

1 FIRST FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

armstrongdouglass structural engineers

1601 Bryan St.
Suite 202
Dallas, Texas 75201
214.237.7022
Registration No. F-5635
www.armstrong-douglass.com
ADP Project #19.035.00

### <u>PLAN NOTES</u>:

DEMOLISH FLOOR INFILL TO RESTORE ORIGINAL STAIR OPENING. FIELD VERIFY DIMENSIONS.

DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.

EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

1

BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

IS INSTALLED. I TERED TO MINIMAL EXTENT AS REQUIRE OR DN E

C H I E C I U R E

ISSUED FOR

CONSTRUCTION



03/11/2022

ch Street
X 77351

101 W. Church Stre Livingston, TX 773

22 x 34

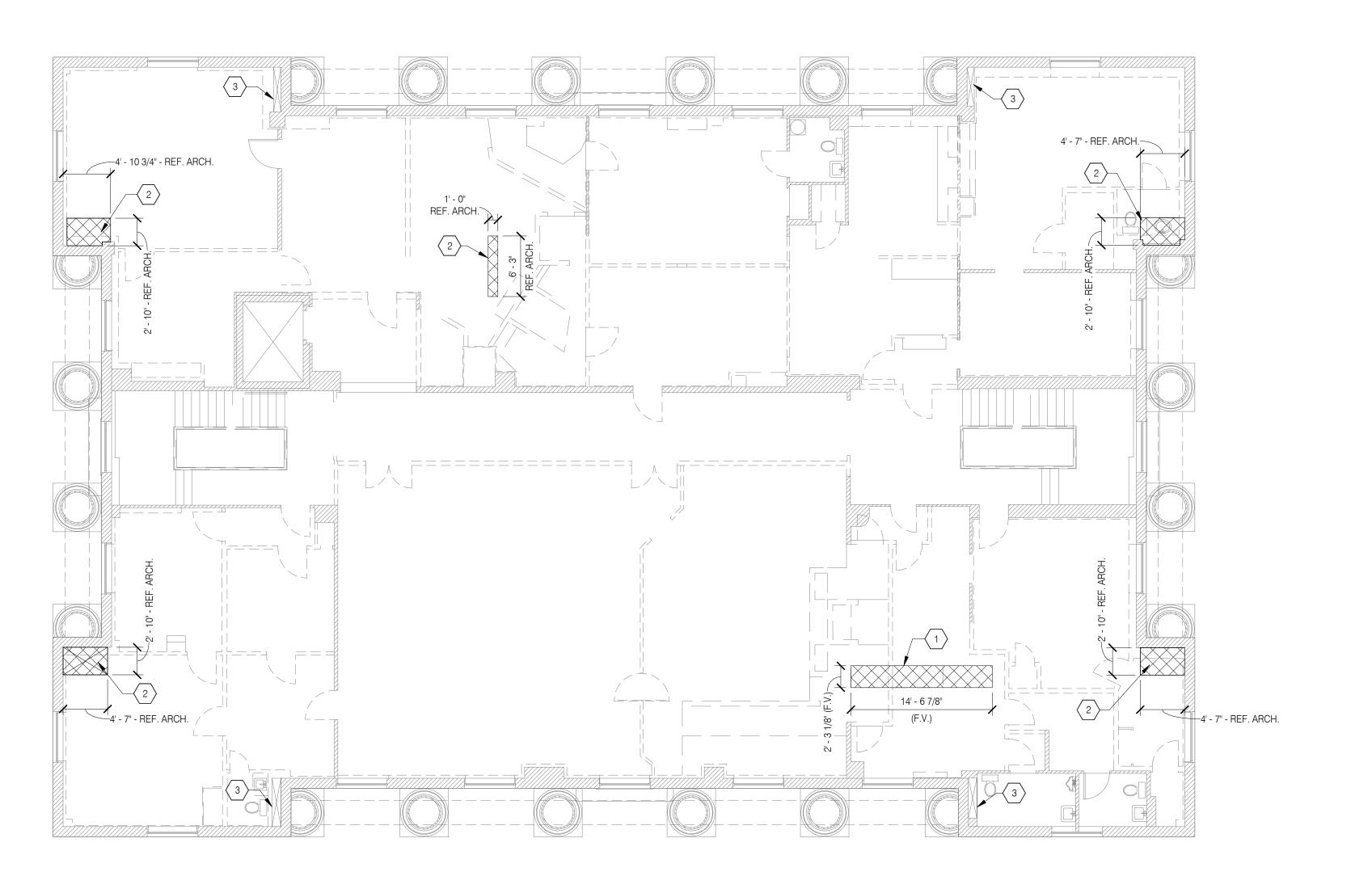
SHEET SIZE 22 x 34

SC ALE:

KAI JOB NUMBER: 2017.171B

SPECIFIC ATIONS NO.: N/A

SD 1.02





1601 Bryan St. Suite 202 Dallas, Texas 75201 214.237.7022 Registration No. F-5635 www.armstrong-douglass.com

ADP Project #19.035.00

- DEMOLISH FLOOR INFILL TO RESTORE ORIGINAL STAIR OPENING. FIELD VERIFY DIMENSIONS.
- DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.
- 3 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

CONSTRUCTION

OR

ISSUED

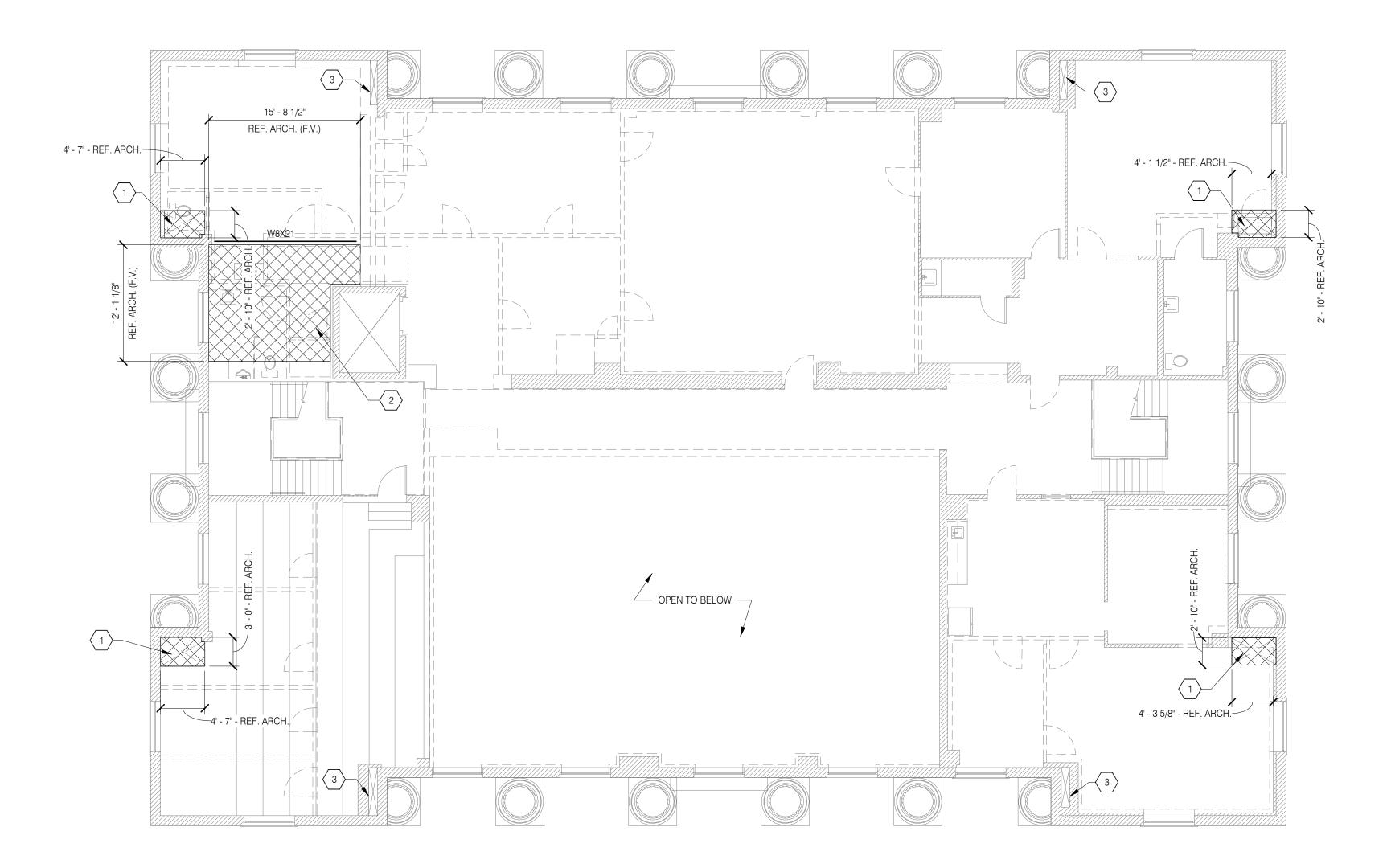
POLK COUNTY PHASE TWO:

SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B SPECIFIC ATIONS NO.:

OF SEQ #

SECOND FLOOR PLAN - DEMOLITION

1/8" = 1'-0"





1/8" = 1'-0"

armstrongdouglass structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

PLAN NOTES:

DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.

2 INSTALL STEEL BEAM PRIOR TO DEMOLISHING EXISTING SLAB AND CONCRETE BEAM. ALIGN SOUTHERN EXTENTS OF SLAB DEMOLITION WITH FACE OF EXISTING CONCRETE BEAM.

3 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR PENETRATION.

1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.

TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB

> CONSTRUCTION OR

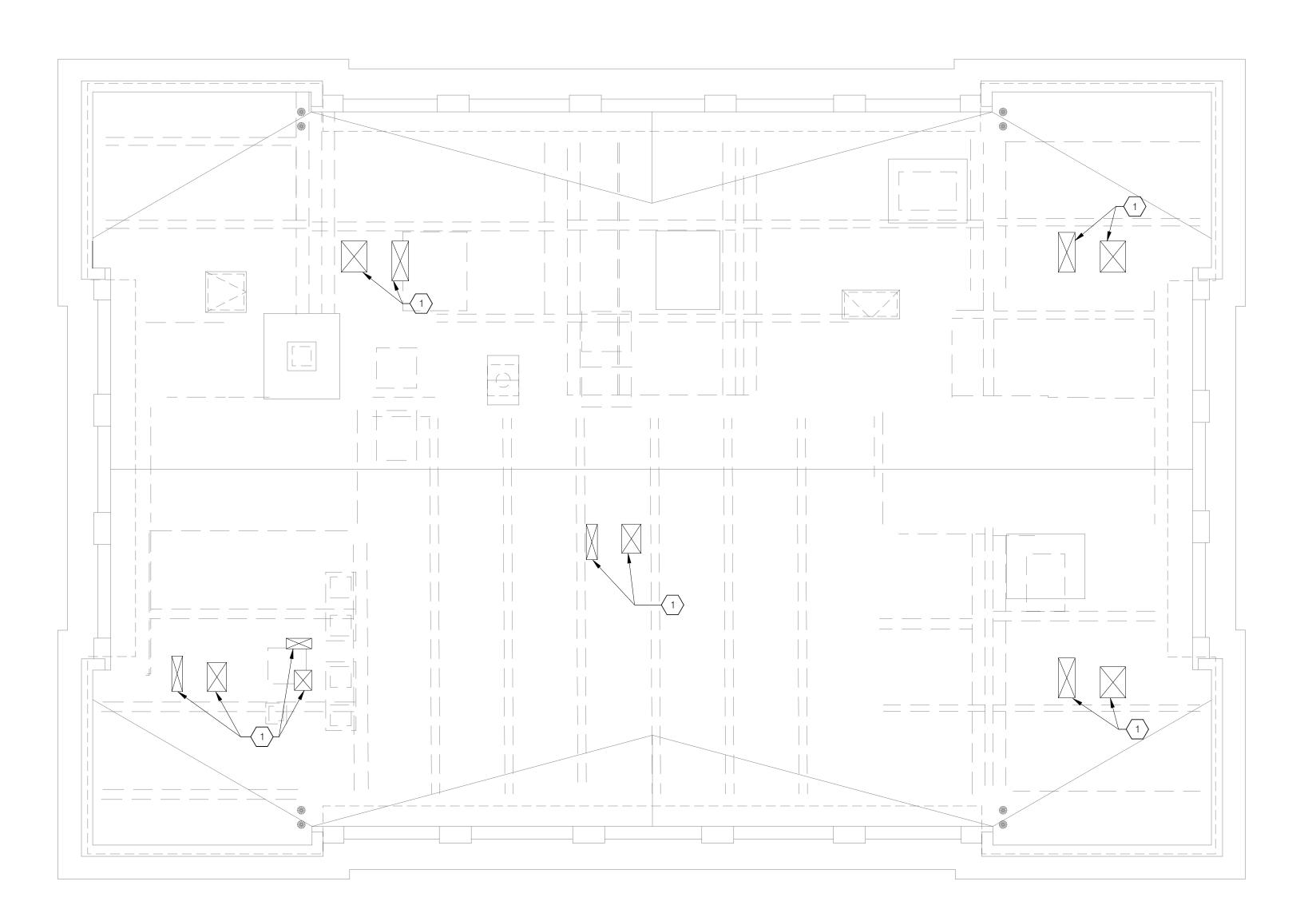
ISSNEI



POLK COUNTY PHASE TWO :

SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.:

OF SEQ #



1 ROOF PLAN - DEMOLITION

1/8" = 1'-0"

armstrong-douglass structural engineers

1601 Bryan St.
Suite 202
Dallas, Texas 75201
214.237.7022
Registration No. F-5635
www.armstrong-douglass.com ADP Project #19.035.00

PLAN NOTES:

DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.

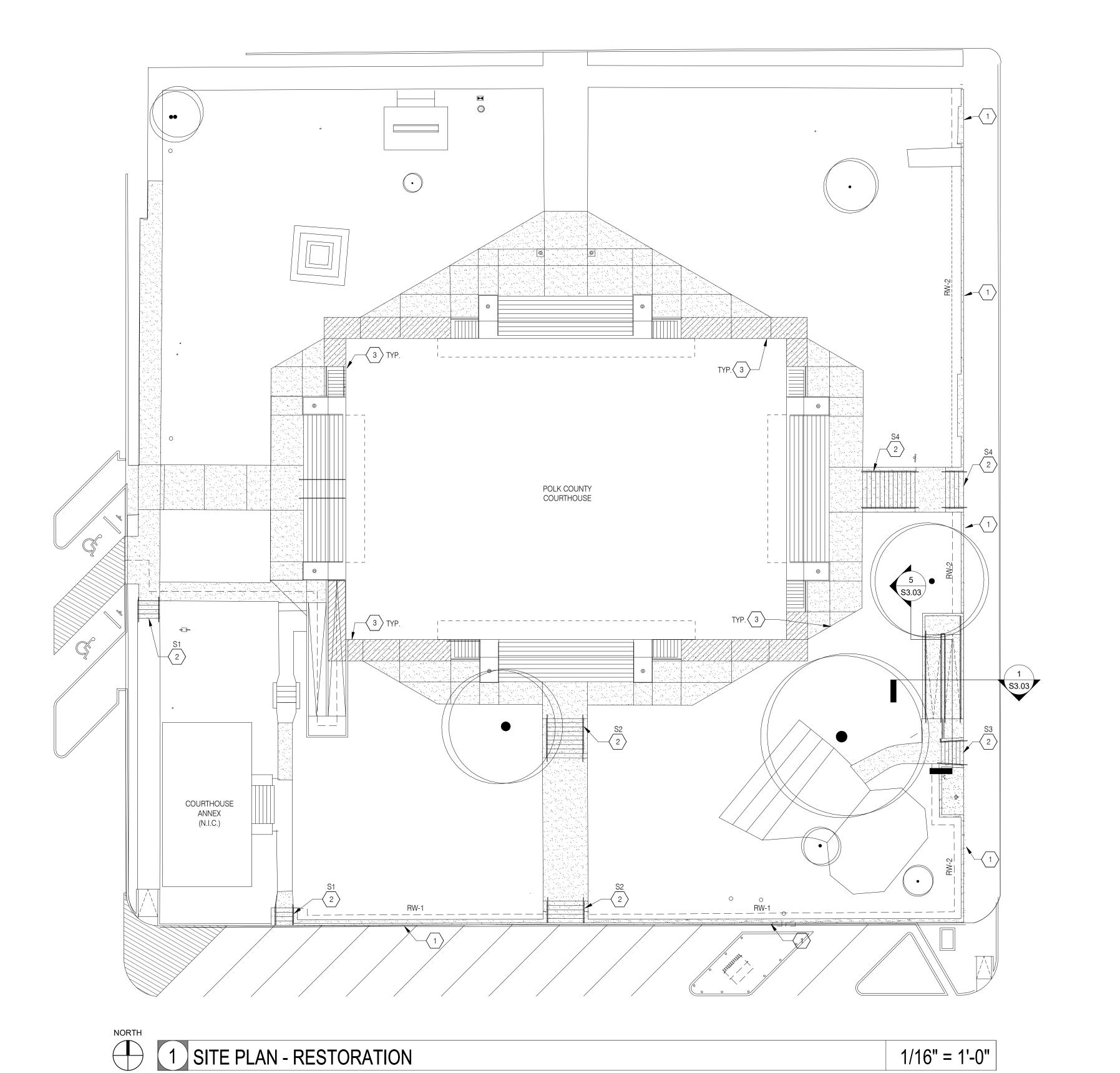
NOTE:
BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION
DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE
NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING
ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY

ISSUED

CONSTRUCTION

FOR

SHEET SIZE OF SEQ #



armstrongdouglass structural engineers

douglass
structural engineers

1601 Bryan St.
Suite 202
Dallas, Texas 75201
214.237.7022
Registration No. F-5635
www.armstrong-douglass.com

ADP Project #19.035.00

SITE PLAN NOTES:

1 SITE RETAINING WALL PER <u>4/ \$3.03</u> REF. CIVIL FOR ADD'L. INFO.

2 STAIR PER SCHEDULE. REF. <u>5/ S3.02</u>.

ک	JUNIT	LIT SOI ILDULL. I	ILI . <u>3/ 33.02</u> .
	STAIR	TREAD DEPTH	RISER HEIGHT
	S1	1'-2"	EQ. SPA. (7" MA
	S2	1'-2"	6"
	S3	1'-0"	5 1/2"
	S4	1'-2"	6 3/8"

3 EXTERIOR PERIMETER WALLS MUST REMAIN EXCAVATED UNTIL INTERIOR PERIMETER BASEMENT SLAB ON GRADE HAS REACHED 75% OF ITS 28 - DAY STRENGTH.

SCOTT R. ARMSTRONG

832051

CENSED

SS/ONAL ENGLIS

CONSTRUCTION

FOR

03/11/2022 77351 NRATION

IWU: KESIUKA 101 W. Church Street Livingston, TX 77351

SHEET SIZE 22 x 3

SHEET SIZE 22 x 34

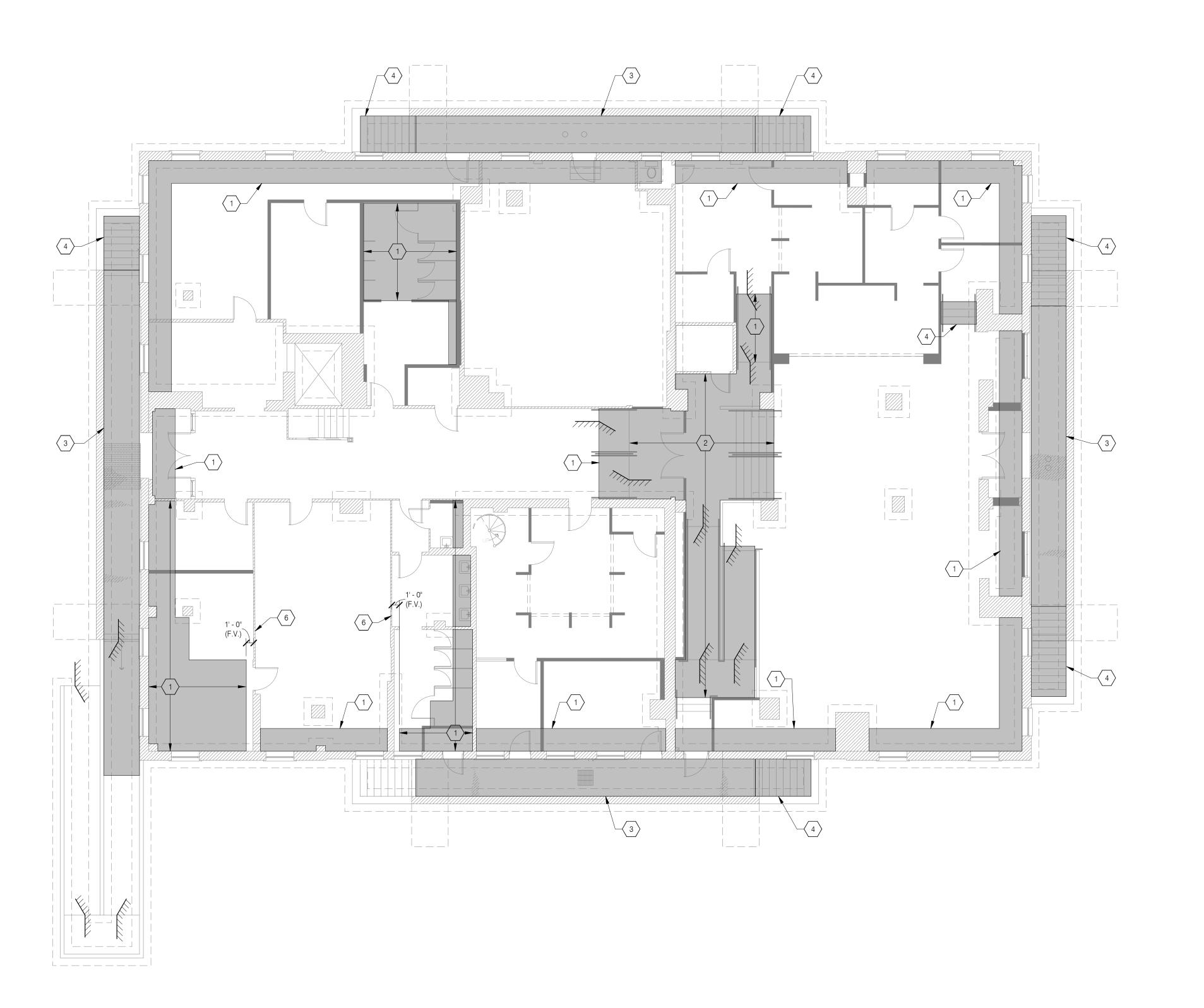
SC ALE:

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: 03/11/2022

SHEET OF SEQ #



1/8" = 1'-0"

armstrongdouglass structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

### PLAN NOTES:

- 1 REPLACE EXISTING CONCRETE SLAB ON GRADE W/ 5 INCH SLAB ON GRADE REINFORCED W/ #4 @ 16" O.C., EACH WAY. INSTALL 15 MIL. VAPOR RETARDER UNDER SLAB. SLAB ALONG PERIMETER WALLS MUST REACH 75% OF 28 DAY STRENGTH PRIOR TO EXTERIOR WALLS BEING BACKFILLED. REFER TO 3/S3.03.
- $\langle$  2  $\rangle$  RAISE EXISTING SLAB ELEVATION TO MATCH CORRIDOR ELEVATION USING EPS-19 GEOFOAM. INSTALL 15 MIL. VAPOR RETARDER UNDER NEW SLAB. 4 INCH SLAB ON GRADE REINFORCED W/ 6X6 - W2.1xW2.1 WWF. REFER TO 7/ S3.03.
- 4 REPLACE CONCRETE STAIRS TO MATCH EXISTING. REFER TO <u>5/ S3.02</u>. CONTRACTOR TO VERIFY DEPTH OF EXISTING WALL AT STAIR TO ENSURE WALL IS NOT UNDERMINED PRIOR TO STAIR REMOVAL AND REPLACEMENT.
- $\langle$  6  $\rangle$  HISTORIC 2" MASONRY PARTITION WALL. DO <u>NOT</u> DAMAGE
- 7. ADDITIONAL SLAB REMOVAL/REPLACEMENT MAY BE REQUIRED UPON FIELD VERIFICATION OF EXISTING STORM DRAIN INFRASTRUCTURE AND PLUMBING ENGINEER'S PROFESSIONAL RECOMMENDATIONS.

BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

REPLACE EXISTING CONCRETE SLAB ON GRADE W/ 5 INCH SLAB ON GRADE, REINFORCED W/ #4 @ 16" O.C., EACH WAY. REFER TO 3/ S3.03.

 $\langle 5 \rangle$  NOT USED.

WALL DURING DEMOLITION OF SLAB ON GRADE.

- 8. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SUBMIT WRITTEN PROPOSAL REQUEST FOR ANY ADDITIONAL REMEDIAL STORM DRAIN ALTERATIONS NOT OTHERWISE DOCUMENTED BY ENGINEER'S RESTORATION PLUMBING PLANS.



CONSTRUCTION

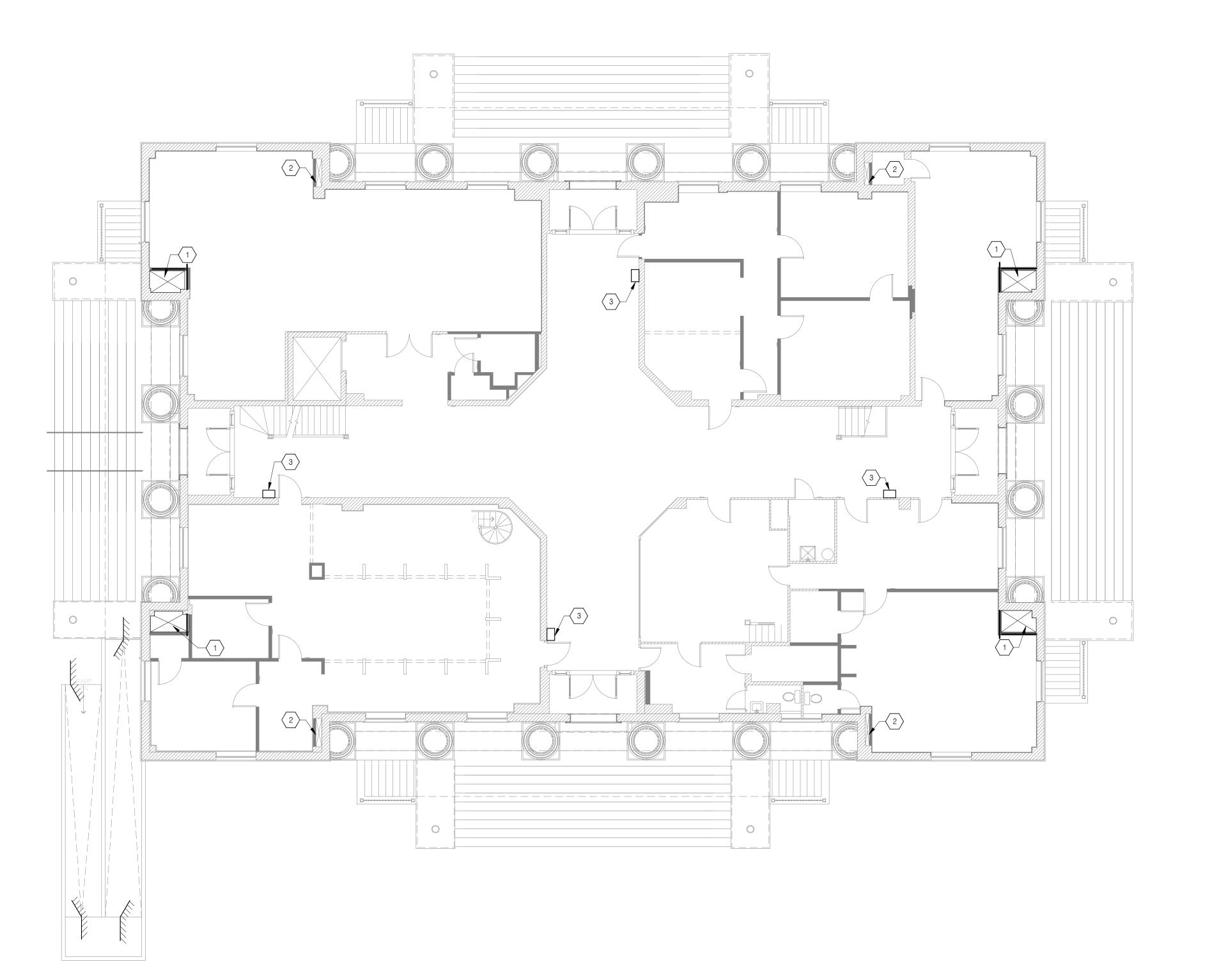
OR

ISSNEI

SHEET SIZE

KAI JOB NUMBER: 2017.171B OF SEQ #

1 BASEMENT FLOOR PLAN - RESTORATION



1/8" = 1'-0"

armstrong-douglass structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 214.237.7022 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

PLAN NOTES:

MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO 3/S5.01.

2 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION.
COORDINATE PENETRATION DIMENSIONS WITH ENGINEER
PRIOR TO SAWCUTTING SLAB PENETRATION.

3 FLOOR PLATE INFILL AT FORMER HVAC DUCTING.

NOTE:
BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION
DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE
NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING
ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

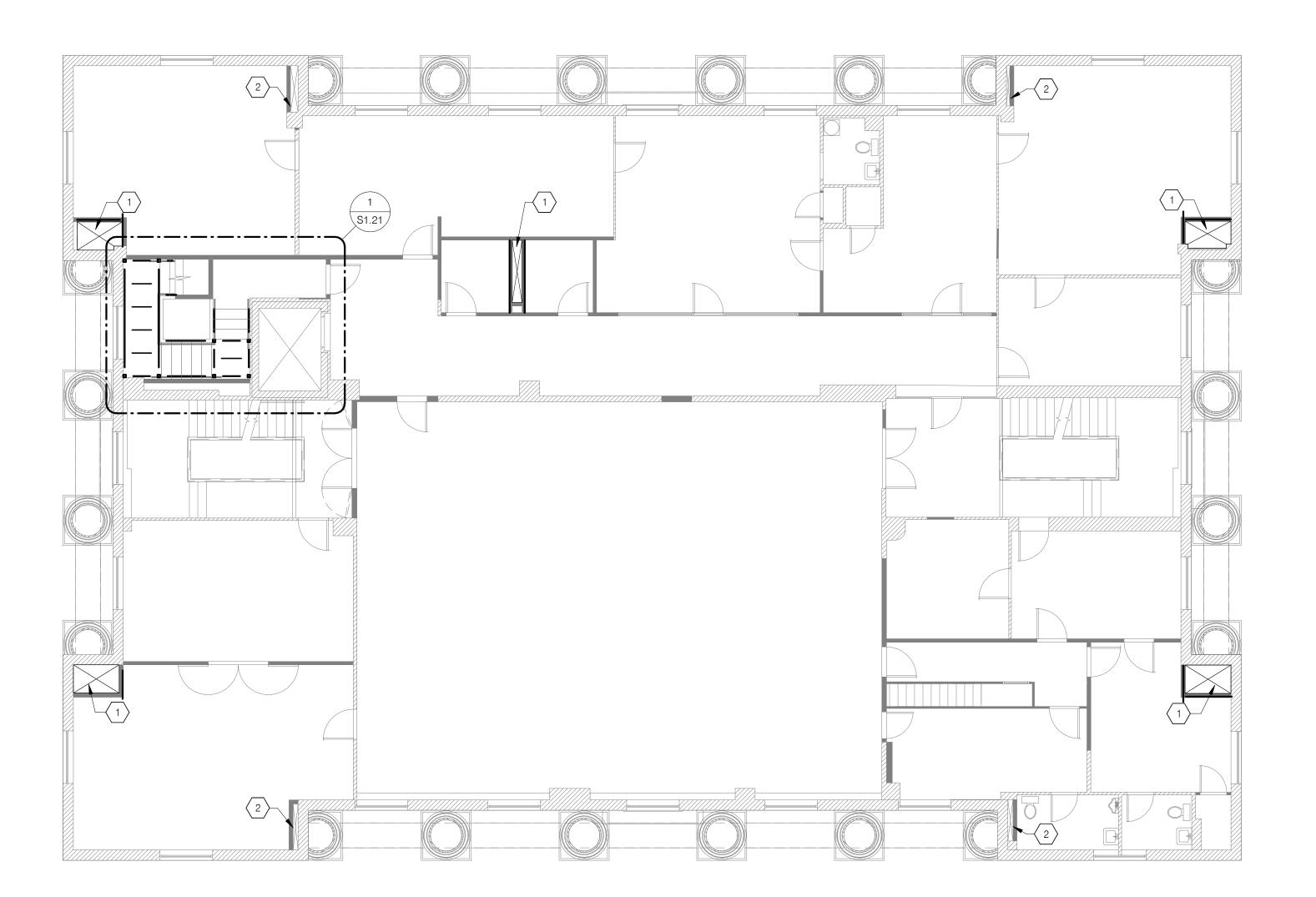
CONSTRUCTION FOR

ISSUED

SHEET SIZE

OF SEQ #

1 FIRST FLOOR PLAN - RESTORATION



1 SECOND FLOOR PLAN - RESTORATION

1/8" = 1'-0"

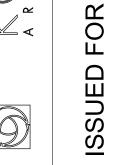
armstrongdouglass structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

### PLAN NOTES:

- 1 MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO
- 2 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

- 1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.



TRUCTION

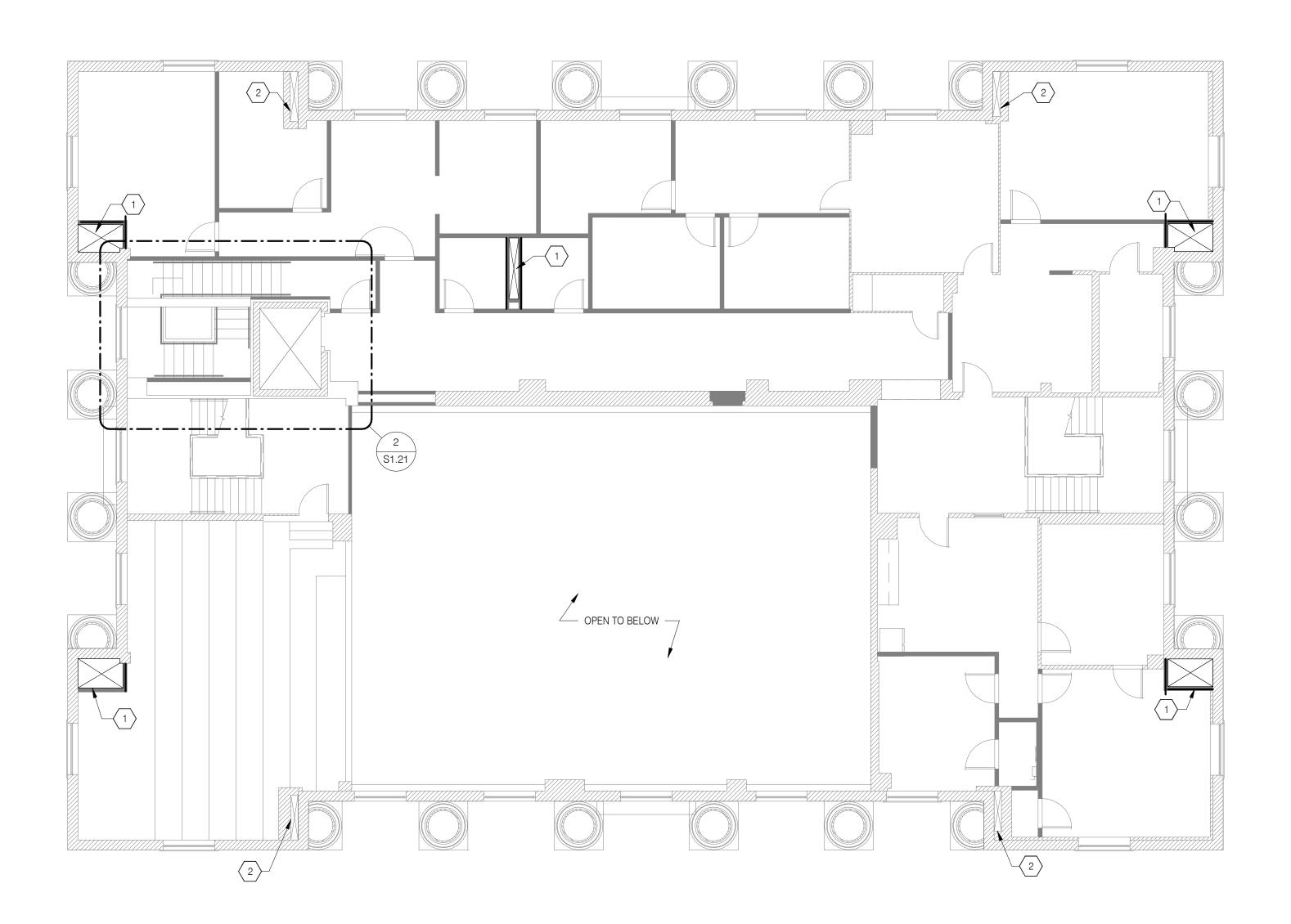
ONS<sup>-</sup>

Ö



SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B

OF SEQ #



1 THIRD FLOOR PLAN - RESTORATION 1/8" = 1'-0"

armstrongdouglass structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 214.237.7022 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

### PLAN NOTES:

1 MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO 3/ S5.01.

EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT
AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.

ISSUED

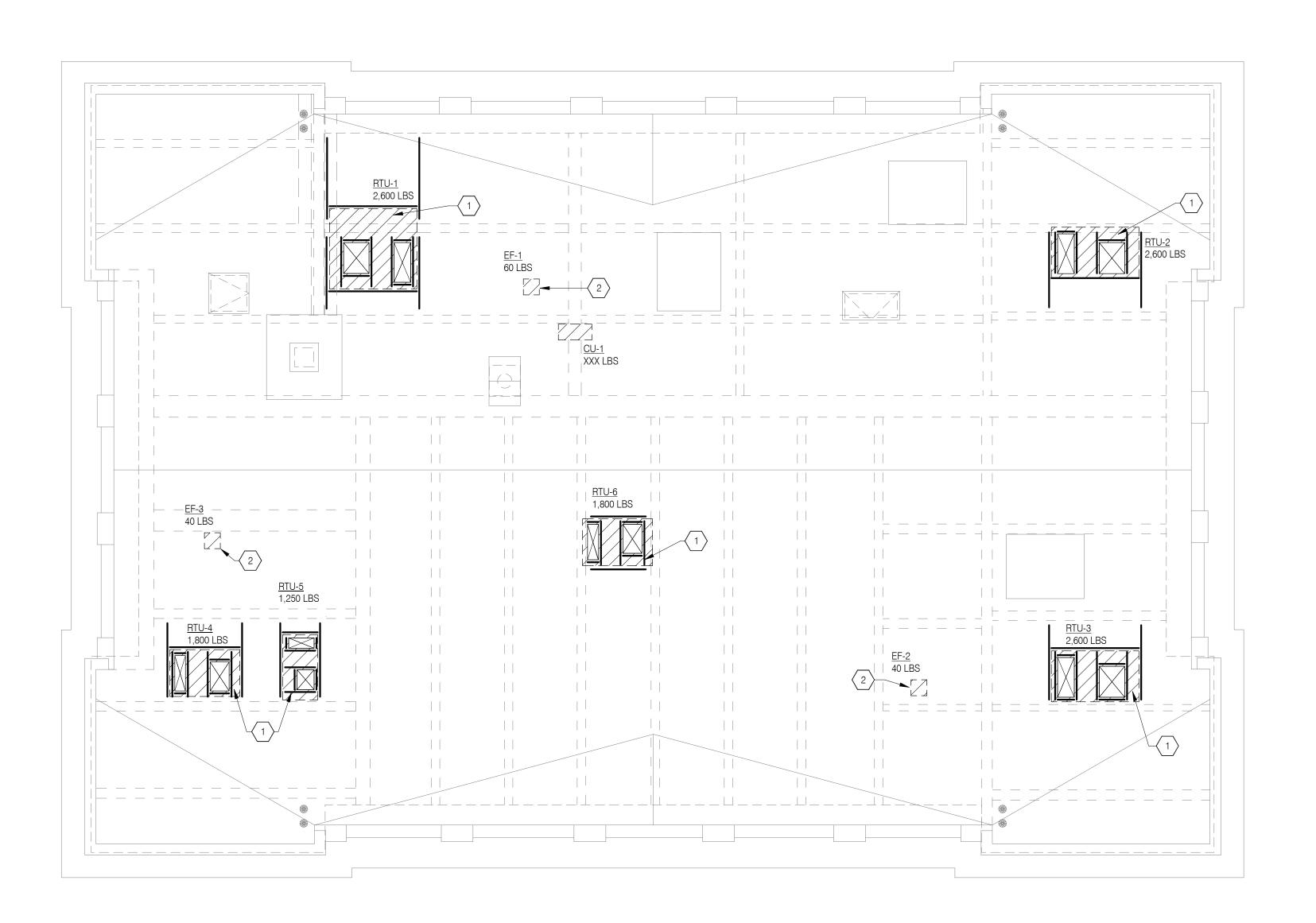
CONSTRUCTION

OR



22 x 34

KAI JOB NUMBER: 2017.171B SPECIFIC ATIONS NO.: OF SEQ #





1/8" = 1'-0"

armstrongdouglass structural engineers

Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

Structural engineers

1601 Bryan St.
Suite 202
Dallas, Texas 75201
214.237.7022

### PLAN NOTES:

MECHANICAL CHASE PENETRATIONS. INSTALL W8X10
BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF
STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF.
ARCH. & MEP. REFER TO 3/S5.01.

2 INSTALL W8X10 BEAMS TO SUPPORT RTU CURBS. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO 3/ S5.01.

### NC .

BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.

A R C H I T E C T U R E

ISSUED FOR

CONSTRUCTION



03/11/2022

: KESTOKA HON Church Street ton, TX 77351

1ASE IWO : KE 101 W. Church Livingston, TX

SHEET SIZE 22 x

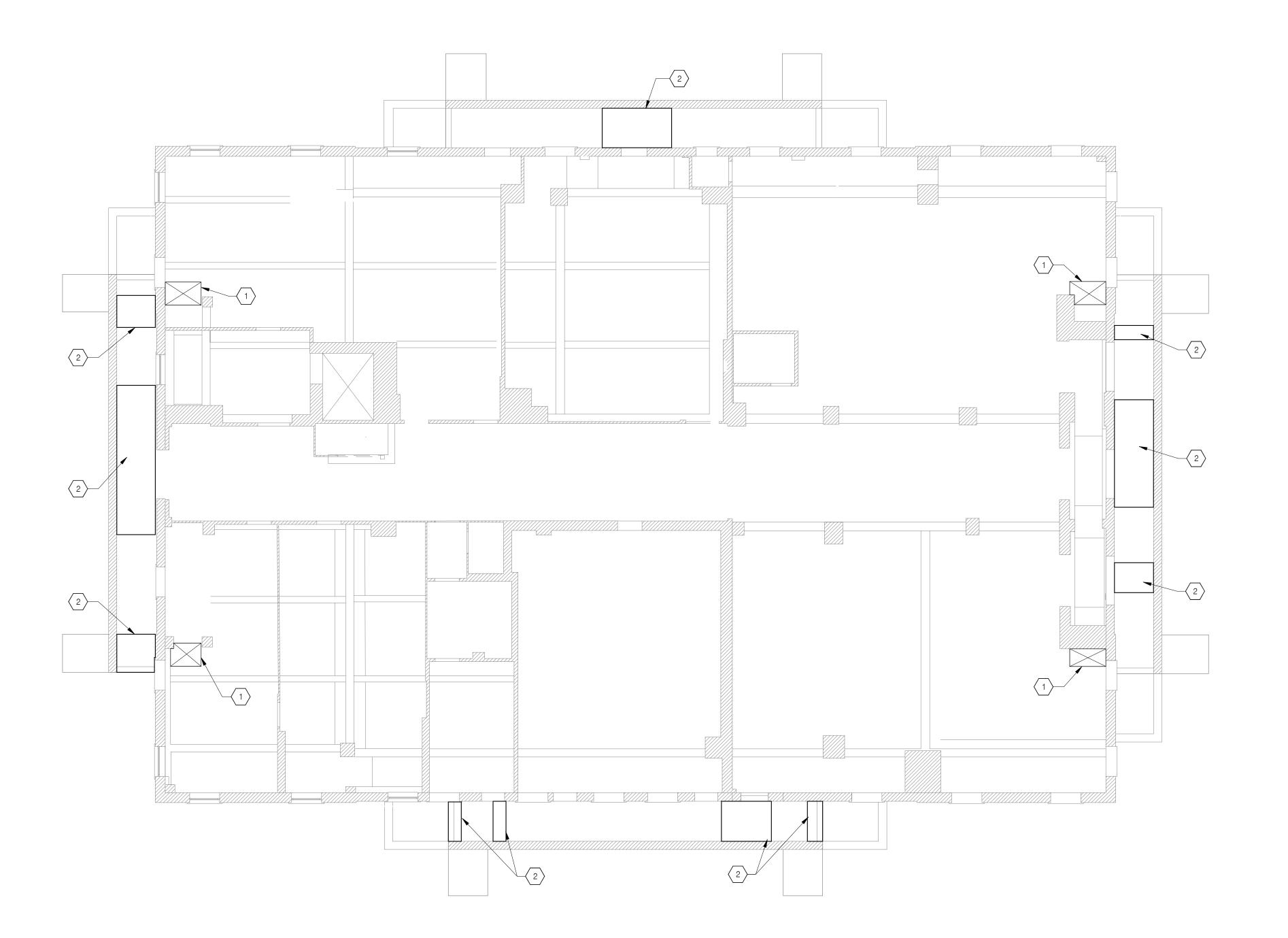
SC ALE:

KAI JOB NUMBER: 2017.17

SPECIFIC ATIONS NO.: N

DATE: 03/11/20

S1.05



1 BASEMENT REFLECTED CEILING PLAN

1/8" = 1'-0"

armstrong-douglass structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 214.237.7022 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

### <u>PLAN NOTES</u>:

MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO <u>3/ S5.01</u>.

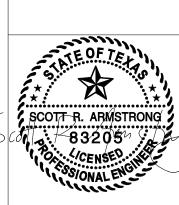
MISCELLANEOUS CONCRETE REPAIR:
EPOXY INJECT CRACKS; REMOVE AND REPLACE UNSOUND CONCRETE
PER <u>6 & 8/S3.03</u>. ADDITIONAL AREAS LIKELY TO BE DISCOVERED
DURING DEMOLITION PHASE.

NOTE:
BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



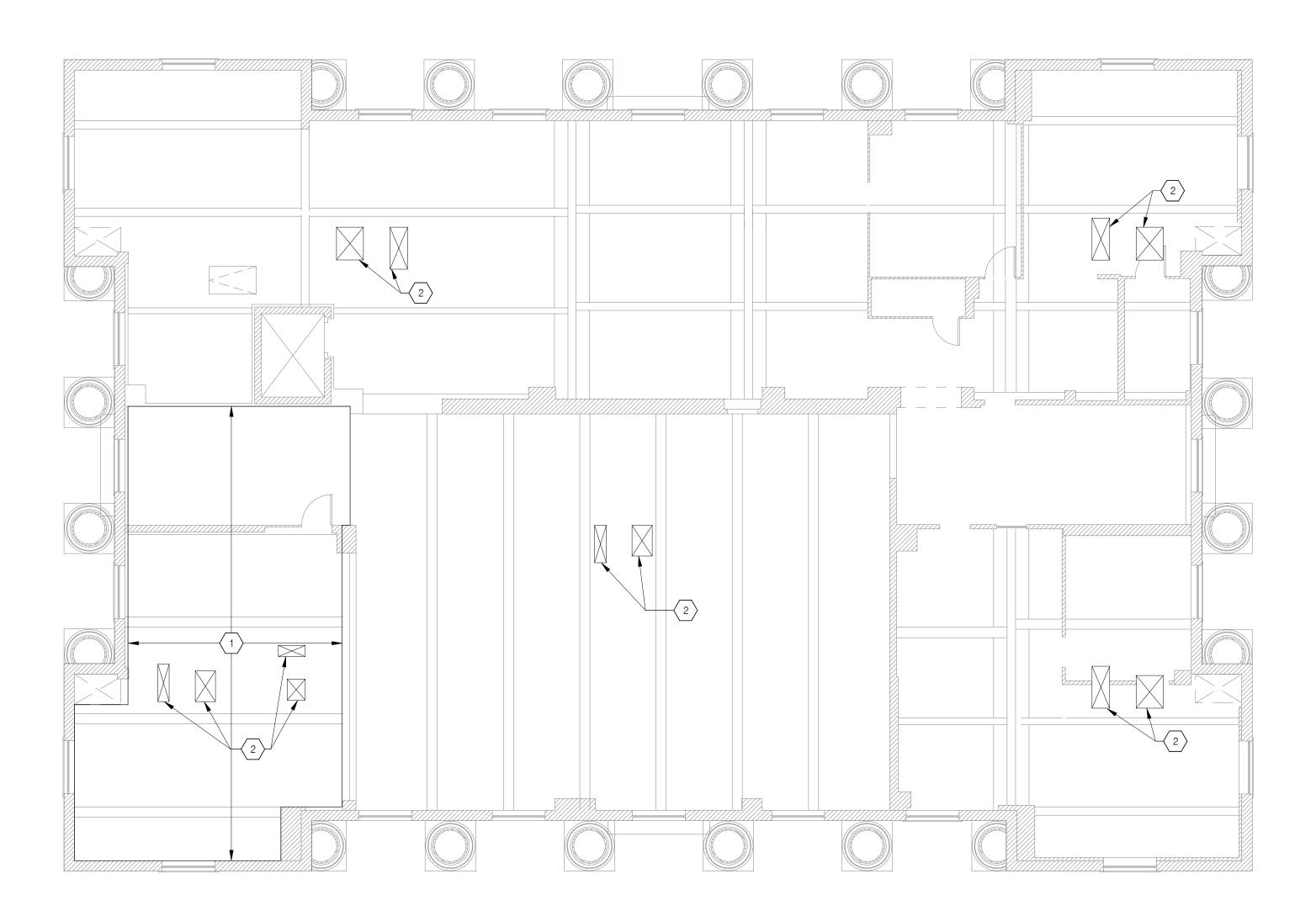
CONSTRUCTION

OR



SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B

03/11/2022 OF SEQ #



1 THIRD FLOOR PLAN - REFLECTED CEILING

1/8" = 1'-0"

armstrong**douglass** structural engineers

1601 Bryan St. Suite 202 Dallas, Texas 75201 214.237.7022 Registration No. F-5635 www.armstrong-douglass.com ADP Project #19.035.00

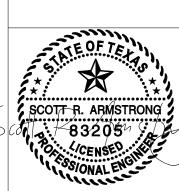
### PLAN NOTES:

MISCELLANEOUS CONCRETE REPAIR: EPOXY INJECT CRACKS; REMOVE AND REPLACE UNSOUND CONCRETE PER <u>6 & 8/S3.03</u>. ADDITIONAL AREAS LIKELY TO BE DISCOVERED DURING DEMOLITION PHASE.

2 MECHANICAL CHASE PENETRATIONS - REF. PLANS FOR REINFORCING AND ARCH. AND MEP FOR ADDNL. INFO.

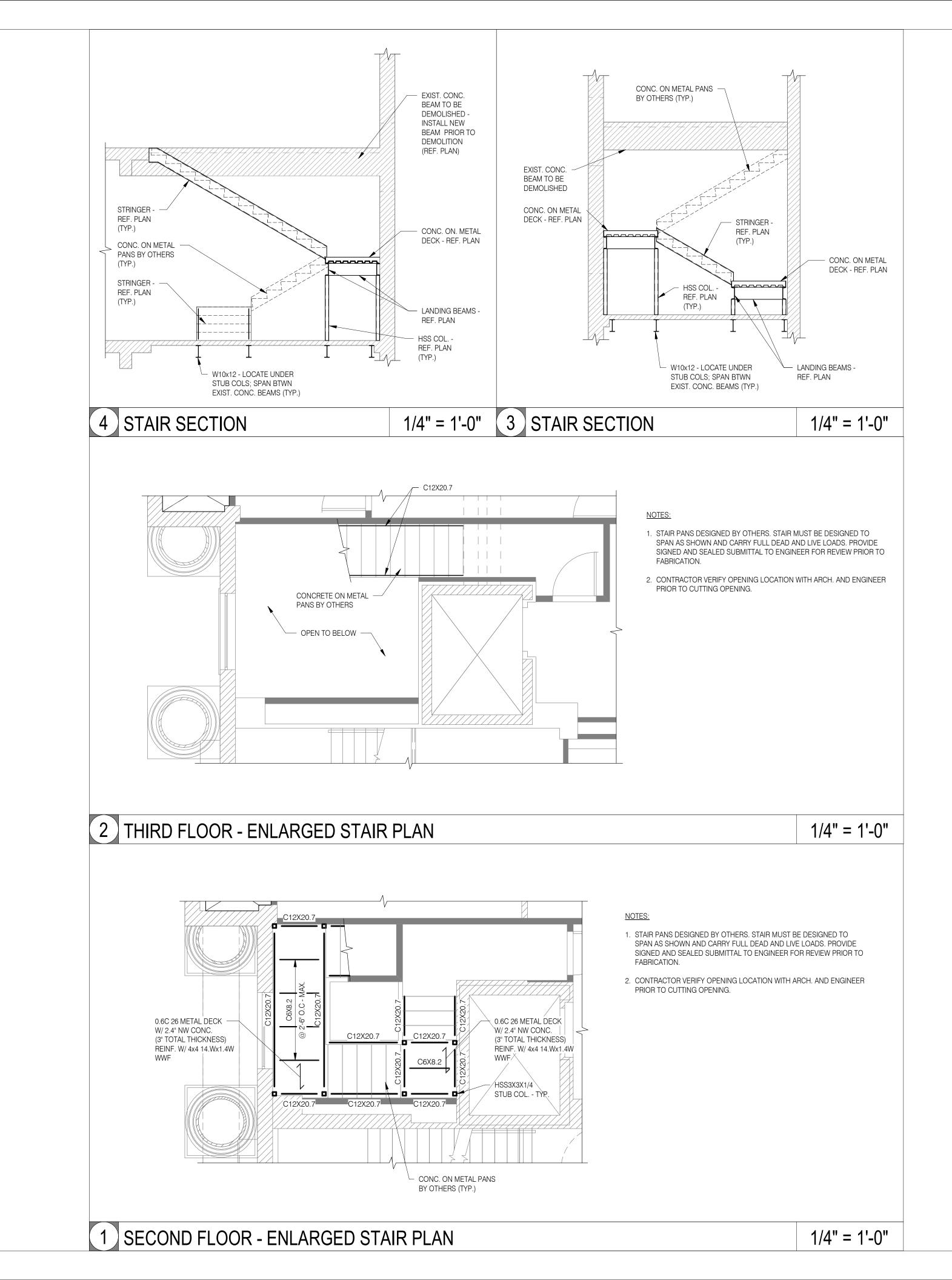
NOTE:
BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

> CONSTRUCTION OR



KAI JOB NUMBER: 2017.171B

OF SEQ #



armstrong-douglass
structural engineers

1601 Bryan St.
Suite 202
Dallas, Texas 75201
214.237.7022
Registration No. F-5635

Structural engineers

1601 Bryan St.
Suite 202
Dallas, Texas 75201
214-237.7022
Registration No. F-5635
www.armstrong-douglass.com
ADP Project #19.035.00

A R C H I T E C T U R E

CONSTRUCTION

ISSUED FOR



03/11/2022

RESTORATION nurch Street

101 W. Church Stree Livingston, TX 7735

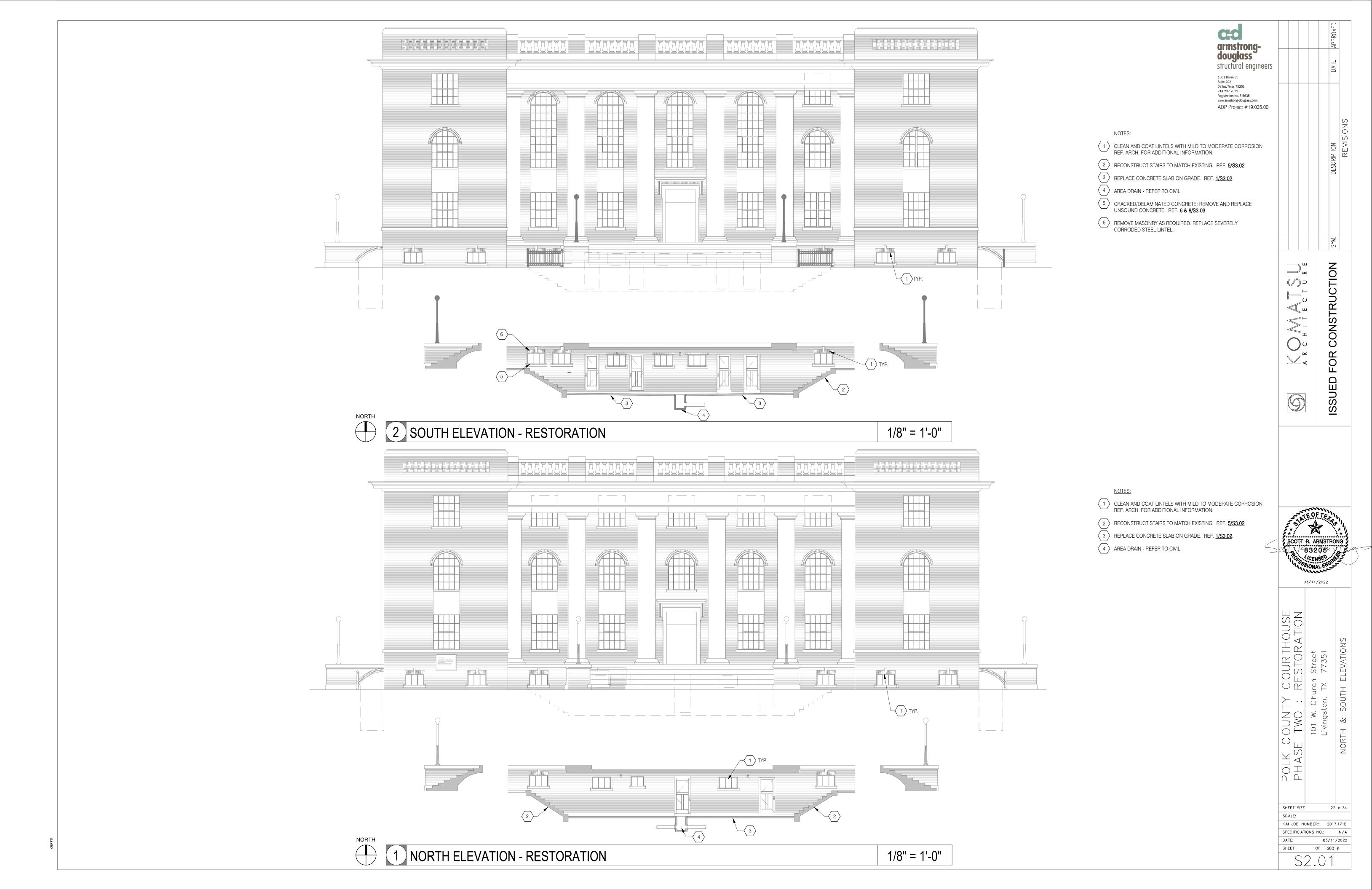
101 Livin STAIR FRAM

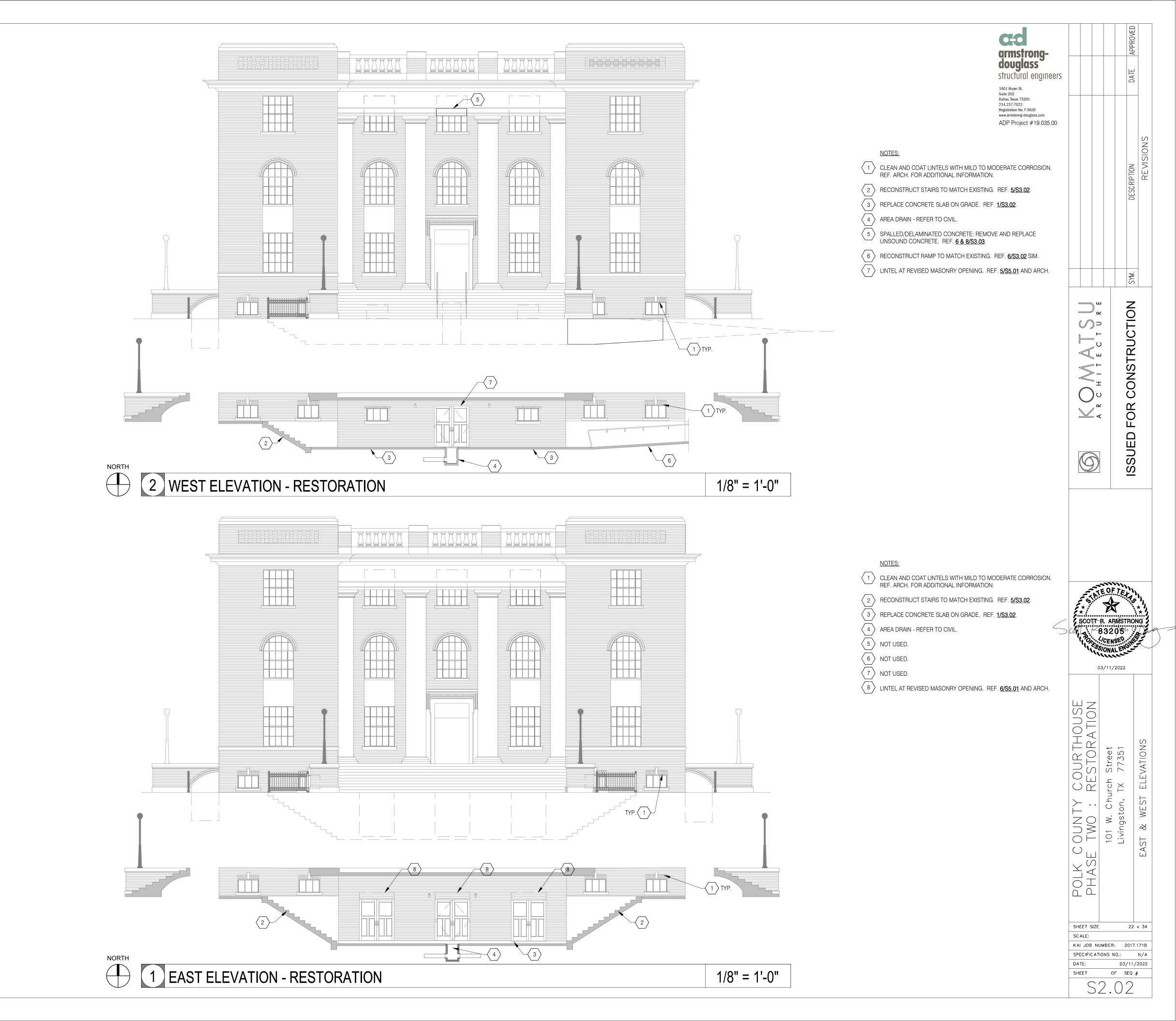
SHEET SIZE 22 x 34

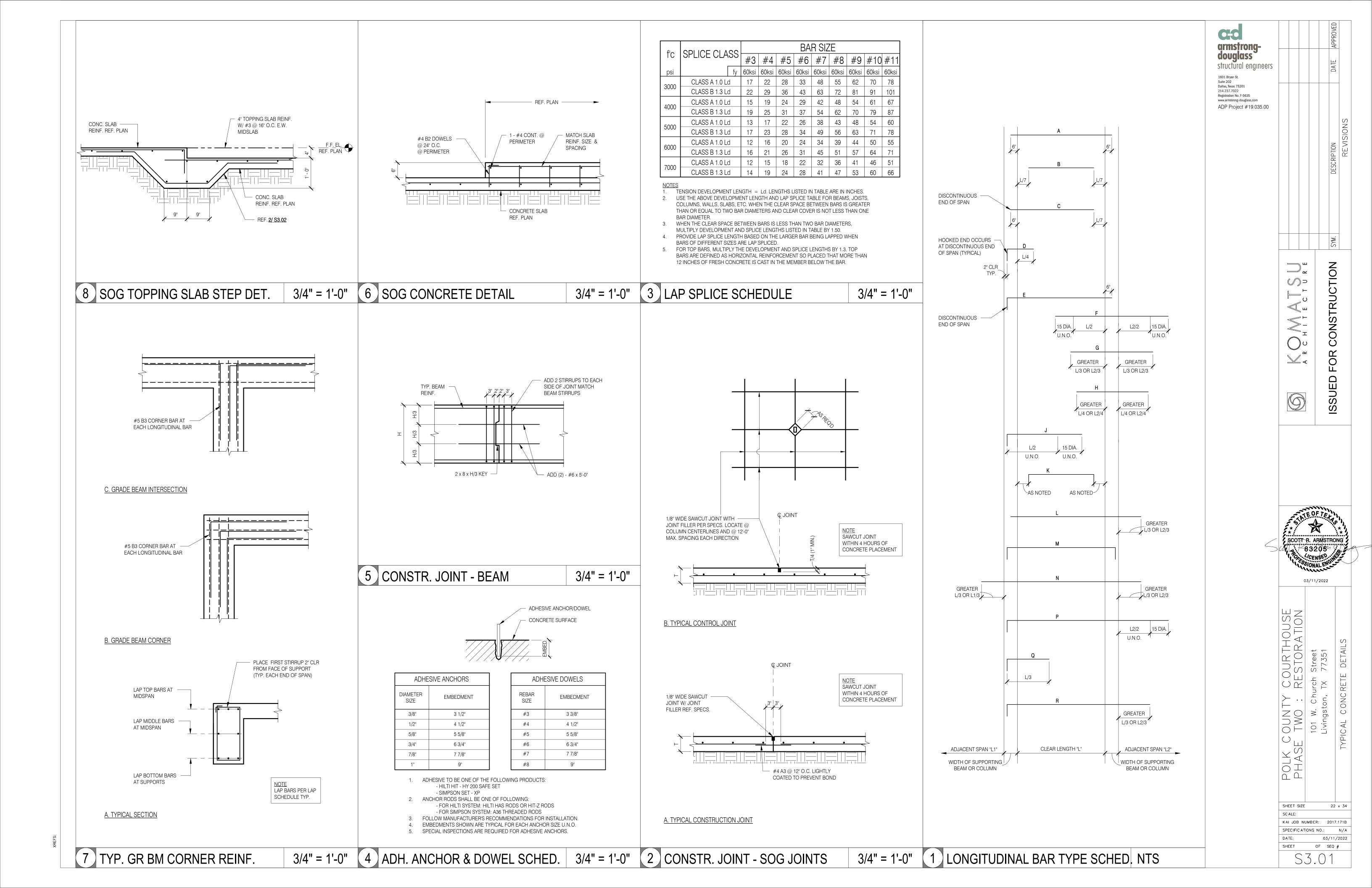
SC ALE:

