CHEROKEE NATION

DURBIN FEELING LANGUAGE CENTER RENOVATION

CONSTRUCTION DOCUMENTS

May 12, 2025

PROJECT CONTACTS

OWNER:

CHEROKEE NATION

ARCHITECT:

BLUE RIVER ARCHITECTS, LLC
320 SOUTH BOSTON AVENUE
SUITE 103
TULSA, OKLAHOMA 74103
P(918) 887-9036

CONSULTANT CONTACTS

MEP CONSULTANT:

PRECISION ENGINEERING GROUP, LLC
5800 E SKELLY DR
SUITE 1100
TULSA, OKLAHOMA 74135
P(918) 749-3000

PROJECT LOCATION

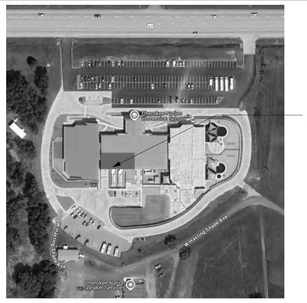

IMAGE SOURCE: GOOGLE EARTH
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

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A Native American Owned Firm

STATE OF OKLAHOMA
THOMAS C. BIRD
No. 11837
TULSA, OK
LICENSED ARCHITECT
5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

CS
COVER SHEET

blue river ARCHITECTS
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PARKING LOT STRIPING NOTES

1. STRIPE EXISTING PARKING LOT OVER EXISTING STRIPING.

REMOVE EXISTING ROOF CURB.
INSTALL NEW ROOF CURB ADAPTER
WITH CAP, TYPICAL ON THIS ROOF.
5 TOTAL

A EXISTING ROOF CURB CONDITION
NTS

SYMBOLS LEGEND

VIEW TITLE	A TITLE 1/8" = 1'-0"
VIEW TITLE WITH REFERENCE	A TITLE 1/8" = 1'-0" REF FROM: R / R101
BUILDING SECTION AND REFERENCE	X AXX — X AXX
BUILDING ELEVATION	1 A101 SIM
WALL SECTION SYMBOL	X AXX
ENLARGED FLOOR PLAN OR PLAN DETAIL REFERENCE	X XXX
MATCHLINE & REFERENCES	MATCHLINE SEE 1 / A101
INTERIOR ELEVATION	01/A101
ROOM NAME ROOM NUMBER	ROOM NAME 101
AREA NAME AREA SQUARE FEET AREA OCCUPANCY	AREA NAME 150 SF 150
LEVEL NAME RELATIVE ELEVATION	NAME ELEVATION
PARTITION TYPE SYMBOL	D3 1X
DOOR TAG & RATING	101 20
WINDOW / STOREFRONT TAG	XX
MATERIAL TAG	P
EQUIPMENT TAG	11 TYP.
GRID BUBBLE	A 1
PLAN NORTH ARROW	NORTH
GRAPHIC SCALE	0' 2' 4' 8' 16'
ELEVATION OR HEIGHT SYMBOL	
FLOORING TRANSITION	
CENTERLINE	℄
OPEN TO STRUCTURE	OTS
ALIGN FINISHES	ALIGN
REVISION EXTENTS & TAG	1

GENERAL DEFINITIONS

ALIGN	TO ACCURATELY LOCATE FACE BASED ON ADJACENT ITEMS OR CONSTRUCTION.
CLEAR	MINIMUM DIMENSION BETWEEN FINISHED CONDITION, SHALL BE TREATED AS A PRIORITY TO HOLD BEFORE OTHER DIMENSIONS.
MAXIMUM	THE CONDITION MAY NOT VARY TO A DIMENSION GREATER THAN THAT SHOWN WITHOUT THE APPROVAL OF THE ARCHITECT.
MINIMUM	THE CONDITION MAY NOT VARY TO A DIMENSION SMALLER THAN THAT SHOWN WITHOUT THE APPROVAL OF THE ARCHITECT.
SIMILAR	NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES. DETAILS AND NOTES ARE TYPICAL. SIMILAR DETAILS AND NOTES APPLY IN SIMILAR CONDITIONS. THE WORD "SIMILAR" MEANS THAT ITEMS IN EACH CASE ARE TO BE SEPARATELY WORKED OUT TO SUIT CONDITIONS IN A MANNER LIKE OR SIMILAR TO THE EXAMPLE REFERRED TO AND DOES NOT MEAN IDENTICAL.
TYPICAL	THE CONDITION APPLIES TO THE SAME CONDITIONS THROUGHOUT UNLESS NOTED OTHERWISE.

