

AIR HANDLING EQUIP. & MATERIALS:

PACKAGED AIR HANDLING UNITS
 AIR HANDLING UNITS SHALL BE MANUFACTURED BY THE TRANE COMPANY AND SHALL BE FURNISHED AND INSTALLED BY LANDLORD (UON). THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING DELIVERY, PROVIDING COMPLETE INSTALLATION INCLUDING CURBS, PIPING, VIBRATION ISOLATION AND NECESSARY ACCESSORIES, AND PROVIDING WARRANTY. FOR COORDINATION OF DELIVERY AND SPECIFICATION CONTACT TRANE IN REDMOND, WA AT (425) 643-4310.

FILTERS
 PROVIDE THREE (3) SETS OF PLEATED DISPOSABLE FILTERS. USE ONE SET UNTIL COMPLETION OF CONSTRUCTION. INSTALL ONE SET AT COMPLETION OF CONSTRUCTION AND DELIVER ONE SET OF FILTERS TO STARBUCKS LABELED TO DENOTE THEIR RESPECTIVE AIR HANDLING UNIT. FILTERS TO BE FARR, OR SIMILAR.

EXHAUST FANS
 GREENHECK DIRECT DRIVE ROOF-TOP MODEL #G-70-D, PROVIDED TO THE SITE BY GC (UON). THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING DISCHARGE LOCATION WITH NEW AND EXISTING VENTS AND INTAKES, PROVIDING COMPLETE INSTALLATION INCLUDING CURBS, BACKDRAFT, DAMPER AND DUCTWORK FROM RESTROOM GRILLE TO UNIT AND NECESSARY ACCESSORIES, AND PROVIDING WARRANTY. EXHAUST FAN(S) TO BE OPERATED IN CONJUNCTION WITH AIR HANDLING UNIT(S). ROUTE FAN WIRING VIA FAN CONTROL RELAY TO BE INTERLOCKED WITH PROGRAMMABLE THERMOSTAT. PROVIDE CONTROL RELAY (HONEYWELL R8222 OR EQUIVALENT) AND 24VAC CONTROL POWER SUPPLY WITH OVERLOAD PROTECTION. INSTALL POWER SUPPLY (GENSCO #MAR24020XFMR OR EQ) AND FAN CONTROL RELAY ADJACENT TO ONE ANOTHER IN ACCESSIBLE CEILING SPACE AND EXTEND LOW VOLTAGE WIRING BETWEEN AUXILIARY RELAY PROVIDED WITH PROGRAMMABLE THERMOSTAT AND FAN CONTROL RELAY. PROVIDE ADDITIONAL WIRING TO VAV DAMPER AS REQUIRED. COORDINATE ALL REQUIREMENTS WITH MECHANICAL CONTRACTOR.

AIR CURTAINS
 AIR CURTAINS, WHEN REQUIRED, SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR. COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF POWER CONNECTION.

DUCTWORK & ACCESSORIES:

SHEETMETAL DUCTWORK
 ALL DUCTWORK TO BE RIGID SHEETMETAL CONSTRUCTED FROM GALVANIZED SHEET STEEL IN ACCORDANCE WITH SMACNA LOW VELOCITY DUCT CONSTRUCTION STANDARDS. FIBERGLASS DUCTBOARD IS NOT ALLOWED. ALL EXPOSED DUCTWORK TO BE ROUND, SPIRAL, OR RECTANGULAR LOCK-SEAM TYPE, AS SHOWN ON HVAC PLAN SHEET M2.0. ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICE FOR ACHIEVING AIR TIGHT (5% LEAKAGE) AND NOISELESS (NO OBJECTIONABLE NOISE SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE. FURNISH ALL REQUIRED DAMPERS, TRANSITIONS, CONNECTIONS TO AIR TERMINALS, AND OTHER ACCESSORIES NECESSARY FOR A COMPLETE OPERATING SYSTEM. NO VARIATION OF DUCT CONFIGURATION OR SIZES WILL BE PERMITTED EXCEPT BY PERMISSION FROM THE ENGINEER.

DUCT SEALANT
 SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH A NON-HARDENING, NONMIGRATING MASTIC OR LIQUID ELASTIC SEALANT OF A TYPE RECOMMENDED BY THE MANUFACTURER FOR SEALING JOINTS AND SEAMS IN SHEET METAL DUCTWORK. COVER ALL FIELD JOINTS, JOINTS AROUND SPIN-IN FITTINGS AND FASTENING SCREWS WITH MASTIC.

SUPPORTS
 PROVIDE HOT-DIPPED GALVANIZED STEEL, FASTENERS, ANCHORS, RODS, STRAPS, TRIM, AND ANGLES FOR SUPPORT OF DUCTWORK.

DAMPERS
 PROVIDE OPPOSED-BLADE, MULTI-LEAF VOLUME CONTROL DAMPERS WHERE INDICATED ON DRAWINGS AND AT POINTS ON LOW PRESSURE SUPPLY, RETURN AND EXHAUST DUCTS WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS. PROVIDE UL LISTED AND FIRE/SMOKE DAMPERS WHERE REQUIRED AND IN ACCORDANCE WITH NFPA AND LOCAL CODES. PROVIDE CONVENIENTLY LOCATED ACCESS DOORS OF AMPLE SIZE AND QUANTITY FOR SERVICING THE DAMPERS.

GRILLES, REGISTERS & DIFFUSERS
 GRILLES, REGISTERS AND DIFFUSERS SHALL BE MANUFACTURED BY TITUS AND SHALL BE GC SUPPLIED (UON). DIFFUSERS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS AND SCHEDULES. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS ITEMS NECESSARY FOR A COMPLETE AND PROPER INSTALLATION IN THE TYPE OF CEILING AND WALLS USED IN THIS PROJECT.

THERMAL INSULATION
 PROVIDE EXTERNAL THERMAL INSULATION WITH AN INTEGRAL VAPOR BARRIER FACING OF SUFFICIENT THICKNESS TO MEET LOCAL ENERGY CODE REQUIREMENTS. PROVIDE INSULATION ON EXHAUST AND OUTSIDE AIR DUCTS, AND ON CONCEALED PORTIONS OF SUPPLY AND RETURN AIR DUCTS. DO NOT INSULATE EXPOSED DUCTWORK AND PORTIONS OF DUCTWORK THAT ARE INTERNALLY LINED. THERMAL INSULATION TO COMPLY WITH AN NFPA FLAME SPREAD OF 25 OR LESS, AND SMOKE DEVELOPED NO GREATER THAN 50.

ACOUSTICAL DUCT LINER
 UNLESS OTHERWISE INDICATED ON THE PLANS, PROVIDE 1" GLASS FIBER ACOUSTICAL DUCT LINER ON SUPPLY AND RETURN DUCTWORK WITHIN 10 FEET OF THE DISCHARGE AND INTAKE OF AIR HANDLING UNITS. INCREASE DUCT SIZED INDICATED ON PLANS 2" IN EACH DIMENSION TO ACCOMMODATE LINER. LINER SHALL BE FASTENED TO DUCT WITH MECHANICAL LINER FASTENERS IN ACCORDANCE WITH SMAGNA.

CONTROLS & OPERATION:

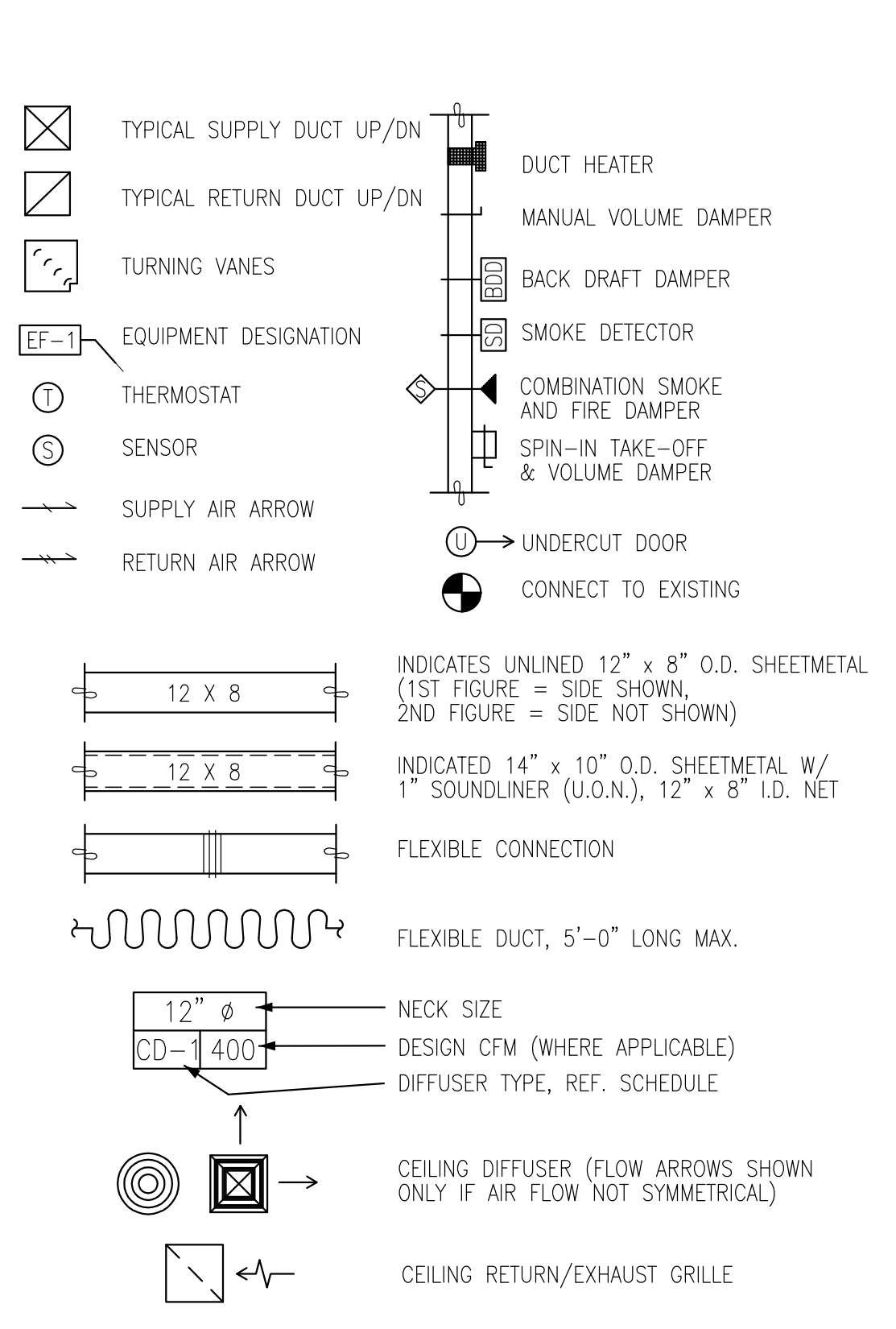
CONTROL WIRING
 THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING IN CONDUIT NECESSARY FOR THE COMPLETE AND PROPER OPERATING TEMPERATURE CONTROL SYSTEM.

THERMOSTAT
 THERMOSTAT(S) SHALL BE HONEYWELL PROGRAMMABLE SERIES T-7350 WITH NON-SWITCHING SUBBASE AND REMOTE SENSOR(S) FURNISHED BY STARBUCKS (UON) FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. ONE THERMOSTAT AND SENSOR IS PROVIDED FOR EACH AIR HANDLING UNIT. MOUNT THERMOSTAT(S) AT 48" ABOVE FINISH FLOOR IN LOCATION AS INDICATED ON DRAWINGS. MECHANICAL CONTRACTOR TO PROVIDE THERMOSTAT IDENTIFICATION LABELS WITH 1/8" HIGH WHITE LETTERS ON KELLY GREEN OR BLACK PHENOLIC BACKGROUND, I.E. "AC-1 : WORKROOM" AND "AC-2 : CUSTOMER AREA". REFER TO THERMOSTAT SETUP INSTRUCTIONS BELOW FOR ADDITIONAL REQUIREMENTS.

THERMOSTAT SETUP INSTRUCTIONS
 PROVIDE THE FOLLOWING SETUP AND PROGRAMMING ON THE HONEYWELL T-7350 THERMOSTAT:
 1. FOLLOW INSTRUCTIONS IN THE T-7350 MANUAL WHICH COMES WITH THE THERMOSTAT. ADDITIONAL INFORMATION AVAILABLE FROM HONEYWELL COMMERCIAL FIELD TECHNICAL SUPPORT AT 612-951-1019 OR 763-954-6464
 2. SET DIP SWITCHES AND JUMPERS AS FOLLOWS:

- A) DEGREES F DISPLAY
 - B) 12 HOUR CLOCK
 - C) CONTINUOUS FAN OPERATION IN OCCUPIED MODE
 - D) DISABLE KEYBOARD PROGRAMMING
 - E) CUT JUMPER IF UNIT IS A HEAT PUMP
3. SET CLOCK AND DAY.
 4. SET TO DISPLAY CURRENT TEMPERATURE.
 5. SET OCCUPIED START TIME AT 1/2 HOUR BEFORE OPENING. SET UNOCCUPIED START TIME AT 1/2 HOUR AFTER CLOSING. VERIFY HOURS WITH STORE MANAGER OR CONSTRUCTION MANAGER.
 6. SETPOINTS SHALL BE AS FOLLOWS:
- | | OCCUPIED | UNOCCUPIED |
|---------|----------|------------|
| HEATING | 70deg F | 60deg F |
| COOLING | 72deg F | 78deg F |
7. SET 3 HOUR OCCUPIED OVERRIDE FUNCTION TO PROVIDE THE FOLLOWING SETPOINT OVERRIDES:
 HEATING +2deg F
 COOLING -2deg F

HVAC SYMBOLS LEGEND



GENERAL MECHANICAL NOTES:

SCOPE
 THE INTENT OF THE SPECIFICATION AND THE DRAWINGS IS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL MECHANICAL SYSTEM. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT RELATED TO THE INSTALLATION OF THE MECHANICAL WORK.

SITE EXAMINATION
 THE CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT, DUCTWORK, AND PIPING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE MECHANICAL WORK.

STANDARDS
 EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF ARI, ASME, ASTM, UL, NEMA, ANSI, SMACNA, ASHRAE, NFPA, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.

CODES
 ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT BETWEEN THE DRAWINGS/SPECIFICATIONS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. THE MECHANICAL CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO STARBUCKS.

PERMITS AND FEES
 THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS, FEES AND INSPECTIONS NECESSARY TO COMPLETE THE MECHANICAL WORK.

WARRANTY
 THE CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY STARBUCKS AND WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE AND RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE MATERIALS AND WORKMANSHIP.

TESTING, ADJUSTING, BALANCING:

MECHANICAL CONTRACTOR OR AN INDEPENDENT AIR BALANCE CONTRACTOR SHALL ACCURATELY BALANCE THE AIR & HYDRONIC (WHERE APPLICABLE) SYSTEMS TO PROVIDE AIR & WATER QUANTITIES (WHERE APPLICABLE) INDICATED ON THE DRAWINGS AND IN THIS SPECIFICATION. OPERATE AUTOMATIC CONTROLS SYSTEM AND VERIFY SET POINTS. A NEBB OR AABE CERTIFIED SUPERVISOR SHALL BE IN CHARGE OF WORK. SUBMIT TWO (2) COPIES OF THE BALANCE REPORT TO THE ENGINEER FOR APPROVAL. INCLUDE A COPY OF THE BALANCE REPORT AS APPROVED BY THE ENGINEER WITH APPLICATION FOR FINAL CONTRACT PAYMENT.

BUILDING CODE NOTES:



STARBUCKS COFFEE COMPANY
 2401 UTAH AVENUE SOUTH
 SEATTLE, WASHINGTON 98134
 (206) 318-1575

THESE PLANS AND SPECIFICATIONS, AS WELL AS STARBUCKS' NAME AND LOGO, TRADEMARKS AND DESIGNS ARE THE EXCLUSIVE PROPERTY OF STARBUCKS CORPORATION. ANY REPRODUCTION, MODIFICATION, DISCLOSURE AND/OR USE OF THESE MATERIALS (OR ANY PORTION OF THEM) WITHOUT STARBUCKS' PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.

CONSULTANTS
KHACHATURIAN ENGINEERING ASSOCIATES, INC.
 49 CLAREMONT AVE, MONTCLAIR, NJ 07042
 TEL (973)783 1098 FAX (973)783 4301

ARMEN KHACHATURIAN, P.E.
 MAINE LICENSE PE 10384

REV DATE

STARBUCKS COFFEE
 PORTLAND
 1080 FOREST AVENUE
 PORTLAND, ME 04103
 CUMBERLAND

PROJECT:
 COUNTY:

STORE #: 11917
 PROJECT #: 37548-001
 CONCEPT: MSS DT
 PALETTE: CLASSICO
 ISSUE DATE: 12-5-06
 DRAWN BY: C. MILLER
 DESIGN BY: M. D'ANDREA
 CHECKED BY: A. KHACHATURIAN
 CM: MARK SWIDERSKI

SHEET TITLE
MECHANICAL LEGEND & NOTES

SCALE:
 (DO NOT SCALE DRAWINGS)

SHEET NUMBER
M1.0

NOTE: SEE DWG A3.0 FOR EXACT CLG & SOFFIT ARRANGEMENTS
SEE DWG M1.0 FOR MECHANICAL NOTES.

HVAC UNIT SCHEDULE													
UNIT	MANUFACTURER	MODEL NO.	TONS	CFM	ESP	FAN HP	NET COOLING CAPACITY BTUH	HEATING INPUT CAPACITY BTUH	HEATING ELEMENT	ELEC.	MCA	MAX FUSE	NET WEIGHT
RTU-1	TRANE	YSC060A3RHA**D2	5	2000	1.0	1.0	60,000	130,000	NAT. GAS	208V/3Ø/60HZ	30.3	45	663 lbs.
RTU-2	TRANE	YSC090A3RHA**D	7.5	3000	1.0	2.0	90,000	200,000	NAT. GAS	208V/3Ø/60HZ	42.7	60	988 lbs.

HVAC SCHEDULE:

HVAC SCHEDULE:

ITEM #	QTY	DESCRIPTION	MANUFACTURER	MODEL #	VOLTS	AMPS	SUPPLY	WASTE	REMARKS	SKU #	SHIP
SUPPLY											
H002	7	SQ. 4-WAY SUPPLY - LAY-IN	TITUS	TDC#3 - 12X12					24X24 4-WAY - 12IN DUCT		GC
H005	3	SQ. 2-WAY SUPPLY - LAY-IN	TITUS	TDC #3 12X12					24X24 2-WAY - 12" DUCT		GC
RETURN											
H253	2	RETURN FOR RESTROOM	TITUS	350RL #7 8X8					10X10 - 8X8 DUCT		GC
H254	7	SQ. RETURN - LAY-IN	TITUS	350ZRL #3 22X22					24X24 - 22" DUCT		GC
MISC											
H500	1	EXHAUST FAN FOR RESTROOM	GREENHECK	G-70-D							GC
H501	2	THERMOSTAT WITH SENSOR	HONEYWELL	T7350					W/ T7770A1006 & C7141B2005 SENSORS	192855	3PL
ACCESSORIES											
H700	1	DAMPER FOR EXHAUST FAN	GREENHECK	WD90 - 8X8					WITH BACKFLOW PREVENTOR		GC
H701	1	ROOF CURB FOR EXHAUST FAN	GREENHECK	GPI-17-G12							GC
ADDITIONAL ITEMS											
ADL1	1	AIR CURTAIN - 3' LONG	BERNER INTERNATIONAL CORP.	DP21036E	208 (1PHASE)	45.7			ADD'L MOTOR: 208V/4AMPS		GC
ADL2	1	AIR CURTAIN - 6' LONG	BERNER	DP22072E	208 (3PHASE)	26.4/2 6.4/-			ADD'L MOTOR: 208V/4AMPS		GC



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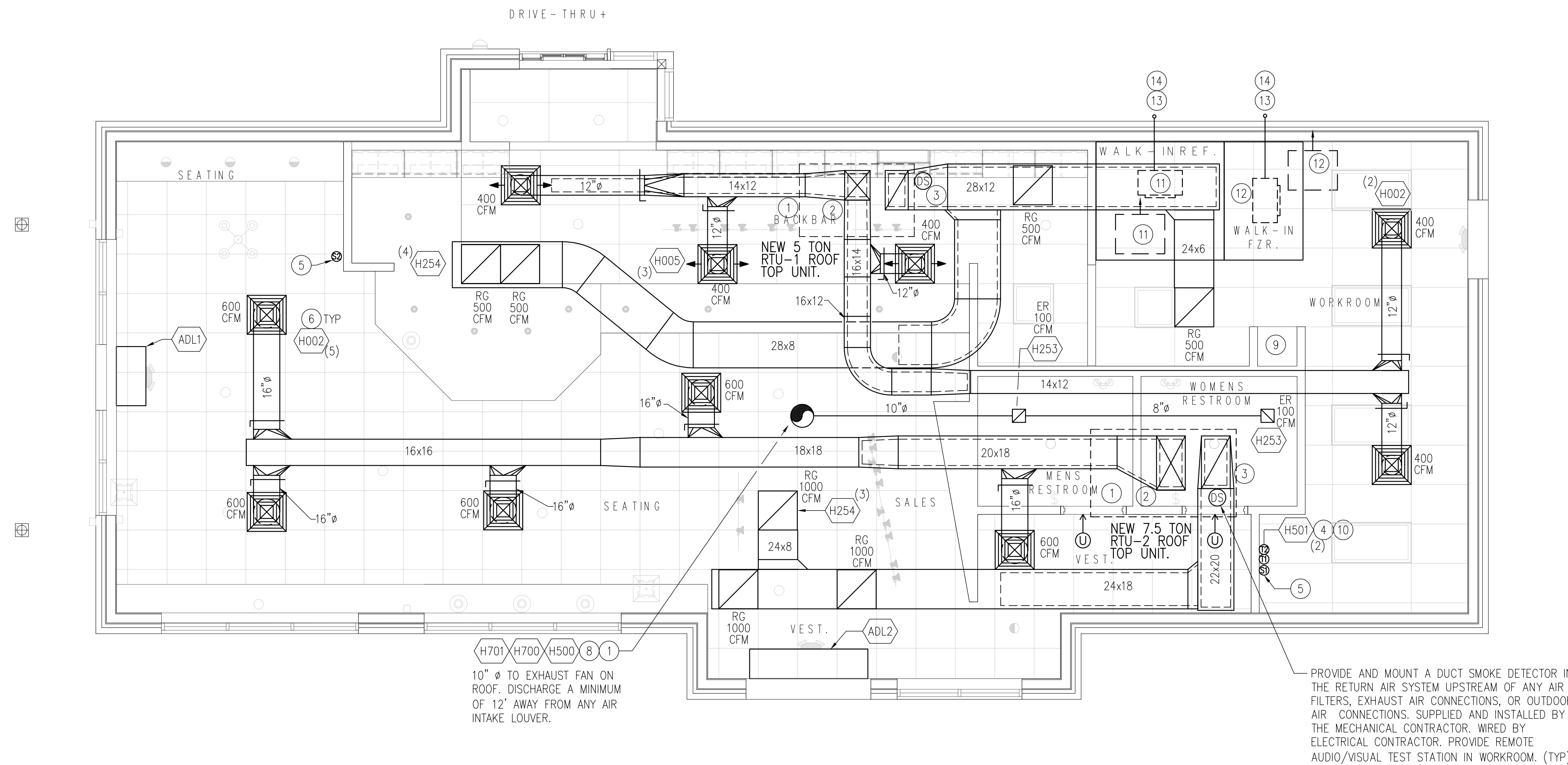
CONSULTANTS
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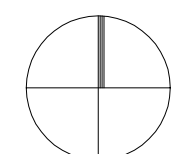
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NOTES:

- COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTION TO ALL MECHANICAL EQUIPMENT.
- FULL SIZE SUPPLY AIR DISCHARGE PLENUM WITH 1" DUCT LINER.
- FULL SIZE RETURN AIR PLENUM WITH 1" DUCT LINER.
- WALL MOUNTED THERMOSTAT AT 44" AFF.
- REMOTE TEMPERATURE SENSOR AT 60" AFF.
- DIFFUSERS AND RETURNS CENTERED IN CEILING TILE, UON.
- MANUAL BALANCE DAMPER.
- EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST FAN #EF-1. VERIFY EXACT ROUTING ON JOBSITE.
- TYPE 'B' FLUE VENT TO WATER HEATER. LOCATE A CODE MINIMUM DISTANCE AWAY FROM OUTSIDE AIR INTAKES ON ROOF.
- MULTIPLE THERMOSTATS SHALL BE STACKED IN A VERTICAL CONFIGURATION WITH A MINIMUM 8" CLEARANCE BELOW EACH THERMOSTAT.
- COOLER EVAPORATOR-FAN/CONDENSING UNIT FURNISHED BY STARBUCKS, INSTALLED BY CONTRACTOR. INSTALL UNIT PER DRAWINGS & MANUFACTURER'S RECOMMENDATION.
- FREEZER EVAPORATOR-FAN/CONDENSING UNIT FURNISHED BY STARBUCKS, INSTALLED BY CONTRACTOR. INSTALL UNIT PER DRAWINGS & MANUFACTURER'S RECOMMENDATION.
- CONDENSATE PIPING BY CONTRACTOR.
- CALL LYNN CLATTERBUCK AT ICSCO 1-800-835-0001 FOR FURTHER INFORMATION ON WALK IN COOLER/FREEZER



HVAC PLAN



HVAC UNIT LAYOUT AS WELL AS THE DUCTWORK LAYOUT IS DIAGRAMMATIC. THE CONTRACTOR MAY REARRANGE THE UNITS AND RESIZE THE DUCTWORK TO EQUIVALENT SIZES TO ACCOMMODATE EXISTING CONDITIONS AND CONSTRAINTS.

