

| ABBREVIATIONS                               |                                             |  | SYMBOLS                                                                   |  |                                                 |     |                                                                                        |                                 |                                                                  |
|---------------------------------------------|---------------------------------------------|--|---------------------------------------------------------------------------|--|-------------------------------------------------|-----|----------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------|
| 1P<br>ONE POLE                              | LP<br>LIGHTING PANEL                        |  | POWER                                                                     |  | CIRCUIT PROTECTION                              |     | TELEPHONE/ DATA                                                                        |                                 | LIGHTING CONTROL                                                 |
| 2P<br>TWO POLE                              | LTG<br>LIGHTING                             |  | DUPLEX RECEPTACLE WITH INTEGRAL                                           |  | MANUAL MOTOR STARTER                            |     | COMBINATION TELEPHONE/DATA OUTLET                                                      | S                               | SINGLE POLE, THREE-WAY, FOUR-WAY SWITCHES                        |
| 3P<br>THREE POLE                            | MCB<br>MAIN CIRCUIT BREAKER                 |  | DUPLEX USB PORTS                                                          |  | DISCONNECT SWITCH, UNFUSED TYPE                 | WAP | WIRELESS ACCESS POINT, CEILING MOUNTED                                                 | S <sub>3</sub> S <sub>4</sub>   |                                                                  |
| 4P<br>FOUR POLE                             | MCC<br>MOTOR CONTROL CENTER                 |  | DUPLEX DISTRIBUTION PANEL                                                 |  | DISCONNECT SWITCH, FUSED TYPE                   |     |                                                                                        | S <sub>p</sub>                  | SWITCH WITH PILOT LIGHT                                          |
| A<br>AMPERE                                 | MDP<br>MAIN DISTRIBUTION FRAME (IT)         |  | DUPLEX GROUND FAULT RECEPTACLE                                            |  | COMBINATION MOTOR STARTER                       |     |                                                                                        | S <sub>T</sub>                  | TIMER SWITCH                                                     |
| AB<br>ABOVE CEILING                         | MDF<br>(ME)<br>MODIFY EXISTING              |  | QUADRAPLEX RECEPTACLE                                                     |  |                                                 |     | AUDIO-VISUAL                                                                           | S <sub>D</sub>                  | SINGLE POLE (ELV) DIMMING SWITCH                                 |
| AC<br>ABOVE COUNTER                         | MISC<br>MISCELLANEOUS                       |  | RECEPTACLE MOUNTED ABOVE COUNTER HEIGHT (DUPLEX, DUPLEX GFCI, QUADRAPLEX) |  | ENCLOSED CIRCUIT BREAKER                        | AV  | AV JUNCTION BOX (FLOOR, CEILING, WALL)<br>PROVIDE BOX AND CONDUIT AS PER AV DRAWINGS   | S <sub>OS</sub> S <sub>VS</sub> | SWITCHBOX MOUNTED OCCUPANCY, VACANCY SENSOR WITH OVERRIDE SWITCH |
| AFCI<br>ARC FAULT CIRCUIT INTERRUPTER       | MLO<br>MAIN LUGS ONLY                       |  | SINGLE RECEPTACLE - SPECIAL PURPOSE (AS NOTED ON DRAWINGS)                |  | FIRE ALARM                                      |     | MISCELLANEOUS                                                                          | S <sub>LV#</sub>                | LOW VOLTAGE SWITCH                                               |
| AFF<br>ABOVE FINISHED FLOOR                 | MOA<br>MULTI-OUTLET ASSEMBLY                |  | CEILING MOUNTED DUPLEX, QUADRAPLEX RECEPTACLE                             |  | FIRE ALARM MANUAL PULL STATION                  |     | WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT                                             | S <sub>WS#</sub>                | LIGHTING CONTROL WALLSTATION                                     |
| AIC<br>AMPS INTERRUPTING CURRENT            | MTD<br>MOUNTED                              |  | FLOORBOX WITH DUPLEX, QUADRAPLEX RECEPTACLE                               |  | FIRE ALARM AUDIBLE AND STROBE LIGHT COMBINATION |     |                                                                                        |                                 |                                                                  |
| AFG<br>ABOVE FINISHED GRADE                 | MTG<br>MOUNTING                             |  | JUNCTION BOX (FLOOR, CEILING, WALL)                                       |  | FIRE ALARM STROBE LIGHT                         |     | NIC - DEVICES, WIRING, AND RACEWAY SHALL BE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE |                                 |                                                                  |
| ARCH<br>ARCHITECT                           | MTS<br>MANUAL TRANSFER SWITCH               |  |                                                                           |  | FIRE ALARM AUDIBLE                              |     |                                                                                        |                                 |                                                                  |
| ATS<br>AUTOMATIC TRANSFER SWITCH            | (N)<br>NEW                                  |  |                                                                           |  | SMOKE DETECTOR                                  |     |                                                                                        |                                 |                                                                  |
| ATC<br>AUTOMATIC TEMPERATURE CONTROL SYSTEM | N/A<br>NOT APPLICABLE                       |  |                                                                           |  | HEAT DETECTOR                                   |     |                                                                                        |                                 |                                                                  |
| AV<br>AUDIO VISUAL                          | NAC<br>NOTIFICATION APPLIANCE CIRCUIT PANEL |  |                                                                           |  | DUCT MOUNTED SMOKE DETECTOR                     |     |                                                                                        |                                 |                                                                  |
| BAS<br>BUILDING AUTOMATION SYSTEM           | NEC<br>NATIONAL ELECTRICAL CODE             |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| BLDG<br>BUILDING                            | NIE<br>NORMAL/EMERGENCY                     |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| C<br>CONDUIT                                | NIC<br>NOT IN CONTRACT                      |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| CATV<br>CABLE TELEVISION                    | #<br>NUMBER                                 |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| CB<br>CIRCUIT BREAKER                       | NTS<br>NOT TO SCALE                         |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| CKT<br>CIRCUIT                              | OCPD<br>OVERCURRENT PROTECTIVE DEVICE       |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| CP<br>CORD AND PLUG                         | P<br>POLE                                   |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| C.T.<br>CURRENT TRANSFORMER                 | PB<br>PULL BOX                              |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| DISC<br>DISCONNECT                          | PH<br>PHASE                                 |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| DWG<br>DRAWING                              | PNL<br>PANEL                                |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| (E)<br>EXISTING TO REMAIN                   | PVC<br>POLYVINYL CHLORIDE CONDUIT           |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| EC<br>ELECTRICAL CONTRACTOR                 | PWR<br>POWER                                |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| EMT<br>ELECTRICAL METALLIC TUBING           | (R)<br>REMOVE EXISTING                      |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| (ER)<br>EXISTING TO BE RELOCATED            | (RE)<br>RELOCATE EXISTING                   |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FA<br>FIRE ALARM                            | REC<br>RECESSED                             |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FAAP<br>FIRE ALARM ANNUNCIATOR PANEL        | ROR<br>RATE OF RISE                         |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FACP<br>FIRE ALARM CONTROL PANEL            | RMC<br>RIGID METAL CONDUIT                  |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FBO<br>FURNISHED BY OWNER                   | SFL<br>SUB FEED LUGS                        |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FLA<br>FULL LOAD AMPS                       | SLC<br>SIGNALING LINE CIRCUIT SWITCHBOARD   |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FT<br>FIXED TEMPERATURE                     | TC<br>TIME CLOCK                            |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| FTL<br>FEED THROUGH LUGS                    | TEL/DATA<br>TELEPHONE/ DATA                 |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| GC<br>GENERAL CONTRACTOR                    | TEL<br>TELEPHONE                            |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| GFCI<br>GROUND FAULT CIRCUIT INTERRUPTER    | TVSS<br>TRANSIENT VOLTAGE SURGE SUPPRESSION |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| GND<br>GROUNDED                             | TYP<br>TYPICAL                              |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| GRC<br>GALVANIZED RIGID CONDUIT             | UON<br>UNLESS OTHERWISE NOTED               |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| HP<br>HORSEPOWER                            | UL<br>UNDERWRITERS LABORATORY               |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| IDF<br>INTERMEDIATE DISTRIBUTION FRAME (IT) | V<br>VOLT                                   |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| IG<br>ISOLATED GROUND                       | W<br>WATT                                   |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| IMC<br>INTERMEDIATE METAL CONDUIT           | WP<br>WEATHERPROOF                          |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| JB<br>JUNCTION BOX                          | WR<br>WEATHER RESISTANT                     |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| KCMIL<br>THOUSAND CIRCULAR MILS             | XFMR<br>TRANSFORMER                         |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| KVA<br>KILOVOLT AMPERE                      | +<br>INDICATES MOUNTED ABOVE COUNTER        |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| KW<br>KILOWATT                              | #1/E5.1<br>DETAIL NUMBER/DRAWING NUMBER     |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |
| LED<br>LIGHT EMITTING DIODE                 |                                             |  |                                                                           |  |                                                 |     |                                                                                        |                                 |                                                                  |

ELECTRICAL SPECIFICATIONS:

A. SCOPE OF WORK

1. THE WORK UNDER THIS SPECIFICATION INCLUDES THE SATISFACTORY COMPLETION OF ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

A. FIRE ALARM: PROVIDE NEW DEVICES AND WIRING FOR A FULLY FUNCTIONING, ADDRESSABLE FIRE ALARM SYSTEM THROUGHOUT THE TRIPLEX AND DUPLEX BUILDINGS. THE SYSTEM CONSISTS OF: SPRINKLER SYSTEM INITIATION, MANUAL PULL STATION AT EXITS, AUTOMATIC SMOKE DETECTION IN THE COMMON CORRIDORS, AND ANNUNCIATION THROUGHOUT ALL AREAS.

ALL SINGLE FAMILY HOMES AND DWELLING UNITS ARE PROVIDED WITH INTERCONNECTED SMOKE DETECTORS, 120V POWER, WITH BATTERY BACKUP AND LOW FREQUENCY SOUNDERS.

B. LIGHTING: NEW LIGHT FIXTURES AND SWITCHING CIRCUITS TO BE PROVIDED THROUGHOUT HOMES AS INDICATED ON THE PLANS. TRIPLEX BUILDING: NEW EGRESS LIGHTING TO BE PROVIDED AT EACH EXIT PATH INCLUDED OUTDOORS. EMERGENCY BATTERY PACKS ARE PROVIDED THROUGHOUT. EXIT SIGNAGE AS REQUIRED.

C. POWER: DEDICATED ELECTRICAL SERVICE IS PROVIDED FOR EACH NEW HOME, TRIPLEX AND DUPLEX BUILDINGS PROVIDED WITH HOUSE SERVICES AND DEDICATED ELECTRICAL METER. A UTILITY METER IS PROVIDED FOR EACH DWELLING UNIT.

D. TEL/DATA NETWORK SCOPE: THE ELECTRICAL CONTRACTOR WILL PROVIDE INFRASTRUCTURE FOR EACH DWELLING UNIT TO CONNECT TO TV AND DATA FOR BOTH VERIZON AND COMCAST. THE INFRASTRUCTURE WILL CONSIST OF CONDUIT, PULL STRINGS, NETWORK MEDIA CENTER PANELS, TEL/DATA JACKS, CAT5 CABLING, AND COAX CABLING. SEE DRAWINGS AND NETWORK DIAGRAM FOR SYSTEM DETAILS.

B. INTENT:

1. THE ELCTRICAL CONTRACTOR SHALL OBTAIN PERMITS PAY FEES, AND ARRANGE INSPECTIONS FOR CODE COMPLIANT AND FULLY FUNCTIONING SYSTEMS. NOTIFY THE ARCHITECT OF ANY DEVIATIONS FROM THESE PLANS
2. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS THAT ALL WORK, LIGHT FIXTURES, APPURTENANCES, CONTROLS, AND WIRING BE FURNISHED AND INSTALLED COMPLETED AND READY FOR OPERATION.
3. UNLESS FUNCTIONALLY NECESSARY, ALL WORK SHALL BE CONCEALED. ALL EXPOSED ITEMS WILL BE SUBJECT TO THE ARCHITECT'S APPROVAL, BOTH FOR POSITION AND FINISH. WHEN AN ITEM, DEVICE, OR FIXTURE IS SHOWN ON THE ARCHITECTURAL DRAWINGS THESE POSITIONS SHALL TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS. IF THE VARIATION IN POSITION IS GREATER THAN 18", THE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION.
4. DRAWINGS ARE DIAGRAMMATIC, SMALL SCALE, AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. HOWEVER, CERTAIN APPURTENANCES AND RELATED SPECIALTIES ARE NOT SHOWN, BUT SHALL BE PROVIDED TO ENSURE A COMPLETE INSTALLATION.

C. LAWS AND REGULATIONS:

1. PERFORM WORK IN ACCORDANCE WITH RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS AND AUTHORITIES HAVING JURISDICTION AND BE RESPONSIBLE FOR COMPLIANCE HEREWITH.
2. ANY CHANGES NECESSARY IN ORDER THAT THE WORK COMPLY WITH SUCH LAWS, ORDINANCES, RULES AND REGULATIONS SHALL BE MADE BY THE ELECTRICAL CONTRACTOR, WITH APPROVAL OF THE ARCHITECT, AND AT NO ADDITIONAL COST TO THE OWNER.
3. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL MATERIALS AND EQUIPMENT PROVIDED SHALL BE NEW AND SHALL CONFORM TO THE GRADE, QUALITY AND STANDARDS SPECIFIED HEREIN.

4. MATERIALS AND EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED BY THE MANUFACTURER FOR THE SERVICE INTENDED. THIS MATERIAL AND EQUIPMENT SHALL HAVE CAPACITIES AND RATINGS SUFFICIENT TO MEET THE REQUIREMENTS OF THE PROJECT. THE CAPACITIES AND RATINGS SHALL NOT BE IN EXCESS OF THOSE PUBLISHED BY THE MANUFACTURER, BUT MUST BE IN ACCORDANCE WITH ENGINEERING DATA OR OTHER COMPREHENSIVE DATA MADE AVAILABLE TO THE PUBLIC BY THE MANUFACTURER AND IN EFFECT AT THE TIME OF THE OPENING OF THE BIDS.

5. ELECTRICAL DEVICES, MATERIALS, AND EQUIPMENT OF A TYPE APPROVED AND LABELED BY UNDERWRITERS LABORATORY SHALL BE PROVIDED WHEREVER AVAILABLE ON THE MARKET, COMPLETE WITH LABEL.

D. CUTTING, PATCHING AND PAINTING:

1. UNLESS INDICATED, ALL CUTTING AND PATCHING FOR WORK REQUIRED SHALL BE BY THE ELECTRICAL CONTRACTOR REQUIRING THE OPENING.
2. PATCH EXISTING HOLES LEFT AS A RESULT OF REMOVAL IN ALL SURFACES, VISIBLE OR NOT.

E. INSTALLATION:

1. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL DIMENSIONS IN THE FIELD, AND SHALL ADVISE THE ARCHITECT/ENGINEER AND THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.
2. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING AND PROTECTION OF MATERIALS. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND WITHOUT BLEMISH OR DEFECT.
4. ALL WIRING SHALL BE COPPER CONDUCTORS AND UNLESS OTHERWISE NOTED ON THE PLANS, SHALL BE MINIMUM #12AWG, 600V INSULATION TYPE THHN/THWN SOLID CONDUCTORS, RATED FOR 75C TEMPERATURE.
5. ALL CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:

|           |               |
|-----------|---------------|
| PHASE-A-B | BLACK, RED    |
| NEUTRAL   | WHITE OR GRAY |
| GROUND    | GREEN         |

6. ALL BRANCH CIRCUIT WIRING SHALL BE PROVIDED WITH DEDICATED GROUND AND NEUTRAL WIRES. MULTI-WIRE BRANCH CIRCUITS SHALL NOT BE PERMITTED.

7. TEL/DATA SCOPE: THE ELECTRICAL CONTRACTOR TO PROVIDE THE LEVITON "STRUCTURED MEDIA ENCLOSURE" 28" NETWORK PANEL, OR EQUAL, WITHIN EACH DWELLING UNIT. THE ENCLOSURE SHALL SERVE AS A TERMINATION POINT AND DATA ROUTER/SWITCH LOCATION FOR THE NETWORK DISTRIBUTION TO EACH TEL/DATA LOCATION WITHIN THAT UNIT. THE ELECTRICAL CONTRACTOR TO PROVIDE RACEWAY AND TEL/DATA CONNECTIONS IN EACH OF THE FOLLOWING LOCATIONS TO THE MEDIA CENTER, AS INDICATED ON THE DRAWINGS:

LIVING ROOM

EACH BEDROOM

FOR EACH TEL/DATA LOCATION THE ELECTRICAL CONTRACTOR WILL PROVIDE BACK BOX WITH 3/4" CONDUIT BACK TO THE MEDIA CENTER. PROVIDE CAT 6 DATA CABLE, COAX CABLE, AND PULL STRING TO EACH TEL/DATA OUTLET.

INTERNET SERVICE PROVIDER INFRASTRUCTURE: PROVIDE 3/4" CONDUIT FROM EACH TENANT UNIT "STRUCTURED MEDIA ENCLOSURE" PANEL TO THE SERVICE DEMARCATION POINT AS INDICATED ON THE PLANS. COORDINATE THE FINAL LOCATION WITH THE INTERNET SERVICE PROVIDERS AND BUILDING OWNER. VERIZON TO PROVIDE FIBER CABLE FROM BASEMENT DEMARCATION POINT TO EACH TENANT MEDIA ENCLOSURE. COMCAST TO PROVIDE COAX/DATA CABLING TO EACH TENANT MEDIA ENCLOSURE.

DOOR CHIME

PROVIDE A LOW VOLTAGE DOOR CHIME FOR EACH DWELLING UNIT. CHIME MECHANISM SHALL BE POWERED FROM A LOW VOLTAGE TRANSFORMER. PROVIDE 120V POWER TO THE LOW VOLTAGE TRANSFORMER. INSTALL A LIGHTED TYPE DOOR BUTTON AT EACH FRONT ENTRANCE DOOR OF THE HOMES. INSTALL LOW VOLTAGE WIRING FROM EACH DOOR BUTTON TO THE CHIME MECHANISM. INSTALLATION OF LOW VOLTAGE DOOR CHIME SHALL BE IN ACCORDANCE WITH THE NEC.

8. DISCONNECT SWITCHES: SHALL BE MANUFACTURED IN ACCORDANCE WITH UL 98 AND NEMA KS-1.1, AND SHALL BE HORSEPOWER RATED FOR 240V. OPERATING MECHANISM SHALL BE QUICK-MAKE, QUICK-BREAK. THE OPERATING HANDLE SHALL BE AN INTEGRAL PART OF THE BOX, NOT THE COVER. PROVISIONS SHALL BE PROVIDED FOR PADLOCKING THE SWITCH IN THE OFF POSITION.

9. LIGHTING FIXTURES: LED TYPE FIXTURES SHALL BE 120V, 3000K TEMPERATURE, UL LISTED, DIMMING TYPE BALLAST, RAPID START BALLAST, AND MEET ENERGY STAR REQUIREMENTS AND CARRY THE ENERGY STAR LABEL.

10. RECEPTACLES SHALL BE DUPLEX, TAMPER RESISTANT, STRAIGHT BLADE, 120V, 2-POLE, 3-WIRE, GROUNDING TYPE, NEMA 5-15R FOR 15A RECEPTACLES AND NEMA 5-20R FOR 20 A RECEPTACLES. PROVIDE WHITE FINISH WITH WHITE COVER PLATE.

11. GFCI RECEPTACLES SHALL BE DUPLEX, TAMPER RESISTANT, STRAIGHT BLADE, 120V, 2-POLE, 3-WIRE, GROUNDING TYPE, NEMA 5-15R, PROVIDE GFCI TRIP WITH TEST AND RESET BUTTONS. GFCI AUTOMATICALLY SELF TESTS TO ENSURE GFCI PROTECTIONS. PROVIDE WHITE FINISH WITH WHITE COVER PLATE.

12. STANDARD SWITCHES SHALL BE GENERAL PURPOSE, TOGGLE TYPE ACTUATOR, SINGLE POLE, 120V/277V, 20 A, RATED FOR 1HP AT 120V. PROVIDE WHITE FINISH WITH WHITE COVER PLATE.

13. OCCUPANCY TYPE SWITCHES SHALL BE MANUAL ON/OFF AND VACANCY SENSOR TYPE OFF, SET FOR THIRTY MINUTES OF DELAY. PROVIDE LUTRON "MAESTRO" SERIES, MODEL #MS-OPS OR APPROVED EQUAL.

14. CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOW VOLTAGE TYPE AND INTERFACE TO THE WALL SWITCHING LIGHTING CONTROL. SYSTEM CEILING SENSORS SHALL BE SET TO OCCUPANCY TYPE WITH AUTOMATIC ON AND AUTO OFF AFTER 15 MINUTES. MANUAL ON/OFF AT THE WALL SWITCH SHALL OVERRIDE OPERATION. PROVIDE LUTRON "LOS" SERIES WITH WIRED CONNECTION.

15. COVER PLATES FOR ALL DEVICES SHALL BE HIGH-IMPACT NYLON, SIZE AND TYPE TO MATCH WIRING DEVICE AND SINGLE OR MULTI-GANG CONFIGURATIONS. OUTDOOR COVER PLATES SHALL BE CAST ALUMINUM, NEMA 3R RATED, WEATHERPROOF TYPE. WIRING DEVICE COLORS TO BE COORDINATED WITH OWNER.

ELECTRICAL DRAWING SCHEDULE

| Sheet Number | Sheet Name                                                           | MEP PRICING SET<br>2022-06-03 | CONSTRUCTION DOCUMENTS<br>2022-07-08 |
|--------------|----------------------------------------------------------------------|-------------------------------|--------------------------------------|
| E000         | ELECTRICAL COVER SHEET                                               | •                             | •                                    |
| E410         | ELECTRICAL TRIPLEX (1601) 1ST, 2ND, AND 3RD FLOOR PLANS              | •                             | •                                    |
| E411         | ELECTRICAL TRIPLEX (1601) ROOF PLAN AND DETAILS                      | •                             | •                                    |
| E420         | ELECTRICAL DUPLEX (1603-07) 1ST, 2ND, AND 3RD FLOOR PLANS            | •                             | •                                    |
| E421         | ELECTRICAL DUPLEX (1603-07) ROOF PLAN AND DETAILS                    | •                             | •                                    |
| E430         | ELECTRICAL SINGLE 2 STORY (3201-07) 1ST, 2ND FLOOR, AND ROOF PLANS   | •                             | •                                    |
| E440         | ELECTRICAL SINGLE 3 STORY (3225-31) 1ST, 2ND, AND 3RD FLOOR PLANS    | •                             | •                                    |
| E450         | ELECTRICAL SINGLE 3 STORY+C (3216) CELLAR, 1ST, AND 2ND FLOOR PLANS  | •                             | •                                    |
| E451         | ELECTRICAL SINGLE 3 STORY+C (3216) 3RD FLOOR, ROOF PLAN, AND DETAILS | •                             | •                                    |
| E801         | ELECTRICAL DETAILS                                                   | •                             | •                                    |

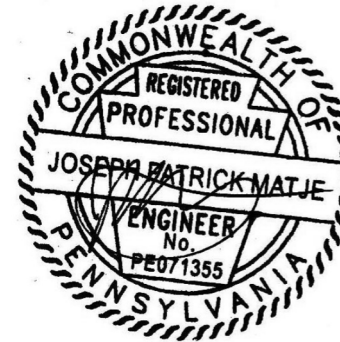
PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

E000

ELECTRICAL COVER SHEET





J+M ENGINEERING

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## COLTRANE COMMONS

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PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

### TEAM

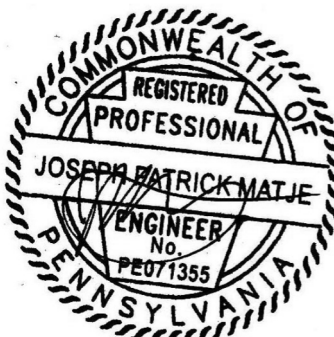
OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

STRUCTURAL ENGINEER  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
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215 232 7207

MEP ENGINEER  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
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215 454 2662

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RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



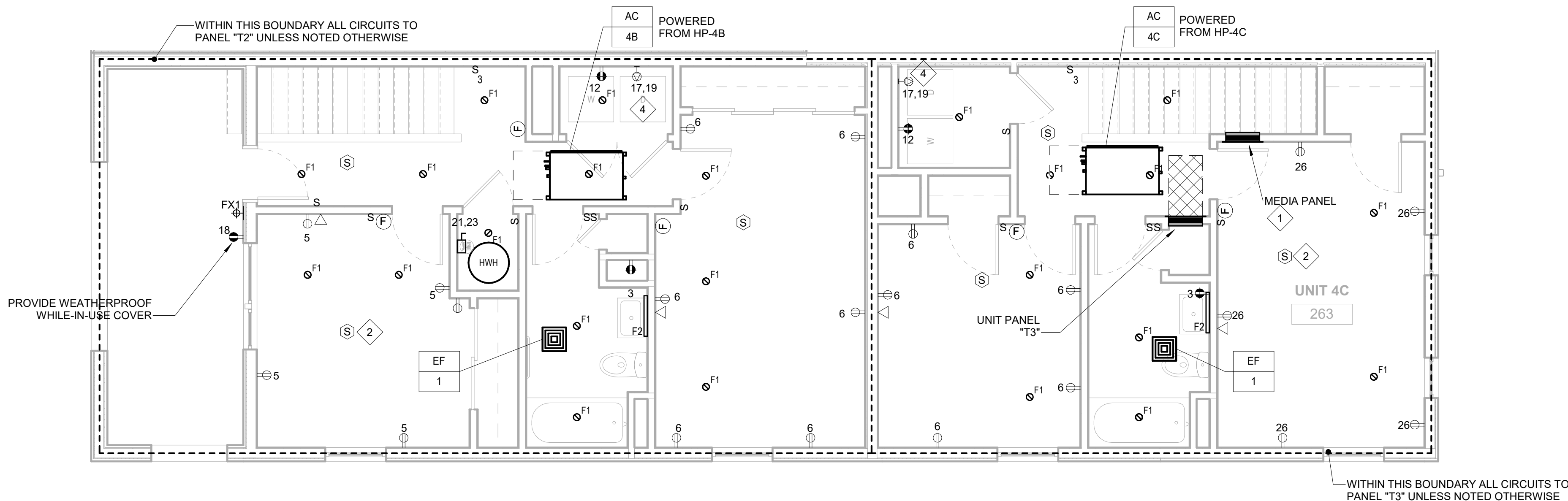
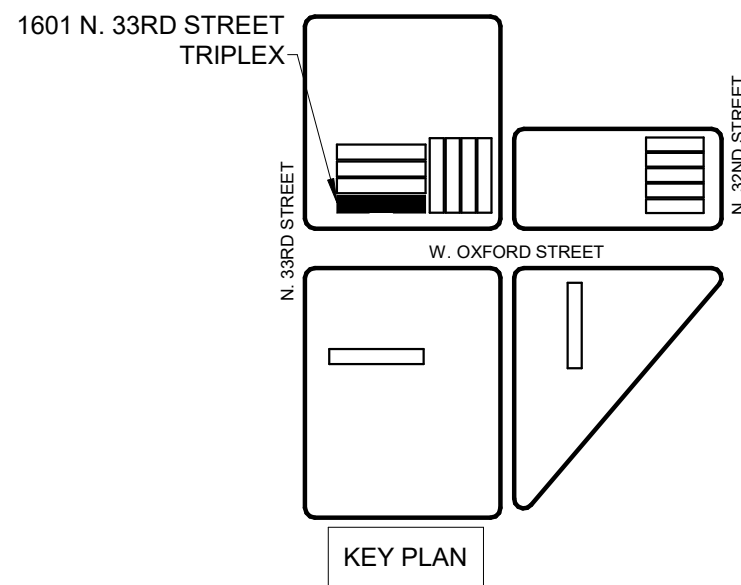
### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

## E410

ELECTRICAL TRIPLEX  
(1601) 1ST, 2ND, AND 3RD  
FLOOR PLANS



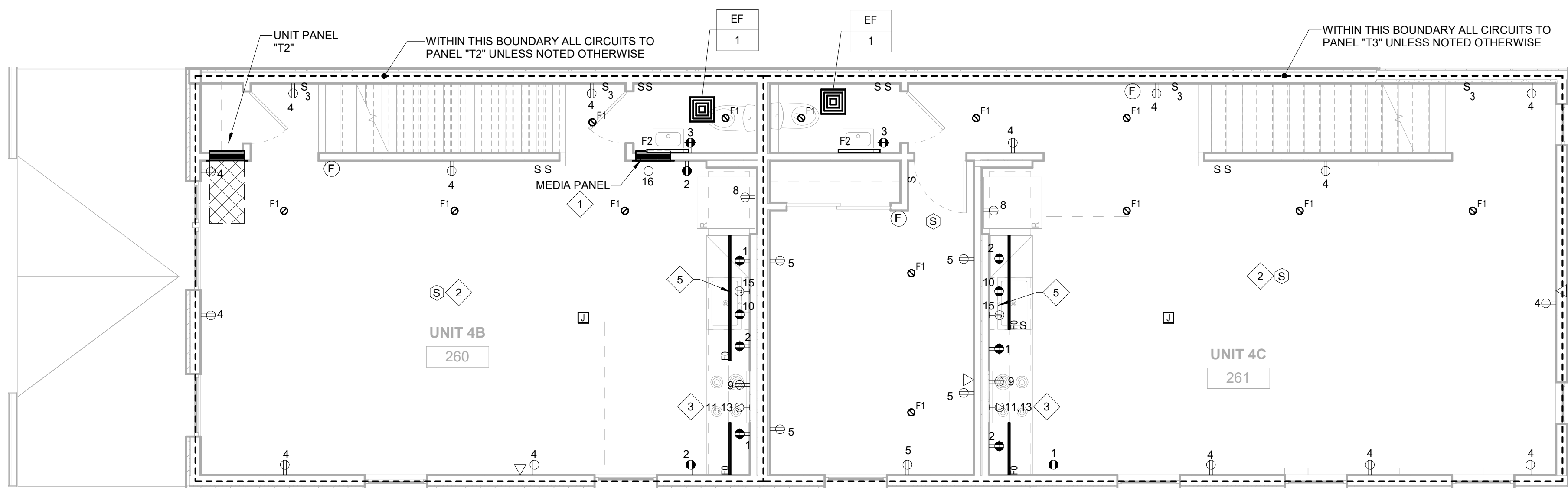
3 ELECTRICAL TRIPLEX (1601) 3RD FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E410 1/4" = 1'-0"

### GENERAL NOTES:

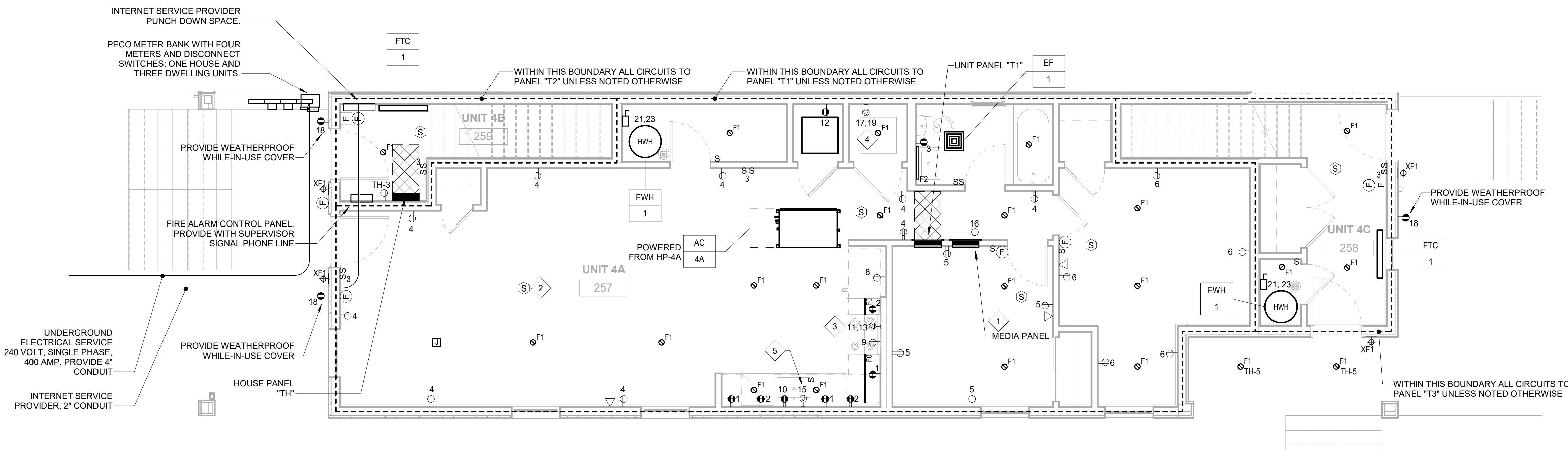
1. ALL EQUIPMENT & DEVICES ARE NEW UNLESS OTHERWISE NOTED
2. VERIFY ALL FIELD CONDITIONS AND LOCATIONS OF EQUIPMENT, DEVICES, & WIRING WITH OTHER TRADES PRIOR TO ELECTRICAL WORK. DO NOT SCALE DRAWINGS.

### KEYED PLAN NOTES:

- 1 PROVIDE 28" PLASTIC MEDIA ENCLOSURE AND 1" CONDUIT TO BASEMENT ISP DEMARC. PROVIDE 3/4" CONDUIT WITH (1) CATSE CABLE AND (1) RG6 COAXIAL CABLE FROM THE MEDIA ENCLOSURE TO EACH DATA DROP NOTED ON THE DWELLING UNIT FLOOR PLAN.
- 2 TYPICAL FOR ALL 120V POWERED DWELLING UNIT LOCAL INTERCONNECTED SMOKE DETECTORS.
- 3 PROVIDE 3-#6+1-#10GND AND NEMA 14-50 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH COOKING RANGE. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- 4 PROVIDE 3-#10+1-#10GND AND NEMA 14-30 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH DRYER AND STACKABLE WASHER/DRYER. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- 5 PROVIDE FOR FUTURE GARBAGE DISPOSER INSTALLATION.



2 ELECTRICAL TRIPLEX (1601) 2ND FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E410 1/4" = 1'-0"



1 ELECTRICAL TRIPLEX (1601) 1ST FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E410 1/4" = 1'-0"

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

STRUCTURAL ENGINEER  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

MEP ENGINEER  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

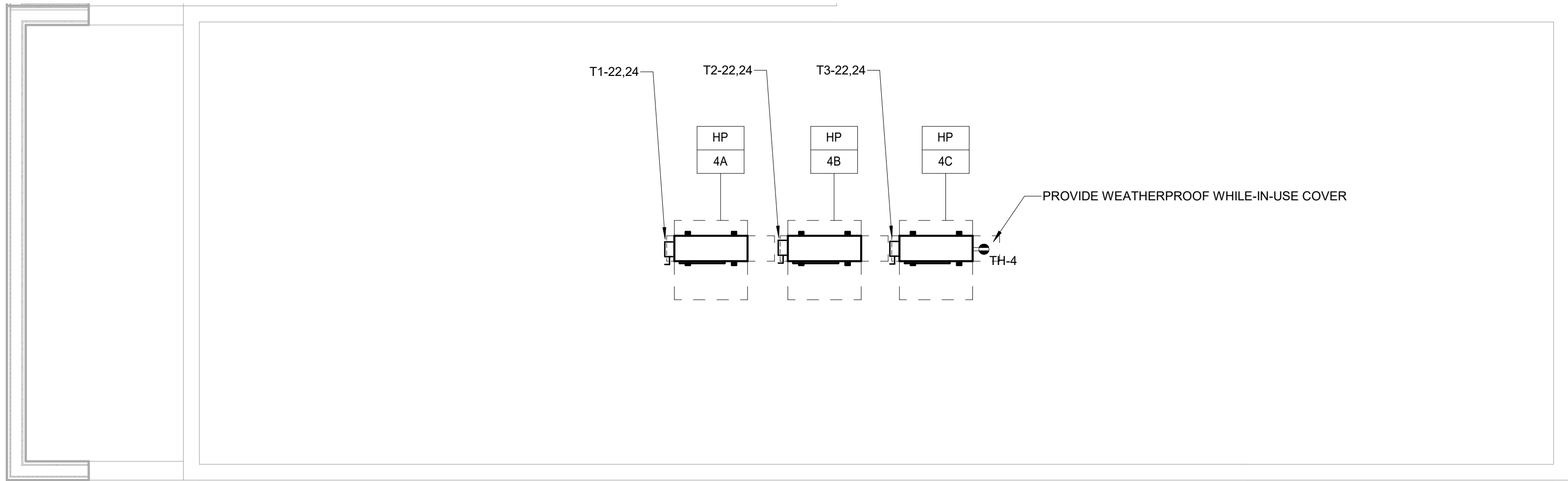
CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



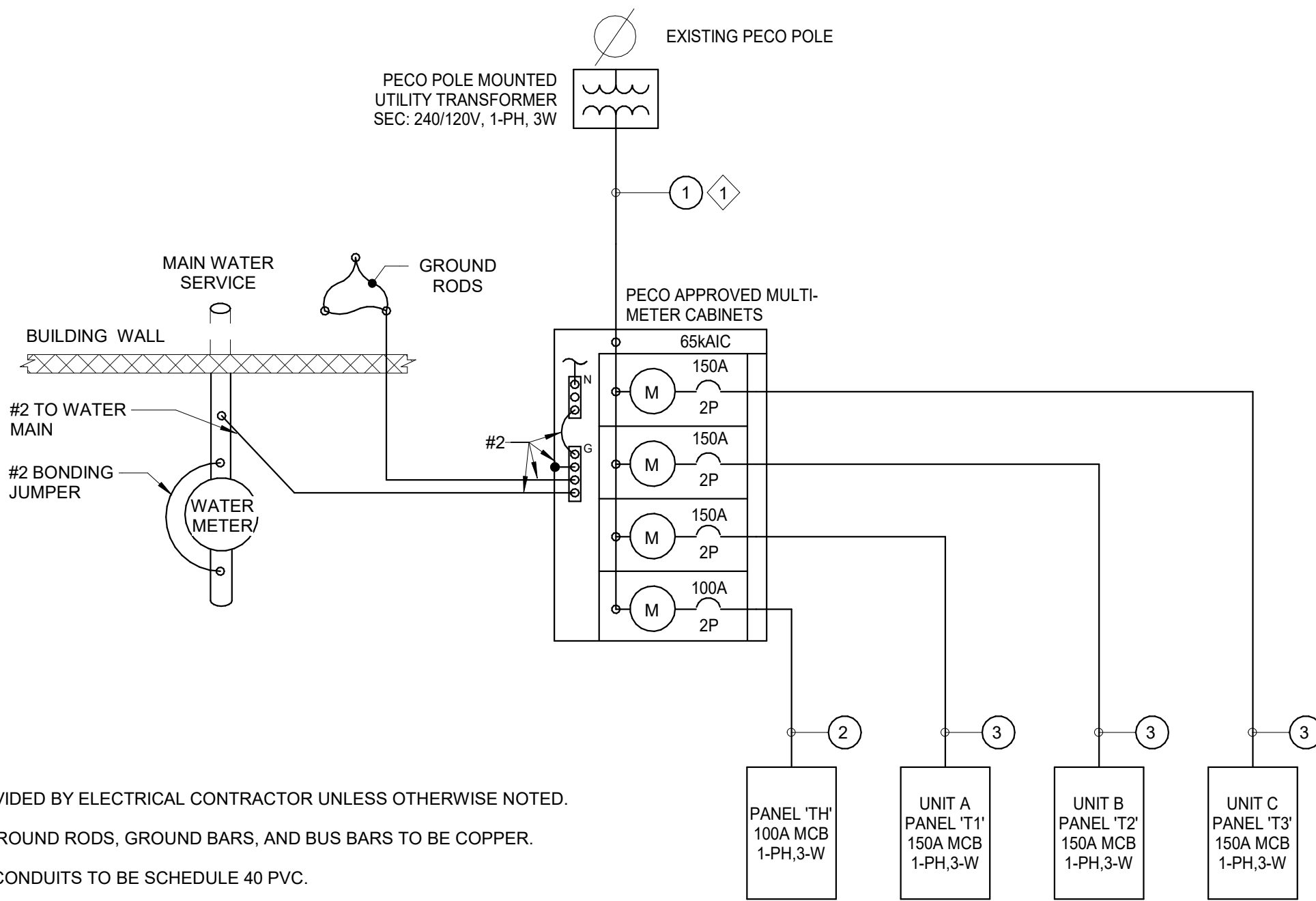
PHASE

PRICING SETS JUNE 3, 2022  
CONSTRUCTION DOCUMENTS JULY 8, 2022

E411  
ELECTRICAL TRIPLEX  
(1601) ROOF PLAN AND  
DETAILS



2 ELECTRICAL TRIPLEX (1601) ROOF NEW WORK PLAN - POWER AND SYSTEMS  
E411 1/4" = 1'-0"



GENERAL NOTES:

1. ALL EQUIPMENT PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
2. ALL CONDUCTORS, GROUND RODS, GROUND BARS, AND BUS BARS TO BE COPPER.
3. ALL UNDERGROUND CONDUITS TO BE SCHEDULE 40 PVC.
4. REFER TO PECO STANDARDS FOR ACCEPTABLE CABLE, METER CABINETS, AND METER SOCKETS.

KEYED NOTES:

- 1 RUN CONDUCTORS UP POLE LEAVING 15' SLACK FOR CONNECTION BY PECO. PROVIDE PROTECTIVE COVER OVER CONDUCTORS ON POLE.

| FEEDER SCHEDULE |                                  |
|-----------------|----------------------------------|
| FEEDER NO.      | NEW FEEDER & CONDUIT SIZE        |
| 1               | 3 - #3/0 IN 2"C                  |
| 2               | 3 - #2 + 1 - #8 GND IN 1-1/4"C   |
| 3               | 3 - #1/0 + 1 - #6 GND IN 1-1/2"C |
| 4               | 2 - #12 + 1 - #12 GND IN 3/4"C   |

1 ELECTRICAL SINGLE LINE DIAGRAM TRIPLEX  
E411 N.T.S.

| ELECTRICAL PANEL SCHEDULE - TRIPLEX DWELLING UNIT |                |    |   |                           |                       |       |       |       |                              |   |    |     | T1, T2, T3                |       |  |
|---------------------------------------------------|----------------|----|---|---------------------------|-----------------------|-------|-------|-------|------------------------------|---|----|-----|---------------------------|-------|--|
| NOTES                                             | 1 PHASE 3 WIRE |    |   |                           | MAIN BUS RATING: 150A |       |       |       |                              |   |    |     |                           | NOTES |  |
|                                                   |                |    |   |                           | MAINS: 150A MCB       |       |       |       |                              |   |    |     |                           |       |  |
|                                                   | 240/120V       |    |   |                           | NEUT. BUS: X          |       |       |       |                              |   |    |     |                           |       |  |
|                                                   | RECESS MOUNTED |    |   |                           | GRD. BUS: X           |       |       |       |                              |   |    |     |                           |       |  |
|                                                   | 22 KAIC        |    |   |                           |                       |       |       |       |                              |   |    |     |                           |       |  |
|                                                   | CKT            | TR | P | DESCRIPTION               | A                     | B     | A     | B     | DESCRIPTION                  | P | TR | CKT |                           |       |  |
|                                                   | 1              | 20 | 1 | SMALL APPLIANCE           | 1,500                 |       | 1,500 |       | SMALL APPLIANCE              | 1 | 20 | 2   |                           |       |  |
|                                                   | 3              | 15 | 1 | BATHROOM GFCI             |                       | 180   |       | 1,260 | LIVING ROOM RECEPT           | 1 | 20 | 4   |                           |       |  |
|                                                   | 5              | 15 | 1 | BEDROOM RECEPT            | 900                   |       | 1,080 |       | BEDROOM RECEPT               | 1 | 20 | 6   |                           |       |  |
|                                                   | 7              | 15 | 1 | LIGHTS                    |                       | 850   |       | 1,200 | REFRIGERATOR                 | 1 | 20 | 8   |                           |       |  |
|                                                   | 9              | 20 | 1 | MICROWAVE/RANGE HOOD      | 1,200                 |       | 1,200 |       | DISHWASHER                   | 1 | 20 | 10  |                           |       |  |
|                                                   | 11             |    |   |                           |                       | 4,000 |       | 1,500 | LAUNDRY CIRCUIT              | 1 | 20 | 12  |                           |       |  |
|                                                   | 13             | 40 | 2 | RANGE                     | 4,000                 |       | 180   |       | SMOKE DETECTORS              | 1 | 15 | 14  |                           |       |  |
|                                                   | 15             | 20 | 1 | GARBAGE DISPOSAL (FUTURE) |                       | 960   |       | 180   | NETWORK RECEPTACLE           | 1 | 20 | 16  |                           |       |  |
|                                                   | 17             |    |   |                           | 2,500                 |       | 360   |       | EXTERIOR RECEPTACLE          | 1 | 20 | 18  |                           |       |  |
|                                                   | 19             | 30 | 2 | WASHER/DRYER              |                       | 2500  |       | -     | SPARE                        | 1 | 20 | 20  |                           |       |  |
|                                                   | 21             |    |   |                           | 2,500                 |       | 1,630 |       |                              |   |    | 22  |                           |       |  |
|                                                   | 23             | 30 | 2 | ELEC WATER HEATER         |                       | 2,500 |       | 1,630 | OUTDOOR CONDENSING UNIT HP-X | 2 | 30 | 24  |                           |       |  |
|                                                   | 25             |    | 1 | SPACE                     |                       |       | 1,080 |       | BEDROOM RECEPT (T3)          | 1 | 20 | 26  |                           |       |  |
|                                                   | 27             |    | 1 | SPACE                     |                       |       |       |       | SPACE                        | 1 |    | 28  |                           |       |  |
|                                                   | 29             |    | 1 | SPACE                     |                       |       |       |       | SPACE                        | 1 |    | 30  |                           |       |  |
| 1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER.    |                |    |   |                           |                       |       |       |       |                              |   |    |     | TOTAL VA A 19,630         |       |  |
| PANEL LOADS                                       |                |    |   |                           |                       |       |       |       |                              |   |    |     | TOTAL CONNECTED VA 36,390 |       |  |
| 3KVA LIGHTS/RECP 3,000                            |                |    |   |                           |                       |       |       |       |                              |   |    |     | TOTAL AMPS 144            |       |  |
| REMAINING AT 35% 2,909                            |                |    |   |                           |                       |       |       |       |                              |   |    |     |                           |       |  |
| APPLIANCES 100% 20,740                            |                |    |   |                           |                       |       |       |       |                              |   |    |     |                           |       |  |
| MECHANICAL 100% 3,260                             |                |    |   |                           |                       |       |       |       |                              |   |    |     |                           |       |  |
| TOTAL VA 29,909                                   |                |    |   |                           |                       |       |       |       |                              |   |    |     |                           |       |  |

| ELECTRICAL PANEL SCHEDULE - TRIPLEX DWELLING UNIT |                |    |   |                         |            |     |       |       |                    |                  | TH                    |    |     |       |
|---------------------------------------------------|----------------|----|---|-------------------------|------------|-----|-------|-------|--------------------|------------------|-----------------------|----|-----|-------|
| NOTES                                             | 1 PHASE 3 WIRE |    |   |                         |            |     |       |       |                    |                  | MAIN BUS RATING: 100A |    |     | NOTES |
|                                                   |                |    |   |                         |            |     |       |       |                    |                  | MAINS: 100A MCB       |    |     |       |
|                                                   | 240/120V       |    |   |                         |            |     |       |       |                    |                  | NEUT. BUS: X          |    |     |       |
|                                                   | RECESS MOUNTED |    |   |                         |            |     |       |       |                    |                  | GRD. BUS: X           |    |     |       |
|                                                   | 22 KAIC        |    |   |                         |            |     |       |       |                    |                  |                       |    |     |       |
|                                                   | CKT            | TR | P | DESCRIPTION             | A          | B   |       | A     | B                  | DESCRIPTION      | P                     | TR | CKT |       |
|                                                   | 1              | 20 | 1 | COMMON RECEPTACLES      | 900        |     |       | 1,000 |                    | ROOF LIGHTS      | 1                     | 20 | 2   |       |
|                                                   | 3              | 20 | 1 | BASEMENT NETWORK RECEPT |            | 360 |       |       | 360                | ROOF RECEPTACLES | 1                     | 20 | 4   |       |
|                                                   | 5              | 20 | 1 | EXTERIOR LIGHTS         | 1,500      |     |       | 250   |                    | TIMECLOCK        | 1                     | 20 | 6   |       |
|                                                   | 7              | 20 | 1 | DOOR ENTRY SYSTEM       |            | 500 |       |       | 500                | FIRE ALARM PANEL | 1                     | 20 | 8   |       |
|                                                   | 9              | 20 | 1 | SPARE                   |            |     |       |       |                    | SPACE            | 1                     |    | 10  |       |
|                                                   | 11             | 20 | 1 | SPARE                   |            |     |       |       |                    | SPACE            | 1                     |    | 12  |       |
|                                                   | 13             | 20 | 1 | SPARE                   |            |     |       |       |                    | SPACE            | 1                     |    | 14  |       |
|                                                   | 15             | 20 | 1 | SPARE                   |            |     |       |       |                    | SPACE            | 1                     |    | 16  |       |
|                                                   | 17             | 20 | 1 | SPARE                   |            |     |       |       |                    | SPACE            | 1                     |    | 18  |       |
| 1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER.    |                |    |   |                         | TOTAL VA A |     | 3,650 |       | TOTAL CONNECTED VA |                  | 5,370                 |    |     |       |
| 2. PROVIDE CIRCUIT BREAKER LOCK                   |                |    |   |                         | TOTAL VA B |     | 1,720 |       | TOTAL AMPS         |                  | 26                    |    |     |       |



J+M ENGINEERING

PHILADELPHIA  
215.454.2662  
WASHINGTON  
202.320.9173  
jandmengineers.com

## COLTRANE COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

PROJECT J+M 21-013

### TEAM

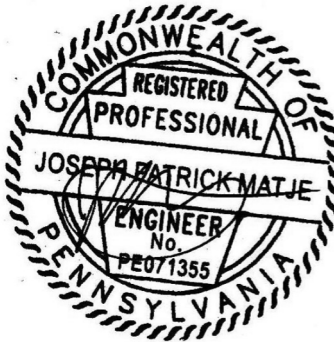
OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

