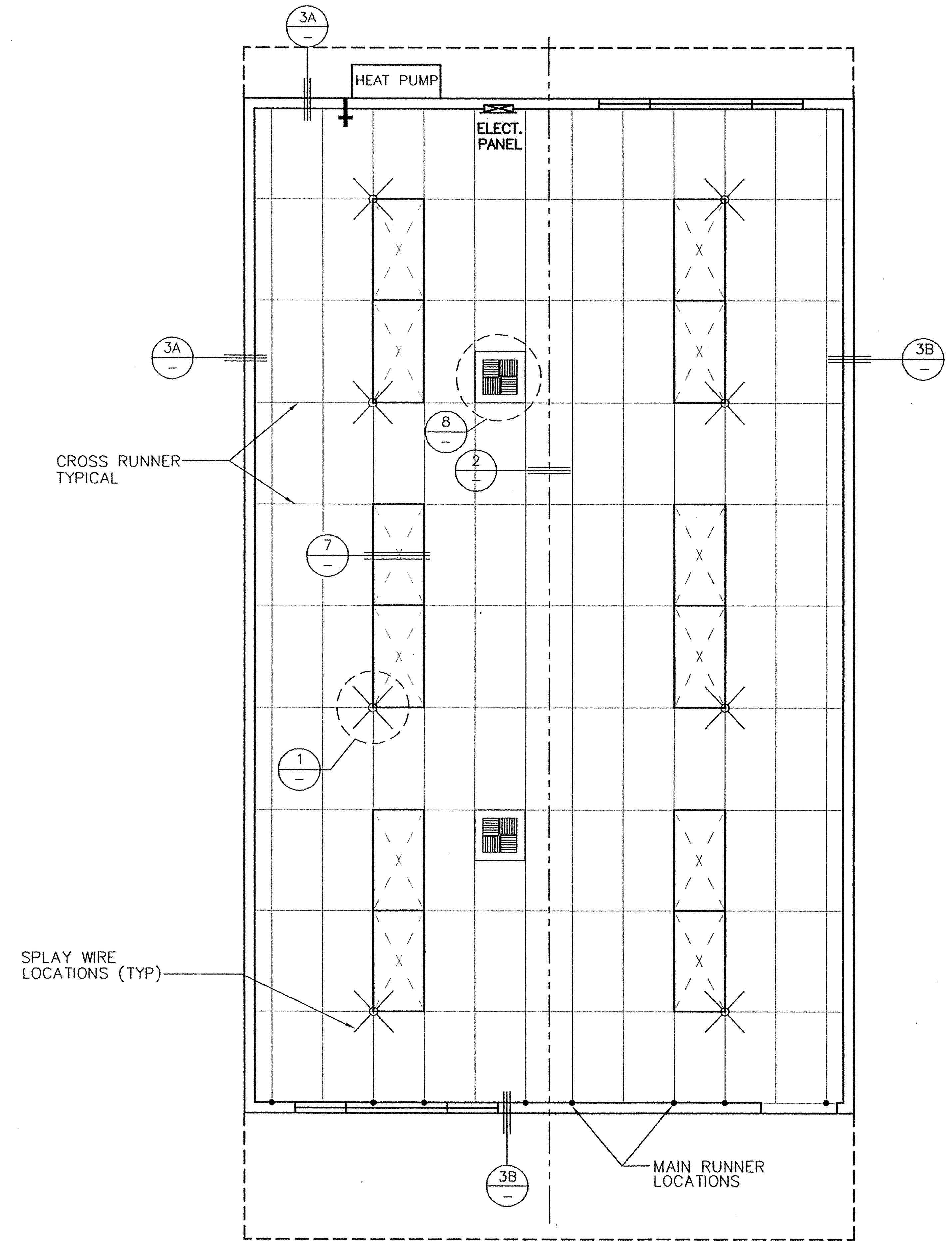
19 ROOF BEAM

20 CLOSE OFF CROSS TEE- INSERT ONE END OF CROSS TEE INTO MAIN RUNNER WITH BAYONET. CUT OPPOSITE END TO FIT (IF LESS THAN 24"). INSERT MIN. 20 ga. MTL. STRAP THRU MAIN RUNNER, SECURE TO CROSS TEE W/ (2) #8 TEK SCREWS AT EACH END.

21 VERTICAL BRACE- 1/2" STEEL EMT AT SPLAY WIRE LOCATIONS. (MAX. HT. OF 4'-0") DRILL 1/8" HOLE THRU CONDUIT AT TOP & BOTTOM. ATTACH CONDUIT TO JOIST ABOVE OR TO BLOCKING W/ (2) #12 SCREWS @ TOP & BOTTOM.

LEGEND

- SUPPLY AIR DIFFUSERS
- 2'x 4' FLUORESCENT DROP-IN FIXTURE
- 4-WAY SPLAY WIRE SYSTEM
- EXHAUST FAN



REFLECTED CEILING PLAN

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

RECEIVED JUL 24 2003 WESTERN DIVISION

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA, 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

ARCHITECT STAMP

DATE SIGNED JUL 15 2003

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES

STATE AGENCY STAMP

PROJECT: 24'x40' MODULAR CLASSROOM BUILDING

TITLE: 24'x40' REFLECTED CEILING PLAN

JOB # 03-1014

DATE 7/11/03

DRAWN BY JAG

SCALE 1/4"=1'-0"

APPROVED

REVISIONS

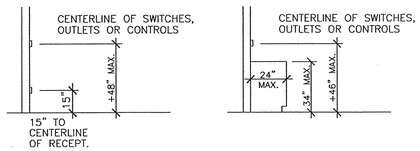
SHEET NO. A-3.1-24

STATE AGENCY STAMP

SYMBOL LEGEND

- DISCONNECT–GENERAL SWITCH R610–B,60 AMP. NOT REQUIRED ON A/C UNITS WITH INTERNAL DICONNECT BREAKER
- PULL STATION J–BOX W/ 3/4"ø CONDUIT @ 48" A.F.F.
- EXT. HORN J–BOX W/ 3/4"ø CONDUIT @ + 7'–0" A.F.F.
- 110V RECEPTACLE 20 AMP SPECIFICATION GRADE @ +18" A.F.F.
- SWITCH @ +42" A.F.F.
- SPRING WOUND MECHANICAL TIMER, 1–HR. TIMING RANGE SWITCH @ +42" A.F.F.
- EXTERIOR LIGHT +7'–6"– SEE FIXTURE SCHEDULE
- HORN/STROBE LIGHT J–BOX W/ 3/4"ø CONDUIT @ + 80" A.F.F.
- SMOKE DETECTOR J–BOX W/ 3/4"ø CONDUIT @ CEILING
- HEAT DETECTOR J–BOX W/ 3/4"ø CONDUIT IN ATTIC SPACE (ONE PER MODULE, IN ATTIC TYP.)
- TV TELEVISION J–BOX @ 84" A.F.F. W/ 3/4" CONDUIT STUBBED TO ATTIC
- OS–2 OCCUPANCY SENSOR @ 42", LEVITON ODSOD–ID
- DIRECTIONAL PHOTO CELL CONTROL ON ROOF
- CLOCK W/CLOCK OUTLET @ +8'–0"
- +18" TELE/DATA OUTLET 4" SQ. J–BOX W/ 3/4" CONDUIT STUBBED TO ATTIC
- G.F.I. 110V DUPLEX G.F.I. RECEPTACLE – 15 AMP

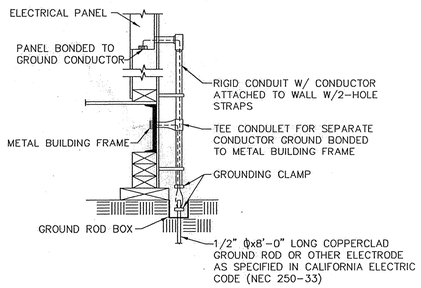
NOTE:
ALL FIXTURE MOUNTING HEIGHTS ARE TO THE CENTER OF THE FIXTURE (U.N.O.)



MOUNTING HEIGHT OVER OBSTRUCTION

FIRE ALARM NOTES

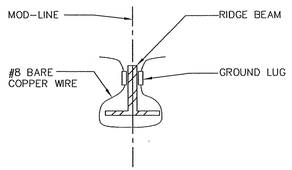
1. FIRE ALARM SYSTEM SHALL COMPLY W/ TITLE 24 SEC. 305.9, TITLE 24, PART 3, ARTICLE 760 OF THE CALIFORNIA CODE OF REGULATIONS AND CALIFORNIA FIRE REGULATIONS, ARTICLE 10.
2. INSTALLATION OF FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAIL PLANS, SPECIFICATIONS AND ENGINEERING CALCULATIONS HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STUCTURAL ENGINEER IN GENERAL CHARGE OF DESIGN AND THE SIGNATURE OF THE ARCHITECT OR PROFESSIONAL ENGINEER WHO HAS BEEN DELEGATED RESPONSIBILITY COVERING THE WORK SHOWN ON A PARTICULAR PLAN OR SPECIFICATION, AND APPROVED BY THE OFFICE OF THE STATE ARCHITECT AND STATE FIRE MARSHAL.



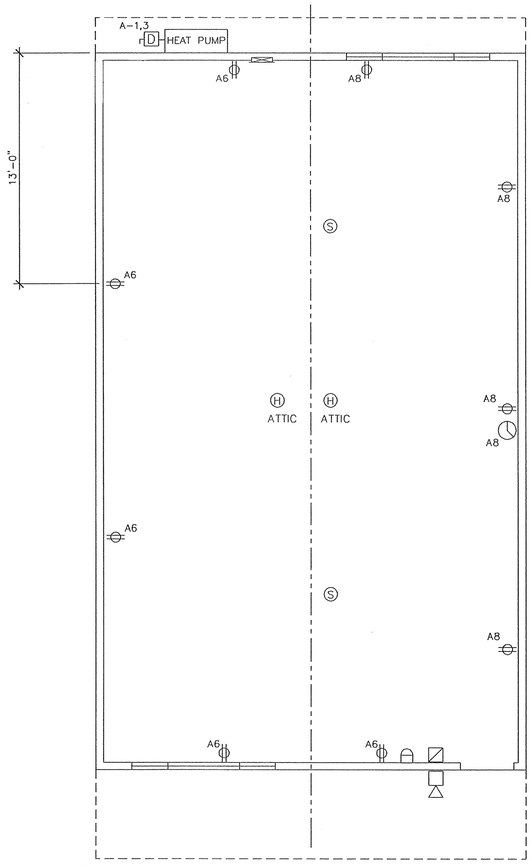
NOTES:
1. SIZE OF CONDUCTORS SHALL COMPLY W/NEC TABLE 250–95.
2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL & TO METAL BUILDING FRAME (NEC 250–81) IN ADDITION TO THE DETAIL SHOWN ABOVE. BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10 FT. INTO THE SOIL IF AVAILABLE (NEC 250–81 & 250–83).
3. ALL MODULES OF METAL FRAME BUILDINGS SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). INCLUDING RAMP TO STEEL FRAME.
4. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS W/CONDUCTORS AS SHOWN, SEPARATED AT LEAST 6'–0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (NEC 250–84).
5. PROJECT INSPECTOR SHALL WITNESS GROUNDING TEST.

ACCEPTABLE GROUNDING DETAIL

BY OWNER

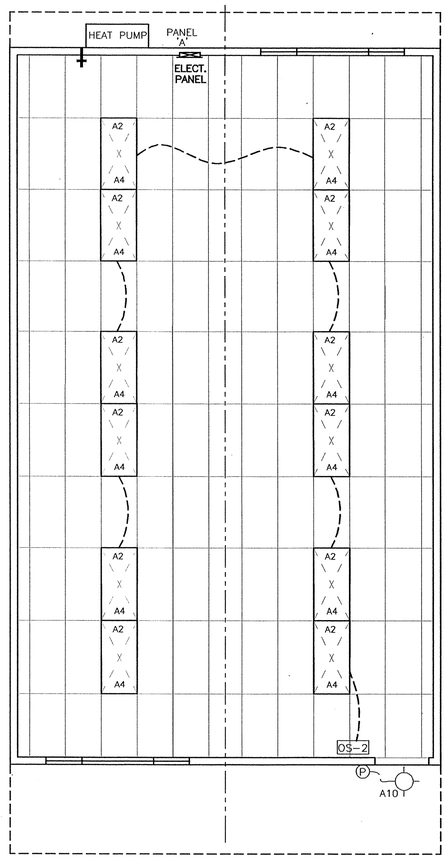


MODULE BONDING



ELECTRICAL POWER PLAN

SCALE: 1/4"=1'–0"



ELECTRICAL LIGHTING PLAN

SCALE: 1/4"=1'–0"

PANELBOARD SCHEDULE — PANEL A

VOLTS 120/240 | PHASE 1 | BUSS 100 A | FEED BOTTOM
MAIN BRKR 100 A | WIRE 3 | MOUNT FLUSH | LOCATION INTERIOR

DESCRIPTION	WATTS Aø	WATTS Bø	WIRE SIZE	BREAKER	POLE	CKT. NO.	A	B	CKT. NO.	POLE	BREAKER	WIRE SIZE	WATTS Aø	WATTS Bø	DESCRIPTION
HVAC 3.5 TON	6900	——	6	60	2	1			2	1	20	12	576	——	LIGHTS
HVAC 3.5 TON	——	6900	–	–	–	3			4	1	20	12	——	651	LIGHTS/PORCH
J.BOX FOR W.H.	1500	——	12	20	1	5			6	1	20	12	1080	——	RECEPT.
–	——	——	–	–	–	7			8	1	20	12	——	1080	RECEPT.
–	——	——	–	–	–	9			10	1	20	12	75	——	EXT. LIGHT
–	——	——	–	–	–	11			12	–	–	–	——	——	–
SUB TOTAL	8,400	6,900											1,731	1,731	SUB TOTAL

LOAD KW
A 8,556
B 8,631
TOT 17,187

L.C.L. = 1,227 x 1.25 = 1,534
OTHER = 15,960
MAX DEMAND = 17,494

TOTAL LOAD
MAX DEMAND 72.9 AMPS

FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	WATTS
	2'x 4' FLUORESCENT DROP IN LIGHT FIXTURE ACRYLIC PRASMATIC LENS, DOUBLE ELECTRONIC BALLAST, (3) 32 WATT T–8 TUBES, WEIGHT 27 LBS.	96 WATTS
	INCANDESCENT SURFACE MOUNTED EXTERIOR LIGHT FIXTURE WITH IMPACT RESISTANT ENCLOSURE WITH DIRECTIONAL PHOTO CELL CONTROL ON ROOF.	75 WATTS

RECEIVED
JUL 24 2003
WESTERN DIVISION

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788–3035 FAX: (909) 788–1523

ARCHITECT STAMP

DATE SIGNED
JUL 15 2003

REGISTERED PROFESSIONAL ENGINEER — No. 3802 — STRUCTURAL — STATE OF CALIFORNIA
LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP UNDER THE STATE ARCHITECT DIVISION OF REGULATION SERVICES
04 105453
AC FLS 88
DATE JUL 24 2003

STATE AGENCY STAMP

STATE AGENCY STAMP

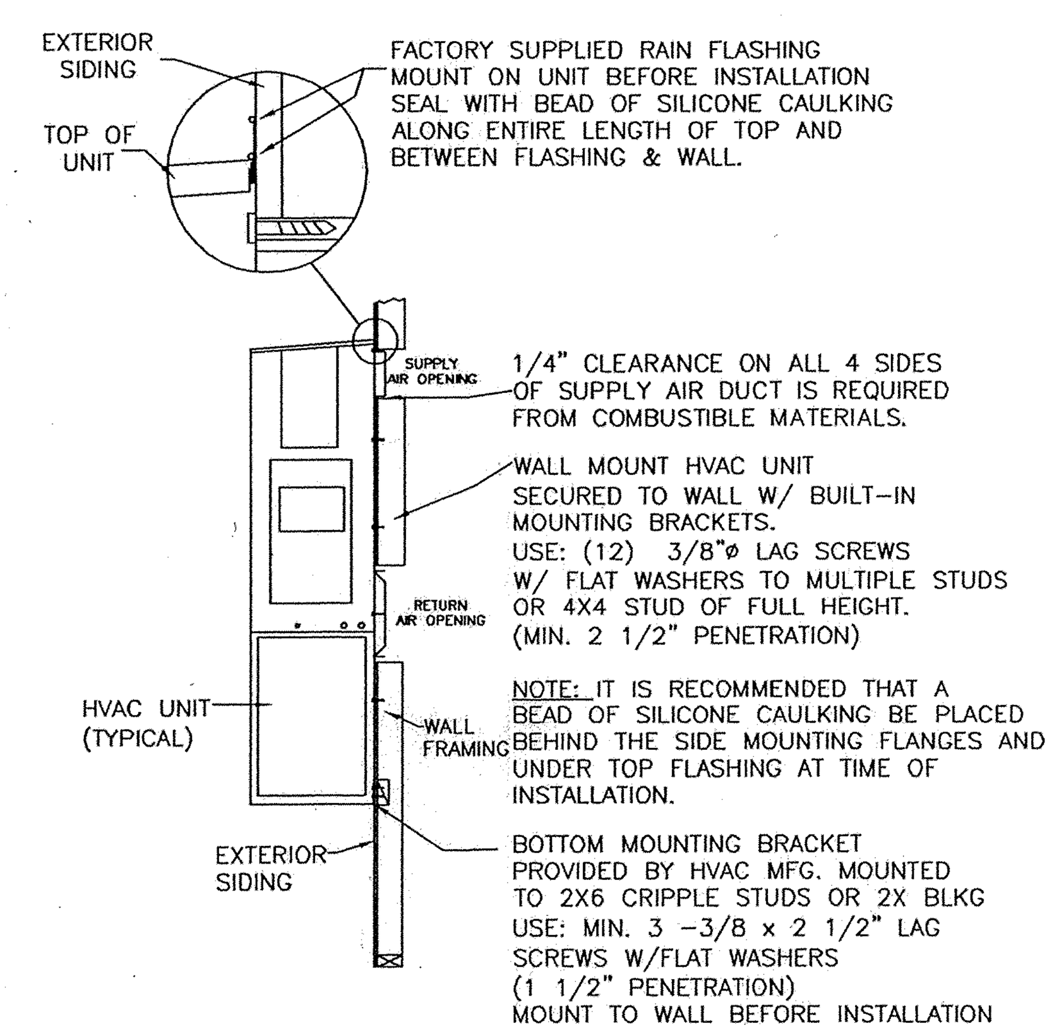
PROJECT
24'x40' MODULAR CLASSROOM BUILDING

TITLE
24'x40' ELECTRICAL LIGHTING PLAN
ELECTRICAL POWER PLAN

JOB # 03–1014
DATE 7/11/03
DRAWN BY JAG
SCALE 1/4"=1'–0"
APPROVED
REVISIONS

SHEET NO.
E–1.1–24

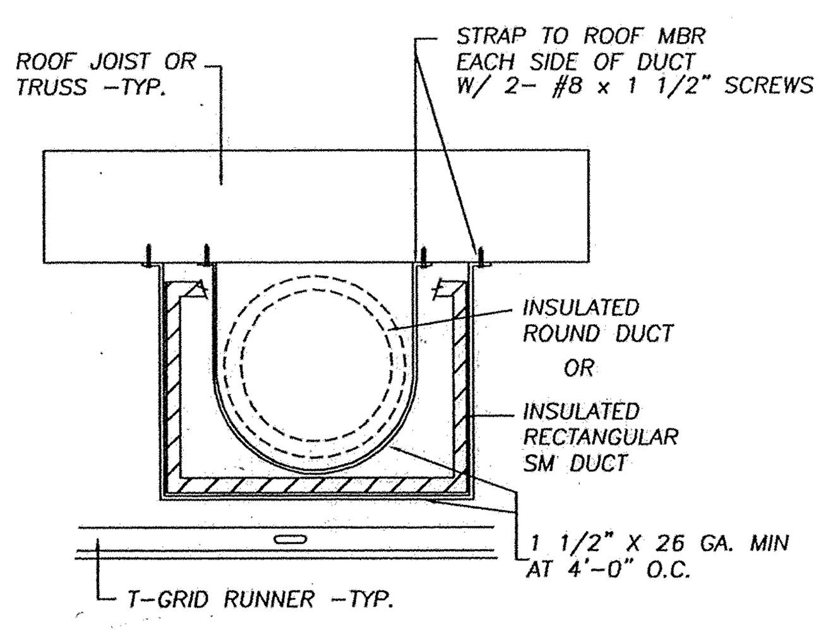
SIZE OF SUPPLY AND RETURN AIR OPENINGS AS PER MFG.'S SPECS ACCORDING TO SIZE OF HVAC UNIT



AIR FILTER: SEE GEN. NOTES ON ARCH'L SHEET OF PLANS

HVAC MOUNTING

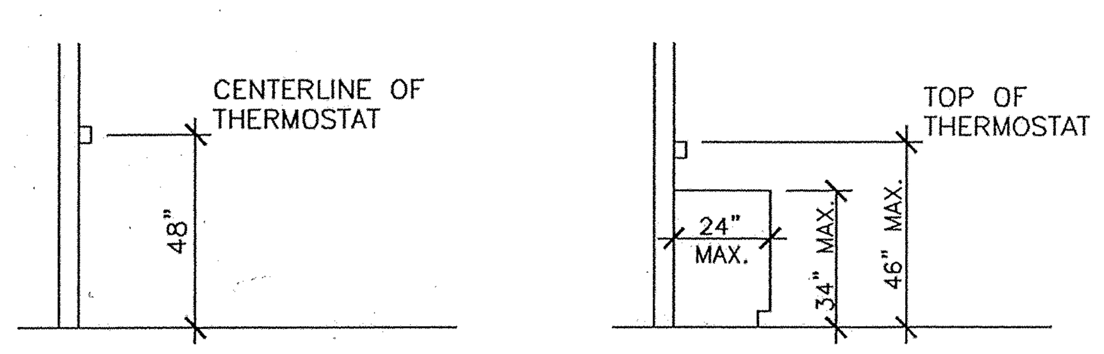
SCALE: 3/8" = 1'-0"



FACTORY-MADE AIR DUCTS: SEE GENERAL NOTES ARCH'L SHEET OF PLANS

DUCT MOUNTING

SCALE: 1" = 1'-0"



MOUNTING HEIGHT OVER OBSTRUCTION

MECHANICAL NOTES

FLEXIBLE DUCT SHALL BE MODULAR METAL FABRICATORS SERIES FDMA R4.2 WITH INSULATION, A POLY JACKET, AND A WIRE ENCAPSULATED NON-PERFORATED CORE THAT COMPLIES WITH ASTM C-518, 1991. FLEXIBLE DUCTING SHALL BE UL LISTED CLASS 1 AIR DUCT WITH A FLAME SPREAD RATING NOT TO EXCEED 25, AND A SMOKE-DEVELOPED RATING NOT TO EXCEED 50 IN ACCORDANCE WITH NFPA 90A & 90B.

THERMOSTAT PROGRAMMING TO BE PERFORMED AND BATTERY PROVIDED BY OTHERS ON SITE.

TEST AND BALANCE OF HVAC SYSTEM TO BE PROVIDED AND PERFORMED BY OTHERS ON SITE.

