## X DEMOLITION KEY NOTES

1 DEMO EXISTING FIXTURE AND ASSOCIATED GREASE WASTE & VENT PIPING BACK TO GREASE WASTE AND VENT MAIN. NO DEAD END PIPING TO REMAIN AFTER DEMOLITION.

2 DEMO EXISTING VENT PIPING BACK TO GREASE/SANITARY WASTE AND VENT MAIN. NO DEAD END PIPING TO REMAIN AFTER DEMOLITION.

3 REFER TO CIVIL PLAN FOR CONTINUATION.

4 EXISTING EXTERIOR CLEANOUTS TO REMAIN.

5 EXISTING 4" GREASE LINE AND EXTERIOR TO REMAIN. EXISTING GREASE INTERCEPTOR SHOWN FOR REFERENCE ONLY

2 6 EXISTING WATER HEATER TO REMAIN.

7 DEMO EXISTING PLUMBING FIXTURE AND PREPARE FOR NEW SANITARY LINE CONNECTION.

8 EXISTING INTERIOR CLEANOUTS TO REMAIN. INSPECT FOR DAMAGES AND REPLACE AS NEEDED.

9 ALL EXISTING WATER PIPING CONNECTION ASSOCIATED WITH PLUMBING FIXTURES TO REMAIN IN THE RESTROOM AREAS AND PREPARE FOR NEW FIXTURE CONNECTION.

10 EXISTING FLOOR DRAINS TO REMAIN. INSPECT FOR DAMAGES AND REPLACE AS NEEDED.

2 11 EXISTING SANITARY LINE AND WATER LINES SERVING RESTROOMS TO REMAIN.

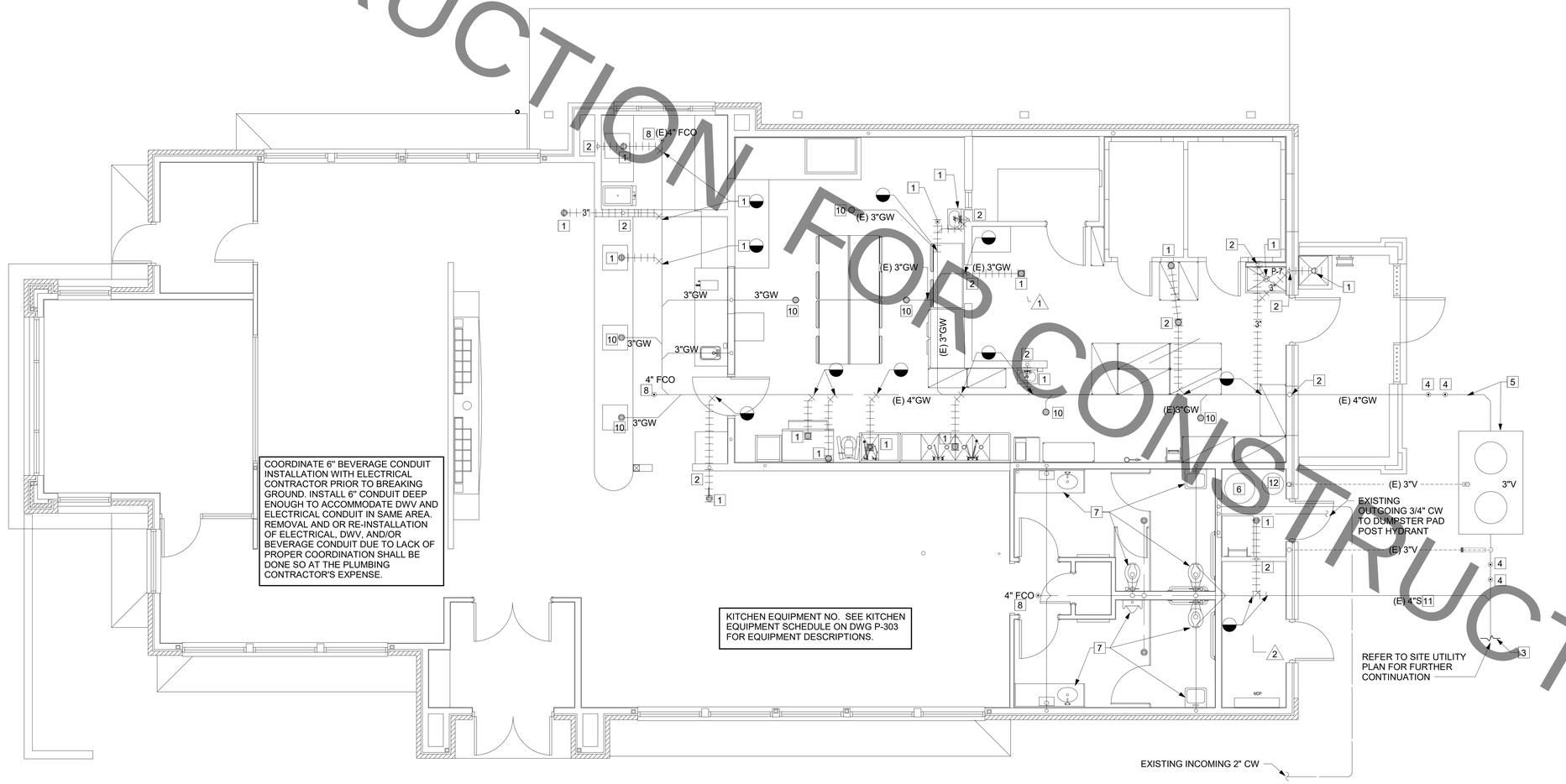
12 EXISTING CO2 TANK TO BE RELOCATED.

## DEMOLITION PIPE LEGEND

EXISTING PIPE TO BE REMOVED

EXISTING PIPE TO REMAIN

POINT OF DISCONNECTION




2 BELOW SLAB DEMOLITION PLUMBING PLAN
1/4" = 1'-0"



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No. 91191
STATE OF
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# CHICK-FIL-A
## WELLS RD.

1925 WELLS ROAD
ORANGE PARK, FLORIDA 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03 M
RELEASE: N/A

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
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SHEET
BELOW SLAB
DEMOLITION PLAN

SHEET NUMBER
**P-100**

## RENOVATION KEY NOTES

1 EXISTING INCOMING 2"CW TO REMAIN. 3/4" CW TO REFUSE TO REMAIN UNLESS NOTIFIED OTHERWISE.

2 NEW VENT PIPING ROUTED TO ABOVE CEILING. ROUTE AND CONNECT NEW VENT PIPING TO EXISTING VENT SYSTEM. REFER TO RISER DIAGRAM FOR ROUTING INFORMATION.

3 CONNECT NEW 2" GREASE WASTE PIPING TO EXISTING GREASE WASTE MAIN BELOW SLAB. CONTRACTOR TO FIELD VERIFY DIRECTION, FLOW & INVERTS PRIOR TO COMMENCEMENT OF WORK.

4 CONNECT NEW 3" GREASE WASTE PIPING TO EXISTING GREASE WASTE MAIN BELOW SLAB. CONTRACTOR TO FIELD VERIFY DIRECTION, FLOW & INVERTS PRIOR TO COMMENCEMENT OF WORK.

5 CONNECT NEW 4" GREASE WASTE PIPING TO EXISTING GREASE WASTE MAIN BELOW SLAB. CONTRACTOR TO FIELD VERIFY DIRECTION, FLOW & INVERTS PRIOR TO COMMENCEMENT OF WORK.

6 GENERAL CONTRACTOR TO CHECK EXISTING FLOOR DRAIN/SINK FOR PROPER CONNECTION AND FUNCTION. IF APPLICABLE INSPECT EXISTING TRAP PRIMER AND TRAP PRIMER CONNECTING VALVE. IF PROPER WORKING CONDITIONS ARE NOT MET, OWNER TO PROVIDE REPLACEMENTS. VERIFY CONDITION OF ASSOCIATED GREASE WASTE PIPING CLEANS & REPAIR AS REQUIRED.

7 REFER TO CIVIL SITE UTILITY PLAN SHEET FOR EXACT SIZE, CALCULATION, & LOCATION ON SITE OF GREASE INTERCEPTOR.

8 INSTALL NEW TWO WAY EXTERIOR CLEANOUT IN LOCATION SHOWN.

9 3" VENT PIPING FROM NEW GREASE TRAP TO BE ROUTED TO EXISTING VENT SYSTEM. REFER TO RISER FOR ROUTING INFORMATION.

10 INSTALL NEW PLUMBING FIXTURE IN LOCATION SHOWN. CONNECT NEW LAVATORY TO EXISTING SANITARY & VENT PIPING REMAINING FROM DEMOLITION.

11 PROVIDE TRAP SEAL PROTECTOR P-26A.

12 INSTALL P-35 FLOOR DRAIN WITH TOP OF DRAIN 0'-7" BFF. COORDINATE WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

13 EXISTING CO2 SYSTEM RELOCATED AS SHOWN ON PLAN. REFER TO SHEETS P-201 AND P-211 FOR FURTHER INFORMATION.

14 COORDINATE ELECTRICAL UNDERGROUND SERVING MDP PANEL AND EXISTING SANITARY SEWER PIPING BELOW GRADE.

15 EXISTING TWO-WAY EXTERIOR CLEAN-OUT TO REMAIN, UNLESS INTERFERENCE WITH NEW BUILDING STRUCTURE REQUIRES RELOCATION.

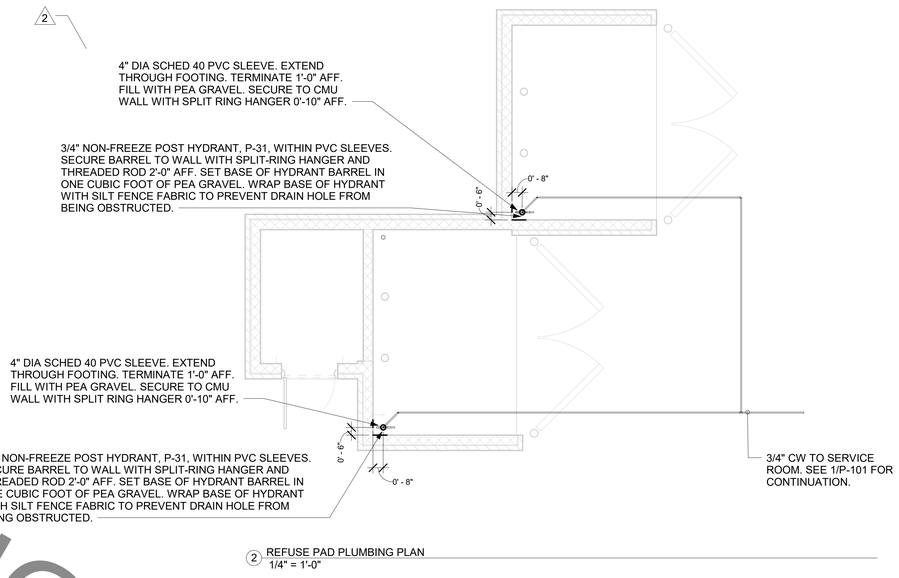
16 EXISTING WATER HEATER TO REMAIN.

17 CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING GREASE WASTE MAIN BELOW SLAB. CONTRACTOR TO FIELD VERIFY DIRECTION, FLOW & INVERTS PRIOR TO COMMENCEMENT OF WORK.

## SANITARY/GREASE PIPE SYSTEM LEGEND

- NEW CONSTRUCTION PIPE
- EXISTING PIPE (E)
- EXISTING PIPE TO BE REMOVED (DEMO'D)
- POINT OF DISCONNECTION
- POINT OF CONNECTION, EXISTING TO NEW

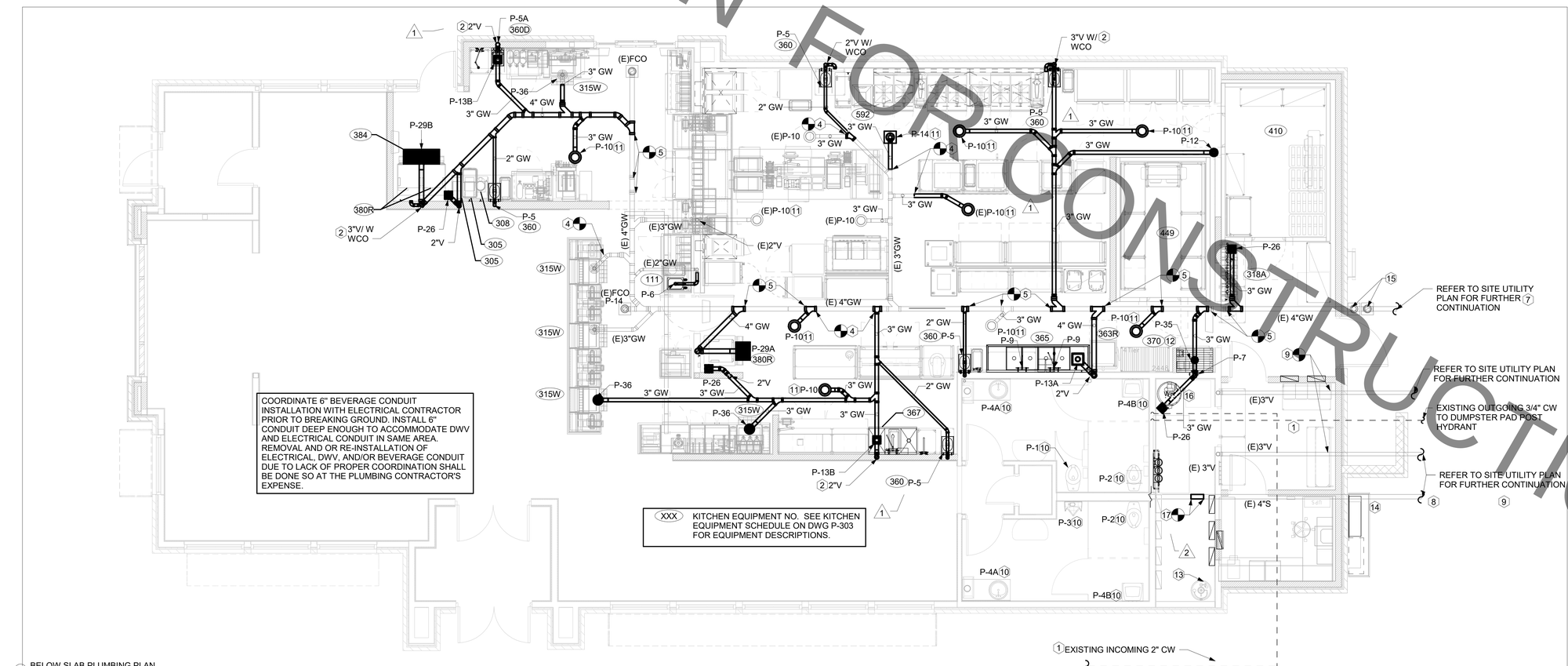
METHOD OF DRAINAGE AT REFUSE PAD -
WHEN AREA DRAIN IS SHOWN ON CIVIL PLANS, SEE FIXTURE P-32 SPECIFICATION ON DRAWING P-901 FOR MAKE AND MODEL OF DRAIN. DRAIN AND PIPING PROVIDED AND INSTALLED BY CHICK-FIL-A SITE CONTRACTOR. WHEN AREA DRAIN IS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS FOR DESIGN OPTION SHOWING DRAINAGE THROUGH BACK OF DUMPSTER ENCLOSURE.




2 REFUSE PAD PLUMBING PLAN
1/4" = 1'-0"

## 5. SHEET NOTES

1. COORDINATE INSTALLATION OF SANITARY PIPING WITH FOOTINGS IN THE FIELD. SLEEVE PENETRATIONS IN FOOTINGS WITH PVC.
2. COMBINATION WASTE AND VENT SYSTEM SHOWN HERE. WHERE REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION, PROVIDE SAFE-WASTE SYSTEM OR DEDICATED VENT SYSTEM AS OUTLINED IN STATE AND LOCAL CODE AMENDMENTS.
3. ALL WATER PIPING INSTALLED WITHIN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR SIDE OF THE INSULATION.
4. ALL VENT PIPING TO BE 2" DIAMETER MIN UNLESS NOTIFIED OTHERWISE. SEE 1/P-301 FOR VENT LAYOUT.




1 BELOW SLAB PLUMBING PLAN
1/4" = 1'-0"



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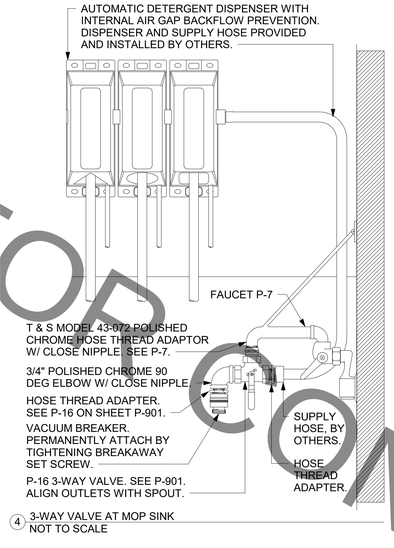
SHEET
BELOW SLAB PLUMBING PLAN

SHEET NUMBER
**P-101**



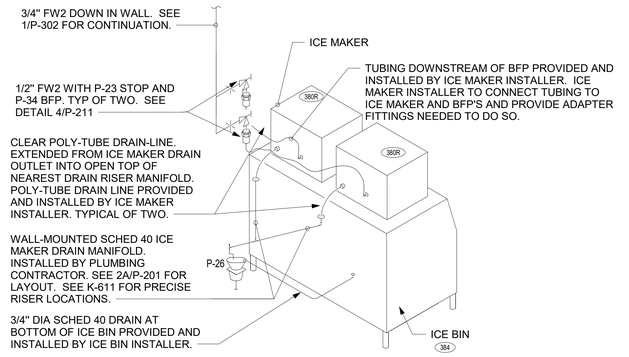

4 3-WAY VALVE AT MOP SINK
NOT TO SCALE

**WALK-IN CONDENSATE PIPING NOTES:**

INSTALL PIPING TIGHT TO WALL SO AS NOT TO INTERFERE WITH COOLER AND FREEZER SHELVES. PROVIDE UNION FITTINGS IMMEDIATELY DOWNSTREAM OF CONNECTION TO EVAPORATORS.

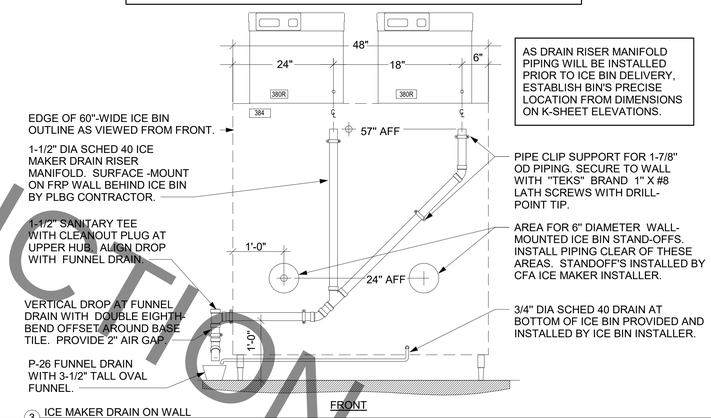
**NOTE TO WATER HEATER INSTALLER:**

POSITION VALVES AND TRIM IN WATER HEATER CLOSET SUCH THAT VISIBLE OBSERVATION OF VALVES AND TRIM IS UNOBSTRUCTED AND SUCH THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR ANY NEED TO DISASSEMBLE ANY COMPONENTS.




2 ICE MACHINE PIPING
NOT TO SCALE

DRAIN RISER LOCATIONS MEASURED FROM EDGE OF ICE BIN. VERIFY ICE BIN WIDTH AND PRECISE LOCATION FROM DIMENSIONS ON K-SHEET ELEVATIONS.




AS DRAIN RISER MANIFOLD PIPING WILL BE INSTALLED PRIOR TO ICE BIN DELIVERY, ESTABLISH BIN'S PRECISE LOCATION FROM DIMENSIONS ON K-SHEET ELEVATIONS.

3 ICE MAKER DRAIN ON WALL
NOT TO SCALE

## DEMOLITION NOTES

1 EXISTING PLUMBING FIXTURE TO REMAIN.

2 DEMO EXISTING PLUMBING FIXTURE. LEAVE ALL WATER AND SANITARY CONNECTIONS FOR NEW CONNECTION.

## RENOVATION KEY NOTES

1 NEW WATER FILTERS.

2 OWNER PROVIDED, PLUMBER INSTALLED STOP/BFP PANEL. SEE K-SHEET ELEVATIONS FOR EXACT LOCATION. PROVIDE EXPOSED 3/4" BALL VALVE AT CONNECTION TO PANEL. ROUTE 1" DIA SCHED 40 PVC BFP DRAIN TIGHT TO WALL TO 12" A.F.F.

3 NEW FILTERED WATER PIPING ROUTED ABOVE CEILING FROM EXISTING WATER FILTERS TO NEW LOCATIONS SHOWN. SEE DETAIL ON SHEET P-303.

4 3/4"" FW DROP TO TWO-HANDLE FAUCET, P-30. MOUNT FAUCET ON WALL. SEE K-SHEETS FOR EXACT LOCATION. PIPE 1/2" FW TO EACH FAUCET INLET WITH 6" SPREAD. PROVIDE BALL VALVE ABOVE CEILING. SEE RISER DIAGRAM.

5 1" DIAMETER PVC DRAIN FROM BACKFLOW PREVENTER PANEL. CONNECT 1" PVC TO FACTORY PROVIDED COUPLING MOUNTED ON BACK PANEL. ROUTE DRAIN TO 12" A.F.F. BELOW. MOUNT PIPING TIGHT TO WALL WITH STRUT.

6 OWNER PROVIDED, PREFABRICATED STOP/BACKFLOW PREVENTER PANEL. MOUNTED ON WALL BY PLUMBER. EIGHT (8) ASSE 1022 RATED BFP'S. PIPING FROM BFPS TO CARBONATORS SHALL BE BY THE LOCAL SOFT DRINK VENDOR.

7 TURN 3/4" CONDENSATE PIPING OUT OF COOLER/FREEZER AND EXTEND OUTLET TO NEAREST DRAIN. SECURE PIPING TO COOLER/FREEZERR WALL WITH RUBBER INSULATED PIPE CLAMPS TO PREVENT GALVANIC CORROSION. SEAL ALL PENETRATIONS IN WALLS WITH PERMAGUM CORD. TERMINATE ABOVE FUNNEL WITH ELBOW AND AIR GAP.

8 3/4" TYPE L COPPER. PROVIDE 12" OF FALL BEFORE PENETRATING WALL PANEL. COVER WITH 1-3/8" I.D. X 3/4" ARMACELL A/P ARMAFLEX OVER HEAT TRACE CABLE.

9 1/2" FW TO P-24 & P-34 AT COFFEE MAKER AND TEA BREWER. SEE DETAIL 4 ON SHEET P-211. PROVIDE 2" DEEP TRAP WITH OPEN TEE AT OUTLET.

10 P-11 WALL HYDRANT 24" AFF WITH BALL VALVE IN DROP 48" AFF. ORDER HYDRANT WITH 12" WOODFORD WALL THICKNESS. SEE WATER RISER 1/P-302. SECURE TO WALL WITH STRUT AND CLAMP.

11 ROUTE 1/2" HOT WATER & 1/2" COLD WATER LINE WITHIN WALL FROM HAND SINK OVER TO EYEWASH STATION. PROVIDE POINT OF USE MIXING VALVE P-42 TO ENSURE EYEWASH STATION RECEIVES TEPID WATER CONNECTION.

12 EXISTING WATER SERVICE ENTRY AND ALL ASSOCIATED COMPONENTS TO REMAIN.

13 INSTALL CIRCUIT SETTER IN HOT WATER RETURN LINE FOR BALANCING BUILDING HOT WATER RETURN PIPING.

14 EXISTING CO2 SYSTEM TO BE RELOCATED TO THE UTILITY ROOM.

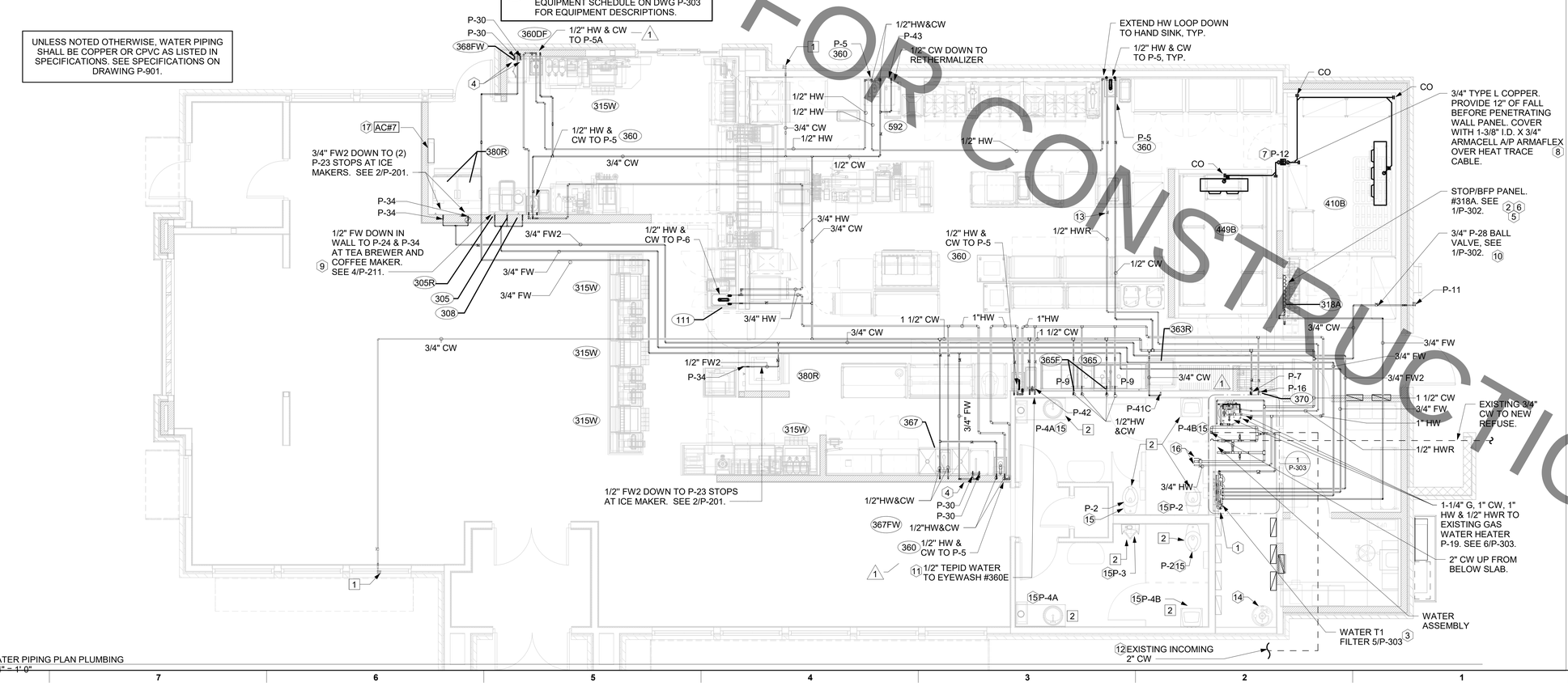
15 INSTALL NEW PLUMBING FIXTURE AND CONNECT TO EXISTING WATER AND SANITARY CONNECTIONS.

16 EXISTING RESTROOM PIPING TO REMAIN IN PLACE. DISCONNECT WATER MAINS TO RESTROOMS AND PREPARE FOR NEW CONNECTION. RECONNECT EXISTING HOT AND COLD WATER PIPING FOR RESTROOMS TO NEW 3/4" HOT AND 1-1/2" COLD WATER PIPING AS NEEDED.

17 INDIRECT CONNECT CONDENSATE FROM MINI-SPLIT SYSTEM DOWN ALONG WALL TO NEAREST DRAIN.

UNLESS NOTED OTHERWISE, WATER PIPING SHALL BE COPPER OR CPVC AS LISTED IN SPECIFICATIONS. SEE SPECIFICATIONS ON DRAWING P-901.

XXX KITCHEN EQUIPMENT NO. SEE KITCHEN EQUIPMENT SCHEDULE ON DWG P-303 FOR EQUIPMENT DESCRIPTIONS.




1 WATER PIPING PLAN PLUMBING
1/4" = 1'-0"



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# CHICK-FIL-A
## WELLS RD.
1925 WELLS ROAD
ORANGE PARK, FLORIDA 32073

**FSR#01360**

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SHEET
WATER PIPING PLAN

SHEET NUMBER
**P-201**

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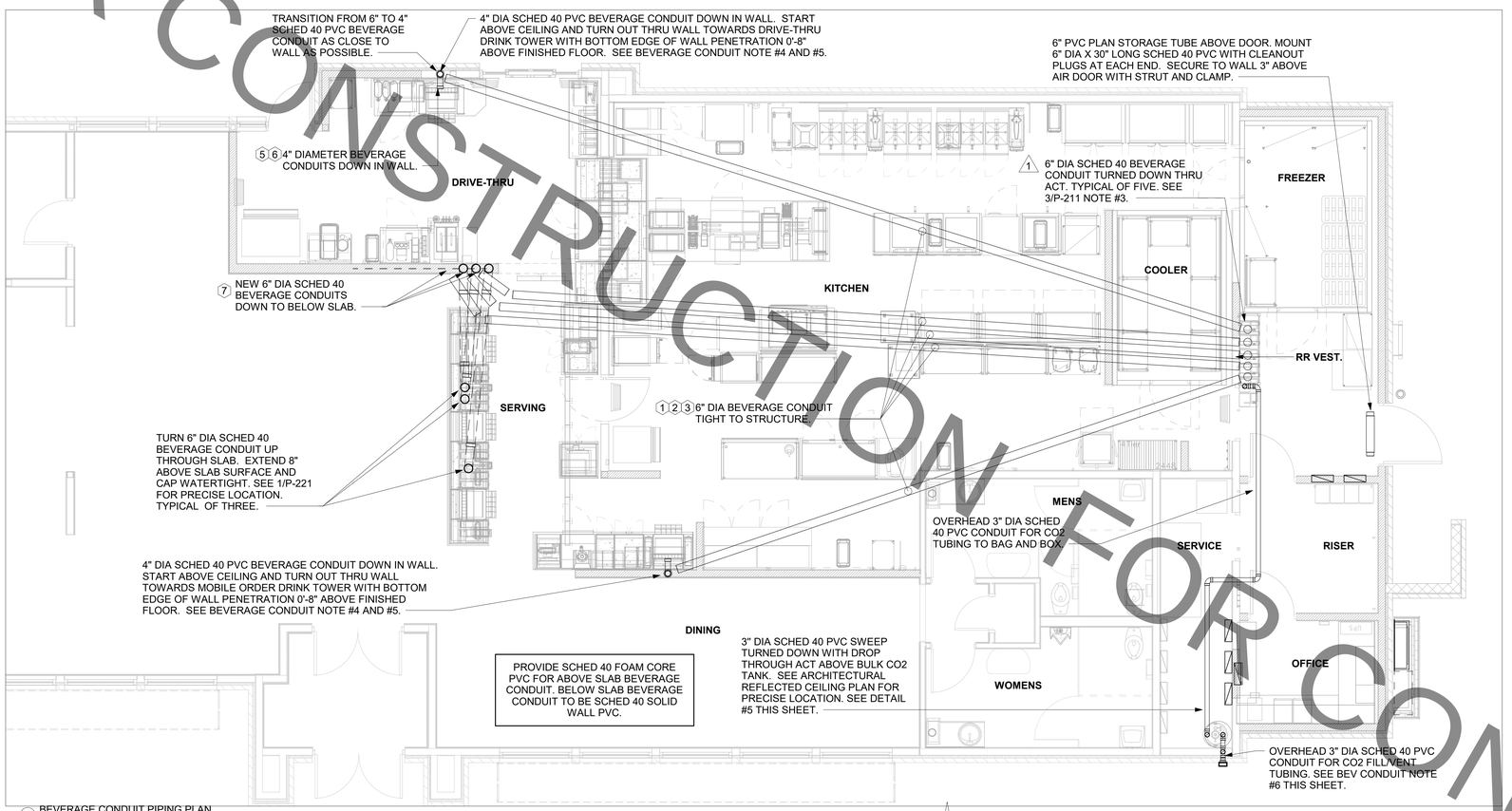
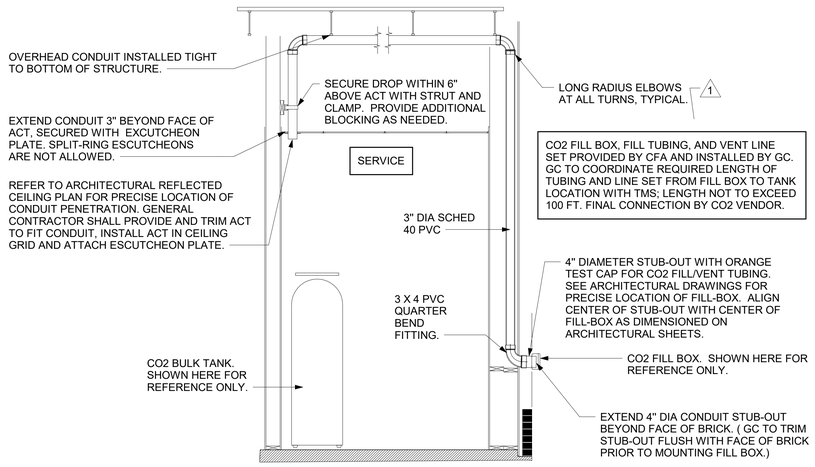
## ⓧ BEVERAGE CONDUIT NOTES

1. ROUTE BEVERAGE SYSTEM PIPING OVERHEAD FROM THE BEVERAGE RACK TO DRINK TOWERS IN FIVE (5)-6" DIA SCH 40 PVC DWV CONDUITS. ALL CONDUIT SHALL BE HELD TIGHT TO STRUCTURE AND SUPPORTED WITH THREADED ROD AND CLEVIS HANGERS AT INTERVALS SHOWN IN SPECIFICATIONS FOR HORIZONTAL OVERHEAD PIPING. COORDINATE ROUTING WITH THE GENERAL CONTRACTOR TO AVOID MECHANICAL AND ELECTRICAL SYSTEMS.
2. COORDINATE ROUTING OF ALL CONDUITS WITH HVAC DUCT IN KITCHEN. SEE SHEET M-101 FOR LOCATION OF AC UNITS AND DUCT ROUTING.
3. TURN THE 6" DIA CONDUIT DOWN THROUGH THE CEILING AT THE BEVERAGE RACK AND PROVIDE CHROMED ESCUTCHEONS AT CEILING PENETRATIONS. TERMINATE OPPOSITE END ABOVE CEILING WHERE SHOWN ON PLANS.
4. COORDINATE ROUTING OF REMOTE FILL LINE AND LOCATION OF EXTERIOR WALL MOUNTED FILL-BOX WITH COMPRESSED GAS VENDOR DURING CONSTRUCTION.
5. AT 6"Ø CONDUIT DROP IN DRIVE-THRU, PROVIDE 1/8TH BEND FITTING WITH SHORT PIPE STUB AT BASE OF DROP. CUT STUB AND FITTING FLUSH WITH FINISHED WALL.
6. FOR BEVERAGE CONDUIT DROPS AT WALLS WITH SHEATHING EXTENDED ABOVE THE CEILING, PROVIDE APPROPRIATE FITTING TO AT UPPER END OF CONDUIT DROP TO EXTEND CONDUIT THROUGH SHEATHING.
7. ROUTE NEW BEVERAGE CONDUIT DOWN WITHIN WALL TO BELOW SLAB. COORDINATE SAW CUT AND ROUTING WITH EXISTING BELOW SLAB CONDITIONS.

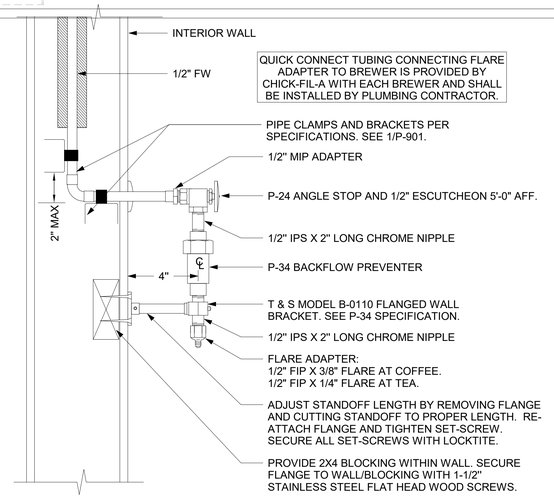
NOTE:
ALL BEVERAGE CONDUIT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD TO REVIEW ALL NEW & EXISTING EQUIPMENTS. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO INSTALLATION & FABRICATION OF CONDUITS, DUCTS, OR PIPING. RUN BEVERAGE CONDUITS AS STRAIGHT AS POSSIBLE AVOIDING EXISTING STRUCTURE, PIPING, DUCTS, & ALL EQUIPMENTS. ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.



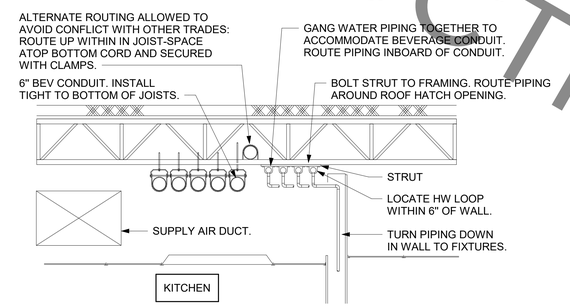

1 BEVERAGE CONDUIT PIPING PLAN
1/4" = 1'-0"




5 CO2 FILL/VENT CONDUIT AND FILL-BOX INSTALLATION
NOT TO SCALE




4 COFFEE & TEA BREWER STOP & BFP
1/4" = 1'-0"




3 SECTION AT WET WALL
NOT TO SCALE



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01-05-2022

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ORANGE PARK, FLORIDA 32073

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SHEET
BEVERAGE CONDUIT PLAN

SHEET NUMBER
**P-211**

# NOTE OF SPECIAL IMPORTANCE:

BELOW-SLAB BEVERAGE CONDUIT SHALL BE 6" DIAMETER SCHED 40 DWV SOLID WALL, NO FOAM CORE ALLOWED. USE LONG RADIUS ELBOWS (A.K.A. SWEEPS) ON ALL BEVERAGE CONDUIT. PLEASE NOTE BEVERAGE CONDUIT ROUGH-IN LOCATIONS ARE MEASURED TO THE FRACTION OF AN INCH. CARE MUST BE TAKEN WHEN INSTALLING 6" DIAMETER CONDUIT LOCATED WITHIN A 2X8 WALL. THE MARGIN FOR ERROR IS ONLY 1/16TH INCH.

## IMPORTANT NOTE TO INSTALLER

EXERCISE CAUTION WHEN LOCATING ROUGH-INS AT:
- DRIVE THRU AREA
- CUSTOMER WAIT AREA

DO NOT PULL TAPE FROM THE SLAB EDGE AT THESE AREAS WITHOUT COMPENSATING FOR DIFFERENCE IN OFFSETS. NOTE OFFSET AT BACK CORNER OF BUILDING.

