

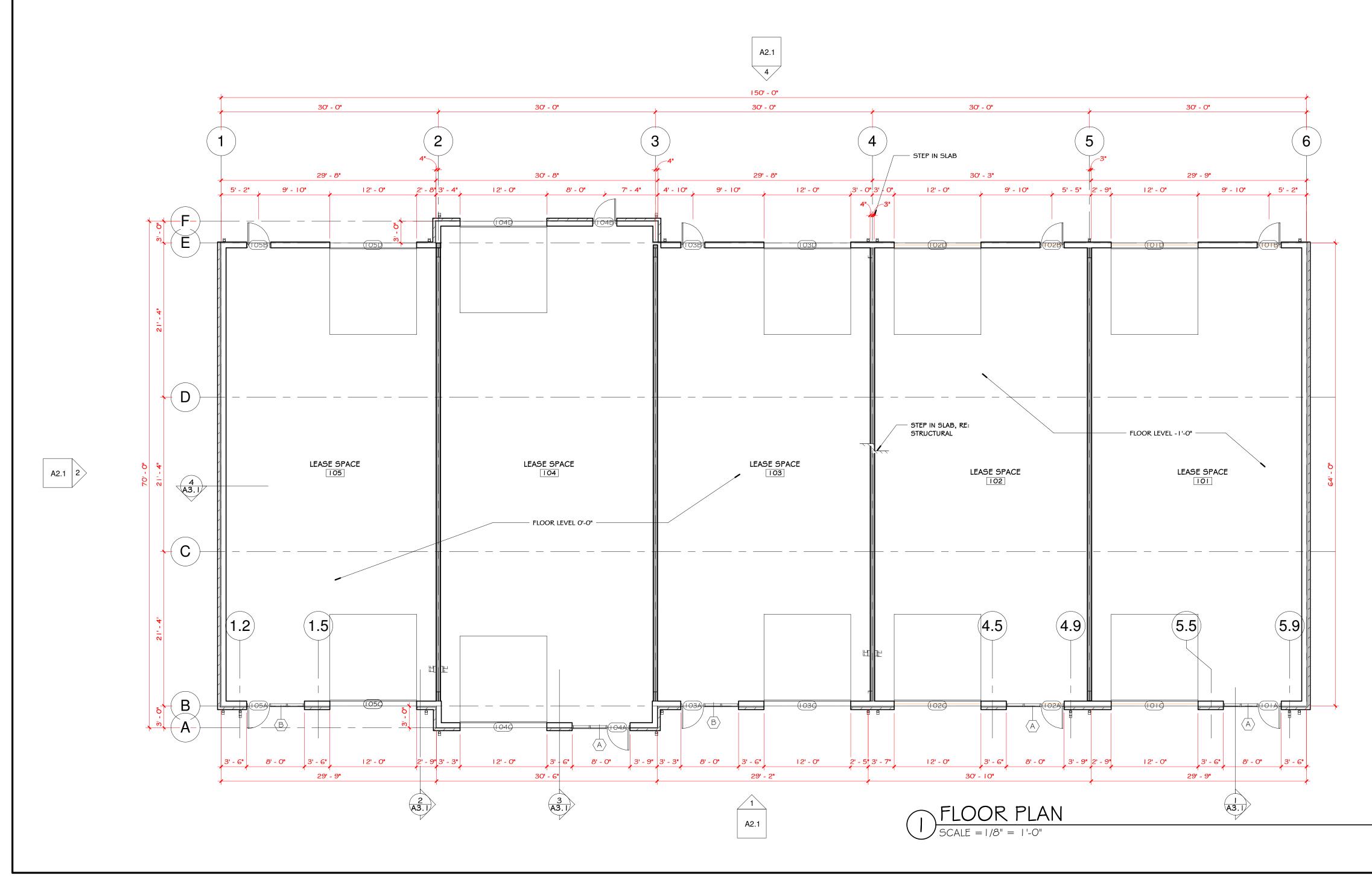
| <u>BUILDING CODE:</u>   | 2012 ARKANSAS FIRE PREVENTION CO<br>(2012 IBC WITH AMENDMENTS)<br>2017 NATIONAL ELECTRICAL CODE<br>2006 ARKANSAS PLUMBING CODE<br>2006 ARKANSAS STATE FUEL & GAS CO<br>2010 ARKANSAS MECHANICAL CODE<br>2011 ARKANSAS ENERGY CODE<br>2009 ANSI A-117.1   |  |
|---|--|--|
| OCCUPANCY (Chapt  | er 3 Use and Occupancy)  | B-BUSINESS   |
|   | FRAME<br>ARING WALLS<br>N-BEARING WALLS<br>N-BEARING WALLS   | IIIB - NOT SPRINKLERED<br>NON-COMBUSTIBLE- 0 HR<br>COMBUSTIBLE- 0 HR<br>NON-COMBUSTIBLE- 0 HR<br>COMBUSTIBLE- 0 HR<br>COMBUSTIBLE- 0 HR  |
| IRE SEPARATION DIS<br>NORTH<br>EAST<br>SOUTH<br>WEST  | STANCES:   | 20'<br>>30'<br>20'<br>>30'   |
| ALLOWABLE #<br>AREA INCREA<br>If= [F/P -0.25]W<br>AREA INCREA<br>(one story), Is =<br>TOTAL ALLOW<br>OTAL ENCLOSED AF<br>OTAL OCCUPANTS:<br>B-BUSINESS,<br>MEANS OF EGRESS S<br>(1005.3.1) STA<br>(1005.3.2) 98 P<br>10 DOORS x 33  | SF PER FLOOR. ( <i>Table 503</i> ) =<br># FLOORS ( <i>Table 503</i> ) =<br>SE DUE TO FRONTAGE ( <i>506.1</i> )<br>//30 =<br>SE DUE TO SPRINKLERS ( <i>506.3</i> )<br>= A x 3 =<br>/ABLE AREA PER FLOOR ( <i>506.2</i> ) =<br><b>REA:</b><br>( <i>Table 1004.1.2</i> )<br>100 GROSS = 9,784 sf / 100 sf=<br><b>SZING:</b> (1005)<br>IRWAYS #PEOPLE x .3"<br>PEOPLE x .2" / PERSON =   | 19,000sf<br>3 FLOORS<br>N/A<br>N/A<br>19,000 sf<br>9,784 sf<br>98 PEOPLE<br>N/A<br>19.6" REQUIRED<br>320" PROVIDED   |
| #<br>A0.0 COVER S<br>A1.1 FLOOR P<br>A1.2 ROOF PL<br>A2.1 ELEVATION<br>A3.1 WALL SE<br>S0 STRUCTON<br>DETAILS   | PLAN<br>AN & SCHEDULES<br>ONS<br>CTIONS<br>URAL NOTES &  |  |
| P000PLUMBINP100PLUMBINP500PLUMBINP600SEWER FP700PLUMBINE000ELECTRIE100LIGHTINOE101POWER FE600PANEL S  | IG DETAILS<br>RISER<br>IG SPECS<br>CAL NOTES<br>G PLAN   |  |
|   | IDERSTOOD THAT THE ARCHITECT SHAL<br>ERVICES, UNLESS, AND ONLY TO THE EX<br>ITIONAL SERVICES. ACCORDINGLY, THE   | XTENT SPECIFICALLY REQUESTED BY<br>E ARCHITECT SHALL NOT BE LIABLE TO<br>FOR OR THROUGH THE CLIENT OR THE  |
| THE CLIENT AS ADD<br>THE CLIENT, TO THE<br>OWNER, FOR ERRO<br>UPON THE EXERCIS<br>CONSTRUCTION OF<br>THE OWNER OR TO<br>ANY CHANGES IN DE<br>WRITTEN APPROVA<br>HARMLESS, INDEMN<br>CAUSES OF ACTION<br>OF REASONABLE CA<br>WHICH ARE NOT BR<br>FURTHER WORK IS<br>APPROVED IN WRIT | RS OR OMISSIONS IN THE CONSTRUCTIONS<br>SE OF REASONABLE CARE SHOULD HAV<br>WORK. LIKEWISE, THE ARCHITECT SHAP<br>ANY PARTY WORKING FOR OR THROUC<br>ESIGN OR CONSTRUCTION MADE DURIN<br>L OF THE ARCHITECT. THE CLIENT AND/ON<br>NIFY AND DEFEND THE ARCHITECT FROM<br>FOR COST OR DAMAGES WHICH a) ARE<br>ARE SHOULD HAVE BEEN DISCOVERED EN<br>OUGHT TO THE ARCHITECT'S ATTENTION | YE BEEN, DISCOVERED DURING THE<br>ALL NOT BE LIABLE TO THE CLIENT, TO<br>GH THE CLIENT OR THE OWNER, FOR<br>IG CONSTRUCTION WITH-OUT THE PRIOR<br>OR THE OWNER SHALL HOLD<br>M AND AGAINST ANY AND ALL CLAIMS OR<br>E DISCOVERED OR UPON THE EXERCISE<br>BY THE OWNER OR CONTRACTOR, AND<br>ON FOR REVIEW AND ACTION BEFORE<br>IN CONSTRUCTION AND/OR DESIGN NOT<br>ERRORS OR OMISSIONS OF THE |

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| Revision Schedule   | Description            |   |  |
|---|------------------------|---|--|
| Revi  | Date                   |   |  |
|   | Rev.#                  |   |  |
| NEW OFFICE WAREHOUSE 5-BAY BLDG.<br>2247 WORTH LANE<br>SPRINGDALE, ARKANSAS   |                        | MTNWA INVESTMENTS, LLC<br>1457 E. ROBINSON AVE.<br>SPRINGDALE, AR 72764 |  |
| <b>DATE</b><br>06/01/22   |                        | DRAWN BY<br>ELP   |  |
|   | <b>DJECT #</b><br>2169 | CHECKED BY<br>JTK   |  |
| A0.0  |                        |   |  |
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|      |             |          |          | Doo  | r Schedule |      |        |         |          |  |
|------|-------------|----------|----------|------|------------|------|--------|---------|----------|--|
|      |             |          |          | F    | rame       | [    | Door   |         |          |  |
| Mark | Room Name   | Width    | Height   | Туре | Finish     | Туре | Finish | Glazing | Comments |  |
|      |             |          |          |      |            |      |        |         |          |  |
| 101A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |  |
| 101B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |  |
| 101C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |
| 101D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |
| 102A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |  |
| 102B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |  |
| 102C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |
| 102D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |
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| 103B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |  |
| 103C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |
| 103D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |
| 104A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |  |
| 104B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |  |
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| 105D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |  |

### GENERAL NOTES

I. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE MUNICIPALITY AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

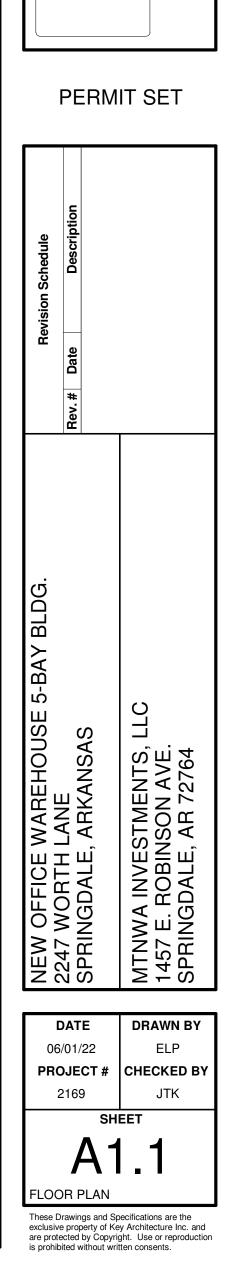
- ALL WORK AND ALL FINISHES, INCLUDING TYPE, COLOR AND LOCATION, SHALL BE COORDINATED WITH THE OWNER.
   ALL DIMENSIONS ARE TO CENTERLINE OF COLUMNS, FACE OF BUILDING LINE OR STUD, TYPICAL, UNLESS NOTED OTHERWISE (U.N.O.). WHEN NOTED AS EXISTING THE DIMENSIONS SHOWN ARE TO FACE OF EXISTING FINISH PRIOR TO START OF CONSTRUCTION.
- 4. VERIFY ALL DIMENSIONS, DOOR AND WINDOW SIZES AND LOCATIONS PRIOR TO LAYOUT WITH THE OWNER. COORDINATE ALL OWNER PROVIDED EQUIP.
  5. ALL DOOR AND WINDOW DIMENSIONS ARE NOMINAL AND MUST BE COORDINATED WITH MANUFACTURES. ROUGH OPENING
- DIMENSIONS ARE TO BE COORDINATED WITH DOOR AND WINDOW SHOP DRAWINGS.6. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO
- START OF WORK. CONTRACTOR TO NOTIFY ARCHITECT TO ANY DISCREPANCY WITH THE PLANS AND SPECIFICATIONS PRIOR TO BEGINNING WORK.
  7. PROVIDE FIRE EXTINGUISHERS PER NFPA- I O AND COORDINATE
- WITH LOCAL BUILDING AND/OR FIRE OFFICIALS.
  8. PROVIDE KNOX BOX ON EXTERIOR OF BUILDING, COORDINATE EXACT LOCATION WITH LOCAL BUILDING AND/OR FIRE OFFICIALS.
  9. PROVIDE WOOD BLOCKING IN STUD WALLS FOR ANCHORAGE OF GRAB BARS, PAPER HOLDERS, VANITIES, WALL MOUNTED DOOR
- STOPS, SINKS, SHELVING, TELEVISIONS ETC. COORDINATE WITH OWNER PRIOR TO COVER-UP. I O. PROVIDE BATT INSULATION AT ALL EXTERIOR WALLS AND SOUND ATTENUATION BLANKETS AT ALL NEW WALLS AT TOILET AREAS
- UNLESS NOTED OTHERWISE. I I. PROVIDE I 1/2" RIGID INSULATION FULL HEIGHT AT PERIMETER OF BUILDING STEM WALLS & BASEMENT WALLS, AND FOR 2'-0" HORIZONTAL UNDER SLABS. INSULATION SHALL MEET ALL STATE AND LOCAL ENERGY CODES. I 2. TOILET ROOM TO BE PROVIDED WITH FORCED AIR VENTILATION
- TO THE EXTERIOR. 13. PROVIDE ROOM SIGNAGE AT ALL DOORS AS REQUIRED BY THE INTERNATIONAL BUILDING CODE, ANSI A 1 17.1, AND THE AMERICANS WITH DISABILITY ACT. COORDINATE WITH OWNER FOR NAMES, NUMBERS, STYLE AND TYPE OF SIGN. ALL SIGNAGE TO HAVE RAISED BRAILLE CHARACTERS AS REQUIRED.

## GENERAL DOOR & WINDOW NOTES

- ALL DOORS, WINDOWS AND FRAMES TO BE FINISHED PER
- OWNER'S REQUIREMENTS. . ALL DOOR AND WINDOW DIMENSIONS ARE TO THE FINISHED FRAME UNLESS OTHERWISE NOTED. IT IS THE CONTRACTORS
- RESPONSIBILITY TO COORDINATE AND VERIFY ROUGH OPENINGS WITH WINDOW MANUFACTURES SHOP DRAWINGS. ALL DOOR AND WINDOW TYPES AND MANUFACTURER TO BE DETERMINED BY THE OWNER.
- ALL HARDWARE TO COMPLY WITH REQUIREMENTS FOR EGRESS AND ACCESSIBILITY.
  PROVIDE THRESHOLD AT ALL FLOOR FINISH TRANSITIONS, TYPICAL U.N.O. VERIFY TYPES AND LOCATIONS WITH THE
- OWNER. THRESHOLDS SHALL BE NO MORE THAN 1/2" IN HEIGHT AND PROVIDE FOR ACCESSIBLE PASSAGE. G. REFER TO PLAN AND/OR DOOR SCHEDULE FOR DOOR SIZES AND
- NOTES ON SPECIAL DOOR TYPES. 7. ALL MULTI-USE TOILET ROOMS TO BE PROVIDED SELF-CLOSING

### GENERAL FINISH NOTES

- . WALL FINISH SHALL BE SMOOTH FINISH, NO TEXTURE, PAINTED,
- UNLESS NOTED OTHERWISE (U.N.O.). 2. ALL FINISHES TO BE COORDINATED WITH THE OWNER, INCLUDING
- TYPE, COLOR AND LOCATION. PROVIDE FINISH TOE KICK OR BASE TRIM AT BASE CABINETS FOR CABINET BASE AND WALL BASE AS PER FINISH SCHEDULE OR NOTES. COORDINATE WITH OWNER.
- PROVIDE CORNER GUARDS PER SPEC AT ALL OUTSIDE SHEET ROCK CORNERS TYPICAL.



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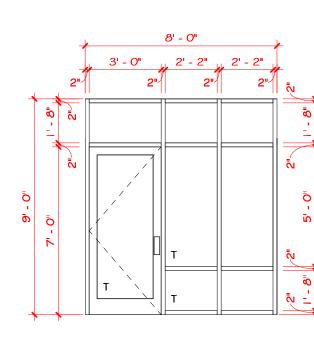
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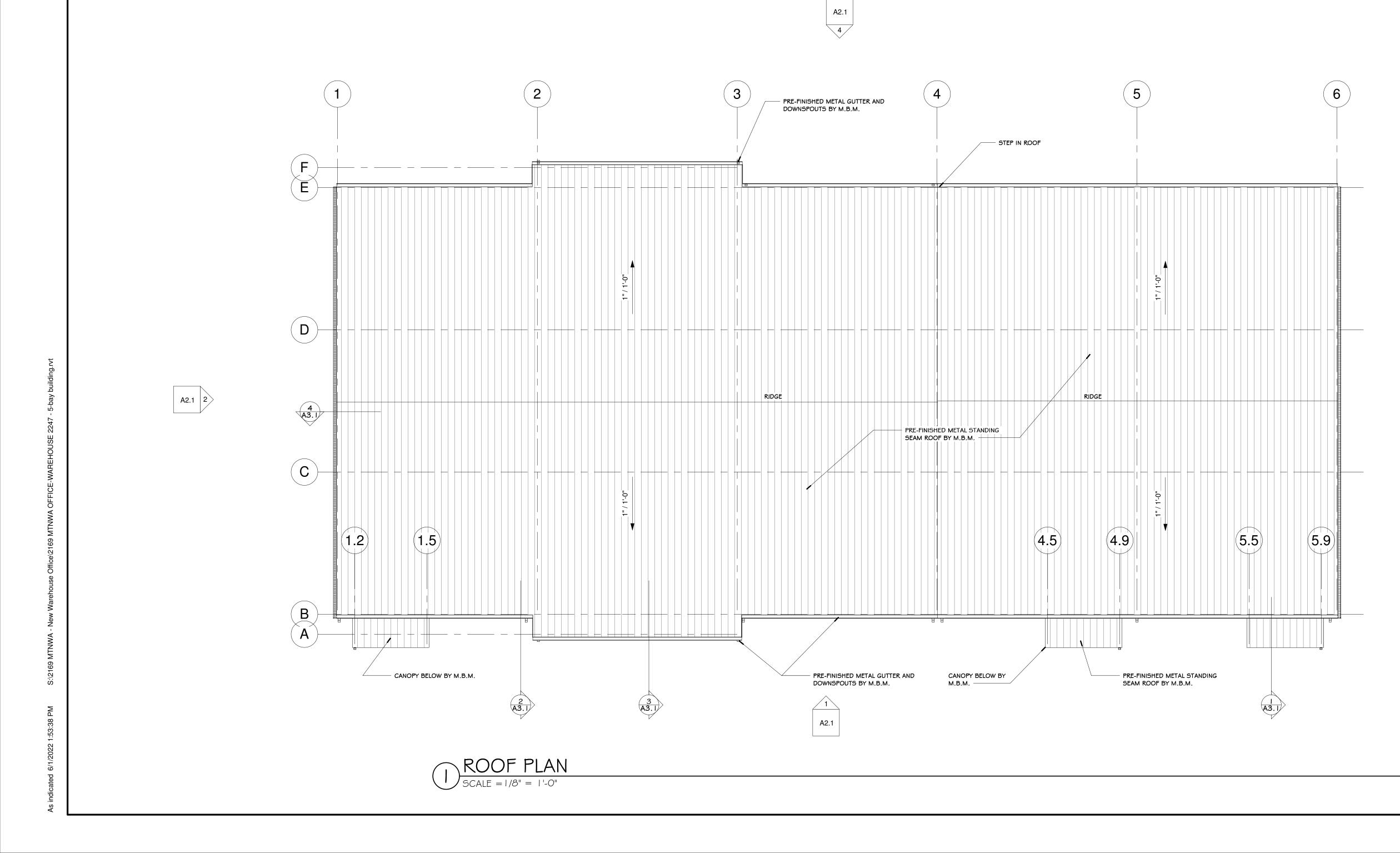
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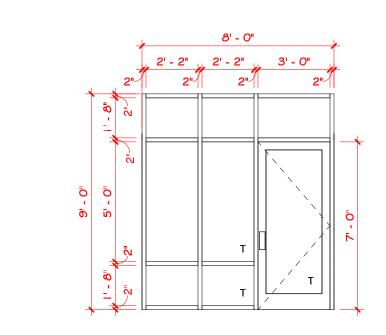




STOREFRONT ELEVATION - B



|      |             |          |          | Door | r Schedule |      |        |         |          |
|------|-------------|----------|----------|------|------------|------|--------|---------|----------|
|      |             |          |          | Fr   | ame        | [    | Door   |         |          |
| Mark | Room Name   | Width    | Height   | Туре | Finish     | Туре | Finish | Glazing | Comments |
|      |             |          |          |      |            |      |        |         |          |
| 101A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |
| 101B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |
| 101C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 101D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 102A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |
| 102B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |
| 102C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 102D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 103A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |
| 103B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |
| 103C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 103D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 104A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |
| 104B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |
| 104C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         |          |
| 104D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         |          |
| 105A | LEASE SPACE | 3' - 0"  | 7' - 0"  | ALUM | CL-ANO     | ALUM | CL-ANO | TEMP    |          |
| 105B | LEASE SPACE | 3' - 0"  | 7' - 0"  | HM   | PT         | HM   | PT     |         |          |
| 105C | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |
| 105D | LEASE SPACE | 12' - 0" | 12' - 0" |      |            |      |        |         | 1        |



STOREFRONT ELEVATION - A

## 3

CLEAR ANODIZED ALUMINUM FRAMES I" DOUBLE PANE INSULATED GLAZING T = TEMPERED PANELS SEAL SECTION S



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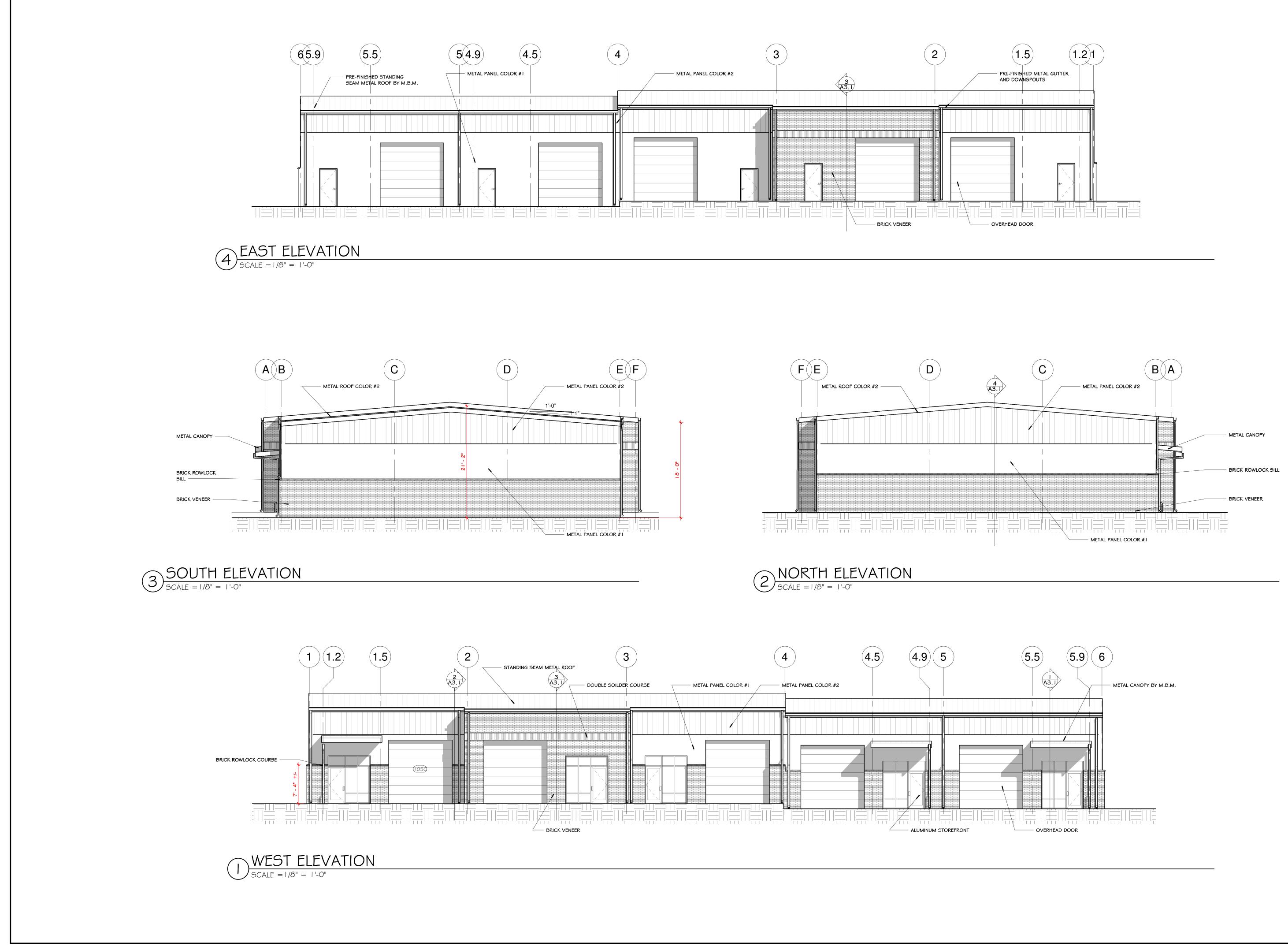
| Revision Schedule                | Rev. # Date Description           |  |
|----------------------------------|-----------------------------------|--|
| NEW OFFICE WAREHOUSE 5-BAY BLDG. | SPRINGDALE, ARKANSAS              | MTNWA INVESTMENTS, LLC<br>1457 E. ROBINSON AVE.<br>SPRINGDALE, AR 72764                              |
| 06<br>PRC                        | DATE<br>/01/22<br>DJECT #<br>2169 | DRAWN BY<br>ELP<br>CHECKED BY<br>JTK   |
| ROOI                             | A                                 | ILC<br>SCHEDULES   |
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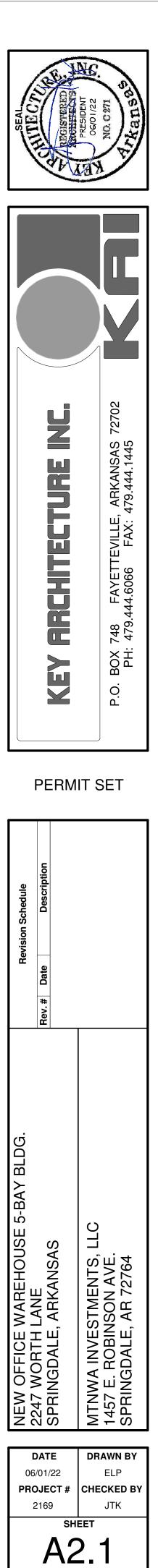
 KEYED DOOR NOTES:
 I. PRE-FINISHED METAL INSULATED SECTIONAL OVERHEAD DOORS