ALL HVAC EQUIPMENT LEAVES FACTORY WIRED FOR 240V. OPERATION. THE ACCEPTABLE OPERATING RANGE FOR THE 240 & 208 TAPS ARE:

TAP	RANGE
240	253-216
208	220-187

BARD HVAC OPENING @ SUPPLY		
10 SEER	SIZE	OPENING
WA/WH	1.0 TON	18 X 6
WA/WH	1.5 / 2.0 TON	21 X 9
WA/WH	2.5 / 3.0 TON	29 X 9
WA/WH	3.5 / 4.0 TON 5.0 / 6.0 TON	31 X 11
12 SEER	SIZE	OPENING
WA/WH	2.0 TON	29 X 9
WA/WH	2.5 TON	29 X 9
WA/WH	3.0 TON	31 X 11
GAS/ELEC.	SIZE	OPENING
WG	2.0 / 2.5 3.0 TON	29 X 9
WG	3.5 / 4.0 5.0 TON	31 X 11

EQUIPMENT & MATERIAL SCHEDULE

HP 1 — 3.5 TON STANDARD — HEAT PUMP 'BARD' WALLMOUNT, WH42-A05VP4 5KW 41,500 NOM. BTUH COOLING CAPACITY-10.00 SEER 41,000 NOM. BTUH HEATING CAPACITY FROM COMPRESSOR-6.60 HSPF ADDITIONAL 17,065 NOM. BTUH HEATING CAPACITY FROM HEAT STRIP MCA 60, MOCP 70, 1500 CFM @ .3 ESP, UNIT WEIGHT 510 LB. MIN. WIRE SIZE #6, 230 VOLT, 60 CYCLE, SINGLE PHASE

NOTE:
ADJUST OUTSIDE AIR DAMPER TO A MIN. OF 352 CFM

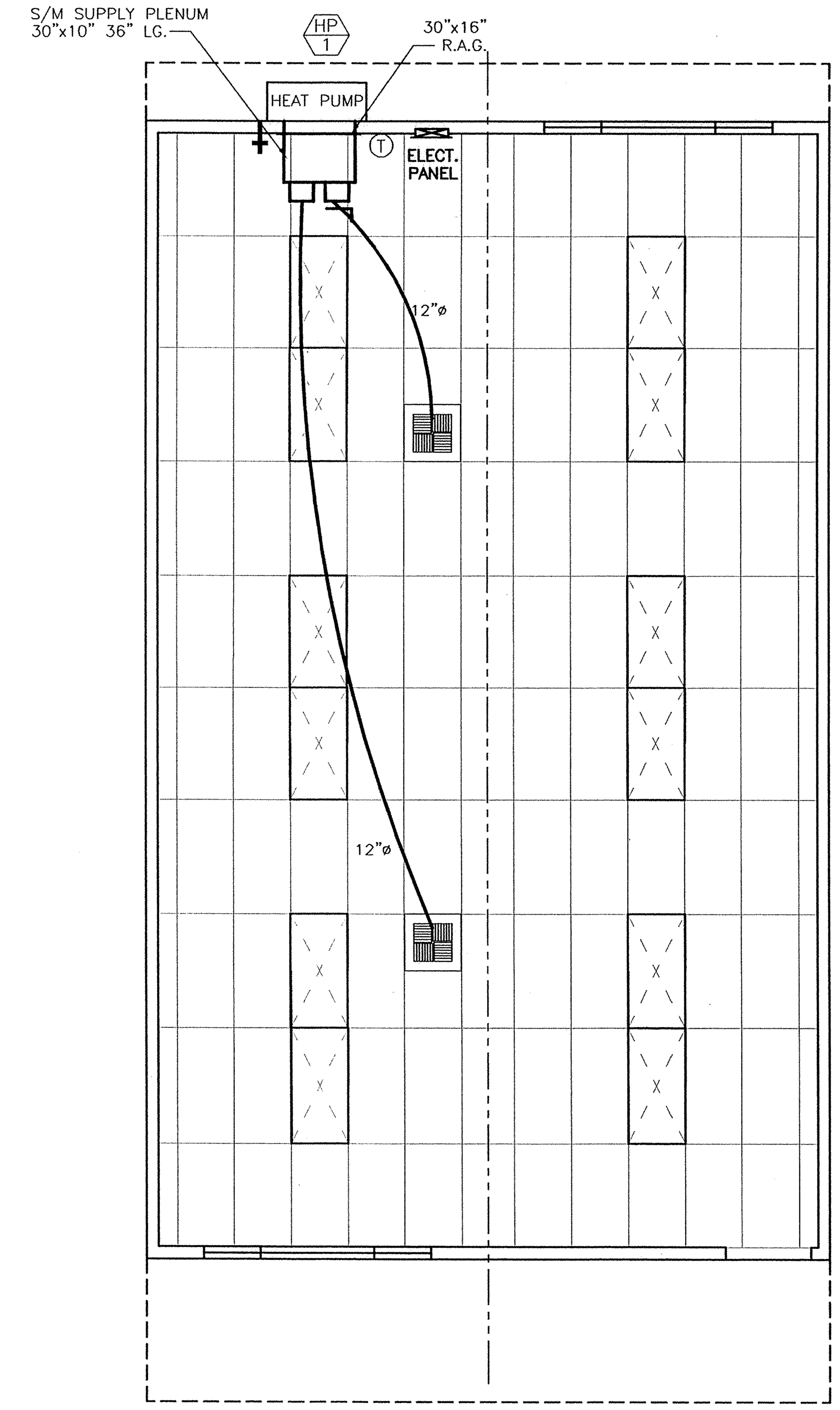
(T) — THERMOSTAT - WHITE ROGERS 1F92-371 AUTO CHANGEOVER, ELECTRONIC, 5+2 DAY 3 HEAT, 2 COOL, MOUNT AT +48" A.F.F. USE STAT GUARD #F29-0277

SUPPLY REGISTER, CEILING, SHOEMAKER 104-OBD, 16x16-12, T-BAR, OBD 4 WAY FIXED CURVE BLADE, U.N.O.

⊠ — SUPPLY REGISTER, CEILING, AIRMATE 604M 8x8, MLD, 4 WAY FIXED BLADE U.N.O.

EF 1 — EXHAUST FAN 109 CFM, BROAN #L100 WITH 6" DUCT TO BROAN # 634 ROOF CAP

SUPPLY BALANCE DAMPER (SIZE AS NOTED)



MECHANICAL PLAN

RECEIVED JUL 2 4 2003 WESTERN DIVISION

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MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA, 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

ARCHITECT STAMP

DATE SIGNED JUL 15 2003

LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 105453

STATE AGENCY STAMP

STATE AGENCY STAMP

PROJECT: 24'x40' MODULAR CLASSROOM BUILDING

TITLE: 24'x40' MECHANICAL PLAN

JOB # 03-1014

DATE 7/11/03

DRAWN BY JAG

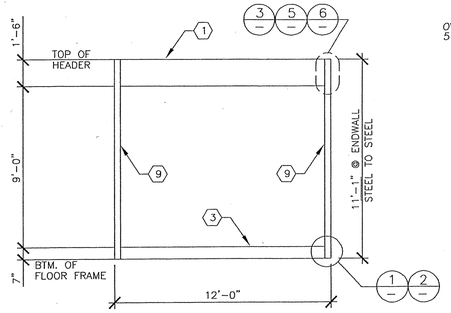
SCALE 1/4"=1'-0"

APPROVED

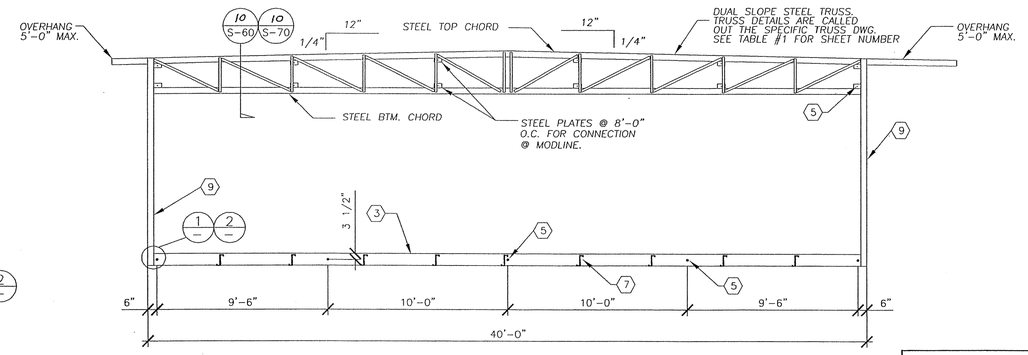
REVISIONS

SHEET NO.

M-1.1-24



STRUCTURAL SECTION AT ENDWALL
SCALE: 1/4" = 1'-0"



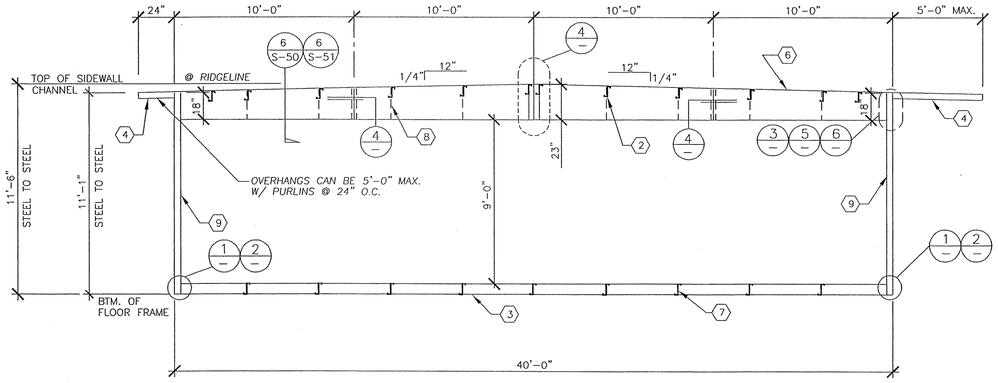
MODLINE SECTION
W/ DOUBLE SLOPE TRUSS, SEE SPECIFIC TRUSS DRAWING PER TABLE #1 FOR DETAILED INFORMATION
SCALE: 1/4" = 1'-0"

TRUSS TABLE #1	
SHEET #	TRUSS DESCRIPTION
S-60	DUAL SLOPE 20 PSF ROOF LOAD, 80 MPH WIND LOAD
S-70	DUAL SLOPE 30 PSF ROOF LOAD, 80 MPH WIND LOAD

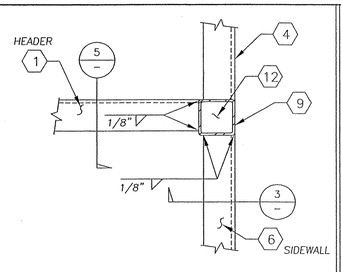
KEY NOTES

1. [3 1/2" x 18" x 12 Ga. RFC STEEL ROOF HEADER.
2. ⌊ 6" x 2 X 14 Ga. STEEL ROOF JOIST FOR 20 PSF ROOF. OR 7 X 1 1/2 X 11 GA. FOR 30 PSF ROOF.
3. C7" X 9.8 LB. PERIMETER FRAME
4. 10"x3"x12 GA. CHANNEL AT OVERHANG OR OPTIONAL L 4"x3"x3/8" PURLIN & OUTRIGGER AT 20 PSF ROOF OR L 5"x3"x3/8" OUTRIGGER & L 4"x3"x3/8" PURLIN AT 30 PSF ROOF
5. 5/8" MACHINE BOLT @ MODULE CONNECTION LOCATIONS
6. TAPERED 10 GA. CHANNEL SECTION, BEAM. 18" x 23" x 18" x 3 1/2" x 10 GA..
7. ⌊ MEMBER – FLOOR JOIST.
8. 1/4" PLATE FULL HT. STIFFENER AT 4' O.C.
9. STEEL COLUMN – USE 3 1/2" x 3 1/2" x 1/4" TUBE AT CORNERS.
10. NOT USED.
11. 1/4" CAP PLATE.
12. 1/4" PLATE FITTED INSIDE TUBE COLUMN AND WELD IN PLACE.

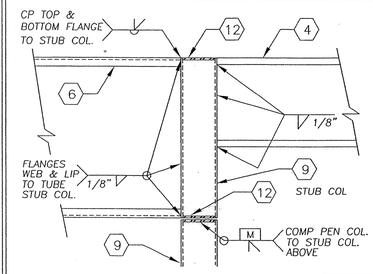
BUILDING HEIGHT NOTE:
THE BUILDING HEIGHTS SHOWN ON THESE DETAILS DO NOT INCLUDE THE PLYWOOD ROOF DECK OR THE FINISH ROOFING MATERIALS.



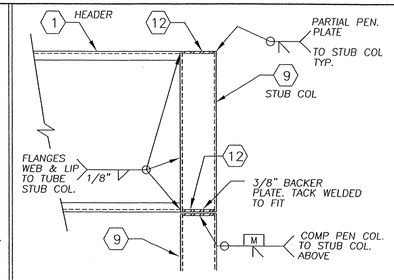
STRUCTURAL SECTION AT SIDEWALL
SCALE: 1/4" = 1'-0"



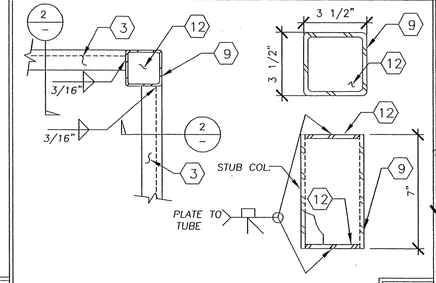
POST CONN. @ ROOF
SCALE: 1 1/2" = 1-0"
6



POST CONN. @ ROOF
SCALE: 1 1/2" = 1-0"
5



POST CONN. @ ROOF
SCALE: 1 1/2" = 1-0"
3



CORNER CONN. @ FLOOR
SCALE: 1 1/2" = 1-0"
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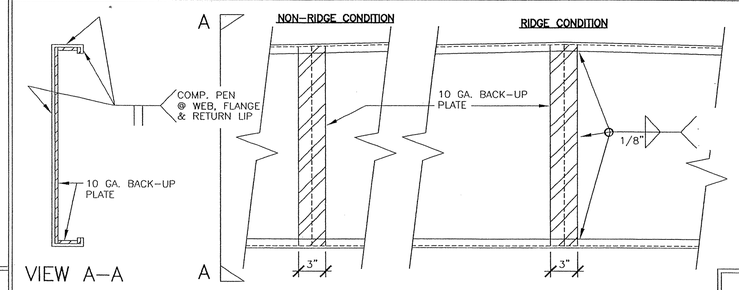
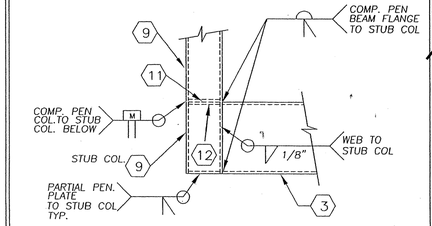


LIGHT GA. BEAM SPLICE (N.T.S.)
4



POST CONN. @ FLOOR
SCALE: 1 1/2" = 1-0"
2

RECEIVED
JUL 24 2003
WESTERN DIVISION

DATE SIGNED
JUL 15 2003

REGISTERED PROFESSIONAL ENGINEER
No. 36028
STRUCTURAL
STATE OF CALIFORNIA
LICENSE EXPIRES 9-30-2004

ARCHITECT STAMP

DATE SIGNED
MAY 21 2003

REGISTERED PROFESSIONAL ENGINEER
No. 36028
STRUCTURAL
STATE OF CALIFORNIA

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 10453
AC ___ ES ___ SS ___
DATE: JUL 1 2003

STATE AGENCY STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
4-104778
AC ___ ES ___ SS
DATE: 5-30-03

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT:
MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA:
RIGID FRAME SECTION & DETAILS
DUAL SLOPE W/ MODLINE TRUSS
WIND LOAD: 80 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

JOB #

DATE 12/1/02

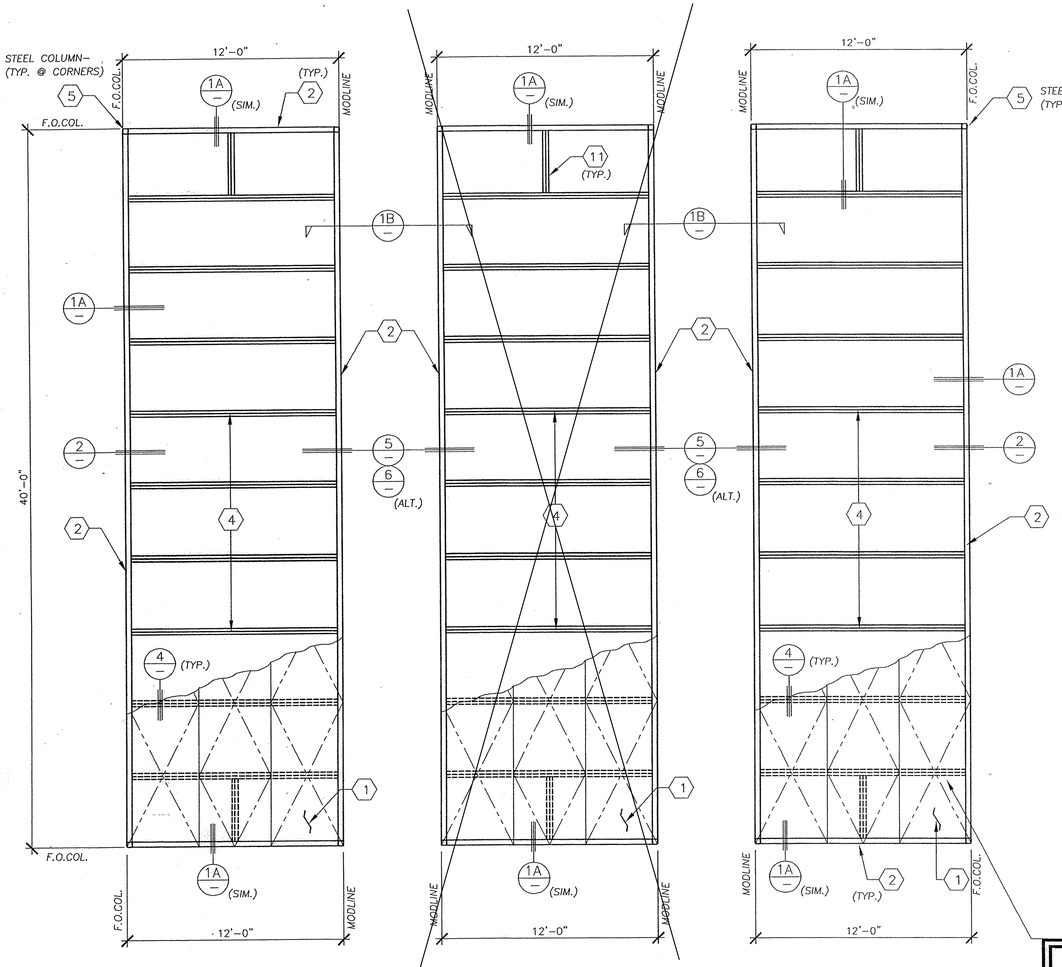
DRAWN BY JAG

SCALE 1/4"= 1-0"

APPROVED

REVISIONS

SHEET NO.
S-5



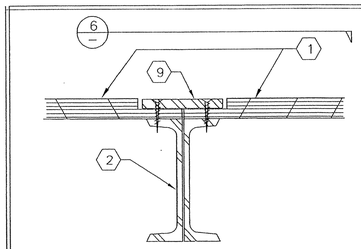
LEFT HAND MODULE

CENTER MODULE

RIGHT HAND MODULE

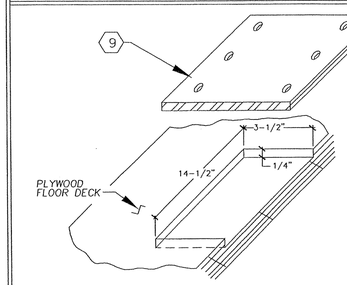
FLOOR FRAMING PLAN
SCALE 1/4" = 1'–0"

NOTE:
FLOOR JOIST ARE SHOWN AT 48" O/C AS AN EXAMPLE ONLY. CALCS. WILL DETERMINE SPACING FOR REQUIRED LOADS. (SEE SCHEDULE BELOW)



MOD CONN. @ FLOOR
SCALE: 3" = 1–0"

5



MOD LINE CONN.PLATE ALT.
SCALE: N.T.S.

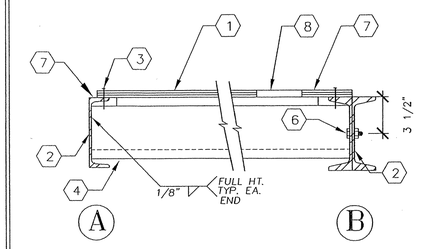
6

KEY NOTES

1. PLYWOOD FLOOR SHEATHING – 1 1/8" A.P.A. RATED OR EQUAL. P.S. 1–95 T & G EDGES, 48" SPAN RATING; ATTACH TO STEEL FRAMING WITH .170/.192 PIN OR #10–24x1 3/4" SELF TAP SCREW @ 6" O.C. BOUNDARY & EDGES AND 10" O.C. FIELD.
   NOTE:
   PROVIDE FIELD NAILING @ 6" O.C. WHERE FLOOR JOISTS ARE AT 48" O.C.
2. C7" x 9.8 LB. PERIMETER FRAME
3. 0.145"ø SHOT PIN @ 6" O.C. PLYWOOD DECK TO PERIMETER CHANNEL
4. FLOOR JOIST ℄ MEMBER. SEE SCHEDULE BELOW.
5. STEEL CORNER COLUMN.
6. 5/8" MACHINE BOLT AT 10'–0" O.C. @ MODULE CONNECTION.
7. AT MODULE JOINT TAKE PLYWOOD TO EDGE OF CHANNEL. AT PERIMETER, HOLD PLYWOOD BACK AS INDICATED.
8. 5" DIA. HOLE AT BOLT LOCATION. (OPTIONAL)
9. 6" x 14" x 12 Ga. PLATE WITH (6) #10–34 x 1 3/4" FLAT HEAD SELF TAP SCREWS INTO STEEL CHANNEL FLOOR FRAME @ 10" O.C.
10. R–11 INSULATION ON 'SEAL TITE' TYPE HW POLYMAX UNDERBELLY OR EQUAL WITH BIDIRECTIONAL POLYESTER FIBERS.
11. 7"x1 1/2"x11 GA. 'Z' MEMBER @ MIDSPAN.

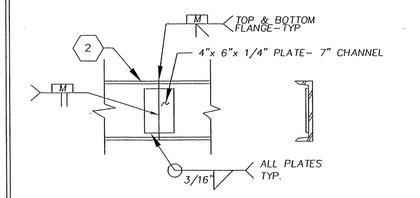
FLOOR JOIST SCHEDULE

LOAD	JOIST	SPACING
50 PSF	Z 7x1 1/2x11 GA.	48" O.C.
~~50+20 PSF~~	~~Z 7x1 1/2x11 GA.~~	~~32" O.C.~~
100 PSF	Z 7x1 1/2x11 GA.	24" O.C.
~~125 PSF~~	~~Z 7x1 1/2x11 GA.~~	~~16" O.C.~~



PERIMETER FLOOR
SCALE: 1 1/2" = 1–0"

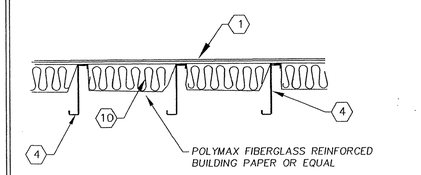
1



NOTE:
SPLICE MAY OCCUR AT ANY POINT.

