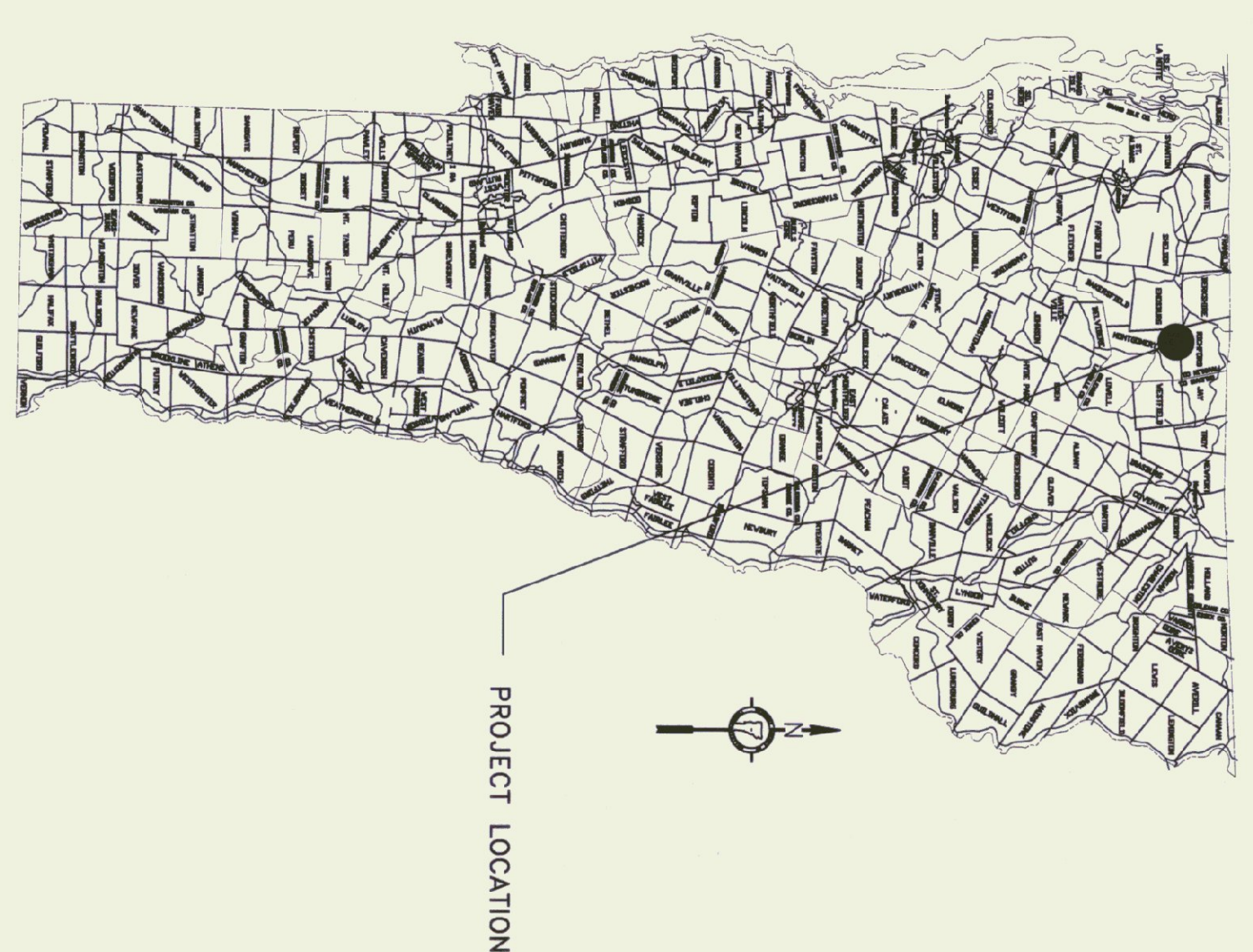
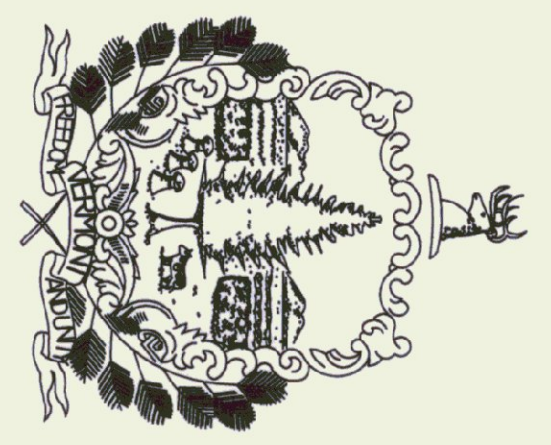


State of Vermont
Department of State Buildings
AGENCY OF TRANSPORTATION
MONTGOMERY MAINTENANCE FACILITY
Montgomery, Vermont



AGENCY OF ADMINISTRATION
DEPT. OF BUILDINGS & GEN. SERVICES
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VERMONT 05633-5801
THOMAS W. TORTI, COMMISSIONER



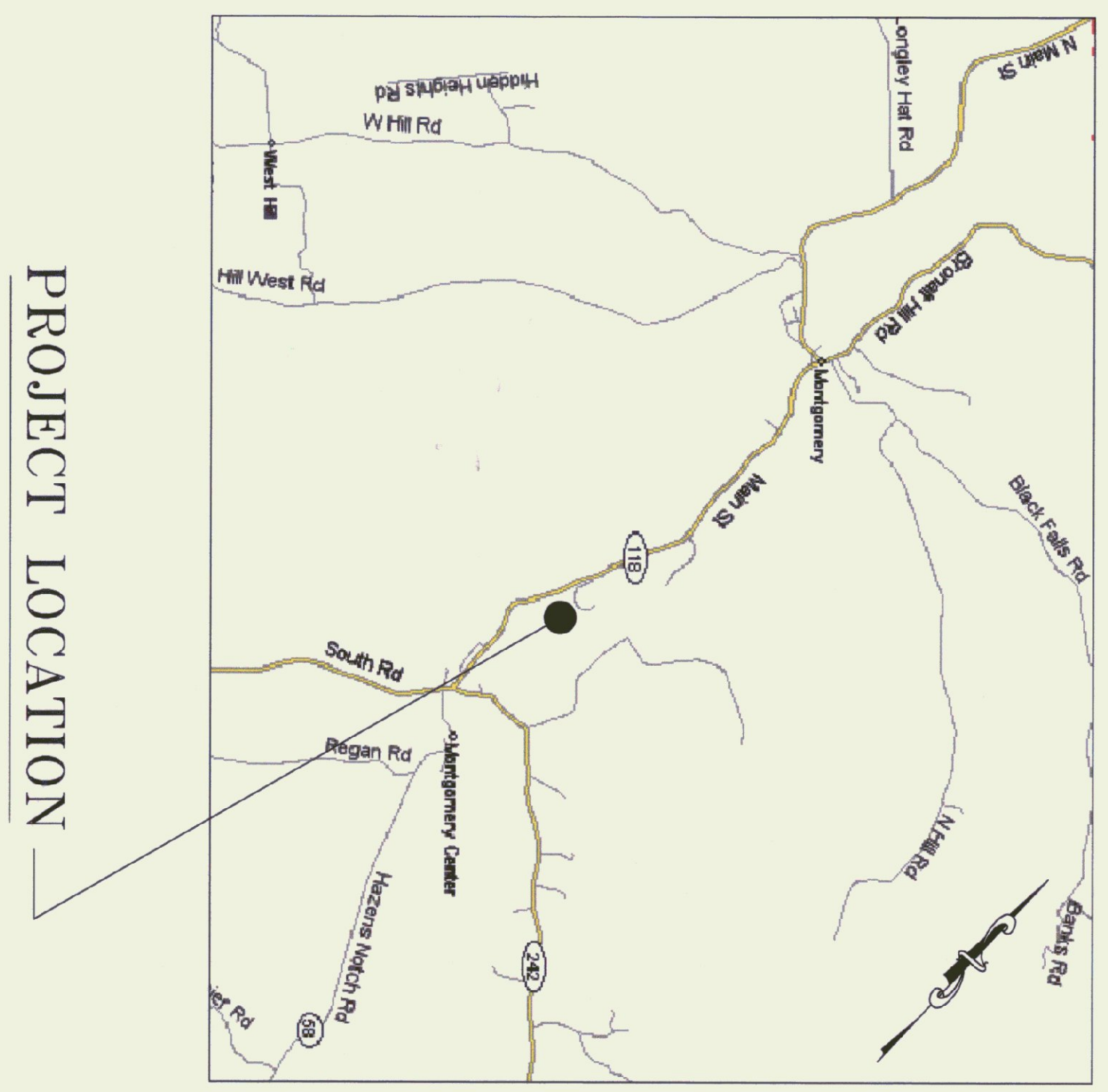
James Douglas
Governor

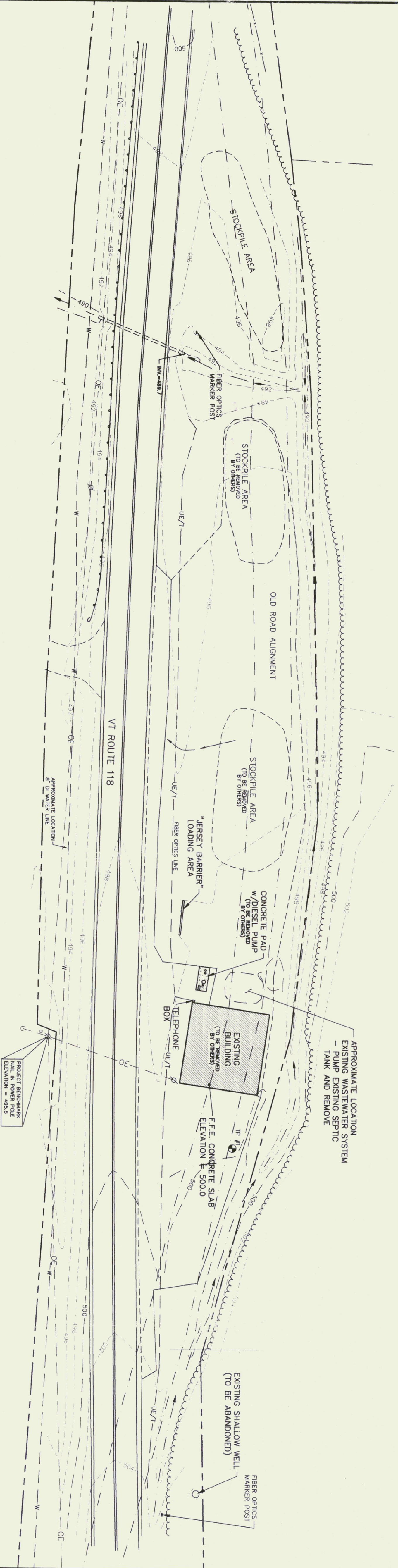
MAY, 2003

AGENCY OF TRANSPORTATION
1 NATIONAL LIFE DRIVE
MONTPELIER, VERMONT 05633
PATRICIA A. McDONALD, SECRETARY

INDEX OF SHEETS

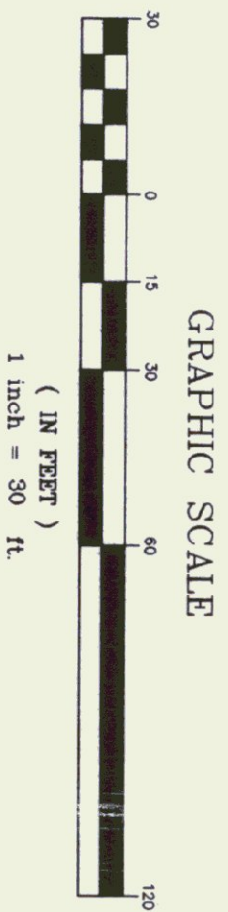
- C-1 EXISTING CONDITIONS PLAN
- C-2 PROPOSED CONDITIONS PLAN
- C-3 SITE DETAILS
- C-4 SPECIFICATIONS
- C-5 EROSION CONTROL DETAILS
- A-1 FOUNDATION & FRAMING PLAN/DETAILS
- A-2 FLOOR PLAN & DETAILS, ROOF PLAN, SCHEDULES
- A-3 EXTERIOR ELEVATIONS, SECTION A
- S-1 SALT/SAND SHED PLAN & DETAILS
- S-2 SALT/SAND SHED WALL SECTIONS
- F-1 FUEL TANK
- P-1 PLUMBING
- M-1 MECHANICAL
- M-2 MECHANICAL
- E-1 ELECTRICAL
- E-2 ELECTRICAL
- E-3 ELECTRICAL





LEGEND

- EXISTING CONTOUR
- APPROXIMATE PROPERTY LINE
- CONC. MON.
- WATER LINE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC/TELEPHONE/FIBER OPTIC
- POWER POLE
- EDGE OF BRUSH/WOODS
- FENCE
- DRAINAGE SWALE
- TEST PIT



TP #1 - EXCAVATED 10/28/2002
0-16" GRAVEL FILL
16"-5'+ SILTY CLAY, FIRM
NO SEEPAGE

NOTE:
Underground utilities shown hereon are based on utility evidence visible at ground surface and are subject to field verification by excavation. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (800-225-4377) prior to any construction.

SITE ENGINEER:



CIVIL ENGINEERING ASSOCIATES, INC.
P.O. BOX 485 SHELBURNE, VT 05482
802-885-2323 FAX: 802-885-2271 WBC: WWW.CEA-INC.COM

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DRAWN

PJM

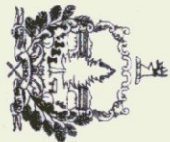
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BCE

APPROVED

BCE

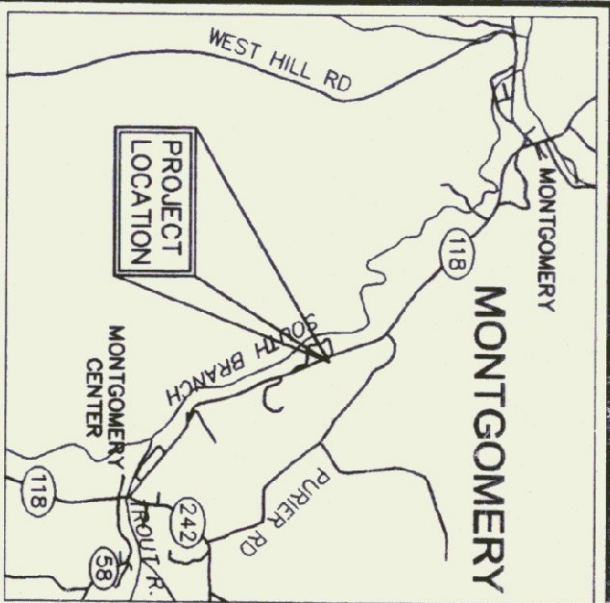
OWNER:



STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
MONTPELIER, VERMONT

PROJECT:

MONTGOMERY GARAGE and SALT SHED
VT ROUTE 118
MONTGOMERY, VERMONT



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION
------	---------	----------

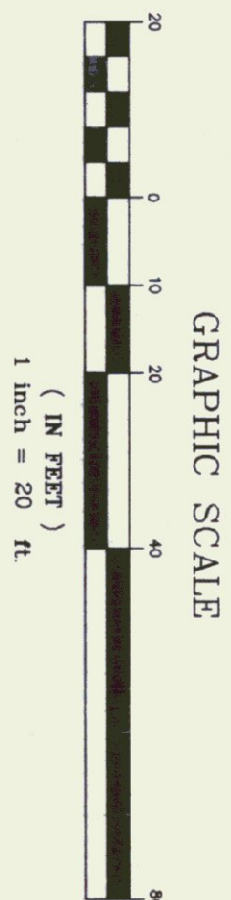
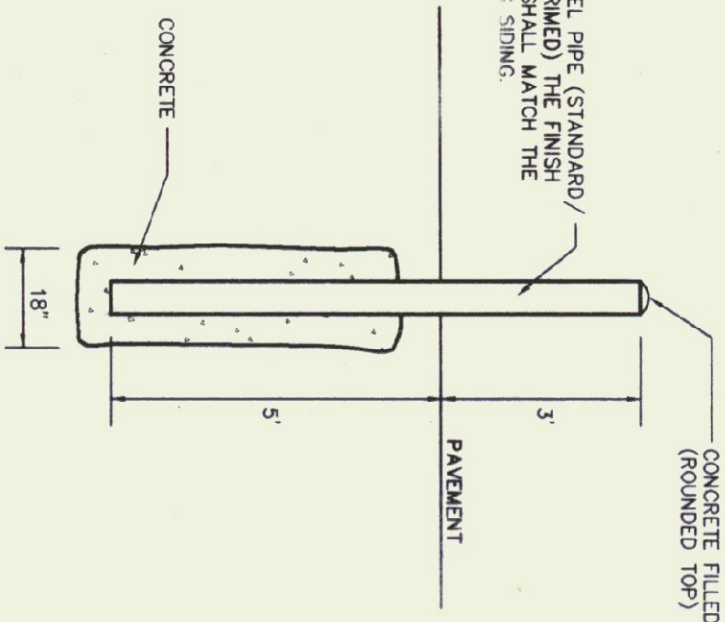
EXISTING CONDITIONS PLAN

DATE JAN., 2003	DRAWING NUMBER C1
SCALE 1" = 30'	
PROJ. NO. 01309.02	



- LEGEND**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - APPROXIMATE PROPERTY LINE
 - PROPOSED GRAVITY SEWER LINE
 - PROPOSED WATER LINE
 - EXISTING WATER LINE
 - OVERHEAD ELECTRIC
 - UNDERGROUND ELECTRIC/TELEPHONE/FIBER OPTIC
 - CONC. MON.
 - POWER POLE
 - EDGE OF BRUSH/MOODS
 - FENCE
 - DRAINAGE SWALE
 - NEW PAYMENT AREA
 - NEW LAWN AREA

BOLLARD DETAIL
N.T.S.

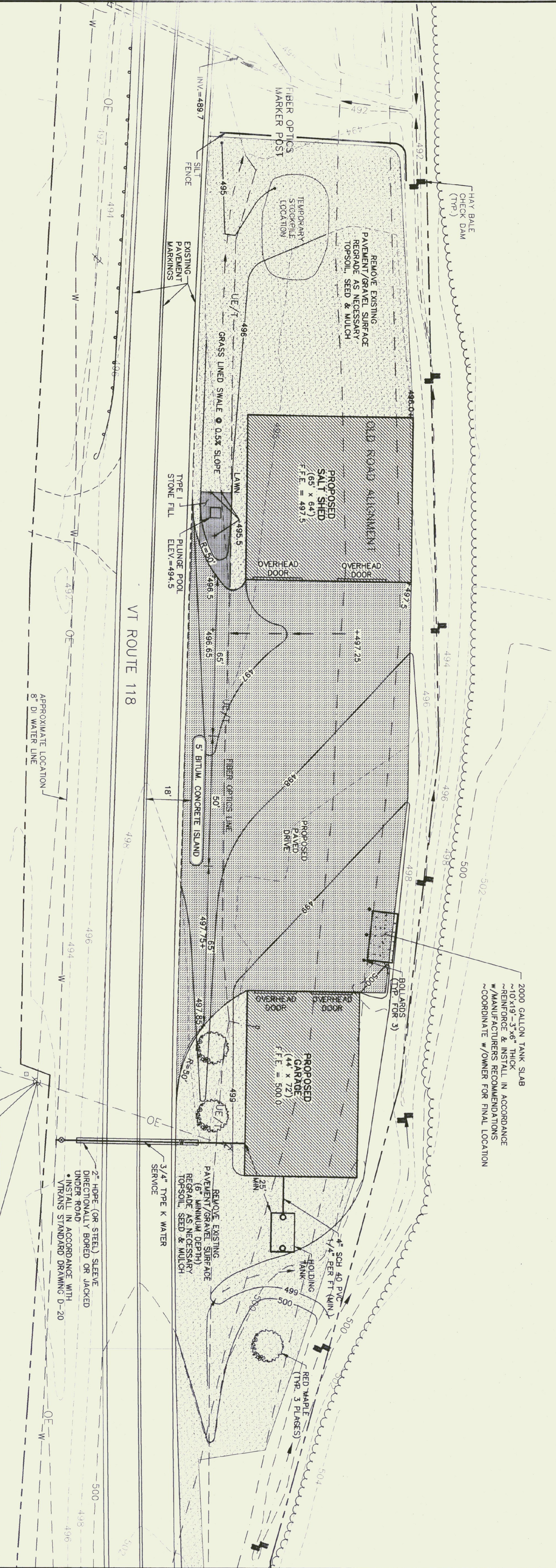


- Water Supply Rules:** Chapter 21 information is summarized below.
- Average Day Demand**
- 2 Employees at 15 gpd = 30 gpd
 - Use 3000 gallon holding tank (75% of design capacity, 3000 gals x 75% = 2250 gallons)
 - Anticipated pumping frequency: 2250 gallons/27 gpd = 83 days (probably twice a year)
- Maximum Day Demand = 27 gpd/720 minutes = 0.0375 gpm**
- Instantaneous Peak Demand = Use 5 gpm (maximum)**

PROJECT BENCHMARK
NAIL IN POWER POLE
ELEVATION = 495.8

NOTES

- Underground utilities shown hereon are based on utility evidence visible at ground surface and are subject to field verification by excavation. Utilities shown on this plan are not to be used for any purpose other than that for which they were installed. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (800-225-4977) prior to any construction.
- All existing utilities not incorporated into the final design shall be removed or abandoned as indicated on the plans or directed by the Engineer.
- The Contractor shall maintain gas-shut-off lines (with tags) for all underground utilities. These plans shall be submitted to the Owner at the completion of the project.
- The Contractor shall repair/replace all disturbed areas (on or off the site) as a direct or indirect result of the construction.
- All grassed areas shall be maintained until full vegetation is established.
- Mention of trees outside of construction limits.
- The Contractor shall be responsible for all work necessary for complete and operable facilities and utilities.
- The City/Contractor shall construct the water line to two feet above the finished floor. See mechanical plans for riser detail.
- The Contractor shall submit shop drawings for all items and materials to be used in the construction. Work shall not begin on any item until shop drawings are approved.
- In addition to the requirements set in these plans and specifications, the Contractor shall create the work in accordance with all permit conditions and any local Public Works Standards.
- The telephone for finish grades for all pavement, walkways and lawn areas shall be 0.1 feet.
- Any dewatering necessary for the completion of the sitework shall be considered as part of the contract and shall be the Contractor's responsibility.
- For underground electrical and telephone (cable) services, the site contractor shall trench, place bedding, place conduit, and backfill in accordance with utility company's requirements.
- Existing pavement and tree stumps to be removed shall be disposed of at an approved off-site location. All pavement cuts shall be made with a pavement saw.
- If there are any conflicts or inconsistencies with the plans or specifications, the Contractor shall contact the Engineer for verification before work continues on the item in question.



