City of Phoenix
Office of the City Engineer
Design and Construction Procurement

FIRE STATION 74
FD57100020

ADDENDUM NO. 2

ISSUE DATE: August 13, 2024

Bidders are hereby notified that the Bidding and Contract Documents for the above project, for which Bids are to be received on August 20, 2024**,** are amended as follows:

Q1.	On sheet E1.1 attached; the highlighted area says to provide (6) additional 2" conduit from meet me box to cad rm. I am not sure where the CAD rm is located. I believe the Meet Me RM is the IT/ TEL RM? Also note 25. I do not see the existing fiber hand hole on the Civil drawings.
A1.	Communication box formerly on the east side of the building will now be located as shown on the south side of the building. There will no longer be a push button switch to control future traffic controls. Coordinate with civil drawings and communications companies for exact requirements prior to rough in. The Reference to CAD Room should have been referenced to IT/Tel Room No. 137. **See attached updated Electrical Sheet E3.1 & E3.2**
Q2.	What is the location of second compressor- SC1 (comment 36), other than S.C.B.A. compressor? Refer comment No. 36 on Electrical Drawing E 3.1? We are unable to locate Compressor # 2 location, since there are 2 compressors identified in comment 36 on E3.1.
A2.	Compressor AC-1 has been deleted from this project. Refer to sheet E5.1, please do not include anything associated with compressor AC-1. (disconnect switch in distribution, feeder, disconnect at compressor, etc.) SCBA compressor shall be connected per drawings.
Q3.	Is the generator to be provided by electrical contractor?
A3.	Yes
Q4.	Drawing E5.1, the question related to feeder braker to Panel A. Panel A schedule does not show feeder to Panel B, whereas Drawing 5.1 shows feeder to Panel B from Panel A. Please clarify whether Panel A will be 200A or 400A feeder disconnect, since Panel A is feeding Panel B?
A4.	Per One-Line Diagram, provide 200A switch/fuse, 200A feeder to panel ‘A’.
Q5.	Panel schedule 5.2 (drawing 5.2) does not show Panel B fed from Panel A?
A5.	Per note in panel schedule ‘A’, provide double lugs to feed panel ‘B’.
Q6.	Feeder between A to B is missing on Panel Schedule? Is there any other breaker needed?
A6.	There is no breaker required when connecting via double lugs.
Q7.	Water Service Connection to be installed by City Forces upon payment of prevailing permit fee per reference note 18 on CWS2.1. What is the cost of the Prevailing Permit Fee?
A7.	City will pay Permit Fees, Supply and Install Meter(s)
Q8.	Per sheet E1.1 note 8 the general contractor is supposed to figure 600LF per run of conduit for primaries. Please specify the location of the utility connection and the number/size of conduits that the general contractor should carry in this allowance. This is extremely important information as it relates to hard dig soil conditions
A8.	**See attached. SRP Utility Plans are to be included in the scope of work pricing and to be included in the base bid.**

Q9.	Confirm Access Control scope of work shown on A10.01 will be handled by City of Phoenix and bidding General Contractors only need to include conduit stubs and backboxes.
A9.	Yes, there is no access control equipment or wiring in the scope of work, but Electrical to provide raceways and back boxes for future install of system
Q10.	COW2.1 and COW2.2 calls for "work provided for this bid item, the offsite water extension from STA 3+17 to STA 6+67, is to be provided as a line-item unit cost by the contractor, as the costs associated with this is to be tracked due to different funding sources." Are the costs associated with the offsite water extension from STA 3+17 to STA 6+67 to be included in our Base Bid? If not, how do we provide "line-item unit cost" as the Bid Form in current form does not make reference to this.
A10.	See Addendum No. 1
Q11.	Updated specification 01 21 00 "Allowances" reads, "The markups or additional costs associated with these allowances shall be included in the base fee." Please confirm that the total values of the allowances AND the additional costs of markups should both be included in the base bid for the project.
A11.	The allowance is the exact cost provided in Addendum No. 1 and per Specification Section 01 21 00 for material. The General Contractor fees should be a part of the base bid.
Q12.	Updated specification 01 21 00 "Allowances" calls for an additional allowance #6 (FFE) to be carried. Per the original specification received with the IFB, there were only two allowances we should carry, Allowance #1 (unforeseen conditions) and Allowance #2 (appliances). Should the new allowance #6 (FFE) actually be titled "Allowance #3," or are there additional allowances #3 #4 and #5 that we are unaware of?
A12.	The only 3 allowances we have are #1, #2 and #6, The other 3 were deleted and/or combined with other items prior to bid.
Q13.	Having difficulty understanding A47 from Addendum 1. Please clarify if Removal Notes 1, 2, 3, 5, 6, 7, 8, 9, 13, and 14 on C2.1 shall be included in our Base Bid.
A13.	They were removal notes on the Fire Station Sheet C2.1sheet. They are for reference only and not a part of this project. All work related to the trailhead relocation is complete under separate contract.
Q14.	Follow up to A49 from Addendum 1: It's difficult for each GC bidder to provide pricing on relocation/adjustments of the existing utility boxes (Reference Note 32/C2.1) at the corner of 19th Ave/Chandler Blvd when we in the dark on the type of utility this is, how many boxes, and where they are being moved to. Can an Allowance be provided for all GC bidders to carry?
A14.	No allowance, Assume the boxes will be left in the current locations but lowered or raise to final grade.
Q15.	Referencing A84 on Addendum 1, please confirm all Concrete Roof Tile locations are to have (2) layers of 1.5" rigid polyiso insulation and 1/2" Densdeck coverboard.
A15.	Yes correct
Q16.	Please confirm below deck batt insulation requirements under Concrete Roof Tile areas. Wall Sections 2 & 3/A9.01 and 5 & 6/A9.02 does show R-38 batt insulation under Concrete Roof Tile areas, but the remainder of the wall sections do not.
A16.	All interior spaces requiring insulation is to be R-38 Typical.
Q17.	Interior Elevation 28/A4.04 calls out (3) rectangular wall hung items as keynote 37, 14" fixed stainless-steel shelf. What is drawn does not match up with other keynote 37's shown on 29 and 31/A4.04. Please confirm the (3) keynote 37 callouts on 28/A4.04 are correctly called out.
A17.	Keynote 37 in this elevation should be Keynote 52 which references the 3 tankless water heaters.
Q18.	Reference A59 from Addendum 1, please confirm that the Gas run shown on CWS2.1 by Reference Note 16, appx 510 LF, is the extent of what we need to cover for trenching, backfill, and sleeving for SWG piping. The drawing appears to continue east on Chandler Blvd, but we do not have a continuation showing how much further we need to go down Chandler Blvd.

A18.	General Contractor to assume a total run of 800 Linear to cover for trenching, backfill, and sleeving for SWG piping
Q19.	We were notified that the Praline plus specified as CL-1 is obsolete and will not be available after December 2024. Please provide us with an alternative to include in our pricing.
A19.	This has been confirmed that the Paraline Plus System has been discontinued please replace with the following Spec: USG PLANX UNIVERSAL PROFILE: optional reveal w/ snaploc insert size: 6" wide finish: timbre, color to be selected from timbre standard offerings, acoustics: A062d perforation + acoustibond backer, black
Q20.	Finish schedule calls for clear epoxy at interior CMU walls A3.31 Addt'l Remarks #3. The specification book page lists J. System 209 that is a water repellent and anti-graffiti coating on interior CMU. Page 383 specification book lists santile 255 and 555 both do not come in clear. What is the correct clear epoxy for interior CMU walls at apparatus bay and other areas listed on A3.31?
A20.	Please use Water Repellents per specification section 07 19 00
Q21.	As part of the bid submission check list provided by the city of phoenix, bid form E.O.C-1 should be completed and included with the final bid submission. It does not appear that form E.O.C-1 is included in the IFB. Please advise.
A21.	**Bid form E.O.C-1 is NOT required**
Q22.	As part of the bid submission check list provided by the city of phoenix, bid form P-3 should be completed and included with the final bid submission. It does not appear that form P-3 is included in the IFB. Please advise.
A22.	**Bid form P-3 is NOT required**
Q23.	The City of Phoenix typically requires that all Fire Alarms are Notifier. However, I do not see a specification section for the Fire Alarm requirements. Does this Fire Alarm system have to be Notifier?
A23.	Provide a fully addressable Onyx Works based fire alarm system, with full smoke detector coverage in all rooms, halls, and storage areas. It shall have a manual fire box located at building exit and notification appliance's location shall be included in all areas, in compliance with NFPA and City if Phoenix Code requirements. The system shall be a Notifier Fire Alarm Panel & System with OnyxWorks capability. Fire alarm panel shall be equipped with Embedded Gateway card (#NFN-GW-EM-3), allowing communication to the City of Phoenix OnyxWorks system through IP connections. The IP connection (CAT-6 data) will be provided by the City of Phoenix.

Plan Sheets:

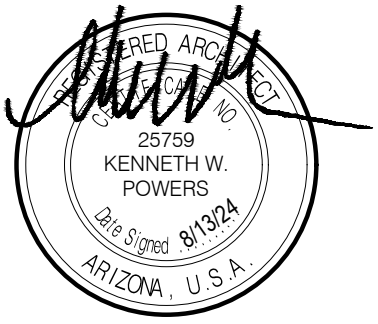
1. 23224 E1.1 Delta-2.pdf – Updated Electrical Site Plan Sheet
2. 23224 E1.2 Delta-2.pdf – Updated Electrical Site Plan Sheet
3. 24-07-24T3567105RL.pdf – SRP Design Drawings for General Use and Reference

Call For Bids:

BIDS WILL BE READ: TUESDAY, AUGUST 20, 2024, AT 2:00PM ON 6TH FLOOR, ROOM 6 WEST
PHOENIX CITY HALL 200 W. WASHINGTON STREET PHOENIX, AZ 85003-1611
*All times are local Phoenix time

NOTE: Bidders must acknowledge receipt of this Addendum by listing the number and date, where provided, on the PROPOSAL P-1.