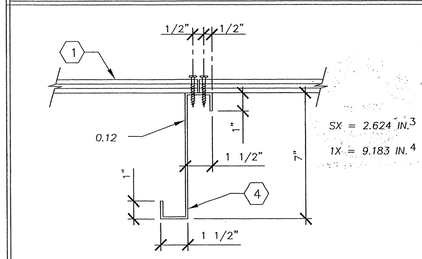
CHANNEL SPLICE
SCALE: 1 1/2" = 1–0"

2



INSULATION @ FLOOR
SCALE: N.T.S.

3



FLOOR JOIST
SCALE: 3" = 1–0"

4

DATE SIGNED JUL 15 2003

LICENSE EXPIRES 6-30-2004

ARCHITECT STAMP

DATE SIGNED MAY 21 2003

LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 105453 AC LS SS DATE JUL 1 2003

STATE AGENCY STAMP

RECEIVED JUL 24 2003 WESTERN DIVISION

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 4-104778 AC LS SS DATE: 5/30/03

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: FLOOR FRAMING PLAN AND DETAILS FOR PLYWOOD FLOOR

WIND LOAD: 80 & 90 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

JOB #

DATE 12/1/02

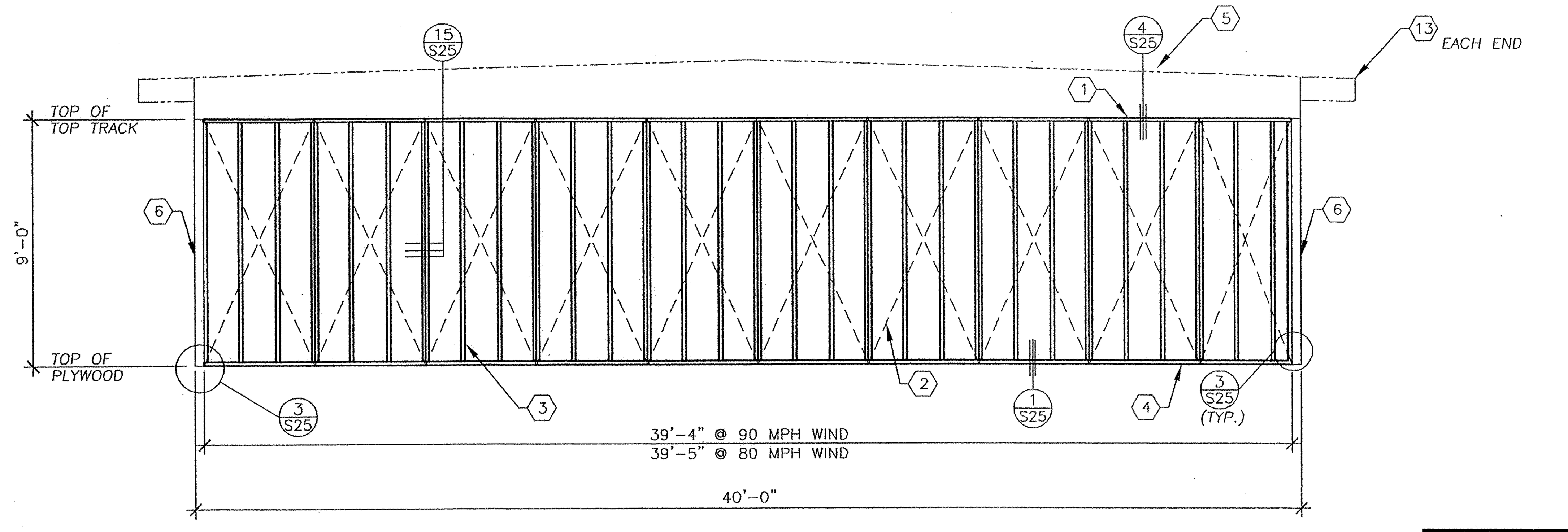
DRAWN BY JAG

SCALE AS NOTED

APPROVED

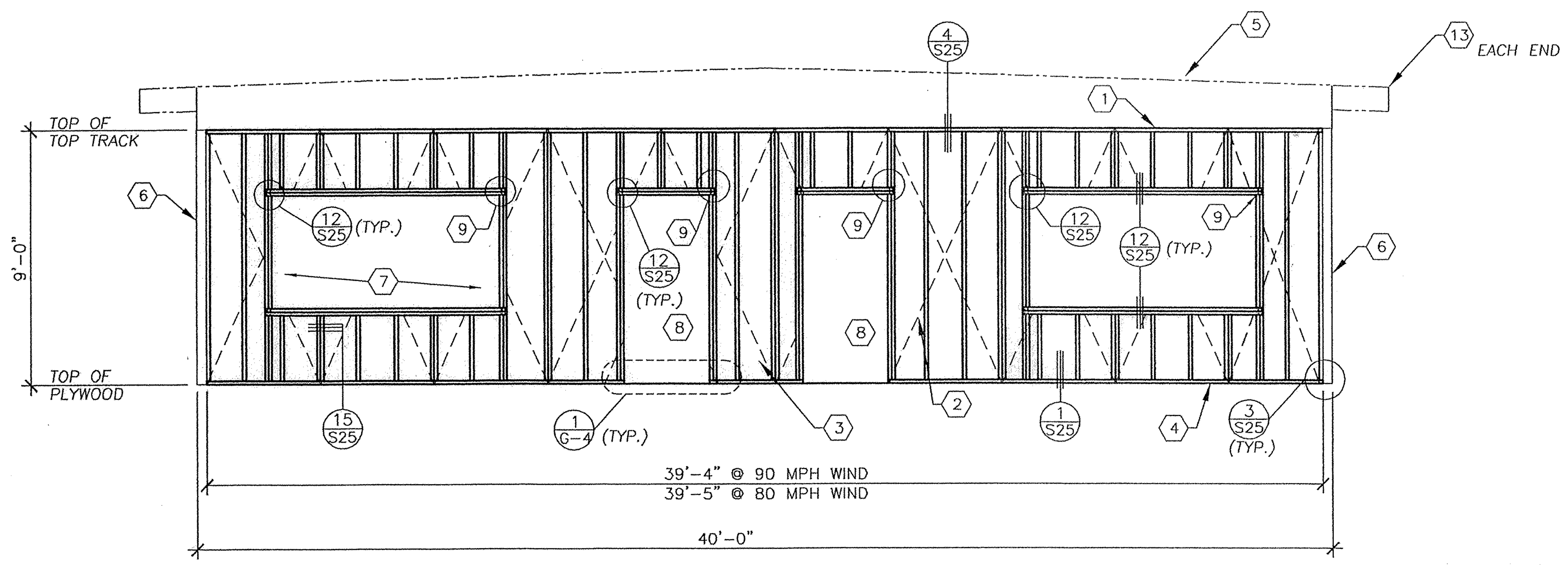
REVISIONS

SHEET NO.
S–10



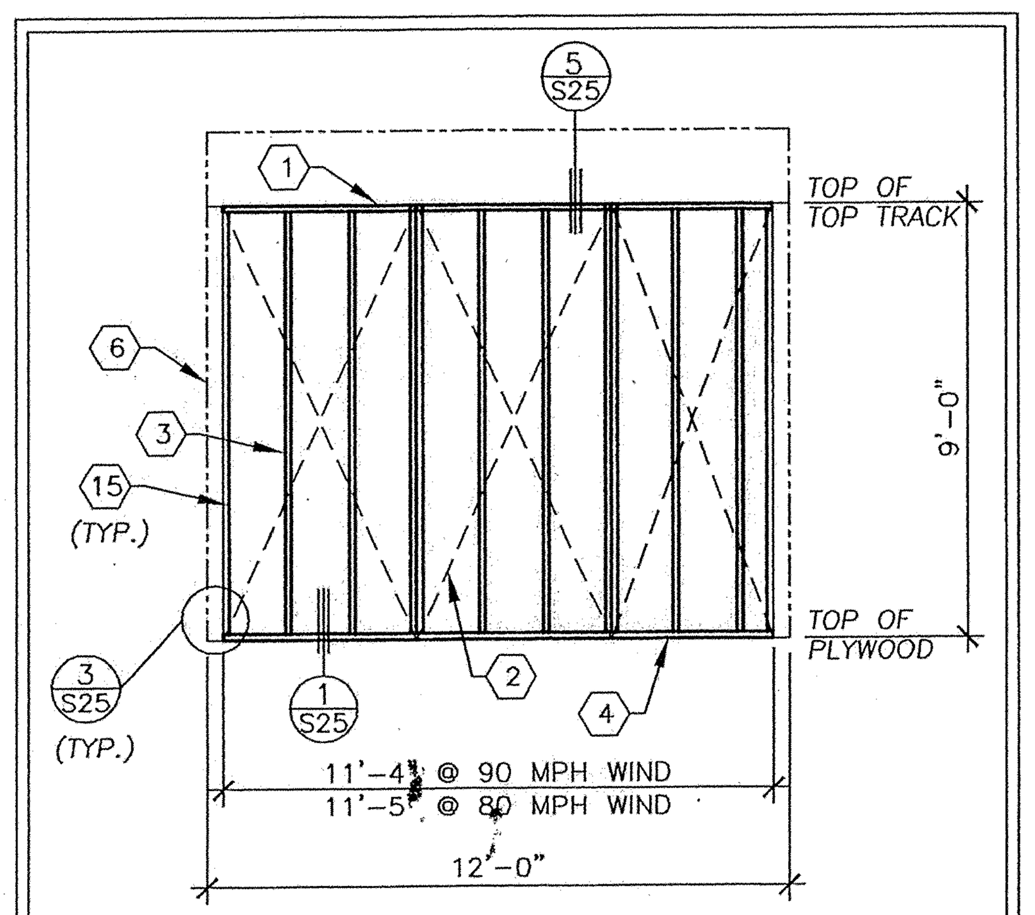
TYPICAL SIDEWALL W/NO OPNG'S
SCALE: 1/4" = 1'-0"

NOTE:
DOOR AND WINDOW LOCATIONS CAN BE LOCATED ANY WHERE IN SIDE WALL. FOR EXACT LOCATION OF DOORS, WINDOWS AND HVAC OPENINGS SEE FLOOR PLAN.

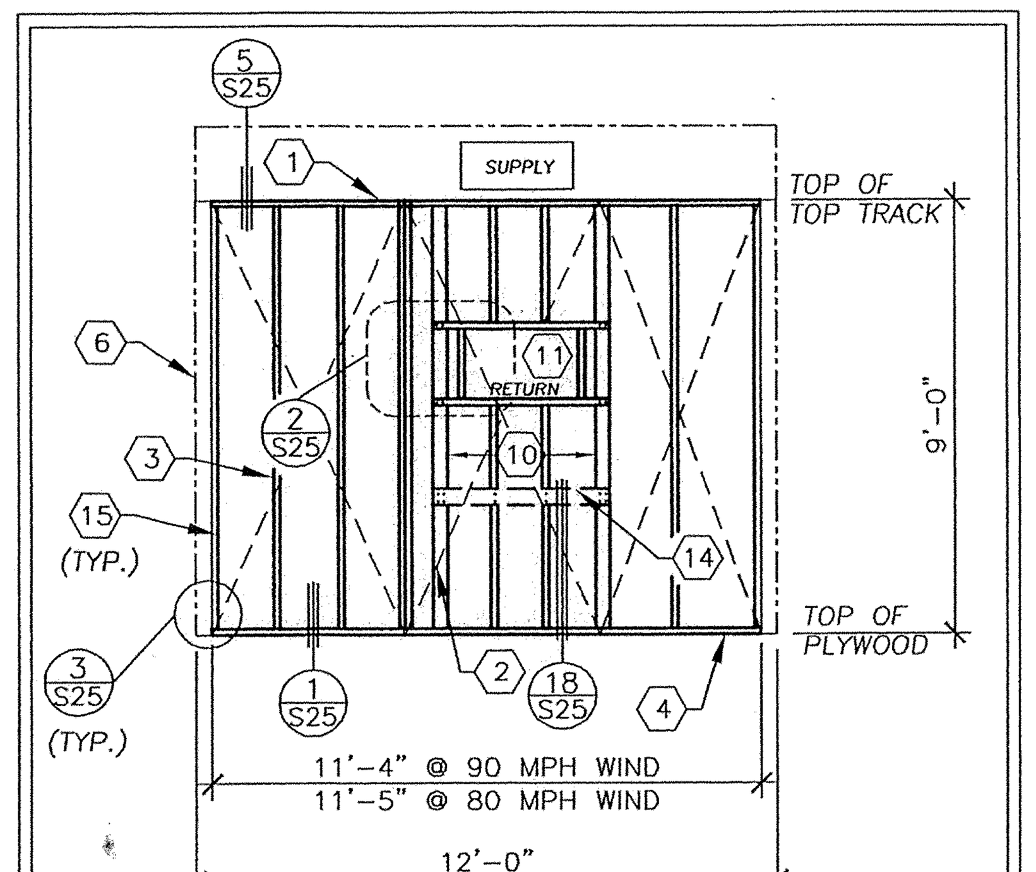


TYPICAL SIDEWALL W/DOORS & WINDOWS
SCALE: 1/4" = 1'-0"

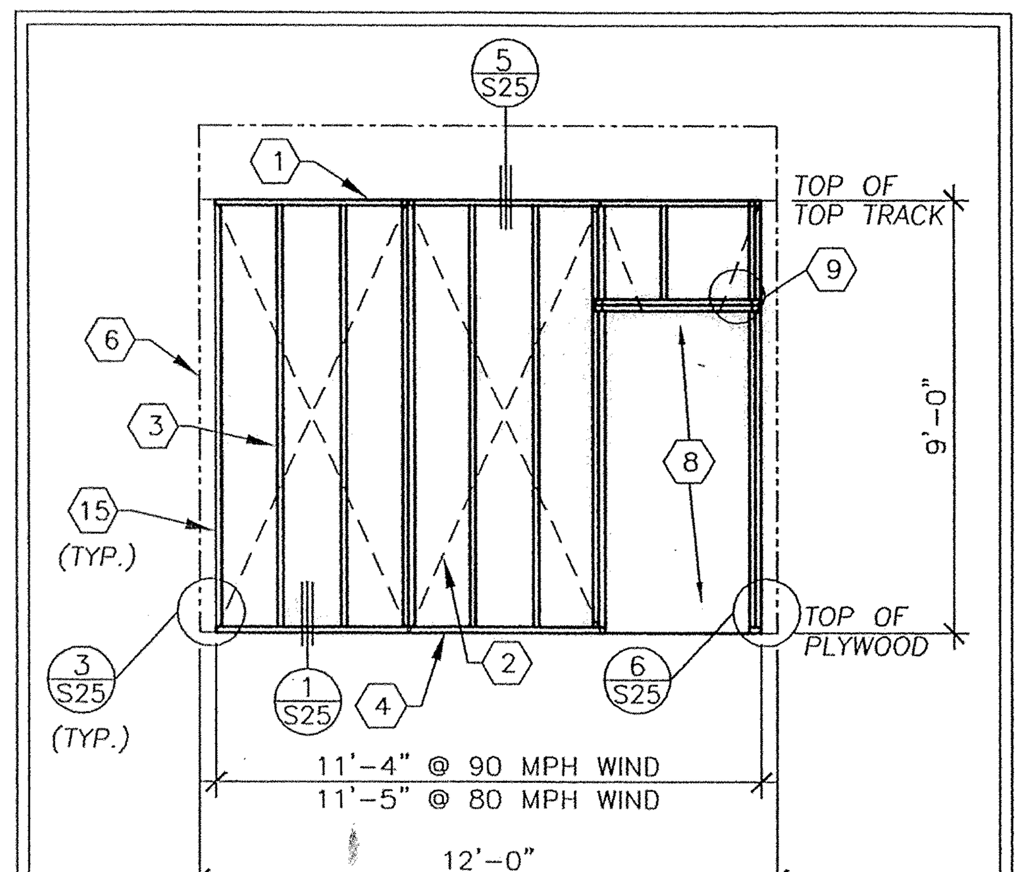
NOTE:
DOOR AND WINDOW LOCATIONS CAN BE LOCATED ANY WHERE IN SIDE WALL. FOR EXACT LOCATION OF DOORS, WINDOWS AND HVAC OPENINGS SEE FLOOR.



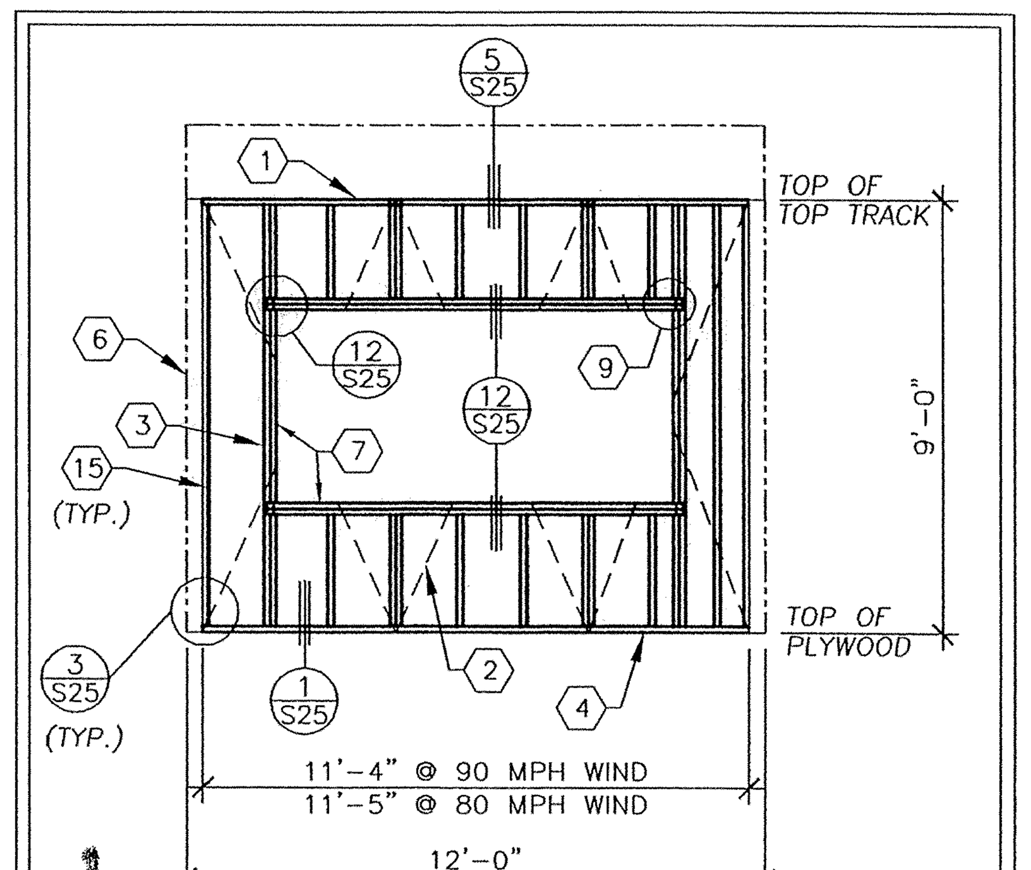
TYPICAL ENDWALLS
SCALE: 1/4" = 1'-0"



ENDWALLS W/AC UNIT
SCALE: 1/4" = 1'-0"



ENDWALLS W/DOOR
SCALE: 1/4" = 1'-0"



ENDWALLS W/WINDOW
SCALE: 1/4" = 1'-0"

KEYNOTES

1. CONTINUOUS 3 1/2" x 20 GA. TOP TRACK.
2. PLYWOOD SIDING/SHEATHING NAIL SIDING WITH CORROSION RESISTANT 8d BOX NAILS @ 6" BOUNDARY & EDGES, 12" FIELD.
3. 3 1/2" x 20 GA. STUDS @ 16" O.C.
4. CONTINUOUS 3 1/2" x 20 GA. BTM. TRACK.
5. STEEL FRAME- SEE SHEET S-50 - S-51 "STRUCTURAL SECTIONS" FOR MEMBER TYPES AND SIZES.
6. STEEL CORNER COLUMN.
7. FRAME FOR 8040 WINDOW USE (2) FULL HEIGHT 3 1/2" x 20 GA. JAMB STUDS. (2) 3 1/2" x 20 GA. TRACKS FOR HEADER. (2) 3 1/2" x20 GA. TRACKS FOR WINDOW SILL.
8. FRAME FOR 3'-0"x 6'-8" DOOR. USE (2) FULL HEIGHT 3 1/2" x 20 GA. JAMB STUDS & (2) 3 1/2" x 20 GA. TRACKS FOR HEADER.
9. ATTACH HEADER OR SILL TO 3 1/2" x 20 GA. STUD WITH #8 x 1/2" SELF TAP SCREWS. AT CORNERS OF ALL OPENINGS.
10. 4x4 D.F. POST
11. FRAME FOR A/C UNIT.
12. NOT USED
13. OVERHANG, (5'-0" MAX.)
14. NOTCH (1) PC. OF 3 1/2" x 20 GA. TRACK AROUND STUDS TO PROVIDE BLKG..
15. 2 x 4 SHIM LOCATED BETWEEN 4 x 4 STL. POST AND FIRST 3 1/2" x 20 GA. STUD @ OUTSIDE OF BLDG.

WALL FRAMING NOTES FOR STUCCO SIDING OPTION:

STUDS TO BE 3 1/2" x 20 GA. @ 16" O.C.

4'-0" WALL OPENINGS - (1) 3 1/2" x 20 GA. TRACK AS HEADER AND (2) 3 1/2" x 20 GA. FULL HEIGHT JAMB STUDS.

8'-0" WALL OPENINGS - (2) 3 1/2" x 20 GA. TRACK AS HEADER AND (3) 3 1/2" x 20 GA. FULL HEIGHT JAMB STUDS.

NOTE:
FOR EXACT LOCATION OF DOORS, WINDOWS AND HVAC OPENINGS, SEE FLOOR PLAN.