## MOP SINK NOTE

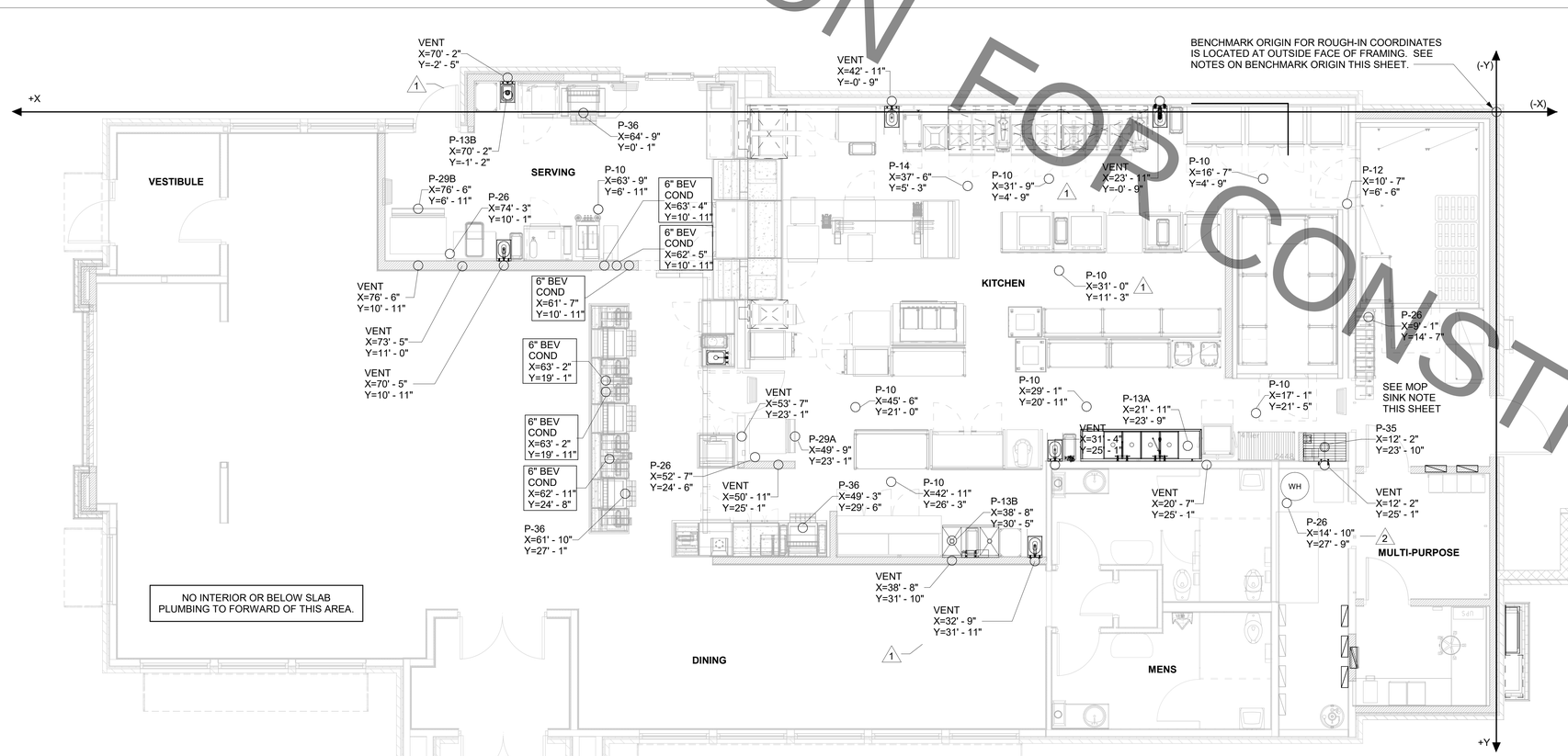
IMPORTANT: INSTALL FLOOR DRAIN WITH TOP OF DRAIN 0'-7" BFF. COORDINATE WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

## COORDINATE LEGEND

| TYPE | EXAMPLE | PIPE COORDINATES |
|---|---|---|
| #1 | CW X=43'8" Y=14'7" | APPLIES TO WATER PIPING ROUGH-IN PENETRATION ONLY. SEE P-101 FOR CONTINUATION. |
| #2 | VENT X=43'8" Y=14'7" | APPLIES TO DWV PENETRATION ONLY. |
| #3 | 6" BEV COND X=43'8" Y=27'3" | APPLIES TO 6" BEVERAGE CONDUIT PENETRATION ONLY. |

## NOTES ABOUT (0,0) BENCHMARK ORIGIN

1. THE (X=0, Y=0) BENCHMARK ORIGIN IS LOCATED AT THE OUTSIDE FACE OF FRAMING FOR THE EXTERIOR WALL AT THE CORNER WHERE SHOWN ON THE ADJACENT PLAN.
2. IT IS EXTREMELY IMPORTANT FOR THE PLUMBING INSTALLER TO BECOME COMPLETELY FAMILIAR WITH THE FACE-OF-FRAMING POSITION AND ITS RELATION TO THE FLOOR SLAB CONSTRUCTION PRIOR TO BEGINNING THE UNDERSLAB PLUMBING ROUGH-IN..
3. PLUMBING CONTRACTOR SHALL REVIEW STRUCTURAL DETAIL "TYPICAL SECTION @ EXTERIOR WALL" FOR PRECISE LOCATION OF FACE-OF-FRAMING WITH RESPECT TO THE SLAB INSTALLATION PRIOR TO LOCATING SLAB ROUGH-INS.




1 SLAB ROUGH-IN PLAN
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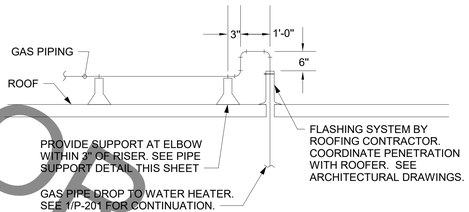
SHEET
SLAB ROUGH-IN PLAN

SHEET NUMBER
**P-221**

OFFSET PIPING A MINIMUM OF 6" ABOVE TOP EDGE OF FLASHING.




7 GAS PIPE DROP TO WATER HEATER
NOT TO SCALE

NOTES:

1. PROVIDE MODEL APS-MDA-1, APS-MDA-2 OR USPP-MDA AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE.

2. INSTALL AS REQUIRED IN ACCORDANCE WITH MIAMI-DADE NOA No. 19-0313.09.

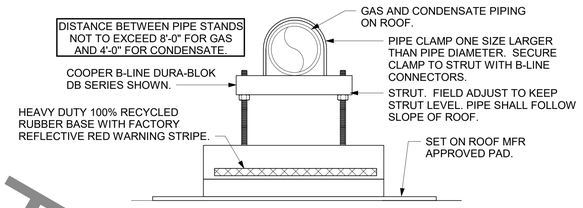
3. ENSURE CONDENSATE PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.

NOTES:

1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.

2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE AND FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.

3. ENSURE GAS AND CONDENSATE PIPING DO NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.

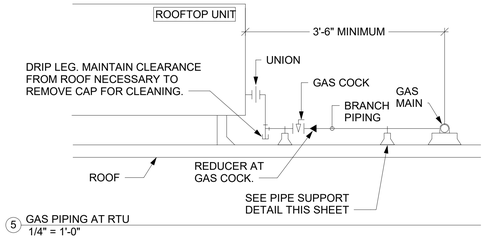



6 PIPING SUPPORT ON ROOF
NOT TO SCALE

NOTES:
1. INSTALL GAS PIPING SUCH THAT HVAC EQUIPMENT ACCESS PANELS AND/OR DOORS ARE IN NO WAY OBSTRUCTED BY PIPING, VALVES, OR SUPPORTS.

2. TO AVOID CONFLICT WITH AC UNIT ACCESS DORRS, INSTALL GAS PIPING NO CLOSER THAN 3'-6" FROM AC UNIT. (EXCEPT FOR BRANCH LINE CONNECTED TO AC UNIT.)

3. ROUTE BRANCH TAKE-OFF DIRECTLY FROM MAIN TO ROOFTOP UNIT AS SHOWN ON PLAN AND DETAILS WITHOUT LATERAL OFFSETS WHICH MAY OBSTRUCT UNIT ACCESS DOORS.

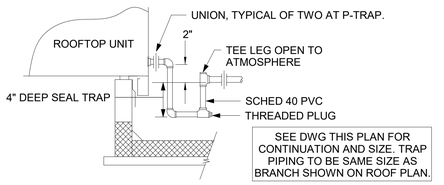



5 GAS PIPING AT RTU
1/4" = 1'-0"

## 5. GAS CONNECTION SCHEDULE

| EQUIPMENT | GAS LOAD |
|---|---|
| NEW AC#1 | 360,000 BTUS |
| EXSITING AC#2 | 235,000 BTUS |
| EXISTING AC#3 | 235,000 BTUS |
| EXISTING AC#4 | 235,000 BTUS |
| EXISTING AC#5 | 125,000 BTUS |
| NEW AC#6 | 100,000 BTUS |
| EXISTING WATER HEATER | 75,000 BTUS |
| TOTAL CONNECTED LOAD | 1,365,000 BTUS |
| REMARKS: | 1) EQUIVALENT TO 1,365.0 CFH<br>2) 7" W.C. DELIVERY PRESSURE<br>3) DEVELOPED LENGTH: 150 FT (METER TO AC#5) |

4 GAS CONNECTION SCHEDULE - LS LARGE/MEDIUM
NOT TO SCALE




2 CONDENSATE DRAIN PIPING
1/4" = 1'-0"

## STORM WATER CALCULATIONS

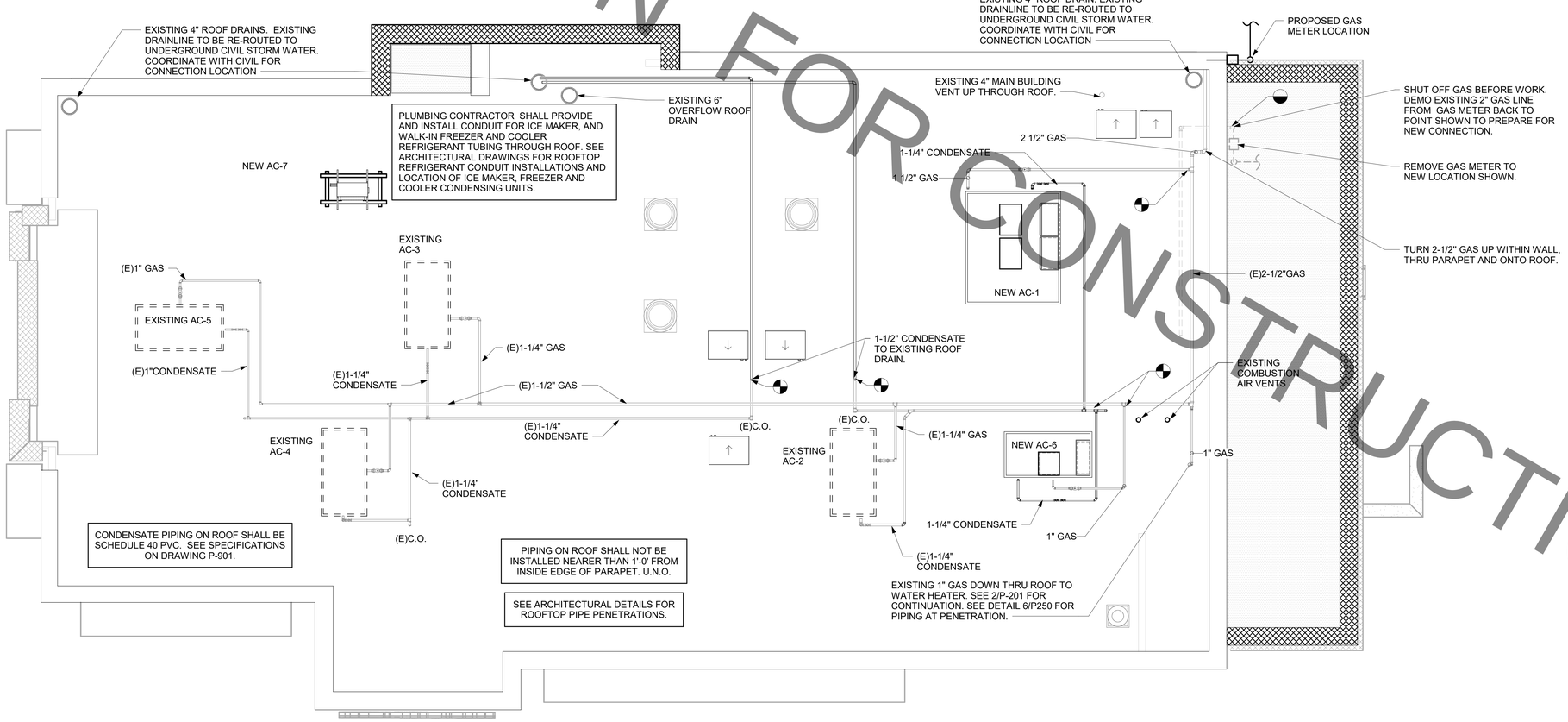
| | | |
|---|---|---|
| RAINFALL RATE | 4.5 IN/HR | |
| ROOF AREA | 4,630 SQFT | |
| VERTICAL AREA | 1,482 SQFT | |
| HALF VERTICAL AREA | 741 SQFT | |
| | | |
| TOTAL ROOF GPM | 251 GPM | |
| | | |
| LEFT DRAIN | 75.20 GPM | |
| PIPE SIZE AT 1/8 SLOPE | 4" | |
| PIPE SIZE AT VERTICAL | 4" | |
| | | |
| MIDDLE DRAIN | 75.20 GPM | |
| PIPE SIZE AT 1/8 SLOPE | 4" | |
| PIPE SIZE AT VERTICAL | 4" | |
| | | |
| RIGHT DRAIN (ENLARGED) | 100.60 GPM | |
| PIPE SIZE AT 1/8 SLOPE | 4" | |
| PIPE SIZE AT VERTICAL | 4" | |

3 STORM WATER CALCULATIONS
NOT TO SCALE

## LEGEND

| | | | |
|---|---|---|---|
| B/G | BELOW GRADE | | |
| ——— | NEW GAS PIPING ABOVE GRADE | EC | ELECTRICAL CONTRACTOR |
| – – – | NEW GAS PIPING BELOW GRADE | MC | MECHANICAL CONTRACTOR |
| ——— | EXISTING GAS PIPING ABOVE GRADE | = = = | PIPING TO BE DEMO'D |
| = = = | EXISTING MECHANICAL EQUIPMENT | | |

8 LEGEND
1/4" = 1'-0"




1 ROOF PIPING PLAN
1/4" = 1'-0"

Chick-fil-A
5200 Buffington Road
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30349-2998

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LICENSE
No.91191
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

01-05-2022

# CHICK-FIL-A
## WELLS RD.

1925 WELLS ROAD
ORANGE PARK, FLORIDA 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03 M ALL
RELEASE: N/A

REVISION SCHEDULE

| NO. | DATE | DESCRIPTION |
|---|---|---|

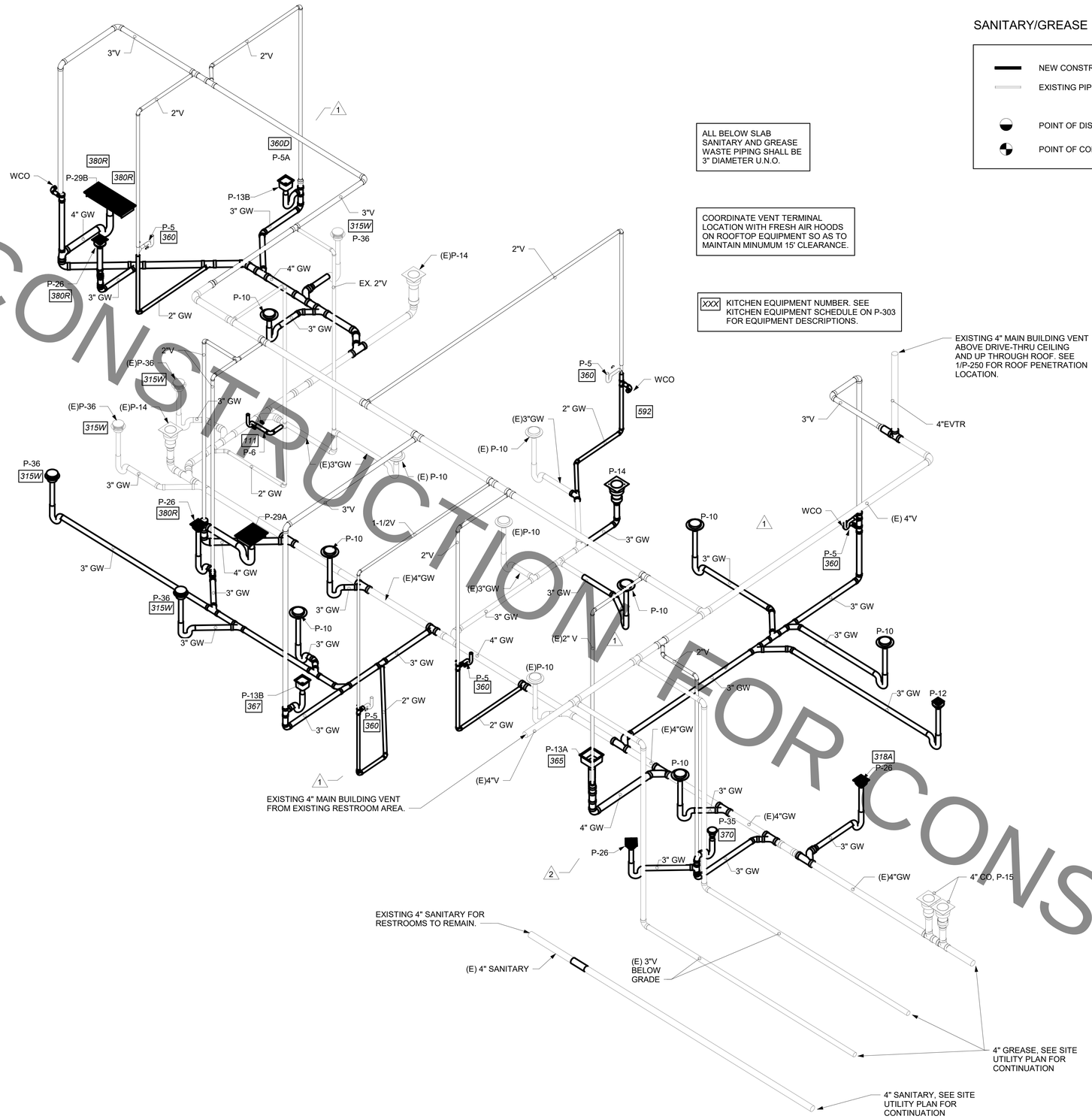
PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09-28-21
DRAWN BY JJ



SHEET
ROOF PLAN AND DETAILS

SHEET NUMBER
**P-250**




## SANITARY/GREASE PIPE SYSTEM LEGEND

- NEW CONSTRUCTION PIPE
- EXISTING PIPE
- POINT OF DISCONNECTION
- POINT OF CONNECTION, EXISTING TO NEW

ALL BELOW SLAB SANITARY AND GREASE WASTE PIPING SHALL BE 3" DIAMETER U.N.O.

COORDINATE VENT TERMINAL LOCATION WITH FRESH AIR HOODS ON ROOFTOP EQUIPMENT SO AS TO MAINTAIN MINUMUM 15' CLEARANCE.

XXX KITCHEN EQUIPMENT NUMBER. SEE KITCHEN EQUIPMENT SCHEDULE ON P-303 FOR EQUIPMENT DESCRIPTIONS.

(1) WASTE RISER DIAGRAM



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ORANGE PARK, FLORIDA 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03 M ALL
RELEASE: N/A

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 2 | 08-01-2022 | BID ADDENDUM #1 |

PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09-28-21
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SHEET
DWV RISER DIAGRAM

SHEET NUMBER
**P-301**

FOR PRECISE LOCATION OF COLD WATER RETHERMALIZER CONNECTION ROUGH-IN. SEE ELEVATIONS ON SHEET K-401.

ESCUTCHEON

1/2" BALL VALVE

1/2" DIA X 2" LONG PIPE NIPPLE

1/2" ELBOW.

SPLIT-RING PIPE BRACKET. SECURE ALL-THREAD BRACKET-BASE TO WALL WITH 1-3/4" MINIMUM STAINLESS STEEL FLAT-HEAD PHILLIP SCREWS EMBEDDED IN WALL BLOCKING.

ALL PIPE NIPPLES AND FITTINGS SHALL BE LEAD -FEE CHROME PLATED BRASS.

BALL VALVES SHALL BE FULL-PORT, LEAD-FREE STAINLESS STEEL WITH FIP INLET & OUTLET.

COORDINATE WALL BLOCKING LOCATION WITH GENERAL CONTRACTOR.

GENERAL CONTRACTOR TO PROVIDE AND INSTALL WALL BLOCKING SIM 2A/P-302.

3 RETHERMALIZER SUPPLY VALVE
NOT TO SCALE

SECTION 2A

FOR PRECISE LOCATION OF COLD WATER DISHWASHER CONNECTION ROUGH-IN. SEE ELEVATIONS ON SHEET K-401.

ESCUTCHEON

¾ "BALL VALVE, P-41C

¾ " DIA X 2" LONG PIP1`E NIPPLE

¾" ELBOW. SEE 2A/P-302 FOR PIPING CONNECTION WITHIN WALL.

¾" X ½" TEE

½" 90 DEG ELL

½" BALL VALVE SHUT-OFF FOR CHAMPION DRAIN WATER TEMPERING OPTION.

SPLIT-RING PIPE BRACKET. SECURE ALL-THREAD BRACKET-BASE TO WALL WITH 1-3/4" MINIMUM STAINLESS STEEL FLAT-HEAD PHILLIP SCREWS EMBEDDED IN WALL BLOCKING.

¾ " COUPLING FOR MAIN CW CONNECTION TO FACTORY PROVIDED DISHWASHER HOSE. HOSE AND FIP-TO-HOSE-THREAD FITTING PROVIDED AND INSTALLED BY FACTORY DISHWASHER INSTALLATION CREW.

ALL PIPE NIPPLES AND FITTINGS SHALL BE LEAD -FEE CHROME PLATED BRASS.

BALL VALVES SHALL BE FULL-PORT, LEAD-FREE STAINLESS STEEL WITH FIP INLET & OUTLET.

COORDINATE WALL BLOCKING LOCATION WITH GENERAL CONTRACTOR.

GENERAL CONTRACTOR TO PROVIDE AND INSTALL WALL BLOCKING.

2 DISHWASHER SUPPLY VALVE ASSEMBLY-CHAMPION
NOT TO SCALE

3/4" CW. CPVC OR COPPER.

FINISHED WALL WITH FRP

3/4" X 3/4" BRASS FIP DROP-EARED ELBOW

ESCUTCHEON RING

¾" ELBOW

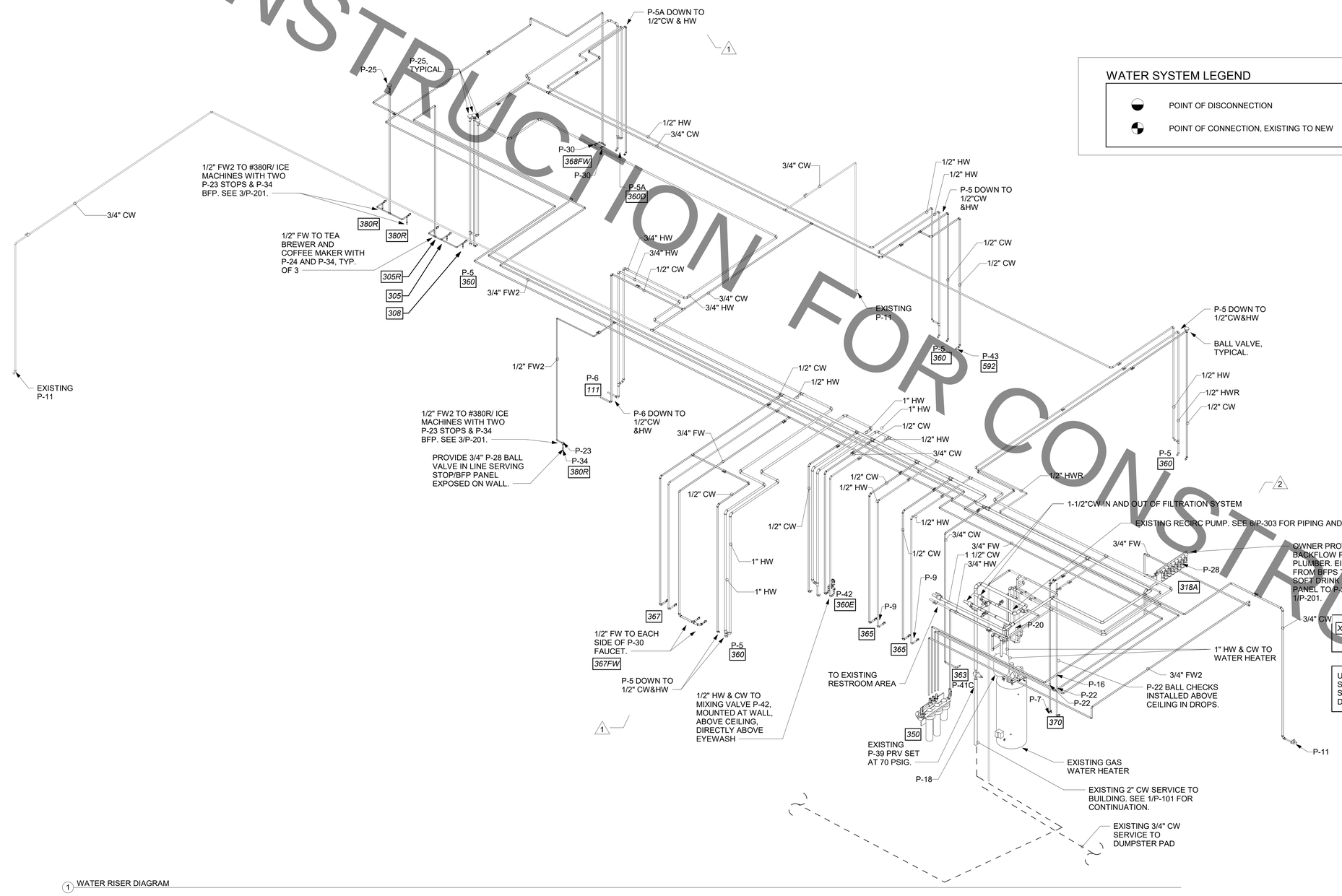
2 X 4 (MIN) BLOCKING

SEE 2/P302

3/4" DIA CHROME PIPE NIPPLE

SECURE DROP-EARED ELBOW TO BLOCKING WITH 1-1/4" FLAT HEAD PHILLIP SCREWS.

2A SECTION AT PIPNG WITHIN WALL
NOT TO SCALE




WATER SYSTEM LEGEND

- POINT OF DISCONNECTION
- POINT OF CONNECTION, EXISTING TO NEW

1 WATER RISER DIAGRAM

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# CHICK-FIL-A
## WELLS RD.

1925 WELLS ROAD
ORANGE PARK, FLORIDA 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03 M ALL
RELEASE: N/A

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 2 | 08-01-2022 | BID ADDENDUM #1 |

PERMIT

CONSULTANT PROJECT # C29144
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DATE 09-28-21
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SHEET
WATER RISER DIAGRAM

SHEET NUMBER
**P-302**

BIM 360://FL_01360_Wells Road FSU_2021.6_REI/01360_Wells Rd_Remodel_PLB.rvt
8/18/2022 2:22:01 PM
40-01360-P-302-WATER RISER DIAGRAM

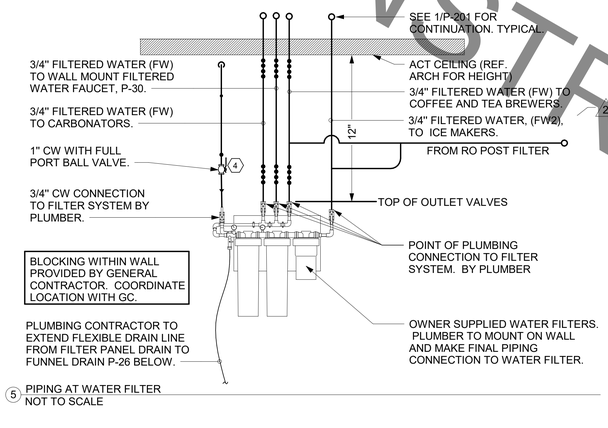
| VALVE TAG LEGEND | |
|---|---|
| VALVE | VALVE POSITION |
| 1 MAIN WATER SHUT-OFF | NORMALLY OPEN |
| 2 MAIN DRAIN | NORMALLY CLOSED |
| 3 ACCESSORY SHUT-OFF | NORMALLY OPEN |
| 4 WATER FILTER INLET | NORMALLY OPEN |
| 5 RECIRC PUMP ISOLATION VALVE | NORMALLY OPEN |
| 6 WATER HEATER INLET | NORMALLY OPEN |
| 7 RESTROOM & KITCHEN COLD WATER | NORMALLY OPEN |
| 8 POST HYDRANT COLD WATER | NORMALLY OPEN |
| 9 GAS TO WATER HEATER | NORMALLY OPEN |
| 10 WATER HEATER OUTLET | NORMALLY OPEN |
| | |
| NOTE: HANDLE IN-LINE WITH PIPING = VALVE OPEN | |

LAMINATE VALVE TAG LEGEND AND MOUNT PERMANENTLY WHERE SHOWN ON WATER HEATER DETAIL IN AN ALUMINUM FRAME EQUAL TO SETON #68624.

VALVE TAG


2 VALVE TAG SYMBOL AS SHOWN ON DETAIL 6/P-303. PROVIDE 1-1/2" ROUND BRASS VALVE TAG WITH 1/2" HIGH BLACK FILLED LETTERING. EACH TAG SHALL INDICATE VALVE NUMBER AND WILL ALSO HAVE "PLBG" STAMPED ON THE TAG IN 1/4" HIGH BLACK FILLED LETTERING EQUAL TO SETON #M4506. HANG WITH BRASS JACK CHAIN ON VALVE HANDLE.

3 VALVE TAGS AND LEGEND
NOT TO SCALE




5 PIPING AT WATER FILTER
NOT TO SCALE

## 2. KITCHEN EQUIPMENT SCHEDULE

| TAG | DESCRIPTION | FW | FW2 | CW | HW | WASTE | ROUGH-IN |
|---|---|---|---|---|---|---|---|
| 305 | TEA BREWER | 1/2" | X | X | X | X | P-24, SEE K-611 & 6/P-211 |
| 305R | TEA BREWER | 1/2" | X | X | X | X | P-24, SEE K-611 & 6/P-211 |
| 308 | COFFEE MAKER | 1/2" | X | X | X | X | P-24, SEE K-611 & 6/P-211 |
| 315W | 10 HEAD BEVERAGE DISP. | 1/2" | X | X | X | INDIRECT | P-36 |
| 318A | CARBONATOR BFP PANEL | 3/4" | X | X | X | X | P-28, SEE K-611 |
| 350 | WATER FILTER PANEL | (3) 3/4" | 3/4" | 3/4" | X | X | SEE DET 5/P-303 |
| 360 | HAND SINK | X | X | 1/2" | 1/2" | X | SEE K-611 & P-201 2 |
| 360D | DUMP SINK | X | X | 1/2" | 1/2" | INDIRECT | P-13B, SEE K-611 & P-201 |
| 360E | EMERGENCY EYEWASH STATION | X | X | 1/2"* | 1/2"* 1 | X | *1/2" TEPID WATER FROM P-42, SEE K-611 & 1/P-201 1 |
| 363R | DISHWASHER | X | X | 3/4" | X | INDIRECT TO P13A | P-41C, SEE K-611 & 1/P-201 |
| 365 | POT SINK | X | X | (2) 1/2" | (2) 1/2" | INDIRECT | TWO #365F FAUCETS, P-9 SEE K-611 |
| 367 | VEGETABLE PREP SINK | X | X | 1/2" | 1/2" | INDIRECT | #367F FAUCET, P-8 SEE K-611 |
| 367FW | FILTERED WATER FAUCET | (2) 1/2" | X | X | X | X | P-30 48" AFF. |
| 368FW | FILTERED WATER FAUCET | (2) 1/2" | X | X | X | X | P-30 48" AFF. |
| 370 | MOP SINK | X | X | 1/2" | 1/2" | 3" P-35 | P-7 SEE K-611 |
| 380R | ICE MAKER | X | (3) 1/2" | X | X | INDIRECT | P-23 SEE K-611 & 3/P-201 |
| 381 | ICE BIN (1 HEAD) | X | X | X | X | INDIRECT | SEE DET 3/P-201 |
| 384 | ICE BIN (2 HEAD) | X | X | X | X | INDIRECT | SEE DET 3/P-201 |
| 410B | FREEZER EVAPORATOR | X | X | X | 3/4" | INDIRECT | SEE P-201 |
| 449B | COOLER EVAPORATOR | X | X | X | 3/4" | INDIRECT | SEE P-201 |
| 592 | RETHERMALIZER | X | X | 1/2" | X | INDIRECT | SEE DET 3/P-302 |

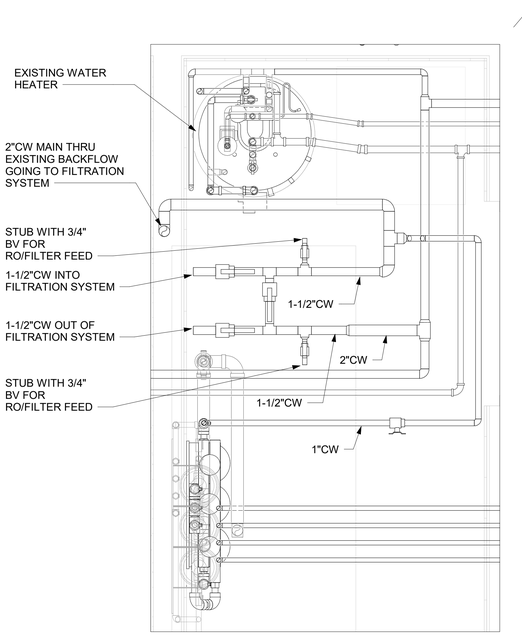
2 KITCHEN EQUIPMENT SCHEDULE
NOT TO SCALE

## 1. FIXTURE CONNECTION SCHEDULE

| MARK | FIXTURE | FW | FW2 | CW | HW | WASTE |
|---|---|---|---|---|---|---|
| | DUMPSTER DRAIN | X | X | X | X | 3" |
| P-1 | WATER CLOSET - FLOOR MOUNT (1.28 GPF) | X | X | 1" | X | 3" |
| P-2 | WATER CLOSET - ADA FLOOR MOUNT (1.28 GPF) | X | X | 1" | X | 3" |
| P-3 | URINAL - ADA WALL HUNG (0.125 GPF) | X | X | 3/4" | X | 2" |
| P-4A | LAVATORY - ADA COUNTERTOP (0.50 GPM) | X | X | 1/2" | 1/2" | 1-1/4" |
| P-4B | LAVATORY - ADA WALL-MOUNTED (0.50 GPM) | X | X | 1/2" | 1/2" | 1-1/4" |
| P-5 | KITCHEN HAND SINK - WALL HUNG (1.0 GPM) | X | X | 1/2" | 1/2" | 1-1/2" |
| P-5A | DUMP SINK - WALL HUNG (1.0 GPM) | X | X | 1/2" | 1/2" | 1-1/2" |
| P-6 | SINGLE COMP SINK - COUNTERTOP (1.0 GPM) | X | X | 1/2" | 1/2" | 1-1/2" |
| P-7 | MOP SINK | X | X | 1/2" | 1/2" | 3" |
| P-8 | VEGETABLE PREP SINK (0.65 GPM SPRAYER) | X | X | 1/2" | 1/2" | (2) 1-1/2" |
| P-9 | POT SINK (0.65 GPM SPRAYER) | X | X | (2) 1/2" | (2) 1/2" | (4) 1-1/2" |
| P-10 | FLOOR DRAIN (ROUND TOP) | X | X | X | X | 3" |
| P-11 | WALL HYDRANT (NON FREEZE) | X | X | 3/4" | X | X |
| P-12 | FUNNEL DRAIN (3") | X | X | X | X | 3" |
| P-13A | FLOOR SINK (4") 12" TOP | X | X | X | X | 4" |
| P-13B | FLOOR SINK (3") 8" TOP | X | X | X | X | 3" |
| P-14 | CLEANOUT INSIDE BUILDING | X | X | X | X | SEE PLAN |
| P-15 | CLEANOUT OUTSIDE BUILDING | X | X | X | X | SEE PLAN |
| P-16 | 3-WAY VALVE/ VACUUM BREAKER | X | X | 3/4" | 3/4" | X |
| P-17 | VACUUM RELIEF VALVE | X | X | 3/4" | X | X |
| P-18 | EXPANSION TANK | X | X | 3/4" | X | X |
| P-19 | WATER HEATER | X | X | 1" | 1" | X |
| P-20 | THERMOMETER | X | X | X | 1/2" | X |
| P-22 | MOP SINK CHECK VALVES | X | X | 1/2" | 1/2" | X |
| P-23 | UTILITY CONNECTION (ICE MAKER) | X | 1/2" | X | X | X |
| P-24 | UTILITY CONNECTION (COFFEE & TEA) | 1/2" | X | X | X | X |
| P-25 | SHOCK ABSORBER | 1/2" | 1/2" & 3/4" | 1/2" | 1/2" | X |
| P-26 | FUNNEL DRAIN | X | X | X | X | 3" |
| P-26A | TRAP SEAL PROTECTOR | X | X | X | X | 3" |
| P-27 | WATER PRESSURE GAUGE | X | X | 1/4" | X | X |
| P-28 | BALL VALVE-CARBONATOR STOP/BFP PANEL | 3/4" | X | X | X | X |
| P-29A | ICE MACHINE TRENCH DRAIN | X | X | X | X | 4" |
| P-29B | ICE MACHINE TRENCH DRAIN | X | X | X | X | 4" |
| P-30 | FILTERED WATER FAUCET | (2) 1/2" | X | X | X | X |
| P-31 | DUMPSTER POST HYDRANT | X | X | 3/4" | X | X |
| P-34 | DISPENSER BACKFLOW PREVENTER | 1/2" | X | X | X | X |
| P-35 | FLOOR DRAIN | X | X | X | X | 3" |
| P-36 | BEVERAGE TOWER INDIRECT RECEIVER | X | X | X | X | 3" |
| P-37 | FLOOR DRAIN (SQUARE TOP) | X | X | X | X | 3" |
| P-38 | HOT WATER CIRCULATING PUMP | X | X | X | 1/2" | X |
| P-39 | PRESSURE REDUCING VALVE | X | X | 2" | X | X |
| P-40 | WYE STRAINER | X | X | 2" | X | X |
| P-41C | DISHWASHER SUPPLY VALVES - CHAMPION | X | X | 3/4" | X | X |
| P-42 | EMERGENCY EYEWASH MIXING VALVE | X | X | 1/2" | 1/2" | X |
| P-43 | RETHERMALIZER SUPPLY VALVE | X | X | 3/4" | X | X |

NOTES: 1 REFER TO FOOD SERVICE DRAWINGS FOR KITCHEN EQUIPMENT INSTALLATION AND HOOK-UP RESPONSIBILITIES.

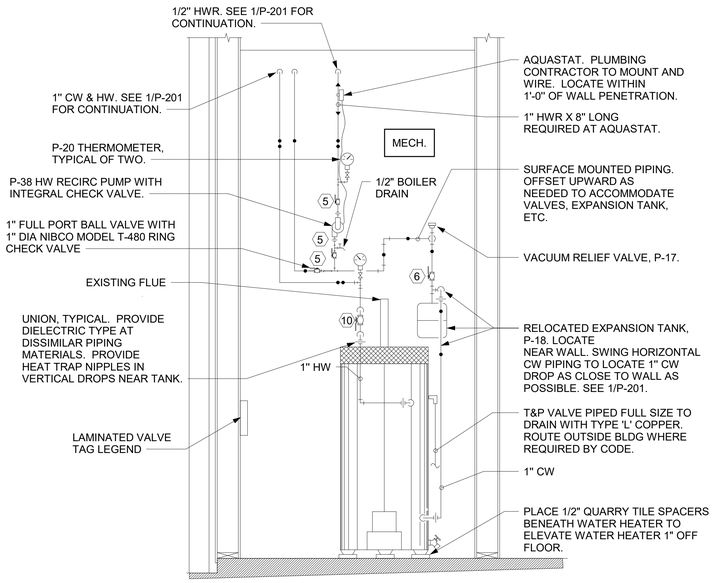
2 DO NOT MANIFOLD POT OR PREP SINK DRAINS TOGETHER UNLESS ALLOWED BY LOCAL AUTHORITY.




1 WATER FILTER SYSTEM PIPING
1" = 1'-0"

**NOTES TO WATER HEATER INSTALLER:**

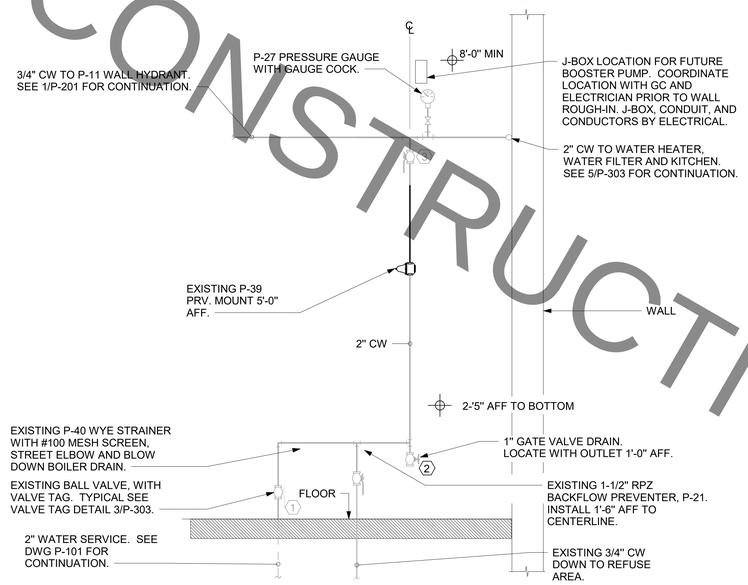
1. POSITION VALVES AND TRIM IN MECH ROOM SUCH THAT VALVES AND TRIM ARE UNOBSTRUCTED TO VIEW AND SO THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR NEED TO DISASSEMBLE ANY COMPONENTS.
2. VENT HEATER UP THRU MECH ROOM ROOF AND PROVIDE FRESH AIR PIPING PER MANUFACTURER'S RECOMMENDATIONS.




6 PIPING AT WATER HEATER
NOT TO SCALE

NOTE OF SPECIAL IMPORTANCE :

1. LOCATIONS OF 2" CW RISER AND CLEAR SPACE ARE DIMENSIONED BECAUSE THEY ARE CRITICAL FOR THE FUTURE PUMP PANEL INSTALLATION.
2. GENERAL CONTRACTOR SHALL ENSURE OTHER TRADES SHALL NOT INSTALL ANY OTHER BUILDING COMPONENT WITHIN CLEAR SPACE OR WITHIN 10" OF EDGES.




