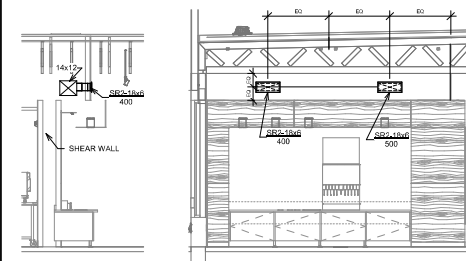
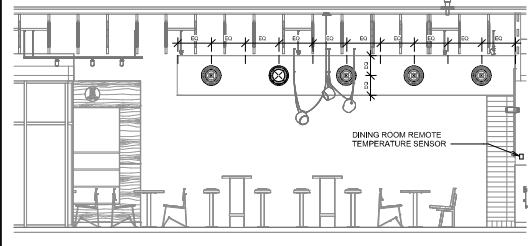


6 HVAC DINING ROOM RETURN
1/4" = 1'-0"



5 HVAC DINING ROOM SECTION
1/4" = 1'-0"

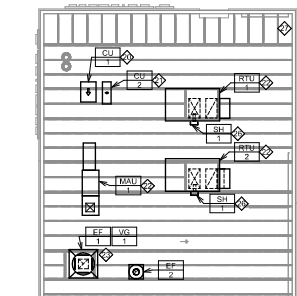
4 HVAC DINING ROOM SECTION
1/4" = 1'-0"



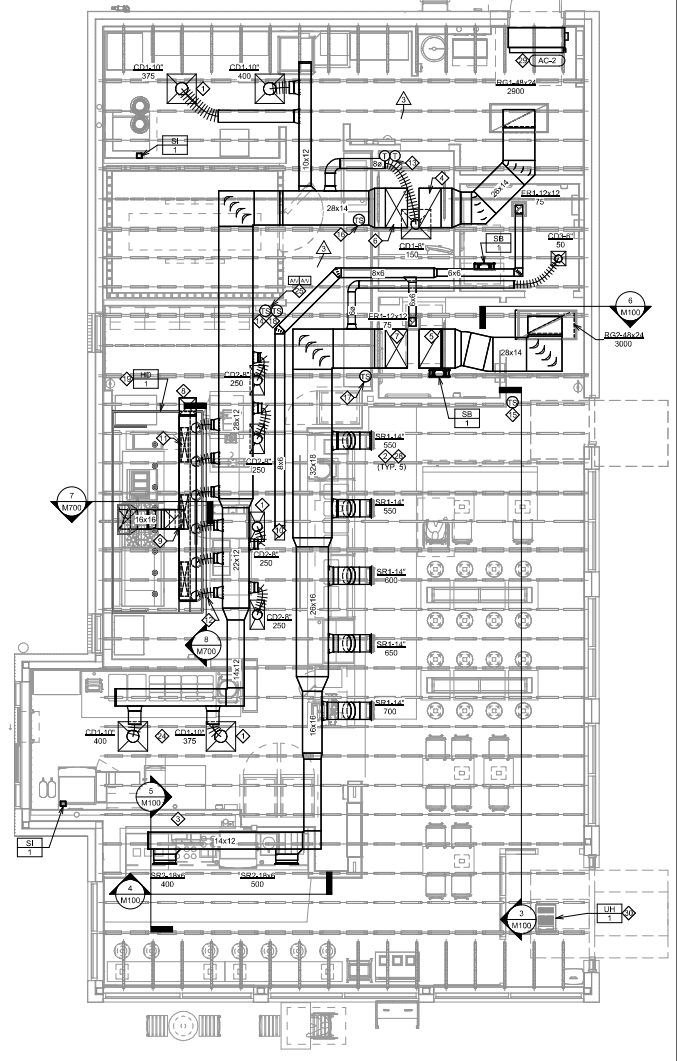
3 HVAC DINING ROOM SECTION
1/4" = 1'-0"

- KEY NOTES:**
- ◇ SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION, TYPICAL.
 - ◇ PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS BLACK, TYPICAL.
 - ◇ PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (OR A GROUP OF PENETRATIONS ALL CONTAINED WITHIN 10" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH STRUCTURAL ENGINEER FOR APPROPRIATE BRACING. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATION.
 - ◇ 32/18 DUCT UP FOR TRANSITION TO RTU-1 RETURN CONNECTION IN ROOF CURB. RTU-1 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM, INTERLOCK SMOKE DETECTOR TO RTU-1 OPERATION.
 - ◇ 32/18 DUCT UP FOR TRANSITION TO RTU-2 RETURN CONNECTION IN ROOF CURB. RTU-2 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM, INTERLOCK SMOKE DETECTOR TO RTU-2 OPERATION.
 - ◇ 32/18 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF, TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.
 - ◇ 32/18 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF, TRANSITION TO RTU-2 SUPPLY CONNECTION IN ROOF CURB.
 - ◇ 14/14 DUCT UP THROUGH ROOF, TRANSITION TO MAU-1 SUPPLY CONNECTION IN ROOF CURB.
 - ◇ 16/16 DUCT UP FROM HOOD THROUGH ROOF TO EF-1 COMPLIANT WITH NFPA 96. PROVIDE RADIUS ELBOWS WITH AN INSIDE RADIUS OF 0.5W AT ELBOWS IN GREASE DUCT.
 - ◇ 68 DUCT UP THROUGH ROOF TO EF-2.
 - ◇ 288 DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION, TRANSITION TO SUPPLY PLENUM OPENING SIZE, TYPICAL FOR 3.
 - ◇ 8" DIA. DUCT DOWN TO AC PSP DUCT CONNECTION, TRANSITION TO SUPPLY PLENUM OPENING SIZE, TYPICAL. CAP UNUSED DUCT CONNECTIONS. EACH CONNECTION SHALL BE BALANCED TO 116 CFM EACH FOR A TOTAL OF 700 CFM OF CONDITIONED AIR TO THE HOOD.
 - ◇ INSTALL SINGLE-GANG VERTICAL BOX FOR GRIDPOINT THERMOSTATS FURNISHED BY TMS FOR RTU-1 AND RTU-2 AT THIS LOCATION AT 48" AFF, COORDINATE WITH ELECTRICAL SWITCHING IN THIS AREA. PROVIDE WIRING AS SHOWN IN DETAIL 8.67.10.
 - ◇ INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TMS FOR RTU-1 AT THIS LOCATION 72" AFF DIRECTLY TO WALL AND JUNCTION BOX. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8.67.10.
 - ◇ INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TMS FOR RTU-2 AT THIS LOCATION 60" AFF DIRECTLY TO WALL AND JUNCTION BOX. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8.67.10.
 - ◇ INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8.67.10.
 - ◇ INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TMS FOR RTU-2 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8.67.10.
 - ◇ INSTALL REMOTE TEMPERATURE SENSOR FOR HOOD HD-1 AT THIS LOCATION 72" AFF. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE 2 (PH 0) THERMISTOR CABLE FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL.

- KEY NOTES: CONT.**
- ◇ INSTALL KITCHEN HOOD, HD-1, SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL HOOD ACCORDING TO THE REQUIREMENTS OF ITS LISTING. IN COMPLIANCE WITH NFPA 96, THE BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION, HOOD SHALL HAVE AN INTEGRAL DUCT COLLAR TEMPERATURE SENSOR TO AUTOMATICALLY ENERGIZE THE EXHAUST AND MAKEUP AIR FANS IF COOKING TEMPERATURES ARE DETECTED. EXHAUST DUCT SYSTEM TO BE WELDED OR FACTORY MANUFACTURED WATER AND AIR TIGHT. INSTALL CLEANOUTS PER CODE AND AS SHOWN. INSTALL HOOD PER DETAILS 2, 4, AND 5. RTU-1 CURB WALL PROVIDE AN INDEPENDENT TESTING AGENCY FOR TESTING THE INTEGRITY OF THE GREASE DUCT SYSTEM.
 - ◇ INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLIDING VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING, TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. INSTALLATION SHALL COMPLY WITH ASHRAE ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3" OF THE CONDENSING UNIT. CUT 2-1/2" HOLE IN WALK-IN COOLER ROOF FOR REFRIGERANT LINE SET AND SEAL PER THE COOLER MANUFACTURER'S INSTALLATION INSTRUCTIONS AFTER LINE SET IS INSTALLED.
 - ◇ INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLIDING VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING, TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. INSTALLATION SHALL COMPLY WITH ASHRAE ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3" OF THE REMOTE CONDENSER. IF REFRIGERANT PIPING TO ICE MAKER IS EXPOSED TO PUBLIC VIEW CONCEAL WITHIN A STAINLESS STEEL SHROUD AS SHOWN IN THE ARCHITECTURAL DRAWINGS.
 - ◇ INSTALL EXHAUST FAN EF-1 PER DETAIL 8.67.10 AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL GREASE VITROGUARD SYSTEM FURNISHED BY CHIPOTLE ON EXHAUST FAN, EF-1.
 - ◇ PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 1.67.00, TYPICAL.
 - ◇ PROVIDE AUDIO VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET. WIRE A UNIT BACK TO EACH SMOKE DETECTOR, MOUNT UNIT 60" AFF, ABOVE THERMOSTAT FOR EACH UNIT, TYPICAL.
 - ◇ INSTALL REME HALO AIR PURIFIER FURNISHED BY TLV IN RTU PER DETAIL 8.67.00. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTION INFORMATION. INSTALL UV WARNING STICKERS ON FACE OF ENCLOSURE PER DETAIL AND ON ANY RTU ACCESS DOOR(S) THROUGH WHICH THE REME HALO WOULD BE VISIBLE IF OPENED.
 - ◇ MAINTAIN 10" CLEARANCE BETWEEN WATER HEATER FLUE TERMINATION AND OUTSIDE AIR INTAKES. MAINTAIN 10" CLEARANCE BETWEEN WATER HEATER COMBUSTION AIR INTAKE AND EXHAUST FAN EF-1 DISCHARGE. SEE PLUMBING DRAWINGS FOR MORE INFORMATION ON WATER HEATER FLUE AND COMBUSTION AIR TERMINATIONS.
 - ◇ ADJUST SUPPLY REGISTERS SO THAT SUPPLY AIR HITS WALL ON OPPOSITE SIDE OF ROOM AT APPROXIMATELY 7' AFF WITH NO DRAFTS FELT IN THE DINING ROOM, TYPICAL OF ALL SR REGISTERS.
 - ◇ AIR CURTAIN HUNG FROM STRUCTURE ABOVE, INSTALL PER MANUFACTURER INSTRUCTIONS, SEE SCHEDULE ON SHEET M000.
 - ◇ CEILING UNIT HEATER - INSTALL PER MANUFACTURER INSTRUCTIONS.



2 HVAC ROOF PLAN
1/8" = 1'-0"



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

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CHIPOTLE
 RESTAURANT
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PROJECT INFORMATION
 STORE NO.: 5307
 "CLOCKTOWER COMMONS"
 CROOKTOWER BLVD NW &
 HANSON BLVD NW
 ANDOVER, MN 55304

DESIGNER
 I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Gregory M. Stelmach, P.E.
 Title or Printed Name
 2604
 11/12/2024
 License # Date

PROJECT NO. 2023-0519
 DRAWN BY TSB
 CHECKED BY GMS

REVISION RECORD
 05.28.2024 CHECK SET
 06.03.2024 PERMIT SET
 08.20.2024 BID SET
 11.12.2024 CONSTRUCTION SET

REVISIONS
 2 08/20/2024 City Comments
 3 10/08/2024 Mechanical Comments

TITLE
 HVAC PLAN

SHEET NUMBER
 M100



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OUTDOOR AIR CALCULATION BASED ON 2018 INTERNATIONAL MECHANICAL CODE

SPACE NAME	SPACE AREA Az (FT ²)	OCCUPANCY CLASSIFICATION	ZONE POPULATION Pz(1)	O.A. RATE		OCCUPANT O.A.		AREA O.A. RATE		AREA O.A.		BREATHING ZONE O.A. Vbz/RpPz + RaAz (CFM)	ZONE DISTRIBUTION EFFECTIVENESS (Ez)	ZONE O.A. Voz/Vbz/Ez (CFM)
				Rp (CFM/PERSON)	Ra (CFM/FT ²)	Rp x Pz (CFM)	Ra x Az (CFM)	Ra x Az (CFM)	Ra x Az (CFM)					
DINING - ENTRY	684	FOOD AND BEVERAGE DINING ROOMS	34	7.5	255	0	0	0.18	293.1	378.1	0	0.8	472.8	
PASSAGE	38	PUBLIC SPACES/ CORRIDORS	0	0	0	0	0.06	2.3	2.3	0	0.8	2.9		
KITCHEN + SCULLERY	996	FOOD AND BEVERAGE KITCHENS (COOKING)	6	7.5	45	0	0.12	119.5	164.5	0	0.8	206.8		
OFFICE	49	OFFICES/ OFFICE SPACES	1	5	5	0	0.06	2.9	2.9	0	0.8	3.9		
FOOTNOTES: (1)- ZONE POPULATION BASED ON NET OCCUPABLE FLOOR AREA, OR NUMBER OF FIXED SEATS IN RESTAURANT DINING AREAS														
TOTAL O.A. REQUIRED													681	
TOTAL O.A. PROVIDED													1500	

EXHAUST AIR CALCULATION BASED ON 2018 INTERNATIONAL MECHANICAL CODE

SPACE NAME	SPACE AREA (FT ²) OR PER WC/URINAL	OCCUPANCY CLASSIFICATION	EXHAUST AIRFLOW RATE (CFM/FT ²) OR PER WC/URINAL	REQUIRED EXHAUST (CFM)	PROVIDED EXHAUST (CFM)
KITCHEN	996	FOOD AND BEVERAGE KITCHENS (COOKING)	0.3	691.2	2500
TOILETS	2	PUBLIC SPACES/ TOILET ROOMS (INTERMITTENT EXHAUST)	70	140	150
TOTALS				837.2	2700

CONTROL FUNCTIONS

- THE MAIN COOKING EXHAUST FAN AND MAKE-UP AIR UNIT SHALL BE INTERLOCKED TO OPERATE TOGETHER. THIS CONTROL CIRCUIT IS ACTIVATED BY A SWITCH AND INCLUDES A FIRE PROTECTION OVERRIDE.
- THE TEMPERATURE IN EACH ZONE IS CONTROLLED BY SPACE TEMPERATURE SENSORS CONNECTED TO THE THERMOSTATS LOCATED IN THE ZONES. ALL ZONES SHALL OPERATE WITH CONTINUOUS FAN OPERATION DURING OCCUPIED TIMES AND INTERMITTENTLY AS NEEDED TO MAINTAIN SET POINTS DURING UNOCCUPIED TIMES. OUTSIDE AIR DAMPERS SHALL BE OPEN CONTINUOUSLY WHEN EITHER IN OCCUPIED MODE OR WHEN THE HOOD SYSTEM IS ON AND SHALL BE CLOSED DURING UNOCCUPIED PERIODS.
- THE THERMOSTATS SHALL DETERMINE OCCUPED/UNOCCUPIED STATUS BASED ON THE SCHEDULE IN THE ENERGY MANAGEMENT SYSTEM.

AIR BALANCE SCHEDULE

TAG	SUPPLY FLOW (CFM)	RETURN FLOW (CFM)	EXHAUST FLOW (CFM)	SUBTOTAL (CFM)
EF-1	0	0	350	-350
EF-2	0	0	150	-150
MAU-1	1300	0	0	1300
RTU-1	3400	2900	0	500
RTU-2	4000	3000	0	1000
NET PRESSURIZATION (CFM)				100

AIR CURTAIN SCHEDULE - ELECTRIC

EQUIPMENT TAG	APPLICATION	TYPE	NOZZLE WIDTH (IN)	AIR VELOCITY @ NOZZLE (FPM)	VELOCITY IF ABOVE FLOOR	NUMBER OF FANS	MOTOR HP (EACH)	TOTAL CFM	TEMP RISE (F)	CAPACITY (KW)	ELECTRICAL DATA	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
AC-2	REAR SERVICE DOOR	ELECTRIC	42"	5305	6.48 FPS	1	0.5	886	36	10	208-3/0	POWERED AIRE INC	CEC-442E	PROVIDE WITH FACTORY ON/OFF SWITCH, THERMOSTAT, MAGNETIC DOOR SWITCH, AND TIME DELAY RELAY.

AIR CURTAIN SHALL BE TESTED IN ACCORDANCE WITH ANSI/MCA 220 OR ISO 27327-1 AND INSTALLED IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. ADJUST FLOW DIRECTION TO BE A MINIMUM OF 20" TOWARDS DOOR OPENING.

AIR TERMINAL SCHEDULE

TAG	DESCRIPTION	FACE SIZE	MATERIAL	FINISH	MOUNTING	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL	MECHANICAL NOTES
CD1	PERFORATED CEILING DIFFUSER	24" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NALOR	4320A TYPE L	PROVIDE WITH INTEGRAL OBD
CD2	PERFORATED CEILING DIFFUSER	24" X 12"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NALOR	4320A TYPE L DEFLECTORS	PROVIDE WITH INTEGRAL OBD, REMOVE 4-WAY DEFLECTORS
CD3	PERFORATED CEILING DIFFUSER	24" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NALOR	4320A TYPE S	PROVIDE WITH INTEGRAL OBD
ERT	PERFORATED CEILING EXHAUST	12" X 12"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NALOR	4339R TYPE S	PROVIDE WITH INTEGRAL OBD
RG1	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NALOR	4339R TYPE L	-
RQ2	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NALOR	4339R TYPE S	-
SR1	ADJUSTABLE TURBO NOZZLE	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	AIR CONCEPTS	ANK-14	PROVIDE WITH CONCEALED MOUNTING AND FACE-ACCESSIBLE OBD
SR2	DOUBLE DEFLECTION	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	NALOR	51DH	PROVIDE WITH INTEGRAL OBD

SANITIZING EQUIPMENT SCHEDULE

TAG	DESCRIPTION	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		MECHANICAL NOTES
				MANUFACTURER	MODEL	
SB-1	BATHROOM AIR PURIFICATION UNIT	TUV	GC	RFQ ENVIRONMENTAL GROUP	BRL	SEE ELECTRICAL SHEETS FOR ASSEMBLY CONNECTION INFORMATION.
SH-1	HVAC AIR PURIFICATION UNIT	TUV	GC	RFQ ENVIRONMENTAL GROUP	REME-HALO	SEE DETAIL 600700 FOR INSTALLATION INFORMATION.
SI-1	ICE MACHINE TREATMENT SYSTEM	TUV	GC	RFQ ENVIRONMENTAL GROUP	IMS-64-GA	SEE PLUMBING DRAWINGS FOR INSTALLATION INFORMATION.