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1080 FOREST AVENUE
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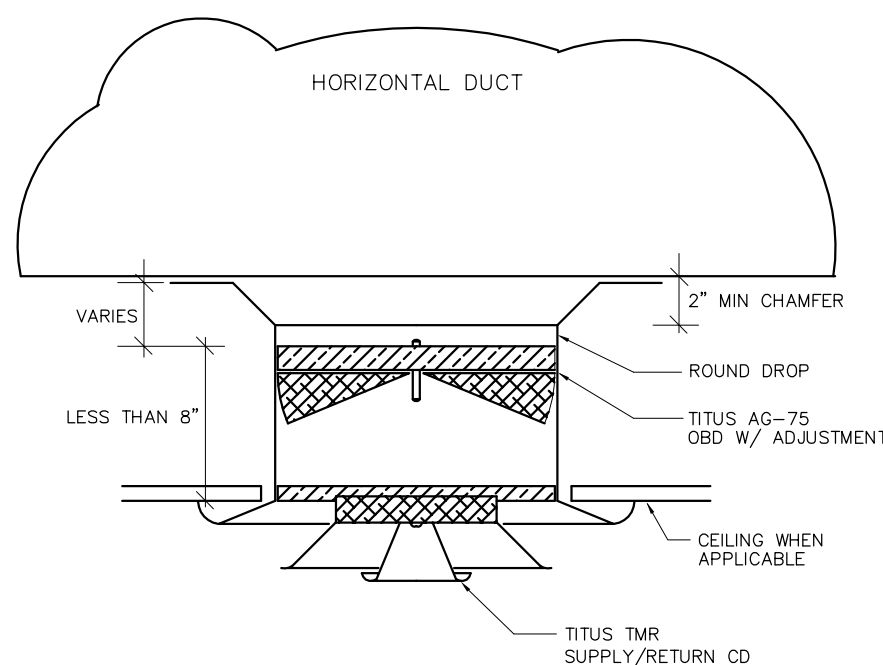
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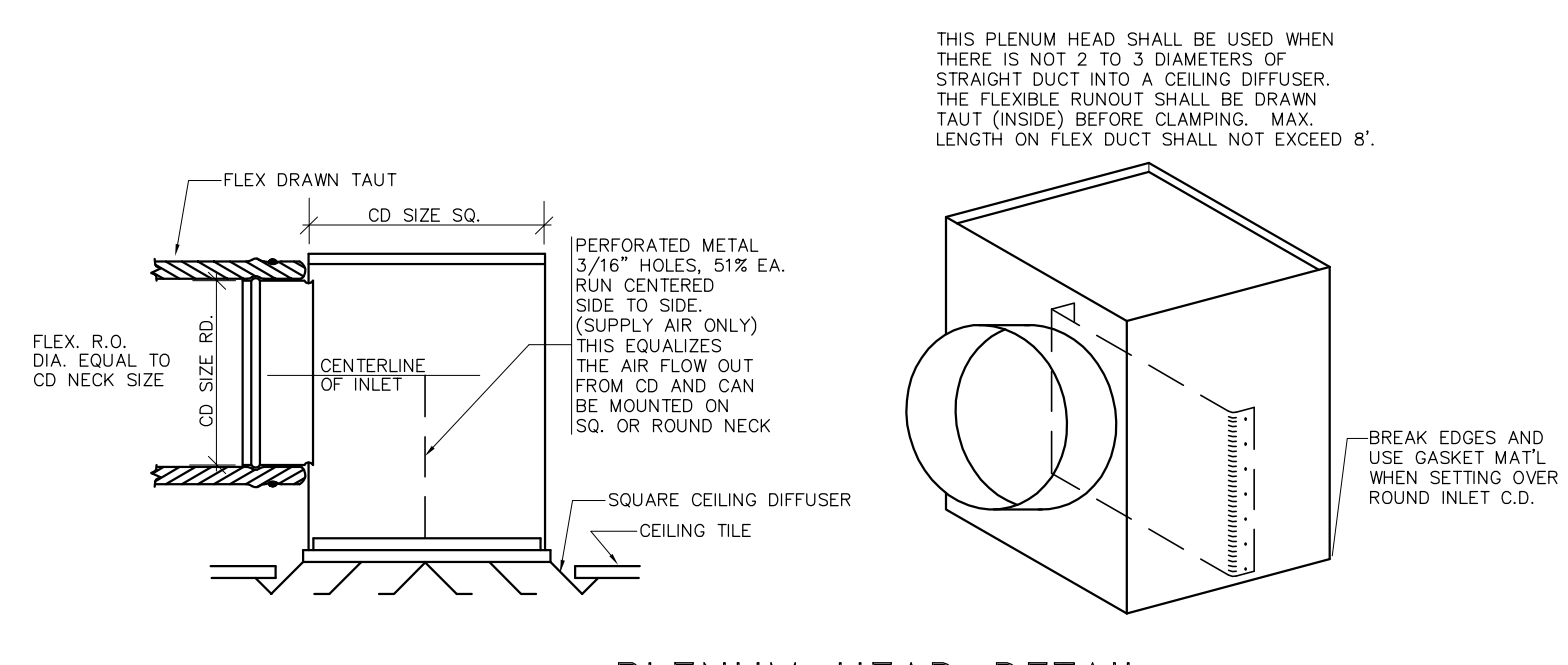
SHEET TITLE
HVAC PLAN / SCHEDULE

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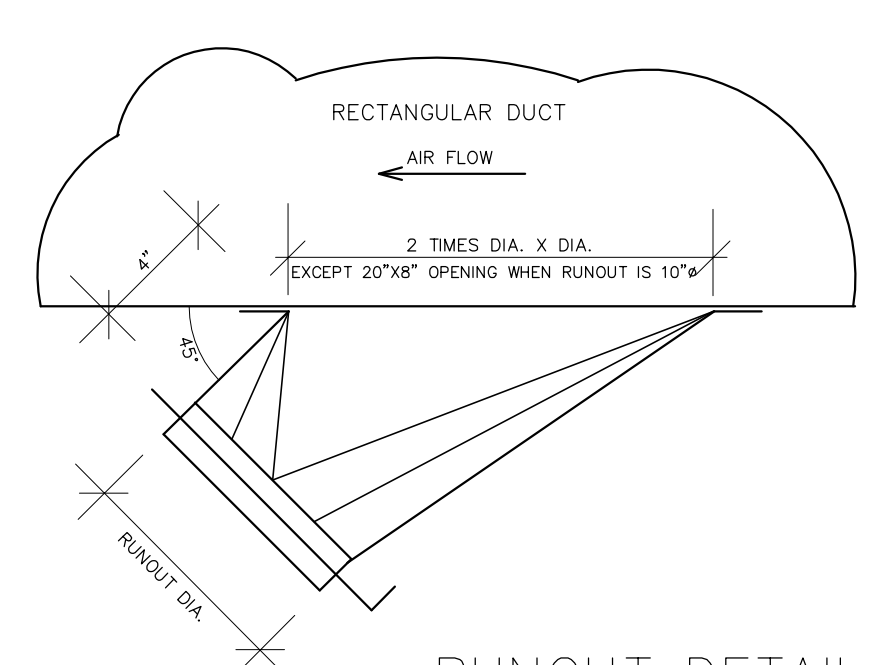
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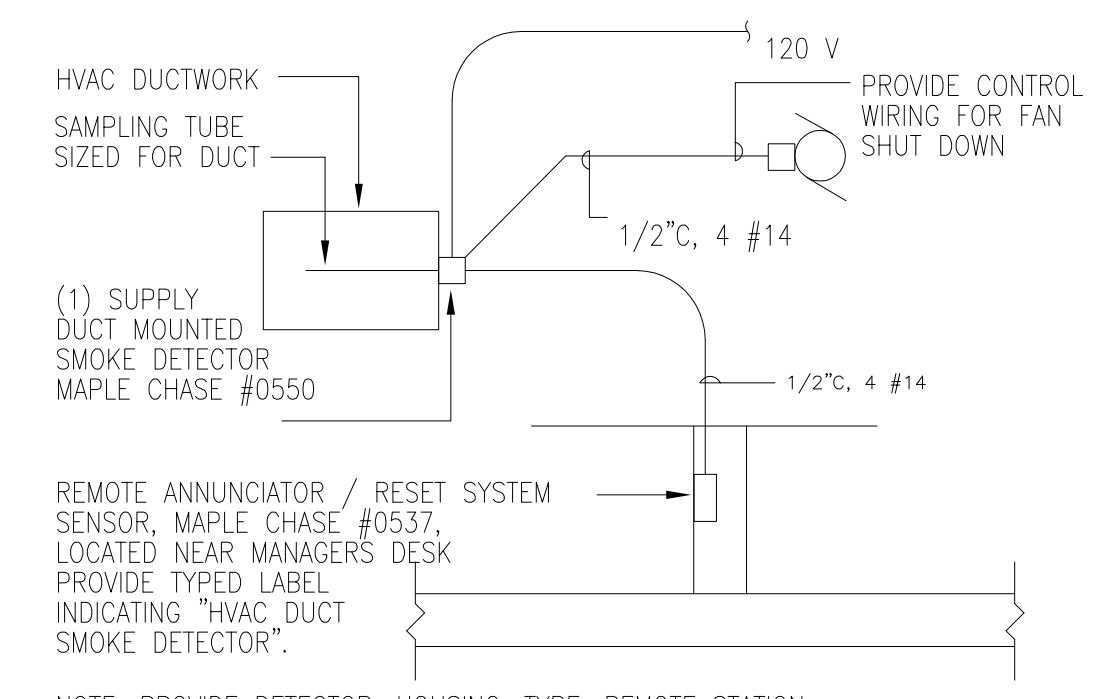
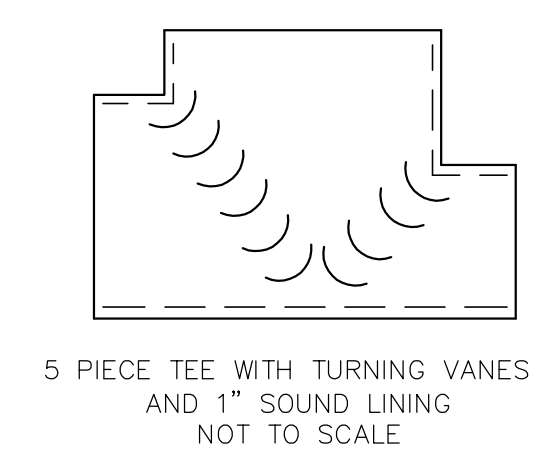
SUPPLY & RETURN AIR DETAIL
NOT TO SCALE



PLENUM HEAD DETAIL
NOT TO SCALE



RUNOUT DETAIL
NOT TO SCALE



TYP DUCT DETECTOR DETAIL

NOTE: PROVIDE DETECTOR, HOUSING, TYPE, REMOTE STATION, AND ALL ACCESSORIES. DETECTOR SHALL BE INSTALLED UNDER DIVISION 15. CONNECT DETECTOR AS SHOWN.

WHEN STARBUCKS SPACE IS MONITORED BY CENTRAL BUILDING FIRE ALARM SYSTEM, GC TO COORDINATE WITH LANDLORD'S ALARM CONTRACTOR TO CONNECT BUILDING ALARM SYSTEM TO DUCT DETECTOR AUXILIARY CONTACTS.

MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL DUCT DETECTOR WITH MINIMUM TWO SETS OF AUXILIARY CONTACTS

ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL CONTROL WIRING FROM DUCT DETECTOR TO AC UNIT



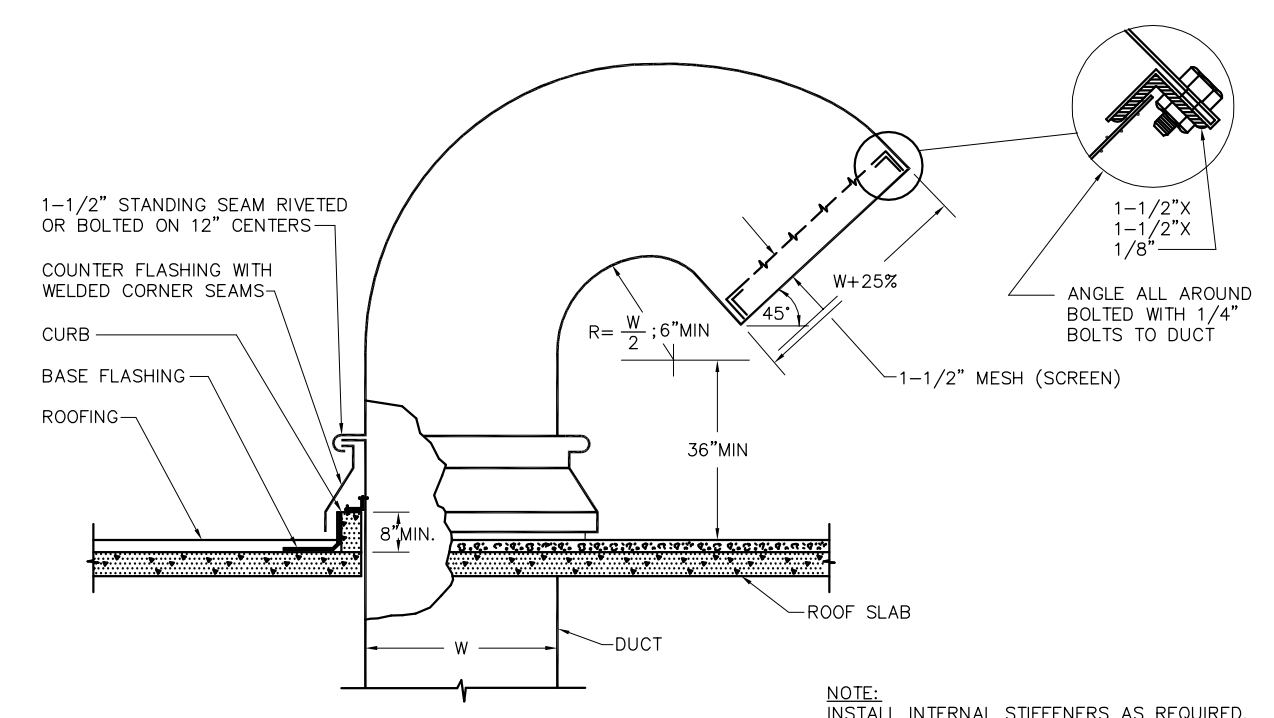
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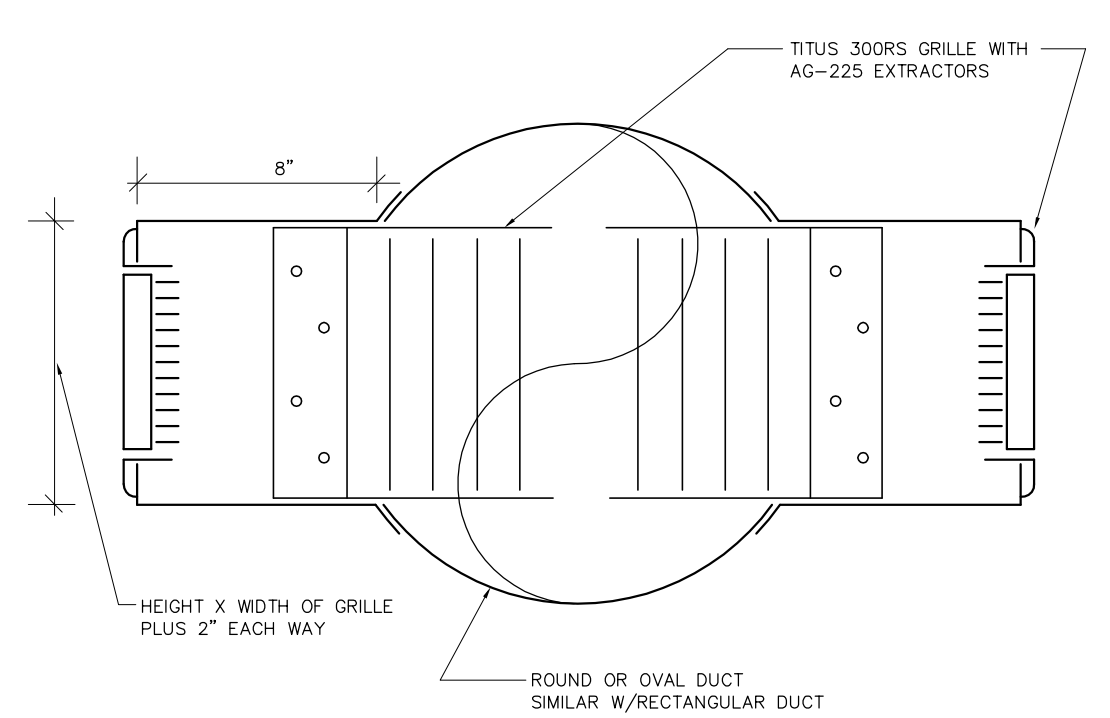
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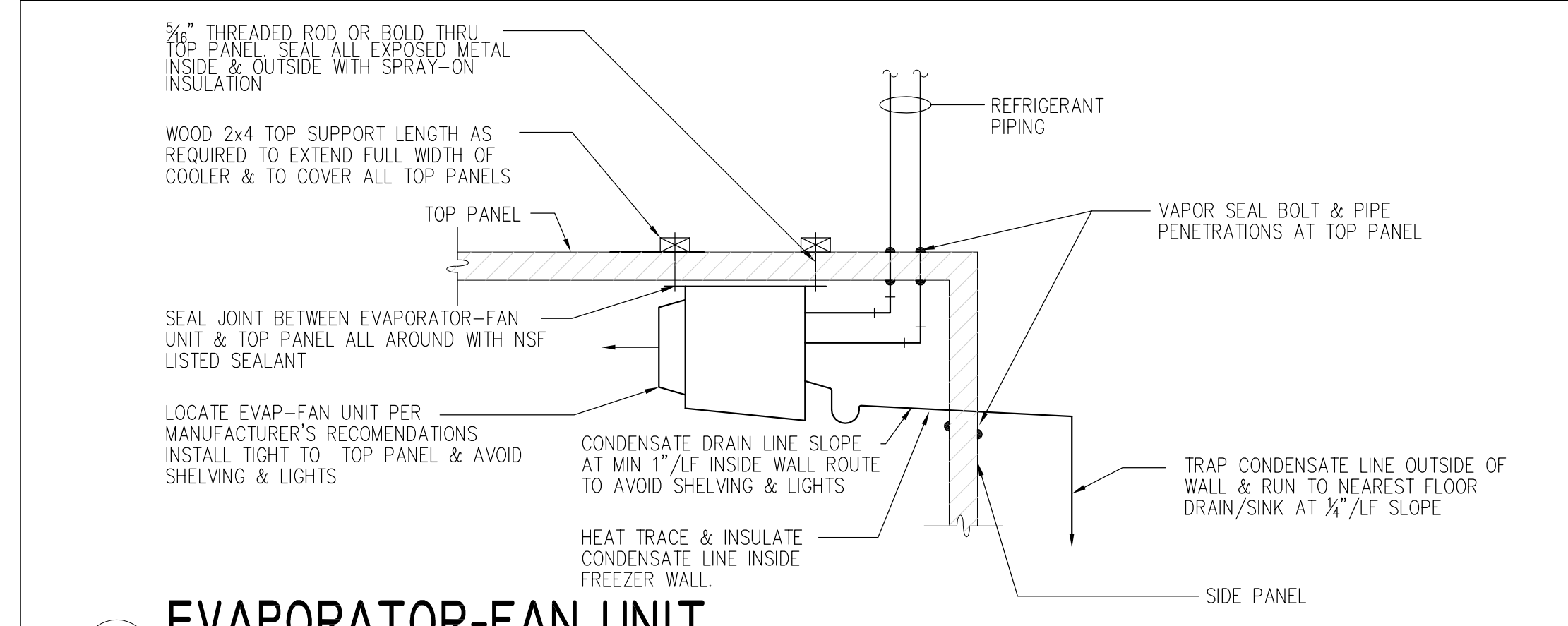
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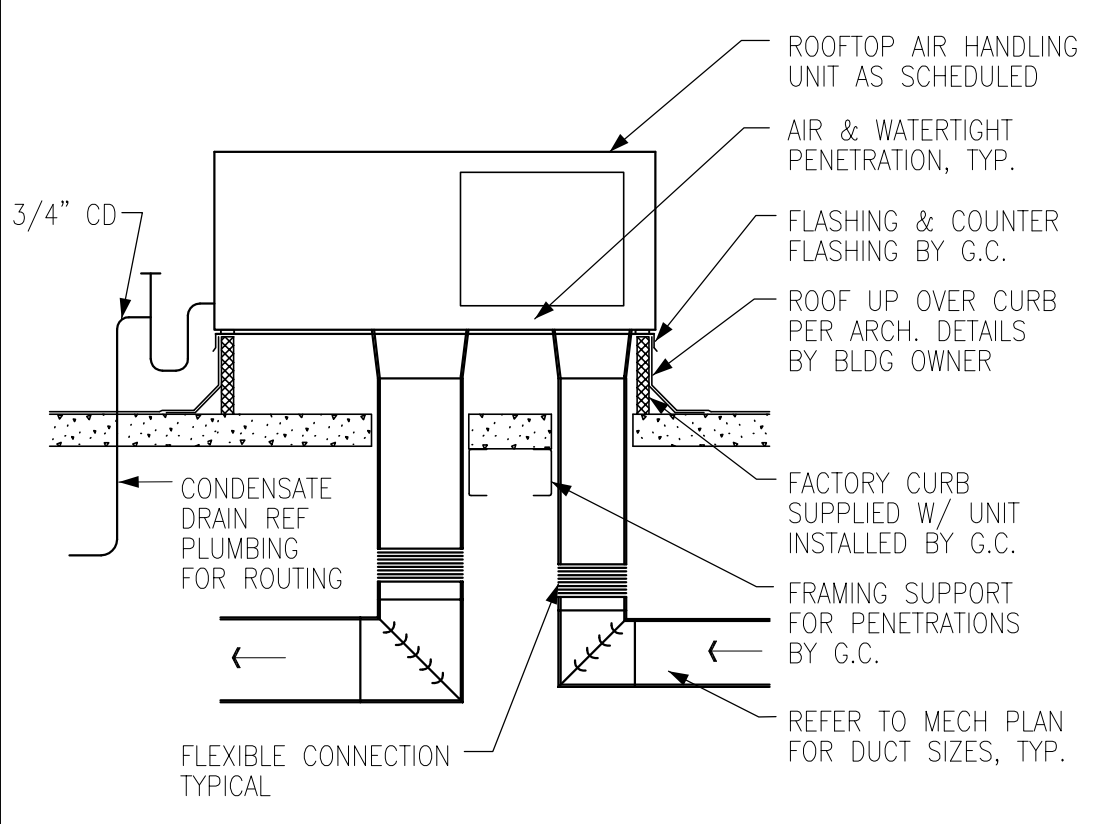
GOOSENECK INSTALLATION
NOTE: INSTALL INTERNAL STIFFENERS AS REQUIRED.



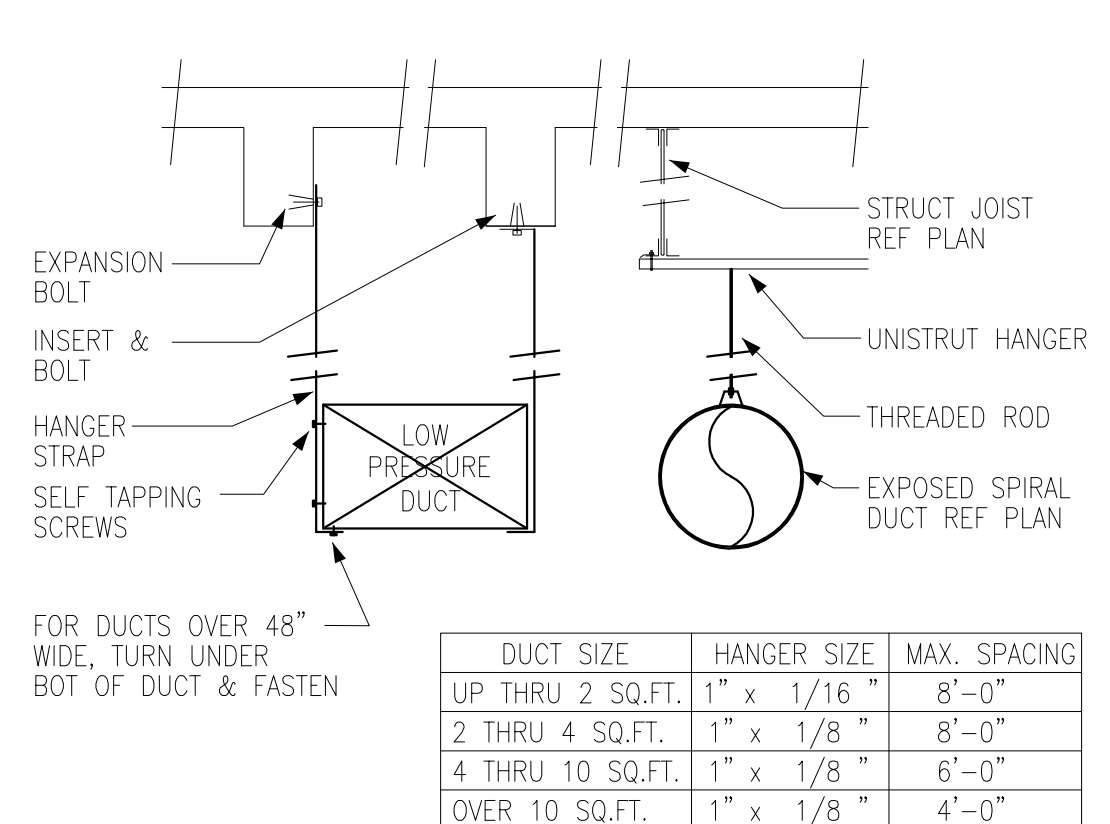
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EVAPORATOR-FAN UNIT
N.T.S. ELEVATION

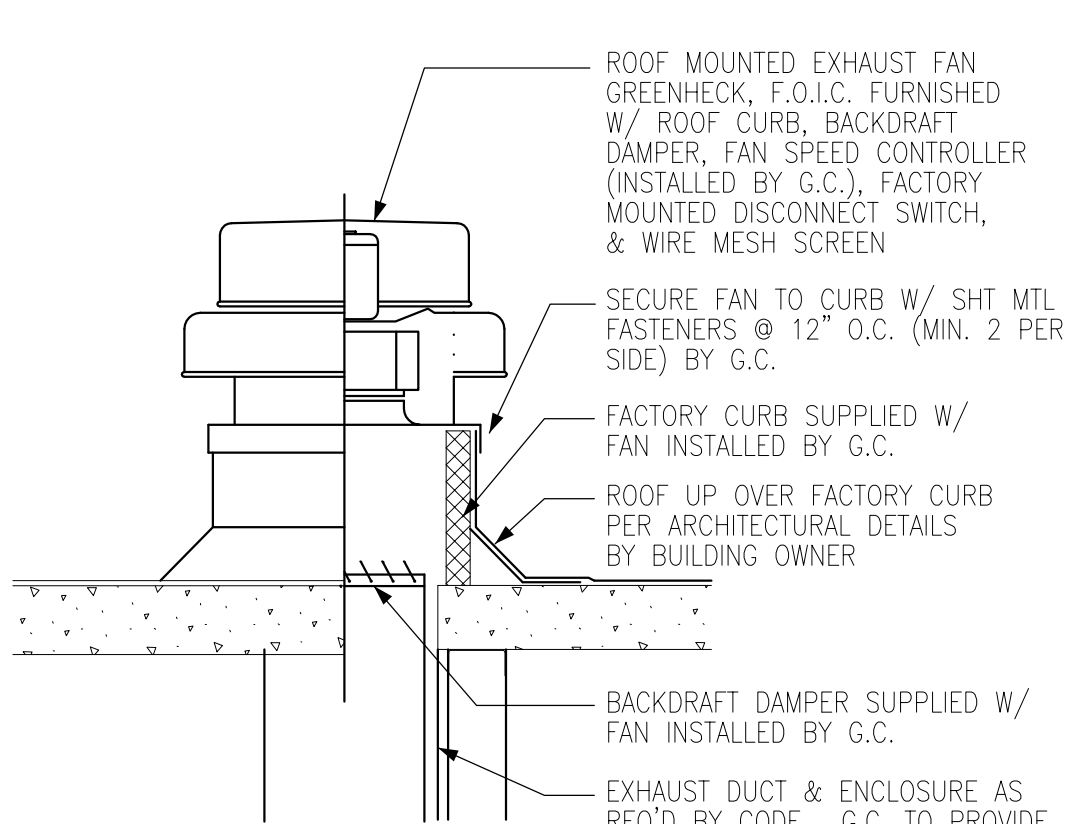


ROOFTOP AIR HANDLING UNIT
N.T.S.

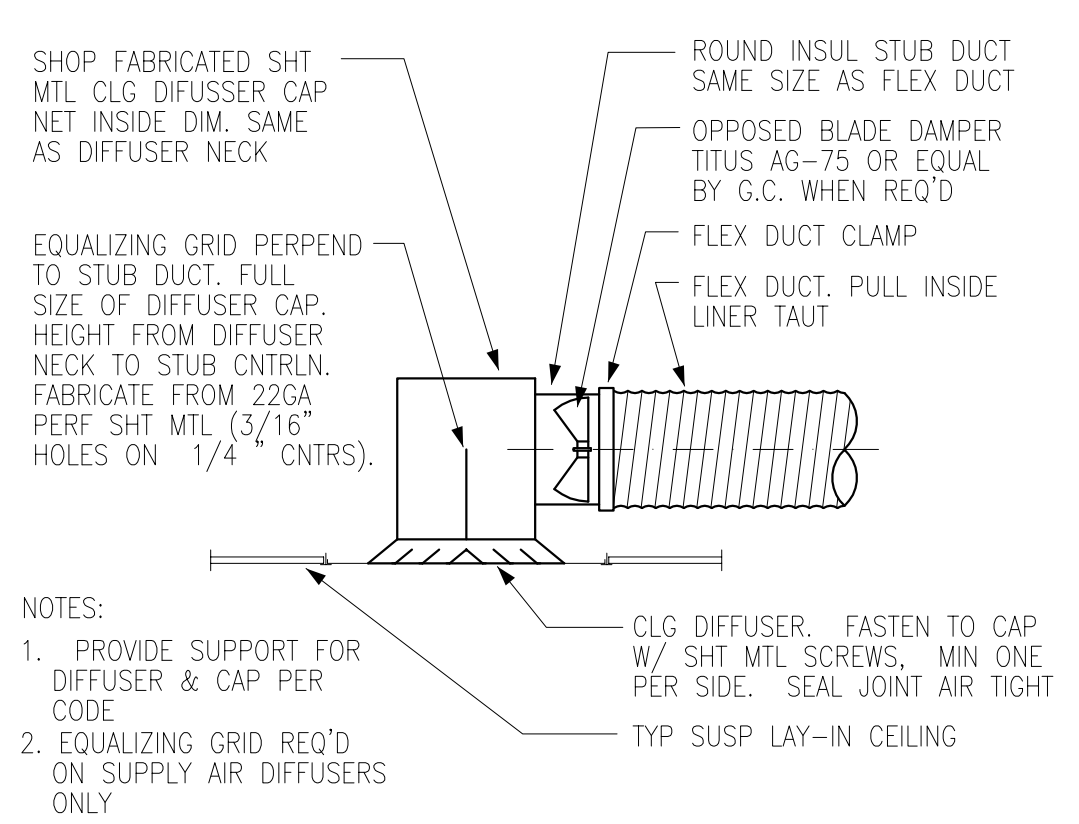


DUCT HANGING DETAIL
N.T.S.