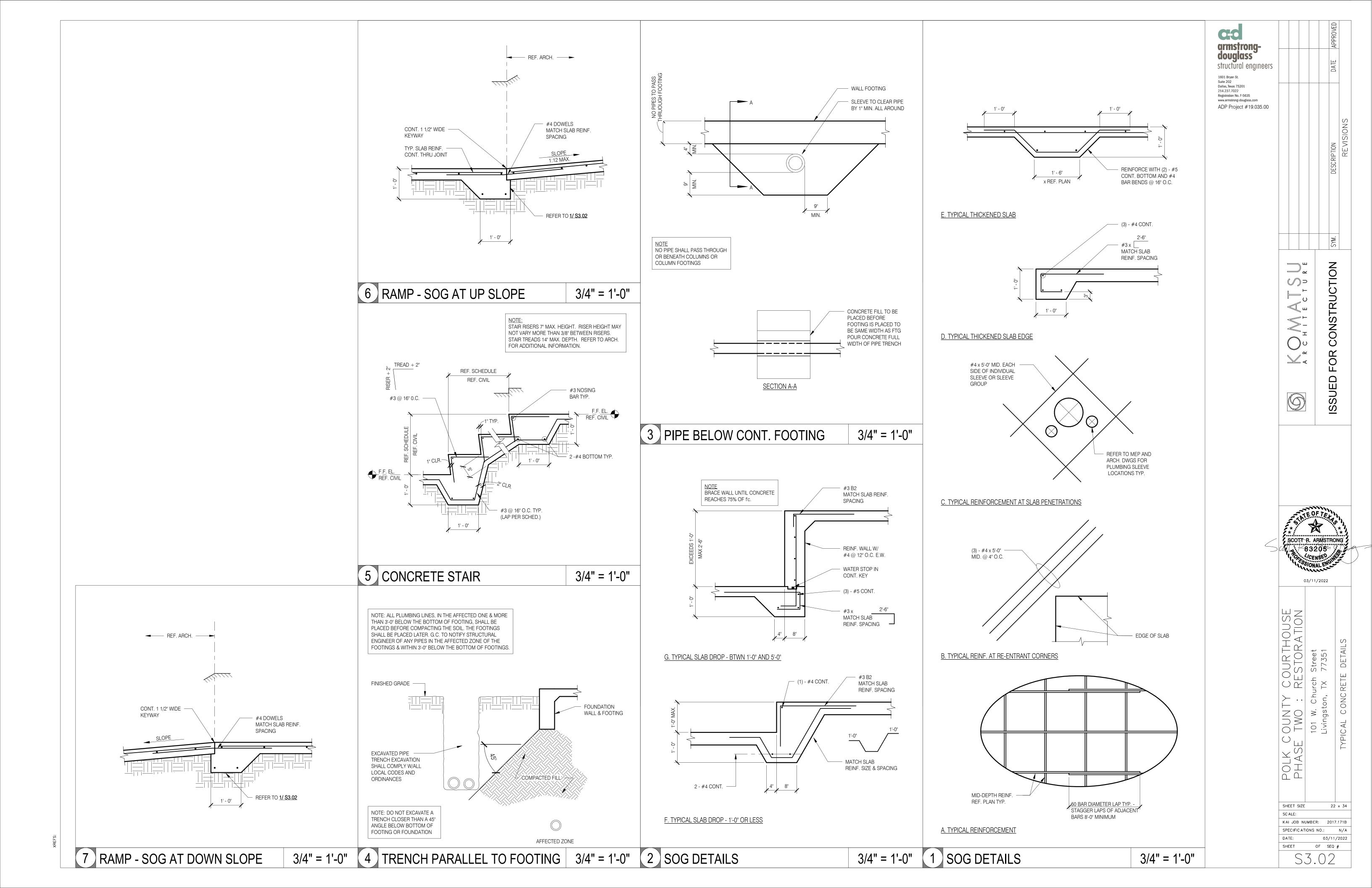
KAI JOB NUMBER: 2017.171B

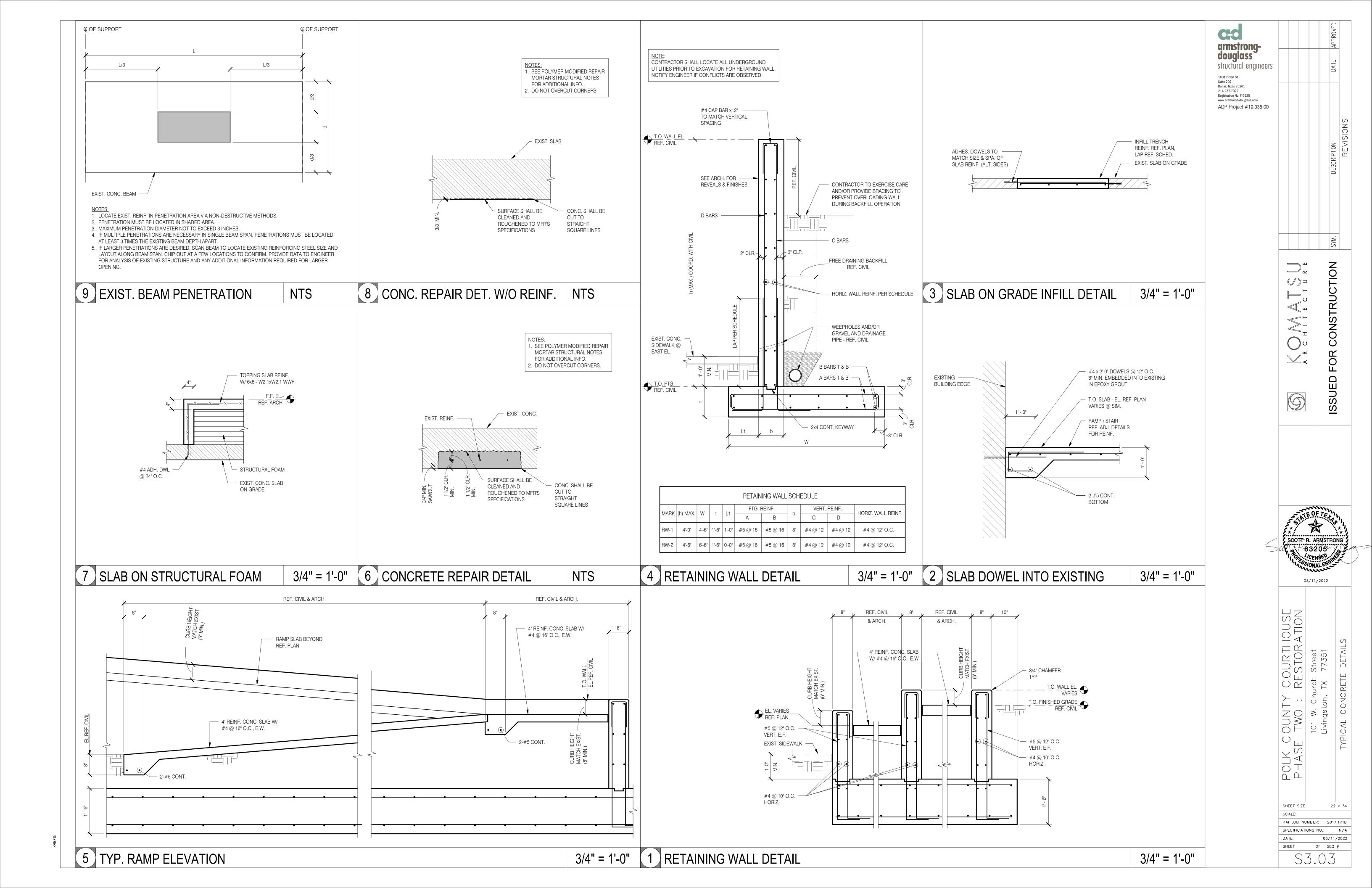
SPECIFIC ATIONS NO.: N/A

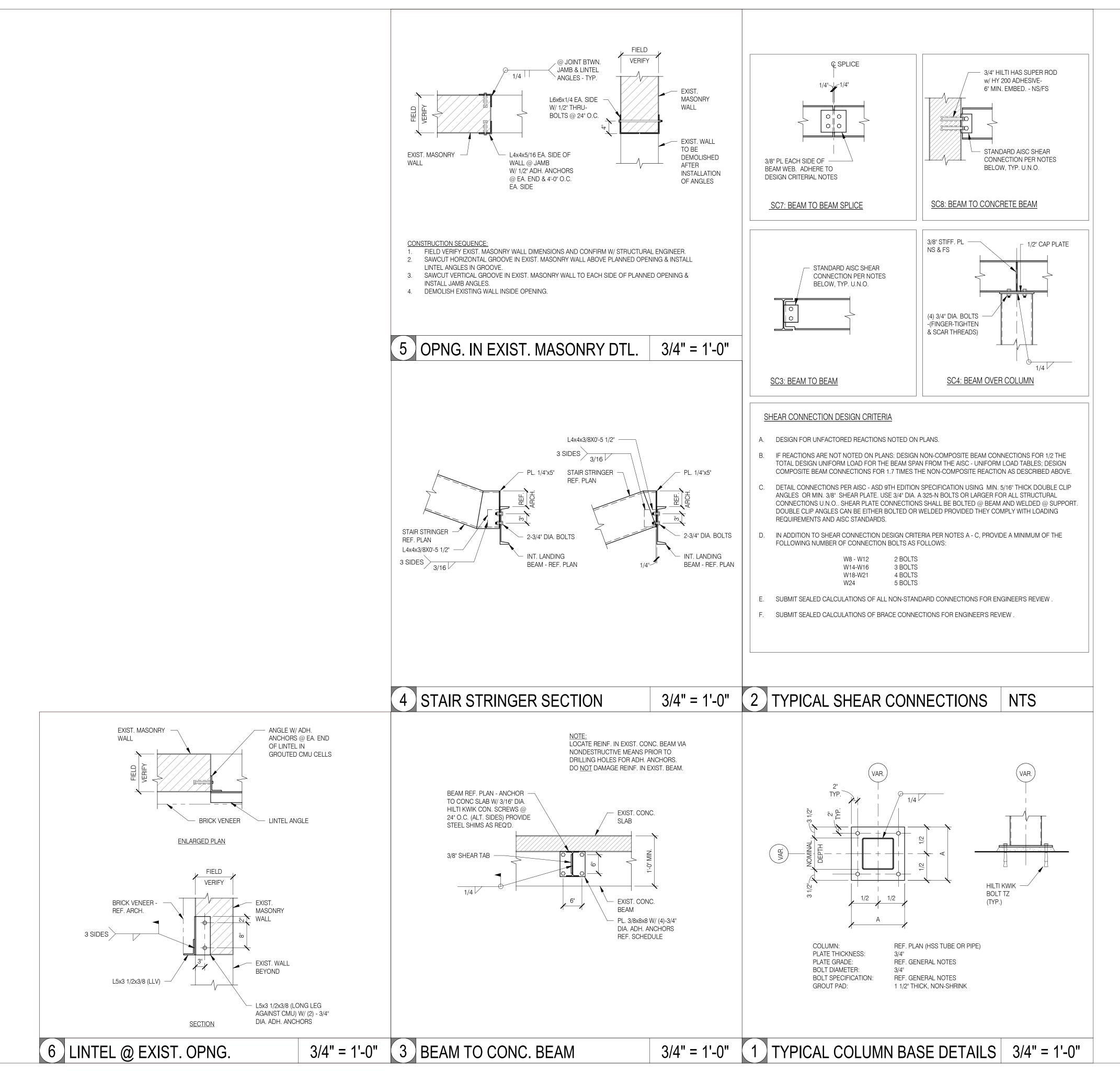












CHC armstrongdouglass' structural engineers 1601 Bryan St. Suite 202 Dallas, Texas 75201 Registration No. F-5635

www.armstrong-douglass.com ADP Project #19.035.00

CONSTRUCTION

OR ISSUED

03/11/2022

POLK COUNTY PHASE TWO :

SHEET SIZE 22 x 34 SC ALE: KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: 03/11/2022 OF SEQ #

## **GENERAL NOTES**

- PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES. FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
- . THE DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF PIPES, FIXTURES, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE ALL DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC FROM THE ARCHITECTURAL DRAWINGS AND FROM THE EQUIPMENT TO BE FURNISHED. PIPING MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES OR TO AVOID CONFLICTS WITH OTHER TRADES. THE DESIGN INTENT (I.E. PITCHES, VELOCITIES, PRESSURE DROPS, VOLTAGE DROPS, ETC) CANNOT BE GREATLY ALTERED WITHOUT THE APPROVAL OF THE ARCHITECT. THE COST OF THESE DEVIATIONS TO AVOID INTERFERENCE'S SHALL BE PART OF THE ORIGINAL CONTRACT BID.
- CONFER AND COOPERATE WITH ALL OTHER TRADES TO COORDINATE THEIR WORK. COORDINATION SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO MATERIALS AND EQUIPMENT ROUTED IN CEILING AND WALL CAVITIES, EQUIPMENT ARRANGEMENT IN MECHANICAL SPACES, INCLUDING EQUIPMENT CLEARANCE REQUIREMENTS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS, ETC. NOTIFY THE ARCHITECT OF ANY CONFLICTS.
- BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS AND EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR THE CONTRACTOR'S FAILURE TO FIELD COORDINATE.
- . THE OWNER OR ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
- . LOCATE ALL EQUIPMENT THAT MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. EQUIPMENT SHALL INCLUDE (BUT NOT LIMITED TO) VALVES, MOTORS, CONTROLLERS, SWITCHGEAR, AND DRAIN POINTS IF REQUIRED FOR BETTER ACCESSIBILITY. FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE ALLOWED TO PROVIDE FOR BETTER ACCESSIBILITY. ANY CHANGES SHALL BE APPROVED BY THE ARCHITECT AND CONSTRUCTION MANAGER/GENERAL CONTRACTOR PRIOR TO MAKING THE CHANGE.
- PROVIDE ACCESS DOORS, WALL OPENINGS, ROOF OPENINGS OR ANY OTHER CONSTRUCTION REQUIREMENT NEEDED TO ACCOMMODATE THE MECHANICAL EQUIPMENT. LOCATIONS OF THESE OPENINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO BE INSTALLED IN THE NORMAL COURSE OF WORK.
- . COORDINATE ELECTRICAL REQUIREMENTS OF APPROVED MECHANICAL EQUIPMENT WITH THE ELECTRICAL SUB-CONTRACTOR PRIOR TO THE PURCHASE AND INSTALLATION OF ANY ELECTRICAL EQUIPMENT, DEVICES, WIRING, OR CONDUIT.
- PROVIDE GENERAL CONTROL WIRING, THERMOSTATS, MOTORIZED DAMPERS AND CONDUIT ASSOCIATED WITH HVAC EQUIPMENT. COORDINATE THE LOCATION OF ALL THERMOSTATS, ROOM SENSORS, ETC WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. IF A CONFLICT WITH MILLWORK, LIGHT SWITCHES, WINDOWS, ETC EXISTS. NOTIFY THE ARCHITECT OF THE POTENTIAL INTERFERENCE PRIOR TO INSTALLATION. INSTALL THERMOSTATS WITH PROTECTIVE LOCKING COVER, CENTERED AT 4'-0" ABOVE FINISHED FLOOR, UNLESS OTHERWISE INDICATED. COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY'S STANDARD (TAS).
- ALL DIMENSIONS SHOWN ON THE DRAWINGS FOR DUCTWORK ARE NET INSIDE CLEAR DIMENSIONS. FOR RECTANGULAR DUCT, THE FIRST FIGURE OF THE DUCT SIZE INDICATES THE DIMENSION OF THE FACE SHOWN. VERIFY THAT THE DUCTWORK SPECIFIED WILL FIT IN THE SPACE AVAILABLE USING THE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS AS REFERENCE PRIOR TO FABRICATION AND INSTALLATION.
- 11. PROVIDE TURNING VANES ON ALL RECTANGULAR SUPPLY, EXHAUST AND RETURN DUCTWORK INCLUDING THE TOP AND BOTTOM OF VERTICAL DUCTS.
- 12. PROVIDE A LOCKING QUADRANT VOLUME DAMPER AT THE TAP OF EACH RUN-OUT TO DIFFUSERS FOR BALANCING PURPOSES, UNLESS OTHERWISE INDICATED. THE RUN-OUT DUCT SIZE IS THE SAME SIZE AS THE DIFFUSER OR GRILLE NECK SIZE UNLESS OTHERWISE
- 13. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL FIRE RATED WALLS AND CEILINGS. PROVIDE FIRE DAMPERS AND/OR COMBINATION FIRE/SMOKE DAMPERS IN DUCTWORK AT ALL LOCATIONS WHERE DUCTS PASS THROUGH FIRE RATED ASSEMBLY. MECHANICAL SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING FIRE AND FIRE/SMOKE DAMPERS. COORDINATE CONSTRUCTION REQUIREMENTS AND PROVISIONS FOR CONNECTIONS TO FIRE ALARM SYSTEM.
- 14. ALL DUCTWORK SHALL BE SHEET METAL FABRICATED IN ACCORDANCE WITH SMACNA STANDARDS. ALL DUCT WORK ON VAV SYSTEMS FROM AHU TO TERMINAL UNIT SHALL BE CONSTRUCTED TO 6" W.G. AND SEALED TO SMACNA CLASS A. DUCT WORK DOWN STREAM OF TERMINAL UNITS SHALL BE CONSTRUCTED TO 1" W.G. AND SEALED TO SMACNA CLASS C. ALL DUCT WORK ASSOCIATED WITH CONSTANT VOLUME AHE SHALL BE CONSTRUCTED TO 2" W.G. AND SEALED TO SMACNA CLASS B. SEAL ALL SEAMS WITH MASTIC SEALANT UL 181 LISTED FOR THE APPLICATION USED. SEALANT SHALL BE DESIGNED FOR USE ON METAL DUCT AND FLEXIBLE DUCT.
- 15. PROVIDE VIBRATION ISOLATORS FOR MOTOR DRIVEN EQUIPMENT UNLESS NOTED OTHERWISE. PROVIDE ISOLATION AS INDICATED OR AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- 16. SOME DUCTS SHOWN ON EACH FLOOR PLAN MAY BE SHOWN WITH AN OFFSET FOR CLARITY.
- 17. SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL.
- 18. ALL EQUIPMENT SHALL HAVE IDENTIFICATION TAGS. REFER TO DIVISION 16 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 19. EXPAND OR REDUCE DUCTS AT EQUIPMENT CONNECTIONS BASED ON THE EQUIPMENT PURCHASED, WITH TRANSITIONS NOT TO EXCEED 30 DEGREES. SIZES SHOWN ON SCHEDULES, ETC. ARE FOR GUIDANCE ONLY. ASPECT RATIO SHALL BE NO GREATER THAN 4:1, PER SMACNA'S GUIDELINES.
- 20. ALL DUCTS WITH A DIMENSION GREATER THAN 12" PASSING THRU A NON-RATED WALL SHALL HAVE THE OPENING FRAMED IN WITH METAL STUDS. COORDINATE OPENING SIZE AND LOCATION WITH OTHER TRADES.

## **SYMBOLS** DESCRIPTION SYMBOL ACOUSTICAL DUCT LINING (FIGURES 20X20 SHOWN ARE INSIDE DUCT DIMENSIONS 20X20 SUPPLY AIR DUCT UP (POSITIVE PRESSURE) RETURN, EXHAUST OR OUTSIDE AIR INTAKE 20X20 DUCT UP (NEGATIVE PRESSURE) 20X20 | 🗀 SUPPLY AIR DUCT DOWN (POSITIVE PRESSURE) RETURN, EXHAUST OR OUTSIDE AIR INTAKE 20X20 [ ] DUCT DOWN (NEGATIVE PRESSURE) 18Ø (**§** ROUND DUCT UP 18Ø ROUND DUCT DOWN RECTANGULAR DUCT SQUARE ELBOW WITH TURNING VANES RECTANGULAR DUCT RADIUS ELBOW — R=3W/2 ROUND DUCT RADIUS ELBOW R=3D/2 — TRANSITION CONCENTRIC UNLESS TOP LEVEL(TOP LVL) **≻** 20X20 │ OR BOTTOM LEVEL(BOT LVL) IS NOTED TRANSITION, RECTANGULAR TO ROUND CONCENTRIC 20X20 16Ø UNLESS TOP LEVEL (TOP LVL) OR BOTTOM LEVEL (BOT LVL) IS NOTED SQUARE CEILING DIFFUSER (SUPPLY) (4-WAY UNLESS OTHERWISE INDICATED) SQUARE CEILING GRILLE (RETURN OR EXHAUST) THERMOSTAT (OR) TEMP SENSOR DUCT SPLITTER WITH DAMPER

MOTORIZED DAMPER

FIRE SMOKE DAMPER

**BASIS OF MECHANICAL DESIGN** 

2018 INTERNATIONAL ENERGY CODE (WITH CITY AMENDMENTS).

22°F (DRYBULB)

72°F (DRYBULB)

PER IMC TABLE 403.3

75°F (DRYBULB), 50% (RELATIVE HUMIDITY)

FIRE DAMPER

MECHANICAL: 2018 INTERNATIONAL MECHANICAL CODE (WITH CITY AMENDMENTS).

OUTDOOR DESIGN TEMPERATURE (SUMMER): 99°F (DRYBULB), 77°F (WETBULB)

AMBIENT TEMPERATURE AT CONDENSING UNITS: 105°F (DRYBULB, SUMMER)

or —

FD**₹**\_\_

**PRIMARY MECHANICAL CODES:** 

OUTDOOR DESIGN TEMPERATURE (WINTER):

INDOOR DESIGN TEMPERATURE (SUMMER):

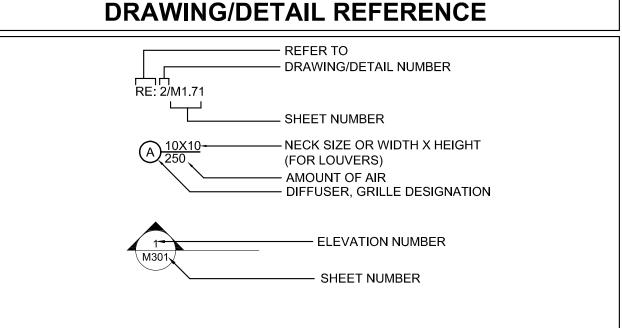
INDOOR DESIGN TEMPERATURE (WINTER):

**PROJECT DESIGN VALUES:** 

OUTSIDE AIR REQUIREMENTS:

FSD**Q** 

MANUAL VOLUME DAMPER



# DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)

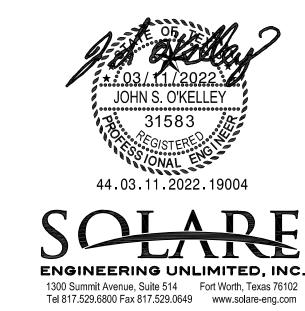
**MISCELLANEOUS** 

CONNECTION INTO EXISTING

# **ABBREVIATIONS**

П				
П	AD	ACCESS DOOR	L	LENGTH
П	A/C	AIR CONDITIONING UNIT	LAT	LEAVING AIR TEMPERATURE
П	A/E	ARCHITECT/ENGINEER	LPC	LOW PRESSURE CONDENSATE
П	AFF	ABOVE FINISHED FLOOR	LPS	LOW PRESSURE STEAM
П	AFS	AIR FLOW SWITCH	LB	POUNDS
П	AHU	AIR HANDLING UNIT	LRA	LOCKED ROTOR AMPS
П	APPROX	APPROXIMATE	LWT	LEAVING WATER TEMPERATURE
П	BAS	BUILDING AUTOMATION SYSTEM	MAX	MAXIMUM
П	BHP	BRAKE HORSE POWER		1000 BRITISH THERMAL UNITS / HOUR
П			MBH	
П	BTU	BRITISH THERMAL UNIT PER HOUR	MCA	MINIMUM CIRCUIT AMPACITY
П	C/A	COMBUSTION AIR	MFR	MANUFACTURER
П	CC	COOLING COIL	MIN	MINIMUM
П	CFH	CUBIC FEET PER HOUR	N/A	NOT APPLICABLE
П	CFM	CUBIC FEET PER MINUTE	N/O,N/C	NORMALLY OPEN, NORMALLY CLOSED
П	CLG	CEILING	O/A	OUTSIDE AIR/FRESH AIR
П	CU	CONDENSING UNIT	OBD	OPPOSED BLADE DAMPER
П	D	EQUIPMENT DRAIN	O/C	ON CENTER
П	DEG	DEGREES	PEF	PURGE EXHAUST FAN
П	DB	DRY BULB	PH	PHASE
	DN	DOWN	PROVIDE	FURNISH AND INSTALL
	(E)	EXISTING	PRV	PRESSURE REDUCING VALVE
	ÈÁT	ENTERING AIR TEMPERATURE	PSI	POUNDS PER SQUARE INCH
	E/A	EXHAUST AIR	R/A	RETURN AIR
	EDH	ELECTRIC DUCT HEATER	RE:	REFERENCE, REFER
	EF	EXHAUST FAN	RL	REFRIGERANT LIQUID
	EQUIP	EQUIPMENT	RLA	RUNNING LOAD AMPS
	EWT	ENTERING WATER TEMPERATURE	RM	ROOM
	°F	DEGREES FAHRENHEIT	RPM	REVOLUTIONS PER MINUTE
	FCU	FAN COIL UNIT	RS	REFRIGERANT SUCTION
	FD	FIRE DAMPER	S/A	SUPPLY AIR
	FLA	FULL LOAD AMPS	SD	SMOKE DETECTOR
	FLR	FLOOR	SF	SQUARE FOOT, SUPPLY FAN
	FPVAV	FAN POWERED VAV	SPECS	
	FSD	FIRE SMOKE DAMPER	T, TSTAT	
П	FT.	FOOT, FEET	T/A	TRANSFER AIR
	FT WG	FEET WATER GAUGE	THRU	THROUGH
	GA	U.S. GAUGE	TSP	TOTAL STATIC PRESSURE
	GPM	GALLONS PER MINUTE	TSTAT	THERMOSTAT OR ROOM SENSOR
	H	HEIGHT	TYP	TYPICAL
	''   HP	HORSEPOWER	UL	UNDERWRITERS LABORATORIES, INC.
			UH	UNIT HEATER
	HPC HPS	HIGH PRESSURE CONDENSATE	V	VOLTS
		HIGH PRESSURE STEAM	v VAV	VARIABLE AIR VOLUME
	HWR	HEATING WATER SURPLY	VAV	VELOCITY
	HWS	HEATING WATER SUPPLY	VEL	VARIABLE FREQUENCY DRIVE
	HZ	HERTZ	W/	WITH
	IN.	INCH, INCHES		
	IN.WG	INCHES WATER GAUGE	WB	WET BULB
	J-BOX	JUNCTION BOX	W/O	WITHOUT

KILOWATT



KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A MARCH 11, 2022 DATE: SHEET OF SEQ #

22 x 34

SHEET SIZE

**ഗ**>

ONS

FOR

ING IS ON FILE AT THE OFFICES

3880 HULEN ST., FORT WORTH, T

THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND

REG. # 6843 ON NOV 23, 2021

ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

ARCHITECTURAL EXAMINERS' RULES.

- 2. PROVIDE MODEL "MP" PLENUM WITH NECK SIZE AS NOTED ON HVAC FLOOR PLAN. 3. PROVIDE WHITE BAKED ENAMEL FINISH.
- 4. PROVIDE (4) SLOTS. PROVIDE
- 6. FACE SIZI

PACKAGED AC UNIT WITH GAS HEAT SCHEDULE GAS HEATING (MBH) **EVAPORATOR FAN** POWER CONNECTION COMPRESSOR CONDENSER NET COOLING PERFORMANCE DATA UNIT WEIGHT MINIMUM CAP NUMBER ENTERING AIR LEAVING AIR QTY RLA REF BACH TYPE SEER (EER) MANUFACTURER/ REMARKS
MODEL SERIES V PH MCA MOCP INPUT MBH STAGES DB MARK RTU- ARRANGEMENT S/A O/A MIN EXT. QTY FLA CAPACITY (MBH) AMB ENTERING CFM CFM CFM S.P. FANS EACH SENS LAT TOTAL DB DB WB DOWNFLOW 6,730 2,020 4,380 1.5 7.5 208 3 99 125 265 215 2 30.1 R-410A 175.4 38.8 214.2 105 81.2 65.3 60 3.4 2,800 AAON/RN DOWNFLOW 6,345 | 2,090 | 4,280 | 1.5 | 7.5 | 208 | 3 | 93 | 110 265 208 60 2 27.6 R-410A 3.4 172.9 28.8 201.7 105 82.0 65.0 2,800 AAON/RN 1 - 18 14 285 228 2 30.1 R-410A DOWNFLOW 7,205 | 2,370 | 4,680 | 1.5 | 7.5 | 208 | 3 | 99 | 125 220.4 2,800 AAON/RN 1 - 18 60 3.4 191.1 29.3 105 81.1 64.5 2 24 R-410A DOWNFLOW 7,070 1,960 4,340 1.5 7.5 208 3 85 265 210 60 3.4 112.4 36.7 149.1 105 78.7 65.2 AAON/RN 1 - 18 2,100 210 | 168 1 24 R-410A DOWNFLOW | 1.0 | 2 | 208 | 3 | 41 | 60 55 85 3.4 91.8 105 84.9 68.6 AAON/RN 1 - 19 3,150 | 640 | -70.3 21.5 1.350 14 85 2 20.4 R-410A 140.5 105 86.3 68.8 AAOM/RN DOWNFLOW 4,500 900 -234 195 55 3.4 101.8 38.7 2,100 14 1 - 19 1.3 5 208 3 69 80

- 1. EXTERNAL STATIC PRESSURE ("WG") INCLUDES DUCTWORK, BALANCING DAMPERS AND AIR DEVICES ONLY
- 2. CAPACITIES LISTED ARE NET FROM UNIT DISCHARGE. UNITS SHALL PERFORM TO LISTED CAPACITIES.
- 3. AAON IS THE BASIS FOR DESIGN. ACCEPTABLE ALTERNATE MANUFACTURER'S ARE: YORK, CARRIER, AND TRANE. CONTRACTOR IS RESPONSIBLE FOR VARIATIONS IN FIT AND ELECTRICAL SERVICE.
- 4. FUEL FOR HEATING SHALL BE NATURAL GAS
- 5. PROVIDE GALVANIZED INSULATED FACTORY ROOF CURB TO MATCH ROOF SLOPE.
- 6. PROVIDE FACTORY HAIL GUARDS
- 7. UNIT PERFORMANCE MUST SATISFY BOTH SENSIBLE AND LATENT CAPACITY REQUIREMENTS
- 8. PROVIDE WITH SMOKE DETECTOR INTERLOCKED TO SUPPLY FAN AS REQUIRED BY CODE. (2000 CFM GREATER)
- 9. PROVIDE WITH STAINLESS STEEL HEAT EXCHANGERS.
- 10. PROVIDE WITH INTEGRAL DISCONNECT AND A DUPLEX, 115-V, GFI RECEPTACLE WITH 15A MOCP (INCLUDE TRANSFORMER IF REQUIRED. OUTLET SHALL BE ENERGIZED EVEN IF THE UNIT MAIN DISCONNECT IS OPEN).

- 11. PROVIDE WITH STAINLESS STEEL OR CORRISION RESISTANT CONDENSATE DRAIN PAN.
- 12. PROVIDE WITH CRANKCASE HEATER.
- 13. PROVIDE WITH CONTROLS TRANSFORMER.
- 14. PROVIDE SINGLE POINT ELECTRICAL CONNECTION.
- 15. PROVIDE WITH BAROMETRIC RELIEF.
- 16. MOTOR SHALL BE PREMIUM EFFICIENCY, INVERTER RATED FOR VFD CONTROL.

- 17. PROVIDE FACTORY INSTALLED VFD.
- 18. PR0
- 19. PR

PROVIDE DDC CONTROL MODULE AS REQUIRED TO INTERFACE WITH BUILDING DDC CONTROL SYSTEM.	
PROVIDE WITH HOT GAS REHEAT.	

						S	INGLE	DUCT V	AV BOX SO	HEDULE - E	LECTI	RIC H	IEAT				
MARK	AIF	VALVE(	NOTE 1)		AIRVALVEMIN			HEATING P	ERFORMANCE		F	POWER	CONN.		ACCESS PANEL		
VAV-	DESIGN CFM	INLET SIZE	MIN CFM	MAX CFM	SETTING (CFM)	HEAT CFM	HEATER KW	NO. STAGES	ENT. AIR TEMP. D.B. F.	LVG. AIR TEMP D.B. F.	VOLTS	Ph.	AMPS	Hz.	WxH IN	MANUFACTURER AND MODEL	REMARKS
001	1,360	10	305	1600	305	884	7.0	1	60	85	208	3	19.4	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
002	1,320	12	440	2300	440	858	7.0	1	60	85	208	3	19.4	60	50x16	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
003	2,600	16	805	4100	805	1690	15.0	1	60	85	208	3	41.6	60	50x20	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
004	600	8	190	1000	190	390	3.0	1	60	85	208	3	8.3	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
005	1,200	10	305	1600	370	780	6.5	1	60	85	208	3	18.0	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
006	720	8	190	1000	190	468	5.0	1	60	85	208	3	13.9	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
101	1,800	12	440	2300	440	1170	10.0	1	60	85	208	3	27.8	60	50x16	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
102	680	8	190	1000	190	442	4.0	1	60	85	208	3	11.1	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
103	470	8	190	1000	190	306	3.0	1	60	85	208	3	8.3	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
104	620	8	190	1000	190	403	3.5	1	60	85	208	3	9.7	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
105	610	8	190	1000	97	397	3.5	1	60	85	208	3	9.7	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
106	750	8	190	1000	190	488	4.0	1	60	85	208	3	11.1	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
107	400	6	97	530	97	260	3.0	1	60	85	208	3	8.3	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
108	2,200	14	615	3100	615	1430	12.0	1	60	85	208	3	33.3	60	50x20	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
109	390	6	97	530	97	254	2.5	1	60	85	208	3	6.9	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
201	840	10	305	1600	305	546	4.5	1	60	85	208	3	12.5	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
202	530	8	190	1000	190	345	3.0	1	60	85	208	3	8.3	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
203	850	10	305	1600	305	553	5.0	1	60	85	208	3	13.9	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
204	350	6	97	530	97	228	2.5	1	60	85	208	3	6.9	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
205	350	6	97	530	97	228	2.0	1	60	85	208	3	5.6	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
206	650	8	190	1000	190	423	3.5	1	60	85	208	3	9.7	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
207	390	6	97	530	97	254	2.5	1	60	85	208	3	6.9	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
208	320	5	88	350	88	208	2.0	1	60	85	208	3	5.6	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
209	710	8	190	1000	190	462	4.0	1	60	85	208	3	11.1	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
210	1,120	10	305	1600	305	728	6.0	1	60	85	208	3	16.7	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
211	840	10	305	1600	305	546	4.5	1	60	85	208	3	12.5	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
301	560	8	190	1000	190	364	3.0	1	60	85	208	3	8.3	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
302	235	5	88	350	88	153	1.5	1	60	85	208	3	4.2	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
303	600	8	190	1000	190	390	3.5	1	60	85	208	3	9.7	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
304	805	10	305	1600	305	523	4.5	1	60	85	208	3	12.5	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
305	420	8	190	1000	190	273	3.0	1	60	85	208	3	8.3	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
306	260	6	97	530	97	169	1.5	1	60	85	208	3	4.2	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
307	375	6	97	530	97	244	2.5	1	60	85	208	3	6.9	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
308	735	10	305	1600	305	478	4.0	1	60	85	208	3	11.1	60	50x14	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6
309	690	8	190	1000	190	449	4.0	1	60	85	208	3	11.1	60	50x12	ENVIRO-TEC/SDR-EH	1,2,3,4,5,6

- 1. CFM RANGE REFERS TO THE RANGE OF CAPABILITY FOR THIS AIRVALVE SIZE. IT IS NOT A MINIMUM / MAXIMUM SETTING.
- 2. PROVIDE SINGLE POINT ELECTRICAL CONNECTION (INCLUDE FACTORY-MOUNTED DISCONNECT TOGGLE SWITCH). 3. THE TAP- OFF- MAIN (TO RUN-OUT DUCT) SHALL BE ONE-SIZE LARGER THAN THE SCHEDULED BOX SIZE, UNLESS OTHERWISE INDICATED.
- TRANSITION TO BOX INLET SIZE DUCT A MINIMUM OF 3 DIAMETERS FROM THE BOX INLET, OR AS OTHERWISE RECOMMENDED BY MNFR.
- PROVIDE HIGH PRESSURE FLEX. CONN'X. (MAX. 2FT. LENGTH), AND APPROVED MEDIUM PRESSURE CONICAL TAPS.
- 4. PROVIDE RECOMMENDED MAINTENANCE CLEARANCES. INCLUDE ACCESS PANELS (IN WALLS ABOVE CEILINGS, ETC.) AS REQ'D.
- 5. PROVIDE DDC CONTROL MODULE AS REQUIRED TO INTERFACE WITH BUILDING DDC CONTROL SYSTEM. 6. PROVIDE 1" FOIL-FACED INSULATION ON ALL INTERIOR SURFACES OF BOX, MINIMUM R VALUE 4.3.

				AIR DEVICE	SCHEDULE				
MARK	SERVES	NECK SIZE	FACE SIZE	MOUNTING	TYPE	MATERIAL	MAXIMUM NC	DESIGN BASIS MANUFACTURER/ MODEL SERIES	REMARKS
Α	SUPPLY	VARIES	(REMARK 6)	SIDEWALL	AERO-BLADE	STEEL	30	TITUS/272RL	1,3,5,6
В	SUPPLY	6,8,10	12" x 12"	CEILING	LOUVERED	STEEL	30	TITUS/TDC	1,2,3
С	SUPPLY	6,8,10	1" x 96" LG	LINEAR SLOT	SLOT	STEEL	25	TITUS/ML-MPI	1,2,4,5
D	SUPPY	VARIES	1" x 120"LG	LINEAR SLOT	AERO-BLADE	STEEL	25	TITUS/ML-MPI	1,2,4,5
L	RETURN/EXHAUST	VARIES	(REMARK 6)	SIDEWALL	AERO-BLADE	STEEL	30	TITUS/23RL	1,3,5,6
M	RETURN/EXHAUST	6,8,10	1" x 96" LG	LINEAR SLOT	SLOT	STEEL	25	TITUS/MLRI	1,2,4,5
N	RETURN/EXHAUST	VARIES	1" x 120" LG	LINEAR SLOT	AERO-BLADE	STEEL	25	TITUS/MLRI	1,2,4,5
		, ,							

1. PROVIDE MOUNTING FRAME TO BE COMPATIBLE WITH TYPE OF CEILING IN WHICH THE DEVICE IS TO BE MOUNTED.

DE (4) SEUTS.	
DE PRIME COAT OF PAINT TO MATCH ADJACENT CEILING COLOR OR SPECIAL ARCHITECTURAL DESIGN,	
SIZE WILL BE APPROXIMATELY 1 3/4" GREATER THAN NECK SIZE NOTED ON HVAC FLOOR PLAN.	

	FAN SCHEDULE											
ARK	TYPE	LOCATION	CFM	EXT. SP	MC	TOR DATA		DRIVE	MAX	WEIGHT	MANUFACTURER/	REMARKS
EF-	ITPE	LOCATION	CFIVI	IN WG	HP	VOLTS	PH	DRIVE	SONES	WEIGHT	MODEL SERIES	KEWIAKKS
1	ROOF UPBLAST	ROOF	960	0.5	1/4	120	1	DIRECT	10.0	60 LBS	LOREN COOK/ACRUD	1,2,3,4
2	ROOF UPBLAST	ROOF	400	0.5	1/6	120	1	DIRECT	10.0	40 LBS	LOREN COOK/ACRUD	1,2,3,4
3	ROOF UPBLAST	ROOF	310	0.5	1/6	120	1	DIRECT	10.0	40 LBS	LOREN COOK/ACRUD	1,2,3,4

### REMARKS:

- 1. PROVIDE WITH CURB VIBRATION ISOLATORS.
- 2. FAN SHALL BE TIME CLOCK CONTROLLED THROUGH BUILDING DDC CONTROL SYSTEM FOR CONTINUOUS OPERATION DURING NORMAL OPERATING HOURS.
- 3 PROVIDE WITH FACTORY ROOF CURB BOTTOM SLOPED TO MATCH ROOF PITCH, BIRDSCREEN, AND GRAVITY BACKDRAFT DAMPER.
- 4. PROVIDE WITH INTEGRAL DISCONNECT SWITCH.

										DX SPL	IT SY	STEM S	CHE	DULE										
MARK					INDOOR	UNIT							CC	NDENSIN	IG UNIT				FCU COOLIN	IG PERF	ORMA	ANCE DA	TA	
FCU-/	ARRANGEMENT	UNIT	O/A	Р	OWER C	ONNECTIO	ON	UNIT WT	LG	QUANTITY	REF	QUANTITY	F	OWER C	ONNECTIO	ON	UNIT WT	LG	MINCAP (MBH)	AMB	ENT	ERING	MIN.	REMARKS
CU-	ARRANGEMENT	CFM	CFM	V	PH	MCA	МОСР	CINIT WI	MODEL SERIES	COMP	TYPE	FANS	V	PH	MCA	МОСР	ONIT WI	MODEL SERIES	TOTAL	DB	DB	WB	SEER	
001/1	WALL MOUNT	250	-	208	1	0.25	15	20 LBS	ARNU-073										7.5	105	75	62.5	14.0	1,2,3,4,5,6,7,8
002/1	WALL MOUNT	250	-	208	1	0.25	15	20 LBS	ARNU-073	1									7.5	105	75	62.5	14.0	1,2,3,4,5,6,7,8
101/1	WALL MOUNT	250	-	208	1	0.25	15	20 LBS	ARNU-073	1	410-A	2	208	1	25.0	40	250	ARUN038	7.5	105	75	62.5	14.0	1,2,3,4,5,6,7,8
201/1	WALL MOUNT	250	-	208	1	0.25	15	20 LBS	ARNU-073										7.5	105	75	62.5	14.0	1,2,3,4,5,6,7,8
301/1	WALL MOUNT	250	-	208	1	0.25	15	20 LBS	ARNU-073	1									7.5	150	75	62.5	14.0	1,2,3,4,5,6,7,8

- 1. CONDENSING UNIT SERVES MULTIPLE INDOOR UNITS.
- 2. SIZE, ROUTE, INSULATE AND PROVIDE APPURTENANCES FOR DX PIPING SY STEMS, IN STRICT ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTUCTIONS.
- 3. LISTED CAPACITIES ARE FOR THE AIR HANDLER UNIT AND CONDENSER UNIT COMBINATION. UNITS SHALL PERFORM TO LISTED CAPACITIES.
- 4. LG IS THE BASIS OF DESIGN. ACCEPTABLE MANUFACTURERS ARE: MITSUBISHI, FWITSU, CARRIER.
- 5. SEER / EER. RATINGS ARE AT ARI CONDITIONS FOR CONDENSING UNIT ONLY.
- 6. PROVIDE FILTER DRY ER AND SIGHT GLASS ON THE DX LINES.
- 7, PROVIDE INTEGRAL CONDENSATE PUMP. 8. PROVIDE CENTRAL TOUCH-SCREEN CONTROL/DISPLAY UNIT FOR INDIVIDUAL UNIT CONTROL.

				ELE	CTRIC	CINU	T HEA	TER					
SEDVES		CEM		C	ONNECTIO	ON			CAPACI	ΤΥ	WEIGHT	DESIGN BASIS	REMARKS
3EKV E3	ARRANGEMENT	CFIVI	MCA	МОСР	KW	V	PH	MBH	STAGES	TEMP RISE	LBS	REZNOR MODEL	KEWIAKNO
FIRE RISER ROOM	HORIZONTAL	350	14.5	20.0	3.0	208	1	10.2	1	25	30	MUH	1,2,3,4
MECHANICAL ROOM	HORIZONTAL	350	14.5	20.0	3.0	208	1	10.2	1	25.0	30	MUH	1,2,3,4
		FIRE RISER ROOM HORIZONTAL	FIRE RISER ROOM HORIZONTAL 350	FIRE RISER ROOM HORIZONTAL 350 14.5	SERVES         ARRANGEMENT         CFM         MCA         MOCP           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0	SERVES         ARRANGEMENT         CFM         CFM         CONNECTION           MCA         MOCP         KW	SERVES         ARRANGEMENT         CFM         CONNECTION           MCA         MOCP         KW         V           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208	SERVES         ARRANGEMENT         CFM         CONNECTION           MCA         MOCP         KW         V         PH           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208         1	SERVES         ARRANGEMENT         CFM         MCA         MOCP         KW         V         PH         MBH           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208         1         10.2	SERVES         ARRANGEMENT         CFM         CONNECTION         CAPACITY           MCA         MOCP         KW         V         PH         MBH         STAGES           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208         1         10.2         1	SERVES         ARRANGEMENT         CFM         CONNECTION         CAPACITY           MCA         MOCP         KW         V         PH         MBH         STAGES         TEMP RISE           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208         1         10.2         1         25	SERVES         ARRANGEMENT         CFM         CONNECTION         CAPACITY         WEIGHT           MCA         MOCP         KW         V         PH         MBH         STAGES         TEMP RISE         LBS           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208         1         10.2         1         25         30	SERVES         ARRANGEMENT         CFM         CONNECTION         CAPACITY         WEIGHT         DESIGN BASIS REZNOR MODEL           FIRE RISER ROOM         HORIZONTAL         350         14.5         20.0         3.0         208         1         10.2         1         25         30         MUH

1. MOUNT UNIT AT 8'-0" ABOVE FINISHED FLOOR. 2. PROVIDE UNIT MOUNTED THERMOSTAT.

3. PROVIDE FACTORY MOUNTING HARDWARE.

4. OR APPROVED EQUAL.

* 03 / 11 / 2022 JOHN S. O'KELLEY
31583 31583 31583 44.03.11.2022.19004
ENGINEERING UNLIMITED, INC. 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102

JOHN S. O'KELLEY 3.1583 3.566/STERE 44.03.11.2022.19004	POLK PHASE
SOLARE	SHEET SIZE 22 x 34 SCALE:
ENGINEERING UNLIMITED, INC.	KAI JOB NUMBER: 2017.171B
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com	SPECIFICATIONS NO.: N/A
	DATE: MARCH 11, 2022
	SHEET OF SEQ #
	M0.02

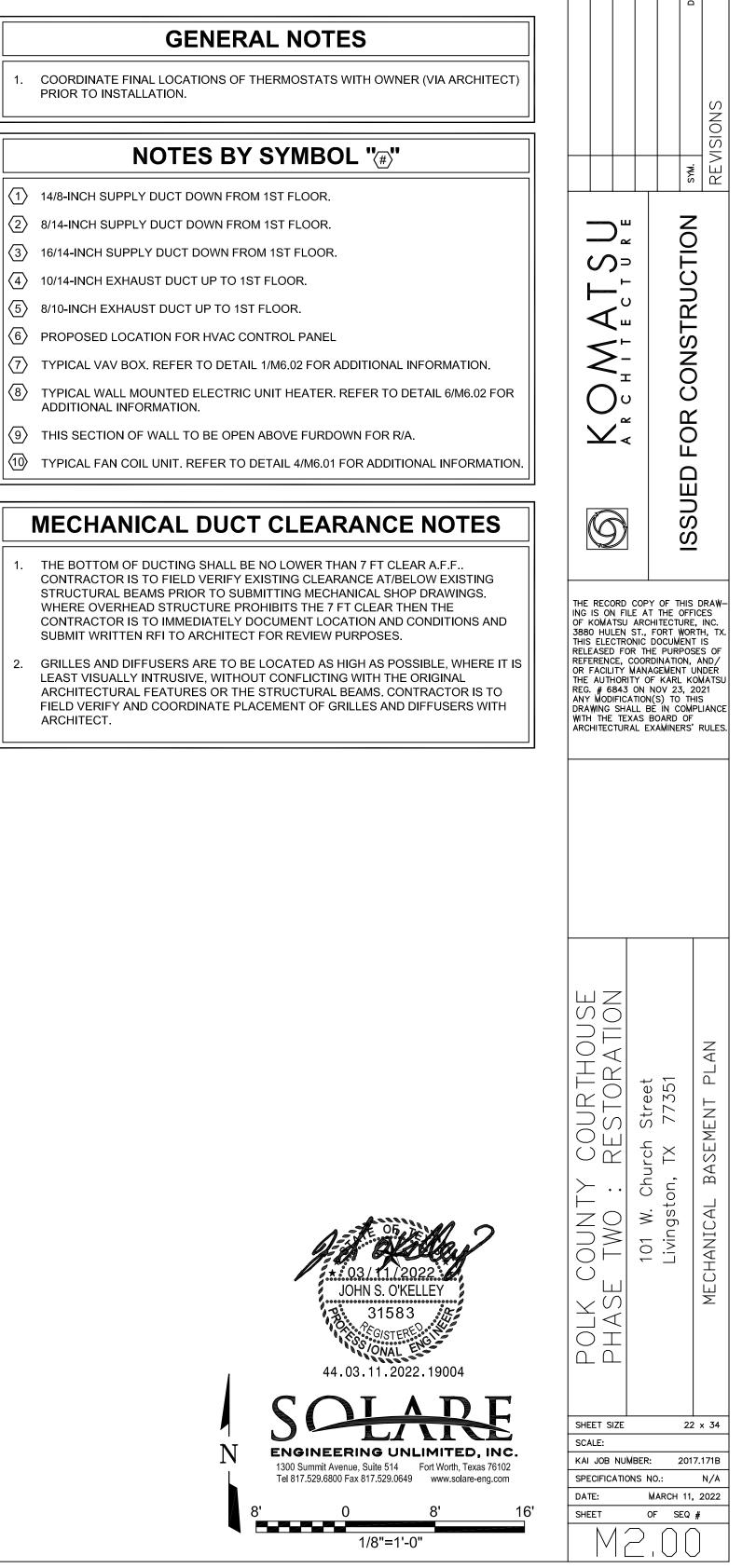
FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.





COORDINATE FINAL LOCATIONS OF THERMOSTATS WITH OWNER (VIA ARCHITECT) PRIOR TO INSTALLATION.

# NOTES BY SYMBOL "#"

- 14/8-INCH SUPPLY DUCT DOWN FROM 1ST FLOOR.
- 2 8/14-INCH SUPPLY DUCT DOWN FROM 1ST FLOOR.
- $\boxed{3}$  16/14-INCH SUPPLY DUCT DOWN FROM 1ST FLOOR.
- 4 10/14-INCH EXHAUST DUCT UP TO 1ST FLOOR.

8 <u>UH-2</u>

18x19 R/A

CLOSET 012

MECH. (PUMP RM)

<u>VAV-003</u> ①

24/16

A 18x10 600

18/14

MECH.

IT SVR

CLERK STORAGE 032

1 MECHANICAL BASEMENT PLAN
1/8' = 1' - 0'

- (5) 8/10-INCH EXHAUST DUCT UP TO 1ST FLOOR.
- 6 PROPOSED LOCATION FOR HVAC CONTROL PANEL
- 8 TYPICAL WALL MOUNTED ELECTRIC UNIT HEATER. REFER TO DETAIL 6/M6.02 FOR ADDITIONAL INFORMATION.
- (9) THIS SECTION OF WALL TO BE OPEN ABOVE FURDOWN FOR R/A.
  - TYPICAL FAN COIL UNIT. REFER TO DETAIL 4/M6.01 FOR ADDITIONAL INFORMATION.

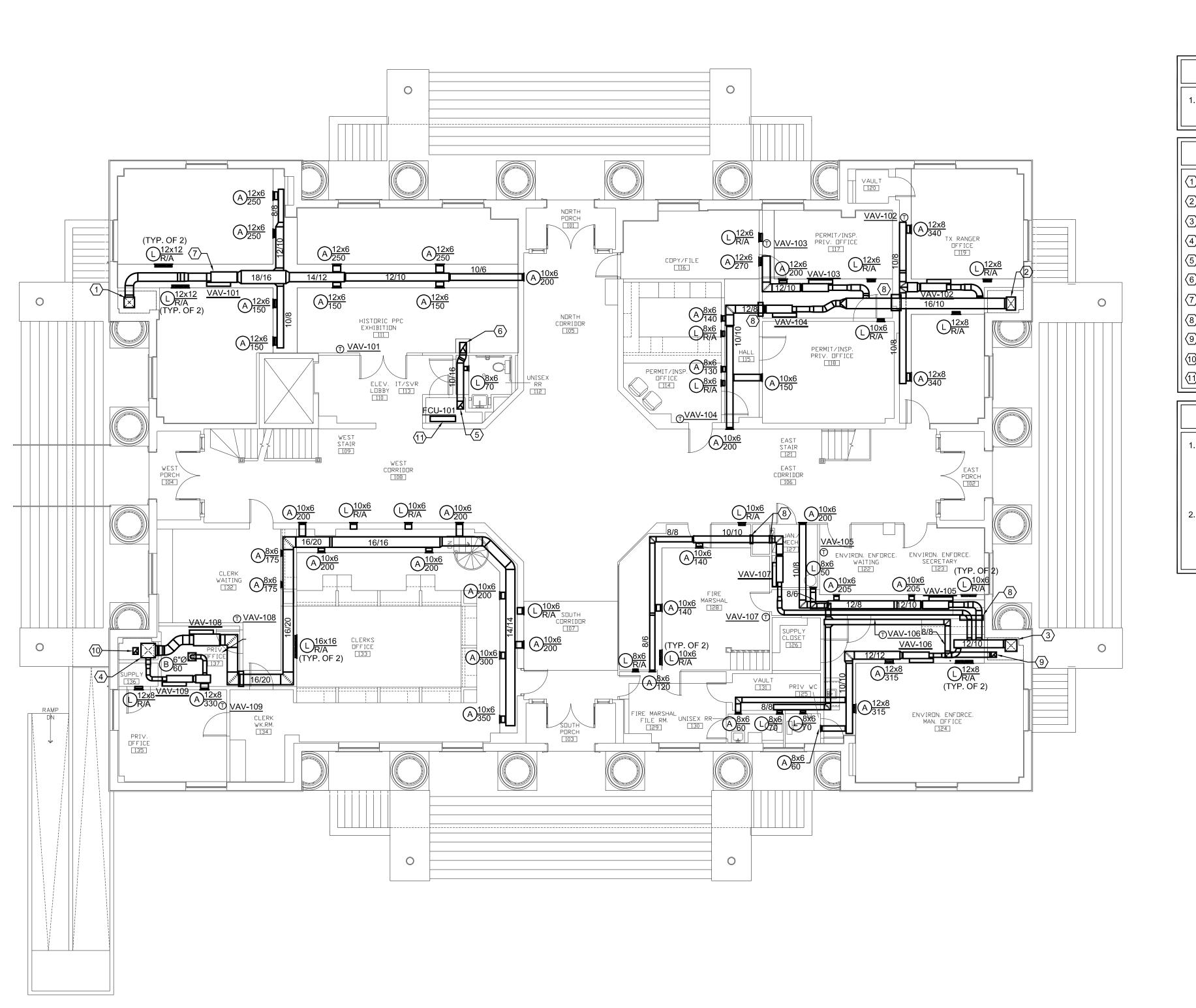
# MECHANICAL DUCT CLEARANCE NOTES

- THE BOTTOM OF DUCTING SHALL BE NO LOWER THAN 7 FT CLEAR A.F.F.. CONTRACTOR IS TO FIELD VERIFY EXISTING CLEARANCE AT/BELOW EXISTING STRUCTURAL BEAMS PRIOR TO SUBMITTING MECHANICAL SHOP DRAWINGS. WHERE OVERHEAD STRUCTURE PROHIBITS THE 7 FT CLEAR THEN THE CONTRACTOR IS TO IMMEDIATELY DOCUMENT LOCATION AND CONDITIONS AND SUBMIT WRITTEN RFI TO ARCHITECT FOR REVIEW PURPOSES.
- GRILLES AND DIFFUSERS ARE TO BE LOCATED AS HIGH AS POSSIBLE, WHERE IT IS LEAST VISUALLY INTRUSIVE, WITHOUT CONFLICTING WITH THE ORIGINAL ARCHITECTURAL FEATURES OR THE STRUCTURAL BEAMS. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PLACEMENT OF GRILLES AND DIFFUSERS WITH



MECHANICAL 1ST FLOOR PLAN

1/8' = 1' - 0'



# **GENERAL NOTES**

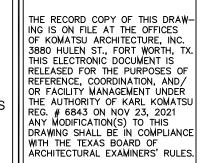
COORDINATE FINAL LOCATIONS OF THERMOSTATS WITH OWNER (VIA ARCHITECT) PRIOR TO INSTALLATION.

# NOTES BY SYMBOL "#"

- 16/16-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- $\bigcirc$  20/14-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- (3) 18/18-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR. 4 20/20-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- $\langle 5 \rangle$  10/14-INCH EXHAUST DUCT UP FROM BASEMENT.
- (6) 10/16-INCH EXHAUST DUCT UP TO 2ND FLOOR.
- 7 TYPICAL VAV BOX. REFER TO DETAIL 1/M6.02 FOR ADDITIONAL INFORMATION.
- $\langle 8 \rangle$  THIS SECTION OF WALL TO BE OPEN ABOVE FURDOWN FOR R/A. (9) 8/8-INCH EXHAUST DUCT UP TO 2ND FLOOR
- (10) 8/10-INCH EXHAUST DUCT UP TO 2ND FLOOR
- 11) TYPICAL FAN COIL UNIT. REFER TO DETAIL 4/M6.01 FOR ADDITIONAL INFORMATION.

# MECHANICAL DUCT CLEARANCE NOTES

- THE BOTTOM OF DUCTING SHALL BE NO LOWER THAN 7 FT CLEAR A.F.F.. CONTRACTOR IS TO FIELD VERIFY EXISTING CLEARANCE AT/BELOW EXISTING STRUCTURAL BEAMS PRIOR TO SUBMITTING MECHANICAL SHOP DRAWINGS. WHERE OVERHEAD STRUCTURE PROHIBITS THE 7 FT CLEAR THEN THE CONTRACTOR IS TO IMMEDIATELY DOCUMENT LOCATION AND CONDITIONS AND
- LEAST VISUALLY INTRUSIVE, WITHOUT CONFLICTING WITH THE ORIGINAL ARCHITECTURAL FEATURES OR THE STRUCTURAL BEAMS. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PLACEMENT OF GRILLES AND DIFFUSERS WITH ARCHITECT.



CONSTRUCTION

FOR

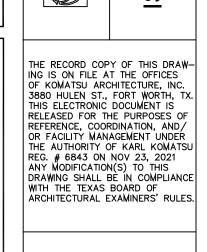
S<sup>→</sup>

SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: MARCH 11, 2022 SHEET OF SEQ #

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com 1/8"=1'-0"





ISSUED

CONSTRUCTION

FOR

S<sup>→</sup>

SHEET SIZE SCALE:

22 x 34 KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #

TYPICAL FAN COIL UNIT. REFER TO DETAIL 4/M6.01 FOR ADDITIONAL INFORMATION. MECHANICAL DUCT CLEARANCE NOTES

 $\bigcirc A_{250}^{14x6} \bigcirc A_{250}^{14x6}$ COUNTY WORKROOM [218] WEST STAIR 202 HISTORIC COURTROOM [203] HISTORIC CORRIDOR [223] (TYP OF 2) 12x12 R/A <u>VAV-208</u> ① 

# **GENERAL NOTES**

COORDINATE FINAL LOCATIONS OF THERMOSTATS WITH OWNER (VIA ARCHITECT) PRIOR TO INSTALLATION.

# NOTES BY SYMBOL "#"

- (1) 20/18-INCH SUPPLY DUCT DOWN FROM 3RD FLOOR.
- 22 24/18-INCH SUPPLY DUCT DOWN FROM 3RD FLOOR.
- (3) 26/20-INCH SUPPLY DUCT DOWN FROM 3RD FLOOR.
- 4 10/16-INCH EXHAUST DUCT UP TO 3RD FLOOR.