FAN SCHEDULE

TAG	DESCRIPTION	AIRFLOW (CFM)	ESP IN W.C.G.	WEIGHT (LBS)	MOTOR POWER (HP)	V/F/H	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
EF-1	UPRAST AIR EXHAUST FAN	2500 CFM	1.20 IN-W.G.	400LB	2.01 HP	208/3/0	HS	GC	CAPTIVE-AIRE	DR120HFA	DIRECT DRIVE ULTRAST EXHAUST FAN FURNISHED WITH WEATHERPROOF DISCONNECT AND VENTED ROOF CURB
EF-2	EXHAUST FAN - TOILETS	150 CFM	0.60 IN-W.G.	100LB	0.19 HP	120/1/60	HS	GC	CAPTIVE-AIRE	DR12HFA	DIRECT DRIVE DOWNBLAST RESTROOM EXHAUST FAN FURNISHED WITH INTEGRAL DISCONNECT, SPEED CONTROL, BACKDRIFT DAMPER, AND CURB

VIROGUARD SCHEDULE

TAG	DESCRIPTION	DUCT CONNECTION SIZE	FAN	FURNISHED BY	INSTALLED BY	MANUFACTURER
VG-1	VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM	18" X 18"	CAPTIVE-AIRE DRU-190HFA	TGC	GC	ENVIRONMENTAL

CONDENSING UNIT SCHEDULE

TAG	DESCRIPTION	COMPRESSORS	CIRCUITS	MCA FLA	V/PH	WEIGHT (LBS)	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
CU-1	CONDENSING UNIT - WALK-IN COOLER	1	1	15	9	208/3/0	WCS	GC	HARFORD	KPCL3M20R-3E	FURNISHED WITH WALK-IN COOLER
CU-2	REMOTE CONDENSER - LOW CAPACITY ICE MAKER	1	1			120/1/60	KES	GC	HOSHIZAKI	URC-SFZ	FURNISHED WITH ICE MAKER
CU-3	REMOTE CONDENSER - SODA MACHINE ICE MAKER	1	1			120/1/60	KES	GC	HOSHIZAKI	URC-SFZ	FURNISHED WITH ICE MAKER

MAKE UP AIR UNIT SCHEDULE

TAG	DESCRIPTION	AIRFLOW (CFM)	E.S.P. IN W.G.	GAS INPUT (MBH)	GAS OUTPUT (MBH)	EAT DB (F)	WEIGHT (LBS)	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES		
MAU-1	DIRECT-DRAINED MAKEUP AIR UNIT	1300	0.50 IN-W.G.	225	220	21	650	1	208/3/0	HS	GC	CAPTIVE-AIRE	A1-0.250-150	12.31 MAX TURNDOWN, FURNISHED WITH DISCONNECT, ROOF CURB, SCREEN INTAKE, AND WASHABLE ALUMINUM FILTERS

KITCHEN EXHAUST HOOD SCHEDULE

TAG	DESCRIPTION	MAX COOKING TEMP.	EXHAUST PLENUM			PERFORATED SUPPLY PLENUMS						NO. OF LIGHT FIXTURES	WEIGHT (LBS)	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES							
			AIRFLOW	E.S.P. IN W.G.	NO.	WIDTH	LENGTH	LENGTH	WIDTH	LENGTH	WIDTH								AIRFLOW	NO.	WIDTH	LENGTH	AIRFLOW	NO.	DIAMETER
HEB-1	TYPE I CANOPY HOOD WITH PERFORATED MAU AND AC SUPPLY PLENUMS	600°F	2500 CFM	0.87 IN-W.G.	1	10"	24"	12'-6"	4'-3"	13'-4"	17"	1300	3	6"	2'-4"	100	6	6"	9	1150	HS	GC	CAPTIVE-AIRE	543R-10040SP-F	MATL: 18 GA. TYPE 316 SS. FURNISHED WITH VERTICAL END PANELS, VAPORPROOF INCANDESCENT LIGHT FIXTURES, 16" TALL HE SS FILTERS, INTEGRAL UTILITY CABINET, KITCHEN EXHAUST SUPPRESSION SYSTEM, ONE DOLLAR TEMPERATURE SENSOR, PREWIRE PACKAGE, SPARE FIRE SYSTEM DRY CONTACT, AND 4-POLE 20A CONTACTOR.

ROOFTOP UNIT SCHEDULE

EQUIPMENT TAG	DESCRIPTION	NOMINAL TONS	EER (SEER)	TOTAL CFM	OA CFM	ESP IN W.C.G.	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	NET COOLING CAPACITY		NUMBER OF COMPRESSORS & CIRCUITS	GAS INPUT (MBH)	GAS OUTPUT (MBH)	REFRIGERANT TYPE AND CHARGE	WEIGHT (LBS)	MOCP	MCA	ELEC	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES		
									EAT	EAT DB														DB/F	WB/F
RTU-1	ROOFTOP UNIT - KITCHEN	8.5	11.0 (14.6)	3400	500	0.5	106.1	76.1	79.2	81.2	95	2.1	150	121.5	37.0	140A & 9.5LB	1209	60	48	208/3/0	HES	GC	TRANE	YS102430SM	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV10 FILTERS, CURB, HAL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, 4-UNIT-ADJUSTED CONVENIENCE RECEPTACLE
RTU-2	ROOFTOP UNIT - DINING	8.5	11.0 (14.6)	4000	1000	0.5	109.5	84.8	80.8	86.2	95	2.1	150	121.5	48.2	140A & 9.5LB	1209	60	48	208/3/0	HES	GC	TRANE	YS102430SM	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV10 FILTERS, CURB, HAL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, 4-UNIT-ADJUSTED CONVENIENCE RECEPTACLE

CLIENT



CLOCKTOWER COMMONS LLC
 1000 BROADWAY
 COLUMBIA, SC 29201
 (803) 733-1100
 PROJECT: 2023-0519

DESIGNER: DUNHAM
 DRAWN BY: TSB
 CHECKED BY: GMS

PROJECT INFORMATION

STORE NO.: 5307

"CLOCKTOWER COMMONS"
 CROOKTOWER BLVD NW &
 HANSON BLVD NW
 ANDOVER, MN 55004

DESIGN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: Gregory M. Starniez, P.E.
 Type or Printed Name
 2604
 11/12/2024
 License # Date

PROJECT NO. 2023-0519

DRAWN BY TSB
 CHECKED BY GMS

REVISIONS

DATE	DESCRIPTION	BY
05.28.2024	CHECK SET	
06.03.2024	PERMIT SET	
08.20.2024	BID SET	
11.12.2024	CONSTRUCTION SET	

REVISIONS

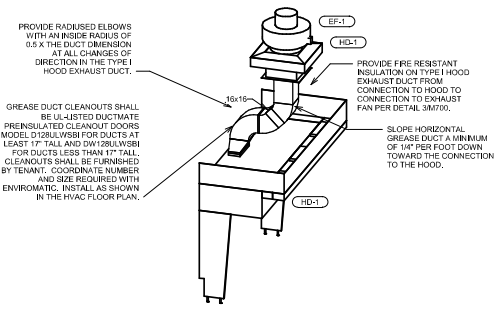
NO.	DATE	DESCRIPTION
2	08/20/2024	City Comments
3	10/08/2024	Mechanical Comments

TITLE

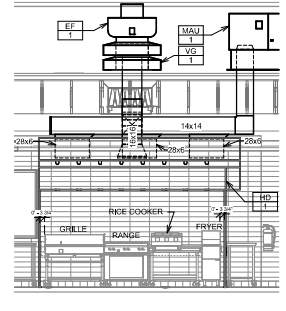
HVAC SCHEDULES

SHEET NUMBER

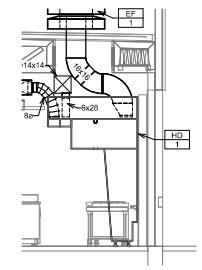
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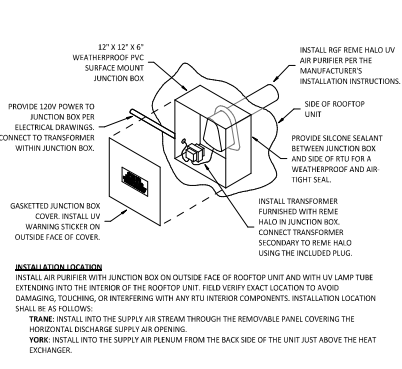
9 Riser - Grease exhaust
1/4" = 1'-0"



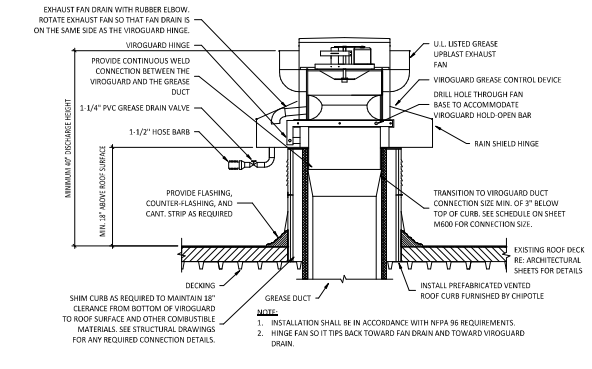
8 HVAC DINING ROOM SUPPLY
1/4" = 1'-0"



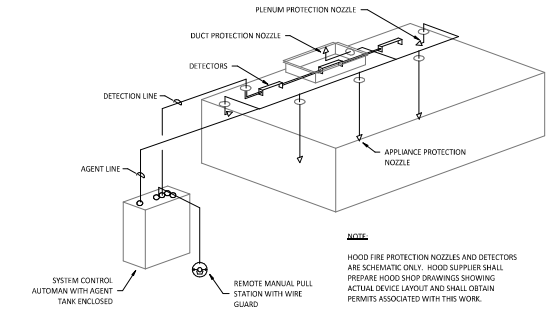
7 HVAC DINING ROOM SUPPLY
1/4" = 1'-0"



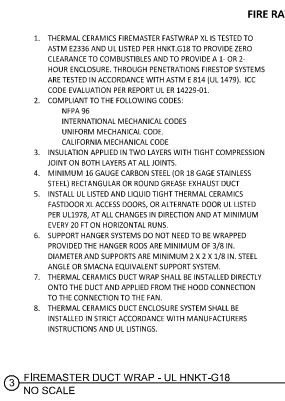
6 UV AIR PURIFIER INSTALLATION
NO SCALE



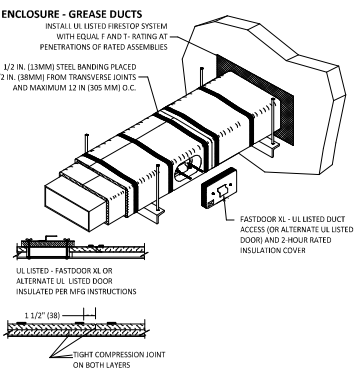
5 GREASE EXHAUST FAN
NO SCALE



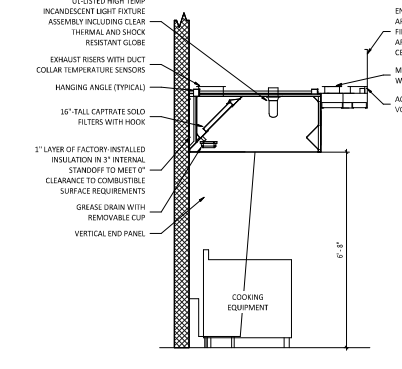
4 FIRE SUPPRESSION SYSTEM SCHEMATIC
NO SCALE



3 FIREMASTER DUCT WRAP - UL HNK1-G18
NO SCALE



2 HOOD SECTION VIEW
NO SCALE



1 DIFFUSER CONNECTION
NO SCALE

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CHPOTLE
RESTAURANT

CHPOTLE RESTAURANT, INC.
10000 15TH AVENUE S.W.
MINNEAPOLIS, MN 55425

PROJECT INFORMATION

STORE NO.: 5307
"CLOCKTOWER COMMONS"
CLOCKTOWER BLVD NW &
HANSON BLVD NW
ANDOVER, MN 55304

Issue

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: Gregory M. Steinmetz, P.E.
Type of Printed Name
26/04 11/12/2024
License # Date

PROJECT NO. 2023-0519
DRAWN BY TSB
CHECKED BY QMS

REVISIONS

DATE	CHECK SET
05/28/2024	PERMIT SET
08/05/2024	PERMIT SET
08/20/2024	BD SET
11/12/2024	CONSTRUCTION SET

REVISIONS

NO.	DATE	MECHANICAL COMMENTS
3	10/08/2024	Mechanical Comments

Issue

HVAC DETAILS

SHEET NUMBER

M700

SECTION 1555 - COMMON PIPE REQUIREMENTS

- A. SECTION REQUIREMENTS**
 1. Comply with the requirements of the Building Code and the local authority having jurisdiction.
2.1 SURPORTING DEVICES
 A. Hanger Pipe Attachments: Factory fabricated with galvanized coatings, nonmetallic coated for hangers in direct contact with copper tubing.
 B. Building Attachments: Powder actuated type, drive pin attachments with pullout and shear capacities appropriate for supported loads and building materials; UL listing and FM approval for fire protection systems.
 C. Mechanical Anchor Fasteners: Insert-type attachments with pullout and shear capacities appropriate for supported loads and building materials; UL listing and FM approval for fire protection systems.

PART 3 - EXECUTION

- 1.1 INSTALLATION**
 A. Install piping free of sag and bends.
 B. Install fittings for changes in direction and branch connections.
 C. Install sleeves for pipes passing through concrete and masonry walls, gypsum board partitions, and concrete floor and roof slabs.
 D. Exterior Walls: Pipe Penetrations: Mechanical sleeve seals installed in steel or cast iron pipes for wall sleeves.
 E. Fire Barrier Penetrations: Seal pipe penetrations with through penetration firestop systems.
 F. Install unions adjacent to each valve and at final connection to each piece of equipment.
 G. Install electric unions and flanges to connect piping materials of dissimilar metals in water piping.
 H. Install electric coupling and nipple fittings to connect piping materials of dissimilar metals in water piping.
 I. Provide full ring escutcheaus at plumbing penetrations through walls or ceilings. Tightly seal escutcheaus to the adjacent surface.
2.2 HANGERS AND SUPPORTS
 A. Install building attachments within concrete or to structural steel. Install additional attachments at concentrated loads, including valves, flanges, guides, strainers, expansion joints, and at changes in direction of piping.
 B. Install powder actuated drive pin fasteners in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.
 C. Install mechanical anchor fasteners in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.
 D. Support fire protection system piping independent of other piping.
 E. Load Distribution: Install hangers and supports so piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
END OF SECTION 1555

SECTION 1580 - MECHANICAL INSULATION

- PART 1 - GENERAL**
1.1 SECTION REQUIREMENTS
 A. Submittals: None.
 B. Quality Assurance: Labeled with maximum flame-spread rating of 25 and maximum smoke developed rating of 50 according to ASTM E 84.
PART 2 - PRODUCTS
 1. PIPE INSULATION
 A. Preformed Glass Fiber Pipe Insulation: ASTM C 547, Class 1, with factory applied, all purpose, vapor retarder jacket.
 B. Polyethylene Pipe Insulation: Unicellular polyethylene, preformed pipe insulation. Comply with ASTM C 534, Type I, except for density.
PART 3 - EXECUTION
1.1 INSTALLATION
 A. Install vapor barriers on insulated pipes with surface operating temperatures below 60 F.
 B. Install fittings, valves, and specialties.
 C. Seal vapor barrier penetrations for hangers, supports, anchors, and other projections.
 D. Coat glass fiber pipe insulation ends with vapor barrier coating.
 E. Roof Penetrations: Apply insulation for interior applications to a point even with the top of the roof flashing.
 F. Exterior Wall Penetrations: For penetrations of below grade exterior walls, terminate insulation flush with mechanical sleeve seal.
 G. Interior Walls and Partitions Penetrations: Apply insulation continuously through walls and partitions, except fire rated walls and partitions.
 H. Fire-Rated Walls and Partitions Penetrations: Terminate insulation at penetrations through fire-rated walls and partitions. Seal around penetration with through penetration firestop systems.
 I. Floor Penetrations: Terminate insulation at the underside of the floor assembly and at the floor support at top of floor. Seal around penetration with through penetration firestop systems.
 J. Glass Fiber Insulation Installation: Bond insulation to pipe with adhesive. Seal seams and joints with vapor barrier compound.
 K. Interior Piping System Applications: Insulate the following piping systems:
 1. Domestic cold, hot, and recirculation water pipes.
 2. Exposed sanitary drains and water supply pipes for public hand sinks.
 3. Refrigerant piping.
 L. Do not apply insulation to the following systems, materials, and equipment:
 1. Flexible connectors.
 2. Fire protection piping systems.
 3. Sanitary drainage and vent piping.
 4. Chrome plated pipes and fittings, except for plumbing fixtures for the disabled.
 5. Piping specialties, including air chambers, unions, strainers, check valves, plug valves, and flow regulators.
 M. Pipe Insulation Thickness Application Schedule: Insulate piping with the following materials and thicknesses:
 1. Domestic Hot and Recirculation water pipes: 1-inch preformed glass fiber pipe insulation.
 2. Domestic Cold Water: 1/2-inch preformed glass fiber pipe insulation.
 3. P-Trap and Future Supplies for public hand sinks: ADA-compliant pre-formed insulation.
END OF SECTION 1580

SECTION 15110 - VALVES

- PART 1 - GENERAL (Not Applicable)**
PART 2 - PRODUCTS
 1.2 GENERAL DUTY VALVES
 A. End Connections: Threads shall comply with ANSI B1.20.1. Flanges shall comply with ANSI B16.1 for cast iron valves and ANSI B16.24 for bronze valves. Solder-joint connections shall comply with ANSI B16.18.
 B. Ball Valves: Rated for 150 psig sulfurated steam pressure, 400 psig WOG pressure, 2 piece construction, with bronze body, standard (or regular) port, chrome plated brass ball, redoxalene, "Teflon" or TFE seats and seals, blowout proof stem, and vinyl covered steel handle.
 C. Plug Valves: Rated at 150 psig WOG, bronze body, with straightaway pattern, square head, and threaded ends.
 D. Swing Check Valves: Class 125, cast bronze body and cap, with horizontal swing, Y pattern, and bronze disc.
 E. Valves for Copper Tube: Solder ends, except provide threaded ends for heating hot water and low pressure steam service.
 F. Valves for Steel Pipes: Threaded ends.
PART 3 - EXECUTION
 1.1 INSTALLATION
 A. Gate and ball valves for shutoff duty and ball for throttling duty.
 B. Locate valves for easy access and provide separate support where necessary.
 C. Install accessible valves for each fixture and item of equipment.
 D. Install valves in horizontal piping with stem at or above center of pipe.
 E. Install valves in a position to allow full stem movement.
 F. Install check valves for proper direction of flow in horizontal position with hinge pin level.
END OF SECTION 15110

PLUMBING MATERIAL SCHEDULE	
APPLICATION	ALLOWABLE MATERIAL
NATURAL GAS PIPE	
CONCEALED	SCH. 40 STEEL PIPE, AVAILABLE IRON THREADED FITTINGS
EXPOSED	SCH. 40 STEEL PIPE, AVAILABLE IRON THREADED FITTINGS, PAINTED
SANITARY WASTE & VENT PIPE	
ABOVE GROUND: HAND SINK DRAINS	BRASS WITH CHROME FINISH
ABOVE GROUND: PREP SINK AND WARE WASHING SINK DRAIN	PVC PLASTIC DWV PIPE AND FITTINGS
ABOVE GROUND: CONCEALED	PVC PLASTIC DWV PIPE AND FITTINGS
BELOW GROUND	PVC PLASTIC DWV PIPE AND FITTINGS
WATER SUPPLY PIPE	
ABOVE GRADE	TYPE L COPPER TUBE