 I. ALL DOORS, WINDOWS AND FRAMES TO BE FINISHED PER OWNER PEOLUPEMENTS

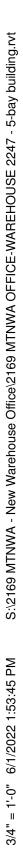
- ALL DOORS, WINDOWS AND FRAMES TO BE FINISHED PER OWNER'S REQUIREMENTS.
   ALL DOOR AND WINDOW DIMENSIONS ARE TO THE FINISHED FRAME UNLESS OTHERWISE NOTED. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE AND VERIFY ROUGH OPENINGS WITH WINDOW MANUFACTURES SHOP DRAWINGS.
- WITH WINDOW MANUFACTURES SHOP DRAWINGS. ALL DOOR AND WINDOW TYPES AND MANUFACTURER TO BE DETERMINED BY THE OWNER.
- ALL HARDWARE TO COMPLY WITH REQUIREMENTS FOR EGRESS AND ACCESSIBILITY.
  PROVIDE THRESHOLD AT ALL FLOOR FINISH TRANSITIONS, TYPICAL U. N. O. VERIEY TYPES AND LOCATIONS WITH THE
- TYPICAL U.N.O. VERIFY TYPES AND LOCATIONS WITH THE OWNER. THRESHOLDS SHALL BE NO MORE THAN 1/2" IN HEIGHT AND PROVIDE FOR ACCESSIBLE PASSAGE. REFER TO PLAN AND/OR DOOR SCHEDULE FOR DOOR SIZES AND
- NOTES ON SPECIAL DOOR TYPES. 7. ALL MULTI-USE TOILET ROOMS TO BE PROVIDED SELF-CLOSING

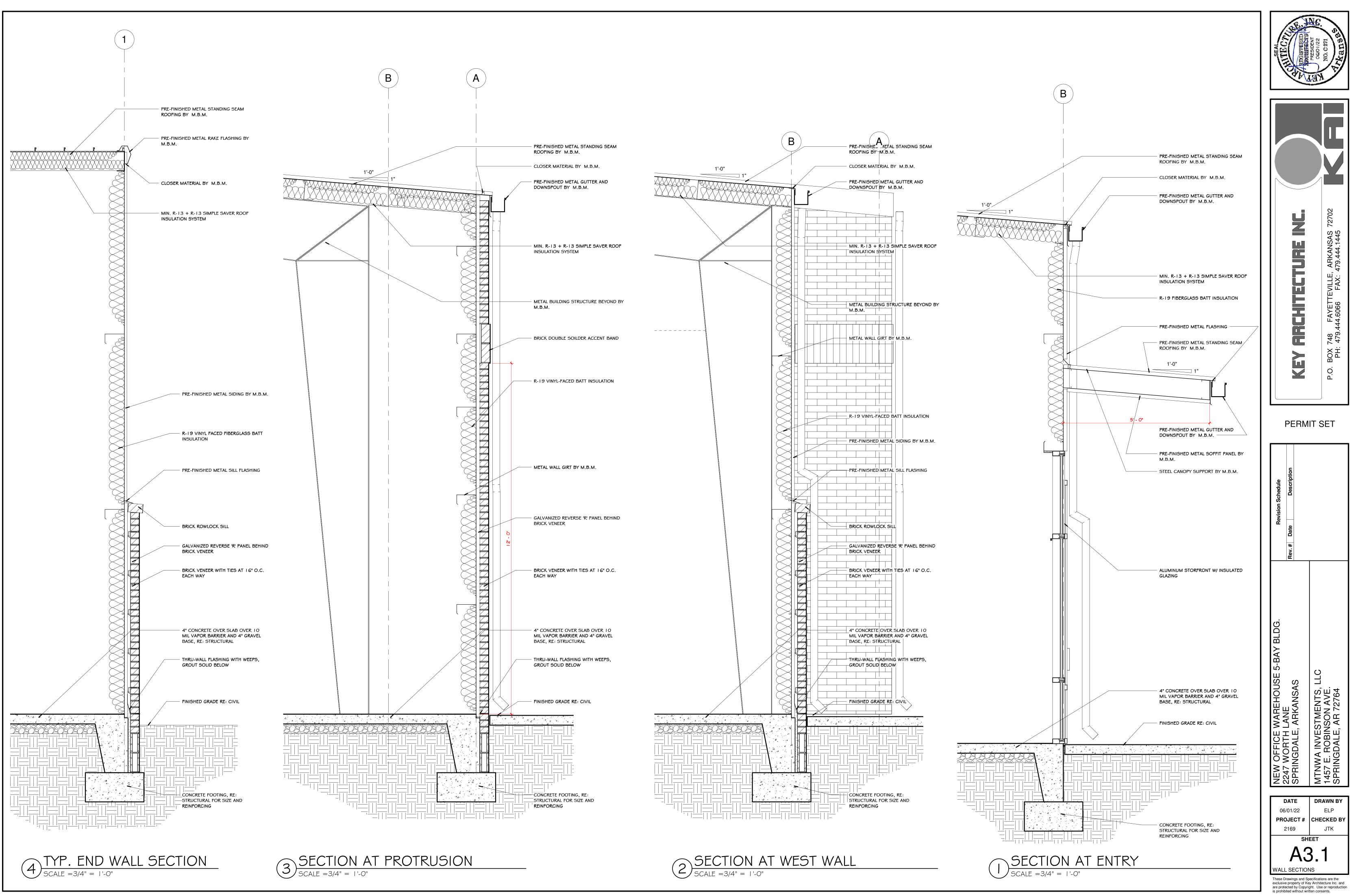
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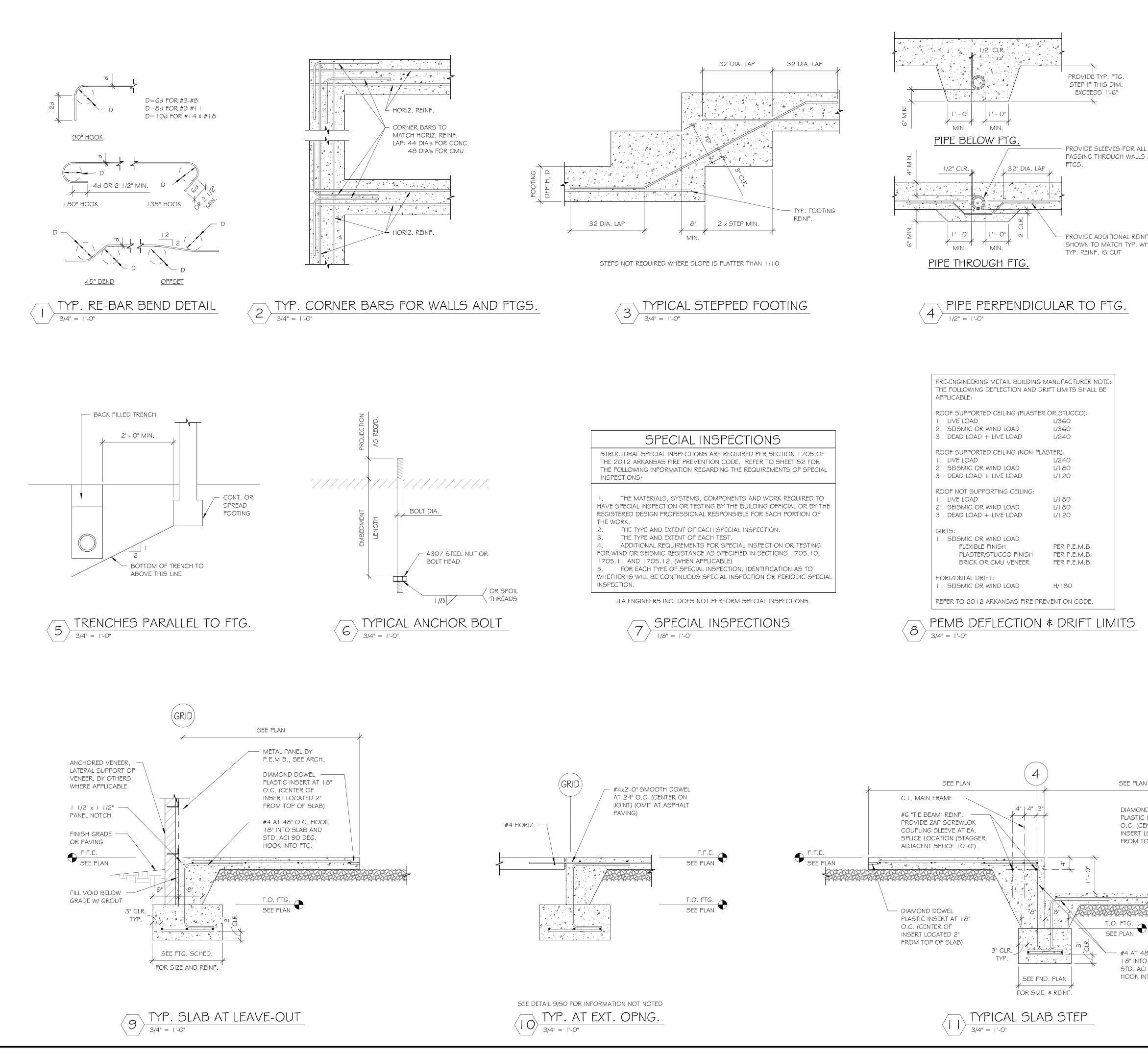


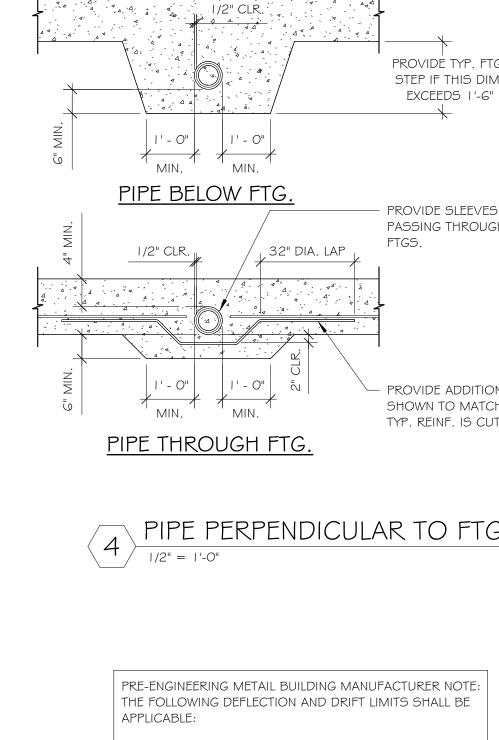
ELEVATIONS These Drawings and Specifications are the exclusive property of Key Architecture Inc. and are protected by Copyright. Use or reproduction is prohibited without written consents.

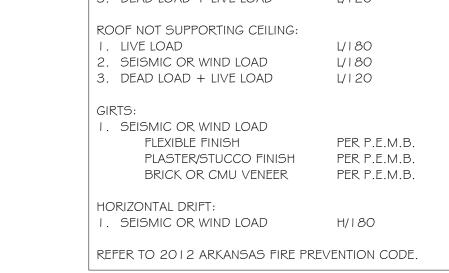












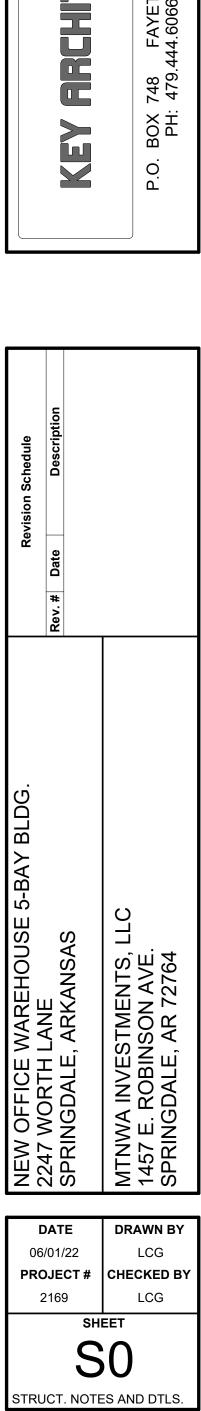


|                                    |    | STRUCTUR   | RAL NO   | TES   | 111                              |
|------------------------------------|----|--|--|---|----------------------------------|
|                                    | ١. | ALL ELEVATIONS ARE GIVEN WITH REFERENCE  | O FINISH FLOOR DAT   | UM 100'-0".   | SAS<br>SAS<br>TER                |
|                                    | 2. | ALL STRUCTURAL SELECT FILL SHALL BE APPRO<br>TO 95% OF THE MAXIMUM DRY DENSITY PER S   |  |   | NGINE<br>NGINE                   |
|                                    | 3. | FOOTINGS ARE TO BEAR ON FIRM RED, TAN A<br>WITH SAND OR STRUCTURAL SELECT FILL. ALL  |  |   |                                  |
| FTG.<br>DIM.                       | 4. | FOOTING ELEVATIONS NOTED ARE FOR BIDDIN<br>OBTAIN THE SPECIFIED BEARING CAPACITY AN  |  | IALL BE LOWERED AS NECESSARY TO                                     | <u>}</u>                         |
| -6"                                | 5. | THE FOUNDATION IS DESIGNED FOR A BEARIN<br>AND 2000 PSF FOR ISOLATED COLUMN FOOT<br>TO BOTTOM OF FOOTING AT EXTERIOR CONDI<br>BY MTA ENGINEERS, INC.                             | INGS. PROVIDE 24" N  | 11N. FROM FINISH GRADE OR PAVING                                    |                                  |
| /ES FOR ALL PIPES                  | 6. | CONCRETE SHALL HAVE A 28 DAY STRENGTH FOLLOWS:   | MAXIMUM SLUMP A  | ND MAXIMUM AGGREGATE SIZE AS  |                                  |
| UGH WALLS AND                      |    | FOOTINGS AND STEMWALLS:<br>INTERIOR SLAB:<br>EXTERIOR SLAB:  | 3000 PSI - 6" SLUN<br>3000 PSI - 4" SLUN<br>3500 PSI - 4" SLUN | IP - 1" AGG.  |                                  |
|                                    |    | ALL CONCRETE EXPOSED TO FREEZE/THAW SH.<br>SHALL CONFORM TO GRADE GO ASTM A-G I 5.<br>MINIMUM, UNLESS NOTED OTHERWISE.   |  |   |                                  |
|                                    | 7. | VERIFY ALL DIMENSIONS, SLOPES, DEPRESSIO   | NS, EMBEDMENTS ET  | C. BEFORE PLACING CONCRETE.   |                                  |
| TIONAL REINF. AS<br>TCH TYP. WHERE | 8. | LAP ALL UNDER-SLAB VAPOR BARRIER SHEETS  | A MINIMUM OF 6" A  | ALL SPLICES.  | <b>L</b>                         |
| CUT                                | 9. | PROVIDE SLAB CONTROL JOINTS (CJ) WHERE I<br>SLAB DEPTH AND SHALL BE ONE OF THE FOLL  |  | C.J.'S SHALL BE APPROX. 1/4 OF THE                                  |                                  |
| -0                                 |    | <ul> <li>A. SAWCUT AS SOON AS POS<br/>WITHIN 12 HOURS OF POL</li> <li>B. ZIP CAP TYPE JOINT FORMIC</li> </ul>  | R.<br>R.   |   |                                  |
| G.                                 |    | C. TOOLED JOINTS FOR EXTER<br>CONST. JOINTS W/ 3/8"x4 1/2" PNA DIAMOND<br>CONTROL JOINT AND SHALL BE USED WHERE I  | DOWELS AT 18" O.C.   |   |                                  |
|                                    | 10 | . P.E.M.B. MANUF. SHALL BE RESPONSIBLE FOR<br>VENEER.  |  |   |                                  |
| _                                  |    | . DESIGN CRITERIA<br>CODE: 2012 ARKANSAS FIRE PREVENTION CC  | DE   |   |                                  |
|                                    |    | ROOF LIVE LOAD:<br>ROOF DEAD LOAD:<br>ROOF COLLATERAL LOAD:  | 20 F<br>PER  | °SF<br>P.E.M.B.<br>P.E.M.B.   | KEY ARCHITEC                     |
|                                    |    | SNOW LOAD<br>GROUND SNOW LOAD, Pg:<br>FLAT ROOF SNOW LOAD, Pf.:<br>DESIGN ROOF SNOW LOAD:<br>SNOW EXPOSURE FACTOR, Ce:<br>SNOW LOAD IMPORTANCE FACTOR, IS<br>THERMAL FACTOR, Ct: | 1.0  |   |                                  |
|                                    |    | WIND LOAD<br>BASIC WIND SPEED Vult:<br>BASIC WIND SPEED Vasd:<br>WIND IMPORTANCE FACTOR, I:<br>RISK CATEGORY:<br>WIND EXPOSURE CATEGORY:<br>INTERNAL PRESSURE COEFF.:            | 5<br>90  <br>  .0<br>  <br>C<br>+0                             |   |                                  |
|                                    |    | COMPONENTS & CLADDING (ASD):   |  | P.E.M.B.  | 5                                |
|                                    |    | SEISMIC LOAD<br>SEISMIC RISK CATEGORY:<br>SEISMIC IMPORTANCE FACTOR:<br>MAPPED SPECTRAL RESPONSE COEFF<br>SPECTRAL RESPONSE COEFF.:<br>SITE CLASS:<br>SEISMIC DESIGN CATEGORY:   |  | = 0.170, S <sub>1</sub> = 0.094<br>= 0.136, S <sub>D1</sub> = 0.106 | Revision Schedule<br>Description |
|                                    |    | THIS FOUNDATION DESIGN COMPLIES WITH TH  | E ARKANSAS SEISMI  | C STANDARDS.  | Date                             |
| <i>I</i> ITS                       |    |  |  |   | #                                |
|                                    |    |  |  |   | Rev.                             |

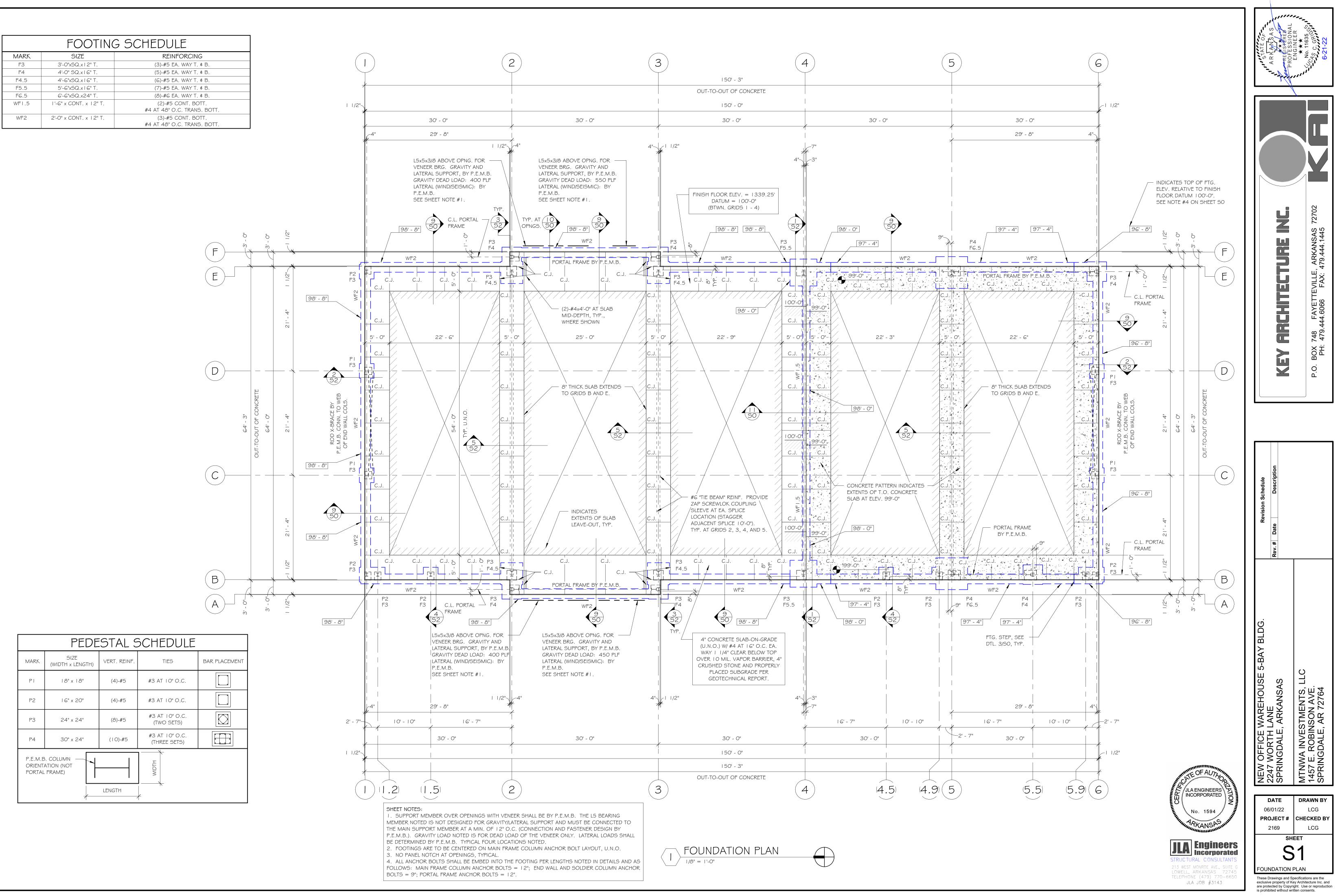
SEE PLAN DIAMOND DOWEL PLASTIC INSERT AT 18" O.C. (CENTER OF INSERT LOCATED 2" FROM TOP OF SLAB) F.F.E. SEE PLAN 

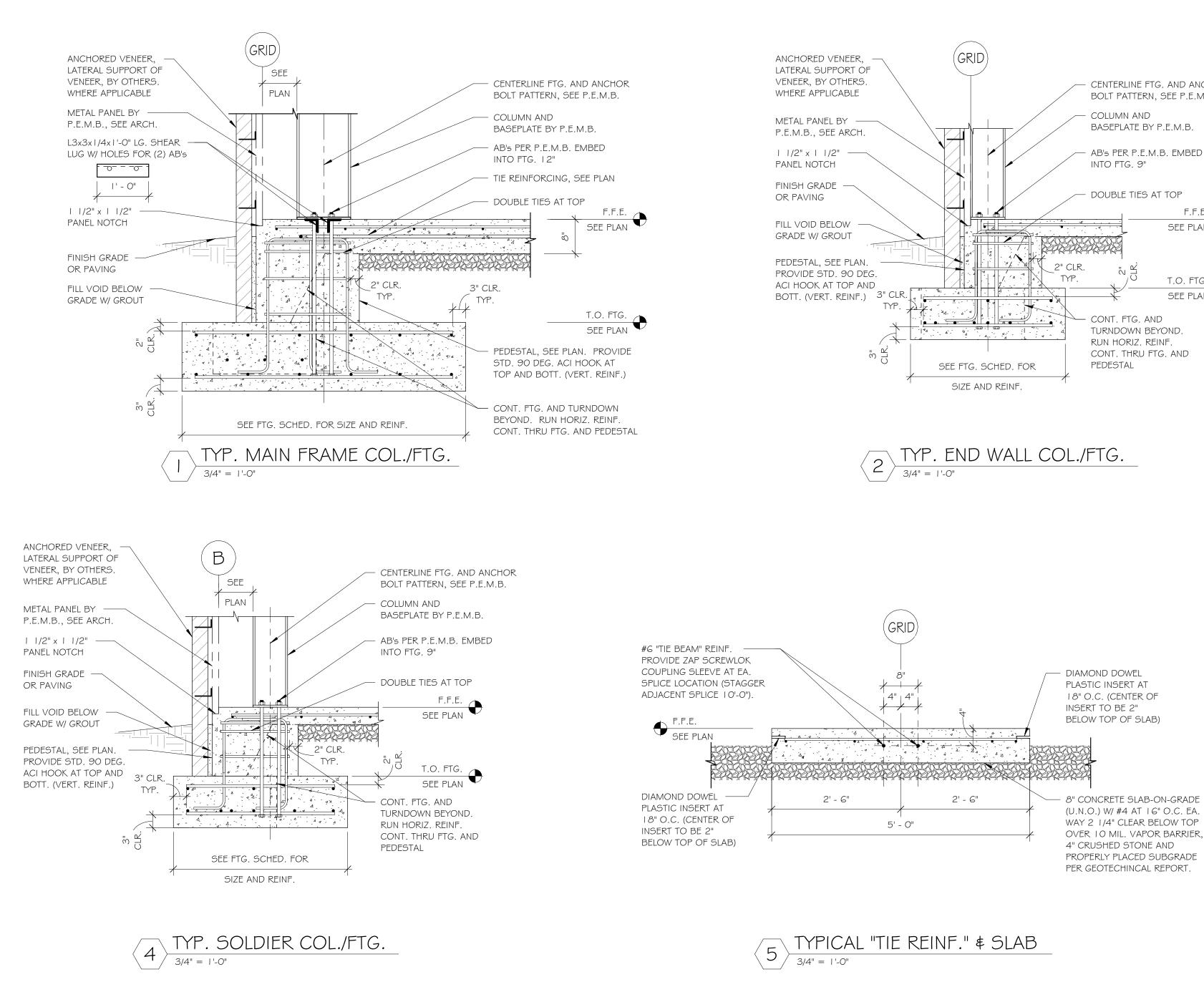
> #4 AT 48" O.C. HOOK 18" INTO SLAB AND STD. ACI 90 DEG. HOOK INTO FTG.

