| PROJEC              | T TEAM DIRECTORY                                   |
|---------------------|--|
| OWNER               |  |
| COMPANY NAME:       | BELTERRA PARTNERS                                  |
| CONTACT NAME:       | SCOTT SMITH  |
| ADDRESS:            | 728 SHADES CREEK PKWY SUITE 130 BIRMINGHAM AL 3520 |
| PHONE:              | (205) 968-1701                                     |
| FAX:                |  |
| EMAIL:              | SCOTT@BELTERRAPARTNERS.COM                         |
| ARCHITECT           |  |
| COMPANY NAME:       | LINGLE DESIGN GROUP                                |
| CONTACT NAME:       | MICHAEL PUCKETT                                    |
| ADDRESS:            | 1860 W EVANS AVE - ENGLEWOOD, CO 80110             |
| PHONE:              | (303) 974-5873                                     |
| FAX:                | (815) 369-4495                                     |
| EMAIL:              | MPUCKETT@LINGLEDESIGN.COM                          |
| MEP ENGINEER        |  |
| COMPANY NAME:       | JCAA CONSULTING ENGINEERS LLC                      |
| CONTACT NAME:       | PATRICK LEONARD                                    |
| ADDRESS:            | 4100 WADSWORTH BLVD, WHEAT RIDGE, CO 80033         |
| PHONE:              | (303) 985-3260                                     |
| FAX:                | (303) 987-2304                                     |
| EMAIL:              | PLEONARD@JCAACE.COM                                |
| STRUCTURAL ENGINEER |  |
| COMPANY NAME:       | JCAA CONSULTING ENGINEERS LLC                      |
| CONTACT NAME:       | NICHOLAS ROHR                                      |
| ADDRESS:            | 4100 WADSWORTH BLVD, WHEAT RIDGE, CO 80033         |
| PHONE:              | (303) 985-3260                                     |
| FAX:                | (303) 987-2304                                     |
| EMAIL:              | ROHR@JCAACE.COM                                    |
| CIVIL ENGINEER      |  |
| COMPANY NAME:       | KFW ENGINEERS + SURVEYING                          |
| CONTACT NAME:       | ERIC WARFORD                                       |
| ADDRESS:            | 3421 PAESANOS PKWY STE. 200, SAN ANTONIO, TX 78231 |
| PHONE:              | (210) 979-8444 x113                                |
| FAX:                | -  |
| EMAIL:              | -  |

# SHERWIN WILLIAMS

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015



|               | Sheet Index                           |                  |
|---------------|---------------------------------------|------------------|
| Sheet Number  | Sheet Name                            | Current Revision |
| GENERAL       | ,                                     |                  |
| G001          | Cover Sheet                           |                  |
| G002          | General Notes                         |                  |
| G100          | Accessibility & Egress Plan           |                  |
| ARCHITECTURAL |                                       |                  |
| A001          | Architectural Site Plan               |                  |
| A110          | Construction Plan                     |                  |
| A111          | Wall Types & Details                  |                  |
| A112          | Exterior Wall Types                   |                  |
| A113          | Exterior Wall Details                 |                  |
| A115          | Building Sections                     |                  |
| A120          | Finish Plan                           |                  |
| A121          | Paint Specifications                  |                  |
| A130          | Reflected Ceiling Plan                |                  |
| A140          | Fixture Plan & Schedule               |                  |
| A150          | Roof Plan                             |                  |
| A200          | Exterior Elevations & Window Schedule |                  |
| A201          | Exterior Elevations                   |                  |
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| A400          | Enlarged Restroom Plan                |                  |
| STRUCTURAL    |                                       |                  |
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| S002          | GENERAL NOTES, SCHEDULES & DIAGRAMS   |                  |
| S101          | FOUNDATION PLAN                       |                  |
| S102          | ROOF FRAMING PLAN                     |                  |
| S201          | FOUNDATION DETAILS                    |                  |
| S202          | FOUNDATION DETAILS                    |                  |
| S301          | ROOF FRAMING SECTIONS                 |                  |
| S302          | ROOF FRAMING SECTIONS                 |                  |
| S303          | TYP. FRAMING DETAILS                  |                  |
| S304          | TYP. FRAMING DETAILS                  |                  |

| Sheet Number | Sheet Name                                    | Current Revision |
|--------------|---|------------------|
| PLUMBING     |   |                  |
| P001         | Plumbing Cover Sheet                          |                  |
| P002         | Plumbing Schedules & Calculations             |                  |
| P003         | Plumbing Specifications                       |                  |
| P004         | Plumbing Details and Isometric                |                  |
| P100         | Plumbing Waste and Vent Plan                  |                  |
| P101         | Plumbing Water and Gas Plan                   |                  |
| P102         | Plumbing Roof Plan                            |                  |
| MECHANICAL   |   |                  |
| M001         | Mechanical Cover Sheet                        |                  |
| M002         | Mechanical Equipment Schedules & Calculations |                  |
| M003         | Mechanical Specifications                     |                  |
| M004         | Mechanical Specifications                     |                  |
| M005         | Mechanical Details                            |                  |
| M006         | Mechanical Comcheck                           |                  |
| M100         | Mechanical Floor Plan                         |                  |
| M200         | Mechanical Roof Plan                          |                  |
| ELECTRICAL   |   |                  |
| E000         | ELECTRICAL SITE PLAN                          |                  |
| E100         | ELECTRICAL SPECIFICATIONS                     |                  |
| E101         | ELECTRICAL SPECIFICATIONS                     |                  |
| E200         | LIGHTING PLAN                                 |                  |
| E300         | POWER PLAN                                    |                  |
| E301         | ROOF POWER PLAN                               |                  |
| E400         | ELECTRICAL ONE LINE DIAGRAM                   |                  |
| E500         | COMCHECK                                      |                  |
| E501         | ELECTRICAL DETAILS                            |                  |
| EP100        | PHOTOMETRIC PLAN                              |                  |

CODE / BUILDING INFORMATION

BUILDING: 2021 INTERNATIONAL BUILDING CODE

MECHANICAL: 2021 INTERNATIONAL MECHANICAL CODE

PLUMBING: | 2021 INTERNATIONAL PLUMBING CODE

FUEL GAS: | 2021 INTERNATIONAL FUEL GAS CODE

FIRE: | 2021 INTERNATIONAL FIRE CODE

ENERGY: 2021 INTERNATIONAL ENERGY CODE

ACCESSIBILITY: 2009 ICC/ANSI A117.1

SCOPE OF WORK: NEW CONSTRUCTION

FIRE PROTECTION: PORTABLE FIRE EXTINGUISHERS

INTERIOR FINISHES: | CLASS C FLAME SPREAD RATING

OCCUPANCY: M (MERCANTILE) - OCCUPANT LOAD: 72

FLOOR AREA: 4,320 SQ. FT.

STORIES / HEIGHT: | 1 STORY / 24'-6"

ELECTRICAL: | 2020 NATIONAL ELECTRICAL CODE

BUILDING CODES:

BUILDING INFORMATION:

CONSTRUCTION TYPE: V-B

NUMBER OF EMPLOYEES: | 4

XX-X

FINISH TYPE MARK

(###)

DOOR TYPE

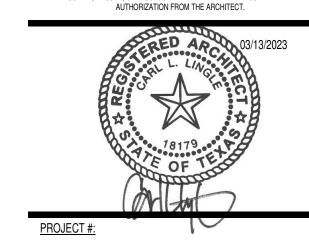
WINDOW TYPE

ELEVATION MARKER

Name\_\_\_\_\_ Elevation



© ALL DRAWINGS AND WRITTEN MATERIAL CONTAINED HEREIN ARE THE



#### VICINITY MAP SYMBOL LEGEND STATEMENT OF COMPLIANCE CONSTRUCTION PHASE NOTE ARCHITECT'S DESIGN WITHOUT CONSTRUCTION PHASE SERVICES I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH ALL APPLICABLE LAWS, CODES & ORDINANCES. - DETAIL NUMBER DETAIL NUMBER SINCE DIRECT CONSTRUCTION OBSERVATIONS AND REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INCLUDED AS PART OF THE ARCHITECT'S SHEET NUMBER SHEET NUMBER BASIC SERVICES, IT IS UNDERSTOOD THAT SUCH RESPONSIBILITIES WILL BE ASSUMED BY OTHERS. LINGLE DESIGN GROUP, INC. AVAILS ITSELF TO THE CLIENT, THE CONTRACTOR, AND ANY OTHER PARTIES AS NECESSARY (VIA TELEPHONE, SIGNATURE: FAX, AND EMAIL) IN ORDER TO ASSIST IN PROVIDING CLARIFICATIONS OR ARCHITECT RESOLVING ISSUES AND PROBLEMS THAT MAY ARISE. ALTHOUGH MANY ISSUES WALL SECTION MARKER BUILDING SECTION MARKER CAN BE EASILY ADDRESSED WITHOUT THE ARCHITECTS INVOLVEMENT, THERE ARE TIMES WHEN PARTICIPATION IS ADVISABLE. DETERMINATION OF WHEN INVOLVEMENT IS APPROPRIATE IS LEFT TO THE PROFESSIONAL DISCRETION OF THE CONTRACTOR. IT IS UNDERSTOOD THAT THE CLIENT AND/OR THE DETAIL NUMBER CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR INTERPRETATION OF THE REGISTRATION NO.: 18179 DRAWINGS, AND ANY OTHER SUPPLEMENTAL INFORMATION, AND WHEN THE DETAIL NUMBER ARCHITECT IS DENIED THE OPPORTUNITY TO PROVIDE CLARIFICATIONS OR PARTICIPATE IN CHANGES TO THE DESIGN OR THE RESOLUTION OF ISSUES OR PROBLEMS, ALL PARTIES WAIVE ANY CLAIMS AGAINST THE ARCHITECT THAT MAY BE IN ANY WAY CONNECTED THERETO. LINGLE DESIGN GROUP, INC. IS HELD ── SHEET NUMBER HARMLESS FROM LOSS, CLAIM, OR COSTS ARISING OR RESULTING FROM DATE: 30/SEP/2023 MODIFICATIONS OR CHANGES MADE TO THE DESIGN (WITHOUT THE KNOWLEDGE SHEET NUMBER OF THE ARCHITECT) DUE TO CONDITIONS OR CIRCUMSTANCES (ANTICIPATED OR PROJECT LOCATION NOT) BEYOND THE ARCHITECT'S CONTROL.

## EVIATIONS

| +/-      | PLUS OR MINUS         | C/O     | CLEANOUT             |
|----------|-----------------------|---------|----------------------|
| @        | AT                    | CJ      | CONTROL JOINT        |
| Ø        | DIAMETER              | CL      | CENTER LINE          |
|          |                       | CLG.    | CEILING              |
| A.B.     | ANCHOR BOLT           | CLR.    | CLEAR                |
| A.C.T.   | ACOUSTICAL (CLG) TILE | COL     | COLUMN               |
| A.F.F.   | ABOVE FINISH FLOOR    | COMP    | COMPOSITE            |
| A.H.U.   | AIR HANDLING UNIT     | CONC.   | CONCRETE             |
| A.S.S.   | AUTOMATIC SPRINKLER   | COND    | CONDENSING UNIT      |
|          | SYSTEM                | CONN.   | CONNECTION           |
|          | AIR CONDITIONING      | CONSTR. | CONSTRUCTION         |
| ABV.     |                       | CONT.   | CONTINUOUS / CONTINU |
| ACOUS.   | ACOUSTICAL            | CONTR.  | CONTRACTOR           |
| ALUM.    | ALUMINUM              | CTR.    | CENTER               |
| APPROX.  | APPROXIMATE           | CU FT   | CUBIC FOOT           |
| ARCH.    | ARCHITECT(URAL)       | CU YD   | CUBIX YARD           |
| B.M.     | BENCH MARK            | D.F.    | DRINKING FOUNTAIN    |
| B.O.C.   | BOTTOM OF CURB        | D.S.    | DOWNSPOUT            |
| BD.      | BOARD                 | DBL.    | DOUBLE               |
| BLDG.    | BUILDING              | DEPT.   | DEPARTMENT           |
| BLK.     | BLOCK(ING)            | DET.    | DETAIL               |
| BLW.     | BELOW                 | DIA     | DIAMETER             |
|          | BEARING               | DIAG    | DIAGONAL             |
| BRG. PL. | BEARING PLATE         | DIM.    | DIMENSION            |
| BS       | BUILDING SECTION      | DISP    | DISPENSER / DISPOSAL |
|          |                       |         |                      |

CONTSTRUCTION MANAGER

CONCRETE MASONRY UNIT

**CEILING JOIST** 

DEAD LOAD

POUND OR NUMBER

**EXISTING** 

NEW

| DWG.  | DRAWING   |
|---|---|
| EA. EJ EL. ELEC. EMER. EQ. EQUIP.                               | EAST ELECTRIC PANEL EACH WAY EACH EXPANSION JOINT ELEVATION ELECTRICAL EMERGENCY EQUAL EQUIPMENT EXISTING EXTERIOR  |
| F.H.<br>F.L.<br>F.O.C.<br>F.O.F.<br>F.O.M.<br>F.O.S.<br>F.O.SH. | FINISH FLOOR FIRE HYDRANT FLOW LINE FACE OF CONCRETE FACE OF FINISH FACE OF MASONRY FACE OF STUD FACE OF SHEATHING FIRE SPRINKLER RISER FLOOR SINK FLOOR CLEANOUT FLOOR DRAIN FIRE EXTINGUISHER |

DOWN

DISHWASHER

DW

NOTE: CONSTRACTOR SHALL VISIT THE SITE PRIOR TO BID, TO CONFIRM FIELD CONDITIONS FOR DUCTWORK RUNS, EXHAUST AND CHASE LOCATIONS.

| EC IN. IXT. LOUR. LR. ND. T. TG.                                     | FIRE EXTINGUISHER CABINET FINISH FIXTURE FLOURESCENT FLOOR FOUNDATION FOOT/FEET FOOTING FUTURE                                   |
|--|--|
| i.C.<br>i.l.<br>iA.<br>iALV.<br>iL.<br>iND.<br>iR.<br>iWB.<br>iYP BD | GENERAL CONTRACTOR GALVANIZED IRON GAUGE GALVANIZED GLASS / GLAZING GROUND GRADE / GRADING GYPSUM WALL BOARD GYPSUM BOARD GYPSUM |
| I.B.<br>I.C.<br>I.M.<br>IDR.<br>IDW.<br>IDWD.<br>IOR.<br>T.          | HOSE BIB HOLLOW CORE HOLLOW METAL HEADER HARDWARE HARDWOOD HORIZONTAL HEIGHT   |

|                      | ABBRE\   |
|----------------------|--|
| HTG.<br>HVAC         | HEATING<br>HEATING / VENTILATION /<br>AIR CONDITIONING   |
|                      | INSIDE DIAMETER INCH INSULATE / INSULATION INTERIOR INVERT   |
| J-BOX<br>JST.<br>JT. | JUNCTION BOX<br>JOIST<br>JOINT   |
| KO.<br>KPL.          | KNOCKOUT<br>KICKPLATE  |
| L.H.                 | LENGTH LAG BOLT LEFT HAND LIVE LOAD LAMINATED VENEER LUMBER LAMINATED LAVATORY LIGHT LINTEL LOUVER |
| M.B.                 | MACHINE BOLT   |

| M.H.   | MANHOLE                                   |
|--------|---|
| M.O.   | MASONRY OPENING                           |
| MAS.   | MASONRY                                   |
| MATL.  | MATERIAL                                  |
| MAX.   | MAXIMUM                                   |
| MECH.  | MECHANICAL                                |
| MEMB.  | MEMBRANE                                  |
| MFR.   | MANUFACTURE(ER)(ING)                      |
| MIN.   | MINIMUM                                   |
| MISC.  | MISCELANEOUS                              |
| MOD.   | MODULAR / MODULE                          |
| MTD.   | MOUNTED                                   |
| MTFR   | METAL FURRING                             |
| MTL.   | METAL                                     |
| MUL.   | MULLION                                   |
| N.     | NORTH                                     |
| N.I.C. | NOT IN CONTRACT                           |
| N.T.S. | NOT TO SCALE                              |
| NO.    | NUMBER                                    |
| NOM.   | NOMINAL                                   |
|        |   |
| O.A.   | OVERALL                                   |
| O.C.   | ON CENTER                                 |
| O.D.   | OUTSIDE DIAMETER                          |
| O.H.D. | OVERHEAD DOOR                             |
| OFCI   | OWNER FURNISHED /<br>CONTRACTOR INSTALLED |
| OFD.   | OVERFLOW DRAIN                            |
| OFD.   | OVERFLOW DRAIN                            |

| OFOI<br>OH.<br>OPG.<br>OPP.<br>OPQ   | OWNER FURNISHED /<br>OWNER INSTALLED<br>OVERHEAD<br>OPENING<br>OPPOSITE<br>OPAQUE  |
|--|--|
| P.L. P.T. PART'N PCF PERF PFL PL. PLAM PLAS. PLBG. PLWD. PRKG. PSF  PSI PTD. PVC PVMT. | PROPERTY LINE PRESSURE TREATED PARTITION POUNDS PER CUBIC FOOT PERFORATED POUNDS PER LINEAR FOOT PLATE PLASTIC LAMINATE PLASTER PLUMBING PLYWOOD PARKING POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PAINT(ED) POLYVINYL CHLORIDE PAVEMENT |
| Q.T.<br>QTY.   | QUARRY TILE<br>QUANTITY  |
| R.   | RISER  |

**ELEVATION MARKER** 

| R.A.   | RETURN AIR         |
|--------|--------------------|
| R.D.   | ROOF DRAIN         |
| R.H.   | RIGHT HAND         |
| R.O.   | ROUGH OPENING      |
| R.O.W. | RIGHT OF WAY       |
| RAD.   | RADIUS             |
| RB     | RUBBER BASE        |
| REF.   | REFERENCE          |
| REFR.  | REFRIGERATOR       |
| REINF. | REINFORCED         |
| REQ'D. | REQUIRED           |
|        | RESILIENT          |
| RET.   | RETURN             |
| REV    | REVISION           |
|        | ROOFING            |
| RM.    | ROOM               |
| RVRS.  | REVERSE            |
| S.     | SOUTH              |
| S.A.N. | SCALE AS NOTED     |
| S.A.T. | SUSPENDED ACOUSTIC |
| S.C.   | SOLID CORE         |
| S.D.   | STORM DRAIN        |
|        | SCHEDULE           |
| SECT.  | SECTION            |
| SF     | SQUARE FEET        |
| SHT.   | SHEET              |
| SHTG.  | SHEATHING          |

SIMILAR

**DETAIL MARKER** 

| SLP.<br>SPEC.<br>SPKR<br>SQ.<br>SS                                 | SLOPE<br>SPECIFICATION<br>SPEAKER<br>SQUARE  | TINT<br>TMPD<br>TOL<br>TYP.                              | TINTED<br>TEMPERED<br>TOLERANCE<br>TYPICAL   |
|--|--|--|--|
| SS.<br>SSK.  | STAINLESS STEEL<br>SERVICE SINK<br>STANDARD<br>STEEL   | U.N.O.<br>UBC<br>UNFIN.                                  | UNLESS NOT<br>UNIFORM BL<br>UNFINISH(ED  |
| STOR.<br>STRUCT<br>SYM.  | STORAGE<br>STRUCTURAL<br>SYMETRICAL<br>SYSTEM  | V.B.<br>V.C.T.<br>V.T.R.<br>VERT.                        | VENT THROU   |
| T&G T. T.B.D. T.O.B. T.O.C. T.O.P. T.O.S. T.O.ST. T.O.W. TEL. TFCI | TREAD TO BE DETERMINED TOP OF BEAM TOP OF CURB / CONCRETE TOP OF PARAPET TOP OF SHEATHING TOP OF STEEL | W. W.B. W.C. W.H. W.M. W.R. W.T. W.W.F. W/ W/O WD. WSCT. | WEATHER BAWATER CLOS WATER HEAT WIRE MESH WATER RESI WALL TILE WELDED WIR WITH WITHOUT |
| THK.   | THICK(NESS)  |  |  |

THRES THRESHOLD

| TMPD<br>TOL                                    | TINTED TEMPERED TOLERANCE TYPICAL   |
|--|---|
| UBC  | UNLESS NOTED OTHERWIS<br>UNIFORM BUILDING CODE<br>UNFINISH(ED)  |
| V.C.T.<br>V.T.R.                               | VINYL BASE<br>VINYL COMPOSITION TILE<br>VENT THROUGH ROOF<br>VERTICAL   |
| W.C.<br>W.H.<br>W.M.<br>W.R.<br>W.T.<br>W.W.F. | WEATHER BARRIER WATER CLOSET WATER HEATER WIRE MESH WATER RESISTANT WALL TILE WELDED WIRE FABRIC WITH WITHOUT |
|  |   |

|         | PERMIT SET - 03/13/23 |
|---------|-----------------------|
|         | -                     |
| /-      | -                     |
| <u></u> | -                     |
| <u></u> | -                     |
| <u></u> | -                     |
|         | -                     |
|         |                       |

# **SHERWIN WILLIAMS**

| STORE #:<br>XXXX                               |
|--|
| 9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015 |
| SHEET TITLE:                                   |

#### **DIVISION 1 - GENERAL CONDITIONS**

#### A) CONSTRUCTION OBSERVATION SERVICES

1. DIRECT CONSTRUCTION OBSERVATIONS AND REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INCLUDED AS PART OF THE ARCHITECT'S BASIC SERVICES. IT IS UNDERSTOOD THAT SUCH RESPONSIBILITIES WILL BE ASSUMED BY OTHERS. LINGLE DESIGN GROUP AVAILS ITSELF TO THE CLIENT, CONTRACTOR AND OTHER PARTIES AS NECESSARY (VIA TELEPHONE, FAX AND E-MAIL) IN ORDER TO ASSIST IN PROVIDING CLARIFICATIONS OR RESOLVING ISSUES AND

#### B) EXAMINATION

- 1. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY. SPECIFIC INFORMATION MAY BE FOUND IN EITHER OR BOTH.
- 2. THE CONTRACTOR IS HEREBY SPECIFICALLY DIRECTED. AS A CONDITION OF THE CONTRACT. TO ACQUAINT HIMSELF WITH THE ARTICLES CONTAINED IN THE GENERAL NOTES, AND TO NOTIFY AND APPRISE ALL SUBCONTRACTORS AND ALL OTHER PARTIES OF THE CONTRACT OF, AND BIND THEM TO ITS CONDITIONS.
- 3. PRIOR TO SUBMITTING BID, GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE LEASE/TENANT AGREEMENT, AND 5. PARTITIONS ARE DIMENSIONED FROM FINISH OF STUD TO FACE OF STUD, UNLESS OTHERWISE NOTED. DIMENSIONS ANY EXHIBITS THAT PERTAIN TO TENANT BUILD OUT. ALL INFORMATION SHALL BE NOTED FOR RESPONSIBILITIES AND
- 4. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN PARTITION LOCATIONS, DIMENSIONS AND TYPES. DOOR AND WINDOW LOCATIONS SHALL BE AS SHOWN ON CONSTRUCTION PLAN. IN CASE OF CONFLICT, NOTIFY DESIGNER/ARCHITECT FOR WRITTEN CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 5. ANY DETAILS OR NOTES REQUIRING FIELD VERIFICATION BY THE CONTRACTOR ARE TO BE DONE DURING THE BID PROCESS. DISCREPANCIES FOUND AFTER THE GENERAL CONTRACTOR IS SELECTED WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND CORRECTED AT THE GENERAL CONTRACTOR'S EXPENSE.
- 6. THE DESIGNER/ARCHITECT SHALL BE IMMEDIATELY NOTIFIED OF ANY APPARENT CONFLICTS, ERRORS, OR OMISSIONS IN THE CONSTRUCTION DRAWINGS; ANY APPARENT MISAPPLICATION OF ANY PRODUCT, SYSTEM OR ASSEMBLY FOR THE INTENDED USE. OR ANY DISCOVERED EXISTING CONDITIONS THAT ARE CONTRARY TO THE CONDITIONS INDICATED IN THE CONSTRUCTION DRAWINGS. THE DESIGNER/ARCHITECT SHALL PROVIDE INTERPRETATION AND CLARIFICATION AND, IF REQUIRED, MAKE APPROPRIATE REVISIONS TO THE CONSTRUCTION DRAWINGS. FAILURE TO 9. CONTRACTOR SHALL INSTALL PORTABLE FIRE EXTINGUISHERS (TYPE 2A10BC) PER IFC SECTION 906. NOTIFY THE DESIGNER/ARCHITECT PRIOR TO PROCEEDING WITH RELATED WORK WILL RESULT IN THE CONTRACTOR CORRECTING SUCH ITEMS AT THE CONTRACTOR'S EXPENSE.
- 7. THE CONSTRUCTION DRAWINGS ARE GENERAL DIAGRAMMATIC REPRESENTATIONS OF THE WORK, AND DO NOT INDICATE OR SPECIFY IN DETAIL, EVERY CONDITION AND COMPONENT OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL LABOR. MATERIALS AND EQUIPMENT. FABRICATE ALL ASSEMBLIES AND INSTALL ALL EQUIPMENT AND SYSTEMS TO PRODUCE A COMPLETE, INTEGRATED AND FULLY FUNCTIONAL WORK PRODUCT IN ACCORDANCE WITH ALL MATERIAL AND EQUIPMENT MANUFACTURER'S REQUIREMENTS, INDUSTRY STANDARDS AND FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS.
- 8. PRIOR TO ACCEPTANCE OF SUB-CONTRACTOR BIDS AND COMMENCEMENT OF CONSTRUCTION, GENERAL CONTRACTOR TO PROVIDE ALL SUB-CONTRACTORS ACCESS TO A FULL SET OF CONSTRUCTION DOCUMENTS.
- 9. THE CONTRACTOR SHALL VERIFY THAT DRAWINGS ARE THE LATEST ISSUE PRIOR TO COMMENCING CONSTRUCTION, & SHALL MAINTAIN ONE COPY AT THE SITE, INCLUDING ALL ADDENDA, CHANGE ORDERS & FIELD CHANGES.
- 10. GENERAL CONTRACTOR SHALL VISIT PROPOSED JOB SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS & LOCATIONS OF UTILITIES. FAILURE OF GENERAL CONTRACTOR TO VISIT JOB SITE PRIOR TO BIDDING WILL RESULT IN FORFEITURE OF EXTRA COMPENSATION FOR TIME AND MONEY.
- 11. THE GENERAL CONTRACTOR SHALL CONTACT LOCAL UTILITY COMPANIES TO VERIFY ALL ELEVATIONS, SIZES, LOCATIONS AND CONNECTION POINTS FOR ALL UTILITIES AFFECTED BY THIS PROJECT. THE GENERAL CONTRACTOR SHALL COORDINATE AND OBTAIN ALL APPLICATIONS FOR , AND ENSURE ALL UTILITIES ARE TURNED ON PRIOR TO COMPLETION OF WORK.

- 1. THE ARCHITECT, THE ARCHITECT'S CONSULTANTS AND SHERWIN-WILLIAMS SHALL BE DEEMED THE AUTHORS & JOINT OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE, INCLUDING THE DRAWINGS AND SPECIFICATIONS, & WILL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS.
- 2. THE ARCHITECT, TENANT, OR THE BRAND OWNER ASSUME NO RESPONSIBILITY OR LIABILITY FOR THE USE OF THESE DOCUMENTS FOR ANY PURPOSE OTHER THEN SPECIFICALLY AUTHORIZED BY THE aforementioned AND SIGNED AND SEALED FOR THE SPECIFIC LOCATION IN THE STATE SHOWN ON THE DRAWINGS AND SEAL.

## D) CONTRACTS

- 1. THE LATEST EDITION OF THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA A201, PUBLISHED BY THE AMERICAN INSTITUTE OF ARCHITECTS, ARE HEREBY MADE PART OF THESE DRAWINGS AND SPECIFICATIONS
- 2. TEN DAYS BEFORE CONSTRUCTION COMMENCEMENT, THE GENERAL CONTRACTOR SHALL PROVIDE THE ARCHITECT, FRANCHISEE, BRAND OWNER AND THE CONSTRUCTION MANAGER WITH A DETAILED AND COMPLETE CONSTRUCTION SCHEDULE, SHOWING ALL TRADES WITH STARTING AND COMPLETION DATES. A COMPLETE LIST OF ALL SUBCONTRACTORS MUST ALSO BE INCLUDED WITH THE SCHEDULE. THE GENERAL CONTRACTOR IS TO NOTIFY ALL PARTIES IN RECEIPT OF PROJECT SCHEDULE IN ANY CHANGES OCCUR WHICH AFFECT THE COMPLETION DATE. FAILURE TO COMPLETE THE PROJECT AS SCHEDULED MAY RESULT IN PENALTIES INCURRED BY THE GENERAL CONTRACTOR REGARDING FINAL PAYMENT.

## E) INSURANCE

- 1. ALL CONTRACTORS (GENERAL AND SUBCONTRACTORS) SHALL COMPLY WITH THE REQUIREMENTS FOR INSURANCE. 21. ANY CHANGES IN THE SCOPE OF WORK INVOLVING A CHANGE IN THE CONSTRUCTION COST OR TIME SHALL BE BONDS AND WAIVERS OF LIEN, AS OUTLINED IN THE LATEST EDITION OF THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA A201, PUBLISHED BY THE AMERICAN INSTITUTE OF ARCHITECTS AND SHALL MEET THE OWNER/LL COI REQUIREMENTS.
- 2. TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ARCHITECT, ARCHITECT'S CONSULTANTS, AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM & AGAINST 1. REFER TO MECHANICAL, ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DESIGN OF THESE SYSTEMS (DUCT CLAIMS/DAMAGES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE WORK, PROVIDED THAT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH, OR TO INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY. BUT ONLY TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS OR OMISSIONS OF THE CONTRACTOR, A SUBCONTRACTOR, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN PART BY A PARTY INDEMNIFIED HEREUNDER.

#### F) STANDARDS AND CODES

- 1. GIVE ALL NOTICES AND COMPLY WITH ALL NATIONAL, STATE AND LOCAL LAWS, ORDINANCES, CODES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, PROMPTLY NOTIFY THE DESIGNER/ARCHITECT. NECESSARY CHANGES SHALL BE MADE IN ACCORDANCE WITH THE GENERAL CONDITIONS.
- 2. THE CONTRACTOR SHALL FILE, OBTAIN AND PAY FEES FOR BUILDING DEPARTMENT AND ALL OTHER AGENCY APPROVALS AND PERMITS, CONTROLLED INSPECTIONS, AND FINAL WRITE-OFFS FOR PROJECT COMPLETION. COPIES 6. LAY-IN LIGHTING FIXTURES SHALL NOT RELY ON THE CEILING SYSTEM ALONE FOR SUPPORT. LAY-IN LIGHTING OF TRANSACTIONS ARE TO BE FORWARDED TO THE PROJECT MANAGER.
- 3. IF THE CONTRACTOR KNOWINGLY PERFORMS ANY WORK WHICH IS CONTRARY TO SUCH LAWS, ORDINANCES. BEAR ALL COSTS ARISING THEREFROM. CONFLICTS: IN CASE OF CONFLICTS IN THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
- 4. WHERE CODES OR REGULATIONS, OTHER THAN THOSE LISTED IN THIS SECTION, ARE REFERRED TO IN VARIOUS SECTIONS OF THE DOCUMENTS. IT SHALL BE UNDERSTOOD THAT THEY APPLY TO THIS WORK AS FULLY AS IF CITED 9. ALL ELECTRICAL DEVICES SHALL BEAR THE U.L. LABEL.
- 5. LOADS AND CODE RESTRICTIONS FOR ALL DESIGN CONSIDERATIONS SHALL CONFORM TO LOCAL, STATE AND ALL GOVERNING CODES.
- 6. THE CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS NECESSARY TO OBTAIN CERTIFICATE OF OCCUPANCY.
- 7. THE CONTRACTOR SHALL MAINTAIN, FOR THE ENTIRE LENGTH OF HIS CONTRACT, EXITS, EXIT LIGHTING, FIRE PROTECTIVE DEVICES, AND ALARMS TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS AND LANDLORD
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION AND/OR MISALIGNMENT IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS AND GOOD PRACTICE.
- 9. WORK AND/OR CONSTRUCTION OPERATIONS SHALL NOT UNDERMINE THE STRUCTURAL INTEGRITY OF THE BUILDING
- 10. ALL COMBUSTIBLE MATERIALS SHALL MEET APPLICABLE CODES. WOOD SHALL BE FIRE RETARDANT TREATED WHERE REQUIRED BY LOCAL BUILDING CODES.
- 11. THE CONTRACTOR SHALL PROVIDE BACK FLOW DEVICES AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES.

#### **DIVISION 1 - GENERAL CONDITIONS**

- 1. EXERCISE PROPER PRECAUTIONS TO VERIFY ALL EXISTING CONDITIONS AND LAYOUT OF WORK. CONTRACTOR IS RESPONSIBLE FOR ANY ERROR RESULTING FROM FAILURE TO EXERCISE SUCH PRECAUTIONS. ANY SUCH ERROR WILL NOT BE CONSIDERED AS A BASIS FOR EXTRA COMPENSATION.
- 2. CONTRACTOR SHALL PROMPTLY NOTIFY ARCHITECT IF SUBSURFACE OR OTHERWISE CONCEALED PHYSICAL CONDITIONS DIFFER MATERIALLY FROM THOSE INDICATED IN THE CONTRACT DOCUMENTS, OR DIFFER FROM THOSE CONDITIONS ORDINARILY FOUND TO EXIST & GENERALLY RECOGNIZED AS INHERENT IN CONSTRUCTION ACTIVITIES OF THIS NATURE.
- 3. THE GENERAL CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
- 4. GENERAL CONTRACTOR IS RESPONSIBLE FOR LAY OUT OF ALL WORK AND IS RESPONSIBLE FOR ALL LINES AND MEASUREMENTS OF THE BUILDING, UTILITIES, AND OTHER WORK EXECUTED UNDER THE CONTRACT, & SHALL ENSURE THAT THE WORK PERFORMED COMPLIES WITH APPROVED DRAWINGS.
- MARKED "CLEAR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF FINISHES INCLUDING TILE, FRP, ETC. DIMENSIONS MARKED "CLEAR" ARE TO BE WITHIN 1/8" ALONG FULL HEIGHT AND FULL WIDTH OF WALLS.
- 6. ALL ROUGH OPENINGS AND DIMENSIONS LABELED "HOLD" ARE CRITICAL AND ARE NOT TO BE ADJUSTED WITHOUT WRITTEN CONSENT OF ARCHITECT/DESIGNER.
- 7. ALL WALL FLOOR PLATES ARE TO BE LOCATED AND POSITIONING CONFIRMED WITH FLOOR PLAN PRIOR TO DRYWALL INSTALLATION.
- 8. DIMENSIONS ARE AS FOLLOWS, UNLESS OTHERWISE NOTED: TO INSIDE FACE OF JAMB AT DOORS & OTHER OPENINGS
- TO TOP OF FINISHED FLOORS
- TO BOTTOM OF FINISHED CEILINGS TO INSIDE FACE OF FINISHED MILLWORK
- 10. FOR BUILT-IN WORK SURROUNDED BY PARTITIONS, INCLUDING BUT NOT LIMITED TO APPLIANCES AND FURNISHINGS, CONTRACTOR SHALL CONFIRM THAT FLOOR SLAB DOES NOT VARY BY MORE THAN 1/4" IN 20'-0". NOTIFY ARCHITECT/DESIGNER IF THIS TOLERANCE IS EXCEEDED.
- 11. NEW GYPSUM BOARD CONSTRUCTION ADJOINING EXISTING CONSTRUCTION IN THE SAME PLANE SHALL BE FLUSH WITH NO VISIBLE JOINTS, UNLESS OTHERWISE NOTED.
- 12. DIMENSIONS KNOWN AS V.I.F. SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BY LAYING OUT THE PARTITIONS. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER AND ARCHITECT OF ANY DISCREPANCY IN DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA.
- 13. THE ARCHITECT AND HIS CONSULTANTS WILL NOT HAVE CONTROL OVER OR CHARGE OF, NOR BE RESPONSIBLE FOR, THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, THE CONTRACTOR'S FAILURE TO PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DRAWINGS OR CONTRACT, OR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES OR ANY OTHER PERSONS OR ENTITIES PERFORMING PORTIONS OF THE WORK.
- 14. WORK NOT PARTICULARLY DETAILED, NOTED OR SPECIFIED, SHALL BE THE SAME AS SIMILAR PARTS THAT ARE DETAILED, NOTED OR SPECIFIED.
- 15. IN THE EVENT OF INCONSISTENCIES AMONG THE CONTRACT DOCUMENTS, THE DESIGNER/ARCHITECT SHALL INTERPRET THEM WHEN ASKED TO DO SO BY THE OWNER OR CONTRACTOR. THE DESIGNER/ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE RESULTS OF SUCH INTERPRETATIONS MADE BY OTHERS.
- 16. THE GENERAL CHARACTER OF DETAIL WORK IS SHOWN ON THE CONTRACT DOCUMENTS. SUBSEQUENT CLARIFICATIONS MAY BE MADE BY ADDITIONAL LAYOUTS OR LARGE SCALE OR FULL SIZE DETAILS.
- 17. DRAWINGS AND DIAGRAMS FOR MECHANICAL AND ELECTRICAL WORK SHALL BE CONSIDERED AS DIAGRAMMATIC ONLY, NOT TO BE USED FOR ANY STRUCTURAL GUIDANCE OR PHYSICAL LAYOUT. IN CASE OF CONFLICT, UNLESS OTHERWISE NOTED, THE ARCHITECTURAL DRAWINGS SHOWING LOCATIONS FOR MECHANICAL AND ELECTRICAL ITEMS AND ACCESSORIES SHALL TAKE PRECEDENCE.
- 18. UNLESS OTHERWISE NOTED. IT IS THE INTENTION OF THE DRAWINGS AND SPECIFICATIONS FOR ALL WORK. EQUIPMENT, CASEWORK, MECHANICAL, ELECTRICAL AND SIMILAR DEVICES OF WHATEVER NATURE, TO BE NEW & FREE OF DEFECTS, AND BE COMPLETELY INSTALLED, HOOKED-UP, MADE OPERATIONAL AND FUNCTIONAL FOR THE PURPOSE INTENDED, AND THAT ALL COSTS FOR THIS BE INCLUDED IN THE CONTRACTOR'S PROPOSAL.
- 19. THE CONTRACTOR SHALL, IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, APPLY, INSTALL, CONNECT, ERECT, CLEAN AND/OR CONDITION MANUFACTURED ARTICLES, MATERIALS AND/OR EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. IN CASE OF CONFLICT BETWEEN MANUFACTURER'S INSTRUCTIONS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER AND THE ARCHITECT BEFORE PROCEEDING.
- 20. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE WORK BY OUTSIDE VENDORS INCLUDING BUT NOT LIMITED 8. IN THE EVENT OF DAMAGES TO MATERIALS/WORK, GENERAL CONTRACTOR OR RESPONSIBLE SUBCONTRACTORS TO, TELEPHONE, DATA, "OWNER'S FORCES" ITEMS. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND SHALL DO THE CUTTING, FITTING AND PATCHING REQUIRED TO RECEIVE THE WORK OF OTHERS AS SHOWN OR REASONABLY IMPLIED BY THE DRAWINGS AND SPECIFICATIONS.
- APPROVED BY THE OWNER IN WRITING PRIOR TO THE CONTRACTOR COMMENCING WITH THE WORK SCOPE CHANGE.

- SIZES, CIRCUITING, ETC.) AND FOR ADDITIONAL REQUIREMENTS. LOCATIONS OF FIXTURES, REGISTERS, SWITCHES, ETC. SHALL BE AS SHOWN ON THE ARCHITECTURAL PLANS. NOTIFY ARCHITECT/DESIGNER OF ANY CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- 2. VERIFY FIELD CONSTRUCTIONS AND LOCATIONS OF ALL PLUMBING AND STRUCTURAL ELEMENTS AND OTHER APPLICABLE ITEMS. NOTIFY ARCHITECT/DESIGNER OF INADEQUATE CLEARANCES FOR CEILING LAYOUT.
- 3. ALL REGISTERS, SPRINKLER HEADS AND LIGHTING FIXTURES SHALL OCCUR WITHIN GRID LINES. INCANDESCENT FIXTURES OR OTHER ELEMENTS SHALL BE LOCATED AT THE CENTER OF ACOUSTICAL TILES UNLESS NOTED OTHERWISE.
- 4. CUT-OUTS AT FIXTURES IN LAY-IN CEILINGS SHALL BE PRECISE WITH NO GAPS, CHIPS OR IRREGULARITIES.
- 5. CEILNG GRID SHALL BE LEVEL WITHIN A TOLERANCE OF 1/8" IN A SPAN OF 10'-0".
- FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE BY NO LESS THAN TWO HANGER WIRES AND SECURED TO 4. ALL MATERIALS AND FINISHES INDICATED ON DRAWINGS SHALL BE NEW AND UNUSED. THE CEILING GRID SYSTEM WITH THE APPROPRIATE ATTACHMENT HARDWARE.
- CODES, RULES AND REGULATIONS, HE SHALL PROMPTLY MAKE CHANGES AS REQUIRED TO COMPLY THEREWITH AND 7. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED ACCESSORIES, OPTIONS, MOUNTING HARDWARE AND FIELD FABRICATION REQUIRED TO PROPERLY ADAPT THE FIXTURES TO THE SPECIFIC
  - 8. ELECTRICAL CONTRACTOR SHALL CLEARLY LABEL PANEL BOARD CIRCUITING AS TO OPERATION.

  - 10. ALL ELECTRICAL WORK SHALL FOLLOW ALL APPLICABLE NATIONAL, STATE & LOCAL CODES, REGULATIONS AND
  - 11. REFER TO LIGHT FIXTURE SCHEDULE FOR FINISH OF LIGHT FIXTURE TRIM.
  - 12. WHERE/IF EXISTING CEILINGS ARE SCHEDULED TO REMAIN, & ARE DAMAGED OR OTHERWISE MODIFIED TO ACCOMMODATE THE NEW LAYOUT, THE G.C. SHALL PATCH, REPAIR OR RESTORE AS REQUIRED TO "LIKE-NEW"
  - A SIMILAR FIXTURE RATED FOR EXTERIOR APPLICATION. 14. IF EXISTING MECHANICAL AND FIRE PROTECTION SYSTEMS ARE PRESENT, CONTRACTOR SHALL REWORK THE
  - SYSTEMS TO ACCOMMODATE THE NEW CEILING AND WALL LAYOUTS.
  - 15. USE OF THE ABOVE CEILING PLENUM AREA AS A RETURN AIR SYSTEM IS NOT ACCEPTABLE. RETURN AIR SHALL BE DUCTED TO THE CEILING.
  - 16. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TESTING AND BALANCING OF ANY REWORKED MECHANICAL SYSTEM.

#### DIVISION 1 - GENERAL CONDITIONS

#### I) OWNER FURNISHED ITEMS

- 1. PRODUCTS TO BE FURNISHED AND PAID FOR BY THE OWNER AND INSTALLED BY THE CONTRACTOR ARE INDICATED. AS "OWNER SUPPLIED" IN THE EQUIPMENT SCHEDULE.
- 2. OWNER'S RESPONSIBILITIES FOR OWNER FURNISHED PRODUCTS:
- SUPPLY CONTRACTOR WITH PRODUCT LITERATURE, OWNER REVIEWED. PRODUCT DATA AND SAMPLES.
- PAY FOR PRODUCT DELIVERY TO SITE. REVIEW DAMAGED PRODUCTS WITH CONTRACTOR PROMPTLY.
- SUBMIT CLAIMS FOR DAMAGE. REPLACE DAMAGED. DEFECTIVE OR DEFICIENT ITEMS. ARRANGE FOR MANUFACTURER'S WARRANTIES, INSPECTIONS AND SERVICE.
- 3. CONTRACTOR'S RESPONSIBILITIES FOR OWNER FURNISHED PRODUCTS:
- REVIEW SHOP DRAWINGS, PRODUCT DATA AND SAMPLES TO ADEQUATELY ACQUAINT HIMSELF WITH THE SCOPE OF WORK.
- REVIEW THE ORDER; SCHEDULE THE DELIVERY; RECEIVE, UNLOAD AND STORE PRODUCTS AT SITE INSPECT FOR COMPLETE OR DAMAGE. IF ITEMS ARE DAMAGED, GENERAL CONTRACTOR TO NOTIFY PROJECT MANAGER AND OWNER.

#### ) ALTERATIONS (IF APPLICABLE)

- ARRANGE WITH LANDLORD/OWNER A CONVENIENT TIME TO PERFORM ALL WORK AND INSTALL TEMPORARY PROTECTED MEANS OF EGRESS FROM REQUIRED EXITS, INCLUDING TEMPORARY LIGHTING AND SAFETY DEVICES IN ACCORDANCE WITH GOVERNING STATE AND LOCAL CODE AND BUILDING MANAGEMENT REQUIREMENTS.
- 2. THE CONTRACTOR SHALL REMOVE, REPAIR, RESTORE AND REPLACE ANY WORK NECESSARY OR INDICATED ON THE DRAWINGS. CUT ALL NECESSARY OPENINGS AND REPAIR AFTER CUTTING WHERE NECESSARY. ALL PROTRUSIONS, MARKS. CRACKS. OR OTHER EVIDENCE OF A DEFICIENT OR DAMAGED CONDITION SHALL BE ELIMINATED UNLESS SPECIFICALLY NOTED OTHERWISE. ANY ITEMS WHICH ARE SPLIT, CRACKED, CHIPPED, SPALLED, BROKEN, MISSING, OUT OF ALIGNMENT OR ADJUSTMENT, MECHANICALLY OR STRUCTURALLY UNSAFE OR UNSOUND, BENT, TORN, OR OTHERWISE DEFICIENT OR DAMAGED IN ANY MANNER SHALL BE REMOVED, REPLACED, RESTORED OR SATISFACTORILY REPAIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- PERFORM DEMOLITION WORK AND SUCH SPRINKLER WORK, CONCRETE SAW CUTTING, PAINTING AND SIMILAR WORK CAUSING EXCESSIVE NOISE. DUST OR ODORS DISTURBING BUILDING OCCUPANTS. OR ANY WORK DISRUPTING TENANTS OR PUBLIC TRAFFIC WITHIN THE BUILDING, AFTER HOURS OR AT TIMES AND IN SUCH MANNER AS OTHERWISE APPROVED BY LANDLORD/OWNER.
- 4. SPECIAL ATTENTION SHALL BE GIVEN TO EXISTING AREAS SURROUNDING THE EXTERIOR OF THE PROJECT SPACE. ALL CONSTRUCTION AND INSTALLED EQUIPMENT, WALKS, AND LANDSCAPED AREAS SHALL BE PROTECTED AND GUARDED BY BARRIERS OR OTHER MEANS NECESSARY TO PROTECT AREAS FROM DAMAGE DURING CONSTRUCTION. ALL AREAS DAMAGED WILL BE RESTORED TO THEIR ORIGINAL CONDITION PRIOR TO FINAL PAYMENT AT THE SOLE EXPENSE OF THE GENERAL CONTRACTOR.

#### K) HAZARDOUS MATERIALS

- ASBESTOS AND HAZARDOUS WASTE EXCLUSION: THE ARCHITECT HEREBY STATES, AND THE OWNER ACKNOWLEDGES, THAT THE ARCHITECT HAS NO PROFESSIONAL LIABILITY OR OTHER INSURANCE (AND IS UNABLE TO 11. REFER TO ACCESSIBILITY DETAILS IN PLANS FOR TYPICAL ACCESSIBILITY GUIDELINES REASONABLY OBTAIN SUCH INSURANCE) FOR CLAIMS ARISING OUT OF THE PERFORMANCE OF OR THE FAILURE TO PERFORM PROFESSIONAL SERVICES, INCLUDING BUT NOT LIMITED TO, THE PREPARATION OF REPORTS, DESIGNS, DRAWINGS, AND SPECIFICATIONS, AND RELATED TO THE INVESTIGATION DETECTION OF HAZARDOUS MATERIALS ON
- 2. IF THE GENERAL CONTRACTOR ENCOUNTERS HAZARDOUS MATERIALS, & IF REASONBLE PRECAUTIONS WILL BE INADEQUATE TO PREVENT FORESEEABLE BODILY INJURY OR DEATH TO PERSONS RESULTING FROM A MATERIAL OR SUBSTANCE ENCOUNTERED ON THE SITE, THE GENERAL CONTRACTOR SHALL, UPON RECOGNIZING THE CONDITION, IMMEDIATELY STOP WORK IN THE AFFECTED AREA & REPORT THE CONDITION TO THE OWNER IN WRITING.

#### L) CONTRACTOR USE OF PREMISES

- 1. CONSTRUCTION OPERATIONS: LIMITED TO AREAS NOTED ON DRAWINGS.
- 2. TIME RESTRICTIONS FOR PERFORMING WORK: VERIFY WITH LANDLORD/OWNER & LOCAL CODES.
- 3. UTILITY OUTAGES AND SHUTDOWN SHALL BE COORDINATED WITH THE LANDLORD/OWNER
- 4. AT ALL TIMES CONDUCT OPERATIONS TO INSURE THE LEAST INCONVENIENCE TO THE GENERAL PUBLIC. COMPLY WITH APPLICABLE CODES AND ORDINANCES FOR SAFETY.
- ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFEKEEPING OF PRODUCTS STORED ON THE SITE UNDER THIS CONTRACT.
- 6. COORDINATE USE OF PREMISES FOR WORK & STORAGE WITH THE LANDLORD/OWNER, & TO AREAS PERMITTED BY APPLICABLE LAWS, STATUTES, ORDINANCES & CODES.
- 7. LIMIT USE OF SITE FOR WORK AND STORAGE TO AREAS DESIGNATED UNLESS SPECIFIC ADDITIONAL AREAS ARE ALLOWED IN WRITING BY THE LANDLORD/OWNER.
- SHALL IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY AT NO ADDITIONAL COST TO THE OWNER. T) DEFINITIONS
- 9. TEMPORARY SANITARY FACILITIES FOR THE WORKERS SHALL BE FURNISHED, INSTALLED AND MAINTAINED BY THE GENERAL CONTRACTOR, IF "CONTRACTOR-USE" FACILITIES DO NOT EXIST ON SITE. PERMANENT TOILETS INSTALLED ON THE PROJECT SHALL NOT BE USED DURING CONSTRUCTION OF THE PROJECT. ALL SUCH FACILITIES AND

SERVICES SHALL BE FURNISHED IN STRICT ACCORDANCE WITH EXISTING GOVERNING HEALTH REGULATIONS.

10. PARKING TO BE DESIGNATED BY LANDLORD.

#### M) TEMPORARY JOB SITE SIGN

1. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL A TEMPORARY JOB SITE SIGN. SIGN SHALL BE PREPARED BY A 4. "OWNER SUPPLIED" - SUPPLIED BY TENANT. PROFESSIONAL SIGN COMPANY.

# N) FINISH NOTES

- ENSURE THAT SURFACE TO RECEIVE FINISHES ARE CLEAN, TRUE AND FREE OF IRREGULARITIES AND ARE ACCEPTABLE TO RECEIVE NEW FINISHES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. COMMENCEMENT OF WORK SHALL INDICATE INSTALLER'S ACCEPTANCE OF SUBSTRATE.
- 2. ALL CODE-REQUIRED LABELS SUCH AS "U.L.", FACTORY MUTUAL OR ANY EQUIPMENT IDENTIFICATION, PERFORMANCE
- 3. THE CONTRACTOR SHALL PATCH SURFACES AS NECESSARY TO MATCH ADJACENT IN A MANNER SUITABLE TO

RATING, NAME OR NOMENCLATURE PLATES SHALL REMAIN READABLE AND NOT PAINTED.

- 5. ANY SUBSTITUTIONS MUST BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OR PURCHASING.
- 6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY ARRIVAL OF ALL SPECIFIED FINISH MATERIALS, EQUIPMENT, LIGHT FIXTURES, AND ANY OTHER MATERIALS TO BE UTILIZED IN THE PROJECT. THE G.C. SHALL NOTIFY THE ARCHITECT/DESIGNER IN WRITING WITHIN (10) DAYS OF DATE OF CONTRACT OF THOSE ITEMS SPECIFIED THAT ARE NOT READILY AVAILABLE. IF NOTIFICATION IS NOT RECEIVED, THE G.C. ACCEPTS RESPONSIBILITY FOR THE PROPER ORDERING AND FOLLOW-UP OF SPECIFIED ITEMS SO AS NOT TO CREATE A HARDSHIP ON THE OWNER, AND NOT TO DELAY PROGRESS OF THE WORK. NO EXTENSION OF TIME TO THE CONTRACT WILL BE ALLOWED FOR G.C.'S
- 7. COORDINATE WITH OWNER'S REPRESENTATIVE FOR DELIVERY AND PLACEMENT OF OWNER SUPPLIED ITEMS AND
- 8. REFER TO FINISH SCHEDULE FOR SPECIFIED FINISHES.

INABILITY TO SECURE SPECIFIED ITEMS.

FURNISHINGS.

- 9. ALL DOOR AND WINDOW FRAMES SHALL BE CAULKED AROUND ENTIRE PERIMETER.
- 13. IF ANY LIGHTS ARE SPECIFIED IN A LOCATION EXPOSED TO THE WEATHER, ELECTRICAL CONTRACTOR SHALL OBTAIN 10. GENERAL CONTRACTOR SHALL CAULK BETWEEN BASE AND FLOOR WITH CLEAR SILICONE SEALANT.
  - 11. GENERAL CONTRACTOR SHALL SHALL TAPE AND BED ALL WALLS FOR A SMOOTH PAINTED FINISH.
  - 12. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO SECURE AND PROTECT FROM DAMAGE ALL ITEMS ON THE PREMISES, INCLUDING, BUT NOT LIMITED TO: CONSTRUCTION MATERIALS, LIGHT FIXTURES, FOOD SERVICE EQUIPMENT, EQUIPMENT, AND THE FURNITURE PACKAGE. AFTER RECEIPT ON JOB SITE, ANY LOST, STOLEN OR ITEMS DAMAGED LATER BY SUBCONTRACTORS OR OTHERS IN THE BUILDING, SHALL BE REPLACED OR REPAIRED AT THE GENERAL CONTRACTOR'S SOLE EXPENSE. THE GENERAL CONTRACTOR SHALL NOTIFY AND RELATE THIS INFORMATION AND REQUIREMENT TO ALL TRADES AND SUBCONTRACTORS ON SITE.

## **DIVISION 1 - GENERAL CONDITIONS**

- 13. NO MATERIAL SUBSTITUTIONS WILL BE PERMITTED UNLESS AUTHORIZATION HAS BEEN GRANTED BY THE BRAND OWNER DESIGN AND CONSTRUCTION DEPARTMENT AND THE FRANCHISEE. ANY MATERIAL SUBSTITUTIONS WITHOUT AUTHORIZATION WILL SUBJECT THE GENERAL CONTRACTOR TO REPLACEMENT OF SUCH SUBSTITUTED MATERIALS WITH APPROVED MATERIALS AT THE SOLE EXPENSE OF THE GENERAL CONTRACTOR.
- O) GENERAL CLEANING
- 1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRASH REMOVAL, INCLUDING TRASH MADE BY ALL OTHER TRADES, AND SHALL KEEP THE SPACE CLEAN AND CLEAR OF REFUSE AT ALL TIMES. AT COMPLETION OF PROJECT GENERAL CONTRACTOR SHALL REMOVE ALL CONTRACTOR'S TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY & SURPLUS MATERIALS FROM THE JOB SITE, & SHALL HIRE A PROFESSIONAL CLEANING COMPANY FOR FINAL CLEANUP BEFORE TURNING COMPLETED STORE OVER TO OWNER/TENANT.

#### P) ACCESSIBILITY

- NOTE: FOLLOWING ARE ADA GUIDELINES AND FOR GENERAL CONTRACTOR INFORMATION ONLY. LISTED ITEMS DO NOT REPLACE OR AMEND FEDERAL, STATE OR LOCAL CODES. IN CASE OF CONFLICT IN THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
- 2. ALL EXTERIOR DOORS SHALL HAVE A 24" CLEAR HORIZONTAL OPEN SURFACE/AREA AT THE STRIKESIDE/PULLSIDE OF DOORS. ALL INTERIOR DOORS SHALL HAVE 18" CLEAR AT THE STRIKESIDE/PULLSIDE OF DOORS. PROVIDE 12" CLEAR HORIZONTAL SURFACE ON THE PUSH SIDE/STRIKE OF ALL DOORS. ALL LOCKSETS SHALL HAVE A LEVER HANDLE UNLESS NOTED OTHERWISE & SHALL OPEN FROM INSIDE OF THE SPACE WITH ONE MOTION AND REQUIRE NO SPECIAL KNOWLEDGE OR EFFORT. THUMBTURNS OR SEPARATE DEADBOLTS ARE NOT ALLOWED ON EGRESS
- 3. THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT AND SHALL HAVE A SLOPE NO GREATER THAN 1:2.
- 4. ALL EMERGENCY EXITING ALARM AND SIGNAGE TO COMPLY WITH FEDERAL, STATE AND MUNICIPAL CODES FOR
- 5. GENERAL CONTRACTOR SHALL ALLOW FOR APPLIED FINISH DIMENSIONS IN ADDITION TO STANDARD CONSTRUCTION TOLERANCES IN ACHIEVING ALL ACCESSIBILITY CLEARANCES PER DRAWINGS AND/OR ADA GUIDELINES.
- EMERGENCY WARNING SYSTEMS SHALL COMPLY WITH ADA REQUIREMENTS FOR THE HEARING IMPAIRED. VISUAL
- WARNING STROBE LIGHTS TO BE DESIGNED TO HAVE A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE.
- 8. WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, & FAUCET AND OPERATING MECHANISM CONTROLS SHALL BE OPERABLE WITH ONE HAND, SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST, AND
- 9. THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, & FAUCET AND
- 10. SELF-CLOSING FAUCET CONTROL VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

7. REFER TO TOILET ROOM ELEVATIONS FOR ACCESSIBILITY REQUIREMENTS/MOUNTING HEIGHTS.

SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR.

OPERATING MECHANISM CONTROLS SHALL BE NO GREATER THAN 5 LBS.

- 1. UPON NOTIFICATION BY THE GENERAL CONTRACTOR THAT THE WORK IS SUBSTANTIALLY COMPLETE, THE OWNER'S REPRESENTATIVE SHALL PREPARE A PUNCH LIST OF THE PROJECT AND THE GENERAL CONTRACTOR SHALL MAKE GOOD ALL PUNCH LIST ITEMS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE PRIOR TO FINAL PAYMENT.
- 2. GENERAL CONTRACTOR AND HIS JOB SUPERVISOR SHALL TEST ALL EQUIPMENT FOR PROPER OPERATION, IN THE

PRESENCE OF THE FRANCHISEE, BEFORE TURNING COMPLETED STORE OVER TO FRANCHISEE.

#### R) RECORD DRAWINGS/WARRANTIES

- 1. THE CONTRACTOR SHALL LEAVE A COPY OF REDLINED AS-BUILT DRAWINGS AT THE STORE NOTING ALL REVISIONS OF WORK UPON COMPLETION OF CONSTRUCTION. DRAWINGS SHALL BE PLACED IN A 36" LONG 4" PVC PIPE WITH A CAP. PVC PIPE SHALL BE ATTACHED TO WALL AT LOCATION AS SPECIFIED BY THE PROJECT MANAGER.
- 2. UPON COMPLETION OF THE WORK AND BEFORE FINAL PAYMENT IS MADE, THE CONTRACTOR SHALL SECURE AND DELIVER TO THE OWNER ALL GUARANTEES AND/OR WARRANTIES ON ALL EQUIPMENT SUPPLIED AND/OR INSTALLED BY THE CONTRACTOR AND HIS SUB-CONTRACTORS, AND ALL PROVIDE TWO COPIES OF OPERATIONS/MAINTENANCE

# MANUALS.

- . THE GENERAL CONTRACTOR SHALL GUARANTEE IN WRITING ALL MATERIALS & LABOR FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER, AND WILL, AT HIS OWN COST, REPAIR OR REPLACE ALL WORK OR DAMAGES CAUSED BY THE WORK WHICH BECOMES DEFECTIVE DURING THE TERM OF THE GUARANTEE. THE TERM
- OF THE GUARANTEE MAY BE MODIFIED OR EXTENDED BY THE OWNER/CONTRACTOR AGREEMENT. 2. OWNER MAY WITHHOLD FINAL PAYMENT UNTIL GENERAL CONTRACTOR SUPPLIES OWNER WITH A WARRANTY

# LETTER AND SUBCONTRACTORS LIEN WAIVERS.

- 1. "FURNISH" SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY,
- INSTALLATION AND SIMILAR OPERATIONS. 2. "INSTALL" - OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING
- AND SIMILAR OPERATIONS. 3. "PROVIDE" - FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

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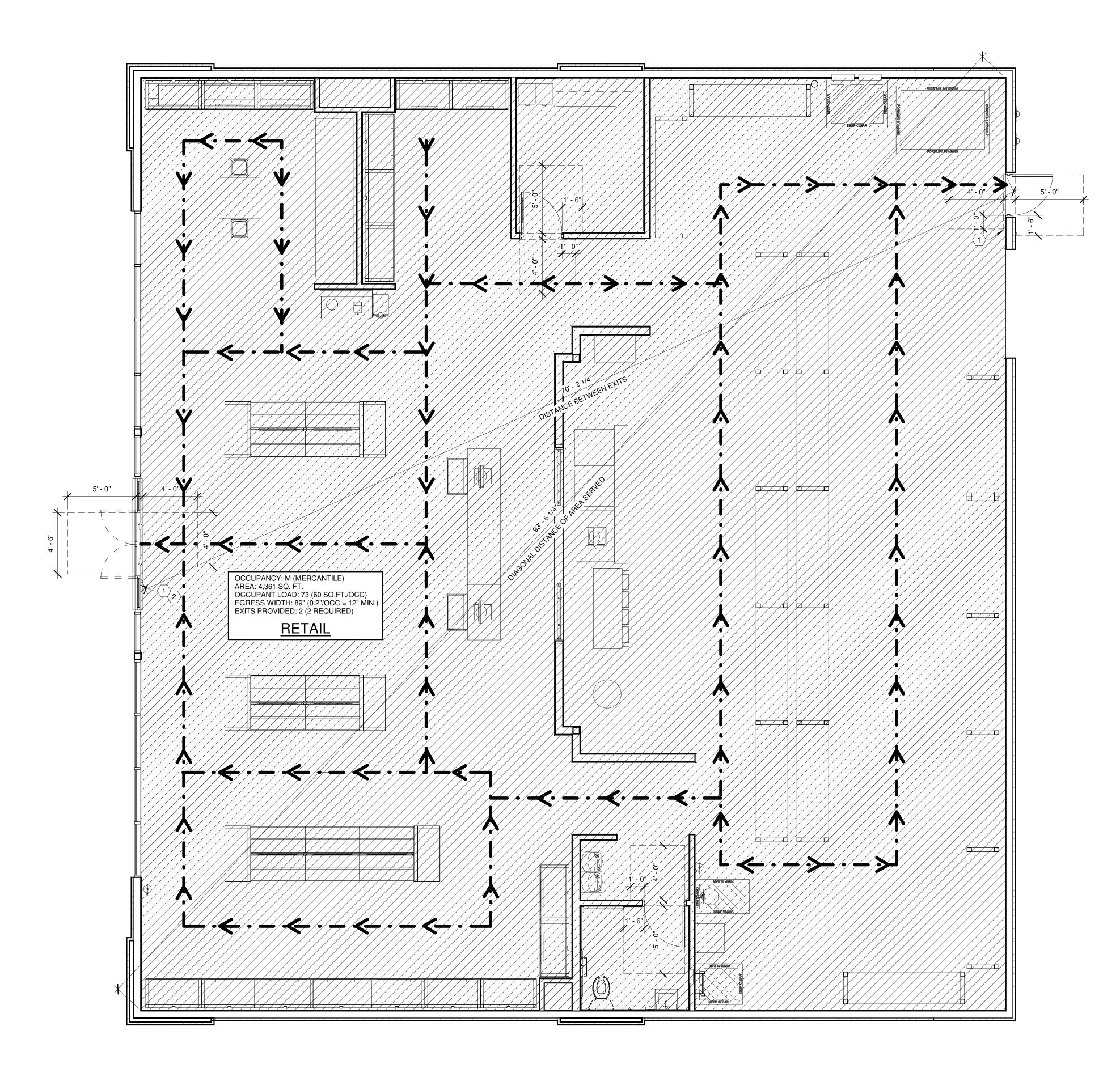


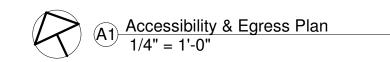
PERMIT SET - 03/13/23

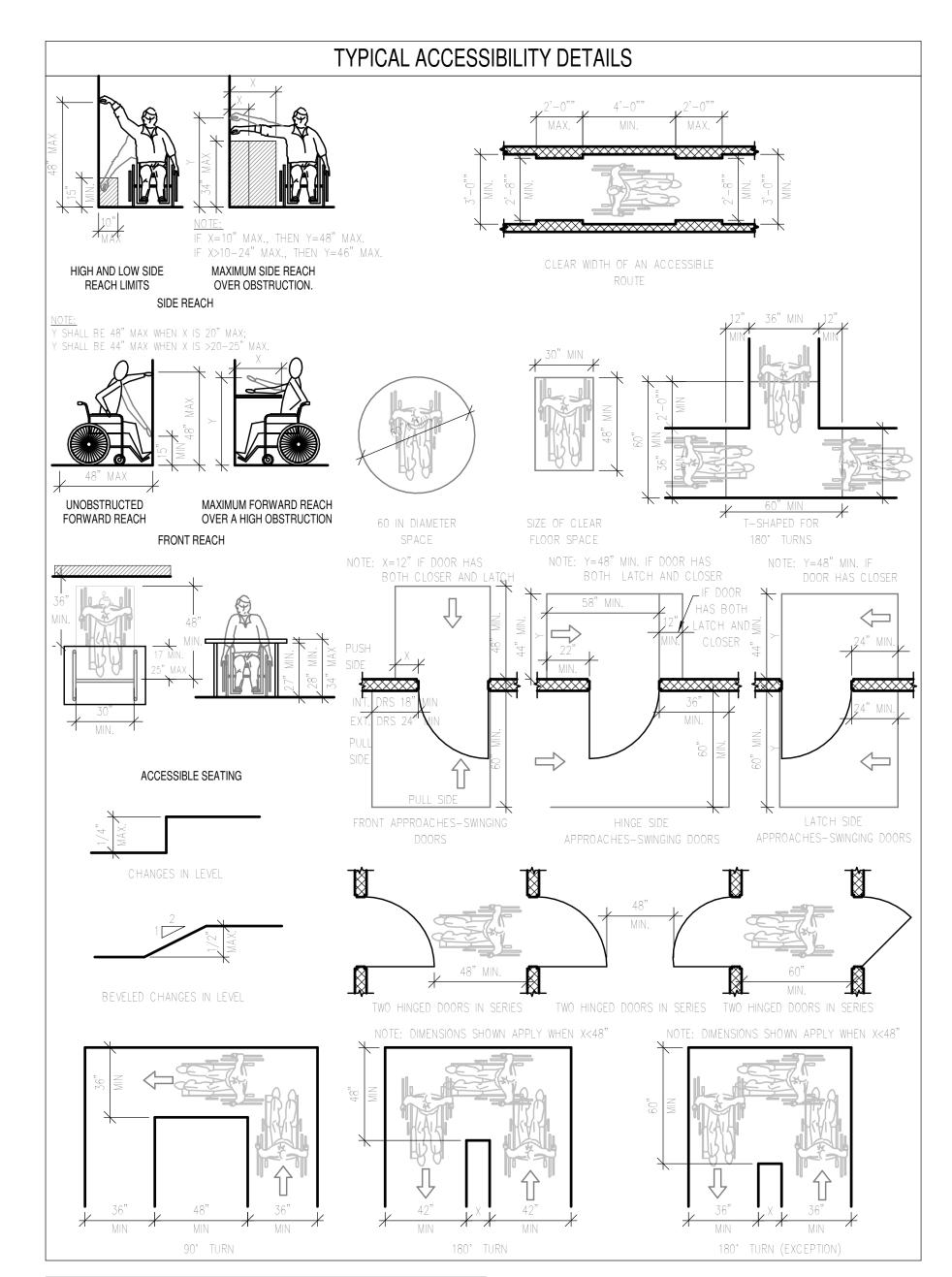
CHECKED BY: MP

STORE #: XXXX

9091 FAIR OAKS PKWY.







# ACCESSIBILITY PLAN CODED NOTES

TACTILE SIGNAGE AT EXTERIOR EXIT DOORS - SIGNAGE TO READ "EXIT" PER IBC 1011.4 - SEE DETAIL A5/G100
 SIGNAGE: "MAXIMUM OCCUPANCY 73 PERSONS"

# RESTROOM FIXTURES REQUIRED PROVIDED WATER CLOSET 1 PER 500 1 URINAL >50% OF WC 0 LAVATORIES 1 PER 750 1 SERVICE SINK 1 1

### **GENERAL NOTES**

- A. G.C. TO VERIFY QUANTITY & LOCATIONS OF FIRE EXTINGUISHERS WITH LOCAL AUTHORITIES. FIRE EXTINGUISHERS TO BE SUPPLIED BY G.C. REFER TO FLOOR PLAN.
- B. G.C. TO PROVIDE FIRE DEPARTMENT REQUIRED KEY BOX. COORDINATE LOCATION AND TYPE WITH LOCAL AUTHORITIES.
- C. SEE MEP DRAWINGS AND RESPONSIBILITY
  SCHEDULE FOR INFORMATION REGARDING
  FIRE ALARM SYSTEM SYSTEM BY GENERAL
  CONTRACTOR (IF APPLICABLE)
- D. ALL CLEAR FLOOR SPACE AND TURNING SPACE TO BE NO GREATER THAN 2% SLOP PER ADA 304.2 & 305.2

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| <u> </u>            |
|---------------------|
| XXXX                |
| ADDRESS:            |
| 9091 FAIR OAKS PKW  |
| EAID OALO DANIOLI E |

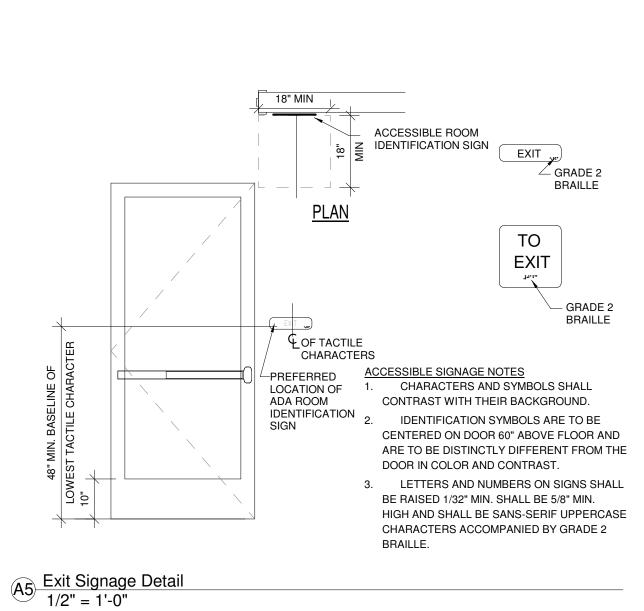
FAIR OAKS RANCH, TX 78015

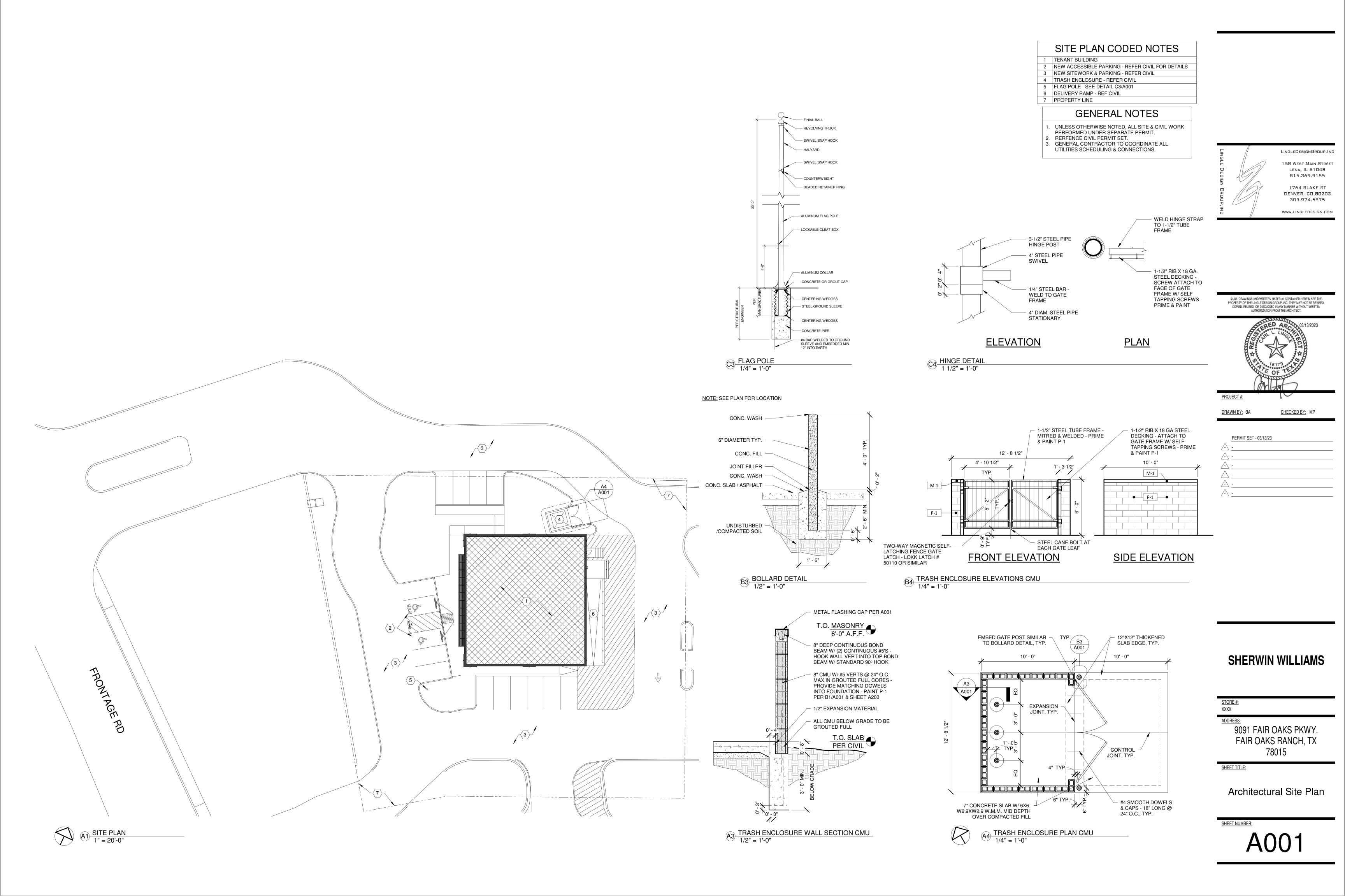
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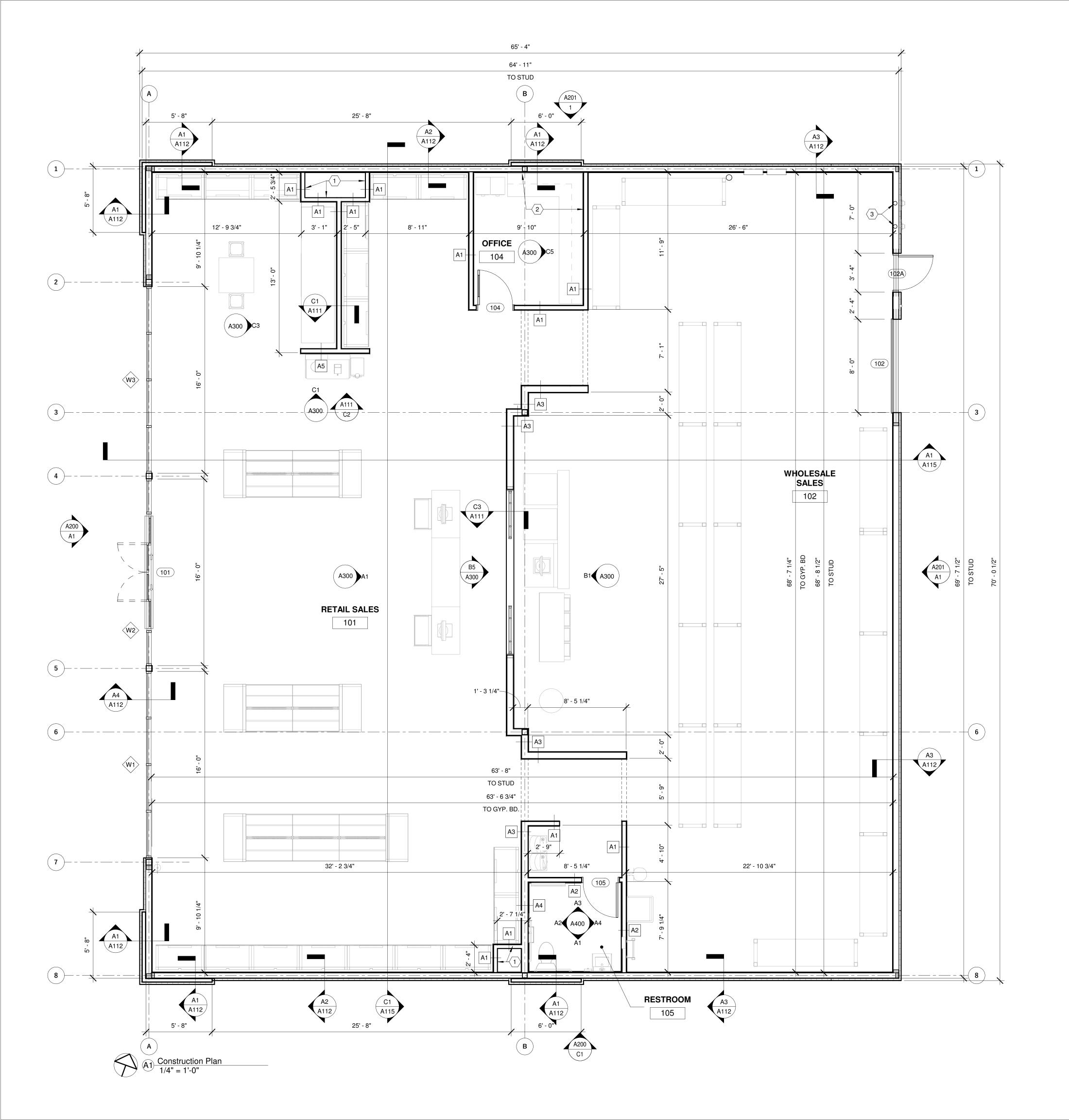
Accessibility & Egress
Plan

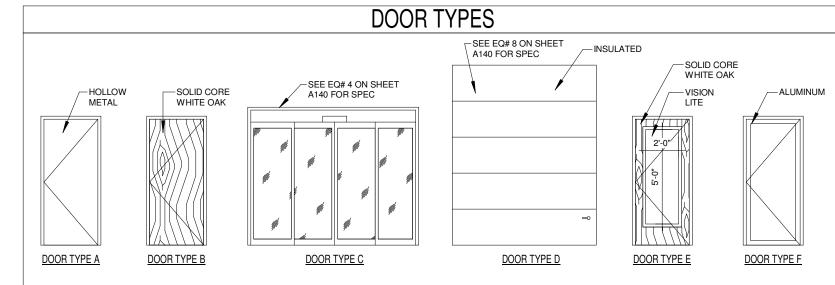
SHEET NUMBER:

G100









#### Door Schedule

|      | Door Scriedule |          |             |              |                  |                   |                   |
|------|----------------|----------|-------------|--------------|------------------|-------------------|-------------------|
| Mark | Width          | Height   | Thickness   | DOOR<br>TYPE | DOOR<br>MATERIAL | FRAME<br>MATERIAL | HARDWARE<br>GROUP |
| 101  | 10' - 0"       | 7' - 8"  | 0' - 4 1/2" | В            | ALUMINUM         |                   |                   |
| 102  | 8' - 0"        | 10' - 0" | 0' - 1 1/2" | G            | STEEL            |                   | GROUP 5           |
| 102A | 3' - 0"        | 7' - 0"  | 0' - 1 3/4" | D            | НМ               | HM-STL            | GROUP 4           |
| 104  | 3' - 0"        | 7' - 0"  | 0' - 1 3/4" | J            | WOOD             | HM-STL            | GROUP 2           |
| 105  | 3' - 0"        | 7' - 0"  | 0' - 1 3/4" | F            | WOOD             | HM-STL            | GROUP 3           |

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| GROU  | P 1 - SLIDING DOC | ORS CONTROL OF THE PROPERTY OF |
|-------|-------------------|--|
| 2 EA. | EXIT DEVICE       | MOTION DETECTION UNIT  |
| 1 EA. | LOCK              | MANUFACTURER LOCK SYSTEM   |
| 2 EA. | CLOSER            | AUTOMATIC DOORS  |
| 1 EA. | SIGNAGE           | "DOOR TO REMAIN UNLOCKED DURING BUISINESS HOURS"   |
| 1 EA. | SIGNAGE           | "MAXIMUM OCCUPANCY" - POST AT MAIN ENTRY   |
| 1 EA. | THRESHOLD         | MANUFACTURER THRESHOLD SYSTEM  |
| GROU  | P 2 - RESTROOM I  | DOORS (PRIVACY SET)  |
| 3 PR. | HINGE             | STANLEY - #FBB179 - 4-1/2" X 4-1/2"  |
| 1 EA. | LATCH             | SCHLAGE - ND40S-TLR (PRIVACY HARDWARE) - 626 FINISH  |
| 1 EA. | CLOSER            | DORMA - 8616FHP  |
| 3 EA. | SILENCERS         | GLYNN - GJ64   |
| 1 EA. | SIGNAGE           | "RESTROOM" SIGNAGE PER DETAIL ON SHEET A400  |
| 1 EA. | STOP              | AS REQUIRED - WALL: #407 1/2 PA28 - FLOOR: #436 OR #438 PA26   |
| GROU  | P 3 - OFFICE DOO  | R  |
| 3 PR. | HINGE             | STANLEY - #FBB179 - 4-1/2" X 4-1/2"  |
| 1 EA. | LATCH             | SCHLAGE - ND50PD-TLR-SFIC - 626 FINISH   |
| 1 EA. | LOCK              | LATCH-COMPATIBLE SMALL FORMAT INTERCHANGEABLE CORE   |
| 3 EA. | SILENCERS         | GLYNN - GJ64   |
| 1 EA. | STOP              | AS REQUIRED - WALL: #407 1/2 PA28 - FLOOR: #436 OR #438 PA28   |
| 1 EA. | VISION LITE       | FULL GLASS - VERIFY W/ SHERWIN-WILLIAMS CORPORATE  |
| GROU  | P 4 - SERVICE DO  | OR   |
| 3 PR. | HINGE             | STANLEY - #FBB179 - 4-1/2" X 4-1/2"  |
| 1 EA. | PULL              | YALE - 632F-626  |
| 1 EA. | EXIT DEVICE       | YALE - 2150-36 - 652 FINISH (PANIC BAR)  |
| 1 EA. | CLOSER            | LCN-4041 (4040 SERIES) - HEAVY DUTY CLOSER   |
| 3 EA. | SILENCERS         | GLYNN - GJ64   |
| 1 EA. | THRESHOLD         | PEMKO - #171A - SIZE AS REQUIRED   |
| 1 EA. | SWEEP             | PEMKO - #307AV - SIZE AS REQUIRED  |
| 1 EA. | WEATHERSTRIP      | PEMKO - #303AV - SIZE AS REQUIRED  |
| GROU  | P 5 - DELIVERY DO |  |
| 1 EA. | OPENER/LOCK       | MOTORIZED OPERATOR - LIFTMASTER LJ8900W  |
| 1 EA. | WEATHERSTRIP      | PEMKO - #303AV - SIZE AS REQUIRED  |
| GROU  | P 6 - STOREFRON   | T DOOR   |
| 3 PR. | HINGE             | 4-1/2" X 4-1/2" B.B. WITT NON REMOVABLE PINS   |
| 1 EA. | LOCK              | KEYED DEADBOLTS WITH INSIDE THUMBTURN  |
| 1 EA. | EXIT DEVICE       | PUSH SET   |
| 1 EA. | PULL              | ELMES G500-01-023-L300 OR APPROVED SIMILAR   |
| 1 EA. | CLOSER            | LCN-4041 (4040 SERIES) - HEAVY DUTY CLOSER   |
| 1 EA. | THRESHOLD         | PEMKO - #171A - SIZE AS REQUIRED   |
| 1 EA. | SWEEP             | PEMKO - #307AV - SIZE AS REQUIRED  |

## **GENERAL NOTES**

6. ALL HARDWARE TO BE US26D BRUSHED CHROME, CLEAR ANODIZED FINISH.

SHERWIN-WILLIAMS CORPORATE WILL RE-KEY TO SHERWIN-WILLIAMS MASTER

2. G.C. TO FURNISH & INSTALL MEDECO CYLINDER IN ALL INTERIOR H.M. DOORS. ALL INTERIOR DOORS TO BE KEYED ALIKE. PROVIDE KEYWAY ON EXTERIOR FACE.

- A. G.C. TO PROVIDE BLOCKING FOR SUPPORT OF RESTROOM AND CASEWORK ACCESSORIES AS RECOMMENDED BY MANUFACTURER. SEE ENLARGED RESTROOM AND CASEWORK ELEVATIONS.
- B. OCCUPANCY LOAD SIGN SUPPLIED AND INSTALLED BY G.C. C. G.C. SHALL SUPPLY AND INSTALL RECESSED FIRE EXTINGUISHERS AS

KEY SYSTEM. PROVIDE KEYWAY ON EXTERIOR FACE.

3. ALL HOLLOW METAL DOOR FRAMES ARE TO BE WELDED.

REGULATIONS & CODES HAVING JURISDICTION.