GENERAL PROJECT NOTES

1. GENERAL NOTES ARE TYPICAL FOR AREAS OF WORK.
2. REFER TO COMPLETE SET OF CONSTRUCTION DOCUMENTS FOR ALL PROJECT NOTES.
3. THE CONTRACT DOCUMENTS IN THEIR ENTIRETY ARE THE RESPONSIBILITY OF ALL TRADES. WHERE REQUIREMENTS ARE SHOWN IN ONE SECTION OF THE SPECIFICATIONS OR DRAWINGS BUT NOT ANOTHER, THE CONTRACTOR IS NOT RELIEVED FROM PROVIDING COMPLETELY FINISHED, COORDINATED AND PROPERLY FUNCTIONING SYSTEMS.
4. ANY MISCELLANEOUS ITEMS OR MATERIALS NOT SPECIFICALLY NOTED, BUT REQUIRED FOR THE PROPER EXECUTION, INSTALLATION, OR PERFORMANCE OF THE WORK, SHALL BE PROVIDED BY THE CONTRACTOR.
5. CONTRACTOR IS RESPONSIBLE FOR THE LAYOUT AND COORDINATION OF DIMENSIONS IN THE FIELD.
6. THE PRESENCE OF THE ARCHITECT OR AN ARCHITECT'S REPRESENTATIVE ON THE JOB SITE DOES NOT IMPLY CONCURRENCE OR APPROVAL OF THE WORK. THE CONTRACTOR SHALL CALL SPECIFIC ITEMS TO THE ATTENTION OF THE ARCHITECT IF THE CONTRACTOR WISHES TO OBTAIN THE ARCHITECT'S REVIEW.
7. IF DISCREPANCIES OCCUR BETWEEN DRAWINGS OR BETWEEN THE DRAWINGS AND SPECIFICATIONS, NOTIFY THE ARCHITECT FOR RESOLUTION PRIOR TO PROCEEDING.
8. DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS GOVERN. IF CRITICAL DIMENSIONS DO NOT APPEAR ON CONSTRUCTION DOCUMENTS, OR CONFLICT WITH DIMENSIONS ON OTHER DETAILS, NOTIFY THE ARCHITECT.
9. VERIFY EQUIPMENT ROUGH-IN DIMENSIONS WITH MANUFACTURER FOR EQUIPMENT THAT IS EXISTING, REUSED OR FURNISHED BY OWNER.
10. ALL PENETRATIONS THROUGH FLOORS, WALLS AND RATED ASSEMBLIES AS WELL AS ALONG SLAB PERIMETERS AND SEPARATION WALL PERIMETERS, SHALL BE SEALED AND PROTECTED WITH U.L. APPROVED ASSEMBLIES AND / OR PROTECTIVE DEVICES HAVING THE SAME OR GREATER TESTED RATING AS THAT REQUIRED FOR THE ASSEMBLY BEING PENETRATED. ALL PENETRATIONS TO BE PROTECTED TO MAINTAIN FIRE RATED ASSEMBLY INTEGRITY.
11. PROVIDE ELECTROLYTIC PROTECTION / ISOLATION BETWEEN ALL DISSIMILAR METALS, WHERE THEY OCCUR TO PREVENT ELECTROLYTIC REACTION AND / OR CORROSION.
12. PROVIDE ADEQUATE BLOCKING, BACKING OR STRUCTURAL SUPPORT AS REQUIRED TO PROPERLY INSTALL ALL MOUNTED ASSEMBLIES, INCLUDING ALL ATTACHED EQUIPMENT (OWNER AND CONTRACTOR FURNISHED ITEMS), PLUMBING FIXTURES, MILLWORK, AND CASEWORK.
13. PROVIDE ALL TEMPORARY BRACING AND SHORING AS REQUIRED FOR CONTRACT WORK.
14. PROTECT ALL NEWLY INSTALLED MATERIALS AND FINISHES UNTIL WORK IS FORMALLY ACCEPTED BY THE ARCHITECT OR THE OWNER'S REPRESENTATIVE AND TRANSFERRED TO THE OWNER.
15. THE CONSTRUCTION SITE IS TO BE KEPT CLEAN AND FREE OF DEBRIS. THE CONTRACTOR IS RESPONSIBLE FOR ALL PHASING, SECURING, HANDLING, TRANSPORTING AND DISPOSING OF DEBRIS.
16. COORDINATE STAGING AND STORAGE AREAS, AND LOCATIONS OF TEMPORARY FACILITIES WITH OWNER.
17. COORDINATE LOCATIONS OF CONSTRUCTION DUMPSTER ON SITE AND ACCESS TO BUILDING WITH OWNER.
18. PROVIDE DUST PROTECTION OF THE AREA OUTSIDE OF CONSTRUCTION AND DEMOLITION LIMITS.
19. PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION AS REQUIRED.
20. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. UTILITIES DISTURBED BY THE CONTRACTOR SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR REPAIR ACCORDING TO THE OWNER'S SPECIFICATIONS AND REQUIREMENTS AT NO COST TO THE OWNER.
21. SUBMIT A REQUEST TO INTERRUPT ANY SERVICES TO OWNER, IN WRITING, 96 HOURS IN ADVANCE OF PROPOSED INTERRUPTION. REQUEST SHALL STATE REASON, DATE, EXACT TIME OF, AND APPROXIMATE DURATION OF SUCH INTERRUPTION.
22. VERIFY THE EXISTENCE AND LOCATION OF UTILITIES PRIOR TO STARTING WORK.
23. MAINTAIN UTILITY SERVICES AND PROTECT THEM AGAINST DAMAGE DURING CONSTRUCTION OPERATIONS.
24. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE UTILITIES - KNOWN AND UNKNOWN (OVERHEAD AND BURIED) WHICH MAY OCCUR DUE TO THEIR ACTION OR LACK OF ACTION ON THE PROJECT SITE DURING CONSTRUCTION OPERATIONS. CONTRACTOR SHALL SEEK ASSISTANCE OF LOCAL UTILITIES IN LOCATING THE UTILITIES PRIOR TO PERFORMING OPERATIONS IN ANY AREA.
25. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE OWNER'S SECURITY REQUIREMENTS FOR THE AREA OF CONSTRUCTION.
26. INSTALL ALL NEW MATERIALS AND EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
27. ALL NEW BUILDING MATERIALS AND PRODUCTS SHALL NOT CONTAIN LEAD, CADMIUM, OR ASBESTOS.
28. KEYNOTES WHERE INDICATED ARE FOR REFERENCE ONLY AND MAY NOT BE AT ALL LOCATIONS THAT CORRESPOND TO THAT NOTE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITY OF MATERIALS REQUIRED FOR DEMOLITION AND NEW CONSTRUCTION.
29. REPAIR ANY DAMAGE DUE TO CONSTRUCTION TRAFFIC OR OPERATIONS.
    A. RETURN ALL DISTURBED LANDSCAPE AREAS DUE TO CONSTRUCTION ACTIVITY TO ORIGINAL CONDITION.
    B. FINAL GRADE AND SOD AREAS DISTURBED BY CONSTRUCTION.
30. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY APPROVALS, PERMITS AND INSPECTION; PAYING REQUIRED FEES AND POSTING ANY REQUIRED BONDS, PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION.
31. PROVIDE A TEMPORARY 6 FEET HIGH CHAIN LINK FENCE AROUND THE FULL PERIMETER OF THE CONSTRUCTION SITE DURING WORK, UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.
32. FINAL COLOR SELECTIONS TO BE MADE BY OWNER / ARCHITECT UPON RECEIPT OF ALL MATERIAL SUBMITTALS. REVIEW CANNOT BEGIN UNTIL ALL MATERIALS HAVE BEEN RECEIVED.
33. FINISH GRADE TO SLOPE AWAY FROM BUILDING, TYPICAL. GRADE TO FACILITATE DRAINAGE.
34. THE LOCATION OF DUCTS, PIPE AND EQUIPMENT, AS SHOWN ON THE DRAWINGS, ARE DIAGRAMMATIC AND SCHEMATIC AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES BEFORE PERFORMING ANY WORK. LIGHT FIXTURE LOCATIONS SUPERSEDE HVAC DUCTWORK, GRILLES AND DIFFUSERS.
35. CLEAN INTERIOR AND EXTERIOR OF ALL WINDOW GLAZING.
36. PROVIDE NEW ESCUTCHEONS AT ALL PLUMBING PENETRATION AREAS AND FASTEN IN PLACE WITH JOINT SPACER.
37. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS. IN THE EVENT OF CONFLICT BETWEEN THE DRAWINGS OR BETWEEN A DRAWING AND SPECIFICATION ITEM, THE DRAWING OR SPECIFICATION REQUIRING THE GREATER EXTENT, LARGER NUMBER, OR HIGHER QUALITY SHALL GOVERN. NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING FOR RESOLUTION BEFORE PROCEEDING.
38. COORDINATE ENVIRONMENTAL REMEDIATION REQUIREMENTS AND PROCEDURES WITH OWNER AND OWNER'S ENVIRONMENTAL CONSULTANT IF AND WHEN SITE CONDITIONS ARE PRESENT THAT REQUIRE ENVIRONMENTAL REMEDIATION. ARCHITECT'S CONSTRUCTION DOCUMENTS ARE NOT INTENDED TO PROVIDE REMEDIATION OR SATISFY REMEDIATION REQUIREMENTS AND SHALL NOT BE USED AS SUCH.
39. SAND-BLASTING IS NOT PERMITTED.
40. CONTRACTOR SHALL MAINTAIN A CURRENT RECORD SET OF ALL CONTRACT DOCUMENTS AND RETURNED SUBMITTALS ON SITE FOR THE DURATION OF THE PROJECT. ANY CHANGES MADE TO THE CONTRACT DOCUMENTS SHALL BE PROMPTLY INCORPORATED INTO THE CURRENT RECORD SET.
41. WHEN IN DOUBT, SUBMIT A REQUEST FOR INFORMATION (RFI) TO THE ARCHITECT IN WRITING FOR ALL QUESTIONS, INCLUDING BUT NOT LIMITED TO CLARIFICATIONS, INTERPRETATIONS, OR WHERE FIELD CONDITIONS MAY IMPACT DESIGN INTENT, PRIOR TO PROCEEDING WITH THE WORK.

blue river ARCHITECTS
A Native American Owned Firm

5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
G1
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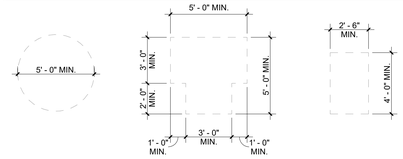
TURNING RADIUS AND CLEAR SPACE

PER 2009 ICC A117.1
ACCESSIBLE & USABLE
BUILDINGS & FACILITIES



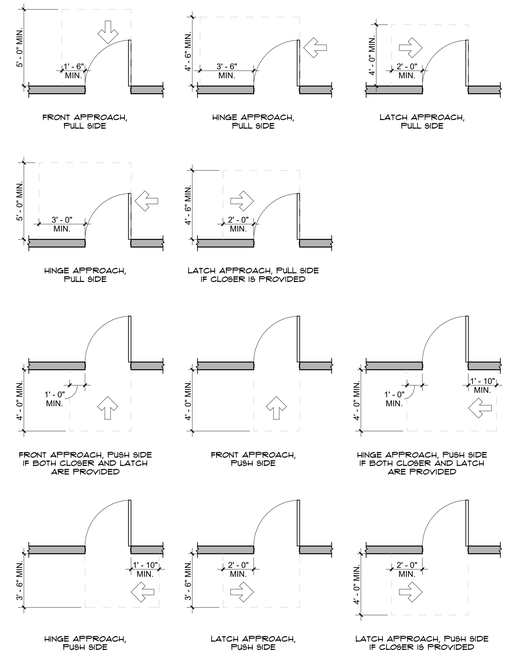
TURNING SPACE: CIRCULAR. 60 INCH DIAMETER MINIMUM AND IS PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE.

TURNING SPACE: T-SHAPE T-SHAPED SPACE WITHIN A 60 INCH SQUARE, ARMS AND BASE 36 INCH MINIMUM AND IS PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE ONLY AT THE END OF EITHER THE BASE OR ONE ARM.

CLEAR FLOOR SPACE: RECTANGULAR 30 INCH MINIMUM BY 48 INCH MINIMUM AND UNLESS OTHERWISE SPECIFIED, IS PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE.