- 6 THIS SECTION OF WALL TO BE OPEN ABOVE FURDOWN FOR R/A.
- 7 10/10-INCH EXHAUST DUCT UP TO 3RD FLOOR 8 8/10-INCH EXHAUST DUCT UP TO 3RD FLOOR

- THE BOTTOM OF DUCTING SHALL BE NO LOWER THAN 7 FT CLEAR A.F.F.. CONTRACTOR IS TO FIELD VERIFY EXISTING CLEARANCE AT/BELOW EXISTING STRUCTURAL BEAMS PRIOR TO SUBMITTING MECHANICAL SHOP DRAWINGS. WHERE OVERHEAD STRUCTURE PROHIBITS THE 7 FT CLEAR THEN THE CONTRACTOR IS TO IMMEDIATELY DOCUMENT LOCATION AND CONDITIONS AND SUBMIT WRITTEN RFI TO ARCHITECT FOR REVIEW PURPOSES.
- GRILLES AND DIFFUSERS ARE TO BE LOCATED AS HIGH AS POSSIBLE, WHERE IT IS LEAST VISUALLY INTRUSIVE, WITHOUT CONFLICTING WITH THE ORIGINAL ARCHITECTURAL FEATURES OR THE STRUCTURAL BEAMS. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PLACEMENT OF GRILLES AND DIFFUSERS WITH ARCHITECT.

1 MECHANICAL 2ND FLOOR PLAN

1/8' = 1' - 0'

MOIL

**S**⊃

SHEET SIZE SCALE: KAI JOB NUMBER: 2017.171B

22 x 34 SPECIFICATIONS NO.: DATE: MARCH 11, 2022 SHEET OF SEQ #

# **GENERAL NOTES**

COORDINATE FINAL LOCATIONS OF THERMOSTATS, CO2 SENSORS AND HUMIDITY SENSORS WITH OWNER (VIA ARCHITECT) PRIOR TO INSTALLATION.

# NOTES BY SYMBOL "#"

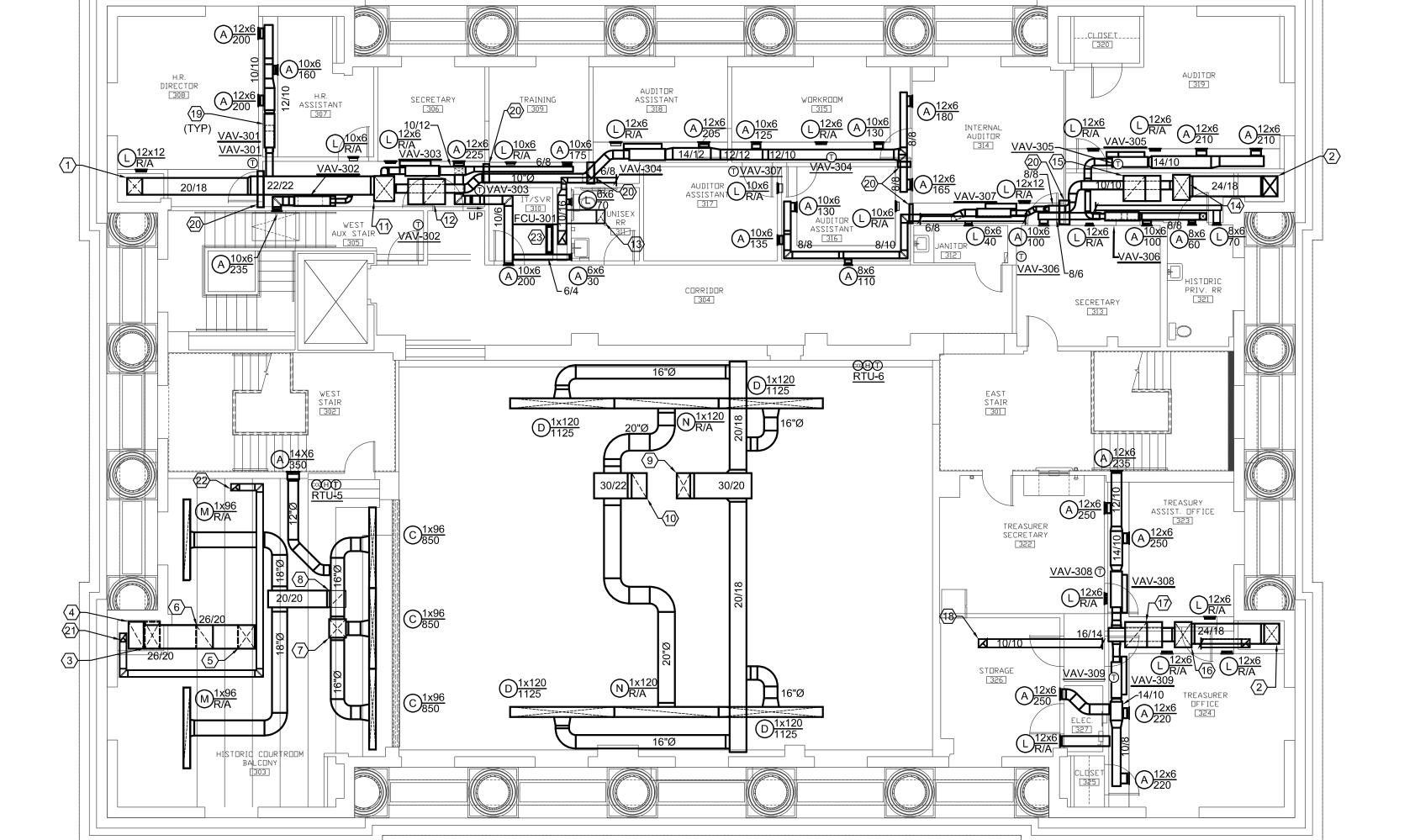
- ig|igsemeq 1ig> 20/18-INCH SUPPLY DUCT DOWN TO FLOOR BELOW.
- $|\langle 2 \rangle|$  24/18-INCH SUPPLY DUCT DOWN TO FLOOR BELOW.
- 3) 30/18-INCH SUPPLY DUCT DOWN TO FLOOR BELOW.
- 30/18-INCH RETURN DUCT DOWN 18 INCHES AND TERMINATE WITH 1/2" STAINLESS STEEL MESH SCREEN.
- (5) 26/20-INCH SUPPLY DUCT DOWN FROM RTU-4 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- $\langle 6 \rangle$  26/20-INCH RETURN DUCT UP TO RTU-4 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- $\langle 7 \rangle$  20/22-INCH SUPPLY DUCT DOWN FROM RTU-5 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- 8 20/20-INCH RETURN DUCT UP TO RTU-5 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (9) 30/20-INCH SUPPLY DUCT DOWN FROM RTU-6 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- 30/32-INCH RETURN DUCT UP TO RTU-6 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (1) 30/24-INCH SUPPLY DUCT DOWN FROM RTU-1 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (12) 30/26-INCH RETURN DUCT UP TO RTU-1 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- 13 10/16-INCH EXHAUST DUCT UP TO EF-1 ROOF. TRANSITION TO FULL SIZE OPENING
- (14) 30/20-INCH SUPPLY DUCT DOWN FROM RTU-2 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (15) 30/26-INCH RETURN DUCT UP TO RTU-2 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (16) 30/20-INCH SUPPLY DUCT DOWN FROM RTU-3 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (17) 30/26-INCH RETURN DUCT UP TO RTU-3 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- 18) 12/12-INCH EXHAUST DUCT UP TO EF-2 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- (19) TYPICAL VAV BOX. REFER TO DETAIL 1/M6.02 FOR ADDITIONAL INFORMATION. THIS SECTION OF WALL TO BE OPEN ABOVE FURDOWN FOR R/A.
- (21) 8/10-INCH EXHAUST DUCT UP FROM FLOOR BELOW.
- 8/10-INCH EXHAUST DUCT UP TO EF-3 ON ROOF. TRANSITION TO FULL SIZED OPENING AS REQUIRED.
- 23 TYPICAL FAN COIL UNIT. REFER TO DETAIL 4/M6.01 FOR ADDITIONAL INFORMATION.

# MECHANICAL DUCT CLEARANCE NOTES

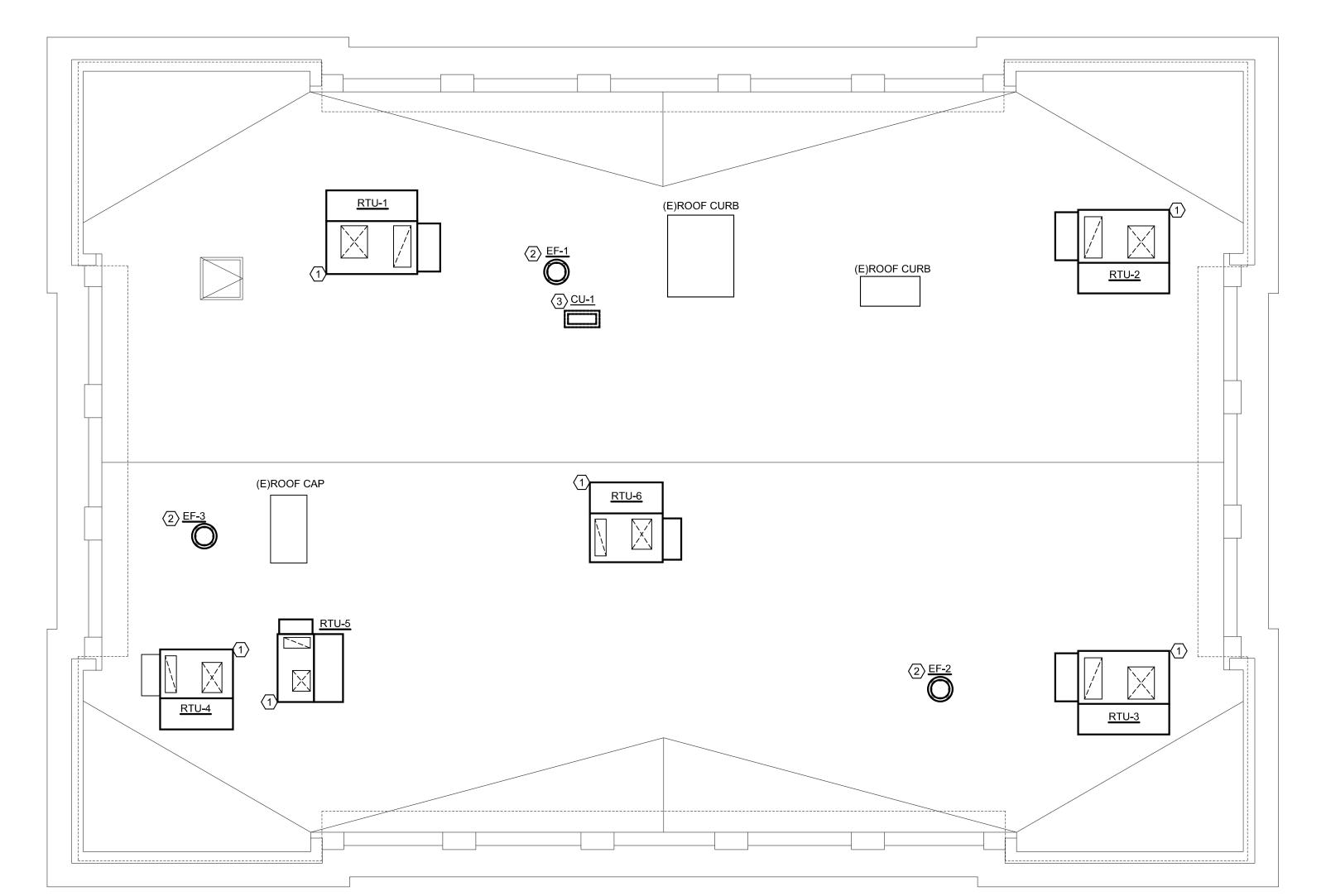
- THE BOTTOM OF DUCTING SHALL BE NO LOWER THAN 7 FT CLEAR A.F.F.. CONTRACTOR IS TO FIELD VERIFY EXISTING CLEARANCE AT/BELOW EXISTING STRUCTURAL BEAMS PRIOR TO SUBMITTING MECHANICAL SHOP DRAWINGS. WHERE OVERHEAD STRUCTURE PROHIBITS THE 7 FT CLEAR THEN THE CONTRACTOR IS TO IMMEDIATELY DOCUMENT LOCATION AND CONDITIONS AND SUBMIT WRITTEN RFI TO ARCHITECT FOR REVIEW PURPOSES.
- GRILLES AND DIFFUSERS ARE TO BE LOCATED AS HIGH AS POSSIBLE, WHERE IT IS LEAST VISUALLY INTRUSIVE, WITHOUT CONFLICTING WITH THE ORIGINAL ARCHITECTURAL FEATURES OR THE STRUCTURAL BEAMS. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PLACEMENT OF GRILLES AND DIFFUSERS WITH ARCHITECT.

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"



1 MECHANICAL ROOF PLAN
1/8' = 1' - 0'



# **GENERAL NOTES** 1. MAINTAIN 10-FT CLEARANCE BETWEEN ALL AIR INTAKES AND EXHAUST VENTS

2 TYPICAL EXHAUST FAN. REFER TO 3/M6.01 FOR ADDITIONAL INFORMATION.

3 TYPICAL CONDENSING UNIT. REFER TO 4,5,7/M6.01 FOR ADDITIONAL INFORMATION.

# 1 TYPICAL ROOF TOP UNIT. REFER TO 1/M6.01 FOR ADDITIONAL INFORMATION.

# NOTES BY SYMBOL "#"



		DEVISIONS
	SYM.	
	ONSTRUCTION	

FOR

THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

SHEET SIZE

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

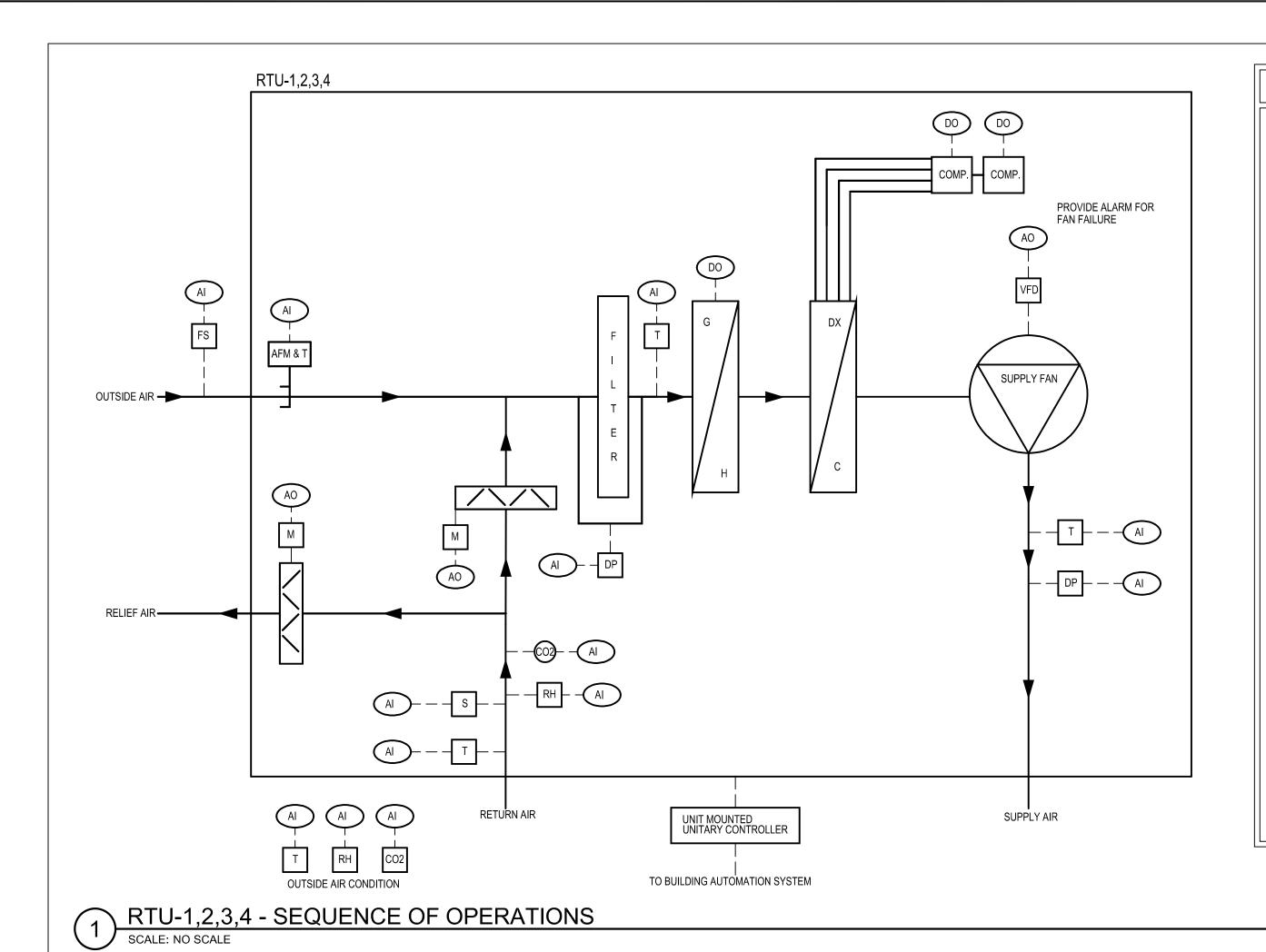
SCALE:

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"

22 x 34

MARCH 11, 2022 OF SEQ #



COMP. H COMP.

SUPPLY FAN

SUPPLY AIR

PROVIDE ALARM FOR

FAN FAILURE

# **SEQUENCE OF OPERATION - RTU'S 1,2,3,4**

- THE CONTROLS CONTRACTOR SHALL COORDINATE WITH ROOFTOP UNIT MANUFACTURER FOR PROVIDING CONTROLLER FOR ROOFTOP UNIT. CONTROLS CONTRACTOR SHALL PROVIDE THE NECESSARY CONTROLLER FROM THE ROOFTOP UNIT MANUFACTURER. THE CONTROLLER SHALL HAVE THE NECESSARY POINTS AND SEQUENCE OF OPERATION AS REQUIRED BY THE CONTROLS DOCUMENTS. THE CONTROLS SHALL BE ENERGIZED TO OPERATE CONTINUOUSLY.
- 2. SUPPLY FAN OFF. WHEN THE SUPPLY FAN IS OFF, THE COMPRESSORS, AND GAS HEAT SHALL BE
- 3. PROVIDE UNIT WITH START/STOP ABILITY BASED ON A TIME-OF-DAY SCHEDULE WITH THE ABILITY FOR OPTIMUM START.
- 4. PROVIDE SUPPLY FAN STATUS (VFD OPERATIONS: HERTZ). PROVIDE AN ALARM FOR FAN FAILURE.
- 5. MONITOR SUPPLY AIR TEMPERATURE AND TRANSMIT TO USER INTERFACE.
- 6. DURING COOLING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 55°F BY MODULATING ONE OF THE VFD SCROLL COMPRESSORS. WHEN ONE OF THE VFD SCROLL COMPRESSORS IS AT 100% LOAD FOR 5 MINUTES AND THE LEAVING AIR TEMPERATURE IS NOT SATISFIED ANOTHER SCROLL COMPRESSOR SHALL COME ONLINE. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F ABOVE THE SET POINT.
- DURING HEATING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 60°F BY MODULATING THE AMOUNT OF GAS HEAT WITH SCR CONTROL. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F BELOW THE SET POINT.
- 8. DURING OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL MODULATE BETWEEN ITS MINIMUM AND MAXIMUM OUTSIDE AIR SET POINT BASED ON CARBON DIOXIDE LEVELS MEASURED IN THE RETURN AIR DUCTWORK. DURING UNOCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE
- 9. CONTROLS SHALL MONITOR THE TEMPERATURE IN THE RETURN AIR DUCT AND THE MIXED AIR TEMPERATURE.
- 10. THE SUPPLY FAN SHALL MODULATE ITS FAN SPEED (THROUGH THE VFD) TO MAINTAIN A MAXIMUM OF 1.5" OF DIFFERENTIAL STATIC PRESSURE (MEASURED 2/3RDS DOWN THE MEDIUM PRESSURE SUPPLY DUCT, USER ADJUSTABLE). THE UNIT SHALL HAVE A SUPPLY PRESSURE RESET FUNCTION BASED ON THE POSITION OF THE HIGHEST DEMAND VAV BOX. THE SYSTEM SHALL RESET THE DIFFERENTIAL STATIC PRESSURE 0.05" (ADJUSTABLE) EVERY 10 MINUTES UNTIL THE HIGHEST DEMAND VAV BOX IS AT 100% DAMPER POSITION. IF THE HIGHEST DEMAND VAV BOX CAN NOT SUPPLY ADEQUATE AIRFLOW (WITHIN 10% OF DESIGN) THE STATIC RESET SHALL ADJUST HIGHER AT THE SAME RATE UNTIL SET POINT IS MET (SET POINT SHALL NOT EXCEED 1.5" DIFFERENTIAL STATIC PRESSURE).
- 11. WHEN SMOKE DETECTOR SENSES SMOKE IN THE RETURN AIR STREAM, THE UNIT SHALL SHUT DOWN. THE SUPPLY FAN MOTOR SHALL STOP AND THE OUTSIDE AIR INTAKE SHALL FULLY CLOSE.
- 12. OUTSIDE AIRFLOW SHALL BE MEASURED AT THE OUTSIDE AIR INLET TO THE UNIT. THE CONTRACTOR SHALL PROVIDE THE EBTRON ADVANTAGE 2 PRODUCT (GOLD SERIES) TO MEASURE OUTSIDE AIR FLOW. THE OUTSIDE AIRFLOW SHALL BE LINKED WITH THE RETURN AIR CO2 AND OUTSIDE AIR CO2 TO MODULATE THE OUTSIDE AIR DAMPER TO WITHIN THE MINIMUM/MAXIMUM OUTSIDE AIRFLOW REQUIREMENTS.

# **SEQUENCE OF OPERATION - RTU'S 5,6**

- THE CONTROLS CONTRACTOR SHALL COORDINATE WITH ROOFTOP UNIT MANUFACTURER FOR PROVIDING CONTROLLER FOR ROOFTOP UNIT. CONTROLS CONTRACTOR SHALL PROVIDE THE DOCUMENTS. THE CONTROLS SHALL BE ENERGIZED TO OPERATE CONTINUOUSLY.
- 2. SUPPLY FAN OFF. WHEN THE SUPPLY FAN IS OFF, THE COMPRESSORS, AND GAS HEAT SHALL BE
- 3. PROVIDE UNIT WITH START/STOP ABILITY BASED ON A TIME-OF-DAY SCHEDULE WITH THE ABILITY
- 4. PROVIDE SUPPLY FAN STATUS (VFD OPERATIONS: HERTZ). PROVIDE AN ALARM FOR FAN FAILURE.
- 5. MONITOR SUPPLY AIR TEMPERATURE AND TRANSMIT TO USER INTERFACE.
- 6. DURING COOLING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 55°F BY MODULATING ONE OF THE VFD SCROLL COMPRESSORS. WHEN ONE OF THE VFD SCROLL COMPRESSORS IS AT 100% LOAD FOR 5 MINUTES AND THE LEAVING AIR TEMPERATURE IS NOT SATISFIED ANOTHER SCROLL COMPRESSOR SHALL COME ONLINE. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F ABOVE THE SET POINT.
- DURING HEATING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 85°F BY MODULATING THE AMOUNT OF GAS HEAT WITH SCR CONTROL. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F BELOW THE SET POINT.
- 8. DURING OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL MODULATE BETWEEN ITS MINIMUM AND MAXIMUM OUTSIDE AIR SET POINT BASED ON CARBON DIOXIDE LEVELS MEASURED IN THE RETURN AIR DUCTWORK. DURING UNOCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE
- 9. CONTROLS SHALL MONITOR THE TEMPERATURE IN THE RETURN AIR DUCT AND THE MIXED AIR TEMPERATURE.
- (ADJUSTABLE). MODULATE OUTSIDE AIR DAMPER TO MAINTAIN CO2 LEVELS. CO2 LEVELS SHALL NOT EXCEED 700 PPM (ADJUSTABLE) ABOVE OUTDOOR AIR LEVELS. OUTSIDE AIR DAMPER SHALL MODULATE PROPORTIONALLY AS THE CO2 LEVELS IN THE SPACE INCREASES ABOVE OUTDOOR AIR LEVELS UNTIL DAMPER HAS REACHED ITS MAXIMUM POSITION AS SCHEDULED.
- 1.DEHUMIDIFICATION: WHEN SPACE HUMIDITY INCREASES BEYOND 55% RH SUB-COOLING SHALL BE ACTIVATED. WHEN TEMPERATURE IN THE SPACE FALLS BELOW SETPOINT HOT-GAS REHEAT SHALL BE ACTIVATED. WHEN SPACE HUMIDITY FALLS BELOW 50% RH DEHUMIDIFICATION SHALL BE DEACTIVATED.
- 12. WHEN SMOKE DETECTOR SENSES SMOKE IN THE RETURN AIR STREAM, THE UNIT SHALL SHUT DOWN. THE SUPPLY FAN MOTOR SHALL STOP AND THE OUTSIDE AIR INTAKE SHALL FULLY CLOSE.
- 13. OUTSIDE AIRFLOW SHALL BE MEASURED AT THE OUTSIDE AIR INLET TO THE UNIT. THE OUTSIDE AIR FLOW. THE OUTSIDE AIRFLOW SHALL BE LINKED WITH THE RETURN AIR CO2 AND OUTSIDE AIR CO2 TO MODULATE THE OUTSIDE AIR DAMPER TO WITHIN THE MINIMUM/MAXIMUM

- NECESSARY CONTROLLER FROM THE ROOFTOP UNIT MANUFACTURER. THE CONTROLLER SHALL HAVE THE NECESSARY POINTS AND SEQUENCE OF OPERATION AS REQUIRED BY THE CONTROLS
- FOR OPTIMUM START.

- 10.CO2 MONITORING: PROVIDE CO2 ZONE SENSORS TO MEASURE WITHIN PLUS OR MINUS 50 PPM

- CONTRACTOR SHALL PROVIDE THE EBTRON ADVANTAGE 2 PRODUCT (GOLD SERIES) TO MEASURE **OUTSIDE AIRFLOW REQUIREMENTS.**

# **DDC CONTROL SYSTEM - GENERAL NOTES**

- THE CONTROL SYSTEMS SHALL BE COMPLETE WITH ALL WIRING, CONDUIT, POWER SUPPLIES AND ALL OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM THAT WILL ACCOMPLISH THE SEQUENCE OF OPERATIONS, AND THE INTENT OF CONTROL DIAGRAMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ASPECTS OF THE DDC CONTROL SYSTEM AND THE FIRE ALARM/SUPRESSION SYSTEMS TO ENSURE THAT THE SYSTEMS OPERATE AS REQUIRED BY THESE DOCUMENTS AND NATIONAL AND LOCAL CODES.
- 2. ALL COMMUNICATIONS WIRING TO BE SHIELDED TWISTED WIRE PAIR.
- ALL COMMUNICATIONS WIRING TO WALL MOUNTED CONTROLLERS SHALL BE ROUTED IN CONDUIT. CONDUIT TO EXTEND UP TO ABOVE CEILING OR EXPOSED ROOF STRUCTURE.
- PROVIDE A PROGRAMMABLE ELECTRONIC HVAC CONROLS SYSTEM EQUAL TO THE RELIABLE CONTROLS SYSTEM (OR APPROVED EQUAL). THE SYSTEM SHALL BE CAPABLE OF INTERFACING TO AND CONTROLLING THE MECHANICAL EQUIPMENT IN THE MECHANICAL FLOOR PLAN. SYSTEM SHALL BE CAPABLE OF ALARMING AND SYSTEM CONTROL DESCRIBED IN THE SEQUENCE OF OPERATION. CONTRACTOR SHALL PROVIDE AN INTEGRATED FRONT END.
- THE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY ELECTRICAL POWER NEEDED FOR THE BAS. THE INSTALLATION OF THESE POWER SYSTEMS SHALL BE IN FULL ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS.

SYMBOL LIST				
SYMBOL	DESCRIPTION			
	OPPOSED BLADE DAMPER			
	HEATING OR COOLING COIL			
$\bigcirc$	FAN OR PUMP MOTOR			
Р	PRESSURE TRANSMITTER			
S	SMOKE DETECTOR			
Т	TEMPERATURE SENSOR			
	THERMOSTAT			
TCU	TERMINAL CONTROL UNIT			
VFD	VARIABLE FREQUENCY DRIVE			
Ç	VAV DAMPER W/FLOW MONITOR			
	DDC DIGITAL INPUT POINT			
Q	DDC DIGITAL OUTPUT POINT			
AI	DDC ANALOG INPUT POINT			
AO	DDC ANALOG OUTPUT POINT			
M	MOTOR			
MS	MOTOR STARTER			
C02	C02 SENSOR			
ES	ENTHALPY SENSOR, ECONOMIZER			
HPL	HIGH STATIC PRESS. LIMIT SENS.			
VFDP	VFD (DUCT) PRESSURE SENSOR			
	THERMOSTAT/TEMPERATURE SENSOR			
FS	AIR FLOW MONITORING STATION			
F	FLOW SENSOR			
cs	CURRENT SENSOR			



1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102

Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: DATE: MARCH 11, 2022 SHEET OF SEQ #

COUNT

TION

CONSTRUC

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, T THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021

DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

ARCHITECTURAL EXAMINERS' RULES.

ANY MODIFICATION(S) TO THIS

**ഗ**⊃

RTU-5,6 - SEQUENCE OF OPERATIONS

RTU-5,6

AFM & T

OUTSIDE AIR CONDITION

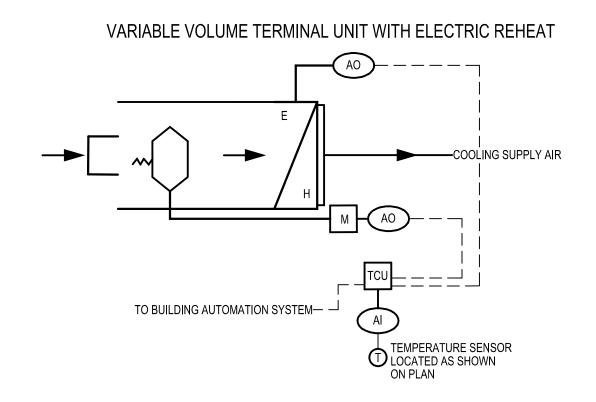
RETURN AIR

UNIT MOUNTED

UNITARY CONTROLLEI

TO BUILDING AUTOMATION SYSTEM

OUTSIDE AIR -



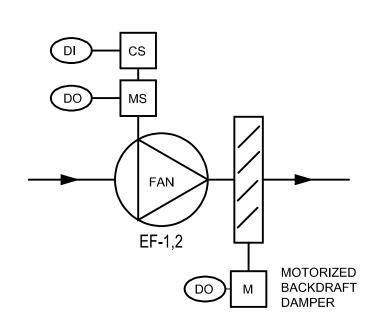
# **SEQUENCE OF OPERATION - VAV BOX** WITH ELECTRIC REHEAT

- PROVIDE A CONTROLLER THAT SHALL HAVE THE NECESSARY POINTS AND SEQUENCE OF OPERATION AS REQUIRED BY THE CONTROLS DOCUMENTS. THE AUTOMATIC CONTROLS SHALL BE ENERGIZED TO OPERATE CONTINUOUSLY.
- 2. MONITOR ZONE TEMPERATURE THROUGH TEMPERATURE SENSOR. SET OCCUPIED MODE AT 75 DEGREES F (USER ADJUSTABLE) FOR COOLING SET POINT AND 70 DEGREES F (USER ADJUSTABLE) FOR HEATING SET POINT. SET UNOCCUPIED MODE AT 85 DEGREES F (USER ADJUSTABLE) FOR COOLING SET POINT AND 55 DEGREES F (USER ADJUSTABLE) FOR HEATING SET POINT. THE USER SHALL BE ABLE TO CHANGE THE TEMPERATURE SET POINT WITHIN 2 DEGREES FOR COOLING AND HEATING.
- 3. WHEN TEMPERATURE IS ABOVE COOLING SET POINT (UNOCCUPIED/OCCUPIED MODE), VAV DAMPER SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM AIRFLOW SET POINTS UNTIL ZONE MATCHES SET POINT. THE ELECTRIC HEAT SHALL REMAIN OFF.
- 4. WHEN TEMPERATURE IS BETWEEN HEATING AND COOLING SETPOINT(UNOCCUPIED/OCCUPIED MODE),THE VAV DAMPER SHALL BE IN IT MINIMUM POSITION AND THE HEATING COIL SHALL BE OFF.
- 5. WHEN TEMPERATURE IS BELOW HEATING SETPOINT(UNOCCUPIED/OCCUPIED MODE), VAV DAMPER SHALL BE IN MINIMUM HEATING AIRFLOW SET POINT. THE ELECTRIC HEAT SHALL STAGE ON UNTIL HEATING SET POINT IS ACHIEVED.
- 6. ALLOW THE OCCUPANT TO OVERRIDE SET SCHEDULE (AT TEMPERATURE SENSOR) TO SET SYSTEM IN OCCUPIED MODE. SET SCHEDULE SHALL REVERT BACK AFTER 60 MINUTES (USER ADJUSTABLE).

VAV BOX WITH ELECTRIC REHEAT - SEQUENCE OF OPERATIONS

# **SEQUENCE OF OPERATION**

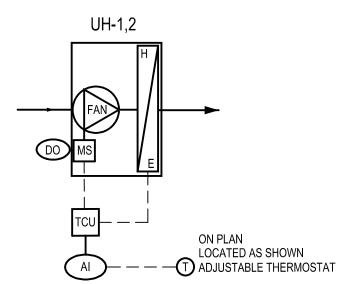
- I. EXHAUST FAN SHALL OPERATE CONTINUOUSLY AT SCHEDULED CFM.
- FAN STATUS SHALL BE MONITORED BY BAS, IF FAN FAILS TO OPERATE WHEN REQUIRED AN ALARM SHALL BE GENERATED BY THE DDC CONTROLS.
- 3. FAN SHALL DE-ENERGIZE ON COMMAND FROM FIRE ALARM SYSTEM.
- THE FAN SHALL BE INTERLOCKED WITH ASSOCIATED MOTORIZED DAMPER. DAMPER SHALL POWER OPEN WHEN FAN IS ENERGIZED AND SPRING CLOSE WHEN FAN IS DE-ENERGIZED.



EXHAUST FAN - SEQUENCE OF OPERATIONS

# **SEQUENCE OF OPERATION - TYPICAL EUH**

- WHEN THE HEATER(S) ARE OFF THE FAN IS OFF AND THE HEATING ELEMENTS ARE DE-ENERGIZED.
- ELECTRIC UNIT HEATER SHALL OPERATE TO MAINTAIN SPACE WINTER DESIGN TEMPERATURES. WHEN THE UNIT HEATERS THERMOSTAT INDICATED A DROP IN THE SPACES TEMPERATURE BELOW THE THE WINTER SET POINT 50° F (ADJUSTABLE) AND AIR FLOW HAS BEEN PROVEN, THE ELECTRIC HEATING COIL IN THE UNIT HEATER SHALL BE ENERGIZED. WHEN SPACE TEMPERTURE REACHES 60° F (ADJUSTABLE) HEATER SHALL BE DE-ENERGIZED.
- UNIT HEATERS SHALL BE CONTROLLED BY THE DDC SYSTEM. EACH ELECTRIC UNIT HEATER SHALL HAVE THE CAPABILITY OF BEING TURNED ON OF OFF FROM THE DDC CONTROL PANEL.

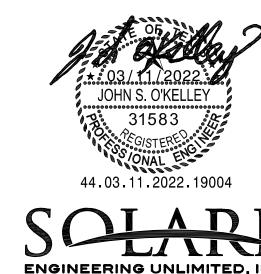


**ELECTRIC UNIT HEATER - SEQUENCE OF OPERATIONS** 

# DDC CONTROL SYSTEM - GENERAL NOTES

- . THE CONTROL SYSTEMS SHALL BE COMPLETE WITH ALL WIRING, CONDUIT, POWER SUPPLIES AND ALL OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM THAT WILL ACCOMPLISH THE SEQUENCE OF OPERATIONS, AND THE INTENT OF CONTROL DIAGRAMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ASPECTS OF THE DDC CONTROL SYSTEM AND THE FIRE ALARM/SUPRESSION SYSTEMS TO ENSURE THAT THE SYSTEMS OPERATE AS REQUIRED BY THESE DOCUMENTS AND NATIONAL AND LOCAL CODES.
- 2. ALL COMMUNICATIONS WIRING TO BE SHIELDED TWISTED WIRE PAIR.
- ALL COMMUNICATIONS WIRING TO WALL MOUNTED CONTROLLERS SHALL BE ROUTED IN CONDUIT. CONDUIT TO EXTEND UP TO ABOVE CEILING OR EXPOSED ROOF STRUCTURE.
- PROVIDE A PROGRAMMABLE ELECTRONIC HVAC CONROLS SYSTEM EQUAL TO THE RELIABLE CONTROLS SYSTEM (OR APPROVED EQUAL). THE SYSTEM SHALL BE CAPABLE OF INTERFACING TO AND CONTROLLING THE MECHANICAL EQUIPMENT IN THE MECHANICAL FLOOR PLAN. SYSTEM SHALL BE CAPABLE OF ALARMING AND SYSTEM CONTROL DESCRIBED IN THE SEQUENCE OF OPERATION. CONTRACTOR SHALL PROVIDE AN INTEGRATED FRONT END.
- THE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY ELECTRICAL POWER NEEDED FOR THE BAS. THE INSTALLATION OF THESE POWER SYSTEMS SHALL BE IN FULL ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS.

S	YMBOL LIST
SYMBOL	DESCRIPTION
	OPPOSED BLADE DAMPER
	HEATING OR COOLING COIL
$\bigcirc$	FAN OR PUMP MOTOR
Р	PRESSURE TRANSMITTER
S	SMOKE DETECTOR
Т	TEMPERATURE SENSOR
T	THERMOSTAT
TCU	TERMINAL CONTROL UNIT
VFD	VARIABLE FREQUENCY DRIVE
~)	VAV DAMPER W/FLOW MONITOR
DI	DDC DIGITAL INPUT POINT
DO	DDC DIGITAL OUTPUT POINT
Al	DDC ANALOG INPUT POINT
AO	DDC ANALOG OUTPUT POINT
М	MOTOR
MS	MOTOR STARTER
C02	C02 SENSOR
ES	ENTHALPY SENSOR, ECONOMIZER
HPL	HIGH STATIC PRESS. LIMIT SENS.
VFDP	VFD (DUCT) PRESSURE SENSOR
Ta	THERMOSTAT/TEMPERATURE SENSOR
FS	AIR FLOW MONITORING STATION
F	FLOW SENSOR
CS	CURRENT SENSOR



ENGINEERING UNLIMITED, INC 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A

SHEET

MARCH 11, 2022 OF SEQ #

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

ARCHITECTURAL EXAMINERS' RULES.

REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS



TYPICAL CONDENSING NEOPRENE PADS -(TYP OF 4 PER UNIT) - PROVIDE AN ADDITIONAL PIECE OF ROOFING UNDER THE UNIT SUPPORTS **TYPICAL** 



CONNECTION CABLE

TO THERMOSTAT

/--WALL MOUNTING BRACKET FURNISHED BY MANUFACTURER

ALUMINIZED -VERTICAL

6" CANT STRIP

**ROOF MATERIAL** 

NOTE 1

AIRFLOW

- NONORGANIC BASE LOCATED ON ROOF

CONDENSATE-

PUMP

FLASHING

MANUAL

BALANCING

DAMPER-

CEILING

SUPPLY AIR DUCT.

2. ALL RTU'S SHALL BE "PLUMB" AND SET LEVEL ON ROOF IN BOTH DIRECTIONS. THE VERTICAL DIMENSION OF THE CURB WALLS SHALL BE TAPERED AS REQUIRED TO COMPENSATEFOR THE ROOF SLOPE AND ALLOW THE RTU

TO SET LEVEL. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SLOPE INFORMATION.

2"x2" PRESSURE —

ROOF CURB NOTE 2

TREATED WOOD NAILER

R/A DUCT OR PLENUM.

TYPICAL ROOFTOP UNIT MOUNTING

✓OUTDOOR UNIT

POWER & HIGH **VOLTAGE CONTROL** TO INDOOR UNIT -INSULATED RS, RL REFRIGERANT

LINES

—WALL SLEEVE WITH CAPS FURNISHED BY FCU MFGR.

—DRAIN LINE

— FLEXIBLE –

CONNECTION

NOTE 5

1. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT REQUIREMENTS.

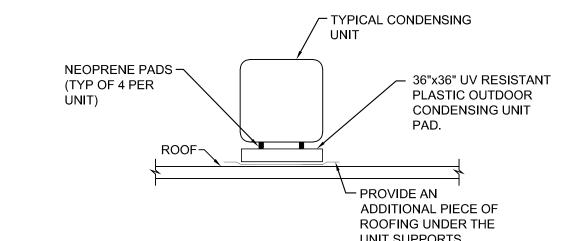
3. PROVIDE TRANSITION AND/OR OFFSET AS INDICATED OR REQUIRED.

5. REFER TO DETAIL THIS SHEET FOR SOUND ATTENUATION INSTALLATION.

4. THIS DETAIL IS TYPICAL FOR ALL RTU INSTALLATIONS.

CURB TO BE FACTORY INSULATED WITH MIN R-8 RIGID INSULATION, MIN 14" HIGH.

CONDENSING UNIT ROOF PAD





-ROOFTOP AIR

CONDITIONING UNIT

TURN VERTICAL FLASHING

CONCRETE BEAM

UP ON TOP OF WOOD

ROOFTOP UNIT SOUND 2 ATTENUATION AND CURB INSTALLATION
SCALE: NO SCALE

PROVIDE FLEXIBLE DUCT

CONNECTIONS ON SUPPLY AND

RETURN FOR VIBRATION ISOLATION

- 1/2" CEMENT BOARD

— 6" FIBERGLASS BATT INSULATION

—4" FIBERGLASS BATT INSULATION

SUPPORT WITH METAL STUDS

ATTENUATING CAULK, TYP.

3/8" GAP CAULKED WITH SOUND

AC UNIT-

NAILER -

PROVIDE TRANSITIONS IN SUPPLY AND RETURN —

UNIT OPENING PER SMACNA RECOMMENDATIONS.

DUCTS FROM DUCT SIZE SHOWN ON PLAN TO

INSULATE PER SPECIFICATIONS.

GASKET OR SEALANT -

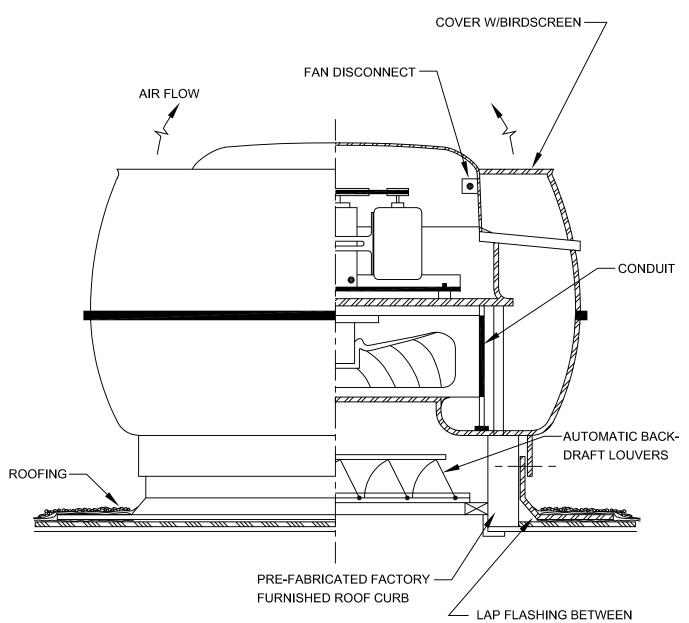
FACTORY INSULATED -

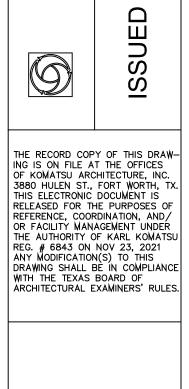
CANT STRIP-

ROOF CURB

ROOF MATERIAL







CONSTRUCTION

FOR

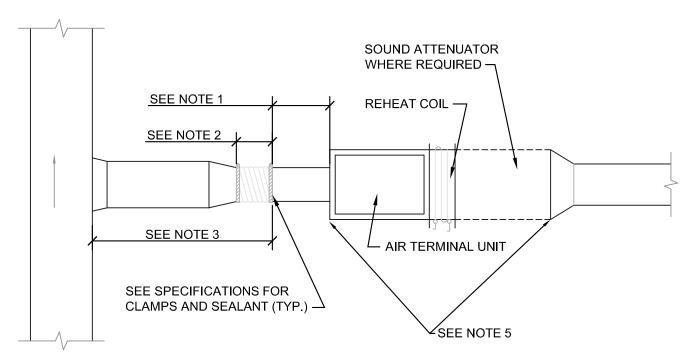
**∽** 

**∑**-

SHEET SIZE SCALE: SPECIFICATIONS NO.:

22 x 34 KAI JOB NUMBER: 2017.171B DATE: MARCH 11, 2022 OF SEQ # SHEET

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com



- 1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET
- 2. PROVIDE FLEXIBLE AIR DUCT CONNECTOR ONLY WHERE NECESSARY TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0". OTHERWISE PROVIDE STRAIGHT RUN RIGID DUCT AS SHOWN.
- 3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET. FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100'.
- 4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0". USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
- 5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
- 6. <u>BID ALTERNATE 1</u>: USE OF FINISHED RIGID DUCT WITH FIBERGLASS MESH & MASTIC TO BE UTILIZED IN LIEU OF FLEXIBLE CONNECTOR. MASTIC TO BE FIELD PAINTED TO MATCH FINISHED DUCT TO BE BID WITH ALTERNATE 1

- LAPPED AND COMPRESSED

LINER ADHERED TO

THE DUCT WITH 100%

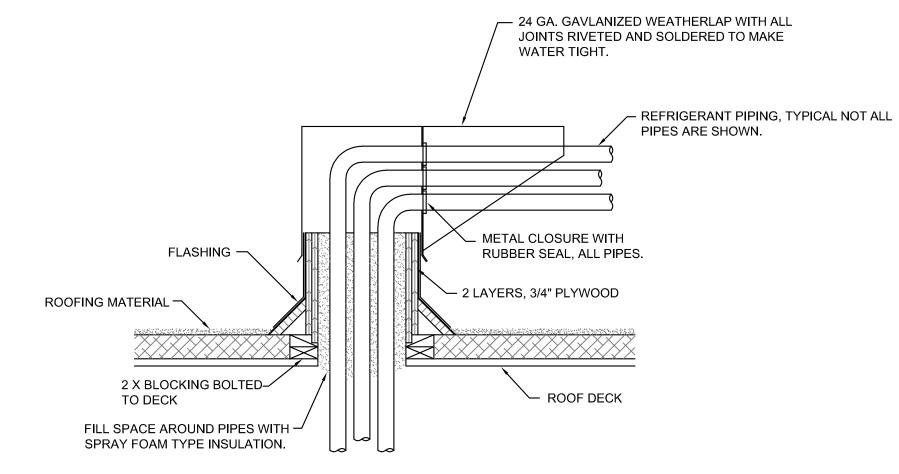
COVERAGE OF ADHESIVE.

-UPSTREAM TRANSVERSE EDGES TO BE COATED

WITH ADHESIVE.

# AIR TERMINAL UNIT - DUCT CONNECTIONS

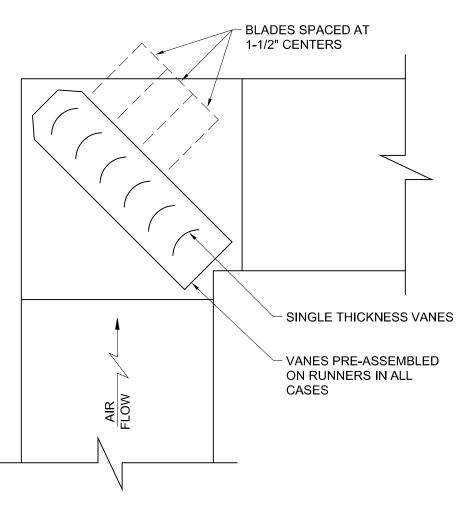
SCALE: NO SCALE



- 1. ALL EDGES SHALL BE ROLLED & TURNED DOWN. SHARP EDGES WILL NOT BE ACCEPTED.
- 2. SEAL AS REQUIRED TO MAKE ALL JOINTS & PENETRATIONS WATERTIGHT.
- 3. CONTRACTOR SHALL FEILD VERIFY ALL DIMENSIONS ANS CONDITIONS
- 4. PIPE HOUSE SHALL BE INTERNALY INSULATED WITH 2" DUCT LINER

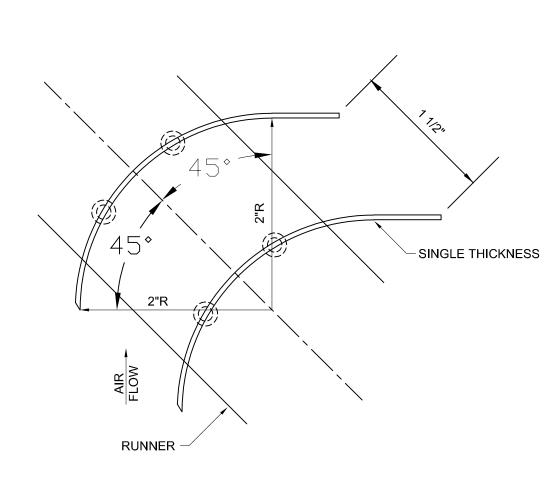
# TYPICAL ROOF REFRIGERANT PIPING PORTAL ASSEMBLY



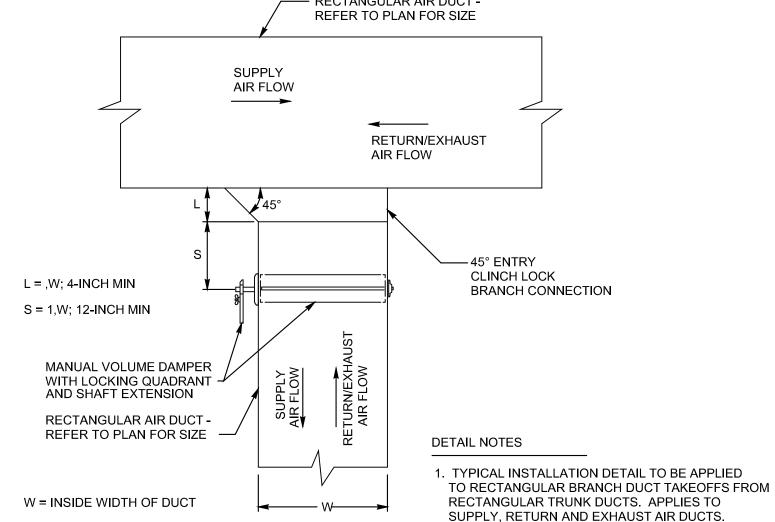




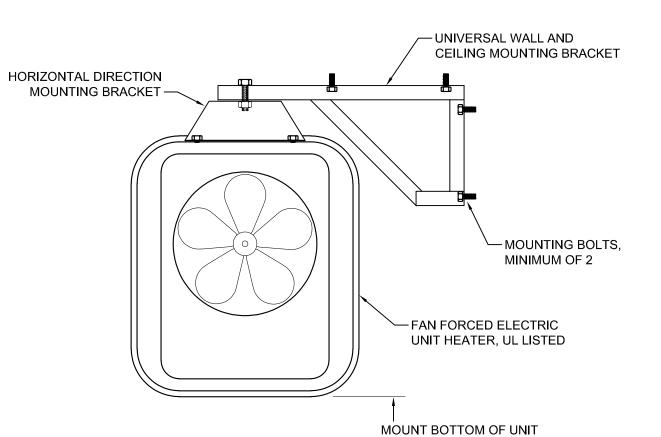
CORNER-BREAK









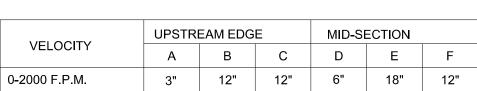


8'-0" AFF, MINIMUM. 1. OBSERVE MANUFACTURER'S CLEARANCE REQUIREMENTS.

### 2. PROVIDE WITH INTEGRAL THERMOSTAT AND CONTROL TRANSFORMER

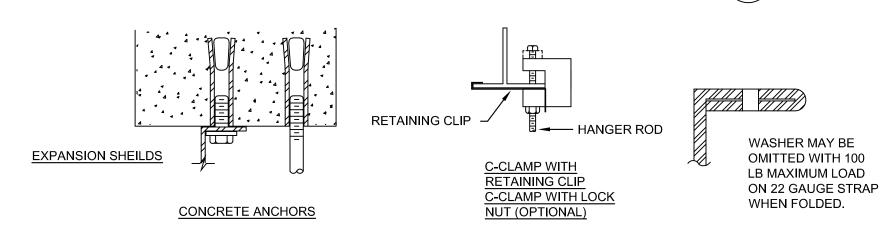
TYPICAL ELECTRIC UNIT HEATER NO SCALE



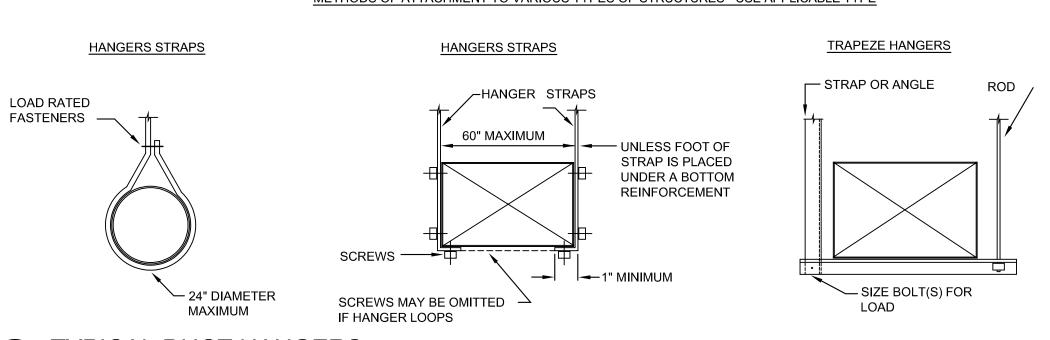


MAXIMUM SPACING FOR FASTENERS

USED WITH FLEXIBLE DUCT LINER.









1= FOR JEM 9
* 03/11/2022 · 6
JOHN S. O'KELLEY
31583 31583 35 35 35 35 35 35 35 35 35 35 35 35 35
44.03.11.2022.19004
COLADE
3 Line
ENGINEERING UNLIMITED, INC 1300 Summit Avenue, Suite 514 Tel 817.529.6800 Fax 817.529.0649 Fort Worth, Texas 76102 www.solare-eng.com

POLK PHA\$			
SHEET SIZE		22	2 x 34
SCALE:			
KAI JOB NU	MBER:	201	7.171B
SPECIFICATION	ONS NO.:		N/A
DATE:	MAR	CH 11,	2022
SHEET	OF	SEQ	#
Me	5,(		) -

TION

CONS

FOR

ISSU

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC.

3880 HULEN ST., FORT WORTH, T. THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS

DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

ARCHITECTURAL EXAMINERS' RULES.

**∽** 

TYPICAL FLEXIBLE DUCT LINER INSTALLATION

LONGITUDINAL-JOINT

TYPICAL DUCT HANGERS

# ELECTRICAL SYMBOLS AND ABBREVIATIONS NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

### **GENERAL NOTES**

- ALL DEVICE PLATES SHALL BE NYLON COVERS. COLOR SHALL BE SELECTED BY THE ARCHITECT.
- ALL WALL MOUNTED DEVICES (LIGHT SWITCH, RECEPTACLES, ETC.) LOCATIONS TO COMPLY WITH TAS STIPULATED REACH RANGES. CONTRACTOR TO PROVIDE ELECTRICAL DEVICE SHOP DRAWINGS (EACH FLOOR) ANNOTATING DEVICE TYPE AND DIMENSIONED LOCATIONS FOR ARCHITECT REVIEW PURPOSES IN EFFORT TO COORDINATE LOCATIONS AND MITIGATE CONFLICT WITH ARCHITECTURAL TRIM AND/OR MILWORK.
- COORDINATE EXACT LOCATIONS OF ALL LIGHTING FIXTURES IN ELECTRICAL/MECHANICAL SPACES WITH EQUIPMENT, DUCTWORK AND PIPING. CONTRACTOR TO PROVIDE ELECTRICAL LIGHTING SHOP DRAWINGS (EACH FLOOR) ANNOTATING LIGHT FIXTURE TYPE AND DIMENSIONED LOCATIONS FOR EACH. SHOP DRAWINGS TO BE SUBMITTED TO ARCHITECT FOR REVIEW PURPOSES IN EFFORT TO COORDINATE LOCAITONS IN RELATION TO EXPOSED BEAMS, FURR
- ALL RECEPTACLE OUTLETS LOCATED WITHIN 6'-0" OF A WET BAR OR SINK SHALL BE GFI TYPE. ALL RECEPTACLE OUTLETS LOCATED OUTDOORS SHALL BE WP/GFI. ALL RECEPTACLES SERVING VENDING MACHINES SHALL BE GFI TYPE. ALL RECEPTACLES SERVING ELECTRIC WATER COOLERS SHALL BE GFI TYPE. ALL RECEPTACLES IN KITCHEN AREAS SHALL BE GFI TYPE.
- ALL CONDUIT PENETRATIONS THROUGH THE ROOF TO SERVE MECHANICAL EQUIPMENT SHALL BE WITHIN THE ASSOCIATED EQUIPMENT ROOF CURB. COORDINATE LOCATIONS OF PENETRATIONS WITH THE MECHANICAL CONTRACTOR.
- PROVIDE LIGHT FIXTURE MANUFACTURER PROVIDED OR RECOMMENDED MOUNTING HARDWARE AND TRIM NECESSARY FOR THE PROPER INSTALLATION OF SPECIFIED LIGHTING FIXTURES SERVING THE FINISH SUBSTRATE WHERE EACH FIXTURE IS TO BE INSTALLED (I.E. GYP, FURR DOWN, PLASTERED DECK, VAULTED CEILING, ETC.).
- PROVIDE ACCESS DOORS IN WALLS AND GYPSUM FURR DOWNS WHERE ACCESS TO CONCEALED ELECTRICAL BOXES AND DEVICES IS REQUIRED.
- EACH BRANCH AND FEEDER CIRCUIT SHALL BE PROVIDED WITH A GROUND CONDUCTOR SIZED PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NFPA 70). WHERE A CONDUIT CONTAINS MULTIPLE BRANCH CIRCUITS, PROVIDE A SINGLE GROUND CONDUCTOR UNLESS OTHERWISE
- CONDUIT, LIGHT FIXTURES, AND OTHER COMPONENTS MAY BE SHOWN LARGER THAN ACTUAL SIZE. CONDUIT ROUTING IS SHOWN WITH AN EXAGGERATED SPACING FOR CLARITY. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL CONTRACTORS TO ENSURE CONDUIT PLACEMENT DOES NOT CONFLICT WITH LOCATION SENSITIVE COMPONENTS SUCH AS LIGHT FIXTURES.
- 10. INTEGRATED EQUIPMENT RATINGS SHOWN ARE MINIMUMS, CONTRACTOR SHALL PROVIDE MANUFACTURER'S EQUAL OR NEXT HIGHER STANDARD RATINGS.
- 11. ALL PULL CORD/WIRE PROVIDED FOR EMPTY RACEWAY/CONDUIT SYSTEMS SHALL HAVE A MINIMUM STRENGTH OF 200 LBS TENSILE STRENGTH. ALL EMPTY CONDUITS SHALL HAVE A PULL CORD.
- 12. PROVIDE LUGS AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO ACCEPT THE SIZE AND NUMBER OF CONDUCTORS SHOWN IN THESE DOCUMENTS.
- 13. THE LIGHTING PLANS INDICATE SWITCHING AND BRANCH CIRCUIT NUMBERS FOR ALL LIGHTING FIXTURES. LOWER CASE LETTERS AT SWITCHES AND LIGHTING FIXTURES INDICATE SWITCHING WHERE THE CONTROL PATTERN IS NOT OBVIOUS. INSTALL BRANCH CIRCUIT WIRING IN RACEWAY TO ALL RIGIDLY ATTACHED LIGHTING FIXTURES, AND TO JUNCTION BOXES FOR ALL LAY-IN LIGHTING FIXTURES, AS REQUIRED TO PROVIDE SWITCHING AND CIRCUITING AS SHOWN ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 14. ALL LAY-IN LIGHTING FIXTURES SHALL BE CONNECTED TO A BRANCH CIRCUIT JUNCTION BOX WITH A FLEXIBLE FIXTURE TAIL. A MAXIMUM OF FOUR FIXTURE TAILS SHALL BE CONNECTED TO A SINGLE JUNCTION BOX. FIXTURE TO FIXTURE WIRING OF LAY-IN LIGHTING FIXTURES IS NOT PERMITTED, EXCEPT WHERE MASTER/SLAVE FIXTURE PAIRS ARE INDICATED OR SPECIFIED.
- 15. THERE SHALL BE NO SPLICES OF WIRING INSIDE PANELBOARDS OR DISCONNECT SWITCHES. ONLY ONE WIRE SHALL BE TERMINATED TO ANY SINGLE LUG ON A CIRCUIT BREAKER.
- 16. ALL WIRING AND CONDUIT SIZES SHALL BE BASED ON THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE UNLESS OTHERWISE NOTED SPECIFICALLY.
- 17. UNLESS OTHERWISE NOTED, FOR LIGHTING AND RECEPTACLE HOMERUNS HAVING A TOTAL LENGTH OF 100' TO 200', USE #10 CONDUCTORS; FOR HOMERUNS HAVING A TOTAL LENGTH OF 200' OR GREATER, USE #8 CONDUCTORS,
- 18. COORDINATE THE REQUIREMENTS FOR OVERCURRENT PROTECTIVE DEVICE SIZE, DISCONNECT SWITCH SIZE, AND CONDUCTOR AND CONDUIT SIZES WITH THE REQUIREMENTS OF THE MECHANICAL EQUIPMENT THAT IS ACTUALLY TO BE INSTALLED AND PROVIDE AND INSTALL ALL ELECTRICAL COMPONENTS AS REQUIRED. THE ELECTRICAL COMPONENT SIZING SHOWN ON THESE DRAWINGS IS BASED UPON THE REQUIREMENTS FOR THE SPECIFIED MECHANICAL EQUIPMENT AVAILABLE AT THE TIME OF DESIGN. VARIATIONS IN REQUIREMENTS MAY OCCUR AS A RESULT OF THE PROVISION OF OTHER MANUFACTURER'S EQUIPMENT OR IN CHANGES TO THE SPECIFIED EQUIPMENT, SUCH REVISED REQUIREMENTS ARE A PART OF THIS CONTRACT AND SHALL BE ACCOMMODATED WITHOUT ADDITIONAL CHARGE.
- 19. COORDINATE THE EXACT LOCATION OF ALL THERMOSTATS, STARTERS, DISCONNECTS, ETC. AND COORDINATE ALL REQUIREMENTS FOR CONTROL AND POWER WIRING WITH THE MECHANICAL CONTRACTOR OR THE TRADE PROVIDING THE EQUIPMENT.
- 20. ALL CONDUCTORS SHALL BE THWN/THHN UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE RATED FOR 75 DEGREES C. TERMINATIONS SHALL BE RATED FOR 75 DEGREES C. DEVIATIONS SHALL COMPLY WITH NEC ARTICLE 110-14(c) FOR EXACT EQUIPMENT BEING PROVIDED.
- 21. COORDINATE WITH AND PAY ALL FEES ASSOCIATED WITH OBTAINING SERVICE FROM ANY OF THE FOLLOWING UTILITIES RELATED TO THIS PROJECT. POWER COMPANY **TELEPHONE COMPANY**
- 22. THE ELECTRICAL CONTRACTOR SHALL REVIEW ALL TECHNOLOGY DRAWINGS AND FIRE ALARM SPECS AND SHALL PROVIDE SHOP DRAWINGS FOR ENGINEER REVIEW/APPROVAL PURPOSES CLEARLY ILLUSTRATING ALL DEVICE LOCATIONS WITH INSTALLATION DETAILS OF WIRED CONDUIT AND/OR RACEWAYS AS TO BE PROVIDED AND/OR INSTALLED BY ELECTRICAL CONTRACTOR.

