STATE OF VERMONT
AGENCY OF TRANSPORTATION

# DISTRICT NO. 9 SERVICE BUILDING

## DERBY, VERMONT

DEPARTMENT OF BUILDINGS
AND GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VERMONT

THOMAS W. TORTI, COMMISSIONER

AGENCY OF TRANSPORTATION
133 STATE STREET
MONTPELIER, VERMONT

BRIAN SEARLES, SECRETARY

HOWARD DEAN, MD.
GOVERNOR

ARCHITECTS:

**GOSSENS BACHMAN, INC.**
**85 GRANITE SHED L;ANE**
**MONTPELIER, VERMONT 05602**
**(802) 229-1664**

CIVIL/ ENVIRONMENTAL ENGINEER

**DEWOLFE & ASSOCIATES**
**RR 2, BOX 2475**
**MONTPELIER, VERMONT 05602**
**(802) 229-6371**

STRUCTURAL ENGINEER:

**DEWOLFE & ASSOCIATES**
**RR 2, BOX 2475**
**MONTPELIER, VERMONT 05602**
**(802) 229-6371**

MECHANICAL AND ELECTRICAL ENGINEER:

**PEARSON & ASSOCIATES**
**P.O. BOX 610**
**STOWE, VERMONT 05672**
**(802) 253-9607**

CIVIL ENGINEERING
C1 SITE PLAN

STRUCTURAL DRAWINGS
S1 FOUNDATION AND ROOF PLAN
S2 DETAILS AND SECTIONS

ARCHITECTURAL DRAWINGS:
A1 FLOOR PLAN, ELEVATIONS, DETAILS, SCHEDULE
A2 BUILDING SECTION AND WALL SECTIONS
A3 ELEVATIONS

MECHANICAL AND ELECTRICAL DRAWINGS:
M1 MECHANICAL PLAN AND DETAILS
M2 MECHANICAL DETAILS AND SCHEDULES
P1 PLUMBING PLAN
P2 PLUMBING DETAILS AND SCHEDULES
E1 ELECTRICAL PLAN
E2 ELECTRICAL SCHEDULES AND DETAILS

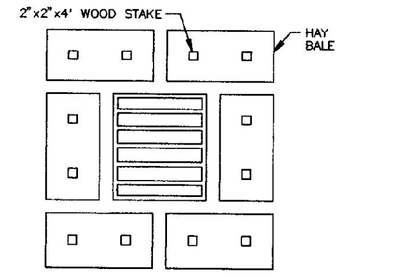
GENERAL NOTES:

1. ALL DIMENSIONS ARE FROM FACE OF STUD UNLESS INDICATED. DIMENSIONS FOR OVERHEAD DOORS ARE CLEAR DIMENSIONS.
2. DO NOT SCALE DIMENSIONS FROM DRAWINGS. VERIFY CRITICAL DIMENSIONS. IN THE CASE OF MISSING OR CONFLICTING DIMENSIONS, CONTACT THE ARCHITECT.
3. PROVIDE BLOCKING IN WALLS TO ACCEPT GRAB BARS, HANDRAILS, ETC..
4. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STATE AND LOCAL CODES AND ORDINANCES.
5. THE GENERAL CONTRACTOR SHALL THOROUGHLY CLEAN THE PREMISES AT COMPLETION OF WORK AND LEGALLY DISPOSE OF ANY EXCESS MATERIAL OFF SITE.
6. EXISTING FLOOR SLAB IS TO BE PATCHED, FILLED, AND GROUND SMOOTH AS REQUIRED TO PROVIDE A SMOOTH SURFACE.
7. ALL WOOD IN CONTACT WITH CONCRETE IS TO BE P.T..

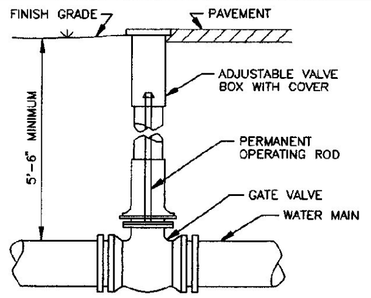
PROJECT INFORMATION

| | |
|---|---|
| BUILDING SIZE: | 6,644 SQUARE FEET |
| BOCA USE GROUP: | S1 (MODERATE HAZARD STORAGE) |
| NFPA USE GROUP: | INDUSTRIAL |
| BOCA CONSTRUCTION TYPE CLASSIFICATION: | TYPE 5B (UNPROTECTED COMBUSTIBLE) |

SPRINKLER SYSTEM WILL BE INSTALLED THRU-OUT.

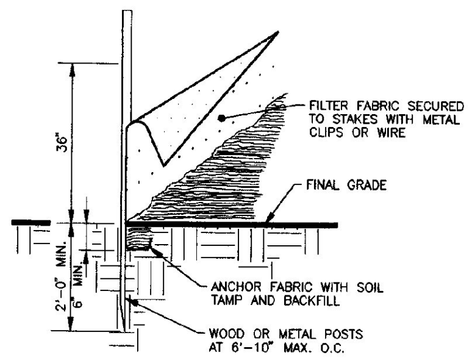



## HAY BALE INLET PROTECTION
NOT TO SCALE

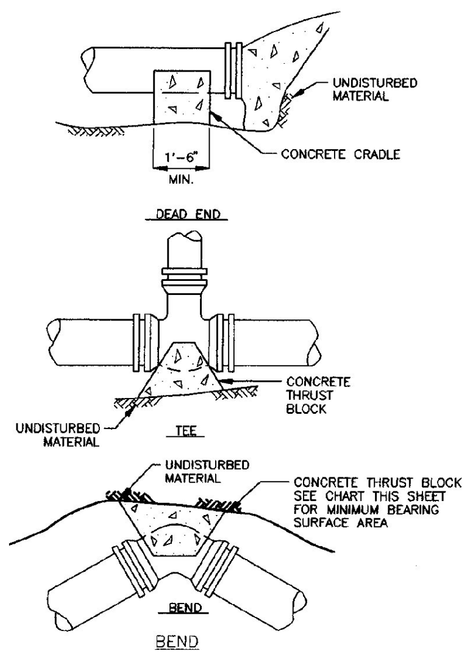



NOTE
UNLESS OTHERWISE INDICATED ALL GATE VALVES SHALL HAVE PERMANENTLY INSTALLED OPERATING RODS TERMINATING AT LEAST 2'-0" AND NOT MORE THAN 3'-0" BELOW THE TOP OF THE VALVE BOX.

## BURIED GATE VALVE DETAIL
NOT TO SCALE




## SILT FENCE
NOT TO SCALE




## CONCRETE THRUST BLOCK DETAILS
NOT TO SCALE

EROSION CONTROL DURING CONSTRUCTION

1.BEFORE ANY CLEARING OR GRUBBING OF THE SITE IS INITIATED, AND DURING ALL EARTHWORK PHASES, SEDIMENT TRAPS (EROSION BARRIERS) SHALL BE CONSTRUCTED AND MAINTAINED AT THE INLET TO ALL STORM DRAINS, SWALES, AND DITCHES RECEIVING WATER FROM THE PROJECT. SEE TYPICAL DETAILS FOR TYPES AND BARRIERS.
2.ALL STOCKPILED SOIL SHALL BE ENCIRCLED WITH AN EROSION CONTROL BARRIER, UNLESS AN EXISTING BARRIER WILL ENTRAP ALL EROSION FROM SUCH A STOCKPILE OR THE STOCKPILE IS COMPLETELY COVERED WITH VEGETATION THAT PREVENTS EROSION.
3.AFTER EVERY STORM EACH SEDIMENT TRAP SHALL BE INSPECTED FOR FAILURES OR CLOGGING, AND ANY FAILURE OR CLOGGING SHALL BE RECTIFIED.
4.SEDIMENT TRAPS SHALL ALSO BE PLACED IN NEWLY CONSTRUCTED SWALES, DITCHES, OR OTHER WATERWAYS DURING THE CONSTRUCTION PERIOD. THE PLACING OF THESE TRAPS SHALL BE AS SHOWN ON THE PLANS. MAINTENANCE SHALL BE AS IN #3 ABOVE.
5.EROSION CONTROL BARRIERS INDICATED ON THE PLANS ARE THE MINIMUM NUMBER REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO USE ADDITIONAL BARRIERS AS FIELD CONDITIONS DICTATE AND TO INSURE THAT ANY EROSION CREATED BY THIS PROJECT DOES NOT REACH THE STATE'S WATERWAYS OR LEAVE THE SITE.
6.NEW SWALES AND UNLINED DITCHES (AND ANY OTHER AREA SUBJECT TO CONCENTRATED STORM RUNOFF) SHALL BE FERTILIZED AND SEEDED WITH THE FOLLOWING MIXTURE TO AT LEAST TWO (2) FEET ABOVE THE CHANNEL BOTTOM:

| | SEED | LBS/ACRE |
|---|---|---|
| | CREEPING RED FESCUE | 20 |
| | REDTOP 2 | |
| | SMOOTH BROMEGRASS | 20 |

AND SHALL HAVE MULCH APPLIED AT THE RATE OF 1-1/2 TONS PER ACRE.
7.WHERE THE INVERT OF NEW SWALES OR DITCHES EXCEEDS 2 PERCENT SLOPE, AND WHERE SLOPE GRADE EXCEEDS 50 PERCENT (1 ON 2 SLOPE), MATTING OR NETTING SECURELY ATTACHED TO THE GROUND SHALL BE PLACED OVER MULCH AND MAINTAINED UNTIL A PERMANENT GRASS COVER IS ESTABLISHED.
8.ALL DISTURBED TERRAIN AT FINAL GRADE SHALL BE SEEDED AND MULCHED WITHIN SEVEN DAYS OF COMPLETION, AND BY OCTOBER 1ST AT THE LATEST. BEFORE APPLYING FINAL SEEDING FOUR (4) INCH AVERAGE DEPTH OF TOPSOIL SHALL BE PLACED IN ALL DISTURBED AREAS TO BE SEEDED. SEED MIXTURES SHALL BE ONE OF THE FOLLOWING, AS APPROPRIATE.

| EMBANKMENT/SLOPING GROUND | LBS/ACRE |
|---|---|
| MIXTURE#1 CREEPING RED FESCUE | 20 |
| REDTOP 2 | |
| BIRDSFOOT TREFOIL | 8 |
| OR CROWNVETCH | 15 |
| MIXTURE#2 TALL FESCUE | 10 |
| REDTOP 2 | |
| FLAT PEA (LATHCO) | 30 |
| MIXTURE#3 CREEPING RED FESCUE | 15 |
| FLAT PEA (LATHCO) | 30 |
| FLAT/LEVEL GROUND | LBS/ACRE |
| MIXTURE#1 KENTUCKY BLUE GRASS | 20 |
| CREEPING RED FESCUE | 20 |
| RYE (PERENNIAL), OR REDTOP | 5 |
| MIXTURE#2 CREEPING RED FESCUE | 20 |
| REDTOP 2 | |
| TALL FESCUE | 20 |

ALL NEWLY SEEDED AREA SHALL BE MULCHED AT A RATE OF TWO (2) TONS PER ACRE OF HAY, STRAW, OR WOODCHIPS. JUTE OR OTHER EQUAL NETTING SHALL BE USED WHERE WIND OR WATER MAY ERODE NEWLY-PLACED SEED OR MULCH. ALL NETTING, WHERE USED, SHALL BE STAKED TO THE GROUND IN COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
9.ALL DISTURBED AREAS NOT AT FINAL GRADE, BUT THAT WILL NOT BE DISTURBED AGAIN FOR A PERIOD OF GREATER THAN SIXTY (60) DAYS, SHALL BE SEEDED WITH A TEMPORARY, RAPID-GROWING COVER CROP, SUCH AS RYE GRASS AND MILLET, AND SHALL BE MULCHED. NETTING SHALL ALSO BE APPLIED, IF NECESSARY, TO STABILIZE THE MULCH AND SEED.

EROSION BARRIER AND CONSTRUCTION SEQUENCE

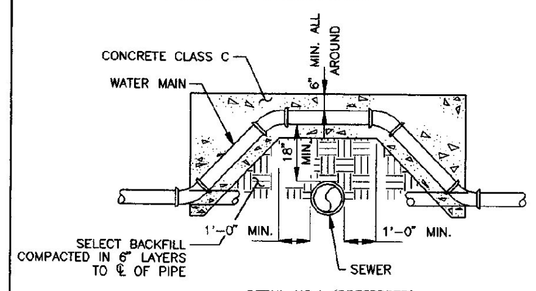
1.BEFORE ANY CONSTRUCTION BEGINS, AND MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETE OR ALL PERMANENT GROUND COVER IS ESTABLISHED.
2.BEFORE CONSTRUCTION IN AREA PROTECTED BEGINS, AND MAINTAINED UNTIL SUCH CONSTRUCTION IS COMPLETED. AS SOON AS PERMANENT STORM SEWER INLET STRUCTURE IS INSTALLED, AND MAINTAINED UNTIL ALL EARTHWORK IS COMPLETE IN AREA CONTRIBUTING STORM FLOWS AND PERMANENT GRASS COVER ESTABLISHED.
3.AS GRADING IN PROTECTED AREA PROGRESSES AND MAINTAINED UNTIL PERMANENT GROUND COVER IN PROTECTED AREA IS ESTABLISHED.

## AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS IN SQUARE FEET

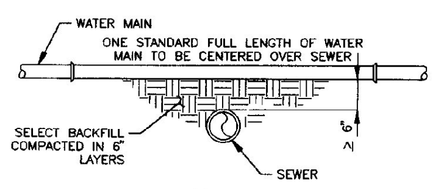
| PIPE SIZE (IN) | SOFT WET CLAY, SAND OR SILT | DRY SAND | COMPACT COARSE SAND OR GRAVEL HARDPAN |
|---|---|---|---|
| DEAD END OR TEE | | | |
| 8 OR LESS | 15 | 5 | 4 |
| 10 | 24 | 8 | 6 |
| 12 | 34 | 11 | 8 |
| 16 | 60 | 20 | 15 |
| 20 | 94 | 31 | 24 |
| 24 | 136 | 45 | 34 |
| 1/4 BEND | | | |
| 8 OR LESS | 21 | 7 | 5 |
| 10 | 33 | 11 | 8 |
| 12 | 48 | 16 | 12 |
| 16 | 85 | 28 | 21 |
| 20 | 133 | 44 | 33 |
| 24 | 192 | 64 | 48 |
| 1/8 BEND | | | |
| 8 OR LESS | 12 | 4 | 3 |
| 10 | 18 | 6 | 5 |
| 12 | 26 | 9 | 7 |
| 16 | 46 | 15 | 12 |
| 20 | 72 | 24 | 18 |
| 24 | 104 | 35 | 26 |
| 1/16 BEND | | | |
| 8 OR LESS | 6 | 2 | 2 |
| 10 | 9 | 3 | 2 |
| 12 | 13 | 4 | 3 |
| 16 | 24 | 8 | 6 |
| 20 | 37 | 12 | 9 |
| 24 | 53 | 18 | 13 |

THRUST BLOCK TABLE NOTES

1. FIGURES BASED ON 300 PSI.
2. FOR PIPE SIZES NOT LISTED USE NEXT LARGER PIPE SIZE.
3. WHEN MORE THAN ONE SOIL TYPE IS ENCOUNTERED, THE ONE WITH LEAST BEARING CAPACITY SHALL BE USED.
4. RETAINING RODS OR RESTRAINED JOINT PIPE, AS APPROVED BY THE ENGINEER, SHALL BE USED IN PLACE OF THRUST BLOCKS WHEN MUCK IS ENCOUNTERED.



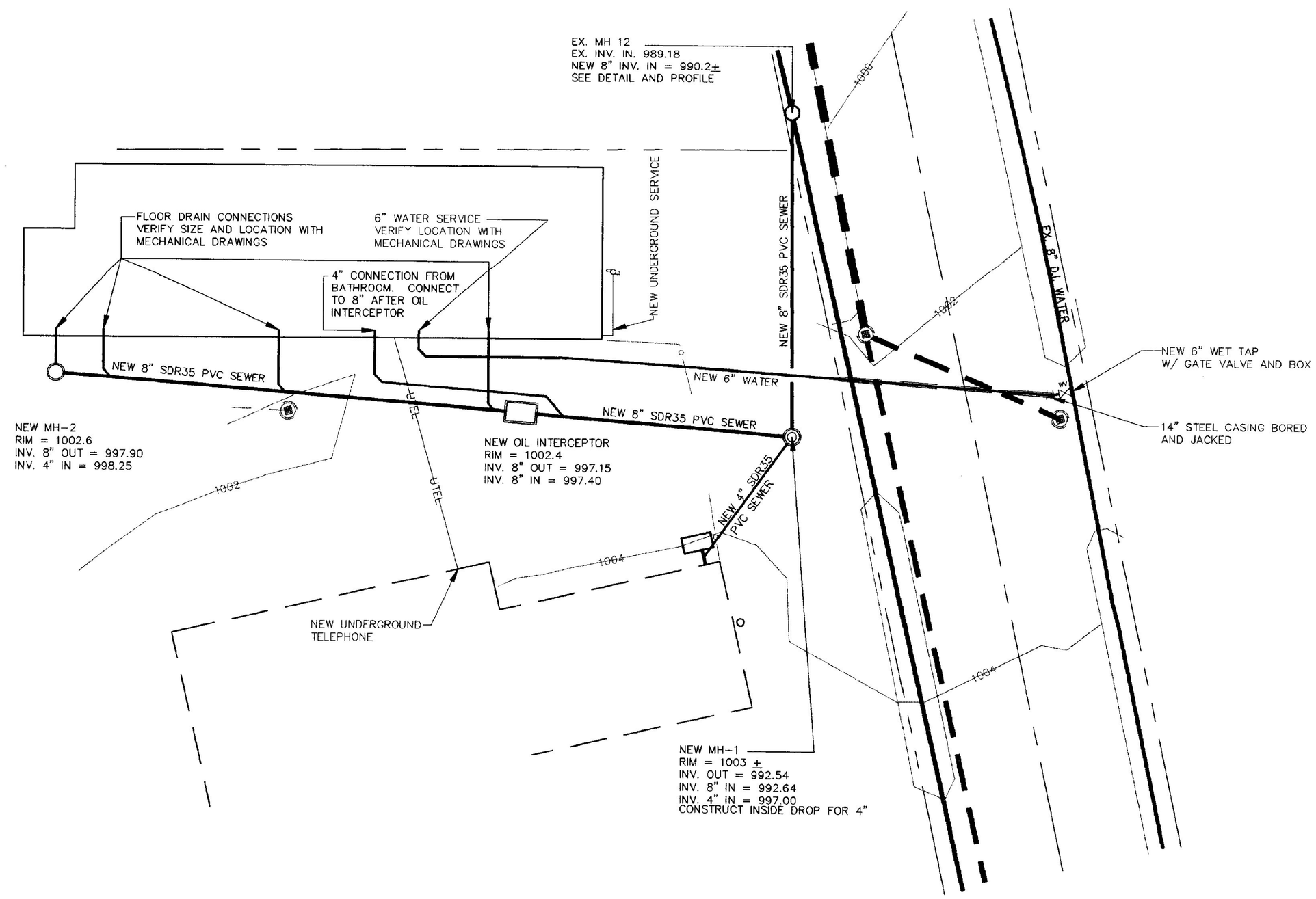

DETAIL NO.1 (PREFERRED)
WATER MAIN RELOCATION – ABOVE SEWER

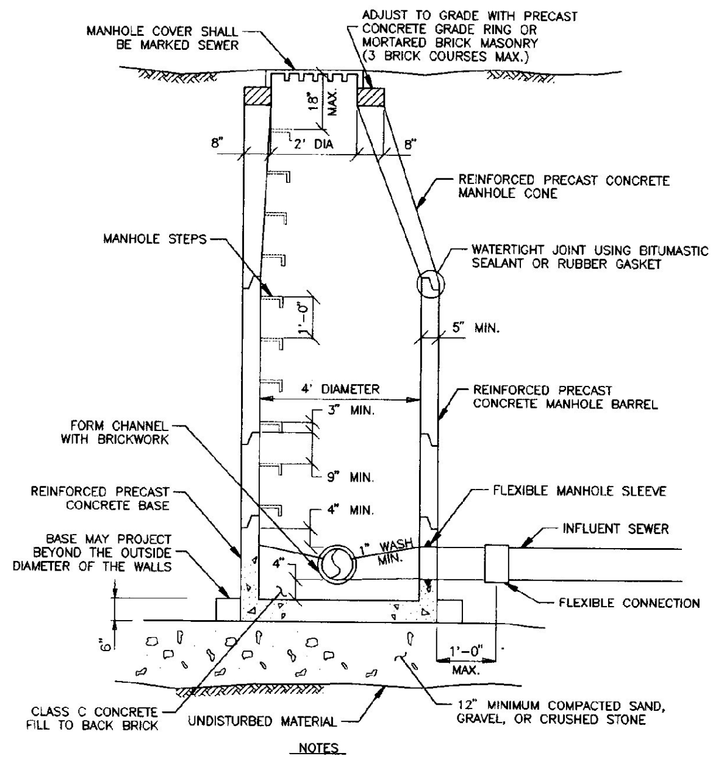



DETAIL NO.2
WATER MAIN LESS THAN 18" ABOVE SEWER

## CROSSING DETAILS
NOTES
NOT TO SCALE

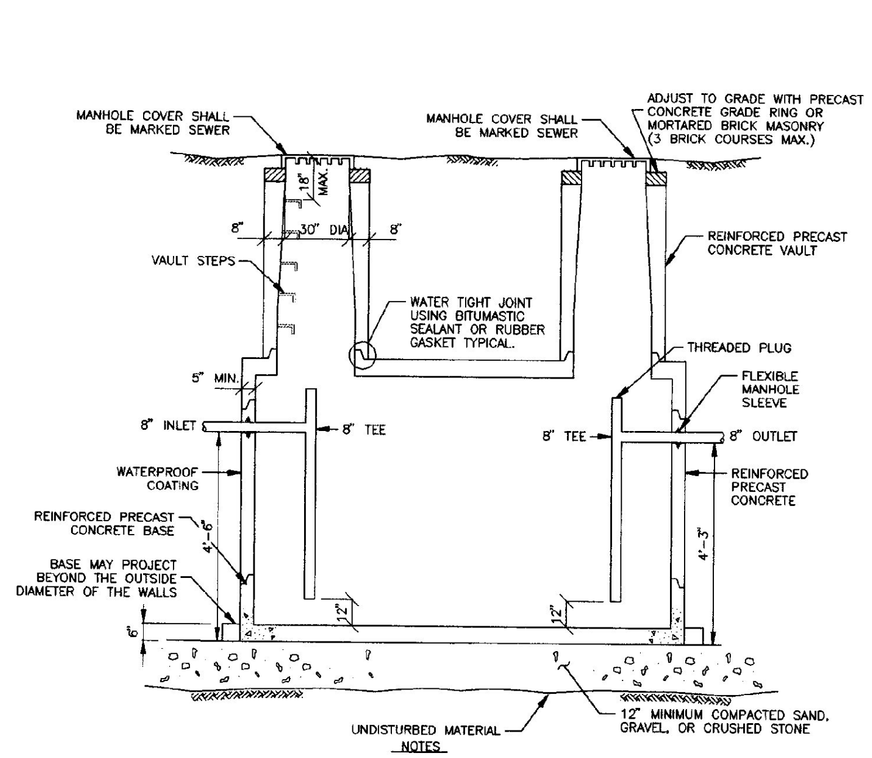
1. DETAILS NO.1 & NO.2 ALLOWABLE WATER PIPE DEFLECTIONS MAY BE USED TO ACCOMPLISH THE RELOCATIONS IN LIEU OF ELBOWS AND FITTINGS.




NOTES
1. WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A FLAT REINFORCED CONCRETE COVER WITH AN ECCENTRIC OPENING AND CAPABLE OF H-20 WHEEL LOADS MAY BE USED.
2. ALL MANHOLES SHALL BE DESIGNED FOR H-20 WHEEL LOADS.

## SEWER MANHOLE DETAIL
NOT TO SCALE




NOTES
1. WHEN VAULT DEPTH IS LESS THAN 6 FEET, A FLAT REINFORCED CONCRETE COVER WITH AN ECCENTRIC OPENING AND CAPABLE OF H-20 WHEEL LOADS MAY BE USED.
2. ALL MANHOLES SHALL BE DESIGNED FOR H-20 WHEEL LOADS.
3. VAULT TO BE 4'(W) x 8'(L) x 5'(H) INSIDE.