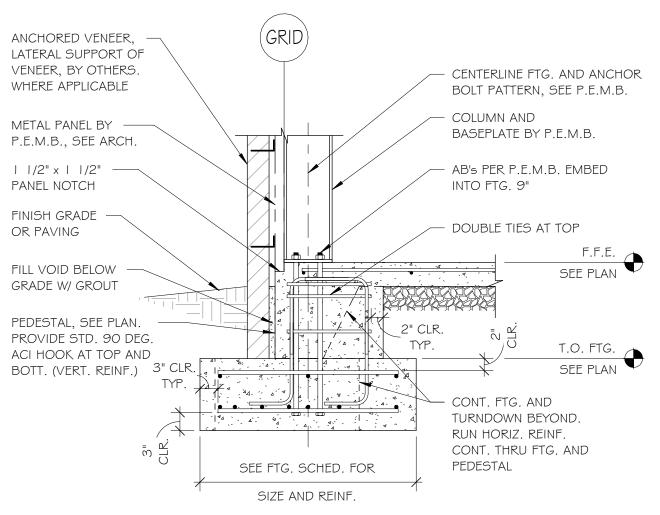




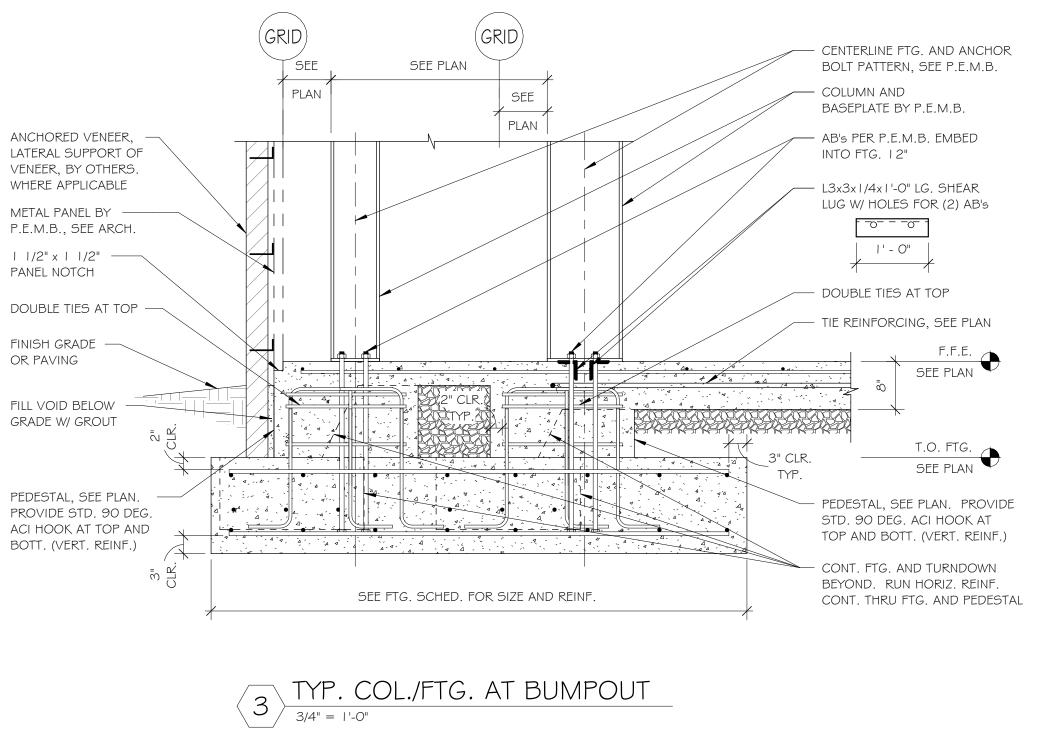
VILLE FAX











## SCHEDULE OF SPECIAL INSPECTIONS (STRUCTURAL)

'HIS SCHEDULE OF SPECIAL INSPECTION SERVICES (STRUCTURAL) HAS BEEN PREPARED BY JLA ENGINEERS INC. (STRUCTURAL ENGINEER OF RECORD) AND HALL BE INCLUDED IN THE STATEMENT OF SPECIAL INSPECTIONS WHICH THE APPLICANT (NOT JLA ENGINEERS INC.) SHALL SUBMIT TO THE BUILDING OFFICIAL AT TIME OF PERMIT APPLICATION IN ACCORDANCE WITH SECTION 1704 OF THE 2012 ARKANSAS FIRE PREVENTION CODE.

PECIAL INSPECTION IS THE MONITORING OF THE MATERIALS AND WORKMANSHIP CRITICAL TO THE INTEGRITY OF THE BUILDING STRUCTURE. IT IS A REVIEW OF THE WORK OF THE CONTRACTORS AND THEIR EMPLOYEES TO ENSURE THAT THE APPROVED PLANS AND SPECIFICATIONS ARE BEING FOLLOWED AND THAT THE RELEVANT CODES AND REFERENCED STANDARDS ARE BEING OBSERVED. THE SPECIAL INSPECTION PROCESS IS IN ADDITION TO THE NSPECTIONS CONDUCTED BY THE BUILDING OFFICIAL OR AUTHORITY HAVING JURISDICTION AND STRUCTURAL OBSERVATION BY THE DESIGN PROFESSIONAL.

PECIAL INSPECTIONS AND TESTS ARE REQUIRED TO BE PERFORMED BY QUALIFIED, INDEPENDENT AGENTS (NOT JLA ENGINEERS INC.) WITH SPECIAL EXPERTISE AS APPROVED BY THE BUILDING OFFICIAL. THE QUALIFIED, INDEPENDENT AGENTS SHALL BE RETAINED BY THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT (NOT JLA ENGINEERS INC.) TO COMPLETE THE SPECIAL INSPECTIONS NOTED IN THIS DOCUMENT. REFER TO SECTION 1704 OF THE 2012 ARKANSAS FIRE PREVENTION CODE.

SPECIAL INSPECTIONS PER 2012 ARKANSAS FIRE PREVENTION CODE SECTION 1704 ARE REQUIRED TO BE PROVIDED ON ALL PROFESSIONALLY DESIGNED PROJECTS NOT MEETING THE EXCEPTIONS DESCRIBED IN SECTION 1704.2 OR AS DETERMINED BY THE BUILDING OFFICIAL.

AS PART OF THE GENERAL REQUIREMENTS SECTION 1704 OF THE 2012 ARKANSAS FIRE PREVENTION CODE, SPECIAL INSPECTIONS, CONTRACTOR RESPONSIBILITY AND STRUCTURAL OBSERVATIONS. A STATEMENT OF SPECIAL INSPECTIONS INCLUDING A SCHEDULE OF SPECIAL INSPECTION SERVICES PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (NOT JLA ENGINEERS INC.) SHALL BE SUBMITTED TO THE BUILDING OFFICIAL, BY THE APPLICANT, AT TIME OF PERMIT APPLICATION.

## MATERIAL / ACTIVITY

704.2.5 INSPECTION OF FABRICATORS VERIFY FABRICATION/QUALITY CONTROL PRO 1705.6 SOILS

VERIFY MATERIALS BELOW SHALLOW FOL ADEQUATE TO ACHIEVE THE DESIGN BEARING VERIFY EXCAVATIONS ARE EXTENDED TO

HAVE REACHED PROPER MATERIAL. . PERFORM CLASSIFICATION AND TESTING

MATERIALS. . VERIFY USE OF PROPER MATERIALS, DEN

HICKNESSES DURING PLACEMENT AND CON CONTROLLED FILL.

5. PRIOR TO PLACEMENT OF CONTROLLED I SUBGRADE AND VERIFY THAT THE SITE HAS PROPERLY.

NOTES:

. THE INSPECTION AND TESTING AGENT(S) SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL PRIOR TO COMMENCING WORK. THE QUALIFICATIONS OF THE SPECIAL INSPECTOR(S) AND/OR TESTING AGENCIES MAY BE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL AND/OR THE DESIGN PROFESSIONAL.

2. THE LIST OF SPECIAL INSPECTORS MAY BE SUBMITTED AS A SEPARATE DOCUMENT.

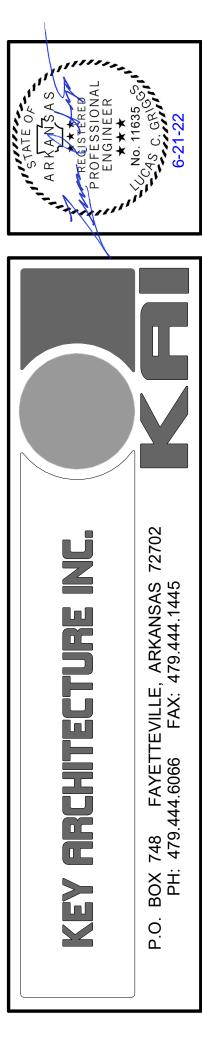
3. SPECIAL INSPECTIONS AS REQUIRED BY SECTION 1704.2.5 ARE NOT REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH THE 2012 ARKANSAS FIRE PREVENTION CODE SECTION 1704.2.5.2.

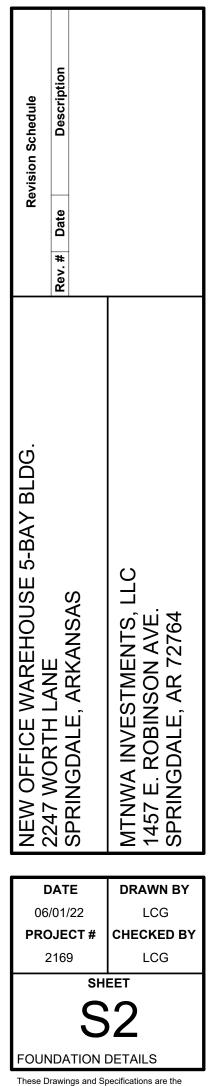
JLA ENGINEERS INC., HAS PROVIDED THE SCI INSPECTION REQUIREMENTS SHALL BE PROV

| ŕ                                | SERVICE             | REQ'D. | EXTENT     |
|----------------------------------|---------------------|--------|------------|
|                                  |                     |        |            |
| OCEDURES.                        | IN-PLANT REVIEW (3) | YES    | PERIODIC   |
|                                  |                     |        |            |
| DUNDATION ARE<br>NG CAPACITY.    | FIELD INSPECTION    | YES    | PERIODIC   |
| D PROPER DEPTH AND               | FIELD INSPECTION    | YES    | PERIODIC   |
| G OF CONTROLLED FILL             | FIELD INSPECTION    | YES    | PERIODIC   |
| INSITIES, AND LIFT               | FIELD INSPECTION    | YES    | CONTINUOUS |
| FILL, OBSERVE<br>6 BEEN PREPARED | FIELD INSPECTION    | YES    | PERIODIC   |

| CHEDULE OF SPECIAL INSPECTION SERVICES (STRUCTURAL) FOR THE FOUNDATION ONLY. ALL OTHER SPECIAL |
|--|
| VIDED BY OTHERS.   |
| JLA ENGINEERS INC. DOES NOT PERFORM SPECIAL INSPECTIONS  |







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|   | GENERAL NOTE  | S   | ABBREVIATIONS  |                                       |
|---|---|---|--|---------------------------------------|
| GENERAL NOTES   | 7. ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS, GAS  | NO EXCEPTIONS.  | ACU AIR CONDITIONING UNIT<br>AFF ABOVE FINISHED FLOOR                            |                                       |
| 1. REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE<br>WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL,  | BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE<br>ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED   | 17. HOT WATER RECIRCULATING BALANCING VALVE VALVES TO<br>BE BELL & GOSSET CIRCUIT SETTER (OR WATTS                              | AHJ AUTHORITY HAVING<br>JURISDICTION<br>BHP BRAKE HORSEPOWER                     |                                       |
| CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM<br>BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS   | RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.   | EQUIVALENT) WITH INTEGRAL READOUT PORTS, ADJUSTMENT<br>KNOB, DRAIN CONNECTION, AND POSITIVE SHUTOFF.                            | BHP BRAKE HORSEPOWER<br>BOH BACK OF HOUSE<br>BTUH BRITISH THERMAL UNIT PER       |                                       |
| (VERIFY).   | 8. APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL   | 18. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES   | HOUR<br>C COMMON   |                                       |
| 2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL<br>DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES,  | BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION<br>AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO  | AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS,<br>CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW                              | CAP CAPACITY<br>CC COOLING COIL  |                                       |
| ETC. OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE<br>INDICATED.  | MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC,<br>ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL   | DISASSEMBLY FOR MAINTENANCE.  | CD CONDENSATE DRAIN<br>CFF CAPPED FOR FUTURE                                     |                                       |
| 3. CODES: COMPLETE INSTALLATION OF THE PLUMBING SYSTEM  | COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL<br>INCLUDE ALL COSTS REQUIRED TO MEET THESE<br>REQUIREMENTS IN HIS BID.                             | 19. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE<br>TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE                            | CFM CUBIC FEET PER MINUTE<br>CI CAST IRON  |                                       |
| SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL,<br>ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND   | 9. FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY  | CONNECTION SIZES.<br>20. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.  | CO CLEANOUTS<br>COMB COMBUSTION  |                                       |
| REGULATIONS AS ADOPTED BY THE LOCAL AHJ.  | DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN<br>COMPLIANCE WITH NFPA AND LOCAL CODES. PROVIDE   | 21. DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF  | CONT CONTINUE, CONTROL<br>CONTR CONTRACTOR                                       |                                       |
| 4. PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED<br>ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND   | DESIGN, PERMITS, MATERIALS, INSTALLATION, TESTING AND<br>ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION   | DISSIMILAR PIPE.  | COTG CLEANOUTS TO GRADE<br>CW COLD WATER<br>D DIAMETER                           | M-3M-                                 |
| ROUTING ALL EQUIPMENT, PIPING, ETC.<br>A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH<br>STRUCTURAL.  | OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES.  | 22. REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN<br>STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.                 | DB DRY BULB, DECIBEL<br>DIM DIMENSION  | <u>\</u>                              |
| B. COORDINATE FINAL LOCATION AND ROUTING WITH<br>CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING, AND   | PLUMBING NOTES  | 23. CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC  | DN DOWN<br>DS DOWN SPOUT   |                                       |
| OTHER TRADES WORK.<br>C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING,   | <ol> <li>CONNECTIONS: PROVIDE PLUMBING FIXTURE CONNECTIONS<br/>TO BUILDING WASTE, VENT, COLD WATER, AND HOT WATER</li> </ol>                            | UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING.<br>CONDENSATE DRAINS SHALL BE DISCHARGED TO AN                                 | EFF EFFICIENCY<br>ELEC ELECTRIC  | EF-1-                                 |
| EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC.<br>AS REQUIRED FOR A COMPLETE OPERATING MECHANICAL  | SYSTEM IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S<br>RECOMMENDATIONS, AND LOCAL CODES. CONNECT TO EACH   | INDIRECT WASTE OR OUTSIDE.  | EWC ELECTRIC WATER COOLER<br>EXT EXTERIOR, EXTERNAL                              |                                       |
| SYSTEM.<br>D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO  | FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES,<br>VACUUM BREAKERS, REGULATORS, UNIONS, ETC. AS  | INSULATION/LINING NOTES   | F FAHRENHEIT<br>FCO FLOOR CLEANOUTS  |                                       |
|   | REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS.<br>REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON   | 1. ENERGY CODE: AS A MINIMUM, COMPLY WITH THICKNESSES<br>AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.                       | FCU FAN COIL UNIT<br>FD FLOOR DRAIN  |                                       |
| 5. PLUMBING CONTRACTOR SHALL LOCATE AND COORDINATE<br>EXACT LOCATION OF ALL PLUMBING EQUIPMENT WITHIN THE   | PLANS.  |   | FLR FLOOR<br>FPM FEET PER MINUTE<br>FPS FEET PER SECOND                          |                                       |
| STRUCTURE.<br>ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE  | 2. HOT AND COLD: WATER PIPING CONNECTION TO EACH<br>FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE  |   | FPS FEET PER SECOND<br>FS FLOOR SINK<br>G GAS                                    |                                       |
| ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE<br>ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO<br>BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE | AND HOT WATER ON THE LEFT HAND SIDE.  |   | G GAS<br>GAL GALLONS<br>GPG GRAINS PER GALLON                                    | OL                                    |
| RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS<br>DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO   | 3. HOT WATER: NON-CIRCULATING HOT WATER PIPE SHALL<br>NOT EXCEED 10' UNLESS OTHERWISE SHOWN ON DRAWINGS.  |   | GPM GALLONS PER MINUTE<br>GWB GYPSUM WALLBOARD                                   | CD                                    |
| BIDDING.  | 4. VENT STACKS: COORDINATE VENT STACK WITH HVAC   |   | HB HOSE BIBB<br>HD HEAD  | 140                                   |
| . ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, AND VTR DETAILS.   | EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.   |   | HEDV HOSE END DRAIN VALVE<br>HORIZ HORIZONTAL                                    | <u> </u>                              |
| 3. EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.   | 5. CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT CODE AND<br>AS REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL   |   | HP HORSEPOWER<br>HPCW HIGH PRESSURE COLD WATER<br>HVAC HEATING, VENTILATING, AND |                                       |
| PIPING IN FINISHED ROOMS.   | BE LOCATED IN WALLS/FLOORS WHERE THEY ARE NOT<br>HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO   | PIPE MATERIALS  | AIR CONDITIONING<br>HW HOT WATER   | <u> </u>                              |
| EXPOSED PIPING PENETRATIONS AND SHEET METAL<br>FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.  | BE FITTED WITH CARPET INSERTS. LOCATIONS SHALL BE<br>SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL   |   | HWC HOT WATER RE-CIRCULATION<br>HX HEAT EXCHANGER                                | FOF<br>FOS                            |
| 0. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO  | CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS.   | APPROVED PLUMBING MATERIAL:<br>All sanitary system materials shall be listed by an approved                                     | ID INDIRECT DRAIN, INSIDE<br>DIAMETER  | ———— FOS ——<br>———— FOR ——            |
| AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.  | 6. SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH CURRENT CPC.   | LISTING AGENCY.   | IE INVERT ELEVATION<br>IN INCH   | FOV                                   |
| 1. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF   | 7. SHUT–OFFS: PROVIDE 1/4 TURN BALL VALVE ANGLE STOP<br>SHUT–OFF VALVES AND BRAIDED STAINLESS STEEL FLEX  | 1. UNDERGROUND SERVICE ENTRANCE PIPING: COPPER, TYPE K. PLASTIC<br>WRAP UNDERGROUND WATER SUPPLY PIPING TO PREVENT CORROSION.   | KS KITCHEN SINK<br>KW KILOWATT<br>L LONG, LENGTH                                 |                                       |
| MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING<br>FIXTURES FOR REMOVAL AND REPLACEMENT.  | CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH<br>FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT   | 2. ABOVEGROUND WATER DISTRIBUTION PIPING IN RESTROOMS: PEX.   | L LONG, LENGTH<br>LAV LAVATORY<br>LB POUND                                       | MPG                                   |
| 2. CABLE TRAYS: PIPING INSTALLED ADJACENT TO ELECTRICAL<br>CABLE TRAYS SHALL ALLOW MINIMUM ACCESS OF 6" ABOVE                                       | BATH/SHOWERS.   | 3. STORM, VENT AND GRAVITY WASTE: NO-HUB CAST IRON  | MBH THOUSAND BTU PER HOUR<br>MECH MECHANICAL                                     | I                                     |
| AND TO THE SIDE OF CABLE TRAYS.   | 8. TUB SPOUTS SHALL BE THREADED (NO PUSH-ON FITTINGS).  | ALL CAST IRON SOIL PIPE AND FITTINGS SHALL BE MARKED WITH THE   | MCA MIN. CIRCUIT AMPACITY<br>MOCP MAX. OVER CURRENT                              |                                       |
| <ol> <li>MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ<br/>FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.</li> </ol>                                   | 9. TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.   | COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE (CISPI)<br>AND BE LISTED BY NSF INTERNATIONAL.                        | PROTECTION<br>MPG MEDIUM PRESSURE GAS  | -                                     |
| 4. ACCESS CLEARANCES FOR MAINTENANCE AND  | 10. ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER  | COUPLINGS: STANDARD COUPLINGS SHALL CONFORM TO CISPI 310 AND ASTM C 1277. SHIELD ASSEMBLIES SHALL CONSIST OF A STAINLESS STEEL  | MTD MOUNTED<br>OD OUTSIDE DIMENSION/DIAMETER                                     | CON                                   |
| REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT<br>TO ENSURE THAT ACCESS CLEARANCES CAN BE MET.  | LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS<br>WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS  | BI-DIRECTIONAL CORRUGATED SHIELD; STAINLESS-STEEL BANDS AND TIGHTENING DEVICES; AND A ASTM C 564, RUBBER SLEEVE WITH INTEGRAL   | OVERFLOW DRAIN/DECK DRAIN<br>OPNG OPENING  | CONTRACTO                             |
| COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK<br>OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR<br>SERVICE AND MAINTENANCE.                    | APPLICATION MEETING ADA REQUIREMENTS. PROVIDE<br>HANDI-LAV GUARD OR EQUIVALENT. OFFSET P-TRAPS TO<br>CLEAR WHEELCHAIR ACCESS.                           | CENTER STOP. COUPLINGS SHALL BEAR THE NSF TRADEMARK, AND BE MANUFACTURED IN THE USA.  | P PUMP<br>PD PRESSURE DROP, PUMPED<br>DRAIN                                      | PLEASE SUE<br>ORDERING N              |
| COORDINATION REQUIREMENTS   | 11. GAS EQUIPMENT: GAS EQUIPMENT SHALL BE INSTALLED PER   | EXCEPTION: SOLID WALL PVC SCH. 40 ASTM D2665 IS APPROVED ONLY   | POC POINT OF CONNECTION<br>PRV PRESSURE REDUCING VALVE                           | CATALOG DI<br>ARE CONSIE              |
| . IRRIGATION: COORDINATE WITH IRRIGATION CONTRACTOR FOR   | EQUIPMENT LISTINGS, LOCAL CODES, AND NFPA.  | FOR UNDERSLAB PIPING WITH PROPER TRENCHING PER ASTM D2321, FOR<br>PARKING GARAGE AND BUILDING WITH MAXIMUM 3 STORIES. PRIOR TO  | PRESSURE RELIEF VALVE<br>PS PUMPED STORM DRAINAGE                                | ADDRESSED<br>ENGINEER A               |
| THEIR WATER SUPPLY REQUIREMENTS AND LOCATIONS.  | 12. GAS CONNECTIONS: INSTALL FLEXIBLE QUICK DISCONNECT<br>ASSEMBLIES FOR ALL GAS FIRED KITCHEN EQUIPMENT PER  | BIDDING, CONTRACTOR SHALL CONTACT LOCAL AHJ FOR ACCEPTANCE OF<br>PVC PIPING UNDERSLAB. EXPANSION LOOP OR EXPANSION JOINTS SHALL | PSIG POUNDS PER SQUARE INCH<br>GAUGE   | RESPONSIBL<br>REVISIONS.              |
| . GAS: CONTRACTOR/GAS COMPANY SHALL FINALIZE GAS<br>METER AND GAS SERVICE LOCATIONS.  | LOCAL JURISDICTIONS.  | BE PROVIDED PER PIPING MANUFACTURER RECOMMENDATION.   | PW PUMPED SANITARY WASTE<br>RD ROOF DRAIN  |                                       |
| 3. UTILITIES: COORDINATE WITH SITE UTILITY CONTRACTOR AND   | 13. WATER HAMMER ARRESTERS: PROVIDE AT THE END OF HOT<br>AND COLD WATER LINES SERVING TWO OR MORE FIXTURES;   | NOTE 1: PVC PIPING SHALL NOT BE USED FOR RECEPTOR & TRAP ARM<br>WHERE WASTE TEMPERATURE CAN EXCEED 110°F. THIS INCLUDE PIPING   | REF REFERENCE<br>PRBP REDUCED PRESSURE<br>BACKELOW DREVENTER                     |                                       |
| CIVIL DRAWINGS FOR UTILITY CONNECTIONS AND EXTENSIONS.  | SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE<br>INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTORS<br>ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS | AND RECEPTORS FOR 3 COMP SINK, DISHWASHER, COMMERCIAL LAUNDRY SINK, AND CONDENSATION DRAIN FOR GAS FIRED EQUIPMENT.             | BACKFLOW PREVENTER<br>RPM REVOLUTIONS PER MINUTE<br>SCH SCHEDULE                 | DRAWINGS                              |
| ROOF DRAINAGE: COORDINATE WITH GENERAL CONTRACTOR<br>FOR ROOF DRAIN AND OVERFLOWS, SCUPPER DRAINS, AND  | ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC.   | NOTE 2: TRAP ARM FOR WASTE RECEPTOR OF SODA DISPENSER SHALL<br>BE MADE OF SOLID CORE PVC SCH. 40 ASTM D2665. CAST IRON PIPING   | SCW SOFTENED COLD WATER<br>SD STORM DRAIN  | AND EQ<br>MEASURE                     |
| CONDENSATE DRAINS.  | 14. TRAP PRIMERS: PROVIDE TRAP PRIMERS AND PIPING FOR<br>DRAINS AND FLOOR SINKS. ARRANGE PIPING TO ACHIEVE  | IS NOT ALLOWED FOR HIGH ACIDITY DRAINS. (PH<3)  | SF SQUARE FOOT<br>SH SHOWER  | MANUFACT                              |
| . PLUMBING FIXTURES: COORDINATE WITH ARCHITECTURAL AND OTHER TRADES EXACT LOCATION OF ALL PLUMBING  | EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP<br>PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS.  | NOTE 3: FOAM (CELLULAR) CORE PVC PIPING/FITTING IS PROHIBITED BY  | SO STORM OVERFLOW<br>SP STATIC PRESSURE  | AND INSTAL                            |
| FIXTURES.   |   | ENGINEERING.  | SR SUDS RELIEF<br>SS STAINLESS STEEL,  |                                       |
| . PIPING: COORDINATE WITH STRUCTURAL FOR EXACT<br>LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS   | 15. P-TRAPS: ALL EXPOSED P-TRAPS SHALL BE   | 4. CONDENSATE DRAIN PIPING: CPVC OR COPPER TYPE M.  | SANITARY SEWER<br>SQ SQUARE<br>TYP TYPICAL                                       |                                       |
| AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH<br>STRUCTURAL AND AT THE SITE PRIOR AND DURING THE<br>CONSTRUCTION.                                | CHROME-PLATED BRASS.<br>16. PROVIDE BALL VALVES. GATE VALVES SHALL NOT BE USED.   | 5. TEMPERATURE AND/OR PRESSURE RELIEF VALVE DISCHARGE PIPING:<br>COPPER TYPE M  | UH UNIT HEATER<br>UON UNLESS OTHERWISE NOTED                                     |                                       |
|   | TO, THOUDE DALL VALVES, GATE VALVES SMALL NUT BE USED.  | 6. GAS PIPING: STEEL PIPE, ASTM A 53; TYPE E OR S;GRADE B;<br>SCHEDULE 40.  | V VENT<br>VTR VENT THRU ROOF   |                                       |
|   |   |   | W WASTE, WATT, WIDE<br>WC WATER CLOSET   | · · · · · · · · · · · · · · · · · · · |
|   |   |   | WCO WALL CLEANOUTS<br>WH WALL HYDRANT  |                                       |
|   |   |   | WM WASHING MACHINE   |                                       |
| APPLICABLE CODES  |   | -   |  |                                       |
| THESE DRAWINGS ARE BASED ON THE FOLLOWING   | G CODES:  |   |  |                                       |
| <ul> <li>2012 INTERNATIONAL BUILDING CODE (IBC)</li> <li>2010 ARKANSAS STATE MECHANICAL CODE</li> </ul>   |   |   |  |                                       |
| 2009 INTERNATIONAL ENERGY CONSERVATIO   |   |   |  | DWG<br>pooo legend,                   |
| • 2018 ARKANSAS STATE PLUMBING CODE (IN   | 1C)   |   |  | P100 SEWER, A                         |
|   |   |   |  | P500 DETAILS                          |
|   |   |   |  | P600 ISOMETRI                         |

