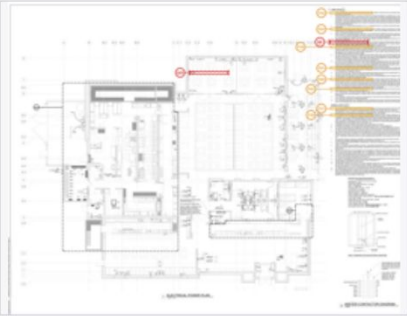
# Estimating-to-Field Turnover Package

Work sample - Full-service restaurant, ~11,000 sq ft, one-story new build

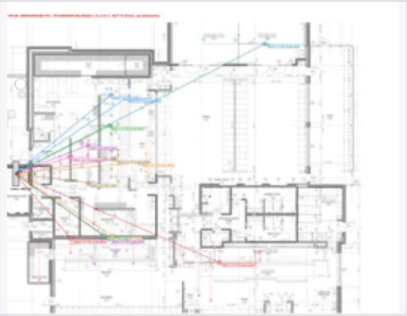
When a bid is awarded, the estimate has to become a plan the field can build from. This package hands the job from estimating to operations:

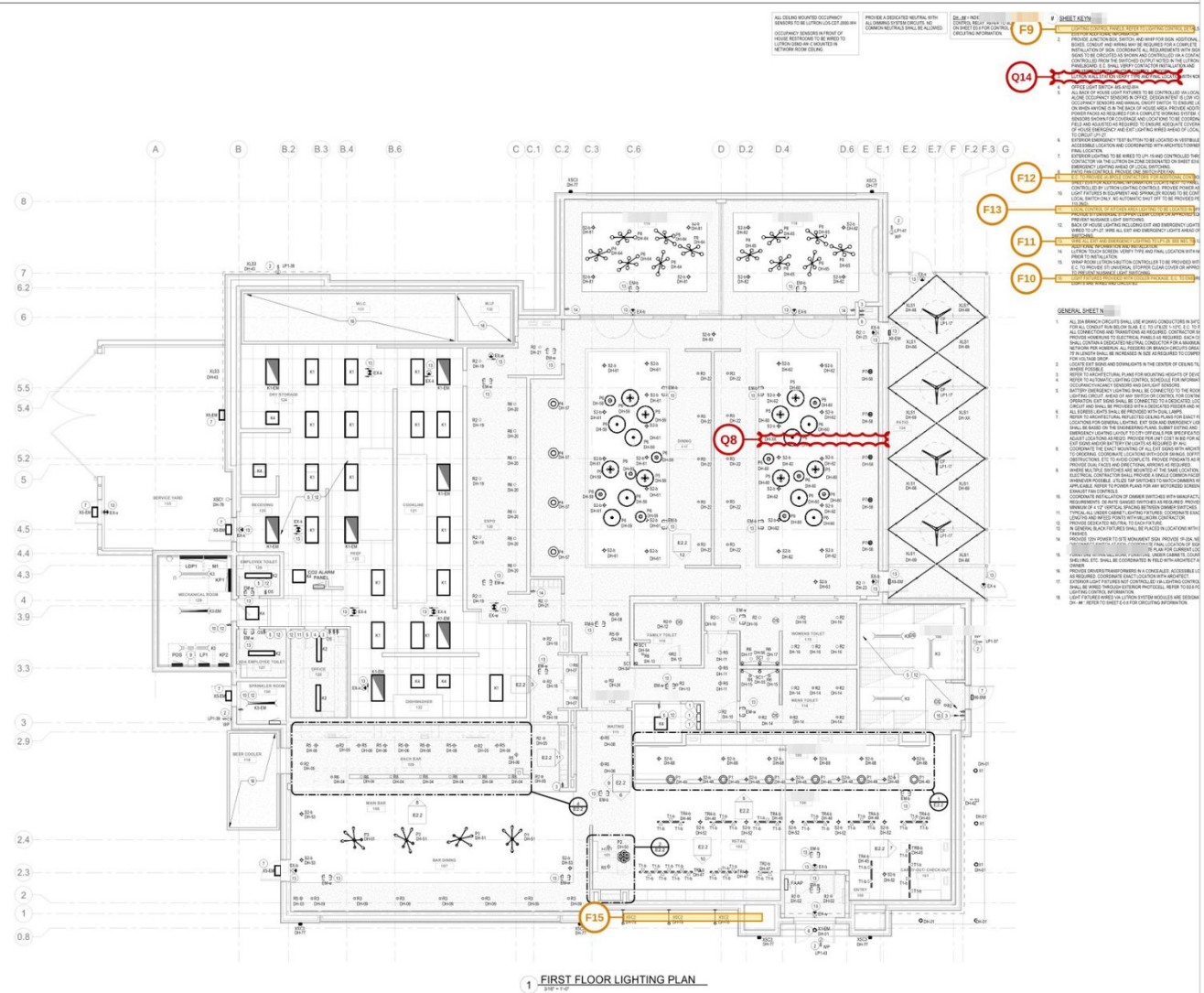
- Turnover narrative: scope, exclusions, schedule, labor and material budget, long-lead gear, RFI log
- Set A, field notes & questions: every sheet of the electrical set marked with numbered questions (Q) and field confirms (F), plus a master schedule
- Set B, circuiting & home runs: junction-box grouping, conduit and wire sizing with NEC derating, voltage drop and fill checks, under-slab stub-up dimensions
- Home-run legend and J-box schedule tables, issued as one bound, indexed PDF set











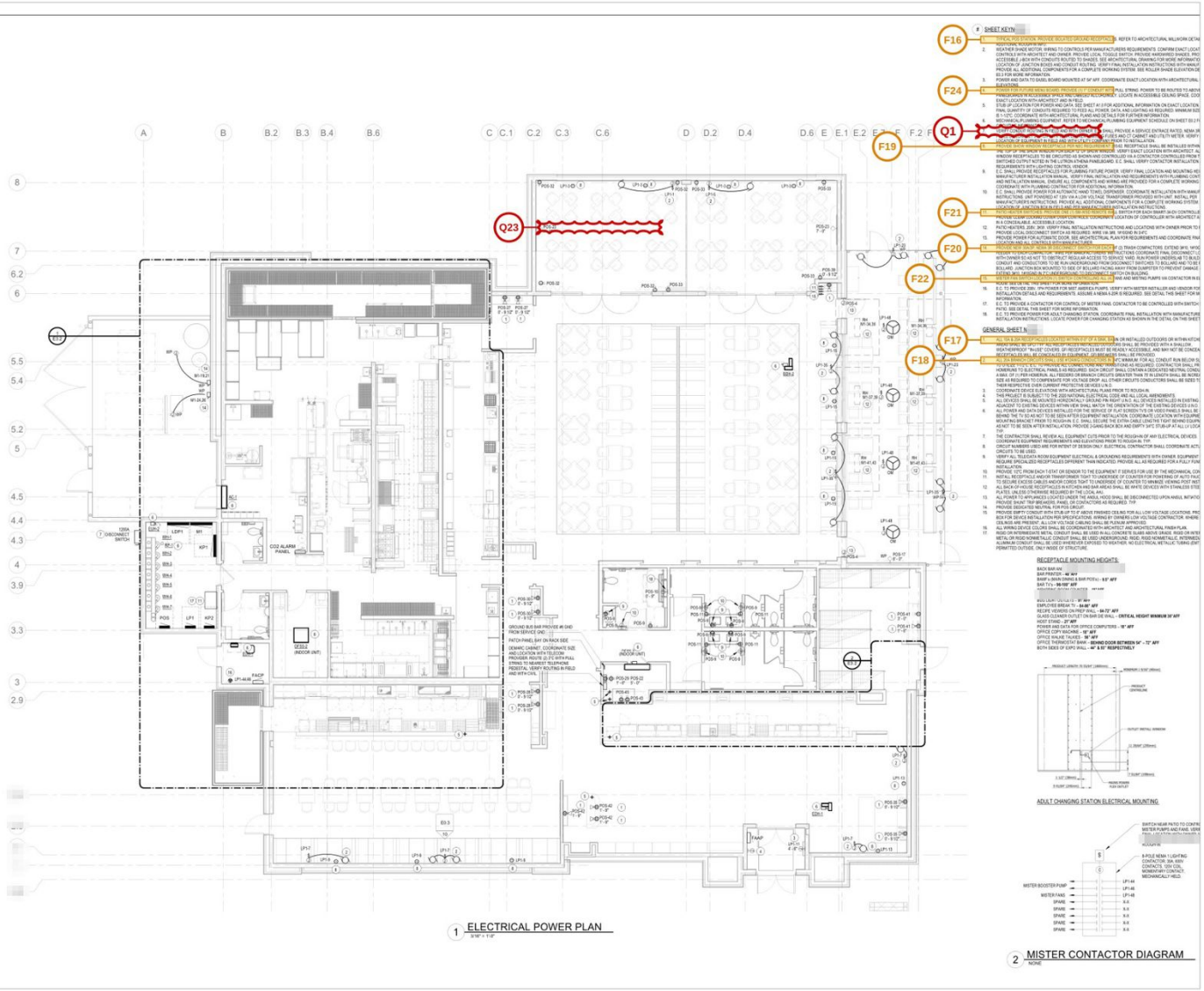

1 FIRST FLOOR LIGHTING PLAN
3/16" = 1'-0"

## Field notes & questions - lighting plan

Red clouds + Q bubbles flag conflicts and open RFIs to resolve with the GC before that work.

Amber highlights + F bubbles flag items the field must confirm.

Every callout is cross-referenced to a numbered schedule so the foreman and PM work from one list.