DOOR CLEARANCES

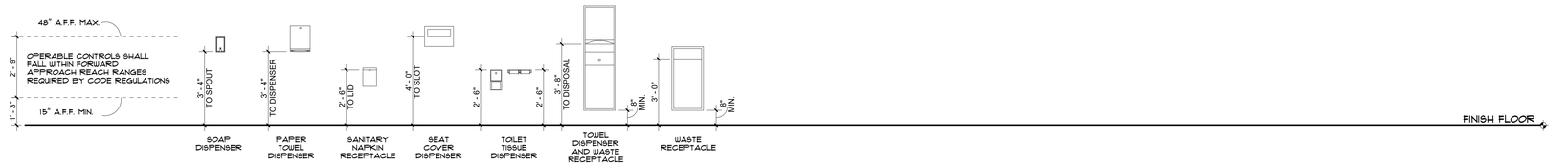
PER 2009 ICC A117.1
ACCESSIBLE & USABLE BUILDINGS & FACILITIES

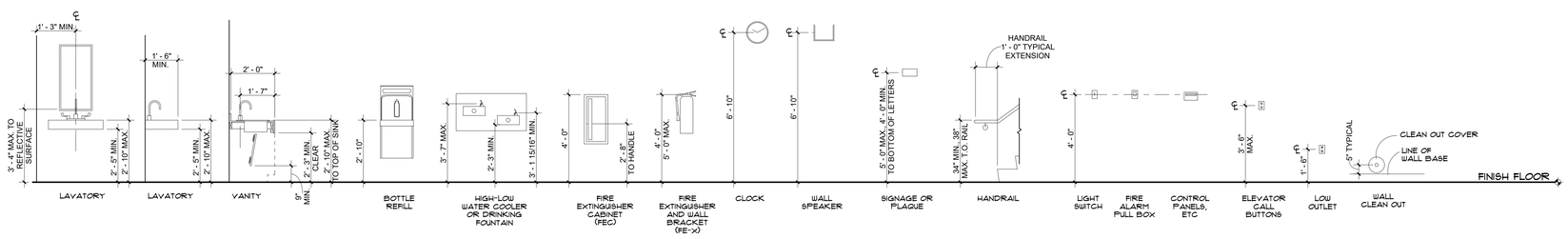


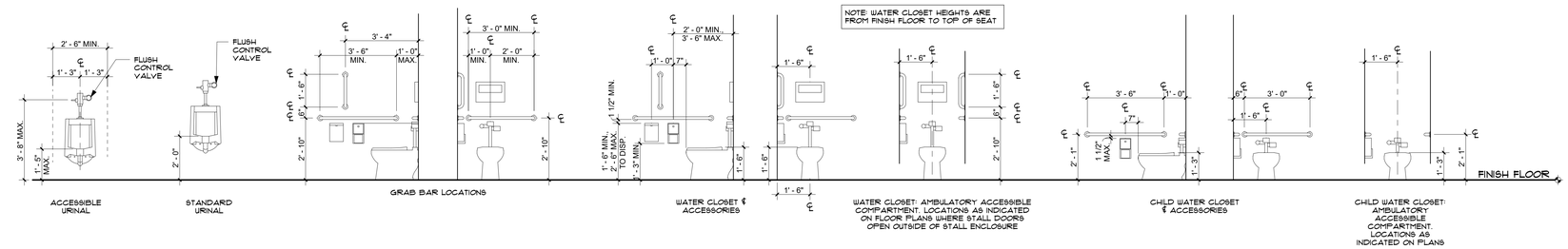
MISCELLANEOUS ACCESSORIES, TOILET ACCESSORIES AND FIXTURES

NOTES

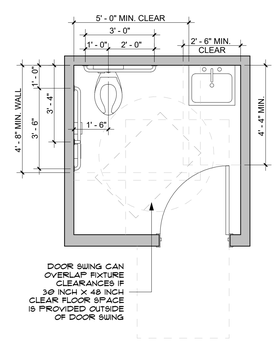
1. MOUNTING HEIGHTS SHOWN ARE FOR ALL ACCESSORIES AND FIXTURES REQUIRED, UNLESS NOTED OTHERWISE OR DIMENSIONED ON DRAWINGS FOR SPECIFIC CONDITIONS.
2. CLEARANCES, MOUNTING HEIGHTS AND LOCATIONS INDICATED APPLY TO SPECIFIC LOCATIONS THROUGHOUT PROJECT WHERE FIXTURES OCCUR. REFER TO FLOOR PLANS, ENLARGED FLOOR PLANS, A400 SERIES AND INTERIOR ELEVATIONS FOR FIXTURE LOCATIONS AND ADDITIONAL INFORMATION.
3. B.F. - DENOTES ACCESSIBLE BARRIER FREE REQUIREMENTS.



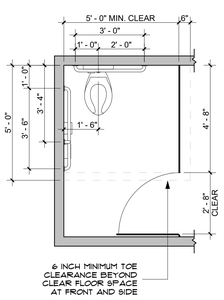




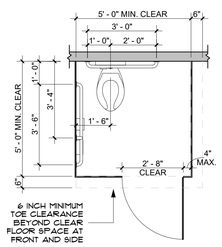
ACCESSORIES STALL PLANS



DOOR SWING CAN OVERLAP FIXTURE CLEARANCES IF 30 INCH X 48 INCH CLEAR FLOOR SPACE IS PROVIDED OUTSIDE OF DOOR SWING



6 INCH MINMUM TOE CLEARANCE BEYOND CLEAR FLOOR SPACE AT FRONT AND SIDE



6 INCH MINMUM TOE CLEARANCE BEYOND CLEAR FLOOR SPACE AT FRONT AND SIDE

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STATE OF OKLAHOMA
THOMAS C. GIBB
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TULSA, OK
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G2
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FLOOR PLAN GENERAL NOTES

NEW WALL / PARTITION

EXISTING WALL / PARTITION

4" TYP. TO FRAME UNLESS NOTED OTHERWISE

TYPICAL DOOR PLACEMENT, UNLESS NOTED OTHERWISE. APPLIES TO SINGLE AND DOUBLE DOORS

ALIGN FINISHED EDGES, UNLESS NOTED OTHERWISE

1. ALL INTERIOR DIMENSIONS ARE TO THE FACE OF STUD, UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS. CONTACT ARCHITECT FOR CLARIFICATION.
2. ALL EXTERIOR DIMENSIONS ARE FROM FACE OF EXTERIOR FINISH, UNLESS NOTED OTHERWISE.
3. UNLESS DIMENSIONED OTHERWISE, ALIGN PARTITIONS ON GRIDLINES WITH CENTERLINE OF STUD.
4. INTERIOR PARTITIONS ARE TYPE DB0 UNLESS NOTED OTHERWISE. REFER TO SHEET A5 FOR PARTITION TYPES.
5. WHEN WALL PARTITIONS OF DIFFERENT FIRE OR SOUND RATINGS INTERSECT, THE HIGHEST RATED PARTITION SHALL TAKE PRECEDENT.
6. WHERE EQUIPMENT IS SHOWN IN DASHED AND / OR HALFTONE, IT SHALL BE OWNER FURNISHED, OWNER INSTALLED, UNLESS NOTED OTHERWISE. EQUIPMENT, WHERE SHOWN, IS FOR COORDINATION AND BACKING PURPOSES ONLY. CONFIRM MAKES AND MODELS WITH OWNER. VERIFY EQUIPMENT ROUGH-IN DIMENSIONS WITH MANUFACTURER. COORDINATE UTILITIES FOR EQUIPMENT WITH OWNER'S EQUIPMENT AND MEP DOCUMENTS. CONTRACTOR TO VERIFY AND COORDINATE ALL EQUIPMENT WITH OWNER, INCLUDING BUT NOT LIMITED TO WEIGHT, LOCATION, BACKING REQUIREMENTS, POWER AND CLEARANCES.
7. REFER TO SHEET A6 FOR DOOR SCHEDULE AND DETAILS.
8. REFER TO SHEET ID1 FOR FINISH INFORMATION, SCHEDULES, AND DETAILS.
9. REFER TO A3 AND A4 SHEETS FOR ENLARGED PLANS.

PARTITION TYPES NAMING CONVENTION

STRUCTURE

A	7/8"	HAT CHANNEL
B	1 5/8"	METAL STUD
C	2 1/2"	METAL STUD
D	3 5/8"	METAL STUD
E	4"	METAL STUD
F	6"	METAL STUD
G	3 5/8"	DOUBLE METAL STUD
J	2 1/2"	C-H METAL STUD
K	4"	C-H METAL STUD
L	6"	C-H METAL STUD
M	2X4	WOOD STUD
N	2X6	WOOD STUD
P	4"	CMU
Q	6"	CMU
R	8"	CMU
S	12"	CMU
Z	1 1/2"	"Z" FURRING CHANNEL

SUB-TYPE

A	6" ABOVE CEILING, BRACED HEAD (OR STR TO STRUCTURE ABOVE IF UNDER 24")
B	TO UNDERSIDE OF STRUCTURE ABOVE
C	STR TO UNDERSIDE OF STRUCTURE ABOVE, GYP TO 6" ABOVE CEILING
D	STR & GYP ONE SIDE TO STRUCTURE, GYP OTHER SIDE TO 6" ABOVE CEILING
F	FURRING: 6" ABOVE CEILING
G	FURRING: TO UNDERSIDE OF STRUCTURE
H	FURRING: PARTIAL HEIGHT
L	LEAD LINED
P	PARTIAL HEIGHT
R	SHEAR WALL; REFER TO STRUCTURAL
S	SOUND: TO STRUCTURE ABOVE, SOUND BATTS
V	SOUND PART: (2) LAYERS GYP ONE SIDE (1) LAYER OTHER SIDE, SOUND BATTS
W	SOUND PART: (2) LAYERS GYP, SOUND BATTS