STRUCTURAL ENGINEER  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

MEP ENGINEER  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



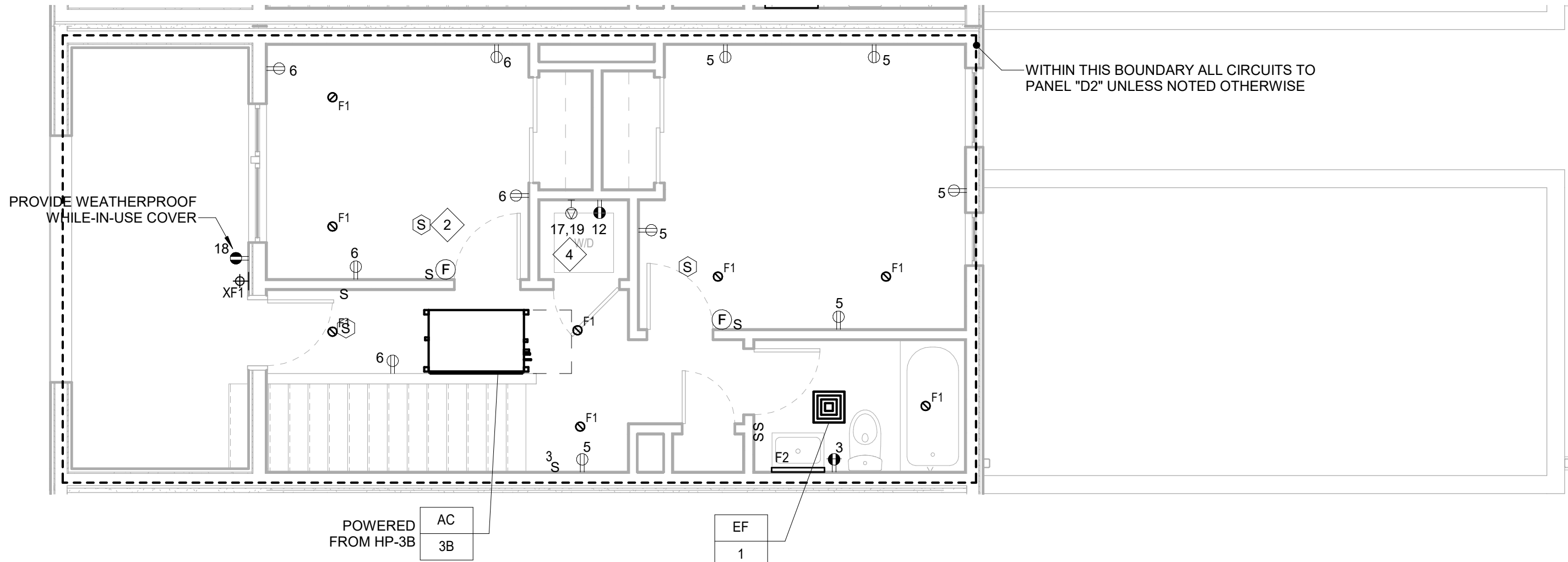
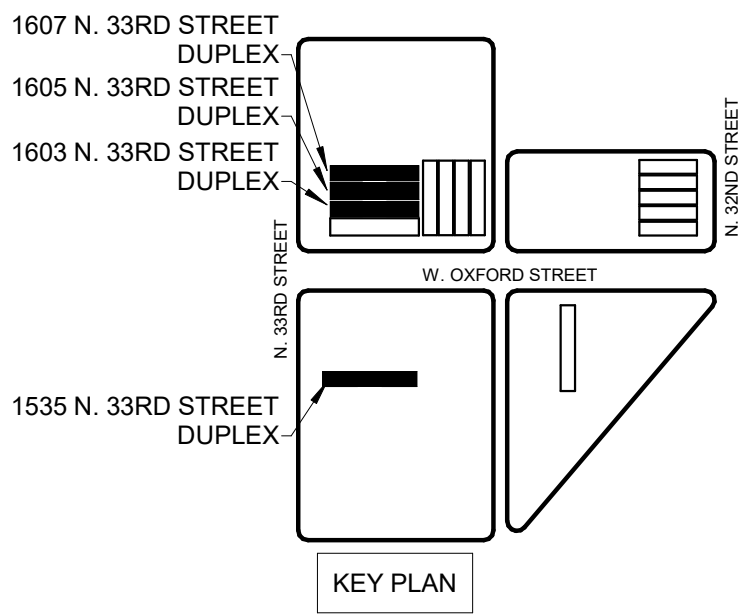
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PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# E420

ELECTRICAL DUPLEX  
(1603-07) 1ST, 2ND, AND  
3RD FLOOR PLANS



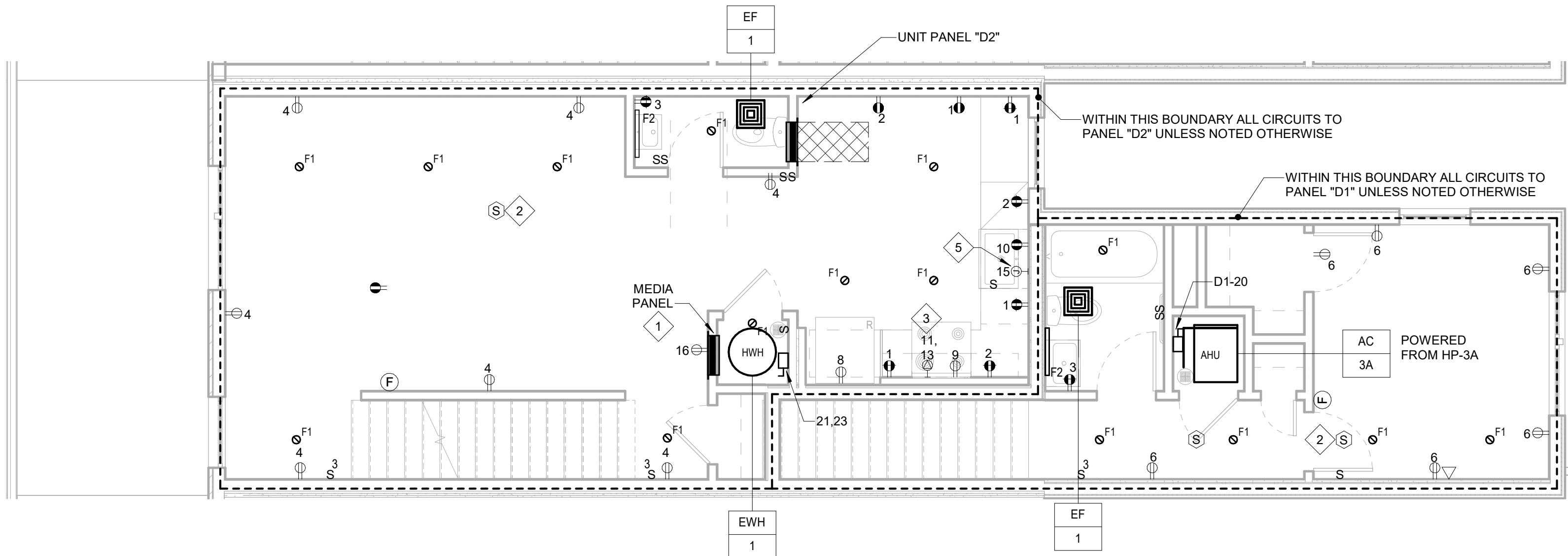
3 ELECTRICAL DUPLEX (1603-07) 3RD FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E420 1/4" = 1'-0"

#### GENERAL NOTES:

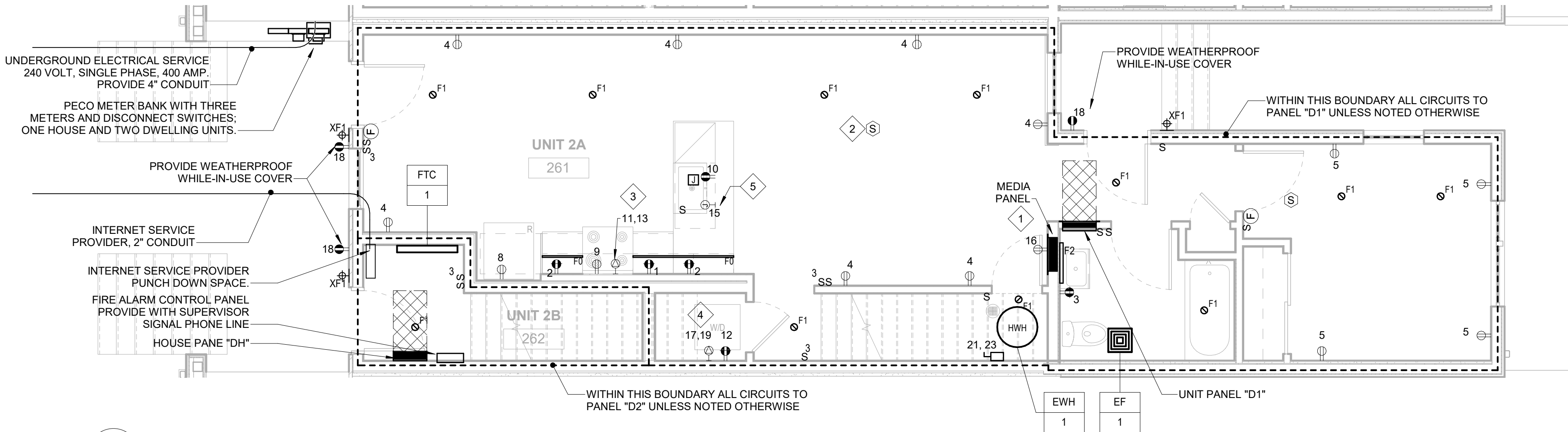
1. ALL EQUIPMENT & DEVICES ARE NEW UNLESS OTHERWISE NOTED
2. VERIFY ALL FIELD CONDITIONS AND LOCATIONS OF EQUIPMENT, DEVICES, & WIRING WITH OTHER TRADES PRIOR TO ELECTRICAL WORK. DO NOT SCALE DRAWINGS.

#### KEYED PLAN NOTES:

- 1 PROVIDE 28" PLASTIC MEDIA ENCLOSURE AND 1" CONDUIT TO BASEMENT ISP DEMARC. PROVIDE 3/4" CONDUIT WITH (1) CAT5E CABLE AND (1) RG6 COAXIAL CABLE FROM THE MEDIA ENCLOSURE TO EACH DATA DROP NOTED ON THE DWELLING UNIT FLOOR PLAN.
- 2 TYPICAL FOR ALL 120V POWERED DWELLING UNIT LOCAL INTERCONNECTED SMOKE DETECTORS.
- 3 PROVIDE 3-#6+1-#10GND AND NEMA 14-50 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH COOKING RANGE. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- 4 PROVIDE 3-#10+1-#10GND AND NEMA 14-30 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH DRYER AND STACKABLE WASHER/DRYER. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- 5 PROVIDE FOR FUTURE GARBAGE DISPOSER INSTALLATION.



2 ELECTRICAL DUPLEX (1603-07) 2ND FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E420 1/4" = 1'-0"



1 ELECTRICAL DUPLEX (1603-07) 1ST FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E420 1/4" = 1'-0"

# COLTRANE COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

## TEAM

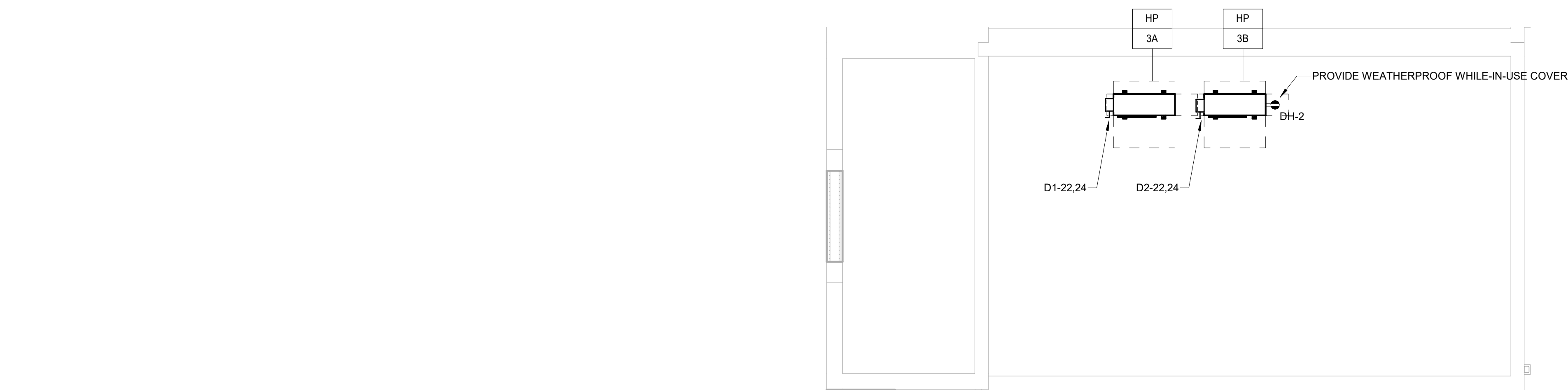
**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

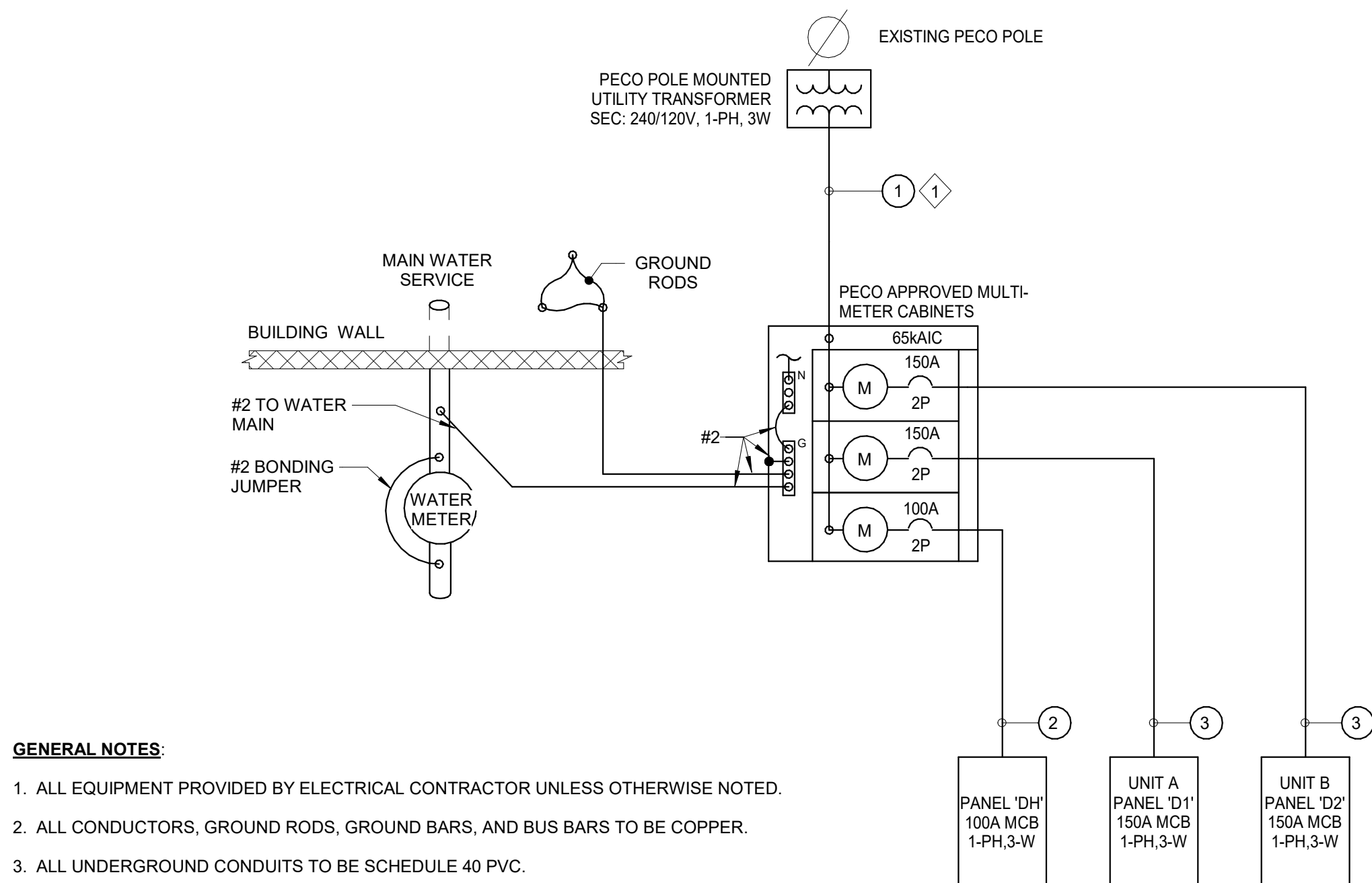
**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



1 ELECTRICAL DUPLEX (1603-07) ROOF NEW WORK PLAN - POWER AND SYSTEMS  
E421 1/4" = 1'-0"



### GENERAL NOTES

1. ALL EQUIPMENT PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
2. ALL CONDUCTORS, GROUND RODS, GROUND BARS, AND BUS BARS TO BE COPPER.
3. ALL UNDERGROUND CONDUITS TO BE SCHEDULE 40 PVC.
4. REFER TO PECO STANDARDS FOR ACCEPTABLE CABLE, METER CABINETS, AND METER SOCKETS.

**KEYED NOTES:**

- 1 RUN CONDUCTORS UP POLE LEAVING 15' SLACK FOR CONNECTION BY PECO. PROVIDE PROTECTIVE COVER OVER CONDUCTORS ON POLE.

| FEEDER SCHEDULE |                                   |
|-----------------|-----------------------------------|
| FEEDER NO.      | NEW FEEDER & CONDUIT SIZE         |
| ①               | 3 - #3/0 IN 2" C                  |
| ②               | 3 - #2 + 1 - #8 GND IN 1-1/4" C   |
| ③               | 3 - #1/0 + 1 - #6 GND IN 1-1/2" C |
| ④               | 2 - #12 + 1 - #12 GND IN 3/4" C   |

2 ELECTRICAL SINGLE LINE DIAGRAM DUPLEX  
E421 N.T.S.

NOTES

| ELECTRICAL PANEL SCHEDULE - DUPLEX DWELLING UNIT |    |        |                           |       |       |       |       |                              |                 |    | D1, D2                |    |  |
|--------------------------------------------------|----|--------|---------------------------|-------|-------|-------|-------|------------------------------|-----------------|----|-----------------------|----|--|
| 1 PHASE                                          |    | 3 WIRE |                           |       |       |       |       |                              |                 |    | MAIN BUS RATING: 150A |    |  |
| 240/120V                                         |    |        |                           |       |       |       |       |                              | MAINS: 150A MCB |    |                       |    |  |
| RECESS MOUNTED                                   |    |        |                           |       |       |       |       |                              | NEUT. BUS: X    |    |                       |    |  |
| 22 KAIC                                          |    |        |                           |       |       |       |       |                              | GRD. BUS: X     |    |                       |    |  |
| CKT                                              | TR | P      | DESCRIPTION               | A     | B     | A     | B     | DESCRIPTION                  | P               | TR | CKT                   |    |  |
| 1                                                | 20 | 1      | SMALL APPLIANCE           | 1,500 |       | 1,500 |       | SMALL APPLIANCE              | 1               | 20 | 2                     |    |  |
| 3                                                | 15 | 1      | BATHROOM GFCI             |       | 180   |       | 1,260 | LIVING ROOM RECEPT           | 1               | 20 | 4                     |    |  |
| 18                                               | 15 | 1      | BEDROOM RECEPT            | 900   |       | 1,080 |       | BEDROOM RECEPT               | 1               | 20 | 6                     |    |  |
| 7                                                | 15 | 1      | LIGHTS                    |       | 850   |       | 1,200 | REFRIGERATOR                 | 1               | 20 | 8                     |    |  |
| 9                                                | 20 | 1      | MICROWAVE/RANGE HOOD      | 1,200 |       | 1,200 |       | DISHWASHER                   | 1               | 20 | 10                    |    |  |
| 11                                               | 40 | 2      | RANGE                     | 4,000 | 4,000 | 180   | 1,500 | LAUNDRY CIRCUIT              | 1               | 20 | 12                    |    |  |
| 13                                               |    |        |                           |       |       |       |       | SMOKE DETECTORS              | 1               | 15 | 14                    |    |  |
| 15                                               | 20 | 1      | GARBAGE DISPOSAL (FUTURE) |       | 960   |       | 180   | NETWORK RECEPTACLE           | 1               | 20 | 16                    |    |  |
| 17                                               | 30 | 2      | WASHER/DRYER              | 2,500 | 2500  | 360   | -     | EXTERIOR RECEPTACLE          | 1               | 15 | 18                    |    |  |
| 19                                               |    |        |                           |       |       |       |       | SPARE                        | 1               | 20 | 20                    |    |  |
| 21                                               |    |        |                           |       |       |       |       | OUTDOOR CONDENSING UNIT HP-X | 2               | 30 | 22                    |    |  |
| 23                                               |    |        | 1,630                     | 1,630 |       |       |       |                              |                 |    |                       |    |  |
| 25                                               | 1  | SPACE  | 1                         |       |       |       |       |                              |                 |    |                       | 26 |  |
| 27                                               | 1  | SPACE  | 1                         |       |       |       |       |                              |                 |    |                       | 28 |  |
| 29                                               | 1  | SPACE  | 1                         |       |       |       |       |                              |                 |    |                       | 30 |  |

1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER.

PANEL LOADS

3KVA LIGHTS/RECPT3,000

REMAINING AT 35%2,909

APPLIANCES 100%20,740

MECHANICAL 100%3,260

TOTAL VA29,909

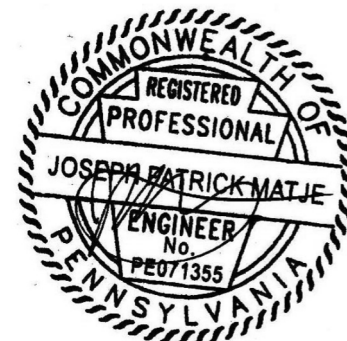
TOTAL VA A18,550

TOTAL VA B16,760

TOTAL CONNECTED VA35,310

TOTAL AMPS144

| NOTES                                          | ELECTRICAL PANEL SCHEDULE - DUPLEX DWELLING UNIT |   |                         |            |     |       |     |                    |   |       |     | DH               |  |          |
|------------------------------------------------|--------------------------------------------------|---|-------------------------|------------|-----|-------|-----|--------------------|---|-------|-----|------------------|--|----------|
|                                                | 1 PHASE                                          |   | 3 WIRE                  |            |     |       |     |                    |   |       |     | MAIN BUS RATING: |  | 100A     |
|                                                |                                                  |   |                         |            |     |       |     |                    |   |       |     | MAINS:           |  | 100A MCB |
|                                                | 240/120V                                         |   |                         |            |     |       |     |                    |   |       |     | NEUT. BUS:       |  | X        |
|                                                | RECESS MOUNTED                                   |   |                         |            |     |       |     |                    |   |       |     | GRD. BUS:        |  | X        |
|                                                | 22 KAIC                                          |   |                         |            |     |       |     |                    |   |       |     |                  |  |          |
| CKT                                            | TR                                               | P | DESCRIPTION             | A          | B   | A     | B   | DESCRIPTION        | P | TR    | CKT |                  |  |          |
| 1                                              | 20                                               | 1 | COMMON RECEPTACLES      | 900        |     | 1,000 |     | ROOF LIGHTS        | 1 | 20    | 2   |                  |  |          |
| 3                                              | 20                                               | 1 | BASEMENT NETWORK RECEPT |            | 360 |       | 360 | ROOF RECEPTACLES   | 1 | 20    | 4   |                  |  |          |
| 5                                              | 20                                               | 1 | EXTERIOR LIGHTS         | 1,500      |     | 250   |     | TIMECLOCK          | 1 | 20    | 6   |                  |  |          |
| 7                                              | 20                                               | 1 | DOOR ENTRY SYSTEM       |            | 500 |       | 500 | FIRE ALARM PANEL   | 1 | 20    | 8   |                  |  |          |
| 9                                              | 20                                               | 1 | SPARE                   |            |     |       |     | SPACE              | 1 |       | 10  |                  |  |          |
| 11                                             | 20                                               | 1 | SPARE                   |            |     |       |     | SPACE              | 1 |       | 12  |                  |  |          |
| 13                                             | 20                                               | 1 | SPARE                   |            |     |       |     | SPACE              | 1 |       | 14  |                  |  |          |
| 15                                             | 20                                               | 1 | SPARE                   |            |     |       |     | SPACE              | 1 |       | 16  |                  |  |          |
| 17                                             | 20                                               | 1 | SPARE                   |            |     |       |     | SPACE              | 1 |       | 18  |                  |  |          |
| 1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER. |                                                  |   |                         | TOTAL VA A |     | 3,650 |     | TOTAL CONNECTED VA |   | 5,370 |     |                  |  |          |
| 2. PROVIDE CIRCUIT BREAKER LOCK                |                                                  |   |                         | TOTAL VA B |     | 1,720 |     | TOTAL AMPS         |   | 26    |     |                  |  |          |



**PHASE**

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# E421

## ELECTRICAL DUPLEX (1603-07) ROOF PLAN AND DETAILS

## COLTRANE COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

### TEAM

**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931

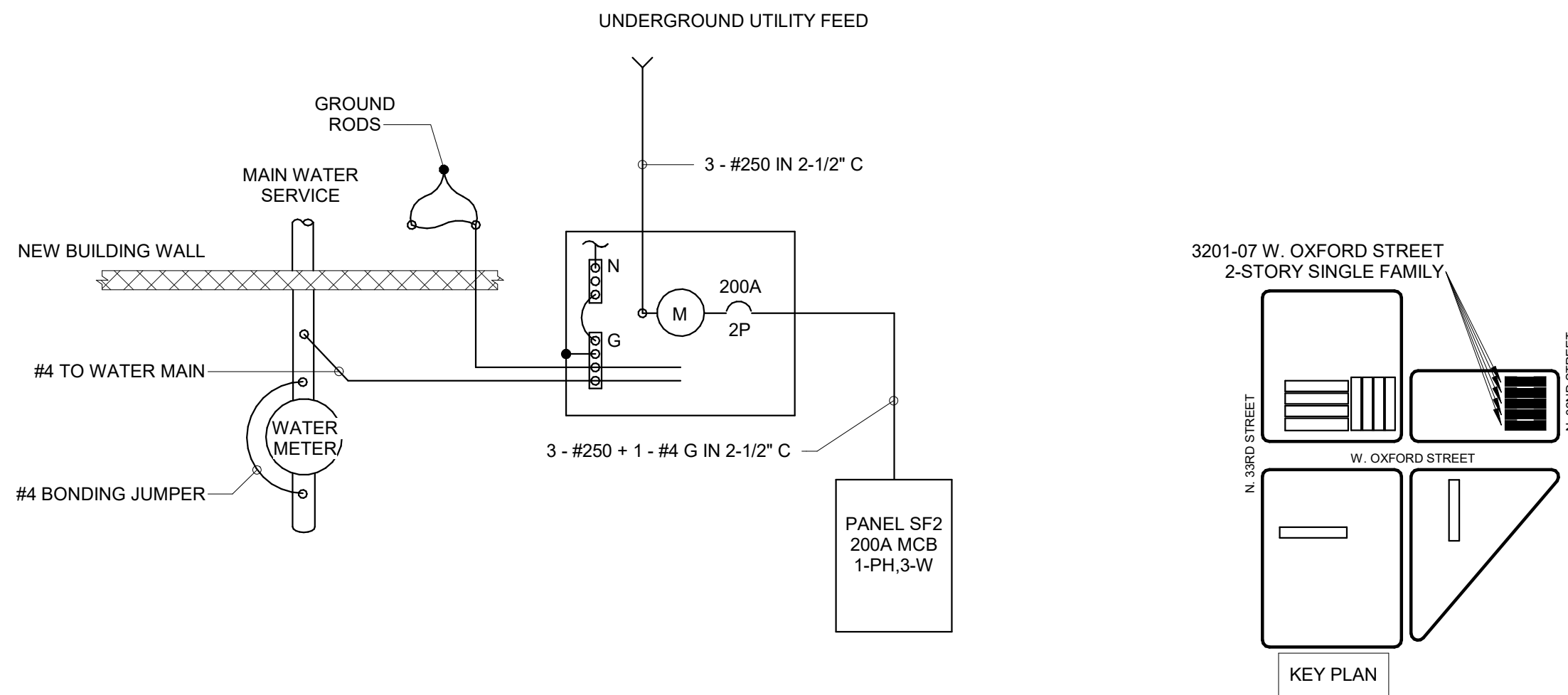
### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# E430

**ELECTRICAL SINGLE 2 STORY (3201-07) 1ST, 2ND FLOOR, AND ROOF PLANS**



#### GENERAL NOTES:

- ALL EQUIPMENT PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
- ALL CONDUCTORS, GROUND RODS, GROUND BARS, AND BUS BARS ARE ALUMINUM OR COPPER CLAD ALUMINUM. ALL GROUNDS TO BE STRANDED COPPER WIRING. INSULATION TO BE TYPE THHW RATED FOR 75C.
- ALL CONDUITS TO BE SCHEDULE 40 PVC.
- REFER TO PECO STANDARDS FOR ACCEPTABLE CABLE, METER CABINETS, AND METER SOCKETS.

#### 4 ELECTRICAL SINGLE LINE DIAGRAM SF2 E430 / N.T.S.

|                                                |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            |                       |                    |        |
|------------------------------------------------|-------------------------------------------|---|---------------------------|-------|-------|-------|-------|------------------------------|---|----|-----|-----------------|------------|-----------------------|--------------------|--------|
| NOTES                                          | ELECTRICAL PANEL SCHEDULE - SINGLE FAMILY |   |                           |       |       |       |       |                              |   |    |     | SF2             | NOTES      |                       |                    |        |
|                                                | 1 PHASE                                   |   | 3 WIRE                    |       |       |       |       |                              |   |    |     |                 |            | MAIN BUS RATING: 200A |                    |        |
|                                                |                                           |   |                           |       |       |       |       |                              |   |    |     | MAINS: 200A MCB |            |                       |                    |        |
|                                                | 240/120V                                  |   |                           |       |       |       |       |                              |   |    |     | NEUT. BUS: X    |            |                       |                    |        |
|                                                | RECESS MOUNTED                            |   |                           |       |       |       |       |                              |   |    |     | GRD. BUS: X     |            |                       |                    |        |
| 22 KAIC                                        |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            |                       |                    |        |
| CKT                                            | TR                                        | P | DESCRIPTION               | A     | B     | A     | B     | DESCRIPTION                  | P | TR | CKT |                 |            |                       |                    |        |
| 1                                              | 20                                        | 1 | SMALL APPLIANCE           | 1,500 |       | 1,500 |       | SMALL APPLIANCE              | 1 | 20 | 2   |                 |            |                       |                    |        |
| 3                                              | 15                                        | 1 | BATHROOM GFCI             |       | 180   |       | 1,260 | LIVING ROOM RECEPT           | 1 | 20 | 4   |                 |            |                       |                    |        |
| 18                                             | 15                                        | 1 | BEDROOM RECEPT            | 900   |       | 1,080 |       | BEDROOM RECEPT               | 1 | 20 | 6   |                 |            |                       |                    |        |
| 7                                              | 15                                        | 1 | LIGHTS                    |       | 850   |       | 1,200 | REFRIGERATOR                 | 1 | 20 | 8   |                 |            |                       |                    |        |
| 9                                              | 20                                        | 1 | MICROWAVE/RANGE HOOD      | 1,200 |       | 1,200 |       | DISHWASHER                   | 1 | 20 | 10  |                 |            |                       |                    |        |
| 11                                             |                                           |   |                           |       | 4,000 |       | 1,500 | LAUNDRY CIRCUIT              | 1 | 20 | 12  |                 |            |                       |                    |        |
| 13                                             | 40                                        | 2 | RANGE                     | 4,000 |       | 180   |       | SMOKE DETECTORS              | 1 | 15 | 14  |                 |            |                       |                    |        |
| 15                                             | 20                                        | 1 | GARBAGE DISPOSAL (FUTURE) |       | 960   |       | 180   | NETWORK RECEPTACLE           | 1 | 20 | 16  |                 |            |                       |                    |        |
| 17                                             |                                           |   |                           | 2,500 |       | 1,080 |       | BEDROOM RECEPT               | 1 | 15 | 18  |                 |            |                       |                    |        |
| 19                                             | 30                                        | 2 | WASHER/DRYER              |       | 2500  |       | -     | SPARE                        | 1 | 15 | 20  |                 |            |                       |                    |        |
| 21                                             |                                           |   |                           | 2,500 |       | 3,170 |       |                              |   |    | 22  |                 |            |                       |                    |        |
| 23                                             | 30                                        | 2 | ELEC WATER HEATER         |       |       |       | 3,170 | OUTDOOR CONDENSING UNIT HP-1 | 2 | 40 | 24  |                 |            |                       |                    |        |
| 25                                             |                                           | 1 | SPACE                     |       | 2,500 | -     |       | SPARE                        | 1 | 20 | 26  |                 |            |                       |                    |        |
| 27                                             |                                           |   |                           |       |       |       | 360   | EXTERIOR RECEPTACLE          | 1 | 20 | 28  |                 |            |                       |                    |        |
| 29                                             |                                           | 1 | SPACE                     |       |       |       |       | SPACE                        | 1 |    | 30  |                 |            |                       |                    |        |
| 1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER. |                                           |   |                           |       |       |       |       |                              |   |    |     |                 | TOTAL VA A | 20,810                | TOTAL CONNECTED VA | 39,470 |
| PANEL LOADS                                    |                                           |   |                           |       |       |       |       |                              |   |    |     |                 | TOTAL VA B | 18,660                | TOTAL AMPS         | 160    |
| 3KVA LIGHTS/RECPT                              |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            | 3,000                 |                    |        |
| REMAINING AT 35%                               |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            | 3,161                 |                    |        |
| APPLIANCES 100%                                |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            | 20,740                |                    |        |
| MECHANICAL 100%                                |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            | 6,340                 |                    |        |
| TOTAL VA                                       |                                           |   |                           |       |       |       |       |                              |   |    |     |                 |            | 33,241                |                    |        |

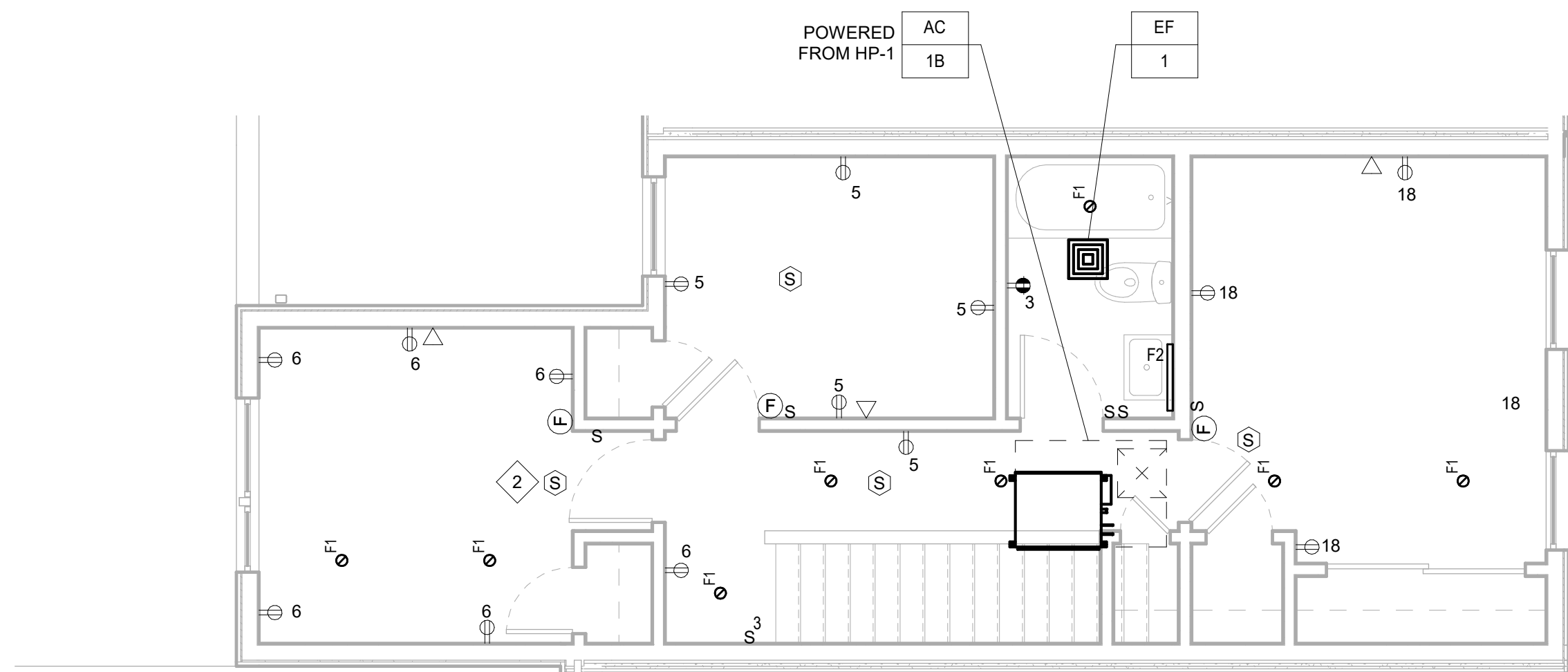
#### GENERAL NOTES:

- ALL EQUIPMENT & DEVICES ARE NEW UNLESS OTHERWISE NOTED
- VERIFY ALL FIELD CONDITIONS AND LOCATIONS OF EQUIPMENT, DEVICES, & WIRING WITH OTHER TRADES PRIOR TO ELECTRICAL WORK. DO NOT SCALE DRAWINGS.

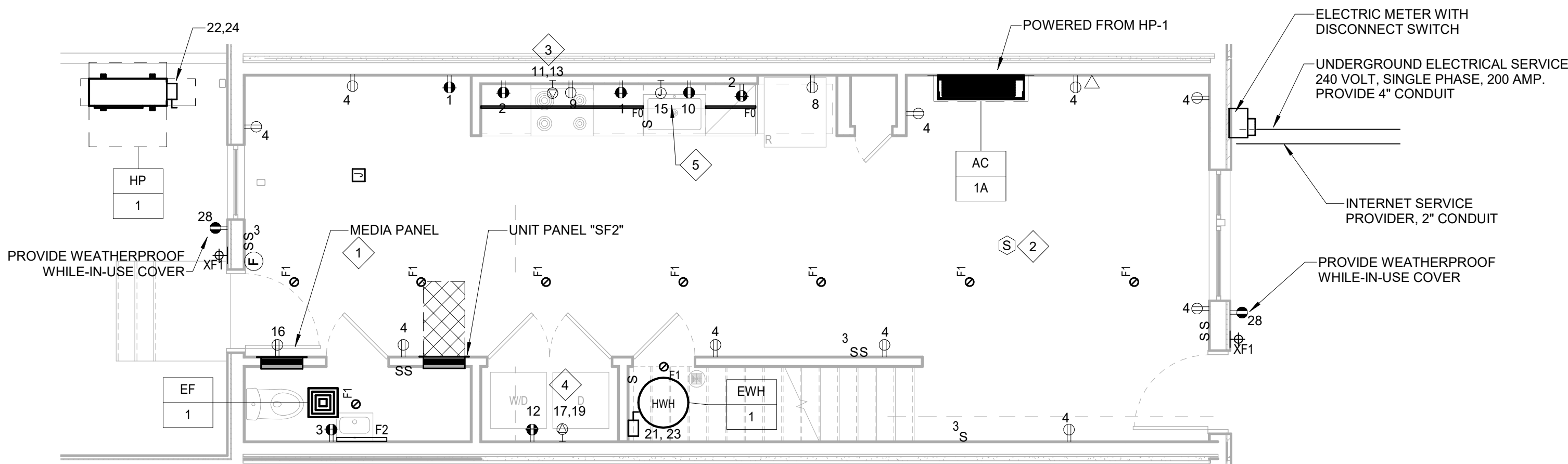
#### KEYED PLAN NOTES:

- PROVIDE 28" PLASTIC MEDIA ENCLOSURE AND 1" CONDUIT TO BASEMENT ISP DEMARC. PROVIDE 3/4" CONDUIT WITH (1) CAT5E CABLE AND (1) RG6 COAXIAL CABLE FROM THE MEDIA ENCLOSURE TO EACH DATA DROP NOTED ON THE DWELLING UNIT FLOOR PLAN.
- TYPICAL FOR ALL 120V POWERED DWELLING UNIT LOCAL INTERCONNECTED SMOKE DETECTORS.
- PROVIDE 3-#6+1-#10GND AND NEMA 14-50 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH COOKING RANGE. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- PROVIDE 3-#10+1-#10GND AND NEMA 14-30 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH DRYER AND STACKABLE WASHER/DRYER. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- PROVIDE FOR FUTURE GARBAGE DISPOSER INSTALLATION.

#### 3 ELECTRICAL SINGLE 2 STORY (3201-07) ROOF NEW WORK PLAN - POWER AND SYSTEMS E430 1/4" = 1'-0"



#### 2 ELECTRICAL SINGLE 2 STORY (3201-07) 2ND FLOOR NEW WORK PLAN - POWER AND SYSTEMS E430 1/4" = 1'-0"



#### 1 ELECTRICAL SINGLE 2 STORY (3201-07) 1ST FLOOR NEW WORK PLAN - POWER AND SYSTEMS E430 1/4" = 1'-0"



## COLTRANE COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

### TEAM

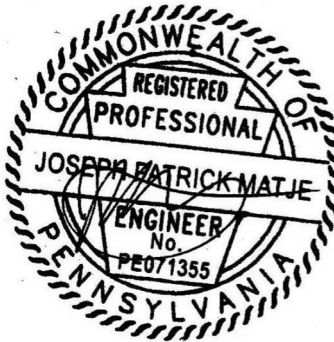
**OWNER**  
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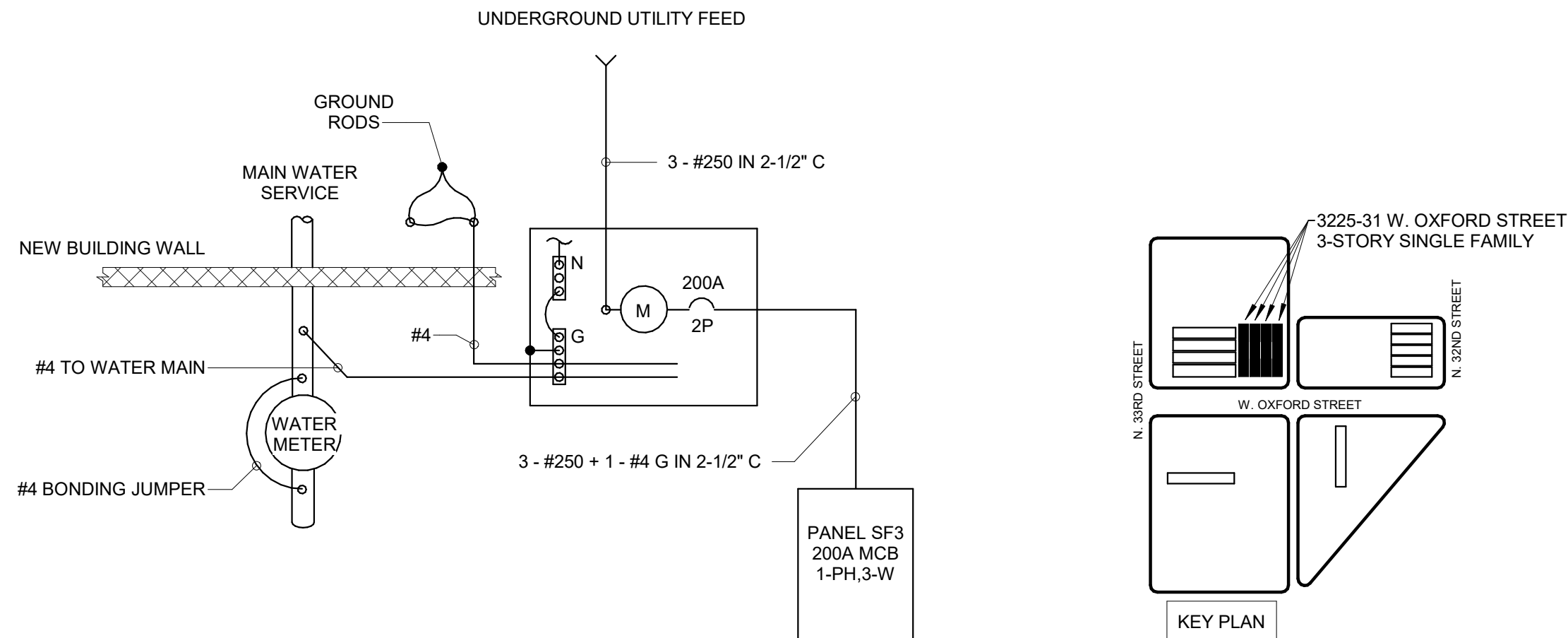
### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# E440

**ELECTRICAL SINGLE 3 STORY (3225-31) 1ST, 2ND, AND 3RD FLOOR PLANS**



### GENERAL NOTES:

1. ALL EQUIPMENT PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
2. ALL CONDUCTORS, GROUND RODS, GROUND BARS, AND BUS BARS ARE ALUMINUM OR COPPER CLAD ALUMINUM. ALL GROUNDS TO BE STRANDED COPPER WIRING. INSULATION TO BE TYPE THHW RATED FOR 75C.
3. ALL CONDUITS TO BE SCHEDULE 40 PVC.
4. REFER TO PECO STANDARDS FOR ACCEPTABLE CABLE, METER CABINETS, AND METER SOCKETS.

### 4 ELECTRICAL SINGLE LINE DIAGRAM SF3 E440 N.T.S.

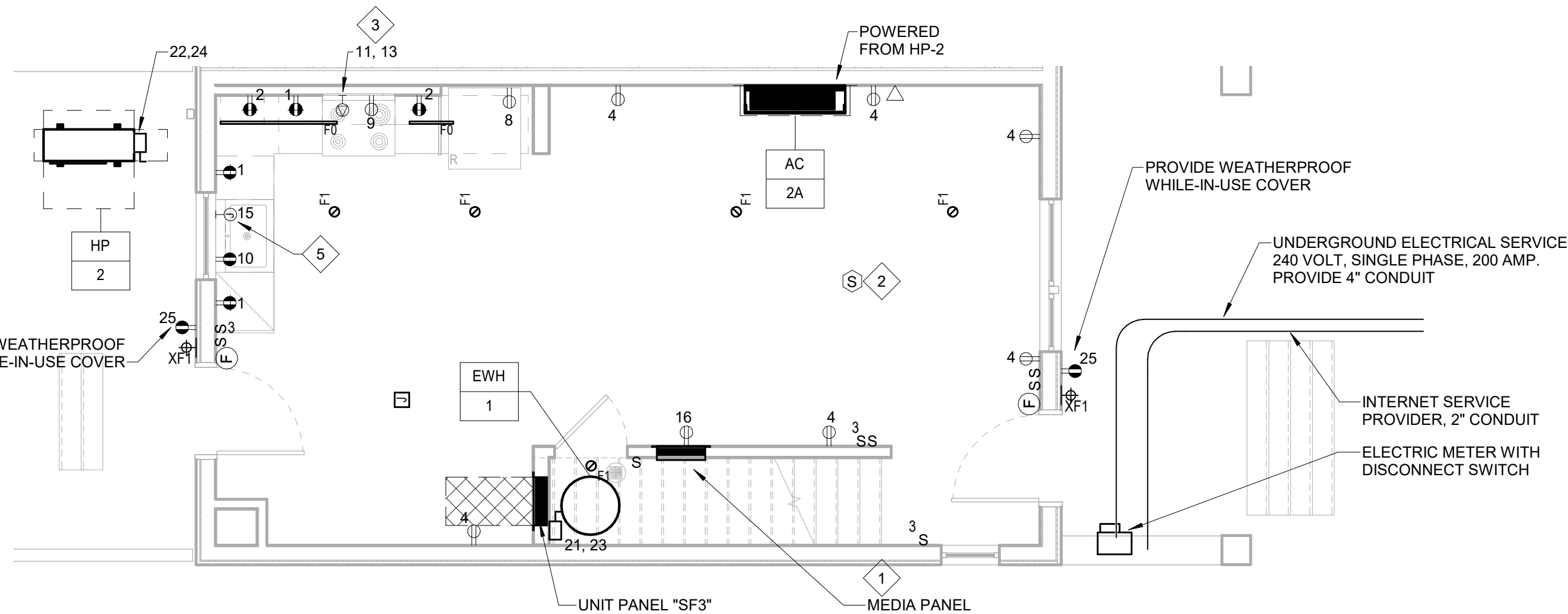
| ELECTRICAL PANEL SCHEDULE - SINGLE FAMILY      |                |   |                           |                       |       |        |       |                              |   |        |     | SF3 |       |
|------------------------------------------------|----------------|---|---------------------------|-----------------------|-------|--------|-------|------------------------------|---|--------|-----|-----|-------|
| NOTES                                          | 1 PHASE 3 WIRE |   |                           | MAIN BUS RATING: 200A |       |        |       |                              |   |        |     |     | NOTES |
|                                                |                |   |                           | MAINS: 200A MCB       |       |        |       |                              |   |        |     |     |       |
|                                                | 240/120V       |   |                           | NEUT. BUS: X          |       |        |       |                              |   |        |     |     |       |
|                                                | RECESS MOUNTED |   |                           | GRD. BUS: X           |       |        |       |                              |   |        |     |     |       |
|                                                | 22 KAIC        |   |                           |                       |       |        |       |                              |   |        |     |     |       |
|                                                |                |   |                           |                       |       |        |       |                              |   |        |     |     |       |
| CKT                                            | TR             | P | DESCRIPTION               | A                     | B     | A      | B     | DESCRIPTION                  | P | TR     | CKT |     |       |
| 1                                              | 20             | 1 | SMALL APPLIANCE           | 1,500                 |       | 1,500  |       | SMALL APPLIANCE              | 1 | 20     | 2   |     |       |
| 3                                              | 15             | 1 | BATHROOM GFCI             |                       | 180   |        | 1,260 | LIVING ROOM RECEPT           | 1 | 20     | 4   |     |       |
| 18                                             | 15             | 1 | BEDROOM RECEPT            | 900                   |       | 1,080  |       | BEDROOM RECEPT               | 1 | 20     | 6   |     |       |
| 7                                              | 15             | 1 | LIGHTS                    |                       | 850   |        | 1,200 | REFRIGERATOR                 | 1 | 20     | 8   |     |       |
| 9                                              | 20             | 1 | MICROWAVE/RANGE HOOD      | 1,200                 |       | 1,200  |       | DISHWASHER                   | 1 | 20     | 10  |     |       |
| 11                                             |                |   |                           |                       | 4,000 |        | 1,500 | LAUNDRY CIRCUIT              | 1 | 20     | 12  |     |       |
| 13                                             | 40             | 2 | RANGE                     | 4,000                 |       | 180    |       | SMOKE DETECTORS              | 1 | 15     | 14  |     |       |
| 15                                             | 20             | 1 | GARBAGE DISPOSAL (FUTURE) |                       | 960   |        | 180   | NETWORK RECEPTACLE           | 1 | 20     | 16  |     |       |
| 17                                             |                |   |                           | 2,500                 |       | 1,080  |       | BEDROOM RECEPT               | 1 | 15     | 18  |     |       |
| 19                                             | 30             | 2 | WASHER/DRYER              |                       | 2500  |        | -     | SPARE                        | 1 | 20     | 20  |     |       |
| 21                                             |                |   |                           | 2,500                 |       | 4,350  |       | OUTDOOR CONDENSING UNIT HP-2 | 2 | 50     | 22  |     |       |
| 23                                             | 30             | 2 | ELEC WATER HEATER         |                       | 2,500 |        | 4,350 | SPARE                        | 1 | 15     | 24  |     |       |
| 25                                             | 20             | 1 | EXTERIOR RECEPTACLE       | 360                   |       | -      |       | SPARE                        | 1 | 15     | 26  |     |       |
| 27                                             |                | 1 | CORR AND STORAGE RECEPT   |                       | 1,080 |        | 1,080 | BEDROOM RECEPT               | 1 | 20     | 28  |     |       |
| 29                                             |                | 1 | SPACE                     |                       |       |        |       | SPACE                        | 1 |        | 30  |     |       |
|                                                |                |   |                           |                       |       |        |       |                              |   |        |     |     |       |
| 1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER. |                |   |                           | TOTAL VA A            |       | 22,350 |       | TOTAL CONNECTED VA           |   | 43,990 |     |     |       |
| PANEL LOADS                                    |                |   |                           | TOTAL VA B            |       | 21,640 |       | TOTAL AMPS                   |   | 175    |     |     |       |
| 3KVA LIGHTS/RECPT                              |                |   |                           | 3,000                 |       |        |       |                              |   |        |     |     |       |
| REMAINING AT 35%                               |                |   |                           | 4,043                 |       |        |       |                              |   |        |     |     |       |
| APPLIANCES 100%                                |                |   |                           | 20,740                |       |        |       |                              |   |        |     |     |       |
| MECHANICAL 100%                                |                |   |                           | 8,700                 |       |        |       |                              |   |        |     |     |       |
| TOTAL VA                                       |                |   |                           | 36,483                |       |        |       |                              |   |        |     |     |       |

### GENERAL NOTES:

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2. VERIFY ALL FIELD CONDITIONS AND LOCATIONS OF EQUIPMENT, DEVICES, & WIRING WITH OTHER TRADES PRIOR TO ELECTRICAL WORK. DO NOT SCALE DRAWINGS.