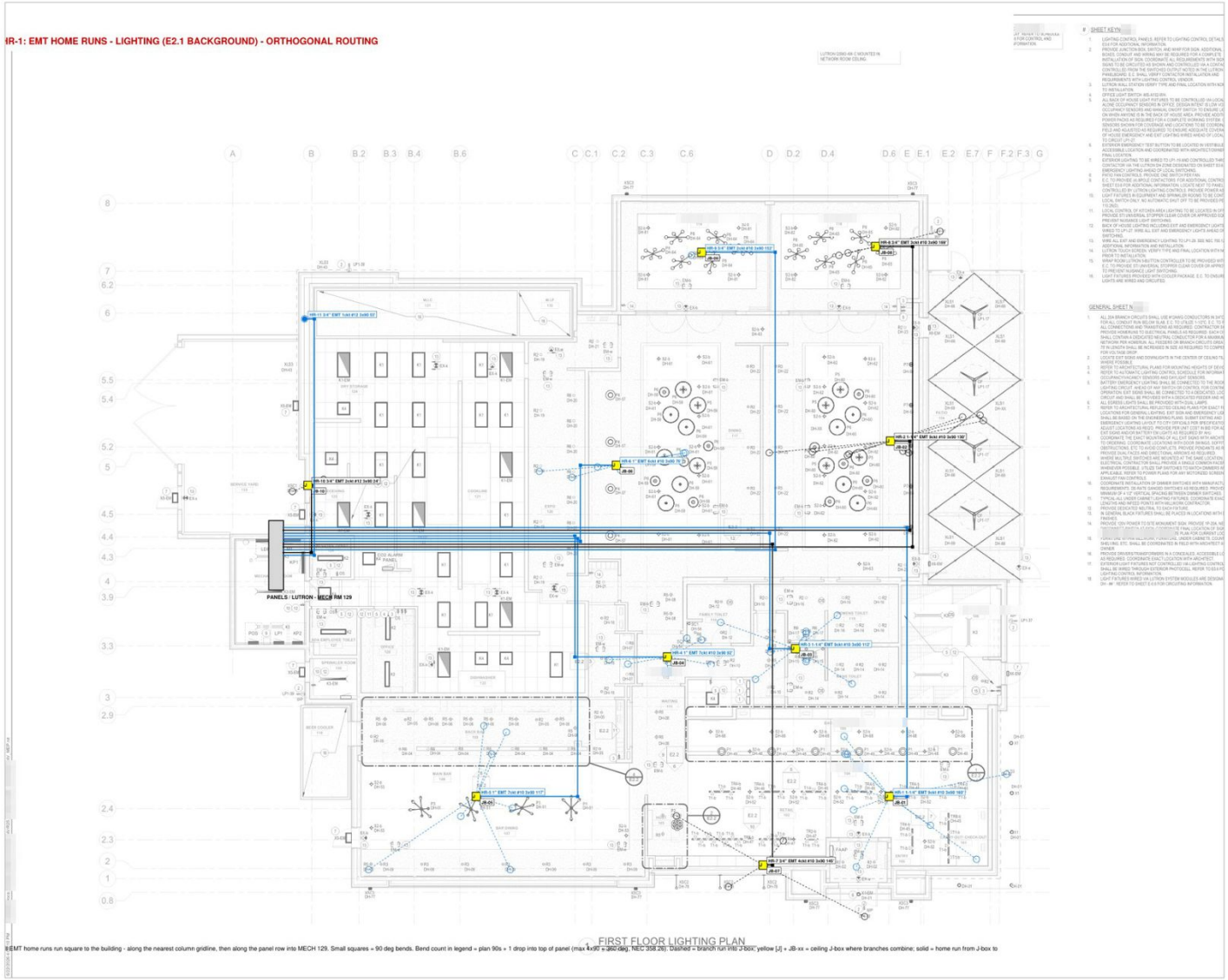



## Field notes & questions - power plan

Service-equipment responsibility conflict between the engineer and landlord documents flagged for the GC (Q1).

Branch-circuit rules, GFCI, isolated-ground POS and patio equipment requirements called out at the plan.

Takeoff recount differences flagged so the crew knows what changed since the bid.

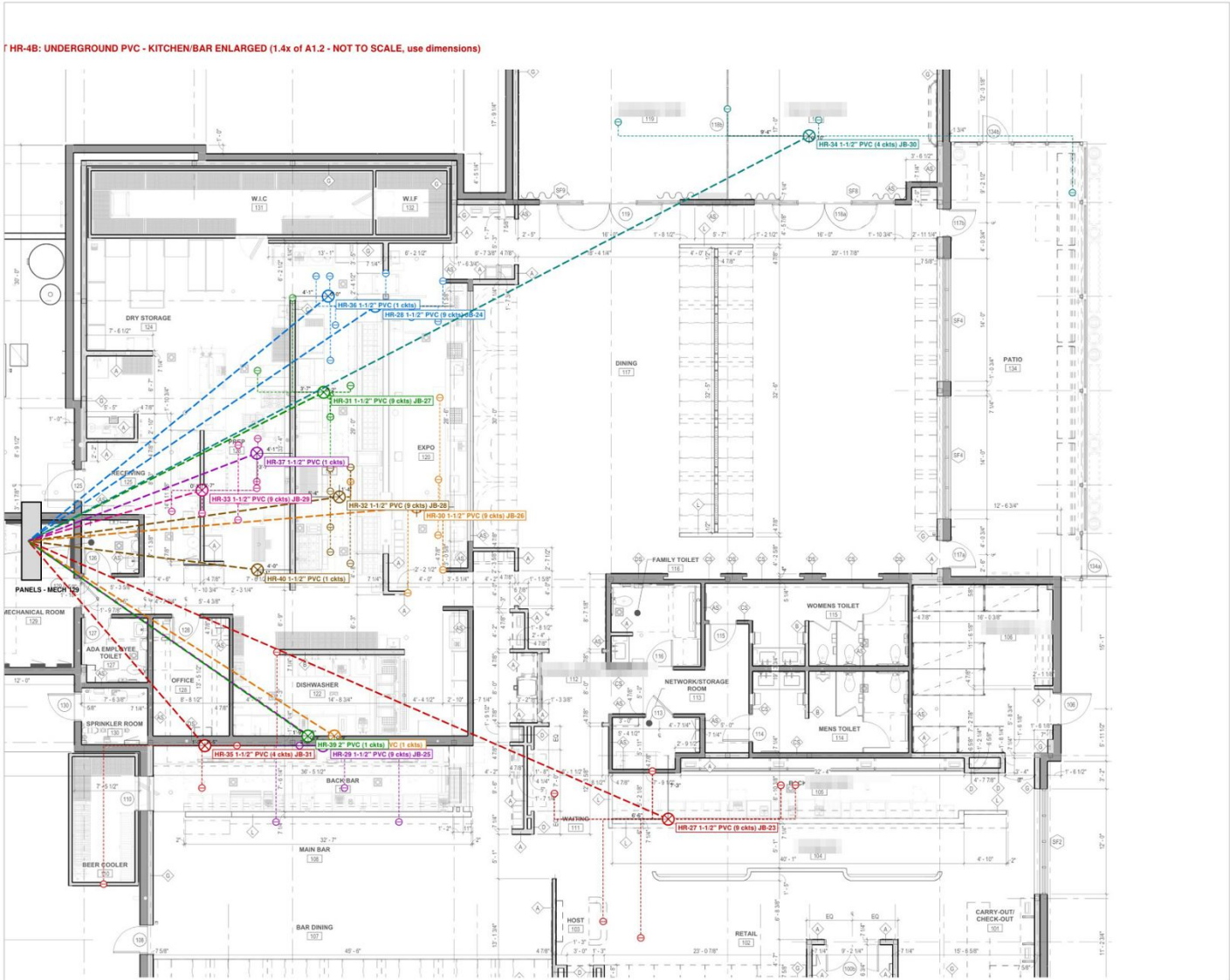



## Home-run design - EMT lighting

40 home runs grouped to junction boxes (25 EMT / 15 PVC) instead of 119 individual runs.

Derating per NEC 310.15(C)(1), voltage-drop upsizing and 40% conduit fill checked for every run.

Each run scheduled with conduit size, wire, length and number of 90s.




## Home-run design - under-slab PVC, kitchen/bar

Under-slab PVC laid out on the dimensioned architectural plan.

Every stub-up dimensioned from a printed wall face or gridline for layout before the pour.

J-box schedule and PVC stub-up list delivered with the drawings.

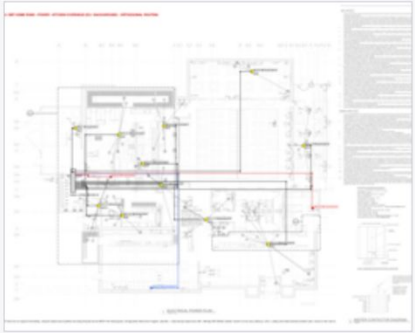
# Conduit Home-Run Design

Work sample - Full-service restaurant, ~11,000 sq ft, one-story new build

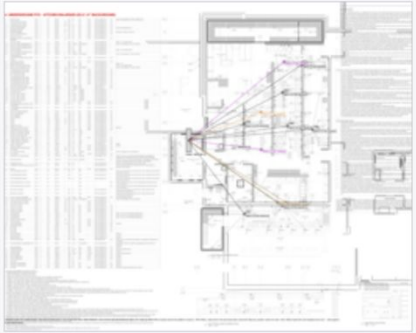
Branch circuits are grouped into junction boxes and consolidated home runs so the field installs fewer, better-planned raceways:

- 40 home runs (25 EMT overhead / 15 PVC below slab) and 31 J-boxes, down from 119 individual runs
- Every run checked for NEC 310.15(C)(1) derating, voltage drop (>130 ft upsized) and 40% conduit fill
- Under-slab PVC laid out on the dimensioned architectural plan with stub-up dimensions for layout before the pour
- Issued with a home-run legend (conduit, wire, length, 90s per run) and a J-box schedule