END OF ADDENDUM



EXPIRES: 12-31-2024

CITY OF PHOENIX, ARIZONA
OFFICE OF THE CITY ENGINEER
DESIGN AND CONSTRUCTION PROCUREMENT

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

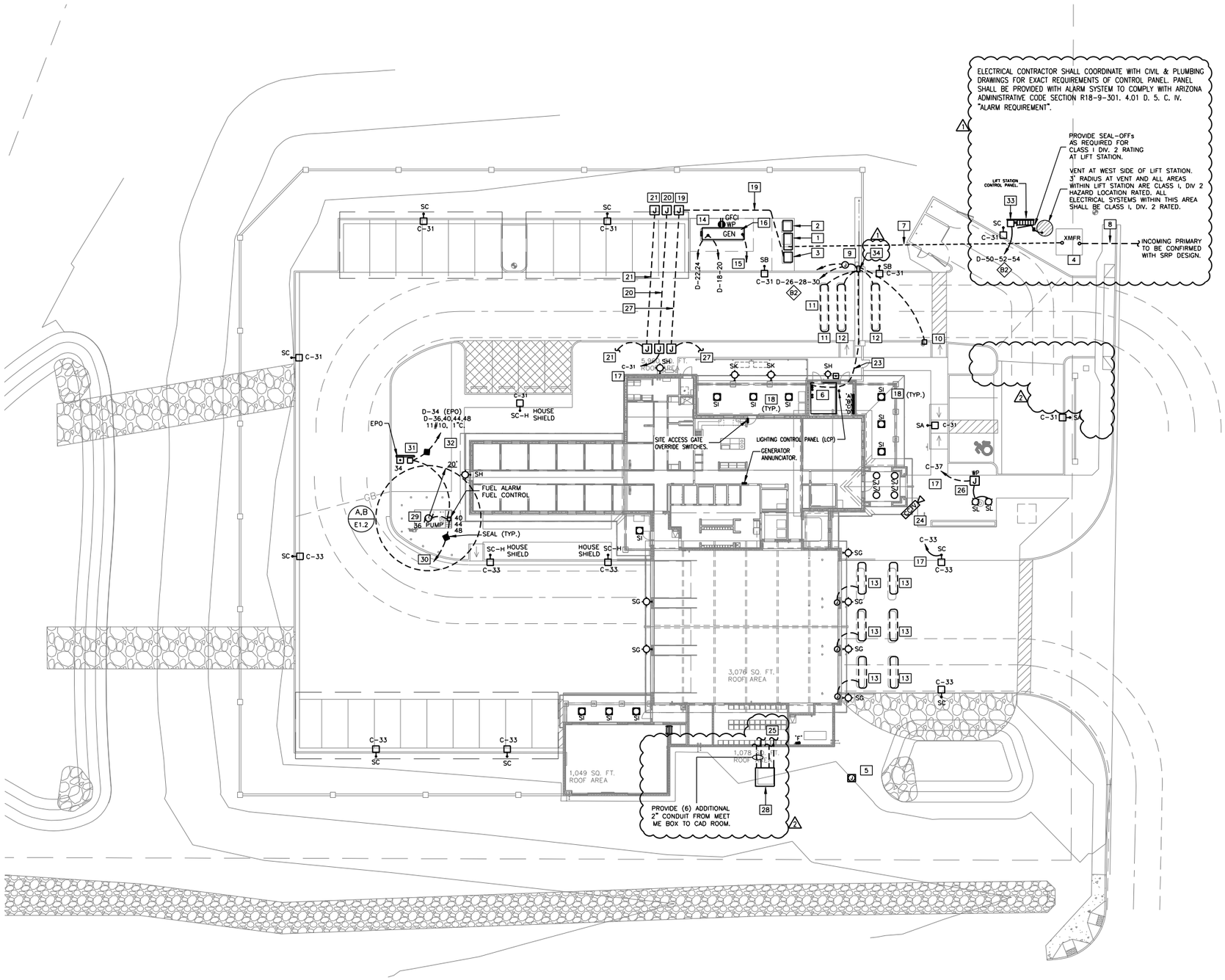
FIRE STATION 74
PROJECT NO. FD57100020

PROCUREPHX PRODUCT CATEGORY CODE 912000000
RFx 6000001606

AGREEMENT _____

TABLE OF CONTENTS

PROJECT TITLE: FIRE STATION 74
PROJECT NO.: FD57100020



ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

KEY NOTES

1. SERVICE ENTRANCE SECTION ON CONCRETE PAD PER SRP REQUIREMENTS. REFER TO ONE LINE DIAGRAM ON SHEET E5.1. PRIOR TO CONSTRUCTION, OBTAIN APPROVAL OF LOCATION OF SES FROM POWER COMPANY. ARRANGE PULL SECTION IN ORDER TO ACHIEVE 25 FEET MINIMUM OF CONDUCTOR LENGTH BETWEEN POWER COMPANY SECONDARY AND LANDING LUGS IN PULL SECTION.
2. AUTOMATIC TRANSFER SWITCH. REFER TO ONE LINE DIAGRAM ON SHEET E5.1.
3. DISTRIBUTION SECTION DS-1. REFER TO ONE LINE DIAGRAM ON SHEET E5.1.
4. PROPOSED LOCATION OF UTILITY COMPANY TRANSFORMER. PROVIDE TRANSFORMER PAD PER POWER COMPANY. FIELD VERIFY EXACT LOCATION WITH POWER COMPANY. PROVIDE PRIMARY CONDUITS FOR NEW POWER COMPANY TRANSFORMER. COORDINATE WITH CIVIL AND SRP.
5. PROVIDE (2) IN-GROUND, WP, PULL BOX AND 1" CONDUIT FOR POWER TO FUTURE LANDSCAPE LIGHTS. COORDINATE WITH LANDSCAPE & ARCHITECT PRIOR TO ROUGH IN.
6. APPROXIMATE LOCATION OF TELEPHONE, CABLE AND DATA EQUIPMENT MOUNTING BOARD. REFER TO SHEET E3.2 FOR ADDITIONAL INFORMATION. PROVIDE TWO 4" CONDUITS TO TELEPHONE COMPANY PEDESTAL. PROVIDE TWO 4" CONDUITS TO CABLE COMPANY POINT OF CONNECTION. COORDINATE WITH RESPECTIVE UTILITY COMPANY FOR POINTS OF CONNECTION. STUB UP CONDUITS 6" ABOVE FINISHED FLOOR IN IT/CAD ROOM.
7. SECONDARY CONDUITS FROM UTILITY TRANSFORMER TO BUILDING SES. SECONDARY CONDUITS TO BE BURIED 36" FROM FINISH GRADE. REFER TO ONE LINE DIAGRAM ON SHEET E5.1 FOR ADDITIONAL INFORMATION.
8. POWER COMPANY PRIMARY CONDUITS FROM UTILITY PRIMARY POINT OF CONNECTION TO UTILITY TRANSFORMER. PRIMARY CONDUITS TO BE BURIED. COORDINATE WITH SRP AS REQUIRED. ALLOW FOR 600' PER RUN.
9. GATE OPERATOR. PROVIDE IN-GRADE PULL-BOX AND CONNECTION TO SMART TOUCH CONTROL PANEL, DRIVE RAIL, TRAVEL STOPS, PHOTO EYES, SAFETY EDGE, LOOPS, KEYPAD, OPTICON PHOTO-SENSOR, LIMIT SWITCHES, ETC. AS REQUIRED. PROVIDE CONCRETE BASE PER MFR'S RECOMMENDATION. PROVIDE 1" CONDUIT AND CONNECTION TO OVERRIDE SWITCH IN DINING AREA. REFER TO SHEET E3.2.
10. GATE KEYPAD. PROVIDE 1" CONDUIT AND CONNECTION TO GATE OPERATOR PER MANUFACTURER'S RECOMMENDATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR INSTALLATION AND ADDITIONAL DETAILS.
11. FREE EXIT LOOP #12 TWISTED STRANDED WIRE WITH DIRECT BURIAL JACKET.
12. OBSTRUCTION LOOP: #12 TWISTED STRANDED WIRE WITH DIRECT BURIAL JACKET.
13. OBSTRUCTION LOOP: #12 TWISTED STRANDED WIRE WITH DIRECT BURIAL JACKET IN 3/4" CONDUIT. REFER TO OVERHEAD DOOR WIRING DIAGRAM ON SHEET E5.3 FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION WITH PROJECT MANAGER.
14. PROVIDE CONNECTION TO GENERATOR JACKET HEATER, CHARGER AND RECEPTACLE.
15. PROVIDE 1" CONDUIT WITH PULL STRING AND ANNUNCIATOR CABLING TO GENERATOR ANNUNCIATOR PANEL AND PROVIDE CONDUIT BETWEEN GENERATORS. SEE SHEET E3.2.
16. ENGINE GENERATORS AND SOUND ATTENUATED WEATHERPROOF HOUSING. REFER TO ONE LINE DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
17. ROUTE LIGHTING CIRCUIT VIA LIGHTING CONTACTOR. REFER TO SHEET E1.3 FOR ADDITIONAL INFORMATION. CIRCUITING SHALL NOT VARY FROM THAT SHOWN ON PLAN WITHOUT APPROVAL FROM PROJECT COORDINATOR.
18. SEE SHEETS E2.1 & 2.2 FOR LIGHTING FIXTURE CIRCUIT(S).
19. PROVIDE 2" CONDUIT WITH PULL-STRING TO IN-GROUND J-BOX FOR POWER TO FUTURE PHOTO VOLTAIC SYSTEM.
20. PROVIDE 2" CONDUIT WITH PULL-STRING TO IN-GROUND J-BOX FOR POWER TO FUTURE PARKING CANOPIES.
21. PROVIDE IN-GROUND PULL-BOX FOR FUTURE CONNECTION TO FUTURE EV CHARGING STATION. PROVIDE 1" CONDUIT WITH PULL STRING TO PANEL 'D'.
22. NOTE NOT USED.
23. PROVIDE (1) 2" CONDUIT WITH PULL-STRING TO IT/CAD ROOM FOR GATE OPERATOR COMMUNICATION. COORDINATE FINAL ROUGH-IN AT GATE OPERATOR AND IT/CAD ROOM WITH INSTALLER AND PROJECT MANAGER.
24. OWNER SECURITY CAMERA SHOWN FOR REFERENCE ONLY. REFER TO SHEET E4.1 FOR ADDITIONAL INFORMATION AND LAYOUTS.
25. PROVIDE (2) NEW 2" UNDERGROUND CONDUITS FROM EXISTING FIBER HANDHOLE TO IT/CAD ROOM. REFER TO CIVIL DRAWINGS FOR LOCATIONS.
26. PROVIDE IN-GROUND PULL BOX FOR CONNECTION TO FLAGPOLE LIGHTING FIXTURE. COORDINATE FINAL REQUIREMENTS WITH GENERAL CONTRACTOR AND FINAL SELECTED FLAG POLE AND ASSEMBLY.
27. PROVIDE ONE 1" EMPTY CONDUIT WITH NYLON PULL STRING FROM IN-GROUND J-BOX TO IT/CAD ROOM TO FUTURE P.V. SYSTEM MONITORING.
28. PROVIDE #9 PULL BOX. COORDINATE WITH CIVIL AND TRAFFIC CONTROL PLANS.
29. PROVIDE THREADED CONDUIT PER NEC 514.8. SEAL CONDUIT AT DISPENSER PER NEC 514.9. PROVIDE CONNECTION TO PUMP PER MANUFACTURER'S REQUIREMENTS. SEE TYPICAL CLASSIFICATION AND CLEARANCE DETAILS A AND B, SHEET E1.2 FOR ADDITIONAL INFORMATION.
30. PROVIDE (4) 1.5" CONDUITS WITH PULL-STRING TO IT/CAD ROOM FOR FUEL SYSTEM COMMUNICATION AND LEAK DETECTION. COORDINATE FINAL ROUGH-IN AT TANK AND IT/CAD ROOM WITH INSTALLER AND PROJECT MANAGER.
31. PROVIDE WEATHERPROOF PULL-BOX WITH CONTACTOR WITH 120V COIL FOR EMERGENCY FUEL SYSTEM SHUT-OFF. PROVIDE LOW VOLTAGE CONTACTS WITH 120V CONTROL RELAY (OR PROVIDE CONTROL TRANSFORMER FOR 12/24V CONTROL RELAY) TO COMPLY WITH NEC 514.11(A) LINE VOLTAGE AND LOW VOLTAGE/COMMUNICATION CIRCUITS EMERGENCY DISCONNECT. PROVIDE 120V FUEL SYSTEM WP EOP PUSH-BUTTON CONNECTED TO CONTACTOR. PROVIDE SWITCHED NEUTRAL BREAKERS AT PANEL PER NEC 514.11(A) AND 514.11(C). LABEL EPO 'EMERGENCY FUEL PUMP SHUTOFF.' PROVIDE ON CONCRETE PAD WITH STRUT FRAME. MOUNT SIGN ON STRUT - FACING DRIVE.
32. POWER AND COMMUNICATION TO FUEL DISPENSER. CONFIRM ALL REQUIREMENTS WITH PROJECT MANAGER PRIOR TO ROUGH IN.
33. LIFT STATION (3HP, 208V, 3ø, 7.4FLA) ELECTRICAL CONTRACTOR SHALL PROVIDE 30A/3P, 208V, HEAVY DUTY, NEMA 3R DISCONNECT. PROVIDE STRUT RACKING FOR DISCONNECT. ELECTRICAL CONTRACTOR TO ALLOW FOR FINAL CONNECTION. FUSE PER MANUFACTURER RECOMMENDATION.
34. PROVIDE KNOX KEY SWITCH. REFER TO ARCHITECTURAL DETAILS, SHEET A1.21 FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. COORDINATE ALL SITE TRENCHING AND ROUTING OF CONDUITS WITH GENERAL CONTRACTOR/OWNER PRIOR TO COMMENCEMENT OF WORK TO AVOID EXISTING UNDERGROUND UTILITIES AND CONDITIONS.
2. PROVIDE #14 COPPER INSULATED TRACER WIRE SECURELY ATTACHED AT 8' ON CENTER OR WRAPPED AROUND NONMETALLIC CONDUITS AND LINES AND HAVE 12" OF WIRE EXPOSED ON ONE END PER BLUE STAKE LAW ARS 40-360.
3. PROVIDE COMPLETE MANDREL TESTING OF ALL UNDERGROUND CONDUITS AND PROVIDE 250 POUND TENSILE STRENGTH MULE TAPE WITH TRACER WIRE.
4. PROVIDE 48"-36" SWEEPS ON CONDUIT RUNS WITH NO MORE THAN TWO 90 DEGREE SWEEPS PER RUN.
5. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE REPRESENTATIVE UTILITY COMPANIES WITHIN (2) WEEKS OF AWARD OF CONTRACT AND SHALL FURNISH EACH REPRESENTATIVE (2) COMPLETE SETS OF CONSTRUCTION DOCUMENTS. VERIFY ALL TRENCH ROUTING, SERVICE LOCATIONS, ETC. WITH UTILITY COMPANY DESIGN CONSTRUCTION DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING REQUIRED WORK.
6. SEE SHEET E0.1 FOR FEEDER SCHEDULE.
7. REFER TO SHEET E2.2 FOR LIGHTING FIXTURE SCHEDULE & IECC CALCULATIONS.

ARIZONA811 BLUE STAKE, INC.

Revisions	Date
1 CITY COMMENTS	3/10/24
2 BID CLARIFICATION	8/12/24

35191 SHELDON R. McINELLY Aug 12, 2024 REGISTERED PROFESSIONAL ENGINEER ARIZONA, U.S.A. EXP. 9/30/27

Designed By:

Drawn By:

Checked By:

Date: 12/14/2023

Phase: PERMIT

Perlman Architects of Arizona
2929 North Central Avenue, Suite #1600
Phoenix, Arizona 85012
480.951.5900 480.951.3045 f
perlmanaz.com

Title: FIRE STATION #74
1910 W. CHANDLER BLVD.
PHOENIX, ARIZONA 85045

Index No: FD57100020-3

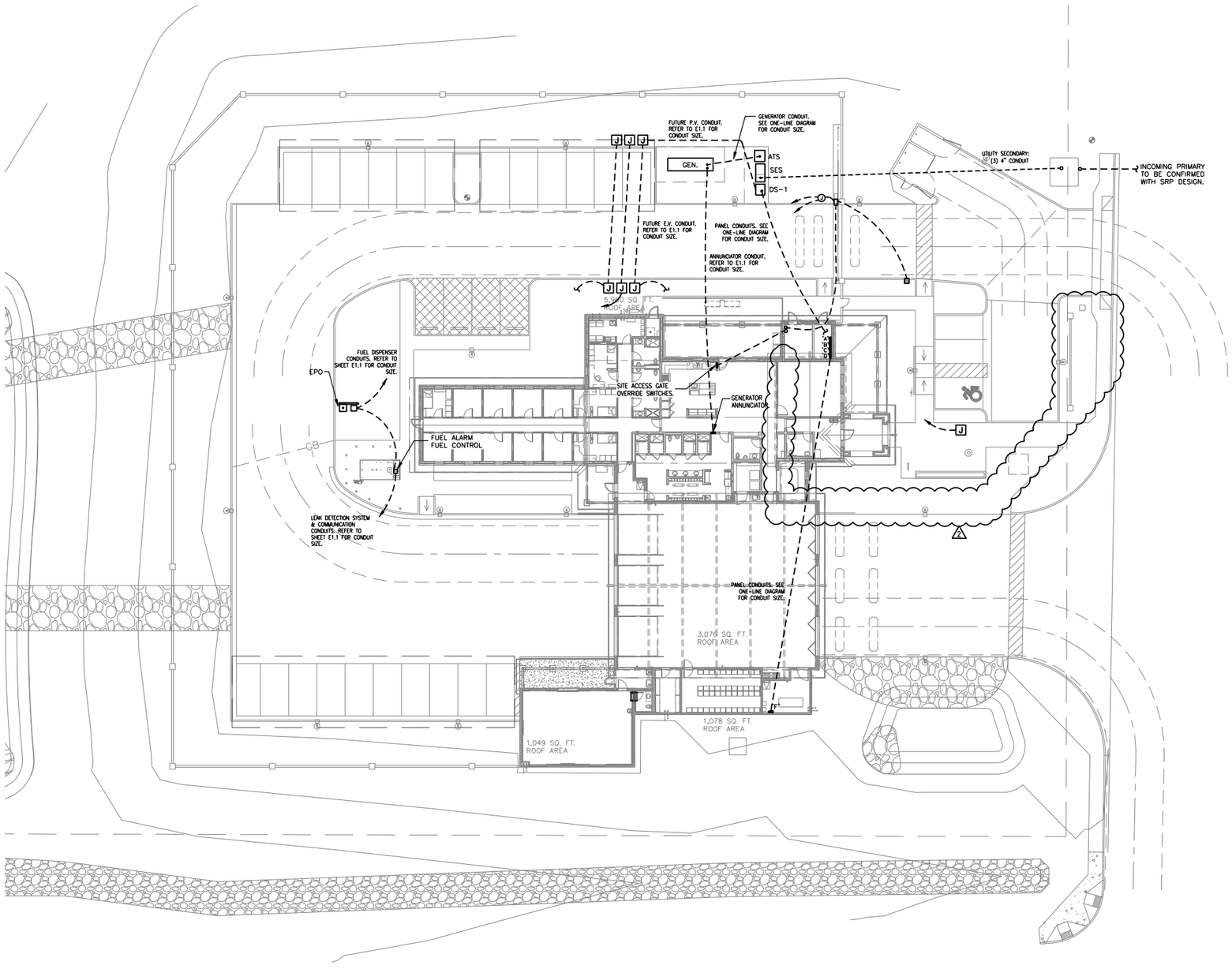
CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