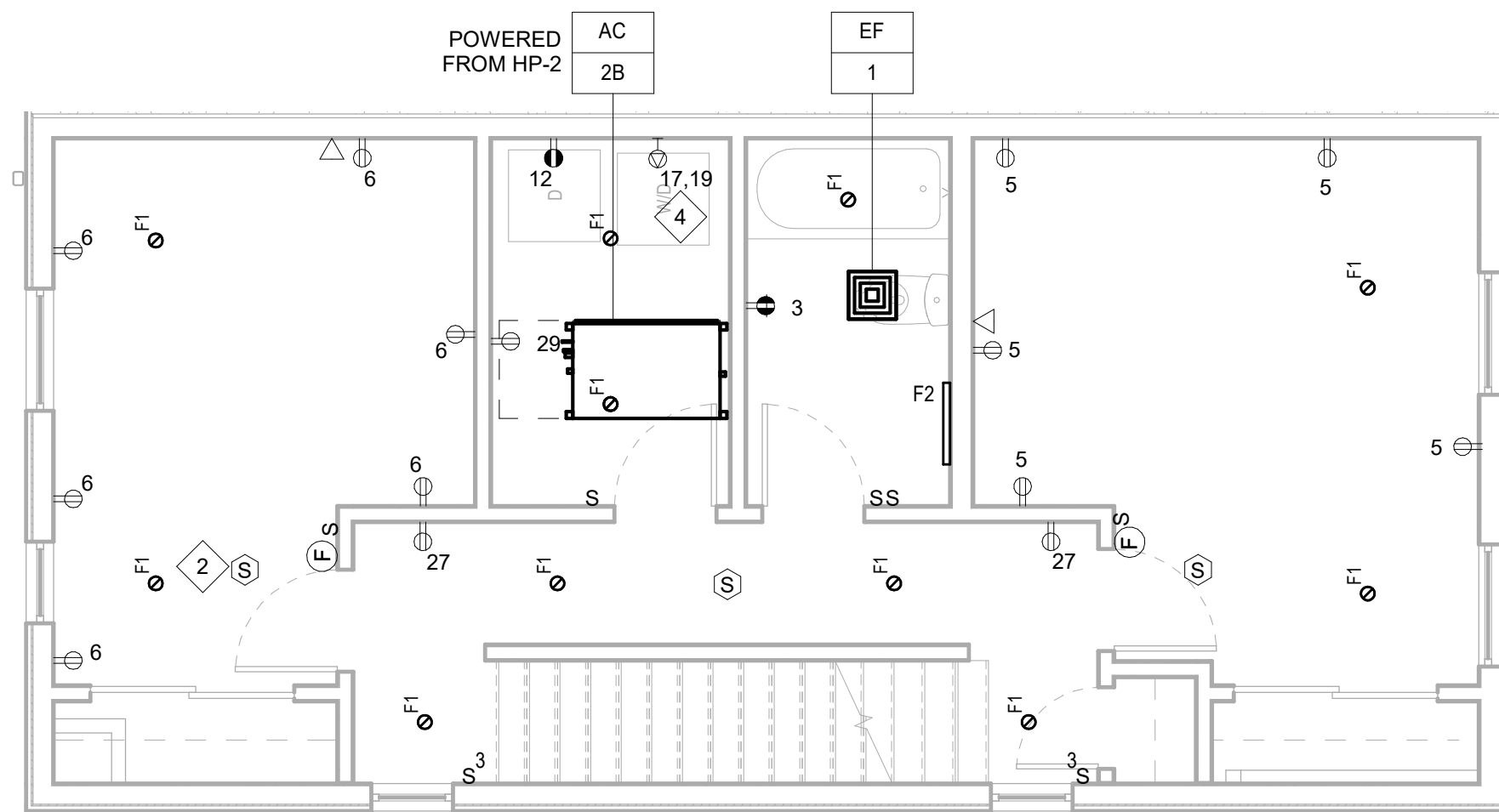
### KEYED PLAN NOTES:

1. PROVIDE 28" PLASTIC MEDIA ENCLOSURE AND 1" CONDUIT TO BASEMENT ISP DEMARC. PROVIDE 3/4" CONDUIT WITH (1) CATSE CABLE AND (1) RG6 COAXIAL CABLE FROM THE MEDIA ENCLOSURE TO EACH DATA DROP NOTED ON THE DWELLING UNIT FLOOR PLAN.
2. TYPICAL FOR ALL 120V POWERED DWELLING UNIT LOCAL INTERCONNECTED SMOKE DETECTORS.
3. PROVIDE 3-#8+1-#10GND AND NEMA 14-50 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH COOKING RANGE. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
4. PROVIDE 3-#10+1-#10GND AND NEMA 14-30 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH DRYER AND STACKABLE WASHER/DRYER. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
5. PROVIDE FOR FUTURE GARBAGE DISPOSER INSTALLATION.



### 1 ELECTRICAL SINGLE 3 STORY (3225-31) 1ST FLOOR NEW WORK PLAN - POWER AND SYSTEMS E440 1/4" = 1'-0"

### 3 ELECTRICAL SINGLE 3 STORY (3225-31) 3RD FLOOR NEW WORK PLAN - POWER AND SYSTEMS E440 1/4" = 1'-0"



### 2 ELECTRICAL SINGLE 3 STORY (3225-31) 2ND FLOOR NEW WORK PLAN - POWER AND SYSTEMS E440 1/4" = 1'-0"

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

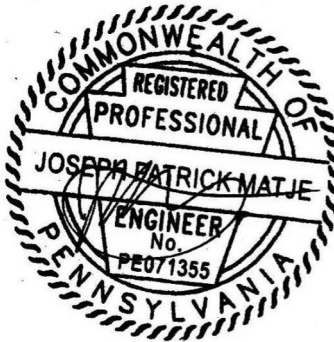
OWNER  
HABITAT FOR HUMANITY  
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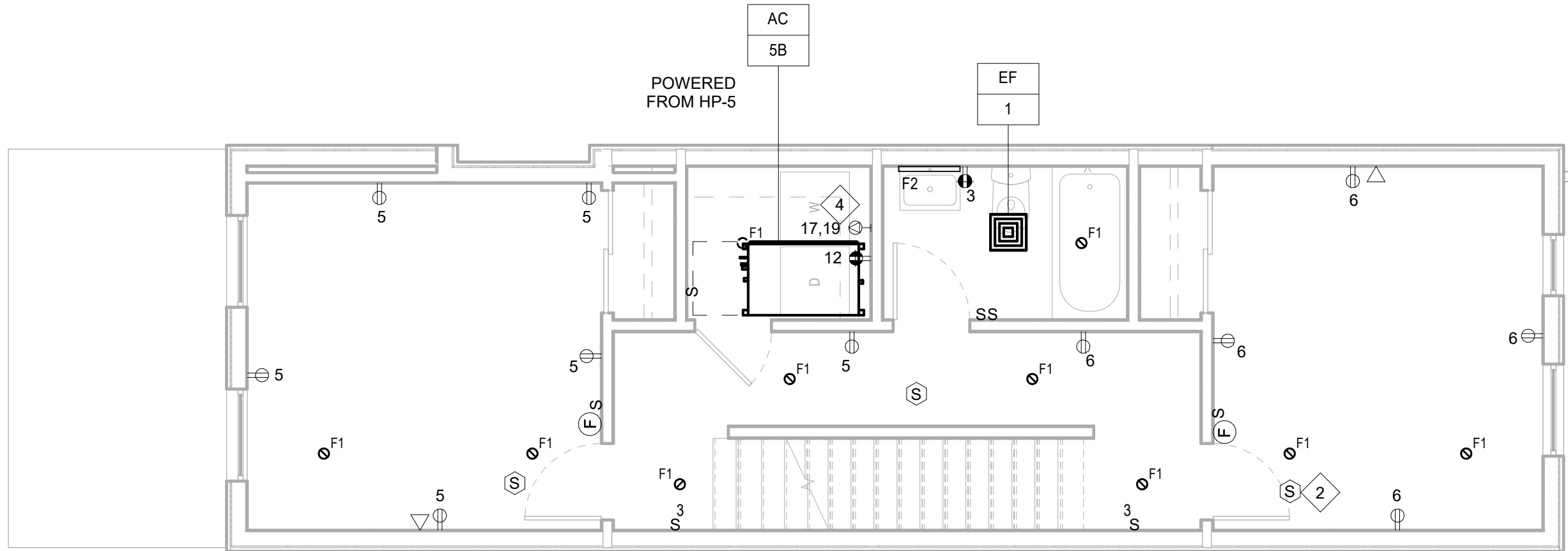
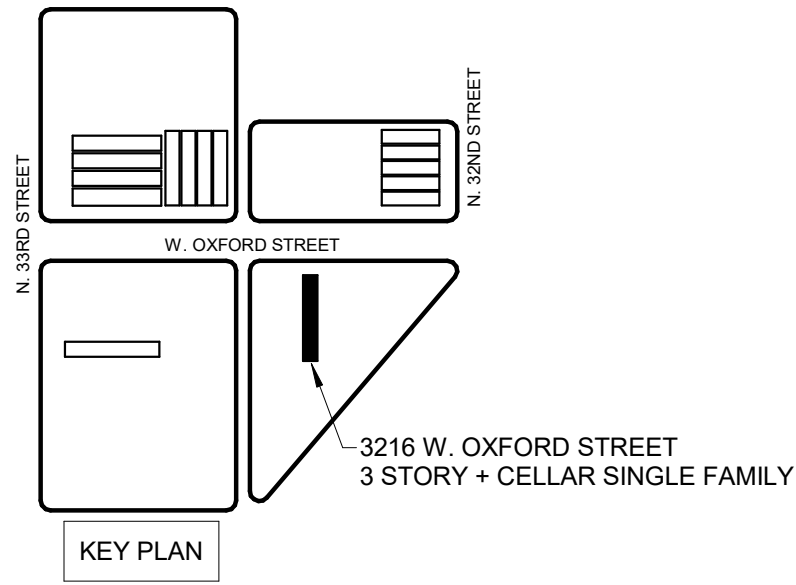
CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



PHASE

PRICING SETS JUNE 3, 2022  
CONSTRUCTION DOCUMENTS JULY 8, 2022

E450  
ELECTRICAL SINGLE 3  
STORY+C (3216)  
CELLAR,1ST, AND 2ND  
FLOOR PLANS



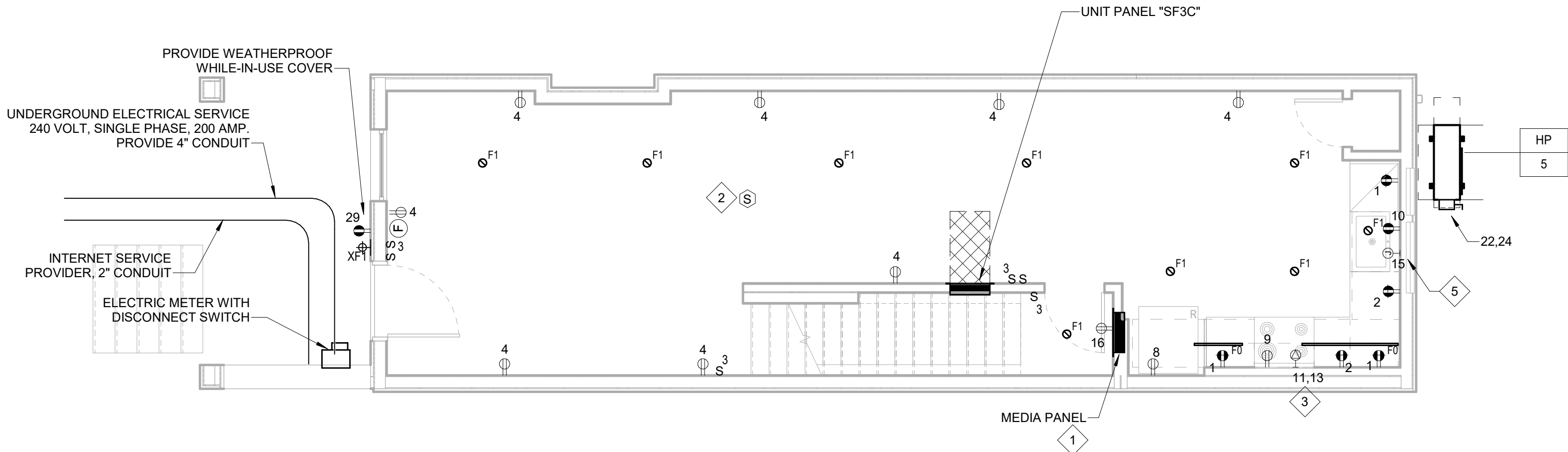
3 ELECTRICAL SINGLE 3 STORY+C (3216) 2ND FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
E450 1/4" = 1'-0"

GENERAL NOTES:

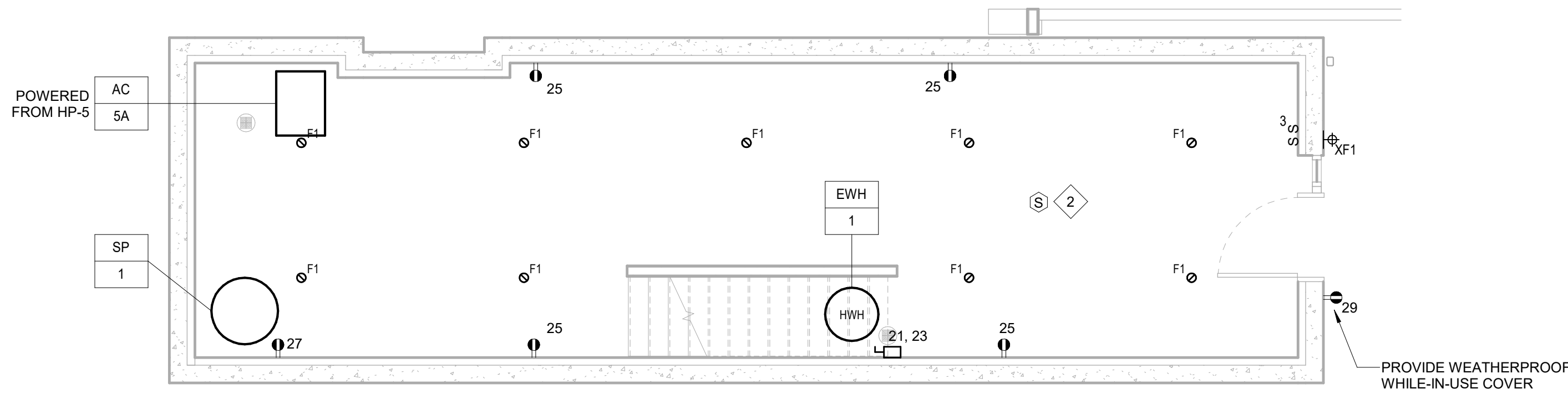
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KEYED PLAN NOTES:

1. PROVIDE 28" PLASTIC MEDIA ENCLOSURE AND 1" CONDUIT TO BASEMENT ISP DEMARC. PROVIDE 3/4" CONDUIT WITH (1) CATSE CABLE AND (1) RG6 COAXIAL CABLE FROM THE MEDIA ENCLOSURE TO EACH DATA DROP NOTED ON THE DWELLING UNIT FLOOR PLAN.
2. TYPICAL FOR ALL 120V POWERED DWELLING UNIT LOCAL INTERCONNECTED SMOKE DETECTORS.
3. PROVIDE 3-#6+1-#10GND AND NEMA 14-50 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH COOKING RANGE. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
4. PROVIDE 3-#10+1-#10GND AND NEMA 14-30 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH DRYER AND STACKABLE WASHER/DRYER. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
5. PROVIDE FOR FUTURE GARBAGE DISPOSER INSTALLATION.



2 ELECTRICAL SINGLE 3 STORY+C (3216) 1ST FLOOR NEW WORK PLAN- POWER AND SYSTEMS  
E450 1/4" = 1'-0"



1 ELECTRICAL SINGLE 3 STORY+C (3216) 0 CELLAR NEW WORK PLAN - POWER AND SYSTEMS  
E450 1/4" = 1'-0"

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

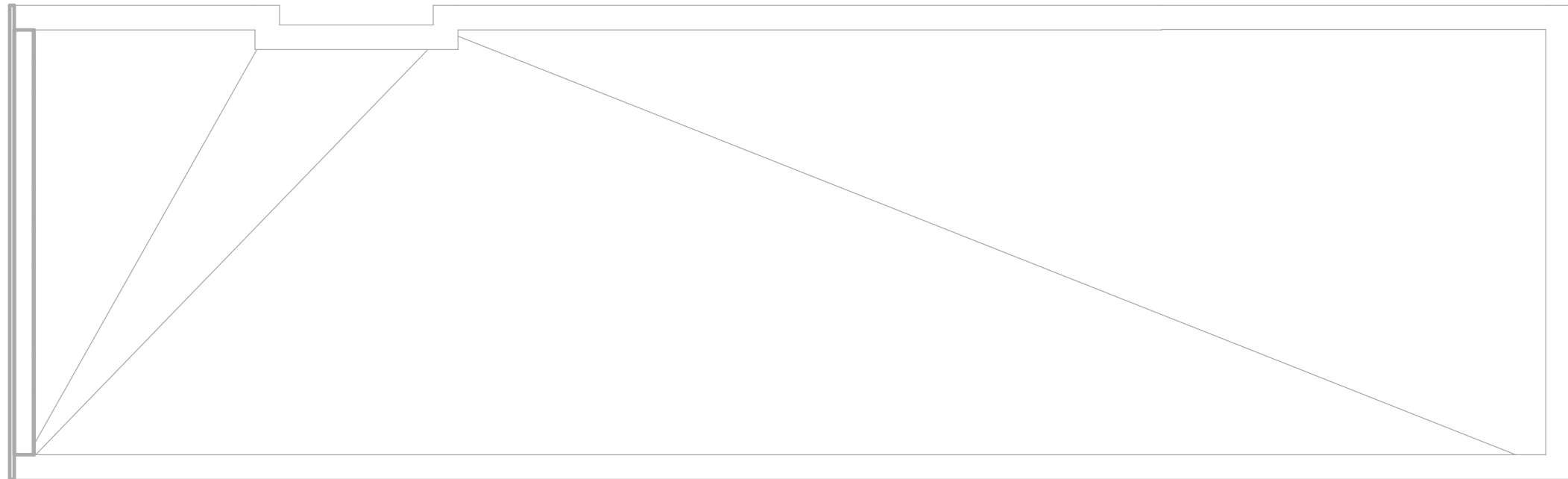
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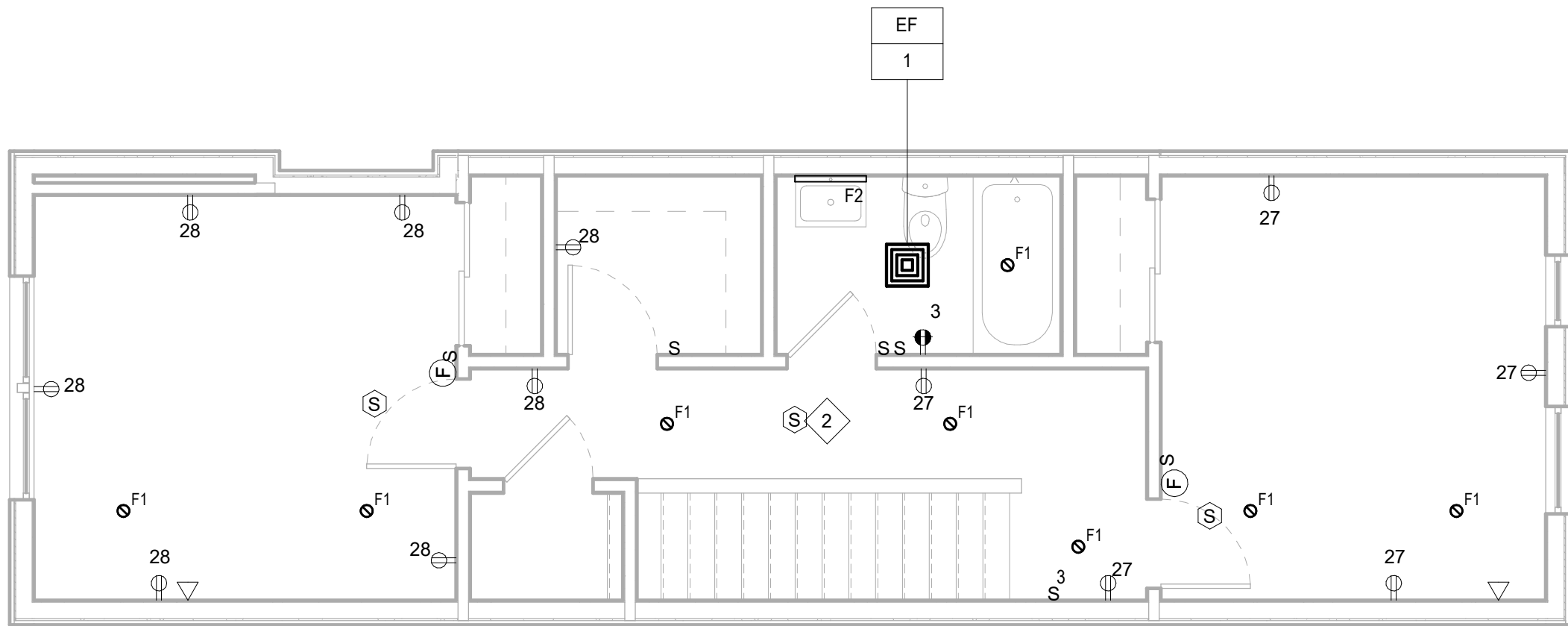
2 ELECTRICAL SINGLE 3 STORY+C (3216) ROOF NEW WORK PLAN - POWER AND SYSTEMS  
1/4" = 1'-0"

GENERAL NOTES:

1. ALL EQUIPMENT & DEVICES ARE NEW UNLESS OTHERWISE NOTED
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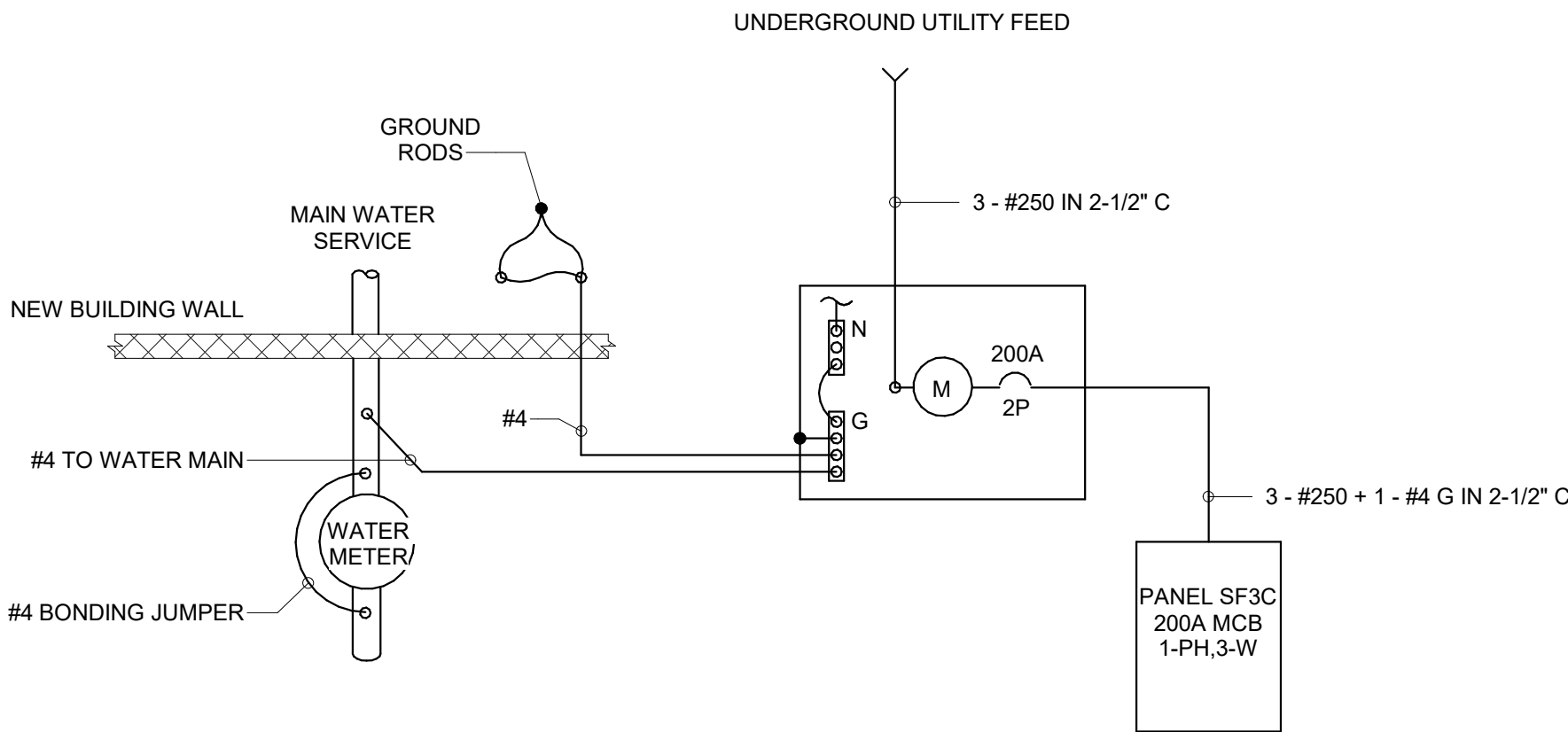
KEYED PLAN NOTES:

- 1 PROVIDE 28" PLASTIC MEDIA ENCLOSERE AND 1" CONDUIT TO BASEMENT ISP DEMARC. PROVIDE 3/4" CONDUIT WITH (1) CAT5E CABLE AND (1) RG8 COAXIAL CABLE FROM THE MEDIA ENCLOSURE TO EACH DATA DROP NOTED ON THE DWELLING UNIT FLOOR PLAN.
- 2 TYPICAL FOR ALL 120V POWERED DWELLING UNIT LOCAL INTERCONNECTED SMOKE DETECTORS.
- 3 PROVIDE 3-#6+1-#10GND AND NEMA 14-50 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH COOKING RANGE. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- 4 PROVIDE 3-#10+1-#10GND AND NEMA 14-30 RECEPTACLE AND ASSOCIATED CORD AND PLUG FOR EACH DRYER AND STACKABLE WASHER/DRYER. COORDINATE FINAL RECEPTACLE CONFIGURATION WITH FINAL APPLIANCE PACKAGE.
- 5 PROVIDE FOR FUTURE GARBAGE DISPOSER INSTALLATION.



1 ELECTRICAL SINGLE 3 STORY+C (3216) 3RD FLOOR NEW WORK PLAN - POWER AND SYSTEMS  
1/4" = 1'-0"

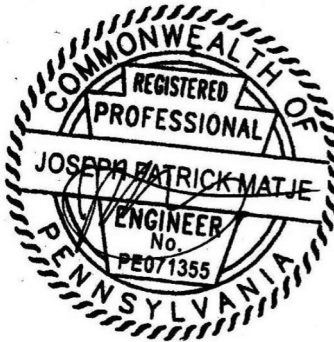
| ELECTRICAL PANEL SCHEDULE - SINGLE FAMILY      |                |    |        |                           |            |       |        |       |                              |   |    | SF3C |                       |        |  |
|------------------------------------------------|----------------|----|--------|---------------------------|------------|-------|--------|-------|------------------------------|---|----|------|-----------------------|--------|--|
| NOTES                                          | 1 PHASE        |    | 3 WIRE |                           |            |       |        |       |                              |   |    |      | MAIN BUS RATING: 200A |        |  |
|                                                | 240/120V       |    |        |                           |            |       |        |       |                              |   |    |      | MAINS: 200A MCB       |        |  |
|                                                | RECESS MOUNTED |    |        |                           |            |       |        |       |                              |   |    |      | NEUT. BUS: X          |        |  |
|                                                | 22 KAIC        |    |        |                           |            |       |        |       |                              |   |    |      | GRD. BUS: X           |        |  |
|                                                |                |    |        |                           |            |       |        |       |                              |   |    |      |                       |        |  |
|                                                | CKT            | TR | P      | DESCRIPTION               | A          | B     | A      | B     | DESCRIPTION                  | P | TR | CKT  |                       |        |  |
|                                                | 1              | 20 | 1      | SMALL APPLIANCE           | 1,500      |       | 1,500  |       | SMALL APPLIANCE              | 1 | 20 | 2    |                       |        |  |
|                                                | 3              | 15 | 1      | BATHROOM GFCI             |            | 180   |        | 1,260 | LIVING ROOM RECEPT           | 1 | 20 | 4    |                       |        |  |
|                                                | 18             | 15 | 1      | BEDROOM RECEPT            | 900        |       | 900    |       | BEDROOM RECEPT               | 1 | 20 | 6    |                       |        |  |
|                                                | 7              | 15 | 1      | LIGHTS                    |            | 850   |        | 1,200 | REFRIGERATOR                 | 1 | 20 | 8    |                       |        |  |
|                                                | 9              | 20 | 1      | MICROWAVE/RANGE HOOD      | 1,200      |       | 1,200  |       | DISHWASHER                   | 1 | 20 | 10   |                       |        |  |
|                                                | 11             | 40 | 2      | RANGE                     |            | 4,000 |        | 1,500 | LAUNDRY CIRCUIT              | 1 | 20 | 12   |                       |        |  |
|                                                | 13             |    |        |                           | 4,000      |       | 180    |       | SMOKE DETECTORS              | 1 | 15 | 14   |                       |        |  |
|                                                | 15             | 20 | 1      | GARBAGE DISPOSAL (FUTURE) |            | 960   |        | 180   | NETWORK RECEPTACLE           | 1 | 20 | 16   |                       |        |  |
|                                                | 17             | 30 | 2      | WASHER/DRYER              | 2,500      |       | 900    |       | BEDROOM RECEPT               | 1 | 15 | 18   |                       |        |  |
|                                                | 19             |    |        |                           |            | 2,500 |        | -     | SPARE                        | 1 | 20 | 20   |                       |        |  |
|                                                | 21             | 30 | 2      | ELEC WATER HEATER         | 2,500      |       | 4,360  |       |                              |   |    | 22   |                       |        |  |
|                                                | 23             |    |        |                           |            | 2,500 |        | 4,360 | OUTDOOR CONDENSING UNIT HP-5 | 2 | 50 | 24   |                       |        |  |
|                                                | 25             | 20 | 1      | BASEMENT OUTLETS          | 900        |       | -      |       | SPARE                        | 1 | 15 | 26   |                       |        |  |
|                                                | 27             | 15 | 1      | SUMP PUMP SP-1            |            | 1,080 |        | 900   | BEDROOM RECEPT               | 1 | 20 | 28   |                       |        |  |
|                                                | 29             |    | 1      | SPACE                     |            |       |        |       | SPACE                        | 1 |    | 30   |                       |        |  |
| 1. ALL SINGLE POLE BREAKERS AFCI TYPE BREAKER. |                |    |        |                           |            |       |        |       |                              |   |    |      |                       |        |  |
| PANEL LOADS                                    |                |    |        |                           | TOTAL VA A |       | 22,540 |       | TOTAL CONNECTED VA           |   |    |      |                       | 44,010 |  |
| 3KVA LIGHTS/RECTPT                             |                |    |        |                           | TOTAL VA B |       | 21,470 |       | TOTAL AMPS                   |   |    |      |                       | 172    |  |
| REMAINING AT 35%                               |                |    |        |                           |            |       |        |       |                              |   |    |      |                       |        |  |
| APPLIANCES 100%                                |                |    |        |                           |            |       |        |       |                              |   |    |      |                       |        |  |
| MECHANICAL 100%                                |                |    |        |                           |            |       |        |       |                              |   |    |      |                       |        |  |
| TOTAL VA                                       |                |    |        |                           |            |       |        |       |                              |   |    |      |                       |        |  |



GENERAL NOTES:

1. ALL EQUIPMENT PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
2. ALL CONDUCTORS, GROUND RODS, GROUND BARS, AND BUS BARS ARE ALUMINUM OR COPPER CLAD ALUMINUM. ALL GROUNDS TO BE STRANDED COPPER WIRING. INSULATION TO BE TYPE THHW RATED FOR 75C.
3. ALL CONDUITS TO BE SCHEDULE 40 PVC.
4. REFER TO PECO STANDARDS FOR ACCEPTABLE CABLE, METER CABINETS, AND METER SOCKETS.

3 ELECTRICAL SINGLE LINE DIAGRAM SF3C  
N.T.S.



PHASE

PRICING SETS JUNE 3, 2022  
CONSTRUCTION DOCUMENTS JULY 8, 2022

E451  
ELECTRICAL SINGLE 3  
STORY+C (3216) 3RD  
FLOOR, ROOF PLAN,  
AND DETAILS



|                |                                                                                  |
|----------------|----------------------------------------------------------------------------------|
| <b>ADDRESS</b> | 33RD & OXFORD STREETS<br>PHILADELPHIA, PA 19121<br>(SEE SITE PLAN FOR ADDRESSES) |
| <b>PROJECT</b> | J+M 21-013                                                                       |

**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

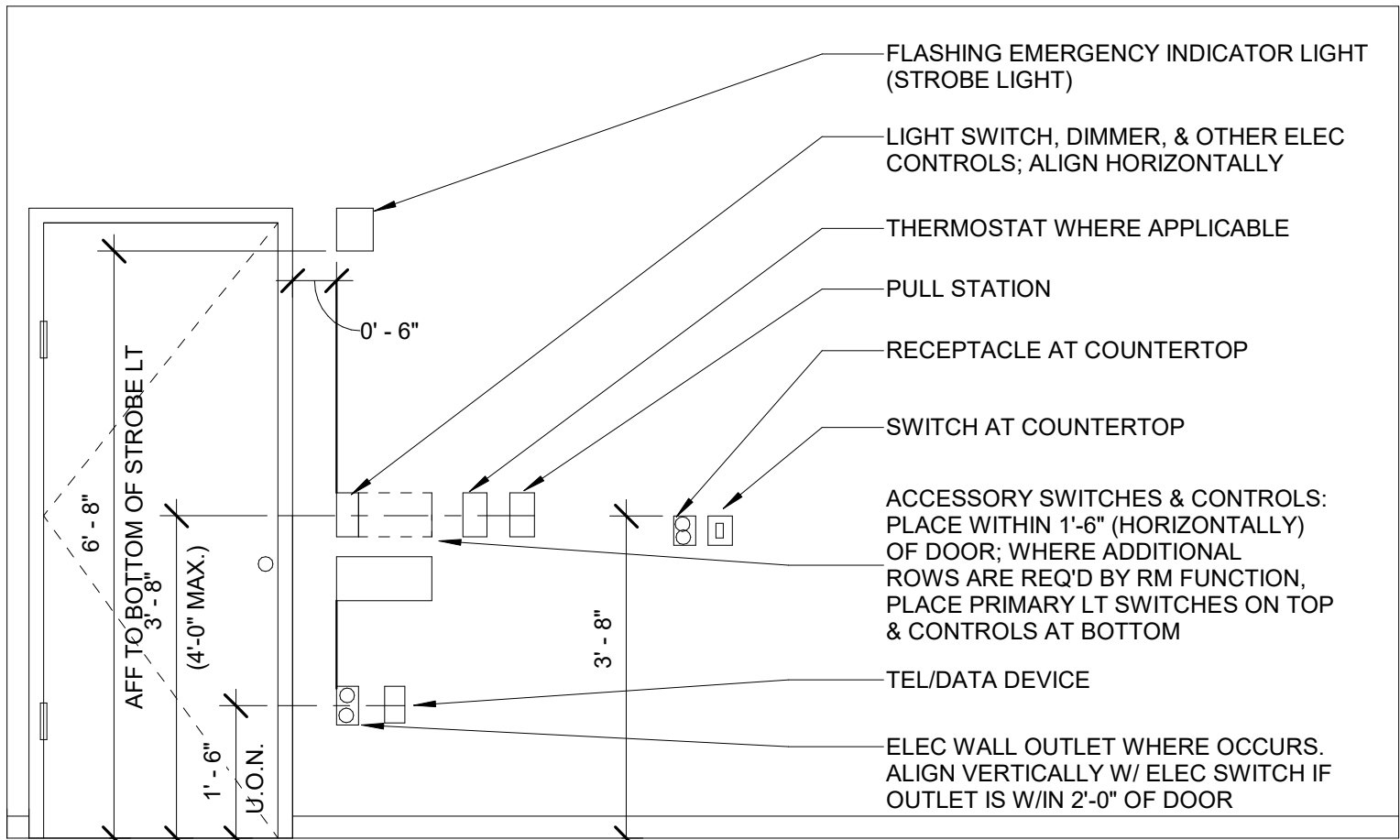
**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLO  
100 W. OXFORD ST. #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

## ELECTRICAL DETAILS



**NOTE:**  
1. DEVICE POSITIONS SHOWN ABOVE ARE TYPICAL, UNLESS NOTED OTHERWISE ON ARCHITECT'S PLANS. REFER TO ARCHITECTURE DRAWINGS FOR ALL FINAL DEVICE LOCATIONS.

|      |                               |
|------|-------------------------------|
| 1    | ELECTRICAL DEVICE POSITIONING |
| E801 | N.T.S.                        |

| TYPE                                                               | DESCRIPTION          | MANUFACTURER & CATALOG NUMBER | LAMPS |      |     |     |        | VA/FIXTURE | VOLTAGE | MOUNTING | REMARKS |
|--------------------------------------------------------------------|----------------------|-------------------------------|-------|------|-----|-----|--------|------------|---------|----------|---------|
|                                                                    |                      |                               | NO.   | TYPE | CRI | CCT | LUMENS |            |         |          |         |
| F0                                                                 | UNDER CABINET LINEAR | SEE ARCHITECTURAL DRAWINGS    | -     | LED  | -   | -   | -      | 15         | 120V    | -        |         |
| F1                                                                 | 6" ROUND DOWNLIGHT   | SEE ARCHITECTURAL DRAWINGS    | -     | LED  | -   | -   | -      | 15         | 120V    | -        |         |
| F2                                                                 | SINK VANITY LIGHT    | SEE ARCHITECTURAL DRAWINGS    | -     | LED  | -   | -   | -      | 20         | 120V    | -        |         |
| XF1                                                                | EXTERIOR LIGHT       | SEE ARCHITECTURAL DRAWINGS    | -     | LED  | -   | -   | -      | 25         | 120V    |          |         |
| <b>NOTES:</b><br>REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION |                      |                               |       |      |     |     |        |            |         |          |         |





J+M ENGINEERING

PHILADELPHIA  
215.454.2662  
WASHINGTON  
202.320.9173  
jandmengineers.comCOLTRANE  
COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

## TEAM

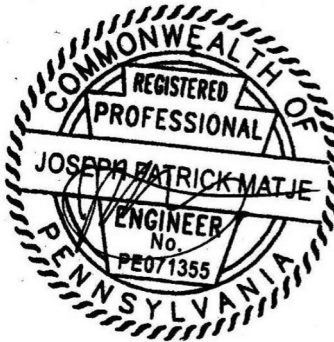
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**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



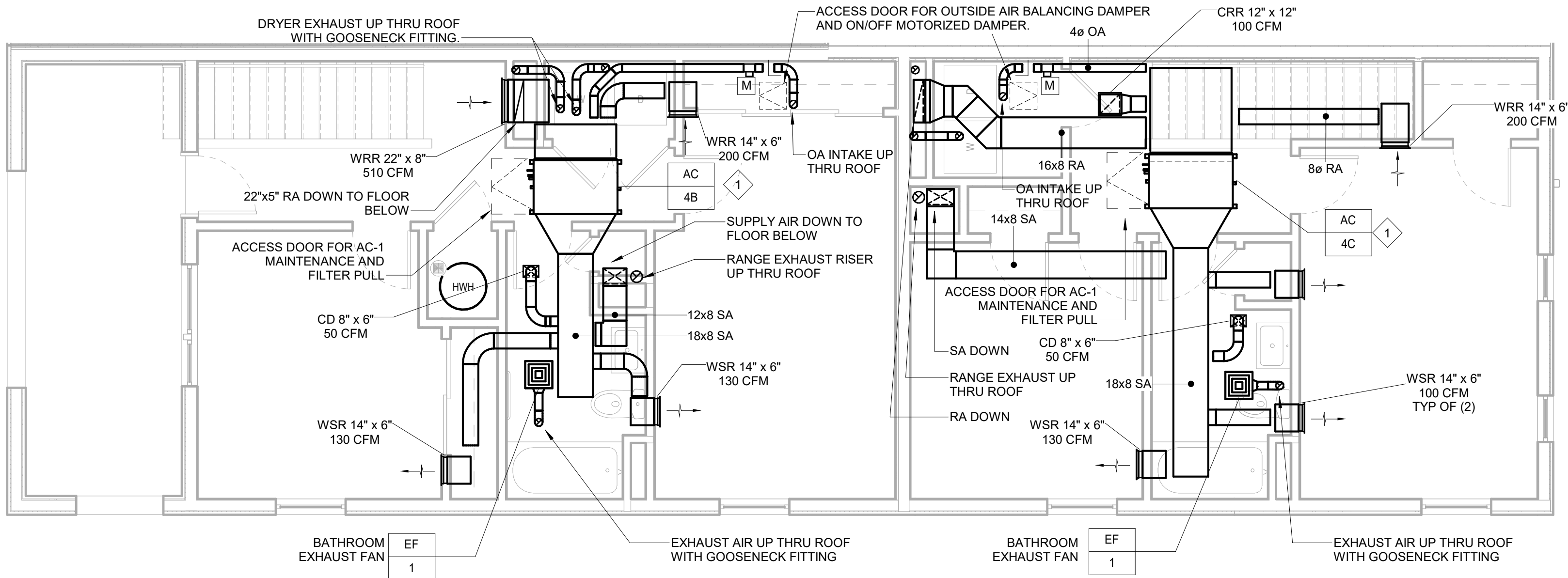
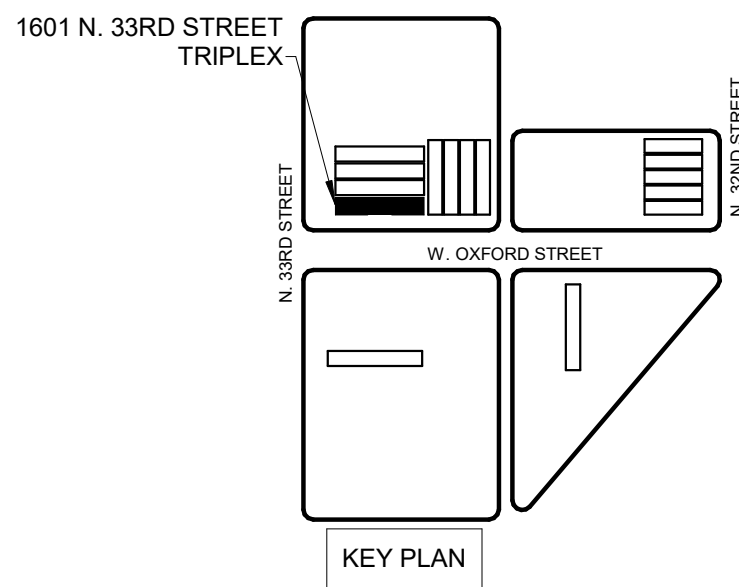
## PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

## H310

HVAC TRIPLEX (1601)  
1ST, 2ND, AND 3RD  
FLOOR PLANS



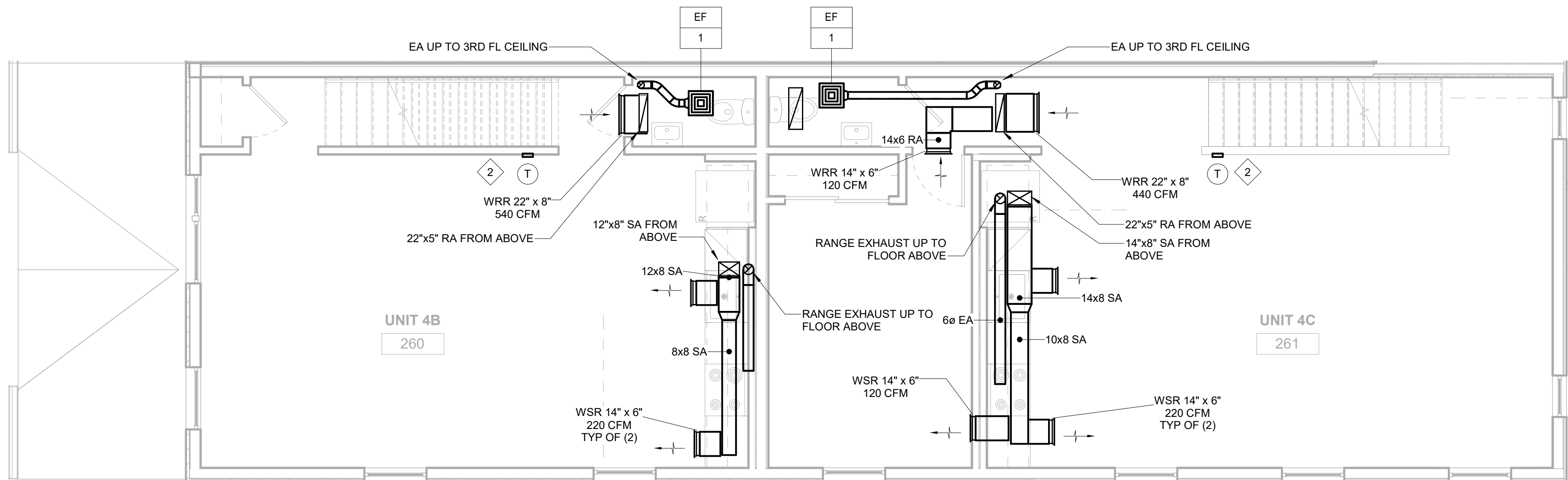
3 HVAC TRIPLEX (1601) 3RD FLOOR NEW WORK PLAN  
H310 1/4" = 1'-0"

## GENERAL NOTES:

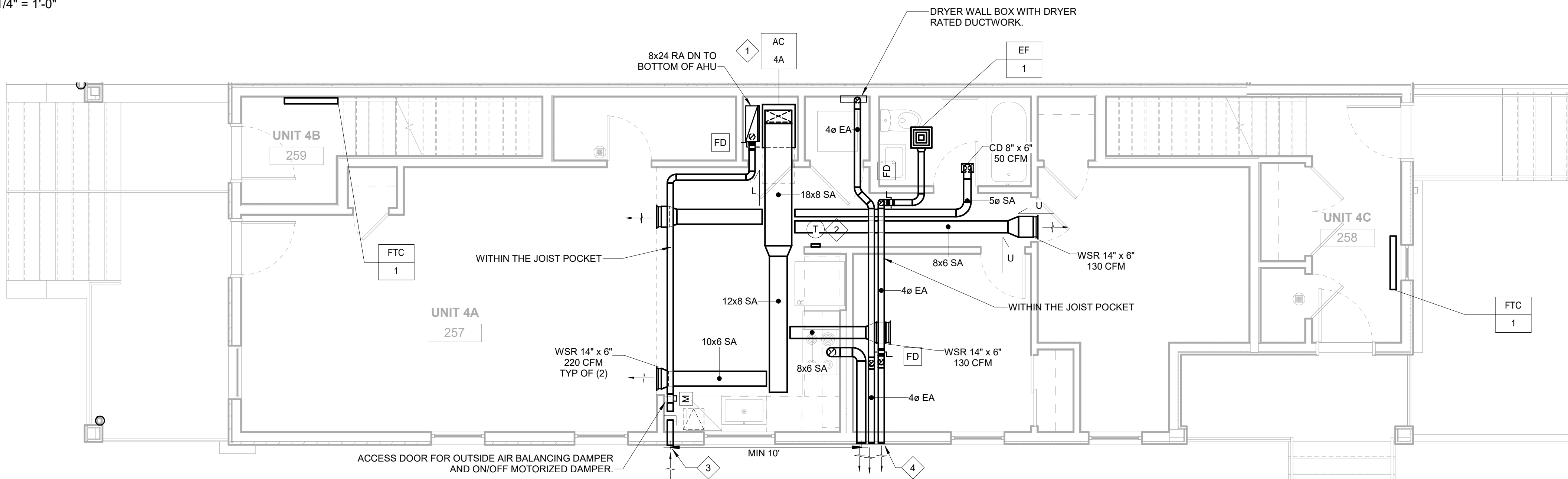
1. VENTILATION OA AIR IS CONNECTED TO THE RETURN AIR PLENUM OF EACH INDOOR AC UNIT.
2. ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1-1/2" ARMAFLEX OR EQUAL. ALL SUPPLY AIR AND OUTSIDE AIR DUCTWORK SHALL BE PROVIDED WITH R-6 DUCT INSULATION.
3. UPON INSTALLATION, CONTRACTOR SHALL SEAL ALL PERMANENT DUCTS AND VENTS TO MINIMIZE CONTAMINATION DURING CONSTRUCTION. REMOVE ALL SEALS AFTER ALL PHASES OF CONSTRUCTION ARE COMPLETED.