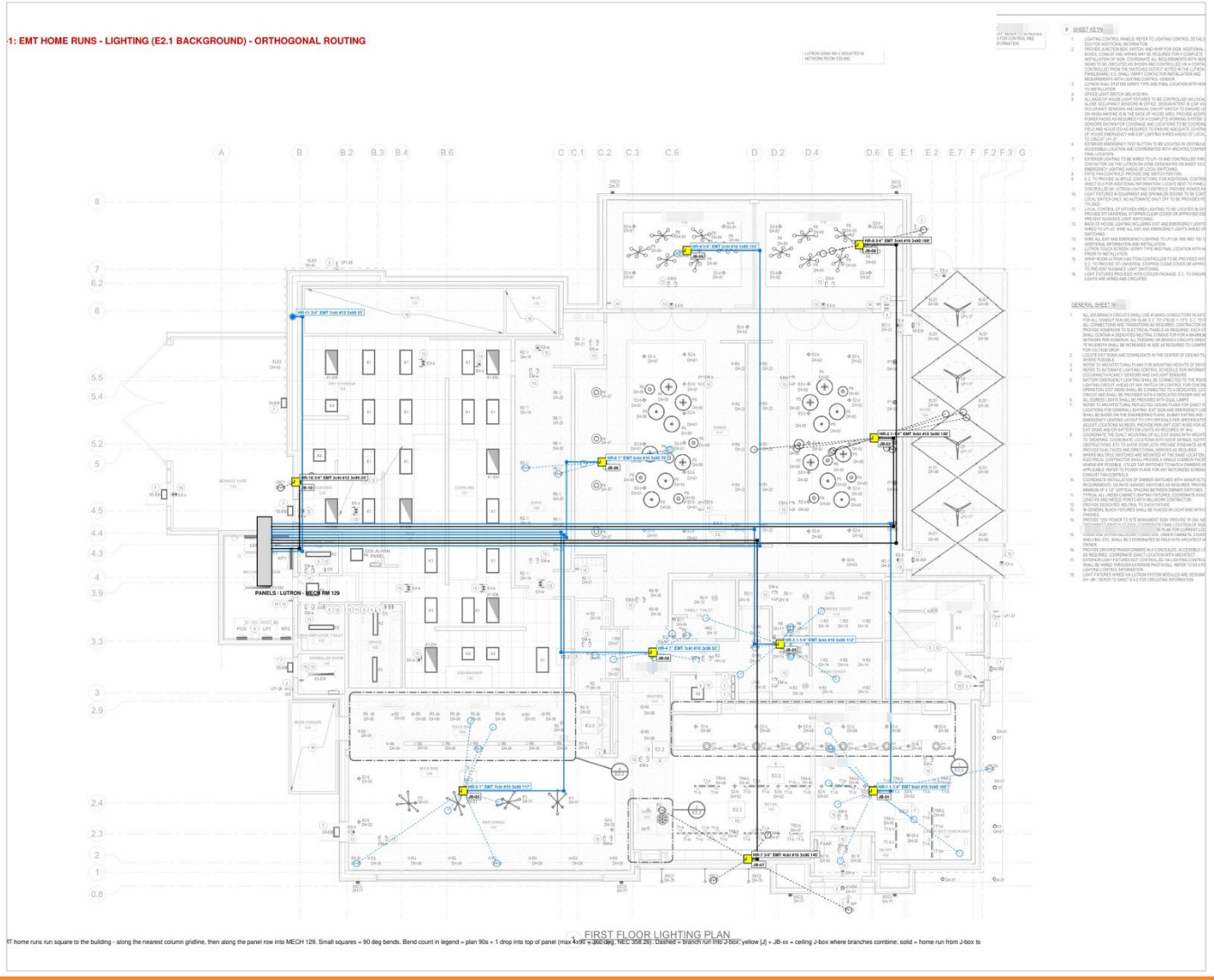




# HR-1 EMT home runs - lighting

Lighting circuits grouped to ceiling J-boxes, up to 9 circuits per home run.

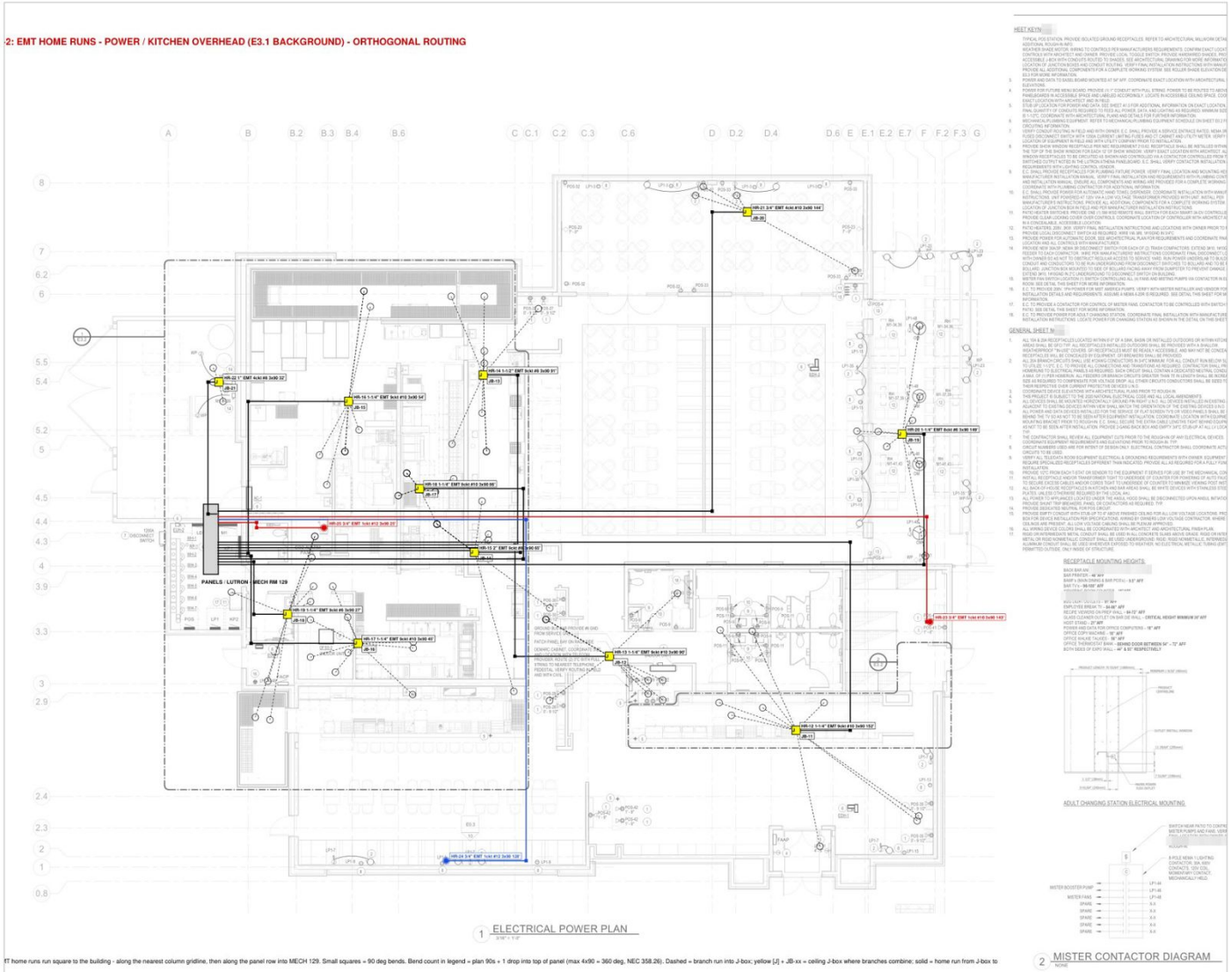
Solid = home run J-box to panel (orthogonal, 90s); dashed = branch into J-box.



# HR-2 EMT home runs - power / kitchen

Power and kitchen circuits grouped by proximity (~25 ft of group center).

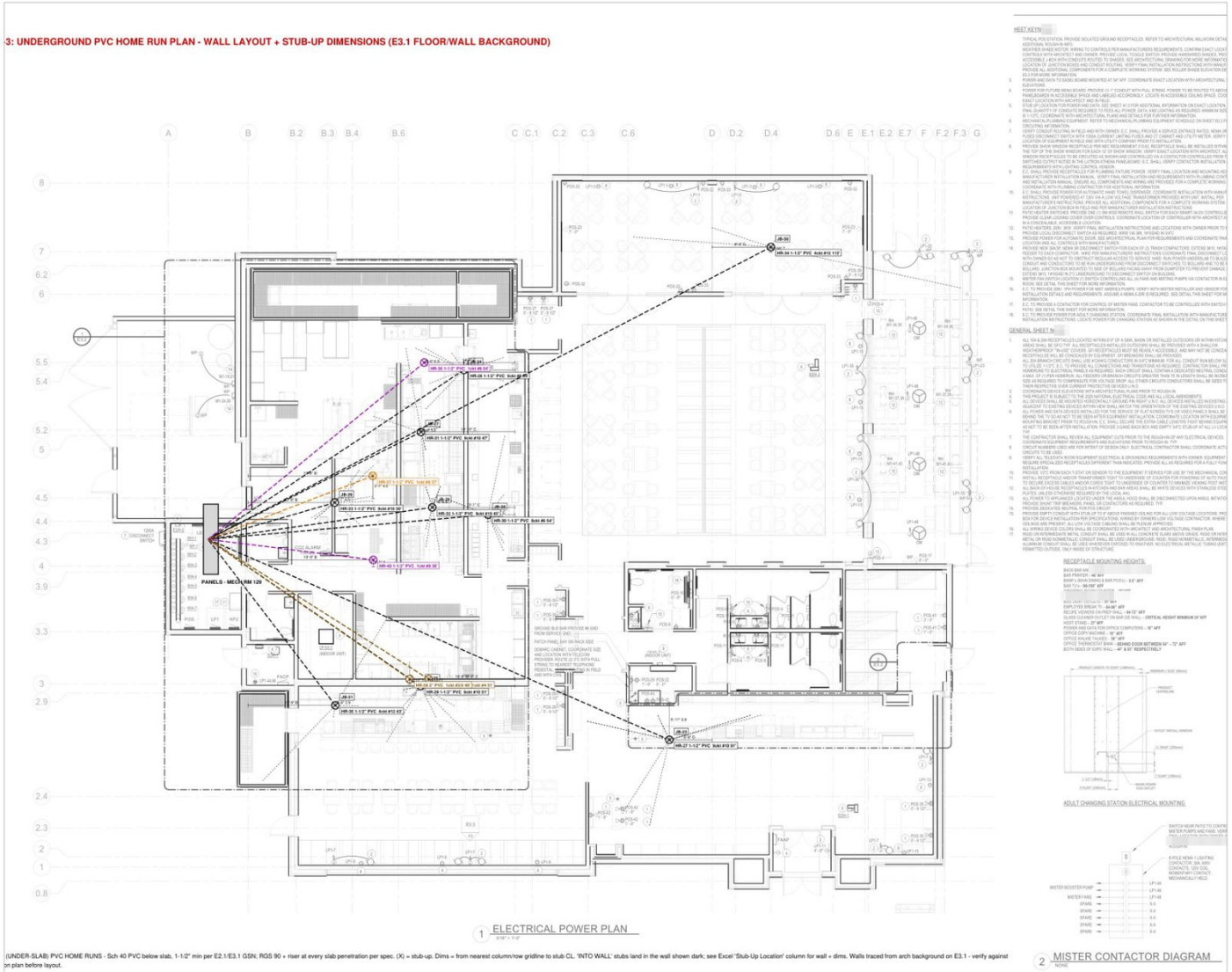
Breakers over 30A keep dedicated runs.