# SYMBOLS

| GENERAL   |  |   |
|---|--|---|
| ARCHITECTURAL BACKGROUND<br>(THIN LINE)                         |  | PIPE CAP  |
|   | ∢                                      | PIPE PLUG   |
| NEW MECHANICAL WORK<br>(HEAVY LINE)                             |  | UNION   |
|   | I                                      | FLANGE  |
| MATCHLINE OR PROPERTY LINE                                      | <u>_</u>                               | CLEANOUT  |
|   |  | WYE STRAINER  |
| <u>SECTION IDENTIFICATION</u><br>(DETAIL SIMILAR)               | '>                                     | WYE STRAINER WITH CAPPED HOSE<br>END BLOWDOWN VALVE |
| INDICATES DIRECTION OF CUTTING                                  |  | BALL VALVE  |
| PLANE   | I^\                                    | CHECK VALVE   |
| LETTER INDICATES SECTION<br>(NO. INDICATES DETAIL)              | —————————————————————————————————————— | BALANCING OR PLUG VALVE                             |
|   | \x_                                    | BUTTERFLY VALVE                                     |
| SHEET NUMBER WHERE SECTION IS<br>DRAWN                          | 4                                      |   |
| SHEET NUMBER WHERE SECTION IS<br>TAKEN                          |  | PRESSURE REDUCING VALVE (PRV)                       |
|   | X                                      | AUTOMATIC CONTROL VALVE, 2-WA                       |
| EQUIPMENT   | k                                      | AUTOMATIC CONTROL VALVE, 3-WA                       |
| TYPICAL EQUIPMENT DESIGNATION<br>(EXHAUST FAN SHOWN)            |  | RELIEF VALVE  |
|   | —————————————————————————————————————— | BALANCING/MEASURING VALVE                           |
| PIPING  |  | FLEXIBLE CONNECTION IN PIPING                       |
| SANITARY SEWER (SS)   | XA                                     | PIPE ANCHOR   |
| PUMPED WASTE  |  | PIPE ALIGNMENT GUIDE                                |
| VENT (V)  |  |   |
| RAIN LEADER   | i PS                                   | PIPE SUPPORT  |
| OVERFLOW RAIN LEADER<br>CONDENSATE DRAIN                        | ;c                                     | VALVE STATION OR ASSEMBLY                           |
| DOMESTIC WATER (DW)   | ↓ ID                                   | INDIRECT DRAIN, PIPE TO DRAIN                       |
| HOT WATER, POTABLE, 120°F (DHW)                                 |  | FLOOR DRAIN   |
| HOT WATER, POTABLE, TEMPERATURE<br>OTHER THAN 120°F             | ĕ Y                                    |   |
| HOT WATER CIRCULATING (HWC), POTABLE,                           | $\rightarrow$                          | HOSE BIBB   |
| 120°F   | <b>\$ \$</b>                           | BREAK IN PIPING OR DUCTWORK                         |
| HOT WATER CIRCULATING, POTABLE,<br>TEMPERATURE OTHER THAN 120°F |  | PUMP  |
| FUEL OIL FILL   | $\checkmark$                           |   |
| FUEL OIL SUPPLY   | Q                                      | PRESSURE GAUGE                                      |
| FUEL OIL RETURN   | φ                                      | THERMOMETER   |
| FUEL OIL VENT   | <u>————</u><br>+ р/т                   | PRESSURE/TEMPERATURE                                |
| RELIEF VENT   |  | TEST PORT   |
| NATURAL GAS   |  | REDUCED PRESSURE BACKFLOW                           |
| MEDIUM PRESSURE NATURAL GAS                                     |  | PREVENTER   |
| IRRIGATION  |  | DOUBLE CHECK VALVE ASSEMBLY                         |

# RACTOR SUBSTITUTIONS & REVISIONS

### JBSTITUTIONS & REVISIONS:

PROPOSALS FOR SUBSTITUTIONS OR REVISIONS FOR REVIEW AND APPROVAL PRIOR TO RIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTURER'S NAME AND NATIONS, THE MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFICATION FOR THAT ITEM THE COST ANALYSIS OF THE SUBSTITUTION PROPOSAL. CONTRACTOR TO COORDINATE WITH DETERMINE ASSOCIATED DESIGN AND PERMITTING COSTS. CONTRACTOR SHALL BE OR OTHER COSTS ASSOCIATED WITH UNFORESEEN ISSUES RESULTING FROM SUBSTITUTIONS OR

RE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, MENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT NT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO ER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS TION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, SETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

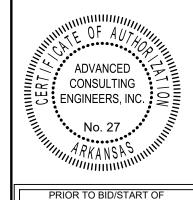
# DRAWING INDEX

DESCRIPTION RAL NOTES & DRAWING INDEX GAS PLUMBING PLAN

P700 SPECIFICATIONS



PO BOX 427 ROGERS, AR 72756



CONSTRUCTION REQUIREMENTS THESE DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND IN SOME CASES, BASED ON INFORMATION THAT IS PROVIDED BY THE OWNER. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR TO

BID. ANY DISCREPANCIES OR CONDITIONS INTERFERING WITH THE ABILITY OF THE CONTRACTOR TO COMPLETE THE WORK AS OUTLINED, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT ANY COST SAVINGS OPTIONS OR REUSE OF EXISTING EQUIPMENT, MATERIAL OR DEVICES SHALL BE MADE AVAILABLE TO THE OWNER AND THE ARCHITECT FOR REVIEW.

ANY REQUESTED CHANGES DUE TO THE CONTRACTORS OVERSIGHT OR FAILURE TO VISIT THE SITE PRIOR TO BID, SHALL NOT BE AUTHORIZED OR COMPENSATED. COORDINATE

 PH 479.631.1712
 EQUIPMENT IN MECHANICAL ROOM

 FX 479.631.1854
 CLEARANCES ARE AVAILABLE.

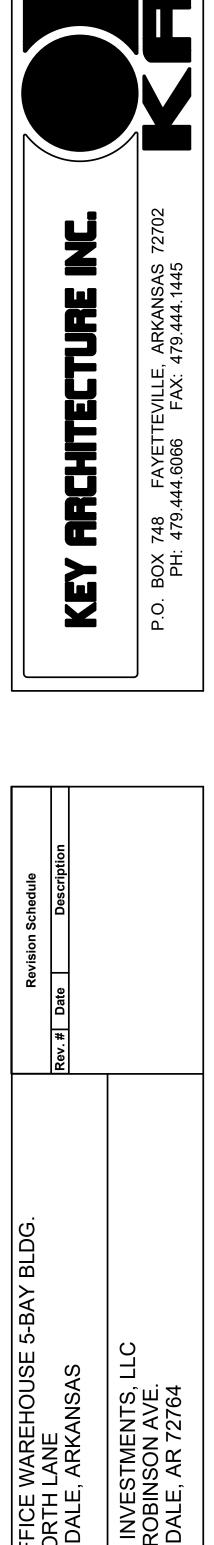
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 EQUIPMENT IN MECHANICAL ROOM

 TO ENSURE PROPER SPACE AND
 CLEARANCES ARE AVAILABLE.

 CONSTRUCTION. LATOUT ALL
 EQUIPMENT IN MECHANICAL ROOM

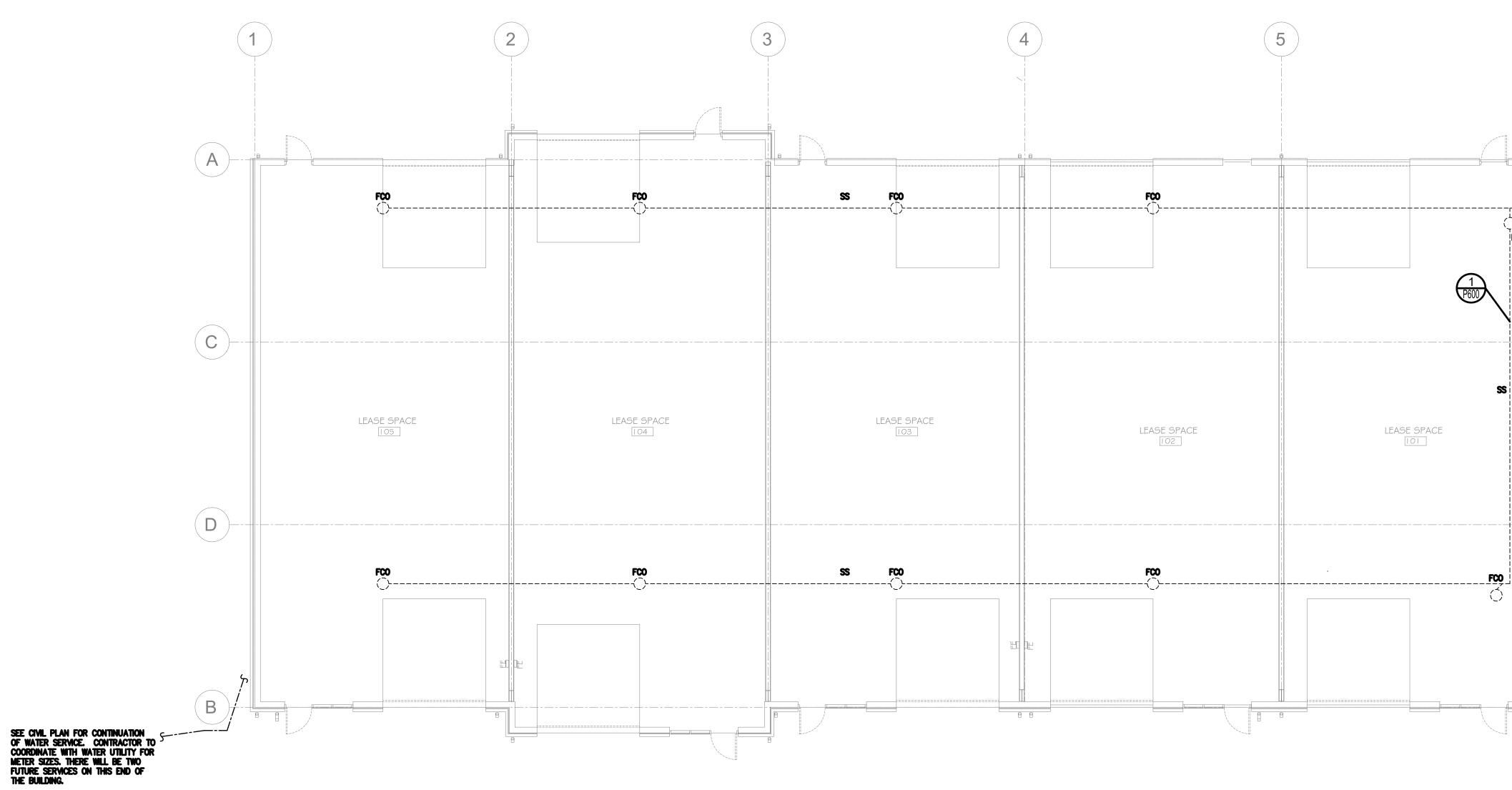
 TO ENSURE PROPER SPACE AND
 CLEARANCES ARE AVAILABLE.

 CONTACT ARCHITECT IMMEDIATELY
 WITH ANY ISSUES.

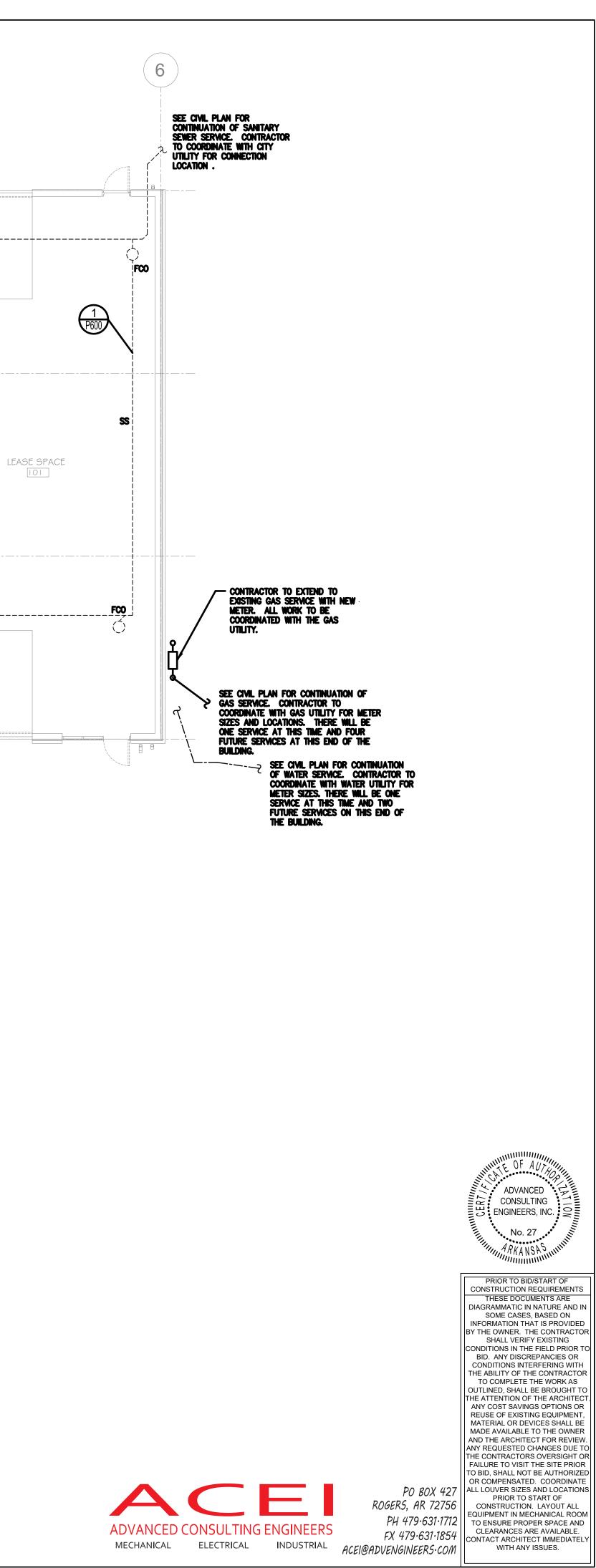


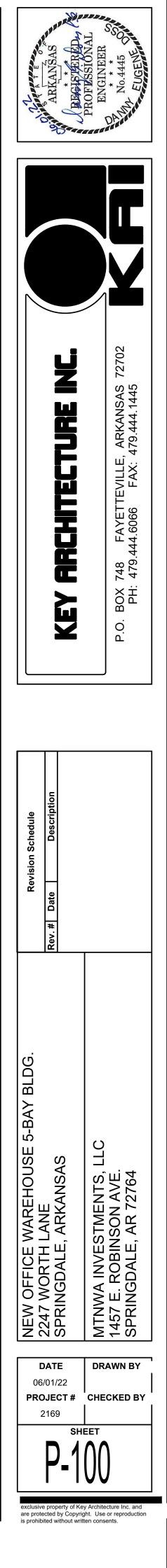
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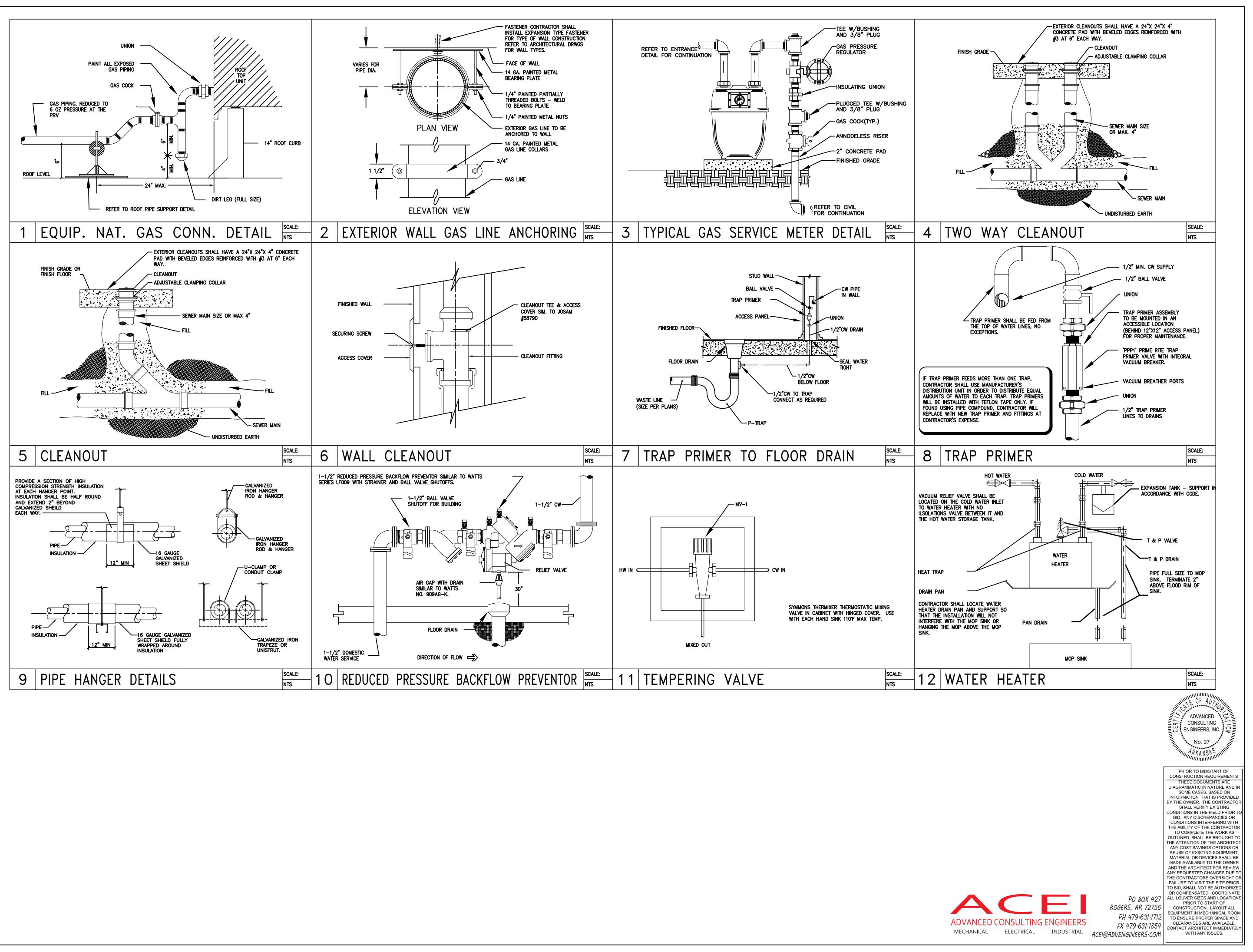
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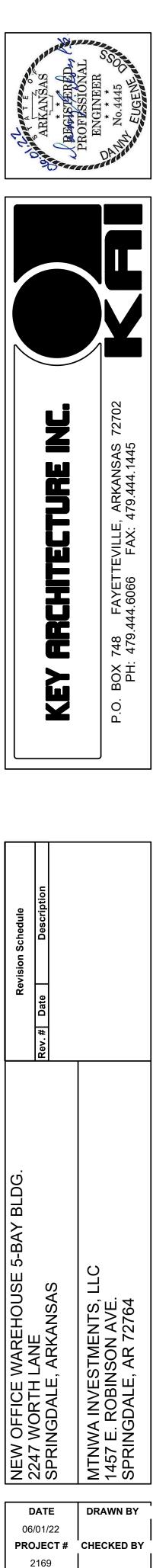








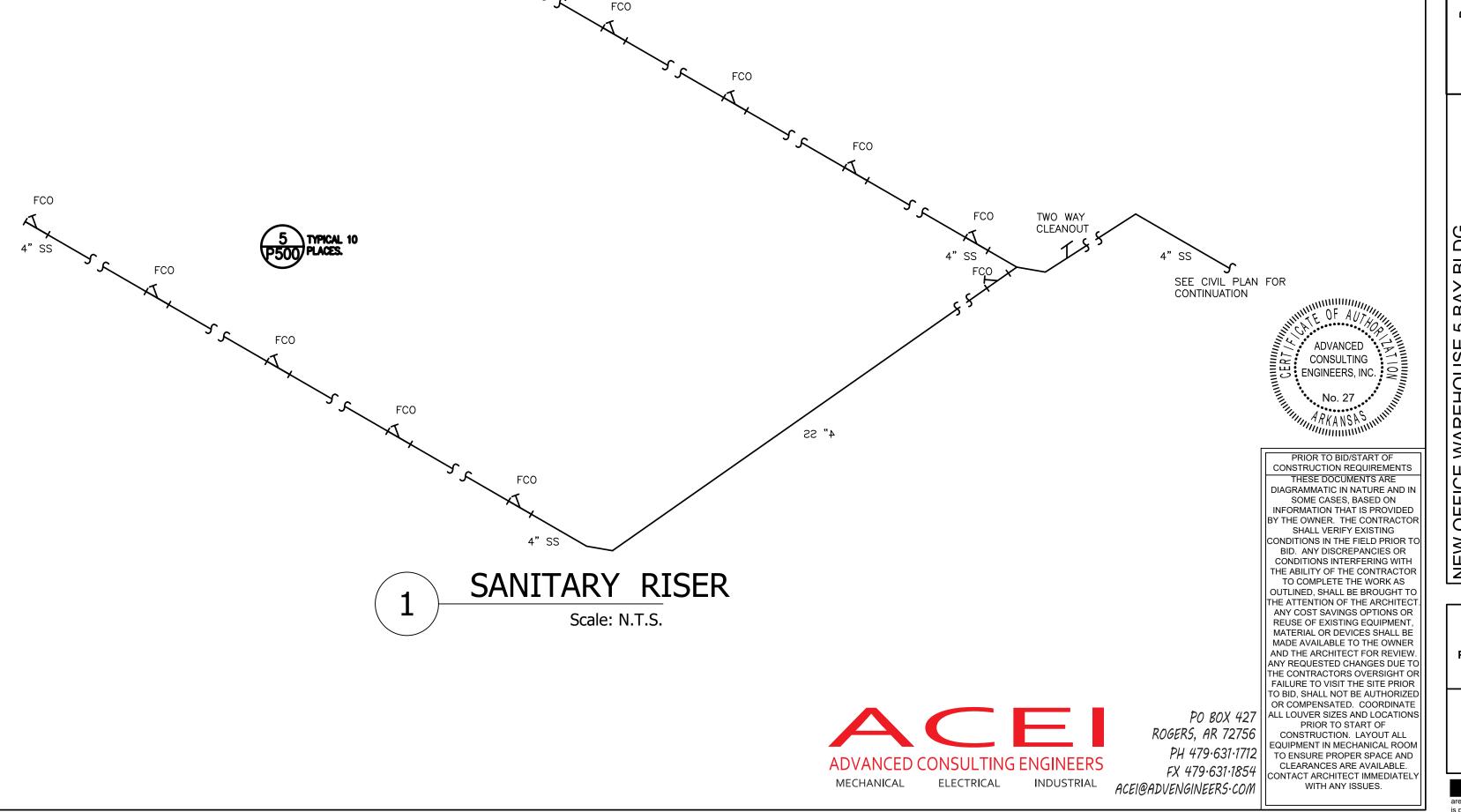




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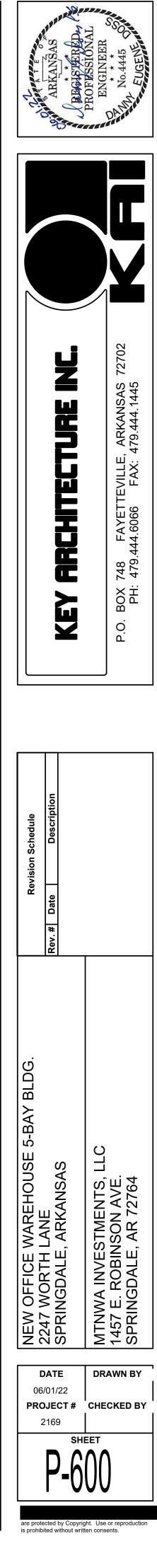
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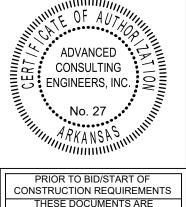
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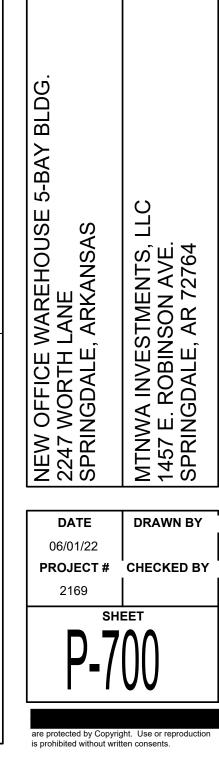
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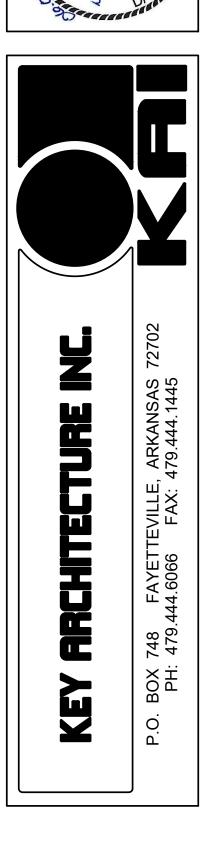