FIRE RESISTANCE RATING

0	NON-RATED
1	1 HOUR
2	2 HOUR
3	3 HOUR
4	4 HOUR

SMOKE RATED

X SMOKE PARTITON, SMOKE BARRIER OR WALL RESISTING THE PASSAGE OF SMOKE

EXAMPLE

DS
1X

STRUCTURE
SUB-TYPE
SMOKE RATED (OPTIONAL)
FIRE RATING

D = 3 5/8" METAL STUD
S = SOUND PARTITION
1 = 1 HR FIRE RESISTANCE RATING
X = SMOKE RATED PARTITION

PARTITION TYPES GRAPHICS CONVENTION

TYPICAL PARTITION WITH NO SPECIAL MATERIALS OR RATINGS

TYPICAL PARTITION

FIRE RATED PARTITIONS USE STRIPES TO CONVEY HOURS

1-HR FIRE RATING

2-HR FIRE RATING

3-HR FIRE RATING

SMOKE RESISTANCE IS NOTED WITH THIN DIAGONAL HATCH

SMOKE PARTITION

PARTITIONS WITH COMBINED FIRE RATING & SMOKE RESISTANCE

1-HR FIRE/SMOKE RATED

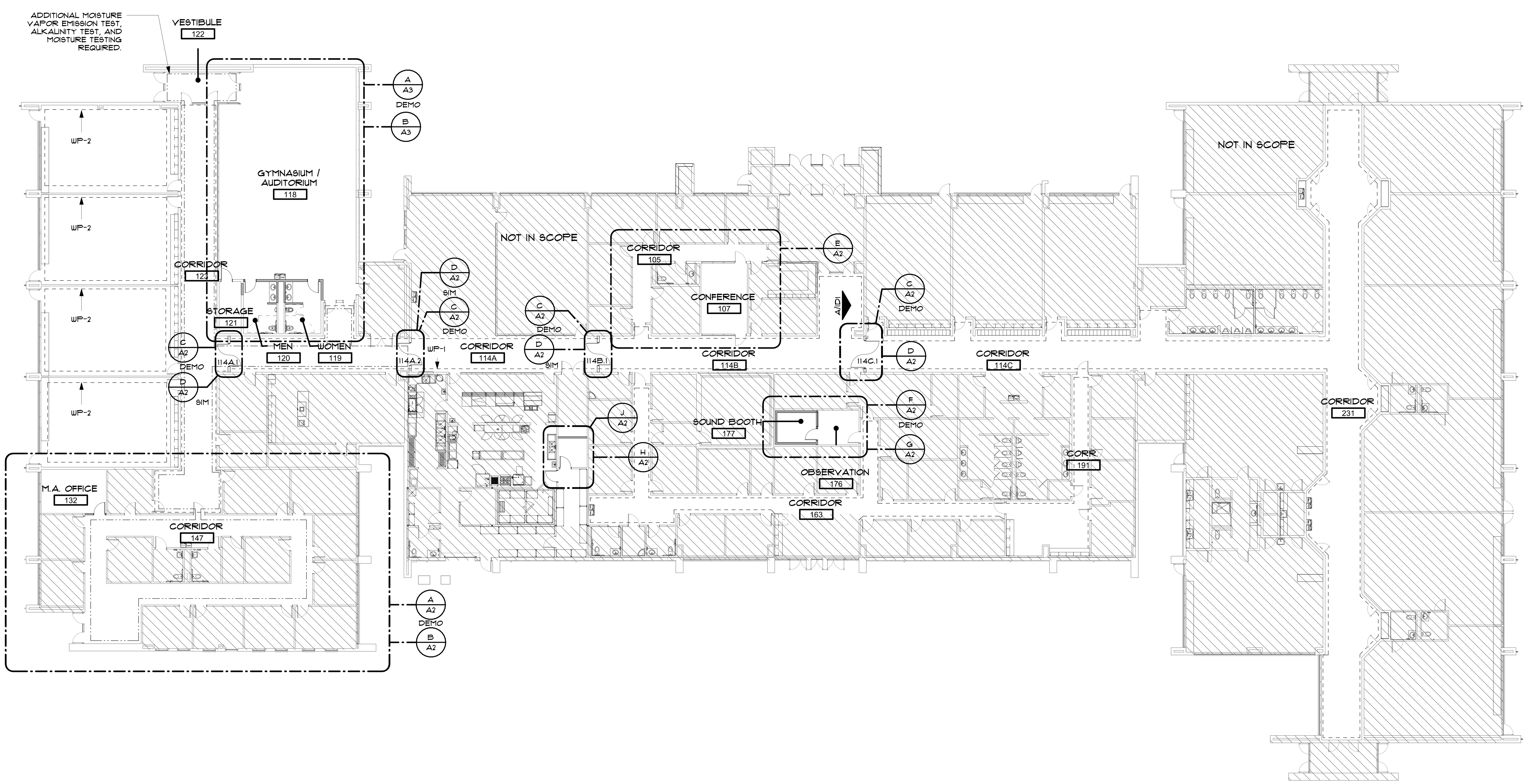
2-HR FIRE/SMOKE RATED

RATINGS MAY BE COMBINED WITH SPECIAL WALL MATERIALS; EX:

1-HR FIRE RATED MASONRY

2-HR FIRE/SMOKE RATED MASONRY

1-HR CONCRETE



A FIRST FLOOR PLAN

1/16" = 1'-0"

0' 4' 8' 16' 32'

NORTH

blue river ARCHITECTS
A Native American Owned Firm

STATE OF OKLAHOMA
THOMAS C. BE...
No. 4183
TULSA
OK
LICENSED ARCHITECT
5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

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FLOOR PLAN - FIRST FLOOR

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SHEET NUMBER:
A1

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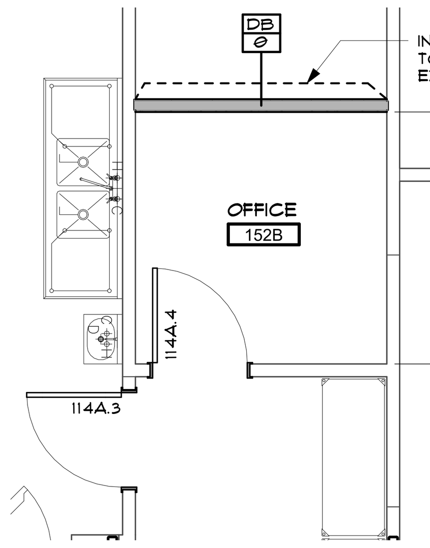
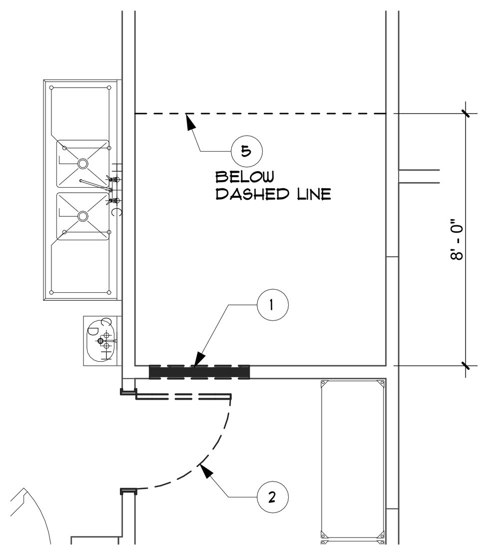
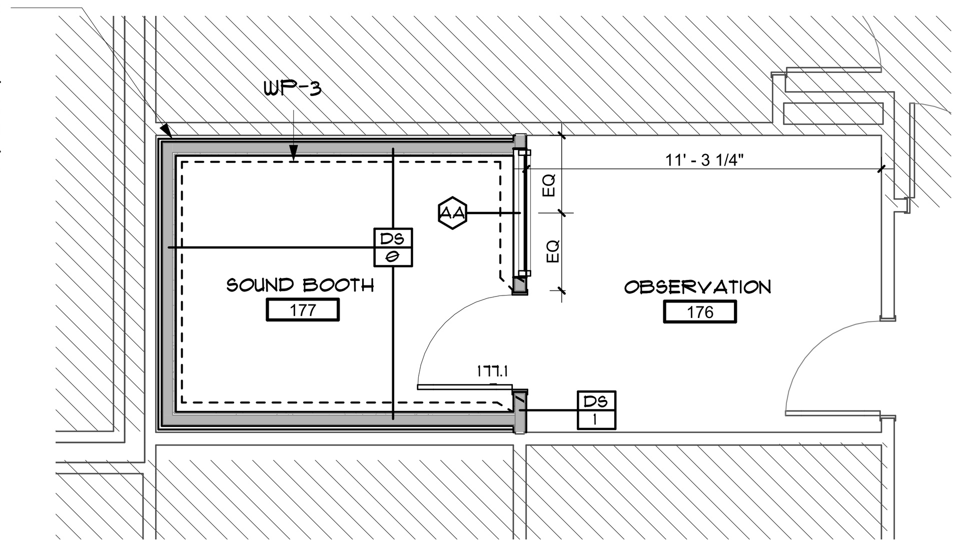


J ENLARGED PLAN
1/4" = 1'-0"