# HR-3 Under-slab PVC + stub dimensions

1-1/2" PVC minimum below slab; 3/4" PVC branches to each stub.

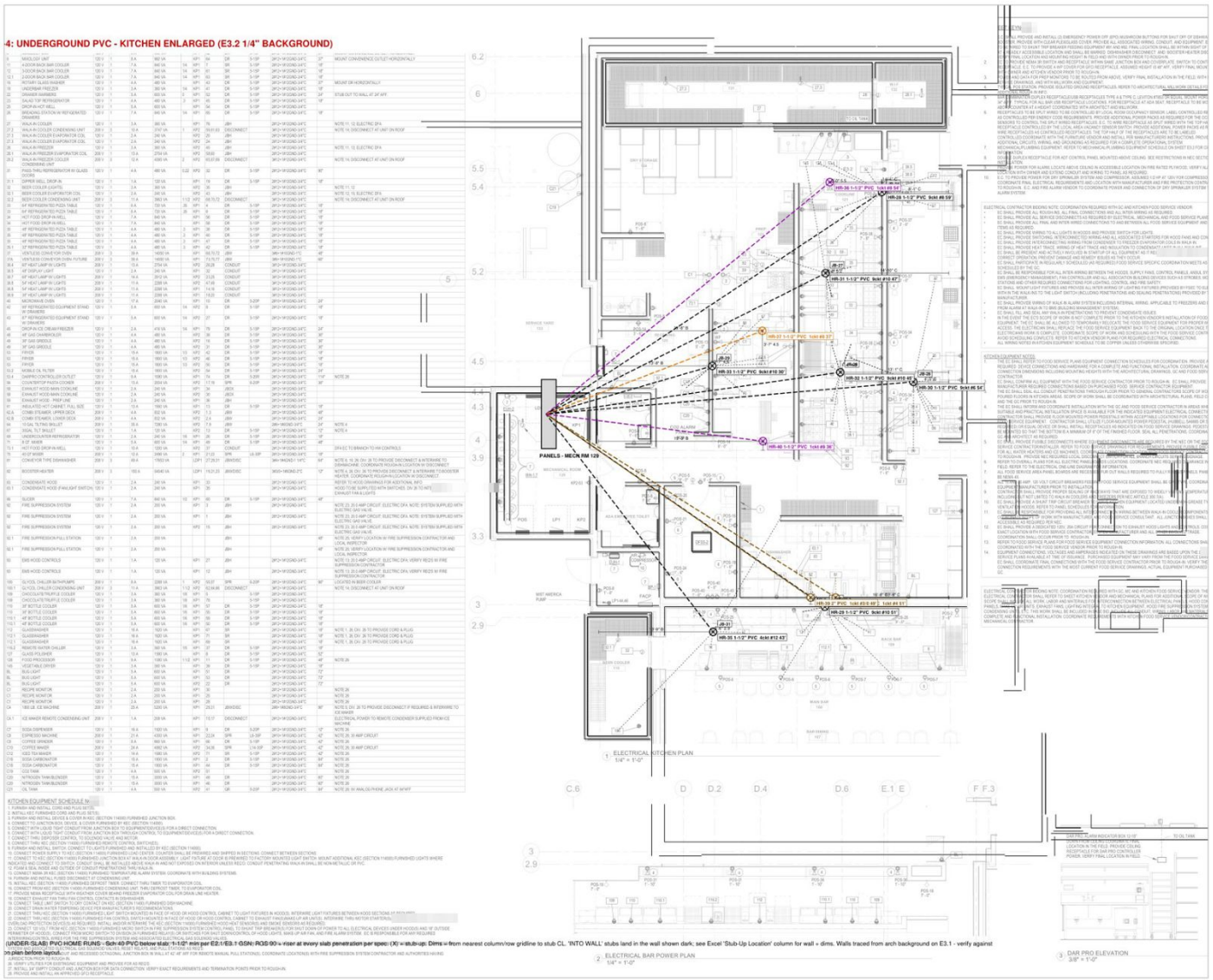
RGS 90 at slab per spec. EMT and PVC never mixed.



# HR-4 Under-slab PVC - kitchen enlarged

Kitchen equipment stubs grouped to under-slab home runs.

Verify stubs against kitchen equipment rough-in drawings before pour.

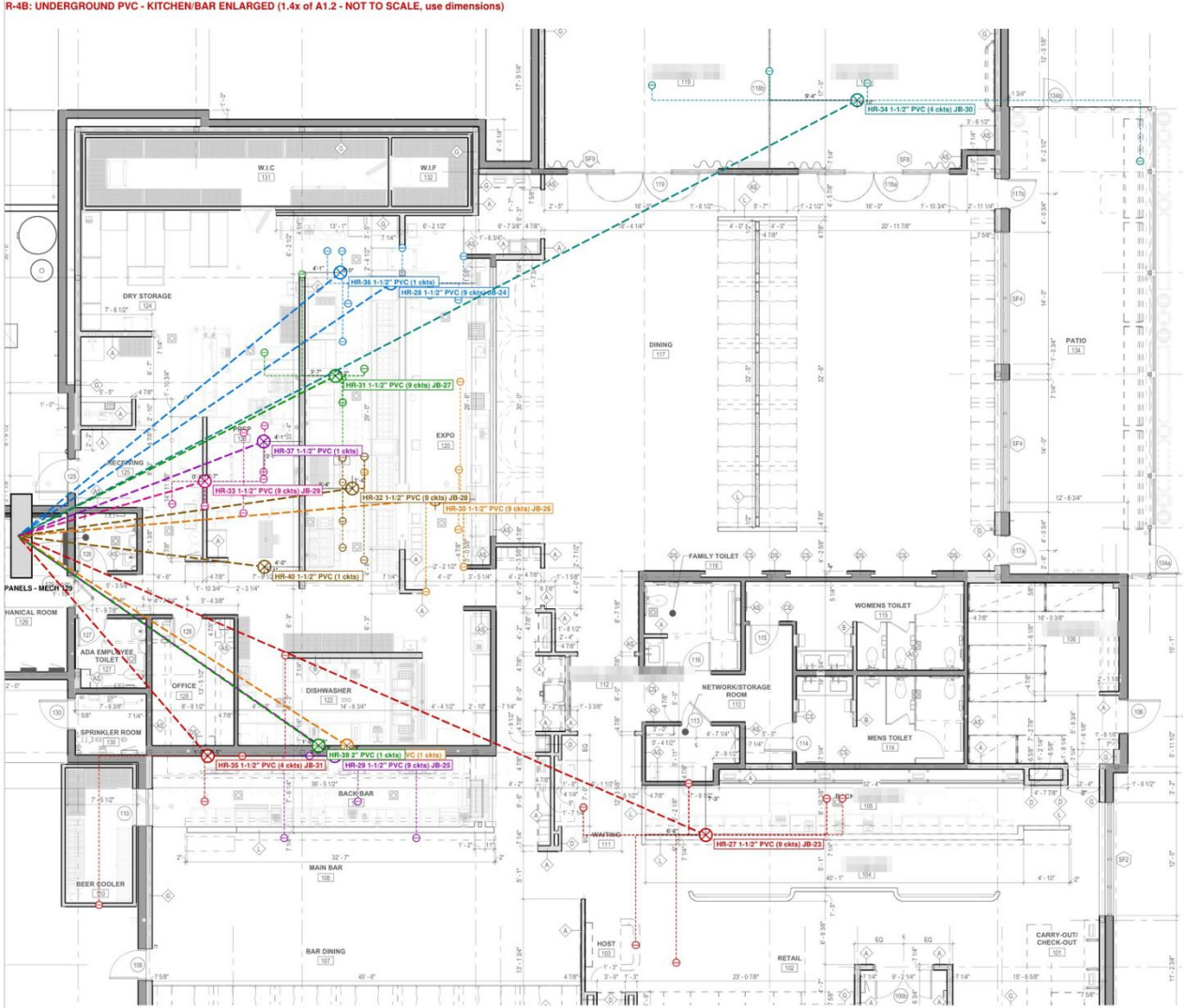


# HR-4A Under-slab PVC on dimensioned floor plan

Architectural dimensioned plan governs wall locations.

Each stub-up dimensioned from a printed wall face, with gridline ties.