SECTION 1540 - DOMESTIC WATER PIPING

- PART 1 - GENERAL**
1.1 SECTION REQUIREMENTS
 A. Performance Requirements: Unless otherwise indicated minimum pressure requirements for water piping are as follows:
 1. Service Entrance Piping: 100 psig.
 2. Comply with applicable code requirements.
 B. Comply with NSF 14 "Plastic Piping Components and Materials."
PART 2 - PRODUCTS
 1.2 PIPES AND TUBES (See Material Schedule on sheet P00 for where these materials are to be used)
 A. Hard Copper Tube: ASTM B 88, Types 1 and M, water tube, draw temper.
 B. PVC Plastic, Water Pipe: ASTM D 1785, Schedule 80, plain ends.
PART 3 - EXECUTION
 1.1 INSTALLATION
 A. Wrought Copper, Solder Joint Pressure Fittings: ASME B 16.22.
 B. Cast Copper Alloy, Solder Joint Pressure Fittings: ANSI B 16.18.
 C. Bronze Flanges: ASME B 16.24, Classes 150 and 300.
 D. Copper Unions: ASME B 16.18, Cast copper alloy body, hexagonal stock, with ball and socket joint, metal to metal seating surfaces, and solder joint, threaded, or solder joint and threaded ends.
 E. PVC Plastic, Schedule 80, Solder Type Pipe Fittings: ASTM D 2467.
2.3 JOINING MATERIALS
 A. Solder Filler Metal: ASTM B 32, lead free.
 B. Brazing Filler Metal: AWS 5.18, alloys to suit system requirements.
 C. Solvent Cement: As recommended by manufacturer.
 D. Plastic Pipe Seals: ASTM F 477, elastomeric gasket.
PART 3 - EXECUTION
 3.1 VALVE APPLICATIONS
 A. Install gate valves below or on-line on each branch and riser serving two or more plumbing fixtures or equipment unless otherwise indicated.
 B. Install gate or ball valves to isolate all such plumbing equipment item, on each supply to each plumbing fixture not having stops on supplies, and elsewhere as indicated.
 C. Install ball valves at base of each stop, at low points of horizontal runs, and where required to drain water distribution piping system.
 D. Install swing check valve on discharge side of each pump and elsewhere as indicated.
 E. Install ball valves in each hot water recirculating loop and discharge side of each pump.
3.2 PIPING INSTALLATION
 A. Install hangers and supports at intervals indicated in the applicable plumbing code and as recommended by pipe manufacturer.
 B. Support vertical piping at each floor.
3.3 INSPECTION AND CLEANING
 A. Inspect and test piping systems following procedures of authorities having jurisdiction.
 B. Clean and disinfect water distribution piping following procedures of authorities having jurisdiction.
END OF SECTION 1540

SECTION 15150 - SANITARY WASTE AND VENT PIPING

- PART 1 - GENERAL**
1.1 SECTION REQUIREMENTS
 A. Minimum Pressure Requirement for Soil, Waste and Vent: 10 foot head.
 B. Comply with NSF 14 "Plastic Piping Components and Related Materials."
PART 2 - PRODUCTS
 2.1 PIPES AND TUBES
 A. PVC Plastic, DWV Pipe: ASTM D 2665, Schedule 40, plain ends.
2.2 FITTINGS
 A. PVC Plastic, DWV Pipe Fittings: ASTM D 2665, made to ASTM D 3311; socket type; drain, waste, and vent pipe patterns.
PART 3 - EXECUTION
 1.1 PIPING INSTALLATION
 A. Install cleanout and extension to grade at connection of building sanitary drain and building sanitary sewer.
 B. Locate drainage piping runouts as close as possible to bottom of floor slab supporting fixtures or drains.
3.2 INSPECTION
 A. Inspect and test piping systems following procedures of authorities having jurisdiction.
END OF SECTION 15150

SECTION 15300 - NATURAL GAS PIPING

- PART 1 - GENERAL**
1.1 SECTION REQUIREMENTS
 A. Quality Assurance: Comply with NFPA 54 and the Plumbing Code.
PART 2 - PRODUCTS
 2.1 PIPE, TUBE, AND SPECIALTIES
 A. Steel Pipe: ASTM A 153, Type 1 (Standard), Grade B, Schedule 40, plain ends.
 B. Malleable Iron Threaded Fittings: ANSI B16.3, Class 150.
 C. Manual Valves: Comply with standards listed or, if appropriate, to ANSI Z21.35.
 D. Gas Stops: AGA certified, bronze body, plug type with bronze plug, for 1/2-inch or less natural gas. Include AGA stamp, flat or square head or lever handle, and threaded ends complying with ASME B1.20.1.
 E. Gas Valves: 150-psig WOG, cast-iron or bronze body, bronze jacket, straightaway pattern, square head, tapered-plug type.
 F. Gas Pressure Regulators: ANSI Z21.18, single stage, steel jacketed, corrosion resistant pressure regulators. Include atmospheric vent, elevation compensator, regulator pressure ratings, inlet and outlet pressures, and flow volume in cubic feet per hour of natural gas at specific gravity as indicated.
 G. Line Gas Pressure Regulators: Inlet pressure rating not less than system pressure.
 H. Flexible Connectors: ANSI Z21.24, copper alloy.
 I. Strainers: Bronze body, Y pattern, full size of connecting piping. Include stainless-steel screens with 3/64 inch perforations and a pressure rating of 125 psig; minimum, WOG working pressure.
PART 3 - EXECUTION
 3.1 INSTALLATION
 A. Close equipment shutoff valves before turning off gas to premises or section of piping. Perform leakage test as specified to determine that all equipment is turned off in affected piping section.
 B. Install shutoff valve, downstream from gas meter, outside building at gas service entrance.
 C. Install gas stops for shutoff at appliances with NPS 3/4" or smaller low pressure gas supply.
 D. Drips and Sediment Traps: Install drips at points where condensate may collect. Include outlets of gas meters. Locate where readily accessible to permit draining and emptying. Do not install where condensate would be subject to freezing.
 E. Install gas stops at uniform slope of 0.1 percent upward toward risers.
 F. Connect branch piping from top to side of horizontal piping.
 G. Install strainers on supply side of each control valve, gas pressure regulator, solenoid valve, and elsewhere as indicated.
 H. Install valves in accessible locations, protected from damage.
 I. Install gas valves upstream from each gas pressure regulator. Where two gas pressure regulators are installed in series, valve is not required at second regulator.
 J. Connect gas piping to equipment and appliances with shutoff valves and unions. Install gas valve upstream from and within 36 inches of each appliance using gas. Install union on hanged connection downstream from valve.
 K. Inspect, test, and purge piping according to NFPA 54, "Part 4," Gas Piping Inspection, Testing, and Purging," and requirements of authorities having jurisdiction.
END OF SECTION 15300

SECTION 15410 - PLUMBING FIXTURES

- PART 1 - GENERAL**
1.1 SECTION REQUIREMENTS
 A. Submittals: None.
 B. Comply with requirements of Public Law 102-486, "Energy Policy Act," regarding water flow rate and water consumption of plumbing fixtures.
2.1 Comply with applicable code requirements.
 1. Enameled, Cast Iron Fixtures: ASME A112.19.1M.
 2. National Sanitation Foundation Construction: NSF2.
 3. Porcelain Enamelled Fixtures: ASME A112.19.2M.
 4. Slip Resistant Bathing Surfaces: ASTM A 462.
 5. Stainless Steel Fixtures: ASME A112.19.3M.
 6. Vitreous China Fixtures: ASME A112.19.3M.
PART 2 - PRODUCTS
 2.1 Refer to the fixture schedule on drawing P000
PART 3 - EXECUTION
 1.1 INSTALLATION
 A. Install fixtures with flanges and gasket seats.
 B. Install flowmeter valves for accessible water closets and urinals with handle mounted on wide side of compartment. Install other actuators in locations that are easy for the disabled to reach.
 C. Fasten wall hanging plumbing fixtures securely to supports attached to building substrate when supports are specified, and to building wall construction where no support is indicated.
 D. Fasten floor mounted fixtures to substrate. With fixtures having holes for securing fixture to wall construction, fasten to reinforcement cast into walls.
 E. Fasten wall mounted fittings to reinforcement cast into walls.
 F. Fasten counter mounted plumbing fixtures to casework.
 G. Secure supplies to supports or substrate with whip pipe space behind fixture.
 H. Set mop basin in leveling bed of cement grout.
 I. Install individual supply lines, supply stops, supply risers, and tubular brass traps with cleanouts at each plumbing fixture.
 J. Install water supply stop valves in accessible locations.
 K. Install traps on fixture outlets. Omit trap on fixtures having integral traps. Omit trap on indirect wastes, unless otherwise indicated or required by the Authority having jurisdiction.
 L. Install full-ring escutcheaus at wall, floor, and ceiling penetrations in exposed, finished locations and within cabinets and millwork. Use deep pattern escutcheaus where required to conceal protruding pipe.
 M. Install piping connections between plumbing fixtures and piping systems and plumbing equipment. Install insulation on supports and drains of fixtures for the disabled.
 N. Install electrical equipment, "lighter electrical connections and terminals according to UL 486A and UL 486B.
END OF SECTION 15410

SECTION 1555A - FLUES AND VENTS

- PART 1 - GENERAL**
1.1 SECTION REQUIREMENTS
 A. Submittals: None.
2.1 GAS VENTS
 A. Vent/air intake for high efficiency domestic water heater. Follow manufacturer's recommendations for sizing and material.
 B. Accessories: Tees, elbows, increasers, draft hood connectors, metal cap with bird barrier, adjustable roof flashing, storm collar, support assembly, thimbles, flashing caps, and fasteners; fabricated on-site, outdoors and designs as vent-pipe straight sections.
PART 3 - EXECUTION
 1.1 INSTALLATION
 A. Install vents according to stipulated minimum clearances from combustibles.
 B. Seal between sections of positive pressure vents using only sealants recommended by manufacturer.
 C. Support vents at intervals to support the weight of the vent and all accessories, without exceeding loading of appliances.
END OF SECTION 1555A

GENERAL NOTES: PLUMBING

- A. GENERAL NOTES APPLY TO PLUMBING SHEETS.
 B. PLUMBING WORK SHALL BE DONE IN ACCORDANCE WITH THE PLUMBING CODE, LOCAL HEALTH DEPARTMENT STANDARDS, AND THE AUTHORITY HAVING JURISDICTION. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
 C. PIPING LAYOUTS ON DRAWINGS ARE SCHEMATIC. EXACT LOCATIONS ARE TO BE COORDINATED WITH THE EXISTING CONDITIONS AND THE WORK OF OTHER TRADES.
 D. CONCEAL PIPING UNLESS NOTED OTHERWISE. WATER SUPPLY PIPES SHALL BE INSTALLED BEFORE.
 E. PROVIDE SHUT-OFF VALVES FOR ISOLATION OF FIXTURE GROUPS AS SHOWN ON DRAWINGS IN ADDITION TO STOP VALVES AT EACH FIXTURE.
 F. PROVIDE STOP VALVES AT FIXTURES.
 G. PROVIDE TRAP PRIMERS FOR FLOOR DRAINS AS SHOWN ON SHEET P100.
 H. WHERE THE WATER OR GAS SUPPLY LINE SIZE SHOWN IN THE PLUMBING SCHEDULES DIFFERS FROM THE FIXTURE OR EQUIPMENT CONNECTION SIZE, PROVIDE LINE SIZE PIPE TO WITHIN P OF THE FIXTURE OR EQUIPMENT BEFORE TRANSITIONING TO THE CONNECTION SIZE.
 I. PIPING IN EXTERIOR WALLS SHALL BE INSTALLED BETWEEN THE INSULATION AND THE INTERIOR WALL FINISHING MATERIAL.
 J. INSULATE THE HOT AND COLD WATER, CONDENSATE DRAINAGE, AND STORM PIPING PER THE SPECIFICATIONS AND DETAIL S901.
 K. PROVIDE GAS SHUT-OFF VALVES AT EACH PIECE OF EQUIPMENT. PROVIDE ACCESSIBLE TRIP LEG AT THE BOTTOM OF VERTICAL SECTIONS OF GAS PIPE AND AT THE CONNECTION TO EACH PIECE OF EQUIPMENT.
 L. PLUMBING FIXTURES, ACCESSORIES, AND MATERIALS PROVIDED FOR DOMESTIC WATER SHALL BE LEAD FREE.
 M. PRIOR TO TURNOVER PERFORM A VIDEO INSPECTION OF THE SANITARY AND GREASE LINES FROM THE MAIN LINES WITH THE TENNIS SPACE TO THE MAIN DRAINS TO VERIFY THAT THE SANITARY WASTE SYSTEM IS CONNECTED, CLEAN, AND FREE OF SAGS, BELLS, BREAKS, AND DEBRIS. DELIVER A REPORT AND COPY OF THE VIDEO TO THE TENANT'S CONNECTIONS MANAGER PRIOR TO TURNOVER.
 N. THE TERM "TURNOVER" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. IT DOES NOT INCLUDE THE COMMENCEMENT OF OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
 O. PRIOR TO CONNECTION TO ANY EXISTING SEWER SYSTEM PERFORM A FLOW TEST TO VERIFY THE FLOW CAPACITY OF THE EXISTING SEWER SYSTEM. REPORT ANY DEVIATION FROM THE CONNECTION DOCUMENTS TO THE CONNECTIONS MANAGER PRIOR TO CONNECTION.
 P. PROVIDE SANITARY AND GREASE WASTE PIPES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.
 Q. INSTANT SHUT-OFF AND ISOLATION VALVES SHOWN TO BE ABOVE CEILING IS ACCESSIBLE LOCATIONS WITHIN 12" OF 14-1/4" CEILING.

MECHANICAL ABBREVIATIONS

AD	AREA DRAIN	LAV	LAVATORY
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
ADA	AMERICANS W/ DISABILITIES ACT	MBH	BTU PER HOUR (THOUSANDS)
A.F.F.	ABOVE FINISHED FLOOR	MCF	THOUSAND CUBIC FEET
A.H.U.	AIR HANDLING UNIT	NC	NOISE CRITERIA OR NORMALLY CLOSED
A.H.U.	AUTHORITY HAVING JURISDICTION	NEG	NEGATIVE
AP	ACCESS PANEL	NOT IN CONTRACT	
ARCH	ARCHITECT	NO	NORMALLY OPEN
BD	BUTTERFLY DAMPER	NTS	NOT TO SCALE
BFF	BELOW FINISHED FLOOR	OA	OUTSIDE AIR
B/G	BELOW GRADE	OD	OPPOSED BLADE DAMPER
BOH	BACK OF HOUSE	ORD	OVERFLOW ROOF DRAIN
BTU	BRITISH THERMAL UNIT	PD	PRESSURE DROP OR DIFFERENCE
CFM	CUBIC FEET PER HOUR	PLBG	PLUMBING
CFM	CUBIC FEET PER MINUTE	PRV	PRESSURE REDUCING VALVE OR POWER ROOF VENTILATOR
CL	CENTERLINE	PSA	POUNDS/INCH ABSOLUTE
CLD	CEILING	PSIG	POUNDS/INCH GAUGE
C/O	CLEAN OUT	PSI	POUNDS PER SQUARE INCH
CONTR	CONTRACTOR	PVC	POLYVINYL CHLORIDE
CUH	CABINET UNIT HEATER	RA	ROOM AIR
CW	COLD WATER	RF	ROOF DRAIN
DA	DIAMETER	REGR	RECIRCULATING
DIFF	DIFFUSER	REG	REGISTER
D/CH	DISCHARGE	RET	RETURN
DMPR	DAMPER	RH	RELATIVE HUMIDITY
DN	DOWN	RW	RECYCLED HOT WATER
DR	DRAIN	RL	RELIEF
DS	DOWNSLOPE	RM	ROOM
(E)	EXISTING	RPM	REVOLUTIONS PER MINUTE
EAT	ENTERING AIR TEMPERATURE	RZ	REDUCED ZONE BACKFLOW PREVENTER
EWT	ENTERING WATER TEMPERATURE	RPZ	REDUCED ZONE BACKFLOW PREVENTER
EXH	EXHAUST	SA	SUPPLY AIR
F	FAHRENHEIT	SAN	SANITARY
FOO	FLOOR CLEAN OUT	SCFM	CFM STANDARD CONDITIONS
FD	FLOOR DRAIN	SD	SMOKE DAMPER
FLR	FLOOR	SP	STATIC PRESSURE
FLEX	FLEXIBLE	SPCS	SPECIFICATIONS
FOH	FRONT OF HOUSE	SUP	SUPPLY
FRM	FEET PER MINUTE	SO	SQUARE
FTS	FEET PER SECOND	TD	TEMPERATURE DIFFERENCE
FS	FLOOR FINISH	TEMP	TEMPERATURE
FV	FEET OR FOOT	TONS	TONS OF REFRIGERATION
FV	FACE VELOCITY	T-STAT	THERMOSTAT
FW	FILTERED WATER	TYP	TYPICAL
GA	GAUGE	UG	UNDERGROUND
GAL	GALLON	UH	UNIT HEATER
GEXH	GREASE EXHAUST	URN	URNAL
GPH	GALLONS PER HOUR	V	SANITARY VENT
GRM	GALLONS PER MINUTE	VAV	VARIABLE AIR DAMPER
GR	GRILLE	VOL	VOLUME DAMPER
GYP	GYPSUM BOARD	VOL	VOLUME
HB	HOSE BEBB	VFD	VARIABLE FREQUENCY DRIVE
HD	HEAD	VOL	VOLUME
H	WHERE THE WATER OR GAS SUPPLY LINE SIZE SHOWN IN THE PLUMBING SCHEDULES DIFFERS FROM THE FIXTURE OR EQUIPMENT CONNECTION SIZE, PROVIDE LINE SIZE PIPE TO WITHIN P OF THE FIXTURE OR EQUIPMENT BEFORE TRANSITIONING TO THE CONNECTION SIZE.	VSC	VARIABLE SPEED CONTROLLER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	VTR	VENT THROUGH ROOF
HYD	HYDRANT	W	SANITARY WASTE
HW	HOT WATER	WI	SANITARY WASTE WITH INSULATION
GCO	GAS CLEANOUT	W/O	WITHOUT
GI	GREASE INTERCEPTOR	WC	WATER CLOSET
GT	GREASE TRAP	WHD	WALL CLEANOUT
GW	GREASE WASTE	WH	WALL HYDRANT
KWT	KILOWATT	WIC	WALK-IN COOLER
LAV	LEAVING AIR TEMPERATURE	W/PT	SOFTENED COLD WATER

CHIPOTLE ABBREVIATIONS

CO2AS	TENANT'S CO2 ALARM SUPPLIER
GC	GENERAL CONTRACTOR
HES	TENANT'S HVAC EQUIPMENT SUPPLIER
HS	TENANT'S HOOD SUPPLIER
KES	TENANT'S KITCHEN EQUIPMENT SUPPLIER
LL	LANDLORD
MSS	TENANT'S MUSIC SYSTEM SUPPLIER
SFS	TENANT'S SODA POP SUPPLIER
TAB	TENANT'S TEST AND BALANCE VENDOR
TCC	TENANT'S CABLING CONTRACTOR
TDC	TENANT'S DUST CLEANER
TEMS	TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER
TLS	TENANT'S LIGHT/LAMP SUPPLIER
TMB	TENANT'S MENU BOARD SUPPLIER
TMS	TENANT'S MILLWORK SUPPLIER
TP	TENANT'S PHONE SUPPLIER
TFS	TENANT'S FLOOR BOARD SUPPLIER
TRS	TENANT'S RAILING SUPPLIER
TSV	TENANT'S SIGN VENDOR
TUV	TENANT'S UV SANITIZER SUPPLIER
WCS	TENANT'S WALK-IN COOLER SUPPLIER
WHS	TENANT'S WATER HEATER SUPPLIER