7. UNDERCUT RESTROOM & OFFICE DOORS 1".

4. G.C. TO FURNISH & INSTALL PANIC HARDWARE PER ALL APPLICABLE

5. DOOR STOPS AND BUMPERS TO BE INSTALLED BEHIND ALL DOORS.

8. U.N.O. ALL PAINTED DOORS & DOOR JAMBS TO BE PAINTED P-1.

- REQUIRED BY LOCAL CODES. LOCATION PER LOCAL CODES. COORDINATE PLACEMENT WITH TENANT AND FIRE MARSHAL.
- D. REFERENCE THE FOLLOWING SHEETS: G001 GENERAL NOTES, ABBREVIATIONS
- AND SYMBOLS; G100 ACCESSIBILITY PLANS. E. ALL DIMENSIONS NOTED ARE FROM FACE OF STUD TO FACE OF STUD, UNO.
- F. ELECTRICAL EQUIPMENT BY G.C. SEE ELECTRICAL DRAWINGS.
- G. PLUMBING EQUIPMENT BY G.C. SEE PLUMBING DRAWINGS. H. ALL CONSTRUCTION MUST BE PERFORMED WITHOUT ANY PENETRATION OF STOREFRONT IN ANY WAY, INCLUDING, BUT NOT LIMITED TO SCREWS, BOLTS
- AND DRILLING. SOUND BATT INSULATION TO BE MINIMUM CLASS 2 WITH FLAME SPREAD RATING
- OF 25 TO 75.
- J. SHGC & U-FACTOR MINIMUMS SHGC: .30
- U-FACTOR: .45 DOUBLE PANE LOW E
- XX WALL TYPES SEE SHEET A111
- XXX STOREFRONT TAG SEE SHEET A201
- XXX DOOR TAG SEE SHEET A110
- INDICATES GLAZING

# CONSTRUCTION PLAN CODED NOTES

- 1 NO GYP. BD. NEEDED INSIDE VOID SPACE 2 WOOD BLOCKING FOR DESK SHELVING - SEE DETAIL B4/A111 - NO UPPER SHELF ALONG STOREFRONT
- 3 4" PVC ROOF DRAIN PIPE SEE SHEET A150

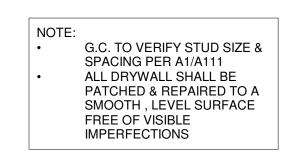
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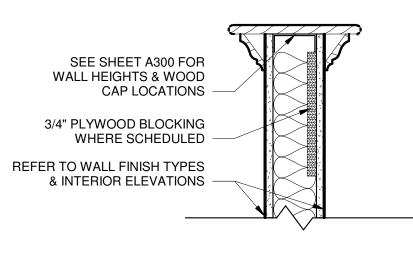
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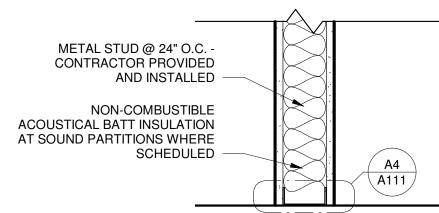
9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

Construction Plan



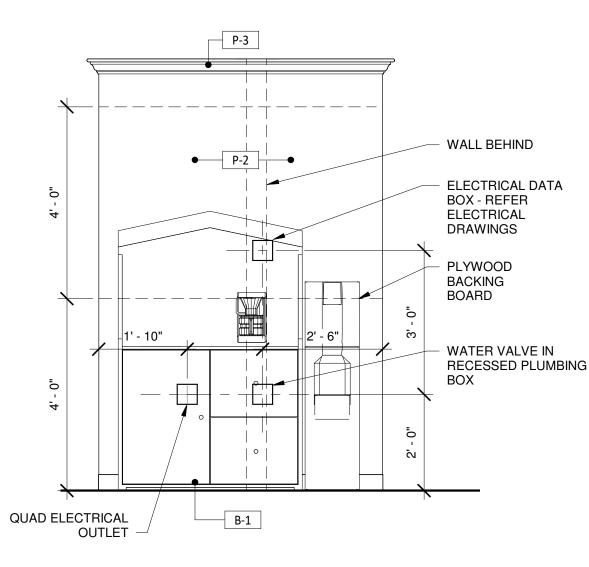


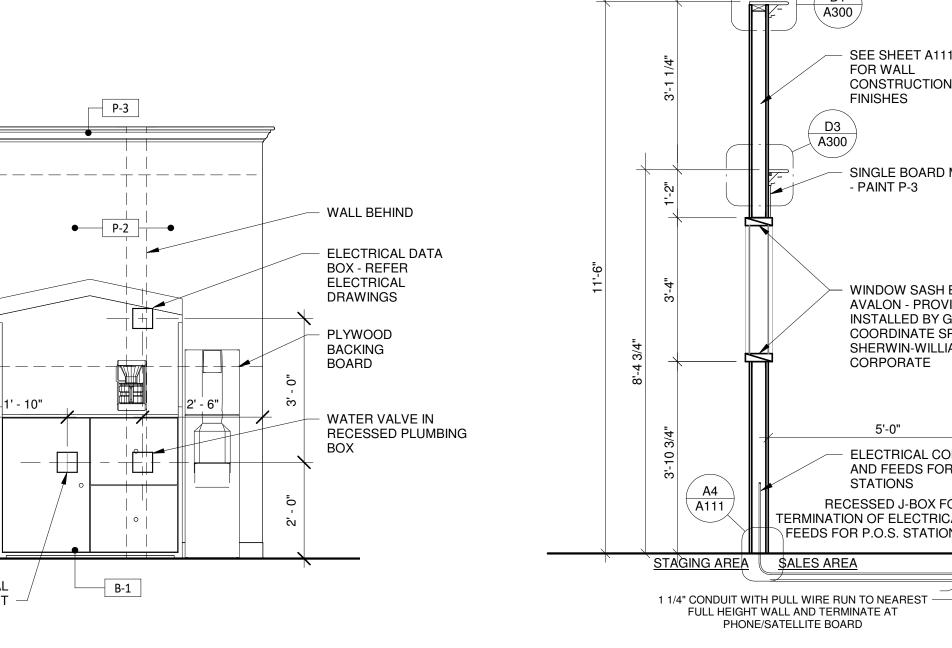


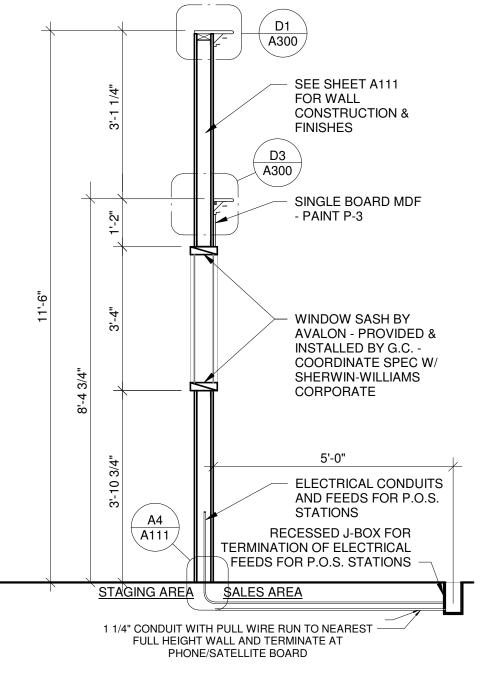
## WALL TYPE "A"

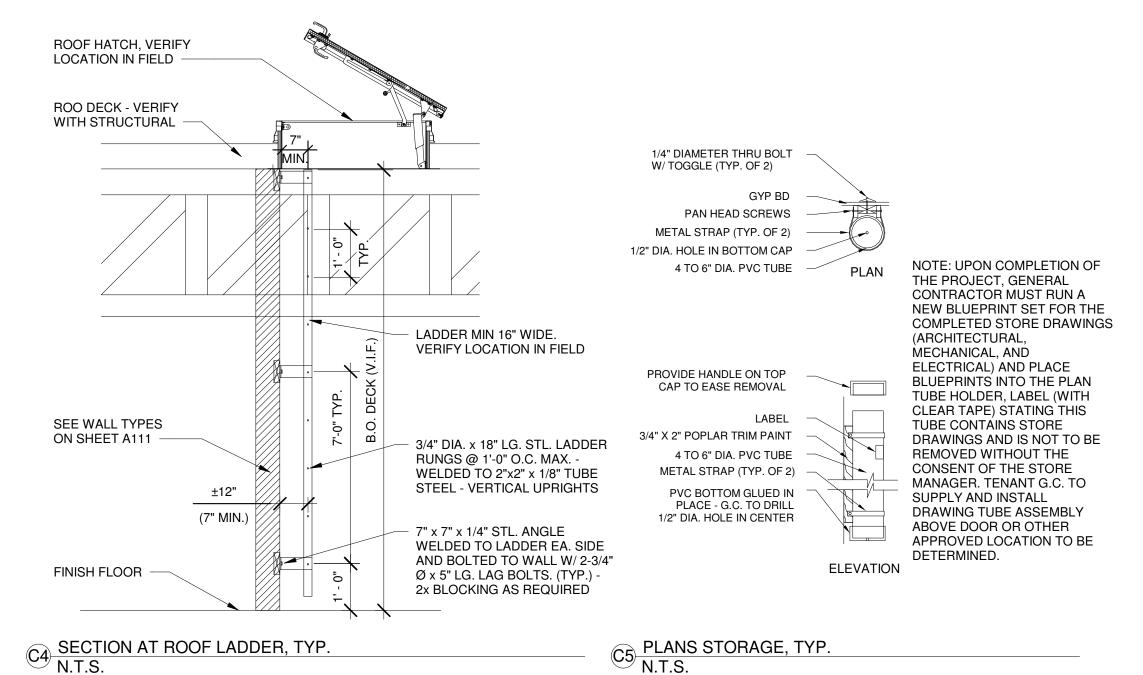
A1 3 5/8" METAL STUD A2 3 5/8" METAL STUD W/ BATT INSULATION A3 6" METAL STUD A4 6" METAL STUD W/ BATT INSULATION A5 3 5/8" METAL STUD W/ PLYWOOD BLOCKING

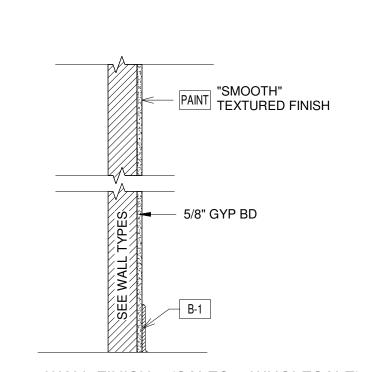
©1 WALL TYPE A SECTION
1 1/2" = 1'-0"

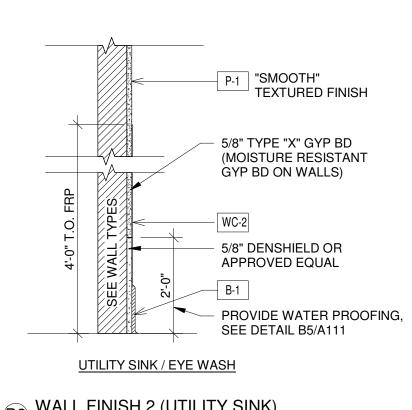




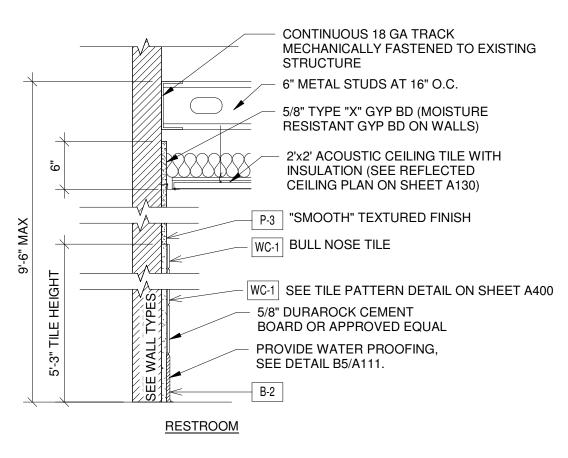




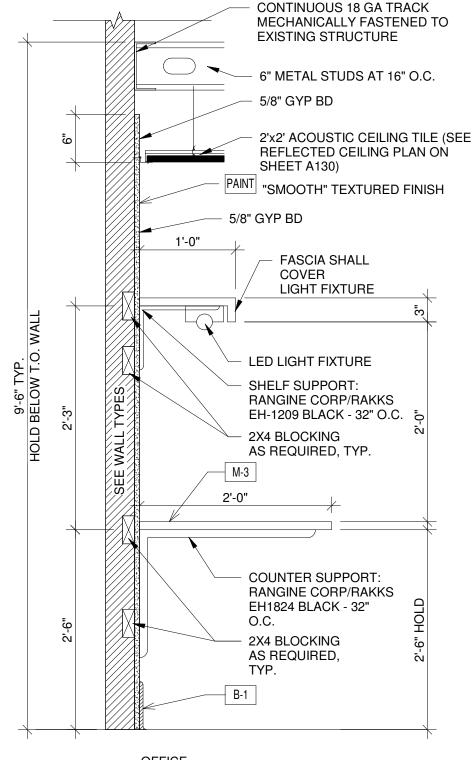


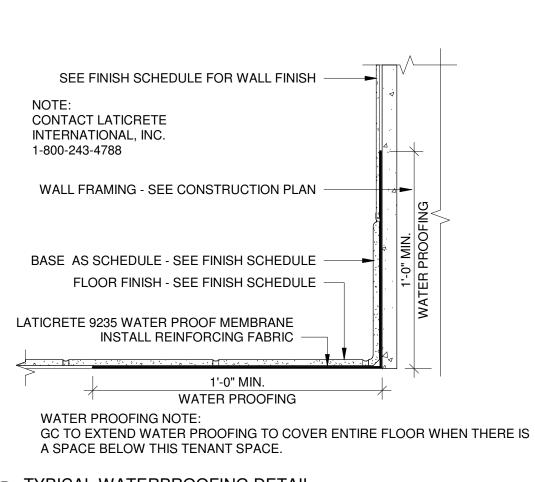


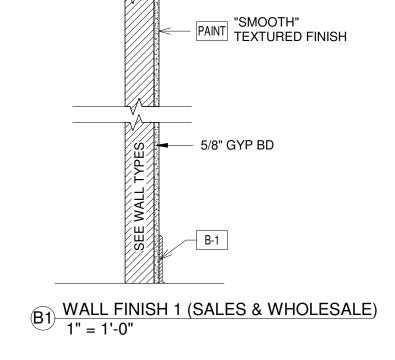
©2 "T" WALL DETAIL
1/2" = 1'-0"

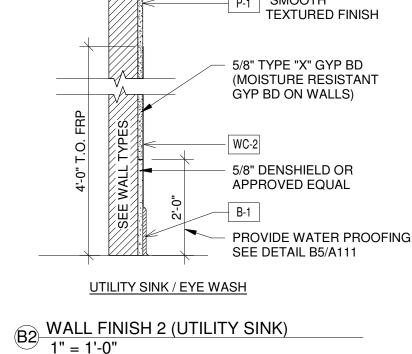


C3 SECTION AT ACCENT WALL
1/2" = 1'-0"

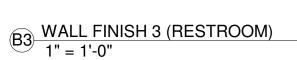




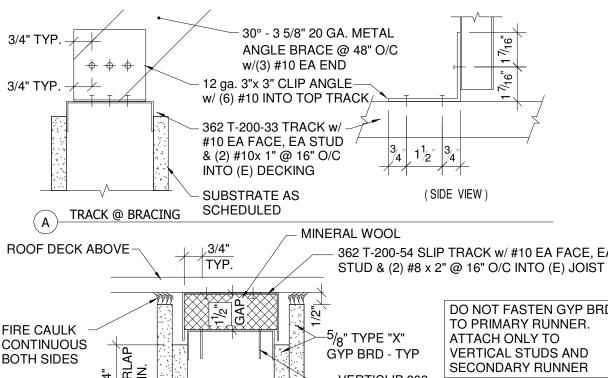


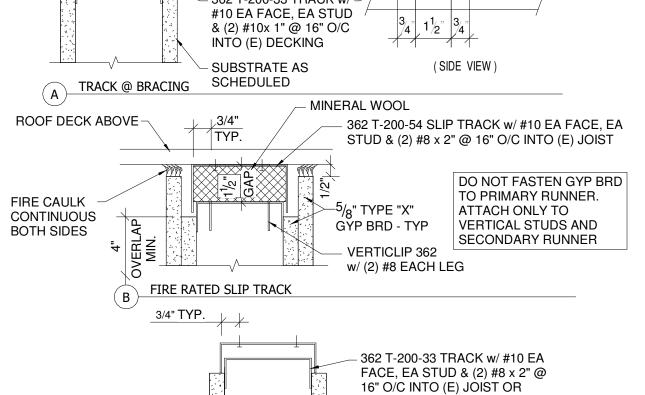


SEE WALL TYPE



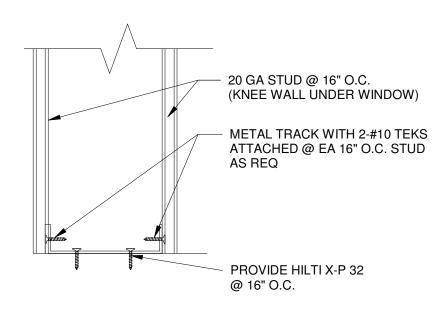
| (PE)       | TYPICAL WATERPROOFING D |
|------------|-------------------------|
| <b>D</b> 3 | 3" = 1'-0"              |

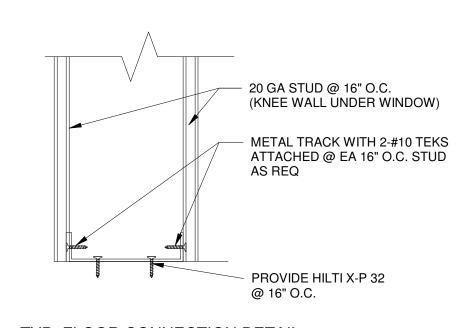




BLOCKING

- SUBSTRATE AS SCHEDULED





(C) STANDARD HEAD DETAIL A5 HEAD TRACK DETAILS
3" = 1'-0"

# **SHERWIN WILLIAMS**

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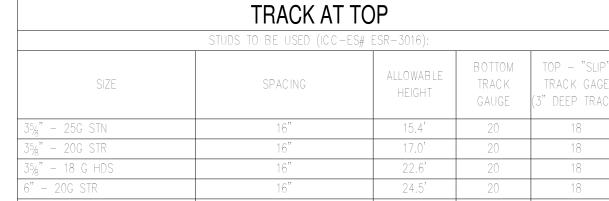
PERMIT SET - 03/13/23

| ST XX | ORE #:<br>XX                |
|-------|-----------------------------|
| AD    | DRESS: 9091 FAIR OAKS PKWY. |
|       | FAIR OAKS RANCH, TX         |
|       | 78015                       |

SHEET TITLE:

Wall Types & Details

SHEET NUMBER:



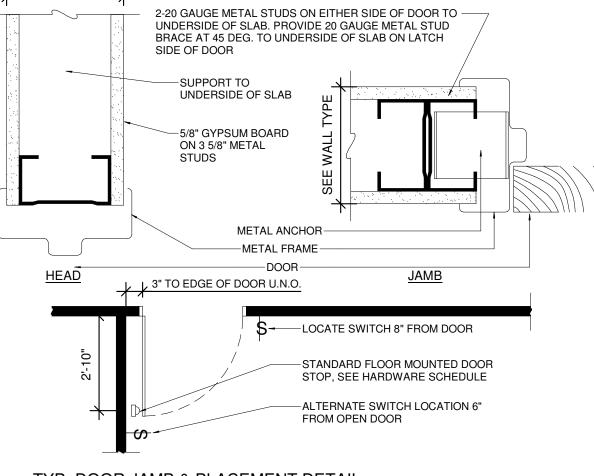
TYPICAL INTERIOR NON-LOAD BEARING STUD WALL - SLIP

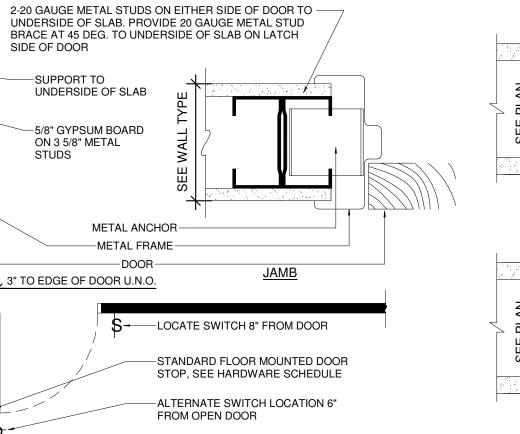
- 18G HDS DESIGNED FOR A LATERAL LOAD OF 5 PSI. THE FOLLOWING SUIDELINES ARE BASED ON THIS LOAD. ALL STUDS GIVEN ARE LANGES OF THE TRACK WITH #10 SCREWS DIETRICH INDUSTRIES, INC. ALL STUDS AND TRACKS ARE ASSUMED TO HAVE AN Fy = 33.0 KSI. ALL STUDS ARE TLX-DNL32 P8S15 @ 3'-0" O.C. ASSUMED TO HAVE %" GYP BD ON BOTH FACES FOR THE IF GYP BD IS ON ONE SIDE ONLY, ADD JLL HEIGHT OR ARE PROVIDED WITH BRIDGING AS REQUIRED. HORIZONTAL BRIDGING AT 5'-0" O.C. AT THE TOP USING A 3" DEEP TRACK CONNECTION OR NO

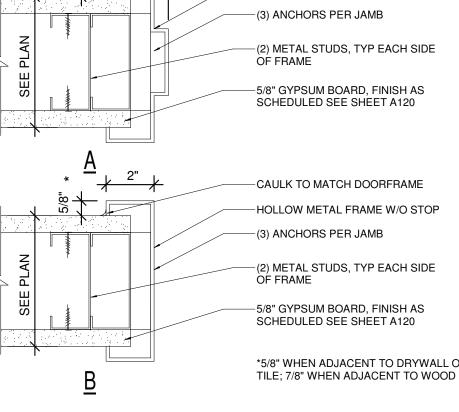
A1 STUD SIZE CHART

<sup>1</sup>/<sub>1</sub>/4" = 1'-0"

JBSTITUTED FOR TOP-SLIP TRACK GAGES II STUDS ARE PERMANENTLY ATTACHED TO BO BE LIMITED TO H/240. PROVIDE LATERAL BRACING PER FROM THE ABOVE, PLEASE CONTACT THE







A3 TYPICAL DOOR JAMB DETAILS
3" = 1'-0"

A2 TYP. DOOR JAMB & PLACEMENT DETAIL 3" = 1'-0"

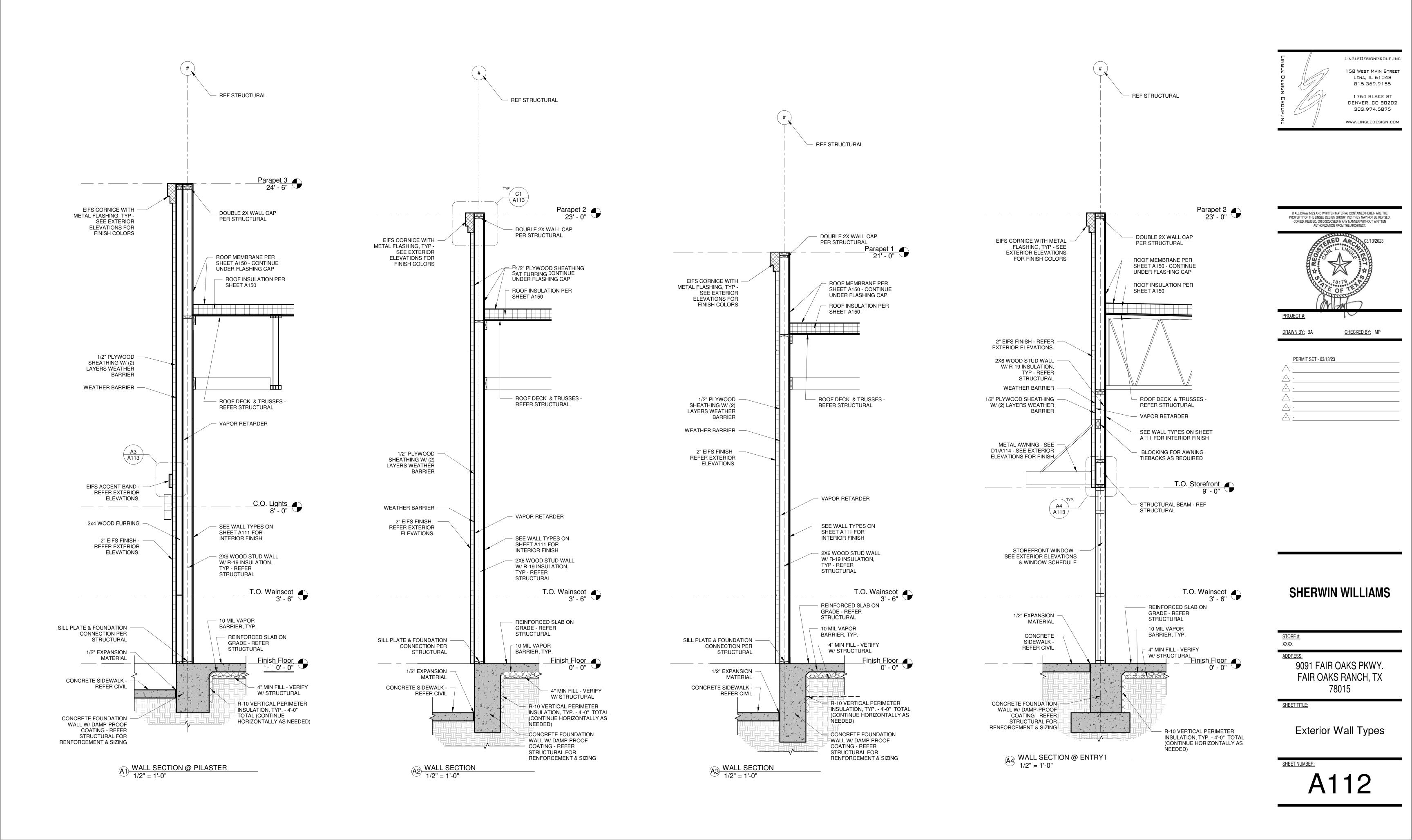
-CAULK TO MATCH DOORFRAME

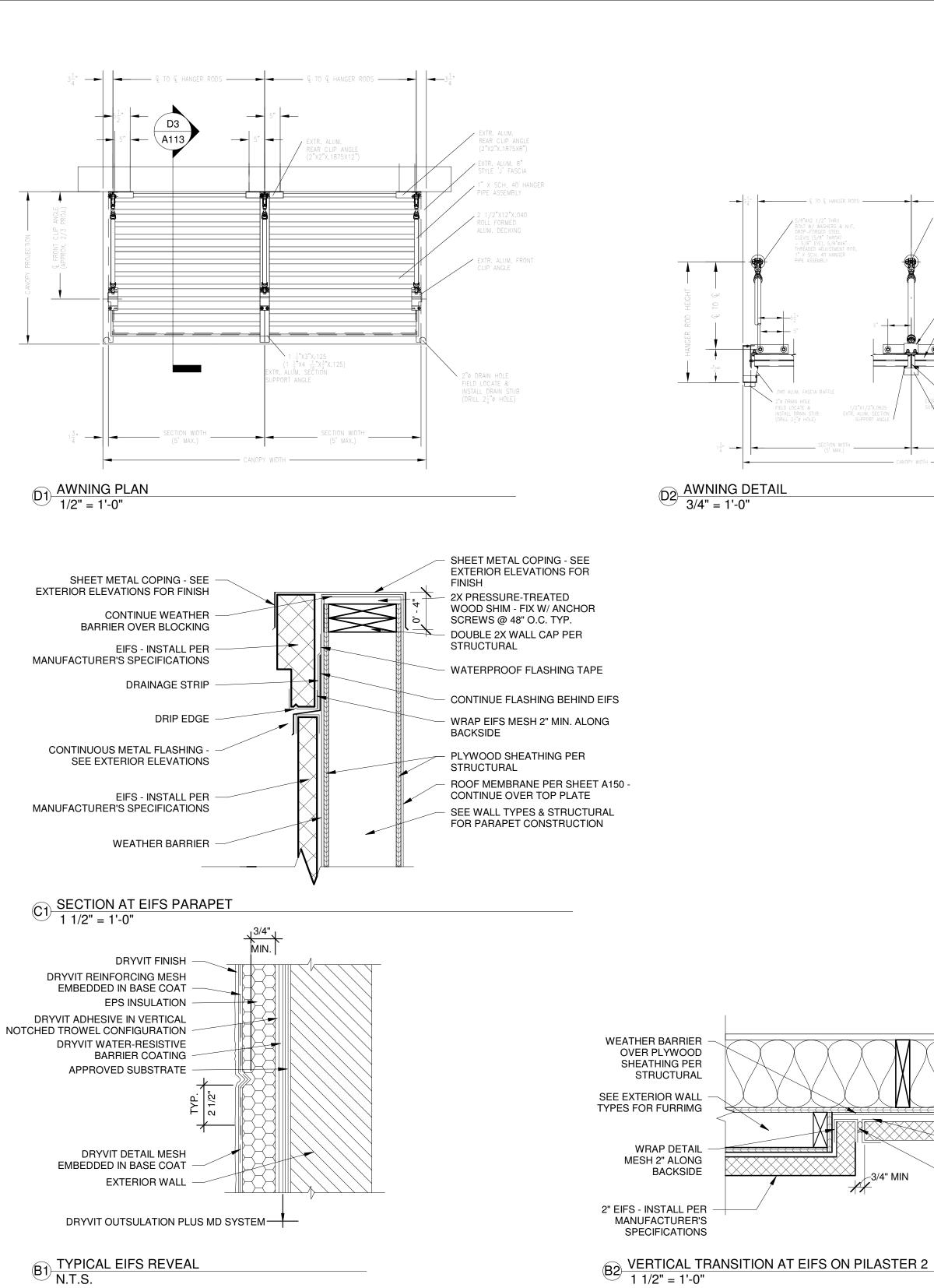
HOLLOW METAL FRAME W/ STOP

\*5/8" WHEN ADJACENT TO DRYWALL OR TILE; 7/8" WHEN ADJACENT TO WOOD

B4 WALL FINISH 4 (OFFICE)
1" = 1'-0"

A4 TYP. FLOOR CONNECTION DETAIL
3" = 1'-0"





SEE SHEET A111

FOR WALL TYPES

FLOOR SLAB PER

R-10 PERIMETER

INSULATION, TYP.

STRUCTURAL

10 MIL VAPOR

BARRIER

REFER STRUCTURAL FOR SILL/ANCHORING

2" EIFS - INSTALL PER -

NOTCHED ADHESIVE

WEATHER BARRIER

WATERPROOF

FLASHING TAPE

DRAINAGE STRIP

1/2" EXPANSION

MATERIAL, TYP.

FOUNDATION PER

STRUCTURAL W/

A1 BASE AT EIFS FINISH
1 1/2" = 1'-0"

WATERPROOFING

DRIP EDGE

PER MANUFACTURER

WRAP DETAIL MESH 2"

MIN. ALONG BACKSIDE

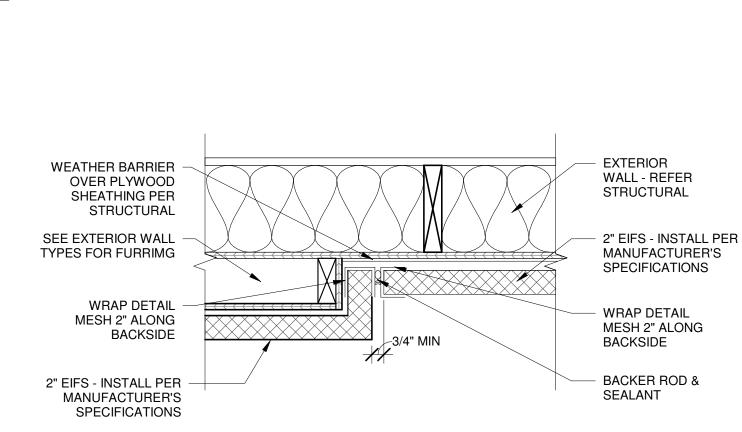
BACKER ROD & SEALANT W/

WEEP TUBES @ 24" O.C. TYP.

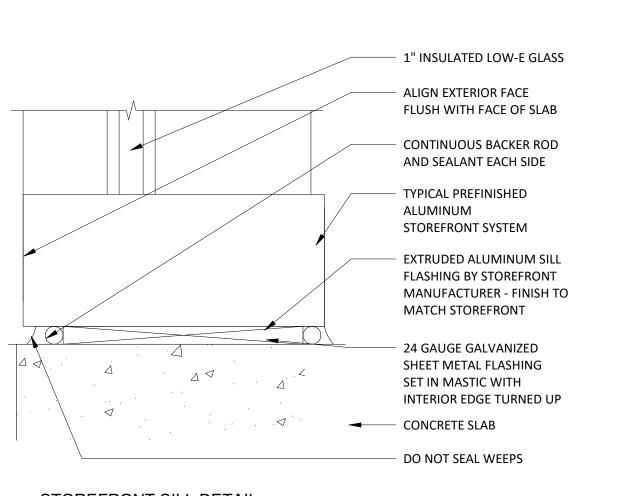
MANUFACTURER'S

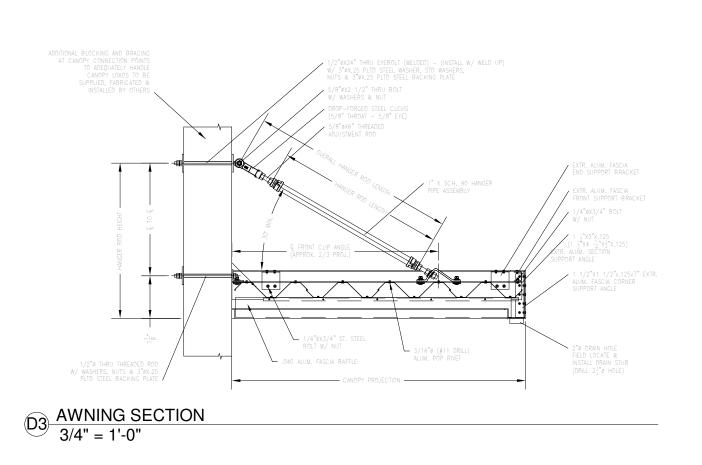
SPECS

VERTICALLY



D2 AWNING DETAIL 3/4" = 1'-0"





- WRAP INTERIOR FINISH AROUND

WALL TYPES ON

JAMB - SEE

SHEET A111

ALUMINUM

STOREFRONT

**INSTALL PER** 

MANUFACTURER'S

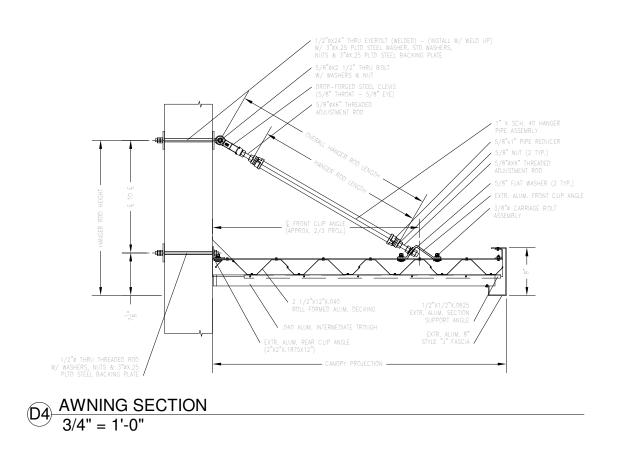
SPECIFICATIONS

BACKER ROD & SEALANT

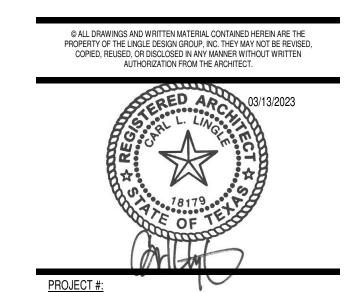
WRAP DETAIL

BACKSIDE

MESH 2" ALONG







DRAWN BY: BA CHECKED BY: MP

PERMIT SET - 03/13/23

**SHERWIN WILLIAMS** 

9091 FAIR OAKS PKWY.

FAIR OAKS RANCH, TX

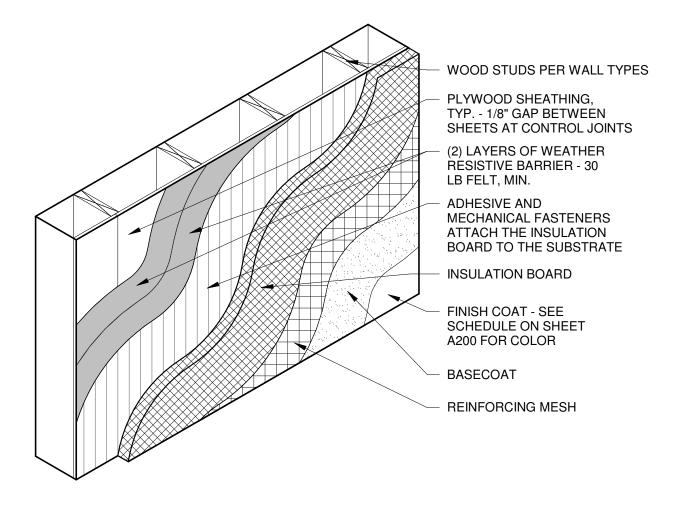
78015

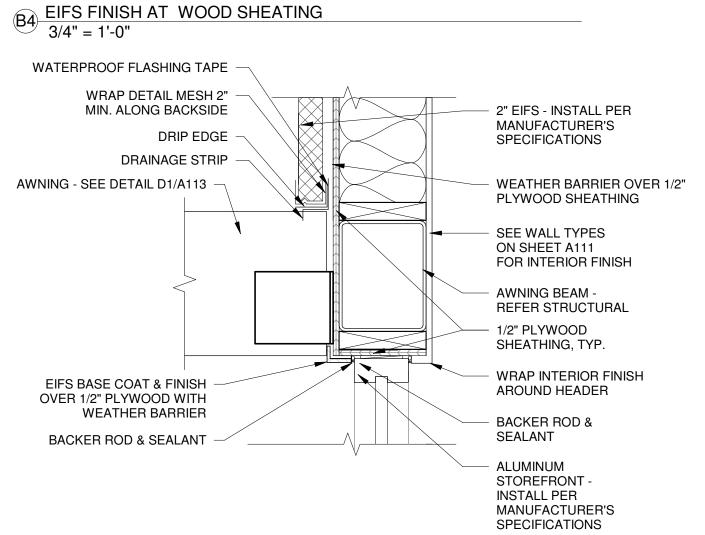
STORE #:

ADDRESS:

SHEET TITLE:

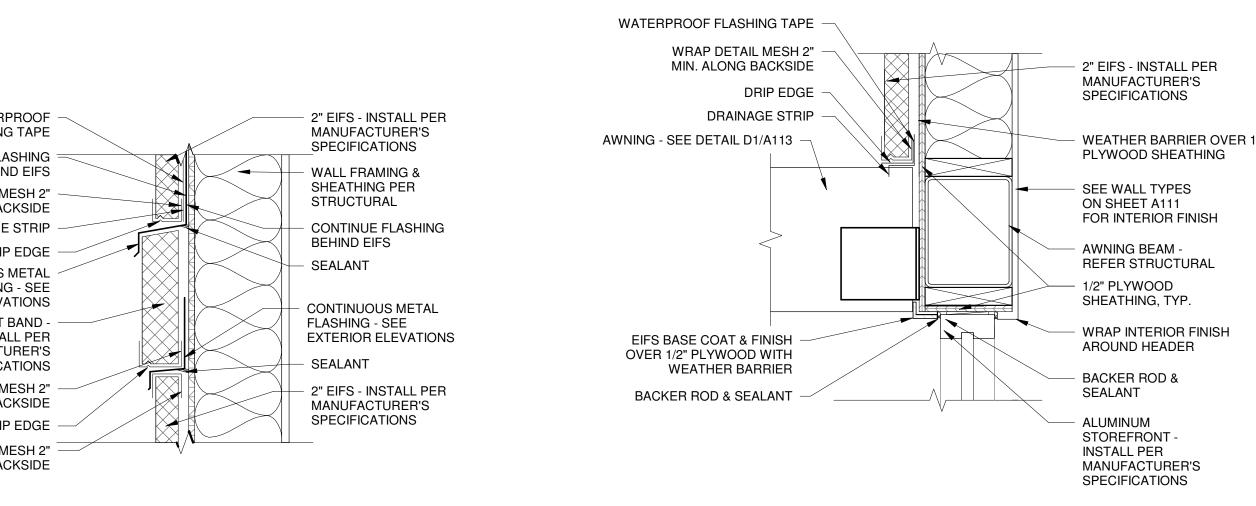
XXXX

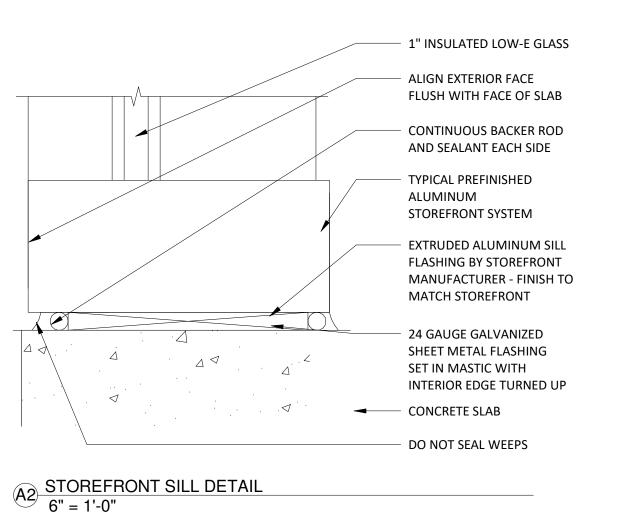


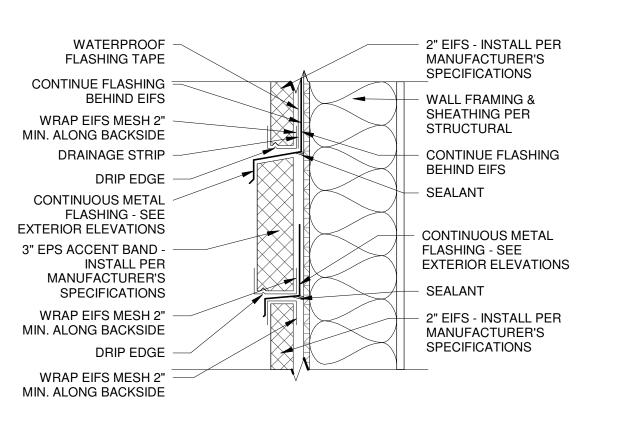


A4 AWNING BEAM AT STOREFRONT & EIFS 1 1/2" = 1'-0"

Exterior Wall Details SHEET NUMBER:







A3 SECTION AT EPS ACCENT BAND
1 1/2" = 1'-0"

B3 VERTICAL TRANSITION AT EIFS & STOREFRONT 1 1/2" = 1'-0"

**EXTERIOR WALL -**

REFER STRUCTURAL

2" EIFS - INSTALL PER - MANUFACTURER'S

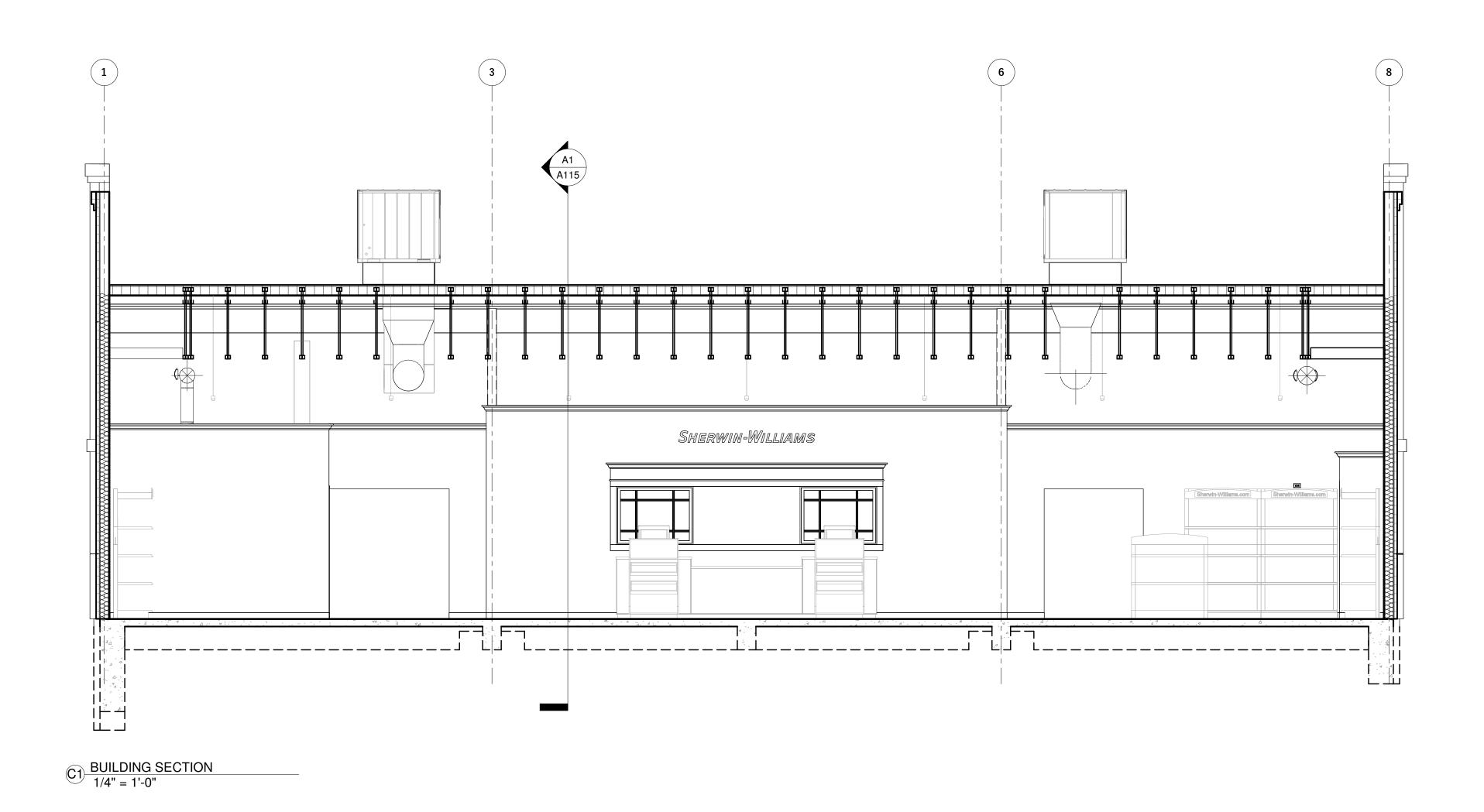
SPECIFICATIONS

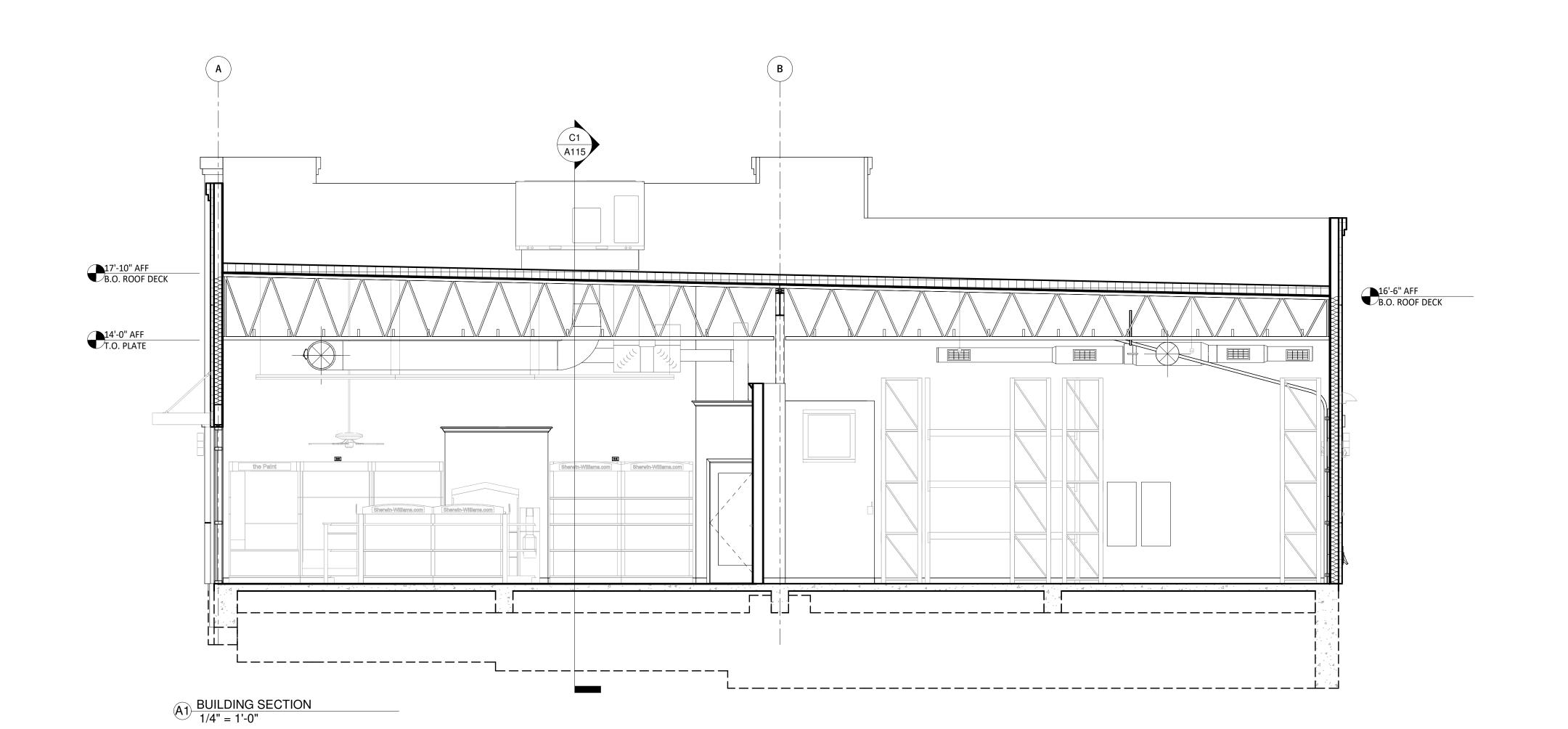
WEATHER BARRIER

OVER PLYWOOD

SHEATHING PER

STRUCTURAL



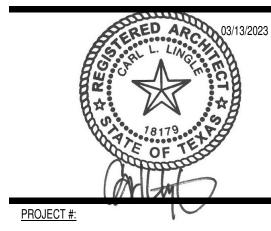


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DRAWN BY: BA

CHECKED BY: MP

SHERWIN WILLIAMS

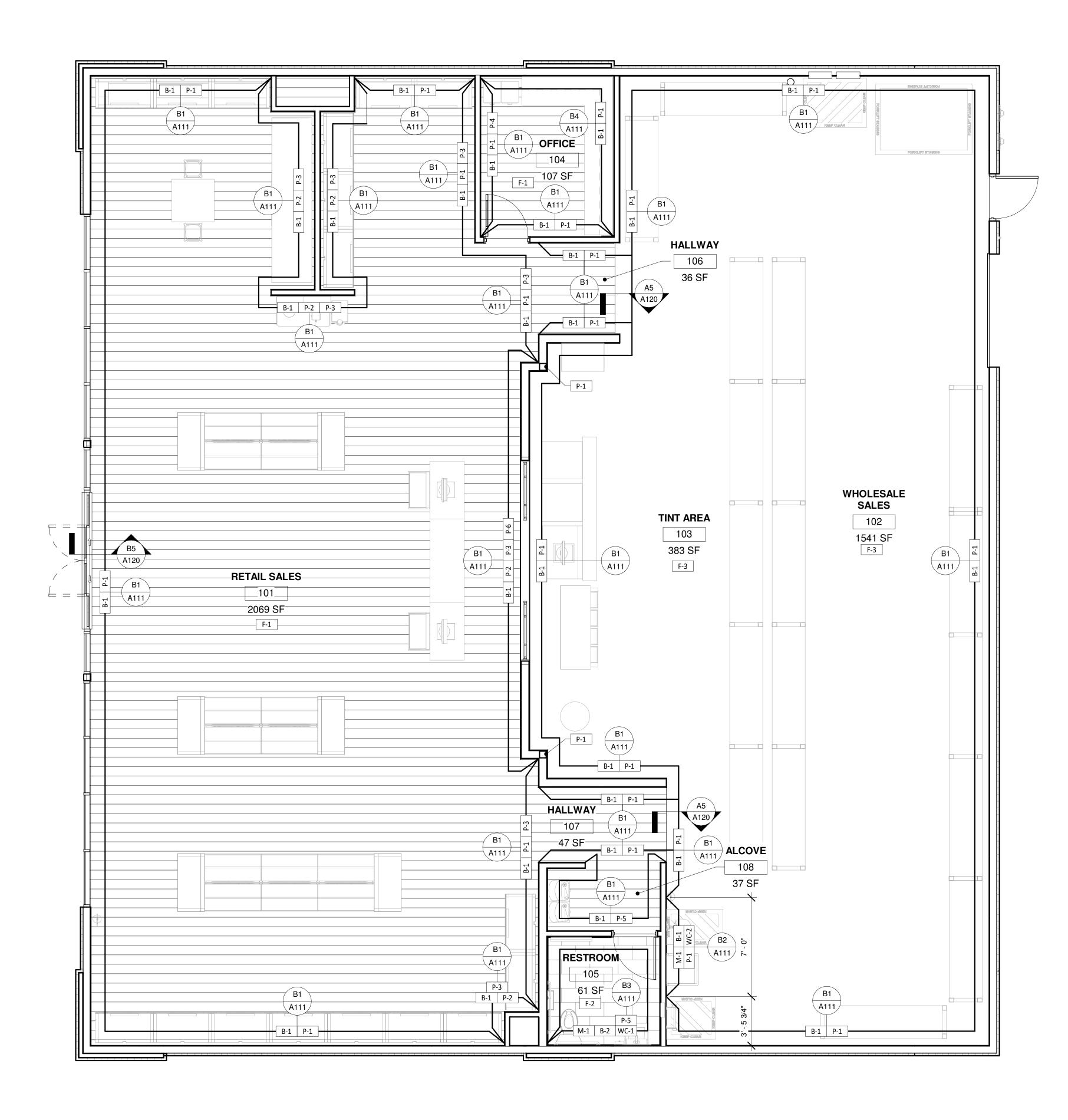
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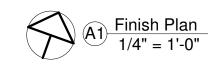
9091 FAIR OAKS PKWY.
FAIR OAKS RANCH, TX
78015

SHEET TITLE:

**Building Sections** 

SHEET NUMBER:

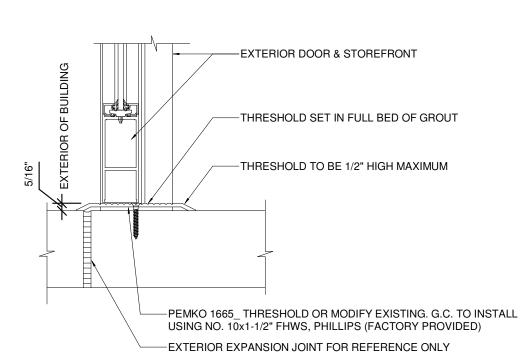




## **GENERAL NOTES**

- A. ALL FLOOR FINISHES SHALL BE INSTALLED WITH TOP EDGES LEVEL WITH ADJACENT MATERIAL TOP EDGES. CONFIRM TILE THICKNESS AS THESE MAY VARY. CONFIRM THAT NO OVERALL FLOATING OF FLOOR IS REQUIRED.
- B. COORDINATE FLOORING TRANSITIONS AND BASE TILE INSTALLATION WITH MILLWORK SHOP DRAWINGS AND FIELD CONDITIONS.
- C. ALL THRESHOLDS SHALL HAVE A MAXIMUM HEIGHT OF 1/2" ABOVE EXISTING CONCRETE SLAB AND/OR INTERIOR FINISHES.
- D. TILE TRANSITION BETWEEN ROOMS TO BE CENTERED ON DOOR FRAME. E. SEE PLUMBING DRAWINGS FOR DIMENSIONS AND LOCATIONS OF FLOOR DRAINS AND FLOOR SINKS.
- F. ALL INTERIOR FINISHES TO HAVE A FLAME SPREAD RATING OF 25 OR LESS. WITH A MAXIMUM SMOKE GENERATION FACTOR OF 450. G. TILE INSTALLER SHALL COORDINATE WITH GENERAL CONTRACTOR AND PROVIDE LAYOUT OF ALL WALL TILE PRIOR TO INSTALLATION. GENERAL
- CONTRACTOR. SHALL PREPARE WALLS AS TO MINIMIZE CUT TILES IN THE HORIZONTAL DIRECTION AND ELIMINATE CUT TILES IN THE VERTICAL DIRECTION ON ANY WALLS. CONTACT ARCHITECT OF ANY DISCREPANCIES IN DIMENSIONS FOR DIRECTION PRIOR TO INSTALLATION. FAILURE TO ADHERE TO THESE REQUIREMENTS RESULTING IN ANY REMEDIATION REQUIRED TO MEET DESIGN INTENT WILL BE AT CONTRACTORS COST.

|           | INΓE                     | ERIOR FINISH LEG   | iEND   |
|-----------|--------------------------|--|--|
| MARK      | DESCRIPTION              | MANUFACTURER & SPEC.   | REMARKS  |
| BASE      | 1                        | 1  | 1  |
| B-1       | RUBBER COVE BASE         | ARMSTRONG #018 "DESERT" OR<br>JOHNSONITE #080 "FAWN"                           | INSTALL ON SHEETROCK WALLS IN STAGING, SALES, OFFICE, AND CORRIDOR AREAS   |
| B-2       | CERAMIC COVE BASE        | DALTILE - SERIES: PORTFOLIO - SIZE: 6x12 COVE BASE - COLOR: NOCE #PF11         | GROUT: MAPEI #39 IVORY   |
| FLOORING  |                          |  |  |
| F-1       | VINYL WOOD PLANK         | MOHAWK FLOORING - SERIES: LUXURY VINYL - STYLE: (TBD)                          | PROVIDED BY SHERWIN-WILLIAMS   |
| F-2       | CERAMIC TILE             | DALTILE - SERIES: PORTFOLIO - SIZE: 12x24 - COLOR: NOCE #PF11                  | GROUT: MAPEI #39 IVORY   |
| F-3       | DENSIFIED CONCRETE       | H&C ENDURA POLISH<br>CONCRETE SEALER   | POLISH TO 800 GRIT BEFORE SEALING<br>JOINT FILLER: SHER-CRETE POLYUREA   |
| PAINT     |                          |  | 1 STATE OF THE PROPERTY OF THE |
| P-1       | PAINT - ACCESSIBLE BEIGE | SHERWIN-WILLIAMS - SERIES: EMERALD K37 - COLOR: SW 7036 - FINISH: FLAT         | (2) COATS IN SALES AREA, OFFICE,<br>CORRIDOR, AND STAGING - (2)<br>COATS ON WOOD DOORS & TRIM,<br>HOLLOW METAL DOOR FRAMES U.N.O.  |
| P-2       | PAINT - CITYSCAPE        | SHERWIN-WILLIAMS - SERIES: EMERALD K37 - COLOR: SW 7067 - FINISH: FLAT         | (2) COATS ON SALES AREA ACCENT<br>WALL (SEE A1/A300)   |
| P-3       | PAINT - AESTHETIC WHITE  | SHERWIN-WILLIAMS<br>- COLOR: SW 7035   | (2) COATS ON WOOD CAP, CROWN<br>MOLDING, CORRIDOR CEILING - USE<br>DRYFALL PAINT ON ROOF STRUCTURE,<br>DECK & DUCTING  |
| P-4       | PAINT - DRY ERASE        | SHERWIN-WILLIAMS - DRY ERASE CLEAR GLOSS COATING KIT KB65C2000 - FINISH: CLEAR | USE ON OFFICE WALL - SEE PLAN  |
| P-5       | PAINT - ANTIMICROBIAL    | SHERWIN-WILLIAMS - SERIES: PAINT SHIELD - COLOR: SW 7036 - FINISH: EGGSHELL    | USE IN RESTROOMS AND HALLWAY   |
| P-6       | PAINT - SNAPDRY          | SHERWIN-WILLIAMS - SERIES: SNAPDRY - COLOR: SW 7035                            | USE ON HORIZONTAL SURFACE OF TINTING WINDOW OPENING  |
| MISCELLAN | IEOUS                    | •  |  |
| M-1       | LATICRETE                | HYDRO BAN  | INSTALL AT ALL WET WALLS & DEMISING WALL(S) - SEE DETAIL   |
| M-2       | WINDOW GRAPHIC           | PRINTED VINYL SHEET  | SHERWIN-WILLIAMS PROVIDE/INSTALL - EXTERIOR OF GLASS AT STAGING AREA   |
| M-3       | PLASTIC LAMINATE         | PIONITE - SERIES: HARD ROCK - COLOR: MAPLE G48 WM791 H                         | USE FOR ALL EXPOSED SURFACES OF COUNTER AND SHELVING IN OFFICE   |
| WALL COVE | ERING                    |  |  |
| WC-1      | CERAMIC TILE             | DALTILE - SERIES: PORTFOLIO - SIZE: 6x24 & 3x12 BULLNOSE - COLOR: NOCE #PF11   | 5'-3" HIGH WAINSCOT (FULL HEIGHT @<br>WET WALL) - SEE ELEVATIONS - GROUT:<br>MAPEI #39 IVORY   |
|           |                          | MARLITE  |  |



- MODEL: P-100

- COLOR: WHITE

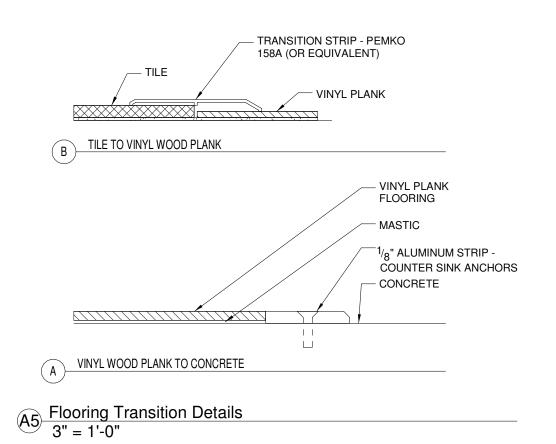
- FINISH: PEBBLED

CONFIRM PAINT FINISH AND COATING/PRIMING REQUIREMENTS WITH PAINT SPECIFICATIONS ON SHEET A121

INSTALL TO 4'-0" A.F.F.

B5 THRESHOLD AT EXTERIOR DOOR 3" = 1'-0"

FRP WALL PANEL





LINGLEDESIGNGROUP,INC

158 WEST MAIN STREET

LENA, IL 61048

815.369.9155

1764 BLAKE ST

DENVER, CO 80202

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PERMIT SET - 03/13/23

CHECKED BY: MP

STORE #: 9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015 SHEET TITLE:

Finish Plan

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PAINT SPECIFICATIONS
INTERIOR, EXTERIOR AND INDUSTRIAL PAINTS AND COATINGS
PART 1 – GENERAL
1.1. SUMMARY
   1.1.1. SECTION INCLUDES
      1.1.1.1. INTERIOR AND EXTERIOR PAINT AND COATINGS SYSTEMS INCLUDING
      SURFACE PREPARATION.
   1.1.2. RELATED SECTION
      1.1.2.1. SECTION 03 30 00 CAST-IN-PLACE CONCRETE
      1.1.2.2. SECTION 05 12 16 FABRICATED FIREPROOFED STEEL COLUMNS
      1.1.2.3. SECTION 05 50 00 METAL FABRICATIONS
      1.1.2.4. SECTION 06 20 00 FINISH CARPENTRY
      1.1.2.5. SECTION 06 40 00 ARCHITECTURAL WOODWORK
1.2. REFERENCES
   1.2.1. THE PUBLICATION LISTED FORM A PART OF THIS SPECIFICATION TO THE
   EXTENT REFERENCED.
      1.2.1.1. ASTM INTERNATIONAL (ASTM)
         1.2.1.1.1. ASTM E 2129
      1.2.1.2. STEEL STRUCTURES PAINTING COUNCIL
         1.2.1.2.1. SSPC-SP 1
         1.2.1.2.2. SSPC-SP 2
         1.2.1.2.3. SSPC-SP 3
         1.2.1.2.4. SSPC-SP 5
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1.2.1.2.9. SSPC-SP 12 1.2.1.2.10. SSPC-SP 13 1.2.1.3. MATERIAL SAFETY DATA SHEETS / ENVIRONMENTAL DATA SHEETS 13 SUBMITTALS 1.3.1. APPLICATOR QUALIFICATIONS STATEMENT

1.4. QUALITY ASSURANCE 1.4.1. INSTALLER QUALIFICATIONS 1.4.1.1. A FIRM OR INDIVIDUAL EXPERIENCED IN APPLYING PAINTS AND COATINGS SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THOSE INDICATED FOR THIS

1.4.1.2. THE FIRM OR INDIVIDUAL SHALL BE APPROVED IN WRITING BY THE COATING MANUFACTURER. 1.4.2. PAINT EXPOSED SURFACES. IF A COLOR OF FINISH, OR A SURFACE IS NOT

SPECIFICALLY MENTIONED, ARCHITECT WILL SELECT FROM STANDARD PRODUCTS, COLORS. AND SHEENS AVAILABLE 1.4.3. DO NOT PAINT PREFINISHED ITEMS, CONCEALED SURFACES, FINISHED METAL SURFACES, OPERATING PARTS, AND LABELS UNLESS INDICATED. 1.4.4. MOCK-UP: PROVIDE A MOCK-UP FOR EVALUATION OF SURFACE PREPARATION

TECHNIQUES AND APPLICATIONWORKMANSHIP. AN IN-PLACE MOCK-UP MAY BE PERMITTED AT THE DISCRETION OF THE ARCHITECT OR OWNER. 1.4.4.1. FINISH SURFACES FOR VERIFICATION OF PRODUCTS, COLORS, AND

1.4.4.2. FINISH AREA DESIGNATED BY ARCHITECT OR OWNER 1.4.4.3. DO NOT PROCEED WITH REMAINING WORK UNTIL THE COATING MANUFACTURER APPROVES THE MOCK-UP. 1.5. DELIVERY, STORAGE, AND HANDLING

1.5.1. DELIVERY: DELIVER MANUFACTURER'S UNOPENED CONTAINERS TO THE WORK SITE. PACKAGING SHALL BEAR THE MANUFACTURER'S NAME, LABEL, AND THE FOLLOWING INFORMATION

1.5.1.1. PRODUCT NAME AND TYPE 1.5.1.2. APPLICATION AND USE INSTRUCTIONS 1.5.1.3. SURFACE PREPARATION

1.5.1.4. VOC CONTENT 1.5.1.5. BATCH DATE

1.2.1.2.5. SSPC-SP 6

1.2.1.2.6. SSPC-SP 7

1.2.1.2.7. SSPC-SP 10

1.2.1.2.8. SSPC-SP 11

1.5.1.6. COLOR NUMBER 1.5.2. STORAGE: STORE AND DISPOSE OF SOLVENT BASED MATERIALS. AND MATERIALS USED WITH SOLVENT BASED MATERIALS. IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION. 1.5.3. STORE MATERIALS IN AN AREA THAT IS WITHIN THE ACCEPTABLE

TEMPERATURE RANGE PER THE MANUFACTURER'S INSTRUCTIONS, PROTECT FROM FREEZING.

1.5.4. HANDLING: MAINTAIN A CLEAN, DRY STORAGE AREA TO PREVENT CONTAMINATION OR DAMAGE TO THE COATINGS. 1.6. PROJECT CONDITIONS

1.6.1. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, HUMIDITY, AND VENTILATION) WITHIN LIMITS RECOMMENDED BY THE MANUFACTURER FOR OPTIMUM RESULTS. DO NOT INSTALL PRODUCTS UNDER ENVIRONMENTAL CONDITIONS OUTSIDE OF THE MANUFACTURER'S ABSOLUTE LIMITS. 1.6.2. DO NOT APPLY COATINGS IN AREAS WHERE DUST IS BEING GENERATED.

1.6.3. PROVIDE LIGHTING LEVELS IN AREAS WHERE COATINGS ARE BEING INSTALLED OF AT LEAST 80 FOOT CANDLES.

1.7.1. DISPOSE OF EXTRA MATERIALS IN ACCORDANCE WITH REGULATIONS OF AUTHORITIES HAVING JURISDICTION

#### **PART 2 – PRODUCTS**

2.1. MANUFACTURERS 2.1.1. THE SHERWIN-WILLIAMS COMPANY, 1-800-524-5979, WWW.SHERWIN-WILLIAMS.COM

2.1.1.1. SOURCE FROM THE NEAREST SHERWIN-WILLIAMS LOCATION 2.1.2. SUBSTITUTIONS SHALL NOT BE PERMITTED 2.2. APPLICATION

2.2.1. INTERIOR PAINTS AND COATINGS 2.2.1.1. METAL: STRUCTURAL STEEL, JOISTS, TRUSSES, BEAMS, PARTITIONS AND 2.2.1.2. WOOD: WALLS, CEILINGS, DOORS, TRIM AND SIMILAR ITEMS

2.2.1.3. GYPSUM: DRYWALL BOARD, GYPSUM BOARD 2.2.1.4. CONCRETE FLOORS 2.3. PAINT MATERIALS

2.3.1. PAINTS AND COATINGS 2.3.1.1. UNLESS OTHERWISE INDICATED, PROVIDE FACTORY MIXED AND TINTED COATINGS. DO NOT REDUCE, THIN, OR DILUTE COATINGS OR ADD MATERIALS TO COATINGS UNLESS SUCH PROCEDURE IS SPECIFICALLY DESCRIBED IN THE MANUFACTURER'S PRODUCT INSTRUCTIONS.

2.3.1.2. FOR OPAQUE FINISHES, TINT EACH COAT INCLUDING PRIMER COAT. FOLLOW MANUFACTURER'S PRODUCT INSTRUCTIONS FOR OPTIMAL COLOR 2.3.2. PRIMERS: WHERE THE MANUFACTURER OFFERS OPTIONS ON PRIMERS FOR A

PARTICULAR SUBSTRATE, USEPRIMER CATEGORIZED AS "BEST" BY THE MANUFACTURER. 2.3.2.1. WHEN INDICATED BY THE MANUFACTURER, USE THE APPROPRIATE "P-

SHADE" TINT COLOR FOR THE DESIRED TOPCOAT COLOR. 2.3.2.2. WHEN NO "P-SHADE" COLOR IS INDICATED, TINT THE PRIMER TO MATCH THE TOP COAT 2.3.3. COATING APPLICATION ACCESSORIES: PROVIDE ALL PRIMERS, SEALERS,

CLEANING AGENTS, CLEANING CLOTHS, SANDING MATERIALS, AND CLEAN-UP MATERIALS PER MANUFACTURER'S SPECIFICATIONS. 2.3.4. COLOR: AS SCHEDULED OR INDICATED ON DRAWINGS

2.4. INTERIOR PAINT SCHEDULE 2.4.1. METAL: DUCTWORK

2.4.1.1. DRYFALL WATERBORNE TOPCOATS:

MILS WET, 2.1 MILS DRY

2.4.1.1.1. EG-SHEL FINISH 2.4.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL, B42W82 2.4.1.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL WATERBORNE ACRYLIC

DRYFALL, B42W82, 8.0 MILS WET, 2.0 MILS DRY PER COAT 2.4.2. METAL (OVERHEAD): STRUCTURAL STEEL, JOISTS, TRUSSES, BEAMS, MISCELLANEOUS AND ORNAMENTAL IRON, FERROUS METAL

2.4.2.1. DRYFALL WATERBORNE TOPCOATS 2.4.2.1.1. EG-SHEL FINISH 2.4.2.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66W310, 7.0 MILS WET, 3.0 MILS DRY

2.4.2.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL, B42W82, 8.0 MILS WET, 2.0 MILS DRY PER COAT 2.4.3. METAL: STRUCTURAL STEEL AND IRON, FERROUS METAL, MISC. IRON

2.4.3.1. ACRYLIC SYSTEM 2.4.3.1.1. EG-SHEL FINISH

2.4.3.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66A00310, 5.0 MILS WET, 1.8 MILS DRY 2.4.3.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET, 2.1 MILS DRY 2.4.3.1.1.3. THIRD COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0

#### PAINT SPECIFICATIONS

2.4.4. WOOD (VERTICAL SURFACES): WALLS, CEILINGS, DOORS, TRIM, WINDOW FRAMES 2.4.4.1. ALKYD SYSTEM

2.4.4.1.1. SEMI-GLOSS FINISH (WATERBASED) 2.4.4.1.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY

2.4.4.1.1.2. SECOND COAT: S-W PROCLASSIC INTERIOR WATERBASED ACRYLIC-ALKYD SEMI-GLOSS, B34W8853 2.4.4.1.1.3. THIRD COAT: S-W PROCLASSIC INTERIOR WATERBASED ACRYLIC-ALKYD SEMI-GLOSS, B34W8853, 4 MILS WET, 1.6 MILS DRY PER COAT

2.4.5. WOOD (HORIZONTAL SURFACE): TRIM, WINDOW FRAMES, COUNTERS 2.4.5.1. ACRYLIC SYSTEM 2.4.5.1.1. SEMI-GLOSS FINISH

2.4.5.1.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY 2.4.5.1.1.2. SECOND COAT: S-W SNAPDRY INTERIOR/EXTERIOR, A71 SERIES, 4 MILS WET, 1,44 MILS DRY 2.4.5.1.1.3. THIRD COAT: S-W SNAPDRY INTERIOR/EXTERIOR, A71 SERIES, 4

MILS WET, 1,44 MILS DRY 2.4.6. GYPSUM: WALLS, CEILINGS, GYPSUM BOARD, AND SIMILAR ITEMS 2.4.6.1. LATEX SYSTEM

2.4.6.1.1. FLAT FINISH 2.4.6.1.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY 2.4.6.1.1.2. SECOND COAT: S-W EMERALD INTERIOR LATEX FLAT K35 SERIES, K35W8353

2.4.6.1.1.3. THIRD COAT: S-W EMERALD INTERIOR LATEX FLAT K35 SERIES. K35W8353, 4 MILS WET, 1.6 MILS DRY PER COAT 2.4.6.1.2. EG-SHELL FINISH (AT RESTROOMS AND RESTROOM ALCOVE) 2.4.6.1.2.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY 2.4.6.1.2.2. SECOND COAT: S-W PAINT SHIELD INTERIOR LATEX MICROBICIDAL, D12W00051, 4.0 MILS WET, 1.8 MILS DRY

2.4.6.1.2.3. THIRD COAT: S-W PAINT SHIELD INTERIOR LATEX MICROBICIDAL, D12W00051, 4.0 MILS WET, 1.8 MILS DRY

2.4.6.2. POLYURETHANE (DRY ERASE) SYSTEM 2.4.6.2.1. GLOSS FINISH 2.4.6.2.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4

MILS WET, 1.8 MILS DRY 2.4.6.2.1.2. SECOND COAT: S-W EMERALD INTERIOR LATEX FLAT K35 SERIES, K35W8353, 4 MILS WET, 1.6 MILS DRY 2.4.6.3.1.3. THIRD COAT: S-W DRY ERASE CLEAR GLOSS COATING, KB65C2000 KIT. 4 MILS WET. 2 MILS DRY 2.4.6.3.1.4. FOURTH COAT: S-W DRY ERASE CLEAR GLOSS COATING,

KB65C2000 KIT, 4 MILS WET, 2 MILS DRY 2.4.7. CONCRETE: CONCRETE FLOORS 2.4.7.1. ALKYD SYSTEM

2.4.7.1.1. FLAT FINISH 2.4.7.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-PARK WATERBORNE TRAFFIC MARKING PAINT, B97YD2467, 15 MILS WET, 9.3 MILS DRY

2.4.7.2.1. GLOSS FINISH 2.4.7.2.1.1. FIRST COAT: H&C CLARISHIELD WATER-BASED WET-LOOK

CONCRETE SEALER, 50.148155 2.4.7.2.1.2. SECOND COAT: H&C CLARISHIELD WATER-BASED WET-LOOK CONCRETE SEALER, 50.148155

2.5. EXTERIOR PAINT SCHEDULE 2.5.1. MASONRY: CONCRETE MASONRY UNITS

2.5.1.1. ELASTOMERIC SYSTEM

2.5.1.1.1. FLAT FINISH 2.5.1.1.1.1. FIRST COAT: S-W LOXON BLOCK SURFACER, A24W00200, 16 MILS WET, 8.8 MILS DRY 2.5.1.1.1.2. SECOND COAT: S-W EMERALD EXTERIOR LATEX FLAT, K47 SERIES, 5.3 MILS WET, 2.1 MILS DRY

2.5.1.1.1.3. THIRD COAT: S-W EMERALD EXTERIOR LATEX FLAT, K47 SERIES, 6.4 MILS WET, 2.5 MILS DRY 2.5.2. METAL: GALVANIZED

2.5.2.1. ACRYLIC SYSTEM

2.5.2.1.1. GLOSS FINISH 2.5.2.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66A00310, 5.0 MILS WET, 1.8 MILS DRY 2.5.2.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0

2.5.2.1.1.3 THIRD COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET. 2.1 MILS DRY

2.5.3. METAL: STRUCTURAL STEEL AND IRON, FERROUS METAL, MISC. IRON 2.5.3.1. ACRYLIC SYSTEM 2.5.3.1.1. EG-SHEL FINISH

2.5.3.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66A00310, 5.0 MILS WET, 1.8 MILS DRY 2.5.3.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET, 2.1 MILS DRY

2.5.3.1.1.3. THIRD COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET. 2.1 MILS DRY 2.5.4. EXTERIOR INSULATION AND FINISH SYSTEM, SYNTHETIC STUCCO

2.5.4.1. LATEX SYSTEM 2.5.4.1.1. FLAT FINISH 2.5.4.1.1.1. FIRST COAT: S-W LOXON CONCRETE AND MASONRY PRIMER, A24W08300,5.3 MILS WET, 2.1 MILS DRY 2.5.4.1.1.2. SECOND COAT: S-W EMERALD EXTERIOR LATEX FLAT, K47 SERIES,

5.3 MILS WET, 2.1 MILS DRY 2.5.4.1.1.3. THIRD COAT: S-W EMERALD EXTERIOR LATEX FLAT, K47 SERIES, 6.4 MILS WET, 2.5 MILS DRY

2.5.5.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-PARK WATERBORNE

2.5.5. PAVING: ASPHALTIC CONCRETE AND CONCRETE 2.5.5.1. ALKYD SYSTEM 2.5.5.1.1. FLAT FINISH

TRAFFIC MARKING PAINT, B97YD2467, 15 MILS WET, 9.3 MILS DRY PART 3 – EXECUTION

3.1. EXAMINATION

3.1.1. DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED. NOTIFY ARCHITECT OFUNSATISFACTORY CONDITIONS BEFORE PROCEEDING. IF SUBSTRATE IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.

3.1.2. PROCEED WITH WORK ONLY AFTER CONDITIONS HAVE BEEN CORRECTED AND APPROVED BY ALL PARTIES, OTHERWISE APPLICATION OF COATINGS WILL BE CONSIDERED AS AN ACCEPTANCE OF SURFACE CONDITIONS. 3.2. SURFACE PREPARATION

3.2.1. GENERAL: SURFACES SHALL BE DRY AND IN SOUNDS CONDITION. REMOVE OIL, DUST, DIRT, LOOSE RUST, PEELINGPAINT, OR OTHER CONTAMINATION TO ENSURE

3.2.1.1. REMOVE MILDEW BEFORE PAINTING BY WASHING WITH A SOLUTION OF 1 PART LIQUID HOUSEHOLDBLEACH AND 3 PARTS WARM WATER. APPLY THE SOLUTION AND SCRUB THE MILDEW AREA. ALLOW THESOLUTION TO REMAIN ON THE SURFACE FOR 10 MINUTES. RINSE THOROUGHLY WITH CLEAN WATER ANDALLOW THE SURFACE TO DRY A MINIMUM OF 48 HOURS BEFORE PAINTING. WEAR PROTECTIVE GLASSES ORGOGGLES, WATERPROOF GLOVES, AND PROTECTIVE CLOTHING. QUICKLY WASH OFF ANY OF THE MIXTURE THATCOMES IN CONTACT WITH SKIN. DO NOT ADD DETERGENTS OR AMMONIA TO THE BLEACH/WATER SOLUTION. 3.2.1.2. REMOVE ITEMS INCLUDING BUT NOT LIMITED TO THERMOSTATS,

ELECTRICAL OUTLETS, SWITCH COVERSAND SIMILAR ITEMS PRIOR TO PAINTING. AFTER COMPLETING PAINTING OPERATIONS IN EACH SPACE OR AREAREINSTALL ITEMS REMOVED USING WORKERS SKILLED IN THE TRADES INVOLVED. 3.2.1.3. NO EXTERIOR PAINTING SHOULD BE DONE IMMEDIATELY AFTER A RAIN, DURING FOGGY WEATHER, WHENRAIN IS PREDICTED, OR WHEN THE TEMPERATURE IS BELOW 50 DEGREES F (10 DEGREES C) UNLESSPRODUCTS ARE DESIGNED SPECIFICALLY FOR THESE CONDITIONS. ON LARGE EXPANSES OF METAL SIDINGTHE AIR, SURFACE, AND MATERIAL TEMPERATURES MUST BE 50

DEGREES F (10 DEGREES C) OR HIGHER TO USELOW TEMPERATURE PRODUCTS. 3.2.2. ALUMINUM: 3.2.2.1. REMOVE ALL OIL, GREASE, DIRT, OXIDE, AND OTHER FOREIGN MATERIAL BY CLEANING PER SSPC-SP1, SOLVENT CLEANING

## PAINT SPECIFICATIONS

3.2.3. CONCRETE AND CONCRETE MASONRY: 3.2.3.1. REMOVE ALL LOOSE MORTAR AND FOREIGN MATERIAL. SURFACE MUST BE FREE OF LAITANCE, CONCRETE DUST, DIRT, FORM RELEASE AGENTS, MOISTURE CURING MEMBRANES, LOOSE CEMENT, ANDHARDENERS. CONCRETE MUST BE CURED AT LEAST 30 DAYS AT 75 DEGREES F (24 DEGREES C). THE PH OFTHE SURFACE SHOULD BE BETWEEN 6 AND 9 UNLESS THE PRODUCTS ARE DESIGN TO BE USE IN HIGH (ORLOW) PH ENVIRONMENTS. ON TILT-UP AND CAST-IN-PLACE CONCRETE COMMERCIAL DETERGENTS ANDABRASIVE BLASTING MAY BE NECESSARY TO PREPARE THE SURFACE. FILL BUG HOLES, AIR POCKETS, ANDOTHER VOIDS WITH A CEMENT PATCHING COMPOUND.

3.2.4. COPPER AND STAINLESS STEEL 3.2.4.1. REMOVE ALL OIL, GREASE, DIRT, OXIDE, AND OTHER FOREIGN MATERIAL BY CLEANING PER SSPC-SP2, HAND TOOL CLEANING. 3.2.5. GYPSUM BOARD

3.2.5.1. EXTERIOR 3.2.5.1.1. MUST BE CLEAN AND DRY. ALL NAIL HEADS MUST BE SET AND SPACKLED. JOINTS MUST BEPAINTED AND COVERED WITH A JOINT COMPOUND. SPACKLED NAIL HEADS AND TAPE JOINTS MUST BESANDED SMOOTH AND ALL DUST REMOVED PRIOR TO PAINTING. EXTERIOR SURFACES MUST BESPACKLED WITH EXTERIOR GRADE COMPOUNDS. PROVIDE GYPSUM BOARD FINISH LEVEL ASINDICATED ON DRAWINGS OR AS SPECIFIED ELSEWHERE.

3.2.5.2. INTERIOR 3.2.5.2.1. MUST BE CLEAN AND DRY. ALL NAIL HEADS MUST BE SET AND SPACKLED. JOINTS MUST BEPAINTED AND COVERED WITH A JOINT COMPOUND. SPACKLED NAIL HEADS AND TAPE JOINTS MUST BESANDED SMOOTH AND ALL DUST REMOVED PRIOR TO PAINTING. PROVIDE GYPSUM BOARD FINISHLEVEL AS INDICATED ON DRAWINGS OR AS SPECIFIED ELSEWHERE.

3.2.6. GALVANIZED METAL 3.2.6.1. CLEAN PER SSPC-SP1 USING DETERGENT AND WATER OR A DEGREASING CLEANER TO REMOVEGREASES AND OILS. APPLY A TEST AREA PRIMING AS REQUIRED. ALLOW THE COATING TO DRY AT LEAST ONEWEEK BEFORE TESTING. IF ADHESION IS POOR THEN BRUSH BLAST PER SSPC-SP7 TO REMOVE TREATMENTS.

3.2.7. STEEL 3.2.7.1. STRUCTURAL, PLATE, AND SIMILAR ITEMS

3.2.7.1.1. SHOULD BE CLEANED BY ONE OR MORE OF THE SURFACE PREPARATIONS DESCRIBEDBELOW. VISUAL STANDARDS ARE AVAILABLE

THROUGH THE SOCIETY OF PROTECTIVE COATINGS. 3.2.7.1.1.1. SOLVENT CLEANING: SSPC-SP1 3.2.7.1.1.2. HAND TOOL CLEANING: SSPC-SP2

3.2.7.1.1.3. POWER TOOL CLEANING: SSPC-SP3 3.2.7.1.1.4. WHITE METAL BLAST CLEANING: SSPC-SP5 OR NACE 1 3.2.7.1.1.5. COMMERCIAL BLAST CLEANING: SSPC-SP6 OR NACE 3

3.2.7.1.1.6. BRUSH-OFF BLASTING: SSPC-SP7 OR NACE 4 3.2.7.1.1.7. POWER TOOL CLEANING TO BARE METAL: SSPC-SP11 3.2.7.1.1.8. NEAR-WHITE BLAST CLEANING: SSPC-SP10 OR NACE 2 3.2.7.1.1.9. HIGH AND ULTRA-HIGH PRESSURE WATER JETTING FOR STEEL AND OTHER HARDMATERIALS: SSPC-SP12 OR NACE 5 3.2.7.1.1.10. WATER BLASTING: SSPC-SP12 OR NACE 5

3.2.8. WOOD 3.2.8.1. MUST BE CLEAN AND DRY. PRIME AND PAINT AS SOON AS POSSIBLE KNOTS AND PITCH STREAKS MUSTBE SCRAPED, SANDED, AND SPOT PRIMED BEFORE AND FULL PRIMING COAT IS APPLIED. PATCH ALLNAIL HOLES AND IMPERFECTIONS WITH A WOOD FILLER OR PUTTY AND SAND SMOOTH.

3.3. INSTALLATION 3.3.1. APPLY ALL COATINGS AND MATERIALS PER THE MANUFACTURER'S SPECIFICATIONS. DO NOT THIN COATINGSUNLESS SPECIFICALLY DIRECTED BY THE MANUFACTURER.

3.3.2. DO NOT APPLY TO WET OR DAMP SURFACES. WAIT AT LEAST 30 DAYS BEFORE APPLYING TO NEWCONCRETE OR MASONRY UNLESS USING PRODUCTS SPECIFICALLY DESIGNED TO BE APPLIED PRIOR TO30 DAYS OF CURING TIME. TEST NEW CONCRETE FOR MOISTURE CONTENT. WAIT UNTIL WOOD ISFULLY DRY AFTER RAIN OR MORNING DEW OR FOG. 3.3.3. APPLY COATINGS USING METHODS AND TOOLS RECOMMENDED BY THE

MANUFACTURER. 3.3.4. UNIFORMLY APPLY COATINGS WITHOUT RUNS, DRIPS, SAGS, HOLIDAYS, OR BRUSH MARKS ANDWITH A CONSISTENT SHEEN. 3.3.5. APPLY COATINGS AT SPREADING RATE REQUIRED TO ACHIEVE THE MANUFACTURER'S RECOMMENDED DRY FILM THICKNESS.

3.3.6. REGARDLESS OF NUMBER OF COATS SPECIFIED, APPLY AS MANY COATS AS NECESSARY FORCOMPLETE HIDE AND UNIFORM APPEARANCE 3.3.7. THE COATED SURFACE MUST BE INSPECTED AND APPROVED BY THE

ARCHITECT AND MANUFACTURERJUST PRIOR TO THE APPLICATION OF EACH COAT.

3.4.1. PROTECT FINISHED COATINGS FROM DAMAGE UNTIL COMPLETION OF THE PROJECT 3.4.2. TOUCH-UP DAMAGED COATINGS AFTER SUBSTANTIAL COMPLETION, FOLLOWING MANUFACTURER'S RECOMMENDATION FOR TOUCH UP OR REPAIR OF DAMAGED COATINGS. REPAIR ANY DEFECTS THATWILL HINDER THE PERFORMANCE

3.4. PROTECTION

3.4.2.1. REGARDLESS OF TOUCH-UP, APPLY ONE ADDITIONAL TOP COAT JUST AFTER SUBSTANTIAL COMPLETION.

NOTE:
COORDINATE FINAL PLACEMENT WITH SHERWIN-WILLIAMS CORPORATE LETTERS SHALL BE MINIMUM 2" HIGH AND SHALL CONTRAST WITH THE BACKGROUND COLOR. ALL BORDERS AND STRIPES SHALL BE 4" WIDE. STRIPES, WHERE INDICATED, SHALL BE SPACED 8" APART AND APPLIED DIAGONALLY. STRIPE REGULATORY AND CAUTIONARY AREAS IN YELLOW. OTHER REQUIRED STRIPED AREAS MAY BE ANY APPROVED COLOR.

WALL FACE

LADDER

COORDINATE FINAL PLACEMENT WITH

LETTERS SHALL BE MINIMUM 2" HIGH

BACKGROUND COLOR. ALL BORDERS

SHERWIN-WILLIAMS CORPORATE

AND SHALL CONTRAST WITH THE

AND STRIPES SHALL BE 4" WIDE.

STRIPES, WHERE INDICATED, SHALL

BE SPACED 8" APART AND APPLIED

DIAGONALLY. STRIPE REGULATORY

AND CAUTIONARY AREAS IN YELLOW.

FORKLIFT STAGING

FORKLIFT STAGING

FORKLIFT STAGING / CHARGING

OTHER REQUIRED STRIPED AREAS

MAY BE ANY APPROVED COLOR.