## OIL/GREASE INTERCEPTOR
NOT TO SCALE

N

| NO. | DATE | REVISION |
|---|---|---|
| 1 | | |
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DEA
DeWolfe Engineering Associates, Inc.
CIVIL & STRUCTURAL ENGINEERS
100 US RT. 2, SUITE 2, BERLIN, VERMONT 05602
TELEPHONE: (802) 223-4727 FAX: (802) 223-4240

CHRISTOPHER M. LABELLE No. 7222 REGISTERED PROFESSIONAL ENGINEER
STATE OF VERMONT

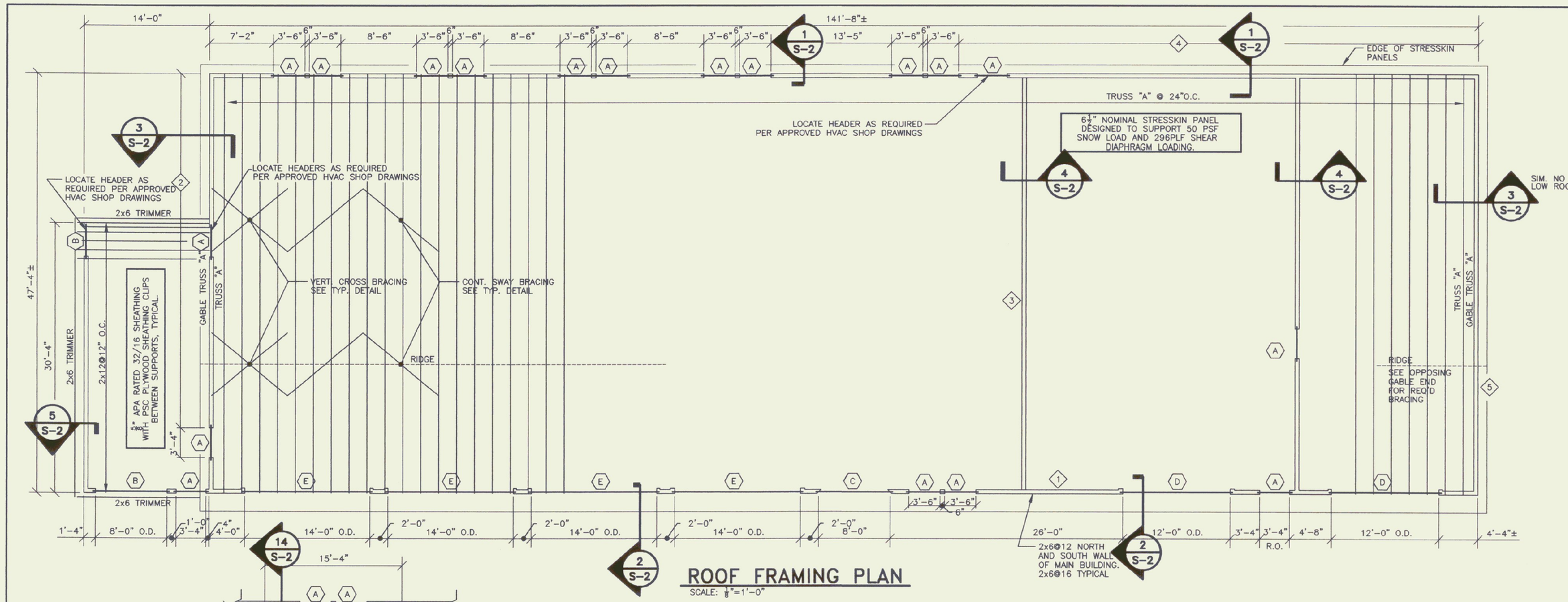
STATE OF VERMONT DISTICT No. 9
US ROUTE 5 DERBY, VERMONT
VERMONT DEPARTMENT OF STATE BUILDINGS

SHEET DESCRIPTION
SITE PLAN

| PROJECT NO. | DATE |
|---|---|
| 98074 | AUGUST 10, 1999 |
| SCALE | |
| 1" = 20' | |
| DRAWN | |
| RSD | |
| CHECKED | |
| CJS | |

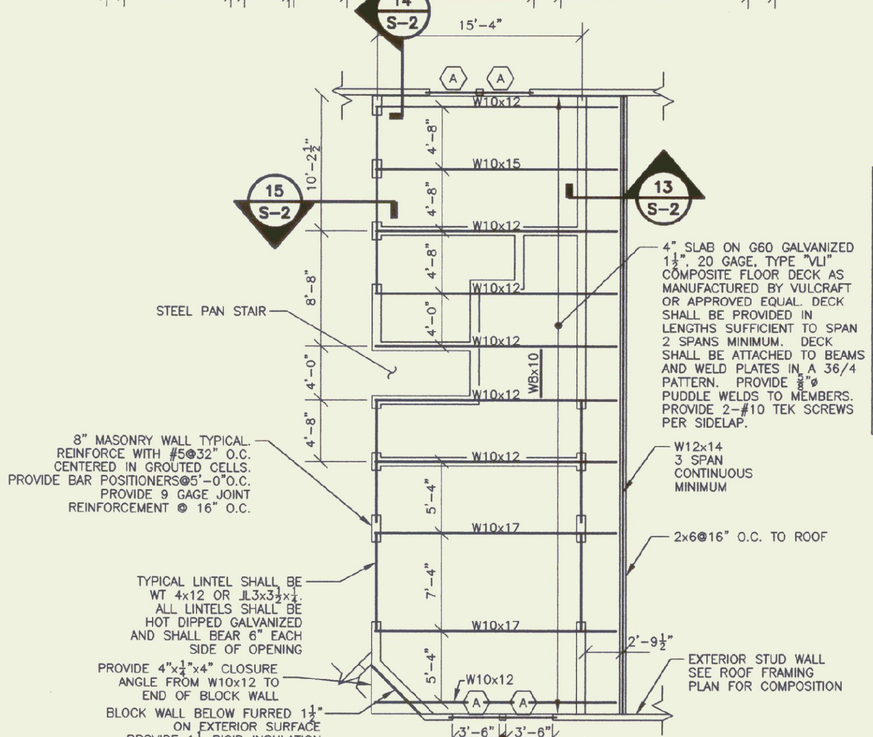
C-1

PLOTTING DATE: AUGUST 13, 1999
VIEW:
DRAWING FILE: 98074C1




## ROOF FRAMING PLAN

SCALE: ⅛"=1'-0"




## MEZZANINE PLAN

SCALE: ⅛"=1'-0"

## ◇ WOOD SHEAR WALL SCHEDULE

| MARK | STUDS | | SHEATHING | | | BOUNDARY NAILS | | CONNECTIONS EACH END | | SOLE PLATE CONN. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | SIZE | SPACE | SIDES | TYPE | | SIZE | SPACING | DESCRIPTION | ANCHORS | | |
| | IN. x IN. | IN. | | | | | IN. | | | | |
| 1 | 2x6 | 12 | 1 | ½" C-D | EXT. APA | 10d | 4 | 1-DBL 2x6 EACH END | HD6A SIMPSON HOLD DOWN | ½" EPOXY ANCHORS @24"OC | EMBED ANCHORS 6" INTO CONCRETE EXCEPT AT WALL 3. AT WALL 3 EMBED 2" MIN. ANCHOR RODS MAY BE USED IN LIEU OF EPOXY ANCHORS IN NEW CONCRETE APPLICATIONS. |
| 2 | 2x6 | 16 | 1 | ½" C-D | EXT. APA | 10d | 4 | 1-DBL 2x6 EACH END | HD6A SIMPSON HOLD DOWN | ½" EPOXY ANCHORS @24"OC | |
| 3 | 2x6 | 16 | 2 | ½" C-D | EXT. APA | 10d | 4 | 1-DBL 2x6 EACH END | HD2A SIMPSON HOLD DOWN | ½" EPOXY ANCHORS @24"OC | |
| 4 | 2x6 | 12 | 1 | ½" C-D | EXT. APA | 10d | 6 | 1-DBL 2x6 EACH END | NONE REQUIRED | ½" EPOXY ANCHORS @48"OC | |
| 5 | 2x6 | 16 | 1 | ½" C-D | EXT. APA | 10d | 6 | 1-DBL 2x6 EACH END | NONE REQUIRED | ½" EPOXY ANCHORS @48"OC | |

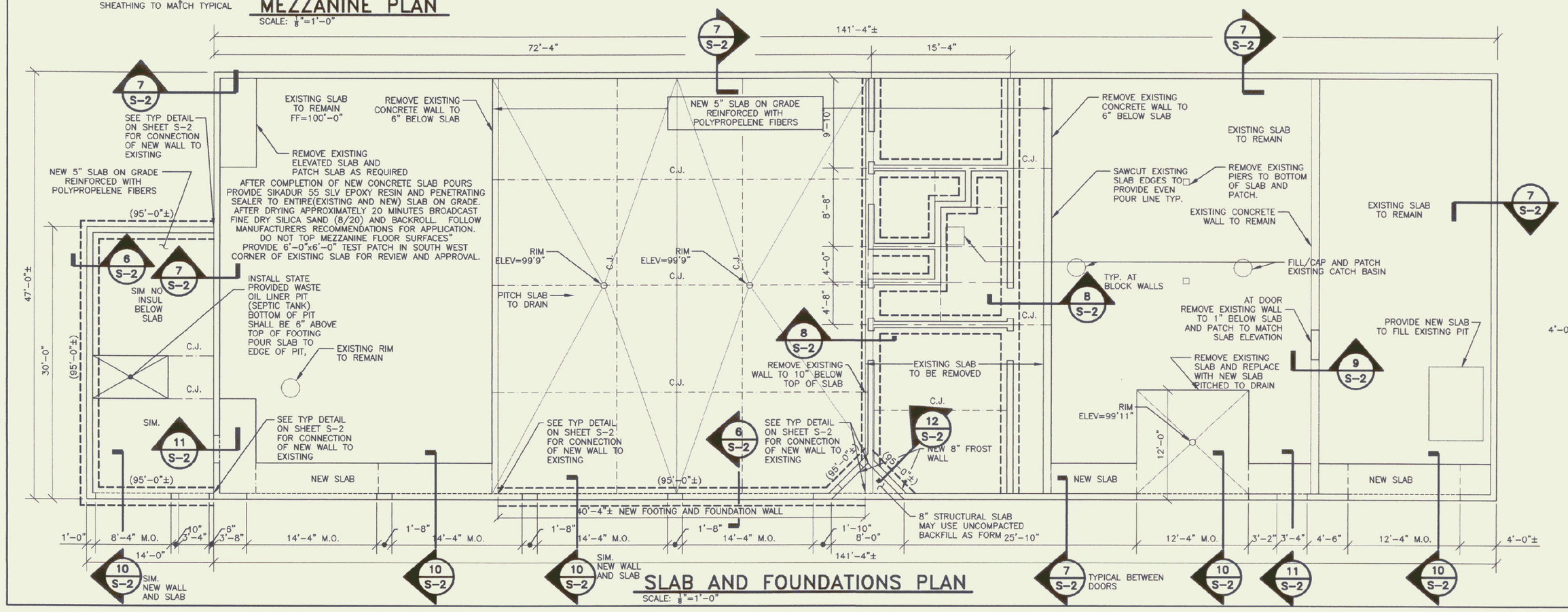
NOTES: 1. BOUNDARY NAILING FOR ALL HORIZONTAL AND ROOF DIAPHRAMS SHALL BE 10d COMMON NAILS @ 6"O.C. AND INTERMEDIATE NAILING SHALL BE 10d COMMON NAILS @ 10"O.C.
2. WALLS NOT MARKED AS SHEAR WALLS SHALL BE CONSTRUCTED PER SHEAR WALL DESIGN #5 (#4@NORTH AND SOUTH WALLS OF MAIN BUILDING) OMIT EDGE BLOCKING
3. INTERMEDIATE NAILING OF ALL WALLS SHALL BE 10d COMMONS AT 12" O.C.

### STATEMENT OF LOADS

ON GROUND SNOW LOAD = 50 PSF REDUCED FOR EXPOSURE AND INCREASED FOR DRIFT PER VERMONT CODE
MEZZANINE LIVE LOAD = 125 PSF
SEISMIC ZONE = ZONE 2
DESIGN WIND SPEED = 70 mph, EXPOSURE C

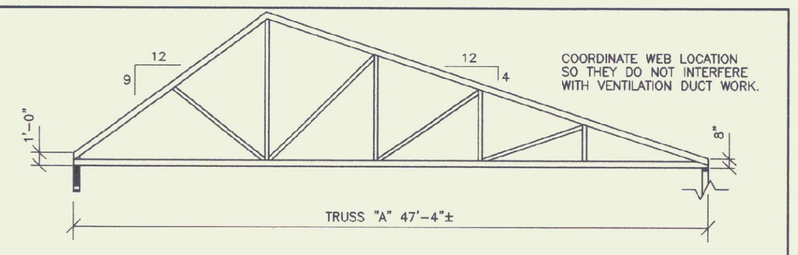
### ⬡ HEADER SCHEDULE

| HEADER MARK | HEADER SIZE | HEADER SUPPORT |
|---|---|---|
| A | 2-2x8 SPF | 1-2x6 JACK STUD<br>1-2x6 KING STUD |
| B | 3-2x12 | 2-2x6 JACK STUD<br>1-2x6 KING STUD |
| C | 3-1¾x9½ M/L | 2-2x6 JACK STUD<br>2-2x6 KING STUD |
| D | 3-1¾x14" M/L | 2-2x6 JACK STUD<br>1-2x6 KING STUD |
| E | 3-1¾x16" M/L | 3-2x6 JACK STUD<br>1-2x6 KING STUD |
| | | |



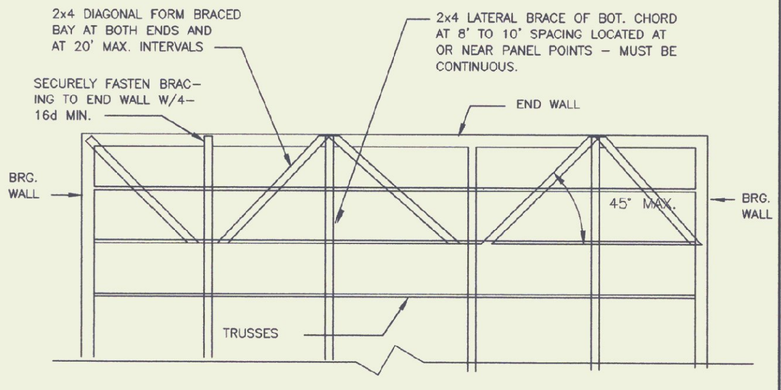

## SLAB AND FOUNDATIONS PLAN

SCALE: ⅛"=1'-0"



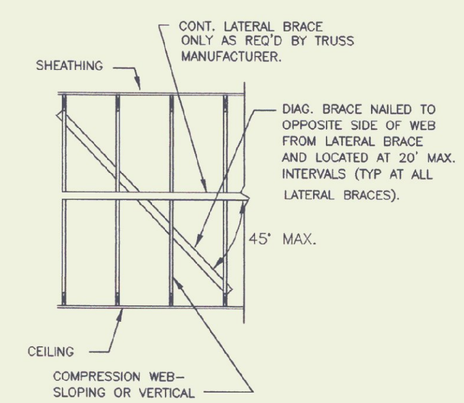

## WOOD TRUSS NOTES

1. TRUSS CONFIGRUATION MAY VARY TO SUIT MANUFACTURER; HOWEVER, THE DIAGONAL AND SWAY BRACING SHOWN IN DETAILS ARE REQUIRED WHERE THE NOTES AND PLAN INDICATE.
2. BRACING SHALL BE 2x4 MIN. SIZE AND SHALL BE OVERLAPPED ONE TRUSS MINIMUM AT SPLICES. NAIL TO ALL TRUSS CROSSINGS W/2-16 COMMON NAILS.
3. TRUSSES SHALL BE DESIGNED TO SUPPORT LIVE LOADS, DEAD LOAD, AND DRIFTING SNOW LOADS IN ACCORDANCE WITH THE STATE BUILDING CODE IN WHICH THE PROJECT IS LOCATED. THE DESIGN LOADS, UNLESS OTHERWISE INDICATED, SHALL BE AS FOLLOWS:
   SNOW LOAD..... 50 PSF
   TOP CHORD DEAD LOAD.... 10 PSF
   BOT. CHORD DEAD LOAD... 10 PSF
4. TRUSS FABRICATION AND DESIGN SHALL BE THE SOLE RESPONSIBILITY OF THE TRUSS MANUFACTURER, AND DESIGN AND SHOP DRAWINGS SHALL BE STAMPED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. DESIGN SHALL BE IN ACCORDANCE WITH THE CURRENT STATE BUILDING CODE AND THE TRUSS PLATE INSTITUTE SPECIFICATIONS. SUBMIT DESIGN AND SHOP DRAWINGS FOR REVIEW BEFORE FABRICATION.
5. DESIGN, MANUFACTURING, HANDLING, AND ERECTION SHALL BE IN STRICT ACCORDANCE WITH THE TRUSS PLATE INSTITUTE SPECIFICATIONS.
6. SUBMIT A LAYOUT PLAN SHOWING TRUSS TYPES AND LOCATIONS, BRACING AND OTHER DETAILS REQUIRED BY CONTRACT DOCUMENTS AND THE TPI SPECIFICATIONS.
7. ALL TRUSSES AND TRUSS GIRDERS SHALL HAVE 2x6 MINIMUM TOP AND BOTTOM CHORDS.



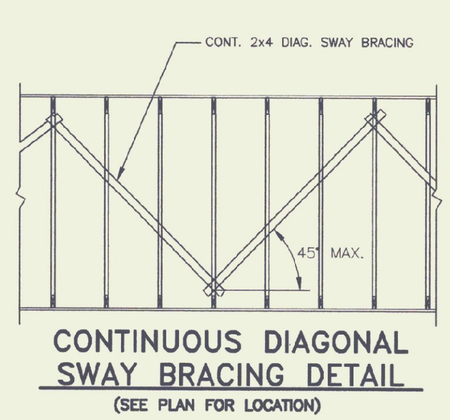

## TRUSS BOTTOM CHORD BRACING DETAIL

SCALE: NOT TO SCALE



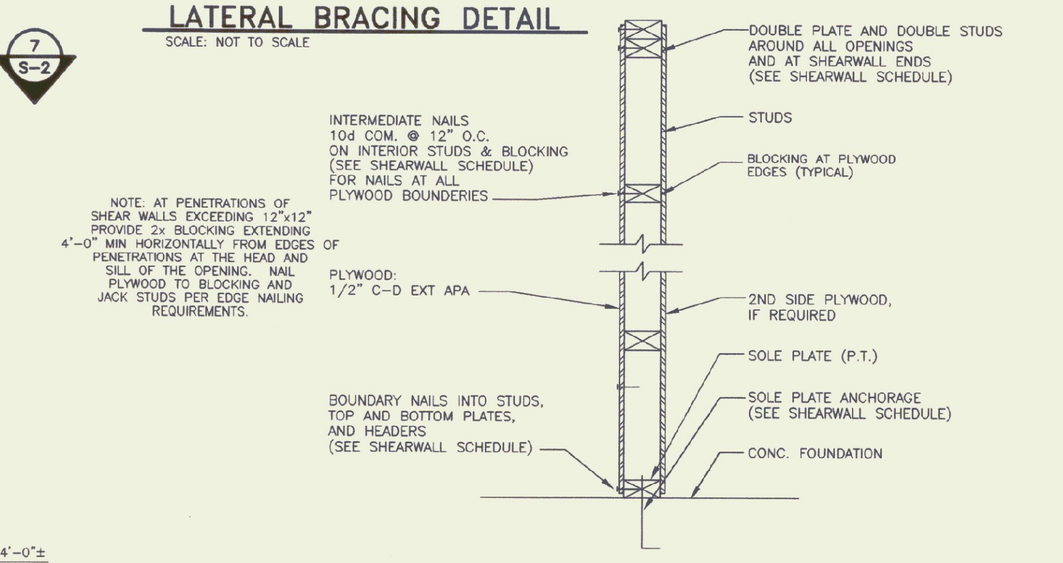

## DIAGONAL BRACING OF LATERAL BRACING DETAIL

SCALE: NOT TO SCALE




## CONTINUOUS DIAGONAL SWAY BRACING DETAIL

(SEE PLAN FOR LOCATION)




## TYPICAL SHEARWALL DETAIL

SCALE: NOT TO SCALE

| NO. | DATE | REVISION |
|---|---|---|
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No. 7033
REGISTERED PROFESSIONAL ENGINEER

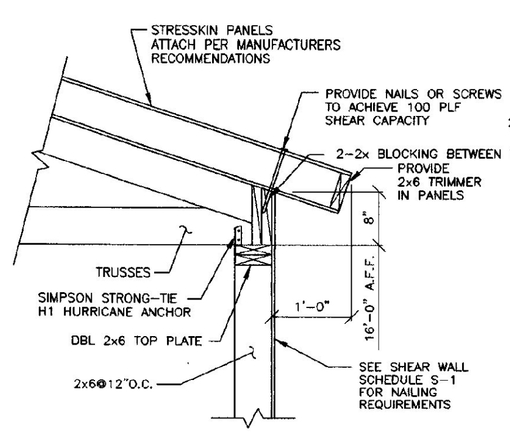
STATE OF VERMONT DISTRICT NO. 9 SERVICE BUILDING
DERBY, VERMONT

SHEET DESCRIPTION
FOUNDATION AND ROOF PLANS

| PROJECT NO. | DATE |
|---|---|
| 9746 | AUGUST 13, 1999 |
| SCALE: AS NOTED | |
| DRAWN: CJT | |
| CHECKED: CJT | |

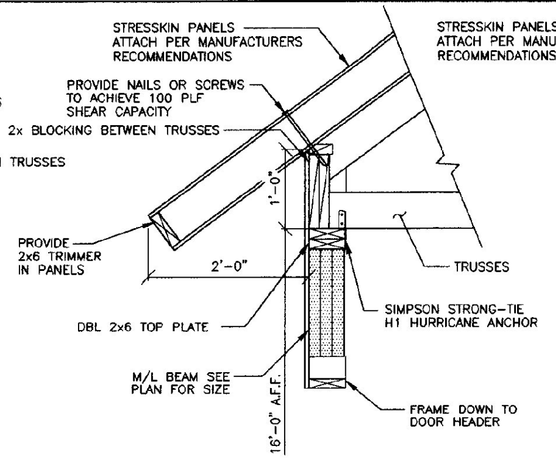
S-1

PLOTTING DATE: 8/13/99
VIEW: PLOTS1
DRAWING FILE: 98074.DWG



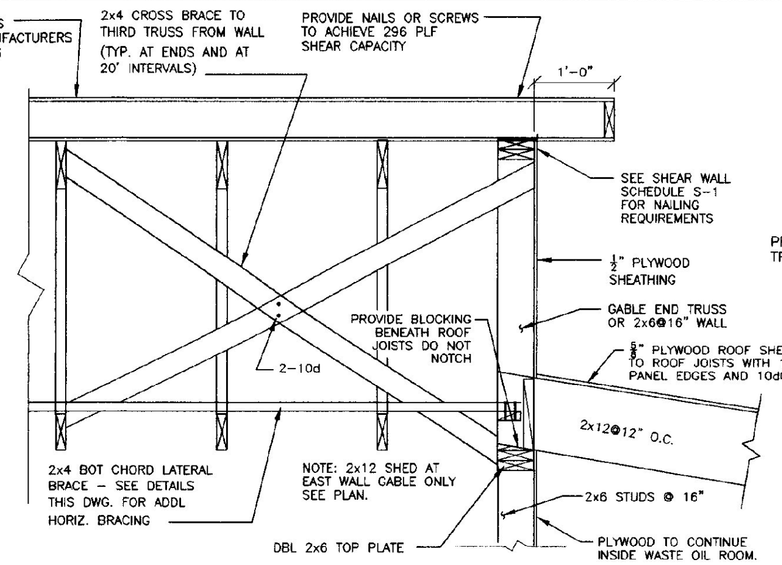

## TYPICAL EAVE SECTION 1/S-2

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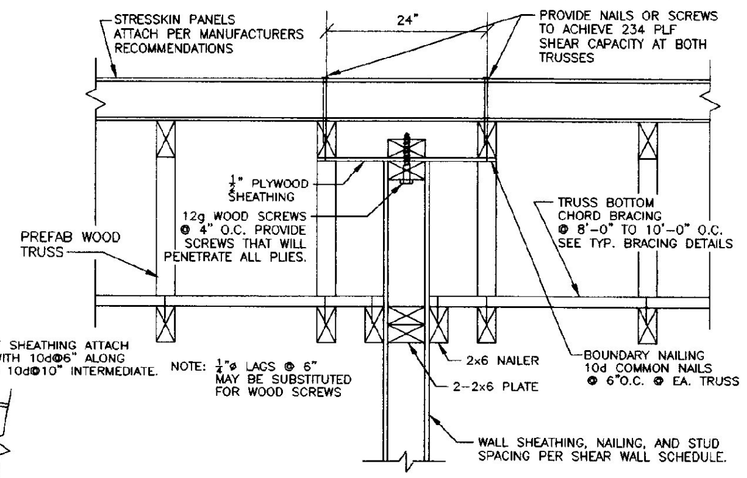