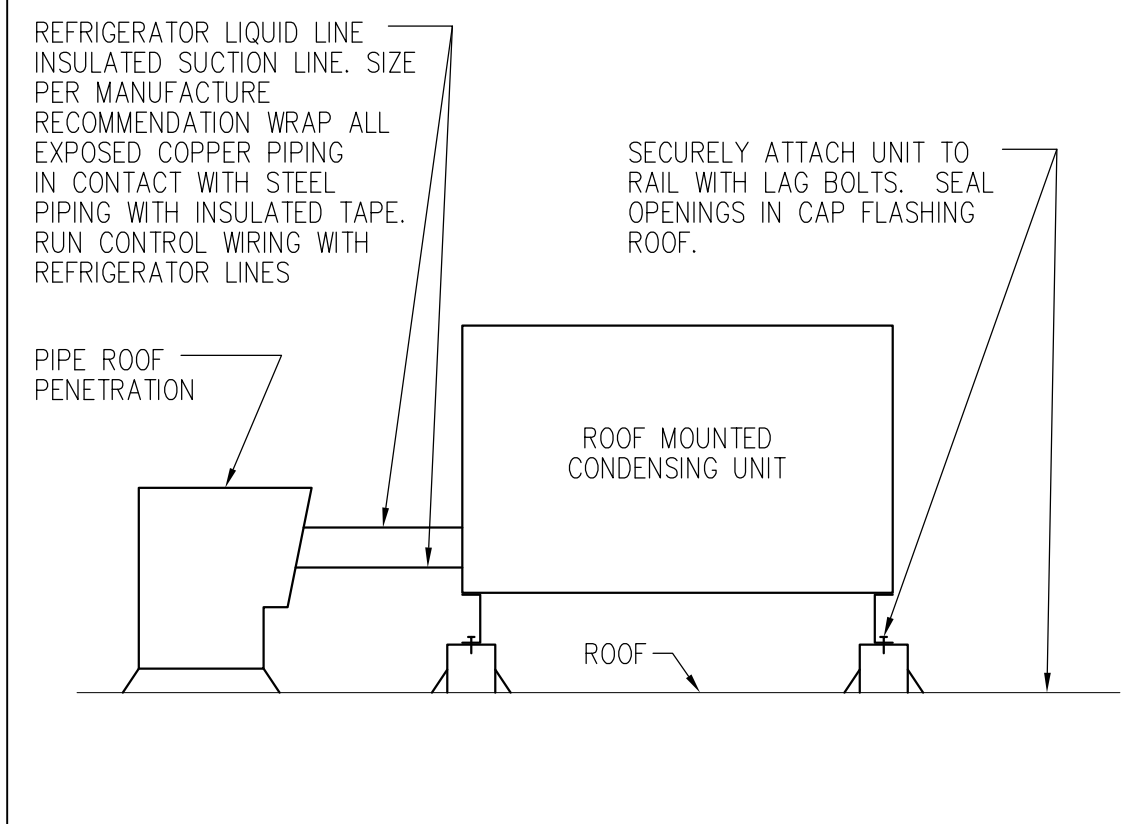
DUCT SIZE	HANGER SIZE	MAX. SPACING
UP THRU 2 SQ.FT.	1" x 1/16"	8'-0"
2 THRU 4 SQ.FT.	1" x 1/8"	8'-0"
4 THRU 10 SQ.FT.	1" x 1/8"	6'-0"
OVER 10 SQ.FT.	1" x 1/8"	4'-0"



ROOF EXHAUST FAN
N.T.S.



LAY-IN CLG DIFFUSER
N.T.S.



ROOF MTD CONDENSING UNIT
N.T.S.

STARBUCKS COFFEE
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ELECTRICAL LEGEND

⊕	JUNCTION BOX	⊕	L.A.N. RECEPTACLE
\$	SWITCH	⊕	RECEPTACLE: 110 DUPLEX
\$ ₃	THREE WAY SWITCH	⊕	RECEPTACLE: 110 DEDICATED
\$ _M	MOTION (OCCUPANCY) SENSOR SWITCH	⊕	RECEPTACLE: 110 QUAD
⊕	DIMMER	⊕	RECEPTACLE: 110 QUAD DEDICATED
⊕	SWITCHBANK SEE DETAIL ON E3.0	⊕	RECEPTACLE: 208V OR 220V
⊕	TELEPHONE	⊕	GROUNDING ELECTRODE CONNECTION
⊕	THERMOSTAT	NL	NIGHTLIGHTING 24 HR/DAY
⊕	THERMOSTAT SENSOR		

⊕ RACEWAY CONCEALED IN CEILING OR WALL. HASH MARKS INDICATE NUMBER OF WIRES. #12 AWG WIRE UNLESS OTHERWISE NOTED. TWO WIRES PLUS GROUND IF NO HASH MARKS SHOWN. LONG HASH MARK DENOTES NEUTRAL. ● INDICATES GROUND WIRE.

TELEPHONE SYSTEM NOTES:

(A) AT START OF CONSTRUCTION, GNOC (GLOBAL NETWORK OPERATIONS CENTER) WILL ORDER PHONE SERVICE. CM TO SUBMIT FORM VIA EMAIL TO THE GNOC GROUP AT GNOC@STARBUCKS.COM

(B) STORES REQUIRE A MINIMUM OF FIVE PHONE LINES TERMINATED AT THE DEMARC BOARD IN THE BACK OF HOUSE NEAR THE MANAGER'S DESK AND THE TECHNOLOGY RACK. PHONE LINE ASSIGNMENTS CAN BE FOUND ON THE STORE DELIVERY SCHEDULE. THEY ARE TO BE TERMINATED AND LABELED IN THE FOLLOWING ORDER AND USE:
 LINE #1 - VOICE LINE FOR MAIN LISTED PHONE NUMBER AND ALARM PANEL. ROUTE THE CABLE FROM DEMARC TO RJ31X JACK ADJACENT TO INTERACTIVE SECURITY ALARM PANEL. LABEL JACK AS "V1-VOICE LINE W/telephone number/ALARM PANEL". EXTEND CABLING FROM RJ31X TO THE MANAGER'S DESK AND EACH BARISTA PHONE LOCATION WITH AN RJ11 JACK.
 LINE #2 - VOICE LINE FOR ROLLOVER PHONE NUMBER. ROUTE CABLE FROM DEMARC TO A RJ11 JACK LOCATED AT THE MANAGER'S DESK. LABEL JACK AS "V2-VOICE LINE W/telephone number".
 LINE #3 - DEDICATED LINE FOR DIAL UP MODEM FOR THE MANAGER'S PC WORKSTATION. ROUTE CABLE FROM DEMARC TO A RJ11 JACK ADJACENT TO THE BOH TECHNOLOGY RACK. LABEL JACK AS "MODEM LINE W/telephone number". SEE DETAIL 1 ON SHEET E4.0.
 LINE #4 - DEDICATED LINE FOR THE INTERACTIVE SECURITY SYSTEM. ROUTE CABLE FROM DEMARC TO A RJ11 JACK ADJACENT TO THE DIGITAL SECURITY RECORDER ON THE BOH TECHNOLOGY RACK. LABEL JACK AS "AUDIO LINE W/telephone number". SEE DETAIL 1 ON SHEET E4.0.
 LINE #5 - DEDICATED LINE FOR THE VIDEO MODULE IN THE SECURITY ALARM PANEL. ROUTE CABLE FROM DEMARC TO A RJ11 JACK ADJACENT TO THE SECURITY ALARM PANEL. LABEL JACK AS "VIDEO LINE W/telephone number". SEE DETAIL 1 ON SHEET E4.0.

(C) COORDINATE THE WORK OF THIS SECTION WITH THE REQUIREMENTS OF STARBUCKS COFFEE COMPANY'S SECURITY SYSTEM INSTALLER.

(D) USING PHONE NUMBER ASSIGNMENT FROM THE STORE DELIVERY SCHEDULE, THE GC WILL CROSS CONNECT THE VOICE TELEPHONE LINES FROM THE PHONE COMPANY (LEC) INTERFACE (66 BLOCK) TO THE 110 HARDWARE IN THE MPOE. THE DATA CABLING VENDORS WILL CROSS CONNECT THE DSL/FRAME RELAY CIRCUITS.

T-MOBILE / T1 NOTES:

(A) THE CAT5 CABLE PINNED TO POSITION 13-16 AT THE 110 BLOCK SHALL BE EXTENDED AND TERMINATED WITHIN TWO (2) FEET OF THE TECHNOLOGY (OR IT) RACK, INTO A J-BOX ATTACHED TO THE WALL, CONTAINING AN RJ48C JACK. THE RJ48C JACK SHALL BE LABELED "MOBILE/T1".

SECURITY SYSTEM NOTES:

(A) STARBUCKS CONTRACTS DIRECTLY WITH SECURITY VENDOR TO SUPPLY & INSTALL THE SECURITY SYSTEM. CONTRACTOR TO SCHEDULE INSTALLATION OF SECURITY SYSTEM FOR TWO TIMES, ROUGH-IN PRIOR TO DRYWALL INSTALLATION AND FINAL TRIM PRIOR TO STORE TURNOVER. SECURITY VENDOR REQUIRES A MINIMUM TWO WEEKS LEAD TIME FOR EACH INSTALLATION. SECURITY VENDOR WILL COORDINATE REGIONAL INSTALLERS. ALL ADDITIONAL EXPENSES INCURRED DUE TO THE CONTRACTOR'S FAILURE TO SCHEDULE ACCORDINGLY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR

SECURITY VENDOR
 THE DIEBOLD COMPANY
 CONTACT: ED BEATTIE
 PH: (206) 318-6688
 FAX: (206) 515-1807
 EMAIL: beattie@diebold.com

COMMUNICATION SYSTEMS NOTES:

(A) STARBUCKS CONTRACTS DIRECTLY WITH THE LANDLORD TO PROVIDE FOUR (4) CAT5 (WHITE) COMMUNICATION CABLES TO THE SPACE.

(B) FOUR (4) CAT5 CABLES ARE DEDICATED TO STORE OPERATIONS/ COMMUNICATIONS.

(C) THE GC MUST INSTALL 110 HARDWARE (MINIMUM SIZE: 25pr) IN BOTH THE MPOE AND BOH. THE 110 HARDWARE IN THE BOH SHOULD BE PLACED ON THE BACKBOARD (PARTS RECOMMENDED: AVAYA 110W 2-25 - MFG PART #107256653). THE SERVICE LOOP (30 FOOT) CAN BE SHORTENED TO ACCOMMODATE THE PLACEMENT OF THE 110 HARDWARE. ALL FOUR (4) OF THE LANDLORD PROVIDED CAT5 CABLES MUST BE PUNCHED DOWN TO THE 110 HARDWARE AT THE MPOE AND BOH, TONED, TESTED AND LABELED AS INDICATED IN THE TABLE BELOW:

CABLE	PAIRS/POSITION	LABELED
1	1~4	V1, V2, V3, V4
2	5~8	V5, V6, V7, V8
3	9~12	DSL/FRAME RELAY
4	13~16	T-MOBILE/T1

THE GC SHOULD PERFORM THE PUNCH DOWN AT THE MPOE AND THE BOH PER THE FOLLOWING 568b IN-BUILDING CAT5 CABLING STANDARD:

PIN	WIRE COLOR
1	WHITE/ORANGE
2	ORANGE
3	WHITE/GREEN
4	BLUE
5	WHITE/BLUE
6	GREEN
7	WHITE/BROWN
8	BROWN

DSL / FRAME RELAY NOTES:

(A) THE DSL/FRAME RELAY VENDOR WILL INSTALL THE IN-HOUSE WIRING AND RJ45 JACK FOR THE DSL/FRAME RELAY SERVICES. THE CAT5 CABLE PINNED TO POSITIONS 9-12 AT THE 110 BLOCK SHALL BE EXTENDED AND TERMINATED WITHIN TWO (2) FEET OF THE TECHNOLOGY (OR IT) RACK INTO A J-BOX ATTACHED TO THE WALL CONTAINING AN RJ45 JACK. THE RJ45 JACK SHALL BE LABELED "DSL/FRAME RELAY LINE".

POS / DATA LINE NOTES:

(A) STARBUCKS CONTRACTS DIRECTLY WITH THE DATA CABLING VENDOR TO SUPPLY AND INSTALL CATEGORY 5 LAN CABLE AND CONNECTORS FOR THE POS SYSTEM. CONTRACTOR TO SCHEDULE INSTALLATION OF DATA CABLING W/ DATA CABLING VENDOR. DATA CABLING VENDOR REQUIRES A LEAD TIME FOR INSTALLATION. DATA CABLING VENDOR WILL COORDINATE REGIONAL INSTALLERS. ALL ADDITIONAL EXPENSES INCURRED DUE TO THE CONTRACTOR'S FAILURE TO SCHEDULE ACCORDINGLY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

(B) AT THE START OF CONSTRUCTION, STARBUCKS CM SCHEDULES DELIVERY OF CASH REGISTER/MANAGER'S WORKSTATION EQUIPMENT AND INSTALLATION BY A DATA CABLING TECHNICIAN FOR TWO DAYS PRIOR TO CONSTRUCTION END. CONTRACTOR TO VERIFY DELIVERY SCHEDULE TWO WEEKS PRIOR TO DELIVERY AND INSTALLATION DATE. EQUIPMENT IS SHIPPED DIRECTLY TO THE STORE, CONTRACTOR TO ACCEPT POS EQUIPMENT DELIVERY, DO NOT REFUSE DELIVERY.

(C) DATA CABLING TECHNICIAN TO PROVIDE ALL CATEGORY 5 LAN CABLING AND CONNECTIONS TO ALL DESIGNED AND FUTURE CASH REGISTER LOCATIONS, AND MANAGER'S WORKSTATION.

(D) DATA CABLING TECHNICIAN TO REMOVE PACKAGING, INSTALL AND TEST CASH REGISTERS, CASH DRAWERS AND MANAGER'S WORKSTATION

(E) CONTRACTOR RESPONSIBLE FOR COORDINATION OF PHONE/DSL LINE INSTALLATION PRIOR TO DATA CABLING VENDOR'S WORK.

POS DELIVERY AND INSTALLATION CONFIRMATION CONTACT:	FOR CURRENT DATA CABLING VENDOR CONTACT:
STARBUCKS MIS STORE SPECIALIST ATT. JANET CADDEY PHONE (206) 318-4555 FAX (206) 682-1041	STARBUCKS GLOBAL NETWORK OPERATIONS CENTER (206) 318-5100 OR (877) 796-5282 ex 85100

MUSIC SYSTEM NOTES:

(A) PROVIDE AND INSTALL A COMPLETE WIRING SYSTEM FOR ALL SPEAKERS. CONNECT ALL SPEAKERS TO THE OWNER PROVIDED MUSIC SYSTEM. MOUNT OWNER FURNISHED SPEAKERS WHERE SHOWN AND IN COORDINATION WITH ARCHITECTURAL PLANS AND DETAILS. FOLLOW MANUFACTURER'S INSTALLATION REQUIREMENTS.

ELECTRICAL NOTES:

(A) THE INTENT OF THE SPECIFICATION AND THE DRAWINGS IS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE ELECTRICAL WORK. (SEE DIVISION 16 OF THE SPECIFICATIONS)

(B) THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT, CONDUIT, AND WIRING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE ELECTRICAL WORK.

(C) EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF NEC, ASTM, UL, ETL, NEMA, ANSI, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.

(D) ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT BETWEEN THE DRAWINGS/SPECIFICATIONS AND THE CODES ELECTRICAL CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO STARBUCKS.

(E) THE ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL WORK WITH OTHER TRADES. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS. DO NOT SCALE DISTANCES OFF THE ELECTRICAL DRAWINGS; USE ACTUAL BUILDING DIMENSIONS.

(F) ALL ELECTRICAL SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. BALANCE ALL BRANCH CIRCUIT LOADS BETWEEN THE PHASES OF THE SYSTEM TO WITHIN 10% OF THE HIGHEST PHASE LOAD IN EACH PANELBOARD.

(G) THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEENERGIZING CIRCUITS IN DEMOLITION AREAS TO INSURE A SAFE CONDITION. ELECTRICAL DEVICES AND ASSOCIATED WIRING LOCATED WITHIN THE DEMOLITION AREA THAT WILL NO LONGER BE USED SHALL BE REMOVED AND PROPERLY DISPOSED OF AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.

(H) THE ELECTRICAL CONTRACTOR SHALL SCHEDULE ALL ELECTRICAL SYSTEM(S) OUTAGES WITH THE GENERAL CONTRACTOR AND LANDLORD AT LEAST 24 HOURS IN ADVANCE. UNLESS APPROVED OTHERWISE ALL OUTAGES SHALL OCCUR BETWEEN 11:00PM AND 5:00AM.



STARBUCKS COFFEE COMPANY
 2401 UTAH AVENUE SOUTH
 SEATTLE, WASHINGTON 98134
 (206) 318-1575

THESE PLANS AND SPECIFICATIONS, AS WELL AS STARBUCKS' NAME AND LOGO, TRADEMARKS AND DESIGNS ARE THE EXCLUSIVE PROPERTY OF STARBUCKS CORPORATION. ANY REPRODUCTION, MODIFICATION, DISCLOSURE AND/OR USE OF THESE MATERIALS (OR ANY PORTION OF THEM) WITHOUT STARBUCKS' PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.

CONSULTANTS
KHACHATURIAN-ENGINEERING ASSOCIATES, INC.
 49 CLAREMONT AVE. MONTCLAIR, NJ 07042
 TEL (973)783 1098 FAX (973)783 4301

ARMEN KHACHATURIAN, P.E.
 MAINE LICENSE PE 10384

REV DATE

STARBUCKS COFFEE
PORTLAND
 1080 FOREST AVENUE
 PORTLAND, ME 04103
 CUMBERLAND

PROJECT:

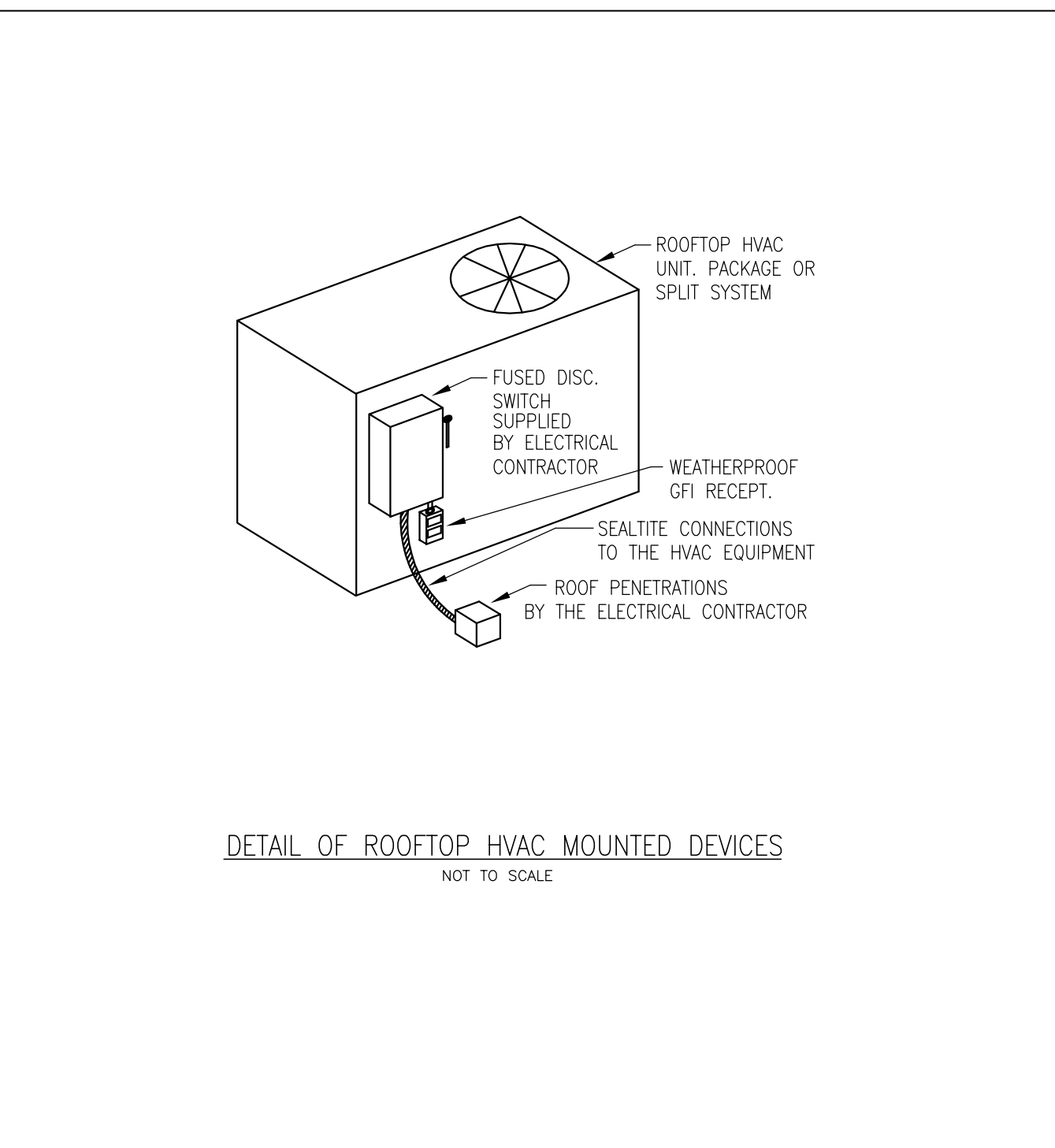
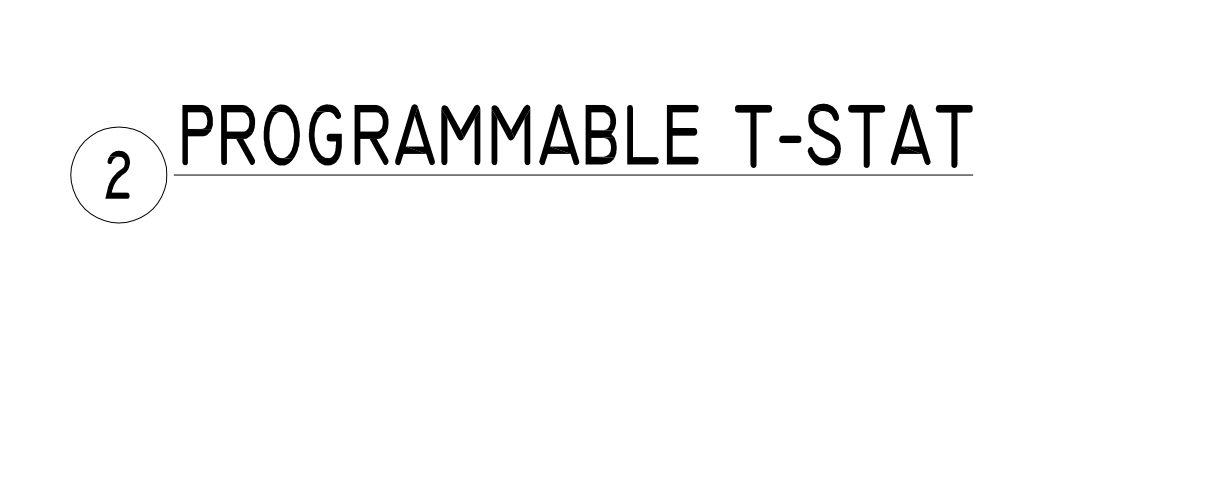
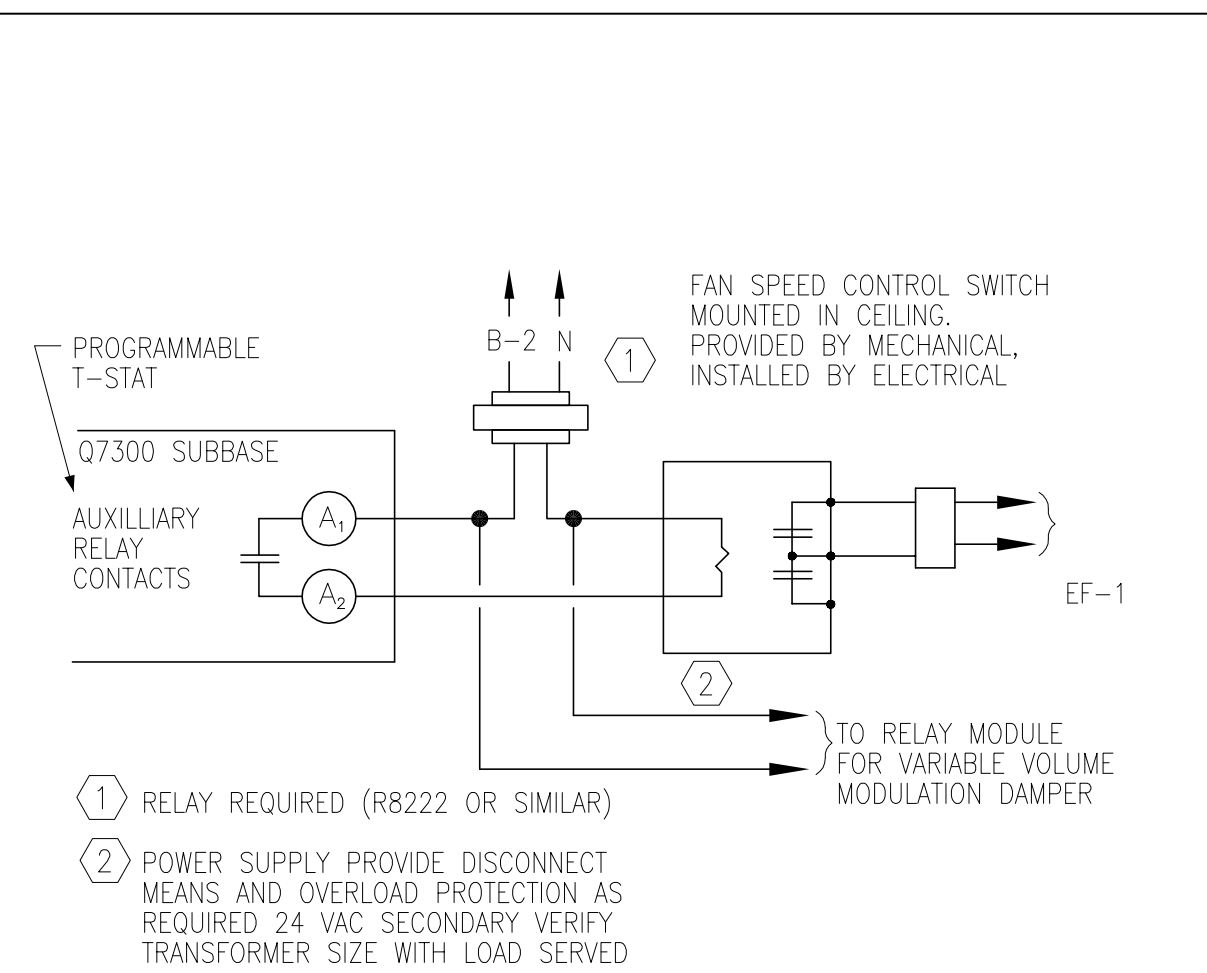
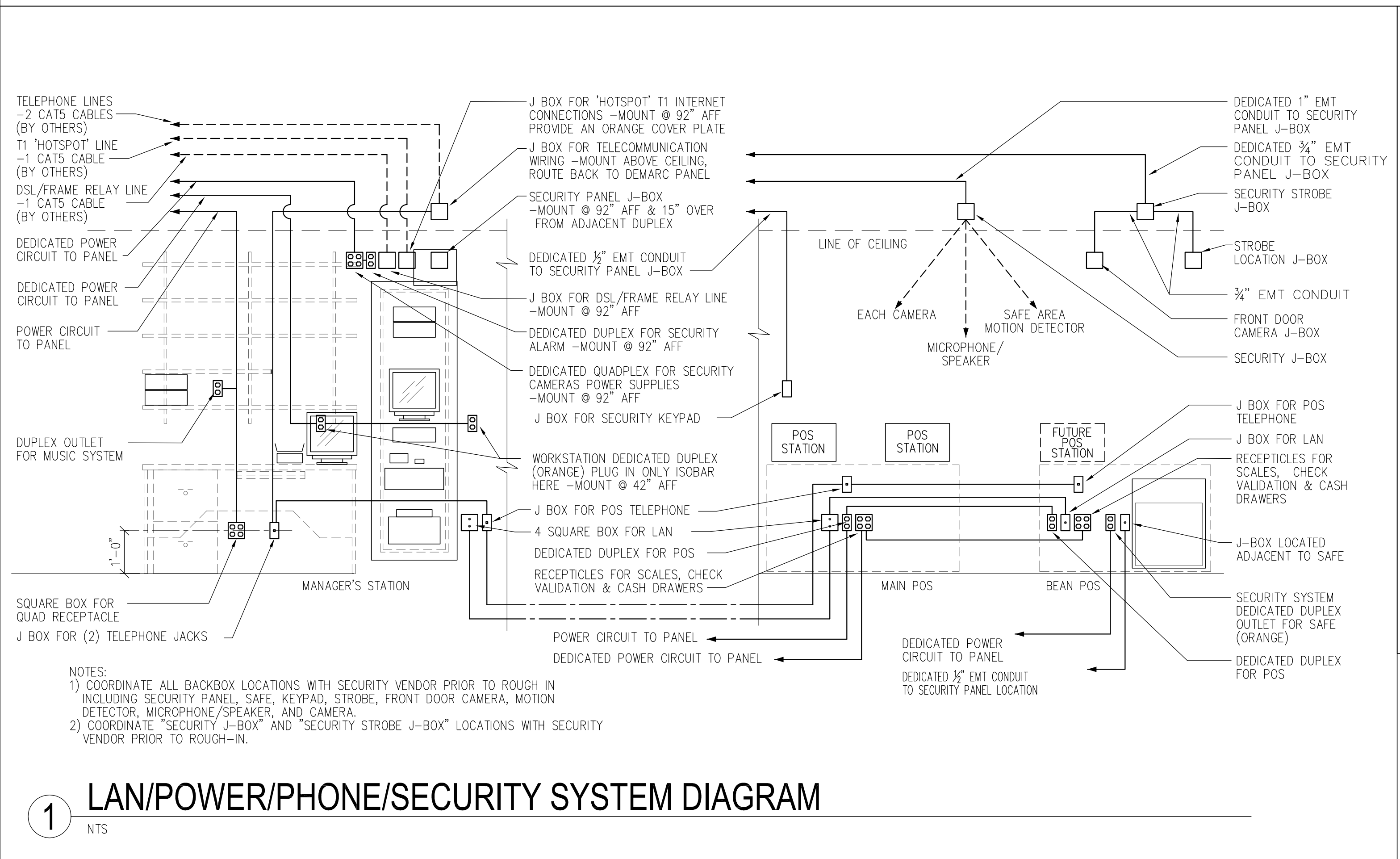
STORE #: 11917
 PROJECT #: 37548-001
 CONCEPT: MSS DT
 PALETTE: CLASSICO
 ISSUE DATE: 12-5-06
 DRAWN BY: C. MILLER
 DESIGN BY: M. D'ANDREA
 CHECKED BY: A. KHACHATURIAN
 CM: MARK SWIDERSKI