## KEYED NOTES:

- 1 REFER TO DETAIL FOR AHU INSTALLATION. RUN REFRIGERANT PIPING FROM INDOOR UNIT TO CORRESPONDING OUTDOOR UNIT. PROVIDE CONDENSATE DRAIN LINE TO NEAREST PLUMBING AIR GAP FITTING.
- 2 MANUFACTURER'S 24/7 PROGRAMMABLE THERMOSTAT. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.
- 3 VENTILATION OUTSIDE AIR INTAKE FITTING. PROVIDE SEIHO "SFZ".
- 4 EXHAUST AIR DISCHARGE FITTING. PROVIDE SEIHO "SFB" WITH BACKDRAFT DAMPER
- 5 UP TO FLOOR GRILLE SERVING THE FLOOR ABOVE.



2 HVAC TRIPLEX (1601) 2ND FLOOR NEW WORK PLAN  
H310 1/4" = 1'-0"



1 HVAC TRIPLEX (1601) 1ST FLOOR NEW WORK PLAN  
H310 1/4" = 1'-0"

## COLTRANE COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
**PROJECT** J+M 21-013

### TEAM

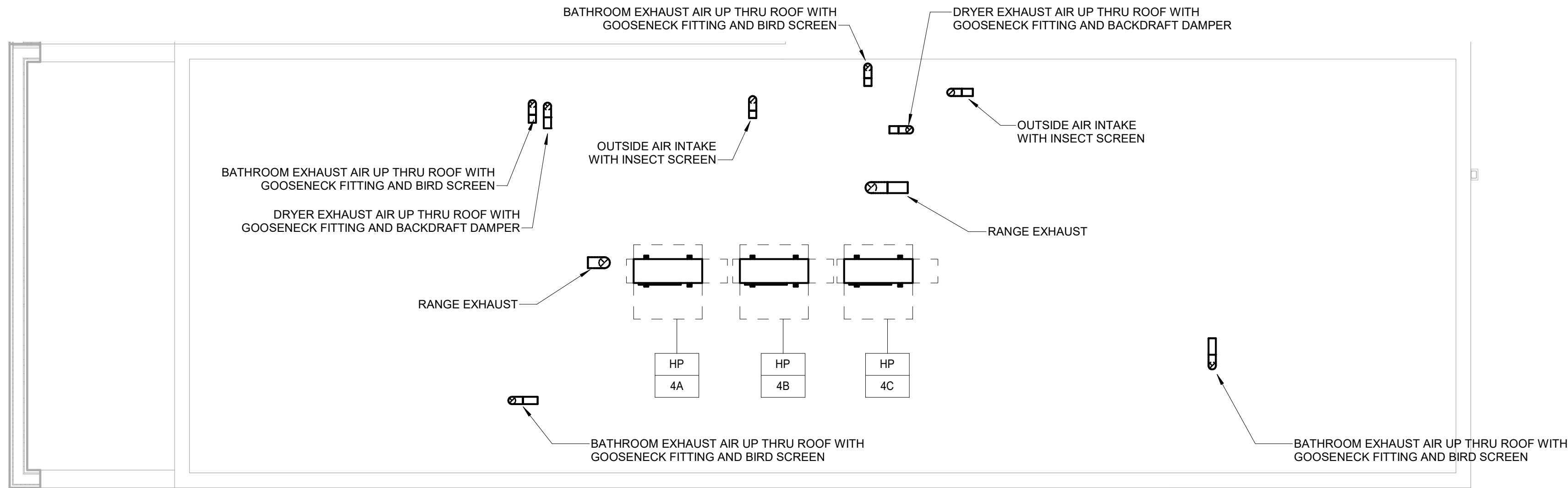
**OWNER**  
HABITAT FOR HUMANITY  
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PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
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215 232 1500

**STRUCTURAL ENGINEER**  
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**MEP ENGINEER**  
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215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



2 HVAC TRIPLEX (1601) ROOF NEW WORK PLAN  
H311 1/4" = 1'-0"

### mitsubishi electric trane hvac us: city multi vrf indoor unit schedule

| System Tag            | Room Name      | Tag Reference | mitsubishi Model | Type                       | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Design Entering Temp DB/WB (°F) | Heating Design Entering Temp DB/WB (°F) | Cooling Total Capacity (BTU/h) | Cooling Sensible Capacity (BTU/h) | Heating Capacity (BTU/h) | Estimated Cooling Coil LAT (°F) | Estimated Heating Coil LAT (°F) | Refrig Pipe Dim Liquid/Suction (inch) | Fan Speed Setting | Peak Fan Airflow (cfm) | Max Fan ESP Setting 208V/230V (IN WG) | Voltage / Phase  | Electrical MCA/MFS | Notes / Options  |
|-----------------------|----------------|---------------|------------------|----------------------------|----------------------------------|----------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------|-----------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------------|-------------------|------------------------|---------------------------------------|------------------|--------------------|------------------|
| HP-AC-4A<br>TRIPLEX 1 | TRIPLEX UNIT 1 | AC-4A         | SVZ-KP24NA       | Multi Position             | 24,000.0                         | 25,000.0                         | 80.0/67.0                               | 70.0                                    | 23,838.8                       | 19,372.3                          | 24,993.0                 | 55.1                            | 101.5                           | 5/8 / 3/8                             | HIGH              | 735                    | 0.30/0.50/0.80                        | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4, 5, 6 |
| HP-AC-4B<br>TRIPLEX 2 | TRIPLEX UNIT 2 | AC-4B         | PEAD-A24AA7      | Ceiling-Concealed (Ducted) | 24,000.0                         | 25,000.0                         | 80.0/67.0                               | 70.0                                    | 24,037.9                       | 18,531.9                          | 24,993.0                 | 56.4                            | 101.3                           | 5/8 / 3/8                             | HIGH              | 741                    | 0.14/0.20/0.28/0.40/0.60              | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4, 5, 6 |
| HP-AC-4C<br>TRIPLEX C | TRIPLEX UNIT 3 | AC-4C         | PEAD-A30AA7      | Ceiling-Concealed (Ducted) | 27,000.0                         | 30,000.0                         | 80.0/67.0                               | 70.0                                    | 27,490.7                       | 24,308.3                          | 29,991.6                 | 54.0                            | 101.5                           | 5/8 / 3/8                             | HIGH              | 883                    | 0.14/0.20/0.28/0.40/0.60              | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4, 5, 6 |

#### Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities
- PROVIDE WIFI WALL MOUNTED THERMOSTAT FOR EACH INDOOR UNIT

### OUTDOOR HEAT PUMP UNIT SCHEDULE

| System Tag                 | Tag Reference | mitsubishi Model Number | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Efficiency IEER/IEER [SEER] | Heating COP @ 47°F [HSPF] | Nom System Connected Capacity (% of NOM) | Design Cooling Outdoor Temp DB (°F) | Design Heating Outdoor Temp WB (°F) | Corrected Cooling Total Capacity (BTU/h) | Corrected Heating Capacity (BTU/h) | Electrical-Per Module 208/230 |             |     |      | Notes / Options |
|----------------------------|---------------|-------------------------|----------------------------------|----------------------------------|-------------------------------------|---------------------------|------------------------------------------|-------------------------------------|-------------------------------------|------------------------------------------|------------------------------------|-------------------------------|-------------|-----|------|-----------------|
|                            |               |                         |                                  |                                  |                                     |                           |                                          |                                     |                                     |                                          |                                    | Voltage / Phase               | MCA 208/230 | RFS | MOCP |                 |
| HP-AC-4A<br>TRIPLEX UNIT A | HP-4A         | SUZ-KA24NAHZ            | 24,000.0                         | 25,000.0                         | 0 [15.00]                           | 0 [9.00]                  | 100.0%                                   | 93.0                                | 8.9                                 | 23,838.8                                 | 24,993.0                           | 208/230V / 1-phase            | 17          | 25  | 27   | 1, 2, 3, 4, 5   |
| HP-AC-4B<br>TRIPLEX UNIT B | HP-4B         | SUZ-KA24NAHZ            | 24,000.0                         | 25,000.0                         | 0 [15.00]                           | 0 [9.00]                  | 100.0%                                   | 93.0                                | 8.9                                 | 24,037.9                                 | 24,993.0                           | 208/230V / 1-phase            | 17          | 25  | 27   | 1, 2, 3, 4, 5   |
| HP-AC-4C<br>TRIPLEX UNIT C | HP-4C         | SUZ-KA30NAHZ            | 30,000.0                         | 32,000.0                         | 0 [15.00]                           | 0 [9.00]                  | 100.0%                                   | 93.0                                | 8.9                                 | 30,545.2                                 | 31,991.0                           | 208/230V / 1-phase            | 24          | 35  | 40   | 1, 2, 3, 4, 5   |

#### Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted
- PROVIDE MANUFACTURER'S RECOMMENDED STANDS FOR OUTDOOR HEAT PUMP INSTALLATIONS ON THE ROOF. THE BOTTOM OF THE HEAT PUMP TO BE A MINIMUM OF 18" ABOVE THE ROOF LINE.
- THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONTROLS WIRING BETWEEN THE INDOOR UNITS AND OUTDOOR HEAT PUMPS.



### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# H311

HVAC TRIPLEX (1601)  
ROOF PLAN AND  
SCHEDULES

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
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100 W. OXFORD ST, #E-3100  
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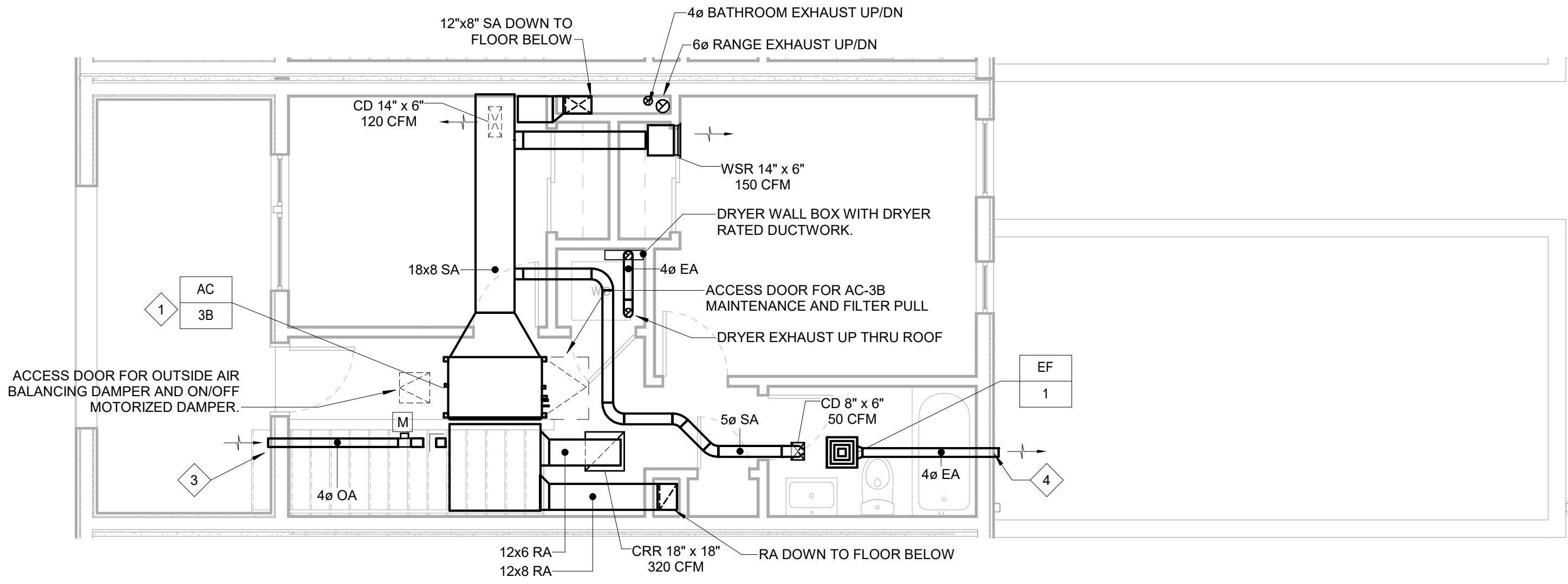
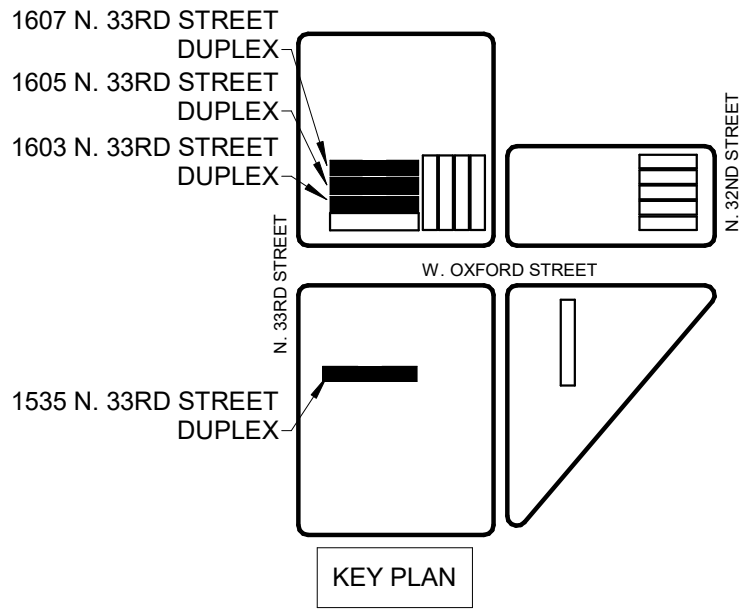
PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

H320

HVAC DUPLEX (1603-07)  
1ST, 2ND, AND 3RD  
FLOOR PLANS



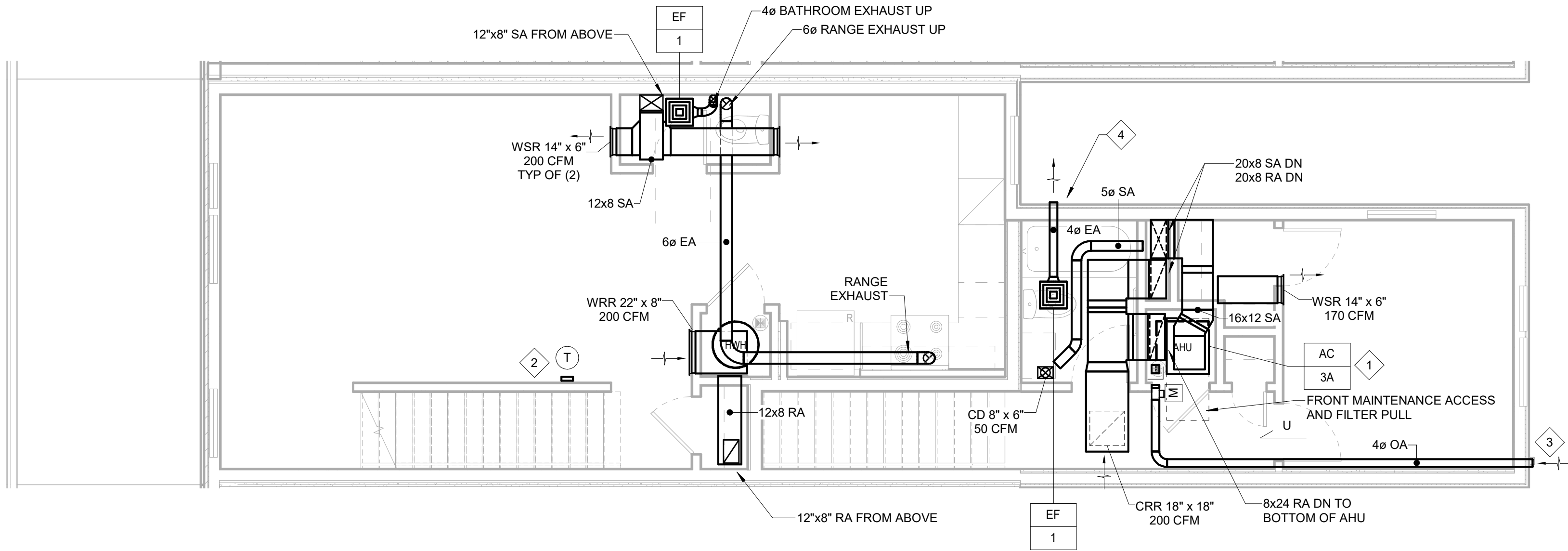
3 HVAC DUPLEX (1603-07) 3RD FLOOR NEW WORK PLAN  
H320 1/4" = 1'-0"

GENERAL NOTES:

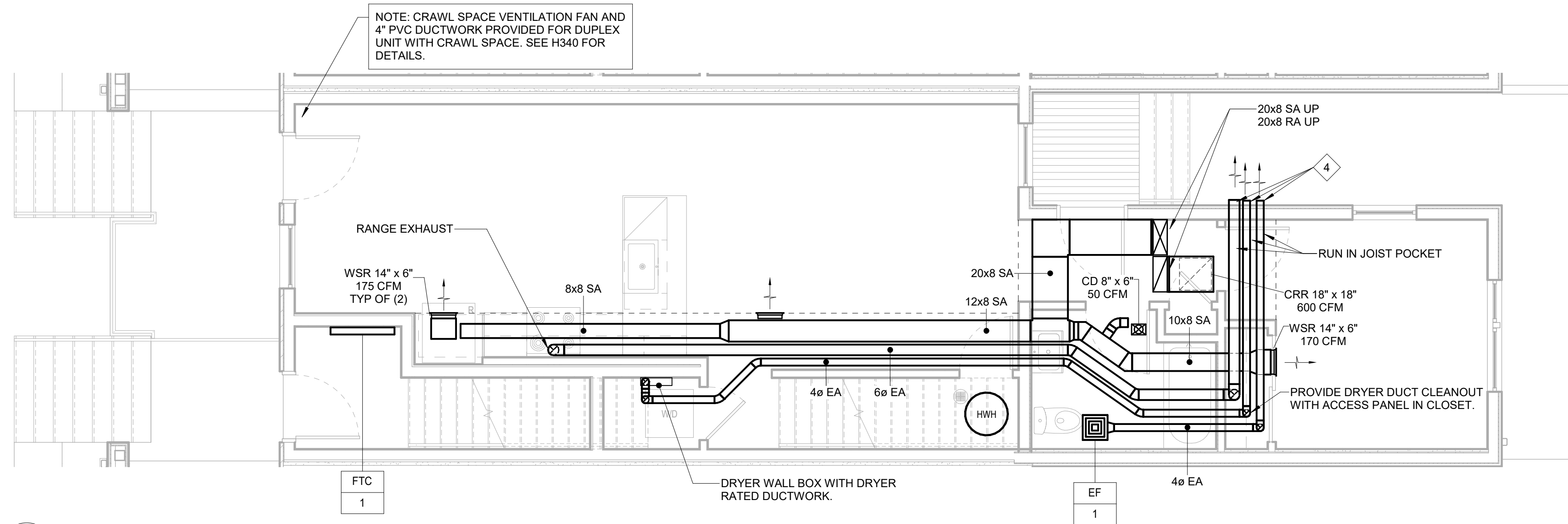
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KEYED NOTES:

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- 5 UP TO FLOOR GRILLE SERVING THE FLOOR ABOVE.



2 HVAC DUPLEX (1603-07) 2ND FLOOR NEW WORK PLAN  
H320 1/4" = 1'-0"



1 HVAC DUPLEX (1603-07) 1ST FLOOR NEW WORK PLAN  
H320 1/4" = 1'-0"

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

PROJECT J+M 21-013

TEAM

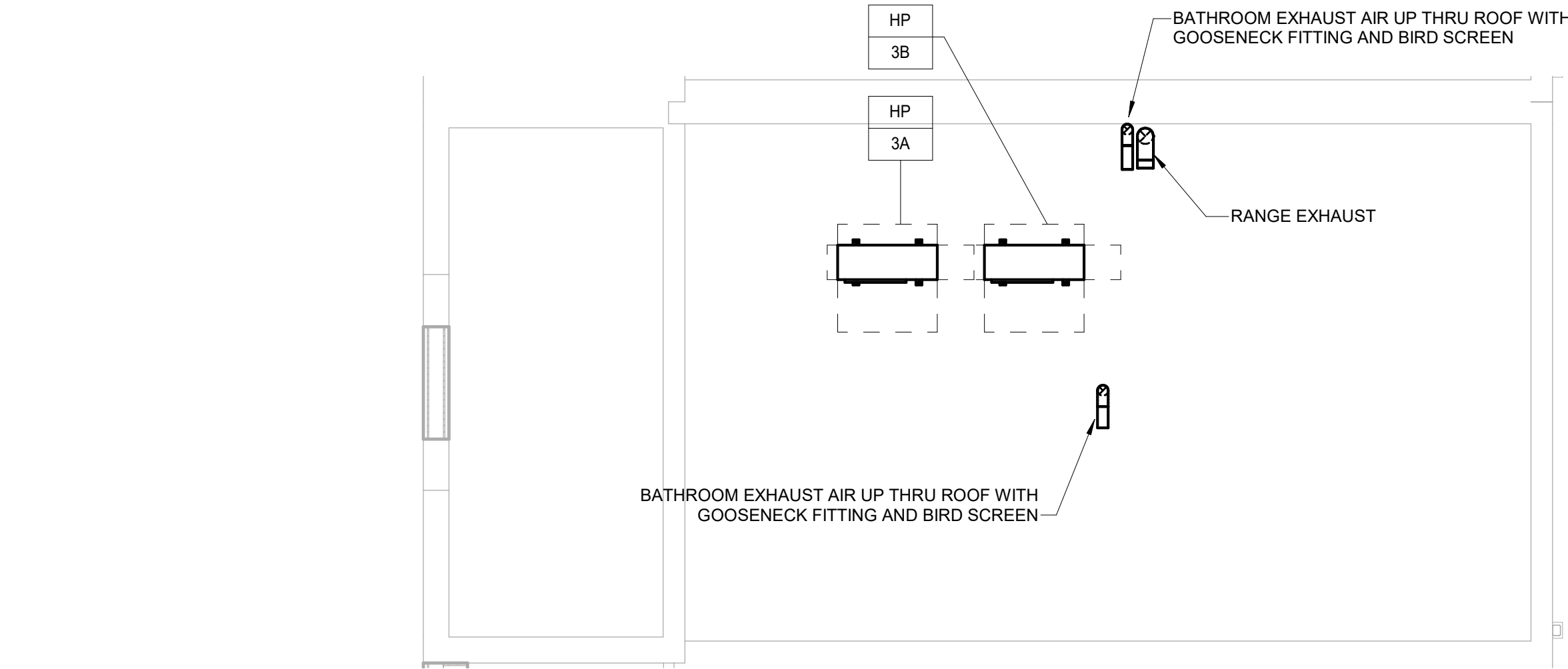
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1400 N AMERICAN ST #301  
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215 232 1500

**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



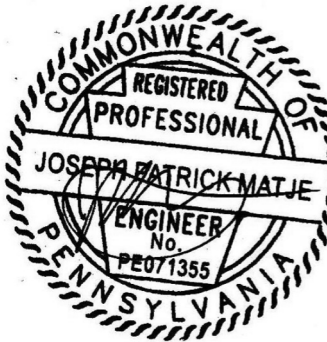
2 HVAC DUPLEX (1603-07) ROOF NEW WORK PLAN  
H321 1/4" = 1'-0"

| MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF INDOOR UNIT SCHEDULE |                |               |                  |                            |                                  |                                  |                                         |                                         |                                |                                   |                          |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                  |
|------------------------------------------------------------------------|----------------|---------------|------------------|----------------------------|----------------------------------|----------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------|-----------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------------|-------------------|------------------------|---------------------------------------|------------------|--------------------|------------------|
| System Tag                                                             | Room Name      | Tag Reference | MITSUBISHI Model | Type                       | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Design Entering Temp DB/WB (°F) | Heating Design Entering Temp DB/WB (°F) | Cooling Total Capacity (BTU/h) | Cooling Sensible Capacity (BTU/h) | Heating Capacity (BTU/h) | Estimated Cooling Coil LAT (°F) | Estimated Heating Coil LAT (°F) | Refrig Pipe Dim Liquid/Suction (inch) | Fan Speed Setting | Peak Fan Airflow (cfm) | Max Fan ESP Setting 208V/230V (IN WG) | Voltage / Phase  | Electrical MCA/MFS | Notes / Options  |
| HP-AC-3A<br>DUPLEX A                                                   | DUPLEX UNIT 3A | AC-3A         | SVZ-KP24NA       | Multi Position             | 24,000.0                         | 25,000.0                         | 80.0/67.0                               | 70.0                                    | 23,838.8                       | 19,372.3                          | 24,993.0                 | 55.1                            | 101.5                           | 5/8 / 3/8                             | HIGH              | 735                    | 0.30/0.50/0.80                        | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4, 5, 6 |
| HP-AC-3B<br>DUPLEX B                                                   | DUPLEX UNIT 3B | AC-3B         | PEAD-A24AA7      | Ceiling-Concealed (Ducted) | 24,000.0                         | 25,000.0                         | 80.0/67.0                               | 70.0                                    | 24,436.2                       | 18,688.4                          | 24,993.0                 | 56.2                            | 101.3                           | 5/8 / 3/8                             | HIGH              | 741                    | 0.14/0.20/0.28/0.40/0.60              | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4, 5, 6 |

Notes & Options:  
1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)  
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)  
3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities  
4 PROVIDE WIFI WALL MOUNTED THERMOSTAT FOR EACH INDOOR UNIT

| OUTDOOR HEAT PUMP UNIT SCHEDULE  |               |                         |                                  |                                  |                                    |                           |                                     |                                     |                                          |                                    |                                         |             |     |      |                 |
|----------------------------------|---------------|-------------------------|----------------------------------|----------------------------------|------------------------------------|---------------------------|-------------------------------------|-------------------------------------|------------------------------------------|------------------------------------|-----------------------------------------|-------------|-----|------|-----------------|
| System Tag                       | Tag Reference | MITSUBISHI Model Number | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Efficiency IEER/EER [SEER] | Heating COP @ 47°F [HSPF] | Design Cooling Outdoor Temp DB (°F) | Design Heating Outdoor Temp WB (°F) | Corrected Cooling Total Capacity (BTU/h) | Corrected Heating Capacity (BTU/h) | Electrical-Per Module 208/230 or [460V] |             |     |      | Notes / Options |
|                                  |               |                         |                                  |                                  |                                    |                           |                                     |                                     |                                          |                                    | Voltage / Phase                         | MCA 208/230 | RFS | MOCP |                 |
| HP-AC-3A<br>DUPLEX A<br>HP-AC-3B | HP-3A         | SUZ-KA24NAHZ            | 24,000.0                         | 25,000.0                         | 0 [15.00]                          | 0 [9.00]                  | 93.0                                | 8.9                                 | 23,838.8                                 | 24,993.0                           | 208/230V / 1-phase                      | 17          | 25  | 27   | 1, 2, 3, 4, 5   |
| DUPLEX B                         | HP-3B         | SUZ-KA24NAHZ            | 24,000.0                         | 25,000.0                         | 0 [15.00]                          | 0 [9.00]                  | 93.0                                | 8.9                                 | 24,436.2                                 | 24,993.0                           | 208/230V / 1-phase                      | 17          | 25  | 27   | 1, 2, 3, 4, 5   |

Notes & Options:  
1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)  
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F  
3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted  
4 PROVIDE MANUFACTURER'S RECOMMENDED STANDS FOR OUTDOOR HEAT PUMP INSTALLATIONS ON THE ROOF. THE BOTTOM OF THE HEAT PUMP TO BE A MINIMUM OF 18" ABOVE THE ROOF LINE.  
5 THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONTROLS WIRING BETWEEN THE INDOOR UNITS AND OUTDOOR HEAT PUMPS.



PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

H321  
HVAC DUPLEX (1603-07)  
ROOF PLAN AND  
SCHEDULES

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
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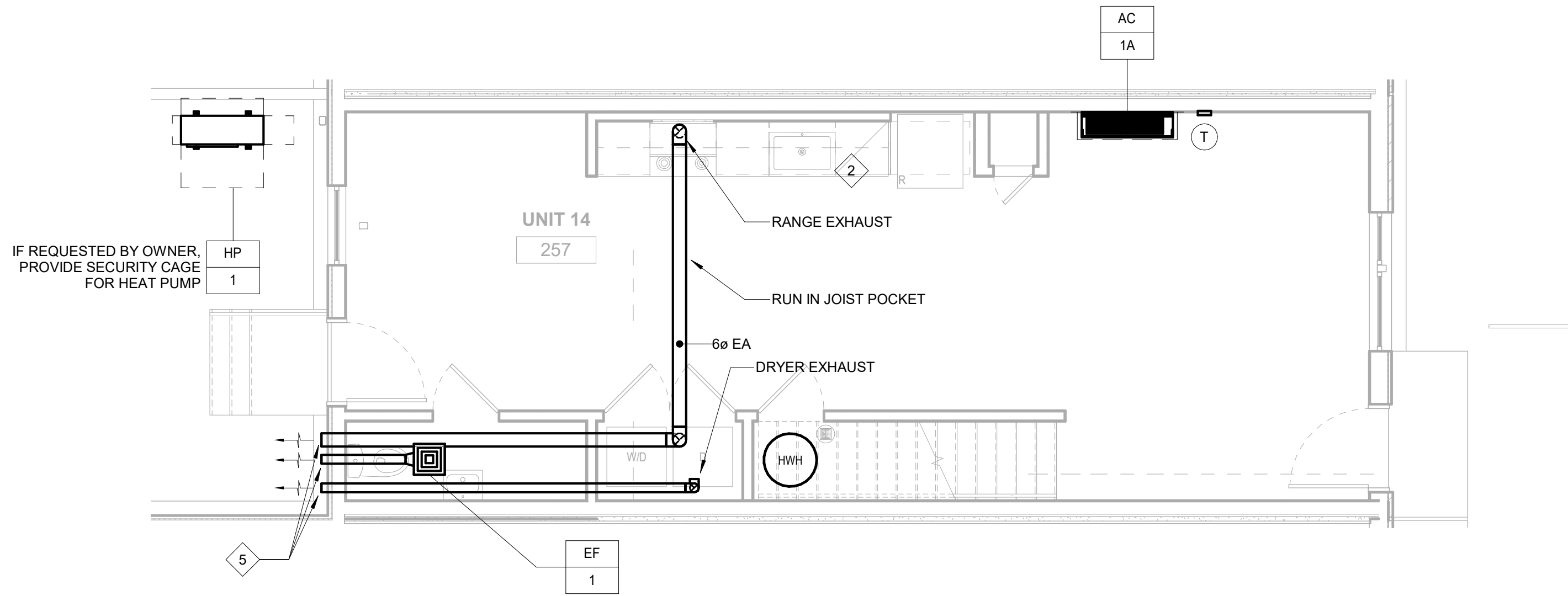
PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

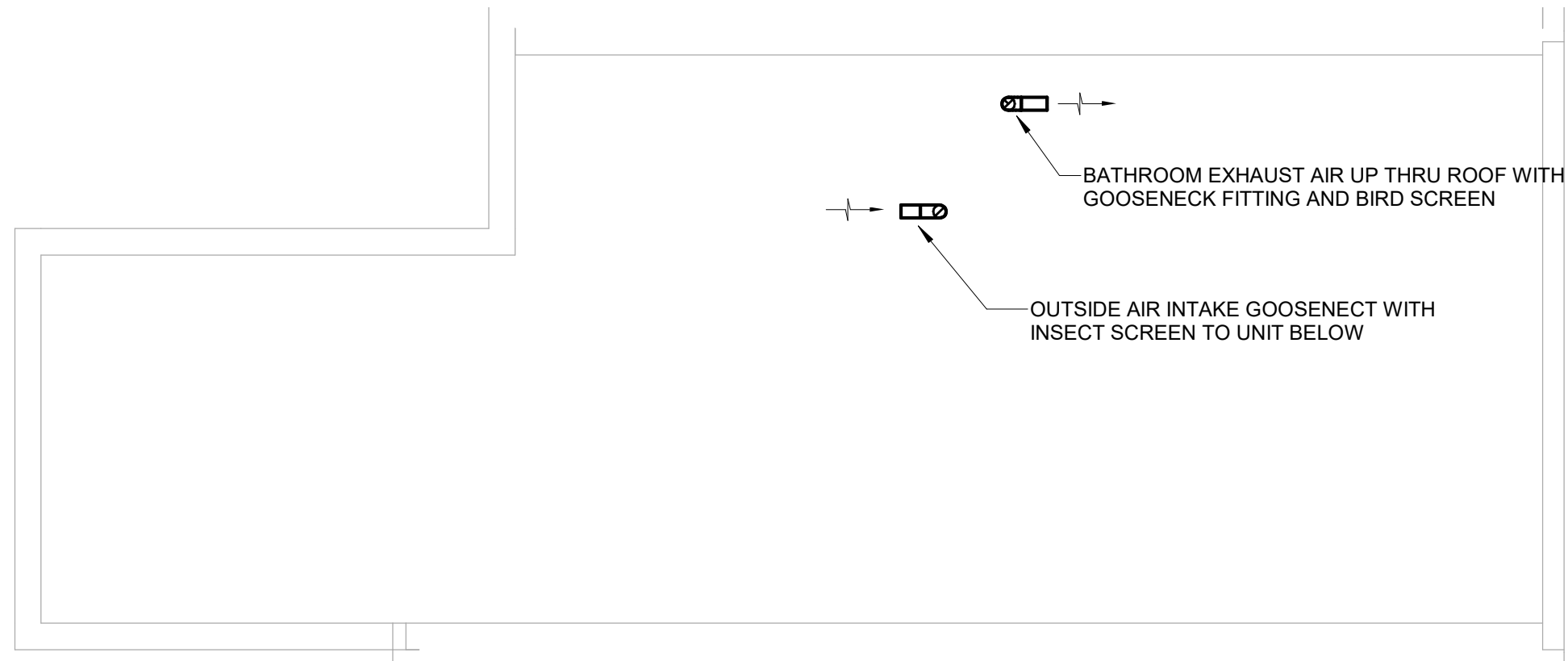
JUNE 3, 2022  
JULY 8, 2022

H330

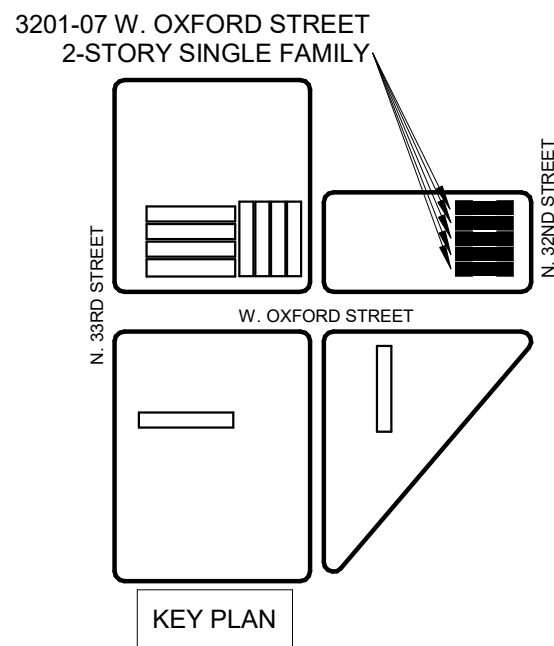
HVAC SINGLE 2 STORY  
(3201-07) 1ST, 2ND  
FLOOR, AND ROOF  
PLANS



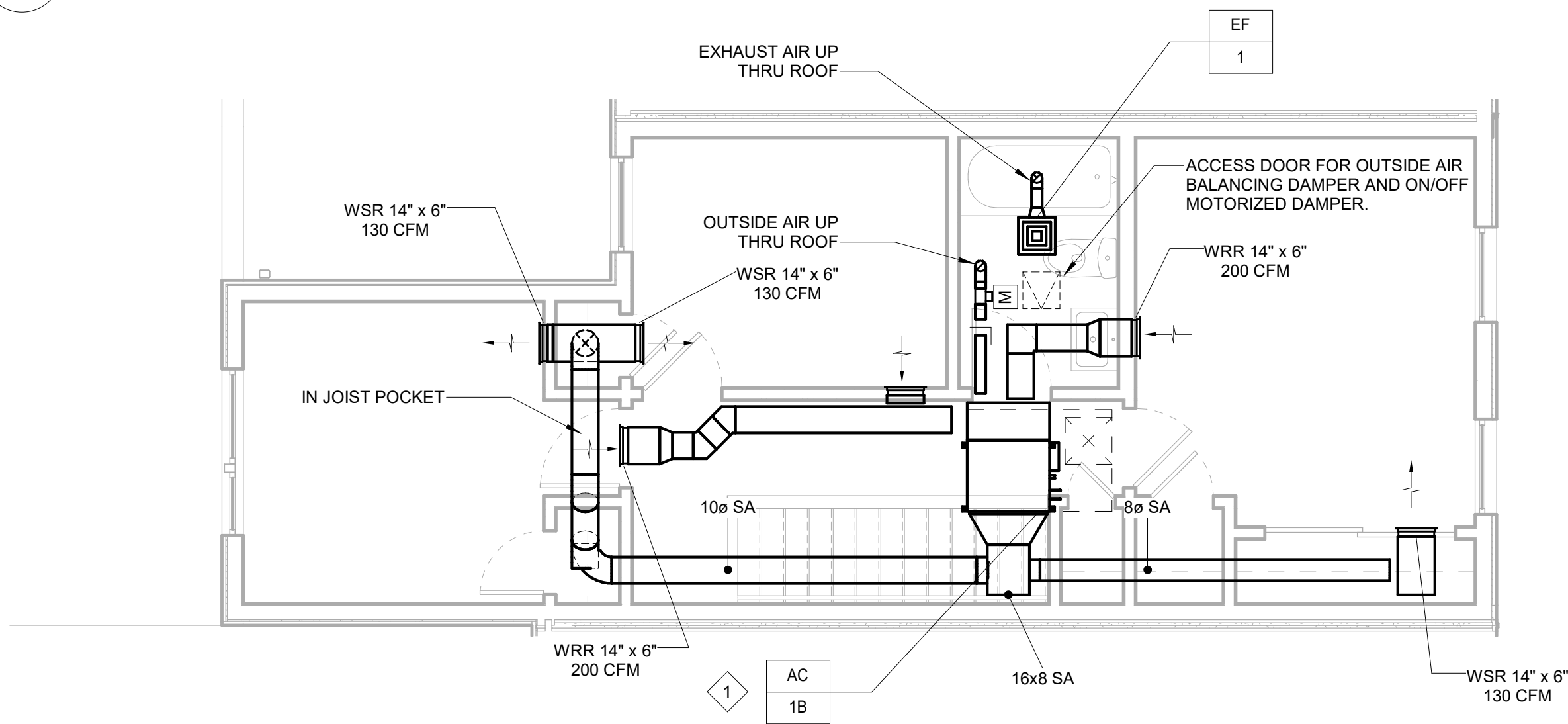
1 HVAC SINGLE 2 STORY (3201-07) 1ST FLOOR NEW WORK PLAN  
1/4" = 1'-0"



3 HVAC SINGLE 2 STORY (3201-07) ROOF NEW WORK PLAN  
1/4" = 1'-0"



- GENERAL NOTES:**
1. VENTILATION OA AIR IS CONNECTED TO THE RETURN AIR PLENUM OF EACH INDOOR AC UNIT.
  2. ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1-1/2" ARMAFLEX OR EQUAL. ALL SUPPLY AIR AND OUTSIDE AIR DUCTWORK SHALL BE PROVIDED WITH R-6 DUCT INSULATION.
  3. UPON INSTALLATION, CONTRACTOR SHALL SEAL ALL PERMANENT DUCTS AND VENTS TO MINIMIZE CONTAMINATION DURING CONSTRUCTION. REMOVE ALL SEALS AFTER ALL PHASES OF CONSTRUCTION ARE COMPLETED.
- KEYED NOTES:**
- 1 REFER TO DETAIL FOR AHU INSTALLATION. RUN REFRIGERANT PIPING FROM INDOOR UNIT TO CORRESPONDING OUTDOOR UNIT. PROVIDE CONDENSATE DRAIN LINE TO NEAREST PLUMBING AIR GAP FITTING.
  - 2 MANUFACTURER'S 24/7 PROGRAMMABLE THERMOSTAT. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.
  - 3 VENTILATION OUTSIDE AIR INTAKE FITTING. PROVIDE SEIHO "SFZ".
  - 4 EXHAUST AIR DISCHARGE FITTING. PROVIDE SEIHO "SFB" WITH BACKDRAFT DAMPER
  - 5 UP TO FLOOR GRILLE SERVING THE FLOOR ABOVE.



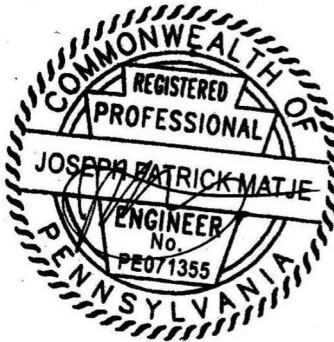
2 HVAC SINGLE 2 STORY (3201-07) 2ND FLOOR NEW WORK PLAN  
1/4" = 1'-0"

| INDOOR AC UNIT SCHEDULE    |                              |               |                  |                            |                                  |                                  |                                         |                                         |                                |                                   |                          |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                 |
|----------------------------|------------------------------|---------------|------------------|----------------------------|----------------------------------|----------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------|-----------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------------|-------------------|------------------------|---------------------------------------|------------------|--------------------|-----------------|
| System Tag                 | Room Name                    | Tag Reference | MITSUBISHI Model | Type                       | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Design Entering Temp DB/WB (°F) | Heating Design Entering Temp DB/WB (°F) |                                |                                   |                          | Estimated Cooling Coil LAT (°F) | Estimated Heating Coil LAT (°F) | Refrig Pipe Dim Liquid/Suction (inch) | Fan Speed Setting | Peak Fan Airflow (cfm) | Max Fan ESP Setting 208V/230V (IN WG) | Voltage / Phase  | Electrical MCA/MFS | Notes / Options |
|                            |                              |               |                  |                            |                                  |                                  |                                         |                                         | Cooling Total Capacity (BTU/h) | Cooling Sensible Capacity (BTU/h) | Heating Capacity (BTU/h) |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                 |
| HP-1 SINGLE FAMILY 2 STORY | SINGLE FAMILY 2 STORY 1ST FL | AC-1A         | MSZ-GL12NA-U1    | Wall -Mounted              | 9,900.0                          | 9,600.0                          | 80.0/67.0                               | 70.0                                    | 10,031.8                       | 8,121.4                           | 9,010.3                  | 61.1                            | 90.6                            | 1/4 / 3/8                             | HIGH              | 406                    |                                       | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4      |
| HP-1 SINGLE FAMILY 2 STORY | SINGLE FAMILY 2 STORY 2ND FL | AC-1B         | SEZ-KD18NA4R1.1H | Ceiling-Concealed (Ducted) | 14,100.0                         | 14,400.0                         | 80.0/67.0                               | 70.0                                    | 14,241.1                       | 13,025.1                          | 13,503.0                 | 60.6                            | 89.7                            | 1/4 / 1/2                             | HIGH              | 635                    | 0.02/0.06/0.14/0.20                   | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4      |

- Notes & Options:
- 1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
  - 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F
  - 3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with correctec
  - 4 PROVIDE WIFI WALL MOUNTED THERMOSTAT FOR EACH INDOOR UNIT.

| OUTDOOR HEAT PUMP UNIT SCHEDULE |               |                         |                                  |                                  |                                     |                           |                                          |                                     |                                     |                                          |                                    |                                         |             |     |      |                 |
|---------------------------------|---------------|-------------------------|----------------------------------|----------------------------------|-------------------------------------|---------------------------|------------------------------------------|-------------------------------------|-------------------------------------|------------------------------------------|------------------------------------|-----------------------------------------|-------------|-----|------|-----------------|
| System Tag                      | Tag Reference | MITSUBISHI Model Number | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Efficiency IEER/IEER [SEER] | Heating COP @ 47°F [HSPF] | Nom System Connected Capacity (% of NOM) | Design Cooling Outdoor Temp DB (°F) | Design Heating Outdoor Temp WB (°F) | Corrected Cooling Total Capacity (BTU/h) | Corrected Heating Capacity (BTU/h) | Electrical-Per Module 208/230 or [460V] |             |     |      | Notes / Options |
|                                 |               |                         |                                  |                                  |                                     |                           |                                          |                                     |                                     |                                          |                                    | Voltage / Phase                         | MCA 208/230 | RFS | MOCP |                 |
|                                 |               |                         |                                  |                                  |                                     |                           |                                          |                                     |                                     |                                          |                                    |                                         |             |     |      |                 |
| HP-1 SINGLE FAMILY 2 STORY      | HP1           | MXZ-3C30NAHZ3-U1        | 28,400.0                         | 28,600.0                         | 11.4 [17]                           | 0 [10.4]                  | 100.0%                                   | 93.0                                | 8.9                                 | 24,272.9                                 | 22,513.4                           | 208/230V / 1-phase                      | 30.5        | 40  | 40   | 1, 2, 3, 4, 5   |

- Notes & Options:
- 1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
  - 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F
  - 3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted
  - 4 PROVIDE MANUFACTURER'S RECOMMENDED STANDS FOR OUTDOOR HEAT PUMP INSTALLATIONS ON THE ROOF. THE BOTTOM OF THE HEAT PUMP TO BE A MINIMUM OF 18" ABOVE THE ROOF LINE.
  - 5 THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONTROLS WIRING BETWEEN THE INDOOR UNITS AND OUTDOOR HEAT PUMPS.





COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

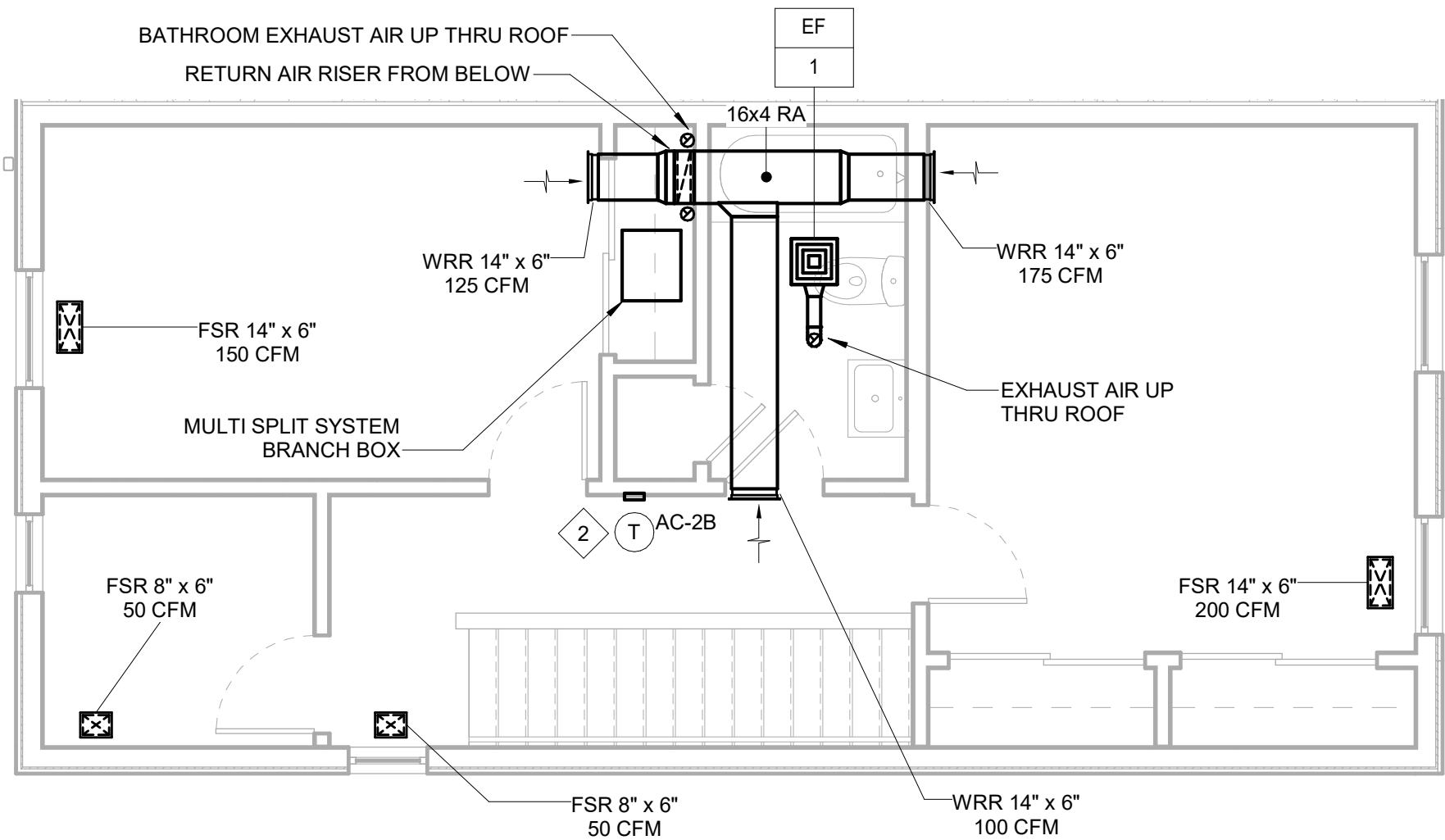
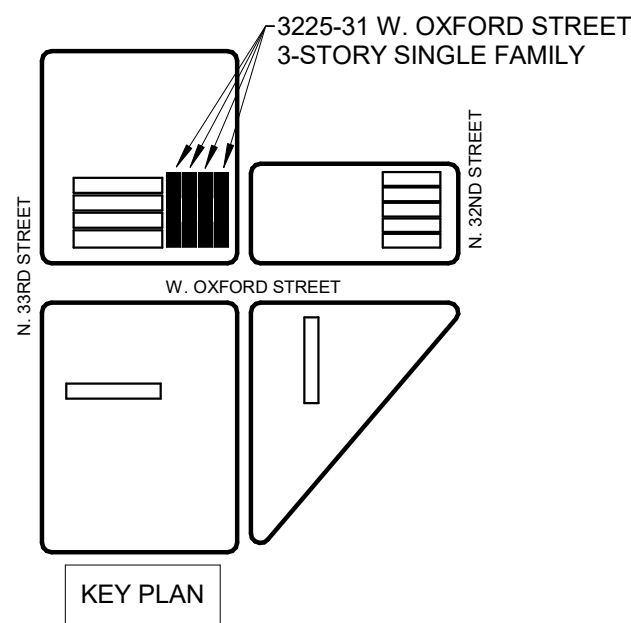
OWNER  
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ARCHITECT  
INTERFACE STUDIO  
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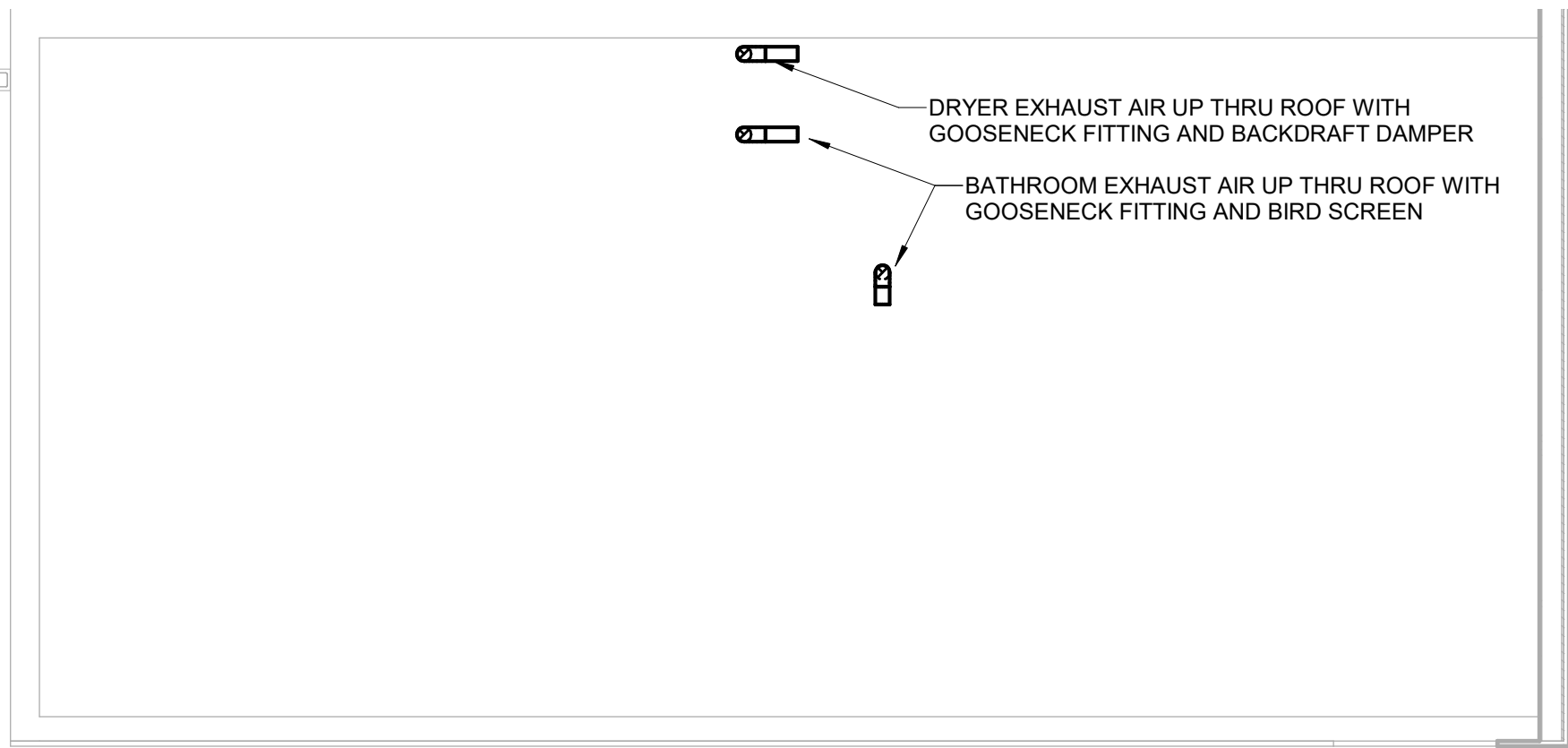
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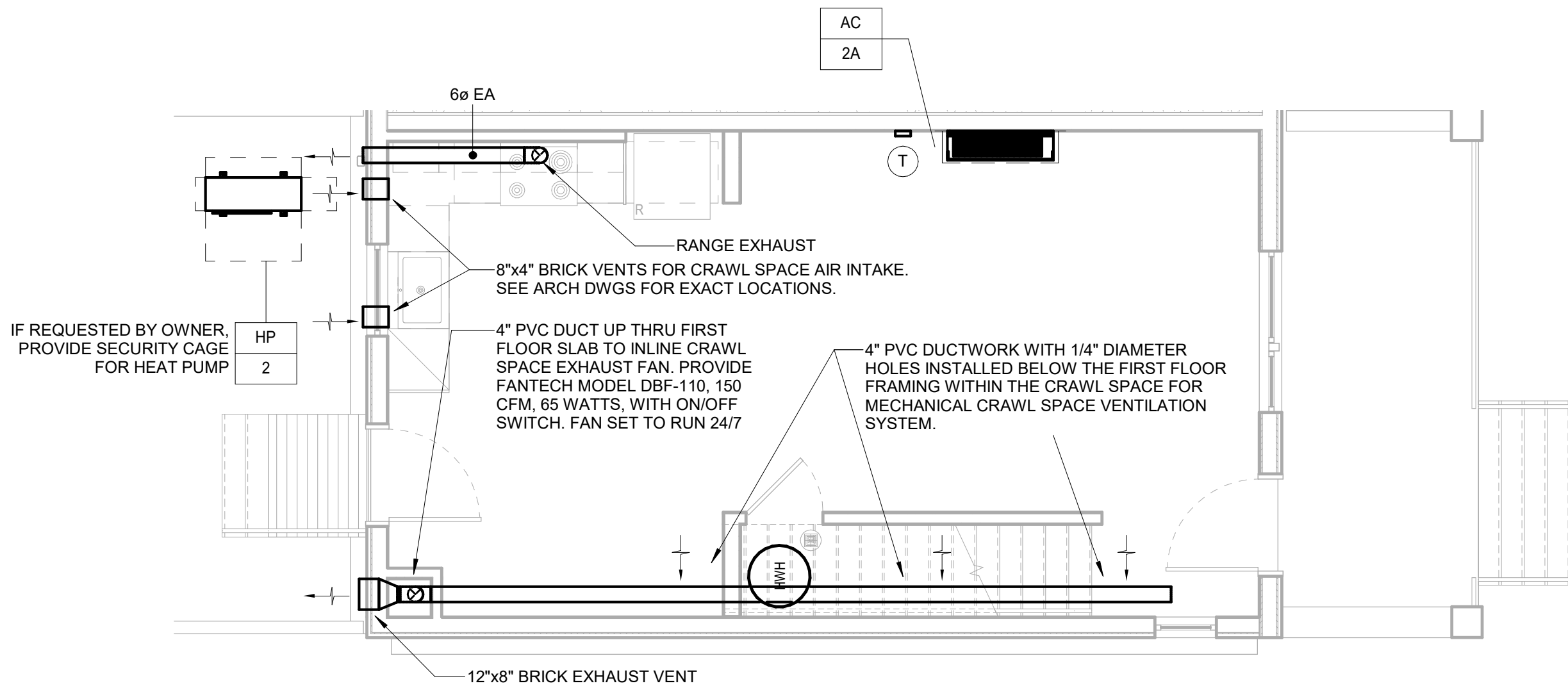
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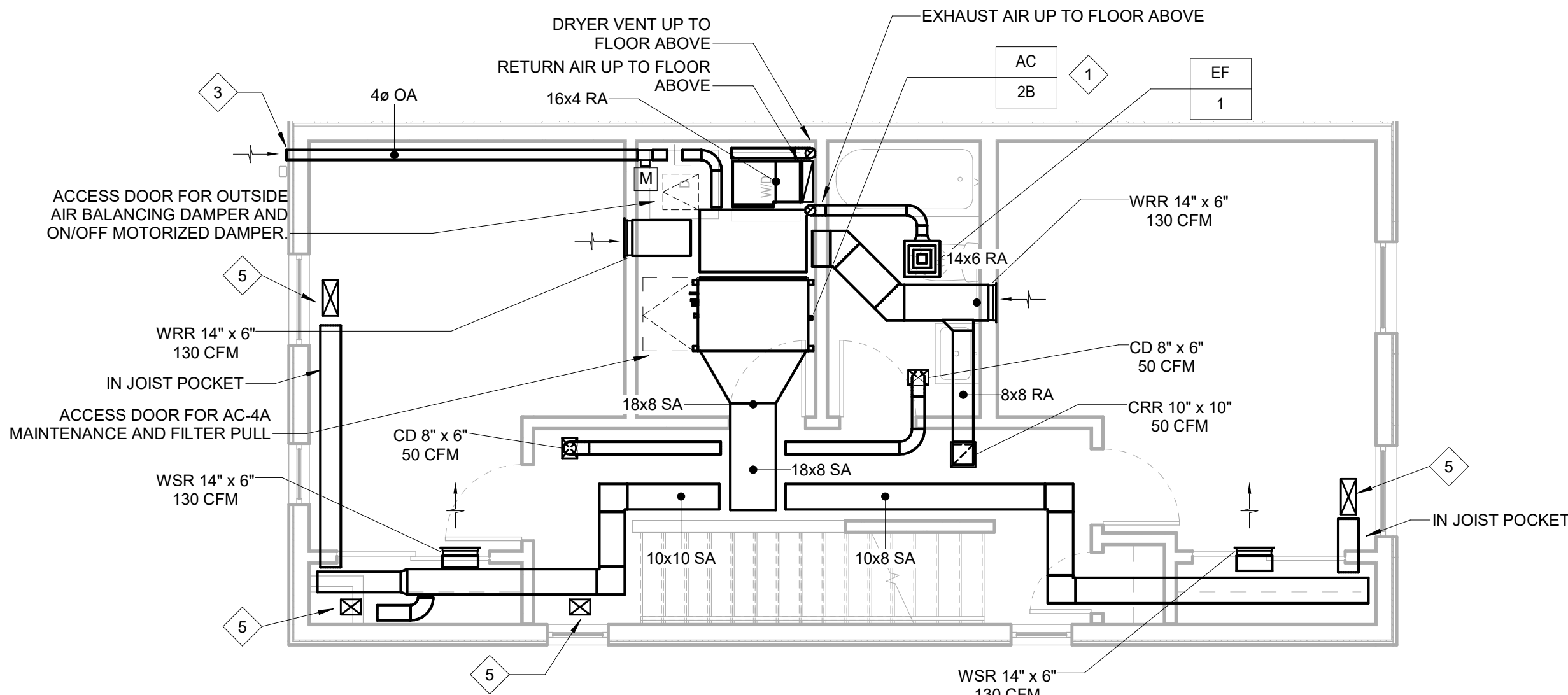
3 HVAC SINGLE 3 STORY (3225-31) 3RD FLOOR NEW WORK PLAN  
1/4" = 1'-0"



4 HVAC SINGLE 3 STORY (3225-31) ROOF NEW WORK PLAN  
1/4" = 1'-0"



1 HVAC SINGLE 3 STORY (3225-31) 1ST FLOOR NEW WORK PLAN  
1/4" = 1'-0"



2 HVAC SINGLE 3 STORY (3225-31) 2ND FLOOR NEW WORK PLAN  
1/4" = 1'-0"

OUTDOOR HEAT PUMP UNIT SCHEDULE

| System Tag                 | Tag Reference | MITSUBISHI Model Number | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Efficiency IEER/IEER [SEER] | Heating COP @ 47°F [HSPF] | Nom System Connected Capacity (% of NOM) | Design Cooling Outdoor Temp DB (°F) | Design Heating Outdoor Temp WB (°F) | Corrected Cooling Total Capacity (BTU/h) | Corrected Heating Capacity (BTU/h) | Electrical-Per Module 208/230 or [460V] |             |     |      | Notes / Options |
|----------------------------|---------------|-------------------------|----------------------------------|----------------------------------|-------------------------------------|---------------------------|------------------------------------------|-------------------------------------|-------------------------------------|------------------------------------------|------------------------------------|-----------------------------------------|-------------|-----|------|-----------------|
|                            |               |                         |                                  |                                  |                                     |                           |                                          |                                     |                                     |                                          |                                    | Voltage / Phase                         | MCA 208/230 | RFS | MOCP |                 |
| HP-2 SINGLE FAMILY 3 STORY | HP-2          | MXZ-SM36NAMHZ-U1        | 36,000.0                         | 45,000.0                         | 13.8 [20.65]                        | 3.85 [12.1]               | 83.3%                                    | 93.0                                | 8.9                                 | 36,087.3                                 | 45,307.6                           | 208/230V / 1-phase                      | 42          | 45  | 50   | 1, 2, 3, 4, 5   |

Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F
- Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted
- PROVIDE MANUFACTURER'S RECOMMENDED STANDS FOR OUTDOOR HEAT PUMP INSTALLATIONS ON THE ROOF. THE BOTTOM OF THE HEAT PUMP TO BE A MINIMUM OF 18" ABOVE THE ROOF LINE.
- THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONTROLS WIRING BETWEEN THE INDOOR UNITS AND OUTDOOR HEAT PUMPS.

GENERAL NOTES:

- VENTILATION OA AIR IS CONNECTED TO THE RETURN AIR PLENUM OF EACH INDOOR AC UNIT.
- ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1-1/2" ARMAFLEX OR EQUAL. ALL SUPPLY AIR AND OUTSIDE AIR DUCTWORK SHALL BE PROVIDED WITH R-6 DUCT INSULATION.
- UPON INSTALLATION, CONTRACTOR SHALL SEAL ALL PERMANENT DUCTS AND VENTS TO MINIMIZE CONTAMINATION DURING CONSTRUCTION. REMOVE ALL SEALS AFTER ALL PHASES OF CONSTRUCTION ARE COMPLETED.

KEYED NOTES:

- REFER TO DETAIL FOR AHU INSTALLATION. RUN REFRIGERANT PIPING FROM INDOOR UNIT TO CORRESPONDING OUTDOOR UNIT. PROVIDE CONDENSATE DRAIN LINE TO NEAREST PLUMBING AIR GAP FITTING.
- MANUFACTURER'S 24/7 PROGRAMMABLE THERMOSTAT. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.
- VENTILATION OUTSIDE AIR INTAKE FITTING. PROVIDE SEIHO "SFZ".
- EXHAUST AIR DISCHARGE FITTING. PROVIDE SEIHO "SFB" WITH BACKDRAFT DAMPER
- UP TO FLOOR GRILLE SERVING THE FLOOR ABOVE.

INDOOR AC UNIT SCHEDULE

| INDOOR AC UNIT SCHEDULE    |                              |               |                  |                                         |                                  |                                  |                                         |                                         |                                |                                   |                          |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                 |
|----------------------------|------------------------------|---------------|------------------|-----------------------------------------|----------------------------------|----------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------|-----------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------------|-------------------|------------------------|---------------------------------------|------------------|--------------------|-----------------|
| System Tag                 | Room Name                    | Tag Reference | MITSUBISHI Model | Type                                    | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Design Entering Temp DB/WB (°F) | Heating Design Entering Temp DB/WB (°F) | PERFORMANCE                    |                                   |                          | Estimated Cooling Coil LAT (°F) | Estimated Heating Coil LAT (°F) | Refrig Pipe Dim Liquid/Suction (inch) | Fan Speed Setting | Peak Fan Airflow (cfm) | Max Fan ESP Setting 208V/230V (IN WG) | Voltage / Phase  | Electrical MCA/MFS | Notes / Options |
|                            |                              |               |                  |                                         |                                  |                                  |                                         |                                         | Cooling Total Capacity (BTU/h) | Cooling Sensible Capacity (BTU/h) | Heating Capacity (BTU/h) |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                 |
| HP-2 SINGLE FAMILY 3 STORY | SINGLE FAMILY 3 STORY 1ST FL | AC-2A         | MSZ-GL12NA-U1    | Wall-Mounted Ceiling-Concealed (Ducted) | 12,000.0                         | 14,400.0                         | 80.0/67.0                               | 70.0                                    | 12,013.6                       | 8,897.5                           | 14,390.9                 | 59.3                            | 102.9                           | 1/4 / 3/8                             | HIGH              | 406                    |                                       | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4      |
| HP-2 SINGLE FAMILY 3 STORY | SINGLE FAMILY 3 STORY 2ND FL | AC-2B         | SEZ-KD18NA4R1.TH |                                         | 17,200.0                         | 21,600.0                         | 80.0/67.0                               | 70.0                                    | 17,219.5                       | 14,144.9                          | 21,586.3                 | 59.0                            | 101.5                           | 1/4 / 1/2                             | HIGH              | 635                    | 0.02/0.06/0.14/0.20                   | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4      |

Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F
- See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with correcter
- PROVIDE WIFI WALL MOUNTED THERMOSTAT FOR EACH INDOOR UNIT.



PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

H340  
HVAC SINGLE 3 STORY  
(3225-31) 1ST, 2ND, AND  
3RD FLOOR PLANS



J+M ENGINEERING

PHILADELPHIA  
215.454.2662  
WASHINGTON  
202.320.9173  
jandmengineers.com

## COLTRANE COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

PROJECT J+M 21-013

### TEAM

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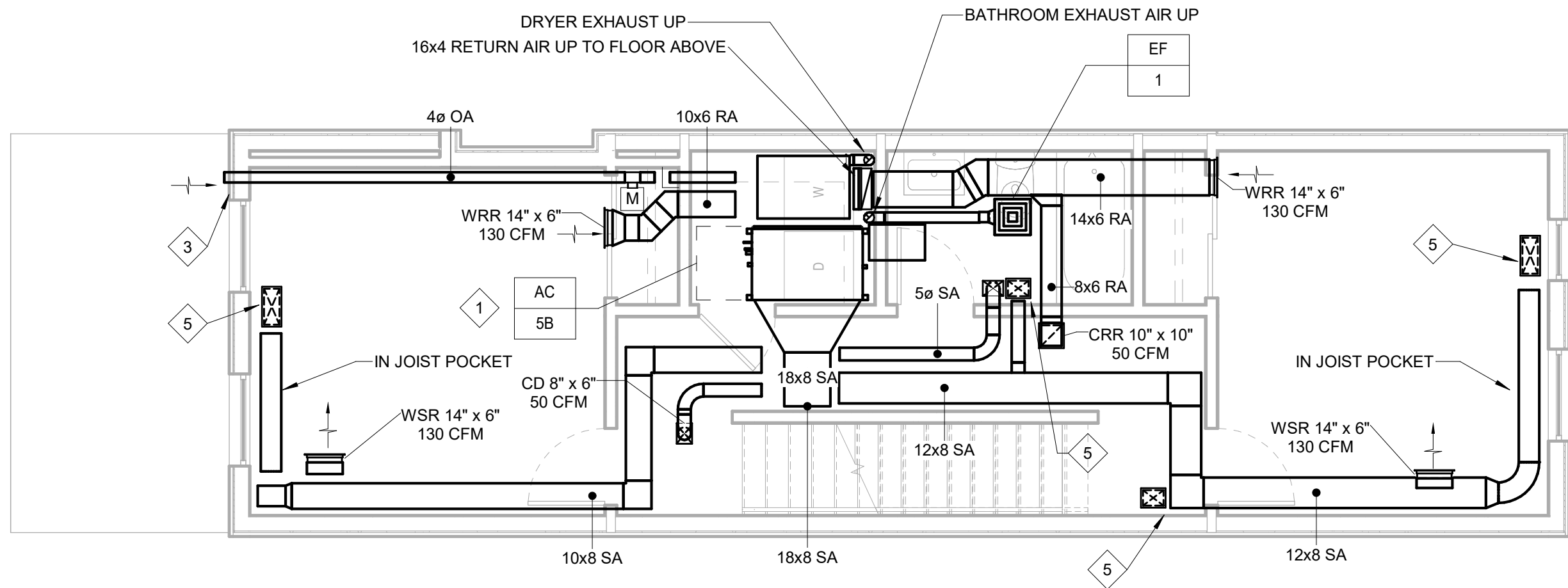
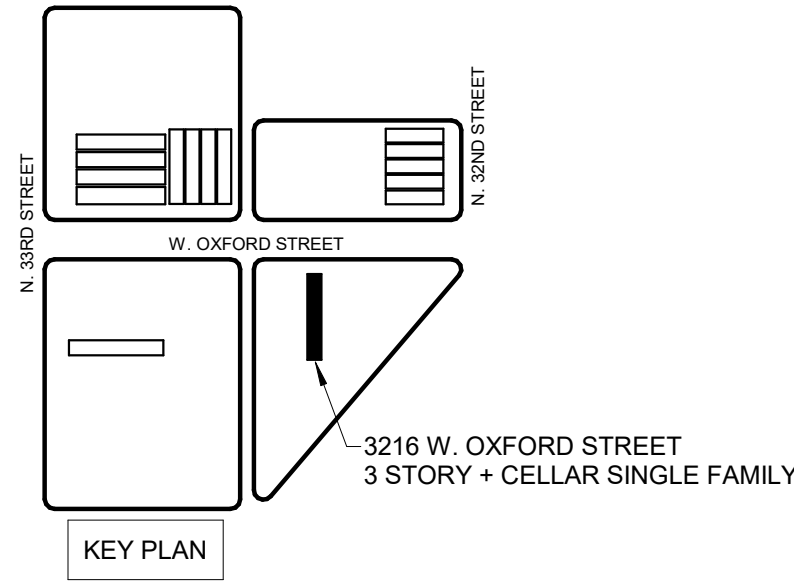
### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

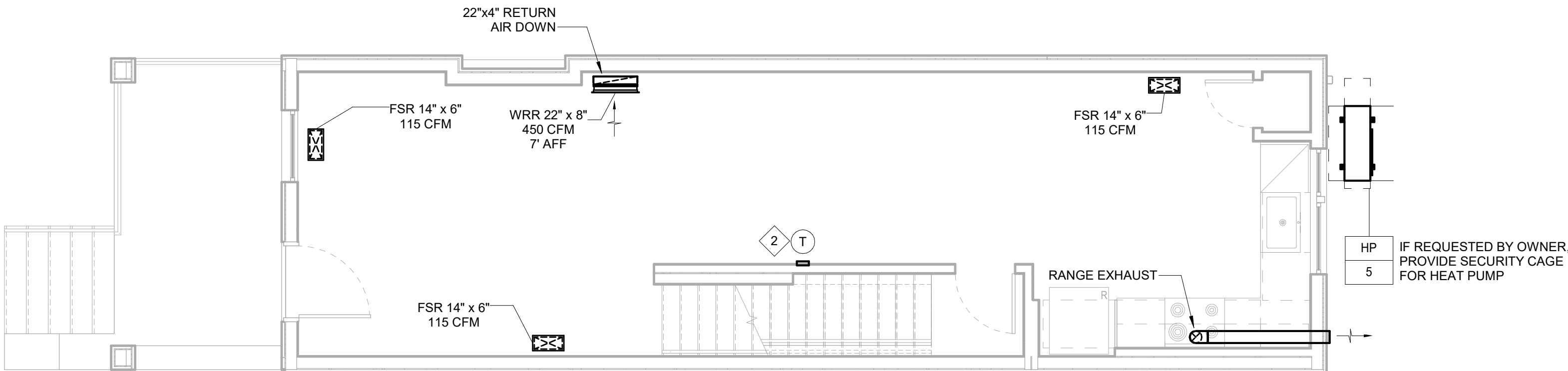
JUNE 3, 2022  
JULY 8, 2022

# H350

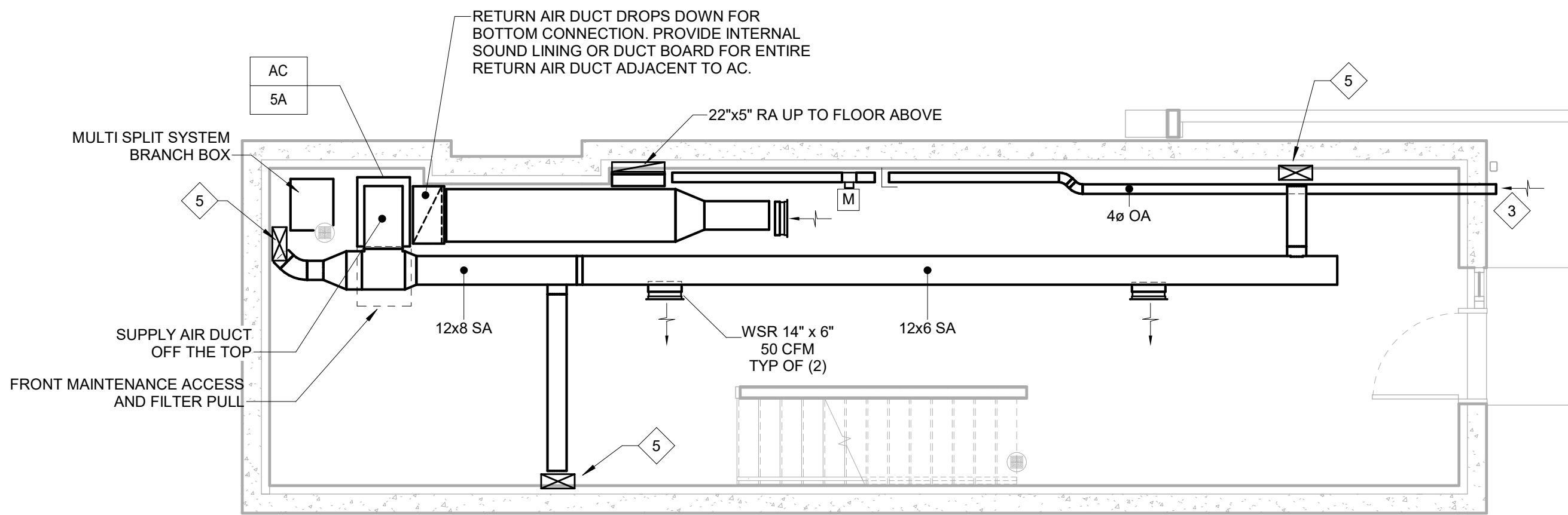
HVAC SINGLE 3  
STORY+C (3216)  
CELLAR,1ST, AND 2ND  
FLOOR PLANS



3 HVAC SINGLE 3 STORY+C (3216) 2ND FLOOR NEW WORK PLAN  
H350 1/4" = 1'-0"



2 HVAC SINGLE 3 STORY+C (3216) 1ST FLOOR NEW WORK PLAN  
H350 1/4" = 1'-0"



1 HVAC SINGLE 3 STORY+C (3216) 0 CELLAR NEW WORK PLAN  
H350 1/4" = 1'-0"

#### GENERAL NOTES:

1. VENTILATION OA AIR IS CONNECTED TO THE RETURN AIR PLENUM OF EACH INDOOR AC UNIT.
2. ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1-1/2" ARMAFLEX OR EQUAL. ALL SUPPLY AIR AND OUTSIDE AIR DUCTWORK SHALL BE PROVIDED WITH R-6 DUCT INSULATION.
3. UPON INSTALLATION, CONTRACTOR SHALL SEAL ALL PERMANENT DUCTS AND VENTS TO MINIMIZE CONTAMINATION DURING CONSTRUCTION. REMOVE ALL SEALS AFTER ALL PHASES OF CONSTRUCTION ARE COMPLETED.

#### KEYED NOTES:

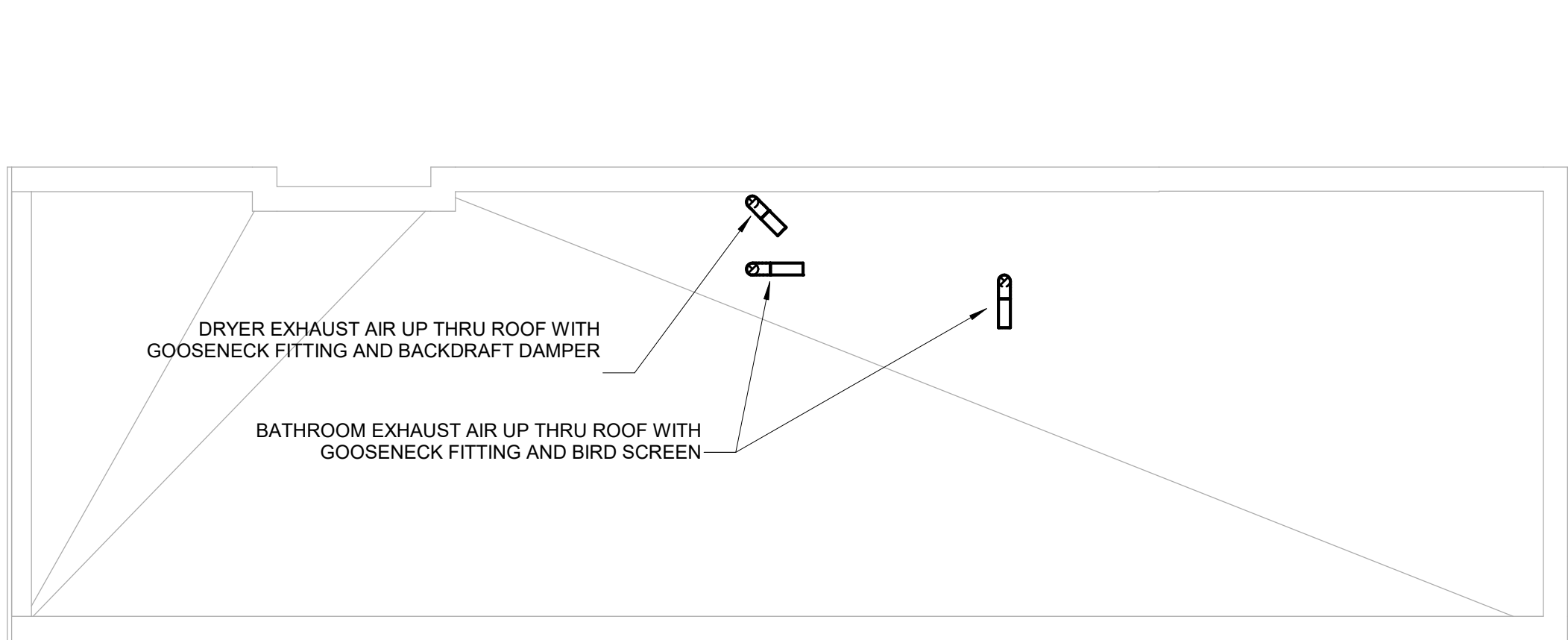
- 1 REFER TO DETAIL FOR AHU INSTALLATION. RUN REFRIGERANT PIPING FROM INDOOR UNIT TO CORRESPONDING OUTDOOR UNIT. PROVIDE CONDENSATE DRAIN LINE TO NEAREST PLUMBING AIR GAP FITTING.
- 2 MANUFACTURER'S 24/7 PROGRAMMABLE THERMOSTAT. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.
- 3 VENTILATION OUTSIDE AIR INTAKE FITTING. PROVIDE SEIHO "SFZ".
- 4 EXHAUST AIR DISCHARGE FITTING. PROVIDE SEIHO "SFB" WITH BACKDRAFT DAMPER
- 5 UP TO FLOOR GRILLE SERVING THE FLOOR ABOVE.

COLTRANE  
COMMONS

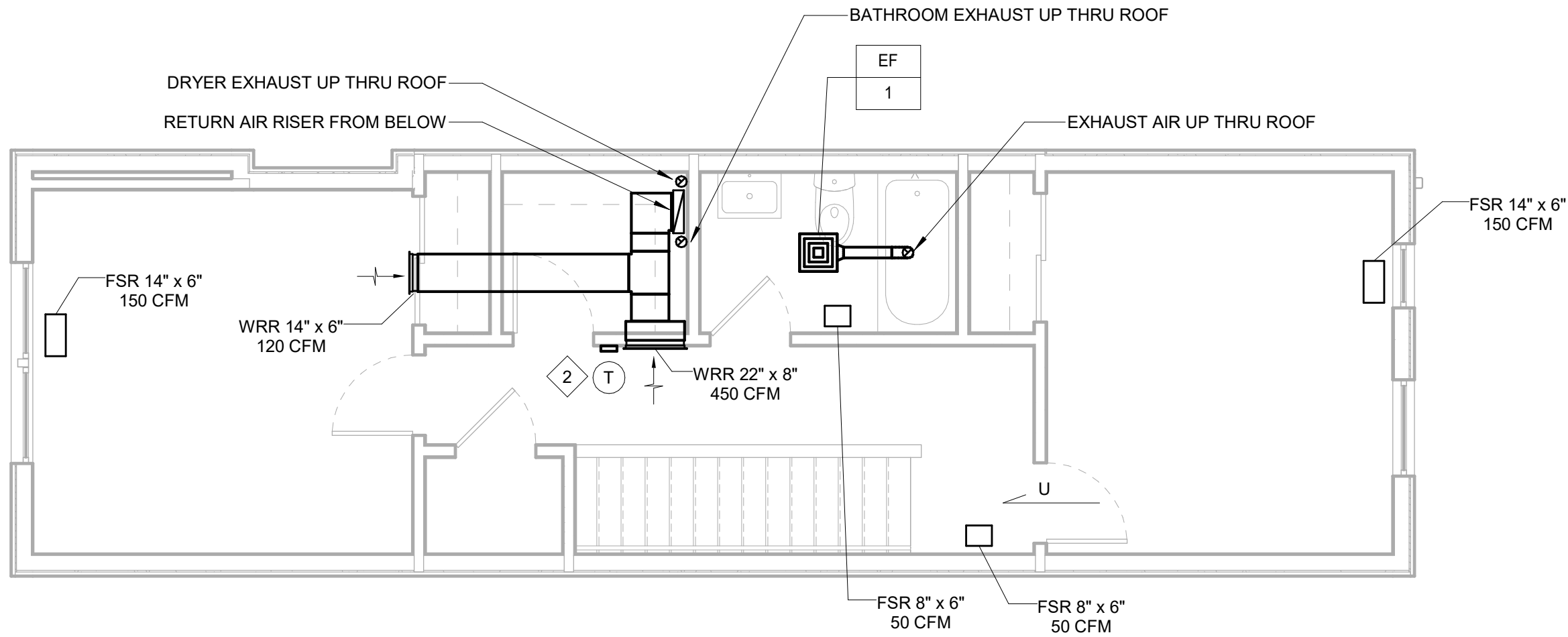
ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000  
ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500  
STRUCTURAL ENGINEER  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
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215 232 7207  
MEP ENGINEER  
J+M ENGINEERING, LLC  
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215 454 2662  
CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



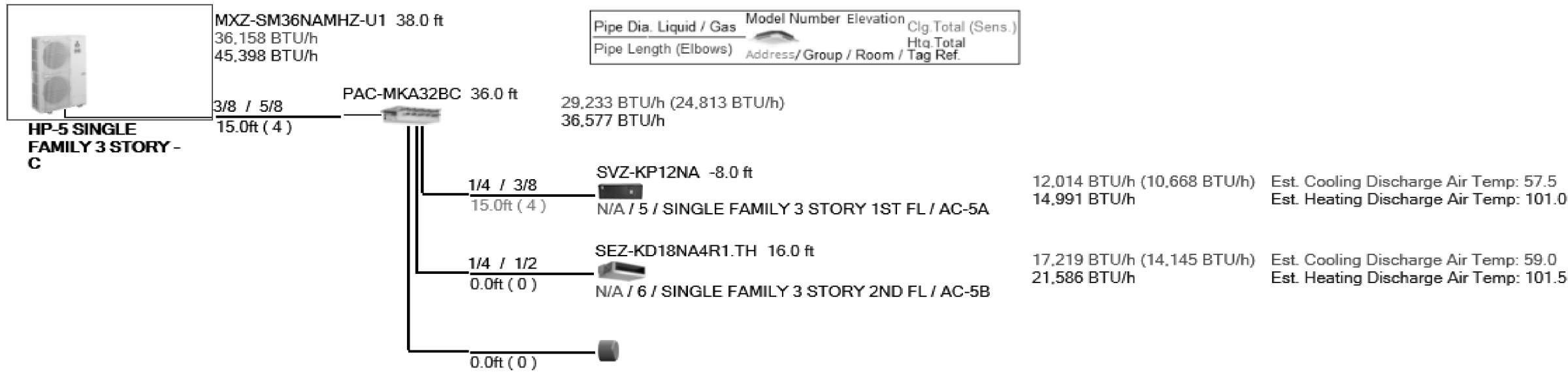
2 HVAC SINGLE 3 STORY+C (3216) ROOF NEW WORK PLAN  
H351 1/4" = 1'-0"



1 HVAC SINGLE 3 STORY+C (3216) 3RD FLOOR NEW WORK PLAN  
H351 1/4" = 1'-0"

SINGLE FAMILY : HP-5 SINGLE FAMILY 3 STORY - C

Piping Diagram Image (Design View)



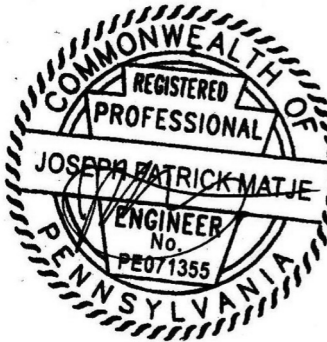
4 HP DIAGRAM SINGLE 3 STORY WITH CELLAR  
H351 N.T.S.

| INDOOR AC UNIT SCHEDULE        |                              |               |                  |                                           |                                  |                                  |                                         |                                         |                                |                                   |                          |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                 |
|--------------------------------|------------------------------|---------------|------------------|-------------------------------------------|----------------------------------|----------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------|-----------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------------|-------------------|------------------------|---------------------------------------|------------------|--------------------|-----------------|
| System Tag                     | Room Name                    | Tag Reference | MITSUBISHI Model | Type                                      | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Design Entering Temp DB/WB (°F) | Heating Design Entering Temp DB/WB (°F) | PERFORMANCE                    |                                   |                          | Estimated Cooling Coil LAT (°F) | Estimated Heating Coil LAT (°F) | Refrig Pipe Dim Liquid/Suction (inch) | Fan Speed Setting | Peak Fan Airflow (cfm) | Max Fan ESP Setting 208V/230V (IN WG) | Voltage / Phase  | Electrical MCA/MFS | Notes / Options |
|                                |                              |               |                  |                                           |                                  |                                  |                                         |                                         | Cooling Total Capacity (BTU/h) | Cooling Sensible Capacity (BTU/h) | Heating Capacity (BTU/h) |                                 |                                 |                                       |                   |                        |                                       |                  |                    |                 |
| HP-5 SINGLE FAMILY 3 STORY - C | SINGLE FAMILY 3 STORY 1ST FL | AC-5A         | SVZ-KP12NA       | Multi Position Ceiling-Concealed (Ducted) | 12,000.0                         | 15,000.0                         | 80.0/67.0                               | 70.0                                    | 12,013.6                       | 10,668.4                          | 14,990.5                 | 57.5                            | 101.0                           | 1/4 / 3/8                             | HIGH              | 448                    | 0.30/0.50/0.80                        | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4      |
| HP-5 SINGLE FAMILY 3 STORY - C | SINGLE FAMILY 3 STORY 2ND FL | AC-5B         | SEZ-KD18NA4R1.TH | Multi Position Ceiling-Concealed (Ducted) | 17,200.0                         | 21,600.0                         | 80.0/67.0                               | 70.0                                    | 17,219.5                       | 14,144.9                          | 21,586.3                 | 59.0                            | 101.5                           | 1/4 / 1/2                             | HIGH              | 635                    | 0.02/0.06/0.14/0.20                   | 208/230V/1-phase | Powered by Outdoor | 1, 2, 3, 4      |

Notes & Options:  
1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)  
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F  
3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with correctec  
4 PROVIDE WIFI WALL MOUNTED THERMOSTAT FOR EACH INDOOR UNIT.

| OUTDOOR HEAT PUMP UNIT SCHEDULE      |               |                         |                                  |                                  |                                           |                              |                                                   |                                           |                                           |                                                |                                          |                                            |             |     |      |                 |
|--------------------------------------|---------------|-------------------------|----------------------------------|----------------------------------|-------------------------------------------|------------------------------|---------------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------------------|--------------------------------------------|-------------|-----|------|-----------------|
| System Tag                           | Tag Reference | MITSUBISHI Model Number | Nominal Cooling Capacity (BTU/h) | Nominal Heating Capacity (BTU/h) | Cooling Efficiency<br>IEER/IEER<br>[SEER] | Heating COP @<br>47°F [HSPF] | Nom System<br>Connected<br>Capacity (% of<br>NOM) | Design Cooling<br>Outdoor Temp<br>DB (°F) | Design Heating<br>Outdoor Temp<br>WB (°F) | Corrected<br>Cooling Total<br>Capacity (BTU/h) | Corrected<br>Heating Capacity<br>(BTU/h) | Electrical-Per Module<br>208/230 or [460V] |             |     |      | Notes / Options |
|                                      |               |                         |                                  |                                  |                                           |                              |                                                   |                                           |                                           |                                                |                                          | Voltage / Phase                            | MCA 208/230 | RFS | MOCP |                 |
| HP-5 SINGLE<br>FAMILY 3<br>STORY - C | HP-5          | MXZ-<br>SM36NAMHZ-U1    | 36,000.0                         | 45,000.0                         | 13.8 [20.65]                              | 3.85 [12.1]                  | 83.3%                                             | 93.0                                      | 8.9                                       | 36,087.3                                       | 45,307.6                                 | 208/230V / 1-<br>phase                     | 42          | 45  | 50   | 1, 2, 3, 4, 5   |

Notes & Options:  
1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)  
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 10°F  
3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted  
4 PROVIDE MANUFACTURER'S RECOMMENDED STANDS FOR OUTDOOR HEAT PUMP INSTALLATIONS ON THE ROOF. THE BOTTOM OF THE HEAT PUMP TO BE A MINIMUM OF 18" ABOVE THE ROOF LINE.  
5 THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONTROLS WIRING BETWEEN THE INDOOR UNITS AND OUTDOOR HEAT PUMPS.



PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS  
JUNE 3, 2022  
JULY 8, 2022

H351  
HVAC SINGLE 3  
STORY+C (3216) 3RD  
FLOOR, ROOF PLAN,  
AND DETAILS



J+M ENGINEERING

## COLTRANE COMMONS

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PHILADELPHIA, PA 19121  
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PROJECT J+M 21-013

### TEAM

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215 232 7207

**MEP ENGINEER**  
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11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931