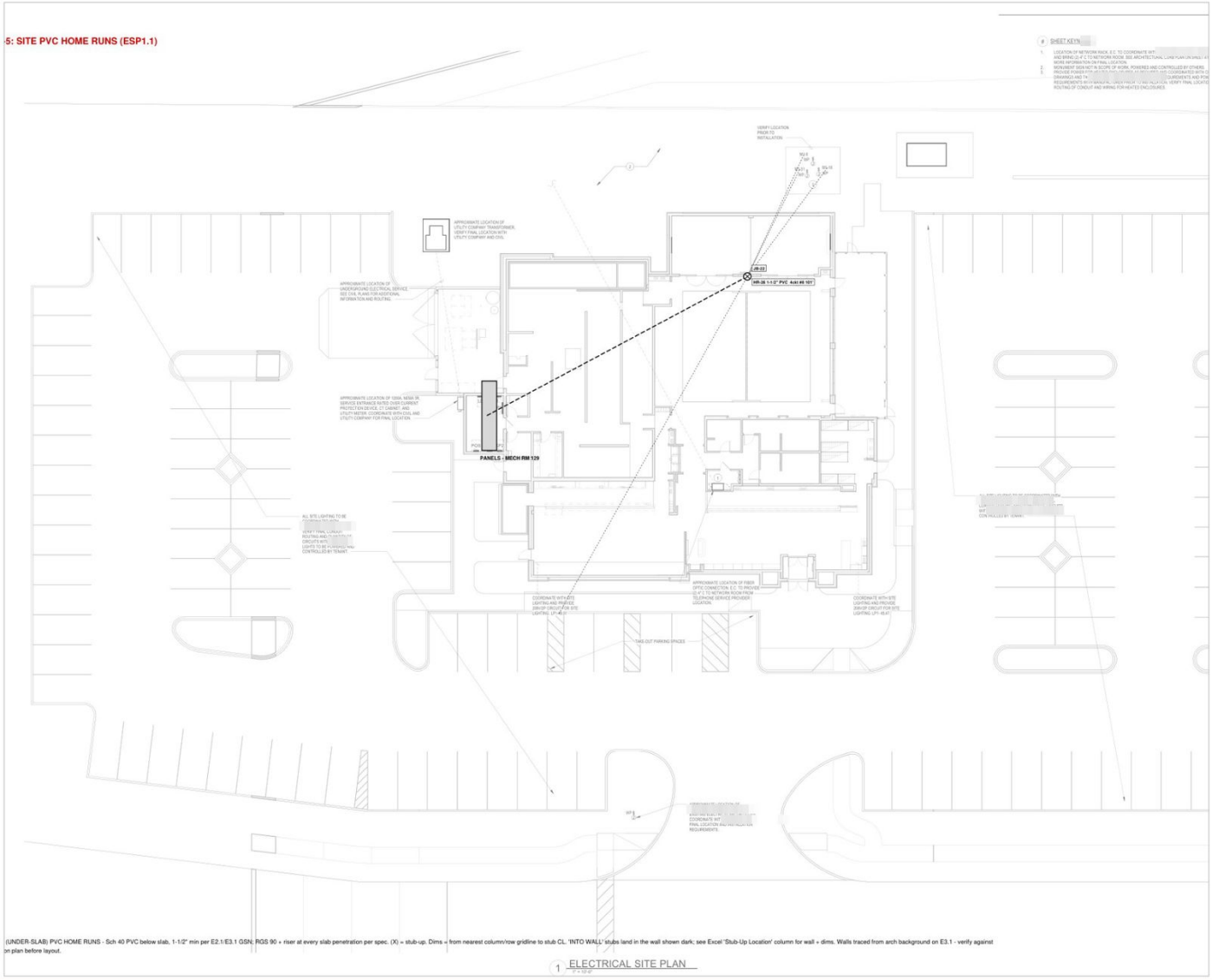





## HR-4B Under-slab PVC - kitchen/bar enlarged

Enlarged layout for dense kitchen/bar stub-ups.

Stub-up list issued with the drawings for layout before the pour.




## HR-5 Site PVC

Site circuits and stubs routed in PVC.

Tie-ins coordinated with civil and site lighting.

## Home Run Legend

Wire size = larger of: base (breaker), NEC 310.15(C)(1) derate (90C THHN col., 75C terminal check 110.14(C), 240.4(D)), and >130 ft VD upsize. Dedicated neutral per circuit = CCC. 208Y/120: A Black, B Red, C Blue, N White, G Green.

| HR # | J-Box | Type | Conduit Size | Origin Panel(s) | Destination (room / equipment) | # C kts | Circuits | Total Length ft (+5%) | # 9 0s | Ground (Green) | Total Conductors | CC C | Derate Factor 310.15(C)(1) | Fill % (40% max) | Worst VD% @80 % | Verify / Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HR-1 | JB-01 | EMT | 1-1/4" | Lutron LP-1/2/3 | Bar 104 area: Lighting zone (Lutron) | 9 | DH-01, DH-45, DH-42, DH-52, DH-02, DH-46, DH-49, DH-48, DH-68 | 160 | 3 | #10 | 19 | 18 | 50% | 26.8 | 5.3 | Lutron zone phasing assumed by zone #; Worst-circuit VD 5.3% @80% OCPD |
| HR-2 | JB-02 | EMT | 1-1/4" | LP1, Lutron LP-1/2/3 | Patio 134 area: Exit/EM/lighting; Lighting zone (Lutron) | 9 | LP1-17, DH-69, DH-66, DH-58, DH-23, DH-60, DH-62, DH-63, DH-22 | 130 | 3 | #10 | 19 | 18 | 50% | 26.8 | 4.3 | Lutron zone phasing assumed by zone # |
| HR-3 | JB-03 | EMT | 1-1/4" | Lutron LP-1/2/3 | Mens Toilet 114 area: Lighting zone (Lutron) | 9 | DH-14, DH-15, DH-55, DH-17, DH-56, DH-16, DH-11, DH-10, DH-12 | 112 | 3 | #10 | 19 | 18 | 50% | 26.8 | 3.7 | Lutron zone phasing assumed by zone # |
| HR-4 | JB-04 | EMT | 1" | Lutron LP-1/2/3 | Private Dining 112 area: Lighting zone (Lutron) | 7 | DH-77, DH-13, DH-54, DH-24, DH-08, DH-07, DH-18 | 92 | 3 | #10 | 15 | 14 | 50% | 36.6 | 3 | Lutron zone phasing assumed by zone # |
| HR-5 | JB-05 | EMT | 1" | Lutron LP-1/2/3 | Main Bar 108 area: Lighting zone (Lutron) | 7 | DH-09, DH-51, DH-53, DH-04, DH-05, DH-06, DH-03 | 117 | 3 | #10 | 15 | 14 | 50% | 36.6 | 3.9 | Lutron zone phasing assumed by zone # |
| HR-6 | JB-06 | EMT | 1" | Lutron LP-1/2/3 | Expo 120 area: Lighting zone (Lutron) | 6 | DH-61, DH-59, DH-57, DH-21, DH-20, DH-19 | 76 | 3 | #10 | 13 | 12 | 50% | 31.7 | 2.5 | Lutron zone phasing assumed by zone # |
| HR-7 | JB-07 | EMT | 3/4" | LP1, Lutron LP-1/2/3 | Retail 102 area: Exit/EM/lighting; Lighting zone (Lutron) | 4 | LP1-43, DH-47, DH-78, DH-50 | 145 | 3 | #10 | 9 | 8 | 70% | 35.7 | 4.8 | Lutron zone phasing assumed by zone # |
| HR-8 | JB-08 | EMT | 3/4" | LP1, Lutron LP-1/2/3 | Private Dining B 118 area: Exit/EM/lighting; Lighting zone (Lutron) | 3 | LP1-41, DH-65, DH-82 | 169 | 3 | #10 | 7 | 6 | 80% | 27.7 | 5.6 | Lutron zone phasing assumed by zone #; Worst-circuit VD 5.6% @80% OCPD |
| HR-9 | JB-09 | EMT | 3/4" | Lutron LP-1/2/3 | Private Dining A 119 area: Lighting zone (Lutron) | 2 | DH-64, DH-81 | 152 | 3 | #10 | 5 | 4 | 80% | 19.8 | 5 | Lutron zone phasing assumed by zone #; Worst-circuit VD 5.0% @80% OCPD |
| HR-10 | JB-10 | EMT | 3/4" | LP1, Lutron LP-1/2/3 | Receiving 125 area: Exit/EM/lighting; Lighting zone (Lutron) | 2 | LP1-39, DH-79 | 24 | 3 | #12 | 5 | 4 | 80% | 12.5 | 1.3 | Lutron zone phasing assumed by zone # |
| HR-11 |  | EMT | 3/4" | Lutron LP-1/2/3 | Dry Storage 124 area: Lighting zone (Lutron) | 1 | DH-43 | 53 | 3 | #12 | 3 | 2 | 100% | 7.5 | 2.8 | Lutron zone phasing assumed by zone # |
| HR-12 | JB-11 | EMT | 1-1/4" | KP1, LP1, POS | Back Bar 105 area: #116.2 Remote Water Chiller; POS/receptacle; Receptacle/power | 9 | POS-35, LP1-13, LP1-11, POS-36, POS-18, KP1-37, POS-31, POS-11, POS-9 | 152 | 3 | #10 | 19 | 18 | 50% | 26.8 | 5 | Worst-circuit VD 5.0% @80% OCPD |
| HR-13 | JB-12 | EMT | 1-1/4" | KP1, KP2, POS | Private Dining 112 area: #BI Bug Light; POS/receptacle | 9 | POS-43, POS-45, POS-22, POS-29, POS-10, POS-28, KP1-51, KP1-53, KP2-22 | 90 | 3 | #10 | 19 | 18 | 50% | 26.8 | 3 |  |
| HR-14 | JB-13 | EMT | 1-1/2" | KP1, KP2, POS | Expo 120 area: #28 Walk-In Freezer; #28.1 Walk-In Freezer Evaporator Coil; #38.5 48" Display Light; #38.8 54" Heat Lamp w/ Lights; #38.9 36" Heat Lamp w/ Lights; POS/receptacle | 9 | POS-27, KP2-58,60, KP1-32, KP1-18,20, KP2-45, POS-37, POS-38, KP2-47,49, KP1-14,16 | 91 | 3 | #10 | 22 | 21 | 45% | 38.8 | 1.9 |  |
| HR-15 | JB-14 | EMT | 2" | KP2, POS | Expo 120 area: #100.1 Glycol Chiller Condensing Unit; #27.2 Walk-In Cooler Condensing Unit; #28.2 Walk-In Freezer Cooler; #32.2 Beer Cooler Condensing Unit; #38.4 60" Heat Lamp w/ Lights; #38.7 66" Heat Lamp w/ Lights; POS/receptacle | 9 | POS-30, POS-2, KP2-23,25, KP2-26,28, POS-34, KP2-59,61,63, KP2-65,67,69, KP2-68,70,72, KP2-62,64,66 | 65 | 3 | #10 | 25 | 24 | 45% | 26.8 | 1.4 | Includes remote/roof condensing unit not tagged on E3.2 - verify route |
| HR-16 | JB-15 | EMT | 1-1/4" | KP1, KP2, POS | Dry Storage 124 area: #27 Walk-In Cooler; #27.3 Walk-In Cooler Evaporator Coil; #59 Exhaust Hood - Prep Line; #73.1 Hot Food Drop-In Well; #C1 Recipe Monitor; POS/receptacle | 9 | KP2-20, KP2-24, KP1-76, KP1-36, KP1-30, KP1-25, KP1-28, KP2-37, POS-13 | 54 | 3 | #10 | 19 | 18 | 50% | 26.8 | 1.8 |  |
| HR-17 | JB-16 | EMT | 1-1/4" | KP1, POS | Office 128 area: #83 Condensate Hood; #83.1 Condensate Hood (Fan/Light Switch); POS/receptacle | 9 | POS-25, KP1-33, KP1-35, POS-19, POS-40, POS-16, POS-24, POS-21, POS-15 | 45 | 3 | #10 | 19 | 18 | 50% | 26.8 | 1.5 |  |
| HR-18 | JB-17 | EMT | 1-1/4" | KP1, KP2, POS | Cookline 121 area: #58 Exhaust Hood-Main Cookline; #92 Fire Suppression System; #93 Ems Hood Controls; #C4.1 Ice Maker Remote Condensing Unit; POS/receptacle | 9 | POS-12, KP1-34, KP2-30, KP1-15,17, KP1-3, KP1-1, KP2-15, KP1-27, KP1-12 | 86 | 3 | #10 | 19 | 18 | 50% | 26.8 | 2.9 | Includes remote/roof condensing unit not tagged on E3.2 - verify route |