SHEET TITLE
ELECTRICAL SPECIFICATIONS

SCALE:
 (DO NOT SCALE DRAWINGS)

SHEET NUMBER
E1.0

ENERGY CODE CALCULATIONS & BUILDING CODE NOTES:

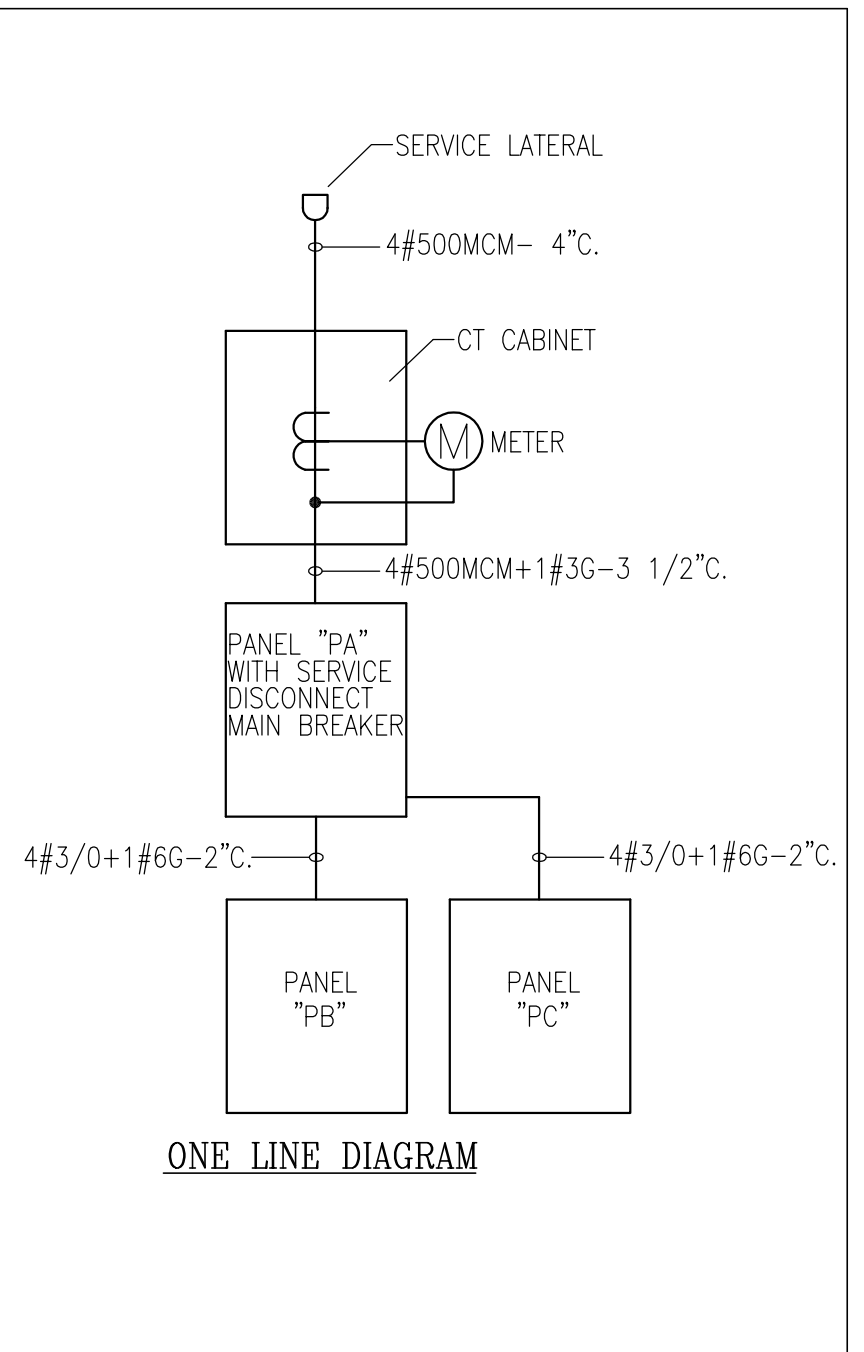


LAN/POWER/PHONE/SECURITY SYSTEM DIAGRAM

PANEL DISCRPTION: PA													
VOLTAGE: 208Y/120 PHASE: THREE WIRES: FOUR AMPS: 400 MAIN CIRCUIT BREAKER TOTAL CONNECTED LOAD: 151.1KVA 419.7AMPS BRANCH CIRCUITS SHALL BE BOLT ON TYPE. PANEL SHORT CIRCUIT BRACING AND BREAKER INTERRUPTING RATINGS SHALL BE SERIES RATED WITH THE UPSTREAM CIRCUIT BREAKER WHICH FEEDS THIS PANEL.													
NOTE: ON 120 VOLT, 20A CKTS. GREEN WIRE IN THE MC OR CONDUIT BODY MAY BE USED AS GROUND. UON.													
*PROVIDE A LOCK ON THE BREAKER													
G WIRE SIZE	WIRE SIZE	CKT #	CIRCUIT DISCRPTION	CB SIZE	PH. A VA	PH. B VA	PH. C VA	CB POLES	CIRCUIT DISCRPTION	CKT #	WIRE SIZE	G WIRE SIZE	
1#10	2#8	1	E162 ESPRESSO MACHINE	50	2	3297 4560		2	50	E451 DISHWASHER	2	3#8	1#10
1#10	2#8	3	E162 ESPRESSO MACHINE	50	2	3297 4160		2	50	E174 COFFEE BREWER	6	3#8	1#10
1#10	2#8	5	FUTURE ESPRESSO MACHINE	30	2	2600 3120		2	40	E599 WARMING OVEN	10	2#8	1#10
1#10	2#10	13	FUTURE ESPRESSO MACHINE	30	2	2600 3120		2	40	E599 WARMING OVEN	14	2#8	1#10
1#12	2#12	17	E632 WALK-IN REFRIGERATOR	15	2	900 1507		2	20	E314 ICE MACHINE	18	2#12	1#12
1#10	2#10	21	E631 WALK-IN FREEZER	30	2	2000 5170		2	60	ADL1 AIR CURTIAN	22	2#6	1#10
1#10	3#8	27	RTU-1 NEW 5 TON ROOF TOP UNIT	50	3	2971 3585		3	40	ADL2 AIR CURTIAN CIRCUIT 1	28	3#8	1#10
1#10	3#6	33	RTU-2 7.5 TON ROOF TOP UNIT	60	3	4143 3167		3	40	ADL2 AIR CURTIAN CIRCUIT 2	32	3#8	1#10
1#6	4#10	39	PANEL "PB"	200	3	6453 4400		3	200	PANEL "PC"	40	4#10	1#6
LOAD PER PHASE				48,578 52,197 50,299									

PANEL DISCRPTION: PB													
VOLTAGE: 208Y/120 PHASE: THREE WIRES: FOUR AMPS: 225 MAIN LUGS ONLY TOTAL CONNECTED LOAD: 18.0KVA 50AMPS BRANCH CIRCUITS SHALL BE BOLT ON TYPE. PANEL SHORT CIRCUIT BRACING AND BREAKER INTERRUPTING RATINGS SHALL BE SERIES RATED WITH THE UPSTREAM CIRCUIT BREAKER WHICH FEEDS THIS PANEL.													
NOTE: ON 120 VOLT, 20A CKTS. GREEN WIRE IN THE MC OR CONDUIT BODY MAY BE USED AS GROUND. UON.													
*PROVIDE A LOCK ON THE BREAKER													
G WIRE SIZE	WIRE SIZE	CKT #	CIRCUIT DISCRPTION	CB SIZE	PH. A VA	PH. B VA	PH. C VA	CB POLES	CIRCUIT DISCRPTION	CKT #	WIRE SIZE	G WIRE SIZE	
1#12	2#12	1	E532 BLENDER	20	1	1560		2	20	SPACE	2	2#12	1#12
1#12	2#12	3	E532 BLENDER	20	1	1560		2	20	SPACE	4	2#12	1#12
1#12	2#12	5	E532 BLENDER	20	1	1560 1508		2	20	E338 FOOD CASE A	6	2#12	1#12
1#12	2#12	7	E532 BLENDER	20	1	1560 1508		2	20	E338 FOOD CASE A	8	2#12	1#12
1#12	2#12	9	E574 INSTA HOT TAP	20	1	1356 285		1	20	E338 FOOD CASE A	10	2#12	1#12
1#12	2#12	11	SPACE	20	1			1	20	E572 FOOD CASE & E335 REFRIG.	12	2#12	1#12
1#12	2#12	13	E201 WATER FILTER SYSTEM	20	1	120 805		1	20	E424 REFRIGERATOR	14	2#12	1#12
1#12	2#12	15	THREE (3) A544 CUP LABELERS	20	1	360 805		1	20	E334 UNDERCOUNTER REFRIG.	16	2#12	1#12
1#12	2#12	17	E533 SCALE & E004 COFFEE GRINDER	20	1	1420 805		1	20	WALK-IN LIGHTS & DOOR HEATER	20	2#12	1#12
1#12	2#12	19	E543 & E548 COFFEE WARMERS	20	1	300 600		1	20	HEAT TRACE FOR WALK IN FREEZER	22	2#12	1#12
1#12	2#12	21	E570 & E571 DISPENSERS	20	1	360 480		1	20	SPACE	24	2#12	1#12
1#12	2#12	23	A053 DT TIMER CONTROL	20	1	120		1	20	SPACE	26	2#12	1#12
1#12	2#12	25	SPACE	20	1			1	20	SPACE	28	2#12	1#12
1#12	2#12	27	SPACE	30	2			1	20	SPACE	30	2#12	1#12
1#12	2#12	29	SPACE	30	2			1	20	SPACE	32	2#12	1#12
1#12	2#12	31	SPACE	30	2			1	20	SPACE	34	2#12	1#12
1#12	2#12	33	SPACE	30	2			1	20	SPACE	36	2#12	1#12
1#12	2#12	35	SPACE	30	2			1	20	SPACE	38	2#12	1#12
1#12	2#12	37	SPACE	30	2			1	20	SPACE	40	2#12	1#12
1#12	2#12	39	SPACE	30	2			1	20	SPACE	42	2#12	1#12
1#12	2#12	41	SPACE	30	2			1	20	SPACE	44	2#12	1#12
LOAD PER PHASE				6,453 5,206 6,338									

PANEL DISCRPTION: PC													
VOLTAGE: 208Y/120 PHASE: THREE WIRES: FOUR AMPS: 225 MAIN LUGS ONLY TOTAL CONNECTED LOAD: 18.4KVA 51.1AMPS BRANCH CIRCUITS SHALL BE BOLT ON TYPE. PANEL SHORT CIRCUIT BRACING AND BREAKER INTERRUPTING RATINGS SHALL BE SERIES RATED WITH THE UPSTREAM CIRCUIT BREAKER WHICH FEEDS THIS PANEL.													
NOTE: ON 120 VOLT, 20A CKTS. GREEN WIRE IN THE MC OR CONDUIT BODY MAY BE USED AS GROUND. UON.													
*PROVIDE A LOCK ON THE BREAKER													
G WIRE SIZE	WIRE SIZE	CKT #	CIRCUIT DISCRPTION	CB SIZE	PH. A VA	PH. B VA	PH. C VA	CB POLES	CIRCUIT DISCRPTION	CKT #	WIRE SIZE	G WIRE SIZE	
1#12	2#12	1	H500 TOILET EX. FAN, DOORBELL & ROOF TOP UNITS (WP) GFI	20	1	1440 404		1	20	EXIT, EMERGENCY & NITE LIGHTING	2	2#12	1#12
1#12	2#12	3	BATHROOM GFI	20	1	800 744		1	20	VEST., RESTRM & WORKRM LTG	4	2#12	1#12
1#12	2#12	5	CONVENIENCE OUTLETS	20	1	600 1090		1	20	BACKBAR COUNTER, DT WINDOW, MENU TRACK & UNDERCABINET LTG	6	2#12	1#12
1#12	2#12	7	CONVENIENCE OUTLETS	20	1	600 1130		1	20	SEATING AREA DOWN & TRACK LTG	8	2#12	1#12
1#12	2#12	9	A009 MUSIC SYSTEM	20	1	30 748		1	20	EXTERIOR LIGHTING	10	2#10	1#10
1#12	2#12	11	A150 MANAGER'S EQUIPMENT & RECEPTACLES @ MANAGERS DESK	20	1	1527 240		1	20	S615 DT ORDER CONFIRMATION POST	12	2#10	1#10
1#12	2#12	13	E556 SAFE	20	1	110 200		1	20	LIGHTING CONTACTOR	14	2#12	1#12
1#12	2#12	15	A018 INTERACTIVE SECURITY SYSTEM	20	1	1152		1	20	HOLIDAY WINDOW LIGHTING	16	2#10	1#10
1#12	2#12	17	SPACE	20	1			1	20	S421 & S641 SIGNAGE	18	2#10	1#10
1#12	2#12	19	SPACE	20	1			1	20	B12 WALL MOUNTED MENU SIGN	20	2#12	1#12
1#12	2#12	21	SPACE	20	1			1	20	TWO (2) L401S, S421 & S746 SIGNAGE	22	2#12	1#12
1#12	2#12	23	SPACE	20	1			1	20	L414 STRING LIGHTS	24	2#12	1#12
1#12	2#12	25	SPACE	20	1			1	20	SPACE	26	2#12	1#12
1#12	2#12	27	SPACE	20	1			1	20	SPACE	28	2#12	1#12
1#12	2#12	29	SPACE	20	1			1	20	SPACE	30	2#12	1#12
1#12	2#12	31	SPACE	20	1			1	20	SPACE	32	2#12	1#12
1#12	2#12	33	SPACE	20	1			1	20	SPACE	34	2#12	1#12
1#12	2#12	35	SPACE	20	1			1	20	SPACE	36	2#12	1#12
1#12	2#12	37	DT AUTOMATIC SLIDER WINDOW	20	1	120		1	20	SPACE	38	2#12	1#12
1#12	2#12	39	A030 DT COMM. SYSTEM	20	1	800 912		1	20	A350'S POS CASH REGISTERS	40	2#12	1#12
1#12	2#12	41	A350 DT POS A500 DT EXPEDITER A600 DT ORDER MONITOR	20	1	1032 600 7,341		1	20	RECEPTACLES @ CASH REGISTERS	42	2#12	1#12
LOAD PER PHASE				4,400 6,658 7,341									



ELECTRICAL LOAD CALCULATION				
LOAD TYPE	CONNECTED	MULTIPLIER PER NEC	ADJUSTED	V-A LOAD
LIGHTING	9,628	1.25	12,035	
RECEPTACLES AND MISC. UP TO 10,000 VA	10,000	1.00	10,000	
RECEPTACLES AND MISC. OVER 10,000 VA	571	1.50	286	
HEATING EQUIPMENT	31,014	1.00	31,014	
KITCHEN EQUIPMENT	77,474	0.65	50,358	
HVAC	4,070	1.00	4,070	
TOTAL LOAD	132,757		107,763	

MAXIMUM ANTICIPATED DRAW ON PANEL "PA" IS 299 AMPS AT 208V, 3P
 * - THE COOLING LOAD HAS BEEN OMITTED FROM THE LOAD CALCULATION DUE TO THE FACT THAT IT WILL NOT BE OPERATIONAL WHEN STORE IS IN HEATING MODE. THE HEATING LOAD IS GREATER AND HAS BEEN USED TO CALCULATE THE MAXIMUM DEMAND LOAD.

- (47) FURNISH AND INSTALL 120V CIRCUIT AND ALL NECESSARY CONDUIT, WIRE, AND CONNECTIONS TO POWER VENDOR-FURNISHED DOOR HEATER LIGHT FIXTURES AND LIGHTING CONTROL DEVICES.
- (48) FURNISH AND INSTALL WIRING FROM CONDENSING UNIT TO VENDOR-FURNISHED DISCONNECT. MOUNT DISCONNECT ONTO CONDENSING UNIT. FURNISH AND INSTALL WEATHERPROOF J-BOX ONTO CONDENSING UNIT. PROVIDE 3/4" CONDUIT FROM J-BOX DOWN TO EVAPORATOR UNIT. FURNISH AND INSTALL WIRING FROM VENDOR-FURNISHED CONTACTS ON CONDENSING UNIT THROUGH J-BOX AND CONDUIT DOWN TO EVAPORATOR UNIT.
- (49) FURNISH AND INSTALL WEATHERPROOF, GFI, DUPLEX NEMA 5-20R RECEPTACLE ON ROOF ADJACENT TO CONDENSING UNIT. MOUNT RECEPTACLE ON FREE-STANDING C-CHANNEL FRAME 18" ABOVE FINISH ROOF LEVEL.
- (50) PROVIDE ELECTRICAL CONNECTION TO EVAPORATOR UNIT FROM CONDENSING UNIT CONTACTS SEE NOTE 48.
- (51) NOT USED.
- (52) NOT USED.
- (53) FURNISH AND INSTALL A DOUBLE-DUPLEX NEMA 5-20R RECEPTACLE MOUNTED AT 26" AFF. INCLUDING ALL NECESSARY CONDUIT, WIRE, AND CONNECTIONS BACK TO SERVING PANEL TO SUPPORT REFRIGERATOR / FREEZER.
- (54) CUP LABELER / ORDER MONITOR - FURNISH AND INSTALL BACKBOX FOR DATA OUTLET AT 26" AFF. ROUTE (1) 3/4" CONDUIT FROM BACKBOX TO DATA RACK NEAR MANAGER'S WORK STATION. LABEL CONDUIT FOR DATA CABLING AND PROVIDE PULL STRING FROM END TO END.
- (55) FURNISH AND INSTALL RECEPTACLE AT 6-6" ADJACENT TO MONITOR MOUNTING BRACKET. FOR DATA OUTLET, FURNISH AND INSTALL BACKBOX ADJACENT TO POWER RECEPTACLE AND ROUTE CONDUIT BACK TO DATA RACK.
- (56) DRIVE THRU (DT) TIMER DISPLAY UNIT: PROVIDE 2-GANG J-BOX ADJACENT TO UNIT AND 3/4" CONDUIT TO J-BOX AT DT TIMER CONTROL UNIT AT MANAGER'S DESK. SEE DRIVE THRU TIMER DIAGRAM.
- (57) DT TIMER CONTROL UNIT: PROVIDE DUPLEX RECEPTACLE AND 2-GANG J-BOX FOR CABLING ALIGNED AT SAME HEIGHT. FROM CABLING J-BOX ROUTE (1) 3/4" CONDUIT TO EACH TIMER DISPLAY UNIT. SEE DRIVE THRU TIMER DIAGRAM.

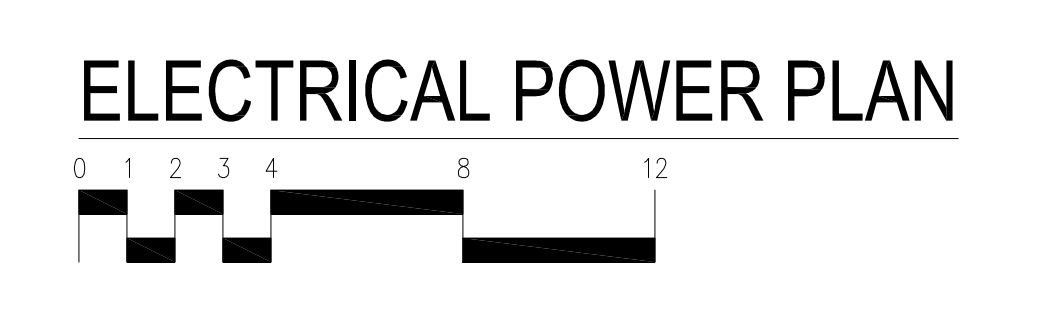
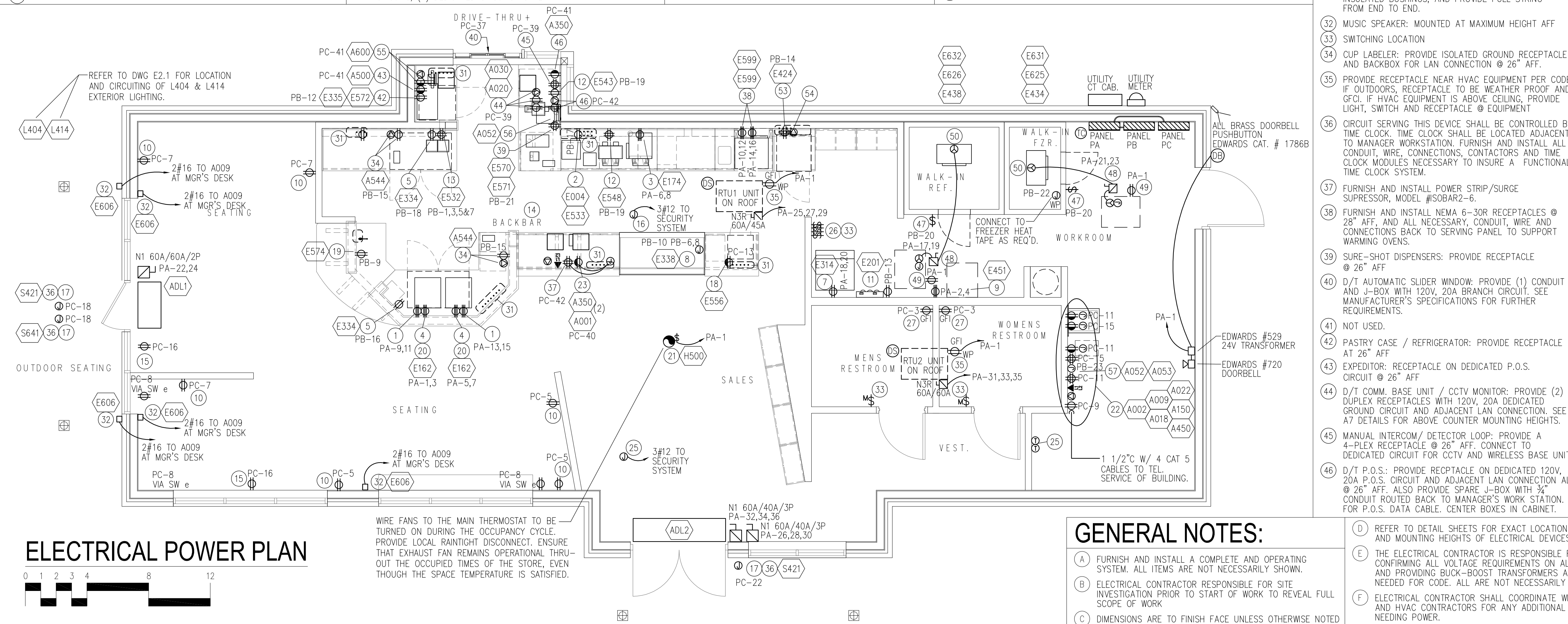
- ### NOTES:
- (1) NEMA 6-20R RECEPTACLE @26" AFF FOR FUTURE 208V/ 1ph EQUIPMENT, FULLY WIRE AND PROVIDE BUCK-BOOST TRANSFORMER AS MAY BE NEEDED (SEE NOTE 20) VERIFY 20
 - (2) RETAIL GRINDER AND/OR SCALE, PROVIDE RECEPTACLE @ 26" AFF.
 - (3) TWIN BREWER: NEMA 14-50R RECEPTACLE @ 26" AFF, 3/4"C-3#6 AND 1#10 GROUND, CONTRACTOR TO PROVIDE A NEMA 14-50P CORD CAP FOR THE BREWER, BRYANT OR EQUAL.
 - (4) FOR ESPRESSO MACHINE, FURNISH AND INSTALL NEMA 6-50R RECEPTACLE HUBBELL HBL9367 SERIES OR EQUAL AT 30" AFF. ROUTE 3/4" CONDUIT- (2) #6 AND (1) #10 GROUND FROM MACHINE BACK TO PANEL. FURNISH AND INSTALL NEMA 6-50P ANGLED PLUG, HUBBELL HBL9368 SERIES OR EQUAL.
 - (5) UNDER COUNTER REFRIGERATOR: PROVIDE RECEPTACLE @ 26" AFF.
 - (6) NOT USED.

- (7) ICE MACHINE: CONFIRM VOLTAGE CONFIGURATION PRIOR TO ROUGH-IN WITH EQUIPMENT SCHEDULE. FURNISH AND INSTALL ALL NECESSARY CONDUIT, WIRE, CONNECTIONS, AND BREAKERS TO SUPPORT ICE MACHINE
- (8) FOODCASE: HARD WIRE EQUIPMENT CONNECTION. PROVIDE SEPARATE (1) 120V 15A AND (1) 220V 20A DEDICATED CIRCUITS.
- (9) DISHWASHER (HIGH TEMP): NEMA 14-50R RECEPTACLE @ 18" AFF, 3/4"C- 3#6 AND 1#10 GROUND.
- (10) RECEPTACLE @ 18" AFF AND 6 FT. ON CENTER IN SEATING AREAS. PROVIDE FLOOR RECEPTACLES WHERE NEEDED.
- (11) WATER FILTER SYSTEM: RECEPTACLE @ 60" AFF, IF APPLICABLE
- (12) COFFEE WARMERS: PROVIDE RECEPTACLE @ 26" AFF
- (13) BLENDERS: RECEPTACLES @ 26" AFF IN 4-PLEX BOX. MOUNT BOX TO DIE-WALL BENEATH BLENDER CABINET. EACH DUPLEX RECEPTACLE TO BE SEPARATED AND RECEIVE (2) DEDICATED CIRCUITS, (4) DEDICATED CIRCUITS TOTAL.

- (14) ALL BACK BAR AND FRONT BAR J-BOXES AND OUTLETS SHALL BE SURFACE MOUNTED. PROVIDE CONDUITS AS NEEDED AND (1) ADDITIONAL SPARE CONDUIT BETWEEN ALL J-BOXES FOR FUTURE ELECTRICAL REQUIREMENTS. ALL J-BOXES SHALL BE POSITIONED TO AVOID OBSTRUCTION OF ANY EQUIPMENT SUCH AS REFRIGERATORS AND DISHWASHERS.
- (15) RECEPTACLE FOR SEASONAL LIGHTING (SHOW WINDOW RECEPTACLES) IN WALL @ MAXIMUM HEIGHT AFF AND CENTERED ABOVE WINDOW AND PER CODE.
- (16) PROVIDE 4-SQUARE JUNCTION BOX FOR "SECURITY J-BOX". SEE LAN/POWER/PHONE SECURITY SYSTEM DETAIL.
- (17) FOR SIGNAGE, FURNISH AND INSTALL ELECTRICAL CIRCUIT. ROUTE CIRCUIT CONCEALED FROM PANELBOARD TO SIGNAGE WHEN WALL OR CEILING IS AVAILABLE.
- (18) SAFE: FURNISH AND INSTALL DUPLEX RECEPTACLE AND SECURITY J-BOX AT 18" AFF.