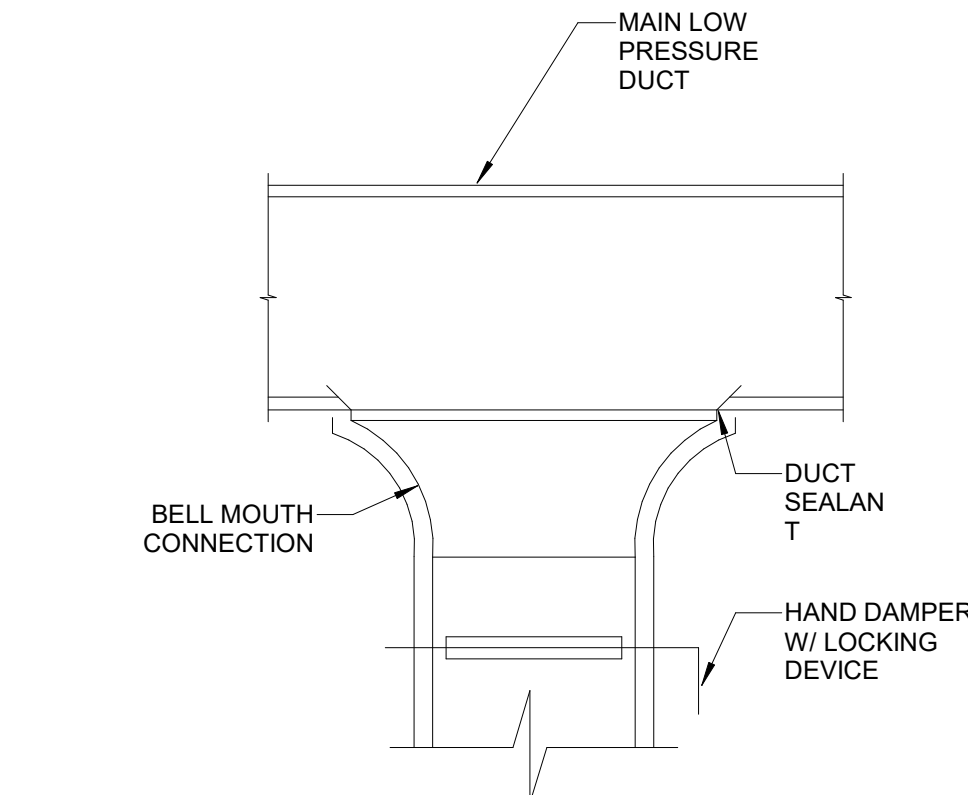
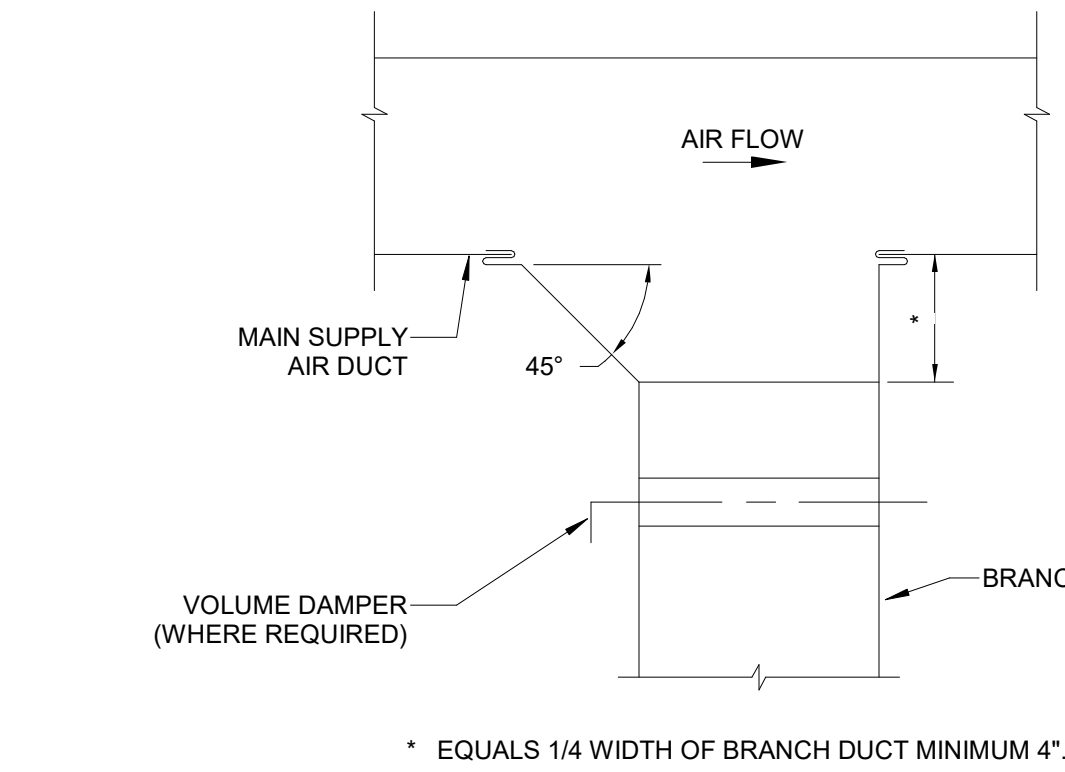
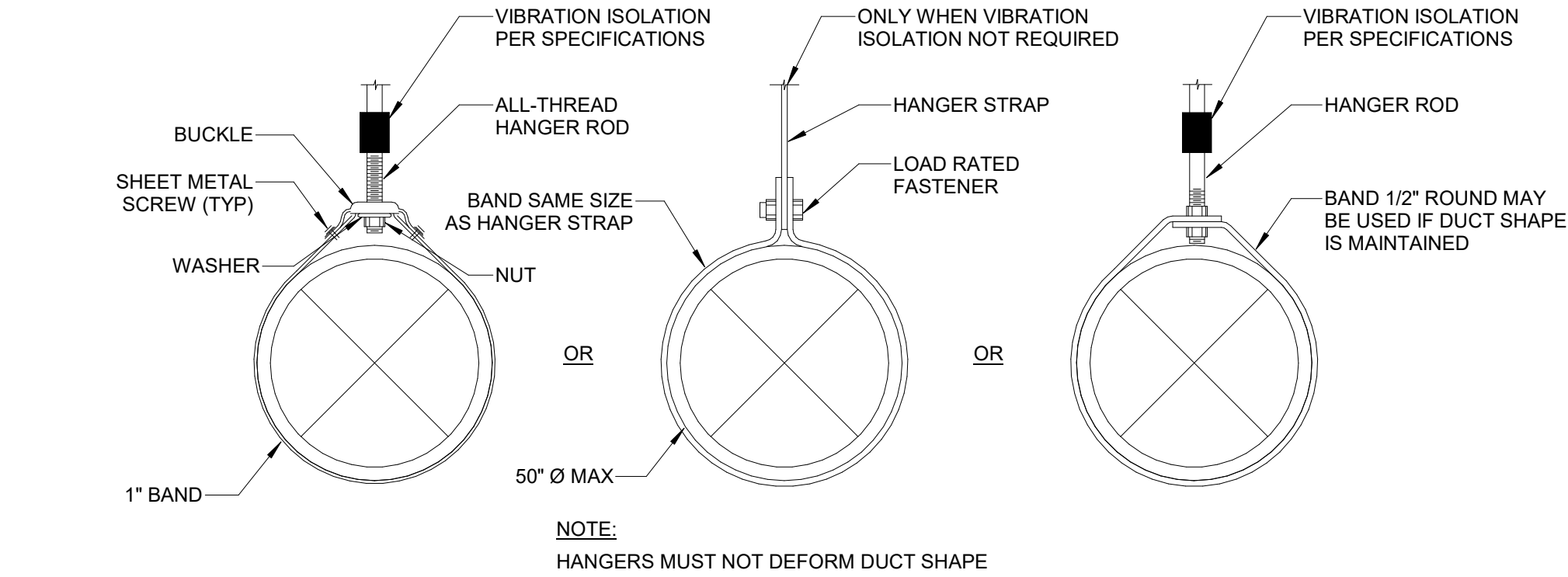
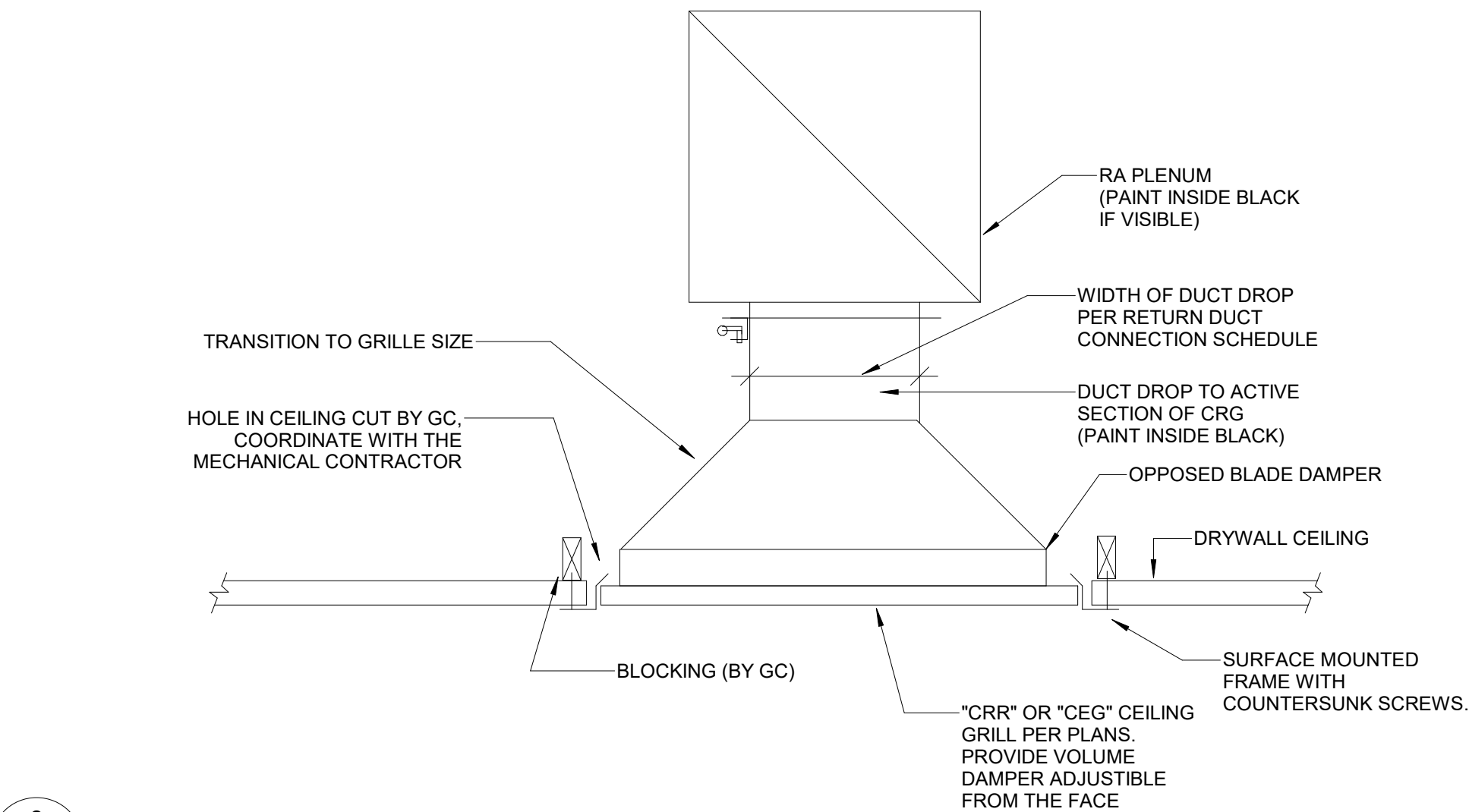
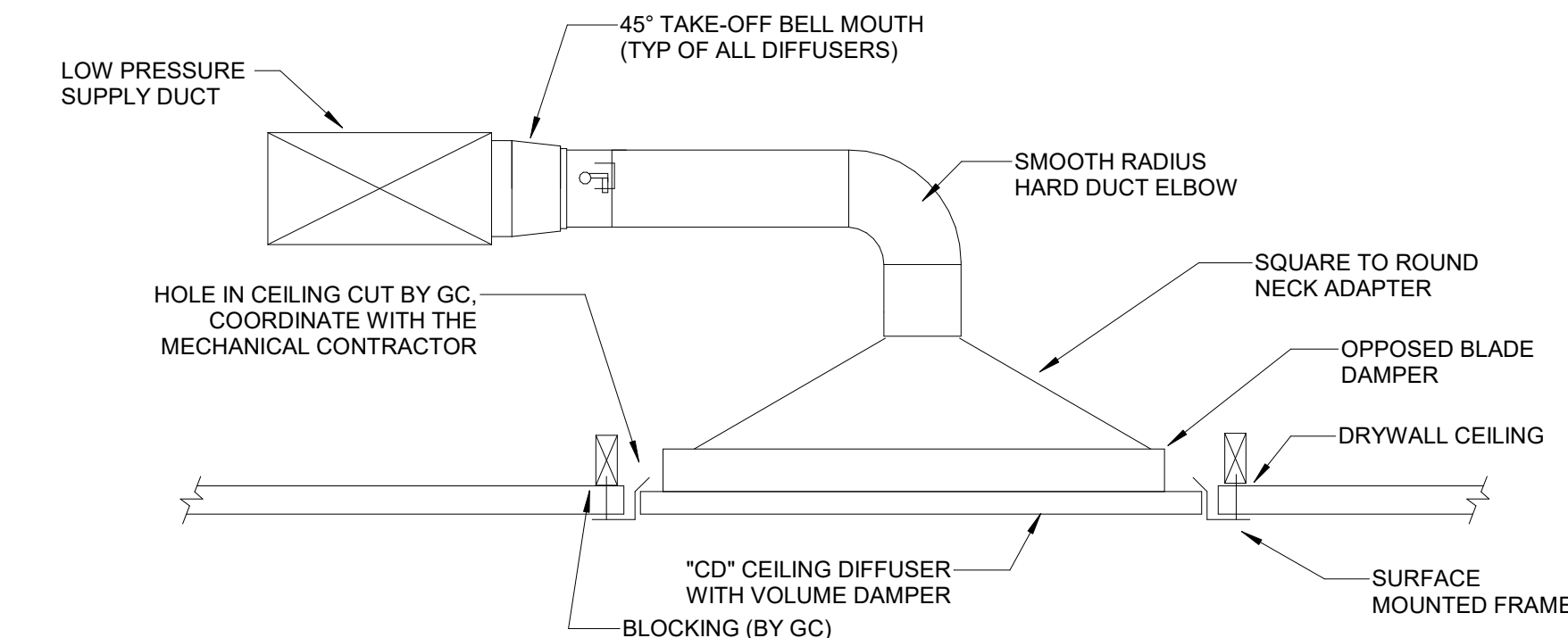
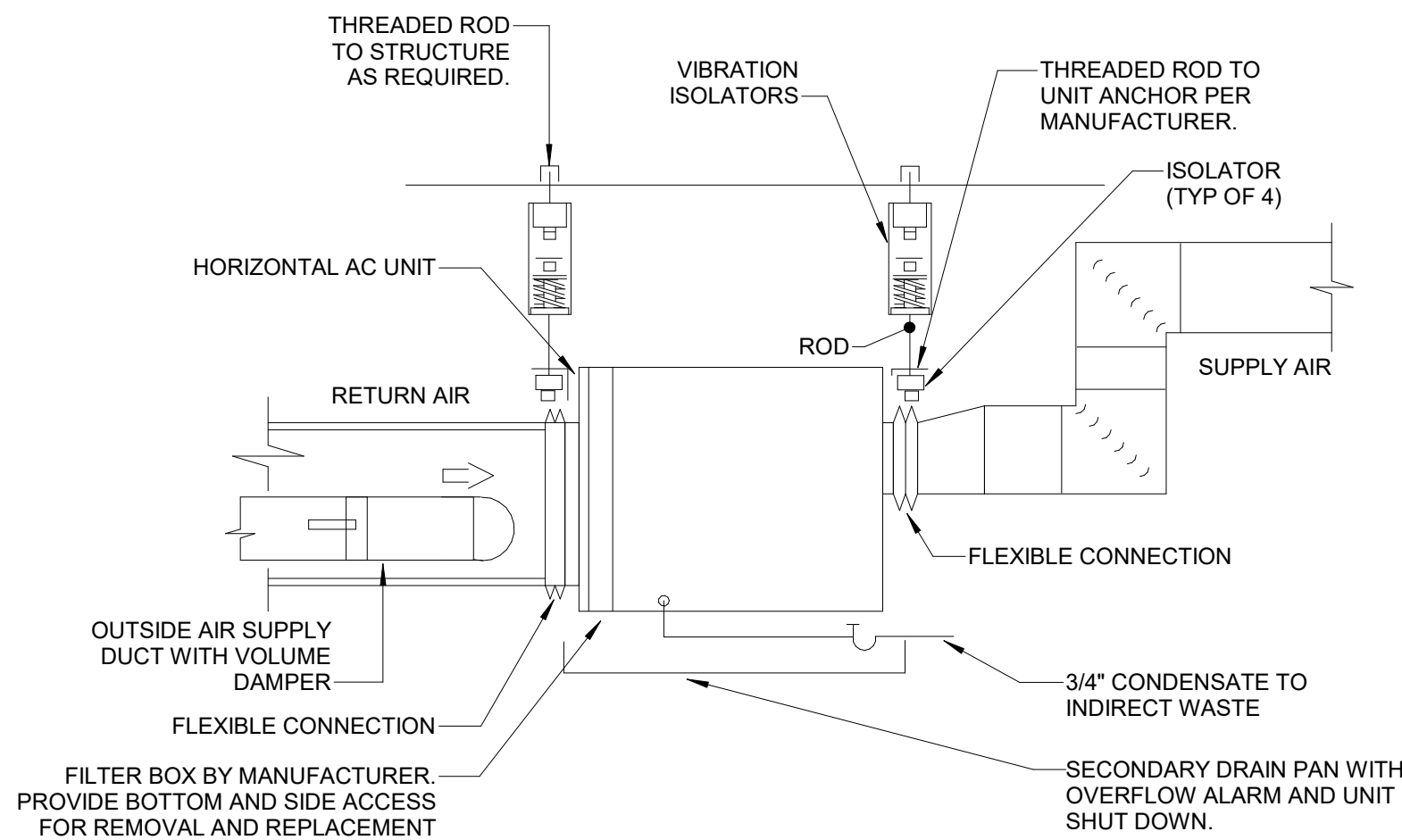
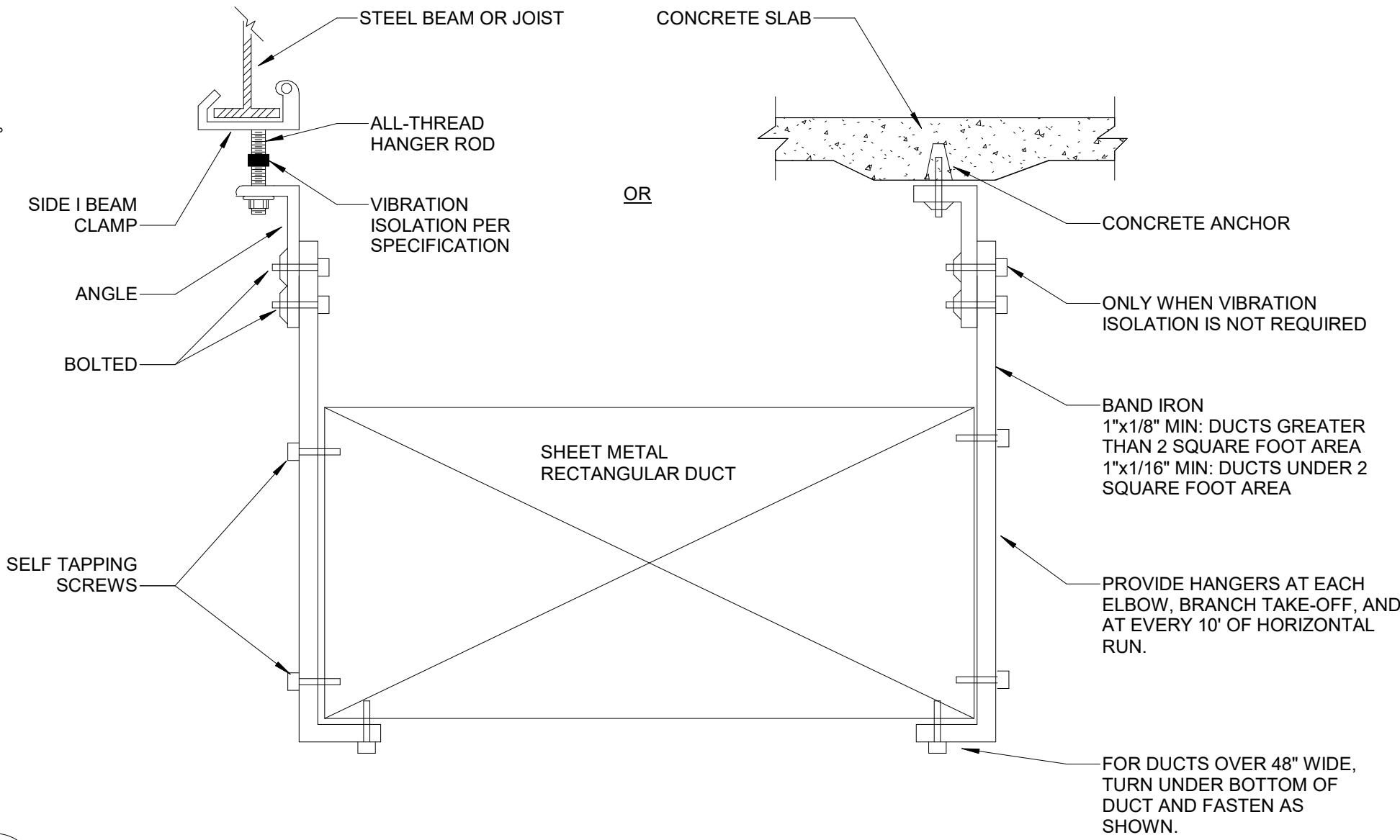
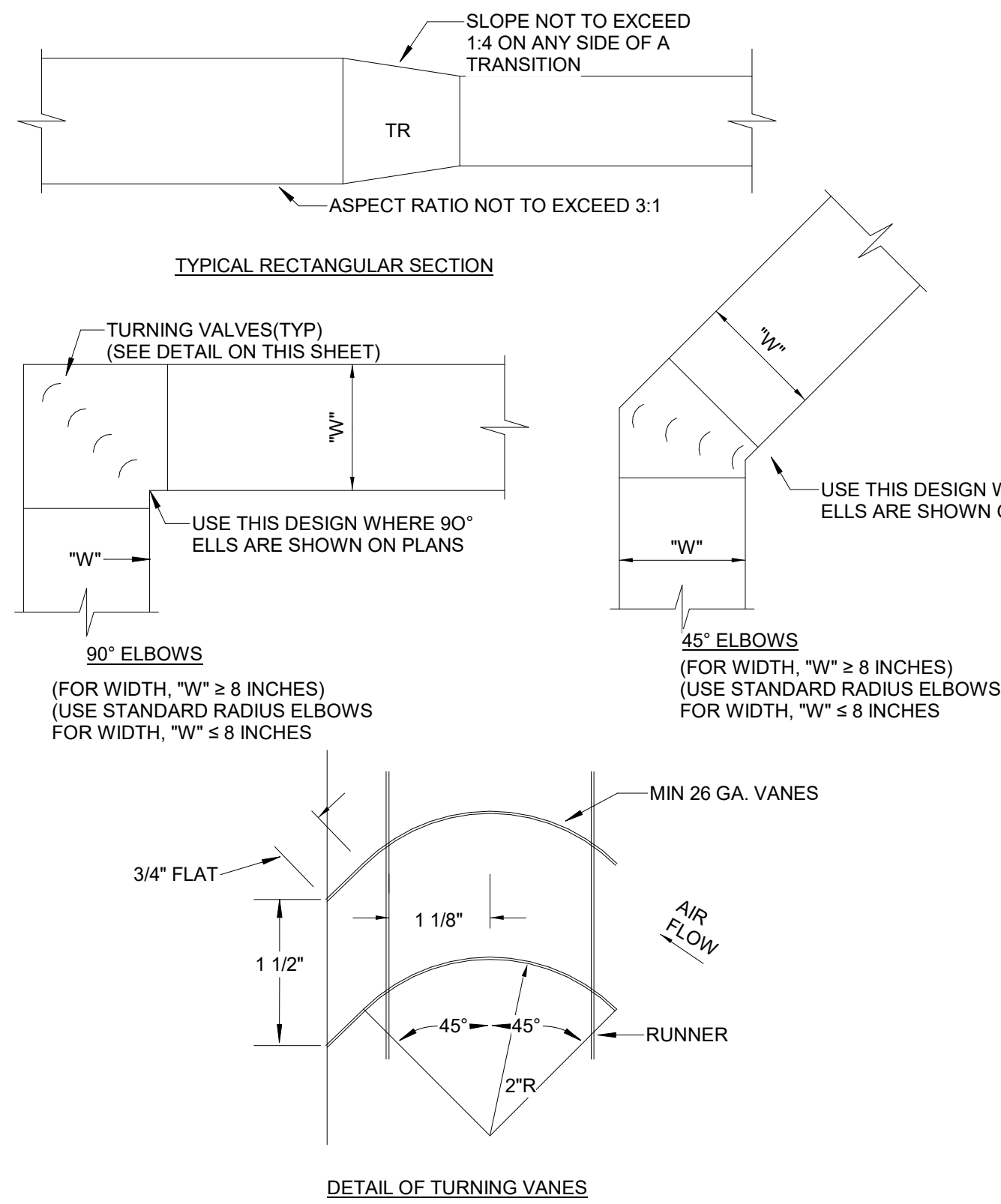


### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

## H801 HVAC DETAILS

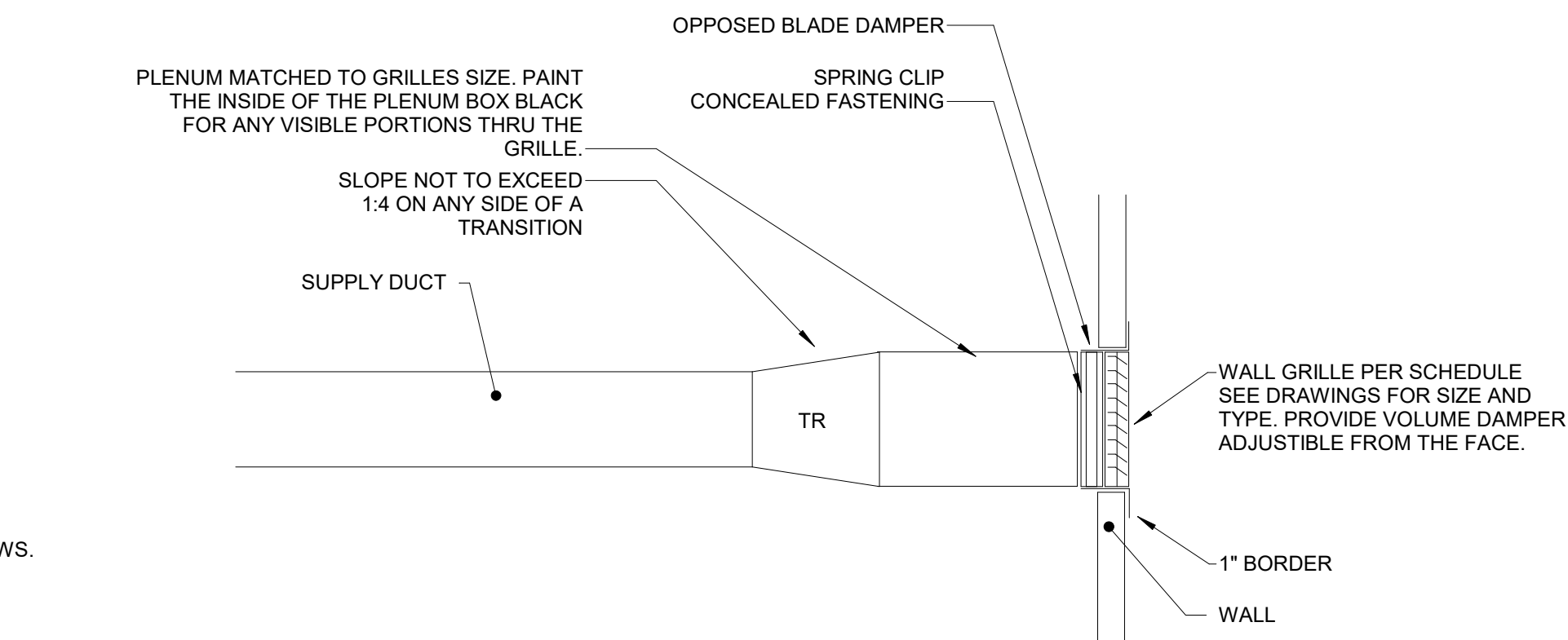


| RETURN DUCT/GRILLE CONNECTION SCHEDULE |           |
|----------------------------------------|-----------|
| DUCT SIZE (IN)                         | CFM RANGE |
| 6x6                                    | 0-199     |
| 8x8                                    | 200-299   |
| 10x10                                  | 300-399   |
| 12x12                                  | 400-599   |
| 14x14                                  | 600-900   |

**NOTES:**  
1. FOR USE WHERE RETURN AIR DUCT IS NOT INDICATED ON FLOOR PLAN.  
2. USE ONLY ON RETURN AIR SYSTEMS.  
3. TURNING VANES REQUIRED ON DUCTWORK GREATER THAN 8" WIDE, PER DETAIL.

| TAKE OFF DUCT SCHEDULE |           |                      |                        |
|------------------------|-----------|----------------------|------------------------|
| DUCT SIZE (IN)         | CFM RANGE | MAX PD (IN WC/100LF) | MAXIMUM VELOCITY (FPM) |
| 4 Ø                    | 0-49      | 0.25                 | 600                    |
| 6 Ø                    | 50-99     | 0.25                 | 600                    |
| 8 Ø                    | 100-199   | 0.25                 | 600                    |
| 10 Ø                   | 200-299   | 0.25                 | 600                    |
| 12 Ø                   | 300-399   | 0.25                 | 600                    |
| 14 Ø                   | 400-549   | 0.25                 | 600                    |
| 16 Ø                   | 550-800   | 0.25                 | 600                    |

**NOTES:**  
1. FOR USE WHERE TAKEOFF SIZE IS NOT INDICATED ON FLOOR PLAN  
2. USE ONLY ON SUPPLY AIR SYSTEMS  
3. USE SHEETMETAL ELBOWS AT TURNS  
4. FLEXIBLE DUCT IS NOT APPROVED FOR THIS PROJECT.







J+M ENGINEERING

PHILADELPHIA  
215.454.2662  
WASHINGTON  
202.320.9173  
jandmengineers.comCOLTRANE  
COMMONS

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PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

## TEAM

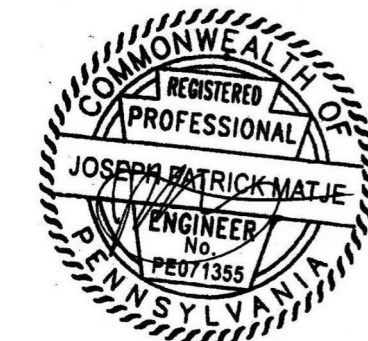
**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
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215 232 7207

**MEP ENGINEER**  
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215 454 2662

**CIVIL ENGINEER**  
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100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



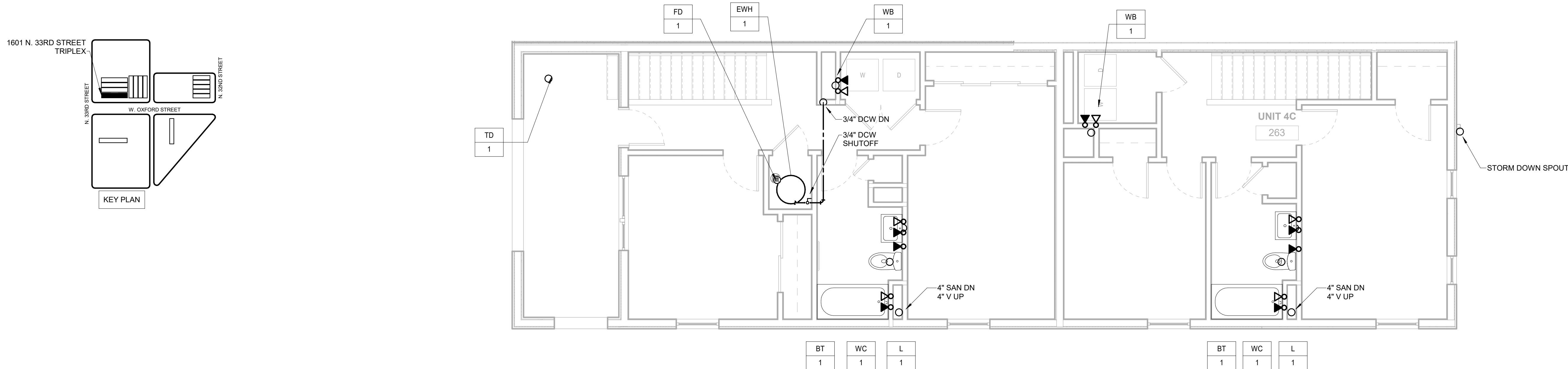
## PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

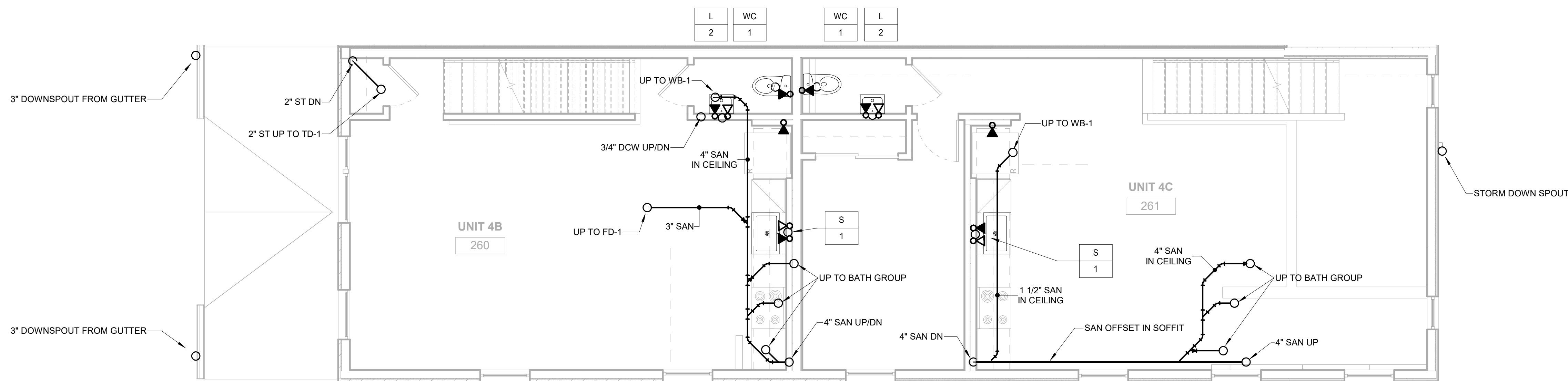
JUNE 3, 2022  
JULY 8, 2022

P310

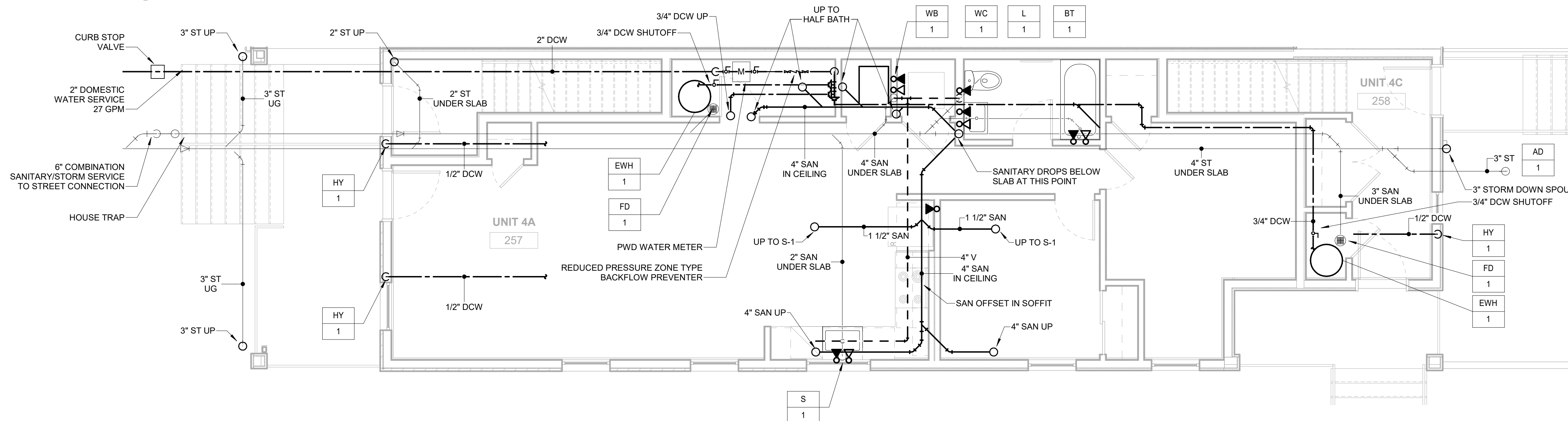
PLUMBING TRIPLEX  
(1601) 1ST, 2ND, AND 3RD  
FLOOR PLANS



3 PLUMBING TRIPLEX (1601) 3RD FLOOR NEW WORK PLAN  
P310 1/4" = 1'-0"



2 PLUMBING TRIPLEX (1601) 2ND FLOOR NEW WORK PLAN  
P310 1/4" = 1'-0"



1 PLUMBING TRIPLEX (1601) 1ST FLOOR NEW WORK PLAN  
P310 1/4" = 1'-0"



COLTRANE  
COMMONS

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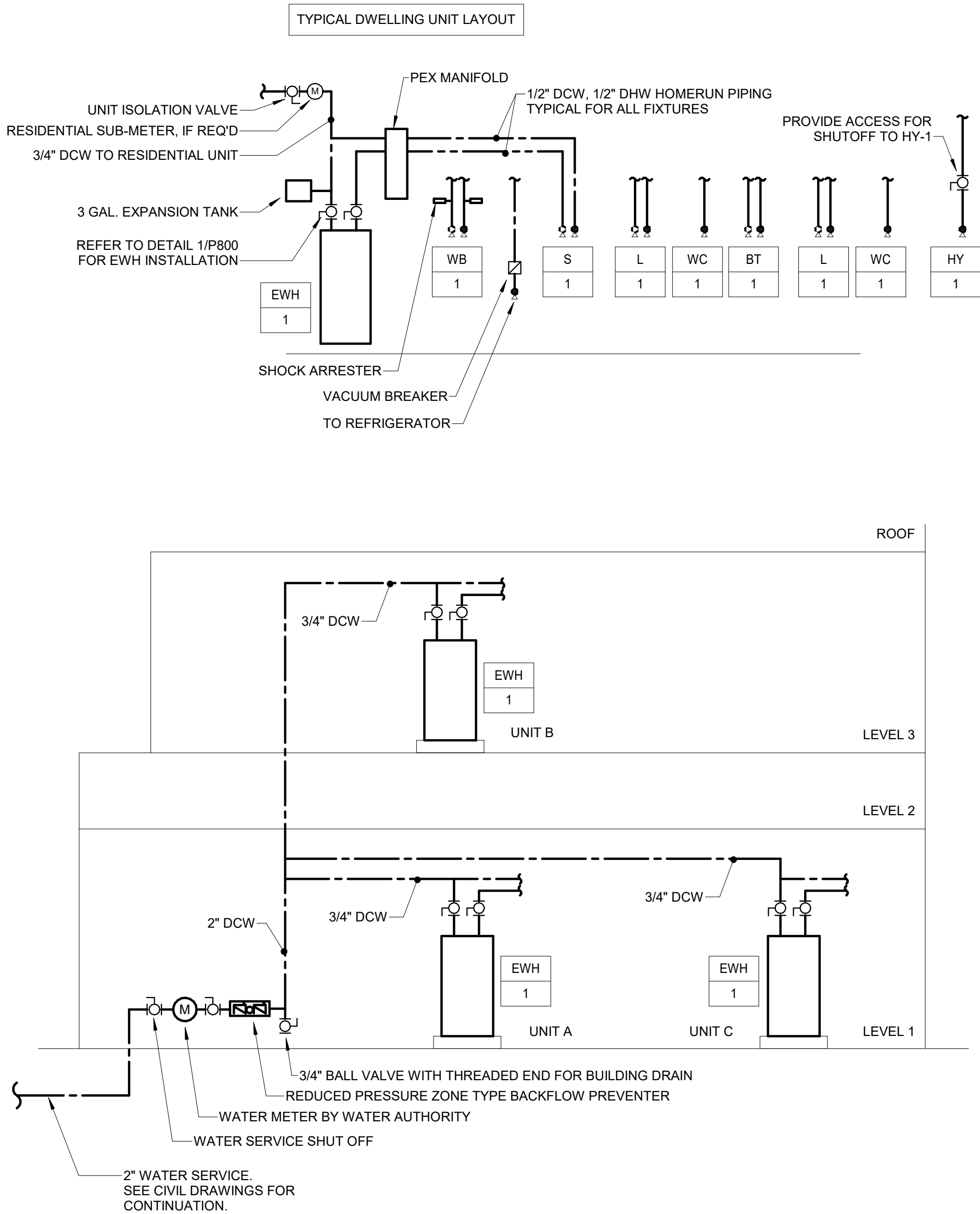
PHASE

PRICING SETS JUNE 3, 2022  
CONSTRUCTION DOCUMENTS JULY 8, 2022

P311  
PLUMBING TRIPLEX  
(1601) ROOF PLAN AND  
DETAILS

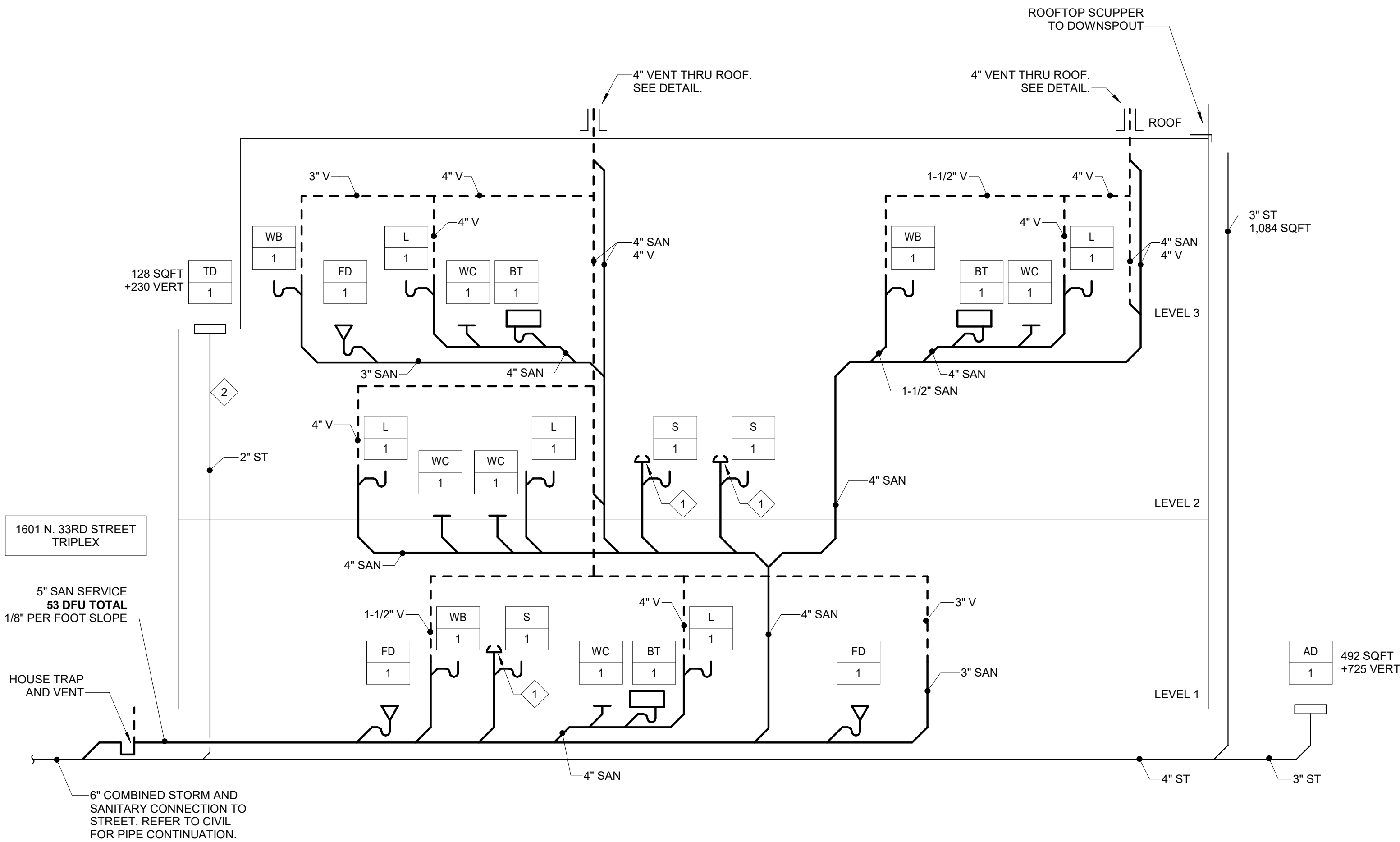
| LEGEND |                         |
|--------|-------------------------|
|        | NEW DOMESTIC COLD WATER |
|        | NEW DOMESTIC HOT WATER  |

| FIXTURE        | SYMBOL     | RUNOUT<br>SIZE | WSFU  |      |     |
|----------------|------------|----------------|-------|------|-----|
|                |            |                | TOTAL | COLD | HOT |
| BATHROOM GROUP |            | 1/2"           | 3.6   | 2.7  | 1.5 |
| WATER CLOSET   | WC-1       | 1/2"           | -     | -    | -   |
| BATHTUB        | SH-1, BT-1 | 1/2"           | -     | -    | -   |
| LAVATORY       | L-1        | 1/2"           | -     | -    | -   |
| KITCHEN SINK   | S-1        | 1/2"           | 1.5   | 1.1  | 1.1 |
| WASHERBOX      | WC-1       | 1/2"           | 1.4   | 1    | 1   |
| HOSE BIBB      | HY-1       | 1/2"           | 2     | 2    | -   |



3 610 PLUMBING DOMESTIC WATER RISER DIAGRAM  
P311 N.T.S.

2 PLUMBING TRIPLEX (1601) ROOF NEW WORK PLAN  
P311 1/4" = 1'-0"



1 610 PLUMBING SANITARY RISER DIAGRAM  
P311 N.T.S.

KEYED NOTES:

- AIR ADMITTANCE VALVE PER P-918.3.  
PROVIDE OATEY SURE-VENT OR EQUAL.
- INSULATE ALL INTERIOR STORM PIPING FOR  
SOUND

RISER NOTES:

- PERFORM WORK IN ACCORDANCE WITH RULES, REGULATIONS, STANDARDS, CODES,  
ORDINANCES, AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND AUTHORITIES  
HAVING JURISDICTION AND BE RESPONSE FOR COMPLIANCE HEREWITH.
- PHILADELPHIA FOLLOWS THE 2018 PHILADELPHIA PLUMBING CODE. SANITARY RISER IS  
DIAGRAMATIC FOR CLARITY AND PLUMBING WILL FOLLOW SECTION P-919 PHILADELPHIA SINGLE-  
STACK WASTE AND VENT SYSTEM.

| LEGEND |                     |
|--------|---------------------|
|        | NEW SANITARY PIPING |
|        | NEW VENT PIPING     |
| [ ]    | DFU - SANITARY      |

| FIXTURE          | SYMBOL     | DFUs | WASTE SIZE |
|------------------|------------|------|------------|
| BATHROOM GROUP   |            | 6    |            |
| WATER CLOSET     | WC-1       | (3)  | 4"         |
| SHOWER / BATHTUB | SH-1, BT-1 | (2)  | 1-1/2"     |
| LAVATORY         | L-1        | (1)  | 1-1/4"     |
| FLOOR DRAIN      | FD-1       | 3    | 3"         |
| SINK             | S-1        | 3    | 1-1/2"     |
| WASHERBOX        | WB-1       | 3    | 1-1/2"     |



J+M ENGINEERING

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## COLTRANE COMMONS

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PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

PROJECT J+M 21-013

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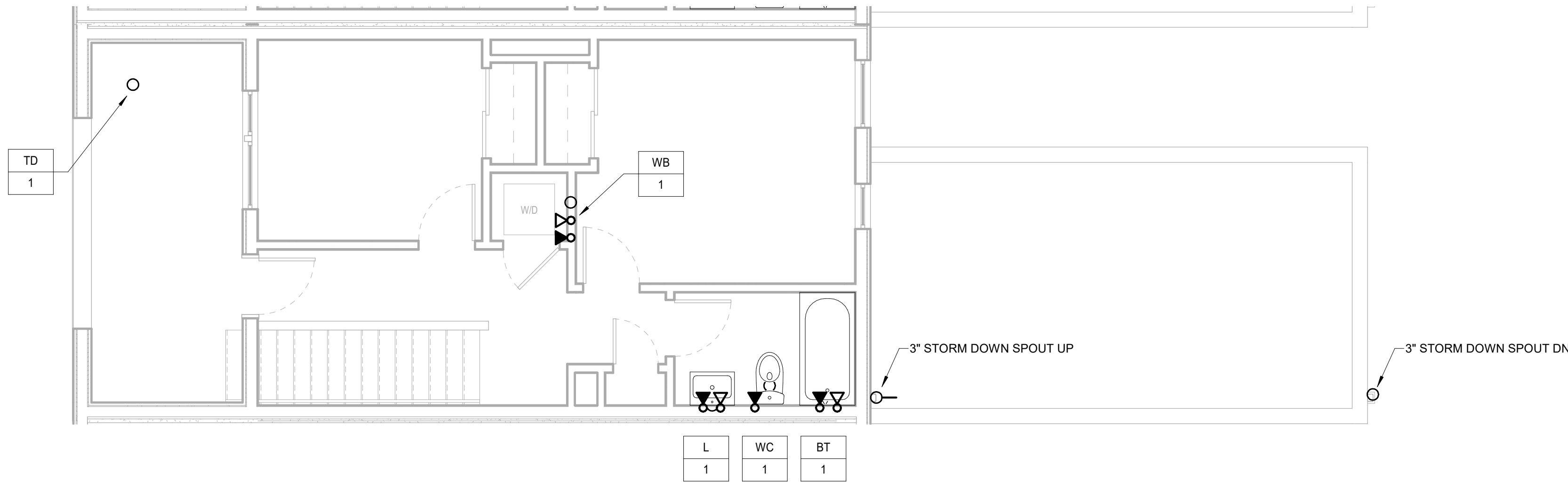
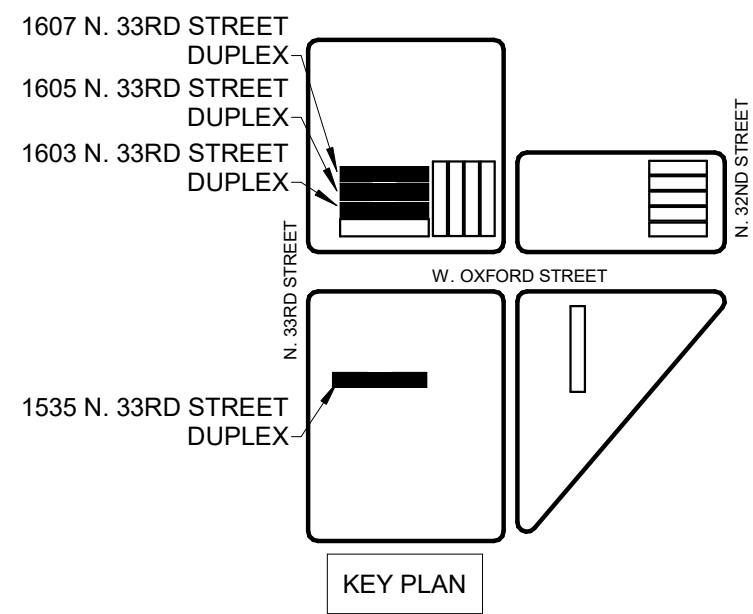
### PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

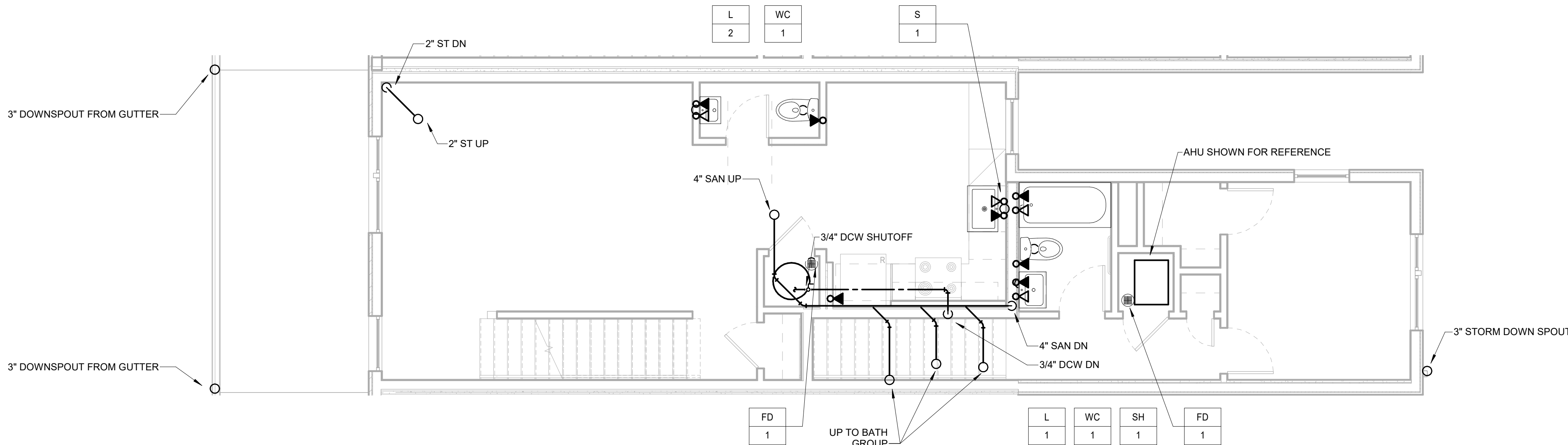
JUNE 3, 2022  
JULY 8, 2022

## P320

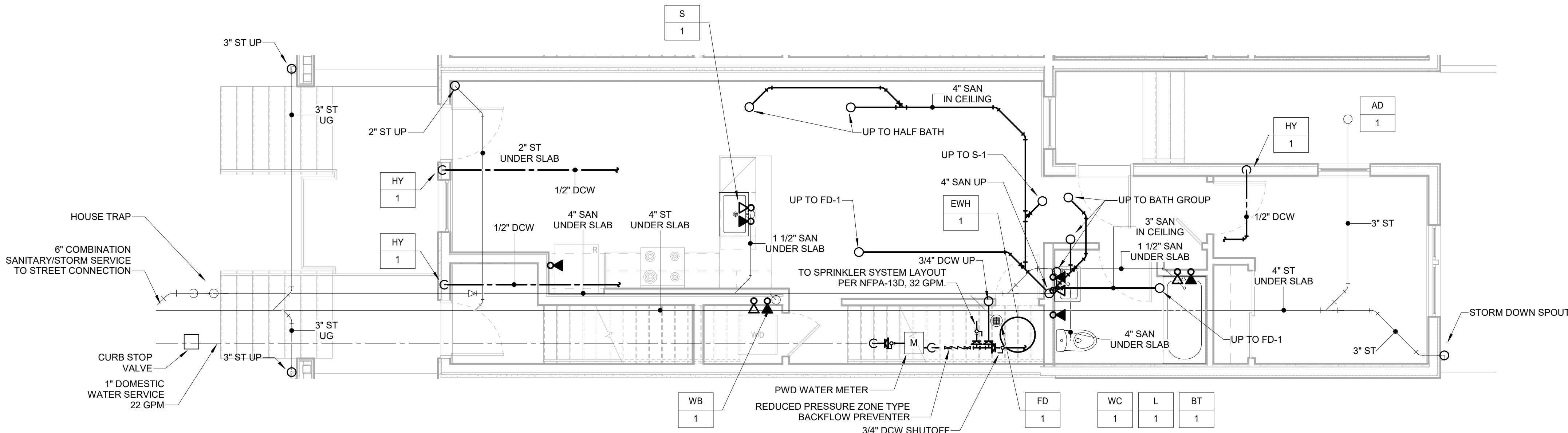
PLUMBING DUPLEX  
(1603-07) 1ST, 2ND, AND  
3RD FLOOR PLANS



3 PLUMBING DUPLEX (1603-07) 3RD FLOOR NEW WORK PLAN  
P320 1/4" = 1'-0"



2 PLUMBING DUPLEX (1603-07) 2ND FLOOR NEW WORK PLAN  
P320 1/4" = 1'-0"



1 PLUMBING DUPLEX (1603-07) 1ST FLOOR NEW WORK PLAN  
P320 1/4" = 1'-0"

**ADDRESS** 33RD & OXFORD STREETS  
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(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #30  
PHILADELPHIA, PA 19122  
215 232 1500

**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING  
100 W. OXFORD ST., #E-3  
PHILADELPHIA, PA 19122  
215 987 1931



PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# PLUMBING DUPLEX (1603-07) ROOF PLAN AND DETAILS

| FIXTURE        | SYMBOL     | RUNOUT SIZE | WSFU  |      |     |
|----------------|------------|-------------|-------|------|-----|
|                |            |             | TOTAL | COLD | HOT |
| BATHROOM GROUP |            | 1/2"        | 3.6   | 2.7  | 1.5 |
| WATER CLOSET   | WC-1       | 1/2"        | -     | -    | -   |
| BATHTUB        | SH-1, BT-1 | 1/2"        | -     | -    | -   |
| LAVATORY       | L-1        | 1/2"        | -     | -    | -   |
| KITCHEN SINK   | S-1        | 1/2"        | 1.5   | 1.1  | 1.1 |
| WASHERBOX      | WC-1       | 1/2"        | 1.4   | 1    | 1   |
| HOSE BIBB      | HY-1       | 1/2"        | 2     | WSFU | -   |

UNIT ISOLATION VALVE

RESIDENTIAL SUB-METER, IF REQ'D

3/4" DCW TO RESIDENTIAL UNIT

3 GAL. EXPANSION TANK

REFER TO DETAIL 1/P800 FOR EWH INSTALLATION

PEX MANIFOLD

1/2" DCW, 1/2" DHW HOMERUN PIPING TYPICAL FOR ALL FIXTURES

PROVIDE ACCESS FOR SHUTOFF TO HY-1

SHOCK ARRESTER

VACUUM BREAKER TO REFRIGERATOR

EWB 1

WB 1

S 1

L 1

WC 1

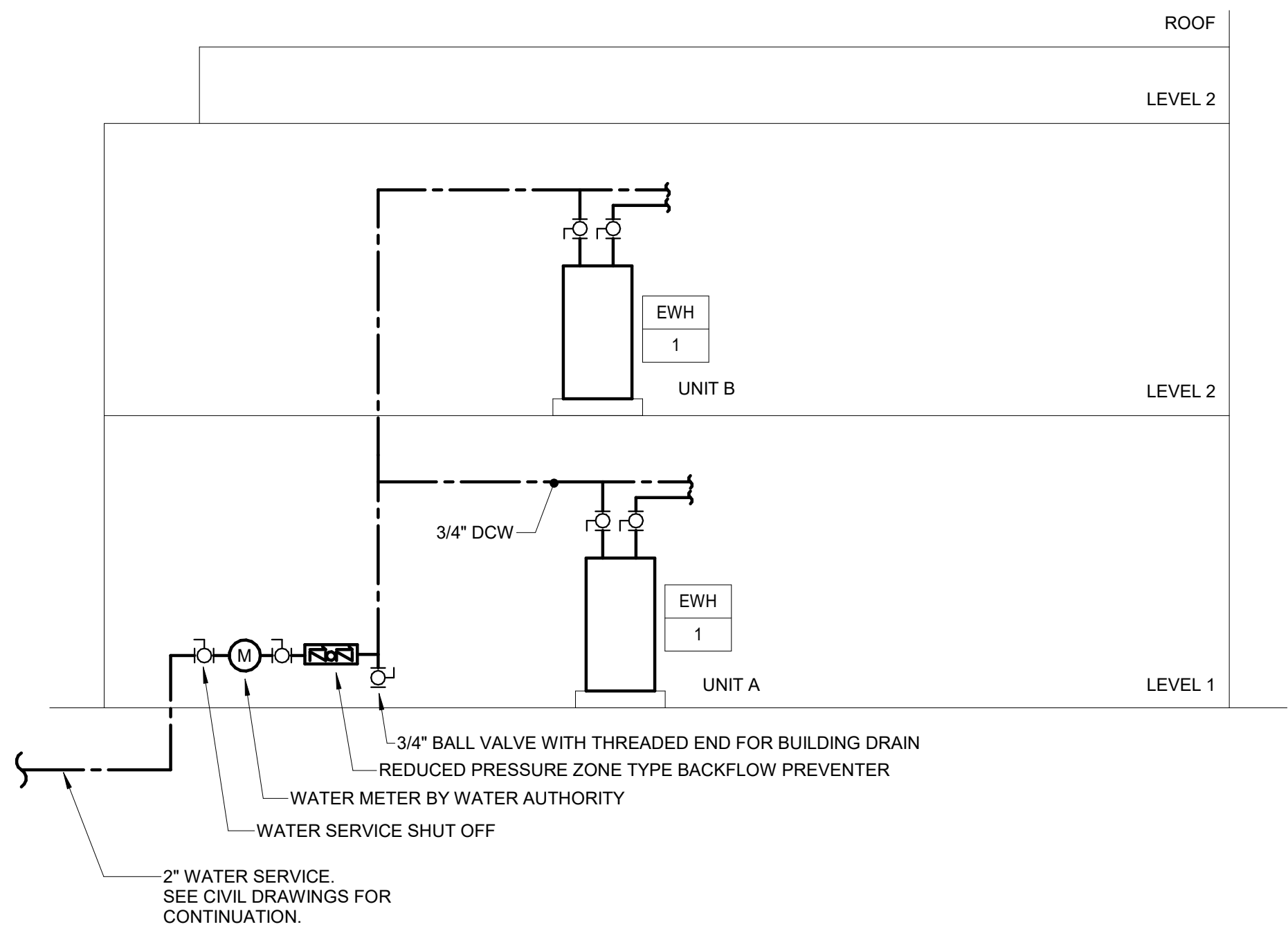
BT 1

L 1

WC 1

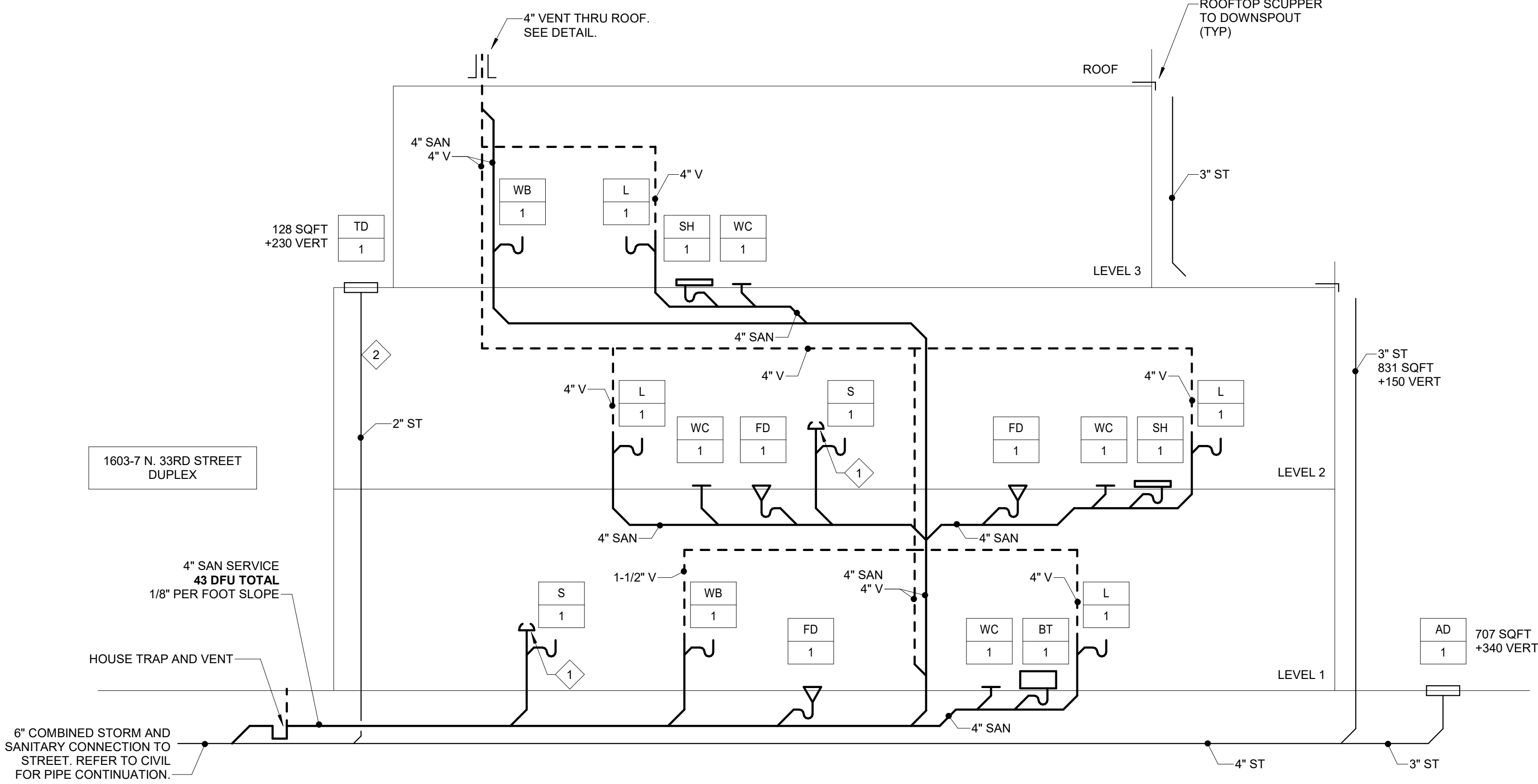
SH 1

HY 1



1 PLUMBING DUPLEX (1603-07) ROOF NEW WORK PLAN  
P321 1/4" = 1'-0"

1 PLUMBING DUPLEX (1603-07) ROOF NEW WORK PLAN  
P321 1/4" = 1'-0"



| LEGEND    |                     |
|-----------|---------------------|
| —————     | NEW SANITARY PIPING |
| - - - - - | NEW VENT PIPING     |
| [     ]   | DFU - SANITARY      |

1. PERFORM WORK IN ACCORDANCE WITH RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND AUTHORITIES HAVING JURISDICTION AND BE RESPONSIBLE FOR COMPLIANCE HEREWITH.