| HR # | J-Box | Type | Conduit Size | Origin Panel(s) | Destination (room / equipment) | # Ckts | Circuits | Total Length ft (+5%) | # 90s | Ground (Green) | Total Conductors | CCC | Derate Factor 310.15(C)(1) | Fill % (40% max) | Worst VD% @80% | Verify / Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HR-19 | JB-18 | EMT | 1-1/4" | KP1, KP2, LP1, POS | Ada Employee Toilet 127 area: #32 Beer Cooler (Lights); #32.1 Beer Cooler Evaporator Coil; #C20 Nitrogen Tank/Blender; Kitchen; POS/receptacle; Receptacle/power | 9 | KP2-35, KP2-43, LP1-44,46, POS-20, KP2-53, POS-5, POS-1, KP1-48, KP1-46 | 27 | 3 | #8 | 19 | 18 | 50% | 31.8 | 0.9 | M1/LP1 multi-pole breaker assumed 30A; Some circuits moved from PVC to EMT (drop in wall) |
| HR-20 | JB-19 | EMT | 1-1/4" | LP1, M1, POS | Patio 134 area: Mech equipment; POS/receptacle; Receptacle/power | 8 | M1-34,36, M1-37,39, LP1-48, POS-4, LP1-35, LP1-15, M1-41,43, POS-17 | 149 | 3 | #8 | 17 | 16 | 50% | 36.9 | 4.9 | M1/LP1 multi-pole breaker assumed 30A; Some circuits moved from PVC to EMT (drop in wall) |
| HR-21 | JB-20 | EMT | 3/4" | LP1, POS | Private Dining B 118 area: POS/receptacle; Receptacle/power | 4 | POS-39, LP1-5, LP1-3, LP1-1 | 144 | 3 | #10 | 9 | 8 | 70% | 35.7 | 4.8 | |
| HR-22 | JB-21 | EMT | 1" | KP2, M1 | Dry Storage 124 area: #C19 Co2 Tank; #C21 Oil Tank; Mech equipment | 4 | KP2-41, KP2-51, M1-19,21, M1-24,26 | 32 | 3 | #8 | 9 | 8 | 70% | 27.3 | 0.6 | M1/LP1 multi-pole breaker assumed 30A; Some circuits moved from PVC to EMT (drop in wall) |
| HR-23 | | EMT | 3/4" | POS | Storage Storage 106 area: POS/receptacle | 1 | POS-41 | 143 | 3 | #10 | 3 | 2 | 100% | 11.9 | 4.7 | |
| HR-24 | | EMT | 3/4" | LP1 | Bar Dining 107 area: Receptacle/power | 1 | LP1-9 | 128 | 3 | #12 | 3 | 2 | 100% | 7.5 | 6.7 | Worst-circuit VD 6.7% @80% OCPD |
| HR-25 | | EMT | 3/4" | POS | Prep 123 area: POS/receptacle | 1 | POS-8 | 25 | 3 | #12 | 3 | 2 | 100% | 7.5 | 1.3 | |
| HR-26 | JB-22 | PVC | 1-1/2" | LP1, M1 | Site area: Mech equipment; Receptacle/power | 4 | M1-18, M1-9, M1-31, LP1-49,51 | 101 | 2 | #8 | 9 | 8 | 70% | 9.6 | 5.3 | M1/LP1 multi-pole breaker assumed 30A; Worst-circuit VD 5.3% @80% OCPD |
| HR-27 | JB-23 | PVC | 1-1/2" | KP1, LP1, POS | Waiting 111 area: #109 Chocolate/Truffle Cooler; #110 36" Bottle Cooler; #110.1 48" Bottle Cooler; #112 Glasswasher; POS/receptacle; Receptacle/power | 9 | KP1-67, KP1-59, KP1-50, KP1-5, KP1-78, LP1-7, POS-42, KP1-57, KP1-55 | 91 | 2 | #10 | 19 | 18 | 50% | 20.2 | 3 | |
| HR-28 | JB-24 | PVC | 1-1/2" | KP1, KP2 | Cookline 121 area: #128 Food Processor; #26 Breading Station w/ Refigerated; #31 Pass-Thru Refrigerator w/ Glass; #31.1 Dipper Well, Drop-In; #40 Microwave Oven; #45 Drop-In Ice Cream Freezer; #53.4 Darpro Controller Outlet; #C12 Iced Tea Maker; #C7 Soda Dispenser | 9 | KP2-71, KP1-19, KP1-79, KP1-9, KP2-32, KP1-10, KP1-74, KP1-11, KP1-65 | 58 | 2 | #8 | 19 | 18 | 50% | 22.5 | 2 | ; Rev 2.1: length 59->58 ft (stub re-snapped to A1.2 wall) |
| HR-29 | JB-25 | PVC | 1-1/2" | KP1, POS | Back Bar 109 area: #11 4-Door Back Bar Cooler; #112.1 Glasswasher; #12.1 2-Door Back Bar Cooler; #16 Rotary Glass Washer; #8 Mixology Unit; POS/receptacle | 9 | POS-7, KP1-7, KP1-43, KP1-63, KP1-71, KP1-69, KP1-62, KP1-64, POS-6 | 51 | 2 | #10 | 19 | 18 | 50% | 20.2 | 1.7 | |
| HR-30 | JB-26 | PVC | 1-1/2" | KP1, KP2 | Expo 120 area: #22 Drawer Warmers; #23 Salad Top Refrigerator; #25 Drop-In Hot Well; #34 Hot Food Drop-In Well; #69 Undercounter Refrigerator; #C10 Coffee Maker; #C8 Espresso Machine; #C9 Coffee Grinder | 9 | KP1-52, KP1-54, KP1-45, KP2-34,36, KP1-66, KP1-22,24, KP1-26, KP1-56, KP1-58 | 54 | 2 | #8 | 19 | 18 | 50% | 26.9 | 0.9 | |
| HR-31 | JB-27 | PVC | 1-1/2" | KP1, KP2 | Cookline 121 area: #145 Vegetable Dryer; #33 64" Refrigerated Pizza Table; #48 48" Gas Charbroiler; #53 Fryer; #53.2 Mobile Oil Filter; #61 Insulated Hot Cabinet, Full Size | 9 | KP1-39, KP1-13, KP2-54, KP1-4, KP1-6, KP2-42, KP2-46, KP2-50, KP2-38 | 47 | 2 | #10 | 19 | 18 | 50% | 20.2 | 1.5 | |
| HR-32 | JB-28 | PVC | 1-1/2" | KP1, KP2 | Cookline 121 area: #35 48" Refrigerated Pizza Table; #35.1 32" Refrigerated Pizza Table; #42 99" Refrigerated Equipment Stand; #43 87" Refrigerated Equipment Stand; #49 36" Gas Griddle; #56 Countertop Pasta Cooker | 9 | KP1-38, KP1-40, KP1-47, KP2-16, KP2-31, KP2-27, KP2-17,19, KP2-8, KP1-42 | 45 | 2 | #10 | 19 | 18 | 50% | 20.2 | 0.7 | |

| HR # | J-Box | Type | Conduit Size | Origin Panel(s) | Destination (room / equipment) | # C kts | Circuits | Total Length ft (+5%) | # 9 0s | Groun d (Gre en) | Total Condu ctors | CC C | Derate Factor 310.15( C)(1) | Fill % (40% max) | Worst VD% @80 % | Verify / Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HR-33 | JB-29 | PVC | 1-1/2" | KP1, KP2, POS | Prep 123 area: #62.A Combi Steamer, Upper Deck; #62.B Combi Steamer, Lower Deck; #67 30Gal Tilt Skillet; #71 8 Qt. Mixer; #75 40 Qt Mixer; #86 Slicer; #C18 Soda Carbonator; POS/receptacle | 9 | KP2-13, KP1-60, KP2-2,4, KP2-1,3, KP1-49, KP1-21,23, KP1-2, KP1-44, POS-14 | 30 | 2 | #10 | 19 | 18 | 50% | 20.2 | 1 | |
| HR-34 | JB-30 | PVC | 1-1/2" | LP1, POS | Private Dining B 118 area: POS/receptacle; Receptacle/power | 4 | POS-33, POS-23, POS-32, LP1-23 | 113 | 2 | #12 | 9 | 8 | 70% | 6 | 6 | Worst-circuit VD 6.0% @80% OCPD |
| HR-35 | JB-31 | PVC | 1-1/2" | KP1, KP2 | Office 128 area: #100 Glycol Chiller Bath/Pumps; #12 3-Door Back Bar Cooler; #127 Glass Polisher; #18 Underbar Freezer | 4 | KP2-55,57, KP1-41, KP1-61, KP1-8 | 40 | 2 | #12 | 9 | 8 | 70% | 6 | 1.8 | ; Rev 2.1: length 43->40 ft (stub re-snapped to A1.2 wall) |
| HR-36 | | PVC | 1-1/2" | KP1 | Cookline 121 area: #37 Ventless Conveyor Oven | 1 | KP1-68,70,72 | 54 | 2 | #10 | 4 | 3 | 100% | 6.6 | 1.4 | |
| HR-37 | | PVC | 1-1/2" | KP2 | Cookline 121 area: #64 10 Gal Tilting Skillet | 1 | KP2-7,9 | 37 | 2 | #10 | 3 | 2 | 100% | 4.8 | 1 | |
| HR-38 | | PVC | 1-1/2" | LDP1 | Dishwasher 122 area: #81 Conveyor Type Dishwasher | 1 | LDP1-27,29,31 | 51 | 2 | #8 | 4 | 3 | 100% | 14.3 | 0.6 | |
| HR-39 | | PVC | 2" | LDP1 | Dishwasher 122 area: #82 Booster Heater | 1 | LDP1-19,21,23 | 49 | 2 | #6 | 4 | 3 | 100% | 26 | 0.5 | |
| HR-40 | | PVC | 1-1/2" | KP1 | Prep 123 area: #C4 1800 Lb. Ice Machine | 1 | KP1-29,31 | 36 | 2 | #10 | 3 | 2 | 100% | 4.8 | 0.7 | |