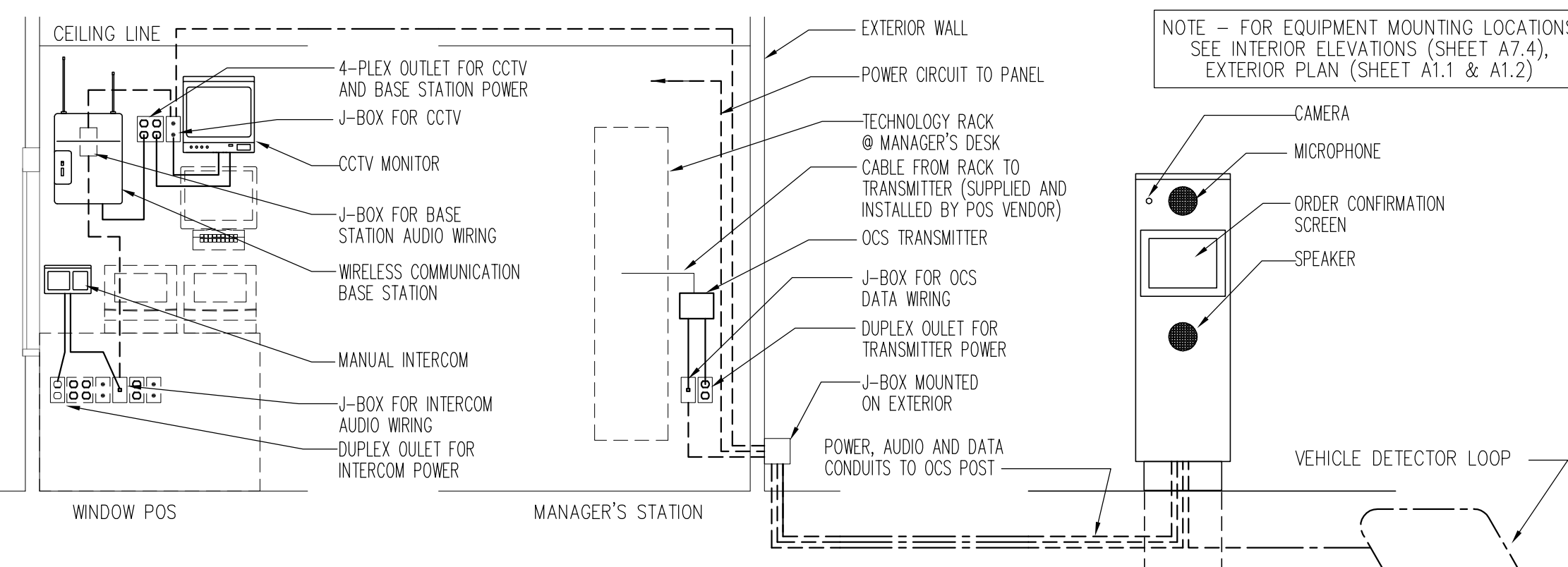
- (19) INSTA-HOT: PROVIDE RECEPTACLE AT 26" AFF
- (20) ESPRESSO MACHINES: CIRCUIT VOLTAGE SHALL BE BETWEEN 195 VOLTS AND 225 VOLTS. IF NEEDED, THE CONTRACTOR SHALL PROVIDE AND INSTALL A BUCK-BOOST TRANSFORMER TO BE LOCATED IN AN ACCESSIBLE LOCATION ABOVE THE CEILING WITHIN 6' OF THE ELECTRICAL PANEL. IF LOCAL CODES DO NOT ALLOW INSTALLATION ABOVE THE CEILING, THE TRANSFORMER SHALL BE MOUNTED TO THE WALL JUST BELOW THE CEILING. ACCEPTABLE TRANSFORMERS INCLUDE ACME, FURNISH AND INSTALL ANY ADDITIONAL O.C.P.
- (21) EXHAUST FAN: SHALL BE CONNECTED TO HVAC UNIT THERMOSTAT TO RUN CONTINUOUSLY DURING OCCUPIED MODE. COORDINATE WITH MECHANICAL AND DETAIL SHEETS
- (22) MANAGER'S DESK: PROVIDE LAN / POS / ELECTRICAL DEVICES. SEE DETAILS FOR LOCATIONS AND EQUIPMENT. ALL REQUIRED OUTLETS ARE NOT NECESSARILY SHOWN
- (23) POS: FURNISH AND INSTALL DOUBLE DUPLEX ISOLATED-GROUNDING TYPE RECEPTACLE AT 18" AFF, INCLUDING GREEN GROUNDING WIRE AND ISOLATED GROUNDING WIRE BACK TO SERVING POWER PANEL PER CODE. FURNISH AND INSTALL (1) J-BOX FOR DATA OUTLET AND (1) J-BOX FOR PHONE OUTLET AT 18" AFF.
- (24) NOT USED.

- (25) PROVIDE 4-SQUARE JUNCTION BOX FOR "STROBE LOCATION J-BOX". SEE LAN/POWER/PHONE/SECURITY SYSTEM DETAIL.
- (26) ALARM KEYPAD AND EMERGENCY CALL PHONE: MOUNT @ 54" AFF. ROUTE CONDUIT IN WALL FROM J-BOX AND STUB UP ABOVE CEILING
- (27) RESTROOM RECEPTACLE: GFI RECEPTACLE @ 44" AFF
- (28) NOT USED.
- (29) NOT USED
- (30) DUPLEX CONVENIENCE RECEPTACLE MOUNTED @ 48" AFF
- (31) STUB UP POWER, DATA, AND PHONE CONDUITS 6" AFF. IN THIS LOCATION. ROUTE POWER CONDUCTORS IN FLEXIBLE METAL CONDUIT TIGHT TO WALL FROM RECEPTACLES TO NEARBY RIGID STUB-UP AND BACK TO SERVING POWER PANEL. ROUTE DATA AND PHONE CONDUITS UNDERFLOOR BACK TO DATA RACK NEAR MANAGER'S WORKSTATION. LABEL DATA AND PHONE CONDUITS "FOR DATA CABLING", PROVIDE INSULATED BUSHINGS, AND PROVIDE PULL STRING FROM END TO END.
- (32) MUSIC SPEAKER: MOUNTED AT MAXIMUM HEIGHT AFF
- (33) SWITCHING LOCATION
- (34) CUP LABELER: PROVIDE ISOLATED GROUND RECEPTACLE AND BACKBOX FOR LAN CONNECTION @ 26" AFF.
- (35) PROVIDE RECEPTACLE NEAR HVAC EQUIPMENT PER CODE. IF OUTDOORS, RECEPTACLE TO BE WEATHER PROOF AND GFI. IF HVAC EQUIPMENT IS ABOVE CEILING, PROVIDE LIGHT, SWITCH AND RECEPTACLE @ EQUIPMENT
- (36) CIRCUIT SERVING THIS DEVICE SHALL BE CONTROLLED BY TIME CLOCK. TIME CLOCK SHALL BE LOCATED ADJACENT TO MANAGER WORKSTATION. FURNISH AND INSTALL ALL CONDUIT, WIRE, CONNECTIONS, CONTACTORS AND TIME CLOCK MODULES NECESSARY TO INSURE A FUNCTIONAL TIME CLOCK SYSTEM.
- (37) FURNISH AND INSTALL POWER STRIP/SURGE SUPPRESSOR, MODEL #ISOBAR2-6.
- (38) FURNISH AND INSTALL NEMA 6-30R RECEPTACLES @ 28" AFF, AND ALL NECESSARY CONDUIT, WIRE AND CONNECTIONS BACK TO SERVING PANEL TO SUPPORT WARMING OVENS.
- (39) SURE-SHOT DISPENSERS: PROVIDE RECEPTACLE @ 26" AFF
- (40) D/T AUTOMATIC SLIDER WINDOW: PROVIDE (1) CONDUIT AND J-BOX WITH 120V, 20A BRANCH CIRCUIT. SEE MANUFACTURER'S SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- (41) NOT USED.
- (42) PASTRY CASE / REFRIGERATOR: PROVIDE RECEPTACLE AT 26" AFF
- (43) EXPEDITOR: RECEPTACLE ON DEDICATED P.O.S. CIRCUIT @ 26" AFF
- (44) D/T COMM. BASE UNIT / CCTV MONITOR: PROVIDE (2) DUPLEX RECEPTACLES WITH 120V, 20A DEDICATED GROUND CIRCUIT AND ADJACENT LAN CONNECTION. SEE A7 DETAILS FOR ABOVE COUNTER MOUNTING HEIGHTS.
- (45) MANUAL INTERCOM/ DETECTOR LOOP: PROVIDE A 4-PLX RECEPTACLE @ 26" AFF. CONNECT TO DEDICATED CIRCUIT FOR CCTV AND WIRELESS BASE UNIT
- (46) D/T P.O.S.: PROVIDE RECEPTACLE ON DEDICATED 120V, 20A P.O.S. CIRCUIT AND ADJACENT LAN CONNECTION ALL @ 26" AFF. ALSO PROVIDE SPARE J-BOX WITH 3/4" CONDUIT ROUTED BACK TO MANAGER'S WORK STATION FOR P.O.S. DATA CABLE. CENTER BOXES IN CABINET.



- ### GENERAL NOTES:
- (A) FURNISH AND INSTALL A COMPLETE AND OPERATING SYSTEM. ALL ITEMS ARE NOT NECESSARILY SHOWN.
 - (B) ELECTRICAL CONTRACTOR RESPONSIBLE FOR SITE INVESTIGATION PRIOR TO START OF WORK TO REVEAL FULL SCOPE OF WORK
 - (C) DIMENSIONS ARE TO FINISH FACE UNLESS OTHERWISE NOTED
 - (D) REFER TO DETAIL SHEETS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL DEVICES.</

SEE E1.0, E2.0, C1.0, C1.1, C1.2, A1.0, A1.1 & A8.0 FOR ADDITIONAL INFORMATION REGARDING WIRING OF OUTSIDE COMPONENTS.



1 DRIVE-THRU COMMUNICATION SYSTEM

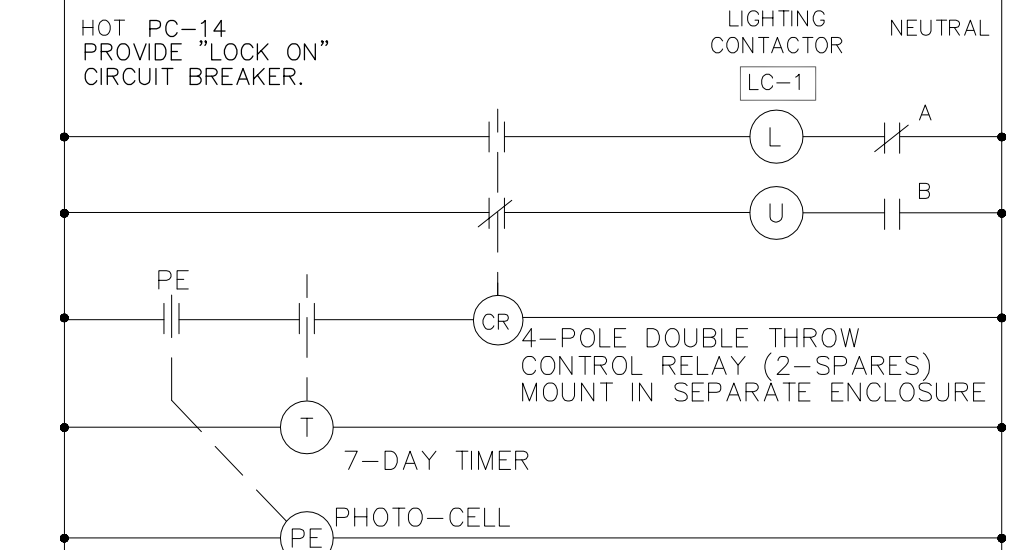
1/2" = 1'-0"

NOTE - FOR EQUIPMENT MOUNTING LOCATIONS SEE INTERIOR ELEVATIONS (SHEET A7.4), EXTERIOR PLAN (SHEET A1.1 & A1.2)

DRIVE THRU COMMUNICATION COMPONENTS
 WINDOW POS STATION - WIRELESS BASE STATION, MANUAL INTERCOM AND CCTV MONITOR. PROVIDE POWER, J-BOXES AND CONDUIT TO MANAGER'S WORKSTATION.
 MANAGER'S WORKSTATION - OCS TRANSMITTER ADJACENT TO EQUIPMENT RACK. PROVIDE POWER AND J-BOX FOR DATA TO OCS POST. CONNECTION OF OCS TRANSMITTER TO RACK BY POS VENDOR.
 ORDER CONFIRMATION POST - PROVIDE (3) 1" PVC CONDUITS (ELECTRICAL, AUDIO & DATA) FROM MAIN BUILDING TO POST, (1) ELECTRICAL CONDUIT TO MENU BOARD AND (1) CONDUIT TO VEHICLE DETECTION LOOP.
 VEHICLE DETECTOR LOOP - CENTER ON ORDER CONFIRMATION POST. INSTALL PRIOR TO FINAL SURFACING (PROTECT FROM DAMAGE DURING PAVING), OR PLACE IN SAWCUT -2" BELOW FINAL GRADE AND FILL KERF WITH APPROVED SEALER.

WIRELESS COMMUNICATIONS PACKAGE VENDOR
 HME
 BRADY CAMPBELL 858-535-6034 bcampbell@hme.com
 ORDER CONFIRMATION SYSTEM POST & TRANSMITTER VENDOR
 DELPHI DISPLAY SYSTEMS
 JOHANNA TOMM 800-456-0060x494 800-574-8480 fax jtomm@delphidisplay.com

DRIVE THRU POS STATION COMPONENTS
 STANDARD POS
 REGISTER, CHECK VALIDATION PRINTER, TWO UNDERCOUNTER CASH DRAWERS/SAFES, AND STANDARD POWER, DATA AND PHONE RECEPTACLES.
 'EXPEDITOR' POS
 REGISTER ONLY, REQUIRING SEPARATE DATA CABLE, JACK AND CONDUIT TO MANAGER'S WORKSTATION.
 THREE ORDER DISPLAY MONITORS
 THE FIRST TO BE LOCATED AT THE DRIVE THRU WINDOW, THE SECOND TO BE PLACED ABOVE THE BARISTA'S ESPRESSO MACHINE AND THE THIRD OVER THE WINDOW POS. EACH REQUIRE POWER AND A DEDICATED J-BOX & CONDUIT RUN, ROUTED TO MANAGER'S WORK STATION



EXTERIOR LIGHTING CONTROL DIAGRAM

NOTE:
 1. SEQUENCE OF OPERATION SHALL BE:
 PHOTOCELL - ENABLE LIGHTS TO GO ON
 TIMECLOCK - CONTROL HOURS OF OPERATION
 COORDINATE CLOCK SETTINGS WITH STARBUCKS REPRESENTATIVE.

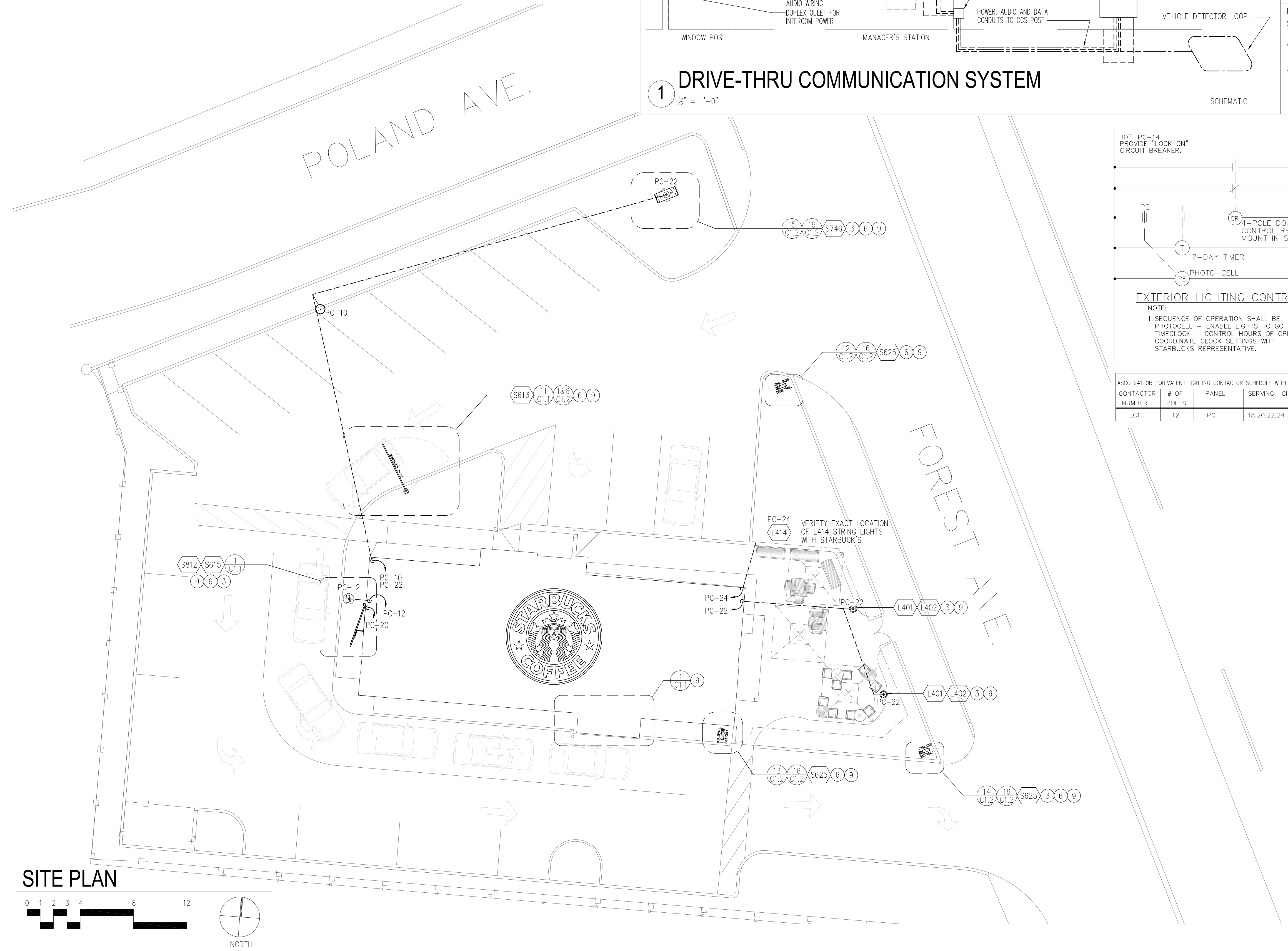
CONTRACTOR NUMBER	# OF POLES	PANEL	SERVING CIRCUIT #S ON PANEL "PC"
LC1	12	PC	18,20,22,24 (8 SPARE POLES)

NOTES:

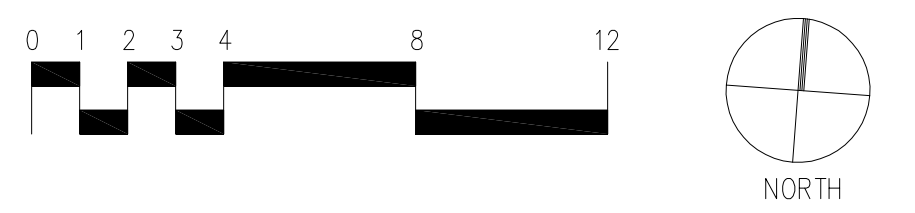
- REFER TO SHEET A1.0 FOR BUILDING SIGNAGE LOCATIONS AND TAGS. REFER TO SHEETS E1.0 & E2.0 FOR ELECTRICAL REQUIREMENTS.
- NOT USED.
- EXTERIOR SITE LIGHTING TO BE ON TIME CLOCK SYNCHRONIZED WITH SIGNAGE. LIGHTING REQUIREMENTS:
 A) 3-7 FOOTCANDLES LIGHT LEVELS MINIMUM.
 B) NO DARK AREAS ON SITE, INCLUDING TRASH ENCLOSURE AND OUTDOOR PATIOS
 C) METAL HALIDE LIGHTING PREFERRED.
- NOT USED.
- NOT USED.
- DRIVE THRU SIGNAGE PERMIT, INSTALLATION AND SPECIFICATIONS PROVIDED BY "PATTISON SIGN", COORDINATE WITH STARBUCKS CONSTRUCTION MANAGER.
- WIRELESS COMMUNICATIONS PACKAGE, INCLUDING VEHICLE DETECTION LOOP, WIRELESS COMMUNICATION, MONITORS, ETC. PROVIDED BY -HME, INC
 BRADY CAMPBELL bcampbell@hme.com
 ORDER CONFIRMATION SYSTEM POST & TRANSMITTER SUPPLIED BY -DELPHI DISPLAY SYSTEMS
 CHRISTINA ROBERTS 800-456-0060x494
 800-574-8480 fax croberts@delphidisplay.com
 COORDINATED BY STARBUCKS CONSTRUCTION MANAGER. REFER TO SHEET E1.0 FOR ELECTRICAL REQUIREMENTS.
- NOT USED.
- LANDLORD IS RESPONSIBLE FOR PROVIDING SITE WORK, INCLUDING NEW BOLLARDS, FOOTING, FENCING, GATES AND CONDUIT FOR DRIVE THRU SIGNAGE. COORDINATE WITH STARBUCKS CONSTRUCTION MANAGER.
- NOT USED.
- SIGNAGE CONTRACTOR SHALL VERIFY SIZE & LOCATION OF ANY & ALL ALLOWABLE MONUMENT OR POLE SIGNAGE WITH LL & PROVIDE SHOP DWG(S) PRIOR TO FABRICATION TO STARBUCKS DESIGNER FOR APPROVAL.

SIGNAGE SCHEDULE:

ITEM#	QTY	DESCRIPTION
EXTERIOR		
1 S421	2	STACKED FACE LIT 14"
DRIVETHRU		
S613	1	DT POST MTD CLEARANCE
S615	1	DT ORDER CONFIRMATION POST
S625	3	33 IN DIRECT. W/LOGO
1 S641	1	DT OVAL FOR 14IN
S812	1	DT WALL MOUNTED MENU 5 PANEL
FREESTANDING		
S746	1	D/F ILLUM 48" LOGO DT PYLON



SITE PLAN



STARBUCKS COFFEE COMPANY
 2401 UTAH AVENUE SOUTH
 SEATTLE, WASHINGTON 98134
 (206) 318-1575

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CONSULTANTS
KHACHATURIAN-ENGINEERING ASSOCIATES, INC.
 49 CLAREMONT AVE., MONTCLAIR, NJ 07042
 TEL (973)783 1098 FAX (973)783 4301

ARMEN KHACHATURIAN, P.E.
 MAINE LICENSE PE 10384

REV DATE

STARBUCKS COFFEE
PORTLAND
 1080 FOREST AVENUE
 PORTLAND, ME 04103
CUMBERLAND

PROJECT:
 COUNTY:

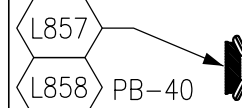
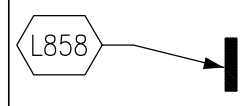
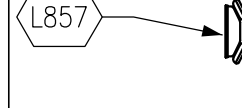
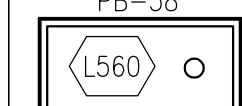
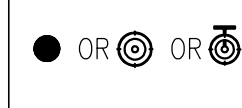
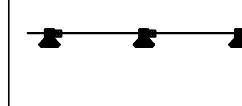


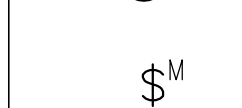


STORE #: 11917
 PROJECT #: 37548-001
 CONCEPT: MSS DT
 PALETTE: CLASSICO
 ISSUE DATE: 12-5-06
 DRAWN BY: C. MILLER
 DESIGN BY: M. D'ANDREA
 CHECKED BY: A. KHACHATURIAN
 CM: MARK SWIDERSKI

SHEET TITLE
ELECTRICAL SITE PLAN

SCALE:
 (DO NOT SCALE DRAWINGS)

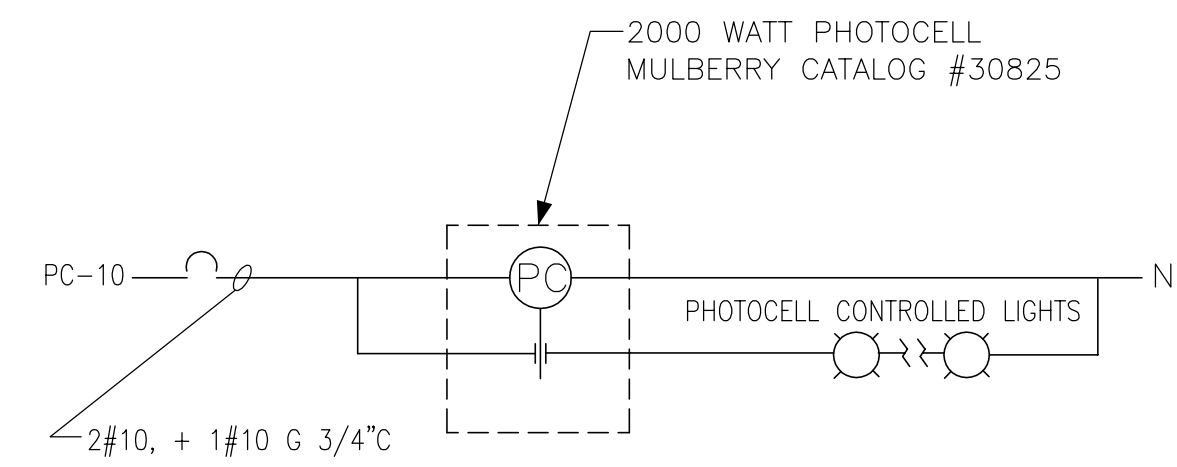
SHEET NUMBER
E2.1

LIGHTING LEGEND

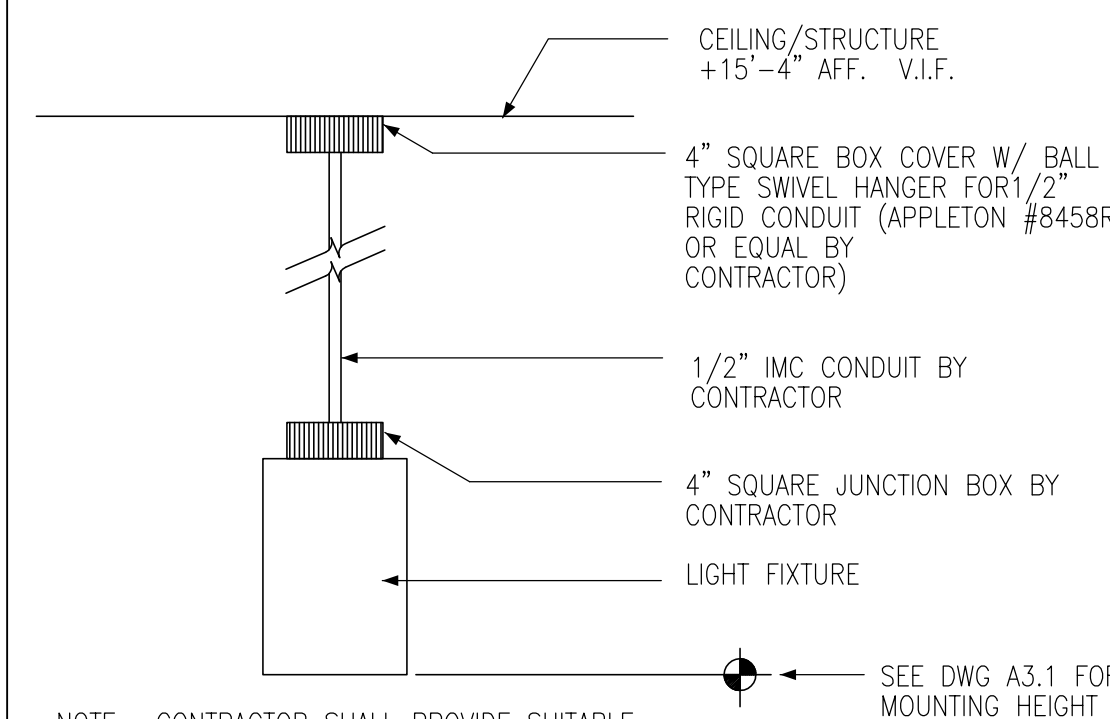
-  COMBINATION EMERGENCY BATTERY PACK AND EXIT SIGN. SEE SCHEDULE FOR TYPE.
-  EXIT SIGN ONLY. SEE SCHEDULE FOR TYPE.
-  EMERGENCY LIGHT ONLY. SEE SCHEDULE FOR TYPE. REMOTE WEATHERPROOF HEADS AS INDICATED.
-  FLUORESCENT FIXTURE TYPE L560 ON CKT. PB-38 SUPPORT LAY-IN FIXTURES FROM BUILDING STRUCTURE ABOVE.
-  HI-HATS OR OTHER INCANDESCENT/COMPACT FLUORESCENT FIXTURE. SEE SCHEDULE ON THIS DWG FOR TYPE.
-  TRACK LIGHTS. SEE SCHEDULE FOR TYPES.
-  WALL MOUNTED 1 POLE OR 3-WAY SWITCH. LOWER CASE LETTER "a" REFERS TO FIXTURES CONTROLLED BY THIS SWITCH.
-  THRU WALL MOUNTED SWITCH "b".
-  24 HOUR TIME CLOCK, PARAGON 4003-00 DPST, 120 VOLT.
-  MOTION SENSOR AS MANUFACTURED BY "THE WATT STOPPER" CO. MODEL # W-500A WITH POWER PACK A120-E. FLUSH MOUNT ON CEILING.
-  NIGHT LIGHT

LIGHTING SCHEDULE:

ITEM#	QTY	DESCRIPTION	MANUFACTURER	MODEL #	VOLTS	WATTS	AMPS	REMARKS	SKU #	SHIP
LAMPS/BULBS										
L927	2	LAMP FOR FLOOR LAMP	TECHNICAL CONSUMER PRODUCTS	SYLVANIA CF23ELTW1ST1BL	120	23		FLOOR LAMP FLUOR BULB		VD
L947	20	60 PAR 30 LAMP	SYLVANIA 14090	60 PAR 30/CAP/SPL/NFL25	130	60		FOR TRACK/SURF MTD CANS		VD
L948	4	DULUX 13W COMP RIST PENDANT	SYLVANIA #29298	CF13DD/E/B27 120V COATED	120	13		FOR RISTRETTO PENDANTS		VD
L949	23	DULUX 18W COMPACT FLUOR	SYLVANIA	CF18DDE827	120	18				VD
L953	8	50R20 SHATTERPROOF LAMP	SHAT-R-SHIELD	50R20 / FL						VD
L985	4	U LAMP FOR 2X2	SYLVANIA	F80 31/830	120	31			119705	VD
L986	12	48 IN LAMP FOR 2X4 OR STRIP	SYLVANIA	F032/830ECO	120	32			119712	VD
L987	18	LAMP, UNDERCOUNTER TASK	SYLVANIA	F8T5CW 8W	120	8				VD