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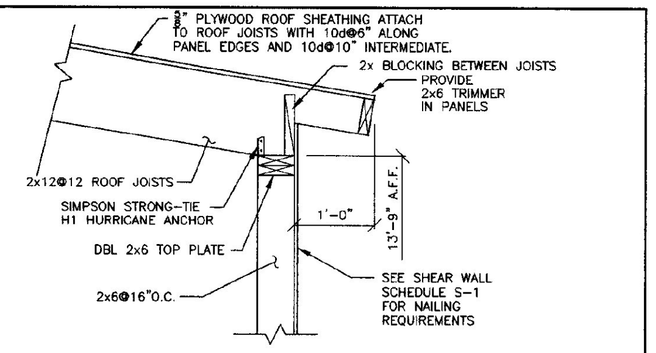

## TYPICAL GABLE END SECTION 3/S-2

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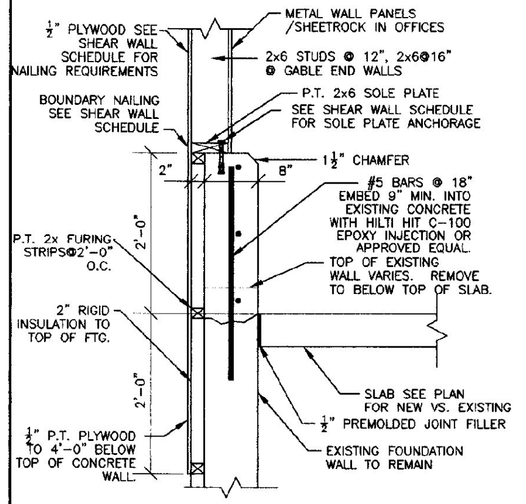

## INTERIOR WALL SECTION 4/S-2

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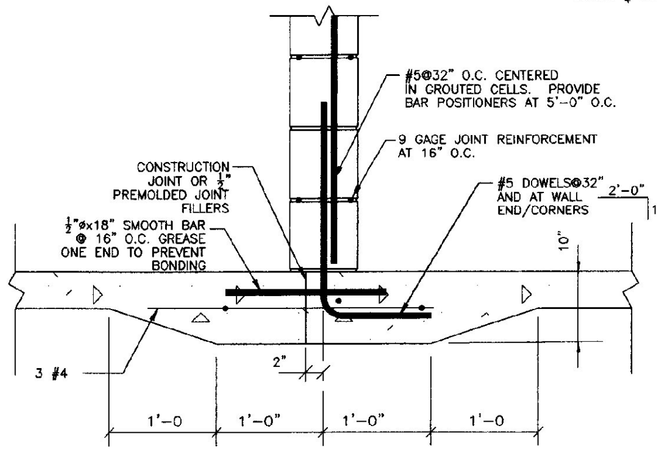

## OIL ROOM EAVE SECTION 5/S-2

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



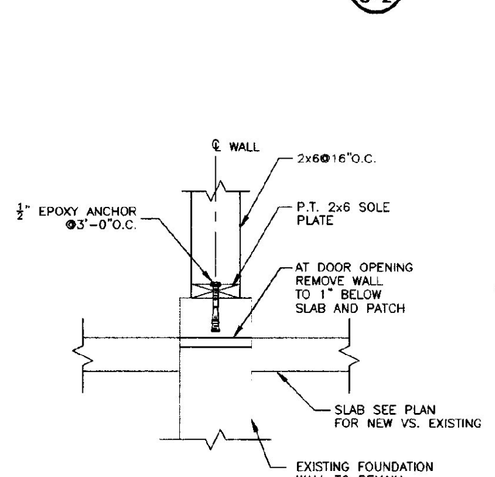

## TYPICAL EXTERIOR WALL SECTION 7/S-2

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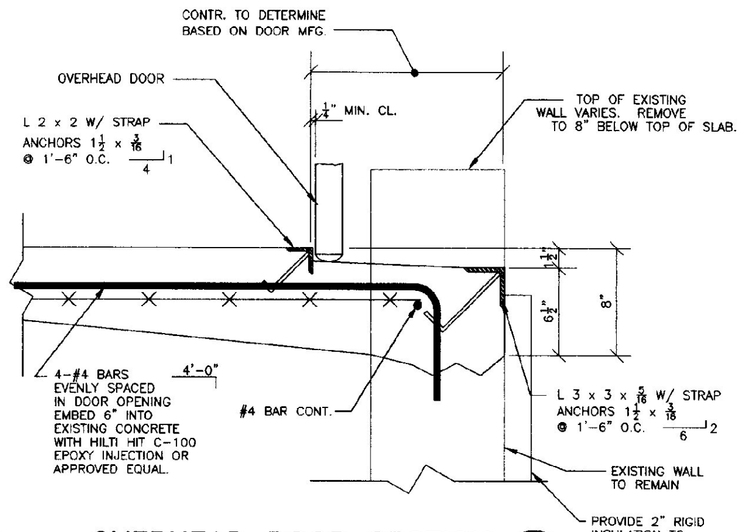

## BLOCK WALL FOUNDATION SECTION 8/S-2

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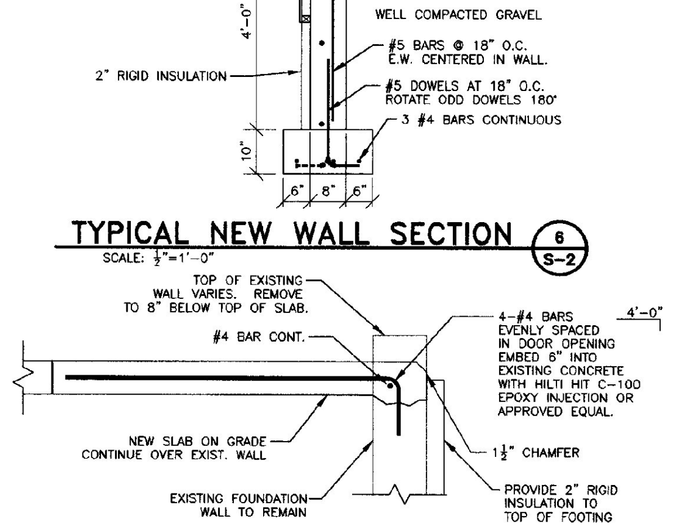

## INTERIOR WALL SECTION 9/S-2

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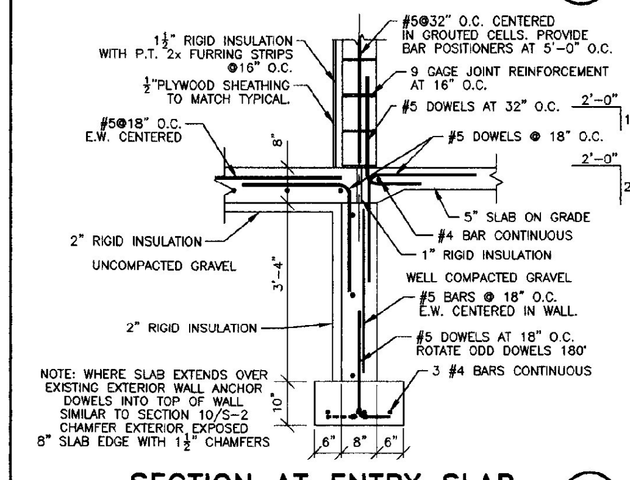

## OVERHEAD DOOR SECTION 10/S-2

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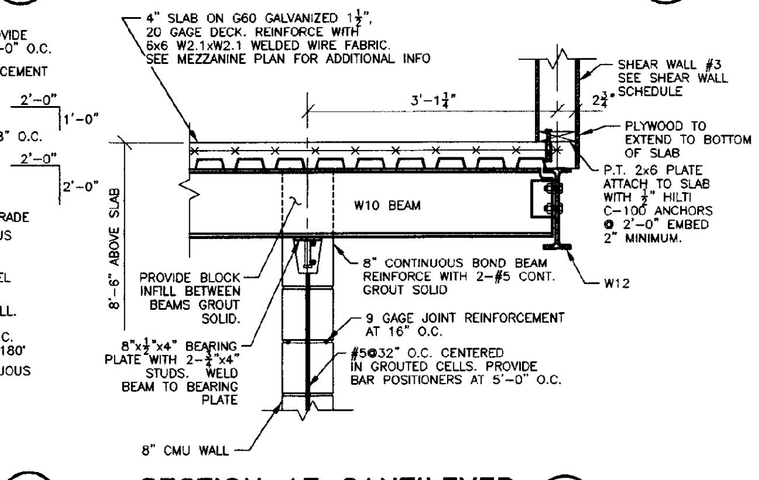

## TYPICAL MANDOOR SECTION 11/S-2

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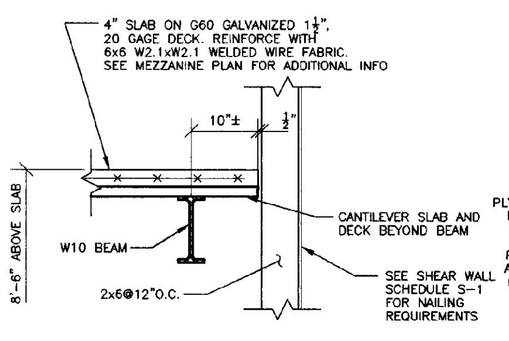

## SECTION AT ENTRY SLAB 12/S-2

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



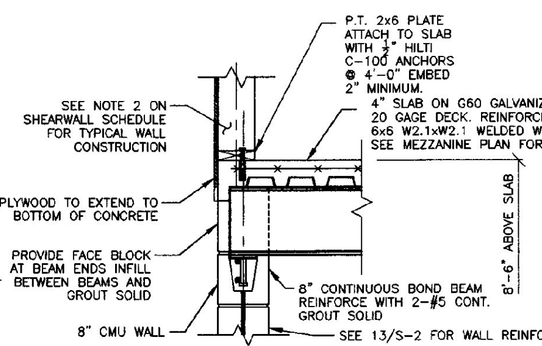

## SECTION AT CANTILEVER 13/S-2

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



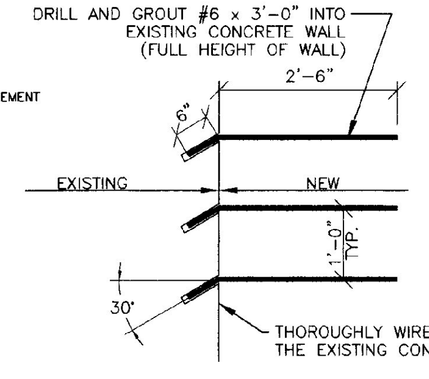

## SECTION AT EXT. WALL 14/S-2

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



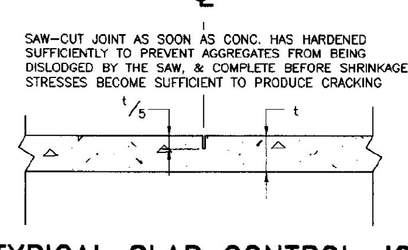

## TYPICAL BLOCK SECTION 15/S-2

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




## TYPICAL DETAIL

WHERE NEW CONCRETE WALL MEETS EXISTING
NOT TO SCALE




## TYPICAL SLAB CONTROL JOINT

SCALE: 1"=1'-0"

# GENERAL NOTES

1 GENERAL:

1.1 ALL WORK SHALL BE PERFORMED IN A FIRST CLASS MANNER, AND IN ACCORDANCE WITH STATE CODE (BOCA 1987 WITH LATEST SUPPLEMENTS), AND LOCAL CODES AND ORDINANCES.

1.2 USE THESE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE ARCHITECTURAL & MECHANICAL DRAWINGS. SHOULD A CONFLICT DEVELOP, NOTIFY THE ENGINEER BEFORE PROCEEDING.

1.3 ALL DIMENSIONS SHOWN MUST BE VERIFIED BY THE CONTRACTOR DURING CONSTRUCTION BY THE AID OF ARCHITECTURAL MECHANICAL DRAWINGS, FIELD CHECKS, AND SUBCONTRACTORS SHOP DRAWINGS.

1.4 SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS AND HOUSEKEEPING SLABS NOT SHOWN ON STRUCTURAL DRAWINGS.

1.5 CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, UTILITY LINES FROM ALL DAMAGE.

1.6 CONTRACTOR IS RESPONSIBLE FOR ADEQUATE BRACING OF STRUCTURAL MEMBERS, WALLS, AND NON-STRUCTURAL ITEMS DURING CONSTRUCTION.

1.7 BUILDING IS DESIGNED FOR THE FOLLOWING LIVE LOADS:

| | |
|---|---|
| ON GROUND SNOW LOAD | 50 PSF |
| MEZZANINES | 125 PSF |
| OFFICES | 50 PSF |
| STAIRS | 100 PSF |
| MECHANICAL | 125 PSF |
| WIND PRESS. BASED OF VEL. OF | 70 MPH |

1.8 THE CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMISSION TO THE ENGINEER; THUS, PROVIDING ANY INFORMATION REQUIRED OF THE FABRICATOR SUCH AS FIELD DIMENSIONS, ELEVATIONS, ETC. OTHERWISE THE SHOP DRAWINGS WILL BE REJECTED UNTIL SUCH INFORMATION IS FURNISHED BY THE CONTRACTOR.

1.9 ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL HAVING A MINIMUM BEARING CAPACITY OF 3,000 PSF, OR ON CONTROLLED ENGINEERED FILL, OR ON SOUND LEVEL ROCK. IT IS ASSUMED THAT THIS WILL BE ATTAINED AT A MINIMUM DEPTH OF 5'-0" BELOW FINISHED EXTERIOR GRADE OR AT THE ELEVATION NOTED ON PLANS - LOWER AS NECESSARY. NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS ENCOUNTERED.

1.10 BACKFILL INSIDE OF FOUNDATION WALLS AT SLAB ON GRADE WITH IMPORTED BANK RUN GRAVEL, OR SELECT ON-SITE MATERIAL THAT WILL MEET COMPACTION CRITERIA, AS DETERMINED BY THE TESTING LABORATORY, IN 6" LIFTS TO 95% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, ASTM D1557.

1.11 PROVIDE A 6 MIL POLYETHYLENE VAPOR BARRIER UNDER FLOOR SLAB BETWEEN THE SAND AND THE GRAVEL BASE. SCARIFY AND COMPACT SUB BASE TO 95%, AND BASE MATERIAL ABOVE TO 95% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, ASTM D1557.

1.12 THE CONTRACTOR SHALL THOROUGHLY CLEAN THE PREMISES AT COMPLETION OF WORK AND AT TIMES AS DIRECTED BY THE OWNER. LEGALLY DISPOSE OF EXCESS MATERIAL OFF SITE.

2 CONCRETE:

2.1 ALL CONCRETE AND REINFORCING WORK SHALL BE IN STRICT ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-89)". EXTERIOR CONCRETE AND FOUNDATION WALLS SHALL BE AIR-ENTRAINED WITH AIR CONTENT AS RECOMMENDED BY ACI 613. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS. SUBMIT CONCRETE MIX DESIGN IN ACCORDANCE WITH ACI 318 FOR REVIEW OF ENGINEER. CONTRACTOR SHALL TAKE 4 TEST CYLINDERS OF CONCRETE FOR EACH 50 CUBIC YARDS OF CONCRETE OR FOR EACH DAYS POUR IF LESS THAN 50 C.Y. TESTING WILL BE AT OWNER'S EXPENSE.

2.2 USE A MID RANGE SUPERPLASTICIZER ADDITIVE FOR SLAB ON GRADE CONCRETE. PROVIDE THE STANDARD MIX, EXCEPT THE SLUMP BEFORE ADDING THE MID RANGE SUPERPLASTICIZER SHALL BE 2" +OR- 1/4".

2.3 CONCRETE SLAB WORK SHALL BE PERFORMED IN ACCORDANCE WITH "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (ACI 302.1 R-80). CONCRETE SHALL NOT BE PLACED ON A SATURATED SAND BASE. PROTECT SAND BASE FROM RAIN OR AERATE UNTIL DRY AND RECOMPACT. FINISH TO BE HARD STEEL TROWELED (THREE TROWLINGS, MINIMUM). WHERE "C.J." IS INDICATED ON THE PLAN IT SHALL BE A SAW-CUT CONTROL JOINT 1 1/4" DEEP MADE AS SOON AS SLAB CAN BE CUT WITHOUT UNRAVELING THE AGGREGATE, BUT IN NO CASE LATER THAN 24 HOURS AFTER FINISHING. APPLY A LIQUID MEMBRANE CURING, SEALING, AND HARDENING COMPOUND (CONFORMING TO "SPECIFICATIONS FOR LIQUID MEMBRANE - FORMING COMPOUNDS FOR CURING CONCRETE, ASTM 309-74) IMMEDIATELY AFTER FINISHING.

2.4 CONCRETE SHALL BE PROTECTED FROM FREEZING. CONTRACTOR SHALL FOLLOW THE "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306, LATEST EDITION).

2.5 ALL CONCRETE SHALL BE PLACED IN THE DRY - PUMP AS NECESSARY.

2.6 CONCRETE SHALL BE SO PROPORTIONED SO AS TO HAVE A MAXIMUM SLUMP OF 4", EXCEPT CONCRETE SPECIFIED TO HAVE A SUPERPLASTICIZER.

2.7 CONCRETE SLABS AND SLABS ON GRADE SHALL BE REINFORCED WITH POLYPROPYLENE FIBERS AT 1.6 POUNDS PER CUBIC YARD OF CONCRETE. FOLLOW MANUFACTURERS SPECIFICATIONS.

2.8 THE CONCRETE CONTRACTOR SHALL INSTALL (OR GIVE OTHER TRADES AMPLE OPPORTUNITY TO INSTALL) ALL ANCHOR BOLTS, ANCHORS, PLATES, NAILERS, SLOTS, CHASES, PIPE SLEEVES, DUCT OPENINGS, ETC., AS REQUIRED BY OTHER TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREEDS AND FORMS. FORM RELEASE OIL SHALL BE AN APPROVED NON-TOXIC(AFTER CURING) LIQUID.

2.9 CHAMFER EDGES OF EXPOSED BEAMS AND COLUMNS.

2.10 CURING: HORIZONTAL SURFACES SHALL BE KEPT CONTINUOUSLY MOIST OVER ENTIRE SURFACE FOR SEVEN DAYS WHEN WATER CURING IS USED. VERTICAL SURFACES SHALL RECEIVE 2 COATS ONE AT TIME OF STRIPPING AND ANOTHER 3 DAY LATER) OF AN APPROVED NON-TOXIC (AFTER CURING) LIQUID CURING COMPOUND.

2.11 ALL WALLS SHALL BE ADEQUATELY BRACED TO WITHSTAND BACKFILLING AND CONSTRUCTION LOAD PRESSURES. WALLS MUST BE AT LEAST SEVEN DAYS OLD BEFORE BACKFILLING.

3 REINFORCING STEEL:

3.1 REINFORCING STEEL SHALL BE NEW BILLET STEEL, ASTM A615, Fy=60 KSI, EXCEPT TIES AND STIRRUPS SHALL BE Fy=40 KSI.

3.2 THE MINIMUM CLEAR DISTANCE FROM REINFORCING STEEL TO ADJACENT SURFACE SHALL BE: 3" FROM BOTTOM OF FOOTINGS AND GRADE BEAMS; 1-1/2" (2" FOR #6 OR LARGER) FROM FACE OF WALLS AND GRADE BEAMS EXPOSED TO EARTH OR WEATHER, 3/4" FROM INSIDE FACE; AND 2" FOR SLAB ON GRADE.

3.3 REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING CONCRETE PLACEMENT OPERATIONS USING APPROVED TIES, CHAIRS, AND SPACERS AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER, OR VIEW.

3.4 WHERE CONTINUOUS BARS ARE CALLED FOR, INDICATED OR OTHERWISE REQUIRED THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS, DOWELED INTO INTERSECTION WALLS AND LAPPED AT NECESSARY SPLICES WITH SPLICES STAGGERED WHEREVER POSSIBLE.

4 COMPOSITE STEEL DECK:

4.1 STEEL DECK SHALL BE 1-1/2" DEEP, 20 GAGE, GALVANIZED (ASTM A653 G60) FABRICATED FROM STEEL CONFORMING TO SECTION A3 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATION FOR THE DESIGN AND COLD-FORMED STEEL STRUCTURAL MEMBERS. MINIMUM OF 33 KSI STEEL AND DELIVERED THICKNESS NOT LESS THAT 95% OF DESIGN THICKNESS. WELD TO ALL SUPPORTS WITH A 5/8" NOMINAL DIAMETER PUDDLE WELD AT 12" O.C.

5 STRUCTURAL STEEL:

5.1 STRUCTURAL WIDE FLANGE BEAMS SHALL BE ASTM A572 GRADE 50 STEEL WITH SPECIAL REQUIREMENTS PER AISC TECHNICAL BULLETIN #3. ALL OTHER STRUCTURAL STEEL SHALL BE ASTM A36 STEEL. UNLESS OTHERWISE NOTED, ALL BOLTING SHALL BE 3/4" DIA. A325 SNUG TIGHT HIGH STRENGTH BOLTS. SHOP CONNECTIONS SHALL BE PREQUALIFIED WELDS USING E-70 ELECTRODES BY AWS CERTIFIED WELDERS, OR BOLTED. FIELD CONNECTIONS SHALL BE BOLTED, U.O.N. ALL STRUCTURAL STEEL WORK SHALL BE IN STRICT ACCORDANCE WITH THE A.I.S.C "MANUAL OF STEEL CONSTRUCTION" LATEST EDITION. ALL STEEL SHALL RECEIVE ONE COAT OF RUST INHIBITIVE PRIMER. SUBMIT SHOP DRAWINGS FOR REVIEW OF ENGINEER.

5.2 ALL WELDING WHETHER FIELD OR SHOP SHALL BE PREQUALIFIED WELDS WITH E-70 ELECTRODES BY AWS PREVIOUSLY CERTIFIED WELDERS.

5.3 STEEL LINTELS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

6 WOOD FRAMING:

6.1 WOOD FRAMING WORK SHALL BE IN ACCORDANCE WITH STATE CODE WHICH INCORPORATES THE NATIONAL DESIGN SPECIFICATIONS OF THE NATIONAL FOREST PRODUCTS ASSOC. ALL LUMBER SHALL BE AGENCY GRADE STAMPED OF THE SPECIES AND GRADE INDICATED IN THE PROJECT SPECIFICATIONS OR HEREIN.

6.2 FRAMING SAWN LUMBER SHALL BE SPRUCE-PINE-FIR NO. 1 OR NO.2 AND/OR SOUTHERN PINE NO. 2. NO MOISTURE OF LOWER GRADES WITHIN THE THE SPECIES WILL BE ALLOWED. SAWN LUMBER SHALL BE KILN DRIED TO 15% MOISTURE CONTENT.

6.3 M/L INDICATES MICRO=LAM OR LVL LAMINATED TIMBER AS MANUFACTURED BY TJI OR GNI RESPECTIVELY, OR APPROVED EQUAL. MIN Fb=2800 psi, Fv=285 psi, E=1,900,000 psi, Fc PERPENDICULAR TO GRAIN = 500 psi. ALL PIECES SHALL BE CONTINUOUS WITHOUT JOINTS, EXCEPT WHERE "SPLICE" IS INDICATED ON PLAN. NAIL 2-MEMBER BEAMS WITH 2 ROWS OF 16d AT 12" O.C., AND 3-MEMBER BEAMS WITH 3 ROWS OF 16d @ 12" ON EACH SIDE.

6.4 TJI OR GNI JOISTS SHALL BE A MANUFACTURED BY TRUS JOIST CORPORATION, OR GANG-NAIL SYSTEMS, INC. RESPECTIVELY.

6.5 CONNECTION MATERIAL, BOLTS, NUTS, AND WASHERS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED. ALL OTHER CONNECTIONS SHALL BE PRIME PAINTED.

6.6 COLUMNS SHALL BE CONTINUOUS. FRAME BEAMS INTO SIDES OF COLUMNS, EXCEPT AT CANTILEVERED BEAMS.

6.7 UNLESS OTHERWISE NOTED, THE MINIMUM NAILING SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED FASTENER SCHEDULE", OF THE STATE CODE.

6.8 ALL JOISTS FRAMING INTO BEAMS OR COLUMNS SHALL BE SUPPORTED ON CODE APPROVED METAL HANGERS. NAILING SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

7 CONCRETE MASONRY:

7.1 MASONRY WORK SHALL COMPLY WITH THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-92/ASCE 5-92/TMS 402-92), AND THE SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-92/ASCE 6-92/TMS 602-92).

7.2 LOAD BEARING CONCRETE MASONRY UNITS SHALL BE EQUAL TO ASTM C90, GRADE N, TYPE I, AND SHALL HAVE A MINIMUM UNIT STRENGTH OF 2,000 psi AND AN ASSEMBLED (PRISM) COMPRESSIVE STRENGTH (f'm) = 1,500 psi WITH STONE, GRAVEL, OR LIMESTONE AGGREGATE. CINDER AGGREGATE IS NOT PERMITTED.