AKRIBIS MECHANICAL • PLUMBING • ELECTRICAL ENGINEERING, L.L.C.
3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282
P: (602) 393-0201 F: (602) 393-0202
DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224
FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # 23-1810
SDEV # 2300473

Note:
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

ELECTRICAL SITE PLAN
E1.1

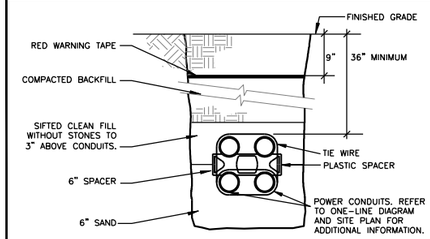


ELECTRICAL CONDUIT PLAN
SCALE: 1" = 20'-0"

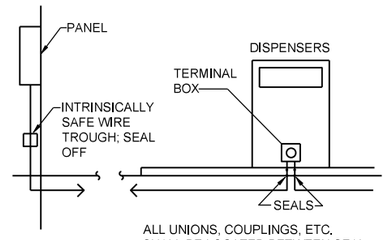
GENERAL NOTES

1. COORDINATE ALL SITE TRENCHING AND ROUTING OF CONDUITS WITH GENERAL CONTRACTOR/OWNER PRIOR TO COMMENCEMENT OF WORK TO AVOID EXISTING UNDERGROUND UTILITIES AND CONDITIONS.
2. PROVIDE SAW-CUT, BORING, AND TRENCHING AS REQUIRED TO COMPLETE SCOPE OF WORK SHOWN. RETURN ALL CONCRETE, ASPHALT AND EARTH GRADING BACK TO ORIGINAL OR MATCHING CONDITION. REFER TO TYPICAL TRENCH DETAIL FOR ADDITIONAL INFORMATION.
3. PROVIDE #14 COPPER INSULATED TRACER WIRE SECURELY ATTACHED AT 8' ON CENTER OR WRAPPED AROUND NONMETALLIC CONDUITS AND LINES AND HAVE 12" OF WIRE EXPOSED ON ONE END PER BLUE STAKE LAW ARS 40-360.
4. PROVIDE COMPLETE MANDREL TESTING OF ALL UNDERGROUND CONDUITS AND PROVIDE 250 POUND TENSILE STRENGTH MULE TAPE WITH TRACER WIRE.
5. PROVIDE 48"-36" SWEEPS ON CONDUIT RUNS WITH NO MORE THAN TWO 90 DEGREE SWEEPS PER RUN.

TYPICAL TRENCH DUCT DETAIL

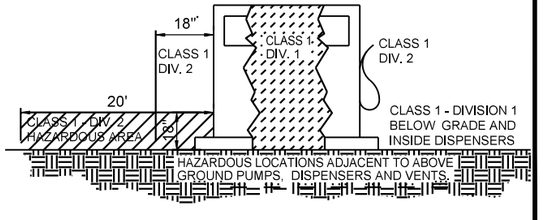


DUCT LINE NOTES
1. PROVIDE SLURRY ON TOP OF DUCTS WHEN CROSSING OR PLACED IN ROADWAYS OR DRIVEWAYS.
2. MINIMUM COVER TO TOP OF ENVELOPE SHALL BE 36"
3. ROUTE TELCO CONDUITS IN SEPERATE TRENCH.



ALL UNIONS, COUPLINGS, ETC. SHALL BE LOCATED BETWEEN SEAL AND DISPENSER TERMINATING BOX. NEVER BELOW SEALS.

NEC ARTICLE 514.3(B)(1) - TYPICAL
SCALE: NONE - SEALING AT DISPENSING APPARATUS (A / E1.2)



NEC ARTICLE 514 - TYPICAL
SCALE: NONE - ABOVE GROUND MOTOR FUEL PUMPS TO DISPENSES (B / E1.2)

Revisions	Date
1 CITY COMMENTS	3/10/24
2 BID CLARIFICATION	8/12/24

35191 SHELDON R. McINELLY Aug 12, 2024 REGISTERED PROFESSIONAL ENGINEER ARIZONA, U.S.A. EXP. 9/30/27

Designed By:
Drawn By:
Checked By:
Date: 12/14/2023
Phase: PERMIT

Perlman Architects of Arizona
2929 North Central Avenue, Suite # 600
Phoenix, Arizona 85012
480.951.5900 480.951.3045 f
perlmanaz.com

Title: FIRE STATION #74
1910 W. CHANDLER BLVD.
PHOENIX, ARIZONA 85045
Index No: FD57100020-3

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

AKRIBIS MECHANICAL • PLUMBING • ELECTRICAL ENGINEERING, L.L.C.
3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282
P: (602) 393-0201 F: (602) 393-0202
DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224
FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # 23-1810
SDEV # 2300473

Note:
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

ELECTRICAL CONDUIT PLAN
E1.2

ARIZONA811 BLUE STAKE, INC.

File=G:\2023\23224 - Phoenix Fire Station No 74\E\23224 E12.dwg
Date Printed=Aug 12, 2024 - 3:40:50PM Printed By=Stephen

CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. ALL UTILITY CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION, AND THE CITY OF PHOENIX SUPPLEMENTS TO MAG.
2. ALL WORK PERFORMED IN THE CITY OF PHOENIX RIGHTS-OF-WAY SHALL BE GOVERNED BY THE LATEST EDITION OF THE CITY OF PHOENIX TRAFFIC BARRICADE MANUAL.
3. THIS SET OF PLANS WAS REVIEWED BY THE CITY OF PHOENIX UTILITY COORDINATION SECTION IN COMPLIANCE WITH CITY REQUIREMENTS. HOWEVER, SUCH REVIEW SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE OR CITY OF PHOENIX REQUIREMENT FOR UTILITY CONSTRUCTION IN THE RIGHTS-OF-WAY.
4. THE CONTRACTOR SHALL HAVE A COPY OF THE APPROVED/STAMPED CONSTRUCTION PLANS AND APPROVED TRAFFIC CONTROL PLAN AT THE PROJECT SITE AT ALL TIMES.
5. ALL UTILITIES CROSSING STREETS MUST BE BORED OR PUNCHED UNLESS PERMISSION TO OPEN CUT HAS BEEN GIVEN IN WRITING BY THE STREET TRANSPORTATION DIRECTOR.
6. BEFORE STARTING ANY WORK ON A MAJOR OR COLLECTOR STREET, THE UTILITY COMPANY SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT'S UTILITY INSPECTION SECTION.
7. THE CITY OF PHOENIX DOES NOT WARRANT ANY QUANTITIES SHOWN ON THESE PLANS.
8. UTILITY COMPANIES SHALL COORDINATE ALLEY WORK WITH THE CITY OF PHOENIX PUBLIC WORKS DEPARTMENT'S SOLID WASTE DIVISION.
9. THE UTILITY COMPANY SHALL CONTACT THE CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT'S UTILITY INSPECTION SECTION A MINIMUM OF 48 HOURS IN ADVANCE OF STARTING WORK, GIVING LOCATION AND PERMIT NUMBER IN ORDER TO SCHEDULE INSPECTIONS.
10. ALL WORK REQUIRING ASPHALT REPLACEMENT, CONCRETE REPLACEMENT, OR RESURFACING ALLEYS IN THE CITY OF PHOENIX RIGHT-OF-WAY WILL REQUIRE A FINAL INSPECTION WITH THE UTILITY COMPANY REPRESENTATIVE AT TIME OF COMPLETION.
11. MAINTAIN A MINIMUM SIX (6) FEET HORIZONTAL SEPARATION AND ONE (1) FOOT VERTICAL SEPARATION FROM ALL WATER AND SEWER MAINS, ALL MEASUREMENTS OUTSIDE TO OUTSIDE.
12. CITY OF PHOENIX UTILITY INSPECTION SECTION RESERVES THE RIGHT, AT THEIR DISCRETION, TO REQUEST A LAND SURVEY OF THE PROPOSED IMPROVEMENTS, RUNNING LINE AND RIGHT-OF-WAY PER MAG SECTION 601.2.3 AND 608.4.3.

CITY OF PHOENIX ADMINISTRATIVE PROCEDURE 5.1
STREET TRANSPORTATION DEPARTMENT REVISED SEPT. 2017 EXHIBIT "E"

PHOENIX PERMIT BOXES

CITY OF PHOENIX

--/--/----

UTILITY PERMIT NO.

CITY OF PHOENIX

DEVELOPER: CITY OF PHOENIX
FIRE DEPT

CONTACT: VERONICA ALVAREZ
PHONE NO.: 602-534-6136

DEVELOPER'S DSD NUMBER:

TOTAL TRENCH FOOTAGE: 302'

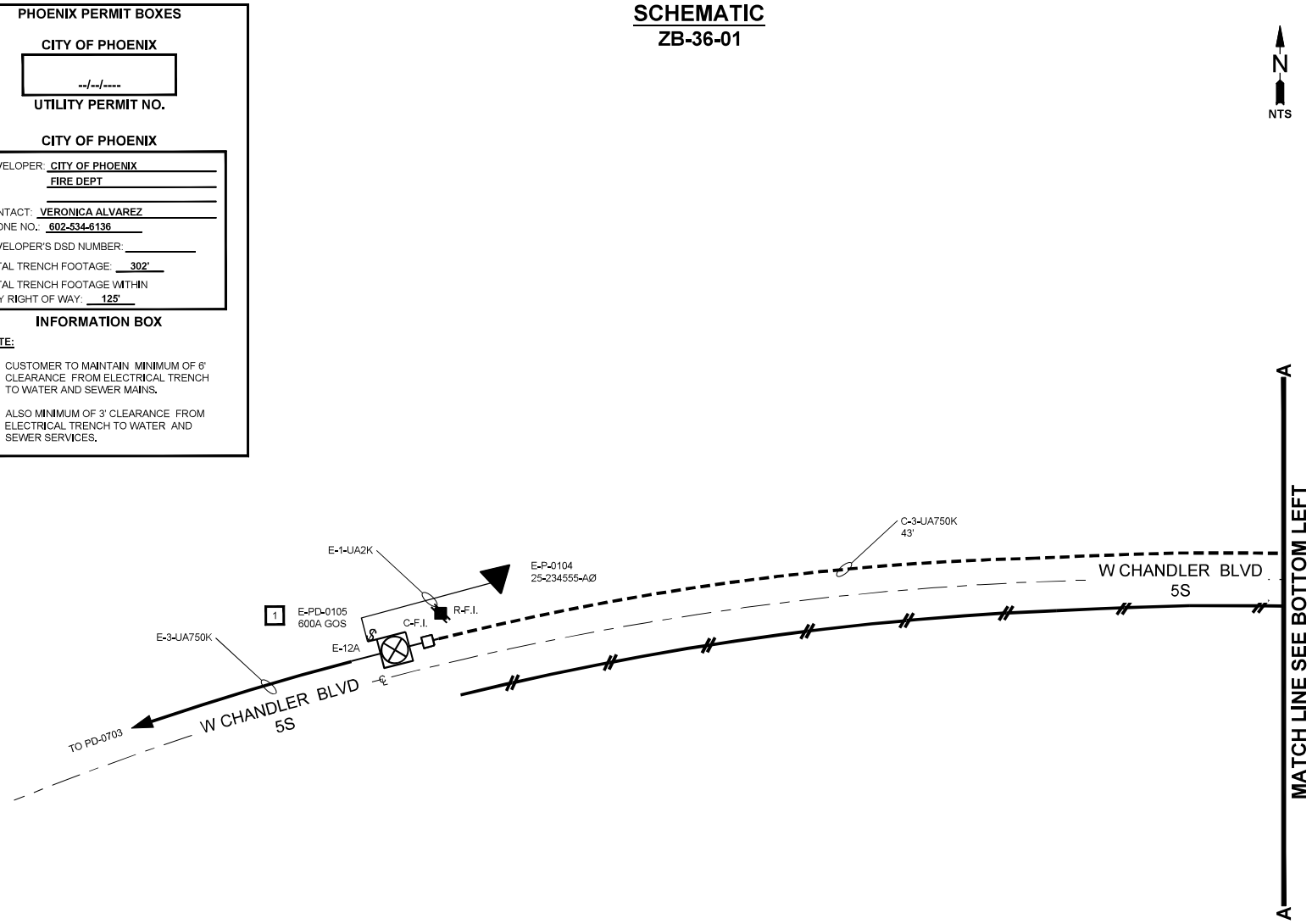
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 125'

INFORMATION BOX

NOTE:

- CUSTOMER TO MAINTAIN MINIMUM OF 6' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.
- ALSO MINIMUM OF 3' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER SERVICES.