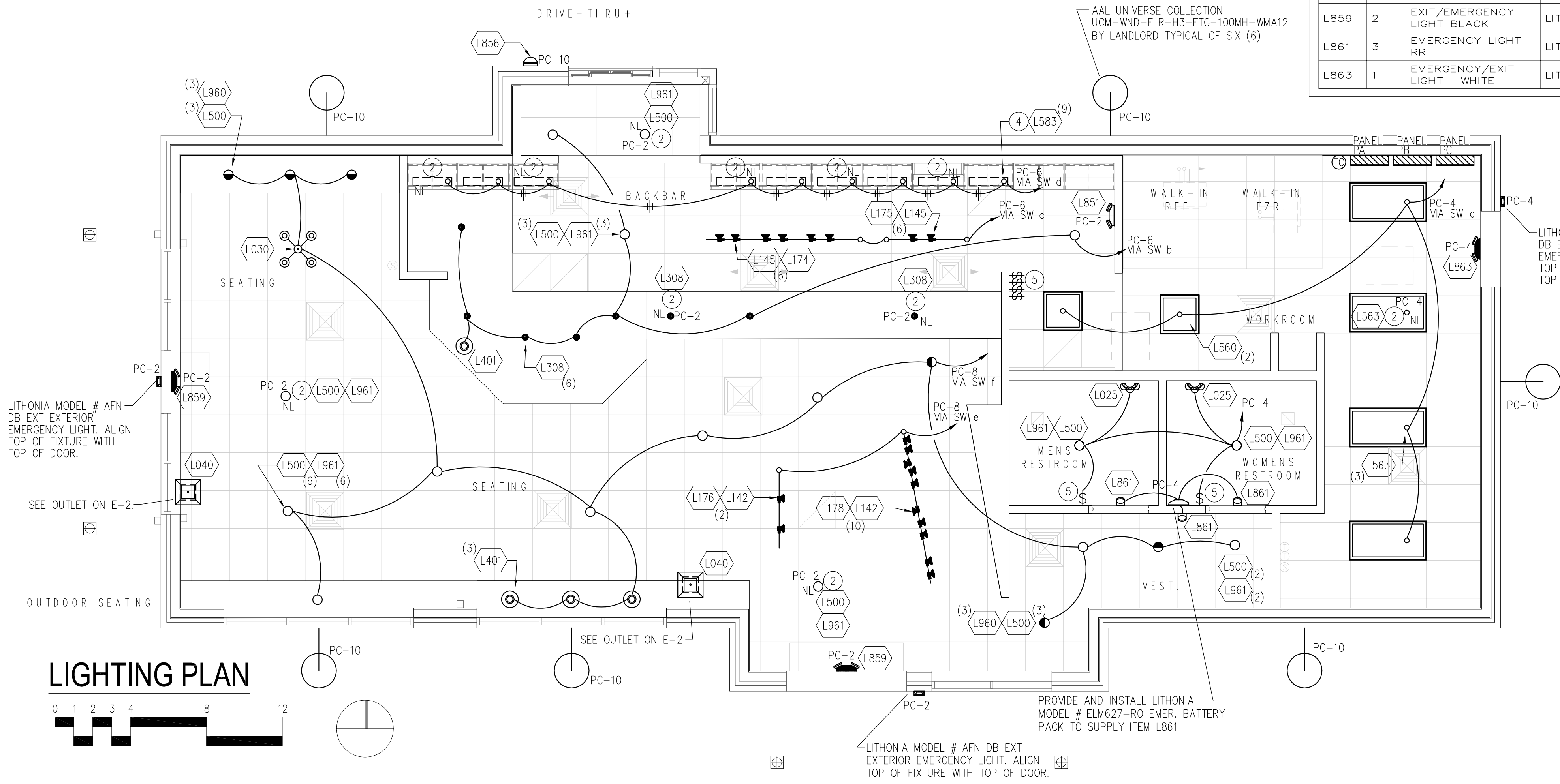
1 EXTERIOR SECURITY LIGHTING CONTROL DIAGRAM



2 PENDANT MOUNTED DOWNLIGHT
3/4" = 1'-0"

LIGHTING SCHEDULE:

ITEM#	QTY	DESCRIPTION	MANUFACTURER	MODEL #	VOLTS	WATTS	AMPS	REMARKS	SKU #	SHIP
PENDANTS/SCONCES										
L025	2	WALL SCONCE - RESTROOM	RESOLUTE	HELEN MODEL 1218	120			W/ L949 LAMP	190289	3PL
L030	1	FIXTURE CHANDELIER - CLASSICO	RESOLUTE	4-ARM CHAND 910413S/B-T	120			W/ (4) L948 LAMPS	190295	3PL
L040	2	FIXTURE FLOOR LAMP - CLASSICO	RESOLUTE	FL LAMP W/RED BELL SHADE	120			W/ L927 LAMP	190293	3PL
L401	4	PENDANT LIGHT	LOUIS POULSEN	ORBITER PENDANT	120				226060	3PL
L402	2	LIGHT POLE POST ORBITER	LOUIS POULSEN	LIGHT POLE POST ORBITER				POST FOR LIGHT ORBITER L400	226061	3PL
TRACK & TRACK FIXTURES										
L142	12	TRACK FIXTURE, BLACK	JUNO	R552BL	120			W/ L947 LAMP	129443	VD
L145	8	TRACK FIXTURE WHITE	JUNO	R552WH				USES L947 LAMP	165938	VD
L174	1	TRACK WHITE 8'	JUNO	R8WH					165939	VD
L175	1	TRACK WHITE 4'	JUNO	R4WH					120167	VD
L176	1	TRACK BLACK 4'	JUNO	R4BL	120				120665	VD
L178	1	TRACK BLACK 8'	JUNO	R8BL	120				120666	VD
INCANDESCENT FIXTURES										
L308	8	3-1/2" INCAN REC'D SHATTERPRF	LITHONIA	L3R W/ 302A TRIM				USES L953 LAMP		VD
FLUORESCENT FIXTURES										
L500	22	DOWNLIGHT FRAME - 6" DIA FLUOR	LITHONIA	LP6F 18DT/IRT MVOLT				USES L949 LAMP	192404	VD
L560	2	2X2 FOR ACT	LITHONIA	2SPC 2U 31 A12GEB	120			W/ (2) L985 LAMPS	119694	VD
L563	4	2X4 FOR ACT	LITHONIA	2GT 332 A12 120GEB	120			W/ (3) L986 LAMPS	119695	VD
L583	9	LIGHT, UNDERCOUNTER TASK	CED	CRESENT STONCO #SLP116	120	20				VD
L960	6	WALL WASHER - 6" DIA RELECTOR	LITHONIA	6W7AZ				USES FRAME L500 AND LAMP L949		VD
L961	16	RECESSED DOWN 6" DIA REFLECTOR	LITHONIA	607A				USES FRAME L500 AND LAMP L949	192405	VD
ANCILLARY FIXTURES										
L414	1	STRING LIGHTS	CED SILVIA	INTMD BLB BASE W G50 GLB				PER SPEC OR EQUAL		GC
L851	1	EMERGENCY LIGHT WHITE	LITHONIA	6ELM2-SSB WHITE	120					
L856	1	EXTERIOR LIGHT - BRONZE	HUBBELL	BRF-01/BR-S1	120	28		WALL MOUNTED	121357	VD
L859	2	EXIT/EMERGENCY LIGHT BLACK	LITHONIA	LHQMS3G ELN - BLACK	120			W/ GREEN ILLUMINATED LETTERING		VD
L861	3	EMERGENCY LIGHT RR	LITHONIA	ELAINDH1206	120				192410	VD
L863	1	EMERGENCY/EXIT LIGHT- WHITE	LITHONIA	LHQMSW3R ELN - WHITE	120			W/ RED ILLUMINATED LETTERING		VD



PLUMBING SYMBOLS LEGEND

	S OR W	SANITARY OR WASTE PIPING ABOVE SLAB
	S OR W	SANITARY OR WASTE PIPING BELOW SLAB
	SV	SANITARY VENT PIPING
	GW	GREASE WASTE
	CD	CONDENSATE DRAIN
	CW	COLD WATER PIPING
	HW	HOT WATER PIPING
	CWF	COLD WATER FILTERED
	TW	TEMPERED WATER
	RO	REVERSE OSMOSIS WATER
	G	GAS PIPING
	BV	BALL VALVE
	GV	GATE VALVE
	CH. V	CHECK VALVE
	RV	RELIEF VALVE
	HB	HOSE BIBB
		SHOCK ABSORBER
		STRAINER
	CO	WALL CLEANOUT
	FCO	FLOOR CLEANOUT
	FS	FLOOR SINK
	WM	WATER METER
		CONNECT TO EXISTING

PIPING:

SOIL, WASTE AND VENT PIPING
 SOIL, WASTE AND VENT PIPING 10" AND SMALLER SHALL BE SERVICE WEIGHT, HUBLESS, CAST IRON PIPE AND FITTINGS WITH NEOPRENE GASKET AND STAINLESS STEEL SHIELD AND CLAMP. PROVIDE HUB & SPIGOT, SERVICE WEIGHT CAST-IRON SOIL PIPE AND FITTINGS BELOW GRADE WHERE REQUIRED BY LOCAL CODES. SCHEDULE 40 ABS OR PVC PIPE AND FITTINGS WITH SOLVENT WELD MAY BE SUBSTITUTED FOR SOIL, WASTE AND VENT PIPING ABOVE AND BELOW GRADE IF ALLOWED BY LOCAL AUTHORITY. ALL HORIZONTAL RUNS SHALL DRAIN AT A GRADE OF 1/4" PER FOOT WHERE POSSIBLE BUT IN NO CASE LESS THAN 1/8" PER FOOT. COORDINATE WITH LOCAL AUTHORITIES FOR DRAINAGE REQUIREMENTS FOR EQUIPMENT DESIGNATED WITH INDIRECT WASTE TO FLOOR DRAINS. PROVIDE PIPED DRAIN TO SANITARY IF REQUIRED BY LOCAL JURISDICTION.

DOMESTIC WATER PIPING
 DOMESTIC WATER PIPING 2 1/2" AND SMALLER SHALL BE COPPER TUBE WITH WROUGHT COPPER SWEAT FITTINGS JOINED WITH NON-LEAD, NON-ANTIMONY SOLDER. PROVIDE TYPE "L" COPPER TUBE ABOVE GRADE AND TYPE "K" BELOW GRADE.

CONDENSATE DRAINAGE PIPING
 THE PLUMBING CONTRACTOR SHALL PROVIDE CONDENSATE DRAINS FOR AIR HANDLING UNITS AND STARBUCKS EQUIPMENT (REFER TO SCHEDULE). CONDENSATE DRAINAGE PIPING SHALL BE TYPE "M" COPPER TUBING WITH WROUGHT COPPER SWEAT FITTINGS JOINED WITH 50/50 SOLDER.

NATURAL GAS PIPING
 GAS PIPING SHALL BE SCHEDULE 40, SEAMLESS, BLACK STEEL PIPE. PROVIDE PIPING SUPPORT BLOCKING ON ROOF, COMPATIBLE WITH ROOFING SYSTEM.

HANGERS & SUPPORTS
 THE PLUMBING CONTRACTOR SHALL FURNISH ALL PIPE SUPPORTS REQUIRED FOR EQUIPMENT AND MATERIAL. ALL HORIZONTAL RUNS OF PIPING SHALL BE SUPPORTED BY PIPE HANGERS INSTALLED AS REQUIRED BY LOCAL CODES. ADDITIONAL SUPPORTS SHALL BE PROVIDED WHERE REQUIRED TO PREVENT SAGGING. HANGERS AND PIPE ATTACHMENTS TO BE FACTORY FABRICATED WITH GALVANIZED COATINGS; NONMETALLIC COATED FOR HANGERS IN DIRECT CONTACT WITH COPPER TUBING.

CONNECTIONS
 INSTALL UNIONS ADJACENT TO EACH VALVE AND AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT. INSTALL DIELECTRIC COUPLINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS. SCREW JOINT STEEL PIPING UP TO AND INCLUDING 1-1/2". WELD PIPING USE NON-LEAD, NON-ANTIMONY SOLDER FOR SOLDERING DOMESTIC WATER COPPER PIPE.

CLEANOUTS
 PROVIDE J.R. SMITH OR EQUIVALENT FLOOR AND WALL CLEANOUTS AS INDICATED ON THE DRAWINGS OR WHERE REQUIRED BY CODE IN ALL SOIL, WASTE, AND DRAIN LINES. IN AREAS WITH CERAMIC TILE OR CARPETED FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP. IN AREAS WITH RESILIENT FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP WITH TILE RECESS. CLEANOUTS SHALL BE SAME SIZE AS PIPE EXCEPT THAT CLEANOUTS LARGER THAN 4" WILL NOT BE REQUIRED. WHERE CLEANOUTS OCCUR IN WALLS OF FINISHED AREAS, THEY SHALL BE CONCEALED BEHIND CHROME PLATED ACCESS COVERS.

PIPING (CONTINUED):

INSTALLATION
 INSTALL EXPOSED PIPING FREE OF SAGS AND BENDS. PROVIDE BRACKET STANDOFFS FROM MOUNTING SURFACES SUFFICIENT TO ALLOW 1" CLEARING SPACE AROUND ALL PIPING, INCLUDING ANY ADDED PIPING INSULATION. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS, GYPSUM BOARD PARTITIONS, CONCRETE FLOOR AND ROOF SLABS. SEAL PIPE PENETRATIONS THROUGH RATED CONSTRUCTION WITH FIRESTOPPING SEALANT MATERIAL. UNDERGROUND WATER AND SEWER LINES SHALL BE LAID IN SEPARATE TRENCHES WITH A MINIMUM HORIZONTAL SPACING AS REQUIRED BY CODE, EXCAVATED TO THE PROPER DEPTH AND GRADED TO PRODUCE THE REQUIRED FALL.

TESTING
 ALL PIPES SHALL BE TESTED BY AN APPROVED METHOD BEFORE THEY ARE BACKFILLED OR CONCEALED. AFTER TESTING IS COMPLETE, THE PLUMBING CONTRACTOR SHALL DISINFECT THE POTABLE WATER SYSTEM AS REQUIRED BY LOCAL AUTHORITY. TEST WATER PURITY ACCORDING TO LOCAL REQUIREMENTS AND SUBMIT CERTIFIED TEST RESULTS TO ENGINEER FOR REVIEW AND APPROVAL.

INSULATION:
 WATER PIPING
 PROVIDE THERMAL INSULATION ON ALL HOT & COLD WATER, AND HORIZONTAL WASTE PIPING IN CEILING SPACES, AND ON ALL COLD WATER PIPING IN CASEWORK AND BAR AREAS. USE SELF-SEALING CLOSED CELL FOAM OR JACKETED FIBERGLASS INSULATION WITH MANUFACTURE APPROVED ADHESIVES, SEALERS, AND COATINGS. ALL MATERIALS USED SHALL NOT EXCEED 25 FOR FLAME SPREAD, 50 FOR FUEL CONTRIBUTED, OR 50 FOR SMOKE DEVELOPED, UNLESS OTHERWISE REQUIRED BY THE LOCAL AUTHORITY OR ENERGY CODES. THE MINIMUM INSULATION LEVELS SHALL BE AS FOLLOWS:

PIPE SIZE	INSULATION THICKNESS
LESS THAN OR EQUAL TO 1 1/2"	1"
2" DIA. OR GREATER	1-1/2"
(INSULATION VALUE = k VALUE NOT EXCEEDING .027 BTU PER INCH/h*ft*°f)	

SAFETY COVERS
 INSTALL SPECIFIED NO-SCALD SAFETY COVERS WITH INSULATED FOAM LINER AND TAMPER PROOF STRAP AS FURNISHED BY STARBUCKS AT ALL EXPOSED PIPING.

ICE BIN DRAIN
 INSULATE ICE BIN COPPER DRAIN LINES WITH 1/2" THICK, SELF-SEALING, SECTIONAL, CLOSED CELL FOAM.

HVAC PIPING
 INSULATE REFRIGERANT SUCTION PIPING AND COOLING COIL CONDENSATE PIPING WITH 3/4" THICK, SELF SEALING, CLOSED CELL FOAM. INSULATE HVAC HOT AND CHILLED WATER PIPING SYSTEMS AND LOW PRESSURE STEAM AND CONDENSATE PIPING WITH 1-1/2" THICK, HEAVY DUTY, SELF SEALING, JACKETED FIBERGLASS.

RAIN CONDUCTORS
 INSULATE RAIN WATER CONDUCTORS WHICH PASS THROUGH OCCUPIED AREAS WITH 1/2" THICK FIBERGLASS.

VALVES:

GENERAL
 PLUMBING CONTRACTOR TO PROVIDE VALVES WHERE INDICATED ON PLANS AND AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. INSTALL VALVES FOR EACH FIXTURE AND ITEM OF EQUIPMENT. PROVIDE BRAIDED STAINLESS STEEL HOSE (UNLESS OTHERWISE NOTED) BETWEEN VALVE AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. LOCATE SHUT-OFF VALVES ADJACENT TO EQUIPMENT FOR EASY ACCESS SUCH THAT VALVES CAN BE REACHED WITHOUT MOVING EQUIPMENT.

VALVES
 PROVIDE VALVES FOR WORKING PRESSURE IN WATER PIPING OF 125 PSI OR GREATER. UNLESS NOTED OTHERWISE VALVES SHALL BE AS FOLLOWS:

VALVE TYPE	MANUFACTURER	MODEL NO.
CHECK VALVE (UP TO 2")	NIBCO	#S-22
FULL PORT BALL VALVE (UP TO 3")	NIBCO	#S-FP-600
GATE VALVE (UP TO 3")	NIBCO	#S-113
TEMPERATURE AND PRESSURE RELIEF VALVE	WILKINS	#TP1100A
WATER HAMMER ARRESTOR	WILKINS	#1250
BACKFLOW PREVENTER (WHOLE-HOUSE)	WILKINS	#950XLU
BACKFLOW PREVENTER (SINGLE DEVICE)	WILKINS	#700
VACUUM RELIEF VALVE	WILKINS	#35VCH
PRESSURE REDUCING VALVE	WILKINS	#500YSBR
TRAP SEAL PRIMER	JAY R. SMITH	#2699-1

SUPPLY
 IF WATER PRESSURE SUPPLIED TO STORE IS GREATER THAN AND 65 PSI. THEN PROVIDE A PRESSURE REGULATOR TO MAIN SUPPLY TO MAINTAIN WATER PRESSURE. PROVIDE BACKFLOW PREVENTION ON WATER SERVICE IF REQUIRED BY LOCAL CODES.

MISC. PLUMBING FIXTURES:
 WATER HEATER
 PROVIDE AN A.O. SMITH OR EQUIVALENT, GLASS-LINED, ENERGY EFFICIENT, GAS-FIRED WATER HEATER, WITH CAPACITY AS INDICATED IN THE PLANS. WHERE GAS IS NOT AVAILABLE, PROVIDE AN A.O. SMITH OR EQUIVALENT ENERGY EFFICIENT, GLASS LINED, ELECTRIC WATER HEATER WITH SIMILAR CAPACITY AND RECOVERY RATES. PROVIDE INSTALLATION COMPLETE WITH FITTINGS AS SHOWN IN THE DRAWINGS.

WATER FILTRATION - SYSTEM "A"
 PLUMBING CONTRACTOR TO INSTALL WATER FILTRATION SYSTEM FURNISHED BY STARBUCKS, AS INDICATED ON THE PLANS. PROVIDE INSTALLATION COMPLETE WITH ALL PIPING, FITTINGS, AND EQUIPMENT AS INDICATED ON THE DRAWINGS.

GENERAL PLUMBING NOTES:

SCOPE
 THE INTENT OF THE SPECIFICATION AND THE DRAWINGS IS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL PLUMBING SYSTEM. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT RELATED TO THE INSTALLATION OF THE PLUMBING WORK.


SITE EXAMINATION
 THE CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE FIXTURES, EQUIPMENT, AND PIPING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE PLUMBING WORK.

STANDARDS
 EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF ASME, ASTM, UL, NEMA, ANSI, ASHRAE, NFPA, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.

CODES
 ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT BETWEEN THE DRAWINGS/SPECIFICATIONS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. THE CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO STARBUCKS.

PERMITS AND FEES
 THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS, FEES AND INSPECTIONS NECESSARY TO COMPLETE THE PLUMBING WORK.

WARRANTY
 THE CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY STARBUCKS AND WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE AND RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE MATERIALS AND WORKMANSHIP.