DATE SIGNED JUL 15 2003

LICENSE EXPIRES 6-30-2004

RECEIVED JUL 2 4 2003 WESTERN DIVISION

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: EXTERIOR WALL FRAMING ELEVATIONS FOR STEEL STUDS
WIND LOAD: 80 & 90 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

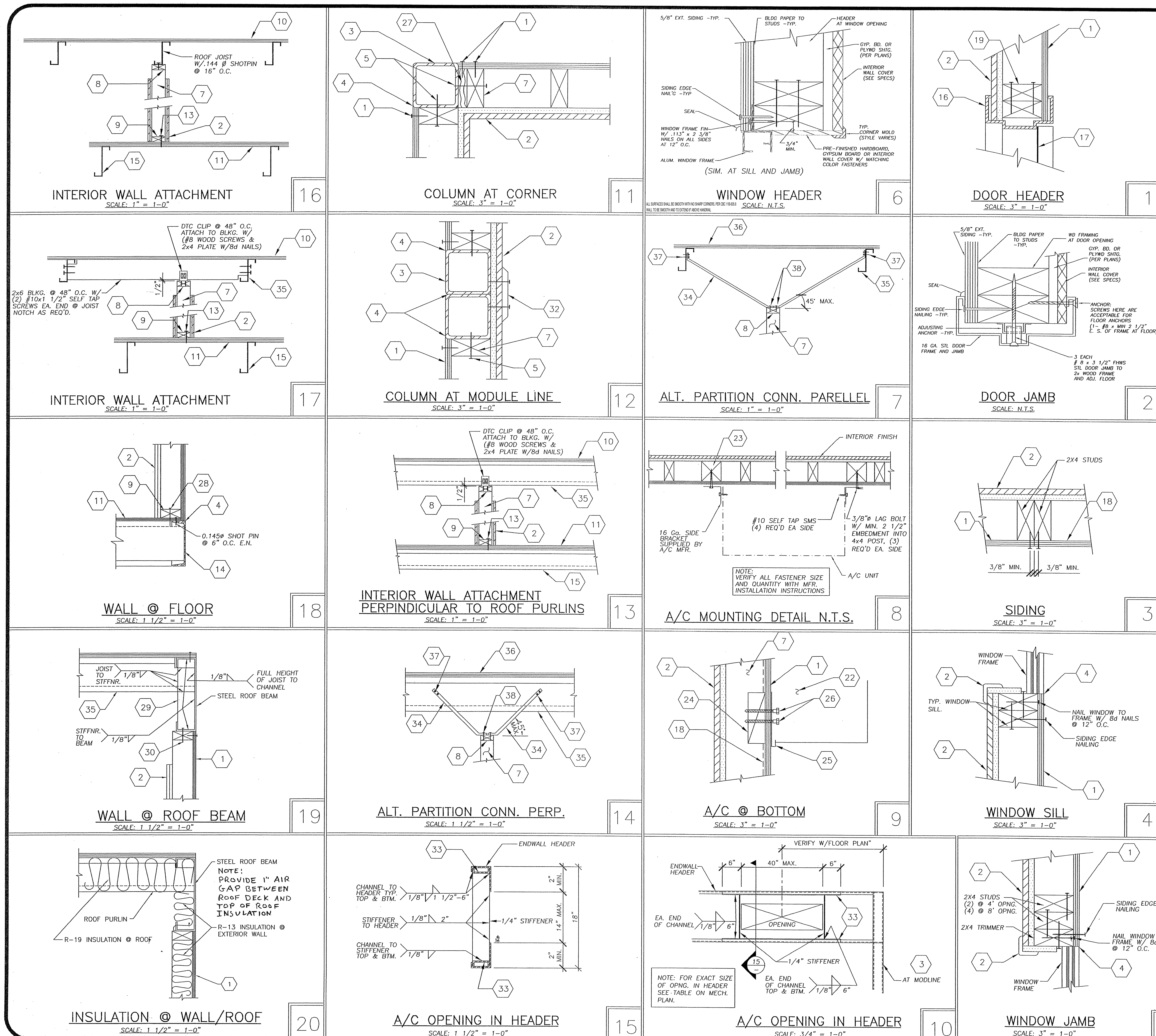
ARCHITECT STAMP
DATE SIGNED MAY 2 1 2003
LICENSE EXPIRES 6-30-2004
STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 105653
STATE AGENCY STAMP

PC
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
4-104778
DATE: 5-30-03
STATE AGENCY STAMP

JOB #	
DATE	12/1/02
DRAWN BY	JAG
SCALE	1/4" = 1'-0"
APPROVED	
REVISIONS	

SHEET NO.
S-21



KEYNOTES

A. PROVIDE MOISTURE BARRIER BEHIND SIDING. USE ASPHALT SATURATED KRAFT, TYPE-1, GRADE 'D', STYLE-2 OR EQUAL ICBO NO. 4369

1. EXTERIOR PLYWOOD SIDING/SHEATHING – NAIL W/ CORROSION RESISTANT 8d BOX NAILS AT 6" O/C BOUNDARY & EDGES, AND 12" O/C FIELD.
2. TYPICAL INTERIOR FINISH
3. STEEL TUBE COLUMN
4. PAINTABLE ACRYLIC LATEX SEALANT (U.N.O.)
5. 'HILTI' DN57-P8 @ 24" O.C. (OR RAMSET 1514 SD) OR .144 PIN.
6. 2x4 TRIMMER
7. 2x4 FULL HT STUDS
8. 2x4 TOP PLATE
9. 2x4 BOTTOM PLATE
10. ROOF SHEATHING
11. FLOOR SHEATHING
12. GALV METAL FLASHING
13. 16d NAIL @ 16" O.C.
14. STEEL FLOOR CHANNEL
15. STEEL FLOOR JOIST @ 32" O.C. MIN. FOR PARTITION.
16. HOLLOW METAL DOOR FRAME
17. METAL DOOR
18. WATERPROOF MEMBRANE
19. HEADER – (2)-2x4 H.F. #2
20. DOOR BOTTOM W/ WEATHER STRIP
21. NOT USED
22. WALL MTD. A/C
23. 4x4 H.F. #2 POST (OR BETTER)
24. 2X6 BLOCK BETWEEN STUDS. ATTACH TO STUDS W/ (2) 16d BOX NAILS EA END
25. 11 GA x 24" LONG STEEL BOTTOM BRACKET
26. 3/8"ø x 2-1/2" LAG BOLT INTO BOTTOM BRACKET AND INTO 2x6 BLOCK W/ 1 1/2" MIN. EMBEDMENT
27. 3/4" SPACER-PLYWOOD
28. 16d BOX NAIL @ 8" O.C.
29. 1/4" FULL HT. STIFFENER
30. 1/2"ø MACHINE BOLT W/ WASHER @ 24" O.C. OR 0.145"ø SHOT PIN @ 18" O.C.
31. NOT USED
32. VINYL WRAPPED CLOSE-OFF BATT. ATTACH W/ #8x2 1/4" PAN HEAD WOOD SCREWS STAGGERED 24" O.C. AND (2) SCREWS TOP & BOTTOM.
33. 3 1/4"x1"x4'-6" L x 10 GA. CHANNEL TOP & BOTTOM.
34. 1/2"ø STEEL CONDUIT BRACE AT 8' O.C. MAX. STAGGERED.
35. ROOF PURLIN (SEE STRUCTURAL ROOF FRAME).
36. PLYWOOD ROOF DECK SHOWN, NOT REQ'D @ 22 GAUGE METAL ROOF DECK
37. #10 STSMS WAFER HD.
38. #10 WOOD SCREWS

DATE SIGNED JUL 15 2003

DATE SIGNED MAY 21 2003

ARCHITECT STAMP

LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 105483 DATE JUL 17 2003

STATE AGENCY STAMP

RECEIVED JUL 24 2003 WESTERN DIVISION

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 4-104778 DATE 5-30-03

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA, 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

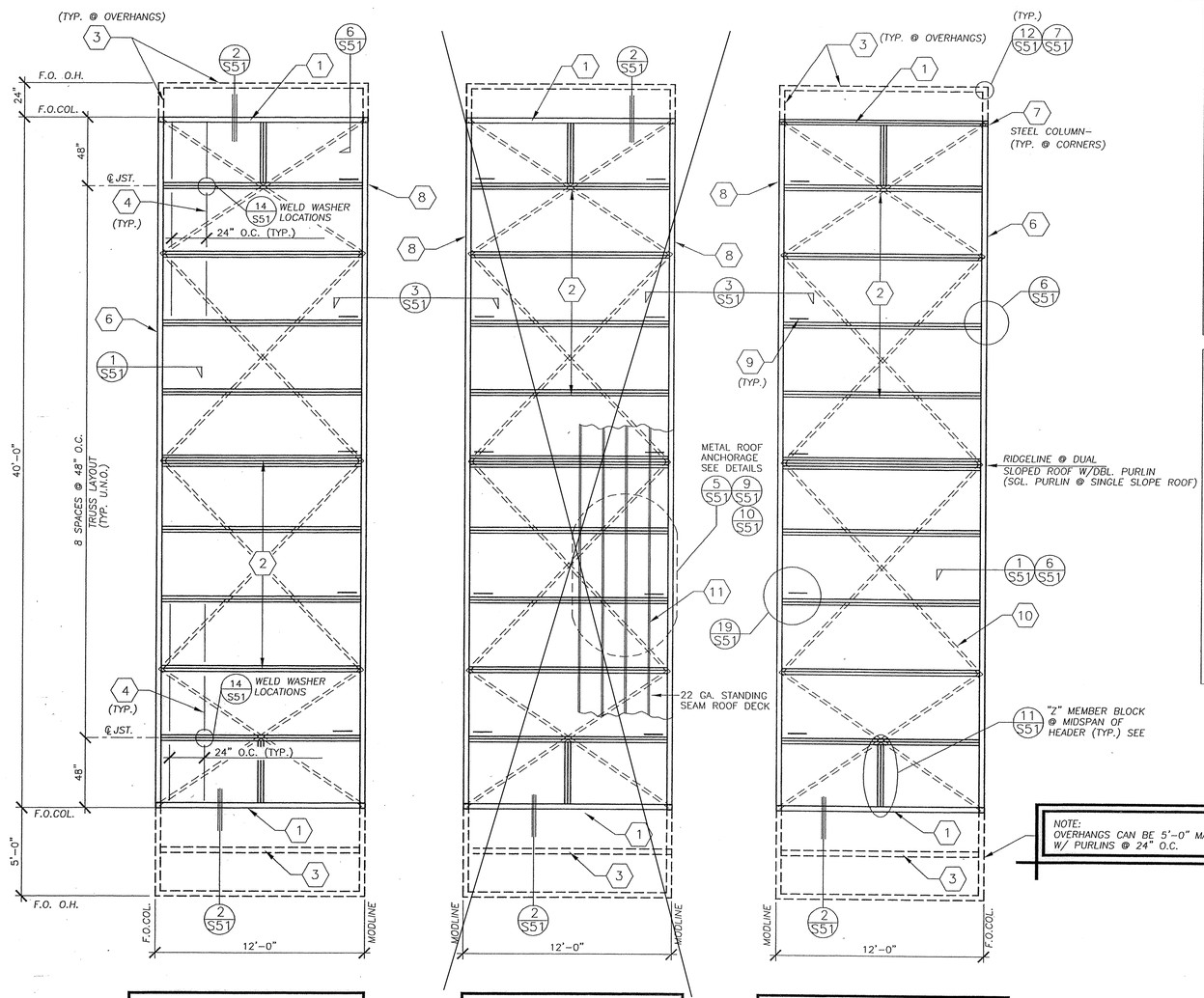
PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: WOOD STUD WALL FRAMING DETAILS

WIND LOAD: 80 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

JOB #	
DATE	12/1/02
DRAWN BY	JAG
SCALE	AS NOTED
APPROVED	
REVISIONS	

SHEET NO. S-30



LEFT HAND MODULE
SCALE 1/4" – 1'-0"

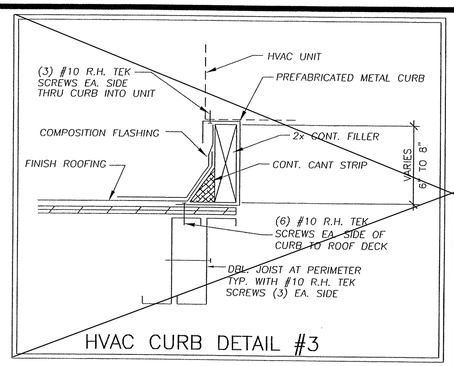
CENTER MODULE
SCALE 1/4" – 1'-0"

RIGHT HAND MODULE
SCALE 1/4" – 1'-0"

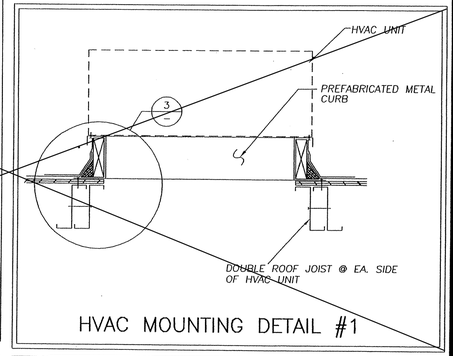
ROOF FRAMING PLAN METAL ROOF OPTION
SCALE 1/4" – 1'-0"

KEY NOTES

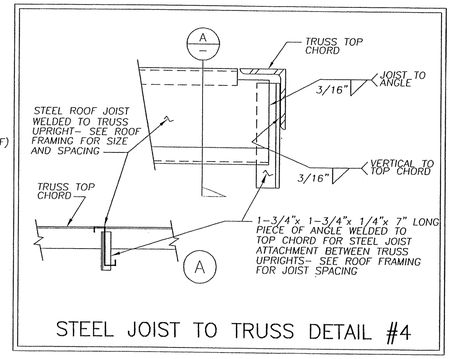
1. ⊏ 18"x3 1/2"x 12 GA. RFC STEEL ROOF HEADER.
2. ⌊ 6" x 2 x 14 Ga. STEEL ROOF JOIST @ 48" O.C. FOR 20 PSF ROOF OR 7 x 1 1/2 x 11 GA. @ 48" O.C. FOR 30 PSF ROOF.
3. 10"x12 GA. CHANNEL @ ROOF OVERHANGS. L 4"x3"x3/8" PURLIN & OUTRIGGER AT 20 PSF ROOF OR L 5"x3"x3/8" OUTRIGGER & L 4"x3"x3/8" PURLIN AT 30 PSF ROOF
4. WIRE OR STRAP ATTACHED TO ROOF JOISTS FOR INSULATION SUPPORT AT 24" O.C.
5. NOT USED.
6. 18"x23"x18"x3 1/2"x10 GA. TAPERED CHANNEL SECTION BEAM AT DOUBLE SLOPE ROOF AND 18"x28"x3 1/2"x 10 GA. AT SINGLE SLOPE ROOF.
7. STEEL CORNER COLUMN SEE RIGID FRAME SECTION FOR SIZE.
8. STEEL TRUSS. (SEE SHTS. S-60, S-60.1, S-70, & S-70.1)
9. STEEL TRUSS BRACES AT 8' O.C. TO BOTTOM CHORD OF TRUSSES L 1 1/2"x1 1/2"x 3/16"
10. 2" x 20 GAUGE METAL STRAPS ONLY FOR 22 GA. METAL ROOF OPTION. W/ 3" MIN. OF 1/8" FILLET WELD EACH END TO ROOF BEAM OR HEADER.
11. 22 GA. STANDING SEAM ROOF DECK. SEE DETAIL #9 ON SHEET S-51 FOR ROOF PANEL SECTION.



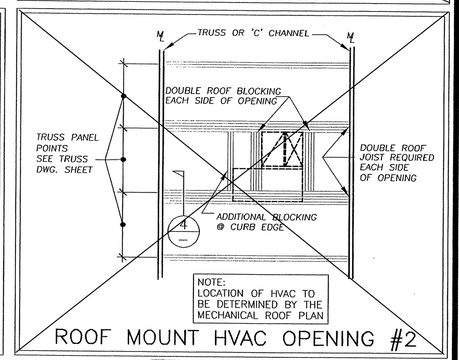
HVAC CURB DETAIL #3



HVAC MOUNTING DETAIL #1



STEEL JOIST TO TRUSS DETAIL #4

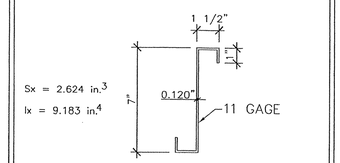


ROOF MOUNT HVAC OPENING #2

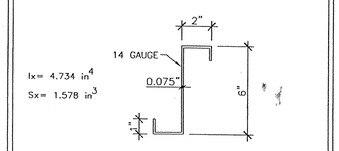
DATE SIGNED
JUL 15 2003

RECEIVED
JUL 24 2003
WESTERN DIVISION

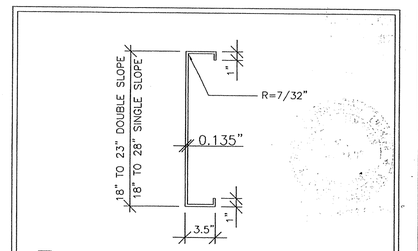
ROOF JOIST SCHEDULE		
LOAD	PURLIN	SPACING
20 PSF	⌊ 6x14 GA.	48" O.C.
30 PSF	⌊ 7x11 GA.	48" O.C.



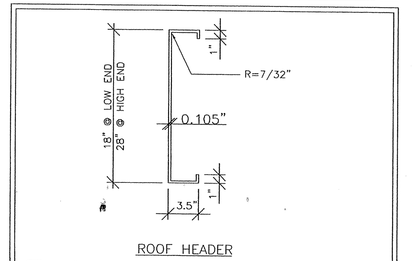
(2) ROOF JOIST
⌊ 7"x1 1/2"x11 GA. (ALTERNATE)



(2) ROOF JOIST
⌊ 6"x2"x14 GA.



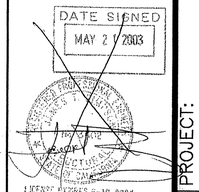
(6) ROOF BEAM
18"/23"/18" x 3 1/2" x 10 GA. CHANNEL (BEAM) @ DOUBLE SLOPE
OR 18"/28" x 3 1/2" x 10 GA. CHANNEL (BEAM) @ SINGLE SLOPE



ROOF HEADER
(1) 18" x 3 1/2" x 12 GA. CHANNEL (HDR) @ DOUBLE SLOPE
28" x 3 1/2" x 12 GA. CHANNEL (HDR) @ SINGLE SLOPE

ARCHITECT STAMP

DATE SIGNED
MAY 21 2003



STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
OK 10-053
AC ES SS
DATE: JUL 17 2003

STATE AGENCY STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
4-104778
AC ES SS
DATE: 5-30-03

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: ROOF FRAMING PLAN W/ 22 GA. METAL DECK

WIND LOAD: 80 & 90 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

JOB #

DATE 12/1/02

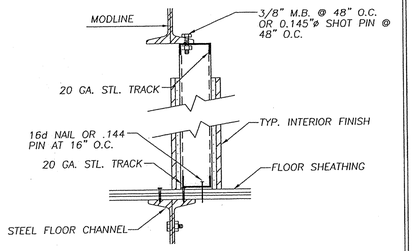
DRAWN BY JAG

SCALE AS NOTED

APPROVED

REVISIONS

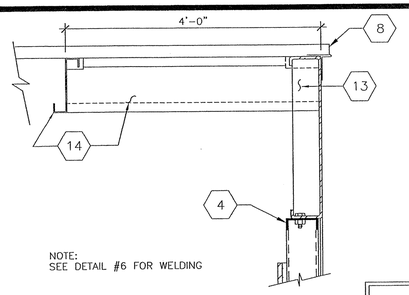
SHEET NO.
S-41



INT. WALL ATTACH @ MOD-LINE

SCALE: 1 1/2" = 1-0"

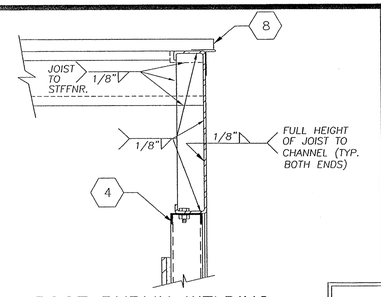
16



MIDSPAN BLKG. @ ENDWALL

SCALE: 1 1/2" = 1-0"

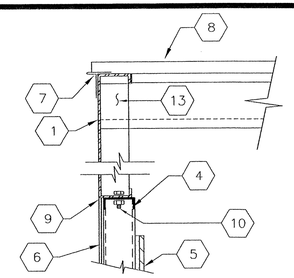
11



ROOF PURLIN WELDING

SCALE: 1 1/2" = 1-0"

6



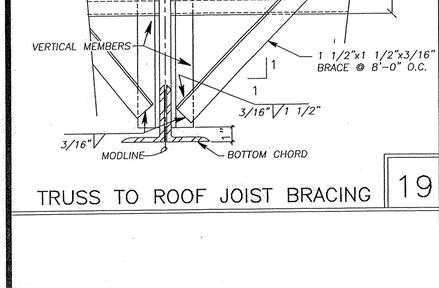
ROOF @ SIDEWALL

SCALE: 1 1/2" = 1-0"

1

KEYNOTES

1. 10 GA. CHANNEL @ ROOF SIDEWALL
   DUAL SLOPE OPTION: 18/23/18x3 1/2x10 GA.
   SINGLE SLOPE OPTION: 18/28/18x3 1/2x10 GA.
2. 12 GA. CHANNEL @ ROOF HEADER
   DUAL SLOPE OPTION: 18"x3 1/2"x12 GA.
   SINGLE SLOPE OPTION: 18/28x3 1/2x12 GA.
3. OVERHANG @ ENDWALL, SEE ROOF PLAN FOR SIZE AND SHT. G-2 FOR OVERHANG MATERIAL
4. 20 GA. STL. TRACK CONT. TOP PLATE- ATTACH TO CHANNEL W/ 0.145ø SHOT PIN AT 18" O.C. OR 3/8" BOLT AT 24" O.C. MIN.
5. INTERIOR FINISH - SEE SHEET G-2
6. TYP. EXTERIOR FINISH - SEE SHEET G-2
7. 26 GA. FLASHING
8. STEEL ROOF DECK - 22 GA. ROLL FORMED STANDING SEAM ROOF DECK. SEE DETAIL #9 ROOF PANEL SECTION. SEE DETAILS #5 AND #10 FOR ATTACHMENT SPECIFICATIONS.
9. PAINTABLE ACRYLIC LATEX SEALANT (U.N.O.)
10. 1/2ø" MACHINE BOLT W/ WASHER @ 24" OC MIN. OR 0.145ø SHOT PIN AT 18" O.C.
11. WELD WASHER - 1-3/8"x 3/32" WITH 9/16" HOLE. WELD TO UPPER CHANNEL FLANGE.
12. 5/8" MACHINE BOLT AT 8'-0" O.C. @ MODULE CONNECTION.
13. 1/4" FULL HEIGHT STIFFENER @ 4'-0" O.C.
14. 6"x 14 GA. ROOF JOIST OR BLKG.



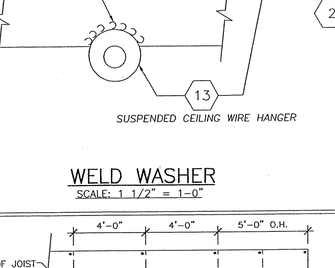
SOFFIT VENTILATION REQUIREMENT PER 12' WIDE MODULE
2'-0" OVERHANG = 24 SQ. IN. MIN.

NOTE:
THE NET FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE TO BE VENTILATED

OPTIONAL 2' OVERHANG

SCALE: 1 1/2" = 1-0"

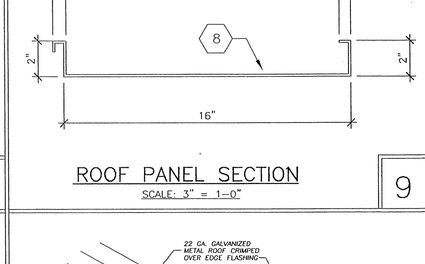
17



CORNER @ OVERHANG

SCALE: 3" = 1-0"

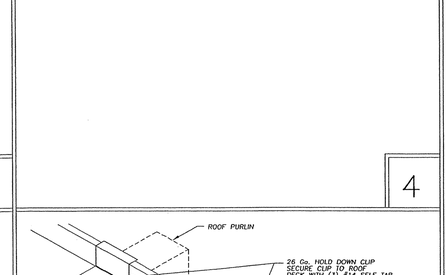
12



OVERHANG CONN. DETAIL

SCALE: N.T.S.

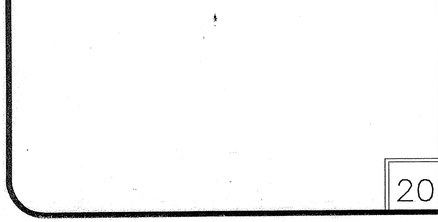
7



ROOF @ ENDWALL

SCALE: 1 1/2" = 1-0"

2



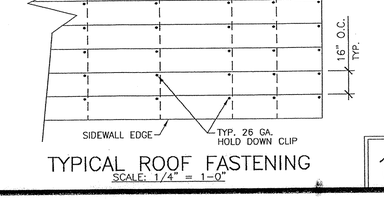
SOFFIT VENTILATION REQUIREMENT PER 12' WIDE MODULE
5'-0" OVERHANG = 58 SQ. IN. MIN.