2000 GALLON TANK SLAB
~10"x19"-3"x6" THICK
~REINFORCE & INSTALL IN ACCORDANCE
W/MANUFACTURERS RECOMMENDATIONS
~COORDINATE W/OWNER FOR FINAL LOCATION



CIVIL ENGINEERING ASSOCIATES, INC.
P.O. BOX 489 SHELBOURNE, VT 05482
802-485-2583 FAX: 802-485-2271 MOB: 802-485-2271
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DRAWN PJM	
CHECKED BCE	
APPROVED BCE	

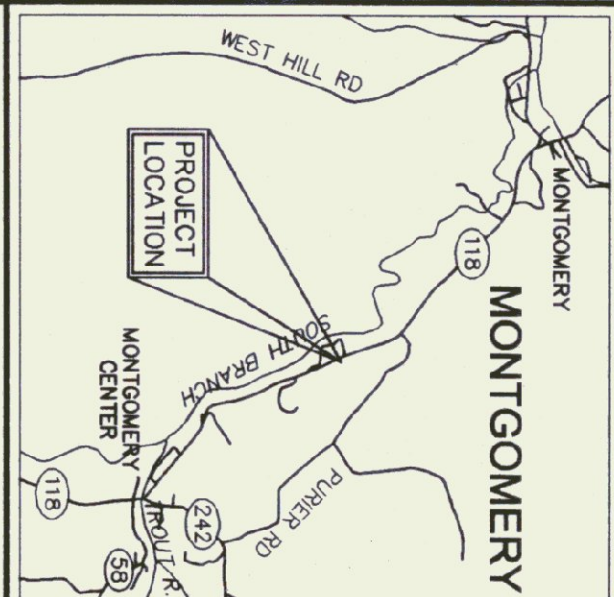
OWNER:



STATE OF VERMONT
DEPARTMENT OF
BUILDINGS AND
GENERAL SERVICES
MONTPELIER, VERMONT

PROJECT:

**MONTGOMERY
GARAGE and
SALT SHED**
VT ROUTE 118
MONTGOMERY, VERMONT

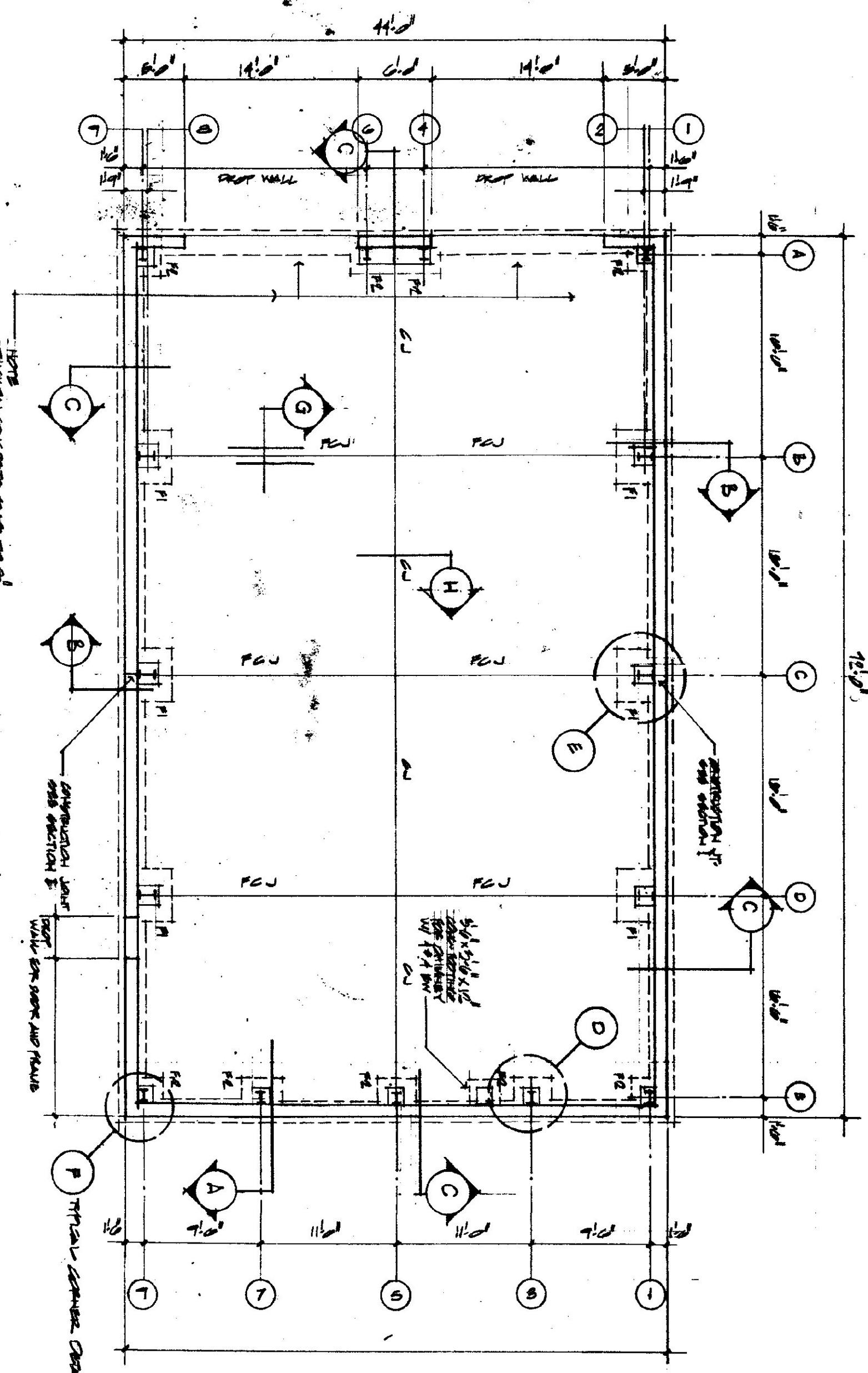


LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
2/20/03	BCE	UTILITIES SECTION REVISIONS.
2/20/03	BCE	REVISED WATER SEWER SERVICE.
4/20/03	BCE	REVISED 25 MIN. ISOLATION DISTANCE.
5/20/03	BCE	REVISED PROPOSED SALT SHED TO 65' x 64'.

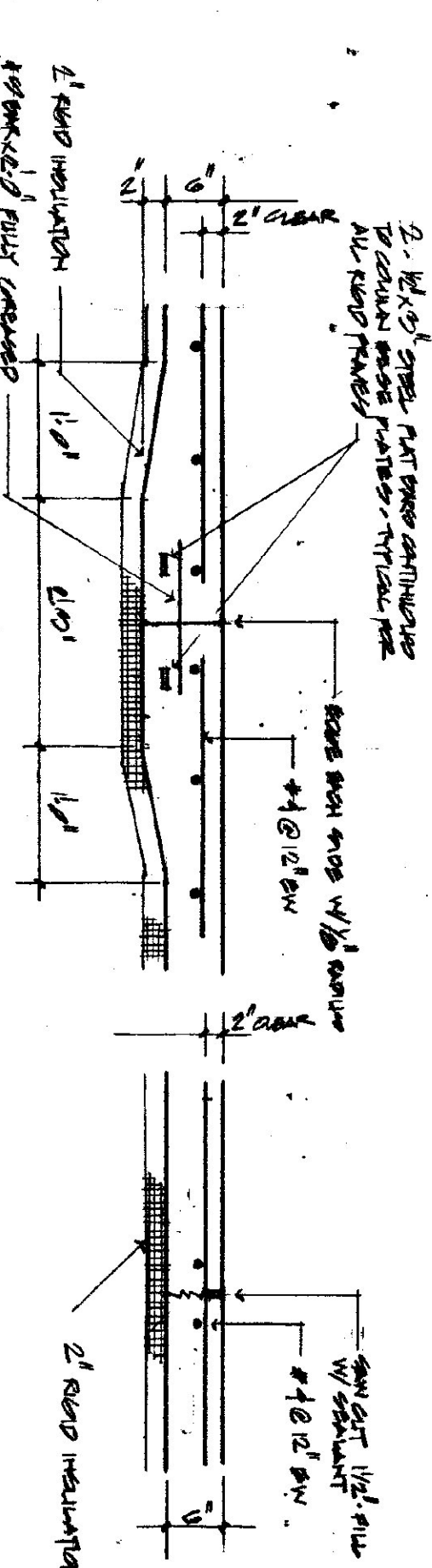
**PROPOSED
CONDITIONS
PLAN**

DATE: JAN., 2003	DRAWING NUMBER: C2
SCALE: 1" = 20'	
PROJ. NO. 01309.02	



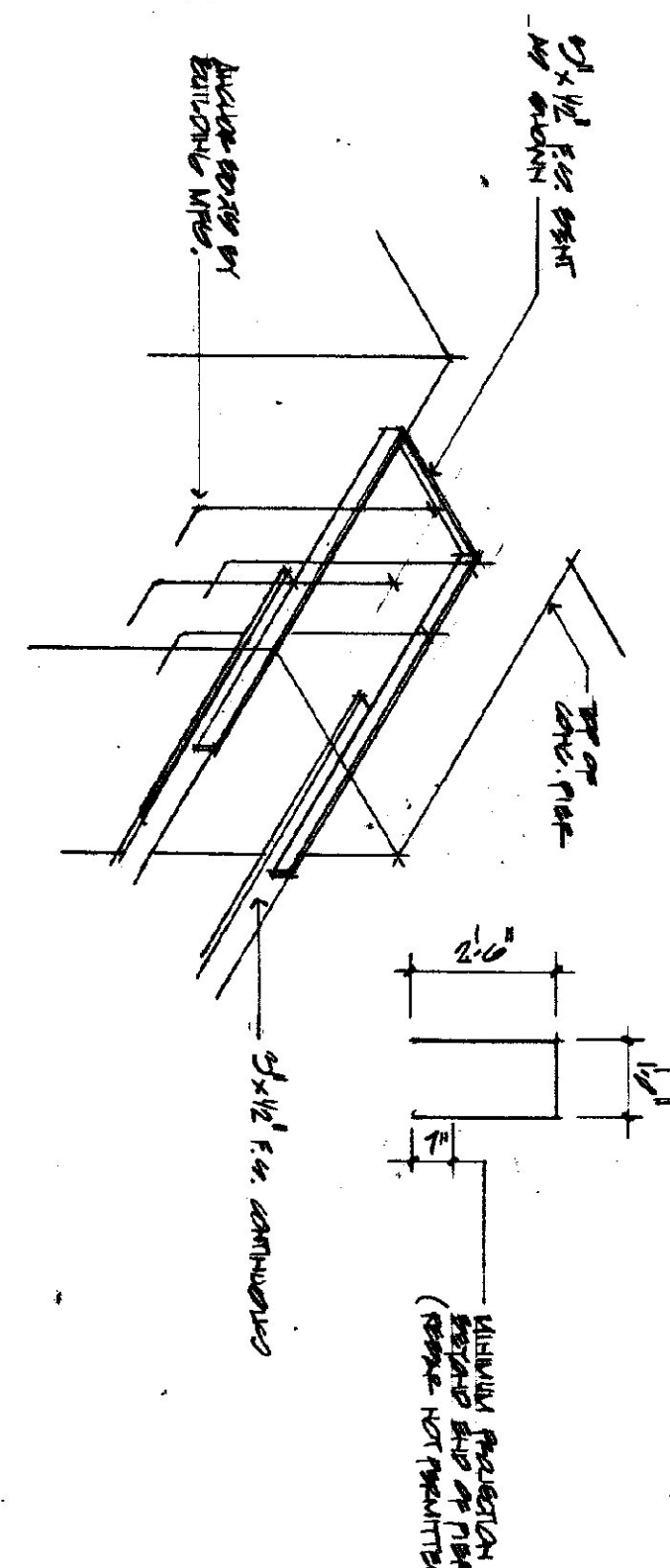
FOUNDATION PLAN

NOTE: THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS.

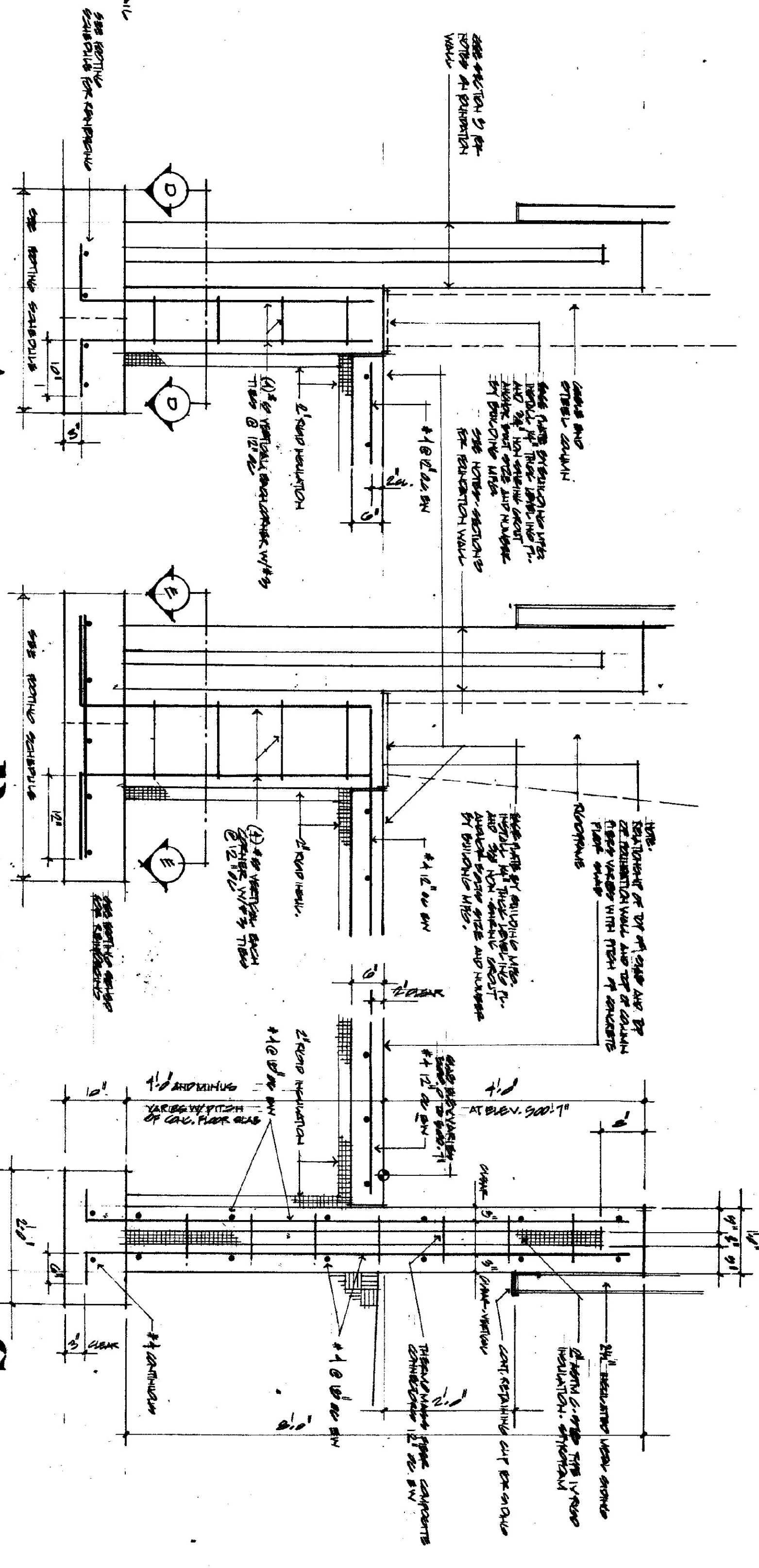


SECTION G

SECTION H

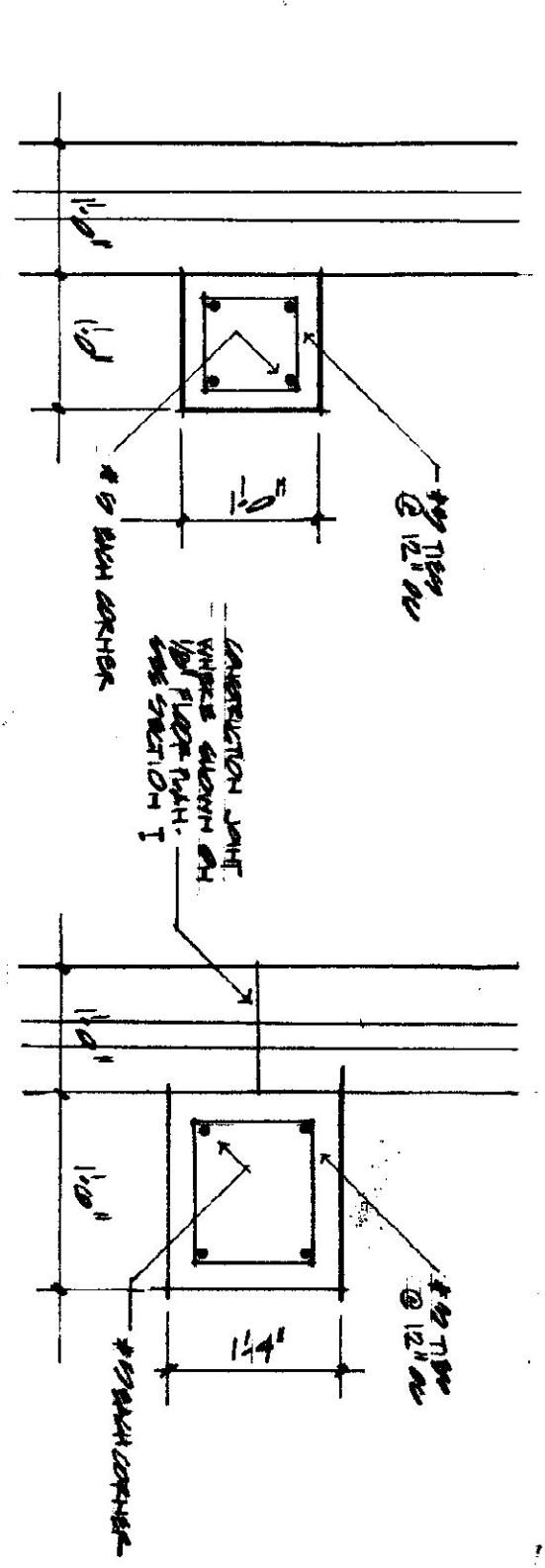


ISOMETRIC HARPIN TIE AT RIGID FRAMES



SECTION A

SECTION B

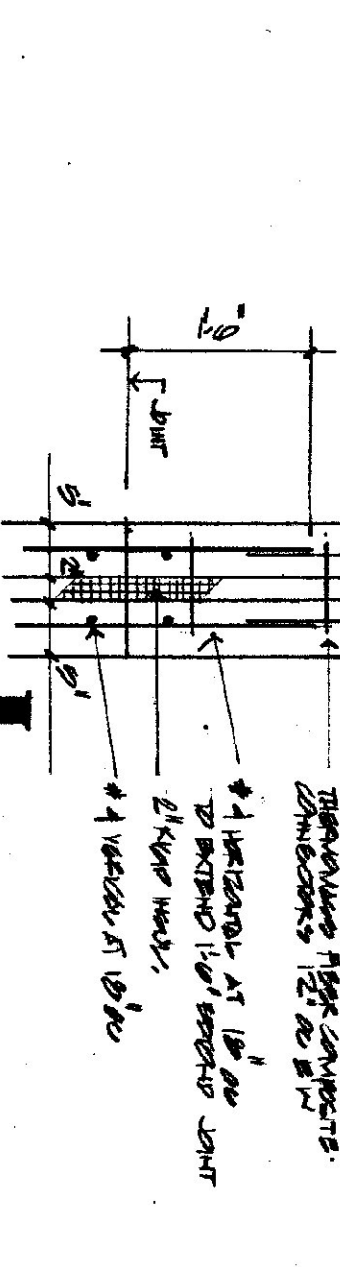


SECTION D

SECTION E

NOTE: THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS.

NO.	DESCRIPTION	REMARKS
1	12 inch wide base	SEE SECTION A
2	12 inch wide top	SEE SECTION A
3	12 inch wide base	SEE SECTION A
4	12 inch wide top	SEE SECTION A



SECTION I

PROJECT:
 MONTGOMERY GARAGE AND BUILT SHED
 IN ROUTE 112 MONTGOMERY VERMONT
TITLE:
 FOUNDATION AND DETAILS

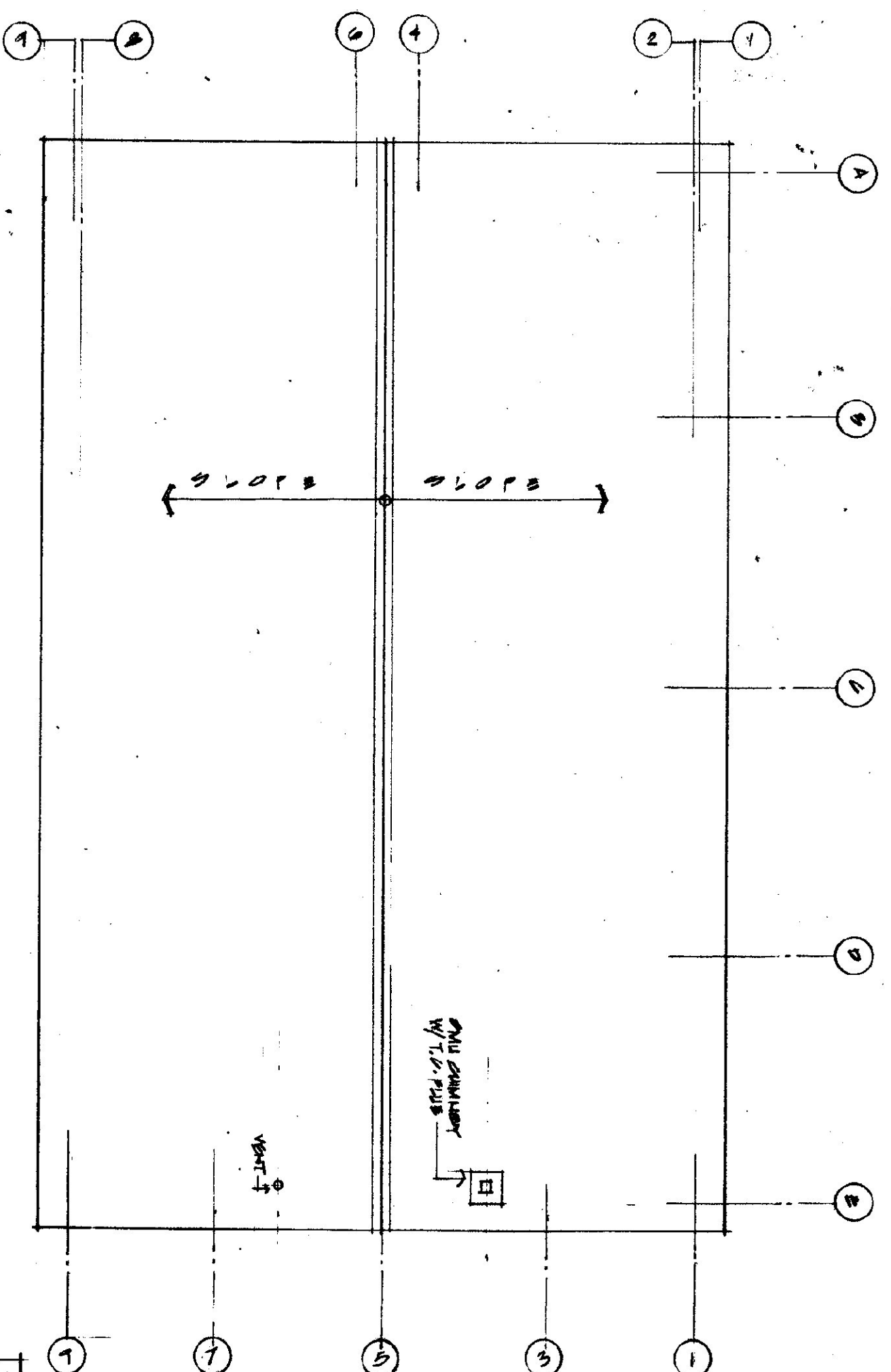
CHARLES E. METZ
 ARCHITECT
 THE GRIST MILL
 BRADFORD VT 05033

DRAWING:
 A1

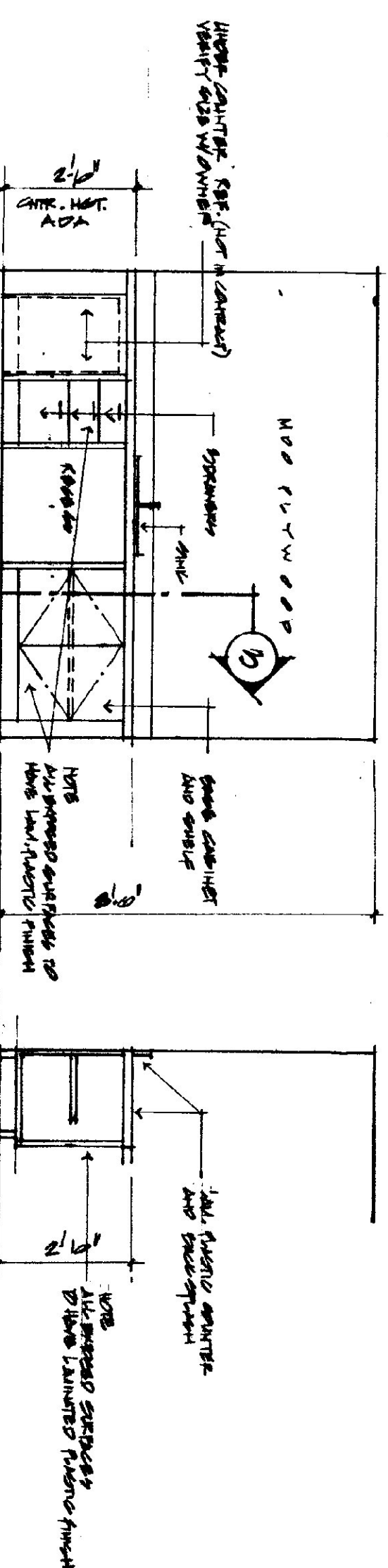


LOOK PLAN

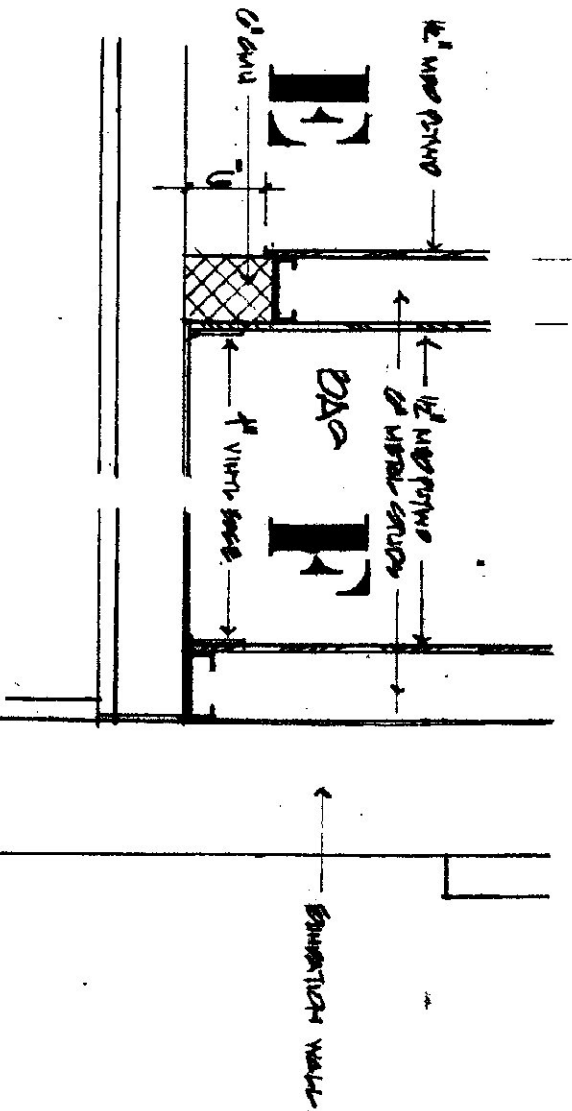
ROUGH WAVE
TIDE DESIGN SHOWN WAS 60 FEET FOR SQUARE FOOT (10')
THE DESIGN WIND SPEED = 80 MPH



