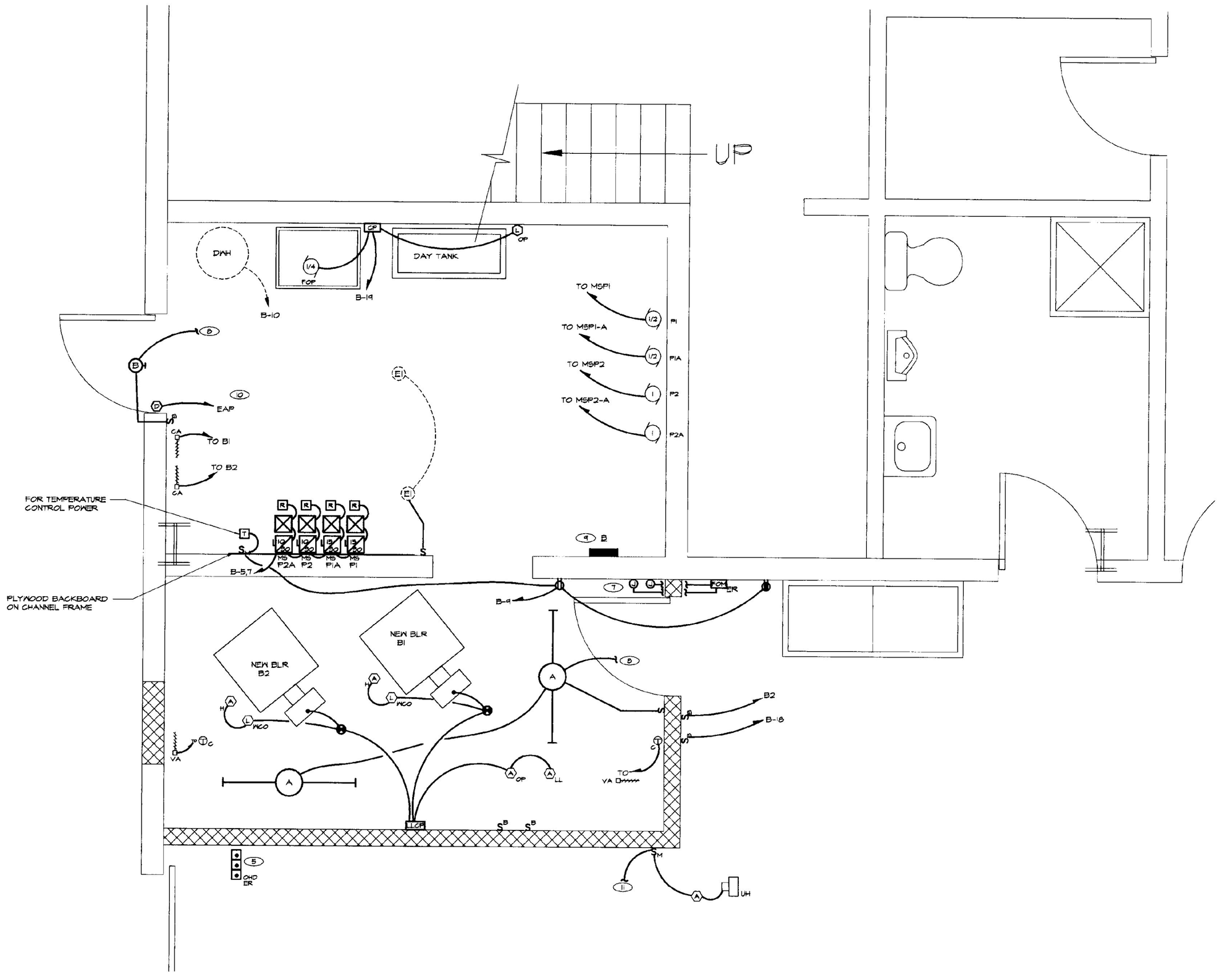

NORTH

PARTIAL ENLARGED BOILER ROOM PLAN

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

ELECTRICAL GENERAL NOTES AND MATERIAL SPECIFICATIONS

GENERAL

ALL ELECTRICAL EQUIPMENT SHALL BE U.L. LISTED AND LABELED. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE U.L. LISTING. PERFORM ALL WORK IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER TO THE FULL SATISFACTION OF ENGINEER AND OWNER. ALL OUTLETS SHALL BE PLUMB, BOTH HORIZONTALLY AND VERTICALLY.