7.3 MORTAR SHALL COMFORM TO ASTM C270 AND SHALL BE TYPE "S" WITH A MINIMUM COMPRESSIVE STRENGTH OF 1,800 psi.

7.4 GROUT MATERIAL AND PROPORTION REQUIREMENTS SHALL BE AS SPECIFIED IN ASTM C 476 AND SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 psi AT 28 DAYS.

7.5 ALL EXPOSED MASONRY CORNERS SHALL BE BULLNOSED. USED DOUBLE BULLNOSED BLOCK AT WALL PENETRATIONS (IE. DOOR AND WINDOW OPENINGS).

PLOTTING DATE: 8/13/99
VIEW: PLOT52
DRAWING FILE: 9874.DWG

| NO. | DATE | REVISION |
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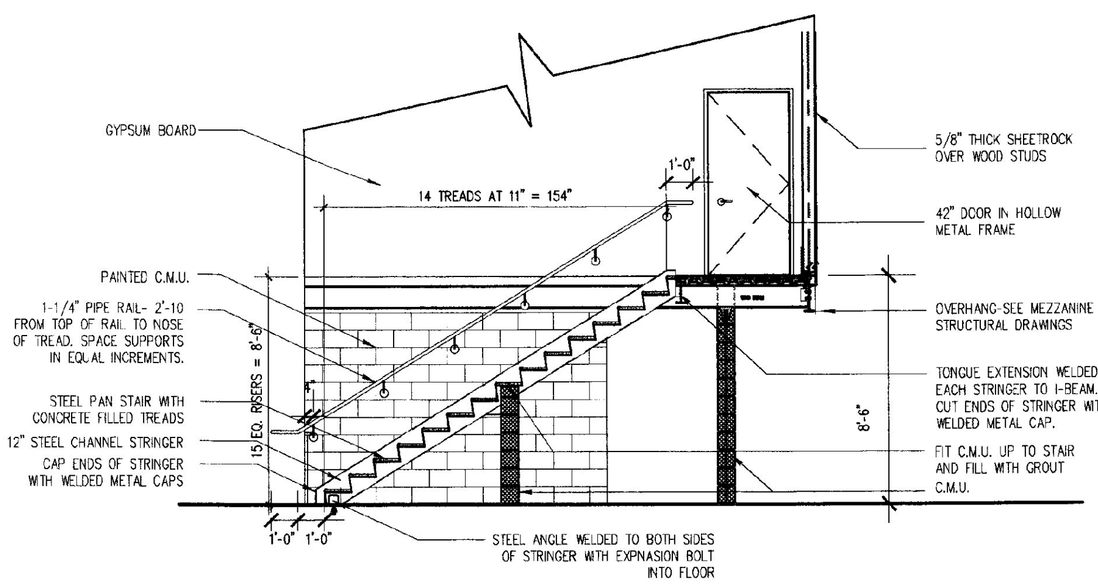
DEA
DeWolfe Engineering Associates, Inc.
CIVIL & STRUCTURAL ENGINEERS
P.O. BOX 2, SUITE 2, BERLIN, VT 05602
TEL (802) 223-7727 FAX (802) 223-4169

STATE OF VERMONT DISTRICT NO. 9 SERVICE BUILDING
DERBY, VERMONT

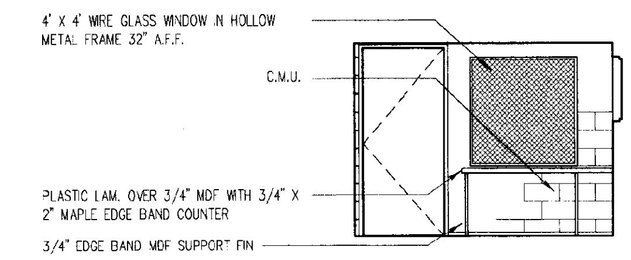
SHEET DESCRIPTION
DETAILS AND SECTIONS

| PROJECT NO. | DATE |
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| 9746 | AUGUST 13, 1999 |
| SCALE: AS NOTED | |
| DRAWN: CJT | S-2 |
| CHECKED: CJT | |

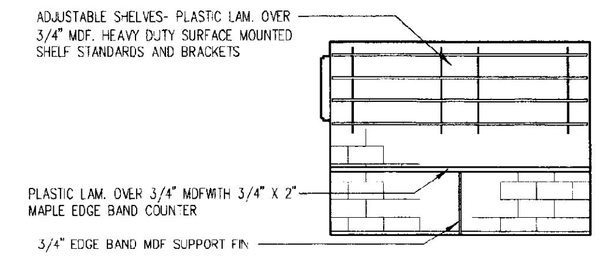
STATE OF VERMONT — CHRISTOPHER JOSEPH TRUDELL — No. 7033 — REGISTERED PROFESSIONAL ENGINEER



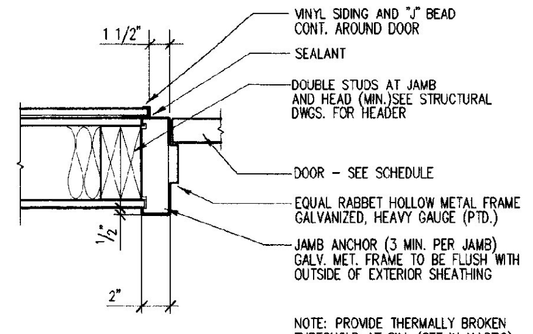

## 10 STAIR SECTION
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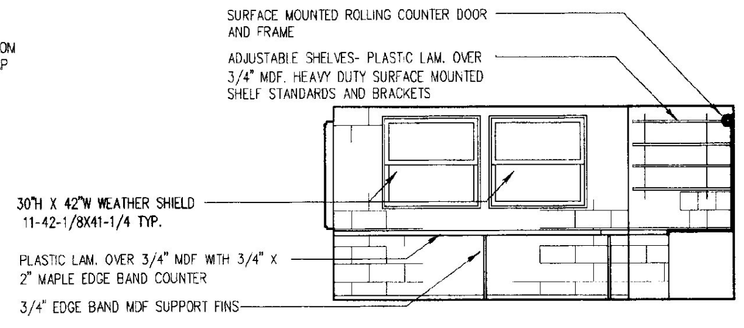

## 1 106– EAST ELEVATION
SCALE: 1/4" = 1'-0"



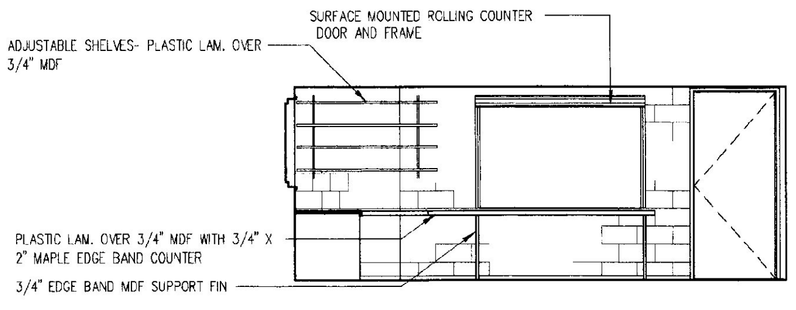

## 2 106– WEST ELEVATION
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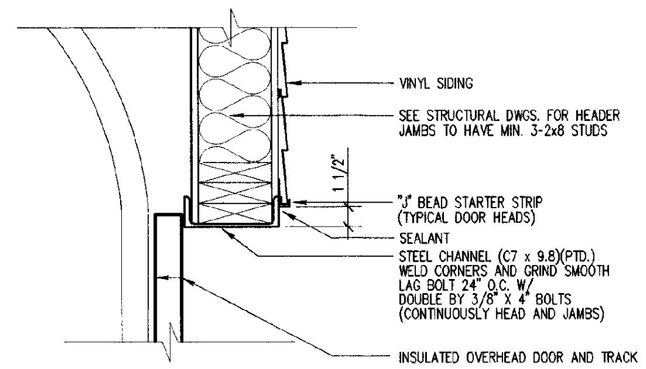

## 5 EXTERIOR DOOR HEAD/ JAMB
SCALE: 1-1/2" = 1'-0"



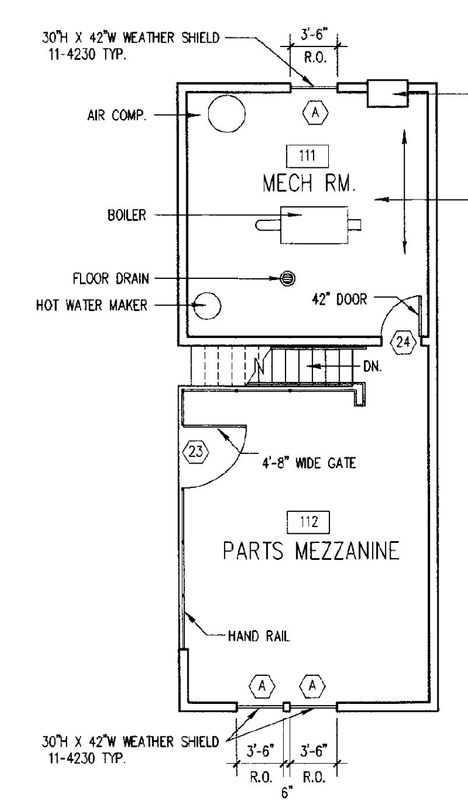

## 4 110– NORTH ELEVATION
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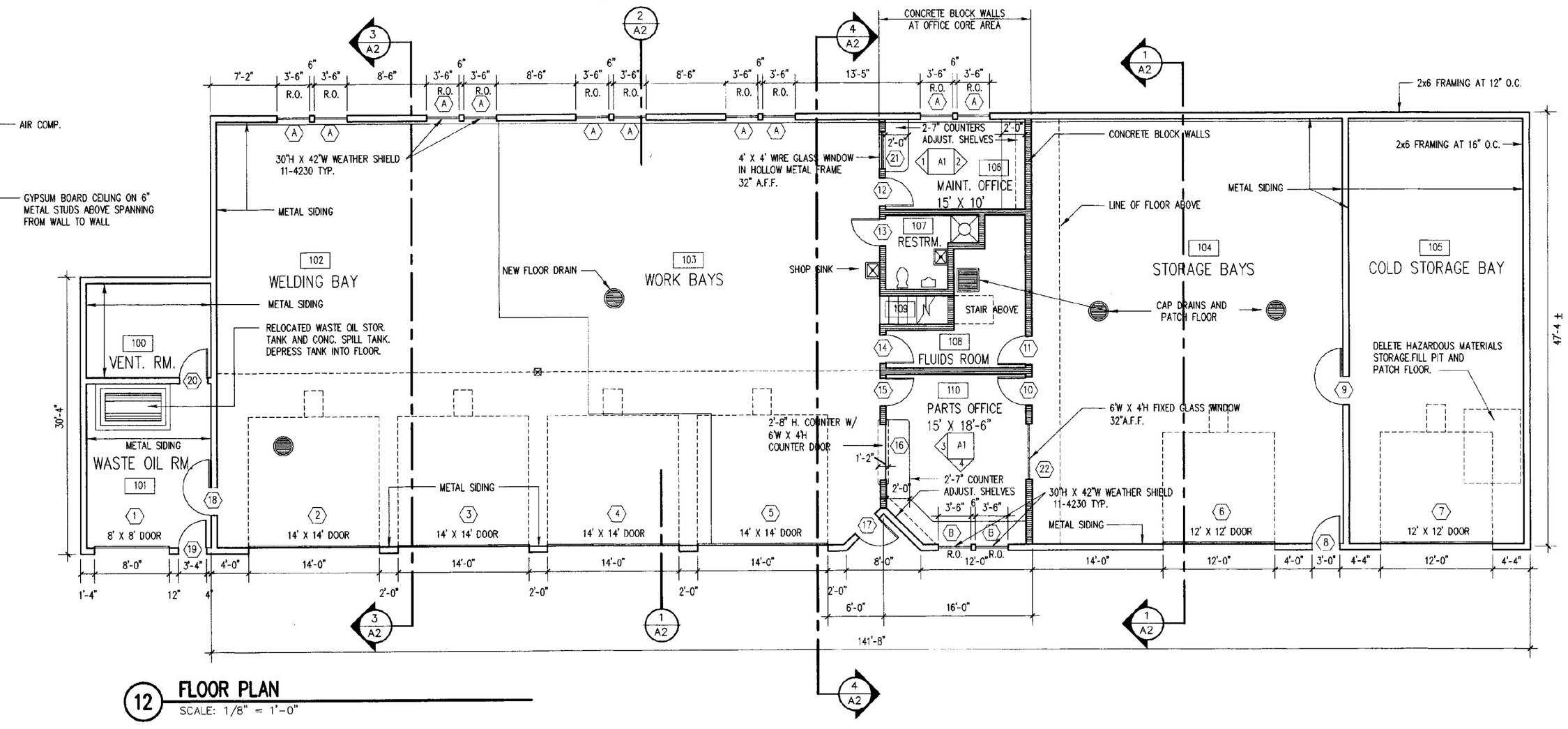

## 3 110– EAST ELEVATION
SCALE: 1/4" = 1'-0"



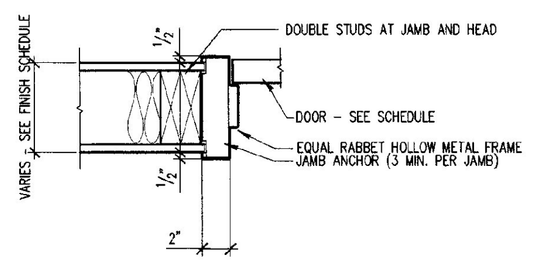

## 6 OVERHEAD DOOR HEAD/JAMB
SCALE: 1-1/2" = 1'-0"



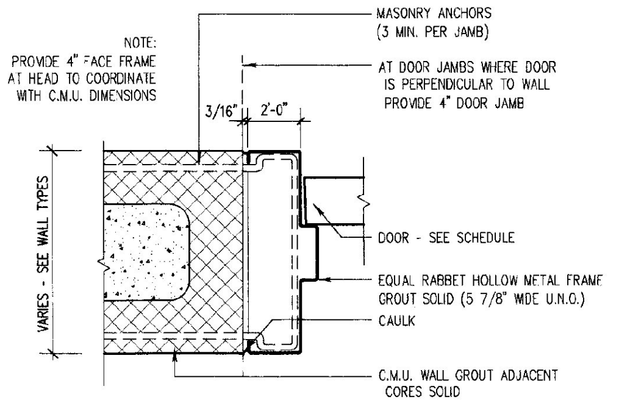

## 11 MEZZANINE
SCALE: 1/8" = 1'-0"



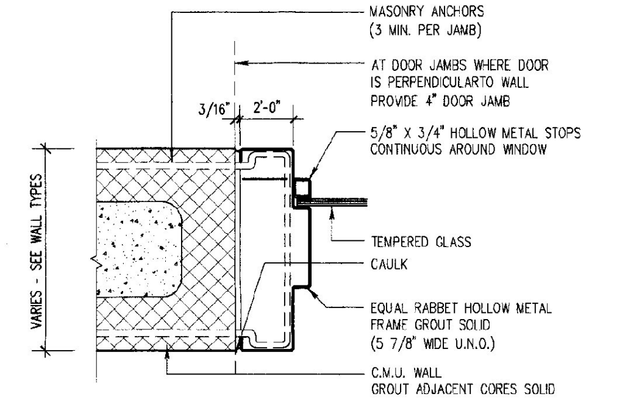

## 12 FLOOR PLAN
SCALE: 1/8" = 1'-0"




## 7 TYPICAL INT. DOOR HEAD/JAMB
SCALE: 1-1/2" = 1'-0"




## 8 TYPICAL DOOR JAMB IN C.M.U.
3" = 1'-0"




## 9 TYPICAL SIDELIGHT JAMB/HEAD
NOTE: WALL THICKNESSES VARY 3" = 1'-0"

## DOOR AND WINDOW SCHEDULE

| NO. | TYPE | SIZE (W X H X T) | FINISH | DETAILS | HDWR. SET | FRAME | FIRE RATING | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | INSULATED STEEL | 8'-0" X 8'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 2 | INSULATED STEEL | 14'-0" X 14'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 3 | INSULATED STEEL | 14'-0" X 14'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 4 | INSULATED STEEL | 14'-0" X 14'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 5 | INSULATED STEEL | 14'-0" X 14'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 6 | INSULATED STEEL | 12'-0" X 12'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 7 | INSULATED STEEL | 12'-0" X 12'-0" | FACTORY | 8/ A1 | | STEEL | | |
| 8 | INSULATED STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 7/ A1 | 5 | STEEL | | |
| 9 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 7/ A1 | 3 | STEEL | | |
| 10 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 8/ A1 | 1 | STEEL | | |
| 11 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 7/ A1 | 3 | STEEL | 45 MIN. | |
| 12 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 8/ A1 | 1 | STEEL | | |
| 13 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 8/ A1 | 2 | STEEL | | |
| 14 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 8/ A1 | 3 | STEEL | 45 MIN. | |
| 15 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 8/ A1 | 1 | STEEL | | |
| 16 | ROLLING SHUTTER | 8'-0" X 8'-0" | FACTORY | --- | | STEEL | | |
| 17 | INSULATED STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 5/ A1 | 5 | STEEL | | |
| 18 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 7/ A1 | 3 | STEEL | 45 MIN. | |
| 19 | INSULATED STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 5/ A1 | 3 | STEEL | | |
| 20 | HOLLOW STEEL | 3'-0" X 6'-8" X 1-3/4" | PAINTED | 7/ A1 | 4 | STEEL | | |
| 21 | WINDOW | 4'-0" X 4'-0" | PAINTED | 9/ A1 | | STEEL | | TEMPERED GLASS WITH WIRE |
| 22 | WINDOW | 6'-0" X 4'-0" | PAINTED | 9/ A1 | | STEEL | | TEMPERED GLASS WITH WIRE |
| 23 | PIPE STEEL | --- | PAINTED | --- | --- | STEEL | | |
| 24 | HOLLOW STEEL | 3'-0" X 6'-0" X 1-3/4" | PAINTED | 7/ A1 | 3 | STEEL | 45 MIN. | |
| A | WINDOW | 30" H. X 42"W. | FACTORY | 2/ A2 | | VINYL | --- | |
| B | WINDOW | 41-1/4" H. X 42-1/8"W. | FACTORY | 2/ A2 | | VINYL | --- | |

NOTES:
1. ALL DOORS TO BE FLUSH PANEL.
   SEE EXTERIOR ELEVATIONS FOR WINDOW LAYOUT ON OVERHEAD DOORS.

## ROOM FINISH SCHEDULE

| ROOM | | FLOOR | | WALLS | | CEILINGS | | | |
|---|---|---|---|---|---|---|---|---|---|
| NO. | TYPE | MATERIAL | BASE | MATERIAL | FINISH | MATERIAL | FINISH | HEIGHT | REMARKS |
| 100 | VENTILATION RM. | CONCRETE | N/A | ST. PANEL | FACTORY | NONE | N/A | VARIES | |
| 101 | WASTE OIL RM. | CONCRETE | N/A | ST. PANEL | FACTORY | NONE | N/A | VARIES | 1 HOUR RATED ENCLOSURE- STEEL PANELS TO BE INSTALLED OVER 5/8"TYPE "X" SHEETROCK |
| 102 | WELDING BAY | CONCRETE | N/A | ST. PANEL | FACTORY | TRUSSES | PAINT | VARIES | |
| 103 | WORK BAY | CONCRETE | N/A | C.M.U./ST. PANEL | FACT./PAINT | TRUSSES | PAINT | VARIES | |
| 104 | STORAGE BAY | CONCRETE | N/A | C.M.U./ST. PANEL | FACT./PAINT | TRUSSES | PAINT | VARIES | |
| 105 | COLD STORAGE BAY | CONCRETE | N/A | ST. PANEL | FACTORY | TRUSSES | PAINT | VARIES | |
| 106 | MAINT. OFFICE | CONCRETE | RUBBER | C.M.U. | PAINT | ST. DECK | PAINT | | |
| 107 | RESTROOM | CONCRETE | RUBBER | C.M.U. | PAINT | ST. DECK | PAINT | | |
| 108 | FLUIDS ROOM | CONCRETE | N/A | C.M.U. | N/A | ST. DECK | N/A | | 1 HOUR RATED ENCLOSURE |
| 109 | STAIRWAY | ST./CONCRETE | N/A | C.M.U./GYP. | PAINT | TRUSSES | PAINT | | |
| 110 | PARTS OFFICE | CONCRETE | RUBBER | C.M.U. | PAINT | ST. DECK | PAINT | | |
| 111 | MECH. RM. | CONCRETE | N/A | GYP. | PAINT | GYP. BD. | PAINT | | |
| 112 | PARTS MEZZANINE | CONCRETE | N/A | GYP. | PAINT | TRUSSES | PAINT | | |

NOTES:
1. ALL GYP. BD. TO BE 5/8" TYPE "X" FIRECODE GYPSUM BOARD.
   ALL O.S.B. TO BE 7/16" THICK.
   ALL INTERIOR PARTITIONS TO BE 2x6 FRAMING AT 24" O.C.
2. ALL AREAS WITH 8'-0" GYP. BD. CEILINGS PROVIDE 2x8'S AT 16" O.C. AND 3/4" O.S.B. ON TOP SURFACE.
   (O.S.B. OVER GYP. BD. IN RATED ENCLOSURES)


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Project Title:

STATE OF VERMONT DISTRICT NO. 9 SERVICE BUILDING

Derby, Vermont

Revisions:

Job Number: A0T9

File Name: a0t9fdtn.dwg

Drawn By: RRN/AK

Checked By: GG

Scale: as shown

Date: August, 1999

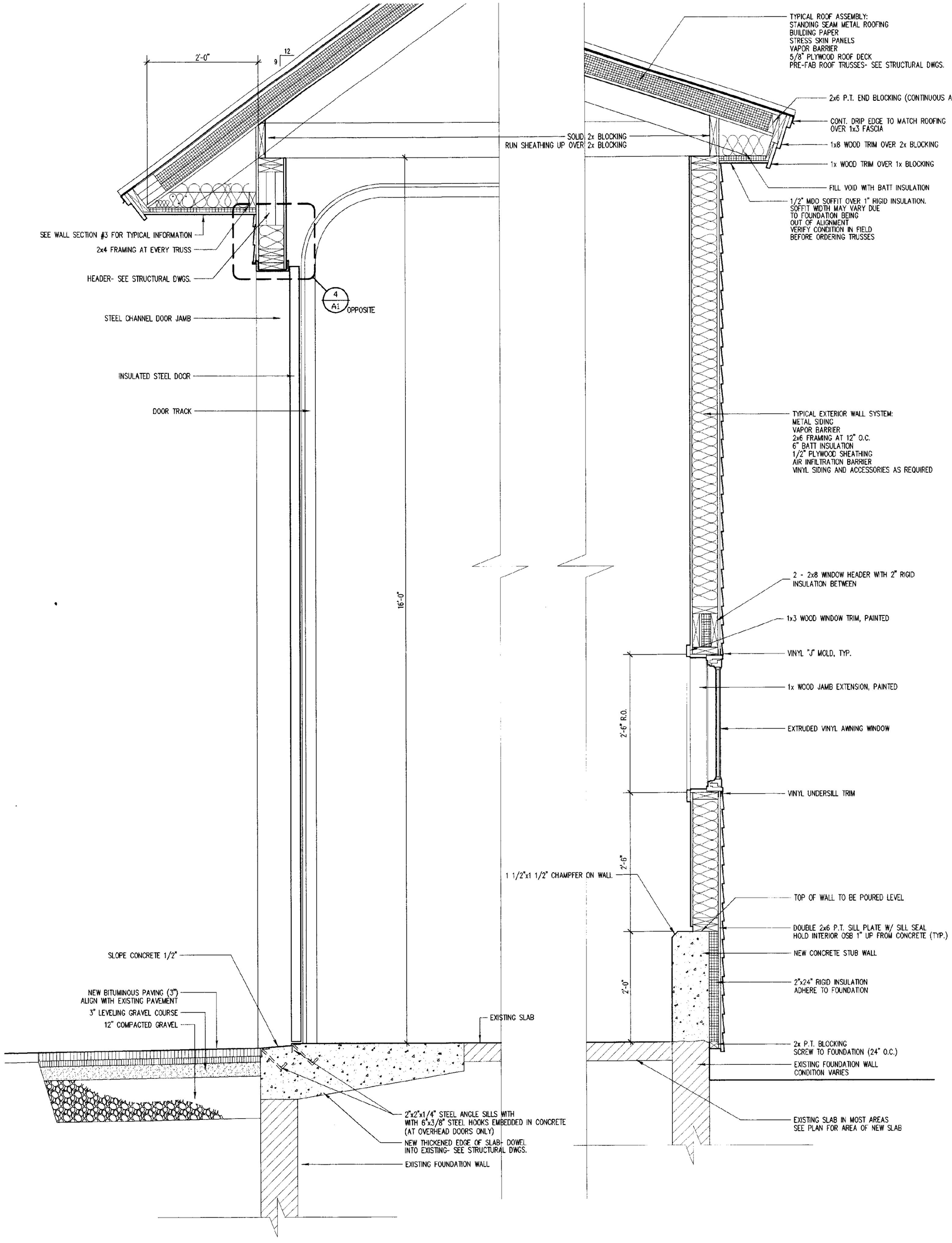
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FLOOR PLANS
ELEVATIONS
DETAILS
SCHEDULES