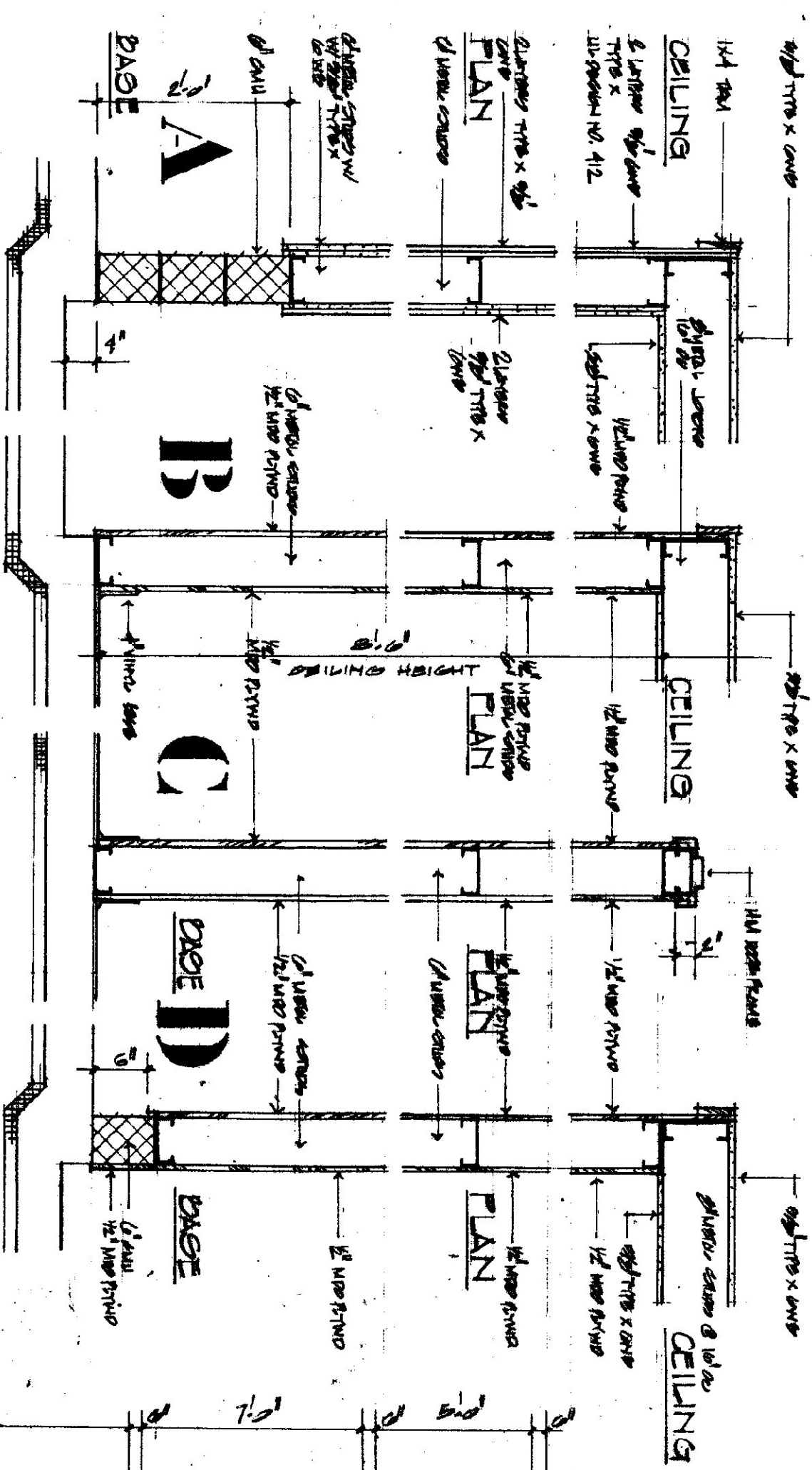
ROOF PLAN



DOOR AND FRAME ELEVATIONS

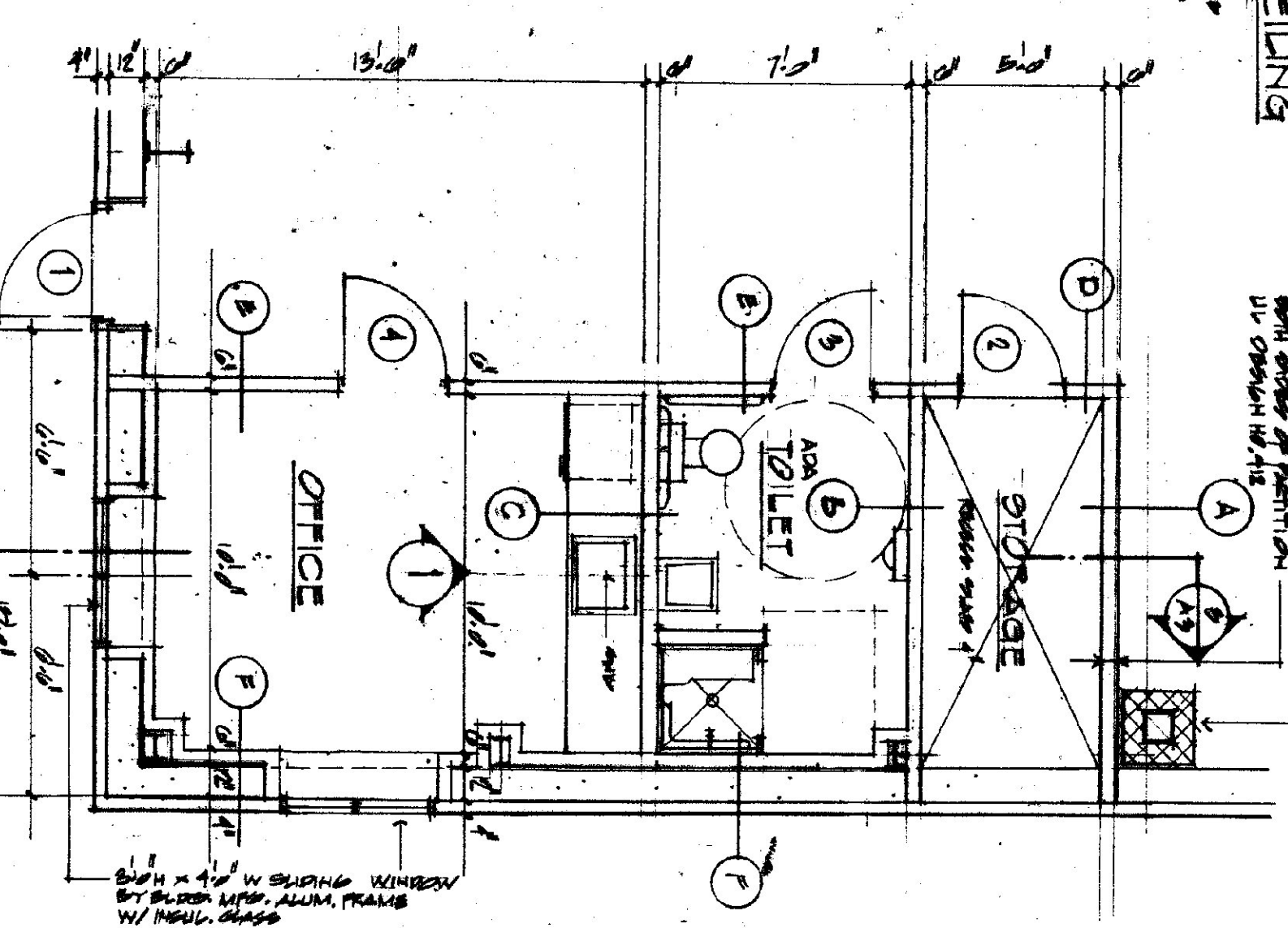


WALL TYPES 2025 3-1-10



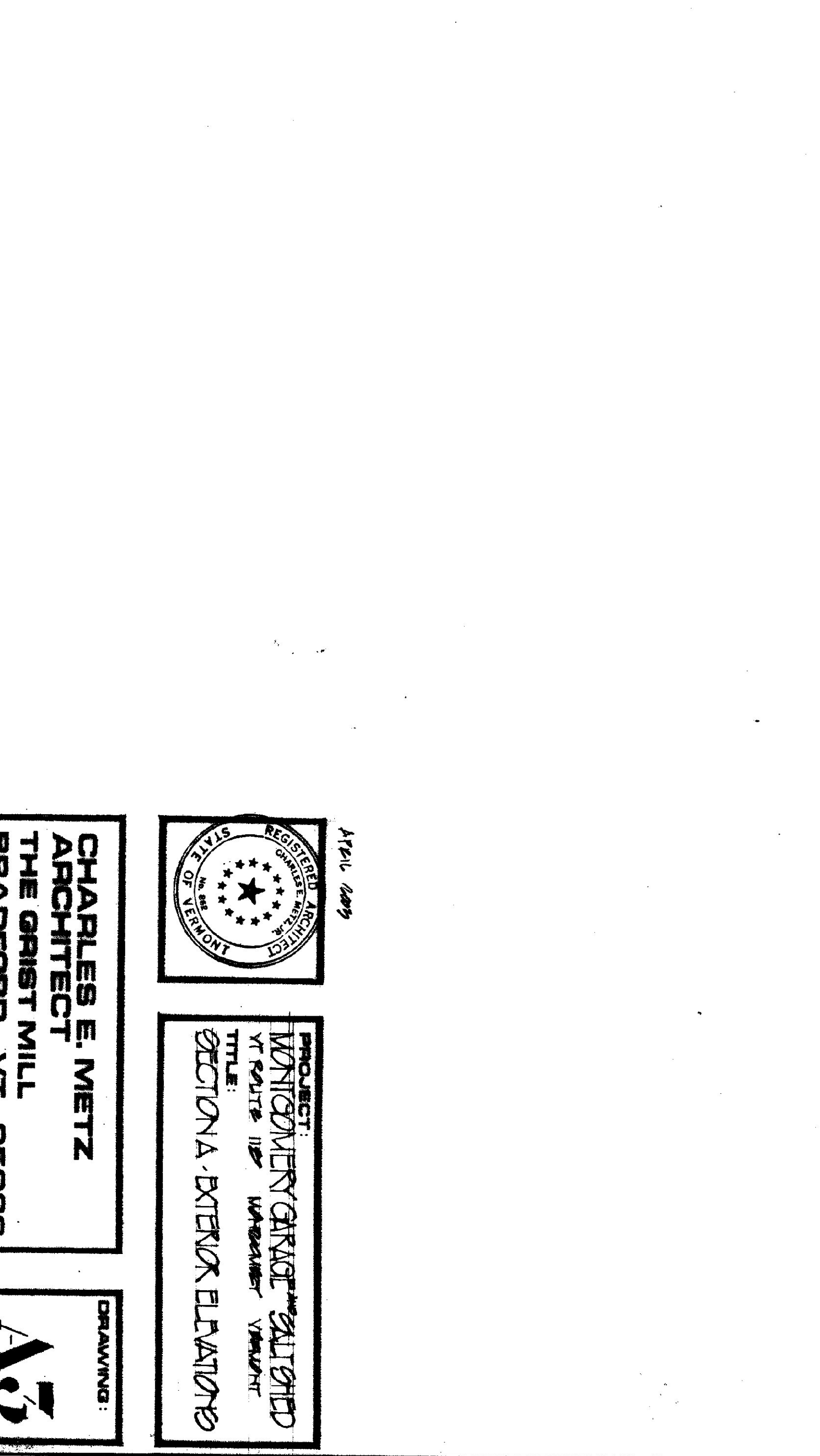
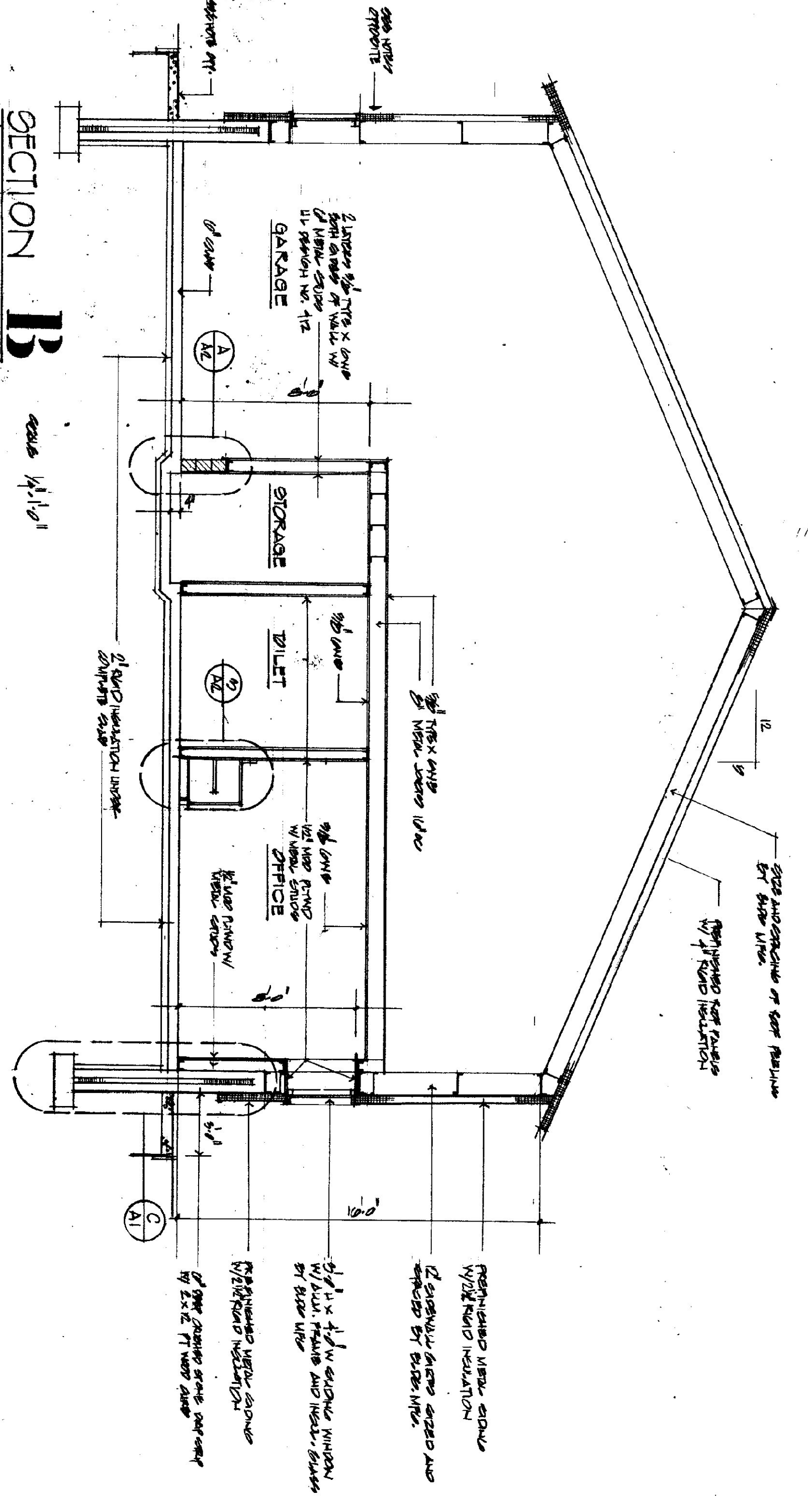
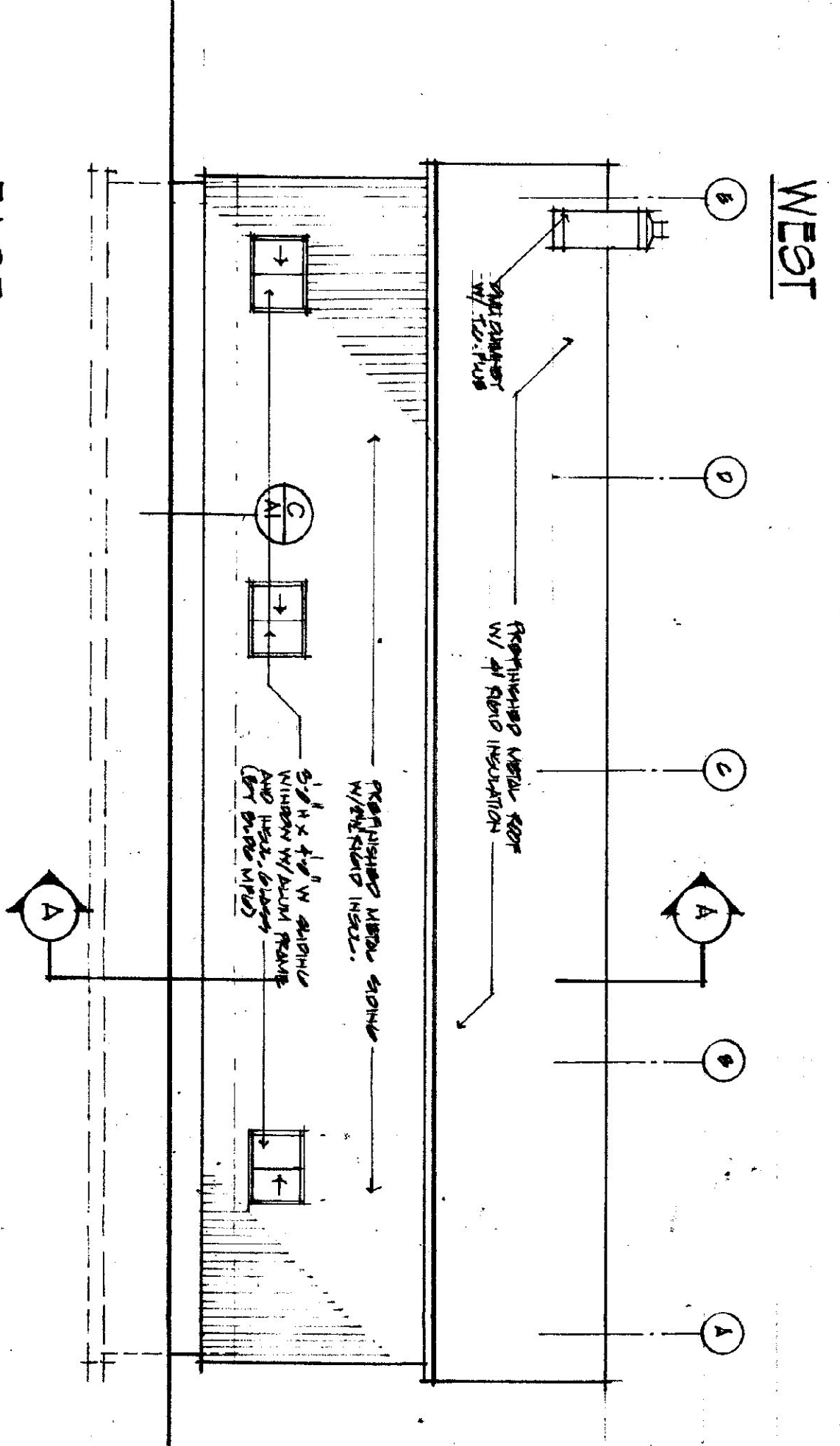
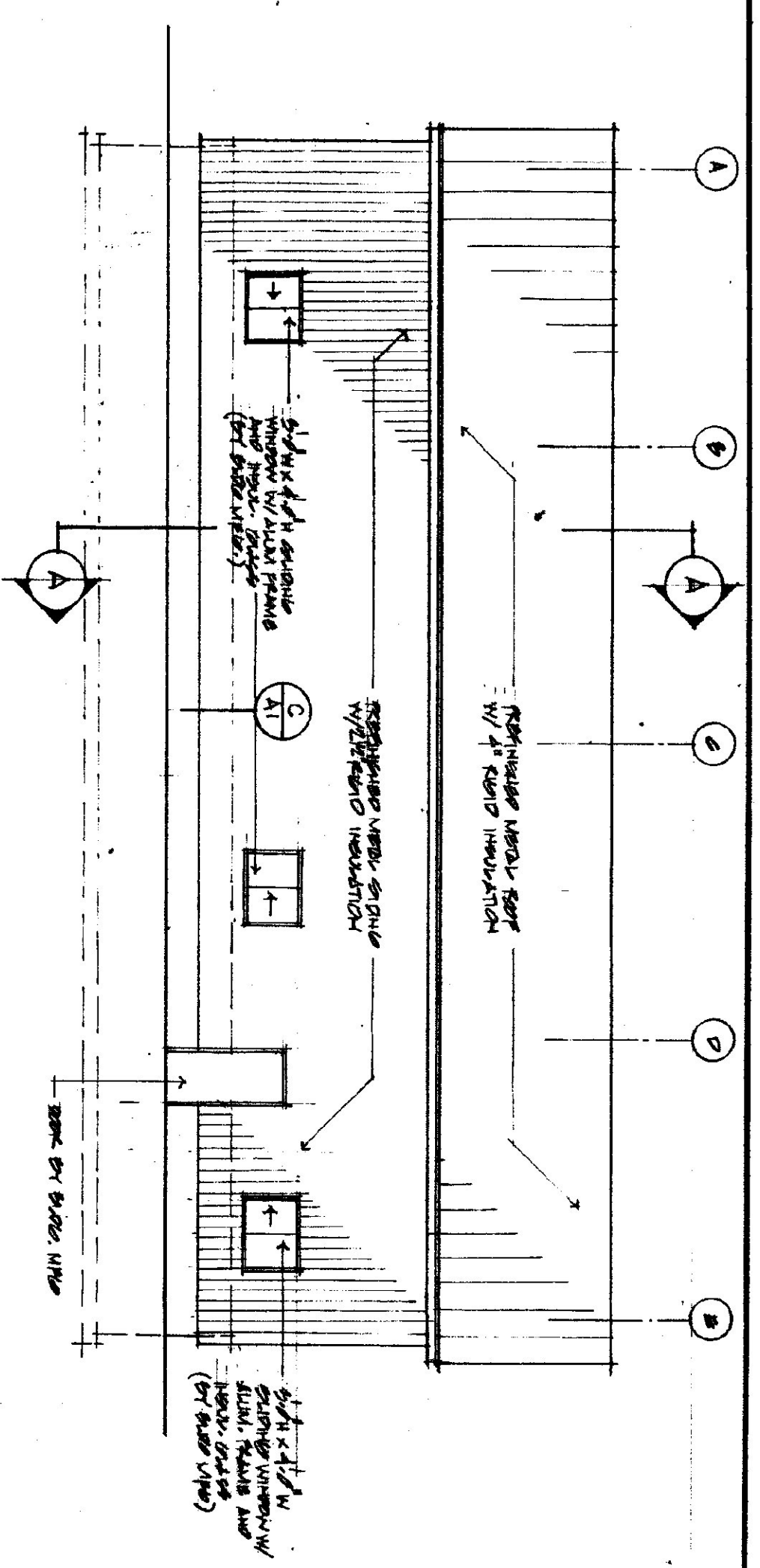
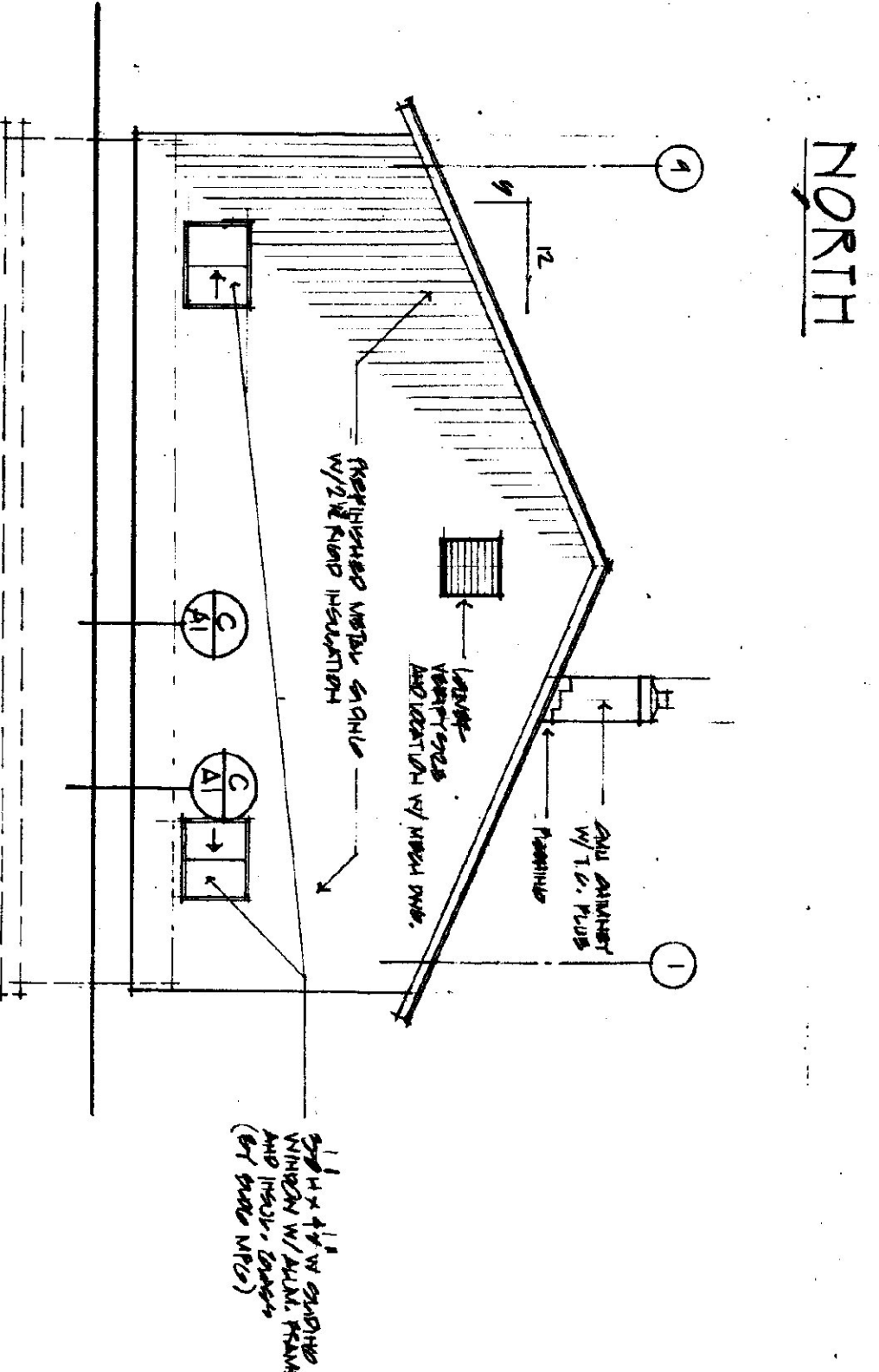
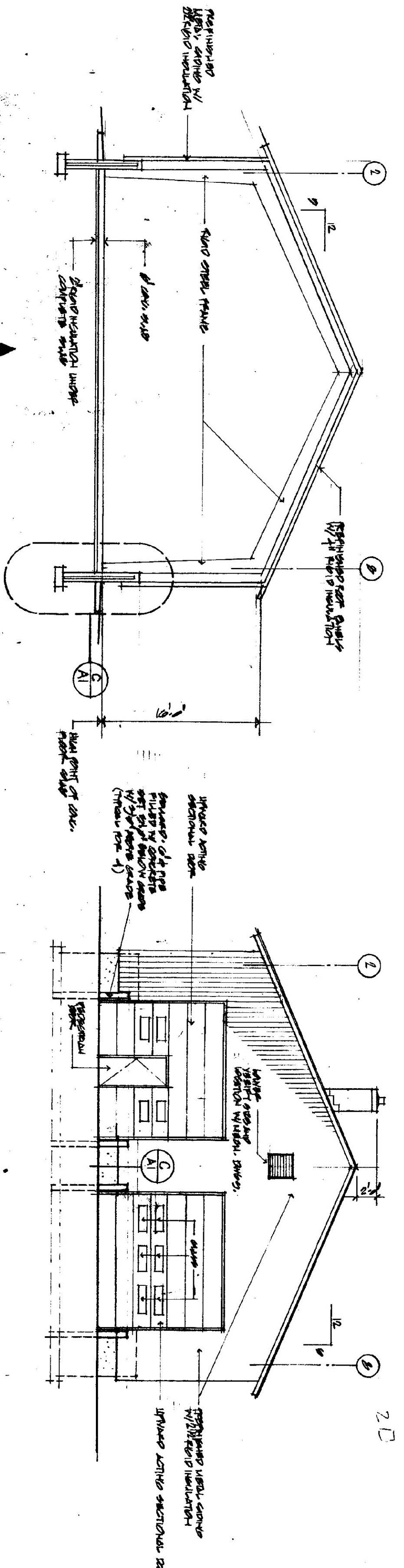
PARTIAL FLOOR PLAN