CABLE TELEVISION PROVIDER

## LIGHTING

- LIGHTING FIXTURE LETTER DENOTES TYPE
  - WALL WASHER LIGHTING FIXTURE LETTER DENOTES TYPE
- CEILING MOUNTED EXIT SIGN, ARROWS AS INDICATED -LETTER DENOTES TYPE, DARKENED AREA DENOTES LIGHTED FACE
- WALL MOUNTED EXIT SIGN, ARROWS AS INDICATED LETTER DENOTES TYPE, DARKENED AREA DENOTES LIGHTED FACE
- $\vdash \bigcirc \vdash \bigcirc$ STRIP LIGHT FIXTURE - LETTER DENOTES TYPE
- NIGHT LIGHT FIXTURE AND OR EMERGENCY FIXTURE
- POLE-MOUNTED SITE LIGHTING FIXTURE
- LIGHT FIXTURE LETTER DENOTES TYPE WALL MOUNTED LIGHT FIXTURE - LETTER DENOTES TYPE  $F \bigcirc \vdash \bigcirc \vdash G$ 
  - **EMERGENCY BATTERY PACK LIGHTING FIXTURE**

### RECEPTACLES AND OUTLETS

- SIMPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V
  - DUPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V "WP" DENOTES WEATHER-RESISTANT GFI RECEPTACLE IN WEATHERPROOF-IN-USE
- DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING
- DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER OR BACKSPLASH

QUADPLEX RECEPTACLE. NEMA 5-20R, 20A, 125V

- SPECIAL RECEPTACLE, NEMA CONFIGURATION OR EQUIPMENT PART NUMBER AS NOTED ON DRAWING
- FLOOR RECEPTACLE "F" DENOTES FLUSH
- MULTI-OUTLET SURFACE RACEWAY WITH NEMA 5-20R,20A,125V
- RECEPTACLES 12" ON CENTER
  - JUNCTION BOX
  - FLOOR TELEPHONE OUTLET "F" DENOTES FLUSH
  - FLOOR DATA OUTLET "F" DENOTES FLUSH FLOOR RECEPTACLE/TELEPHONE OUTLET - "F" DENOTES FLUSH
- FLOOR RECEPTACLE/DATA OUTLET "F" DENOTES FLUSH
- EXISTING DATA OUTLET
- DATA/TELEPHONE OUTLET
- NOTE: ALL TELEPHONE, DATA OUTLET AND COMBINATION OUTLETS TO BE PROVIDED WITH OUTLET JUNCTION BOX AND 3/4"C WITH PULL STRING TO ABOVE CEILING FOR FUTURE WIRING

# MOTORS AND CONTROLS

# MOTOR

**1** 

- DISCONNECT SWITCH "200/3/150" DENOTES AMPS/POLE/FUSE; "NF" DENOTES NON-FUSED
  - MOTOR STARTER, NEMA SIZE AS NOTED
- COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER - "30/3/15/1" DENOTES AMPS/POLES/FUSE/

NEMA STARTER SIZE; "NF" DENOTES NON-FUSED

- MANUAL MOTOR STARTER WITH THERMAL OVERLOAD
- PHOTOCELL
- **PUSH BUTTON**
- START-STOP PUSH BUTTON CONTROL STATION
- OPEN-STOP-CLOSE PUSH BUTTON CONTROL STATION
- TIME CLOCK

# **ELECTRICAL EQUIPMENT**

- SWITCHBOARD OR DISTRIBUTION PANEL
  - PANELBOARD FLUSH OR SURFACE MOUNT AS INDICATED ON PLAN SCHEDULE
- **DRY-TYPE TRANSFORMER**
- PLYWOOD TERMINAL BOARD, FOR TELEPHONE SYSTEM UNLESS NOTED, 4' X 8' X 3/4" UNLESS OTHERWISE NOTED

### LIGHTING CONTROL

- SWITCH, SPST, 20A, 120/277V
  - SWITCH, 20A, 120/277V "2" DENOTES DPST, "3" DENOTES THREE-WAY, "4" DENOTES FOUR-WAY
- SWITCH, SPST, 20A, 120/277V "K" DENOTES KEY SWITCH, "P" DENOTES PILOT LIGHT
- DIMMER CONTROL SWITCH, 1000 WATT UNLESS OTHERWISE
- SWEEP SWITCH
- TIMER SWITCH WATT-STOPPER #TS-400 UNLESS OTHERWISE NOTED
- WALL MOUNTED LINE VOLTAGE OCCUPANCY SENSOR WITH MANUAL CONTROL
- LOWER CASE LETTERS ADJACENT TO FIXTURE INDICATE ASSOCIATED SWITCHING. EXAMPLE SHOWS FIXTURE TYPE "B" ON SWITCH "a"
- PUSHBUTTON

# **MISCELLANEOUS**

DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)

# SPECIFIC EQUIPMENT CONNECTIONS

# - SUPPORT ELECTRICAL CONNECTION

- (PUMP-1)(5HP,16.7FLA)(208/3) ------INFORMATION PROVIDED (NAME)(LOAD)(VOLTAGE) (60/3/35)(3#10,1#10G,3/4"C)(30AMPS) ----- CONNECTION (DISCONNECT)(WIRE)(FEEDER AMPS) PROVIDE 1/2"C TO FIRE ALARM PANEL. ---- SPECIAL INSTRUCTIONS AND NOTES
  - —ALTERNATE NOTE BY SYMBOL FORMAT CIRCUIT(NAME)(LOAD)(VOLTAGE)(DISCONNECT)(WIRE)(AMPS)
- SPECIAL INSTRUCTIONS AND NOTES (#) H1A-1,3,5 (PUMP-1)(5HP,16.7FLA)(208/3)(60/3/35)(3#10,1#10G,3/4"C)(30AMPS) PROVIDE 1/2"C TO FIRE ALARM PANEL

- DISCONNECT ABBREVIATIONS: 30/3/NF = AMPS/POLES/FUSE "NF" INDICATES NON-FUSED
- W/UNIT = PROVIDED WITH UNIT L/BKR = PROVIDE LOCKABLE CIRCUIT BREAKER
- REC = RECEPTACLE MRS MOTOR RATED SWITCH
- = TOGGLE SWITCH WITH LOCKING CLASP LTS
- DESIGN IS BASED ON INFORMATION PROVIDED BY OTHER DIVISIONS, CONTRACTOR SHALL CONFIRM EQUIPMENT PURCHASED MEETS BASIS OF DESIGN SHOWN. COST ASSOCIATED WITH CHANGES TO PROVIDED INFORMATION SHALL BE THE RESPONSIBILITY OF THE DIVISION PROVIDING THE

EQUIPMENT. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND DATA PRIOR TO ROUGH.

# **BRANCH CIRCUIT WIRE SCHEDULE**

BRANCH SIZE	COPPER WIRE SIZE	CONDUIT SIZE	BRANCH SIZE	COPPER WIRE SIZE	CONDUIT SIZE
20 AMP	2 #12, 1#12G.	1/2"	50 AMP	2 #6, 1#10G.	1"
25 AMP	2 #10, 1#10G.	1/2"	60 AMP	2 #4, 1#10G.	1"
30 AMP	2 #10, 1#10G.	1/2"	70 AMP	2 #4, 1#8G.	1"
35 AMP	2 #8, 1#10G.	3/4"	80 AMP	2 #3, 1#8G.	1-1/4"
40 AMP	2 #8, 1#10G.	3/4"	90 AMP	2 #2, 1#8G.	1-1/4"
45 AMP	2 #6, 1#10G.	1"	100 AMP	2 #1, 1#8G.	1-1/4"

- WIRE SIZES ARE BASED ON N.E.C. TABLE 310-16, 75 DEGREE C COLUMN.
- CONDUIT SHALL BE USED AS REQUIRED BY LOCAL CODE.
- PROVIDE 3 CONDUCTOR WIRE WITH GROUND WHERE REQUIRED FOR APPLIANCES. ADJUST
- CONDUIT SIZE AS REQUIRED BY CODE.

	ABBR	EVIAT	IONS
A	AMPS	L	LENGTH
ACT	ABOVE COUNTERTOP	LB	POUNDS
AFF	ABOVE FINISHED FLOOR	LRA	LOCKED ROTOR AMPS
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AIC	AMPERE INTERRUPTING CURRENT	MAX	MAXIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MCA	MINIMUM CIRCUIT AMPACITY
AWG	AMERICAN WIRE GAUGE	MCB	MAIN CIRCUIT BREAKER
BKR	BREAKER	MH	METAL HALIDE
BLDG	BUILDING	MIN	MINIMUM
С	CONDUIT	MLO	MAIN LUGS ONLY
CKT	CIRCUIT	N/A	NOT APPLICABLE
CLG	CEILING	NEC	NATIONAL ELECTRICAL CODE
D	DEPTH	NEMA	NATIONAL ELECTRICAL
DEG	DEGREES		MANUFACTURER'S ASSOCIATION
DIS	DISCONNECT	NF	NON-FUSED
DPDT	DOUBLE-POLE, DOUBLE-THROW	NFPA	NATIONAL FIRE PROTECTION
DPST	DOUBLE-POLE, SINGLE-THROW		ASSOCIATION
EA	EACH	NO.	NUMBER
EPO	EMERGENCY POWER OFF	N/O,N/C	NORMALLY OPEN, NORMALLY CLOSED
EWC	ELECTRIC WATER COOLER	OC	ON CENTER
FA	FIRE ALARM	OSHA	OCCUPATIONAL SAFETY AND HEALTH
FACP	FIRE ALARM CONTROL PANEL		ADMINISTRATION
FLA	FULL LOAD AMPS	PDU	POWER DISTRIBUTION UNIT
FT.	FOOT, FEET	PF	POWER FACTOR
FVNR	FULL-VOLTAGE, NON-REVERSING	PH	PHASE
G	GROUND	PROVIDE	FURNISH AND INSTALL
GA.	GAUGE	PVC	POLYVINYL CHLORIDE
GFI	GROUND FAULT CIRCUIT	RE:	REFERENCE, REFER
	INTERRUPTER	RLA	RUNNING LOAD AMPS
GFR	GROUND FAULT RELAY	SPDT	SINGLE POLE DOUBLE THROW
GND	GROUND	SPST	SINGLE POLE SINGLE THROW
GRS	GALVANIZED RIGID STEEL	THRU	THROUGH
Н	HEIGHT	TYP	TYPICAL
HID	HIGH INTENSITY DISCHARGE	U/F	UNDERFLOOR
HOA	HAND-OFF-AUTOMATIC	U/G	UNDERGROUND
HP	HORSEPOWER	U/S	UNDERSLAB
HPS	HIGH PRESSURE SODIUM	UL	UNDERWRITERS LABORATORIES, INC.
HVAC	HEATING, VENTILATING AND AIR	U.O.N.	UNLESS OTHERWISE NOTED
	CONDITIONING	UPS	UNINTERRUPTIBLE POWER SUPPLY
HZ	HERTZ		VOLT
IER	INTEGRATED EQUIPMENT RATING	VA	VOLT-AMPERE
IG	ISOLATED GROUND	VAC	VOLTS ALTERNATING CURRENT
IN.	INCH, INCHES		WATT, WIDTH
J-BOX	JUNCTION BOX	W/	WITH
kcmil	1000 CIRCULAR MILS	W/O	WITHOUT
kV	KILOVOLT	WP	WEATHERPROOF DEVICE. RECEPTACLE
kVA	KILOVOLT-AMPS		SHALL BE WEATHER-RESISTANT TYPE GI
13/45	KILOVOLT ANDO DEAGTIVE		- DECEDTACLES IN MEATHEDDDOOD MUHI

## MOUNTING HEIGHTS

XFMR

RECEPTACLES IN WEATHERPROOF WHILE

IN-USE BOX.

TRANSFORMER

TOGGLE AND DIMMER SWITCHES: - 44" AFF TO CENTER OF SWITCH

KILOWATT-HOUR

KILOWATT

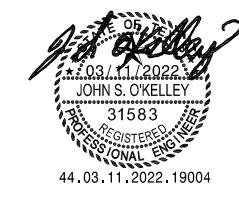
KILOVOLT-AMPS REACTIVE

kWH

- FINISHED AREAS-18" AFF TO CENTER OF RECEPTACLE
- UNFINISHED AREAS-48" AFF TO CENTER OF RECEPTACLE
- ELEVATION WITH THE COOLER TO BE INSTALLED PRIOR
- TO ROUGH-IN - ABOVE COUNTER -6" ABOVE COUNTER OR BACKSPLASH TO CENTER OF RECEPTACLE
- WALL MOUNTED EMERGENCY LIGHTING FIXTURES:
- 84" AFF TO CENTER OF FIXTURE
- THERMOSTATS: - 44" AFF TO CENTER

# **BASIS OF ELECTRICAL DESIGN**

2018 INTERNATIONAL BUILDING CODE (IBC). ELECTRICAL: 2020 NATIONAL ELECTRICAL CODE (NEC). 2018 INTERNATIONAL ENERGY CODE (IECC). **ENERGY**: FIRE: 2018 INTERNATIONAL FIRE CODE (IFC).



ENGINEERING UNLIMITED, INC. 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102

Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

ING IS ON FILE AT THE OFFICES 3880 HULEN ST. FORT WORTH THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES O REFERENCE, COORDINATION, AND

OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATS

DRAWING SHALL BÈ ÍN COMPLIANCE

ARCHITECTURAL EXAMINERS' RULES

REG. # 6843 ON NOV 23, 2021

ANY MODIFICATION(S) TO THIS

 $\bigcirc$   $\vdash$ 

SHEET SIZE 22 × 34 KAI JOB NUMBER: 2017,171B

SPECIFICATIONS NO.: DATE: MARCH 11, 2022 OF SEQ # SHEET

		LIGHTING FI	XTURE AND	CEILING	FAN S	SCHEDU	ILE
SYMBOL	TYPE OF LUMINAIRE	MANUFACTURER & CATALOG NUMBER	LAMPS	INPUT WATTAGE	INPUT VOLTAGE	MOUNTING	REMARKS
А	CUSTOM PENDANT FIXTURE	REJUVENATION: MODEL NUMBER: A3167 FINISH: UNLACQUERED BRASS SHADE: B0473	4000 LUMENS LED 3000K	25	120V	PENDANT	NOTE 2,4
B1	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/10—LO6-AR-LSS-120 -GZ10-FCM-DDB	1000 LUMENS LED 3000K	11	120V	SURFACE	
B2	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/15—LO6-AR-LSS-120 -GZ10-FCM-DDB	1500 LUMENS LED 3000K	18	120V	SURFACE	
В3	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/20—LO6-AR-LSS-120 -GZ10-FCM-DDB	2000 LUMENS LED 3000K	23	120V	SURFACE	NOTE 7
B4	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/25–LO6-AR-LSS-120 -GZ10	2500 LUMENS LED 3000K	29	120V	SURFACE	
B5	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/15LO6-AR-LSS-120 -GZ10	1500 LUMENS LED 3000K	18	120V	SURFACE	
В6	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/20LO6-AR-LSS-120 -GZ10	2000 LUMENS LED 3000K	23	120V	SURFACE	
В7	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/25LO6-AR-LSS-120 -GZ10	2500 LUMENS LED 3000K	29	120V	SURFACE	
В8	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/50LO6-AR-LSS-120 -GZ10	5000 LUMENS LED 3000K	58	120V	SURFACE	
С	CUSTOM PENDANT FIXTURE	REJUVENATION: MODEL NUMBER: A1836 FINISH: UNLACQUERED BRASS SHADE: B0462	2000 LUMENS LED 3000K	25	120V	SUSPENDED	NOTE 2
D	LINEAR FIXTURE	LITHONIA: FMLL-14IN-120V-30K-80CRI	4800 LUMENS LED 3000K	45	120V	SURFACE	
E	WALL PENDANT FIXTURE	REJUVENATION: MODEL NUMBER: A7468 FINISH: UNLACQUERED BRASS SHADE: B0462	2000 LUMENS LED 3000K	25	120V	SURFACE	NOTE 2,6
F	FAN	TEXAS CEILING FAN: 23702	N/A	90	120V	PENDANT	NOTE 5
F1	FAN	TEXAS CEILING FAN: 23838	2000 LUMENS LED, 3000K	120	120V	PENDANT	NOTE 5
S	UTILITY STRIP	LITHONIA: ZL1N-L48-3000LM-FST-120V-35K-80CRI-WH	3000 LUMENS LED, 3500K	25	120V	WALL MOUNTED	
Х	EXIT/EMERGENCY COMBO FIXTURE	LITHONIA: LHZM-LED-R-HO	INCLUDED	3	120V	SURFACE	NOTE 1
OA	POLE MOUNTED FIXTURE	UNION METAL: T824-33-B1-Y1	5000 LUMENS LED, 3000K	200	120V	SURFACE	NOTE 8
OF	IN GRADE FLAG POLE LIGHT	KIM LIGHTING: LTV82-SS-SP-18L-3K-UV-SR	1800 LUMENS LED, 3000K	22	120V	IN GRADE	
SF1	LANDSCAPE MOUNTED FLOOD LIGHT	KIM LIGHTING: KFL2-24L-45-3K7-HF	1800 LUMENS LED, 3000K	45	120V	STAKE MOUNTED	
SF2	LANDSCAPE MOUNTED FLOOD LIGHT	KIM LIGHTING: KFL2-24L-70-3K7-HF	1800 LUMENS LED, 3000K	70	120V	STAKE MOUNTED	
SG1	IN GRADE UP LIGHT	KIM LIGHTING: LTV82FF-WW-18L3K	1800 LUMENS LED, 3000K	22	120V	IN GRADE	
SG2	IN GRADE UP LIGHT	KIM LIGHTING: LTV81FF-WW-36L3K	1800 LUMENS LED, 3000K	44	120V	IN GRADE	

### NOTES:

- 1. EXIT SIGNS MOUNTED ON END SHALL HAVE ONE (1) LED LAMP HEAD.
- 2. PROVIDE CUSTOM BULB OPTION FOR FIXTURE. BULB SHALL BE LED WITH 2000 LUMEN OUTPUT AT 3000 KELVIN. E26 SOCKET 25 WATT MAXIMUM.
- 3. FIXTURE SHALL BE USED AS A BASIS OF DESIGN. THC AND ARCHITECT SHALL GIVE FINAL APPROVAL OF FIXTURE PRIOR TO PURCHASING. COORDINATE WITH ARCHITECT FOR POLE SPECIFICAITON
- 4. FIXTURES IN 1ST, 2ND, AND 3RD FLOOR CORRIDORS SHALL BE SUSPEND 8'-6" A.F.F. VIA CHAIN. FIXTURES IN HISTORIC COURTROOM SHALL BE SUSPENDED 12' A.F.F. VIA CHAIN. IN ALL OTHER AREAS MOUNT FIXTURE AS HIGH AS POSSIBLE. VERIFY FINAL MOUNTING HEIGHT WITH THC/ARCHITECT PRIOR TO INSTALLATION. FIELD VERIFY CHAIN LENGTHS PRIOR TO ORDERING.
- 5. FANS SHALL BE PENDANT MOUNTED USING SHORTEST ROD POSSIBLE UNLESS NOTED OTHERWISE AND ENSURE BLADES CLEAR ALL OBJECTS BY A MINIMUM OF 12".
  FANS IN HISTORIC COURTROOM SHALL BE PENDANT MOUNTED 12' A.F.F TO MATCH HEIGHT OF SCHOOLHOUSE FIXTURES. IF EQUIPPED WITH LIGHT KIT, BULB SHALL BE
  LED WITH 2000 LUMEN OUTPUT AT 3000 KELVIN. E26 SOCKET 25 WATT MAXIMUM. VERIFY FINAL MOUNTING HEIGHT WITH THC/ARCHITECT PRIOR TO INSTALLATION. FIELD
  VERIFY PENDANT LENGTHS PRIOR TO ORDERING.
- 6. FIXTURE IN FIRE RISER ROOM SHALL BE 7' A.F.F.
- 7. FOR FIXTURES "B2" LOCATED IN ROOMS 223 & 303 AND ANY LOCATION WHERE SHOWN IN A FURRDOWN SHALL BE RECESSED CAN TYPE WITH MODEL # LDN6-30/10--LO6-AR-LSS-120-GZ10
- 8. PROVIDE CUSTOM BULB OPTION FOR FIXTURE. BULB SHALL BE LED WITH 5000 LUMEN OUTPUT AT 3000 KELVIN. E26 SOCKET 200 WATT MAXIMUM.

### GENERAL NOTES APPLY TO ALL FIXTURES:

- a. WALL AND CEILING MOUNTED EXIT SIGN FIXTURES SHALL BE MOUNTED ABOVE DOORS. FIXTURES TO HAVE EMERGENCY OPERATION FEATURE AND SELF-TESTING/DIAGNOSTIC ELECTRONICS.
- b. ALL EXTERIOR LED FIXTURES TO HAVE DIMMING DRIVERS TO COMPLY WITH 2015 IECC.
- c. PROVIDE ALL REQUIRED MOUNTING HARDWARE AND TRIM FOR CEILING TYPE FIXTURE IS MOUNTED IN.
- d. FIXTURE FINISHES SHALL BE APPROVED BY ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
- e. LIGHTING DESIGN, FIXTURE DISTANCES, AND VISUAL CALCULATIONS ARE BASED ON EXACT FIXTURE PROPERTIES IN THIS SCHEDULE. SIMILAR FIXTURES SUBMITTED ARE TO MATCH

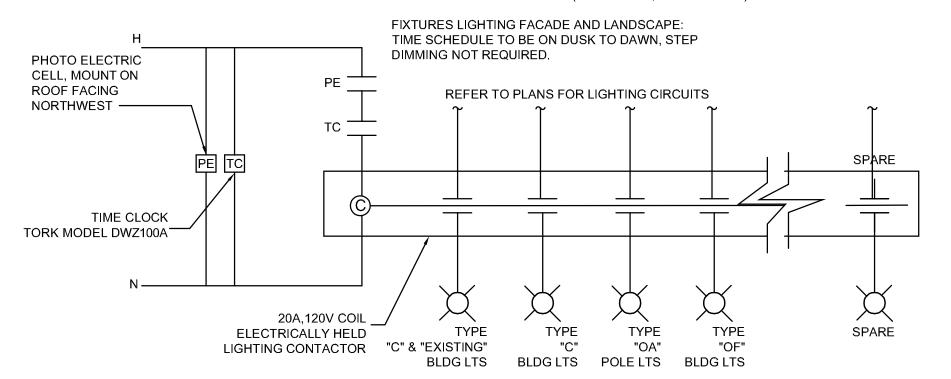
FLOOR BOX SCHEDULE				
IISVMBOLI MANUEACTURER I FLOOR BOX 1 3 3 4 - 1 1 - 1		DEVICE PLATE(S)		
FB1	LEGRAND	6STCP	6CT2BS	(1) 6ATC8A
GENERAL NOTES:  1. CONTRACTOR SHALL VERIFY DEPTHS PRIOR TO ORDERING.  2. CONTRACTOR SHALL USE ELECTRONIC SCANNING EQUIPMENT TO DETERMINE LOCATION OF STEEL REINFORCING IN CONCRETE FLOOR & POKE-THRU DEVICE SHALL BE LOCATED TO MISS STEEL.				

	LIGHTING CONTROL DEVICE SCHEDULE					
SYMBOL	TYPE OF CONTROL					
\$	LINE VOLTAGE TOGGLE SWITCH					
\$3	LINE VOLTAGE 3-WAY TOGGLE SWITCH					
\$4	LINE VOLTAGE 4-WAY TOGGLE SWITCH					
<b>\$</b> A	LINE VOLTAGE ANTIQUE STYLE PUSH-BUTTON TOGGLE SWITCH. BASIS OF DESIGN: HOUSE OF ANTIQUE HARDWARE - #R-010FD-S-1P					
\$34	LINE VOLTAGE 3-WAY ANTIQUE STYLE PUSH-BUTTON TOGGLE SWITCH. BASIS OF DESIGN: HOUSE OF ANTIQUE HARDWARE - #R-010FD-S-3					

# EXTERIOR LIGHTING CONTROL:

PROVIDE 365/7 DAY ASTRONOMIC TIME CONTROL WITH OVERRIDE ON/OFF AND MINIMUM 2 DAY PERMANENT SCHEDULE RETENTION. PROVIDE ONE RELAY OR CONTACT PER ZONE REQUIRED.

AREA SECURITY SITE LIGHTING:
TIME SCHEDULE TO BE ONE ZONE ON AT NIGHT ONE
ZONE OFF AFTER MIDNIGHT (TWO ZONES, STEP DIMMED).



EXTERIOR LIGHTING CONTROLS DETAIL

NTS



POLK COUNTY COUR

PHASE TWO: REST(
101 W. Church Stre
Livingston, TX 773

ELECTRICAL SCHEDUI

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC.

3880 HULEN ST., FORT WORTH, TX.
THIS ELECTRONIC DOCUMENT IS
RELEASED FOR THE PURPOSES OF
REFERENCE, COORDINATION, AND/
OR FACILITY MANAGEMENT UNDER
THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS

DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

SCALE:

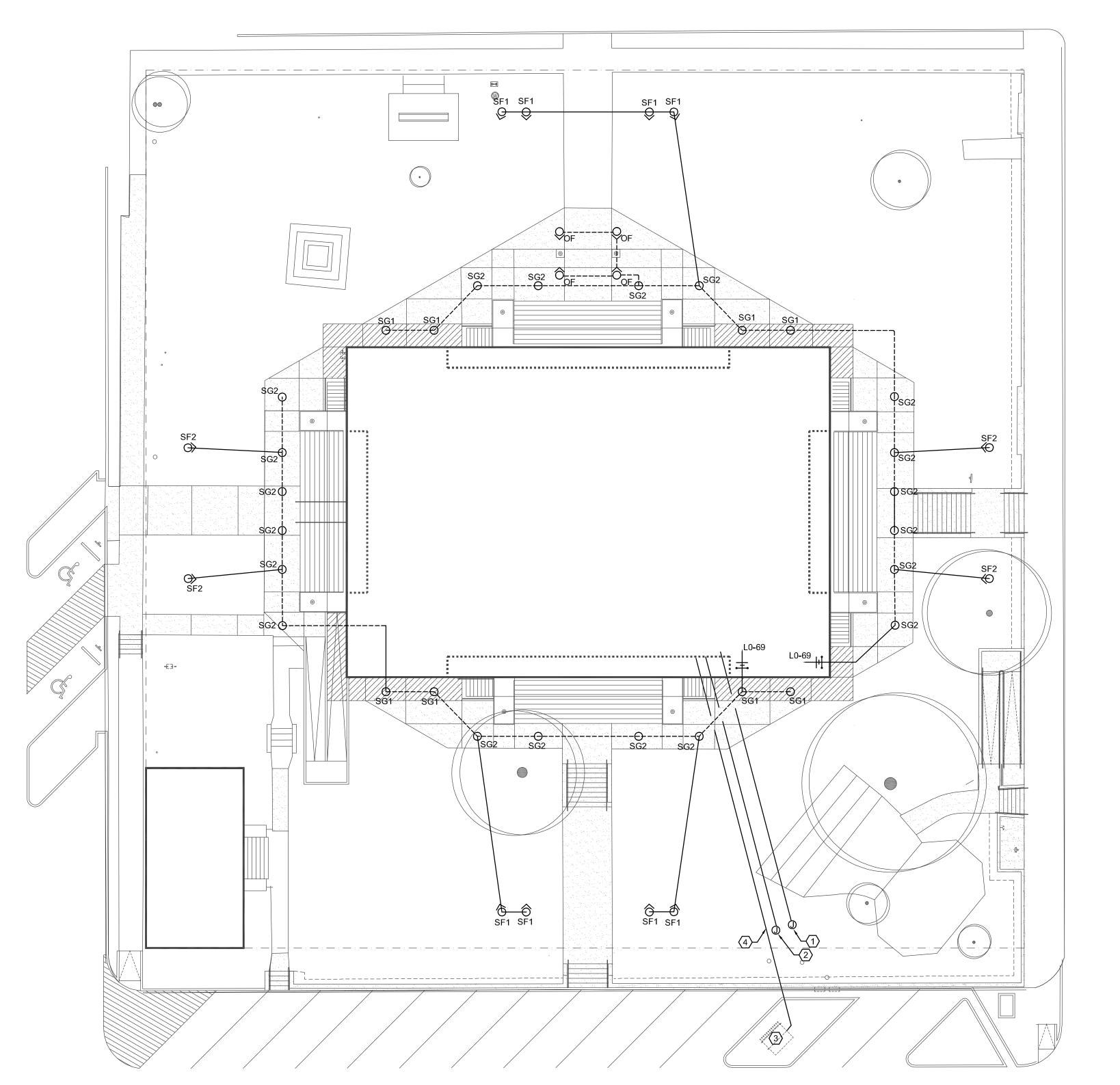
KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #

1



# NOTES BY SYMBOL "#"

- $|\langle 1 \rangle|$  EXTEND EXISTING CIRCUITS FROM REMOVED GAZEBO PANEL TO NEW PANEL "L0" LOCATED IN BASEMENT ELECTRICAL ROOM. EXTEND ALL CIRCUITS USING #12 CONDUCTORS VIA UNDERGROUND ROUTING. REFER TO PANEL SCHEDULE ON E6.02 FOR MORE INFORMATION.
- 2 FOLLOWING REMOVAL OF TWO (2) ENCLOSED CIRCUIT BREAKERS, POWER EXISTING CIRCUITS THROUGH NEW PANEL "LO" USING CIRCUIT 63 & 65. EXTEND CIRCUIT USING #12 CONDUCTORS VIA UNDERGROUND ROUTING. REFER TO PANEL SCHEDULE ON E6.02 FOR MORE INFORMATION.
- $\overline{\langle 3 \rangle}$  PROPOSED TRANSFORMER LOCATION. REFER TO CIVIL.
- 4 UNDERGROUND ROUTING OF SECONDARY TO MDP. REFER TO E6.01 FOR WIRE AND CONDUIT SIZING.

# **GENERAL NOTES**

1. ALL EXTERIOR CIRCUITS AND DEVICES THAT ARE TO REMAIN SHALL BE POWERED THROUGH NEW ELECTRICAL EQUIPMENT LOCATED IN BASEMENT.

**S**⊃

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.

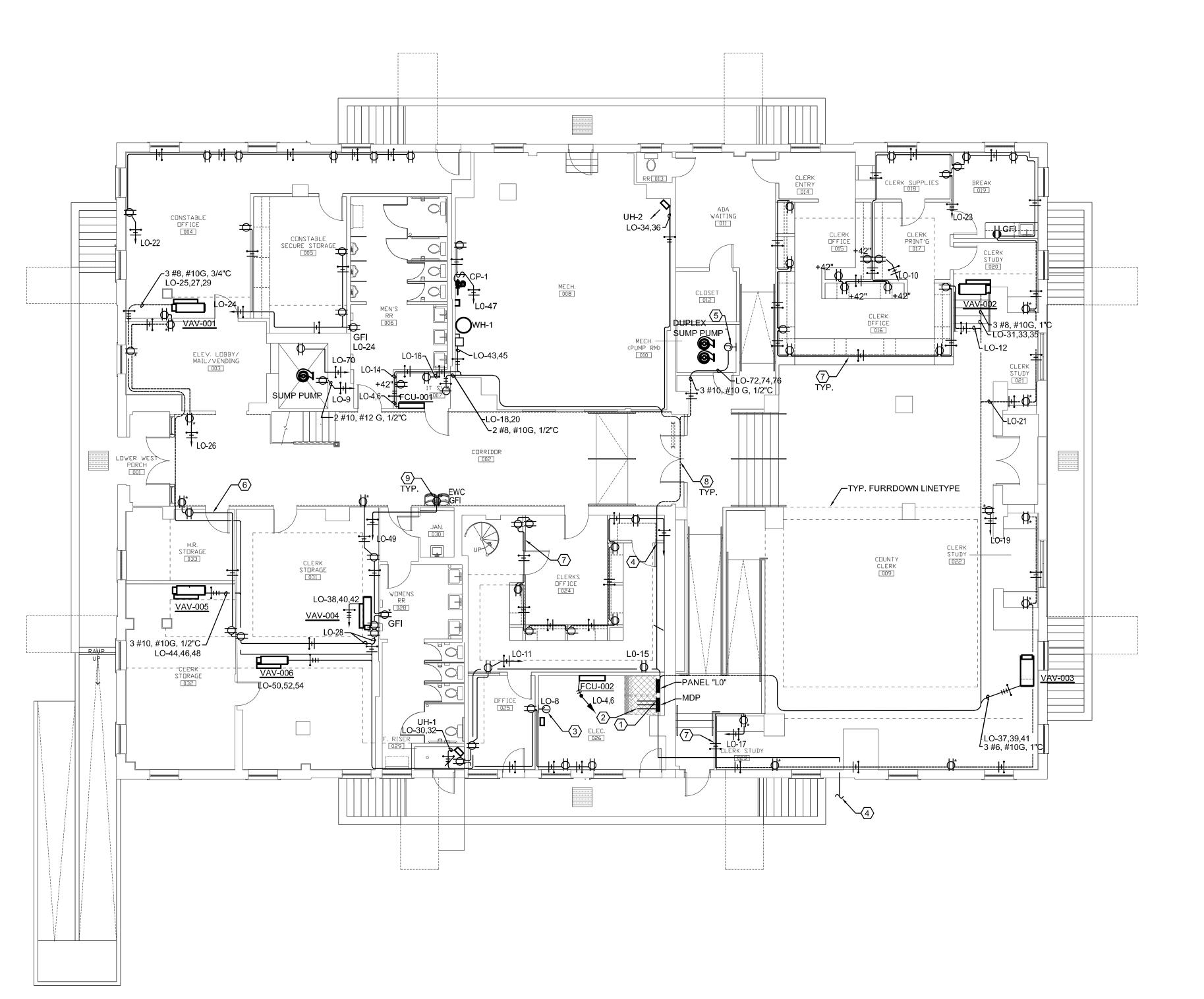
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

SHEET SIZE 22 × 34 SCALE:

KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #

1 ELECTRICAL SITE PLAN

1/16' = 1' - 0'



# NOTES BY SYMBOL "(#)"

- LOCATION OF MAIN DISTRIBUTION PANEL RATED AT 1000 AMPS 120/208V, 3-PHASE, 4WIRE.
- CONDUIT RISE UP AND RUNS LATERAL WEST AT UNDERSIDE OF FIRST FLOOR PLATE. PENETRATE FLOOR AND ROUTE TO PANEL ABOVE ON 1ST FLOOR.
- $\overline{\langle 3 \rangle}$  PROPOSED LOCATION OF HVAC CONTROL PANEL.
- MULTIPLE CIRCUITS ENTER BUILDING AT THIS AREA. REFER TO ELECTRICAL SITE PLAN AND CIVIL SITE PLAN FOR MORE INFORMATION.
- VERIFY EXACT ELECTRICAL REQUIREMENTS FOR DUPLEX SUMP PUMP SYSTEM PRIOR TO INSTALLATION.
- $|\langle 6 \rangle|$  RISE AND RUN WIREMOLD ABOVE DOOR AND DOWN TO RUN ON WALL.
- CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED.
  TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR
  ADJACENT TO NEW FRAMED WALLS.
- (8) DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- PRECEPTACLES ANNOTATED WITH AN ASTERICK (\*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULL CONCEALED FROM VIEW. TYPICAL
- DUPLEX RECEPTACLE WITH GFI PROTECTION LOCATED IN ELEVATOR PIT.

## **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
- 3. WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (\*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
- 4. WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 5. WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
- 6. FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (\*), PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (\*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 7. CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
- 8. FURDOWNS SHALL BE UTILIZED AS MUSH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.).
- 9. LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD.
  PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS,
  STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO
  BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

ENGINEERING UNLIMITED, INC.

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"

KOMATS (

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS

DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

NIY COURTHOUSE
O: RESTORATION
W. Church Street
qston, TX 77351

POLK COUNTY CO

SHEET SIZE 22 x 34

SCALE:

KAI JOB NUMBER: 2017.171B

 KAI JOB NUMBER:
 2017.171B

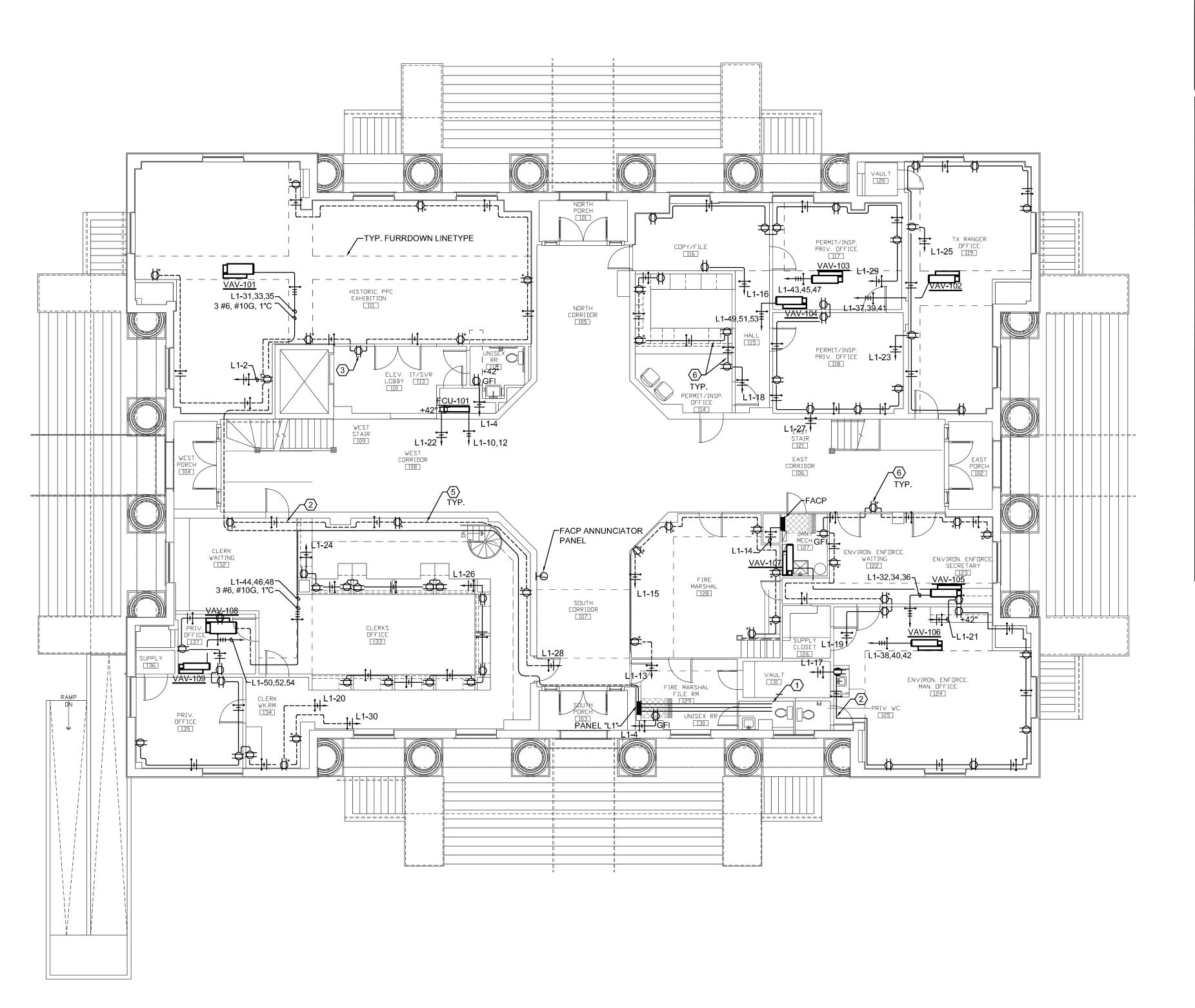
 SPECIFICATIONS NO.:
 N/A

 DATE:
 MARCH 11, 2022

 SHEET
 OF
 SEQ #

1 BASEMENT ELECTRICAL POWER PLAN

1/8' = 1' - 0'



NOTES BY SYMBOL "#"

- $\langle 1 \rangle$  RISE UP AND ROUTE CONDUIT AT UNDERSIDE OF 2ND FLOOR PLATE.PENATRATE FLOOR AND ROUTE TO PANEL ABOVE ON 2ND FLOOR.
- $|\langle 2 \rangle|$  RISE AND RUN WIREMOLD ABOVE DOOR AND DOWN TO RUN ON WALL.
- $|\langle 3 \rangle|$  EXISTING RECEPTACLE LOCATION TO REMAIN. PROVIDE NEW DEVICE IN EXISTING LOCATION AND POWER USING CIRCUIT ON PLAN.
- $\overline{\langle 4 \rangle}$  CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED. TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR ADJACENT TO NEW FRAMED WALLS.
- $\left|\left\langle 5\right\rangle \right|$  DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- (6) RECEPTACLES ANNOTATED WITH AN ASTERICK (\*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULL CONCEALED FROM VIEW. TYPICAL.

## **GENERAL NOTES**

- UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
- WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (\*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
- WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
- FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (\*), PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (\*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
- FURDOWNS SHALL BE UTILIZED AS MUSH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.).
- LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

ONSTRUCTION

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

SHEET SIZE 22 x 34

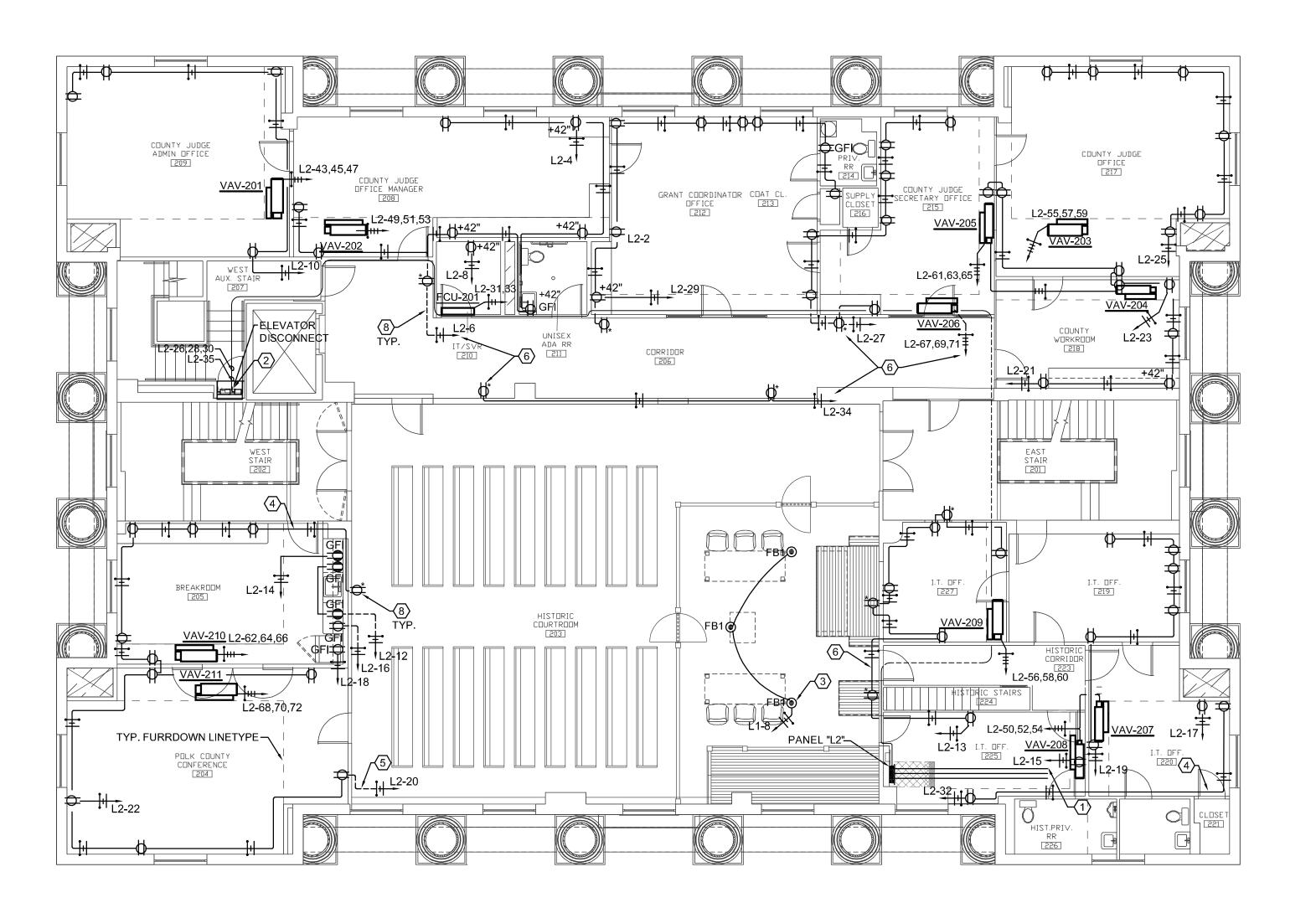
KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: DATE: MARCH 11, 2022

OF SEQ#

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com SHEET 1/8"=1'-0"

1 1ST FLOOR ELECTRICAL POWER PLAN

1/8' = 1' - 0'



1 2ND FLOOR ELECTRICAL POWER PLAN

1/8' = 1' - 0'

# NOTES BY SYMBOL "(#)"

- RISE UP AND ROUTE CONDUIT AT UNDERSIDE OF 3RD FLOOR PLATE.PENATRATE FLOOR AND ROUTE TO PANEL ABOVE ON 3RD FLOOR.
- CONDUIT ROUTING FOR ELEVATOR. PROVIDE TWO (2) CIRCUITS. FOR ELEVATOR DISCONNECT PROVIDE 3 #3, #8G IN 1-1/2" CONDUIT AND ROUTE TO ELEVATOR DISCONNECT IN ACCESS PANEL. FOR ELEVATOR LIGHTING DISCONNECT PROVIDE 2 #12, #12G, IN 1/2" CONDUIT AND ROUTE TO ELEVATOR LIGHTING DISCONNECT ALSO LOCATED IN ACCESS PANEL. VERIFY EXACT ELECTRICAL REQUIREMENTS PRIOR TO INSTALLATION. ACCESS PANEL DEMINSIONS SHALL BE 30" WIDE X 36" TALL AND SHALL BE LOCKABLE.
- (3) FLOOR BOXES ARE POWERED THROUGH PANEL "L1" ON FIRST FLOOR. ROUTE CONDUIT TIGHT TO DECK ON UNDERSIDE OF 2ND FLOOR TO EACH FLOOR BOX. REFER TO E0.02 FOR FLOOR BOX INFORMATION.
- (4) RISE AND RUN WIREMOLD ABOVE DOOR AND DOWN TO RUN ON WALL.
- (5) CONDUIT ROUTED IN WALL CAVITY CREATED BY WALL FURRING. TYPICAL FOR ALL CONDUITS ROUTED THROUGH COURTROOM.
- 6 CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED, OR CEILING FURRING OVERHEAD. TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR ADJACENT TO NEW FRAMED WALLS.
- DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- RECEPTACLES ANNOTATED WITH AN ASTERICK (\*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULL CONCEALED FROM VIEW. TYPICAL.

### **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
- 3. WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (\*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
- 4. WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 5. WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
- 6. FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (\*), PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (\*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 7. CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
- 8. FURDOWNS SHALL BE UTILIZED AS MUSH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.).
- 9. LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD.
  PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS,
  STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO
  BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

KOMATSU ARCHITECTURE

ISSUEI

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

TORATION treet

SE TWO: RESTOR 101 W. Church Street

POLK COUP PHASE TW

SHEET SIZE 22 x 34

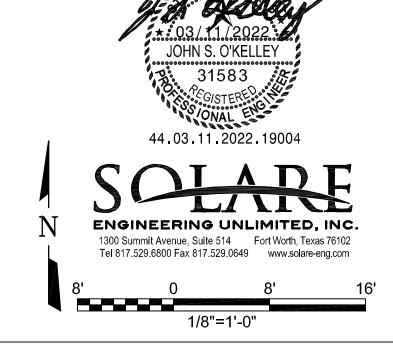
SCALE:

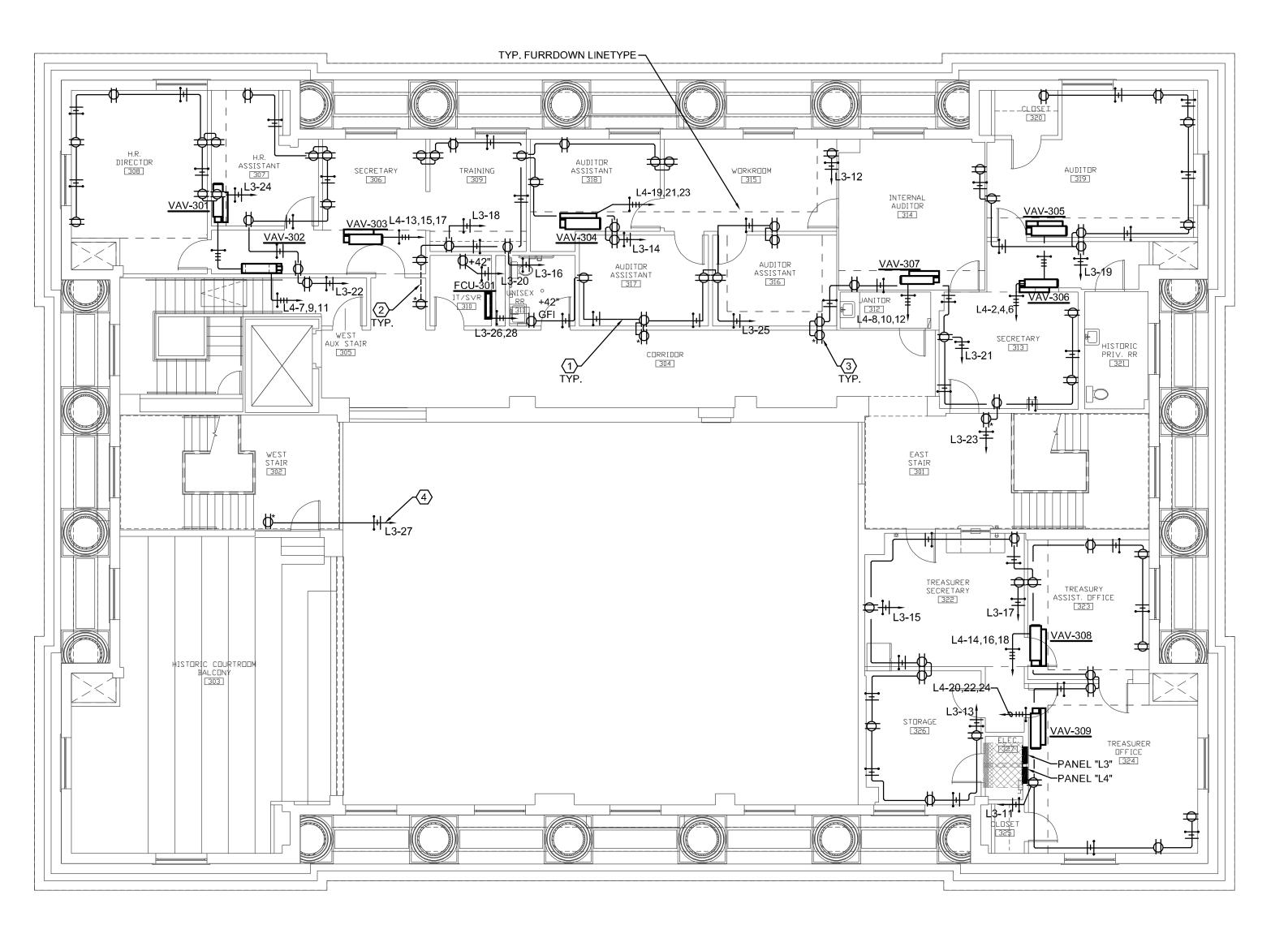
KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #





3RD FLOOR ELECTRICAL POWER PLAN

1/8' = 1' - 0'

# NOTES BY SYMBOL "(#)"

- CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED.
  TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR
  ADJACENT TO NEW FRAMED WALLS.
- DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- RECEPTACLES ANNOTATED WITH AN ASTERICK (\*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULL CONCEALED FROM VIEW.
- CONDUIT ROUTED ABOVE DROP CEILING IN COURTROOM. SURFACE MOUNT AAT UNDERSIDE OF FACE OF BEAM.

# **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
- 3. WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (\*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
- 4. WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 5. WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
- 6. FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (\*), PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (\*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 7. CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
- 8. FURDOWNS SHALL BE UTILIZED AS MUSH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.).
- 9. LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD.
  PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS,
  STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO
  BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

TSU RESTRICTION DESCRIPTION DATE AN

KOMATS ARCHITECTU



THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

VIT COURINOUSE

C. RESTORATION

V. Church Street

ston, TX 77351

POLK COUNTY CC PHASE TWO: RE

SHEET SIZE 22 x 34

SCALE:

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

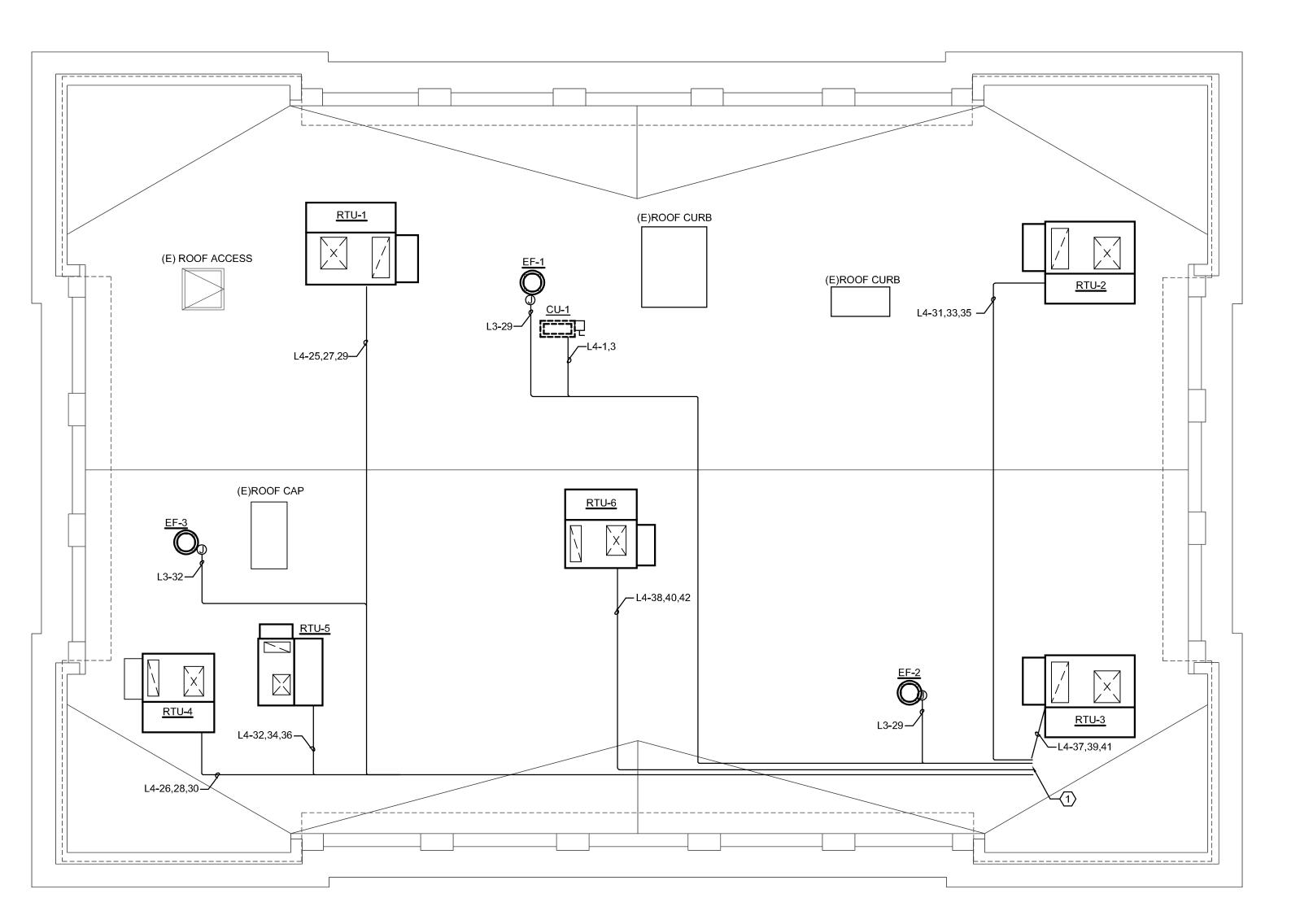
DATE: MARCH 11, 2022

SHEET OF SEQ #

8' 16' SHEET OF SE

ENGINEERING UNLIMITED, INC.

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com



1 ELECTRICAL ROOF PLAN
1/8' = 1' - 0'

# NOTES BY SYMBOL "#"

1 PENETRATE ROOF IN THIS LOCATION TO ROUTE CONDUIT TO PANEL "L3" LOCATED ON THIRD FLOOR. PROVIDE WEATHER TIGHT SEALANT AT ROOF PENETRATION.

# **GENERAL NOTES**

- DISCONNECTS FOR ROOF TOP UNITS & EXHAUST FANS ARE INTEGRAL AND INCLUDED WITH UNIT. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- REFER TO E6.01 FOR WIRE AND CONDUIT SIZING. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- 3. PROVIDE ERICO-CADDY CONDUIT SUPPORTS FOR ALL CONDUITS ON ROOF-TOP.

**S**⊃

CONSTRUCTION

SU

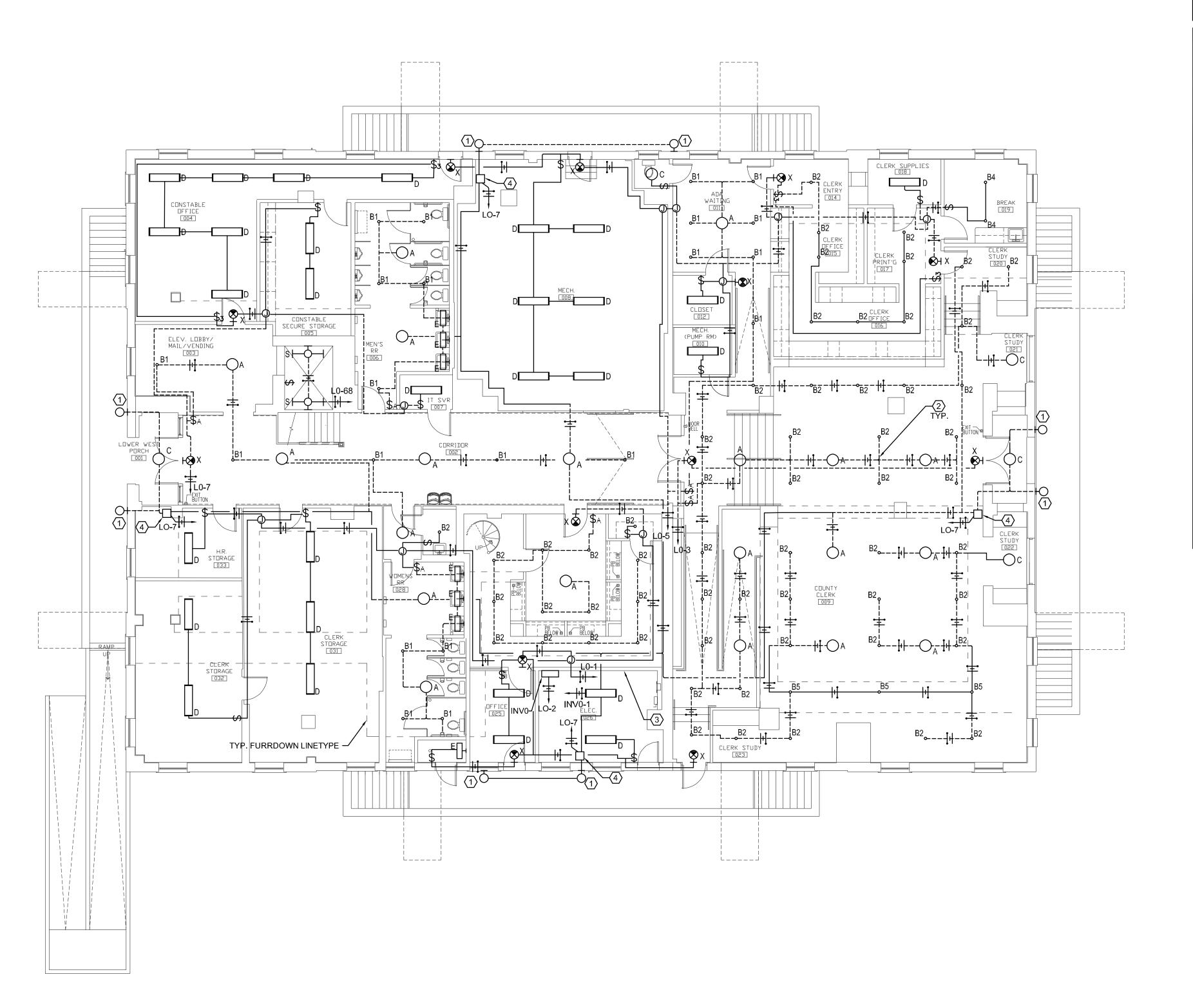
THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

ENGINEERING UNLIMITED, INC. 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"

SHEET SIZE 22 × 34 KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #



1 BASEMENT ELECTRICAL LIGHTING PLAN
1/8' = 1' - 0'

# NOTES BY SYMBOL "(#)"

- RECONDITION EXISTING WALL MOUNTED FIXTURE AND POWER THROUGH LIGHTING INVERTER. PROVIDE 100 WATT EQUIVALENT LED BULB WITH A COLOR TEMPERATURE OF 3000K AND A MINIMUM LUMEN OUTPUT OF 2000 LUMENS. ACTUAL WATTAGE OF LED BULB SHALL NOT EXCEED 30 WATTS.
- DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- $|\langle 3 \rangle$  PROPOSED LOCATION OF EXTERIOR LIGHTING CONTROL EQUIPMENT.
- PROVIDE UL LISTED TRANSFER DEVICE TO TRANSFER LIGHT FIXTURES TO EMERGENCY POWER AND TURN ON TO 100% IN THE EVENT NORMAL POWER IS

# **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RUN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE. OTHERWISE ALL 1/2" CONDUIT SHALL BE ROUTED FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK OR WITHIN FRAMING CAVITY OF DROP DOWN CEILING FURRING. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION
- 3. WHEN ROUTING CONDUIT ACROSS CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 4. IF CONDUIT RUN IS TO ROUTE THROUGH ENTIRE LENGTH OF CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK.
  WHERE STRUCTURE IS ENCOUNTERED, THE CONTRACTOR SHALL CORE DRILL
  (PER STRUCTURAL INFO) IN ORDER TO PROVIDE A CONTINUOUS RUN.
- 5. CONTRACTOR SHALL MAKE EVERY EFFORT TO CONCEAL CONDUIT WITHIN EXISTING PLASTER. CONDUIT RUNS LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUIT RUNS
- 6. POWER ALL EXIT SIGNS USING AN UNSWITCHED LEG OF THE NEAREST LIGHTING CIRCUIT IN AREA.
- 7. FURRDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURRDOWN TO OPEN SPACE, CONTRACTOR SHALL RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC.). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.)
- 8. ALL LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING SHALL BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.
- 9. FOR LIGHT SWITCHES AND DEVICES SHOWN ON 2" THICK WALLS, WHERE LOCATED IN NON-PUBLIC ACCESSIBLE OR VISIBLE SPACES, PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 10. UNLESS NOTED OTHERWISE, FIXTURES POWERED THROUGH INVERTER SHALL BE ALWAYS ON AND SERVE AS NIGHT LIGHTS.