Sheet Number:

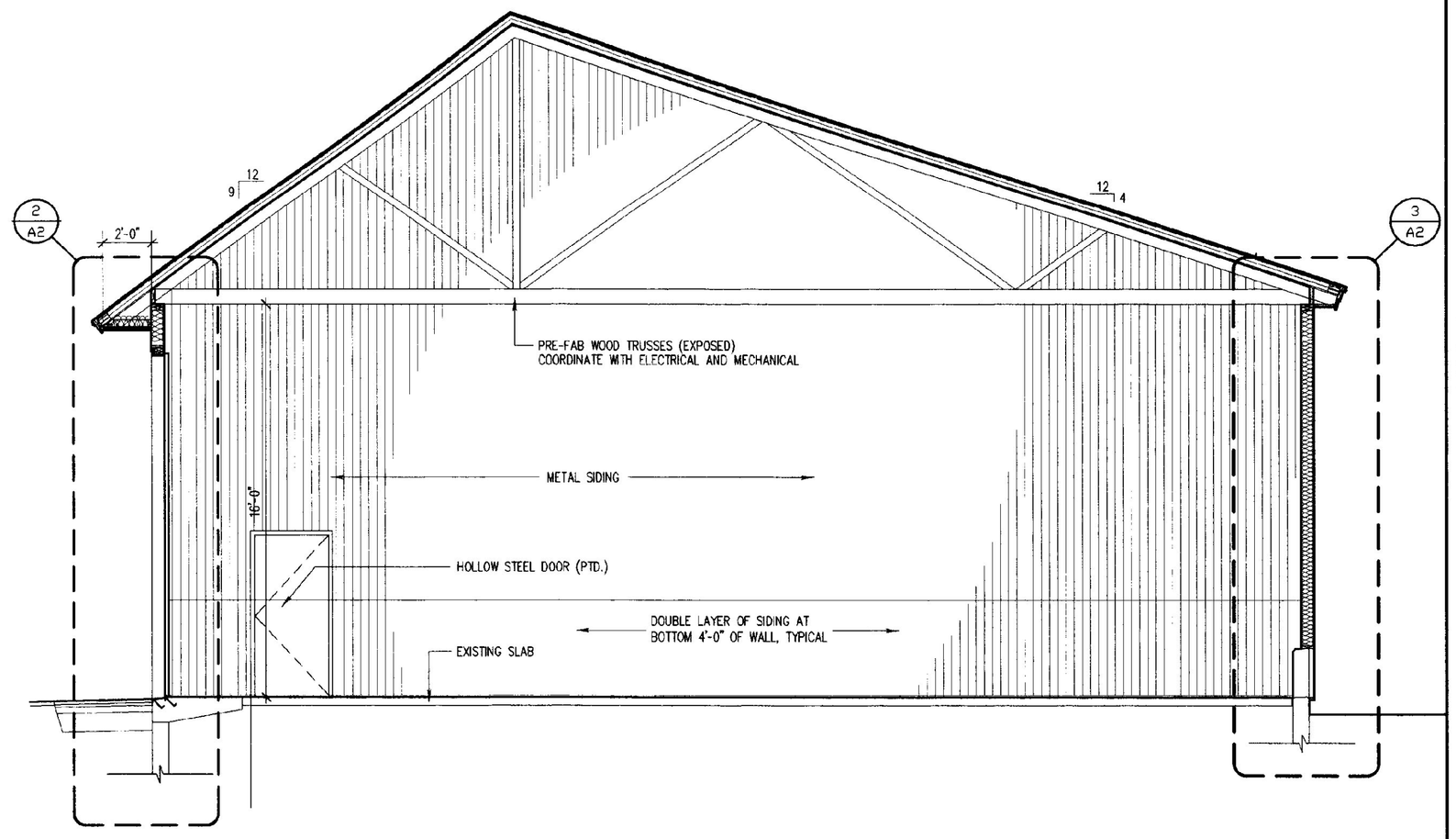
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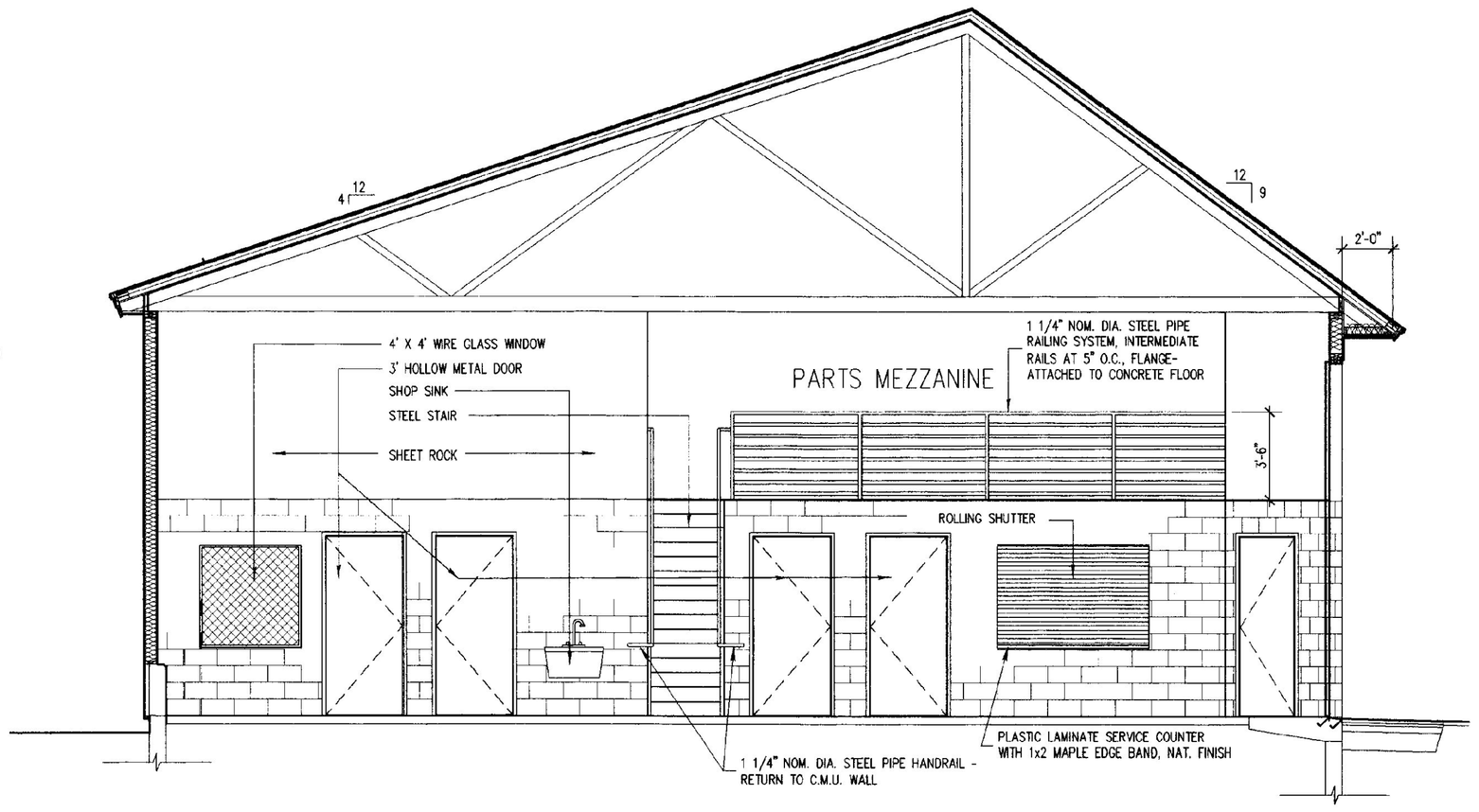



1 WALL SECTION
SCALE: 1" = 1'-0"

2 WALL SECTION
SCALE: 1" = 1'-0"




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




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

LICENSED ARCHITECT
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Project Title:

STATE OF VERMONT DISTRICT NO. 9 SERVICE BUILDING
Derby, Vermont

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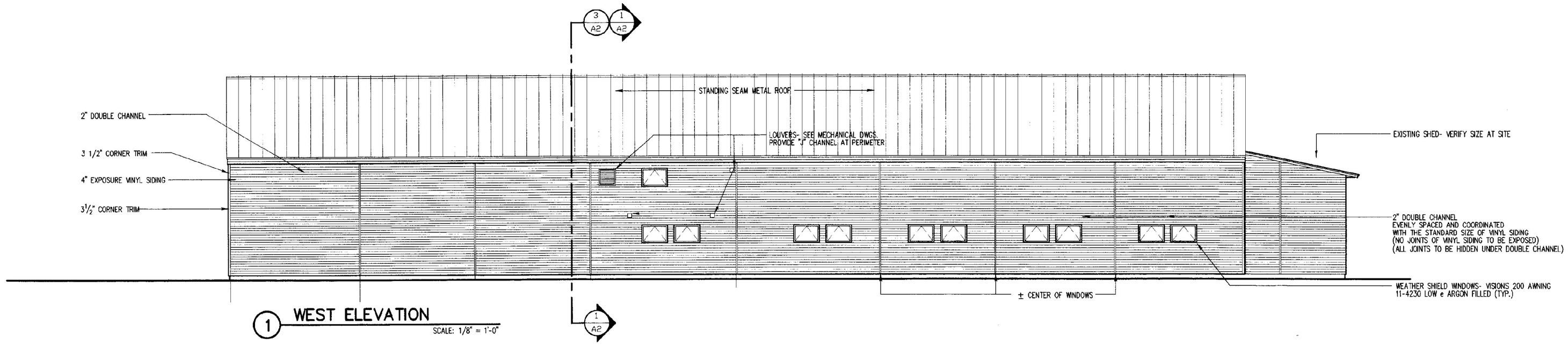
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Building Section and Wall Sections

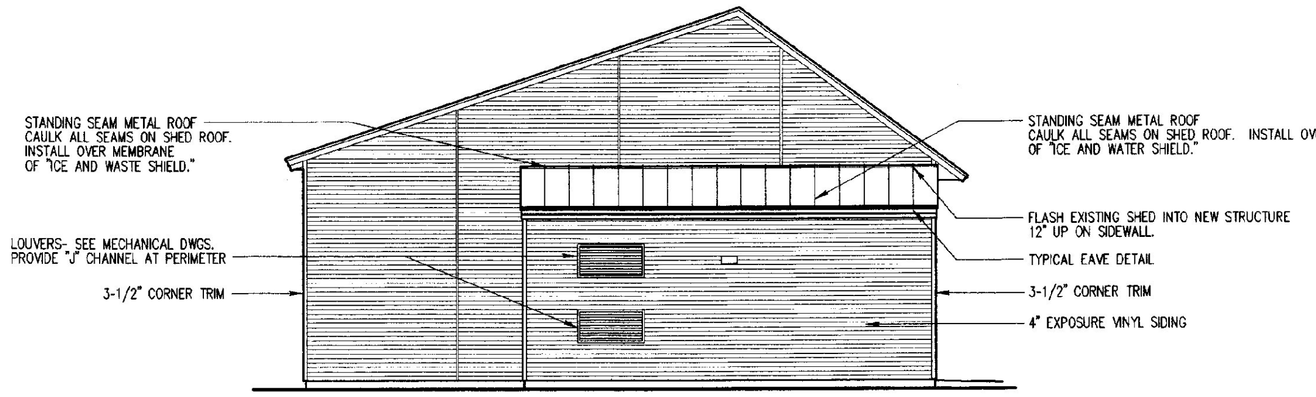
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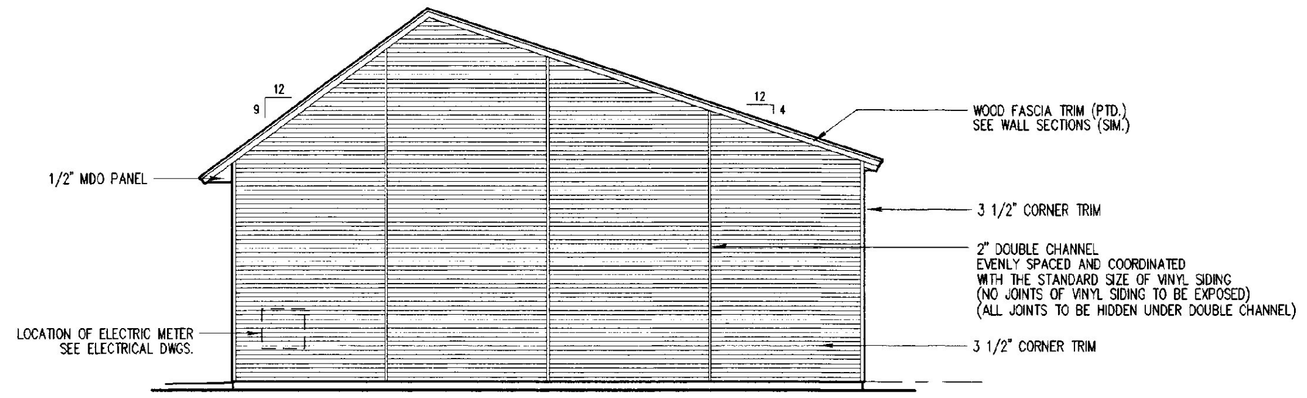
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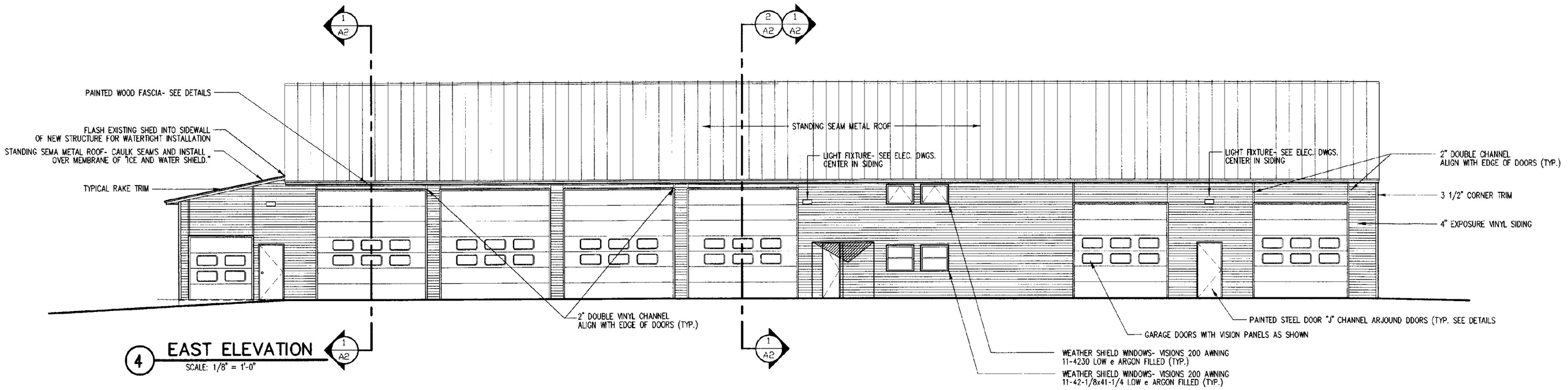

## 1 WEST ELEVATION
SCALE: 1/8" = 1'-0"



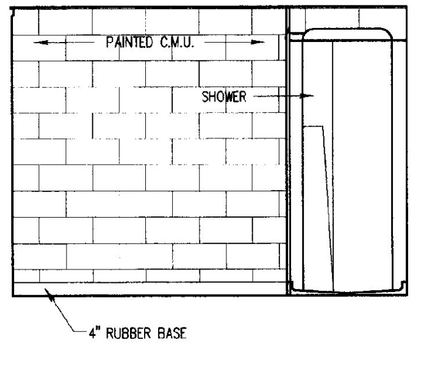

## 2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



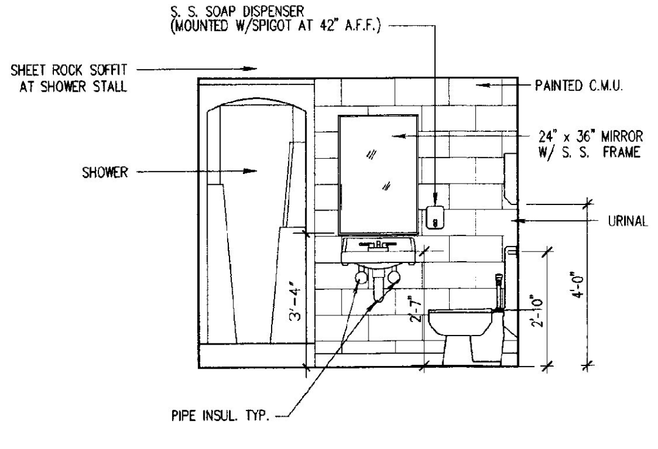

## 3 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



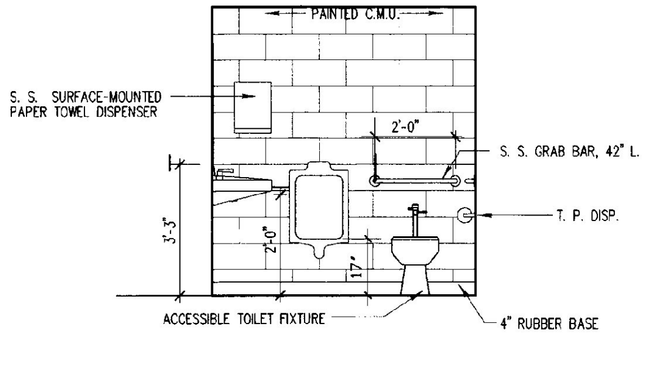

## 4 EAST ELEVATION
SCALE: 1/8" = 1'-0"



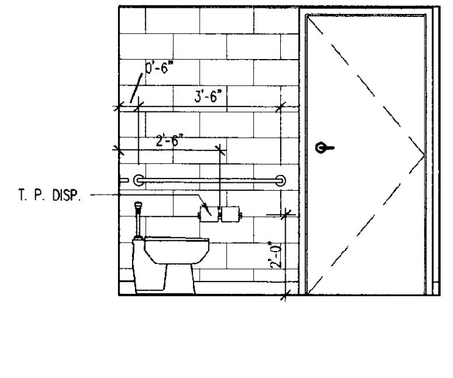

## 5 TOILET ELEVATION- NORTH
3/8" = 1'-0"




## 6 TOILET ELEVATION-EAST
3/8" = 1'-0"




## 7 TOILET ELEVATION-SOUTH
3/8" = 1'-0"




## 8 TOILET ELEVATION-SOUTH
3/8" = 1'-0"

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Project Title:

STATE OF VERMONT DISTRICT NO. 9 SERVICE BUILDING
Derby, Vermont

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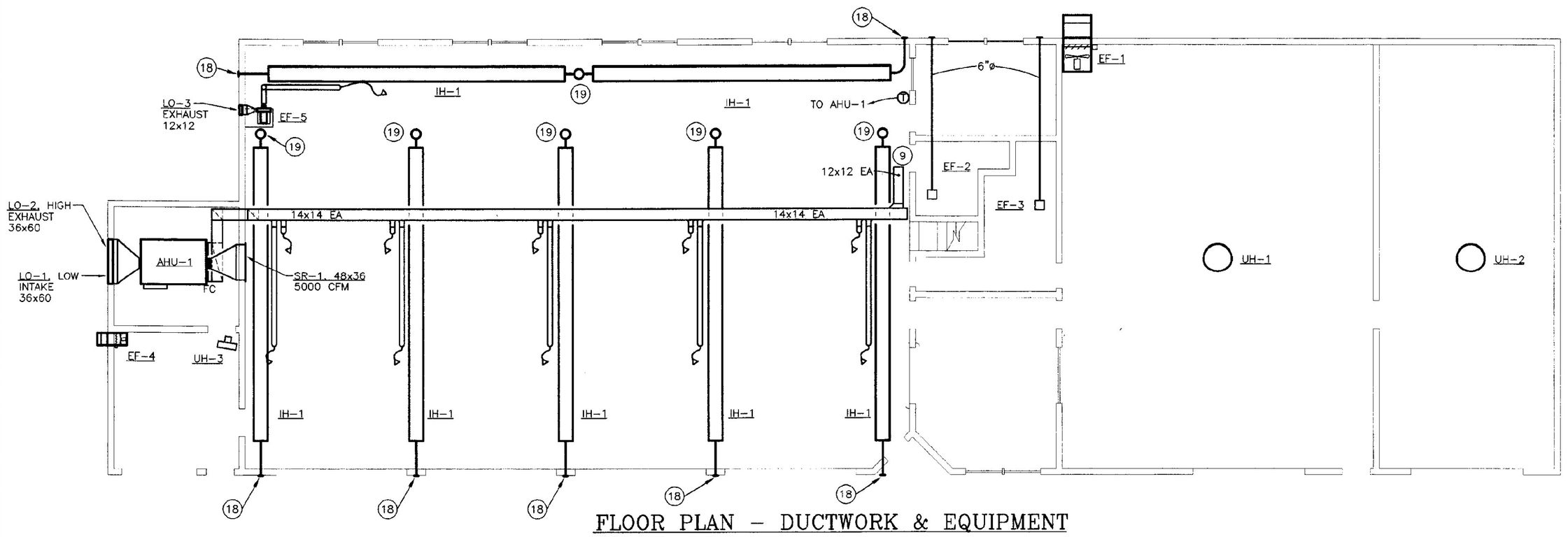
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Elevations

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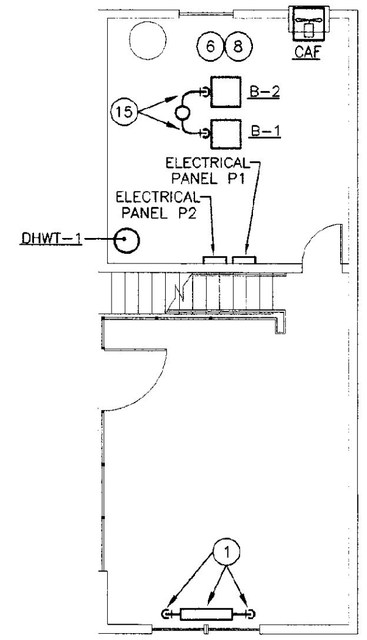
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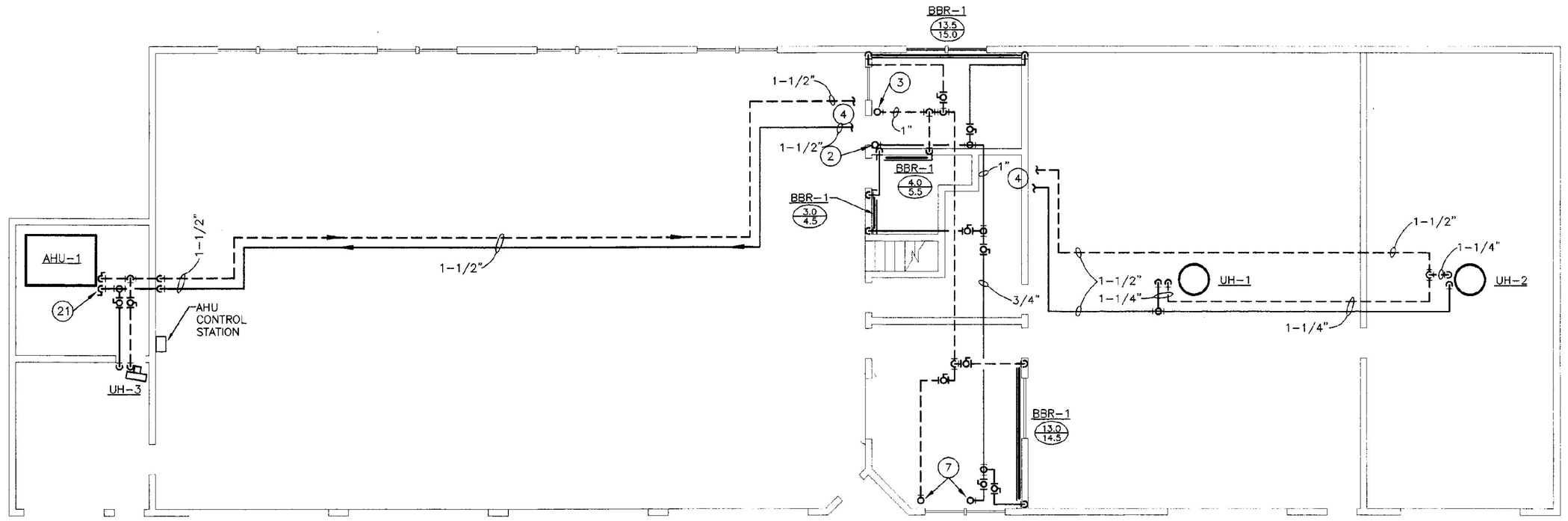