2. PHILADELPHIA FOLLOWS THE 2018 PHILADELPHIA PLUMBING CODE. SANITARY RISER IS DIAGRAMATIC FOR CLARITY AND PLUMBING WILL FOLLOW SECTION P-919 PHILADELPHIA SINGLE-STACK WASTE AND VENT SYSTEM.

| FIXTURE          | SYMBOL     | DFUs | WASTE SIZE |
|------------------|------------|------|------------|
| BATHROOM GROUP   |            | 6    |            |
| WATER CLOSET     | WC-1       | (3)  | 4"         |
| SHOWER / BATHTUB | SH-1, BT-1 | (2)  | 1-1/2"     |
| LAVATORY         | L-1        | (1)  | 1-1/4"     |
| FLOOR DRAIN      | FD-1       | 3    | 3"         |
| SINK             | S-1        | 3    | 1-1/2"     |
| WASHERBOX        | WB-1       | 3    | 1-1/2"     |

# COLTRANE COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121

**PROJECT** J+M 21-013

## TEAM

**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST. #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



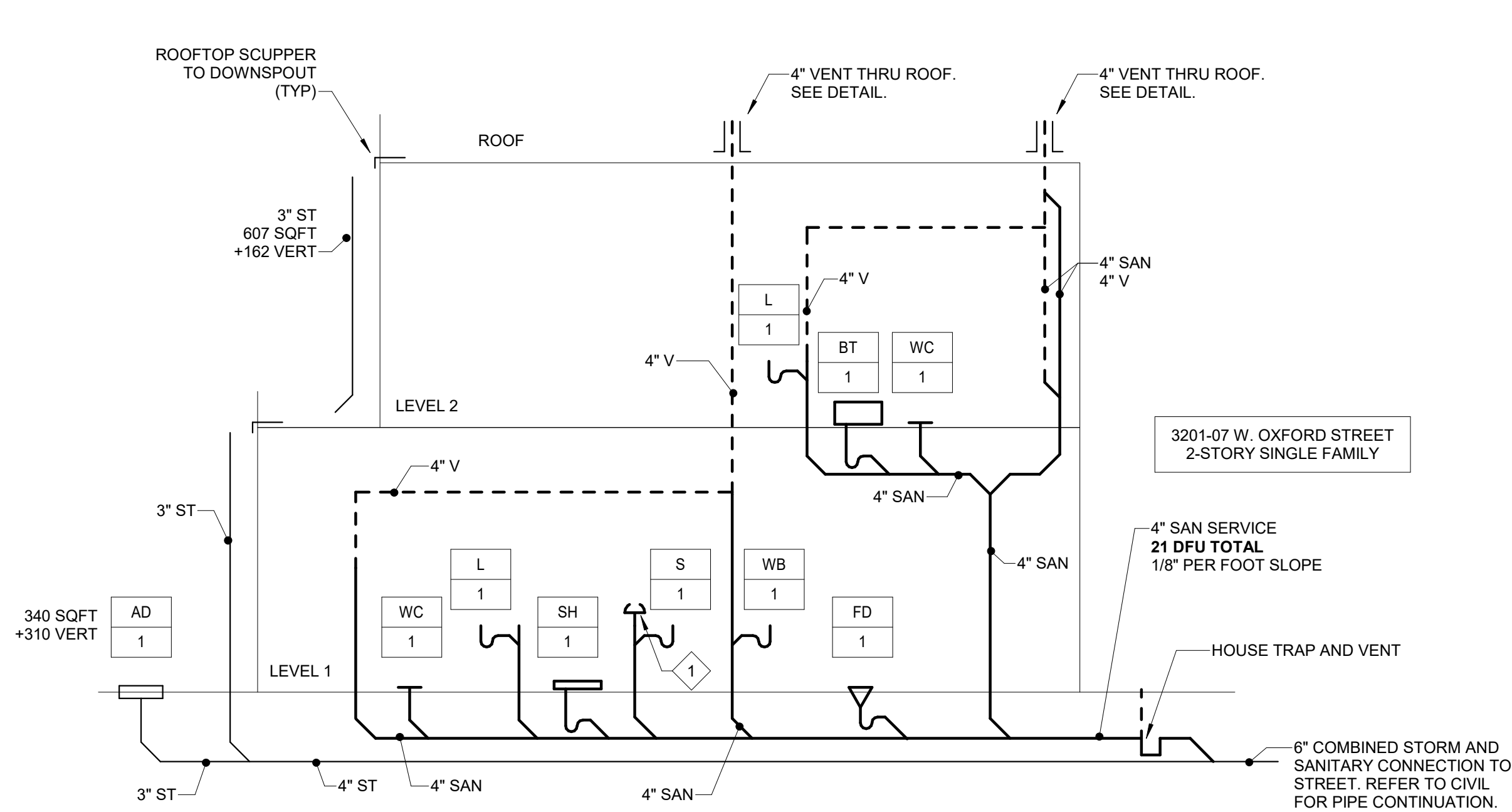
**PHASE**

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

# P330

**PLUMBING SINGLE 2  
STORY HOME (3201-07)  
1ST AND 2ND FLOOR  
PLANS**



|      |                                                  |
|------|--------------------------------------------------|
| 4    | 630 PLUMBING SANITARY RISER DIAGRAM - 2ST SINGLE |
| P330 | N.T.S.                                           |

| FIXTURE        | SYMBOL | DFUs | WASTE SIZE |
|----------------|--------|------|------------|
| BATHROOM GROUP |        | 6    |            |
| WATER CLOSET   | WC-1   | (3)  | 4"         |
| SHOWER         | SH-1   |      | 1-1/2"     |
| LAVATORY       | L-1    | (1)  | 1-1/4"     |
| FLOOR DRAIN    | FD-1   | 3    | 3"         |
| SINK           | S-1    | 3    | 1-1/2"     |
| WASHERBOX      | WB-1   | 3    | 1-1/2"     |

**KEYED NOTES:**

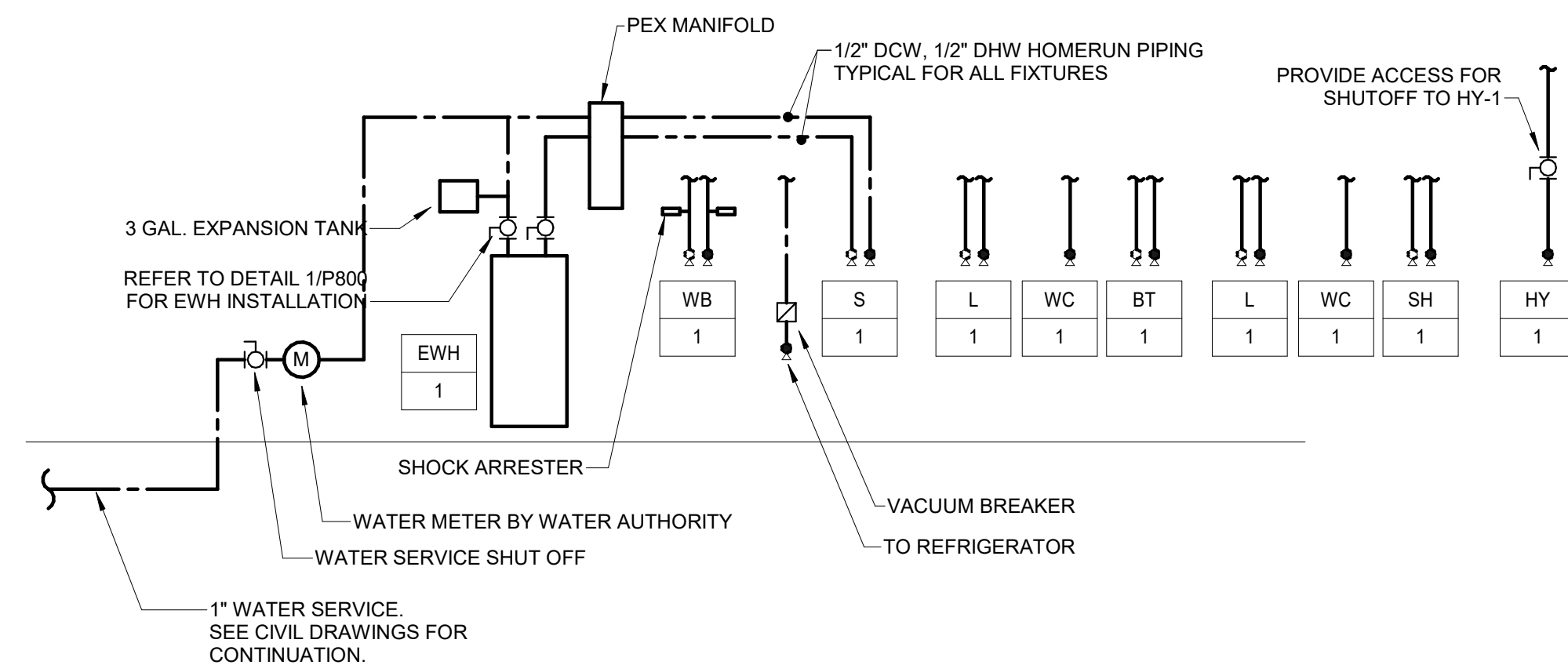
- 1 AIR ADMITTANCE VALVE PER P-918.3.  
PROVIDE OATEY SURE-VENT OR EQUAL.

### LEGEND

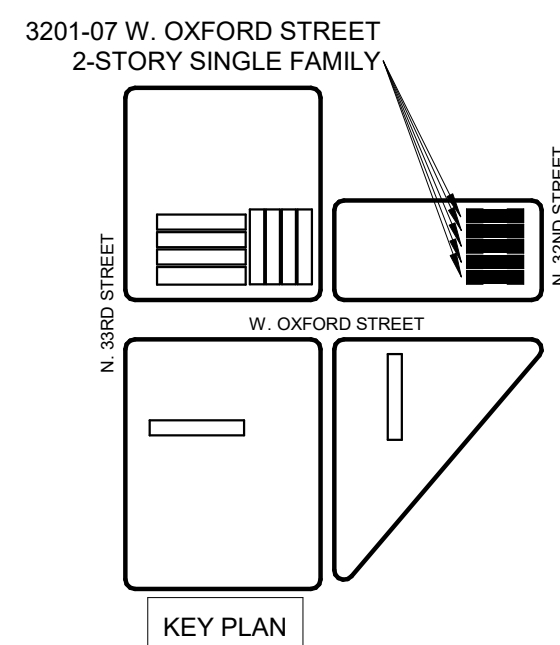
- \_\_\_\_\_ NEW SANITARY PIPING  
 - - - - - NEW VENT PIPING  
 [ ] DFU - SANITARY

**RISER NOTES:**

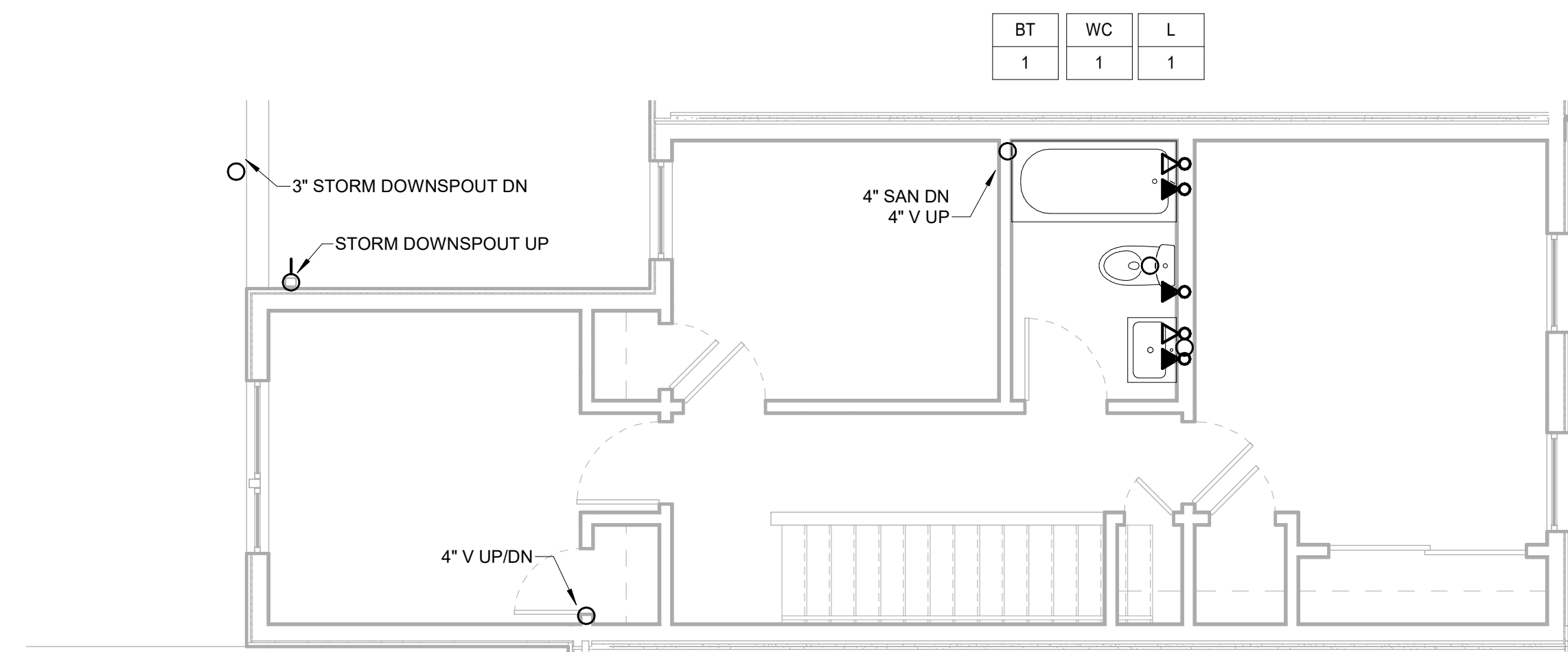
1. PERFORM WORK IN ACCORDANCE WITH RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND AUTHORITIES HAVING JURISDICTION AND BE RESPONSIVE FOR COMPLIANCE HERewith.
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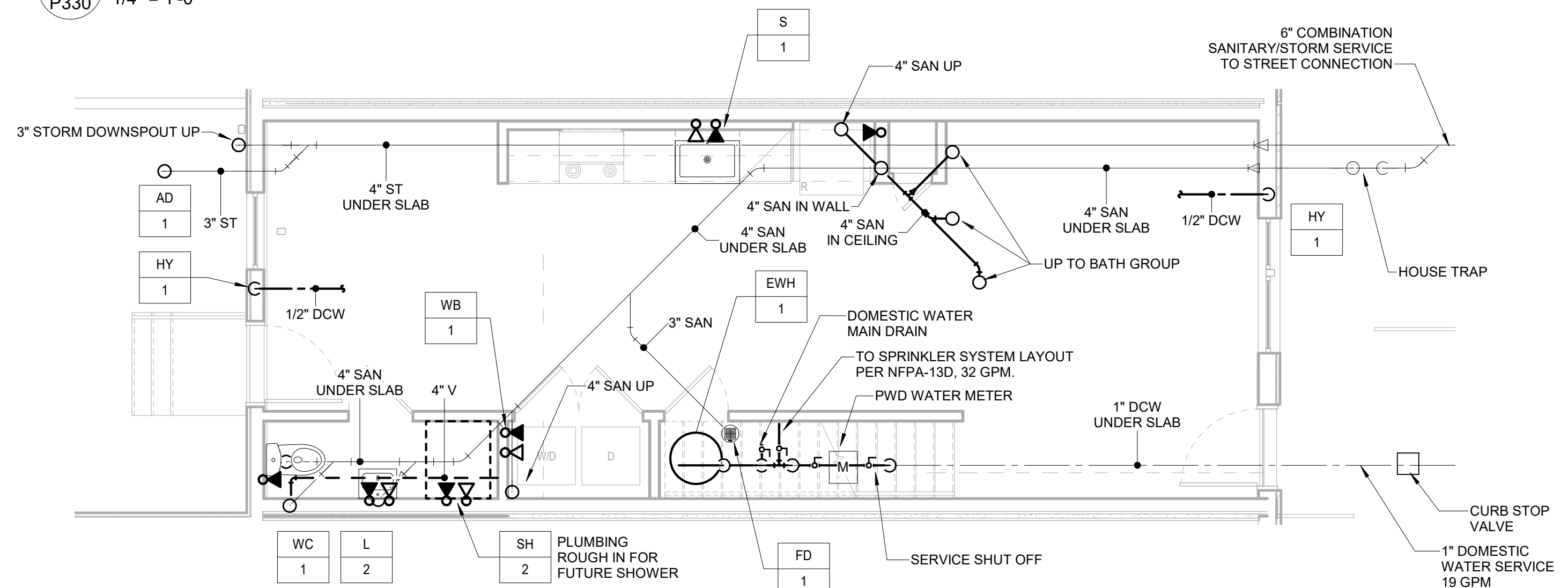
5 630 PLUMBING DOMESTIC WATER RISER DIAGRAM  
P330 N.T.S.



3 PLUMBING SINGLE 2 STORY (3201-07) ROOF NEW WORK PLAN  
P330 1/4" = 1'-0"



2 PLUMBING SINGLE 2 STORY (3201-07) 2ND FLOOR NEW WORK PLAN  
P330 1/4" = 1'-0"



1 PLUMBING SINGLE 2 STORY (3201-07) 1ST FLOOR NEW WORK PLAN  
P330 1/4" = 1'-0"



COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
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215 232 1500

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PHILADELPHIA PA 19122  
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J+M ENGINEERING, LLC  
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215 454 2662

CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931

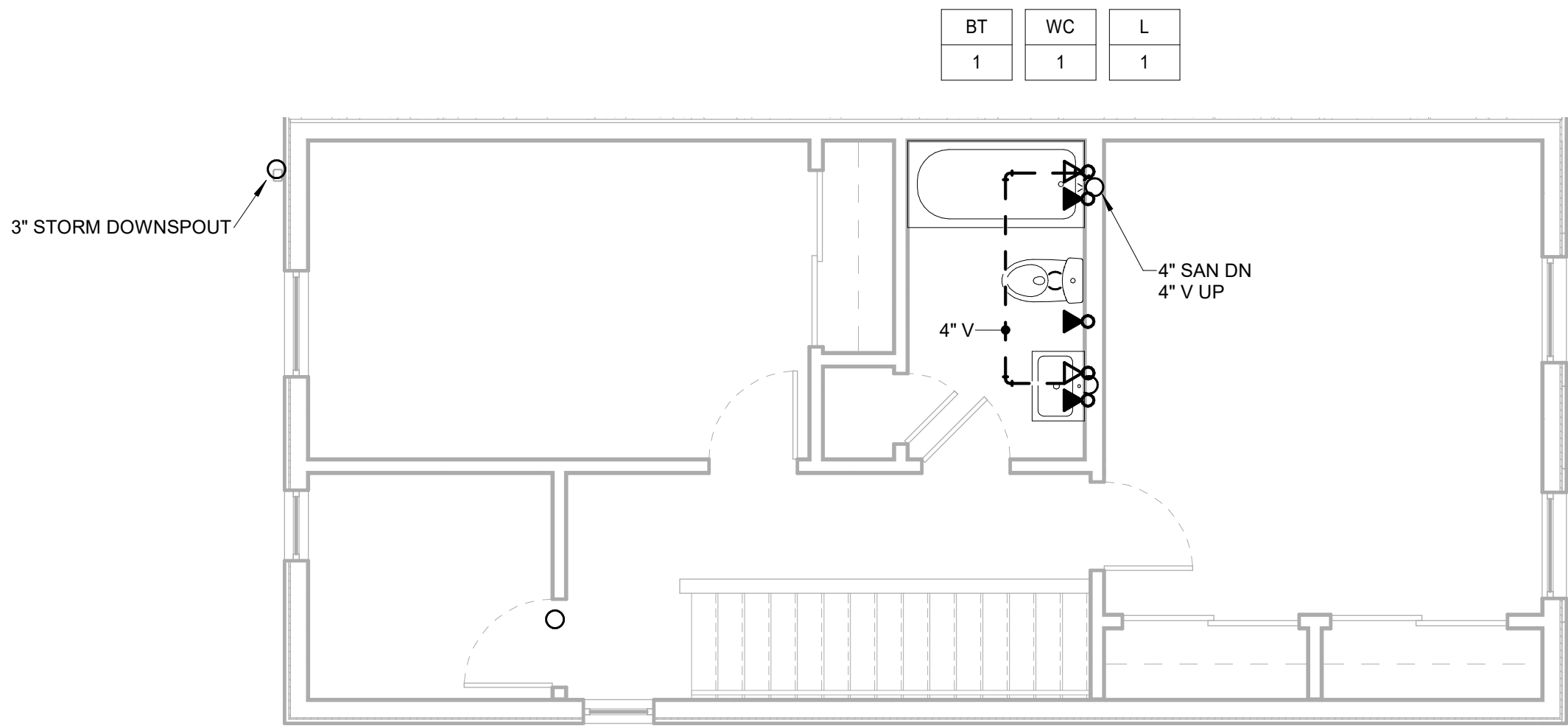
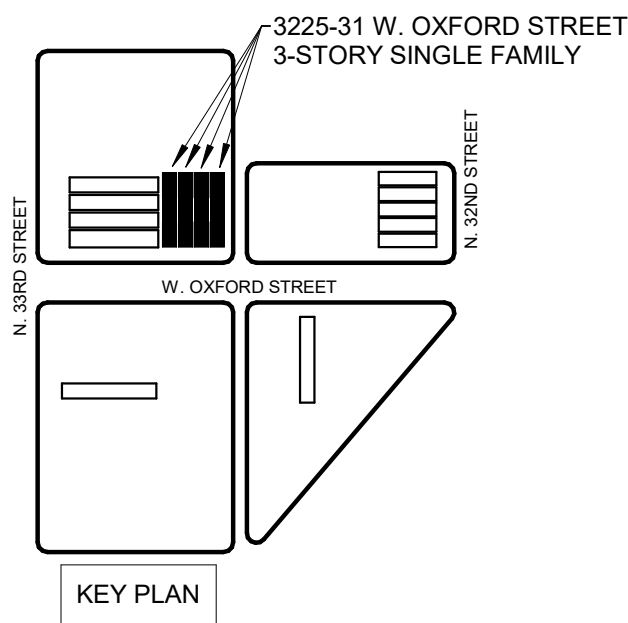


PHASE

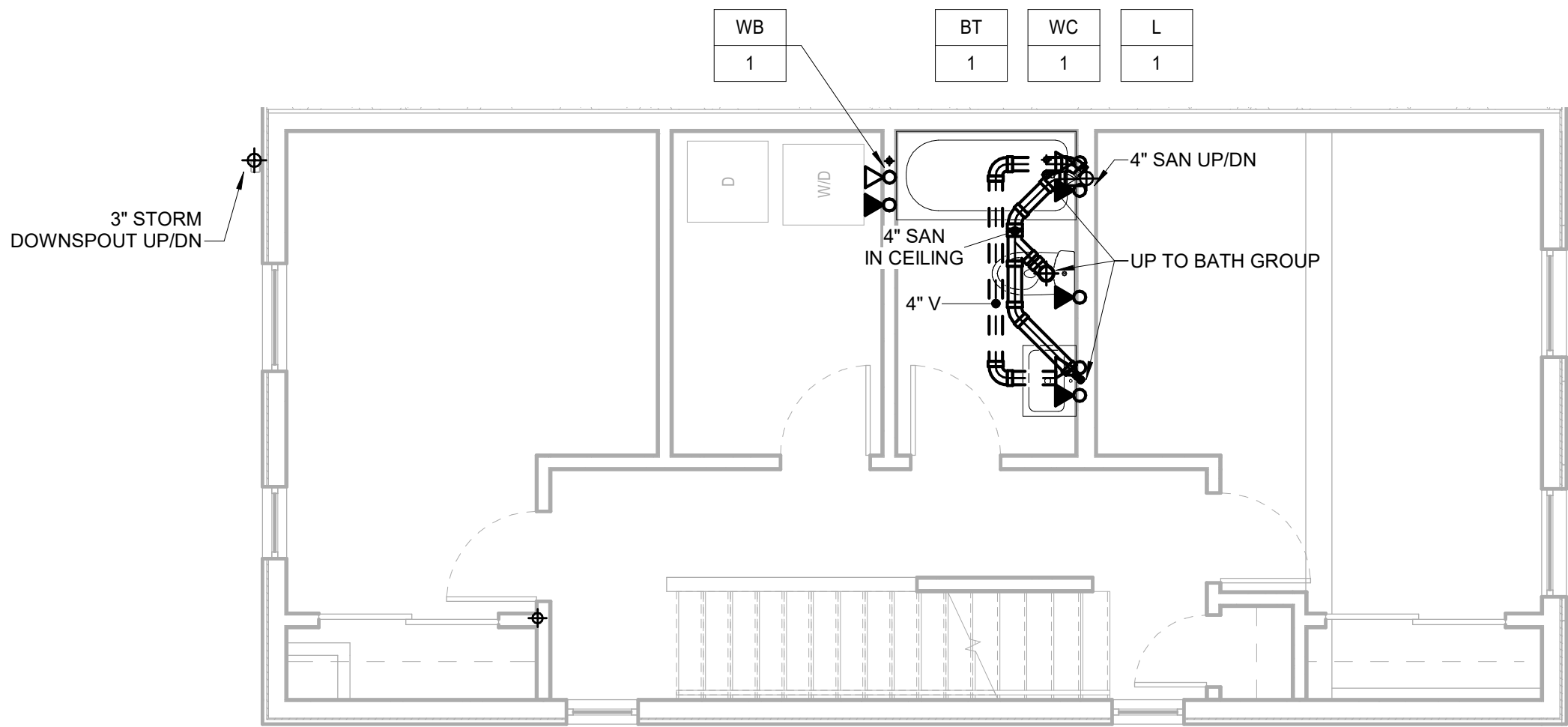
PRICING SETS JUNE 3, 2022  
CONSTRUCTION DOCUMENTS JULY 8, 2022

P340

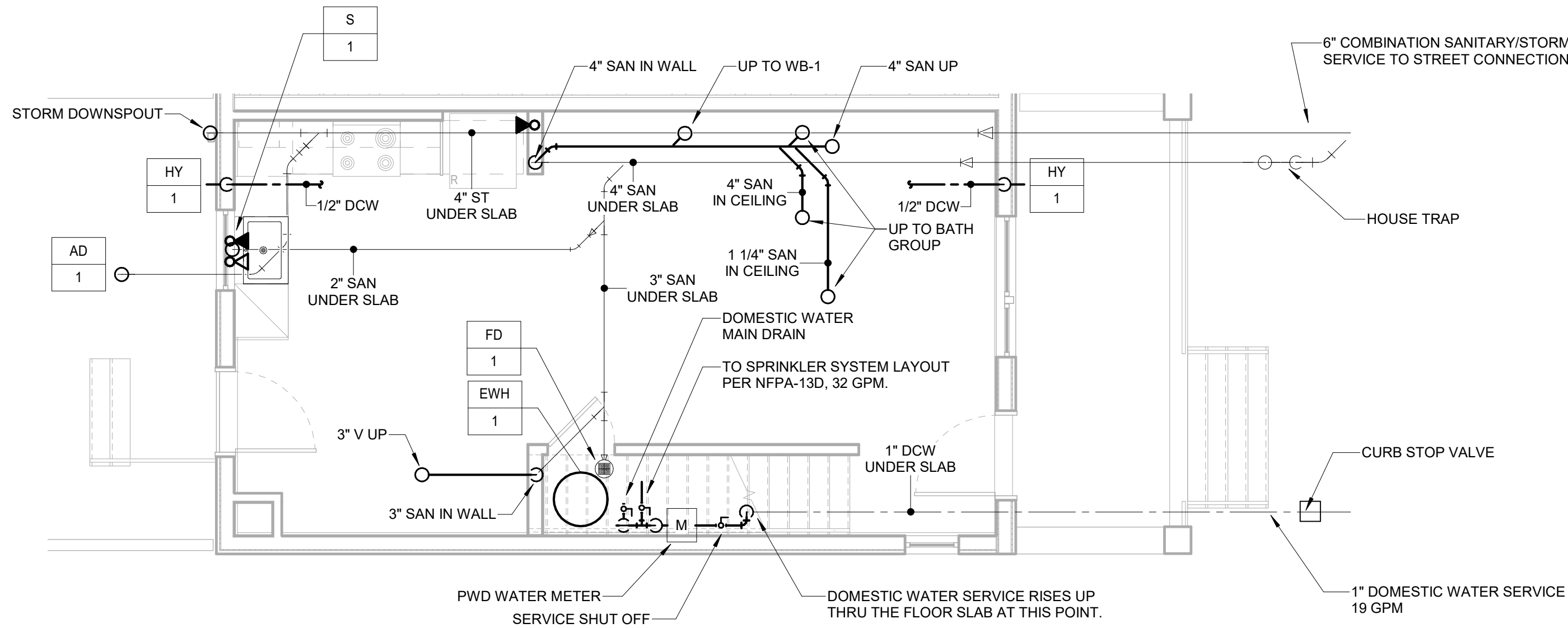
PLUMBING SINGLE 3  
STORY (3225-31) 1ST,  
2ND, AND 3RD FLOOR  
PLANS



3 PLUMBING SINGLE 3 STORY (3225-31) 3RD FLOOR NEW WORK PLAN  
P340 1/4" = 1'-0"



2 PLUMBING SINGLE 3 STORY (3225-31) 2ND FLOOR NEW WORK PLAN  
P340 1/4" = 1'-0"



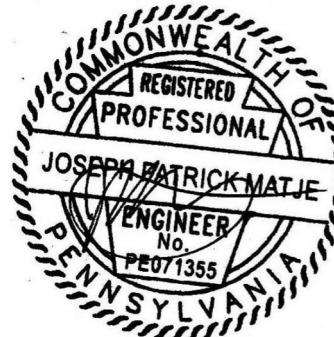
1 PLUMBING SINGLE 3 STORY (3225-31) 1ST FLOOR NEW WORK PLAN  
P340 1/4" = 1'-0"

COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

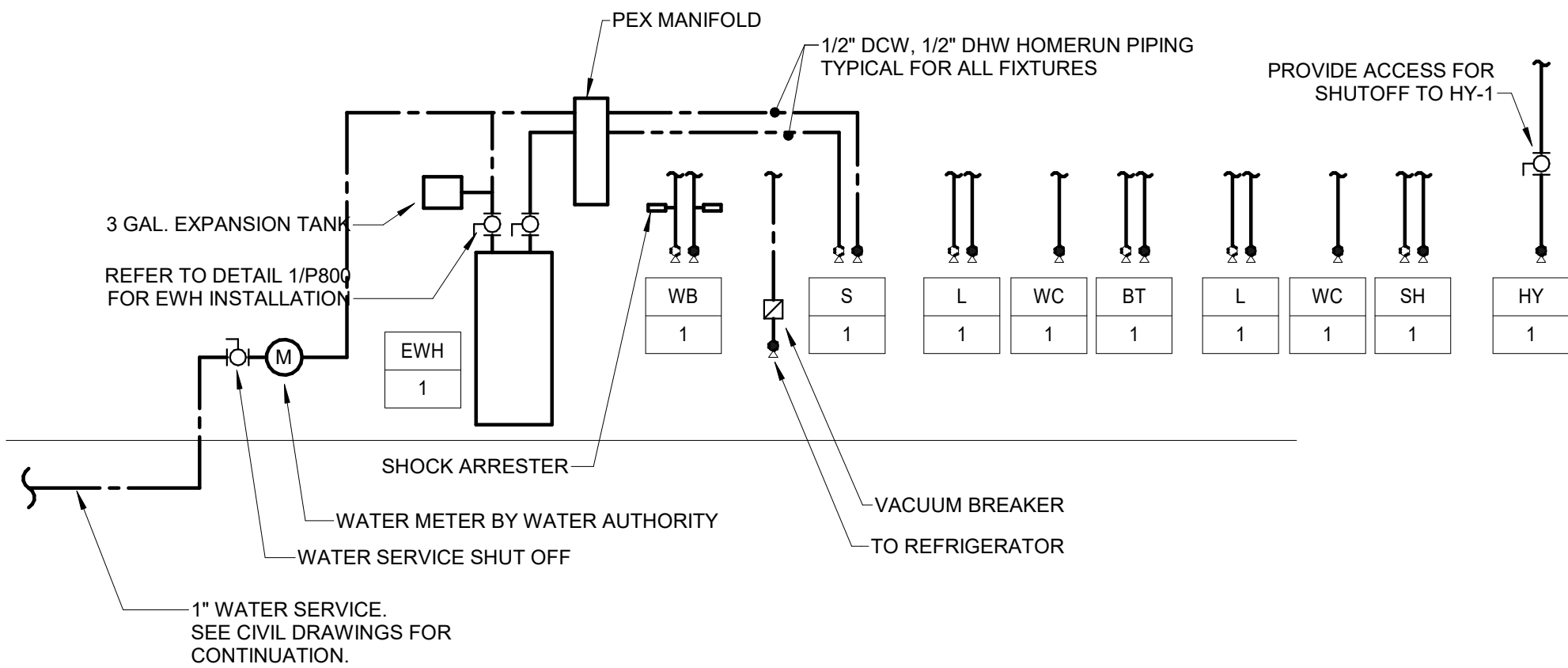
OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000  
ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500  
STRUCTURAL ENGINEER  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207  
MEP ENGINEER  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662  
CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS  
JUNE 3, 2022  
JULY 8, 2022

P341  
PLUMBING SINGLE 3  
STORY (3225-31) ROOF  
PLAN AND DETAILS



| LEGEND |                         |
|--------|-------------------------|
| ---    | NEW DOMESTIC COLD WATER |
| ---    | NEW DOMESTIC HOT WATER  |

| FIXTURE        | SYMBOL     | RUNOUT SIZE | WSFU  |      |     |
|----------------|------------|-------------|-------|------|-----|
|                |            |             | TOTAL | COLD | HOT |
| BATHROOM GROUP |            | 1/2"        | 3.6   | 2.7  | 1.5 |
| WATER CLOSET   | WC-1       | 1/2"        | -     | -    | -   |
| BATHTUB        | SH-1, BT-1 | 1/2"        | -     | -    | -   |
| LAVATORY       | L-1        | 1/2"        | -     | -    | -   |
| KITCHEN SINK   | S-1        | 1/2"        | 1.5   | 1.1  | 1.1 |
| WASHERBOX      | WC-1       | 1/2"        | 1.4   | 1    | 1   |
| HOSE BIBB      | HY-1       | 1/2"        | 2     | 2    | -   |

3 640 PLUMBING DOMESTIC WATER RISER DIAGRAM  
P341 N.T.S.

| FIXTURE        | SYMBOL | DFUs | WASTE SIZE |
|----------------|--------|------|------------|
| BATHROOM GROUP |        | 6    |            |
| WATER CLOSET   | WC-1   | (3)  | 4"         |
| SHOWER         | SH-1   |      | 1-1/2"     |
| LAVATORY       | L-1    | (1)  | 1-1/4"     |
| FLOOR DRAIN    | FD-1   | 3    | 3"         |
| SINK           | S-1    | 3    | 1-1/2"     |
| WASHERBOX      | WB-1   | 3    | 1-1/2"     |

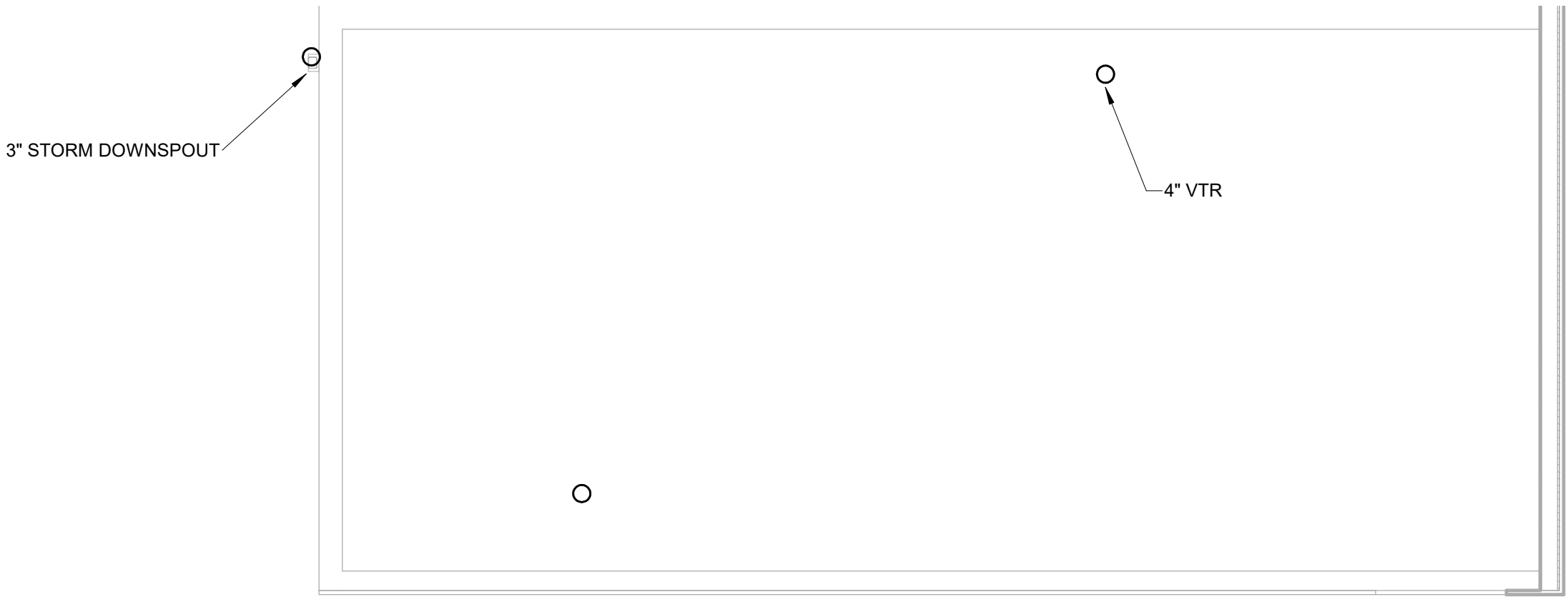
| LEGEND |                     |
|--------|---------------------|
| ---    | NEW SANITARY PIPING |
| ---    | NEW VENT PIPING     |
| [ ]    | DFU - SANITARY      |

RISER NOTES:

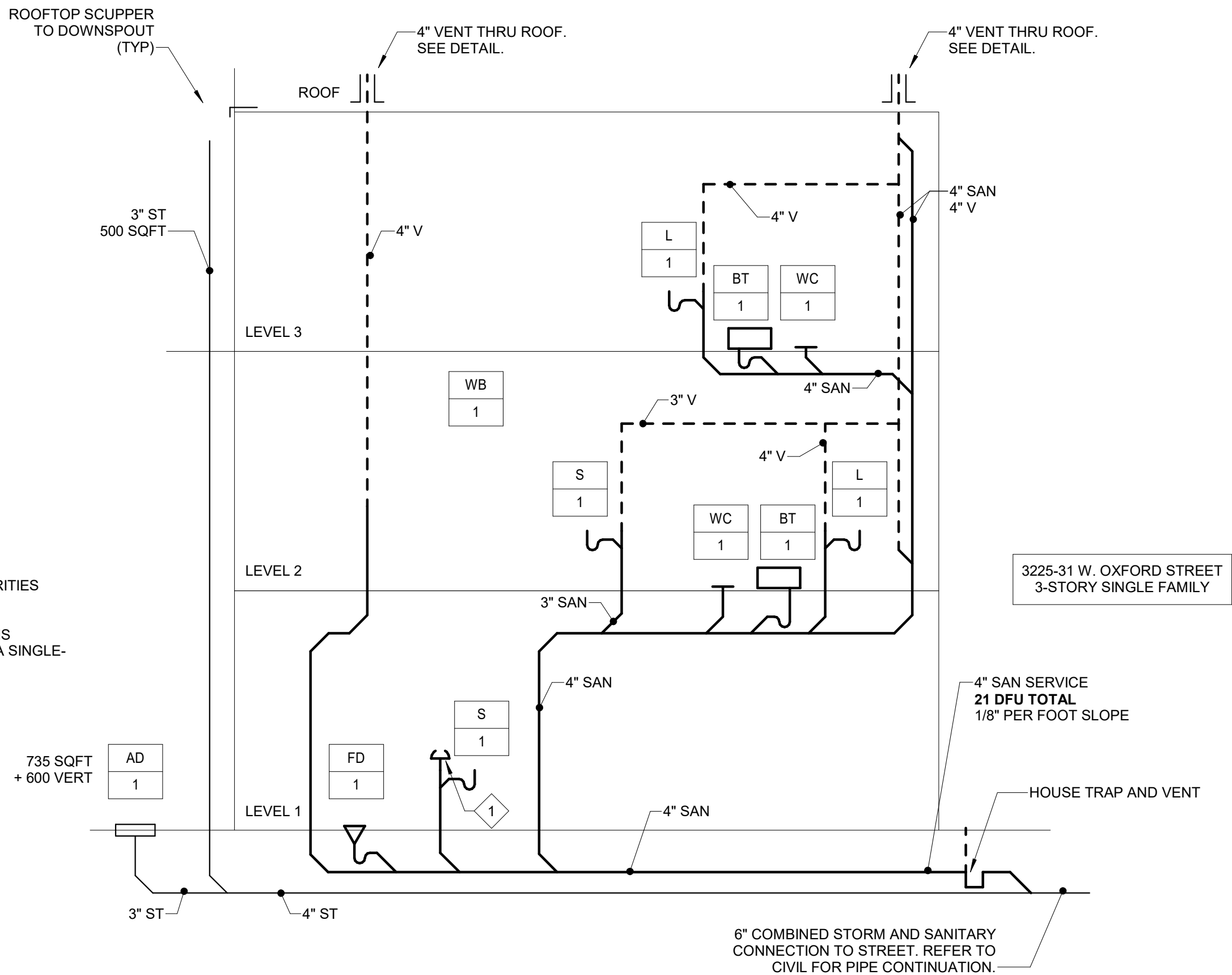
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KEYED NOTES:

- AIR ADMITTANCE VALVE PER P-918.3. PROVIDE OATEY SURE-VENT OR EQUAL.



1 PLUMBING SINGLE 3 STORY (3225-31) ROOF NEW WORK PLAN  
P341 1/4" = 1'-0"



2 640 PLUMBING SANITARY RISER DIAGRAM - 3ST SINGLE  
P341 N.T.S.