SCHEMATIC
ZB-36-01



COMMERCIAL PROJECT NOTES

SRP ELECTRIC SERVICE SPECIFICATIONS ARE AVAILABLE ON-LINE AT: HTTP://WWW.SRPNET.COM/ELECTRIC/BUSINESS/SPECS

1. CUSTOMER IS RESPONSIBLE FOR:
   a. PROVIDING SRP VEHICLES WITH A MINIMUM 12' WIDE AND 20' HIGH PERMANENT TRUCK ACCESS TO ALL SRP EQUIPMENT, ANY SES OR EXTERIOR METER ROOM ENTRANCE. EACH SERVICE ENTRANCE PULL SECTION SHALL OPEN DIRECTLY TOWARDS THE EXTERIOR METER ROOM ENTRANCE. THIS PROVIDES EQUIPMENT ACCESS FOR CABLE INSTALLATION. WITH A MINIMUM WIDTH OF 12'. MOVABLE SCREEN WALLS, PANELS, OR DOORS MAY BE USED AS AN ARCHITECTURAL FEATURE, PROVIDED THE ACCESS ROUTE COMPLIES TO SRP
   b. ALL CONDUIT (PVC, DB120, RATED FOR 90 DEGREES C CABLE, ASTM F512 WITH ALL ELBOWS VEHICLE ACCESS REQUIREMENTS. BEING SCHEDULE 40 36" RADIUS), TRENCH, BACKFILL, COMPACTION, (UNLESS OTHERWISE SPECIFIED. ALL FILL BELOW AND AROUND ELECTRIC UTILITY FIXTURE FOUNDATION PADS SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY (AT OR NEAR OPTIMUM MOISTURE CONTENT) IN ACCORDANCE WITH ASTM D698. 1/2 CONTROLLED LOW STRENGTH MATERIAL BACKFILL MAY BE PLACED IN LIEU OF COMPACTED BACKFILL) AND MAINTENANCE OF TRENCH AND CONDUIT UNTIL WIRE IS PULLED. CONTACT SRP TO SCHEDULE A HOT ID AFTER.
   c. CUSTOMER IS SOLELY RESPONSIBLE FOR ALL CONDUIT INSTALLED ON THE JOB UNTIL SRP'S WIRE IS INSTALLED. SRP TAKES OWNERSHIP OF ALL CONDUITS AFTER WIRE IS INSTALLED. FOR JOBS THAT REQUIRE CONDUIT SPLICING INTO SRP EXISTING CONDUIT SYSTEMS, THE CUSTOMER WILL BE RESPONSIBLE FOR ANY REPAIRS AND/OR RE-DESIGN IN THE EVENT OF A CONDUIT FAILURE.
   d. INSTALLATION OF 3 PHASE TRANSFORMER PAD(S), TEMPLATE(S) AND GROUND ROD(S). LOCATING AND EXPOSING EXISTING STUBBED CONDUIT.
   e. STAMPED AND REGISTERED PROPERTY PINS AND FINAL GRADE STAKES FOR PAD AND TRENCH LOCATIONS.
   f. REVIEWING AND SIGNING OFF ON MATERIALS DELIVERED TO THE JOB SITE.
   g. ALL SURFACE RESTORATIONS AND LANDSCAPE REPAIRS.
2. SRP'S POINT OF DELIVERY TO BE: [X] SES [ ] JUNCTION BOX [ ] TRANSFORMER
3. SRP TO INSPECT THE FOLLOWING: TRENCHING, CONDUIT INSTALLATION, MANDREL (IF REQUIRED), EQUIPMENT PAD(S), COMPACTION AND SERVICE ENTRANCE SECTION.
4. METERING PER EUSERC, SRP SPECIFICATIONS AND MUNICIPAL CODES, SUBMIT ONE ELECTRONIC COPY OF SHOP DRAWINGS FOR ALL PROPOSED 400AMP OR LARGER SERVICE ENTRANCE SECTION, DOUBLE RESIDENTIAL METER PEDESTALS, AND COMMERCIAL SAFETY SOCKET PEDESTALS TO COMMERCIAL NEW BUSINESS FOR APPROVAL PRIOR TO PURCHASE AND/OR MANUFACTURING. SUCH DRAWINGS SHALL INDICATE THE PROJECT AND CUSTOMER NAME, SRP JOB NUMBER, JOB ADDRESS, CONTRACTORS NAME AND PHONE NUMBERS. SUBMIT TO SHOPDRAW@SRPNET.COM
5. FOR THAT PORTION OF THE FACILITY LOCATED WITHIN PUBLIC UTILITY EASEMENTS, THIS SUBMITTAL IS MADE FOR NOTIFICATION PURPOSES ONLY.

GRAPHIC SYMBOLS

- UNDERGROUND STREETLIGHT CONDUCTOR
- UNDERGROUND SERVICE CONDUCTOR
- UNDERGROUND SECONDARY CONDUCTOR
- PROPOSED UNDERGROUND TRENCH/BORE
- EXISTING UNDERGROUND TRENCH/BORE
- INDICATES ABANDONMENT
- A——A MATCH POINTS FOR MULTIPLE SHEETS OF DRAWING

(SHADED SYMBOL INDICATES EXISTING FACILITY)

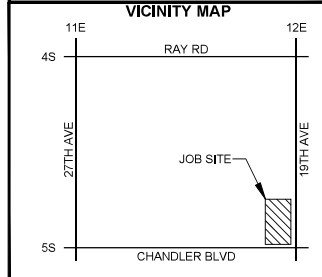
- PROPOSED SINGLE-PHASE TRANSFORMER
- PROPOSED THREE-PHASE TRANSFORMER
- PROPOSED FUSING ENCLOSURE
- PROPOSED SWITCHING ENCLOSURE
- PROPOSED 1 PHASE PULLING ENCLOSURE
- PROPOSED 3 PHASE / FEEDER PULLING ENCLOSURE
- PROPOSED 4/0 PRIMARY TAP ENCLOSURE
- PROPOSED CAPACITOR BANK
- FOR MOST PRIMARY DEVICES OTHER THAN TRANSFORMERS, NO BAR ABOVE THE LETTER INDICATES AN EXIST.FACILITY
- NO BAR IN PAD INDICATES FACILITY IS EXISTING
- BAR INDICATES FRONT OF DEVICE
- A SHADED BAR INDICATES FACILITY IS EXISTING
- PROPOSED FLUSH-MOUNTED J-BOX
- PROPOSED ABOVE-GROUND J-BOX

TYPICAL SRP ABBREVIATIONS

C = CONSTRUCT
R = REMOVE
T = TRANSFER
A = ABANDON
F/SW = FRONT OF SIDEWALK
B/SW = BACK OF SIDEWALK
F/C = FRONT OF CURB
B/C = BACK OF CURB
E/P = EDGE OF PAVEMENT
L/G = LIP OF GUTTER
R/W = RIGHT OF WAY

- E-ELECTRIC
- "E" WITHOUT CIRCLE INDICATES EXISTING TRENCH
- "E" WITH CIRCLE INDICATES PROPOSED TRENCH
- C-COMMUNICATION
- W-WATER
- G-GAS
- SD-STORM DRAIN
- S-SEWER
- SERVICE ENTRANCE SECTION (S.E.S.)
- PROPOSED MANHOLE
- PROPOSED PULL BOX
- PROPOSED SPLICE POINT
- PROPOSED STREET LIGHT
- PROPOSED PRIVATE LIGHT (STAKED BY CUSTOMER)
- PROPOSED POLE AND RISER
- DOUBLE SLASH LINES INDICATE REMOVAL
- ELECTRONIC MARKER
- CONDUIT

VICINITY MAP

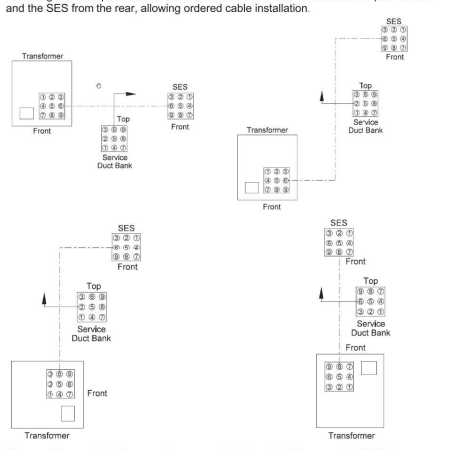


FIELD INSTALLATION STAMP

SECTION 3: GENERAL DESIGN CRITERIA

I. Coordinated orientation between the Transformer and SES

a. Following the examples below the service conduits fill both the transformer pad window and the SES from the rear, allowing ordered cable installation.



b. If none of these orientations can be accomplished, a straight segment of 50 feet or more is required to roll the conduits to meet the stub-up requirement.

Distribution Design Standards	GENERAL DESIGN CRITERIA UNDERGROUND DESIGN FACILITIES LOCATION	ISSUE DATE: 04/0183 REV. DATE: 0 APPROVAL: J. Luea
PROPRIETARY MATERIAL	3-6-16	DDS3-6-11.doc

SURVEY AND PERMIT INFORMATION

- [X] SRP SURVEY TO STAKE FOR LOCATION AND TIE FOR EASEMENTS. CUSTOMER CONTROL POINTS REQUIRED: YES [X] NO [ ]
- [ ] CUSTOMER'S SURVEY TO STAKE FOR LOCATION/CONSTRUCTION AND TIE FOR EASEMENTS. CUSTOMER'S SURVEYOR MUST ATTEND PRE-CON MEETING.
- [ ] SRP SURVEY TO STAKE FOR LOCATION, NO EASEMENT REQUIRED.
- [ ] 3RD PARTY EASEMENT REQUIRED.
- [ ] NO SURVEY REQUIRED.
- [X] PERMIT REQUIRED: CITY OF PHOENIX COUNTY ____ OTHER ____ PERMIT NO. ____
- [ ] NO PERMIT REQ.

ELECTRICAL SPECIFICATIONS

REV	REVISED BY	DATE	REVISION DESCRIPTION
1			
2			
3			
4			
5	RXCARDWE	07-11-24	JOB CREATED

NATURAL GAS [ ]

CONTACTS

DESIGN CONSULTANT:
JEREMY HUNT
OFFICE: (602) 236- 4858
MOBILE: 480-392-7966

PROJECT LEADER:
VICTOR CUEVAS
MOBILE: 602-376-5538

CONSTRUCTION CONSULTANT:
MARCEL KUNISKI
MOBILE: 480-793-0157

INSPECTIONS:
OFFICE: 602-236-0676

JOBNAME COP - FIRE STATION 74
ADDRESS/LOCATION 19TH AVE AND CHANDLER BLVD, PHX
CONTACT VERONICA ALVAREZ PHONE 602-534-6136
BILLING ACCT NO.
FIS JO MAP 1/4 NE S 36 T 1S R 2E
40/ACRE ZB-36-01 COORDS 11 15/16E - 5 1/5S
WAM WO T3567105 WAM VERSION
COST CENTER 22640
ROUTING CODE DDY+8

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Call 811 or Click Arizona811.com

SHEET NUMBER 01 OF 06

CONDUIT AND MULE TAPE SPECS

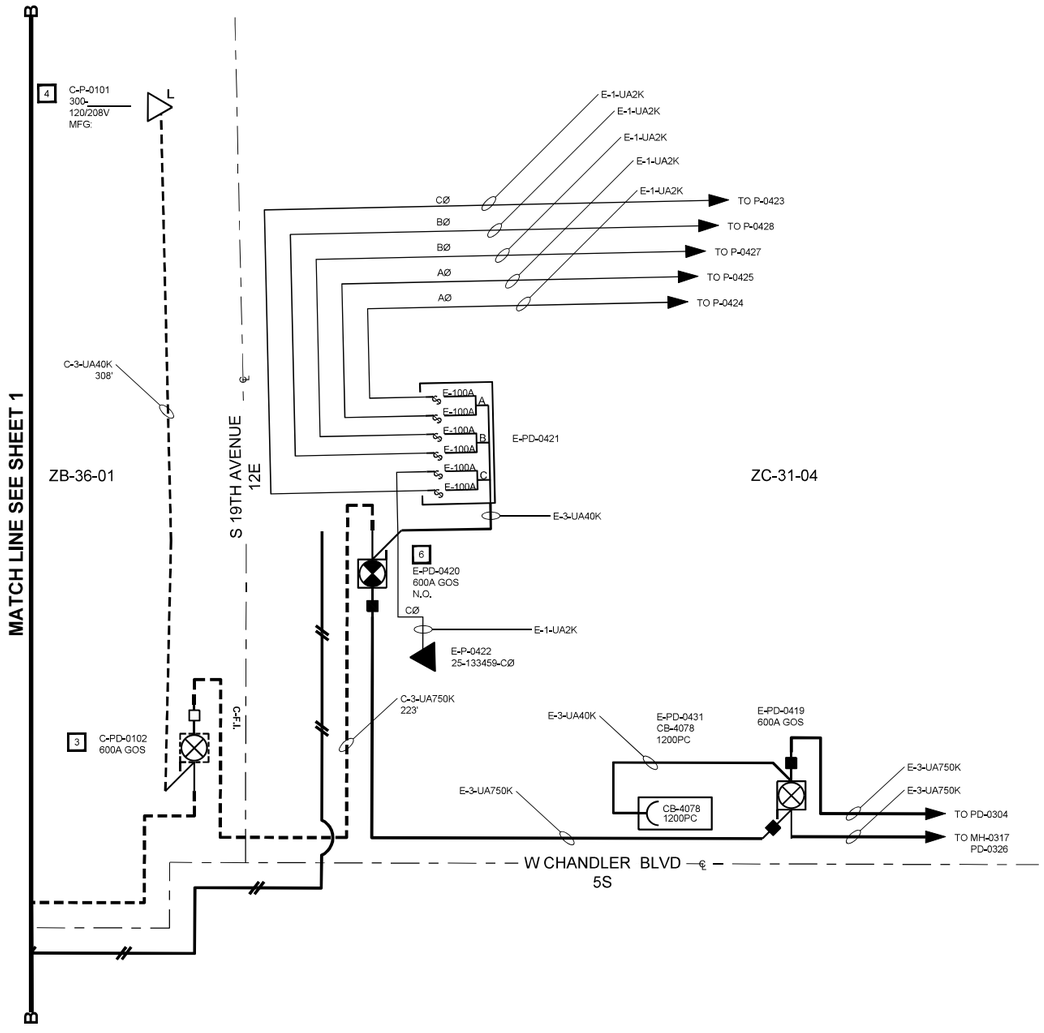
1. CONDUIT WILL BE PVC DB120 RATED 90 C CABLE MEETING THE REQUIREMENTS OF ASTM F512
2. CUSTOMER SHALL PROVIDE & INSTALL 2500 LB TENSILE STRENGTH 5/8" PRE-LUBRICATED MULE TAPE FOR ALL SERVICE CONDUITS

EASEMENTS

NOTE:
THIS JOB MAY INVOLVE ACQUIRING EASEMENTS FROM MORE THAN ONE PROPERTY OWNER, SRP ADVISES NO TRENCHING BE DONE UNTIL ALL SRP EASEMENTS HAVE BEEN SECURED. SHOULD THE CUSTOMER TRENCH PRIOR TO SRP EASEMENTS BEING SECURED, IT IS AT THE CUSTOMER'S OWN RISK AND SRP DOES NOT ASSUME ANY COST OR LIABILITY INVOLVED.