STARBUCKS COFFEE COMPANY
 2401 UTAH AVENUE SOUTH
 SEATTLE, WASHINGTON 98134
 (206) 318-1575

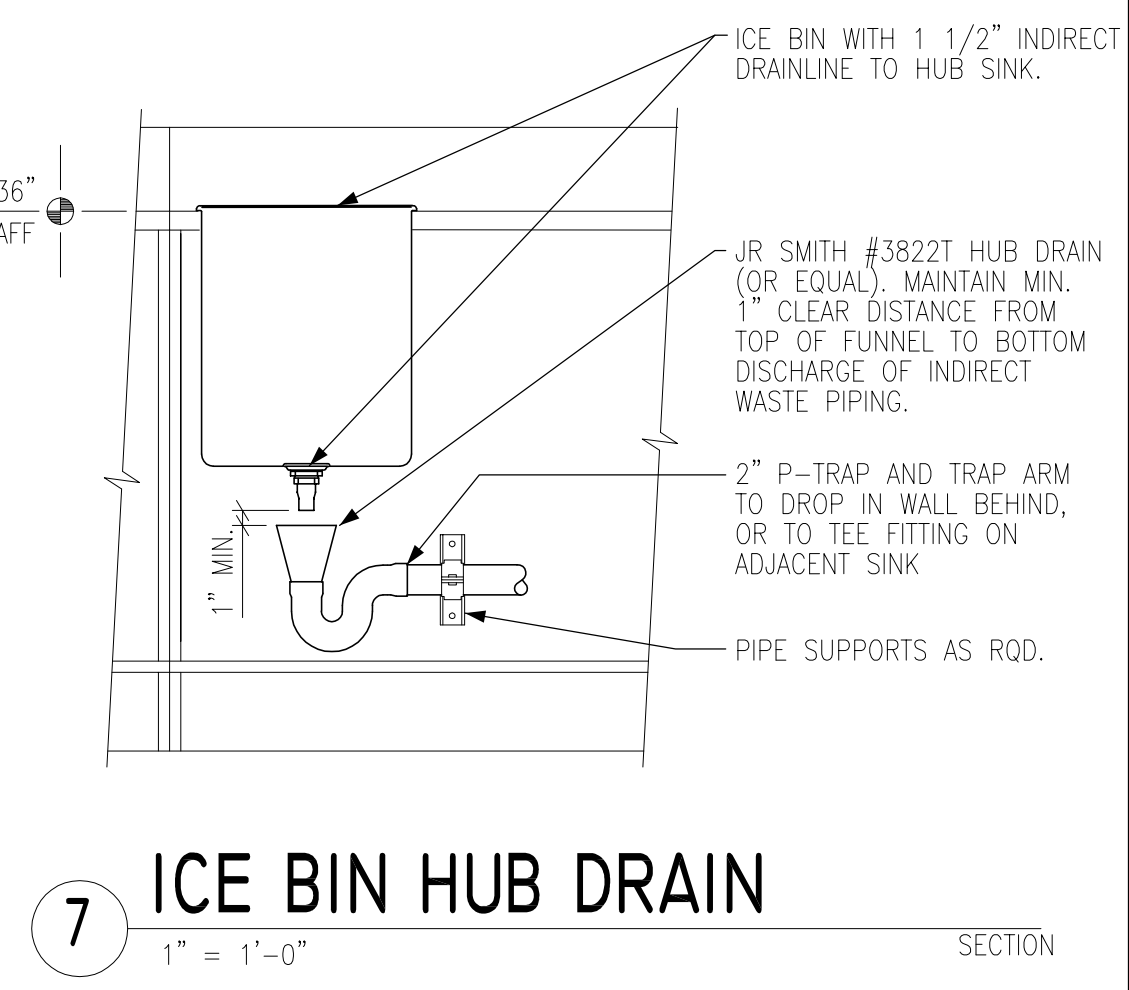
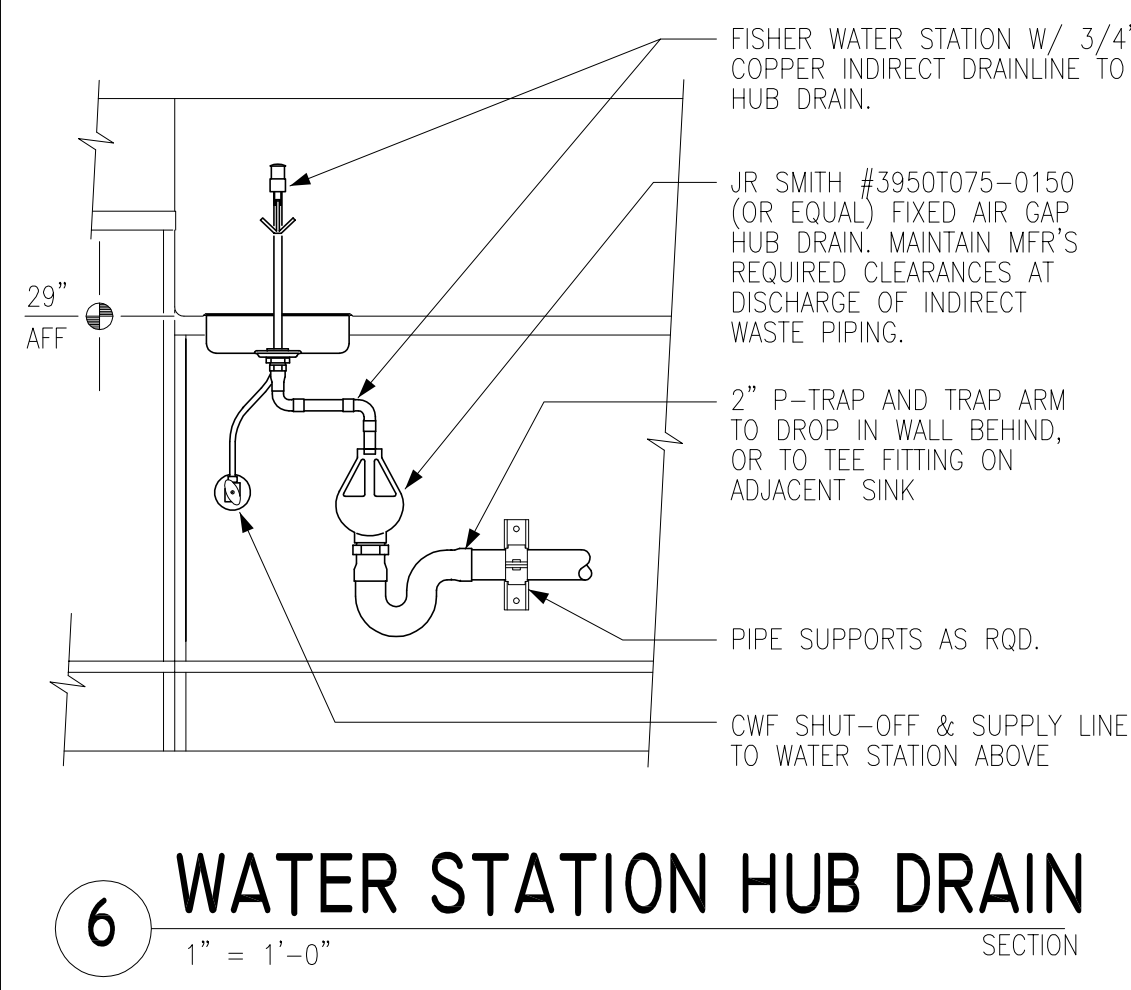
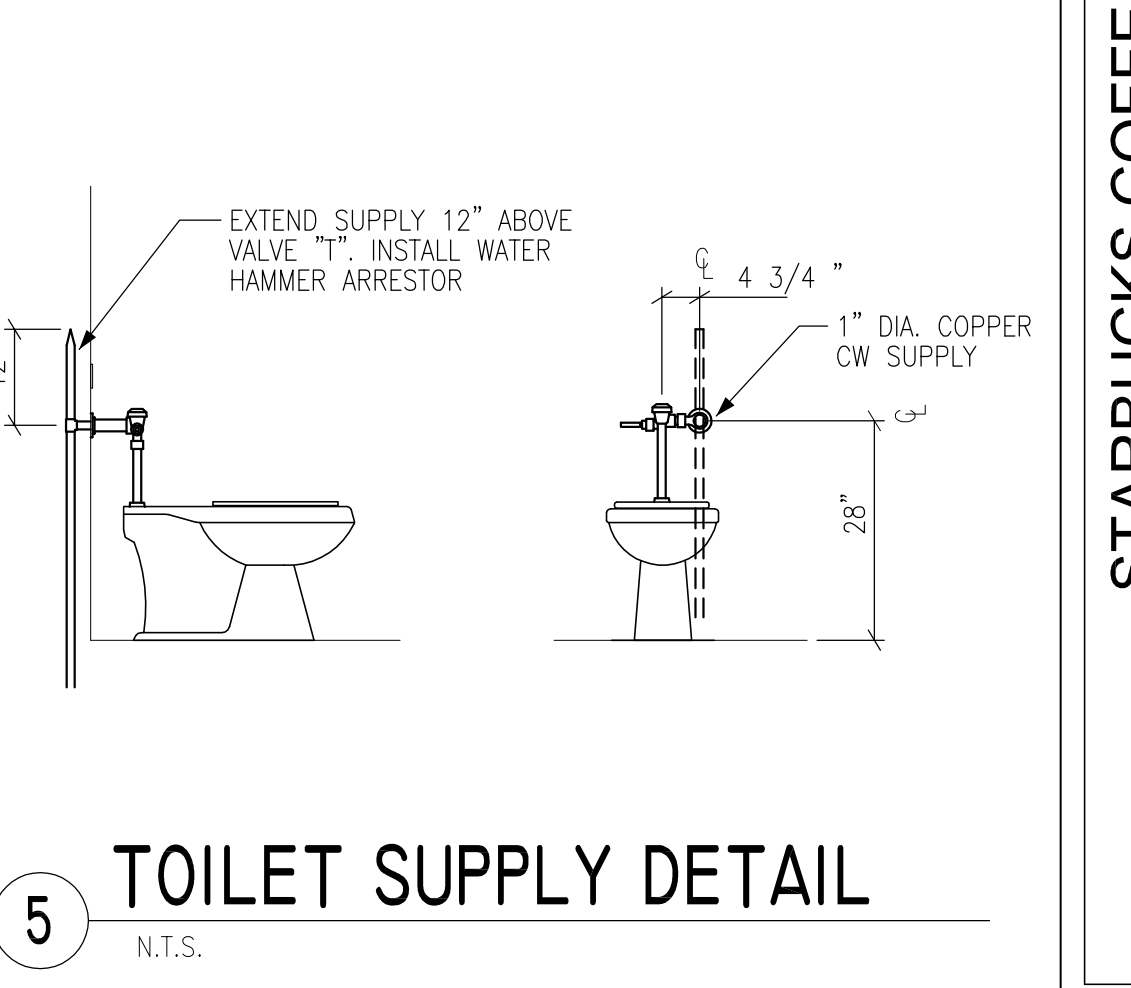
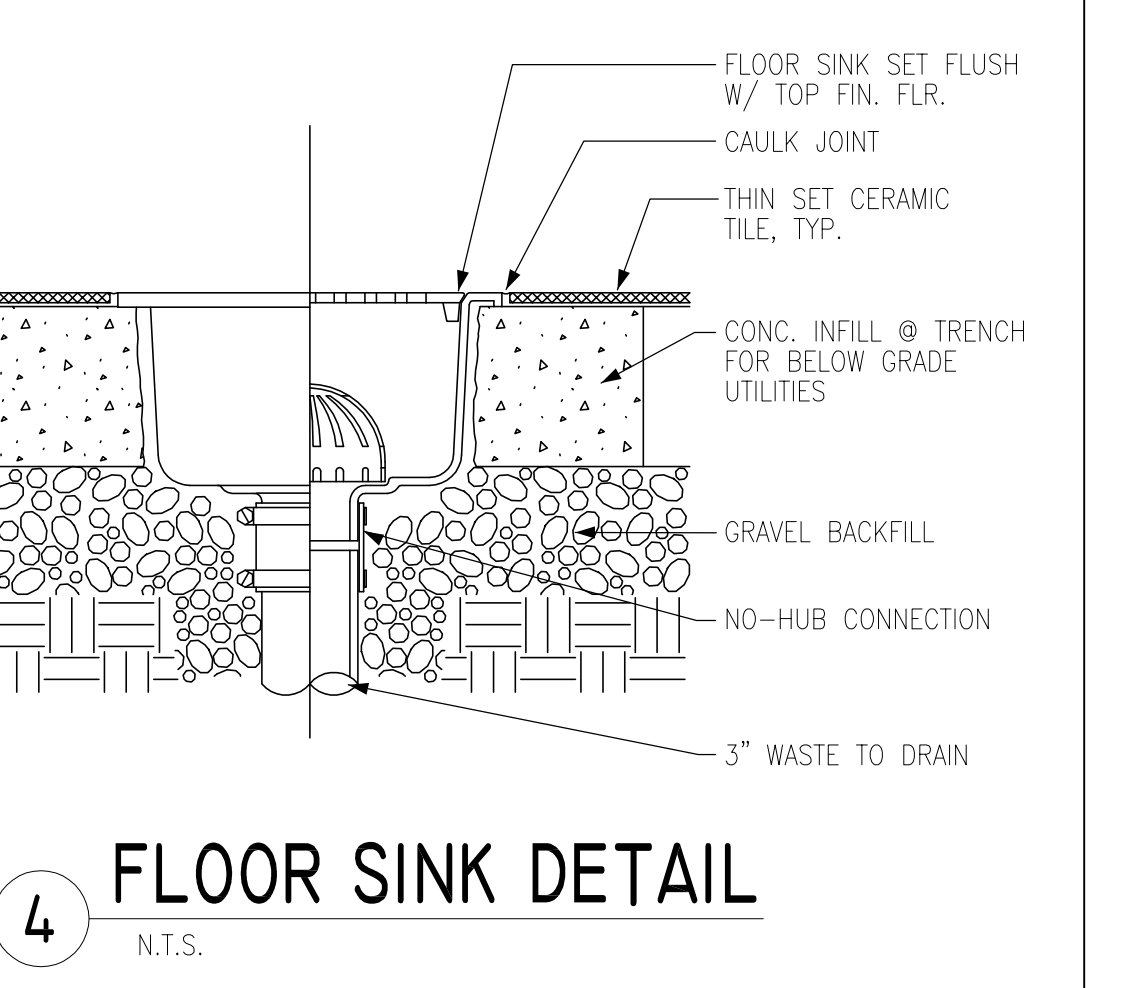
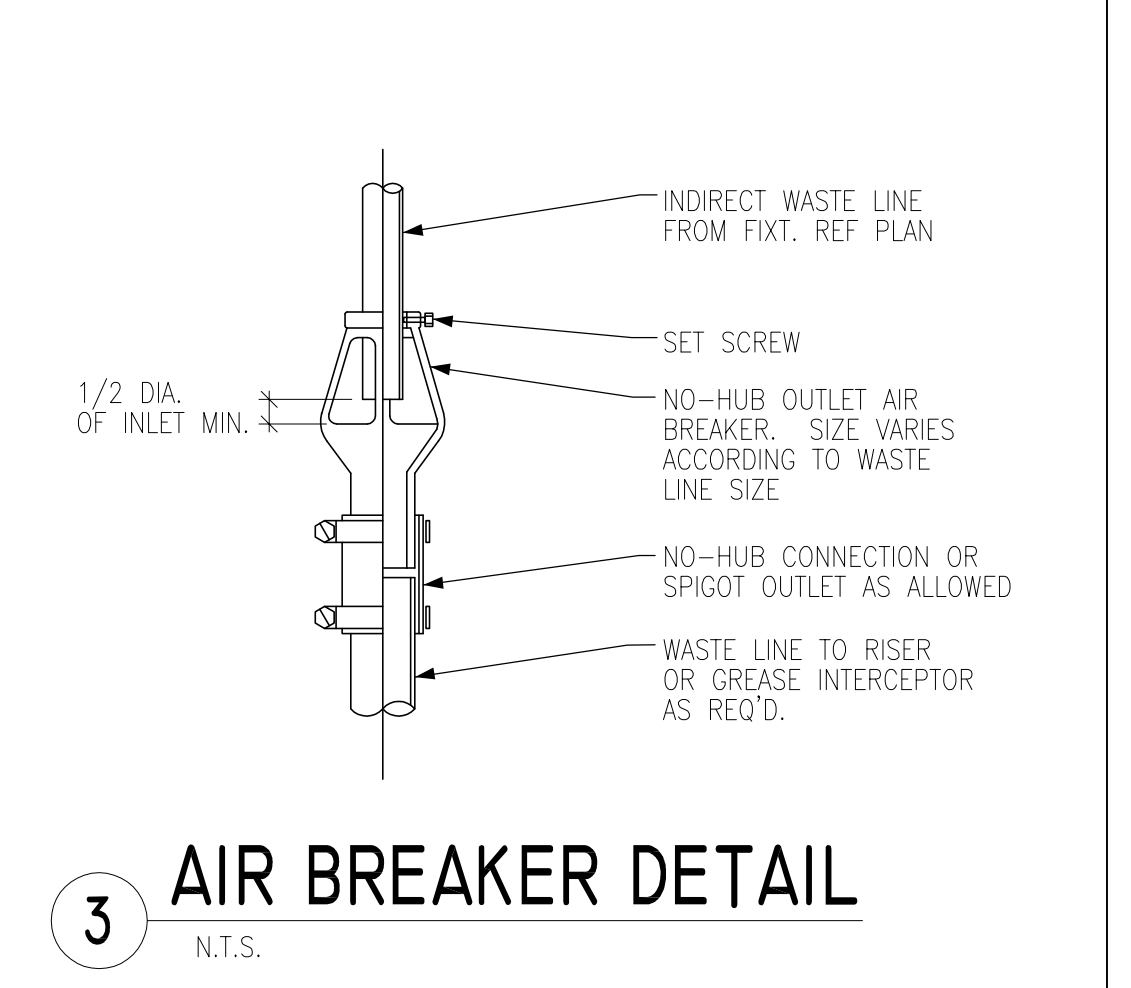
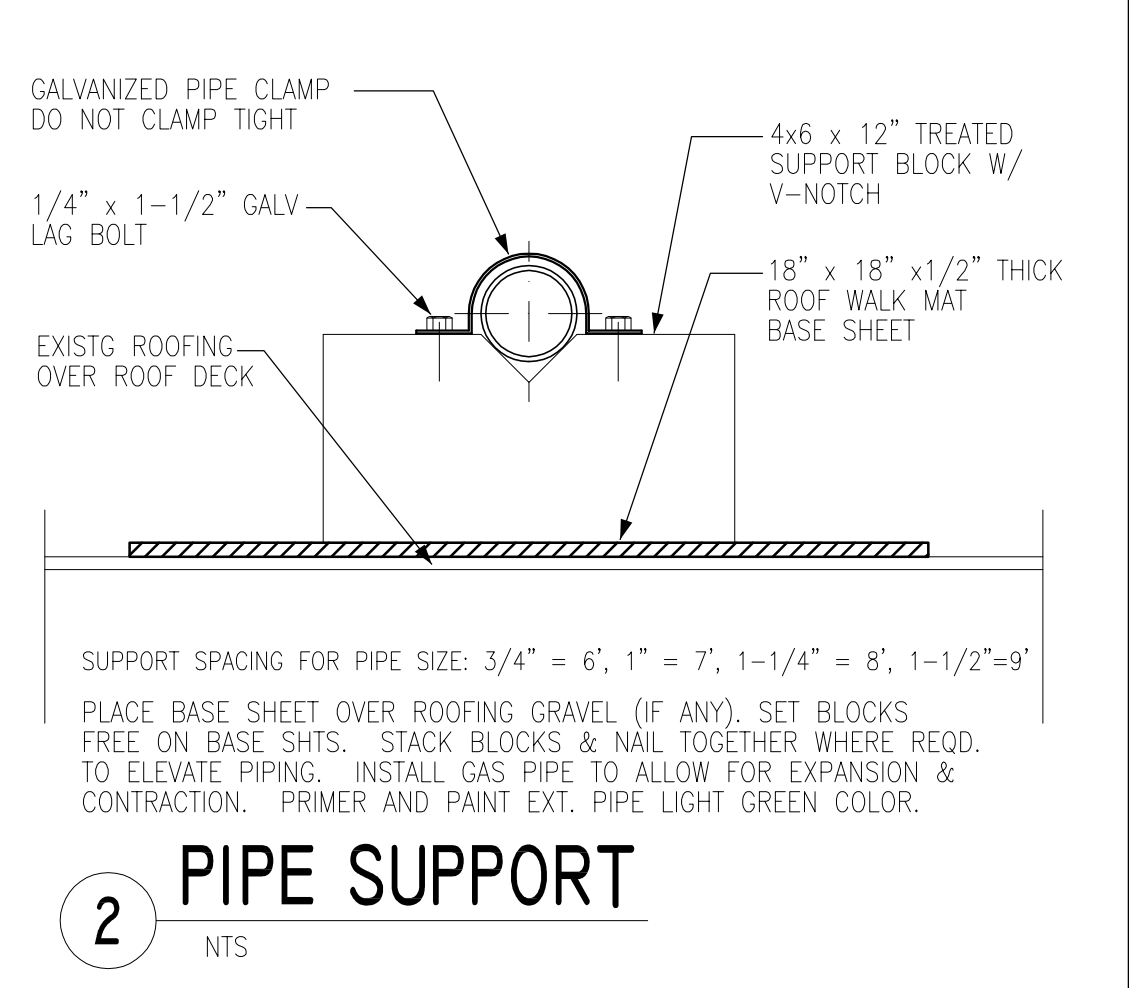
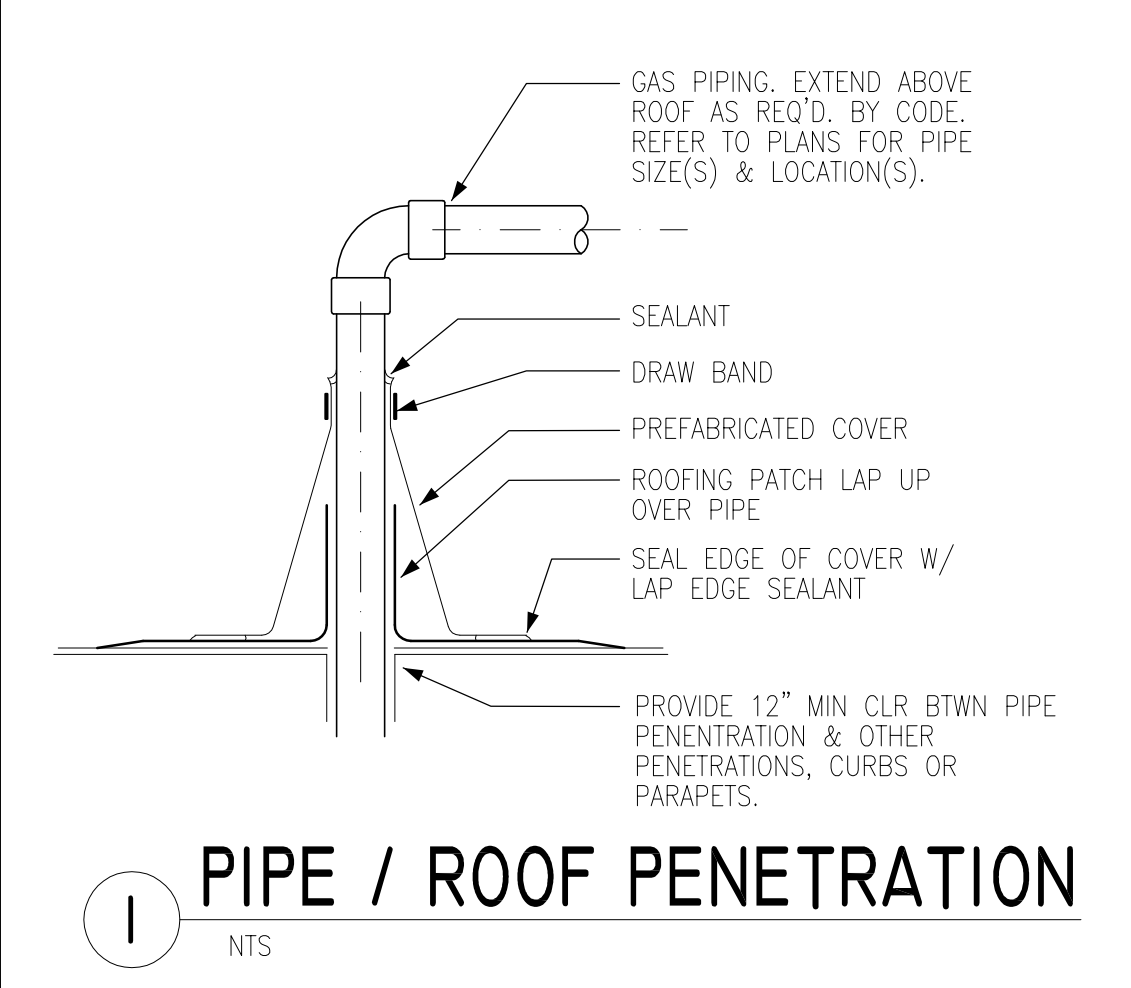
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CONSULTANTS
KHACHATURIAN-ENGINEERING ASSOCIATES, INC.
 49 CLAREMONT AVE. MONTCLAIR, NJ 07042
 TEL (973)783 1098 FAX (973)783 4301

ARMEN KHACHATURIAN, P.E.
 MAINE LICENSE PE 10384

REV DATE

BUILDING CODE NOTES:



STARBUCKS COFFEE
PORTLAND
 1080 FOREST AVENUE
 PORTLAND, ME 04103
 CUMBERLAND

PROJECT:
STARBUCKS COFFEE PORTLAND

COUNTY:
CUMBERLAND

STORE #: 11917
 PROJECT #: 37548-001
 CONCEPT: MSS DT
 PALETTE: CLASSICO
 ISSUE DATE: 12-5-06
 DRAWN BY: C. MILLER
 DESIGN BY: M. D'ANDREA
 CHECKED BY: A. KHACHATURIAN
 CM: MARK SWIDERSKI

SHEET TITLE
PLUMBING LEGEND & NOTES

SCALE:
 (DO NOT SCALE DRAWINGS)

SHEET NUMBER
P1.0

PLUMBING SCHEDULE:

ITEM#	QTY	DESCRIPTION	MANUFACTURER	MODEL #	SUPPLY	WASTE	REMARKS	SKU #	SHIP
FIXTURES									
24	P012	1	ICE BIN 95LBS - STAINLESS	SPOKANE STAINLESS		1" I	15"X25"X20"	194924	VD
	P016	1	SINK DROP-IN UNHAND W/ DRAINBD	SPOKANE STAINLESS	DI1C14X2ODIO	1 1/2" D		190120	3PL
	P017	2	SINK - STD FOR RESTROOM	KOHLER	K2005-ZZ	1 1/4" D	W/ SOAP DISP. HOLE	139086	3PL
	P018	1	SINK DROP-IN FOR MSS CBS	SPOKANE STAINLESS		1 1/2" D	W/ DRAINBOARD & GRATE	194925	VD
	P021	1	SINK - SS HAND @ WORKROOM	SPOKANE STAINLESS	EHS-14-W	1/2" IPS H/C	WALL MTD W/FAUCET - ADA COMPLIANT	179715	3PL
	P026	1	SINK - WORKROOM 3 COMPART	SPOKANE STAINLESS	3C16X20-2-18	2" D	16 X 20 X 16	120019	3PL
24	P034	5	SINK FLOOR - 12" SQ	FERGUSON ENTERPRISES	ZURN FD2375-NH3	3" D	W/3" PLUMBING TAIL PIECE	180465	3PL
	P036	1	MOP SINK	FERGUSON ENTERPRISES	ZURN Z-1996-24	3" D		180461	3PL
	P051	1	HAND SINK	CASEWORK VENDOR	STAINLESS STEEL		INTEGRAL TO SS COUNTERTOP		N/A
	P068	2	TOILET BOWL - TANKLESS	KOHLER	K-4302	4" D	12" ROUGH-IN		GC
	P102	1	DIPPERWELL	COMPONENT HARDWARE GROUP	K30-1000	3/4" I	(SAME AS P002)	181031	3PL
24	P103	1	ICE BIN DROP / WATER STATION	MOLI	BDIB-1418 W/O TOWER	3/4" I		182123	3PL

FAUCETS									
	P352	1	FAUCET DIPPERWELL W/FLOW PREVN	COMPONENT HARDWARE GROUP	K22-3100-SB	1/4" CW	W/ FLOW RESTRICTOR	188917	3PL
	P354	3	FAUCET HANDSINK ZURN	FERGUSON ENTERPRISES	ZURN Z7440-WF	1/2" CW/TW	AT RESTROOM HAND SINK	190076	3PL
	P355	1	WORKSINK FAUCET PRE-RINSE	COMPONENT HARDWARE GROUP	KN53-1000-BR	1/2" CW/HW	AT WORKROOM COMPARTMENT SINKS	181032	3PL
	P356	1	FAUCET & BRACKET FOR MOP	FERGUSON ENTERPRISES	ZURN Z-1996-SF	1/2" CW/HW	INCLS INTGR VACUUM BRKR & STP CHK VLVS	277679	3PL
	P360	1	FAUCET 14" WORKROOM ADD-ON	COMPONENT HARDWARE GROUP	KN55-7014			183203	3PL
	P369	2	TOILET FLUSH VALVE - EXPOSED	ZURN	Z6000AV-WS1	1" CW	LOW CONSUMPTION 1.6GAL		GC
	P370	1	FAUCET BACKBAR PITCHER RINSER	FERGUSON ENTERPRISES	ZURN Z-82701-10M	1/2" CW	GC INSTALL BACKFLOW PREVENTER IN SUPPLY	194917	3PL
	P376	1	FAUCET 12" GLASS FILLER	COMPONENT HARDWARE	KN26-5012 SP	1/2" CWF		185897	3PL
	P378	1	FAUCET BB WORKSINK W/ 8" THROW	FERGUSON ENTERPRISES	ZURN Z-824CO	1/2" CW/HW		190303	3PL
	P380	1	FAUCET BACKBAR WORKSINK	FERGUSON ENTERPRISES	ZURN Z-826S1	1/2" CW/HW		194916	3PL

ACCESSORIES									
	P803	2	PIPE PROTECTOR	SKAL & GARD	SG-200B		PTRAP AND RISER PROTECTOR		GC
24	P804	5	FLOOR SINK HALF WIRE GRATE	FERGUSON ENTERPRISES	ZURN			180466	3PL
	P806	1	WATER HEATER	GC SUPPLIED	60X20 W/4" "B" VENT	50 GAL	MUST HAVE 40 GPH RECOVERY RATE -SEE P1.0		GC

PLUMBING GENERAL NOTES:

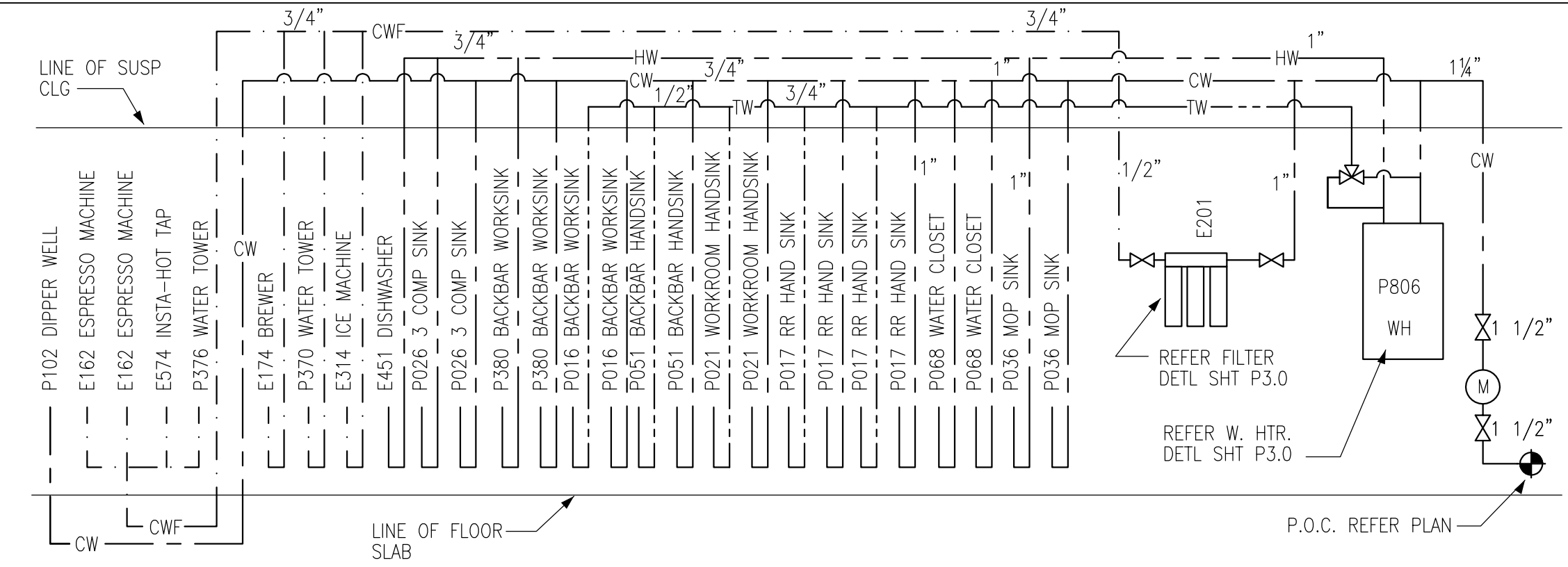
- (A) F&I A COMPLETE AND OPERATING SYSTEM. ALL ITEMS ARE NOT NECESSARILY SHOWN.
- (B) PLUMBING CONTRACTOR RESPONSIBLE FOR SITE INVESTIGATION PRIOR TO START OF WORK TO REVEAL FULL SCOPE OF WORK
- (C) COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTION TO ALL PLUMBING EQUIPMENT.
- (D) DIMENSIONS ARE TO FINISH FACE UNLESS OTHERWISE NOTED
- (E) REFER TO DETAIL SHEETS FOR PLUMBING FITTINGS LOCATED IN CASEWORK.
- (F) COLD WATER SUPPLY LINES INSIDE CASEWORK & BAR AREA TO BE COVERED WITH 1/2" THICK SELF SEALING, SECTIONAL CLOSED-CELL FOAM INSULATION. REFER TO SPECIFICATIONS FOR HOT WATER SUPPLY LINE INSULATION REQUIREMENTS.
- (G) CONTRACTOR SHALL CONTACT WATER FILTER SUPPLIER 10 DAYS (MINIMUM) BEFORE THE TIME THAT THE FILTER SYSTEM IS TO BE STARTED UP.

GAS PIPING NOTES:

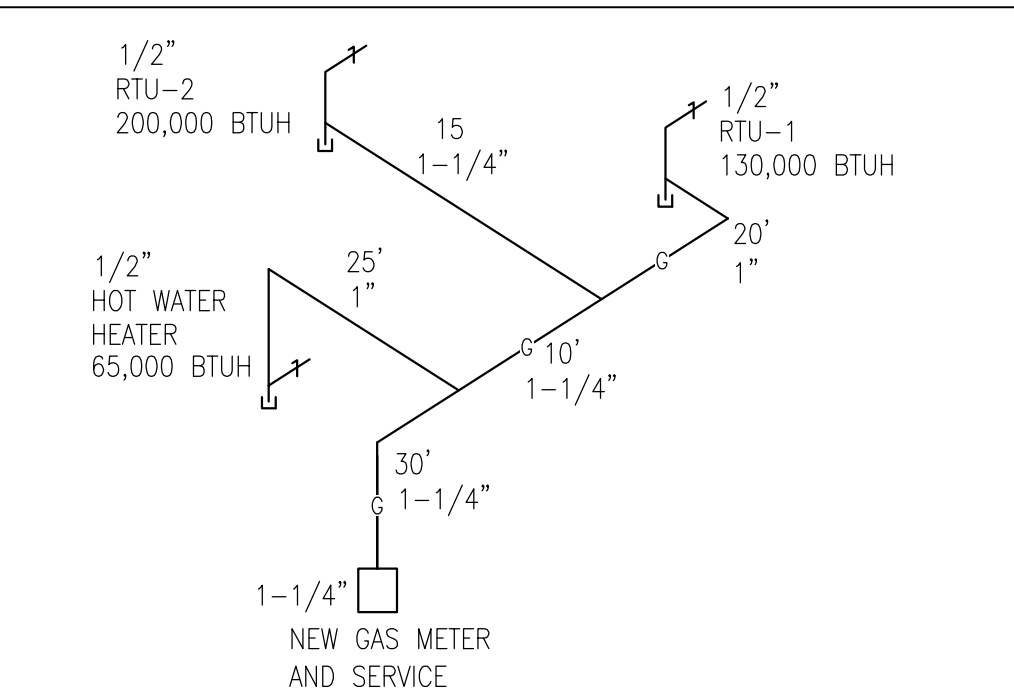
- 1. GAS PIPING SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF NFPA54 (ANSI Z233.1), LOCAL UTILITY COMPANY AND THE STATE UNIFORM CONSTRUCTION CODE.
- 2. PIPING SHALL BE SCHEDULE 40, BLACK STEEL PIPE CONFORMING TO ASTM A120. FITTINGS SHALL BE MALLEABLE IRON, THREADED CONFORMING TO ANSI B16.3. UNIONS SHALL BE MALLEABLE IRON CONFORMING TO ANSI B16.11.
- 3. HOT WATER HEATERS SHALL BE APPROVED AND BEAR THE LABEL OF AN ACCEPTABLE TESTING AGENCY.
- 4. EACH GAS APPLIANCE SHALL HAVE A COPY OF THE INSTALLATION INSTRUCTION ATTACHED.
- 5. GAS SERVICE AND PIPING SHALL BE FOR NATURAL GAS WITH A SPECIFIC GRAVITY OF 0.60 AND A HEATING CONTENT OF 1050 BTU/CU.FT. GAS SERVICE SHALL BE ONE PSIG AS ARRANGED WITH THE UTILITY COMPANY. PROVIDE REGULATORS & RELIEF PIPING TO DISCHARGE TO OUTSIDE.