NOTE:
THE NET FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE TO BE VENTILATED

OPTIONAL 5' OVERHANG

SCALE: 1 1/2" = 1-0"

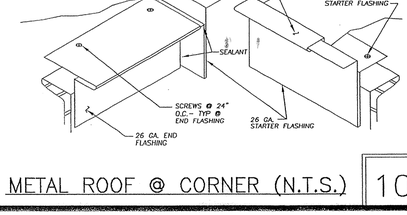
18



OPTIONAL GUTTER

SCALE: 3" = 1-0"

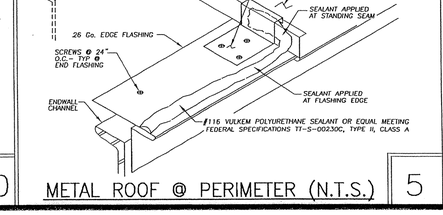
13



FASCIA @ GUTTER

SCALE: 3" = 1-0"

8

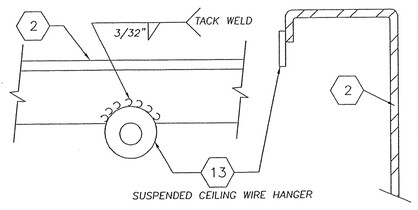


MOD. CONN. AT ROOF N.T.S.

3

TRUSS TO ROOF JOIST BRACING

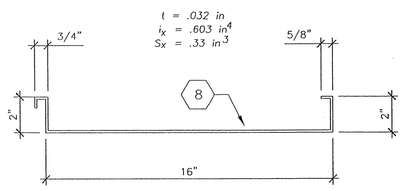
19



WELD WASHER

SCALE: 1 1/2" = 1-0"

14



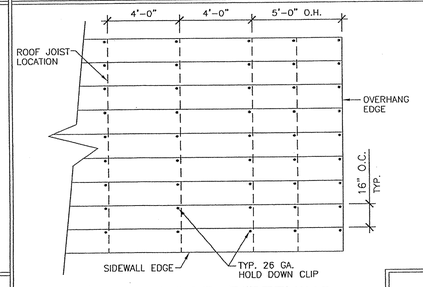
ROOF PANEL SECTION

SCALE: 3" = 1-0"

9

4

20



TYPICAL ROOF FASTENING

SCALE: 1/4" = 1-0"

15

METAL ROOF @ CORNER (N.T.S.)

10

METAL ROOF @ PERIMETER (N.T.S.)

5

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: ROOF FRAMING DETAILS W/ METAL DECK

WIND LOAD: 80 & 90 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

JOB #

DATE 12/1/02

DRAWN BY JAG

SCALE AS NOTED

APPROVED

REVISIONS

SHEET NO. S-51

ARCHITECT STAMP

DATE SIGNED JUL 15 2003

DATE SIGNED MAY 21 2003

LICENSE EXPIRES 6-30-2004

STRUCTURAL ENGINEER STAMP

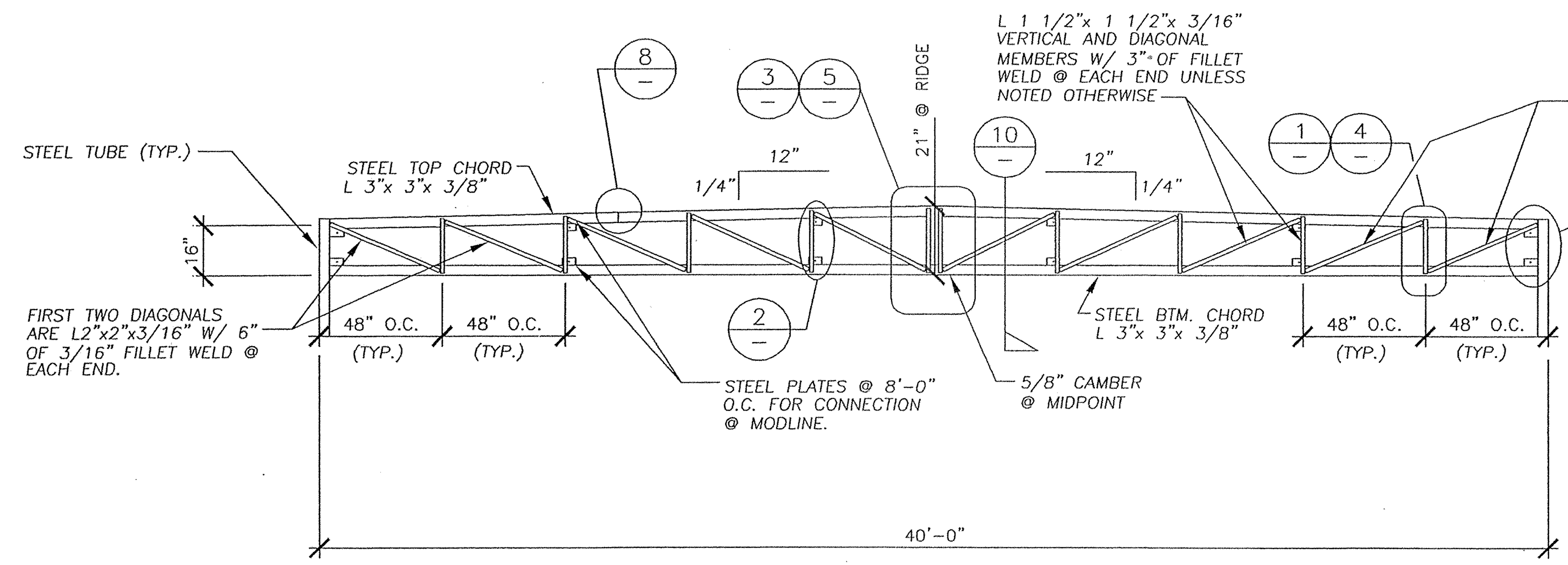
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 105453 AC LS SS DATE JUL 17 03

STATE AGENCY STAMP

RECEIVED JUL 24 2003 WESTERN DIVISION

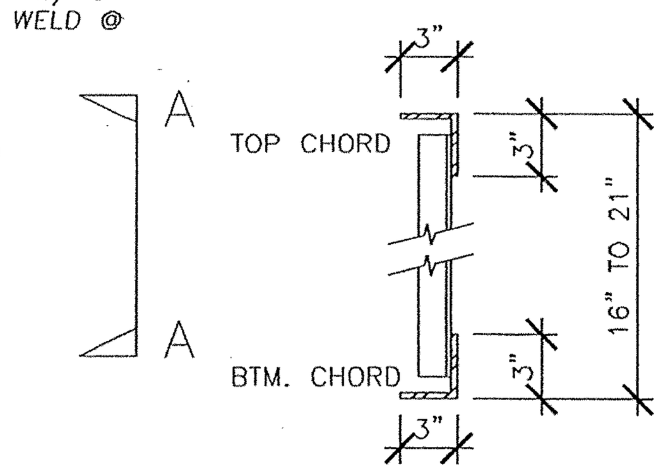
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 4-104778 AC LS SS KB DATE: 6-30-03

STATE AGENCY STAMP



DUAL SLOPE STEEL TRUSS ELEVATION W/ 20 PSF ROOF LOAD & 80 MPH WIND

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



VIEW A–A

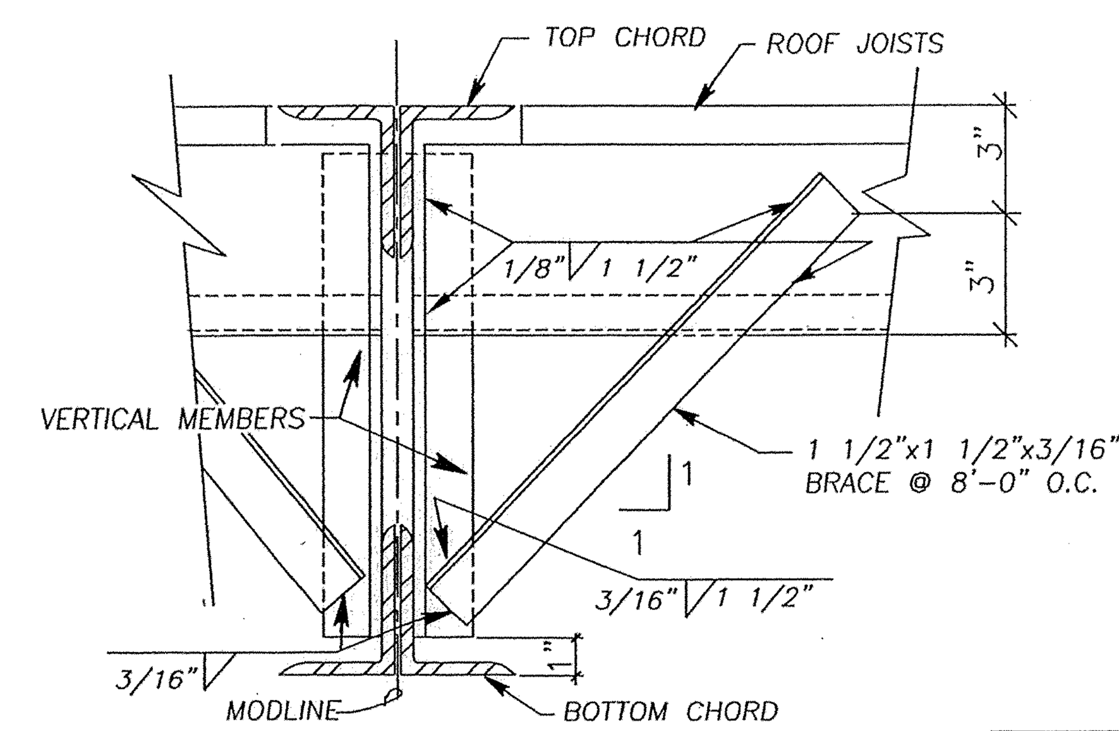
SCALE: 1" = 1'-0"

NOTES:

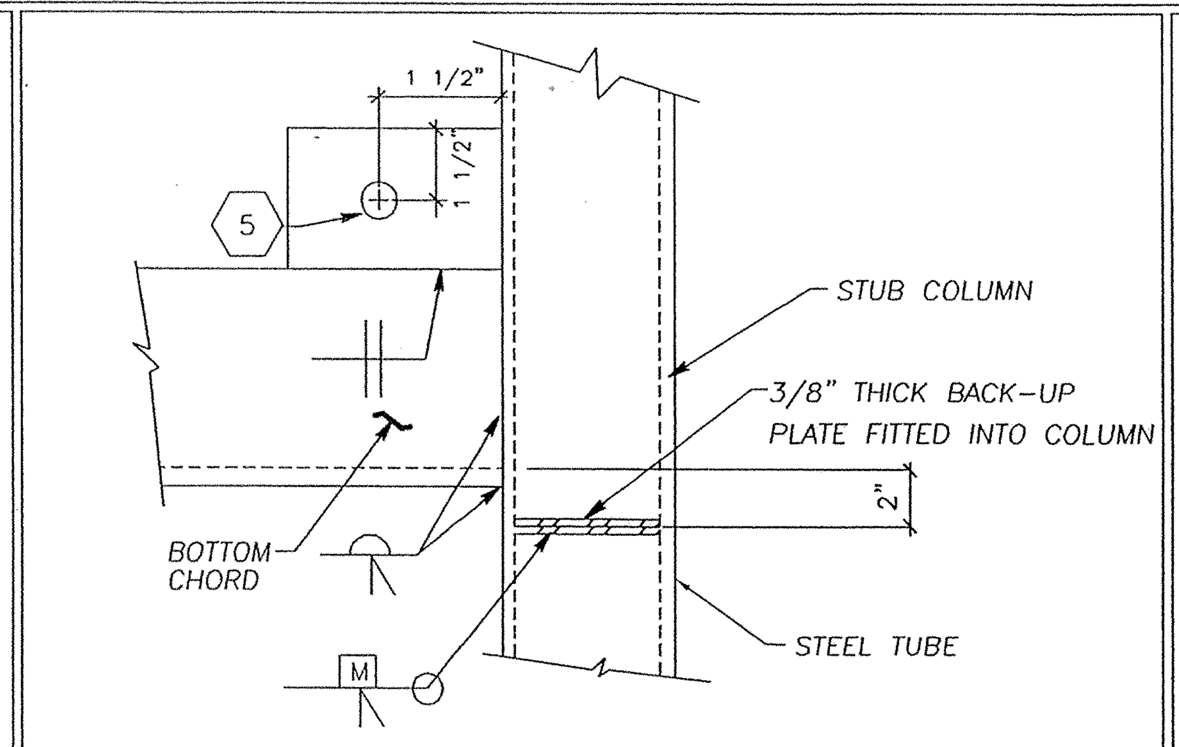
1. ALL STEEL GRADES TO BE A-36 OR EQ. WITH 36 K.S.I. MIN. YEILD
2. REQUIRED ELECTRODES FOR ALL WELDS TO BE E-70-XX OR EQ.
3. VOLTAGE & AMPERAGE SHALL BE PER ELECTRODE MANUFACTURERS SPECIFICATIONS.
4. BOLTS & NUTS TO BE A307.
5. 3/8"x3"x5 1/2" PLATE WITH 11/16" HOLE FOR 5/8" MACHINE BOLT. PLATES @ 8'-0" O.C. FOR MODULE CONNECTION. SEE DETAIL #2A.