PLUMBING SYMBOLS LEGEND

PLUMBING / PIPING	ELBOW DOWN	
	PIPE CAP	
	ELBOW UP	
	TEE, OUTLET UP	
	TEE, OUTLET DOWN	
	CONNECTION, BOTTOM	
	CONNECTION, TOP	
	ECCENTRIC REDUCER	
	CONCENTRIC REDUCER	
	FLEXIBLE CONNECTION	
	CHECK VALVE	
	SHUTOFF VALVE	
	FLOW BALANCE VALVE	
	STRAINER	
	PRESSURE REDUCING VALVE (SETTING AS NOTED) PSH	
	BALL VALVE	
	BUTTERFLY VALVE	
	REDUCED PRESSURE ZONE BACKFLOW PREVENTER	
	SOLENOID VALVE	
	GAS PRESSURE REGULATOR VALVE	
	BACKWATER VALVE	
	FLOW DIRECTION	
	FLOW DIRECTION / PITCH	
	PIPE UNION	
	PUMP	
	FLOW SWITCH	
	PRESSURE SWITCH	
	SHOCK ABSORBER	
	GAS COOK VALVE	
	TEE	
	FLOOR DRAIN	
	FLOOR SINK	
	WALL HYDRANT	
	HOSE BIBB	
	WALL CLEANOUT	
	ROOF DRAIN	
PLUMBING		
	DI	DEIONIZED WATER
	CW	DOMESTIC COLD WATER
	FW	FILTERED WATER
	GW	GREASE WASTE
	HW	DOMESTIC HOT WATER
	140 180 RW	DOM. HOT WATER (TEMP. INDICATED) DOM. REGR. HOT WATER (TEMP. INDICATED)
	RHW	DOMESTIC RECRIC. HOT WATER
	HARD	HARD COLD WATER
	OSD	OVERFLOW STORM DRAIN BELOW GRADE
	OSD	OVERFLOW STORM DRAIN ABOVE GRADE
	RO	REVERSE OSMOSIS WATER
	V	SANITARY VENT BELOW GRADE
	V	SANITARY VENT ABOVE GRADE
	W	SANITARY WASTE
	SW	SOFTENED COLD WATER
	SHW	SOFTENED HOT WATER
	TW	TEMPERED WATER
	SD	STORM DRAIN BELOW GRADE

KEY NOTES:

- LANDLORD PROVIDED 1-1/2" CW SERVICE. VERIFY LOCATION IN FIELD.
- PROVIDE 1/2" FILTERED WATER TO THE BAC-N-BOX SODA CARBONATOR AT 102" AFF. SODA CARBONATOR SHALL HAVE AN INTEGRAL ASSE 1022-RATED CARBONATED BEVERAGE BACKFLOW PREVENTION DEVICE.
- PROVIDE WATER HEATERS DWH-1 AND DWH-2 PER DETAIL 1P700.
- PROVIDE WATER FILTERS MOUNTED TO WALL PER DETAIL 1P700. PROVIDE 1/2" SUPPLY PIPES FROM FILTERS TO ICE MAKER AND SODA CARBONATOR AS SHOWN.
- PROVIDE 1/2" FILTERED WATER ROUGH-IN TO THE ICE MAKER AT 58" AFF. PROVIDE 6" LONG STAINLESS STEEL FLEXIBLE BRAIDED WASHING MACHINE WATER CONNECTOR WITH MINIMUM 0.42" ID (BRASS/CRAFT SL12-72W F OR EQUAL) FOR FINAL CONNECTION TO ICE MAKER.
- PROVIDE DOMESTIC WATER ROUGH-INS FOR THE MOP BASIN FAUCET AT 38" AFF. PROVIDE DOMESTIC WATER ROUGH-INS FOR THE CHEMICAL DISPENSER FAUCET (HB-1) AT 64" AFF DIRECTLY ABOVE THE MOP BASIN FAUCET. SEE ARCHITECTURAL ELEVATION FOR ADDITIONAL INFORMATION.
- CONNECT TO LANDLORD PROVIDED GAS SERVICE. VERIFY LOCATION IN FIELD.
- PROVIDE GAS CONNECTIONS TO THE COOKING EQUIPMENT PER DETAIL 7P700.
- SUPPORT THE GAS PIPE ON THE ROOF PER DETAIL 5P700. WOOD BLOCKING IS NOT AN ACCEPTABLE METHOD OF SUPPORTING THE GAS PIPE.
- PROVIDE ACCESSIBLE LINE-SIZED GAS VALVE, DIRT LEG, AND UNION AT GAS CONNECTION TO THE EQUIPMENT.
- REFER TO ARCHITECTURAL DRAWINGS FOR PAINTING OF INTERIOR AND EXTERIOR EXPOSED GAS PIPE.
- PROVIDE DOMESTIC WATER ROUGH-INS FOR THE CHEMICAL DISPENSER FAUCET (HB-1) AT 52" AFF. SEE ARCHITECTURAL ELEVATION FOR ADDITIONAL INFORMATION.

KEY NOTES (CONTINUED):

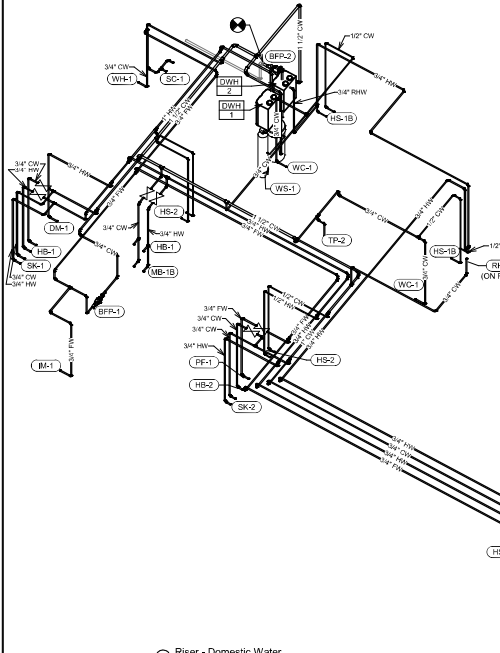
- PROVIDE DOMESTIC WATER ROUGH-INS FOR THE VICTORY WASH DISPENSER FAUCET (HB-2) AT 52" AFF. SEE ARCHITECTURAL ELEVATION FOR ADDITIONAL INFORMATION.
- PROVIDE ROUGH-INS TO RESTROOM HAND SINKS AS SHOWN IN DETAIL 10P700.
- PROVIDE KITCHEN EQUIPMENT GAS SHUTOFF 6" BELOW THE CEILING PER DETAIL 6P700.
- CONNECT CHEMICAL DISPENSER TO HB-1. CHEMICAL DISPENSER HAS AN INTEGRAL AIR GAP AS IS SHOWN IN DETAIL 10P700.
- PROVIDE ASSE 1016-1070 POINT-OF-USE THERMOSTATIC MIXING VALVE (WATTS LFRS-G) ON WATER SUPPLY TO KITCHEN HAND SINKS. PROVIDE ANGLE STOP BELOW SINK. FASTEN MIXING VALVE TO WALL, AND MAKE FINAL CONNECTION FROM ANGLE STOPS TO MIXING VALVE AND FROM MIXING VALVE TO FAUCET USING BRASSED STAINLESS STEEL HOSE. ADJUST MIXING VALVE FOR A DISCHARGE TEMPERATURE OF APPROXIMATELY 110° F.
- PROVIDE ACCESSIBLE VALVE IN WATER SUPPLY TO FIXTURE AS SHOWN.
- PROVIDE GAS CONNECTION TO THE RICE COOKER PER DETAIL 6P700 IN FIELD.
- PROVIDE GAS ROUGH-IN TO FRYER BEHIND RICE COOKER TABLE SO THAT VALVES AND DIRT LEG ARE ACCESSIBLE ONCE FRYER IS SECURED INTO PLACE.
- PROVIDE 1/2" FILTERED WATER ROUGH-IN TO THE ICE MAKER AT 24" AFF. PROVIDE 6" LONG STAINLESS STEEL FLEXIBLE BRAIDED WASHING MACHINE WATER CONNECTOR WITH MINIMUM 0.42" ID (BRASS/CRAFT SL12-72W F OR EQUAL) FOR FINAL CONNECTION TO ICE MAKER.
- INSTALL RGF MISS ICE MAKER SANITIZER FURNISHED BY TUV PER CHIPOTLES INSTALLATION INSTRUCTIONS. LOCATE MISS BELOW UTENSIL COUNTER IN LOCATION THAT DOES NOT INTERFERE WITH THE ROLLING RACK BELOW THE UTENSIL COUNTER.
- PROVIDE GAS CONNECTION TO THE RICE COOKER PER DETAIL 6P700 IN FIELD.
- PROVIDE GAS ROUGH-IN TO FRYER BEHIND RICE COOKER TABLE SO THAT VALVES AND DIRT LEG ARE ACCESSIBLE ONCE FRYER IS SECURED INTO PLACE.
- PROVIDE 1/2" FILTERED WATER ROUGH-IN TO THE ICE MAKER AT 24" AFF. PROVIDE 6" LONG STAINLESS STEEL FLEXIBLE BRAIDED WASHING MACHINE WATER CONNECTOR WITH MINIMUM 0.42" ID (BRASS/CRAFT SL12-72W F OR EQUAL) FOR FINAL CONNECTION TO ICE MAKER.
- INSTALL RGF MISS ICE MAKER SANITIZER FURNISHED BY TUV PER CHIPOTLES INSTALLATION INSTRUCTIONS.
- PROVIDE 3/4" DOMESTIC HOT AND COLD WATER ROUGH-INS FOR THE PREP SINK (SK-2) FAUCET AT 24" AFF TO ALLOW FOR THE VICTORY WASH CHEMICAL DOCK TO BE INSTALLED DIRECTLY BELOW THE PREP SINK BASIN. MAKE FINAL CONNECTION TO PREP SINK FAUCET USING 3/4" BRAIDED STAINLESS STEEL WATER HEATER CONNECTOR HOSE.

KEY NOTES (CONTINUED):

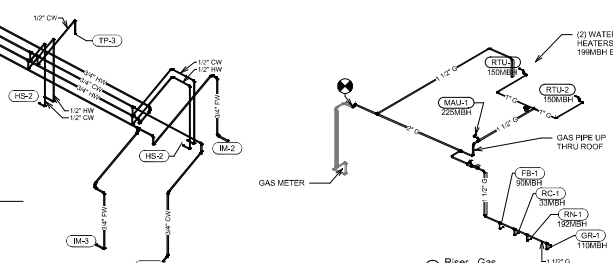
- PROVIDE 3/4" HOT WATER TO THE DISH MACHINE. MAKING FINAL CONNECTION USING HOSE FURNISHED WITH DISH MACHINE. PROVIDE WATER HAMMER ARRESTOR ON HOT WATER LINE. PROVIDE AN ACCESSIBLE SHUTOFF VALVE BELOW THE DISH MACHINE AND INSTALL THE STRAINER FURNISHED WITH THE DISH MACHINE IN AN ACCESSIBLE LOCATION AT THE CONNECTION TO THE UNIT.
- PROVIDE ROOF HYDRANT RH-1 WITH BOTTOM OF NOZZLE INSTALLED 24" ABOVE THE BOTTOM OF ROOF DECK. PROVIDE ACCESSIBLE ISOLATION VALVE IN WATER SUPPLY TO ROOF HYDRANT. SUPPORT ROOF HYDRANT PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE FILTERED DOMESTIC WATER ROUGH-IN FOR THE SPEED FILL FOOT FAUCET (PF-1) AT 47" AFF. SEE ARCHITECTURAL ELEVATION FOR DETAIL.
- PROVIDE WATER SERVICE ENTRY PER DETAIL 16P700.
- INSTALL RGF MISS ICE MAKER SANITIZER FURNISHED BY TUV PER CHIPOTLES INSTALLATION INSTRUCTIONS. LOCATE MISS BELOW UTENSIL COUNTER IN LOCATION THAT DOES NOT INTERFERE WITH THE ROLLING RACK BELOW THE UTENSIL COUNTER.
- PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (ON A GROUP OF PENETRATIONS ALL CONTAINED WITHIN 12" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH STRUCTURAL ENGINEER FOR APPROPRIATE BRACING. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATION.
- PROVIDE ACCESSIBLE TRAP-PRIMER ABOVE LAV-IN CEILING AS SHOWN. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH A SERVICE VALVE AT THE TRAP-PRIMER INLET. PROVIDE 1/2" DISTRIBUTION PIPES TO FLOOR DRAIN TRAP-PRIMER CONNECTIONS AS SHOWN. HORIZONTAL DISTRIBUTION PIPING SHALL HAVE CONTINUOUS SLOPE TO THE FLOOR DRAINS.)
- WATER SOFTENER INSTALLED ON DUNNAGE RACK ON FLOOR. SOFT WATER SHALL FEED WATER HEATER. REFER TO DETAIL 16P700.
- REPLACE STOCK WATER CLOSET HANDLE WITH UNIVERSAL CABLE-OPERATED HANDLE (FLUSHMATE AP90500 OR APPROX) - FIELD VERIFY COMPATIBILITY WITH FLUSHMATE SYSTEM IN WATER CLOSET.)

PLUMBING FIXTURE SUPPLY CONNECTIONS

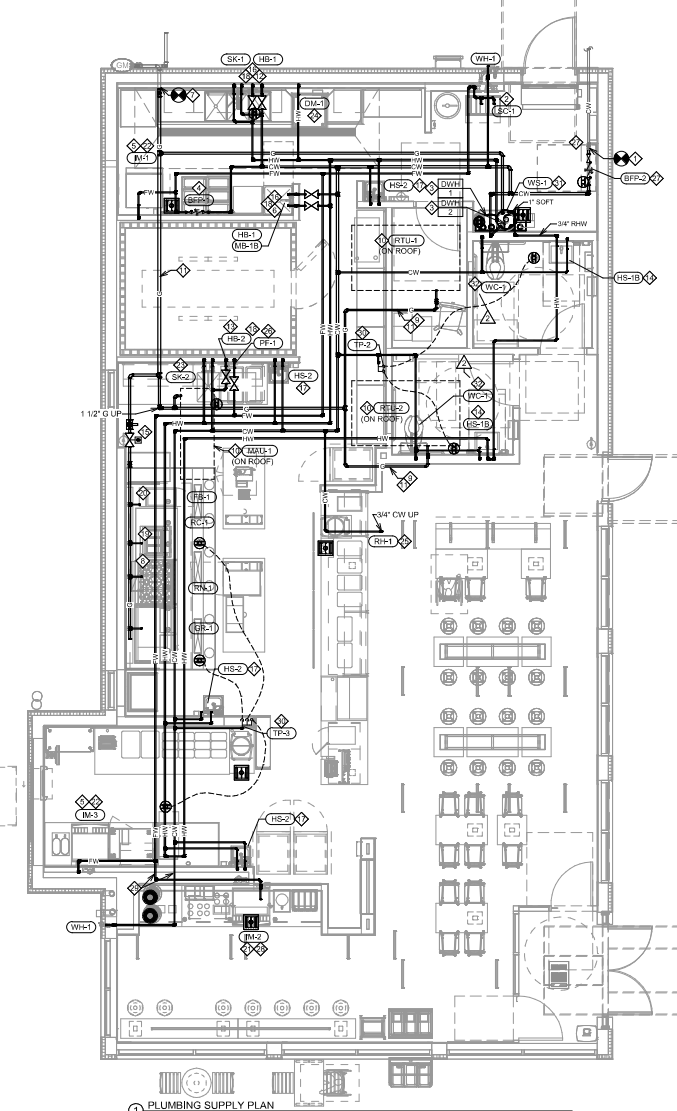
ROUGH-IN TYPE KEY		CONNECTION SIZE		TYPE		ROUGH-IN		WFSU		TOTAL		TOTAL WFSU	
TAG	DESCRIPTION	CONNECTION SIZE	TYPE	ROUGH-IN	WFSU	TYPE	ROUGH-IN	WFSU	COUNT	TOTAL	WFSU	COUNT	TOTAL WFSU
BFP-1	RPZ BACKFLOW PREVENTER	1/2"	DIRECT		1			1	0				0
BFP-2	RPZ BACKFLOW PREVENTER	1-1/2"	DIRECT		1			1	0				0
DA-1	DISH SANITIZING MACHINE (PUMPED OUTLET)	3/4"	ANGLE 3/4"		3			3	1	3			3
ET-1	EXPANSION TANK	3/4"	DIRECT		1			1	0				0
HB-1	CHEMICAL DISPENSER HOSE BIBB	1/2"	MIP		2.5			2.5	1	2.5			2.5
HB-2	VEGETABLE WASH HOSE BIBB	1/2"	MIP		1			1	1	1			1
HS-1B	RESTROOM HAND SINK FAUCET	1/2"	ANGLE 3/8"		1			1	2	2			2
HS-2	KITCHEN HAND SINK	1/2"	ANGLE 3/8"		1.5			1.5	4	5.5			5.5
IM-1,2,3	ICE MAKERS	1/2"	ROSE 1/2"		1			1	3	3			3
MR-1B	TRAP SINK FAUCET	1/2"	MIP		3			3	1	3			3
PF-1	SPEED FILL FAUCET	3/8"	MIP		1.5			1.5	1	1.5			1.5
RK-1	FREEZE PROOF ROOF HYDRANT	3/4"	DIRECT		1			1	1	1			1
SC-1	BAC-N-BOX SODA RACK WITH CARBONATORS	1/2"	ANGLE 3/8"		1			1	1	1			1
SK-1	THREE COMPARTMENT SINK	1/2"	ANGLE 1/2"		4			4	1	4			4
SK-2	PREP SINK	3/4"	ANGLE 3/4"		4			4	1	4			4
TP-2	TRAP PRIMER (TWO FLOOR DRAINS)	1/2"	DIRECT		1			1	0				0
TP-3	TRAP PRIMER (THREE FLOOR DRAINS)	1/2"	DIRECT		2			2	4	6			6
WC-1	WATER CLOSET	1/2"	ANGLE 3/8"		2			2	4	6			6
WH-1	FREEZE PROOF WALL HYDRANT	3/4"	DIRECT		1			1	2	2			2
GRAND TOTAL										40.5			40.5



2 Riser - Domestic Water



3 Riser - Gas



1 PLUMBING SUPPLY PLAN 1/4" = 1'-0"

PLUMBING GAS CONNECTIONS

TAG	DESCRIPTION	CONNECTION SIZE	EQUIVALENT LENGTH	INPUT	
DWH-1	WATER HEATER (GAS/TANKLESS)	3/4"	33'	199,000 Btu/h	
DWH-2	WATER HEATER (GAS/TANKLESS)	3/4"	33'	199,000 Btu/h	
FR-1	GAS FRYER	3/4"	60'	90,000 Btu/h	
GR-1	GAS GRIDDLE	3/4"	16'	110,000 Btu/h	
MAU-1	DIRECT-FIRE MAKEUP AIR UNIT	1/2"	73'	225,000 Btu/h	
RC-1	RICE COOKER	3/4"	69'	33,000 Btu/h	
RK-1	C BLINER RANGE	3/4"	71'	132,000 Btu/h	
RTU-1	KITCHEN ROOFTOP UNIT	3/4"	77'	150,000 Btu/h	
RTU-2	DINING ROOM ROOFTOP UNIT	3/4"	76'	150,000 Btu/h	
GRAND TOTAL				MAX: 77'	1,348,000 Btu/h

- NOTES:
 1. PRESSURE REQUIRED AFTER METER: 7" W.C.
 2. DISTANCES ARE APPROXIMATE.
 3. PIPE SIZING IS BASED OFF TABLE 402.4(2)A OF THE 2020 MN FUEL GAS CODE, WITH A MAXIMUM EFFECTIVE LENGTH = 100'.