LEGEND

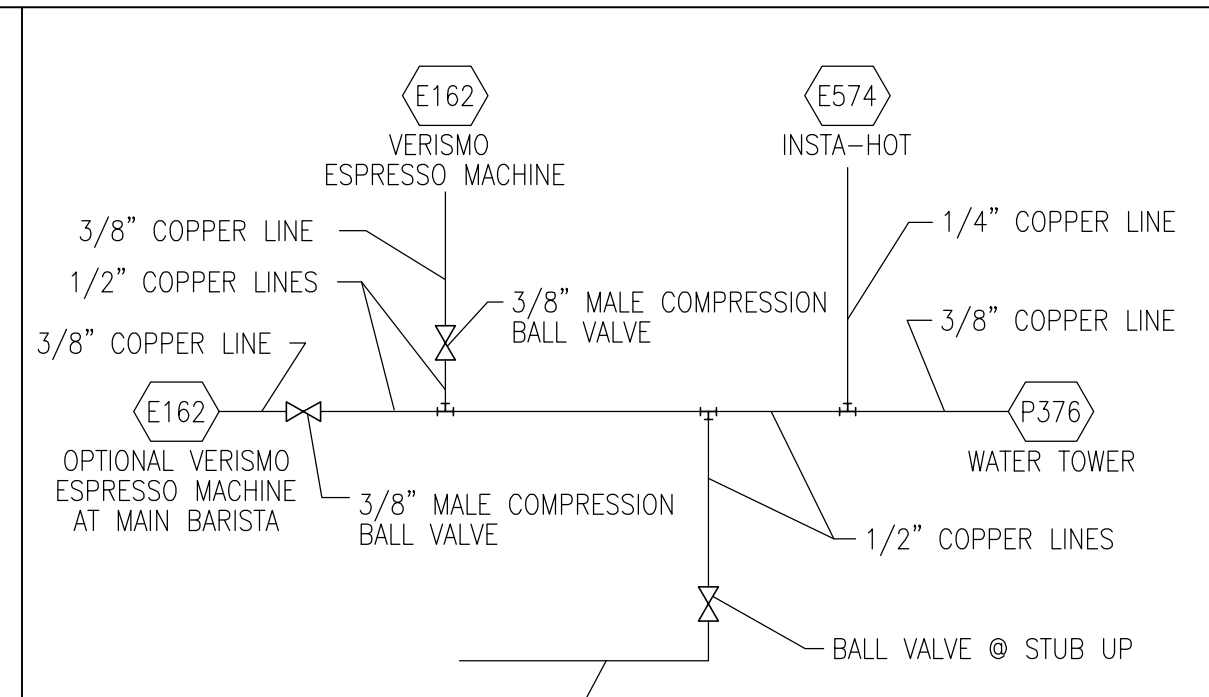
- — — — — DOMESTIC COLD WATER
- — — — — DOMESTIC HOT WATER
- · — · — · — FILTERED DOMESTIC COLD WATER
- · — · — · — TEMPERED HOT WATER
- G — — — — NATURAL GAS PIPING
- X — — — — SHUT-OFF (BALL) VALVE
- | — — — — GAS COCK



1 SUPPLY PIPING DIAGRAM - FILTER SYSTEM "A"
NTS
ALL LINES ARE 1/2" UNLESS OTHERWISE NOTED



2 GAS ISOMETRIC RISER DIAGRAM
NTS



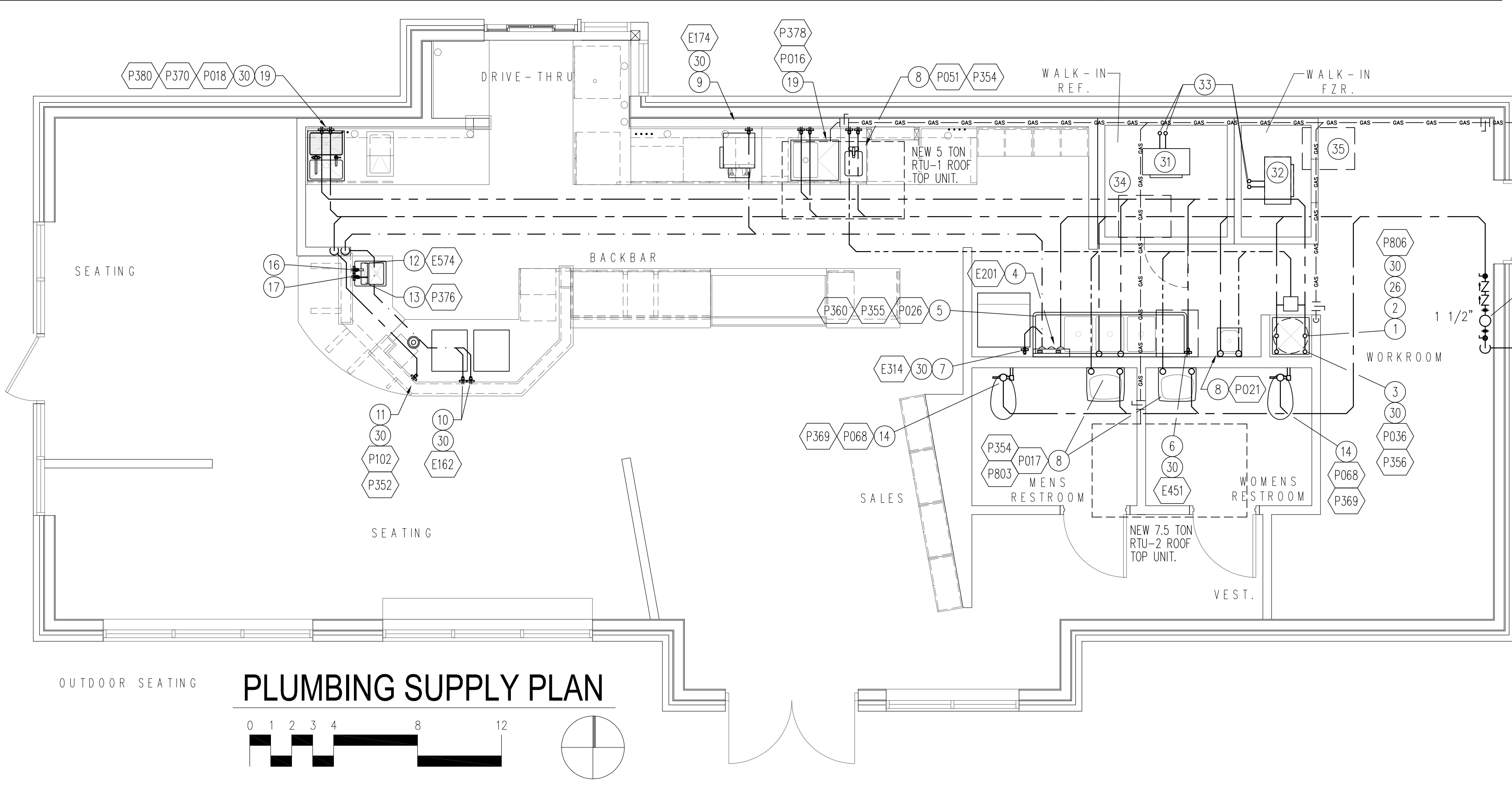
FRONTLINE BARISTA CWF MANIFOLD SCHEMATIC
NTS

NOTES:

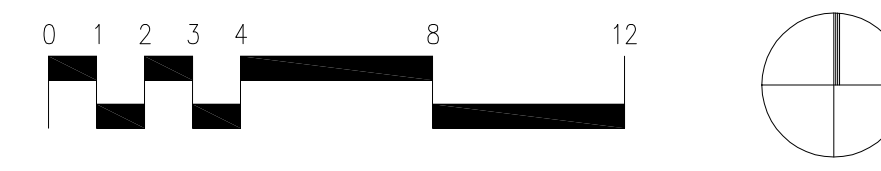
- 1 3/4" CW TO WATER HEATER & 3/4" HW FROM WATER HEATER.
- 2 WATER HEATER AS SPECIFIED AND IN COMPLIANCE WITH APPLICABLE CODES AND ORDINANCES. DIMENSIONS OF THE HEATER SHALL ALLOW INSTALLATION ABOVE THE MOP SINK. REFER TO WATER HEATER DETAIL.
- 3 1/2" HW & CW TO FAUCET AT MOP SINK. CAULK AND SEAL BACK OF SINK TO WALL.
- 4 3/4" CW TO WATER FILTER & 3/4" CWF FROM WATER FILTER. PLUMBING CONTRACTOR TO FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ACTIVATION PROCEDURES FOR FILTERS. SEE FILTER CONNECTION DETAIL.
- 5 1/2" HW & CW TO FAUCET & SPRAY AT COMPARTMENT SINK. CAULK AND SEAL BACK OF SINK TO WALL.
- 6 3/4" HW TO DISHWASHER. INSTALL SHUT-OFF WITH 3/4" MALE HOSE-END FITTING @ 18" AFF UNDER COMPARTMENT SINK. SHUT-OFF TO INCLUDE PRESSURE REDUCING VALVE, PRESSURE GAUGE (SET @ 20 PSIG, + OR - 5 PSIG), LINE STRAINER, AND SHOCK ARRESTOR IN WALL. CONNECT SANITIZER TO HW SUPPLY WITH 72" LONG BRAIDED STAINLESS STEEL HOSE.
- 7 3/4" CW TO ICE MACHINE. REDUCE TO 3/8" AT MACHINE.
- 8 1/2" TW & CW TO SINK
- 9 1/2" CWF TO COFFEE BREWER. INSTALL SHUT-OFF IN CABINET @ 24" AFF REDUCE TO 3/8" AT UNIT.
- 10 1/2" CWF TO ESPRESSO MACHINE. CONNECT 3/8" COMPRESSION BRAIDED STAINLESS STEEL HOSE FROM SHUT-OFF TO ESPRESSO MACHINE WATER INLET.
- 11 1/2" CW TO DIPPERWELL FAUCET
- 12 3/8" CWF TO HOT WATER TAP. REDUCE TO 1/4" AT UNIT
- 13 3/8" CWF TO WATER TOWER FAUCET LOCATED IN WATER STATION
- 14 1" CW TO TOILET. PROVIDE WATER HAMMER ARRESTOR IN SUPPLY LINE. SEE DETAIL.
- 15 1/2" TW STUB-UP THRU FLOOR
- 16 3/4" CW STUB-UP THRU FLOOR
- 17 3/4" CWF STUB-UP THRU FLOOR
- 18 1/2" HW STUB-UP THRU FLOOR
- 19 1/2" HW & CW TO SINK
- 20 WATER SUB-METER
- 21 PRESSURE REGULATOR
- 22 NOT USED.
- 23 NOT USED.
- 24 SEE SHEET P3.0 FOR TAG AND LOCATION.
- 25 TIE INTO EXISTING DOMESTIC WATER SERVICE. VERIFY EXACT LOCATION, PRESSURE AND REQUIREMENTS ON SITE.
- 26 3/4" GAS TO WATER HEATER WITH APPROVED SHUT-OFF VALVE & DIRT LEG.
- 27 NOT USED.
- 28 TIE INTO EXISTING GAS SERVICE. VERIFY EXACT LOCATION, PRESSURE AND REQUIREMENTS ON SITE.
- 29 NOT USED.
- 30 BACKFLOW PREVENTER IF REQUIRED BY AHJ
- 31 REFRIGERATOR EVAPORATOR-FAN UNIT FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. INSTALLED PER DRAWINGS & MANUFACTURER'S RECOMMENDATIONS TO INSIDE CEILING OF REFRIGERATOR UNIT.
- 32 FREEZER EVAPORATOR-FAN UNIT FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. INSTALLED PER DRAWINGS & MANUFACTURER'S RECOMMENDATIONS TO INSIDE CEILING OF REFRIGERATOR UNIT.
- 33 REFRIGERANT PIPING FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. INSTALL PRE-CHARGED LINES TO REMOTE CONDENSING UNIT PER MANUFACTURER'S RECOMMENDATIONS.
- 34 REFRIGERATOR CONDENSING UNIT ON ROOF, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.
- 35 FREEZER CONDENSING UNIT ON ROOF, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.

BACKFLOW PREVENTERS/VACUUM BREAKERS SCHEDULE:

APPLICATION	MANUF.	MODEL #	DESCRIPTION
MOP SINK	WATTS	8	HOSE CONNECTION VACUUM BREAKER
COFFEE BREWER			
ESPRESSO MACHINES			
COLD BEVERAGE STATION			
HOT WATER HEATER	WATTS	7	DUAL CHECK
ICE MAKER			
DIPPERWELL			
DISHWASHER	WATTS	008PC-QT	SPILL RESISTANT ANTI-SIPHON VACUUM BREAKER
INCOMING WATER SERVICE	WATTS	RPZ 009	REDUCED PRESSURE ZONE WITH DOUBLE CHECK & INTERMEDIATE RELIEF



PLUMBING SUPPLY PLAN



STARBUCKS COFFEE COMPANY
2401 UTAH AVENUE SOUTH
SEATTLE, WASHINGTON 98134
(206) 318-1575

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TEL (973)783 1098 FAX (973)783 4301

ARMEN KHACHATURIAN, P.E.
MAINE LICENSE PE 10384

REV DATE

STARBUCKS COFFEE
PORTLAND
1080 FOREST AVENUE
PORTLAND, ME 04103
CUMBERLAND

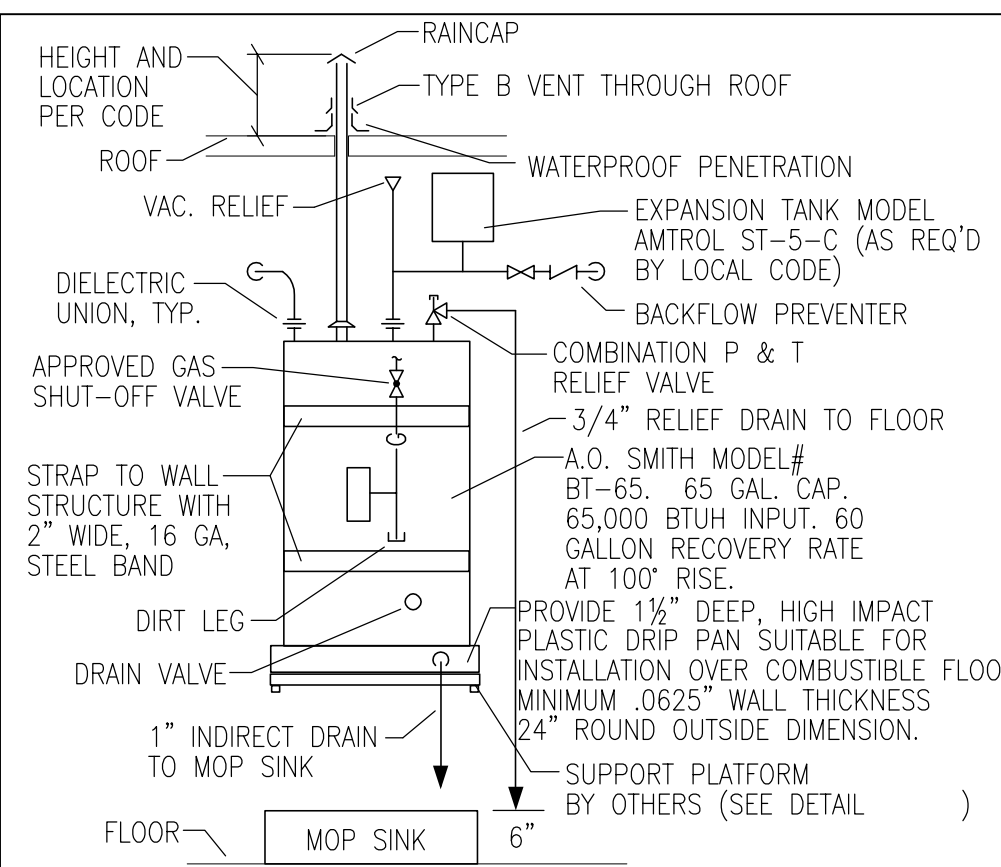
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STORE #: 11917
PROJECT #: 37548-001
CONCEPT: MSS DT
PALETTE: CLASSICO
ISSUE DATE: 12-5-06
DRAWN BY: C. MILLER
DESIGN BY: M. D'ANDREA
CHECKED BY: A. KHACHATURIAN
CM: MARK SWIDERSKI

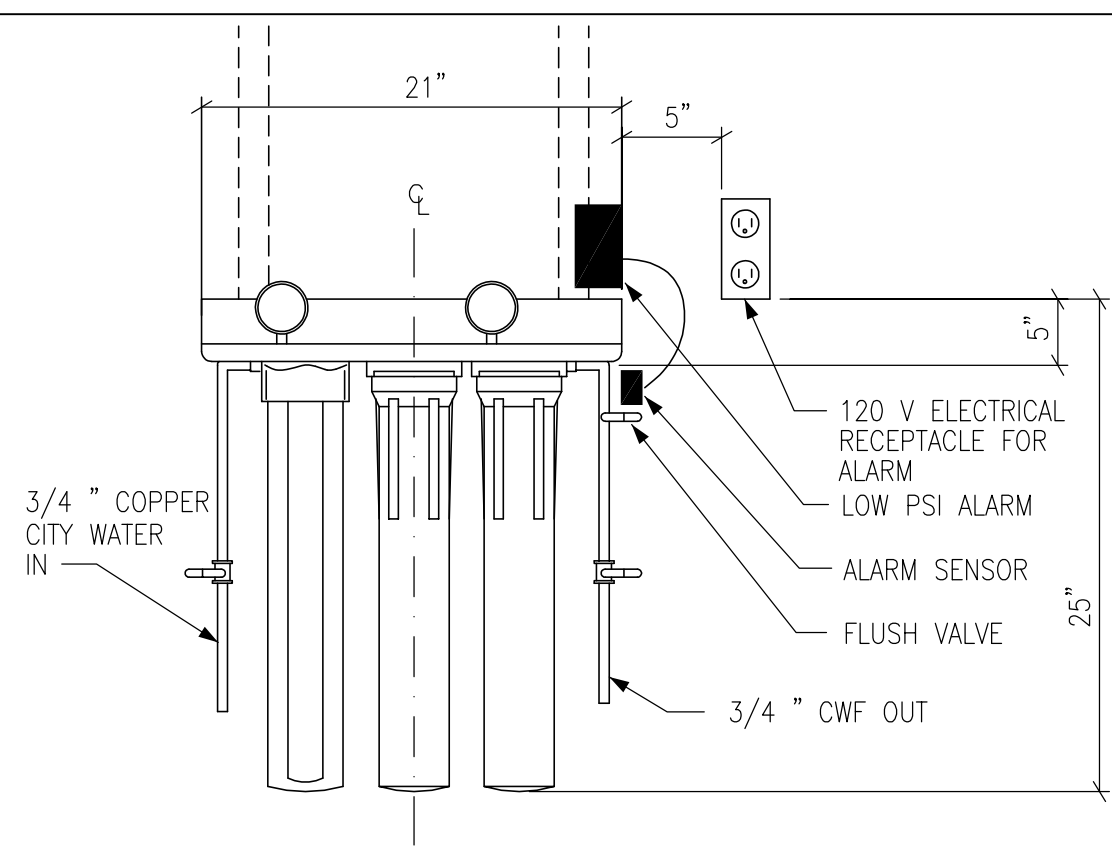
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PLUMBING SUPPLY / SCHEDULE

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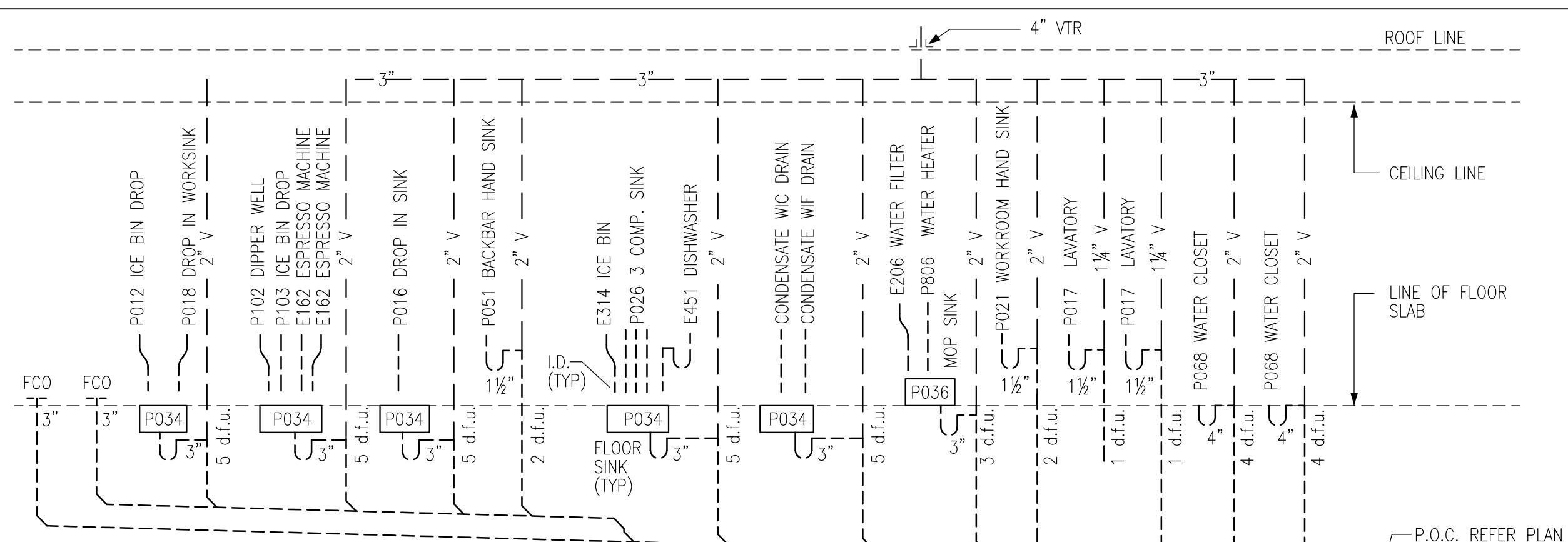
SHEET NUMBER **P2.0**



1 GAS WATER HEATER
NTS ELEVATION



2 "A" FILTER SYSTEM
NTS



3 WASTE VENT RISER DIAGRAM
NTS 1/4" PER FOOT PITCH WHERE POSSIBLE. (1/8" MIN.)

LEGEND

- EXISTING SANITARY WASTE PIPING
- NEW SANITARY WASTE PIPING
- SANITARY VENT PIPING
- CONDENSATE PIPING

NOTES:

- 1 3/4" PRESSURE RELIEF FROM WATER HEATER TO MOP SINK.
- 2 1" INDIRECT DRAIN FROM WATER HEATER DRIP PAN TO MOP SINK.
- 3 3" WASTE FROM MOP SINK.
- 4 2" INDIRECT DRAIN FROM COMPARTMENT SINK. CONTRACTOR SHALL COORDINATE WITH INSPECTOR PRIOR TO ROUGH-IN TO CONFIRM IF A DIRECT CONNECTION IS REQUIRED.
- 5 1-1/4" INDIRECT DRAIN FROM DISHWASHER TO FUNNEL OVER FLOOR SINK IF PERMITTED.
- 6 3/4" I.D. F.P.T FROM DRAIN ON ICE MACHINE TO INDIRECT DRAIN AT FLOOR SINK.
- 7 INSTALL FEMALE PIPE THREAD FROM ESPRESSO MACHINE DRAIN TRAY TO INDIRECT DRAIN AT FLOOR SINK.
- 8 1" INDIRECT DRAIN FROM DIPPER WELL TO FLOOR SINK.
- 9 1" INDIRECT INSULATED DRAINLINE FROM ICE BIN DROP TO FLOOR SINK.
- 10 3/4" INDIRECT DRAIN FROM WATER STATION DRAIN BOARD TO FLOOR SINK.
- 11 3" WASTE FROM FLOOR SINK.
- 12 2" WASTE FROM SINK.
- 13 4" WASTE FROM TOILET.
- 14 2" WASTE FROM URINAL.
- 15 TRAPPED CONDENSATE DRAIN FROM AIR HANDLING UNIT TO FLOOR SINK OR MOP SINK. VERIFY SIZE & LOCATION OF DRAIN BASED UPON EQUIPMENT REQUIREMENTS AND PLACEMENT. F&I CLEANOUTS AS NEEDED.
- 16 FLOOR CLEAN OUT MATCH TO DRAIN LINE.
- 17 WALL CLEAN OUT MATCH TO DRAIN LINE.
- 18 TIE INTO BUILDING SANITARY WASTE. VERIFY EXACT LOCATION, INVERTS AND REQUIREMENTS ON SITE.
- 19 1-1/2" INDIRECT DRAIN TO FLOOR SINK. IF INDIRECT NOT ALLOWED, PROVIDE 2" DIRECT DRAIN.
- 20 3/4" INDIRECT DRAIN FROM WATER EQUIPMENT TO MOP SINK.
- 21 EXISTING WASTE LINES DOWNSTREAM OF STARBUCKS SHALL BE "SNAKED" AND CLEANED PRIOR TO STARBUCKS OPENING.
- 22 2" WASTE FROM FLOOR DRAIN.
- 23 1" INDIRECT DRAIN FROM PITCHER RINSER SINK.
- 24 AIR ADMITTANCE VALVE FOR FLOOR SINK VENT IF ALLOWED BY AHJ.
- 26 CONDENSATE PIPING BY CONTRACTOR. RUN TO NEAREST FLOOR DRAIN OR FLOOR SINK AT A MIN. SLOPE OF 1/4" LF.



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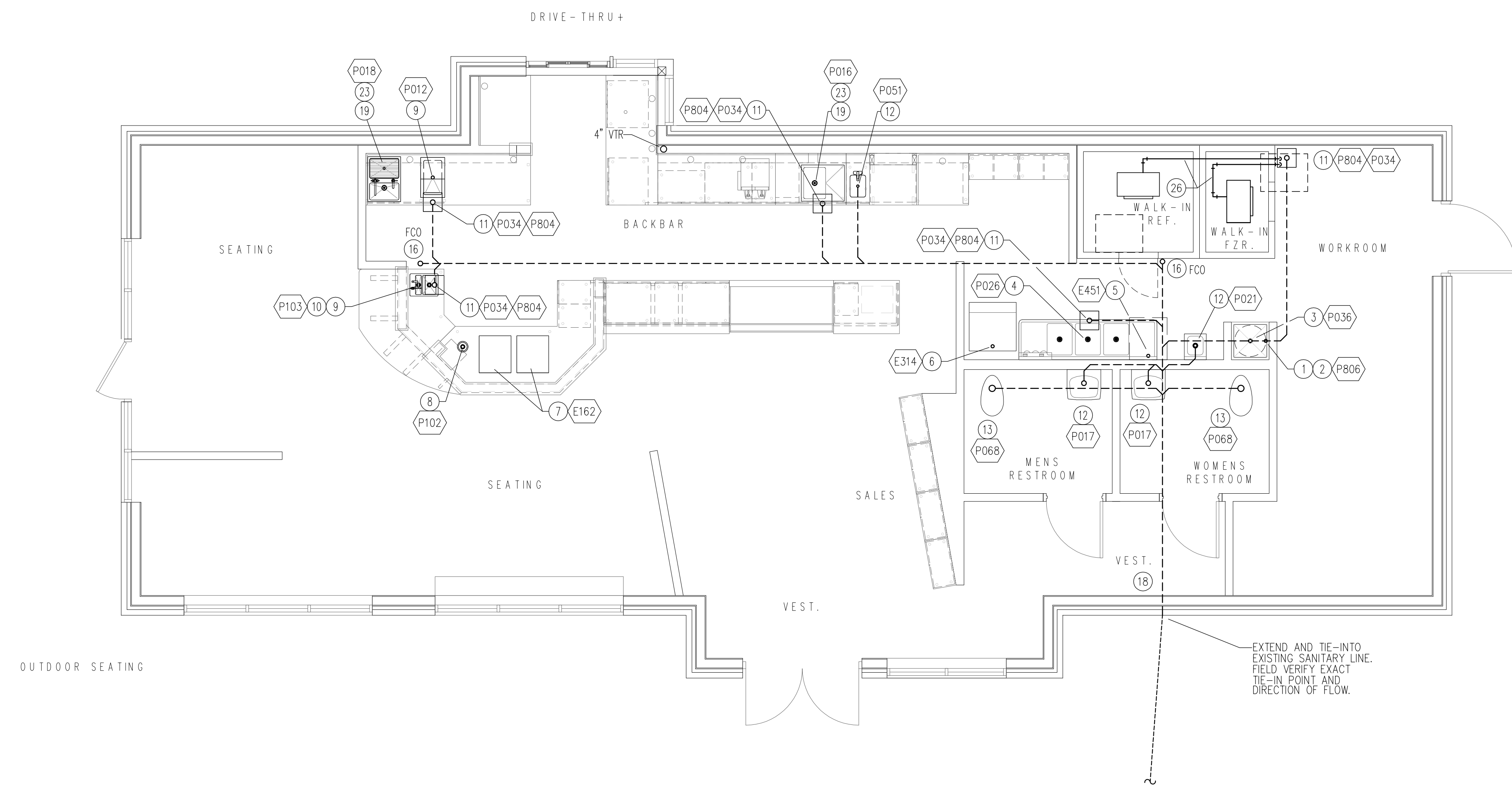
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P3.0



EXTEND AND TIE-INTO EXISTING SANITARY LINE. FIELD VERIFY EXACT TIE-IN POINT AND DIRECTION OF FLOW.

PLUMBING WASTE / DRAIN PLAN