REMOVALS

SELECTED EXISTING ELECTRICAL WORK SHALL BE REMOVED AND LEGALLY DISPOSED OF AS INDICATED ON THE DRAWINGS. FIELD VERIFY EXTENT OF REMOVALS PRIOR TO BIDDING.

EXISTING CONCEALED WIRING MAY BE CUT-OFF, CAPPED AND ABANDONED IN PLACE.

RE-USE OF EXISTING EQUIPMENT

WHERE INDICATED ON THE DRAWINGS, EXISTING FIXTURES AND EQUIPMENT SHALL BE RE-USED AND RELOCATED AS INDICATED. THE CONTRACTOR SHALL REMOVE, STORE AND RE-INSTALL FIXTURES.

ANY EXISTING FIXTURES OR EQUIPMENT BROKEN BY THIS CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. THIS CONTRACTOR SHALL DOCUMENT, IN WRITING, ANY EXISTING DAMAGE, MISSING PARTS, ETC., PRIOR TO REMOVING THE FIXTURES.

INTERRUPTION OF SERVICES

WHERE THE WORK REQUIRES INTERRUPTION OF EXISTING SERVICES, SHUTDOWN AT NIGHT OR AT TIMES AS DIRECTED BY THE OWNER THAT DO NOT INTERFERE WITH ESTABLISHED OPERATING ROUTINES. ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVERTIME IF NECESSARY, TO ENSURE THAT SERVICE INTERRUPTIONS ARE AS SHORT AS POSSIBLE. UPON RESTORATION OF SERVICE, VERIFY THAT ALL SYSTEMS AND EQUIPMENT ARE OPERATING NORMALLY.

EXISTING SERVICES TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION. REPAIR SERVICES BROKEN DURING THE WORK AS SOON AS POSSIBLE, AT NO ADDITIONAL COST TO THE OWNER.

WIRE AND CABLE

CONDUCTORS SHALL BE COPPER, 600V INSULATION TYPE THHN, THWN OR XHHW, 90oC DRY LOCATIONS. CABLES SHALL BE TYPE MC WITH OVERALL METALLIC JACKET. WIRING METHODS SHALL BE INDIVIDUAL CONDUCTORS IN EMT CONDUIT FOR EXPOSED WORK AND TYPE MC CABLE FOR CONCEALED WORK. EXPOSE NEW WORK IN UNFINISHED SPACES USING CONDUIT. CONCEAL NEW WORK IN ALL NEW WALLS USING MC CABLE AND IN EXISTING WOOD OR METAL FRAME CONSTRUCTION WHERE FISHING MC CABLE IS POSSIBLE.

EQUIPMENT PROVIDED BY OTHER TRADES

THE MECHANICAL CONTRACTOR SHALL PROVIDE BOILERS, PUMPS, AQUASTATS, TEMPERATURE SENSORS, THERMOSTATS, DAMPERS, AND CONTROL POWER TRANSFORMERS. REFER TO THE DIVISION 15 SPECIFICATION AND M SERIES DRAWINGS FOR ADDITIONAL INFORMATION.

TEMPERATURE CONTROL SYSTEM AND ALL LOW VOLTAGE (24VAC) WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR INCLUDING SENSORS, CONTROL POWER TRANSFORMERS, ALTERNATORS, AND SIMILAR DEVICES AS SPECIFIED IN DIVISION 15 AND AS INDICATED ON THE M SERIES DRAWINGS.

THIS CONTRACTOR SHALL PROVIDE ALL OTHER POWER AND CONTROL WIRING NECESSARY FOR THE COMPLETE INSTALLATION OF ALL EQUIPMENT.