4 PIPING AT WATER SERVICE ENTRANCE IN MECHANICAL ROOM
NOT TO SCALE



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1925 WELLS ROAD
ORANGE PARK, FLORIDA 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03 M ALL
RELEASE: N/A

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 2 | 08-01-2022 | BID ADDENDUM #1 |

PERMIT

CONSULTANT PROJECT # C29144
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DRAWN BY JJ



SHEET
DETAILS AND SCHEDULES

SHEET NUMBER
**P-303**

# 1. SECTION C15100 - PLUMBING SPECIFICATIONS

PART I - PRODUCTS (C15100)

1.01 GENERAL REQUIREMENTS

A. THE FOLLOWING SPECIFICATIONS ARE THE MINIMUM REQUIREMENT. WHERE FEDERAL, STATE OR LOCAL REQUIREMENTS DIFFER FROM THIS SPECIFICATION, THE MORE STRINGENT OF THE TWO SHALL BE FOLLOWED.

1.02 SCOPE

A. HOT AND COLD POTABLE WATER PIPING ABOVE SLAB SHALL BE TYPE 'L' HARD DRAWN COPPER OR FLOWGUARD GOLD CPVC AS MANUFACTURED BY NIBCO OR CHARLOTTE PIPE & FOUNDRY AND MEETING ASTM D-2846. FILTERED WATER PIPING SHALL BE FLOWGUARD GOLD CPVC. HOT AND COLD PIPING WITHIN WALLS BEHIND KITCHEN HOODS SHALL BE COPPER.

B. POTABLE WATER PIPING BELOW SLAB AND OUTSIDE BELOW GRADE SHALL BE TYPE "K" SOFT ANNEALED SEAMLESS. NO JOINTS SHALL BE ALLOWED BELOW SLAB. POTABLE WATER PIPING BELOW GRADE SHALL BE SLEEVED FOR ITS ENTIRE LENGTH WITH POLY SLEEVE AS MADE BY IPS WATER-TITE. ALL SLAB PENETRATIONS SHALL BE SLEEVED WITH POLY SLEEVE TO PROTECT PIPING FROM CORROSION BY CONCRETE.

C. COPPER PIPE FITTINGS SHALL BE WROUGHT COPPER SWEEP PATTERN FITTINGS SOLDERED USING 95-5 LEAD-FREE SOLDER MEETING ASTM B-32 OR BRAZED WITH SIL-FOS. SOLDER FLUXES SHALL MEET ASTM B-813 AND SHALL BE LEAD FREE. BRAZING FLUXES SHALL MEET AWS FB3-A OR FB3-C.

D. WATER PIPING DOWNSTREAM OF SOFT DRINK CARBONATORS SHALL BE PROVIDED AND INSTALLED BY LOCAL SOFT DRINK VENDOR.

E. CPVC FITTINGS FOR PIPING SHALL BE SOLVENT WELD TYPE MEETING ASTM D-2846 WITH CEMENTS MEETING ASTM F-493 AND PRIMER MEETING ASTM F-656. CURE TIME MUST COMPLY WITH MANUFACTURER'S RECOMMENDATIONS. FOR CPVC PIPING INSTALLATION, WALL STUBS AT FIXTURES AND EQUIPMENT SHALL BE COPPER AND SHALL BE SERIES 630-C. CPVC-TO-COPPER STUB OUT ELBOWS BY SIOUX CHIEF.

F. NIPPLES, ELBOWS, AND OTHER ACCESSORY FITTINGS REQUIRED TO COMPLETE ANY WATER PIPING CONNECTION SHALL BE BRASS OR OF SIMILAR TYPE METAL AS THE FITTING TO WHICH IT IS CONNECTED. GALVANIZED FITTINGS ARE PROHIBITED. (EXCEPTION: GALVANIZED HEAT TRAP WATER HEATER NIPPLES IF INTERNALLY PROTECTED WITH TEFLON OR POLYMER CORROSION-RESISTANT COATING.)

G. ALL HVAC CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC DWV AS MANUFACTURED BY CHARLOTTE PIPE AND MEETING ASTM D-1784, D-1785 AND D-2665.

H. U.N.O., ALL SANITARY WASTE, VENT, STORM DRAINAGE PIPING AND FITTINGS INSIDE THE BUILDING, ABOVE AND BELOW GRADE, AND FOR ROOFTOP CONDENSATE, SHALL BE SOLID WALL SCHEDULE 40 PVC DWV AS MANUFACTURED BY CHARLOTTE PIPE AND MEETING ASTM D-2665 AND D-2949. FOAM CORE AND/OR CELLULAR CORE PVC PIPING SHALL NOT BE ALLOWED. PVC PIPING OUTSIDE THE BUILDING, BELOW GRADE, SHALL BE TYPE SDR-35 MEETING ASTM D-3034, U.N.O.

I. DWV PIPE AND FITTINGS WITHIN WALLS BEHIND KITCHEN HOODS SHALL BE SERVICE WEIGHT HUBLESS CAST IRON WITH SLEEVE, SHIELD, AND DRAWBAND JOINTS MEETING ASTM A-888 AND ASTM C-564.

J. PVC-DWV FITTINGS FOR PIPING SHALL BE SOLVENT WELD TYPE INSIDE AND UNDERSLAB MEETING ASTM D-2665, D-3311 AND F-186. CEMENTS SHALL MEET ASTM D-2564 AND PRIMER MEETING ASTM F-656. CURE TIME MUST COMPLY WITH MANUFACTURER'S RECOMMENDATIONS. EXTERIOR PIPING JOINTS SHALL BE NEOPRENE PUSH-ON TYPE.

K. PROVIDE 1" THICK PIPE INSULATION FOR ALL ABOVE SLAB HOT AND TEMPERED WATER PIPING. PROVIDE 1/2" THICK INSULATION FOR ALL ABOVE SLAB COLD WATER, FILTERED WATER, CONDENSATE PIPING, AND HORIZONTAL RAIN WATER CONDUCTORS INSIDE THE BUILDING. PIPING INSULATION SHALL BE KNAUF 1000F 25/50 FIBERGLASS PIPE COVERING, WHITE KRAFT PAPER VAPOR BARRIER (.02 PERMS) BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBERS. MAXIMUM THERMAL CONDUCTIVITY OF 0.23 AT 75F. LONGITUDINAL LAP SHALL BE SELF SEALING. INSULATION FOR WALK-IN COOLER/FREEZER CONDENSATE PIPING SHALL BE ARMACELL A/P ARMAFLEX WITH MINIMUM 3/4" WALL THICKNESS.

L. PIPE INSULATION AND COVERINGS SHALL HAVE A RATING OF NOT GREATER THAN 25 FLAME SPREAD, NO HIGHER THAN 50 SMOKE DEVELOPED, AND NO MORE THAN 50 FUEL CONTRIBUTED. THE ONLY EXCEPTION SHALL BE ARMAFLEX AP, WHEN SPECIFIED, WHICH SHALL NOT EXCEED 100 SMOKE DEVELOPED.

M. A PVC 25/50 PRE-FORMED COVER SHALL BE PROVIDED AT ALL INSULATED PIPING FITTINGS EQUAL TO PROTO PVC CORP LOSMOKE, 800-875-7768.

N. ALL ABOVE GRADE NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL MEETING ASTM A53 WITH SCREWED OR WELDED FITTINGS AND GASKET TYPE UNIONS AND FLANGES. FOR SCREWED PIPING, PIPING SHALL BE JOINED WITH BLACK 150 POUND MALLEABLE IRON SCREWED FITTINGS AS ALLOWED BY LOCAL AUTHORITY. CONTRACTOR SHALL VERIFY THE NEED FOR WELDED PIPING AS REQUIRED BY THE LOCAL GAS CODE AND/OR APPLICABLE LOCAL ORDINANCES AND AMENDMENTS.

O. ALL BELOW GRADE NATURAL GAS PIPING SHALL BE MEDIUM DENSITY POLYETHYLENE (PE) MEETING ASTM D2513 AS MANUFACTURED BY GASTITE WITH JOINING SYSTEM AS MANUFACTURED BY CON-STAB. TRANSITIONS FROM ABOVE GRADE RIDGID PIPING TO PE BELOW GRADE PIPING SHALL BE MADE WITH ANODE-LESS RISER ASSEMBLY AS MANUFACTURED BY CON-STAB.

P. EXPOSED SUPPORTS AND ATTACHMENTS SHALL BE STAINLESS STEEL, CHROME OR CHROME PLATED. GALVANIZED ATTACHMENTS WILL NOT BE ACCEPTED.

Q. USE MATERIALS SPECIFIED ON THESE PLANS. SUBSTITUTIONS ARE ALLOWED ONLY IF SPECIFIED MATERIALS ARE UNAVAILABLE. PRODUCT SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT PRIOR APPROVAL. ALL WATER PIPING, FITTINGS, FIXTURES AND ACCESSORIES SHALL BE CERTIFIED LEAD FREE AS DEFINED IN, AND PER THE INTENT OF, THE "REDUCTION IN LEAD IN DRINKING WATER ACT".

PART II - EXECUTION (C15100)

2.01 TRENCHING (C15100)

A. EXCAVATION, BACKFILLING, AND TRENCH WORK SHALL BE DONE IN ACCORDANCE WITH LATEST O.S.H.A. AND APPLICABLE SAFETY STANDARDS.

B. PROVIDE NECESSARY SHORING AND CLEANING TO KEEP TRENCHES IN GOOD WORKING CONDITION, INCLUDING PUMPING OUT WATER.

C. IN MOSTLY ROCK MATERIAL, TRENCHES SHALL BE EXCAVATED TO 6" BELOW THE ELEVATION OF THE BOTTOM OF THE PIPES. AFTER EXCAVATION, TRENCH SHALL THEN BE FILLED TO THE PROPER ELEVATION WITH CRUSHED LIMESTONE. GRAVEL SHALL BE REMOVED FROM UNDER PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.

D. IN MOSTLY EARTH OR SAND MATERIAL, TRENCHES SHALL BE EXCAVATED TO 6" BELOW THE ELEVATION OF THE BOTTOM OF THE PIPES. AFTER EXCAVATION, TRENCH SHALL THEN BE FILLED TO THE PROPER ELEVATION WITH FINE SAND OR GRAVEL. TRENCH BOTTOM SHALL BE REMOVED AT PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.

E. BACKFILLING AND TAMPING SHALL BE CAREFULLY DONE BY HAND SIMULTANEOUSLY ALONG BOTH SIDES OF THE PIPE USING ROCK FREE EARTH, CRUSHED STONE OR SAND UNTIL THE PIPE IS COVERED TO A DEPTH OF AT LEAST 12". BACKFILL SHALL BE ACCOMPLISHED IN SUCCESSIVE 6" LAYERS. THE REST OF THE FILL-UP TO THE TOPSOIL LAYER MAY BE GRAVEL OR ROCK FREE EARTH.

F. ACCEPTABLE SOIL MATERIALS FOR BACKFILL AND FILL SHALL BE FREE OF CLAY, ROCK OR GRAVEL LARGER THAN 2" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS AND OTHER DELETERIOUS MATTER HAVING A PLASTICITY INDEX LESS THAN 30. BACKFILL SHALL BE ACCOMPLISHED IN LAYERS OF NOT
MORE THAN 6" AND EACH LAYER SHALL BE COMPACTED. THE LAST 12" OF BACKFILL SHALL BE ROCK FREE TOPSOIL.

G. SURFACE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.

2.02 INSTALLATION (C15100)

A. WATER PIPING IN EXTERIOR WALL SHALL BE INSTALLED ON THE HEATED SIDE OF WALL INSULATION.

B. EXPOSED HOT AND COLD WATER TRIM FITTINGS AND ACCESSORIES IN FINISHED AREAS SHALL BE CHROME FINISHED.

C. ACCEPTABLE METHODS OF PIPE SUPPORT WITHIN WALLS SHALL BE THE SUMNER SYSTEM, POSIFIX, STAKFIX, PIPEFIX, HOLDRITE OR CHANNEL.

D. PROVIDE J.R. SMITH OR APPROVED EQUAL SHOCK ABSORBERS #5005 THRU #5050 SIZE AS RECOMMENDED BY MANUFACTURER INSTALLED ON HOT AND COLD WATER BRANCH LINES CONTAINING SINGLE LEVER FAUCETS, FLUSH VALVES OR EQUIPMENT WITH QUICK CLOSING VALVES BETWEEN THE LAST TWO FIXTURES. SHOCK ABSORBERS SERVICING FIXTURES WITH FLUSH VALVES SHALL BE SECURELY ANCHORED IN THEIR VERTICAL POSITION. CONFORM TO ASSE 1010.

E. SANITARY WASTE LINES SHALL BE UNIFORMLY GRADED TO ELEVATIONS SHOWN. IF NO ELEVATIONS ARE GIVEN, SEWERS SHALL BE PITCHED NOT LESS THAN 1/4" PER FOOT FOR ALL PIPING 2-1/2" IN DIAMETER AND SMALLER AND 1/8" PER FOOT FOR ALL PIPING 3" IN DIAMETER AND LARGER.

F. STORM PIPING SHALL BE SLOPED AT 1/4" PER FT (2%) UNLESS NOTED OTHERWISE ON PLANS.

G. SUPPORT HORIZONTAL PIPING ACCORDING TO LOCAL PLUMBING CODE. HANGER RODS SHALL BE SIZED AS FOLLOWS:

| NOMINAL PIPE SIZE (IN) | MINIMUM HANGER DIAMETER (IN) |
|---|---|
| 1/2 | 3/8 |
| 3/4 TO 1-1/2 | 3/8 |
| 2 TO 2-1/2 | 3/8 |
| 3 TO 6 | 1/2 |

H. HANGERS FOR PIPING GREATER THAN 1" SHALL PASS OVER THE INSULATION. PROVIDE SADDLES FOR INSULATED PIPING.

I. INSULATION SHALL BE APPLIED WITH JOINTS TIGHTLY BUTTED. OPEN CRACKS, VOIDS AND DEPRESSIONS SHALL BE FILLED WITH HYDRAULIC SETTING CEMENT. LAPPING MATCHING THE FINISH SHALL BE PASTED NEATLY OVER JOINTS. FITTINGS AND VALVES SHALL BE INSULATED WITH THE SAME TYPE.

J. PROVIDE AND INSTALL A CUT-OFF VALVE, UNION AND FULL SIZE DIRT LEG AT CONNECTION TO EACH GAS-FIRED PIECE OF EQUIPMENT. INSTALL PIPING AT AND AROUND EQUIPMENT SO AS TO NO WAY OBSTRUCT EQUIPMENT ACCESS PANELS AND/OR ACCESS DOORS.

K. COORDINATE ABOVE-CEILING PIPING LOCATIONS AND ROUTING WITH HVAC CONTRACTOR AND M-SHEETS PRIOR TO INSTALLATION. ALL MAIN DUCT TRUNK LOCATIONS SHALL TAKE PRIORITY. PIPING MAY REQUIRE REMOVAL AND REINSTALLATION AT PLUMBING CONTRACTOR'S EXPENSE IF PIPING OBSTRUCTS THE M-SHEET DUCT LAYOUT AS SHOWN OR PREVENTS ACCESS TO GREASE DUCT CLEANOUT OPENINGS.

L. ALL GAS PIPING ABOVE ROOF SHALL BE CLEANED FREE OF RUST AND PAINTED WITH COAT OF ZINC RUST PRIMER AND ONE COAT OF ALUMINUM BASE PAINT. METER AND GAS RISER SHALL BE PRIMED AND PAINTED TO MATCH BUILDING. 1

2.03 TESTING (C15100)

A. POTABLE WATER PIPING SHALL BE PRESSURE TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.

B. THE POTABLE WATER SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY BY OPENING OUTLETS AND FLOWING WATER UNTIL IT RUNS CLEAR. AFTER PIPE CLEANING IS COMPLETED, THE STRAINERS SHALL BE REMOVED, CLEANED, AND REPLACED. THEN THE ENTIRE POTABLE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

C. THE SANITARY WASTE SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY WITH FLOWING WATER UNTIL IT RUNS CLEAR.

D. THE ENTIRE SANITARY WASTE SYSTEM AND STORM DRAINAGE SYSTEM SHALL BE PRESSURE TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.

E. NATURAL GAS PIPING SHALL BE LEAK TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.

PART III - MANUFACTURERS

3.01 PRODUCTS - PIPING SYSTEMS, ETC (C15100)

A. HYDRANTS, CARRIERS, DRAINS, AND SHOCK ABSORBERS: ZURN. ACCEPTABLE ALTERNATES: JAY R. SMITH, JONES STEPHENS CORP, WATTS, OR JOSAM.

B. ALTERNATES TO ZURN (ZRN) FIXTURES: ONLY AS SHOWN ON PLANS. APPROVED JAY R. SMITH (JRS), WATTS (WTS), MODEL NUMBERS LISTED ON FIXTURE SCHEDULE, THIS SHEET.

3.02 PRODUCTS - RESTROOM FIXTURES PORCELAIN & VALVES (C15405)

A. PREFERRED FIXTURES: TOTO. NO EXCEPTION.

B. ALTERNATE FIXTURES: ONLY AS SHOWN ON PLANS.

C. FITTINGS: AS SPECIFIED ON THE PLANS. NO SUBSTITUTIONS ALLOWED.

D. FLUSH VALVES AND LAVATORY FAUCETS: TOTO MANUFACTURING. NO SUBSTITUTIONS ALLOWED.

E. PREFERRED TOILET SEATS: TOTO. ALTERNATE TOILET SEATS: CHURCH, BEMIS, AND BENEKE.

F. FLOOR SINKS: ZURN WITH ALUMINUM SEDIMENT BUCKETS. NO SUBSTITUTIONS ALLOWED.

| NATIONAL ACCOUNTS | |
|---|---|
| 1. | TOTO VALVES AND FIXTURES (NO SUBSTITUTIONS). HAINES, JONES & CADBURY LLC. (HJC DISTRIBUTORS). PLEASE CONTACT HJC-CFA CUSTOMER SERVICE REPRESENTATIVE AT (800) 459-7099 OR VIA E-MAIL AT: **CF@HJCINC.COM** FOR NATIONAL ACCOUNT PRICING AND DELIVERY FOR ALL ITEMS ON PLUMBING FIXTURE SCHEDULE. |

# 2. PLUMBING FIXTURES

RESTROOM FIXTURES (C15405) AND PLUMBING (15100)

DUMPSTER PAD DRAIN: J.R. SMITH FIGURE NO. 2280C03 3" FLOOR DRAIN WITH 7-1/2" HINGED CAST IRON SLOTTED GRATE AND SEDIMENT BUCKET (PROVIDED BY HJC.) INSTALLED BY SITE CONTRACTOR. ALT: (ZRN) Z415C-3NL-Y.

P-1 WATER CLOSET: TOTO MODEL CT705UN#01 BOWL WITH 1.28 GPF TET1LA32#CP ECO-POWER FLUSH VALVE AND SC534 SEAT (ALL PROVIDED BY HJC). NO SUBSTITUTIONS. WHITE, FLOOR MOUNTED, FLUSH VALVE TYPE, VITREOUS CHINA, 1-1/2" TOP SPUD, ELONGATED BOWL, ELECTRONIC SENSOR OPERATED HANDS-FREE FLUSH VALVE, WHITE OPEN FRONT SEAT WITH CHECK HINGE. CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-2 WATER CLOSET (ADA): TOTO MODEL CT705ULN#01 BOWL WITH 1.28 GPF TET1LA32#CP ECO-POWER FLUSH VALVE AND SC534 SEAT (ALL PROVIDED BY HJC). NO SUBSTITUTIONS. H.C. ACCESSIBLE, WHITE, FLOOR MOUNTED, 17-1/2" HIGH, FLUSH VALVE TYPE, VITREOUS CHINA, 1-1/2" TOP SPUD, ELONGATED BOWL, ELECTRONIC SENSOR OPERATED HANDS-FREE FLUSH VALVE, WHITE OPEN FRONT SEAT WITH CHECK HINGE. CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-3 URINAL: TOTO MODEL UT445U#01 URINAL WITH TEU1UA12#CP 0.125 GPF SELF SUSTAINED HYDROPOWER SELF-GENERATING ELECTRONIC SENSOR-OPERATED FLUSH VALVE (BOTH PROVIDED BY HJC). NO SUBSTITUTIONS. VITREOUS CHINA, 3/4" TOP SPUD, SENSOR OPERATED WITH MANUAL OVERRIDE BUTTON, INTERNAL VALVE FILTER PROTECTION, PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO PRODUCTS.

P-4A LAVATORY FAUCET: (BUILT-IN COUNTERTOP LAVATORY PROVIDED BY OWNER WILSONART MODEL AV1512) TOTO MODEL TEL105-D10ET#CP ECO-POWER SENSOR HOT/COLD FAUCET WITH THERMOSTATICALLY CONTROLLED ASSE 1070 MIXING VALVE FAUCET. 0.09 GALLONS PER CYCLE. NO SUBSTITUTIONS. MCGUIRE LF175 SUPPLY WITH STOP, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE. MCGUIRE 8872C POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. TRUEBRO INC., HANDI LAV-GUARD INSULATION KITS MODELS 101EZ AND 105EZ. ( ALL PROVIDED BY HJC). CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-4B LAVATORY FAUCET: (LAVATORY PROVIDED BY OWNER ; TOTO MODEL LT307) TOTO MODEL TEL105-D10ET#CP ECO-POWER SENSOR HOT/COLD FAUCET WITH THERMOSTATICALLY CONTROLLED ASSE 1070 MIXING VALVE FAUCET. 0.09 GALLONS PER CYCLE. NO SUBSTITUTIONS. MCGUIRE LF175 SUPPLY WITH STOP, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE. MCGUIRE 8872C POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. TRUEBRO INC., HANDI LAV-GUARD INSULATION KITS MODELS 101EZ AND 105EZ. ( ALL PROVIDED BY HJC). CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-5 KITCHEN HAND SINK ROUGH IN: (SINK AND FAUCET WITH 1.0 GPM AERATOR PROVIDED BY TMS) CONTRACTOR SHALL INSTALL WALL HUNG, STAINLESS STEEL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. MCGUIRE LF175 SUPPLIES WITH STOPS AND A MCGUIRE 8912C POLISHED CHROME P-TRAP (PROVIDED BY HJC). ADJUST FAUCET OUTLET TEMPERATURE TO 110 DEGREES F (OR HIGHER AS REQUIRED BY LOCAL JURISDICTION).

P-5A KITCHEN DUMP SINK ROUGH IN: (SINK BY TMS; FAUCET: T&S MODEL #B-1146-CFA-VF05 - PROVIDED BY HJC WITH THP3094 NOZZLE) CONTRACTOR SHALL INSTALL WALL HUNG, STAINLESS STEEL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. MCGUIRE LF175 SUPPLIES WITH STOPS (PROVIDED BY HJC).

P-6 SERVING COUNTER DROP IN SINK ROUGH IN: (SINK AND FAUCET WITH 1.0 GPM AERATOR FURNISHED BY OWNER) CONTRACTOR SHALL INSTALL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. PROVIDE MCGUIRE 8912 POLISHED CHROME P-TRAP AND MCGUIRE LF175 STOPS WITH 20" CHROME PLATED 3/8" COPPER RISERS. ADJUST FAUCET OUTLET TEMPERATURE TO 110 DEGREES F (OR HIGHER AS REQUIRED BY LOCAL JURISDICTION).

P-7 MOP SINK FAUCET: (MOP SINK BASIN BUILT BY GENERAL CONTRACTOR) PROVIDE T&S BRASS MODEL B-2345 FAUCET WITH CERAMA SPRING CHECK VALVE CARTRIDGES, HOSE THREAD SPOUT OUTLET, TOP BRACE, ADJUSTABLE INLET SPREAD FROM 3" TOP 8". INCLUDE T&S BRASS MODEL 43-072 HOSE THREAD X 3/4" FEMALE NPT CHROME ADAPTOR (ALL PROVIDED BY HJC). NO SUBSTITUTIONS. SEE ALSO P-16.

P-8 VEGETABLE PREP SINK ROUGH-IN: (SINK AND FAUCET WITH 0.65 GPM SPRAY HEAD PROVIDED BY TMS) CONTRACTOR SHALL INSTALL SINK AND MAKE FINAL CONNECTIONS. MCGUIRE LFST08 STOPS AND BRASSCRAFT 36" CHROME PLATED 1/2" OD COPPER RISERS MODEL 3-36AC (PROVIDED BY HJC), ASSEMBLE AND MOUNT TWO HANDLE FAUCET WITH PRE-RINSE SPRAY ARM. INSTALL ADD-ON FAUCET WITH 15" SPOUT AT BASE OF PRE-RINSE RISER. SEE K-SHEET ELEVATIONS. PROVIDE 1-1/2" SCHED 80 PVC (PIPE AND FITTINGS) INDIRECT WASTE LINES FROM SINK BASINS TO FLOOR SINK P-13B, NO P-TRAPS REQUIRED. 2

P-9 FOUR COMPARTMENT POT SINK ROUGH-IN: (SINK AND FAUCETS WITH 0.65 GPM SPRAY HEAD PROVIDED BY TMS) CONTRACTOR SHALL INSTALL SINK, ASSEMBLE & MOUNT TWO FAUCETS, AND MAKE FINAL CONNECTIONS. MCGUIRE LFST08 STOPS AND BRASSCRAFT 36" CHROME PLATED 1/2" OD COPPER RISERS MODEL 3-36AC (PROVIDED BY HJC). ASSEMBLE AND MOUNT ONE TWO-HANDLE FAUCET WITH PRE-RINSE SPRAY. INSTALL ADD-ON FAUCET WITH 15" SPOUT AT BASE OF PRE-RINSE RISER. ASSEMBLE AND MOUNT ONE TWO-HANDLE FAUCET WITH DOUBLE JOINT SPOUT ON OPPOSITE SIDE. SEE K-SHEET ELEVATIONS FOR FAUCET LOCATIONS. PROVIDE 1-1/2" SCHED 80 PVC (PIPE AND FITTINGS) INDIRECT WASTE LINES FROM EACH SINK BASIN TO FLOOR SINK P-13A, NO P-TRAPS REQUIRED. 1

P-10 FLOOR DRAIN (3"): ZURN EZ1-PV3-R8 PVC BODY, BRONZE SPUD WITH 6" DIAMETER NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D53-144.

P-11 WALL HYDRANT (NON-FREEZE);WALL HYDRANT (NON-FREEZE): WOODFORD MODEL 67C AUTOMATIC DRAINING
WALL HYDRANT WITH DUAL CHECK BFP, ASSE 1052 APPROVED, WALL CLAMP, POLISHED BRASS FINISH (PROVIDED BY HJC). "C" STYLE INLET, SEE WALL HYDRANT NOTES ON 1/P-201 FOR WALL THICKNESS AT WALL HYDRANTS. ALT: (WTS) HY-42.

P-12 FUNNEL DRAIN (3"): ZURN MODEL ZN415-3NL-6S-4 FLOOR DRAIN W/FUNNEL. INDIRECT WASTE RECEIVER WITH NICKEL BRONZE STRAINER AND FUNNEL. PROVIDE 6" SQUARE STRAINER WITH 4" ROUND FUNNEL AT ICE MACHINE & WALK-IN COOLER (PROVIDED BY HJC). ALT: (WTS) FD103P-M6-F4-1; (JRS) 3510L03.

P-13A FLOOR SINK (POT SINK): ZURN MODEL Z1901-4NL-1-23-KC CAST IRON INDIRECT WASTE RECEIVER WITH 12" SQUARE BODY, FLASHING CLAMP, 8" DEEP, ALUMINUM SEDIMENT BUCKET, AND NO GRATE. NO SUBSTITUTIONS (PROVIDED BY HJC).

P-13B FLOOR SINK (VEGETABLE SINK): ZURN MODEL Z1910-KC-3NL-1-23 CAST IRON INDIRECT WASTE RECEIVER WITH FLASHING CLAMP, 8" SQ. BODY, ALUMINUM SEDIMENT BUCKET, AND NO GRATE (PROVIDED BY HJC). NO SUBSTITUTIONS.

P-14 CLEANOUTS INSIDE BUILDING: ZURN ZN1400-XNL-T-BP CLEANOUT WITH 6" SQUARE NICKEL BRONZE TOP AND TAPER THREAD BRONZE PLUG. SEE PLAN FOR SIZE. (X=PIPE DIA) (PROVIDED BY HJC). ALT: (WTS) CO-20XP-S; (JRS) 4053L.

P-15 CLEANOUTS OUTSIDE BUILDING: ZURN Z1474-NX EXTRA HEAVY DUTY CAST IRON CLEANOUT, "C.O." CAST IN COVER, ABS PLUG, NEO-LOOCK OUTLET. (X=PIPE DIA) (PROVIDED BY HJC) ALT: (WTS) CO-X00-MF + CO-38X; (ZRN) Z1474-X-N (JRS) 4261L.

P-16 3-WAY DIVERTER VALVE ASSEMBLY: WATTS MODEL LFB 6780 ROUGH BRASS LEAD-FREE DIVERTER BALL VALVE WITH 3/4" FIP INLET AND OUTLETS AND QUARTER TURN LEVER HANDLE. PROVIDE WITH TWO (2) FORGED BRASS 3/4" MIP X 3/4" MALE GARDEN HOSE THREAD ADAPTERS (PLUMBEST MODEL G20-103 OR EQUAL). PROVIDE WITH ONE ASSE 1011 APPROVED CHROME PLATED VACUUM BREAKER (WOODFORD MODEL 34H-CH OR EQUAL) (ALL PROVIDED BY HJC). FOR INSTALLATION AT MOP SINK. SEE 4/P-201. PROVIDE ALSO TWO 3/4" CLOSE CHROME PLATED BRASS NIPPLE AND 3/4" POLISHED CHROME 90 DEGREE ELBOW.

P-17 VACUUM RELIEF VALVE: WATTS MODEL #LFN36M1, 3/4" CONNECTION. (PROVIDED BY HJC.)

P-18 EXPANSION TANK: AO SMITH MODEL TW12-5, ACCEPTANCE 2.19 GALLONS (PROVIDED BY HJC) AT 40 PSI PRECHARGE, 3/4" CONNECTION. ALTERNATE MODELS SIZED PER WATER HEATER MANUFACTURER RECOMMENDATIONS ARE ACCEPTABLE.

P-19 WATER HEATER: STATE INDUSTRIES MODEL GS6-75-YRVHTL, 75 GALLON GAS FIRED WATER HEATER, 76,000 BTUH INPUT, 79 GPH MINIMUM RECOVERY AT 100 DEGREE RISE, 3" PVC OR ABS VENT OUTLET, WITH ONE YEAR MANUFACTURER WARRANTY. CONTRACTOR TO PROVIDE HEAT TRAPS AT INLET AND OUTLET. ACCEPTABLE SUBSTITUTES: A.O SMITH GPVX75L, BRADFORD WHITE RG2-PV75H6N, RHEEM GPV75-75FV-2.

P-20 THERMOMETER: PROVIDE TRERICE MODEL B83404 - 04 3" DIAL TYPE THERMOMETER WITH BOTTOM 1/2" N.P.T. CONNECTION, 4" STEM AND 0 DEG F TO 200 DEG F RANGE. LEAD FREE. (PROVIDED BY HJC.)

P-22 MOP SINK CHECK VALVES: T&S BRASS 1/2" MODEL B-CVV1-2 BALL CHECK. (PROVIDED BY HJC)

P-23 UTILITY CONNECTION (ICEMAKER): PROVIDE A MCGUIRE MODEL LFHST06SB LEAD-FREE CHROME WHEEL ANGLE STOP, 1/2" FIP INLET AND OUTLET (PROVIDED BY HJC). PROVIDE CHROME WALL ESCUTCHEON. INSTALL WITH BFP P-34. SEE DETAIL 3/P-201 FOR PIPING AT ICE MAKERS.

P-24 UTILITY CONNECTION (COFFEE & TEA BREWERS): PROVIDE A MCGUIRE MODEL LFHST06SB LEAD-FREE CHROME WHEEL ANGLE STOP, 1/2" FIP INLET AND OUTLET (PROVIDED BY HJC). PROVIDE CHROME WALL ESCUTCHEON. INSTALL WITH BFP P-34.

P-25 SHOCK ABSORBER: ZURN Z1700-100 THRU Z1700-300 AS NEEDED, SIZE AS RECOMMENDED BY MANUFACTURER (PROVIDED BY HJC). ALT: (WTS) SSA + SSB; (JRS 5005 THROUGH 5050)

P-26 FUNNEL DRAIN (3"): ZURN ZN415-3NL-8S-OF FLOOR DRAIN W/FUNNEL. INDIRECT WASTE RECEIVER WITH NICKEL BRONZE STRAINER AND FUNNEL. PROVIDE 8" ROUND STRAINER WITH 3.25"X 8.25" OBLONG FUNNEL (DRAIN AND STRAINER PROVIDED BY HJC). ALT: (WTS) FD-103P-A8-G-1; (JRS) SMITH 3510L03.

P-26A TRAP SEAL PROTECTOR: PROVENT TRAP GUARD MODEL TG3H 3" TRAP SEAL INSERT FOR INTERIOR INSTALLATION AND REPLACEMENT ACCESS THROUGH STRAINER (PROVIDED BY HJC). PROVIDE AT P-35 FLOOR DRAINS IN RESTROOMS, P-37 FLOOR DRAINS DINING ROOM, AND P-26 FUNNEL DRAINS IN MECH ROOM. PROVIDE PROSET MODEL TG33-ZURN WHEN USING ZURN FLOOR FIXTURES (PROVIDED BY HJC).

P-27 WATER PRESSURE GAUGE: TRERICE MODEL 800B, 2-1/2" ROUND, BOTTOM OUTLET WITH 1/4" N.P.T. CONNECTION AND 0 TO 100 PSI RANGE. (PROVIDED BY HJC.)

P-28 ISOLATION BALL VALVE (8-STOP WATER MANIFOLD PANEL): NIBCO MODEL 4660-T, 3/4", WITH IPS INLET AND OUTLET. (PROVIDED BY HJC.)

P-29A ICE MACHINE TRENCH DRAIN: ZURN/STAINLESS DRAINS TR12-CFA-18 STAINLESS STEEL TRENCH DRAIN, 14.5" X 18", STAINLESS STEEL SEDIMENT CUP AND STAINLESS STEEL SERRATED LADDER GRATE (DRAIN WIDTH =18") (PROVIDED BY HJC). NO SUBSTITUTIONS.

P-29B ICE MACHINE TRENCH DRAIN: ZURN/STAINLESS DRAINS TR12-CFA-36 STAINLESS STEEL TRENCH DRAIN, 14.5" X 36", STAINLESS STEEL SEDIMENT CUP AND STAINLESS STEEL SERRATED LADDER GRATE (DRAIN WIDTH=36) (PROVIDED BY HJC). NO SUBSTITUTIONS.

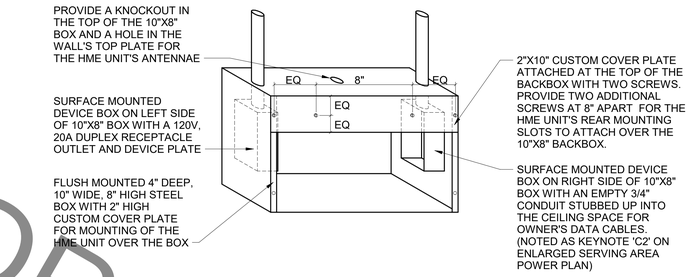
P-30 FILTERED WATER FAUCET: (FAUCET PROVIDED BY HJC) TWO-HANDLE WALL MOUNT FAUCET WITH SWING SPOUT. MOUNT ON WALL AS SHOWN ON K-SHEETS. PIPE FILTERED WATER TO BOTH SIDES OF FAUCET. CONNECT TO SUPPLY PIPING WITH BRASS OR CHROME NIPPLES; GALVANIZED NOT ALLOWED.

P-31 POST HYDRANT (NON-FREEZE): WOODFORD MODEL Y2 LEVER (PROVIDED BY HJC)

P-34 DISPENSER BACKFLOW PREVENTER: WATTS MODEL #LF7RU2-2 ASSE 1024 RATED WITH 1/2" FIP INLET AND OUTLET, DUAL CHECK TYPE. PROVIDE 1/2" DIA X 2" LONG CHROME NIPPLE AT BFP INLET AND OUTLET. PROVIDE T&S BRASS MODEL B-0110 CHROME WALL BRACKET. (ALL PROVIDED BY HJC.) 1

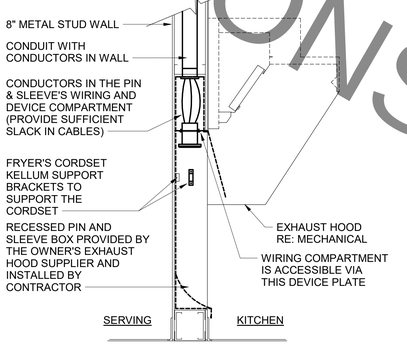
P-35 FLOOR DRAIN (3"): ZURN EZ1-PV3-R6 PVC BODY, BRONZE SPUD WITH 6" DIAMETER NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D50-064.

P-36 BEVERAGE TOWER INDIRECT RECEIVER (3"): ZURN EZ1-PV3-R8 PV



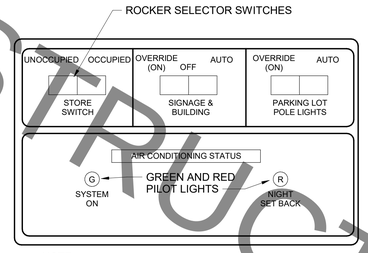

## E3 DETAIL - HME UNIT POWER & DATA BOX DETAIL

NO SCALE




## D4 PIN & SLEEVE BOX DETAIL

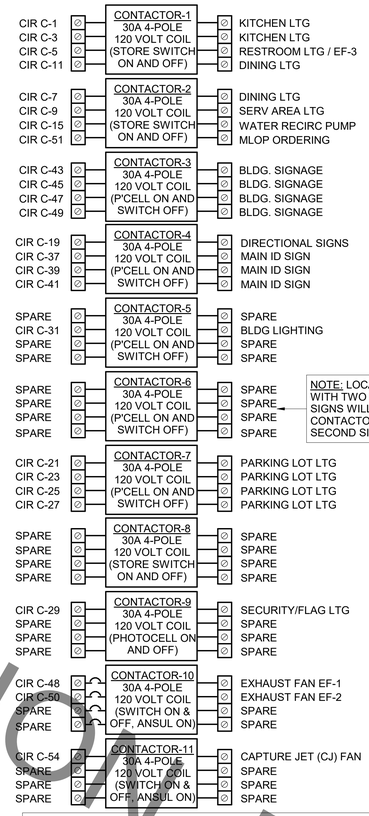
NO SCALE




NOTE:
THIS UNIT IS MOUNTED IN THE DOOR OF THE CFA-T500 CONTROL CABINET AND IS INCLUDED WITH THE GEAR ORDER FROM SUNCOAST ENVIRONMENTAL INC.

## D3 OPEN-CLOSED CONTROL SWITCH

NO SCALE




NOTE: LOCATIONS WITH TWO MAIN ID SIGNS WILL USE THIS CONTACTOR FOR THE SECOND SIGN.

NOTES:
1) VERIFY WITH SUNCOAST ENVIRONMENTAL CONTROLS' SHOP DRAWINGS.
2) ONLY THE 'HOT' CONDUCTOR OF EACH CIRCUIT SHALL BE RUN THRU THE CONTACTOR.
3) ANY TAPS OR WIRING CONNECTIONS OTHER THAN TO THE TERMINALS SHALL BE DONE IN A JUNCTION BOX OUTSIDE OF THIS CABINET.
4) VERIFY WITH THE LOCAL CODE IF CONTACTORS #10 AND #11 WILL BE ON OR OFF WHEN THE ANSUL SYSTEM IS INITIATED.
5) CIRCUITS C-49, C-25, AND C-27 WILL BE SPARES IF NOT NEEDED.

## C2 CFA-T500 CONTROL PANEL DIAGRAM

NO SCALE

## C1 ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION | MTG HT AFF TO CL |
|---|---|---|
| | **LIGHTING FIXTURES** | |
| | SURFACE MOUNTED LIGHTING FIXTURE | |
| | RECESSED LED TROFFER LIGHTING FIXTURE | |
| | SURFACE MOUNTED LED LIGHTING FIXTURE | |
| | RECESSED LED LIGHTING FIXTURE | |
| | WALL MOUNTED LIGHTING FIXTURE, SEE LIGHTING FIXTURE SCHEDULE | AS NOTED |
| | WALL MOUNTED EXIT SIGN, SHADE INDICATES FACES, PROVIDE CHEVRON DIRECTIONALS WHEN NEEDED | 6" FROM CEILING TO TOP |
| | CEILING MTD EXIT SIGN, SHADING INDICATES FACES. PROVIDE W/ CHEVRON DIRECTIONALS WHEN NEEDED | |
| | COMBO EXIT WITH TWO LAMPHEADS | |
| | WALL MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE | AS NOTED |
| | CEILING MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE | |
| | FLUORESCENT STRIP LIGHTING FIXTURE | |
| | WALLWASHER TYPE RECESSED DOWNLIGHT, AIM LIGHT TOWARD WALL | |
| | RECESSED LIGHTING FIXTURE W/ EMERGENCY BATTERY PACK | |
| | PENDANT LIGHTING FIXTURE | AS NOTED |
| | LIGHTING TRACK WITH TRACK HEADS | |
| | **WIRING DEVICES** | |
| | 120 VOLT DUPLEX RECEPTACLE, 20 AMPS U.O.N. | 14" UON |
| | 120 VOLT DUPLEX AT SPECIAL MTD HEIGHT, 20 AMPS U.O.N. | 44" UON |
| | 120 VOLT QUADRAPLEX RECEPTACLE, 20 AMPS U.O.N. | 14" UON |
| | 120 VOLT QUAD. AT SPECIAL MTD HEIGHT, 20 AMPS U.O.N. | 44" |
| | 120 VOLT SIMPLEX RECEPTACLE, 20 AMPS U.O.N. | 14" UON |
| A | SINGLE SPECIAL PURPOSE RECEPT W/ VOLTS, AMPS, & PHASE AS NOTED, NEMA CONFIGURATION AS REQUIRED BY EQUIP. | 14" UON |
| | RECEPTACLE MOUNTED ON DROP CORD, 120 VOLT, 20 AMP, UON, OUTLET BOX FLUSH WITH CEILING | |
| S | SINGLE POLE TOGGLE SWITCH | 48" |
| $S_2$ | DOUBLE POLE TOGGLE SWITCH | 48" |
| $S_3$ | THREE WAY TOGGLE SWITCH | 48" |
| $S_M$ | MANUAL MOTOR STARTER SWITCH (WP=NEMA 3R) | 48" |
| $S_P$ | SWITCH WITH PILOT LIGHT (ON WHEN SWITCH IS ON) | 48" |
| $S_K$ | KEY OPERATED SWITCH | 48" |

NOTE: RECEPTACLES ON A DEDICATED CIRCUIT (THAT IS, NO OTHER LOAD CONNECTED TO THE BRANCH CIRCUIT) SHALL HAVE AMPACITY RATING NOT LESS THAN THE AMPERAGE OF THE CIRCUIT BREAKER SERVING THE DEVICE.