KEEP CLEAR

3' - 0"

ROOF ACCESS LADDER

KEEP CLEAR

2' - 6"

**EYE WASH STATION** 

PALLET JACK STAGING

PALLET JACK STAGING

3' - 0"

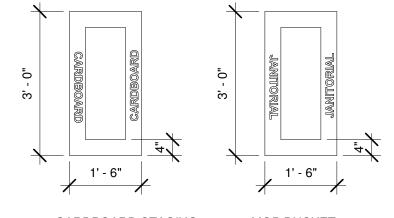
PALLET JACK STAGING

WALL

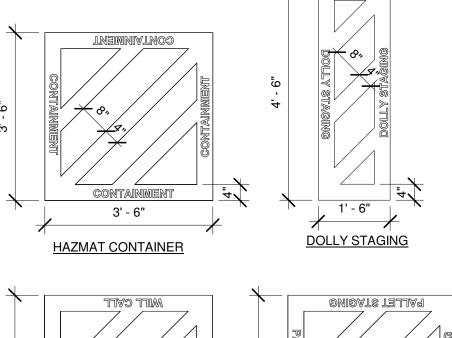
FACE

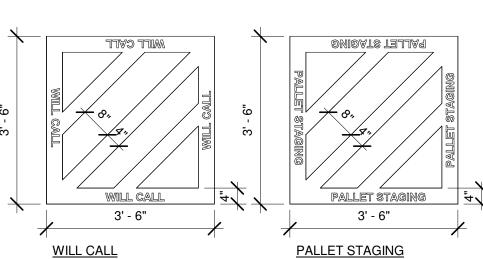
EYE WASH

STATION -



CARDBOARD STAGING MOP BUCKET





Paint Striping - Operational Areas

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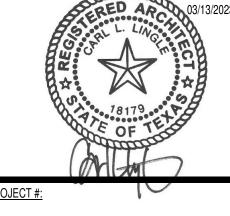
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SHERWIN WILLIAMS

STORE #: XXXX

> ADDRESS: 9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

Paint Specifications

SHEET NUMBER:

A3 Paint Striping - Caution Areas
1/2" = 1'-0"

ELECTRICAL PANELS

KEEP CLEAR

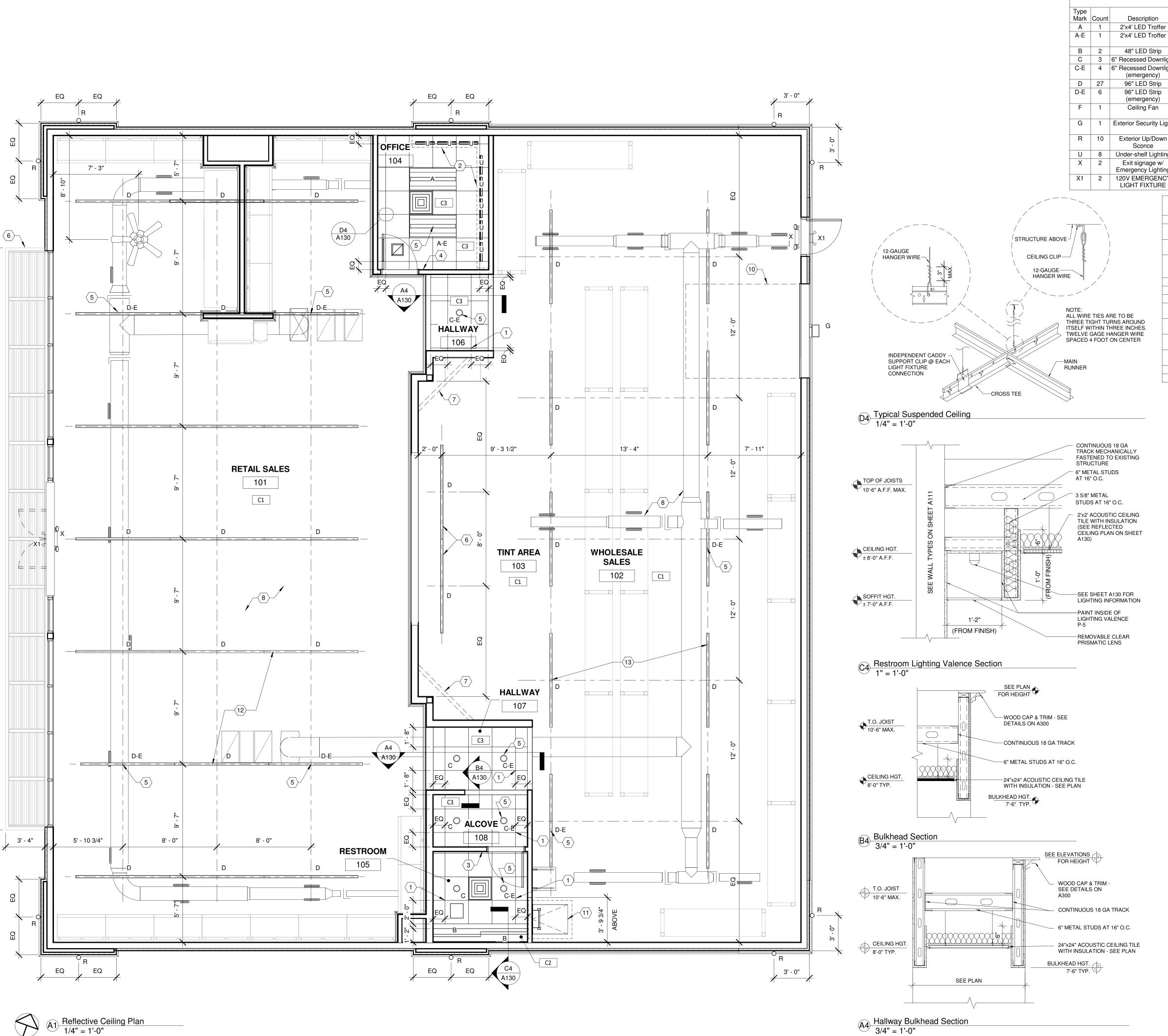
3' - 0"

SPILL KIT

1' - 6"

SPILL KIT

WALL FACE





# RCP CODED NOTES

1 CEILING GRID ORIGIN POINT

- 2 INSTALL LIGHTS ON UNDERSIDE OF OFFICE SHELF SWITCH WITH OTHER
- OFFICE LIGHTS SEE DETAIL B3/A111 3 INSTALL AUTOMATIC, MOTION SENSING SWITCHES (15-MINUTE GRACE
- PERIOD) TO CONTROL ALL LIGHTING AND EXHAUST FANS (IF APPLICABLE) 4 WIRE ALL LIGHT FIXTURES IN THE SALES, CORRIDOR AND STAGING AREAS THROUGH 8-BUTTON ELECTRONIC SWITCH WITH LED INDICATORS INSIDE THE OFFICE (LEGRAND LMSW-108 OR EQUAL)
- CONNECT "D-E" FIXTURES TO SEPARATE NON-SWITCHED CIRCUIT
- 6 MOUNT LIGHT FIXTURES IN TINTING AREA 9'-6" A.F.F.
- HORIZONTAL WALL BRACE AT 10'-0" A.F.F, 20GA METAL STUD 8 CONFIRM HVAC DUCTWORK AND DIFFUSER/RETURN LOCATIONS WITH
- MECHANICAL SHEETS HOLD DUCTWORK CLOSE TO STRUCTURE 9 NEW METAL AWNING - MAPES LUMISHADE (OR EQUIVALENT) - 8" FASCIA - SEE
- SHEET A114 10 HOLD OVERHEAD DOOR TRACK BELOW LIGHT FIXTURE - VERIFY HEIGHT IN
- 11 ROOF ACCESS HATCH SEE DETAIL C4/A111 COORDINATE PLACEMENT WITH STRUCTURAL
- 12 LIGHT FIXTURES AT RETAIL SALES TO BE MOUNTED AT 12' AFF.
- 13 LIGHT FIXTURES AT WHOLESALE AREA TO BE MOUNTED AT 13'-6" AFF.

#### **GENERAL NOTES:**

- A. VERIFY ALL PLACEMENTS OF LIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
- B. SEE ELECTRICAL PLANS FOR ADDITIONAL LIGHTING
- INFORMATION C. ALL CEILING MATERIAL SHALL NOT EXCEED FLAME
- CLASS II FLAME SPREAD INDEX 25-75. D. G.C. SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE THAT PROPER CLEARANCES FOR DUCTS, LIGHTS, PIPING, ETC. ARE MET AND THAT THE CEILING
- HEIGHS NOTED ON THE DRAWINGS ARE MAINTAINED . G.C. TO VERIFY REQUIREMENTS AND QUANTITIES OF FIRE PROTECTION DEVICES INCLUDING SMOKE DETECTORS, DUCT SMOKE DETECTORS, FIRE ALARMS, RELATED SPEAKERS, STROBES, ETC. LIFE SAFETY INSTALLATIONS TO MEET REQUIREMENTS OF ALL
- APPLICABLE CODES AND ORDINANCES F. G.C. TO CAULK JOINTS BETWEEN CEILING GRID AND
- ADJACENT SURFACES. G. WESCO CONTACT: MARK SABATINO EMAIL: MSABATINO@WESCO.COM

PHONE: (440) 554-4669

C3 COLOR: WHITE

HEIGHT: 8'-0" A.F.F. U.N.O.

#### **CEILING FINISH SCHEDULE DESCRIPTION:** NOTES: C1 | CEILING: EXPOSED TO STRUCTURE : FINISH: PAINT P-3 HVAC DUCTWORK TO BE CEILING: INSTALL 5/8" GYP. BD. CEILING C2 FINISH: PAINT P-3 U.N.O. MFG: USG FINISH: 24"x24" SANDRIFT #808 GRID: USG DX GRID SYSTEM

- GC SUPPLY/INSTALL

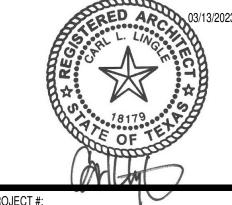
- FACTORY PAINTED WHITE



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# **SHERWIN WILLIAMS**

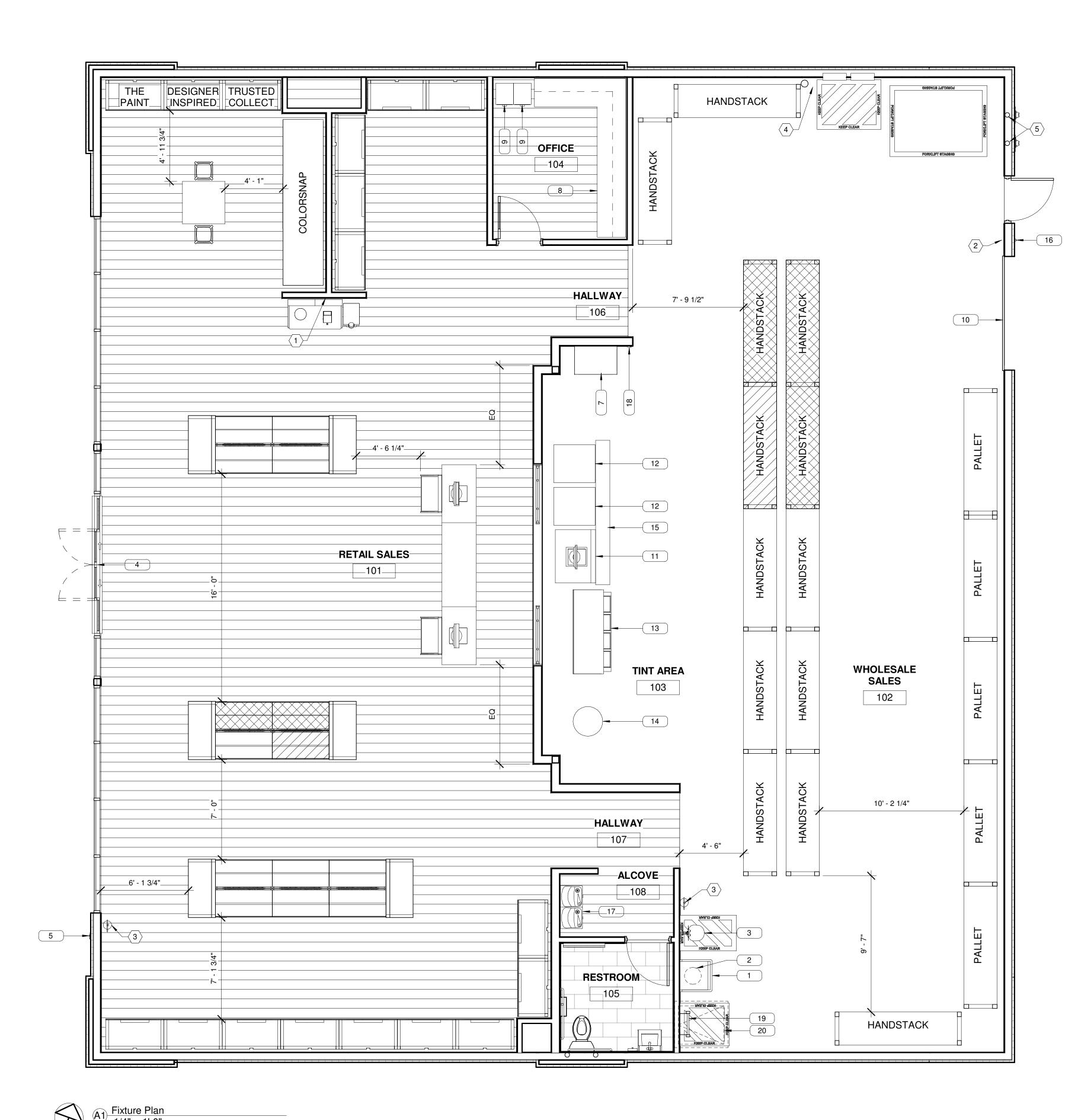
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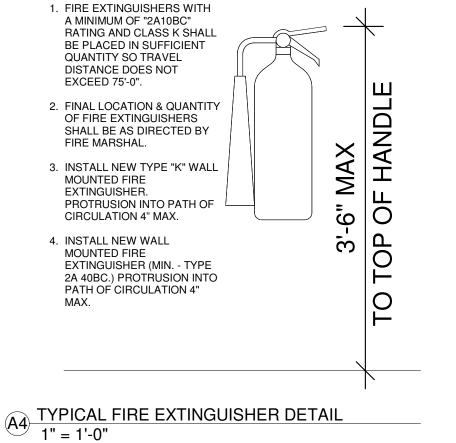
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SHEET TITLE:

Reflected Ceiling Plan

SHEET NUMBER:





**EQUIPMENT LIST** PROVIDED INSTALLED MANUFACTURER MODEL REMARKS DESCRIPTION BY BY **ELEVATED ON METAL LEGS** 1 UTILITY SINK ELKAY B1C24X24X 2 WATER HEATER MOUNT ON SHELF ABOVE UTILITY SINK - VERIFY A. O. SMITH DEL-20 GC GC SPEC W/ PLUMBING 3 EYEWASH STATION WALL MOUNTED - PLUMB TO HOT/COLD WATER (W/ BRADLEY S19224DC GC MIXING VALVE) & SANITARY SEWER 4 SLIDING GLASS DOOR TX9200 5 EMERGENCY KEY CABINET KNOX BOX 3200 RECESSED GC GC MOUNT 4'-0" A.F.F. - COORDINATE FINAL MOUNTED PLACEMENT WITH FIRE PREVENTION BUREAU 6 COFFEE BAR W/ WATER COOLER **TENANT** 7 DATA CABINET GC INSTALL PHONE/COMPUTER BOARD AT DATA CABINET - SEE DETAIL A5/A300 LEGRAND ALA4800 & ALA-G ALTERNATES: HUBBLE HBLALU4800 & 8 ALUMINUM RACEWAY TENANT MONOSYSTEMS SWA4800 9 FILE CABINET TENANT 10 Overhead Delivery Door Overhead Door GC 8'-0" W X 10'-0" OPENING - LIGHT GRAY WALL-MOUNTED MOTORIZED OPERATOR: LIFTMASTER LJ8900W ACCUTINTER 8012 TENANT TENANT VERIFY SPEC W/ SHERWIN-WILLIAMS 11 ACCUTINTER MILLER 12 5 GALLON MIXER RED DEVIL TENANT | TENANT | VERIFY SPEC W/ SHERWIN-WILLIAMS 05025U 13 1 GALLON MIXER RED DEVIL 1015-PB-SQ 14 MANUAL TINTER FLUID HARBIL NSC80 TENANT | TENANT | VERIFY SPEC W/ SHERWIN-WILLIAMS MANAGEMENT 15 CONVEYOR ROLLER TENANT | VERIFY SPEC W/ SHERWIN-WILLIAMS 16 EXTERIOR BUZZER BUTTON GC MOUNT 4'-0" A.F.F. - REFER ELECTRICAL **EDWARDS** 1786-B 17 HIGH/LOW DRINKING FOUNTAIN REFER PLUMBING EDFP217C 18 BUZZER RECEIVER OPTEX RCTD-20U GC MOUNT 9'-0" A.F.F. - REFER ELECTRICAL 19 FIXED ROOF LADDER 20 ROOF HATCH BILCO GS-50TB - 36x30 GC COORDINATE PLACEMENT WITH STRUCTURAL

/LEVEL/

| HAZARDOUS MATERIALS STORAGE |      |                     |                 |           |         |         |
|-----------------------------|------|---------------------|-----------------|-----------|---------|---------|
|                             |      | MAX. STORAGE HEIGHT | MAX. A          | MOUNT     | ACTUAL  | AMOUNT  |
| EL ANALADI E                | 1A   | 4'-0"               | 30 (            | GAL       | 0 G     | AL      |
| FLAMMABLE CLASS             | 1B   | 4'-0"               |                 |           | 392 GAL |         |
| OLAGO T                     | 1C   | 4'-0"               | 1,600 GAL       | 60 GAL    | 654 GAL |         |
| COMPLICTIBLE                | Ш    | 6'-0"               | TO <sup>-</sup> | TAL       | 150 GAL | TOTAL   |
| COMBUSTIBLE CLASS           | IIIA | 6'-0"               |                 |           | 52 GAL  |         |
|                             | IIIB | 6'-0"               | 13,20           | 0 GAL     | 330     | GAL     |
| AEDOCOL /-                  | 1    | 8'-0"               |                 |           | 121     | LBS     |
| AEROSOL //-                 | 2    | 8'-0"               | 2,500 LBS       | 2,500 LBS | 203 LBS | 224 LBS |

NOTE: TENANT WILL BE RESPONSIBLE FOR ADDING PERMANENT SIGNS ON EACH STORAGE SHELF OR RACK STATING THE ABOVE STORAGE LIMITATIONS AND TRAINING STORE STAFF IN PROPER STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS. STORE OWNER WILL BE RESPONSIBLE FOR ADDING SIGNAGE TO SHELF AND RACK STORAGE WHERE FLAMMABLE AND COMBUSTIBLE LIQUIDS ARE STORED THAT "WARNING, NO COMBUSTIBLE PRODUCTS ARE TO BE STORED ABOVE ANY FLAMMABLE OR COMBUSTIBLE LIQUIDS" PER 2018 IFC.

1,000 LBS TOTAL 21 LBS TOTAL

#### CONSTRUCTION NOTES

- 1. THE GC SHALL INSTALL NEW VINYL WOOD PLANK FLOORING AND COVE BASE IN THE SALES. OFFICE AND CORRIDOR AREAS. INSTALL CERAMIC TILE ON THE FLOOR AND AS A 5'-3" HIGH WAINSCOT ON ALL WALLS FACING INTO THE RESTROOMS. SEE SHEET A400 FOR MORE INFORMATION.
- 2. THE GC SHALL INSTALL SHEETROCK FURRING ON ALL EXTERIOR WALLS, INTERIOR COLUMNS AND MASONRY WALLS FACING INTO THE SALES AREA. THESE WALLS SHALL EXTEND FROM THE SLAB TO THE UNDERSIDE OF THE ROOF DECK. INCLUDE INSULATION AS REQUIRED TO ACHIEVE THE EXTERIOR WALL INSULATION VALUE INDICATED IN THE DESIGN GUIDELINES. SEE THE DESIGN GUIDELINES FOR MORE INFORMATION.
- 3. THE GC SHALL INSTALL ALL WALLS FACING INTO THE SALES AREA TO BE FLAT, WITH NO PROTRUSIONS.
- 4. THE GC SHALL INSTALL SOUND INSULATION IN THE WALLS SURROUNDING AND SEPARATING THE RESTROOMS. THIS INSULATION SHALL EXTEND FROM THE SLAB TO THE ASSOCIATED CEILING HEIGHT.
- 5. THE GC SHALL NEW STOREFRONT WINDOWS AND DOORS WHERE SHOWN ON THIS PLAN. THESE SHALL BE DOUBLE GLAZED, INSULATED "E" GLASS. INSTALL THE MULLIONS TO PROVIDE A MINIMUM CLEAR GLASS SPACE OF 48 INCHES IN WIDTH AND 60 INCHES IN HEIGHT. SEE THE DESIGN GUIDELINES FOR MORE INFORMATION.
- 6. THE GC SHALL INSTALL RESTROOM ACCESSORIES. SEE THE DESIGN GUIDELINES FOR A LISTING OF THOSE ACCESSORIES AND PRODUCT SELECTIONS.
- 7. SEE THE REFLECTED CEILING PLAN FOR CEILING LAYOUT AND OTHER RELATED
- 8. THE GC SHALL INSTALL THE SPECIFIED, 3-SECTIONED, WOOD FRAMED, WINDOW FEATURE IN THE WALL BETWEEN THE SALES AND TINTROOM AREAS. PRIME AND PAINT THE FRAMING. INSTALL CLEAR GLASS IN THE TWO END SECTIONS, LEAVING THE CENTER AS A CASED OPENING. SEE ELEVATION A1/A300 FOR MORE INFORMATION. SEE THE DESIGN GUIDELINES FOR PRODUCT AND COLOR SELECTIONS.
- 9. THE GC SHALL INSTALL A PLASTIC LAMINATE WORK COUNTER AND UPPER BOOK SHELF IN THE OFFICE. SHERWIN-WILLIAMS TO PROVIDE WIRE RACEWAY FOR DATA, VOICE, AND POWER ALONG DESK. RACEWAY SHALL BE WIRED USING MINIMUM OF TWO (2) CIRCUITS. SPACE EACH OPENING 2'-0" ON CENTER. ALL RECEPTACLES SHALL BE GRAY. G.C. TO INSTALL RACEWAY SURGE/DECORATOR COVERS AT VOICE/DATA LOCATIONS. VOICE/DATA DEVICES AND WIRING SHALL BE INSTALLED BY OTHERS.
- 10. THE GC SHALL INSTALL A PRIMED AND PAINTED WOOD CAP AND CROWN MOLDING ON TOP OF THE "T" WALL IN THE COLOR STUDIO AREA AND ON THE PERIMETER WALLS OF THE OFFICE, RESTROOMS AND TINT/SALES WALL. SEE SHEET A300 FOR MORE INFORMATION.
- 11. THE GC SHALL INSTALL WHITE FRP ON THE WALL BEHIND THE UTILITY SINK AND EYE WASH STATION. THIS FEATURE SHALL EXTEND FROM THE SLAB TO 4 FEET A.F.F. AND TO 2 FEET BEYOND EACH SIDE OF THE EQUIPMENT.
- 12. THE GC SHALL INSTALL A 1/2 INCH PLYWOOD BACK BOARD BENEATH THE SHEETROCK ON THE END OF THE "T" WALL IN THE SALES AREA TO SUPPORT A FLAT PANEL TELEVISION. SEE VIEW A3/A300 FOR INSTALLATION INSTRUCTIONS.
- 13. THE GC SHALL PAINT ALL INTERIOR AND EXTERIOR WALLS, DOORS, ROOF DECK, EXPOSED CONDUITS. SHERWIN-WILLIAMS WILL SUPPLY ALL LIQUID PAINT PRODUCTS FOR APPLICATION BY THE LANDLORD/CONTRACTOR. SEE THE PAINTING SCHEMATIC FOR THE LOCATION OF ACCENT COLORS. SEE THE PAINTING SCHEDULE CONTAINED IN THE DESIGN GUIDELINES FOR PRODUCT AND COLOR SELECTIONS.

#### FIXTURE PLAN CODED NOTES

- 1 COLD WATER LINE FOR COFFEE MAKER SEE PLUMBING SHEETS 2 TIME CLOCK & LUTRON VIVE LIGHTING CONTROL SYSTEM - VERIFY W/
- ELECTRICAL
- 3 FIRE EXTINGUISHER SEE DETAIL A4/A140 4 AS-BUILT DRAWING TUBE - SEE DETAIL C5/A111
- 5 4" PVC ROOF DRAIN PIPE SEE SHEET A150

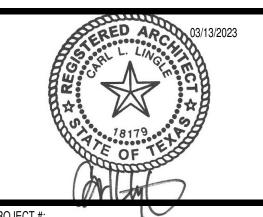
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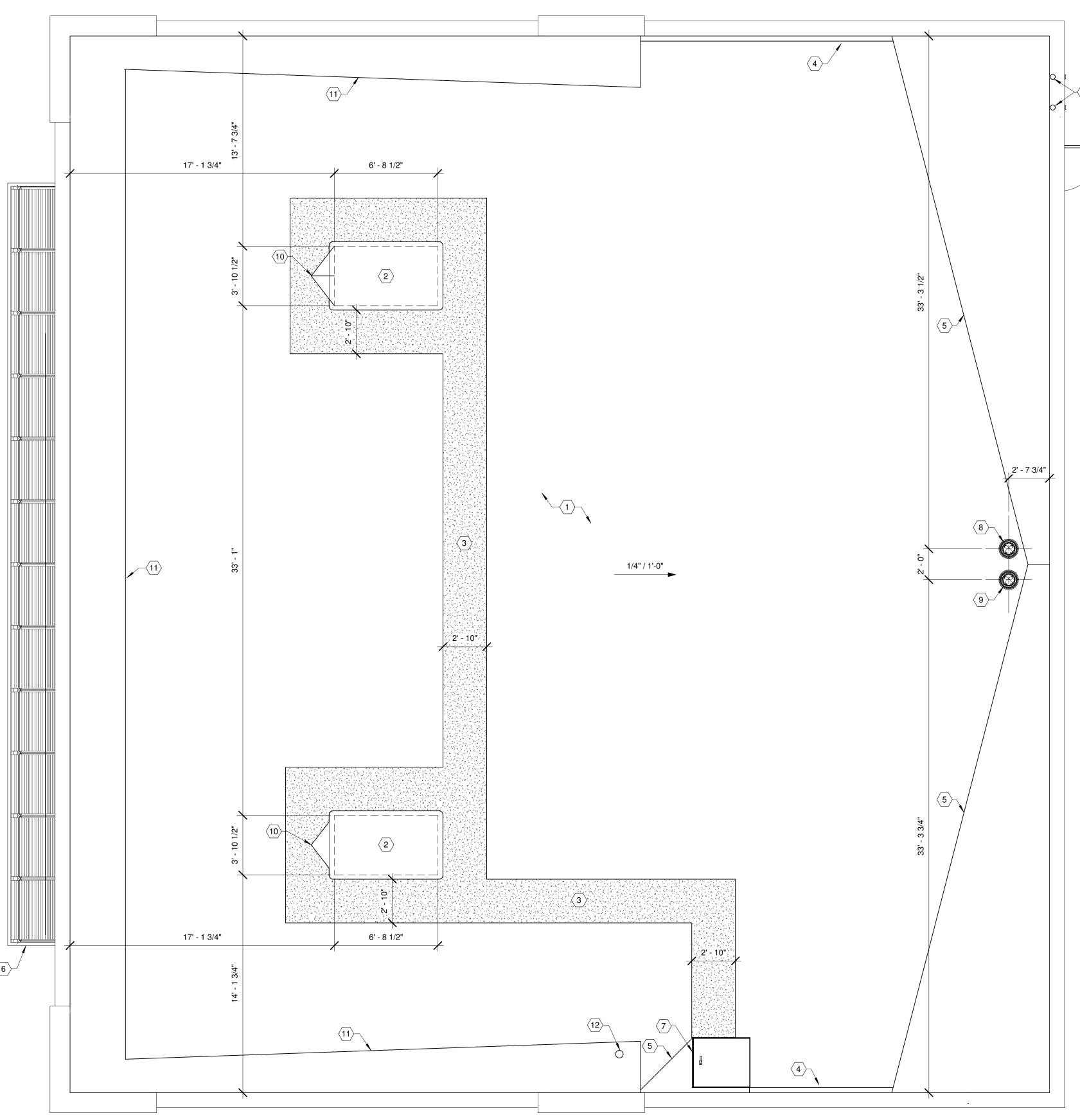
## **SHERWIN WILLIAMS**

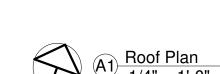
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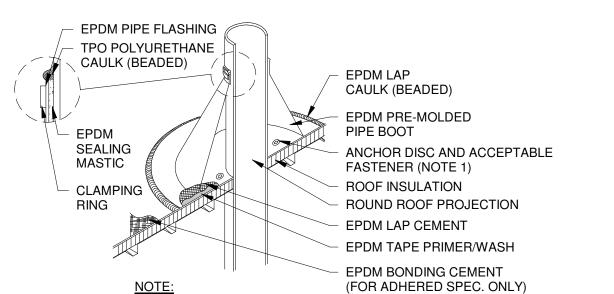
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SHEET TITLE:

Fixture Plan & Schedule



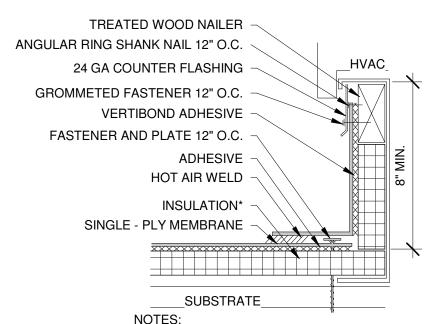




- 1. WITH MECHANICALLY FASTENED OR BALLASTED SPECIFICATIONS, MEMBRANE MUST BE MECHANICALLY ATTACHED WITH 2" (50 mm) ANCHOR DISC AND ACCEPTABLE FASTENERS (MINIMUM OF 4 PER PIPE). 2. DO NOT OVERLAP THE FLANGES FROM ADJACENT PIPE FLASHINGS.
- 3. ANY SEAM UNDER BOOT FLANGE TO BE TREATED AS T-JOINT. 4. BOTH SURFACES TO BE MATED MUST BE CLEANED WITH TAPE

PRIMER/WASH. EPDM TAPE PRIMER/WASH MUST BE COMPLETELY DRY AND TACK FREE BEFORE APPLYING EPDM LAP CEMENT.

D4 TYPICAL BOOT DETAIL
1/4" = 1'-0"



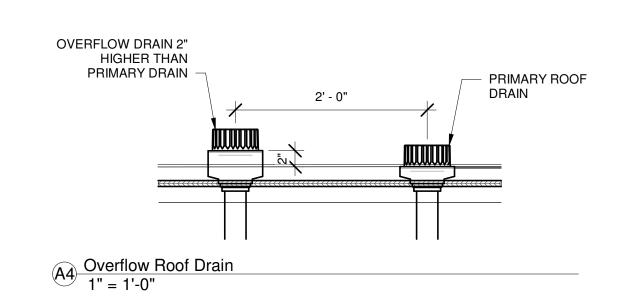
#### NOTES:

- 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- 2. DO NOT SCALE DRAWINGS.
- 3. USE PREFABRICATED OUTSIDE CORNERS.
- 4. INSULATION MUST BE SECURELY FASTENED. 5. \*GLASS - FACED POLYISO INSULATION IS OPTIONAL AND
- MAY NOT BE REQUIRED ON EVERY PROJECT.
- IF INSULATION IS NOT REQUIRED, THE MEMBRANE MUST BE ADHERED TO AN APPROVED SURFACE.

C4 TYPICAL CURB FLASHING 1/4" = 1'-0"

NOTE: INSTALL ALL ROOF DRAINS & DOWNSPOUTS PER MANUFACTURER'S SEE ROOF PLAN FOR-ROOF ASSEMBLY SPECIFICATIONS ROOF DRAIN ROOF FRAMING SEE — STRUCTURAL 4"  $\varnothing$  PVC PIPE - SLOPE — 1/2" PER FT - SEE PLUMBIG FOR ROUTE J.R. SMITH 1770-A04-NB — DOWNSPOUT NOZZLE (OR EQUIVALENT) - SEE

B4 TYPICAL ROOF DRAINAGE
3/4" = 1'-0"



**EXTERIOR ELEVATIONS** 

### ROOF PLAN CODED NOTES

- 1 JM TPO 60 MIL CRRC WHITE ROOF MEMBRANE OVER R-30 RIGID INSULATION INSTALL PER MANUFACTURER'S SPEC ROOF DECK PER
- STRUCTURAL 2% SLOPE MIN. 2 MECHANICAL ROOFTOP UNIT - SEE MECHANICAL FOR INFORMATION,
- REINFORCE PER STRUCTURAL 3 REINFORCED WALKWAY FOR EQUIPMENT ACCESS
- 4 4" CANT STRIP, TYP. 5 SLOPE CRICKET TO ROOF DRAIN
- 6 AWNING BELOW SEE DETAIL D1/A113 & EXTERIOR ELEVATIONS
- 7 ROOF ACCESS HATCH SEE DETAIL C4/A111 COORDINATE PLACEMENT WITH STRUCTURAL 8 ROOF DRAIN - J.R. SMITH 1010-A04 (OR EQUIVALENT) - SEE DETAIL
- A4/A150 COORDINATE PLACEMENT W/ CIVIL
- 9 ROOF OVERFLOW DRAIN J.R. SMITH 1070-A04 (OR EQUIVALENT) SEE
- DETAIL A4/A150 COORDINATE PLACEMENT W/ CIVIL 10 TAPERED INSULATION CRICKET AT EQUIPMENT CURB
- 11 ROOF KICKERS PER STRUCTURAL
- 12 4" PVC ROOF DRAIN PIPE BEYOND REF PLUMBING
- 12 EXHAUST FAN VENT PIPE REF MECHANICAL

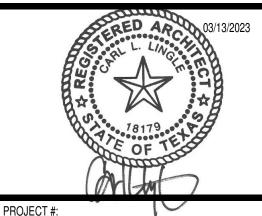
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SHERWIN WILLIAMS

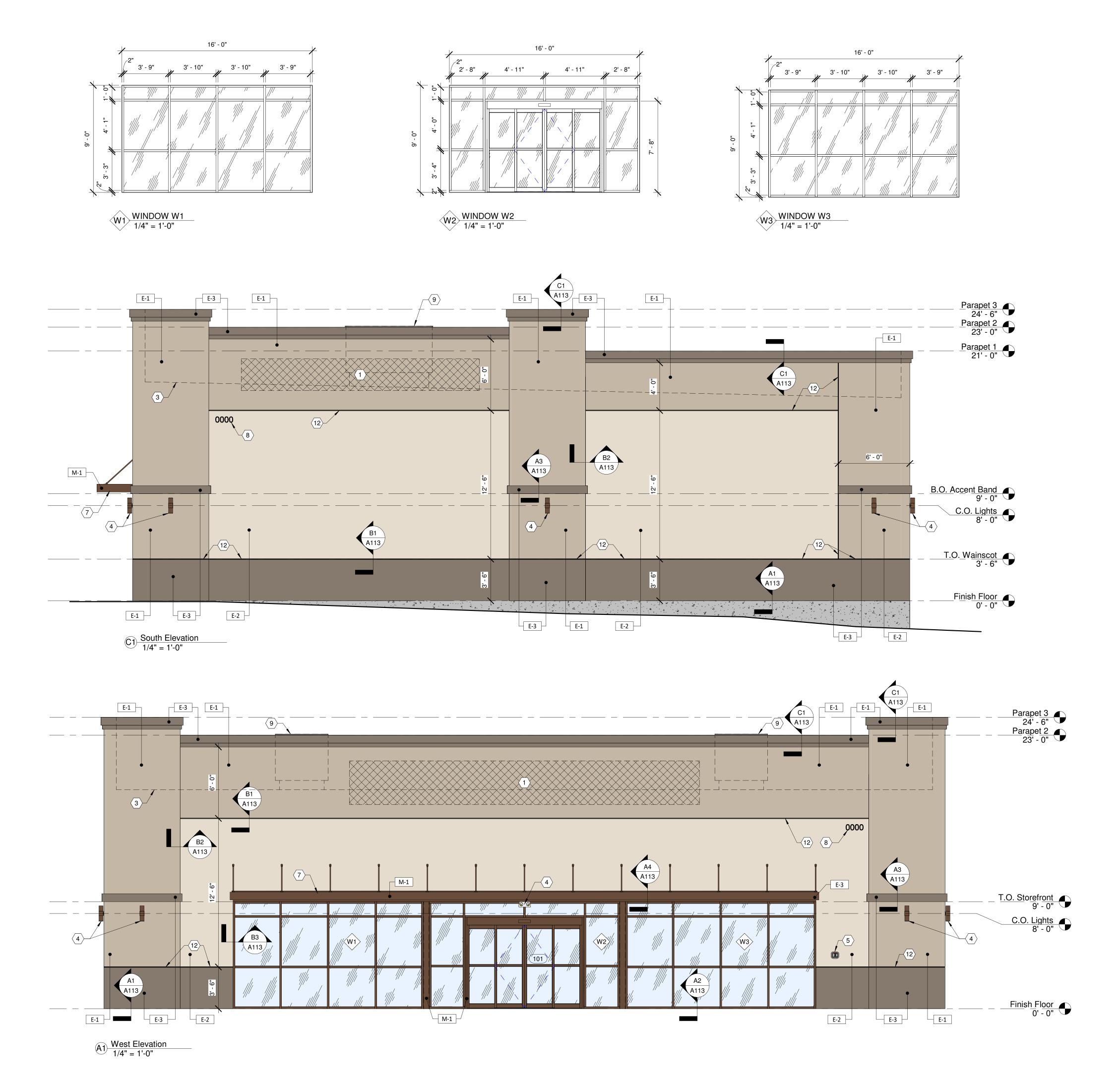
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9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

SHEET TITLE:

Roof Plan

SHEET NUMBER:



| EXTERIOR FINISH SCHEDULE |                      |  |  |
|--------------------------|----------------------|--|--|
| MARK                     | DESCRIPTION          | PTION MANUFACTURER & SPEC SAMPLE               |  |
| E-1                      | EIFS - FIELD         | SHERWIN-WILLIAMS<br>COLOR: SW 7506             |  |
| P-1                      | PAINT                | LOGGIA<br>(SCORE LINES PER<br>ELEVATIONS)      |  |
| E-2                      | EIFS - BAY           | SHERWIN-WILLIAMS<br>COLOR: SW 6105             |  |
| P-2                      | PAINT                | DIVINE WHITE<br>(PARAPET FLASHING<br>TO MATCH) |  |
| E-3                      | EIFS - FIELD         | SHERWIN-WILLIAMS<br>COLOR: SW 7025             |  |
| P-3                      | PAINT                | BACKDROP<br>(SCORE LINES PER<br>ELEVATIONS)    |  |
| M-1                      | ANODIZED<br>ALUMINUM | COLOR: DARK BRONZE<br>(STOREFRONT)             |  |

## EXTERIOR ELEVATION CODED NOTES

| 1 | SIGNAGE UNDER SEPARATE PERMIT   |
|---|---|
| 2 | UTILITY METER BANK - PAINT TO MATCH ADJACENT FINISH - COORDINATE WITH |
|   |   |

3 ROOF LINE BEHIND PARAPET

4 EXTERIOR LIGHTING - SEE SCHEDULE ON SHEET A130 5 KNOX BOX - MODEL 3200 RECESSED - COORDINATE PLACEMENT WITH FIRE PREVENTION BUREAU

6 BUZZER BUTTON

7 NEW METAL AWNING - MAPES LUMISHADE (OR EQUIVALENT) - 8" FASCIA

8 BUILDING ADDRESS PER 2018 IFC 505.1 - 4" HIGH MIN., 1/2" MIN. STROKE WIDTH

9 ROOF TOP UNIT BEYOND

10 ROOF DRAIN DOWNSPOUT NOZZLE PER SHEET A150 - NICKEL BRONZE FINISH - COORDINATE W/ CIVIL

11 DELIVERY RAMP - REF CIVIL

12 EIFS REVEAL - REF B1/A113

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# SHERWIN WILLIAMS

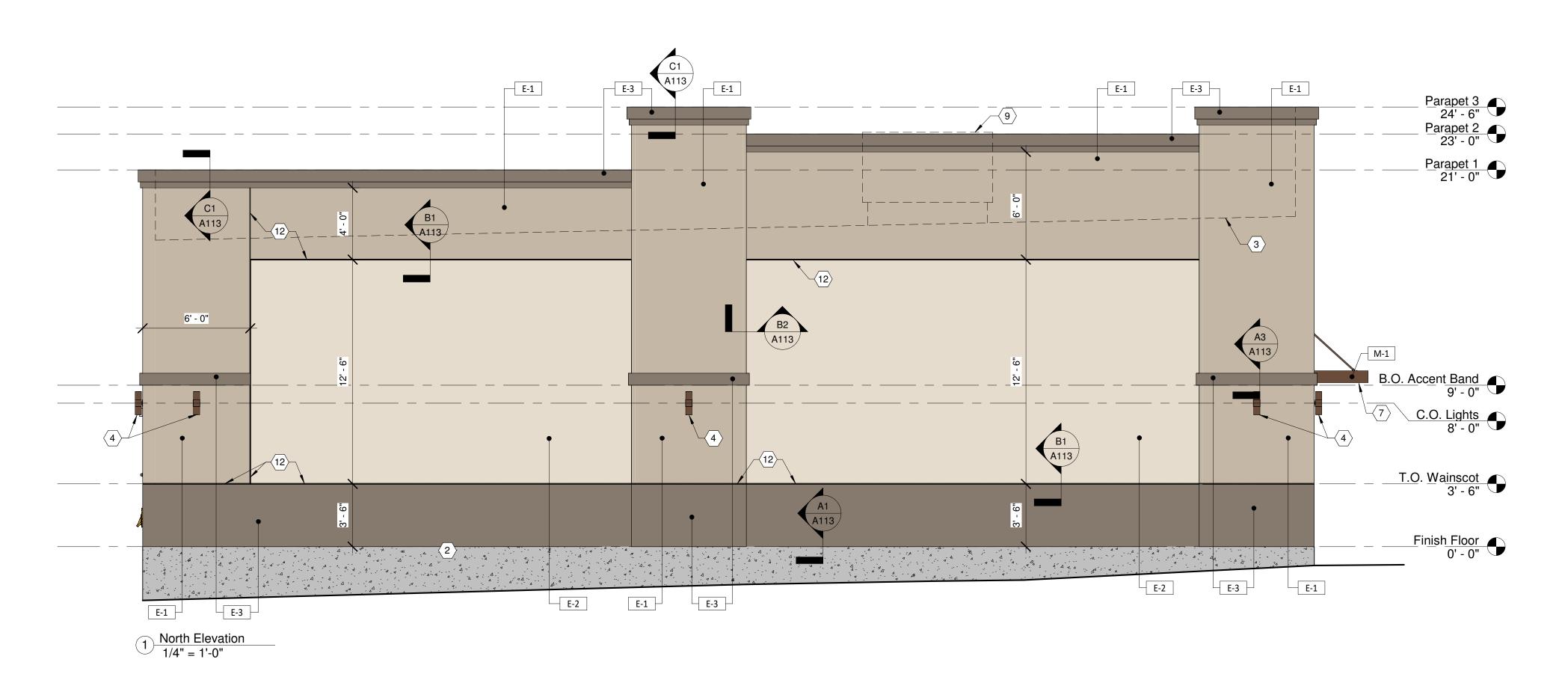
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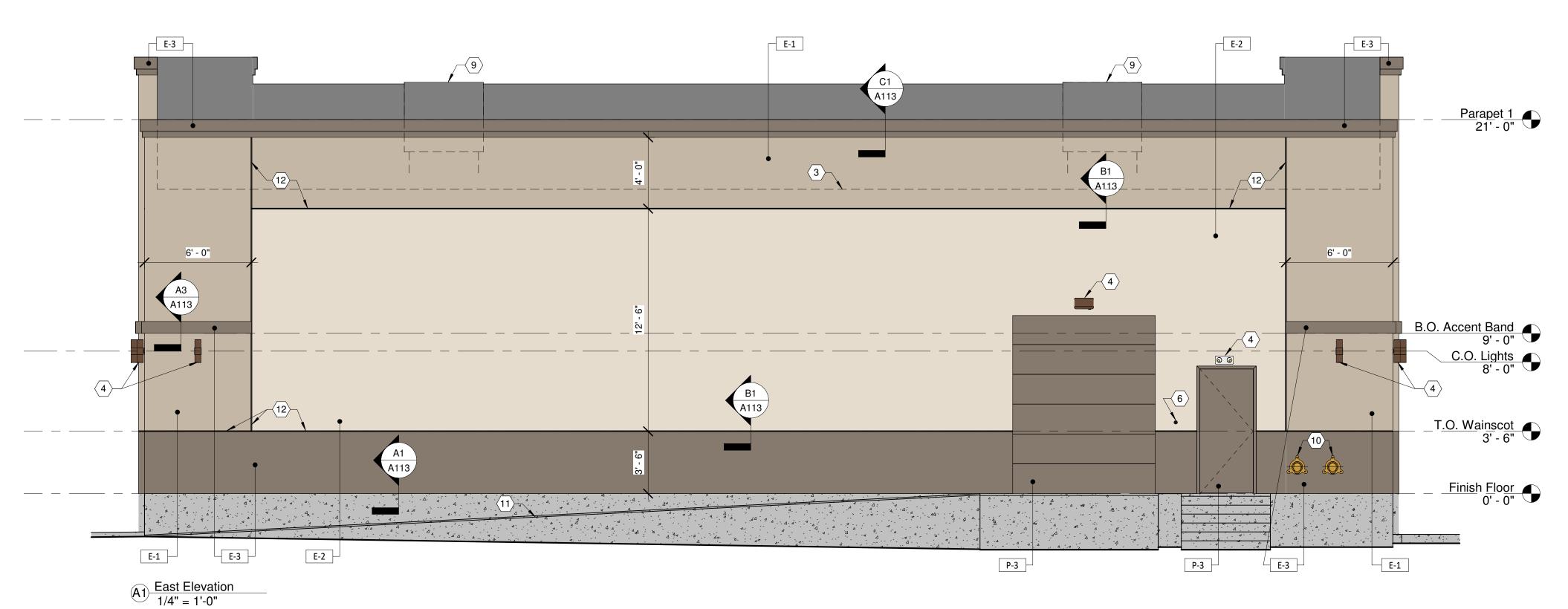
9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

SHEET TITLE:

Exterior Elevations & Window Schedule

SHEET NUMBER:





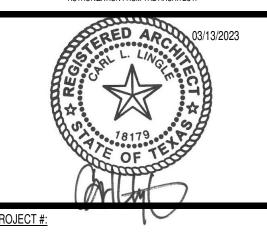
| EXTERIOR FINISH SCHEDULE |                      |  |        |  |
|--------------------------|----------------------|--|--------|--|
| MARK                     | DESCRIPTION          | MANUFACTURER & SPEC                                | SAMPLE |  |
| E-1                      | EIFS - FIELD         | SHERWIN-WILLIAMS<br>COLOR: SW 7506                 |        |  |
| P-1                      | PAINT                | LOGGIA<br>(SCORE LINES PER<br>ELEVATIONS)          |        |  |
| E-2                      | EIFS - BAY           | SHERWIN-WILLIAMS<br>COLOR: SW 6105<br>DIVINE WHITE |        |  |
| P-2                      | PAINT                | (PARAPET FLASHING<br>TO MATCH)                     |        |  |
| E-3                      | EIFS - FIELD         | SHERWIN-WILLIAMS<br>COLOR: SW 7025                 |        |  |
| P-3                      | PAINT                | BACKDROP<br>(SCORE LINES PER<br>ELEVATIONS)        |        |  |
| M-1                      | ANODIZED<br>ALUMINUM | COLOR: DARK BRONZE<br>(STOREFRONT)                 |        |  |

### EXTERIOR ELEVATION CODED NOTES

- 1 SIGNAGE UNDER SEPARATE PERMIT
  - 2 UTILITY METER BANK PAINT TO MATCH ADJACENT FINISH COORDINATE WITH
  - 3 ROOF LINE BEHIND PARAPET
  - 4 EXTERIOR LIGHTING SEE SCHEDULE ON SHEET A130
- 5 KNOX BOX MODEL 3200 RECESSED COORDINATE PLACEMENT WITH FIRE PREVENTION BUREAU
- 6 BUZZER BUTTON
- 7 NEW METAL AWNING MAPES LUMISHADE (OR EQUIVALENT) 8" FASCIA
- 8 BUILDING ADDRESS PER 2018 IFC 505.1 4" HIGH MIN., 1/2" MIN. STROKE WIDTH
  9 ROOF TOP UNIT BEYOND
- 10 ROOF DRAIN DOWNSPOUT NOZZLE PER SHEET A150 NICKEL BRONZE FINISH COORDINATE W/ CIVIL
- 11 DELIVERY RAMP REF CIVIL
- 12 EIFS REVEAL REF B1/A113

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| N GROUP,ING   | 1764 BLAKE ST<br>DENVER, CO 80202<br>303.974.5875 |
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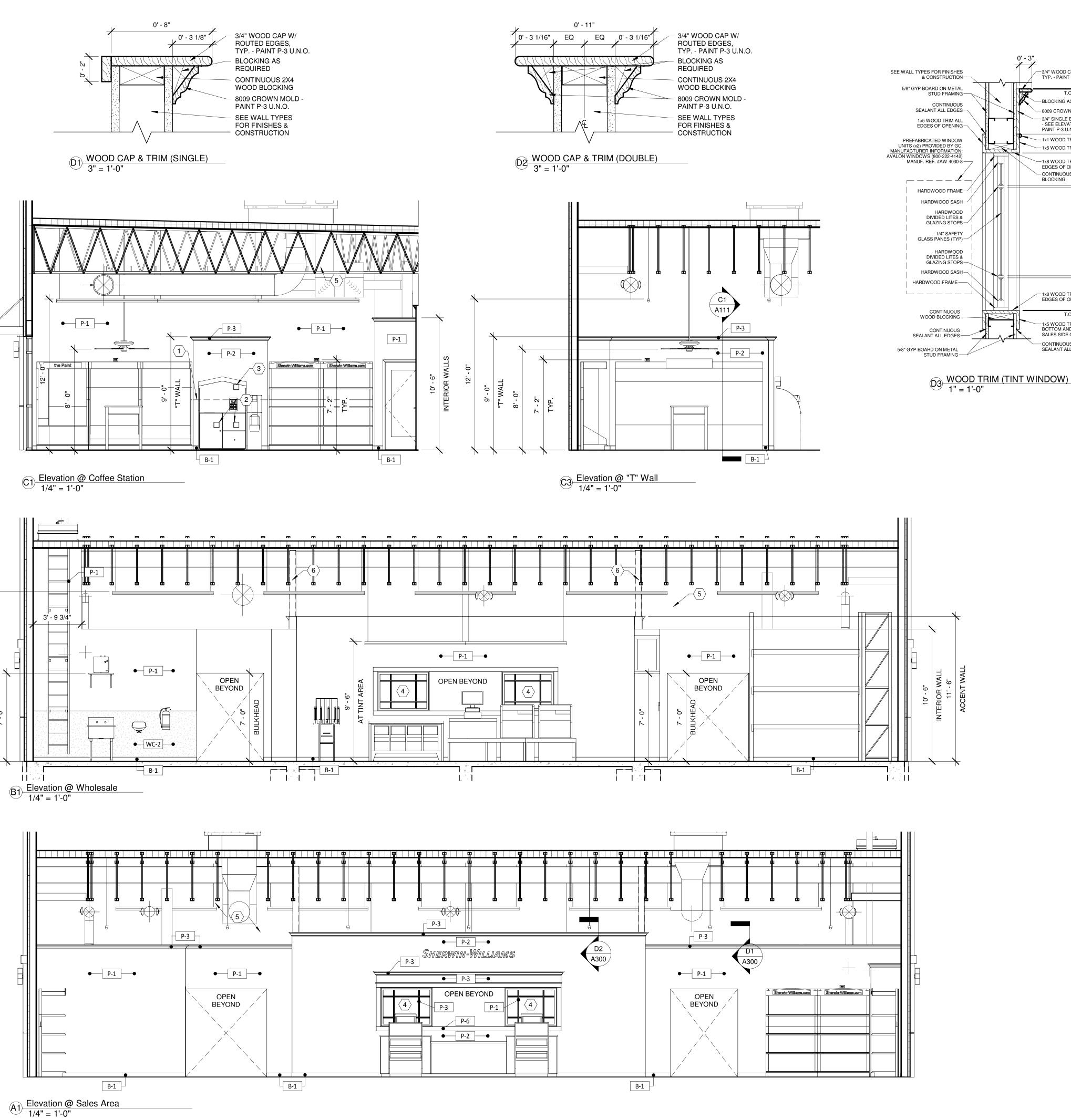
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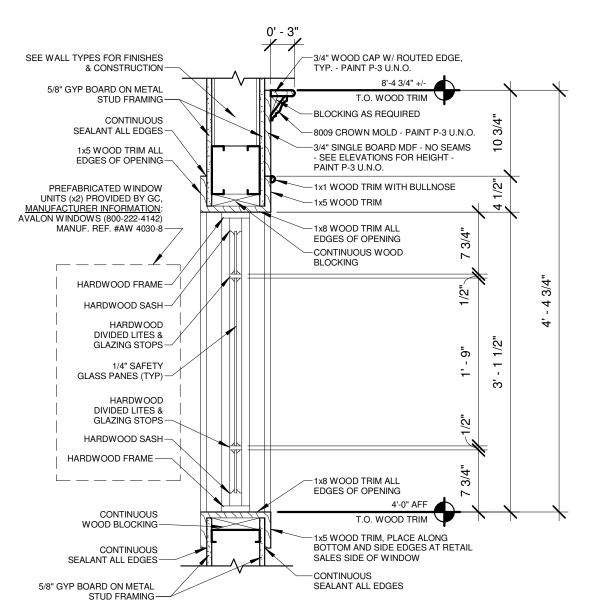
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SHEET TITLE:

**Exterior Elevations** 

SHEET NUMBER:







2 QUAD OUTLET & WATER VALVE IN RECESSED BOX - COORDINATE W/ ELECTRICAL & PLUMBING 3 EXTEND CONDUIT FOR DATA J-BOX THROUGH PLYWOOD BACKING BOARD

● P-1 ●

ONE BOARD LENGTH. NO SEAMS

-PREFAB. WINDOW UNITS

WOOD FRAME AROUND WINDOW UNITS

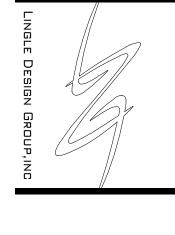
C5 Elevation @ Office 1/4" = 1'-0"

14' - 8"

Sherwin-William's

FINISHED OPENING WIDTH

- TVL508 COORDINATE W/ ELECTRICAL TERMINATE AT DATA BOARD 4 CASED WINDOW BY AVALON - G.C. TO PROVIDE & INSTALL - COORDINATE SPEC W/ SHERWIN-WILLIAMS CORPORATE
- 5 CONFIRM HVAC DUCTWORK AND DIFFUSER/RETURN LOCATIONS WITH MECHANICAL SHEETS - HOLD DUCTWORK CLOSE TO STRUCTURE
- 6 STRUCTURAL COLUMNS TO BE PAINTED P-1



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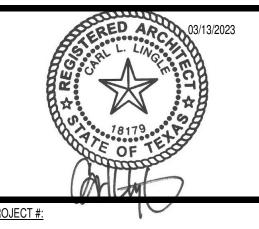
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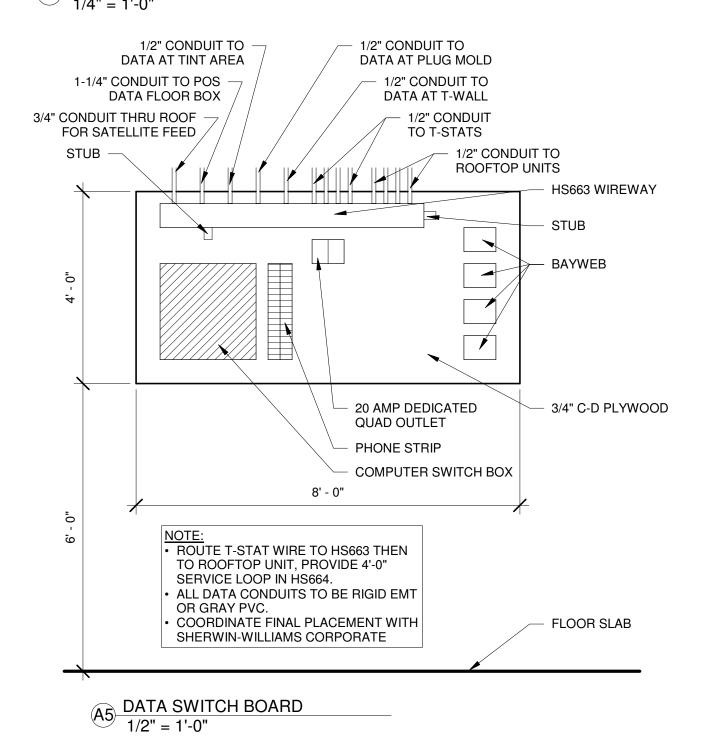


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B5 FEATURE WINDOW 1/4" = 1'-0"

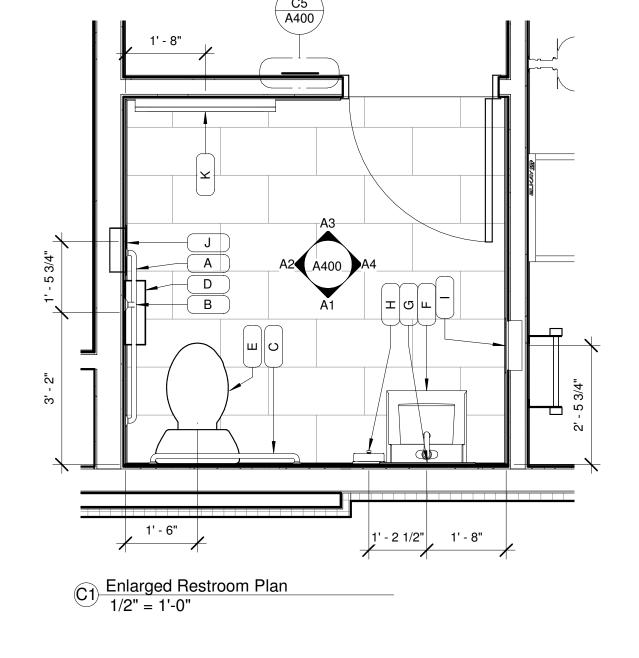
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| STORE #: XXXX                                  |  |
|--|--|
| 9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015 |  |
| SHEET TITLE:                                   |  |

Interior Elevations



● P-5 ●

● B-2 ●

A1 RESTROOM ELEVATION
1/2" = 1'-0"

● WC-1 ●

P-5

- REMOVABLE CLEAR PRISMATIC LENS

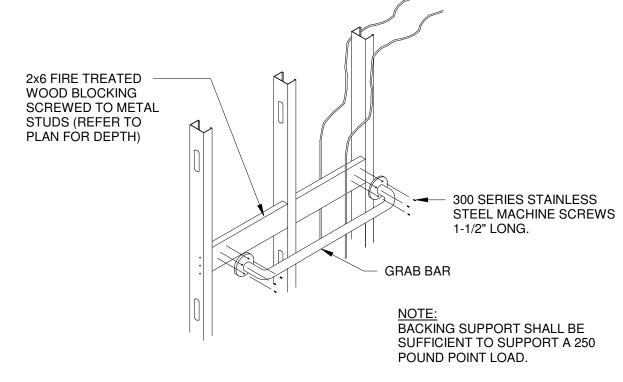
● B-2 ●

•— WC-1 —•

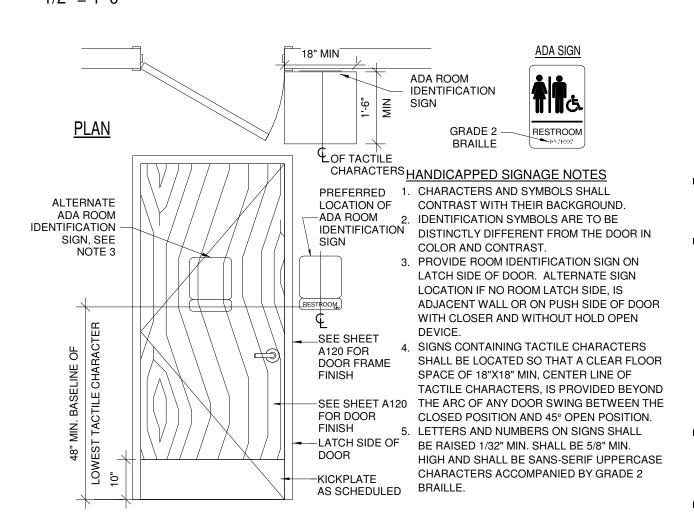


## **GENERAL NOTES**

- ALL FIXTURES & ACCESSORIES MUST MEET ALL NATIONAL AND LOCAL CODES AND ADA REQUIREMENTS. PROVIDE SOLID FIRE TREATED BLOCKING AT ALL WALL MOUNTED FIXTURES FOR SECURE ANCHORING, VERIFY LOCATION WITH MANUFACTURERS SPECIFICATIONS. CLEAR SILICONE CAULK ALL FIXTURES TO
- PARTITION. WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE OPERABLE WITH ONE HAND, SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST, AND SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR.
- THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING CONTROLS, SHALL BE NO GREATER THAN 5 LBF.
- SEE SHEET A110 FOR WALL DIMENSIONS. 5. USE MOISTURE RESISTANT GYPSUM BOARD AT WALLS BEHIND
- PLUMBING FIXTURES.
- PROVIDE BATT INSULATION IN WALLS WHERE SCHEDULED ON SHEET A110.
- XX-X FINISH TAG SEE FINISH SCHEDULE ON SHEET A120
- # DOOR TAG SEE DOOR SCHEDULE ON SHEET A110



D5 TYP. GRAB BAR ATTACHMENT DETAIL
1/2" = 1'-0"

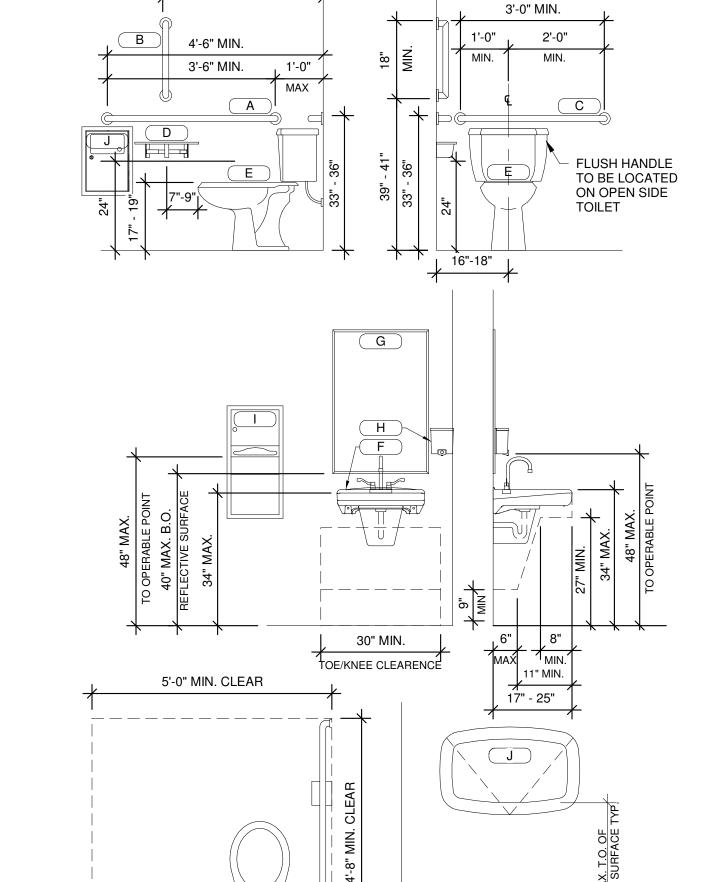


C5 RESTROOM SIGNAGE DETAIL PER ICC A117.1

1/2" = 1'-0"

39"-41"

A5 REQUIRED ACCESSIBLITY CLEARANCES
1/2" = 1'-0"





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# **SHERWIN WILLIAMS**

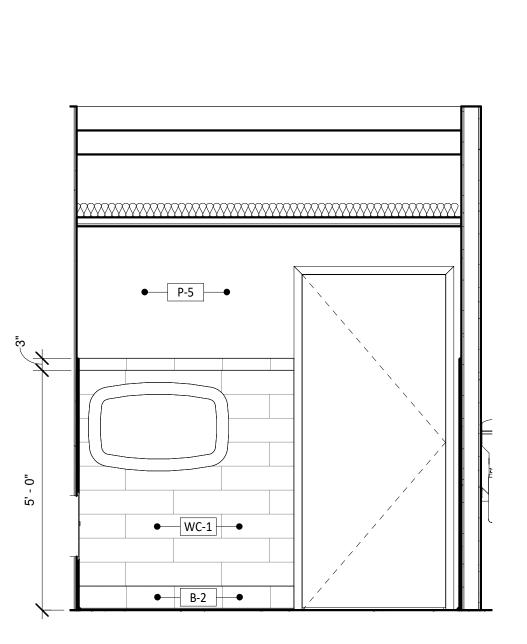
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|---------------------|
| ADDRESS:            |
| 9091 FAIR OAKS PKWY |
| FAIR OAKS BANCH, TX |

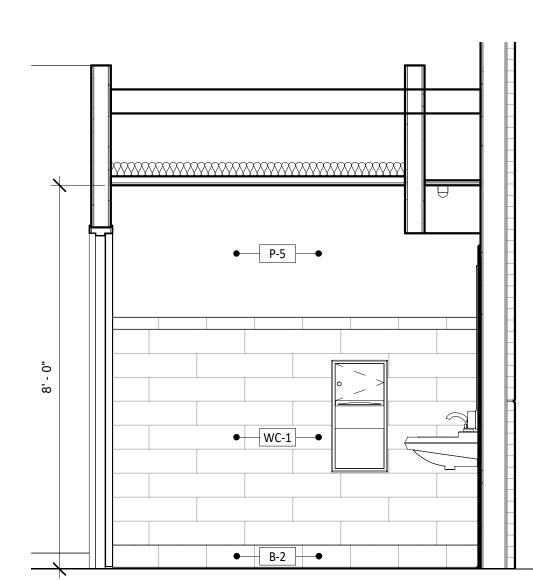
FAIR DANS NAINOR, IA 78015

SHEET TITLE:

Enlarged Restroom Plan

SHEET NUMBER:





RESTROOM ELEVATION
1/2" = 1'-0"

A3 RESTROOM ELEVATION
1/2" = 1'-0"

# STRUCTURAL GENERAL NOTES

#### STRUCTURAL GENERAL NOTES

- 1. THESE GENERAL NOTES SHALL APPLY UNLESS SPECIFICALLY NOTED ON THE PLANS AND DETAILS.
- 2. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE, AND SHALL BE RESPONSIBLE FOR CONDITIONS OF ALL WORK AND MATERIALS, INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.
- 3. DISCREPANCIES AND/OR VARIATIONS SHALL IMMEDIATELY BE REPORTED TO THE ARCHITECT AND ENGINEER.
- 4. CONSTRUCTION, WORKMANSHIP, AND MATERIALS SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE.
- 5. THE STRUCTURAL SYSTEM OF THE BUILDING IS DESIGNED TO PERFORM AS A COMPLETED UNIT. PRIOR TO COMPLETION OF THE STRUCTURE, THE STRUCTURAL COMPONENTS MAY BE UNSTABLE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE TEMPORARY SHORING AND/OR BRACING AS REQUIRED FOR THE STABILITY OF THE INCOMPLETE STRUCTURE AND FOR THE SAFETY OF ALL ON-SITE PERSONNEL.
- 6. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- 7. THE DRAWINGS SHOW ONLY REPRESENTATIVE AND TYPICAL DETAILS TO ASSIST THE CONTRACTOR. THE DRAWINGS DO NOT ILLUSTRATE EVERY CONDITION. ALL ATTACHMENTS, CONNECTIONS, FASTENINGS, ETC., SHALL BE PROPERLY SECURED IN CONFORMANCE WITH THE BEST PRACTICE, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING THEM.
- 8. THE CONTRACT STRUCTURAL DRAWINGS SHALL NOT BE USED IN WHOLE OR IN PART FOR SHOP DRAWING SUBMITTALS.
- 9. CONTRACTOR SHALL NOTE THAT THE STRUCTURAL ENIGNEER REQUIRES A MINIMUM OF TWO WEEKS TO REVIEW ALL SHOP DRAWING SUBMITTALS.
- 10. GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF ALL REQUIRED SITE VISITS.
- 11. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT FOR REFERENCE AS IT DESCRIBES SUB-SURFACE CONDITIONS THAT MAY BE ENCOUNTERED DURING INSTALLATION OF FOUNDATIONS AND CONTAINS OTHER INFORMATION PERTINENT TO CONSTRUCTION DRAWINGS.
- 12. A DULY LICENSED PROFESSIONAL SHALL BE RETAINED TO PROVIDE TESTING AND OBSERVATIONS DURING EXCAVATION, GRADING, FOUNDATION INSTALLATION, AND OTHER CONSTRUCTION PHASES OF THE PROJECT.

#### STRUCTURAL DESIGN CRITERIA

| 1. | PROJECT CODE:  | 2021 IDO              |
|----|--|-----------------------|
|    | A. BUILDING CODE   |                       |
|    | B. STRUCTURAL CONCRETE   |                       |
|    |  |                       |
|    |  |                       |
|    | E. COLD FORMED STEELF. WOOD  |                       |
|    |  | ND3 - CORRENT EDITION |
| 2. | GRAVITY LOADS  |                       |
|    | A. DEAD LOADS  • ROOF  | 20 PSF                |
|    | B. LIVE LOADS  | 20131                 |
|    | • ROOF   | 20 PSF                |
|    | • 1ST FLOOR  |                       |
| ^  |  |                       |
| 3. | SNOW LOADS  A. GROUND SNOW LOAD, Pg  | 5 PSF                 |
|    | B. IMPORTANCE FACTOR, I  |                       |
|    | C. SNOW EXPOSURE FACTOR, Ce  |                       |
|    | D. THERMAL FACTOR, Ct  |                       |
|    | E. DRIFT LOADING   |                       |
|    | F. BALANCED SNOW LOAD  |                       |
|    |  |                       |
| 4. | WIND LOADS   | 110 MDII              |
|    | A. Vult  |                       |
|    | B. RISK CATEGORY   |                       |
|    | C. EXPOSURE  D. INTERNAL PRESSURE COEFFICIENT                                | <del>-</del>          |
|    |  | •                     |
|    | E. IMPORTANCE FACTORF. COMPONENTS AND CLADDING                               |                       |
|    | F. COMPONENTS AND CLADDING   | DIAGRAMS              |
| Е  | CEICNIC LOADC  | 2                     |
| 5. | SEISMIC LOADS  A. SEISMIC DESIGN CATEGORY                                    | A                     |
|    |  |                       |
|    |  |                       |
|    | C. SEISMIC IMPORTANCE FACTOR, le  D. RISK CATEGORY                           |                       |
|    | D. RISK CATEGORY   |                       |
|    | F. S1  |                       |
|    | G. Sds   |                       |
|    | H. Sd1   |                       |
|    | I. BASIC SEISMIC FORCE RESISTING SYSTEM                                      |                       |
|    | J. Cs  |                       |
|    | K. R   |                       |
|    | L. ANALYSIS PROCEDURE  |                       |
|    | M. SEISMIC BASE SHEAR, V (ULT.)  |                       |
|    | , , ,  | ·                     |
| 6. | FOUNDATION DESIGN  | CDADE BEAMC           |
|    | A. FOUNDATION TYPE   |                       |
|    | B. ALLOWABLE BEARING PRESSURE  |                       |
|    | C. MINIMUM BEARING BELOW FINISHED GRADE                                      |                       |
|    | D. GEOTECHNICAL REPORT:  |                       |
|    | BY: TERRACON   | AAAO FAID OAKO        |
|    | REPORT TITLE: PROPOSED SHERWIN WILLI      REPORT NO. 20225251 PATER LANGUAGE |                       |
|    | 2. PROJECT NO. 90225351, DATED JANUARY 18                                    | 3, 2023               |
|    |  |                       |

#### **GEOTECH PREPARATION NOTES**

- 1. THE SUBGRADE PREPARATION NOTES BELOW ARE A SUMMARY OF THE GEOTECHNICAL ENGINEERS RECOMMENDATIONS AND REQUIREMENTS. THE CONTRACTOR SHALL MEET ALL REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL BE RETAINED TO VERIFY EARTHWORK PLACEMENT AND PREPARATION
- 2. THE CONTRACTOR SHALL BE PREPARED TO ENCOUNTER AND PROPERLY EXCAVATE NEAR-SURFACE LIMESTONE ANYWHERE ON THE
- 3. DRAINAGE SHALL BE PROVIDED DURING CONSTRUCTION AT ALL TIMES TO PREVENT PONDING. DURING CONSTRUCTION, IF SURFICIAL SOILS BECOME EXCESSIVELY WET AS A RESULT OF WEATHER, CEMENT MAY BE MIXED WITH THESE SOILS TO IMPROVE WORKABILITY. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
- 4. PRIOR TO CONSTRUCTION, THE WORK AREA SHOULD BE CLEARED OF LOOSE TOPSOIL AND ANY OTHERWISE UNSUITABLE MATERIALS.
- 5. AFTER STRIPPING AND GRUBBING, ON-SOILS SHALL BE EXCAVATED IN THE PAD AREA TO A MINIMUM DEPTH AS DEFINED BY GEOTECHNICAL RECOMMENDATIONS OR UNTIL EXPOSING LIMESTONE. THE PAD AREA SHALL EXTEND 3'-0" BEYOND THE PERIMETER OF THE BUILDING SLAB.
- 6. THE SUBGRADE SHALL BE PROOF-ROLLED TO LOCATE LOOSE OR SOFT AREAS. PROOF-ROLLING CAN BE PERFORMED WITH A FULLY LOADED DUMP TRUCK OR COMPARABILE PNEUMATIC TIRED VEHICLES. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT BEYOND GEOTECHNICAL CRITERIA SHALL BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED ON-SITE SOILS. THE GEOTECHNICAL ENGINEER SHALL BE RETAINED TO OBSERVE THE PROOF-ROLLING AND UNDERCUTTING ACTIVITIES. AND THESE ACTIVITIES SHALL BE PERFORMED DURING A PERIOD OF DRY WEATHER.
- 7. IF THE SUBGRADE CANNOT BE COMPACTED TO MINIMUM DENSITIES SET FORTH IN THE GEOTECHNICAL REPORT, ADDITIONAL MEASURES WILL BE REQUIRED. REFER TO THE GEOTECHNICALL RECOMMENDATIONS.
- 8. AFTER PROOF-ROLLING AND REPLACEMENT OF WEAK YIELDING AREAS, THE SUBGRADE SHALL BE SCARIFIED AND MOISTURE CONDITIONED PER GEOTECHNICAL RECOMMENDATIONS. MOISTURE CONDITIONING IS NOT NECESSARY IN AREAS OF EXPOSED
- 9. AFTER MOISTURE CONDITIONING OF THE SUBGRADE, PLACE GRANULAR SELECT FILL IN 8 INCH LOOSE LIFTS PER GEOTECHNICAL REQUIREMENTS.
- 10. PROVIDE A 10 MIL VAPOR BARRIER BENEATH THE SLAB.
- 11. ALL FOUNDATION ELEMENTS BEARING ON SUBGRADE SHALL BEAR AT A MINIMUM DEPTH OF 2'-6" BELOW FINISHED GRADE. ALL FOUNDATION ELEMENTS BEARING ON LIMESTONE SHALL BEAR A MINIMUM OF 6" INTO THE LIMESTONE.

#### STRUCTURAL CONCRETE NOTES

SCHEDULE 40 PIPE.

- 1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST AMERICAN CONCRETE INSTITUTE BUILDING CODE (ACI 318-14). ALL CONCRETE FLOOR AND SLAB CONSTRUCTION SHALL CONFORM TO ACI 302.1R-04. ALL CONCRETE WORK SHALL ALSO CONFORM TO "SPECIFICATIONS FOR STRUCTURAL CONCRETE", ACI 301.
- 2. PROVIDE NORMALWEIGHT CONCRETE WITH CURED DENSITY OF 145 +/- 5 PCF, AND AGGREGATE CONFORMING TO ASTM C33, U.N.O. WHERE INDICATED, PROVIDE LIGHTWEIGHT CONCRETE WITH CURED DENSITY OF 112+/-3 PCF AND AGGREGATE CONFORMING TO ASTM C330
- 3. CONCRETE STRENGTH SHALL MEET THE FOLLOWING 28-DAY COMPRESSIVE STRENGTHS (f'c) U.N.O.:
- A. 28 DAY COMPRESSIVE STRENGTH a. FOOTINGS, PIERS... ...3.500 PSI
- b. SLAB ON GRADE... ...4,000 PSI
- B. MINIMUM CEMENT CONTENT. ...520-610 LB/CY C. NOMINAL MAX AGGREGATE SIZE
- a. SLAB ON GRADE.... b. TYPICAL
- D. AIR CONTENT a. CONCRETE EXPOSED TO FREEZE/THAW......4 1/2% +/- 1 1/2"
- b. TROWEL-FINISHED INTERIOR SLABS.....LESS THAN 3%
- 4. FLY ASH CAN BE SUBSTITUTED FOR CEMENT UP TO 25% BY WEIGHT. CALCIUM CHLORIDE IS NOT ACCEPTABLE FOR USE IN MIX..
- 5. FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. RETAIN A QUALIFIED TESTING LABORATORY TO MAKE CONCRETE CYLINDERS AND PERFORM COMPRESSIVE TESTS.
- 6. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150. AGGREGATE SHALL CONFORM TO ASTM C-33.
- 7. PROVIDE CONTROL JOINTS IN ALL SLABS AT A SPACING NOT TO EXCEED 15'-0" O.C. EACH WAY. JOINT DEPTH SHALL BE A MINIMUM OF 1/4 THE SLAB THICKNESS. IF JOINTS ARE SAW-CUT, THE CUTTING SHALL TAKE PLACE IMMEDIATELY AFTER FINISHING THE SLAB. JOINTS SHALL NOT BE LOCATED IN LINE WITH AND ABOVE GRADE BEAMS IF APPLICABLE. COORDINATE LOCATION OF JOINTS WITH ARCHITECT.
- 8. SEE ARCHITECTURAL AND MECHANICAL PLANS FOR VERIFICATION OF ALL DEPRESSIONS, OPENINGS, CAST-IN-PLACE
- 9. ALL FLOOR SLABS SHALL BE CONSTRUCTED TO HAVE A MINIMUM FLATNESS OF Ff=35 AND A MINIMUM LEVELNESS OF FI=25 IN ACCORDANCE WITH ASTM E 1155.
- 10. CURE CONCRETE SURFACE EITHER BY WATER CURING, WET COVERING, OR APPLYING A LIQUID MEMBRANE-FORMING CURING COMPOUND THAT MEETS OR EXCEEDS THE REQUIREMENTS OF ASTM C 309.
- 11. WHEN WATER CURING OR WET COVERING IS USED PROVIDE 7 DAYS OF UNINTERRUPTED CURING.
- 12. IF A CURING COMPOUND IS USED, PROVIDE A LETTER OF COMPATIBILITY FROM THE MFR. INSURING THAT THE CURING
- COMPOUND WILL NOT INTERFERE WITH SUBSEQUENT FLOOR FINISHES.
- **REQUIREMENTS:** • CONDUITS AND PIPES EMBEDDED WITHIN A SLAB, WALL, OR BEAM (OTHER THAN THOSE PASSING THROUGH) SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN 1/3 THE OVERALL THICKNESS OF THE SLAB, WALL, OR BEAM IN WHICH THEY ARE

13. EMBEDDED CONDUITS AND PIPES, AND SLEEVES SHALL MEET THE REQUIREMENTS OF ACI 318-14, INCLUDING THE FOLLOWING

 CONDUITS, PIPES, AND SLEEVES SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS OR WIDTHS ON CENTER. CONDUITS, PIPES, AND SLEEVES SHALL BE OF UN-COATED OR GALVANIZED IRON OR STEEL NOT THINNER THAN STANDARD

#### CONCRETE REINFORCING NOTES

- 1. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", ACI 315 LATEST EDITION.
- 2. ALL REINFORCING BARS SHALL SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES, UNO:
  - **DEFORMED BARS...** ....ASTM A615 (GR 60) WELDED WIRE REINFORCEMENT......ASTM A1064 WELDABLE DEFORMED BARS.....ASTMA70
- 3. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

| CONCRETE<br>EXPOSURE                                     | MEMBER                                 | REINFORCEMENT                           | SPECIFIED<br>COVER |
|--|--|---|--------------------|
| CAST AGAINST<br>PERMANENTLY<br>IN CONTACT WITH<br>GROUND | ALL                                    | ALL                                     | 3 IN               |
| EXPOSED TO   | ALL                                    | NO. 6 THRU NO. 18                       | 2 IN               |
| WEATHER OR IN<br>CONTACT WITH<br>GROUND                  |  | NO. 5, W31, OR D31<br>WIRE OR SMALLER   | 1 1/2 IN           |
| NOT EXPOSED TO<br>WEATHER OR IN<br>CONTACT WITH          | SLABS,<br>JOISTS, &<br>WALLS           | PRIMARY<br>REINFORCEMENT                | 1 1/2 IN           |
| GROUND   | BEAMS,<br>COLS. AND<br>TENSION<br>TIES | STIRRPS, TIES,<br>SPIRALS, AND<br>HOOPS | 1 IN               |

- 4. CORNER REINFORCING BARS SHALL BE USED AT ALL CORNERS AND INTERSECTIONS. SEE TYPICAL DETAIL
- 5. LAP REINFORCING AT SPLICES PER LAP SPLICE SCHEDULE UNLESS NOTED OR DETAILED OTHERWISE.
- 6. WELDING OR HEAT BENDING OF REINFORCING BARS SHALL NOT BE PERMITTED, UNLESS APPROVED BY THE ENGINEER.
- 7. PROVIDE (2) #4 X 4'-6' LONG DIAGONAL BARS AT ALL RE-ENTRANT CORNERS.
- 8. U.N.O. IN SHEARWALL SCHEDULE: PROVIDE 1/2" DIAMETER X 10" LONG HOT DIPPED GALVANIZED ANCHOR BOLTS AT 4'-0" O.C. IN THE FOUNDATION AT THE LOCATIONS OF ALL EXTERIOR WOOD FRAMED WALLS. REFER TO SHEAR WALL SCHEDULE AT SHEAR WALLS.
- 9. AT CORNERS AND "T" INTERSECTIONS OF ALL BEAMS EXTEND 4 CORNER BARS EQUAL TO THE SCHEDULED STEEL IN THE ADJACENT BEAMS 2'-0" EACH WAY, 2 BARS TOP AND 2 BARS BOTTOM. PROVIDE CORNER BARS AT ALL INTERMEDIATE REINFORCING BARS IN WALLS AND DEEP BEAMS
- 10. PROVIDE ACCESSORIES FOR SUPPORT OF ALL REINFORCING.
- 11. WHERE A 90-DEG, 135-DEG, OR 180-DEG HOOK IS GRAPHICALLY INDICATED, PROVIDE CORRESPONDING ACI STARDARD HOOKS UNO

#### PRE-FABRICATED WOOD TRUSSES

- PREFABRICATED TRUSS SUPPLIER SHALL SUBMIT FABRICATION AND ERECTION DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED ENGINEER IN THE STATE OF TEXAS AND SHALL CLEARLY INDICATE DESIGN LOADS, MEMBER STRESSES, LUMBER GRADES, SPLICE LOCATIONS, REQUIRED BLOCKING, BRIDGING, BRACING, PLACEMENT, DESIGNATION, BUILDING NUMBER, AND NAME OF PROJECT.
- 2. DESIGN ROOF TRUSSES FOR THE FOLLOWING LOADING: A. TOP CHORD
  - a. DEAD LOAD.....14 PSF
  - b. LIVE LOAD......20 PSF
- c. SNOW LOAD....PER LOADING PLANS B. BOTTOM CHORD
- a. DEAD LOAD.....6 PSF
- b. LIVE LOAD......10 PSF ( NON-CONCURRENT) 3. DESIGN "RED-S" JOISTS FOR DEAD/LIVE LOADS PER DESIGN CRITERIA
- 4. REFER TO PLANS FOR ADDITIONAL MECHANICAL LOADING

AND COMMON JACK TRUSSES TO GIRDER TRUSS).

- 5. REFER TO PLANS AND/OR LOADING PLANS FOR ADDITIONAL LOADING AND DESCRIPTION.
- 6. FOR SIZE AND LOCATION OF MECHANICAL UNITS AND / OR OPENINGS REQUIRED IN TRUSS WEBS FOR DUCTS OR MECHANICAL UNITS, SEE MECHANICAL DRAWINGS.
- 7. UPLIFT CONNECTORS SHALL BE DESIGNED AND SUPPLIED BY TRUSS MANUFACTURER FOR CALCULATED UPLIFT.
- 8. ALL TRUSS-TO-TRUSS CONNECTORS SHALL BE SPECIFIED BY THE TRUSS MANUFACTUER.
- 9. DESIGN AND DETAIL OF LATERAL BRACING INCLUDING RESTRAINT TO THE MAIN BUILDING SHALL BE RESPONSIBILITY OF THE TRUSS DESIGNER
- 10. TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS, AND CALCULATIONS, WITH SEAL OF REGISTERED ENGINEER IN THE PROJECT STATE FOR REVIEW. SHOP DRAWINGS SHALL INCLUDE SIZE AND LOCATION OF ALL REQUIRED BRACING MEMBERS (TEMPORARY AND PERMANENT) AND DETAILS OF ALL TRUSS TO TRUSS CONNECTIONS (EXAMPLE: HIP JACK TRUSS TO GIRDER TRUSS
- 11. TRUSS MANUFACTURER SHALL PROVIDE A COPY OF BCSI GUIDE FOR HANDLING, INSTALLING. AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES TO TRUSS ERECTOR.
- 12. MAXIMUM LIVE LOAD DEFLECTION SHALL BE SPAN LENGTH / 360 FOR ROOF, FLOOR, BALCONY, AND CORRIDOR TRUSSES. MAXIMUM TOTAL LOAD DEFLECTION SHALL BE SPAN LENGTH /240 FOR ROOF, FLOOR, BALCONY, AND CORRIDOR TRUSSES. THE MAXIMUM DEFLECTION SHALL NOT EXCEED 1 INCH.

#### STRUCTURAL TIMBER NOTES

F. HORIZONTAL SHEAR, Fv (psi):

- 1. VISUALLY GRADED LUMBER SHALL CONSIST OF SOUTHERN YELLOW PINE (SYP) AND/OR DOUGLAS FIR LARCH (DFL), KILN DRIED WITH A MOISTURE CONTENT OF 19% MAXIMUM AT THE TIME OF INSTALLATION, UNLESS NOTED OTHERWISE.
- 2. ENGINEER LUMBER INCLUDING GLULAMS, LAMINATED VENEER LUMBER (LVL), AND PARALLEL STRAND LUMBER (PSL) SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN VALUES:

DESIGN PROPERTY A. MODULUS OF ELASTICITY, E (ksi): 2,000 2,850 B. FLEXURAL STRESS, Fb (psi): C. COMPRESSION, Fc-PERP. (psi): 750 D. COMPRESSION, Fc-PARALLEL (psi): 3,000 E. TENSION PARALLEL TO GRAIN, Ft (psi): 2,150

3. ALL LUMBER SHALL BE STAMPED WITH GRADE, SPECIES, AND GRADING AGENCY FOR EACH APPLICATION AS FOLLOWS:

APPLICATION GRADE AND SPECIES STUDS AND COLUMNS......NO. 2 STUD - S. PINE TOP AND BOTTOM PLATES ..... CONSTRUCTION - S. PINE HEADERS ... ....#2 S. PINE OR LVL BEAMS AND JOISTS..... .....#2 S. PINE NON-STRUCTURAL.... ......UTILITY - S. PINE

- 4. SOLID 2" BLOCKING SHALL BE PROVIDED AT THE ENDS AND POINTS OF SUPPORT OF ALL JOISTS, RAFTERS, AND PURLINS, AND SHALL BE PLACED BETWEEN SUPPORTS IN ROWS NOT EXCEEDING 8'-0" APART. ALL WALLS SHALL HAVE SOLID 2" BLOCKING AT 8'-0" O.C. MAX. VERTICALLY. END NAIL WITH (2)-16d NAILS OR SIDE TOE NAIL WITH (2)-12d NAILS. ALL BLOCKING SHALL BE SAME DEPTH AS MEMBERS BEING BLOCKED.
- 5. ALL CONNECTIONS FOR WOOD FRAMING MEMBERS SHALL BE INACCORDANCE WITH THE INTERNATIONAL BUILDING CODE FASTENING SCHEDULE (TABLE 2304.9.1).
- 6. ALL WOOD STUD WALLS SHALL BE FULL HEIGHT WITHOUT INTERMEDIATE PLATE LINE UNLESS DETAILED OTHERWISE.
- 7. PROVIDE A SINGLE PLATE (PRESSURE TREATED) AT THE BOTTOM AND A DOUBLE PLATE AT THE TOP OF ALL STUD WALLS. SILL PLATES SHALL BE CONNECTED WITH GALVANIZED ANCHOR BOLTS (1/2" Ø MINIMUM, EMBEDDED 7" MINIMUM INTO FOUNDATION AND SPACED 4'-0" O.C. MAXIMUM WITH A MINIMUM OF 2 BOLTS PER PIECE OF PLATE AND ONE BOLT LOCATED WITHIN 4" TO 12" FROM EACH END).
- 8. ALL PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED (USE CATEGORY 2 (UC2) AS SPECIFIED BY AWPA) FOR MOISTURE PROTECTION. ALL WOOD EXPOSED TO WEATHER BUT NOT BEARING ON GROUND SHALL BE PRESSURE TREATED (USE CATEGORY UC3 AS SPECIFIED BY AWPA). ALL STRUCTURAL TIMBER EXPOSED TO WEATHER AND IN CONTACT WITH GROUND SHALL BE SHALL BE PRESSURE TREATED (USE CATEGORY UC4A AS SPECIFIED BY AWPA).
- 9. STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, BEAM SUPPORTS, AND AROUND ALL OPENINGS.
- 10. PROVIDE SOLID BLOCKING IN ALL SPANS OVER 8'-0". MAXIMUM DISTANCE BETWEEN BLOCKING AND BEARING SHALL BE 8'-0". PROVIDE SOLID BLOCKING AT ALL SUPPORTS.
- 11. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL CANTILEVERED JOISTS SHALL EXTEND INTO THE BUILDING A DISTANCE EQUAL TO THE CANTILEVER. CANTILEVERED JOISTS RUNNING PERPENDICULAR TO FRAMING INSIDE THE BUILDING SHALL BE CONNECTED TO INSIDE MEMBER WITH STANDARD JOIST HANGERS. CANTILEVERED JOISTS RUNNING PARALLEL TO FRAMING INSIDE THE BUILDING SHALL BE NAILED TO THE SIDE OF THE INSIDE MEMBERS WITH 10d NAILS AT 12"o.c. TOP AND BOTTOM.
- 12. UNLESS OTHERWISE INDICATED, USE WOOD CONNECTORS AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY OR APPROVED EQUIVALENT. CONNECTOR TYPE SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION AND INSTALLED WITH MANUFACTURER RECOMMENDED FASTENERS TO DEVELOP THE FULL CAPACITY OF THE CONNECTOR. CONNECTORS EXPOSED TO MOISTURE AND OTHER CORROSIVE ELEMENTS SHALL BE HOT DIPPED GALVANIZED OR Z-MAX WITH HOT DIPPED GALVANIZED FASTENERS.
- 13. ALKALINE COPPER QUATERNARY (ACQ) PRESSURE TREATED LUMBER PRODUCTS ARE HIGHLY CORROSIVE TO METAL CONNECTORS AND FASTENERS. ALL FASTENERS AND METAL CONNECTORS USED IN CONJUNCTION WITH THE ACQ PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED (MIN. G185 COATING) OR TYPE 304 OR 316 STAINLESS STEEL. THESE LOCATIONS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
- ANCHOR BOLTS AND WASHERS AT SOLE PLATE TO FOUNDATION
- MUD SILL ANCHORS AT SOLE PLATE TO FOUNDATION
- NAILS FROM SOLE PLATE TO WALL STUDS
- NAILS AT EXTERIOR PLYWOOD SHEATHING TO SOLE PLATE
- BOLTS AT LEDGER TO CONCRETE JOIST TO TREATED LEDGER CONNECTIONS
- ALL HANGERS ON TREATED JOISTS
- PLYWOOD DECKING TO TREATED JOISTS WOOD POSTS TO CONCRETE
- NAILS AT FLOOR JOISTS AND RIM JOISTS TO SOLE PLATE DECK BOARDS TO TREATED JOISTS
- PLYWOOD DECKING AND SHEATHING NOTES

- 1. ALL PLYWOOD DECKING AT ROOFS SHALL BE: A. 19/32" PERFORMANCE CATEGORY APA RATED SHEATHING (OR OSB), 40/20, EXPOSURE 1 (C-D)
- B. PROVIDE ADEQUATE BLOCKING, TONGUE AND GROOVE EDGES OR PLYCLIPS (2 FOR 48" SPAN).
- 2. ALL ROOF DECKING SHALL BE NAILED TO SUPPORTING MEMBERS ALONG THE EDGES WITH 10d NAILS SPACED AT 6" O.C. AND AT INTERMEDIATE SUPPORTS WITH 10d NAILS SPACED AT 6" O.C. UNLESS NOTED OTHERWISE ON PLANS. 2 SPAN MINIMUM.
- 3. ALL JOINTS IN PLYWOOD DECKING SHALL BE STAGGERED.
- 4. PLACE PLYWOOD PANELS WITH LONG DIMENSION RUNNING PERPENDICULAR TO JOISTS WITH END JOINTS STAGGERED 1/2 PANEL. USE 10d NAILS SPACED AT 6"o.c. AT END JOINTS OF PANELS AND AT WALL CONNECTIONS. FIELD NAILING OF INTERMEDIATE SUPPORTS SHALL BE AT 10"o.c. FOR FLOOR AND AT 12"o.c. FOR ROOF.
- 5. ALL PLYWOOD SHEATHING AT WALLS SHALL BE: A. AT INTERIOR NOT EXPOSED TO LONG TERM WEATHER
- a. 15/32" PERFORMANCE CATEGORY APA RATED SHEATHING (OR OSB), 32/16, EXPOSURE 1
- 6. ALL PLYWOOD WALLS SHALL BE NAILED TO SUPPORTING MEMBERS ALONG THE EDGES WITH 10d NAILS SPACED AT 6" O.C. AND AT INTERMEDIATE SUPPORTS WITH 10d NAILS SPACED AT 12" O.C. UNLESS NOTED OTHERWISE AT SHEARWALL SCHEDULES OR PLAN NOTES. 2 SPAN
- 7. PROVIDE SOLID 2" BLOCKING AT ALL JOINTS IN PLYWOOD SHEAR WALLS.