2nd



SCHEDULE OF INTERIOR FINISHES									
		W		A		L		L	
		H	W	H	W	B	A	H	W
		INTERIORS	FINISH	INTERIORS	FINISH	INTERIORS	FINISH	INTERIORS	FINISH
K&O N	PAINT	PAINT		PAINT		PAINT		PAINT	
O&P A&O	CONCRETE	-		CONCRETE		CONCRETE		CONCRETE	
O&P A&O	CONCRETE	PAINT		CONCRETE		CONCRETE		CONCRETE	
DELFT ROOM	CONCRETE	PAINT		CONCRETE		CONCRETE		CONCRETE	
CLIPPER	CONCRETE	PAINT		CONCRETE		CONCRETE		CONCRETE	

BOOK SCHEDULE											
DATE	BOOK DESCRIPTION	P-L-A-N					STATUS	LEADS	HOW	REMARKS	
NO.	BOOK	DATE	WHERE	HOW	DATE	THRU			REPORT		
1	1	HM	5:00 ⁰	7:00 ⁰	A	HM	ASUM.	-	-	1	BY ROUTINE INFO.
2	1	HM	5:00 ⁰	7:00 ⁰	A	HM		-	-	5	
3	1	HM	5:00 ⁰	7:00 ⁰	A	HM		-	-	4	
4	2	HM	5:00 ⁰	7:00 ⁰	A	HM	-	REPORT	-	5	



APRIL 1989

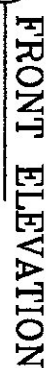
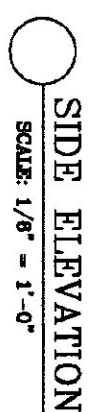
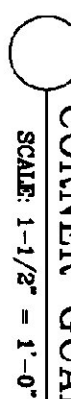
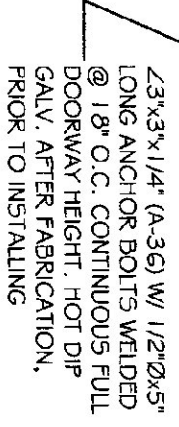
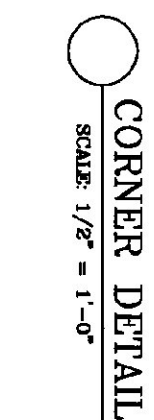
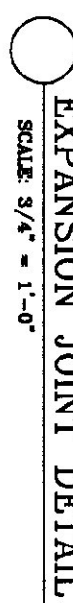
REGISTERED ARCHITECT
STATE OF VERMONT
JAMES E. METZ

PROJECT: WINDMILLER GARAGE
VT ROUTE 112
WINDMILLER VILLAGE

TITLE: SECTION A - EXTERIOR ELEVATIONS

CHARLES E. METZ
ARCHITECT
THE GRIST MILL
BRADFORD VT 05033

DRAWING: A-3



ALL MATERIALS TO BE FINISHED BY THE CONTRACTOR.
ALL PROCESSED METAL, EXCEPT GALVANIZED, (CONCRETE AND BRACKETS, ETC.) SHALL BE PAINTED FLAT BLACK (2 MILS. RUST INHIBITING PRIMER).
ALL ELECTRICAL WORK SHALL COMPLY WITH N.E.C.
ALL FRAMING AND BOARD & BATTEN SOUNG MATERIALS SHALL BE APPROXIMATELY 5/8"X2" GALVANIZED ASTMESTDS AND A/CAS STANDARDS.
ALL FOOTING WORK, BACK FILL MATERIAL, FLOOR MATERIAL TO THE DUMP 5.5M TALL.
ROOFING COLOR - IVY GREEN (PANTONE GREEN)

FINISH NOTES:
ROOFING COLOR: AMERIDRAIN IVY GREEN
ALL BOARDS & BATTEN TO BE STAINED W/ INSTALLATION.
AFTER INSTALLATION EXTERIOR SIDING TO STAIN TO BE SHERWIN WILLIAMS OXFORD SEMI-TRANSPARENT & THE SECOND COAT

CONCRETE NOTES:

TRUSS MANUFACTURERS TO SUBMIT TO THE RESIDENT ENGINEER A FULL SET OF ENGINEERED AND STAMPED DRAWINGS FOR APPROVAL PRIOR TO TRUSS MANUFACTURE. TRUSS MANUFACTURER TO PROVIDE THE CONTRACTOR WITH ALL THE NECESSARY INSTRUCTIONS FOR PROPER TRUSS INSTALLATION, ANCHORAGE, BRACING, LIFTING, ETC. TRUSS DESIGN IN ACCORDANCE WITH THE 1987 I.B.C.A. FOR VERNAMONT MINIMUM LOADS. USE .40 P.S.I. - PER 1994 VERSION FIRE PROTECTION CODE. DETD. - AS CALCULATED FROM TRUSS AND ROOF MATERIALS AND IN ADDITION 5 P.S.I. BOTTOM CHORD WIND - 25 P.S.I. DIAGONAL BRACING PER TRUSS MANUFACTURER AND PER MINIMUM TRUSS BRACING DETAIL IN SPECIFICATIONS

CONCRETE NOTES:
CONCRETE TO BE CLASS "B" PER A.O.T. STANDARD SPECIFICATION TABLE 501.103A WITH:
% ± 1% AIR ENTRAINMENT, AND 2-4" SLUMP.
1/2" W. JOINTS IN EXPOSED FACE OF CONSTRUCTION JOINTS,
GALVANIZED L. FROM CAST INTO WALL CORNERS AT DOOR OPENINGS.
RE-BAR TO BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
NO HORIZONTAL CONSTRUCTION JOINTS IN WALLS - CONTINUOUS POUR.
NO CONSTRUCTION OR EXPANSION JOINTS REQUIRED IN FOOTINGS.
CONTRACTOR TO LAUNCH WEAP, WITHIN 1' OF SURFACE. USE 1" DEEP PLASTIC CONES
AT TIE-INS AND PLUG AT THE HOLES WITH AN APPROVED NON-SHINK GROUT.
ALL RE-BAR TO BE GRADE ±0 W/ 3" CLEARANCE ON ALL SIDES UNLESS NOTED OTHERWISE.
RE-BAR TO BE STORED ON BLOCKING 4" MINIMUM ABOVE GROUND.

[illegible]

ALL CONCRETE TESTING TO BE DONE BY OWNER. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING.

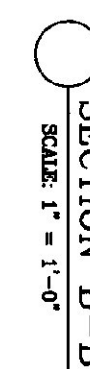
EMPORED WALLS TO HAVE FIVE JOINT RIGIDS, TWO HOLES, AND CAPPED PRESS INHIBIT PER A.O.T. STANDARD SECTION 501.1.6.

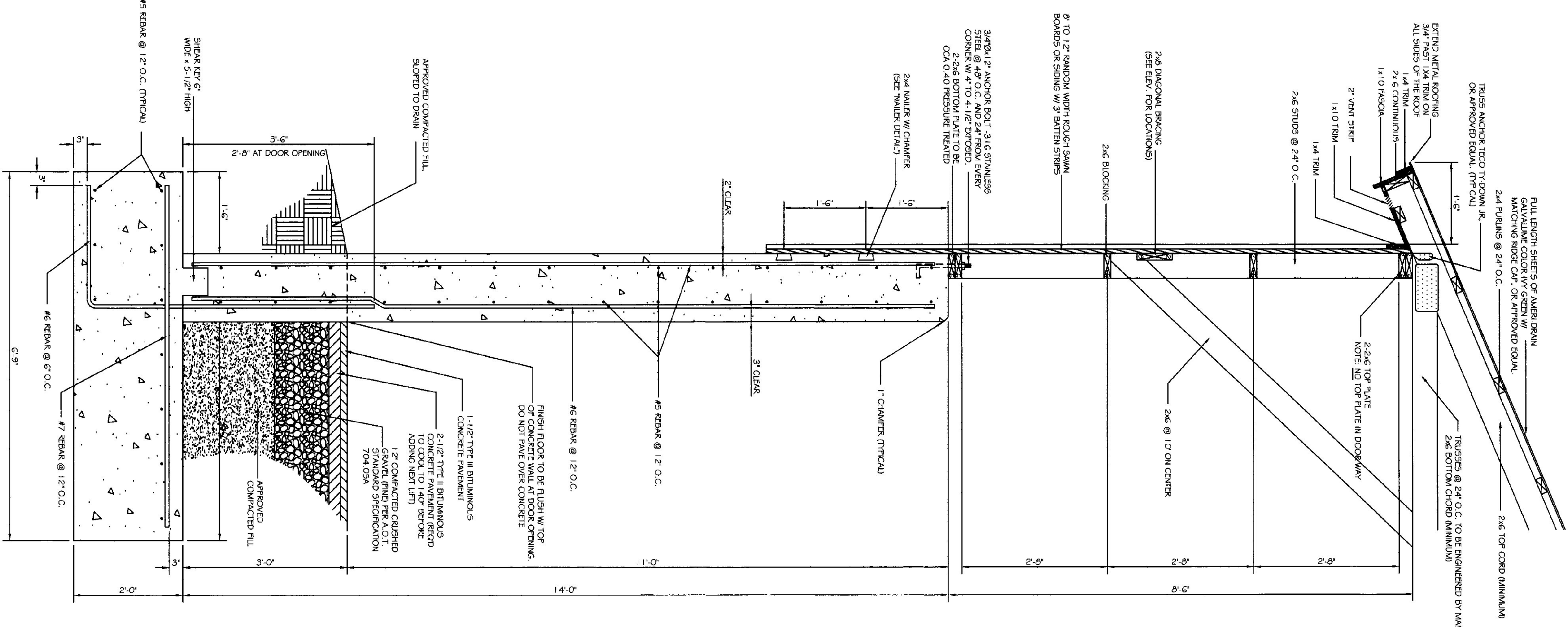
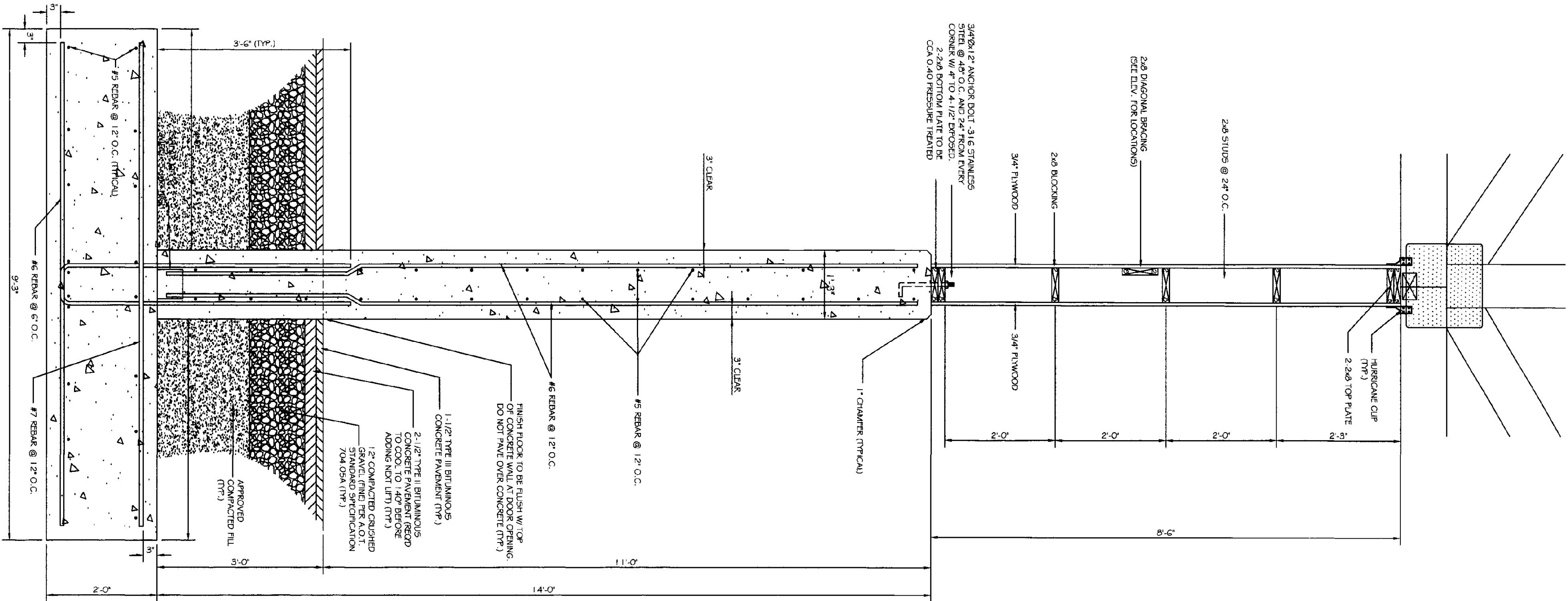
WALL FORMS SHALL BE LEFT IN PLACE FOR 72 HOURS MINIMUM.

CONCRETE FORMS SHALL REMAIN IN PLACE FOR 24 HOURS MINIMUM.

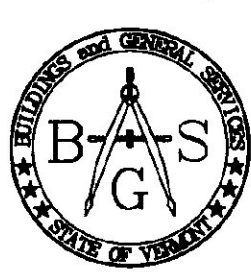
CONCRETE CURING SHALL INCLUDE WATERPANELS AT JOINTS PER A.O.T.

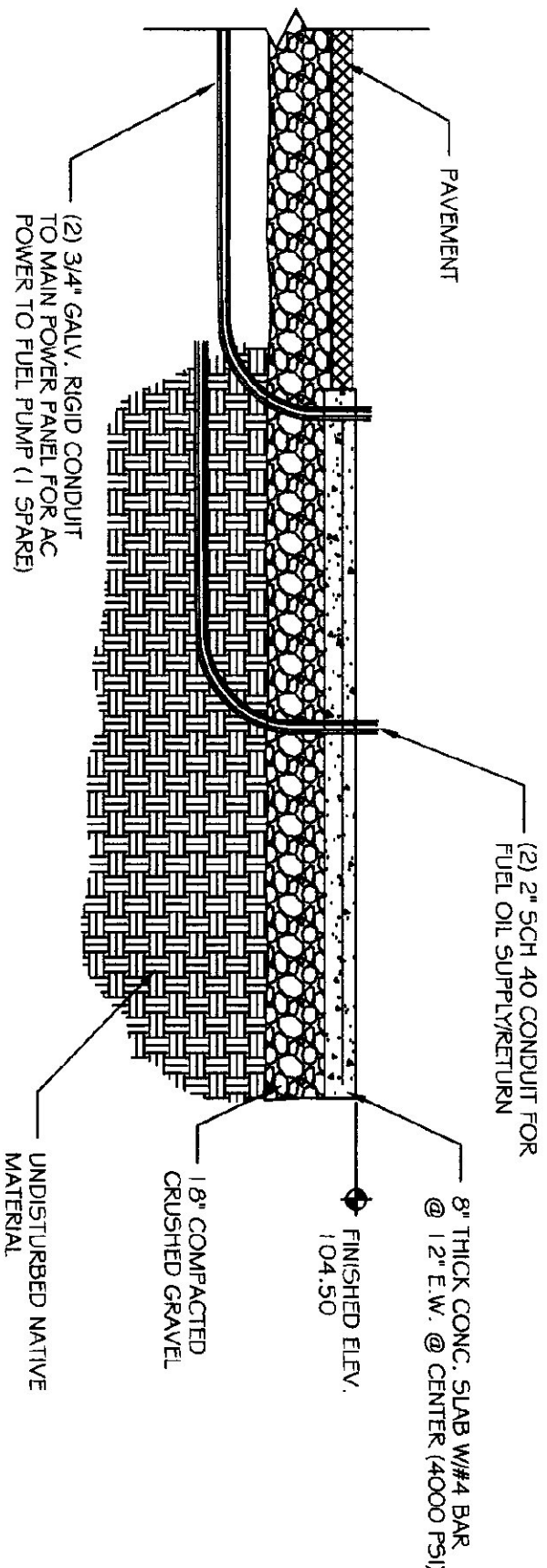
STANDARD 501.1.7. WATER CURING WILL BE REQUIRED. LISTED ULTRAVIOLET MEANS OF CURING IS APPROVED. IN WRITING, BY THE PROJECT ENGINEER.





WALL SECTION (TYP.)
TYPICAL OF 4





2000 GAL. ABOVE GROUND
FUEL STORAGE TANK PAD

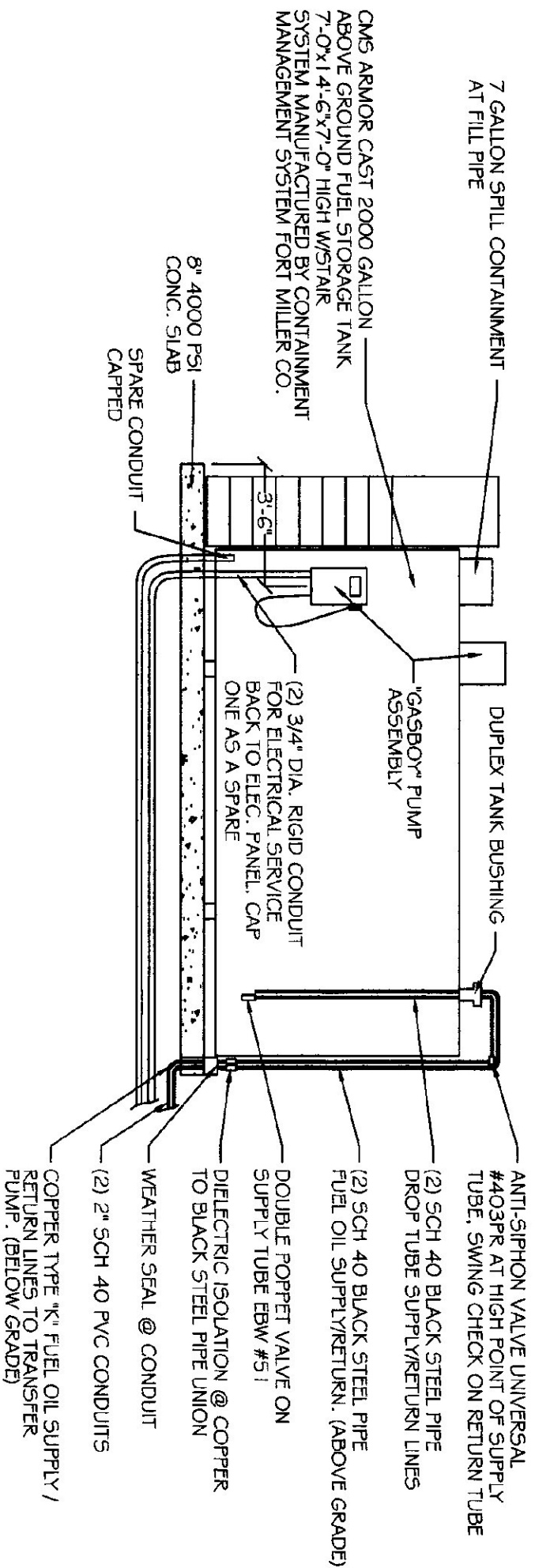
SCALE: 1/4" = 1'-0"

NOTES:

1. BOX CUT NATIVE MATERIAL TO APPROPRIATE SIZE & DEPTH. PLACE (3) 6" LAYERS OF SPECIFIED SUB-BASE AND COMPACT TO 95% PROCTOR.
2. TIE REINFORCING STEEL AS NOTED.
3. PLACE OIL SUPPLY AND RETURN CONDUITS ON SOUTH END, 6" FROM EDGE OF SLAB TO INSIDE EDGE OF CONDUIT (CENTERED IN WIDTH OF SLAB).
4. PLACE (2) 3/4" RIGID ELEC. CONDUIT FROM ELEC. PANEL BACK TO CORNER OF CONCRETE SLAB AS SHOWN ON DRAWINGS.
5. SEAL ALL CONDUITS EXPOSED TO WEATHER TO PREVENT MOISTURE FROM ACCUMULATING IN CONDUIT. USED MECHANICAL SEALS OF APPROVED CAULKING ON EXPOSED CONDUITS OR AROUND FUEL LINES.
6. FOUR 4000 P.S.I. CONCRETE AND LIGHT BROOM FINISH.
7. FUEL TANK SLAB TO COMPLY WITH TANK MANUFACTURERS REQUIREMENT.