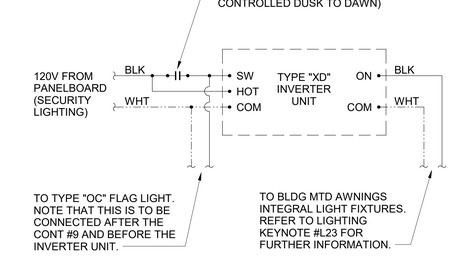
| | | |
|---|---|---|
| | **CONDUIT/RACEWAYS** | |
| | CONDUIT CONCEALED ABOVE CEILNG OR IN WALL | |
| | CIRCUIT HOMERUN TO PANELBOARD W/ MIN 2#12, 1#12G, 3/4"C | |
| | CONDUIT TURNING UP | |
| | CONDUIT TURNING DOWN | |
| | CONDUIT CONCEALED IN OR BELOW SLAB (OR UNDERGROUND) | |
| | FLEXIBLE LIGHT FIXTURE WHIP; SIX FOOT MAXIMUM LENGTH | |
| MC | METAL CLAD CABLE ASSEMBLY - ONLY WHERE INDICATED ON DWGS OR SPECS | |
| | **DISTRIBUTION EQUIPMENT** | |
| | NON-FUSIBLE SAFETY SWITCH, SIZE AND TYPE AS NOTED ON PLANS (AMP/POLES/ENCLOSURE) OR ON SCHEDULE. NEMA 1 ENCLOSURE UNLESS NOTED WP FOR NEMA 3R ENCLOSURE. | 6'-6" * |
| | FUSIBLE SAFETY SWITCH, SIZE & TYPE AS NOTED ON PLANS (AMP/POLES/FUSE AMPS/ENCLOSURE) OR ON SCHEDULE. NEMA 1 ENCLOSURE UNLESS NOTED WP FOR NEMA 3R. | 6'-6" * |
| | FLUSH MOUNTED LIGHTING PANELBOARD | 6'-6" * |
| | SURFACE MOUNTED LIGHTING PANELBOARD | 6'-6" * |

6'-6" DISTANCE IS TO TOP-MOST DISCONNECTING DEVICE OR HIGHEST POSITION OF OPERATING HANDLE OF DISCONNECTING DEVICE

| SYMBOL | DESCRIPTION | MTG HT AFF TO CL |
|---|---|---|
| | **MISCELLANEOUS SYMBOLS** | |
| | GROUND | |
| M | MOTOR | |
| EF | EXHAUST FAN MOTOR | |
| J | JUNCTION BOX | |
| 1 | CONDUIT AND WIRE 'MARK' NUMBER, REFER TO CONDUCTORS AND CONDUIT SCHEDULE FOR SIZE | |
| 101 | KITCHEN EQUIPMENT 'MARK' NUMBER, REFER TO KITCHEN EQUIPMENT SCHEDULE FOR REQUIREMENTS | |
| 1 | NOTE NUMBER | |
| A | HOOD EXTINGUISHING ANSUL PULL STATION | |
| D | SMOKE DETECTORS REMOTE STATUS INDICATOR W/ 1/2"C STUB-UP | |
| | PUSHBUTTON | |
| B | BELL, TYPE AS NOTED ON PLANS | |
| PE | PHOTO-ELECTRIC CELL | |
| T | TRANSFORMER / DRIVER | |
| S | LOCKABLE SINGLE POLE SWITCH | |
| | **ABBREVIATIONS** | |
| AFF | ABOVE FINISHED FLOOR | |
| AFG | ABOVE FINISHED GRADE | |
| AHU | AIR HANDLING UNIT | |
| C | CONDUIT | |
| CL | CENTER-LINE | |
| CT | CONTACTOR | |
| EF | EXHAUST FAN | |
| FLA | FULL LOAD AMPS | |
| GF/GFI | GROUND FAULT CIRCUIT INTERRUPTER | |
| GND/GRD | GROUND | |
| HT | HEIGHT | |
| IG | ISOLATED GRD, PROVIDE ORANGE DEVICE WHEN ADJACENT TO WIRING DEVICE | |
| MOCP | MAXIMUM OVER-CURRENT PROTECTION | |
| MUA | MAKE UP AIR UNIT | |
| NEC | LOCALLY ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) | |
| NL | NIGHT LIGHT (ON 24 HOURS) | |
| OC | ON CENTER | |
| POS | POINT OF SALE EQUIPMENT | |
| RTU | ROOF TOP UNIT | |
| TB | TERMINAL BLOCK | |
| TL | TWIST-LOCK TYPE DEVICE | |
| TR | TAMPER-RESISTANT | |
| UON | UNLESS OTHERWISE NOTED | |
| WP | WEATHERPROOF (NEMA 3R) | |
| | **TELEPHONE** | |
| | TELEPHONE OUTLET | 18" UON |
| | TELEPHONE OUTLET AT SPECIAL MOUNTING HEIGHT | 60" UON |

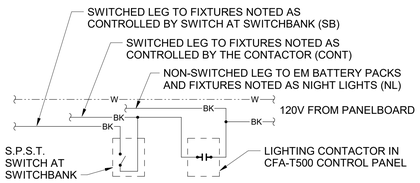
NOTE: EACH TELEPHONE OUTLET (FLOOR OR WALL MOUNTED SHALL BE PROVIDED WITH A 3/4" EMPTY CONDUIT, WITH PULL WIRE, TO ACCESSIBLE CEILING SPACE.

| | |
|---|---|
| | **CCTV / SECURITY SYSTEM** |
| K | SECURITY ALARM KEYPAD |
| S1 | SECURITY SYSTEM KEY NOTE |
| | |
| | |



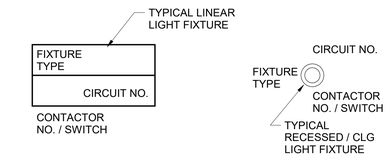

## 3 DETAIL - INVERTER XD WIRING DIAGRAM

NO SCALE




## B4 LIGHTING CONTROL DIAGRAM

NO SCALE

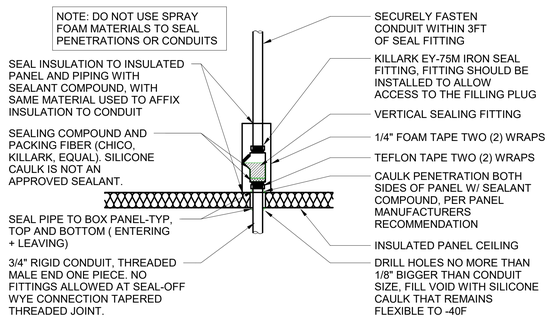



## A4 LIGHT FIXTURE NOMECLATURE

NO SCALE

## SIGNAGE NOTE

THE ELECTRICAL SUBCONTRACTOR SHALL INCLUDE THE ELECTRICAL ROUGH-IN AND FINAL CONNECTIONS OF ALL SIGNAGE (BUILDING MOUNTED AND GROUND MOUNTED ON THE SITE) IN HIS SCOPE OF WORK AND UNDER HIS LOCAL CODE PERMITTING PROCESS. PROVIDE A COPY OF THE PERMIT (WHICH SPECIFICALLY INCLUDES THE SIGNAGE) TO THE SIGN VENDOR IN ORDER TO EXPEDITE THE SIGN VENDOR'S PERMIT PROCESS.




## A2 WIC/WIF SEAL-OFF DETAIL

NO SCALE



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

cph
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Plans Prepared By :
CPH, Inc.
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

GREGORY D. TAYLOR
LICENSE
No. 77811
STATE OF FLORIDA
PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|

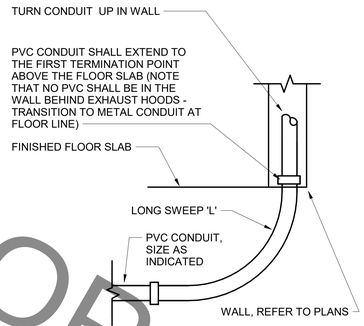
PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09/28/2021
DRAWN BY KCL

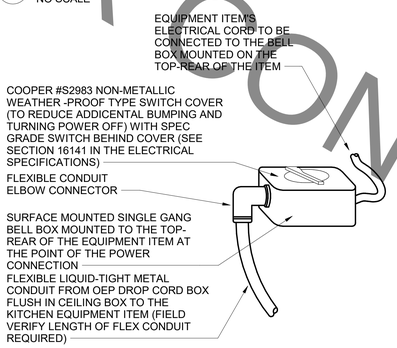


SHEET
ELECTRICAL SCHEDULES AND DETAILS

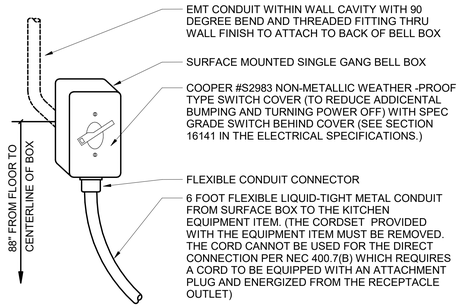
SHEET NUMBER
**E-001**

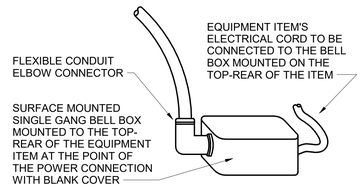



## D4 INTERIOR PVC CONDUIT DETAIL
NO SCALE

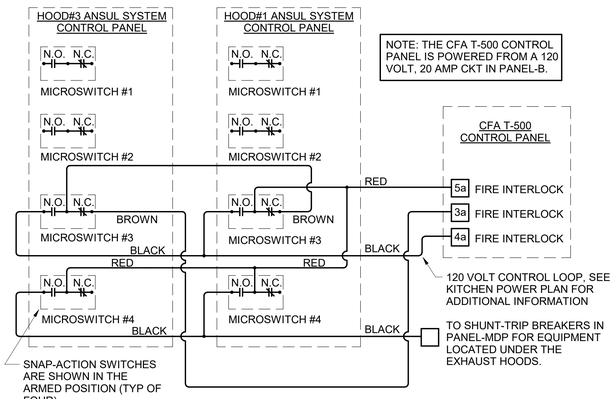



## C4 DIRECT CONNECTION - ISLAND LOCATION
NO SCALE

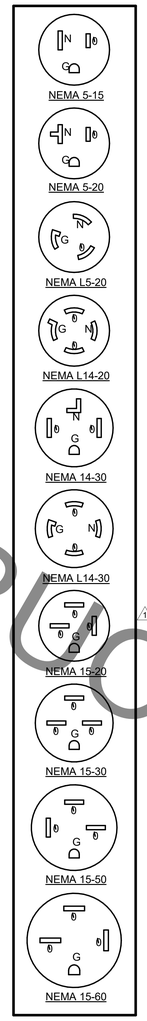



## B4 DIRECT CONNECTION -WALL LOCATION
NO SCALE




## A3 ANSUL SYSTEM PANEL WIRING DIAGRAM
NO SCALE




KITCHEN EQUIPMENT SCHEDULE NOTES

1. ALL SO CORD LENGTHS SHALL BE MEASURED FROM THE REAR OF THE EQUIPMENT TO THE END OF THE CORD.
2. CONTRACTOR SHALL PROVIDE GROUND-FAULT PROTECTION FOR ALL 120 VOLT 15 AMP AND 20 AMP RECEPTACLES IN THE KITCHEN / FOOD PREPARATION AREAS. GROUND-FAULT PROTECTION SHALL BE PROVIDED AT THE RECEPTACLE AS A GFCI TYPE RECEPTACLE UNLESS NOTED OTHERWISE ON THE PLANS WHERE A GFCI TYPE BREAKER IS INDICATED.
3. PROVIDE GFCI TYPE BRANCH BREAKER FOR KITCHEN / FOOD PREPARATION AREA RECEPTACLES THAT ARE TWIST-LOCK, CLOCK STYLE, OR IG (ISOLATED GROUND) TYPE.

## EQUIPMENT SCHEDULE

| ITEM NO. | DESCRIPTION OF EQUIPMENT | VOLTS | PH | KW | AMPS | NEMA-RATING | COMMENTS AND REMARKS |
|---|---|---|---|---|---|---|---|
| 180 | ORDER REGISTER | 120 | 1 | | 0.7 | 5-20P | |
| 180R | ORDER REGISTER | 120 | 1 | | | 5-20P | |
| 182L | LABEL PRINTER | other | 1 | | | 5-20P | PROVIDED WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET |
| 182LR | LABEL PRINTER | other | 1 | | 1.70 | 5-20P | |
| 182R | RECEIPT PRINTER | other | 1 | | 1.80 | 5-20P | |
| 183 | ORDER MONITOR | 120 | 1 | | 0.125 | 5-20P | |
| 183R | ORDER MONITOR | 120 | 1 | | 0.125 | 5-20P | |
| 184 | IPAD | 120 | 1 | 0.120 | 1.00 | 5-20P | PROVIDED BY CONNECTION |
| 184T | ITIMER | 120 | 1 | 0.120 | 1.00 | 5-20P | PROVIDED BY CLARK |
| 190R | DRIVE-THRU VIDEO MONITOR | 120 | 1 | | 0.8 | 5-20P | |
| 211B | FLY SYSTEM | 120 | 1 | 0.078 | 0.65 | 5-15P | CLOCK STYLE RECEPTACLE REQUIRED |
| 270 | ANSUL FIRE SUPPRESSION SYSTEM | 120 | 1 | | VERIFY | DIRECT CONNECTION | LOCATED ABOVE HOOD - BEHIND CLOSURE PANEL - REFER TO SHOP DRAWINGS - FED FROM CFA-T500 PANEL |
| 300aR | MILKSHAKE BASE DISPENSER | 120 | 1 | | 4.00 | 5-20P | MOUNTED ON ITEM #300b |
| 300XR | DOUBLE BARREL ICE CREAM MACHINE | 208 | 3 | | 19.00/15.00 | 15-30P/15-20P | |
| 305 | TEA BREWER | 120 | 1 | 1.650 | 13.80 | | PROVIDE QUICK DISCONNECT HOSES |
| 308 | SINGLE COFFEE MAKER | 208 | 1 | 4.000 | 19.20 | L14-30P | PROVIDE QUICK DISCONNECT HOSES |
| 309R | SINGLE LEMONADE BUBBLER | 120 | 1 | | 3.60 | 5-15P | |
| 310R | DOUBLE LEMONADE BUBBLER | 120 | 1 | | 8.50 | 5-15P | |
| 315W | 10-HEAD BEVERAGE DISPENSER WITH ICE BIN | 115 | 1 | | 10.00 | 5-15P/5-15P | PROVIDED WITH (2) CORDS AND PLUGS PER TOWER |
| 320 | TURBO CARBONATOR | 115 | 1 | .7 | 6.2 | 5-20P | ORDER (8) #44231, (3) #44233, (8) DR. PEPPER PUMPS, & (3) #T5274SN-01 |
| 363R | HIGH-TEMP UPRIGHT DISHWASHER | 208 | 3 | | 46.00 | DIRECT CONNECTION | GC TO VERIFY EXISTING ELECTRICAL |
| 380a | ICE BIN SANITATION SYSTEM | 120 | 1 | 0.0096 | | 5-15P | INSTALLED ON WALL ABOVE ICE BIN - SHARES DUPLEX WITH (1) ICE MACHINE |
| 380CR | ICE MACHINE REMOTE CONDENSING UNIT | 208 | 3 | 3.1 | 14.2 | DIRECT CONNECTION | NOT SHOWN ON DRAWINGS |
| 380R | ICE MACHINE | 115 | 1 | 0.6 | 5 | 5-15P | |
| 400 | SINGLE SECTION REACH-IN FREEZER | 115 | 1 | | 9.4 | 5-15P | HINGE RIGHT - PROVIDE FINISHED BACK - ORDER ON 4 7/16 IN CASTERS |
| 400T | SINGLE UPRIGHT FREEZER (30" WIDE) | 115 | 1 | 1.100 | 9.40 | L5-15P (BY EC) | HINGE RIGHT - PROVIDE FINISHED BACK - ORDER ON 4 5/8 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK |
| 410 | WALK-IN FREEZER | 120 | 1 | | 3.3 | DIRECT CONNECTION | ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN |
| 410a | WALK-IN FREEZER CONDENSER | 208 | 3 | | 16.30 | DIRECT CONNECTION | GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS |
| 410b | WALK-IN FREEZER EVAPORATOR | 208 | 1 | | 1.50 | DIRECT CONNECTION | POWER FED FROM CONDENSER |
| 420 | SINGLE UNDERCOUNTER REFRIGERATOR | 115 | 1 | .564 | 4.7 | 5-20P | HINGE RIGHT - ORDER ON 4" CASTERS |
| 420L | SINGLE UNDERCOUNTER REFRIGERATOR | 115 | 1 | 0.564 | 4.70 | 5-20P | HINGE LEFT - ORDER ON 4" CASTERS |
| 420LR | SINGLE UNDERCOUNTER REFRIGERATOR | 115 | 1 | 0.564 | 4.70 | 5-20P | |
| 420R | SINGLE UNDERCOUNTER REFRIGERATOR | 115 | 1 | 0.564 | 4.70 | 5-20P | |
| 421R | DOUBLE UNDERCOUNTER REFRIGERATOR | 115 | 1 | 0.756 | 6.30 | 5-15P | |
| 422T | REFRIGERATED EQUIPMENT STAND (48") | 115 | 1 | 0.80 | 6.70 | L5-15P | EC TO CHANGE PLUG TO TWIST LOCK - PROVIDED W/9' CORD - ORDER ON 4" CASTERS |
| 432R | DOUBLE REFRIGERATED WORK TABLE | 115 | 1 | 0.756 | 6.30 | 5-20P | |
| 439L | 40" COLD RAIL | 115 | 1 | 0.800 | 7.10 | 5-15P | COMPRESSOR ON LEFT - SUPPLIED WITH 9 FT CORD AND PLUG |
| 440CT | ICE BATH BREADING TABLE | 120 | 1 | | 1.00 | L5-15P (BY EC) | EC TO CHANGE PLUG TO TWIST LOCK - 10 FT CORD AND PLUG - LEAF INCLUDED WITH TABLE - INSTALL IF SHOWN ON PLANS |
| 441R | SALAD PREP TABLE | 115 | 1 | | 9.0 | L5-15P | |
| 442WCLT | SINGLE UPRIGHT REFRIGERATOR (30" WIDE) | 115 | 1 | | 7 | L5-15P (BY EC) | HINGE LEFT - PROVIDE FINISHED BACK - ORDER ON 6 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK |
| 444D | DOUBLE THAWING CABINET (52" WIDE) | 115 | 1 | | 16.00 | DIRECT CONNECTION | HINGE STANDARD - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT - ORDER ON 6 IN CASTERS |
| 444DR | DOUBLE THAWING CABINET (52" WIDE) | 115 | 1 | | 16.00 | DIRECT CONNECTION | CONVERT TO DIRECT CONNECT IF NEEDED - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT |
| 444SR | SINGLE THAWING CABINET (32" WIDE) | 115 | 1 | | 16.00 | DIRECT CONNECTION | CONVERT TO DIRECT CONNECT IF NEEDED - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT |
| 449 | WALK-IN COOLER | 120 | 1 | | 2.4 | DIRECT CONNECTION | ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN |
| 449a | WALK-IN COOLER CONDENSER | 208 | 3 | | 9.50 | DIRECT CONNECTION | GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS |
| 449b | WALK-IN COOLER EVAPORATOR | 208 | 1 | 0.110 | 1.00 | DIRECT CONNECTION | POWER FED FROM CONDENSER |
| 500A | VERTICAL CONTACT TOASTER | 120 | 1 | 1.80 | 15.00 | 5-15P | |
| 500AR | VERTICAL CONTACT TOASTER | 120 | 1 | 1.80 | 15.00 | 5-15P | |
| 500B | RADIANT TOASTER | 208 | 1 | 5.50 | 24.00 | L6-30P | LOCATED ON ITEM #120c - FRANKE TOASTER TABLE CIRCUITS #3 & #4 - PROVIDED W/ TWIST LOCK PLUG |
| 503T | EGG STATION | 208 | 1 | 2.5 | 12.5 | L6-20P | PROVIDED W/TWIST LOCK PLUG |
| 505VL | VECTOR OVEN | 208 | 3 | 7.90 | 22.00 | 15-30P | HINGE LEFT |
| 505VLR | VECTOR OVEN | 208 | 3 | 7.90 | 22.00 | 15-30P | HINGE LEFT |
| 505VLT | VECTOR OVEN | 208 | 3 | 7.90 | 22.00 | L15-30P (BY EC) | HINGE LEFT - EC TO CHANGE PLUG TO TWIST LOCK |
| 522 | SINGLE OPEN FRYER | 208 | 3 | 22 | 61 | PIN & SLEEVE | PIN&SLEEVE PROVIDED WITH EQUIPMENT AND RECEPTACLE BOX PROVIDED WITH HALTON ITEMS |
| 522R | SINGLE OPEN FRYER | 208 | 3 | 22.000 | 62.00 | PIN & SLEEVE | |
| 523 | PRESSURE FRYER | 208 | 3 | 13.500 | 38.00 | 15-50P | PROVIDED WITH 6 FT CORD AND PLUG |
| 523R | PRESSURE FRYER | 208 | 3 | 13.500 | 38.00 | 15-50P | |
| 524R | DUAL SIDE CLAMSHELL GRILL | 208 | 3 | 3.3 | 24.1/28.2/23.1 | 15-50P | |
| 560 | FRY HOLDING STATION | 120 | 1 | 1.90 | 15.4 | 5-20P | |
| 560R | FRY HOLDING STATION | 120 | 1 | 1.900 | 15.40 | 5-20P | |
| 562A | HIGH DENSITY HOT HOLDING TOWER | 120 | 1 | 1.80 | 16.00 | 5-20P | PROVIDED WITH 8 FT CORD AND PLUG |
| 563D | DOUBLE TIER SANDWICH SLIDE | 120 | 1 | 1.09 | 9.13 | 5-15P | CORD EXITS RIGHT - 6' CORD AND PLUG |
| 563SL | SINGLE TIER SANDWICH SLIDE | 120 | 1 | 0.548 | 4.56 | 5-15P | CORD EXITS LEFT - 6' CORD AND PLUG |
| 564AR | VISUAL HOT HOLDING CABINET (2x2) | 120 | 1 | 0.660 | 5.50 | 5-15P | |
| 564BR | VISUAL HOT HOLDING CABINET (2x2 LANDSCAPE) | 120 | 1 | 0.660 | 5.50 | 5-15P | |
| 565CR | FOOD COOKER/WARMER | 120 | 1 | 1.500 | 12.50 | 5-15P | |
| 580HR | VISUAL HOT HOLDING CABINET (5x2) | 120 | 1 | 1.920 | 16.00 | 5-20P | |
| 592 | RETHERMALIZER | 208 | 3 | 8.000 | 22.00 | 15-30P | PROVIDED W/CORD & PLUG - WATER SUPPLY TO BE S/S BRAIDED HOSE W/MALE QUICK CONNECT ADAPTER |
| 600R | MIXER | 120 | 1 | | 8.0 | L5-20P | |
| 607 | COUNTER TOP LEMON JUICER | 115 | 1 | | | 5-15P | LOCATED ON ITEM #606 |
| 669 | OFFICE SAFE | 120 | 1 | | | 5-20P | INSTALL SAFE PER MANUFACTURER'S WRITTEN INSTRUCTIONS |
| 671 | LED MENU BOARD | 120 | 1 | | 12.5 | 5-20P | MENU BOARDS TO BE CONNECTED TO POWER MODULE VIA 48V DC CAT5 LOW VOLTAGE CABLES |



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# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |

PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09/28/2021
DRAWN BY KCL



SHEET
ELECTRICAL SCHEDULES AND DETAILS

SHEET NUMBER
**E-002**

## LIGHTING PLAN KEYNOTES

L1 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY STORE OCCUPIED SWITCH.

L2 APPROXIMATE LOCATION OF SWITCH BANK 'SB'. SEE DETAIL ON THE LIGHTING PLAN FOR MORE INFORMATION.

L3 FOR SIGNAGE BY OTHERS; CONNECT AS REQUIRED. GROUND ALL LOCATIONS IN ACCORDANCE WITH NEC AND MANUFACTURER'S REQUIREMENTS. SIGN IS FURNISHED WITH AN INTEGRAL PRE-WIRED DISCONNECTING MEANS.

L4 FOR CONTROL OF LIGHTING FIXTURE IN WALK-IN COOLER AND FREEZER. SWITCH FURNISHED WITH EQUIPMENT, INSTALLED BY ELECTRICAL CONTRACTOR.

L5 CONNECT FIXTURE SO THAT BATTERY PACK IS NOT SWITCHED WITH LIGHTS, BUT ALL LAMPS ARE SWITCHED.

L6 FOR CONNECTION TO LIGHTING FIXTURE IN THE WALK-IN COOLER AND FREEZER WHICH IS FURNISHED WITH EQUIPMENT. CONTRACTOR SHALL ROUGH-IN AND CONNECT ALL FIXTURES AS REQUIRED BY THE EQUIPMENT MANUFACTURER.

L7 THE LIGHT FIXTURES IN THE SERVING AREA ARE PROVIDED WITH LAMP SHIELDING VIA A LENS.

L8 NOT USED.

L9 TO THE TOILET EXHAUST FAN ON ROOF. SEE SHEET E-250, ROOF ELECTRICAL PLAN.

L10 NOT USED.

L11 THIS FIXTURE SHALL NOT BE SWITCHED. CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS.

L12 INSTALL ALL JUNCTION BOXES IN THE PLAY AREA SO THEY WILL BE READILY ACCESSIBLE AFTER THE PLAYGROUND EQUIPMENT IS INSTALLED.

L13 SEE THE ROOF ELECTRICAL PLAN FOR LOCATION OF TYPE 'OC' ROOF MOUNTED FLAG POLE LIGHT. FIXTURE TO BE CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500 CONTROL PANEL CONTACTOR #9 (AHEAD OF THE INVERTER, NOT THRU THE INVERTER.)

L14 TO WALK-IN FREEZER DOOR FRAME HEATER AND AIR RELIEF ASSEMBLY (PRESSURE REDUCTION VALVE - PRV), THRU SEAL-OFF FITTING. VERIFY ROUGH-IN AND FINAL CONNECTION WITH EQUIPMENT.

L15 SEE THE SITE ELECTRICAL PLAN FOR LOCATION OF TYPE 'OC' GROUND MOUNTED FLAG POLE LIGHT. FIXTURE TO BE CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500 CONTROL PANEL CONTACTOR #9 (AHEAD OF THE INVERTER, NOT THRU THE INVERTER.)

L16 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY OCCUPIED SWITCH AND PHOTOCELL.

L17 NOT USED.

L18 CONNECT LIGHTING FIXTURE SO THAT LAMP BALLAST OR DRIVER AND EMERGENCY BATTERY PACK ARE NOT SWITCHED. 'NL' ADJACENT TO FIXTURE INDICATES THAT FIXTURE SHALL BE ON 24 HOURS.

L19 NOT USED.

L20 NOT USED.

L21 LOCATE RECEPTACLE FLUSH IN CEILING FOR FUTURE OWNER FURNISHED INTERIOR SIGNAGE.

L22 TYPE 'XD' INVERTER CABINET TO BE WALL MOUNTED AT THE CEILING AND CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500'S CONTACTOR #9 (DUSK TO DAWN CONTROL). CONNECT WITH BOTH A CONTROLLED (VIA THE CONTACTOR FOR LIGHTS ON AT DUSK AND OFF AT DAWN) LEG AND AN UNSWITCHED LEG FOR THE BATTERY IN THE INVERTER. WHEN POWER IS DISRUPTED ON THE UNSWITCHED LEG, THEN THE INVERTER'S BATTERY WILL ENERGIZE THE LIGHTS CONNECTED TO THE INVERTER NO MATTER THE TIME OF DAY. PROVIDE CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

L23 CONNECT FIXTURE TO CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS. THIS FIXTURE SHALL NOT BE SWITCHED. LIGHTS WILL COME ON AT DUSK, TURN OFF AT DAWN, AND BE ENERGIZED WHENEVER THERE IS A POWER OUTAGE.

L24 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF PENDANTS, DOWNLIGHTS, ACCENTS LIGHTS, AND OTHER CEILING MOUNTED LIGHT FIXTURES.

L25 NOT USED.

L26 NOT USED.

L27 PROVIDE A TYPE B1 SHELF MOUNTED TASK LIGHT FIXTURE. MOUNT LIGHT TO THE UNDERSIDE OF THE WIRE SHELVING. PROVIDE A CORD FROM THE FIXTURE(S) TO A SWITCH IN AN FS BOX MOUNTED TO THE SHELF. FROM FS BOX PROVIDE AN SO CORD WITH PLUG AND CONNECT TO THE GEN RECEPTACLE (WALL OR DROP CORD). SEE ENLARGED POWER PLAN FOR FURTHER INFORMATION.

## OMD CANOPY KEYNOTES:

A1 CEILING LIGHT FIXTURE PROVIDED BY THE CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR.

A2 AIR CIRCULATING FAN (WITH INTEGRAL ON-OFF SWITCH) PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE A DUPLEX RECEPTACLE OUTLET (WITH IN-USE WP COVER PLATE) AT THE TOP OF THE COLUMN FLUSH MOUNTED IN THE CUT-OUTFOR THE FAN'S PLUG AND CORD CONNECTION.

A3 INFRARED GAS HEATER WITH INTEGRAL ON-OFF SWITCH PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.

A4 PROVIDE ONE DUPLEX GFCI (WITH IN-USE WP COVER PLATE) AND TWO 120V SINGLE-POLE SWITCHES (EACH WITH HUBBELL #RW51550 WP COVER PLATE) AND ONE DUPLEX SINGLE-POLE SWITCH (WITH HUBBELL #RW51470 WP COVER PLATE) MOUNTED IN THE COLUMN IN FLUSH MOUNTED METAL SINGLE-GANG BOXES FOR LOCAL ON-OFF CONTROL OF THE FANS, HEATERS, AND CANOPY LIGHTS. SEE WIRING SCHEMATIC FOR FURTHER INFORMATION. ALL SURFACE (OR VISIBLE) ITEMS AND COVERPLATES TO BE FIELD PAINTED MATTE BLACK.

A5 ALL CONDUIT AND BOXES SHALL BE CONCEALED FROM NORMAL VIEW; IN WALLS OR ABOVE THE CANOPY (ON THE ROOF). MC CABLE (GALVANIZED STEEL WITH PVC JACKET) MAY BE USED INSIDE THE WALL FOR THE DEVICES, BUT MUST CONVERT TO IMC ABOVE THE CANOPY ROOF. (PROVIDE A NEMA 3R JUNCTION BOX ON THE ROOF SIDE OF THE CANOPY TO TRANSITION FROM MC CABLES IN WALL TO IMC CONDUIT ON THE ROOF.) ALL EXPOSED BOXES AND FITTINGS TO BE CAST-METAL NEMA 3R. REFER TO THE MECHANICAL SHEETS FOR CONDUIT MOUNTING DETAILS ON THE ROOF.

## POWER PLAN KEYNOTES

1 PROVIDE TWO-GANG DEEP BOX (2" MIN.) FOR ANSUL PULL STATION. EXTEND 1/2" CONDUIT FROM BOX, STUBBED ABOVE CEILING.

2 PROVIDE EDWARDS #340-4N5 VIBRATING 4" DIAMETER BELL. THE BELL SHALL BE RATED AT 120 VOLTS.

3 PROVIDE A 120 VOLT WEATHERPROOF DOORBELL PUSHBUTTON AT DOOR. PUSHBUTTON SHALL BE FLUSH MOUNTED. PROVIDE DORTRONICS SYSTEMS #W5286-P25 CLEAR ANODIZED ALUMINUM PUSHBUTTON WITH SINGLE GANG SWITCHPLATE.

4 TWO 2" TELEPHONE SERVICE ENTRANCE CONDUIT(S). EXTEND WITH PULL STRING FROM TELEPHONE SERVICE J-BOX TO THE UTILITY SOURCE. REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.

5 SEE FURNITURE ELEVATIONS FOR EXACT MOUNTING LOCATION.

6 PROVIDE DUPLEX RECEPTACLE (SEE ELEVATIONS FOR MTG HT) IN AN ARLINGTON #DVFR2W DOUBLE-GANG RECESSED BOX FOR THE FLY SYSTEM ITEMS. DO NOT CUT THE CORDSET FURNISHED WITH THE UNIT, BUT COIL THE CORD ON THE BACK OF THE UNIT AND TUCK INTO THE BACKBOX.

7 TAMPER RESISTANT (TR) DUPLEX RECEPTACLE (IN DINING AREAS) WITH USB CHARGER SHALL BE COOPER/ARROW HART #TR7756-B (BROWN) WITH MATCHING COLOR 'DECOR' STYLE PLATE. VERIFY COLOR WITH OWNER.

8 NOT USED.

9 ONE 3" ISP SERVICE CONDUIT. EXTEND WITH PULL STRING FROM J-BOX TO SUPPLIER'S SOURCE, REFER TO ELECTRICAL SITE PLAN FOR ADDITION INFORMATION.

10 PROVIDE 2 GANG DEEP BOX (2" MIN.) FOR EACH DUCT SMOKE DETECTOR INDICATED ON THE MECHANICAL DRAWINGS FOR INSTALLATION OF DUCT DETECTOR REMOTE ANNUNCIATORS BY MECHANICAL. THE DUCT SMOKE REMOTE ANNUNCIATORS ARE PROVIDED TO THE ELECTRICIAN WITH THE SUNCOAST ELECTRONICS PACKAGE OF GEAR AND CONTROLS. EXTEND 1/2" CONDUIT FROM EACH BOX AND STUB ABOVE CEILING.

11 PROVIDE TWO 6"H X 6"W X 4"D J-BOXES (ONE FOR TELEPHONE AND ONE FOR ISP) AT 6'-6" AFF AND EXTEND A 2" CONDUIT WITH PULL STRING IN THE WALL FROM EACH J-BOX INTO THE ACCESSIBLE CEILING SPACE. PROVIDE A 36" X 36" X 3/4" PLYWOOD BACKBOARD ON THE WALL ABOVE THE J-BOXES (AT THE CEILING) FOR USE BY THE ISP. PROVIDE A COPPER GROUND BAR AT THE BOTTOM OF THE BACKBOARD WITH A #6 AWG INSULATED CU GROUNDING CONDUCTOR IN A 3/4"C FROM THE GROUND BAR TO THE BUILDING'S ELECTRICAL SERVICE GROUNDING ELECTRODE SYSTEM (GES). THE GROUND BAR SHALL HAVE TAPS FOR USE BY THE TELEPHONE AND ISP UTILITY COMPANIES AND FOR THE #6 COMMUNICATIONS GROUNDING CONDUCTOR TO THE GES. PROVIDE A 15 AMP ISOLATED GROUND (IG) ORANGE-FACED DUPLEX RECEPTACLE IN THE WALL BESIDE THE BACKBOARD. CONNECT TO CIRCUIT POS-12 (15A/1P BRANCH BREAKER), AND LABEL THE RECEPTACLE "FOR FIBER TO CABLE MODEM USE ONLY".

12 PROVIDE JUNCTION BOX AT 8'-0" AFF WITH CONDUIT AND CONDUCTORS TO PANELBOARD FOR FUTURE CONNECTION TO BOOSTER PUMP. REFER TO THE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

13 THE STORE OPEN-CLOSE UNIT SWITCH IS FURNISHED WITH THE CFA-T500 CONTROL PANEL AND FACTORY INSTALLED IN THE DOOR OF THE CFA-T500 CABINET.

14 SEE SHEET E-303 AND THE ELECTRICAL SITE PLAN FOR THE DRIVE-THRU ORDER AREA REQUIREMENTS AND FOR THE LOCATION OF THE LIGHTING POLE(S) THAT WILL SERVE AS A LOCATION FOR CAMERAS.

## SECURITY KEYNOTES

S1 PROVIDE SINGLE GANG JUNCTION BOX AND STAINLESS STEEL COVER PLATE WITH 7/8" HOLE IN CENTER. EXTEND 1" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

S2 PROVIDE 4"W X 4"H X 3"D FLUSH JUNCTION BOX WITHOUT A COVERPLATE. EXTEND 2" CONDUIT UP TO ABOVE ACCESSIBLE OFFICE CEILING AREA AND PROVIDE BUSHING ON CONDUIT.

S3 PROVIDE 4"W X 4"H X 3" D JUNCTION BOX WITHOUT COVERPLATE AND EXTEND A 2" CONDUIT DOWN THROUGH SLAB AND BELOW GRADE TO EACH OF THE SITE'S POLE MOUNTED CAMERA LOCATIONS (SEE ELECTRICAL SITE PLAN FOR CONTINUATION) AND A 2" CONDUIT UP INTO THE ACCESSIBLE CEILING SPACE WITH A BUSHING ON THE CONDUIT END. PROVIDE A SINGLE-GANG JUNCTION BOX ADJACENT TO THE DOUBLE-GANG BOX WITH A 1.5" CONDUIT DOWN TO A SECOND SINGLE-GANG JUNCTION BOX AT THE CCTV MONITOR LOCATION.

S4 PROVIDE TWO GANG WEATHERPROOF JUNCTION BOX AND STAINLESS STEEL PLATE WITH 7/8" HOLE IN CENTER FOR PANIC BUTTON. LOCATE AT 48" AFF AND EXTEND 1/2" CONDUIT UP TO ABOVE ACCESSIBLE CEILING WITH CONDUIT SEAL FITTING. SEAL CONDUIT PENETRATION AT WIC/WIF CEILING.

S5 PROVIDE SINGLE GANG BOX WITHOUT COVER PLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

S6 PROVIDE A 1/2" CONDUIT THRU THE EXTERIOR WALL AND STUBBED INTO THE ACCESSIBLE CEILING SPACE FOR THE EXTERIOR WALL MOUNTED AUDIO-VISUAL ALARM NOTIFICATION DEVICE. VERIFY LOCATION WITH THE EXTERIOR ELEVATIONS AND WITH THE SECURITY INSTALLER - TYPICALLY TO BE LOCATED NEAR THE FIRE PROTECTION SYSTEM'S EXTERIOR ALARM UNIT AND VISIBLE FROM THE STREET.

S7 EXTEND 1/2" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

S7A EXTEND 3/4" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

S8 EXTEND 1/2" CONDUIT FROM A POINT 3" WITHIN EITHER HINGE-SIDE DOOR VERTICAL FRAME MULLION TO ABOVE ACCESSIBLE CEILING.

S9 PROVIDE SINGLE GANG JUNCTION BOX WITHOUT COVERPLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

S10 PROVIDE SINGLE GANG JUNCTION BOX WITH STAINLESS STEEL COVER PLATE MOUNTED ABOVE THE CEILING SPACE AND ABOVE ON THE INTERIOR SIDE OF THE REAR DOOR. ROUTE 1" CONDUIT FROM THE BOX TO THE "S12" BOX NOTED BELOW.

S11 EXTEND 1/2" CONDUIT FROM WINDOW'S FRAME MULLION (RIGHT SIDE) TO ABOVE ACCESSIBLE CEILING.

S12 PROVIDE SINGLE GANG, WEATHER-PROOF JUNCTION BOX WITH STAINLESS STEEL COVER PLATE MOUNTED ABOVE THE REAR DOOR ON THE EXTERIOR WALL. ROUTE 1" CONDUIT FROM THE BOX AND INTO THE BUILDING AND TERMINATE CONDUIT IN THE BOX NOTED IN "S10" ABOVE.

S13 EXTEND 1/2" CONDUIT FROM A POINT 3" INSIDE THE STRIKE-SIDE DOOR FRAME MULLION TO ABOVE ACCESSIBLE CEILING.

S14 PROVIDE JUNCTION BOX ON THE LATCH SIDE OF THE ROOF ACCESS HATCH WITH 1/2" CONDUIT ABOVE THE CEILING TO AN ACCESSIBLE CEILING SPACE FOR A DOOR CONTACT.

## COMMUNICATIONS KEYNOTES

C1 PROVIDE DOUBLE-GANG RING (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT UNDERGROUND TO THE DT DUAL-LANE (MLOP) ORDERING AREA AND A 2" CONDUIT STUBBED UP INTO THE CEILING SPACE.