BE RUN IN 1/2"

VALS C

SUED FOR CONSTRUCTION

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF

ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

Y COURTHOUSE: RESTORATION
Church Street
n, TX 77351

OLK COUNTY COU PHASE TWO: RES

ENGINEERING UNLIMITED, INC.

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"

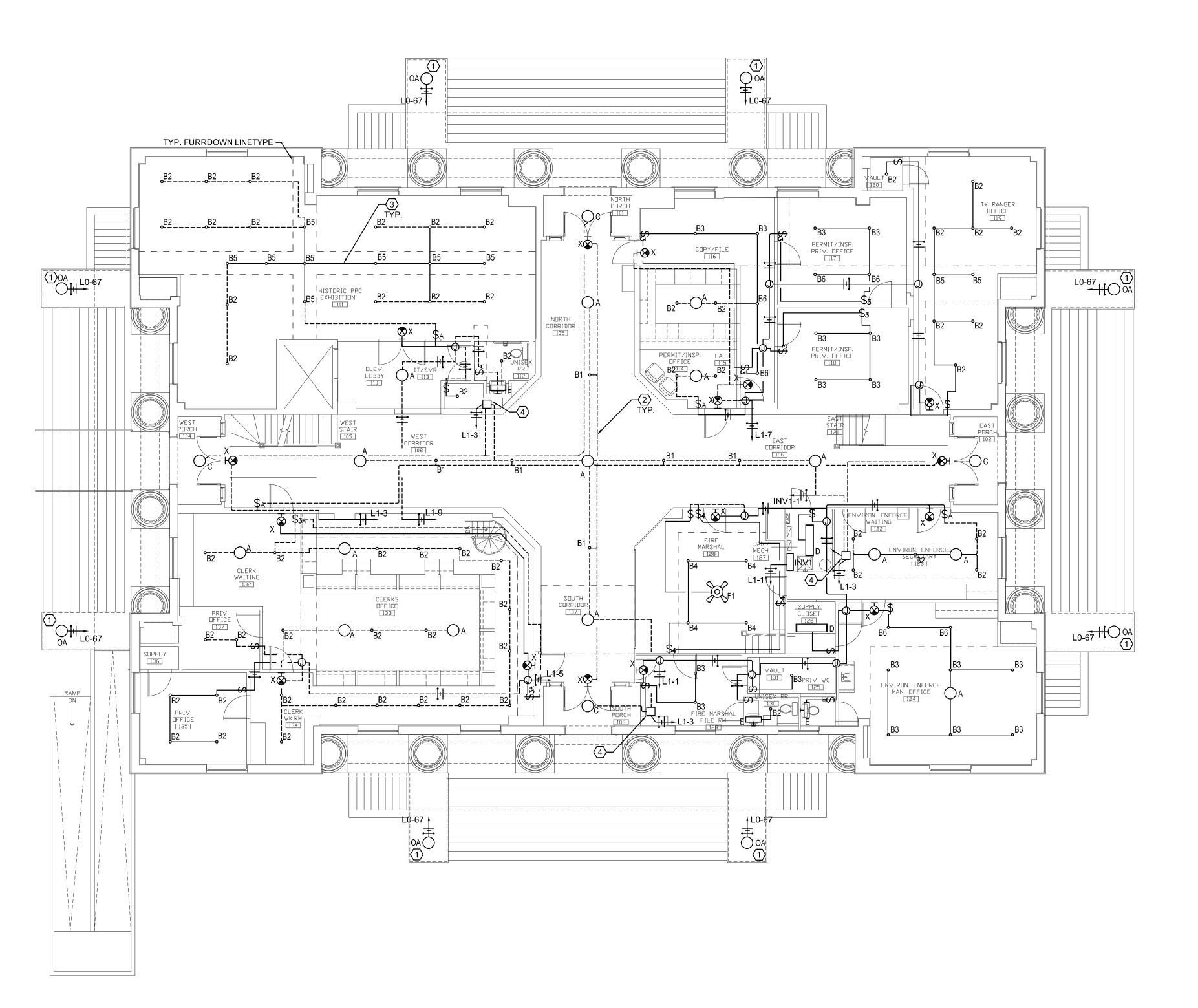
SCALE:

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #



1 1ST FLOOR ELECTRICAL LIGHTING PLAN

1/8' = 1' - 0'

# NOTES BY SYMBOL "(#)"

- USE EXISTING CONDUIT FROM PEDESTAL BASE TO INTERIOR OF BUILDING. ROUTE TO NEW PANEL LO AND POWER USING CIRCUIT INDICATED. PEDESTAL FIXTURES SHALL BE PHOTOCELL/TIMECLOCK CONTROLLED. REFER TO EXTERIOR LIGHTING CONTROL DETAIL ON E0.02 FOR ADDITIONAL INFORMATION. LIGHTING CONTROLS SHALL BE LOCATED IN ELECTRICAL ROOM 026. REFER TO ARCHITECTURAL DRAWINGS FOR POLE BASE STANDARD.
- DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- (3) CONDUIT TO BE INSTALLED INSIDE OF DROP CEILING FURRDOWN AND SURFACE MOUNTED AT UNDERSIDE OF FLOOR DECK.
- PROVIDE UL LISTED TRANSFER DEVICE TO TRANSFER LIGHT FIXTURES TO EMERGENCY POWER AND TURN ON TO 100% IN THE EVENT NORMAL POWER IS

# **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RUN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE. OTHERWISE ALL 1/2" CONDUIT SHALL BE ROUTED FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK OR WITHIN FRAMING CAVITY OF DROP DOWN CEILING FURRING. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 3. WHEN ROUTING CONDUIT ACROSS CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 4. IF CONDUIT RUN IS TO ROUTE THROUGH ENTIRE LENGTH OF CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. WHERE STRUCTURE IS ENCOUNTERED, THE CONTRACTOR SHALL CORE DRILL (PER STRUCTURAL INFO) IN ORDER TO PROVIDE A CONTINUOUS RUN.
- 5. CONTRACTOR SHALL MAKE EVERY EFFORT TO CONCEAL CONDUIT WITHIN EXISTING PLASTER. CONDUIT RUNS LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUIT RUNS
- 6. POWER ALL EXIT SIGNS USING AN UNSWITCHED LEG OF THE NEAREST LIGHTING CIRCUIT IN AREA.
- 7. FURRDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURRDOWN TO OPEN SPACE, CONTRACTOR SHALL RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC.). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.)
- 8. ALL LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING SHALL BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.
- 9. FOR LIGHT SWITCHES AND DEVICES SHOWN ON 2" THICK WALLS, WHERE LOCATED IN NON-PUBLIC ACCESSIBLE OR VISIBLE SPACES, PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- UNLESS NOTED OTHERWISE, FIXTURES POWERED THROUGH INVERTER SHALL BE ALWAYS ON AND SERVE AS NIGHT LIGHTS.

OWATS OF THE CHARLES OF THE CHARLES

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

COUNTY COURTHOUS

TWO: RESTORATION

101 W. Church Street

POLK COUI

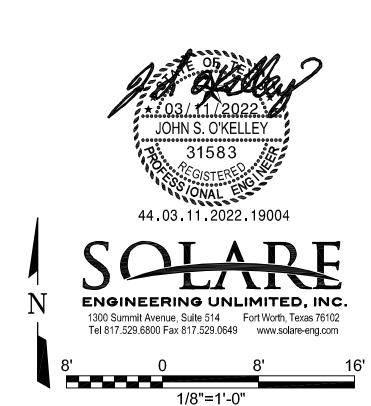
SHEET SIZE 22 x 34

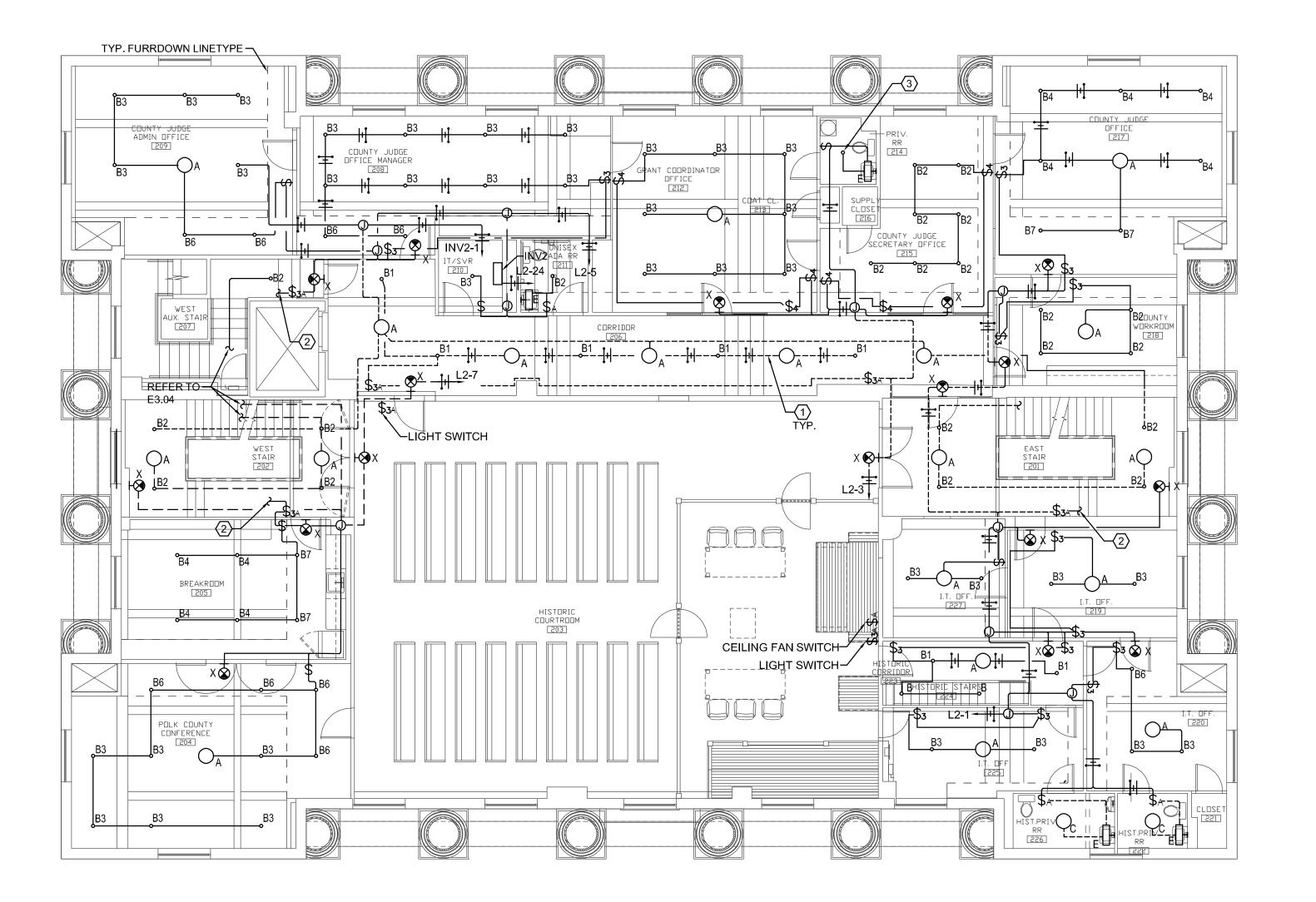
SCALE:

KAI JOB NUMBER: 2017.171B

DATE: MARCH 11, 2022

SHEET OF SEQ #





1 2ND FLOOR ELECTRICAL LIGHTING PLAN
1/8' = 1' - 0'

# NOTES BY SYMBOL "#"

- DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- ROUTE TRAVELERS TO THREE-WAY SWITCH ON LEVEL ABOVE. ROUTE CONDUIT IN A CONCEALED MANNER.
- RECONDITION EXISTING CEILING MOUNTED FIXTURE AND CIRCUIT AS INDICATED ON PLAN. PROVIDE 60 WATT EQUIVALENT LED BULB WITH A COLOR TEMPERATURE OF 3000K AND A MINIMUM LUMEN OUTPUT OF 2000 LUMENS. ACTUAL WATTAGE OF LED BULB SHALL NOT EXCEED 30 WATTS.

# **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RUN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE. OTHERWISE ALL 1/2" CONDUIT SHALL BE ROUTED FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK OR WITHIN FRAMING CAVITY OF DROP DOWN CEILING FURRING. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 3. WHEN ROUTING CONDUIT ACROSS CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 4. IF CONDUIT RUN IS TO ROUTE THROUGH ENTIRE LENGTH OF CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. WHERE STRUCTURE IS ENCOUNTERED, THE CONTRACTOR SHALL CORE DRILL (PER STRUCTURAL INFO) IN ORDER TO PROVIDE A CONTINUOUS RUN.
- 5. CONTRACTOR SHALL MAKE EVERY EFFORT TO CONCEAL CONDUIT WITHIN EXISTING PLASTER. CONDUIT RUNS LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUIT RUNS
- 6. POWER ALL EXIT SIGNS USING AN UNSWITCHED LEG OF THE NEAREST LIGHTING CIRCUIT IN AREA.
- 7. FURRDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURRDOWN TO OPEN SPACE, CONTRACTOR SHALL RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC.). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.)
- 8. ALL LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD.
  PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS,
  STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING
  SHALL BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.
- 9. FOR LIGHT SWITCHES AND DEVICES SHOWN ON 2" THICK WALLS, WHERE LOCATED IN NON-PUBLIC ACCESSIBLE OR VISIBLE SPACES, PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 10. UNLESS NOTED OTHERWISE, FIXTURES POWERED THROUGH INVERTER SHALL BE ALWAYS ON AND SERVE AS NIGHT LIGHTS.

D FOR CONSTRUCTIO



THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

POLK COUNTY COURTHOUPHASE TWO: RESTORAT

101 W. Church Street
Livingston, TX 77351

SHEET SIZE 22 x 34

SCALE:

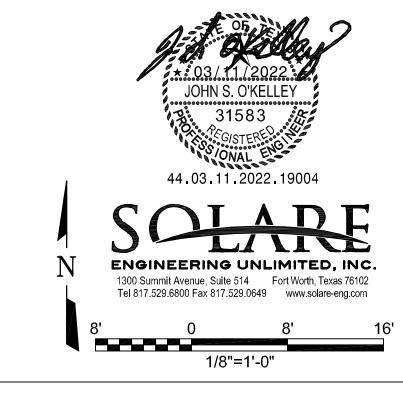
KAI JOB NUMBER: 2017.171B

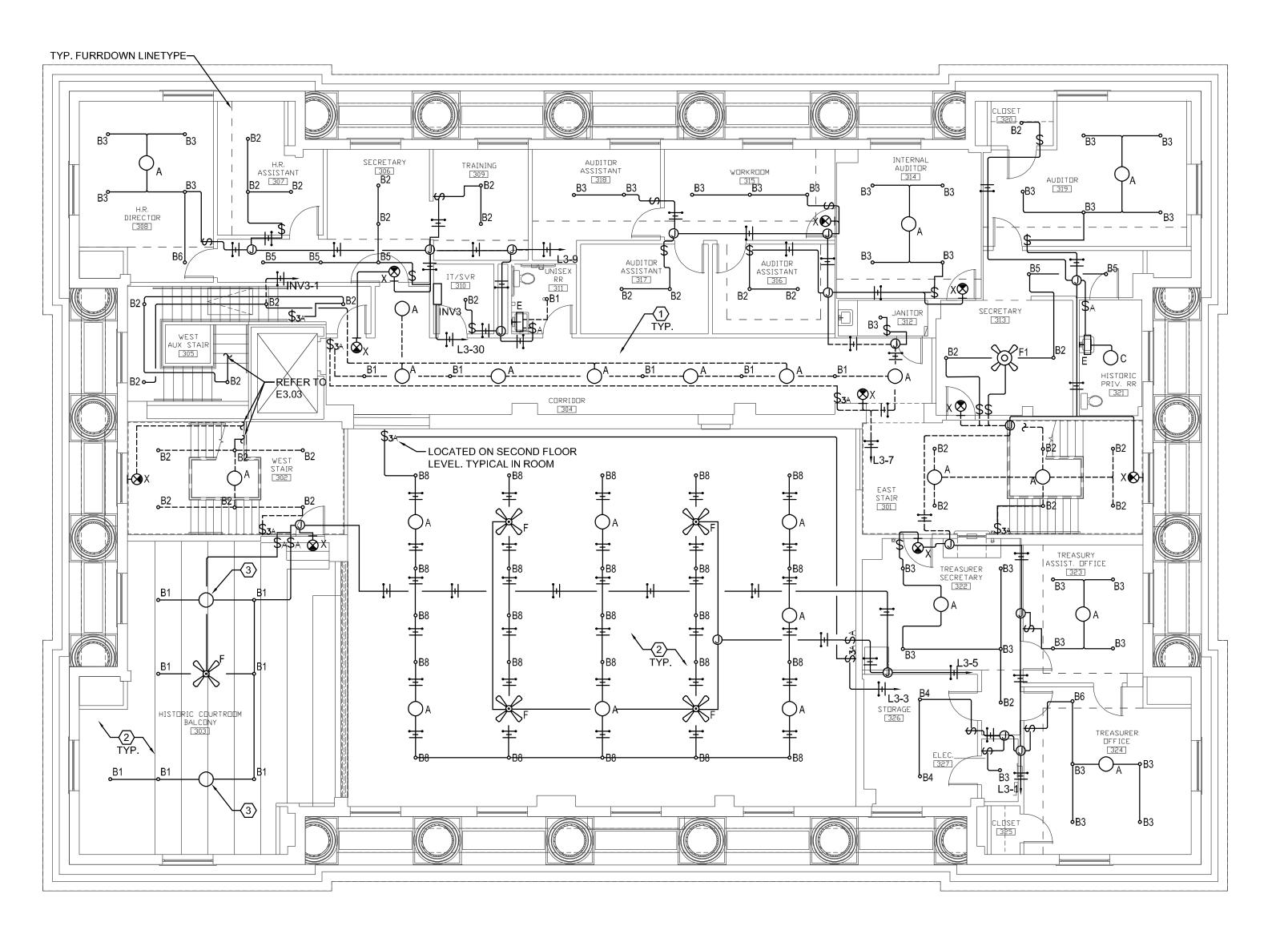
KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #





1 3RD FLOOR ELECTRICAL LIGHTING PLAN

1/8' = 1' - 0'

# NOTES BY SYMBOL "(#)"

- DASHED LINEWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- ALL CONDUIT IN AREA TO BE INSTALLED ABOVE DROP CEILING AND SURFACE MOUNTED AT UNDERSIDE OF FACE OF BEAM.
- RECONDITION EXISTING CEILING MOUNTED FIXTURE AND CIRCUIT AS INDICATED ON PLAN. PROVIDE 60 WATT EQUIVALENT LED BULB WITH A COLOR TEMPERATURE OF 3000K AND A MINIMUM LUMEN OUTPUT OF 2000 LUMENS. ACTUAL WATTAGE OF LED BULB SHALL NOT EXCEED 30 WATTS.

# **GENERAL NOTES**

- 1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RUN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
- 2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE. OTHERWISE ALL 1/2" CONDUIT SHALL BE ROUTED FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK OR WITHIN FRAMING CAVITY OF DROP DOWN CEILING FURRING. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 3. WHEN ROUTING CONDUIT ACROSS CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
- 4. IF CONDUIT RUN IS TO ROUTE THROUGH ENTIRE LENGTH OF CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. WHERE STRUCTURE IS ENCOUNTERED, THE CONTRACTOR SHALL CORE DRILL (PER STRUCTURAL INFO) IN ORDER TO PROVIDE A CONTINUOUS RUN.
- 5. CONTRACTOR SHALL MAKE EVERY EFFORT TO CONCEAL CONDUIT WITHIN EXISTING PLASTER. CONDUIT RUNS LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUIT RUNS
- 6. POWER ALL EXIT SIGNS USING AN UNSWITCHED LEG OF THE NEAREST LIGHTING CIRCUIT IN AREA.
- 7. FURRDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURRDOWN TO OPEN SPACE, CONTRACTOR SHALL RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC.). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.)
- 8. ALL LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING SHALL BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.
- 9. FOR LIGHT SWITCHES AND DEVICES SHOWN ON 2" THICK WALLS, WHERE LOCATED IN NON-PUBLIC ACCESSIBLE OR VISIBLE SPACES, PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
- 10. UNLESS NOTED OTHERWISE, FIXTURES POWERED THROUGH INVERTER SHALL BE ALWAYS ON AND SERVE AS NIGHT LIGHTS.

URE E DATE DESCRIPTION DATE

A R C H I T E C T U R E

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

LK COUNIY COURIHOUSE ASE TWO: RESTORATION 101 W. Church Street Livingston, TX 77351

SHEET SIZE 22 x 34

SCALE:

KAI JOB NUMBER: 2017.171B

 KAI JOB NUMBER:
 2017.171B

 SPECIFICATIONS NO.:
 N/A

 DATE:
 MARCH 11, 2022

 SHEET
 OF
 SEQ #

ENGINEERING UNLIMITED, INC.

1300 Summit Avenue, Suite 514
Tel 817.529.6800 Fax 817.529.0649

Tolumit Avenue, Suite 514
Tel 817.529.6800 Fax 817.529.0649

		PMENT SC			
NAME	MCA / MOCP	ELECTRIC HEAT	VOLTAGE/ PH	(DISCONNECT) / (WIRE)	PANEL DESIGNATION
RTU-1	99 / 125	<u>GAS</u>	208 / 3	(INTEGRAL)(3 #1, #6 G, 1-1/2"C)	
RTU-2	93 / 110	<u>GAS</u>	208 / 3	(INTEGRAL)(3 #2, #8 G, 1-1/4"C)	
RTU-3	99 / 125	GAS	208 / 3	(INTEGRAL)(3 #1, #6 G, 1-1/2"C)	
RTU-4	<u>85 / 100</u>	GAS	208 / 3	(INTEGRAL)(3 #2, #8 G, 1-1/4"C)	
RTU-5	41 / 60	<u>GAS</u>	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
RTU-6	69 / 80	<u>GAS</u>	208 / 3	(INTEGRAL)(3 #4, #8 G, 1-1/4"C)	
CU-1	25 / 40	<u>N/A</u>	208 / 1	(60/2/NF)(2 #12, #12 G, 1/2"C)	
FCU-001	<u>.25 / 15</u>	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-002	.25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-101	.25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-201	<u>.25 / 15</u>	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-301	.25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
UH-1	14.5 / 20	3 KW	208 / 1	(30/2/NF)(2 #12, #12 G, 1/2"C)	
UH-2	14.5 / 20	3 KW	208 / 1	(30/2/NF)(2 #10, #12 G, 1/2"C)	
VAV-001	19.4 / 30	7 KW	208 / 3	(INTEGRAL)(3 #8, #10 G, 1"C)	
VAV-002	19.4 / 30	7 KW	208 / 3	(INTEGRAL)(3 #8, #10 G, 1"C)	
VAV-003	41.6 / 60	15 KW	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
VAV-004	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-004	18 / 30	6.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
			208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-006	13.9 / 20	5 KW			
VAV-101	27.8 / 40	10 KW	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
VAV-102	13.9 / 20	<u>5 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-103	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-104	9.7 / 15	3.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-105	<u>6.9 / 15</u>	<u>2.5 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-106	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-107	<u>8.3 / 15</u>	<u>3 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-108	33.3 / 50	<u>12 KW</u>	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
VAV-109	<u>6.9 / 15</u>	<u>2.5 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-201	<u>12.5 / 20</u>	<u>4.5 KW</u>	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-202	<u>8.3 / 15</u>	<u>3 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-203	<u>13.9 / 20</u>	<u>5 KW</u>	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-204	6.9 / 15	2.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-205	<u>5.6 / 15</u>	<u>2 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-206	9.7 / 15	3.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-207	<u>6.9 / 15</u>	<u>2.5 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-208	<u>5.6 / 15</u>	<u>2 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-209	11.1 / 20	<u>4 KW</u>	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-210	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-211	12.5 / 20	4.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-301	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-302	4.2 / 15	1.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-303	9.7 / 15	3.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-304	12.5 / 20	4.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-305	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-306	4.3 / 15	1.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-306 VAV-307	6.8 / 15	2.5 KW	208 / 3		
VAV-307 VAV-308			208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
	11.1 / 20	4 KW		(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-309	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
EF-1	<u>1/4 HP</u>	N/A	120 / 1	(INTEGRAL)(2 #10, #12 G, 1/2"C)	
EF-2,3	<u>1/6 HP</u>	<u>N/A</u>	120 / 1	(INTEGRAL)(2 #10, #12 G, 1/2"C)	
WH-1	<u>19 / 30</u>	<u>4 KW</u>	208 / 1	(SWITCH)(2 #10, #12 G, 1/2"C)	
CP-1	<u>1/25 HP</u>	N/A	120 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	

GENERAL NOTES APPLY TO ALL:

1. VERIFY ALL MOUNTING REQUIREMENTS WITH EQUIPMENT PROVIDER.

2. VERIFY ACTUAL EQUIPMENT LOADS AND CONNECTION REQUIREMENTS WITH EQUIPMENT BEING PROVIDED.

EQUIPMENT NOTES:

1. CONFIRM EXACT ELECTRICAL REQUIREMENTS WITH MANUFACTURER. PROVIDE NEW NEMA 3R DISC IF DISCONNECTING MEANS IS NOT INTEGRAL TO MANUFACTURER CONTROL PANEL. CONFIRM MOCP OR BRKR SIZE IN CONTROL PANEL PRIOR TO INSTALLATION.

FAULT CURRENT BRACING IS BASED ON A UTILITY COMPANY TRANSFORMER SIZE OF 225KVA MAXIMUM WITH A MINIMUM IMPEDANCE OF 2% AT A MINIMUM DISTANCE OF 60' FROM THE SERVICE TO THE TRANSFORMER. CONTRACTOR SHALL VERIFY THIS DATA WITH THE UTILITY COMPANY PRIOR TO START OF WORK. IF ANY OF THE MINIMUMS OR MAXIMUM WILL BE EXCEEDED CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PURCHASE OF EQUIPMENT AND START OF CONSTRUCTION SO THAT DESIGN REVISIONS CAN BE

FAULT CURRENT CALCULATION: TRANSFORMER = 225 KVA, Z = 2%  $I_{SC} = \frac{KVA \times 1000}{V \times Z \times 1.732}$  $I_{SC} = \frac{225 \text{ X } 1000}{208 \text{ x } .02 \text{ x } 1.732} = \frac{225000}{7.21} + 10\% \text{ TOLERANCE}$ 

MAXIMUM AVAILABLE 3Ø FAULT = 22.7 KA

# NOTES BY SYMBOL "#"

- 1 REFER TO CIVIL FOR LOCATION.
- 2 RE: 2/E6.01 BUILDING SERVICE, ENTRANCE GROUNDING DETAIL FOR ADDITIONAL
- PROVIDE SERVICE RATED CIRCUIT BREAKER RATED AT 1000 AMPS FOR MAIN DISTRIBUTION PANEL.
- 4 PROVIDE 500VA LIGHTING INVERTER. INVERTER SHALL BE EMERGI-LITE: 120SG500-FTCM-120-90-ICB-OCB120 OR APPROVED EQUAL. PROVIDE WALL MOUNT BRACKET AND MOUNT 12" FROM CEILING FINISH.
- 5 PROVIDE 1000VA LIGHTING INVERTER. INVERTER SHALL BE EMERGI-LITE: 120SG1000-FTCM-120-90-ICB-OCB120 OR APPROVED EQUAL. PROVIDE WALL MOUNT BRACKET AND MOUNT 12" FROM CEILING FINISH.

# **GENERAL NOTES**

COORDINATE ELECTRICAL SERVICE WITH LIVINGSTON UTILITIES. CITY OF LIVINGSTON PROJECT ENGINEER: DEWAYNE OATS

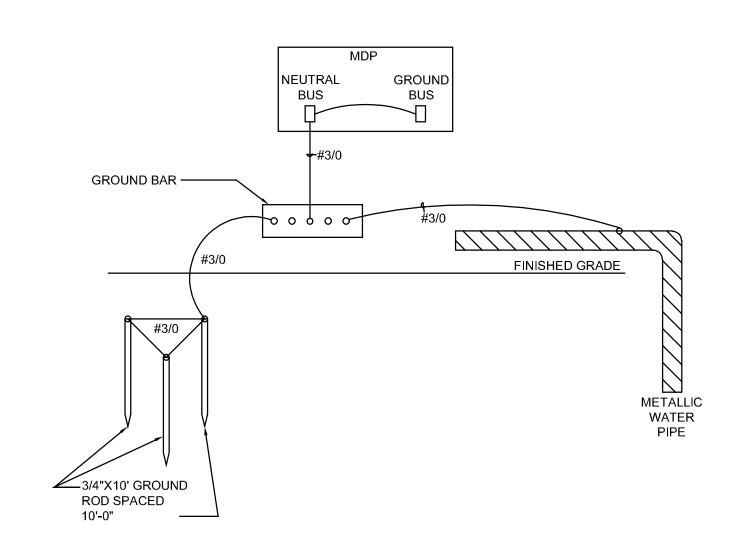
PHONE: 936-327-4311

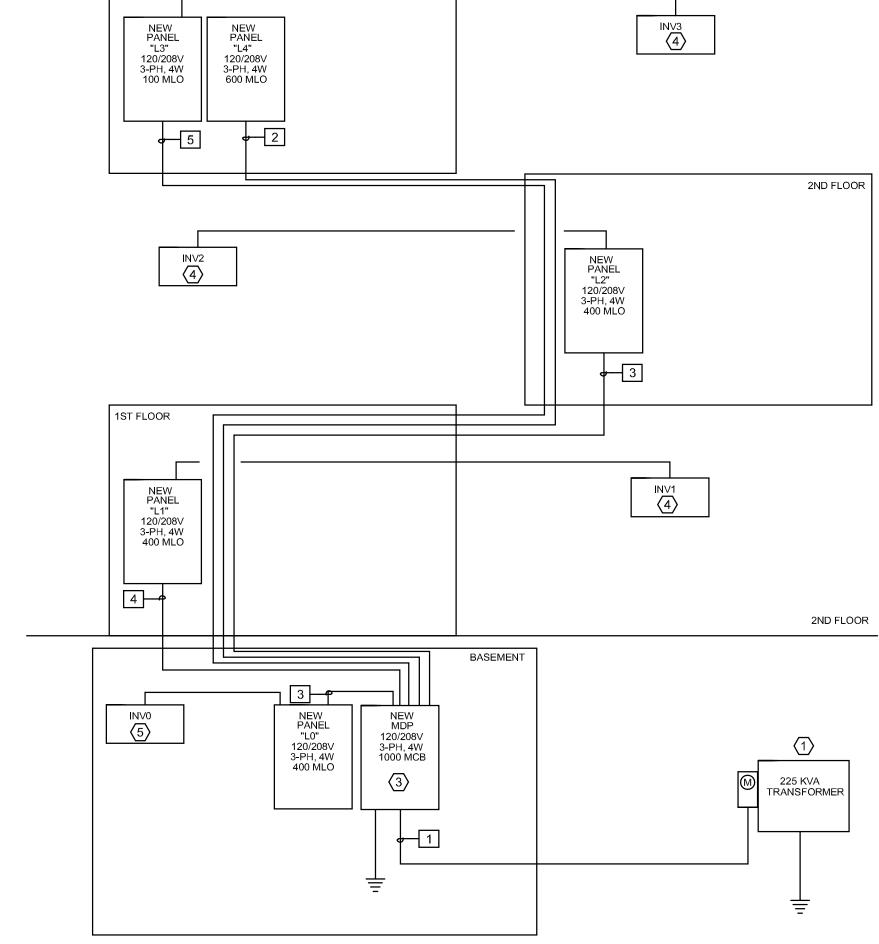
3RD FLOOR

#### PANEL FEEDER AND METER CENTER WIRE SCHEDULE SERVICE SIZE WIRE SIZE CONDUIT SIZE (EACH) 1000 AMPS (3 SETS) 4# 400KCMIL, #3/0 G 3-1/2" 600 AMPS (2 SETS) 4 #350KCMIL, #1 G 3-1/2" 400 AMPS 4 #600KCMIL, #1 G 4 300 AMPS 4 #350KCMIL, #4 G 3-1/2" 100 AMPS 4 #3, #8 G 1-1/2"

# - 3/8" DIAMETER - 2-3/4" INSULATOR COPPER BUS BAR -3/4" DIAMETER REFER TO GROUNDING DETAIL 3/E6.01 FOR MORE INFORMATION **DETAIL NOTES:** ERICO TMGBA12I15P MOUNT THE GROUND BAR @ 7' 6" A.F.F.

# **GROUNDING BAR DETAIL**





ELECTRICAL RISER DIAGRAM



ENGINEERING UNLIMITED, INC. 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

S<sup>→</sup>

**\\_** 

THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.

SHEET SIZE

DATE:

SPECIFICATIONS NO.:

22 x 34

MARCH 11, 2022 OF SEQ#

													<u> </u>										
												1 '	ITING SURF FROM UTILI		VOLTS BUS AMI NEUTRAL	PS 1000		-W		AIC 25,000 MAIN BKR 1000 LUGS STANDARD			
												CKT	BREAKER	S CIRCUIT DESCRIPTION				KVA		EEEDED DAOEWAY AND OONDUCTORS			
	<b>,</b>											# 1 2 3 4 5 6 7	400/3 300/3 400/3 100/3 600/3 100/2 200/2	PANEL LO PANEL L1 PANEL L2 PANEL L3 PANEL L4 SPACE SPACE		24 28 8.	9.9 30 3.1 20 3.6 25 18 5. 72 7	0.5 5.6 65	30.5 3 23.8 3 25.3 3 7.29 1	FEEDER RACEWAY AND CONDUCTORS 3-1/2"C,3#600kcmil,#600kcmil 3"C,3#350kcmil,#350kcmil N,#46 3-1/2"C,3#600kcmil,#600kcmil 1-1/2"C,3#1,#1N,#8G (2)3"C,3#350kcmil,#350kcmil N,	N,#2G G N,#2G		
LC	)											8 9	200/2 20/3	SPACE SPACE				0	0				
	TING SU FROM M	URFACE	BUS AN	208Y/1 MPS 400 AL 100%	)	4W		AIC 25,000 MAIN BKR MLO LUGS STANDARD				10 11 12	20/3 20/3 20/3	SPACE SPACE SPACE			0	0   0   0   0   0   0   0   0   0   0	0 0 0				
CKT #	CKT BKR	CIRCUIT DESCRIPTION	Δ	LOAD KV	/A	CKT #	CKT BKR	CIRCUIT DESCRIPTION	Δ	OAD K	VA C			TOTAL CONNECTED	KVA BY PH	ASE 10	52 1	55	155				
1	20/1	LIGHTING	1.08			2	15/1	INVO	0.5					CONN KVA CAL	C KVA	I		I	<b>I</b>	CONN KVA CALC K	√A		
3 5 7 9	20/1 20/1 20/1 30/1	LIGHTING LIGHTING LIGHTING ELEVATOR SUMP PUMP	0.813	1.38	0.952	4 6 8 10	ĺ	FCU-001 & 002  HVAC CONTROL PANEL  DEDICATED EQUIPMENT  CIRCUIT	0.5	0.052	0.052	LAR	HTING GEST MOTOF ORS	23.5 29.4 R 26.1 6.52 30.3 30.3	(25	5%) %) 0%)				66.1 38.1 2.1 2.63 212 212 180 0	(50%> (125%) (100%) (0%)	)	
11 13		RECEPTACLE RECEPTACLE	1,44		0.9	12 14	20/1 20/1	RECEPTACLE DEDICATED EQUIPMENT	0.18		1.08								LOAD ICED 3-PI	319 HASE AMPS 885			
15	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18		16	20/1	CIRCUIT RECEPTACLE		0.18													
17 19	20/1 20/1	RECEPTACLE DEDICATED EQUIPMENT	0.18		0.9	18 20	30/2 	RECEPTACLE	1.5		1.5		4		VOLTO	2022 4 2	01/ 75	4 \ \ 4 \		AIO 00 000			
	20/1 20/1	CIRCUIT RECEPTACLE RECEPTACLE		0.9	1.26	22 24	•	RECEPTACLE DEDICATED EQUIPMENT CIRCUIT		1.08	0.54		NTING FLUS FROM MDP		BUS AM NEUTRA		UV 3P 4	₽W		AIC 22,000 MAIN BKR MLO LUGS STANDARD			
25 27	30/3 	VAV-001	2.33	2.33		26 28	•	RECEPTACLE RECEPTACLE	0.9	1.62		CKT #	CKT	RCUIT DESCRIPTION	L A	OAD KVA	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LO	AD KV	A
29 31	j 30/3	VAV-002	2.33		2.33	30 32	20/2		1.5	1.5	1.5	1 3	20/1 L	IGHTING IGHTING	0.991	0.22	U	2 4	20/1 20/1	RECEPTACLE RECEPTACLE	1.62	0.54	
33 35 37 39	   60/3	VAV-003	5	2.33	2.33	34 36 38 40	ĺ	UH-2 VAV-004	1	1.5	1.5	5 7 9	20/1 L 20/1 L 20/1 L	IGHTING IGHTING IGHTING	0.688		0.825	6 8 10	20/1 20/1 20/2	SPACE COURTROOM FLOOR BOXES FCU-101	1.08	0.027	0
41 43	; 30/2	WH—1	2		5	42 44	j 30/3	VAV-005	2.17		1	11 13		NV1 EDICATED EQUIPMENT EIRCUIT	0.18		0,5	12 14	 20/1	FACP	0.5		0.027
45 47	20/1	CP-1 & RECEPTACLE	1	2	0.255			NAV 000	1.67	2.17	2.17	15	20/1 R	ECEPTACLE		1.26		16	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18	
49 51 53	20/1 20/1 20/1	RECEPTACLE (E) SOUTHSIDE LAWN PLUGS (E) NORTHSIDE LAWN PLUGS		0.36	0.36	50 52 54	20/3   	VAV-006	1,67	1.67	1.67	17		ECEPTACLE ECEPTACLE	1.44		1,08	18 20	20/1 20/1	RECEPTACLE DEDICATED EQUIPMENT CIRCUIT	0.18		0.9
55 57	20/1 20/1	(E) INDIRECT LIGHT (E) OVERHEAD GAZEBO	0.5	0.5		56 58	•	(E) BOX PLUG PHOTOCELL (E) SOUTHSIDE PLUG PHOTO	0.36	0.36		21	, C	EDICATED EQUIPMENT		0,18		22	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18	
59	20/1	LIGHTS (E) UNIDENTIFIED CIRCUIT #13 GAZEBO PANEL			1	60		(E) NORTHWEST PLUG			0.36	23 25	20/1 0	ECEPTACLE EDICATED EQUIPMENT EIRCUIT	0.18		0.9	24 26	20/1 20/1	RECEPTACLE RECEPTACLE	1.08		1.08
61 63	20/1 20/1	(E) GAZEBO ENTRY LIGHTS (E) ENCLOSED CIRCUIT	0.5	0.36		62 64		(E) SERVICE PLUG (E) POLE LIGHTS PHOTO CELL	0.36	0.5		27 29	20/1 R	ECEPTACLE ECEPTACLE		1.08	1.08	28 30	20/1 20/1	RECEPTACLE RECEPTACLE		0.9	1.44
65	20/1	BREAKER #4 (E) ENCLOSED CIRCUIT BREAKER #5			0.36	66					0.5	31 33	40/3 V		3.33	3.33		32 34	•	VAV-105 & 107	1.83	1.83	
67 69	20/1 20/1	LIGHTING LIGHTING	1.6	.94		68 70	20/1 20/1	ELEVATOR PIT LIGHTING ELEVATOR PIT RECEPTACLE	0.05	.18		35 37 39	20/3 V	/AV-102	1.67	1.67	3.33	36 38	20/3	VAV-106	1.33	1.33	1.83
71 73	20/1 20/1	LIGHTING SPACE	0		.85	72 74	•	DUPLEX PUMP SYSTEM	2.01		2.01	41 43	       20/3   V	′AV–103	1	1.0/	1.67	40 42 44	   50/3	VAV-108	4	1.33	1.33
75 77	20/1 20/1	SPACE SPACE		0	0	76 78	20/1	SPACE		2.01	0	45 47		,		1	1	46 48				4	4
79 81	20/1 20/1	SPACE SPACE	0	0		80 82	20/1 20/1	SPACE SPACE	0	0		49 51	20/3 V	′AV-104	1,17	1.17		50 52	20/3	VAV-109	0.833	0,833	
83	20/1	SPACE			0	84	20/1 TO	SPACE TAL CONNECTED KVA BY PHASE	29.9	30.4	30.5	53 55	, ,	PACE	0		1.17	54 56	20/1	SPACE	0		0.833
		CONN KVA CALC K	VA —		•			CONN KVA CALC KVA	<u>4</u>			57 59	20/1 S	PACE		0	0	58 60	20/1 20/1	SPACE SPACE		0	0
LAR	ITING GEST MO		(2	125%) 25%)		HEAT		19.314.6553.553.5	(100			61	20/1 S	PACE	0	0		62 64	20/1 20/1	SPACE SPACE	0	0	
MOT	ORS	3.4 3.4	(1	100%)		COOL	.ING L LOAD	0.104 <u>0</u> 87.58	(0%)	)		65 67	20/1 S	PACE	0		0	66 68	20/1 20/1	SPACE SPACE	0	-	0
								HASE AMPS 243				69 71		PACE PACE		0	0	70 72	20/1 20/1	SPACE SPACE		0	0
													l						ТО	TAL CONNECTED KVA BY PHAS	E 23.1	20.5	23.8
													ITING		C KVA	JE0/		D===	DT 4 C1 = *	CONN KVA CALC K		40)	
												LUGE	HTING	4.76 5.95	(12	5%)		RECE	PTACLES	S 16.6 13.3	(50%>	-10)	

LIGHTING

MOTORS

LARGEST MOTOR

4.76

0.054

5.95

0.014

0.054

(125%)

(100%)

(25%)

16.6

0.5

45.5

RECEPTACLES

CONTINUOUS

TOTAL LOAD

BALANCED 3-PHASE AMPS

HEATING

13.3

0.625

45.5

65.4

182

(50%>10)

(125%)

(100%)

45555
05 05 05 05 05 05 05 05 05 05 05 05 05 0
JOHN S. O'KELLEY 31583
44.03.11.2022.19004
SOLARE
ENGINEERING UNLIMITED, INC. 1300 Summit Avenue, Suite 514 Tel 817.529.6800 Fax 817.529.0649 Fort Worth, Texas 76102 www.solare-eng.com

A R C H - T E C T U R E		

THE RECORD COPING IS ON FILE A OF KOMATSU ARC 3880 HULEN ST., THIS ELECTRONIC RELEASED FOR TH REFERENCE, COOF FACILITY MAN THE AUTHORITY CREG. # 6843 ON ANY MODIFICATION DRAWING SHALL EWITH THE TEXAS ARCHITECTURAL E	T THE OFFICES CHITECTURE, IN FORT WORTH, DOCUMENT IS HE PURPOSES RDINATION, ANI AGEMENT UNDI F KARL KOMA NOV 23, 2021 Y(S) TO THIS BE IN COMPLIA BOARD OF

POLK COUNTY COURTHO PHASE TWO: RESTORA  101 W. Church Street Livingston, TX 77351	ELECTRICAL DETAILS
---	--------------------

SHEET SIZE 22 × 34 SCALE: KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #

	ITING SU FROM M	JRFACE DP	BUS A	5 208Y/12 AMPS 400 RAL 100%	)	4W		AIC 22,000 MAIN BKR MLO LUGS STANDARD			
CKT #	CKT BKR	CIRCUIT DESCRIPTION		LOAD KV	ì	CKT #	CKT BKR	CIRCUIT DESCRIPTION		OAD KV	1
				В	С				A	В	С
1	20/1	LIGHTING	0.79	0.599		2	20/1	RECEPTACLE RECEPTACLE	0,18	0.18	
3 5	20/1	LIGHTING LIGHTING		0,599	0.581	6	20/1	RECEPTACLE		0.10	1,26
7	20/1 20/1	LIGHTING	0.62	7	0,561	8	20/1	RECEPTACLE	0.18		1,20
9	20/1 20/1	SPACE	0.62	.5		10	20/1 20/1	RECEPTACLE	0.18	0.72	
11	20/1	SPACE	+		0	12	20/1	BREAKROOM COUNTERTOP		0.72	0.36
''	20/1	SPACE			0	12	20/1	RECEPTACLES			0.36
13	20/1	RECEPTACLE	1,44	4		14	20/1	BREAKROOM MICROWAVE	1.18	1	
15	20/1	RECEPTACLE	'''	0.18		16	20/1	BREAKROOM ICE MAKER	'''	0.78	
17	20/1	RECEPTACLE			0.18	18	20/1	BREAKROOM FRIDGE		5.75	0.98
19	20/1	RECEPTACLE	1.08	8		20	20/1	RECEPTACLE	1.62		
21	20/1	RECEPTACLE		1.26		22	20/1	RECEPTACLE		0.18	
23	20/1	RECEPTACLE		5	0.18	24	20/1	INV2			0.5
25	20/1	RECEPTACLE	1.08	в		26	80/3	ELEVATOR	7.2		
27	20/1	RECEPTACLE		1.26		28				7.2	
29	20/1	RECEPTACLE			1.26	30				İ	7.2
31	20/2	FCU-201	0.02	27		32	20/1	RECEPTACLE	0.72	İ	
33	ĺ			0.027		34	20/1	RECEPTACLE		0.72	
35	20/1	ELEVATOR LIGHTING			0.25	36	20/1	SPACE	ļ	i .	0
37	20/1	SPACE	0			38	20/1	SPACE	0	1	
39	20/1	SPACE		0		40	20/1	SPACE		0	
41	20/1	SPACE	İ		0	42	20/1	SPACE		İ	0
43	20/3	VAV-201	1.5			44	20/1	SPACE	0	İ	
45	ĺ		İ	1,5		46	20/1	SPACE		0	
47	j		İ		1.5	48	20/1	SPACE	1	İ	0
49	20/3	VAV-202	1			50	20/3	VAV-207 & 208	1.5	İ	
51	ĺ			1		52				1.5	
53	ĺ				1	54	Ì			İ	1.5
55	20/3	VAV-203	1.67	7		56	20/3	VAV-209	1.33		
57				1.67		58				1.33	
59					1,67	60					1.33
61	20/3	VAV-204 & 205	1.5			62	20/3	VAV-210	1.33		
63				1.5		64				1.33	
65					1.5	66					1.33
67	20/3	VAV-206	1.17	7		68	20/3	VAV-211	1.5		
69				1.17		70				1.5	
71					1,17	72					1.5
							ТО	TAL CONNECTED KVA BY PH	ASE 28.6	25.6	25.3
		CONN KVA	CALC KVA	Į.				CONN KVA CAL	C KVA		1
LIGH	HTING	3.35	4.18	(125%)		RECE	PTACLES	17 13.5		<b>%&gt;10</b> )	
	GEST MO			(123%)		HEAT		37.5 37.5	(100	,	
	OLOT MO	21.6		(100%)		COOL		0.054 0	(0%)	•	
	2	20	5	( / - /		3301				<i>'</i>	
							L LOAD	82.2			

	NTING SI FROM M	URFACE IDP	VOLTS BUS AM NEUTRAI	PS 100		4W		AIC 22,000 MAIN BKR MLO LUGS STANDARD			
СĶТ	CKT	OID OUT DECODINE TION	L	OAD KV	Ά	СКТ	CKT	OID OUT DECODINE	L	OAD KV	A
#	BKR	CIRCUIT DESCRIPTION	A	В	С	#	BKR	CIRCUIT DESCRIPTION	A	В	С
1 5 7 9	20/1 20/1 20/1 20/1 20/1 20/1	LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING RECEPTACLE	0.59	0.635	0.693	2 4 6 8 10 12	20/1 20/1 20/1 20/1 20/1 20/1	SPACE SPACE SPACE SPACE SPACE SPACE DEDICATED EQUIPMENT	0	0	0.18
13 15 17	20/1 20/1 20/1	RECEPTACLE DEDICATED EQUIPMENT CIRCUIT DEDICATED EQUIPMENT	1.26	0.18	0.18	14 16 18	20/1 20/1 20/1	CIRCUIT RECEPTACLE DEDICATED EQUIPMENT CIRCUIT RECEPTACLE	1.26	0.18	1,08
19	20/1	CIRCUIT RECEPTACLE	1.44			20	20/1	DEDICATED EQUIPMENT	0.18		
21 23	20/1 20/1	RECEPTACLE DEDICATED EQUIPMENT CIRCUIT		1.26	0.36	22 24	20/1 20/1	RECEPTACLE RECEPTACLE		1.26	1.26
25 27 29	20/1 20/1 20/1	RECEPTACLE RECEPTACLE EF-1 & EF-2	1.44	0.54	1.6	26 28 30	15/2       15/1	FCU-301 INV3	0.027	0.027	0.5
31 33 35	20/1 20/1 20/1	SPACE SPACE	0	0	0	32 34 36	20/1 20/1 20/1	EF-3 SPACE SPACE	0.8	0	0
37 39 41	20/1 20/1 20/1	SPACE SPACE SPACE	0	0	0	38 40 42	15/1 20/1 20/1	SPACE SPACE SPACE	0	0	0
							TO	TAL CONNECTED KVA BY PHASE	8.18	5.65	7.29
	HTING GEST MO	5.17 6.46	•	25%) 5%)		CONT TOTA	EPTACLES TINUOUS AL LOAD	CONN KVA CALC KV.  0.854 0.854 13.5 11.8 1.6 2 21.1 HASE AMPS 58.5	(100°	>10)	
LAR  Z  ROOM	GEST MO	5.17 6.46 TOR 0.054 0.014	(12	208Y/12 PS 600	)	RECE CONT TOTA BALA	EPTACLES TINUOUS AL LOAD	0.854       0.854         13.5       11.8         1.6       2         21.1	(100°) (50%)	>10)	
ROOM MOUNTED	GEST MO	5.17 6.46 TOR 0.054 0.014 URFACE	VOLTS BUS AM NEUTRAI	208Y/12 PS 600 L 100%	)	RECE CONT TOTA BALA	EPTACLES TINUOUS AL LOAD .NCED 3-P	0.854 0.854 13.5 11.8 1.6 2 21.1 HASE AMPS 58.5  AIC 22,000 MAIN BKR MLO	(100° (50% (125°	5>10) %)	<u> </u>
LAR  Z  OOL	GEST MO	5.17 6.46 TOR 0.054 0.014 URFACE	VOLTS BUS AM NEUTRAI	208Y/12 PS 600	)	RECE CONT TOTA BALA	EPTACLES TINUOUS AL LOAD	0.854 0.854 13.5 11.8 1.6 2 21.1 HASE AMPS 58.5  AIC 22,000 MAIN BKR MLO	(100° (50% (125°	>10)	A C
LAR OOM IOUN ED OTE KT #	GEST MO	5.17 6.46 TOR 0.054 0.014 URFACE	VOLTS BUS AM NEUTRAI	208Y/12 PS 600 L 100%	) 'A	RECE CONT TOTA BALA 4W	EPTACLES TINUOUS AL LOAD INCED 3-P	0.854 0.854 13.5 11.8 1.6 2 21.1 HASE AMPS 58.5  AIC 22,000 MAIN BKR MLO LUGS STANDARD	(100° (50% (125°	0AD KV	С
LAR OOM IOUN ED IOTE KT # 1 3 5 7 9	GEST MO  1 T  NTING SI FROM M  CKT BKR  40/2   20/1 20/3	TOR 5.17 6.46 0.054 0.014  URFACE IDP  CIRCUIT DESCRIPTION  CU-1  SPACE VAV-301 & 302	VOLTS BUS AM NEUTRAI  A 4.5	208Y/12 PS 600 L 100%	/A C	TOTA BALA 4W  CKT #  2 4 6 8 10 12	CKT BKR 20/3   15/3   15/3	0.854 0.854 13.5 11.8 1.6 2 21.1 HASE AMPS 58.5  AIC 22,000 MAIN BKR MLO LUGS STANDARD  CIRCUIT DESCRIPTION VAV-305 & 306  VAV-307	(100° (50% (125° ————————————————————————————————————	OAD KV	1.5
	GEST MO  1  NTING SI FROM M  CKT BKR  40/2   20/1 20/3   15/3   15/3	5.17 6.46 TOR 0.054 0.014  URFACE IDP  CIRCUIT DESCRIPTION  CU-1  SPACE VAV-301 & 302  VAV-303	VOLTS BUS AM NEUTRAI  A 4.5  1.17	208Y/12 PS 600 L 100% OAD KV	/A C O	TOTA BALA 4W CKT # 2 4 6 8 10 12 14 16 18	CKT BKR 20/3   15/3   20/3   20/3	0.854 0.854 13.5 11.8 1.6 2 21.1 HASE AMPS 58.5  AIC 22,000 MAIN BKR MLO LUGS STANDARD  CIRCUIT DESCRIPTION VAV-305 & 306  VAV-307 VAV-308	(100° (50% (125° ————————————————————————————————————	OAD KV B 1.5	r
LAR	GEST MO  1  NTING SI FROM M  CKT BKR  40/2   20/1 20/3   15/3   15/3   20/3	5.17 6.46 0.054 0.014  URFACE IDP  CIRCUIT DESCRIPTION  CU-1  SPACE VAV-301 & 302  VAV-303  VAV-304	VOLTS BUS AM NEUTRAI  A 4.5  1.5  1.17	208Y/12 PS 600 L 100% OAD KV B 4.5	A C O 1.5	TOTA BALA 4W CKT # 2 4 6 8 10 12 14 16 18 20 22 24	CKT BKR 20/3   15/3   20/3   20/3   20/3   20/3   1	0.854 0.854 11.8 1.6 2 21.1 58.5	(100° (50% (125° )	OAD KV B 1.5 0.833	0.83
LAR (100k) (100k	GEST MO  1  NTING SI FROM M  CKT BKR  40/2   20/1 20/3   15/3   125/3   125/3	5.17 6.46 0.054 0.014  URFACE IDP  CIRCUIT DESCRIPTION  CU-1  SPACE VAV-301 & 302  VAV-303  VAV-304  RTU-1	VOLTS BUS AM NEUTRAI  A 4.5  1.17  1.5  11.9	208Y/12 PS 600 L 100% OAD KV B 4.5 1.5	A C 0 1.5	TOTA BALA 4W CKT # 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30	CKT BKR 20/3   15/3   20/3   20/3   10	0.854 0.854 13.5 11.8 1.6 2 21.1 58.5	(100° (50% (125° ) )   L   A   1.5   0.833   1.33   10.2	OAD KV B 1.5 0.833	0.83 1.33
LAR	GEST MO  1  NTING SI FROM M  CKT BKR  40/2   20/1 20/3   15/3   15/3   20/3	5.17 6.46 0.054 0.014  URFACE IDP  CIRCUIT DESCRIPTION  CU-1  SPACE VAV-301 & 302  VAV-303  VAV-304	VOLTS BUS AM NEUTRAI  A 4.5  1.5  1.17	208Y/12 PS 600 L 100% OAD KV B 4.5 1.5 1.17	A C 0 1.5 1.17	TOTA BALA 4W CKT # 2 4 6 8 10 12 14 16 18 20 22 24 26 28	CKT BKR 20/3   15/3   20/3   20/3   20/3   20/3   1	0.854 0.854 11.8 1.6 2 21.1 58.5	(100° (50% (125° )	OAD KV B 1.5 0.833 1.33 1.33 4.92	1.5 0.83
LAR	GEST MO  1  NTING SI FROM M  CKT BKR  40/2   20/1 20/3   15/3   15/3   110/3   110/3	5.17 6.46 0.054 0.014  URFACE IDP  CIRCUIT DESCRIPTION  CU-1  SPACE VAV-301 & 302  VAV-303  VAV-304  RTU-1  RTU-2	VOLTS BUS AM NEUTRAI  A 4.5  1.17  1.5  11.9	208Y/12 PS 600 L 100% OAD KV B 4.5 1.5 1.17	A C O 1.5 1.17 1.5 11.9	TOTA BALA 4W CKT # 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36	CKT BKR 20/3   15/3   20/3   100/3   100/3   60/3   80/3   100	0.854 13.5 11.8 1.6 2 21.1 HASE AMPS  AIC 22,000 MAIN BKR MLO LUGS STANDARD  CIRCUIT DESCRIPTION VAV-305 & 306  VAV-307 VAV-308  VAV-309  RTU-4  RTU-5	(100° (50% (125° ) )   L   A   1.5   0.833   1.33   10.2   4.92   8.29	OAD KV B 1.5 0.833 1.33 1.33	1.5 0.83 1.33 1.33



		]
A R C H - T E C T U R E		INCITAL IDECINATION DATE OF THE PROPERTY OF TH

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

POLK COUNTY COURTH(	101 W. Church Street Livingston, TX 77351	ELECTRICAL DETAILS
SHEET SIZE SCALE:	22	2 x 34

KAI JOB NUMBER: 2017.171B

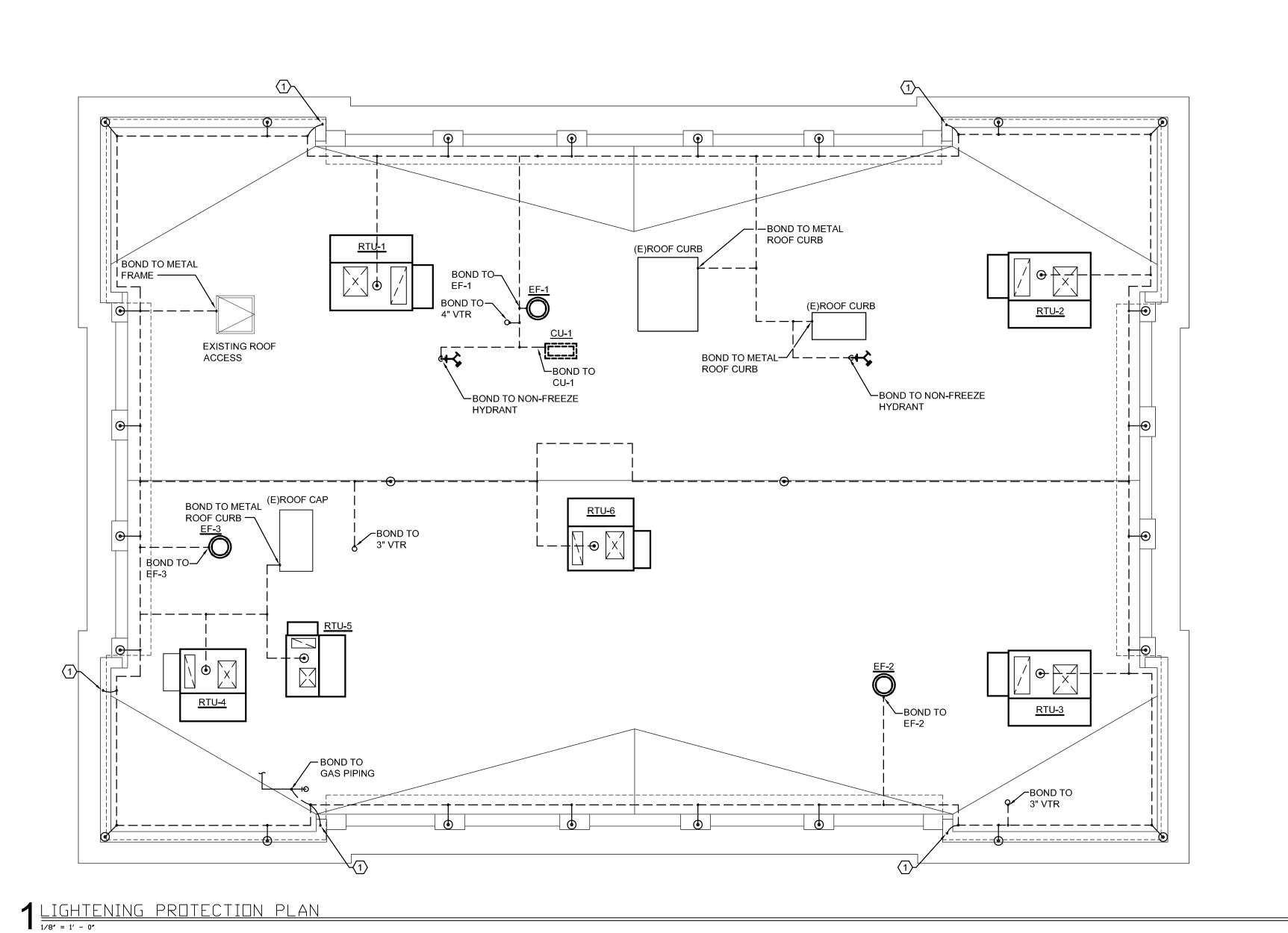
SPECIFICATIONS NO.: N/A

MARCH 11, 2022

OF SEQ #

DATE:

SHEET

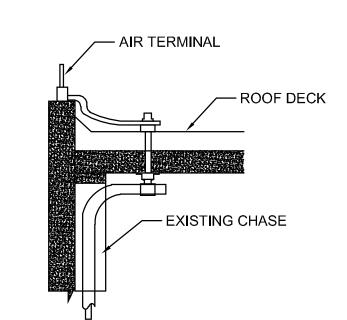


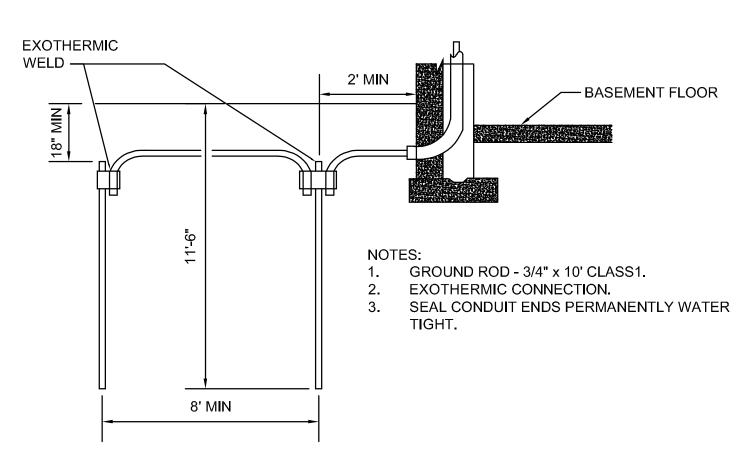
# NOTES BY SYMBOL "#"

 $|\langle 1 \rangle|$  DOWN CONDUCTOR IN METAL CONDUIT DOWN CHASE TO BASEMENT LEVEL AND OUT TO 3/4" x 10'-0" DRIVEN GROUND RODS (2). BOND DOWN CONDUCTOR TO METAL CONDUIT @TOP AND BOTTOM. SEE DETAIL #1 THIS SHEET.