RECEIVED JUL 2 4 2003 WESTERN DIVISION

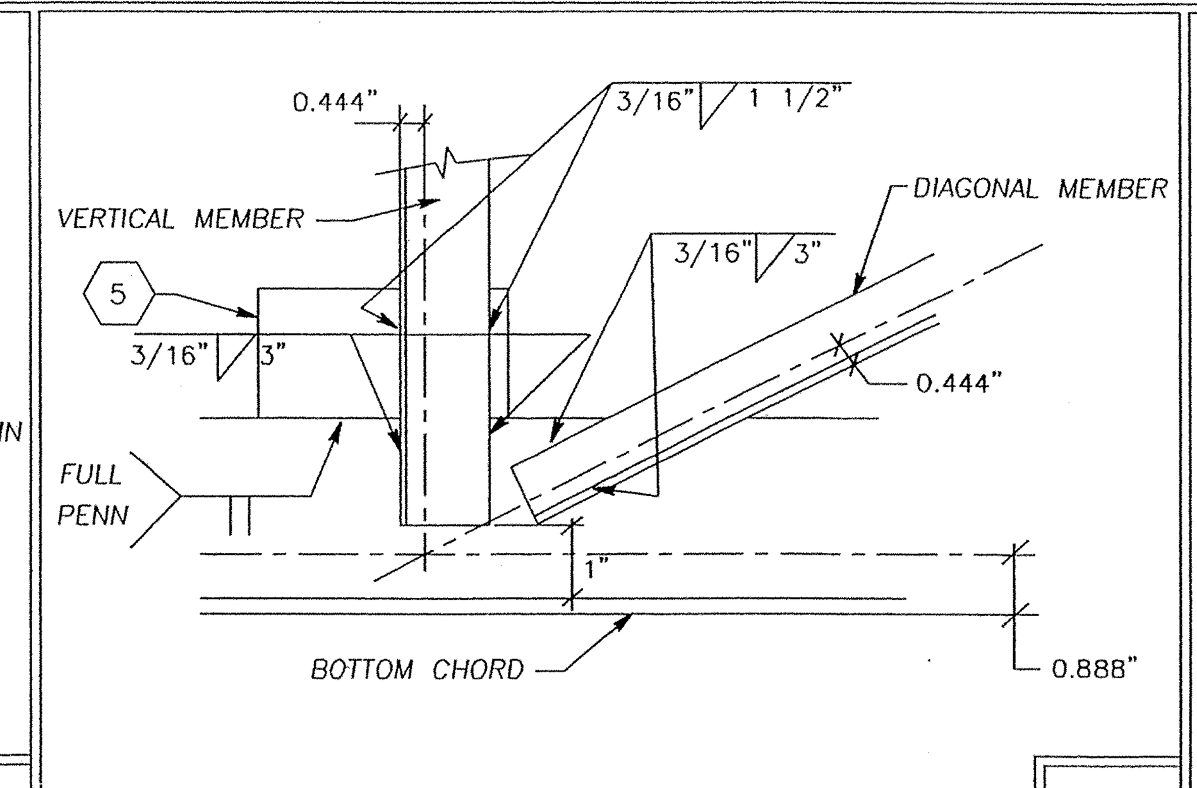
DATE SIGNED JUL 15 2003



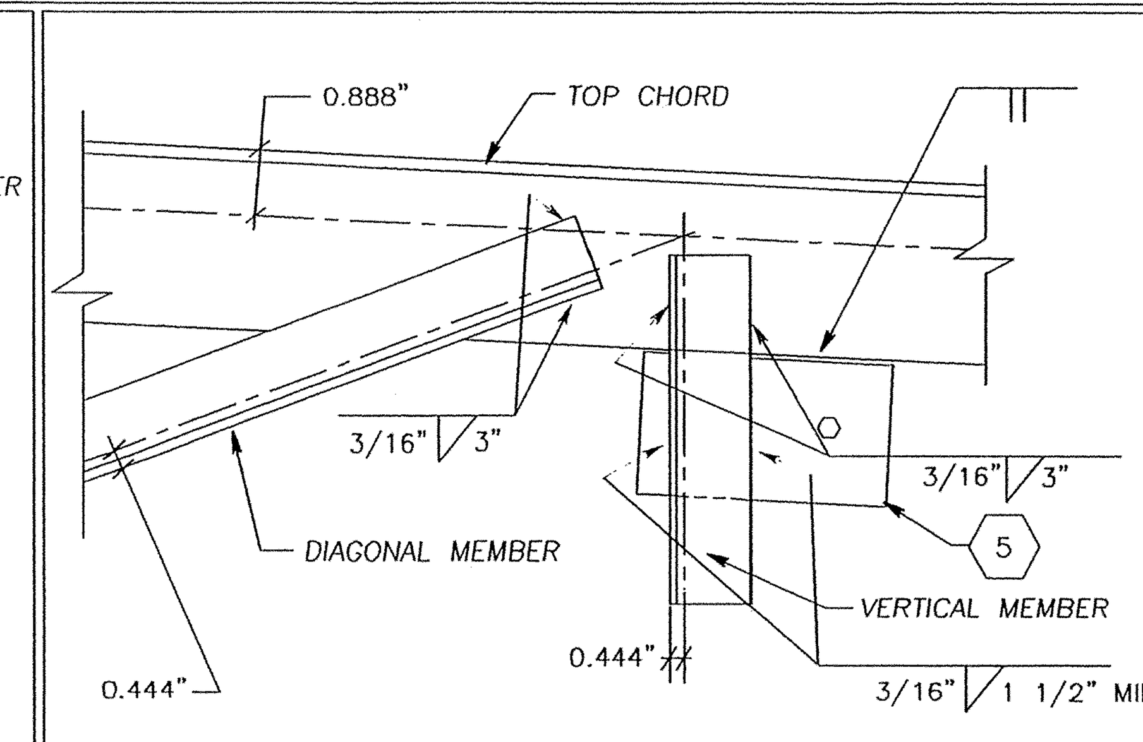
13 | TRUSS TO ROOF JOIST BRACING | 10



POST CONN. TO TRUSS (BOT.) | 7

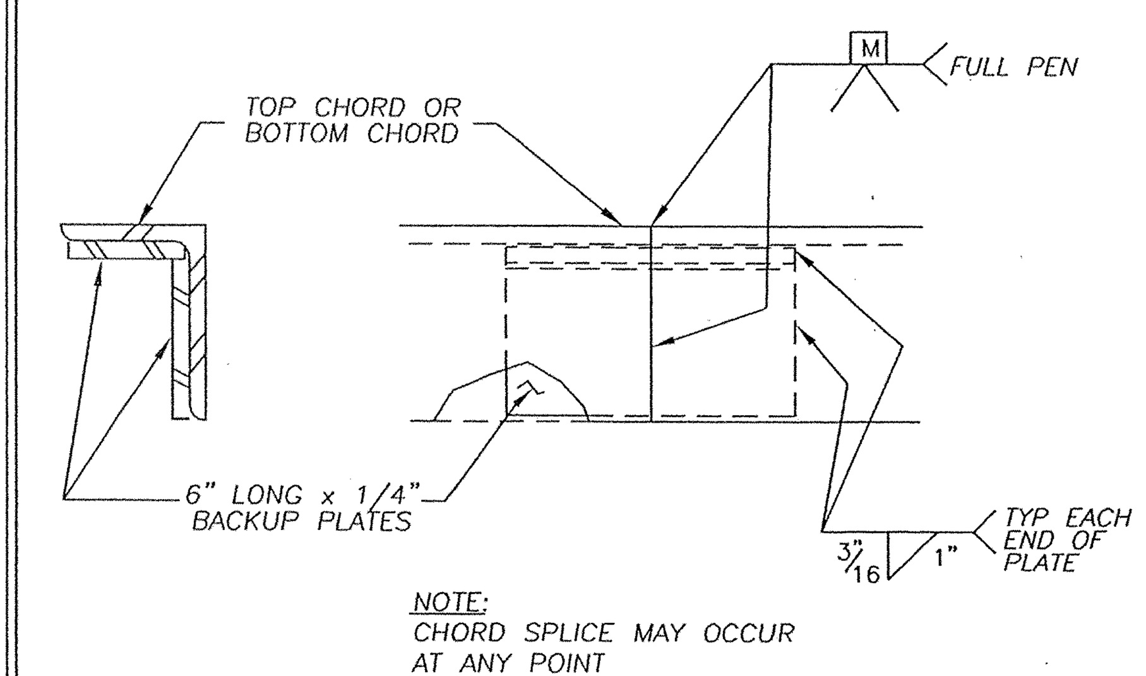


VERT. & DIAG. TO BTM CHORD | 4

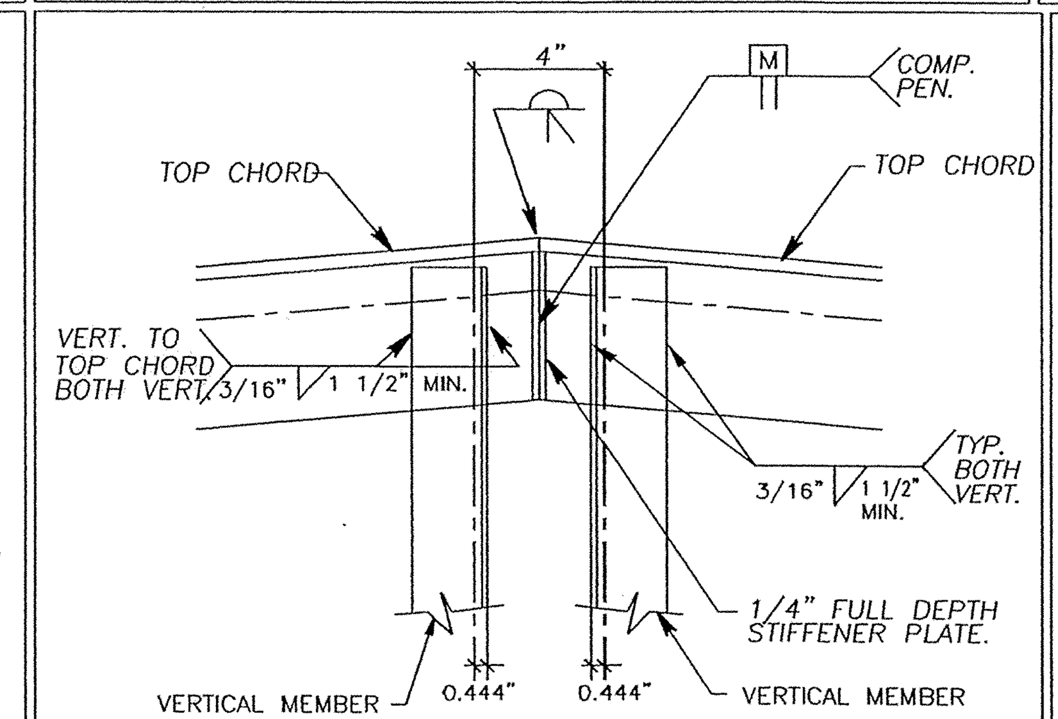


VERT. & DIAG. TOP CHORD | 1

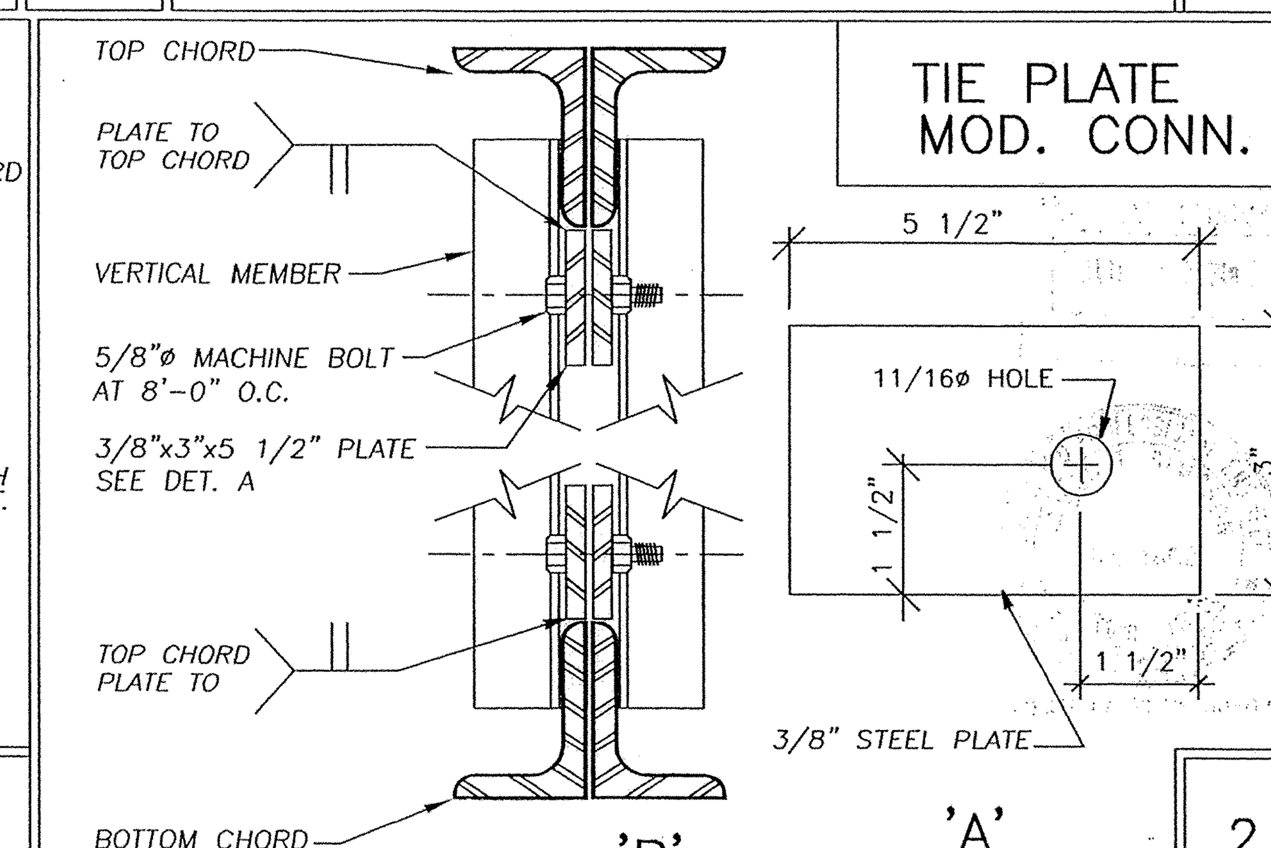
14 | 11



TRUSS CHORD SPLICE | 8

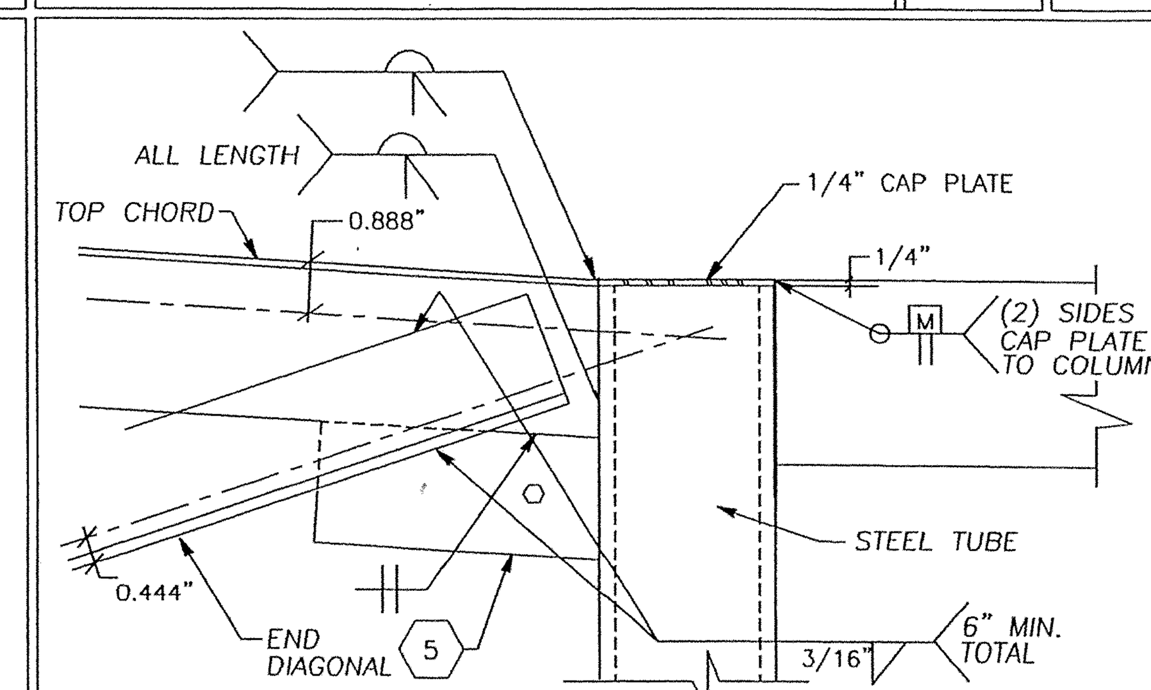


TOP CHORD @ MIDPOINT | 5

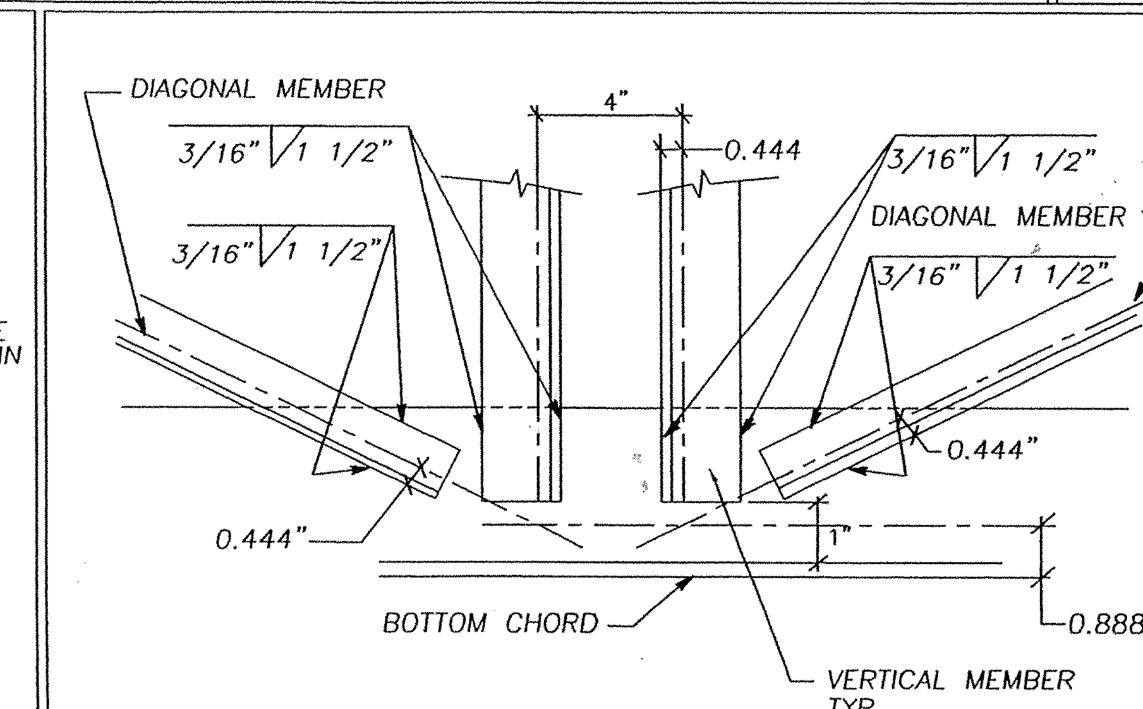


2

15 | 12 | 9



POST CONN. TO TRUSS (TOP) | 6



BOTTOM CHORD @ MIDSPAN | 3

ARCHITECT STAMP

DATE SIGNED MAY 2 1 2003

STRUCTURAL ENGINEER STAMP

STATE AGENCY STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 4-104778

STATE AGENCY STAMP

MSI MODULAR STRUCTURES INTERNATIONAL, INC. 920 CITRUS AVE. RIVERSIDE, CALIFORNIA. 92507 PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: DUAL SLOPE TRUSS & DETAILS

WIND LOAD: 80 MPH
ROOF LOAD: 20 PSF
FLOOR LOAD: 50, 50+20, 100 & 125 PSF

JOB #

DATE 12/1/02

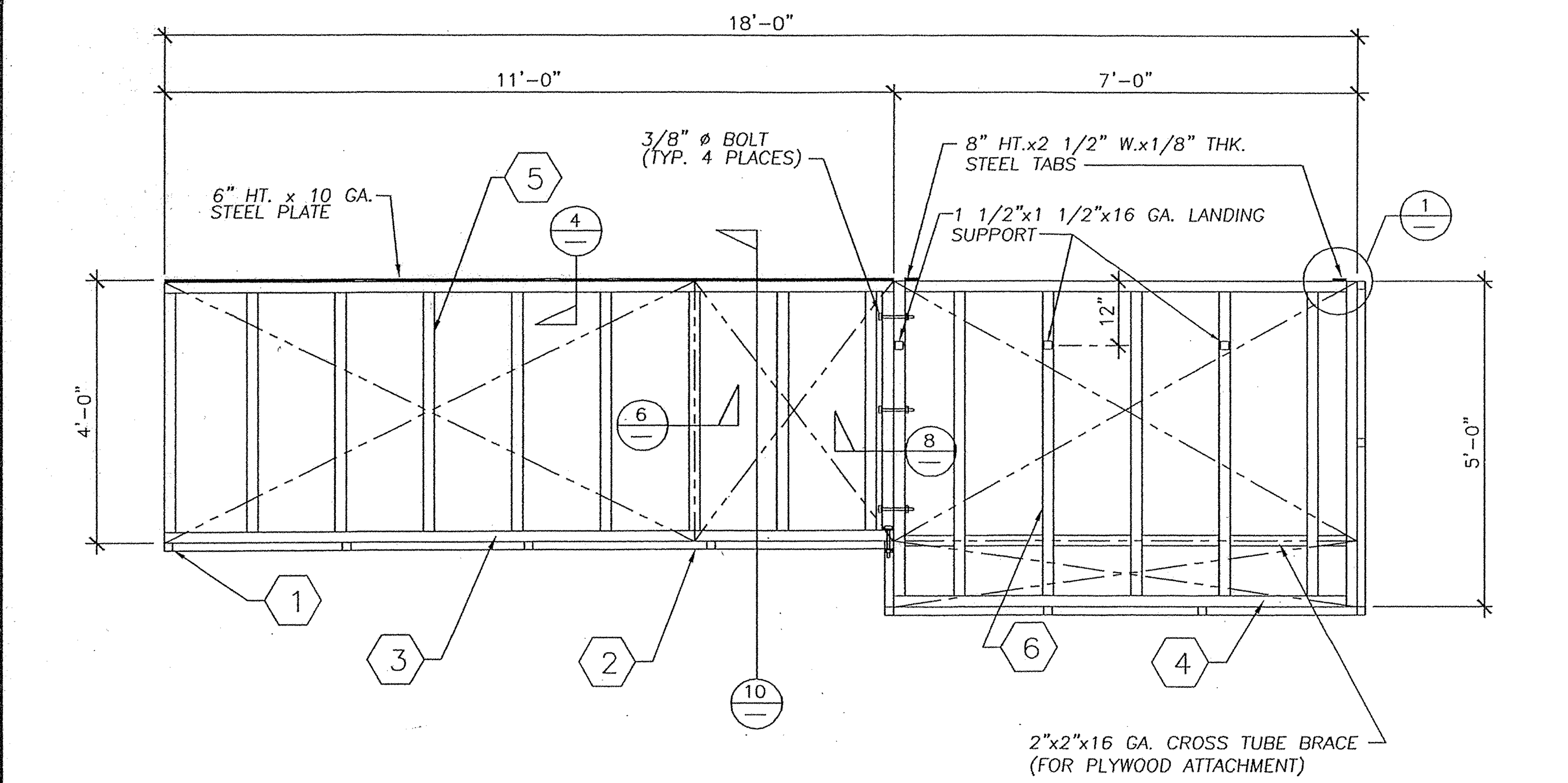
DRAWN BY JAG

SCALE AS NOTED

APPROVED

REVISIONS

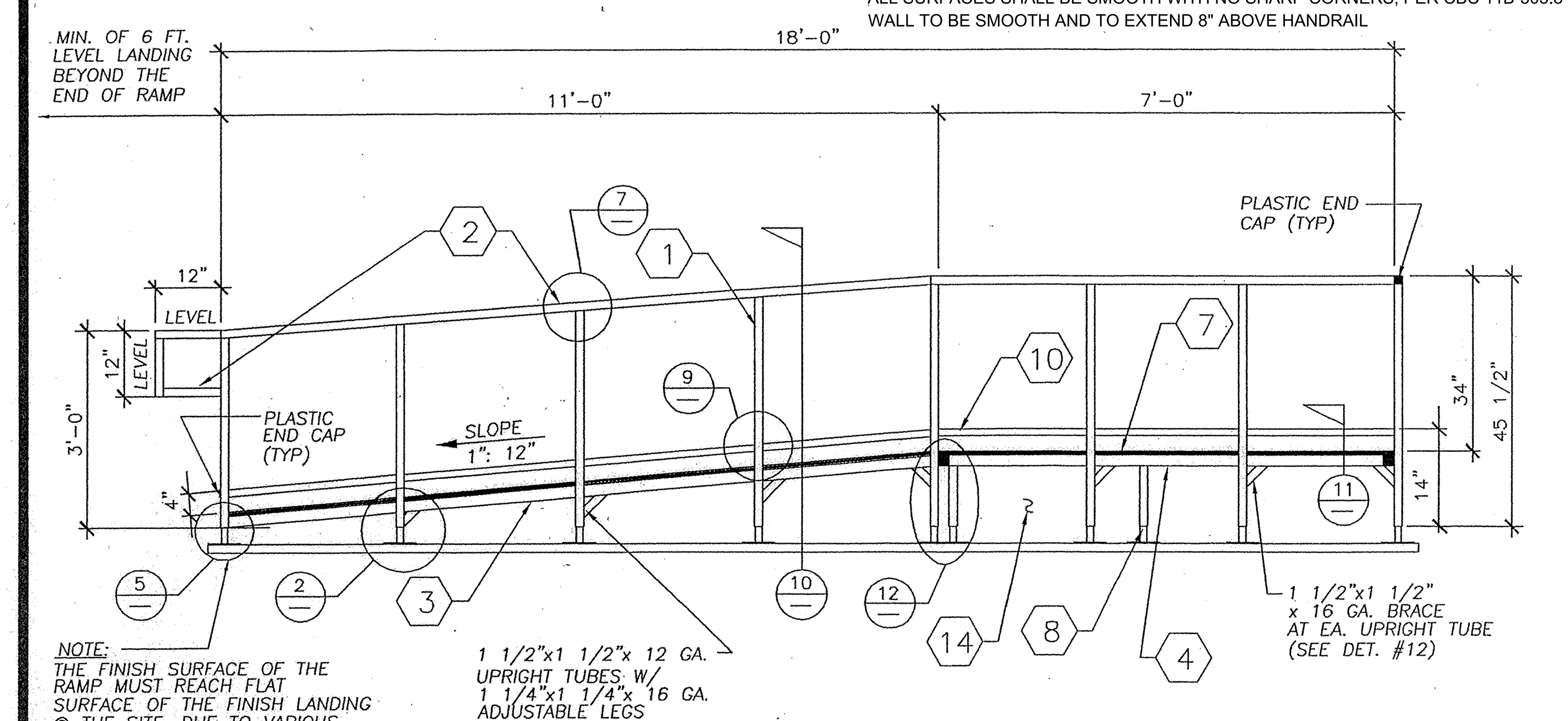
SHEET NO. S–60



FRAMING PLAN

SCALE: 1/2" = 1'-0"

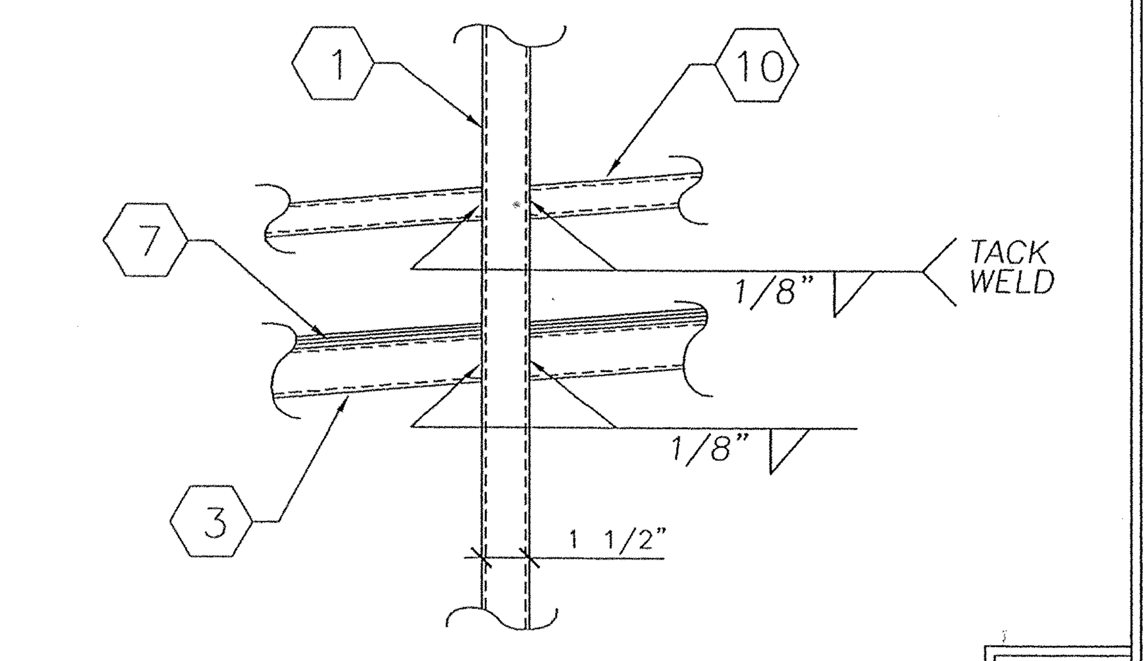
ALL SURFACES SHALL BE SMOOTH WITH NO SHARP CORNERS, PER CBC 11B-505.8 WALL TO BE SMOOTH AND TO EXTEND 8" ABOVE HANDRAIL



NOTE:
THE FINISH SURFACE OF THE RAMP MUST REACH FLAT SURFACE OF THE FINISH LANDING @ THE SITE. DUE TO VARIOUS SITE CONDITIONS THE PROJECT ARCHITECT MUST NOTIFY M.S.I. IF ADDITIONAL RAMP SECTIONS ARE REQUIRED. (SEE DETAIL #3 & #5)

FRONT ELEVATION

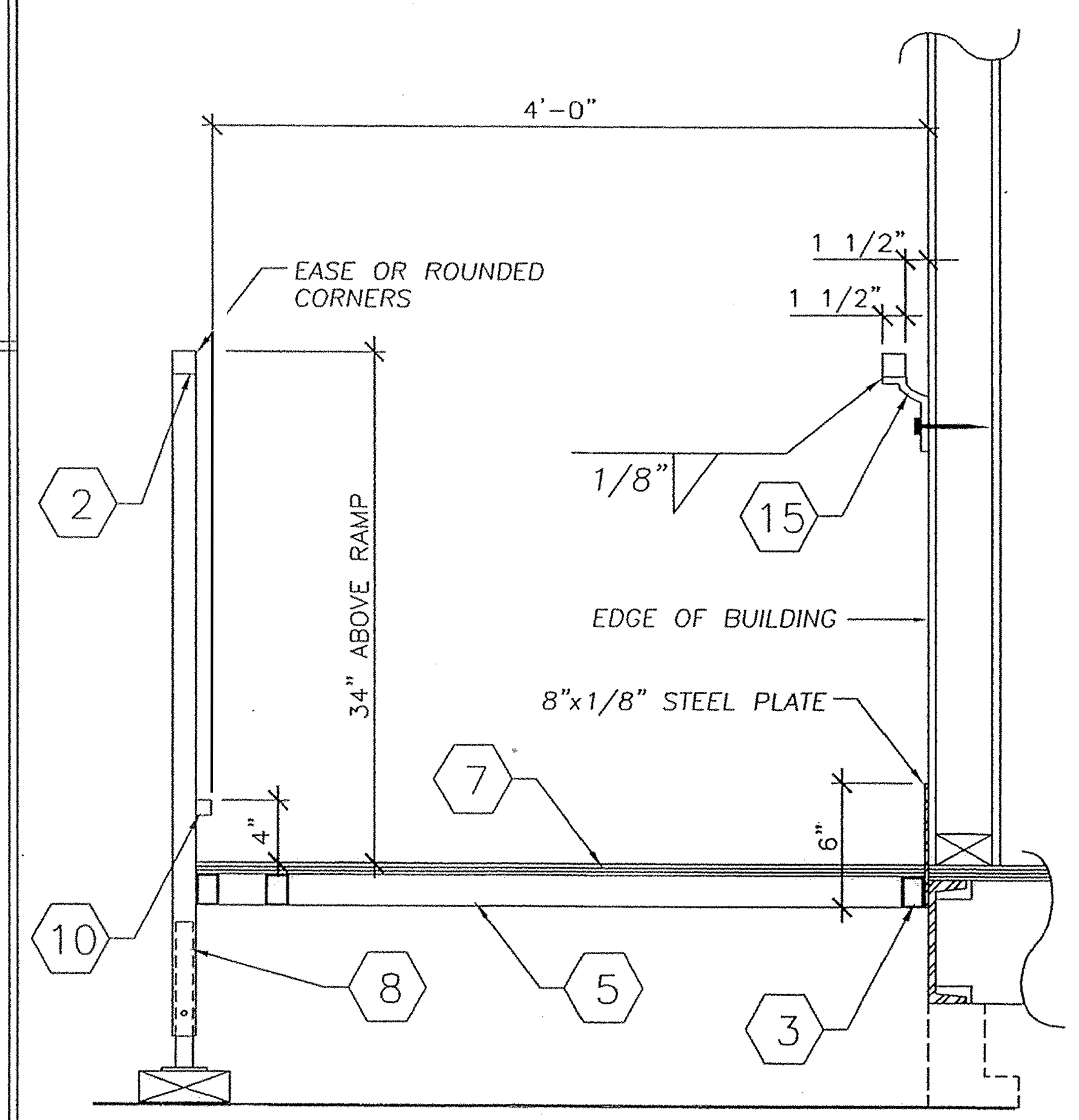
SCALE: 1/2" = 1'-0"