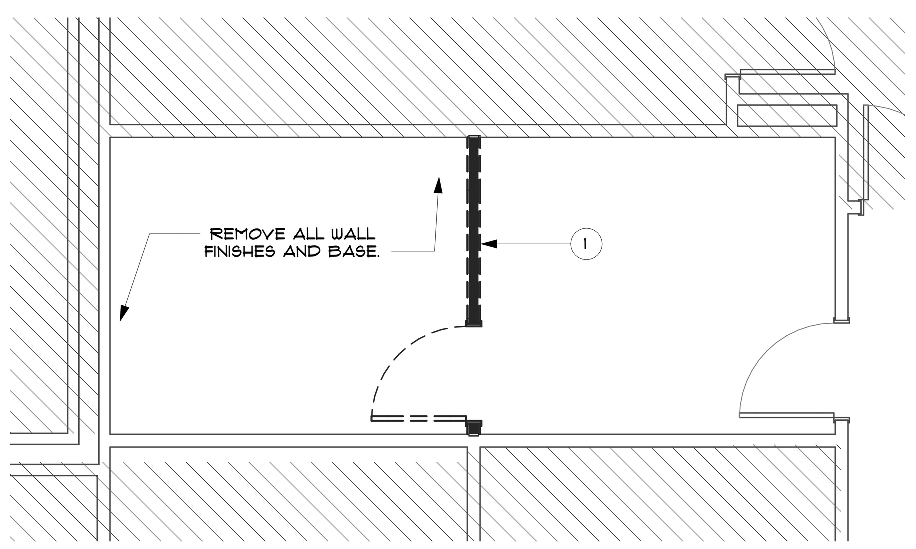


H ENLARGED DEMOLITION PLAN
1/4" = 1'-0"

INSTALL 1-LAYER OF 5/8" ACOUSTIC SOUND DAMPERING WALL BOARD ON RESILIENT CHANNEL ON EXISTING PARTITION, FILL ABANDONED ELECTRICAL BOXES WITH SPRAY FOAM. CAP ALL ELECTRICAL BOXES IN EXISTING PARTITIONS.



G ENLARGED PLAN
1/4" = 1'-0"



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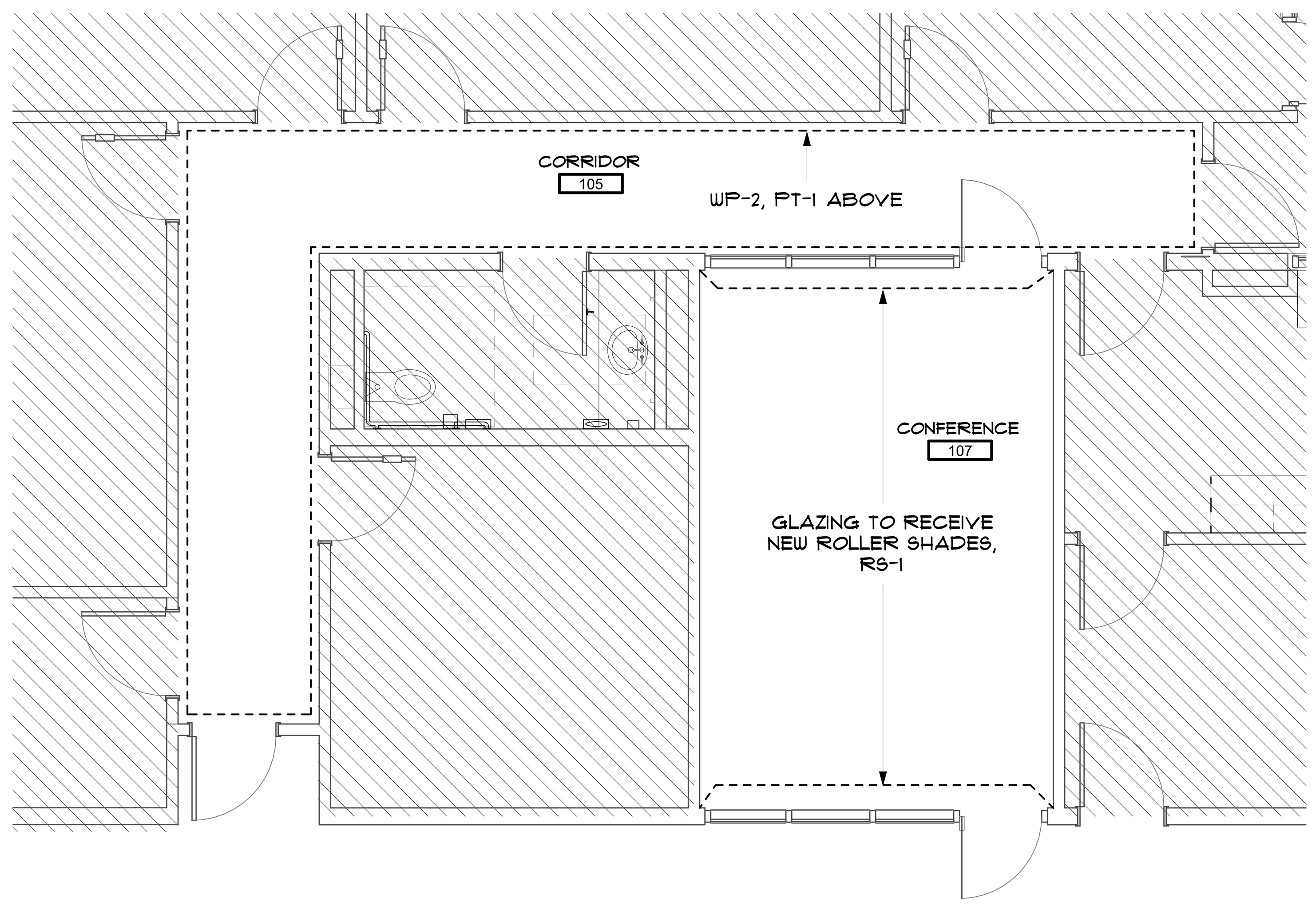
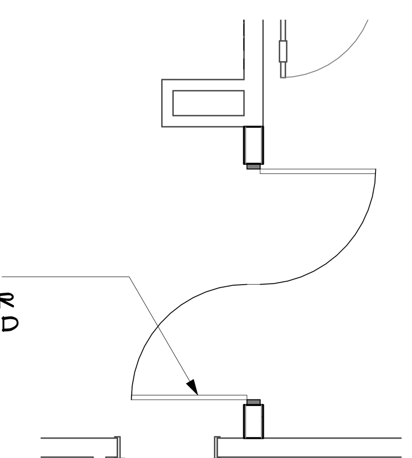
1/4" = 1'-0"

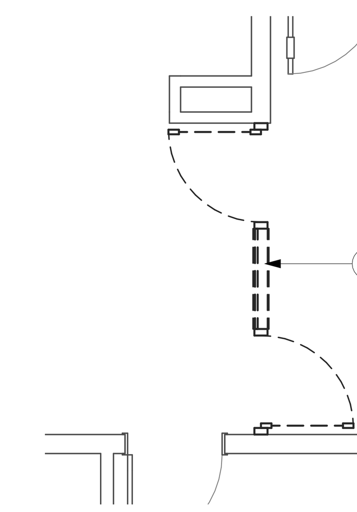


E ENLARGED PLAN
1/4" = 1'-0"