# **GENERAL NOTES**

- ALL LIGHTENING PROTECTION EQUIPMENT INSTALLATION AND EQUIPMENT SHALL BE IN COMPLIANCE WITH NFPA 780. SYSTEM SHALL HAVE LPI SYSTEM CERTIFICATE AND SHALL HAVE UL MASTER LABEL.
- 2. INDICATES BASE-MOUNTED AIR TERMINAL.
- 3. LIGHTENING PROTECTION SYSTEM SHALL BE CLASS 1.





 $2^{\frac{\text{ddwn conductor detail - typical five locations}}{\text{not to scale}}$ 

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com 1/8"=1'-0"

S<sup>→</sup> **\\_**\_\_\_

THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

SU

SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022 OF SEQ # SHEET

- PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES. FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
- THE DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF PIPES, FIXTURES, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE ALL DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC FROM THE ARCHITECTURAL DRAWINGS AND FROM THE EQUIPMENT TO BE FURNISHED. PIPING MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES OR TO AVOID CONFLICTS WITH OTHER TRADES. THE DESIGN INTENT (I.E. PITCHES, VELOCITIES, PRESSURE DROPS, VOLTAGE DROPS, ETC) CANNOT BE GREATLY ALTERED WITHOUT THE APPROVAL OF THE ARCHITECT. THE COST OF THESE DEVIATIONS TO AVOID INTERFERENCE'S SHALL BE PART OF THE ORIGINAL CONTRACT
- EACH SUBCONTRACTOR SHALL CONFER AND COOPERATE WITH ALL OTHER TRADES TO COORDINATE THEIR WORK. COORDINATION SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO MATERIALS AND EQUIPMENT ROUTED IN CEILING AND WALL CAVITIES, EQUIPMENT ARRANGEMENT IN MECHANICAL SPACES, INCLUDING EQUIPMENT CLEARANCE REQUIREMENTS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS, ETC. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS.
- BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS AND EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR THE CONTRACTORS FAILURE TO FIELD COORDINATE.
- THE OWNER OR ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
- THE CONTRACTOR SHALL LOCATE ALL EQUIPMENT THAT MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. EQUIPMENT SHALL INCLUDE (BUT NOT LIMITED TO) VALVES, SHOCK ABSORBERS, TRAPS, CLEANOUTS, MOTORS, CONTROLLERS, SWITCHGEAR, AND DRAIN POINTS IF REQUIRED FOR BETTER ACCESSIBILITY. FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE ALLOWED TO PROVIDE FOR BETTER ACCESSIBILITY. ANY CHANGES SHALL BE APPROVED BY THE ARCHITECT AND CONSTRUCTION MANAGER/GENERAL CONTRACTOR PRIOR TO MAKING THE CHANGE.
- THE CONTRACTOR SHALL PROVIDE ACCESS DOORS, WALL OPENINGS, ROOF OPENINGS OR ANY OTHER CONSTRUCTION REQUIREMENT NEEDED TO ACCOMMODATE THE PLUMBING EQUIPMENT. LOCATIONS OF THESE OPENINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO BE INSTALLED IN THE NORMAL COURSE OF WORK.
- THE CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS OF PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO THE PURCHASE AND INSTALLATION OF ANY ELECTRICAL GEAR OR CONDUIT.
- PROVIDE VIBRATION ISOLATORS FOR MOTOR DRIVEN PLUMBING EQUIPMENT UNLESS NOTED OTHERWISE. PROVIDE ISOLATION AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- 10. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL WALL CLEANOUTS, ACCESS DOORS, ETC WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. IF A CONFLICT WITH MILLWORK, LIGHT SWITCHES, WINDOWS, ETC EXISTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE POTENTIAL INTERFERENCE PRIOR TO INSTALLATION.
- 11. PLUMBING VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10 FEET FROM ALL OUTSIDE AIR INTAKES AND A MINIMUM OF 5 FEET FROM EXTERIOR PERIMETER WALLS.
- 12. SOME PIPES SHOWN ON EACH FLOOR PLAN MAY BE SHOWN WITH AN OFFSET FOR CLARITY.
- 13. PLUMBING FIXTURES AND TRIM OF LIKE KIND SHALL BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT. TYPICAL CATEGORIES INCLUDE THE FOLLOWING:
  - WATER CLOSETS, LAVATORIES, URINALS
  - ELECTRIC WATER COOLERS, DRINKING FOUNTAINS
  - FAUCETS, MIXING VALVES
  - TAIL PIECE, FIXTURE TRAPS, ESCUTCHEONS, ARM EXTENSIONS, STRAINERS FIXTURE CARRIERS, FLOOR DRAINS, FLOOR SINKS, ROOF DRAINS, OVERFLOW DRAINS COUNTER TOP SINKS
- 14. PROVIDE WATER HAMMER ARRESTERS BETWEEN THE NEXT TO LAST AND LAST FIXTURE AT EACH BATTERY OF PLUMBING FIXTURES IN ACCORDANCE WITH THE WATER HAMMER ARRESTER SCHEDULE AND THE PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-WH-201.
- 15. ALL SANITARY WASTE PIPING WITHIN THE BUILDING ENVELOPE SHALL HAVE MINIMUM SLOPES AS REQUIRED BY THE LOCAL CODE AUTHORITY. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS INDICATED ON FLOOR PLANS PRIOR TO INSTALLATION OF ANY SITE UTILITIES AND CONNECTION INTO EXISTING SERVICES.
- 16. COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY'S STANDARD (TAS). PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING FIXTURES WITH FLUSH VALVE HANDLES LOCATED ON THE WIDE SIDE OF EACH
- SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL.
- 18. ALL FLOOR DRAIN AND FLOOR SINK TRAPS SHALL BE PRIMED WITH LISTED TRAP PRIMERS. PROVIDE SPIGOT ADAPTER ON ALL FLOOR DRAINS. HORIZONTAL TRAP PRIMER PIPING SHALL NOT BE ROUTED WITHIN FLOOR SLAB.
- 19. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL NATURAL GAS UTILITY COMPANY TO EXTEND NATURAL GAS SERVICE TO LOCATION INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PAY ALL FEES AND COSTS ASSOCIATED/REQUIRED BY THE LOCAL GAS UTILITY COMPANY FOR THE EXTENSION OF THE GAS SERVICE. THE CONTRACTOR SHALL PROVIDE ALL PIPING, VALVES, ETC THAT ARE NOT PROVIDED BY THE LOCAL GAS UTILITY COMPANY AND THAT ARE REQUIRED FOR CONNECTION OF THE GAS METER AND REGULATOR(S) FOR A COMPLETE OPERATIONAL SYSTEM. THE CONTRACTOR SHALL VERIFY THE NATURAL GAS PRESSURE PROVIDED BY THE NATURAL GAS UTILITY COMPANY AND PROVIDE ADDITIONAL REGULATORS AS REQUIRED BY THE GAS FIRED EQUIPMENT INSTALLED.
- CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL LENGTH OF 10' OF 1 1/2" THICK PIPING INSULATION ON ALL STORM AND OVERFLOW PIPING WITHIN THE BUILDING STARTING FROM EACH DRAIN BODY.

#### WATER HAMMER ARRESTER SCHEDULE P.D.I. SIZE FIXTURE UNITS 1-11 12-32 33-60 61-113 114-154 155-330

- . ALL WHA'S SHALL BE PISTON TYPE WITH EPDM O-RINGS, SIOUX CHIEF'S SERIES 650 OR EQUAL. ALL WHA'S SHALL BE ANSI/ASSE 1010 2004 CERTIFIED AND APPROVED FOR INSTALLATION WITH NO ACCESS PANEL REQUIRED.
- SIZE AND LOCATE WATER HAMMER ARRESTERS IN ACCORDANCE WITH PDI PAMPHLET

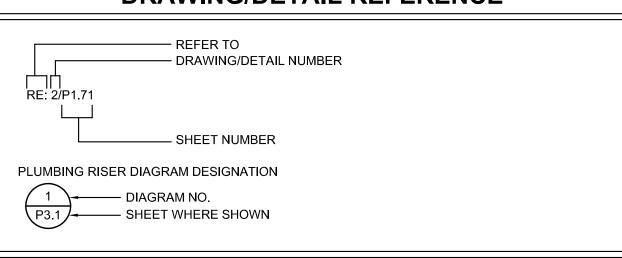
# **ABBREVIATIONS**

	A/E	ARCHITECT/ENGINEER	L	LENGTH
	AFF	ABOVE FINISHED FLOOR	_ LB	POUNDS
	AHU	AIR HANDLING UNIT	LRA	LOCKED ROTOR AMPS
	APPROX	APPROXIMATE	MAX	MAXIMUM
	BATT	BATTERY	MCA	MINIMUM CIRCUIT AMPACITY
	BD	BUILDING DRAIN (BELOW	MIN	MINIMUM
		FLOOR)	MSB	MOP SINK BASIN
	B.F.G.	BELOW FINISHED GRADE	N/A	NOT APPLICABLE
	BS	BUILDING SEWER (OUTSIDE	NFPA	NATIONAL FIRE PROTECTION
		OF BLDG)		ASSOCIATION
	CU	COPPER, CONDENSING UNIT	NFWH	NON-FREEZE WALL HYDRANT
	CW	DOMESTIC COLD WATER	N/O,N/C	NORMALLY OPEN, NORMALLY CLOSED
	D	EQUIPMENT DRAIN	O/C	ON CENTER
	DCO	TWO-WAY GRADE CLEANOUT	OFD	ROOF OVERFLOW DRAIN
l	DEG	DEGREES	PCO	PLUG CLEANOUT
	DSN	DOWNSPOUT NOZZLE	PH	PHASE
	(E)	EXISTING	PROVIDE	FURNISH AND INSTALL
	ĖQUIP	EQUIPMENT	PSI	POUNDS PER SQUARE INCH
	EWC	ELECTRIC WATER COOLER	RD	ROOF DRAIN
	°F	DEGREES FAHRENHEIT	RE:	REFERENCE, REFER
	FCO	FLOOR CLEANOUT	RLA	RUNNING LOAD AMPS
	FCU	FAN COIL UNIT	RM	ROOM
	FD	FLOOR DRAIN	RPBFP	REDUCED PRESSURE PRINCIPLE
	FS	FLOOR SINK		BACKFLOW PREVENTER
	FT.	FOOT, FEET	RPZ	REDUCED PRESSURE ZONE
	FVC	FIRE VALVE CABINET	S	SINK
	G	NATURAL GAS	SD	STORM DRAIN (BELOW FLOOR)
l	GCO	GRADE CLEANOUT	ST	STORM WATER (ABOVE CEILING)
	GWH	NATURAL GAS WATER HEATER	SSD	SUBSURFACE DRAIN
l	Н	HEIGHT	THRU	THROUGH
l	НВ	HOSE BIBB	TP	TRAP PRIMER
	HP	HORSEPOWER	TYP	TYPICAL
	HW	DOMESTIC HOT WATER	U	URINAL
	HWC	DOMESTIC HOT WATER	UL	UNDERWRITERS LABORATORIES, INC.
		CIRCULATION LOOP	V	SANITARY VENT
	HWTM	HOT WATER TEMPERATURE	VTR	SANITARY VENT THRU ROOF
		MAINTENANCE CABLE	W	SANITARY WASTE (ABOVE FLOOR)
	HZ	HERTZ	WC	WATER CLOSET
	IE 	INVERT ELEVATION	WCO	WALL CLEANOUT
	IN.	INCH, INCHES	W/	WITH
	J-BOX	JUNCTION BOX	W/O	WITHOUT
	kW	KILOWATT		
L				

# **LINE TYPES**

SYMBOL	DESCRIPTION
<b></b> W	SANITARY SEWER (ABOVE CEILING)
<u>—</u> вр—	SANITARY SEWER (BELOW FLOOR, BUILDING DRAIN)
—BS—	SANITARY SEWER (OUTSIDE OF BUILDING, BUILDING SEWER)
<b>—</b> GW <b>—</b>	GREASY WASTE (ABOVE CEILING)
—GD—	GREASY WASTE (BELOW FLOOR)
<u> </u>	EQUIPMENT DRAIN (ABOVE CEILING)
—st—	STORM WATER PIPING (ABOVE CEILING)
—SD—	STORM WATER PIPING (BELOW FLOOR/GRADE)
<b>—</b> OFD <b>—</b>	OVERFLOW DRAIN (ABOVE CEILING)
—SSD—	SUBSURFACE DRAINAGE
	SANITARY VENT
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER CIRCULATION
<b>—</b> G <b>—</b>	NATURAL GAS
<del></del> F	FIRE PROTECTION MAIN WATER SUPPLY
—SP—	STANDPIPE FIRE PROTECTION WATER
—WP—	AUTOMATIC FIRE SPRINKLER (WET)
——PA——	AUTOMATIC FIRE SPRINKLER (PRE-ACTION)
—DP—	AUTOMATIC FIRE SPRINKLER (DRY)
—A—	COMPRESSED AIR DIRECTION OF FLOW
	DIRECTION OF PIPE SLOPE DOWN
$\times$	PIPE DEMOLITION

# DRAWING/DETAIL REFERENCE



# **MISCELLANEOUS**

DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)

CONNECTION INTO EXISTING

# **VALVES AND FITTINGS**

SYMBOL	DESCRIPTION
<b>─</b> ⋈─	SHUT-OFF / ISOLATION VALVE
<del></del>	BALL VALVE
<del></del>	BUTTERFLY VALVE
<del></del>	GLOBE VALVE
<del></del>	PLUG VALVE / GAS COCK
<u> </u>	CHECK VALVE
<del></del>	STRAINER
<del></del> _	CALIBRATED BALANCING VALVE
	GAS PRESSURE REGULATOR
<del></del> Z	FLOW SWITCH
<del></del>	UNION (DIELECTRIC)
<del> </del>	VALVE IN RISER
<del></del>	END RISE (90° ELL)
<del></del> -	END DROP (90° ELL)
<del></del>	RISE OR DROP
<del></del>	TEE OUT OF TOP OF PIPE
<del>- ICI</del>	TEE OUT OF BOTTOM OF PIPE
	CAP ON END OF PIPE
OSWIHCH	WALL CLEANOUT
——II PCO	PLUG CLEANOUT
OO DCO	TWO WAY CLEANOUT
	GRADE CLEANOUT
+ <del></del> }	NON-FREEZE WALL HYDRANT OR HOSE BIBB
(iii) FD	FLOOR DRAIN
⊙ FCO	FLOOR CLEANOUT
<b>─</b> ⋈─	SHUT-OFF / ISOLATION VALVE
—掛—	OS&Y GATE VALVE
FDC	FIRE DEPARTMENT SIAMESE CONNECTION (WALL)
<u>♀</u> <u> </u>	FIRE DEPARTMENT SIAMESE CONNECTION (FREE STANDING)
$\bigcirc$	PRESSURE GAUGE
	ALARM CHECK VALVE
	DRY ALARM CHECK VALVE
	DRY ALARM CHECK VALVE WITH QUICK OPENING DEVICE
	DELUGE OR PRE-ACTION ALARM CHECK VALVE

## **BASIS OF PLUMBING DESIGN**

#### **PRIMARY CODES** PLUMBING:

2015 INTERNATIONAL PLUMBING CODE (WITH CITY AMENDMENTS). 2015 INTERNATIONAL FUEL GAS CODE (WITH CITY AMENDMENTS). FIRE PROTECTION: 2015 INTERNATIONAL FIRE CODE (WITH CITY AMENDMENTS)

## **PROJECT DESIGN VALUES:**

SANITARY SEWER AND VENT SYSTEM(s): TOTAL DRAINAGE FIXTURES UNITS = DFU

DOMESTIC WATER SYSTEM(s):

## TOTAL WATER FIXTURE UNITS = \_\_ FU

PEAK DEMAND = \_\_ GPM

# DOMESTIC HOT WATER SYSTEM(s):

STORED DOMESTIC HOT WATER TEMPERATURE = 140°F TEMPERED DOMESTIC HOT WATER TEMPERATURE = 105°F CIRCULATED DOMESTIC WATER SYSTEM

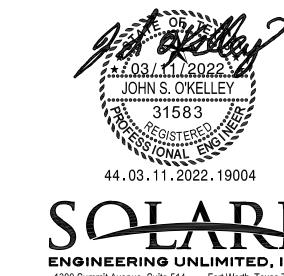
# NATURAL GAS SYSTEM(s):

PRIMARY GAS REGULATOR DISCHARGE GAS PRESSURE X-PSIG SECONDARY GAS REGULATOR DISCHARGE GAS PRESSURE X-PSIG

# FINAL GAS REGULATOR DISCHARGE GAS PRESSURE X-OUNCE

MBH (LONGEST DEVELOPED LENGTH OF PIPE = ') TOTAL NATURAL GAS DEMAND: PIPE SIZES ON PLAN BASED ON THE FOLLOWING TABLES FOR SCHEDULE 40 METALLIC PIPE (2015 IFGC):

LESS THAN 2-PSIG (MAX LOSS OF 0.3 IN WC) - TABLE 402.4(1) 2-PSIG (MAX LOSS OF 1.0 PSIG) - TABLE 402.4(3) 5-PSIG (MAX LOSS OF 3.5 PSIG) - TABLE 402.4(5)



ENGINEERING UNLIMITED, INC 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: MARCH 11, 2022 OF SEQ# SHEET

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, T.
THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021

ARCHITECTURAL EXAMINERS' RULES.

ANY MODIFICATION(S) TO THIS

WATER BOWL, 12" ROU SUPPL' SEAT, E COVER FLUSHG WHITE, SUPPL' SEAT, E COVER URINAL 3/4" INL FLUSH COUPL VACUL FIXTUE	RCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE FLUSHOMETER TANK, ELONGATED  "3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, WHITE, 2 1/8" FULLY GLAZED TRAPWAY, DUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER  EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE R MOUNTED, BACK OUTLET WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE HOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, E, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER  EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD PLING AND FLANGE, NON-HOLD OPEN HANDLE, CHROME PLATED ANGLE STOP WITH STOP CAP.	ROUGH IN (MINIMUM) W V CW HW  4" 2"  1/2" -   4" 2"  2" 2"	MANUFACTURER AND MODEL NUMBER  AMERICAN STANDARD, 215AA.104; KOHLER, K-3999; ZURN Z5555-K.  MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT CHURCH 9500C; BEMIS, 1655C; OLSONITE, 95/SS  AMERICAN STANDARD, 209AA137; KOHLER; ZURN  MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT CHURCH 9500C; BEMIS, 1655C; OLSONITE, 95/SS	ADA //TAS	S1 SINK, SINGLE COMPARTMENT, 19"x21"x6", SELF RIMMING, SEAMLESS #18 GAUGE TYPE 304 STAINLESS STEEL, FAUCET LEDGE, MINIMUM 1 3/4" VERTICAL AND HORIZONTAL RADIUS BASIN CORNERS, FULLY UNDERCOATED, ANSI A112.19.3M. DRAIN CENTERED IN REAR OF BASIN.  FAUCET, DECK MOUNT, CHROME PLATED BRASS, RIGID SWING GOOSENECK SPOUT, TWO-HANDLE, 1/4 TURN 4" WRIST BLADE HANDLES, 4" CENTERS, NSF 61 COMPLIANT, ANSI A112.18.1M, 2.2 GPM MAX. FLOW RATE  SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISER P-TRAP, CHROME PLATED CAST BRASS BODY WITH CLEANOUT, SEAMLESS WALL BEND, 17 GA.		/ CW //2" - - 1/2'	V HW WAND ACTORER AND WOBEL NOMBER
BOWL, 12" ROU SUPPL' SEAT, E COVER FLUSHO WHITE, SUPPL' SEAT, E COVER URINAL 3/4" INL FLUSH COUPL VACUL FIXTUE	IN 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, WHITE, 2 1/8" FULLY GLAZED TRAPWAY, DUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  R MOUNTED, BACK OUTLET WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE HOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, E, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD	1/2" -  4" 2" 1/2" -	MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT CHURCH 9500C; BEMIS, 1655C; OLSONITE, 95/SS  AMERICAN STANDARD, 209AA137; KOHLER; ZURN  MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT	S.	STEEL, FAUCET LEDGE, MINIMUM 1 3/4" VERTICAL AND HORIZONTAL RADIUS BASIN CORNERS, FULLY UNDERCOATED, ANSI A112.19.3M. DRAIN CENTERED IN REAR OF BASIN.  FAUCET, DECK MOUNT, CHROME PLATED BRASS, RIGID SWING GOOSENECK SPOUT, TWO-HANDLE, 1/4 TURN 4" WRIST BLADE HANDLES, 4" CENTERS, NSF 61 COMPLIANT, ANSI A112.18.1M, 2.2 GPM MAX. FLOW RATE  SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISER		- 1/2'	2" 1/2" CHICAGO, 895-317; MOEN COMMERCIAL, 8278; DELTA 2171WBHHI
SEAT, E COVER FLUSHG WHITE, SUPPL' SEAT, E COVER URINAL 3/4" INL FLUSH COUPL VACUL FIXTUE	EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE R MOUNTED, BACK OUTLET WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE HOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, E, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD		CHURCH 9500C; BEMIS, 1655C; OLSONITE, 95/SS  AMERICAN STANDARD, 209AA137; KOHLER; ZURN  MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT	G	TURN 4" WRIST BLADE HANDLES, 4" CENTERS, NSF 61 COMPLIANT, ANSI A112.18.1M, 2.2 GPM MAX. FLOW RATE  SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISER			
COVER FLUSHOWHITE, SUPPL' SEAT, E COVER URINAL 3/4" INL FLUSH COUPL VACUL FIXTUE	R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE R MOUNTED, BACK OUTLET WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE HOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, E, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD	4" 2" 1/2" - 	AMERICAN STANDARD, 209AA137; KOHLER; ZURN  MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT	G	RATE SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISER	S	1/2	T&S BRASS, B-0892
SEAT, E COVER URINAL 3/4" INL FLUSH COUPL VACUL FIXTUE	R MOUNTED, BACK OUTLET WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE HOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, E, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD	1/2" - 	MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT	G		S	1/2	
WHITE, SUPPL' SEAT, E COVER URINAL 3/4" INL FLUSH COUPL VACUL FIXTUE	E, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).  LY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER  EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD				P-TRAP, CHROME PLATED CAST BRASS BODY WITH CLEANOUT, SEAMLESS WALL BEND. 17 GA.		- 1/2	2" 1/2 MCGUIRE, H2167CCLK; OR EQUAL IN T&S BRASS OR BRASSCRA
SEAT, E COVER URINAI 3/4" INL FLUSH COUPL VACUL FIXTUE	EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD				TAILPIECE AND FORGED STAINLESS STEEL BASKET STRAINER			<ul> <li>MCGUIRE, 8912; OR EQUAL IN T&amp;S BRASS OR BRASSCRAFT</li> <li>JUST J-ADA-35; OR EQUAL IN MCGUIRE, T&amp;S BRASS OR BRASSC</li> </ul>
COVER URINAI 3/4" INI FLUSH COUPL VACUL FIXTUE	R, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE  AL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2  HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD		CHURCH 9500C; BEMIS, 1655C; OLSONITE, 95/SS		EWC1 TWO STATION WATER COOLER, INDOOR BI-LEVEL WALL MOUNTED, SELF CONTAINED ELECTRIC	2" 1 1/	/2" -	- ELKAY MODEL EZTL8C: HALSEY TAYLOR HAC8FSBL-Q ADA:
3/4" INL FLUSH COUPL VACUL FIXTUE	NLÉT SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2 HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD	2" 2"			REFRIGERATION, STAINLESS STEEL BASIN AND CABINET WITH ANTI-SPLASH RIDGE, INTEGRAL DRAIN STRAINER, NON-SQUIRT BUBBLER, PUSH BAR ACTIVATION ON FRONT AND SIDES OF WATER COOLER.		,_	HAWS HWUACP8LSS; OASIS PF8ACSL; SUNROC ADAD8RBLSC
COUPL VACUL FIXTUF URINAI		1 1 1	AMERICAN STANDARD, 6550.001; KOHLER, K-5016-ET; ZURN, Z5730.		REFRIGERATION SYSTEM SERVING BOTH BI-LEVELS TO INCLUDE HIGH EFFICIENCY COMPRESSOR, R-134/FULLY INSULATED STAINLESS STEEL TANK, 8 GPH WITH 50°F SUPPLY TEMPERATURE AND 80°F AMBIENT, 115VOLT. ANSI 117.1. NFS/ANSI 61. ARI STANDARD 1010			
URINAL	JUM BREAKER FLUSH CONNECTION, CAST WALL FLANGE WITH SET SCREW, ANSI/ASME 112.19.6	3/4" -	SLOAN, 186-0.5; ZURN, Z6003AV-EWS.		HANDICAPPED COMPLIANT APRON, MOLDED STAINLESS STEEL SKIRT KIT FOR INSTALLATION ON THE HIG UNIT	н		- ELKAY MODEL LKAPREZL; HAWS SK9SS
	JRE CARRIER, HANGER AND BEARING PLATES, ADJ. SUPPORTING RODS, UPRIGHTS, WELDED FEET		JOSAM, SERIES 17560-UR; WATTS, CA-321; ZURN, Z1222; OR JR SMITH, 0632		SERVICE STOP WITH DIELECTRIC COUPLING		1/2"	- REFER TO MANUFACTURER FOR REQUIREMENTS
	AL, 0.5 GPF, FLOOR MOUNT, VITREOUS CHINA, 16" EXTENDED FLUSHING RIM, SIPHON JET ACTION, NLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2	2" 2"	KOHLER, K-4920-T	G	P-TRAP, PVC, WHITE FIXTURE CARRIER, STEEL TOP AND BOTTOM PLATES W/ ADJ. HOLES, CHROME PLATED CAP		· -	<ul> <li>DEARBORN BRASS, A9701BG; KEYSAN MOEM9100; OR EQUAL</li> <li>JOSAM SERIES 17905; WATTS, CA-431-1; OR EQUAL IN ZURN OR</li> </ul>
COUPL	HOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD PLING AND FLANGE, NON-HOLD OPEN HANDLE, CHROME PLATED ANGLE STOP WITH STOP CAP, JUM BREAKER FLUSH CONNECTION, CAST WALL FLANGE WITH SET SCREW, ANSI/ASME 112.19.6	3/4" -	SLOAN, 186-0.5; ZURN, Z6003AV-EWS.		NUTS/WASHERS  FD1 FLOOR DRAIN, CAST IRON BODY, ANCHOR FLANGE, PRIMARY AND SECONDARY WEEPHOLES, 7" DIA. DUCTILE IRON TRACTOR GRATE, ADJUSTABLE DRAIN HEAD W/MACHINED INTEGRAL BODY THREADS,			JOSAM SERIES 32100-7; MIFAB, F1300C-4; ZURN, Z-507-DG
FIXTU	JRE CARRIER, HANGER AND BEARING PLATES, ADJ. SUPPORTING RODS, UPRIGHTS, WELDED FEET		JOSAM, SERIES 17560-UR; WATTS, CA-321; ZURN, Z1222; OR JR SMITH, 0632		ASME A112.21.1			
	TORY, 20"X18" VITREOUS CHINA WALL MOUNT, 4" CENTER FAUCET HOLES, FRONT OVERFLOW, EALED ARM CARRIER SYSTEM, DECK MOUNTED FAUCET, INTEGRAL 4" BACKSPLASH, ANSI A112.19.2	2" 1 1/2"	AMERICAN STANDARD, 0355.012; KOHLER, K-2005; ZURN, Z5364; SLOAN, SS-3003.	G	PROVIDE TRAP SEAL SYSTEM COMPRISED OF AN DRAIN INSERT CONSTRUCTED OF SMOOTH, SOFT, FLEXIBLE, ELASTOMERIC PVC MATERIAL MOLDED INTO SHAPE OF DUCK'S BILL, OPEN ON TOP WITH CUR CLOSURE AT BOTTOM.	.   -   -	-   -	PROSET SYSTEMS, INC., TRAP GUARD
	ET, DECK MOUNT, CHROME PLATED BRASS, 4" INTEGRAL SPOUT, TWO-HANDLE, 1/4 TURN, 4" WRIST E HANDLES, 4" CENTERS, NSF 61 COMPLIANT, ANSI A112.18.1M, 0.5 GPM MAX. FLOW RATE	1/2" 1/2"	CHICAGO FAUCETS, 802-V317E66XKABCP; T&S BRASS, B-0890-VF05; ZURN, Z81104-XL-27M.		FS1 FLOOR SINK, 8"x8"x6", CI BODY, DBL DRAINAGE FLANGE, STAINLESS STEEL DOME STRAINER, 3/4 GRATE, NON-PUNCTURING FLASHING COLLAR, PORCELAIN ENAMEL OR EPOXY COATED INTERIOR		-   -	JOSAM SERIES 49000-4; MIFAB FS1520-175; ZURN Z-1910
	LY AND STOPS, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS		MCGUIRE, H2165CCLK; T&S BRASS, B-1305; OR BRASSCRAFT, OCR1912A		PROVIDE TRAP SEAL SYSTEM COMPRISED OF AN DRAIN INSERT CONSTRUCTED OF SMOOTH, SOFT.			PROSET SYSTEMS, INC., TRAP GUARD
	NP, CHROME PLATED CAST BRASS BODY WITH CLEANOUT, SEAMLESS WALL BEND, 17 GA.  ET TAILPIECE AND STRAINER, CHROME PLATED CAST BRASS		MCGUIRE, 8902; BRASSCRAFT, 507; OR EQUAL IN T&S BRASS MCGUIRE, 155WC; OR EQUAL IN T&S BRASS; OR BRASSCRAFT		FLEXIBLE, ELASTOMERIC PVC MATERIAL MOLDED INTO SHAPE OF DUCK'S BILL, OPEN ON TOP WITH CUR	-		
	RE CARRIER, CONCEALED ARMS, LEVELING AND SECURING SCREWS, UPRIGHTS, WELDED FEET		JOSAM, SERIES 17100; WATTS, CA-411; ZURN, Z1231; OR JR SMITH, 0700	$\dashv$	CLOSURE AT BOTTOM.		-   -	
THERM	MOSTATIC MIXING VALVE, 0.25 GPM MINIMUM FLOW, INTEGRAL INLET CHECK VALVES AND STRAINER,	<del>                                     </del>	WATTS, LFUSG-B; LEONARD, 170-LF; OR EQUAL		WCO WALL CLEANOUT, CI BODY, RECESSED, THREADED BRASS PLUG, STAINLESS STEEL ACCESS COVER PRIME AND PAINT AS NECESSARY TO MATCH ADJACENT WALL COLOR (RE: ARCH).			JOSAM SERIES 58890; MIFAB C1460; ZURN Z-1441
TIME PI	EMPERATURE TO 105°, ASSE 1070.  PERIOD SERVICE SINK, 22"X18" WALL-MOUNT SERVICE SINK, OVAL BASIN, 8" CENTER FAUCET HOLES,		KOHLER K-6714; OR EQUAL IN AMERICAN STANDARD OR ZURN		FCO FLOOR CLEANOUT, COATED CAST IRON BODY, COMBINATION ADJUSTABLE ROUND STAINLESS STEEL COVER AND PLUG TOP ASSEMBLY, GASKET SEAL, ASME 112.36.2			JOSAM SERIES 58360; MIFAB C1000-R/S; ZURN Z-1400
FAUCE	IRON, RIM GUARD, ANSI A112.19.2.  ET, SINK WALL MOUNT, CHROME PLATED BRASS, 2-1/4" INTEGRAL SPOUT, TWO-HANDLE, 2" HANDLES,	1/2" 1/2"	KOHLER K-8905; OR EQUAL IN CHICAGO FAUCETS OR T&S BRASS	-	GCO GRADE CLEANOUT, HEAVY DUTY COATED CAST IRON ACCESS BODY WITH ANCHOR FLANGES, HEAVY DUDUCTILE IRON ACCESS COVER WITH VANDAL RESISTANT STAINLESS STEEL SCREWS	TY		_ JOSAM SERIES 56680-5-26-VP; MIFAB C1300-MF-6; ZURN Z-1474-
	NTERS, THREADED SPOUT, NSF 61 COMPLIANT, ANSI A112.18.1M, 0.5 GPM MAX. FLOW RATE  LY AND STOPS. LOOSE KEY. CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS		MCCHIDE HOMESOCIALINE BRASS B 4005, OR BRASSOCRAFT CORNOLOG	$\dashv$ $\mid$	DCO 2-WAY GRADE CLEANOUT, TWO-RISER CLEANOUT BODY WITH HEAVY DUTY COATED CAST IRON ACCESS	-   -	-   -	_ JOSAM SERIES 56680-5-26-VP; MIFAB C1300-MF-6; ZURN Z-1474-
	LY AND STOPS, LOUSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS.  STABLE P-TRAP WITH CLEANOUT OUT PLUG		MCGUIRE, H2165CCLK; T&S BRASS, B-1305; OR BRASSCRAFT, OCR1912A  KOHLER 6673: OR EQUAL IN T&S BRASS OR BRASSCRAFT	$\dashv$ $\mid$	BODY WITH ANCHOR FLANGES, HEAVY DUTY DUCTILE IRON ACCESS COVER WITH VANDAL RESISTANT STAINLESS STEEL SCREWS			
	ICE SINK STRAINER, CHROME PLATED CAST BRASS		KOHLER 9142; OR EQUAL IN T&S BRASS OR BRASSCRAFT	$\exists$	PCO SPIGOT CONNECTION, RAISED HEAD THREADED BRASS PLUG			
THERM	MOSTATIC MIXING VALVE, 0.25 GPM MINIMUM FLOW, INTEGRAL INLET CHECK VALVES AND STRAINER, EMPERATURE TO 105°, ASSE 1070.	1/2" 1/2"	WATTS, LFUSG-B; LEONARD, 170-LF; OR EQUAL		RD1 ROOF DRAIN, LARGE SUMP, CAST IRON BODY, 12"DIA. CAST IRON OR DUCTILE IRON DOME STRAINER, ANCHOR FLANGE AND CLAMP, ADJUSTABLE/INTEGRAL GRAVEL STOP, ASME A112.21.2			JOSAM SERIES 21500-3-22; MIFAB R1200-M; ZURN, ZC-100-G
	PERIOD SERVICE SINK, 17"X12" PEDESTAL MOUNTED SINK, OVAL BASIN, 4" CENTER FAUCET HOLES, COUS CHINA, ANSI A112.19.2.		KOHLER K-2286; OR EQUAL IN AMERICAN STANDARD OR ZURN		OFD1 OVERFLOW ROOF DRAIN, LARGE SUMP, ADJUSTABLE INTERNAL STANDPIPE DAM, CAST IRON BODY, 12" DIA. CAST IRON OR DUCTILE IRON DOME STRAINER, ANCHOR FLANGE AND CLAMP, ADJUSTABLE/INTEGR	AL AL		JOSAM SERIES 21500-16-3-22; MIFAB R1200-W-M; ZURN ZC-100-
	ET, SINK MOUNT, CHROME PLATED BRASS, 4-1/2" INTEGRAL SPOUT, TWO-HANDLE, 2" HANDLES, 4" ERS, THREADED SPOUT, NSF 61 COMPLIANT, ANSI A112.18.1M, 1.2 GPM MAX. FLOW RATE	1/2" 1/2"	KOHLER K-13490-4; OR EQUAL IN CHICAGO FAUCETS OR T&S BRASS		GRAVEL STOP, ASME A112.21.2  NFRH1 NON-FREEZE ROOF HYDRANT, BACKFLOW PROTECTED ASSE 1052 APPROVED, VARIABLE FLOW,		- 1"	' - WOODFORD MODEL SHR-MS OR EQUAL
SUPPL	LY AND STOPS, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS		MCGUIRE, H2165CCLK; T&S BRASS, B-1305; OR BRASSCRAFT, OCR1912A		AUTOMATIC DRAINING, FREEZELESS, SELF-CLOSING			
-	STABLE P-TRAP WITH CLEANOUT OUT PLUG		KOHLER 6673; OR EQUAL IN T&S BRASS OR BRASSCRAFT		IMB1 ICE MAKER CONNECTION BOX, 8"X8" RECESSED STAINLESS STEEL ENCLOSURE		- 3/4'	ST SKET WESEE SSIST, SKEEGERE
THERM	ICE SINK STRAINER, CHROME PLATED CAST BRASS  MOSTATIC MIXING VALVE, 0.25 GPM MINIMUM FLOW, INTEGRAL INLET CHECK VALVES AND STRAINER,	 - 1/2" 1/2"	KOHLER 9142; OR EQUAL IN T&S BRASS OR BRASSCRAFT WATTS, LFUSG-B; LEONARD, 170-LF; OR EQUAL	-	AD1 AREA DRAIN, CAST IRON BODY, BOTTOM OUTLET, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP, 30"X30" GALVANIZED CAST IRON HEAVY-DUTY LOOSE SOLID GRATE, SUSPENDED SEDIMENT BUCKET WITH STAINLESS STEEL MESH LINER, VANDAL PROOF SECURED TOP	8"   -	-   -	- ZURN Z673; OR APPROVED EQUAL
1 SELLE	EMPERATURE TO 105°, ASSE 1070.				GLDIIVILINI BOCKLI WITH STAINLESS STEEL WEST LINEN, VANDAL PROOF SECURED TOP			

DOMESTIC ELECTRIC WATER HEATER SCHEDULE												
MARK	SERVICE	TYPE			LEAVING WATER TEMPERATURE (°F)				ERISTICS PHASE	HZ	MANUFACTURER AND MODEL NUMBER	REMARKS
WH1	DOMESTIC HOT WATER	TANK TYPE, ELECTRIC	120	18	140	2	4	208	1	60	A.O. SMITH, DEN-120	1

3. FLOOR CLEANOUT ACCESS COVERS IN ALL FINISHED AREAS SHALL BE OF THE RECESSED TYPE TO ALLOW FOR INSERTION OF FINISHED FLOOR TREATMENT. TILE OR CARPET MARKER AS NECESSARY.

ABOVE THE FLOOR P-TRAPS ON LAVATORIES AND SINKS SHALL BE 17 GAUGE, CHROME PLATED BRASS. ACCEPTABLE MANUFACTURERS: MCGUIRE, T&S BRASS, OR BRASSCRAFT.

7. CONTRACTOR SHALL VERIFY PLUMBING FIXTURES PROVIDED COMPLY WITH HANDICAPPED ACCESSIBILITY STANDARDS INCLUDING HEIGHT AND CLEARANCE REQUIREMENTS.

8. ALL WATER CLOSET AND URINAL FLUSH VALVES SHALL INCLUDE CHROME PLATED CAST WALL FLANGE WITH SETSCREW AND COVER TUBE.

THERMOSTATIC MIXING VALVE SCHEDULE									
	MARK SERVICE	TYPE	FLOWRATE CAPACITY HIGH (GPM) LOW (GPM)		INLET HOT WATER TEMPERATURE (°F)			MANUFACTURER AND MODEL NUMBER	REMA

PUMP SCHEDULE												
MARK	SERVICE	TYPE	FLOWRATE (GPM)	TOTAL DYNAMIC HEAD (FEET)	SPEED (RPM)	EFFIC. (%)	ELECTI HP	RICAL CHA	ARACTER PHASE	ISTICS HZ	MANUFACTURER AND MODEL NUMBER	REMARKS
CP1	DOMESTIC HOT WATER CIRCULATION	INLINE, CENTRIFUGAL	2	12	1,750	65	1/25	115	1	60	GRUNDFOS, MODEL UP	1)(2)(4)
SP1	ELEVATOR SUMP PUMP	SUMP AND EFFLUENT PUMP	50	15	1,750	65	1/2	115	1	60	LITTLE GIANT MODEL 10EN-CBA-SFS	(1)(2)(4)

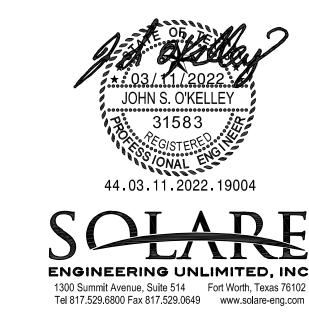
- PROVIDE 7-DAY TIME CLOCK FOR OPERATION OF CIRCULATION PUMP (SET TO OPERATE BETWEEN 5:00 AM TO 9:00 PM, ADJUSTABLE).
- 2 PUMPS SHALL BE RATED FOR CONTINUOUS OPERATION AT WATER TEMPERATURES OF WATER SYSTEM
- 3 PROVIDE PUMP WITH AUTOMATIC DISCHARGE CONTROLLED BY INTERNAL PRESSURE SWITCH.

VALVE HANDLES LOCATED ON THE WIDE SIDE OF EACH STALL OR ROOM.

TSMV1 TEMPERED HOT WATER | CENTRAL CIRCULATION

6. ALL FLOOR MOUNTED WATER CLOSETS SHALL HAVE 12" ROUGH-IN UNLESS OTHERWISE NOTED.

4 OR APPROVED EQUAL



ADA /TAS

* 03/11/2022 JOHN S. O'KELLEY  3. 31583  **G/STERF ONAL  44.03.11.2022.19004
ENGINEERING UNLIMITED, INC.  1300 Summit Avenue, Suite 514 Tel 817.529.6800 Fax 817.529.0649  Fort Worth, Texas 7610 www.solare-eng.com

SHEET SIZE KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 OF SEQ # SHEET

CONSTRUCTION

FOR

ISSUED

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

	1 ADJUST STORAGE WATER TEMPERATURE IN ACCORDANCE WITH LOCAL ENERGY CODE REQUIREMENTS.
L	

5. CONTRACTOR SHALL VERIFY FIXTURE SUPPLIES AND APPURTENANCES FOR EACH FIXTURE PRIOR TO BIDDING AND PURCHASING.

Т	THERMOSTATIC MIXING VALVE SCHEDULE									
OWRATE H (GPM)	CAPACITY LOW (GPM)	PRESSURE DROP (PSIG)		INLET COLD WATER TEMPERATURE (°F)	LEAVING WATER TEMPERATURE (°F)	MANUFACTURER AND MODEL NUMBER	F			
27	2	15	140	60	110	ARMSTRONG, DRV				
							_			

- ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.
- REGARDING ALL 'DCO' 'GCO' AND 'AD" FIXTURES: CONTRACTOR TO COORDINATE ALL PIPE ROUTING WITH UTILITY PLAN. CONTRACTOR TO SUBMIT DIMENSIONED DEVICE PLAN TO ARCHITECT AND FIELD VERIFY AS REQUIRED TO ENSURE FIXTURE PLACEMENT IS APPROPRIATE.
- REGARDING ANY/ALL SUB-FLOOR/SUB-GRADE PLUMBING LINES: CONTRACTOR IS TO REFER TO STRUCTURAL FOR INFORMATION ON CORE DRILLING THROUGH EXISTING BASEMENT WALL OR GRADE BEAMS.

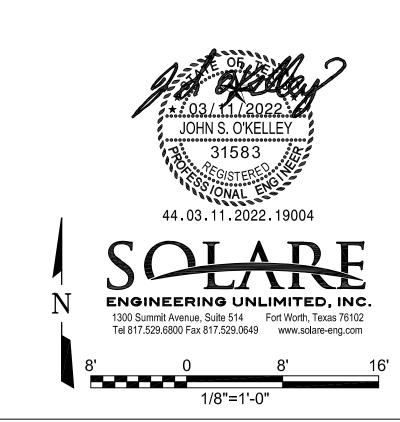
# NOTES BY SYMBOL "#"

- REFER TO CIVIL FOR CONTINUATION
- (2) 4" SANITARY WASTE UP TO WC1.
- 3 2" SANITARY WASTE UP TO LAV/SINK.
- 2" VENT UP TO FLOOR ABOVE.
- (5) 2" SANITARY WASTE UP TO U1.
- 6 2" SANITARY WASTE UP TO DF1.
- 7 2" SANITARY WASTE UP TO WCO.
- 8 4" SUB SURFACE DRAIN UP TO FCO.
- 9 4" SUB SURFACE DRAIN UP TO GCO.
- 4" SANITARY WASTE UP TO FLOOR SINK.

  1 2" SANITARY WASTE UP TO FLOOR DRAIN.
- 2" SANITARY WASTE UP TO FLOOR

  12 4" SANITARY WASTE FROM ABOVE.
- 2" SANITARY WASTE FROM ABOVE.

  2" DOMESTIC WATER ENTRANCE UP TO FLOOR ABOVE.
- (15) 6" STORM AND OVERFLOW DRAIN PIPING FROM ABOVE.
- 1-1/2" DOMESTIC COLD WATER AND 1" DOMESTIC HOT WATER FROM ABOVE. 3/4" DOMESTIC HOT WATER RETURN UP TO FLOOR ABOVE.
- 8" STORM DRAIN UP TO AD1.
- (18) 4" SANITARY WASTE UP TO DCO.
- FIRE ENTRANCE PIPING UP TO FLOOR ABOVE. SIZE & EXACT LOCATION DETERMINED BY FIRE SPRINKLER CONTRACTOR. INSTALLED BY FIRE SPRINKLER CONTRACTOR.
- REMOTE FIRE DEPARTMENT CONNECTION PIPING DOWN FROM ABOVE.
- 4" NATURAL GAS UP TO FLOOR ABOVE.
- EXISTING DUPLEX SUMP PUMP SYSTEM. CONNECT NEW PIPING TO EXISTING PUMPS. PROVIDE CHECK VALVE, SHUT-OFF VALVE (NORMALLY OPEN) AND UNIONS. REFER TO ELECTRICAL PLANS FOR REWORK OF POWER CONNECTIONS.
- PROVIDE AND INSTALL NEW ELEVATOR SUMP PUMP. REFER TO PUMP SCHEDULE ON P0.02 AND DETAIL 8/P4.02 FOR ADDITIONAL INFORMATION.
- 4" STORM DRAIN PIPING FROM ABOVE.



SHEET SIZE 22 x 34

SCALE:

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #

**S**⊃

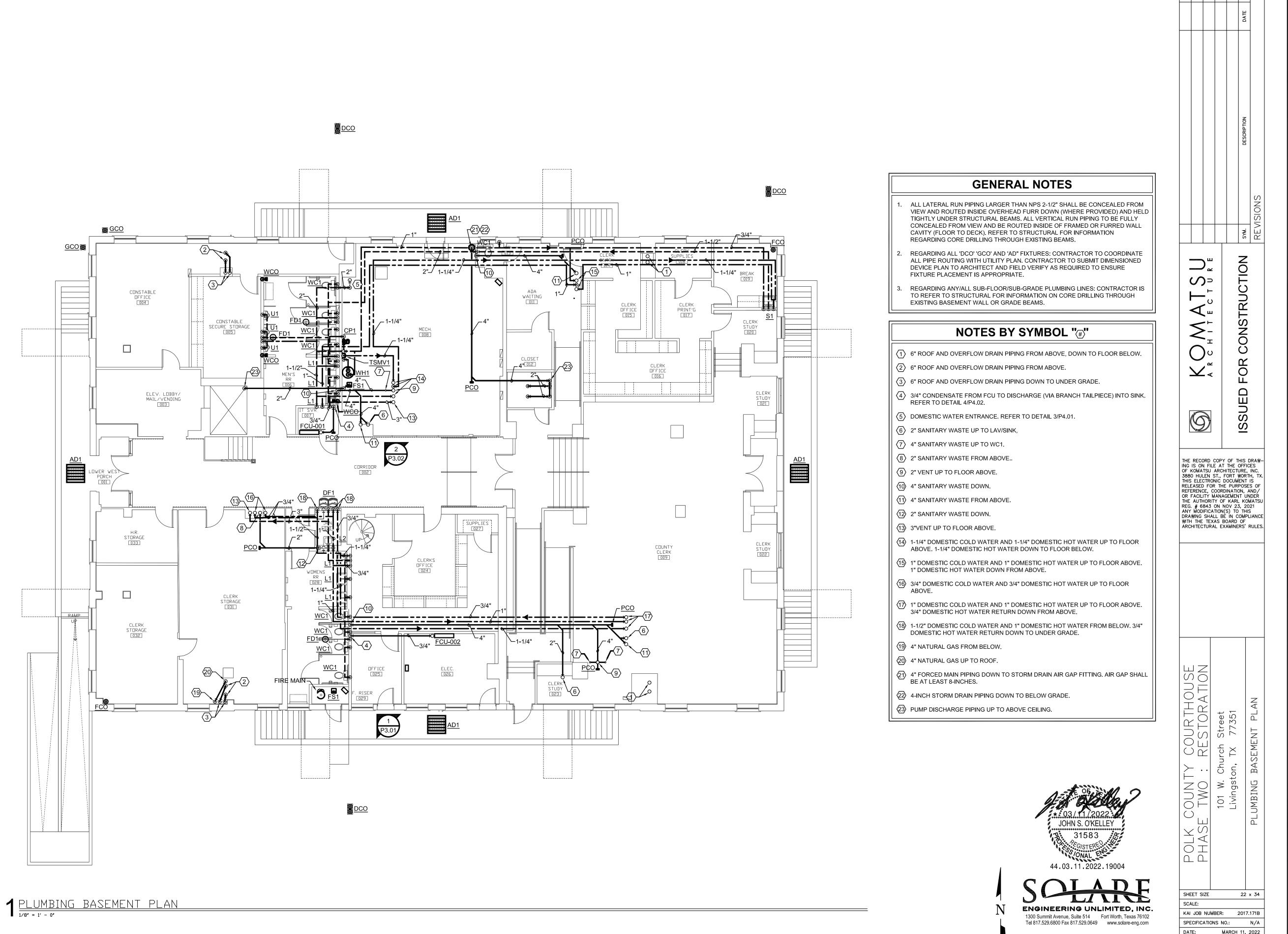
FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.

T SIZE = ANSI D 22x3



SHEET

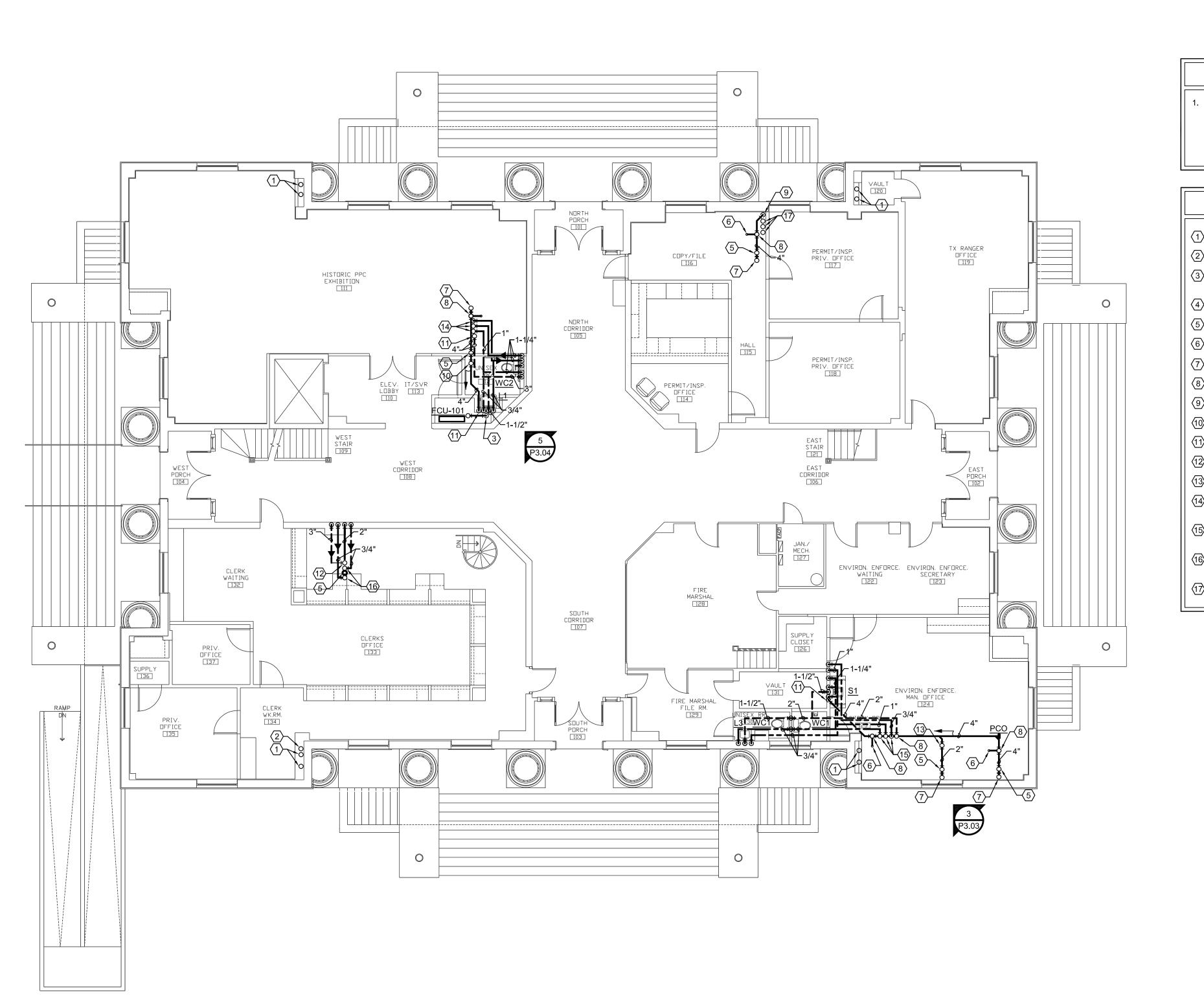
1/8"=1'-0"

OF SEQ #



PLUMBING 1ST FLOOR PLAN

1/8' = 1' - 0'



# **GENERAL NOTES**

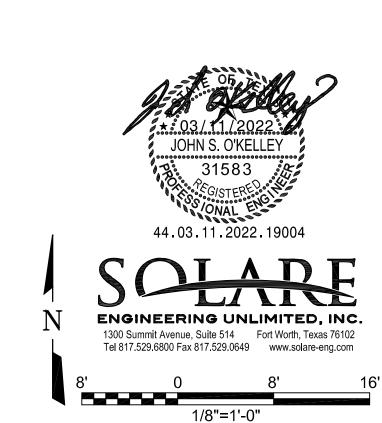
ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

# NOTES BY SYMBOL "#"

- 6" ROOF AND OVERFLOW DRAIN PIPING FROM ABOVE, DOWN TO FLOOR BELOW.
- 2 4" NATURAL GAS PIPING FROM BELOW, UP TO ROOF.
- 3/4" CONDENSATE FROM FCU TO DISCHARGE (VIA BRANCH TAILPIECE) INTO SINK. REFER TO DETAIL 4/P4.02.
- (4) CONNECT 3" NATURAL GAS PIPING INTO EXISTING GAS METER.
- 5 2" SANITARY WASTE UP TO LAV/SINK,
- 6 4" SANITARY WASTE UP TO WC1.
- 7 4" SANITARY WASTE UP TO WCO.
- 8 2" VENT UP TO FLOOR ABOVE. 9 4" SANITARY WASTE DOWN TO FLOOR BELOW.

DOMESTIC HOT WATER DOWN TO FLOOR BELOW.

- 4" SANITARY WASTE FROM ABOVE.
- (11) 4" VENT UP TO FLOOR ABOVE.
- 12 3"VENT UP TO FLOOR ABOVE. (13) 2" SANITARY WASTE UP TO U1.
- 1" DOMESTIC COLD WATER AND 1-1/4" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1-1/4" DOMESTIC HOT WATER DOWN TO FLOOR BELOW.
- 15 1" DOMESTIC COLD WATER AND 1" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 3/4" DOMESTIC HOT WATER RETURN DOWN FROM ABOVE.
- (16) 3/4" DOMESTIC COLD WATER AND 3/4" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1" DOMESTIC COLD WATER AND 1" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1"



SHEET SIZE SCALE:

SPECIFICATIONS NO.: DATE:

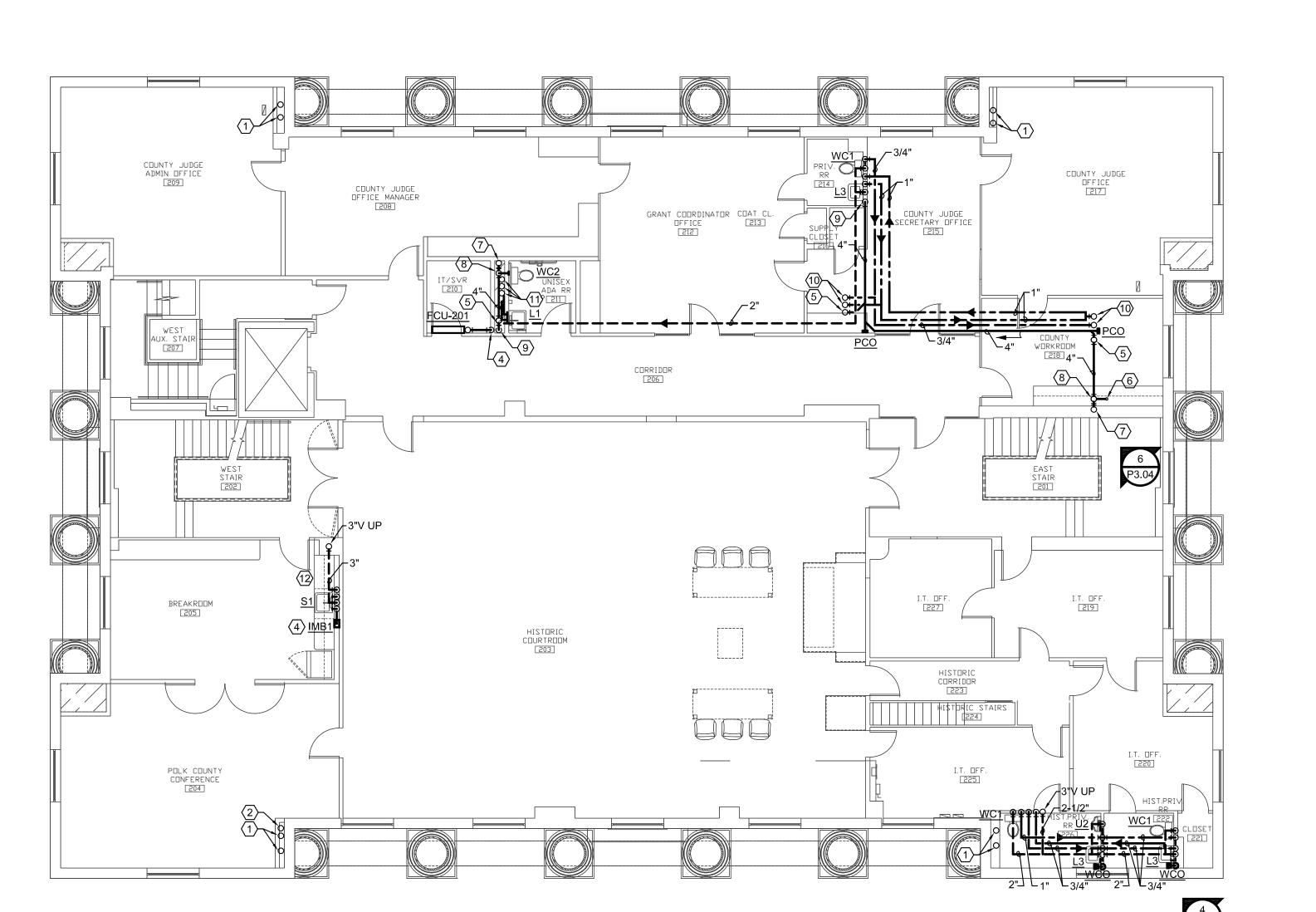
22 x 34 KAI JOB NUMBER: 2017.171B MARCH 11, 2022 SHEET OF SEQ #

CONSTRUCTION

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS

THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.



PLUMBING 2ND FLOOR PLAN

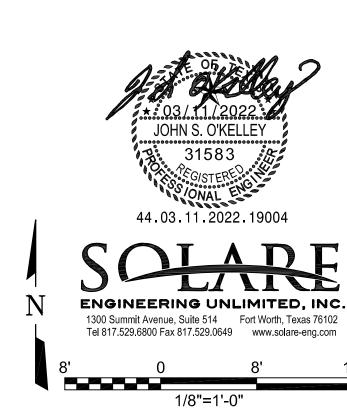
1/8' = 1' - 0'

# **GENERAL NOTES**

ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION

# NOTES BY SYMBOL "#"

- $\bigcirc$  6" STORM AND OVERFLOW DRAIN PIPING FROM ABOVE, DOWN TO FLOOR BELOW.
- $\langle 2 \rangle$  4" NATURAL GAS PIPING FROM BELOW, UP TO ROOF.
- (3) 3/4" CONDENSATE FROM FCU TO DISCHARGE (VIA BRANCH TAILPIECE) INTO SINK. REFER TO DETAIL 4/P4.02.
- 4 REFER TO DETAIL 5/P4.02 FOR PLUMBING CONNECTIONS TO ICE MACHINE.
- 5 2" SANITARY WASTE UP TO LAV/SINK,
- 6 4" SANITARY WASTE UP TO WC1.
- 7 4" SANITARY WASTE UP TO WCO.
- 8 2" VENT UP TO FLOOR ABOVE.
- 9 4" SANITARY WASTE DOWN TO FLOOR BELOW.
- 1 DOMESTIC COLD AND DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1" DOMESTIC COLD WATER AND 1-1/4" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1-1/4" DOMESTIC HOT WATER DOWN TO FLOOR BELOW.
- (12) ROUTE PIPING SERVING PLUMBING FIXTURES IN WALL CHASE FOR COMPLETE CONCEALMENT OF ALL PIPING.



SHEET SIZE KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A SHEET

22 x 34

MARCH 11, 2022 OF SEQ #

CONSTRUCTION

FOR

ISSUED

THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.



H.R. DIRECTOR 308

PLUMBING 3RD FLOOR PLAN

1/8' = 1' - 0'

WEST STAIR 302

<u>\_\_\_\_\_\_</u>

AUDITOR ASSISTANT 318

INTERNAL AUDITOR [314]

TREASURER SECRETARY [321]

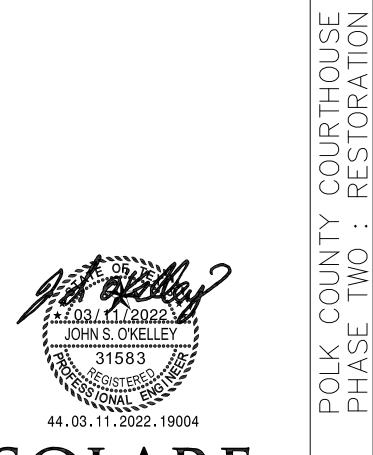
TREASURY ASSIST. OFFICE [325]

EAST STAIR 301

STORAGE

322

AUDITOR ASSISTANT 316



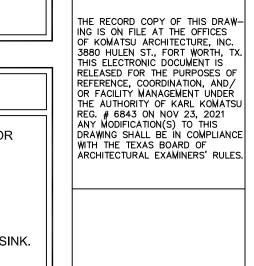
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"

**GENERAL NOTES** ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

# NOTES BY SYMBOL "#"

- 6" ROOF DRAIN AND OVERFLOW DRAIN PIPING FROM ABOVE, DOWN TO FLOOR BELOW.
- $|\sqrt{2}\rangle$  3" NATURAL GAS PIPING FROM BELOW, UP TO ROOF.
- 3 1" DOMESTIC COLD WATER PIPING UP TO NFRH1. 3/4" CONDENSATE FROM FCU TO DISCHARGE (VIA BRANCH TAILPIECE) INTO SINK. REFER TO DETAIL 4/P4.02.



THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS

FOR ISSUED

CONSTRUCTION

SHEET SIZE 22 x 34 SCALE:

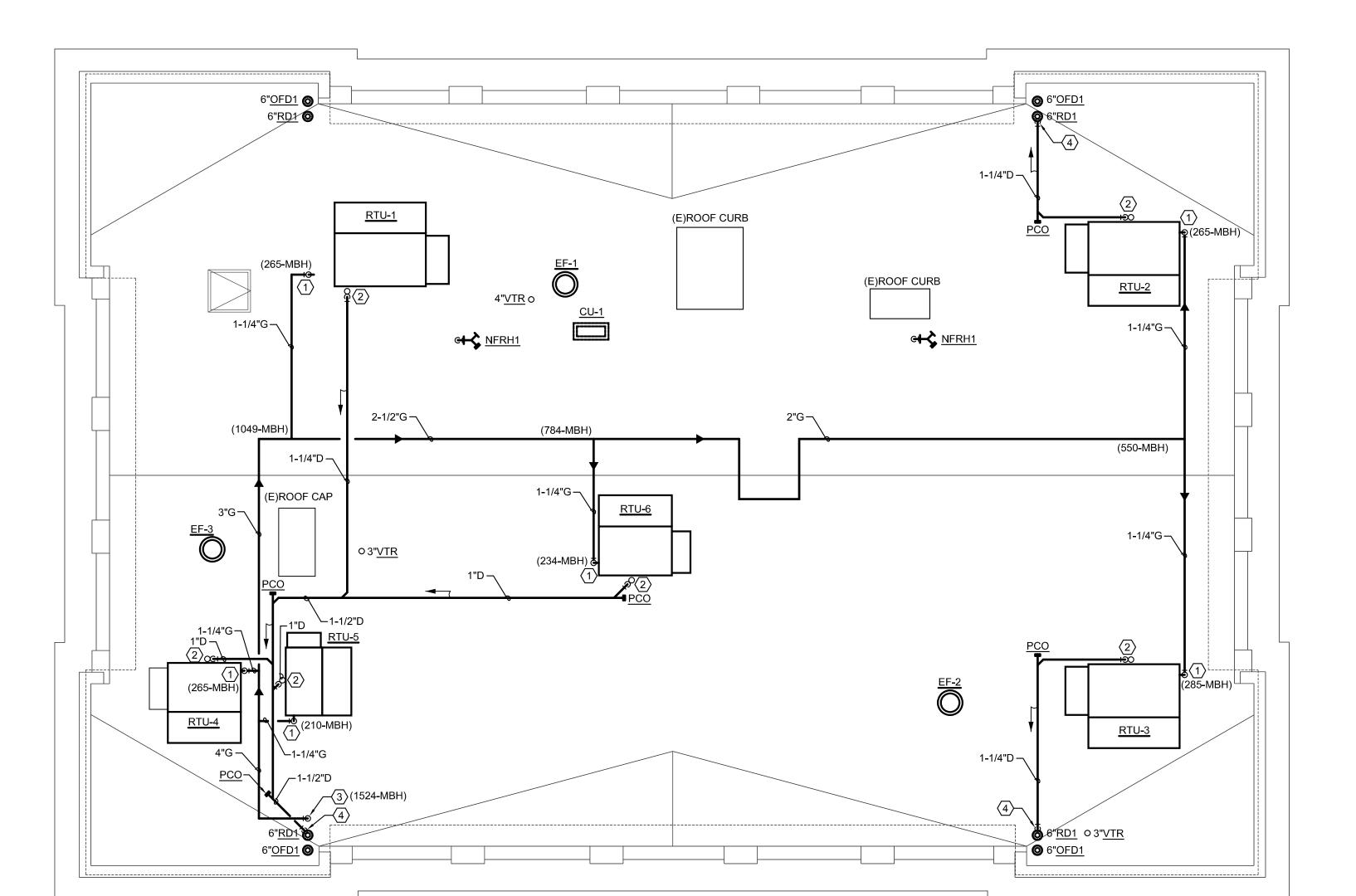
KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #



1 PLUMBING ROOF PLAN

1/8' = 1' - 0'

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com 1/8"=1'-0"



# **GENERAL NOTES**

- MAINTAIN AT LEAST 10-FT SEPARATION BETWEEN ALL INTAKES AND EXHAUST/SANITARY VENTS.
- ALL PIPING ON ROOF TO BE ON ADJUSTABLE ROLLING STANDS.
- TYPICAL NATURAL GAS CONNECTION TO RTU. REFER TO DETAIL 4/P4.01 FOR ADDITIONAL INFORMATION.
- TYPICAL CONDENSATE CONNECTION TO RTU. REFER TO DETAIL 6/P4.01 FOR ADDITIONAL INFORMATION.
- 3" NATURAL GAS PIPING FROM BELOW.
- DISCHARGE CONDENSATE (VIA AIR GAP) INTO ROOF DRAIN.

NOTES BY SYMBOL "(#)"

**S**⊃

CONSTRUCTION FOR

22 x 34

MARCH 11, 2022

OF SEQ #

COUNTY TWO: 101 W. Chu Livingston,

SHEET SIZE

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

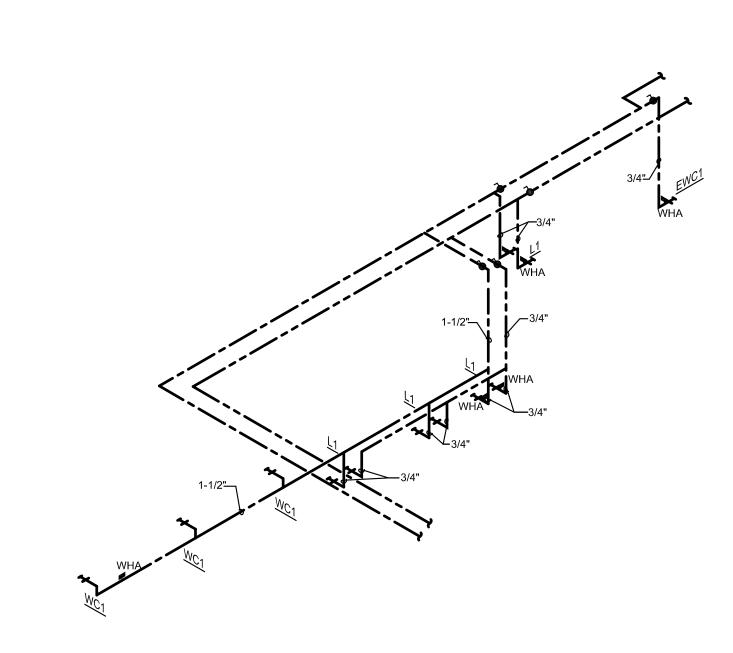
SCALE:

DATE:

SHEET

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

# **DOMESTIC WATER** SANITARY WASTE AND VENT



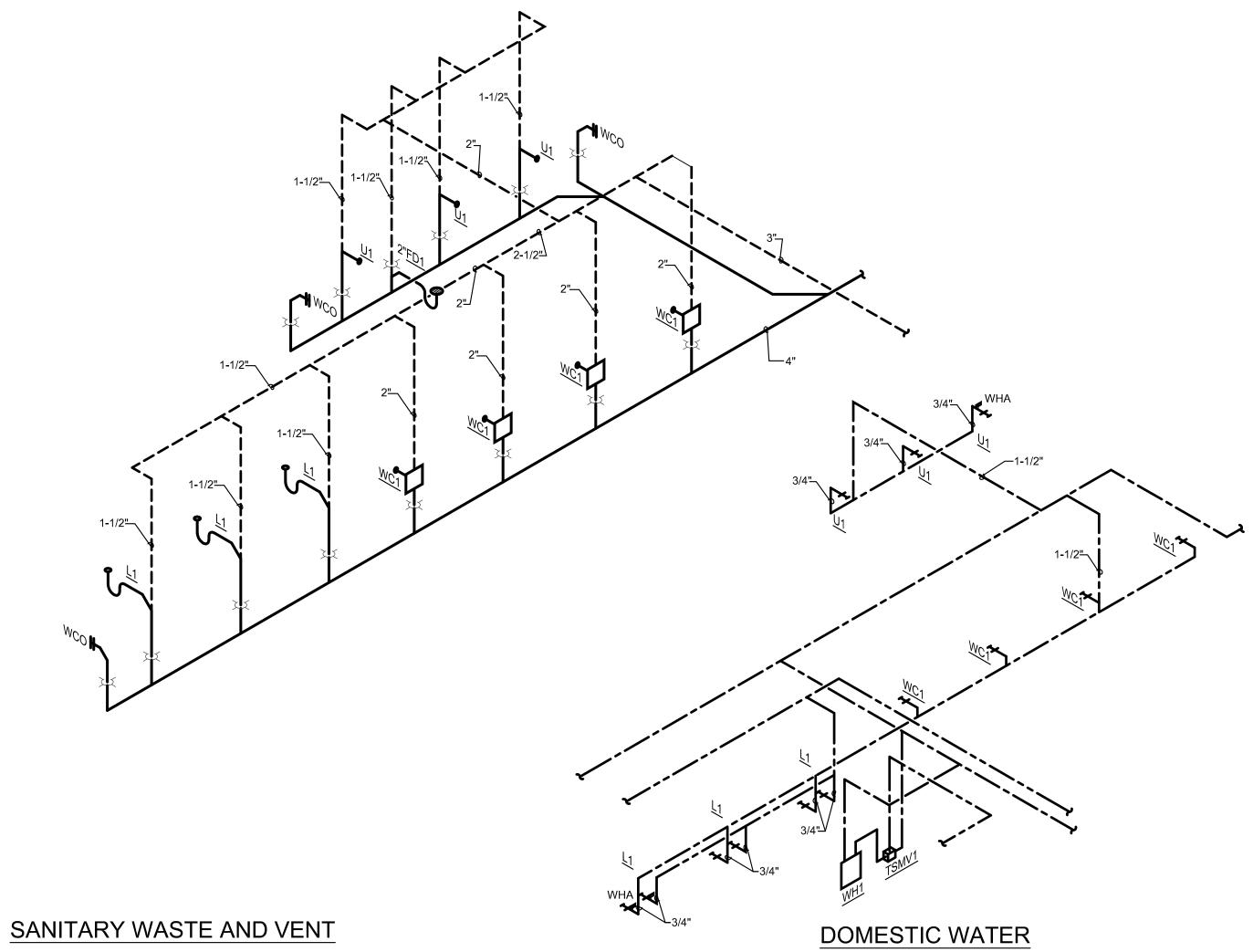


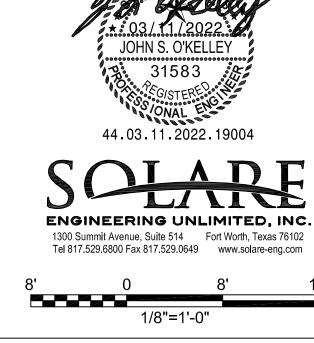
SHEET SIZE SCALE:

OF SEQ #

22 x 34 KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A MARCH 11, 2022

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.





SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A MARCH 11, 2022

IG IS ON FILE AF KOMATSU ARC 880 HULEN ST., HIS ELECTRONIC ELEASED FOR THE FERENCE, COOF AF AUTHORITY GEG. # 6843 ON NY MODIFICATION RAWING SHALL FITH THE TEXAS	CHITECTURE, INC. FORT WORTH, TX. DOCUMENT IS HE PURPOSES OF RDINATION, AND/ AGEMENT UNDER OF KARL KOMATSU NOV 23, 2021 N(S) TO THIS BE IN COMPLIANCE

	FOR CONSTRI
9	ISSUED

	SYM.	RFVI
	SSUED FOR CONSTRUCTION	

4 PLUMI P3.03 NO SCALE

3 PLC. ... P3.03 NO SCALE

PLUMBING ISOMETRIC RISER DIAGRAM

SANITARY WASTE AND VENT

SANITARY WASTE AND VENT PLUMBING ISOMETRIC RISER DIAGRAM

**DOMESTIC WATER** 

DOMESTIC WATER

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

SHEET SIZE

KAI JOB NUMBER: 2017.171B

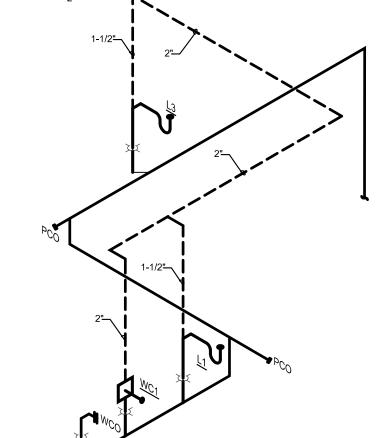
SPECIFICATIONS NO.: N/A

22 x 34

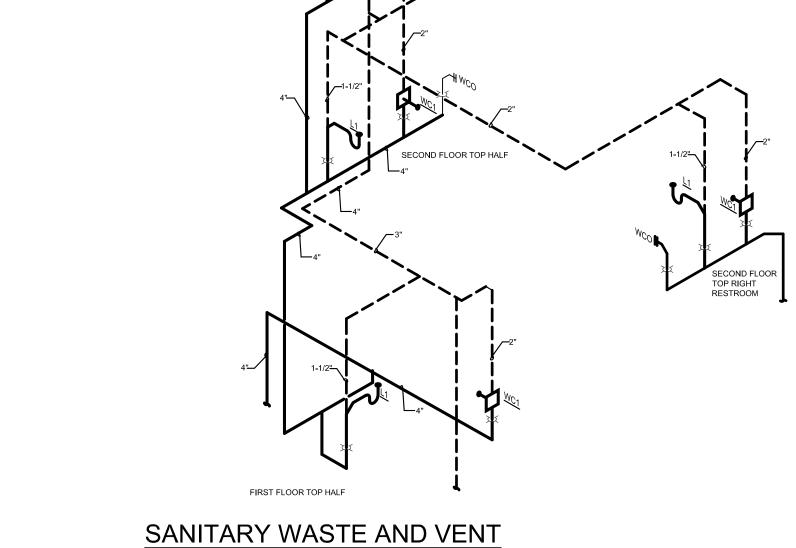
MARCH 11, 2022

FOR CONSTRUCTION

SANITARY WASTE AND VENT

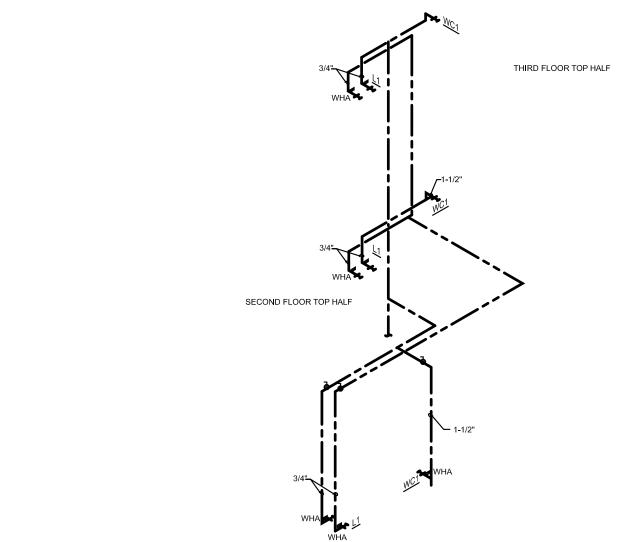


PLUMBING ISOMETRIC RISER DIAGRAM 5 PLUMI P3.04 NO SCALE



DOMESTIC WATER

**DOMESTIC WATER** 



1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

SCALE:

SHEET SIZE 22 x 34 KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A

> MARCH 11, 2022 OF SEQ #

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

FOR

CONSTRUCTION

S<sup>-</sup>



\_ DOMESTIC HOT WATER RETURN FROM CIRCULATION LOOP

DOMESTIC HOT \\_\_\_\_\_\_

THERMOSTATIC-MIXING VALVE

7-DAY TIMECLOCK

FOR OPERATION OF

CIRCULATION PUMP DURING OCCUPIED

WATER SUPPLY

TSMV1

PERIODS -

DOMESTIC HOT ~

PUMP

WATER CIRCULATION

(2 GPM)

CALABRATED -

BALANCING VALVE

UNION (TYP)-

ROLLER PIPE -

SUPPORT

CALIBRATED -

(1/2 GPM)

ROOFTOP AIR -

CONDITIONING

BALANCING VALVE

DOMESTIC COLD / CHECK WATER SUPPLY VALVE ∕−1/2" TO TRAP PRIMER FOR FLOOR DRAIN

ISOLATION VALVE (TYP)

WATER HEATER-

GALVANIZED STEEL —

SAFETY DRAIN PAN

WATER HEATER —

**BELOW WATER** 

HEATER

STAND

4 RTU NATURAL GAS CONNECTION DETAIL
SCALE: NO SCALE

(TYP)

HEAT TRAP \( \)

THERMOMETER

EXPANSION -

TANK; WATTS

DET-5 OR EQUAL

✓ DIELECTRIC UNION

- TEMPERATURE AND PRESSURE

RELIEF VALVE

FULL SIZE DISCHARGE

FROM TEMPERATURE

-FLOOR DRAIN

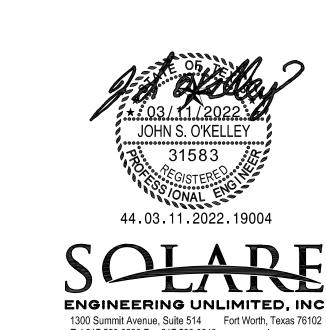
-1/2" TAP FOR

AND PRESSURE

RELIEF VALVE TO

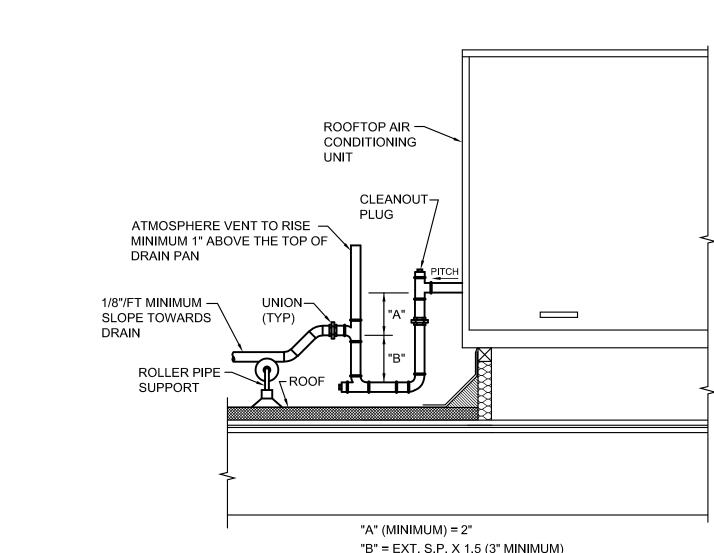
OUTSIDE





NON-FREEZE ROOF HYDRANT DETAIL

"A" (MINIMUM) = 2" "B" = EXT. S.P. X 1.5 (3" MINIMUM) RTU CONDENSATE DRAINAGE DETAIL



3/4" NON-FREEZE POST -HYDRANT ROOF MOUNTING— SYSTEM

**ROOF STRUCTURE** 

DRAIN PAN PITCHED -

TOWARDS TRAP.

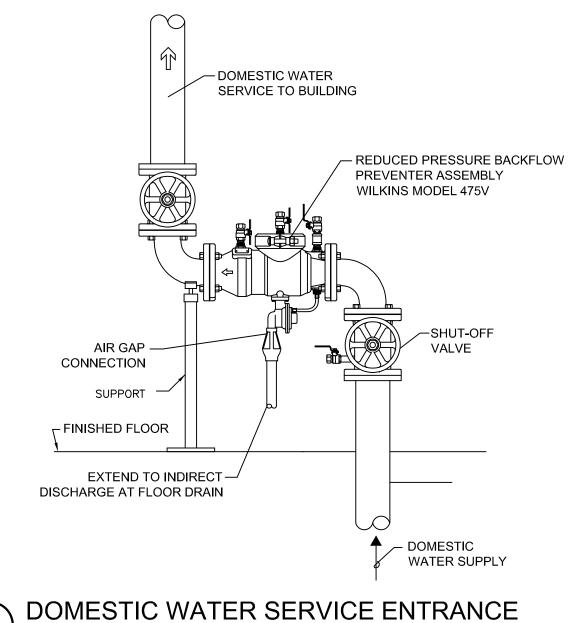
FINISHED ROOF -- SEAL MOUNTING FLANGE TO ROOF PER MANUFACTURERS RECOMMENDATIONS 1" WATER SUPPLY TO POST HYDRANT. ROUTE PIPING ALONG BOTTOM CORD OF ROOF JOIST. PROVIDE 1" SHUT-OFF VALVES AS INDICATED ON PLUMBING FLOOR PLAN

√CLEANOUT PLUG "A" (MINIMUM) = 2" "B" = EXT. S.P. X 1.5 (3" MINIMUM) 1/8"/FT MINIMUM<sup>\_</sup> SLOPE TOWARDS DRAIN CLEANOUT PLUG CONDENSATE DRAINAGE DETAIL

— ATMOSPHERE VENT TO RISE A

DRAIN PAN

MINIMUM 1" ABOVE THE TOP OF



 OMESTIC WATER SERVICE ENT SCALE: NO SCALE
П

RELEASED FOR REFERENCE, OR FACILITY THE AUTHORI REG. # 6843 ANY MODIFICA DRAWING SHAWITH THE TEXARCHITECTUR	COORDINATION MANAGEMENT TY OF KARL ON NOV 23, ATION(S) TO LL BE IN COI KAS BOARD C	I, AND/ UNDER KOMATSU 2021 IHIS MPLIANCE
OURTHO!	Street 77351	ETAILS

SHEET SIZE

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.:

SCALE:

DATE:

SHEET

22 x 34

MARCH 11, 2022

OF SEQ #

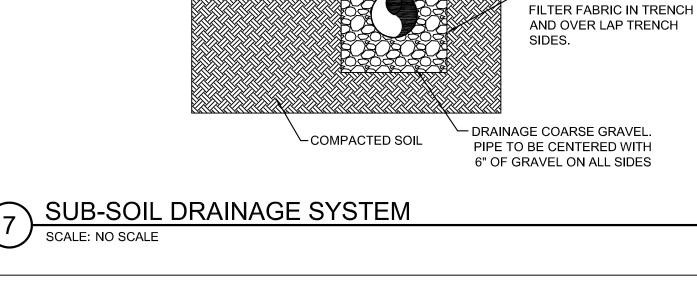
	ISSI
ING IS ON FILE A OF KOMATSU ARG 3880 HULEN ST., THIS ELECTRONIC RELEASED FOR TI REFERENCE, COOF OR FACILITY MAN THE AUTHORITY C REG. # 6843 ON ANY MODIFICATION DRAWING SHALL IF WITH THE TEXAS	CHITECTURE, INC. FORT WORTH, TX. DOCUMENT IS HE PURPOSES OF RDINATION, AND/ AGEMENT UNDER DF KARL KOMATSU NOV 23, 2021 N(S) TO THIS BE IN COMPLIANCE
JSE	

CONSTRUCTION

FOR

S<sup>-</sup>





SECURE RIM WITH -

SCORIATED COVER

(INDICATING "CO")

STEEL REINFORCEMENT,-

LONG SWEEP BEND SAME -

SIZE AS BUILDING DRAIN.

WHERE BUILDING DRAIN IS

GREATER THAN 4"

**REDUCE TO 4" ABOVE FITTING** 

#4 REBAR, 4" CENTER,

EACH WAY

3/4" DRAIN -

FROM ABOVE.

CHROME PLATED ~ ESCUTCHEON

CONNECT DRAIN FROM-ABOVE TO BRANCH

TAILPIECE (JB-PRODUCTS

SCALE: NO SCALE

EXTERIOR GRADE -

TOP OF PIPE TO START AT —

GRADE BEAM

THE BOTTOM OF EXISTING

MODEL 920 OR EQUAL)

**GRADE BEAM** 

CHROME PLATED -

ESCUTCHEON

(TYPICAL)

BRANCH TAILPIECE CONNECTION DETAIL

FINISHED FLOOR

\_12"x12"x6" CONCRETE

CLEAN OUT

SLAB WITH TOP SLOPED

TO DRAIN AWAY FROM

-PROVIDE SANITARY WYE

AND EIGHTH BEND IF MID

RUN CLEANOUT

\_\_\_\_\_\_

FLOOR/GRADE CLEANOUT DETAIL

\_\_LAVATORY

CHROME PLATED

– 4" PERFORATED

FABRIC SOCK.

SUB-SURFACE DRAIN. WRAP

- LAY FLAT STYLE GEOTEXTILE

WITH GEOTEXTILE FILTER

ESCUTCHEON

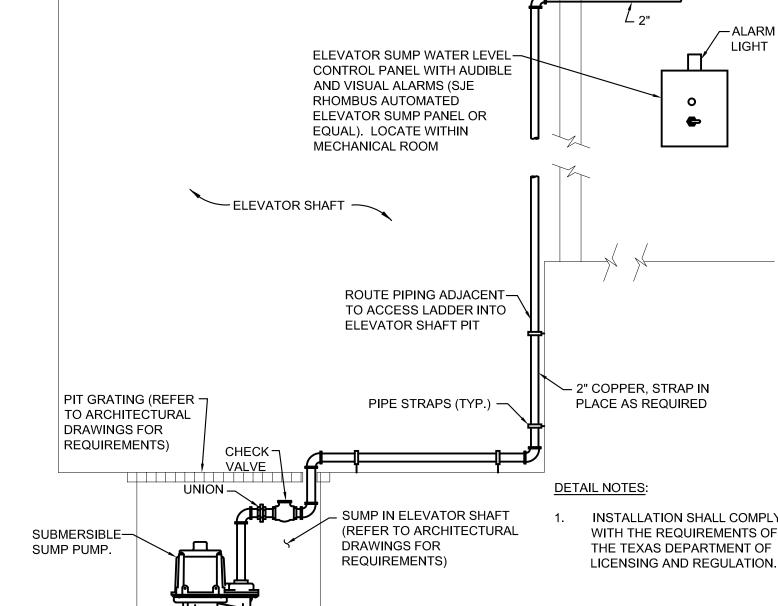
-17 GA. MIN. CHROME PLATED

P-TRAP, WITH CLEANOUT.

CHROME PLATED DUAL

ANGLE STOP AND RISER





SECURE RIM WITH -

SCORIATED COVER

DISHWASHER AIR GAP FITTING IN

SINK DRAINBOARD-

UNDERCOUNTER ICE MAKER DETAIL

FLOOR -

SCALE: NO SCALE

(INDICATING "CO")

STEEL REINFORCEMENT,— #4 REBAR, 4" CENTER,

**EACH WAY** 

\_\_18"x12"x6" CONCRETE

-ADJUSTABLE HOUSING

SIZE PER PLANS, BUT NOT

-SIZE PER PLANS.

- 7/8" RUBBER TUBING FOR DRAINAGE

OF ICE MAKER (VERIFY SIZE WITH

UNDERCOUNTER

ICE MAKER

- MANUFACTURER'S CONDENSATE PUMP

MANUFACTURER)

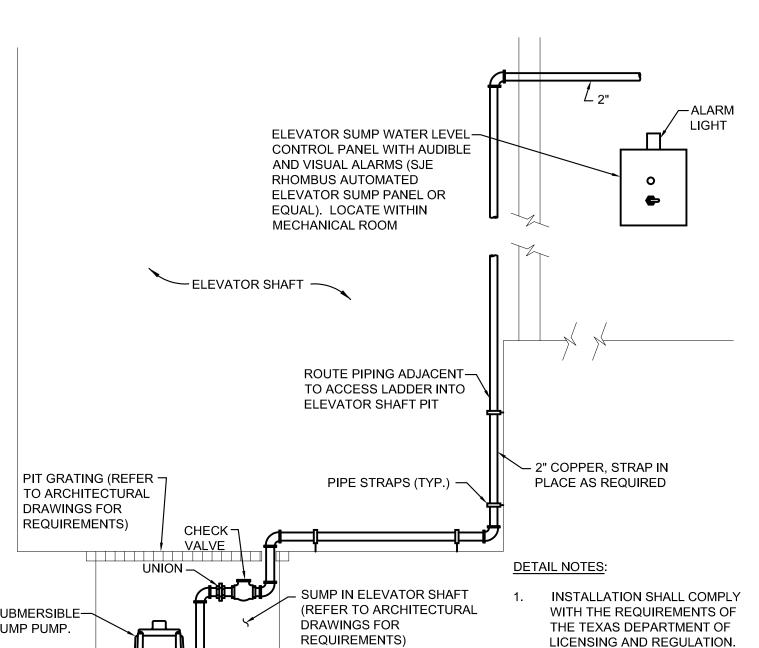
**GREATER THAN 4"** 

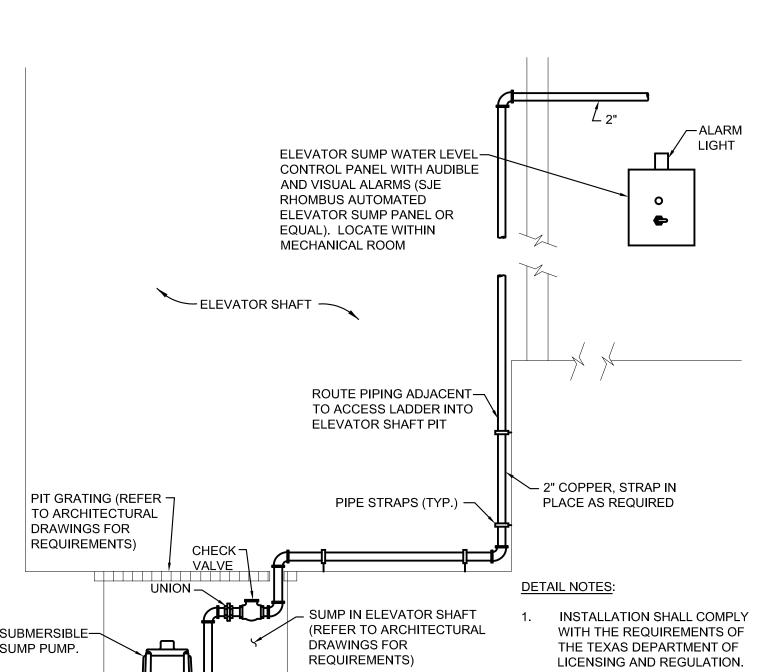
TWO-WAY GRADE CLEANOUT DETAIL

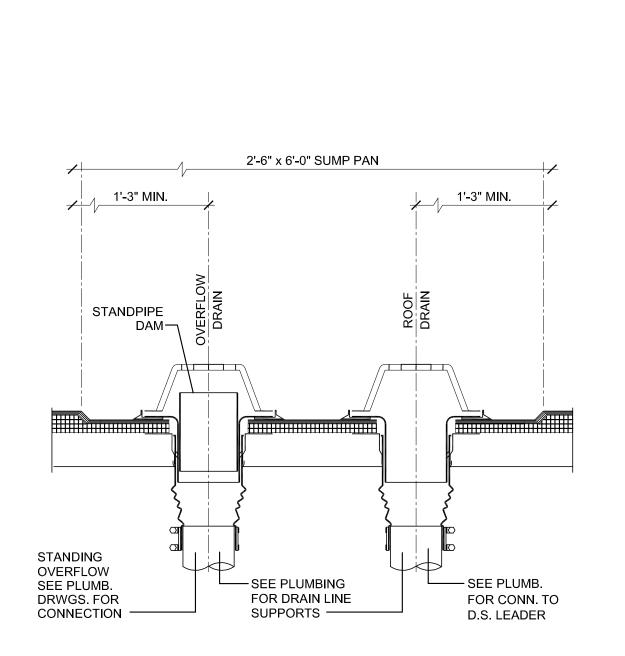
CLEAN OUT

SLAB WITH TOP SLOPED

TO DRAIN AWAY FROM







ROOF DRAIN DETAIL

SCALE: NO SCALE

- PROVIDE EXTENSION IF

WALL PLATE, CHROME PLATED

WITH VANDAL RESISTANT

THREADED BRASS ROD OR

- WALL OPENING SHALL BE 1"

- CLEANOUT TEE W/TAPER

THREADED BRASS PLUG

LARGER THAN PLUG DIAMETER

**TURN 90 DEGREES** AND EXTEND 1-FT BEFORE TERMINATION -

EXTERIOR WALL -

EXTEND 2-INCHES OUTSIDE-OF BUILDING AND COVER

WITH 1/2" MESH SCREEN

GREATER THAN 1"

MACHINE SCREW

WALL CLEANOUT DETAIL

SCALE: NO SCALE

- PROVIDE EXTENSION IF

- WALL PLATE, CHROME PLATED

WITH VANDAL RESISTANT

THREADED BRASS ROD OR

- WALL OPENING SHALL BE 1"

- CLEANOUT TEE W/TAPER

THREADED BRASS PLUG

LARGER THAN PLUG DIAMETER

- COVER WITH 1/2" TYPE 304

/─6"Ø PIPE SLEEVE WITH

1-INCH INSULATION

FINISHED -

FLOOR

─4"Ø NATURAL GAS

TYPICAL GAS PIPING SLEEVE THROUGH BUILDING DETAIL

STAINLESS STEEL MESH SCREEN

GREATER THAN 1"

MACHINE SCREW





COUN POLK SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.:

DATE:

SHEET

MARCH 11, 2022

OF SEQ #

THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

ISSUED

FOR

CONS-

TION

**∽** 

- PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES. FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
- THE DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF CABLING, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE ALL DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC FROM THE ARCHITECTURAL DRAWINGS AND FROM THE EQUIPMENT TO BE FURNISHED. CABLING MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES OR TO AVOID CONFLICTS WITH OTHER TRADES.
- EACH SUBCONTRACTOR SHALL CONFER AND COOPERATE WITH ALL OTHER TRADES TO COORDINATE THEIR WORK. COORDINATION SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO MATERIALS AND EQUIPMENT ROUTED IN CEILING AND WALL CAVITIES, EQUIPMENT ARRANGEMENT IN MECHANICAL SPACES, INCLUDING EQUIPMENT CLEARANCE REQUIREMENTS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS. ETC. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS.
- BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS AND EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR THE CONTRACTORS FAILURE TO
- NEITHER THE OWNER, NOR THE ENGINEER ARE RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
- THE CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS OF TECHNOLOGY EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO THE PURCHASE AND INSTALLATION OF ANY ELECTRICAL GEAR OR CONDUIT.
- SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED AND NON RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL. ALL PENETRATIONS OF ARCHITECTURAL BARRIERS SHALL BE COMPLETELY SEALED AT THE CONCLUSION OF INSTALLATION.
- PROVIDE PROPER BONDING AND GROUNDING OF HORIZONTAL PATHWAYS IN ACCORDANCE WITH THE APPLICABLE ELECTRICAL CODES AND STANDARDS, AND OWNERS CABLING
- IN THE EVENT OF CONFLICTS IN SYMBOLS, THOSE SHOWN HEREON SHALL APPLY TO THE "T"
- 10. ALL TECHNOLOGY WIRING SHALL BE SUPPORTED BY J-HOOKS OR CABLE TRAY PER OWNERS CABLING STANDARDS. PROVIDE J-HOOKS THAT ARE NEC AND TIA LISTED.
- 11. REPLACE CEILING TILE IF DAMAGED.
- 12. PAINT OR REPAIR ANY DAMAGE THAT OCCURS DURING INSTALLATION.

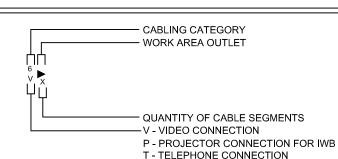
## **LABELING**

- ABELING SHALL CONFORM TO ANSI/TIA/EIA-606(B) STANDARDS. IN ADDITION, PROVIDE THE FOLLOWING: LABEL EACH OUTLET WITH PERMANENT BANDED SELF-ADHESIVE LABEL WITH MINIMUM 3/16 IN. HIGH CHARACTERS. LABELS SHALL BE MACHINE-PRINTED. HAND-LETTERED LABELS SHALL NOT BE ACCEPTED. ACCEPTABLE MANUFACTURERS INCLUDE BRADY AND PANDUIT.
- LABEL EACH CABLE WITH PERMANENT SELF-ADHESIVE LABEL WITH MINIMUM, 1/8 IN. HIGH CHARACTERS, IN THE FOLLOWING LOCATIONS: A. INSIDE RECEPTACLE BOX AT THE WAO LOCATION.
- B. BEHIND THE PATCH PANEL OR PUNCH BLOCK IN ALL EQUIPMENT ROOMS. LABEL THE FACE OF ALL COMMUNICATION PATCH PANELS. PROVIDE FACILITY ASSIGNMENT RECORDS IN A PROTECTIVE COVER AT EACH EQUIPMENT ROOM LOCATION THAT IS SPECIFIC TO THE FACILITIES TERMINATED THEREIN.
- . USE COLOR-CODED LABELS FOR EACH TERMINATION FIELD THAT CONFORMS TO ANSI/TIA/EIA-606(A) STANDARD COLOR CODES FOR TERMINATION BLOCKS.
- LABEL CABLES, OUTLETS, PATCH PANELS, AND PUNCH BLOCKS WITH ROOM NUMBER IN WHICH OUTLET IS LOCATED, FOLLOWED BY A SINGLE LETTER SUFFIX TO INDICATE PARTICULAR OUTLET WITHIN ROOM, I.E., S2107A, S2107B. INDICATE RISER CABLES BY AN R FOLLOWED BY THE PAIR OR CABLE NUMBER.
- FLOOR PLANS SHOWING OUTLET LOCATIONS, TYPE, AND CABLE MARKING SHALL BE PROVIDED TO THE DISTRICT TWO (2) WEEKS PRIOR TO MOVE-INTO ALLOW THE OWNER'S PERSONNEL TO CONNECT AND TEST DISTRICT-PROVIDED EQUIPMENT IN A TIMELY FASHION
- RECORD DOCUMENTS SHALL BE PROVIDED TO THE OWNER IN ELECTRONIC FORMAT UTILIZING CAD SOFTWARE THAT IS ACCEPTABLE TO THE OWNER IN ACCORDANCE WITH THE CONTRACTOR'S AGREEMENT WITHIN FOUR (4) WEEKS OF ACCEPTANCE OF PROJECT BY
- REFERENCE EXAMPLE 1 FOR DETAILS REGARDING THE LABELING PLAN. DATA CLOSET - PATCH PANEL NUMBER IDENTIFIER, PORT NUMBER
- FIBER OPTIC RACEWAY SHALL BE LABELED EVERY IN 25' INTERVALS WITH "DANGER! FIBER OPTIC CABLE"

#### SYMBOL LEGEND

- NEW IWB DATA CONNECTION.
- EXISTING IWB DATA CONNECTION.
- ➤ CAT 6 DATA WALL OUTLET. "X" INDICATES NUMBER OF DATA DROPS AT THAT LOCATION. MOUNT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- EXISTING CAT 6 DATA WALL OUTLET. "X" INDICATES NUMBER OF DATA DROPS AT THAT
- > CAT 6 TELEPHONE OUTLET. "X" INDICATES NUMBER OF TELEPHONE DROPS AT THAT LOCATION.  $^{
  m X}$  MOUNT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- > EXISTING CAT 6 TELEPHONE OUTLET. "X" INDICATES NUMBER OF TELEPHONE DROPS AT THAT
- 🏲 CAT 6 DATA VIDEO DATA DROPS . "X" INDICATES NUMBER OF DATA DROPS AT THAT LOCATION . MOUNT ABOVE CEILING IN A BACK BOX WITH FACE PLATE. TEST END TO END.
- > EXISTING CAT 6 DATA VIDEO DATA DROPS . "X" INDICATES NUMBER OF DATA DROPS AT THAT
- COAX DROP MOUNTED 8' ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. CAT 6 DATA/TELEPHONE OUTLET. "X" INDICATES NUMBER OF DROPS. ONE IS TELEPHONE AND X THE REMAINDER WILL BE DATA DROPS. MOUNT 18" ABOVE FINISHED FLOOR UNLESS
- EXISTING CAT 6 DATA/TELEPHONE OUTLET. "X" INDICATES NUMBER OF DROPS. ONE IS × TELEPHONE AND THE REMAINDER WILL BE DATA DROPS. MOUNT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- BD SECURITY BEAM DETECTOR
- CEILING DATA, AP INDICATES WIRELESS ACCESS POINT
- CEILING DATA, CAM INDICATES CAMERA. UNLESS OTHERWISE INDICATED
- CR CARD ACCESS READER REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS
- DB DOOR BELL REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS
- DC DOOR CONTACTS, SECURITY ALARM
- EB EXIT DEVICE BUTTON
- EL ELECTRONIC LOCK
- EM ELECTRIFIED MORTISE LOCK
- ET ELECTRIFIED TRIM
- EX-CAM EXTERIOR CAMERA REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS M MEDIA PASS THRU AV
- MC MAGNETIC CONTACTOR, SIZE, COIL VOLTAGE AND
- MD SECURITY MOTION DETECTOR
- PIWB PORTABLE INTERACTIVE WHITE BOARD, OWNER FURNISHED
- POE POWER OVER ETHERNET
- RE DOOR REQUEST-TO-EXIT
- SCR MOTORIZED PROJECTION SCREEN
- THERMOSTAT OUTLET BOX (BY OTHERS)
- TC TIME CLOCK TR TIME CLOCK REPEATER
- VC VOLUME CONTROL REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS
- VI VIDEO INTERCOM AT 44" AFF UNLESS NOTED OTHERWISE
- VID CEILING MOUNTED DIGITAL PROJECTOR
- WAO WALL AREA OUTLET, MOUNT AT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED WG WINDOW CONTACT
- DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)

# DRAWING/DETAIL REFERENCE



# STANDARD JACK AND PATCH CABLE COLORS

BLANK - DATA CONNECTION

1.	CATEGORY 5E - COMPUTER OR OTHER	WHITE
2.	CATEGORY 6 - COMPUTER OR OTHER	YELLOW
3.	WIRELESS ACCESS POINT - NON-ERATE	BLUE
4.	WIRELESS ACCESS POINT - ERATE	GREEN
5.	CATEGORY 5E - SECURITY CAMERAS	WHITE
6.	CATEGORY 6 - SECURITY CAMERAS	YELLOW

#### **SECURITY GENERAL NOTES**

- VERIFY EXACT LOCATION WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO INSTALLATION. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY.
- ALL SECURITY CABLING PATHWAYS OUTSIDE OF SECURITY ROOMS SHALL BE BY DIV 16. ALL CONDUIT RUNS SHALL BE FROM THE INSTALLED SECURITY DEVICE LOCATION TO THE NEAREST ACCESSIBLE CEILING SPACE.
- CONTRACTOR SHALL COORDINATE WITH THE TELECOMMUNICATIONS CONTRACTOR AND CONSULT THE TELECOMMUNICATIONS DRAWINGS FOR DETAILS ON J-HOOKS TO BE UTILIZED.
- PROVIDE CONDUIT FOR ALL SECURITY CABLING LEAVING THE CABLE TRAY. ALL NECESSARY MEANS TO PROTECT ALL SECURITY CABLING AND CONNECTORS FROM MECHANICAL DAMAGE, DUST AND DIRT DURING CONSTRUCTION.
- FIBER OPTIC BACKBONE/RISER/HORIZONTAL SECURITY CABLE SHALL BE INSTALLED IN INNERDUCT WHEN PLACED IN CONDUIT OR ON LADDER RUNWAY OR "J" HOOKS.
- DATA NETWORK CONNECTIVITY OF DIGITAL VIDEO MANAGEMENT SYSTEM TO LAN/WAN SHALL BE BY TELECOM CONTRACTOR. SECURITY CONTRACTOR SHALL COORDINATE WITH TELECOM CONTRACTOR AND ITS PERSONNEL FOR
- WALL PENETRATIONS FOR SECURITY CABLING SHALL BE SLEEVED WITH A MINIMUM OF 1" SLEEVES. SLEEVES SHALL BE PROPERLY FIRESTOPPED USING HILTI FIRE STOP IF IT IS THROUGH A FIRE RATED WALL.
- THIS DRAWING IS DIAGRAMMATIC IN NATURE.
- COORDINATION DRAWING SUBMITTAL SHALL INCLUDE IT CABLE TRAYS AND OR J-HOOKS, DUCTWORK, PIPING, LIGHTING, DOMESTIC WATER PIPING, DRAINAGE PIPING, AND FIRE SPRINKLER OVERLAYED ON THE REFLECTED CEILING PLAN, NEW INTERIOR LAYOUT AND EXISTING BUILDING STRUCTURE TO COORDINATE UTILITIES WITHIN THE CONFINEMENTS OF THE EXISTING BUILDING. SHOP DRAWINGS SHALL BE PROVIDED AT 1/4" = 1'-0" SCALE.

## **AUDIO/VIDEO GENERAL NOTES**

- ALL CONDUIT FOR LOW VOLTAGE WIRING IS EMT OF 1" UNLESS NOTED OTHERWISE AND TO BE SUPPLIED WITH 200 LB. NYLON PULL STRING. THE MAXIMUM LENGTH OF CONDUIT WITHOUT AN ACCESSIBLE JUNCTION BOX IS 100'. A MAXIMUM OF 2 BENDS IN CONDUIT WITHOUT AN INTERMEDIATE JUNCTION BOX. ALL INTERMEDIATE PULL BOXES TO REMAIN ACCESSIBLE BEFORE AND AFTER COMPLETION OF CONSTRUCTION. CONDUITS SHALL BE ALIGNED IN PULL BOXES FOR STRAIGHT PULL THROUGH. PULL BOXES ARE NOT TO BE USED IN LIEU OF 90 DEGREE ELBOWS.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING
- A. PROVIDE AND INSTALL ALL CONDUIT, APPROPRIATE NYLON PULL STRING, JUNCTION BOXES, FLOOR BOXES, WIREWAYS, LIGHTING, BREAKER PANELS, AC WIRING, POWER RECEPTACLES, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE COMPLETE AND FUNCTIONAL AUDIO VISUAL SYSTEMS, UNLESS NOTED OTHERWISE
- B. PROVIDE GROUND BUSSBAR FOR EACH AUDIO VISUAL EQUIPMENT RACK INCLUDING WALL MOUNTED, FLOOR STANDING AND MILL WORK RACKS. PROVIDE A MINIMUM OF #4 AWG GROUND CABLE FROM EACH AV RACK TO EARTH GROUND.
- THE AUDIO VISUAL CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING SCOPE OF WORK:

FURNISH A COMPLETE AND OPERATIONAL AUDIO SYSTEM.

A. PROVIDE AND INSTALL ALL VIDEO DEVICES, INCLUDING CAMERAS, PROJECTORS, MONITORS, SWITCHERS, DISTRIBUTION AMPLIFIERS, CONNECTORS, WIRING AND OTHER VIDEO EQUIPMENT AS NECESSARY OR AS REQUIRED TO FURNISH A COMPLETE AND OPERATIONAL VIDEO SYSTEM.

B. PROVIDE AND INSTALL ALL AUDIO DEVICES, INCLUDING MICROPHONES,

MIXERS, SIGNAL PROCESSING EQUIPMENT, AMPLIFIERS, SPEAKERS,

INTERCONNECTION LOW-VOLTAGE CABLE, CONNECTORS AND HARDWARE,

AND OTHER AUDIO VISUAL EQUIPMENT AS NECESSARY OR AS REQUIRED TO

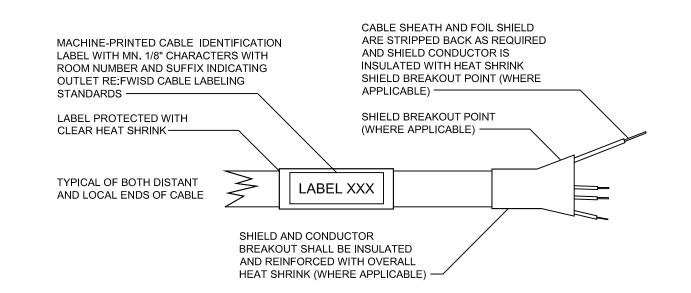
- PROGRAMMING, INTERCONNECTING LOW-VOLTAGE CABLE, CONNECTORS AND HARDWARE, AND OTHER CONTROL EQUIPMENT AS NECESSARY OR AS REQUIRED TO FURNISH A COMPLETE AND OPERATIONAL AUDIO-VISUAL
- D. PROVIDE, INSTALL AND TERMINATE ALL HIGH VOLTAGE WIRING WITHIN AUDIO VISUAL SYSTEM EQUIPMENT RACKS IN ACCORDANCE WITH APPLICABLE CODE AND ACCEPTED INDUSTRY STANDARDS.

C. PROVIDE AND INSTALL ALL AUDIO VISUAL RELATED CONTROL SYSTEM

CARDS, MAINFRAME CHASSIS, CONTROL SYSTEM SOFTWARE AND

DEVICES, INCLUDING WIRED AND WIRELESS CONTROL PANELS, ASSOCIATED

- OTHER APPLICABLE SUBCONTRACTORS ARE RESPONSIBLE FOR PROVIDING AND INSTALLING THE FOLLOWING:
- A. STRUCTURAL WORK, GLAZING, WALL OPENINGS, PLATFORMS, RAILINGS, HVAC SYSTEMS, MILLWORK AND FINISHES.
- B. CABLE TV SERVICE AND RELATED CABLING AND CONNECTIONS, TV RELATED ANTENNA SYSTEMS AND ELECTRICAL GROUNDING AS REQUIRED FOR CONNECTIONS OF AUDIO-VISUAL DEVICES.
- C. STRUCTURAL SUPPORT FOR ANY SUSPENDED AUDIO-VISUAL
- CONDUITS SHALL NOT EXCEED 180 DEGREE OF BENDS BETWEEN PULL POINTS. INSTALL PULL BOXES AS REQUIRED TO MEET THIS REQUIREMENT. DO NOT CHANGE DIRECTION OR BEND WITHIN A JUNCTION BOX OR PULL
- THIS DRAWING IS DIAGRAMMATIC IN NATURE.
- COORDINATION DRAWING SUBMITTAL SHALL INCLUDE IT CABLE TRAYS, DUCTWORK, PIPING, LIGHTING, DOMESTIC WATER PIPING, DRAINAGE PIPING, AND FIRE SPRINKLER OVERLAYED ON THE REFLECTED CEILING PLAN, NEW INTERIOR LAYOUT AND EXISTING BUILDING STRUCTURE TO COORDINATE UTILITIES WITHIN THE TIGHT CONFINEMENTS OF THIS EXISTING BUILDING. SHOP DRAWINGS SHALL BE PROVIDED AT 1/4" = 1'-0" SCALE.



SHIELDED AND NON-SHIELDED CABLE END LABELING DETAIL





22 x 34 MARCH 11, 2022 SHEET 1 OF SEQ # 8

OR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES

3880 HILEN ST FORT WORTH T THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND

REG. # 6843 ON NOV 23, 2021

ANY MODIFICATION(S) TO THIS

OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

ARCHITECTURAL EXAMINERS' RULES.

3. THE DISTANCE FOR THE SURVEILLANCE DATA DROPS HAVE 20 FT. SERVICE LOOP IN MDF/IDF ROOMS INCLUDED IN THE 12. THE CONTRACTOR SHALL PATCH ALL EQUIPMENT CORDS AT THE WORKSTATION. THE CORD SHALL BE UNPACKAGED,

5. THE CEILING/STRUCTURE HEIGHTS VARY. FIELD VERIFY EXACT HEIGHTS.

CONSTABLE

CLERK STORAGE 031

6. REFER TO THE STANDARD JACK COLOR LEGEND FOR ALL JACKS.

7. ALL PATCH CABLES SHALL MATCH THE JACK COLOR.

OFFICE 004

MAIL/VENDING

CLERK STORAGE 032

TECHNOLOGY BASEMENT PLAN

1/8' = 1' - 0'

8. AT THE MDF AND IDF ALL CATEGORY 6 PATCH CORDS SHALL HAVE EITHER A 5 FOOT OR 7 FOOT SERVICE LOOP. A RATIO OF 80% OF THE PATCH CORDS IN THIS ENVIRONMENT SHALL BE 5 FEET IN LENGTH AND 20% SHALL BE 7 FEET IN 14. DRAWINGS ARE BASED ON LIMITED SITE VISITS AND AS BUILT DRAWINGS. IF ANY CONFLICTS OR QUESTIONS ARISE LENGTH FOR EACH NEW CABLE INSTALLED. REFER TO THE STANDARD JACK COLOR LEGEND FOR THE COLORS OF PATCH CABLES

PROVIDE A 10' CATEGORY 6 PATCH CORD SERVICE LOOP AT ALL WORKSTATIONS UNLESS OTHERWISE SPECIFIED IN

■2 RK1 RK2

WOMENS RR 028

\\_\(7\(\)8\\\

WRITING BY OWNER.

WAITING 011

CLOSET 012

(PUMP RM)

B (1)

SUPPLIES

10. CATEGORY 6 PATCH CABLES SHALL BE BLACK IN COLOR.

11. THE CONTRACTOR SHALL PATCH AND DRESS ALL PATCH CORDS WITHIN THE HC, IC OR MC. EACH VOICE AND DATA PORT SHALL BE PATCHED.

UNTIED, AND PLUGGED INTO THE DATA PORT FOR USE BY THE PC INTEGRATOR.

13. THE CONTRACTOR SHALL PATCH AND DRESS EACH VOICE-PORT TO THE APPROPRIATE SWITCH-TAIL PORT. THE OWNER WILL PROVIDE A CUT-SHEET INDICATING WHICH SWITCH-TAIL IS ALLOCATED TO EACH VOICE PORT. THE CONTRACTOR SHALL PROVIDE A "CUT-SHEET" DOCUMENTING THE WORKSTATION-TO-LAN/PBX PORT ASSIGNMENTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE ACCURACY OF THIS WORKSHEET UNTIL PROJECT

CONTRACTOR IS TO DOCUMENT AND PREPARE AN RFI AND SUBMIT TO ARCHITECT FOR REVIEW PURPOSES.

15. COORDINATE EXACT DATA DROP MOUNTING LOCATION(S) AND ORIENTATION(S) WITHIN SPACE WITH OWNER'S TECHNOLOGY REPRESENTATIVE.

CLERK SUPPLIES
018

CLERK PRINT'G 017

COUNTY CLERK

(12)

CLERK STUDY 022

(3) DC -

(1) PROVIDE CABLE FROM DOOR BELL TO CENTRALLY LOCATED BELL IN THE

CONTRACTOR TO PROVIDE 3/4" CONDUIT FROM MDF TO CAMERAS.

PROVIDE 4 CONDUCTOR CABLE FROM DOOR POSITION SWITCHES TO MDF ROOM. PROVIDE DOOR HARDWARE FOR DOOR AND CARD READER. PROVIDE DOOR POSITION SWITCH TO INTERFACE WITH SECURITY SYSTEM. PROVIDE ADEQUATE SIZED TRANSFORMER AND ELECTRONIC DOOR COORDINATOR FOR PROPER INSTALLATION. REFER TO ELECTRICAL SHEETS FOR POWER. REFER TO DOOR HARDWARE SPECIFICATION 08 71 00A. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION. REFER TO T601 FOR DETAIL.

4 PROVIDE BACKBOX AND DATA DROPS FOR EXTERIOR CAMERAS. TEST END TO END.

PROVIDE 24 STRANDS OM4 FIBER AND 12 PAIR CATEGORY 6 COPPER TO MDF ROOM.

ROUTE 6 STRANDS UP TO THE 1ST FLOOR, 6 STRANDS UP TO THE 2ND FLOOR AND 6 STRANDS UP TO THE 3RD FLOOR.

PROVIDE 2 - 2" CORES WITH SLEEVE UP TO 1ST FLOOR. CONTRACTOR SHALL FIELD VERIFY SLAB CORES DO NOT CONFLICT WITH BEAMS PRIOR TO CORING. CORE HOLES SHALL BE LOCATED IN SLAB ONLY AND CONTRACTORS SHALL CONFIRM LOCATIONS FROM UNDERSIDE OF FLOOR WITHIN THE CEILING SPACE. IN ADDITION, CONTRACTOR SHALL USE FERROSCAN TO LOCATE CORES BETWEEN EXISTING SLAB REINFORCING.

(9) REINSTALL OWNER PROVIDED EQUIPMENT AND DEVICES.

PROVIDE CONDUCTORS FOR EXIT DEVICE TO DOOR HARDWARE. REFER TO THE DOOR HARDWARE SPECIFICATIONS.

(11) LOCATION OF REINSTALLED PANIC DEVICE FROM DEMOLITION PHASE.

\* - DENOTES DATA DROP WITH SHALLOW WALL BOX. ASSOCIATED CONDUIT TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH AND SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULLY CONCEALED FROM VIEW. REFER TO



44.03.11.2022.19004 ENGINEERING UNLIMITED, INC 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

ROUTED BACK TO THE MDF ROOM.

VERIFY EXACT LOCATION OF ALL COMPONENTS AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE

LOCATION AND POSITIONING ONLY. ALL SECURITY CABLING PATHWAYS OUTSIDE OF SECURITY ROOMS SHALL BE BY DIV 16. ALL CONDUIT RUNS SHALL BE FROM THE INSTALLED SECURITY DEVICE LOCATION TO THE NEAREST ACCESSIBLE CEILING SPACE, FURR DOWN OR STRATEGICALLY COORDINATED AREA AND

**SECURITY GENERAL NOTES** 

CONTRACTOR SHALL COORDINATE WITH THE TELECOMMUNICATIONS CONTRACTOR AND CONSULT THE TELECOMMUNICATIONS DRAWINGS FOR DETAILS ON CABLE PATHWAYS TO BE UTILIZED.

PROVIDE ALL NECESSARY MEANS TO PROTECT ALL SECURITY CABLING AND CONNECTORS FROM MECHANICAL DAMAGE, DUST AND DIRT DURING CONSTRUCTION.

FIBER OPTIC BACKBONE/RISER/HORIZONTAL SECURITY CABLE SHALL BE INSTALLED IN INNERDUCT WHEN PLACED IN CONDUIT OR ON "J" HOOKS.

DATA NETWORK CONNECTIVITY OF DIGITAL VIDEO MANAGEMENT SYSTEM TO LAN/WAN SHALL BE BY TELECOM CONTRACTOR. SECURITY CONTRACTOR SHALL COORDINATE WITH TELECOM CONTRACTOR AND ITS PERSONNEL FOR IP ADDRESSES.

J HOOK SUPPORTS SHALL RUN PARALLEL TO OR BE ATTACHED TO TELECOM CABLE TRAY WHERE POSSIBLE. SUPPORT SECURITY CABLING AT INTERVALS OF NO GREATER THAN FIVE FEET APART.

WALL PENETRATIONS FOR SECURITY CABLING SHALL BE SLEEVED WITH A MINIMUM OF 1" SLEEVES. SLEEVES SHALL BE PROPERLY FIRESTOPPED USING HILTI FIRE STOP IF IT IS THROUGH A FIRE RATED

# NOTES BY SYMBOL "#"

CONS

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC.

3880 HULEN ST., FORT WORTH, T

REG. # 6843 ON NOV 23, 2021

ARCHITECTURAL EXAMINERS' RULES.

ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

SHEET SIZE

SCALE:

DATE:

22 x 34

1/8" - 1'-0"

MARCH 11, 2022

KAI JOB NUMBER: 2017.171B

SHEET 2 OF SEQ#

SPECIFICATIONS NO.:

THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

CLERKS OFFICE. COORDINATE WITH OWNER PRIOR TO INSTALLATION.

PROVIDE CATEGORY 6 CABLE FROM CAMERAS TO MDF. ELECTRICAL

PROVIDE A/C PLYWOOD WITH FIRE RETARDANT PAINT. SERVICE PROVIDER TO RELOCATE DEMARCATION TO THIS LOCATION. PROVIDE GROUNDING BUS BAR WITH #6 AWG BACK TO BUILDING MAIN GROUNDING

DETAILS 4A, 4B AND 4C ON SHEET T6.01.

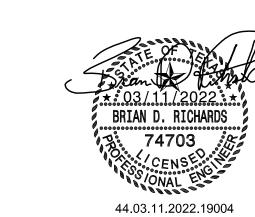
1/8"=1'-0"

- ALL CABLE LENGTHS ARE APPROXIMATE LENGTHS. CONTRACTOR SHALL VERIFY EXACT CABLE LENGTHS REQUIRED.
- THE DISTANCE FOR THE DATA DROPS HAVE A 10 FT. SERVICE LOOP IN THE IDF ROOM AND 1 FT. SERVICE LOOP AT WORK AREA OUTLET INCLUDED IN THE CALCULATION. USE VELCRO TO TIE SERVICE LOOP UP ABOVE THE LADDER TRAY AND CEILING. PROPERLY STORE AND SECURE SERVICE LOOPS TO AVOID ENTANGLEMENT HAZARDS AND PROTECT FROM PHYSICAL
- THE DISTANCE FOR THE SURVEILLANCE DATA DROPS HAVE 20 FT. SERVICE LOOP IN MDF/IDF ROOMS INCLUDED IN THE CALCULATION.
- THE CEILING/STRUCTURE HEIGHTS VARY. FIELD VERIFY EXACT HEIGHTS.
- 6. REFER TO THE STANDARD JACK COLOR LEGEND FOR ALL JACKS.
- AT THE MDF AND IDF ALL CATEGORY 6 PATCH CORDS SHALL HAVE EITHER A 5 FOOT OR 7 FOOT SERVICE LOOP. A RATIO OF 80% OF THE PATCH CORDS IN THIS ENVIRONMENT SHALL BE 5 FEET IN LENGTH AND 20% SHALL BE 7 FEET IN LENGTH FOR EACH NEW CABLE INSTALLED. REFER TO THE STANDARD JACK COLOR LEGEND FOR THE COLORS OF PATCH CABLES
- PROVIDE A 10' CATEGORY 6 PATCH CORD SERVICE LOOP AT ALL WORKSTATIONS UNLESS OTHERWISE SPECIFIED IN WRITING BY OWNER.
- 10. CATEGORY 6 PATCH CABLES SHALL BE BLACK IN COLOR.
- 11. THE CONTRACTOR SHALL PATCH AND DRESS ALL PATCH CORDS WITHIN THE HC, IC OR MC. EACH VOICE AND DATA PORT SHALL BE PATCHED.
- 12. THE CONTRACTOR SHALL PATCH ALL EQUIPMENT CORDS AT THE WORKSTATION. THE CORD SHALL BE UNPACKAGED, UNTIED, AND PLUGGED INTO THE DATA PORT FOR USE BY THE PC INTEGRATOR.
- 13. THE CONTRACTOR SHALL PATCH AND DRESS EACH VOICE-PORT TO THE APPROPRIATE SWITCH-TAIL PORT. THE OWNER WILL PROVIDE A CUT-SHEET INDICATING WHICH SWITCH-TAIL IS ALLOCATED TO EACH VOICE PORT. THE CONTRACTOR SHALL PROVIDE A "CUT-SHEET" DOCUMENTING THE WORKSTATION-TO-LAN/PBX PORT ASSIGNMENTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE ACCURACY OF THIS WORKSHEET UNTIL PROJECT ACCEPTANCE.
- DRAWINGS ARE BASED ON LIMITED SITE VISITS AND AS BUILT DRAWINGS. IF ANY CONFLICTS OR QUESTIONS ARISE CONTRACTOR IS TO DOCUMENT AND PREPARE AN RFI AND SUBMIT TO ARCHITECT FOR REVIEW PURPOSES.
- 15. COORDINATE EXACT DATA DROP MOUNTING LOCATION(S) AND ORIENTATION(S) WITHIN SPACE WITH OWNER'S TECHNOLOGY REPRESENTATIVE.