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CHIPOTLES RESTAURANT, INC.
 10000 W. BOULEVARD
 COLOSALIS CO. KITCHEN
 11000 W. BOULEVARD
 FRIEBERT, MINNESOTA 55120

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PROJECT INFORMATION

STORE NO.: 5307
 "CLOCKTOWER COMMONS"
 CROCKTOWER BLVD NW &
 HANSON BLVD NW
 ANDOVER, MN 55304

DESIGN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature
 Gregory M. Steinmetz, P.E.
 Type of Printed Name
 25/04 11/12/2024
 License # Date

PROJECT NO. 2023-0519
 DRAWN BY TSB
 CHECKED BY GMS

REVISION RECORD

NO.	DATE	DESCRIPTION
05.28.2024	CHECK SET	
08.03.2024	PERMIT SET	
08.20.2024	BD SET	
11.12.2024	CONSTRUCTION SET	

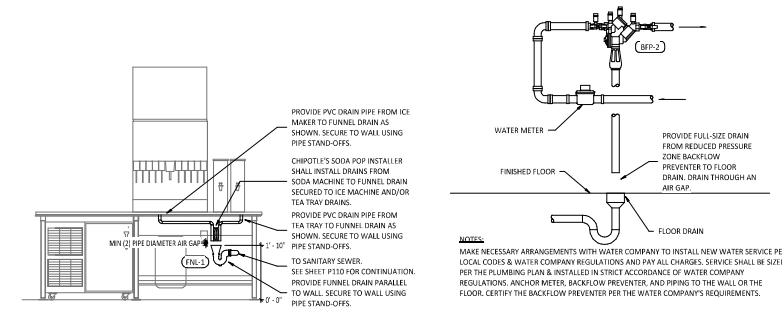
REVISIONS

NO.	DATE	DESCRIPTION
2	08/20/2024	City Comments

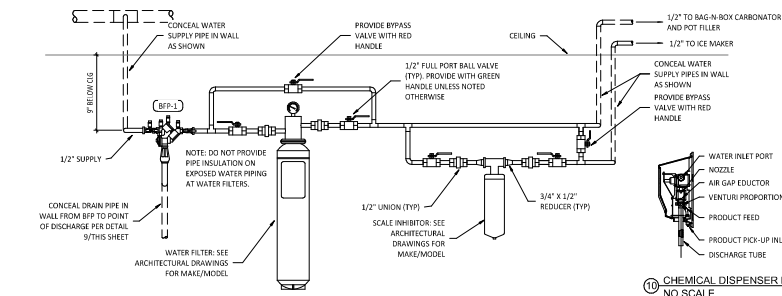
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**PLUMBING PLAN
 WATER & GAS**

SHEET NUMBER

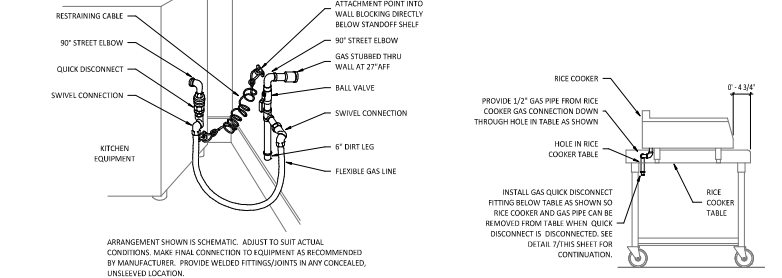
P100



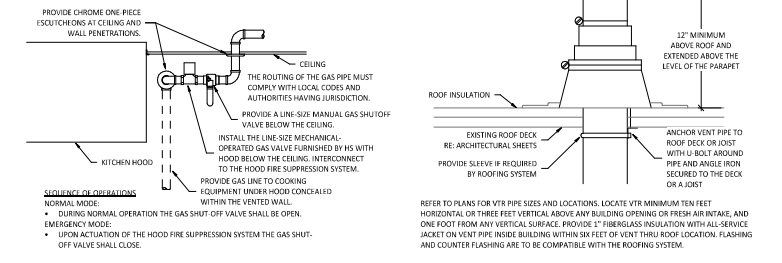
16 PUV FUNNEL DRAIN DETAIL
NO SCALE



17 WATER SERVICE ENTRY DETAIL
NO SCALE



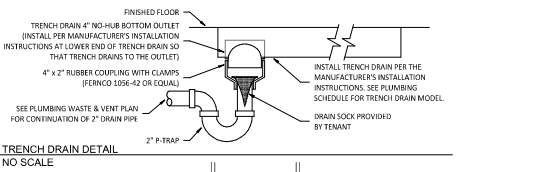
18 WATER FILTRATION DETAIL
NO SCALE



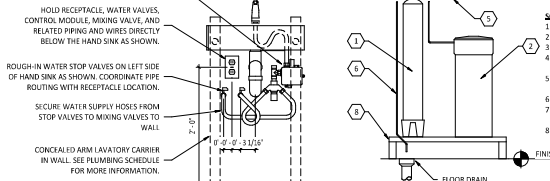
19 KITCHEN GAS SHUTOFF DETAIL
NO SCALE



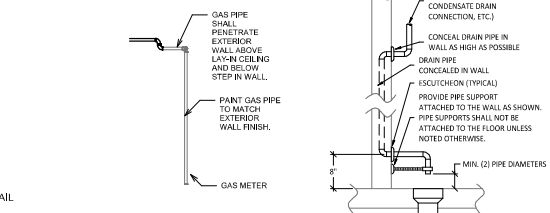
20 VENT THROUGH ROOF
NO SCALE



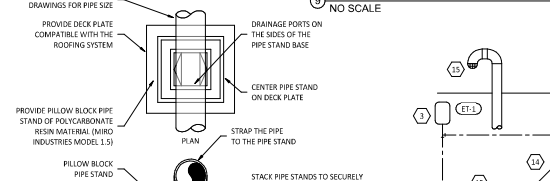
21 TRENCH DRAIN DETAIL
NO SCALE



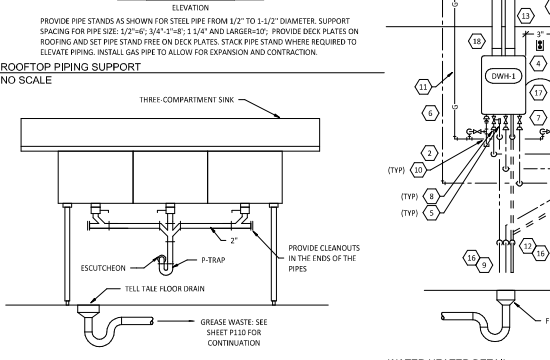
22 RESTROOM HAND SINK DETAIL
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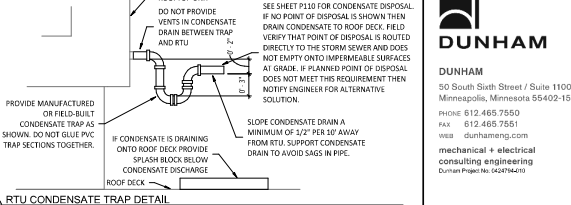
23 GAS METER SECTION
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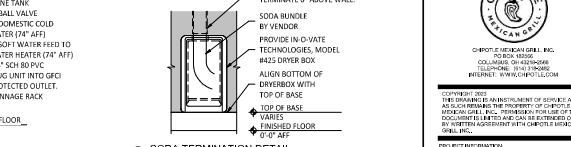
24 INDIRECT WASTE PIPING DETAIL
NO SCALE



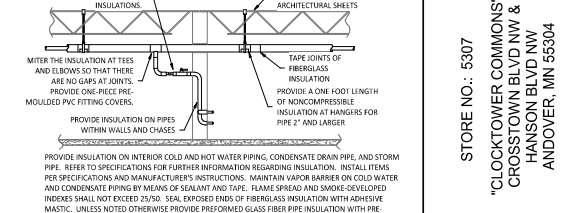
25 WATER HEATER DETAIL
NO SCALE



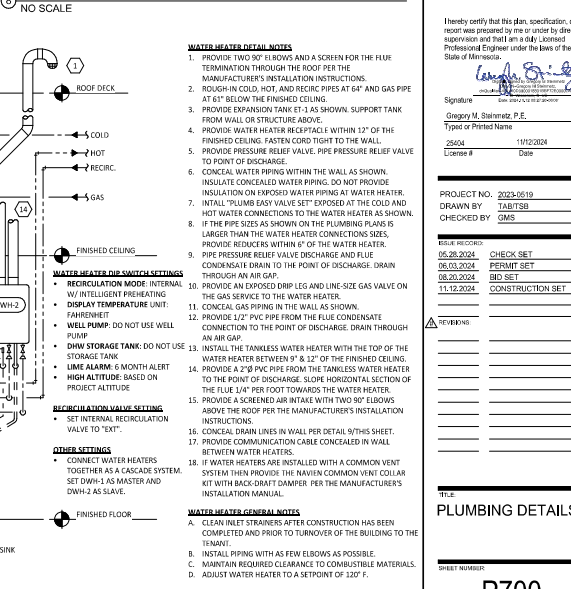
26 RTU CONDENSATE TRAP DETAIL
NO SCALE



27 SODA TERMINATION DETAIL
NO SCALE



28 PIPE INSULATION DETAIL
NO SCALE



29 WATER HEATER DETAIL
NO SCALE



30 WARE-WASHING SINK DETAIL
NO SCALE



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STORE NO.: 5307

"CLOCKTOWER COMMONS"
CROSSTOWER BLVD NW &
HANSON BLVD NW
ANDOVER, MN 55304

PROJECT NO.: 2023-0519

DESIGNED BY: TAB/SST
DRAWN BY: TAB/SST
CHECKED BY: QMS
DATE: 11/12/2024

PROJECT NO.: 2023-0519
DRAWN BY: TAB/SST
CHECKED BY: QMS

REVISIONS
05.28.2024 CHECK SET
08.05.2024 PERM SET
08.20.2024 BID SET
11.12.2024 CONSTRUCTION SET

REVISIONS
1. 05.28.2024
2. 08.05.2024
3. 08.20.2024
4. 11.12.2024

TITLE: PLUMBING DETAILS

SHEET NUMBER: P700

DATE: 11/12/2024

SECTION 16011 TEMPORARY & PERMANENT ELECTRICAL SERVICE

- PART 1 - GENERAL**
- 1.1 DEFINITIONS**
- A. GFCI: Ground fault current interrupter.
 - B. RMS: Root Mean Square.
 - C. SPT: Single Phase, Double Throw
- 1.2 USE CHARGES**
- A. General: Cost or use charges for temporary facilities are not chargeable to Tenant, Architect, or Engineer and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including but not limited to, the following:
 1. Tenant's construction forces.
 2. Occupants of Project.
 3. Architect.
 4. Engineer.
 5. Testing agencies.
 6. Personnel of authorities having jurisdiction.
 - B. Permanent Service: Coordinate with building Tenant and utility company to establish permanent service upon completion of the project. Contractor shall pay for all permits, all pre-construction charges, and related fees associated with the new service.
- 1.3 NOTIFICATION**
- A. Coordinate with Tenant to provide 72 hour written notification to other tenants of any power interruptions. Notification shall state the estimated time and duration of the electrical outage.
- 1.4 QUALITY ASSURANCE**
- A. Standards: Comply with ANSI A310.6, NECA's "Temporary Electrical Operations," and NFPA 241.
 - 1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
 - 2. Electric Service: Comply with NECA, NEMA and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
 - 3. Comply with OSHA standards and regulations.

- PART 2 PRODUCTS**
- 1.1 MATERIALS**
- A. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-volt plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.
 - B. Power Distribution System Circuits: Where permitted and overhead and exposed for surveillance, wiring circuits, not exceeding 125 v ac, 20-A rating, and lighter circuits may be nonmetallic sheathed cable.
 - C. Main panelboard with disconnect.
 - D. Temporary lighting with overcurrent protection.
 - E. Enclosures: NEMA AB 1 and NEMA KS 1 to meet environmental conditions at installed location.
- 1.2. Outdoor Locations: NEMA 250, Type 3R.**

- PART 3 EXECUTION**
- 3.1 INSTALLATION**
- A. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, and overload protected disconnecting means.
 1. Install power distribution wiring overhead and rise vertically where least exposed to damage.
 2. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.
 3. Provide waterproof connections to connect separate lengths of electrical power cords if single lengths will not reach area where construction activities are in progress. Do not exceed safe length-voltage ratio.
 4. Provide metal conduit, tubing, or metallic cable for wiring exposed to possible damage. Provide rigid steel conduits for wiring exposed on grades, floors, decks, or other traffic areas.
 5. Provide metal conduit enclosures or boxes for wiring devices.
 6. Provide a-gang outlets, spaced so 1-00-foot (30-cm) extension cord can reach each area for power hand tools and task lighting. Provide a separate 125-v ac, 20-A circuit for each outlet.
 - B. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations and traffic conditions.
 1. Install and operate temporary lighting that fulfills safety and protection requirements without operating entire system.
 2. Provide one 100-W incandescent lamp (or equivalent) every 50 feet (15 m) in traffic areas.
 3. Install exterior yard site lighting that will provide adequate illumination for construction operations, parking and traffic conditions, and signage visibility when the work is being performed.

SECTION 16060 - GROUNDING AND BONDING

- PART 1 - GENERAL**
- 1.1 SUMMARY**
- A. This Section includes grounding of electrical systems and equipment. Grounding requirements specified in this Section may be supplemented by special requirements of systems described in other Sections.
- 1.2 QUALITY ASSURANCE**
- A. Testing Agency Qualifications: Testing agency as defined by OSHA in 29 CFR 1910.7 or a member company of the International Electrical Testing Association and that is acceptable to authorities having jurisdiction.
 - 1. Testing Agency's Field Supervisor: Person currently certified by the International Electrical Testing Association to supervise on site testing specified in Part 3.
- B. Electrical Components, Devices, and Accessories:** Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- 1. Comply with UL 607.

- PART 2 PRODUCTS**
- 2.1 GROUNDING CONDUCTORS**
- A. For Insulated conductors, comply with Division 16 Section "Wiring Methods."
 - B. Material: Copper.
 - C. Equipment Grounding Conductor Terminations: Use bolted pressure clamps.
 - D. Grounding Electrode Conductors: Stranded cable.
 - E. Bare Copper Conductors: Comply with the following:
 1. Solid Conductors: ASTM B 3.
 2. Assembly of Stranded Conductors: ASTM B 8.
- 2.2 CONNECTOR PRODUCTS**
- A. Comply with IEEE 837 and UL 467, listed for use for specific types, sizes, and combinations of conductors and connected items.
- PART 3 - EXECUTION**
- 3.1 APPLICATION**
- A. Use only copper conductor.
 - B. In rewire-ups, use insulated equipment grounding conductors.
 - C. Equipment Grounding Conductor Terminations: Use bolted pressure clamps.
 - D. Grounding Bus: Install electrical and telephone equipment rooms, in rooms having service equipment, and elsewhere as indicated.
 1. Use insulated spacer; space 1 inch from wall and support from 14 to 6 inches above finished floor, unless otherwise indicated.
 2. Spacers: route the bus up to the top of the door frame, across the top of the doorway, and down to the specified height above the floor.
- 3.2 EQUIPMENT GROUNDING CONDUCTORS**
- A. Comply with NFPA 70, Article 250, for types, size, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by NFPA 70 are indicated.
- 3.3 INSTALLATION**
- A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- 3.4 CONNECTIONS**
- A. General: Make connections so galvanic action or electrolysis possibility is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
 - B. Equipment Grounding Conductor Terminations: For No. 4 AWG and larger, use pressure-type grounding lugs. No. 10 AWG and smaller grounding conductors may be terminated with winged pressure-type connectors.
 - C. Tighten screws and bolts for grounding and bonding connectors and terminals according to manufacturer's published torque tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.
 - D. Compression-Type Connections: Use hydraulic compression tools to provide correct circumferential pressure for compression connectors. Use tools and dies recommended by connector manufacturer. Provide embossing die code or other standard method to make a visible indication that a connector has been adequately compressed on grounding conductor.

END OF SECTION 16060

SECTION 16100 - WIRING METHODS

- PART 1 - GENERAL**
- 1.1 SECTION REQUIREMENTS**
- A. Summary: Building wire and cable and associated splices, connectors, and terminations for wiring systems rated 600 V and less, and twisted pair cable; and raceways and boxes.
- PART 2 - PRODUCTS**
- 2.1 WIRES AND CABLES**
- A. Connectors and Splices: Wiring connectors of size, ampacity rating, material, and type and class for application and use as manufacturer's standard example.
- 2.2 RACEWAYS**
- A. Wireways: Screwed cover type, with manufacturers standard finish.
 - B. Conduit and Device Boxes: Sheet metal boxes, except use cast-metal boxes at exterior, interior exposed, and interior damp locations.
 - C. Pull and Junction Boxes: Sheet metal boxes, except use nonmetallic boxes with gasketed covers at exterior and interior damp locations.
- 2.3 ENCLOSURES**
- A. Hinged-Cover Enclosures: NEMA 250, steel enclosure with continuous hinge cover and flush latch. Finish inside and out with manufacturer's standard enamel.
 - B. Cabinets: NEMA 250, Type 1, unless otherwise indicated.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION**
- A. Install wires and cables according to the NECA's "Standard of Installation."
 - B. Wiring an Outlets: Install with at least 12 inches of slack conductor at each outlet.
 - C. Conduit wiring, unless otherwise indicated, within finished walls, ceilings, and floors.
 - D. Boxes and Enclosures: In damp or wet locations use NEMA 250, Type 4, stainless steel.
 - E. Use narrow fittings compatible with raceway and suitable for use and location. For intermediate metal conduit, use threaded rigid steel conduit fittings, unless otherwise indicated.
 - F. Raceways Embedded in Slabs: Install in middle third of the slab thickness where practical, and leave at least 1-inch concrete cover.
 - G. Install exposed raceways parallel to or at right angles to nearby surface or structural members, and follow the surface contours as much as practical.
 - H. Run raceways with fittings designed and approved for the purpose and make joints tight. Use bonding bushes or wedges at connectors subject to vibration. Use bonding jumpers where joints cannot be made tight. Use insulating bushings to protect conductors.
 - I. Install pull wires in empty raceways. Use No. 14 AWG zinc-coated steel or monofilament plastic line having not less than 20X-to-tensile strength. Leave not less than 18 inches of slack at each end of the pull wire.
 - J. Install raceway sealing fittings where required by the NEC and at wiring entrances to refrigerated spaces. Locate at suitable, approved, accessible locations and fill them with UL-listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces.
 - K. Stub-up Connections for Equipment: Extend conductors to equipment with rigid metal conduit; flexible metal conduit may be used 3 inches above the floor.
 - L. Install a separate ground conductor in surface metal raceway from the junction box supplying the raceway to receptacle and fixture ground terminals.