C2 PROVIDE JUNCTION BOX, LESS COVER PLATE, AND EXTEND 3/4" CONDUIT UP IN WALL TO ABOVE CEILING FOR INSTALLATION OF WIRELESS COMMUNICATION CONTROL UNIT.

C3 PROVIDE TWO DOUBLE-GANG RINGS (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT STUBBED UP INTO THE CEILING SPACE. ONE RING SHALL BE ABOVE THE COUNTER AND ONE BELOW WITH A 2" CONDUIT BETWEEN THE RINGS.

C4 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" EMPTY CONDUIT STUBBED UP INTO THE ACCESSIBLE CEILING SPACE FOR OWNER'S VOIP PHONE JACK AND CABLES.

C5 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 3/4" EMPTY CONDUIT STUBBED UP INTO THE ACCESSIBLE CEILING SPACE FOR FUTURE MENU BOARD CABLES.

## MUSIC KEYNOTES

M1 PROVIDE JUNCTION BOX WITH STAINLESS STEEL COVER PLATE AND 3/4" HOLE IN PLATE WITH GROMMET ON HOLE IN PLATE. EXTEND 3/4" CONDUIT UP IN WALL TO ABOVE CEILING FOR MUSIC SYSTEM.

M2 NOT USED.

M3 THREE SINGLE GANG EXTRA DEEP J-BOXES STACKED WITH A 1/2" CONDUIT FROM EACH TO THE TOP J-BOX BOX AND A 1" CONDUIT STUBBED INTO THE CEILING SPACE FOR MUSIC SYSTEM VOLUME CONTROLS PROVIDED BY OWNER'S VENDOR.

M4 PROVIDE A SINGLE GANG EXTRA DEEP JUNCTION BOX AT 74" AFF WITH 1/2" CONDUIT STUBBED INTO THE CEILING SPACE FOR MUSIC SYSTEM VOLUME CONTROLS.

## POS DATA KEYNOTES

R1 PROVIDE A 'RETROFIT' DOUBLE-GANG RING (CARLON #SC200RR) FOR OWNER'S DEVICE PLATE WITH A 3" EMPTY CONDUIT AT THE OPENING STUBBED UP INTO THE CEILING SPACE FOR OWNER'S DATA CABLES.

R2 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" CONDUIT EXTENDING UP INTO THE CEILING SPACE FOR POS MONITOR(S). COVER PLATE PROVIDED BY OWNER'S POS SYSTEM VENDOR.

R3 PROVIDE A 2" CONDUIT FROM FACE OF WALL AND EXTEND CONDUIT TO JUNCTION BOX IN CEILING SPACE ABOVE SERVING AREA. CONDUIT SHALL TERMINATE FLUSH WITH FACE OF WALL BELOW COUNTER. CUSTOM STAINLESS STEEL COVER PLATE IN WALL WITH GROMMET ON 2" DIAMETER HOLE AT CONDUIT TERMINATION IN WALL.

R4 PROVIDE A 'RETROFIT' SINGLE GANG RING (CARLON #SC100RR) FOR OWNER'S DEVICE PLATE WITH A 2" EMPTY CONDUIT AT THE OPENING STUBBED UP INTO THE CEILING SPACE FOR OWNER'S DATA CABLES.

R5 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" CONDUIT EXTENDING UP INTO THE CEILING SPACE FOR POS TERMINAL. POS SYSTEM SUPPLIER WILL PROVIDE COVER PLATE ON BOX.

R6 PROVIDE SINGLE GANG EXTRA DEEP JUNCTION BOX MOUNTED ON THE MOUNTING PLATE WITHIN THE FRONT SERVING COUNTER CASEWORK. MOUNT BOX ADJACENT TO THE RECEPTACLE FOR EQUIPMENT 180. DO NOT MOUNT BOX BETWEEN EQUIPMENT 180 AND EQUIPMENT 182 RECEPTACLES.

R7 PROVIDE A SINGLE GANG BOX FLUSH MOUNTED IN THE CEILING FOR THE POS DATA PLATE (BY OTHERS) FOR THE SALAD PREP AREA POS MONITOR AND PRINTER.

## CO2 DETECTOR NOTES

G1 CO2 CENTRAL CONTROL UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G2 CO2 ANNUNCIATOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G3 CO2 SENSOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 12" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G4 CO2 POWER SUPPLY - PROVIDE SINGLE-GANG BACKBOX AT 18" BELOW CEILING WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE. PROVIDE DUPLEX OUTLET, AND CONNECT TO A LOCAL GENERAL OUTLET CIRCUIT. FIELD VERIFY EXACT LOCATION WITH STRONG SYSTEMS 800-500-5566

## POWER PLAN GENERAL NOTES

1. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
2. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
4. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
5. THE ELECTRICAL INSTALLER SHALL COORDINATE THE ROUTING OF ALL CONDUIT IN THE BUILDING WITH OTHER TRADES (SPECIFICALLY THE DUCTWORK INSTALLATION) TO AVOID CONFLICTS OF SPACE REQUIREMENTS IN WALLS AND CEILING SPACES.

## KEYNOTE NOTE

THIS IS A GENERAL LISTING OF ALL KEYNOTES FOR THE LIGHTING PLAN AND THE POWER PLANS. NOT ALL KEYNOTES ARE USED ON THE PLANS.

## ROOF POWER KEYNOTES

1 ROUTE ELECTRICAL CONDUITS TO UNIT CONNECTIONS THROUGH WEATHERPROOF RACEWAY FURNISHED WITH UNIT. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.

2 MOUNT WEATHER-PROOF FUSED DISCONNECT SWITCHES FOR WIC AND WIF CONDENSERS ON UNISTRUT WITH CONDUIT DOWN INTO CEILING SPACE BELOW THRU ROOF PENETRATION DEVICE (NOT THRU ROOF), SEE THE ARCHITECTURAL ROOF PENETRATION DETAIL(S) FOR FURTHER INFORMATION. PROVIDE FUSE SIZE PER MANUFACTURER REQUIREMENTS.

3 CONNECT ONE PHOTOCELL ON ROOF TO THE CFA-T500 CONTROL PANEL TERMINALS AND ONE PHOTOCELL ON ROOF TO THE ORDER/OMD CANOPY CONTROL PANEL AS DIRECTED BY SUNCOAST ENVIRONMENTAL INC WIRING DIAGRAMS. PHOTOCELLS ON THE ROOF FURNISHED WITH CONTROL PANELS ORDER (SUNCOAST) AND INSTALLED BY CONTRACTOR.

4 COORDINATE EXACT LOCATION OF CONDUIT AND DISCONNECT AT EXHAUST FAN. CONDUIT SHALL BE INSTALLED THROUGH ROOF ON OUTSIDE OF FAN CURB. CONDUIT SHALL BE LOCATED AT FAN HINGE SUCH THAT THE FAN HOOD CAN BE FULLY HINGED OPEN AND NOT TOUCH THE CONDUIT. PROVIDE 14" DIAMETER LOOP IN THE FLEXIBLE CONDUIT BETWEEN THE ROOF AND THE FAN ELECTRICAL CONNECTION.

5 NOT USED.

6 NOT USED.

7 NOT USED.

8 COORDINATE EXACT LOCATION OF CONDUIT AND DISCONNECT AT EXHAUST FAN. CONDUIT SHALL BE ROUTED WITH DUCTWORK WITHIN FAN ROOF CURB AND TO THE FAN WIREWAY. PROVIDE SEALTIGHT FITTINGS AS THE CONDUIT ENTERS AND LEAVES THE DUCTWORK. INTERLOCK WITH LIGHTING CIRCUIT IN RESTROOM. REFER TO THE LIGHTING PLAN FOR CONTINUATION.

9 MOUNT TYPE 'OC' LIGHTING FIXTURE, WITH INTEGRAL SLIPFITTER, ON PIPE. PIPE WILL BE PROVIDED BY OTHER TRADES. AIM LIGHTING FIXTURE AT NIGHT FOR BEST ILLUMINATION OF FLAG.

10 CONNECT POWER FROM EACH CONDENSING UNIT'S COMPRESSOR CONTACTOR TO THE EVAPORATOR COIL UNIT'S JUNCTION BOX BELOW. REFER TO ENLARGED KITCHEN POWER PLAN FOR LOCATION.

11 CONVENIENCE RECEPTACLE PROVIDED PRE-INSTALLED IN HVAC UNIT. CONNECT TO 120 VOLT CIRCUIT AS REQUIRED AND/OR AS INDICATED. (NOTE THAT ONE UNIT WILL NOT BE FURNISHED WITH AN INTEGRAL PRE-INSTALLED RECEPTACLE OUTLET. CONTRACTOR SHALL PROVIDE A GFCI TYPE 20 AMP RECEPTACLE WITH IN-USE WP COVERPLATE MOUNTED TO THE OUTSIDE OF THE ROOFTOP AC UNIT.)

12 A/C UNIT DISCONNECT IS FURNISHED WITH A/C UNIT AND SHALL BE CONNECTED BY THE CONTRACTOR.

13 EXHAUST FAN IS FURNISHED WITH A PREWIRED DISCONNECT.

## ENLARGED POWER PLAN KEYNOTES

E1 CONNECT EVAPORATOR UNIT IN FREEZER TO FREEZER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.

E2 CONNECT EVAPORATOR UNIT IN COOLER TO COOLER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.

E3 NOT USED.

E4 CONNECT AS REQUIRED TO CJ FAN VIA THE HOOD SUPPLIED SPEED CONTROLLER. CONNECT HOMERUN VIA A RELAY IN THE CFA-T500 CONTROL SECTION.

E5 ROUTE THROUGH LIGHTING CONTROL SWITCHBANK "SB" FOR THE MENUBOARD POWER. CONTROLLED BY SWITCH "F". SEE THE LIGHTING FLOOR PLAN.

E6 SEE THE ROOF ELECTRICAL PLAN FOR THE LOCATION OF THE ICE MAKER CONDENSERS AND ANY ADDITIONAL REQUIREMENTS.

E7 PROVIDE 3#12 IN 1/2" CONDUIT BETWEEN THE CFA-T500 CONTROL PANEL AND THE ANSUL SYSTEM PANEL(S). SEE ANSUL SYSTEM WIRING DIAGRAM DETAIL ON SHEET E-002 FOR ADDITIONAL INFORMATION.

E8 PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLE IN COMPLIANCE WITH THE NEC REQUIREMENT FOR KITCHEN/FOOD PREP AREAS. IF THE RECEPTACLE OUTLET IS NOT NOTED AS GFCI, THEN THE BREAKER IS TO BE GFCI TYPE.

E9 NOT USED.

E10 THE RECESSED PIN AND SLEEVE BOX WITH THE 'SLEEVE' RECEPTACLE FOR THE OPEN FRYERS (ITEMS #522 AND 522A) ARE FURNISHED BY THE EXHAUST HOOD SUPPLIER AND INSTALLED BY THE CONTRACTOR. THE OPEN FRYER SUPPLIER PROVIDES PREWIRED CORDSET WITH A PIN DEVICE INTERGRAL WITH THE OPEN FRYER TO PLUG INTO THE SLEEVE RECEPTACLE.

E11 NOT USED.

E12 SINGLE POLE SWITCH SHALL SERVE AS THE LOCAL "IN-SIGHT" MEANS OF DISCONNECT FOR EQUIPMENT ITEM AS NOTED. SEE DIRECT CONNECTION DETAILS ON SHEET E-002 FOR FURTHER INFORMATION.

E13 TWIST-LOCK 208V, 3 PHASE, 30 AMP RECEPTACLE ABOVE AD-1 AT THE DRIVE-THRU WINDOW. PROVIDE AND INSTALL A 30 AMP CORDSET WITH NEMA L14-30 PLUG INTO THE KNOCKOUT ON THE TOP OF AD-1 AND TERMINATE ON THE LUGS IN THE UNIT'S WIRING COMPARTMENT.

E14 OVERHEAD EQUIPMENT POWER (OEP) DROP CORD RECEPTACLES FROM A FLUSH MOUNTED CEILING OEP BOX (MAXIMUM OF SIX PER ASSEMBLY.) PROVIDE A.C.S OEP ASSEMBLY #12360-1000. ASSEMBLY WILL CONSIST OF A FLUSH CEILING OUTLET BOX, TWIST-LOCK PENDANT RECEPTACLES, STRAIGHT BLADE PENDANT RECEPTACLES CORDS, STRAIN RELIEF, AND TWISTLOCK PLUGS AS NOTED ON PLAN. CONTACT BRIDGID DEFRAMCESHI EMAIL: BRIDGID1985@GMAIL.COM (800-639-7584) TO PURCHASE OEP BOX AND DROP CORD/RECEPTACLES. PROVIDE LIQUID-TIGHT CONDUIT WITH CONDUCTORS FOR DIRECT CONNECTED EQUIPMENT. CONDUIT SHALL NOT TOUCH THE FLOOR WHEN EQUIPMENT IS IN PLACE. USE SUPPORT GRIPS W/ SUPPORT HOOK ATTACHED TO SHELVING ABOVE AS NEEDED. FASS & SEYMOUR MODEL #FS075-U-GH5 OR EQUIVALENT.

E15 PROVIDE A DOUBLE-GANG BOX FLUSH MOUNTED IN THE CEILING WITH A BLANK PLATE WITH HOLE FOR A DROP CORD. PROVIDE THE #12 DROP CORD (WITH STRAIN RELIEF AT THE BOX AND AT THE OUTLET BACKBOX) AND CONNECT THE CORD TO AN OUTLET BOX CONTAINING TWO 15 AMP IG (ORANGE) RECEPTACLE OUTLETS. OUTLET BOX TO BE MOUNTED TO THE OVERHEAD SHELVING AT THE PRINTER AND MONITOR MOUNTING BRACKET.

## POS POWER KEYNOTES

P1 PROVIDE ORANGE ISOLATED GROUND (IG) DUPLEX RECEPTACLE.

P2 PROVIDE GROUND FAULT PROTECTION FOR THESE DEVICES VIA A GROUND FAULT CIRCUIT BREAKER IF LOCAL CODE DEFINES THIS A FOOD PREPARATION AREA.

P3 USE TYPE MC CABLE FOR THE ISOLATED GROUND CIRCUIT: #12 HOT, NEUTRAL, GREEN GROUND, STRIPED ISOLATED GROUND. EACH 15 AMP HOMERUN SHALL BE DEDICATED TO A CIRCUIT BREAKER VIA DEDICATED CONDUCTORS WITHIN A CABLE ASSEMBLY. ALL MC CABLES SHALL BE RUN OVERHEAD ABOVE THE CEILING AND RACKED TOGETHER ON J-HOOKS. NO SPLICES IN ANY HOMERUN CABLES FROM FIRST RECEPTACLE TO BREAKER.

P4 THE RECEPTACLE BACKBOX AND SYSTEM CABLE JUNCTION BOX FOR ITEMS 180 AND 182 SHALL BE TURNED HORIZONTAL. REFER TO THE KITCHEN EQUIPMENT ROUGH-IN ELEVATIONS FOR ADDITIONAL INFORMATION.



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GREGORY D. TAYLOR
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No. 77811
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PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 2 | 01-18-2022 | PERMIT REVISION #2 |

PERMIT

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SHEET
LIGHTING AND POWER PLAN KEYNOTES

SHEET NUMBER
**E-003**

## ELECTRICAL SITE PLAN KEYNOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

1. PROPOSED LOCATION OF SECONDARY UNDERGROUND ELECTRICAL UTILITY LINES.
2. PROPOSED LOCATION OF PAD MOUNTED TRANSFORMER FURNISHED BY THE ELECTRICAL UTILITY COMPANY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE:
   - A. PROVIDE THREE 4", SCH. 40 PVC CONDUIT TO UTILITY SOURCE, AT MINIMUM 30" BELOW FINISHED GRADE AND IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY PRIOR TO BID.
   - B. SECONDARY SERVICE LATERAL FROM UTILITY TRANSFORMER TO PANEL 'MDP' VIA THE CURRENT TRANSFORMER CABINET. SEE SHEET E-502, "SINGLE-LINE DIAGRAM". REFER TO "ELECTRICAL SERVICE LATERAL CONDUIT DETAIL", SHEET E-101, FOR ADDITIONAL INFORMATION.
   - C. CONCRETE PAD FOR UTILITY TRANSFORMER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.
   - D. METERING CONDUIT. SEE NOTE-14.
3. LOCATION OF TERMINATION OF SECONDARY SERVICE LATERAL AT PANEL 'MDP'. REFER TO "SINGLE-LINE".
4. A. PROVIDE TWO 2" SCH. 40 PVC CONDUIT (ONE IS A SPARE), MINIMUM 24" BELOW FINISHED GRADE, FOR TELEPHONE SERVICE FROM TELEPHONE UTILITY SOURCE TO JUNCTION BOX INSIDE THE BUILDING. REFER TO SHEET E-221 FOR LOCATION OF JUNCTION BOX IN SERVICE AREA. REFER TO "TELEPHONE SERVICE CONDUIT DETAIL", SHEET E-101, FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF UTILITY SOURCE WITH TELEPHONE UTILITY. TERMINATE CONDUITS AT UTILITY SOURCE AS REQUIRED BY THE UTILITY COMPANY.
   - B. PROVIDE ONE 3" SCH. 40 PVC CONDUIT, MINIMUM 24" BELOW FINISHED GRADE, FOR ISP SERVICE FROM UTILITY SOURCE TO JUNCTION BOX INSIDE THE BUILDING. REFER TO SHEET E-221 FOR LOCATION OF JUNCTION BOX IN BUILDING. REFER TO "TELEPHONE SERVICE CONDUIT DETAIL", SHEET E-101, FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF UTILITY SOURCE WITH SERVICE SUPPLY COMPANY. TERMINATE CONDUITS AT AS REQUIRED BY THE UTILITY COMPANY.
5. LOCATION OF DUMPSTER. REFER TO "REFUSE ENCLOSURE PLAN - ELECTRICAL", SHEET E-303 FOR ELECTRICAL REQUIREMENTS IN THIS AREA.
6. REFER TO SHEET E-303 FOR ELECTRICAL REQUIREMENTS AT MENU BOARD, DRIVE-THROUGH CANOPY, AND PRESELL MENU BOARD.
7. REFER TO SHEETS E-901, & E-902 FOR ELECTRICAL SPECIFICATIONS PERTAINING TO ELECTRICAL WORK DESCRIBED ON THIS SHEET.
8. REFER TO SHEET E-211 FOR LIGHTING FIXTURE SCHEDULE.
9. PROVIDE UNDERGROUND CONDUIT TO JUNCTION BOX IN OFFICE FOR POLE MOUNTED SECURITY CAMERA. REFER TO SHEET E-302 FOR LOCATION OF JUNCTION BOX IN OFFICE AND REQUIRED SIZE OF CONDUIT. COORDINATE EXACT CAMERA LOCATION WITH CHICK-FIL-A SECURITY SYSTEM REPRESENTATIVE PRIOR TO ROUGH-IN.
10. CONNECT SITE LIGHTING CIRCUITS TO TERMINAL BLOCKS LOCATED IN THE "CFA-T500" CONTROL PANEL (TYPICAL). SEE PANEL SCHEDULES ON SHEET E-501.
11. CONNECT SITE SIGNAGE CIRCUITS TO TERMINAL BLOCKS LOCATED IN THE "CFA-T500" CONTROL PANEL (TYPICAL). SEE PANEL SCHEDULES ON SHEET E-501. COORDINATE LOCATIONS OF ALL SIGNS WITH CHICK-FIL-A REPRESENTATIVE PRIOR TO BID AND PRIOR TO CONDUIT INSTALLATION.
12. PROVIDE GFCI TYPE WEATHERPROOF RECEPTACLE MOUNTED ON MAIN SIGN SUPPORT +14" AFG. THIS RECEPTACLE SHALL NOT BE SWITCHED. (BYPASS THE CONTACTOR AND SIGN'S DISCONNECT SWITCH.)
13. PROVIDE WEATHERPROOF 20A SPST TOGGLE SWITCH 18" AFG AND CONNECTION TO MAINTENANCE DISCONNECT SWITCH FOR MAIN I.D. SIGN. (3)
14. PROPOSED LOCATION OF TRANSFORMER MOUNTED ELECTRICAL UTILITY METER. METER BASE WILL BE FURNISHED BY THE UTILITY COMPANY AND INSTALLED BY THE CONTRACTOR. THE CURRENT TRANSFORMER SHALL BE FURNISHED AND INSTALLED IN THE TRANSFORMER COMPARTMENT BY THE UTILITY COMPANY. COORDINATE LOCATIONS AND REQUIREMENTS WITH ELECTRIC UTILITY COMPANY PRIOR TO BID.
15. PROVIDE A 12' POLE FOR MOUNTING OF SECURITY CAMERA. POLE TO MATCH SITE LIGHTING POLES IN STYLE AND COLOR.

## GENERAL ELECTRICAL SITE PLAN NOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

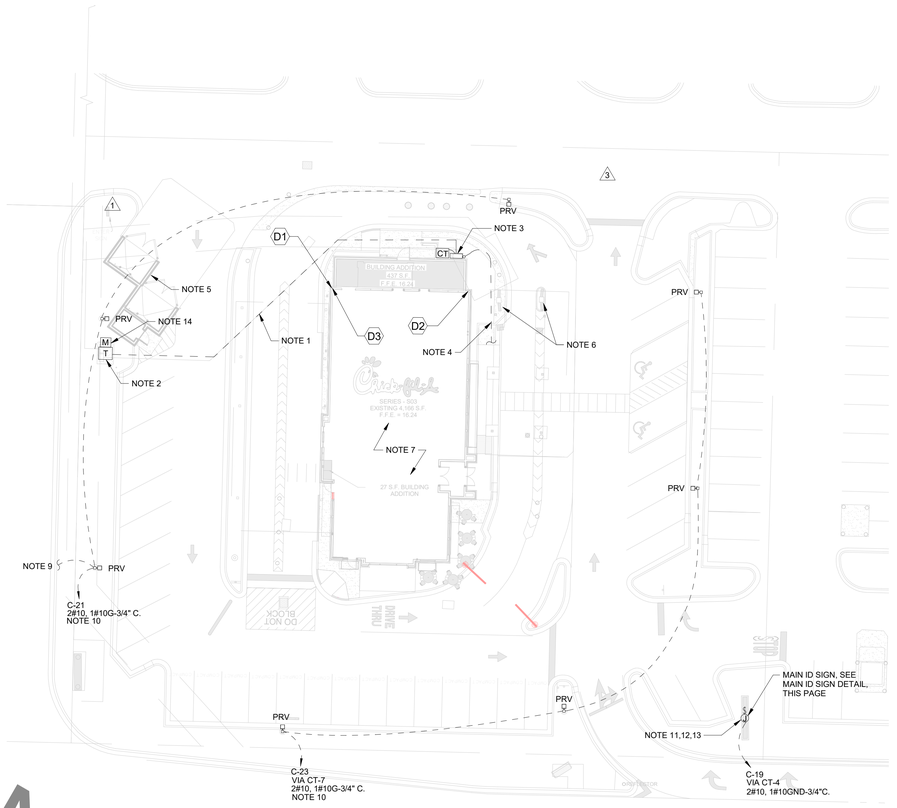
1. VERIFY WITH LOCAL AUTHORITIES AND UTILITIES THAT OWNER'S SIGNS, POLES, AND THEIR APPURTENANCES ARE NOT LOCATED ON OR OVER ANY EASEMENT OR MUNICIPAL RIGHT OF WAY.
2. SITE WORK, UTILITY, AND ROADWAY INFORMATION ARE TAKEN FROM BOUNDARY AND TOPO SURVEY SITE PLANS. REFER TO C-DRAWINGS.
3. MINIMUM CONDUIT SIZE SHALL BE 3/4"C. MINIMUM CONDUCTOR SIZE SHALL BE #10AWG COPPER UNLESS OTHERWISE NOTED.
4. REFER TO BUILDING ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING CONTROL.
5. FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ONLY NEW AND U.L. LABELED ELECTRICAL EQUIPMENT, UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS.
6. FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL CONTACT ALL UTILITIES FOR VERIFICATION AND IDENTIFICATION OF ALL UNDERGROUND RUNS, PRIOR TO SITE TRENCHING ("CALL BEFORE YOU DIG").
7. FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70), AND THE LIFE SAFETY CODE (NFPA 101), AS ADOPTED AND/ OR AMENDED BY STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.
8. FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATIONS OF ALL UTILITY SERVICE RUNS, ORIGINATIONS, TERMINATIONS AND ANY INSTALLATION REQUIREMENTS (i.e. ELECTRICAL, TELEPHONE, WATER, GAS, SEWAGE, ETC.), AS RELATED TO THIS JOB, OR THEREBY EFFECTED.

## POWER/TELEPHONE UTILITIES:

COORDINATE AND COMPLY WITH ALL TELEPHONE AND ELECTRICAL UTILITY REQUIREMENTS. THE FOLLOWING PERSONS SHALL BE CONTACTED FOR SPECIFIC UTILITY COMPANY REQUIREMENTS:

ELECTRICAL UTILITY: ATTN.: FPL SUNRISE
FLORIDA POWER AND LIGHT
(800) 468-8243

TELEPHONE UTILITY : JOSE VILLEGAS
AT&T
(954) 423-6172



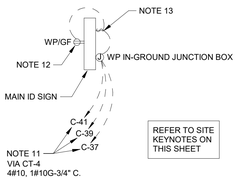

## DT CASH STATION - KEYNOTES

- (D1) LOCATION OF A 360 DEGREE BUILDING MOUNTED EXTERIOR CAMERA (BY OTHERS). PROVIDE A 3/4" CONDUIT AT 9'-4" AFF TO AN EXTERIOR WALL MOUNTED WP JUNCTION BOX WITH THE CONDUIT ABOVE THE INTERIOR CEILING AND EXTENDED TO AN ACCESSIBLE CEILING AREA FOR CAMERA CABLES BY OTHERS.
- (D2) PROVIDE AN EXTERIOR DUPLEX 120V, 20A RECEPTACLE AT 18"AFF WITH 'IN-USE' STYLE LOCKABLE WP COVER AND CONNECT TO A GENERAL PURPOSE 120V RECEPTACLE CIRCUIT.
- (D3) PROVIDE A JUNCTION BOX ON THE INSIDE PARAPET WALL ABOVE THE ROOF WITH A 3/4" CONDUIT STUBBED DOWN INTO AN ACCESSIBLE CEILING SPACE AREA BELOW FOR THE OWNER PROVIDED WI-FI EXTERIOR ANTENNAE.

C1 ELECTRICAL SITE PLAN
1" = 20'-0"

## ELECTRICAL SITE PLAN SYMBOLS

| SYMBOL | DESCRIPTION (UNLESS OTHERWISE NOTED ON PLANS) |
|---|---|
| T | UTILITY COMPANY TRANSFORMER, (208 VOLT, 3 PHASE, 4 WIRE SECONDARY) |
| $ | S.P.S.T. LIGHT SWITCH (600V AC QUIET TYPE) |
| GF | GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE |
| | CONDUIT HOMERUN TO PANEL |
| J | JUNCTION BOX (SINGLE GANG STEEL WHERE WALL MOUNTED, 4" SQ. STEEL WHERE CEILING MOUNTED, UNLESS NOTED OTHERWISE) |
| | CONDUIT BURIED BELOW GRADE |
| | POLE MOUNTED SITE LIGHTING FIXTURE. |




A1 MAIN ID SIGN DETAIL
N.T.S.

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PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 3 | 08-01-2022 | BID ADDENDUM #1 |

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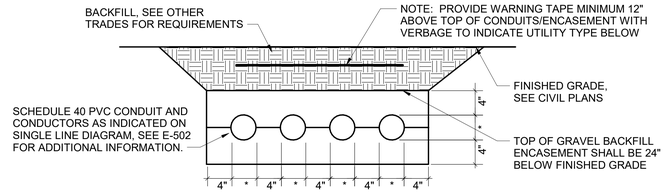
SHEET
ELECTRICAL SITE PLAN

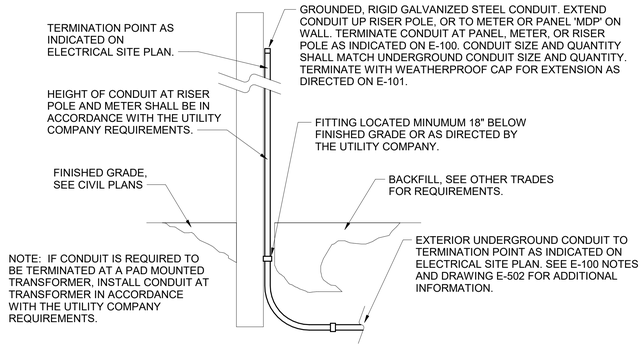
SHEET NUMBER
**E-100**




NOTE:
WHERE THE SECONDARY CONDUITS FROM THE UTILTY TRANSFORMER TO THE CURRENT TRANSFORMER CABINET (OR MAIN PANELBOARD) ARE FURNISHED BY THE UTILITY COMPANY (FOR INSTALLATION BY THE CONTRACTOR) OR ARE FURNISHED AND INSTALLED BY THE UTILITY COMPANY, THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY PRIOR TO BID. REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.

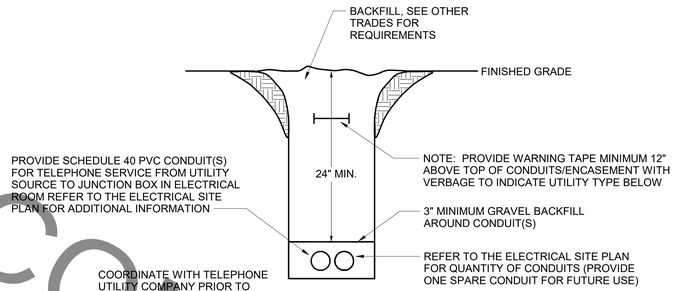
## E1 ELECTRICAL SERVICE LATERAL CONDUIT DETAIL

1/4" = 1'-0"



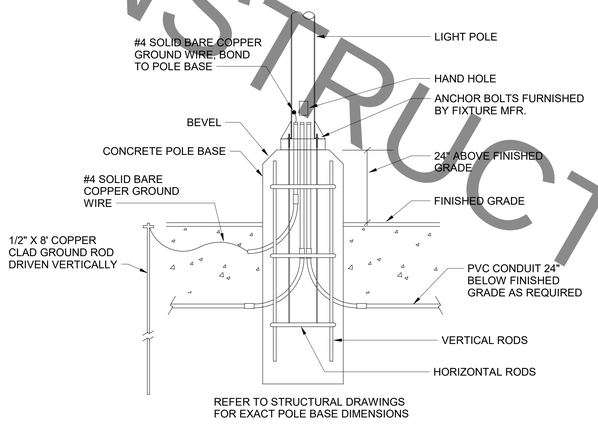

## C1 EXTERIOR CONDUIT TURN UP DETAIL

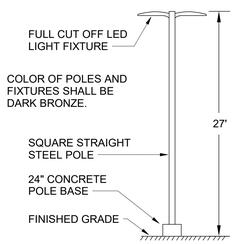
N.T.S.




## B1 TELEPHONE SERVICE CONDUIT DETAIL

N.T.S.




## A3 SITE LIGHTING POLE DETAIL

N.T.S.

## A1 TYPICAL LIGHT POLE BASE DETAIL

N.T.S.

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Lndscp. Lic. No. LC0000298

GREGORY D. TAYLOR
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STATE OF FLORIDA
PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|

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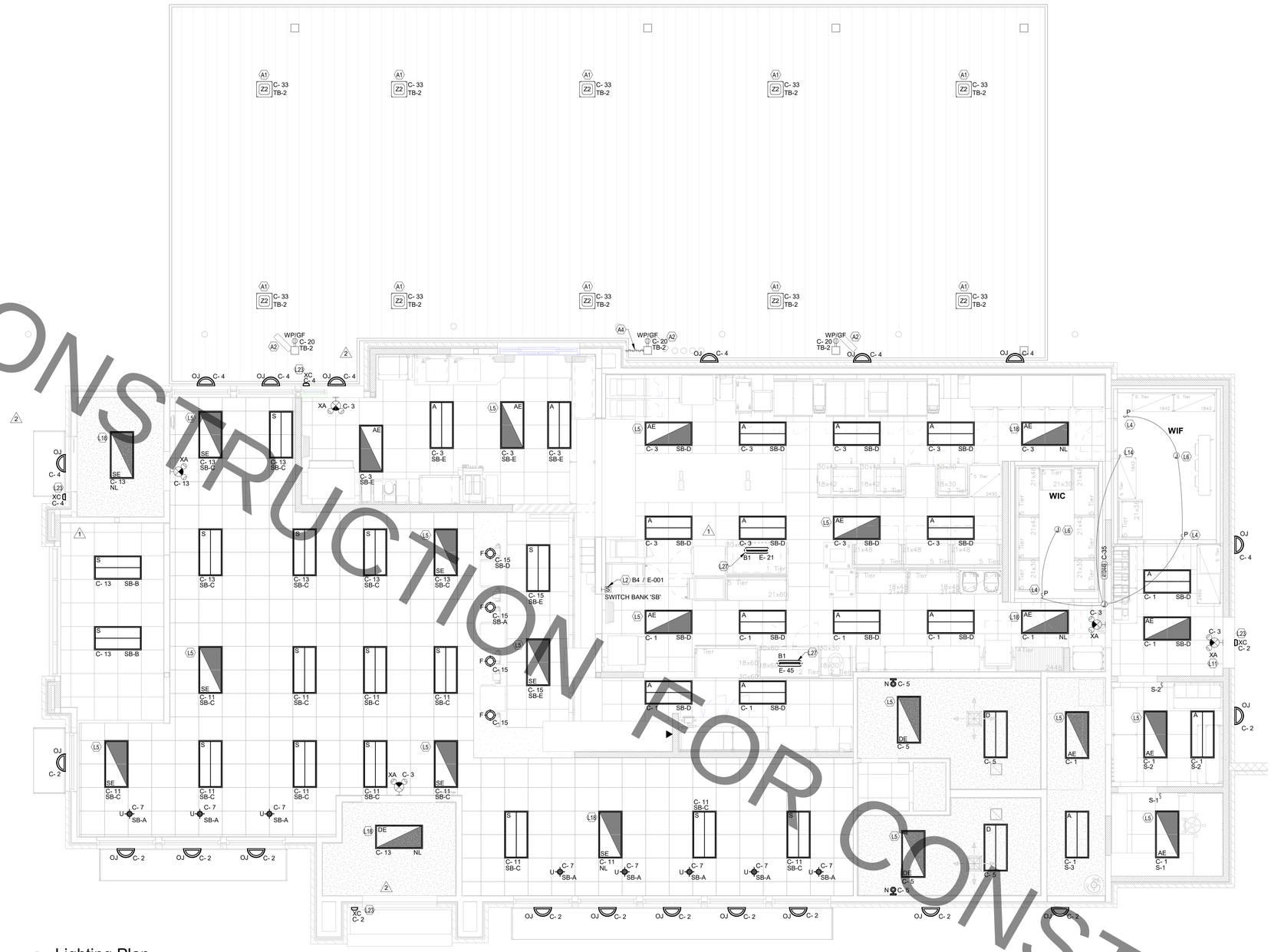
SHEET
ELECTRICAL SITE DETAILS

SHEET NUMBER
**E-101**




1 Lighting Plan
1/4" = 1'-0"

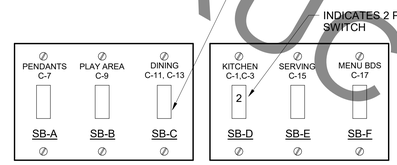
REFER TO SHEET E-003 FOR KEYNOTES

LIGHTING FIXTURE (LUMINAIRE) SCHEDULE

NOTE: NOT ALL FIXTURE TYPES ARE USED IN ALL OF THE P13 BUILDINGS. CONFIRM WITH THE LIGHTING VENDOR FOR ANY UPDATES TO THE CURRENT LIGHTING MANUFACTURER AND CATALOG NUMBER.

| MARK | MANUFACTURER | CATALOG NUMBER | NO. LAMPS/TYPE | WATTS | VOLTS | MOUNTING | REMARKS |
|---|---|---|---|---|---|---|---|
| A | COOPER/METALUX | 24FP644OC | INTEGRAL WITH FIXTURE | 59 VA | 120 V | | 2'X4' STATIC LED TROFFER RATED 7200 LUMENS, 4000K TEMP |
| AE | COOPER/METALUX | 24FP644OC-EL14W | INTEGRAL WITH FIXTURE | 59 VA | 120 V | | SAME AS 'A' WITH EMERGENCY BATTERY PACK. SEE PLAN NOTE ABOUT SWITCHING |
| B1 | COOPER/METALUX | 2VT3-LD5-4-G-120V-L840-CD1-SSL-U | INTEGRAL WITH FIXTURE | 32 VA | 120 V | SURFACE | MOUNT LIGHT TO BTM OF OVERHEAD WIRE SHELVING WITH CORD & PLUG |
| D | COOPER/METALUX | 24AC-LD5-55-UNV-L830-CD-1-U/DF-24-W | INTEGRAL WITH FIXTURE | 49 VA | 120 V | | TOILET/VESTIBULE AREA, 2'X4' LED BASKET TROFFER WITH DRYWALL FRAME KIT |
| DE | COOPER/METALUX | 24AC-LD5-55-UNV-EL14W-L830-CD-1-U/DF-24-W | INTEGRAL WITH FIXTURE | 49 VA | 120 V | | SAME AS 'D' WITH EMERGENCY BATTERY PACK. |
| F | MEYA | 30894-8 (144638) | INTEGRAL WITH FIXTURE | 12 VA | 120 V | | EGG LIGHT FURNISHED WITH A 12 WATT A19-GU24 LED LAMP |
| G1 | COOPER/METALUX | 4SLSTP4040DD-UNV | INTEGRAL WITH FIXTURE | 44 VA | 120 V | SURFACE | 4760 LUMEN 4 FOOT LENSED LED STRIPLIGHT, MTD ABOVE DOOR FRAME |
| N | MINKA | 4531-267B | INTEGRAL WITH FIXTURE | 11 VA | 120 V | | LAVATORY WALL SCONCE-SHADE POINTED DOWN W/ LED LAMP & CL ON LAVATORY |
| OC | HUBBELL | FLL-42L-95-4K7-N-U-K-DB (SEE NOTE 4) | INTEGRAL WITH FIXTURE | 97 VA | 120 V | PIPE | FLOODLIGHT MTD ON ROOF ON 2" PIPE SUPPORT (BY OTHERS) AND AIMED AT FLAG AFTER DARK |
| OJ | SECURITY LIGHTING | RSWC-72L-3K-UD-U-DB | INTEGRAL WITH FIXTURE | 25 VA | | | UP/DOWN LED EXTERIOR WALL SCONCE. SEE ELEVATIONS FOR MOUNTING HEIGHT. |
| OK | HUBBELL | LNC-5LU-3K-3-1 | INTEGRAL WITH FIXTURE | 13 VA | 120 V | WALL | LED WALLPACK W/ CENTERLINE OF FIXTURE AT 8'0" ABV 0'0" (FINISH FLOOR LINE) |
| PRV | COOPER/LUMARK | LUMINAIRE: PRV-C60D-UNV-**-SA-BZ (DISTRIBUTION TYPES TO BE DETERMINED BY THE REGIONAL TEAM SPECIFIC TO THE SITE) POLE: SSS-4A-25-SFM-1-4 (SINGLE LUMINAIRE) | INTEGRAL WITH FIXTURE | 153 VA | 120 V | POLE W/CONCRETE BASE | COORDINATE WITH THE SPECIFIC SITE CONDITIONS FOR THE TYPE OF POLES REQUIRED, THE HEIGHT, AND THE CONFIGURATION. CONTACT VENDOR IF HIGHER THAN 100 MPH WIND LOADING REQUIRED. |
| S | COOPER/METALUX | 24AC-LD5-55-UNV-L830-CD-1-U | INTEGRAL WITH FIXTURE | 49 VA | 120 V | | DINING AREA, 2'X4' VOLUMETRIC RECESSED LED TROFFER |
| SE | COOPER/METALUX | 24AC-LD5-55-UNV-EL14W-L830-CD-1-U | INTEGRAL WITH FIXTURE | 49 VA | 120 V | | SAME AS 'A' WITH EMERGENCY BATTERY PACK. |
| U | BESA LIGHTING | BES00298-060 | FURNISHED | 8 VA | 120 V | PENDANT | RED FRIT GLASS, BRONZE CABLE & CANOPY, 6'-6" AFF |
| XA | COOPER/SURE-LITES | APCH7R | INTEGRAL WITH FIXTURE | 4 VA | 120 V | WALL | EXIT SIGN WITH BATTERY PACK AND TWO INTEGRAL ADJUSTABLE LAMPHEADS |
| XC | LITHONIA | AFF-PEL-DDBTXD-UVOLT-LTP-FCT | INTEGRAL WITH FIXTURE | 12 VA | 120 V | WALL | EXTERIOR WALL MOUNTED EMERGENCY LIGHTING UNIT, LOCATE NEAR EGRESS DOOR |
| Z2 | LSI | CRUS-SC-LED-LW30-UE-WHT | INTEGRAL WITH FIXTURE | 74 VA | 120 V | | CANOPY LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR |

NOTES:
1. LUMINAIRES UTILIZING DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OF EXTERNAL TO EACH LUMINAIRE PER NEC 410.130(G).
2. THE LIGHTING FIXTURE PACKAGE IS AVAILABLE THROUGH A NATIONAL ACCOUNT PROGRAM. REFER TO THE ELECTRICAL SPECIFICATIONS SHEET, SECTION C16500 FOR VENDOR INFORMATION.
3. THE ASTERIK (*) BESIDE THE FIXTURE MARK IN THE ABOVE SCHEDULE INDICATES THE FIXTURE IS A NON-PROTOTYPICAL LIGHT FIXTURE PER THE CFA NATIONAL P13 PROTOTYPE.
4. IF TYPE OC IS GROUND MOUNTED IN LIEU OF ROOF MOUNTED, PROVIDE EITHER THE FLL-VISOR-DB (VISOR) OR THE FLL-LOUVER-BL (LOUVER) FOR GLARE CONTROL.