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PERMIT SET - 03/13/2023

SHERWIN WILLIAMS

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

STRUCTURAL **GENERAL NOTES** 

#### SPECIAL INSPECTIONS NOTES

| I   | CONTINUOUS   | PERIODIC                              |  |   |
|---|--|---------------------------------------|--|---|
| IBC 1705.3 - CONCRETE CONSTRUCTION  | SPECIAL<br>INSPECTION  | SPECIAL<br>INSPECTION                 | REFERENCED<br>STANDARD                               | IBC<br>REFERENCES                       |
| 1. INSPECT REINFORCING STEEL, INCLUDING PRE STRESSING TENDONS, AND PLACEMENT.   | _  | X                                     | ACI 318 Ch. 20,<br>25.2, 25.3,<br>26.5.1-26.5.3      | 1908.4                                  |
| 2. INSPECT ANCHORS CAST IN CONCRETE   | _  | X                                     | ACI 318: 17.8.2                                      | -                                       |
| 3. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS  | _  |                                       |  | _                                       |
| a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY<br>OR UPWARDLY INCLINED ORIENTATIONS TO RESIST<br>SUSTAINED TENSIONS LOADS.   | Х  |                                       | ACI 318:<br>17.8.2.4                                 | -                                       |
| b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS<br>NOT DEFINED IN 4a   |  | Х                                     | ACI 318:<br>17.8.2                                   |   |
| 4. VERIFY USE OF REQUIRED DESIGN MIX  | -  | X                                     | ACI: 318: Ch.<br>19, 26.4.3,<br>26.4.4               | 1904.1,<br>1904.2,<br>1908.2,<br>1908.3 |
| 5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.  | X  | X                                     | ASTM C 172<br>ASTM C 31<br>ACI 318:<br>26.4.5, 26.12 | 1908.10                                 |
| 6. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.  | Х  | -                                     | ACI 318:<br>26.4.5                                   | 1908.6,<br>1908.7,<br>1908.8            |
| 7. VERIFY MAINTENANCE OF SPECIFIED CURING<br>TEMPERATURE AND TECHNIQUES   | -  | X                                     | ACI 318:<br>26.4.7-26.4.9                            | 1908.9                                  |
| 8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED  | -  | X                                     | ACI 318:<br>26.10.1(B)                               | _                                       |
| IBC 1705.4 - MASONRY CONSTRUCTION   | NOT REQ'D  |                                       |  |   |
| IBC 1705.5 - WOOD CONSTRUCTION  |  | Χ                                     |  |   |
| IBC 1705.6 - SOILS  |  |                                       |  |   |
| EXCEPTIONS:   |  |                                       |  |   |
| WHERE IBC SECTION 1803 DOES NOT REQUIRE REPORTING OF<br>SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP<br>OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN  | ACTED FILL IS NOT  | LESS THAN 90 PERCE                    |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP  | ACTED FILL IS NOT  | LESS THAN 90 PERCE                    |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP<br>OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN<br>VERIFICATION THAT PROPER MATERIALS AND PROCEDURES<br>ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH  | ACTED FILL IS NOT  | LESS THAN 90 PERCE<br>57.             |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMPOPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN  VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE   | ACTED FILL IS NOT  | LESS THAN 90 PERCE<br>57.<br>X        |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH   | ACTED FILL IS NOT  | LESS THAN 90 PERCE<br>57. X<br>X      |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED   | ACTED FILL IS NOT  | LESS THAN 90 PERCE<br>57. X<br>X      |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.  4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF   | ACTED FILL IS NOT<br>CE WITH ASTM D 15                       | LESS THAN 90 PERCE<br>57. X<br>X      |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.  4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL  5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED  | ACTED FILL IS NOT<br>CE WITH ASTM D 15                       | LESS THAN 90 PERCE<br>57. X<br>X<br>X |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.  4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL  5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.  | ACTED FILL IS NOT<br>CE WITH ASTM D 15                       | LESS THAN 90 PERCE<br>57. X<br>X<br>X |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.  4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.  5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.  IBC 1705.7 - DRIVEN DEEP FOUNDATIONS   | ACTED FILL IS NOT<br>CE WITH ASTM D 15                       | LESS THAN 90 PERCE<br>57. X<br>X<br>X |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.  4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL  5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.  IBC 1705.7 - DRIVEN DEEP FOUNDATIONS  IBC 1705.8 - CAST-IN-PLACE DEEP FOUNDATIONS | ACTED FILL IS NOT CE WITH ASTM D 15  X  X  NOT REQ'D         | LESS THAN 90 PERCE<br>57. X<br>X<br>X |  |   |
| SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMP OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDAN VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT  1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY  2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.  3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.  4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL  5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.  IBC 1705.7 - DRIVEN DEEP FOUNDATIONS  IBC 1705.9 - HELICAL PILE FOUNDATIONS       | ACTED FILL IS NOT CE WITH ASTM D 15  X  NOT REQ'D  NOT REQ'D | LESS THAN 90 PERCE<br>57. X<br>X<br>X |  |   |

| SPECIAL INSPECTION  | CONTINUOUS<br>SPECIAL<br>INSPECTION | PERIODIC<br>SPECIAL<br>INSPECTION | REFERENCED STANDARD |
|---|-------------------------------------|-----------------------------------|---------------------|
| IBC 1704.2.5 - INSPECTION OF FABRICATORS  |                                     |                                   |                     |
| WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. | Х                                   |                                   |                     |

SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE FABRICATOR MAINTAINS APPROVED DETAILED FABRICATION AND ALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM ) APPROVED CONSTRUCTION DOCUMENTS AND THE BUILDING CODE. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND JALITY CONTROL PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL.

SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5.2.

| IBC 1705.2 - STEEL CONSTRUCTION   |   |   |   |
|---|---|---|---|
| STRUCTURAL STEEL IN ACCORDANCE WITH QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360                     |   | Х | AISC 360                                      |
| IBC 1705.2.2 - COLD-FORMED STEEL DECK   |   |   |   |
| SPECIAL INSPECTIONS AND QUALIFICATION OF WELDING SPECIAL INSPECTORS FOR COLD-FORMED STEEL FLOOR AND ROOF DECK |   |   | SDI QA/QC                                     |
| IBC 1705.2.3 - OPEN WEBB STEEL JOISTS AND JOISTS GIRDERS  |   |   |   |
| 1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.   |   |   |   |
| a. END CONNECTIONS - WELDING OR BOLTED  | _ |   | SJI SPECIFICATION LISTED<br>IN SECTION 2207.1 |
| b. BRIDGING - HORIZONTAL OR DIAGONAL  | _ |   |   |
| 1. STANDARD BRIDGING.   | _ |   | SJI SPECIFICATION LISTED IN<br>SECTION 2207.1 |
| 2. BRIDGING THAT DIFFERS FROM SJI SPECIFICATION LISTED IN SECTION 2207.1                                      |   |   |   |

#### STRUCTURAL SPECIAL INSPECTION NOTES:

- 1. SPECIAL INSPECTIONS ARE NOT REQUIRED FOR CONSTRUCTION OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION AS APPROVED BY THE BUILDING OFFICIAL.
- 2. UNLESS OTHERWISE REQUIRED BY THE BUILDING OFFICIAL, SPECIAL INSPECTIONS ARE NOT REQUIRED FOR GROUP U OCCUPANCIES THAT ARE ACCESSORY TO A RESIDENTIAL OCCUPANCY INCLUDING, BUT NOT LIMITED TO, THOSE LISTED IN IBC SECTION 312.1.
- 3. SPECIAL INSPECTIONS ARE NOT REQUIRED FOR PORTIONS OF STRUCTURES DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION PROVISIONS OF IBC SECTION 2211.7 OR THE CONVENTIONAL LIGHT-FRAME CONSTRUCTION PROVISIONS OF IBC SECTION 2308.
- 4. THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED UNDER SECTION 1705 OF THE INTERNATIONAL BUILDING CODE (2015). THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS IDENTIFIED IN SECTION 110.
- 5. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
- A. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON EMPLOYED OR RETAINED BY AN APPROVED AGENCY WHO SHALL PROVE TO THE SATISFACTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND THE BUILDING OFFICIAL THAT HE/SHE HAS THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION.
- B. THE SPECIAL INSPECTOR IS RESPONSIBLE TO REVIEW THE APPROVED CONSTRUCTION DOCUMENTS THOROUGHLY AND SUFFICIENTLY AHEAD OF CONSTRUCTION TO ESTABLISH THEIR ABILITY TO INSPECTION OF THOSE ITEMS ENTRUSTED TO THEM. ALL ERRORS AND/OR OMISSIONS IN THE APPROVED PLANS THAT CREATE AND FORM OF AMBIGUITY OR DOUBT FOR THE SPECIAL INSPECTOR SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE
- C. THE SPECIAL INSPECTOR IS RESPONSIBLE FOR VERIFICATION OF ITEMS DETAILED IN THE DESIGN DRAWINGS AND SPECIFICATIONS BUILT INTO THE PROJECT.
- D. THE SPECIAL INSPECTOR SHALL NOT SUGGEST, DIRECT, OR APPROVE DEVIATION FROM THE DESIGN DRAWINGS AND SPECIFICATIONS OR THE APPROVED SHOP AND ERECTION DRAWINGS, OR APPROVE SUCH DEVIATION, WITHOUT THE WRITTEN APPROVAL BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
- E. THE SPECIAL INSPECTOR SHALL BRING NON-COMPLYING ITEMS TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. IF CORRECTING THE NON-COMPLYING ITEMS IS NOT IN A TIMELY MANNER OR IGNORED, THE SPECIAL INSPECTOR IS TO PREPARE, SIGN AND SUBMIT A NOTICE OF NON-COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, THE BUILDING OFFICIAL, THE CONTRACTOR AND THE OWNER.
- F. THE SPECIAL INSPECTOR IS RESPONSIBLE TO KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL PREPARE, SIGN AND SUBMIT INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE REPORTS OF REQUIRED SPECIAL INSPECTIONS. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS.
- G. HE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTIONS WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE. CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON PRIOR TO THE START OF WORK BY THE APPLICANT AND THE BUILDING OFFICIAL
- 6. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS WILL NOT BE REQUIRED.

#### STRUCTURAL STEEL NOTES

E. ALL OTHER STEEL.

- 1. ALL STRUCTURAL STEEL SHALL BE DESIGNED, DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS.
- 2. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS:
- A. WIDE-FLANGE.... .....ASTM A-992 (Fy=50 KSI) B. HSS (SQUARE, RECTANGULAR).....ASTM A-500, GRADE B (Fy=46 KSI) C. HSS (ROUND).. ....ASTM A-500, GRADE B (Fy=42 KSI) D. PIPE .... ...ASTM A-53, GRADE B (Fy=35 KSI)
- 2. CONNECTION MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED

....ASTM A-36 (Fy= 36 KSI).

| FOF | R CONNECTION DESIGN: |        |             |
|-----|----------------------|--------|-------------|
| Α.  | ANGLES               | ASTM   | A36         |
| В.  | WTS                  | ASTM   | A992        |
| C.  | PLATES               | ASTM   | A36         |
| D.  | BOLTS                | ASTM   | A325        |
| E.  | NUTS                 | ASTM   | A563        |
|     | WASHERS              |        |             |
| G.  | ANCHOR RODS          | ASTM   | F1554 GR 55 |
|     |                      | CLIDDI | ENACNIT C1  |

- 5 WITH WELDABILITY SUPPLEMENT S1 H. HEADED STUD .. . ASTM A108, GRADE 1010 THROUGH 1020
- HEADED STUD TYPE, COLD-FINISHED CARBON STEEL, AWS D1.1., TYPE B. I. WELD ELECTRODES.... .. E70XX
- 3. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE INDICATED
- REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
- 5. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS A.W.S. D1.1.
- 6. ALL FILLET WELDS SHALL BE 3/16" UNLESS OTHERWISE NOTED.
- 7. DESIGN OF ALL CONNECTIONS NOT SHOWN SHALL BE PERFORMED BY THE FABRICATOR UNDER THE SUPERVISION OF A REGISTERED ENGINEER. CONNECTIONS SHALL CONFORM TO AISC SPECIFICATIONS, AND SHALL BE CAPABLE OF SUPPORTING 55% OF THE MAXIMUM LOAD OF THE MEMBER FOR THE SPAN SHOWN AND THE MATERIAL SPECIFIED IN THE AISC HANDBOOK, LATEST EDITION.
- 8. ALL LINTEL ANGLES OVER OPENINGS IN EXTERIOR WALLS UP TO 6'-0" NOT OTHERWISE COVERED SHALL BE L5X5X3/8. PROVIDE 4" MINIMUM BEARING AT EACH END OF LINTEL ANGLES SUPPORTED BY MASONRY VENEER.
- 9. SHOP DRAWINGS SHALL BE PREPARED FOR ALL MISCELLANEOUS STEEL ITEMS INCLUDING STAIRS AND HANDRAILS FOR REVIEW BY THE ARCHITECT AND ENGINEER. CALCULATIONS SHALL BE SUBMITTED WITH THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE
- 10. ALL STRUCTURAL STEEL, EXCEPT EMBEDDED ITEMS, SHALL BE PAINTED WITH ONE SHOP COAT OF RUST
- 11. ALL BOLTS SHALL BE TIGHTENED BY THE AISC "SNUG TIGHT" METHOD UNLESS NOTED OTHERWISE.
- 12. ALL STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED G-90 COATING. ANY DAMAGE TO THE GALVANIC MATERIAL DURING WELDING SHALL BE TOUCHED UP WITH GALVANIZING REPAIR PAINT: HIGH-ZINC-DUST-CONTENT PAINT FOR REGALVANIZING WELDS AND REPAIR PAINTING GALVANIZED STEEL, WITH DRY FILM CONTAINING NOT LESS THAN 93 PERCENT ZINC DUST BY WEIGHT, AND COMPLYING WITH DOD-P-21035A OR SSPC-PAINT 20.

| SYMBOLS LEGEND                            |   |  |  |
|---|---|--|--|
| SYMBOL                                    | DESCRIPTION   |  |  |
| FOOTING MARK                              | SPREAD FOOTING, REF<br>SCHEDULE ON S002   |  |  |
| T.O. FOOTING<br>ELEVATION                 |   |  |  |
| BEAM MARK GB_                             | GRADE BEAM, REF<br>SCHEDULE ON S002   |  |  |
| ☐ CX.X <del></del> COL. MARK              | STEEL COLUMN, REF. S101   |  |  |
| <b>—</b>                                  | INDICATES COMPLETE<br>PENETRATION MOMENT<br>CONNECTIONS (1/S303)                            |  |  |
| SW#                                       | INDICATES SHEAR WALL<br>REF. SHT. S002 FOR<br>SHEARWALL SCHEDULES<br>AND S4.2 FOR ELEVATION |  |  |
| X   | INDICATES KEYNOTE<br>REF. SHT. S101 FOR<br>KEYNOTE SCHEDULES                                |  |  |
| NOTE(S):  1. ITEMS IN LEGEND MAY NOT APPE | AR ON ALL PLANS   |  |  |

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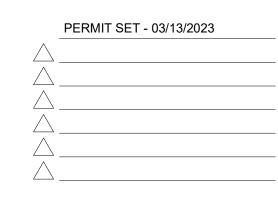
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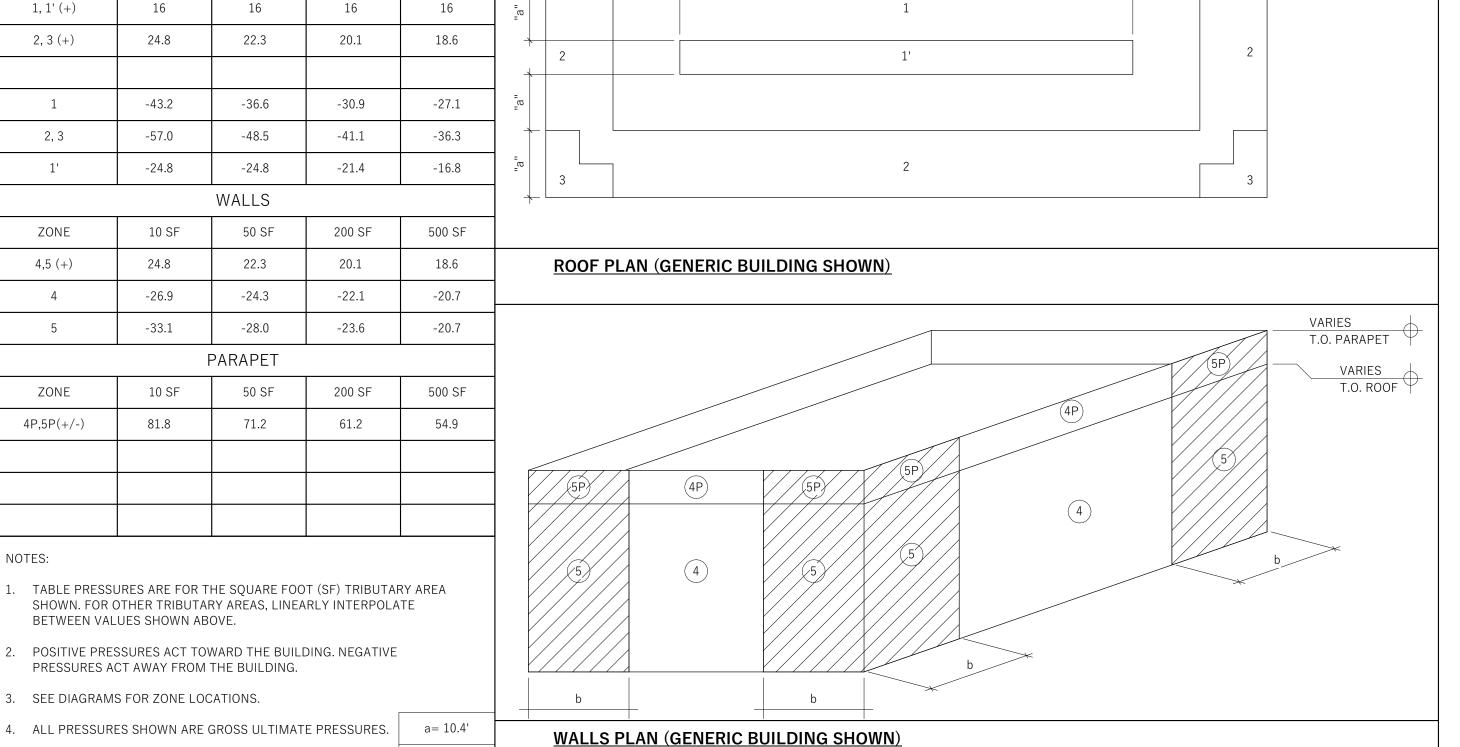
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TX F-14436



DRAWN BY: TN CHECKED BY: NHR





COMPONENT & CLADDING DESIGN WIND

PRESSURES (PSF)

ROOF

50 SF

500 SF

b = 6.3'

200 SF

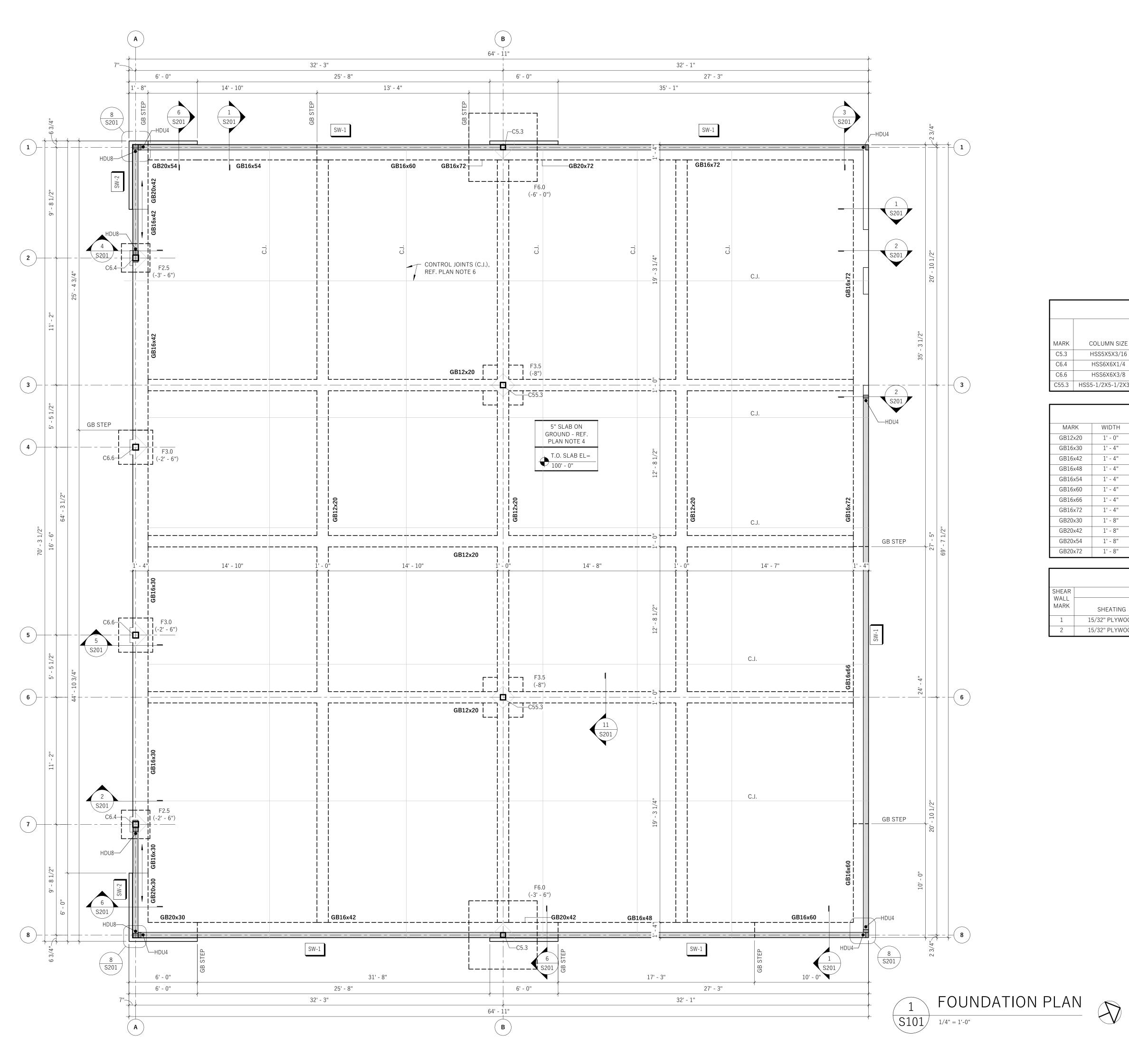
10 SF

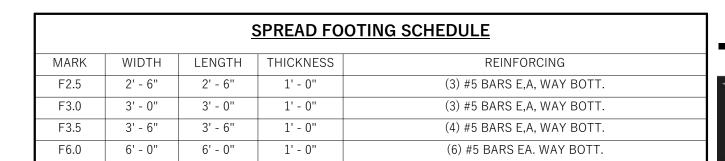
ZONE

SHERWIN WILLIAMS

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

> **GENERAL** AND DIAGRAMS





|       |                     |         | STRUC  | TURAL COL | JMN SCHED     | ULE     |      |                     |
|-------|---------------------|---------|--------|-----------|---------------|---------|------|---------------------|
|       |                     |         |        |           | BASEPLATE S   | CHEDULE |      |                     |
|       |                     |         |        | BAS       | EPLATE DIMENS | IONS    |      |                     |
| MARK  | COLUMN SIZE         | BP TYPE | "A"    | "B"       | "D"           | "L"     | "t"  | ANCHOR BOLTS        |
| C5.3  | HSS5X5X3/16         | BP-B    | 4 1/2" | 9"        | 1' - 0"       | 1' - 0" | 3/4" | (4) 3/4" x 9" EMBED |
| C6.4  | HSS6X6X1/4          | BP-B    | 4 1/2" | 10"       | 1' - 2"       | 1' - 2" | 3/4" | (4) 3/4" x 9" EMBED |
| C6.6  | HSS6X6X3/8          | BP-B    | 5"     | 11"       | 1' - 4"       | 1' - 2" | 3/4" | (4) 3/4" x 9" EMBED |
| C55.3 | HSS5-1/2X5-1/2X3/16 | BP-A    | 4 1/2" | 4 1/2"    | 1' - 0"       | 1' - 0" | 3/4" | (4) 3/4" x 9" EMBED |

| GRADE BEAM SCHEDULE |         |          |                   |                   |                     |                                 |
|---------------------|---------|----------|-------------------|-------------------|---------------------|---------------------------------|
| MARK                | WIDTH   | DEPTH    | TOP BARS          | BOTTOM BARS       | STIRRUPS            | NOTES                           |
| GB12x20             | 1' - 0" | 1' - 8"  | (2) #5 BARS CONT. | (2) #5 BARS CONT. | #3 TIES AT 24" O.C. |                                 |
| GB16x30             | 1' - 4" | 2' - 6"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. |                                 |
| GB16x42             | 1' - 4" | 3' - 6"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB16x48             | 1' - 4" | 4' - 0'' | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB16x54             | 1' - 4" | 4' - 6'' | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB16x60             | 1' - 4" | 5' - 0"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB16x66             | 1' - 4" | 5' - 6"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB16x72             | 1' - 4" | 6' - 0'' | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB20x30             | 1' - 8" | 2' - 6"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. |                                 |
| GB20x42             | 1' - 8" | 3' - 6"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB20x54             | 1' - 8" | 4' - 6'' | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |
| GB20x72             | 1' - 8" | 6' - 0"  | (3) #5 BARS CONT. | (3) #5 BARS CONT. | #3 TIES AT 24" O.C. | ADD'L #3 BAR EA. FACE AT 12" O. |

| SHEAR<br>WALL |                | SHEARWALL ATTACHMENT |                       | HOLD     | OWNS    |                     |
|---------------|----------------|----------------------|-----------------------|----------|---------|---------------------|
| MARK          | SHEATING       | EDGE NAILING         | LATERAL TIE PLATE CO. | END POST | HOLDOWN | ANCHOR BOLTS        |
| 1             | 15/32" PLYWOOD | 10d NAILS AT 6" O.C. | LTP4 AT 36" O.C.      | (2) 2x   | HDU4    | 1/2" AB AT 48" O.C. |
| 2             | 15/32" PLYWOOD | 10d NAILS AT 4" O.C. | LTP4 AT 12" O.C.      | (3) 2x   | HDU8    | 1/2" AB AT 18" O.C. |

ALL HOLDOWN ANCHOR BOLTS SHOWN ON PLANS REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO THE ROUGH OPENING/EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE ARE PLACED PRIOR TO THE FOUNDATION POUR - EPOXIED ANCHOR BOLTS ARE NOT AN EQUAL SUBSTITUTE. FAILURE TO PLACE HOLDOWN ANCHOR BOLTS IN THE CORRECT LOCATION WILL LIKELY RESULT IN CUTTING/REMOVAL OF FOUNDATION ELEMENTS, DOWELING AND REPOUR OF AREAS REMOVED. ADDITIONAL FEES MAY INCUR FOR REDESIGNING OF FOUNDATIONS AND REPLACEMENT HOLDOWNS.

|   | <b>FOUNDATION SHEET NOTES</b>   |                  |
|---|---|------------------|
| 1 | REF. SO SERIES FOR GENERAL NOTES AND DESIGN CRITERIA.   |                  |
| 2 | REF. S2 SERIES FOR FOUNDATION TYPICAL DETAILS.  |                  |
| 3 | STRUCTURAL DATUM EL = 100'-0" = CIVIL DATUM = 1427.10. ELEVATIONS SHOWN ARE RELATIVE TO STRUCTURAL DATUM.   | SHERWIN WILLIAMS |
| 4 | G.C. SHALL COORDINATE BOTTOM OF GRADE BEAMS IN FIELD WITH FINAL GRADING. GRADE BEAM DEPTHS AND STEP LOCATIONS ESTIMATES. G.C. SHALL CONFIRM FINAL DEPTH IN FIELD. GRADE BEAMS SHALL BE 2'-6" MIN. BELOW FINISHED GRADE ELEVATION OR EMBEDDED 6" MINIMUM INTO EXISTING ROCK STRATA (F.V. DEPTH). |                  |
|   |   | STORE #:         |
| 5 | SLAB ON GROUND: 5" THICK CONC. SLAB ON GROUND REINFORCED WITH #4  | XXXX             |

- 5 SLAB ON G BARS AT 16" O.C. EACH WAY PLACED 2" BELOW TOP OF SLAB OVER 6" CRUSHED LIMESTONE BASE LAYER OVER SELECT FILL PAD UNDER 10 MIL. VAPOR RETARDER. REF. GENERAL NOTES FOR BASE AND SUBGRADE REQUIREMENTS.
- 6 LOCATE CONTROL JOINTS AT A MAXIMUM OF 12'-0" O.C. REF. DETAIL 8/S202 AT CONTROL JOINTS OR CONSTRUCTION JOINTS AT CONTRACTOR'S OPTION.
- 7 TYP. WALL FRAMING: 2x6 (S. PINE) STUDS AT 12" O.C. 8 DO NOT SCALE WALL LENGTH ON PLAN. REF. ARCHITECTURAL DRAWINGS
- 9 REF. ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL SLOPED
- SLABS AND SLAB DEPRESSIONS.
- 10 REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR ALL CONCRETE SLAB LEAVE OUTS, FLOOR DRAIN, AND SLAB PENETRATION LOCATIONS. 1 VERIFY ALL OPENING DIMENSIONS AND LOCATIONS WITH ARCHITECTURAL
- .2 REFERENCE CIVIL DRAWINGS FOR ALL EXTERIOR SIDEWALKS, RAMPS, AND DOOR STOOPS.

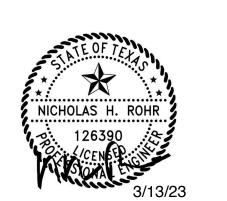
13 ALL FOOTINGS SHOULD BE CENTERED ON COLUMNS, HOLD DOWNS OR CONCRETE WALL INTERSECTIONS.

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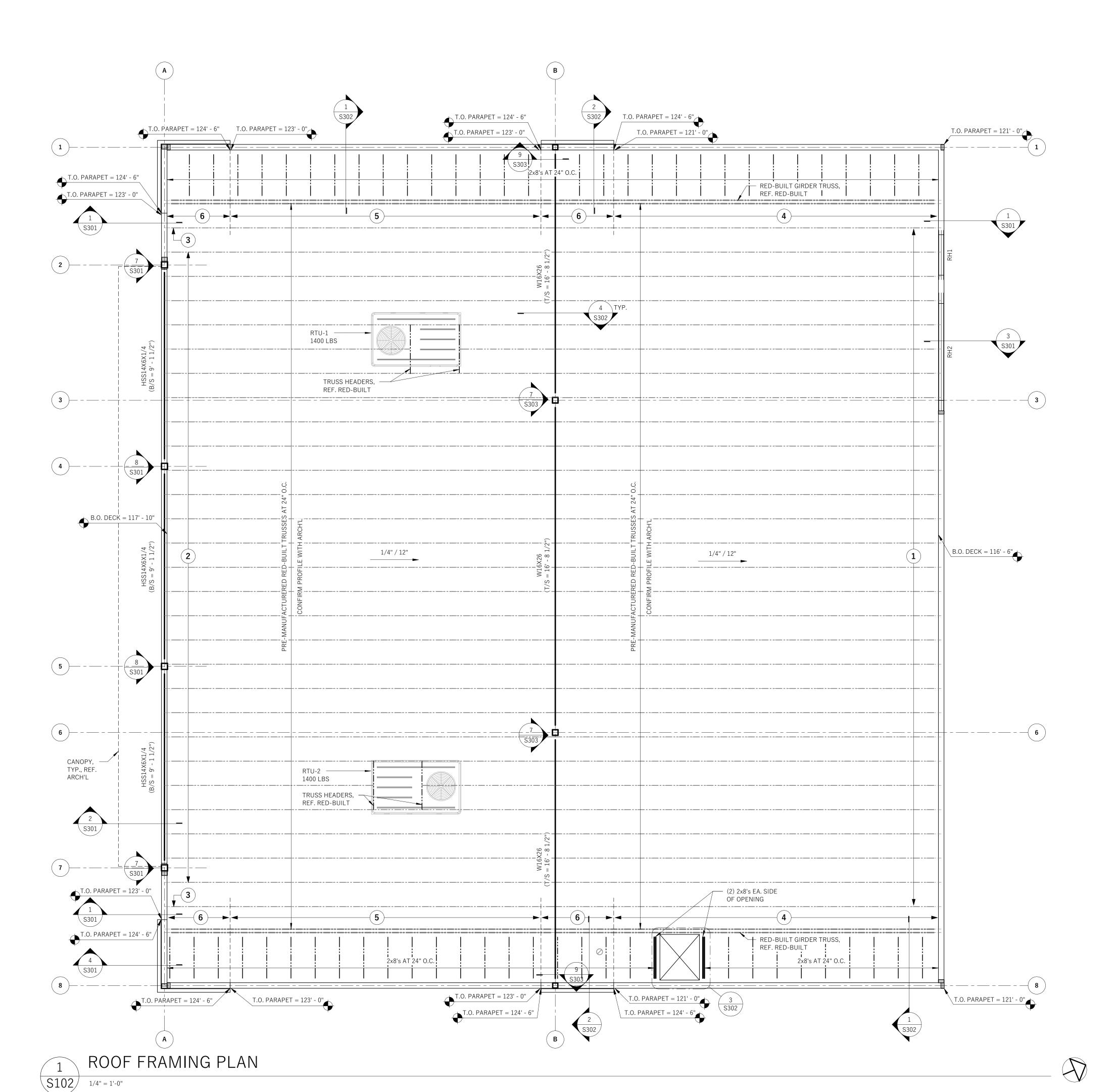
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9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

**FOUNDATION** PLAN

78015



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PROJECT #.

DRAWN BY: TN CHECKED BY: NHR

| STOREFRONT DEFLECTION SCHEDULE |                    |                                    |                    |  |  |  |
|--------------------------------|--------------------|------------------------------------|--------------------|--|--|--|
|                                |                    | L PROVIDE A SYS<br>CTIONS INDICATE |                    |  |  |  |
| HEADER SIZE                    | HEADER<br>VERTICAL | HEADER<br>HORIZONTAL               | JAMB<br>HORIZONTAL |  |  |  |
| HSS14X6X1/4                    | 0.362"             | 0.591"                             | 0.364"             |  |  |  |

|      | HEADER SC               | <u>HEDULE</u> |         |
|------|-------------------------|---------------|---------|
| MARK | HEADER                  | JAMB          | KING    |
| RH1  | (3) 2x6                 | (1) 2x6       | (2) 2x6 |
| RH2  | (3) 1 3/4" X 9 1/4" LVL | (2) 2x6       | (4) 2x6 |

| <b>ROOF FRAMING PLAN KEY NOTES</b> |  |  |  |  |  |
|------------------------------------|--|--|--|--|--|
| #                                  | KEY NOTE   |  |  |  |  |
| 1                                  | TRUSS DESIGNER TO DESIGN FOR (+/-) 300 LBS SHEAR AND (+/-) 600 LBS AXIAL DUE TO WIND AT KICKER REACTION  |  |  |  |  |
| 2                                  | TRUSS DESIGNER TO DESIGN FOR (+/-) 750 LBS SHEAR AND (+/-) 450 LBS AXIAL DUE TO WIND AT KICKER REACTION  |  |  |  |  |
| 3                                  | TRUSS DESIGNER TO DESIGN FOR (+/-) 1250 LBS SHEAR AND (+/-) 175 LBS AXIAL DUE TO WIND AT KICKER REACTION |  |  |  |  |
| 4                                  | TRUSS DESIGNER TO DESIGN FOR (+/-) 150 PLF SHEAR DUE TO WI AT KICKER REACTION                            |  |  |  |  |
| 5                                  | TRUSS DESIGNER TO DESIGN FOR (+/-) 375 PLF SHEAR DUE TO WI AT KICKER REACTION                            |  |  |  |  |
| 6                                  | TRUSS DESIGNER TO DESIGN FOR (+/-) 625 PLF SHEAR DUE TO WI AT KICKER REACTION                            |  |  |  |  |

## **ROOF FRAMING NOTES**

- DESIGN LIVE LOAD: SEE GENERAL NOTES
   VERIFY ALL OPENING DIMENSIONS AND LOCATIONS WITH ARCH'L DRAWINGS.
- 3 TYP. ROOF CONSTRUCTION: 19/32" PLYWOOD DECK OVER RED-S TRUSSES WITH SINGLE SLOPED TOP CHORD (DESIGNED BY MANUF.) AT 2'-0" O.C. MAX.
- TRUSS MANUF. TO VERIFY ALL MECHANICAL UNITS AND OPENINGS WITH MECHANICAL ENGINEER AND MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION.
- TRUSS BEARING ELEVATION = 114' 0"
- TRUSS MANUF. TO DESIGN ALL UPLIFT BRIDGING AND CONNECTIONS FOR WIND LOADS SHOWN ON WIND PRESSURE DIAGRAMS ON S002

  REDBUILT REP ANDREW SPRAY CONTACT INFORMATION: (740) 404 -

SHERWIN WILLIAMS

ADDRESS:
9091 FAIR OAKS PKWY.

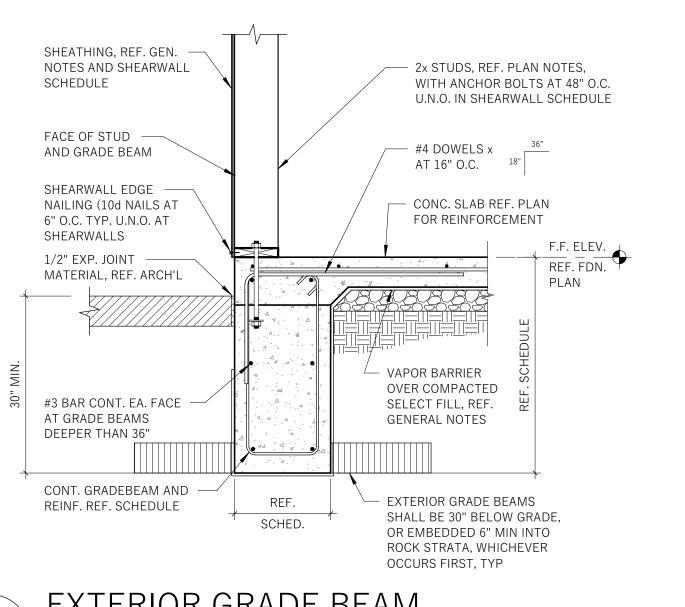
FAIR OAKS RANCH, TX 78015

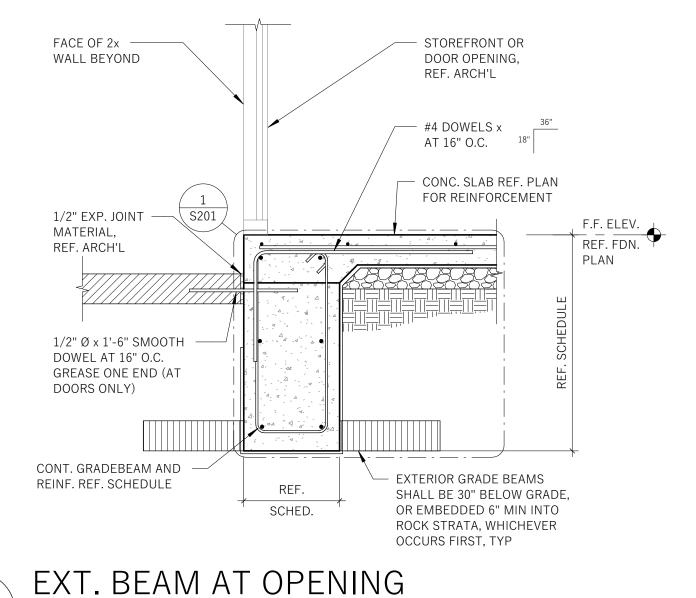
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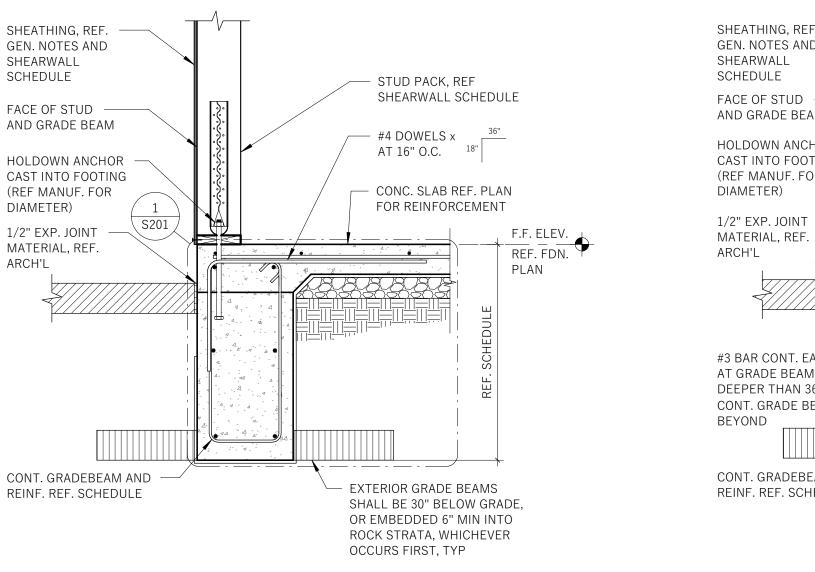
ROOF FRAMING PLAN

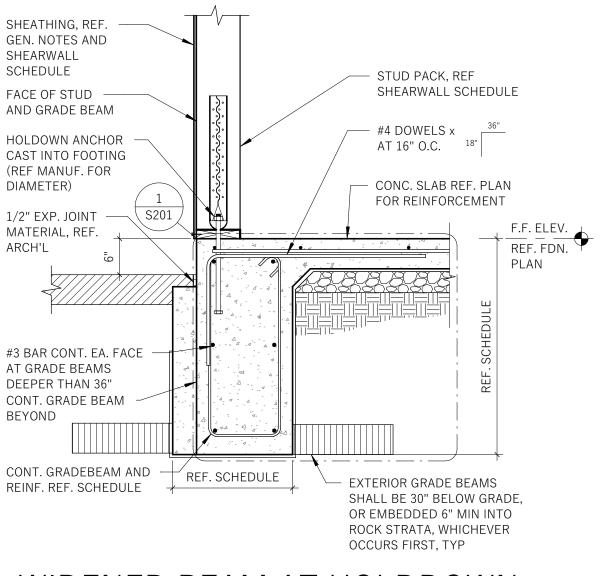
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S102



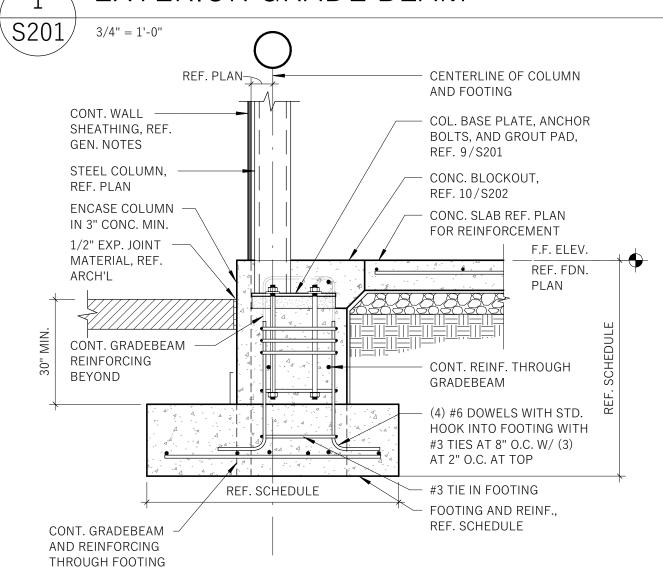




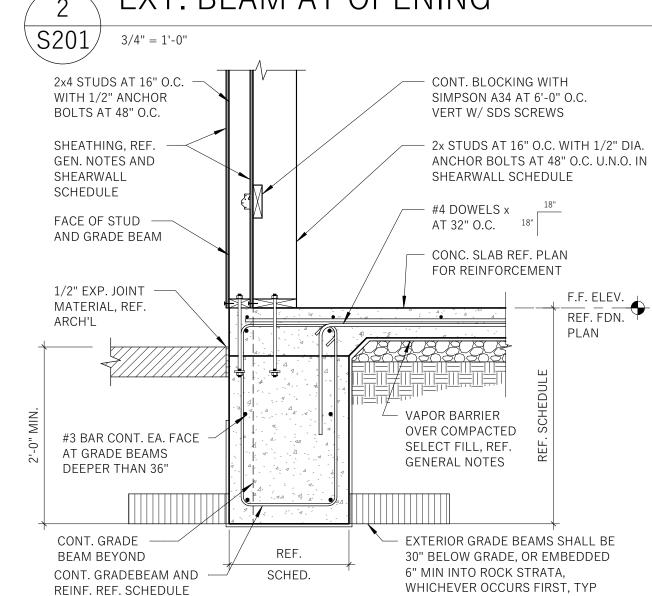




# EXTERIOR GRADE BEAM



GRADE BEAM AT COLUMN

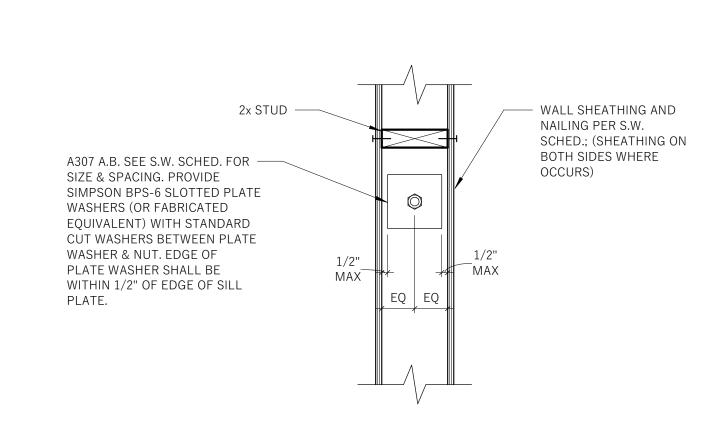


GRADE BEAM AT BUMPOUT

S201/

RECTANGULAR HSS PLAN

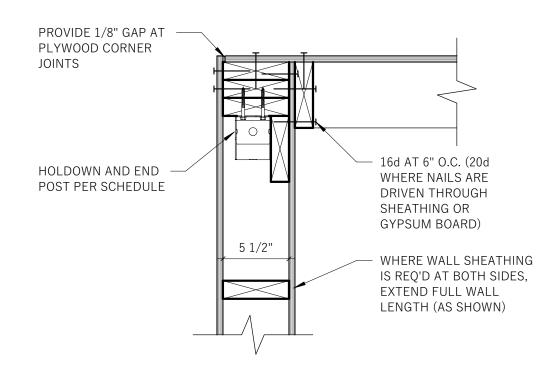
3/4" = 1'-0"

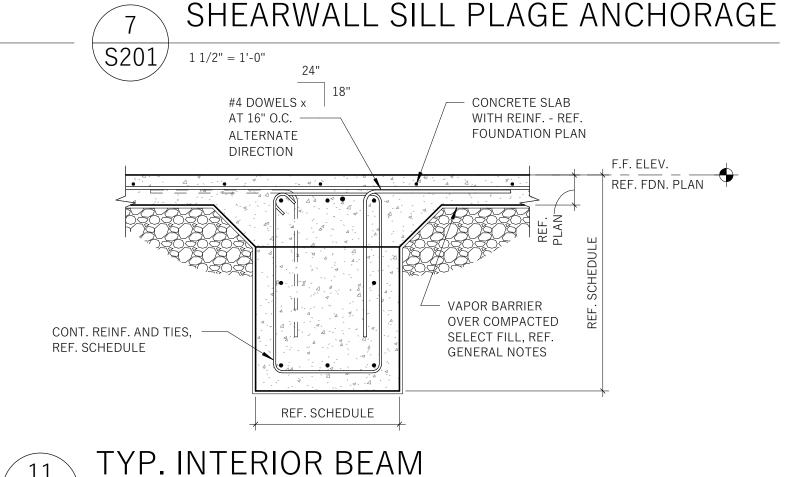


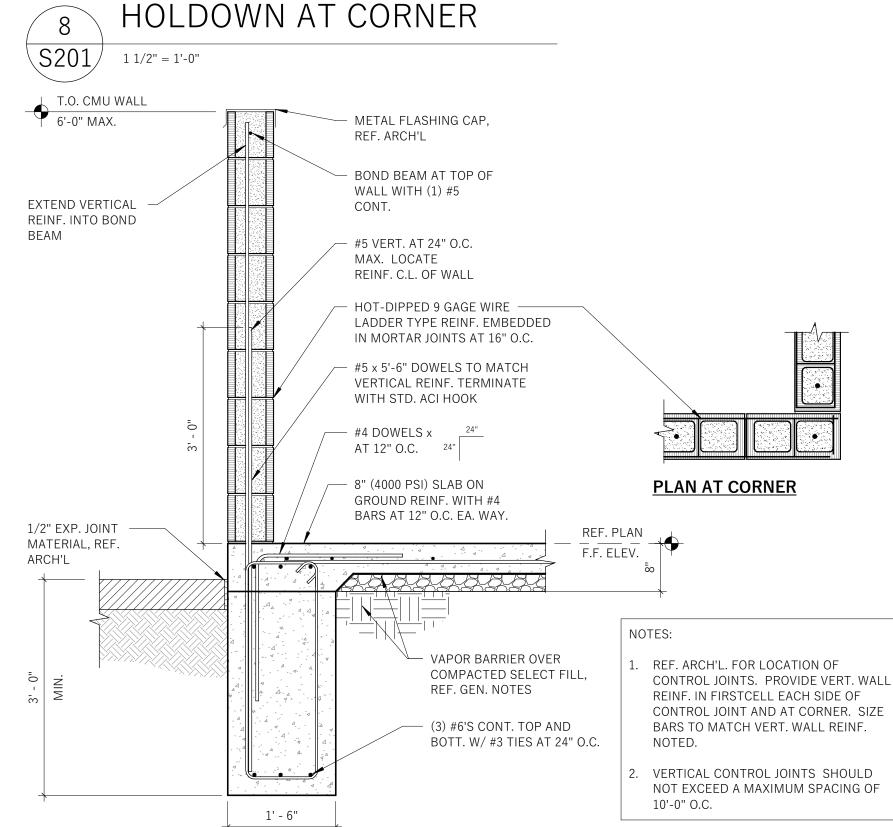
S201/

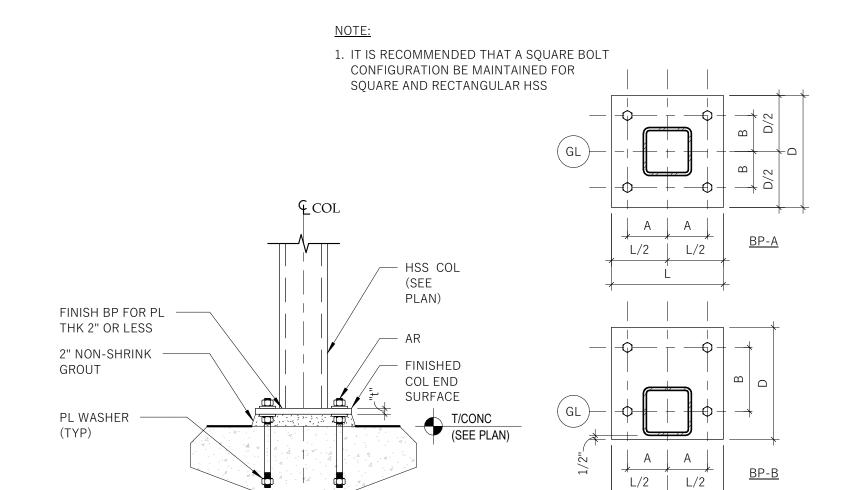
3/4" = 1'-0"

GRADE BEAM AT HOLDDOWN





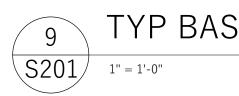




NOTES: 1. SEE COL SCHED FOR BP SIZE, ORIENTATION AND THICKNESS.

**ELEVATION** 

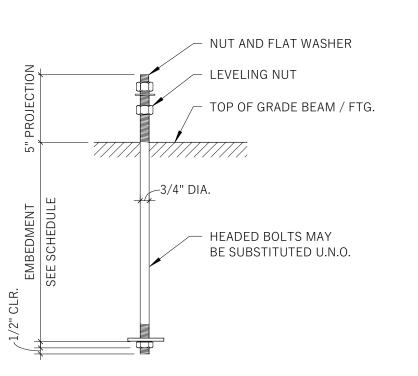
- 2. BP THICKNESS SHOWN ON SCHED IS A MIN DIM AFTER ALL MILLING IS COMPLETED.
- 3. ANCHOR RODS SHALL BE 3/4" DIA WITH 1/2" x 2" SQUARE PLATE WASHER, TYP.
- 4. COL STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR
- 5. CONTRACTORS OPTION TO FIELD WELD COLS TO BPs FOR HEAVY BPs.



S201

3/4" = 1'-0"

TYP BASE PLATE DETAIL



S201/

3/4" = 1'-0"

S201 3/4" = 1'-0"

TYPICAL ANCHOR BOLT

DIAGRAM 10 S201/ 1 1/2" = 1'-0"

CONCRETE SLAB SLAB LEAVEOUT, WITH REINF. - REF. FOUNDATION PLAN REF. TYP. DETAILS F.F. ELEV. REF. FDN. PLAN SPREAD FOOTING AND REINF., REF. VAPOR BARRIER SCHEDULE OVER COMPACTED CONT. GRADE BEAM — └─ CONT. GRADE SELECT FILL, REF. REINF. THROUGH BEAM BEYOND **GENERAL NOTES** FOOTING

SECTION AT INTERIOR COLUMN

SCREENWALL AT ENCLOSURE <sup>13</sup>

S201 3/4" = 1'-0"

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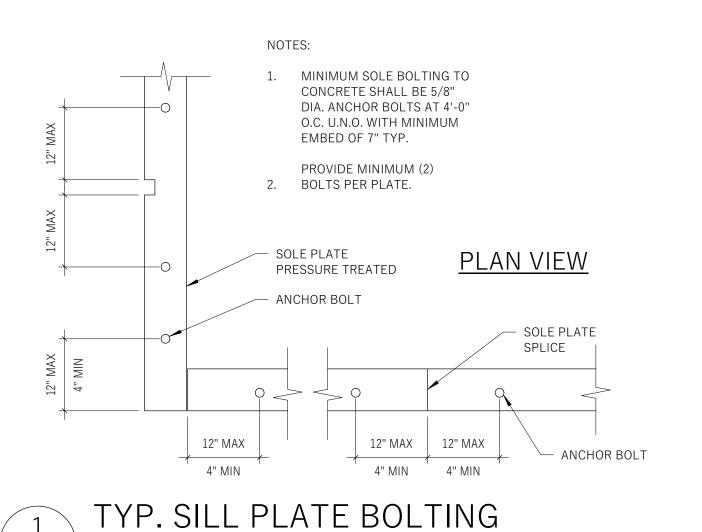
**SHERWIN WILLIAMS** 

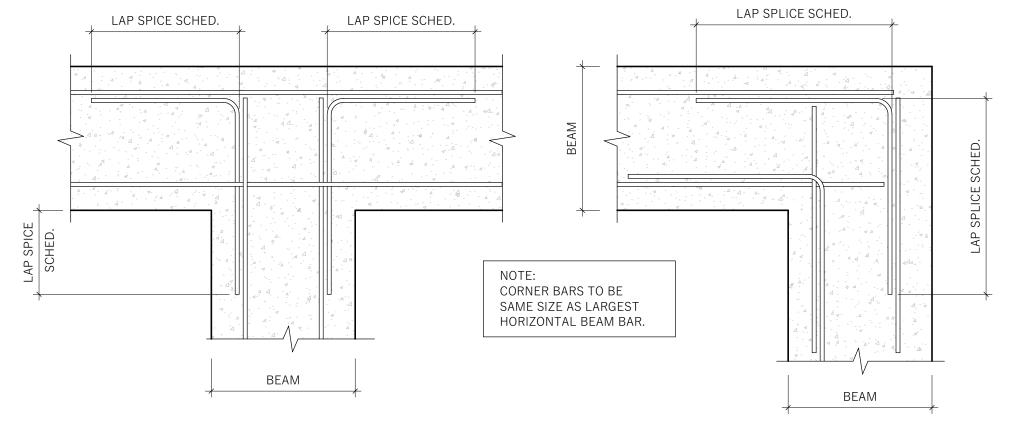
STORE #: XXXX

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

SHEET TITLE:

**FOUNDATION DETAILS** 

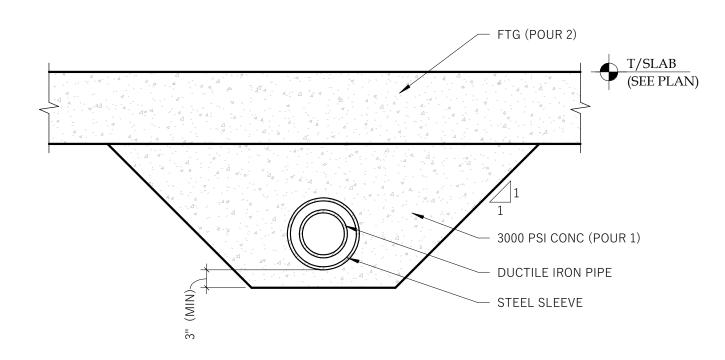




WOOD STUDS W/ 1/2"

PLAN NOTES

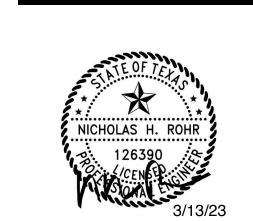
PLWD. SHEATHING, REF.



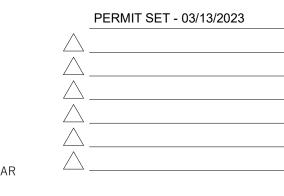




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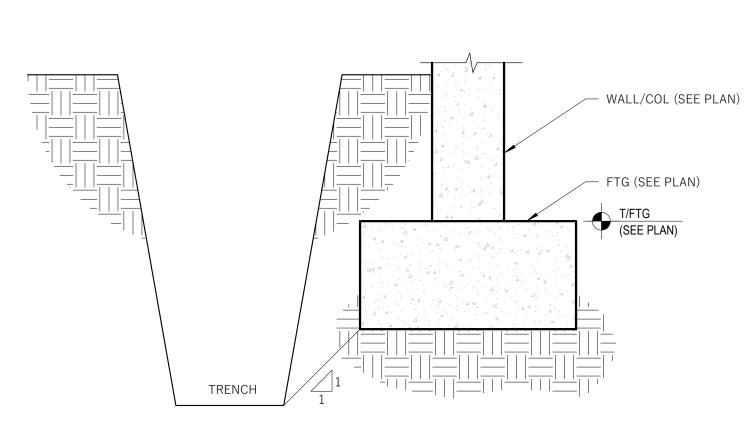
TYP. PIPE UNDER FOOTING 3/4" = 1'-0"

TYPICAL CORNER BAR DETAIL S202 1" = 1'-0"

10d NAILS AT 12" O.C.

SUPPORTS

ALONG INTERMEDIATE



EXCAVATION AT UTILITIES TRENCH ADJACENT TO

**CONSTRUCTION JOINT** 

**CONTROL JOINT** 

CONTROL JOINT

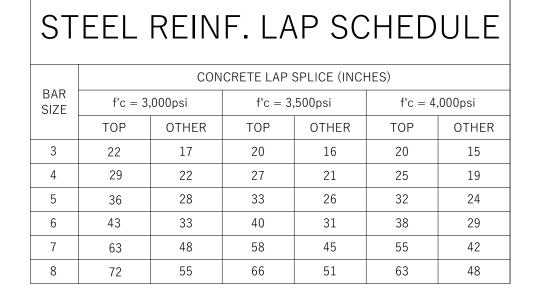
FOOTING

S202 3/4" = 1'-0"

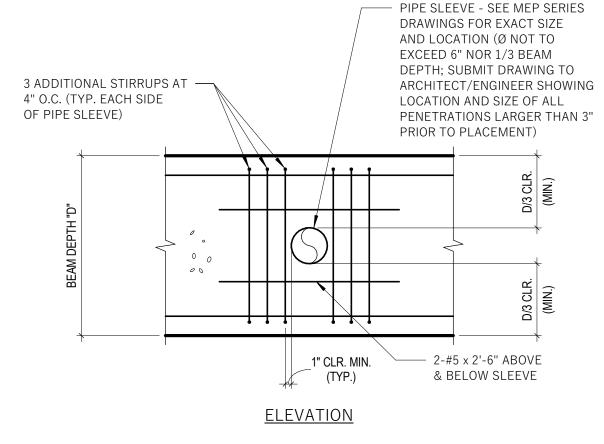
S202 1" = 1'-0"

16d NAILS AT 12" O.C. COUNTERSINK BOLT AS SIMPSON HOLDDOWN PER SHEARWALL EDGE NAILING, PER SCHEDULE PLAN/SCHEDULE

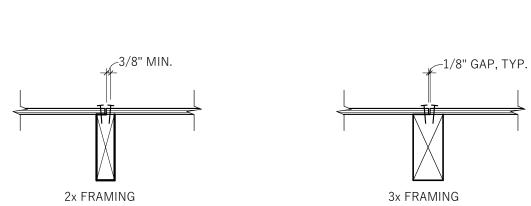
|      | 'PACK'          |
|------|-----------------|
| 5    | PLAN AT HOLDOWN |
| S202 | 1" = 1'-0"      |

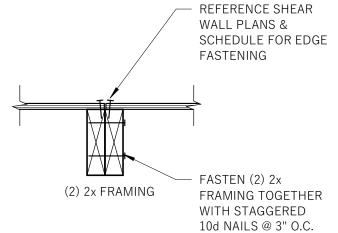




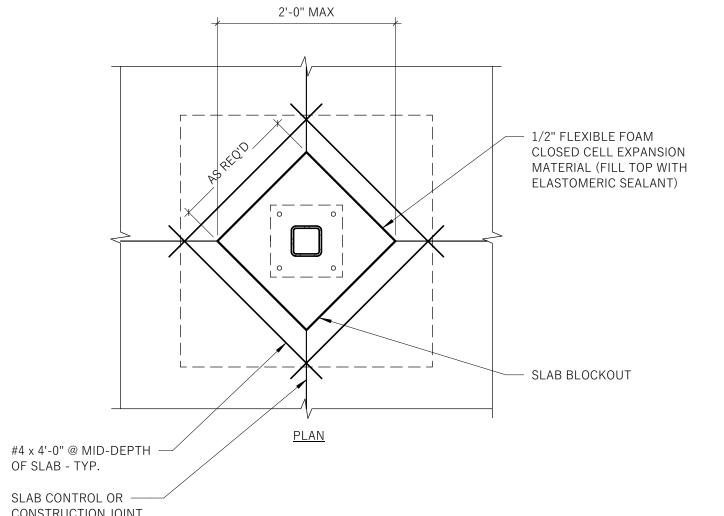




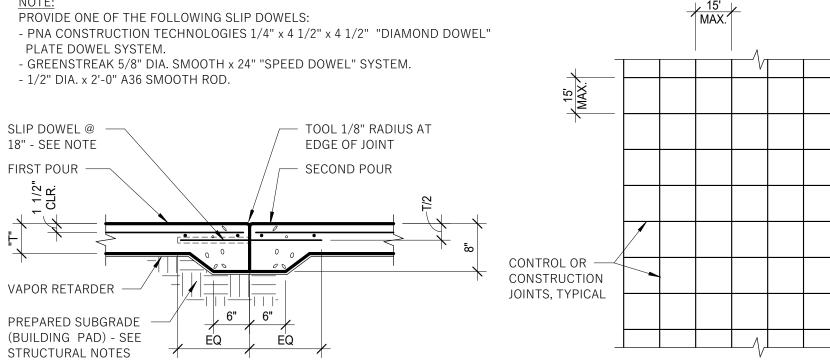








SLAB CONTROL OR CONSTRUCTION JOINT TYPICAL INTERIOR COLUMN BLOCKOUT DETAIL S202 3/4" = 1'-0"



- FILL JOINT WITH SEALANT

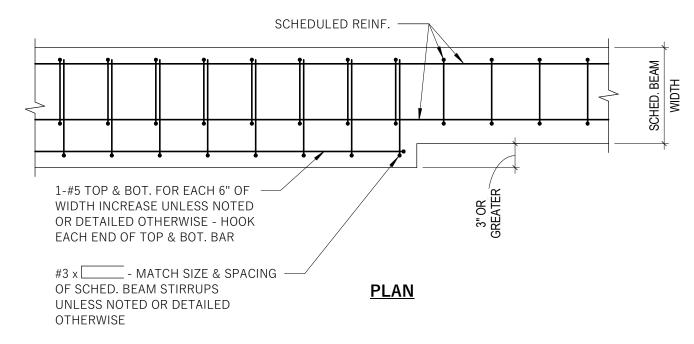
CUT AND REMOVE 6" WIDE

AT CONTROL JOINT THUS:

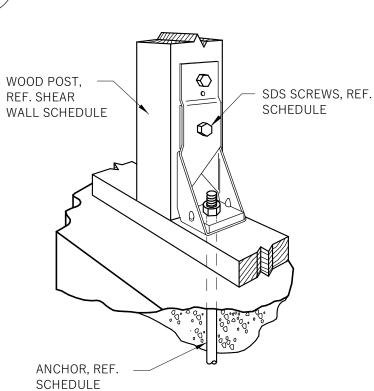
STRIP OF ALTERNATE BARS

#### **SLAB-ON-GRADE NOTES:**

- 1. SEE PLAN FOR THICKNESS OF SLAB (T) AND REINFORCING.
- 2. SAWCUT JOINTS WITH IN THE TIME FRAME NOTED BELOW: a. 12 HOURS FOR SLABS COVERED BY FINISHES OR NON-
- b. 4 HOUR FOR SLABS EXPOSED TO PUBLIC VIEW OR WHERE NOTED "SOFF-CUT" BRAND SAW SHALL BE USED.
- 3. IF METAL FORMS ARE USED, REMOVE THEM BEFORE PLACING ADJACENT SLAB.
- 4. FOR SLABS WITH THICKNESS (T) GREATER THAN 6", THICKENED EDGES ARE NOT REQUIRED AT
- 5. PROVIDE A CONSTRUCTION OR A CONTROL JOINT ON THE CENTERLINES OF COLUMNS.
- 6. LAP REINFORCING 38 BAR DIAMETER MINIMUM.



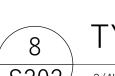
# BEAM WITH VARYING WIDTH REINFORCING S202 3/4" = 1'-0"



|              | FASTE           | ENERS        | ANGLIOD DIA | EMBED |
|--------------|-----------------|--------------|-------------|-------|
| HOLDOWN      | QUANTITY - TYPE | SIZE         | ANCHOR DIA. |       |
| HDU2-SDS2.5  | 6 - SDS SCREWS  | 1/4"x 2 1/2" | 5/8"        | N/A   |
| HDU4-SDS2.5  | 10 - SDS SCREWS | 1/4"x 2 1/2" | 5/8"        | 14"   |
| HDU5-SDS2.5  | 14 - SDS SCREWS | 1/4"x 2 1/2" | 5/8"        | N/A   |
| HDU8-SDS2.5  | 20 - SDS SCREWS | 1/4"x 2 1/2" | 7/8"        | N/A   |
| HDU11-SDS2.5 | 30 - SDS SCREWS | 1/4"x 2 1/2" | 1"          | 20"   |
| HDU14-SDS2.5 | 36 - SDS SCREWS | 1/4"x 2 1/2" | 1"          | 20"   |

1. REF. MFR. FOR ITEMS SHOWN BUT NOT NOTED. 2. INSTALL PER MFR. RECOMMENDATIONS.

SIMPSON "HD" SHEAR WALL HOLDOWN



TYPICAL SLAB-ON-GRADE DETAIL

S202 3/4" = 1'-0"

TOOL, SAW CUT OR —

PREFORMED

PLASTIC STRIP

VAPOR RETARDER

S202 1" = 1'-0"

SHEET NUMBER:

**SHERWIN WILLIAMS** 

9091 FAIR OAKS PKWY.

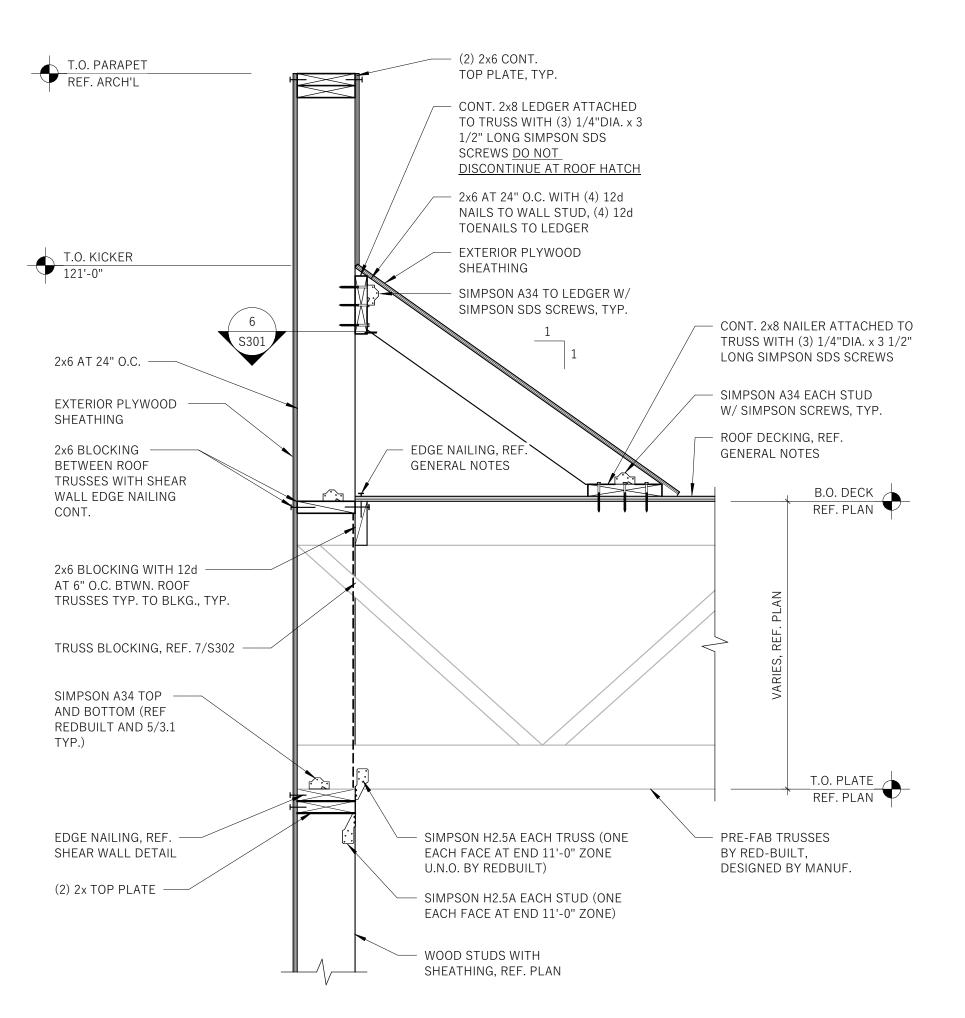
FAIR OAKS RANCH, TX

78015

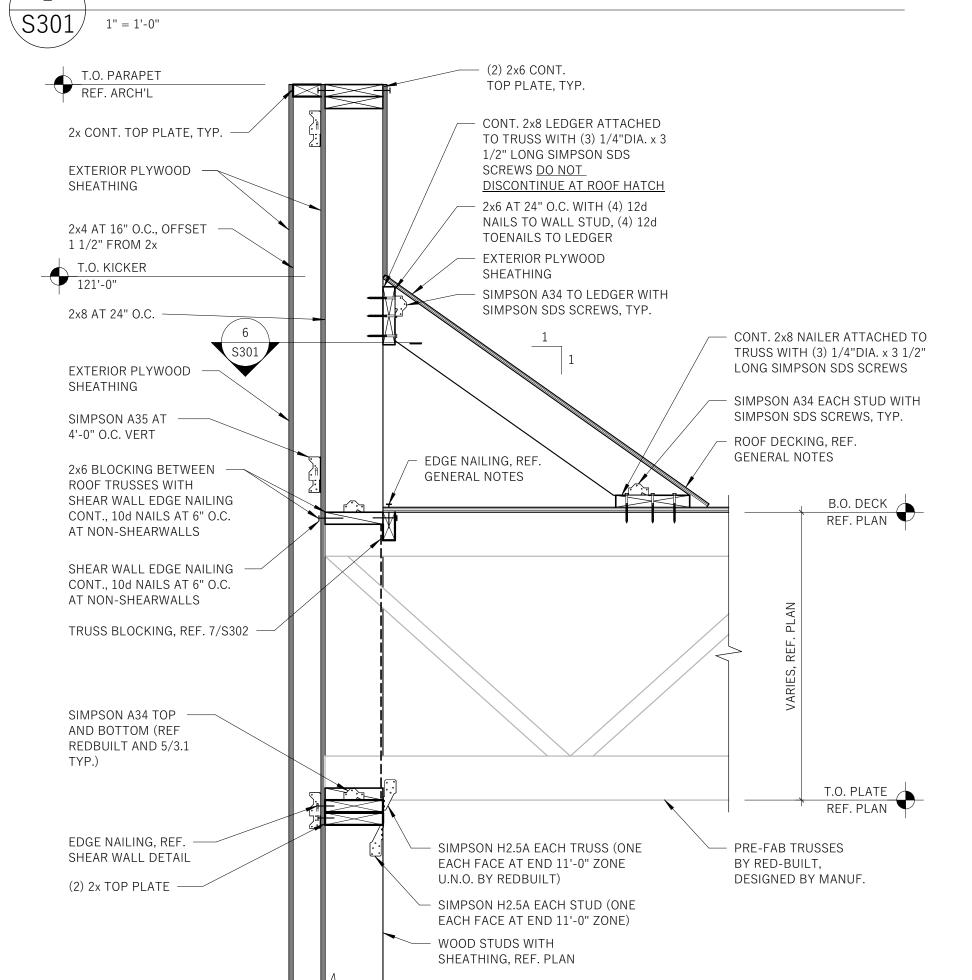
**FOUNDATION** 

**DETAILS** 

SHEET TITLE:



# TYPICAL BEARING SECTION



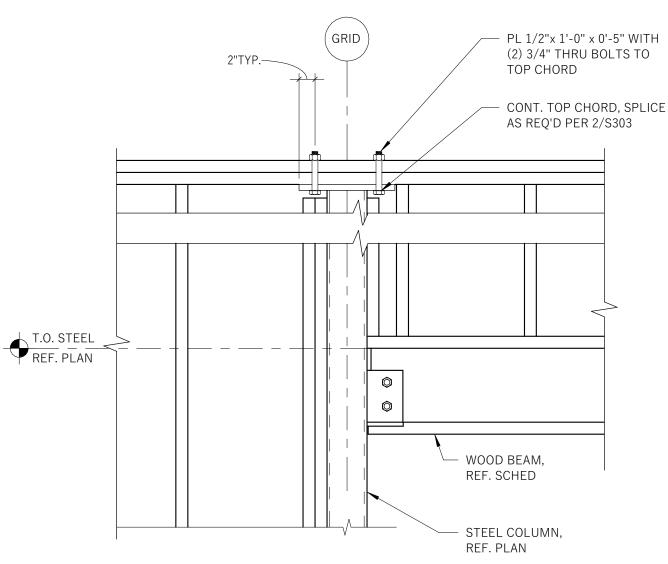


S301 1" = 1'-0"

6 PLAN AT TRUSS BEARING
S301 1 1/2" = 1'-0"

(1) SIMPSON MSTC66 FLAT STRAP AT 2X10 SPLICE

DETAIL AT STRAP



(2) 2x6 CONT.

TOP PLATE, TYP.

SCREWS <u>DO NOT</u>

CONT. 2x8 LEDGER ATTACHED

1/2" LONG SIMPSON SDS

- 2x6 AT 24" O.C. WITH (4) 10d

TOENAILS TO LEDGER

EDGE NAILING, REF

GENERAL NOTES

NAILS TO WALL STUD, (4) 12d

(DISCONTINUE AT LEDGER)

SIMPSON SDS SCREWS, TYP.

SIMPSON H2.5A EACH TRUSS (ONE

EACH FACE AT END 12'-0" ZONE)

SIMPSON H2.5A EACH STUD (ONE

EACH FACE AT END 12'-0" ZONE)

WOOD STUDS WITH SHEATHING, REF. PLAN

- 1/2" BOLT WELDED

TO HSS AT 12" O.C.

- HSS TUBE, REF. PLAN

B.O. STEEL

REF. PLAN

2x SILL PLATE

EXTERIOR PLYWOOD SHEATHING

SIMPSON A34 TO LEDGER WITH

- CONT. 2x8 NAILER ATTACHED TO

TRUSS WITH (3) 1/4"DIA. x 3 1/2"

LONG SIMPSON SDS SCREWS

- SIMPSON A34 EACH STUD WITH

B.O. DECK REF. PLAN

T.O. PLATE REF. PLAN

PRE-FAB TRUSSES

DESIGNED BY MANUF.

BY RED-BUILT,

SIMPSON SDS SCREWS, TYP.

ROOF DECKING, REF.

GENERAL NOTES

TO TRUSS WITH (3) 1/4"DIA. x 3

**DISCONTINUE AT ROOF HATCH** 

T.O. PARAPET REF. ARCH'L

T.O. KICKER 121'-0"

EXTERIOR PLYWOOD -

ROOF TRUSSES WITH

2x4 BLOCKING WITH 12d

SIMPSON A34 TOP AND — BOTTOM (REF REDBUILT

EDGE NAILING, REF.

SHEAR WALL DETAIL

(2) 2x6 TOP PLATE

(3)2x8 BLOCKING

WITH A35 TOP AND

SIMPSON H3 AT E.A.

STOREFRONT, REF. ARCH. —

SECTION AT STOREFRONT

TOP PLATE BELOW

- RED-S TRUSS (BY

MANUF.)

**BOTT AT KICKER** 

ATTACHMENT

AND 5/S301)

T.O. PLATE REF. ARCH'L

S301/

S301/

SIMPSON A34 TOP —

AND BOTTOM (REF

REDBUILT)

2x6 AT 24" O.C.

1 1/2" = 1'-0"

1" = 1'-0"

— 2x10 LEDGER

TRUSSES TYP. TO BLKG., TYP.

TRUSS BLOCKING, REF. 7/S302 -

AT 6" O.C. BTWN. ROOF

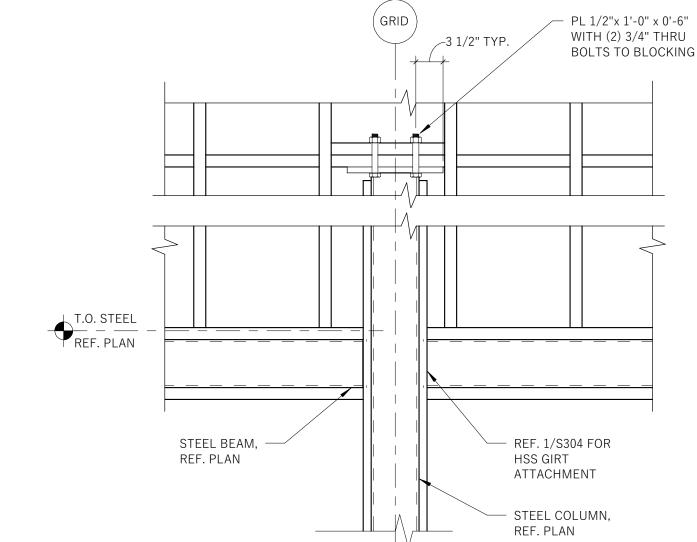
SHEAR WALL EDGE

NAILING CONT.