- 3.2 IDENTIFICATION MATERIALS AND DEVICES**
- A. Install all locations for most convenient viewing without interference with operation and maintenance of equipment.
 - B. Coordinate names, abbreviations, colors, and other designations used for electrical identification with corresponding designations indicated in the Contract Documents or required by codes and standards. Use consistent designations throughout Project.
 - C. Identify raceways and cables with color banding as follows:
 1. Bands: Preterminated, snap around, colored plastic sleeves or colored encircling conduit, and maximum adjacent bands of two-color markings in contact, side by side.
 2. Band Locations: At changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
 3. Colors: As follows:
 - a. Telecommunication System: Green and yellow.
 - D. Color-code Systems secondary server, feeder, and branch circuit conductors throughout the secondary electrical system as follows:

1. Phase A:	Black	Brown
2. Phase B:	Red	Orange
3. Phase C:	Blue	Yellow
4. Neutral:	White	Gray
5. Ground:	Green	Green

SECTION 16240 - WIRING DEVICES

- PART 1 - GENERAL**
- 1.1 SECTION REQUIREMENTS**
- A. Submittals: None.
 - B. Comply with NEMA WD 1.
 - C. Comply with NFPA 70.
- PART 2 - PRODUCTS**
- 2.1 DEVICES**
- A. General: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
 - B. Color: Per Material Schedule on sheet E003.
 - C. Receptacles: Heavy-Duty grade, NEMA WD6, Configuration 5-20R unless otherwise indicated.
 - D. Ground Fault Circuit Interrupter Receptacles: Integral duplex receptacle; for installation in box without an adapter. Feed-through type, with a 2-3/4-inch-deep outlet.
 - E. Isolated Ground Receptacles: Equipment grounding contacts connected only to the green grounding screw terminal of the device with inherent electrical isolation from mounting strip.
 - F. Snap Switches: Heavy-duty, quiet type.
 - G. Wall Plate: Per Material Schedule on sheet E003.
 - H. Floor Service Fittings: Modular, above-floor, dual-service units suitable for wiring method used.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION**
- A. Install devices and assemblies plumb and secure.
 - B. Mount devices flush with long dimension vertical unless otherwise indicated.
 - C. Protect devices and assemblies during painting.
 - D. Install wall plates when painting is complete and paint is cured.

END OF SECTION 16240

SECTION 16442 - PANELBOARDS

- PART 1 - GENERAL**
- 1.1 SECTION REQUIREMENTS**
- A. Submittals: None.
 - B. Comply with NFPA 70.
 - C. Comply with NEMA PB 1.
- PART 2 - PRODUCTS**
- 2.1 PANELBOARDS AND LOAD CENTERS**
- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Panelboards, Overcurrent Protective Devices, Controllers, and Accessories:
 - a. Square D Co.
 - b. Eaton Corp./Cutler-Hammer Products.
 - c. General Electric Co. (General Distribution & Control Div.)
 - d. Siemens Energy & Automation.
- B. Receptacle: NEMA AB 1, Type 1.**
- 1. Load Center Capacity as shown on drawings.
 - 2. Front: Secured to box with concealed trim clamps.
 - 3. Doors: With concealed hinges, flush catches, and lumbar locks, all keyed alike.
 - 4. Bus: Hard drawn copper of 98 percent conductivity.
 - 5. Moltex-Ce Circuit Breakers: NEMA AB 1, plug-in type, single-handle for multiple circuit breakers. Appropriate for applications, including Type SVXD for repetitive switching lighting loads and Type HJG for heating, air conditioning, and refrigerating equipment.
- C. Connectors: NEMA ICS 2, Class A combination connectors.**
- PART 3 - EXECUTION**
- 3.1 INSTALLATION**
- A. Install panelboards and accessory items according to NEMA PB 1.1. Provide typed, permanently-mounted English and Spanish circuit directories showing the panel schedules as installed in each panelboard.
 - B. Mounting Heights: Top of trim 74 inches above finished floor, unless otherwise indicated.
 - C. Future Circuit Provisions at Flush Panelboards: Stub four empty 3/4-inch conduits from panelboard into accessible or designated ceiling space.
 - D. Wiring in Panelboard Gutter: Arrange conductors into groups, bundle and wrap with wire ties according to NEC.
 - E. Tighten electrical connectors and terminals, including grounding conductors, according to manufacturer's published torque tightening values. Where manufacturer's torque values are not indicated, use those specified in UL 486A.
 - F. Label electrical and mechanical inspections and electrical tests stated in NEMA ICS.

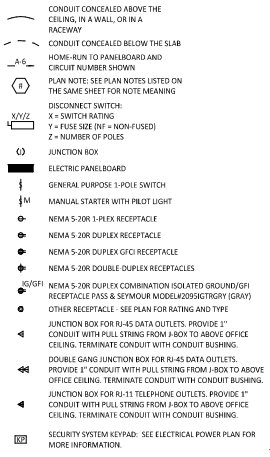
END OF SECTION 16442

SECTION 16500 - LIGHTING

- PART 1 - GENERAL**
- 1.1 SECTION REQUIREMENTS**
- A. Submittals: None.
 - B. Fixtures, Emergency Lighting Units, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
 - C. Coordinate ceiling-mounted luminaires with ceiling construction, mechanical work, and security and fire-prevention features mounted in ceiling space and on ceiling.
- PART 2 - PRODUCTS**
- 2.1 FIXTURES AND FIXTURE COMPONENTS, GENERAL**
- A. Metal Parts: Free from burrs, sharp corners, and edges. Steel, unless otherwise indicated. Form and support to prevent warping and sagging.
 - B. Doors, Frames, and Other Internal Access: Smooth operating. Free from light leakage under operating conditions, and arranged to permit accidental bumping without use of tools. Arrange doors, frames, lenses, diffusers, and other pieces to prevent accidental falling during re-lamping and when secured in operating position.
 - C. Lenses, Diffusers, Covers, and Globes: 100 percent virgin acrylic plastic or annealed crystal glass, unless otherwise indicated.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION**
- A. Set units level, plumb, and square with ceiling and walls, and secure.
 - B. Support for Recessed and Semi-recessed Grid-Type Fluorescent Fixtures: Install ceiling support system rods or wires at a minimum of 4 rods or wires for each fixture, located not more than 6 inches from fixture corners.
 - C. Support for Suspended Fixtures: Support according to manufacturer's recommendations.
 - D. Lamping: Where specific lamp designations are not indicated, lamp units according to manufacturer's written instructions.

END OF SECTION 16500

ELECTRICAL SYMBOLS



KEY NOTES:

- ◆ INSTALL WALL-MOUNTED LIGHTING OVERRIDE SWITCH AND CONNECT TO LCP AS SHOWN IN DETAIL 6E710.
- ◆ CIRCUIT EXIT NIGHT LIGHT & EMERGENCY LIGHTS AHEAD OF SWITCHING. PROVIDE WITH A MINIMUM BATTERY RUN TIME OF 90 MINUTES.
- ◆ WALL MOUNT THE EMERGENCY LIGHT FIXTURE AT 6' BELOW THE CEILING UNLESS NOTED OTHERWISE.
- ◆ VERIFY MOUNTING HEIGHT OF EXIT SIGN PRIOR TO ROUGH-IN. EXIT SIGN MUST BE VISIBLE FROM AREA SERVED AFTER BUILDING SYSTEMS HAVE BEEN INSTALLED. SEE ARCHITECTURAL ELEVATIONS FOR FURTHER INFORMATION.
- ◆ INSTALL LED DRIVERS FURNISHED WITH THE X8 LED STRIP LIGHTS ON WALL 1" ABOVE THE CEILING IN AN ACCESSIBLE LOCATION. PROVIDE LOW VOLTAGE WIRING FROM LED DRIVER TO THE X8 LED FIXTURES AS SHOWN.
- ◆ INSTALL LIGHT FIXTURES FURNISHED WITH THE WALK-IN COOLER. PROVIDE UNSWITCHED CONDUCTOR FROM LIGHTING CIRCUIT TO WALK-IN COOLERS LIGHTING. WIRE AND FROM JBOX TO LIGHT FIXTURES AS SHOWN. CONDUIT BETWEEN LIGHT FIXTURES SHALL BE ROUTED ON THE INTERIOR OF THE WALK-IN COOLER. SEAL INTERIOR AND EXTERIOR OF CONDUITS WHERE THEY PASS THROUGH THE WALK-IN COOLER ENVELOPE PER THE NEC.
- ◆ NOT USED.
- ◆ PROVIDE UNSTRUCT AS SHOWN ON THE ARCHITECTURAL RCP PER THE ARCHITECTURAL UNISTRUT DETAIL, TYPICAL.
- ◆ CONNECT EXTERIOR LIGHTING CIRCUIT TO CIRCUIT SHOWN THROUGH THE EXTERIOR LIGHTING CONTACTOR PANEL PER DETAIL 6E710.
- ◆ INSTALL WALL-MOUNTED OCCUPANCY SENSOR FURNISHED BY LIGHTING SUPPLIER AT 4' AFF. ADJUST OCCUPANCY SENSOR TO PROVIDE AUTOMATIC ON/AUTOMATIC OFF OPERATION WITH A FIXED TIME OF 30 MINUTES AND WITH BOTH THE PASSIVE INFRARED AND ULTRASONIC SENSORS ENABLED.
- ◆ LIGHT TO BE INSTALLED AS PART OF SHELL SCOPE. CIRCUITING SHOWN FOR REFERENCE ONLY. PROVIDE CONNECTIONS AS REQUIRED.

KEY NOTES:

- ◆ INSTALL WALL-MOUNTED DIMMERS ABOVE PANELBOARDS 6" ABOVE LAY-IN CEILING FOR CONTROL OF DINING ROOM OVERHEAD STRIP LED AND PENDANT LIGHTS. CONNECT DIMMERS TO RELAYS SHOWN THROUGH THE LIGHTING CONTROL PANEL. SET DIMMERS AT 50%.
- ◆ CONNECT DINING ROOM RELAY CIRCUITS R4 AND R5) OVERHEAD STRIP LED LIGHTS TO THE RELAY INDICATED THROUGH THE CORRESPONDING WALL-MOUNTED DIMMER INSTALLED ABOVE THE PANELBOARDS.
- ◆ INSTALL LIGHTING CONTROL SYSTEM PER DETAIL 6710.
- ◆ NOT USED.
- ◆ PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (OR A GROUP OF PENETRATIONS TOTAL CONTAINED WITH 10" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH STRUCTURAL ENGINEER FOR APPROPRIATE BRACING. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATION.
- ◆ INSTALL CHIMESTROBE FURNISHED WITH VEHICLE DETECTION SYSTEM ON WALL 12" BELOW CEILING AND CONNECT TO SHIMBLE DETECTOR SYSTEM PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. FEDERAL SIGNAL SL4600B W/SUB9W-022504. SET SWITCH A TO "CHIME 1 SINGLE" 1101 AND SWITCH B TO "CHIME2 SINGLE" 0011.
- ◆ INSTALL E2 REMOTE EMERGENCY LIGHT TO BOTTOM OF CANOPY. CONCEAL LOW VOLTAGE WIRING FROM EXIT SIGN TO REMOTE EMERGENCY LIGHT.
- ◆ PROVIDE JUNO CURRENT LIMITER TCU1M11 BL W/ TCU2X BL BK. BLACK CURRENT LIMITING END FEED WITH CIRCUIT BREAKER EITHER SA OR 2A REFER TO DRAWING.

LIGHTING CONTROL COMPONENTS SCHEDULE

DESCRIPTION	QUANTITY	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL	REMARKS
ALIGHT LIGHTING CONTROL PANEL	1	TLS	GC	ACUTY	APP INTERCOM NLT BFCR INVOICETM DTC CTRLEL	8 RELAY PANEL FOR DIMMING CONTROL WITH FLUSH MOUNT ENCLOSURE AND DIGITAL TIME CLOCK
WALL-MOUNTED OVERHEAD SWITCH	1	TLS	GC	ACUTY	HPD0MA 6P	8710 LIGHTING CONTROL BREAKER FOR SWITCH CONFIGURATION
WALL-MOUNTED DIMMER SWITCH	2	TLS	GC	COOPER	SA-06P W	DINING ROOM COMPATIBLE WITH UP TO 300W LED LIGHTING. SET AT 50% OF DINING ROOM LIGHTS FLICKER AT THE DIMMER SETTINGS THEN GC SHALL PROVIDE LUPION DVC-153P DIMMER AS REPLACEMENT.
WALL-MOUNTED LINE VOLTAGE OCCUPANCY SENSOR	3	TLS	GC	HUBBELL	LHM15.3-N-VH	WHITE FLUORESCENT ONLY SENSITIVITY WITH 1" BUTTON AND 4" RADIUS WORKS

LIGHT FIXTURE SCHEDULE

FIXTURE LETTER	FIXTURE STYLE	VOLTAGE	MOUNTING	LAMPS	COLOR	BALLAST/ DRIVER	FIXTURE MAX VA	CONTROL, MEDIA LENS, LOUVER, ETC.)	MANUFACTURER'S SERIES NUMBER	FIXTURE DESCRIPTION	NOTES
A1	2X2 LED LENSED TROFFER	120	LAY-IN	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	30 VA	0.125" MINIMUM ACRYLIC LENS	NORA LIGHTING NPOBL-E22334 W	COMPATIBLE WITH 0-10V DIMMING. FACTORY LOCKED TO 3000K	
B1	RECESSED P CAN LIGHT	120	CEILING	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	17 VA	SEMI-SPECULAR CLEAR	NOKA LIGHTING NHC-60244TFL W/ NTA575W1M TRIM	LED TRIM FURNISHED WITH G242 SOCKET ADAPTER	
B2	RECESSED P CAN LIGHT W LED TRIM	120	CEILING	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	17 VA	SEMI-SPECULAR CLEAR	NOKA LIGHTING NHC-60244TFL W/ NLCB2451278B LED TRIM	BLACK LED TRIM FURNISHED WITH G242 SOCKET ADAPTER	
B3	RECESSED P CAN LIGHT W BLACK LED TRIM	120	CEILING	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	12 VA	SEMI-SPECULAR CLEAR	NOKA LIGHTING NHC-60244TFL W/ NLCB2451278B LED TRIM	BLACK LED TRIM FURNISHED WITH G242 SOCKET ADAPTER	
G0	LOW PROFILE LED -1 FT	120	SURFACE	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	5 VA	FLUSH, SNAP-IN SATIN LENS	HERA LIGHTING ELLED12WV	FURNISHED WITH COVERS, CONNECTORS, AND ONE HARDWARE BOX OR CORROPLUG PER SECTION	
G2	LOW PROFILE LED -3 FT	120	SURFACE	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	12 VA	FLUSH, SNAP-IN SATIN LENS	HERA LIGHTING ELLED34WV	FURNISHED WITH COVERS, CONNECTORS, AND ONE HARDWARE BOX OR CORROPLUG PER SECTION	
G3	LOW PROFILE LED -4 FT	120	SURFACE	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	15 VA	FLUSH, SNAP-IN SATIN LENS	HERA LIGHTING ELLED46WV	FURNISHED WITH COVERS, CONNECTORS, AND ONE HARDWARE BOX OR CORROPLUG PER SECTION	
G4	LOW PROFILE LED -5 FT	120	SURFACE	INTEGRAL LED	3000K	DIMMING 0-10V (1%)	18 VA	FLUSH, SNAP-IN SATIN LENS	HERA LIGHTING ELLED56WV	FURNISHED WITH COVERS, CONNECTORS, AND ONE HARDWARE BOX OR CORROPLUG PER SECTION	
E1	EMERGENCY LIGHT - DUAL HEAD	120	VARIOUS	INTEGRAL LED	N/A	N/A	2 VA	GLARE FREE LENS	EXTRONIX LED-90	90 MINUTE BATTERY BACKUP	
E2	EXTERIOR REMOTE EMERGENCY LIGHT	120	VARIOUS	INTEGRAL LED	N/A	N/A	1 VA	GLARE FREE LENS	EXTRONIX MLED1-4WP	LOW VOLTAGE REMOTE EMERGENCY LIGHT POWERED BY REMOTE-CAPABLE EXT SIGN WITH MOUNTING PLATE	
E4	WHITE EXIT SIGN WITH EMERGENCY LIGHT - STANDARD RED LETTERS	120	VARIOUS	INTEGRAL LED	RED	N/A	4 VA	RED LETTERS	EXTRONIX CLED4WH	90 MINUTE BATTERY BACKUP WITH INTEGRAL EMERGENCY LIGHT. REMOTE HEAD CAPABLE	
E7	EMERGENCY LIGHT	120	VARIOUS	INTEGRAL LED	N/A	N/A	2 VA	GLARE FREE LENS	EXTRONIX EV2	90 MINUTE BATTERY BACKUP	
H1	VAPOR PROOF HOOD LIGHT	120	SURFACE	TOP L16A1H1A127K	2700K	DIMMING 0-10V (1%)	15 VA	GLARE FREE LENS	FURNISHED W/ HOOD	FURNISHED WITH HOOD	
J4	DECORATIVE PENDANT	120	PENDANT	GREEN CREATIVE 9A19DM927/GU24-9	2700K	DIMMING 0-10V (10%)	9 VA	TO BE DETERMINED	BARNLIGHT BLE-CG-01-133-3563-3	WITH BLACK LAMP SHADE, BLACK CORD, AND OAK LAMP HOLDER	
P5	PENDANT	120	PENDANT	TOP F0304R27020	2700K	DIMMING 0-10V (10%)	5 VA	TO BE DETERMINED	HLITE MGF H4-C31CB124120W LBL W/ CP4-F0204R27020	ADJUST CORD LENGTH FOR MOUNTING HEIGHT CALLED FOR IN ARCHITECTURAL DRAWINGS	
P6	DECORATIVE DINING ROOM PENDANT	120	PENDANT	INTEGRAL LED	4000K	DIMMING 0-10V (10%)	30	ACRYLIC WHITE FROST	BARNLIGHT BLE-CG-01-133-3563-3	HARDWARE SET OF 13 HARDWARE WITH UNIVERSAL CANOPY AND STANDARD BLACK CABLES	
T1	TRACK HEAD	120	TRACK	INTEGRAL LED	3000K	DIMMING 0-10V (10%)	10 VA	TO BE DETERMINED	JUNO R05L-30K-60R4P08M4FL-8L	BLACK CYLINDER TRACK HEAD W/ UNIVERSAL 120V TRAC ADAPTER AND WIDE FLOOD BEAM	
T-6	TRACK 6 FT	120	SURFACE	N/A	N/A	N/A	-	TWO CIRCUIT TRACK, BLACK	JUNO 1-6P-BL	SINGLE CIRCUIT BLACK FINISH. FURNISH WITH CONNECTORS TO ACHIEVE ARRANGEMENT SHOWN ON PLANS. TRIM AS REQUIRED FOR LENGTHS SHOWN.	
T-8	TRACK 8 FT	120	SURFACE	N/A	N/A	N/A	-	TWO CIRCUIT TRACK, BLACK	JUNO 1-8P-BL	SINGLE CIRCUIT BLACK FINISH. FURNISH WITH CONNECTORS TO ACHIEVE ARRANGEMENT SHOWN ON PLANS. TRIM AS REQUIRED FOR LENGTHS SHOWN.	
W1	4" SQUARE DOWNLIGHT	120	RECESSED 078-BOARD AND/OR LAY-IN GRID INVERTED TEE	INTEGRAL LED	-	DIMMING 0-10V (1%)	28 VA	SEMI-SPECULAR CLEAR SELF FLANGED MEDIUM DISTRIBUTION	FURNISHED W/ WIC	WET-RATED COCKLEPULE. FURNISHED WITH WIC	
X6	WEATHER PROOF WALL PACK - TRACK DIM	120	WALL	INTEGRAL LED	5000K	DIMMING 0-10V (10%)	10 VA	CLEAR TEMPERED GLASS, TYPE B DISTRIBUTION	RAB WPLED-10-4-S-PC	BRONZE WALL PACK	
X8	EXTERIOR LED CHANNEL LIGHT	120	SURFACE	FLEXSR-4-30-4P-24	-	DIMMING 0-10V (10%)	45 VA	FLUSH, SNAP-IN SATIN LENS	PARADIGM LED AMC-2416-S W/ OPAL LENS AND END CAPS	FURNISHED W/ REMOTE-MOUNTED NEMA 3R LED DRIVER. SEE PLAN FOR LENGTHS.	