NOTE: LOCATE JUNCTION BOXES IN CEILING SPACE ABOVE THE LOCATION OF THE SWITCHBANK FOR SPLICING OF LINE, LOAD, AND SWITCHED CONDUCTORS. PROVIDE GANGED BACKBOX FOR SWITCHES AS REQUIRED AND LABEL ALL CONDUCTORS SO AS TO INDICATE THEIR USE (LINE, LOAD, SWITCH), THE LOAD SERVED, AND THE CIRCUIT NUMBER.

A1 SWITCH BANK "SB" DETAIL
NO SCALE

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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GREGORY D. TAYLOR
LICENSE
No. 77811
STATE OF FLORIDA
PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 2 | 01-18-2022 | PERMIT REVISION #2 |

PERMIT

CONSULTANT PROJECT # C29144
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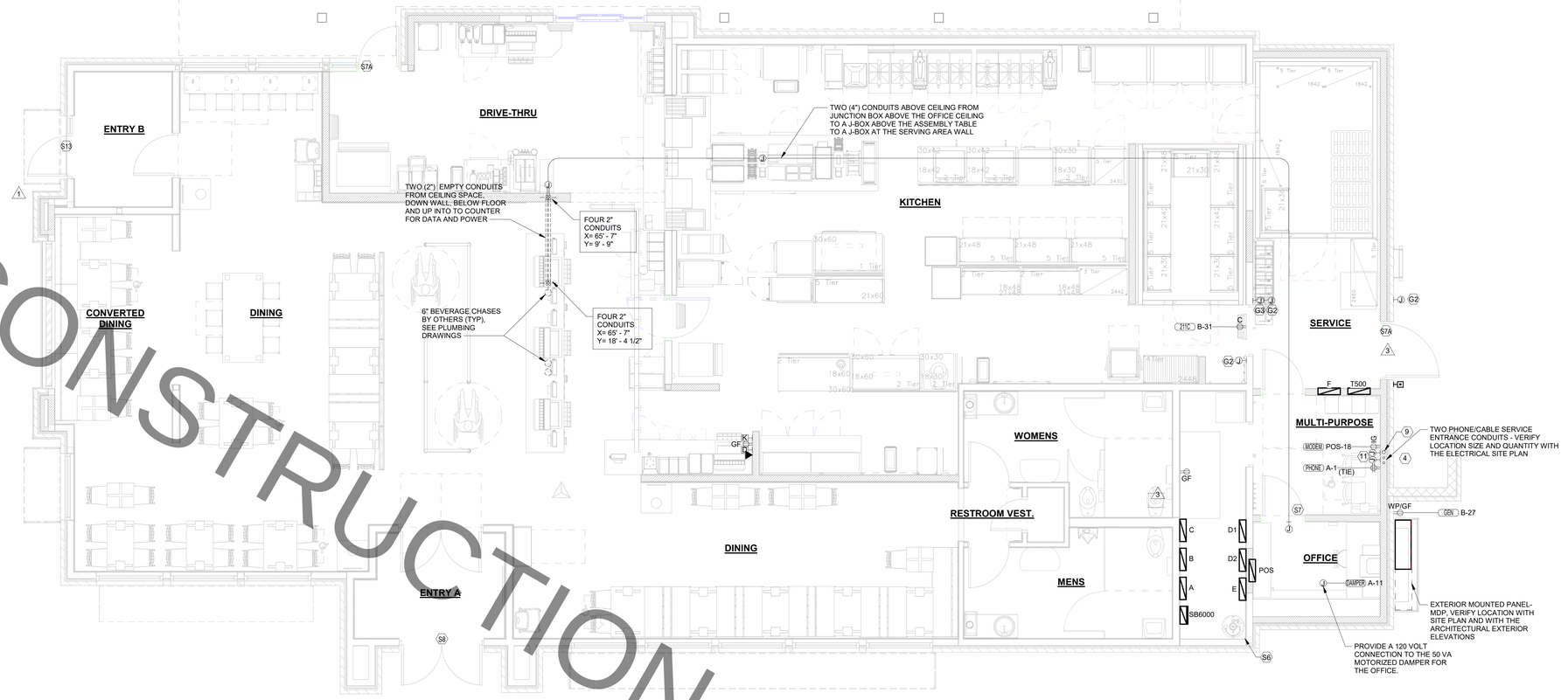
SHEET
LIGHTING PLAN

SHEET NUMBER
**E-211**

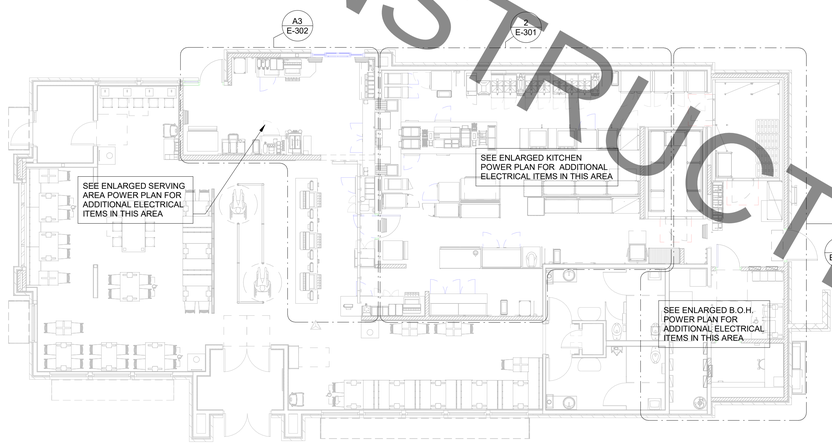



C1 POWER AND SYSTEMS PLAN

1/4" = 1'-0"

REFER TO SHEET E-003 FOR KEYNOTES

REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL REQUIREMENTS FOR THE DRIVE-THRU CASH STATION ("D" KEYNOTES)




A1 ELECTRICAL KEY PLAN

1/8" = 1'-0"



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BUILDING TYPE / SIZE: S03
RELEASE: 21.05

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| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 3 | 08-01-2022 | BID ADDENDUM #1 |

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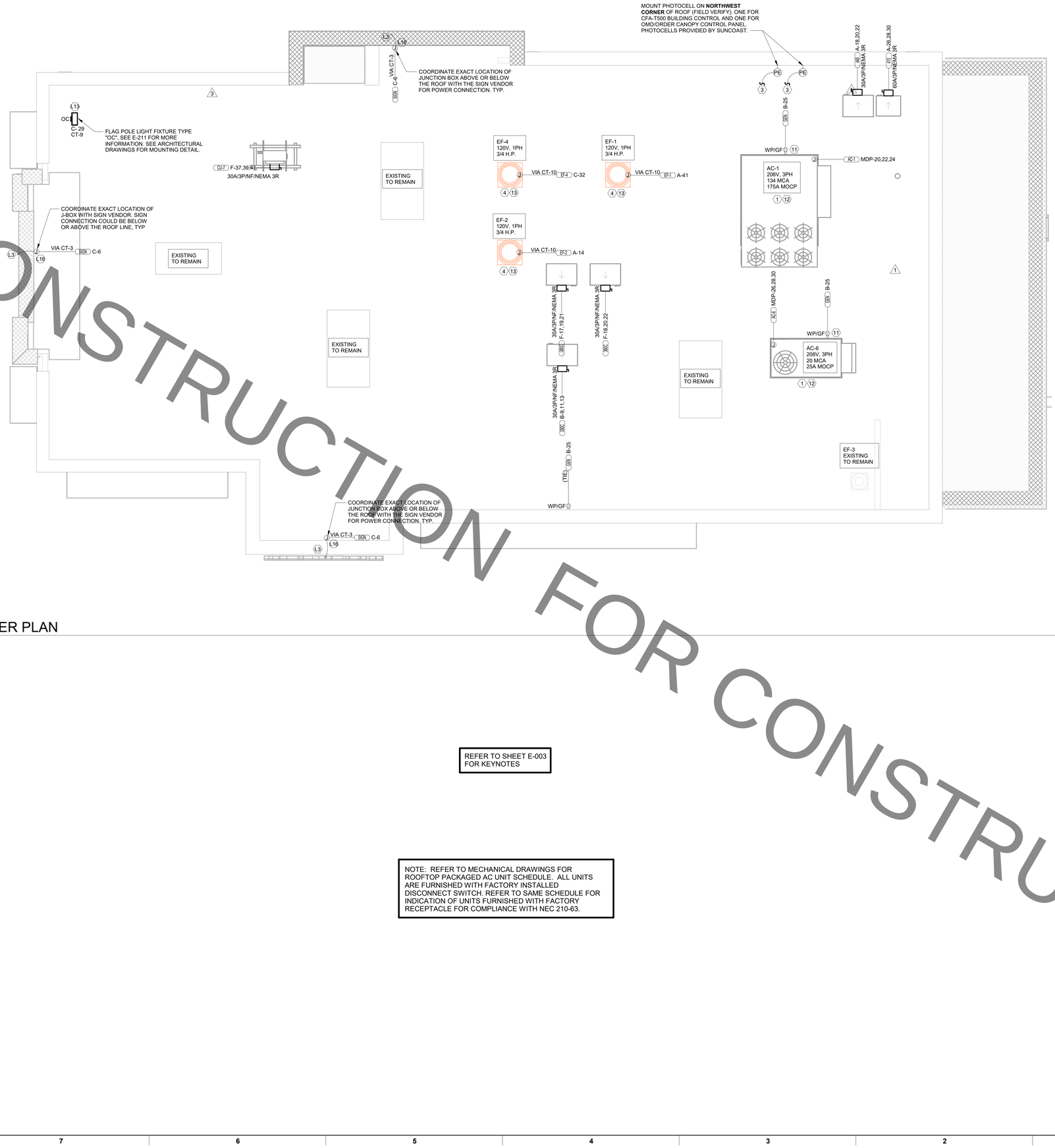
SHEET
POWER AND SYSTEMS PLAN

SHEET NUMBER
E-221




C1 ROOF POWER PLAN
1/4" = 1'-0"

REFER TO SHEET E-003 FOR KEYNOTES

NOTE: REFER TO MECHANICAL DRAWINGS FOR ROOFTOP PACKAGED AC UNIT SCHEDULE. ALL UNITS ARE FURNISHED WITH FACTORY INSTALLED DISCONNECT SWITCH. REFER TO SAME SCHEDULE FOR INDICATION OF UNITS FURNISHED WITH FACTORY RECEPTACLE FOR COMPLIANCE WITH NEC 210-63.



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SHEET
ROOF POWER PLAN

SHEET NUMBER
**E-250**

SECTION C16124
SUPPORTING DEVICES AND HANGERS

PART 1 - PRODUCTS

1.01 ACCEPTABLE MANUFACTURERS
A. Supporting devices and hangers shall be manufactured by RACO Fasteners, or approved equivalent.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Secure conduits to within 3' of each outlet box, junction box, cabinet, fitting, etc., and at intervals not to exceed ten feet (10') and in accordance with the National Electric Code. In seismic zones, support conduits 1" and under at 6' intervals.

B. Install clamps secured to structure for feeder and other conduits routed against the structure. Use drop rods and hangers or racks to support conduits run apart from the structure.

C. Provide and install suitable angle iron, channel iron or steel metal framing with accessories to support or brace electrical equipment including safety switches, fixtures, panelboards, etc.

D. Use of chains, perforated iron, baling wire, or tie wire for supporting conduit runs is not permitted.

E. For support of low voltage wiring not required to be in conduit, bundle cables together in a neat manner using approved nylon tie wraps. Bundled cables shall be supported with "J" hooks on telephone type bridle rings, a minimum of 6 feet on centers. Clearly identify all differing types of cables being run and tag with tape tags regarding telephone, POS System, music / communication, security, etc. for various system utilizing said cable. Identification tape shall be provided at minimum intervals of 25 feet on center and within each building space.

F. Provide a system of supporting devices and hangers to insure secure support or bracing for conduit, electrical equipment, including safety switches, fixtures, panelboards, outlet boxes, junction boxes, cabinets, etc.

SECTION C16140
WIRING DEVICES AND PLATES

PART 1 - PRODUCTS

1.01 WALL SWITCHES
A. Ratings: 20 amps, 120/277 volts a.c. or as identified on drawings.

B. Devices: (Cooper/Arrow Hart catalog numbers are listed unless notedotherwise):
1. Single pole toggle switches: 20 AMP device - #AH1221-GY (Kitchen) or #AH1221-B (Dining) 20 AMP Pilot lights illuminated with load on - #AH1221-PL

2. Double pole toggle switches: 20 AMP device - #AH1222-GY (Kitchen) or #AH1222-B (Dining)

3. Three-way toggle switches: 20 AMP device - #AH1223-GY (Kitchen) or #AH1223-B (Dining)

1.02 RECEPTACLES
A. Devices: (Cooper/Arrow Hart catalog numbers are listed unless otherwise noted):
1. Specification grade devices to be 20 amp, 125 volts, a.c. receptacles:
a. Single (simplex) device: #1877-GY (Kit) or #1877-B (Dining)
b. Duplex device: #CR20-GY (Kitchen) of #CR20-B (Dining)
c. Tamper resistant duplex device: #TRCR20-B or #TR7756-B (with USB charging)
d. GF (ground-fault circuit interrupter) duplex device: #VGF20-GY (Kitchen) or #VGF20-B (Dining)
e. IG (isolated ground) duplex device: #IG5362-RN (orange face)

B. Color:
1. Devices mounted in the FRP or tile shall be gray.
2. Devices mounted in wood finish shall be brown.
3. Isolated ground receptacles shall be orange.

1.03 SPECIAL DEVICES
A. Manual motor starter switch: SQ. D Class 2510, Type F, for use on motors up to 3/4 horsepower. Provide NEMA 1 enclosure in dry locations; provide NEMA 3R enclosure in wet or exterior locations.

1.04 WALL PLATES
A. Provide blank plates on all outlet boxes for future outlets, or outlets without devices. Plate style shall match device plates.

B. Provide non-metallic weatherproof covers for duplex GF receptacles located outside or in wet locations that feature 'while-in-use' cover equivalent to Arrow Hart #WIU-1.

C. Where devices installed in exposed boxes or conduit fittings; provide properly designed plates and covers equal to Arrow Hart RS-Series exposed work covers.

D. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted boxes.

E. Color:
1. Wall plates mounted in FRP or tile shall be smooth satin stainless steel 302-ss series.
2. Wall plates mounted in wood finish shall be brown nylon plastic.
3. Isolated ground wall plates shall be orange nylon plastic with a circuit number printed in 3/16 inch black lettering on clear adhesive label adhered to plate.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Mounting
1. Mount switches and receptacles at height above finished floor as indicated on plans, and legend.
2. Mount switches on strike side of door maximum 8" from door frame. Outlet box for switch shall be located clear of door frame. Coordinate with architectural plans prior to rough-in.
3. Install switches with off position down.
4. Do not use the feed thru feature for the GF Type receptacle, unless required by the plans.
5. Use jumbo sized plates for outlets installed in masonry walls.
6. Each receptacle shall be provided with a #12 green grounding jumper between the ground terminal of the receptacle and the outlet box.
7. The grounding conductor to each receptacle shall be installed such that the removal of the device will not interfere with the continuity of the ground.

B. Testing
1. Test each switch and verify proper operation with energized circuit.
2. Test each receptacle for proper polarity on energized circuit.
3. Test each GF receptacle with a GF receptacle tester and verify circuit is opened by GF device at milli-ampere ranges established by the manufacturer.

SECTION C16440
PANELBOARDS

PART 1 - PRODUCTS

1.01 MANUFACTURER (via Chick-fil-A National Accounts Program)
A. Square-D (West, Midwest, Northeast, and Southwest Regions): from Villa Lighting, Dave Christanell (800)325-0963

B. Square-D (Atlantic and Southeast Regions): from Accu-Serv, Bob Harpring (502)961-0096.

1.02 PANELBOARD FEATURES
A. Panelboards shall have a minimum symmetrical interrupting rating to meet or exceed the available symmetrical interrupting fault current at the device intended to interrupt current.

B. Bus bars shall be copper.

C. Provide factory-installed copper ground bus in each panelboard with lugs or connectors on bar.

D. Provide electrically isolated, factory installed, neutral bus in each 3 phase, 4 wire or 1 phase 3 wire panelboard.

E. In addition to the ground bus required by paragraph 1.02D (above), provide factory installed, electrically isolated, copper ground bus in each panelboard serving isolated ground receptacles.

F. Main lugs and main circuit breaker lugs shall be UL Listed for use with both aluminum and copper conductors.

G. Provide panelboard doors with chrome-plated locks and catches. All locks shall be keyed alike. Provide two keys for each lock.

H. Provide thermal-magnetic circuit breakers which are rated for 40 degrees C ambient temperature. Breakers shall be quick-make, quick-break type trip with trip indication shown by handle position other than on or off. Multi-pole breakers shall have a common trip handle. Tandem type circuit breakers shall not be permitted.

I. Provide typed directory card with clear holder for each panelboard.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Panelboards shall be mounted at height above finished floor such that the height of the top-most breaker in the panel is not more than 6-1/2 feet above finished floor in its highest position per the NEC.

B. Where multiple panelboards are installed on walls in common areas of buildings, the panelboards shall be installed with the top of all panelboards at the same height.

C. Provide blank filler plates over all unused spaces in panelboards.

D. A typed directory card shall indicate devices being served and the space name where the device is located.

E. Provide minimum of one (1) 3/4" empty spare conduit for every 3 poles of spare breaker or space in the panelboard. Stub conduit to nearest accessible ceiling space. Label conduit as spare at panelboard and termination point.

F. Non-isolated ground bars shall be grounded to panelboard can and main service entrance ground bus with a code sized grounding conductor installed in the same conduit as the phase and neutral conductors.

G. Circuits using a common neutral shall be installed in accordance with the National Electrical Code.

H. Inspect each panelboard for proper installation, physical damage, tightness and installation of overcurrent devices. Verify proper color coding of conductors. Correct or repair all items found in inspection.

I. Neutral wires, ground wires, and isolated ground wires shall be connected to the appropriate panel bus bar. Do not mix bus wire connections.

SECTION C16441
ENCLOSED SWITCHES
PART 1 - PRODUCTS

1.01 MANUFACTURERS
A. Square D
B. GE / ABB
C. Siemens

1.02 ENCLOSED SWITCHES
A. Nonfusible switch assemblies: NEMA KS 1, General Duty Type for 208 volt load interrupter enclosed knife switch with externally operable handle interlocked to prevent opening front cover with switch in on position. Handle lockable in off position. Provide equipment ground lug in each switch.

B. Enclosures: NEMA KS 1.
1. Interior dry locations: Type 1.
2. Exterior locations: Type 3R.

SECTION C16442
UTILITY SERVICE ENTRANCE AND DISTRIBUTION SYSTEM

PART 1 - GENERAL

1.01 SYSTEM DESCRIPTION
A. The underground electrical system service characteristics shall be 208Y/120 volts, Three Phase, Four Wire service and shall extend from utility company transformer secondary.

B. Metering of electrical usage shall be located as required by local electrical utility company. Coordinate requirements with local utility company.

C. Distribution system originates at secondary of utility transformer and includes service entrance conduit and conductors, distribution equipment, lighting panelboards, utilization equipment, overcurrent devices, disconnecting means, controls, branch and feeder circuits, etc.

PART 2 - PRODUCTS

2.01 MATERIALS
A. Furnish service entrance conduit, cable, and miscellaneous hardware as required by plans and specifications for electrical service entrance and system grounding at main electrical service.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION
A. Coordinate exact locations of electrical service utility transformer, metering equipment, service lateral, etc. prior to commencement of installation. Contact engineer with conflicts prior to bid.

B. Ensure pad mounted transformer is not located within roadway or sidewalk.

C. Coordinate with local electrical utility for all utility company requirements and provide for the following items and any others required by the utility:
1. Concrete pad for utility transformer with required dimensions and details.
2. Primary underground conduit, excavation, and backfill requirements.
3. Pay for all fees associated with establishment of electrical service.
4. Furnish list of loads to the electrical utility company serving the facility.
5. Verify that utility company clearances are provided on all sides of utility equipment.

D. Ensure proper access to utility equipment is maintained.

E. Provide pull rope, excavation in accordance with electrical utility company requirements, backfill and concrete envelope for primary in accordance with electrical utility company requirements. Turn conduits up riser pole as required. Cap spare conduits 12 inches above grade with plumbers pipe cap.

F. Provide secondary lugs on utility transformer and perform drilling and installation of lugs in accordance with utility requirements. Type of lugs shall be in accordance with electrical utility company requirements. Connect service conductor to transformer secondary lugs as directed by electrical utility.

SECTION C16500
LIGHTING FIXTURES (LUMINAIRES)

PART 1 - GENERAL

1.01 ACCEPTABLE MANUFACTURERS AND VENDORS
A. Lighting fixtures indicated on lighting fixture schedule are to be purchased from the National Account Vendor for the region of the project (verify region designation with Owner's Representative):

1. Accu-Serv Lighting - Atlantic region and Southeast region. Contact at Accu-Serv: Bob Harpring at 877-707-7378, fax - 502-961-0357, email - bharpring@accu-serv.com
2. Villa Lighting - Northeast region, Midwest region, Southwest region, and West region. Contact at Villa Lighting: Dave Christanell at 800-325-0963, fax- 314-531-8720, email - davec@villalighting.com

B. Ballasts to be electronic ballast provided with lighting fixture by the manufacturer.

C. Lamps to be Osram-Sylvania and will typically be provided with the luminaire by the lighting manufacturer.

1.02 FIXTURE REQUIREMENTS
A. Provide regulating, HPF ballasts in all HID lighting fixtures. HID lamp types shall be as indicated on the drawings.

B. Recessed fluorescent lighting fixture ballasts shall be provided with integral thermal protection.

C. Provide energy-saving Instant or Rapid Start lamps for all fluorescent fixtures.

D. All lamps and ballasts shall meet or exceed the requirements of the National Energy Policy Act of 1992 and any other applicable Codes or Criteria.

E. All components of recessed fixtures shall be accessible without disturbing fixture in or on ceiling.

F. Energy saving ballasts and energy saving lamps provided shall be compatable for operation together.

G. Exterior fixtures and poles shall be suitable for exterior use, shall be UL Listed, and shall be a standard design for exterior application.

H. Exterior poles for fixtures with luminaires installed shall be designed for maximum constant velocity wind load with luminaires installed, applicable to the geographic area.

1.03 CONTROLS
A. Lighting contactors shall be Square-D, GE / ABB, Cutler-Hammer or Siemens of types and quantity shown on drawings, except those furnished with the switchgear as part of the National Account Program by Suncoast Environmental Controls (SEC).

1.04 EMERGENCY LIGHTING UNITS
A. Batteries shall supply emergency power for lighting with minimum operating time of 1-1/2 hours.

B. Emergency lighting shall be automatically operational upon normal utility power failure.

PART 3 - EXECUTION

3.01 INSTALLATION
A. Lighting fixtures shall be structurally supported. Fluorescent fixtures mounted in suspended ceilings shall be supported by and attached to ceiling system as required by NEC Article 410. In addition, fluorescent troffers shall be supported at two opposite corners to building structure.

B. Recessed fixtures in dropped ceiling areas shall be connected to power source using flexible conduit. Flexible conduit shall contain a separate insulated green No. 12 copper ground wire. Flexible conduit shall be connected to junction box and fixture. Green ground wire shall provide ground continuity between conduit system and fixture. Grounding conductors shall be permanently and mechanically connected between fixture and conduit system so as to be electrically continuous.

C. Fixtures surface mounted on exposed tee bar ceilings shall use grip clamps on tee bars to support fixtures.

D. Wire shall be continuous from splice in outlet box of building wiring system to lamp socket or ballast terminals.

E. Maintain the integrity of enclosures on enclosed and gasketed fixtures. Minimize the number of enclosure penetrations and make such penetrations water and dust tight with appropriate gaskets and fittings.

F. Concrete bases shall be provided for all exterior ground mounted or pole mounted fixtures.

G. Install accessories furnished with each fixture.

H. Wiring from pole bases to pole mounted luminaire shall be No. 12 with fuse protection provided by a 30 amp, 600 volt waterproof fuseholder with Bussman 'Limitron' fuse of ampere rating 3 times the load current.

I. Surface and recessed fixtures on or in plastered or drywall ceilings shall be supported by support channels. Support channels shall span across main support channels and shall not depend upon ceilings for support.

3.02 FIELD QUALITY CONTROL
A. Relamp fixtures that have failed lamps at substantial completion.

SECTION C16596
SPECIAL SYSTEMS

PART 1 - GENERAL

1.01 WORK INCLUDED
A. Furnish and install raceway system for music / communications security, CCTV, POS, and other owner-furnished systems, consisting of empty conduits, junction boxes, outlet boxes, and device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.

B. Interior system equipment will be furnished by Owner's Vendor.

C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.

PART 2 - PRODUCTS

2.01 MATERIALS
A. Provide 4-11/16" square boxes, with plaster rings. Provide device plates for system outlets as specified in Section 16141. Provide separate conduit to nearest accessible ceiling space from each outlet.

B. Cable shall be in conduit where installed in walls or inaccessible ceilings.

C. Minimum conduit size shall be 3/4" .

PART 3 - EXECUTION

3.01 INSTALLATION
A. Furnish and install conduits, junction boxes, outlet boxes, and plates.

B. Provide one #10 equivalent nylon pull wire in each system empty conduit.

C. Provide a complete raceway system in accordance with interior system vendor requirements. Interior system vendor shall review the drawings. Contractor shall provide for any additional or varying requirements.

D. Final connections and testing of systems will be provided by the system vendor. Contractor shall contact the owner's vendor and schedule the work so as to complete system installation and testing prior to occupancy of the facility.

E. Terminate each conduit stub-up or termination with nylon insulated bushing.

SECTION C16597
TELEPHONE SERVICE

PART 1 - GENERAL

1.01 WORK INCLUDED
A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.

B. Provide underground PVC, Schedule 40, service conduit as required by plans.

C. Telephone Utility Company will provide service entrance cable.

D. Interior telephone system will be furnished by owner's vendor.

E. Special backboxes (unless otherwise noted) and faceplates will be furnished by the owner's vendor.

PART 2 - PRODUCTS

2.01 MATERIALS
A. Provide 4-11/16" square boxes, with plaster rings. Provide device plates for telephone outlets to match those specified in wiring device section. Provide separate conduit to nearest accessible ceiling space from each outlet.

B. Minimum conduit size shall be 3/4".

C. Provide lightning arrester for telephone service entrance at main telephone backboard in accordance with UL96A paragraph 11.2 and NFPA 780.

D. Cable shall be in conduit where installed in walls or above inaccessible ceiling spaces.

PART 3 - EXECUTION

3.01 INSTALLATION
A. Provide one #10 equivalent nylon pull wire in each empty telephone conduit.

B. Provide trenching, backfilling, etc., for installation of service entrance conduit in accordance with other divisions, plans, and telephone utility requirements. Provide pull wire in empty conduit.

C. Coordinate with the local utility for point of service and type of service required. Pay for any utility company charges and fees for establishment of service.

D. Provide a complete raceway system in accordance with telephone utility company and interior system vendor/utility requirements. Telephone utility company and interior system vendor shall review the drawings. Contractor shall provide for any additional or varying requirements.

E. Terminate each conduit stub-up or termination with nylon insulated bushings.

F. Final connections and testing of system will be provided by the system vendor. Contractor shall contact the owner and vendor and schedule the work.

CLOSE OUT DOCUMENT REQUIREMENTS

Provide the following to the building owner upon completion of construction:

1. Submittal data stating equipment rating and selected options for each piece of equipment requiring maintenance.
2. Operation manuals and maintenance manuals for each piece of equipment requiring maintenance. Required routine maintenance actions shall be clearly identified.
3. Names and addresses of at least one qualified service agency.
4. A complete narrative of how each system is intended to operate.





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# CHICK-FIL-A
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PERMIT

CONSULTANT PROJECT # C29144
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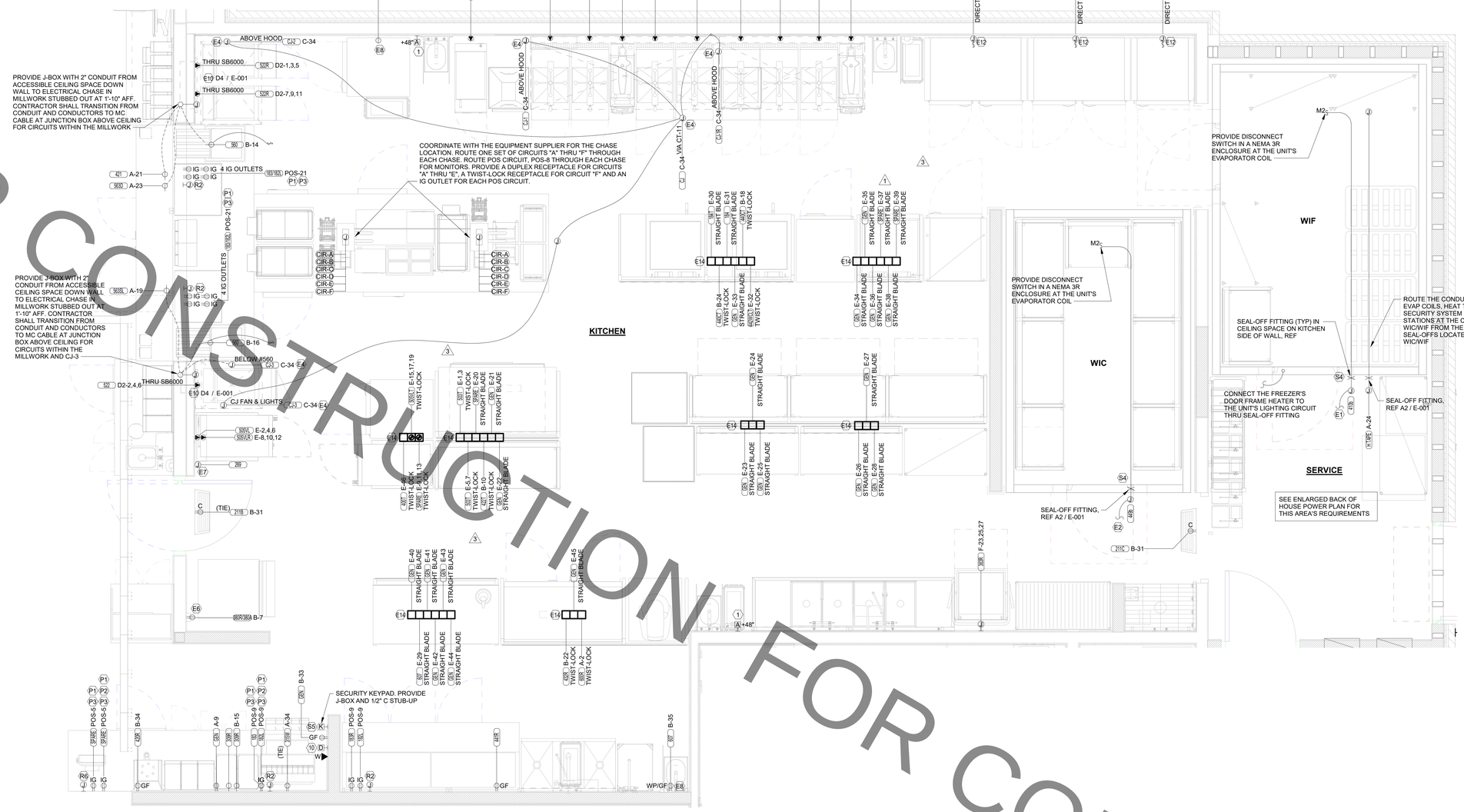
SHEET
ELECTRICAL SPECIFICATIONS

SHEET NUMBER
**E-902**




## 2 ENLARGED KITCHEN POWER PLAN

1/2" = 1'-0"

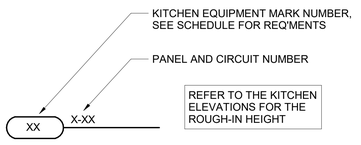
REFER TO SHEET E-003 FOR KEYNOTES

**NOTE FOR POS GF IN KITCHEN:**
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL 120 VOLT, 15 AND 20 AMP ISOLATED GROUND RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS. GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BREAKER VIA A GROUND FAULT TYPE BRANCH BREAKER. (GFCI TYPE ISOLATED GRD RECEPTACLES ARE NOT AVAILABLE.)

**NOTE:**
RECEPTACLES FOR THE POS EQUIPMENT SHALL BE THE ONLY ITEMS THAT CONNECT TO PANEL-POS. THERE SHALL BE NO OTHER LOADS CONNECTED TO THIS ISOLATED GROUND PANEL AND, IF SO, SHALL BE REMOVED AND RECONNECTED TO ANOTHER PANELBOARD AT THE EXPENSE OF THE CONTRACTOR.

**GFCI REQUIREMENTS PER 2020 NEC:**

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2020 EDITION OF THE NEC.




## A1 KITCHEN EQUIP NOMENCLATURE

NO SCALE



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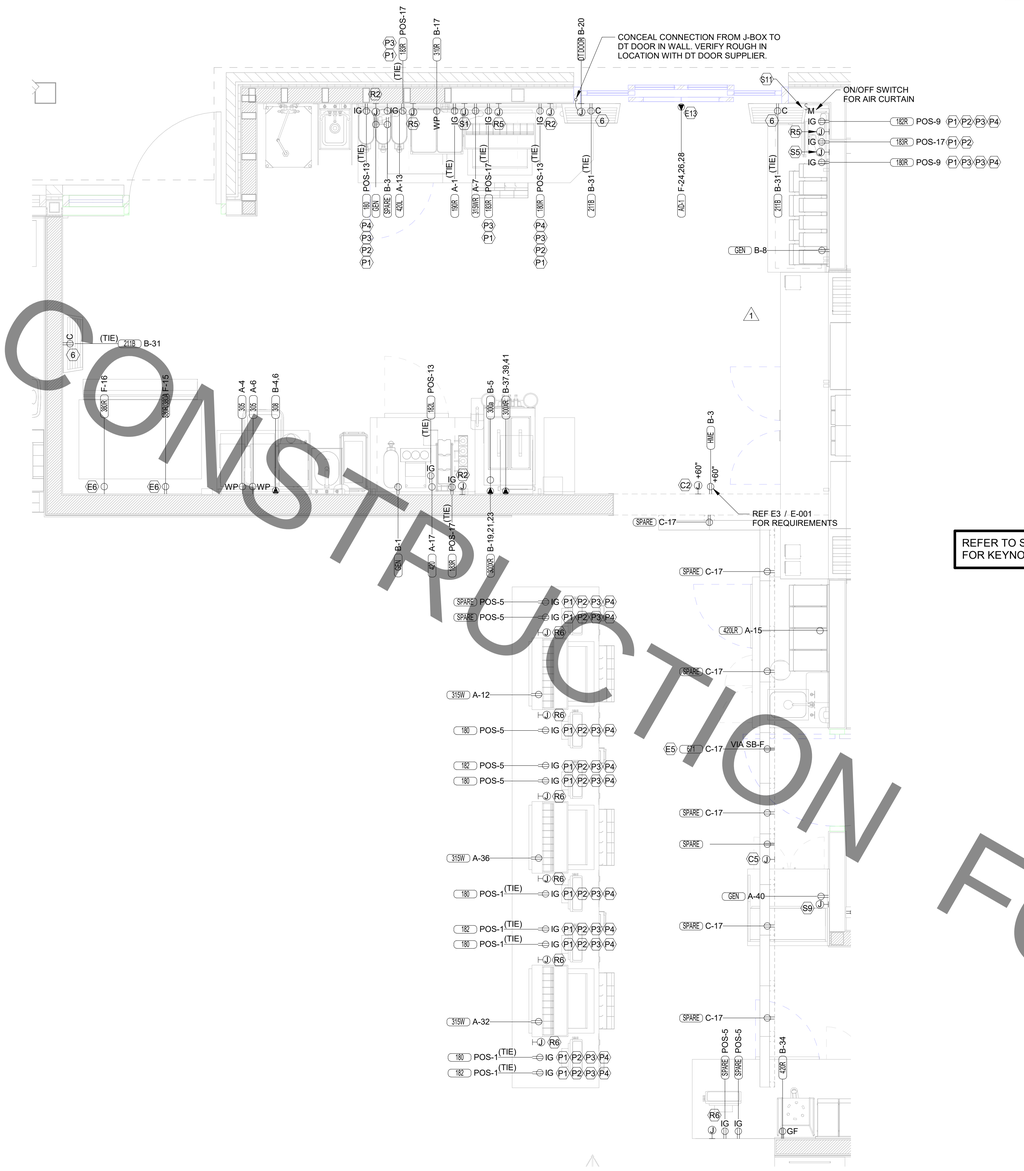
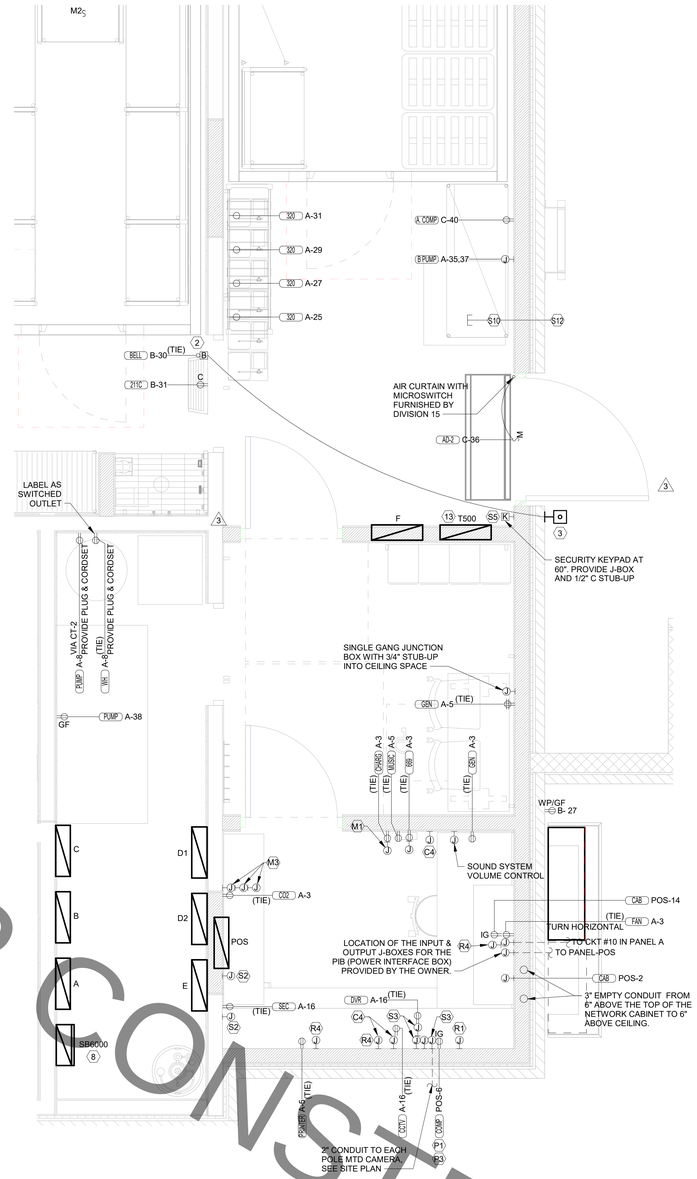
SHEET
ENLARGED KITCHEN POWER PLAN

SHEET NUMBER
**E-301**




REFER TO SHEET E-003 FOR KEYNOTES

## A3 ENLARGED SERVING AREA POWER PLAN

1/2" = 1'-0"

## C1 ENLARGED BOH POWER PLAN

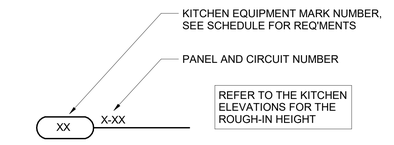
1/2" = 1'-0"

NOTE FOR POS GF IN KITCHEN:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL 120 VOLT, 15 AND 20 AMP ISOLATED GROUND RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS. GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BREAKER VIA A GROUND FAULT TYPE BRANCH BREAKER. (GFCI TYPE ISOLATED GRD RECEPTACLES ARE NOT AVAILABLE.)

GFCI REQUIREMENTS PER 2020 NEC:

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2020 EDITION OF THE NEC.

NOTE:
RECEPTACLES FOR THE POS EQUIPMENT SHALL BE THE ONLY ITEMS THAT CONNECT TO PANEL-POS. THERE SHALL BE NO OTHER LOADS CONNECTED TO THIS ISOLATED GROUND PANEL AND, IF SO, SHALL BE REMOVED AND RECONNECTED TO ANOTHER PANELBOARD AT THE EXPENSE OF THE CONTRACTOR.