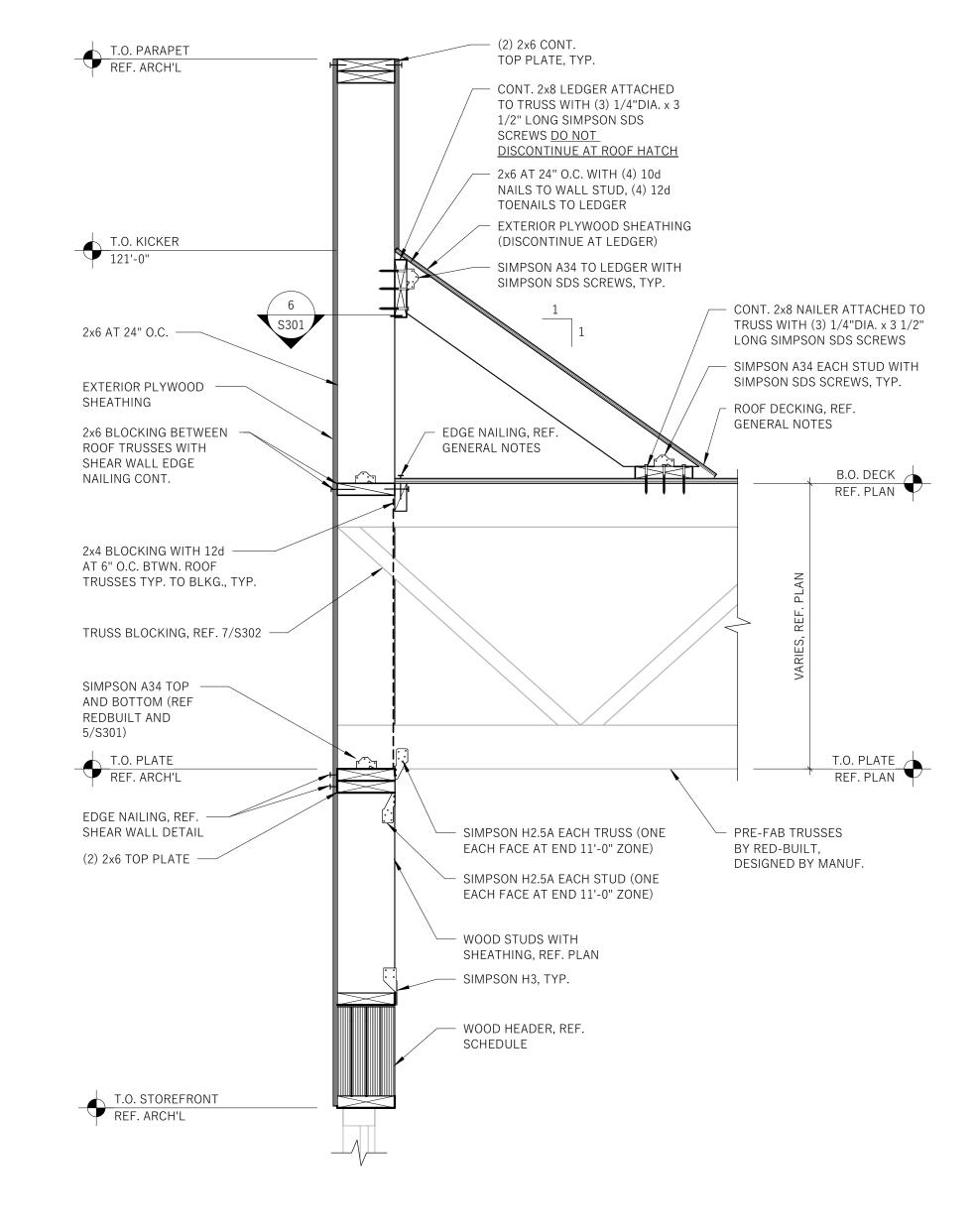
2x6 BLOCKING BETWEEN

SHEATHING











8 ELEVATION AT STEEL COLUMN

| S301 | 1" = 1'-0"

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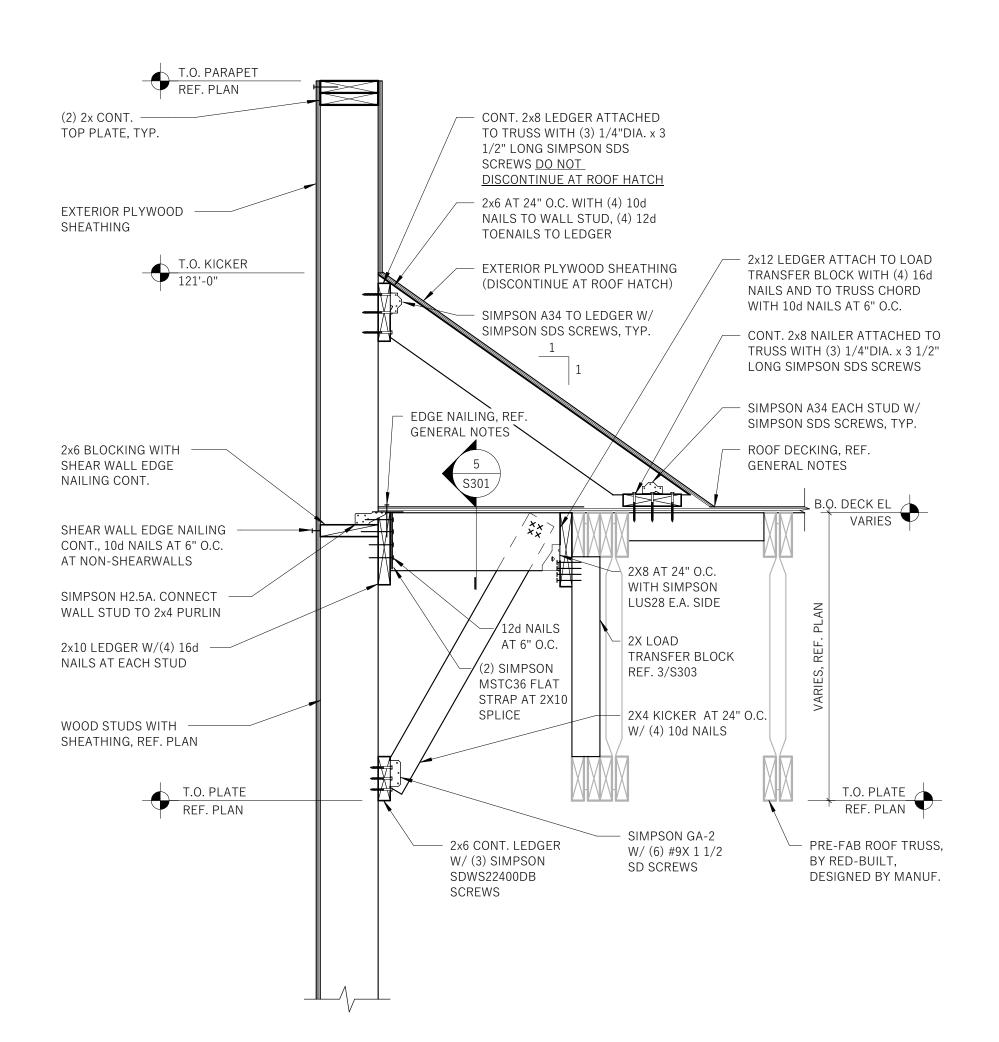
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SHERWIN WILLIAMS

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FAIR OAKS RANCH, TX
78015

SHEET TITLE:

ROOF FRAMING SECTIONS

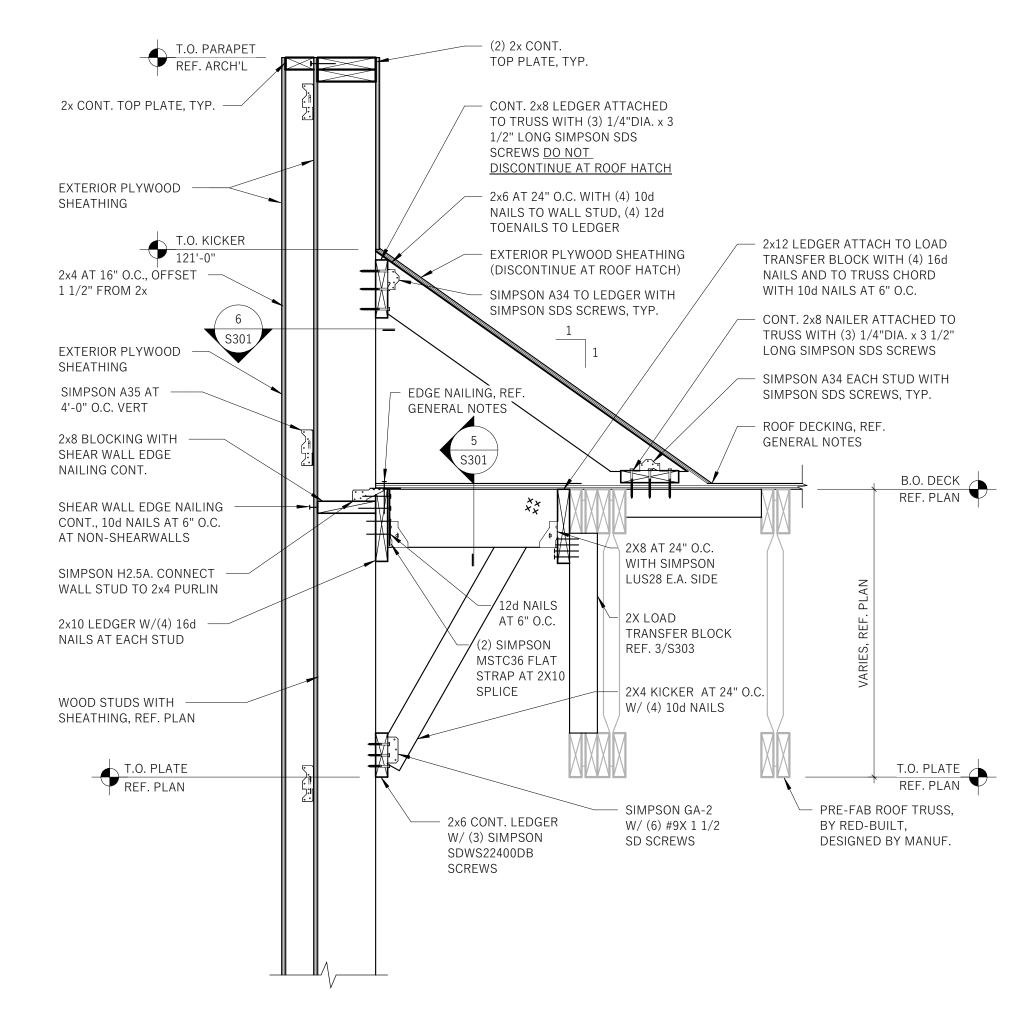


# TYPICAL PARALLEL SECTION

S302 1" = 1'-0"

JOIST OR JOIST OR TRUSS SPCG. TRUSS SPCG. TYP. JOIST/TRUSS IN HANGER - BY MANUFACTURER 2x4 FLAT — \_\_\_\_\_ BLOCKING WITH 'Z' CLIP EA. END, TYP. GIRDER TRUSS - DESIGN BY MANUF. TRUSS/JOIST/BEAM REF. PLAN - HEADER TRUSS IN HANGER -DESIGNED AND SUPPLIED BY JOIST/TRUSS MANUF. OPENING WIDTH SIMPSON MSTI26 STRAP, TYP. JOIST/TRUSS IN HANGER - BY MANUFACTURER

ROOF HATCH OPENING S302 1" = 1'-0"



# PARALLEL SECTION AT BUMPOUT

S302 1" = 1'-0"

2x10 REF 6/S304 SIMPSON H3 EA SIDE - RED-S TRUSSES BY ROOF SLOPE, EA TRUSS (TYP) REDBUILT, REF. REF. PLAN REDBUILT PLYWOOD DECK, REF. PLAN NOTES ON S101 (2) 2x (x FLANGE WIDTH) CONT. PLATE W/ 1/2"Ø BOLTS WELDED TO BEAM FLANGE AT 12" O.C., STAGGERED 2x6 AT 10'-0" O.C. W/ (4) 16d NAILS AND SIMPSON A34 TO 2x4 (ALTERNATE DIRECTIONS) - COLUMN BEYOND TRUSS BLOCK AT 10'-0" O.C. — MAX (ALTERNATE DIRECTIONS) 2x4 AT KICKER LOCATIONS —— WITH (4) PAFS TO STEEL BEAM

# REDBUILT TRUSSES BEARING ON STEEL BEAM S302 1" = 1'-0"

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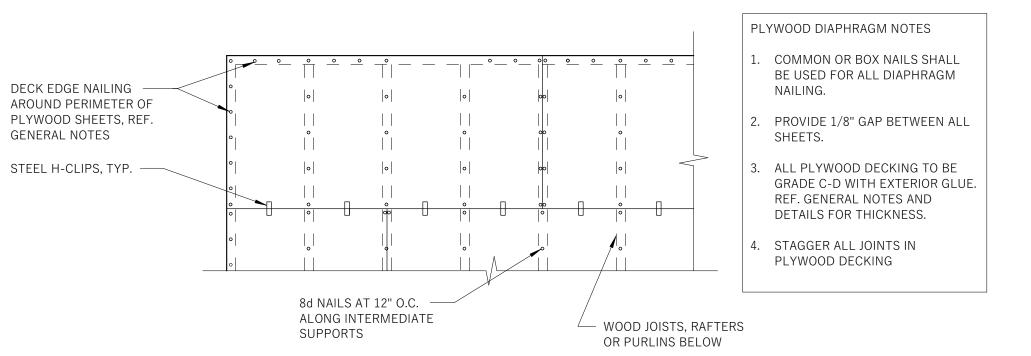
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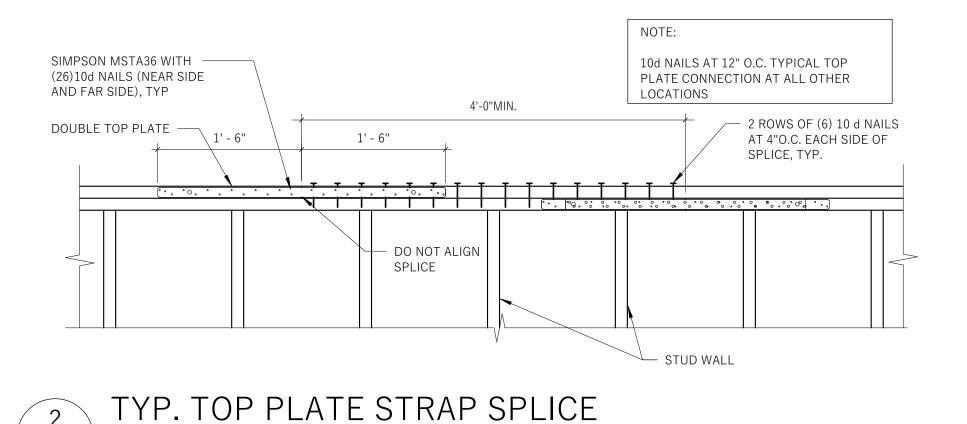
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SHEET TITLE:

**ROOF FRAMING** SECTION



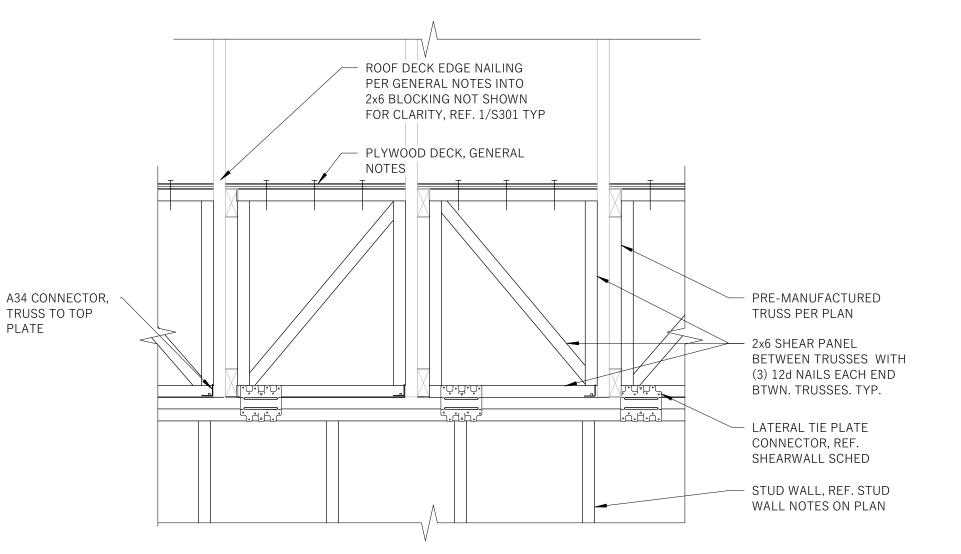


2x CONT. PLATE

SOLID BLOCKING

AT JOINTS, TYP.

8/S201)



REF. ARCH'L

EDGE NAILING EACH

SHEARWALL EDGE

NAILING AT STUD PACKS, REF.

SHEARWALL SCHEDULE

WALL NAILING.

(REF. 6/S201)

REQUIREMENTS.

SIMPSON SDS SCREWS OR

BOLTS, REF. MANUF. FOR

SPECIFIED HOLDOWN

FOR REQ'D DIAMETER. EMBED

COMMON OR BOX NAILS SHALL BE USED FOR ALL SHEAR

PROVIDE SIMPSON BPS-6 SLOTTED PLATE WASHERS (OR

FABRICATED EQUIVALENT) WITH STANDARD CUT WASHERS

BETWEEN PLATE WASHER & NUT. EDGE OF PLATE WASHER

WHEN PANELS ARE APPLIED ON BOTH FACES OF A SHEAR WALL AND NAIL SPACING IS LESS THAN 6" ON CENTER ON

EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON

WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHALL

BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES

AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED.

REF. GENERAL NOTES ON SHEET S001 FOR ALL OTHER

DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, THE

PROVIDE 1/8" GAP BETWEEN ALL SHEETS.

SHALL BE WITHIN 1/2" OF EDGE OF SILL PLATE.

SHEAR WALL NOTES:

SCHEDULE

FACE

T.O. PLATE

0 0

TRUSS X-BRACING AT SHEARWALL

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# **SHERWIN WILLIAMS**

STORE #: XXXX

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78015

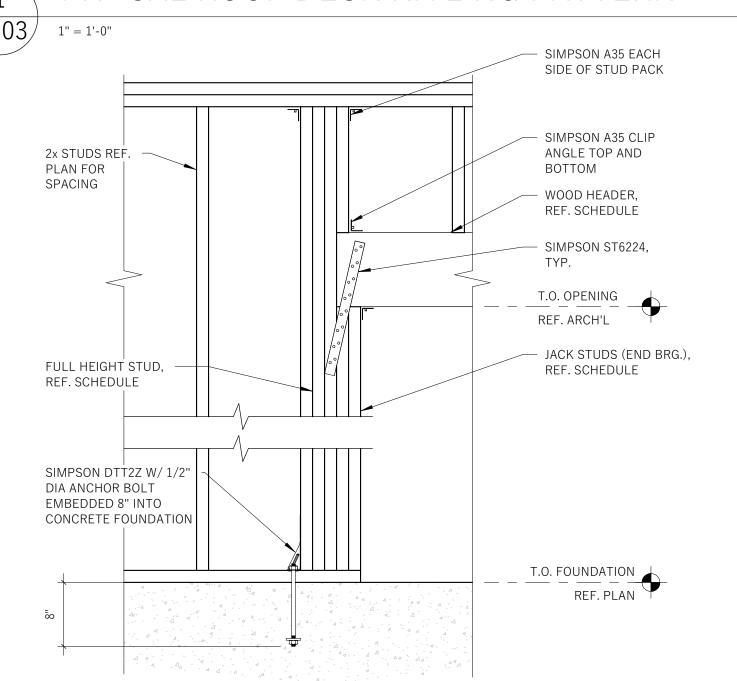
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**TYPICAL FRAMING DETAILS** 

SHEET NUMBER:

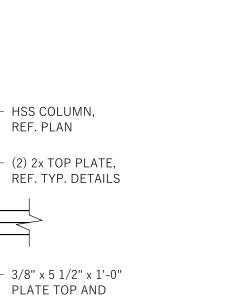
S303





TYPICAL OPENING DETAIL

S303/



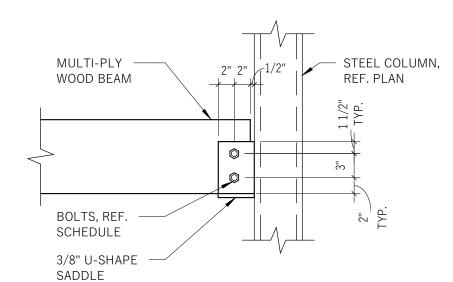
HSS COLUMN, REF. PLAN

BOTTOM

(3) 1/2" DIA.

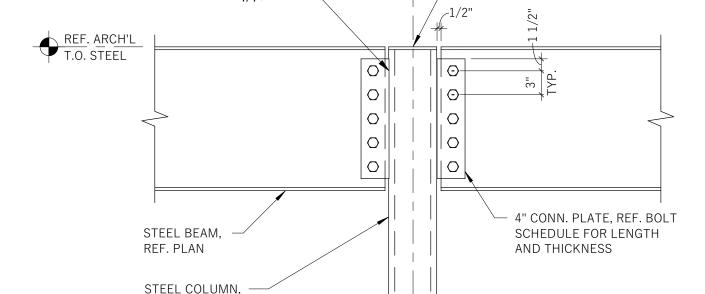
THRU BOLTS

# TYP. TOP PLATE PENETRATION S303



| LVL SADDLE    | BOLTING SCHEDULE |
|---------------|------------------|
| LVL DEPTH     | BOLTS            |
| LESS THAN 6"  | (1) 3/4"         |
| LESS THAN 12" | (2) 3/4"         |
| LESS THAN 15" | (3) 3/4"         |







WOOD BEAM SADDLE CONNECTION S303

1/4 STEEL COLUMN,

SIDE-LOADED MULTIPLE MEMBER CONNECTION SCHEDULE

CONN.

2 ROWS 1/4" DIA. A325

**BOLTS WITH WASHERS** 

AT 12" O.C.

2 ROWS 1/4" DIA. A325

**BOLTS WITH WASHERS** 

AT 12" O.C.

NAILED

3 ROWS 12d

COMMON WIRE

NAILS AT 12" O.C.

NOT APPLICABLE

CONN. SCHEDULE

W8, W10

W12, W14

W16

W18

W21

TYP.

REF. PLAN

ASSEMBLY A

3 PLY

SIDE LOADED MULTIPLE MEMBER

**BOLTING SCHEDULE** 

PLATE SIZE

3/8" x 4" x 6"

3/8" x 4" x 9"

3/8" x 4" x 12"

3/8" x 4" x 15"

3/8" x 4"x 18"

CONN

**ASSEMBLY TYPE** 

ASSEMBLY A

ASSEMBLY B

S303

1" = 1'-0"

THROUGH BOLTED | STRUCTURAL WOOD

ASSEMBLY B

4 PLY

THROUGH

NUMBER OF 3/4"

DIA. A325 BOLTS

\_\_\_ 3/8" COLUMN

CAP PLATE, TYP.

BOLTED

SCREW CONN.

2 ROWS 1/4" DIA. x 3 1/2"

LONG SCREWS AT 12" O.C.

NOT APPLICABLE

2X STUDS, REF PLAN FOR SIZE/SPACING WITH PLYWOOD SHEATHING, REF. **GENERAL NOTES** 2X STUDS, REF. PLAN

0 0 0 0 0 0 0 0 0 0 0 0 SIMPSON HOLD DOWN- REF. MAX. | | | | | | PLAN FOR LOCATIONS REQ'D. | | W/ 1/2" PLWD. SHEATHING CONT. TREATED 2X PLATE W/ 5/8" DIA. X 10" EMBED

PLATE

S303/

LATERAL TIE PLATE

CONNECTORS TO 2x4

SHEARWALL EDGE

NAILING AT PANEL

| o | EDGE, REF.

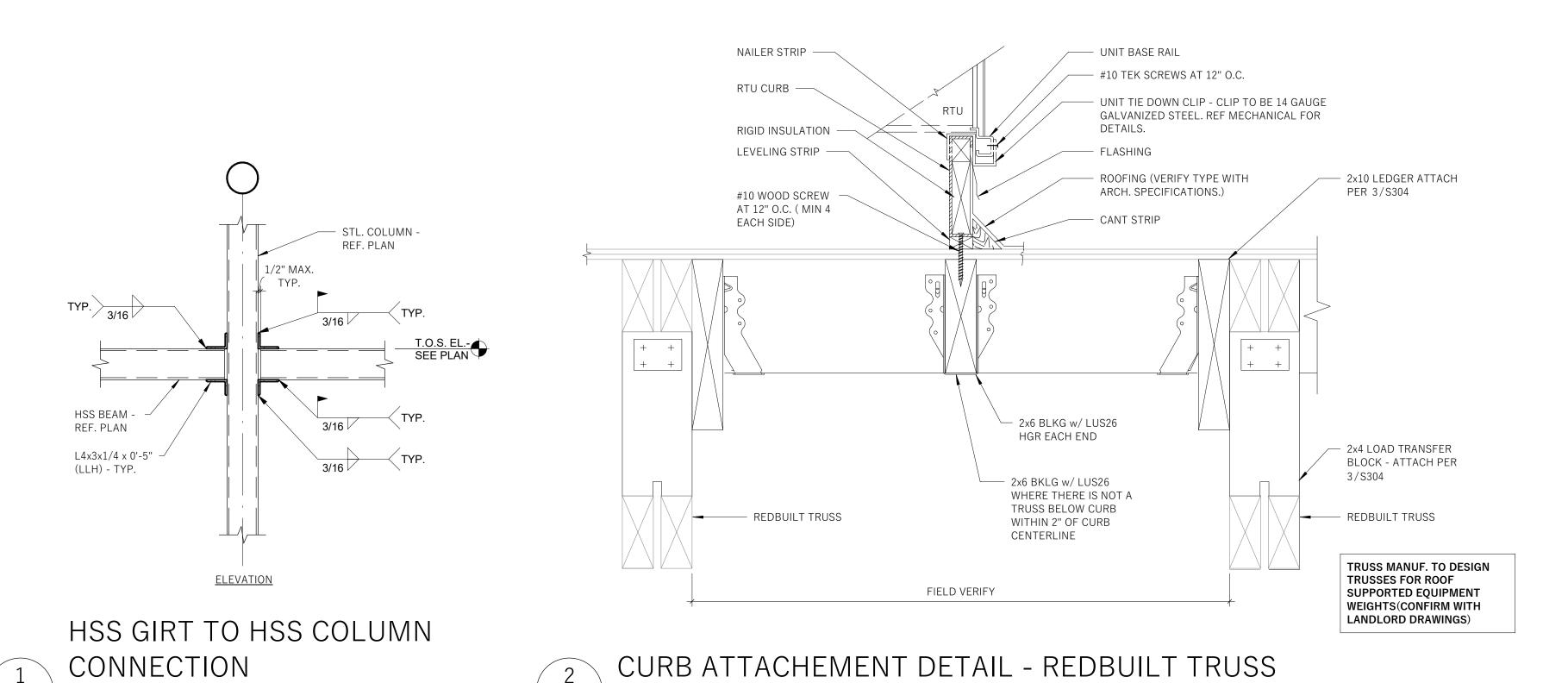
SCHEDULE

BLOCKING

0

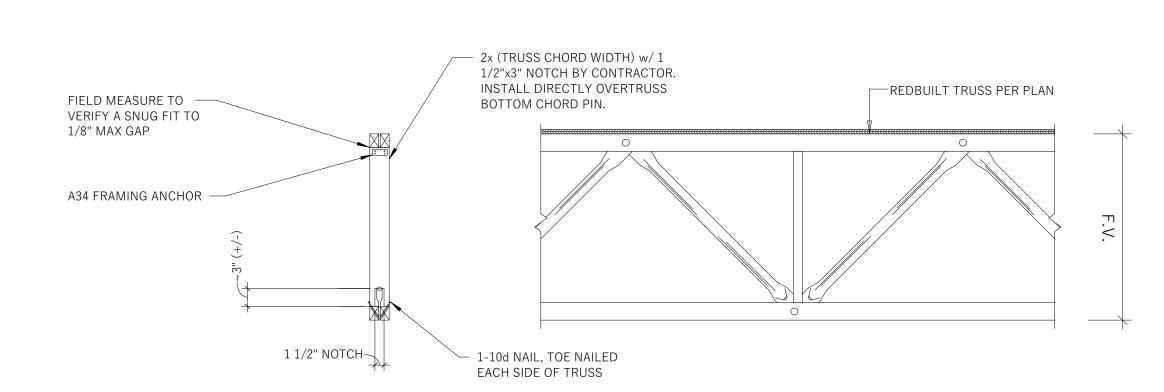
BOLTS AT 4'-0" O.C. UNLESS NOTED OTHERWISE IN

REF. ARCH'L T.O. CONCRETE SHEARWALL SCHEDULE (REF. ANCHOR BOLT - REF. MANUF



2x FRAMING & HANGERS 2x10 LEDGER (ATTACH TO EACH LOAD — TRANSFER BLOCK w/ MIN 2-A35'S)-FIELD DRILL LEDGER AT LOCATIONS OF TRUSS PIN INTERFERENCE TO ALLOW FOR FLUSH FIT 2x LOAD TRANSFER BLOCK 2x4 BRACE (AT EVERY OTHER LOAD -TRANSFER BLOCK) REQ'D AT ALL LADDER FRAMING LOCATIONS GREATER THAN 48"

S304 1" = 1'-0"

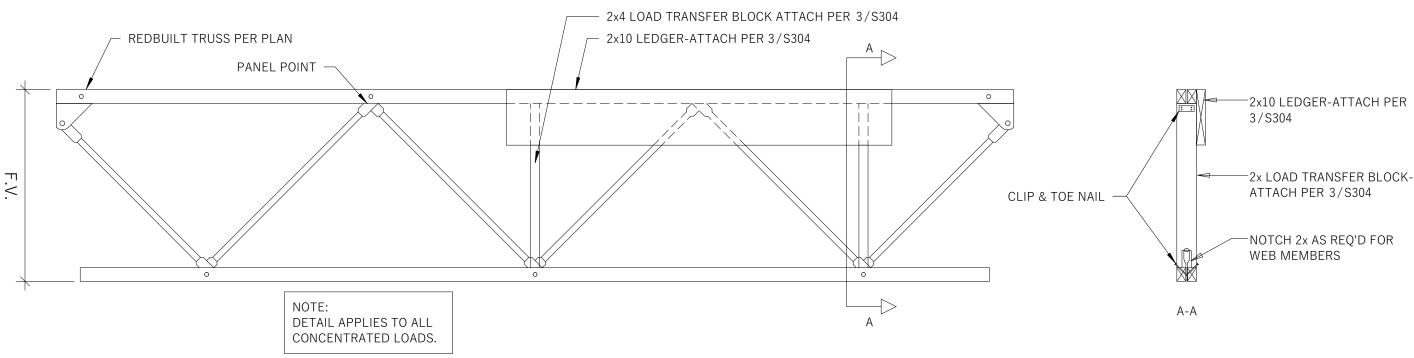




# TYP. REDBUILT BRACING & 2x FRAMING DETAIL









TYP. REDBUILT TRUSS ATTACHEMENT DETAIL

NAILING SCHEDULE ROOF CONNECTIONS NAILING 1. BLOCKING BTWN. CEILING JOISTS, RAFTERS 3-8D OR TRUSSES TO TOP PL OR OTHER FRAMING BELOW, TOENAIL EA END 2-8D, TOENAIL EA END OR BLOCKING BTWN. RAFTERS OR TRUSS NOT AT THE WALL TOP PL, TO RAFTER OR TRUSS 2-16D, END NAIL FLAT BLOCKING TO TRUSS AND WEB FILLER, 16D AT 6" O.C. FACE NAIL 2. CEILING JOISTS TO TOP PL, TOENAIL EA END 3-8D 3-16D 3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS, FACE NAIL 4. CEILING JOIST ATTACHED TO PARALLEL 3-16D MINIMUM RAFTER (HEEL JOINT), FACE NAIL REF. 2015 IBC TABLE 2308.7.3.1 5. COLLAR TIE TO RAFTER, FACE NAIL 3-10D 6. RAFTER OR ROOF TRUSS TO TOP PL, TOENAIL 3-10D 7. ROOF RAFTERS TO RIDGE VALLEY OR HIP 2-16D END NAIL OR RAFTERS; OR ROOF RAFTER TO 2" RIDGE BEAM 3-10D TOENAIL 16D AT 24" O.C. OR 8. STUD TO STUD (NOT AT BRACE WALL PANELS) FACE NAIL 10D AT 16" O.C. 9. STUD TO STUD AND ABUTTING STUDS AT 16D AT 16" O.C. INTERSECTING WALL CORNERS (AT BRACED WALL PANELS), FACE NAIL 16D AT 16" O.C. EA EDGE 10. BUILT-UP HEADER (2" TO 2" HEADER), FACE NAIL 11. CONTINUOUS HEADER TO STUD, TOENAIL 4-8D 12. TOP PL TO TOP PL, FACE NAIL 16D AT 16" O.C. 13. TOP PL TO TOP PL, AT END JOINTS, FACE NAIL EA. SIDE 8-16D OF END JOINT (MIN 24" LAP SPLICE EA SIDE OF END JOIST) 14. BOTTOM PL TO JOIST, RIM JOIST, BAND JOIST OR 16D AT 16" O.C. BLOCKING (NOT AT BRACE WALL PANELS), FACE NAIL 15. BOTTOM PL TO JOIST, RIM JOIST, BAND JOIST OR 2-16D AT 16" O.C. BLOCKING AT BRACE WALL PANELS, FACE NAIL 4-8D TOENAIL OR 16. STUD TO TOP OR BOTTOM PL 2-16D END NAIL 17. TOP OR BOTTOM PL TO STUD, END NAIL 2-16D 18. TOP PLATES, LAPS AT CORNERS AND 2-16D INTERSECTIONS, FACE NAIL 19. 1" BRACE TO EA STUD AND PL, FACE NAIL 2-8D 20. 1" x 6" SHEATHING TO EA BEARING, FACE NAIL 2-8D 21. 1" x 8" AND WIDER SHEATHING TO EA BEARING 3-8D FACE NAIL FLOOR CONNECTIONS NAILING 22. JOIST TO SILL, TOP PL, OR GIRDER, TOENAIL 3-8D 23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP 8D AT 6" O.C. PL, SILL OR OTHER FRAMING BELOW, TOENAIL 2-8D 24. 1" x 6" SUBFLOOR OR LESS TO EA JOIST, FACE NAIL 25. 2" SUBFLOOR TO JOIST OR GIRDER, FACE NAIL 2-16D 26. 2" PLANKS (PLANK AND BEAM - FLOOR AND ROOF), 2-16D FACE NAIL EA BEARING 20D AT 32" O.C. AT TOP AND BOTTOM 27. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS, FACE NAIL AND STAGGERED 2-20D AT ENDS AND AT EA SPLICE 28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS, 3-16D FACE NAIL EA JOIST OR RAFTER 29. JOIST TO BAND JOIST OR RIM JOIST, END NAIL 3-16D 30. BRIDGING OR BLOCKING TO JOIST, RAFTER OR 2-8D TRUSS, TOENAIL EA END

# 2018 IBC NAILING SCHEDULE



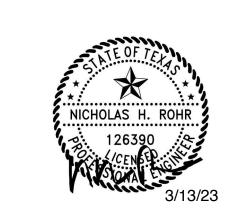
# NALIING SCHEDULE

1/4" = 1'-0"

LINGLEDESIGNGROUP, INC 158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST DENVER, CO 80202 303.974.5875 WWW.LINGLEDESIGN.COM



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|                     | PERMIT SET - 03/13/2023 |
|---------------------|-------------------------|
| $\triangle$         |                         |
| $\overline{\wedge}$ |                         |

**SHERWIN WILLIAMS** 

| STORE #:<br>XXXX   |
|--------------------|
| ADDRESS:           |
| 9091 FAIR OAKS PKW |

FAIR OAKS RANCH, TX 78015

SHEET TITLE:

**TYPICAL FRAMING DETAILS** 

## PLUMBING GENERAL NOTES

#### THE NOTES BELOW ARE PART OF THE CONTRACT DOCUMENTS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO READ AND UNDERSTAND THEM.

#### 1. DO NOT SCALE DRAWINGS.

2. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS AND MOUNTING HEIGHTS. OBTAIN EXACT F.D. AND F.S. LOCATIONS FROM MECHANICAL AND FOOD SERVICE DRAWINGS. ROUGH-IN KITCHENS, BARS, ETC. FROM APPROVED FOOD SERVICE SHOP DRAWINGS.

3. V.T.R.'S SHALL BE MIN. (25'-0")(10'-0") FROM O.A. INTAKES. COORDINATE WITH A.C. SECTION.

VERIFY LOCATION OF HANDICAPPED FIXTURES WITH ARCHITECTURAL DRAWINGS.

5. PROVIDE CHROME PLATED ESCUTCHEONS AT PIPE SLEEVES FOR EXPOSED BARE PIPE.

6. PROVIDE A.D.'s IN GYP. BOARD CEILINGS AND INACCESSIBLE WALLS FOR VALVES AND C.O.'S.

7. PLUMBING FIXTURES SHALL BE SUBMITTED TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDER RELEASE. CONTRACTOR SHALL VERIFY PLUMBING FIXTURES W/ ARCHITECT PRIOR TO BID.

8. AT HANDICAP LAVATORIES & SINKS, COVER OFFSET WASTE, P-TRAP, HOT & COLD WATER ANGLE STOPS & SUPPLIES WITH WHITE SKAL GARD MODEL SG-102, 103 & 104. (EQUAL BY PROWRAP).

9. ARRANGE W.H.'S TO PROVIDE EASE OF DISASSEMBLY & MAINTENANCE.

10. PIPES PASSING THRU FIRE RATED WALLS & FLOORS SHALL BE SEALED WITH U.L. LISTED MATERIAL EQUAL TO 3M FIRE BARRIER, CAULK OR PUTTY. SEALANT'S RATING SHALL MATCH THE RATING OF THE ASSEMBLY.

11. EQUIPMENT START-UP SHALL BE BY MFR'S. AUTHORIZED REPRESENTATIVES.

12. SHOWER HEAD ESCUTCHEONS SHALL BE RIGIDLY ATTACHED TO THE WALL USING "POLYSEAM SEAL" CAULKING MATERIAL.

13. FLOOR SINKS SHALL BE LOCATED SO AS NOT TO CREATE TRIPPING HAZARD WHEN ROUTING DRAIN LINES @ FLOOR LEVEL. VERIFY EXACT DRAIN LINE ROUTING PRIOR TO FLOOR SINK ROUGH-IN.

14. PLUMBING RISER ISOLATION & DRAIN VALVES, AS WELL AS HWR THROTTLING VALVES SHALL BE LOCATED WITHIN EASY REACH OF CEILING, WHERE CEILINGS OCCUR BELOW & DROPPED TO WITHIN A MAX. 10'-0" OF FIN. FLOOR WHERE NO CEILING OCCURS.

15. PIPING SHALL BE SEISMICALLY BRACED IN ACCORDANCE W/ SMACNA GUIDELINES FOR SEISMIC RESTRAINT.

16. WHERE HANDICAPPED WATER CLOSET INDICATED (VERIFY W/ ARCH. DWGS.), LOCATE FLUSH VALVE ON WIDE SIDE OF STALL PER A.D.A. STANDARDS.

17. INSULATED PIPING EXPOSED TO VIEW THROUGHOUT THE FACILITY SHALL BE COVERED AND FINISHED W/ PVC JACKET EQUAL TO MANVILLE PVC / PERMAPIPE JACKETING SYSTEM USING 30 MIL THICK JACKET. INSTALL PER MFR.'S INSTRUCTIONS W/ SEAM ON TOP OF PIPE SO AS TO NOT BE VISIBLE FROM OCCUPIED SPACE.

18. PROVIDE WALL CLEANOUTS AT SINKS AND URINALS IN ACCORDANCE W/ APPLICABLE SECTIONS OF THE APPLICABLE PLUMBING

19. TRAP PRIMER EQUAL TO PRECISION PRODUCTS CO. "PRIME-RITE" SHALL BE INSTALLED AT FLOOR SINKS & FLOOR DRAINS IN MECHANICAL ROOMS, AND TOILET ROOMS. PIPE PER MFR.'S. INSTALLATION INSTRUCTIONS.

20. PROVIDE 1/2" S.O.V. AHEAD OF EACH TRAP PRIMER.

21. PROVIDE S.M. DRAIN PAN UNDER SOIL & WASTE PIPING WHERE PIPING OCCURS ABOVE KITCHENS. PIPE 3/4" D. FROM DRAIN PAN TO OVER NEAREST F.S.

22. PROVIDE A 6 MIL. POLYETHYLENE SLEEVE SYSTEM EQUAL TO IPS WATER-TITE FOR COPPER DOMESTIC WATER PIPE BELOW

23. HOT & COLD WATER S.O.V.'S & HOT WATER RETURN T.V.'S SHALL BE LOCATED TO BE EASILY ACCESSED.

24. MINIMUM DISTANCE FOR CONNECTIONS AT THE BASE OF SOVENT STACKS ARE 50" FOR 5" STACK, 40" FOR 4" STACK AND 30" FOR 3" STACK. THIS DISTANCE SHALL APPLY TO EACH CONNECTION INCLUDING FIXTURE BRANCHES.

25. THE CAST IRON SOVENT SYSTEM SHALL BE MANUFACTURED AND DISTRIBUTED BY CONINE MANUFACTURING CO., INC. OF TYLER, TEXAS. THE INSTALLATION SHALL BE IN ACCORDANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS, AND IN COMPLIANCE WITH CAST IRON SOVENT DESIGN MANUAL NO. 802. SOVENT AERATOR AND DEAERATOR FITTINGS SHALL BE IN COMPLIANCE WITH STANDARD ASME/ANSI B16.45-1987, SPONSORED AND PUBLISHED BY THE AMERICAN SOCIETY OF MECHANICAL

#### 26. PIPE GAS REGULATOR VENTS UP THRU ROOF.

27. PROVIDE SELF-REGULATING HOT WATER TEMPERATURE MAINTENANCE SYSTEM FOR EACH TEMPERED WATER SYSTEM, FROM TEMPERING STATION, TO THE POINT OF USE. SYSTEM SHALL BE EQUAL TO RAYCHEM HWAT-B FOR 105°F DESIGN TEMP., STRAIGHT LACED AND INSTALLED UNDER PIPE INSULATION. PROVIDE POWER CONN. KIT, TEE CONN. KITS AS REQ'D., END SEAL KIT AND SPLICE KIT AND SPLICE KITS AS REQ'D. INSTALLATION AND TESTING SHALL COMPLY IN ALL RESPECTS W/ MFR.'S INSTALLATION AND TESTING PROCEDURES. SUBMIT TEST REPORT TO ARCHITECT FOR REVIEW. SYSTEM SHALL BE FOR 208V/1Ø SERVICE. PROVIDE RAYCHEM HWAT-R FOR 140°F DESIGN TEMP. W/ INSULATION, ETC., AS DESCRIBED ABOVE FOR GREASE WASTE PIPING

28. MOTORS 1 H.P. & LARGER SHALL BE PREMIUM EFFICIENCY.

29. CONTRACTOR SHALL VERIFY SIZE & LOCATION OF UNDERGROUND UTILITIES. COORDINATE WITH OTHER TRADES AND MAKE FINAL CONNECTION.

30. PROVIDE WATER HAMMER ARRESTORS EQUAL TO WATTS REGULATOR NO. 15 SERIES. PROVIDE ON HOT & COLD WATER PIPING SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. DEVICES SHALL BE PDI CERTIFIED AND ANSI APPROVED.

31. PLUMBER SHALL MAKE FINAL CONNECTIONS TO ALL PLUMBING FIXTURES, INCLUDING LAB FAUCETS AND TURRETS. (NOTE: FAUCETS, GAS AND AIR FITTINGS IN WOOD CASEWORK ARE NOT IN DIVISION 15).

32. TRAP PRIMERS SHALL BE INSTALLED FOR FLOOR SINKS IN MECHANICAL ROOMS & FLOOR DRAINS IN TOILET ROOMS. EQUAL TO PPP "PRIME RITE" WITH DISTRIBUTION UNIT FOR MULTIPLE F.D.'S. TRAP PRIMER SHALL BE ACCESSIBLE AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. (PROVIDE S.O.V. AT EACH TRAP PRIMER WITH 6"x6" ACCESS DOOR).

33. WATER PIPING SHALL BE ROUTED "AROUND" ELECTRICAL ROOMS.

34. COORDINATE SEQUENCE OF DEMOLITION W/ GENERAL CONTRACTOR TO PREVENT WATER DAMAGE TO EXISTING AREAS TO

35. CONTRACTOR TO NOTIFY ENGINEER OF ANY INCORRECT ASSUMPTIONS PRIOR TO STARTING ANY WORK.

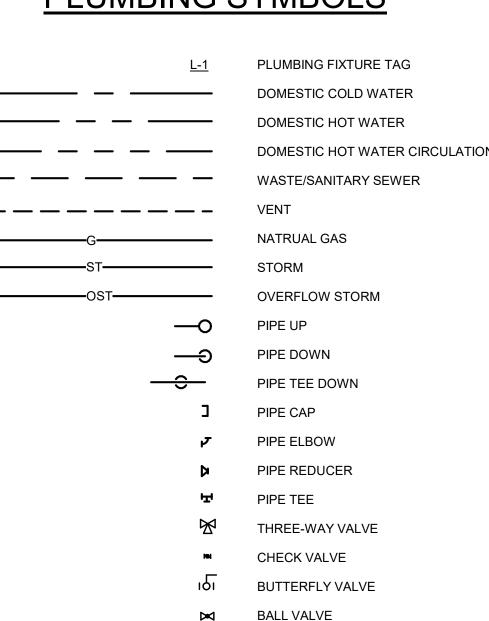
36. THE CONTRACTOR SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN THE CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT VERBALLY AND IN WRITING. WRITTEN INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY ERRORS, DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS, OF WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT BEFORE CONSTRUCTION AND/OR FABRICTION OF THE WORK.

37. SUBMITTED EQUIPMENT WILL BE REVIEWED FOR CONFORMITY OF SCHEDULED INFORMATION INCLUDING, BUT NOT LIMITED TO: QUALITY, PERFORMANCE, PHYSICAL CHARACTERISTICS, OPTIONS, AND OTHER FEATURES AS NOTED. IF THE CONTRACTOR SUBMITS MANUFACTURERS OR MODELS OTHER THAN THE SCHEDULED ITEMS, THE EQUIPMENT WILL BE SUBJECT TO REVIEW AND ACCEPTANCE/REJECTION AT THE ENGINEER'S DISCRETION. OWNER WILL HAVE FINAL AUTHORIZATION OF EQUIPMENT APPROVAL.

38. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE

39. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR MECHANICAL SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK. & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.

# PLUMBING SYMBOLS



# CENIEDAI CYMBOI C

RETURN AIR

SUPPLY AIR

STORM DRAIN

THERMOSTAT

TRAP PRIMER

WATER COLUMN WORKING PRESSURE

STATIC PRESSURE

TOTAL DYNAMIC HEAD

VARIABLE AIR VOLUME

WATER PRESSURE DROP

TOTAL STATIC PRESSURE

VARIABLE FREQUENCY DRIVE

| BING S            | SYMBOLS .  | GENERAL SYMBOLS                  |   |                   |  |  |
|-------------------|--|----------------------------------|---|-------------------|--|--|
| <u>L-1</u>        | PLUMBING FIXTURE TAG  DOMESTIC COLD WATER                                | Room name                        | ROOM NAME<br>ROOM NUMBER  | ROOM TAG          |  |  |
|                   | DOMESTIC HOT WATER  DOMESTIC HOT WATER CIRCULATION  WASTE/SANITARY SEWER | SIM<br>A101                      | <u>VIEW NUMBER</u><br>SHEET NAME  | ENLARGED VIEW TAG |  |  |
|                   | VENT NATRUAL GAS STORM   | SIM<br>A101                      | VIEW NUMBER<br>SHEET NUMBER   | SECTION VIEW TAG  |  |  |
|                   | OVERFLOW STORM   | 1 / A101                         | VIEW NUMBER/SHEET NUMBER  | VIEW REFERENCE    |  |  |
| <b>-</b> ○<br>>   | PIPE UP PIPE DOWN  | #                                | SHEET NOTE  |                   |  |  |
| <del></del>       | PIPE TEE DOWN PIPE CAP   | •                                | POINT OF CONNECTION TO EXISTI   | NG                |  |  |
| J                 | PIPE ELBOW   | ABBREVIATION [                   | DESCRIPTION   |                   |  |  |
| <b>남</b>          | PIPE REDUCER PIPE TEE  | AD<br>AF<br>AFF<br>APD           | ACCESS DOOR<br>AIR FOIL<br>ABOVE FINISHED FLOOR<br>AIR PRESSURE DROP                                    |                   |  |  |
| ₩                 | THREE-WAY VALVE  | BAS                              | BUILDING AUTOMATION SYSTEM  |                   |  |  |
|                   | CHECK VALVE BUTTERFLY VALVE BALL VALVE                                   | CHWS<br>CHWR<br>CV<br>CWS<br>CWR | CHILLED WATER SUPPLY CHILLED WATER RETURN CONSTANT VOLUME CONDENSER WATER SUPPLY CONDENSER WATER RETURN |                   |  |  |
| <b>☆</b><br>⋈     | BALANCING VALVE  MOTORIZED CONTROL VALVE  Y-STRAINER                     | (D)<br>DDC<br>DIFF               | DEMO'D<br>DIRECT DIGITAL CONTROL<br>DIFFUSER  |                   |  |  |
| ><br>0<br>-       | PRESURE GAGE THERMOMETER   | (E)<br>EA<br>EMS<br>ESP          | EXISTING EXHAUST AIR ENERGY MANAGEMENT SYSTEM EXTERNAL STATIC PRESSURE                                  |                   |  |  |
| - <del>\$</del> - | PRESSURE REDUCING VALVE  | FC<br>FD<br>FS                   | FORWARD CURVED<br>FLOOR DRAIN<br>FLOOR SINK   |                   |  |  |
| MŽŽM              | DOUBLE CHECK BACKFLOW PREVENTER  | GR<br>GCO                        | GRILLE<br>GRADE CLEAN OUT   |                   |  |  |
|                   |  | HWR<br>HWS                       | HEATING WATER RETURN<br>HEATING WATER SUPPLY  |                   |  |  |
|                   |  | MA                               | MIXED AIR   |                   |  |  |
|                   |  | (N)<br>NG                        | NEW<br>NATURAL GAS  |                   |  |  |
|                   |  | OBD<br>OSA<br>OST                | ON-BOARD DAMPER<br>OUTSIDE AIR<br>OVERFLOW STORM  |                   |  |  |
|                   |  | (R)                              | RELOCATED<br>RETURN AIR   |                   |  |  |

T-STAT

TDH

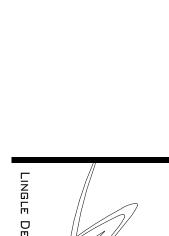
TSP

VAV

VFD

|                 | 8                                 | SHEET LIST          |                             |                              |
|-----------------|-----------------------------------|---------------------|-----------------------------|------------------------------|
| Sheet<br>Number | Sheet Name                        | Current<br>Revision | Current<br>Revision<br>Date | Current Revision Description |
| P001            | Plumbing Cover Sheet              |                     |                             |                              |
| P002            | Plumbing Schedules & Calculations |                     |                             |                              |
| P003            | Plumbing Specifications           |                     |                             |                              |
| P004            | Plumbing Details and Isometric    |                     |                             |                              |
| P100            | Plumbing Waste and Vent Plan      |                     |                             |                              |
| P101            | Plumbing Water Plan               |                     |                             |                              |
| P102            | Plumbing Roof Plan                |                     |                             |                              |

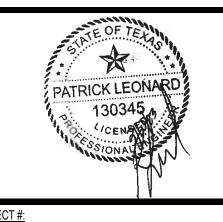
| DESIGN CRITERIA   |               |  |  |  |  |
|---|---------------|--|--|--|--|
| JURISDICTION:   | FAIR OAKS, TX |  |  |  |  |
| PLUMBING CODE:  | 2021 IPC      |  |  |  |  |
| DOMESTIC WATER TAP:  PER 2018 IPC NEW BUILDING HAS A TOTAL OF 12.5 FIXTURE UNITS PRIMARILY FLUSH TANK SYSTEMS.  12.5 FIXTURE UNITS = 16.25 GPM DEVELOPED LENGTH 85 FT (x1.2 FITTING FACTOR) = 102 FT EQUIVALENT LENGTH  JCAA ASSUMES THAT THE WATER PRESSURE AVAILABLE AT THE NEW CONSTRUCTION SITE IS 58 PSI.  A 1" TAP WITH A 1" DISTRIBUTION WILL BE REQUIRED. FURTHER COORDINATION NEEDS TO OCCUR WITH THE WATER SUPPLIER. PROVIDE NEW REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER. |               |  |  |  |  |



LINGLEDESIGNGROUP,INC 158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST DENVER, CO 80202 303.974.5875 WWW.LINGLEDESIGN.COM



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PROJECT #: 21.239 DRAWN BY: ATE CHECKED BY: JCAA

| XXXX                 |
|----------------------|
| ADDRESS:             |
| 9091 FAIR OAKS PKWY. |
| FAIR OAKS RANCH, TX  |
| 78015                |

SHEET TITLE:

# JCAA CONSULTING ENGINEERS

Job Title Sherwin Williams Job No. By JLC Checked JCAA

| Checked JCAA                                 |  | Proposed |               |                                       |  |                      |                               |
|--|--|----------|---------------|---------------------------------------|--|----------------------|-------------------------------|
|  |  | rioposeu | 1             |                                       | r .  | 1                    |                               |
| Fixture                                      | Qty.   | CW FU    | CW FU<br>100% | HW FU<br>100%                         | Total FU for<br>Domestic Water<br>Tap/Meter Sizing | Waste or<br>Sewer FU | Total<br>Waste or<br>Sewer FU |
| WC Tank 1.6 GPF                              | 1  | 5        | 5             | -                                     | 5  | 4                    | 4                             |
| WC Flush Valve 1.6 GPF                       | Service Servic | 10       | 0             | × ×                                   | 0  | 4                    | 0                             |
| WC Flushometer 1.6 GPF                       |  | 2        | 0             | _                                     | 0  | 4                    | 0                             |
| Urinal 3/4" Flush Valve, < 1.0 GPF           |  | 5        | 0             | _                                     | 0  |                      |                               |
| Urinal 1" Flush Valve, < 1.0 GPF             |  | 10       | 0             |                                       | 0  | 1                    | 0                             |
| Urinal Flush Tank, > 1.0 GPF                 | }  | 3        | 0             | _                                     | 0  |                      | 0                             |
| Lavatory (public)                            | 1  | 2        | 1.5           | P                                     | 4  | 2                    | 1                             |
| Lavatory (private)                           |  | 0.7      | 0             | 0                                     | 0  | 2                    | 0                             |
| Bar Sink                                     | ) ;<br>} :   | 2        | 0             | 0                                     | 0  | 0 - 20               | 0                             |
| Kitchen Sink (hotel, restaurant)             |  | 4        | 0             | 0                                     | 0  | -                    | 0                             |
| Kitchen Sink (apartment)                     |  | 1.4      | 0             | 0                                     | 0  | 2                    | 0                             |
| Sink General 1½" trap                        |  | 4        | 0             | 0                                     | 0  | 9 200                | 0                             |
| Laundry Tub                                  |  | 3        | 0             | 0                                     | 0  | £                    | 0                             |
| Sink Washup each set of faucets              |  | 3        | 0             | 0                                     | 0  | 0 -03.0              | 0                             |
| Bedpan Washer Flush Valve w\sink             |  | 10       | 0             |                                       | 0  |                      | 0                             |
| Service,Mop Sink                             | 1  | 3        | 2.25          | 2.25                                  |  |                      | 2                             |
| Shower (public)                              |  | 4        | 0             | 0                                     | 0  | 0.22                 | 0                             |
| Shower (private)                             |  | 1.4      | 0             | 0                                     | 0  | EX36                 | 0                             |
| Bathtub (public)                             |  | 1.4      | 0             | 0                                     | 0  | 2                    | 0                             |
| Bathtub (private)                            |  | 1.4      | 0             | 0                                     | 0  | 2                    | 0                             |
| EWC or DF                                    | 1  | 0.25     | 0.25          | · · · · · · · · · · · · · · · · · · · | 0.25   | 0.5                  | No. of the second             |
| Hose Bibb                                    | 1  | 2.5      | 0.23          |                                       | 0.20   | 0.5                  | 0.5                           |
| Hose Bibb (additional)                       |  | 2.5      | 0             |                                       | 0  | _                    |                               |
| Clotheswasher (commercial)                   | :  | 4        | 0             | 0                                     | 0  | 3                    | 0                             |
| Clotheswasher (residential)                  |  | 1.4      | 0             | 0                                     | 0  | 2                    | 0                             |
| Hand Sink                                    |  | 2        | 0             | 0                                     | 0  | 1                    | 0                             |
| Hand Sink Indirect                           |  | 2        | 0             | 0                                     | 0  |                      | _                             |
| 3-Compartment Sink                           |  | 1        | 0             | 0                                     | 0  |                      |                               |
| Prep Sink                                    |  | 3        | 0             | 0                                     | 0  |                      |                               |
| Dishwasher (hotel, restaurant)               |  | 6        |               | 0                                     | 0  |                      |                               |
| Dishwasher (private)                         |  | 1.4      |               | 0                                     | 0  | 2                    |                               |
| Glasswasher (hotel, restaurant)              |  | 6        | _             | 0                                     | 0  |                      | _                             |
| Coffee Brewer                                | 1  | 0.25     | 0.25          | <del> </del>                          | 0.25   | _                    | _                             |
| Tea Brewer                                   | (91)   | 0.25     | 0.23          | _                                     | 0.20   | _                    |                               |
| Carbonator                                   | :  | 0.25     | 0             |                                       | 0  |                      |                               |
| Ice Machine                                  |  | 0.25     | 0             |                                       | 0  | <u>W 10</u>          | <u> </u>                      |
| Eye Wash Station                             | 1  | 0.20     | 1.5           | 1.5                                   | 2  | Ch. col              |                               |
| Lyo Wash Station                             | 1.   |          | 1.5           | 1.0                                   | _  |                      | 7                             |
| Bathroom Group, ≤ 1.6 GPF (hotel, apartment) |  | 3.6      | 0             | 0                                     | 0  | 5                    | 0                             |
| Bathroom Group, > 1.6 GPF (hotel, apartment) |  | 8        | 0             | 0                                     |  | 1000                 | 2000                          |
| Datingon Group, 11.5 Gr 1 (note), aparament, |  | 0        | - 0           | - 0                                   | U  | 0                    | 0                             |
| 2" Floor Sink                                |  |          |               | _                                     | _  | 2                    | 0                             |
| 3" Floor Sink                                |  | _        | _             | _                                     |  | 6                    | 2380                          |
| 4" Floor sink                                |  |          |               |                                       |  | 8                    | 0                             |
| 2" Hub Drain                                 | 1  |          |               |                                       | _  | 2                    | 2                             |
| 2" Floor Drain                               | 1  |          |               | - 3                                   |  | 2                    | 2                             |
| Floor Drain-Emergency                        | - '  |          |               |                                       | <u>-</u>   | _                    |                               |
| Totals                                       |  | ,        | 10.75         |                                       | 12.5   |                      | 11.5                          |
|  |  | 3        | 10.70         | 0.20                                  | 12.0   | B .                  | 11.0                          |

|       | CONNECTED GAS LOAD SCHEDULE |           |           |        |  |  |
|-------|-----------------------------|-----------|-----------|--------|--|--|
| TAG   | BTU INPUT                   | MBH INPUT | CFH INPUT | NOTES: |  |  |
| RTU-1 | 200,000                     | 200       | 200       |        |  |  |
| RTU-2 | 200,000                     | 200       | 200       |        |  |  |
| TOTAL | 400,000                     | 400       | 400       |        |  |  |

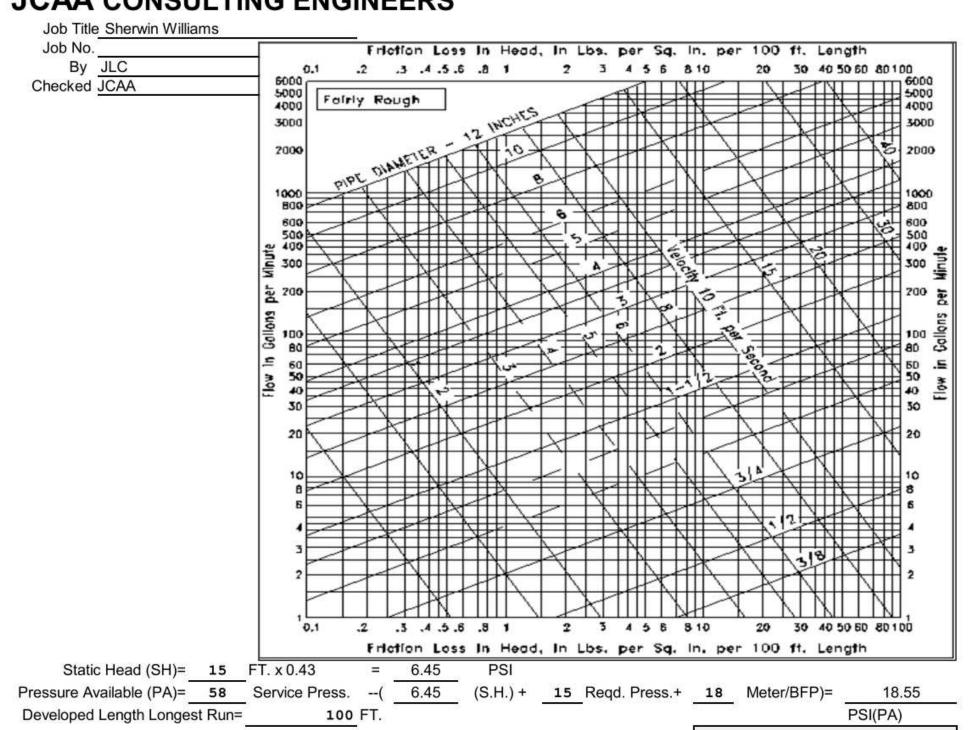
|             | PLUMBING FIXTURE SCHEDULE   |      |        |           |            |     |   |
|-------------|---|------|--------|-----------|------------|-----|---|
|             |   |      | ROUGH- | IN CONNEC | CTION (IN) |     |   |
| TAG         | DESCRIPTION   | HW   | CW     | V         | TRAP       | S/W | NOTES   |
| <u>L-1</u>  | LAVATORY: AMERICAN STANDARD "COMRADE" 0124.024.020<br>WHITE, WALL HUNG OR EQUAL. FAUCET: BRADLEY CORP<br>S53-315 "AERADA 1200 SERIES CS FAUCET", PLUG IN ADAPTER,<br>CAPACITIVE SENSING ACTIVATION NO SUBSTITUTIONS.  | 1/2" | 1/2"   | 2"        | 2"         | 2"  | PROVIDE THERMOSTATIC MIXING VALVE SET TO 110°F (ADJ.) SEE ARCHITECTURAL SHEETS FOR MORE INFORMATION.  |
| <u>US-1</u> | UTILITY SINK: ELKAY B1C24X24X STAINLESS STEEL, FAUCET:<br>CHICAGO FAUCET 897 WITH WALL BRACE, PAIL HOOK, AND MALE<br>HOSE THREADED OUTLET.  | 3/4" | 3/4"   | 2"        | 3"         | 3"  | ELEVATED ON METAL LEGS. PROVIDE WITH ALL ACCESSORIES FOR A COMPLETE SYSTEM. INSTALL PER MANUFACTURER GUIDELINES.  |
| <u>WC-1</u> | WATER CLOSET: COMMERCIAL HIGH EFICIENCY, TOP SPUD, FLOOR MOUNTED, ELONGATED BOWL, ONE PIECE, WHITE, WITH HIGH EFFICIENCY DIAPHRAGM FLUSH VALVE, MANUAL, MAX 1.28GPF, NON-HOLD OPEN HANDLE, TRIP LEVER INSTALLED ON WIDE SIDE OF STALL   | -    | 1/2"   | 2"        | -          | 4"  | SEE ARCHITECTURAL SHEETS FOR MORE INFORMATION.  |
| <u>EW-1</u> | EYE WASH: BRADLEY S19224DC WALL MOUNTED WITH EMERGENCY MIXING VALVE BRADLEY S19-20000EFX OR EQUAL   | 1/2" | 1/2"   | -         | -          | -   | INSTALL PER MANUFACTURER GUIDELINES.<br>ROUTE DRAIN TO NEARBY HUB DRAIN.  |
| <u>DF-1</u> | DRINKING FOUNTAIN: ELKAY WALL MOUNT SOFT-SIDES BI-LEVEL WITH WALL PLATE, NON-REFRIGERATED, NON-FILTERED, STAINLESS, INSTALLED BARRIER FREE, ADAAG COMPLIANT OR EQUAL.   | -    | 1/2"   | 2"        | 2"         | 2"  |   |
| <u>HD-1</u> | HUB DRAIN: JR SMITH 9654 GENERAL PURPOSE STAINLESS<br>STEEL HUB DRAIN OR EQUAL.   | -    | -      | 2"        | 2"         | 2"  | SEE DETAIL.   |
| <u>FD-1</u> | FLOOR DRAIN: ZURN #Z-550-P OR EQUAL. CAST IRON FLOOR DRAIN WITH DOUBLE DRAINAGE FLANGE AND WEEPHOLES WHERE WATERPROOF MEMBRANES OCCUR, MEDIUM DUTY CAST IRON STRAINER, AND 1/2" TRAP PRIMER CONNECTION. PROVIDE P-TRAP OF MATERIAL SPECIFIED FOR DRAINAGE PIPING AND SIZE INDICATED ON DRAWINGS. TRAP PRIMER: WATTS LFTP300 OR EQUAL. | -    | -      | -         | 2"         | 2"  | SET DRAIN FLUSH AND LEVEL WITH FINISHED SURFACES, COORDINATE PLACEMENT WITH OTHER TRADES. COVER DRAIN DURING CONSTRUCTION TO PREVENT FOREIGN OBSTACLES FROM ENETERING DRAIN. FLOOR DRAIN CONNECTION SIZE AS NOTED ON PLANS. |

|              | PLUMBING EQUIPMENT SCHEDULE  |
|--------------|--|
| TAG          | DESCRIPTION  |
| <u>WH-1</u>  | AO SMITH MODEL DEL-20-4 ELECTRIC WATER HEATER. 20 GALLON STORAGE CAPACITY WITH 4 KW SINGLE HEATING ELEMENT. HEATING ELEMENT POWERED AT 208 V / 3 PH. PROVIDE 1/2" DRAIN PAN AND ROUTE 3/4" DRAIN LINE TO SERVICE SINK BELOW. |
| <u>ET-1</u>  | WATTS PLT-5 EXPANSION TANK. 2.1 GALLON VOLUME, 1.48 GALLON ACCEPTANCE.   |
| <u>HCP-1</u> | BELL AND GOSSETT ECOCIRC SERIES RECIRCULATION PUMP. MODEL: E3-4V/BTXRZ. 120 V, 60 HZ, 1 PH, 5-28 WATTS POWER. LEAD FREE BRASS CONSTRUCTION. 1/2" THREADED CONNECTION.  |

1" Meter

1-1/4" Distribution

# JCAA CONSULTING ENGINEERS



| Allowable Friction L | oss/100ft.= 100 | x 18.55 PSI(PA)= | 15.5 PSI/100FT.  | 35.70875 FT/100FT |
|----------------------|-----------------|------------------|------------------|-------------------|
|                      | E               | 120 Ft.(TEL)     |                  |                   |
| Pipe Size            | Max. Flow (GPM) | Flush Tank F.U.  | Flush Valve F.U. | Velocity FPS      |
| 1/2"                 | 5               | 9.4              |                  | 6.96              |
| 3/4"                 | 13.6            | 16.5             | 6                | 8.91              |
| 1"                   | 27.5            | 22               |                  | 10.75             |
| 1 1/4"               | 47.8            | 28               |                  | 12.24             |
| 1 1/2"               | 76              | 36.5             |                  | 13.77             |
| 2"                   | 158             | 56               |                  | 16.53             |

100 FT. 20 FT.

120 FT.

% Fitting Length=

Total Equivalent Length (TEL)=

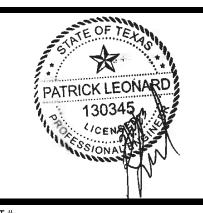
LINGLEDESIGNGROUP,INC 158 West Main Street LENA, IL 61048 815.369.9155 1764 BLAKE ST

DENVER, CO 80202 303.974.5875

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PROJECT #: 22.033 CHECKED BY: JCAA

|               | PERMIT SET - 03/13/2023 |
|---------------|-------------------------|
|               |                         |
|               |                         |
|               |                         |
|               |                         |
| <u></u>       | -                       |
| $\overline{}$ |                         |

# SHERWIN WILLIAMS

| STORE #:             |
|----------------------|
| XXXX                 |
| ADDRESS:             |
| 9091 FAIR OAKS PKWY. |
| FAIR OAKS RANCH, TX  |
| 78015                |

SHEET TITLE:

Plumbing Schedules & Calculations

#### **DIVISION 22 SPECIFICATIONS:**

PLUMBING EQUIPMENT, METHODS AND MATERIALS

PRODUCTS

#### GENERAL

ALL PRODUCTS USED SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THE PLUMBING CODE IN EFFECT IN THE BUILDING LOCATION. WHERE BIDDER IS NOT SURE, HE IS ADVISED TO DETERMINE WHAT LIMITATIONS, IF ANY, ARE IMPOSED AT THE SITE.

#### 2. WATER DISTRIBUTION PIPE

PIPE 4" AND SMALLER SHALL BE TYPE "L" COPPER WITH WROUGHT COPPER FITTINGS FOR PIPE NOT IN OR UNDER FLOOR SLABS.

DIELECTRIC UNIONS SHALL BE INSTALLED WHEREVER ANY DISSIMILAR METALS ARE USED.

#### 3. SANITARY SOIL, WASTE AND VENT SYSTEMS

SOIL AND WASTE PIPE SHALL BE CAST IRON AS APPROVED BY CODE FOR THIS DUTY. NO VENT STACK SHALL BE LESS THAN 2" IN DIAMETER.

#### 4. SLEEVES AND ESCUTCHEONS

PROVIDE GALVANIZED SHEET METAL SLEEVES FOR ALL PIPES AT FLOORS, CEILINGS AND PARTITIONS. PROVIDE PIPE SLEEVES TWO PIPE SIZES LARGER THAN PIPE OR INSULATION AT PENETRATIONS. CAULK AND INSTALL ESCUTCHEONS AS SPECIFIED.

PROVIDE NICKEL PLATED BRASS ESCUTCHEONS WITH SPRING LOCKS OR SET SCREWS AT CEILINGS, FLOORS, AND WALLS FOR ALL PIPES. DO NOT USE CHROME PLATED FERROUS METAL ESCUTCHEONS.

VALVES SHALL BE SOLID BRONZE THROUGH 2" SIZE AND BRONZE FITTED FOR LARGER SIZES.

#### PROVIDE FULL PORT BALL VALVES WITH SOLDER CONNECTIONS.

VALVES SHALL BE RATED AT 125 PSI SWP/200 PSI WOG EQUIVALENT TO NIBCO, STOCKHAM, CRANE OR APPROVED

#### 6. CLEANOUTS AND COVERS

PROVIDE CLEANOUTS AT THE BASE OF EACH STACK AND AS SHOWN ON THE DRAWINGS. SPACING SHALL NOT BE GREATER THAN 50 FEET APART. PROVIDE CLEANOUT AT EACH CHANGE OF DIRECTION OF THE WASTE LINE GREATER THAN 45 DEGREES AND AS REQUIRED TO PROPERLY ROD THE SYSTEM.

CLEANOUT COVER SHALL BE THE PROPER TYPE FOR THE LOCATION AS ACCEPTED BY THE TRADE AS GOOD PRACTICE, THAT IS, FLUSH SCORED TOP FOR TILE AREAS, RECESSED TOP FOR VINYL FLOOR AREAS, DEEP CUT FOR TERRAZZO AREAS, FLUSH MOUNTED ON FLOOR UNDER CARPET WITH SCREW MARKER, CHROME PLATED COVER PLATE FOR FINISHED WALLS, ETC.

#### 7. ROOF FLASHING FOR ROOF DRAINS AND VENT STACKS

FLASHING SHALL BE LEAD OF NOT LESS THAN FOUR POUNDS PER SQUARE FEET AND SHALL BE TALL ENOUGH TO TURN INTO THE TOP OF THE VENT PIPE 12" ABOVE THE ROOF AND EXTEND OUT FROM THE ROOF DRAINS AND STACKS AT LEAST 12" ON EACH SIDE. OR AS DIRECTED BY THE ARCHITECT.

#### 8. PIPE HANGERS AND SUPPORTS

HANGERS FOR HORIZONTAL PIPES IN BUILDING SHALL BE ADJUSTABLE TYPE SUPPORTED BY THREADED RODS EQUIVALENT TO FEE AND MASON #239 OR #400. HANGERS ON BARE COPPER LINES SHALL BE COPPER PLATED. INSULATED LINES SHALL BE PROVIDED WITH A 20 GAUGE MINIMUM SADDLE 12" LONG FOR PIPES 2" AND SMALLER AND 18" FOR LARGER PIPES.

SUPPORT ALL PIPING BELOW THE BUILDING, SIDEWALKS, ETC. WITH 1/4 INCH STAINLESS STEEL RODS 4 FOOT ON CENTER AND AT EACH SIDE OF EACH FITTING. FOR NEW CONCRETE, EMBED IN THE CONCRETE ABOVE AND WIRE TO THE STEEL REINFORCING. FOR EXISTING CONCRETE SLABS, USE THREADED STAINLESS STEEL RODS AND 1/4 INCH CONCRETE DRILL AND SET ANCHORS. DRILL ANCHORS ONLY INTO BEAMS AND WEBS. TWIST THE RODS AROUND THE PIPING WITH THREE COMPLETE TURNS AROUND THE VERTICAL ROD. PROVIDE 1 FOOT LONG SCHEDULE 40 PVC SADDLES FOR ALL COPPER AND PVC PIPING. THE SADDLES SHALL BE THE SAME DIAMETER AS THE PIPE. WHERE REPAIRS ARE BEING MADE, THE CONTRACTOR SHALL INSTALL THESE SUPPORT RODS ON BOTH SIDES OF THE REPAIR FOR A DISTANCE OF 4 FEET OF THE EXISTING PIPE.

UNIONS 2" AND SMALLER SHALL BE GROUND JOINT TYPE WITH FLANGES BEING USED IN PIPES LARGER THAN 2".

#### 10. FIXTURES AND EQUIPMENT GENERAL

FURNISH ALL PLUMBING FIXTURES, DRAINS AND EQUIPMENT AS SHOWN ON THE DRAWINGS. IF THE ARCHITECTURAL DRAWINGS DIFFER FROM THE PLUMBING DRAWINGS, THE ARCHITECT SHALL BE NOTIFIED PRIOR TO BIDDING. FURNISH FIXTURES AND OTHER EQUIPMENT COMPLETE WITH ALL REQUIRED AND NECESSARY TRIM. FITTINGS, AND OTHER DEVICES FOR A COMPLETE FINISHED PROJECT AND AS DIRECTED BY THE ARCHITECT.

FIXTURES AND EQUIPMENT SHALL HAVE THE MANUFACTURER'S NAME OR TRADE MARK IMPRINTED ON OR ATTACHED BY METALLIC NAME PLATE. ALL FIXTURES AND ALL TRIM SHALL BE BY THE SAME MANUFACTURER UNLESS NOTED OTHERWISE. TRIM MAY BE OF DIFFERENT MANUFACTURER THAN FIXTURES, BUT EQUIVALENT TO THAT SPECIFIED.

ALL EXPOSED TRIM SHALL BE CHROME PLATED. TOPS OF ALL FLOOR DRAINS SHALL BE CHROME OR NICKEL BRONZE UNLESS OTHERWISE NOTED.

#### FURNISH BOLT CAPS FOR ALL TOILETS AND URINALS.

#### 11. PLUMBING FIXTURES

GENERAL: THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLUMBING FIXTURES, WITH ALL ASSOCIATED VALVES, TRIM, CONNECTORS, ETC., SHOWN ON THE ACCOMPANYING DRAWINGS. ALL FIXTURES MUST BE DELIVERED TO THE BUILDING PROPERLY CRATED. ESCUTCHEONS SHALL BE CHROME PLATED BRASS OR STAINLESS STEEL. TRAPS SHALL BE 17-GAUGE AND SHALL HAVE COUNTER SUNK CLEANOUT PLUG.

#### **EXECUTION**

#### GENERAL

ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL GOVERNING CODES AND THE BEST PRACTICES AND ALL PRODUCTS INSTALLED AS DIRECTED BY THE MANUFACTURER THROUGH THEIR WRITTEN INSTRUCTIONS.

#### 13. DISINFECTION

DISINFECT NEW WATER PIPING (AND EXISTING WATER PIPING AFFECTED BY THE CONTRACTOR'S OPERATION) IN ACCORDANCE WITH AWWA C601. FILL PIPING SYSTEMS WITH SOLUTION CONTAINING A MINIMUM OF 50 PARTS PER MILLION OF AVAILABLE CHLORINE AND ALLOW SOLUTION TO STAND FOR A MINIMUM OF 24 HOURS. FLUSH SOLUTION FROM SYSTEMS WITH CLEAN WATER UNTIL MAXIMUM RESIDUAL CHLORINE CONTENT IS NOT GREATER THAN 0.2 PARTS PER MILLION.

#### 14. EXCAVATION AND BACKFILLING

DO ALL EXCAVATION AND BACKFILLING REQUIRED. TRENCHES SHALL BE WIDE ENOUGH FOR PROPER INSTALLATION OF THE PIPE. GRADE THE DITCH BOTTOM FOR PROPER SLOPE AND PROVIDE BELL HOLES TO ALLOW THE FULL BEARING OF THE PIPE BARREL. COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS RELATING TO DITCHING.

DEWATER TO EXTENT NECESSARY TO GIVE PROPER COMPACTION UNDER ALL PIPES. CONTINUE DEWATERING OPERATION UNTIL SYSTEM HAS BEEN TESTED, APPROVED, BACKFILLED AND COMPACTED.

EXCAVATE 6" BELOW THE PIPE AND FILL WITH COMPACTED OR WETTED SAND TO PIPE GRADE.

## NO EXCAVATION SHALL BE UNDER OR NEAR FOOTINGS WITHOUT APPROVAL OF THE ARCHITECT.

BACKFILL WITH CLEAN DIRT OR SAND, NO ROCKS, CLODS OR TRASH. TAKE CARE NOT TO DISTURB THE PIPE GRADE OR ALIGNMENT. COMPACT AROUND AND UNDER THE PIPE CAREFULLY. FINISH BACKFILL WITH APPROVED MATERIAL AND LEAVE SLIGHTLY MOUNDED. CLEAN UP AROUND THE DITCH AREA TO REMOVE TRASH AND ANY

WHERE DITCH IS UNDER FUTURE PAVEMENT, FINISH SURFACES, OR FOOTINGS, THE FILL SHALL BE COMPACTED IN 6" LAYERS WITH A POWER TAMPER.

#### 15. CONTRACTOR'S RESPONSIBILITIES

THE CONTRACTOR'S RESPONSIBILITIES INCLUDE BUT ARE NOT LIMITED TO:

#### SETTING FLOOR AND WALL SLEEVES IN PROPER LOCATIONS.

INFORMING OTHER TRADES OF LOCATION OF AND SIZE OF CHASES, STACKS, CLEANOUTS, ETC. THAT WILL LATER RELATE TO THEIR WORK.

#### PROVIDING ACCESS TO ALL ITEMS REQUIRING ROUTINE SERVICE.

SETTING THE ELEVATION OF FLOOR DRAIN TOPS TO PROVIDE FOR A SLOPE OF 1/16" PER FOOT TOWARD THE DRAIN. THIS REQUIRES COORDINATION WITH THE CONCRETE SUBCONTRACTOR AND RECHECKING AT THE TIME THE POUR IS BEING MADE.

#### INSULATION:

#### GENERAL

THIS SECTION APPLIES TO ALL PLUMBING WORK.

#### ALL INSULATION SHALL BE IN STRICT ACCORDANCE ALL LOCAL AND STATE ENERGY CODES.

THE INSULATION WORK SHALL BE PERFORMED BY A FIRM REGULARLY ENGAGED IN THIS TYPE WORK USING MECHANICS SKILLED IN THE TRADE.

INSTALL ALL MATERIALS AS RECOMMENDED BY THE MANUFACTURER FOR THE SERVICE INTENDED. ALL INSULATION MATERIAL, INCLUDING SEALER MATERIAL, ADHESIVES, COVERING MATERIAL, FINISH, ETC. SHALL HAVE A U. L. LISTED FLAME SPREAD RATING NOT OVER 24 WITHOUT EVIDENCE OF CONTINUED PROGRESSIVE COMBUSTION AND WITH A SMOKE DEVELOPED RATING NOT HIGHER THAN 50. ALL COATINGS AND COVERINGS FOR HOT SERVICE SHALL BE BREATHER TYPE AND VAPOR BARRIER TYPE FOR COLD SERVICE.

#### 17. DOMESTIC HOT AND COLD WATER

DOMESTIC HOT AND COLD WATER PIPE ABOVE GRADE AND IN CONCEALED SPACES SHALL BE INSULATED USING ALL SERVICE JACKET WITH SELF-SEALING LAPS. THICKNESS FOR ALL SIZES OF PIPE SHALL BE \ INCH THICK FIBERGLASS FOR NON HOTWATER RECIRCULATING SYSTEMS AND 1" THICK FOR PIPING SYSTEM WITH HOTWATER RECIRCULATION. INSULATION SHALL MEET OR EXCEED IEEC. FITTINGS SHALL BE COVERED WITH FORMED SECTIONS OF MATERIAL.

#### 18. COLD DRAIN LINES

INSULATE ALL HORIZONTAL DRAIN LINES WHICH CAN RECEIVE COLD CONDENSATE WITH 1" THICK (3/4 LBS/CU. FT. DENSITY) DUCT WRAP WITH ALUMINUM ALL SERVICE JACKET, VAPOR BARRIER.

#### 19. WATER DISTRIBUTION PIPING

EXTEND FROM THE WATER ENTRANCE TO EVERY FIXTURE, WATER HEATER, OR OUTLET REQUIRING HOT OR COLD WATER. PROVIDE STOP VALVE AND A DRAIN FOR THE SYSTEM. EVERY LOW POINT SHALL BE DRAINED WITH A CAP OR PLUG AND DRAIN VALVE.

#### PIPE SIZES SHOWN ON THE DRAWINGS ARE INTERNAL DIAMETER.

EVERY FIXTURE CONNECTION SHALL BE PROVIDED WITH A STOP VALVE AND AN 3/4" X 15" HIGH AIR CHAMBER VERTICALLY AT THE FIXTURE CONNECTION.

AT CONTRACTOR'S OPTION, EXISTING BRANCH (NOT MAIN) DOMESTIC WATER PIPING MAY BE REUSED WITHIN UNIT IF TESTED AND PROVEN TO BE IN PROPER CONDITION WITH APPROVAL OF ARCHITECT.

#### 20. BUILDING DRAIN, WASTE AND VENT SYSTEM

THE WASTE AND VENT SYSTEM SHALL BE GENERALLY AS SHOWN ON THE DRAWINGS WITH CHANGES ON THE JOB AS REQUIRED TO MEET JOB CONDITIONS. ANY MAJOR CHANGE FROM THAT SHOWN ON THE DRAWINGS SHALL BE SUBMITTED FOR APPROVAL BY THE ARCHITECT.

#### A FIXTURE SHALL WASH THE BOTTOM OF ALL STACKS WHETHER REQUIRED BY LOCAL CODE OR NOT.

EXTEND VENT STACKS 12" ABOVE THE ROOF AND FLASH WITH FLASHING. TURN THE TOP OF FLASHING INTO THE STACK.

THERE SHALL BE NO HORIZONTAL OFFSET IN VENTS LESS THAN 6" ABOVE THE FLOOD RIM OF THE HIGHEST

#### 21. TESTING

NOTIFY ARCHITECT THREE WORKING DAYS BEFORE ANY TESTS ARE MADE. NO JOINTS OR FITTINGS SHALL BE CONCEALED UNTIL TESTED AND APPROVED. REPEAT TEST AS NECESSARY UNTIL PROVEN SATISFACTORY.

THE FOLLOWING TEST AS DESCRIBED IN THE INTERNATIONAL PLUMBING CODE, SECTION 312, SHALL BE

## SEWER SYSTEM

WATER SYSTEM

WATER TEST - FILL SYSTEM WITH WATER AND HOLD FOR 45 MINUTES WITHOUT DROP IN WATER LEVEL.

# MINIMUM HEAD SHALL BE 10 FEET OF WATER.

BALL TEST - PASS A WOODEN SEWER BALL THROUGH THE SYSTEM USING ONLY WATER TO ASSIST.

IMPOSE 150 PSI WATER PRESSURE ON THE SYSTEM WITH SYSTEM FULL OF WATER AND HOLD FOR FOUR HOURS WITHOUT PRESSURE DROP. IN FREEZING WEATHER ONLY, USE 150 PSI AIR PRESSURE AND HOLD FOR 8 HOURS WITHOUT DROP IN PRESSURE BEYOND THAT EXPECTED FROM TEMPERATURE CHANGES. INSTALL PRESSURE GAUGE FOR EITHER TEST AND LEAVE IN PLACE UNTIL WATER SUPPLY IS CONNECTED.

#### 22. SCREWED PIPE FITTINGS

CUT THREADS TO FULL DEPTH AND MAKE UP USING TEFLON TAPE. USE DRAINAGE PATTERN FITTINGS FOR WASTE AND VENT SYSTEMS.

#### 23. CAST IRON PIPE FITTINGS

FITTINGS MAY BE NO-HUB, PUSH TYPE, OR LEAD AND OAKUM. INSTALL AS RECOMMENDED BY THE MANUFACTURER USING TOOLS AS RECOMMENDED BY THEM. CARE SHALL BE TAKEN TO PREVENT SHIFTING OR SETTLING OF PIPE.

#### 24. SOLDER TYPE FITTINGS

#### BRAZE USING J.W. HARRIS "DYNAFLOW" 6% SILVER BRAZING ALLOY

CLEAN PIPE AND FITTINGS BRIGHT WITH SAND PAPER OR WIRE BRUSH AND APPLY PASTE FLUX (LIQUID FLUX IS NOT ACCEPTABLE) AND ASSEMBLE JOINT. APPLY HEAT EVENLY TO THE PIPE AND FITTINGS AND APPLY SOLDER TO FILL THE JOINT BY CAPILLARY ACTION. CLEAN JOINT OF EXCESS SOLDER BEFORE IT COOLS. FITTINGS DISCOLORED BY HEAT SHALL BE REMOVED AND THE JOINT REMADE.

#### 25. GRADES

PIPE SHALL GRADE IN DIRECTION OF FLOW NOT LESS THAN THE FOLLOWING BUILDING SEWER AND BUILDING DRAIN- 1/8" PER FOOT. WASTE AND VENT 2-1/2" AND SMALLER- 1/4" PER FOOT.

#### 26. PIPE SLEEVES

TIGHTLY CAULK ALL ANNULAR SPACES BETWEEN PIPES (OR INSULATION) AND SLEEVES WITH SILICONE TYPE

SLEEVES PASSING THROUGH FLOORS SHALL EXTEND 2" ABOVE THE FLOOR LEVEL TO PREVENT WATER PENETRATION AROUND PIPE. THE SLEEVE SHALL ALSO BE SEALED TO THE FLOOR.

#### PROTECTION OF PIPE BELOW SLABS.

WASTE AND VENT 3" AND LARGER- 1/8" PER FOOT.

ALL STEEL AND COPPER PIPES INSTALLED BELOW A FLOOR SLAB AND NOT INSULATED SHALL BE GIVEN ONE HEAVY TROWEL COAT OF MASTIC EQUIVALENT TO KOPPERS NO. 50. THE THREADS SHALL BE GIVEN A SECOND

#### INSTALLATION OF PIPES

ALL THREADED PIPES SHALL BE REAMED TO REMOVE ALL CUTTING LIPS FROM THE INSIDE EDGE AND SHALL BE THREADED WITH CLEAN DIES TO THE PROPER DEPTH. CUTS SHALL BE CLEAN AND NOT GOUGED OR ROUGH. APPLY LUBRICANT TO MALE THREAD ONLY.

ALL COPPER PIPES SHALL BE REAMED TO REMOVE ALL CUTTING LIPS FROM INSIDE EDGE.

PIPE SHALL BE LAID OR SUPPORTED IN A STRAIGHT AND TRUE MANNER WITH FITTINGS USED TO MAKE ALL CHANGES IN DIRECTION.

ALL PIPE SHALL BE CUT CLEAN AT PRECISE ANGLE, HAND CUTTING OF PVC PIPE SHALL NOT BE ACCEPTABLE

#### 29. PIPE HANGERS AND SUPPORTS

SUPPORT ALL SUSPENDED PIPE WITH PROPER ADJUSTABLE SWIVEL HANGERS WITH MAXIMUM SPACING AS

CAST IRON - ONE HANGER FOR EACH SECTION OF CAST IRON PIPE. SCREWED AND SOLDER PIPE - 6 FOOT SPACING FOR PIPE 1-1/2" AND SMALLER AND 10 FEET FOR LARGER

ALL THREAD HANGER RODS SHALL BE USED AS FOLLOWS:

PIPE 2" AND SMALLER - 3/8" PIPE 2-1/2 TO 4" - 1/2"

PIPE ABOVE 4" - 5/8"

SUPPORT ALL VERTICAL PIPE WITH KNEE ANCHORS OR FLOOR CLAMPS AND BRACE AS REQUIRED.

CLAMPS AND HANGERS ON INSULATED PIPE SHALL BE PROVIDED WITH A HEAVY GALVANIZED BEARING PLATE NOT LESS THAN FOUR INSULATION DIAMETERS LONG.

BARE COPPER PIPES SHALL BE SUPPORTED WITH COPPER PLATED HANGERS

SUPPORT HANGERS FROM BEAM CLAMPS, INSERTS IN CONCRETE, JOIST CLAMPS, ETC. AS NECESSARY TO SUPPORT THE WEIGHT. NO WIRE OR STRAPS ARE TO BE USED FOR HANGERS.

#### 30. PROTECTION DURING CONSTRUCTION

INSTALL TEST PLUGS, WOOD PLUGS OR CAPS IN ALL OPEN PIPES AT TIME OF INSTALLATION AND DO NOT REMOVE UNTIL PIPE IS CONNECTED.

MAINTAIN PRESSURE AND PRESSURE GAUGE ON ALL WATER LINES DURING CONSTRUCTION. USE WATER EXCEPT IN COLD WEATHER.

DRAIN ALL WATER FROM LINES TO PREVENT FREEZING.

PROTECT ALL FINISHED SURFACES OF FIXTURES AND BRASS FROM ANY DAMAGE. FIXTURES OR BRASS OF ANY TYPE THAT IS DAMAGED, SCRATCHED, DISCOLORED SHALL BE REMOVED AND REPLACED AT THIS CONTRACTOR'S

31. \*\*\* NO NATURAL GAS IN SCOPE \*\*\*

FIRE SPRINKLER SYSTEMS

#### 32. PROVIDE NEW FIRE SPRINKLER SYSTEMS SPECIFIED HEREIN.

OBTAIN FULL APPROVAL OF THE REVIEWING AUTHORITY BEFORE INSTALLING ANY PART OF THE SYSTEM. COMPLY WITH ALL CODES AND REGULATIONS INCLUDING: NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), OWNER'S INSURER, AND GOVERNING LOCAL, STATE, AND FEDERAL CODES.

PROVIDE SHOP DRAWINGS, DESIGN CALCULATIONS AND DATA SHEETS TO MEET ALL REQUIREMENTS OF STATE FIRE MARSHAL. VISIT THE JOB SITE AND REVIEW ALL CONSTRUCTION DOCUMENTS IN ORDER TO SATISFY ALL STATE FIRE MARSHAL REQUIREMENTS. PROVIDE ALL NECESSARY SHOP DRAWINGS WITH CALCULATIONS AND MATERIAL CUT SHEETS. PROVIDE NECESSARY AND REQUIRED REVIEW AND SUBMITTAL FEES AND PAY PACKAGE DELIVERY COSTS FOR THE STATE FIRE MARSHAL REVIEW PACKAGE(S), INCLUDING ANY RESUBMITTAL REVIEW AND DELIVERY COSTS. PROVIDE OVERNIGHT DELIVERY COSTS TO EXPEDITE DELIVERY, AS DIRECTED BY THE OWNER, ARCHITECT, OR ENGINEER, WHEN NECESSARY.

INSTALL ALL WORK AND PROVIDE ALL NECESSARY EQUIPMENT, INCLUDING, BUT NOT NECESSARILY LIMITED TO, FIRE PUMPS, SPRINKLER HEADS, PIPING, VALVES, CONTROLS, IN ACCORDANCE WITH ALL APPLICABLE NFPA STANDARDS, U.L., STATE AND LOCAL FIRE SPRINKLER CODES AND REQUIREMENTS, HEREIN REFERRED TO AS THE CODE OR CODES.

PERFORM A FIRE SPRINKLER WATER FLOW TEST BEFORE ANY CALCULATIONS ARE COMPLETED. USING THE RESULTS OF THIS TEST, DETERMINE THE NECESSITY OF INSTALLING AND INSTALL A FIRE PUMP WITH NECESSARY CONTROLLER, JOCKEY PUMP, VALVES, ETC.

PROVIDE AND INSTALL NECESSARY FIRE PUMP ASSOCIATED CONTROLLER, JOCKEY PUMP, VALVES, ETC. PER

ALL PIPING IN AREAS HAVING CEILING SHALL BE CONCEALED.

AVOID INTERFERENCES WITH AIR CONDITIONING DUCTS, LIGHTS, AND MECHANICAL PIPING AND EQUIPMENT. IT IS NOT THE INTENT OF DRAWINGS TO SHOW CLEARANCES.

ALL EQUIPMENT SHALL BE U.L. LISTED.

AS REQUIRED CODE.

USE SCREW FITTINGS FOR THE SPRINKLER HEADS, PIPING, 2 INCHES AND SMALLER. USE FLANGED JOINTS OR GROOVED JOINTS WITH U.L. LISTED COUPLINGS, FOR PIPING 2 1/2 INCHES AND LARGER, AT RISERS.

FASTEN ALL PIPING SECURELY USING U.L. APPROVED HANGERS AS REQUIRED BY CODE. INSTALL ON EACH SYSTEM AN INSPECTOR'S TEST CONNECTION FOR THE PURPOSE OF ALLOWING AN INSPECTOR

TO OPEN INSPECTOR'S TEST VALVE AND PROVE THAT SPRINKLER SYSTEM IS OPERATING CORRECTLY. PROVIDE IDENTIFICATION SIGNS AND TAGS FOR ALL CONTROL VALVES, DRAINS, TEST VALVES AND OTHER ITEMS

AS REQUIRED BY CODE, PROVIDE A U.L. LISTED SHUTOFF VALVES WITH TAMPER SWITCH AND A U.L. FLOW SWITCH WITH RETARD FEATURE. CONNECT THESE SWITCHES TO THE FIRE ALARM SYSTEM.

AFTER THE FIRE SPRINKLER SYSTEM HAS BEEN COMPLETELY APPROVED, SECURE A LETTER OF FINAL ACCEPTANCE FROM THE FIRE RATING BUREAU HAVING JURISDICTION, AND DELIVER THREE (3) COPIES OF THE LETTER TO THE OWNER.

33. IF REQUESTED, JCAA CONSULTING ENGINEERS, INC. WILL PROVIDE ELECTRONIC COPY OF THE DIVISION 15 AND 16 SYSTEMS RELATED TO THIS PROJECT FOR THE PURPOSES OF PREPARATION OF SHOP DRAWINGS BY THE CONTRACTOR OR HIS SUB-CONTRACTORS. COPY WILL BE PROVIDED AT A COST OF \$45.00 PER FILE, PAYABLE AT TIME OF ISSUE, AND WITH THE SIGNING OF A DISCLAIMER FOR THE USE OF THE FILE.