VERTICAL POST CONN. 9

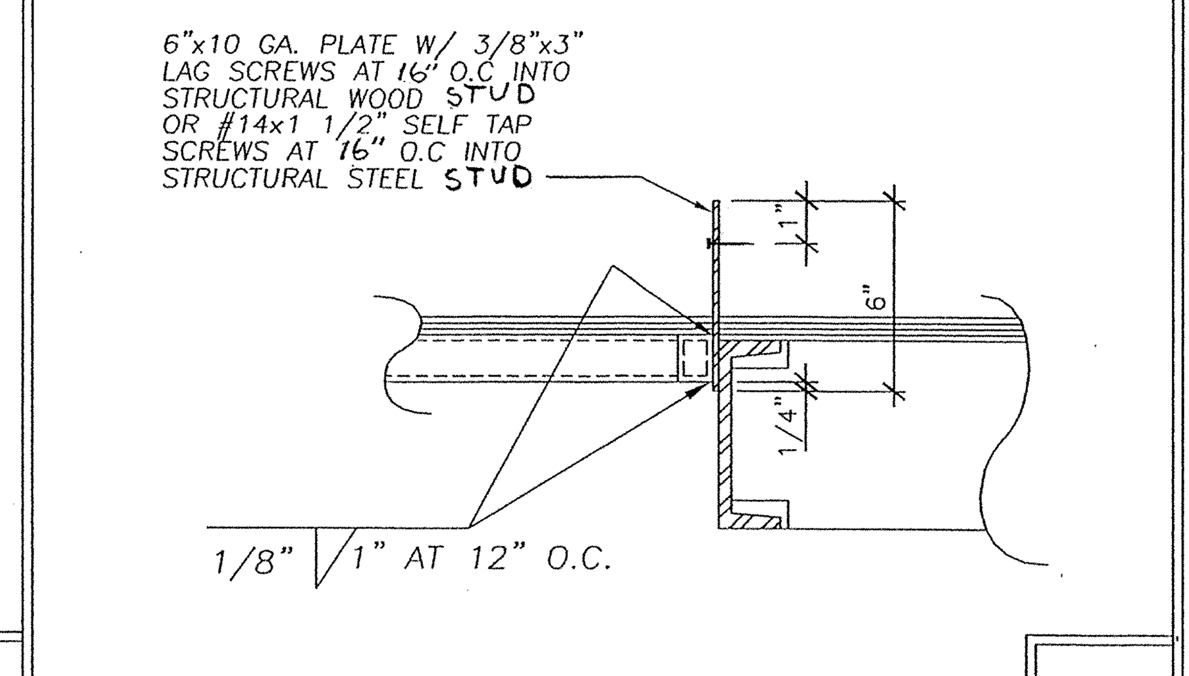
SCALE: 2"=1'-0"

ALL SURFACES SHALL BE SMOOTH WITH NO SHARP CORNERS, PER CBC 11B-505.8 WALL TO BE SMOOTH AND TO EXTEND 8" ABOVE HANDRAIL



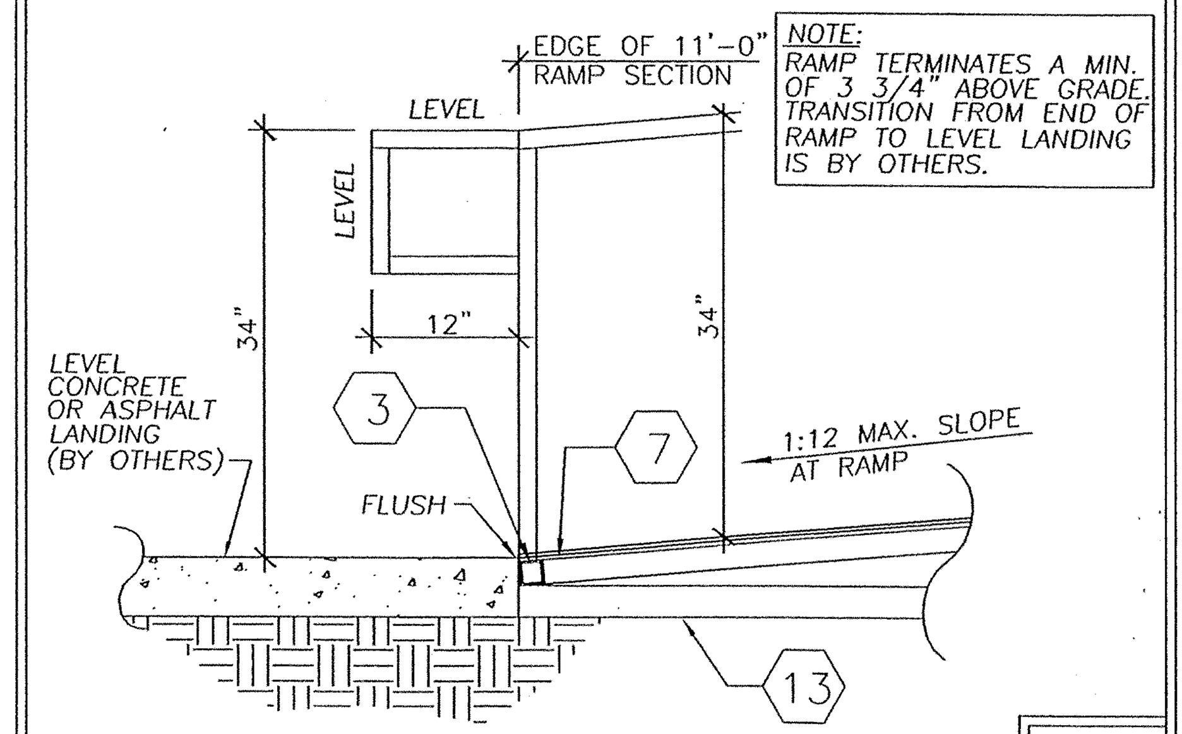
SECTION AT RAMP 10

SCALE: 1"=1'-0"



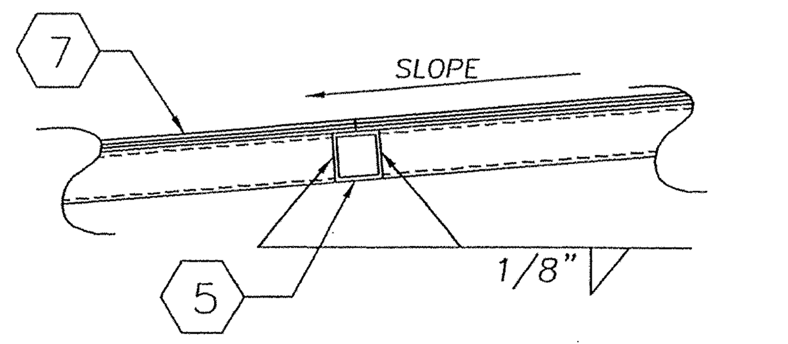
RAMP TO BUILDING 4

SCALE: 2"=1'-0"



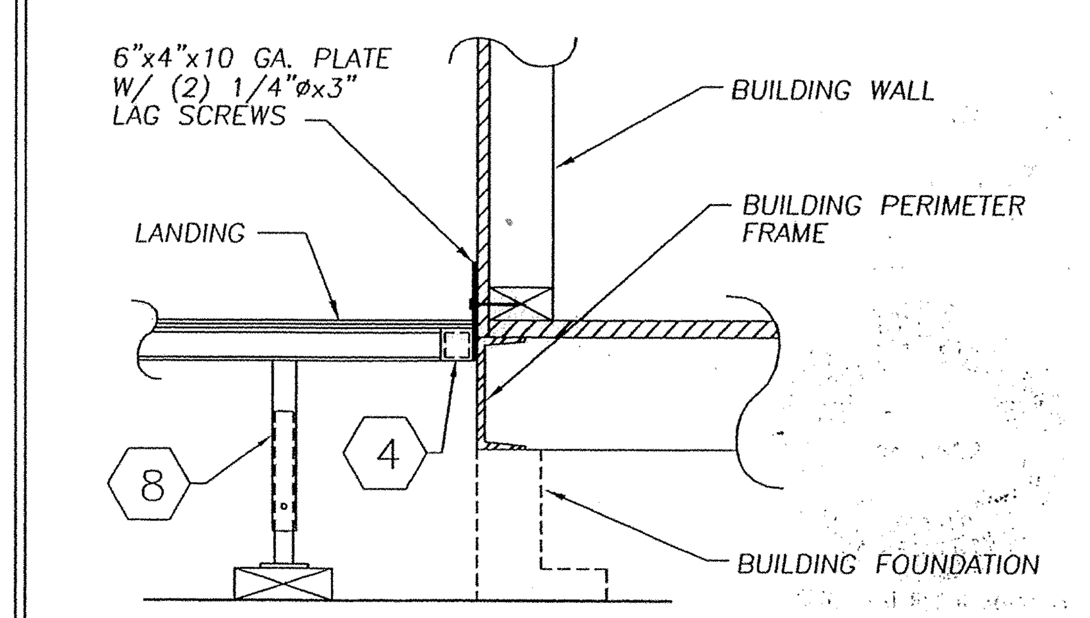
CONC. LANDING TO RAMP 5

SCALE: 3/4"=1'-0"



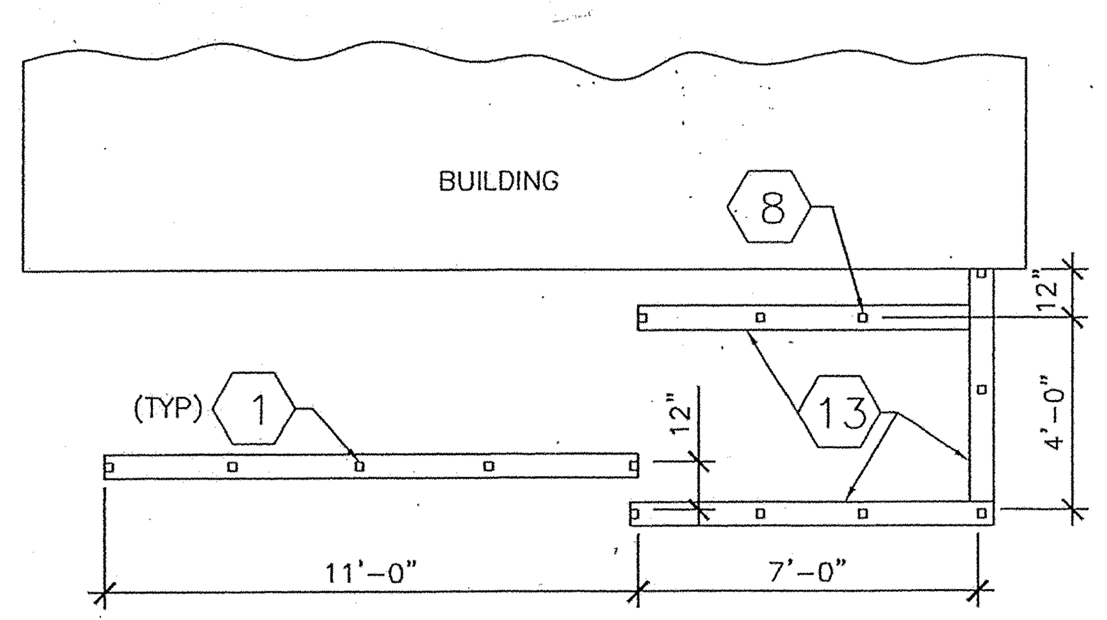
DECK & JOIST CONN. 6

SCALE: 2"=1'-0"



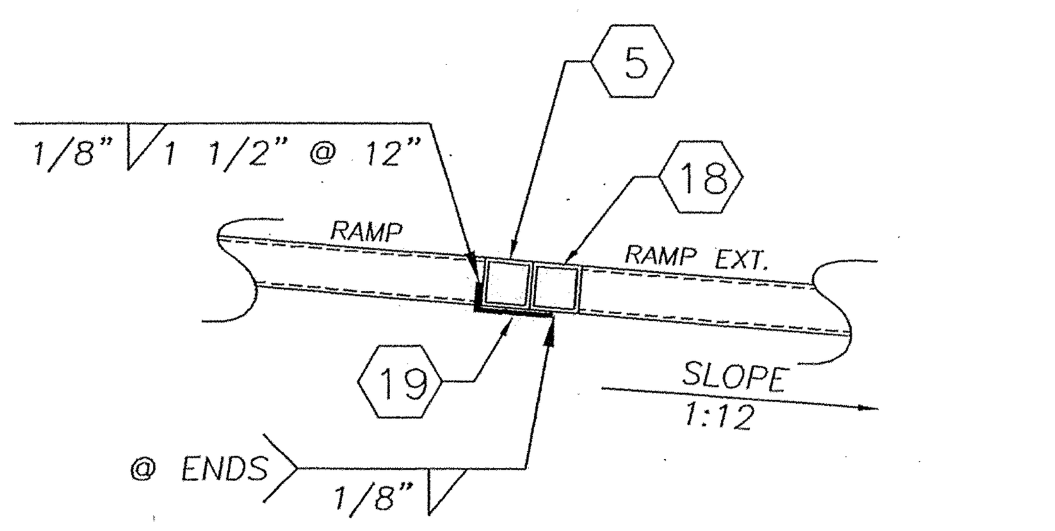
LANDING TO BUILDING 1

SCALE: 1"=1'-0"



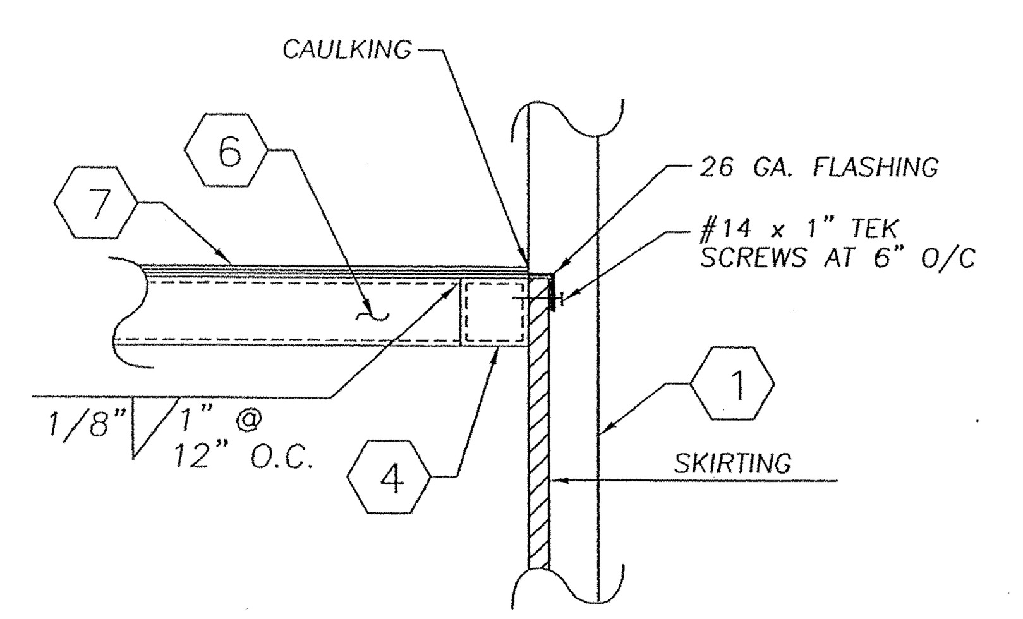
SILL PLATE @ RAMP & LANDING 15

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



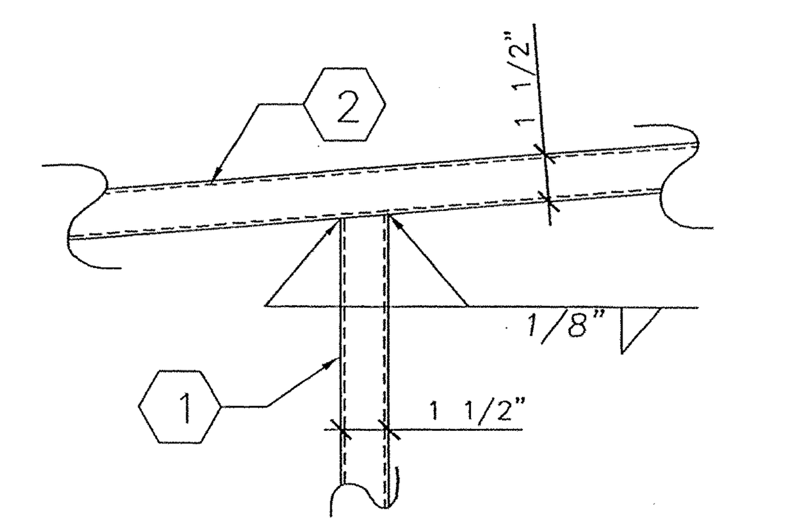
RAMP EXTENSION TO RAMP 13

SCALE: 2"=1'-0"



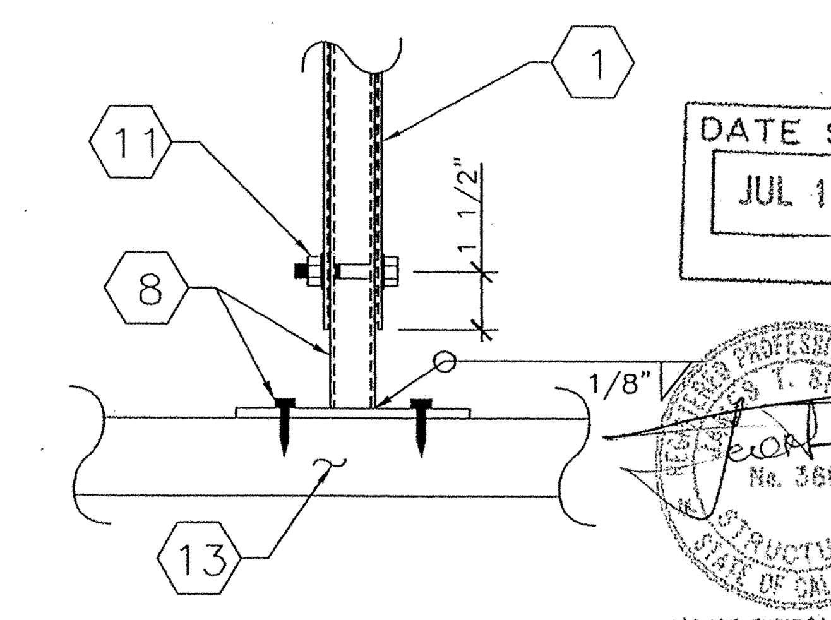
SKIRT FLASHING 11

SCALE: N.T.S.



POST TO HANDRAIL 7

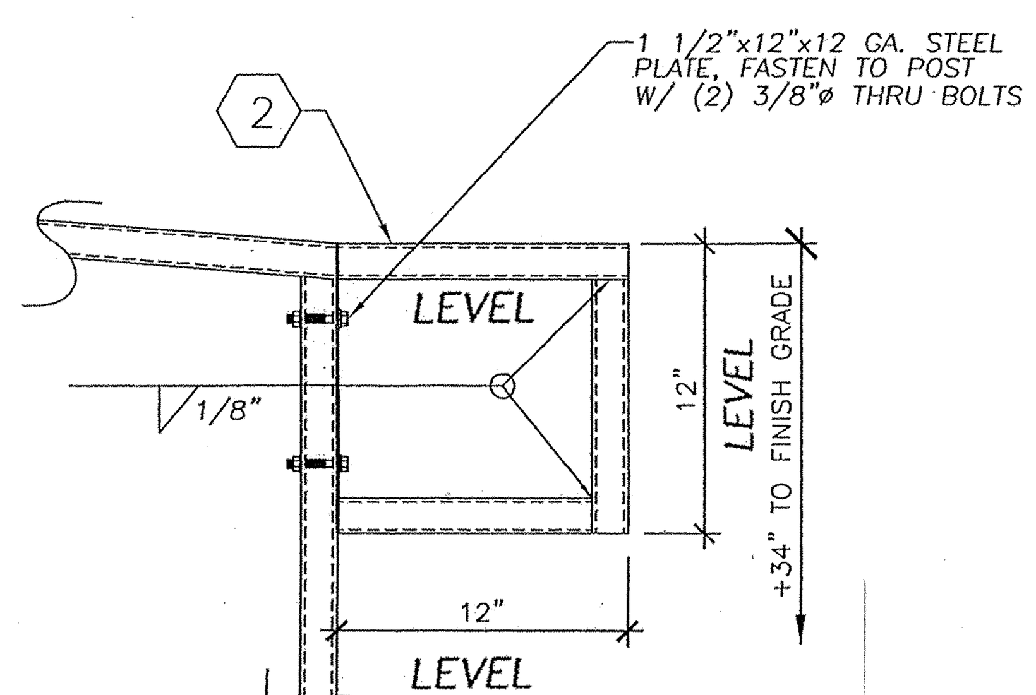
SCALE: 2"=1'-0"



BASE 2

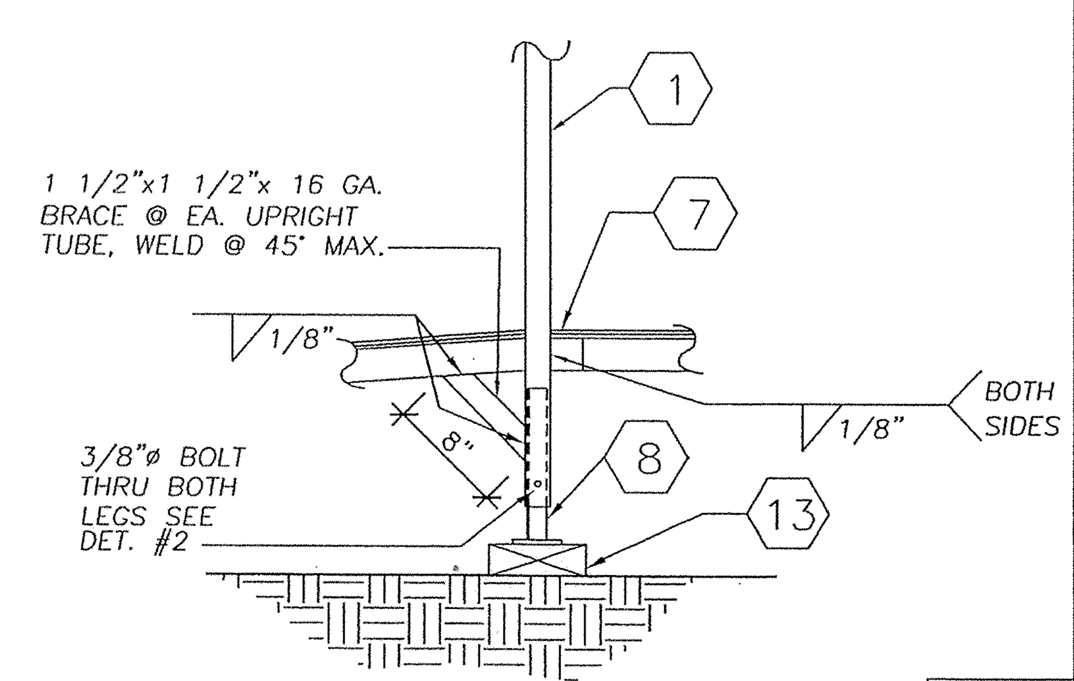
SCALE: N.T.S.