## FLOOR PLAN – DUCTWORK & EQUIPMENT

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



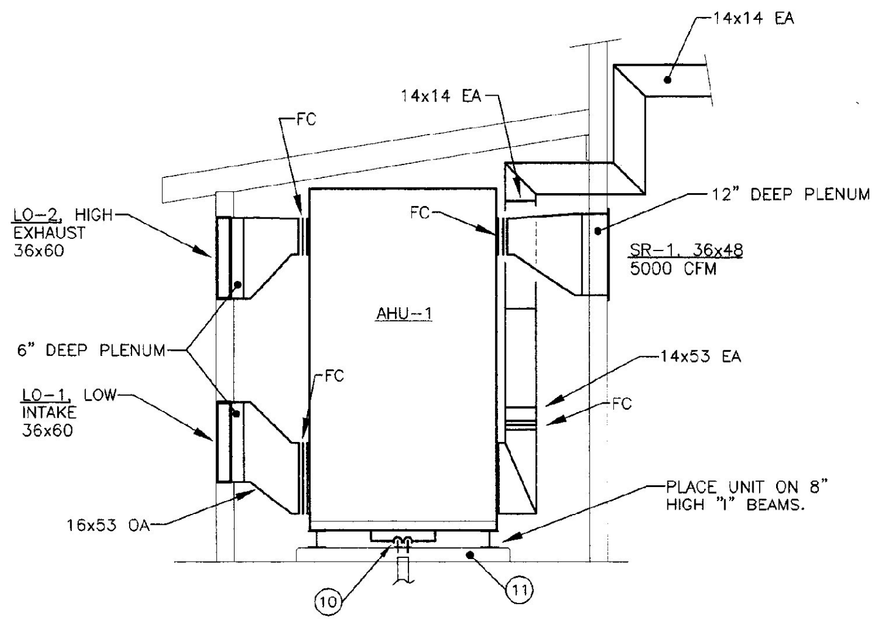

## SECOND FLOOR PLAN – PIPING & EQUIPMENT

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



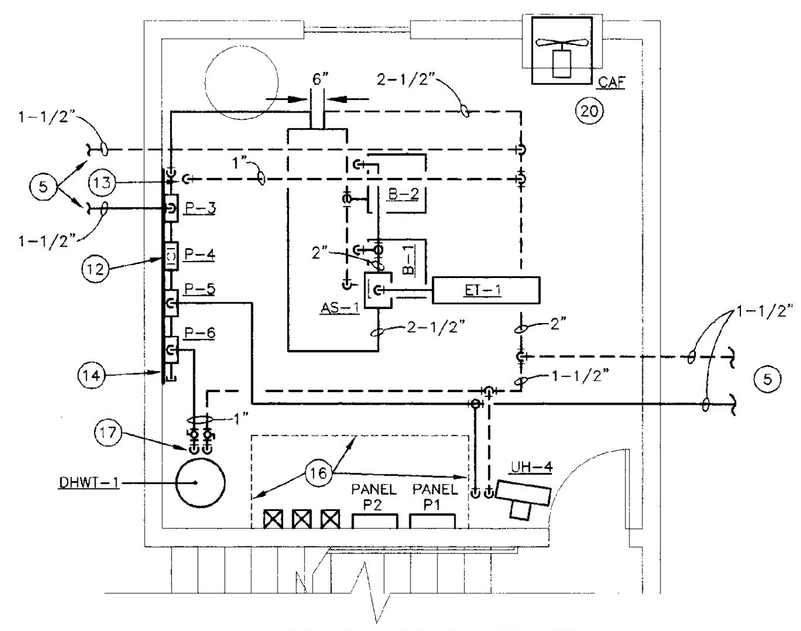

## FLOOR PLAN – PIPING

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




## SECTION OF MECHANICAL ROOM

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




## BOILER ROOM PLAN

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

## GENERAL NOTES:

A. ALL HWS AND HWR PIPING FOR BASEBOARD RADIATION (BBR) TO BE 3/4" IN SIZE, UNLESS OTHERWISE NOTED.

B. ALL HWS AND HWR PIPING FOR UNIT HEATERS (UH) TO BE 3/4" IN SIZE, UNLESS OTHERWISE NOTED.

## KEYED NOTES:

1. CAST IRON RADIATOR TO BE FURNISHED BY OWNER AND INSTALLED BY MC. MC TO CLEAN UNIT READY FOR INSTALLATION. 3/4" HWS & HWR DOWN TO FLOOR BELOW.
2. 1" HWS UP TO SECOND FLOOR ABOVE. REFER TO BOILER ROOM PLAN FOR CONTINUATION OF PIPING.
3. 1" HWR UP TO SECOND FLOOR ABOVE. REFER TO BOILER ROOM PLAN FOR CONTINUATION OF PIPING.
4. REFER TO BOILER ROOM PLAN FOR CONTINUATION OF PIPING.
5. REFER TO FLOOR PLAN – PIPING FOR CONTINUATION.
6. REFER TO HOT WATER PIPING SCHEMATIC DIAGRAM FOR PIPING CONFIGURATION.
7. 3/4" HWS & HWR UP TO CAST IRON RADIATOR ABOVE.
8. REFER TO 1/4" SCALE OF MECHANICAL ROOM FOR PIPING LAYOUT.
9. PROVIDE 1/2" MESH SCREEN AT OUTLET OF DUCTWORK.
10. 3/4" CONDENSATE DRAINS OUT TO 4" DRAIN AS PROVIDED BY PC. TERMINATE DRAIN LINES 2" ABOVE RIM OF SANITARY DRAIN PIPE. TERMINATE ENDS OF DRAIN LINES AT A 45° ANGLE. CLEAN AND REAM ENS OF PIPE.
11. 6" HIGH CONCRETE PAD, PAD TO BE 6" BIGGER ON ALL SIDES THAN EQUIPMENT. PROVIDE CHAMFER EDGE ON PAD.
12. 1" HWS DOWN TO FLOOR BELOW. REFER TO FLOOR PLAN – PIPING FOR CONTINUATION.
13. 1" HWR UP FROM FLOOR BELOW. REFER TO FLOOR PLAN – PIPING FOR CONTINUATION.
14. 3/4" THICK x 4' x 8' PLYWOOD BOARD TO MOUNT PUMPS, CONTROLS AND ACCESSORIES ON.
15. 12" BOILER VENT UP THROUGH ROOF. PROVIDE DRAIN AT BOOTOM.
16. COORDINATE WITH EC TO PROVIDE 36" CLEAR IN FRONT OF ELECTRICAL PANELS AND EQUIPMENT. MC TO NOT RUN ANY PIPING OR DUCTWORK IN THIS AREA.
17. 1" HWS & HWR DOWN TO DHWT-1. PROVIDE UNIONS AND DRAIN VALVES CONNECTIONS AT EQUIPMENT.
18. FRESH AIR OPENING FOR INFRA-RED HEATER (IH-1).
19. EXHAUST OUTLET UP THROUGH THE ROOF.
20. REFER TO BOILER ROOM COMBUSTION AIR/VENTILATION DETAIL FOR INSTALLATION OF FAN.
21. 1-1/4" HWS & HWR DOWN TO HOT WATER COIL FOR AHU-1. REFER TO HOT WATER HEATING COIL PIPING DETAIL FOR PIPING CONNECTIONS TO HEATING COIL. MOUNT ALL PIPING TO HEATING COIL SO AS NOT TO INTERFERE WITH THE ACCESS DOORS AND ACCESS TO UNIT.

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STATE OF VERMONT — ERIC E. PEARSON — No. 11167 — REGISTERED PROFESSIONAL ENGINEER

**Project Title:**

**STATE OF VERMONT**
**AGENCY OF TRANSPORTATION**
**DISTRICT NO. 9**
**MAINTENANCE GARAGE**

**DERBY, VERMONT**

**Revisions:**

| | |
|---|---|
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| **File Name:** | **A0T9** |
| **Drawn By:** | **TJY** |
| **Checked By:** | **EEP** |
| **Scale:** | **As Shown** |
| **Date:** | **August 1999** |

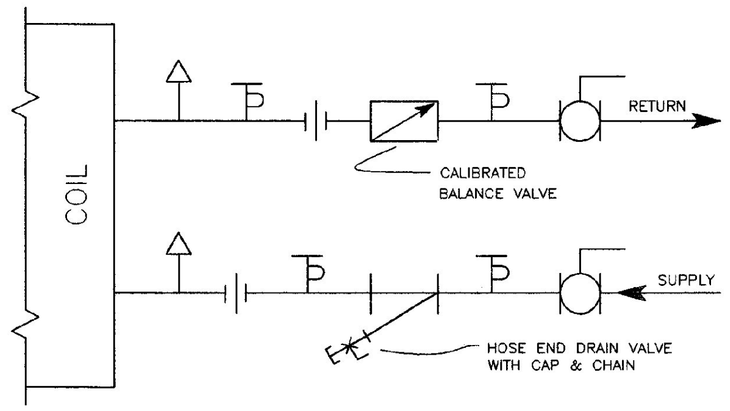
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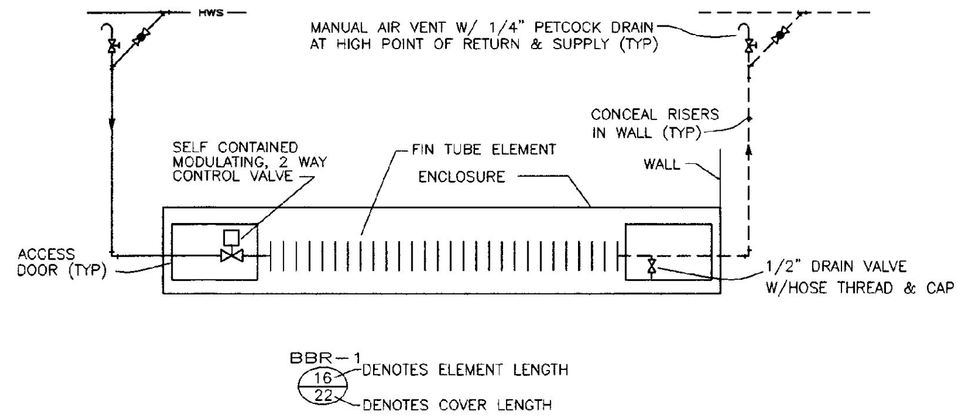
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## UNIT HEATER PIPING SCHEMATIC DIAGRAM
NO SCALE



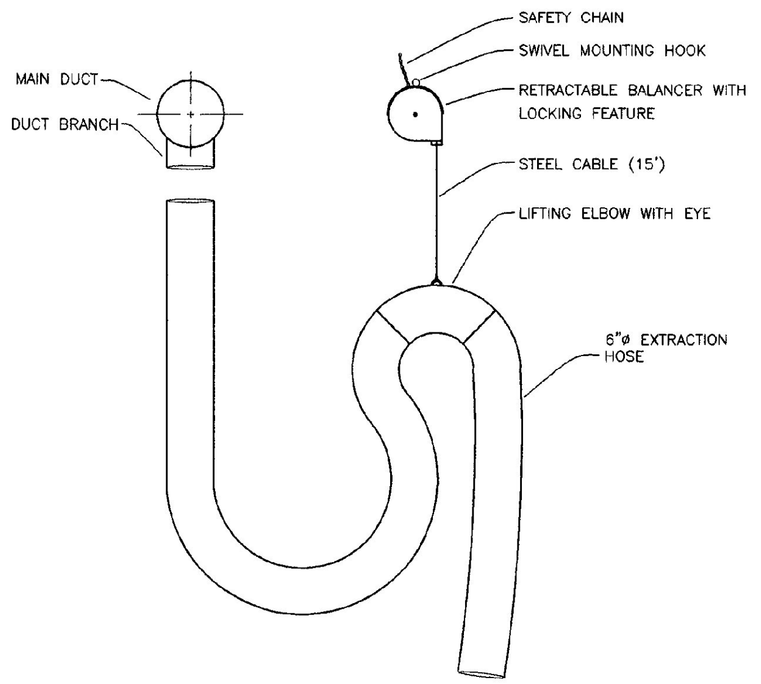

## TYPICAL BBR-1 BASEBOARD PIPING DETAIL
NO SCALE

## MECHANICAL LEGEND

| | |
|---|---|
| ——— | HOT WATER SUPPLY |
| - - - - - | HOT WATER RETURN |
| | AIR VENT |
| | BALL VALVE |
| | FLOW CHECK |
| | FLOW DIRECTION |
| | PIPE UP |
| | PIPE DOWN |
| | PRESSURE GAUGE |
| | TEMPERATURE/PRESSURE PORT |
| | UNION |
| AFF | ABOVE FINISH FLOOR |
| BBR | BASEBOARD RADIATION |
| DHWT | DOMESTIC HOT WATER TANK |
| EC | ELECTRICAL CONTRACTOR |
| FF | FILTER FEEDER |
| GF | GLYCOL FEEDER |
| MC | MECHANICAL CONTRACTOR |
| AHU | AIR HANDLING UNIT |
| SR | SUPPLY REGISTER |
| UH | UNIT HEATER |

## MECHANICAL EQUIPMENT SCHEDULE

| ITEM | DESCRIPTION |
|---|---|
| AE | AIR ELIMINATION VALVE, SPIROTHERM QUICK AIR RELEASE. |
| AS-1 | AIR SEPARATOR, SPIROTHERM DIRT DRAIN 2". |
| BBR-1 | BASEBOARD RADIATOR, 770 BTUH / FT @ 180'F EWT, 4 GPM, 65'F EAT, VULCAN MODEL No. FS-210, SELF CONTAINED THERMOSTAT/CONTROL VALVE. |
| B-1 AND B-2 | BOILER: BUDERUS MODEL No. G234X-45. PROVIDE WITH PROPANE FIRED BURNER MOUNTED AT FACTORY, 230 VOLT ONE PHASE, GROSS RATING 187 MBTU/HR., NET IBR 154 MBTU/HR OUTPUT, 84% EFFICIENCY. ACCESSORIES: 30lb RELIEF VALVE, AQUASTAT, MANUAL RESET LOW WATER CUTOFF, MANUAL RESET HIGH TEMPERATURE LIMIT, 2" MANIFOLD SET, UL BURNER CONTROL, VENT DAMPER ADAPTER, HS2015 ECOMATIC CONTROL. PROVIDE 4" HIGH CONCRETE PAD WITH ANGLE IRON BOILER SUPPORT. PROVIDE WITH TYPE "B" BOILER BREECHING OF SIZE AS REQUIRED, PROVIDE VENT TERMINATION CAP 4' ABOVE THE ROOF LINE. |
| DHWT-1 | DOMESTIC HOT WATER TANK: BUDERUS MODEL No. "TBS-Isocal"-SU-160, PROVIDE SCREW-ON FEET, PROVIDE HOSE BIBB CONNECTION ON DOMESTIC HOT WATER DRAIN PORT. |
| ET-1 | EXPANSION TANK, EXTROL AX40-HORIZONTAL. |
| GF | GLYCOL FEEDER: 50 GALLON TANK WITH COVER, LMI 26350, ELECTROMAGNETIC METERING PUMP, LMI 151-191; LIQUID LEVEL SWITCH - PUMP CONTROL, LMI 26731; PRESURETROL, HONEYWELL L404A1370 |
| UH-1 | UNIT HEATER: 99,900 BTU/HR @ 180'F EWT, 160'F LWT, 10.0 GPM, 0.9 WPD, 60'F EAT, 30% PROPYLENE GLYCOL; VULCAN MODEL No. VV144, 1/4HP, 115 VAC. |
| UH-2 | UNIT HEATER: 70,000 BTU/HR @ 180'F EWT, 160'F LWT, 7.0 GPM, 0.3 WPD, 60'F EAT, 30% PROPYLENE GLYCOL; VULCAN MODEL No. VV104, 1/20 HP, 115 VAC. |
| UH-3 | UNIT HEATER: 18,400 BTU/HR @ 180'F EWT, 160'F LWT, 1.9 GPM, 2.2 WPD, 60'F EAT, 30% PROPYLENE GLYCOL; VULCAN MODEL No. HV-118A, 1/50 HP, 115 VAC. |
| UH-4 | UNIT HEATER: 18,400 BTU/HR @ 180'F EWT, 160'F LWT, 1.9 GPM, 2.2 WPD, 60'F EAT, 30% PROPYLENE GLYCOL; VULCAN MODEL No. HV-118A, 1/50 HP, 115 VAC. |
| IH-1 | INFRA-RED HEATER: RE-VERBER RAY MODEL No. DTHS30-75P-2, OR EQUAL. PROVIDE WITH CHAINS, LINE VOLTAGE THERMOSTAT, BREIDERT VENT CAP, No. Y-DUAL EXHAUST ASSEMBLY FOR COMMON EXHAUST WHERE REQUIRED, WV-4 WALL INTAKE CAP WITH BIRD SCREEN, ALL HANGERS, REFLECTORS, PITCHED ROOF CURB FOR EXHAUST VENTS, AIR INTAKE COLLAR No. AIC, FLEXIBLE GAS CONNECTOR, GAS VALVE, AND 4" OR 6" FLUE PIPE AS REQUIRED. |
| CAF | COMBUSTION AIR FAN: TJERNLUND PRODUCTS, INC, MODEL No. PAI-4, 400,000 BTU/HR INPUT, 115/1/60 VOLTS, PROVIDE WITH WALL INTAKE HOOD. |
| AHU-1 | AIR HANDLING UNIT: HEATEX UNIT MODEL No. H-1-30A-1200; OR EQUAL, 5000 CFM SUPPLY, 4400 CFM EXHAUST. SEE SPECIFICATION SECTION 15780 FOR FURTHER INFORMATION. |
| FF | FILTER: AQUA PURE MODEL No. SS1HA. |



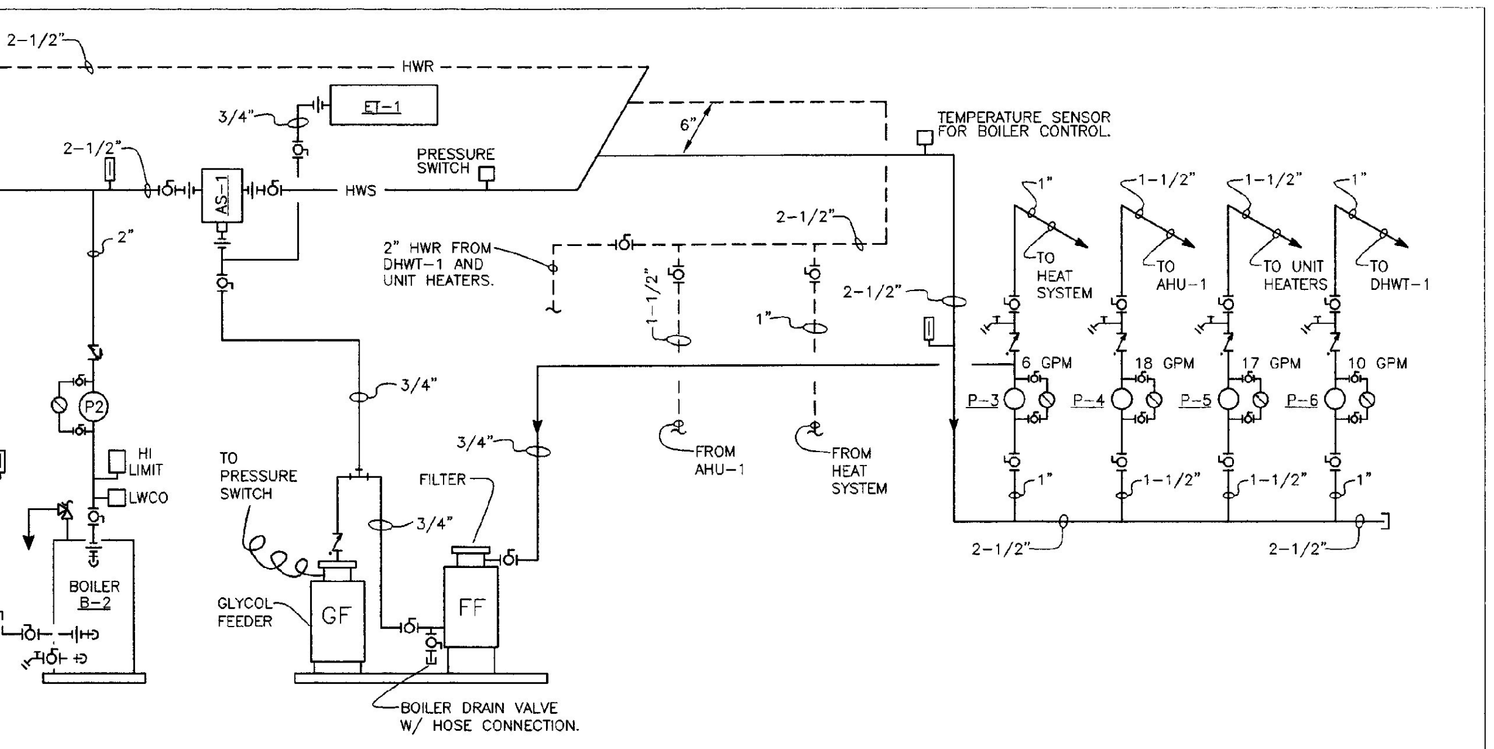

## RETRACTABLE OVERHEAD EXTRACTION SYSTEM DETAIL
NO SCALE

## PUMP SCHEDULE

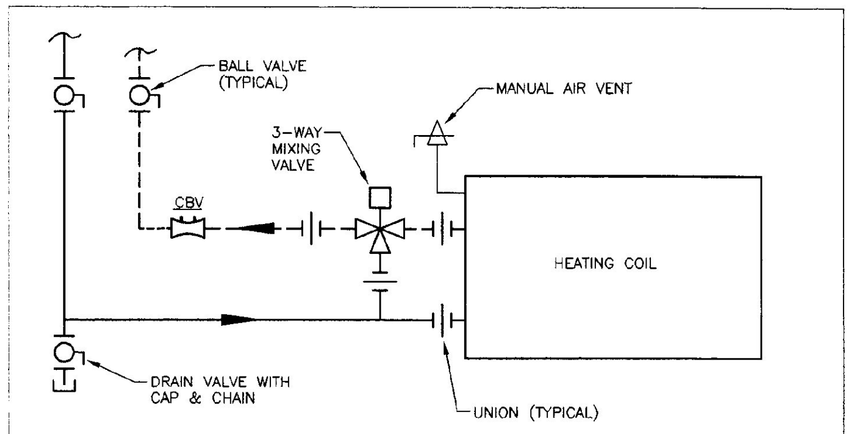
| ITEM | MANUFACTURER | MODEL # | GPM | FT. HEAD | HP | VOLT | PH | SPD |
|---|---|---|---|---|---|---|---|---|
| P-1 | TACO | 005 | 12 | 5 | 1/35 | 115 | 1 | 1 |
| P-2 | TACO | 005 | 12 | 5 | 1/35 | 115 | 1 | 1 |
| P-3 | TACO | 007 | 6 | 9 | 1/25 | 115 | 1 | 1 |
| P-4 | TACO | 0013 | 18 | 15 | 1/8 | 115 | 1 | 1 |
| P-5 | TACO | 0013 | 17 | 15 | 1/8 | 115 | 1 | 1 |
| P-6 | TACO | 005 | 10 | 6 | 1/25 | 115 | 1 | 1 |

## SOURCE CAPTURE SCHEDULE

| ITEM | DESCRIPTION |
|---|---|
| HOOD | 36" X 24", 18 GAUGE BLACK IRON HOOD WITH EPOXY COATING, 10" COLLAR, MONOXIVENT FH3624 |
| EXTRACTION ARM | 10' X 6" WALL MOUNT EXTRACTION ARM WITH BRACKET, MONOXIVENT 15106 |
| RETRACTABLE OVERHEAD EXTRACTION SYSTEM | 24' X 6" HOSE, BALANCER WITH SAFETY CHAIN AND LIFTING ELBOW, MONOXIVENT 11246-D<br>TAPERED CONE NOZZLE, MONOXIVENT TCA-6<br>MAGNETS (2 PER NOZZLE), MONOXIVENT MAG<br>SLIDE GATE, MONOXIVENT 23616<br>SLEEVE, MONOXIVENT SL-6 |




## HOT WATER PIPING SCHEMATIC DIAGRAM
NO SCALE




## HOT WATER HEATING COIL PIPING DETAIL (AHU-1)
NO SCALE

## LOUVERS, GRILLES, REGISTERS, DIFFUSERS SCHEDULE

| ITEM | DESCRIPTION |
|---|---|
| L-1 | LOUVER: CARNES MODEL No. FPCA, EXTRUDED ALUMINUM, STATIONARY DRAINABLE BLADE, 60" WIDE X 36" HIGH, 4" CENTERS WITH 6" FRAME, BIRD SCREEN AND COLOR TO BE SELECTED BY ARCHITECT. |
| L-2 | LOUVER: CARNES MODEL No. FPCA, EXTRUDED ALUMINUM, STATIONARY DRAINABLE BLADE, 60" WIDE X 24" HIGH, 4" CENTERS WITH 6" FRAME, BIRD SCREEN AND COLOR TO BE SELECTED BY ARCHITECT. |
| L-3 | LOUVER: CARNES MODEL No. FPCA, EXTRUDED ALUMINUM, STATIONARY DRAINABLE BLADE, 24" WIDE X 12" HIGH, 4" CENTERS WITH 6" FRAME, BIRD SCREEN AND COLOR TO BE SELECTED BY ARCHITECT. |
| SR-1 | SUPPLY REGISTER: CARNES MODEL No. RARAH, 48"WIDE X 36"HIGH, WHITE ALUMINUM. |

## EXHAUST FAN SCHEDULE

| TAG | UNIT CFM | TYPE | FAN MOTOR ESP | FAN MOTOR HP | FAN MOTOR MAX. RPM | FAN MOTOR VOLTAGE | MOTOR STARTER CUTLER HAMMER | DESIGN BASIS MANUFACTURER | DESIGN BASIS MODEL No. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | 2300 | PROPELLER | 0.25 | 1/3 | 510 | 120/1/60 | MANUAL MOTOR STATER | CARNES | LWBK-30 | 1 |
| EF-2 | 100 | IN-LINE | 0.25 | 1.2 AMPS | 1625 | 120/1/60 | SWITCH BY EC | CARNES | VCDB015 | 2 |
| EF-3 | 200 | IN-LINE | 0.38 | 2.3 AMPS | 1625 | 120/1/60 | SWITCH BY EC | CARNES | VCDB030 | 2 |
| EF-4 | 400 | PROPELLER | 0.125 | 1/6 | 1500 | 120/1/60 | MANUAL MOTOR STATER | CARNES | LYDK-10K2 | 1 |
| EF-5 | 600 | UTILITY SET | 4.0 | 1.5 | 3977 | 240/1/60 | MANUAL MOTOR STATER | TWIN CITY | 905 RBO/R | 3 |

(1) ACCESSORIES TO INCLUDE: OSHA GUARD, WALL BOX, DAMPER W/ACTUACTOR, WEATHER HOOD, "DELAY-ON" TIMER AND INTEGRAL FACTORY MOUNTED DISCONNECT SWITCH.