## A1 KITCHEN EQUIP NOMENCLATURE

NO SCALE



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

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Plans Prepared By :
CPH, Inc.
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

GREGORY D. TAYLOR
LICENSE
No. 77811
STATE OF FLORIDA
PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

## FSR#01360

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

REVISION SCHEDULE

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-19-2021 | PERMIT REVISION #1 |
| 3 | 08-01-2022 | BID ADDENDUM #1 |

PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
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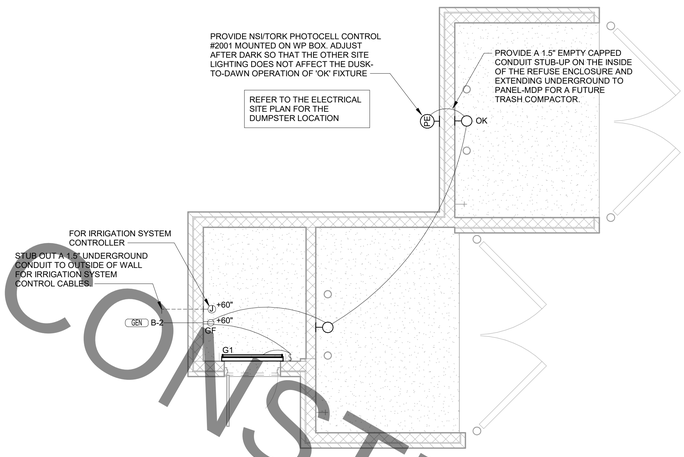
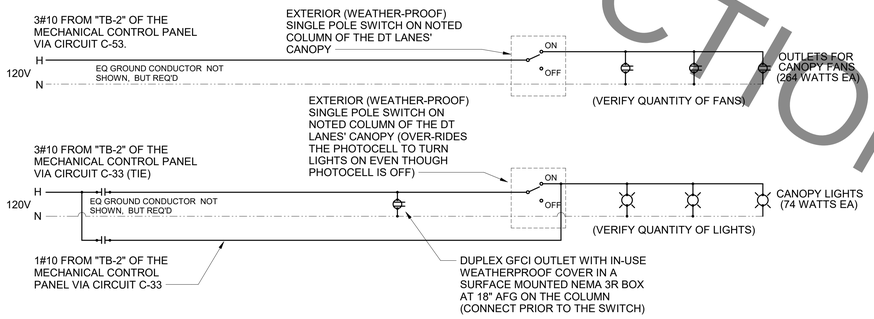
SHEET
ENLARGED SERVING AND BOH POWER PLAN

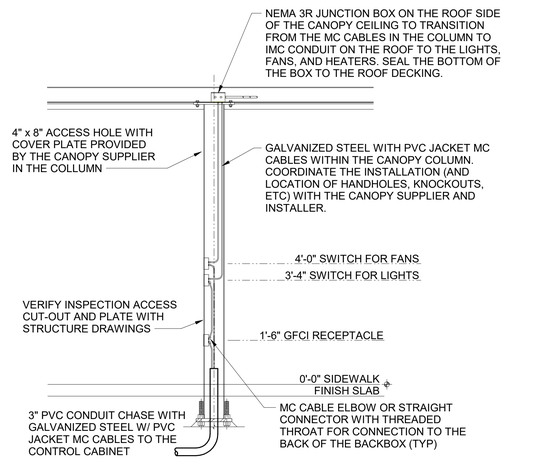
SHEET NUMBER
E-302



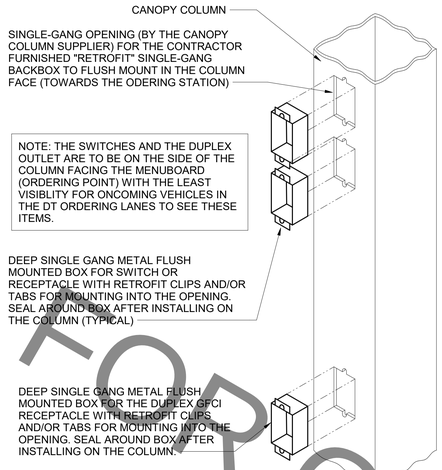

1 REFUSE ENCLOSURE ELECTRICAL PLAN
1/4" = 1'-0"



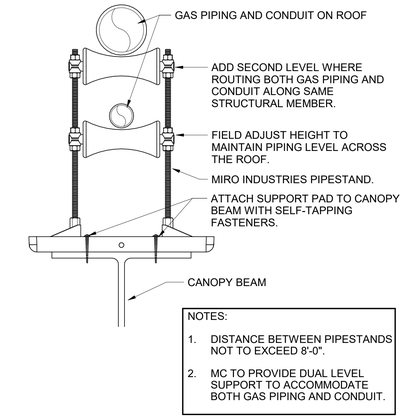

A1 MEAL DELIVERY CANOPY POWER WIRING SCHEMATIC
N.T.S.




D1 MEAL DELIVERY CANOPY COLUMN SECTION
N.T.S.




C3 CANOPY COLUMN ISOMETRIC
N.T.S.




NOTES:
1. DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
2. MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.

C1 PIPING SUPPORT ON CANOPY
1/4" = 1'-0"

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# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 3 | 08-01-2022 | BID ADDENDUM #1 |

PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09/28/2021
DRAWN BY KCL



SHEET
CANOPY PLAN AND DETAILS

SHEET NUMBER
**E-303**

## SEQUENCE OF OPERATION

### STORE SWITCH IN "STORE OPEN" POSITION

A. INFRARED HEATERS ARE ENABLED.
B. COOLING FANS ARE ENABLED.
C. LIGHTS ARE ENABLED.
D. MASTER AUTO/OFF SWITCH FOR IR HEATERS AND COOLING FANS. PROVIDE SINGLE POINT ON/OFF CONTROL.

### STORE SWITCH IN "STORE CLOSED" POSITION

A. INFRARED HEATERS ARE DISABLED.
B. COOLING FANS ARE DISABLED.
C. LIGHTS ARE DISABLED.

### NOTES

1. CONTRACTOR SHALL PURCHASE CONTROL PANEL DIRECT FROM SUNCOAST ENVIRONMENTAL CONTROLS (727-544-6679).
2. COORDINATE WITH GC TO ESTABLISH LOCATION TO MOUNT PANEL IN A CONDITIONED SPACE INSIDE THE BUILDING. SUGGESTED LOCATION IS SURFACE MOUNTED DIRECTLY ABOVE THE LOCATION OF THE CFA-T500 CONTROL PANEL.
3. THE SUNCOAST ENVIRONMENTAL CONTROLS (SEC) IS TO BE SURFACE MOUNTED, UNLESS OTHERWISE REQUESTED TO SUNCOAST.
4. PROVIDE LAMINATED LEGEND SHOWING NAMED LOCATIONS OF FANS AND IR HEATERS. MOUNT LEGEND AT PANEL.

## LEGEND

| | |
|---|---|
| SEC | SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF CONTROL PANELS) |
| ---------- | LOW VOLTAGE BY CONTRACTOR |
| —·—·— | LOW VOLTAGE WIRING BY SUNCOAST |
| ——— | 120 VOLT BY CONTRACTOR |
| —·—·— | 120 VOLT BY SUNCOAST |

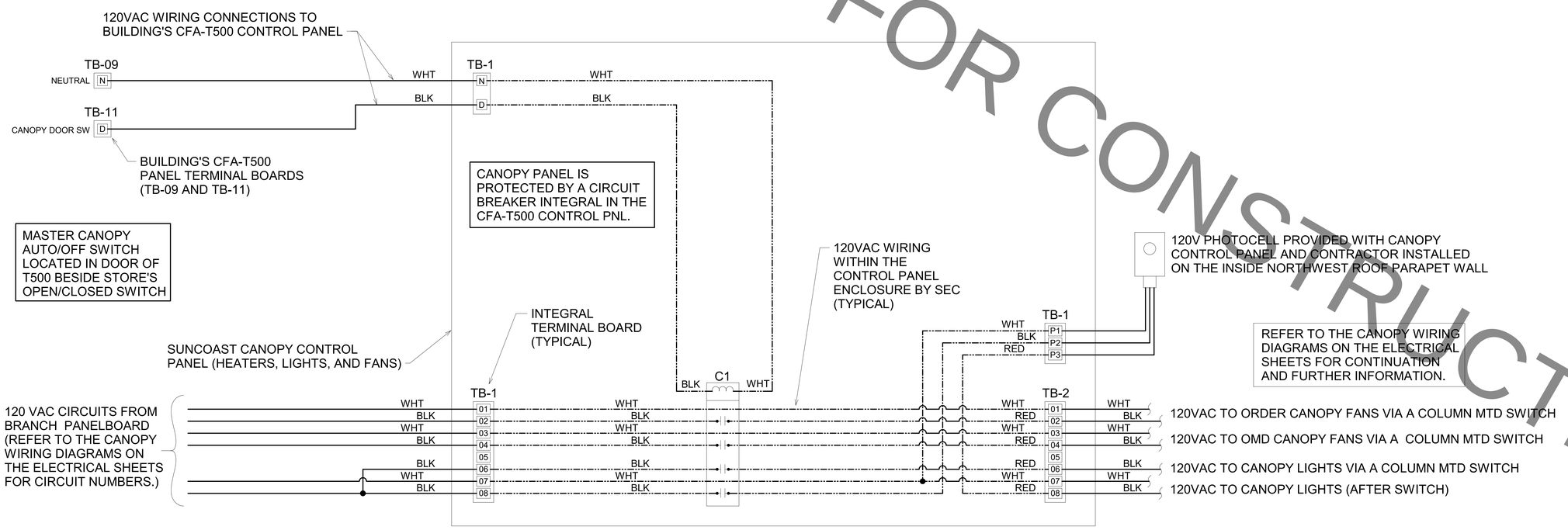
SUNCOAST RELAYS CONTACTORS SHOWN IN DE-ENERGIZED "STORE UNOCCUPIED" CONDITION. RELAYS AND CONTACTORS FACTORY INSTALLED BY SEC IN CONTROL PANEL. RELAYS AND CONTACTORS ENERGIZED VIA "STORE OPEN/CLOSED" SWITCH.

## CIRCULATING FAN SCHEDULE

| MARK | CFM | RPM | HP | MODEL | MANUFACTURER |
|---|---|---|---|---|---|
| CF | 5,750 | 1,625 | 1/8 | U18TE-HD | TPI |

REMARKS:
1. ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER.
2. 360° ROTATING HEAD HORIZONTALLY AND VERTICALLY.
3. OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD.
4. 3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR.
5. FACTORY PRE-WIRED POWER CORD.
6. PROVIDE FACTORY WALL MOUNTING BRACKET. SEE FAN MOUNTING DETAIL ON CANOPY SHOP DRAWINGS FOR TYPICAL INSTALLATION INSTRUCTIONS.
7. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO UNDERSIDE OF CANOPY OR EXISTING OVERHANG, FACING DOWNWARD, 12" LATERALLY FROM THE FAN LOCATION.
8. REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN THE FIELD.
9. FACTORY CERTIFIED FOR OUTDOOR INSTALLATION.

TPI FAN PACKAGE - THE CONTRACTOR IS REQUIRED TO PURCHASE THE FAN PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.




A1 SUNCOAST CANOPY CONTROL PANEL WIRING DIAGRAM
NO SCALE

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# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

REVISION SCHEDULE

| NO. | DATE | DESCRIPTION |
|---|---|---|

PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09/28/2021
DRAWN BY KCL



SHEET
CANOPY CONTROL PANEL WIRING DIAGRAM

SHEET NUMBER
E-304

## Branch Panel: A - Existing

**LOCATION:** MECH. 12
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 225 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H | 1 | TELEPHONE DT VIDEO (190) | 20 A | 1 | 0.240 | 0.960 | | | | | 1 | 20 A | FLOOR MIXER (600R) | 2 | H |
| | 3 | OFFICE GEN OUTLETS (CO2, 669) | 20 A | 1 | | | 0.900 | 1.650 | | | 1 | 20 A | TEA BREWER (305) | 4 | H |
| | 5 | OFF GEN OUTLETS, PRINTER, MUSIC | 20 A | 1 | | | | | 0.720 | 1.650 | 1 | 20 A | TEA BREWER (305) | 6 | H |
| H | 7 | DRINK TOWER (315WR) | 20 A | 1 | 1.200 | 1.462 | | | | | 1 | 20 A | WATER HEATER/PUMP | 8 | J |
| | 9 | GENERAL OUTLETS | 20 A | 1 | | | 0.180 | 1.640 | | | 1 | 20 A | PANEL-POS THRU PIB | 10 | M |
| | 11 | GENERAL OUTLETS | 20 A | 1 | | | | | 0.050 | 1.200 | 1 | 20 A | DRINK TOWER (315W) | 12 | H |
| H | 13 | U.C. REFRIG (420L) | 20 A | 1 | 0.564 | 1.587 | | | | | 1 | 25 A | HOOD EXHAUST FAN (EF-2) | 14 | |
| H | 15 | U.C. REFRIG (420L) | 20 A | 1 | | | 0.564 | 0.360 | | | 1 | 20 A | SECURITY SYSTEM | 16 | L |
| H | 17 | U.C. REFRIG (420) | 20 A | 1 | | | | | 0.564 | 1.244 | 3 | 15 A | COOLER CONDENSER / EVAP COIL (449) | 18 | LO |
| I | 19 | SINGLE SANDWICH SLIDE (563S) | 20 A | 1 | 0.548 | 1.244 | | | | | -- | -- | -- | 20 | |
| I | 21 | U.C. REFRIG (421) | 20 A | 1 | | | 0.756 | 1.140 | | | -- | -- | -- | 22 | |
| I | 23 | SANDWICH SLIDE (563D) | 20 A | 1 | | | | | 1.090 | 0.500 | 1 | 20 A | FREEZER HEAT TAPE | 24 | |
| | 25 | CARBONATOR (320) | 20 A | 1 | 0.744 | 1.752 | | | | | 3 | 35 A | FREEZER CONDENSER / EVAP COIL (410) | 26 | LO |
| | 27 | CARBONATOR (320) | 20 A | 1 | | | 0.744 | 1.908 | | | -- | -- | -- | 28 | |
| | 29 | CARBONATOR (320) | 20 A | 1 | | | | | 0.744 | 1.908 | -- | -- | -- | 30 | |
| | 31 | CARBONATOR (320) | 20 A | 1 | 0.744 | 1.200 | | | | | 1 | 20 A | DRINK TOWER (315W) | 32 | F |
| | 33 | SPARE | 20 A | 1 | | | 0.000 | 1.200 | | | 1 | 20 A | DRINK TOWER (315W) | 34 | H |
| | 35 | BOOSTER PUMP | 20 A | 2 | | | | | 1.144 | 1.200 | 1 | 20 A | DRINK TOWER (315W) | 36 | H |
| | 37 | -- | -- | -- | 1.144 | 0.062 | | | | | 1 | 20 A | WATER FILTER | 38 | |
| | 39 | SPARE | 20 A | 1 | | | 0.000 | 0.180 | | | 1 | 20 A | GENERAL OUTLETS | 40 | H |
| | 41 | HOOD EXHAUST FAN (EF-1) | 25 A | 1 | | | | | 1.587 | 0.000 | -- | -- | SPACE | 42 | |
| | | | | Total Load: | 13.45 kVA | | 11.22 kVA | | 13.60 kVA | | | | | | |
| | | | | Total Amps: | 114.9 A | | 93.5 A | | 116.2 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| HVAC | 9196 VA | 100.00% | 9196 VA | |
| KITCHEN EQUIPMENT | 14874 VA | 65.00% | 9668 VA | **Total Conn. Load:** 38.3 kVA |
| KITCHEN REFRIG EQUIPMENT | 2448 VA | 65.00% | 1591 VA | **Total Est. Demand:** 32.8 kVA |
| MISCELLANEOUS | 1741 VA | 100.00% | 1741 VA | **Total Conn.:** 106.2 A |
| Motor | 7036 VA | 108.13% | 7608 VA | **Total Est. Demand:** 91.0 A |
| RECEPTACLES | 2980 VA | 100.00% | 2980 VA | |

## Branch Panel: B - Existing

**LOCATION:** MECH. 12
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 225 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H | 1 | GENERAL OUTLET | 20 A | 1 | 0.180 | 0.230 | | | | | 1 | 20 A | REFUSE ENCLOSURE | 2 | I |
| H | 3 | GENERAL OUTLET | 20 A | 1 | | | 0.360 | 2.000 | | | 1 | 20 A | COFFEE MAKER (308) | 4 | |
| I | 5 | MILKSHAKE DISPENSER (300a) | 20 A | 1 | | | | | 0.480 | 2.000 | -- | -- | -- | 6 | |
| I | 7 | INTERIOR ICE MAKER (380,380A) | 20 A | 1 | 0.610 | 0.180 | | | | | 1 | 20 A | GENERAL OUTLETS | 8 | I |
| I | 9 | ROOF MOUNTED ICE MAKER (380C) | 25 A | 3 | | | 1.704 | 0.804 | | | 1 | 20 A | REFRIG EQUIPMENT STAND (422T) | 10 | I |
| | 11 | -- | -- | -- | | | | | 1.704 | 1.128 | 1 | 20 A | SINGLE REACH-IN FREEZER (400) | 12 | I |
| | 13 | -- | -- | -- | 1.704 | 1.840 | | | | | 1 | 20 A | FRY HOLDING STATION (560) | 14 | I |
| I | 15 | DOUBLE LEMONADE BUBBLER (310) | 20 A | 1 | | | 0.432 | 1.840 | | | 1 | 20 A | FRY HOLDING STATION (560) | 16 | I |
| I | 17 | DOUBLE LEMONADE BUBBLER (310R) | 20 A | 1 | | | | | 0.943 | 0.120 | 1 | 20 A | ICE BATH BREADING TABLE (440CT) | 18 | I |
| LO,I | 19 | ICE CREAM MACHINE (300X) | 25 A | 3 | 2.280 | 0.500 | | | | | 1 | 20 A | D.T. SLIDING DOOR | 20 | I |
| | 21 | -- | -- | -- | | | 2.280 | 0.756 | | | 1 | 20 A | DOUBLE REFRIG WORK TABLE (432R) | 22 | I |
| | 23 | -- | -- | -- | | | | | 2.280 | 0.120 | 1 | 20 A | ICE BATH BREADING TABLE (440CT) | 24 | I |
| | 25 | ROOF RECEPTACLES | 20 A | 1 | 0.540 | 1.960 | | | | | 1 | 20 A | DOUBLE THAWING CABINET (444D) | 26 | I |
| H | 27 | DINING AREA OUTLETS | 20 A | 1 | | | 0.180 | 1.960 | | | 1 | 20 A | DOUBLE THAWING CABINET (444D) | 28 | I |
| | 29 | SPARE | 20 A | 1 | | | | | 0.000 | 0.000 | 1 | 20 A | GENERAL OUTLETS/DOORBELL | 30 | |
| I | 31 | FLY LIGHT SYSTEM (211B,C) | 20 A | 1 | 0.222 | 0.000 | | | | | 1 | 20 A | FACP (WHEN REQUIRED) | 32 | |
| I | 33 | GENERAL OUTLET | 20 A | 1 | | | 0.180 | 0.564 | | | 1 | 20 A | U.C. REFRIG (420) | 34 | I |
| I | 35 | LEMON JUICER STAND (607ZR) | 20 A | 1 | | | | | 0.600 | 0.360 | 1 | 20 A | T500/SHUNT TRIP (269,270) | 36 | |
| LO,I | 37 | ICE CREAM MACHINE (300X) | 20 A | 3 | 1.800 | 5.000 | | | | | 3 | 60 A | ROOFTOP UNIT (A/C-2) | 38 | |
| | 39 | -- | -- | -- | | | 1.800 | 5.000 | | | -- | -- | -- | 40 | |
| | 41 | -- | -- | -- | | | | | 1.800 | 5.000 | -- | -- | -- | 42 | |
| | | | | Total Load: | 17.05 kVA | | 19.86 kVA | | 16.54 kVA | | | | | | |
| | | | | Total Amps: | 142.7 A | | 166.2 A | | 137.8 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| HVAC | 15000 VA | 100.00% | 15000 VA | |
| KITCHEN EQUIPMENT | 23503 VA | 65.00% | 15277 VA | **Total Conn. Load:** 53.1 kVA |
| KITCHEN REFRIG EQUIPMENT | 11442 VA | 65.00% | 7437 VA | **Total Est. Demand:** 41.0 kVA |
| Lighting | 80 VA | 100.00% | 80 VA | **Total Conn.:** 147.3 A |
| MISCELLANEOUS | 192 VA | 100.00% | 192 VA | **Total Est. Demand:** 113.7 A |
| Motor | 500 VA | 125.00% | 625 VA | |
| RECEPTACLES | 2364 VA | 100.00% | 2364 VA | |

## Branch Panel: E - New

**LOCATION:** MECH. 12
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 250 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | 1 | EGG STATION (503T) | 20 A | 2 | 1.300 | 2.633 | | | | | 3 | 30 A | VECTOR OVEN (505VL) | 2 | I |
| | 3 | -- | -- | -- | | | 1.300 | 2.633 | | | -- | -- | -- | 4 | |
| I | 5 | EGG STATION (503T) | 20 A | 2 | | | | | 1.300 | 2.633 | -- | -- | -- | 6 | |
| | 7 | -- | -- | -- | 1.300 | 2.633 | | | | | 3 | 30 A | VECTOR OVEN (505VL) | 8 | I |
| I | 9 | VECTOR OVEN (505VL) | 20 A | 3 | | | 0.878 | 2.633 | | | -- | -- | -- | 10 | |
| | 11 | -- | -- | -- | | | | | 0.878 | 2.633 | -- | -- | -- | 12 | |
| | 13 | -- | -- | -- | 0.878 | 2.640 | | | | | 3 | 30 A | RETHERMALIZER (592) | 14 | I |
| I | 15 | VECTOR OVEN (505VL) | 20 A | 3 | | | 0.878 | 2.640 | | | -- | -- | -- | 16 | |
| | 17 | -- | -- | -- | | | | | 0.878 | 2.640 | -- | -- | -- | 18 | |
| | 19 | -- | -- | -- | 0.878 | 0.180 | | | | | 1 | 20 A | DROP CORD OUTLET | 20 | I |
| I | 21 | DROP CORD OUTLET | 20 A | 1 | | | 0.212 | 0.180 | | | 1 | 20 A | DROP CORD OUTLET | 22 | I |
| I | 23 | DROP CORD OUTLET | 20 A | 1 | | | | | 0.180 | 0.180 | 1 | 20 A | DROP CORD OUTLET | 24 | I |
| I | 25 | DROP CORD OUTLET | 20 A | 1 | 0.180 | 0.180 | | | | | 1 | 20 A | DROP CORD OUTLET | 26 | I |
| I | 27 | DROP CORD OUTLET | 20 A | 1 | | | 0.180 | 0.180 | | | 1 | 20 A | DROP CORD OUTLET | 28 | I |
| I | 29 | DROP CORD OUTLET (607) | 20 A | 1 | | | | | 0.180 | 0.180 | 1 | 20 A | DROP CORD OUTLET (184T) | 30 | I |
| I | 31 | DROP CORD OUTLET (184) | 20 A | 1 | 0.180 | 0.840 | | | | | 1 | 20 A | DROP CORD OUTLET | 32 | I |
| I | 33 | DROP CORD OUTLET | 20 A | 1 | | | 0.180 | 0.180 | | | 1 | 20 A | DROP CORD OUTLET | 34 | I |
| I | 35 | DROP CORD OUTLET | 20 A | 1 | | | | | 0.180 | 0.180 | 1 | 20 A | DROP CORD OUTLET | 36 | I |
| I | 37 | DROP CORD OUTLET (SPARE) | 20 A | 1 | 0.180 | 0.180 | | | | | 1 | 20 A | DROP CORD OUTLET | 38 | I |
| I | 39 | DROP CORD OUTLET (SPARE) | 20 A | 1 | | | 0.180 | 0.180 | | | 1 | 20 A | DROP CORD OUTLET | 40 | I |
| I | 41 | DROP CORD OUTLET | 20 A | 1 | | | | | 0.180 | 0.180 | 1 | 20 A | DROP CORD OUTLET | 42 | I |
| I | 43 | DROP CORD OUTLET | 20 A | 1 | 0.180 | 0.180 | | | | | 1 | 20 A | DROP CORD OUTLET | 44 | I |
| I | 45 | DROP CORD OUTLET | 20 A | 1 | | | 0.212 | 1.100 | | | 1 | 20 A | DROP CORD OUTLET | 46 | I |
| | 47 | SPACE | -- | -- | | | | | 0.000 | 0.000 | -- | -- | SPACE | 48 | |
| | 49 | SPACE | -- | -- | 0.000 | 0.000 | | | | | -- | -- | SPACE | 50 | |
| | 51 | SPACE | -- | -- | | | 0.000 | 0.000 | | | -- | -- | SPACE | 52 | |
| | 53 | SPACE | -- | -- | | | | | 0.000 | 0.000 | -- | -- | SPACE | 54 | |
| | | | | Total Load: | 14.54 kVA | | 13.75 kVA | | 12.40 kVA | | | | | | |
| | | | | Total Amps: | 122.9 A | | 116.3 A | | 103.4 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| KITCHEN EQUIPMENT | 35287 VA | 65.00% | 22936 VA | |
| KITCHEN REFRIG EQUIPMENT | 840 VA | 65.00% | 546 VA | **Total Conn. Load:** 40.7 kVA |
| Lighting | 64 VA | 100.00% | 64 VA | **Total Est. Demand:** 28.0 kVA |
| RECEPTACLES | 4500 VA | 100.00% | 4500 VA | **Total Conn.:** 112.9 A |
| | | | | **Total Est. Demand:** 77.8 A |

## Branch Panel: C - Existing

**LOCATION:** MECH. 12
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 400 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| J | 1 | KITCHEN LTG | 20 A | 1 | 0.832 | 0.324 | | | | | 1 | 20 A | SCONCE LIGHTING | 2 | B |
| J | 3 | KITCHEN LTG | 20 A | 1 | | | 0.837 | 0.224 | | | 1 | 20 A | SCONCE LIGHTING | 4 | B |
| J | 5 | RESTROOM LIGHTING | 20 A | 1 | | | | | 0.197 | 1.500 | 1 | 20 A | BUILDING SIGNAGE | 6 | B |
| J | 7 | DINING LIGHTING | 20 A | 1 | 0.060 | 6.293 | | | | | 3 | 70 A | ROOFTOP UNIT (A/C-3) | 8 | |
| J | 9 | PLAY AREA LIGHTING | 20 A | 1 | | | 0.500 | 6.293 | | | -- | -- | -- | 10 | |
| J | 11 | DINING LIGHTING | 20 A | 1 | | | | | 0.640 | 6.293 | -- | -- | -- | 12 | |
| J | 13 | DINING LIGHTING | 20 A | 1 | 0.496 | 3.927 | | | | | 3 | 50 A | ROOFTOP UNIT (A/C-4) | 14 | |
| J | 15 | SERVE AREA LTG | 20 A | 1 | | | 0.110 | 3.927 | | | -- | -- | -- | 16 | |
| H | 17 | MENUBOARDS (671) | 20 A | 1 | | | | | 1.260 | 3.927 | -- | -- | -- | 18 | |
| B | 19 | DIRECTIONAL SIGNS | 20 A | 1 | 0.500 | 0.792 | | | | | 1 | 20 A | OMD CANOPY FANS | 20 | I,J |
| E | 21 | PARKING LOT LTG | 20 A | 1 | | | 0.489 | 0.780 | | | 1 | 20 A | DRIVE THRU ORDERING | 22 | J,LO |
| E | 23 | PARKING LOT LTG | 20 A | 1 | | | | | 0.652 | 1.056 | 1 | 20 A | MLOP CANOPY FANS | 24 | I,J |
| | 25 | SPARE | 20 A | 1 | 0.000 | 3.050 | | | | | 3 | 45 A | ROOFTOP UNIT (A/C-5) | 26 | |
| | 27 | SPARE | 20 A | 1 | | | 0.000 | 3.050 | | | -- | -- | -- | 28 | |
| D | 29 | SECURITY/FLAGPOLE LTG | 20 A | 1 | | | | | 0.097 | 3.050 | -- | -- | -- | 30 | |
| | 31 | SPACE | -- | -- | 0.000 | 1.587 | | | | | 1 | 20 A | HOOD EXHAUST FAN (EF-4) | 32 | A |
| J | 33 | MLOP &OMD CANOPY LTG | 20 A | 1 | | | 1.026 | 0.653 | | | 1 | 20 A | HOOD CJ FANS | 34 | A |
| LO | 35 | FRZR/COOLER LTG (410/449) | 20 A | 1 | | | | | 1.000 | 0.960 | 1 | 20 A | UNHEATED AIR DOOR (AD-2) | 36 | LO |
| B | 37 | MAIN ID SIGN | 20 A | 1 | 0.980 | 0.000 | | | | | 1 | 20 A | SPARE | 38 | |
| B | 39 | MAIN ID SIGN | 20 A | 1 | | | 0.800 | 2.185 | | | 1 | 20 A | OPTIONAL COMPRESSOR | 40 | |
| B | 41 | MAIN ID SIGN | 20 A | 1 | | | | | 0.800 | 0.000 | -- | -- | SPACE | 42 | |
| | | | | Total Load: | 18.78 kVA | | 20.83 kVA | | 21.39 kVA | | | | | | |
| | | | | Total Amps: | 156.5 A | | 176.2 A | | 180.9 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| HVAC | 39810 VA | 100.00% | 39810 VA | |
| Lighting | 13121 VA | 100.00% | 13121 VA | **Total Conn. Load:** 61.0 kVA |
| Motor | 4873 VA | 108.14% | 5270 VA | **Total Est. Demand:** 61.9 kVA |
| Other | 500 VA | 100.00% | 500 VA | **Total Conn.:** 169.3 A |
| RECEPTACLES | 540 VA | 100.00% | 540 VA | **Total Est. Demand:** 171.9 A |
| SINGLE PHASE MOTOR | 2185 VA | 125.00% | 2731 VA | |

## Branch Panel: D1 - New

**LOCATION:** MECH. 12
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 250 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | 1 | PRESSURE FRYER (523) | 50 A | 3 | 4.560 | 4.560 | | | | | 3 | 50 A | PRESSURE FRYER (523R) | 2 | I |
| | 3 | -- | -- | -- | | | 4.560 | 4.560 | | | -- | -- | -- | 4 | |
| | 5 | -- | -- | -- | | | | | 4.560 | 4.560 | -- | -- | -- | 6 | |
| I | 7 | PRESSURE FRYER (523) | 50 A | 3 | 4.560 | 4.560 | | | | | 3 | 50 A | PRESSURE FRYER (523R) | 8 | I |
| | 9 | -- | -- | -- | | | 4.560 | 4.560 | | | -- | -- | -- | 10 | |
| | 11 | -- | -- | -- | | | | | 4.560 | 4.560 | -- | -- | -- | 12 | |
| I | 13 | PRESSURE FRYER (523R) | 50 A | 3 | 4.560 | 4.560 | | | | | 3 | 50 A | SPARE/FUTURE FRYER (523) | 14 | I |
| | 15 | -- | -- | -- | | | 4.560 | 4.560 | | | -- | -- | -- | 16 | |
| | 17 | -- | -- | -- | | | | | 4.560 | 4.560 | -- | -- | -- | 18 | |
| | 19 | SPACE | -- | -- | 0.000 | 0.000 | | | | | -- | -- | SPACE | 20 | |
| | 21 | SPACE | -- | -- | | | 0.000 | 0.000 | | | -- | -- | SPACE | 22 | |
| | 23 | SPACE | -- | -- | | | | | 0.000 | 0.000 | -- | -- | SPACE | 24 | |
| | 25 | SPACE | -- | -- | 0.000 | 0.000 | | | | | -- | -- | SPACE | 26 | |
| | 27 | SPACE | -- | -- | | | 0.000 | 0.000 | | | -- | -- | SPACE | 28 | |
| | 29 | SPACE | -- | -- | | | | | 0.000 | 0.000 | -- | -- | SPACE | 30 | |
| | | | | Total Load: | 27.36 kVA | | 27.36 kVA | | 27.36 kVA | | | | | | |
| | | | | Total Amps: | 228.0 A | | 228.0 A | | 228.0 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| KITCHEN EQUIPMENT | 82080 VA | 65.00% | 53352 VA | |
| | | | | **Total Conn. Load:** 82.1 kVA |
| | | | | **Total Est. Demand:** 53.4 kVA |
| | | | | **Total Conn.:** 227.8 A |
| | | | | **Total Est. Demand:** 148.1 A |

## Branch Panel: D2 - New

**LOCATION:** MECH. 12
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 250 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SB | 1 | OPEN FRYER (522A) | 80 A | 3 | 7.320 | 7.320 | | | | | 3 | 80 A | OPEN FRYER (522) | 2 | SB |
| | 3 | -- | -- | -- | | | 7.320 | 7.320 | | | -- | -- | -- | 4 | |
| | 5 | -- | -- | -- | | | | | 7.320 | 7.320 | -- | -- | -- | 6 | |
| SB | 7 | OPEN FRYER (522A) | 80 A | 3 | 7.320 | 4.560 | | | | | 3 | 50 A | PRESSURE FRYER (523) | 8 | I |
| | 9 | -- | -- | -- | | | 7.320 | 4.560 | | | -- | -- | -- | 10 | |
| | 11 | -- | -- | -- | | | | | 7.320 | 4.560 | -- | -- | -- | 12 | |
| I | 13 | CHARGRILL COOKER (524R) | 50 A | 3 | 2.892 | 2.892 | | | | | 3 | 50 A | CHARGRILL COOKER (524R) | 14 | I |
| | 15 | -- | -- | -- | | | 3.840 | 3.840 | | | -- | -- | -- | 16 | |
| | 17 | -- | -- | -- | | | | | 2.772 | 2.772 | -- | -- | -- | 18 | |
| | 19 | SPACE | -- | -- | 0.000 | 0.000 | | | | | -- | -- | SPACE | 20 | |
| | 21 | SPACE | -- | -- | | | 0.000 | 0.000 | | | -- | -- | SPACE | 22 | |
| | 23 | SPACE | -- | -- | | | | | 0.000 | 0.000 | -- | -- | SPACE | 24 | |
| | 25 | SPACE | -- | -- | 0.000 | 0.000 | | | | | -- | -- | SPACE | 26 | |
| | 27 | SPACE | -- | -- | | | 0.000 | 0.000 | | | -- | -- | SPACE | 28 | |
| | 29 | SPACE | -- | -- | | | | | 0.000 | 0.000 | -- | -- | SPACE | 30 | |
| | | | | Total Load: | 32.30 kVA | | 34.20 kVA | | 32.06 kVA | | | | | | |
| | | | | Total Amps: | 269.5 A | | 285.3 A | | 267.2 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| KITCHEN EQUIPMENT | 98568 VA | 65.00% | 64069 VA | |
| | | | | **Total Conn. Load:** 98.6 kVA |
| | | | | **Total Est. Demand:** 64.1 kVA |
| | | | | **Total Conn.:** 273.6 A |
| | | | | **Total Est. Demand:** 177.8 A |

GFCI REQUIREMENTS PER 2020 NEC:

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2020 EDITION OF THE NEC.

## Branch Panel: F - New

**LOCATION:**
**SUPPLY FROM:** MDP
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K/10K
**MAINS TYPE:** MLO
**MAINS RATING:** 400 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | CIRCUIT A - ML TABLE | 20 A | 1 | 1.800 | 1.800 | | | | | 1 | 20 A | CIRCUIT A - ML TABLE | 2 | |
| | 3 | CIRCUIT B - ML TABLE | 20 A | 1 | | | 1.500 | 1.500 | | | 1 | 20 A | CIRCUIT B - ML TABLE | 4 | |
| | 5 | CIRCUIT C - ML TABLE | 20 A | 1 | | | | | 2.040 | 2.040 | 1 | 20 A | CIRCUIT C - ML TABLE | 6 | |
| | 7 | CIRCUIT D - ML TABLE | 20 A | 1 | 0.396 | 0.396 | | | | | 1 | 20 A | CIRCUIT D - ML TABLE | 8 | |
| | 9 | CIRCUIT E - ML TABLE | 20 A | 1 | | | 0.800 | 0.800 | | | 1 | 20 A | CIRCUIT E - ML TABLE | 10 | |
| | 11 | CIRCUIT F - ML TABLE | 30 A | 2 | | | | | 2.500 | 2.500 | 2 | 20 A | CIRCUIT F - ML TABLE | 12 | |
| | 13 | -- | -- | -- | 2.500 | 2.500 | | | | | -- | -- | -- | 14 | |
| | 15 | INTERIOR ICE MAKER (380R,380A) | 15 A | 1 | | | 0.610 | 0.600 | | | -- | -- | -- | 16 | |
| | 17 | REMOTE CONDENSOR (380ZC) | 20 A | 3 | | | | | 1.704 | 1.704 | 3 | 20 A | REMOTE CONDENSOR (380ZC) | 18 | |
| | 19 | -- | -- | -- | 1.704 | 1.704 | | | | | -- | -- | -- | 20 | |
| | 21 | -- | -- | -- | | | 1.704 | 1.704 | | | -- | -- | -- | 22 | |
| LO | 23 | DISHWASHER (363) | 60 A | 3 | | | | | 5.880 | 2.628 | 3 | 30 A | HEATED AIR DOOR (AD-1) | 24 | LO |
| | 25 | -- | -- | -- | 5.880 | 2.628 | | | | | -- | -- | -- | 26 | |
| | 27 | -- | -- | -- | | | 5.880 | 2.628 | | | -- | -- | -- | 28 | |
| | 29 | SPARE | 20 A | 1 | | | | | 0.000 | 0.000 | 1 | 20 A | SPARE | 30 | |
| | 31 | SPARE | 20 A | 1 | 0.000 | 0.000 | | | | | 1 | 20 A | SPARE | 32 | |
| | 33 | SPARE | 20 A | 1 | | | 0.000 | 0.000 | | | 1 | 20 A | SPARE | 34 | |
| | 35 | SPARE | 20 A | 1 | | | | | 0.000 | 0.000 | 1 | 20 A | SPARE | 36 | |
| | 37 | CONDENSOR UNIT (CU-7) | 40 A | 3 | 3.362 | | | | | | | | | 38 | |
| | 39 | -- | -- | -- | | | 3.362 | | | | | | | 40 | |
| | 41 | -- | -- | -- | | | | | 3.362 | | | | | 42 | |
| | 43 | | | | | | | | | | | | | 44 | |
| | 45 | | | | | | | | | | | | | 46 | |
| | 47 | | | | | | | | | | | | | 48 | |
| | 49 | | | | | | | | | | | | | 50 | |
| | 51 | | | | | | | | | | | | | 52 | |
| | 53 | | | | | | | | | | | | | 54 | |
| | | | | Total Load: | 24.67 kVA | | 21.09 kVA | | 24.36 kVA | | | | | | |
| | | | | Total Amps: | 209.8 A | | 175.7 A | | 207.2 A | | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| HEAT | 7884 VA | 100.00% | 7884 VA | |
| HVAC | 10087 VA | 100.00% | 10087 VA | **Total Conn. Load:** 70.1 kVA |
| KITCHEN EQUIPMENT | 36632 VA | 65.00% | 23811 VA | **Total Est. Demand:** 51.9 kVA |
| KITCHEN REFRIG EQUIPMENT | 15514 VA | 65.00% | 10084 VA | **Total Conn.:** 194.6 A |
| | | | | **Total Est. Demand:** 144.0 A |

## Distribution Panel: MDP - New

**LOCATION:**
**SUPPLY FROM:**
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 3R

**VOLTS:** 120/208 Wye
**PHASES:** 3
**WIRES:** 4

**A.I.C. SERIES RATING:** 65K
**MAINS TYPE:** MCB
**MAINS RATING:** 1200 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | C | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | PANEL A (SUB-FEEDS PANEL-POS) | 225 A | 3 | 13.45 | 17.05 | | | | | 3 | 225 A | PANEL B | 2 | |
| | 3 | -- | -- | -- | | | 11.22 | 19.86 | | | -- | -- | -- | 4 | |
| | 5 | -- | -- | -- | | | | | 13.60 | 16.54 | -- | -- | -- | 6 | |
| | 7 | PANEL C | 400 A | 3 | 18.78 | 27.36 | | | | | 3 | 250 A | PANEL D1 (NEW) | 8 | ST |
| | 9 | -- | -- | -- | | | 20.83 | 27.36 | | | -- | -- | -- | 10 | |
| | 11 | -- | -- | -- | | | | | 21.39 | 27.36 | -- | -- | -- | 12 | |
| | 13 | PANEL E (NEW) | 250 A | 3 | 14.54 | 32.30 | | | | | 3 | 250 A | PANEL D2 (NEW) | 14 | ST |
| | 15 | -- | -- | -- | | | 13.75 | 34.20 | | | -- | -- | -- | 16 | |
| | 17 | -- | -- | -- | | | | | 12.40 | 32.06 | -- | -- | -- | 18 | |
| | 19 | PANEL F (NEW) | 400 A | 3 | 24.67 | 16.09 | | | | | 3 | 175 A | ROOFTOP UNIT (A/C-1) | 20 | |
| | 21 | -- | -- | -- | | | 21.09 | 16.09 | | | -- | -- | -- | 22 | |
| | 23 | -- | -- | -- | | | | | 24.36 | 16.09 | -- | -- | -- | 24 | |
| | 25 | TVSS (PER NEC 230.17) | 30 A | 3 | 0.00 | 2.40 | | | | | 3 | 25 A | ROOFTOP UNIT (A/C-6) | 26 | |
| | 27 | -- | -- | -- | | | 0.00 | 2.40 | | | -- | -- | -- | 28 | |
| | 29 | -- | -- | -- | | | | | 0.00 | 2.40 | -- | -- | -- | 30 | |
| | | | | Total Load: | 166.6 kVA | | 166.8 kVA | | 166.2 kVA | | | | | | |
| | | | | Total Amps: | 1389.2 A | | 1390.6 A | | 1385.0 A | | | | | | |