SPECIFICATIONS:

1. CM5 ARMOR CAST 2000 GALLON ABOVE GROUND FUEL STORAGE TANK
2. INTEGRAL STAINLESS STEEL SPILL CONTAINER
3. OVERFILL PREVENTION VALVE, 2" DROP TUBE, 2" DUST CAP
4. MORRISON 8 1/8 CLOCK GAUGE
5. LOCKABLE FLIP CAP TO STICK TANK
6. TANK GAUGE STICK
7. KUEJER MECHANICAL LEAK DETECTION GAUGE
8. 2ND UPDRAFT VENT OR PRESSURE VACUUM VENT 8 OZ. W/ PIPE
9. (2) 6" E" EMERGENCY VENT 8 OZ
10. "GASBOY" #9822, 3/4 HP COMMERCIAL PUMP W/ REMOTE LCD REGISTER
11. "GASBOY" REMOTE REGISTER TANK MOUNT KIT
12. INTERNAL FILTER, ADAPTER & ELEMENT
13. 1" x 1/2" CUHD HOSE
14. 1" Ø SWIVEL
15. 1" SAFE BREAK COUPLING
16. AUTO MOUNT
17. 1" 1/2" ANGLE CHECK VALVE, SINGLE PORT
18. 1" 1/2" EXTERNAL EMERGENCY VALVE
19. 1" 1/2" STAINLESS STEEL TEE CONNECTOR
20. DOUBLE TEE BUSHING 4" WITH (2) 3/4"
21. (2) SUCTON TUBES
22. 4" COUPLING
23. STAIR, MODEL SP2000R

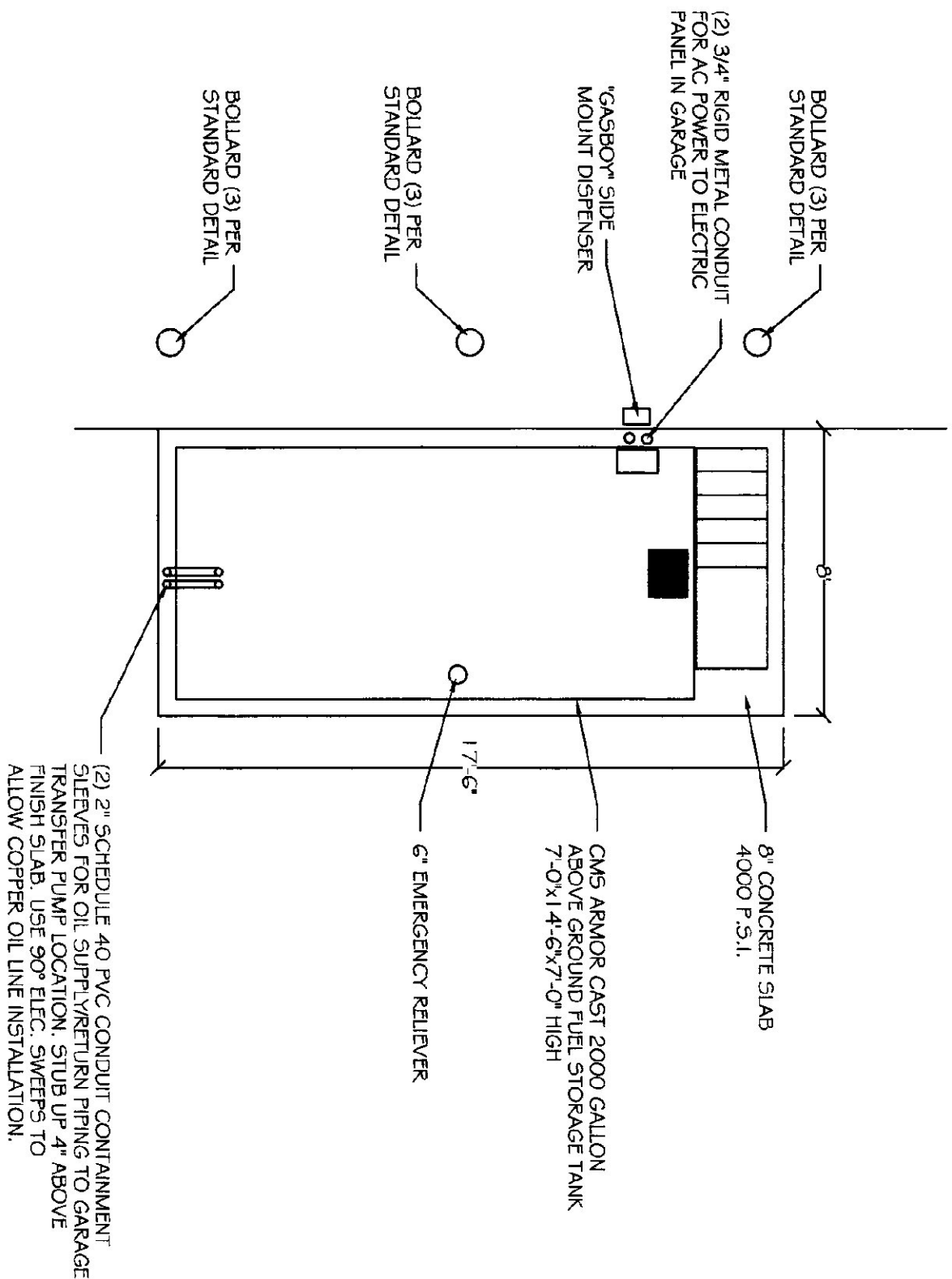


2000 GAL. ABOVE GROUND
FUEL STORAGE TANK

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

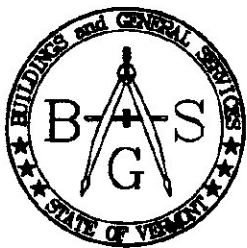
NOTES:

1. FASTEN OIL LINES & ELECTRICAL CONDUIT SECURELY ACCORDING TO TANK MANUFACTURERS INSTRUCTIONS.
2. CONTRACTOR TO MAKE ALL CONDUIT AND ELECTRICAL CONNECTIONS BETWEEN PANEL / PUMP AND REGISTER PER MANUFACTURERS INSTRUCTIONS.
3. FOR SIZES ON FUEL SUPPLY / RETURN PIPING SEE SHEET M-1.



PLAN VIEW

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



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MONTGOMERY A.O.T. GARAGE
RADIANT HEATING
FUEL STORAGE TANK

MONTGOMERY,

VERMONT

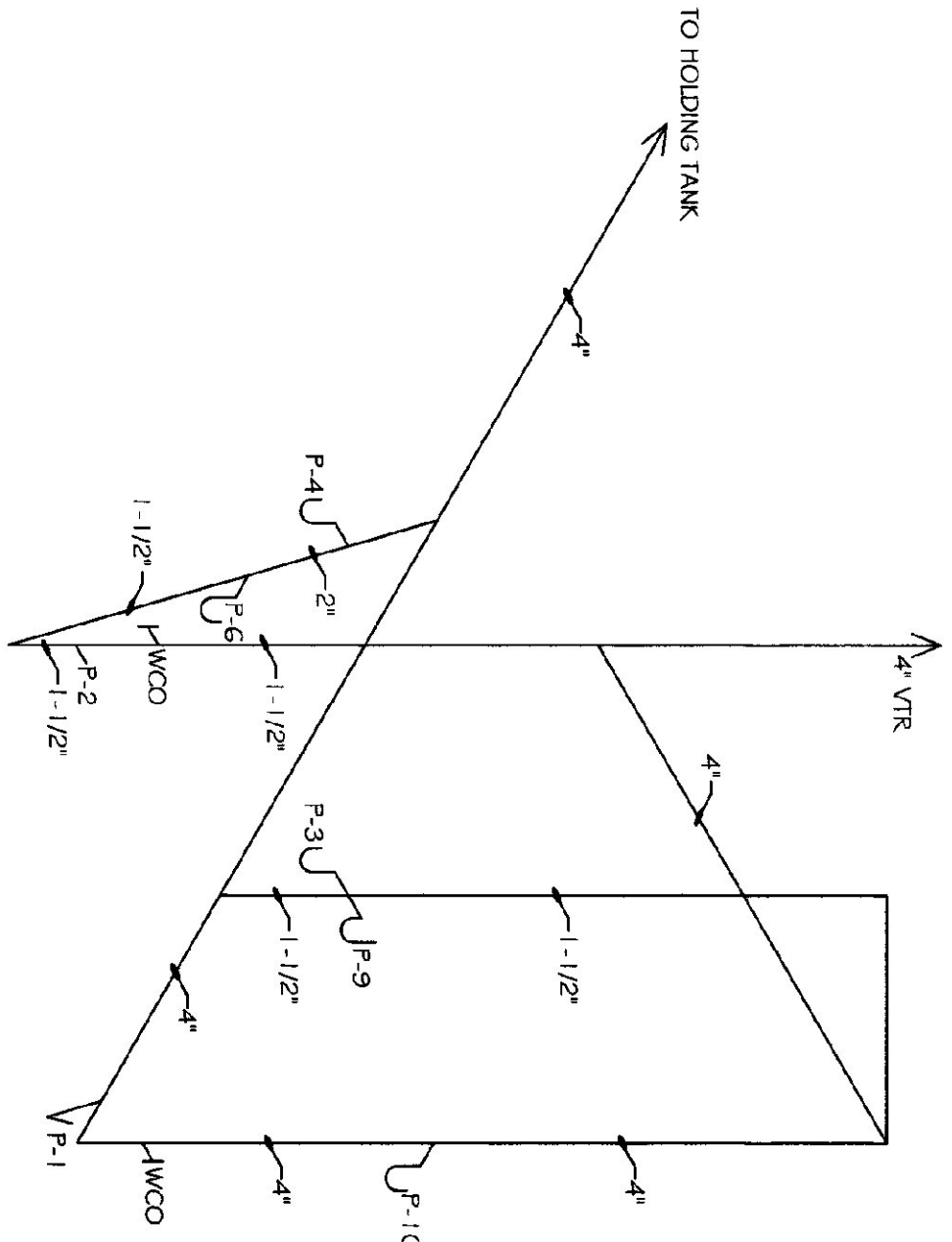
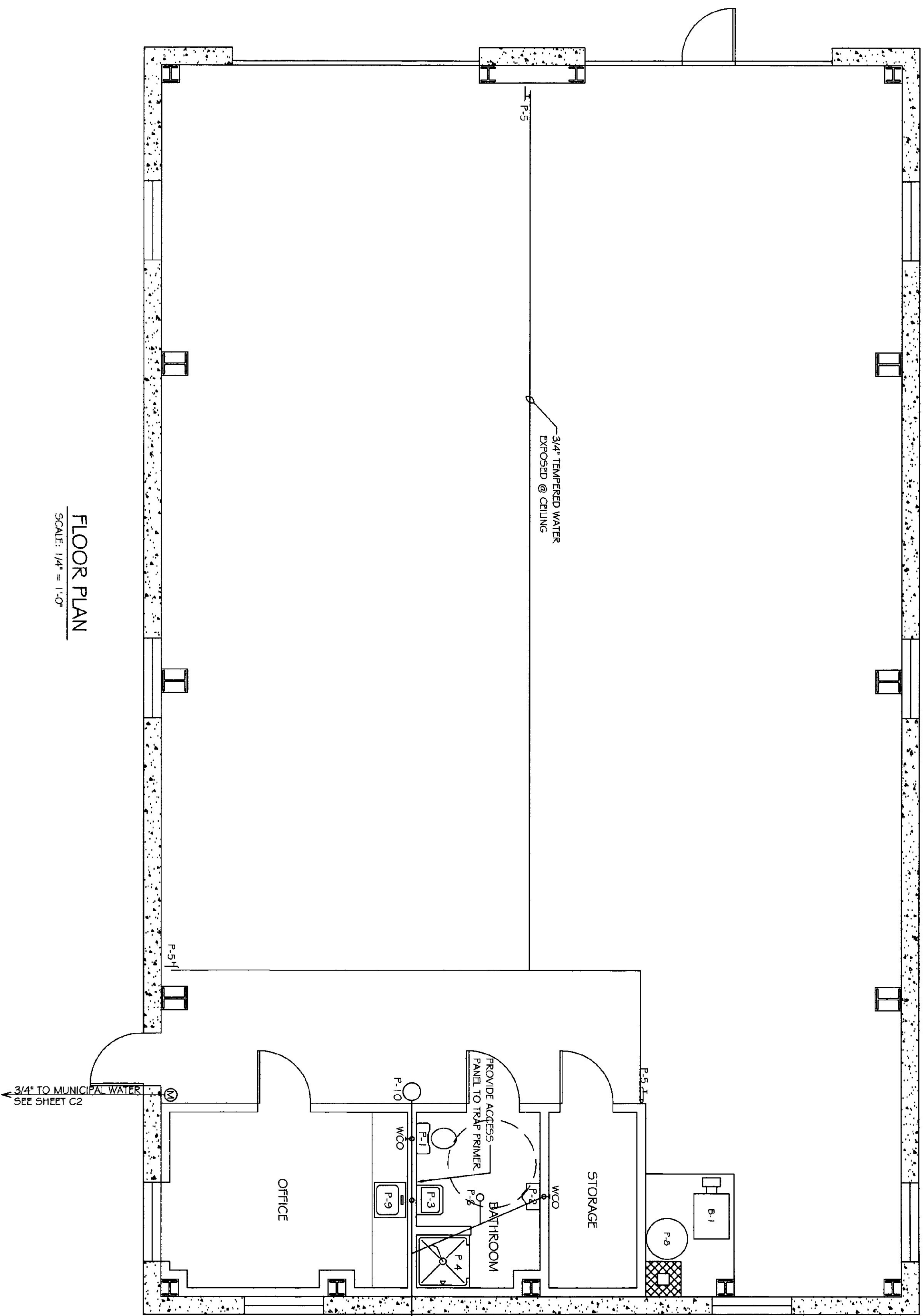
REVISIONS

SCALE: AS NOTED
DATE: MAY 2003
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

MONTGOMERY
A.O.T. GARAGE
RADIANT
HEATING
FUEL STORAGE
TANK

F-1

OF

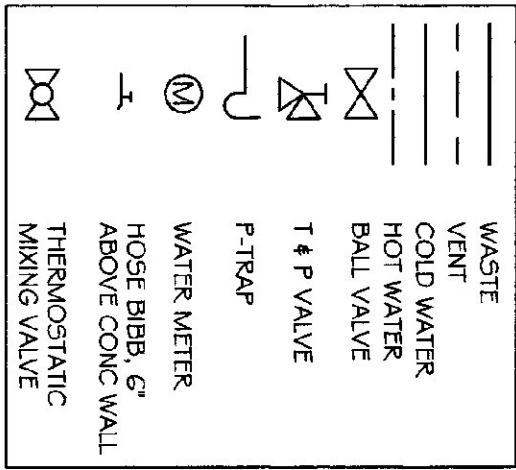
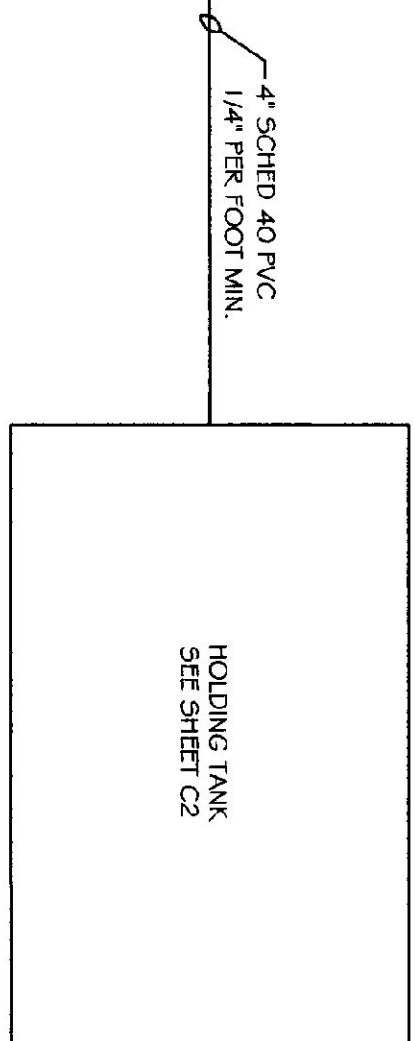


FLOOR PLAN

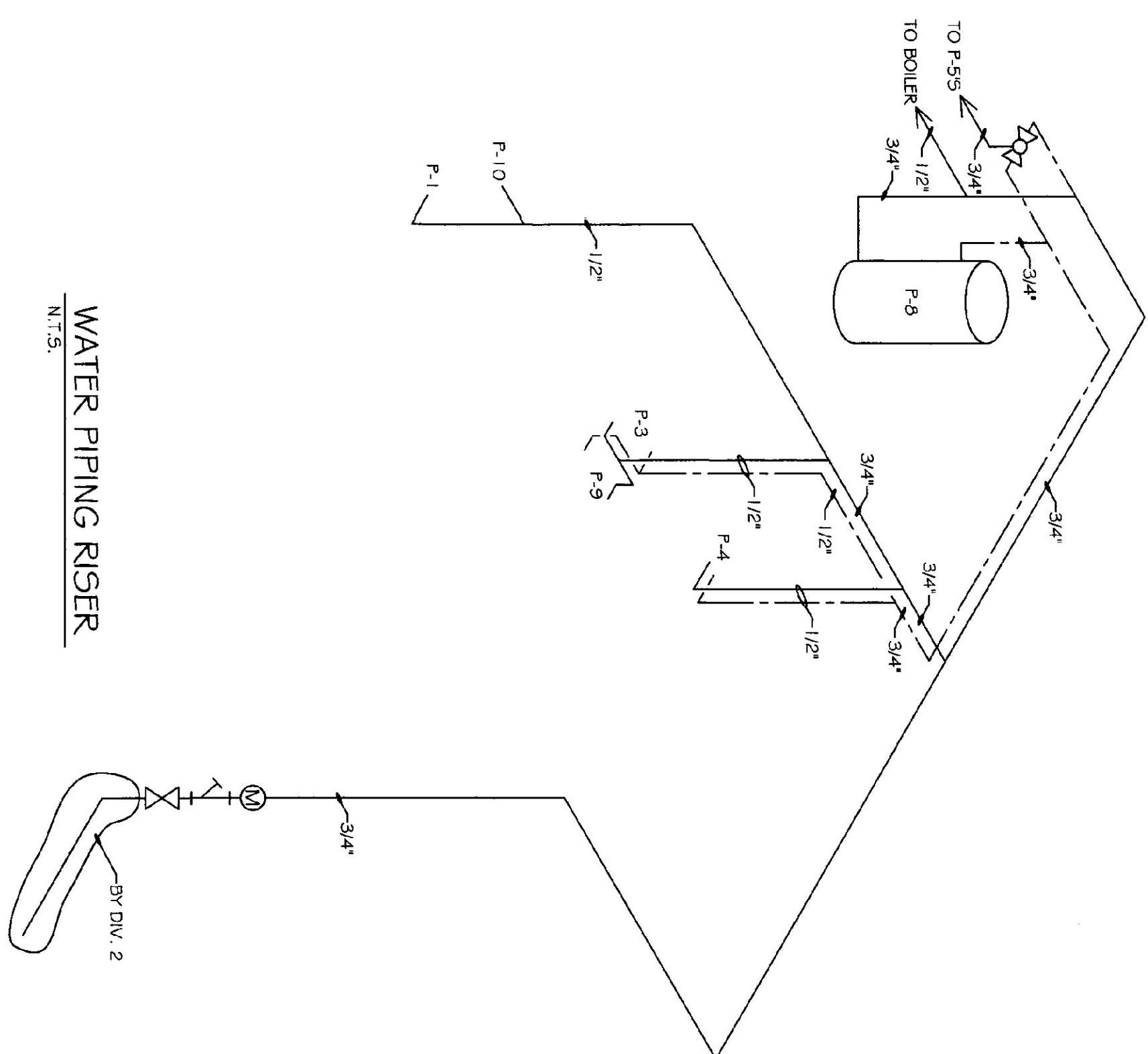
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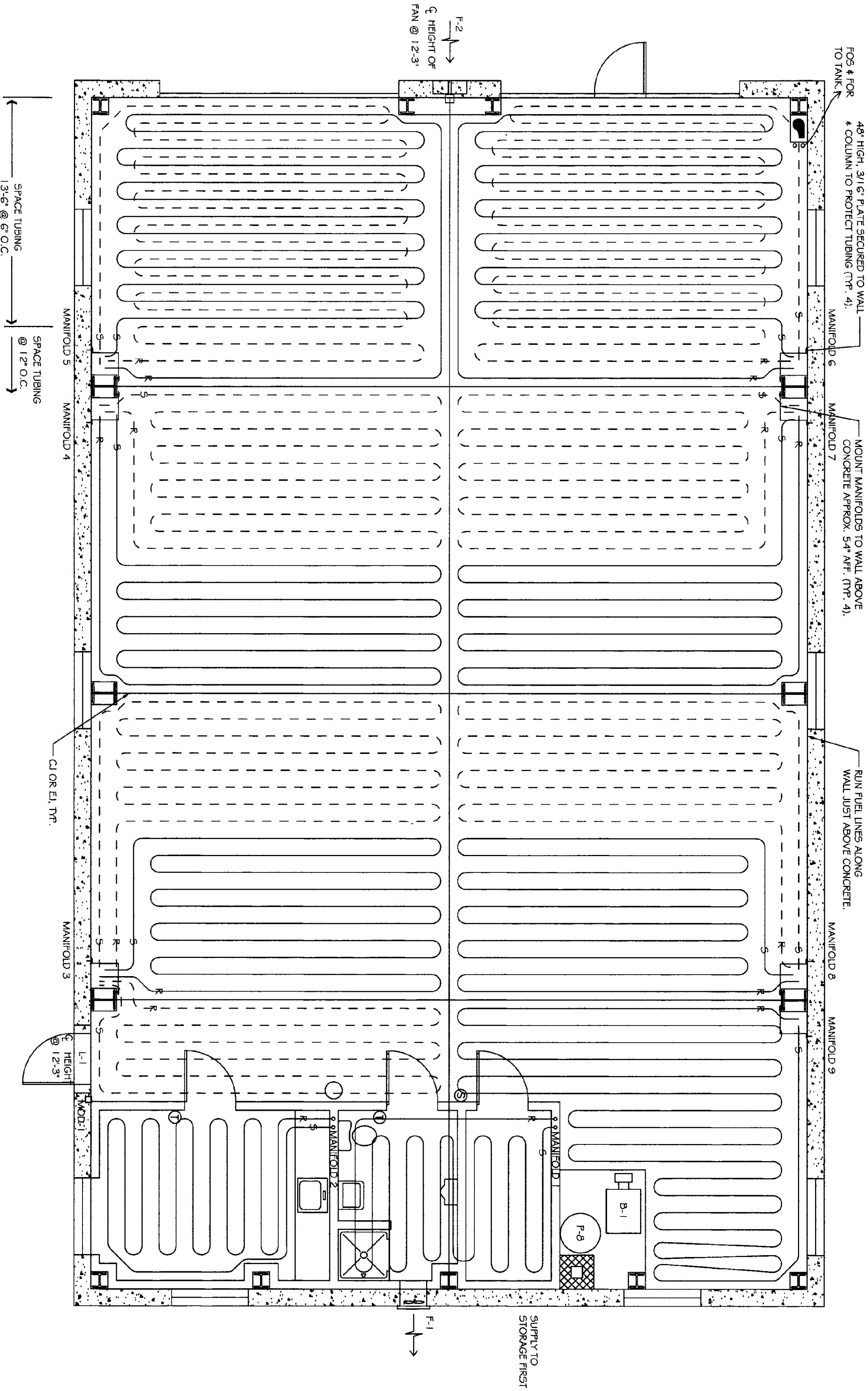
FIXTURE SCHEDULE



- ## NOTES
1. DIVISION 2 TO BE RESPONSIBLE FOR WATER LINE INTO BUILDING, UP TO FIRST VALVE. DIVISION 15 TO BE RESPONSIBLE FOR VALVE AND BEYOND.
 2. DIVISION 15 TO BE RESPONSIBLE FOR ALL SOWER & VENT PIPING WITHIN BUILDING AND OUT TO HOLDING TANK. DIVISION 2 TO BE RESPONSIBLE FOR HOLDING TANK.