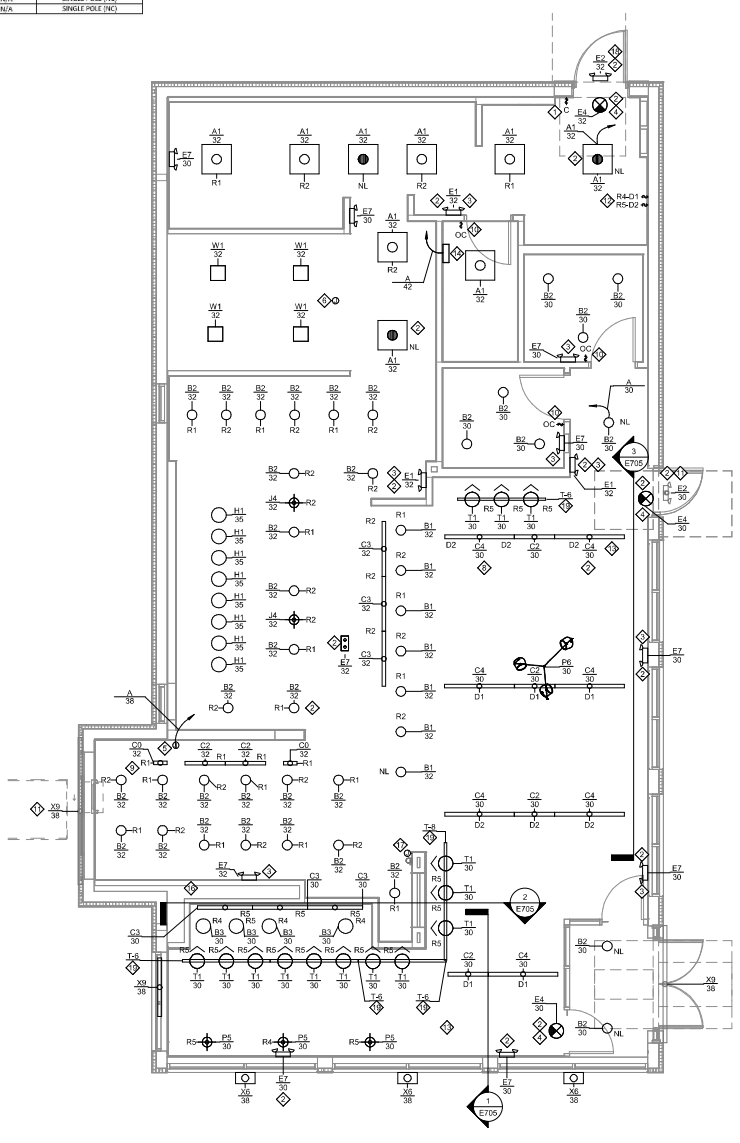
REVISIONS TO ELECTRICAL SCHEDULES:
 A. SEE THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LIGHT LOCATIONS.
 B. SEE THE ARCHITECTURAL LIGHTING DETAILS FOR FIXTURE CONSTRUCTION DETAILS.

LIGHTING CONTROL PANEL SCHEDULE: LCP

RELAY	PANEL	CIRCUIT	AREA SERVED	CONTROL	TIME ON	TIME OFF	DIMMER CONTROLS	NOTES
R1	A	32	W/ OFFICE A	TIME CLOCK	7:00:00 AM	12:00:00 AM	N/A	SINGLE POLE (NO)
R2	A	32	W/ OFFICE B	TIME CLOCK	7:00:00 AM	12:00:00 AM	N/A	SINGLE POLE (NO)
R3	A	32	OFFICE	TIME CLOCK	7:00:00 AM	12:00:00 AM	N/A	SINGLE POLE (NO)
R4	A	36	DINING ROOM A	TIME CLOCK	15:00:00 AM	17:00:00 AM	N/A	SINGLE POLE (NO)
R5	A	36	DINING ROOM B	TIME CLOCK	15:00:00 AM	17:00:00 AM	N/A	SINGLE POLE (NO)
R6	A	38	DINING ROOM D	TIME CLOCK	15:00:00 AM	17:00:00 AM	N/A	SINGLE POLE (NO)
R7	A	38	DINING ROOM E	TIME CLOCK	15:00:00 AM	17:00:00 AM	N/A	SINGLE POLE (NO)
R8	A	42	RESTROOM EXHAUST FAN	TIME CLOCK	7:00:00 AM	17:00:00 AM	N/A	SINGLE POLE (NO)
R9	A	42	STYL LIGHTING STORAGE	TIME CLOCK	9:00:00 AM	17:00:00 AM	N/A	SINGLE POLE (NO)

NOTING CONSOLE PANEL SCHEDULE: NPS

A. DUPLICATE PANEL SCHEDULE AND PERMANENTLY INSTALL WITH THE LIGHTING CONTROL PANEL.



2 - Lighting - New - Plot
 1/4" = 1'-0"

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PROJECT NO.: 5307
 STORE NO.: 5307
 "CLOCKTOWER COMMONS"
 CROSKOWER BLVD NW &
 HANSON BLVD NW
 ANDOVER, MN 55304

PROJECT NO.: 023-1019
 DRAWN BY: CMJ
 CHECKED BY: BSM

REVISIONS:
 05.27.2024 CHECK SET
 08.05.2024 PERMIT SET
 08.08.2024 BID SET
 11.19.2024 CONSTRUCTION SET

REVISIONS:
 08/20/2024 City Comments

DATE: 11/20/2024
 LICENSE #

ELECTRICAL LIGHTING PLAN
 SHEET NUMBER: **E100**

ELECTRICAL EQUIPMENT SCHEDULE

EQUIPMENT TAG	DESCRIPTION	AMPS	VOLTAGE	PHASE	PANEL	CIRCUIT NUMBER	CONDUIT AND FEEDER SIZE
1A	COLD TOP (SERVE LINE)	12.0	120 V	1	B	11	1/2" 2012 & 1812 GND.
2A	TORTILLA WARMER (SERVE LINE)	13.0	208 V	1	B	25,27	1/2" 2012 & 1812 GND.
2B	TORTILLA WARMER (SERVE LINE)	13.0	208 V	1	B	22,24	1/2" 2012 & 1812 GND.
9B	SODA MACHINE DISPENSER	9.3	120 V	1	B	4	1/2" 2012 & 1812 GND.
7A	BLK O22 TANK	10.8	120 V	1	B	1	1/2" 2012 & 1812 GND.
7B1	UPRIGHT REFRIGERATOR	5.0	120 V	1	B	29	1/2" 2012 & 1812 GND.
7B2	UPRIGHT REFRIGERATOR	5.0	120 V	1	B	29	1/2" 2012 & 1812 GND.
8	GAS WATER HEATER	6.0	120 V	1	B	17	1/2" 2012 & 1812 GND.
10	BLENDER (ISLAND)	11.2	120 V	1	B	3	1/2" 2012 & 1812 GND.
11	CARVING STATION	10.0	208 V	1	B	12,14	1/2" 2012 & 1812 GND.
12	REFRIGERATOR (COOK LINE)	2.6	120 V	1	B	26	1/2" 2012 & 1812 GND.
13	GAS GRIDDLE	0.6	120 V	1	B	19	1/2" 2012 & 1812 GND.
16	ICE CRYSER	0.5	120 V	1	B	21	1/2" 2012 & 1812 GND.
18	RICE COOKER	0.5	120 V	1	B	23	1/2" 2012 & 1812 GND.
26	HOT HOLDING CABINE (RICE TABLE)	11.2	120 V	1	B	1	1/2" 2012 & 1812 GND.
32	CO2 ALARM	1.5	120 V	1	B	1	1/2" 2012 & 1812 GND.
32.5	ICE MAKER SANITIZER	1.5	120 V	1	B	13	1/2" 2012 & 1812 GND.
32A	ICE MAKER	16.2	120 V	1	B	15	1/2" 2012 & 1812 GND.
32C	ICE MAKER (UTENSIL COUNTER)	12.0	120 V	1	B	6	1/2" 2012 & 1812 GND.
32D	SODA MACHINE (PICK UP WINDOW)	9.3	120 V	1	B	44	1/2" 2012 & 1812 GND.
42	UNDERCOUNTER COOLER (PICK UP WINDOW)	12.5	120 V	1	B	92	1/2" 2012 & 1812 GND.
52	ICE MACHINE (PICK UP WINDOW)	12.5	120 V	1	B	92	1/2" 2012 & 1812 GND.
61D	DISH MACHINE	25.4	208 V	1	B	31,33	3/4" 2012 & 1812 GND.
67	REFRIGERATED CASE SELF SERVE	6.5	120 V	1	B	9	1/2" 2012 & 1812 GND.
69B	BUBBLER	6.5	120 V	1	B	8	1/2" 2012 & 1812 GND.
71A	QUEPASA/LLA MAKER	28.0	208 V	1	B	35,37	3/4" 2012 & 1812 GND.
71B	QUEPASA/LLA MAKER	28.0	208 V	1	B	41,43	3/4" 2012 & 1812 GND.
700	FOOD WARMER (OML LINE)	11.7	120 V	1	B	32	1/2" 2012 & 1812 GND.
201	HOT FOOD SERVER (SERVE LINE)	20.0	208 V	1	B	16,18	3/4" 2012 & 1812 GND.
202	HOT FOOD SERVER (OML LINE)	20.0	208 V	1	B	20,22	3/4" 2012 & 1812 GND.
203	COLD TOP (OML LINE)	12.0	120 V	1	B	34	1/2" 2012 & 1812 GND.
AC27	AIR CURTAIN 2	29.2	208 V	3	A	47,49,51	3/4" 300 & 1812 GND.
UN1-1	LINE HEATER 1	34.0	208 V	1	A	41,43	1/2" 2012 & 1812 GND.

KEY NOTES:

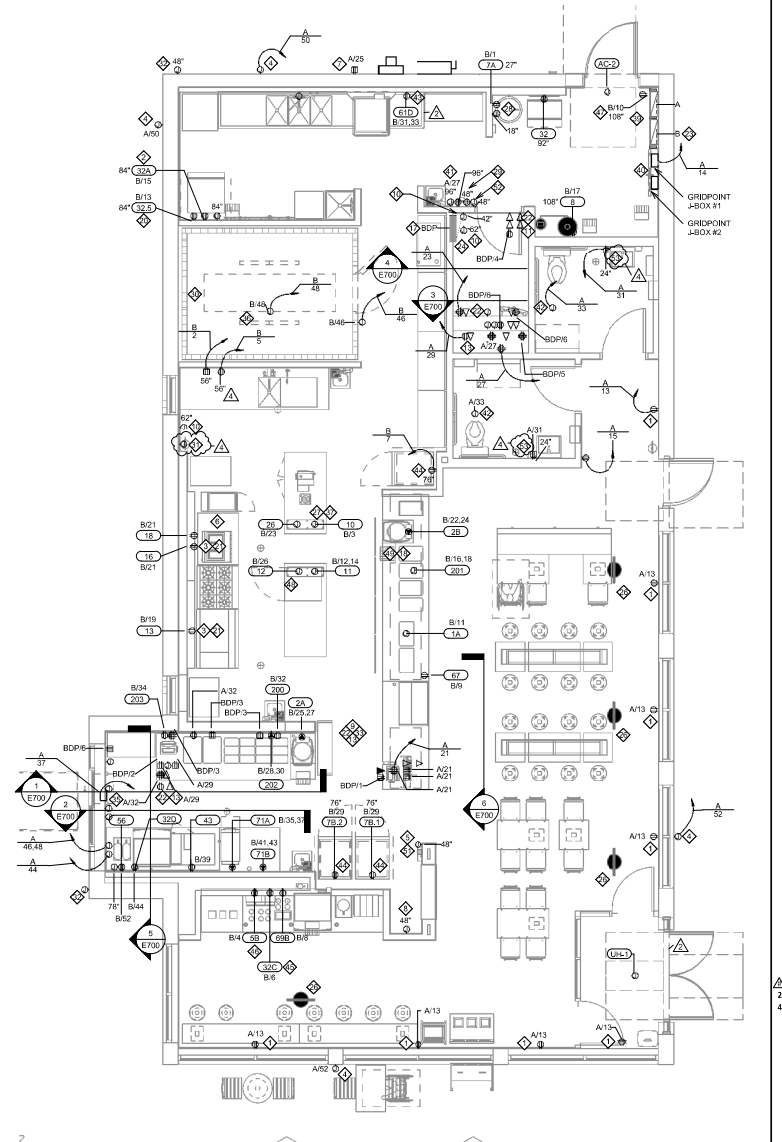
- SHOW ROOM WINDOW RECEPTACLE. COORDINATE EXACT RECEPTACLE MOUNTING HEIGHT IN THE FIELD WHERE SHOWN ON WALL. MUST BE IN CEILING ABOVE WINDOW WHERE SHOWN. MOUNTED RECEPTACLE IS SHOWN. LOCATION SHALL BE IN THE DRYWALL IMMEDIATELY ABOVE THE MAIN STOREFRONT WINDOW AND AS SHOWN IN THE DINING ROOM ELECTRICAL ELEVATIONS ON SHEET 900.
- ICE MACHINE ELECTRICAL TEAM. COORDINATE EXACT LOCATION WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN. PROVIDE L5-20 FLANGED INLET WIRED TO THE REMOTE CONDENSER. PROVIDE 4P CONDUIT ONE WITH L5-20 END AND ONE WITH L5-20R END. FROM ICE MAKER TO RECEPTACLE AND FLANGED INLET.
- CONNECT RECEPTABLES SERVING EQUIPMENT BELOW THE KITCHEN HOOD TO THE CIRCUITS SHOWN IN THE KITCHEN EXHAUST SUPPRESSION SYSTEM. INTEGRAL TO THE HOOD CONTROL PANEL. INTEGRAL CONTACTOR SHALL BE INTERLOCKED TO HOOD FIRE PROTECTION SYSTEM SO THAT RECEPTABLES ARE DE-ENERGIZED UPON ACTIVATION OF HOOD FIRE PROTECTION SYSTEM.
- JUNCTION BOX FOR EXTERIOR SIGN LIGHTING. COORDINATE EXACT LOCATION WITH CHARLES CONSTRUCTION MANNING AND THE SIGN INSTALLER PRIOR TO ROUGH-IN. CONNECT TO CIRCUIT SHOWN THROUGH THE EXTERIOR LIGHTING CONTACTOR PANEL AS SHOWN IN DETAIL 9E710.
- PROVIDE 4" OCTAGONAL JUNCTION BOX WITH SCREWS THREAT SET AT THE 2 & 8 O'CLOCK POSITIONS FOR THE KITCHEN EXHAUST SUPPRESSION SYSTEM PULL STATION. PROVIDE A 1/2" CONDUIT FROM THE J-BOX TO 6" ABOVE THE CEILING AND TERMINATE WITH A CONDUIT BUSHING. COORDINATE EXACT LOCATION WITH THE KITCHEN EXHAUST SUPPRESSION SYSTEM INSTALLER AND THE FIRE MARSHALL PRIOR TO ROUGH-IN.
- HOOD CONTROL PANEL AND KITCHEN EXHAUST SUPPRESSION SYSTEM CABINET SHALL BE LOCATED WITHIN THE INTEGRAL HOOD UTILITY CABINET. PROVIDE FINAL ELECTRICAL CONNECTIONS PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
- PROVIDE A DUPLEX GFCI RECEPTACLE WITH WEATHERPROOF WHITE IN USE OUTLET COVER FOR IRMATION CONTROLLER.
- PROVIDE AN EMPTY SINGLE GANG J-BOX FOR VOLUME CONTROLS. INSTALL 16G SPEAKER WIRE FURNISHED BY MSS FROM THE J-BOX TO THE AMPLIFIER IN THE OFFICE WITH 3 FEET OF SLACK AT EACH END.
- COORDINATE DATA/POWER RECEPTACLE MOUNTING REQUIREMENTS WITH THE CASE WORK INSTALLER PRIOR TO ROUGH-IN.
- PROVIDE ROUGH-IN FOR LAUNCHPORT AS NOTED. LAUNCHPORT WILL BE FURNISHED AND INSTALLED BY CH2PTOLW WITH THE WALLSTATION AT 62" AFF. PROVIDE A 4" X 12" DEEP OCTAGON J-BOX WITH 1/2" EXTENSION RING AT 62" AFF FOR THE WALLSTATION INSTALLATION WITH A 1/2" CONDUIT WITH PULL STRING FROM THE J-BOX TO ABOVE THE OFFICE CEILING.
- PROVIDE (2) EMPTY 2" CONDUITS WITH PULL STRINGS FROM THE BASE BUILDING'S TELEPHONE AND DATA SERVICE ENTRANCE LOCATIONS TO THE SPACE ABOVE THE OFFICE CEILING. TERMINATE WITH CONDUIT BUSHING.
- PROVIDE A SUFFICIENT LENGTH OF EQUIP-TIGHT CONDUIT TO THE EXHAUST FAN (EFT) TO ALLOW THE EXHAUST FAN TO BE COMPLETELY OPEN WHEN THE VIBROGUARD SYSTEM IS INSTALLED.
- AFTER THE FAX LINE, POS, AND OFFICE EQUIPMENT IS INSTALLED, PROVIDE CHILDPROOF RECEPTACLE COVERS ON UNUSED GFCI RECEPTABLES AT THE FAX LINE, POS, AND OFFICE.
- PROVIDE ONE PHASE, ONE NEUTRAL, AND ONE GROUND CONDUCTOR FROM THE ICE MAKER TO THE REMOTE CONDENSING UNIT.
- UNIT SHALL HAVE AN INTEGRAL NON-FUSED DISCONNECT SWITCH.
- PROVIDE 2" CONDUIT (EMT, IMC, OR RMC) THROUGH ROOF. TERMINATE WITH WEATHERHEAD 12" ABOVE ROOF FOR FUTURE CELL BOOSTER.
- INSTALL THE BYPASS DISTRIBUTION PANEL (BDP) FURNISHED BY THE TENANT. INSTALL PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAIL 9E710.
- ROUGH-INS TO SERVE LINE AND POS EQUIPMENT ARE UNDERGROUND. COORDINATE ROUGH-IN REQUIREMENTS AND LOCATIONS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.
- ROOFTOP UNIT SHALL HAVE AN INTEGRAL UNIT-MOUNTED GFCI RECEPTACLE. PROVIDE CONNECTION TO CIRCUIT SHOWN.
- ICE MAKER RECEPTABLES SHALL BE CONCEALED BEHIND THE ICE MAKER. COORDINATE LOCATION WITH ACTUAL WIDTH OF ICE MAKER.
- PROVIDE VERTICAL METAL DIE CAST WEATHERPROOF WHITE IN USE OUTLET COVER ON RECEPTABLES AT COOK LINE. COVER SHALL BE INTERMEDIATE W/10" DRIVING FOR SINGLE GANG BOXES AND W/10" DRIVING FOR DOUBLE GANG BOXES. NO SUBSTITUTIONS SHALL BE ACCEPTED.
- LABEL BATTERY-PROTECTED RECEPTABLES "BATTERY-PROTECTED. DISCONNECT AT PANEL BDP".