158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST DENVER, CO 80202

303.974.5875

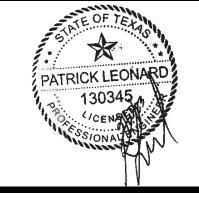
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4100 Wadsworth Blvd. 9

p. 303.985.3260 ¥

Wheat Ridge, CO 80033

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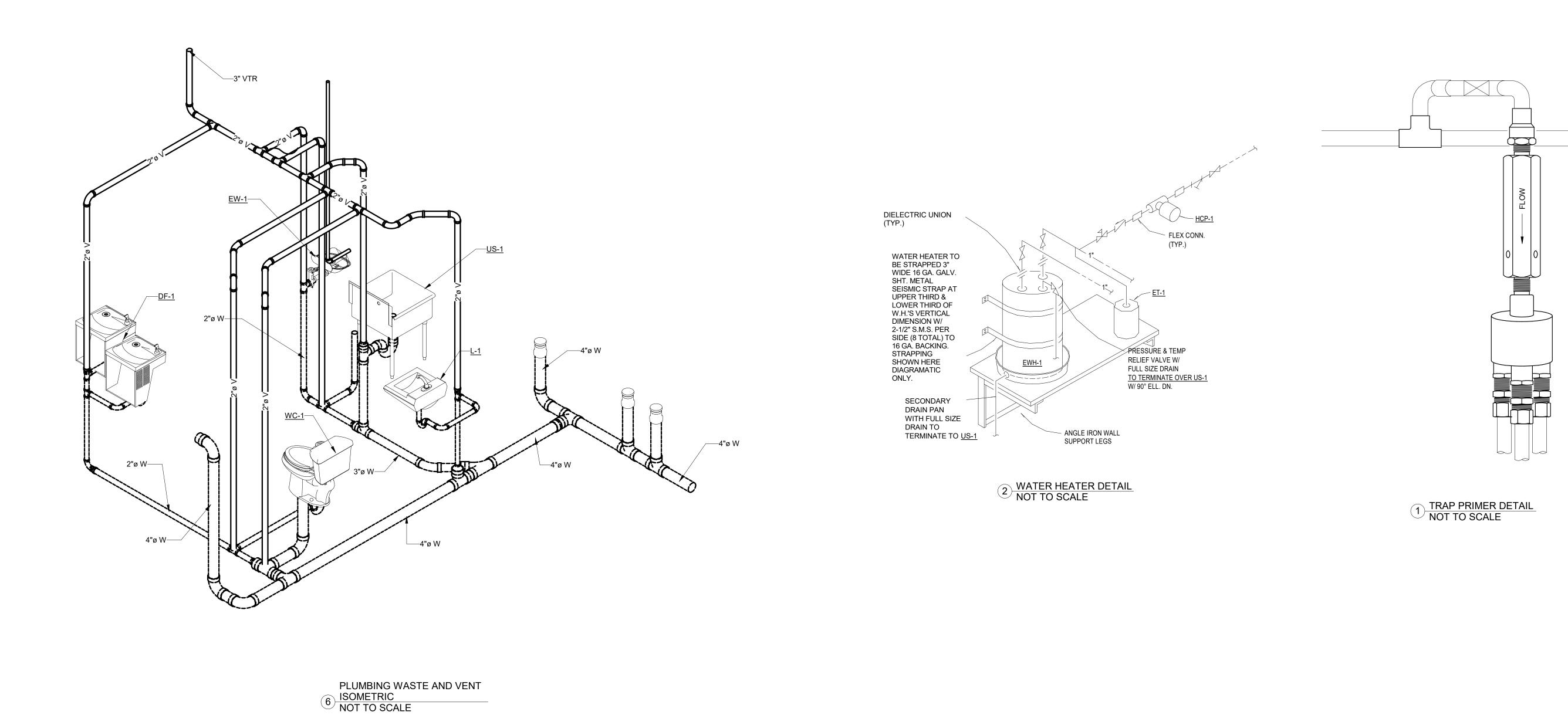
PERMIT SET - 03/13/2023

STORE #:

XXXX

9091 FAIR OAKS PKWY.

SHEET TITLE:



CONNECT TO PLUMBING VENT. RE: PLUMBING

WALL, VARIES

FINISHED FLOOR—

LEONARD TM-850-STSTL-EXP SET DISCHARGE TEMP. FOR 80°F

WITH LOCKABLE DOOR.

CONNECT TO SANITARY BELOW GRADE

5 EYEWASH STATION DETAIL NOT TO SCALE

- EXPOSED STAINLESS STEEL CABINET

<u>LAVATORY/SINK</u> (WALL HUNG OR

COUNTER MOUNTED)

TEMPERED & COLD WATER SERVING LAVATORY/SINK

4 TEMPERING VALVE DETAIL NOT TO SCALE

WASTE AND VENT ISOMETRIC

CD FROM RTUs /DRAIN FROM PAN & T&P RELIEF VALVE

AIR GAP 2X PIPE DIAMETER

2"Ø W

4"ø W -

FINSHED FLOOR -

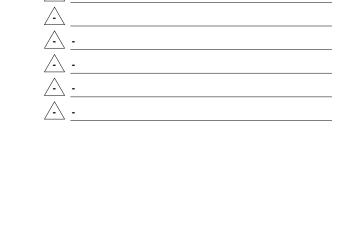
8 HUB DRAIN DETAIL NOT TO SCALE

OVERFLOW & PRIMARY
TO LAMBS TONGUE

FROM WH RESPECTIVELY

RD & ORD —

7 SCUPPER DETAIL NOT TO SCALE



PERMIT SET - 03/13/2023

PROJECT #: 21.239

DRAWN BY: ATE

LINGLEDESIGNGROUP, INC

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LENA, IL 61048 815.369.9155

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# SHERWIN WILLIAMS

| STORE #: |  |
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DOMESTIC

WATER METER

- 3/4" DRAIN TO NEAREST

RPBFP ABOVE CEILING

AIRGAP

3 WATER ENTRY DETAIL NOT TO SCALE

FULL SIZE DRAIN TO NEAREST FLOOR DRAIN

NOTES:

1. INSTALL O,S & Y VALVE STEM PARALLEL TO THE EXTERIOR WALL.
ALL METERS SHALL BE CODE APPROVED & LOCATED PER CODE.

2. WATER METERS SHALL INCLUDE A DUAL OUTPUT OR METER ATTACHMENT, THAT CAN READ BY THE LOCAL WATER UTILITY BUT ALSO HAS A PULSE OR 4-20 MA OUTPUT TO AN ENERGY MANAGEMENT SYSTEM.

ROUTE OUT TO LANDSCAPE / IRRIGATION RPBFP

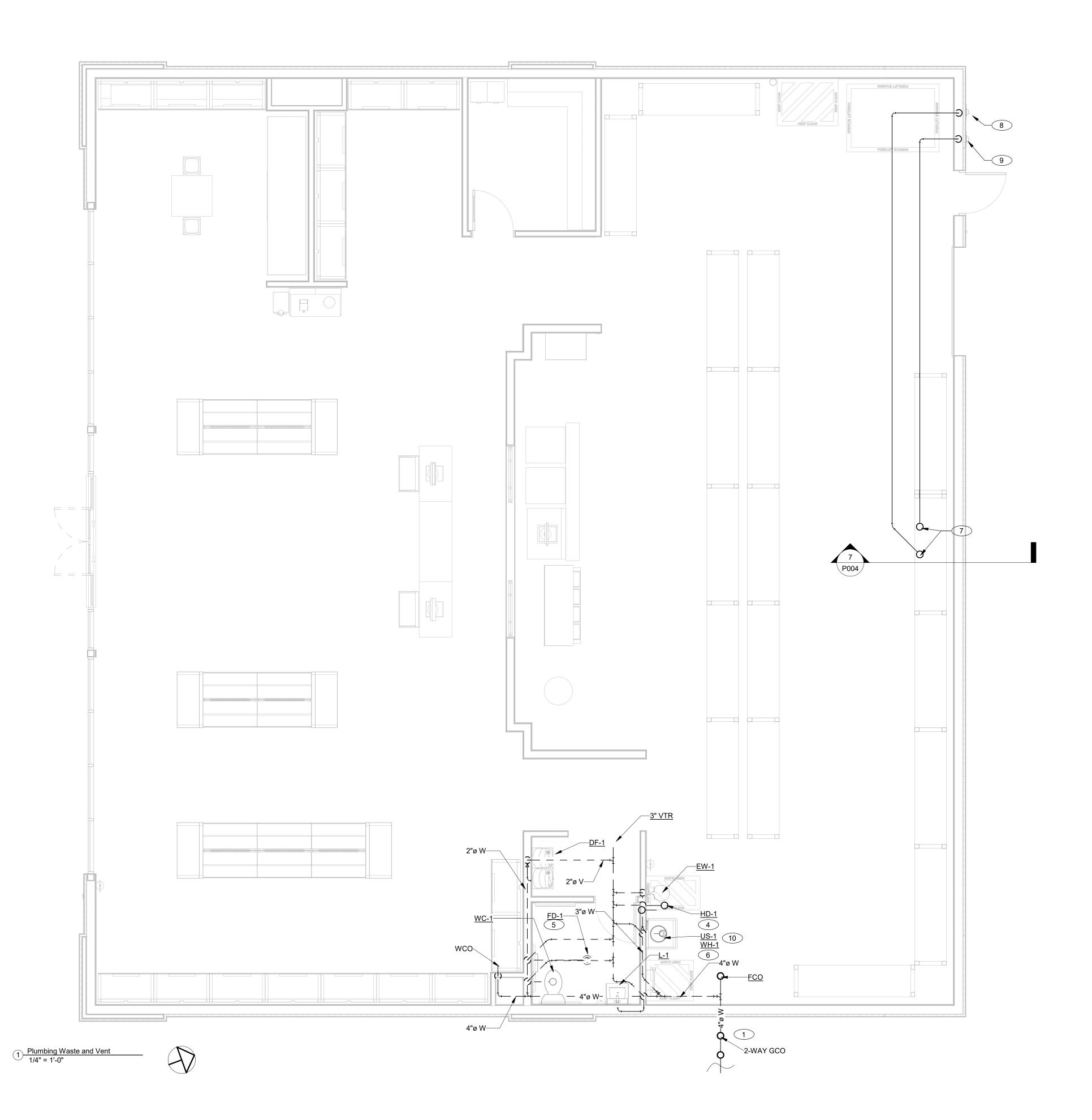
COMPRESSION FITTING, TYP.

ANGLE STOP, TYP.

ADDRESS: 9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

SHEET TITLE:

Plumbing Details and Isometric



#### **GENERAL NOTES:**

1. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

2. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, CIVIL, AND ARCHITECTURAL DIVISIONS. CONTRACTOR SHALL VERIFY SIZE & LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK, COORDINATE WITH OTHER TRADES AND MAKE FINAL CONNECTION. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR PLUMBING SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER, PLUMBING PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUTS BEFORE CONCRETE IS POURED OR BLOCK SET.

#### 3. PROVIDE ACCESSIBLE CLEANOUTS AS REQUIRED PER CODE.

4. ALL WATER SUPPLY LINES LESS THAN 1" IN DIAMETER SHALL BE COPPER OR COPPER ALLOY. USE ONLY CAST AND WROUGHT COPPER AND COPPER ALLOY PRESS-CONNECT PRESSURE FITTINGS: ASME B16.51, DO NOT USE SOLDER OR BRAZED CONENCTIONS. PRESS-CONNECT JOINTS: PRESS-CONNECT JOINTS SHALL BE MADE IN ACCORDANCE WITH THE FITTING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS USING A PRESS-CONNECT TOOL AND JAWS APPROVED FOR USE FOR THE MANUFACTURER'S SPECIFIC FITTING CONFIGURATION. COPPER ALLOY TUBE SHALL BE MECHANICALLY CLEANED AND REAMED PRIOR TO JOINING TO REMOVE ALL BURRS (INTERIOR AND EXTERIOR) AND RESTORE FULL INSIDE DIAMETER AND A SMOOTH, CHAMFERED EXTERIOR SURFACE. FITTINGS SHALL HAVE EPDM SEALING ELEMENTS.

#### # SHEET NOTES:

1. 4" SANITARY WASTE LINE OUT OF BUILDING. SEE CIVIL FOR CONTINUATION. PC TO VERIFY EXACT SIZE, LOCATION AND INVERT ELEVATION PRIOR TO WORK. CONTACT ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.

2. ALL VENT PIPING FROM ALL FIXTURES ARE 2" DIAMETER UNLESS SPECIFIED

3. ROUTE 3" SANITARY VENT UP THROUGH ROOF. MAINTAIN A MINIMUM CLEARANCE OF 10' FROM NEAREST AIR INTAKE. VERIFY EXACT LOCATION IN

4. 2" HUB DRAIN WITH TRAP PRIMER LINE CONNECTED TO LAVATORY.

5. INSTALL 2" FLOOR DRAIN IN BATHROOM FLOOR AS SHOWN.

6. ROUTE TEMPERATURE AND PRESSURE RELIEF VALVE DOWN AND INDIRECTLY DRAIN TO UTILITY SINK BELOW.

7. 6" SD UP TO ROOF DRAIN. REFER TO ARCH PLANS FOR ROOF DRAIN SPECIFICATIONS.

8. TERMINATE 6" SD FROM OVERFLOW TO WALL. PIPE SHOULD PENETRATE TO EXTERIOR 6" AFF, THEN TERMINATE INTO LAMBS TONGUE.

9.TERMINATE 6" SD FROM PRIMARY TO WALL. PIPE SHOULD PENETRATE TO EXTERIOR 6" AFF, THEN TERMINATE INTO LAMBS TONGUE. REFER TO DETAIL

10. ROUTE RELIEF FROM 1" RPBP IN CEILING SPACE TERMINATE OVER US-1 WITH



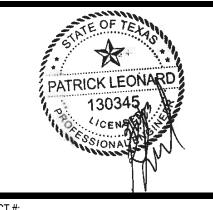
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21.239

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# **SHERWIN WILLIAMS**

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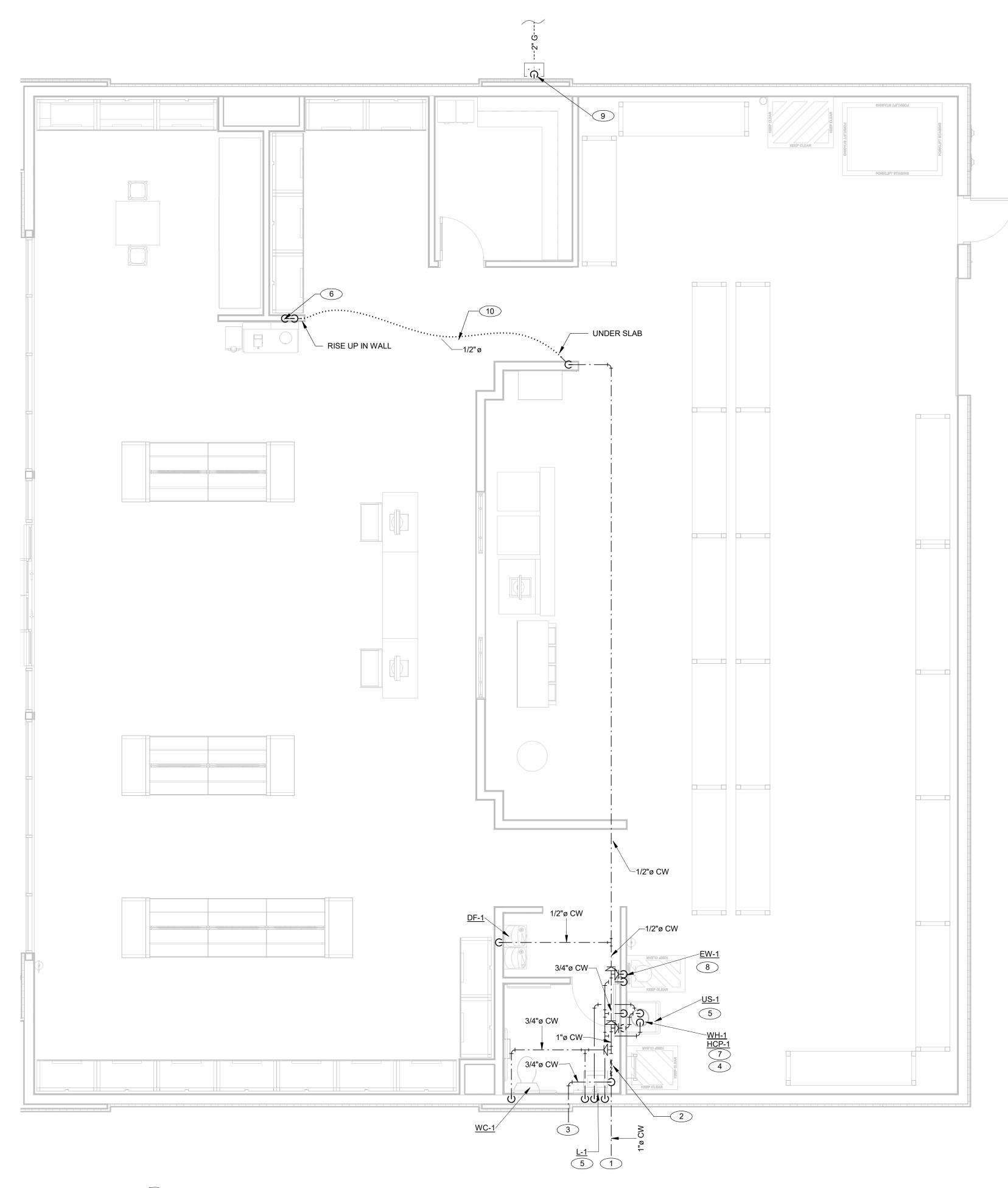
9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

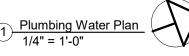
SHEET TITLE:

Plumbing Waste and Vent Plan

SHEET NUMBER:

P100





#### **GENERAL NOTES:**

1. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

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3. PROVIDE ACCESSIBLE SHUT-OFF VALVES ON ALL NEW FIXTURE HW & CW

4. ALL WATER SUPPLY LINES LESS THAN 1" IN DIAMETER SHALL BE COPPER OR COPPER ALLOY. USE ONLY CAST AND WROUGHT COPPER AND COPPER ALLOY PRESS-CONNECT PRESSURE FITTINGS: ASME B16.51, DO NOT USE SOLDER OR BRAZED CONENCTIONS. PRESS-CONNECT JOINTS: PRESS-CONNECT JOINTS SHALL BE MADE IN ACCORDANCE WITH THE FITTING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS USING A PRESS-CONNECT TOOL AND JAWS APPROVED FOR USE FOR THE MANUFACTURER'S SPECIFIC FITTING CONFIGURATION. COPPER ALLOY TUBE SHALL BE MECHANICALLY CLEANED AND REAMED PRIOR TO JOINING TO REMOVE ALL BURRS (INTERIOR AND EXTERIOR) AND RESTORE FULL INSIDE DIAMETER AND A SMOOTH, CHAMFERED EXTERIOR SURFACE. FITTINGS SHALL HAVE EPDM SEALING ELEMENTS.

5. PROVIDE TRAP PRIMERS FOR ALL FLOOR AND HUB DRAINS.

#### # SHEET NOTES:

1. 1" DOMESTIC CW PIPE FROM OUTSIDE OF BUILDING. SEE CIVIL FOR CONTINUATION.

2. FURNISH AND INSTALL 1" RPBFP & METER FOR DOMESTIC WATER SERVICE. ROUTE RELIEF PIPING TO DISCHARGE INDIRECTLY IN TO SERVICE SINK DRAIN. SEE DOMESTIC WATER ENTRY DETAIL FOR MORE INFORMATION.

3. 3/4" IRRIGATION WATER LINE FROM WATER ENTRY OUT TO LANDSCAPE/IRRIGATION BFP AND MANIFOLD. TAP LINE AFTER METER AND RPBFP. ENSURE EXTERIOR RPBP IS FURNISHED ON THE EXTERIOR BY LANDCAPE

4. MOUNT WATER HEATER ABOVE UTILITY SINK ON PLATFORM.

5. PROVIDE AND INSTALL ANTI-SCALD MIXING VALVE AT LAVATORY AND UTILITY SINK TO TEMPER HOT WATER FOR PUBLIC USE. SET VALVE TO DISCHARGE A MAXIMUM OF 110°F.

6. COLD WATER CONNECTION TO COFFEE MAKER. PROVIDE SHUTOFF VALVE AND BACKFLOW PREVENTER IN WALL IN A RECESSED VALVE BOX PRIOR TO CONNECTION TO EQUIPMENT.

7. HOT WATER RECIRCULATION PUMP INSTALLED ON 1/2" HOT WATER RETURN. SET HOT WATER RECIRCULATION PUMP TO 1 GPM.

8. ROUTE CW/HW PIPING DOWN TO EYEWASH MIXING VALVE. REFER TO DETAIL 5

9. 2" 7" WC GAS UP ALONG WALL, OFFSET ONTO ROOF.

10. ROUTE 1/2" UNDER SLAB TO PREVENT VISIBILTY IN SALES FLOOR. ROUTE UNDER SLAB BELOW FROST DEPTH TO ENSURE FREEZE PROTECTION NO JOINTS - PEX TYPE A.

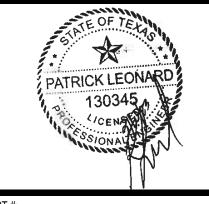
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CHECKED BY: JCAA

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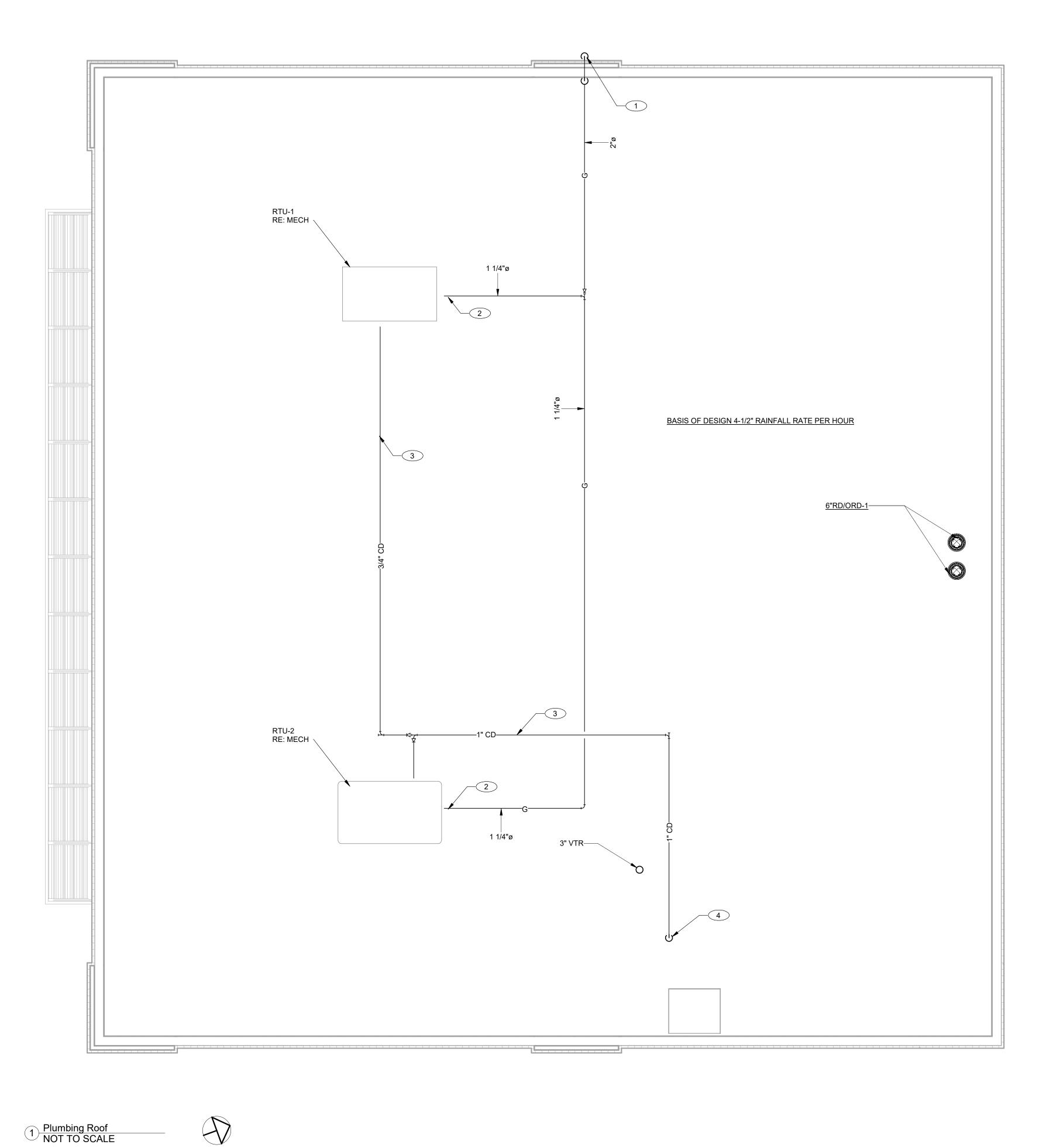
9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

SHEET TITLE:

Plumbing Water Plan

SHEET NUMBER:

P101



1 Plumbing Roof NOT TO SCALE



1. 2" 7" WC GAS DOWN TO 2" GAS METER

2. TERMINATE GAS CONNECTION WITH UNION, SHUTOFF, AND DIRTLEG, TRANSITION TO CONNECTION SIZES AS REQUIRED.

3. CONDENSATE PIPINE ROUTE ON ROOF AS SHOWN

4. CONDESNATE DOWN THROUGH ROOF TO HUB DRAIN BELOW.

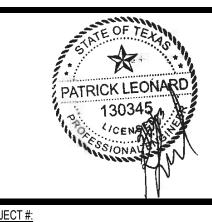


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PROJECT #: 21.239

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# **SHERWIN WILLIAMS**

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9091 FAIR OAKS PKWY.
FAIR OAKS RANCH, TX
78015

SHEET TITLE:

Plumbing Roof Plan

SHEET NUMBER:

P102

## MECHANICAL SYMBOLS

|  | MECHANICA   | AL SYN                         | <u>IBOLS</u>  |   |
|--|---|--------------------------------|---|---|
|  | EXHAUST DIFFUSER, GRILLE OR REGISTER  |                                | 12"x12"<br>12"/12"<br>12"Ø<br><u>VAV-1</u>          | RECTANGULAR DUCT ANNOTATION FLAT OVAL DUCT ANNOTATION ROUND DUCT ANNOTATION MECHANICAL EQUIPMENT TAG            |
| '<br>  |   | 1i<br>200 CFM<br>8"Ø, TYP. (3) | <u>MARK</u><br>AIR FLOW<br>NECK SIZE, TYPICAL COUNT | GRILLE, REGISTER, OR DIFFUSER TAG   |
|  | RETURN DIFFUSER, GIRLLE OR REGISTER   |                                | (TS) (T) (CO)                                       | TEMPERATURE SENSOR THERMOSTAT CARBON MONOXIDE SENSOR  |
|  |   |                                | ©2<br>©C<br>S                                       | CARBON DIOXIDE SENSOR  OCCUPANCY SENSOR  OTHE SENSOR - SEE PLANS FOR DESCIPTION                                 |
|  | SUPPLY DIFFUSER, GRILLE OR REGISTER. SEE<br>GRILLE, REGISTER AND DIFFUSER SCHEDULE FOR<br>THROW DIRECTION(S). |                                | ——————————————————————————————————————              | CONTROL WIRE/CONNECTION  HEATING WATER SUPPLY  HEATING WATER RETURN  CHILLED WATER SUPPLY  CHILLED WATER RETURN |
|  | FIRE OR FIRE/SMOKE DAMPER. SEE DRAWINGS FOR ADDITIONAL INFORMATION.   |                                | CWR   | CONDENSER WATER SUPPLY CONDENSER WTER RETURN PIPE UP  |
|  | MANUAL BALANCING DAMPER   |                                | <del></del>   | PIPE DOWN PIPE TEE DOWN   |
|  | MITERED DUCT ELBOW  |                                | -<br>г<br>Ы   | PIPE CAP PIPE ELBOW   |
|  | RADIUSED DUCT ELBOW  MITERED ELBOW WITH SINGLE THICKNESS TURNING VANES  |                                | <b>ч</b><br>₩                                       | PIPE REDUCER PIPE TEE   |
| المراجعة الم | MITEREED ELBOW WITH DOUBLE THICKENSS TURNIGN VANES  |                                | 161   | THREE-WAY VALVE BUTTERFLY VALVE   |
|  |   |                                |   | BALL VALVE PLUG VALVE BALANCING VALVE MOTORIZED CONTROL VALVE Y-STRAINER PRESURE GAGE THERMOMETER               |

# **GENERAL SYMBOLS**

| oom name             | ROOM NAME   | ROOM TAG          |
|----------------------|---|-------------------|
| 101                  | ROOM NUMBER   | NOOM ING          |
| 1<br>A101 SIM        | <u>VIEW NUMBER</u><br>SHEET NAME                    | ENLARGED VIEW TAG |
| 1<br>A101            | <u>VIEW NUMBER</u><br>SHEET NUMBER                  | SECTION VIEW TAG  |
| 1 / A101             | VIEW NUMBER/SHEET NUMBER                            | VIEW REFERENCE    |
| #                    | SHEET NOTE  |                   |
| •                    | POINT OF CONNECTION TO EXIST                        | NG                |
| ABBREVIATION         | DESCRIPTION   |                   |
| AD                   | ACCESS DOOR   |                   |
| AF<br>AFF            | AIR FOIL<br>ABOVE FINISHED FLOOR                    |                   |
| APD                  | AIR PRESSURE DROP                                   |                   |
| BAS                  | BUILDING AUTOMATION SYSTEM                          |                   |
| CHWS<br>CHWR         | CHILLED WATER SUPPLY<br>CHILLED WATER RETURN        |                   |
| CV                   | CONSTANT VOLUME                                     |                   |
| CWS<br>CWR           | CONDENSER WATER SUPPLY CONDENSER WATER RETURN       |                   |
| (D)<br>DDC<br>DIFF   | DEMO'D<br>DIRECT DIGITAL CONTROL<br>DIFFUSER        |                   |
| (E)                  | EXISTING  |                   |
| EA<br>EMS            | EXHAUST AIR<br>ENERGY MANAGEMENT SYSTEM             |                   |
| ESP                  | EXTERNAL STATIC PRESSURE                            |                   |
| FC<br>FD<br>FS       | FORWARD CURVED<br>FLOOR DRAIN<br>FLOOR SINK         |                   |
| GR                   | GRILLE  |                   |
| HWR<br>HWS           | HEATING WATER RETURN<br>HEATING WATER SUPPLY        |                   |
| MA                   | MIXED AIR   |                   |
| (N)<br>NG            | NEW<br>NATURAL GAS                                  |                   |
| OBD<br>OSA<br>OST    | ON-BOARD DAMPER<br>OUTSIDE AIR<br>OVERFLOW STORM    |                   |
| (R)<br>RA            | RELOCATED<br>RETURN AIR                             |                   |
| SA<br>SP<br>ST       | SUPPLY AIR<br>STATIC PRESSURE<br>STORM              |                   |
| T-STAT<br>TDH<br>TSP | THERMOSTAT TOTAL DYNAMIC HEAD TOTAL STATIC PRESSURE |                   |
|                      |   |                   |

# CODES & DESIGN CRITERIA

| JURISDICTION:  MECHANICAL CODE: ENERGY CODE: LOCAL AMMENDMENTS: CLIMATE ZONE: PROJECT ELEVATION: WINTER DESIGN DB: SUMMER DESIGN DB/WB: DB DESIGN FOR AIR COOLED EQUIPMENT: INDOOR HEATING SET POINT(S): INDOOR COOLING SET POINT(S): OCCUPANCY SCHEDULE: | FAIR OAKS,TEXAS 2021 IMC 2021 IECC AS AMMENDED IN 2018 2A 1270' 30.0 DEG. F 99.3/73.6 DEG. F  100 DEG. F 70 DEG. F (OCC) 74 DEG. F (OCC) OFFICES: M-F 0730-1730 RETAIL SPACE: M-SA 0900-2200 |
|---|--|
|   |  |

VARIABLE AIR VOLUME

WATER PRESSURE DROP

WATER COLUMN WORKING PRESSURE

VARIABLE FREQUENCY DRIVE

VAV

VFD

WC

WP

WPD

| SHEET LIST      |   |                  |                       |                              |
|-----------------|---|------------------|-----------------------|------------------------------|
| Sheet<br>Number | Sheet Name  | Current Revision | Current Revision Date | Current Revision Description |
| M001            | Mechanical Cover Sheet                              |                  |                       |                              |
| M002            | Mechanical Equipment<br>Schedules &<br>Calculations |                  |                       |                              |
| M003            | Mechanical<br>Specifications                        |                  |                       |                              |
| M004            | Mechanical<br>Specifications                        |                  |                       |                              |
| M005            | Mechanical Details                                  |                  |                       |                              |
| M006            | Mechanical Comcheck                                 |                  |                       |                              |
| M100            | Mechanical Floor Plan                               |                  |                       |                              |
| M200            | Mechanical Roof Plan                                |                  |                       |                              |

# MECHANICAL GENERAL NOTES

- 1. DO NOT SCALE DRAWINGS.
- 2. CONTRACTOR SHALL COORDINATE WORK INDICATED HEREON W/ PLUMBING, ELECTRICAL & FIRE PROTECTION SECTIONS. SUBMIT '/" SCALE SHOP DRAWINGS FOR DUCT SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER, PIPING & ELECTRICAL CONDUIT MAINS.
- 3. UNLESS NOTED OTHERWISE, BRANCH DUCTS TO INDIVIDUAL TERMINALS, DIFFUSERS AND GRILLES SHALL BE SAME SIZE AS NECK INLET.
- 4. PROVIDE EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS. INSTALLATION SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE SUBMITTALS.
- 5. ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THIS CONTRACTOR.
- 6. LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAX. HORIZONTAL RUN WITH ONLY ONE 90 DEG. ELBOW PERMITTED. SECURE FLEXIBLE DUCTWORK WITH SCREWS & DRAW BANDS.
- 7. DUCT SIZES INDICATED ARE NET INSIDE CLEAR DIMENSIONS.
- 8. PROVIDE CEILING OPERATIONS FOR INACCESSIBLE M.V.D.'S WHERE INDICATED, EQUAL TO YOUNG REGULATOR, REMOTE FEAR OPERATED, WITH CEILING ESCUTCHEON.
- 9. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY.
  CONTRACTOR SHALL VERIFY W/ OWNERS REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED
  FOR EACH ITEM OF MECHANICAL EQUIP. PRIOR TO NAMEPLATE ORDER RELEASE.
- 10. CEILING DIFFUSERS SHALL BE 36" MIN. FORM CEILING MOUNTED SMOKE DETECTORS. COORD. W/ ELECTRICAL DIVISION.
- 11. SECURE DIFFUSERS & GRILLES TO T-BAR CEILINGS, WHERE APPLICABLE. SUBMIT SHOP DWG. FOR APPROVAL PRIOR TO BEGIN. WORK.
- 12. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATION OF GRILLES & DIFFUSERS IN CEILING, AS WELL AS ACCESS DOORS.
- 13. COORDINATE EQUIP. DIMENSIONS AND LAYOUT W/ PLUMBING SECTION WHERE FLOOR SINKS ARE INDICATED.
- 14. PIPES PASSING THRU FIRE RATED WALLS & FLOORS SHALL BE SEALED WITH U.L. LISTED MATERIAL EQUAL
- TO 3M FIRE BARRIER, CAULK OR PUTTY. SEALANT'S RATING SHALL MATCH THE RATING OF THE ASSEMBLY.

  15. PROVIDE VALVE TAGS AND PIPE IDENTIFICATION BANDS. TAGS SHALL BE BRASS W/ CHAIN. IDENTIFICATION
- BANDS SHALL BE LOCATED EVERY 25 FEET AND ON EITHER SIDE OF INTERMEDIATE BARRIER.
- 16. PROVIDE 18" X 18" MIN. ACCESSIBLE CEILINGS AND WALLS FOR EQUIP. REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
- 17. TURNING VANE RUNNERS SHALL HAVE A VANE IN EVERY SLOT IN STRICT CONFORMANCE WITH MFR.'S INSTRUCTIONS AND SMACNA DUCT CONSTRUCTION STANDARDS.
- 18. VERIFY FIT DUCTWORK AND PIPING PRIOR TO FABRICATION.
- 19. INSULATED PIPING EXPOSED TO VIEW (THROUGHOUT THE FACILITY), SHALL BE COVERED FINISHED W/ PVC JACKET EQUAL TO MANVILLE PVC/ PERMA-WELD PIPE JACKETING SYSTEM USING 30 MIL THICK JACKET. FITTINGS, FLANGES VALVES & ACCESSORIES SHALL BE JACKETED. INSTALL PER MFRS. INSTRUCTIONS W/ SEAM ON TOP OF PIPE SO AS NOT TO BE VISIBLE FROM OCCUPIED SPACE.
- 20. DUCTWORK LOCATED BEL. 7'-6" IN MECHANICAL ROOMS SHALL BE EQUIPPED W/ PADDING MATERIAL ON ALL CORNERS, EDGES & OTHER SURFACES WHICH MAY BE HAZARDOUS.
- 21. COORDINATE & VERIFY ACTUAL APPROVED EQUIP. DIMENSIONS PRIOR TO POURING EQUIP. PADS
- 22. DUCT MOUNTED SMOKE DETECTORS SHALL BE ZERO VELOCITY TYPE WHERE INDICATED ON DRAWINGS
- 23. DRAIN PIPING FROM A/C EQUIPMENT SHALL BE ROUTE SO AS NOT TO CREATE A TRIPPING HAZARD. COORDINATE ACTUAL DRAIN CONNECTIONS WITH PLUMBING SECTIONS. COORDINATE FLOOR SINK LOCATIONS ACCORDINGLY.
- 24. CONDENSATE DRAIN TRAPS SHALL BE 3" DEEP, MINIMUM.
- 25. COORDINATE ALL CHASE, SLEEVE AND SLAB BLOCK OUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.
- 26. PROVIDE ACCESS DOOR IN DUCTWORK UPSTREAM OF EACH REHEAT COIL. DUCTMATE METU ROUND DUCT ACCESS DOOR
- 27. DUCTWORK VISIBLE BEHIND DIFFUSERS, RESISTERS, OR GRILLES SHALL BE PAINTED FLAT BLACK.
- 28. REFER TO EQUIPMENT DRAWINGS, SPECS, & SHOP DRAWINGS FOR CONNECTIONS TO EQUIPMENT.
- 29. MANUAL VOLUME DAMPERS AND VALES ON INSULATED DUCTWORK AND PIPING SHALL HAVE EXTENDED STEMS TO ALLOW FOR THE INSULATION THICKNESS. PROVIDE MIN. 12" LONG RED RIBBON QUADRANT LOCATOR ON VOLUME DAMPER HANDLES.
- 30. HVAC EQUIPMENT SHALL BE SEALED OFF, KEPT FREE FROM DEBRIS, AND SHALL REMAIN UNOPERATIONAL DURING CONSTRUCTION FOR ANY REASON. CONTRACTOR SHALL PROVIDE TEMPORARY HEAT AS REQUIRED.
- 31. THE CONTRACTOR SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN THE CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT VERBALLY AND IN WRITING. WRITTEN INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY ERRORS, DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS, OF WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT BEFORE CONSTRUCTION AND/OR FABRICTION OF THE WORK.

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PROJECT #: 707486

DRAWN BY: DAS CHECKED BY: JCAA

PERMIT SET-03/10/2023

SHERWIN WILLIAMS

STORE

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

SHEET TITLE:

Mechanical Cover Sheet

SHEET NUMBER:

M00

|       | ROOFTOP UNIT SCHEDULE (NATURAL GAS HEATING - DX COOLING) |                         |              |                    |                         |                      |              |                                   |         |                      |            |              |                 |                |                |                                     |                      |     |      |            |                  |                       |       |
|-------|--|-------------------------|--------------|--------------------|-------------------------|----------------------|--------------|-----------------------------------|---------|----------------------|------------|--------------|-----------------|----------------|----------------|-------------------------------------|----------------------|-----|------|------------|------------------|-----------------------|-------|
|       |  |                         |              |                    | SUPPLY                  | FAN                  |              | HEATING CAPACITY COOLING CAPACITY |         |                      |            |              |                 |                |                |                                     |                      |     |      |            |                  |                       |       |
| TAG   | MANUFACTURER/<br>MODEL                                   | LOCATION/<br>SERVICE    | TOTAL<br>CFM | OUTDOOR AIR<br>CFM | SUPPLY ESP<br>(IN W.C.) | MAX FAN<br>MOTOR RPM | MOTOR<br>BHP | INPUT<br>(MBH @ S.L.)             |         | OUTPUT ALT.<br>(MBH) | EAT LAT    | TOTAL<br>MBH | SENSIBLE<br>MBH | EAT<br>(DB/WB) | LAT<br>(DB/WB) | CONDENSER AMB.<br>AIR TEMP (DEG. F) | EFFICIENCY<br>(IEER) | MCA | MOCP | VOLT/PH/HZ | WEIGHT*<br>(LBS) | OVERALL<br>DIMENSIONS | NOTES |
| RTU-1 | TRANE/<br>YSC092   | ROOF/<br>WHOLESALE AREA | 3000         | 625                | 0.5                     | 707                  | 0.97         | 200/140                           | 160/112 | 153.6/107.5          | 59.3 111.0 | 90           | 73.8            | 78.5/61.9      | 54.6/38.1      | 100                                 | 12.7                 | 39  | 50   | 208/3/60   | 847              | SEE MANUF.            | 1-8.  |
| RTU-2 | TRANE/<br>YSC092   | ROOF/<br>RETAIL SALES   | 3000         | 675                | 0.5                     | 707                  | 0.97         | 200/140                           | 160/112 | 153.6/107.5          | 60.3 112.0 | 90           | 73.8            | 77.7/61.9      | 53.9/38.1      | 100                                 | 12.7                 | 39  | 50   | 208/3/60   | 847              | SEE MANUF.            | 1-8.  |

#### OR EQUIVALENT BY OTHERS

- 1. FURNISH AND INSTALL ROOFTOP UNIT. PROVIDE WITH 100% OA ECONOMIZER, 2" MERV 8 FILTERS, MODULATING OA DAMPER, STANDARD EFFICIENCY UNIT, TWO STAGE HEATING, BAROMETRIC RELIEF, COIL HAIL GUARD, AND MANUF. RECOMMENDED ROOF CURB. VERIFY LOCATION IN FIELD WITH STRUCTURAL ENGINEER.
- 2. VERIFY ELECTRICAL VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.
- 3. PROVIDE WITH 24/7 PROGRAMABLE THERMOSTAT. THERMOSTAT TO BE HONEYWELL VISIONPRO 8000 WITH REDLINK OR APPROVED EQUAL. SEE FLOOR PLAN FOR MORE INFORMATION.
- 4. PROVIDE WITH RA MOUNTED SMOKE DETECTOR WITH UNIT CONTROLS AND WIRE TEST STATION INSTALLED PER LOCAL CODE.
- 5. PROVIDE WITH ETL OR UL LISTED NON-FUSED DISCONNECT SWITCH.
- 6. PROVIDE UN-POWERED CONVENIENCE OUTLET TO BE WIRED ON SEPERATE CIRCUIT BY ELECTRICAL CONTRACTOR.
- 7. FAN MOTORS ARE TO BE PROVIDED WITH NEMA PREMIUM EFFICIENCY MOTORS RATED.
- 8. HIGH HEAT INPUT.

\*WEIGHT INCLUDES WEIGHT OF ADDED ACCESSORIES

|             |                        |                      |     | FA              | AN SCHE | DULE              |                 |                       |                      |       |
|-------------|------------------------|----------------------|-----|-----------------|---------|-------------------|-----------------|-----------------------|----------------------|-------|
| TAG         | MANUFACTURER/<br>MODEL | LOCATION/<br>SERVICE | CFM | ESP<br>(IN. WC) | AMPS    | VOLT/HZ/<br>PHASE | WEIGHT<br>(LBS) | OVERALL<br>DIMENSIONS | METHOD OF<br>CONTROL | NOTES |
| <u>EF-1</u> | GREENHECK/<br>SP-A125  | CEILING/<br>RESTROOM | 100 | 0.25            | 0.62    | 115/60/1          | 17              | SEE MANUF.            | LIGHT SWITCH         | 1-2   |

### OR EQUIVALENT BY COOK, ACME, AND S&P

1. PROVIDE WITH BACKDRAFT DAMPER, ROOF PORTAL, TALL FLASHING CONE, STORM COLLAR, RAINCAP AND BIRDSCREEN.

|             | GRILLE, DIFFUSER, AND REGISTER SCHEDULE |          |             |         |              |  |  |  |  |  |
|-------------|---|----------|-------------|---------|--------------|--|--|--|--|--|
| TAG         | USE                                     | PATTERN  | ACCESSORIES | FINISH  | MAKE & MODEL | REMARKS  |  |  |  |  |
| <u>SD-1</u> | SPIRAL DUCT DIFFUSER                    | AS SHOWN | AIR SCOOP   | BY ARCH | PRICE SDG    | NOMINAL SIZE VARIES, SEE DRAWINGS              |  |  |  |  |
| <u>SD-2</u> | CEILING DIFFUSER                        | 4-WAY    | O.B.D.      | BY ARCH | PRICE SCD    | 24"x24" FACE<br>NECK SIZE VARIES, SEE DRAWINGS |  |  |  |  |
| <u>RG-1</u> | CEILING RETURN GRILLE                   | N/A      | RA BOOT     | BY ARCH | PRICE PDDR   | 12"x12" FACE<br>NECK SIZE VARIES, SEE DRAWINGS |  |  |  |  |

OR EQUIVALENT BY TITUS, KRUEGER, METAL-AIRE, OR

1. UNLESS SPECIFICALLY INDICATED ON PLANS, GRILLE, REGISTER AND DIFFUSER RUN-OUT SIZES ARE AS FOLLOWS:

601-910

RUN-OUT CFM 4"Ø <40 41-100 8"Ø 10"Ø 101-210 211-375 12"Ø 14"Ø 376-600

|                                      | RTU-1: OUTDOOR AIR VENTILATION SCHEDULE (IMC 2021) CONSTANT VOLUME SYSTEM |            |       |                |      |                   |                      |               |                   |                      |
|--------------------------------------|---|------------|-------|----------------|------|-------------------|----------------------|---------------|-------------------|----------------------|
|                                      |   | Rp         | Az    | OCCUPANT       | Ra   | Pz                | Ez                   | CODE: TOTAL   | EXHAUST           | Voz=(Rp*Pz+Ra*Az)/Ez |
| ROOM                                 | OCCUPANCY DESCRIPTION   | CFM/PERSON | SQ FT | DENSITY        | AREA | # People          | ZONE AIR DISTANCE    | EXHAUST (CFM) | SPECIFIED ON      | Minimum Outside Air  |
|                                      |   | CFW/FERSON | SQFI  | (#/1000 SQ.FT) | CFM  | # People          | <b>EFFECTIVENESS</b> | EXHAUST (CFW) | DRAWINGS          | Required             |
| WHOLESALES AREA 200                  | SALES   | 7.5        | 1907  | 15             | 0.12 | 29                | 0.8                  | 0             | 0                 | 557.9                |
|                                      |   |            |       |                |      |                   |                      |               | Total CFM Outside |                      |
|                                      |   |            |       |                |      |                   |                      |               | Air Required:     | 557.9                |
| Demont Outside Air For Fourier contr |   |            |       |                |      | Total Outside Air |                      |               |                   |                      |
| Percent Outside Air For Equipment:   |   | 20.83%     |       |                |      |                   |                      |               | Specified:        | 625.0                |

NOTES:

1. THIS ROOM IS OPEN TO OTHER ROOMS WITH THIS NOTE. THESE ROOMS SHARE OA SUPPLY/REQUIREMENTS.

|                                  | RTU-2: OUTDOOR AIR VENTILATION SCHEDULE (IMC 2021) CONSTANT VOLUME SYSTEM |                  |             |                                       |                   |          |  |                              |                                     |   |
|----------------------------------|---|------------------|-------------|---------------------------------------|-------------------|----------|--|------------------------------|-------------------------------------|---|
| ROOM                             | OCCUPANCY DESCRIPTION   | Rp<br>CFM/PERSON | Az<br>SQ FT | OCCUPANT<br>DENSITY<br>(#/1000 SQ.FT) | Ra<br>AREA<br>CFM | # People | Ez<br>ZONE AIR DISTANCE<br>EFFECTIVENESS | CODE: TOTAL<br>EXHAUST (CFM) | EXHAUST<br>SPECIFIED ON<br>DRAWINGS | Voz=(Rp*Pz+Ra*Az)/Ez<br>Minimum Outside Air<br>Required |
| SALES AREA 100 (SEE NOTE 1)      | SALES   | 7.5              | 2056        | 15                                    | 0.12              | 31       | 0.8                                      | 0                            | 0                                   | 599.0   |
| RESTROOM ALCOVE 410 (SEE NOTE 1) | CORRIDOR  | 0                | 37          | 0                                     | 0.06              | 0        | 0.8                                      | 0                            | 0                                   | 2.8   |
| RESTROOM 400                     | TOILET ROOM - PUBLIC  | 0                | 60          | 0                                     | 0                 | 0        | 0.8                                      | 70                           | 100                                 | 0.0   |
| OFFICE 300                       | OFFICE  | 5                | 106         | 5                                     | 0.06              | 2        | 0.8                                      | 0                            | 0                                   | 20.5  |
| HALLWAY 310 (SEE NOTE 1)         | CORRIDOR  | 0                | 36          | 0                                     | 0.06              | 0        | 0.8                                      | 0                            | 0                                   | 2.7   |
| ·                                | •   | •                |             | •                                     |                   |          |  |                              | Total CFM Outside                   |   |
|                                  |   |                  |             |                                       |                   |          |  |                              | Air Required:                       | 625.0   |
| Dersont Outside Air For Favinmen | 4.  |                  |             |                                       |                   |          |  |                              | Total Outside Air                   |   |
| Percent Outside Air For Equipmen | IC.   | 22.50%           |             |                                       |                   |          |  |                              | Specified:                          | 675.0   |

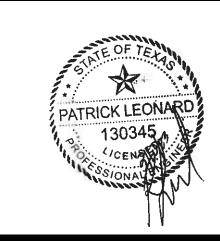
NOTES:

1. THIS ROOM IS OPEN TO OTHER ROOMS WITH THIS NOTE. THESE ROOMS SHARE OA SUPPLY/REQUIREMENTS.





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DRAWN BY: DAS <u>CHECKED BY:</u> JCAA

PERMIT SET-03/10/2023

SHERWIN WILLIAMS

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

> Mechanical Equipment Schedules & Calculations

#### GENERAL SPECIFICATIONS

#### SCOPE:

PROVIDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO INSTALL AND MAKE READY FOR OWNER'S USE COMPLETE SYSTEMS OF HEATING, VENTILATION, AIR CONDITIONING (HVAC), PLUMBING, FOR THE PROPOSED WORK AND BUILDING RENOVATIONS AS SHOWN ON THE DRAWINGS AND CALLED FOR IN THESE SPECIFICATIONS.

VISIT THE SITE TO OBTAIN DIMENSIONS, EXISTING LAYOUTS AND LOCATIONS AND EXISTING CONSTRUCTION DETAILS NOT SHOWN ON THESE DRAWINGS.

THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION WITH OTHER DIVISIONS OF WORK FOR THE FULL EXTENT OF THE SCOPE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ASPECTS, COMPONENTS, SYSTEMS, ETC. AND ACCOMMODATE THE PERFORMANCE INTENT OF THE CONSTRUCTION DOCUMENTS THROUGHOUT THE PROJECT SCOPE.

#### BIDDERS RESPONSIBILITY:

EXAMINE THE DRAWINGS AND SPECIFICATIONS AND VISIT THE WORK SITE. BECOME FAMILIAR WITH THE CHARACTER OF THE WORK, THE COORDINATION WITH OTHER TRADES REQUIRED, AND ANY OTHER CONDITIONS THAT AFFECT THE COMPLETION OF THIS WORK.

#### 3. PERMITS, CODES AND LAWS:

APPLY FOR ALL PERMITS AND PAY ALL FEES.

UNDERWRITER'S LABORATORIES, INC. (U.L.)

ALL WORK SHALL BE IN ACCORDANCE WITH LATEST EDITIONS OF THE FOLLOWING RULES AND REGULATIONS. HEREIN REFERRED TO AS "CODES":

THE LATEST OR ADOPTED EDITION OF THE APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING, MECHANICAL SANITATION, PLUMBING, ETC. CODES.

NATIONAL FIRE PROTECTION ASSOCIATION (N.F.P.A.)

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A)

WHERE ANY OF THESE CODES ARE AT VARIANCE WITH THE DRAWINGS AND SPECIFICATIONS, THEIR REQUIREMENTS SHALL TAKE PRECEDENCE, UNLESS THE DRAWINGS AND SPECIFICATIONS REQUIREMENTS EXCEED THESE CODES. INCLUDE ANY COST NECESSARY TO MEET THESE CODES IN THE BID PRICE.

#### MECHANICAL PLANS:

THE MECHANICAL PLANS ARE DIAGRAMMATIC AND BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO BE USED.

INSTALLATION SHALL BE WITHIN THE LIMITATIONS IMPOSED BY THE ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, AND PLUMBING REQUIREMENTS WITH ADEQUATE SPACE FOR MAINTENANCE.

#### QUESTIONS AND CLARIFICATIONS OF BID DOCUMENTS:

OR CLARIFICATIONS SHALL BE REFERRED IN WRITING TO THE ARCHITECT.

### GUARANTEES:

ALL EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL BE GUARANTEED IN WRITING. WARRANTIES SHALL INCLUDE FACTORY WARRANTIES FOR EACH PIECE OF EQUIPMENT. PROVIDE A CERTIFICATE FOR EACH PIECE OF SPECIFICATIONS. EQUIPMENT. CLEARLY INDICATE ON EACH WARRANTY CERTIFICATE THE MODEL NO., SERIAL NO., LOCATION, AND OWNER'S NAME UNLESS OTHERWISE REQUIRED BY THE OWNER.

ALL WARRANTIES SHALL BE FULLY TRANSFERABLE TO ANY AND ALL SUBSEQUENT BUILDING AND/OR CONDOMINIUM OWNERS, AND THEIR AGENTS, FOR THE LIFE OF EACH WARRANTY.

BIND THE ORIGINAL COPIES OF WARRANTIES FOR EACH PIECE OF EQUIPMENT IN A RING BINDERS, FOR THE BUILDING AND CONDOMINIUM UNIT, AND TURN OVER TO THE BUILDING OWNER AT FINAL ACCEPTANCE OF THE PROJECT, FOR DISTRIBUTION TO THE CONDOMINIUM OWNERS. ORGANIZE THE WARRANTIES WITHIN THE BINDER FOR THE COORDINATION OF THE WORK WITH WORK OF OTHER TRADES. USING INDEX AND TABS, AS TO LOCATION WITHIN THE BUILDING.

INCLUDE COPIES OF THESE WARRANTIES IN THE MAINTENANCE MANUALS, SEE OPERATION AND MAINTENANCE MANUAL SPECIFICATION SECTION.

#### COMPLETE SYSTEM:

ALL PRODUCTS, MATERIALS AND ACCESSORIES SHALL BE FURNISHED AND INSTALLED AS REQUIRED FOR A COMPLETE SYSTEM READY FOR OWNER'S BENEFICIAL USE.

### WORKMANSHIP:

ALL WORK SHALL BE PERFORMED BY COMPETENT MECHANICS USING PROPER TOOLS AND EQUIPMENT TO PRODUCE FIRST QUALITY WORK. ALL WORK SHALL BE NEATLY INSTALLED, ACCESSIBLE FOR MAINTENANCE, AND COMPLETE WITH ALL ACCESSORIES REQUIRED.

### ACCESSIBILITY:

INSTALL ALL EQUIPMENT AND THEIR APPURTENANCES SUCH AS, BUT NOT LIMITED TO, VALVES, COILS, DRAIN PANS, DRAINS, DAMPERS, CONTROLS, MOTORS, CONTROLLERS, ETC., SO THAT THEY CAN BE SERVICED, RESET. REPLACED OR RECALIBRATED, ETC. INSTALL ALL NECESSARY ACCESS PANELS AND BUILDING ACCESS DOORS, AS BELOW, WHERE REQUIRED TO ACCOMPLISH THIS. IF ANY EQUIPMENT OR COMPONENTS DO NOT FIT WHERE INTENDED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING, REQUESTING FURTHER GUIDANCE

PROVIDE BUILDING ACCESS DOORS FOR ALL MECHANICAL EQUIPMENT REQUIRING SERVICE, INCLUDING BUT NOT LIMITED TO, AHU'S, FANS, DAMPERS, DUCT ACCESS PANELS, CONTROLS, PIPING, VALVES, REGULATORS, TRAPS, ETC., INSTALLED ABOVE HARD CEILINGS, BEHIND WALLS, AND BELOW FLOORS, FOR INSTALLATION BY OTHER DIVISIONS OF THE WORK. BUILDING ACCESS DOORS ARE NOT REQUIRED WHERE THE MECHANICAL EQUIPMENT IS NECESSARY PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ISOMETRICS. SUBMIT SIX (6) PAPER COPIES AND ONE INSTALLED ABOVE LAY-IN AND ACCESSIBLE SPLINE CEILINGS. OTHER TYPES OF SPLINE CEILINGS REQUIRE BUILDING ACCESS DOORS.

SIZE THE BUILDING ACCESS DOORS FOR THE USE INTENDED, BUT NOT LESS THAN 12 INCHES BY 12 INCHES. WHERE HUMAN ACCESS IS REQUIRED, PROVIDE 24 INCHES BY 24 INCHES, OR LARGER.

WHERE BUILDING ACCESS DOORS CANNOT BE INSTALLED FOR STRUCTURAL OR ARCHITECTURAL REASONS, NOTIFY THE ARCHITECT.

PRIME COAT BUILDING ACCESS DOORS IN PAINTED AREAS WITH FINISH PAINTING AS SPECIFIED IN OTHER

IN WET AREAS, TOILET ROOMS, OR AREAS WITH CERAMIC TILE FLOORS OR WALLS, PROVIDE STAINLESS STEEL BUILDING ACCESS DOORS.

PROVIDE BUILDING ACCESS DOORS WITH A CONCEALED KEY OPERATED LOCK AND CONCEALED HINGES. ALL LOCKS SHALL BE KEYED ALIKE.

PROVIDE BUILDING ACCESS DOORS AS SPECIFIED IN OTHER DIVISIONS OF THE WORK OR PROVIDE MILCOR DOORS, OR EQUIVALENT, SUITABLE FOR THE INSTALLATION INTENDED. PROVIDE FIRE RATED DOORS FOR ALL FIRE RATED WALLS, PARTITIONS, AND CEILINGS.

### 10. WORK BY OTHER TRADES:

FURNISH ALL SLEEVE FRAMES, BUILDING ACCESS DOORS, PREFABRICATED EQUIPMENT CURBS, ROOF CURBS, ETC. FOR INSTALLATION BY OTHER TRADES.

INSTALL ALL MOTORS AND FURNISH THE STARTING EQUIPMENT AND DISCONNECTS TO THE ELECTRICAL SUBCONTRACTOR FOR INSTALLATION. CONTROL WIRING, INCLUDING SWITCHES, THERMOSTATS, INTERLOCKS, ETC. SHALL BE FURNISHED BY MECHANICAL SUBCONTRACTOR. ENSURE THAT THE ELECTRICAL EQUIPMENT MOUNTED NEAR THE MECHANICAL EQUIPMENT DOES NOT BLOCK ACCESS TO SERVICE AREAS OF THE MECHANICAL EQUIPMENT. DO NOT ALLOW ANY EQUIPMENT TO BE INSTALLED ON THE HVAC EQUIPMENT ENCLOSURES.

### 11. FIRE STOPPING

ALL PENETRATIONS OF FLOORS AND OTHER FIRE-RATED ASSEMBLIES SHALL BE FIRE AND SMOKE-STOPPED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES.

#### 12. FOUNDATIONS AND SPECIAL SUPPORTS:

FURNISH AND INSTALL ALL SPECIAL FOUNDATIONS AND SUPPORTS REQUIRED FOR EQUIPMENT INSTALLED UNDER THIS SECTION, UNLESS THEY ARE A PART OF THE BUILDING STRUCTURE AND ARE SHOWN IN OTHER SECTIONS.

#### 13. CLEANING AND PAINTING:

THOROUGHLY CLEAN ALL EQUIPMENT AND REMOVE ALL TRASH, CARTONS, ETC. MAKE ANY NECESSARY CORRECTIONS OR REPAIR/REPLACE ANY DAMAGED MATERIALS OR EQUIPMENT. LEAVE THE ENTIRE SYSTEM IN A THOROUGHLY CLEAN AND ORDERLY MANNER.

ANY FINISHED SURFACES THAT HAVE BEEN SCRATCHED OR DISCOLORED SHALL BE TOUCHED-UP OR REPAINTED BREAK TO BREAK WITH PAINT TO MATCH THE ORIGINAL COLOR. TOUCH UP PAINTED SURFACES OR REPAINT THE ENTIRE PAINTED SURFACE IF TOUCH UP IS UNACCEPTABLE. SEE ARCHITECTURAL PAINTING SPECIFICATIONS.

ALL METAL ITEMS SUBJECT TO RUSTING, INSIDE OR EXPOSED TO WEATHER SHALL BE GIVEN ONE COAT OF PROPER TYPE RUST PREVENTATIVE PRIMER AS SOON AS INSTALLED. APPLY TWO FINISH COATS WITH COLOR TO

FOR ALL INTERIOR OR EXTERIOR STRUCTURAL GALVANIZED STEEL, COLD GALVANIZE ALL EXPOSED METAL CUT ENDS, HOLES, WELDS, SCRATCHES, ETC., OR HOT DIP GALVANIZE THE ENTIRE STRUCTURE OR FRAME AFTER FABRICATION AND MOUNTING HOLES ARE CUT.

UPON COMPLETION OF THE INSTALLATION, BUT NOT BEFORE, AND BEFORE ACCEPTANCE., THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, PIPING, DUCTWORK, INSULATION JACKETS, ETC., REMOVING ALL STICKERS, LABELS, MARKING, WRITING, FABRICATION MARKINGS, IDENTIFICATION, ADHESIVE, SEALER, GLUE, RUST, CORROSION, ETC., FROM THEIR EXTERIOR SURFACES.

THE CLEANLINESS AND PAINTING ACCEPTABILITY IS AT THE SOLE DISCRETION OF THE ARCHITECT AND MAY REQUIRE ADDITIONAL CLEANING AND COATS OF PAINT BEFORE ANY SURFACE IS ACCEPTED.

#### 14. SUBMITTALS:

#### SUBMITTAL AND SHOP DRAWINGS:

SUBMIT MANUFACTURER'S CERTIFIED DATA RELATIVE TO ALL EQUIPMENT, PIPING, DUCTWORK, CONTROLS, ETC. REQUIRED FOR THE INSTALLATION OF THE HVAC, PLUMBING AND FIRE PROTECTION SYSTEMS. SUBMIT FOR REVIEW ALL NECESSARY ENGINEERING, PRODUCT AND INSTALLATION DATA, SHOP DRAWINGS, SAMPLES ETC. FOR ALL EQUIPMENT, MATERIAL, AND SYSTEMS TO ASCERTAIN COMPLIANCE WITH THE TECHNICAL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

SUBMIT ELECTRONIC (PDF) COPIES OF ALL NECESSARY DATA, CUTS, MANUFACTURER'S SELECTIONS, CATALOGS, BULLETINS, INSTALLATION INSTRUCTIONS, DRAWINGS, DIAGRAMS, CURVES, ETC. CLEARLY INDICATE ON THE SUBMITTED DATA, THE MANUFACTURER'S NAME, PRODUCT NUMBER(S), OPTIONS, EQUIPMENT CAPACITY, DIMENSIONAL DATA, WEIGHTS, AND OTHER APPLICABLE TECHNICAL DATA FOR THE PROJECT.

TRADE NAMES, MANUFACTURERS, AND CATALOGUE NUMBERS ARE MENTIONED HEREIN AND ON THE DRAWINGS SOLELY IN ORDER TO ESTABLISH A STANDARD FOR THE TYPE, GENERAL DESIGN, AND QUALITY OF PRODUCT REQUIRED. OTHER PRODUCTS SIMILAR IN DESIGN OF EQUIVALENT QUALITY CAPABLE OF FITTING WITHIN THE BIDDERS SHALL NOT RELY ON ANY ORAL CLARIFICATION OF THE DRAWINGS OR SPECIFICATIONS. ANY QUESTIONS SPACES ALLOCATED AND COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS WILL BE CONSIDERED AFTER THE CONTRACT IS LET UNLESS "PRIOR APPROVAL" REQUIREMENTS ARE SET FORTH IN THESE DOCUMENTS.

> WHERE TWO OR MORE MANUFACTURERS OR MATERIALS ARE NAMED, THE CONTRACTOR MAY SUBMIT ANY OF THOSE NAMES, PROVIDED THEY CONFORM TO THE SPECIFICATIONS AND DESIGN INTENT. CONTRACTOR SHALL INCLUDE WITH THE SUBMITTAL A LIST OF ALL COMPARATIVE FEATURES INDICATING COMPLIANCE WITH THE

THE ARCHITECT AND/OR ENGINEER MAY REQUIRE THE SUBMISSION OF SAMPLES, PARTICULARLY WHEREVER EQUIPMENT OR APPLIANCES ARE VISIBLE IN FINISHED AREAS, SUCH AS CEILINGS, INTERIOR AND EXTERIOR WALLS. THE CONTRACTOR AND SUPPLIER SHALL ARRANGE FOR DEMONSTRATIONS OF THE INSTALLATION OF ANY OF THESE PRODUCT'S AND THEIR ABILITY TO PERFORM AS SPECIFIED, IF REQUIRED.

REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR FITTING THE EQUIPMENT IN THE SPACE ALLOTTED WITH SPACE FOR ALL CONNECTIONS AND SERVICING AND

THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS AND SHOP DRAWINGS AND INDICATE BY STAMP OR LETTER THAT HE HAS REVIEWED THEM, BEFORE FORWARDING THEM TO THE ARCHITECT AND/OR ENGINEER. SUBMITTALS AND DRAWINGS WILL BE RETURNED AFTER REVIEW INDICATING WHETHER EXCEPTIONS ARE TAKEN, THE SUBMITTAL RETURNED WITH CORRECTIONS, OR IS COMPLETELY REJECTED. RESUBMISSION OF REVISED SUBMITTALS AND SHOP DRAWINGS, IF REQUIRED, SHALL BE DONE BEFORE INSTALLATION AND CONSTRUCTION IS

CORRECTIONS OR COMMENTS MADE ON THE SUBMITTALS AND DRAWINGS DURING THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THIS REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS. FABRICATION PROCESSES, TECHNIQUES OF CONSTRUCTION, COORDINATING THE WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING WORK IN A SAFE AND SATISFACTORY MANNER. REVIEW OF THE SUBMITTALS SHALL NOT PERMIT ANY DEVIATION FROM PLANS AND SPECIFICATIONS.

SUBMITTALS FOR A SPECIFIC CLASS OF PRODUCTS, SYSTEMS, INSTALLATION PROCEDURES, SHOP DRAWINGS, ETC. WILL BE REVIEWED BY THE ENGINEER ONE TIME AND ITS RESUBMITTAL ONE TIME, IF NECESSARY, AS ABOVE, AT NO COST TO THE CONTRACTOR. THE CONTRACTOR WILL BEAR THE FULL COST FOR ALL SUBSEQUENT RESUBMITTAL REVIEWS AT THE ENGINEER'S STANDARD HOURLY RATES. PAYMENT WILL BE REQUIRED AT COMPLETION OF RESPECTIVE REVIEW.

### REQUIRED SHOP DRAWINGS:

SUBMIT THE FOLLOWING SHOP DRAWINGS BEFORE ANY MECHANICAL DUCTWORK, PIPING, EQUIPMENT, ETC. IS FABRICATED AND INSTALLED. SUBMIT THESE SHOP DRAWINGS IN 1/4 INCH PER FOOT MINIMUM SCALE WITH (1) CD-ROM WITH ALL THESE DRAWINGS IN AUTOCAD DRAWING DWG FILES, LATEST AUTOCAD FORMAT.

SOON AFTER AWARD OF THE CONTRACT, DETERMINE WHERE THERE MAY BE INSTALLATION, SPACE CONCERNS, AND/OR WHERE OTHER CONFLICTS MAY OCCUR. SUBMIT COORDINATION DRAWINGS, RELATING TO THESE CONFLICTS WITH THE MECHANICAL EQUIPMENT, DUCT, PIPING, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL SYSTEMS ETC., SHOWING CLEARANCES AND RELATIONSHIP TO STRUCTURAL MEMBERS, PIPING, LIGHTS, CONDUITS, ELECTRICAL EQUIPMENT, AND BUILDING COMPONENTS. IN PREPARING THESE SHOP DRAWINGS, ESTABLISH LINES AND LEVELS FOR ALL DIVISIONS OF THE WORK IN THE AFFECTED AREA. IMMEDIATELY CALL TO THE ATTENTION OF THE ARCHITECT ANY INTERFERENCE OR CONFLICT FOR CLARIFICATION IN WRITING.

### SUBMIT SHOP DRAWINGS FOR ALL DUCTWORK.

SUBMIT LAYOUT DRAWINGS OF EACH MECHANICAL SYSTEM SHOWING THE LOCATION, ARRANGEMENT, ETC. OF ALL EQUIPMENT, ALL TRADES, ETC. TO BE INSTALLED RELATED TO THE RESPECTIVE SYSTEM

MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONSTRUCTION DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT THREE COPIES, ONE REPRODUCIBLE.

### AS-BUILT DRAWINGS:

MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONSTRUCTION DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT THREE COPIES, ONE REPRODUCIBLE.

### 16. OPERATION AND MAINTENANCE MANUALS:

UPON COMPLETION OF THE PROJECT, SUBMIT THREE COPIES OF ALL OPERATION AND MAINTENANCE MANUALS. WARRANTIES, SPARE PARTS LIST, AS-BUILT DRAWINGS, TEST AND BALANCE REPORTS, AND LETTER OF GUARANTEE ALL BOUND IN THREE RING BINDERS, CLEARLY SHOWING WHICH EQUIPMENT WAS SUPPLIED TO THE

### 17. PROJECT COMPLETION:

BEFORE STARTING AND TESTING ANY SYSTEM, HVAC, OR PLUMBING, TO PREVENT INADVERTENT OPERATION OF THE MECHANICAL EQUIPMENT BEFORE THE MANUFACTURER'S INSPECTION AND TESTING, THE CONTRACTOR

VERIFY THAT ALL ELECTRICAL POWER IS OFF TO ALL MECHANICAL EQUIPMENT, INCLUDING THE AHU'S, ACCU'S, BOOSTER PUMPS, FIRE PUMPS, ETC.

LOCK OUT EACH SYSTEM USING SETON MODEL NUMBER 70329; "DO NOT OPERATE" LOCK ON LOCKOUT TAGS, OR EQUIVALENT. INSTALL LOCKOUT TAGS AT EACH PIECE OF EQUIPMENT, ELECTRICAL DISCONNECTS, STARTERS, SWITCHES, ETC.

REMOVE THESE TAGS ONLY WHEN THE MANUFACTURER APPROVES OF THE EQUIPMENT INSTALLATION IN WRITING.

EACH MANUFACTURER OR THEIR REPRESENTATIVE SHALL INSPECT THEIR EQUIPMENT FOR COMPLIANCE TO THEIR INSTALLATION REQUIREMENTS AND RECOMMENDATIONS.

IN ADDITION, THE COMPRESSOR MANUFACTURER SHALL INSPECT EACH REFRIGERANT PIPING INSTALLATION FOR ADHERENCE TO THE APPROVED REFRIGERANT PIPING DIAGRAMS, ROUTING.

EACH MANUFACTURER SHALL PREPARE A PUNCH LIST OF ALL DEFICIENCIES, IN WRITING WITH COPIES TO THE ARCHITECT AND CONTRACTOR.

EACH MANUFACTURER SHALL REINSPECT THE EQUIPMENT AFTER THE CONTRACTOR HAS CORRECTED ALL

WHEN THE MANUFACTURER HAS GIVEN THEIR WRITTEN APPROVAL WITH COPIES TO THE ARCHITECT AND CONTRACTOR, THE CONTRACTOR MAY REMOVE THE LOCKOUT TAGS, SAFELY START, AND TEST THE EQUIPMENT, AS REQUIRED HEREIN.

CONTRACTOR SHALL PROVIDE FOR ALL NECESSARY DRILLING OF WALL STUDS, CEILING JOISTS, PLATES, FINISHES, ETC. TO ACCOMMODATE ROUTING AND INSTALLATION OF ALL PIPING, DUCT, ETC.

#### 18. VALUE ENGINEERING

IF THE OWNER, ARCHITECT, OR CONTRACTOR RETAINS THE SERVICES OF A VALUE ENGINEER (VE) TO REVIEW THESE PLANS PREPARED BY THE CONSULTANT, THESE SERVICES SHALL BE AT THEIR SOLE EXPENSE AND SHALL BE PERFORMED IN A TIMELY MANNER SO AS NOT TO DELAY THE ORDERLY PROGRESS OF THE CONSULTANT'S SERVICES. THE CONSULTANT SHALL BE NOTIFIED IN WRITING OF THE VE AND THE VE SCOPE OF SERVICES. ALL RECOMMENDATIONS OF THE VE SHALL BE GIVEN TO THE CONSULTANT FOR REVIEW, AND ADEQUATE TIME WILL BE PROVIDED FOR THE CONSULTANT TO RESPOND TO THESE RECOMMENDATIONS

IF THE CONSULTANT OBJECTS TO ANY RECOMMENDATIONS MADE BY THE VE, IS SHALL SO STATE IN WRITING, ALONG WITH THE REASONS FOR OBJECTING. IF, IN SPITE OF THE CONSULTANT'S OBJECTIONS, CHANGES IN THE CONSTRUCTION DOCUMENTS ARE ORDERED BY THE OWNER, ARCHITECT, OR CONTRACTOR, THEY AGREE, TO THE ARE ACCEPTABLE. FULLEST EXTENT PERMITTED BY LAW, TO WAIVE ALL CLAIMS AGAINST THE CONSULTANT AND TO INDEMNIFY AND HOLD HARMLESS THE CONSULTANT FROM ANY DAMAGES, LIABILITIES OR INCORPORATION OF SUCH DESIGN CHANGES ORDERED.

IN ADDITION, THE CONSULTANT SHALL BE COMPENSATED FOR SERVICES NECESSARY TO INCORPORATE RECOMMENDED VALUE ENGINEERING CHANGES INTO REPORTS, DRAWINGS, SPECIFICATIONS, BIDDING OR OTHER DOCUMENTS. THE CONSULTANT SHALL BE COMPENSATED AS ADDITIONAL SERVICE FOR ALL TIME SPENT TO PREPARE FOR, REVIEW AND RESPOND TO THE RECOMMENDATIONS OF THE VE. THE CONSULTANTS TIME PERFORMANCE OF ITS SERVICES SHALL BE EQUITABLY ADJUSTED.

#### **DIVISION 23 SPECIFICATIONS:**

HVAC EQUIPMENT, METHODS AND MATERIALS

#### 19. DUCTWORK GENERAL:

DUCT SIZES SHOWN ON THE DRAWINGS ARE INSIDE DIMENSIONS AND DO NOT TAKE INTO ACCOUNT LINING THICKNESS. DUCTWORK SHALL BE GALVANIZED SHEET METAL WITH GAUGES, CONSTRUCTION DETAILS AND INSTALLATION ACCORDING TO N.F.P.A. STANDARD 90A, ASHRAE, AND SMACNA DUCT CONSTRUCTION MANUALS

PROVIDE FLEXIBLE CONNECTIONS AT AIR HANDLING UNITS AND FANS.

PROVIDE SINGLE THICKNESS TURNING VANES IN ELBOWS

#### ALL DUCTS 18" AND OVER SHALL BE CROSSBROKEN.

PAINT DUCTS, SLEEVES, PLENUMS, ETC., INTERIORS VISIBLE THROUGH AIR DEVICES WITH A MINIMUM OF ONE COAT OF PROPER TYPE RUST PREVENTATIVE PRIMER, SUITABLE FOR GALVANIZED STEEL, AND TWO FINISH COATS

#### 20. DUCT CONSTRUCTION MATERIALS:

RECTANGULAR SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST: LINED GALVANIZED SHEET METAL ROUND DUCT AND RUN-OUTS: EXTERNALLY INSULATED GALVANIZED SHEET METAL DUCTS WITH SPIRAL LOCK

FLEXIBLE DUCT: PRE-INSULATED FLEXIBLE DUCT. NO FLEXIBLE DUCT RUNS LONGER THAN 5 FEET. PROVIDE DRYER VENT PIPING INSTALLED AS REQUIRED BY THE MANUFACTURER AND PER CODE USING 4 INCH ROUND GALVANIZED STEEL, SEALED AND SUPPORTED. THE USE OF FLEXIBLE DRYER VENT PIPE IS PROHIBITED.

### 21. FABRICATION, ERECTION, AND SUPPORT:

ALL DUCTWORK SHALL BE FABRICATED, ERECTED, BRACED, AND SUPPORTED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF SMACNA AND ASHRAE REQUIREMENTS.

### 22. ACOUSTIC LINED DUCTWORK:

ACOUSTICALLY AND THERMALLY LINE 10' OF RECTANGULAR SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCT AND PLENUMS WITH 1-1/2" THICK, 1-1/2" PCF FIBERGLASS DUCT LINER (R-6 MIN.), APPLIED PER THE MANUFACTURER'S AND NAIMA REQUIREMENTS. DUCT LINER SHALL MEET OR EXCEED ASHRAE'S I.A.Q. STANDARD 62 AND IEEC. USE WELDED STICK CLIPS, IN LIEU OF ADHESIVE TYPE FASTENERS AND FULL COVERAGE ADHESIVE. PROVIDE EDGE NOSINGS WERE REQUIRED. COAT ALL EXPOSED FIBERGLASS WITH HARDCAST "LAG-GRIP 671".

# 23. JOINT SEALING:

SEAL ALL DUCT JOINTS AND SEAMS (LONGITUDINAL AND TRANSVERSE) WITH HIGH PRESSURE DUCT SEALER, HARDCAST "IRON-GRIP 601" OR APPROVED EQUIVALENT. REINFORCED FOIL BACKED TAPES, CLOTH OR PLASTIC BACKED TAPES (DUCT TAPE) ARE NOT ACCEPTABLE.

### 24. FLEXIBLE AIR DUCT:

DUCT SHALL BE UL LISTED UL-181, CLASS I AIR DUCT MATERIAL AND SHALL COMPLY WITH N.F.P.A 90A AND 90B AND 36. CHILLED WATER PIPING ALL LOCAL REQUIREMENTS DUCT SHALL HAVE AN OPERATING AIR PRESSURE OF 6 INCHES WG POSITIVE AND 4 INCHES WG NEGATIVE, ACOUSTICAL DOUBLE LAMINATED INNER FABRIC BONDED TO A STEEL HELIX WIRE. OUTER JACKET FIRE RETARDANT REINFORCED ALUMINUM MYLAR WITH FIBER GLASS INSULATION. FLEXMASTER TYPE "8M" ACOUSTICAL INSULATED OR EQUIVALENT.

MAKE ALL FLEXIBLE DUCT CONNECTIONS TO HARD DUCT USING STAINLESS STEEL SCREW CLAMPING BANDS AND SEALED AIR TIGHT WITH HIGH PRESSURE DUCT SEALER. PLASTIC BANDS ARE NOT ACCEPTABLE.

SEAL FLEXIBLE DUCT VAPOR BARRIER TO HARD DUCT AND/OR ADJACENT INSULATION. NO EXPOSED FIBERGLASS SHALL BE VISIBLE.

### 25. AIR DISTRIBUTION DEVICES:

COORDINATE THE EXACT LOCATIONS OF ALL AIR DEVICE NEEDS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION. COORDINATE THE EXACT LOCATION OF EACH OUTLET WITH THE ARCHITECT WITH REGARD TO CEILING AND WALL SPACING, CENTERING ALONG SOFFITS, WALLS, ETC.

FURNISH AND INSTALL WHERE SHOWN ON THE DRAWINGS ALL DIFFUSERS, GRILLES, AND REGISTERS OF THE SIZE, TYPE, AND CAPACITY AS INDICATED IN THE AIR DEVICE SCHEDULE. ELBOWS:

### 26. TURNING VANES AND SMOOTH RADIUS ELBOW (WITHOUT VANES):

AT ALL DUCT TURNS OF 45 DEGREES OR MORE, PROVIDE SINGLE THICKNESS TURNING VANES PER SMACNA REQUIREMENTS. ALTERNATIVELY, USE SMOOTH RADIUS ELBOW (R/W = 1.5).

### AT ALL MAIN TO BRANCH DUCT TAPS, TAKEOFFS, OR RUN-OUTS PROVIDE 45 DEGREE ENTRANCE TAPS, AS

27. BRANCH TAKEOFF FITTINGS:

DETAILED BY SMACNA STANDARDS.

FOR DUCT MOUNTED CONTROLS.

28. DUCT MOUNTED ACCESS PANELS: **INSTALL ACCESS PANELS AS FOLLOWS:** 

AT INLET OF EACH DUCT MOUNTED FIRE AND MOTORIZED DAMPER.

## AS REQUIRED AND DIRECTED BY THE TEST AND BALANCE CONTRACTOR

WHERE REQUIRED FOR DUCT INSPECTION, MAINTENANCE, AND CLEANING.

ACCESS PANELS SHALL BE 18 INCHES X 18 INCHES OR LARGEST DUCT WILL ALLOW. NORMALLY CENTER THE ACCESS PANEL IN THE BOTTOM OF THE DUCT AS CLOSE AS POSSIBLE TO THE DUCT MOUNTED DEVICE. ACCESS PANELS MAY BE INSTALLED ON THE SIDE OF THE DUCT, WHERE NECESSARY.

ACCESS PANELS SHALL BE DOUBLE WALL INSULATED HINGED WITH NEOPRENE GASKETS AND CAM LOCKS ON EACH UNHINGED SIDE. WHERE REQUIRED BECAUSE OF PANEL OPENING CLEARANCE, SUBSTITUTE UNHINGED ACCESS PANELS WITH CAM LOCKS ON EACH SIDE AND CAPTIVE CHAIN. ACCESS PANELS SHALL BE FLEXMASTER "TBSM-TAB DOOR" GREENHECK MODEL "HAD-10", OR EQUIVALENT.

#### REFRIGERANT PIPING

REFRIGERANT PIPING SHALL CONFORM TO THE REQUIREMENTS OF THE SAFETY CODES FOR MECHANICAL REFRIGERATION AND REFRIGERANT PIPING AND THE MANUFACTURER REQUIREMENTS.

RUN ALL PIPING SQUARE TO BUILDING LINES WHEREVER POSSIBLE. FIELD ROUTE PIPING IN ORDER TO PROVIDE FOR EASE OF ACCESS TO VALVES AND OTHER APPURTENANCES.

SUPPORT INTERIOR PIPING FROM THE BUILDING STRUCTURE USING COPPER OR PVC COATED HANGERS SUPPORT REFRIGERANT PIPING 4 FOOT ON CENTER AND AT EACH CHANGE OF DIRECTION. PROVIDE 4" WIDE

SUBMIT REFRIGERANT PIPING LAYOUT SHOP DRAWINGS FOR EACH UNIQUE SYSTEM, REVIEWED AND APPROVED BY THE MANUFACTURER, IN WRITING. SHOW ALL FILTERS, DRIERS, SIGHT-GLASSES, VALVES, ETC. AS REQUIRED BY THE MANUFACTURER.

#### 30. MATERIAL AND INSTALLATION

USE REFRIGERANT GRADE, TYPE "K" HARD DRAWN COPPER PIPE WITH LONG RADIUS ELBOWS. NO CAST FITTINGS

#### INSTALL FILTER DRIER EQUIVALENT TO SPORLAN CATCH-ALL.

INSTALL SIGHT GLASSES WITH MOISTURE INDICATORS COVERED BY A PROTECTIVE CAP. LOCATE THE SIGHT GLASSES INSIDE THE BUILDINGS, CLOSE TO THE FAN COIL IN THEIR RESPECTIVE MECHANICAL CLOSETS.

PROVIDE EXTERNAL FRONT SEATED BRASS SERVICE VALVES WITH SWEAT CONNECTIONS, WITH SERVICE PORTS FOR CHECKING OPERATING REFRIGERANT PRESSURES.

COPPER SHALL BE CLEANED AND SHINED BEFORE BRAZING. BRAZE USING J.W. HARRIS "DYNAFLOW" 6% SILVER

A WELD, THE WELD SHALL BE WIPED WITH A DAMP RAG TO REMOVE FLUX WHILE STILL HOT.

ALL PIPING SHALL BE TESTED FOR 24 HOURS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE AND PROVEN

PIPING SHALL BE PURGED WITH DRY NITROGEN WHILE BRAZING TO PREVENT OXIDATION. UPON COMPLETION OF

DISCHARGE AND LIQUID REFRIGERANT PIPING--300 PSIG, NITROGEN.

### SUCTION REFRIGERANT PIPING--150 PSIG NITROGEN.

REFRIGERANT PIPING, AFTER PROVEN TIGHT, SHALL BE EVACUATED BY MEANS OF AN APPROVED VACUUM PUMP TO A VACUUM OF 2.5 MM HG ABSOLUTE. SYSTEMS SHALL STAND UNDER VACUUM WITH VACUUM PUMP OFF FOR A MINIMUM OF 12 HOURS. SYSTEMS MAY BE CHARGED WITH PROPER REFRIGERANT AFTER ARCHITECT'S APPROVAL OF VACUUM TEST. A DEHYDRATOR SHALL BE USED IN CHARGING HOSE DURING CHARGING OF SYSTEMS WITH

#### INSULATION:

33. GENERAL

THIS SECTION APPLIES TO ALL MECHANICAL WORK.

ALL INSULATION SHALL BE IN STRICT ACCORDANCE WITH ASHRAE STANDARDS AND ALL LOCAL AND STATE ENERGY CODES.

THE INSULATION WORK SHALL BE PERFORMED BY A FIRM REGULARLY ENGAGED IN THIS TYPE WORK USING MECHANICS SKILLED IN THE TRADE.

INSTALL ALL MATERIALS AS RECOMMENDED BY THE MANUFACTURER FOR THE SERVICE INTENDED. ALL INSULATION MATERIAL, INCLUDING SEALER MATERIAL, ADHESIVES, COVERING MATERIAL, FINISH, ETC. SHALL HAVE A U. L. LISTED FLAME SPREAD RATING NOT OVER 24 WITHOUT EVIDENCE OF CONTINUED PROGRESSIVE COMBUSTION AND WITH A SMOKE DEVELOPED RATING NOT HIGHER THAN 50. ALL COATINGS AND COVERINGS FOR HOT SERVICE SHALL BE BREATHER TYPE AND VAPOR BARRIER TYPE FOR COLD SERVICE.

### **HVAC PIPING**

INSULATE REFRIGERANT SUCTION LINES AND ALL CONDENSATE DRAIN LINES WITH (CODE REQUIRED THICKNESS) CLOSE CELLED ELASTOMERIC INSULATION INSTALLED PER THE MANUFACTURERS REQUIREMENTS. PAINT EXTERIOR INSULATION WITH TWO COATS PAINT AS REQUIRED BY THE INSULATION MANUFACTURER.

EXTERNALLY INSULATE ALL SUPPLY AND RETURN DUCTWORK WITH 1-1/2" THICK (R-6 MIN.) DUCT WRAP FOR DUCTS

#### LOCATED IN UNCONDITIONED SPACES AND A 2" THICK (R-8 MIN.) DUCT WRAP FOR DUCTS LOCATED OUTSIDE THE BUILDING, EXCEPT PRE-INSULATED FLEXIBLE DUCT. EXTERNALLY INSULATE ALL OUTSIDE AIR DUCTWORK WITH 2" THICK (R-8) DUCT WRAP WITH ALUMINUM ALL SERVICE JACKET, VAPOR BARRIER. ALL DUCT WRAPS SHALL MEET

35. EXTERNALLY INSULATED DUCTS:

OR EXCEED ASHRAE'S I.A.Q. STANDARD 62 AND IEEC.

INSULATE INDOOR CHILLED WATER PIPING WITH 1\" THINK HEAVY DENSITY FIBERGLASS PIPE INSULATION WITH FLAME SAFE, ALL-PURPOSE BARRIER JACKET. INSULATE EXTERIOR CHILLED WATER PIPING AS SPECIFIED ABOVE,

### WATER PIPING WITH [" THICK FIRE RETARDANT INSULATION.

37. EQUIPMENT: CAPACITY, PERFORMANCE AND CHARACTERISTICS OF EQUIPMENT SHALL BE AS INDICATED ON THE DRAWINGS AND AS SPECIFIED OR IMPLIED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY INCREASED COST TO HIMSELF OR OTHERS FOR EQUIPMENT WHICH DEVIATES FROM THAT SCHEDULED OR IMPLIED HEREIN. REGARDLESS OF COST AFFECT, THE ARCHITECT MUST APPROVE ANY DEVIATION FROM THE DRAWINGS AND THE

BUT DOUBLE THICKNESS WITH ALUMINUM JACKET BANDED IN PLACE. INSULATE INDOOR, SMALL RUN OUT, CHILLED

#### SPECIFICATION. 38. MOTORS AND STARTERS:

ALL ELECTRIC MOTORS SHALL BE HIGH EFFICIENCY TYPE WITH MAXIMUM OF 1750 RPM WITH OPEN DRIP PROOF OR TEFC ENCLOSURES, UNLESS OTHERWISE NOTED. MOTORS LOCATED ON AIR HANDLING UNITS SHALL BE MOUNTED IN RUBBER SUPPORTS OR THE FAN SHALL BE INDEPENDENTLY SUPPORTED ON SPRING ISOLATORS. MOTORS LOCATED IN THE CONDITIONED SPACE SHALL BE SELECTED FOR QUIET OPERATION AND SHALL NOT PRODUCE AN OBJECTIONABLE "MOTOR NOISE" IN THE SPACE.