| SECTION    | ÓDRAIN, WASTE, AND VENT PIPING SYSTEM<br>15411  | DOMESTIC WATER PIPING SYSTEM<br>SECTION 15412   |
|------------|---|---|
| PART 1     | GENERAL   | PART 1 GENERAL  |
| 1.01       | WORK INCLUDED:  | 1.01 WORK INCLUDED:   |
|            | UNDERGROUND DRAIN AND VENT PIPING.  | A. WATER SERVICE PIPING.  |
|            | ABOVE GROUND DRAIN, WASTE, AND VENT PIPING.<br>SANITARY SEWER SERVICE PIPING.   | <ul><li>B. HOT AND COLD WATER PIPING.</li><li>C. TEMPERATURE AND PRESSURE (T &amp; P) RELIEF PIPING.</li></ul>  |
| D.<br>F    | CONDENSATION DRIP AND OVERFLOW PIPING.<br>CLEANOUTS.  | D. VALVES.<br>E. SHOCK SUPPRESSORS.   |
|            | FLOOR DRAINS.   | E. SHUCK SUFFRESSURS.   |
| 1.02       | RELATED WORK:   | 1.02 RELATED WORK:  |
| Α.         | SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.  | A. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.<br>B. SECTION 15005 MECHANICAL INSULATION.  |
| 1.03       | SUBMITTALS:   | 1.03 SUBMITTALS:  |
| Α.         | SUBMIT MANUFACTURER'S DATA SHEETS ON CLEAN OUTS AND FLOOR DRAINS.   | A. SUBMIT MANUFACTURE'S DATA SHEETS ON VALVES AND<br>SUPPRESSORS.   |
| В.         | SUBMIT LIST OF PIPING PRODUCTS TO BE USED FOR THE LISTED<br>SERVICES AND STATE THEIR MANUFACTURERS, CLASSES OR TYPES,<br>AND OTHER APPLICABLE DATA. | B. SUBMIT LIST OF PIPING PRODUCTS TO BE USED AND S<br>MANUFACTURERS, CLASSES OR TYPES, AND OTHER APPL   |
| C.         | SUBMIT RECORD DRAWINGS INDICATING ACTUAL LOCATION AND ROUTING OF INSTALLED PIPING.  | C. SUBMIT SHOP DRAWINGS OF SHOCK SUPPRESSORS LAYO   |
| D.         | SUBMIT SHOP DRAWINGS ON MANHOLES INDICATING MANUFACTURED ITEMS, REINFORCING STEEL REQUIREMENTS, ETC.  | <ul> <li>D. SUBMIT RECORD DRAWINGS INDICATING ACTUAL LOCATION<br/>OF INSTALLED PIPING.</li> <li>E. SUBMIT CERTIFICATE OF COMPLETION OF CHLORINATION.</li> </ul> |
| PART 2     | PRODUCTS  |   |
| 2.01       | PIPING:   | PART 2 PRODUCTS   |
| А.         | UNDERGROUND DRAIN AND VENT PIPING INSIDE BUILDING AND TO FIVE FEET OUTSIDE BUILDING:  | 2.01 PIPING:  |
|            | 1. SCHEDULE 40 PVC PIPE AND FITTINGS.   | A. FOR UNDERGROUND WATER SERVICE PIPING OUTSIDE BU<br>METER:  |
| В.         | ABOVE GROUND DRAIN AND VENT PIPING:   | 1. ASTM B88 TYPE AS INDICATED ON DRAWINGS HARD<br>WITH WROUGHT COPPER FITTINGS AND JOINTS MADE  |
|            | 1. SCHEDULE 40 PVC PIPE AND FITTINGS.   | SOLDER.   |
| С.         | WASTE ARMS FOR LAVATORIES, SINKS, AND URINALS:  | 2. THICKNESS CLASS 50, CEMENT LINED, SEAL COATE<br>SPIGOT TYPE DUCTILE IRON WITH JOINTS MADE WIT  |
|            | <ol> <li>DWV COPPER PIPE WITH CAST BRASS ADAPTERS AND WROUGHT<br/>COPPER FITTINGS AND JOINTS MADE WITH 50-50 SOLDER.</li> </ol>                     | COMPRESSION RINGS MANUFACTURED FOR THE PUF  |
|            | 2. SCHEDULE 40 GALVANIZED STEEL PIPE WITH SCREWED   | B. FOR UNDERGROUND WATER PIPING INSIDE BUILDING AND   |
| D.         | FITTINGS (OPTIONAL).<br>UNDERGROUND SEWER PIPING OUTSIDE BUILDING TO SEWER MAIN:  | OUTSIDE BUILDING<br>1. 1" AND SMALLER – ASTM B88 TYPE AS INDICATED<br>SOFT COPPER TUBING WITH NO FITTINGS OR JOINTS   |
| F          | 1. SCHEDULE 40 PVC PIPE AND FITTINGS.   | UNDER SLAB. MAKE CONNECTIONS ABOVE SLAB US<br>COPPER FITTINGS AND 95-5 SOLDER.  |
| L.<br>2.02 | CONDENSATION DRIP AND OVERFLOW PIPING: SOLVENT-CEMENT WELD.   | 2. 1–1/4" AND LARGER – ASTM B88 TYPE AS INDICA<br>HARD COPPER TUBING WITH WROUGHT COPPER FIT<br>MAKE WITH SIL-FOS SOLDER (15% SILVER CONTEN                     |
| Α.         | PROVIDE CLEAN OUTS COMPATIBLE WITH TYPE OF DRAIN PIPING TO<br>WHICH IT IS CONNECTED. PROVIDE COVERS COMPATIBLE WITH TYPE                            | C. FOR EXPOSED PIPING IN TOILET ROOMS AND OTHER FIN   |
|            | OF FLOOR OR WALL FINISH WITH CONSIDERATION GIVEN TO TRAFFIC CONDITIONS. MAKE CLEAN OUTS SAME SIZE AS PIPE THROUGH 4                                 | USE CHROME PLATED BRASS PIPE WITH THREADED FITT   |
| _          | INCHES.   | D. FOR ABOVE GROUND WATER AND T & P RELIEF PIPING<br>USE ASTM B88 TYPE AS INDICATED ON DRAWINGS HARE  |
| В.         | FLOOR CLEAN OUT (FCO): CAST IRON WITH TAPERED BRASS PLUG,<br>THREADED ADJUSTABLE HOUSING, AND ROUND NICKEL BRONZE                                   | WITH WROUGHT COPPER FITTINGS AND JOINTS MADE WI   |
|            | SCORIATED TOP.  | E. SOLDER CONTAINING LEAD SHALL NOT BE USED ON PO<br>SYSTEMS.   |
| C.         | CLEAN OUT TO GRADE (COTG): SAME AS FCO EXCEPT WITH HEAVY<br>DUTY CAST IRON SCORIATED TOP. SET COTG IN 10-INCH DIAMETER                              |   |
|            | CONCRETE BASE 4-INCHS THICK AND FLUSH WITH FINISHED GRADE.  | 2.02 VALVES:  |
| 2.03       | FLOOR DRAINS:   | A. PROVIDE VALVES WITH SUITABLE MATERIALS INCLUDING I<br>BALLS, GASKETS, LININGS, AND LUBRICANTS FOR THE S  |
| Α.         | STANDARD FLOOR DRAIN (FD): LACQUERED CAST IRON BODY WITH  | TEMPERATURE, AND PRESSURE TO WHICH THEY WILL BE FURNISH WITH SOLDER OR SCREWED CONNECTIONS.   |
|            | FLANGE, CLAMPING COLLAR WITH SEEPAGE OPENINGS, AND<br>ADJUSTABLE SQUARE SATIN BRONZE STRAINER. FLOOR DRAINS ARE                                     | B. GATE VALVES: BRONZE, NON-RISING STEM, INSIDE CRE   |
|            | 2 INCHES UNLESS SHOWN OTHERWISE.  | WEDGE.<br>C. GLOBE OR ANGLE VALVES: BRONZE, RISING STEM, INSI   |
|            | EXECUTION   | RENEWABLE COMPOSITION DISC.   |
| 3.01       | PREPARATION:  | D. CHECK VALVES: BRONZE WITH SWING DISC.  |
|            | SWAB PIPES AND CLEAN JOINTS AND FITTINGS INSIDE AND OUT PRIOR<br>TO MAKING CONNECTIONS. USE PROPER LUBRICANTS ON<br>COMPRESSION GASKETS.            | E. FREEZE PROOF HOSE BIBBS (FPHB): 3/4" ANTI-SIPHO<br>NON-FREEZE TYPE WITH BRONZE CASING AND BOX WITI<br>HANDLE. FURNISH FOR PROPER WALL THICKNESS.             |
| 3.02       | INSTALLATION:   |   |
| Α.         | UNLESS INDICATED OTHERWISE ON THE DRAWINGS, SLOPE HORIZONTAL  | PART 3 EXECUTION  |
|            | DRAIN AND VENT PIPING IN ACCORDANCE WITH THE FOLLOWING:   | 3.01 PREPARATION:   |
|            | <u>SIZE</u> <u>MINIMUM_SLOPE</u><br>3" AND SMALLER 1/4" PER FOOT<br>4" AND LARGER 1/8" PER FOOT   | A. REAM PIPES AND TUBING AND THOROUGHLY CLEAN INSI<br>OUTSIDE PRIOR TO CONNECTING.  |
|            | 4 AND LARGER 1/8 PER FOOT   | 3.02 INSTALLATION:  |
| В.         | BURY ALL UNDERGROUND OUTSIDE SEWER PIPE A MINIMUM OF 2<br>FEET FROM FINISHED GRADE.   | A. SLOPE WATER PIPING MINIMUM OF 1 INCH IN 40 FEET<br>TO DRAIN AT ALL LOW POINTS.   |
| C.         | MAKE CLEAN OUT FREE FROM LEAKS. LUBRICATE CLEAN OUT PLUGS<br>WITH MIXTURE OF GRAPHITE AND LINSEED OIL AND DO NOT OVER<br>TIGHTEN.                   | B. BURY ALL UNDERGROUND OUTSIDE PIPING A MINIMUM C<br>BELOW FINISHED GRADE.   |
| D.         | ARRANGE WITH LOCAL UTILITY FOR SEWER TAP AND PAY ALL COSTS TO ESTABLISH SEWER SERVICE.  | C. USE ELECTRICALLY INSULATING TYPE CONNECTIONS FOR<br>DISSIMILAR METALS SUCH AS BRASS VALVES OR ADAPTE<br>INSULATING COUPLINGS.                                |
| 3.03       | TESTING:  | D. USE PROPER ADAPTERS FOR SCREWED VALVES TO COPI   |
|            | BEFORE CONCEALING, TEST DRAIN, WASTE, AND VENT SYSTEM AND   | E. USE TEFLON TAPE OR OTHER APPROVED JOINTS COMPO<br>CONNECT THREADED PIPE.   |
|            | PROVE LEAK FREE:  | F. CONNECT TO T & P RELIEF VALVE AND EXTEND FULL S  |
|            | 1. WATER TEST – SUBJECT SYSTEM TO AT LEAST 10 FEET OF<br>HYDROSTATIC HEAD FOR 30 MINUTES.   | APPROVED DISCHARGE POINT.   |
|            | <ol> <li>AIR TEST – SUBJECT SYSTEM TO AT LEAST 5 PSIG AIR PRESSURE<br/>FOR 30 MINUTES. (OPTIONAL)</li> </ol>  | G. WHERE PIPE PASSES THROUGH FINISHED WALL, CEILING,<br>PROVIDE CHROME PLATED ESCUTCHEON PLATE SECUREL<br>TO PIPE. INSTALL PIPE SO THAT NO THREADS SHOW.        |
|            |   | H. ARRANGE WITH LOCAL UTILITY FOR WATER TAP AND MET   |

|   | 3.02       | INSTALLATION CONTINUED:<br>INSTALL GATE VALVE TO ISOLATE OR SHUT–OFF EQUIPMENT OR   | 3.02          | INSTALLATION:  |            |   |  |
|---|------------|---|---------------|--|------------|---|--|
|   | 1.         | BRANCH LINES. USE GLOBE VALVES WHERE ADJUSTABLE FLOW OR<br>THROTTLING IS REQUIRED.  | A.            | SLOPE NATURAL GAS PIPING MINIMUM OF 1 INCH IN 40 FEET AND<br>PROVIDE MINIMUM 12 INCH DEEP DRIP POCKET SAME SIZE AS PIPE,<br>AT ALL LOW POINTS AND AT FINAL CONNECTIONS TO EQUIPMENT. |            | <ol> <li>CELLULAR GLASS: INORGANIC, INCOMBUSTIBLE, FOAMED OR<br/>CELLULATED GLASS WITH ANNEALED, RIGID, HERMETICALLY<br/>SEALED CELLS. FACTORY-APPLIED JACKET REQUIREMENTS<br/>ARE SPECIFIED IN "FACTORY-APPLIED JACKETS" ARTICLE.</li> </ol> |  |
|   |            | INSTALL HOSE BIBBS CENTERLINE, 2 FEET ABOVE FLOOR OR GRADE.<br>INSTALL GARBAGE CAN WASH VALVE 4 FEET ABOVE FLOOR OR DRAIN.  |               | PROVIDE MALLEABLE IRON REMOVABLE SCREW-ON CAP ON BOTTOM<br>OF DRIP POCKET.   |            | SUBJECT TO COMPLIANCE WITH LOCAL REQUIREMENTS:  |  |
| ELIEF PIPING.   | K.         | . PROVIDE PRV TO LIMIT MAXIMUM STATIC PRESSURE AT PLUMBING<br>FIXTURES TO 70 PSIG. SUBMIT PRESSURE DATA TAKEN AT<br>DIFFERENT TIMES AS APPROVED OR INSTALL PRV AT SERVICE<br>CONNECTION OR IN BUILDING. PROVIDE PRV AT OTHER SEPARATE |               | BUY UNDERGROUND GAS PIPING MINIMUM OF 2 FEET BELOW FINISHED<br>GRADE.<br>PROVIDE ONE OR MORE ANODES, SIZED FOR PIPE SIZE AND LENGTH  |            | A. FLEXIBLE ELASTOMERIC: CLOSED-CELL, SPONGE OR<br>EXPANDED-RUBBER MATERIALS.   | Г  |
|   | 1          | FIXTURES WHEN SHOWN ON DRAWINGS.  |               | OF UNDERGROUND SERVICE.<br>USE FLEXIBLE CONNECTOR AND GAS COCK FOR FINAL CONNECTION  |            | B. HIGH-TEMPERATURE, MINERAL-FIBER BLANKET INSULATION:<br>MINERAL OR GLASS FIBERS BONDED WITH A THERMOSETTING<br>RESIN.   |  |
| QUIREMENTS.   | ۲.         | WITH SANITARY DRAINAGE SYSTEM OR OTHER NON-POTABLE SOURCES.<br>PROVIDE REDUCED PRESSURE TYPE BACKFLOW PREVENTERS WHEN<br>REQUIRED.  | E.            | TO EACH APPLIANCE OR OTHER GAS FUELED UNIT.<br>PROVIDE DIELECTRIC UNION WHERE PIPING EMERGES FROM<br>UNDERGROUND.  |            | C. HIGH-TEMPERATURE, MINERAL-FIBER BOARD INSULATION:<br>MINERAL OR GLASS FIBERS BONDED WITH A THERMOSETTING<br>RESIN.   |  |
|   | 3.03       | TESTING:<br>. BEFORE CONCEALING OR INSULATING, TEST DOMESTIC WATER PIPING   | F.            | WELD ALL CONNECTIONS WHERE PIPING MUST BE CONCEALED.<br>PROVIDE VENTILATED PIPE SLEEVES WHERE REQUIRED.  |            | <ul><li>D. MINERAL-FIBER, PERFORMED PIPE INSULATION.</li><li>E. MINERAL-FIBER, PIPE AND TANK INSULATION. MINERAL OR</li></ul>   |  |
| VALVES AND SHOCK  | Α.         | AND PROVE LEAK FREE. SUBJECT SYSTEM TO MINIMUM HYDROSTATIC<br>PRESSURE OF 100 PSIG AND HOLD FOR ONE HOUR.   | G.            | USE TEFLON TAPE OR OTHER APPROVED JOINT COMPOUND TO CONNECT THREADED PIPE.   |            | GLASS FIBERS BONDED WITH A THERMOSETTING RESIN.<br>F. POLYOLEFIN: UNICELLULAR, POLYETHYLENE THERMAL PLASTIC   |  |
| USED AND STATE THEIR<br>D OTHER APPLICABLE DATA.                                | 3.04       | STERILIZATION:  | H.            | ARRANGE WITH LOCAL UTILITY FOR GAS TAP AND METER INSTALLATION.<br>PAY ALL COSTS TO ESTABLISH NATURAL GAS SERVICE.  |            | INSULATION.<br>G. POLYSTYRENE: RIGID, EXTRUDED CELLULAR POLYSTYRENE   |  |
| RESSORS LAYOUT PROPOSED.<br>TUAL LOCATION AND ROUTING                           | A.         | . AFTER TESTS HAVE BEEN SUCCESSFULLY COMPLETED, THOROUGHLY<br>FLUSH AND STERILIZE THE COMPLETED DOMESTIC WATER SYSTEM IN<br>ACCORDANCE WITH AWWA C601.  | Ι.            | MAKE SURE ALL PIPING CONCEALED IN WALLS OR OTHER AREAS ARE<br>PROPERLY VENTED. AT TOP OF SOLID WALLS VENT WITH OPENING<br>WHICH IS 2 TIMES THE DIAMETER OF THE PIPE.                 | 2.02       | INTENDED FOR USE AS THERMAL INSULATION.<br>INSULATING CEMENTS:  |  |
| CHLORINATION.   | B.         | . FLUSH ENTIRE SYSTEM AFTER STERILIZATION UNTIL RESIDUAL<br>CHLORINE CONTENT IS NO GREATER THAN 0.2 PARTS PER MILLION.  |               | PROVIDE VENTILATED PIPE SLEEVES UNDER ALL PAVING AND OTHER HARD SURFACES.  | Α.         | MINERAL—FIBER, HYDRAULIC—SETTING INSULATING AND FINISHING<br>CEMENT: COMPLY WITH ASTM C 449/C 449M.   |  |
|   | C.         | . CHLORINATE ONLY WHEN THE BUILDING IS UNOCCUPIED.  |               | BOND INTERIOR METAL GAS PIPING TO THE ELECTRICAL SYSTEM GROUND. PIPING SHALL BE ELECTRICALLY CONTINUOUS.   | 2.03<br>A  | ADHESIVES:<br>MATERIALS SHALL BE COMPATIBLE WITH INSULATION MATERIALS,  |  |
|   | END O      | F SECTION   |               | INSTALL CONTINUOUS STRIP OF PLASTIC UTILITY MARKER TAPE OVER<br>GAS PIPING. USE STRIP WITH TRACE WIRE FOR PLASTIC PIPE.  | ,          | JACKETS, AND SUBSTRATES AND FOR BONDING INSULATION TO<br>ITSELF AND TO SURFACES TO BE INSULATED, UNLESS OTHERWISE<br>INDICATED.   |  |
| G OUTSIDE BUILDING TO WATER   | NATUD      | AL GAS PIPING SYSTEM  |               | IDENTIFY AND LABEL MEDIUM PRESSURE GAS PIPING AT BOTH ENDS<br>AND THE 6 FOOT INTERVALS IN BETWEEN.   |            | 1. CELLULAR–GLASS POLYSTYRENE.<br>2. FLEXIBLE ELASTOMERIC AND POLYOLEFIN.   |  |
| RAWINGS HARD COPPER TUBING<br>D JOINTS MADE WITH 95–5                           | SECTIO     | N 15413   | N.            | CONTRACTOR SHALL COORDINATE WITH LOCAL GAS COMPANY THE<br>STANDARD GAS PRESSURE. SHOULD THE SYSTEM EXCEED THE<br>STANDARD GAS PRESSURE AND USE MEDIUM OR HIGH PRESSURE GAS           |            | <ol> <li>MINERAL—FIBER.</li> <li>POLYSTYRENE.</li> <li>ASJ, FSK, AND PVDC JACKET ADHESIVE.</li> </ol>   |  |
| ), SEAL COATED, HUB AND<br>NTS MADE WITH RUBBER                                 | PART 1     | 1 GENERAL<br>WORK INCLUDED:   |               | CONTRACTOR SHALL PROVIDE A GAS REGULATOR AT EACH PIECE OF<br>EQUIPMENT REQUIRING GAS SHOULD LOCATIONS NOT BE SHOWN ON<br>DRAWINGS. PROVIDE VENTING ACCORDINGLY SHOULD THE REGULATOR  | 2.04       | 6. PVC JACKET.<br>MASTICS:  |  |
| FOR THE PURPOSE. (OPTIONAL)   |            | . UNDERGROUND NATURAL GAS SERVICE PIPING.<br>. INTERIOR NATURAL GAS PIPING.   | 3.03          | BE INSTALLED INSIDE THE BUILDING.<br>TESTING:  | A.<br>B.   | VAPOR-BARRIER MASTIC<br>BREATHER MASTIC.  |  |
| BUILDING AND TO FIVE FEET   |            | . EXTERIOR EXPOSED NATURAL GAS PIPING.<br>. CONNECTORS FOR APPLIANCES AND OTHER EQUIPMENT.  | A.            | BEFORE CONCEALING, TEST NATURAL GAS PIPING SYSTEM AND PROVE<br>LEAK FREE. SUBJECT SYSTEM TO AT LEAST 50 PSIG AIR PRESSURE  | 2.05<br>A. | SEALANTS:<br>JOIN SEALANT.  |  |
| AS INDICATED ON DRAWINGS<br>NGS OR JOINTS PERMITTED<br>ABOVE SLAB USING WROUGHT |            | . COCKS.  | В.            | FOR 3 MINUTES.<br>CHECK UNDERGROUND PIPING COATING WITH A "HOLIDAY" DETECTOR   | В.         | FSK AND METAL JACKET FLASHING SEALANT.<br>ASJ FLASHING SEALANT AND VINYL, PVDC, AND PVC JACKET<br>FLASHING SEALANT.   |  |
| YPE AS INDICATED ON DRAWINGS  | 1.02<br>A. | RELATED WORK:<br>. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.   | END OF        | AND PROVE FREE FROM LEAKAGE CURRENTS THROUGH COATING.<br>SECTION   | 2.06       | FACTORY-APPLIED JACKETS:  |  |
| T COPPER FITTINGS AND JOINTS<br>ILVER CONTENT).                                 | 1.03       | SUBMITTALS:   | INSULAT       | ION  | B.<br>C.   | ASJ-SSL<br>FSK<br>PVDC JACKET FOR INDOOR APPLICATIONS   |  |
| AND OTHER FINISHED AREAS,<br>THREADED FITTINGS.                                 |            | SUBMIT MANUFACTURER'S DATA SHEETS ON GAS COCKS.   |               | GENERAL  | E.<br>F.   | PVDC JACKET FOR OUTDOOR APPLICATIONS<br>PVDC—SSL JACKET   |  |
| RELIEF PIPING INSIDE BUILDING,  |            | <ul> <li>SUBMIT LIST OF PIPING PRODUCTS TO BE USED AND STATE THEIR<br/>MANUFACTURERS, CLASSES OR TYPES, AND THERE APPLICABLE DATA.</li> <li>SUBMIT RECORD DRAWINGS INDICATING ACTUAL LOCATION AND</li> </ul>                          | 1.01          | WORK INCLUDED:   | 2.07<br>A. | FIELD-APPLIED FABRIC-REINFORCING MESH:<br>WOVEN POLYESTER FABRIC  | [  |
| RAWINGS HARD COPPER TUBING<br>INTS MADE WITH 95–5 SOLDER.                       | C          | ROUTING OF PIPING AS INSTALLED.   | A.<br>B.      | INSULATION MATERIALS.<br>INSULATING CEMENTS.<br>ADHESIVES.   | 2.08       | FIELD-APPLIED JACKETS:<br>PVC JACKET  |  |
| USED ON POTABLE WATER   | 1.04<br>A. | QUALITY ASSURANCE:<br>. CONFORM TO ASME CODE AND APPLICABLE STATE REGULATIONS WITH  | D.<br>E.<br>F | ADRESIVES.<br>MASTICS.<br>SEALANTS.<br>FACTORY—APPLIED JACKETS.  | В.         | ALUMINUM JACKET<br>UNDERGROUND DIRECT-BURIED JACKET   |  |
|   |            | ALL WELDING MATERIALS AND WELDING OPERATOR'S QUALIFICATIONS.<br>USE ONLY OPERATORS FULLY QUALIFIED AND CERTIFIED UNDER THE<br>REQUIREMENTS OF THE ARKANSAS GAS PIPELINE CODE (AFPC).  |               | FIELD-APPLIED FABRIC-REINFORCING MESH.<br>FIELD-APPLIED JACKETS.<br>TAPES.   | 2.09<br>A. | TAPES:<br>ASJ   |  |
| S INCLUDING DISC, PLUGS,<br>IS FOR THE SERVICE,                                 | PART 2     | 2 PRODUCTS  | J.<br>K.      | SECUREMENTS.<br>CORNER ANGLES.   | C.<br>D.   | FSK<br>PVC<br>ALUMINUM-FOIL   |  |
| THEY WILL BE EXPOSED.<br>NECTIONS.<br>M, INSIDE CREW, DOUBLE                    | 2.01       | PIPING:   | 1.02          | RELATED WORK:<br>A. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.   | E.<br>2.10 | PVC<br>SECUREMENTS:   |  |
| NG STEM, INSIDE CREW,   | А.         | . UNDERGROUND PIPING:<br>1. PLASTIC PIPE OR TUBING AND FITTINGS CONFORMING WITH   |               | B. SECTION 15005 MECHANICAL INSULATION.  | A.<br>B.   | ALUMINUM BANDS<br>INSULATION PINS AND HANGERS<br>NONMETAL, ADHESIVELY ATTACHED, PERFORATED–BASE INSULATION  |  |
| 5C.   |            | ASTM D 2513. REINFORCED EPOXY RESIN GAS PIPE AND<br>FITTINGS CONFORMING TO ASTM D 2517 FOR OUTSIDE<br>UNDERGROUND USE ONLY. PLASTIC SHALL BE USED ONLY  | 1.03          | SUBMITTALS:<br>A. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED.   | D.         | HANGERS<br>SELF-STICKING BASE INSULATION HANGERS<br>INSULATION-RETAINING WASHERS  |  |
| 4" ANTI-SIPHON  |            | BELOW GRADE. PLASTIC PIPE AND FITTINGS SHALL BE<br>JOINED BY APPROVED METHODS AND MANUFACTURING<br>INSTRUCTIONS.  |               | <ul> <li>B. SHOP DRAWINGS DETAILING APPLICATION OF PROTECTIVE<br/>SHIELDS, SADDLES, AND INSERTS AT HANGERS FOR EACH TYPE</li> </ul>  |            | NONMETAL INSULATION-RETAINING WASHERS<br>STAPLES<br>WIRE  |  |
| AND BOX WITH LOOSE KEY<br>IICKNESS.   |            | <ol> <li>MILL COAT PIPE WITH HIGH DENSITY POLYETHYLENE OVER<br/>ADHESIVE UNDERCOATING.</li> <li>WRAP FIELD JOINTS AND FITTINGS WITH REPUBLIC</li> </ol>   |               | C. DETAIL ATTACHMENT AND COVERING OF HEAT TRACING INSIDE   | 2.11       | CORNER ANGLES:  |  |
|   |            | "X-TRU-TAPE" OR EQUAL PER MANUFACTURER'S RECOMMENDATIONS.   |               | <ul><li>D. DETAIL INSULATION APPLICATION AT PIPE EXPANSION JOINTS FOR</li></ul>  |            | PVC CORNER ANGLES<br>ALUMINUM CORNER ANGLES   |  |
|   | В          | ABOVE GROUND PIPING:<br>1. SCHEDULE 40 BLACK STEEL OR GALVANIZED STEEL WITH   |               | EACH TYPE OF INSULATION.<br>E. DETAIL INSULATION APPLICATION AT ELBOWS, FITTINGS, FLANGES,   |            | EXECUTION   |  |
| LY CLEAN INSIDE AND   |            | MALLEABLE IRON FITTINGS OR WELDED JOINTS WITH BUTTWELD<br>FITTINGS.<br>2. STAINLESS STEEL TUBING, FITTINGS, AND ACCESSORIES SHALL   |               | VALVES, AND SPECIALTIES FOR EACH TYPE OF INSULATION.<br>F. DETAIL REMOVABLE INSULATION AT PIPING SPECIALTIES,  | A.         | SURFACE PREPARATION: CLEAN AND DRY SURFACES TO<br>RECEIVE INSULATION. REMOVE MATERIALS THAT WILL  | THE OF AUTHORIZE   |
|   |            | BE TESTED, LISTED, AND INSTALLED PER ANSI/AGA LC-1,<br>MFPA AND FACTORY MUTUAL. SHALL HAVE POLYETHYLENE<br>JACKET. SHALL MEET STATE AND LOCAL APPROVALS. SHALL  |               | EQUIPMENT CONNECTIONS, AND ACCESS PANELS.<br>G. DETAIL APPLICATION OF FIELD-APPLIED JACKETS.   | В.         | ADVERSELY AFFECT INSULATION APPLICATION.<br>COORDINATE INSULATION INSTALLATION WITH THE TRADE   | ADVANCED<br>CONSULTING<br>ENGINEERS, INC.  |
| I IN 40 FEET AND ARRANGE  |            | BE EQUAL TO TRACE PIPE BY OMEGA FLEX.   |               | H. DETAIL APPLICATION AT LINKAGES OF CONTROL DEVICES.  | ^          | INSTALLING HEAT TRACING. COMPLY WITH REQUIREMENTS FOR<br>HEAT TRACING THAT APPLY TO INSULATION.   | No. 27   |
| A MINIMUM OF 3 FEET   | С          | <ul> <li>CONNECTORS FOR APPLIANCES AND OTHER EQUIPMENT:</li> <li>PVC COOLED SPIRAL FLEXIBLE BRASS CONNECTOR WITH</li> </ul>   |               | <ol> <li>DETAIL FIELD APPLICATION FOR EACH EQUIPMENT TYPE.</li> <li>J. FIELD QUALITY-CONTROL REPORTS.</li> </ol>   | C.         | MIX INSULATING CEMENTS WITH CLEAN POTABLE WATER; IF<br>INSULATING CEMENTS ARE TO BE IN CONTACT WITH<br>STAINLESS-STEEL SURFACES, USE DEMINERALIZED WATER.   | ARKANSAS MININ   |
| NECTIONS FOR JOINING<br>ES OR ADAPTERS OR                                       |            | BRASS FLARED GAS TUBING FITTINGS.   | PART 1        | GENERAL  | 3.02       | GENERAL INSTALLATION REQUIREMENTS:  | PRIOR TO BID/START OF<br>CONSTRUCTION REQUIREMENTS<br>THESE DOCUMENTS ARE<br>DIAGRAMMATIC IN NATURE AND IN                         |
| ALVES TO COPPER PIPING.   |            | . WELDING ROD – SAME MATERIAL AS PIPE.  | 2.01          | PRODUCTS:  | А.         | INSTALL INSULATION MATERIALS, ACCESSORIES AND FINISHES<br>WITH SMOOTH, STRAIGHT, AND EVEN SURFACES; FREE OF<br>VOIDS THROUGHOUT THE LENGTH OF EQUIPMENT AND PIPING  | SOME CASES, BASED ON<br>INFORMATION THAT IS PROVIDED<br>BY THE OWNER. THE CONTRACTOR   |
| JOINTS COMPOUND TO  | 2.02       | GAS COCKS:  | Α.            | INSULATION MATERIALS.<br>1. PRODUCTS SHALL NOT CONTAIN ASBESTOS, LEAD, MERCURY,<br>OR MERCURY COMPOUNDS.   |            | INCLUDING FITTINGS, VALVES, AND SPECIALTIES.<br>INSTALL INSULATION MATERIALS, FORMS, VAPOR BARRIERS OR<br>RETARDERS JACKETS AND THICKNESS' REQUIRED FOR EACH  | SHALL VERIFY EXISTING<br>CONDITIONS IN THE FIELD PRIOR TO<br>BID. ANY DISCREPANCIES OR<br>CONDITIONS INTERFERING WITH              |
| XTEND FULL SIZE TO  | А.         | . IRON BODY WITH BRASS PLUG AND WASHER WITH SCREWED OR FLANGED ENDS RATED FOR 125 LB. WOG.  |               | 2. PRODUCTS THAT COME IN CONTACT WITH STAINLESS STEEL<br>SHALL HAVE A LEACHABLE CHLORIDE CONTENT OF LESS THAN  |            | RETARDERS, JACKETS, AND THICKNESS' REQUIRED FOR EACH<br>ITEM OF EQUIPMENT AND PIPE SYSTEM.<br>INSTALL ACCESSORIES COMPATIBLE WITH INSULATION  | THE ABILITY OF THE CONTRACTOR<br>TO COMPLETE THE WORK AS<br>OUTLINED, SHALL BE BROUGHT TO<br>THE ATTENTION OF THE ARCHITECT.       |
| WALL, CEILING, OR FLOOR,<br>LATE SECURELY ANCHORED<br>READS SHOW.               | PART 3     | EXECUTION:  |               | 50 PPM WHEN TESTED ACCORDING TO ASTM C 871.<br>3. INSULATION MATERIALS FOR USE ON AUSTENITIC STAINLESS   |            | MATERIALS AND SUITABLE FOR THE SERVICE.   | ANY COST SAVINGS OPTIONS OR<br>REUSE OF EXISTING EQUIPMENT,<br>MATERIAL OR DEVICES SHALL BE<br>MADE AVAILABLE TO THE OWNER         |
| TAP AND METER<br>LISH WATER SERVICES.   |            | PREPARATION:<br>REAM PIPES AND TUBING PRIOR TO CONNECTION.  |               | STEEL SHALL BE QUALIFIED AS ACCEPTABLE ACCORDING TO ASTM C 795.  | END OF     | SECTION   | AND THE ARCHITECT FOR REVIEW.<br>ANY REQUESTED CHANGES DUE TO<br>THE CONTRACTORS OVERSIGHT OR                                      |
|   |            | REAM PIPES AND TUBING PRIOR TO CONNECTION.<br>REMOVE WELDING SLAG FROM WELDED CONNECTIONS.  |               | 4. FOAM INSULATION MATERIALS SHALL NOT USE CFC OR HCFC<br>BLOWING AGENTS IN THE MANUFACTURING PROCESS.   |            | Φη κην μοτ  | FAILURE TO VISIT THE SITE PRIOR<br>TO BID, SHALL NOT BE AUTHORIZED<br>OR COMPENSATED. COORDINATE<br>ALL LOUVER SIZES AND LOCATIONS |
|   |            |   |               |  |            | ROGERS, AR 72756  | CONSTRUCTION. LAYOUT ALL   |
|   |            |   |               |  |            | DVANCED CONSULTING ENGINEERS         FX 479.631.1854           MECHANICAL         ELECTRICAL         INDUSTRIAL         ACEI@ADVENGINEERS.COM   | CLEARANCES ARE AVAILABLE.<br>CONTACT ARCHITECT IMMEDIATELY<br>WITH ANY ISSUES.   |
|   |            |   |               |  |            |   |  |