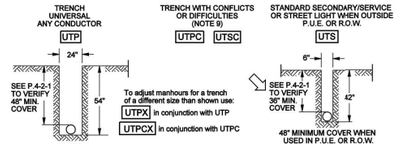
FOR CUSTOMER REVIEW
NOT FOR CONSTRUCTION

SCHEMATIC
ZB-36-01
ZC-31-04



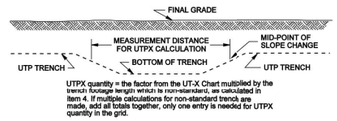
N

NTS



NOTES:

1. Trench depths and conduit cover are to be measured from final grade stakes. All trench depths or conduit cover requirements specified on a job drawing shall be followed.
2. These trench codes provide man-hours for excavation only and do not provide for trench backfill.
3. The total trench footage length will be shown in the grid as standard trench, either UTP for primary or UTS for secondary, street light, or service. When trench is provided by customer, this is the only coding required on the job grid.
4. Non standard trench locations will be identified on the job order sketch with required width and depth dimensions given.
5. When trenching is provided by SRP, non standard trenches shall have 2 compatible unit codes in the grid, UTP plus the UTPX, to adjust the time for digging.
6. When specified depth cannot be obtained because of solid rock, a minimum earth cover of 24" is acceptable, provided a minimum 2" encasement of concrete surrounds the conduit.
7. Use example shown to figure length of UTPX trench, unless the entire trench is non standard.



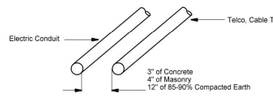
UTPX quantity = the factor from the UT-X Chart multiplied by the trench footage length which is non-standard, as calculated in item 4. If multiple calculations for non-standard trench are made, add all totals together, only one entry is needed for UTPX quantity in the grid.

8. If secondary/service or street light must be placed in P.U.E. or road R.O.W.,use UTP trench dimensions and enter UTS as the compatible unt.
9. Provides 1.5 times regular man-hours.
10. Trench bottom to be smooth and free of sharp rocks. Where excavation is in rock, bottom of trench to have protective layer of clean, level, tamped backfill or sand.

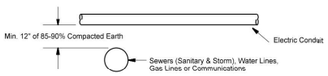
Underground Distribution Construction Standards SRP PROPRIETARY MATERIAL	REV. CORRECTED TRENCH DEPTH TYPO.	Page 1 of 2
	TRENCHING EXCAVATION CODES	ISSUE DATE: 01/15/87 REV. DATE: 03/08/13 APPROVAL: B.PRIEST
	6-11-1	8613E136.DGN

NOTES

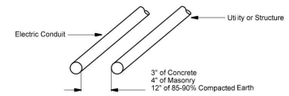
1. Minimum vertical or horizontal separations between electric conduit systems and communications conduit systems (NESC Rule 320B2):



2. Minimum clearance between an electric conduit system and other existing underground structures or utilities (Note 4):

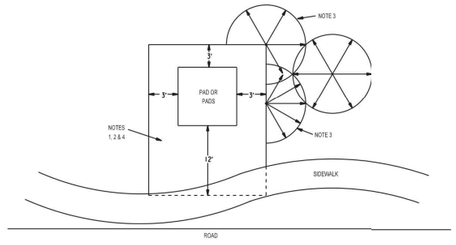


3. Horizontal clearance for parallel structures (NESC Rule 320B):



4. An alternative to 12" of 85-90% compacted earth is a rigid support for the upper structure to prevent it from transferring any direct load to lower structure.
5. Conduit should be installed as far as practical from a water main to protect it from being undermined if the main breaks.
6. Municipals and other utilities may have additional requirements.

Electric Service Specifications SRP PROPRIETARY MATERIAL		
	CLEARANCES UNDERGROUND CONDUIT	ISSUE DATE: 04/15/96 REV. DATE: 10/25/12 APPROVAL: W.LARAMIE
	5-3	8509E149.DGN

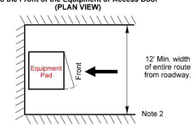


NOTES

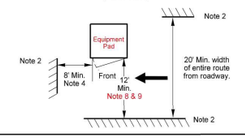
1. Easement grantor shall maintain a clear area that extends 3' from and around all edges of all transformer pads and other equipment pads and a clear operational area that extends 12' immediately in front of all transformer and other equipment openings. Do not place obstructions, trees, shrubs, fixtures or permanent structures within aforementioned areas. Easement documents may supersede these requirements.
2. This same clear area shall be dry landscaped.
3. Direct sprinkler heads away from pad-mounted equipment, as shown above. Sprinkler heads shall not spray on pad-mounted equipment or dry landscaped area around equipment.
4. Dry landscape surface may be native soil, concrete, asphalt pavement or crushed granite or gravel with a maximum particle size no greater than 1".
5. A border curb is required if SRP installs the landscape.

Electric Service Specifications SRP PROPRIETARY MATERIAL		
	CLEARANCES DRY LANDSCAPE CONTROLLED AREA DETAIL	ISSUE DATE: 03/02/01 REV. DATE: 10/25/12 APPROVAL: W.LARAMIE
	5-10	8509E133.DGN

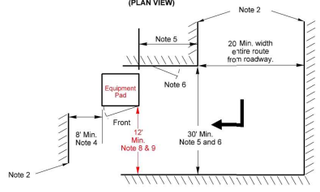
Pad-Mounted Facility, Commercial SES, Meter Room or Vault with One-Way Direct (straight) Access to the Front of the Equipment or Access Door (PLAN VIEW)



Pad-Mounted Facility, Commercial SES, Meter Room or Vault with a One-Way Direct (straight) Access to the Front from the Side of the Equipment or Access Door (PLAN VIEW)



Pad-Mounted Facility, Commercial SES, Meter Room or Vault with One-Way Indirect (requiring a turn) Access to the Front from the Side of Equipment or Access Door (PLAN VIEW)



Electric Service Specifications SRP PROPRIETARY MATERIAL	REV: INCLUDE NOTE 8 & 9	PAGE 1 OF 2
	CLEARANCES VEHICLE ACCESS REQUIREMENTS PAD-MOUNTED FACILITIES & 1Ø TRANSFORMERS	ISSUE DATE: 02/09/11 REV. DATE: 02/01/23 APPROVAL: J. Robbins
	5-19	8509E319.DGN

CONTACTS

DESIGN CONSULTANT:
JEREMY HUNT
OFFICE: **(602) 236-4858**
MOBILE: **480-392-7966**

PROJECT LEADER:
VICTOR CUEVAS
MOBILE: **602-376-5538**

CONSTRUCTION CONSULTANT:
MARCEL KUNISKI
MOBILE: **480-793-0157**

INSPECTIONS:
OFFICE: **602-236-0676**

ELECTRICAL SPECIFICATIONS

NATURAL GAS ☐

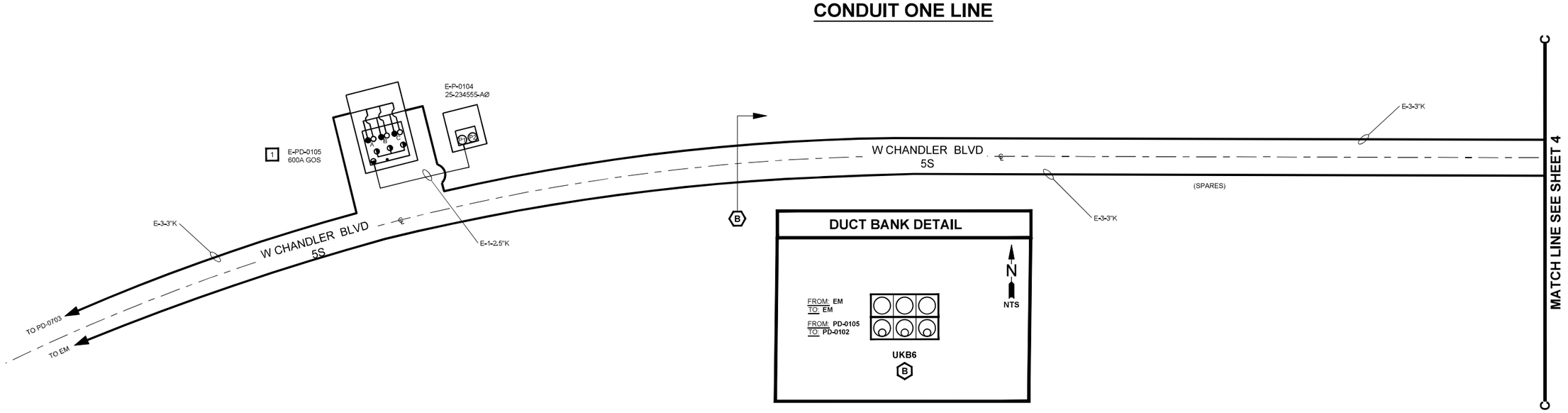
JOBNAME **COP - FIRE STATION 74**
ADDRESS/LOCATION **19TH AVE AND CHANDLER BLVD, PHX**
CONTACT **VERONICA ALVAREZ** PHONE **602-534-6136**
BILLING ACCT NO.
FIS JO MAP 1/4 **NE** S **36** T **1S** R **2E**
40/ACRE **ZB-36-01** COORDS **11 15/16E - 5 1/5S**
WAM WO **T3567105** WAM VERSION
COST CENTER **22640**
ROUTING CODE **DDY+8**

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

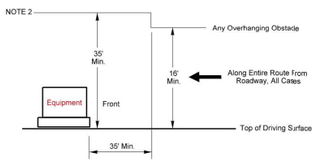
SHEET NUMBER **02** OF **06**

SRP PROPRIETARY

CONDUIT ONE LINE



Pad-Mounted Facilities Access Height Clearance Requirements (PROFILE VIEW)



NOTES

1. These required access dimensions are in addition to the electrical clearance standards. See SRP's Electric Clearance Standards.
2. The Boundary of Traveled Way is any permanent obstacle to vehicle access; (i.e., building, fence, Customer equipment, landscape, ditch, curb, guard post, etc.).

Boundary of Traveled Way

3. If proposed access route is different than any of the ones shown in these details, consult SRP Distribution Design.
4. 8' minimum clear space is required for backing and positioning beyond the equipment.
5. If SRP pad is over 40' beyond corner of turn, the width of the Traveled Way may be reduced from 30' to 20'.
6. For meter room or vault doors, the width of the Traveled Way may be reduced from 30' to 20'.
7. There are additional access requirements for vaults with hatches. Consult SRP Distribution Design.
8. When a commercial SES/meter room and the SRP transformer share the same Traveled Way, increase distance to 24'.
9. If guard posts are to be installed to protect equipment, the width of the Traveled Way shall be measured from the outside edge of guard post.

Electric Service Specifications	REV: INCLUDE SHARED ACCESS BTWN XFMR AND SES	PAGE 2 OF 2
PROPRIETARY MATERIAL	CLEARANCES VEHICLE ACCESS REQUIREMENTS PAD-MOUNTED FACILITIES & 1Ø TRANSFORMERS	ISSUE DATE: 02/09/11 REV. DATE: 02/01/23 APPROVAL: J. Robbins
	5-20	8509E347.DGN

SOIL TYPES, BACKFILL MATERIAL AND COMPACTION REQUIREMENTS

MAG SPECIFICATION 601-2 *Modified to meet most MAG Agency requirements.*	FROM SURFACE TO 2' BELOW SURFACE	FROM 2' BELOW SURFACE TO TRENCH BOTTOM
A. Under or within 2' existing or proposed pavement, curb, gutter or sidewalk	Native.....95% Granular.....100%	AI 95%
B. On any utility easement street, road or alley ROW outside limits of A	90%	90%*
C. Around and under any structures or pad-mounted equipment or exposed utilities	95%	95%
D. All other areas	80%	30%

* Applicable from 1' above conduit, 85% below.

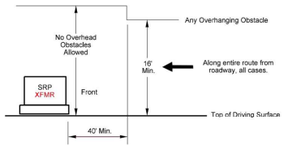
NOTE: Do not use machine compaction within 6" of cable or conduit.

SLURRY BACKFILL MIXES (NO COMPACTION REQUIRED)

MAT. ITEM #	ABBREV.	SLURRY TYPE	DESCRIPTION	COARSE AGGREGATE ASTM C33	FINE AGG.	SLJMP RANGE	MIN. CEMENT CONTENT (LBS/ CU. YD.)
0000100	ASB	Aggregate Slurry Backfill	Washed gravel and sand or clean ABC, no cement, backfill around wood and concrete transmission line poles and in trenches (no loads).	NO. 67 [3/4" (19mm) NOM. MAX.]	NOTES 11 & 12	6"-9"	NONE
0000104	CLSM ½ SACK	Controlled Low Strength Material w/ ½ Sack Cement PCY	Washed gravel and sand or clean ABC, with cement, trench backfill (low load areas-streets and lots).	MIXES IN ACCORDANCE WITH MAG 728 (13)			
0000105	CLSM 1 SACK	Controlled Low Strength Material w/ 1 Sack Cement PCY	Washed gravel and sand or clean ABC, with cement, trench backfill in low load areas (streets and lots). Use in lieu of CLSM ½ Sack as required by cities.				
0000106	CLSM 1 ½ SACK	Controlled Low Strength Material w/1 ½ Sack Cement PCY	Washed gravel and sand or clean ABC, with cement, structural backfill under foundations and as thermal fill and/or mechanical protection of duct banks.				
000109	DBS	Duct Bank Backfill w/ Sand Slurry	Grout for pumping around conduits placed in pipe sleeves.	NONE	NOTE 11	6"-9"	376

Electric Service Specifications	TRENCHING AND CONDUIT SOIL TYPES, BACKFILL MATERIAL AND COMPACTION REQUIREMENTS	ISSUE DATE: 06/25/90 REV. DATE: 11/07/12
PROPRIETARY MATERIAL	6-22	ES56-21to6-23.doc

3Ø Transformer Access Height Clearance Requirements (PROFILE VIEW)



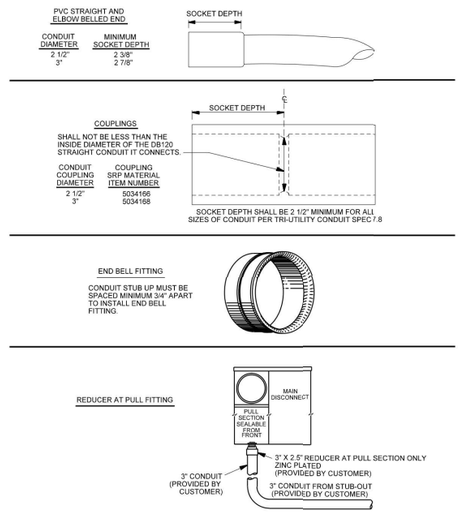
NOTES

1. These required access dimensions are in addition to the electrical clearance standards. See SRP's Electrical Clearance Standards book.
2. The Boundary of Traveled Way is any permanent obstacle to vehicle access (i.e., building, fence, Customer equipment, landscape, ditch, curb, etc.).