16



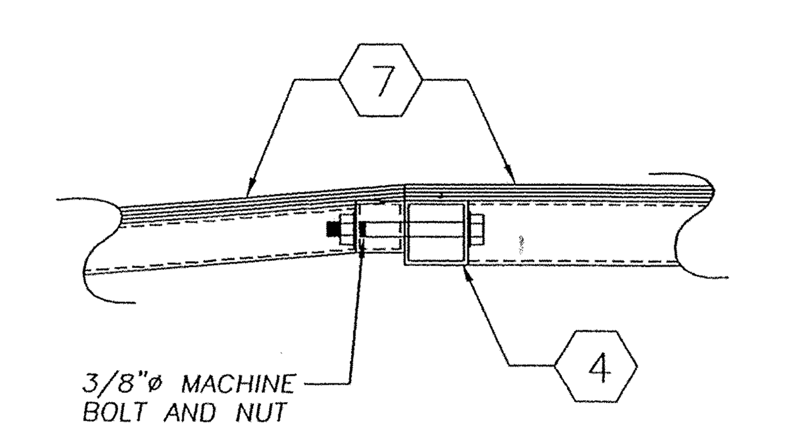
ALT. GUARD RAIL EXTENSION 14

SCALE: 1 1/2"=1'-0"



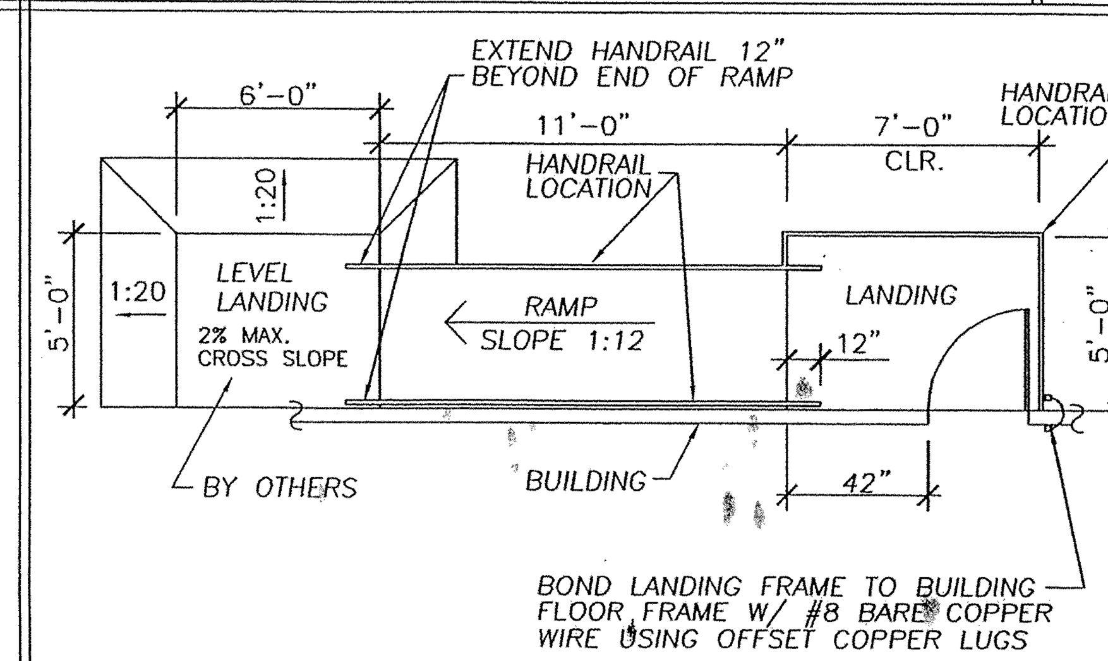
BASE LEG 12

SCALE: 1"=1'-0"



RAMP / LANDING TRANSITION 8

SCALE: 2"=1'-0"



BOND LANDING FRAME TO BUILDING FLOOR FRAME W/ #8 BARE COPPER WIRE USING OFFSET COPPER LUGS

HANDRAIL LOCATIONS 3

SCALE: N.T.S.

KEY NOTES

1. UPRIGHT TUBE – 1 1/2" x 2 1/2" x 12 GA. SQ. TUBE. (Fy = 39 KSI)
2. HANDRAIL TUBE – 1 1/2" x 1 1/2" x 16 GA. SQ. TUBE. (Fy = 39 KSI)
3. RAMP PERIMETER TUBE – 1 1/2" x 1 1/2" x 16 GA. SQ. TUBE
4. LANDING PERIMETER TUBE – 2" x 2" x 16 GA. SQ. TUBE
5. RAMP CROSS TUBE – 1 1/2" x 1 1/2" x 16 GA. SQ. TUBE (@ 16" O.C.)
6. LANDING CROSS TUBE – 2" x 2" x 16 GA. SQ. TUBE
7. 12 GA. METAL DECK: NON-SLIP SURFACE. DESIGN COEFFICIENT OF FRICTION GREATER THAN 0.7. MAINTAINABLE FOR 1 YR. ALTERNATE PLYWOOD DECKING: USE 3/4" EXTERIOR GRADE PLYWOOD DECKING W/ 24" O.C. SPAN RATING. (ATTACH METAL W/ TACK WELD @ 12" O.C. @ PERIMETER, ATACH PLYWOOD DECK W/ #12 SELF TAP SCREWS @ 12" O.C. @ PERIMETER.
8. ADJUSTABLE LEGS – 1 1/4" x 1 1/4" 16 GA. SQ. TUBE W/ 3"x6"x1/4" THK. BASE PLATE WELDED TO LEG BASE PLATE TO HAVE (2) 5/16" HOLES FOR 1/4" LAG BOLTS.
9. SUPPORT PLATE – 1 1/4" x 1/8" THICK PLATE
10. WHEELCHAIR RAIL – 1" x 1" SQ. TUBE TACK WELDED TO UPRIGHT MEMBERS.
11. 3/8" DIA. MACHINE BOLTS.
12. 6"X10"X10GA. PLATE W/ (2) 1/4"øX3" LAG SCREWS.
13. CONT. SILL PLATE 2x6 P.T.H.F. SEE DET. #15 FOR LAYOUT.
14. WOOD SKIRTING ROUGH SAWN T-1-11 UNGROOVED
15. HANDRAIL MOUNTING BRACKET W/ 3/8"ø x 4" LAG BOLT TO STUD. BRACKET OCCURS @ (3) PLACES, (1) @ EACH END AND (1) @ MIDSPAN OF HANDRAIL.
16. DRIVE 1" DIA. x 15" G.I. PIPE AT 10'-0" MAX. DRILL SILL PLATE 1 1/2" DIA. MAX. HOLE. PIPE MAY BE DRIVEN AT A MAX. OF 45° ANGLE W/ VERTICAL.
17. THE STRENGTH OF STEEL TUBES IS 46000 PSI OR HIGHER.
18. RAMP EXTENSION FRAME.
19. 3"x1"x3'-0"x10 GA. BENT PLATE.

RECEIVED JUL 24 2003 WESTERN DIVISION

ARCHITECT STAMP

DATE SIGNED MAY 21 2003

DATE SIGNED JUL 15 2003

LICENSE EXPIRES 5-30-2004

STRUCTURAL ENGINEER STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 105459

STATE AGENCY STAMP

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 4-104778 DATE 5-30-03

STATE AGENCY STAMP

MSI
MODULAR STRUCTURES INTERNATIONAL, INC.
920 CITRUS AVE. RIVERSIDE, CALIFORNIA. 92507
PHONE: (909) 788-3035 FAX: (909) 788-1523

PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: 4'-0" WIDE RAMP PLAN & DETAILS

WIND LOAD: 80 & 90 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 100 PSF

JOB #

DATE 12-1-02

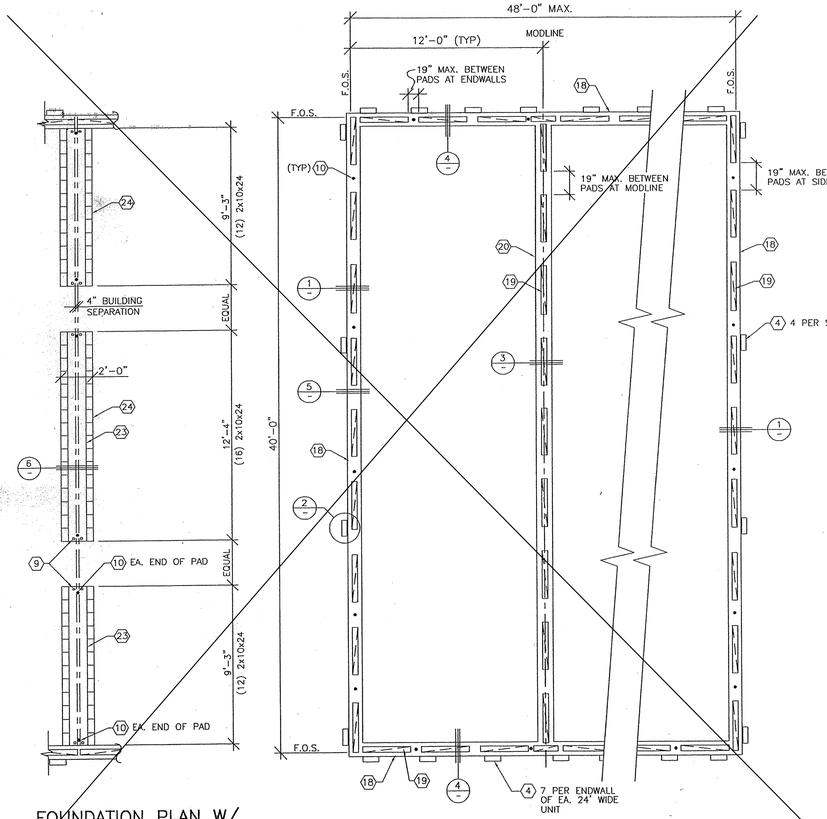
DRAWN BY JAG

SCALE AS NOTED

APPROVED

REVISIONS

SHEET NO. R-1

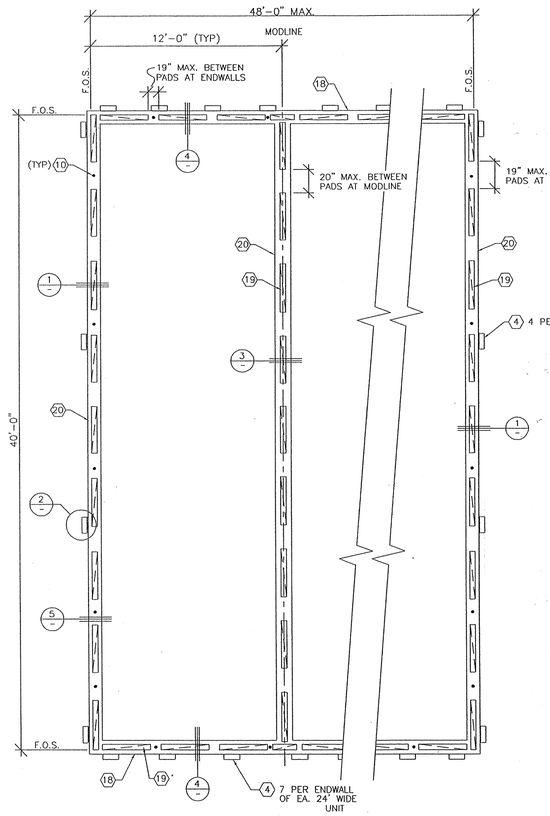


FOUNDATION PLAN W/ ADJACENT BUILDING

50+20 PSF FLOOR LIVE LOAD
20 PSF ROOF LOAD

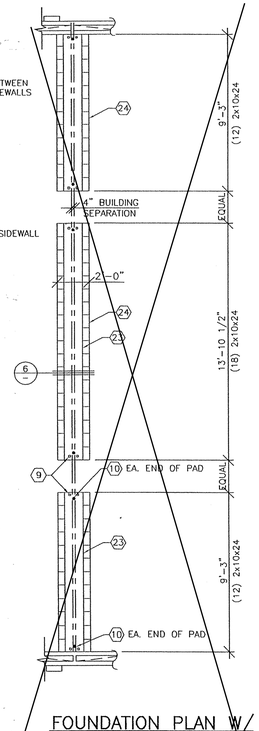
MULTI-WIDE FOUNDATION PLAN (N.T.S.)

50 P.S.F. FLOOR LIVE LOAD + 20 PSF PARTITION LOAD
20 PSF ROOF LOAD



MULTI-WIDE FOUNDATION PLAN (N.T.S.)

50 P.S.F. FLOOR LIVE LOAD + 20 PSF PARTITION LOAD
30 PSF ROOF LOAD



FOUNDATION PLAN W/ ADJACENT BUILDING

50+20 PSF FLOOR LIVE LOAD
30 PSF ROOF LOAD

KEYNOTES

1. MAXIMUM SOIL BEARING PRESSURE – 1000 PSF.
2. ALL FOUNDATION LUMBER SHALL BE H.F. #2
   ALL LUMBER IN CONTACT WITH GRADE SHALL BE STAMPED "FOR GROUND CONTACT"
   ALL FOUNDATION NAILS SHALL BE CORROSION RESISTANT PER U.B.C. 2304A.3
3. 2x4 CONTINUOUS. INTERNAIL TO EACH PAD WITH 16d BOX NAILS @ 5" O.C. STAGGERED.
4. TIE PLATE – 12"x6"x10 Ga. PLATE W/ (8) 5/16" HOLES AS SHOWN FOR (4) 1/4"x 3/4" LONG SELF TAP SCREWS INTO CHANNEL & (4) 1/4"x 3" LAG BOLTS INTO 2x MEMBER, (TYP).
5. 5/8" PLYWOOD PERIMETER SKIRTING. NAIL TO FOUNDATION PADS WITH 8d BOX NAILS @ 12" O.C. TOP AND BOTTOM.
6. NOT USED.
7. TAPERED SHIMS – NAIL TO FOUNDATION PADS WITH 16d BOX NAILS @ 12" O.C. NAIL 2X12 FOUNDATION PLATE TO TAPERED SHIMS WITH 16d BOX NAILS @ 12" O.C. STAGGERED ALONG EACH TAPERED SHIM. (PER SLOPE OF GROUND AT SITE)
8. PLYWOOD OR WOOD SHIM – MIN. 8" LONG, MAX. 16" BETWEEN SHIMS. NAIL TO PLATES WITH MIN. (3) 16d BOX NAILS PER SHIM MAX. 1-1/2" SHIM HEIGHT AT ANY LOCATION.
9. 11/16"ø HOLE IN FLOOR JOIST FOR 5/8" x 4" LAG BOLT (SEE SCHEDULE FOR AMOUNT)
10. DRIVE 1" DIA. X 15" G.I. PIPE @ 10'-0" O.C. MAX. DRILL SILL PLATE 1-1/4" MAX. PIPE MAY BE DRIVEN AT MAX. 45 ANGLE TO VERTICAL.
11. 7"x9.8# STEEL FLOOR CHANNEL.
12. NOT USED
13. 5/8" MACHINE BOLT @ 10'-0" O.C. FOR MODULE CONNECTION.
14. PLYWOOD FLOOR DECK W/ 0.145"ø EN @ 6" O.C.
15. NOT USED
16. NOT USED
17. NOT USED
18. CONTINUOUS 2x10 P.T.H.F. SILL PLATE. PLATE SPLICES SHALL OCCUR AT CENTER OF 2x6 BLOCK LOCATION AT CENTER OF 2x6 BLOCK LOCATION
19. 2x6x3'-0" LONG BLOCKS. NAIL BLOCKS TOGETHER WITH 16d BOX NAILS @ 4" O.C. AND (2) 16d NAILS AT EACH END
20. CONTINUOUS 2x12 P.T.H.F. SILL PLATE. PLATE SPLICES SHALL OCCUR AT CENTER OF 2x6 BLOCK LOCATIONS.
21. FLOOR JOIST OR BLOCK BETWEEN FLOOR JOIST.
23. CONTINUOUS 2x12x(SEE PLAN). NAIL (2) 16d AT EACH END AND 4" O.C.
24. 2x10x24" LONG SILL PADS. P.T.H.F. (SEE PLAN FOR QUANTITY)
25. CONTINUOUS 2X8 H.F. PLATE. PLATE SPLICES SHALL OCCUR AT CENTER OF 2x6 BLOCK LOCATIONS.

LAG SCHEDULE

BUILDING SIZE	FLOOR LOAD	LAG BOLTS AT EA. BUILDING
24'x40'	50 PSF	4
	~~50+20 PSF~~	~~4~~
	~~100 PSF~~	~~4~~
	~~125 PSF~~	~~6~~
36'x40'	50 PSF	6
	50+20 PSF	6
	100 PSF	6
	125 PSF	8
48'x40'	50 PSF	6
	50+20 PSF	6
	100 PSF	6
	125 PSF	10

FACE PLATE SCHEDULE–20 & 30 PSF ROOF

BUILDING SIZE	FLOOR LOAD	FACE PLATES AT SIDES	FACE PLATES AT ENDS
24'x40'	50 PSF	4	7
	~~50+20 PSF~~	~~4~~	~~7~~
	~~100 PSF~~	~~4~~	~~7~~
	~~125 PSF~~	~~8~~	~~8~~
36'x40'	50 PSF	6	8
	50+20 PSF	6	8
	100 PSF	6	8
	125 PSF	9	11
48'x40'	50 PSF	6	8
	50+20 PSF	6	8
	100 PSF	6	8
	125 PSF	14	14

NOTE:
THE FACE PLATES SHOWN ON THE FOUNDATION PLAN ARE FOR A 24'x40' W/ 50 PSF FLOOR LOAD. USE THE SCHEDULE ABOVE TO DETERMINE THE REQUIRED FACE PLATES FOR OTHER BUILDING SIZES AND FLOOR LOADS.

FOUNDATION VENTING

BLDG. SIZE	MIN. REQ.
24X40	6.4 SF
~~36X40~~	~~9.6 SF~~
~~48X40~~	~~12.8 SF~~

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PROJECT: MODULAR CLASSROOM BUILDING

TITLE & BLDG. DATA: WOOD PAD FOUNDATION PLAN & W/ PLYWOOD FLOOR
WIND LOAD: 80 MPH
ROOF LOAD: 20 & 30 PSF
FLOOR LOAD: 50+20 PSF

JOB #

DATE 12-1-02

DRAWN BY JJC.

SCALE 1/4"=1'-0"

APPROVED

REVISIONS

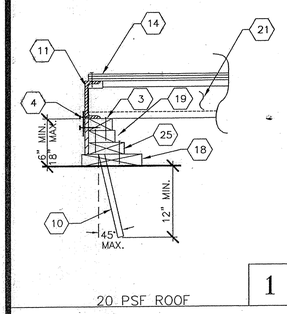
SHEET NO. F-1.1

ARCHITECT STAMP

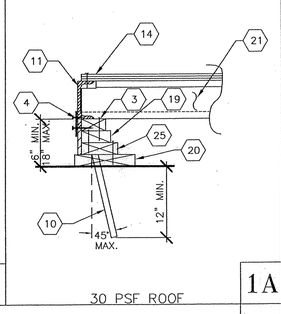
STRUCTURAL ENGINEER STAMP

STATE AGENCY STAMP

STATE AGENCY STAMP

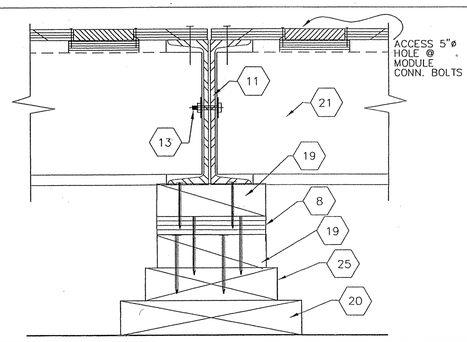


20 PSF ROOF 1

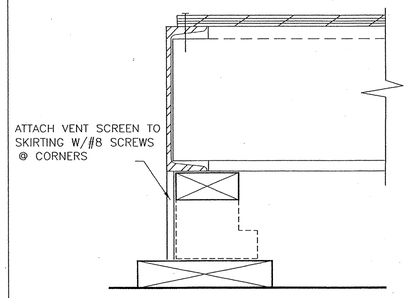


30 PSF ROOF 1A

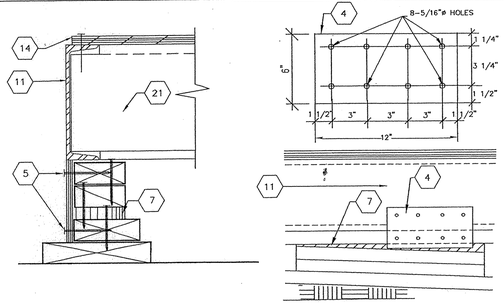
FOUNDATION AT SIDEWALL 1



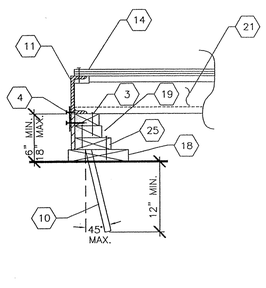
FOUNDATION AT MOD LINE 3



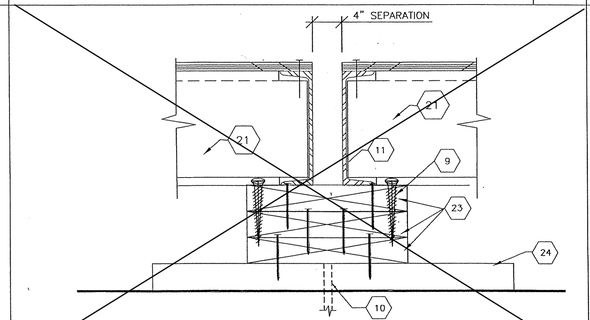
FOUNDATION VENTING 5



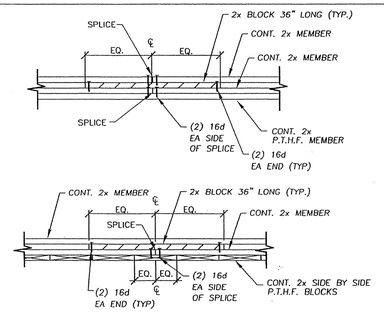
SHIMMING AND SKIRTING 2



FOUNDATION AT ENDWALL 4



COMMON PAD 6



TYP. SPLICE DETAILS 7