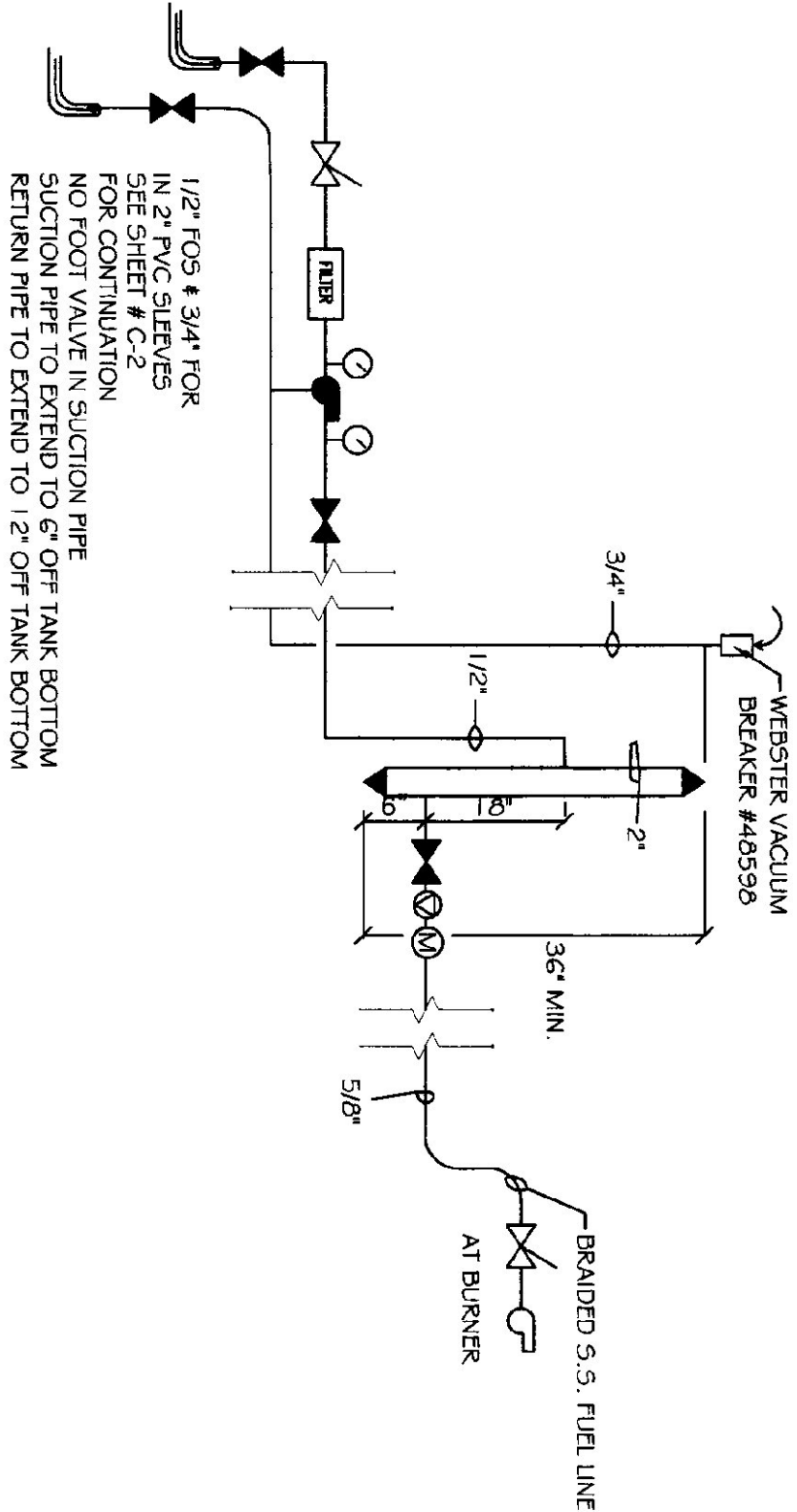
WATER PIPING RISER



RADIANT TUBING SCHEDULE									
MANIFOLD #	LOCATION	RADIANT LOOP #	AREA SERVED	TUBE SIZE (IN FLOOR)	TUBE LENGTH (LN)	GPM	ΔP (SURFACE)	WATER FLOOR TEMP (SURFACE)	BTU/H
1	STORAGE	1	STORAGE	5/8"	113	0.5	22	103/87	73,671.8
2	OFFICE	2	OFFICE	5/8"	117	1.4	3.3	105	76
3	GARAGE	3	GARAGE	5/8"	125	1.0	2.0	92	78.6
3	GARAGE	4	GARAGE	5/8"	189	1.5	5.7	92	36.6
3	GARAGE	5	GARAGE	5/8"	180	1.4	5.1	92	36.6
4	GARAGE	6	GARAGE	5/8"	181	1.4	5.1	92	36.6
4	GARAGE	7	GARAGE	5/8"	189	1.5	5.7	92	36.6
5	GARAGE	8	GARAGE	5/8"	276	2.2	17	92	78.6
5	GARAGE	9	GARAGE	5/8"	283	2.2	17	92	78.6
6	GARAGE	10	GARAGE	5/8"	283	2.2	17	92	78.6
6	GARAGE	11	GARAGE	5/8"	278	2.2	17	92	78.6
7	GARAGE	12	GARAGE	5/8"	189	1.5	5.7	92	78.6
7	GARAGE	13	GARAGE	5/8"	181	1.4	5.1	92	78.6
8	GARAGE	14	GARAGE	5/8"	180	1.4	5.1	92	78.6
8	GARAGE	15	GARAGE	5/8"	189	1.5	5.7	92	78.6
9	GARAGE	16	GARAGE	5/8"	250	1.9	11.0	92	78.6

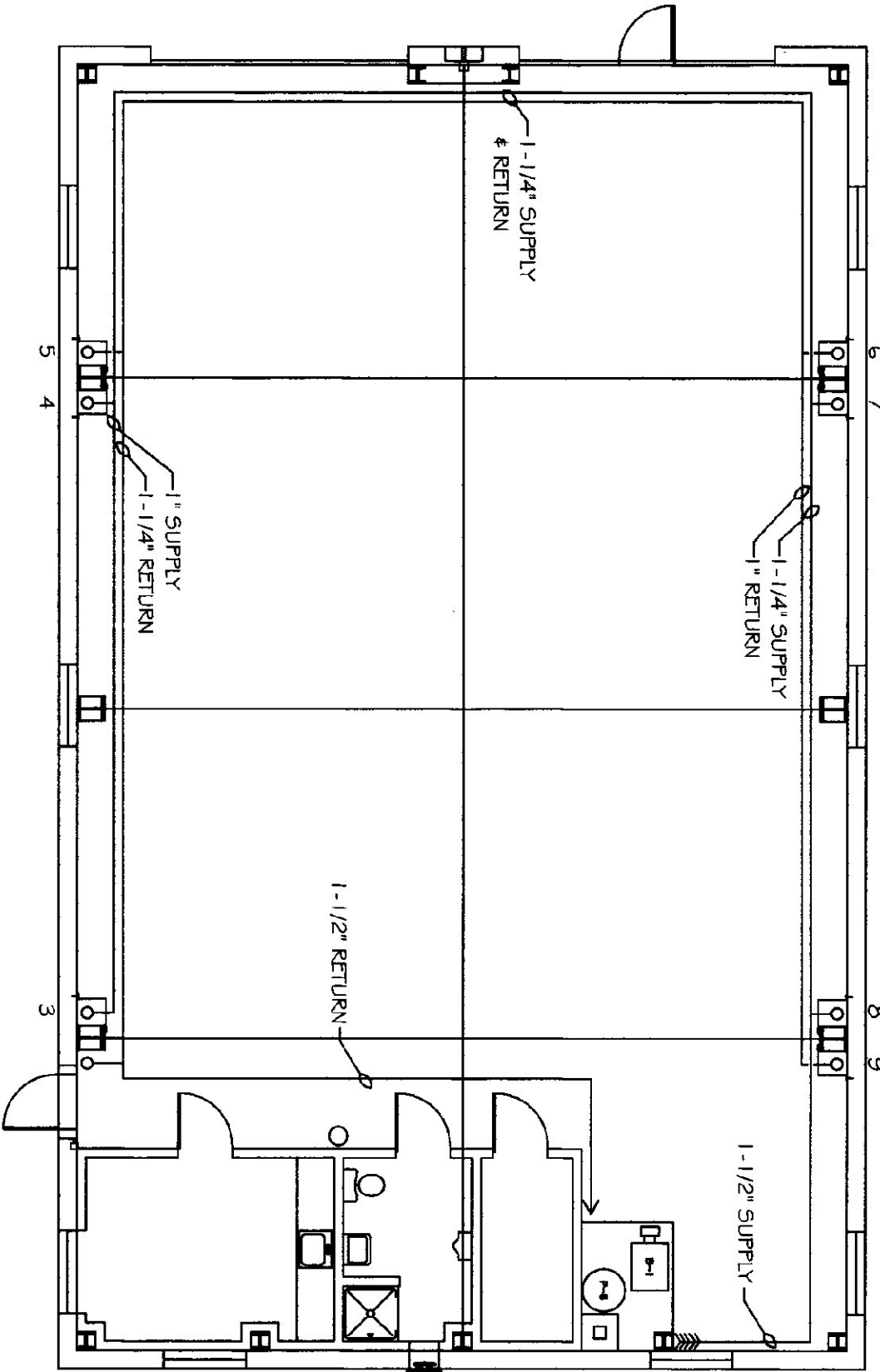
FLOOR PLAN

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



FUEL SUPPLY SCHEMATIC

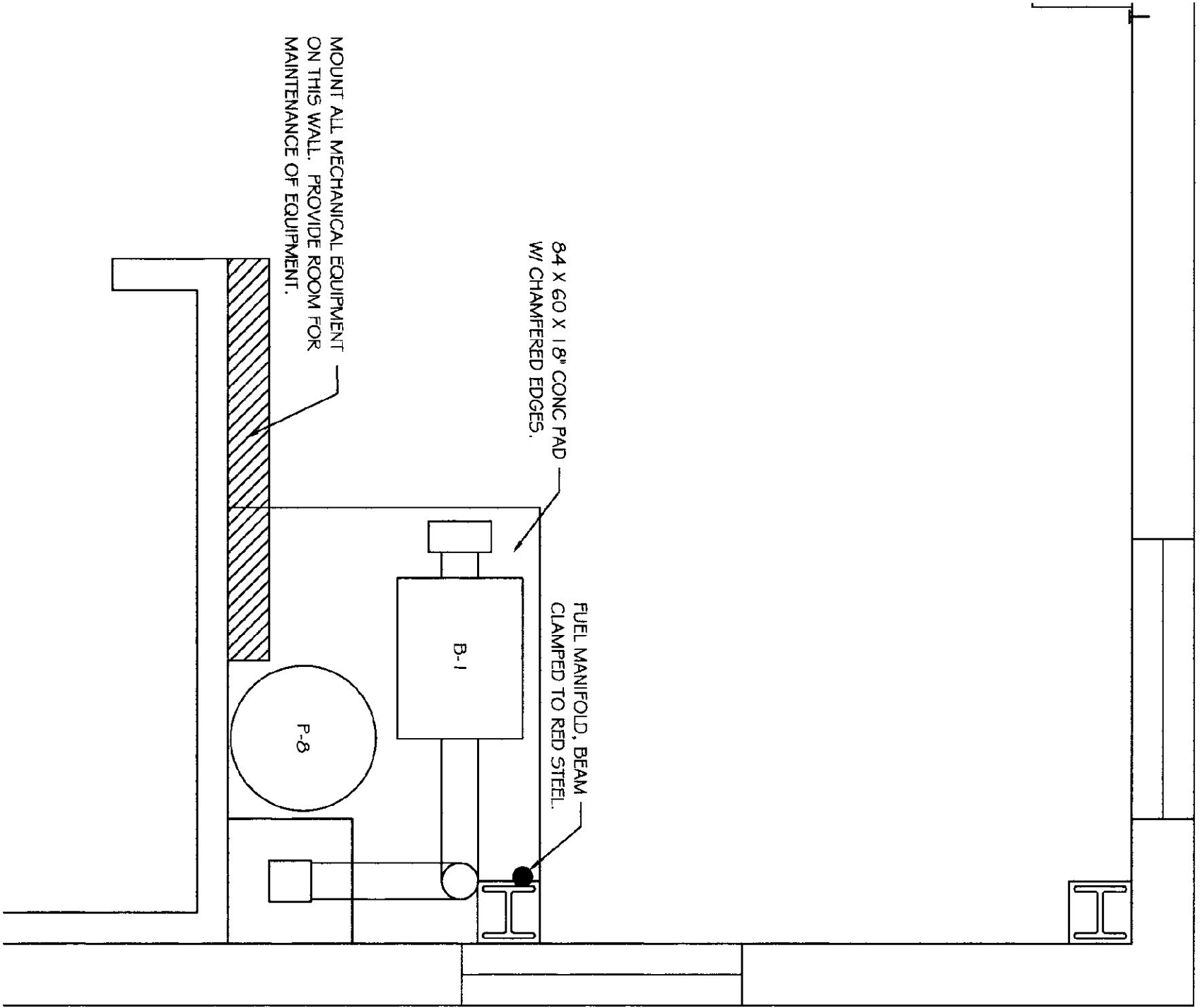
NOT TO SCALE



PIPING PLAN

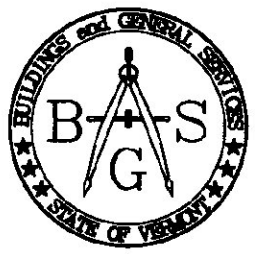
SCALE: 1/8" = 1'-0"

- NOTES:
1. TUBING BENDS TO BE RADIUS, 6" MINIMUM.
 2. DEVIATION FROM LAYOUT SHALL BE SUBMITTED FROM TUBING MANUFACTURERS AUTHORIZED REPRESENTATIVE.
 3. TUBING INSTALLATION SHALL BE BY MANUFACTURERS AUTHORIZED REPRESENTATIVE.
 4. ALL TUBING TO BE 6" FROM WALLS, SPACED 1/2" O.C. DOWN.



BOILER PLAN

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



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Montpelier, Vermont



MONTGOMERY A.O.T. GARAGE
RADIANT HEATING
FLOOR PLAN

MONTGOMERY,

VERMONT

REVISIONS

SCALE: AS NOTED
DATE: MAY 2003
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

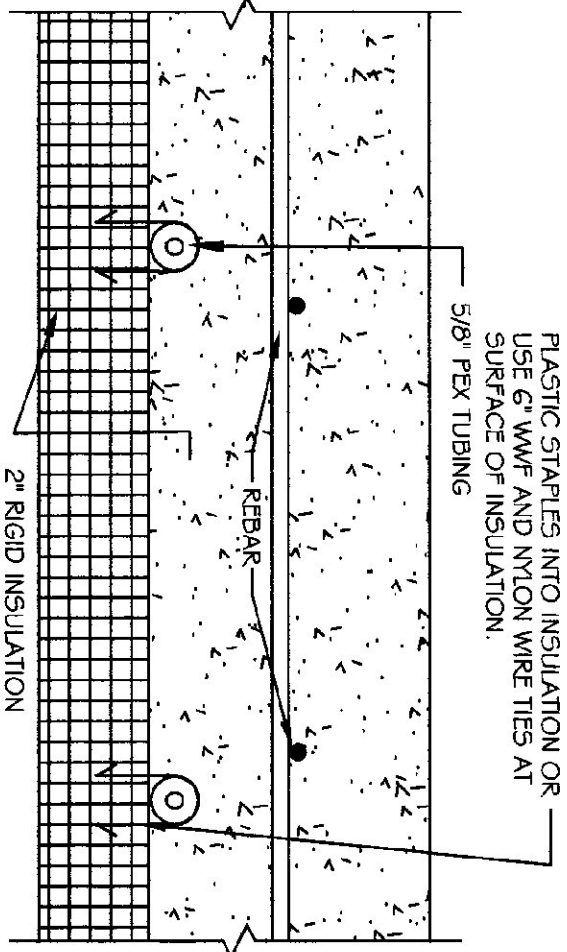
MONTGOMERY
A.O.T. GARAGE

RADIANT
HEATING

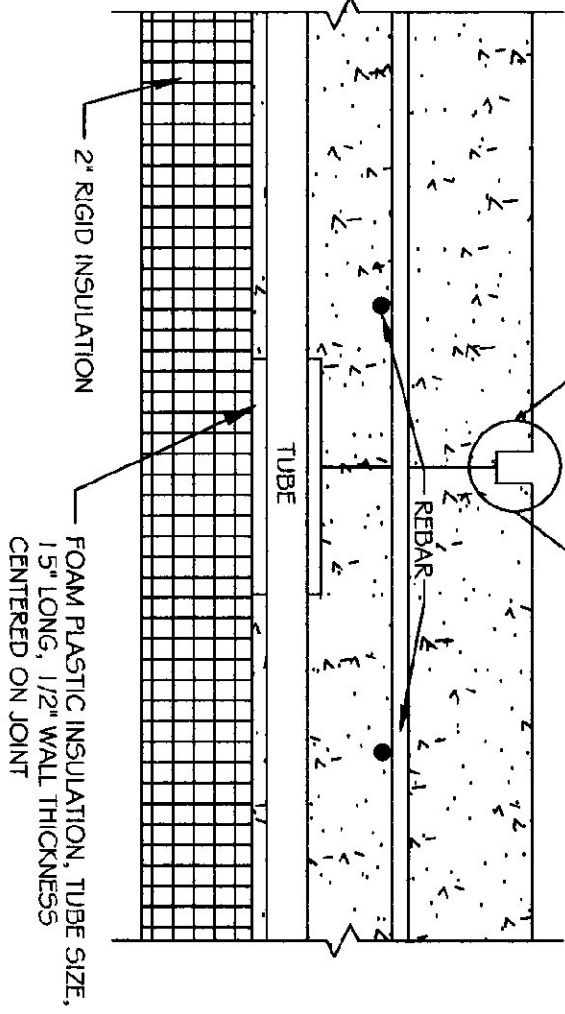
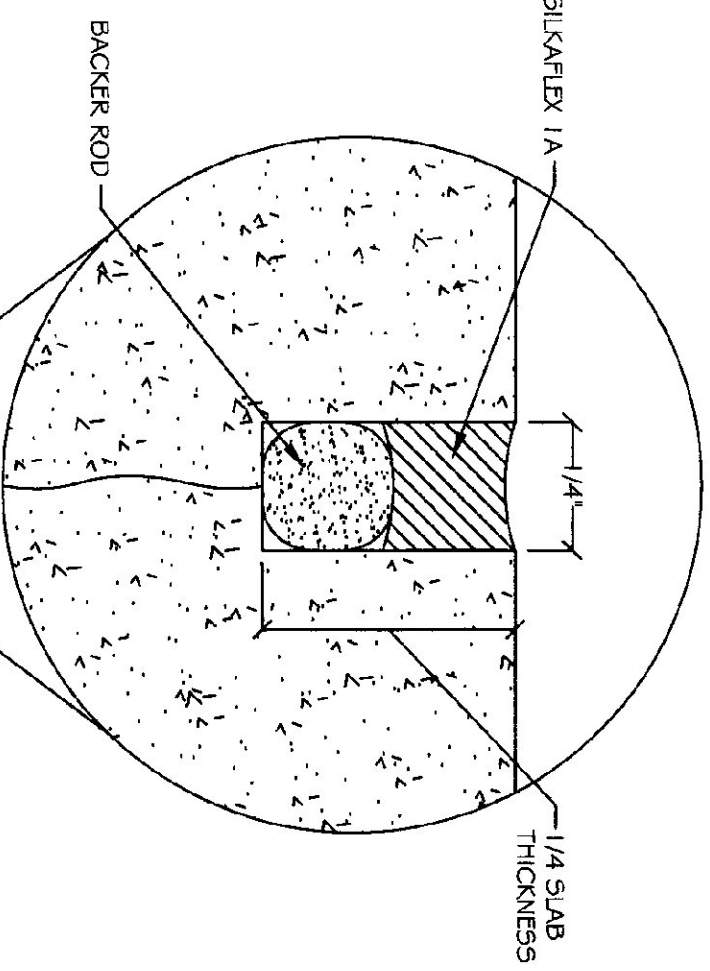
FLOOR PLAN

M-1

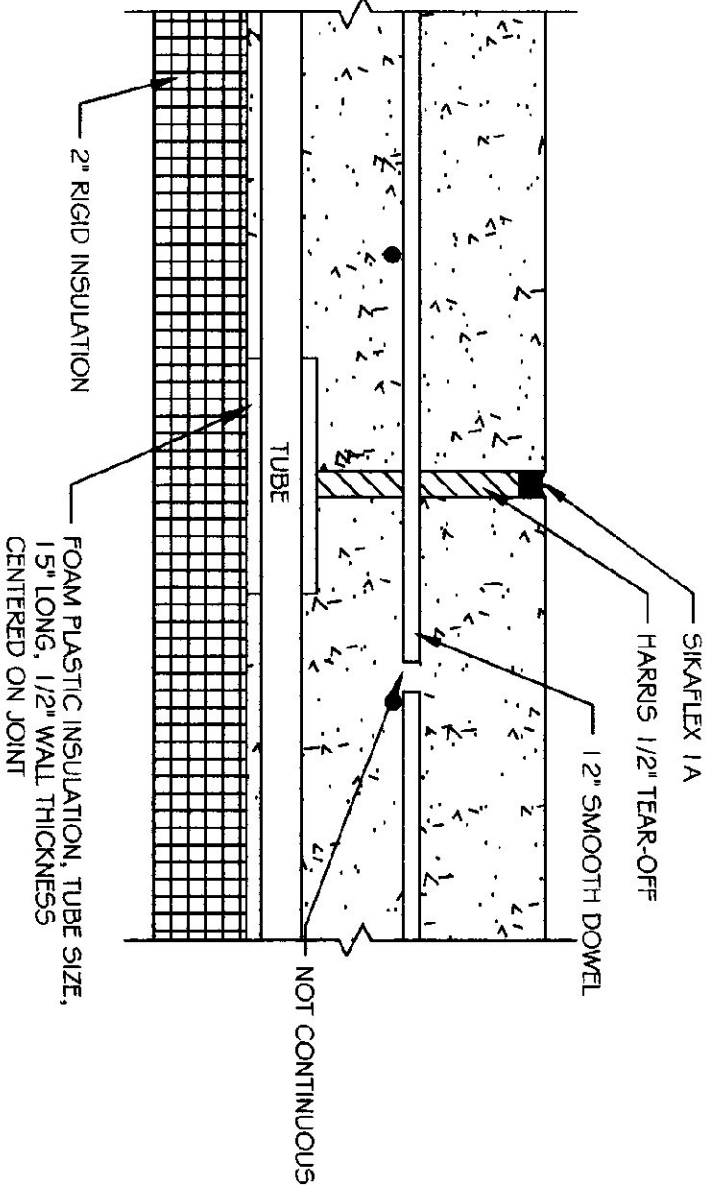
OF



TYPICAL CROSS SECTION
NOT TO SCALE



SAW CUT JOINT
NOT TO SCALE



EXPANSION JOINT
NOT TO SCALE

SEQUENCE OF CONTROL

- OUTSIDE AIR SENSOR SHALL BE LOCATED ON THE NORTH WALL WHERE IT WON'T BE INFLUENCED BY ANYTHING OTHER THAN THE OUTSIDE AIR TEMP.
- HEATING SYSTEM
 - THE BOILER, DOMESTIC HOT WATER MAKER, AND CIRCULATORS SHALL BE STARTED BY A WINDSO PROXIM 212 CONTROL PANEL, EITHER DIRECTLY OR INDIRECTLY.
- WHEN OUTDOOR AIR FALLS BELOW 60° (A.O.):
 - BOILER IS ENABLED.
 - TRANSFER PUMP IS ENABLED.
 - CIRCULATORS C-1 AND C-2 ARE STARTED.
 - CIRCULATORS C-3 THROUGH C-5 ARE ENABLED.
- OPERATING ADJUST ON BOILER TO MAINTAIN BOILER BETWEEN 150°F AND 170°F.
- INJECTION CIRCULATOR C-3 TO BE MODULATED BY A CONTROLLER BASED ON: OUTSIDE AIR TEMPERATURE, INSIDE AIR TEMPERATURE OF GARAGE AND LOOP TEMPERATURE TO MAINTAIN CALCULATED LOOP SUPPLY SETPOINT. SETPOINT, OFFSET AND RATIO TO BE ADJUSTABLE AT CONTROLLER. INITIAL VALVES FOR CONTROLLER:

MODES 1 53°F
 WINDSO 53°F
 MIX OK 1 100°F
 MIX RM 1 65°F
 MIX DN 1 92°F
 MIX MAX 1 120°F
 OUT D56N -20°F
- MODES 2 OFF
- BOIL REF 120°F
- CIRCULATOR C-4 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE BATHROOM TO MAINTAIN SETPOINT.
- CIRCULATOR C-5 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE OFFICE TO MAINTAIN SETPOINT.
- ADJUST IN DOMESTIC HOT WATER TANK TO MAINTAIN ROLER AND CYCLE CIRCULATOR C-6 TO MAINTAIN SETPOINT.
- FUEL OIL TRANSFER PUMP TO OPERATE WHENEVER ROLER OPERATES. BMR-GENOT ROLER SHUT OFF SWITCH TO SHUT OFF TRANSFER PUMP ALSO.
- FAN F-1 TO COME ON WITH LIGHT SWITCH, AND OPERATE FOR 5 MINUTES AFTER LIGHT IS TURNED OFF.
- FAN F-2 TO BE CONTROLLED BY A SPRING WOUND TIMER SWITCH. SEE ELEC. TICAL DRAWING FOR DETAILS.
- MOD-1 TO OPEN WHENEVER FAN F-2 OPERATES, AND CLOSE WHEN F-2 STOPS.

LEGEND

	BALL VALVE, FULL PORTED, 5.5, BALL
	BALL VALVE, WHOSE THREADS & BRASS CAP STRAINER & BALL VALVE BLOW DOWN
	MIXING VALVE SET @ 95°F TACO 5003-C1
	PRESSURE RELIEF VALVE, PIPE TO 6\"/>
	THERMOSTAT, MOUNT @ 54\"/>
	SENSOR, MOUNT @ 54\"/>
	THERMOMETER
	TACO FLO CHECK
	CIRCULATOR
	SPROVENT 1-1/2\"/>
	PRESSURE GAUGE
	TOUR-ANDERSON STD BALANCING VALVE
	KENT OIL METER
	FUEL OIL TRANSFER PUMP, SLUITEC DB-1020M
	FUEL OIL RATED, FULL PORT, 5.5, BALL VALVE
	SLUITEC PSV-36
	PNEUMATIC VALVE
	CHECK VALVE

EQUIPMENT SCHEDULE

PLAN SYMBOL	DESCRIPTION	MANUF. & MODEL	CHARACTERISTICS	ELECTRIC VOLTS / Ø / HZ	NOTES
B-1	BOILER	BUDERUS G215-4	135,000 BTU INBT, 171,000 BTU NET BRK, RIELLO 400 SERIES 15 BURNER	120 V / 1 Ø / 2.2 A	
XT-1	EXP. TANK	AMTROL ST-30V	1.4 GALLON TANK, 11.3 GALLON ACCEPTANCE		
L-1	RELIEF DRAINER	VENT PRODUCTS 2750	36\"/>		
MOD-1	RELIEF DAMPER	VENT PRODUCTS 5703	36\"/>	120 V / 1 Ø / 60	BEING DIRECT COULDED ACTUATOR SPRING WOUND N.C.