(2) ACCESSORIES TO INCLUDE: WALL CAP, BACKDRAFT DAMPER, NEOPRENE ISOLATORS AND INTEGRAL FACTORY MOUNTED DISCONNECT SWITCH.

(3) ACCESSORIES TO INCLUDE: SPRING VIBRATION ISOLATORS, MOTOR & BELT GUARD AND INLET & OUTLET FLANGES.

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**DISTRICT NO. 9**
**MAINTENANCE GARAGE**

**DERBY, VERMONT**

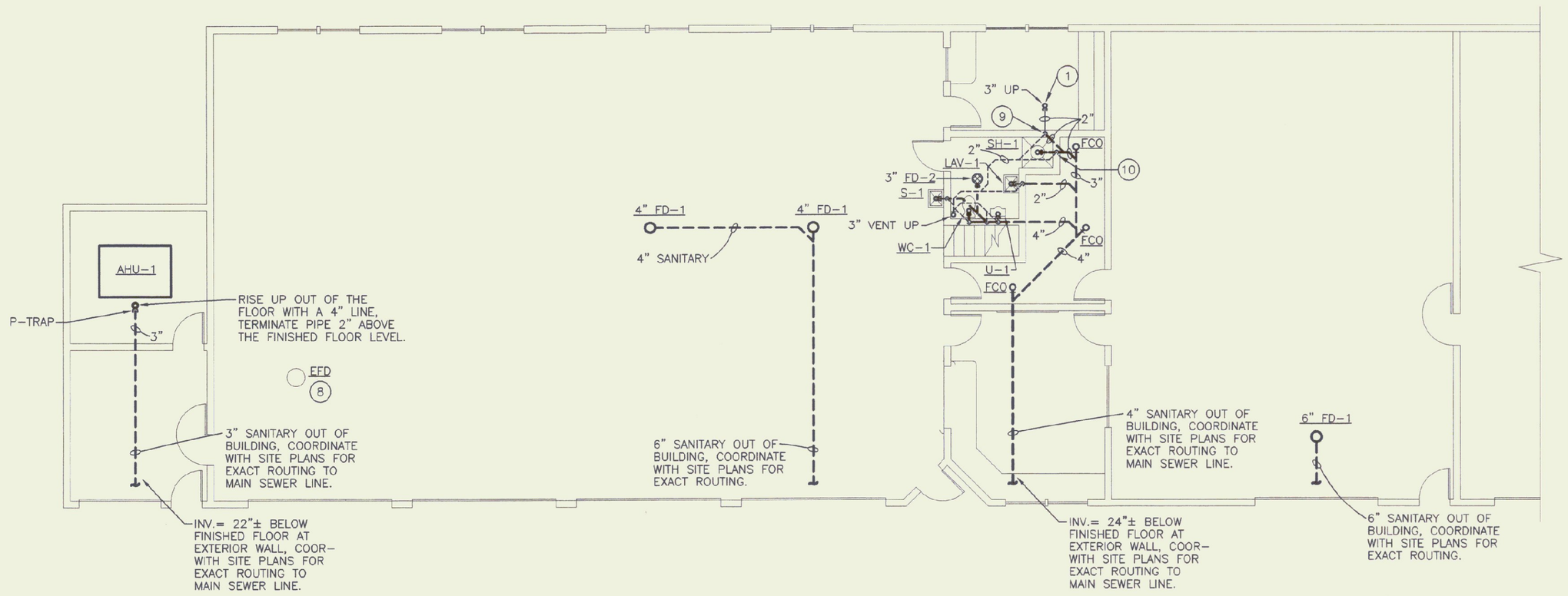
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| Scale: | As Shown |
| Date: | August 1999 |

**Sheet Title:**
**Mechanical Details and Schedules**

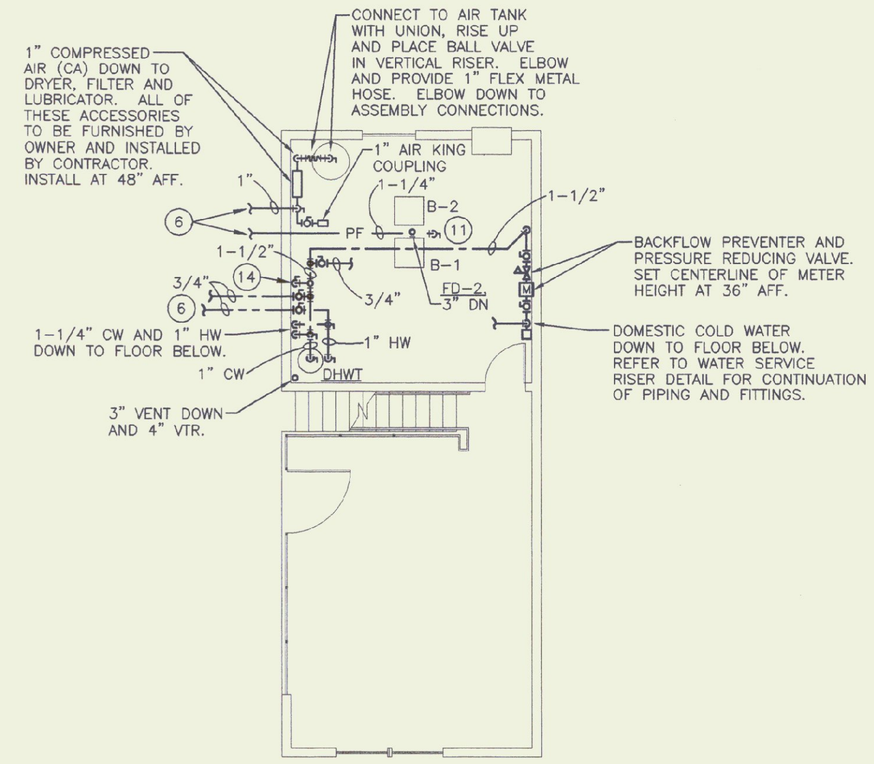
**Sheet Number:**
**M2**

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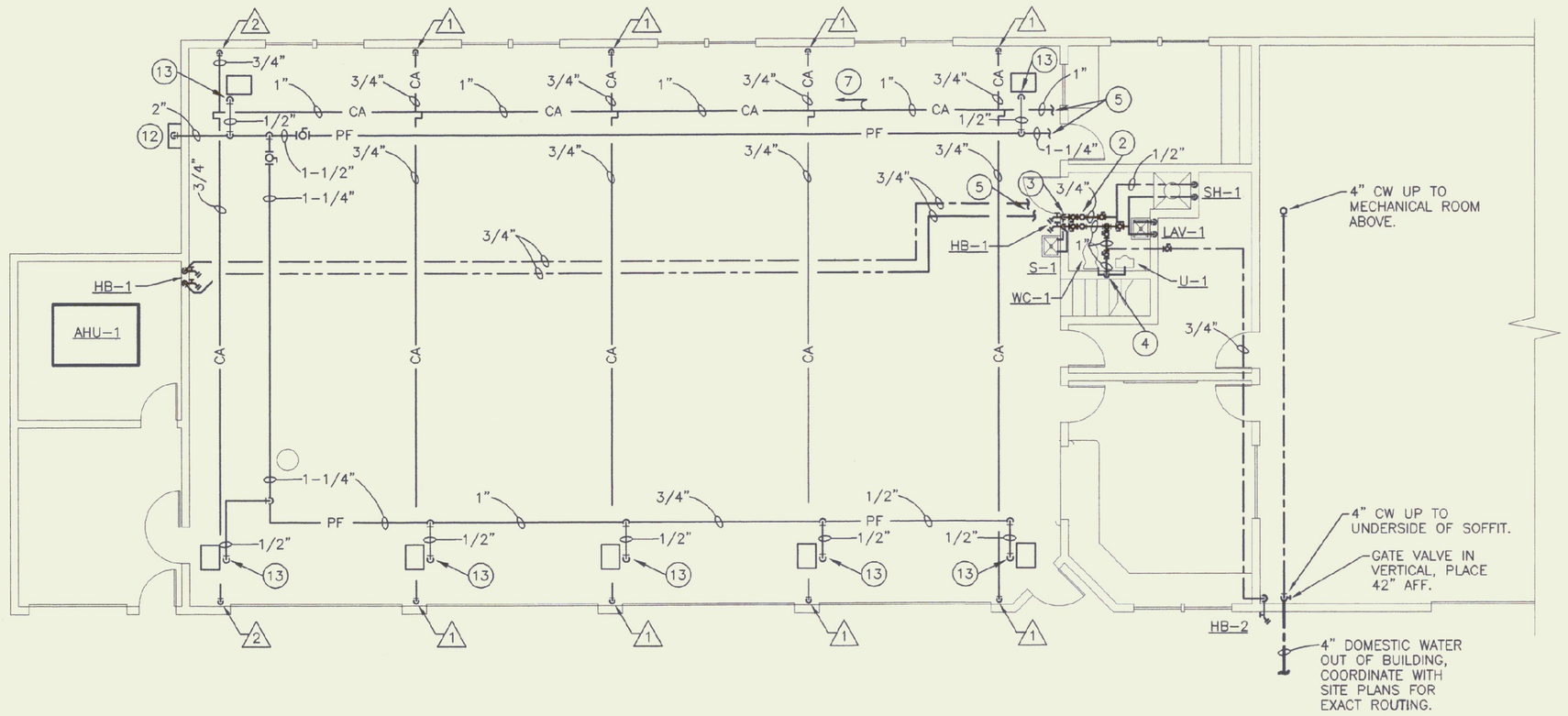

## FLOOR PLAN – SANITARY & VENT

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




## SECOND FLOOR PLAN

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




## FLOOR PLAN – DOMESTIC & OTHER PIPING

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

## GENERAL NOTES:

A. FOR THE TRIANGLE NOTES ON THIS SHEET, REFER TO DRAWING P2 FOR CLARIFICATION.

## KEYED NOTES:

1. TRANSITION IN VERTICAL GOING THROUGH THE FLOOR FROM THE 2" TRAP TO 3" AS DRAIN FOR MECH RM. TERMINATE PIPE 2" ABOVE THE FINISHED FLOOR LEVEL.
2. 1-1/4" CW AND 1" HW UP TO SECOND FLOOR.
3. DROP DOWN IN WALL WITH 1" CW AND 1" HW TO HB-1. IN DROP, TEE OFF WITH 1/2" CW & HW TO S-1. THEN TRANSITION TO 3/4" FOR CONNECTION TO HB-1.
4. 1" DOWN TO WC-1 AND U-1.
5. FOR CONTINUATION, REFER TO SECOND FLOOR PLAN.
6. FOR CONTINUATION, REFER TO FLOOR PLAN – DOMESTIC & OTHER PIPING.
7. PITCH COMPRESSED AIR PIPING DOWN TOWARDS THE END OF THE BUILDING.
8. EXISTING FLOOR DRAIN (EFD) TO REMAIN, NO NEW WORK.
9. 2" SANITARY DOWN IN WALL, 1-1/2" VENT UP TO CEILING TO CONNECT TO 2" MAIN VENT.
10. 1-1/2" VENT UP FROM 2" SANITARY DRAIN FOR SH-1. CONNECT 1-1/2" VENT TO 2" MAIN VENT.
11. 1-1/4" PIPE FOR PROPANE DOWN TO BOILER BURNERS. TEE OFF WITH 3/4" LINES TO EACH BOILER BURNER. PROVIDE 6" LONG DIRT LEG, BALL VALVES IN VERTICAL DROPS AND UNIONS AT CONNECTIONS TO BOILER BURNERS.
12. PROPANE REGULATOR AND TANK(S) TO BE PROVIDED BY PROPANE SUPPLIER. OWNER TO CONTRACT AND COORDINATE WITH PROPANE SUPPLIER. PC TO CONNECT PIPING FROM REGULATOR AND RUN AS SHOWN ON DRAWINGS. PC TO PROVIDE UNION FOR CONNECTION AT REGULATOR.
13. 1/2" PIPE FOR PROPANE DOWN TO INFRA-RED HEATER (IH-1). PROVIDE 6" LONG DIRT LEG, BALL VALVE FOR SHUT-OFF AND UNION FOR CONNECTION TO BURNER. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR PIPING CONNECTIONS, ACCESSORIES AND RECOMMENDATIONS.
14. 3/4" COLD WATER LINE DOWN TO HOSE BIBB (HB-3). MOUNT HB-3 AT 36" AFF.

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**DISTRICT NO. 9**
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**DERBY, VERMONT**

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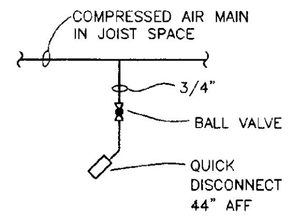
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**Plumbing Plans**

Sheet Number:
**P1**

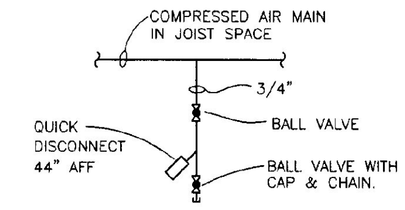
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## MECHANICAL LEGEND

| | |
|---|---|
| —— - —— | COLD WATER |
| —— - —— | HOT WATER |
| ———— | HOT WATER SUPPLY |
| - - - - - | HOT WATER RETURN |
| ——CA—— | COMPRESSED AIR |
| ▬▬▬▬ | SANITARY WASTE – UNDERGROUND |
| ———— | SANITARY WASTE – ABOVE GROUND |
| | AIR VENT |
| | BALL VALVE |
| | FLOW CHECK |
| | FLOW DIRECTION |
| FS | FLOW SWITCH |
| | HOSE BIBB |
| | PIPE UP |
| | PIPE DOWN |
| | PIPE DOWN WITH BALL VALVE IN VERTICAL LEG |
| | PRESSURE GAUGE |
| TS | TAMPER SWITCH |
| | TEMPERATURE/PRESSURE PORT |
| | UNION |
| AFF | ABOVE FINISH FLOOR |
| DWHT | DOMESTIC HOT WATER TANK |
| EC | ELECTRICAL CONTRACTOR |
| FD | FLOOR DRAIN |
| MC | MECHANICAL CONTRACTOR |
| PF | PROPANE FUEL |
| PC | PLUMBING CONTRACTOR |



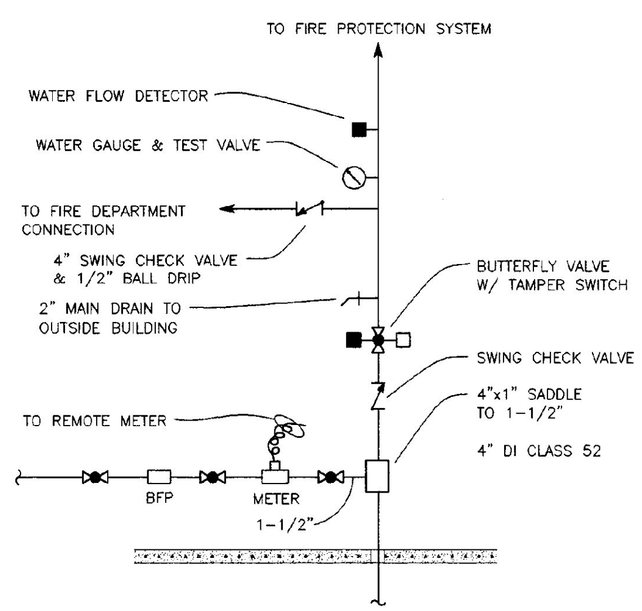

1 TYPICAL COMPRESSED AIR DROP
NO SCALE




2 TYPICAL COMPRESSED AIR DROP
NO SCALE

## PLUMBING FIXTURE SCHEDULE

| ITEM | MANUFACTURER & MODEL | TRIM & ACCESSORIES | CONNECTION SIZES | | | | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | WASTE | VENT | CW | HW | |
| WC–1 | AMERICAN STANDARD CADET 17" RIM, ELONGATED 1.6 GAL/FLUSH, PRESSURE ASSISTED 2168.100 | SEAT – OLSONITE #95 OPEN FRONT LESS COVER | 4" | 2" | 1/2" | | |
| U–1 | AMERICAN STANDARD LYNBROOK 1.0 URINAL, MODEL No. 6601.012 | FLUSH VALVE SLOAN MODEL 180–1, LOW CONSUMPTION | 2" | 1–1/2" | 1" | | |
| FD–1 | FLOOR DRAIN, WADE W–1744–SO–12 | DUCTILE IRON TOP | 4" | | | | |
| FD–2 | FLOOR DRAIN, WADE W–1103–STD 5–2 | SATIN BRONZE TOP | 3" | | | | |
| FCO | FLOOR CLEAN–, OUT, WADE W–6003 | SATIN BRONZE TOP | 3" | | | | |
| HB–1 | CHICAGO FAUCET MODEL 305 | VACUUM BREAKER BACKFLOW PREVENTER | | | 3/4 | 3/4 | INDOOR ONLY |
| HB–2 | WOODFORD 25C – 12" | VACUUM BREAKER BACKFLOW PREVENTER | | | 3/4 | | OUTDOOR |
| HB–3 | WOODFORD 24P | VACUUM BREAKER BACKFLOW PREVENTER | | | 3/4 | | INDOOR ONLY |
| LAV–1 | AMERICAN STANDARD "COMRADE" 4" CENTERS LAVATORY CAT NO. 124.024 | AMERICAN STANDARD RELIANT LAV FAUCET WITH GRID STRAINER. 2385.002. 1/2" SERVICE SUPPLY STOPS, 1 1/4" HEAVY GAUGE OFFSET TRAP WITH CLEAN OUT | 1–1/2" | 1 1/2" | 1/2" | 1/2" | WHITE, TRUEBRO LAV GUARD INSULATION KIT #102WH/105 W |
| S–1 | AMERICAN STANDARD "LAKEWELL" 8" CENTERS SERVICE SINK No. 7692.049 | AMERICAN STANDARD SINK FAUCET MODEL No. 8340.242. TRAP STRAINER AMERICAN STANDARD MODEL No. 7798.176 WITH STRAINER. | 1–1/2" | 1–1/2" | 1/2" | 1/2" | |
| SA | SHOCK ABSORBER | WADE W–5 | | | 3/4" | | |
| SH–1 | SHOWER:KOHLER "SONATA" MODEL No. K–1599. SHOWER DOOR, KOHLER MODEL No. K–705013–B1–SH,"ARICA". | CONTROL "SYMMONS" MODEL No.S–96–1–131. DRAIN: KOHLER MODEL No. K–9132. CHROME. | 2" | 1–1/2" | 1/2" | 1/2" | |




## WATER SERVICE RISER DETAIL
NO SCALE


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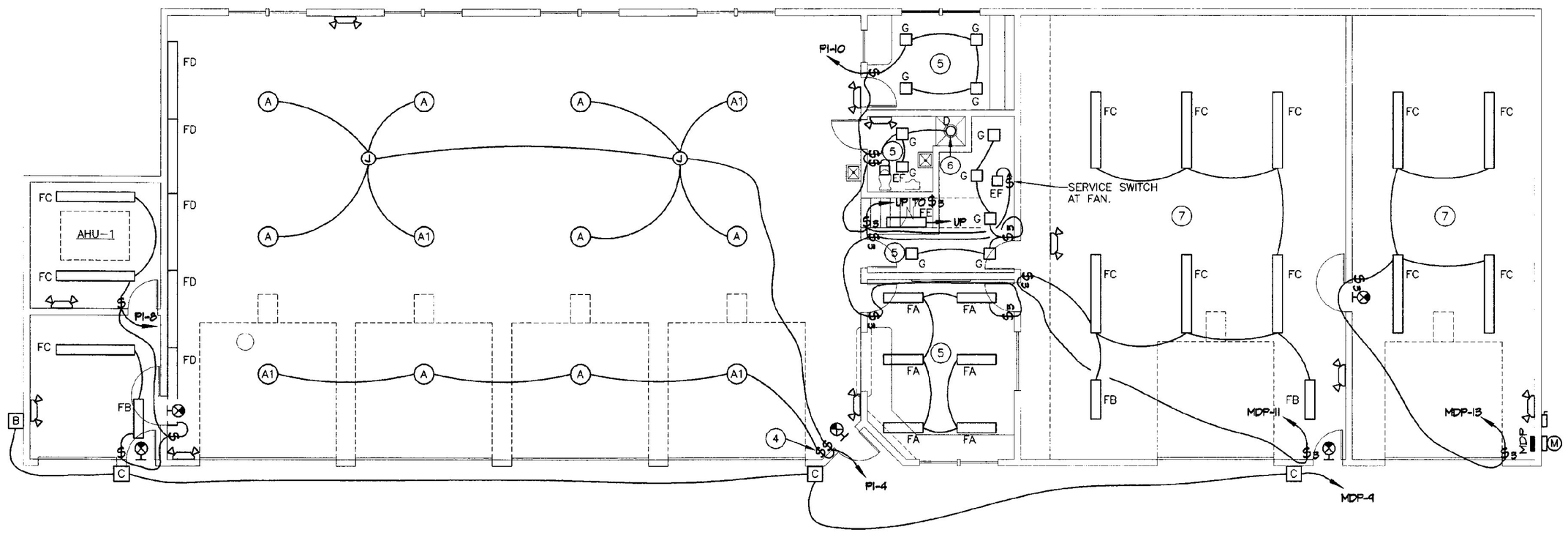
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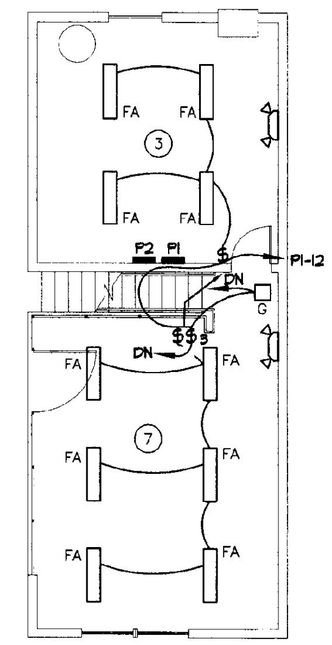
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Plumbing Details and Schedules