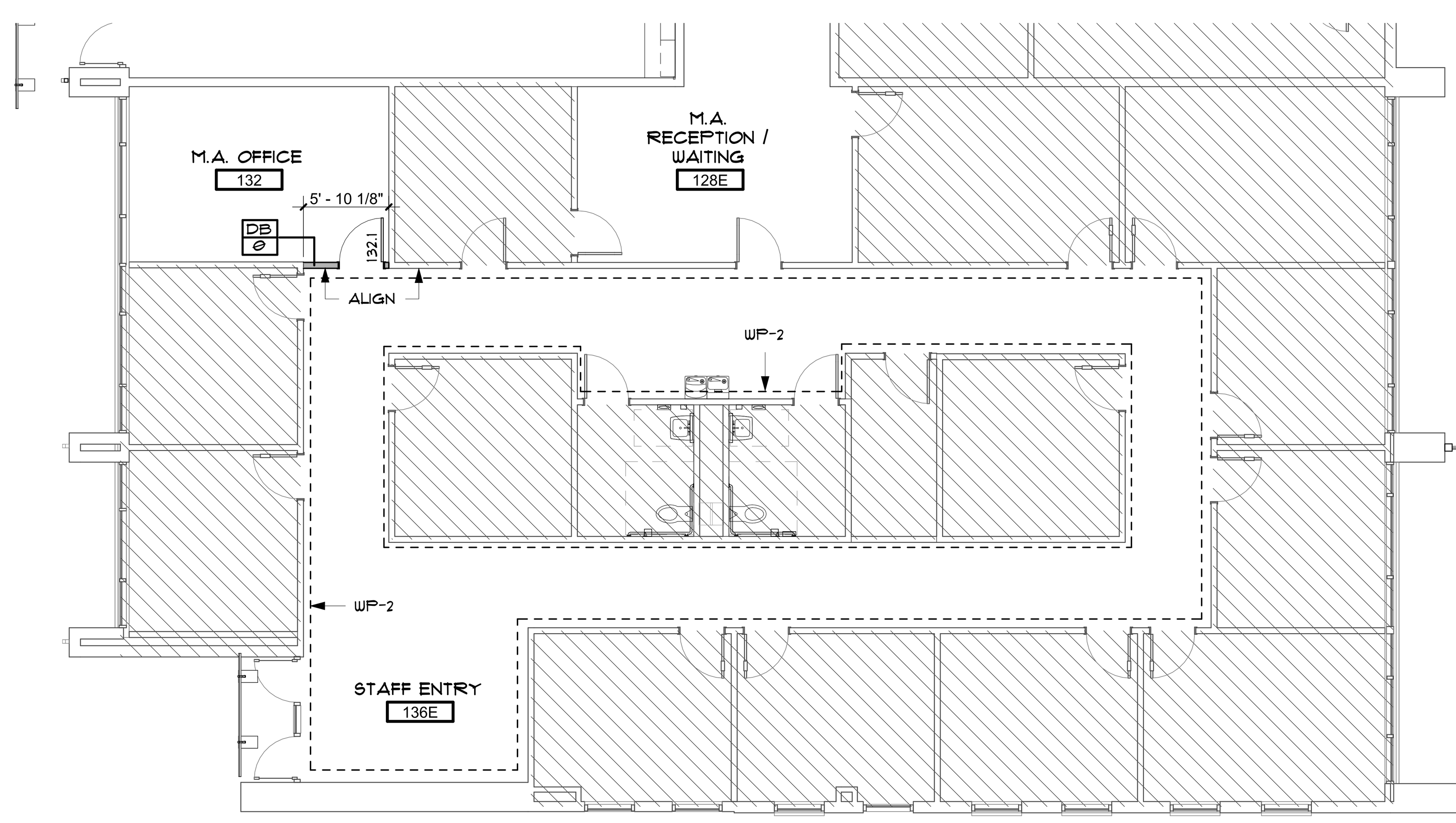
REFER TO A1 FOR NEW DOOR LOCATIONS AND TAGS



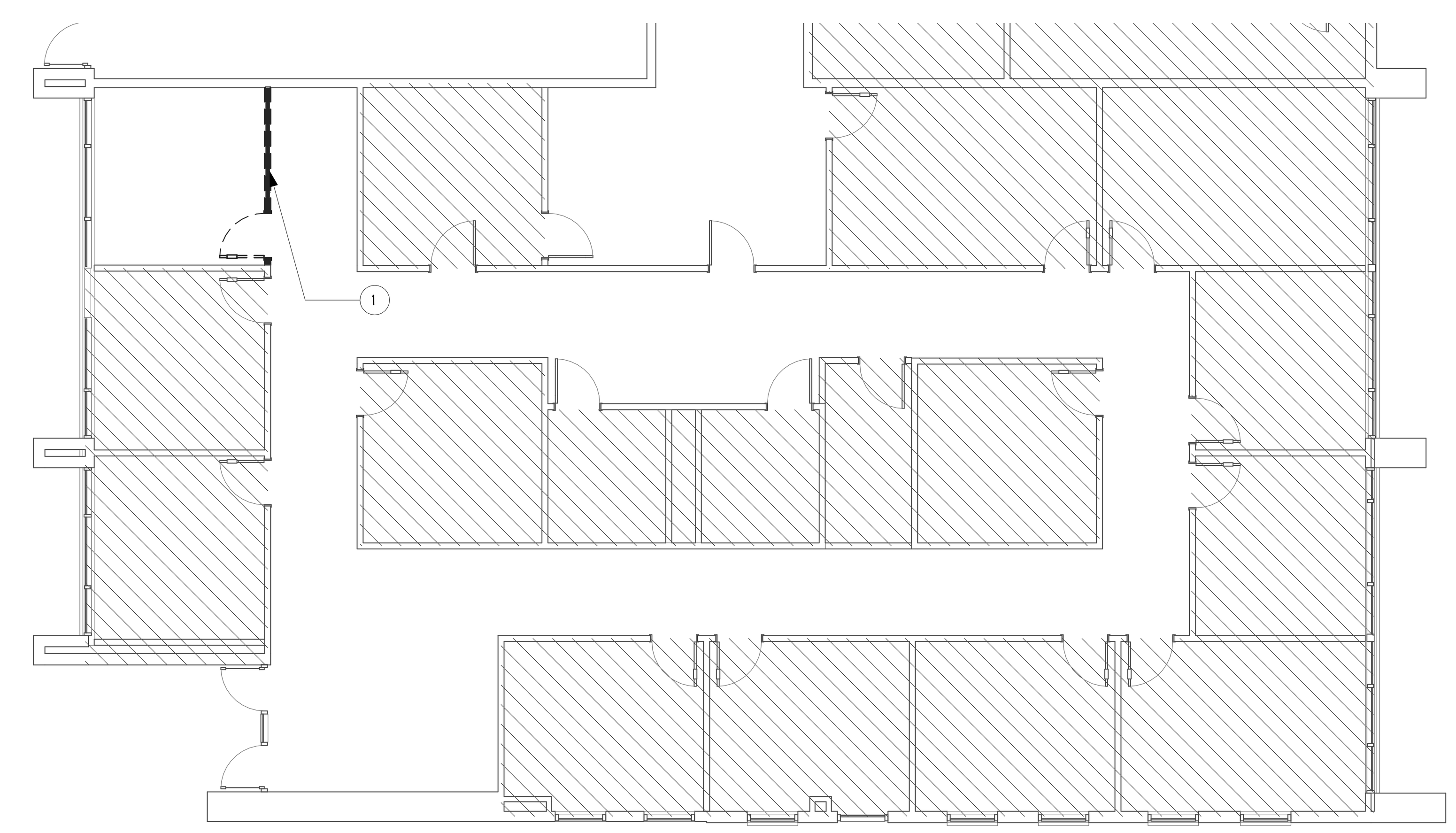
D ENLARGED PLAN
1/4" = 1'-0"



C ENLARGED DEMOLITION PLAN
1/4" = 1'-0"



B ENLARGED PLAN
1/8" = 1'-0"



A ENLARGED DEMOLITION PLAN
1/8" = 1'-0"

0' 2' 4' 8' 16' NORTH

DEMOLITION KEYOTES

KEY NOTE NUMBER	KEY NOTE TEXT
1	REMOVE PARTITION INCLUDING ALL ELECTRICAL DEVICES.
2	REMOVE DOOR, HARDWARE, AND FRAME ASSEMBLY IN ITS ENTIRETY.
3	REMOVE WINDOW SYSTEM.
4	REMOVE EXISTING LIGHT FIXTURES, CONDUIT AND WIRING IN ITS ENTIRETY.
5	REMOVE ALL ROOM FINISHES INCLUDING CEIING AND FLOORING, UNLESS NOTED OTHERWISE.
6	REMOVE ALL RESTROOM PLUMBING FIXTURES AND ACCESSORIES, INCLUDING TOILET PARTITIONS, MIRRORS, HAND WASHING ACCESSORIES, AND FLOOR DRAINS.
7	REMOVE EXISTING CONCRETE SLAB IN ITS ENTIRETY.
8	REMOVE PORTION OF INTERIOR WALL - PREPARE AREA FOR NEW DOOR OR WALL OPENING.
9	REMOVE PORTION OF EXTERIOR WALL - PREPARE AREA FOR NEW DOOR OR WALL OPENING.
10	REMOVE PAVING, SIDEWALKS AND RAMPS.
11	REMOVE EXISTING DOWNSPOUTS AND GUTTER SYSTEMS.
12	REMOVE EXTERIOR LIGHTING.
13	REMOVE METAL RAILING, GRATES AND GUARDRAILS.
14	REMOVE EXISTING MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DEMOLITIONS SHEETS FOR MORE INFORMATION.
15	REMOVE SECURITY CAMERAS AND RETURN TO OWNER.
16	REMOVE EXISTING EXTERIOR SIGNAGE AND RETURN TO OWNER.