COLTRANE  
COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

TEAM

OWNER  
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1829 N. 19TH ST  
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100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



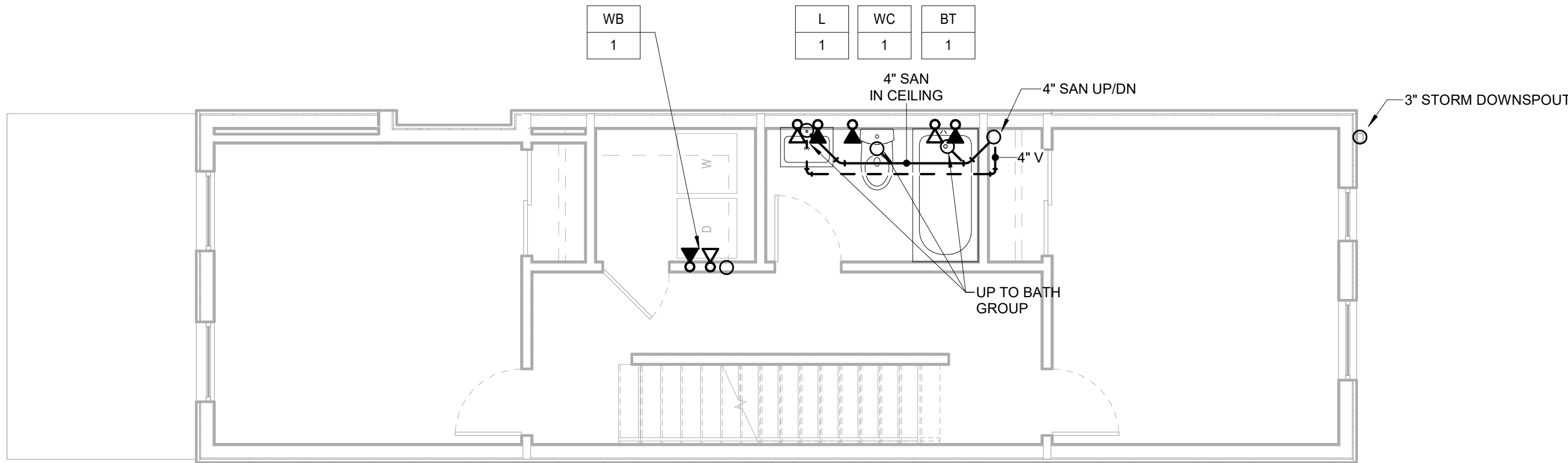
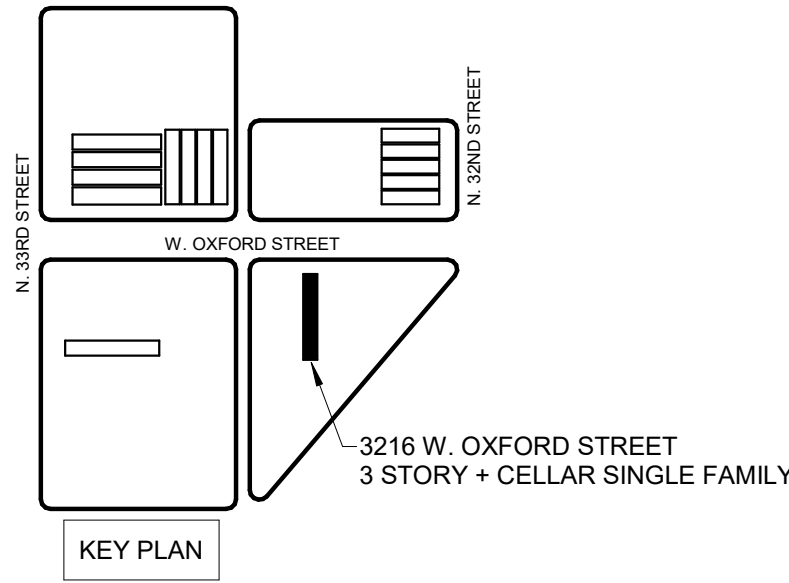
PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

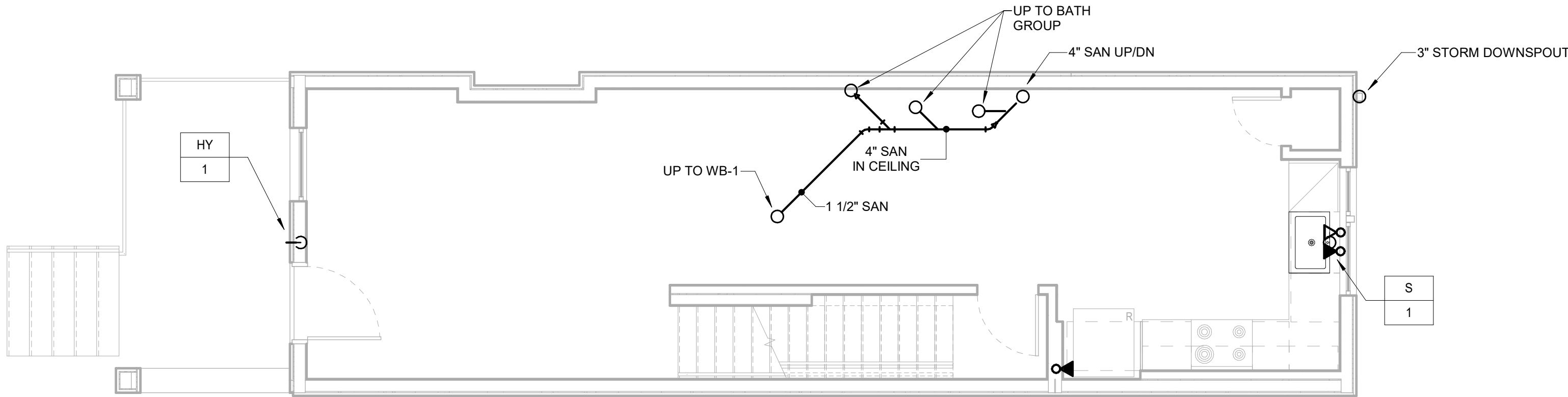
JUNE 3, 2022  
JULY 8, 2022

P350

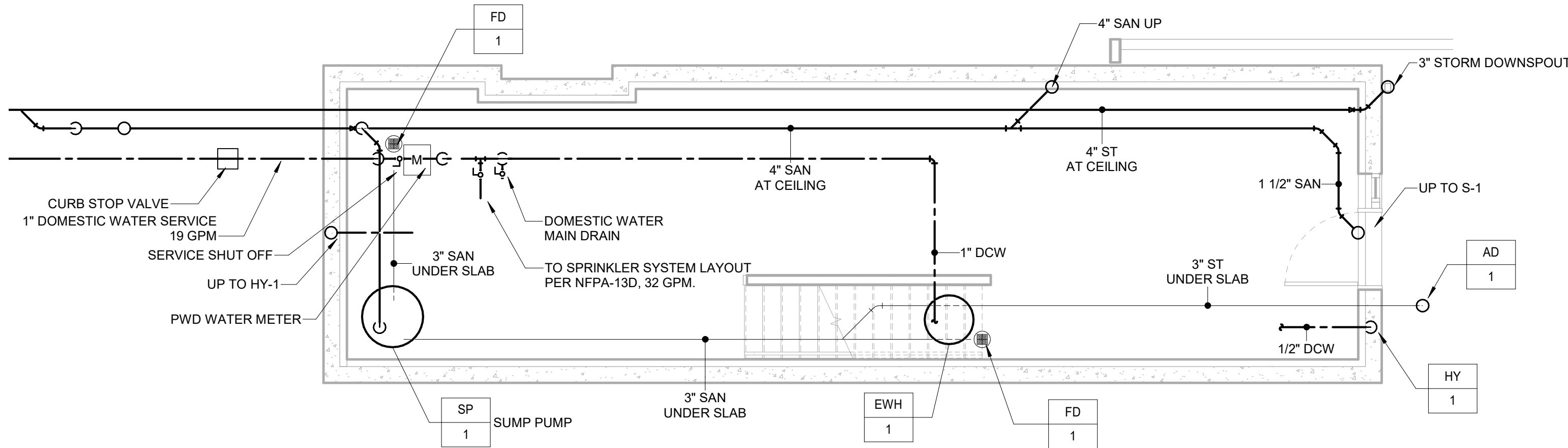
PLUMBING SINGLE 3  
STORY+C (3216)  
CELLAR,1ST, AND 2ND  
FLOOR PLANS



3 PLUMBING SINGLE 3 STORY+C (3216) 2ND FLOOR NEW WORK PLAN  
P350 1/4" = 1'-0"



2 PLUMBING SINGLE 3 STORY+C (3216) 1ST FLOOR NEW WORK PLAN  
P350 1/4" = 1'-0"



1 PLUMBING SINGLE 3 STORY+C (3216) 0 CELLAR NEW WORK PLAN  
P350 1/4" = 1'-0"

COLTRANE COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

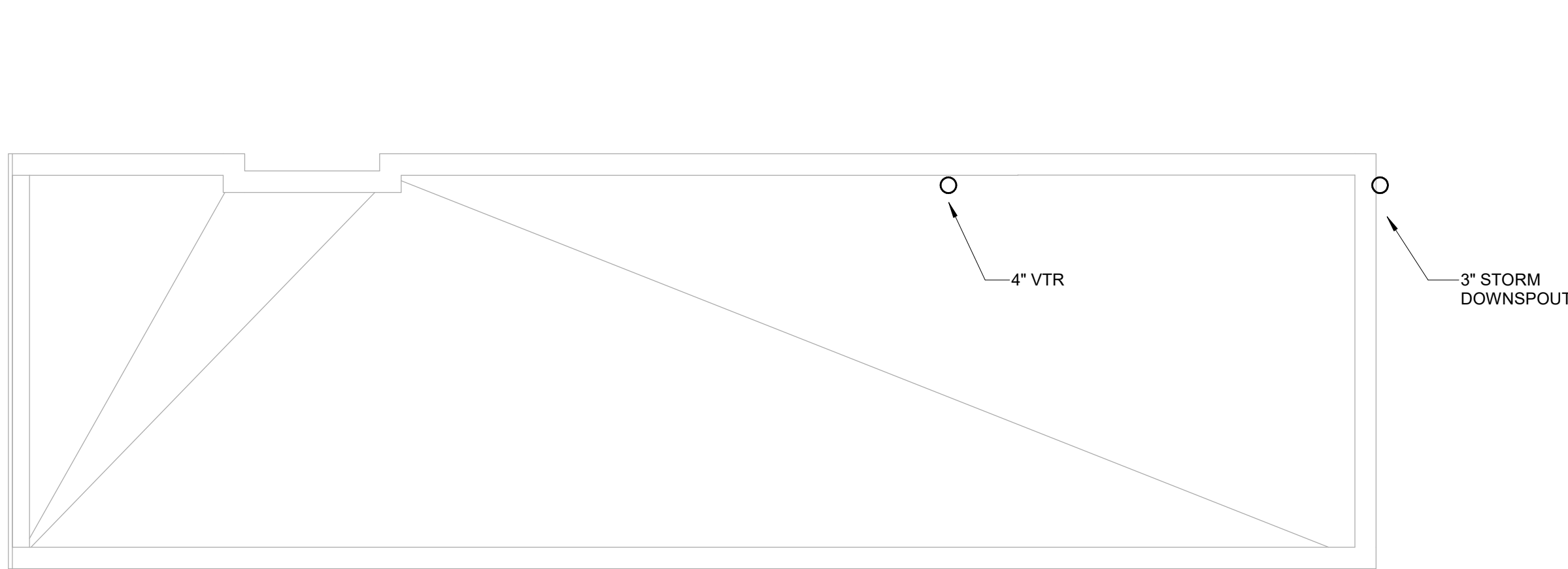
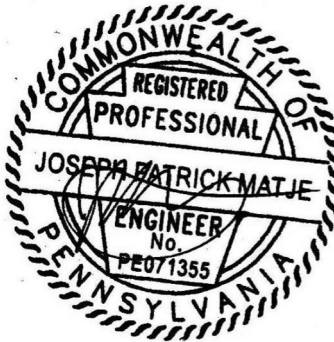
TEAM

OWNER  
HABITAT FOR HUMANITY  
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215 765 6000  
ARCHITECT  
INTERFACE STUDIO  
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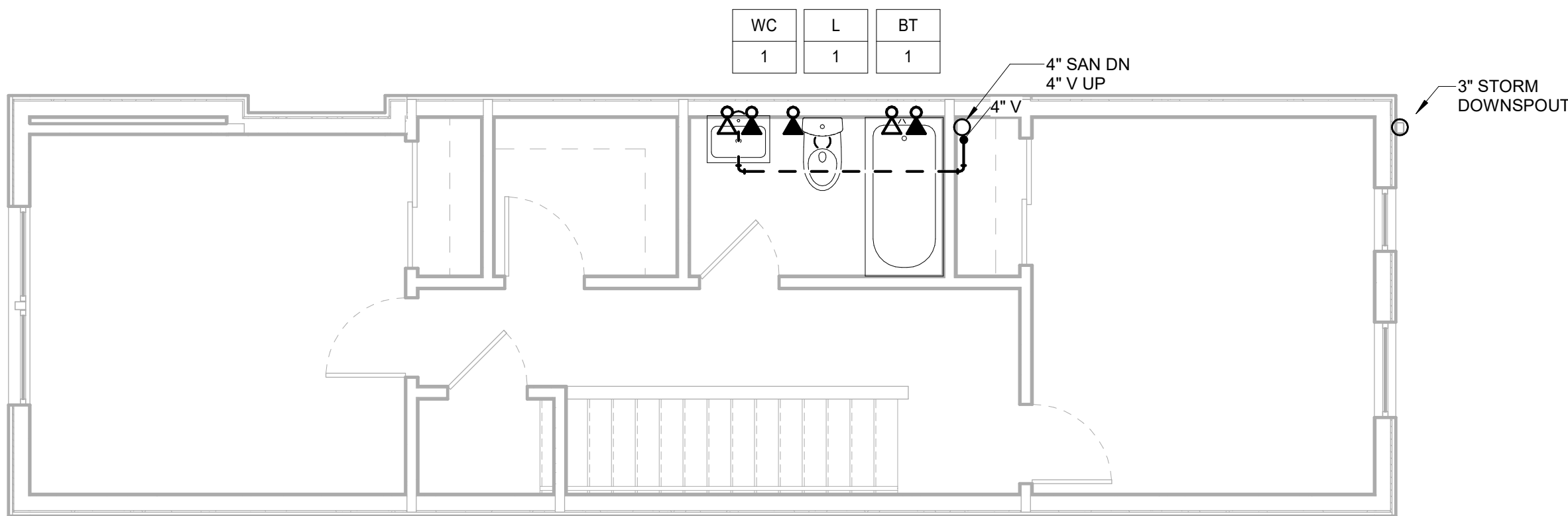
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PRICING SETS  
CONSTRUCTION DOCUMENTS  
JUNE 3, 2022  
JULY 8, 2022

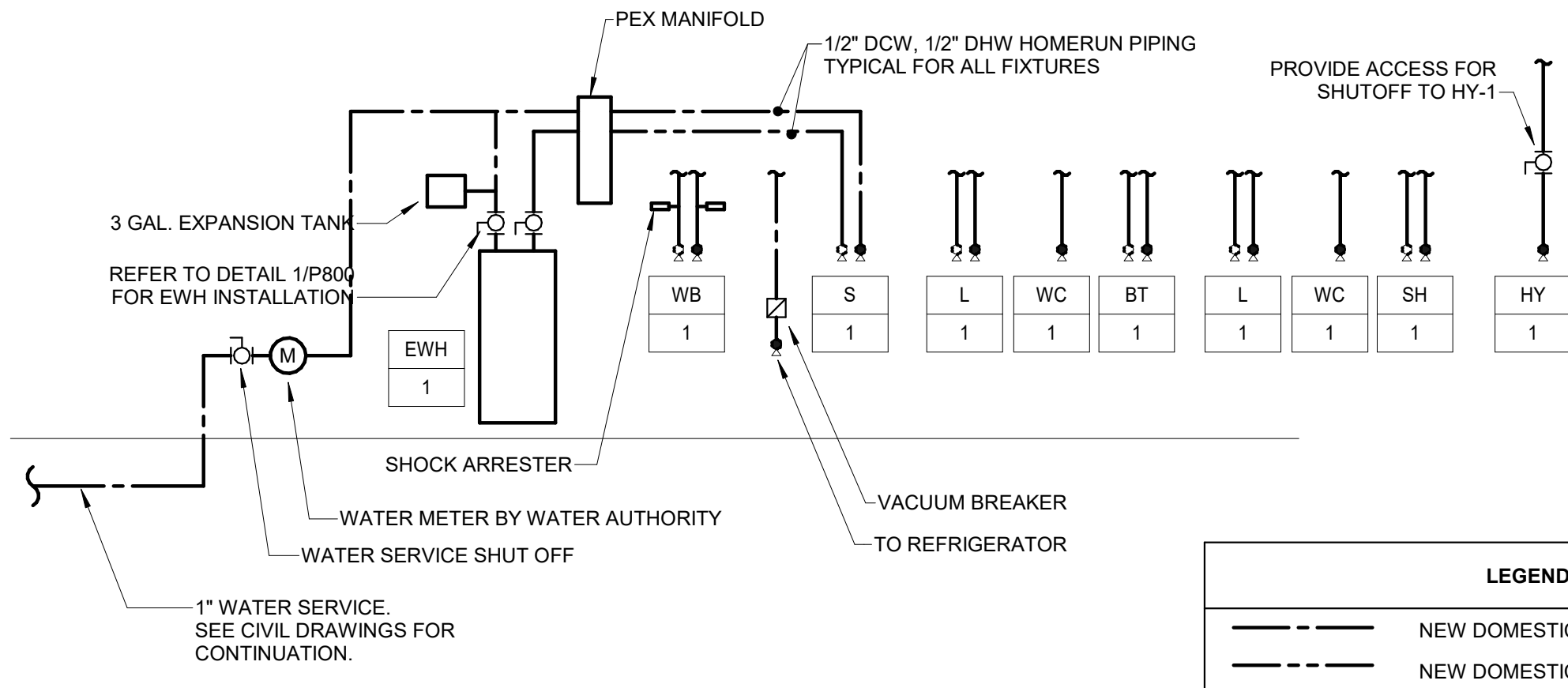
P351  
PLUMBING SINGLE 3  
STORY+C (3216) 3RD  
FLOOR, ROOF PLAN,  
AND DETAILS



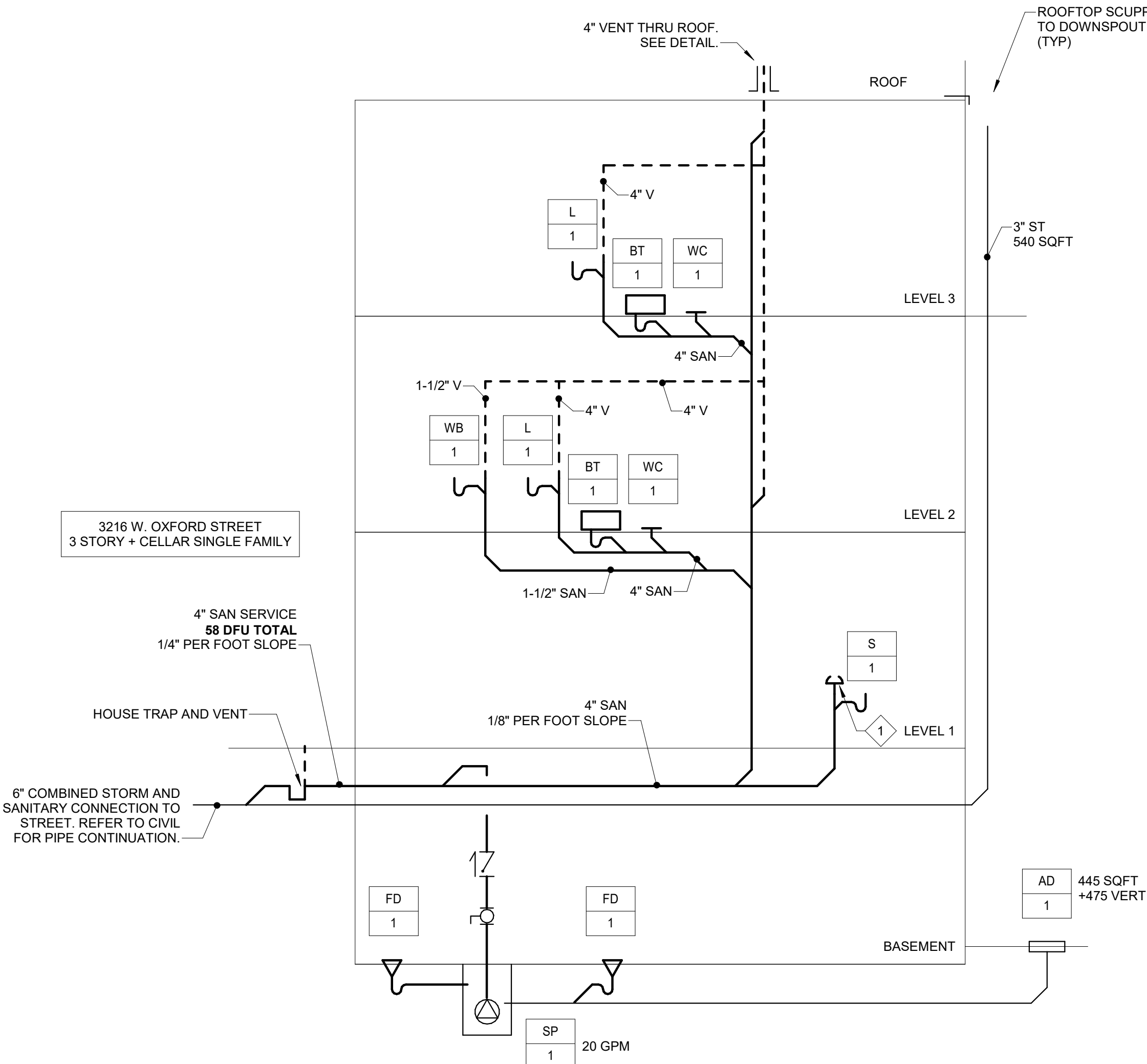
2 PLUMBING SINGLE 3 STORY+C (3216) ROOF NEW WORK PLAN  
1/4" = 1'-0"



1 PLUMBING SINGLE 3 STORY+C (3216) 3RD FLOOR NEW WORK PLAN  
1/4" = 1'-0"



4 650 PLUMBING DOMESTIC WATER RISER DIAGRAM  
N.T.S.



3 650 PLUMBING SANITARY RISER DIAGRAM - 3ST SINGLE + BASEMENT  
N.T.S.

| FIXTURE        | SYMBOL | DFUs | WASTE SIZE |
|----------------|--------|------|------------|
| BATHROOM GROUP |        | 6    |            |
| WATER CLOSET   | WC-1   | (3)  | 4"         |
| SHOWER         | SH-1   |      | 1-1/2"     |
| LAVATORY       | L-1    | (1)  | 1-1/4"     |
| FLOOR DRAIN    | FD-1   | 3    | 3"         |
| SINK           | S-1    | 3    | 1-1/2"     |
| WASHERBOX      | WB-1   | 3    | 1-1/2"     |

KEYED NOTES:

- 1 AIR ADMITTANCE VALVE PER P-918.3.  
PROVIDE OATEY SURE-VENT OR EQUAL.

| LEGEND |                     |
|--------|---------------------|
| —      | NEW SANITARY PIPING |
| - - -  | NEW VENT PIPING     |
| [ ]    | DFU - SANITARY      |

RISER NOTES:

1. PERFORM WORK IN ACCORDANCE WITH RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND AUTHORITIES HAVING JURISDICTION AND BE RESPONSE FOR COMPLIANCE HEREWITH.  
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| FIXTURE        | SYMBOL     | RUNOUT SIZE | WSFU  |      |     |
|----------------|------------|-------------|-------|------|-----|
|                |            |             | TOTAL | COLD | HOT |
| BATHROOM GROUP |            | 1/2"        | 3.6   | 2.7  | 1.5 |
| WATER CLOSET   | WC-1       | 1/2"        | -     | -    | -   |
| BATHTUB        | SH-1, BT-1 | 1/2"        | -     | -    | -   |
| LAVATORY       | L-1        | 1/2"        | -     | -    | -   |
| KITCHEN SINK   | S-1        | 1/2"        | 1.5   | 1.1  | 1.1 |
| WASHERBOX      | WC-1       | 1/2"        | 1.4   | 1    | 1   |
| HOSE BIBB      | HY-1       | 1/2"        | 2     | 2    | -   |



# COLTRANE COMMONS

## TEAM

**HABITAT FOR HUMANITY**  
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215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
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215 232 1500

**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**JEP ENGINEER**  
M+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING  
100 W. BORD ST. #E-31  
PHILADELPHIA, PA 19122  
215 987 1931

## PLUMBING SPECIALTIES SCHEDULE

## SUMP PUMP SCHEDULE

## ELECTRIC WATER HEATER SCHEDULE



|                        |              |
|------------------------|--------------|
| PRICING SETS           | JUNE 3, 2022 |
| CONSTRUCTION DOCUMENTS | JULY 8, 2022 |

# P700

## PLUMBING SCHEDULES

COLTRANE  
COMMONS

**ADDRESS** 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)

**PROJECT** J+M 21-013

TEAM

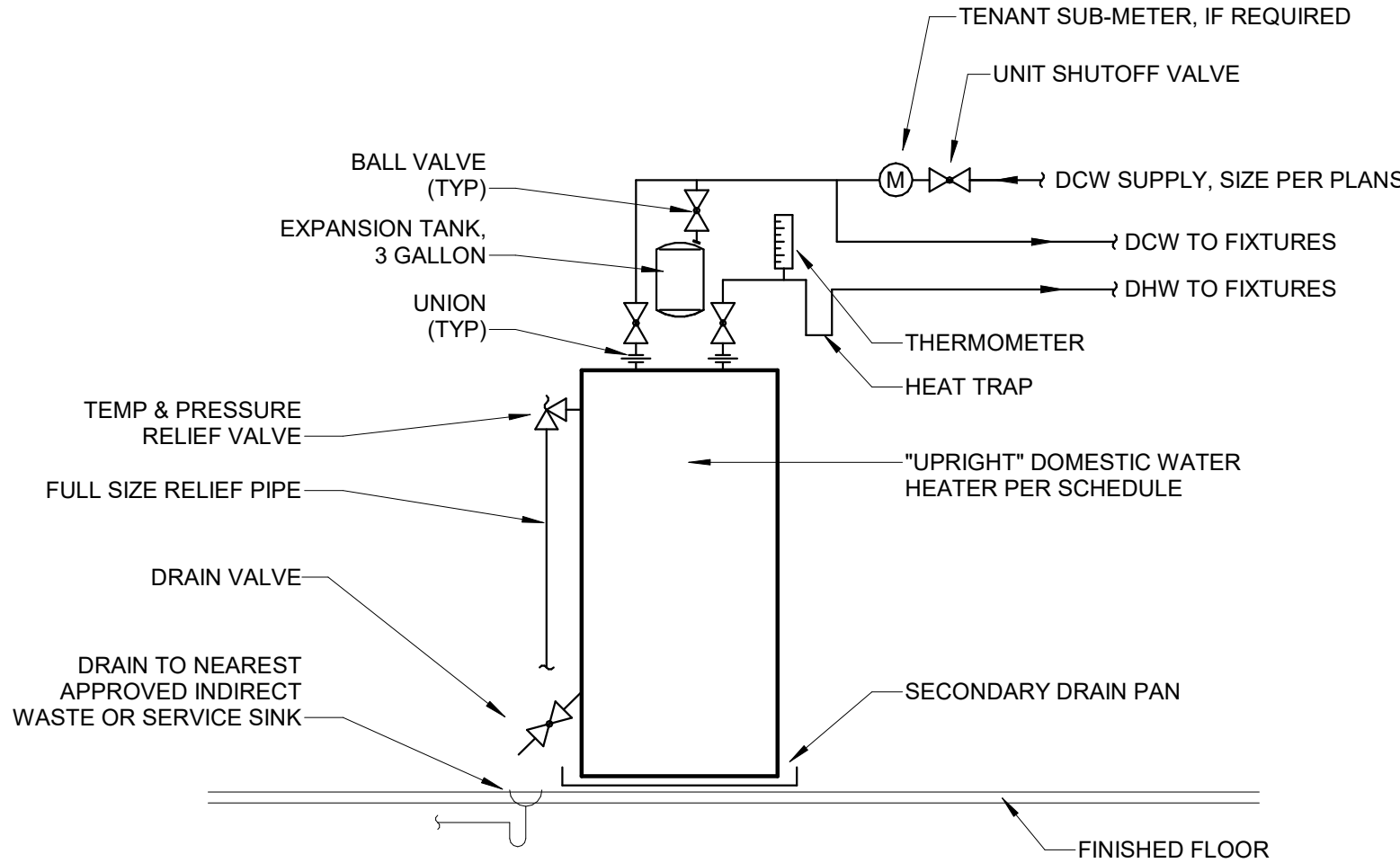
**OWNER**  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

**ARCHITECT**  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

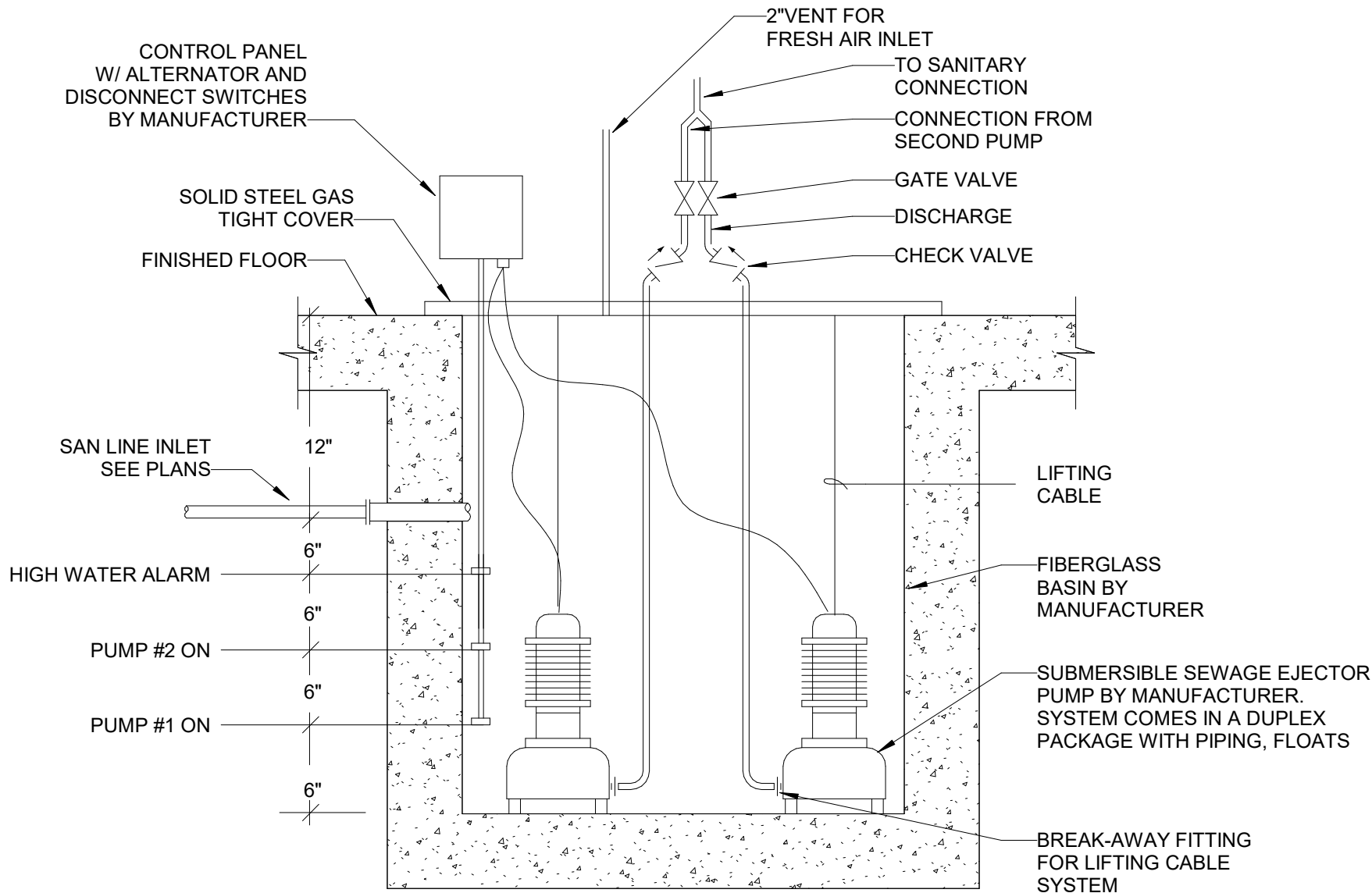
**STRUCTURAL ENGINEER**  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

**MEP ENGINEER**  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

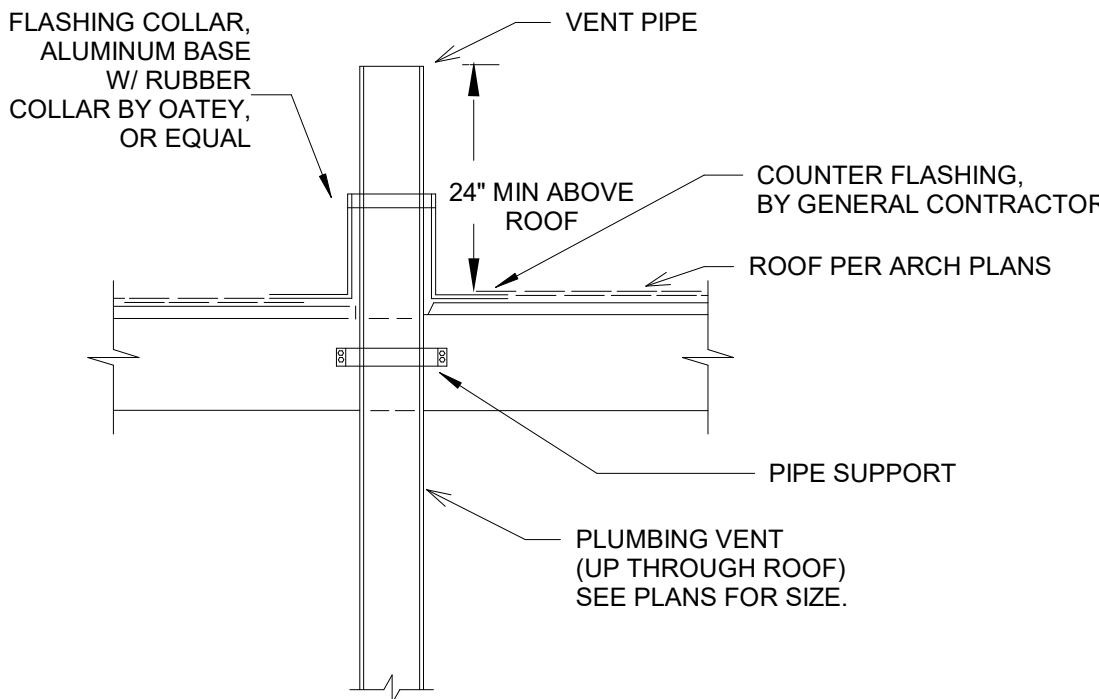
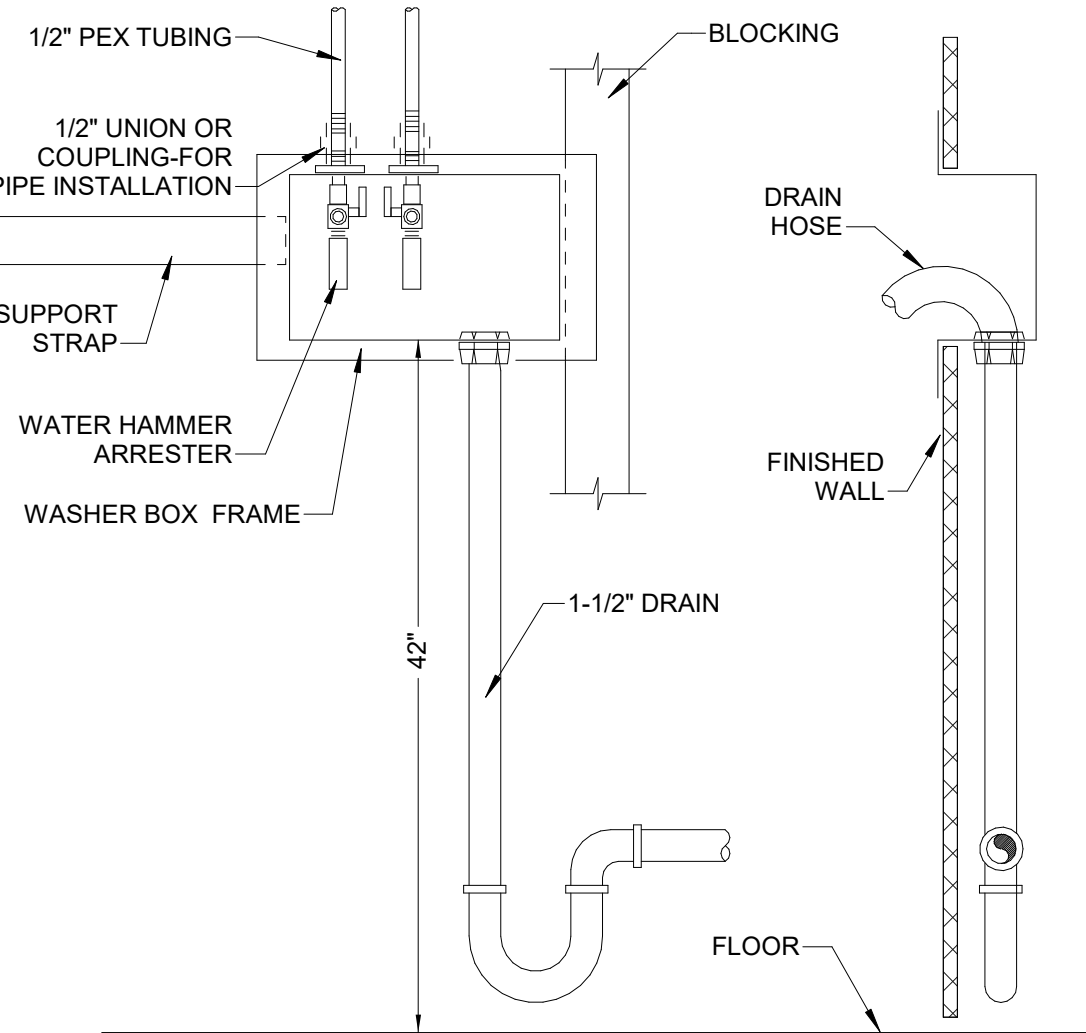
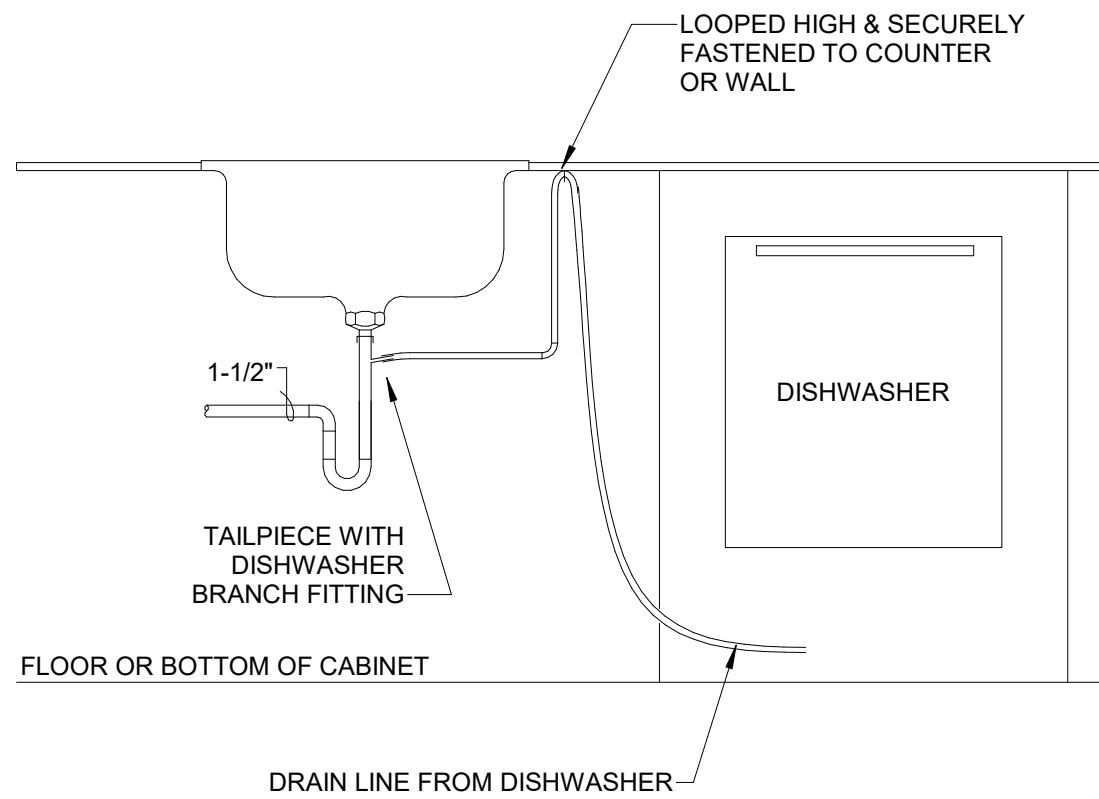
**CIVIL ENGINEER**  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



1 ELECTRIC DOMESTIC WATER HEATER DETAIL  
P800 N.T.S.



2 SUBMERSIBLE SUMP PUMP DETAIL  
P800 N.T.S.



5 DISHWASHER DRAINAGE CONNECTION DETAIL  
P800 N.T.S.

4 WASHERBOX DETAIL  
P800 N.T.S.

3 SANITARY VENT THROUGH FLAT ROOF  
P800 N.T.S.

PHASE

PRICING SETS  
CONSTRUCTION DOCUMENTS

JUNE 3, 2022  
JULY 8, 2022

P800  
PLUMBING DETAILS





J+M ENGINEERING

PHILADELPHIA  
215.454.2662  
WASHINGTON  
202.320.9173  
jandmengineers.com

## COLTRANE COMMONS

ADDRESS 33RD & OXFORD STREETS  
PHILADELPHIA, PA 19121  
(SEE SITE PLAN FOR ADDRESSES)  
PROJECT J+M 21-013

### TEAM

OWNER  
HABITAT FOR HUMANITY  
1829 N. 19TH ST  
PHILADELPHIA PA 19121  
215 765 6000

ARCHITECT  
INTERFACE STUDIO  
ARCHITECTS, LLC  
1400 N AMERICAN ST #301  
PHILADELPHIA, PA 19122  
215 232 1500

STRUCTURAL ENGINEER  
LARSEN & LANDIS  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 232 7207

MEP ENGINEER  
J+M ENGINEERING, LLC  
11 W. THOMPSON ST.  
PHILADELPHIA PA 19122  
215 454 2662

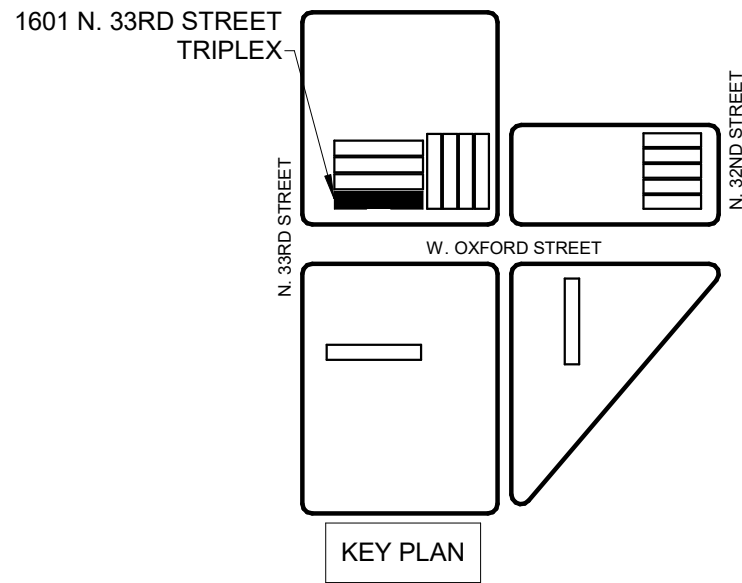
CIVIL ENGINEER  
RODRIGUEZ CONSULTING, LLC  
100 W. OXFORD ST, #E-3100  
PHILADELPHIA, PA 19122  
215 987 1931



PHASE

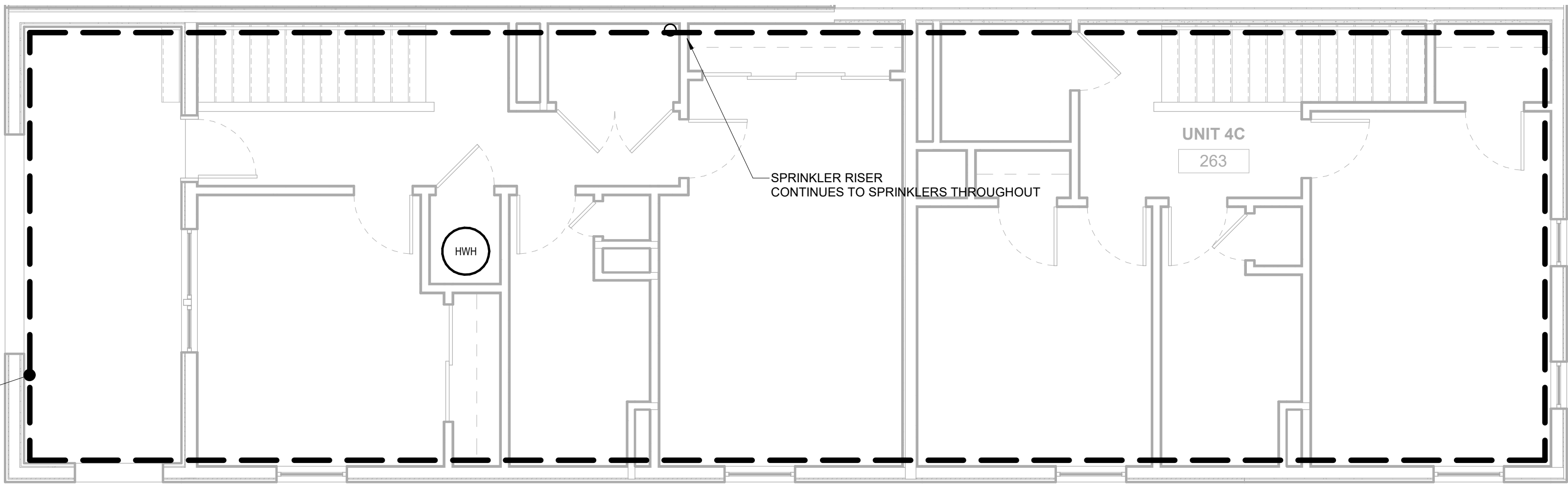
## FP310

FIRE PROTECTION  
TRIPLEX (1601) NEW  
WORK PLANS



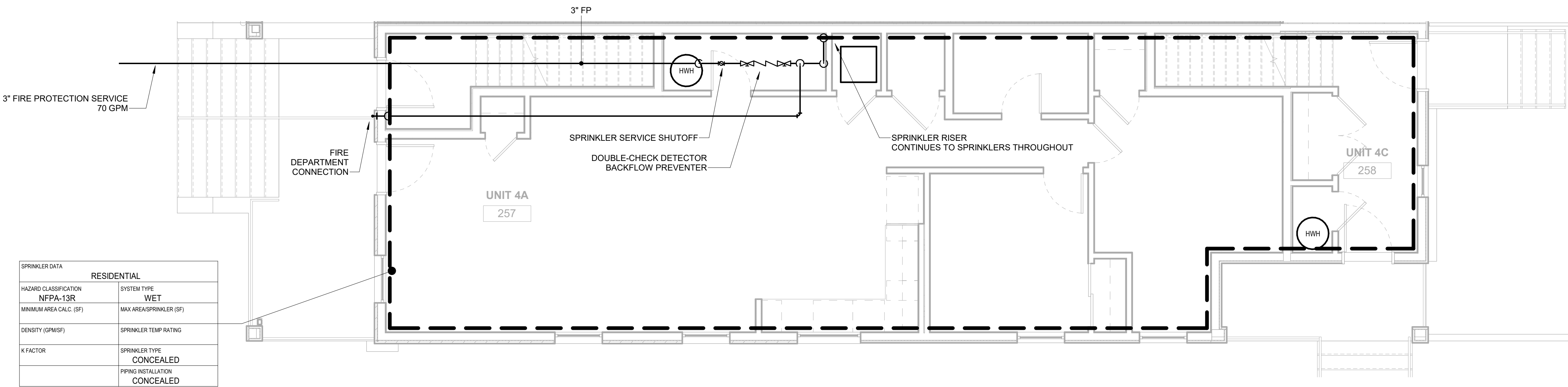
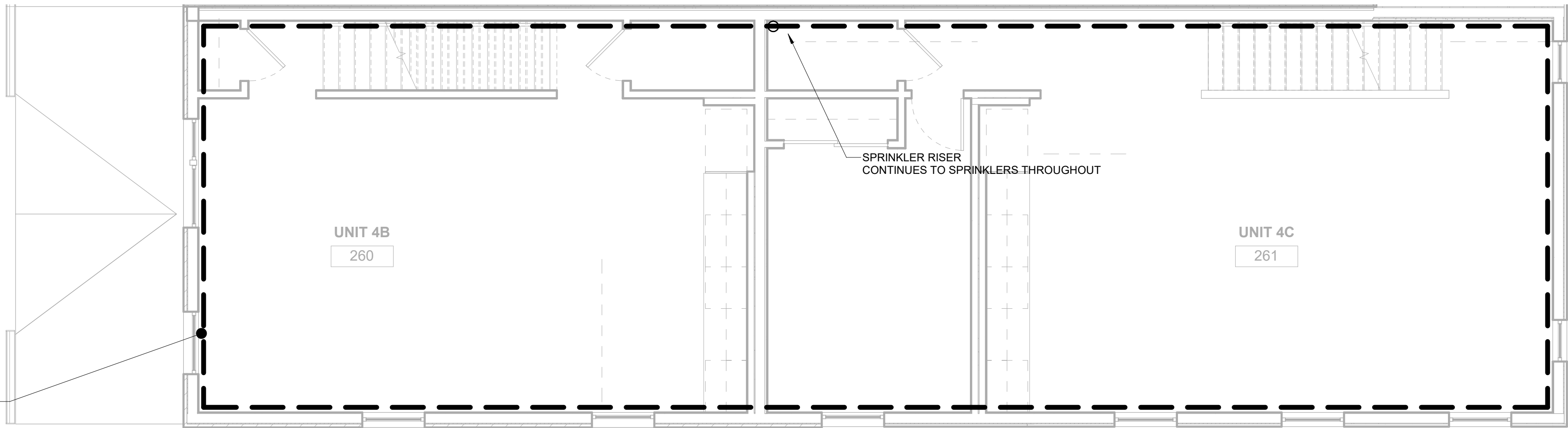
| SPRINKLER DATA                    |                                  |
|-----------------------------------|----------------------------------|
| RESIDENTIAL                       |                                  |
| HAZARD CLASSIFICATION<br>NFPA-13R | SYSTEM TYPE<br>WET               |
| MINIMUM AREA CALC. (SF)           | MAX AREA/SPRINKLER (SF)          |
| DENSITY (GPM/SF)                  | SPRINKLER TEMP RATING            |
| K FACTOR                          | SPRINKLER TYPE<br>CONCEALED      |
|                                   | PIPING INSTALLATION<br>CONCEALED |

3 FIRE PROTECTION TRIPLEX (1601) 3RD FLOOR NEW WORK PLAN  
FP310 1/4" = 1'-0"



| SPRINKLER DATA                    |                                  |
|-----------------------------------|----------------------------------|
| RESIDENTIAL                       |                                  |
| HAZARD CLASSIFICATION<br>NFPA-13R | SYSTEM TYPE<br>WET               |
| MINIMUM AREA CALC. (SF)           | MAX AREA/SPRINKLER (SF)          |
| DENSITY (GPM/SF)                  | SPRINKLER TEMP RATING            |
| K FACTOR                          | SPRINKLER TYPE<br>CONCEALED      |
|                                   | PIPING INSTALLATION<br>CONCEALED |

2 FIRE PROTECTION TRIPLEX (1601) 2ND FLOOR NEW WORK PLAN  
FP310 1/4" = 1'-0"



| SPRINKLER DATA                    |                                  |
|-----------------------------------|----------------------------------|
| RESIDENTIAL                       |                                  |
| HAZARD CLASSIFICATION<br>NFPA-13R | SYSTEM TYPE<br>WET               |
| MINIMUM AREA CALC. (SF)           | MAX AREA/SPRINKLER (SF)          |
| DENSITY (GPM/SF)                  | SPRINKLER TEMP RATING            |
| K FACTOR                          | SPRINKLER TYPE<br>CONCEALED      |
|                                   | PIPING INSTALLATION<br>CONCEALED |

1 FIRE PROTECTION TRIPLEX (1601) 1ST FLOOR NEW WORK PLAN  
FP310 1/4" = 1'-0"