Boundary of Traveled Way

3. These requirements are based on maneuvering requirements of the QMC. If these cannot be obtained, a crane will have to be used. Consult SRP Distribution Design.
4. 8' minimum clear space is required for backing and positioning beyond the equipment.
5. Access way must support 80,000 lbs. GVW.
6. Consult Distribution Design for vehicle access to multiple pad-mounted equipment..
7. When a commercial SES/meter room and the SRP transformer share the same Traveled Way, increase distance to 24'.
8. If guard posts are to be installed to protect equipment, the width of the Traveled Way shall be measured from outside edge of guard post.

Electric Service Specifications	REV: INCLUDE SHARED ACCESS BTWN XFMR AND SES	PAGE 2 OF 2
PROPRIETARY MATERIAL	CLEARANCES VEHICLE ACCESS REQUIREMENTS 3Ø TRANSFORMERS	ISSUE DATE: 02/09/11 REV. DATE: 02/01/23 APPROVAL: J. Robbins
	5-22	8509E349.DGN



Electric Service Specifications	TRENCHING AND CONDUIT SIZES & SPECIFICATIONS BELLED ENDS AND FITTINGS	ISSUE DATE: 03/13/01 REV. DATE: 05/22/13 APPROVAL: W.LARAMIE
PROPRIETARY MATERIAL	6-3	8509E127.DGN

SECTION 7: TRANSFORMER PADS

NOTES

1. Three-phase transformer pads shall be pre-cast construction. Size is shown on the SRP design. Customer shall provide and install pad, secondary window cover plate (if required), ground rod, and all necessary conduit and backfill material. See Contractor-Supplied Material section for approved suppliers.

   Contact Distribution Design for transformer vault installations.
2. Pad shall be located to allow access and oriented to provide a minimum of 12' of clear working space at front of unit. Maintain minimum clearance of 3' at sides and 18" at back of pad (see page 5-12, items 5-10).
3. Conduits shall stub up 2" above final top surface of pad. Temporary conduit plugs (no duct tape) shall be installed in all conduits. A flat pull tape shall be tied to conduit plugs in the low voltage (secondary) opening/window. End bell fittings shall not be installed on any conduit stub-ups at the transformer. Size and number of conduits are shown on the SRP design.
4. Service conduit stubbed up in the rear off the pull box/window shall stub up in rear of the SES pad. Each consecutive row shall match the conduit stub up location in the transformer and SES. Straight runs of racked and encased service conduits of 50 feet and greater may be rolled to meet the above requirements.
5. In the "low voltage" (secondary) opening with more than 13 conduits, a pull box is required under the pad secondary window. See page 7-4, Secondary Pull-Box Placement for 3Ø Transformer, 750 – 3,000 kVA.
6. A 5/8" x 8' copper clad ground rod shall be installed in the "high voltage" opening of the transformer pad. The top of the ground rod shall be 2" above top of transformer pad.
7. For service conduits not requiring racking and encasement, backfill under pad shall be ½ sack CLSM (controlled low strength material), SRP material item number 5075313 consisting of washed gravel (#57 aggregate per ASTM C33) and sand slurry stabilized with Portland cement (1/2 sack Portland cement per cubic yard) in accordance with MAG section 728. For service conduits requiring racking and encasement, backfill shall be 1-1/2 sack CLSM, SRP item number 5075315 matching the conduit encasement backfill.

   SRP inspectors shall approve the subgrade before the pad is placed.
8. Top of pad shall be 4" minimum above surrounding grade and at sufficient elevation to prevent flooding.

Electric Service Specifications	REV: Extensive revisions to page. Changed page # from 7-7 to 7-3. Changed kVA from 2,500 to 3,000.	
PROPRIETARY MATERIAL	TRANSFORMER PADS PRECAST PAD FOR THREE-PHASE TRANSFORMER 0-3,000 kVA	ISSUE DATE: 11/21/12 REV. DATE: 08/15/19 APPROVAL: N. Sabbah
	7-3	ES57-3.doc

CONTACTS

DESIGN CONSULTANT:
JEREMY HUNT
OFFICE: **(602) 236- 4858**
MOBILE: **480-392-7966**

PROJECT LEADER:
VICTOR CUEVAS
MOBILE: **602-376-5538**

CONSTRUCTION CONSULTANT:
MARCEL KUNISKI
MOBILE: **480-793-0157**

INSPECTIONS:
OFFICE: **602-236-0676**

ELECTRICAL SPECIFICATIONS

NATURAL GAS ☐

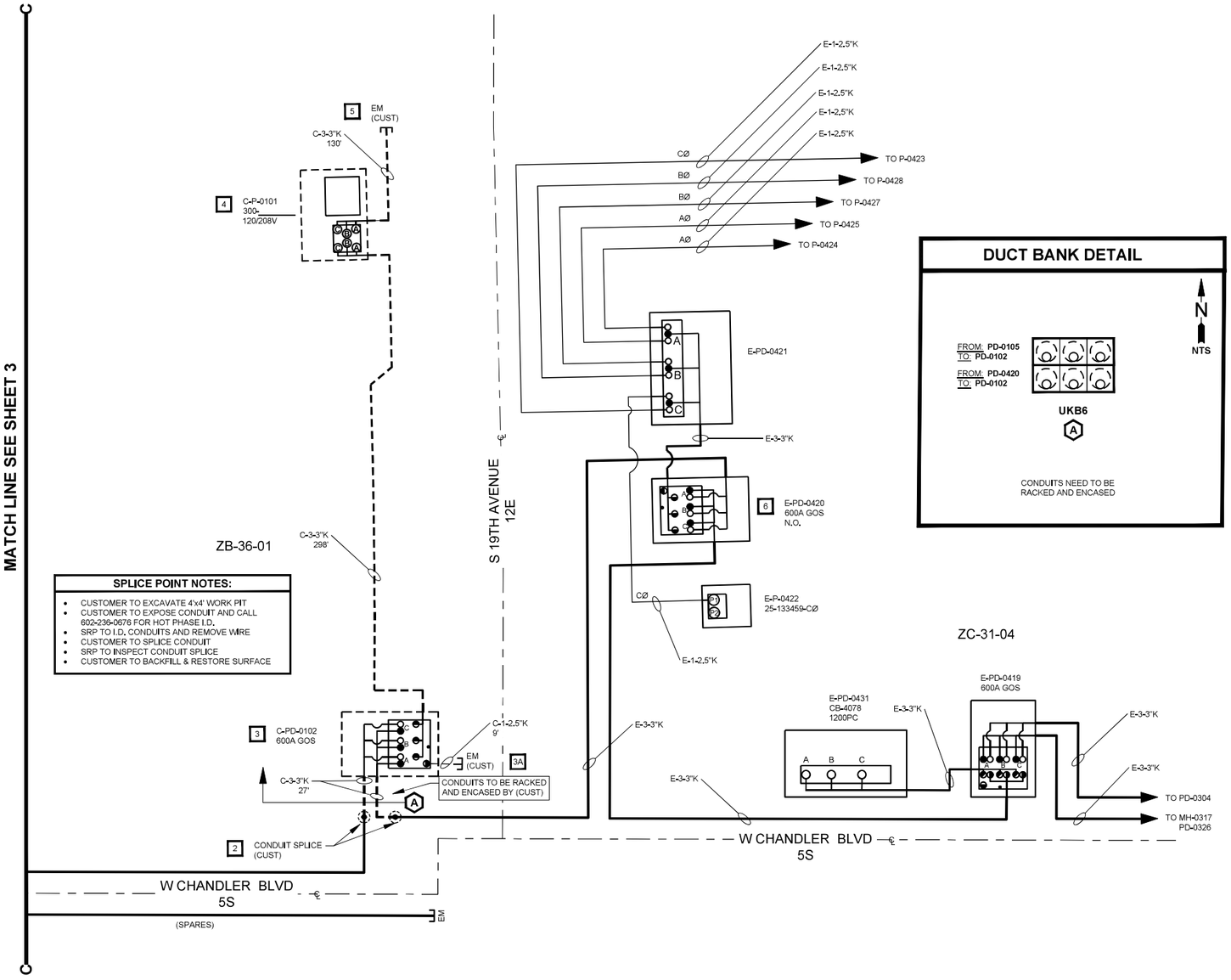
JOBNAME **COP - FIRE STATION 74**
ADDRESS/LOCATION **19TH AVE AND CHANDLER BLVD, PHX**
CONTACT **VERONICA ALVAREZ** PHONE **602-534-6136**
BILLING ACCT NO.
FIS JO MAP 1/4 **NE** S **36** T **1S** R **2E**
40/ACRE **ZB-36-01** COORDS **11 15/16E - 5 1/5S**
WAM WO **T3567105** WAM VERSION
COST CENTER **22640**
ROUTING CODE **DDY+8**

Contact Arizona 811 at least two full working days before you begin excavation. ARIZONA811 Call 811 or click Arizona811.com

SHEET NUMBER **03** OF **06**

SRP PROPRIETARY

CONDUIT ONE LINE



SPLICE POINT NOTES:

- CUSTOMER TO EXCAVATE 4'x4' WORK PIT
- CUSTOMER TO EXPOSE CONDUIT AND CALL 602-236-0676 FOR HOT PHASE I.D.
- SRP TO I.D. CONDUITS AND REMOVE WIRE
- CUSTOMER TO SPLICE CONDUIT
- SRP TO INSPECT CONDUIT SPLICE
- CUSTOMER TO BACKFILL & RESTORE SURFACE

DUCT BANK DETAIL

N

NTS

FROM: **PD-0105**
TO: **PD-0102**

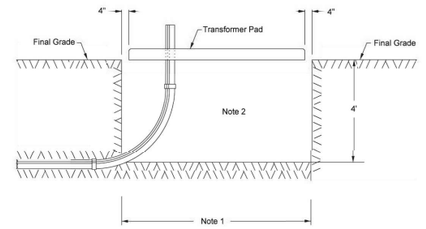
FROM: **PD-0420**
TO: **PD-0102**

UKB6

A

CONDUITS NEED TO BE RACKED AND ENCASED

SECTION 7: TRANSFORMER PADS



NOTES

1. Excavate 4' below pad. Pit shall extend on all sides 4" past edge of pad.
2. Backfill material under transformer pad shall be CLSM 1/2" sack material item 5075313. For installations in which service conduits require racking and encasement, backfill material shall be 1-1/2 sack CLSM material item 5075315.

Electric Service Specifications	REV: UPDATED TITLE BLOCK & CHANGED PAGE # FROM 7-6	
PROPRIETARY MATERIAL	TRANSFORMER PADS THREE-PHASE TRANSFORMER INSTALLATION REINFORCED EXCAVATION	ISSUE DATE: 01/23/19 REV. DATE: 08/15/19 APPROVAL: N. Sabbah
	7-5	8509E384.DGN

SERVICE ENTRANCE SECTION ADDRESSING & INDENTIFICATION

I. Addressing - Job Location

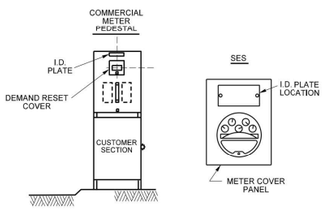
A. The assignment of street addresses is performed according to the "Address and Street Assignment Policy" adopted by the MAG or AHJ.
B. Any variance from the addresses assigned by the municipality may delay the energizing of electrical service. Clearances are dispatched to SRP using the address, apartment number, suite number, etc., originally assigned. SRP will accept numeric designations only.
C. The Customer shall furnish SRP with the assigned address corresponding to the job location when the application for electric service is made to SRP. This address, including the lot number, if any, shall be posted in a conspicuous location at the job site to assist SRP personnel in performing their work as scheduled.
D. All individual homes, suites, units, etc.,SES attached to building wall; address shall be posted on the front of the unit and easily visible from the ROW, using 2" height and width (minimum) letters and numbers (not painted).

II. SES identification by customer using permanent metal tags (not painted):

A. Single family dwellings, SES attached to dwelling wall; no addressing requirements at the meter.
B. Pedestals or meters mounted on equipment structure: Address and unit number as necessary shall be attached to the exterior of a panel not removable by the Customer (sealed panel) directly adjacent to each meter and repeated at each corresponding main breaker.
C. Pull sections with multiple meters attached to building wall: Address shall be attached to the exterior of the pull section panel not removable by the Customer (sealed panel). Unit number shall be attached to the exterior of a panel not removable by the Customer (sealed panel) directly adjacent to each meter and repeated at each corresponding main breaker.
D. Enclosed SES: Address shall be attached to the exterior door of the SES, unit number shall be attached to the interior of a panel not removable by the customer (sealed panel) directly adjacent to each meter and repeated at each corresponding main breaker.

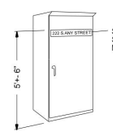
Electric Service Specifications		Page 1 of 2
PROPRIETARY MATERIAL	METERING & SES SERVICE ENTRANCE SECTION ADDRESSING & IDENTIFICATION	ISSUE DATE: 04/15/86 REV. DATE: 11/02/12 APPROVAL: W.LARAMIE
	9-10	8509E202.DGN

E. The identifying Labeling for SESs shall be metal riveted to the meter cover (see page 11-46, detail titled "Labeling SES, Meter Cover Panel"). If the main breakers are not installed directly adjacent to the meter, both the meter and the main breaker shall be identified with individual labels. SRP may require the Customer or their contractor to open the apartments or suites at the time the meters are set in order to verify that each meter socket serves the apartment or suite indicated by the marking labels.



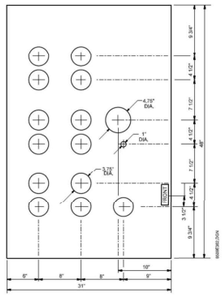
F. In the case of multiple buildings, the building or unit number and street addres shall be identified on the pull section in the manner described below.