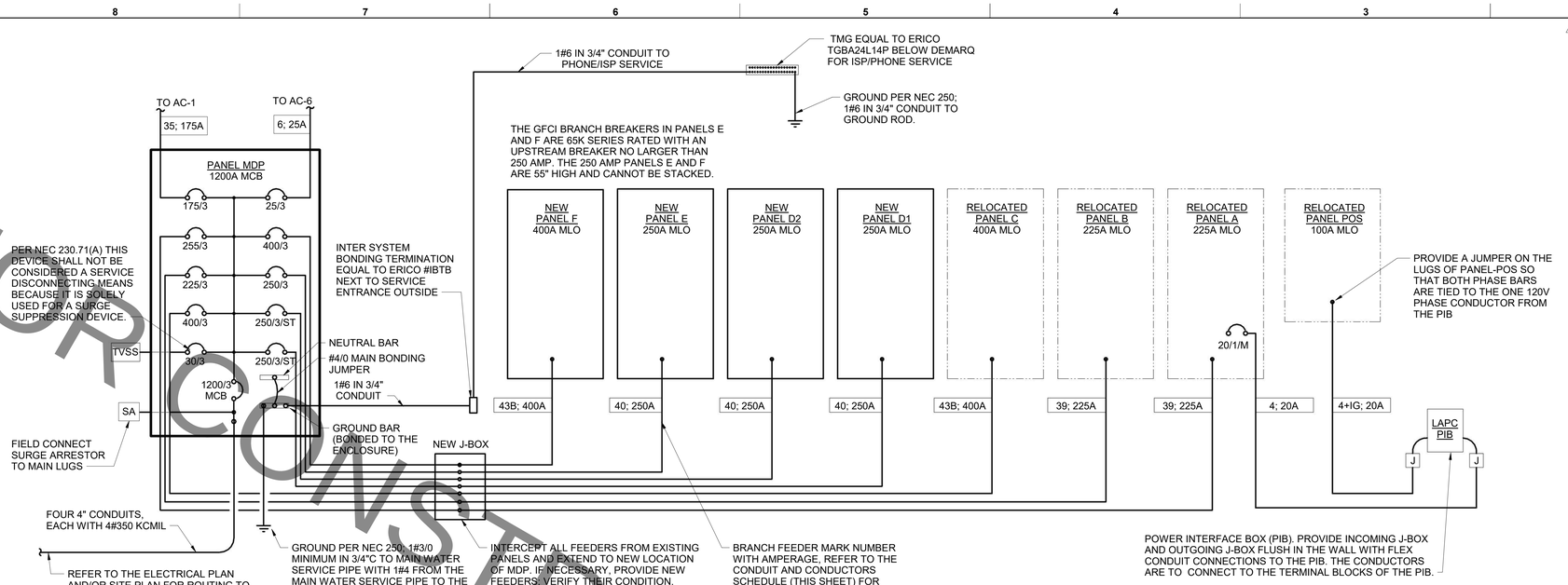
| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| HEAT | 7884 VA | 100.00% | 7884 VA | |
| HVAC | 129574 VA | 100.00% | 129574 VA | **Total Conn. Load:** 499.3 kVA |
| KITCHEN EQUIPMENT | 290944 VA | 65.00% | 189113 VA | **Total Est. Demand:** 387.8 kVA |
| KITCHEN REFRIG EQUIPMENT | 30243 VA | 65.00% | 19658 VA | **Total Conn.:** 1385.9 A |
| Lighting | 13264 VA | 100.00% | 13264 VA | **Total Est. Demand:** 1076.4 A |
| MISCELLANEOUS | 1933 VA | 100.00% | 1933 VA | |
| Motor | 12409 VA | 104.61% | 12981 VA | |
| Other | 500 VA | 100.00% | 500 VA | |
| RECEPTACLES | 10384 VA | 98.15% | 10192 VA | |
| SINGLE PHASE MOTOR | 2185 VA | 125.00% | 2731 VA | |

### LOAD SUMMARY

| TOTAL CONNECTED KVA | IF TOTAL LOAD IS 0_200 KVA | IF TOTAL LOAD IS 201_325 KVA | IF TOTAL LOAD IS 326-800 KVA | IF TOTAL LOAD IS OVER 800 KVA | DIVERSIFIED AMPS AT 208 VOLT |
|---|---|---|---|---|---|
| 499.29 kVA | 0 | 0 | 340.93 | 0 | 947.02 |

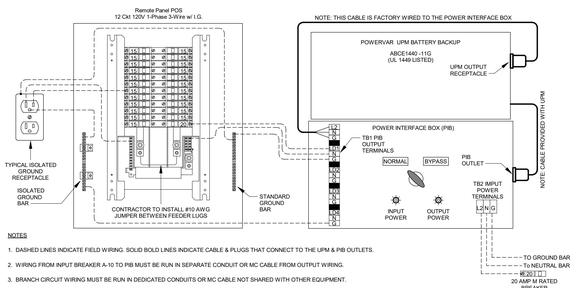
## PANELBOARD NOTES

- (A) CONTROLLED BY RELAY IN CONTROL PANEL CFA-T500 AND STORE-OPEN EXHAUST FAN SWITCH. PANELBOARD SUPPLIER TO PROVIDE NOTATION ON CIRCUIT THAT THE CFA-T500 ALSO HAS AN INTEGRAL BREAKER ON THE FAN CIRCUITS FOR THE DISCONNECTION OF POWER AT THE CONTROLLER PER THE NEC. SEE CFA-T500 CONTROL PANEL CONNECTION DIAGRAM ON E-001.
- (B) CONTROLLED BY EXTERIOR SIGN RELAY IN CONTROL PANEL CFA-T500.
- (C) CONTROLLED BY EXTERIOR LIGHTING RELAY IN CONTROL PANEL CFA-T500.
- (D) CONTROLLED




## SINGLE-LINE DIAGRAM NOTES

1. VERIFY SERVICE LOCATIONS AND CONFORM TO THE REQUIREMENTS OF THE POWER COMPANY AND/OR DEVELOPER. POWER COMPANY AND/OR DEVELOPER SHALL BE CONTACTED PRIOR TO BEGINNING CONSTRUCTION TO ARRANGE AND VERIFY FOR THE INSTALLATION OF THE POWER COMPANY SERVICE, METER, AND OTHER ITEMS.
2. GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LOCAL APPLICABLE CODES, AND ALSO AS INDICATED ON DRAWINGS.
3. MAKE NECESSARY INSPECTIONS OF EXISTING SITE AND SERVICE LOCATIONS AS REQUIRED FOR THIS WORK AND MAKE ALLOWANCE FOR EXISTING CONDITIONS BEFORE SUBMITTING BID. VERIFY WORK REQUIRED WITH POWER COMPANY AND TELEPHONE COMPANY.
4. CUT AND PATCH THE CONSTRUCTION WORK AS REQUIRED FOR PROPER INSTALLATION OF THE ELECTRICAL WORK. ALL PATCHING SHALL MATCH THE SURROUNDING WORK TO THE SATISFACTION OF THE ARCHITECT. ALL CONDUIT SHALL BE INSTALLED CONCEALED UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT. COORDINATE SAW CUTTING WITH LANDLORD'S OR OWNER'S REPRESENTATIVE.
5. WIRE AND CABLE:
   A. CONDUCTORS SHALL BE COPPER, #12 AWG, MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE.
   B. CONDUCTOR #10 AWG AND SMALLER SHALL BE SOLID AND #8 AWG AND LARGER SHALL BE STRANDED. INSULATION SHALL BE 600 VOLT, THHN/THWN.
6. PROVIDE ENGRAVED LAMINATED PHENOLIC BLOCK-ON-WHITE (UNLESS NOTED OTHERWISE) NAMEPLATES SECURED TO EQUIPMENT WITH ADHESIVE AND SCREWS FOR PANELBOARDS, RELAY CABINETS, TRANSFORMERS, DISTRIBUTION BOARDS, AND MAIN PANELBOARD - IDENTIFYING EQUIPMENT DESIGNATION (CORRESPONDING WITH DESIGNATION USED ON DRAWINGS) AND EQUIPMENT VOLTAGE. LETTERING SHALL BE 1/4" HIGH. PROVIDE LABELS FOR CIRCUIT BREAKERS, FUSIBLE SWITCHES AND STARTERS IN PANELBOARDS AND DISTRIBUTION BOARDS FOR EACH DEVICE IDENTIFYING EQUIPMENT CONTROLLED. LETTERING SHALL BE 1/8" HIGH.
7. ALL DEVICES SHALL HAVE AN INTERRUPTING CAPACITY NOT LESS THAN THE POWER COMPANY AVAILABLE FAULT CURRENT, OR AS INDICATED ON THE DRAWINGS.
8. 120/208 VOLT BRANCH CIRCUIT PANELBOARD BREAKERS SHALL HAVE A MINIMUM U.L. SERIES RATING OF 65 KAIC WITH UP-STREAM FEEDER BREAKERS AS NOTED.
9. AVAILABLE SPACE FOR MAIN PANELBOARD IS LIMITED. PANELBOARD MUST FIT IN ALLOCATED SPACE. COORDINATE WITH CONSTRUCTION AS REQUIRED.
10. ALL WIRING SHALL BE IN CONDUIT, E.M.T OR RIGID. FLEXIBLE CONDUIT MAY ONLY BE USED FOR FINAL CONNECTIONS AND WITH GREEN EQUIPMENT GROUNDING CONDUCTORS.




NOTES

1. DASHED LINES INDICATE FIELD WIRING. SOLID BOLD LINES INDICATE CABLE & PLUGS THAT CONNECT TO THE UPM & PIB OUTLETS.
2. WIRING FROM INPUT BREAKER A-10 TO PIB MUST BE RUN IN SEPARATE CONDUIT OR MC CABLE FROM OUTPUT WIRING.
3. BRANCH CIRCUIT WIRING MUST BE RUN IN DEDICATED CONDUITS OR MC CABLE NOT SHARED WITH OTHER EQUIPMENT.
4. ALL BRANCH CIRCUIT RECEPTACLES MUST BE ISOLATED GROUND (IG) TYPE AND ORANGE COLORED TO IDENTIFY CRITICAL CIRCUIT.
5. POWERVAR UPM BATTERY BACKUP IS MOUNTED ON TOP OF THE PIB AND CONNECTS WITH CABLE PLUGS AND OUTLETS.

## SWITCHGEAR AND CONTROL EQUIPMENT NOTES

1. PURCHASE PANELBOARDS, SURGE ARRESTOR, AND TVSS FROM ONE OF THE TWO NATIONAL ACCOUNTS VENDORS (SEE SHEET E-902 SECTION C16440, PANELBOARDS) PROVIDING SQUARE-D EQUIPMENT. NO SUBSTITUTIONS ALLOWED.
2. PURCHASE CONTROL PANEL 'CFA-T500' FROM SUNCOAST ENVIRONMENTAL, INC. (NO SUBSTITUTIONS ALLOWED). ALL EQUIPMENT IN THE CONTROL PANEL SHALL BE INSTALLED, WIRED AND CONNECTED AT THE FACTORY, INCLUDING AUTOMATIC LIGHTING CONTROL SYSTEM, LIGHTING RELAYS, HVAC STARTERS, POWER SUPPLIES, MISCELLANEOUS RELAYS AND CONTROLS, AND THERMOSTATS.
3. CONTRACTOR SHALL PROVIDE PANEL FEEDERS A, B, C, D, AND POS, BRANCH CIRCUIT CONDUIT AND WIRE, AND INSTALL ALL EQUIPMENT AS REQUIRED.
4. ALL BREAKERS AND PANELS SHALL BE SQUARE-D.
5. TVSS AND SURGE ARRESTOR UNITS SHALL BE MOUNTED DIRECTLY ADJACENT TO THE SIDE OF THE MAIN DISTRIBUTION PANEL IN NEMA 3R ENCLOSURES. CLOSE NIPPLE THE UNITS TO THE SIDE OF THE PANEL. PROVIDE CONNECTION OF TVSS UNIT TO BREAKER IN PANEL. CONNECT SURGE ARRESTOR TO MAIN INCOMING LUGS OF THE PANE. CONNECT USING MINIMUM LENGTH OF WIRE WITHOUT SHARP BENDS IN THE WIRE AND SHALL NOT BE LENGTHENED FROM WIRE LENGTH PROVIDED WITH THE TVSS OR SURGE SUPPRESSOR DEVICE.
6. PROVIDE ARC FLASH MITIGATION AND DOCUMENTATION FOR PANEL MDP. PER NEC 240.87

### Branch Panel: POS

**LOCATION:**
**SUPPLY FROM:** A
**MOUNTING:** SURFACE
**ENCLOSURE:** NEMA 1

**VOLTS:** 120/120 Single
**PHASES:** 1
**WIRES:** 3
+IG
PROVIDE A JUMPER FOR PHASE A & B

**A.I.C. SERIES RATING:** 10K
**MAINS TYPE:** MLO
**MAINS RATING:** 100 A
**MCB RATING:**

| NT | CKT | LOAD DESCRIPTION | TRIP | POLE | A | | B | | POLE | TRIP | LOAD DESCRIPTION | CKT | NT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H | 1 | COUNTER STATIONS (180,182) | 15 A | 1 | 0.198 | 0.260 | | | 1 | 20 A | NETWORK CABINET | 2 | |
| | 3 | SPACE | -- | -- | | | 0.000 | 0.000 | -- | -- | SPACE | 4 | |
| H | 5 | COUNTER STATIONS (180,182) | 15 A | 1 | 0.250 | 0.070 | | | 1 | 20 A | OFFICE RECEPTACLE (COMP) | 6 | |
| | 7 | SPACE | -- | -- | | | 0.000 | 0.000 | -- | -- | SPACE | 8 | |
| H | 9 | DT POS STATION (180,182) | 15 A | 1 | 0.300 | 0.043 | | | 1 | 15 A | CL TABLE MONITORS (183,182L) | 10 | I |
| | 11 | SPACE | -- | -- | | | 0.000 | 0.000 | -- | -- | SPACE | 12 | |
| H | 13 | MLOP POS STATIONS (180,182L) | 15 A | 1 | 0.110 | 0.040 | | | 1 | 20 A | NETWORK CABINET | 14 | |
| | 15 | SPACE | -- | -- | | | 0.000 | 0.000 | -- | -- | SPACE | 16 | |
| H | 17 | MLOP MONITORS (183) | 15 A | 1 | 0.120 | 0.050 | | | 1 | 15 A | ISP MODEM | 18 | |
| | 19 | SPACE | -- | -- | | | 0.000 | 0.000 | -- | -- | SPACE | 20 | |
| H | 21 | PASS THRU MONITORS (183,182L) | 15 A | 1 | 0.200 | 0.000 | | | -- | -- | SPACE | 22 | |
| | 23 | SPACE | -- | -- | | | 0.000 | 0.000 | 1 | 20 A | BACKFED MAIN BREAKER | 24 | LO |
| | | | | Total Load: | | 1.64 kVA | | 0.00 kVA | | | | | |
| | | | | Total Amps: | | 13.7 A | | 0.0 A | | | | | |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals |
|---|---|---|---|---|
| MISCELLANEOUS | 1241 VA | 100.00% | 1241 VA | **Total Conn. Load:** 1.6 kVA |
| RECEPTACLES | 400 VA | 100.00% | 400 VA | **Total Est. Demand:** 1.6 kVA |
| | | | | **Total Conn.:** 13.7 A |
| | | | | **Total Est. Demand:** 13.7 A |

## (B1) CONDUIT AND CONDUCTORS SCHEDULE

| Mark No. | OCP Device (Amp/Poles) | Conductors Total Amps 60d C | 75d C | Conductors Phase & Neutral Qty | Size | Type | Min Eq Grd Qty/Set | Size | Raceway Size (Nominal Inches) No. Sets | Phase, Neutral & Equip Grd EMT | IMC | RIGID | PVC | With IG EMT | IMC | PVC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20/1 | 20 | - | 2 | 12 | THHN | 1 | 12 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 2 | 20/2 | 20 | - | 3 | 12 | THHN | 1 | 12 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 3 | 20/3 | 20 | - | 4 | 12 | THHN | 1 | 12 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 4 | 25/1 | 30 | - | 2 | 10 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 5 | 25/2 | 30 | - | 3 | 10 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 6 | 25/3 | 30 | - | 4 | 10 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 7 | 30/1 | 30 | - | 2 | 10 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 8 | 30/2 | 30 | - | 3 | 10 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 9 | 30/3 | 30 | - | 4 | 10 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 10 | 40/1 | 40 | - | 2 | 8 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 11 | 40/2 | 40 | - | 3 | 8 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 12 | 40/3 | 40 | - | 4 | 8 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 1.00 |
| 13 | 50/1 | 55 | - | 2 | 6 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 14 | 50/2 | 55 | - | 3 | 6 | THHN | 1 | 10 | One | 0.75 | 0.75 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 |
| 15 | 50/3 | 55 | - | 4 | 6 | THHN | 1 | 10 | One | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 16 | 60/1 | 70 | - | 2 | 4 | THW | 1 | 8 | One | 1.00 | 1.00 | 1.00 | 1.00 | 1.25 | 1.00 | 1.25 |
| 17 | 60/2 | 70 | - | 3 | 4 | THW | 1 | 8 | One | 1.25 | 1.00 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 18 | 60/3 | 70 | - | 4 | 4 | THW | 1 | 8 | One | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 19 | 70/1 | 70 | - | 2 | 4 | THW | 1 | 8 | One | 1.00 | 1.00 | 1.00 | 1.00 | 1.25 | 1.00 | 1.25 |
| 20 | 70/2 | 70 | - | 3 | 4 | THW | 1 | 8 | One | 1.25 | 1.00 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 21 | 70/3 | 70 | - | 4 | 4 | THW | 1 | 8 | One | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 22 | 80/2 | 85 | - | 3 | 3 | THW | 1 | 8 | One | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 23 | 80/3 | 85 | - | 4 | 3 | THW | 1 | 8 | One | 1.25 | 1.25 | 1.25 | 1.25 | 1.50 | 1.25 | 1.50 |
| 24 | 90/2 | 95 | - | 3 | 2 | THW | 1 | 8 | One | 1.25 | 1.25 | 1.25 | 1.25 | 1.50 | 1.25 | 1.50 |
| 25 | 90/3 | 95 | - | 4 | 2 | THW | 1 | 8 | One | 1.50 | 1.25 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| 26 | 100/2 | 110 | - | 3 | 1 | THW | 1 | 6 | One | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | 2.00 |
| 27 | 100/3 | 110 | - | 4 | 1 | THW | 1 | 6 | One | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 28 | 110/2 | - | 115 | 3 | 2 | THW | 1 | 6 | One | 1.25 | 1.25 | 1.25 | 1.25 | 1.50 | 1.25 | 1.50 |
| 29 | 110/3 | - | 115 | 4 | 2 | THW | 1 | 6 | One | 1.50 | 1.25 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| 30 | 125/2 | - | 130 | 3 | 1 | THW | 1 | 6 | One | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | 2.00 |
| 31 | 125/3 | - | 130 | 4 | 1 | THW | 1 | 6 | One | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 32 | 150/2 | - | 150 | 3 | 1/0 | THW | 1 | 6 | One | 2.00 | 1.50 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 33 | 150/3 | - | 150 | 4 | 1/0 | THW | 1 | 6 | One | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 34 | 175/2 | - | 175 | 3 | 2/0 | THW | 1 | 6 | One | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 35 | 175/3 | - | 175 | 4 | 2/0 | THW | 1 | 6 | One | 2.00 | 2.00 | 2.00 | 2.00 | 2.50 | 2.50 | 2.50 |
| 36 | 200/2 | - | 200 | 3 | 3/0 | THW | 1 | 6 | One | 2.00 | 2.00 | 2.00 | 2.00 | 2.50 | 2.50 | 2.50 |
| 37 | 200/3 | - | 200 | 4 | 3/0 | THW | 1 | 6 | One | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 |
| 38 | 225/2 | - | 230 | 3 | 4/0 | THW | 1 | 4 | One | 2.50 | 2.00 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 |
| 39 | 225/3 | - | 230 | 4 | 4/0 | THW | 1 | 4 | One | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 3.00 | 3.00 |
| 40 | 250/3 | - | 255 | 4 | 250 | THW | 1 | 4 | One | 2.50 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| 41A | 300/3 | - | 285 | 4 | 300 | THW | 1 | 4 | One | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| 41B | 300/3 | - | 310 | 4 | 350 | THW | 1 | 4 | One | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3..00 | 3.00 |
| 42A | 350/3 | - | 335 | 4 | 400 | THW | 1 | 4 | One | 3.00 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 42B | 350/3 | - | 380 | 4 | 500 | THW | 1 | 4 | One | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 43A | 400/3 | - | 380 | 4 | 500 | THW | 1 | 3 | One | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 43B | 400/3 | - | 400 | 4 | 3/0 | THW | 1 | 3 | Two | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 |
| 44A | 600/3 | - | 570 | 4 | 300 | THW | 1 | 1 | Two | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| 44B | 600/3 | - | 620 | 4 | 350 | THW | 1 | 1 | Two | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| 45A | 800/3 | - | 760 | 4 | 500 | THW | 1 | 1/0 | Two | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 45B | 800/3 | - | 820 | 4 | 600 | THW | 1 | 1/0 | Two | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 46 | 1000/3 | - | 1005 | 4 | 400 | THW | 1 | 2/0 | Three | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| 47 | 1200/3 | - | 1240 | 4 | 350 | THW | 1 | 3/0 | Four | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 4.00 |
| 48 | 1600/3 | - | 1675 | 4 | 400 | THW | 1 | 4/0 | Five | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |

Notes:

Conductors are rated at 600 volt or below and are to be copper.

NEC Table 310.15(B)(16) - formerly Table 310.16 - is used for the basis of the conductor ampacities, which is not more than three current carrying conductors in a raceway at an ambient temperature of 30 deg C with 60 deg C rated conductors and connectors per 110.14-C-1 for up to 100 amp rated and up to #1 AWG conductors for equipment terminations and 75 deg C rated conductors and termination connectors for larger than 100 amp or above #1 AWG conductors.

NEC Tables 4, 5, and Appendix C is used for the basis of the conduit sizes. Table C1 for EMT, Table C4 for IMC, Table C8 for Rigid, and Table C10 for PVC (Sch 40).

All Branch Feeders and Branch Circuits shall include a green Equipment Grounding Conductor.

Omit Grounding conductor on Service Entrance Feeders.

Omit Neutral conductor on all Delta primary transformer feeders or 3 phase loads not requiring a neutral.

The above conductors are not calculated for Voltage Drop. Any circuits that exceed 100 feet shall be calculated by the Installer to have less than a three percent voltage drop on feeders and five percent on branch circuits per the NEC.



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PROFESSIONAL ENGINEER

# CHICK-FIL-A
## WELLS ROAD FSU

1925 Wells Road
Orange Park, FL 32073

**FSR#01360**

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 3 | 08-01-2022 | BID ADDENDUM #1 |

PERMIT

CONSULTANT PROJECT # C29144
PRINTED FOR PERMIT
DATE 09/28/2021
DRAWN BY KCL



SHEET
SINGLE LINE DIAGRAM AND NOTES

SHEET NUMBER
**E-502**

SECTION C16100
ELECTRICAL GENERAL PROVISIONS

PART 1- GENERAL

1.01 WORK INCLUDED
A. Provide all materials, labor and equipment required to furnish and install a complete electrical system as indicated on drawings and as specified herein.

1.02 REGULATORY REQUIREMENTS
A. Equipment furnished shall be UL listed where such label is available. Installation shall conform to UL standards where applicable.

B. Electrical work shall be installed in accordance with drawings and specifications, NEC and NFPA codes in effect at project location, state and local electrical and building codes and special codes having jurisdiction over specific portions within complete installation.

C. Obtain permits and certificates of approval from all authorities having jurisdiction over the installation and pay all fees required.

1.03 SUBMITTALS
A. Submit list of materials and equipment prior to manufacture, order or installation and within twenty days after award of contract for approval. Include each item of material and equipment whether or not shop drawings are also required. List shall include name of manufacturer, catalog number and other complete identification as well as dimensions and detailed data. Submittals shall be included for the following:
1. Lighting Fixtures
2. Panelboards/Breakers
3. Wiring Devices and Device Plates
4. Enclosed Switches

B. Certified shop drawings and submittals shall bear stamp of approval of contractor as evidence that drawings have been checked. Drawings submitted without this stamp of approval will not be considered and will be returned for proper resubmission.

C. If submittals show variances or substitutions from requirements of contract, contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment. Otherwise contractor shall not be relieved of responsibility for executing work in accordance with contract even though such submittals have been approved.

1.04 SITE VISIT
A. Visit job site prior to bid date to determine actual conditions under which work shall be done, to familiarize oneself with project and to verify total scope of work required. Failure to do so shall not constitute a reason for an extra charge.

SECTION C16101
BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.01 COORDINATION
A. Obtain and review shop drawings, product data, and manufacturer's instructions for equipment furnished under other sections to determine connection locations and requirements.

B. Sequence rough-in of electrical connections to coordinate with installation and start-up of equipment furnished under other sections.

PART 2 - PRODUCTS

2.01 SUBSTITUTIONS
A. Where specifications list one or more manufacturers and do not include "or approved equal", furnish materials made by one of manufacturers listed. Where "or approved equal" is included, contractor may substitute equal products by another manufacturer subject to approval by engineer and owner.

PART 3 - EXECUTION

3.01 INSTALLATION
A. Make electrical connections to utilization equipment in accordance with equipment manufacturer's instructions.

B. Drawings are diagramatic and shall not be scaled for exact sizes or locations, they are not intended to disclose absolute or unconditional knowledge of actual field conditions.

C. Protect work and materials from damage by weather, entrance of water and dirt. Cap conduit during installation. Avoid damage to materials and equipment in place.

D. Satisfactorily repair or remove and replace damaged work with new materials. Deliver equipment and materials to job site in original, unopened, labeled containers. Store ferrous materials to prevent rusting. Store finished materials and equipment to prevent staining and discoloring.

E. Trenches shall be excavated 6" below elevation of bottom of conduit.

F. Failure to route conduit through building without interfering with other equipment and construction shall not constitute a reason for an extra charge. Equipment, conduit and fixtures shall fit into available spaces in building and shall not be introduced into building at such times and manner as to cause damage to structure. Equipment requiring service shall be readily accessible.

3.02 TESTING AND EQUIPMENT SERVICING
A. Make test to ensure that entire system is in proper operating condition, and that adjustments and apparatus setting of circuit breakers, fuses, control equipment and apparatus have been made. Correct defects discovered during tests.

3.03 REMOVAL OF DEBRIS
A. Remove surplus materials and debris caused by, or incidental to, electrical work. Remove such debris at frequent intervals. Keep job clean during construction.

3.04 IDENTIFICATION OF EQUIPMENT
A. Identify electrical distribution equipment, disconnects, and contactors with black laminated plastic name-plates, attached with two screws, engraved with 1/4" high, white letters.

3.05 TEMPORARY LIGHTING AND POWER IN AREAS OF CONSTRUCTION
A. Provide, maintain and remove after construction is completed, temporary lighting adequate for workman safety and temporary power for all trades including any 3 phase power required.

B. Provide and maintain barricade lighting where required to adequately protect owner against liability for damage to public or personnel. All lamps used in barricade shall be 60 watt red, installed in weatherproof socket with wire guard. All wiring shall be approved for weatherproof installation.

3.06 GUARANTEE-WARRANTY
A. Guarantee work to be free from defects of materials and workmanship for a period of one year from date of final acceptance of building. Repair and replace defective work and other work damaged thereby which becomes defective during term of guarantee-warranty. Furnish owner with three written copies of guarantee-warranty.

SECTION C16120
RACEWAYS AND CONDUIT SYSTEMS

PART 1 - PRODUCTS

1.01 ACCEPTABLE MANUFACTURERS
A. Rigid IMC, and EMT conduit shall be hot-dipped, galvanized, or electro-galvanized steel by Allied, Republic, Triangle, Wheatland, or approved equal.

B. PVC conduit shall be Carlon, schedule 40, 90 degrees C. rated, unless otherwise noted.

C. MC cable shall be manufactured by AFC Cable Systems or approved equal. Type "AC-90" is not allowed. All MC Cables shall have a green equipment ground conductor and an additional isolated ground (green + yellow stripe) conductor for isolated ground circuits (POS system). Fittings used for connecting MC cable to boxes, cabinets, or other equipment shall be listed and identified for such use.

D. Associated couplings, connectors and fittings shall be steel as manufactured by Raco or equivalent. Catalog numbers used below are those of Raco.

E. Erickson Couplings, Series 1502, shall be used where neither length of conduit can be rotated.

F. Insulated bushings shall be series 1402.

G. EMT box connectors shall be compression or set-screw fittings.

H. Conduit, connectors, couplings and fittings shall be UL listed and labeled.

1.02 ELECTRICAL METALLIC TUBING (EMT)
A. Use Electrical Metallic Tubing (EMT) where drawings call for conduit to be:
1. Concealed in walls.
2. Installed above suspended ceilings.
3. Installed exposed, above 6 feet.
4. Installed for panelboard feeders above slab.

1.03 INTERMEDIATE METAL CONDUIT (IMC)
A. Use Intermediate Metal Conduit (IMC) where drawings call for conduit to be:
1. Installed for panelboard feeders ran below ground.
2. Installed in wet locations (interior and exterior).
3. Installed exposed below 6 feet.

1.04 POLYVINYL CHLORIDE (PVC) RACEWAY
A. Use PVC raceway for:
1. Underground service entrance conduits for telephone and power.
2. Exterior branch circuits installed underground.
3. Interior branch circuit conduits installed in or under concrete slab on ground floor.

1.05 RIGID STEEL CONDUIT (RSC)
A. Use Rigid Steel Conduit for:
1. Install underground for power Service Entrance elbows penetrating floor slab.
2. Exposed to physical damage.

1.06 FLEXIBLE METAL CONDUIT
A. Provide flexible metal conduit for termination at equipment subject to motion and vibration.

B. Length shall not exceed 6 feet in accessible ceiling areas.

C. Shall not be concealed in walls.

D. Where exposed to continuous or intermittent moisture, conduit shall be UL Type EF liquidtight or type as indicated.

E. For connection to ceiling mounted lighting fixtures from outlet boxes.

1.07 MC (METAL-CLAD) CABLE
A. MC Cable shall be UL listed per standard 1569, color coded copper conductors (type THHN), the sheathing shall be constructed of interlocking galvanized steel, and shall conform to the requirements of Article 330 of the National Electrical Code.

B. MC Cable with an isolated grounding conductor shall be used, concealed above ceiling and in walls, for the connection of the Point Of Sales (POS) system equipment from the isolated ground receptacles to the panelboard serving the POS loads when allowed by local codes and Article 330 of the National Electrical Code.

C. MC Cable may be used when allowed by local codes and Article 330 of the National Electrical Code for branch circuits (except the main homerun to the panelboard which shall be conduit with conductors) for the following:
1. Lighting
2. Dining area receptacles
3. Fly Lights
4. Building mounted signage
5. Office area receptacles

D. MC Cable shall not be used for branch circuits serving Kitchen Equipment Items and similar circuits in the Kitchen, the Drive- Thru area, and the Serving area's back counter.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Minimum size of conduits shall be 1/2 inch.

B. Run concealed conduits in direct line with long sweep bends or offsets. Run exposed conduits parallel to and at right angles to building lines. Group multiple conduit runs in banks.

C. Cap ends of conduits to prevent entrance of water and other foreign material during construction.

D. Provide No. 12 AWG copper pull wires or nylon cord in all empty conduits. Steel wire not acceptable as pull wire.

E. Where IMC enters a cabinet, junction box, or pull box conductors shall be protected by an insulated bushing. Locknuts shall be installed on conduit outside and inside enclosure.

F. In areas where enclosed and gasketed fixtures and weatherproof devices are specified, where Rigid Conduit enters a sheet metal enclosure, junction box and outlet box, and not terminated in a threaded hub, a steel, or malleable iron nylon insulated hub, complete with recessed sealing "O"ring or sealing locknut shall be used.

G. Provide seal-off fitting in all conduits entering a cold temperature area such as freezers and dry refrigerators.

H. In concrete slabs, block up conduit from forms and securely fasten in place. all conduits in slabs shall have a minimum of 4" inches concrete coverage above.

I. Failure to route conduit through building without interfering with other equipment, and construction shall not constitute a reason for an extra charge. Equipment, conduit, and fixtures shall fit into available spaces in building and shall not be introduced into building at such times and manner as to cause damage to structure or equipment. Equipment requiring servicing shall be readily accessible.

2.02 EMT (ELECTRICAL METALLIC TUBING) RACEWAY
A. Do not use Electrical Metallic Tubing in cinder concrete or cinder fill or where conduit system is in contact with dissimilar metals or in wet locations.

2.03 PVC RACEWAY
A Use threaded fittings for all connectors and adapters.

B. Provide 1/4-inch nylon pull rope in all primary power and incoming telephone service entrance conduits.

C. PVC conduit shall convert to galvanized rigid metal per detail on drawings.

2.04 FLEXIBLE METAL CONDUIT
A. Where fittings for liquid tight flexible conduit are brought into an enclosure with a knock-out, a gasket assembly, consisting of one piece "O" ring, with Buna-N sealing material, series 3400, shall be installed on outside of box. Fittings shall be made of either steel or malleable iron only, and shall have insulated throats or insulated bushings.

B. In dry locations, where final connections to motors and other equipment may be made with Flexible Metal Conduit, fittings shall be of steel or malleable iron only with insulated throats or insulated bushings, and shall be of wedge and screw type having an angular wedge fitting between convolutions of conduit.

2.05 MC CABLE
A. MC Cable may be used for branch circuits as noted in Part 1 above and where the local code allows use of MC Cable. The installation shall conform to Article 330 of the National Electrical Code and shall be concealed in walls and above ceilings. (Exposed MC Cable will not be acceptable.)

B. MC Cables shall be secured and supported by the building structure per the National Electrical Code and any local code requirements. MC Cable shall not lay on ceilings.

SECTION C16121
CONDUCTORS

PART 1 - PRODUCTS

1.01 CONDUCTORS
A. Provide 98% conductivity copper conductors with 600-volt insulation. For conductors No. 12 AWG and No. 10 AWG, provide solid type. For all conductors No. 8 AWG and larger, provide stranded type. All conductors shall have THHN/THWN insulation unless noted otherwise.

B. Conductors shall be manufactured by Triangle, American, Rome, Southwire or approved equal.

C. Provide No. 14 AWG type THHN fixture conductors, for conductors entering lighting fixtures.

D. Branch circuit conductors shall be minimum #12 AWG, copper.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Install pull boxes in circuits or feeders over 100 feet long.

B. Make all splices or connections only at outlet, pull or junction boxes.

C. All conductors and connections shall test free of grounds, shorts, and opens prior to energizing circuit.

D. Provide No. 10 wire in lieu of No. 12 wire for any branch circuit in excess of 100 feet linear length to prevent excessive voltage drop.

E. Use Ideal wing nuts, Scotchlok Type Y, R, G, or B, or approved equivalent connectors for fixture connections at outlet boxes.

F. Make feeder taps and joints with OZ Type T, PT, PM or PTS, or approved equivalent clamp connectors as manufactured by Kupler, or with approved compression sleeves. Wrap connectors with No. 10 Electro-Seal or approved equivalent plastic filler and vinyl tape.

G. Leave a minimum of 8" slack wire in every outlet box.

H. Provide color coded wire and with a different color for each phase and neutral and ground as follows: Phase A, B, C: Black, Red and Blue respectively; Neutral: White; Isolated Ground: Green with Yellow Stripes. Approved color tape is acceptable for feeders using larger than #6 conductors.

I. All conductors shall be continuous from origin to panel or equipment termination without splices where possible. Where splices and taps are necessary or are required, they shall be made in splice boxes with suitable connectors.

J. Tighten all electrical connectors and terminals, including screws and bolts, in accordance with manufacturer's published torque tightening values. Where manufacturer's torquing requirements are not indicated,tighten connectors and terminals to comply with tightening torques specified in UL486A and UL486B.

SECTION C16122
OUTLET AND JUNCTION BOXES

PART 1 - GENERAL

1.01 PROJECT CONDITIONS
A. Verify field measurements are as shown on drawings.

B. Verify locations of floor boxes and outlets in work areas prior to rough-in.

PART 2 - PRODUCTS

2.01 OUTLET BOXES

A. Sheet metal outlet boxes: galvanized steel.

B. Cast boxes: type FS, cast feralloy. Provide gasketed cover by box manufacturer.

C. Manufacturers: National, Appleton, General Electric, RACO, or Steel City.

D. Provide boxes for fixtures with fixture studs in center.

E. Outlet boxes for lighting, switches and receptacles in interior areas with exposed conduit shall be pressed steel and in exterior areas with exposed conduit shall be cast metal with threaded hubs, "FS" type. Use galvanized steel for concealed boxes. Boxes shall be 1-1/2" deep minimum.

2.02 PULL AND JUNCTION BOXES
A. Sheet metal boxes: galvanized steel.

B. Surface-mounted cast metal box: type 4; flat-flanged, surface-mounted junction box.
1. Material: galvanized cast iron.
2. Cover: furnish with ground flange, neoprene gasket, and stainless steel cover screws.

C. In-ground cast metal box: inside flanged, recessed cover box for flush mounting.
1. Material: galvanized cast iron.
2. Cover: nonskid cover with neoprene gasket and stainless steel cover screws.
3. Cover legend: electric.

D. Manufacturers: National, Appleton, General Electric, RACO, Oz-Gedney or Steel City.

PART 3 - EXECUTION

3.01 INSTALLATION
A. Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.

B. Install pull boxes and junction boxes above accessible ceilings.

C. Inaccessible ceiling areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed light fixture.

D. Use flush mounting outlet boxes in finished areas.

E. Use stamped steel bridges to fasten flush mounting outlet box between studs.

F. Install flush mounted box without damaging wall insulation or reducing its effectiveness.

G. Use adjustable steel channel fasteners for hung ceiling outlet box.

H. Do not fasten boxes to ceiling support wires.

I. Support boxes independently of conduit, except cast box that is connected to two Rigid Metal Conduits both supported within 12 inches of box.

J. Use gang box where more than one device is mounted together. Do not use sectional box.

K. Use gang box with plaster ring for single device outlets.

L. Use cast outlet box in exterior locations and wet locations.

3.02 OUTLET BOXES
A. Select boxes according to intended use and type of outlet. Ceiling outlet boxes shall be 4" octagon and 1-1/2" deep. Use 2-1/8" deep octagon boxes or 4" square boxes required. All ceiling outlet boxes shall have a fixture stud of no bolt self-locking type installed if required to hang the fixture specified at the outlet.

3.03 JUNCTION BOXES
A. Junction boxes shall be sized according to number of conductors in box or type of service to be provided. Minimum junction box size 4-11/16" square and 2-1/8" deep. Provide screw covers for junction boxes.

B. Use code gauge steel with screw covers for pull boxes with prime coat and provide with screw cover. Size pull boxes according to the NEC.

C. Provide pull box every 100 feet of conduit run or where excessive number of bends necessitates a box for ease of wire installation.

SECTION C16123
GROUNDING AND BONDING

PART 1 - PRODUCTS

1.01 ROD ELECTRODES
A. Material: copper-clad steel.

B. Diameter: 3/4 inch.

C. Length: 10 feet.

1.02 MECHANICAL CONNECTORS
A. Material: bronze.

1.03 GROUNDING CONDUCTOR (WIRE)
A. Material: stranded copper, sized to meet NFPA 70, Article 250 requirements.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Install rod electrodes at locations indicated. Install additional rod electrodes as required to achieve resistance to ground of less than 25 ohms.

B. Provide grounding electrode conductor and connect to reinforcing steel in foundation footing.

C. Provide bonding to meet regulatory requirements.

D. Bond together each metallic raceway, pipe, duct and other metal objects.

E. Provide isolated grounding conductor for circuits supplying all isolated ground outlets. Insulation shall be green with yellow stripe. Size per NEC Table 250.66. This isolated grounding conductor shall run in addition to equipment grounding conductor and along with the branch circuit conductors.

2.02 GROUNDING
A. Ground electrical system in accordance with NEC Article 250 and local authorities having jurisdiction.

B. Install a #3/0 bare copper wire bond across the water meter attached to ground clamps on water line on each side of meter. Arrangements shall be made to do this work at the time the water meter is installed.

C. From the point of entrance of the water main into the building and on the meter side of the main inside water valve and union install a stranded copper cable #3/0 in 1-1/4" conduit to the main distribution panel. Connect the cable to the equipment ground bus.

D. Install a green equipment grounding conductor in each raceway, sized per NEC Table 250-122. Terminate on equipment ground bus within panelboard serving load.

E. Install #6 awg copper grounding conductor from ground bar in main telephone box to grounded neutral bus in main distribution panel.

F. All separate grounding electrode conductors shall be bonded together to limit potential differences between them and between their associated wiring systems. This includes the power system, telephone system, etc.

2.03 FIELD QUALITY CONTROL
A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.



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Orange Park, FL 32073

FSR#01360

BUILDING TYPE / SIZE: S03
RELEASE: 21.05

REVISION SCHEDULE
NO. DATE DESCRIPTION

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SHEET
ELECTRICAL SPECIFICATIONS

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