FLOOR PLAN GENERAL NOTES

NEW WALL / PARTITION

EXISTING WALL / PARTITION

4" TYP. TO FRAME UNLESS NOTED OTHERWISE

TYPICAL DOOR PLACEMENT, UNLESS NOTED OTHERWISE. APPLIES TO SINGLE AND DOUBLE DOORS

ALIGN FINISHED EDGES, UNLESS NOTED OTHERWISE

1. ALL INTERIOR DIMENSIONS ARE TO THE FACE OF STUD, UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS. CONTACT ARCHITECT FOR CLARIFICATION.
2. ALL EXTERIOR DIMENSIONS ARE FROM FACE OF EXTERIOR FINISH, UNLESS NOTED OTHERWISE.
3. UNLESS DIMENSIONED OTHERWISE, ALIGN PARTITIONS ON GRIDLINES WITH CENTERLINE OF STUD.
4. INTERIOR PARTITIONS ARE TYPE DB0 UNLESS NOTED OTHERWISE. REFER TO SHEET A5 FOR PARTITION TYPES.
5. WHEN WALL PARTITIONS OF DIFFERENT FIRE OR SOUND RATINGS INTERSECT, THE HIGHEST RATED PARTITION SHALL TAKE PRECEDENT.
6. WHERE EQUIPMENT IS SHOWN IN DASHED AND / OR HALFTONE, IT SHALL BE OWNER FURNISHED, OWNER INSTALLED, UNLESS NOTED OTHERWISE. EQUIPMENT, WHERE SHOWN, IS FOR COORDINATION AND BACKING PURPOSES ONLY. CONFIRM MAKES AND MODELS WITH OWNER. VERIFY EQUIPMENT ROUGH-IN DIMENSIONS WITH MANUFACTURER. COORDINATE UTILITIES FOR EQUIPMENT WITH OWNER'S EQUIPMENT AND MEP DOCUMENTS. CONTRACTOR TO VERIFY AND COORDINATE ALL EQUIPMENT WITH OWNER, INCLUDING BUT NOT LIMITED TO WEIGHT, LOCATION, BACKING REQUIREMENTS, POWER AND CLEARANCES.
7. REFER TO SHEET A6 FOR DOOR SCHEDULE AND DETAILS.
8. REFER TO SHEET ID1 FOR FINISH INFORMATION, SCHEDULES, AND DETAILS.
9. REFER TO A3 AND A4 SHEETS FOR ENLARGED PLANS.

DEMOLITION GENERAL NOTES

1. COORDINATE ALL DEMOLITION WITH NEW CONSTRUCTION AND RENOVATION WORK PRIOR TO START. EXTENT AND LOCATIONS OF BUILDING, SITE AND MECHANICAL, ELECTRICAL AND PLUMBING SYSTEM DEMOLITION IS APPROXIMATE. VERIFY AND COORDINATE EXACT EXTENTS AND START AND STOP POINTS WITH NEW WORK.
2. ITEMS SHOWN ON DEMOLITION PLANS WITH DASHED LINEWORK ARE TO BE REMOVED. SEE ADDITIONAL NOTES ON FLOOR PLAN.
3. VERIFY QUANTITY OF MATERIALS REQUIRED FOR DEMOLITION AND NEW CONSTRUCTION.
4. DISPOSE OF ALL ITEMS IN A LEGAL MANNER.
5. LOCATE AND PROTECT ANY STRUCTURAL COMPONENTS THAT ARE WITHIN WALLS, CEILINGS OR FLOORS, UNLESS SPECIFICALLY IDENTIFIED TO BE REMOVED.
6. REMOVE EXISTING INTERIOR PARTITIONS AS INDICATED ON PLAN TO ACCOMMODATE NEW CONSTRUCTION. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR REUSED OR RELOCATED DEVICES OR FIXTURES. CONFIRM IF A WALL IS OR IS NOT LOAD BEARING PRIOR TO REMOVING ANY PORTION. IF A WALL IS FOUND TO BE LOAD BEARING, AND IS NOT ADDRESSED IN THE DRAWINGS, CONTACT THE ARCHITECT FOR DIRECTION TO RETAIN THE STRUCTURAL INTEGRITY OF THE SUPPORTED STRUCTURE.
7. ALL EXISTING WALLS, FLOORS AND CEILINGS TO REMAIN SHALL BE PATCHED AND REPAIRED IF DAMAGE OCCURS DURING DEMOLITION OR CONSTRUCTION. PATCH AND REPAIR EXISTING SUBSTRATES THAT ARE TO REMAIN AS REQUIRED TO PREPARE THEM FOR NEW WORK AND FINISHES AS DEFINED ELSEWHERE IN THE DOCUMENTS. REPAIR CRACKS AND / OR STRUCTURAL DAMAGE RESULTING FROM DEMOLITION SHALL BE TO THE SATISFACTION OF THE OWNER AND THE ARCHITECT.
8. DUST WALLS SHALL BE INSTALLED AS REQUIRED TO ISOLATION DEMOLITION AREA FROM OCCUPIED AREA. COORDINATE WITH OWNER. MAINTAIN FIRE EXITS AT ALL TIMES.
9. REMOVE EXISTING LIGHT FIXTURES AND CEILINGS IN THEIR ENTIRETY, UNLESS NOTED OTHERWISE. LOCATIONS OF EXISTING FIXTURES ARE BASED ON GENERAL FIELD OBSERVATIONS. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF FIXTURES AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. DE-ENERGIZE CIRCUITS UNTIL READY FOR NEW LIGHTING. COORDINATE WITH ELECTRICAL DRAWINGS TO DETERMINE IF CIRCUITS WILL BE REUSED, RELOCATED, OR ABANDONED. REMOVE CONDUCTORS AND CONDUIT BACK TO SOURCE FOR CIRCUITS THAT WILL BE ABANDONED.
10. REMOVE ALL ABANDONED AND NON-OPERATIONAL CABLING ABOVE CEILINGS IN AREA OF WORK. TAKE CARE TO NOT CUT EXISTING DATA OR FIBER THAT IS TO REMAIN FOR THE FUNCTIONING IT ROOM / SERVER. REMOVE ELECTRICAL OUTLETS, TELEPHONE / DATA OUTLETS, LIGHT SWITCHES, AND OTHER DEVICES IN PARTITIONS TO BE DEMOLISHED. REMOVE WIRING BACK TO CLOSEST WALL TO REMAIN AND TERMINATE IN NEW JUNCTION BOX. ALL ELECTRICAL, TELEPHONES, DATA, AND PLUMBING ITEMS NOT REUSED SHALL BE REMOVED IN THEIR ENTIRETY.
11. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, STRUCTURAL AND CIVIL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
12. REMOVE ITEMS IDENTIFIED AS SALVAGED OR SCHEDULED FOR RE-USE. STORE IN PROTECTED AREA UNTIL REINSTALLATION. REPAIR DAMAGE CAUSE BY CARELESS REMOVAL OR IMPROPER STORAGE OR REPLACE SUCH ITEMS TO THE OWNER'S SATISFACTION.
13. REMOVE AND DISPOSE OF EXISTING FLOORING IN AREAS SHOWN TO BE REPLACED. REMOVE TO SUBSTRATE, LEAVING SURFACE READY FOR THE INSTALLATION OF NEW FINISH AS SCHEDULED. PATCH HOLES AND IMPERFECTIONS IN SUBSTRATE AS REQUIRED.
14. CONTACT ARCHITECT BEFORE REMOVING OR DEMOLISHING ANY EXISTING CONSTRUCTION OR ITEMS NOT SHOWN TO BE REMOVED.
15. REMOVE FIXTURES, RECEPTACLES, DEVICES, ETC. AS REQUIRED TO FACILITATE DEMOLITION. STORE DEVICES AND REINSTALL WHERE DIRECTED.
16. REMOVE ALL ITEMS FROM WALLS WITHIN AREAS OF WORK AND PREPARE FOR NEW WORK.
17. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND FINAL CONDITION OF ALL EXISTING ADJACENT FINISHES TO REMAIN.
18. CONTACT ARCHITECT FOR ANY UNSEEN CONDITIONS OR UNCERTAIN AREAS THAT ARE NOT CLEARLY DEFINED BY THE DOCUMENTS.
19. REMOVE ALL PLUMBING LINES TO A POINT BELOW THE FINISH SLAB. PLUG AND CAP ALL LINES TO ENSURE A LEAK FREE CONDITION, INCLUDING SEWER GASES.
20. COMPLY WITH REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION. DO NOT USE WATER WHEN IT MAY CREATE HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS FLOODING AND POLLUTION.
21. EXISTING BUILDINGS TO REMAIN IN WATERTIGHT CONDITION.
22. ANY MATERIALS TO BE RECLAIMED SHALL BE AT THE DISCRETION OF THE CONTRACTOR IF NOT INDICATED OR REQUIRED TO BE SALVAGED AND TURNED OVER TO THE OWNER.
23. VISIT THE EXISTING FACILITY TO DETERMINE THE EXTENT AND NATURE OF THE WORK AND THE CONDITIONS WITHIN WHICH THE WORK MUST BE ACCOMPLISHED. SUBMISSION OF BID WILL CONSTITUTE ACCEPTANCE OF EXISTING CONDITIONS.
24. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
25. CONTRACTOR IS RESPONSIBLE FOR TESTING FOR LEAD BASED PAINT, AND MEETING LOCAL CODES GOVERNING METHODS OF REMOVING TOXIC MATERIALS AND TOXIC RESIDUE.
26. PROTECT ADJACENT SURFACES AND FEATURES FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO RESTORE ORIGINAL CONDITION ITEMS OR AREAS DAMAGED DURING CONSTRUCTION.

blue river ARCHITECTS
A Native American Owned Firm

STATE OF OKLAHOMA · THOMAS C. SE... · No. 4183 · TULSA, OK · LICENSED ARCHITECT
5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
A2 ENLARGED DEMOLITION AND DIMENSION PLANS