SERVICE ENTRANCE SECTION



Electric Service Specifications		Page 2 of 2
PROPRIETARY MATERIAL	METERING & SES SERVICE ENTRANCE SECTION ADDRESSING & IDENTIFICATION	ISSUE DATE: 04/15/86 REV. DATE: 11/02/12 APPROVAL: W.LARAMIE
	9-11	8509E125.DGN

SECTION 11: CONTRACTOR-SUPPLIED MATERIAL



SRP Material Item No. 5031741	
Description	
Noun	Conduit
Adjective	Stub-up form
Sizes	13-3.75", 1-4.75" & 1-1" holes per drawing
Type	Recycled or new plastic
Use	For pad-mounted switch 5034828
Special Ref.	Made from polypropylene or polyethylene, SM-647561-5031741
Approved Suppliers	
	Rocky Mountain Template
	Underground Supply

NOTE: "FRONT" to be stamped or labeled into or on plastic and shall be of sufficient size to be easily readable.

Electric Service Specifications	Rev: Added approved suppliers.	8XR4_6300EE83
PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL CONDUIT STUB-UP FORM SPACER 13-3.75", 1-4.75" & 1-1" HOLES	ISSUE DATE: 06/02/04 REV. DATE: 06/26/18 APPROVAL: N. Sabbah
	11-26	ESS11-26.doc

CONTACTS	
DESIGN CONSULTANT:	**JEREMY HUNT**
OFFICE:	**(602) 236- 4858**
MOBILE:	**480-392-7966**
PROJECT LEADER:	**VICTOR CUEVAS**
MOBILE:	**602-376-5538**
CONSTRUCTION CONSULTANT:	**MARCEL KUNISKI**
MOBILE:	**480-793-0157**
INSPECTIONS:	
OFFICE:	**602-236-0676**

ELECTRICAL SPECIFICATIONS

NATURAL GAS ☐

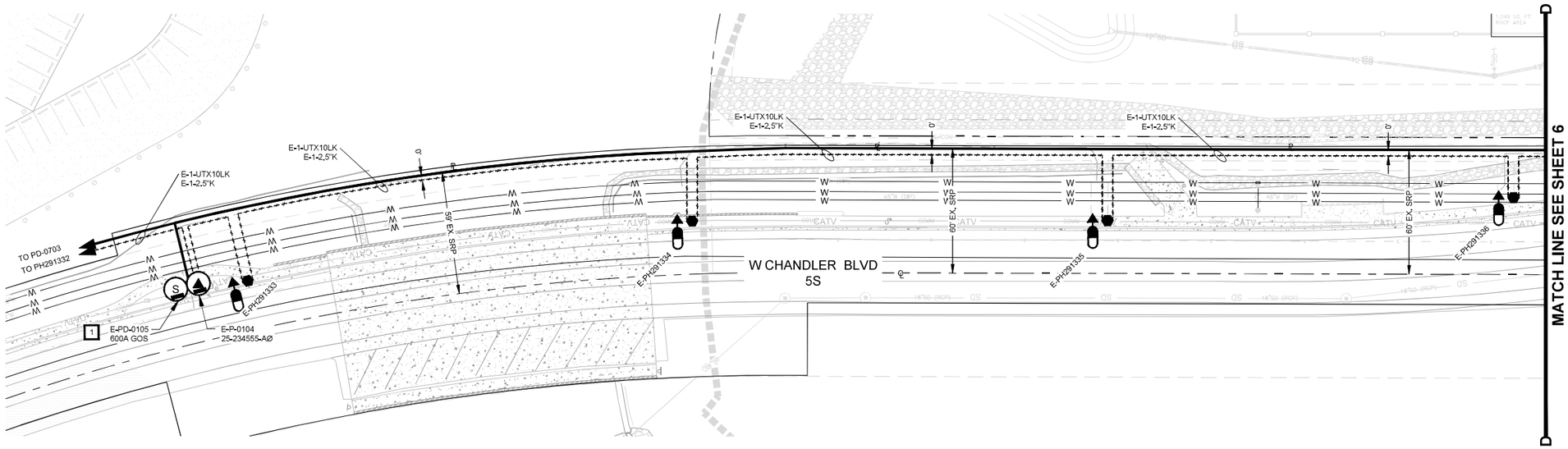
JOBNAME **COP - FIRE STATION 74**
ADDRESS/LOCATION **19TH AVE AND CHANDLER BLVD, PHX**
CONTACT **VERONICA ALVAREZ** PHONE **602-534-6136**
BILLING ACCT NO.
FIS JO MAP 1/4 **NE** S **36** T **1S** R **2E**
40/ACRE **ZB-36-01** COORDS **11 15/16E - 5 1/5S**
WAM WO **T3567105** WAM VERSION
COST CENTER **22640**
ROUTING CODE **DDY+8**

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Call 811 or click Arizona811.com

SHEET NUMBER **04** OF **06**

SRP PROPRIETARY

MAINLINE

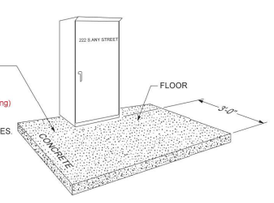


Dedicated 3' of concrete in front of the SES, supplied and installed by customer.

EXCEPTION: 5' drivable path. (except for drainage slope).

Pad shall be at the same elevation as SES pad. SES installed on an elevated (housekeeping) pad above the workspace is not permitted. EXCEPTION: NEMA 1 enclosures installed in meter rooms. Parking not allowed within 5' of SES.

NOTE: Drainage away from cabinet.



Switchboard Service Section Defined

1. A standard switchboard service section is a free-standing unit of switchgear that contains bussing for the termination of service entrance conductors, bussing for the connection and mounting of current transformers, panel for the installation of the test switch and meter socket, a service main disconnect switch or breaker, and in many cases, distribution feeder breakers or switches.
2. Switchboard service sections, approved for use in the area served by SRP, are to be built to the standards developed by the EUSERC, which are available to the Customer and contractor through electric wholesale distributors.
3. If service riser conductors are to be paralleled, they shall be paralleled in separate conduits. The only acceptable method is to install one of each phase conductor and neutral in each conduit (i.e., ABC of a 3-wire service or ABCN of a 4-wire service). If overhead service risers are to be paralleled, there shall be a maximum of two conductors per phase.
4. Overhead service entrance conductor requirements exceeding 800 amps or exceeding two 750 MCM conductors per phase shall be bus bar construction.
5. Submit electronic copies of the plans (PDF format preferred) for all proposed SES, 400 amps or larger, to shopdraw@srpnet.com for approval prior to construction of the service section. Drawings must be labeled with the Customer's name, job address, SRP job number or account number, and contractor's name and contact phone number.
6. All SES shall be braced for the total available fault current.
7. The above requirements apply to both overhead and underground SES.
8. Barriers shall be constructed from 16 gauge (min.) steel and secured so as not to be removable from either the Customer's section or exterior.
9. See page 9-43 for door locking requirements.

Switchboard Service Section Defined

1. Pages 9-40 thru 9-61 are EUSERC drawings illustrating the metering and pull section requirements.

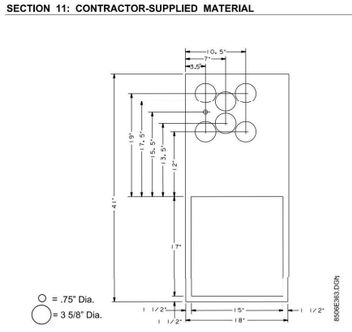
Electric Service Specifications	REV: ADDED NOTE	
PROPRIETARY MATERIAL	METERING & SES SWITCHBOARDS GENERAL INFORMATION	ISSUE DATE: 04/15/88 REV. DATE: 01/04/18 APPROVAL: N.SABBAH
	9-42	8509E100.DGN

SECTION 11: CONTRACTOR-SUPPLIED MATERIAL

SRP Material Item No. 5035671	
Description	
Noun	Marker
Adjective	Buried electronic
Size	15" diameter, 1" thick
Type	A tuned passive element
Style	Hermetically sealed
Use	To mark sub-surface facilities
Approved Supplier	**Part Number**
3M / MSC Industrial Supply	1251

Electric Service Specifications		
PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL BURIED ELECTRONIC MARKER 15" DIAMETER, 1" THICK	ISSUE DATE: 03/30/05 REV. DATE: 11/06/13 APPROVAL: W. Laramie
	11-22	ESS11-22.doc

SECTION 11: CONTRACTOR-SUPPLIED MATERIAL



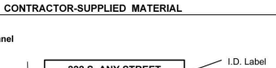
SRP Material Item No. 5031854	
Description	
Noun	Spacer
Adjective	Conduit stub-up form
Size	6-3.75" and 1-16" x 18" hole
Type	Recycled plastic
Material	200 mil. Polyethylene. These shall not be made of corrugated material.
Approved Supplier	**Part Number**
Rocky Mountain Template	Use description
Underground Supply	Use description

NOTE: Conduit spacer for 0-500 kVA, 3Ø transformer pad 5069778.

Electric Service Specifications	Rev: Updated Approved Suppliers.	
PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL CONDUIT STUB-UP TEMPLATE 0–500 kVA, 3Ø TRANSFORMER	ISSUE DATE: 04/18/05 REV. DATE: 06/26/18 APPROVAL: N. Sabbah
	11-34	ESS11-34.doc

SECTION 11: CONTRACTOR-SUPPLIED MATERIAL

Meter Cover Panel



NOTES

The identifying label shall:

1. Be impressed into or raised from a label aluminum or brass (non-ferrous metal).
2. Have a ¼" minimum letters ($^3/_{16}$" letters for Dymo-type metal labels).
3. Have impressions deep enough to prevent it from being obscured by paint.

Pull Section, Multiple Buildings

NOTES

The identifying label shall:

1. Be ¾" minimum red block letters on white background.
2. Be an aluminum or brass (non-ferrous) label permanently affixed by metal rivets or double-sided tape (3M F9473PC) to outside of exterior door.
3. Not be painted directly on the door.

Allowable Connected Load

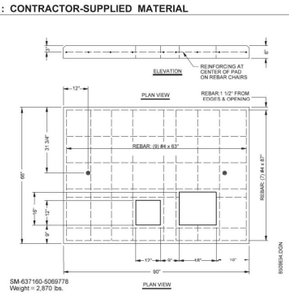
NOTES

The identifying label shall:

1. Be ¼" minimum red block letters on white background.
2. Be an aluminum or brass (non-ferrous) label permanently affixed by metal rivets or double-sided tape (3M F9473PC) to outside of exterior door.
3. Not be painted directly on the door.

Electric Service Specifications	REV: Added Allowable Connected Load. DGN. 8509E318	
PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL LABELING, SES	ISSUE DATE: 11/19/10 REV. DATE: 05/09/19 APPROVAL: N. Sabbah
	11-51	ESS11-51.doc

SECTION 11: CONTRACTOR-SUPPLIED MATERIAL



SRP Material Item No. 5069778	
Description	
Noun	Pad
Adjective	Transformer
Size	7.5' x 5.5'
Type	0-500 kVA
Style	Precast
Special Ref.	SM-637160
Material	Concrete
Approved Supplier	**Part Number**
Jensen Precast	Use Description
Oldcastle	Use Description
Olson Precast	Use Description

NOTES

1. See referenced SM for construction specifications.

Electric Service Specifications		
PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL THREE-PHASE TRANSFORMER PADS 75-500 kVA	ISSUE DATE: 06/27/16 REV. DATE: APPROVAL: N. Sabbah
	11-54	ESS11-54.doc

CONTACTS

DESIGN CONSULTANT:
JEREMY HUNT
OFFICE: **(602) 236- 4858**
MOBILE: **480-392-7966**

PROJECT LEADER:
VICTOR CUEVAS
MOBILE: **602-376-5538**

CONSTRUCTION CONSULTANT:
MARCEL KUNISKI
MOBILE: **480-793-0157**

INSPECTIONS:
OFFICE: **602-236-0676**

ELECTRICAL SPECIFICATIONS

NATURAL GAS ☐

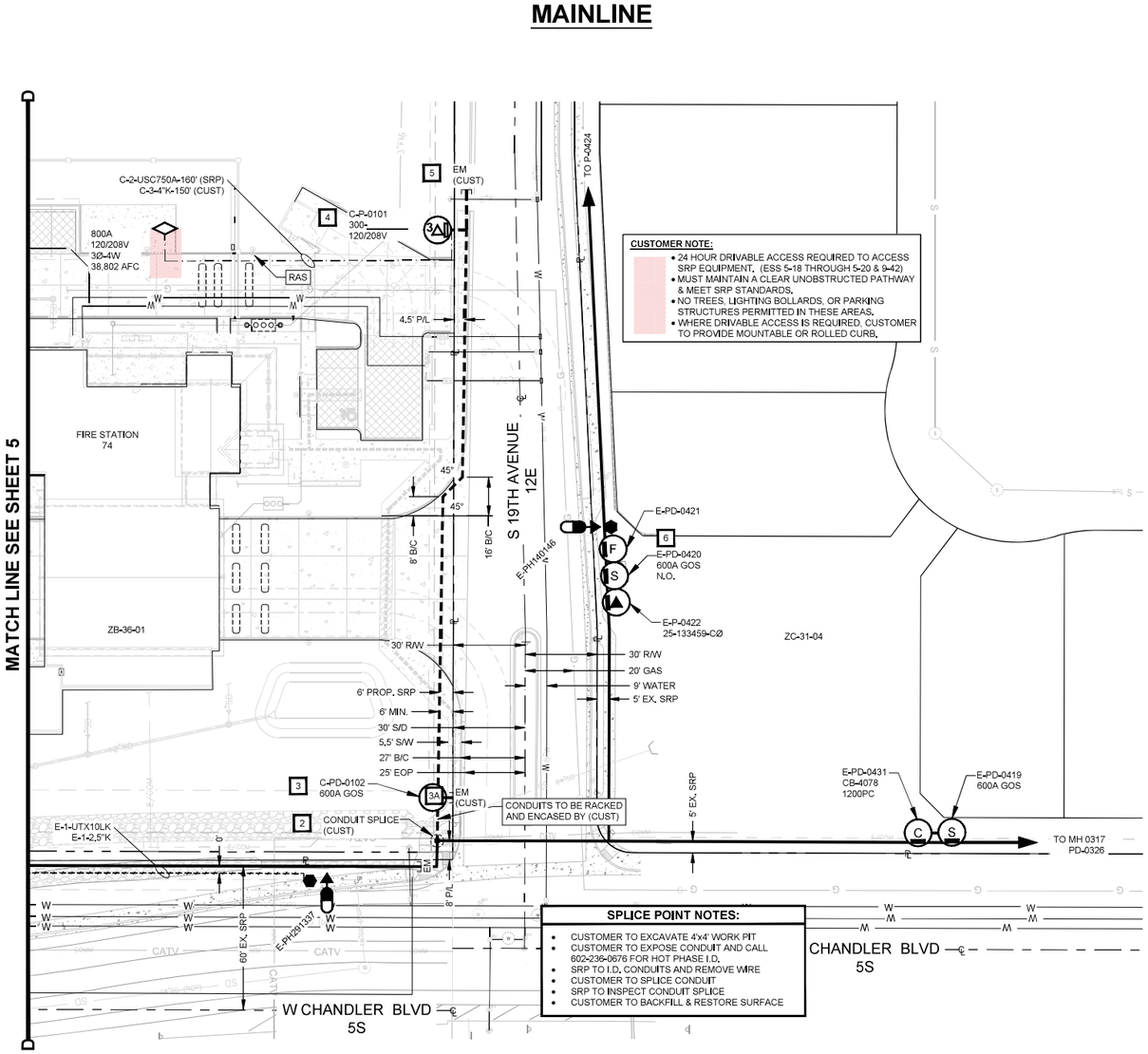
JOBNAME **COP - FIRE STATION 74**
ADDRESS/LOCATION **19TH AVE AND CHANDLER BLVD, PHX**
CONTACT **VERONICA ALVAREZ** PHONE **602-534-6136**
BILLING ACCT NO.
FIS JO MAP 1/4 **NE** S **36** T **1S** R **2E**
40/ACRE **ZB-36-01** COORDS **11 15/16E - 5 1/5S**
WAM WO **T3567105** WAM VERSION
COST CENTER **22640**
ROUTING CODE **DDY+8**