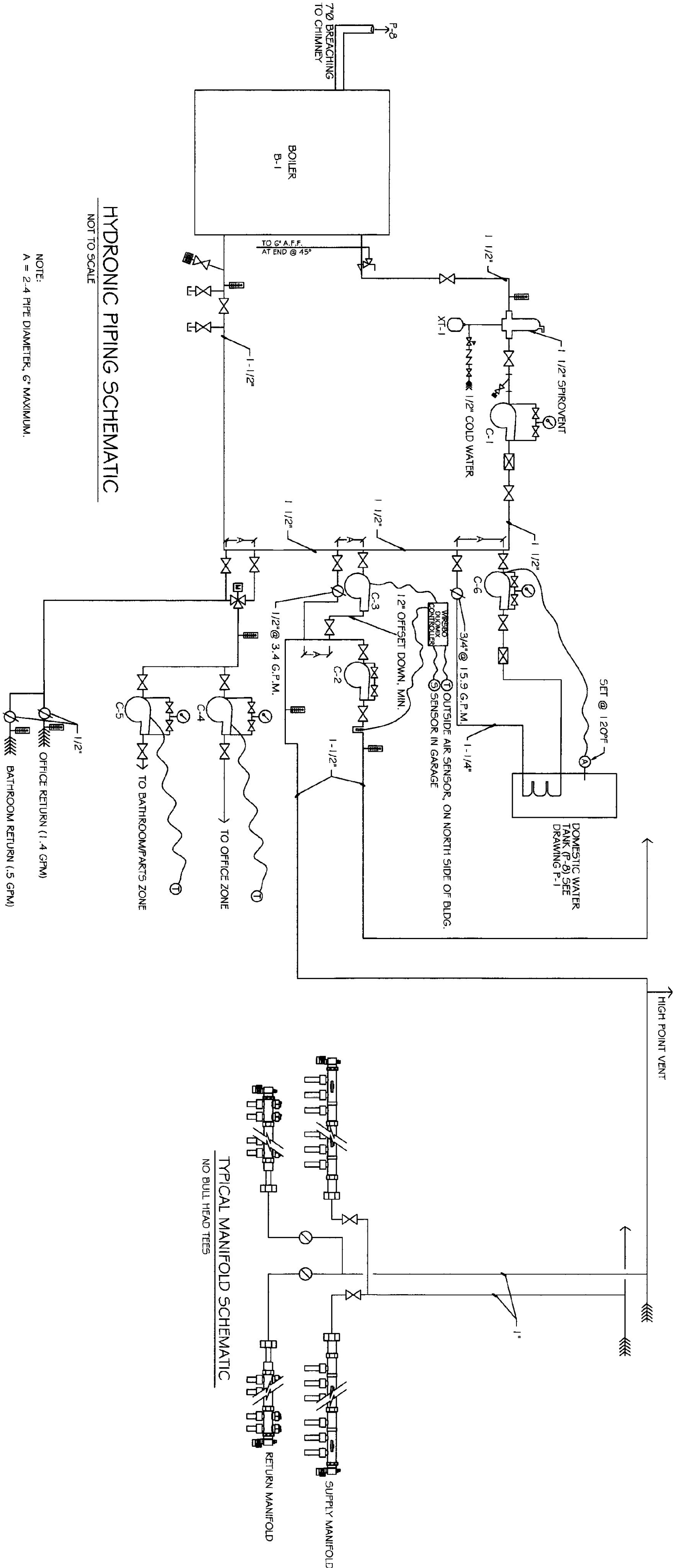
CIRCULATOR SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. & MODEL	G.P.M.	FEET HEAD	H.P.	ELECTRICAL	R.F.M.	NOTES
C-1	MAIN	TACO COO10	20	4.0	1/15	120/160	1.3 A	3250
C-2	GARAGE ZONE	TACO 1615	23	21.5	1/2	120/160		1750
C-3	GARAGE INJECTION	TACO 005	3.4	3.5	1/35	120/160	.53 A	3250
C-4	OFFICE ZONE	TACO 005	1.4	6.5	1/35	120/160	.53 A	3250
C-5	STORAGE / BATHROOM ZONE	TACO 005	0.5	1.2	1/35	120/160	.53 A	3250
C-6	WATER HEATER	TACO 007	15.9	5.0	1/25	120/160	.70 A	3250

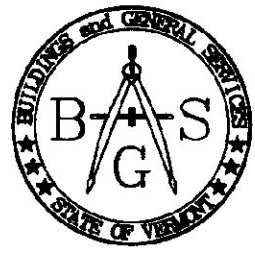
FAN SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. MODEL & TYPE	C.F.M.	S.F. IN	SONIC	FAN RPM	HP	ELECTRICAL	NOTES
F-1	BATHROOM	GREENHECK SET-B-440-E	100	.125	2.2	1050	1/100	120/160	W/WEATHER HOOD, SCREEN & MOD W/ BEHIND CHIC.
F-2	GARAGE VENT	GREENHECK SB5-1124-4	4250	.125	12.2	649	1/4	120/160	W/WEATHER HOOD, SCREEN & MOD

HYDRONIC PIPING SCHEMATIC
NOT TO SCALE



TYPICAL MANIFOLD SCHEMATIC
NO BULL HEAD TEES



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MONTGOMERY A.O.T. GARAGE
RADIANT HEATING
DETAILS & SCHEDULES

MONTGOMERY,

VERMONT

REVISIONS

SCALE: AS NOTED
DATE: MAY 2003
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

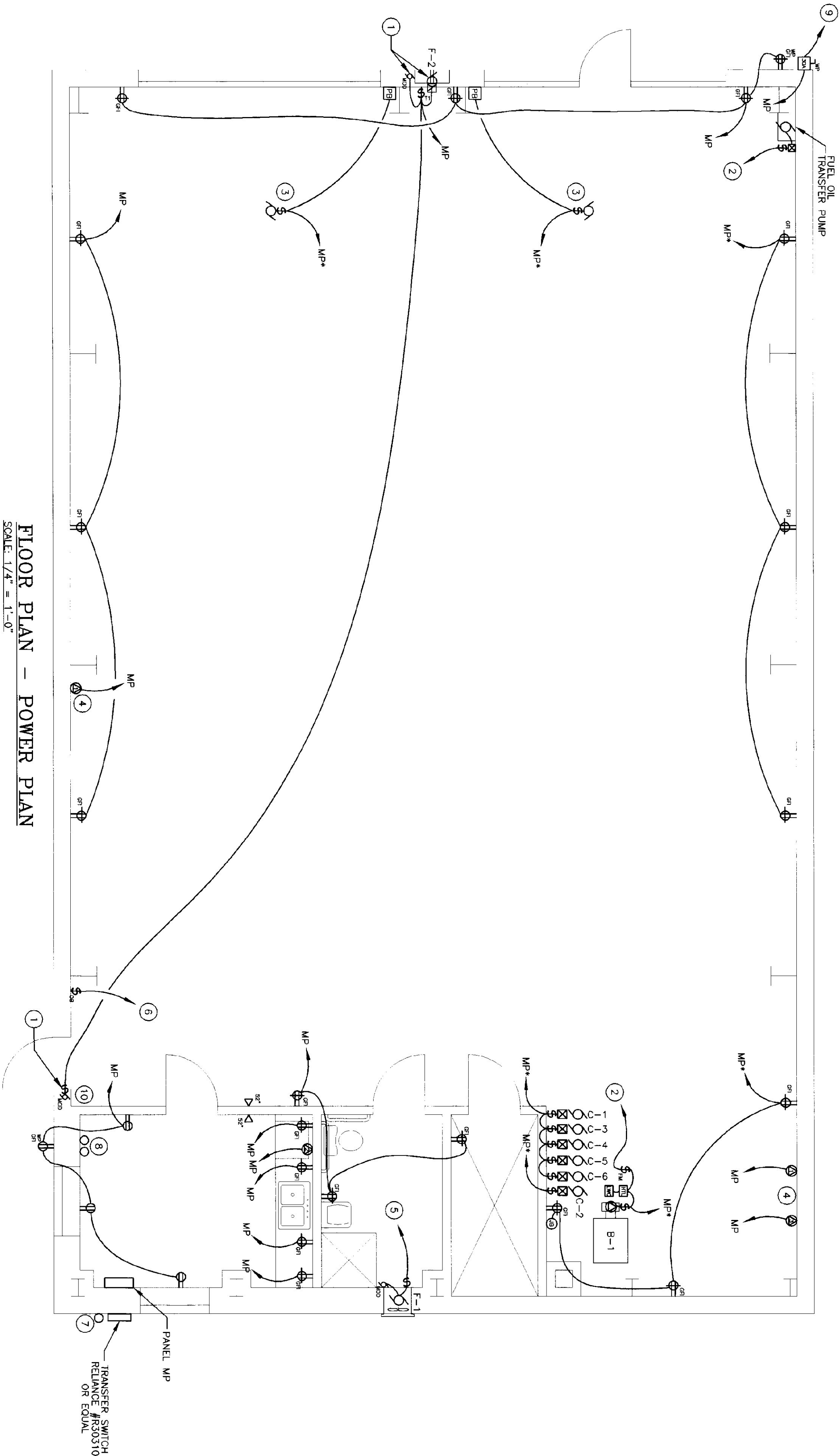
MONTGOMERY
A.O.T. GARAGE

RADIANT
HEATING

DETAILS

M-2

OF



FLOOR PLAN - POWER PLAN
SCALE: 1/4" = 1'-0"
HORIZONTAL SCALE IN FEET

PANEL: MP AMPS: 200 MAIN CIRCUIT BREAKER AMPS: FAULT CURRENT WITHSTAND: 10K NOTES: SERVICE RATED TOTAL LOAD: 40.5 KW				LOCATION: BREAK ROOM 120/240 VOLTS 1 PHASE 3 WIRE FLUSH MOUNT			
NO	BREAKER AMPS	KW LOAD	DESCRIPTION	NO	BREAKER AMPS	KW LOAD	DESCRIPTION
1	20*	0.6	RECEPTACLES GFI	2	50	6.7	WELDER OUTLET
3	20	0.7	RECEPTACLES GFI	4	2P		EXHAUST FAN
5	20	0.6	RECEPTACLES GFI	6	20	0.7	EXHAUST FAN
7	20*	0.7	RECEPTACLES GFI & CONTROL POWER	8	20*	1.5	GARAGE DOOR
9	20	0.6	BATHROOM RECEPTACLES	10	50	6.7	WELDER OUTLET
11	20	0.7	RECEPTACLES/BREAK AREA	12	2P		GARAGE DOOR
13	20	1.5	REFRIGERATOR	14	20*	1.5	GARAGE DOOR
15	20	1.5	KITCHEN COUNTERTOP	16	20*	0.7	LIGHTING
17	20	1.5	KITCHEN COUNTERTOP	18	20*	1.2	LIGHTING & PADDLE FANS
19	20	1.5	KITCHEN COUNTERTOP	20	20	1.7	BAY LIGHTING
21	20*	1.5	BOILER B-1/FUEL TRANSFER PUMP	22	20*	0.5	OUTDOOR BUILDING LIGHTING
23	20*	1.2	CIRC. PUMP C-2	24	20	1.5	KITCHEN COUNTERTOP
25	20*	1.0	PUMPS C-1, C-3, C-4, C-5, C-6	26	20	0.2	SEWER TANK MONITOR
27	20		SPARE	28	30	3.2	AIR COMPRESSOR
29	2P			30	2P		SPARE
31	20*	1.0	FUEL DISBURSEMENT UNIT	32	20		SPARE
33	20		NEUTRAL	34	20		SPARE
35	20		SPARE	36	20		SPARE
37	20		SPARE	38	20		SPARE
39	20		SPARE	40	20		SPARE

* DENOTES CONNECTION THRU GENERATOR TRANSFER SWITCH

SPECIAL PURPOSE OUTLET SCHEDULE

KEY	DESCRIPTION	SUPPLIED BY	INSTALLED BY	ELECTRICAL REQUIREMENTS COND & CAP PROVIDED BY	VOLTS	AMPS	STARTER PROVIDED BY	INSTALLED BY	ELECTRICAL DISCONNECT PROVIDED BY	REMARKS
1	WELDER RECEPTACLE	EC	EC	6-50R	240	50	-	-	---	COORD. LOCATION WITH OWNER
2	UNDERCOUNTER REFRIGERATOR RECEPTACLE	EC	EC	SINGLE CLOCK RECEPTACLE	120	15	-	-	---	RECESSED
3	AIR COMPRESSOR RECEPTACLE	EC	EC	COORD. WITH OWNER	240	30	-	-	---	COORD. LOCATION WITH OWNER

GENERAL NOTES:

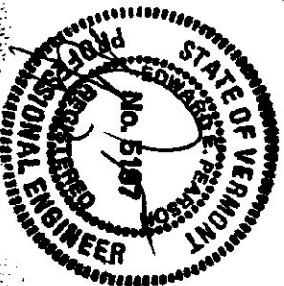
- ANY PLACE WHERE THE CONTRACTOR PENETRATES, CUTS AND/OR REMOVES FINISHES, THE CONTRACTOR SHALL REPAIR AND FINISH TO ORIGINAL FINISHES.
- FIELD VERIFY ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
- NOTIFY ENGINEER OF ANY ERRORS.
- EC TO PROVIDE AND INSTALL ALL DISCONNECT SWITCHES, MC TO SUPPLY ALL MOTOR STARTERS, EC TO INSTALL.

KEYED NOTES:

- TIMER SWITCH SHALL OPERATE BOTH MOTORS & GARAGE EXHAUST FAN.
- TO FUEL OIL BURNER SWITCH, SWITCH ALSO OPENS CIRCUIT TO TRANSFER PUMP.
- OVERHEAD DOOR OPENER, PROVIDE WIRING TO REMOVE DOOR OPENING AND EQUIPMENT SUPPLIER.
- COORDINATE EXACT LOCATIONS OF RECEPTACLES FOR SPECIAL EQUIPMENT WITH OWNER, CONFIRM RECEPTACLES AND PLUGS WITH OWNER.
- TO OCCUPANCY SENSOR, DELAY OFF, 5 MINUTES.
- TO BOILER & FUEL TRANSFER PUMP.
- SPARE 2-1/2" CONDUIT, CAP AND MARK FOR FUTURE USE.
- TELEPHONE TERMINATION AREA, CONDUIT TERMINATION AREA.
- TO FUEL DISBURSEMENT UNIT, REFER TO SITE PLAN AND DETAIL.
- LOCATION OF WATER ENTRANCE & WATER METER, BOND TO SYSTEM GROUND.

ELECTRICAL LEGEND

- FLUORESCENT FIXTURE
- LIGHT FIXTURE
- EXIT LIGHT
- EMERGENCY LIGHT
- SWITCH - SINGLE POLE
- SWITCH - SINGLE POLE WITH GAS BURNER PLATE
- SWITCH - 3-WAY
- SWITCH - 4-WAY
- SWITCH - TIMER, INTERMATIC FF60M
- SWITCH - OCCUPANCY SENSOR
- SWITCH - FAN SPEED CONTROL, DAYTON 40929
- FIRE-RATED SWITCH, PROVIDED AND INSTALLED BY EC
- PUSH-BUTTON STATION, PROVIDED BY ES, WIRED BY EC.
- MOTOR STARTER PROV. BY MC, INSTALLED BY EC.
- SAFETY DISCONNECT PROV. AND INSTALLED BY EC.
- PANEL
- BRANCH CIRCUIT
- JUNCTION BOX
- DUPLEX RECEPTACLE
- QUAD RECEPTACLE
- DUPLEX RECEPTACLE - COUNTER HEIGHT
- DUPLEX RECEPTACLE-GFI PROTECTED
- SPECIAL PURPOSE OUTLET, REFER TO SCHEDULE
- WEATHERPROOF, NEMA 3R RATED
- ABOVE FINISH FLOOR
- ELECTRICAL CONTRACTOR (DIVISION 16)
- MECHANICAL CONTRACTOR (DIVISION 15)
- GENERAL CONTRACTOR
- EQUIPMENT SUPPLIER
- TYP. OF ALL
- CENTRAL VT PUBLIC SERVICE
- NATIONAL ELECTRIC CODE
- MANUAL TRANSFER SWITCH
- HIGH TEMP. LIMIT SWITCH, PROV. BY MC, WIRED BY EC
- LOW WATER CUTOFF, PROV. BY MC, WIRED BY EC
- MOTOR
- MOTOR-OPERATED DAMPER
- PRESSURE SWITCH
- PHONE LOCATION (4" SQUARE BOX WITH 3/4" CONDUIT TO TELEPHONE TERMINATION AREA, PROVIDE EXTENSION RINGS (MUD RINGS) AS REQUIRED, SAME AS ABOVE, MOUNT @ 48" AFF



E-1

1 OF 3



STATE OF VERMONT
Department of Buildings
and General Services
Agency of Administration
Montpelier, Vermont

Pearson & Associates

MECHANICAL & ELECTRICAL ENGINEERS
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AGENCY OF TRANSPORTATION
MONTGOMERY GARAGE &
SALT SHED

MONTGOMERY

VERMONT

REVISIONS

SCALE: AS SHOWN

DATE: MAY 2003

DRAWN BY: ASG

APPR. BY: E. E. P.

ELECTRICAL
PLAN

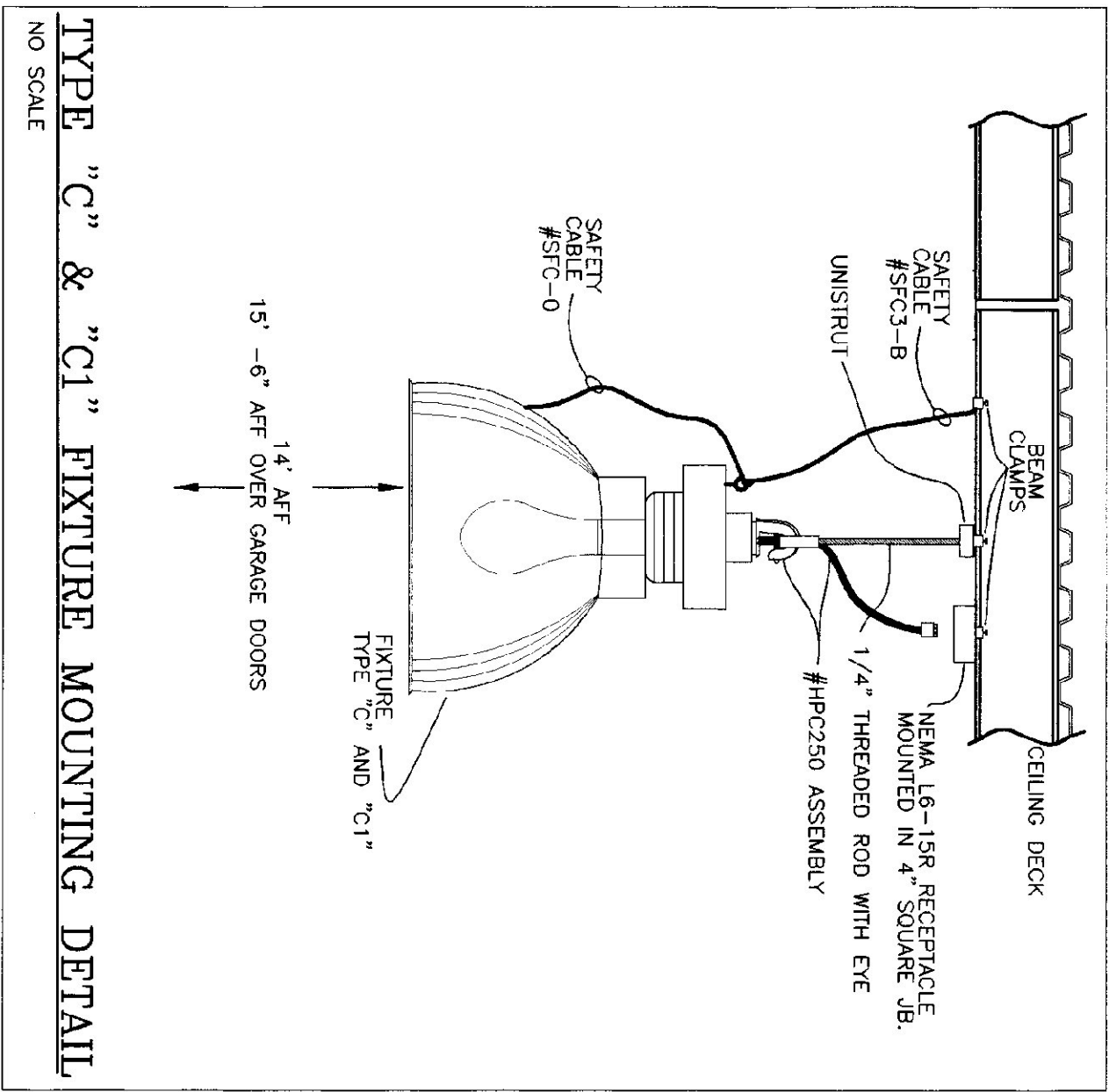
AGENCY OF
TRANSPORTATION
GARAGE

GENERAL NOTES:

- A. ANY PLACE WHERE THE CONTRACTOR PENETRATES, CUTS AND/OR REMOVES WALLS, CEILINGS, OR WOODWORK, CONTRACTOR IS TO REPLACE, PATCH AND PAINT FINISH SURFACES TO ORIGINAL FINISHES.
- B. FIELD VERIFY ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK. NOTIFY ENGINEER OF ANY ERRORS.
- C. EC TO PROVIDE AND INSTALL ALL DISCONNECT SWITCHES, MC TO SUPPLY ALL MOTOR STARTERS, EC TO INSTALL.

KEYED NOTES:

1. TIMER SWITCH SHALL OPERATE EXHAUST FAN FOR 15 MINUTES AFTER LIGHT IS OFF.
2. MOUNT EXIT LIGHT TO AVOID INTERFERENCE WITH GARAGE DOOR OPENING.
3. FIXTURES OVER GARAGE DOORS MOUNTED AT 15'-6" AFF. ALL OTHERS AT 14' AFF.



TO SALT/ SAND
SHED LIGHTING

FLOOR PLAN - LIGHTING PLAN
SCALE: 1/4" = 1'-0"

HORIZONTAL SCALE IN FEET

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER & MODEL	MOUNTING	LAMPS	REMARKS
A	RUD MAC2410-D, WM-3	SURFACE	(1) - 100W MH	MOUNT AT 14' AFF
B	RUD E4405D	SURFACE	(1) - 50W MH	
C	GE V2C-25RPA-4EAS SFC-0 SFC3-B HCP250	PENDANT	(1) - 250W MH COATED PULSE START	MOUNT AT 14' AFF
C1	GE V2C-25RPA-4EASQ SFC-0 SFC3-B HCP250	PENDANT	(1) - 250W MH COATED PULSE START	SAME AS ABOVE WITH QUANTIZ RE-STRIKE
F	DAYTON 4CG53 W/4CG29 CONTROL	SURFACE		MOUNT AT 14' AFF
FA	METALUX DM-232-120-EB81	CHAIN HUNG	(2) - F03278 3500 K	
FB	METALUX WS332A-120-EB81	SURFACE	(3) - F03278 3500 K	
FC	METALUX 2M-332PB1S-120-EB82	SURFACE	(3) - F03278 3500 K	DUAL LEVEL LIGHTING
FD	METALUX 8T-DIM-232-120-EB81	CHAIN HUNG	(4) - F03278 3500 K	MOUNT AT 14' AFF
MB	LEVITON MOTION DETECTOR #05120	SURFACE	(2) - PAR38 150 W FLOOD	WEATHERPROOF WITH 2 STONOCO LAMP HOLDERS
⊞	SURELITE CCA-WH-NICAD	SURFACE	INCLUDED	CEILING OR WALL MOUNT
⊗	SURELITE CCX-7270-RWH120	SURFACE	INCLUDED	RED LETTERING

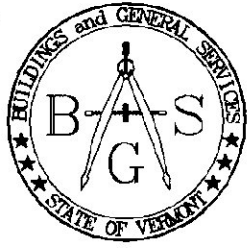


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MONTGOMERY GARAGE &
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DATE: MAY 2003

DRAWN BY: ASG

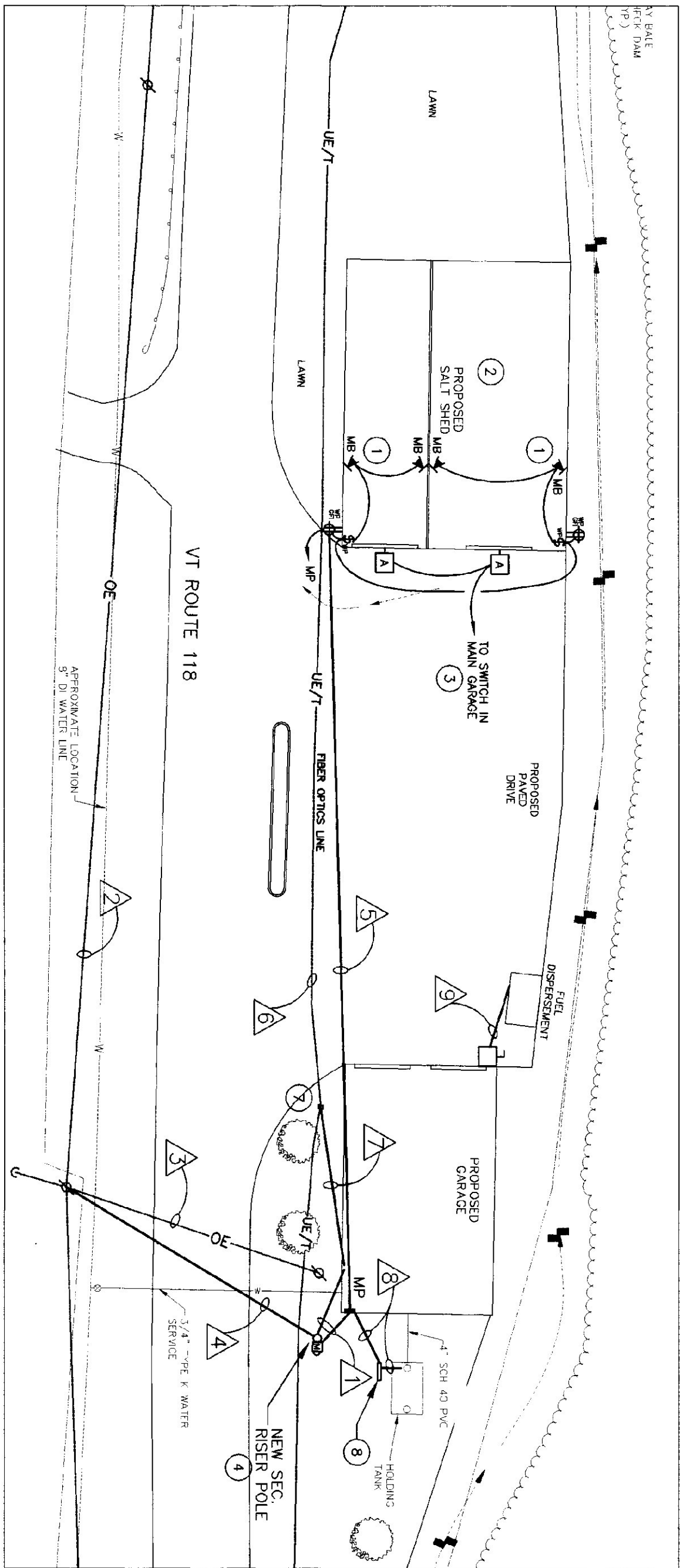
APPR. BY: E. E. P.