# LEGEND

|                             | CONDUIT AND WIRE CONCEALED IN WALL OR ABOVE CEILING   |
|-----------------------------|---|
|                             | CONDUIT AND WIRE CONCEALED UNDERFLOOR OR UNDERGROUND  |
|                             | LUMINAIRE SYMBOLS. SEE LUMINAIRE SCHEDULE FOR   |
| ою б                        | SPECIFIC FIXTURES.  |
| \$                          | SINGLE POLE, SINGLE THROW LIGHT SWITCH, 20A   |
| \$ <sub>3</sub>             | (WP = WEATHERPROOF COVER)<br>THREE-WAY LIGHT SWITCH, 20A  |
| \$ <sub>AS</sub>            | SINGLE POLE, SINGLE THROW LIGHT SWITCH WITH AUTO SENSOR   |
| \$ <sub>PL</sub>            | SINGLE POLE, SINGLE THROW LIGHT SWITCH WITH PILOT LIGHT   |
| \$ <sub>PB</sub>            | PUSHBUTTON DOOR BELL ACTIVATOR  |
| 5<br>\$ <sub>τ</sub>        | TIMER SWITCH  |
| \$ <sub>D</sub>             | DIMMER SWITCH   |
| \$ <sub>V</sub>             | VARIABLE SPEED FAN CONTROL SWITCH   |
| $\Theta$                    | SINGLE RECEPTACLE, GROUNDED   |
| \$                          | DUPLEX RECEPTACLE, GROUNDED   |
| ⊖ <sub>IG</sub>             | DUPLEX RECEPTACLE, ISOLATED GROUND  |
|                             | DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTION (GFCI)   |
|                             | DUPLEX RECEPTACLE, GFCI WITH WEATHERPROOF COVER   |
| <b>ি</b><br>দৈব             | DUPLEX RECEPTACLE, WITH (2) USB PORTS   |
| Ø                           | FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE<br>SPECIAL PURPOSE RECEPTACLE AS NOTED  |
| C                           | TELEVISION CABLE OUTLET   |
| $\breve{\mathbf{V}}$        | WITH 3/4" C.O. TO MATV  |
|                             | J-BOX   |
| $\mathbf{V}^{H}$            | HIGH DEFINITION TV  |
| V                           | OUTLET WITH (3) CAT6<br>CABLES  |
|                             | FIRE ALARM SYSTEM CONTROL PANEL   |
| FACP<br>F                   | FIRE ALARM SYSTEM CONTROL FANEL   |
|                             | FIRE ALARM SYSTEM MINI-HORN/STROBE COMBINATION, GUESTROOM   |
| X                           | FIRE ALARM SYSTEM STROBE  |
| -<br>N                      | FIRE ALARM SYSTEM HORN/STROBE   |
| SD                          | FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR, GUESTROOM  |
| SD                          | FIRE ALARM SYSTEM SMOKE DETECTOR  |
| DSD                         | FIRE ALARM SYSTEM DUCT MOUNT SMOKE DETECTOR   |
| FSD Ø                       | FIRE ALARM SYSTEM THERMAL DETECTOR<br>120V CONNECTION TO FIRE/SMOKE DAMPER  |
| (FSD) O <sub>FSD</sub><br>X | DOORBELL CHIME WITH ALERT LIGHT   |
| 0                           | JUNCTION BOX  |
| Ū                           | THERMOSTAT  |
|                             | TELEPHONE TERMINAL BOARD (TTB)  |
| •                           | TELEPHONE OUTLET, MOUNTED AT 18" UNLESS OTHERWISE INDICATED   |
| ◀48"<br>HP                  | HOUSE TELEPHONE OUTLET MOUNTED AT 48" AFF WITH MINIMUM $1/2$ " C.O. TO TTB  |
| Т                           | TELEPHONE ALERT LIGHT, SIMILAR TO FIRE ALARM STROBE, WHITE<br>COVERPLATE, WHITE STROBE LENS, WITH "PHONE" ON BOTH SIDES OF<br>LENS IN BLACK LETTERS |
| 4                           | COMPUTER OUTLET, MOUNTED AT 18" UNLESS OTHERWISE INDICATED  |
| ⊲ (#)                       | COMPUTER OUTLET, # INDICATES NUMBER OF CAT6 JACKS, NO NUMBER INDICATES ONE CABLE  |
|                             | DUPLEX TELEPHONE/DATA OUTLETS   |
| ●                           | PUSHBUTTON  |
|                             | PANELBOARD  |
|                             | ELECTRICAL DISTRIBUTION EQUIPMENT   |
|                             | DISCONNECT SWITCH   |
|                             | MAGNETIC MOTOR STARTER  |
|                             | COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH  |
| <u>ک</u><br>اکتا            |   |
| TS<br>Ø                     | TIME SWITCH<br>MOTOR CONNECTION   |
| У<br>\$ <sub>М</sub>        | MOTOR RATED SWITCH  |
|                             |   |
|                             | CONNECTION TO ELECTRONIC CARD READER/DOOR RELEASE   |
|                             | CLOSED CIRCUIT SECURITY CAMERA  |
| $ \bigcirc $                | ELECTRO-MAGNETIC DOOR HOLDER  |
| XX                          | SPEAKER – CEILING   |
|                             |   |
|                             |   |

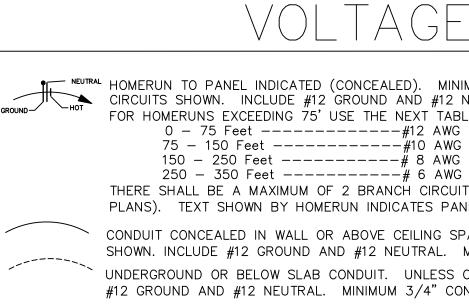
# NEC GENER/

- . WHERE THE CONDUCTORS IN A RACEWAY OR CAB AMPACITY OF EACH CONDUCTOR SHALL BE REDUC (310.15(B)(2))
- 2. WHERE THE CONDUCTORS OR CABLES ARE INSTAL SUNLIGHT ON OR ABOVE ROOFTOPS SHALL BE REDUCED PER
- 3. WHERE TWO DIFFERENT AMPACITIES APPLY TO AD AMPACITY SHALL BE PER THE 310.15(2) EXCEPTION.
- 4. WHERE THE MAXIMUM AMBIENT TEMPERATURE IS CORRECTION FACTORS SHALL APPLY TO CONDUCTORS. (TABL
- 5. INDICATE WHICH WIRING METHODS (E.G., FMC, EMT INSTALLED AT ANY/ALL LOCATIONS ON THE PLANS. (CHAP
- 6. NOT USED
- 7. NOT USED
- 8. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PR SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT ORIGINATES. (210.4(B)).
- 9. ALL WORK TO COMPLY WITH NATIONAL ELECTRIC
- 10. THE UNGROUNDED AND GROUNDED CONDUCTORS SHALL BE GROUPED BY WIRE TIES OR SIMILAR MEANS IN AT PANELBOARD OR OTHER POINT OF ORIGINATION. (210.4(D))
- 11. PROVIDE SEPARATE SUBMITTAL, OBTAIN ALL REQU APPROVALS FOR ALL FIRE ALARM SYSTEM INSTALLATIONS AND / ALL INSTALLED EQUIPMENT SHALL BE LISTED AN TESTING LABORATORY.
- 12. ALL INSTALLED EQUIPMENT AND MATERIAL SHALL THE INTENDED PURPOSE.
- 13. ALL EQUIPMENT TO BE U.L. LISTED OR EQUIVALEN
- 14. FIELD VERIFY SERVICE RECEPTACLE IS PROVIDED EQUIPMENT. (210.63)
- 15. MULTIPLE RACEWAYS CONTAINING MORE THAN 2 COMPLY WITH [2017, NEC, 310.15(B)(2)(A)].
- 16. WHERE THE DISCONNECTS ARE NOT PROVIDED WIT SUPPLIES. THE SWITCH OR CIRCUIT BREAKER MUS LOCK. AND THESE PROVISIONS MUST REMAIN WIT
- PROVISIONS HAVE TO BE PART OF THE EQUIPME 17. DESIGN OR AS AN ACCESSORY FEATURE THAT C [410.141(B), 422.31(B), 424.19, 440.14 EXCEPTION 600.6(A)(2)(3), 620.51(A) EXCEPTION NO. 1, 620.
- 18. LIGHT FIXTURE IN CONTACT WITH INSULATION TO PROVIDE 3" MINIMUM CLEARANCE.
- 19. LIGHTS AND PANELS SHALL NOT BE RECESSED IN WITH EQUIVALENT CONSTRUCTION.
- 20. MOUNT THE FOLLOWING ABOVE FINISHED FLOOR: OUTLETS- 18" TO 48" SWITCHES- 36" TO 48"
- THERMOSTATS- 36" TO 48" MEASURED FROM BOTTOM & TOP OF BOXES RESP
- 21. PANEL CIRCUIT DIRECTORY TO COMPLY WITH SECT
- 22. W.P. COVER OF OUTLETS TO COMPLY WITH SECT.

APPLICABLE CO

CODES:

 NATIONAL ELECTRICAL CODE 2017 COMPLY WITH LOCAL JURISDICTION REQUIREM



| AL NOTES:   |          |  |  | ABBREVIATI(   | SNC   | $\sum$   |
|---|----------|--|--|---|---|--|
| BLE EXCEEDS THREE, THE ALLOWABLE<br>JCED PER TABLE 310.15(B)(2).<br>ALLED IN CONDUITS EXPOSED TO DIRECT<br>TABLE 310.15(B)(2)(C).<br>DJACENT PORTIONS OF A CIRCUIT, THE<br>OVER 30°C, (86°F), THE REFERENCED<br>LE 310.16 TO 19)<br>AT, AC, IMC, RMC, ETC.) ARE TO BE<br>PTER 9, TABLES 4, 5 &5A, APPENDIX C)<br>ROVIDED WITH A MEANS THAT WILL<br>THE POINT WHERE THE BRANCH CIRCUIT |          |  | A<br>AC<br>AFF<br>AIC<br>AL<br>AMP<br>AWG<br>BKR<br>BLDG<br>BOH<br>C<br>CKT<br>CO<br>CT<br>CU<br>CW<br>DCO<br>DN<br>EXIST<br>EF<br>ELEC<br>EMT<br>EQUIP<br>FLR<br>FLUOR<br>FOH<br>GFCI | AMPERE<br>ALTERNATING CURRENT, ABOVE COUNTER<br>ABOVE FINISHED FLOOR<br>AMPS INTERRUPTING CAPACITY<br>ALUMINUM<br>AMPERE<br>AMERICAN WIRE GAUGE<br>BREAKER<br>BUILDING<br>BACK OF HOUSE<br>COIL or CONDUIT<br>CIRCUIT<br>CONDUIT/RACEWAY ONLY<br>CURRENT TRANSFORMER<br>COPPER<br>COOL WHITE<br>DUPLEX CONVENIENCE OUTLET<br>DOWN<br>EXISTING<br>EXHAUST FAN<br>ELECTRICAL<br>ELECTRICAL METALLIC TUBING<br>EQUIPMENT<br>FLOOR<br>FLUORESCENT<br>FRONT OF HOUSE<br>GROUND FAULT CIRCUIT INTERRUPTER | GND<br>GRS<br>HID<br>HP<br>HT<br>KCMIL<br>KEC<br>KVA<br>KW<br>LTG<br>MFR<br>MIN<br>MLO<br>N<br>MEC<br>NEMA<br>NT<br>NEC<br>NEMA<br>NT<br>NTS<br>PNL<br>POC<br>PT<br>PVC<br>PWR<br>QTY<br>RECEPT<br>RI<br>RM | GROUND<br>GALVANIZED RIGID STEEL<br>HIGH INTENSITY DISCHARGE<br>HORSEPOWER<br>HEAT TRACE<br>THOUSAND CIRCULAR MILLS<br>KITCHEN EQUIPMENT CONT<br>KILOVOLT AMPERES<br>KILOWATT<br>LIGHTING<br>MANUFACTURER<br>MINIMUM<br>MAIN LUGS ONLY<br>NEUTRAL<br>NATIONAL ELECTRICAL COI<br>NATIONAL ELECTRICAL MA<br>NEON TRANSFORMER<br>NOT TO SCALE<br>PANEL<br>POINT OF CONNECTION<br>POTENTIAL TRANSFORMER<br>POLYVINYL CHLORIDE<br>POWER<br>QUANTITY<br>RECEPTACLE<br>ROUGH—IN<br>ROOM |
|   |          | GEI  | NER  | AL NOTES  |   |  |
| CODE 2020.<br>OF EACH MULTI-WIRE BRANCH CIRCUIT<br>T LEAST ONE LOCATION WITHIN THE  | 1.       | ELECTRICAL CODE  | E, NATIONAL E  | TION IN ACCORDANCE WITH NATIONAL<br>LECTRICAL SAFETY CODE, LOCAL CODES,<br>TS OF UTILITY COMPANIES FURNISHING   |   |  |
| UIRED PERMITS, INSPECTIONS AND  | 2,       | ELECTRICAL DRAW  | WINGS ARE DIA  | COMPLETE ELECTRICAL SYSTEMS. THE<br>GRAMMATIC AND DO NOT NECESSARILY SHOW<br>TOR OR SIMILAR ITEMS FOR A COMPLETE  |   |  |
| OR MODIFICATIONS<br>APPROVED BY A CITY APPROVED<br>BE NRTL LISTED AND APPROVED FOR  | 3.       | THE CONTRACTOR<br>CONDITIONS WHIC<br>SHALL BE BROUG<br>BIDDING. PLANS A<br>CONDITIONS. THE | H MAY AFFEC<br>GHT TO THE A<br>ARE BASED ON<br>CONTRACTOR  | THE SITE PRIOR TO BID AND DETERMINE<br>T BID. ANY ITEMS NOT FULLY UNDERSTOOD<br>TTENTION OF THE ARCHITECT PRIOR TO<br>N OUR BEST UNDERSTANDING OF EXISTING<br>SHALL BE RESPONSIBLE FOR FIELD  |   |  |
| NT.   | 4.       | "REF" INDICATION   | S DENOTE WO  | T EXISTING CONDITIONS.<br>RK COVERED ELSEWHERE<br>OR MECHANICAL).   |   |  |
| WITHIN 25' OF MECHANICAL  | 5.       | WHEREVER THE WINSTALL COMPLET  |  | E" IS USED, IT MEANS, "FURNISH AND<br>FOR USE."   |   |  |
| CURRENT CARRYING CONDUCTORS SHALL   | 6.<br>7. |  |  | CTRICAL WITH OTHER TRADES.  |   | SF   |
| ITHIN SIGHT FROM THE EQUIPMENT IT<br>ST INCLUDE PROVISIONS FOR ADDING A<br>TH THE EQUIPMENT. THESE LOCKING  | /.       |  |  | AL EQUIPMENT, UNLESS OTHERWISE  |   | SHEET NUMBER   |
| NT, EITHER INHERENT TO THE EQUIPMENT<br>CAN BE INSTALLED ON THE EQUIPMENT.<br>ON NO. 1,   | 8.       |  |  | CEWAYS PER NATIONAL ELECTRICAL CODE.  |   | E-000  |
| 0.53, 620.55]   | 9.       |  |  | R THE ARCHITECTURAL DRAWINGS.   |   | E-100 E-101  |
|   | 11.      |  |  | OR TV, CONFIRM REQUIREMENTS WITH ARCHITEC   | т.  | E-600  |
| BE U.L. LISTED FOR THERMAL BARRIER OR   | 12.      |  | СК ТО ВАСК".   | D IN WALLS SEPARATING TWO ROOMS SHALL NO<br>INSTALL PUTTY PACKS BEHIND NEW BOXES FOR  | Т   | E-700  |
| N FIRE RATED ASSEMBLIES UNLESS BOXED,   | 13.      | ALL RECEPTACLES<br>HEIGHT AS REQUII  |  | IS SHALL BE BETWEEN 18" AND 48" AFF. ADJUS<br>ADA.  | Т   |  |
|   | 14.      | NOT USED   |  |   |   |  |
|   | 15.      | CONTRACTOR TO<br>WALLS THROUGHO  |  | MOUNT ALL RECEPTACLES BOXES IN FINISHED   |   |  |
| PECTIVELY.<br>TION 408.4, NEC.  | 16.      | CONTRACTOR TO  | LABEL PROPER   | LY ALL SERVICES AND UNIT PANELS.  |   |  |
| 406.8 (B) (I), NEC.   | 17.      | CONTRACTOR TO<br>INSTALLATIONS .   | INSTALL WET R  | ATED ALARM WIRE IN UNDER GROUND   |   |  |
|   | 18.      | NOT USED   |  |   |   |  |
| ODES  | - 19.    | NOT USED   |  |   |   |  |
| EMENTS  |          |  |  |   |   |  |
|   |          |  |  |   |   |  |

# VOLIAGE DROP NOIES:

HOT RAL HOMERUN TO PANEL INDICATED (CONCEALED). MINIMUM 3/4" CONDUIT. UNLESS OTHERWISE NOTED PROVIDE #12 CONDUCTORS AS REQUIRED BY THE NUMBER OF FOR HOMERUNS EXCEEDING 75' USE THE NEXT TABLE TO SIZE THE CONDUCTORS:

THERE SHALL BE A MAXIMUM OF 2 BRANCH CIRCUITS FOR SINGLE PHASE AND 3 BRANCH CIRCUITS FOR THREE PHASE PER HOMERUN (AS INDICATED ON THE PLANS). TEXT SHOWN BY HOMERUN INDICATES PANELBOARD DESIGNATION AND CIRCUIT NUMBER(S). CONDUIT CONCEALED IN WALL OR ABOVE CEILING SPACE. UNLESS OTHERWISE NOTED PROVIDE #12 CONDUCTORS AS REQUIRED BY THE NUMBER OF CIRCUITS

SHOWN. INCLUDE #12 GROUND AND #12 NEUTRAL. MINIMUM 3/4" CONDUIT. UNDERGROUND OR BELOW SLAB CONDUIT. UNLESS OTHERWISE NOTED PROVIDE #12 CONDUCTORS AS REQUIRED BY THE NUMBER OF CIRCUITS SHOWN. INCLUDE #12 GROUND AND #12 NEUTRAL. MINIMUM 3/4" CONDUIT.

STEEL CHARGE MILLS CONTRACTOR CAL CODE (NFPA-70) CAL MANUFACTURERS ASSOCIATION RO

SHT

SPEC

SW

SWBD

SWGR

TYP

UG

UL

V

W

WW

WP

W/

W/O XFMR

XFR

Ζ

UON

RACEWAY ONLY SHEET SPECIFICATIONS SWITCH SWITCHBOARD SWITCHGEAR TYPICAL UNDERGROUND UNDERWRITERS LABORATORIES UNLESS OTHERWISE NOTED VOLTS WATTS WARM WHITE WEATHERPROOF WITH WITHOUT TRANSFORMER TRANSFER IMPEDANCE OR ZONE



| SHEET NAME |  |
|------------|--|
|            |  |
|            |  |
|            |  |

| ELECTRICAL LEGEND & ABBREVIATIONS |
|-----------------------------------|
| LIGHTING PLAN                     |
| POWER PLAN                        |
| ELECTRICAL SCHEDULES & ONE-LINE   |
| SPECIFICATIONS                    |



EQUIPMENT IN MECHANICAL ROOM

CLEARANCES ARE AVAILABLE

WITH ANY ISSUES.