## J-Box Schedule

| J-Box | Location (room) | Location (gridline dims) | Mounting | Box size (NEC 314.16 / 314.28) | Calc. volume in3 (314.16(B)) | Branch circuits / devices in (branch ft) | Branch conduit | Branch LF | Home run leaving: HR | HR size/type | HR destination panel(s) | HR length ft |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JB-01 | Bar 104 | 2'-10" W of Grid E, 2'-0" N of Grid 2.4 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | DH-01 Lighting zone (Lutron) (24'); DH-45 Lighting zone (Lutron) (11'); DH-42 Lighting zone (Lutron) (22'); DH-52 Lighting zone (Lutron) (8'); DH-02 Lighting zone (Lutron) (17'); DH-46 Lighting zone (Lutron) (8'); DH-49 Lighting zone (Lutron) (14'); DH-48 Lighting zone (Lutron) (14'); DH-68 Lighting zone (Lutron) (17') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 148 | HR-1 | 1-1/4" EMT | Lutron LP-1/2/3 | 160 |
| JB-02 | Patio 134 | 2'-8" W of Grid E, 1'-1" N of Grid 5.2 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | LP1-17 Exit/EM/lighting (18'); DH-69 Lighting zone (Lutron) (18'); DH-66 Lighting zone (Lutron) (15'); DH-58 Lighting zone (Lutron) (5'); DH-23 Lighting zone (Lutron) (4'); DH-60 Lighting zone (Lutron) (9'); DH-62 Lighting zone (Lutron) (9'); DH-63 Lighting zone (Lutron) (14'); DH-22 Lighting zone (Lutron) (21') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 125 | HR-2 | 1-1/4" EMT | LP1, Lutron LP-1/2/3 | 130 |
| JB-03 | Mens Toilet 114 | 4'-2" E of Grid D, 0'-4" S of Grid 3.3 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | DH-14 Lighting zone (Lutron) (15'); DH-15 Lighting zone (Lutron) (4'); DH-55 Lighting zone (Lutron) (3'); DH-17 Lighting zone (Lutron) (4'); DH-56 Lighting zone (Lutron) (4'); DH-16 Lighting zone (Lutron) (12'); DH-11 Lighting zone (Lutron) (5'); DH-10 Lighting zone (Lutron) (11'); DH-12 Lighting zone (Lutron) (16') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 82 | HR-3 | 1-1/4" EMT | Lutron LP-1/2/3 | 112 |
| JB-04 | Private Dining 112 | 14'-10" E of Grid C, 1'-8" S of Grid 3.3 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 72.5 | DH-77 Lighting zone (Lutron) (8'); DH-13 Lighting zone (Lutron) (8'); DH-54 Lighting zone (Lutron) (6'); DH-24 Lighting zone (Lutron) (1'); DH-08 Lighting zone (Lutron) (2'); DH-07 Lighting zone (Lutron) (7'); DH-18 Lighting zone (Lutron) (10') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 47 | HR-4 | 1" EMT | Lutron LP-1/2/3 | 92 |
| JB-05 | Main Bar 108 | 15'-9" W of Grid C, 2'-0" N of Grid 2.4 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 72.5 | DH-09 Lighting zone (Lutron) (17'); DH-51 Lighting zone (Lutron) (8'); DH-53 Lighting zone (Lutron) (6'); DH-04 Lighting zone (Lutron) (9'); DH-05 Lighting zone (Lutron) (15'); DH-06 Lighting zone (Lutron) (13'); DH-03 Lighting zone (Lutron) (29') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 106 | HR-5 | 1" EMT | Lutron LP-1/2/3 | 117 |
| JB-06 | Expo 120 | 6'-8" E of Grid C, 0'-4" N of Grid 5 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 62.5 | DH-61 Lighting zone (Lutron) (13'); DH-59 Lighting zone (Lutron) (13'); DH-57 Lighting zone (Lutron) (1'); DH-21 Lighting zone (Lutron) (3'); DH-20 Lighting zone (Lutron) (9'); DH-19 Lighting zone (Lutron) (13') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 58 | HR-6 | 1" EMT | Lutron LP-1/2/3 | 76 |
| JB-07 | Retail 102 | 1'-1" W of Grid D, 0'-7" S of Grid 2 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 42.5 | LP1-43 Exit/EM/lighting (25'); DH-47 Lighting zone (Lutron) (7'); DH-78 Lighting zone (Lutron) (9'); DH-50 Lighting zone (Lutron) (22') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 69 | HR-7 | 3/4" EMT | LP1, Lutron LP-1/2/3 | 145 |
| JB-08 | Private Dining B 118 | 5'-0" W of Grid E, 4'-1" N of Grid 7 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 4-11/16" sq x 2-1/8" (42 in3) | 32.5 | LP1-41 Exit/EM/lighting (13'); DH-65 Lighting zone (Lutron) (5'); DH-82 Lighting zone (Lutron) (7') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 28 | HR-8 | 3/4" EMT | LP1, Lutron LP-1/2/3 | 169 |
| JB-09 | Private Dining A 119 | 10'-11" W of Grid D, 3'-2" N of Grid 7 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 4" sq x 2-1/8" (30.3 in3) | 22.5 | DH-64 Lighting zone (Lutron) (2'); DH-81 Lighting zone (Lutron) (2') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 5 | HR-9 | 3/4" EMT | Lutron LP-1/2/3 | 152 |
| JB-10 | Receiving 125 | 0'-7" W of Grid B, 2'-10" S of Grid 5 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 4" sq x 2-1/8" (30.3 in3) | 20.2 | LP1-39 Exit/EM/lighting (3'); DH-79 Lighting zone (Lutron) (3') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 8 | HR-10 | 3/4" EMT | LP1, Lutron LP-1/2/3 | 24 |
| JB-11 | Back Bar 105 | 8'-7" W of Grid E, 4'-5" S of Grid 2.9 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | POS-35 POS/receptacle (33'); LP1-13 Receptacle/power (33'); LP1-11 Receptacle/power (22'); POS-36 POS/receptacle (9'); POS-18 POS/receptacle (9'); KP1-37 #116.2 Remote Water Chiller (13'); POS-31 POS/receptacle (17'); POS-11 POS/receptacle (23'); POS-9 POS/receptacle (28') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 204 | HR-12 | 1-1/4" EMT | KP1, LP1, POS | 152 |
| JB-12 | Private Dining 112 | 15'-0" E of Grid C, 3'-10" S of Grid 3.3 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | POS-43 POS/receptacle (15'); POS-45 POS/receptacle (12'); POS-22 POS/receptacle (12'); POS-29 POS/receptacle (10'); POS-10 POS/receptacle (21'); POS-28 POS/receptacle (16'); KP1-51 #BI Bug Light (16'); KP1-53 #BI Bug Light (16'); KP2-22 #BI Bug Light (16') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 148 | HR-13 | 1-1/4" EMT | KP1, KP2, POS | 90 |
| JB-13 | Expo 120 | 5'-0" W of Grid C, 1'-2" N of Grid 5.4 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 128.5 | POS-27 POS/receptacle (19'); KP2-58,60 #28.1 Walk-In Freezer Evapor (13'); KP1-32 #38.5 48" Display Light (4'); KP1-18,20 #38.9 36" Heat Lamp w/ Light (2'); KP2-45 #28 Walk-In Freezer (18'); POS-37 POS/receptacle (6'); POS-38 POS/receptacle (16'); KP2-47,49 #38.8 54" Heat Lamp w/ Light (13'); KP1-14,16 #38.8 54" Heat Lamp w/ Light (13') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 113 | HR-14 | 1-1/2" EMT | KP1, KP2, POS | 91 |
| JB-14 | Expo 120 | 6'-5" W of Grid C, 1'-8" S of Grid 4.3 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 8x8x4 screw-cover (256 in3) | 146.5 | POS-30 POS/receptacle (21'); POS-2 POS/receptacle (28'); KP2-23,25 #38.7 66" Heat Lamp w/ Light (4'); KP2-26,28 #38.4 60" Heat Lamp w/ Light (5'); POS-34 POS/receptacle (9'); KP2-59,61,63 #27.2 Walk-In Cooler Condens (10'); KP2-65,67,69 #28.2 Walk-In Freezer Cooler (10'); KP2-68,70,72 #32.2 Beer Cooler Condensing (10'); KP2-62,64,66 #100.1 Glycol Chiller Conden (10') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 120 | HR-15 | 2" EMT | KP2, POS | 65 |
| JB-15 | Dry Storage 124 | 15'-11" E of Grid B, 3'-0" S of Grid 5.4 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | KP2-20 #27.3 Walk-In Cooler Evapora (20'); KP2-24 #27.3 Walk-In Cooler Evapora (20'); KP1-76 #27 Walk-In Cooler (18'); KP1-36 #59 Exhaust Hood – Prep Line (6'); KP1-30 #C1 Recipe Monitor (9'); KP1-25 #C1 Recipe Monitor (9'); KP1-28 #C1 Recipe Monitor (9'); KP2-37 #73.1 Hot Food Drop-In Well (13'); POS-13 POS/receptacle (17') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 131 | HR-16 | 1-1/4" EMT | KP1, KP2, POS | 54 |
| JB-16 | Office 128 | 17'-5" E of Grid B, 1'-9" S of Grid 3.3 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | POS-25 POS/receptacle (17'); KP1-33 #83 Condensate Hood (9'); KP1-35 #83.1 Condensate Hood (Fan/L (9'); POS-19 POS/receptacle (3'); POS-40 POS/receptacle (8'); POS-16 POS/receptacle (6'); POS-24 POS/receptacle (10'); POS-21 POS/receptacle (11'); POS-15 POS/receptacle (13') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 95 | HR-17 | 1-1/4" EMT | KP1, POS | 45 |
| JB-17 | Cookline 121 | 15'-1" W of Grid C, 1'-7" N of Grid 4.5 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 92.5 | POS-12 POS/receptacle (7'); KP1-34 #58 Exhaust Hood-Main Cookli (3'); KP2-30 #58 Exhaust Hood-Main Cookli (3'); KP1-15,17 #C4.1 Ice Maker Remote Conde (8'); KP1-3 #92 Fire Suppression System (5'); KP1-1 #92 Fire Suppression System (5'); KP2-15 #92 Fire Suppression System (5'); KP1-27 #93 Ems Hood Controls (5'); KP1-12 #93 Ems Hood Controls (5') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 48 | HR-18 | 1-1/4" EMT | KP1, KP2, POS | 86 |