KEY NOTES:

- LABEL MAIN DISCONNECT SWITCH AND PANEL A "WARNING: BATTERY-PROTECTED RECEPTABLES IN USE. DISCONNECT AT PANEL BDP".
- PROVIDE A NEMA 5-20P FLANGED INLET (LEVITON MODEL #1873P-C) AND A SINGLE NEUTRAL-SCHEMPTON IN OFFICE FOR CONNECTION TO A CENTRAL UPS SYSTEM. CONNECT THE FLANGED INLET AND THE SINGLE RECEPTACLE TO THE UPS PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE FINAL CONNECTION FROM FLANGED INLET TO THE UPS USING A 24-GAUGE 20A EXTENSION CORD. PLUG THE UPS INTO THE SINGLE RECEPTACLE.
- CONNECT RESTROOM EXHAUST FAN TO CIRCUIT SHOWN THROUGH THE LIGHTING CONTROL PANEL (LCP).
- INSTALL 16G SPEAKER WIRE FURNISHED BY MSS. INSTALL SPEAKER WIRE BETWEEN SPEAKERS IN THE RESTROOM AS SHOWN TO THE VOLUME CONTROL IN THE KITCHEN WITH 3 FEET OF SLACK AT EACH END. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ADJUST EACH SPEAKER 70V TAP SETTING TO BE 15 WATTS.
- PROVIDE POWER CONNECTIONS TO ISLAND PREP TABLE PER DETAIL 2E71A. PROVIDE GFCI DUPLEX RECEPTABLE IN TWO J-BOXES INTEGRAL TO PREP TABLE FOR HOT HOLDING CABINET AND GENERAL RECEPTACLE.
- PROVIDE GFCI RECEPTACLE AND J-BOX AND INSTALL CO2 ALARM FURNISHED BY CODAS AS SHOWN IN DETAIL 4E710.
- PROVIDE J-BOX AND INSTALL CO2 ALARM REMOTE DISPLAY UNIT FURNISHED BY CODAS AS SHOWN IN DETAIL 4E710.
- INSTALL WALK-IN-COOLER EXTERNAL READOUT THERMOMETER REMOTE PROBE ON WALL OPPOSITE FROM DOOR AS SHOWN. ROUTE TEMPERATURE PROBE WIRE ABOVE WALK-IN COOLER CEILING PANELS. SEAL PENETRATIONS THROUGH THE CEILING PANELS, AND SECURE ALL PROBE WIRE TIGHT TO WALLS. NO EXCESS PROBE WIRE SHALL BE WITHIN THE WALK-IN COOLER.
- PROVIDE A J-BOX 6" BELOW THE LAY-IN CEILING WITH A 1/2" CONDUIT ROUTED BACK TO THE HCF. PROVIDE 16 GA 3 CONDUCTOR LOW VOLTAGE WIRE FROM THE HOOD SUPPRESSION SYSTEM GAS VALVE BACK TO THE HCF WITH FINAL CONNECTION IN THE HCF BY THE FS INSTALLER. FLEXIBLE METAL CONDUIT OR FLEXIBLE METAL CONDUIT WITH FAS VALVE SHALL BE CONCEALED WITHIN FLEXIBLE METAL CONDUIT OR EQUIVALENT FLEXIBLE METAL CONDUIT WITH FAS VALVE SO THAT CONDUIT IS 12" OR LESS.
- PROVIDE 4" SQUARE J-BOX ON EXTERIOR WALL FOR MOUNTING OF EXTERIOR CAMERA. SEE ARCHITECTURAL ELEVATION FOR EXACT HEIGHT AND LOCATION. PROVIDE 3/4" CONDUIT WITH PULL STRING FROM J-BOX TO ABOVE LAY-IN CEILING AREA IN KITCHEN. J-BOX SHALL NOT BE SURFACE MOUNTED. BASE OF CAMERA SHALL BE MOUNTED FLUSH TO EXTERIOR WALL FINISH.
- PROVIDE 1" CONDUITS FROM LOW-VOLTAGE J-BOXES AT POS COUNTER CONCEALED WITHIN THE SERVE LINE WIRING CHASE TO THE WALL, THEN CONCEALED WITHIN THE WALL AND ABOVE THE CEILING TO ABOVE THE OFFICE CEILING.
- NOT USED.
- INSTALL VEHICLE DETECTOR SYSTEM FURNISHED BY TLS SURFACEMOUNTED ON WALL IN ACCESSIBLE LOW VOLTAGE AREA AND CONNECT TO STROBECHIME AND DETECTOR LOOP PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. MAKE FINAL ADJUSTMENTS TO LOOP SENSITIVITY PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ONCE ALL COMPONENTS ARE INSTALLED AND OPERATIONAL, THE CHIME/STROBE LIGHT SHOULD BE ILLUMINATED AND THERE SHOULD BE A SINGLE CHIME WHEN A VEHICLE DRIVES OVER OR STOPS ON LOOP.
- SEAL INTERIOR AND EXTERIOR OF CONDUITS THAT PASS THROUGH THE WALK-IN COOLER ENVELOPE PER THE NEC.
- PROVIDE ISLAND PREP TABLE FOOD WARMER RECEPTACLE WITH GROUND PIN TOWARDS THE BOTTOM OF THE RECEPTACLE.
- INSTALL TRANSFORMER FURNISHED BY TON WITH THE REME HALO AIR PURIFIER IN THE JUNCTION BOX ON THE EXTERIOR OF THE RTU PER DETAIL 6N700. CONNECT LINE SIDE OF THE TRANSFORMER TO THE RTU SERVICE RECEPTACLE (EJECT SO THAT REME HALO RINGS CONTINUOUSLY). CONNECT THE LOW VOLTAGE SIDE OF THE TRANSFORMER TO THE REME HALO USING THE INCLUDED BARREL PLUG.
- PROVIDE (2) 10"X10"X4" JUNCTION BOXES (J-BOX #1 & J-BOX #2) ON THE WALL ABOVE PANELBOARDS 6" BELOW THE LAY-IN CEILING AND MOUNTED ADJACENT TO EACH. PROVIDE CONDUITS AND WIRING SHOWN IN DETAIL 9E710. TEMS SHALL PROVIDE GRIDPOINT 3 PHASE METER AND TRANSFORMER WITH J-BOX #1 AND GRIDPOINT 2 WITH J-BOX #2. SEE GRIDPOINT INSTALLATION SHEET FOR DETAILS.
- PROVIDE HORIZONTAL SINGLE-GANG J-BOX BELOW FUTURE GRIDPOINT CONTROLLER LOCATION. PROVIDE CONDUITS AND WIRING AS SHOWN IN DETAIL 9E710.
- INSTALL WIRED DOOR BUZZER AT 96" AFF. SEE ARCHITECTURAL DOOR EQUIPMENT FOR EQUIPMENT INFORMATION. CONNECT TO CIRCUIT SHOWN THROUGH THE TRANSFORMER FURNISHED WITH THE DOOR BUZZER. PROVIDE WIRING TO A BUTTON ADJACENT TO THE SERVICE DOOR AND CONNECT PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

KEY NOTES:

- CONNECT BATHROOM SANITIZER TO CIRCUIT SHOWN SO THAT IT IS ENERGIZED AT ALL TIMES.
- PROVIDE POWER AND LOW VOLTAGE CONNECTIONS TO DISH SANITIZER MACHINE PER DETAIL 2E71A. CONNECT THE DISCONNECT DISPENSER TO THE DISH MACHINE USING THE INCLUDED WIRING HARNESS PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE RECEPTACLE FOR 3-DOOR AND 4-DOOR REFRIGERATORS WITH GROUND PINS TOWARDS THE BOTTOM OF THE RECEPTACLE.
- PROVIDE CORD AND NEMA 5-20P PLUG FROM UTENSIL COUNTER, TO ICE MAKER RECEPTACLE.
- LABEL UTENSIL COUNTER RECEPTABLES "TRACTOR BEVERAGE", "ICE MAKER/BLISS", AND "SODA FOUNTAIN".
- LABEL RECEPTACLE "UV INSECT TRAP".
- PROVIDE POWER CONNECTIONS TO ISLAND PREP TABLE PER DETAIL 2E71A. PROVIDE GFCI DUPLEX RECEPTABLE IN THE J-BOX INTEGRAL TO PREP TABLE FOR UNDERCOUNTER REFRIGERATOR. PROVIDE FINAL CONNECTION TO CARVING STATION HEATER.
- IF NEUTRAL CONDUCTOR IS NOT NEEDED FOR SERVE LINE HOT FOOD SERVER TERMINATE NEUTRAL N JUNCTION BOX.
- PROVIDE A TWO-CONDUCTOR LOW VOLTAGE WIRE IN 3/4" (4) AND 1/2" (12) 1/2" IN 1" (2) FROM MAIN-1 TO THE HOOD CONTROL PANEL PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE SINGLE-GANG J-BOX FOR DATA JACK AS SHOWN FOR KRONOS TIME CLOCK.
- PROVIDE A RECESSED J-BOX AT 48" AFF FOR THE INSTALLATION OF THE SECURITY SYSTEM KEYPAD WITH A 3/4" CONDUIT TO ABOVE THE DROP TILE CEILING IN THE OFFICE AREA. TERMINATE CONDUIT WITH A CONDUIT BUSHING.
- PROVIDE RECEPTACLE FOR RESTROOM HAND SINK FAUCET AS SHOWN IN DETAIL 4E710.



1 - Power - New - Plot
1/4" = 1'-0"

2 - Power - New - Roof Plan
1/8" = 1'-0"

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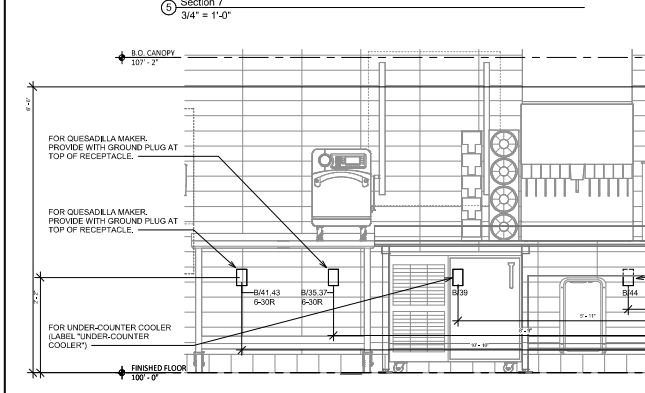
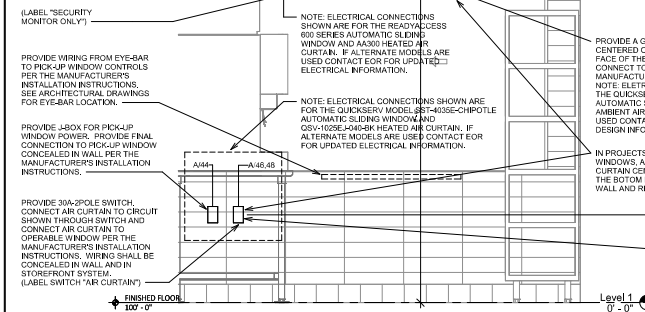
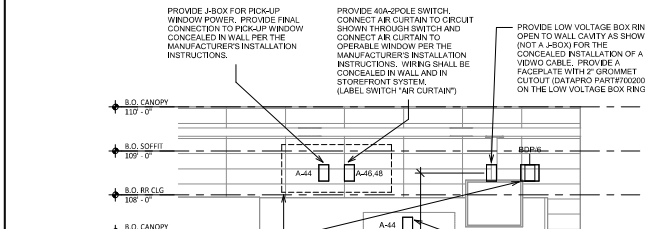
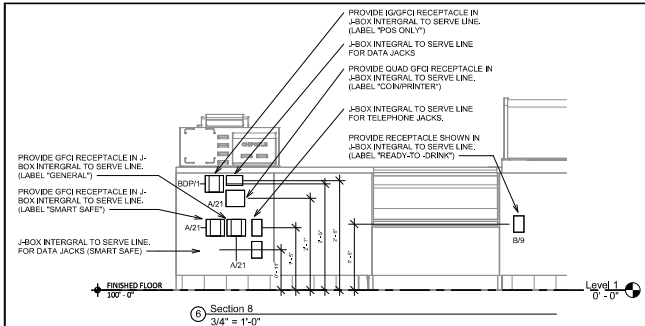
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Signature: Jay D. Rankin
Type of Printed Name: Jay D. Rankin
License #: 23434
Date: 11/02/2024

PROJECT NO. 2023-019
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CHECKED BY: RM

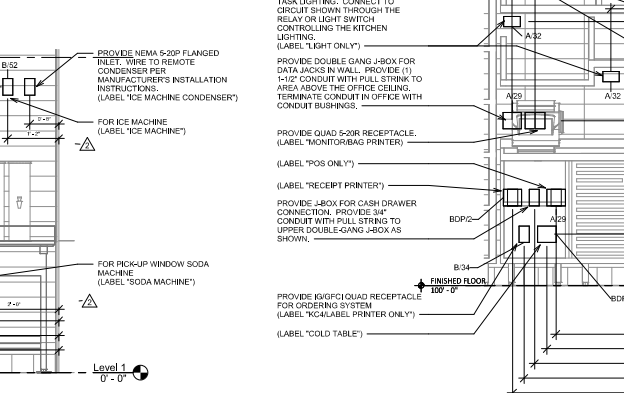
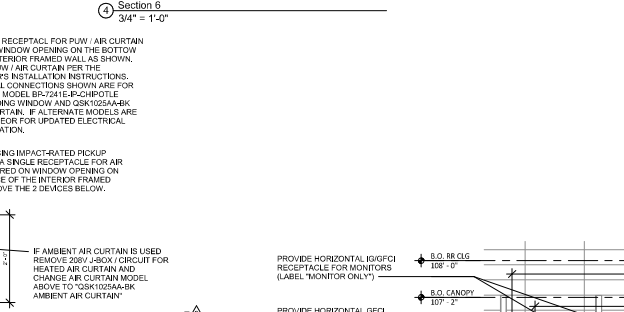
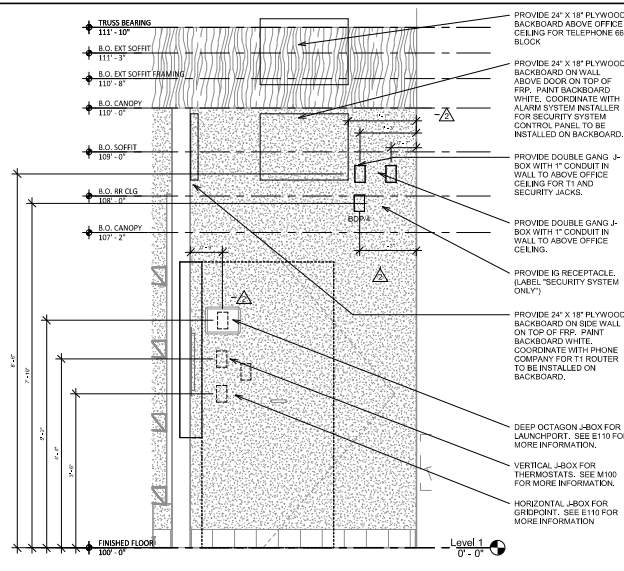
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08/03/2024 PERMIT SET
08/20/2024 BID SET
11/22/2024 CONSTRUCTION SET

REVISIONS:
2 08/20/2024 City Comments
4 01/08/2025 CS-02

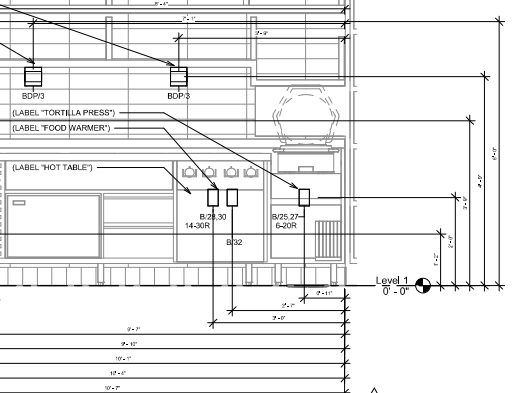
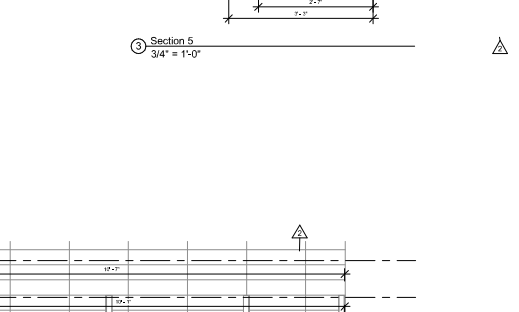
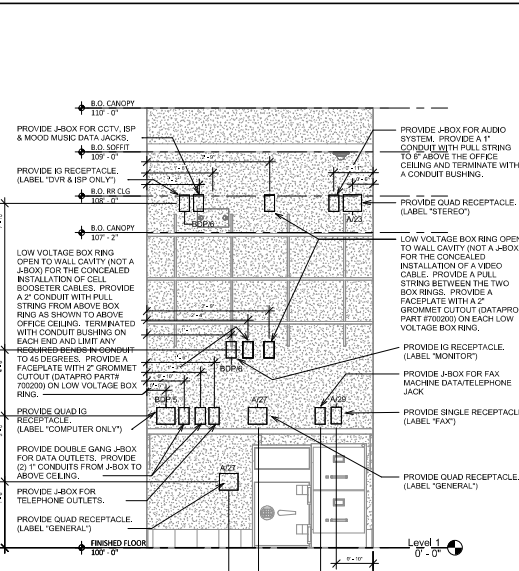
ELECTRICAL POWER PLAN
SHEET NUMBER: **E110**



② PLW COLD SIDE ELECTRICAL ELEVATION
3/4" = 1'-0"



① DML ELECTRICAL ELEVATION
3/4" = 1'-0"



① DML ELECTRICAL ELEVATION
3/4" = 1'-0"

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Signature: Jay D. Rankin
Type of Printed Name: Jay D. Rankin
23434
11/12/2024
License # Date

PROJECT NO. 2023-0519
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NO.	DATE	DESCRIPTION
2	08/20/2024	City Comments

DATE: 11/12/2024
ELECTRICAL INTERIOR ELEVATIONS

Sheet Number: E700