**Sheet Number:**
P2

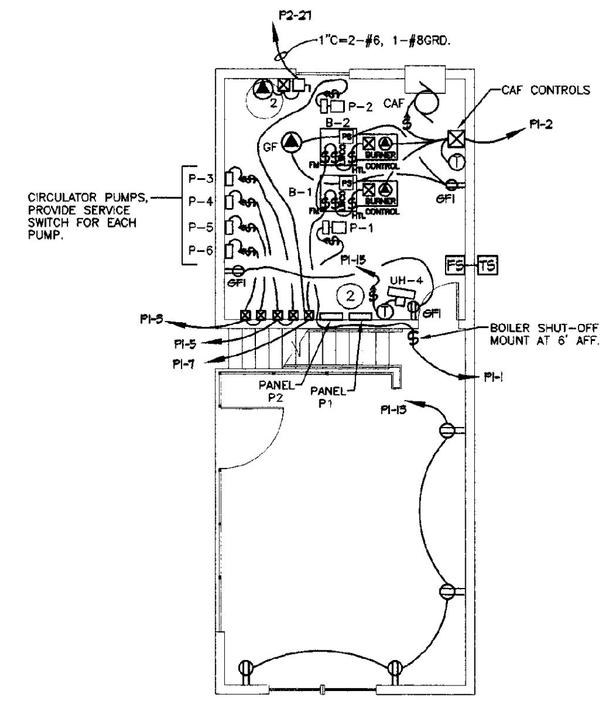
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FLOOR PLAN – LIGHTING
SCALE: 1/8" = 1'-0"



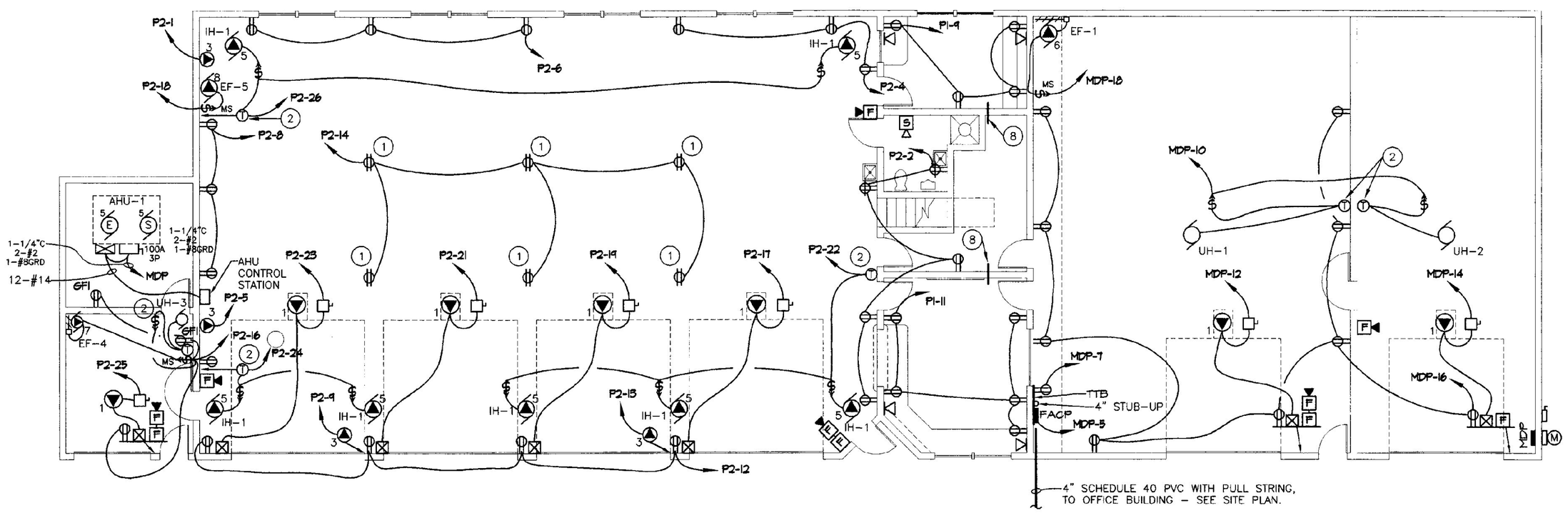

UPPER FLOOR PLAN – LIGHTING
SCALE: 1/8" = 1'-0"



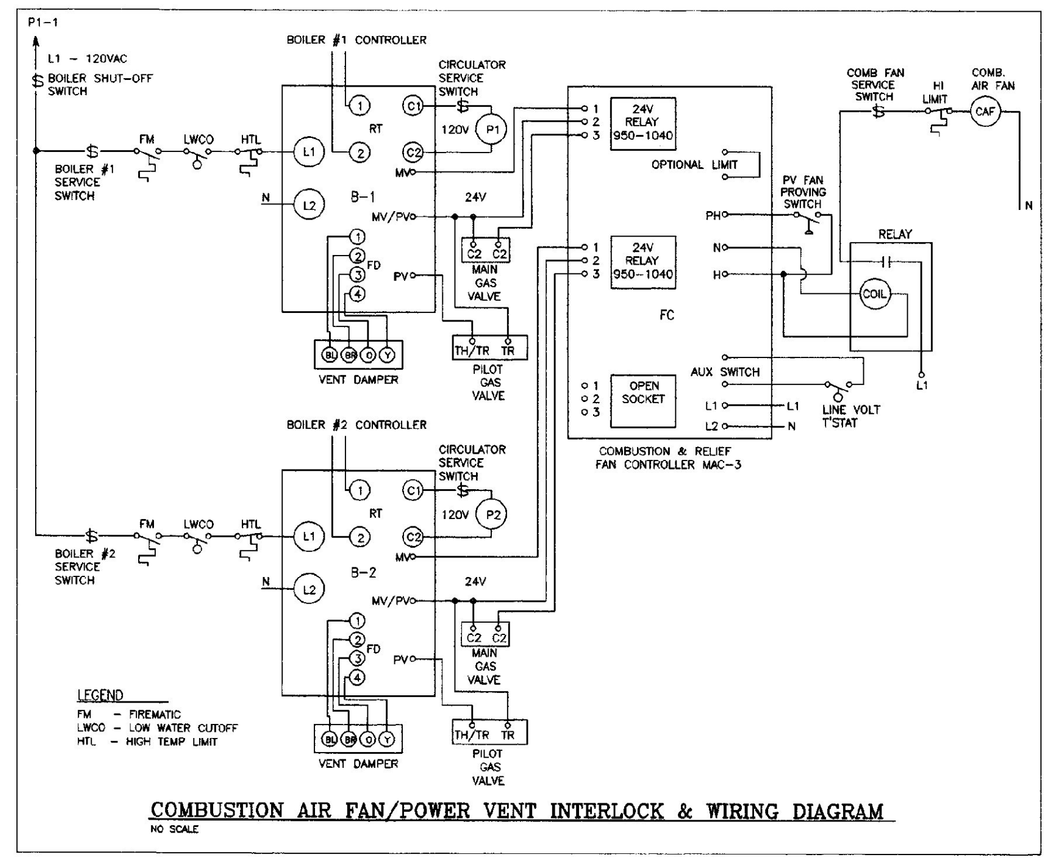

UPPER FLOOR PLAN – POWER
SCALE: 1/8" = 1'-0"

## KEYED NOTES:

1. JUNCTION BOX ON TRUSS WITH SO CORD DROP TO 60" AFF. CORD SECURED AT TRUSS WITH KELLUM'S GRIP. MAINTAIN CLEARANCE FROM INFRA RED HEATERS.
2. LINE VOLTAGE THERMOSTAT SUPPLIED BY MC, INSTALLED BY EC.
3. COORDINATE LIGHT FIXTURE LAYOUT WITH MECHANICAL EQUIPMENT.
4. PROVIDE 2 POLE LIGHT SWITCHES.
5. SURFACE MOUNT LIGHT FIXTURES TO BOTTOM OF CONCRETE DECK. CONCEAL CONDUIT IN CONCRETE DECK. FLUSH MOUNT JUNCTION BOXES FOR LIGHT FIXTURES.
6. RECESS LIGHT FIXTURE IN SHOWER CEILING.
7. CENTER LIGHT FIXTURES BETWEEN TRUSSES. BOTTOM OF FIXTURE TO BE EVEN WITH BOTTOM OF TRUSSES.
8. PROVIDE (2) 1" SLEEVES FOR FUTURE DATA CABLES AT JUNCTION OF WALL AND CEILING.




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




COMBUSTION AIR FAN/POWER VENT INTERLOCK & WIRING DIAGRAM
NO SCALE


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**Sheet Title:**
**Electrical Plans**

**Sheet Number:**
**E1**

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## ELECTRICAL LEGEND

- FLUORESCENT LIGHT FIXTURE
- LIGHT FIXTURE
- EMERGENCY LIGHT
- EXIT LIGHT
- $S$ SWITCH – SINGLE POLE – 48"AFF.
- $S_3$ SWITCH – 3–WAY
- $S_{FM}$ SWITCH – FIREMATIC
- $S_{LWCO}$ SWITCH – LOW WATER CUTOFF
- $S_{HTL}$ SWITCH – HIGH TEMPERATURE LIMIT
- $S_{bas}$ SWITCH – BURNER SAFETY
- $S_{ms}$ SWITCH – MOTOR STARTER
- EF EXHAUST FAN
- ELECTRIC PANEL
- DUPLEX RECEPTACLE – 40"AFF.
- DUPLEX RECEPTACLE COUNTER HEIGHT
- SPECIAL PURPOSE OUTLET
- VOICE/DATA OUTLET
- J JUNCTION BOX
- T THERMOSTAT
- SAFETY DISCONNECT
- F FIRE ALARM PULL STATION – 48"AFF.
- F FIRE ALARM HORN/STROBE
- S FIRE ALARM STROBE
- FS FLOW SWITCH
- TS TAMPER SWITCH

| | |
|---|---|
| AFF | ABOVE FINISHED FLOOR |
| EC | ELECTRICAL CONTRACTOR |
| GFI | GROUND FAULT INTERRUPTER |
| MC | MECHANICAL CONTRACTOR |
| WP | WEATHER PROOF |

## PANEL DESIGNATOR

PANEL: MDP LOCATION: STORAGE ROOM
FED FROM: MAIN SERVICE SAFETY SWITCH
MOUNTING: SURFACE
MAINS: 400 AMP, MAIN LUG ONLY, 120/240 VOLT SINGLE PHASE, 3 WIRE
CONNECTED LOAD: 85 KW

| CKT NO. | KW LOAD | DESCRIPTION | BREAKER P | BREAKER AMP | BREAKER AMP | BREAKER P | DESCRIPTION | KW LOAD | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 10.0 | AHU–1 | 2 | 100 | 100 | 2 | PANEL P1 | 13.2 | 2 |
| 3 | | – | – | – | – | – | – | | 4 |
| 5 | 0.2 | FIRE ALARM PANEL | 1 | 20* | 200 | 2 | PANEL P2 | 49.0 | 6 |
| 7 | 0.1 | TELEPHONE TERM. BOARD | 1 | 20* | – | – | – | | 8 |
| 9 | 0.5 | SITE LIGHTS | 1 | 20 | 20 | 1 | UNIT HEATERS | 0.7 | 10 |
| 11 | 1.1 | LIGHTING | 1 | 20 | 20 | 1 | OVERHEAD DOOR | 1.0 | 12 |
| 13 | 0.6 | LIGHTING | 1 | 20 | 20 | 1 | OVERHEAD DOOR | 1.0 | 14 |
| 15 | | SPARE | 1 | 20 | GFI 20 | 1 | RECEPTACLES | 0.5 | 16 |
| 17 | | SPARE | 1 | 20 | 15 | 1 | EXHAUST FAN | 0.3 | 18 |
| 19 | | SPARE | 1 | 20 | – | – | | | 20 |
| 21 | | SPARE | 1 | 20 | 20 | 1 | SPARE | 2 | 22 |
| 23 | | SPACE | – | – | – | – | SPACE | | 24 |
| 25 | | | – | – | – | – | | | 26 |
| 27 | | | – | – | – | – | | | 28 |
| 29 | | | – | – | – | – | | | 30 |
| 31 | | | – | – | – | – | | | 32 |
| 33 | | | – | – | – | – | | | 34 |
| 35 | | | – | – | – | – | | | 36 |
| 37 | | | – | – | – | – | | | 38 |
| 39 | | | – | – | – | – | | | 40 |
| 41 | | | – | – | – | – | | | 42 |

* PROVIDE HANDLE LOCK

## PANEL DESIGNATOR

PANEL: P1 LOCATION: BOILER ROOM
FED FROM: MDP
MOUNTING: SURFACE
MAINS: 125 AMP, MAIN LUG ONLY, 120/240 VOLT SINGLE PHASE, 3 WIRE
CONNECTED LOAD: 13.2 KW

| CKT NO. | KW LOAD | DESCRIPTION | BREAKER P | BREAKER AMP | BREAKER AMP | BREAKER P | DESCRIPTION | KW LOAD | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BOILER | 1 | 20 | 20 | 1 | COMB. AIR FAN (CAF) | .3 | 2 |
| 3 | .7 | CIRCULATORS | 1 | 20 | 20 | 2 | TYPE A LIGHTS | 3.9 | 4 |
| 5 | .5 | CIRCULATORS | 1 | 20 | – | – | – | – | 6 |
| 7 | .5 | BOILER CONTROL CIRC. | 1 | 20 | 20 | 1 | LIGHTING | 1.4 | 8 |
| 9 | .5 | OFFICE RECEPTACLES | 1 | 20 | 20 | 1 | LIGHTING | 1.1 | 10 |
| 11 | .5 | OFFICE RECEPTACLES | 1 | 20 | 20 | 1 | LIGHTING | 0.8 | 12 |
| 13 | .5 | RECEPTACLES | 1 | 20 | 20 | 1 | SPARE | – | 14 |
| 15 | .5 | BOILER ROOM | 1 | 20 | 20 | 1 | SPARE | – | 16 |
| 17 | – | SPARE | 1 | 20 | 20 | 1 | SPARE | – | 18 |
| 19 | – | SPARE | 1 | 20 | 20 | 1 | SPARE | – | 20 |
| 21 | | SPACE | | | | | SPACE | | 22 |
| 23 | | SPACE | | | | | SPACE | | 24 |
| 25 | | SPACE | | | | | SPACE | | 26 |
| 27 | | SPACE | | | | | SPACE | | 28 |
| 29 | | SPACE | | | | | SPACE | | 30 |
| 31 | | SPACE | | | | | SPACE | | 32 |

## PANEL DESIGNATOR

PANEL: P2 LOCATION: BOILER ROOM
FED FROM: MDP
MOUNTING: SURFACE
MAINS: 225 AMP, MAIN LUG ONLY, 120/240 VOLT SINGLE PHASE, 3 WIRE
CONNECTED LOAD: 49.0 KW

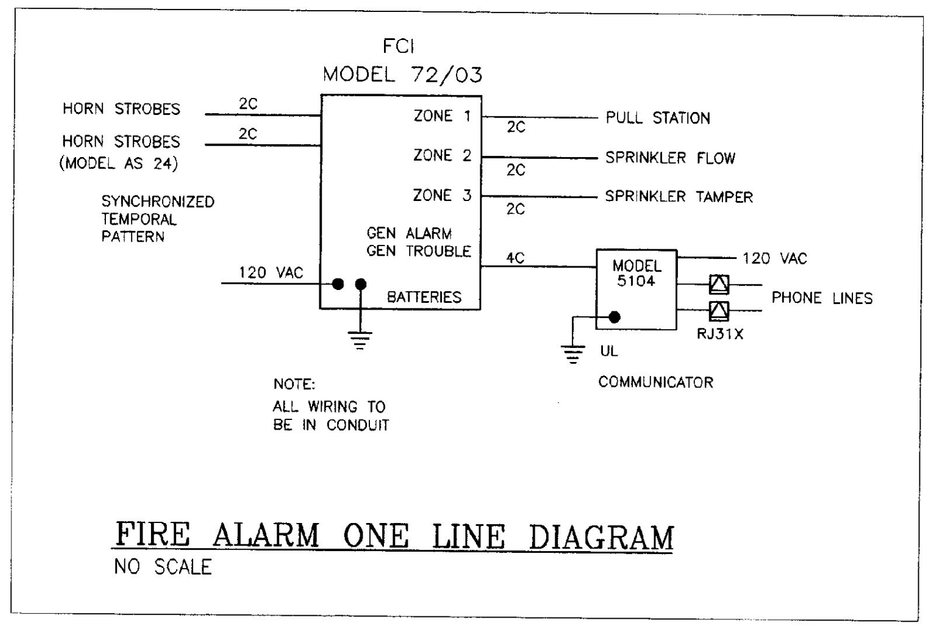
| CKT NO. | KW LOAD | DESCRIPTION | BREAKER P | BREAKER AMP | BREAKER AMP | BREAKER P | DESCRIPTION | KW LOAD | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.0 | WELDING OUTLET | 2 | 50 | GFI 20 | 1 | OFFICE / TOILET | 1.6 | 2 |
| 3 | | – | – | – | GFI 20 | 1 | SHOP RECEPTACLES | .5 | 4 |
| 5 | 8.0 | WELDING OUTLET | 2 | 50 | GFI 20 | 1 | SHOP RECEPTACLES | .5 | 6 |
| 7 | | – | – | – | GFI 20 | 1 | SHOP RECEPTACLES | .5 | 8 |
| 9 | 8.0 | WELDING OUTLET | 2 | 50 | GFI 20 | 1 | SHOP RECEPTACLES | .5 | 10 |
| 11 | | – | – | – | GFI 20 | 1 | SHOP RECEPTACLES | .5 | 12 |
| 13 | 8.0 | WELDING OUTLET | 2 | 50 | GFI 20 | 1 | SHOP RECEPTACLES | .5 | 14 |
| 15 | | – | – | – | GFI 20 | 1 | SCRAP OIL RM/AHU RM | .5 | 16 |
| 17 | 1.0 | OVERHEAD DOOR | 1 | 20 | 20 | 2 | EXHAUST FAN (EF–5) | 1.5 | 18 |
| 19 | 1.0 | OVERHEAD DOOR | 1 | 20 | – | – | – | | 20 |
| 21 | 1.0 | OVERHEAD DOOR | 1 | 20 | 20 | 1 | (IR–1) HEATER(S) | 0.9 | 22 |
| 23 | 1.0 | OVERHEAD DOOR | 1 | 20 | 20 | 1 | (IR–1) HEATER(S) | 0.6 | 24 |
| 25 | 1.0 | OVERHEAD DOOR | 1 | 20 | 20 | 1 | (IR–1) HEATER(S) | 0.6 | 26 |
| 27 | 5.0 | AIR COMPRESSOR | 2 | 60 | 20 | 1 | SPARE | – | 28 |
| 29 | – | – | – | – | 20 | 1 | SPARE | – | 30 |
| 31 | | SPACE | | | | | SPACE | | 32 |
| 33 | | | | | | | | | 34 |
| 35 | | | | | | | | | 36 |
| 37 | | | | | | | | | 38 |
| 39 | | | | | | | | | 40 |
| 41 | | | | | | | | | 42 |

## SPECIAL PURPOSE OUTLET SCHEDULE

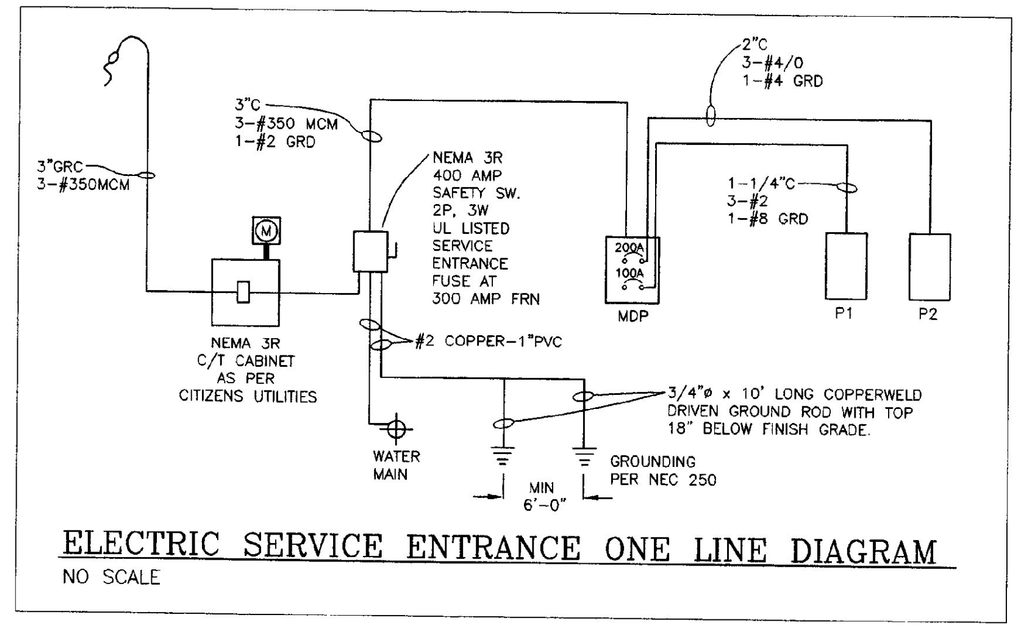
| KEY | DESCRIPTION | SUPPLIED BY | INSTALLED BY | ELECTRICAL REQUIREMENTS CORD & CAP NEMA # | PROVIDED BY | VOLTS | AMPS | STARTER TYPE | PROVIDED BY | INSTALLED BY | ELECTRICAL DISCONNECT TYPE | PROVIDED BY | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OVERHEAD DOOR | GC | GC | – | – | 120 | 10 | MAG | ES | EC | 20A –1P | EC | CONTROL WIRING BY EC |
| 2 | AIR COMPRESSOR | OWNER | OWNER | SEALTITE | EC | 240 | 32 | MAG | OWNER | EC | NEMA 1 60A – 2P | EC | |
| 3 | WELDER OUTLET – 50 AMP | EC | EC | 6–50R | EC | 250 | 50 | – | – | – | – | – | – |
| 4 | AIR HANDLING UNIT – AHU–1 | MC | MC | – | EC | 240 | 100 | MAG | MC | FACTORY | 100A –2P | EC | CONTROL WIRING BY EC |
| 5 | INFRA–RED HEATER – IH–1 | MC | MC | – | EC | 120 | 6 | RELAY | MC | FACTORY | SURFACE–SWITCH | EC | LINE VOLT T'STAT |
| 6 | EXHAUST FAN – EF–1 | MC | MC | – | EC | 120 | 7 | MANUAL | MC | EC | – | – | LINE VOLT DAMPER MTR |
| 7 | EXHAUST FAN – EF–4 | MC | MC | – | EC | 120 | 3 | MANUAL | MC | EC | – | – | LINE VOLT DAMPER MTR |
| 8 | EXHAUST FAN – EF–5 | MC | MC | – | EC | 240 | 10 | MANUAL | MC | EC | – | – | – |
| | | | | | | | | | | | | | |

## LIGHTING FIXTURE SCHEDULE

| TYP | MANUFACTURER & MODEL | MOUNTING | LAMPS | REMARKS |
|---|---|---|---|---|
| A | GE – U1M 25S0A517TA SAFETY CHAIN | 15'–6" AFF TO BOTTOM OF FIXTURE | 250 W – HPS | SAFETY CHAIN |
| A1 | SAME AS A EXCEPT WITH AUTO SWITCHED QUARTZ | 15'–6" AFF TO BOTTOM OF FIXTURE | 250W – HPS | 150 W QUARTZ LAMP |
| B | HADCO VS 1040 HXL P1 | WALL, 10' ABOVE GRADE | 35W – HPS | PHOTOCELL CONTROL |
| C | HADCO VS 1040 HUL P1 | WALL, 15' ABOVE GRADE | 150W – HPS | PHOTOCELL CONTROL |
| D | PRESCOLITE CBXIC–TL30 | RECESSED | (1)–13W QUAD | |
| G | ROBERT GROUP SJO–3PL13 | SURFACE | (3)–PL13 | |
| EF | FURNISHED BY MC | RECESSED | NONE | SWITCH BY EC |
| FA | COLUMBIA WC2–232 EB8–120 | SURFACE | 2 – F032T8, 3000 K | |
| FB | COLUMBIA CSR 4–248HO – U – 120 | CHAIN HUNG 16'AFF | 2 – F48T12HO | |
| FC | COLUMBIA CSR 8–296HO – U – 120 | CHAIN HUNG 16'AFF | 2 – F96T12HO | |
| FD | COLUMBIA LU8–232–4EB8–120–WL | WALL 10'AFF | 4 – F032T8, 2700 K | |
| FE | COLUMBIA AD4–132–EB8–120–EL | WALL 12' AFF | (1)–F032T8, 3000 K | |
| | PRESCOLITE EDS2–NB–120 | SURFACE | INCLUDED | |
| | PRESCOLITE EX1LED – R – EM–120 | SURFACE | LED | |




FIRE ALARM ONE LINE DIAGRAM
NO SCALE




ELECTRIC SERVICE ENTRANCE ONE LINE DIAGRAM
NO SCALE


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STATE OF VERMONT REGISTERED PROFESSIONAL ENGINEER No. 5107

**Project Title:**

STATE OF VERMONT
AGENCY OF TRANSPORTATION
DISTRICT NO. 9
MAINTENANCE GARAGE

DERBY, VERMONT

| | |
|---|---|
| Revisions: | |
| Job Number: | AOT9 |
| File Name: | AOT9 |
| Drawn By: | TJY |
| Checked By: | EEP |
| Scale: | As Shown |
| Date: | August 1999 |

**Sheet Title:**
Electrical Details and Schedules

**Sheet Number:**
E2