# **SECURITY GENERAL NOTES**

- VERIFY EXACT LOCATION OF ALL COMPONENTS AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY.
- ALL SECURITY CABLING PATHWAYS OUTSIDE OF SECURITY ROOMS SHALL BE BY DIV 16. ALL CONDUIT RUNS SHALL BE FROM THE INSTALLED SECURITY DEVICE LOCATION TO THE NEAREST ACCESSIBLE CEILING SPACE BACK TO THE IDF ROOM.
- CONTRACTOR SHALL COORDINATE WITH THE TELECOMMUNICATIONS CONTRACTOR AND CONSULT THE TELECOMMUNICATIONS DRAWINGS FOR DETAILS ON PATHWAYS TO BE UTILIZED.
- PROVIDE ALL NECESSARY MEANS TO PROTECT ALL SECURITY CABLING AND CONNECTORS FROM MECHANICAL DAMAGE, DUST AND DIRT DURING CONSTRUCTION.
- FIBER OPTIC BACKBONE/RISER/HORIZONTAL SECURITY CABLE SHALL BE INSTALLED IN INNERDUCT WHEN PLACED IN CONDUIT OR ON "J" HOOKS.
- DATA NETWORK CONNECTIVITY OF DIGITAL VIDEO MANAGEMENT SYSTEM TO LAN/WAN SHALL BE BY TELECOM CONTRACTOR. SECURITY
- J HOOK SUPPORTS SHALL RUN PARALLEL TO OR BE ATTACHED TO TELECOM CABLE TRAY WHERE POSSIBLE. SUPPORT SECURITY CABLING AT INTERVALS
- OF NO GREATER THAN FIVE FEET APART. WALL PENETRATIONS FOR SECURITY CABLING SHALL BE SLEEVED WITH A

MINIMUM OF 1" SLEEVES. SLEEVES SHALL BE PROPERLY FIRESTOPPED USING HILTI FIRE STOP IF IT IS THROUGH A FIRE RATED WALL.



ENGINEERING UNLIMITED, INC 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com 1/8"=1'-0"

SHEET SIZE 22 x 34 SCALE: 1/8" - 1'-0" KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: DATE: MARCH 11, 2022 SHEET 3 OF SEQ#

TION

CONS

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC.

3880 HULEN ST., FORT WORTH, TX THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

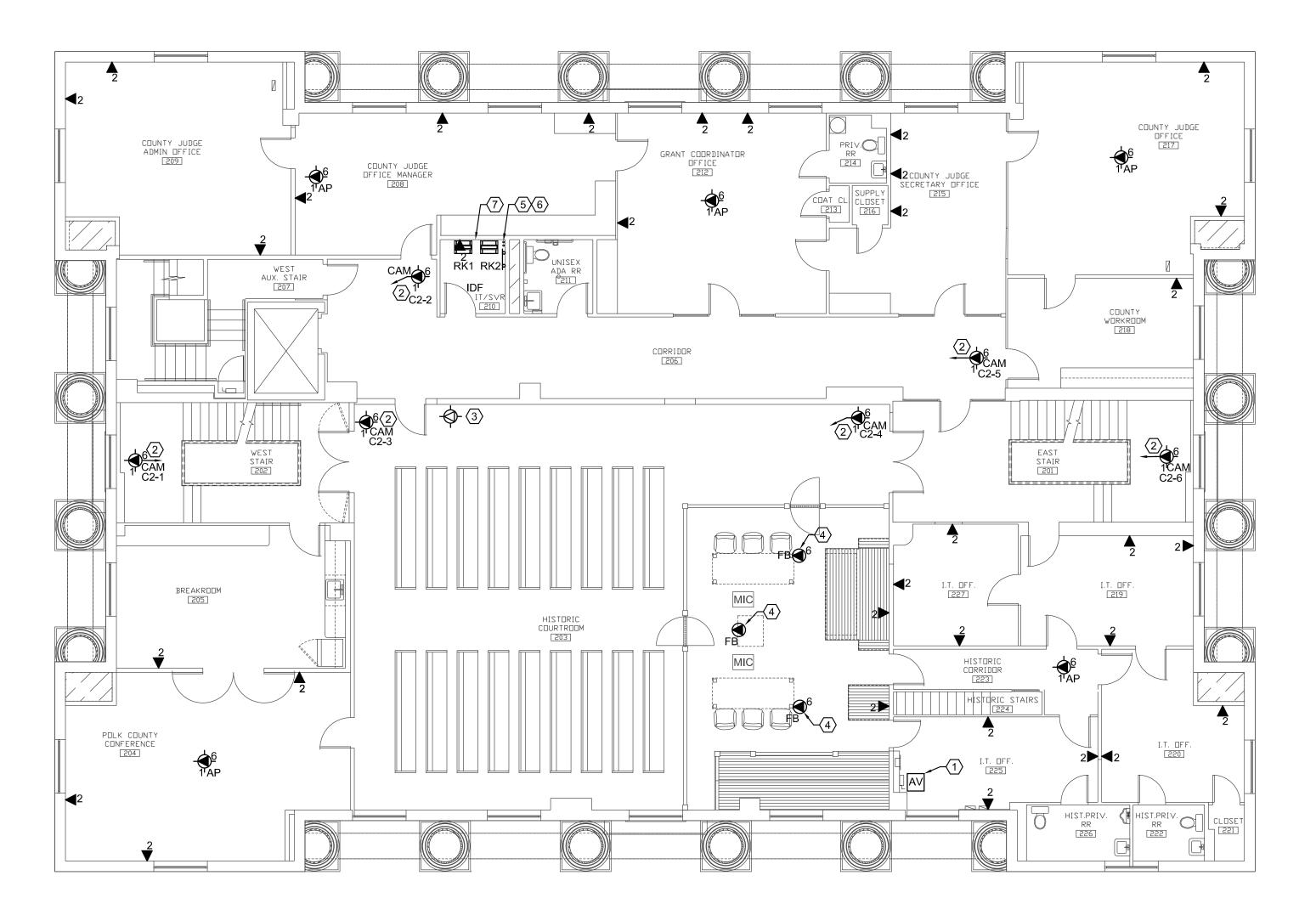
DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

ARCHITECTURAL EXAMINERS' RULES.

REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS

- 1. ALL CABLE LENGTHS ARE APPROXIMATE LENGTHS. CONTRACTOR SHALL VERIFY EXACT CABLE LENGTHS REQUIRED.
- 2. THE DISTANCE FOR THE DATA DROPS HAVE A 10 FT. SERVICE LOOP IN THE IDF ROOM AND 1 FT. SERVICE LOOP AT WORK AREA OUTLET INCLUDED IN THE CALCULATION. USE VELCRO TO TIE SERVICE LOOP UP ABOVE THE LADDER TRAY AND CEILING. PROPERLY STORE AND SECURE SERVICE LOOPS TO AVOID ENTANGLEMENT HAZARDS AND PROTECT FROM PHYSICAL DAMAGE.
- 3. THE DISTANCE FOR THE SURVEILLANCE DATA DROPS HAVE 20 FT. SERVICE LOOP IN MDF/IDF ROOMS INCLUDED IN THE 12. THE CONTRACTOR SHALL PATCH ALL EQUIPMENT CORDS AT THE WORKSTATION. THE CORD SHALL BE UNPACKAGED, CALCULATION.
- 5. THE CEILING/STRUCTURE HEIGHTS VARY. FIELD VERIFY EXACT HEIGHTS.
- 6. REFER TO THE STANDARD JACK COLOR LEGEND FOR ALL JACKS.
- 7. ALL PATCH CABLES SHALL MATCH THE JACK COLOR.
- 8. AT THE MDF AND IDF ALL CATEGORY 6 PATCH CORDS SHALL HAVE EITHER A 5 FOOT OR 7 FOOT SERVICE LOOP. A LENGTH FOR EACH NEW CABLE INSTALLED. REFER TO THE STANDARD JACK COLOR LEGEND FOR THE COLORS OF PATCH CABLES.
- 9. PROVIDE A 10' CATEGORY 6 PATCH CORD SERVICE LOOP AT ALL WORKSTATIONS UNLESS OTHERWISE SPECIFIED IN

- WRITING BY OWNER.
- 10. CATEGORY 6 PATCH CABLES SHALL BE BLACK IN COLOR.
- 11. THE CONTRACTOR SHALL PATCH AND DRESS ALL PATCH CORDS WITHIN THE HC, IC OR MC. EACH VOICE AND DATA PORT SHALL BE PATCHED.
- UNTIED, AND PLUGGED INTO THE DATA PORT FOR USE BY THE PC INTEGRATOR.
- 13. THE CONTRACTOR SHALL PATCH AND DRESS EACH VOICE-PORT TO THE APPROPRIATE SWITCH-TAIL PORT. THE OWNER WILL PROVIDE A CUT-SHEET INDICATING WHICH SWITCH-TAIL IS ALLOCATED TO EACH VOICE PORT. THE CONTRACTOR SHALL PROVIDE A "CUT-SHEET" DOCUMENTING THE WORKSTATION-TO-LAN/PBX PORT ASSIGNMENTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE ACCURACY OF THIS WORKSHEET UNTIL PROJECT ACCEPTANCE.
- RATIO OF 80% OF THE PATCH CORDS IN THIS ENVIRONMENT SHALL BE 5 FEET IN LENGTH AND 20% SHALL BE 7 FEET IN 14. DRAWINGS ARE BASED ON LIMITED SITE VISITS AND AS BUILT DRAWINGS. IF ANY CONFLICTS OR QUESTIONS ARISE CONTRACTOR IS TO DOCUMENT AND PREPARE AN RFI AND SUBMIT TO ARCHITECT FOR REVIEW PURPOSES.
  - 15. COORDINATE EXACT DATA DROP MOUNTING LOCATION(S) AND ORIENTATION(S) WITHIN SPACE WITH OWNER'S TECHNOLOGY REPRESENTATIVE.



1 TECHNOLOGY 2ND FLOOR PLAN

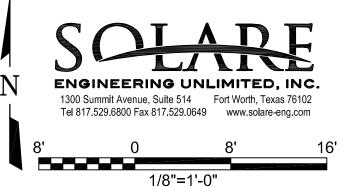
1/8' = 1' - 0'

## **SECURITY GENERAL NOTES**

- VERIFY EXACT LOCATION OF ALL COMPONENTS AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY.
- 2. ALL SECURITY CABLING PATHWAYS OUTSIDE OF SECURITY ROOMS SHALL BE BY DIV 16. ALL CONDUIT RUNS SHALL BE FROM THE INSTALLED SECURITY DEVICE LOCATION TO THE NEAREST ACCESSIBLE CEILING SPACE BACK TO THE IDF ROOM.
- CONTRACTOR SHALL COORDINATE WITH THE TELECOMMUNICATIONS CONTRACTOR AND CONSULT THE TELECOMMUNICATIONS DRAWINGS FOR DETAILS ON PATHWAYS TO BE UTILIZED.
- PROVIDE ALL NECESSARY MEANS TO PROTECT ALL SECURITY CABLING AND CONNECTORS FROM MECHANICAL DAMAGE, DUST AND DIRT DURING CONSTRUCTION.
- FIBER OPTIC BACKBONE/RISER/HORIZONTAL SECURITY CABLE SHALL BE INSTALLED IN INNERDUCT WHEN PLACED IN CONDUIT OR ON "J" HOOKS.
- DATA NETWORK CONNECTIVITY OF DIGITAL VIDEO MANAGEMENT SYSTEM TO LAN/WAN SHALL BE BY TELECOM CONTRACTOR. SECURITY CONTRACTOR SHALL COORDINATE WITH TELECOM CONTRACTOR AND ITS PERSONNEL FOR IP ADDRESSES.
- 7. J HOOK SUPPORTS SHALL RUN PARALLEL TO OR BE ATTACHED TO TELECOM CABLE TRAY WHERE POSSIBLE. SUPPORT SECURITY CABLING AT INTERVALS OF NO GREATER THAN FIVE FEET APART.
- 8. WALL PENETRATIONS FOR SECURITY CABLING SHALL BE SLEEVED WITH A MINIMUM OF 1" SLEEVES. SLEEVES SHALL BE PROPERLY FIRESTOPPED USING HILTI FIRE STOP IF IT IS THROUGH A FIRE RATED WALL.

## NOTES BY SYMBOL "#"

- (1) EXISTING AUDIO VISUAL EQUIPMENT FROM PREVIOUS PHASE TO BE REINSTALLED.
- PROVIDE CATEGORY 6 CABLE FROM CAMERAS TO IDF. ELECTRICAL CONTRACTOR TO PROVIDE 3/4" CONDUIT FROM IDF TO CAMERAS.
- EXISTING JVC CAMERA FROM PREVIOUS PHASE TO BE REINSTALLED.
- PROVIDE AUDIO VISUAL CONNECTIONS AND DATA. COORDINATE WITH OWNER PRIOR TO INSTALLATION. COORDINATE WITH ELECTRICAL CONTRACTOR FOR CONDUIT.
- ROUTE 6 STRANDS UP TO THE 3RD FLOOR FROM MAIN MDF.
- PROVIDE 2 2" CORES WITH SLEEVE UP TO 1ST FLOOR. CONTRACTOR SHALL FIELD VERIFY SLAB CORES DO NOT CONFLICT WITH BEAMS PRIOR TO CORING. CORE HOLES SHALL BE LOCATED IN SLAB ONLY AND CONTRACTORS SHALL CONFIRM LOCATIONS FROM UNDERSIDE OF FLOOR WITHIN THE CEILING SPACE. IN ADDITION, CONTRACTOR SHALL USE FERROSCAN TO LOCATE CORES BETWEEN EXISTING SLAB REINFORCING.
- REINSTALL OWNER PROVIDED AND DEVICES..
- PROVIDE AUDIO VISUAL CONNECTIONS AND DATA. COORDINATE WITH OWNER PRIOR TO INSTALLATION. COORDINATE WITH ELECTRICAL CONTRACTOR FOR CONDUIT.



SHEET SIZE 22 x 34 SCALE: 1/8" - 1'-0" KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: MARCH 11, 2022 SHEET 4 OF SEQ #

TION

SNO:

FOR

ISSN

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC.

3880 HULEN ST., FORT WORTH, TX

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND

OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS

DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF

ARCHITECTURAL EXAMINERS' RULES.

**ഗ**⊃

- ALL CABLE LENGTHS ARE APPROXIMATE LENGTHS. CONTRACTOR SHALL VERIFY EXACT CABLE LENGTHS REQUIRED.
- THE DISTANCE FOR THE DATA DROPS HAVE A 10 FT. SERVICE LOOP IN THE IDF ROOM AND 1 FT. SERVICE LOOP AT WORK AREA OUTLET INCLUDED IN THE CALCULATION. USE VELCRO TO TIE SERVICE LOOP UP ABOVE THE LADDER TRAY AND CEILING. PROPERLY STORE AND SECURE SERVICE LOOPS TO AVOID ENTANGLEMENT HAZARDS AND PROTECT FROM PHYSICAL DAMAGE.
- THE DISTANCE FOR THE SURVEILLANCE DATA DROPS HAVE 20 FT. SERVICE LOOP IN MDF/IDF ROOMS INCLUDED IN THE 12. THE CONTRACTOR SHALL PATCH ALL EQUIPMENT CORDS AT THE WORKSTATION. THE CORD SHALL BE UNPACKAGED, CALCULATION.
- 5. THE CEILING/STRUCTURE HEIGHTS VARY. FIELD VERIFY EXACT HEIGHTS.
- REFER TO THE STANDARD JACK COLOR LEGEND FOR ALL JACKS.
- 7. ALL PATCH CABLES SHALL MATCH THE JACK COLOR.
- AT THE MDF AND IDF ALL CATEGORY 6 PATCH CORDS SHALL HAVE EITHER A 5 FOOT OR 7 FOOT SERVICE LOOP. A LENGTH FOR EACH NEW CABLE INSTALLED. REFER TO THE STANDARD JACK COLOR LEGEND FOR THE COLORS OF PATCH CABLES.
- PROVIDE A 10' CATEGORY 6 PATCH CORD SERVICE LOOP AT ALL WORKSTATIONS UNLESS OTHERWISE SPECIFIED IN

- WRITING BY OWNER.
- 10. CATEGORY 6 PATCH CABLES SHALL BE BLACK IN COLOR.
- 11. THE CONTRACTOR SHALL PATCH AND DRESS ALL PATCH CORDS WITHIN THE HC, IC OR MC. EACH VOICE AND DATA PORT SHALL BE PATCHED.
- UNTIED, AND PLUGGED INTO THE DATA PORT FOR USE BY THE PC INTEGRATOR.
- 13. THE CONTRACTOR SHALL PATCH AND DRESS EACH VOICE-PORT TO THE APPROPRIATE SWITCH-TAIL PORT. THE OWNER WILL PROVIDE A CUT-SHEET INDICATING WHICH SWITCH-TAIL IS ALLOCATED TO EACH VOICE PORT. THE CONTRACTOR SHALL PROVIDE A "CUT-SHEET" DOCUMENTING THE WORKSTATION-TO-LAN/PBX PORT ASSIGNMENTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE ACCURACY OF THIS WORKSHEET UNTIL PROJECT ACCEPTANCE.
- RATIO OF 80% OF THE PATCH CORDS IN THIS ENVIRONMENT SHALL BE 5 FEET IN LENGTH AND 20% SHALL BE 7 FEET IN 14. DRAWINGS ARE BASED ON LIMITED SITE VISITS AND AS BUILT DRAWINGS. IF ANY CONFLICTS OR QUESTIONS ARISE CONTRACTOR IS TO DOCUMENT AND PREPARE AN RFI AND SUBMIT TO ARCHITECT FOR REVIEW PURPOSES.
  - 15. COORDINATE EXACT DATA DROP MOUNTING LOCATION(S) AND ORIENTATION(S) WITHIN SPACE WITH OWNER'S TECHNOLOGY REPRESENTATIVE.

# DIRECTOR 308 AUDITOR INTERNAL AUDITOR 314 CR(3)(1)RK1 RK2 WEST AUX STAIR 305 3\1 CR(3)JANITOR 312 310 PRI√. RF 321 STAIR 302 (3\1) CR TREASURY ASSIST. OFFICE [323] SECRETARY [322]

# **SECURITY GENERAL NOTES**

- VERIFY EXACT LOCATION OF ALL COMPONENTS AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY.
- ALL SECURITY CABLING PATHWAYS OUTSIDE OF SECURITY ROOMS SHALL BE BY DIV 16. ALL CONDUIT RUNS SHALL BE FROM THE INSTALLED SECURITY DEVICE LOCATION TO THE NEAREST ACCESSIBLE CEILING SPACE BACK TO THE IDF ROOM.
- CONTRACTOR SHALL COORDINATE WITH THE TELECOMMUNICATIONS CONTRACTOR AND CONSULT THE TELECOMMUNICATIONS DRAWINGS FOR DETAILS ON PATHWAYS TO BE UTILIZED.
- PROVIDE ALL NECESSARY MEANS TO PROTECT ALL SECURITY CABLING AND CONNECTORS FROM MECHANICAL DAMAGE, DUST AND DIRT DURING CONSTRUCTION.
- FIBER OPTIC BACKBONE/RISER/HORIZONTAL SECURITY CABLE SHALL BE INSTALLED IN INNERDUCT WHEN PLACED IN CONDUIT OR ON "J" HOOKS.
- DATA NETWORK CONNECTIVITY OF DIGITAL VIDEO MANAGEMENT SYSTEM TO LAN/WAN SHALL BE BY TELECOM CONTRACTOR. SECURITY CONTRACTOR SHALL COORDINATE WITH TELECOM CONTRACTOR AND ITS PERSONNEL FOR IP ADDRESSES.
- J HOOK SUPPORTS SHALL RUN PARALLEL TO OR BE ATTACHED TO TELECOM CABLE TRAY WHERE POSSIBLE. SUPPORT SECURITY CABLING AT INTERVALS OF NO GREATER THAN FIVE FEET APART.
- B. WALL PENETRATIONS FOR SECURITY CABLING SHALL BE SLEEVED WITH A MINIMUM OF 1" SLEEVES. SLEEVES SHALL BE PROPERLY FIRESTOPPED USING HILTI FIRE STOP IF IT IS THROUGH A FIRE RATED WALL.

# NOTES BY SYMBOL "#"

TION

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES

3880 HULEN ST., FORT WORTH, TX THIS ELECTRONIC DOCUMENT IS

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND

OR FACILITY MANAGEMENT UNDER
THE AUTHORITY OF KARL KOMATSU

REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF

ARCHITECTURAL EXAMINERS' RULES.

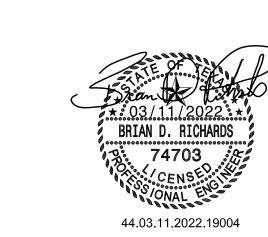
22 x 34

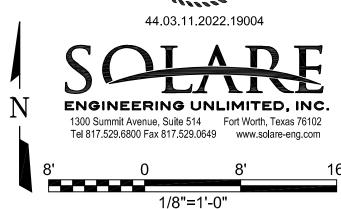
1/8" - 1'-0"

MARCH 11, 2022

- PROVIDE BANANA CABLE FROM CARD READERS TO THE NEAREST IDF. CARD READERS TO BE INSTALLED ON DOOR.
- PROVIDE CATEGORY 6 CABLE FROM CAMERAS TO IDF. ELECTRICAL CONTRACTOR TO PROVIDE 3/4" CONDUIT FROM IDF TO CAMERAS.
- PROVIDE 4 CONDUCTOR CABLE FROM DOOR POSITION SWITCHES TO ROOM NEAREST IDF ROOM. PROVIDE DOOR HARDWARE FOR DOOR AND CARD READER. PROVIDE DOOR POSITION SWITCH TO INTERFACE WITH SECURITY SYSTEM. PROVIDE ADEQUATE SIZED TRANSFORMER AND ELECTRONIC DOOR COORDINATOR FOR PROPER INSTALLATION. REFER TO ELECTRICAL SHEETS FOR POWER. REFER TO DOOR HARDWARE SPECIFICATION 08 71 00A. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION. REFER TO T601 FOR DETAIL.
- REINSTALL OWNER PROVIDED EQUIPMENT AND DEVICES.
- ROUTE 6 STRANDS UP TO THE 3RD FLOOR FROM MAIN MDF.
- PROVIDE 2 2" CORES WITH SLEEVE UP TO 1ST FLOOR. CONTRACTOR SHALL FIELD VERIFY SLAB CORES DO NOT CONFLICT WITH BEAMS PRIOR TO CORING. CORE HOLES SHALL BE LOCATED IN SLAB ONLY AND CONTRACTORS SHALL CONFIRM LOCATIONS FROM UNDERSIDE OF FLOOR WITHIN THE CEILING SPACE. IN ADDITION, CONTRACTOR SHALL USE FERROSCAN TO LOCATE CORES BETWEEN EXISTING SLAB REINFORCING.

REINSTALL OWNER PROVIDED EQUIPMENT AND DEVICES.



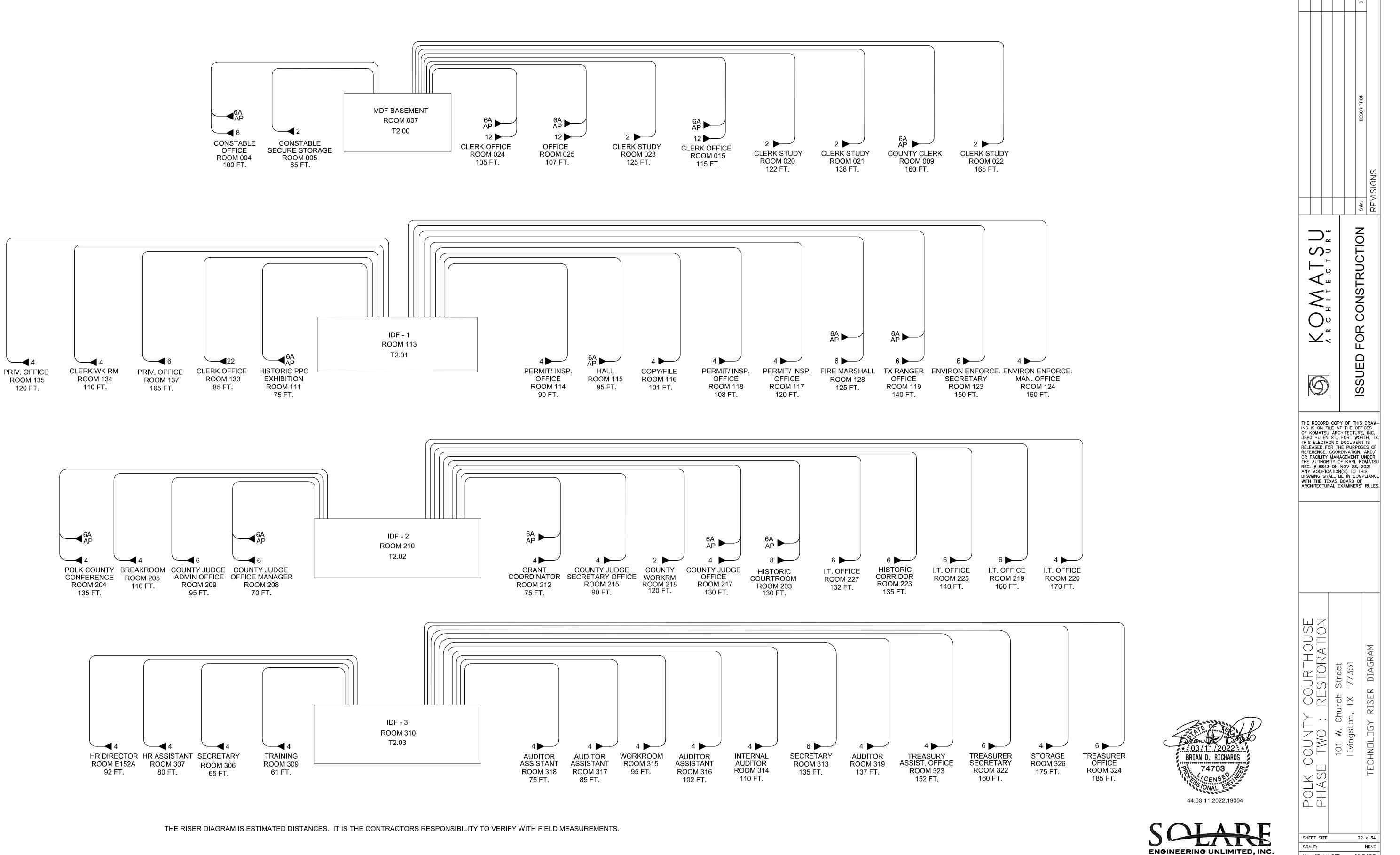


SHEET SIZE SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO .: SHEET 5 OF SEQ #

1 TECHNOLOGY 3RD FLOOR PLAN

1/8' = 1' - 0'



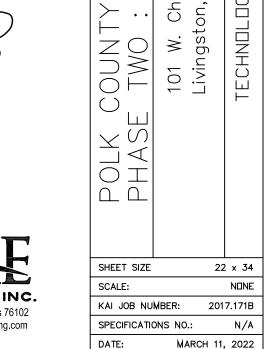


KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO .: DATE: MARCH 11, 2022 SHEET 6 OF SEQ # 7

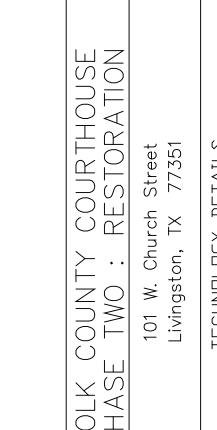
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com







SHEET 7 OF SEQ # 8



GROUNDING BAR DETAIL

MOUNT THE GROUND BAR @ 7' 6" A.F.F.

PLASTER ON

MASONRY BLOCK-7

9/16" DIA. PROVIDE #6/0G TO BUILDING STEEL DETAIL NOTES: ERICO TMGBA12I15P

COPPER BUS BAR -

— 3/8" DIAMETER - 2-3/4" INSULATOR

FINISHED FLOOR — RECESSED MOUNTED CONDUIT AND ELECTRICAL DEVICES
NO SCALE

TRENCHED/CONCRETE/CONCEALED CONDUIT

- PLASTER ON CONCRETE DECK

-TRENCHED/CONCEALED

ELECTRIC CONDUIT

SURFACE MOUNTED WIRE RACEWAY AND/OR WIREMOLD PERMITTED ONLY IN NON-PUBLIC VISIBLE ROOMS/SPACES (IE. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, WORK ROOMS, STORAGE, AND/OR ELECTRICAL/MECHANICAL ROOMS. FOR ALL OTHER INSTANCES REFER TO CONDUIT DETAIL.

SURFACE MOUNTED RACEWAY

FINISHED FLOOR —

24V DC

Power Supply

Common •

input 4

Output 3 - NO

Reader LED Output

→ Button

(if equipped)

Electrified strike or Electrified

(whichever is appropriate)

BLANK MODULAR

— PORT IDENTIFIER

MDF-A17, 18

DIVISION OF TECHNOLOGY

814-HELP

MDF-A19, 20

3 DATA WALL OUTLET

- Common

D1

- GND -

INFINIAS MODULE INSTALLATION DIAGRAM

— 8-PIN RJ-45 MODULAR

CONNECTOR

NOTES BY SYMBOL "#"

PROVIDE MOUNTING BRACKET TO ENSURE BOTH THE WAO AND THE ELECTRICAL

TECHNICAL AV POWER OUTLET/FACEPLATE/CONDUIT AS SPECIFIED IN E-SERIES DRAWINGS.

1/4" CONDUIT TERMINATED ABOVE CEILING

PATCH PANEL IDENTIFICATION —

To POE Ethernet

Door Contact

Green LED

Card Reader

or Keypad

EQUIPMENT ROOM -

(1) CONDUIT NUMBER, SIZE AND DESTINATION PER AV DRAWINGS.

2 TYPICAL WAO WITH RECEPTACLE DETAIL
NO SCALE

NOTES BY SYMBOL "(#)"

PROVIDE AND INSTALL 1/2" CONDUIT FROM J-BOX TO "MUB BOX" (NOT SHOWN)
AT MIDDLE HINGE POSITION. PROVIDE ELECTROLYNX CABLE WITH GROUNDWIRE IN CONDUIT FOR CONCEALED ELECTRICAL POWER TRANSFER TO POWER SUPPLY. REFER TO MANUFACTURE INSTALLATION GUIDE FOR

PREP DOOR WITH 3/8" CABLEWAY FROM CONCEALED ELECTRICAL POWER TRANSFER (CEPT) TO LOCK ASSEMBLY. INSTALL ELECTROLYNX CABLE FROM

3 POWER SUPPLY SHALL BE LOCATED IN THE NEAREST MDF/IDF ROOM. PROVIDE

1" CONDUIT BACK TO-THE MDF/IDF ROOM

BACK BOX~

3/4" CONDUIT~

INTERIOR/SECURED VIEW

ELECTRIFIED HINGE TO LOCK ASSEMBLY. REFER TO MANUFACTURE

DOOR CONTACT "SWITCH" SHALL BE INSTALLED ON LATCH EDGE OF DOOR WITH MAGNET IN FRAME. REFER TO MANUFACTURE INSTALLATION MANUAL

INSTALLATION MANUAL FOR COMPLETE DETAILS.

FOR COMPLETE DETAILS.

EXTERIOR/SECURED VIEW

DEDICATED 120VAC POWER CIRCUIT FOR POWER SUPPLY.

T-SERIES DRAWINGS.

RECEPTACLE ARE ALIGNED AND NO FARTHER THAN 18" APART.

3 DATA/VOICE INFORMATION OUTLET/FACEPLATE/CONDUIT AS SPECIFIED IN

NOTES BY SYMBOL "(#)"

PROVIDE A DOUBLE GANG BOX WITH A SINGLE GANG REDUCER PLATE. PROVIDE BUSHINGS TO PROTECT

 $\langle 2 \rangle$  PROVE A 20' SERVICE LOOP OF CABLING IN A FIGURE 8'.

BLANK SCREW COVER PULL BOX 6" ABOVE FINISHED CEILING

WIRELESS OUTLET DETAIL

J-BOX WITH ABOVE DOOR-

LAY-IN CEILING

INTERIOR/SECURED VIEW

1" CONDUIT BACK TO

Electrical Power

THE MDF/IDF ROOM

5 SECURITY ACCESS CONTROL DOOR DETAIL
NO SCALE

BACK BOX

~3/4" CONDI

COIL UP ABOVE CEILING SPACE AT WIRELESS BOX.

(3) PROVIDE A TWO PORT PLENUM-GRADE FACEPLATE

ENTRANCE END FITTING -WIREMOLD MODULAR DATA OUTLET

EMBED ELECTRIC CONDUIT COVER PLATE ON-SHALLOW ELECTRICAL OUTLET BOX FINISHED FLOOR -RECESSED DEVICE OUTLET BOX
NO SCALE

TRENCH PLASTER AND -

CONDUIT WALL CLAMP · OVER CONDUIT MATCHING PLASTER-INFILL AT CONDUIT TRENCH FINISHED FLOOR -

RECESSED ELECTRICAL CONDUIT

NO SCAL F

**∽** 

CONSTRUCTION FOR ISSUED

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/ OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.

44.03.11.2022.19004 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com



SHEET SIZE SCALE: SPECIFICATIONS NO.: SHEET 8 OF SEQ # 8

22 x 34 NONE KAI JOB NUMBER: 2017.171B MARCH 11, 2022

# 1 ELEVATOR LOBBY CAMERA DETAIL

# NOTES BY SYMBOL "#" PROVIDE 3/4" CONDUIT TO ACCESSIBLE CEILING OR CABLE.

- PROVIDE DOUBLE GANG BOX 4 1/16" X 4 1/16" X 2 1/8". PROVIDE SUPPORT AS REQUIRED.
- PROVIDE CAMERA, ENCLOSURE, AND MOUNTING SUPPORT HARDWARE AS REQUIRED.
- (4) CONDUIT TO BE RECESSED INTO TRENCHED AND INFILLED FLUSH WITH FINISHED PLASTER.
- 5 SUSPENDED DOME OF CAMERA ONLY BELOW CEILING PANELS.
- 6 STRUCTURAL DECK.
- PROVIDE BISCUIT WITH RJ-45 JACK UNMOUNTED IN BOX.

PROVIDE CAMERA, ENCLOSURE, AND MOUNTING SUPPORT HARDWARE AS REQUIRED BY THE MANUFACTURER. 5 PATCH CABLES MUST BE FACTORY MADE. PROVIDE CLEARENCE TO ALLOW FOR COMPLETE CAMERA VIEW.

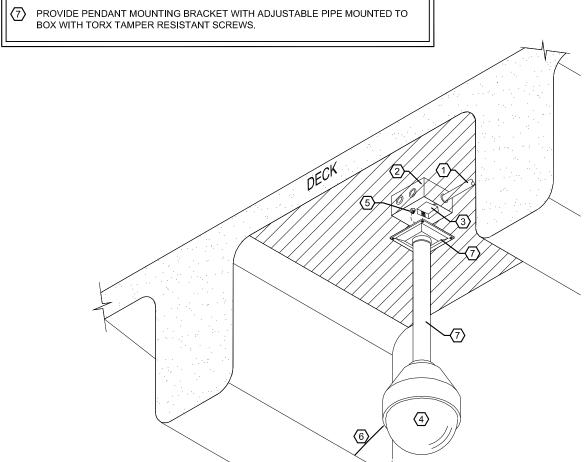
PROVIDE 3/4"Ø CONDUIT WITH PULL STRING HOMERUN TO PULL BOX.

(3) PROVIDE BISCUIT WITH RJ-45 JACK UNMOUNTED IN BOX.

PROVIDE CAMERA DOME ONLY TO PROTRUDE BELOW SUPPORT MEMBERS.

NOTES BY SYMBOL "#"

PROVIDE FLUSH MOUNTED 4-11/16 " X 4-11/16" 4 11/16" DOUBLE GANG BOX FOR CAMERA MOUNTING.



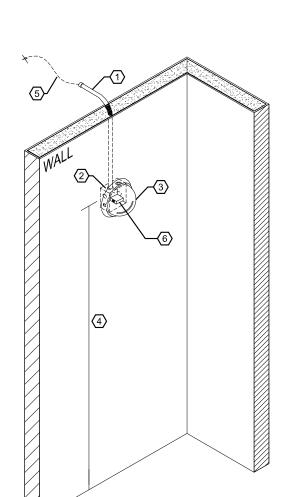
2 DECK MOUNTED CAMERA DETAIL

# NOTES BY SYMBOL "#"

- PROVIDE 3/4" CONDUIT WITH F PROVIDE FLUSH MOUNTED DO
- NOTE IN THE PROVIDE DOME CAMERA, ENCL
- AS REQUIRED.  $||4\rangle$  PROVIDE 10'-0" TO 11'-0" TYPICA

| 5 PROVIDE HOMERUN CABLE BA 6 PROVIDE BISCUTE WITH RJ-45

COUBLE GANG BOX 4-11/16" X 4-11/16" X 2-1/8".  CLOSURE AND MOUNTING SUPPORT HARDWARE  CAL. VERIFY IN FIELD OF MOUNTING HEIGHT.	PULL STRING TO CEILING SPACE.  COUBLE GANG BOX 4-11/16" X 4-11/16" X 2-1/8".  CLOSURE AND MOUNTING SUPPORT HARDWARE  CAL. VERIFY IN FIELD OF MOUNTING HEIGHT.  CACK TO NEAREST TELECOM ROOM.  5 JACK UNMOUNTED IN BOX.	
CLOSURE AND MOUNTING SUPPORT HARDWARE  CAL. VERIFY IN FIELD OF MOUNTING HEIGHT.	CLOSURE AND MOUNTING SUPPORT HARDWARE  CAL. VERIFY IN FIELD OF MOUNTING HEIGHT.  ACK TO NEAREST TELECOM ROOM.	PULL STRING TO CEILING SPACE.
CAL. VERIFY IN FIELD OF MOUNTING HEIGHT.	CAL. VERIFY IN FIELD OF MOUNTING HEIGHT. ACK TO NEAREST TELECOM ROOM.	OUBLE GANG BOX 4-11/16" X 4-11/16" X 2-1/8".
	ACK TO NEAREST TELECOM ROOM.	CLOSURE AND MOUNTING SUPPORT HARDWARE
ACK TO NEAREST TELECOM ROOM.		CAL. VERIFY IN FIELD OF MOUNTING HEIGHT.
	5 JACK UNMOUNTED IN BOX.	ACK TO NEAREST TELECOM ROOM.
5 JACK UNMOUNTED IN BOX.		5 JACK UNMOUNTED IN BOX.
		N
*\	×\	5
5	\$\ 5\	



WALL MOUNTED IP CAMERA DETAIL

THE RECORD COPY OF THIS DRAW—ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

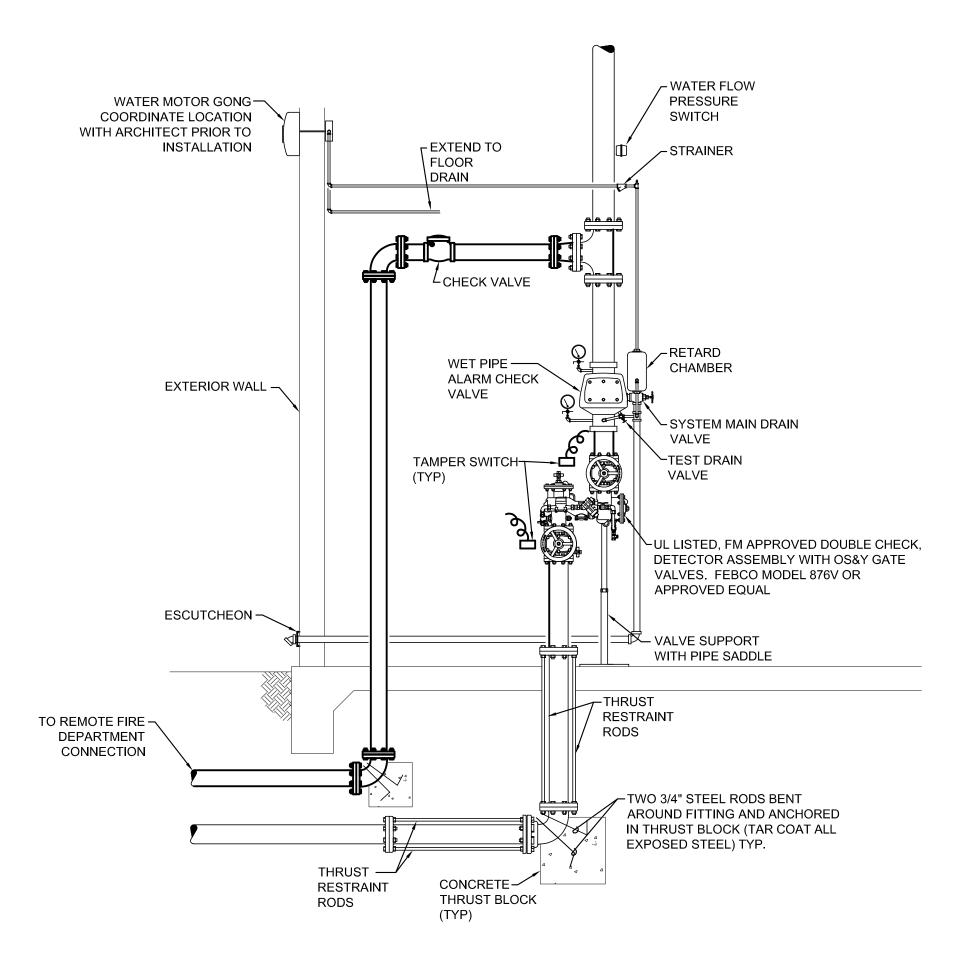
S<sup>-</sup> FOR

CONSTRUCTION

## FIRE PROTECTION NOTES

- 1. PROVIDE A COMPLETE AND OPERABLE WET PIPE FIRE SUPPRESSION SYSTEM ENGINEERED AND DESIGNED CONFORMING TO NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS; NFPA 24, PRIVATE SERVICE MAINS AND THEIR APPURTENANCES; ALL APPLICABLE CITY, STATE AND NATIONAL CODES AND THE CODES AND ORDINANCES OF ALL OTHER AUTHORITIES HAVING JURISDICTION. THE SYSTEM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE CITY FIRE DEPARTMENT.
- 2. THE CONTRACTOR SHALL COORDINATE WITH THE CIVIL CONTRACTOR PRIOR TO CONSTRUCTION FOR REQUIRED CONNECTIONS POINTS AND MATERIAL CONNECTIONS. THIS INCLUDES THE VERIFICATION OF THE LOCATION OF THE TYPE FIRE DEPARTMENT CONNECTION WITH RESPECT TO CODE REQUIRED CONDITIONS (50 FEET FROM FIRE LANES AND 300 FEET FROM FIRE HYDRANTS).
- 3. CONTRACTOR SHALL COORDINATE AND ATTEND A PRE-SPRINKLER SHOP DRAWING SUBMITTAL CONFERENCE BETWEEN THE ARCHITECT, CONTRACTOR AND SPRINKLER SUBCONTRACTOR DURING THE SUBMITTAL PHASE OF CONSTRUCTION. PURPOSE OF THE MEETING SHALL BE TO LOCATE ROUTING OF FIRE SPRINKLER PIPING AND SPRINKLER HEAD LOCATIONS IN THE PUBLIC CORRIDORS, PUBLIC RESTROOMS, PUBLIC ACCESSIBLE COUNTY OFFICES, EXHIBIT ROOM, COMMISSIONERS COURTROOM AND COURTROOM BALCONY (WITH EMPHASIS ON SPACES WITH EXPOSED STRUCTURE THAT ARE EXPOSED TO PUBLIC VIEW). FINAL ROUTING OF SPRINKLER PIPING AND LOCATIONS OF SPRINKLER HEADS SHALL BE COORDINATED / APPROVED BY THE ARCHITECT PRIOR TO SUBMITTING TO THE AUTHORITY HAVING JURISDICTION.
- 4. EXPOSED SPRINKLER PIPE WITH EXPOSED (FINISHED) STRUCTURE SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. COLOR SAMPLES SHALL BE MADE AVAILABLE FOR THE ARCHITECT TO REVIEW AND SELECT. PIPE ROUTING SHALL BE BASED UPON THE SPACE EXPOSED STRUCTURE, CENTERLINES AND AXES TO ESTABLISH A PATTERN COMPLIMENTARY TO EACH SPACE STRUCTURE.
- 5. CONTRACTOR SHALL ARRANGE SPRINKLER HEADS COMPLIMENTARY TO CEILING TYPE. SPRINKLER HEADS LOCATED IN DROP GYP BOARD CEILINGS SHALL BE ALIGNED AXIALLY AS MUCH AS POSSIBLE WITH CENTERLINE OF CEILING MOUNTED LIGHTS AND/OR MECHANICAL REGISTERS. VERIFY FINAL LOCATIONS WITH ARCHITECT.
- 6. ALL SPRINKLER HEAD LOCATIONS SHALL BE COORDINATED WITH THE STRUCTURE, LIGHT FIXTURES, HVAC ELEMENTS, PLUMBING ELEMENTS, ARCHITECTURAL CEILING TREATMENTS. LAYOUT SHALL BE COORDINATED WITH AND REVIEWED BY THE ARCHITECT.
- 7. THE FIRE PROTECTION AREA DESCRIPTIONS SHOWN ON THE PLAN(s) ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY WITH THE OWNER AND THE AUTHORITY HAVING JURISDICTION ALL SPACE CLASSIFICATIONS, COMMODITY TYPES AND LOCATIONS OF OBSTACLES PRIOR TO PROVIDING DESIGN CALCULATIONS OR SPRINKLER SHOP DRAWINGS.
- 8. LOCATIONS OF SYSTEM TEST AND DRAIN VALVES SHALL BE COORDINATED WITH THE OWNER BY SPECIFICALLY CALLING TO THE OWNERS ATTENTION THE LOCATIONS OF THESE SUB-SYSTEMS.
- 9. THE FIRE SUPPRESSION SYSTEM SHALL CONFORM TO ALL APPLICABLE NFPA CODES IN ADDITION TO THE FOLLOWING:
- A. HYDRAULIC CALCULATIONS SHALL SHOW THE ELEVATIONS OF INDIVIDUAL HEADS AND REFERENCE POINTS (NODES).
- B. HYDRAULIC CALCULATIONS SHALL DESCRIBE EACH INDIVIDUAL HEAD IN THE ZONE BEING CALCULATED. HYDRAULIC CALCULATIONS USING "K" FACTORS TO DESCRIBE WHOLE BRANCH LINES ARE NOT ACCEPTABLE.
- C. PROVIDE A SAFETY FACTOR OF 10 PSI OR 10 PERCENT OF SYSTEM DEMAND (WHICHEVER IS GREATER).
- D. SUBMITTALS SHALL BE COMPLETE AND INCLUDE: HYDRAULIC CALCULATIONS, SHOP DRAWINGS AND MATERIAL SUBMITTAL.
- E. SUBMITTALS SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO SUBMITTING HYDRAULIC CALCULATIONS, SHOP DRAWINGS AND MATERIALS TO THE ENGINEER FOR REVIEW.
- 9. SUBMITTALS NOT CONFORMING TO THE ABOVE WILL BE REJECTED WITH NO COMMENT.
- 10. PROVIDE SILENT KNIGHT 5104B FIRE CONTROL COMMUNICATOR AND INTERLOCK WITH FLOW SWITCH AND TAMPER SWITCH. PROVIDE J-BOX AND CONNECT TO CIRCUIT INDICATED WITH 2 #12, 1 #12 GND., 3/4" C. IN ADDITION, PROVIDE PULL STATION ADJACENT TO COMMUNICATOR, SMOKE DETECTOR ABOVE COMMUNICATOR, HORN STROBE IN WEATHERPROOF ENCLOSURE DIRECTLY OUTSIDE OF RISER ROOM, AND DEDICATED PHONE LINE. VERIFY EXACT LOCATION AND REQUIREMENTS PRIOR TO INSTALLATION.

NOTE: FIRE SPRINKLER PLANS MUST BE SUBMITTED TO ISO FOR APPROVAL PRIOR TO SENDING TO FIRE MARSHALS' OFFICE FOR APPROVAL



NOTE: ALL UNDERGROUND BOLTS & NUTS SHALL BE STAINLESS STEEL





SHEET SIZE
SCALE:
KAI JOB NUMBE
SPECIFICATIONS
DATE:

**⊘**⊃

FOR

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC.

3880 HULEN ST., FORT WORTH, T.

OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

ARCHITECTURAL EXAMINERS' RULES.

REG. # 6843 ON NOV 23, 2021

ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF

THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND

SHEET SIZE 22 x 34

SCALE:

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #



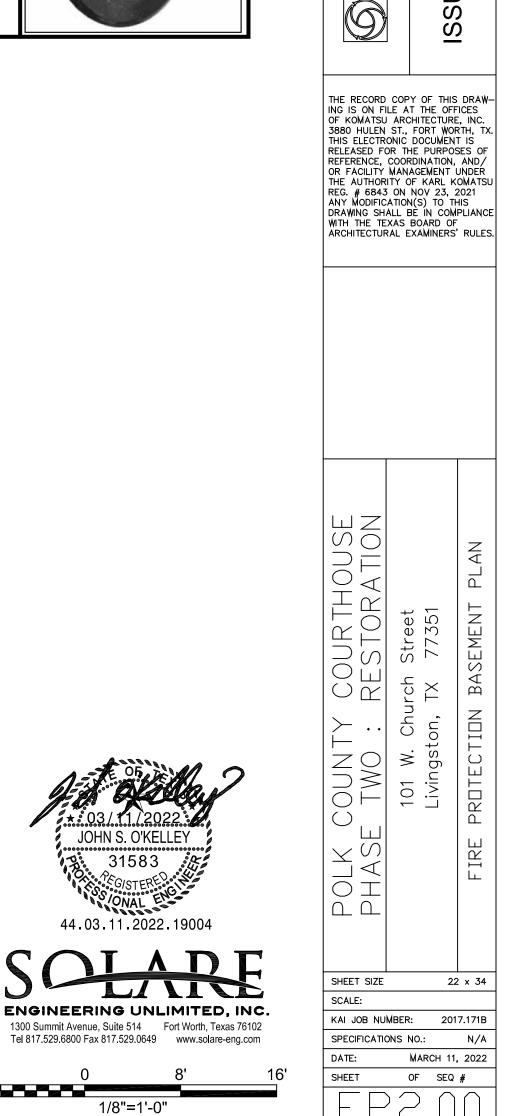
LOWER WEST PORCH 001

1 FIRE PROTECTION BASEMENT PLAN

1/8' = 1' - 0'

DBL CHECK DETECTOR ASSEMBLY, — GEAR OPERATED WITH TAMPER SWITCH. FEBCO MODEL 831H (VERTICAL) OR EQUAL WITH ALARM CHECK ABOVE

TO REMOTE FDC



# **GENERAL NOTES**

ALL PIPING LARGER THAN NPS 2-1/2" SHALL BE ROUTE UNDER STRUCTURAL BEAMS. REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

OR EQUAL). RDINARY HAZARD GROUP 1 OCCUPANCY WET PIPE HORIZONTAL SIDEWALL
QUICK RESPONSE, STANDARD COVERAGE
DESIGN TO 0.15 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET.

OR EQUAL).

<u>LIGHT HAZARD OCCUPANCY</u> WET PIPE HORIZONTAL SIDEWALL

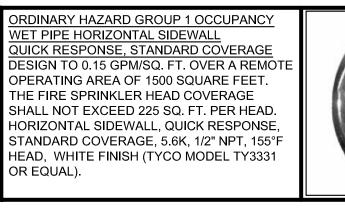
QUICK RESPONSE, STANDARD COVERAGE

SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F

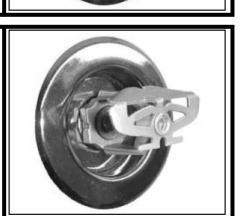
HEAD, WHITE FINISH (TYCO MODEL TY3331

DESIGN TO 0.10 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE

THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F







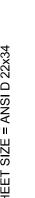
ISSUED

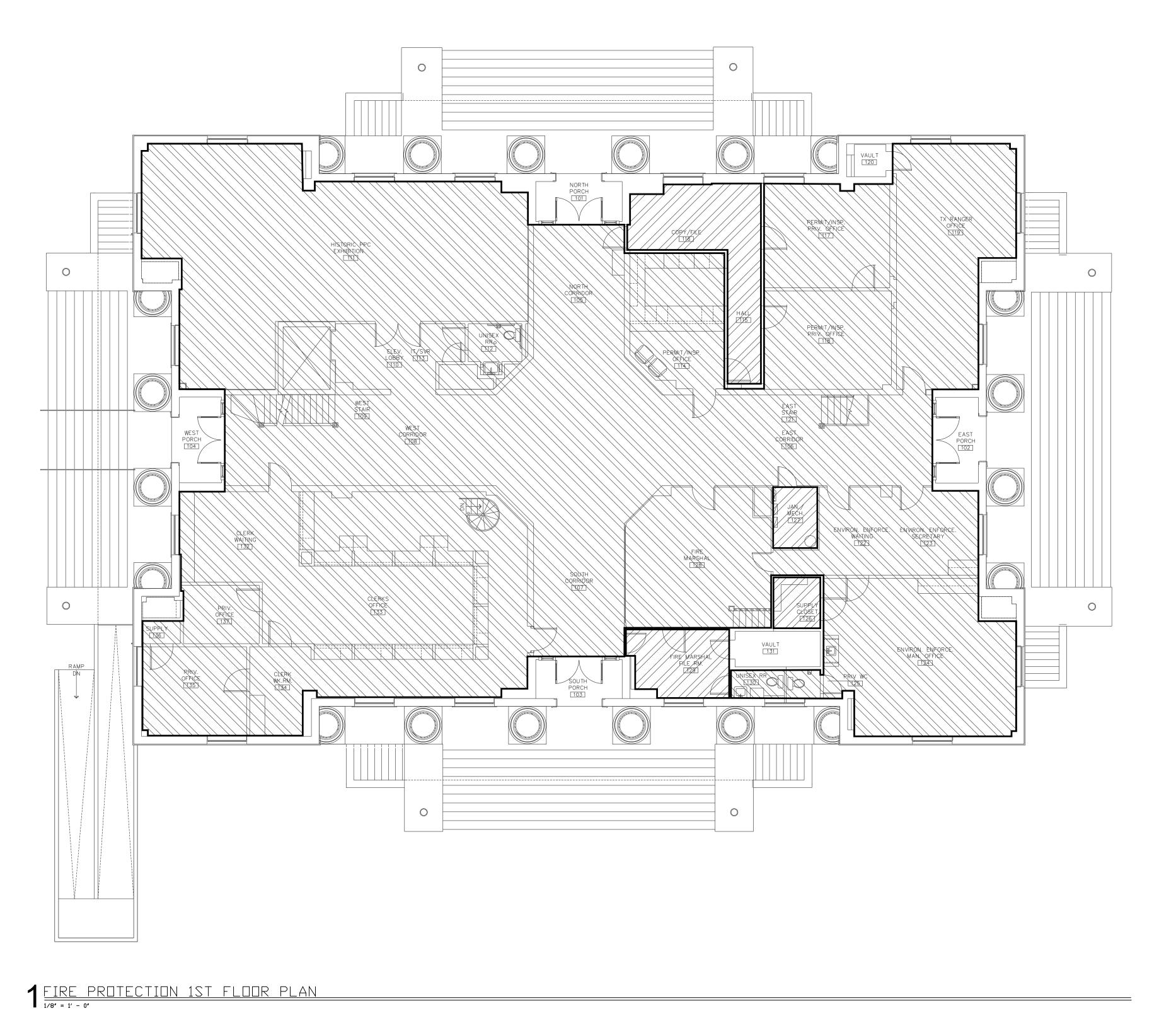
FOR

CONSTRUCTION 

S<sup>-</sup>

**∑**-





**GENERAL NOTES** 1. ALL PIPING LARGER THAN NPS 2-1/2" SHALL BE ROUTE UNDER STRUCTURAL BEAMS. REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

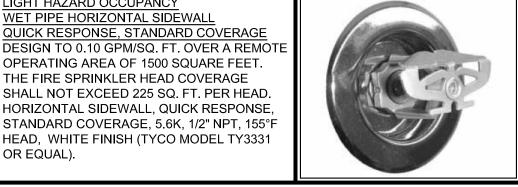
> IGHT HAZARD OCCUPANCY VET PIPE HORIZONTAL SIDEWALL

OR EQUAL).

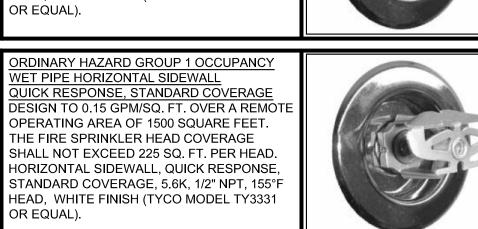
OR EQUAL).

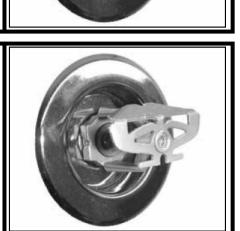
OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE

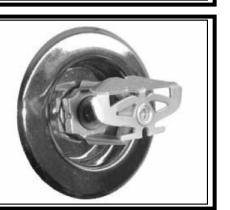
WET PIPE HORIZONTAL SIDEWALL



SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F HEAD, WHITE FINISH (TYCO MODEL TY3331 RDINARY HAZARD GROUP 1 OCCUPANCY QUICK RESPONSE, STANDARD COVERAGE DESIGN TO 0.15 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD.







SHEET SIZE

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

SCALE:

SHEET

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com

1/8"=1'-0"

22 x 34

MARCH 11, 2022

OF SEQ #

**S**⊃

**∑**-

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

ISSUED

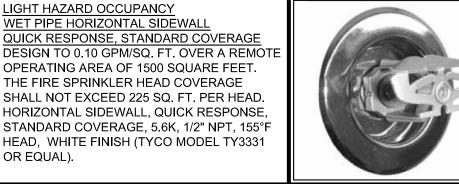
FOR

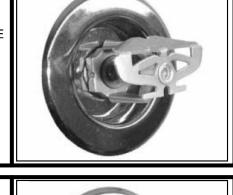
CONSTRUCTION





1/8"=1'-0"





WET PIPE HORIZONTAL SIDEWALL
QUICK RESPONSE, STANDARD COVERAGE
DESIGN TO 0.15 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F

**GENERAL NOTES** 

ALL PIPING LARGER THAN NPS 2-1/2" SHALL BE ROUTE UNDER STRUCTURAL BEAMS. REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING

HEAD, WHITE FINISH (TYCO MODEL TY3331 LIGHT HAZARD OCCUPANCY
WET PIPE CONCEALED PENDENT QUICK RESPONSE, STANDARD COVERAGE

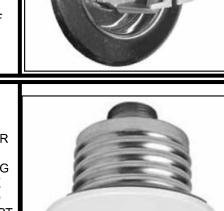
TY3531 OR EQUAL).

TIRE PROTECTION 2ND FLOOR PLAN

1/8' = 1' - 0'

THROUGH EXISTING BEAMS.

OR EQUAL).



DESIGN DENSITY/AREA METHOD, SPRINKLEF DENSITY 0.10 GPM/SQ. FT. FOR 1500 SQ.FT. SPRINKLER OPERATION AREA (LESS CEILING HEIGHT CORRECTION FACTORS FOR QUICK RESPONSE). PROTECTION AREA PER HEAD SHALL NOT EXCEED 225 SQ.FT. 5.6K, 1/2" NPT 155°F HEAD, 139°F PLATE, CUSTOM COLOR COVER PLATE, BRASS HEAD (TYCO MODEL

SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #

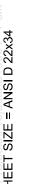
THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.

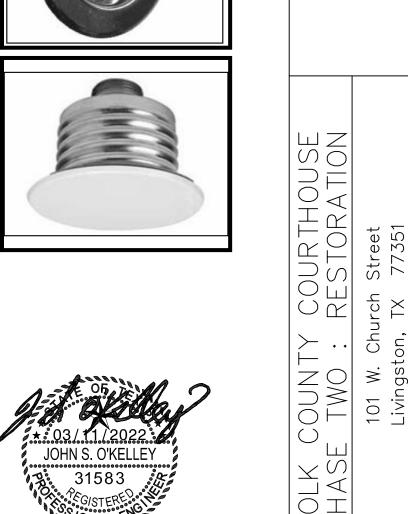
FOR **√** <sup>~</sup> ✓ ISSUED

CONSTRUCTION

**S**⊃

**∑**-







**GENERAL NOTES** ALL PIPING LARGER THAN NPS 2-1/2" SHALL BE ROUTE UNDER STRUCTURAL BEAMS. REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

IGHT HAZARD OCCUPANCY /ET PIPE HORIZONTAL SIDEWALL QUICK RESPONSE, STANDARD COVERAGE DESIGN TO 0.10 GPM/SQ. FT. OVER A REMOT OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F HEAD, WHITE FINISH (TYCO MODEL TY3331 OR EQUAL).

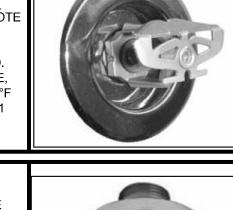
ORDINARY HAZARD GROUP 1 OCCUPANCY ET PIPE HORIZONTAL SIDEWALL QUICK RESPONSE, STANDARD COVERAGE DESIGN TO 0.15 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F HEAD, WHITE FINISH (TYCO MODEL TY3331 OR EQUAL).

TY3531 OR EQUAL).

REFER TO FP2.02

TERE PROTECTION 3RD FLOOR PLAN

1/8' = 1' - 0'



WET PIPE CONCEALED PENDENT QUICK RESPONSE, STANDARD COVERAGE DESIGN DENSITY/AREA METHOD, SPRINKLER DENSITY 0.10 GPM/SQ. FT. FOR 1500 SQ.FT. SPRINKLER OPERATION AREA (LESS CEILING HEIGHT CORRECTION FACTORS FOR QUICK RESPONSE). PROTECTION AREA PER HEAD SHALL NOT EXCEED 225 SQ.FT. 5.6K, 1/2" NPT 155°F HEAD, 139°F PLATE, CUSTOM COLOR COVER PLATE, BRASS HEAD (TYCO MODEL

ENGINEERING UNLIMITED, INC. 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com 1/8"=1'-0"

SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A MARCH 11, 2022 DATE: SHEET OF SEQ #

REG. # 6843 ON NOV 23, 2021
ANY MODIFICATION(S) TO THIS
DRAWING SHALL BE IN COMPLIANCE
WITH THE TEXAS BOARD OF
ARCHITECTURAL EXAMINERS' RULES.

RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU

THE RECORD COPY OF THIS DRAW-ING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS

FOR ISSUED

CONSTRUCTION

**S**⊃

 $\leq_{\bar{z}}^{\bar{z}}$ 

**√** <sup>~</sup> ✓