ELECTRICAL CHARACTERISTIC SHALL BE VERIFIED FROM THE ELECTRICAL DRAWINGS, PRIOR TO BIDDING, AND VERIFIED ON THE JOB WITH THE ELECTRICAL SUB-CONTRACTOR. IF A CONFLICT ARISES, THE ELECTRICAL DRAWINGS SHALL BE THE AUTHORITY.

PROVIDE MOTOR STARTERS AND PROPER HEATER ELEMENTS SIZED IN ACCORDANCE WITH NFPA 70. STARTERS SHALL BE SQUARE-D OR EQUIVALENT WITH OVERLOAD TRIP ELEMENT IN EACH PHASE. LARGER MOTORS AND THEIR STARTERS SHALL MEET THE REQUIREMENTS OF THE UTILITY COMPANY AS TO INRUSH ALLOWABLE AND THE TYPE OF STARTING PERMITTED.

SHOULD ANY MECHANICAL EQUIPMENT REQUIRE EXTRA WORK BY OTHER TRADES, FOR PROPER INSTALLATION. THIS CONTRACTOR SHALL BEAR ALL COSTS, SUCH AS INCREASED ELECTRICAL, STRUCTURAL, ROOFING, ETC. SYSTEMS TEST AND BALANCE:

### 39. GENERAL REQUIREMENTS:

THE REQUIRED TEST & BALANCE OF THE HVAC SYSTEM SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING AGENCY AS SPECIFIED BELOW.

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SHEET TITLE:

GENERAL SPECIFICATIONS (CONTINUED)

#### 40. AGENCY QUALIFICATIONS:

TEST & BALANCE AGENCY (TBA) SHALL BE PERFORMED BY AN INDEPENDENT AGENCY ENGAGED SOLELY IN TEST AND BALANCE WORK. AGENCY SHALL BE MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU, (NEBB).

SUBMIT A WRITTEN REPORT WITHIN 30 DAYS OF COMMENCING WORK, WITH ANY RECOMMENDED CHANGES TO INSURE BALANCING CAPABILITY.

SUBMIT A DETAILED TEST PLAN TO THE ARCHITECT ILLUSTRATING ALL FORMATS, DRAWINGS, AND TEST PROCEDURE TO BE USED FOR TESTING THE COMPLETED SYSTEM. THE APPROVED PLAN WILL BE USED FOR TESTING THE SYSTEMS. PROCEDURES SHALL INCLUDE REQUIREMENTS LISTED IN AABC / NEBB STANDARDS, LATEST EDITION AND ANY SPECIAL REQUIREMENTS FOR THIS PROJECT.

MAKE PROJECT VISITS AS REQUIRED DURING CONSTRUCTION PERIOD INSPECTING FOR PROPER INSTALLATION OF THE SYSTEM AND RELATED BALANCING DEVICES. PROJECT VISIT REPORTS SHALL BE MADE TO THE ARCHITECT IN

#### 41. CONTRACTORS REQUIREMENTS PRIOR TO TEST & BALANCE:

THE CONTRACTOR SHALL PERFORM ALL REQUIRED PRELIMINARY TESTS AND OTHER PREPARATORY WORK, INCLUDING BUT NOT LIMITED TO:

MAKE SURE ALL FANS ARE OPERATING, CHECK ROTATION, RPM, AND AMPS.

CHECK ALL DAMPERS FOR OPERATION.

PUT ALL HVAC EQUIPMENT IN FULL OPERATION INCLUDING AIR UNITS, ACCU'S AND FANS.

MAKE SURE ALL HVAC CONTROLS ARE INSTALLED AND FULLY OPERATIONAL. CLEAN/REPLACE FILTERS JUST PRIOR TO TESTING. PROVIDE ALL BALANCING DEVICES AND DRIVE CHANGES THAT ARE DEEMED NECESSARY BY T & B AGENCY FOR

#### 42. TEST AND BALANCE:

TEST & BALANCE AGENCY SHALL BALANCE ALL AIR SYSTEMS FOR OPERATION WITHIN DESIGN CRITERIA. PRIME MOVERS SHALL BE WITHIN 5% OF DESIGN AND TERMINALS WITHIN 10% OF DESIGN.

AIR SYSTEMS SHALL BE BALANCED AS DESCRIBED HEREIN.

BALANCE AT NO ADDITIONAL COST TO THE OWNER.

#### 43. TEST REPORT:

THE TBA SHALL PROVIDE AN ELECTRONIC (PDF) COPY OF A FINAL COMPREHENSIVE TEST REPORT IN THE

FOLLOWING FORMAT.

REPORT SHALL BE BOUND 8-1/2 X 11" WITH SUBSTANTIAL COVERS USING APPROVED FORMS, TYPED OR COMPUTER GENERATED REPORTS ARE ACCEPTABLE.

REPORT SHALL BE INDEXED.

#### TABLE OF CONTENTS SHALL LIST ALL REPORTS.

ALL AIR OUTLETS SHALL BE LOCATED ON CODED DRAWINGS PREPARED BY THE T&B AGENCY. AIR OUTLETS FORMS SHALL BE PREPARED AND CORRELATED TO THE CODED DRAWINGS.

TEST SUMMARY SHALL DESCRIBE FINAL TEST PROCEDURES AND SPECIAL CONDITIONS DURING TESTS (SUCH AS THERMOSTAT OUTSIDE/RETURN AIR RELATIONSHIP, AND DUCT STATIC PRESSURE.

DESCRIBE OTHER DATA THAT MAY ASSIST OPERATING PERSONNEL IN THE CONTINUING OPERATION OF THE

SYSTEM. T&B CONTRACTOR SHALL TAKE AND RECORD ALL NECESSARY READINGS AT THE FINAL BALANCE POINTS, SUCH

AS BUT NOT LIMITED TO: AIR QUANTITIES, PRESSURES, SETPOINTS, ENTERING AND LEAVING COIL TEMPERATURES, SPACE INDOOR AND OUTSIDE WET AND DRY BULB TEMPERATURES, OUTDOOR WEATHER CONDITIONS, ELECTRICAL READINGS OF ALL NEW AND EXISTING MOTORS, COMPRESSORS, ETC.

TEST REPORT SHALL CONTAIN TBA CERTIFICATION OF TEST DATA AND SYSTEM CONDITIONS.

SUBMIT THE TEST REPORTS, FOR REVIEW, BEFORE SUBSTANTIAL COMPLETION.

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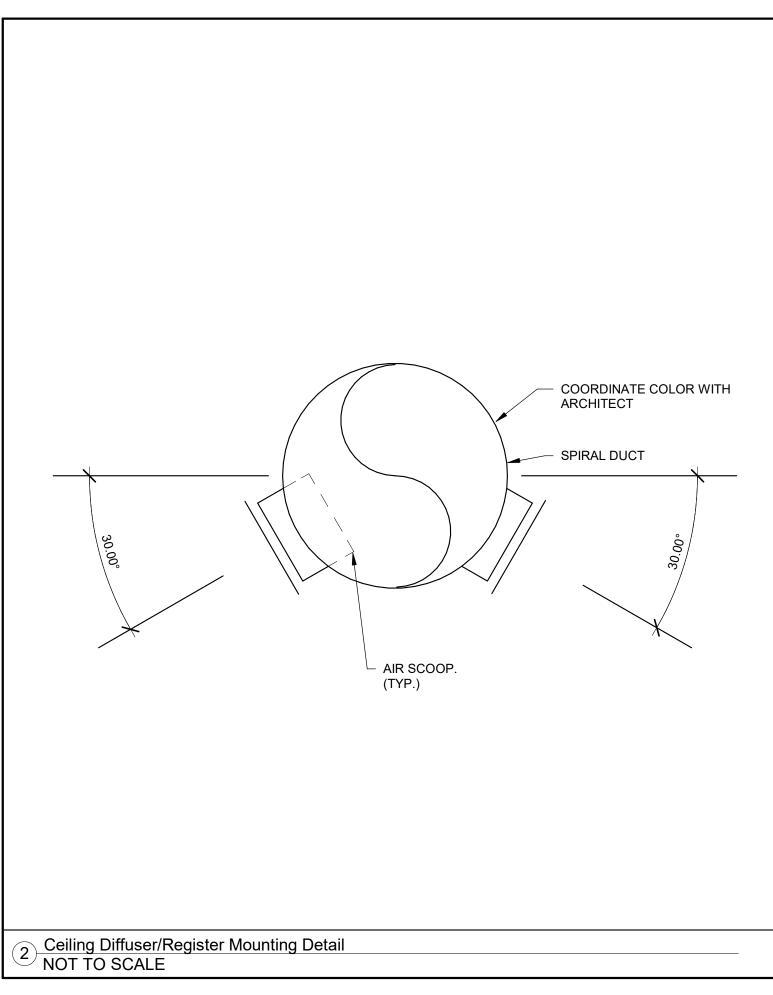
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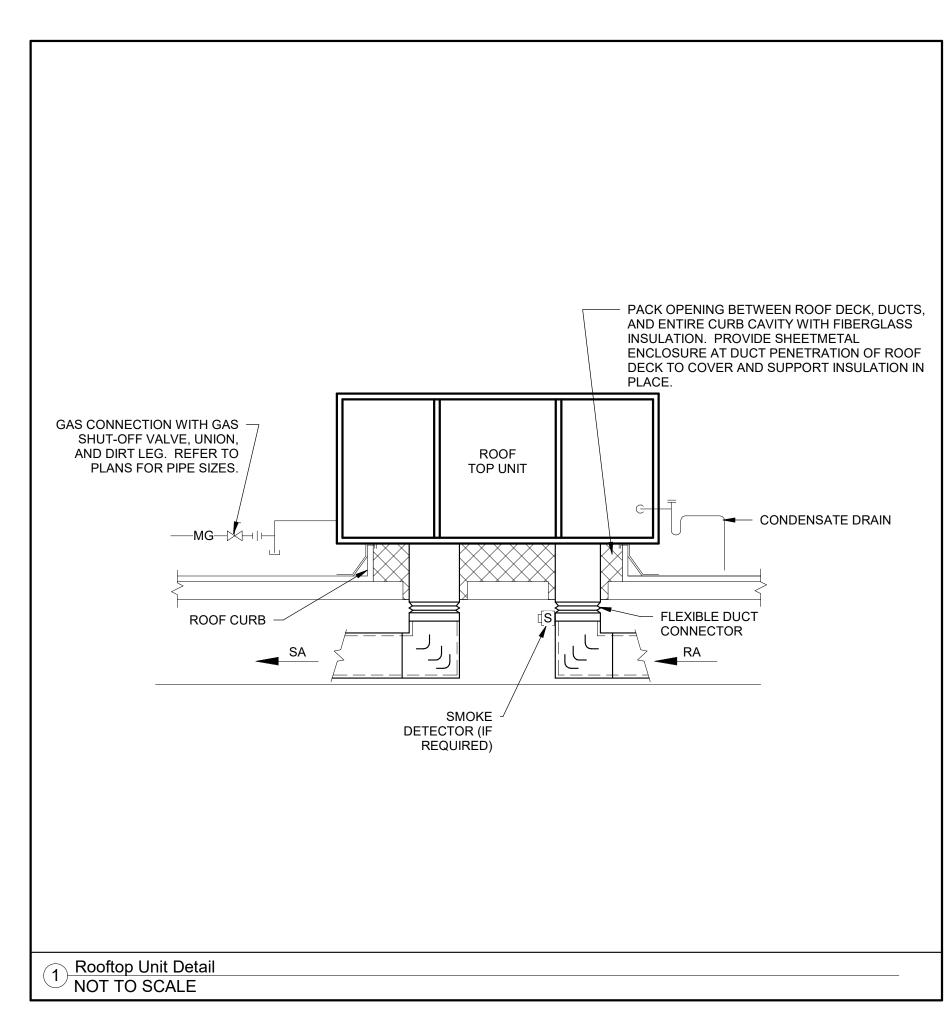
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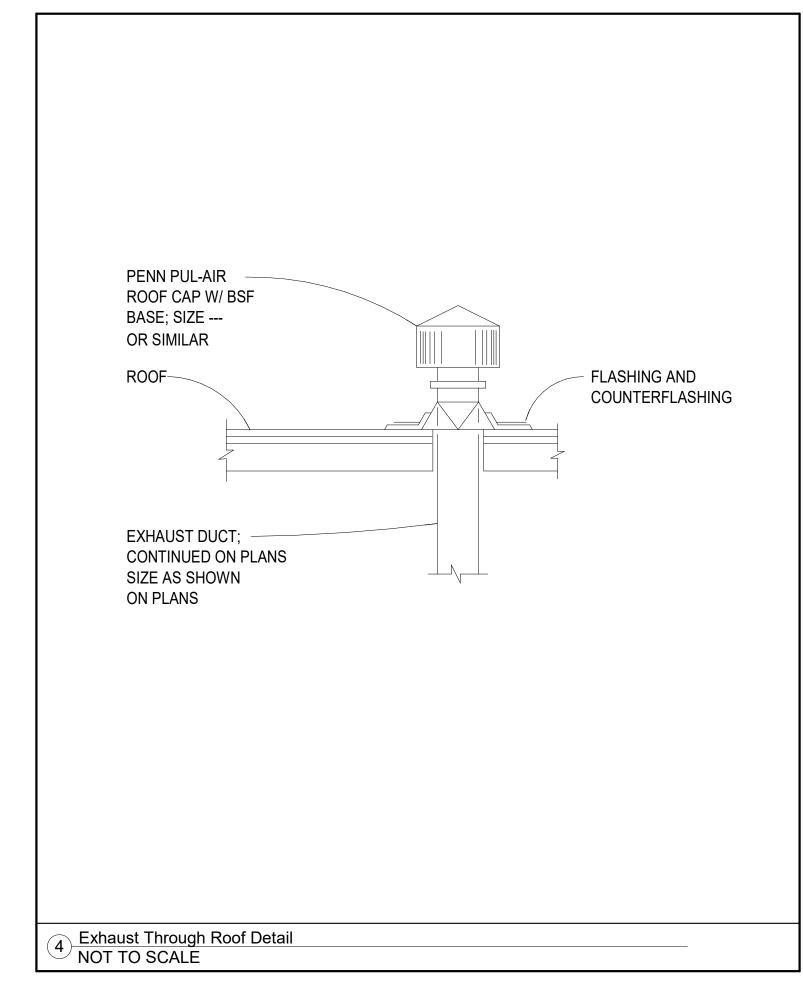
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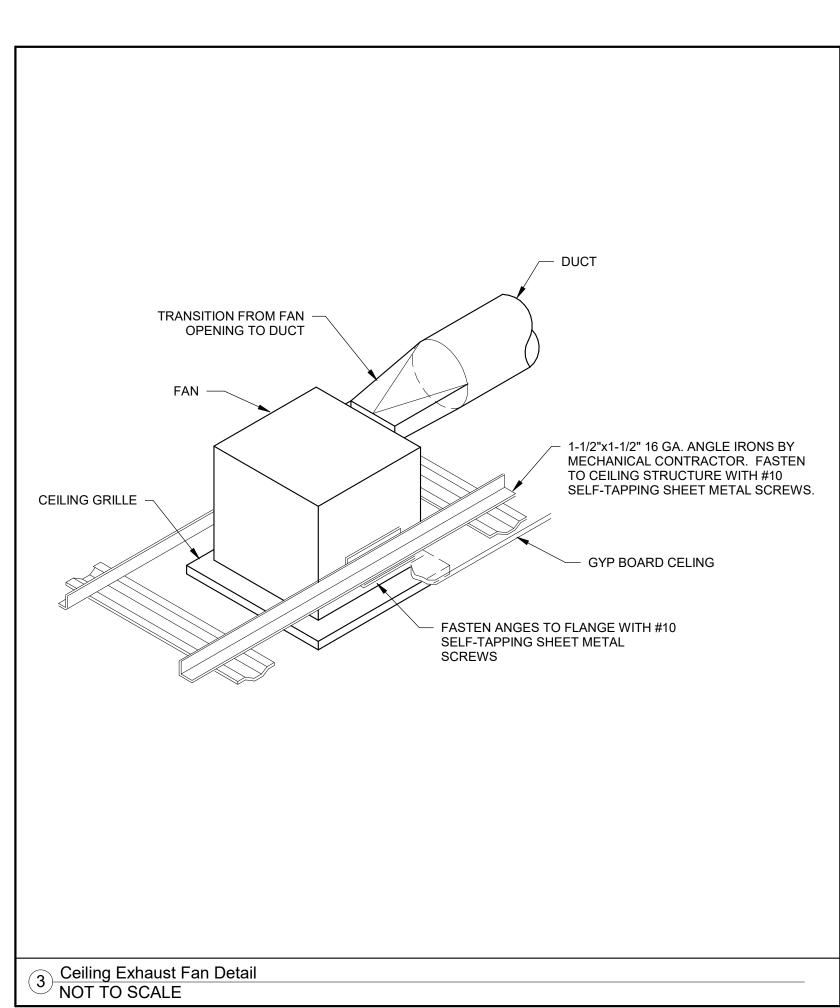
SHEET TITLE:

Mechanical Specifications











PROJECT #:
707486

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STO

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SHEET TITLE:

Mechanical Details

HEET NUMBER:

M005



**Project Information** 

2021 IECC Energy Code: Project Title: SW - Fair Oaks, TX Fair Oaks Ranch, Texas Location: Climate Zone: New Construction Project Type:

Construction Site: Owner/Agent: 9091 Fair Okas Pkwy. Fair Oaks Ranch, Texas 78015 Additional Efficiency Package(s)

Designer/Contractor: ICAA Consulting Engineer Wheat Ridge, Colorado 80033

Credits: 10.0 Required 0.0 Proposed **Mechanical Systems List** Quantity System Type & Description

2 RTU-1,2 (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 200 kBtu/h Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 83 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency = 11.00 EER Proposed Part Load Efficiency = 12.70 IEER, Required Part Load Efficiency = 12.70 IEER Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP and fan efficiency method): Passes

FAN 1 Supply, Constant Volume, 3000 CFM, 1.0 motor nameplate hp, 1.00 fan energy index

**Mechanical Compliance Statement** 

Project Title: SW - Fair Oaks, TX

# Mechanical Rough-In Inspection Complies?

C403.7.5
[ME116]<sup>3</sup>
Kitchen exhaust systems comply with Complies replacement air and conditioned Does Not supply air limitations, and satisfy hood ration requirements and maximum Not Observable

C403.11.1 HVAC ducts and plenums insulated in Complies

C403.5, Air economizers provided where required, meet the requirements for Does Not

provide a means to relieve excess outside air during operation.

and climate zones.

C403.5.2 design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and

C403.5.3. Air economizers automatically reduce ☐Complies

3 outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.5.3.3 for applicable device types

| Complete | Complete

C403.4.1. Heating for vestibules and air curtains ☐Complies

with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule □Not Applicable

section C403.7.7 for details.

heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <=

60F and cooling setpoint >= 80F. 

C403.5.3. System capable of relieving excess outdoor air during air economizer operation to prevent over pressurizing the building. The relief air outlet located to avoid recirculation into the building.

C403.5.3. Return, exhaust/relief and outdoor air Complies Requirement will be met.

constructed in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to

rating requirements and maximum exhaust rate criteria.

occur during Foundation Inspection.

C403.7.4 Exhaust air energy recovery on ☐Complies ☐ME57]¹ Systems meeting Table C403.7.4(1) ☐Does Not

and C403.7.4(2).

Data filename:

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable 03/06/2023 Dylan Shapiro-E.I.T

□Not Observable

☐Not Applicable

▲ COMcheck Software Version COMcheckWeb Inspection Checklist

Energy Code: 2021 IECC Requirements: 100.0% were addressed directly in the COMcheck software Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section<br>#<br>& Req.ID     | Plan Review  | Complies?   | Comments/Assumptions     |
|------------------------------|--|---|--------------------------|
| C103.2<br>[PR2] <sup>1</sup> | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. Hot water system sized per manufacturer's sizing guide. | □Complies □Does Not □Not Observable □Not Applicable | Requirement will be met. |
| C406<br>[PR9] <sup>1</sup>   | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.   | ☐Complies ☐Does Not ☐Not Observable ☐Not Applicable | Requirement will be met. |

efficiency package options. Additional Comments/Assumptions:

Data filename:

Report date: 03/06/23

Comments/Assumptions

Exception: Requirement does not apply.

Requirement will be met

Requirement will be met.

Requirement will be met.

Page 1 of 10

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: SW - Fair Oaks, TX Report date: 03/06/23

Mechanical Rough-In Inspection Complies? Comments/Assumptions C403.11.3 Refrigerated display cases, walk-in

coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered 

C403.11.3 condensing unit, have fan-powered 

COOLERS OF Walk-in freezers served by remote and remo [ME123]<sup>3</sup> Condensing this, have rain-powered condensers that comply with Sections (C403.11.3.1 and refrigeration compressor systems that comply with C403.11.3.2..

Additional Comments/Assumptions:

□Not Observable ☐Not Applicable C408.2.2. Air outlets and zone terminal devices have means for air balancing. □Not Observable

☐Not Applicable

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: SW - Fair Oaks, TX Report date: 03/06/23 Data filename: Page 6 of 10

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: SW - Fair Oaks, TX Data filename: Page 7 of 10

Report date: 03/06/23

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: SW - Fair Oaks, TX Data filename:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

☐Not Applicable

☐Not Observable

□Not Observable

Not Applicable

# Footing / Foundation Inspection Complies?

C403.12.2 Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature above 50F and outdoor temperature above 40F.

Additional Comments/Assumptions:

Project Title: SW - Fair Oaks, TX

C405.7 Low-voltage dry-type distribution electric transformers meet the

Table C405.6.

Low-voltage dry-type distribution

under an approved certification program or the equipment efficiency

C405.9.1, Escalators and moving walks comply Complies with ASME A17.1/CSA B44 and have Does Not

C405.10 Total voltage drop across the combination of feeders and branch ☐Does Not

permanently installed lighting shall have lamp efficacy >= 65 lm/W or

luminaires with efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3. □Not Applicable

conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders

C405.11, 50% of 15/20 amp receptacles ☐Complies ☐Complies ☐Does Not

ratings shall be provided by motor

manufacturer (where certification

automatic controls configured to reduce speed to the minimum

ASME A17.1/CSA B44 or applicable local code when not conveying

for modular furniture will have automatic receptacle control in

accordance with C405.11.1.

Additional Comments/Assumptions:

programs do not exist).

circuits <= 5%.

C405.1.1 At least 90% of dwelling unit

Rough-In Electrical Inspection Complies?

efficiency requirements of Tables
C405.7(1) through C405.7(4).
Efficiency verified through certification
under an approved certification
Not Applicable

permitted speed in accordance with Not Applicable

nimum efficiency requirements of

Data filename:

& Req.ID

Page 2 of 10

Comments/Assumptions

Exception: Requirement does not apply.

Report date: 03/06/23

Comments/Assumptions

Exception: Requirement does not apply.

Exception: Requirement does not apply.

Exception: Requirement does not apply.

Requirement will be met

Requirement will be met

Page 3 of 10

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: SW - Fair Oaks, TX Report date: 03/06/23 Data filename: Page 9 of 10

Report date: 03/06/23

Comments/Assumptions

Requirement will be met.

Requirement will be met.

Requirement will be met.

Requirement will be met.

Page 4 of 10

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: SW - Fair Oaks, TX Report date: 03/06/23 Data filename: Page 10 of 10

Additional Comments/Assumptions:

Plumbing Rough-In Inspection Complies? Comments/Assumptions C404.5, Heated water supply piping conforms C404.5.1, to pipe length and volume Complies Exception: Requirement does not apply. C404.5.1, to pipe length and volume C404.5.2 requirements. Refer to section details. Not Observable □Not Applicable Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Complies?

□Not Observable

☐Not Applicable

☐Not Observable

Not Applicable

☐Not Applicable

☐Not Observable

□Not Observable

□Not Applicable

■Not Observable

□Does Not ☐Not Observable

□Not Applicable

☐Not Observable

☐Not Observable

☐Not Observable

□Not Applicable

□Not Applicable

☐Complies Requirement will be met.

□Does Not

□Does Not

□Does Not

☐Complies

Project Title: SW - Fair Oaks, TX

Final Inspection

[FI27]³ capacity does not exceed calculated □Does Not

C403.4.1 Heating and cooling to each zone is Complies

[FI39]<sup>3</sup> controls using automatic time clock or □Does Not

1, (heat) and 85°F (cool); 7-day clock, 2- ☐Does Not hour occupant override, 10-hour ☐Not Observ

documents will be provided to the owner. Documents will cover manufacturers' information,

specifications, programming procedures and means of illustrating to owner how building, equipment and

systems are intended to be installed, maintained, and operated.

[FI28]¹ registered design professional or ☐Does Not

1 system-to-system relationships have [Fi31]¹ been tested to ensure proper □Not Observa

C408.2.1 Commissioning plan developed by

approved agency.

operation.

C408.2.3. HVAC equipment, systems and

humidification/dehumidification

C403.4.1. Thermostatic controls have a 5 °F

C403.4.1. Temperature controls have setpoint

C403.4.2 Each zone equipped with setback

C403.4.2. Systems include optimum start

overlap restrictions.

controlled by a thermostat control.

Minimum one humidity control device
per installed

Observable

C303.3, C408.2.5. Furnished O&M manuals for HVAC systems within 90 days of system

C403.3.1 HVAC systems and equipment

per installed

deadband.

backup

acceptance.

Data filename:

electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed. C403.8.6 Each DX cooling system > 65 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this carties. detailed requirements of this section. [ME144]<sup>2</sup> Large diameter fans where installed shall be tested and labeled in accordance with AMCA 230. □Not Observa Requirement will be met. ☐Not Observable □Not Applicable C403.12.1 Systems that heat outside the building Complies [ME71]<sup>2</sup> Systems that near outside the building envelope are radiant heat systems controlled by an occupancy sensing \Boxed{\Boxed} Not Observable Requirement will be met. device or timer switch. ☐Not Applicable C403.3 HVAC equipment efficiency verified. See the Mechanical Systems list for values. ☐ Complies □Does Not ☐Not Observable □Not Applicable C403.5.5 Fault detection and diagnostics ☐ Complies Requirement will be met. [ME113]² installed with air-cooled unitary DX units or VRF units having □Does Not □Not Observ □Not Observable economizers. □Not Applicable C403.2.2 Natural or mechanical ventilation is Complies Requirement will be met. [ME59]<sup>1</sup> provided in accordance with International Mechanical Code □Does Not Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4. C403.7.1 Demand control ventilation provided ☐Complies [ME59]1 for spaces >500 ft2 and >15 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow [ME115]<sup>3</sup> Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate... Exception: Requirement does not apply. and capacity to stage or modulate fans to 50% or less of design capacity. 

Not Observable Not Applicable C403.7.6 HVAC systems serving questrooms in Complies Requirement will be met. [ME141]<sup>3</sup> Group R-1 buildings with > 50 guestrooms: Each guestroom is □Does Not □Not Observable provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).

☐Not Observable

☐Not Applicable

Does Not

Comments/Assumptions

Mechanical Rough-In Inspection Complies?

C402.2.6 Thermally ineffective panel surfaces of ☐Complies [ME41]³ sensible heating panels have ☐Does Not

C403.8.4 Motors for fans that are not less than Complies

insulation >= R-3.5.

[ME142]<sup>2</sup> 1/12 hp and less than 1 hp are

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: SW - Fair Oaks, TX Report date: 03/06/23 Data filename: Page 5 of 10

Final Inspection Complies? Comments/Assumptions # & Req.ID C408.2.3. HVAC and service water heating ☐ Complies Requirement will be met. 2 control systems have been tested to [FI10]¹ ensure proper operation, calibration 

Not Observable and adjustment of controls. □Not Applicable C408.2.3. Economizers have been tested to ☐ Complies Requirement will be met. ensure proper operation. □Does Not □Not Observable ☐Not Applicable C408.2.4 Preliminary commissioning report Requirement will be met. Complies completed and certified by registered Does Not design professional or approved □Not Observable ☐Not Applicable C408 2.5 Furnished HVAC as-built drawings Complies Requirement will be met. submitted within 90 days of system Does Not acceptance. □Not Observable ☐Not Applicable C408.2.5. An air and/or hydronic system ☐ Complies Requirement will be met. 1 balancing report is provided for HVAC Does Not [Fl43]¹ systems. □Not Observable ☐Not Applicable C408.2.5. Final commissioning report due to Complies Requirement will be met. 2 building owner within 90 days of [FI30]<sup>1</sup> receipt of certificate of occupancy. □Does Not □Not Observable

707486

XXXX

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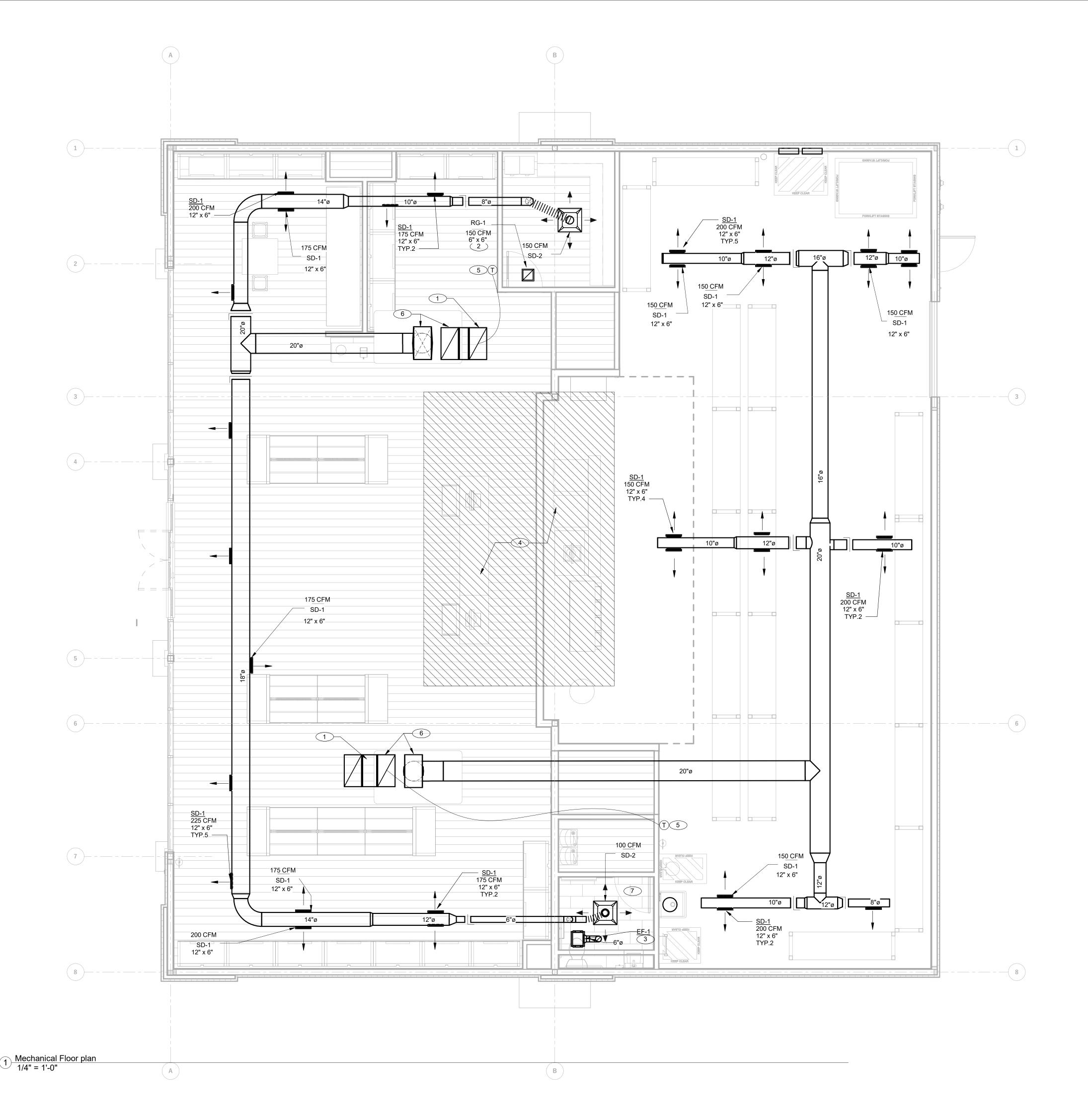
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SHEET TITLE:

Mechanical Comcheck



#### # SHEET NOTES:

- 1. INSTALL TWO 90° ELBOWS TO TURN DUCT UP TOWARDS STRUCTURE. TERMINATE RA DUCT WITH 1/2" WIRE MESH APPROX. 18" BELOW
- 2. INSTALL RETURN GRILLE IN OFFICE CEILING AS SHOWN. LEAVE OPEN TO SPACE ABOVE CEILING.
- 3. INSTALL  $\underline{\mathsf{EF-1}}$  IN BATHROOM CEILING AS SHOWN. ROUTE 6" DUCT FROM FAN UP THROUGH ROOF ABOVE. TERMINATE WITH RAINCAP AND BIRDSCREEN. VERIFY LOCATION IN FIELD.
- 4. DO NOT INSTALL ANY DUCTWORK, PLENUMS, ETC. IN THIS AREA.
- 5. FURNISH AND INSTALL 24/7 PROGRAMABLE THERMOSTAT WITH AUTO CHANGEOVER AND RELATED WIRING TO CONTROL ROOFTOP UNIT. MOUNT AT 42" AFF IN LOCATION SHOWN. THERMOSTAT TO BE HONEYWELL VISIONPRO 8000 WITH REDLINK OR APPROVED EQUAL. VERIFY FINAL MOUNTING LOCATION WITH OWNER/ARCH. VERIFY PROPER OPERATION IN FIELD. REFER TO DATABOARD DETAIL 2, E300. PROVIDE 100' T-STAT WIRE.
- 6. 33"x18" SA AND 32"x18" RA DOWN FROM RTU ON ROOF. RE: ROOF PLAN.
- 7. GENERAL CONTRACTOR TO UNDERCUT DOOR 3/4" ABOVE THRESHOLD FOR TRANSFER AIR.

#### **GENERAL NOTES:**

1. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

2. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR MECHANICAL SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK, & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.

3. BOTTOM OF ALL DUCTWORK SHALL NOT BE LOWER THAN 12'-0" AFF.

4. FURNISH AND INSTALL GALVANIZED STEEL DUCTWORK, SIZES AS NOTED ON DRAWINGS. SIZES SHOWN ARE CLEAR, INSIDE DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR EXTERNAL FINISH. SUSPEND WITH AIRCRAFT CABLE.

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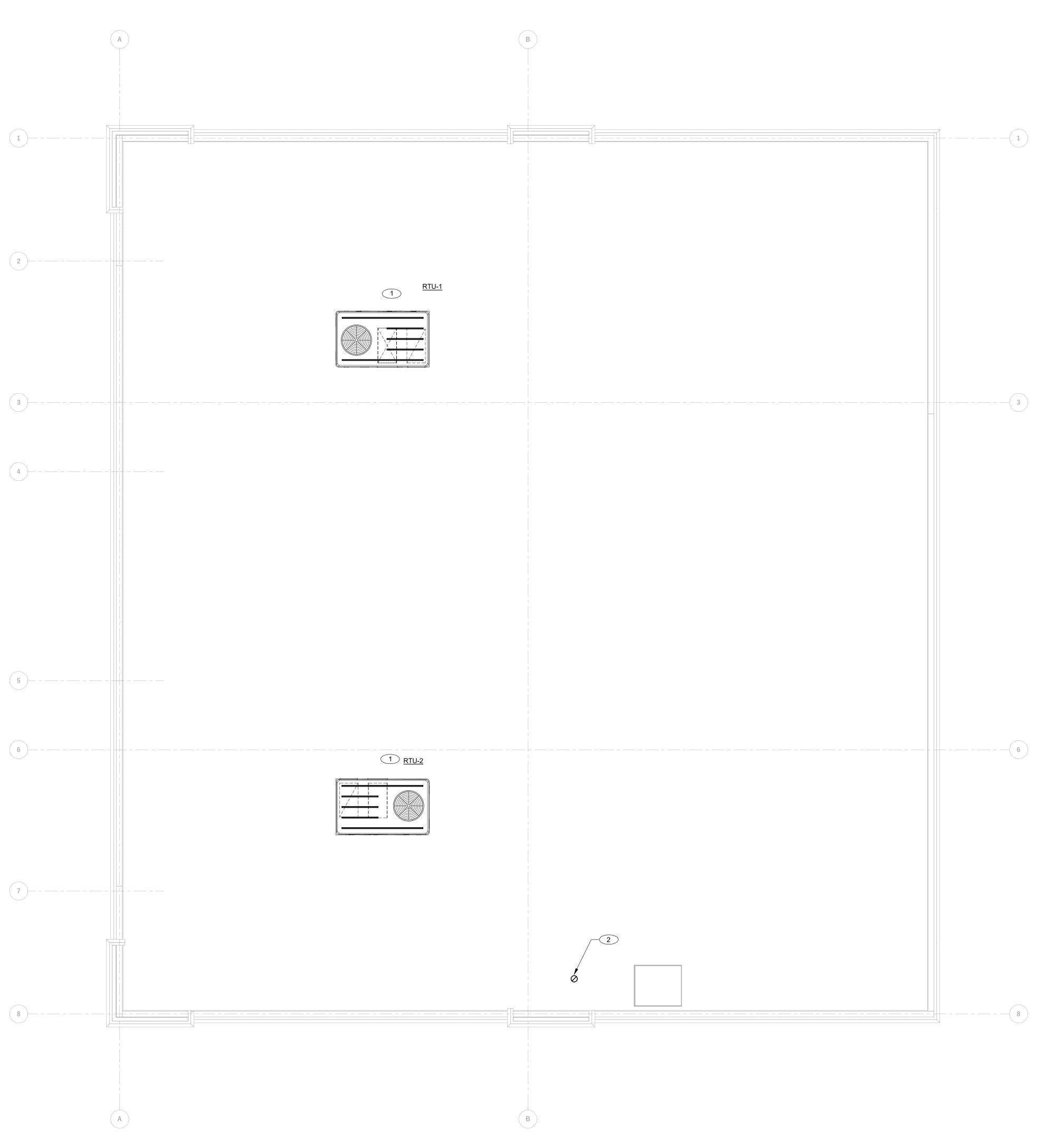
9091 FAIR OAKS PKWY.
FAIR OAKS RANCH, TX 78015

SHEET TITLE:

Mechanical Floor Plan

SHEET NUMBER:

M100



#### **SHEET NOTES:**

1. INSTALL RTU IN LOCATION SHOWN PER MANUF. SPECIFICATIONS. RTU LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS ARE TO BE VERIFIED WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

2. EXHAUST FAN DUCT UP THROUGH ROOF TO APPROVED VENT CAP & BIRDSCREEN.

#### **GENERAL NOTES:**

1. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

2. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR MECHANICAL SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK, & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.

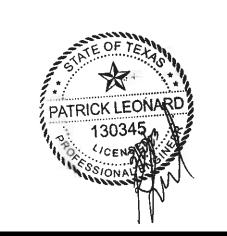
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FAIR OAKS RANCH, TX
78015

SHEET TITLE:

Mechanical Roof Plan

|                            | LEGEND  |
|----------------------------|---|
| SYMBOL                     | DESCRIPTION   |
| GND                        | INDICATES GROUND  |
| PNL                        | INDICATES PANEL   |
| WP                         | INDICATES WEATHER-PROOF (NEMA 3R)                             |
| $\mathbb{N}$ $\vdash$      | NON-FUSED DISCONNECT SWITCH - 30A, 3P, UNLESS NOTED OTHERWISE |
|                            | SURFACE MOUNTED PANELBOARD                                    |
|                            | FUSED NEMA 3R DISCONNECT SWITCH                               |
| 0                          | MOTOR OUTLET  |
|                            | HOMERUN CONDUIT - ARROW INDICATES QUANTITY OF CIRCUITS        |
|                            | CONDUIT AND/OR WIRE CONCEALED IN WALL OR ABOVE CEILING        |
| <b>├ -</b> ○ <b>- -</b>    | LED STRIP   |
|                            | LED TROFFER   |
| 0                          | RECESSED/SURFACE DOWNLIGHT                                    |
|                            | PENDANT MOUNTED LUMINAIRE                                     |
| Ю                          | WALL SCONCE   |
| $\bigcirc$                 | RECESSED LED  |
| S                          | SWITCH  |
| S <sub>3</sub>             | 3 WAY SWITCH  |
| <u>S</u> M                 | SWITCH OCCUPANCY SENSOR                                       |
| MS                         | CEILING MOUNTED OCCUPANCY SENSOR                              |
| $\underline{\hspace{1cm}}$ | RECEPTACLE  |
| <u> </u>                   | GFI RECEPTACLE  |
|                            | QUAD RECEPTACLE   |
|                            | DUPLEX RECEPTACLE/TELE-DATA                                   |
| <u> </u>                   | TELE-DATA OUTLET COAX OUTLET                                  |
| <u> </u>                   | JUNCTION BOX  |
| <u> </u>                   | PUSH BUTTON   |
|                            | SMOKE DETECTOR  |
| <br>  <b>H</b>             | HORN STROBE   |
|                            | MANUAL PULL BOX   |
| ≪\$                        | COMBINATION BATTERY PACK<br>EGRESS / EXIT LIGHT               |
| ⊢Ó- EM                     | EM WALL SCONCE  |
| <u> </u>                   | BATTERY BACK EGRESS LIGHT                                     |
| -                          | MECHANICAL EQUIPMENT - SEE<br>HVAC AND PLUMBING DRAWINGS      |
|                            | GROUND BUS & GROUND ELECTRODES                                |

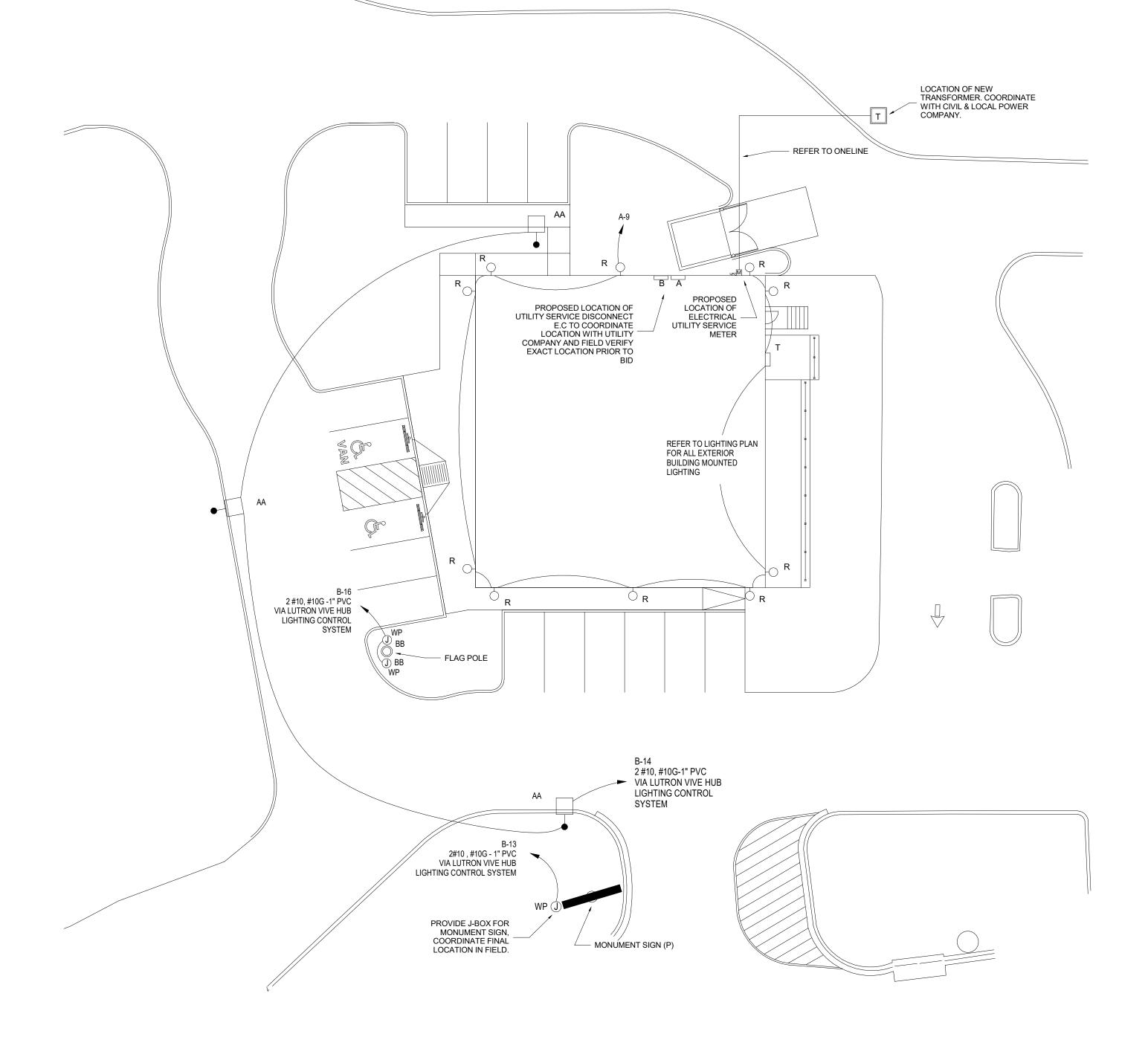
| CODES & D        | ESIGN CRITERIA                              |
|------------------|---|
| JURISDICTION:    | FAIR OAKS RANCH, TX                         |
| ELECTRICAL CODE: | 2020 INTERNATIONAL ELECTRICAL CODE          |
| ENERGY CODE      | 2021 INTERNATIONAL ENERGY CONSERVATION CODE |

|       | S                       | HEE.  | T INDEX                   |
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|       | PERMIT SET - 03/10/2023 |       |                           |
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# SHERWIN WILLIAMS SITE PLAN

LOCATED OFF FAIR OAKS PARKWAY. FAIR OAKS RANCH, TX 78015 TOWN OF FAIR OAKS RANCH, COUNTY OF BEXAR, STATE OF TEXAS

# 9091 FAIR OAKS PARKWAY FAIR OAKS RANCH, TEXAS 78015







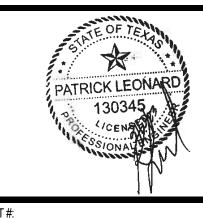
158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST DENVER, CO 80202 303.974.5875

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PROJECT#:

<u>61126125 51.</u>

|         | PERMIT SET - 03/13/2023 |
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# SHERWIN WILLIAMS

| STORE |
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| XXXX  |

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

ELECTRICAL SITE PLAN

SHEET NUMBER:

### **DIVISION 16 - ELECTRICAL SPECIFICATIONS**

# SECTION 16100 ELECTRICAL SPECIAL CONDITIONS

#### 1. GENERAL

- A. APPLICABLE PROVISIONS OF AIA DOCUMENT A201, "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AND DIVISION 1 GENERAL CONDITIONS GOVERN WORK UNDER THIS SECTION AND ALL OTHER SECTIONS OF DIVISION 16.
- B. APPLICABLE PROVISIONS OF THIS SECTION GOVERN WORK UNDER ALL OTHER SECTIONS OF DIVISION 16. WORK COVERED BY THIS SECTION SHALL CONSIST OF PROVIDING ALL MATERIAL, LABOR, EQUIPMENT AND SERVICES NECESSARY FOR A COMPLETE, TESTED AND ADJUSTABLE ELECTRICAL INSTALLATION READY FOR OPERATION AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.
- C. THE TERM CONTRACTOR AS USED IN THIS SECTION SHALL MEAN ANY CONTRACTOR OR SUBCONTRACTOR WHO HAS CONTRACTED TO PERFORM WORK INCLUDED IN AND DEFINED BY THIS SECTION AND ALL OTHER SECTIONS OF DIVISION 16.
- D. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION. ALL MATERIALS AND EQUIPMENT SHALL BE COMMERCIAL GRADE AND SHALL CARRY A U.L. LABEL.
- E. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING COMPONENTS THEREOF SHALL BE NEW AND SUCH AS APPEARS ON THE UNDERWRITER'S LABORATORY LIST OF APPROVED ITEMS AND SHALL MEET THE REQUIREMENTS OF RECOGNIZED STANDARDS. EQUIPMENT SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THENATIONAL ELECTRICAL CODEAND OTHER APPLICABLE CODES.

#### 2. EXISTING CONDITIONS

A. THESE DRAWINGS ARE BASED ON INFORMATION PROVIDED TO OUR OFFICE AT THE TIME OF DESIGN. THEREFORE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO, SERVICE LOCATION, SERVICE LAYOUTS, SECONDARY FEEDER LENGTH, TELEPHONE SERVICE LOCATION, ETC... AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO BID. FAILURE TO DO SO MAY CONSTITUTE THAT THE CONTRACTOR PROVIDE ANY AND ALL ADDITIONAL EQUIPMENT, LABOR, ETC... TO MEET THE INTENDED DESIGN PARAMETERS.

#### 3. CONTRACTOR'S RESPONSIBILITY

- A. PRIOR TO SUBMITTING HIS BID, CONTRACTOR SHALL CAREFULLY EXAMINE THESE
  CONSTRUCTION DOCUMENTS, THE DEVELOPER'S EXHIBITS, AND THE SITE, TO INQUIRE FULLY
  INTO DIFFICULTIES AND COSTS OF WORK, AND TO DETERMINE THE SCOPE AND CHARACTER OF
  WORK TO BE DONE. CONTRACTOR SHALL INCLUDE ALL NECESSARY COSTS TO LOCATE AND/OR
  EXTEND ALL UTILITIES INCLUDING LIGHTING PANELS, POWER PANELS, ELECTRICAL SERVICE,
  PHONE SERVICE AND/OR MODIFY EQUIPMENT TO MEET THE INTENT OF THE CONTRACT
  DOCUMENTS. THE OWNER, OWNER'S AGENT, ARCHITECT, ENGINEER OR DESIGNER SHALL NOT
  BE RESPONSIBLE FOR FAILURE OF THE CONTRACTOR TO DETERMINE DIFFICULTIES AND COSTS
  IN THE PROJECT OR FOR HIS OVERLOOKING OF THE REQUIREMENTS.
- B. IF THIS CONTRACTOR DOES NOT CLEARLY UNDERSTAND THE PLANS AND SPECIFICATIONS, OR IF THERE ARE ANY REQUIREMENTS WHICH ARE AMBIGUOUS IN THE CONTRACTOR'S OPINION, HE SHOULD CALL THIS TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING, SINCE THIS CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATIONS OF THE ARCHITECT AND ENGINEER.
- C. CONTRACTOR SHALL SCHEDULE HIS WORK IN COOPERATION WITH OTHER TRADES INSTALLING INTERRELATED WORK. ALL WORK SHALL BE SCHEDULED TO MAINTAIN SERVICE TO ALL REQUIRED AREAS DURING THE COURSE OF THE CONSTRUCTION EXCEPT FOR SHORT TERM PLANNED SHUTDOWNS, ANY OF WHICH SHALL BE PRE--SCHEDULED WITH THE OWNERS AGENT AND THE LANDLORD

### 4. WORKMANSHIP AND GUARANTEE

A. IN ENTERING INTO A CONTRACT COVERING THIS WORK, THE CONTRACTOR ACCEPTS THE SPECIFICATIONS, AND GUARANTEES THAT THE WORK WILL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR FURTHER GUARANTEES THAT THE WORKMANSHIP AND MATERIAL WILL BE OF THE BEST PROCURABLE AND THAT NONE BUT EXPERIENCED WORKMEN EXPERIENCED IN EACH PARTICULAR CLASS OF WORK WILL BE EMPLOYED. CONTRACTOR FURTHER GUARANTEES TO REPLACE AND MAKE GOOD AT HIS OWN EXPENSE ANY DEFECTS DUE TO FAULTY WORKMANSHIP OR MATERIAL WHICH MAY DEVELOP WITHIN ONE (1) YEAR AFTER FINAL PAYMENT AND ACCEPTANCE BY THE ARCHITECT.

### 5. CODES AND STANDARDS

A. CONTRACTOR WILL COMPLY IN ALL RESPECTS WITH THE ADOPTED BUILDING CODES,
APPLICABLE LAWS, ORDINANCES, AND REGULATIONS AS MAY APPLY ACCORDING TO THE RULING
OF THE CONTROLLING PUBLIC OFFICIAL SHOULD THE CONTRACTOR PERFORM ANY WORK THAT
DOES NOT COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE LAWS, ORDINANCES AND
REGULATIONS, OR WHICH DOES NOT RECEIVE THE APPROVAL OF THE CONTROLLING PUBLIC
OFFICIAL, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING THE DEFICIENCIES. ALL
ELECTRICAL EQUIPMENT SHALL SHALL BEAR THE UNDERWRITER'S LABORATORY LABEL.

### 6. FEES ON PERMITS

A. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND MAKING PAYMENT FOR ALL FEES, PERMITS AND INSPECTIONS RELATING TO HIS WORK.

### 7. CONTRACT DRAWINGS

- A. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND INTENT OF THE DESIGN AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONDITIONS AND THE WORK OF OTHER TRADES WILL PERMIT. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES WHICH MAY BE REQUIRED, NOR IS IT IMPLIED THAT ALL CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE SYSTEMS OR BUILDING COMPONENTS HAVE BEEN INDICATED. THE CONTRACTOR SHALL INVESTIGATE ALL EXISTING CONDITIONS AFFECTING THE WORK AND ARRANGE HIS WORK ACCORDINGLY, PROVIDING SUCH FITTINGS, OFFSETS, ACCESSORIES AND DEVICES AS MAY BE REQUIRED. THE DRAWINGS AND SPECIFICATIONS ARE MUTUALLY COMPLEMENTARY, AND ANY WORK REQUIRED BY ONE BUT NOT BY THE OTHER SHALL BE PERFORMED BY BOTH. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND SERVICES REQUIRED FOR A COMPLETE AND WORKING PROJECT AT NO ADDITIONAL COST EVEN THOUGH EACH AND EVERY NECESSARY ELEMENT THEREOF IS NOT SPECIFICALLY IDENTIFIED HEREIN EACH AND EVERY NECESSARY ELEMENT THEREOF IS NOT SPECIFICALLY IDENTIFIED HEREIN.
- B. CONTRACTOR SHALL NOT SCALE FROM THE DRAWINGS BUT SHALL FOLLOW THE ARCHITECTURAL DRAWINGS OR EXISTING BUILDING CONDITIONS WHERE APPLICABLE, IN ESTABLISHING DIMENSIONS AND LINES OF RUN, SINCE DIMENSIONS ON THE FINAL ARCHITECTURAL DRAWINGS OR AT THE SITE MAY NOT COINCIDE WITH THOSE SHOWN ON THE ELECTRICAL DRAWINGS, THE CONTRACTORS SHALL VERIFY WITH THE DIMENSIONED ARCHITECTURAL DRAWINGS OR THE SITE CONDITIONS THE EXACT MATERIAL QUANTITIES AND LENGTHS NECESSARY.
- C. SIGNIFICANT DEVIATIONS OR CHANGES FROM THE DRAWINGS WHICH ARE REQUIRED TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS MUST BE REVIEWED WITH THE ARCHITECT AND APPROVED BEFORE PROCEEDING.

#### 8. SHOP DRAWINGS

- A. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, FOUR (4) COPIES MINIMUM, FOR ALL MANUFACTURED PRODUCTS. EACH SHOP DRAWING SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO ASSURE THAT ALL DIMENSIONS, QUANTITIES, CONNECTIONS, CAPACITATES AND ACCESSORIES SHOWN ARE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, AND SHALL BE MARKED OR STAMPED TO CONFIRM THAT SUCH REVIEW WAS MADE AND COMPLIANCE WAS CONFIRMED.
- B. APPROVAL OF SHOP DRAWINGS BY THE OWNER, OWNER'S AGENT, ARCHITECT, ENGINEER OR DESIGNER, WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF COMPLYING WITH ALL TERMS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PERFORMANCE OF ALL EQUIPMENT PURCHASED, FOR PROPER FIT, AND OTHER DIMENSIONAL REQUIREMENTS.

#### 9. RECORD DRAWINGS

A. CONTRACTOR SHALL MAINTAIN AT THE JOB SITE ONE SET OF DOCUMENTS AS "RECORD DRAWINGS" FOR THE PURPOSE OF DAILY MARKING OF ALL SUBSTANTIAL REVISIONS TO THE DOCUMENTS INCLUDING BUT NOT LIMITED TO ELECTRICAL CHANGES, AND LOCATIONS OF UTILITIES, PANELBOARDS, DISCONNECTS, STARTERS AND OTHER DEVICES REQUIRING PERIODIC OPERATIONAL ATTENTION, ADJUSTMENT, OR SERVICE INCLUDING ACCESS THERETO, AT THE COMPLETION OF THE PROJECT, THIS SET SHALL BE RETURNED TO THE ARCHITECT FOR THE PURPOSE OF MAKING FINAL "AS-BUILT DRAWINGS".

#### 10. EQUIPMENT SUBSTITUTION

- A. SPECIFIC MANUFACTURERS AND MODELS OF EQUIPMENT HAVE BEEN USED IN THE
  DEVELOPMENT OF THE DRAWINGS AND DESIGNS. THIS CONTRACTOR MUST SUBMIT TO THE
  OWNER ANY CHANGES AND/OR SUBSTITUTIONS FOR APPROVAL PRIOR TO INSTALLATION OR
  EXECUTION. ANY CHANGES WHICH DO NOT RECEIVE THE OWNER'S APPROVAL MAY BE SUBJECT
  TO REMOVAL OR REPLACEMENT AS ORIGINALLY SPECIFIED, AND WILL BE AT THE CONTRACTOR'S
  EXPENSE
- B. IF THIS CONTRACTOR SUBSTITUTES FOR SPECIFIED EQUIPMENT ANY OTHER EQUIPMENT WHICH REQUIRES ANY CHANGES TO THE DESIGN, ALL COST OF REDESIGN AND RECONFIGURATION RESULTING FROM SAID SUBSTITUTION SHALL BE BORNE BY THE SUBMITTING CONTRACTOR.

#### 11. EQUIPMENT INSTALLATION AND SUPPORT

- A. CONTRACTOR SHALL SUPPORT PLUMB, RIGID AND TRUE--TO--LINE ALL WORK AND EQUIPMENT INSTALLED. THIS CONTRACTOR SHALL DETERMINE HOW EQUIPMENT, FIXTURES, ETC., ARE TO BE SUPPORTED, MOUNTED, OR SUSPENDED AND SHALL PROVIDE ACCESSORIES REQUIRED FOR PROPER SUPPORT WHETHER SHOWN ON THE DRAWINGS OR NOT. IF SUPPORTS ARE REQUIRED, CONTRACTOR SHALL SUBMIT DRAWINGS TO THE ARCHITECT FOR APPROVAL.
- B. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTALLATION AND MAINTENANCE LITERATURE. COMPONENTS REQUIRING PERIODIC MAINTENANCE OR ADJUSTMENTS SHALL BE LOCATED OR INSTALLED AS TO PERMIT ACCESS WITHOUT DAMAGE TO STRUCTURE, FINISHES OR OTHER EQUIPMENT.
- C. ALL CONDUIT CONNECTING TO SWITCHGEAR, PANELS, MOTORS, AND OTHER EQUIPMENT SHALL BE INSTALLED WITHOUT STRAIN AT THE CONNECTIONS. THE CONTRACTOR MAY BE REQUIRED, AS DIRECTED, TO DISCONNECT CONDUITS TO DEMONSTRATE THAT THEY HAVE BEEN SO CONNECTED.

### 12. DEMOLITION

A. ALL EXISTING EQUIPMENT, NOT INDICATED TO BE INCORPORATED INTO THE NEW SYSTEM SHALL BE DISCONNECTED BY THIS CONTRACTOR FOR REMOVAL BY OTHERS FROM THE JOB SITE. CARE SHALL BE USED SO THAT NO DAMAGE IS DONE TO EXISTING BUILDING, PIPING, DUCTWORK, AND/OR ELECTRICAL EQUIPMENT. ANY DAMAGE ATTRIBUTED TO THIS CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THIS CONTRACTOR.

### 13. CUTTING AND PATCHING

- A. ALL CUTTING THAT MAY BE NECESSARY FOR THE INSTALLATION OF THE WORK OR ANY REQUIRED PATCHING THAT RESULTS THEREFROM SHALL BE DONE BY THE PROPER TRADE INVOLVED AND SHALL BE INCLUDED AS PART OF THIS CONTRACT. PATCH TO DUPLICATE UNDISTURBED ADJACENT FINISHES, COLORS, TEXTURES AND PROFILES. COLUMNS, BEAMS, GIRDERS OR JOISTS SHALL NOT BE CUT.
- B. ALL WORK AFFECTING ROOF OR STRUCTURES SHALL BE PERFORMED BY LANDLORD'S CONTRACTOR AT TENANT'S EXPENSE.

### 14. CLEANING

A. COMPLETION AS IT PERTAINS TO THE CONTRACT COMPLETION DATE IS DEFINED AS THE DAY THE PROJECT IS TURNED OVER TO THE OWNER IN THOROUGHLY CLEAN CONDITION. READY FOR THE OWNER TO TAKE POSSESSION. ALL FIXTURES, MOTORS, EQUIPMENT AND ALL OTHER ELECTRICAL EQUIPMENT FURNISHED OR INSTALLED BY THE CONTRACTOR SHALL BE THOROUGHLY CLEANED.

### 15. <u>TESTS</u>

A. PROVIDE THE TESTS AS OUTLINED HEREINAFTER AND OTHER TESTS NECESSARY TO ESTABLISH THE ADEQUACY, QUALITY, SAFETY, COMPLETED STATUS AND SUITABLE OPERATION OF EACH SYSTEM. CORRECT PROMPTLY ANY FAILURE OR DEFECTS REVEALED BY THESE TESTS AND RECONDUCT TEST ON THE CORRECTED ITEMS.

### B. TEST THE GROUNDS WITH A GROUND RESISTANCE DIRECT READING SINGLE--TEST MEGGER.

- C. INSULATION RESISTANCE BETWEEN PHASE CONDUCTORS AND GROUND NOT LESS THAN 1,000,000OHMS.
- D. THE PANELBOARDS SHALL HAVE PHASE CURRENTS BALANCED TO WITHIN +/-- 10% VARIATION BETWEEN AVERAGE PHASE CURRENT AND MEASURED INDIVIDUAL PHASE.
- E. AN OPERATIONAL TEST OF THE EMERGENCY LIGHTS AND THE EXIT LIGHTS SHALL BE PERFORMED FOR THE OWNER TO DEMONSTRATE CONFORMANCE TO THE SPECIFICATIONS.

#### 16. TEMPORARY ELECTRICAL SERVICE

- A. TEMPORARY ELECTRICAL SERVICE SHALL BE IN ACCORDANCE WITH THE BUILDING CODE.

  TEMPORARY LIGHTING SHALL BE PROVIDED BY A LAMP LOCATED FOR EVERY 625 SQUARE
  FEET OF BUILDING AREA WITH A MINIMUM OF ONE PER ROOM. THE LAMP TO BE 100 WATT
  AND SHALL BE MAINTAINED BY THE GENERAL CONTRACTOR.
- B. TEMPORARY POWER DISTRIBUTION SHALL BE SUFFICIENT TO ACCOMMODATE THE TEMPORARY FOR CONSTRUCTION", DIVISION 1 GENERAL CONDITIONS AND SECTION 16100 ELECTRICAL SPECIAL CONDITIONS GOVERN WORK UNDER THIS SECTION.
- B. INTO OUR USE PRIOR TO COMPLETION OF ITS PERMANENT POWER CONNECTIONS.

#### 17. EXCAVATION AND BACKFILL

A. CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED AS SHOWN ON PLANS OR REQUIRED FOR PROPER OPERATION. EXCESS EXCAVATION BELOW THE REQUIRED LEVEL SHALL BE BACKFILLED WITH EARTH AND THOROUGHLY TAMPED. UTILITY SERVICES, SHALL BE INSPECTED AND APPROVED BY THE PROPER INSPECTION AUTHORITY BEFORE BACKFILLING.

#### SECTION 16200 ELECTRICAL POWER AND LIGHTING

#### 1. RELATED DOCUMENTS

A. APPLICABLE PROVISIONS OF AIA DOCUMENT A201, "GENERAL CONDITIONS OF THE CONTRACT LIGHTING AND CONSTRUCTION OPERATIONS, INCLUDING THE USE OF POWER TOOLS (BUT NOT INCLUDING HEAVY--DUTY ELECTRICAL WELDING UNITS), ELECTRICAL HEATING UNITS, AND START--UP OF SPECIFIED BUILDING EQUIPMENT, WHICH IS TO BE TESTED, STARTED OR PLACED REFER TO SECTION 16100 ELECTRICAL SPECIAL CONDITIONS REGARDING REGULATIONS AND REQUIREMENTS AFFECTING ALL WORK DESCRIBED IN THIS SECTION.

#### 2. POWER SERVICE

A. POWER SERVICE FOR THIS PROJECT SHALL BE PROVIDED FROM THE UTILITY CO. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TO INSURE THAT ALL WORK AND MATERIALS ARE IN CONFORMANCE WITH THE UTILITY CO'S REQUIREMENTS.

#### 3. NAMEPLATES

- A. ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, PANELBOARDS, DISCONNECTS TRANSFORMERS, CONTROLS, ETC., SHALL BE IDENTIFIED WITH THREE PLY LAMINATED PLASTIC. THE OUTSIDE LAMINATIONS SHALL BE BLACK. ENGRAVING SHALL EXTEND THROUGH THE FRONT LAMINATION SO THAT THE BLACK LETTERS APPEAR ON A WHITE BACKGROUND. NAMEPLATES SHALL BE PERMANENTLY ATTACHED WITH SCREWS.
- B. CIRCUIT DIRECTORY SHALL BE TYPEWRITTEN (HANDWRITTEN IS NOT ACCEPTABLE) AND SHALL IDENTIFY CIRCUIT AS TO TYPE AND LOCATION AS FOLLOWS:
- "LTG" -- FOR LIGHTING CIRCUIT FOLLOWED BY AREA IN WHICH CIRCUIT APPEARS, I.E., "STOCKROOM", "CASH WRAP", ETC.
- "RECEPT" -- FOR RECEPTACLE CIRCUIT FOLLOWED BY AREA IN WHICH RECEPTACLE APPEARS, "STOREFRONT", "CASH REGISTER", ETC.
- "MOTOR" -- FOR MOTOR FOLLOWED BY THE EQUIPMENT IDENTIFICATION AND AREA IN WHICH
  MOTOR IS LOCATED, I.E. "EXH FAN TOILET", "AHU--ROOF", ETC.

### 4. CO<u>NDUIT</u>

- A. CONDUIT SHALL BE STANDARD STEEL, RIGID IMC OR EMT (THIN WALL). CONDUIT SHALL BE CONCEALED IN FINISHED AREAS. EXCEPT AS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE. INDOOR EMT CONNECTIONS SHALL BE SET SCREW TYPE FITTING WHERE ALLOWED BY LOCAL AUTHORITY HAVING JURISDICTION. EXTERIOR EMT CONNECTIONS SHALL BE COMPRESSION TYPE.
- B. MINIMUM SIZES OF CONDUIT SHALL BE 3/4" EXCEPT 1/2" FOR SWITCH LEGS. EMT SHALL BE GALVANIZED OR ELECTRO--GALVANIZED. EMT SHALL BE USED FOR FEEDERS AND BRANCH CIRCUITS RUN ABOVE SUSPENDED CEILINGS OR CONCEALED IN INTERIOR PARTITIONS. EMT SHALL NOT BE CONCEALED IN POURED CONCRETE FLOOR OR WALLS.

### C. USE HEAVY WALL CONDUIT OR PVC FOR UNDER SLAB INSTALLATIONS.

- D. THE USE OF NONMETALLIC--SHEATHED CABLE, TYPE NM, AND TYPE USE WITH GROUND WIRE CABLES ARE NOT ACCEPTABLE.
- 1. THE USE OF METAL CLAD CABLES IS NOT ACCEPTABLE FOR BRANCH CIRCUIT HOME RUNS TO PANELBOARDS AND DEDICATED BRANCH CIRCUITS.
- E. ALL OPENINGS IN FIRE AND SMOKE WALLS, PARTITIONS, FLOORS AND OTHER SIMILAR PENETRATIONS FOR ELECTRICAL CONDUITS, CABLE OR EQUIPMENT, WHETHER CUT OR IN PLACE, SHALL BE CLOSED WITH A UL APPROVED FIRE RESISTANT SILICONE FOAM SEALANT TO MAINTAIN THE FULL RATING AND INTEGRITY OF THE PARTITIONS, WALLS OR FLOOR.
- F. CONDUIT BENDS FOR POWER AND LIGHTING CIRCUITS SHALL NOT BE LESS THAN STANDARD RADIUS BENDS. CONDUIT BENDS FOR FEEDERS, TELEPHONE AND COMMUNICATION CIRCUITS SHALL NOT BE LESS THAN LONG RADIUS BENDS.
- G. O.Z. TYPE DX, TX, OR AX CONDUIT EXPANSION DEFLECTION FITTINGS ARE REQUIRED IN ALL CONDUIT RUNS WHERE MOVEMENT MAY BE ENCOUNTERED. ALL EMT COUPLINGS SHALL BE COMPRESSION TYPE.
- H. EXPOSED CONDUIT SHALL BE SECURELY SUPPORTED IN PLACE PER CODE BUT ON A MAXIMUM OF 10 FOOT INTERVALS, WITHIN THREE FEET OF EACH BEND, AT EVERY OUTLET OR JUNCTION BOX AND AT THE END OF EACH STRAIGHT RUN TERMINATING AT A BOX OR CABINET. CONDUIT SHALL NOT BE SUPPORTED FROM DUCTWORK OR PIPE WORK. CONDUITS SHALL BE RUN PARALLEL TO AND AT RIGHT ANGLES TO THE BUILDING LINES. GENERALLY, CONDUIT SHALL BE RUN IN CONTACT WITH STRUCTURAL PARTS OF THE BUILDING SO AS TO AVOID SUSPENDED LENGTHS OF CONDUIT. CONDUIT SHALL BE INSTALLED AS TO BE ACCESSIBLE FOR REPLACEMENT AND MAINTENANCE AND GENERALLY CONDUIT SHALL BE INSTALLED TO PERMIT DRAINAGE.

#### 5. WIRE AND CABLE

- A. ALL WIRE AND CABLE SHALL BE COPPER AND RUN IN CONDUIT. ALL WIRE AND CABLE FEEDERS AND BRANCH CIRCUITS SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE CURRENT EDITION OF THE N.E.C. AND SHALL MEET ALL ASTM SPECIFICATIONS. WIRE AND CABLE SHALL BE NEW, SHALL HAVE SIZE, GRADE OF INSULATION VOLTAGE AND MANUFACTURER'S NAME PERMANENTLY MARKED ON OUTER COVERING AT REGULAR INTERVAL AND SHALL BE DELIVERED IN COMPLETE COILS OR REELS WITH IDENTIFYING SIZE AND INSULATION TAGS.
- B. THE ELECTRICAL CONTRACTOR SHALL CALCULATE VOLTAGE DROP ON CONDUCTORS WITH LENGTHS GREATER THAN 75 FEET FROM THE PANELBOARD AND PROPERLY SIZE THE CONDUCTORS PER N.E.C.
- C. POWER CONDUCTORS: NO WIRE LESS THAN NO. 12 SHALL BE USED EXCEPT FOR CONTROL CIRCUITS OR LOW VOLTAGE WIRING. WIRE SIZES NO. 12 TO NO. 10 SHALL BE SOLID EXCEPT WHERE OTHERWISE INDICATED. WIRE SIZES NO. 8 AND LARGER SHALL BE STRANDED. ALL WIRE SIZES SHOWN ARE AMERICAN WIRE GAUGE SIZES. SIZES NO. 12 AWG THROUGH NO. 8 AWG SHALL BE "THHN." SIZE 4 AWG AND LARGER SHALL BE "THW."
- D. CONTINUITY: ALL WIRES SHALL BE CONTINUOUS FROM OUTLET TO OUTLET.
- E. ACCEPTABLE MANUFACTURERS: CABLE AND WIRE SHALL BE STANDARD TYPE AS MANUFACTURED BY GENERAL CABLE COMPANY, CAROL, ANACONDA, ROM OR ITT ROYAL.

#### 6. COLOR CODING

- A. A COLOR CODING SYSTEM AS LISTED BELOW SHALL BE FOLLOWED THROUGHOUT FOR FEEDERS AND BRANCH CIRCUITS AND USED AS A BASIS FOR BALANCING LOAD.
- ----120/208V: PHASE A----BLACK, PHASE B----RED, PHASE C----BLUE, NEUTRAL----WHITE, GROUND----GREEN
- ----277/480V: PHASE A----BROWN, PHASE B----ORANGE, PHASE C----YELLOW, NEUTRAL----GRAY, GROUND-----GREEN

#### 7. BOXES AND FITTINGS

- A. ALL OUTLETS SHALL BE PROVIDED WITH GALVANIZED OR SHERARDIZED BOXES SUITABLE IN DESIGN TO THE SPACE THEY OCCUPY AND THE PURPOSE THEY SERVE. WALL MOUNTED OUTLET BOXES, EXCEPT FOR 2" PARTITIONS SHALL BE AT LEAST 1 1/2" DEEP AND/OR DEEPER IF REQUIRED BY THE DEVICE THEY HOLD OR THE NATIONAL ELECTRICAL CODE.
- B. ALL PULLBOXES SHALL BE MADE OF GALVANIZED STEEL, OF METAL GAUGE AND PHYSICAL SIZE AS REQUIRED BY THE N.E.C. FOR THE NUMBER AND SIZE OF RACEWAYS AND CONDUCTORS INVOLVED.
- C. FIXTURE OUTLET BOXES IN OR ON CEILINGS SHALL NOT BE LESS THAN 1--1/2" DEEP OR LESS THAN 4" SQUARE. ALL OUTLET BOXES INTENDED TO SUPPORT FIXTURES SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS FASTENED THROUGH THE BOTTOM OF THE BOX WITH FOUR BOLTS.

#### 8. ÇIRCUIT BREAKER PANELBOARDS

- A. PANELS SHALL BE DEAD FRONT, SAFETY TYPE, FURNISHED WITH BRANCH CIRCUIT PROTECTING DEVICES, EQUIPMENT GROUNDING BOX, MAIN BUS AND CABLE LUGS FACTORY ASSEMBLED, WITH ALL COMPONENTS IN PLACE, READY FOR INSTALLATION.
- B. CURRENT CARRYING CONTACT SURFACES SHALL BE SILVER OR TIN PLATED. THE CIRCUIT BREAKERS SHALL BE OF THE MOLDED CASE, PLUG--IN TYPE SUITABLE FOR VOLTAGE AND AMPERE RATINGS INDICATED ON DRAWINGS AND IN SCHEDULES AND SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 22,000 AMPERES FOR 120/208V AND 25,000 AMPERES AT 277/480V
- C. MAIN BUSES AND CONNECTORS SHALL BE HARD DRAWN COPPER OF 98% CONDUCTIVITY, WITH CURRENT CARRYING CAPACITY TO MAINTAIN ESTABLISHED RISE TESTS AS DEFINED IN UL STANDARD
- UL
  D. CA67.BINET SIZES ARE BASED UPON A 20" WIDE BY 6" DEEP PANEL UNLESS OTHERWISE NOTED.
  PANELBOARDS SHALL BE EQUIPPED WITH FLUSH TYPE LOCK AND CATCH.
  SHALL BE KEYED ALIKE, AND TWO KEYS ARE TO BE SUPPLIED WITH EACH LOCK.
- E. BREAKERS SERVING LIGHTING CIRCUITS SHALL BE RATED FOR SWITCH DUTY.
- F. BREAKERS SERVING COOLER, FREEZER AND HVAC EQUIPMENT SHALL BE HACR RATED.

  G. ALL LUGS SHALL BE OF THE SOLDERLESS TYPE AND RATED AT A MINIMUM OF 75 DEGREES.
- H. PROVIDE PANEL DIRECTORY, TYPED AND INSTALLED BEHIND CLEAR PLASTIC COVER ON INSIDE OF THE DOOR.

I. PANELBOARDS TO BE BY SQUARE D, GENERAL ELECTRIC, SIEMENS OR EATON.



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PROJECT #:

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### SHERWIN WILLIAM

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9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

ELECTRICAL SPECIFICATIONS

SHEET NUMBER:

#### 9. TRANSFORMERS

- A. DRY--TYPE TRANSFORMERS (DOE 2016) SHALL BE OF THE ENCLOSED VENTILATED TYPE WITH KVA AND VOLTAGE RATING AS CALLED FOR ON THE DRAWINGS AND WITH 150° CLASS H INSULATION AND MINIMUM OF SIX STANDARD FULL CAPACITY TAPS. SOUND LEVEL SHALL BE LOW AND INSTALLATION SHALL INCLUDE KORFUND OR EQUAL VIBRATION DAMPENING MOUNTS AND FLEXIBLE STEEL CONDUIT FOR PRIMARY AND SECONDARY. (MOUNT TRANSFORMER ON VIBRATION ISOLATORS). LOCATE TRANSFORMER AS NOT TO CAUSE SERVICING OR CLEARANCE DIFFICULTIES OF VIOLATIONS WITH OTHER EQUIPMENT.
- B. COMPARABLE EQUIPMENT AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, SIEMENS OR

#### 10. TOGGLE SWITCHES

A. TOGGLE SWITCHES SHALL BE WHITE AND SHALL BE RATED 20 AMPERES 120/277 VOLT AC TYPE AS MANUFACTURED BY HUBBELL AND SHALL BE AS FOLLOWS:

SINGLE POLE -- 1221--W THREE WAY -- 1223--W

- B. TOGGLE SWITCHES SHALL BE MOUNTED 4'--0" ABOVE FINISHED FLOOR TO TOP OF MOUNTING PLATE AND, AT DOORS, INSTALLED ADJACENT TO THE TRIM ON THE STRIKING SIDE OF THE DOOR, REGARDLESS OF THE LOCATION INDICATED ON THE DRAWINGS; THEREFORE, CHECK ALL DOOR SWINGS BEFORE INSTALLATION OF CONDUIT OUTLETS.
- C. COMPARABLE EQUIPMENT AS MANUFACTURED BY COOPER WIRING, SLATER, LEVITON, AND BRYANT WILL BE ACCEPTABLE.

#### 11. RECEPTACLES

- A. RECEPTACLES SHALL BE WHITE AS MANUFACTURED BY HUBBELL AND SHALL BE AS FOLLOWS:
  DUPLEX RECEPTACLE -- 20A--125 VOLT 5362--W
- B. RECEPTACLES SHALL BE MOUNTED 18" ABOVE THE FINISHED FLOOR TO BOTTOM OF BOX UNLESS OTHERWISE NOTED.
- C. COMPARABLE EQUIPMENT AS MANUFACTURED BY COOPER WIRING, SIERRA ELECTRIC CORPORATION, SLATER, BRYANT AND LEVITON WILL BE ACCEPTABLE.

#### 12. DEVICE PLATES

- A. DEVICE PLATES SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED. COMPARABLE EQUIPMENT AS MANUFACTURED BY COOPER WIRING, SIERRA ELECTRIC CORPORATION, HARVEY HUBBLE INC., BRYANT AND LEVITON WILL BE ACCEPTABLE. PAINT MATCH ADJACENT FINISH COLOR.
- B. GRAY PLATES TO BE INSTALLED ON SINGLE DEVICE, DEDICATED CIRCUITS.

GFCI DUPLEX RECEPTACLE -- 20A--125 VOLT GF5362--W

#### 13. DISCONNECT SWITCHES

A. FURNISH AND INSTALL DISCONNECT SWITCHES AS REQUIRED BY CODE. DISCONNECT SWITCHES SHALL BE NEMA HEAVY DUTY TYPE AND UNDERWRITERS LABORATORIES LISTED, MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, EATON OR SIEMENS.

#### 14. GROUNDING

- A. CONTRACTOR SHALL INSTALL GROUNDING PER N.E.C. ARTICLE 250 EQUIPMENT GROUNDING SHALL USE ONLY APPROVED GROUNDING CLAMPS AND CONNECTORS AS MANUFACTURED BY PENN--UNION, BURNDY, OR O--Z MFG. COMPANY.
- B. GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250 AND THE UTILITY COMPANY REGULATIONS. CONTRACTOR SHALL CONNECT THE GROUNDING ELECTRODE CONDUCTORS TO THE NEUTRAL BAR INSIDE THE MAIN PANEL.
- C. THE EQUIPMENT GROUNDING SYSTEM SHALL CONSIST OF A CONTINUOUS CONDUIT INSTALLATION AND A GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR. THIS GROUNDING CONDUCTOR SHALL BE INSTALLED IN EVERY CONDUIT OR RACEWAY WITH THE FEEDER OR BRANCH CIRCUIT CONDUCTORS. THIS GROUNDING SHALL BE EXTENDED FROM THE HOUSING OF EVERY ELECTRICAL LOAD, THROUGH PANELBOARD STATIC GROUNDING BUSSES, TO THE STATIC GROUNDING BUS IN THE MAIN PANEL. THE GROUNDING BUS SHALL BE BONDED TO THE GROUNDING NEUTRAL BAR INSIDE THE MAIN PANEL.

### 15. <u>LIGHTING FIXTURES</u>

- A. ALL LIGHTING FIXTURES AND LAMPS SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE, THIS CONTRACTOR SHALL INSTALL LIGHTING FIXTURES AND LAMPS AS INDICATED ON THE DRAWINGS AND AS SPECIFIED BELOW, COMPLETE WITH HANGERS, PLASTER FRAMES AND ALL OTHER NECESSARY ACCESSORIES.
- B. ALL BALLAST, STARTERS AND LAMPHOLDERS IN FLUORESCENT LIGHTING EQUIPMENT ARE TO BE ELECTRICAL TESTING LABORATORIES, UNDERWRITERS LABORATORIES AND CERTIFIED BALLAST MANUFACTURERS APPROVED. ALL BALLAST FOR FLUORESCENT FIXTURES SHALL BE OF THE HIGH POWER FACTOR TYPE AND SHALL BE GENERAL ELECTRIC "MAXI--MISER II" OR ADVANCED MARK III. WHERE OCTRON LAMPS ARE SPECIFIED PROVIDE APPROPRIATE BALLASTS.
- C. THIS CONTRACTOR SHALL VERIFY THE FINAL CEILING AND FINISH SCHEDULES TO INSURE THE PROPER INSTALLATION AND MOUNTING OF FIXTURES AND SHALL COORDINATE BEFORE MAKING SUBMITTALS.

### 16. LIGHTING CONTROLS

- A. PANEL #GR1408LTENC--xMNE1--GR1408--DTCMOD WITH 8 RELAYS AND BUILT--IN TIME CLOCK AND AS MANUFACTURED BY LC&D.
- B. TIME SWITCHES SHALL BE 24 HOUR, 7 DAY, DAY SKIPPER 365 DAYS AND HOLIDAYS TYPE AS MANUFACTURED BY TORK, INTERMATIC, OR PARAGON.

## 17. TELEPHONE SERVICE

A. THIS CONTRACTOR SHALL INSTALL A TELEPHONE SERVICE CONDUIT AS SHOWN ON THE DRAWINGS AND FURNISH AND INSTALL (1) 3'  $\times$  4'  $\times$  3/4" PLYWOOD PANEL MOUNTED ON THE WALL AT LOCATION SHOWN ON PLANS.

### 18. SURFACE METAL RACEWAY

A. SURFACE METAL RACEWAY SHALL BE TWO PIECE #2100 AS MANUFACTURED BY WIREMOLD. ALL NECESSARY ACCESSORIES REQUIRED TO FIT THE CONFIGURATION SHOWN SHALL BE PROVIDED. RECEPTACLES SHALL BE 120 VAC, 23 APMS, CATALOG NUMBER #2127GT.

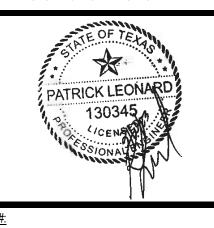


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SHERWIN WILLIAMS

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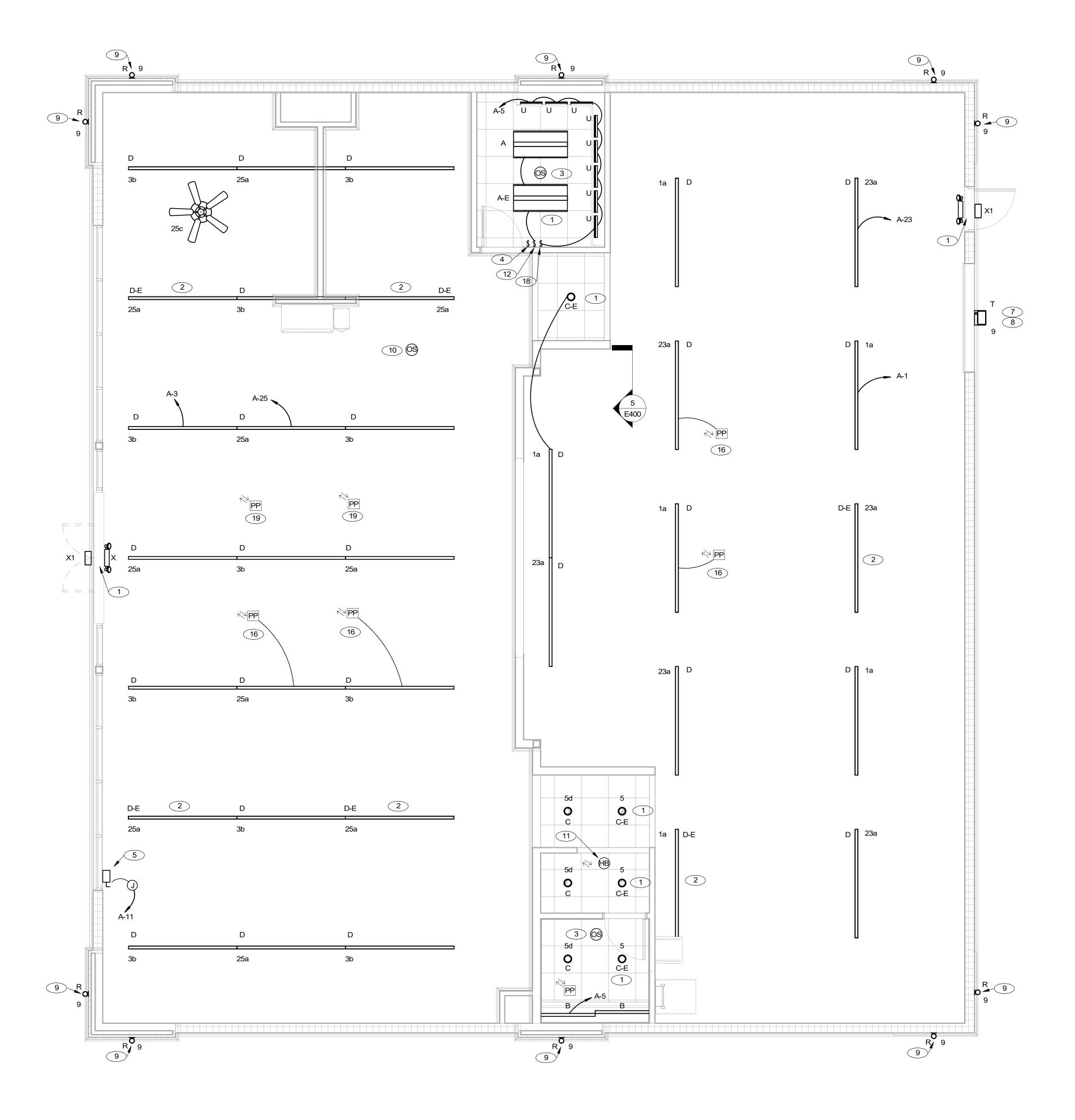
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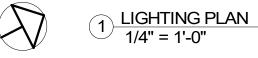
SHEET TITLE:

ELECTRICAL SPECIFICATIONS

SHEET NUMBER:

E10<sup>2</sup>





# **GENERAL NOTES:**

EC SHALL REFER TO AND COORINDINATE ALL FIXTURE LOCATIONS, HEIGHTS AND TYPE WITH A130.