| J-Box | Location (room) | Location (gridline dims) | Mounting | Box size (NEC 314.16 / 314.28) | Calc. volume in3 (314.16(B)) | Branch circuits / devices in (branch ft) | Branch conduit | Branch LF | Home run leaving: HR | HR size/type | HR destination panel(s) | HR length ft |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JB-18 | Ada Employee Toilet 127 | 6'-3" E of Grid B, 2'-10" N of Grid 3.3 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 103 | KP2-35 #32 Beer Cooler (Lights) (19'); KP2-43 #32.1 Beer Cooler Evaporator (21'); LP1-44,46 Receptacle/power (14'); POS-20 POS/receptacle (6'); KP2-53 Kitchen (12'); POS-5 POS/receptacle (8'); POS-1 POS/receptacle (13'); KP1-48 #C20 Nitrogen Tank/Blender (17'); KP1-46 #C20 Nitrogen Tank/Blender (17') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 140 | HR-19 | 1-1/4" EMT | KP1, KP2, LP1, POS | 27 |
| JB-19 | Patio 134 | 3'-5" W of Grid F, 0'-6" S of Grid 5.2 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 113 | M1-34,36 Mech equipment (20'); M1-37,39 Mech equipment (9'); LP1-48 Receptacle/power (4'); POS-4 POS/receptacle (4'); LP1-35 Receptacle/power (4'); LP1-15 Receptacle/power (8'); M1-41,43 Mech equipment (7'); POS-17 POS/receptacle (23') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 87 | HR-20 | 1-1/4" EMT | LP1, M1, POS | 149 |
| JB-20 | Private Dining B 118 | 5'-7" E of Grid D, 4'-6" S of Grid 8 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 42.5 | POS-39 POS/receptacle (26'); LP1-5 Receptacle/power (4'); LP1-3 Receptacle/power (11'); LP1-1 Receptacle/power (11') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 58 | HR-21 | 3/4" EMT | LP1, POS | 144 |
| JB-21 | Dry Storage 124 | 4'-7" W of Grid B, 0'-0" N of Grid 5.4 | Ceiling J-box above ceiling, accessible (NEC 314.29); ~12 ft AFF / verify ceiling ht | 6x6x4 screw-cover (144 in3) | 45 | KP2-41 #C21 Oil Tank (3'); KP2-51 #C19 Co2 Tank (1'); M1-19,21 Mech equipment (2'); M1-24,26 Mech equipment (4') | 3/4" EMT (or MC per bid basis) from J-box to each device/zone | 11 | HR-22 | 1" EMT | KP2, M1 | 32 |
| JB-22 | Site | Site | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 4-11/16" sq x 2-1/8" (42 in3) | 42 | M1-18 Mech equipment (57'); M1-9 Mech equipment (54'); M1-31 Mech equipment (48'); LP1-49,51 Receptacle/power (158') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 348 | HR-26 | 1-1/2" PVC | LP1, M1 | 101 |
| JB-23 | Waiting 111 | 6'-9" W of Grid D, 5'-11" S of Grid 2.9 | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 6x6x4 screw-cover (144 in3) | 92.5 | KP1-67 #112 Glasswasher (18'); KP1-59 #110.1 48" Bottle Cooler (17'); KP1-50 #110.1 48" Bottle Cooler (17'); KP1-5 #109 Chocolate/Truffle Coole (6'); KP1-78 #109 Chocolate/Truffle Coole (6'); LP1-7 Receptacle/power (17'); POS-42 POS/receptacle (19'); KP1-57 #110 36" Bottle Cooler (16'); KP1-55 #110 36" Bottle Cooler (16') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 144 | HR-27 | 1-1/2" PVC | KP1, LP1, POS | 91 |
| JB-24 | Cookline 121 | 8'-1" W of Grid C, 1'-2" S of Grid 5.5 | Wall J-box at stub-up, 18" AFF (verify) | 6x6x4 screw-cover (144 in3) | 95 | KP2-71 #C12 Iced Tea Maker (9'); KP1-19 #31.1 Dipper Well, Drop-In (4'); KP1-79 #45 Drop-In Ice Cream Freeze (5'); KP1-9 #C7 Soda Dispenser (9'); KP2-32 #31 Pass-Thru Refrigerator w (4'); KP1-10 #40 Microwave Oven (7'); KP1-74 #53.4 Darpro Controller Outl (9'); KP1-11 #128 Food Processor (10'); KP1-65 #26 Breading Station w/ Refi (11') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 75 | HR-28 | 1-1/2" PVC | KP1, KP2 | 59 |
| JB-25 | Dishwasher 122 | 14'-11" W of Grid C, 0'-3" S of Grid 3 | Wall J-box at stub-up, 18" AFF (verify) | 6x6x4 screw-cover (144 in3) | 92.5 | POS-7 POS/receptacle (15'); KP1-7 #11 4-Door Back Bar Cooler (6'); KP1-43 #16 Rotary Glass Washer (4'); KP1-63 #12.1 2-Door Back Bar Cooler (3'); KP1-71 #112.1 Glasswasher (5'); KP1-69 #112.1 Glasswasher (5'); KP1-62 #8 Mixology Unit (6'); KP1-64 #8 Mixology Unit (6'); POS-6 POS/receptacle (11') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 67 | HR-29 | 1-1/2" PVC | KP1, POS | 51 |
| JB-26 | Expo 120 | 4'-3" W of Grid C, 1'-2" N of Grid 4.4 | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 6x6x4 screw-cover (144 in3) | 113 | KP1-52 #22 Drawer Warmers (15'); KP1-54 #25 Drop-In Hot Well (6'); KP1-45 #23 Salad Top Refrigerator (3'); KP2-34,36 #C10 Coffee Maker (6'); KP1-66 #C9 Coffee Grinder (7'); KP1-22,24 #C8 Espresso Machine (8'); KP1-26 #69 Undercounter Refrigerato (8'); KP1-56 #34 Hot Food Drop-In Well (10'); KP1-58 #34 Hot Food Drop-In Well (10') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 81 | HR-30 | 1-1/2" PVC | KP1, KP2 | 54 |
| JB-27 | Cookline 121 | 14'-10" W of Grid C, 0'-2" S of Grid 5.2 | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 6x6x4 screw-cover (144 in3) | 92.5 | KP1-39 #145 Vegetable Dryer (16'); KP1-13 #61 Insulated Hot Cabinet, F (10'); KP2-54 #53.2 Mobile Oil Filter (1'); KP1-4 #33 64" Refrigerated Pizza T (4'); KP1-6 #33 64" Refrigerated Pizza T (4'); KP2-42 #53 Fryer (4'); KP2-46 #53 Fryer (4'); KP2-50 #53 Fryer (4'); KP2-38 #48 48" Gas Charbroiler (9') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 60 | HR-31 | 1-1/2" PVC | KP1, KP2 | 47 |
| JB-28 | Cookline 121 | 13'-1" W of Grid C, 1'-4" S of Grid 4.5 | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 6x6x4 screw-cover (144 in3) | 92.5 | KP1-38 #35 48" Refrigerated Pizza T (5'); KP1-40 #35 48" Refrigerated Pizza T (5'); KP1-47 #35 48" Refrigerated Pizza T (5'); KP2-16 #49 36" Gas Griddle (4'); KP2-31 #49 36" Gas Griddle (4'); KP2-27 #43 87" Refrigerated Equipme (2'); KP2-17,19 #56 Countertop Pasta Cooker (4'); KP2-8 #42 99" Refrigerated Equipme (7'); KP1-42 #35.1 32" Refrigerated Pizza (9') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 49 | HR-32 | 1-1/2" PVC | KP1, KP2 | 45 |
| JB-29 | Prep 123 | 13'-8" E of Grid B, 0'-7" S of Grid 4.5 | Wall J-box at stub-up, 18" AFF (verify) | 6x6x4 screw-cover (144 in3) | 92.5 | KP2-13 #67 30Gal Tilt Skillet (10'); KP1-60 #86 Slicer (7'); KP2-2,4 #62.B Combi Steamer, Lower D (5'); KP2-1,3 #62.A Combi Steamer, Upper D (4'); KP1-49 #71 8 Qt. Mixer (3'); KP1-21,23 #75 40 Qt Mixer (5'); KP1-2 #C18 Soda Carbonator (8'); KP1-44 #C18 Soda Carbonator (8'); POS-14 POS/receptacle (8') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 63 | HR-33 | 1-1/2" PVC | KP1, KP2, POS | 30 |
| JB-30 | Private Dining B 118 | 9'-3" E of Grid D, 0'-10" N of Grid 7 | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 4-11/16" sq x 2-1/8" (42 in3) | 38.2 | POS-33 POS/receptacle (3'); POS-23 POS/receptacle (12'); POS-32 POS/receptacle (23'); LP1-23 Receptacle/power (36') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 83 | HR-34 | 1-1/2" PVC | LP1, POS | 113 |
| JB-31 | Office 128 | 13'-9" E of Grid B, 0'-6" S of Grid 2.9 | Under-slab: no buried box - stub-up/branch at floor box or equipment; splice point in accessible floor box/equipment J-box | 4-11/16" sq x 2-1/8" (42 in3) | 38.2 | KP2-55,57 #100 Glycol Chiller Bath/Pum (23'); KP1-41 #18 Underbar Freezer (2'); KP1-61 #12 3-Door Back Bar Cooler (4'); KP1-8 #127 Glass Polisher (22') | 3/4" Sch40 PVC under slab to each item stub (RGS 90 at slab) | 57 | HR-35 | 1-1/2" PVC | KP1, KP2 | 43 |