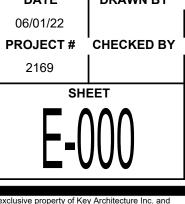
PH 479.631.1712 || EQUIPMENT IN MECHANICAL ROOM TO ENSURE PROPER SPACE AND FX 479.631.1854

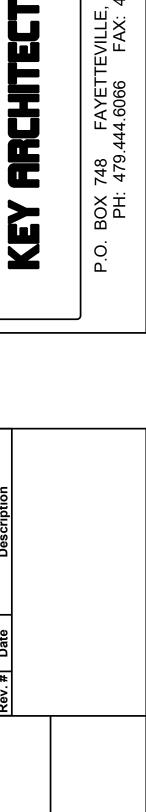
| NEW OFFICE WAREHOU<br>2247 WORTH LANE<br>SPRINGDALE, ARKANSA | MTNWA INVESTMENTS, I<br>1457 E. ROBINSON AVE.<br>SPRINGDALE, AR 72764 |   |
|--|---|---|
| DATE   | DRAWN BY  | • |
| 06/01/22   |   |   |

()

REHOUSE

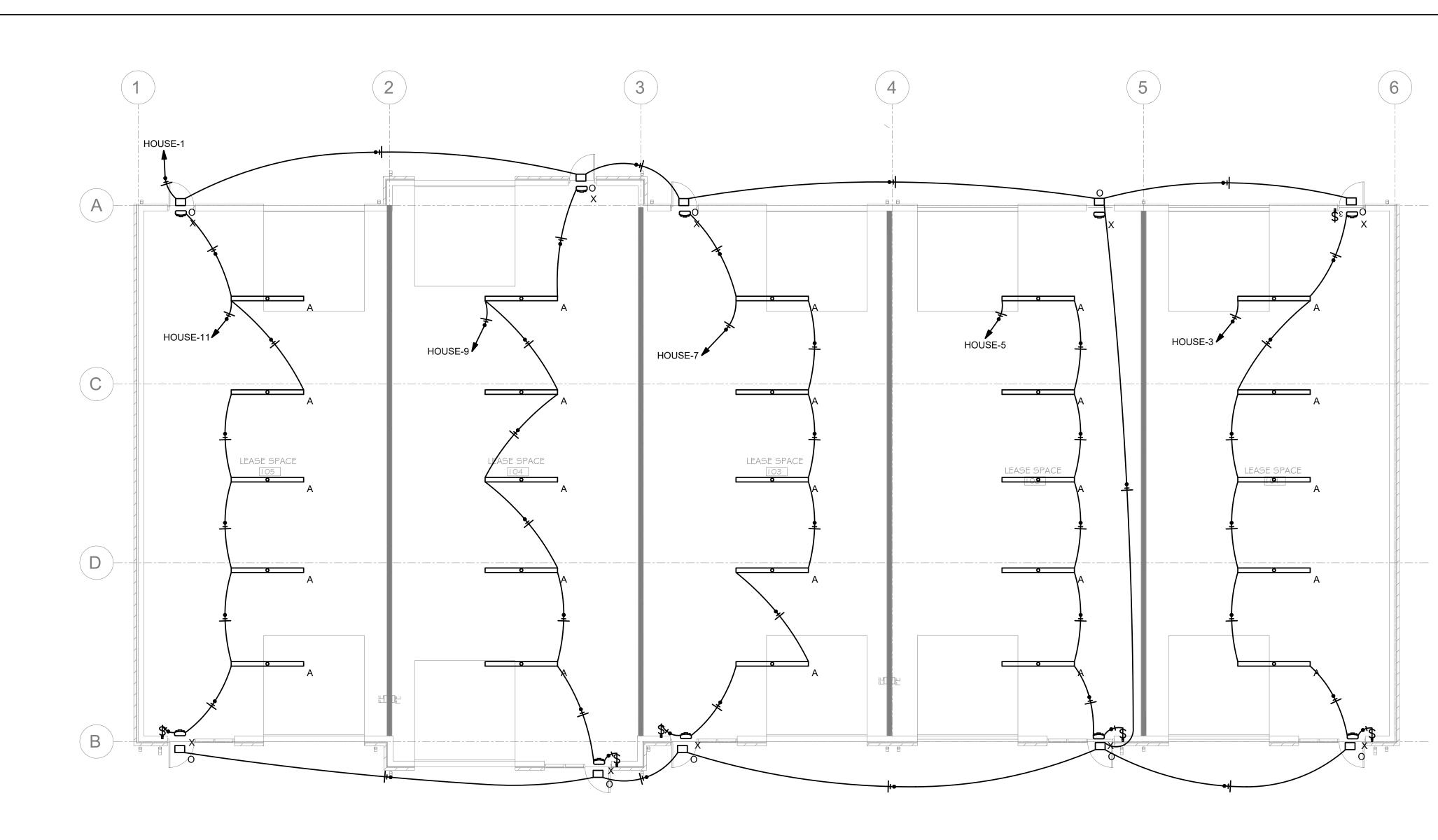
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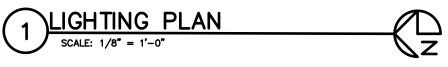




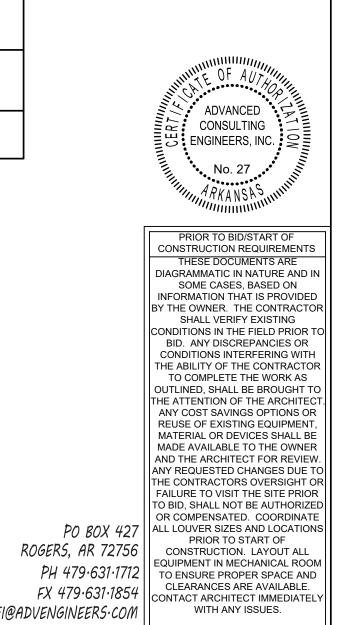
**LRE** 

is prohibited without written consents.

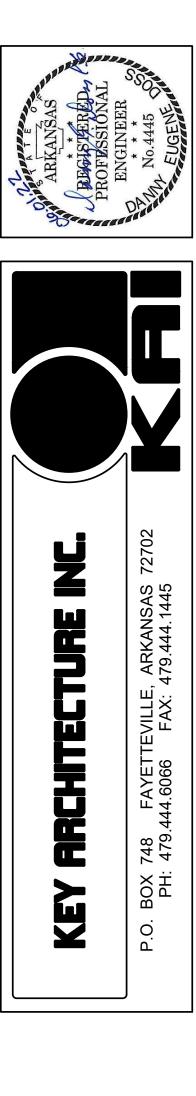




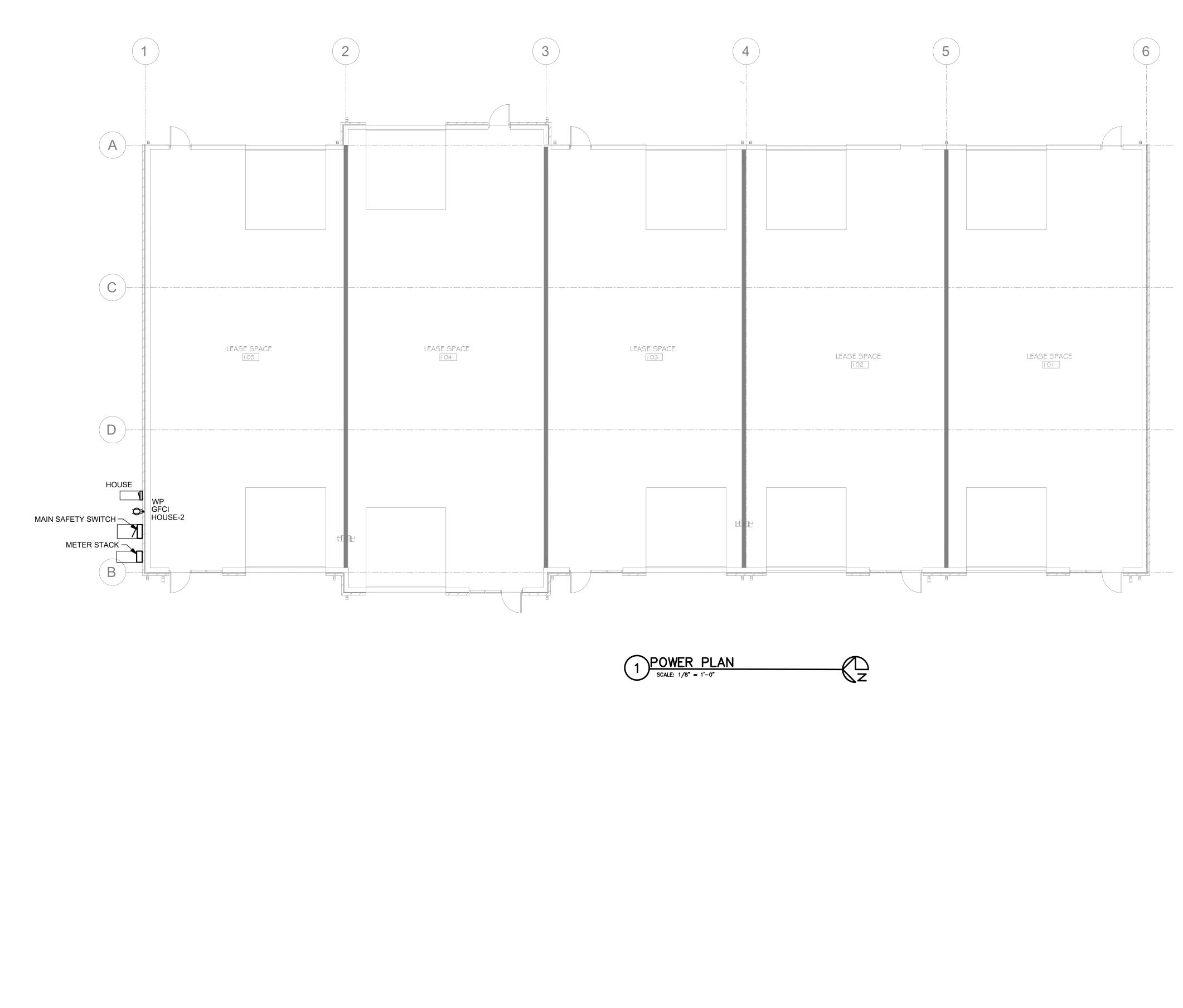
|         | LUMINAIRE SCHEDULE |  |          |   |                |            |        |  |
|---------|--------------------|--|----------|---|----------------|------------|--------|--|
| CALLOUT | SYMBOL             | LAMP                                       | MOUNTING | MODEL   | INPUT<br>WATTS | VOLTS      | NOTE 2 |  |
| A       | <b>—</b>           | (1)  | SURFACE  | Lithonia Lighting, CSS L96<br>ALO4 MVOLT SWW3 80CRI<br>(8000LM 3500K) | 68.4           | 120V 1P 2W |        |  |
| 0       |                    | (1) LED, NICHIA 219B<br>4000K              | WALL     | Lithonia Lighting, DSXW2<br>LED 20C 700 40K T2M 120<br>PE DBLXD       | 47             | 120V 1P 2W |        |  |
| X       | D                  | (2) TWO 1.5-WATT LED<br>ASSEMBLY, ELP L275 | WALL     | Lithonia Lighting, LHQM LED   | 3              | 120V 1P 2W |        |  |



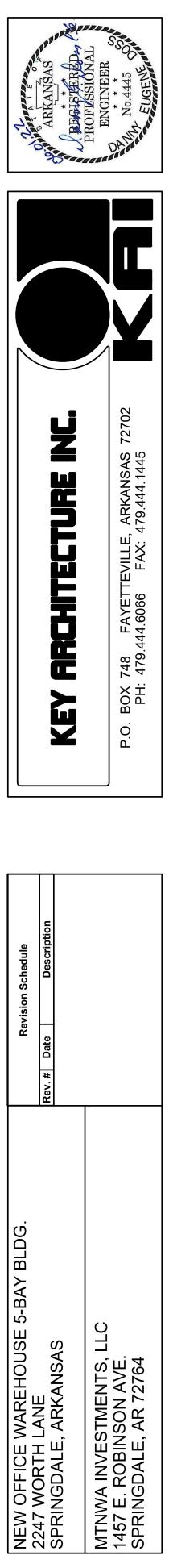


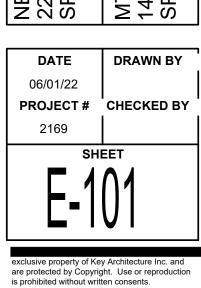


| Revision Schedule                | Description          |   |
|----------------------------------|----------------------|---|
|                                  | Date                 |   |
|                                  | Rev.#                | 1   |
| NEW OFFICE WAREHOUSE 5-BAY BLDG. | NGDALE, AI           | MTNWA INVESTMENTS, LLC<br>1457 E. ROBINSON AVE.<br>SPRINGDALE, AR 72764 |
|                                  | <b>ATE</b><br>01/22  | DRAWN BY  |
|                                  | <b>JECT #</b><br>169 | CHECKED BY  |
|                                  | s<br>C               |   |



| (1)        | POWER PLAN          |   |
|------------|---------------------|---|
| $\bigcirc$ | SCALE: 1/8" = 1'-0" | Z |







ADVANCED CONSULTING ENGINEERS, INC.

No. 27 PKANSA

PRIOR TO BID/START OF CONSTRUCTION REQUIREMENTS THESE DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND IN

DIAGRAMMATIC IN NATURE AND IN SOME CASES, BASED ON INFORMATION THAT IS PROVIDED BY THE OWNER. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR TO BID. ANY DISCREPANCIES OR CONDITIONS INTERFERING WITH THE ABILITY OF THE CONTRACTOR TO COMPLETE THE WORK AS OUTLINED, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT

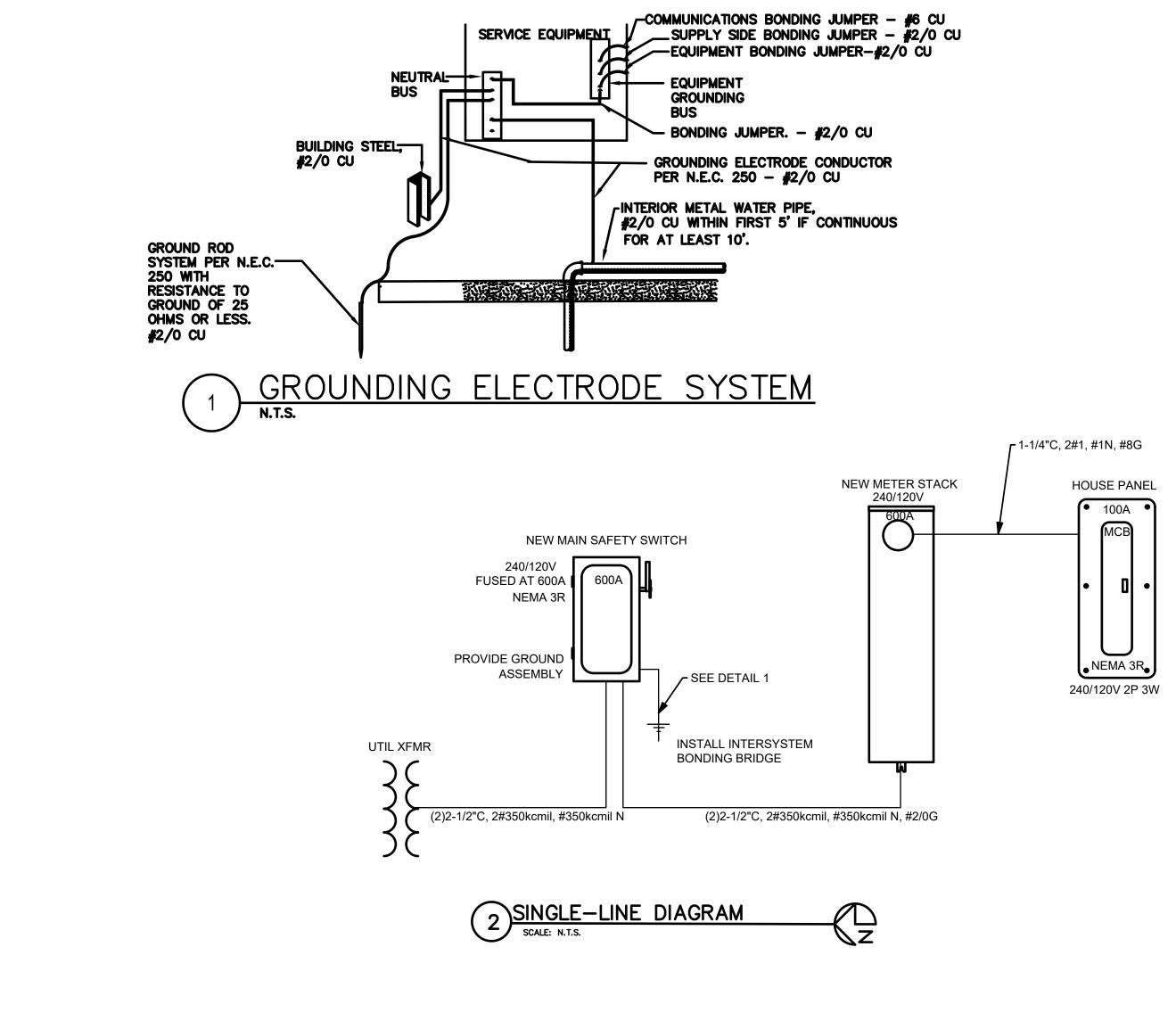
THE ATTENTION OF THE ARCHITECT ANY COST SAVINGS OPTIONS OR REUSE OF EXISTING EQUIPMENT, MATERIAL OR DEVICES SHALL BE

MATERIAL OR DEVICES SHALL BE MADE AVAILABLE TO THE OWNER AND THE ARCHITECT FOR REVIEW. ANY REQUESTED CHANGES DUE TO THE CONTRACTORS OVERSIGHT OR FAILURE TO VISIT THE SITE PRIOR TO DE SUM UNDER EN AUTION/25D

TO BID, SHALL NOT BE AUTHORIZED

OR COMPENSATED. COORDINATE





LIGHTING

RECEPTACLES

| SECTION 408.4 (A) & (B)  |
|--|
| PANELS TO BE IDENTIFIED<br>FOR ARC FLASH HAZARD<br>PER NEC SECTION 110.16. |

LIGHTING TO BE PER NEC 410.

PANELS AND THEIR CIRCUITS TO BE IDENTIFIED PER NEC

BRANCH CIRCUITS TO BE IDENTIFIED PER NEC 210.5.

FMC TO BE PER NEC 348. RECEPTACLES, CORD CONNECTORS & ATTACHMENT PLUGS TO BE PER NEC 406.

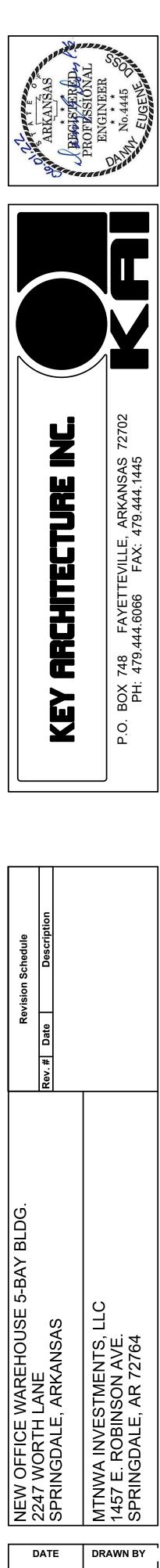
SWITCHBOARDS, SWITCH GEAR & PANEL BOARDS TO BE PER NEC 408.

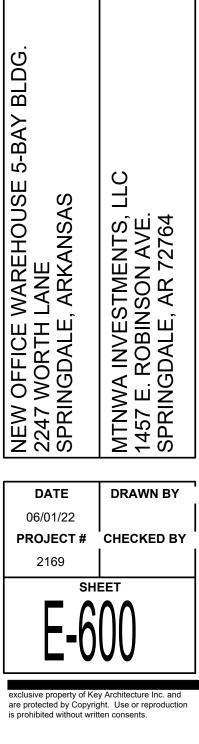
HOUSE ROOM MOUNTING SURFACE FED FROM **METER STACK** NOTE **NEMA 3R** CKT BREAKER TRIP/POLES CIRCUIT DESCRIPTION # 20/1 EXTERIOR LIGHTING 20/1 101 LIGHTING 20/1 102 LIGHTING 103 LIGHTING 20/1 20/1 104 LIGHTING 20/1 105 LIGHTING 11 20/1 SPARE 20/1 SPARE 15 20/1 SPARE 17 20/1 SPARE 19 20/1 SPARE 21 23 20/1 SPARE 25 20/1 SPARE 27 SPARE 20/1 20/1 29 SPARE EXTERIOR RECEPTACLE 20/1 20/1 SPARE 20/1 SPARE 20/1 SPARE 20/1 SPARE 10 20/1 SPARE 12 20/1 SPARE 14 20/1 SPARE 16 SPARE 20/1 18 20/1 SPARE 20 20/1 SPARE 22 24 20/1 SPARE SPARE 26 20/1 28 SPARE 20/1 20/1 30 SPARE

| ACK          | B                                       | olts <b>240/</b> 1<br>US AMPS <b>1</b><br>Eutral <b>100</b> | 00    | 9 3W             |                    | AIC <b>30,000</b><br>Main BKR <b>10</b><br>Lugs <b>stand</b> |   |
|--------------|---|---|-------|------------------|--------------------|--|---|
| RCUIT DESCF  |   |   |       | OAD KV           | A<br>C             | FEEDER RACEWAY AND   | CONDUCTORS  |
|              |   |   | A     | В                | C                  |  |   |
| TERIOR LIGH  | IIING                                   |   | 423   | 348              |                    | 1/2"C,1#10,#10N,#10G   |   |
| 2 LIGHTING   |   |   | 345   | J <del>4</del> 0 |                    | 1/2"C,1#10,#10N,#10G<br>1/2"C,1#10,#10N,#10G                 |   |
| 3 LIGHTING   |   |   | 040   | 348              |                    | 1/2"C,1#10,#10N,#10G   |   |
| 4 LIGHTING   |   |   | 348   |                  |                    | 1/2"C,1#10,#10N,#10G   |   |
| 5 LIGHTING   |   |   |       | 348              |                    | 1/2"C,1#10,#10N,#10G   |   |
| ARE          |   |   | 0     |                  |                    |  |   |
| PARE         |   |   |       | 0                |                    |  |   |
| PARE         |   |   | 0     |                  |                    |  |   |
| PARE         |   |   | -     | 0                |                    |  |   |
| PARE         |   |   | 0     |                  |                    |  |   |
| PARE<br>PARE |   |   | 0     | 0                |                    |  |   |
| PARE         |   |   | U     | о                |                    |  |   |
| PARE         |   |   | 0     | Ŭ                |                    |  |   |
|              |   | + +   |       |                  |                    | <u> </u><br>  1 /0 <sup>2</sup> 0 1 //10 //10N //100         |   |
| TERIOR REC   | EPTACLE                                 |   | 0     | 180              |                    | 1/2"C,1#12,#12N,#12G   |   |
| PARE         |   |   | U     | 0                |                    |  |   |
| PARE         |   |   | ο     | Ŭ                |                    |  |   |
| PARE         |   |   | Ŭ     | 0                |                    |  |   |
| PARE         |   |   | 0     |                  |                    |  |   |
| PARE         |   |   |       | 0                |                    |  |   |
| PARE         |   |   | 0     |                  |                    |  |   |
| PARE         |   |   | -     | 0                | ,                  |  |   |
| PARE         |   |   | 0     |                  |                    |  |   |
| PARE         |   |   | •     | 0                |                    |  |   |
| PARE<br>PARE |   |   | 0     | 0                |                    |  |   |
| PARE         |   |   | ο     | U                |                    |  |   |
| PARE         |   |   | Ŭ     | 0                |                    |  |   |
|              |   |   |       |                  |                    |  |   |
|              | NECTED KVA                              | BY PHASE  | 1,300 | 1,040            | 0                  |  |   |
| CONN VA      |   |   | .,    | .,               | •                  |  | CALC VA   |
|              |   |   |       | тот              |                    |  |   |
| 2,160<br>180 | 2,700<br>180                            | (125%)<br>(50%>10)  |       |                  | AL LOAD<br>ANCED L |  | 2,880<br>12 A   |
| 100          | 100                                     | (00 /0~ 10)   |       | DALA             |                    |  |   |
| SIDE BONDIN  | g Jumper —<br>g Jumper —<br>Jumper—#2/( | #2/0 CU   |       |                  |                    |  | CONTRACTOR SHALL VISIT THE SIT<br>AND PERFORM A COMPLETE FIELD<br>SURVEY PRIOR TO BID AND/OR<br>CONSTRUCTION                                |
|              | •                                       |   |       |                  |                    |  |   |
| IT<br>IG     |   |   |       |                  |                    | REQUIREMENTS AN<br>REPRESENTATIVE                            | WORK WITH SERVING UTILITY COMPANY<br>ND MAKE CONTACT WITH LOCAL<br>PRIOR TO BID AND/OR CONSTRUCTION.<br>TIFY THIS ENGINEER IN WRITING OF AN |

PRIOR TO BID, NOTIFY THIS ENGINEER, IN WRITING, OF ANY

CHANGES REQUIRED.