AGENCY OF
TRANSPORTATION
GARAGE

ELECTRICAL
PLAN

E-2

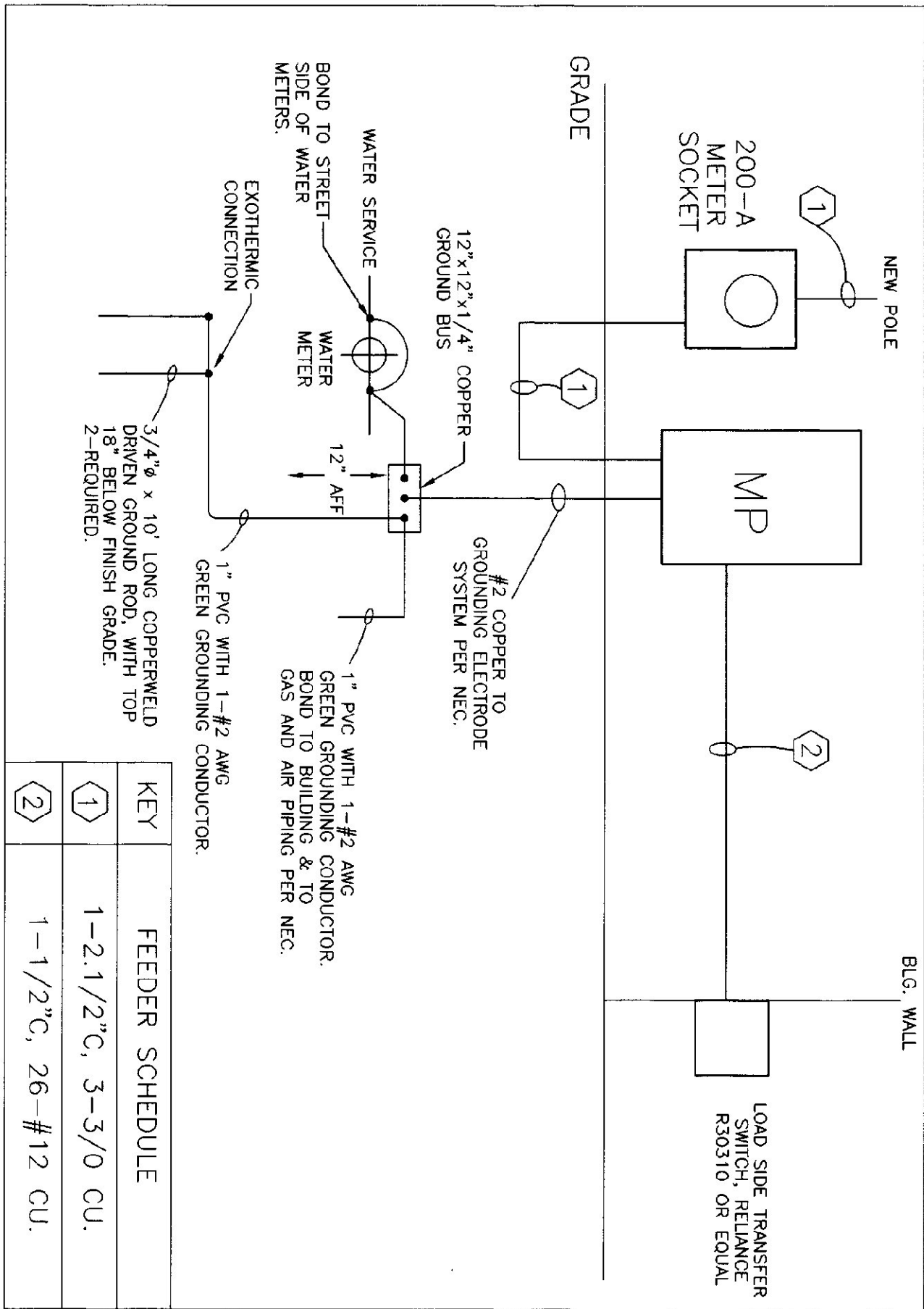
2 OF 3



FLOOR PLAN - LIGHTING PLAN
SCALE: 1" = 30'-0"

HORIZONTAL SCALE IN FEET
30 15 0 30 60 90 120

KEY	FEEDER SCHEDULE
1	2-1/2"C, 3-3/0 CU., 2"C TEL., 2-1/2"C SPARE
2	EXISTING OVERHEAD PRIMARY UTILITIES
3	OVERHEAD LINES TO BE RELOCATED TO NEW POLE BY CITIZEN'S UTILITY
4	NEW OVERHEAD SERVICE DROP BY CITIZEN'S UTILITY
5	1"C, 6-#10CU., 1" SPARE
6	EXISTING FIBER-OPTIC LINE
7	2" PVC, CONNECT TO EXISTING FIBER OPTIC SPLICE BOX
8	1"C, 5-#12CU.
9	(1) 3/4" IMC, 6-#12, (1) 3/4" IMC SPARE

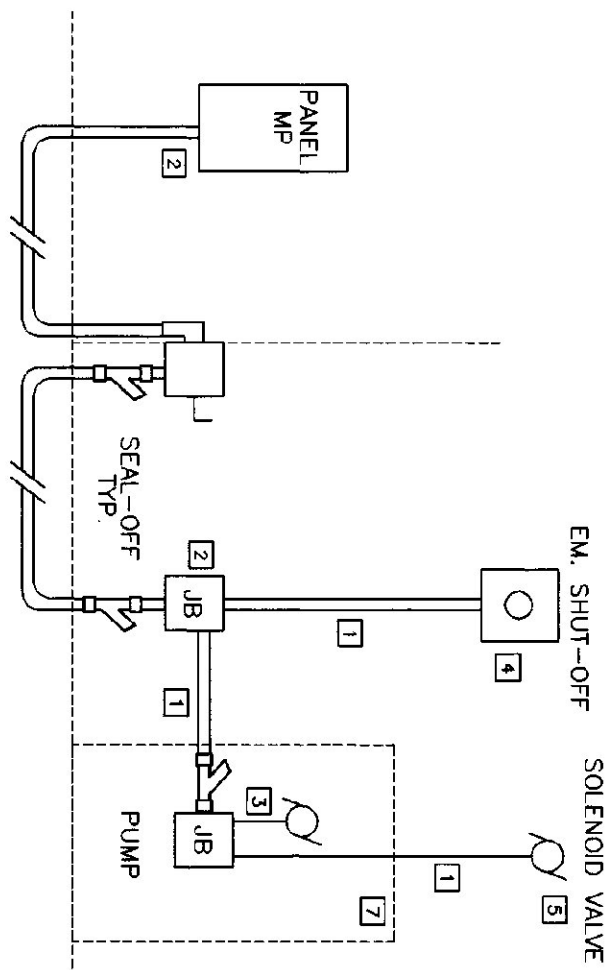


POWER ONE-LINE DIAGRAM
NO SCALE

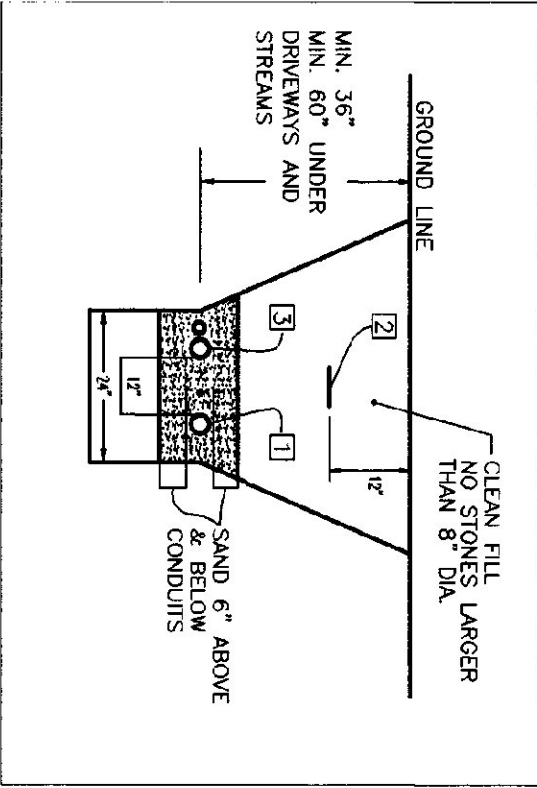
KEY	FEEDER SCHEDULE
1	1-2.1/2"C, 3-3/0 CU.
2	1-1/2"C, 26-#12 CU.

KEYED NOTES:

- 1 ALL CONDUIT AFTER FIRST JUNCTION BOX SHALL BE 3/4" RIGID WITH EXPLOSION-PROOF FITTINGS AND JUNCTION BOXES. CONDUIT FROM PANEL UP TO JUNCTION BOX SHALL BE 1" RIGID.
- 2 PROVIDE 1 SPARE 3/4" CONDUIT FROM PANEL UP IN ELEC. ROOM TO JUNCTION BOX.
- 3 PROVIDE FLEXIBLE EXPLOSION-PROOF CONNECTOR FROM J-BOX TO PUMP MOTOR.
- 4 PROVIDE 2" POLY. 20' LAMP MAINTAINED CONDUIT, EMERGENCY SHUT-OFF SWITCH, SWITCH SHALL BE 1" RIGID WITH EXPLOSION-PROOF FITTINGS AND JUNCTION BOXES. CONDUIT FROM J-BOX TO MOTOR SWITCH AND 4" AFD. ON 3" BOLLARD REFER TO BOLLARD DETAIL.
- 5 SOLENOID LOCATED ON TANK, SUPPLIED BY DC WIRING BY EC.
- 6 COORDINATE ALL WIRING WITH ES. ALL WIRING SHALL CONFORM TO CLASS 1, DIV. 1 & DIV. 2 REQUIREMENTS.
- 7 PROVIDE ALL NECESSARY ELECTRICAL SUPPLIES AND MATERIALS FOR THE ENTIRE INSTALLATION.

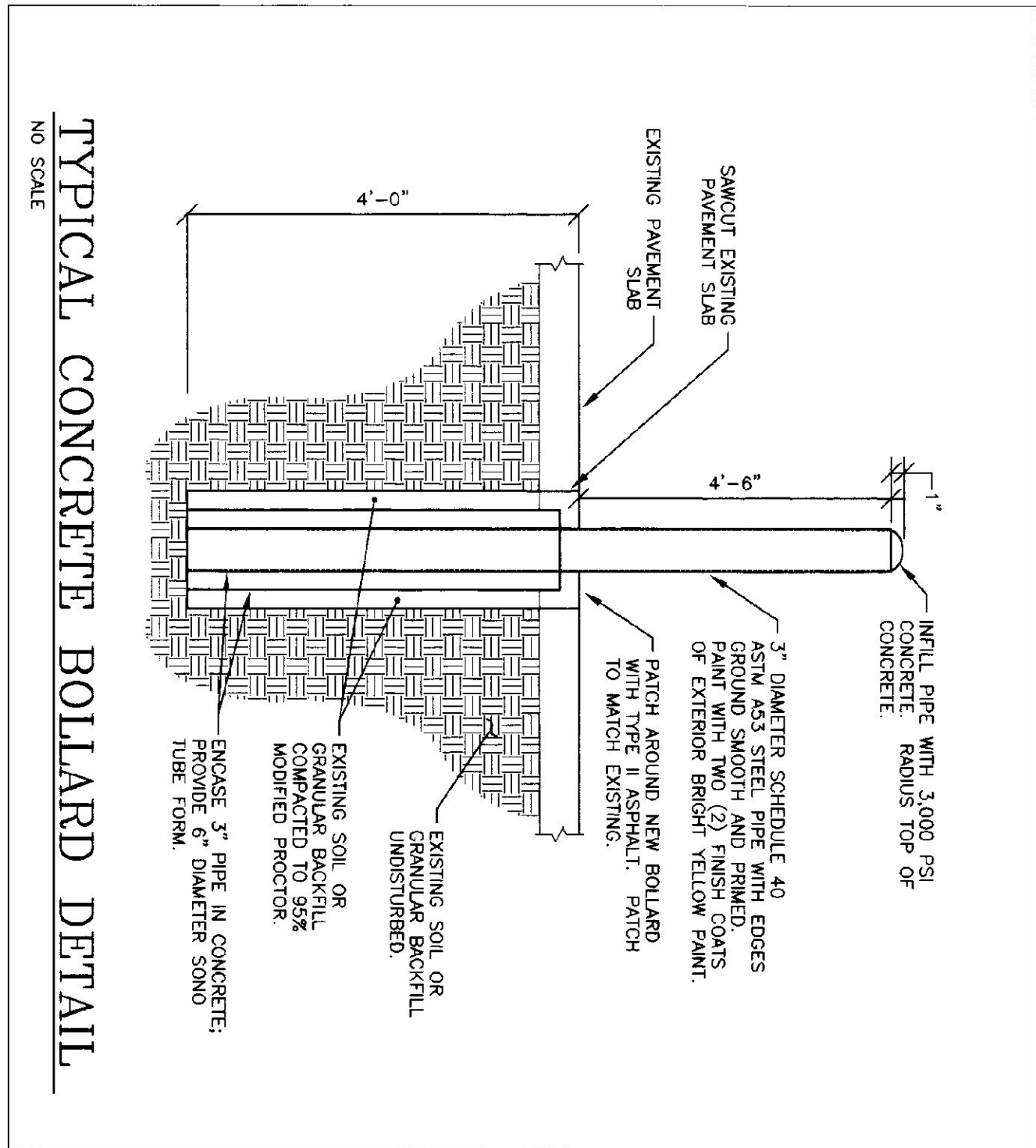


FUEL DISBURSEMENT DETAIL
NO SCALE



TRENCH DETAIL
NO SCALE

KEY	DESCRIPTION
1	SERVICE CABLE DUCT SHALL BE PVC SCHEDULE 40, UNDER ROADS & DRIVEWAYS TO BE SCHEDULE 80.
2	WARNING TAPE SHALL BE ELECTRIC LEGEND TYPE. ALLEN CRYSTAL-1000-PE OR EQUAL (WARNING TAPE SHALL BE PLACED 12" BELOW SURFACE)
3	TEL. DUCT SHALL BE PVC SCHEDULE 40 UNDER ROADS & DRIVEWAYS TO BE SCHEDULE 80. PROVIDE SPARE 2-1/2" CONDUIT.



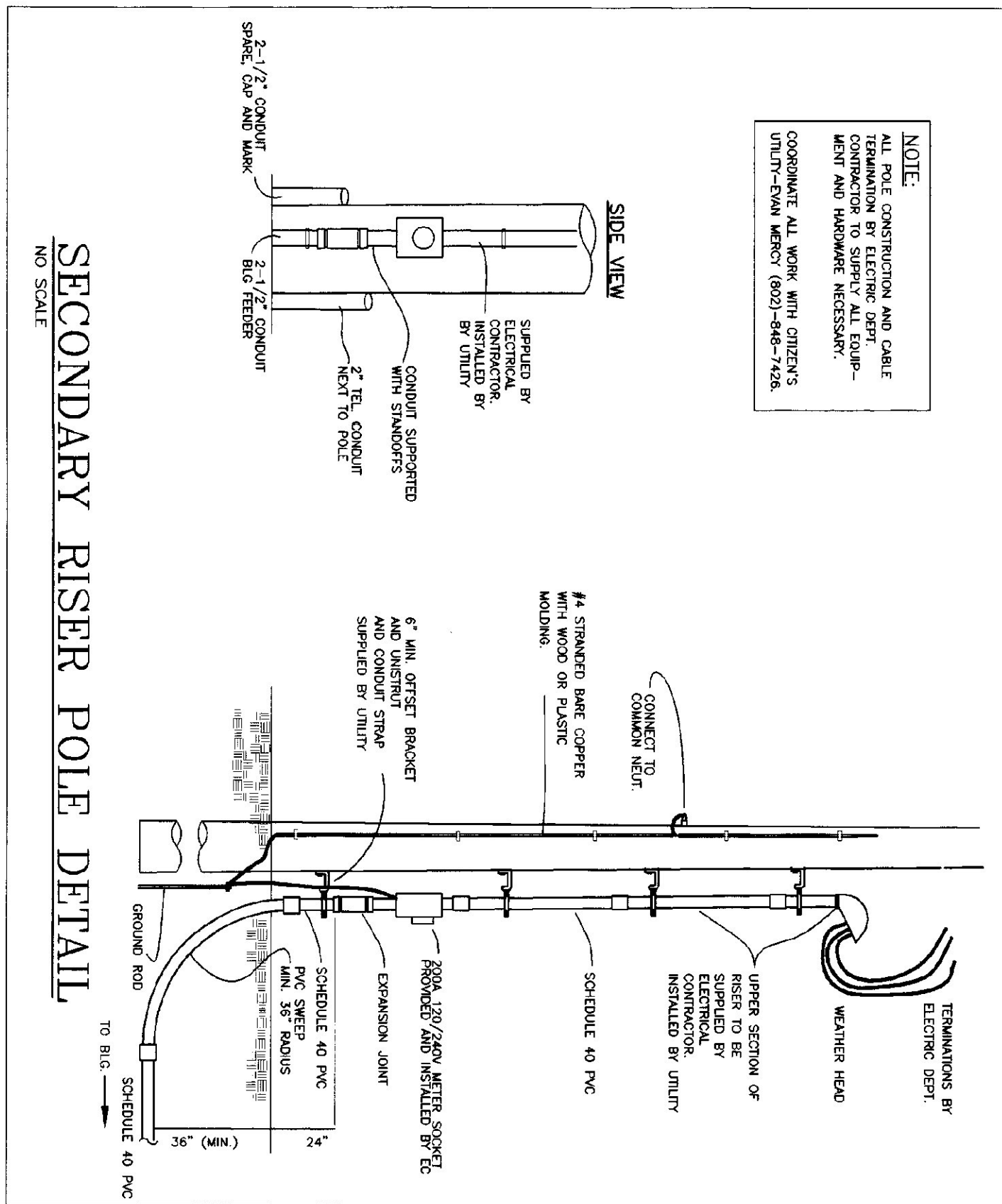
TYPICAL CONCRETE BOLLARD DETAIL
NO SCALE

GENERAL NOTES:

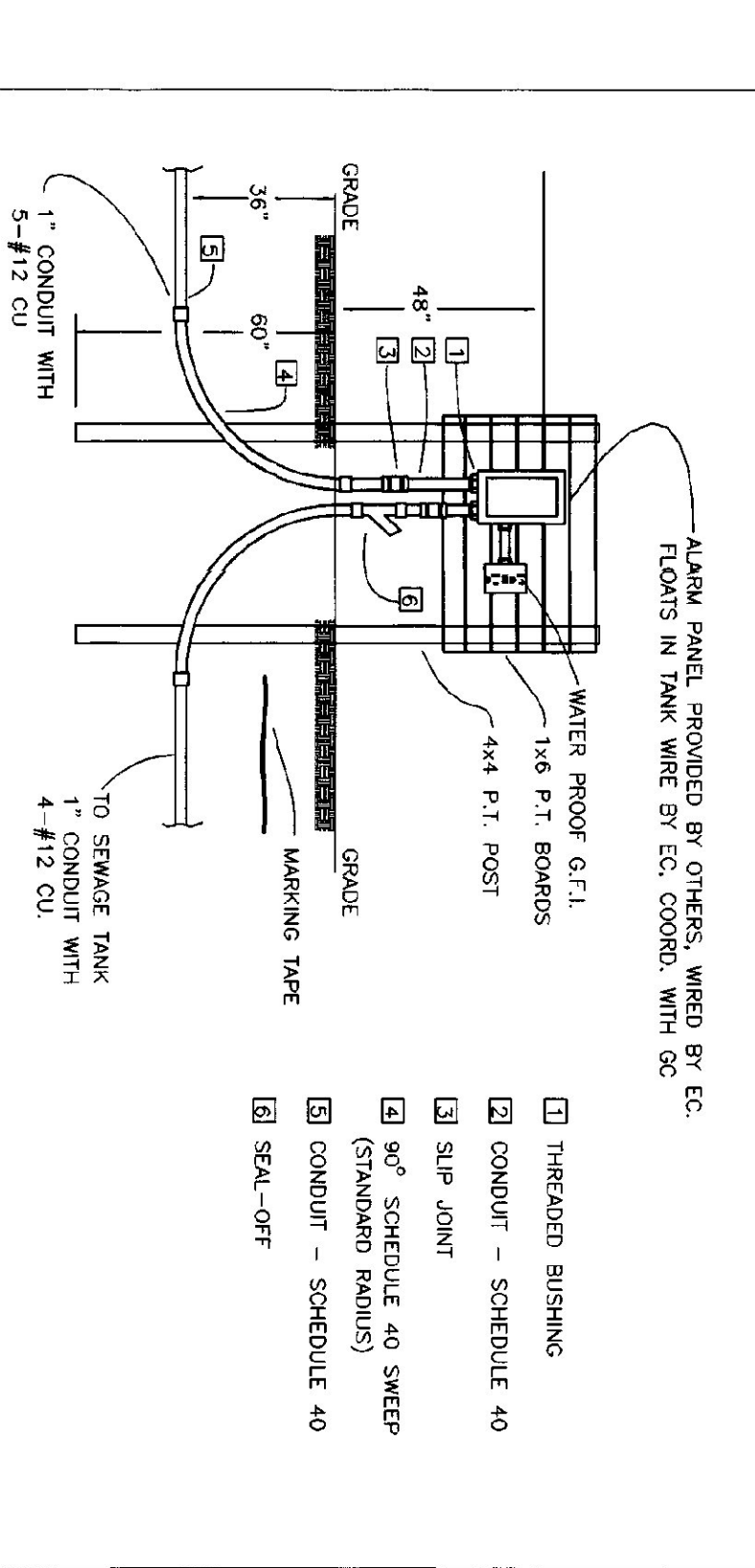
- A. ANY PLACE WHERE THE CONTRACTOR PENETRATES, CUTS AND/OR REMOVES WALLS, CEILINGS, OR WOODWORK, CONTRACTOR IS TO REPLACE, PATCH AND PAINT FINISH SURFACES TO ORIGINAL FINISHES.
- B. FIELD VERIFY ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
- C. EC TO PROVIDE AND INSTALL ALL DISCONNECT SWITCHES, MC TO SUPPLY ALL MOTOR STARTERS, EC TO INSTALL.

KEYED NOTES:

- 1 MOTION DETECTORS SHALL WORK IN TANDEM, SWITCH SHALL OVERRIDE THE MOTION DETECTORS.
- 2 NO CONDUIT BELOW 8" IN SALT SHED. ALL SHED AND EXPOSED EXTERIOR CONDUIT SHALL BE PVC CONDUIT.
- 3 PROVIDE 2-1" CONDUITS TO FROM MAIN BUILDING TO SHED. 1 CONDUIT FOR OUTSIDE LIGHTS AND POWER CIRCUIT. 1 CONDUIT SPARE FOR FUTURE USE.
- 4 EXISTING UTILITY POLE TO BE RELOCATED. COORDINATE WITH UTILITY. EC TO RELOCATE THE POLE AND OVERHEAD SERVICE.
- 5 ALL WIRING ASSOCIATED WITH FUEL DISPENSING STATION SHALL BE IN CONDUIT. COORDINATE WITH UTILITY. EC TO RELOCATE THE POLE AND OVERHEAD SERVICE.
- 6 USE STEEL SWEEP AT METER SOCKET.
- 7 APPROX. LOCATION OF EXISTING FIBER OPTIC CONNECTION POINT. PROVIDE 2" FROM THIS POINT TO TELEPHONE TERMINATION AREA.
- 8 REFER TO PEDESTAL DETAIL FOR TANK LEVEL MONITORING WIRING.



SECONDARY RISER POLE DETAIL
NO SCALE



SEWER TANK MONITORING PEDESTAL DETAIL
NO SCALE