# SHEET NOTES

- 1 CONNECT EMERGENCY EGRESS LIGHTING FIXTURES AHEAD OF ALL LIGHTING CONTROLS OF GENERAL LIGHTING CIRCUIT SERVING AREA.
- 2 NIGHT LIGHTING TO BE CONNECTED TO UNSWITCHED LEG OF CIRCUIT SERVING SPACE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN AND INSTALLATION.
- 3 E.C. TO PROVIDE LUTRON #LFR2-OCR28-0-WH OCCUPANCY SENSOR FOR CONTROL OF AREA LIGHTING AT CEILING MOUNTED HEIGHT OR AS DIRECTED BY G.C. INSTALL PER MANUFACTURER SPECIFICATIONS.
- 4 LOCATION OF MAIN LIGHTING SWITCHBANK. REFER TO SWITCHBANK DETAIL ON SHEET E400 FOR ADDITIONAL INFORMATION. PROVIDE PERMANENT LABELS.
- 5 E.C. TO PROVIDE 20A1P, 120V POWER FOR SIGN. PROVIDE NON-FUSED DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING. PROVIDE DEDICATED CIRCUIT #10 COPPER GROUND WIRE FROM EQUIPMENT GROUND BUS IN PANEL FOR CIRCUIT SERVING SIGN. SEE DETAIL ON SHEET E400 FOR VIVE LIGHTING CONTROL SYSTEM. DO NOT USE CONDUIT AS GROUND. FIELD VERIFY EXACT LOCATION OF ROUGH-IN WITH OWNER REPRESENTATIVE. COORDINATE AND VERIFY EXACT REQUIREMENTS WITH SIGNAGE VENDOR PRIOR TO ROUGH-IN. MOUNT ABOVE DOOR, SHOWN OFFSET FOR CLARITY.
- 6 NOT IN USE.
- EXTERIOR LIGHTING CIRCUITS CONTROLLED THROUGH 7 LUTRON VIVE HUB LIGHTING CONTROL SYSTEM. VERIFY EXACT FIXTURE MOUNTING HEIGHT PRIOR TO ROUGH-IN AND INSTALLATION.
- 8 EXTERIOR WALL MOUNTED LED FIXTURE TO BE INSTALLED ABOUVE OVERHEAD DOOR. LIGHT SHALL BE CONTROLLED VIA PHOTO-EYE SWITCH. COORDINATED EXACT LOCATION WITH G.C PRIOR TO INSTALLATION.
- 9 COORDINATE FIXTURE MOUNTING HEIGHT WITH ARCHITECTURAL PLANS AND G.C.
- 10 E.C. TO PROVIDE LUTRON #LRF2-DCRB-WH DAYLIGHT SENSOR FOR CONTROL OF LIGHTING IN DAYLIGHT ZONE. ALL LIGHTING WITHIN SPECIFIED AREA TO BE PROVIDED WITH AUTOMATIC CONTROL DIMMING VIA DAYLIGHTING SENSOR SWITCH. TWO HOUR MANUAL OVERRIDE CONTROL SHALL BE PROVIDED AT SWITCH BANK. DAYLIGHTING SHALL BE DESIGNATED AS CONTROL ZONE "N".
- 11 E.C. TO PROVIDE LUTRON #HJS-0-GM HUB ABOVE CEILING FOR CONTROL OF AREA LIGHTING.
- 12 E.C. TO PROVIDE LUTRON #PJ2-4B-GWH-L01 (CW-1-WH) PICO 4 BUTTON CONTROL FOR LIGHTING CONTROL SWITCHING. CONNECT TO ASSOCIATED POWER PACK DIMMING MODULE FOR CONTROL DIMMING OF LIGHTING.
- 13 NOT IN USE.
- 14 NOT IN USE.
- 15 NOT IN USE.
- 16 PROPOSED LOCATION OF LUTRON #RMJS-8T-DV-B DIMMING MODULE FOR 0-10V DIMMING CONTROL OF LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN.
- 17 PROPOSED LOCATION OF LUTRON #RMJS-5R-DV-B POWER PACK RELAY MODULE FOR CONTROL OF AREA LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN.
- 18 E.C. TO PROVIDE LUTRON #MRF2S-6ELV120-WH WIRELESS DIMMING CONTROL SWITCHING FOR CONTROL OF UNDER COUNTER TASK LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND MANUFACTURER SPECIFICATIONS.
- 19 PROPOSED LOCATION OF LUTRON #RMJS-20R-DV-B RECEPTACLE CONTROL RELAY MODULE. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN. COORDINATE WITH SHEET E300.

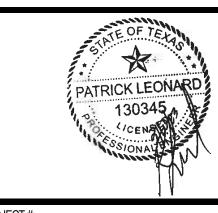


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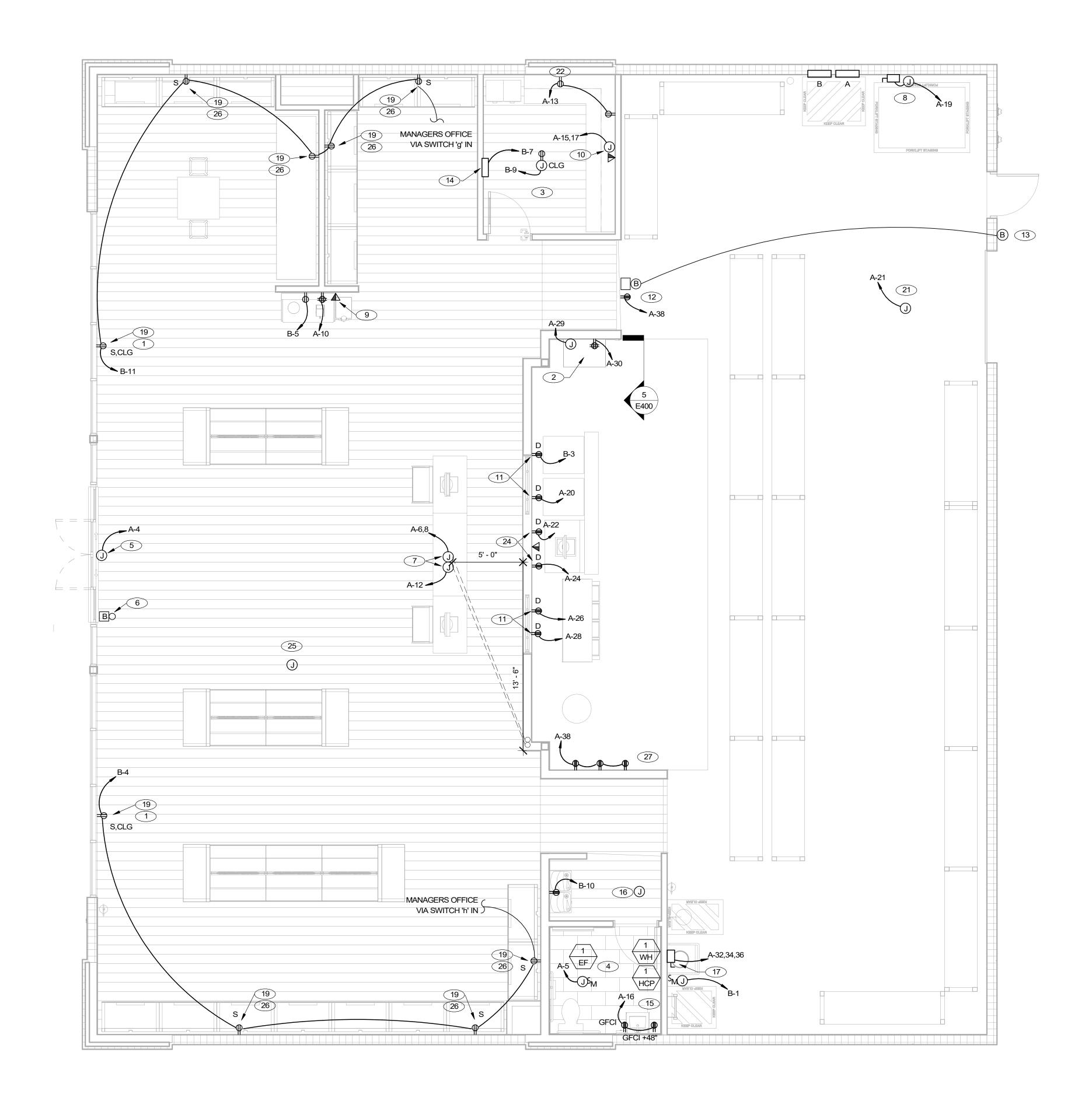
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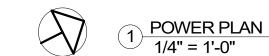
SHEET TITLE:

LIGHTING PLAN

# **SHEET NOTES**

- 1 E.C. TO PROVIDE DUPLEX RECEPTACLE MOUNTED IN SOFFIT ABOVE WINDOW FOR SHOW WINDOW REQUIREMENTS PER NEC 210.62 FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN AND INSTALLATION.
- 2 E.C. TO INSTALL TTB / PHONE BOARD FOR CONNECTION TO LOW VOLTAGE EQUIPMENT AND DATA REQUIREMENTS. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN AND INSTALLATION. INSTALL PER MANUFACTURER RECOMMENDATIONS. SEE DATA SWITCH BOARD DETAIL 5 ON SHEET E400 FOR ADDITIONAL INFORMATION.
- 3 E.C. TO PROVIDE J-BOX IN OFFICE FOR INSTALLATION OF CEILING MOUNTED DUPLEX OUTLET. VERIFY EXACT LOCATION WITH G.C. PRIOR TO ROUGH-IN AND INSTALLATION.
- 4 BATHROOM EXHAUST FAN TO BE AUTOMATICALLY CONTROLLED WITH AREA OCCUPANCY LIGHTING SENSOR. COORDINATE INSTALLATION WITH M.C.
- 5 E.C. TO PROVIDE J-BOX AT 10'-0" A.F.F. OR AS DIRECTED BY G.C. FOR CONNECTION TO AUTOMATIC DOOR CONTROL. VERIFY CONNECTION REQUIREMENTS AND INSTALL PER MANUFACTURER SPECIFICATIONS.
- 6 E.C. TO PROVIDE LOW VOLTAGE CONDUIT FROM AUTOMATIC DOOR SENSOR TO OFFICE FOR FUNCTION OF DOOR CONTROL COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER SPECIFICATIONS.
- 7 THE LANDLORD SHALL INSTALL PULL BOXES RECESSED INTO THE SLAB IN THE SALES AREA. THE CONDUITS AND FEEDS FOR THE PULL BOXES SHALL EXTEND FROM A WALL AND UNDER THE SLAB. PULL BOX "A" SHALL RECEIVE TWO DEDICATED, 20-AMP, SINGLE PHASE, 120 VOLT CIRCUITS AND ONE STANDARD SINGLE PHASE, 120 VOLT CIRCUIT. PULL BOX "B" SHALL RECEIVE (2) 1-1/4 INCH CONDUITS WITH PULL WIRES FROM THE PULL BOX AND TERMINATE AT THE SATELLITE BOARD.
- 8 E.C. TO PROVIDE J-BOX AND DISCONNECT AT +48" A.F.F. OR AS DIRECTED BY FOR CONNECTION TO FORKLIFT CHARGING STATION. REFER TO MANUFACTURERS DOCUMENTATION FOR INSTALATION INSTRUCTIONS
- 9 E.C. TO INSTALL DUPLEX AND DATA OUTLET AT +83" A.F.F. TO TOP OF RECESSED ELECTRICAL BOX. REFER TO NOTE #2 AND #3, DETAIL #6 ON SHEET A300 FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATIONS WITH G.C. PRIOR TO ROUGH-IN AND INSTALLATION.
- E.C. TO PROVIDE J-BOX AS DIRECTED BY G.C. ABOVE COUNTER FOR CONNECTION TO (2) OFFICE RACEWAYS. RACEWAY TO BE INSTALLED BY G.C. / E.C. VERIFY SCOPE OF WORK PRIOR TO BID.
- 11 RECEPTACLES AT AREA INDICATED ON PLANS TO BE 'D' TYPE OUTLET MOUNTED AT +40" A.F.F. EACH RECEPTACLE SHALL BE DEDICATED 20A, 1P, 120V CIRCUIT WITH GRAY DUPLEX RECEPTACLE AND COVER PLATE PER ARCHITECT SPECIFICATIONS.
- 12 INSTALL OPTEX CHIME SYSTEM RECEIVER UNIT. BUZZER AND REQUIRED STANDARD OUTLET ON STAGING WALL AT +108" PROVIDE CONNECTION TO EXTERIOR WEATHERPROOF BUZZER BUTTON AS SHOWN. CHIME RECEIVER SHALL BE OPTEX MODEL #RCTD-20U. BUZZER SHALL BE EDWARDS COMPANY MODEL #725.
- 13 EXTERIOR WEATHERPROOF BUZZER BUTTON TO BE INSTALLED ON THE EXTERIOR WALL BETWEEN THE OVERHEAD DOOR AND THE ADJACENT PERSONNEL DOOR AT +48" A.F.F. AS SHOWN. VERIFY CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN AND INSTALLATION. BUZZER BUTTON SHALL BE EDWARDS COMPANY MODEL #1786-B.
- E.C. TO COORDINATE WITH AUTOMATIC DOOR
  MANUFACTURER. MANUFACTURER SPECIFICATIONS FOR
  INSTALLATION OF
  AUTOMATIC DOOR CONTROL PANEL. VERIFY CONNECTION
  AND POWER REQUIREMENTS PRIOR TO ROUGH-IN AND
  INSTALLATION.
- E.C. TO PROVIDE GFCI PROTECTED OUTLETS FOR CONNECTION TO AUTOMATIC FAUCETS BENEATH LAVATORY. COORDINATE WITH P.C. VERIFY CONNECTION AND POWER REQUIREMENTS PRIOR TO ROUGH-IN AND INSTALLATION.
- E.C. TO PROVIDE LUTRON #HJS-O-FM HUB WITH INTEGRATED TIMECLOCK ABOVE CEILING AS REQUIRED TO CONTROL LIGHTING AND SIGNAGE. SEE LIGHTING CONTROL PANEL DIAGRAM ON SHEET E400 FOR ADDITIONAL INFORMATION.
- E.C. TO PROVIDE J-BOX AND 30A, 3P, 208V DISCONNECT SWITCH WITH 4#10 WIRE IN 3/4" CONDUIT TO ELECTRIC WATER HEATER. COORDINATE CONNECTION REQUIREMENTS PER MANUFACTURER RECOMMENDATIONS. VERIFY MOUNTING HEIGHT OF J-BOX WITH ARCHITECT PRIOR TO ROUGH-IN AND INSTALLATION.
- E.C. TO COORDINATE PER MECHANICAL PLANS FOR ALL WORK REQUIRED FOR RTU-1 & RTU-2. VERIFY SCOPE OF WORK PRIOR TO ANY BID. PROVIDE NEW WEATHERPROOF GFCI PROTECTED RECEPTACLE.
- E.C. TO INSTALL 'S' TYPE OUTLETS AT LOCATION AND HEIGHTS NOTED. OUTLETS SHALL BE WIRED TO ASSOCIATED LUTRON #RMJS-20R-DV-B RECEPTACLE CONTROL RELAY MODULE AND CONTROLLED VIA MAIN SWITCHBANK LOCATED INSIDE OFFICE AND BEHIND DOOR. OUTLETS SHALL BE WHITE DUPLEX RECEPTACLE AND COVER PLATE. SHALL BE INSTALLED HORIZONTALLY AND SHALL BE PAINTED TO MATCH SURROUNDING WALL. INSTALL SAME TYPE OF OUTLET IN HEADER OF EACH RUN OF STOREFRONT. ALL OUTLETS SHALL BE MOUNTED AT 18" A.F.F UNLESS OTHERWISE NOTED.
- 20 NOT IN USE.
- 21 E.C. TO PROVIDE CONNECTION FOR MOTORIZED DOOR. COORDINATE REQUIREMENTS WITH DOOR VENDOR AND VERIFY ALL CONNECTION AND DISCONNECTING REQUIREMENTS PRIOR TO INSTALLATION. VERIFY SCOPE OF WORK PRIOR TO BID.
- 22 UNDER COUNTER TYPICAL OF 2.
- 23 NOT IN USE.
- 24 BLUE HUBBELL 4-PLEX SURGE SUPPRESSION RECEPTACLE.
- 25 J-BOX WITH CONDUIT AND PULL WIRES INSTALLED AT ROOF STRUCTURE.
- MOUNT OUTLETS AT 86" A.F.F.
- THE LANDLORD SHALL INSTALL A 4'X8'X3/4 INCH PLYWOOD BOARD TO SUPPORT SHERW IN-WILLIAMS PHONE, COMPUTER AND SATELLITE EQUIPMENT. SEE ELEVATION FOR INSTALLATION INSTRUCTIONS AND SPECIAL ELECTRICAL REQUIREMENTS. PLYWOOD SHALL BE MINIMUM APA STRUCTURAL I RATED SHEATHING EXTERIOR C-C.









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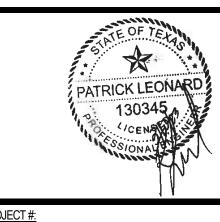
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SHEET TITLE:

POWER PLAN

SHEET NUMBER:

# # SHEET NOTES

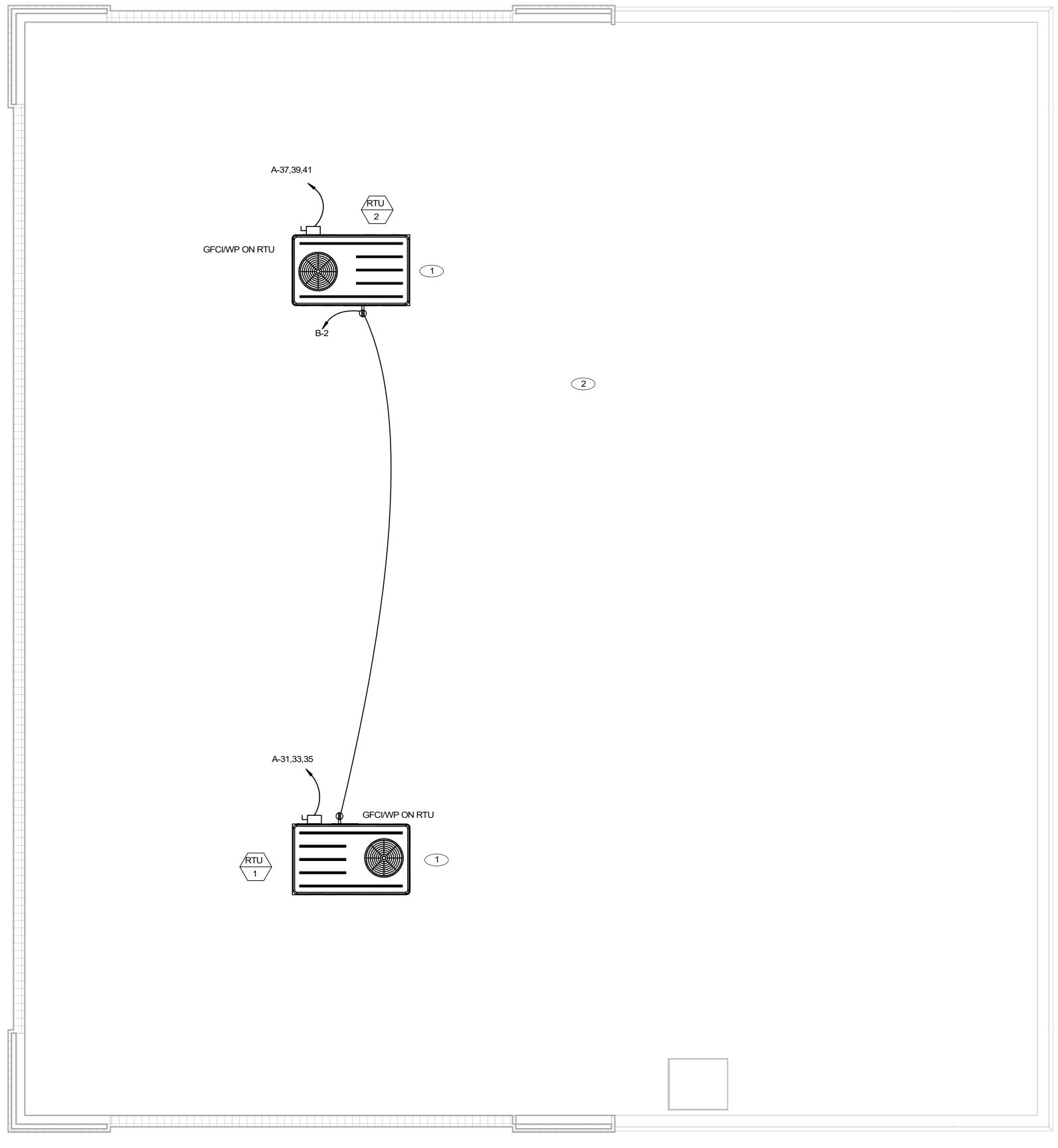
- 1 E.C. TO COORDINATE PER MECHANICAL PLANS FOR ALL WORK REQUIRED FOR RTU-1 & RTU-2. VERIFY SCOPE OF WORK PRIOR TO ANY BID. PROVIDE NEW WEATHERPROOF GFCI PROTETED RECEPTACLE.
- 2 GC/EC TO INSTAL CONDUIT FOR SATELITE ANTENNA SYSTEM. REFER TO DETAIL 1 ON SHEET E501 FOR CONDUIT SIZING INFORMATION.

# **GENERAL NOTES:**

- . ALL ELECTRICAL DEVICES LOCATED OUTDOORS
- SHALL BE W.P.
- 2. ALL PENETRATIONS TO ROOF SHALL BE W.P.
  3. ALL ELECTRICAL ROOF PENETRATIONS SHALL BE 12"
  AWAY FROM ANY EQUIPMENT. CONTRACTOR TO
- VERIFY EXACT LOCATION OF ALL ROOF TOP EQUIPMENT PRIOR TO START OR WORK.
- 4. ALL CONDUIT RUNS SHALL BE INSTALLED IN THE CEILING SPACE BELOW ROOF. EXPOSED HORIZONTAL
- CONDUIT RUNS ON ROOF ARE NOT PERMITTED.
  5. SEE MECHANICAL DRAWINGS FOR ADDITIONAL
- EQUIPMENT INFORMATION.

  6. E.C. TO PROVIDE ALL NECESSARY POWER & FINAL
- CONNECTIONS TO ROOF MOUNTED EQUIPMENT. COORDINATE ROOF PENETRATION REQUIREMENTS WITH LANDLORDS.
- 7. VERIFY THAT AT LEAST (1) 120V RECEPTACLE IS LOCATED WITHIN 25'-0"(MAXIMUM), OF ALL EQUIPMENT THAT REQUIRES MAINTENANCE. PROVIDE ADDITIONAL
- RECEPTACLES AS NEEDED.

  8. EC SHALL PROVIDE PERMANENT WEATHER
  RESISTANT PHENOLIC LABELS ON ALL DISCONNECTS.
  LABEL INFORMATION SHALL INCLUDE PANEL OF
- CIRCUIT ORIGINATION, CIRCUIT NUMBER, VOLTAGE, PHASE, AND WIRE CONNECTION. EXAMPLE -PANEL A-1 120/208V 3 Ø 4W
- 9. REFER TO SHEET E300 FOR RTU-1, RTU-2 CIRCUITING INFORMATION





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





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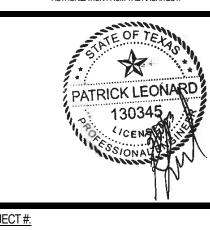
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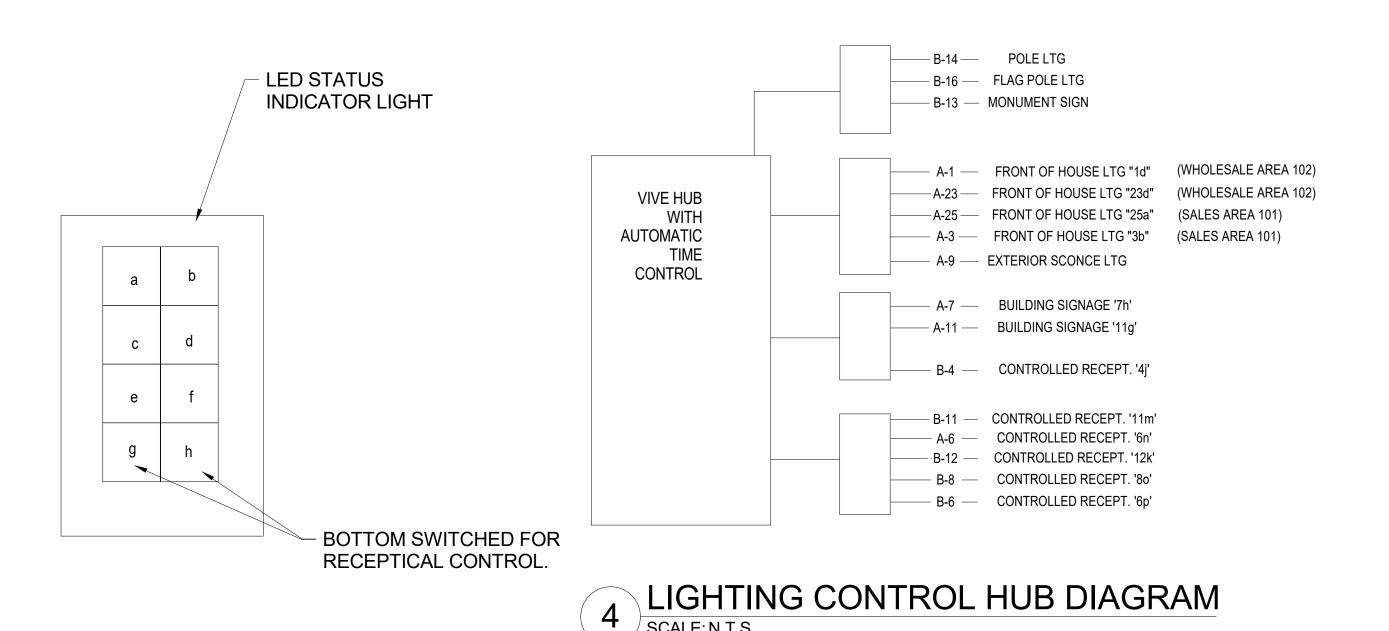
**ROOF POWER PLAN** 

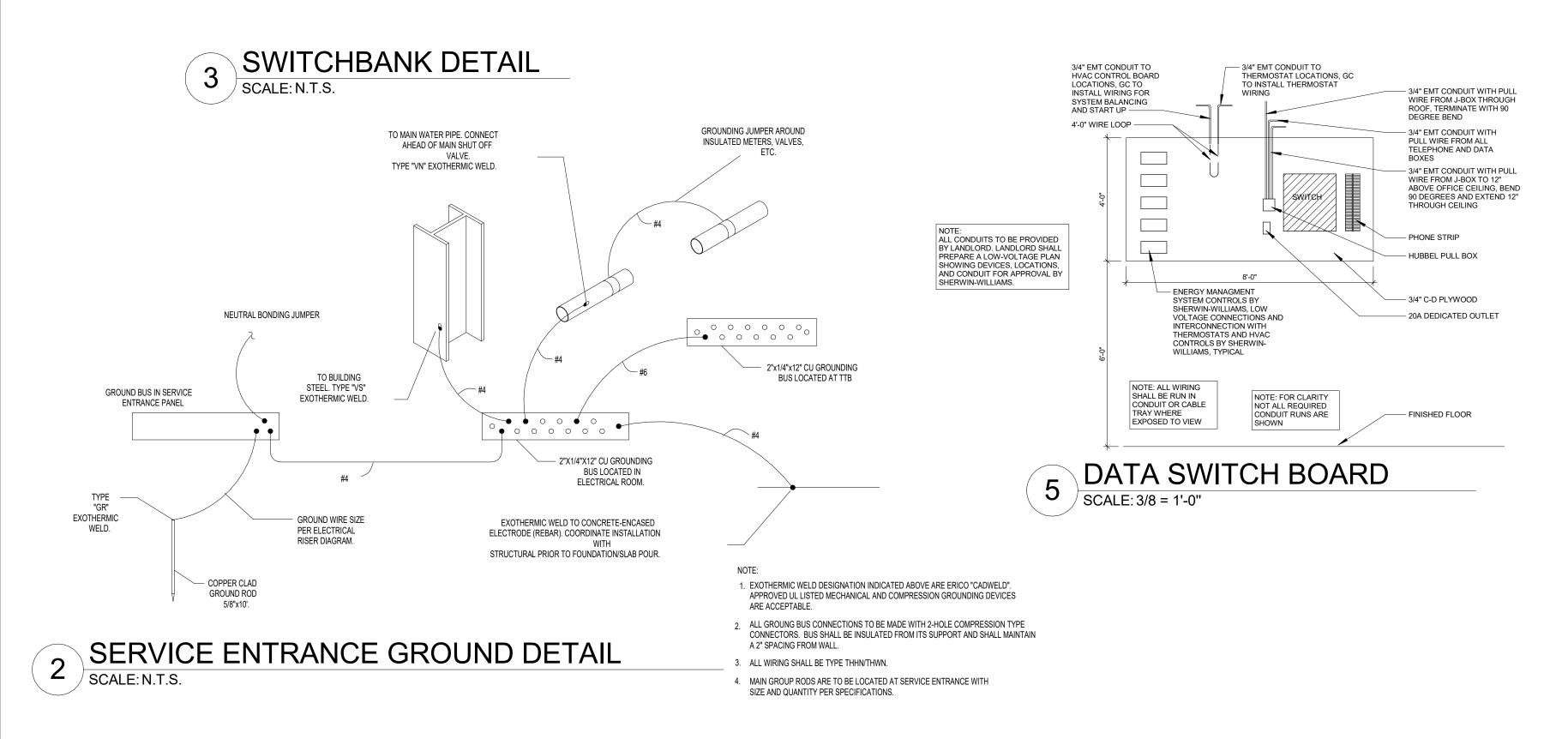
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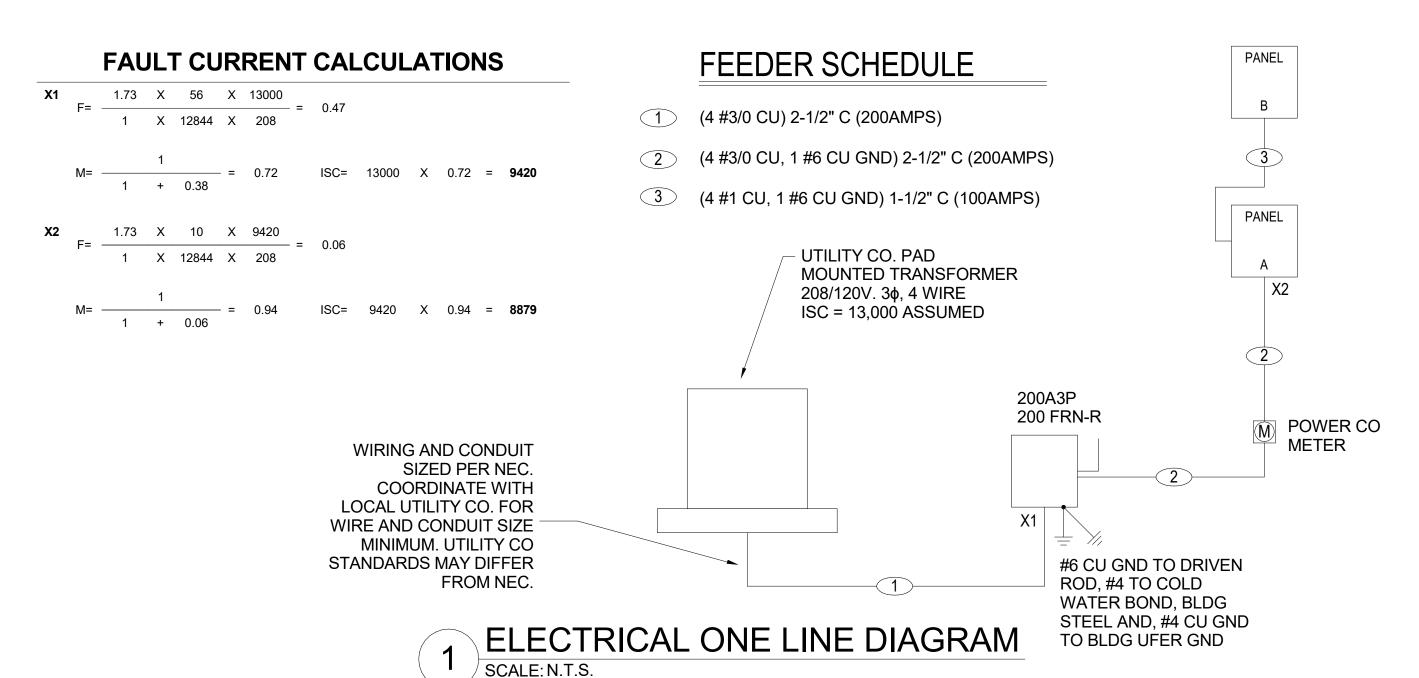
|             | DESCRIPTION                  |    | LOAD |      |     |         |       | DISCONNECT |             | 555550             | DE144 D146 |
|-------------|------------------------------|----|------|------|-----|---------|-------|------------|-------------|--------------------|------------|
| DESIGNATION | DESCRIPTION                  | HP | KVA  | FLA  | MCA | VOLTAGE | PHASE | SIZE       | FUSE SIZE   | FEEDER SIZE        | REMARKS    |
| RTU-1       | ROOF TOP UNIT                |    |      |      | 39  | 208     | 3     | 60A3P      | 50.0A FRN-R | (3#8,1#10G,1"C)    |            |
| RTU-2       | ROOF TOP UNIT                |    |      |      | 39  | 208     | 3     | 60A3P      | 50.0A FRN-R | (3#8,1#10G,1"C)    |            |
| EF-1        | EXHAUST FAN                  |    |      | 0.62 |     | 120     | 1     | SMTO       |             | (2#12,1#12G,3/4"C) |            |
| WH-1        | WATER HEATER                 |    | 4.0  |      |     | 208     | 3     | 30A3P      | 15.0A FRN-R | (3#12,1#12G,3/4"C) |            |
| HCP-1       | HOT WATER RECIRCULATION PUMP |    | 28W  |      |     | 120     | 1     | SMTO       |             | (2#12,1#12G,3/4"C) |            |
|             |                              |    |      |      |     |         |       |            |             |                    |            |

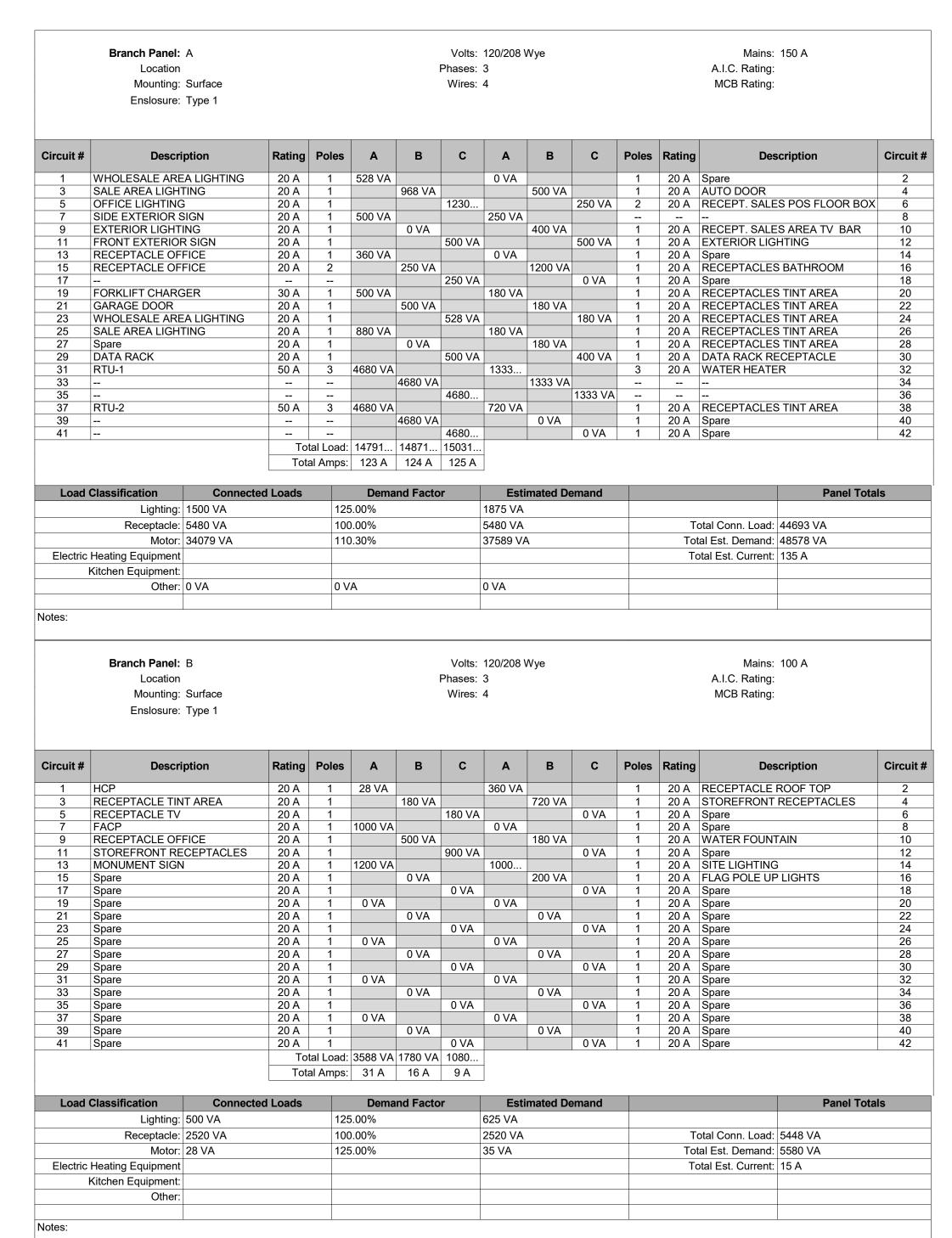
1. UNIT FURNISHED WITH INTEGRAL DISCONNECT.

2. PROVIDE MOTOR RATED SWITCH WITH THERMAL OVERLOAD.









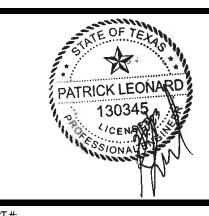


158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST DENVER, CO 80202 303.974.5875

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CHECKED BY: JCAA

PROJECT #:

DRAWN BY: CO

| PERMIT SET - 03/13/2023 |
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|                         |
|                         |
| <br>-                   |
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# **SHERWIN WILLIAMS**

| STORE #: |  |
|----------|--|
| XXXX     |  |

9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX

SHEET TITLE:

**ELECTRICAL ONE** LINE DIAGRAM



#### COMcheck Software Version COMcheckWeb

Project Information

2021 IECC Energy Code: Project Title: 23.038 SW Fair Oaks Project Type: New Construction

Designer/Contractor: Construction Site: Owner/Agent: JCAA Consulting Engineers 4100 Wadsworth Blvd 9091 Fair Oaks PKWY Fair Oaks Ranch, Texas 78015 Wheat Ridge, Colorado 80033

Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed **Allowed Interior Lighting Power** 

| Area Category F  |                  | Allowed<br>Watts / ft2 |                  | Allowed<br>Watts |  |
|--|------------------|------------------------|------------------|------------------|--|
| 1-Retail   | 4550             | 0.84                   |                  | 3822             |  |
|  |                  | Total Allowed \        | Watts =          | 3822             |  |
| Proposed Interior Lighting Power                           |                  |                        |                  |                  |  |
| Α Α  | В                | c                      | D                | E                |  |
| Fixture ID : Description / Lamp / Wattage Per Lamp / Balla | st Lamı<br>Fixtu |                        | Fixture<br>Watt. | e (CXD           |  |
| 1-Retail   |                  |                        |                  |                  |  |
| LED 1: A: LED Troffer: Other:                              | 1                | 2                      | 44               | 88               |  |
| LED 2: B: LED Strip Light: Other:                          | 1                | 2                      | 23               | 46               |  |
| LED 3: C: LED Down Light: Other:                           | 1                | 7                      | 33               | 231              |  |
| LED 4: D: Strip Light: Other:                              | 1                | 33                     | 72               | 2376             |  |

#### Interior Lighting PASSES: Design 26% better than code

**Interior Lighting Compliance** Statement

LED 5: U: Under Counter Light: Other:

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Total Proposed Watts =

| Craig Olson  | Craia Olson | 03/02/2023 |
|--------------|-------------|------------|
| Chaig Cisch  | Cracq Ocson | 03/02/2023 |
| Name - Title | Signature   | Date       |

Project Title: 23.038 SW Fair Oaks Report date: 03/02/23 Data filename: Page 2 of 8

COMcheck Software Version COMcheckWeb

Wheat Ridge, Colorado 80033

D

# of Fixture (C X D)

Page 3 of 8

Comments/Assumptions

Requirement will be met.

Project Information

2021 IECC Energy Code: Project Title: 23.038 SW Fair Oaks Project Type: New Construction 2 (Residentially zoned area (LZ2)) Exterior Lighting Zone

Construction Site: Owner/Agent: Designer/Contractor: JCAA Consulting Engineers 9091 Fair Oaks PKWY Fair Oaks Ranch, Texas 78015 4100 Wadsworth Blvd

**Allowed Exterior Lighting Power** 

**Proposed Exterior Lighting Power** 

| A<br>Area/Surface Category   | B<br>Quantity | C<br>Allowed<br>Watts / | D<br>Tradable<br>Wattage | E<br>Allowed Watts<br>(B X C) |
|--|---------------|-------------------------|--------------------------|-------------------------------|
| Parking area   | 20000 ft2     | 0.04                    | Yes                      | 800                           |
|  |               | Total Trada             | able Watts (a) =         | 800                           |
|  |               | Total A                 | Illowed Watts =          | 800                           |
|  | Total Allo    | wed Suppleme            | ntal Watts (b) =         | 400                           |
| <ul> <li>(a) Wattage tradeoffs are only allowed between tradable areas</li> <li>(b) A supplemental allowance equal to 400 watts may be applicated areas/surfaces.</li> </ul> |               | ance of both            | non-tradable             | and tradable                  |

| Fixture ID: Description / Lamp / Wattage Per Lamp / Ballast | F |
|---|---|
| Parking area (20000 ft2): Tradable Wattage                  |   |

|  | Fixture    | Fixture      | Watt.      |     |
|--|------------|--------------|------------|-----|
| Parking area (20000 ft2): Tradable Wattage |            |              |            |     |
| LED 1: AA: Other:                          | 1          | 5            | 100        | 500 |
| LED 2: R: Other:                           | 1          | 10           | 28         | 280 |
| LED 3: T: Other:                           | 1          | 1            | 60         | 60  |
| LED 4: BB: Other:                          | 1          | 2            | 8          | 16  |
|  | Total Trad | dable Propos | ed Watts = | 856 |

Exterior Lighting PASSES: Design 29% better than code

# Rough-In Electrical Inspection

C405.2.4. individual controls that control the Does Not

lights independent of general area

Daylight-responsive controls for [EL23]<sup>2</sup> applicable spaces, C405.2.3.1 Daylight

responsive control function and

C405.2.4, Daylight zones provided with

C405.2.4. lighting. See code section C405.2.3

**Exterior Lighting Compliance** 

Data filename:

& Req.ID

Statement Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

03/02/2023 Craig Olson Craig Olson

Project Title: 23.038 SW Fair Oaks Report date: 03/02/23

Complies?

■Not Observable

☐Not Applicable

 ☐Complies

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COMcheck Software Version COMcheckWeb

is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

☐Complies

□Complies

□Does Not

□Does Not

□Not Observable

□Not Observable

□Does Not

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each

requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception

Requirement will be met.

Requirement will be met.

Requirement will be met.

Comments/Assumptions

Comments/Assumptions

**Inspection Checklist** 

Requirements: 100.0% were addressed directly in the COMcheck software

Plan Review

calculations provide all information

determined for the interior lighting

and document where exceptions to

provided should include interior

Plans, specifications, and/or

with which compliance can be determined for the exterior lighting

Plans, specifications, and/or

the standard are claimed. Information

lighting power calculations, wattage of

bulbs and ballasts, transformers and

calculations provide all information

and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and

calculations provide all information

Final Inspection

with which compliance can be

and electrical systems and equipment Not Applicable

and electrical systems and equipment Not Applicable

determined for the additional energy

with which compliance can be

C103.2 Plans, specifications, and/or

control devices.

control devices.

Additional Comments/Assumptions:

& Req.ID

[PR9]<sup>1</sup>

Project Title: 23.038 SW Fair Oaks Report date: 03/02/23 Data filename: Page 5 of 8

Complies?

| Section<br>#<br>& Req.ID  | Rough-In Electrical Inspection  | Complies?   | Comments/Assumptions                   |
|---|---|---|--|
| C405.2.1<br>[EL15] <sup>1</sup>                                       | Lighting controls installed to uniformly reduce the lighting load by at least 50%.  | □Complies<br>□Does Not                              | Requirement will be met.               |
|   | 50%.  | □Not Observable<br>□Not Applicable                  |  |
| C405.2.1<br>[EL18] <sup>1</sup>                                       | Occupancy sensors installed in required spaces.   | □Complies<br>□Does Not                              | Requirement will be met.               |
|   |   | □Not Observable<br>□Not Applicable                  |  |
|   | Independent lighting controls installed<br>per approved lighting plans and all  | □Complies<br>□Does Not                              | Requirement will be met.               |
| 3<br>[EL23] <sup>2</sup>  | manual controls readily accessible and visible to occupants.  | □Not Observable<br>□Not Applicable                  |  |
| 1   | Automatic controls to shut off all<br>building lighting installed in all  | □Complies<br>□Does Not                              | Requirement will be met.               |
| [EL22] <sup>2</sup>   | buildings.  | □Not Observable<br>□Not Applicable                  |  |
| C405.2.3<br>[EL16] <sup>2</sup>                                       | Daylight zones provided with individual controls that control the   | □Complies<br>□Does Not                              | Exception: Requirement does not apply. |
|   | lights independent of general area<br>lighting.   | □Not Observable<br>□Not Applicable                  |  |
|   | Primary sidelighted areas are equipped with required lighting controls.   | □Complies □Does Not □Not Observable □Not Applicable | Requirement will be met.               |
| C405.2.3,<br>C405.2.3.<br>1,<br>C405.2.3.<br>3<br>[EL21] <sup>1</sup> | under skylights and rooftop monitors<br>are equipped with required lighting   | □Complies □Does Not □Not Observable □Not Applicable | Exception: Requirement does not apply. |
| C405.2.4<br>[EL4] <sup>1</sup>  | Separate lighting control devices for<br>specific uses installed per approved   | □Complies<br>□Does Not                              | Requirement will be met.               |
|   | lighting plans.   | □Not Observable<br>□Not Applicable                  |  |
| C405.2.4<br>[EL8] <sup>1</sup>  | Additional interior lighting power<br>allowed for special functions per the<br>approved lighting plans and is   | □Complies □Does Not                                 | Requirement will be met.               |
|   | automatically controlled and separated from general lighting.   | □Not Observable □Not Applicable                     |  |
| C405.2.5<br>[EL25] <sup>null</sup>                                    | Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%. | □Complies □Does Not □Not Observable □Not Applicable | Requirement will be met.               |
| C405.3<br>[EL6] <sup>1</sup>  | Exit signs do not exceed 5 watts per face.  | □Complies<br>□Does Not                              | Requirement will be met.               |
|   |   | □Not Observable<br>□Not Applicable                  |  |

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: SHERWIN-WILLIAMS Report date: 02/21/23 Data filename: P:\JCAA 2022\22.028 - Sherwin Williams - 705 W Baptist - Monument, Page 4 of 7 CO\DOCUMENTS\COMCHECK\COMCHECK -ELECTRICAL.cck

section C405.2.3.2 Sidelit zone. C405.2.5 Additional interior lighting power ☐Complies Requirement will be met. [EL27]¹ allowed for special functions per the ☐Does Not approved lighting plans and is ■Not Observable automatically controlled and ☐Not Applicable separated from general lighting. C405.2.7 Automatic lighting controls for exterior Complies Requirement will be met. [EL28]<sup>1</sup> lighting installed. Controls will be □Does Not daylight controlled, set based on ☐Not Observable business operation time-of-day, or ☐Not Applicable reduce connected lighting > 30%. C405.7 Low-voltage dry-type distribution □Complies Requirement will be met. [EL26]<sup>2</sup> electric transformers meet the □Does Not minimum efficiency requirements of Table C405.6. □Not Applicable C405.8 Electric motors meet the minimum ☐Complies Requirement will be met. [EL27]<sup>2</sup> efficiency requirements of Tables □Does Not C405.7(1) through C405.7(4). Efficiency verified through certification

Under an approved certification

Under an approved certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist). C405.9.1, Escalators and moving walks comply C405.9.2 with ASME A17.1/CSA B44 and have Does Not Exception: Requirement does not apply. automatic controls configured to □Not Observable reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers. C405.10 Total voltage drop across the Requirement will be met. [EL29]<sup>2</sup> combination of feeders and branch ☐Does Not circuits <= 5%. □Not Observable □Not Applicable ☐Complies C405.1.1 At least 90% of dwelling unit Requirement will be met. [EL30]<sup>2</sup> permanently installed lighting shall □Does Not luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3. C405.11, 50% of 15/20 amp receptacles ☐Complies Requirement will be met. C405.11.1 installed in enclosed offices, □Does Not [EL31]<sup>2</sup> conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders □Not Applicable for modular furniture will have

accordance with C405.11.1. Additional Comments/Assumptions:

automatic receptacle control in

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: 23.038 SW Fair Oaks Report date: 03/02/23 Data filename: Page 7 of 8

& Req.ID C303.3. Furnished O&M instructions for **∟**Complies Requirement will be met. C408.2.5. systems and equipment to the building owner or designated □Not Observable [FI17]<sup>3</sup> representative. ☐Not Applicable See the Exterior Lighting fixture schedule for values. C405.5.1 Exterior lighting power is consistent Complies with what is shown on the approved Does Not lighting plans, demonstrating proposed watts are less than or equal 

Not Observable 

Not Applicable to allowed watts. Requirement will be met. documents will be provided to the Does Not owner. Documents will cover □Not Observable manufacturers' information, ☐Not Applicable specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated. C408.2.5 Furnished as-built drawings for Requirement will be met. [FI16]<sup>3</sup> electric power systems within 90 days Does Not of system acceptance. □Not Observable ☐Not Applicable C408.3 Lighting systems have been tested to Complies Requirement will be met. [FI33]¹ ensure proper calibration, adjustment, □Does Not programming, and operation. □Not Observable

☐Not Applicable

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: 23.038 SW Fair Oaks Report date: 03/02/23 Data filename: Page 8 of 8

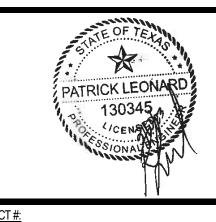
LINGLEDESIGNGROUP,INC 158 WEST MAIN STREET LENA, IL 61048 815.369.9155

DENVER, CO 80202 303.974.5875 WWW.LINGLEDESIGN.COM

1764 BLAKE ST



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|         | PERMIT SET - 03/13/2023 |
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| XXXX   |                     |
|--------|---------------------|
| ADDRES | <u>SS:</u>          |
| Ç      | 9091 FAIR OAKS PKWY |
|        |                     |

FAIR OAKS RANCH, TX 78015

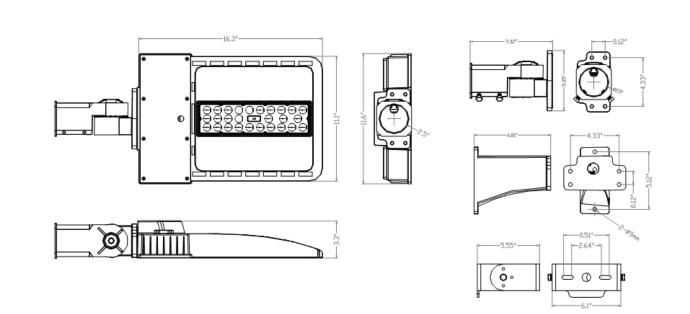
SHEET TITLE:

COMCHECK

# LED Shoe Box Light

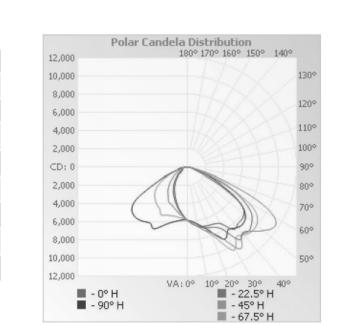
Technical Details and Photometric

| Product Number | Power<br>Consumption (W) | Dimensions<br>(Inch) | Color<br>Temperature (K) | System<br>Luminous Flux(lm) | System Efficacy<br>(Lm/W) |
|----------------|--------------------------|----------------------|--------------------------|-----------------------------|---------------------------|
| SB-80W A1XYZ   | 80                       | 11.8"*12.6"*8.4"     | 3000K-6500K              | 10,400                      | 130                       |
| SB-100W A1XYZ  | 100                      | 11.8"*12.6"*8.4"     | 3000K-6500K              | 13,000                      | 130                       |



| Pated Power | 80/100W |
|-------------|---------|
| Photometric | Jata    |

| Rated Power           | 80/100W            |
|-----------------------|--------------------|
| Input Voltage         | 100-277/200-480VAC |
| Frequency             | 50 / 60 Hz         |
| Power Factor          | >0.9               |
| Beam Angle            | 120°               |
| CRI                   | ≥ 80               |
| Dimming Function      | 0 - 10 V           |
| Operating Temperature | -30°C to 45°C      |
| D A I.                |                    |



RM 1205, 12/F TAI SANG BANK BLDG 130-132 DES VOEUX RD CENTRAL HK. www.jamesindustry.com

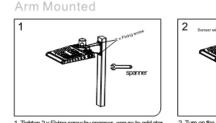
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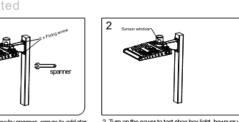
**LED Shoe Box Light** 

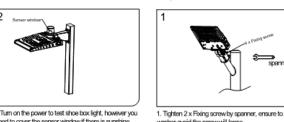
Technical Details and Photometric



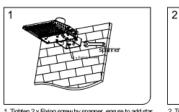
| SB             | 80/100/120/150/200/300W | AiXYZ   |
|----------------|-------------------------|---|
| Shoe Box light | Wattage                 | i=1,2,3 modules<br>X=N,D(Non-dim or Dim)<br>Y=27,3065(CCT)<br>Z=T3(Type III beam angle) |

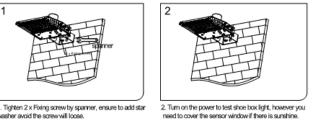
















Slip Fitter Mounting Kit

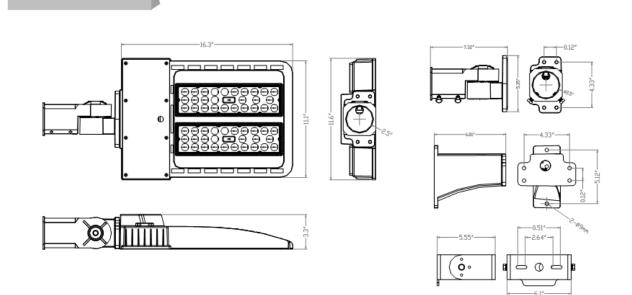
RM 1205, 12/F TAI SANG BANK BLDG 130-132 DES VOEUX RD CENTRAL HK 4/4 Page

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# LED Shoe Box Light

**Technical Details and Photometric** 

| Product Number | Power<br>Consumption (W) | Dimensions<br>(Inch) | Color<br>Temperature (K) | System<br>Luminous Flux(lm) | System Efficacy<br>(Lm/W) |
|----------------|--------------------------|----------------------|--------------------------|-----------------------------|---------------------------|
| SB-150W A2XYZ  | 150                      | 23.9"*12.6"*8.4"     | 3000K-6500K              | 19,500                      | 130                       |
| SB-200W A2XYZ  | 200                      | 23.9"*12.6"*8.4"     | 3000K-6500K              | 26,000                      | 130                       |

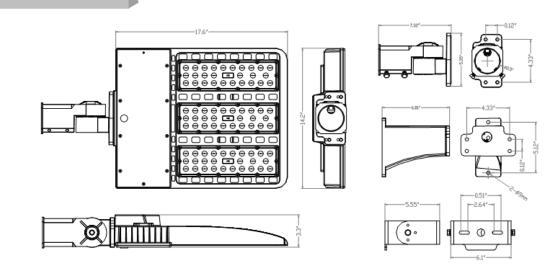


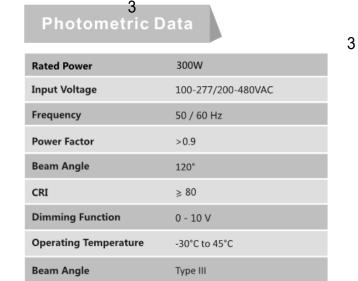
| Photometric l          | Data               | Polar Cande<br>12,000 | la Distribution<br>180° 170° 160° 150° 140° |
|------------------------|--------------------|-----------------------|---|
|                        |                    | 10,000                | 1   |
| Rated Power            | 150/200W           | 8,000                 |   |
| Input Voltage          | 100-277/200-480VAC | 6,000                 |   |
| F                      | 50 / 60 11-        | 4,000                 | 1   |
| Frequency              | 50 / 60 Hz         | 2,000                 | 1   |
| Power Factor           | >0.9               | CD: 0                 |   |
| Beam Angle             | 120°               | 2,000                 |   |
|                        |                    | 4,000                 |   |
| CRI                    | ≥ 80               | 6,000                 |   |
| Dimming Function       | 0 - 10 V           | 8,000                 | - Ma  |
| Operating Temperature  | -30°C to 45°C      | 10,000                |   |
| Operating reinperature | -50 € 10 45 €      | 12,000 V              | A: 0° 10° 20° 30° 40°                       |
| Beam Angle             | Type III           | ■ - 0° H<br>■ - 90° H | ■ - 22,5° H<br>■ - 45° H                    |
|                        |                    | = -90 11              | ■ - 67.5° H                                 |

| RM 1205, 12/F TAI SANG BANK BLDG 130-132 DES VOEUX RD CENT | RAL HK. www.jamesindustry.com |
|--|-------------------------------|
| 2/4 Pag  | e                             |

LED Shoe Box Light Technical Details and Photometric

| Product Number | Power<br>Consumption (W) | Dimensions<br>(Inch) | Color<br>Temperature (K) | System<br>Luminous Flux(lm) | System Efficac<br>(Lm/W) |
|----------------|--------------------------|----------------------|--------------------------|-----------------------------|--------------------------|
| SB-300W A3XYZ  | 300                      | 29.4"*12.6"*8.6"     | 3000K-6500K              | 39,000                      | 130                      |
|                |                          |                      |                          |                             |                          |



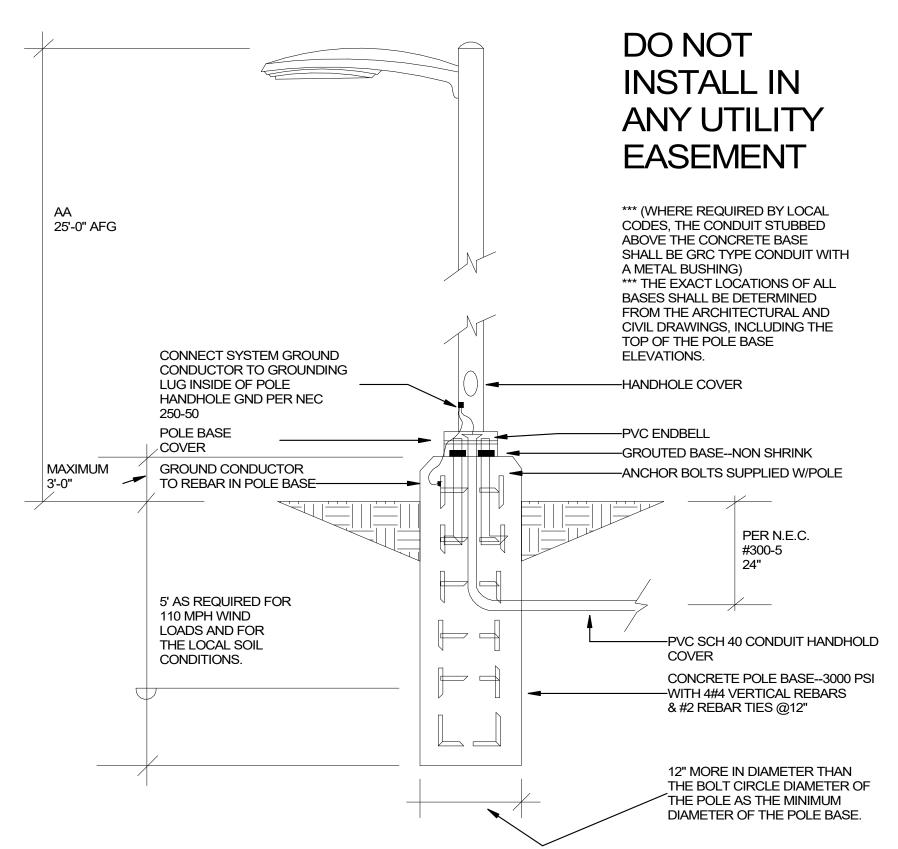


180° 170° 160° 150° 140°

RM 1205, 12/F TAI SANG BANK BLDG 130-132 DES VOEUX RD CENTRAL HK.

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2 ELEC-DTAL-POLE BASE DETAIL1 N.T.S.



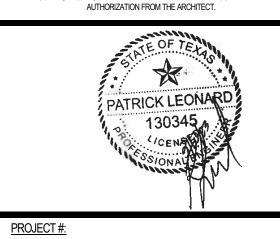
ANTENNA FURNISHED BY OTHERS





303.974.5875

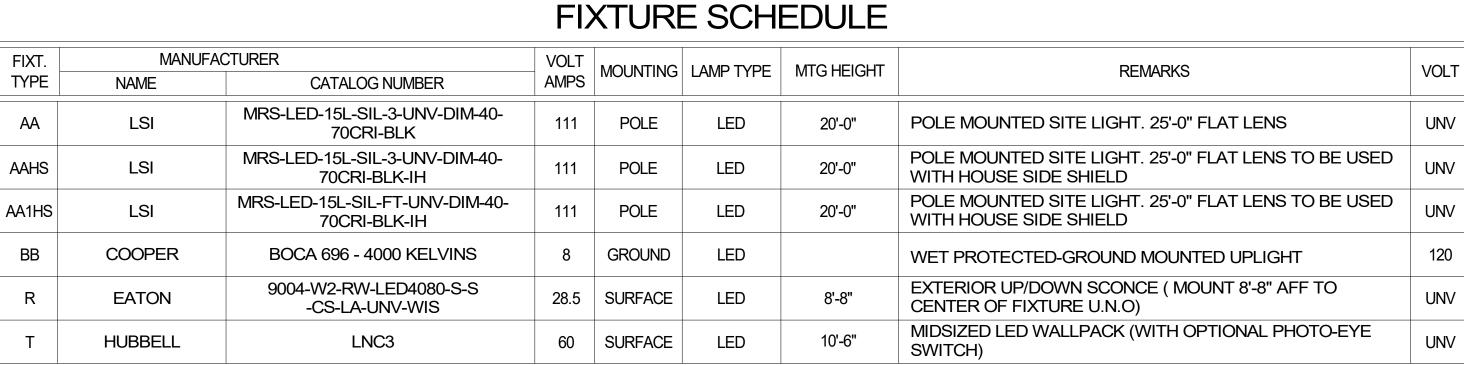
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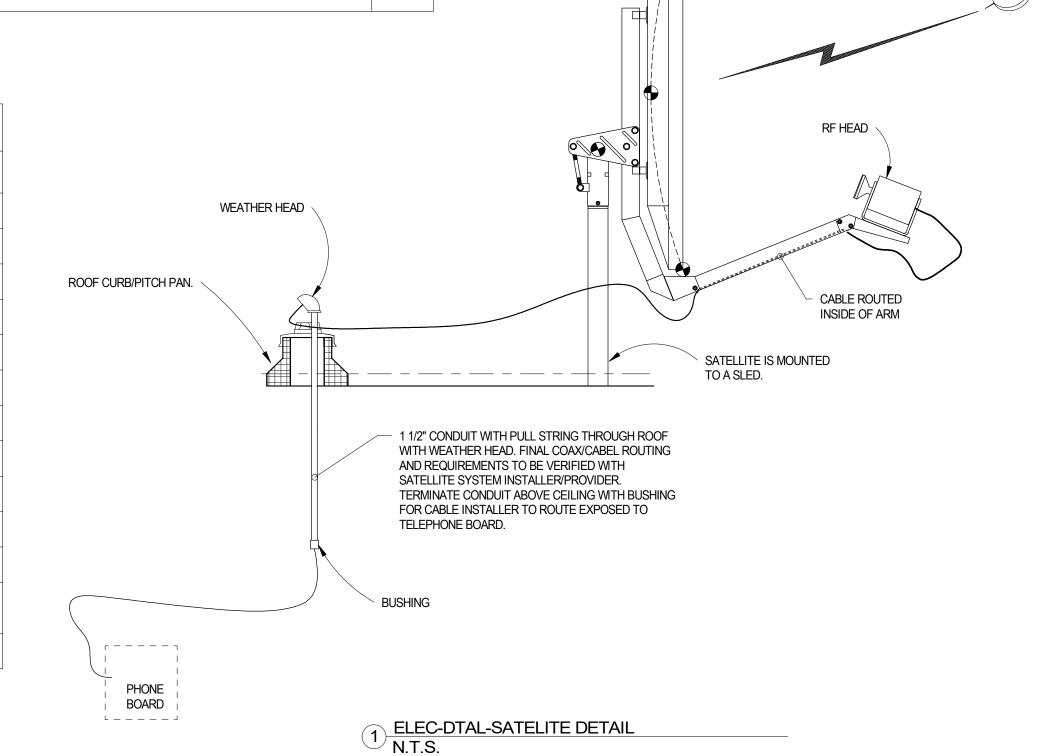
DRAWN BY: CO

PERMIT SET - 03/13/2023



1. LUMINAIRES TO BE ON/OFF VIA LUTRON CONTROLS. LUMINAIRE ON/OFF HOURS TO BE SET BY OWNER.

| FIXT. | MANUFACTURER  |                                      |                 |              | MOUNTING     |  |       |
|-------|---------------|--------------------------------------|-----------------|--------------|--------------|--|-------|
| TYPE  | NAME          | CATALOG NUMBER                       | FINISH LAMP DAT | A LAMP WATTS | METHOD MTG H | IEIGHT DESCRIPTION   | VOLTS |
| А     | CREE          | ZR24-50L40K-10V                      | LED             | 44           | SURFACE      | 2X4 LED TROFFER  | 120   |
| A-E   | CREE          | ZR24-50L40K-10V                      | LED             | 44           | SURFACE      | 2X4 LED TROFFER (CONNECT TO NON-SWITCHED EMERGENCY CIRCUIT)  | 120   |
| В     | CREE          | LS4-80L-40K-10V                      | LED             | 23           | SURFACE      | 48" LED STRIP LIGHT SUSPENDED FROM<br>CEILING<br>AT 12' A.F.F.   | 120   |
| С     | PRESCOLITE    | LF6LED                               | LED             | 33           | RECESS       | 6" RECESS DOWNLIGHT  | 120   |
| C-E   | PRESCOLITE    | LF6LED                               | LED             | 33           | RECESS       | 6" RECESS DOWNLIGHT CONNECT TO<br>NON-SWITCHED EMERGENCY CIRCUIT)  | 120   |
| D     | CREE          | LS8-80L-40K-10V                      | LED             | 72           | SURFACE      | 96" LED STRIP LIGHT SUSPENDED FROM CEILING<br>AT 12' A.F.F. EXCEPT WHERE SPECIFIED<br>OTHERWISE          | 120   |
| D-E   | CREE          | LS8-80L-40K-10V                      | LED             | 72           | SURFACE      | 96" LED STRIP LIGHT SUSPENDED FROM CEILING<br>AT 12' A.F.F.CONNECT TO NON-SWITCHED<br>EMERGENCY CIRCUIT) | 120   |
| F     | CASABLANCA    | CAPISTRANO 54029 (BLADES: 99007 54") |                 |              | SURFACE      | CEILING FAN (MOUNT 9'-0" AFF - INSTALL<br>"LIGHTING BOX" FOR STABILITY)                                  | 120   |
| R     | EATON         | 9004-W2-RW-LED4080-S-S-CS-L1-UNV-WIS | LED             | 28.5         | SURFACE      | EXTERIOR UP/ DOWN SCONCE (MOUNT 8'-8" AFF TO CENTER OF FIXTURE U.N.O.)                                   | 120   |
| Т     | HUBBELL       | LNC3                                 | LED             | 60           | SURFACE      | MIDSIZED LED WALLPACK (WITH OPTIONAL PHOTO-EYE SWITCH)   | 120   |
| U     | TECH LIGHTING | 700UCF1995B-LED                      | LED             | 11           | UNDER SHELF  | UNDER SHELF LIGHTING (USE SPLICE BOX & JUMPER CONNECTORS)  | 120   |
| х     | JUNO          | NXPCL3GWH-HO                         | LED             |              | SURFACE      | EXIT SIGN WITH EMERGENCY LIGHTING (EXIT SIGN / EMERGENCY COMBO FIXTURE WITH 90 MINUTE BATTERY BACKUP     | 120   |
| X1    | LSI           | EPM-SD2-WHT                          | A-19            |              | SURFACE      | 120V EMERGENCY LIGHT FIXTURE REMOTE<br>FROM EXIT SIGN/ EMERGENCY COMBO FIXTURE                           | 120   |



# **SHERWIN WILLIAMS**

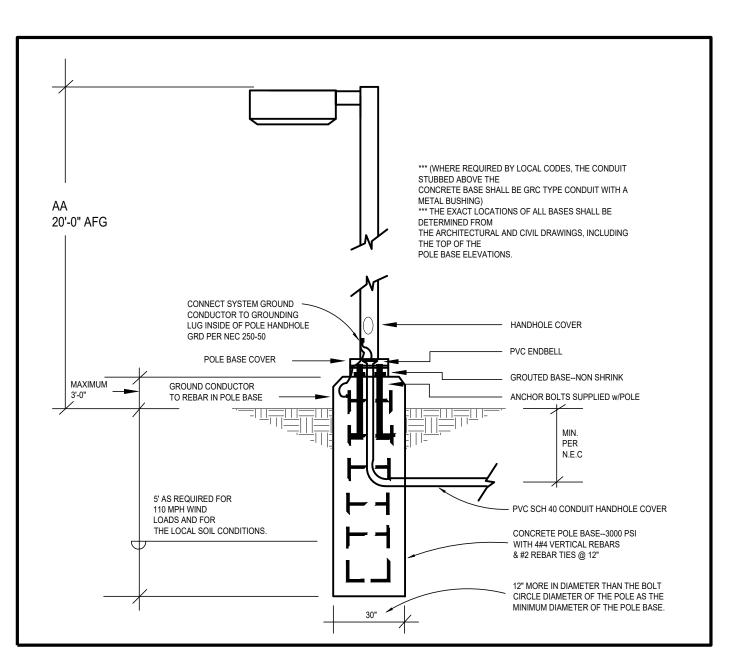
STORE #: XXXX

> 9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

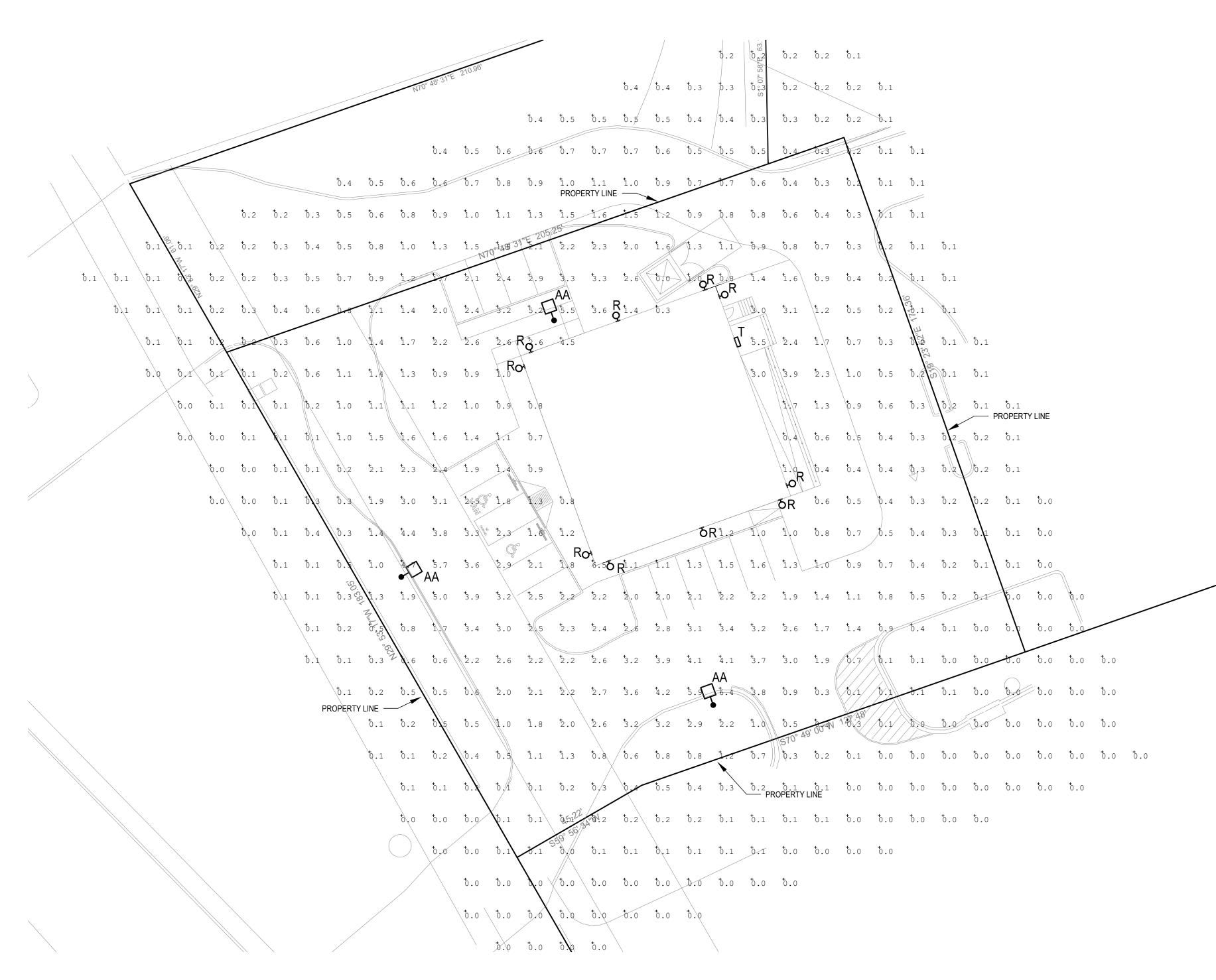
SHEET TITLE:

**ELECTRICAL DETAILS** 

|       |                   |                                      | LU       | MINAIRE    | SCHEDU       | JLE      |              |   |       |
|-------|-------------------|--------------------------------------|----------|------------|--------------|----------|--------------|---|-------|
| FIXT. | MANUFACTURER      |                                      | FINISH L | LAMP DATA  | LAMP WATTS   | MOUNTING | MTG HEIGHT   | DESCRIPTION   | VOLTS |
| TYPE  | NAME              | CATALOG NUMBER                       | I INIGIT | LAWIF DATA | LAIMIF WATTS | METHOD   | WITGTILIGITI | DESCRIPTION   |       |
| AA    | LITHONIA LIGHTING | 60C-1000-40K-R3-MVOLT-SPD-06-DDBXD   |          | LED        | 216          | POLE     | 701-01       | POLE MOUNTED SITE LIGHT. 20'-0" FLAT LENS TO BE USED WITH HOUSE SIDE SHIELD | UNV   |
| ВВ    | COOPER            | BOCA 696 - 4000 KELVINS              |          | LED        | 8            | GROUND   |              | WET PROTECTED - GROUND MOUNTED UPLIGHT                                      | 120   |
| R     | EATON             | 9004-W2-RW-LED4080-S-S-CS-L1-UNV-WIS |          | LED        | 28.5         | SURFACE  |              | EXTERIOR UP/DOWN SCONCE (MOUNT 8'-8" AFF TO CENTER OF FIXTURE U.N.O.)       | UNV   |
| Т     | HUBBELL           | LNC3                                 |          | LED        | 60           | SURFACE  |              | MIDSIZED LED WALLPACK (WITH OPTIONAL PHOTO-EYE SWITCH)                      | UNV   |







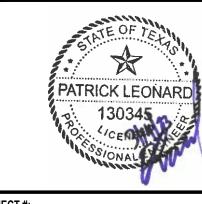
| Calculation Summary |             |       |      |     |     |         |         |
|---------------------|-------------|-------|------|-----|-----|---------|---------|
| Label               | CalcType    | Units | Avg  | Max | Min | Avg/Min | Max/Min |
| OVERALL SITE        | Illuminance | Fc    | 0.88 | 6.5 | 0.0 | N.A.    | N.A.    |
| PARKING             | Illuminance | Fc    | 2.05 | 3.3 | 1.0 | 2.05    | 3.30    |







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|   |  | V                |
|---|--|------------------|
| I | PROJECT#:                                    |                  |
|   | DRAWN BY: ATE                                | CHECKED BY: JCAA |
|   | REVISIONS                                    |                  |
|   |  |                  |
|   |  |                  |
|   |  |                  |
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|   | $\overline{\triangle}$                       |                  |
|   | <u> -                                   </u> |                  |

# SHERWIN WILLIAMS

STORE#

ADDRESS 909

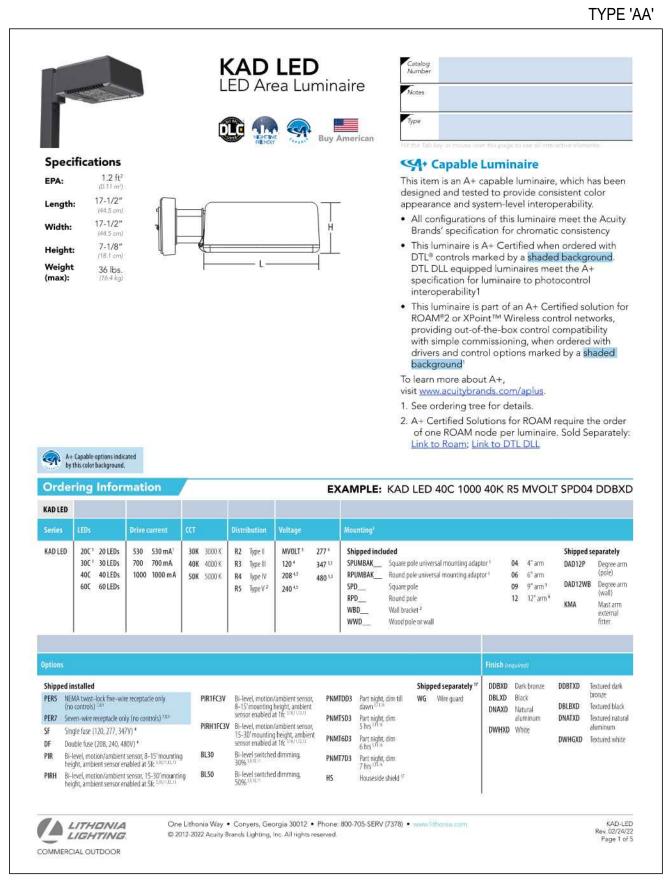
9091 FAIR OAKS PKWY. FAIR OAKS RANCH, TX 78015

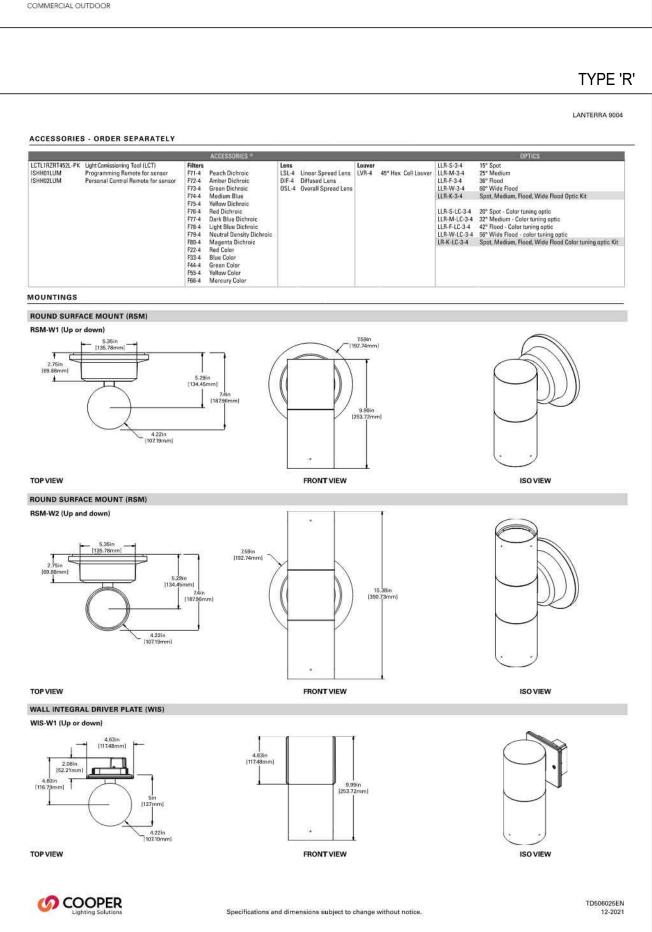
SHEET TITLE

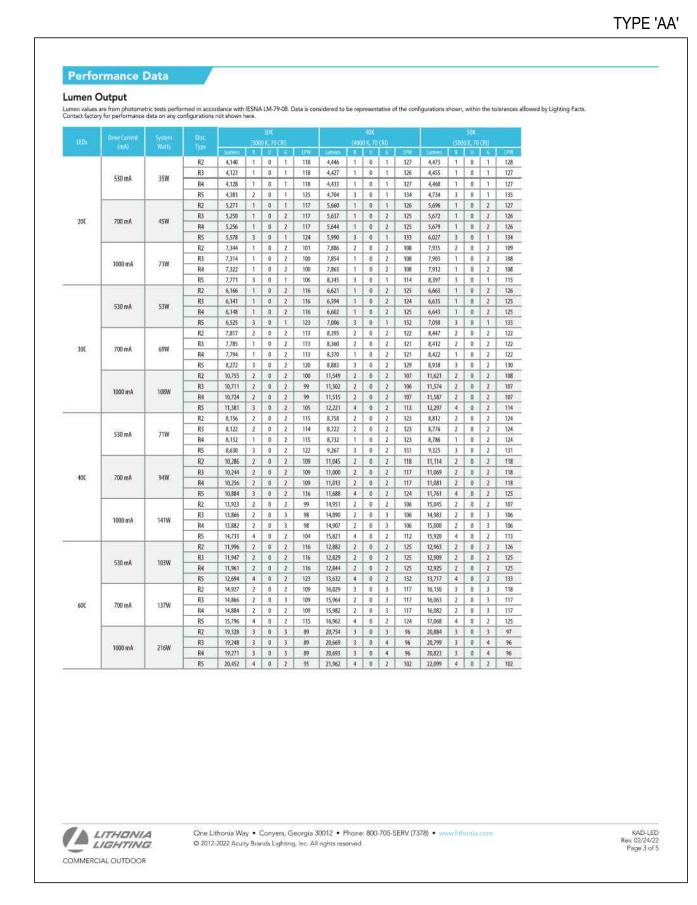
PHOTOMETRIC PLAN

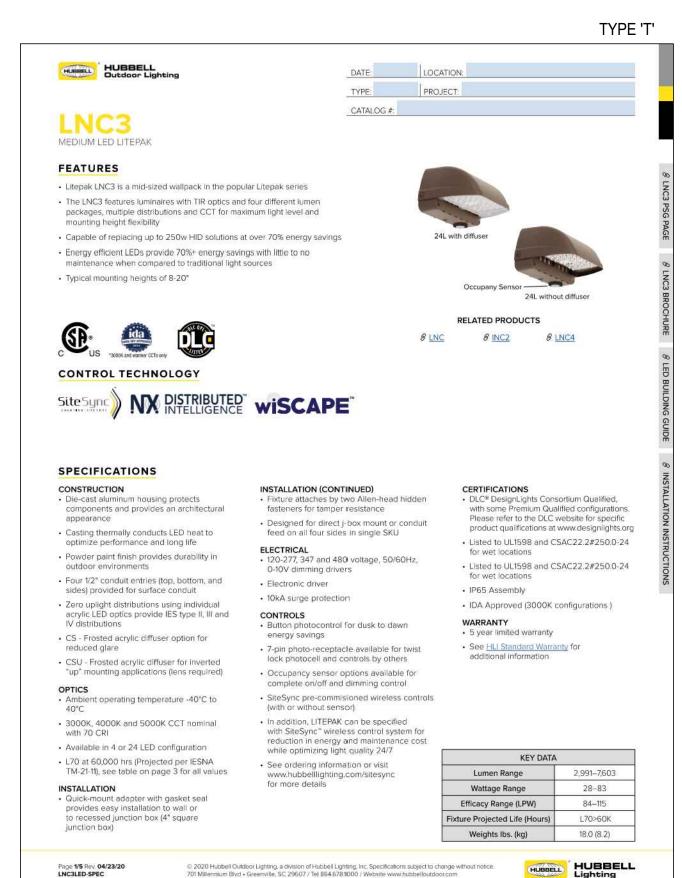
SHEET NUMBER:

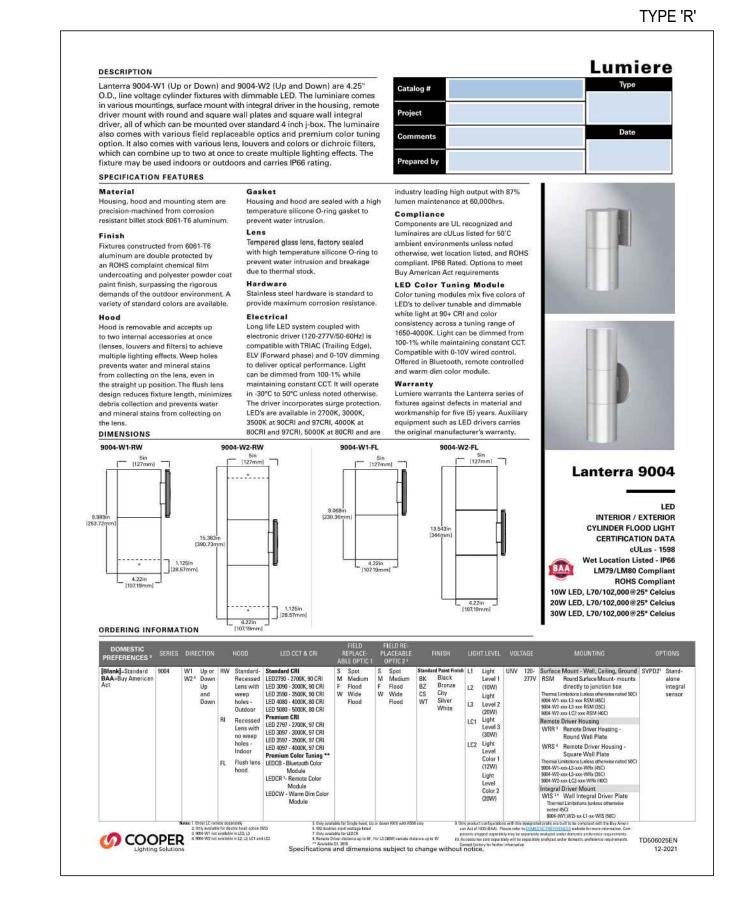
EP100

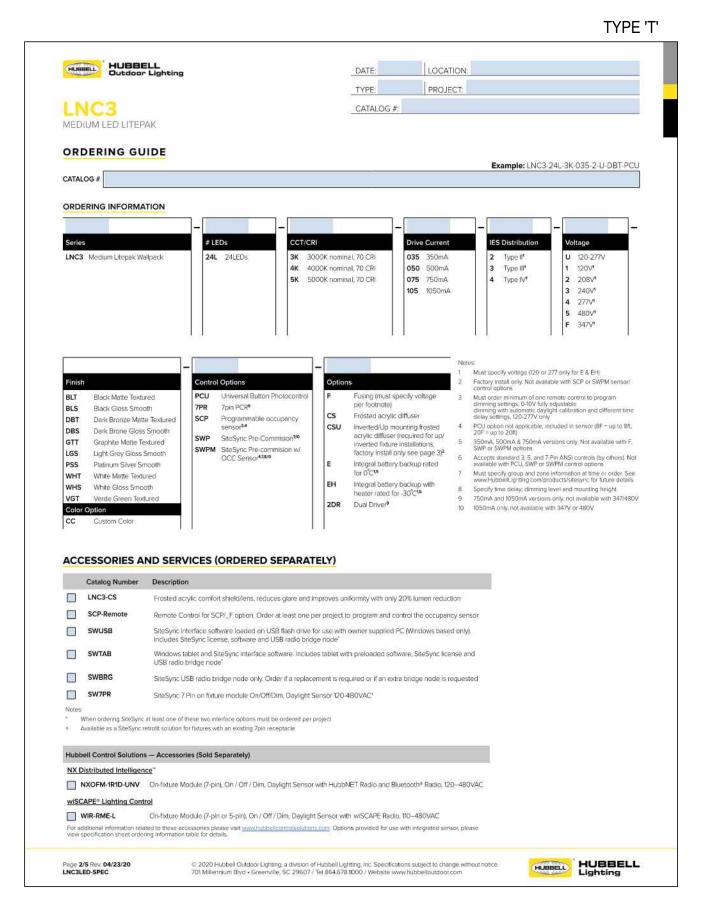




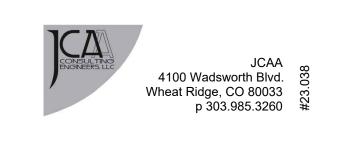




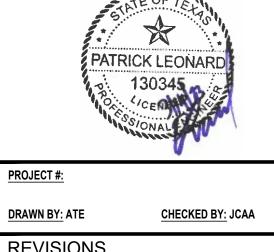








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| PROJECT #:                                   |                  |
|--|------------------|
| DRAWN BY: ATE                                | CHECKED BY: JCAA |
| REVISIONS                                    |                  |
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| <u> </u>                                     |                  |

SEE SHEET EP-100 FOR SITE FIXTURE SCHEDULE

| SH   | ERW                            | /IN       | W/II   | 1 1/            | 21/12 |
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| STORE#<br>XXXX      |  |  |  |  |  |
|---------------------|--|--|--|--|--|
| ADDRESS             |  |  |  |  |  |
| 9091 FAIR OAKS PKWY |  |  |  |  |  |
| FAIR OAKS RANCH, TX |  |  |  |  |  |

78015

SHEET TITLE

PHOTOMETRIC CUTSHEETS

EP101