CONSTRUCTION REQUIREMENTS THESE DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND IN SOME CASES, BASED ON INFORMATION THAT IS PROVIDED BY THE OWNER. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR TO BID. ANY DISCREPANCIES OR CONDITIONS INTERFERING WITH THE ABILITY OF THE CONTRACTOR TO COMPLETE THE WORK AS OUTLINED, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITEC ANY COST SAVINGS OPTIONS OR REUSE OF EXISTING EQUIPMENT, MATERIAL OR DEVICES SHALL BE MADE AVAILABLE TO THE OWNER AND THE ARCHITECT FOR REVIEW. ANY REQUESTED CHANGES DUE TO THE CONTRACTORS OVERSIGHT OF FAILURE TO VISIT THE SITE PRIOR TO BID, SHALL NOT BE AUTHORIZED OR COMPENSATED. COORDINATE PO BOX 427 ALL LOUVER SIZES AND LOCATIONS PRIOR TO START OF

EQUIPMENT IN MECHANICAL ROOM



ROGERS, AR 72756 CONSTRUCTION. LAYOUT ALL PH 479.631.1712 || TO ENSURE PROPER SPACE AND FX 479.631.1854 DVENGINEERS.COM 16010

|          | BASIC ELECTRICAL REQUIREMENTS   |          |  |
|----------|---|----------|--|
| PART 1   | GENERAL   | PART 1   | GENERAL  |
| 1.01     | SECTION INCLUDES  | 1.01     | SECTION INCLUDES   |
| A.       | BASIC ELECTRICAL REQUIREMENTS SPECIFICALLY APPLICABLE TO<br>DIVISION 16, IN ADDITION TO DIVISION 1 – GENERAL  | A.<br>B. | BUILDING WIRE AND CABLE.<br>WIRING CONNECTORS AND CONNECTIONS.   |
| 1.02     | REQUIREMENTS.<br>SUBMITTALS   | 1.02     | PROJECT CONDITIONS   |
|          | SUBMIT UNDER PROVISIONS OF ARCHITECTURAL SPECIFICATIONS.  |          | VERIFY THAT FIELD MEASUREMENTS ARE<br>CONDUCTOR SIZES ARE BASED ON COPF  |
|          | SUBMIT THE FOLLOWING PRODUCTS:<br>1. WIRING DEVICES AND COVER PLATES.   |          | PRODUCTS   |
|          | <ol> <li>DISCONNECT SWITCHES.</li> <li>PANELBOARDS.</li> </ol>  | 2.01     | MANUFACTURERS  |
|          | 4. LIGHT FIXTURES.<br>INDICATE MANUFACTURER'S NAME AND COMPLETE CATALOG NUMBER  | A.       | GENERAL ELECTRIC, ROME, HATFIELD, CR   |
| U.       | WITH THE LABEL OR NUMBER OF THE EQUIPMENT, AS DESIGNATED ON<br>DRAWINGS, ADJACENT THERETO.  | 2.02     | TRIANGLE, ANACONDA.<br>WIRE AND CABLE  |
| D.       | SUBSTITUTIONS: WHERE A SPECIFIC MANUFACTURER OR TRADE NAME<br>IS MENTIONED IN THE SPECIFICATION, IT IS TO ESTABLISH A   |          | DESCRIPTION: SINGLE CONDUCTOR INSU   |
|          | STANDARD OF QUALITY. SUBSTITUTIONS FOR SPECIFIED EQUIPMENT<br>ARE ALLOWED ONLY WHEN SUBSTITUTIONS OR APPROVED EQUALS ARE  | В.       | CONDUCTOR: COPPER.<br>INSULATION VOLTAGE RATING: 600 VOLT  |
|          | NOTED. SUBSTITUTION OF OTHER MAKES SHALL BE APPROVED BY<br>THE ARCHITECT\ENGINEER AND/OR OWNER, 10 DAYS PRIOR TO BIDS.  | D.       | INSULATION: ANSI/WFPA 70: TYPE THW<br>INSULATION FOR FEEDERS AND BRANCH  |
| 1.03     | REGULATORY REQUIREMENTS   |          | 8 AWG. TYPE THHN/THWN INSULATION<br>CIRCUITS 8 AWG AND SMALLER. THW O<br>CONDUIT SIZE IS INCREASED FOR FEEDE         |
| A.       | CONFORM TO APPLICABLE BUILDING CODES.   |          | 8 AWG AND SMALLER.   |
| 1.04     | PROJECT\SITE CONDITIONS   | PART 3   | EXECUTION  |
| A.       | VISIT THE SITE, EXAMINE AND VERIFY THE CONDITIONS UNDER<br>WHICH WORK MUST BE CONDUCTED BEFORE SUBMITTING A PROPOSAL.   | 3.01     | WIRING METHODS   |
|          | THE SUBMITTING OF A PROPOSAL IMPLIES THAT THE CONTRACTOR<br>HAS VISITED THE SITE, IS CONVERSANT WITH ALL SITE<br>CONDITIONS, INCLUDING EXISTING SERVICES AND EQUIPMENT,           |          | USE ONLY BUILDING WIRE IN RACEWAYS<br>USE WIRING METHODS INDICATED ON DRA  |
|          | OBSTRUCTION AND ALL CONDITIONS, WHICH WILL BE ENCOUNTERED<br>IN THE REMOVAL AND/OR RELOCATION OF PRESENT MATERIALS AND  | 3.02     | ALL CONDUCTORS IN PLENUM AREA SHAI   |
|          | EQUIPMENT, INSTALLATION OF NEW MATERIALS, ETC., FOR A COMPLETE INSTALLATION.  |          | USE SOLID CONDUCTOR FOR FEEDERS A  |
| B.       | THE DRAWINGS SHOW THE LOCATION AND GENERAL ARRANGEMENT OF<br>ALL EQUIPMENT AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL   | В.       | AND SMALLER, STRANDED CONDUCTOR 8<br>USE STRANDED CONDUCTORS FOR CONTR   |
|          | BUILDING CONSTRUCTION AND WORK OF OTHER TRADES PERMIT.<br>INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING<br>WORK AND ARRANGE WORK ACCORDINGLY.                        | C.       | USE CONDUCTOR NOT SMALLER THAN 12<br>LIGHTING CIRCUITS.  |
| PART 2   |   | D.<br>E. | USE CONDUCTOR NOT SMALLER THAN 14<br>USE SOLDERLESS PRESSURE CONNECTOR<br>FOR COPPER CONDUCTOR SPLICES AND           |
| 2.01     | MATERIALS AND EQUIPMENT   | F.       | USE INSULATED SPRING WIRE CONNECTOR<br>COPPER CONDUCTOR SPLICES AND TAPE.  |
| A.       | MATERIALS AND EQUIPMENT: ACCEPTABLE TO THE AUTHORITY  |          | END OF SE  |
| B.       | HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.<br>ALL EQUIPMENT OF SAME OR SIMILAR SYSTEMS SHALL BE OF THE<br>SAME MANUFACTURED  |          |  |
| C.       | SAME MANUFACTURER.<br>ALL ELECTRICAL EQUIPMENT SHALL BE NEW UNLESS OTHERWISE STATED IN DRAWINGS.  |          |  |
| PART 3   | EXECUTION   | PART 1   | GENERAL  |
| 3.01     | WORKMANSHIP   | 1.01     | SECTION INCLUDES   |
| A.       | INSTALL WORK USING PROCEDURES DEFINED IN NECA STANDARD OF   | A.<br>B. | WALL AND CEILING OUTLET BOXES.<br>PULL AND JUNCTION BOXES.   |
|          | INSTALLATION.   | 1.02     | PROJECT CONDITIONS   |
|          | END OF SECTION  | A.<br>B. | VERIFY FIELD MEASUREMENTS ARE AS SH<br>ELECTRICAL BOXES ARE SHOWN ON DRA   |
|          |   |          | LOCATIONS UNLESS DIMENSIONED. INST<br>FOR BOX TO SERVE INTENDED PURPOSE  |
|          |   | PART 2   | PRODUCTS   |
|          |   | 2.01     | OUTLET BOXES   |
|          | 16111   | А.       | SHEET METAL OUTLET BOXES: ANSI/NEM   |
|          | CONDUIT   |          | 1. LUMINAIRE AND EQUIPMENT SUPPOR<br>WEIGHT OF EQUIPMENT SUPPORTED,  |
| PART 1   | GENERAL   | B.       | FIXTURE STUDS WHERE REQUIRED.<br>NONMETALLIC OUTLET BOXES: ANSI/NEM  |
| 1.01     | WORK INCLUDED   | C.       | CAST BOXES: NEMA FB 1, TYPE FD CA<br>GASKETED COVER BY BOX MANUFACTURE   |
| A.<br>B. |   | 2.02     | PULL AND JUNCTION BOXES  |
| C.<br>D. | ELECTRICAL METALLIC TUBING AND FITTINGS.<br>FLEXIBLE METAL CONDUIT AND FITTINGS.  | А.       | SHEET METAL BOXES: NEMA OS 1, GAL  |
| E.       |   |          | EXECUTION  |
| 2.01     | PRODUCTS<br>MANUFACTURERS – CONDUIT   | 3.01     | INSTALLATION   |
|          | STEELDUCT, PITTSBURGH, NATIONAL, REPUBLIC, TRIANGLE,  | А.       | INSTALL ELECTRICAL BOXES AS SHOWN (<br>REQUIRED FOR SPLICES, TAPS, WIRE PU<br>CONNECTIONS AND COMPLIANCE WITH RE     |
|          | ANACONDA.   | В.       | INSTALL PULL BOXES AND JUNCTION BO<br>CEILINGS AND IN UNFINISHED AREAS ON  |
| 2.02     | CONDUIT SUPPORTS  | C.       | OTHERWISE.<br>INSTALL BOXES TO PRESERVE FIRE RESI  |
| А.       | CONDUIT CLAMPS, STRAPS, AND SUPPORTS: STEEL OR MALLEABLE<br>IRON.   | D.       | PARTITIONS AND OTHER ELEMENTS.<br>ALIGN ADJACENT WALL-MOUNTED OUTLET<br>THERMOSTATS AND SIMILAR DEVICES WIT          |
| PART 3   | EXECUTION   | E.       | THERMOSTATS, AND SIMILAR DEVICES WIT<br>USE CAST FLOOR BOXES FOR INSTALLAT<br>FORMED STEEL BOXES ARE ACCEPTABLE      |
| 3.01     | CONDUIT SIZING, ARRANGEMENT, AND SUPPORT  | 3.03     | INTERFACE WITH OTHER PRODUCTS  |
| A.       | IF NOT INDICATED ON DRAWINGS, SIZE CONDUIT FOR CONDUCTOR<br>TYPE INSTALLED: 1/2 INCH MINIMUM SIZE.  | А.       | LOCATE FLUSH MOUNTING BOX IN MASON   |
| В.       | CONCEAL ALL WORK IN WALLS AND ABOVE CEILINGS IN FINISHED<br>ROOMS. NO CONDUIT SHALL BE INSTALLED ON OR ABOVE ROOF.<br>ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILINGS |          | CUTTING OF MASONRY UNIT CORNER ONI<br>CUTTING TO ACHIEVE NEAT OPENING.   |
|          | PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING.  | В.       | COORDINATE MOUNTING HEIGHTS AND LO<br>MOUNTED ABOVE COUNTERS, BENCHES A  |
| 3.02     | CONDUIT INSTALLATION  |          | END OF   |
| A.       | USE CONDUIT HUBS OR SEALING LOCKNUTS FOR FASTENING CONDUIT<br>TO CAST BOXES, AND FOR FASTENING CONDUIT TO SHEET METAL   |          |  |
| В.       | BOXES IN DAMP OR WET LOCATIONS.<br>USE SUILE CONDUIT CAPS TO PROTECT INSTALLED CONDUIT<br>ACAINIST ENTRANCE OF DIRT AND MOISTURE  |          |  |
| C.       | AGAINST ENTRANCE OF DIRT AND MOISTURE.<br>INSTALL EXPANSION JOINTS WHERE CONDUIT CROSSES BUILDING<br>EXPANSION JOINTS.  | PART 1   | GENERAL  |
| D.       | WHERE CONDUIT PENETRATES FIRE-RATED WALLS AND FLOORS,<br>PROVIDE MECHANICAL FIRE-STOP FITTINGS WITH UL LISTED FIRE  | 1.01     | SECTION INCLUDES   |
| E.       | RATING EQUAL TO WALL OR FLOOR RATING.<br>ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK  |          | WALL SWITCHES.   |
|          | WHERE POSSIBLE; OTHERWISE, ROUTE THROUGH ROOF JACK WITH<br>PITCH POCKET.  | B.<br>C. | RECEPTACLES.<br>DEVICES PLATES AND COVERS.   |
| 3.03     | CONDUIT INSTALLATION SCHEDULE   | PART 2   | PRODUCTS   |
| A.       | INSTALLATIONS IN SLAB OR UNDER CONCRETE SLAB ON GRADE:<br>RIGID GALVANIZED CONDUIT, INTERMEDIATE METAL CONDUIT.   | 2.01     | WALL SWITCHES  |
| В.       | IN SLAB ABOVE GRADE: RIGID GALVANIZED CONDUIT, ELECTRICAL<br>METALLIC TUBING, INTERMEDIATE METAL CONDUIT.   | А.       | MANUFACTURERS: ARROW HART, GENERA<br>PASS & SEYMOUR, SLATER.   |
|          | CONCEALED DRY INTERIOR LOCATIONS: RIGID GALVANIZED CONDUIT,<br>INTERMEDIATE METAL CONDUIT, OR ELECTRICAL METALLIC TUBING.   | B.<br>C. | DEVICE BODY: PLASTIC BODY WITH IVOF<br>VOLTAGE RATING: 120–277 VOLTS, AC.  |
| D.       | EXPOSED DRY INTERIOR LOCATIONS: RIGID GALVANIZED CONDUIT,<br>INTERMEDIATE METAL CONDUIT, OR ELECTRICAL METALLIC TUBING.   | D.<br>E. | CURRENT RATING: 20 AMPERES.<br>DESCRIPTION: NEMA WD 1, SPECIFICATIO<br>SWITCH AS FOLLOWS:                            |
|          | END OF SECTION  |          | <ol> <li>SWITCH AS FOLLOWS:</li> <li>SINGLE POLE: ARROW HART 1221.</li> <li>DOUBLE POLE: ARROW HART 1222.</li> </ol> |
|          |   |          | 3. THREE WAY: ARROW HART 1223.   |

INECTIONS.

IENTS ARE AS SHOWN ON DRAWINGS. ON COPPER.

ATFIELD, CRESENT, GENERAL CABLE,

ICTOR INSULATED WIRE.

600 VOLTS. TYPE THW, THHN/THWN OR XHHW BRANCH CIRCUITS LARGER THAN ISULATION FOR FEEDERS AND BRANCH THW OR XHHW MAY BE USED IF FOR FEEDERS AND BRANCH CIRCUITS

RACEWAYS IN ALL LOCATIONS. ED ON DRAWINGS. AREA SHALL BE PLENUM RATED.

FEEDERS AND BRANCH CIRCUITS 10 AWG DUCTOR 8 AWG AND LARGER. FOR CONTROL CIRCUITS. R THAN 12 AWG FOR POWER AND

R THAN 14 AWG FOR CONTROL CIRCUITS. CONNECTORS WITH INSULATING COVERS LICES AND TAPE, 6 AWG AND LARGER. CONNECTORS WITH PLASTIC CAPS FOR AND TAPE, 8 AWG AND SMALLER.

END OF SECTION

16130 BOXES

ARE AS SHOWN ON DRAWINGS. IN ON DRAWINGS IN APPROXIMATE

IED. INSTALL AT LOCATION REQUIRED PURPOSE.

ANSI/NEMA OS 1. GALVANIZED

NT SUPPORTING BOXES: RATED FOR JPPORTED, INCLUDE  $1 \ge 1 \le 1$ EQUIRED.

ANSI/NEMA OS 2. YPE FD CAST FERALLOY. PROVIDE NUFACTURER. PROVIDE THREADED HUBS.

OS 1, GALVANIZED STEEL.

SHOWN ON DRAWINGS. AND AS WIRE PULLING, EQUIPMENT E WITH REGULATORY REQUIREMENTS.

NCTION BOXES ABOVE ACCESSIBLE AREAS ONLY, UNLESS NOTED FIRE RESISTANCE RATING OF

FNTS FED OUTLET BOXES FOR SWITCHES, EVICES WITH EACH OTHER. INSTALLATIONS IN SLAB ON GRADE; CCEPTABLE FOR OTHER INSTALLATIONS.

IN MASONRY WALL TO REQUIRE ORNER ONLY. COORDINATE MASONRY

TS AND LOCATIONS OF OUTLETS BENCHES AND BACKSPLASHES.

END OF SECTION

16141 WIRING DEVICES

RT, GENERAL ELECTRIC, HUBBELL, LEVITON,

WITH IVORY NYLON TOGGLE HANDLE. VOLTS, AC.

PECIFICATION GRADE, AC TOGGLE

(CON'T.)

2.02 RECEPTACLES

(CON'T.)

3.02 NAMEPLATE ENGRAVING SCHEDULE

Α.

B.

BELOW.

PROVIDE NAMEPLATES OF MINIMUM LETTER HEIGHT AS SCHEDULED

A. MANUFACTURERS: ARROW HART, GENERAL ELECTRIC, HUBBELL, LEVITON, PASS & SEYMOUR, SLATER. B. DEVICE BODY: PLASTIC BODY WITH IVORY NYLON FACE.

- CONVENIENCE AND STRAIGHT-BLADE RECEPTACLES: NEMA WD 1. SPECIFICATION GRADE, GROUNDING TYPE; LOCKING-BLADE RECEPTACLES: NEMA WD 5, SPECIFICATION GRADE, GROUNDING TYPE; AS FOLLOWS:
- 1. DUPLEX RECEPTACLE 20 A, 125 V: HUBBELL 5362, ARROW HART 5362, P & S 5362, SLATER 5362-AG, LEVITON 5362, OR G.E. 5362-1.
- 2. COMPUTER DUPLEX RECEPTACLE 20A, 125V ISOLATED GROUND: HUBBELL IG 5362, ARROW HART I-5362, P & S IG6300, SLATER IG5362-AG-OR, LEVITON 5362-IG, OR G.E. 5362-IG2.

2.03 WALL PLATES

- A. HIGH IMPACT NYLON, IVORY COLOR, SAME AS DEVICE MANUFACTURER, TO MATCH DEVICE.
- PART 3 EXECUTION
- 3.01 EXAMINATION
- A. VERIFY OUTLET BOXES ARE INSTALLED AT PROPER HEIGHT. B. VERIFY WALL OPENINGS ARE NEATLY CUT AND WILL BE COMPLETELY COVERED BY WALL PLATES.
- 3.02 PREPARATION
- A. PROVIDE EXTENSION RINGS TO BRING OUTLET BOXES FLUSH WITH FINISHED SURFACE, IF REQUIRED.
- 3.03 INSTALLATION
  - A. CONNECT WIRING DEVICE GROUNDING TERMINAL TO BRANCH
  - CIRCUIT EQUIPMENT GROUNDING CONDUCTOR. B. CONNECT WIRING DEVICES BY WRAPPING CONDUCTOR AROUND
  - SCREW TERMINAL C. USE JUMBO SIZE PLATES FOR OUTLETS INSTALLED IN MASONRY
  - WALLS. D. INSTALL GALVANIZED STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS ABOVE ACCESSIBLE CEILINGS AND ON SURFACE MOUNTED OUTLETS IN STOCKROOM AREAS.

END OF SECTION

16190 SUPPORTING DEVICES

- PART 1 GENERAL
- 1.01 WORK INCLUDED
- A. CONDUIT AND EQUIPMENT SUPPORTS.
- B. FASTENING HARDWARE. 1.02 QUALITY ASSURANCE
- A. SUPPORT SYSTEMS SHALL BE ADEQUATE FOR WEIGHT OF EQUIPMENT
- AND CONDUIT, INCLUDING WIRING, WHICH THEY CARRY.
- PART 2 PRODUCTS
- 2.01 MATERIAL
- A. SUPPORT CHANNEL: GALVANIZED OR PAINTED STEEL. B. HARDWARE: CORROSION RESISTANT.
- PART 3 EXECUTION 3.01 INSTALLATION
  - A. FASTEN HANGER RODS, CONDUIT CLAMPS, AND OUTLET AND JUNCTION BOXES TO BUILDING STRUCTURE.
  - B. USE TOGGLE BOLTS OR HOLLOW WALL FASTENERS IN HOLLOW MASONRY, PLASTER, OR GYPSUM BOARD PARTITIONS AND WALLS;
  - EXPANSION ANCHORS OR PRESET INSERTS IN SOLID MASONRY WALLS: SELF-DRILLING ANCHORS OR EXPANSION ANCHOR ON CONCRETE SURFACES; SHEET METAL SCREWS IN SHEET METAL STUDS; AND WOOD SCREWS IN WOOD CONSTRUCTION.
  - C. DO NOT FASTEN SUPPORTS TO METAL DECK, PIPING, DUCTWORK,
  - MECHANICAL EQUIPMENT, OR CONDUIT. DO NOT USE POWDER-ACTUATED ANCHORS.
  - DO NOT WELD TO OR DRILL BUILDING STRUCTURAL STEEL MEMBERS.
  - FABRICATE SUPPORTS FROM STRUCTURAL STEEL OR STEEL CHANNEL, RIGIDLY WELDED OR BOLTED TO PRESENT A NEAT APPEARANCE. USE
  - HEXAGON HEAD BOLTS WITH SPRING LOCK WASHERS UNDER ALL NUTS. G. INSTALL SURFACE-MOUNTED CABINETS AND PANELBOARDS WITH
  - MINIMUM OF FOUR ANCHORS. H. BRIDGE STUDS TOP AND BOTTOM WITH CHANNELS TO SUPPORT FLUSH-MOUNTED CABINETS AND PANELBOARDS IN STUD WALLS.

END OF SECTION

16195 ELECTRICAL IDENTIFICATION

PART 1 GENERAL

- 1.01 WORK INCLUDED
  - A. NAMEPLATES AND TAPE LABELS.
  - B. WIRE AND CABLE MARKERS.
- PART 2 PRODUCTS
- 2.01 MATERIALS
  - A. NAMEPLATES: ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON A BLACK BACKGROUND.
  - B. TAPE LABELS: EMBOSSED ADHESIVE TAPE, WITH 3/16 INCH WHITE LETTERS ON A BLACK BACKGROUND. C. WIRE AND CABLE MARKERS: CLOTH MARKERS, SPLIT SLEEVE OR TUBING TYPE.
- PART 3 EXECUTION
- 3.01 INSTALLATION
  - A. USE EMBOSSED TAPE ONLY FOR IDENTIFICATION OF INDIVIDUAL WALL SWITCHES. RECEPTACLES AND CONTROL DEVICE STATIONS WHERE NOTED ON DRAWINGS.

PANELBOARDS: 3/4 INCH, IDENTIFY EQUIPMENT DESIGNATION. 3/4 INCH, IDENTIFY VOLTAGE RATING AND SOURCE. INDIVIDUAL CIRCUIT BREAKERS, SWITCHES, AND MOTOR STARTERS IN PANELBOARDS, SWITCHBOARDS, AND MOTOR CONTROL CENTERS: 1/8 INCH, IDENTIFY CIRCUIT AND LOAD SERVED, INCLUDING LOCATION. INDIVIDUAL CIRCUIT BREAKERS, ENCLOSED SWITCHES AND MOTOR STARTERS: 1/4 INCH, IDENTIFY LOAD SERVED. END OF SECTION 16470 PANELBOARDS PART 1 GENERAL 1.01 WORK INCLUDED A. LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARDS. 1.02 SPARE PARTS A. KEYS: FURNISH TWO EACH TO OWNER. PART 2 PRODUCTS ACCEPTABLE MANUFACTURERS – PANELBOARDS 2.01 A. SQUARE D, GENERAL ELECTRIC, ITE/SIEMENS-ALLIS, WESTINGHOUSE, CUTLER HAMMER. 45 45 2.02 PANELBOARDS ARKAN 79.444. LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARDS: CIRCUIT BREAKER TYPE AS INDICATED ON THE PANELBOARD SCHEDULES ON DRAWINGS. PROVIDE CABINET FRONT WITH CONCEALED TRIM CLAMPS, CONCEALED HINGE AND FLUSH LOCK ALL KEYED ALIKE. FINISH IN MANUFACTURER'S STANDARD GRAY ENAMEL. FAX: FAX: B. ENCLOSURE: TYPE 1. MINIMUM SHORT CIRCUIT RATING: AS SHOWN ON DRAWINGS. μ PROVIDE PANELBOARDS WITH COPPER BUS RATINGS AS SCHEDULED ON DRAWINGS. PROVIDE GROUND BUS IN ALL PANELBOARDS. MOLDED CASE CIRCUIT BREAKERS: BOLT-ON TYPE THERMAL MAGNETIC AYET .6066 TRIP CIRCUIT BREAKERS, WITH COMMON TRIP HANDLE FOR ALL POLES. PROVIDE CIRCUIT BREAKERS UL LISTED AS TYPE SWD FOR LIGHTING CIRCUITS. PROVIDE UL CLASS A GROUND FAULT INTERRUPTER CIRCUIT Щ <del>4</del> BREAKERS WHERE SCHEDULED ON DRAWINGS. 748 479 PART 3 EXECUTION 3.01 INSTALLATION ХЧ A. HEIGHT: 6 FEET TO TOP SWITCH OR CIRCUIT BREAKER IN ш PANELBOARDS, UNLESS OTHERWISE NOTED. PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD. REVISE DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS. END OF SECTION 16510 INTERIOR LUMINARIES PART 1 GENERAL 1.01 SECTION INCLUDES A. INTERIOR LUMINARIES AND ACCESSORIES. B. EMERGENCY LIGHTING UNITS. EXIT SIGNS. BALLASTS. LAMPS. F. LUMINAIRE ACCESSORIES. PART 2 PRODUCTS 2.01 LUMINARIES A. THE LIGHTING FIXTURES ARE SHOWN ON THE DRAWINGS WITH A LETTER OR LETTER/NUMBER KEY. THE LETTER OR LETTER/NUMBER OF THE KEY INDICATES THE TYPE OF THE FIXTURE. B. FIXTURE MANUFACTURERS: AS SCHEDULED IN LIGHT FIXTURE SCHEDULE ON DRAWINGS. 2.02 BALLAST A. MANUFACTURERS: ADVANCE, UNIVERSAL, GENERAL ELECTRIC, JEFFERSON. DESCRIPTION: ANSI C82.1, HIGH POWER FACTOR TYPE BALLAST. PROVIDE BALLAST SUITABLE FOR LAMPS SPECIFIED. 4. SOURCE QUALITY CONTROL: CERTIFY BALLAST DESIGN AND CONSTRUCTION BY CERTIFIED BALLAST MANUFACTURERS, INC. 3.03 LAMPS A. MANUFACTURERS: SYLVANIA, GENERAL ELECTRIC, NORTH AMERICAN PHILLIPS/WESTINGHOUSE. 2. FLUORESCENT LAMPS SHALL BE OF TYPE SPECIFIED ON LIGHT FIXTURE SCHEDULE AND PLANS. PART 3 EXECUTION ADVANCED ш <u></u> CONSULTING 3.01 EXAMINATION ENGINEERS, INC. ŃЩ4 IWA INVESTMENTS 7 E. ROBINSON AVI INGDALE, AR 7276 A. EXAMINE EACH LUMINAIRE TO DETERMINE SUITABILITY FOR LAMPS No. 27 SPECIFIED. <sup>9</sup>RKANSA 3.02 INSTALLATION PRIOR TO BID/START OF A. EXPOSED GRID CEILINGS: FURNISH AND INSTALL AUXILIARY CONSTRUCTION REQUIREMENTS штЩ MEMBERS SPANNING CEILING TEES TO SUPPORT SURFACE MOUNTED THESE DOCUMENTS ARE LUMINARIES. DIAGRAMMATIC IN NATURE AND IN INSTALL RECESSED LUMINARIES TO PERMIT REMOVAL FROM BELOW. SOME CASES, BASED ON INSTALL RECESSED LUMINARIES USING ACCESSORIES AND INFORMATION THAT IS PROVIDED BY THE OWNER. THE CONTRACTOR FIRESTOPPING MATERIALS TO MEET REGULATORY REQUIREMENTS FOR SHALL VERIFY EXISTING FIRE RATING. CONDITIONS IN THE FIELD PRIOR TO MTNV 1457 SPRI D. MAKE WIRING CONNECTIONS TO BRANCH CIRCUIT USING BUILDING BID. ANY DISCREPANCIES OR WIRE WITH INSULATION SUITABLE FOR TEMPERATURE CONDITIONS CONDITIONS INTERFERING WITH THE ABILITY OF THE CONTRACTOR Z N N WITHIN LUMINAIRE. TO COMPLETE THE WORK AS OUTLINED, SHALL BE BROUGHT TO 3.03 ADJUSTING THE ATTENTION OF THE ARCHITEC ANY COST SAVINGS OPTIONS OR DRAWN BY DATE REUSE OF EXISTING EQUIPMENT, A. AIM AND ADJUST LUMINARIES AS INDICATED ON DRAWINGS OR AS MATERIAL OR DEVICES SHALL BE 06/01/22 DIRECTED. MADE AVAILABLE TO THE OWNER AND THE ARCHITECT FOR REVIEW PROJECT # CHECKED BY ANY REQUESTED CHANGES DUE TO THE CONTRACTORS OVERSIGHT OF 2169 END OF SECTION FAILURE TO VISIT THE SITE PRIOR TO BID, SHALL NOT BE AUTHORIZED SHEET OR COMPENSATED. COORDINATE PO BOX 427 ALL LOUVER SIZES AND LOCATIONS PRIOR TO START OF ROGERS, AR 72756 CONSTRUCTION. LAYOUT ALL EQUIPMENT IN MECHANICAL ROOM PH 479.631.1712 || TO ENSURE PROPER SPACE AND

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