BOXES AND WIRING DEVICES

OUTLET, JUNCTION AND PULL BOXES SHALL BE STANDARD, STAMPED GALVANIZED STEEL, MINIMUM OF 1 1/2" DEEP, OF SIZE AND WITH ACCESSORIES TO SUIT EACH APPLICATION AND NEC REQUIREMENTS. WEATHER PROOF BOXES SHALL BE CAST TYPE WITH THREADED HUBS.

WIRING DEVICES SHALL BE EQUAL TO "LEVITON" COMMERCIAL, SPECIFICATION GRADE, WHITE COLOR: CSX15-2W SERIES SWITCHES AT 15A 120/277V; 1201-PLR PILOT LIGHT SWITCHES AT 20A 120V; 5362-W 15A DUPLEX RECEPTACLES; 5361-2W 20A SINGLE RECEPTACLES; 6598-W 15A GFCI RECEPTACLE. PROVIDE 80404-W SERIES NYLON WALL PLATES FOR ALL DEVICES EXCEPT PROVIDE CAST, GASKETED WALL PLATES WITH HINGED DEVICE LIDS FOR WEATHER PROOF APPLICATIONS.

CIRCUIT BREAKER FOR EXISTING PANELBOARDS

PROVIDE THERMAL-MAGNETIC MOLDED CASE CIRCUIT BREAKERS TO FIT EXISTING SQUARE D TYPE QO PANELBOARDS. MINIMUM INTERRUPTING RATING SHALL BE 10,000 AIC.

LIGHT FIXTURES

TYPE A SHALL BE EQUAL TO LITHONIA C-232-120-EB WITH 2-32W T8 LAMPS AND ELECTRONIC BALLAST.

TYPE B SHALL BE EQUAL TO LITHONIA TWAC-50M-120 CUT-OFF WALL PACK WITH 50W METAL HALIDE LAMP AND HIGH REACTANCE, HIGH POWER FACTOR BALLAST FOR -20 DEG. F STARTING.

DISCONNECT SWITCHES

PROVIDE GENERAL DUTY, 240V FUSED DISCONNECT SWITCHES EQUAL TO SQUARE D CLASS 3150. PROVIDE DUAL ELEMENT TIME DELAY FUSES, TYPE RK5 EQUAL TO BUSSMAN "FUSETRON".

BURNER ACCESSSORIES

PROVIDE BOX COVER MOUNTED FIR-O-MATIC SWITCH EQUAL TO SMITH-MORSE-SMITH T300.

PROVIDE BURNER DISCONNECT SWITCHES CONSISTING OF A HORSEPOWER RATED, BROWN TOGGLE SWITCH WITH REAL PAINTED METAL COVER WITH WHITE LETTERS "OIL BURNER EMERGENCY OFF".

ENTRY ALARM SYSTEM

PROVIDE MODIFICATION TO THE EXISTING ENTRY ALARM SYSTEM AS INDICATED ON THE DRAWINGS. PROVIDE MATERIALS AND ISTALLATION AS DIRECTED BY THE FIRM THAT MAINTAINS THE EXISTING SYSTEM. VERIFY EXACT REQUIREMENTS PRIOR TO BIDDING AND INCLUDE ALL COSTS IN BASE BID.

NO.	ISSUED FOR	DATE
2	BIDDING	11/01/01
1	STATE PRELIMINARY REVIEW	10/20/01

LANE ASSOCIATES CE CONSULTING ENGINEERS, P.C.

HEATING, VENTILATION, & AIR CONDITIONING, PLUMBING, FIRE PROTECTION, & ELECTRICAL

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ENLARGED BOILER ROOM PLAN AND DETAILS

BENNINGTON DISTRICT NO.1
AOT MAINTENANCE GARAGE
PHASE 1 - HEATING SYSTEM RENOVATION

E 2

APPR: CFL | DRAWN: PJE | SCALE: AS NOTED | PROJ. NO. 0032-07

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