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Call 811 or Click Arizona811.com

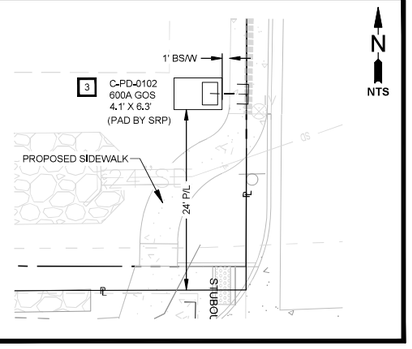
SHEET NUMBER **05** OF **06**

SRP PROPRIETARY

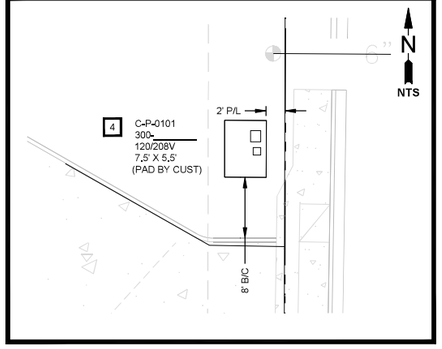
MAINLINE

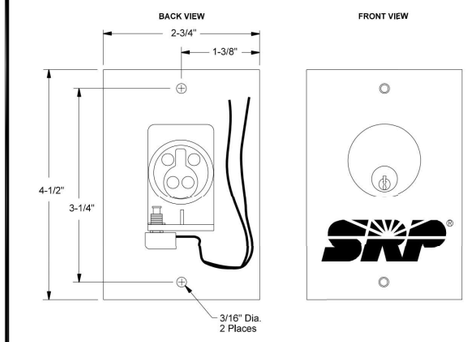


PAD LOCATION DETAIL @ PT. 3



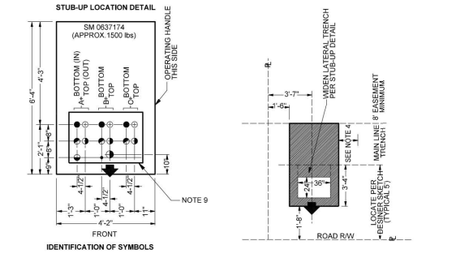
PAD LOCATION DETAIL @ PT. 4





NOTES
1. SRP requires the Customer to install a restricted access switch (RAS) on each existing or proposed main and guest electronic entry gate(s), and restricted electronic exit gate(s) that provide continuous 24-hour access.
2. RAS to be supplied and installed by the Customer. Customer to ensure the control circuit remains operational, which may include the installation of a replacement RAS by the Customer.
3. SRP shall have final approval on all RAS locations. Preferred locations are the side of the gate entry system pedestal facing oncoming traffic, or behind the box as shown on page 11-61.
4. The installation shall not impede the operation or placement of additional gate operation devices.
5. Click here for additional information regarding SRP's electric gate restricted access switch guidelines.

Electric Service Specifications	REV: UPDATED NOTE 3	
PROPRIETARY MATERIAL	CONTRACTOR-SUPPLIED MATERIAL RESTRICTED ACCESS SWITCH (RAS)	ISSUE DATE: 01/22/19 REV. DATE: 08/08/23 APPROVAL: C. OBrien
	11-60	8509E379.DGN

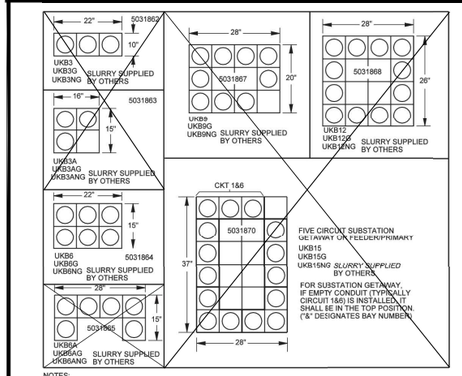


IDENTIFICATION OF SYMBOLS

SYMBOL	POSITION	CABLE TERMINATION
1 ○	TOP	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
2 ◑	TOP-TAP	3" CONDUIT FOR EITHER: 500MCM FEEDER, 750MCM FEEDER OR 4/0 AL
3 ◑	TOP-TAP	4" CONDUIT FOR 3-4/0 AL (NOTE 8)
4 ◒	TOP-TAP	2-1/2" CONDUIT FOR FUSED SINGLE PHASE TRANSFORMER (NOTE 10)TAP INTERNALLY FUSED. (A Ø TOP ONLY)
5 ◐	BOTTOM-TAP	3" CONDUIT FOR 4/0 AL CAPACITOR TAP (W/ SYMBOL #6 BELOW) REQUIRES PARKING STAND EXTENSION 5035030)
6 ●	BOTTOM	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
7 •	GROUND ROD	

NOTES
1. ALL PAD ELEVATIONS SHALL BE ESTABLISHED BY SURVEY (BLUE TOP), AND TOP OF PAD SHALL BE 4" ABOVE FINAL GRADE IN IMMEDIATE AREA.
2. PAD MUST BE LEVEL BEFORE SETTING ENCLOSURE.
3. AREA UNDER PAD MUST BE COMPACTED PER TRENCH SPECIFICATIONS.
4. MAINTAIN A MINIMUM OF 3 FT SEPARATION BETWEEN SWITCH PAD AND THE PAD OF ADJACENT EQUIPMENT.
5. IF 3 FT OF CLEAR SPACE ON THE RIGHT SIDE (NOTE 4) IS OBSTRUCTED, A SWITCH WITH THE OPERATING HANDLE ON THE LEFT IS AVAILABLE (STOCK CODE 5034823), BEWARE THIS SWITCH DOES NOT HAVE THE SINGLE-PHASE FUSED TOP CAPACITY.
6. MAINTAIN A MINIMUM OF 12 FT CLEARANCE IN FRONT OF SWITCH DOORS.
7. IF OBSTACLES ARE ANTICIPATED IN FRONT OF THE SWITCH (E.G. DESIGNATED PARKING), THE SWITCH SHALL BE ROTATED 90° SO THE OPERATING HANDLE FACES ROAD RIGHT-OF-WAY. ADDITIONAL LABELING SHALL BE PLACED ON THE SIDE OF THE ENCLOSURE FACING ROAD RIGHT OF WAY.
8. STUB UP ONE 4" CONDUIT AS SHOWN ABOVE WHEN TAPPING INTO AN EXISTING 3 - 4/0 AL IN ONE 4" CONDUIT. THIS AVOIDS THE NEED FOR A PULL BOX AT THE SWITCH TO SEPERATE THE 4/0 AL OUT INTO 3 - 3" CONDUIT.
9. SEE PAGES 3-13-3 AND 3-13-4 WHEN THIS SWITCH WILL BE TIED INTO DIRECT BURIED CABLE OR OVERHEAD SYSTEM THAT WILL BE CONVERTED TO ALL CONDUIT SYSTEM IN THE FUTURE.
10. 50KVA MAXIMUM. ONE 50KVA OR TWO 25KVA TRANSFORMERS. IF TWO 25K/A TRANSFORMERS ARE CONNECTED, TRAFFIC SIGNALS (AUTO OR RAIL) MAY ONLY BE SERVED FROM FIRST TRANSFORMER OUT.

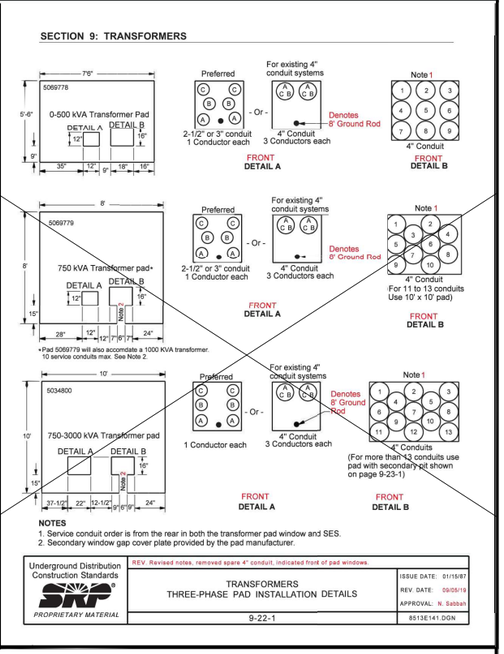
Underground Distribution Construction Standards		
PROPRIETARY MATERIAL	SWITCHING AND FUSING DEAD FRONT SWITCHING ENCLOSURE	ISSUE DATE: 01/15/87 REV. DATE: 07/25/13 APPROVAL: B. PRIEST
	3-13-2	8513E524.DGN



NOTES:
1. A 2/0 COPPER NEUTRAL WILL BE REQUIRED WITH DUCT BANKS FROM A SUBSTATION OUT TO THE TERMINATION OR SPLICE POINT AS SPECIFIED BY DESIGNER. SEE PAGE 4-13-2 FOR 2/0 COPPER INSTALLATION INSTRUCTION.
2. ALL UKB CONDUIT BANKS CONSIST OF 3" CONDUITS WITH A MINIMUM OF 2 IN CONTROLLED LOW STRENGTH MATERIAL (1- 1/2 SACKS CEMENT/YD.) ENCASEMENT AND WILL HAVE SPACERS LOCATED AT 6 FT INTERVALS.
3. ADD "F" TO CONDUIT BANK CODE WHEN ENCASING WITH FULL STRENGTH CONCRETE.
4. ADD SUFFIX "FE" TO GET ENCASING WITH FULL STRENGTH RED CONCRETE. EL PASO GAS CROSSING)
5. CONDUIT CONFIGURATIONS OTHER THAN THOSE SHOWN MUST BE SPECIFIED BY DESIGNER ON SKETCH. INNER SPACES OF UKB6, UKB12 & UKB15 ARE NOT TO BE USED, AS EXCESS HEATING WILL RESULT.
6. THESE CONDUIT BANKS, WITH THE EXCEPTION OF SUBSTATION GET-AWAYS, MAY BE ROTATED 90 OR 180 DEGREES AS SPECIFIED BY DESIGNER.
7. WHEN TRENCHING UNDER EXISTING CONDUIT BANKS REFER TO UKBS2 FOR SUPPORTING SPECIFICATIONS (PG. 4-16-1).
8. THE ABOVE DIMENSIONS ARE NOMINAL OVERALL FOR DETERMINING TRENCH DIMENSIONS.
9. INDIVIDUAL CONDUITS ARE NOT TO BE ENCIRCLED WITH STEEL SUCH AS WIRE OR REBAR AS EXCESSIVE HEATING WILL RESULT. ENCIRCLEMENT AROUND ENTIRE DUCT BANK IS PERMISSIBLE.
10. REFER TO CLEARANCE SECTION FOR MINIMUM COVER OF A DUCT BANK INSTALLED IN ROAD RIGHT OF WAYS.
11. ON SUBSTATION GET-AWAYS DESIGNATE TOP ROW OF CONDUIT TO BE IN TOP WINDOW OF MANHOLE.

Underground Distribution Construction Standards	REV: UPDATED STOCK CODES	Page 1 of 2
PROPRIETARY MATERIAL	CONDUIT FEEDER OR PRIMARY 3" CONDUIT BANK SPECIFICATION CODES	ISSUE DATE: 01/15/87 REV. DATE: 11/30/14 APPROVAL: B.PRIEST
	4-13-1	8513E13.DGN

SECTION 9: TRANSFORMERS



NOTES
1. Service conduit order is from the rear in both the transformer pad window and SES.
2. Secondary window gap cover plate provided by the pad manufacturer.

Underground Distribution Construction Standards	REV. Revised notes, removed spare 4" conduit, indicated front of pad windows.	
PROPRIETARY MATERIAL	TRANSFORMERS THREE-PHASE PAD INSTALLATION DETAILS	ISSUE DATE: 01/15/87 REV. DATE: 09/05/19 APPROVAL: N. Sabbah
	9-22-1	8513E141.DGN

CONTACTS

DESIGN CONSULTANT:
JEREMY HUNT
OFFICE: **(602) 236- 4858**
MOBILE: **480-392-7966**

PROJECT LEADER:
VICTOR CUEVAS
MOBILE: **602-376-5538**

CONSTRUCTION CONSULTANT:
MARCEL KUNISKI
MOBILE: **480-793-0157**

INSPECTIONS:
OFFICE: **602-236-0676**

ELECTRICAL SPECIFICATIONS

NATURAL GAS ☐

JOBNAME **COP - FIRE STATION 74**
ADDRESS/LOCATION **19TH AVE AND CHANDLER BLVD, PHX**
CONTACT **VERONICA ALVAREZ** PHONE **602-534-6136**
BILLING ACCT NO.
FIS JO MAP 1/4 **NE** S **36** T **1S** R **2E**
40/ACRE **ZB-36-01** COORDS **11 15/16E - 5 1/5S**
WAM WO **T3567105** WAM VERSION
COST CENTER **22640**
ROUTING CODE **DDY+8**

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Call 811 or click Arizona811.com

SHEET NUMBER **06** OF **06**

SRP PROPRIETARY