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A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20210121.60
ISSUE DATE:
5/12/2025
ISSUE:
CONSTRUCTION DOCUMENTS
OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
ENLARGED DEMOLITION AND DIMENSION PLANS

SHEET NUMBER:
A2

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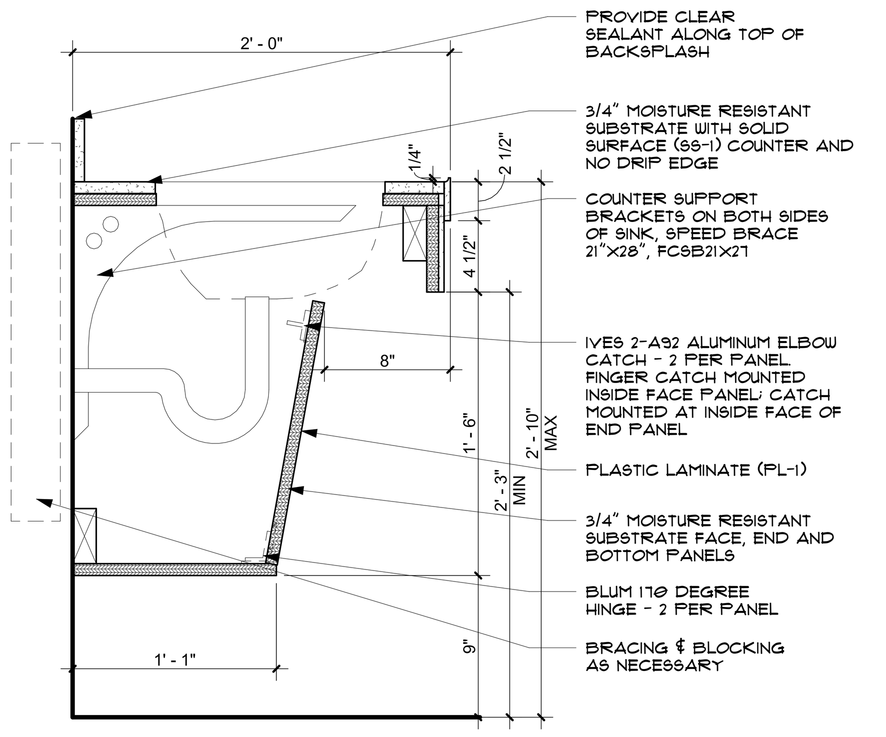
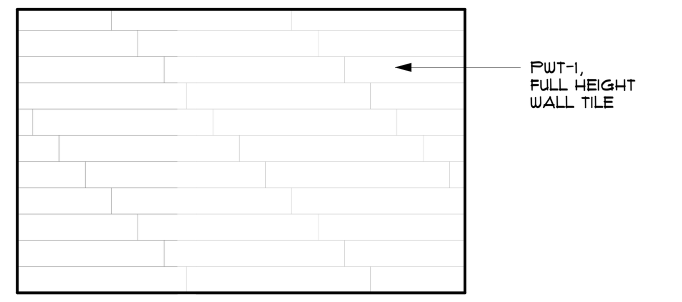
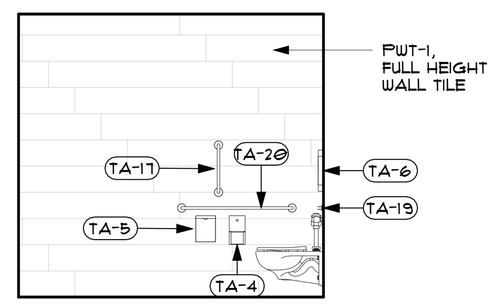


G SINK APRON
1 1/2" = 1'-0"



F RESTROOM ELEVATION
1/4" = 1'-0"



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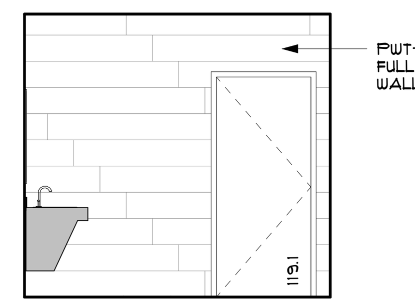

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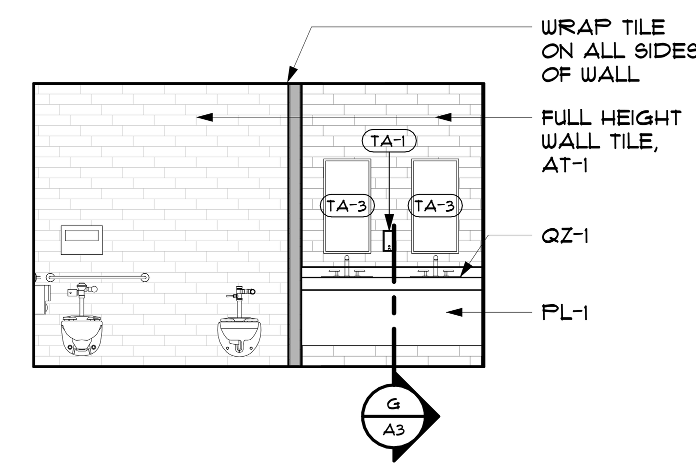

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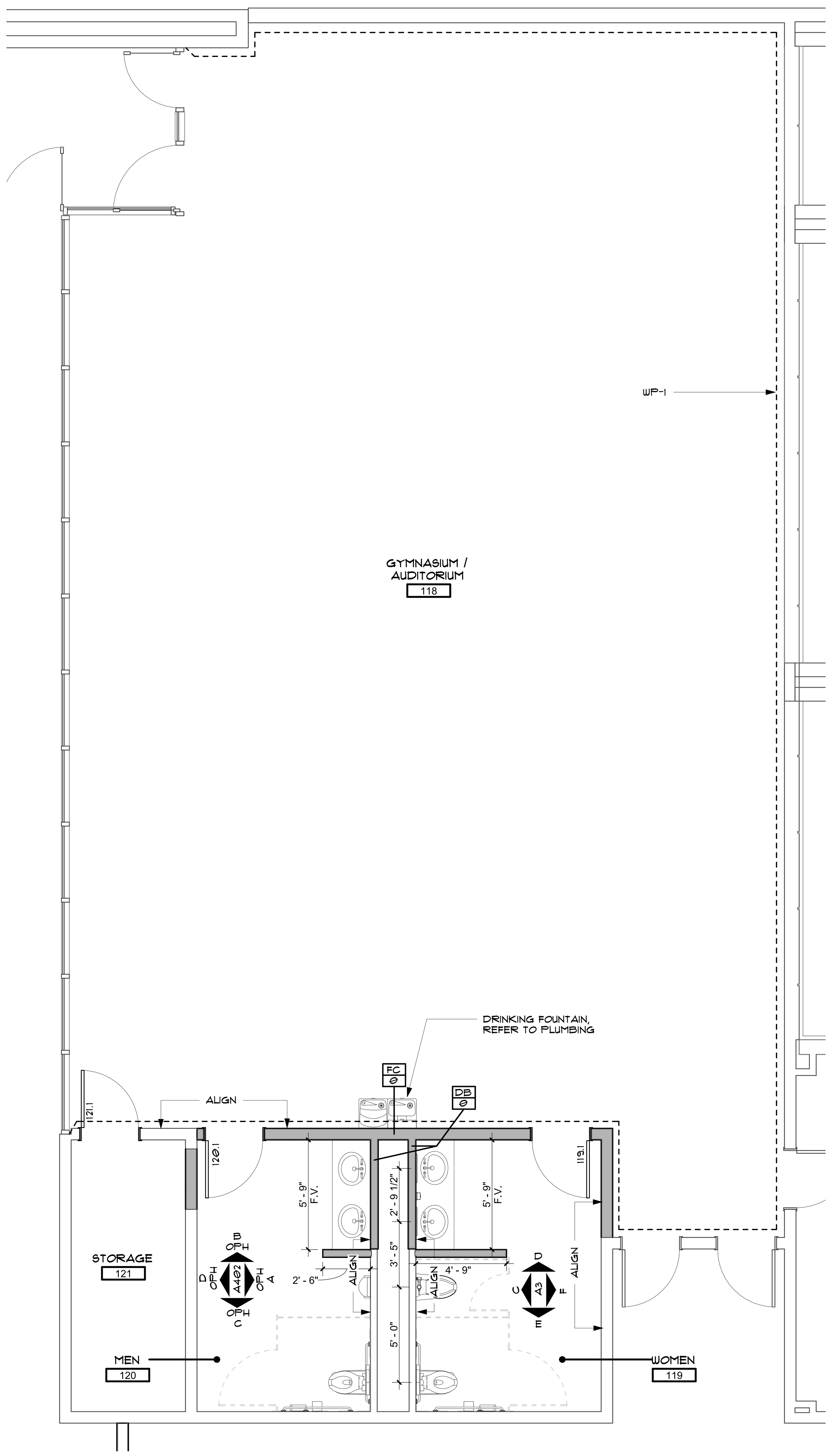
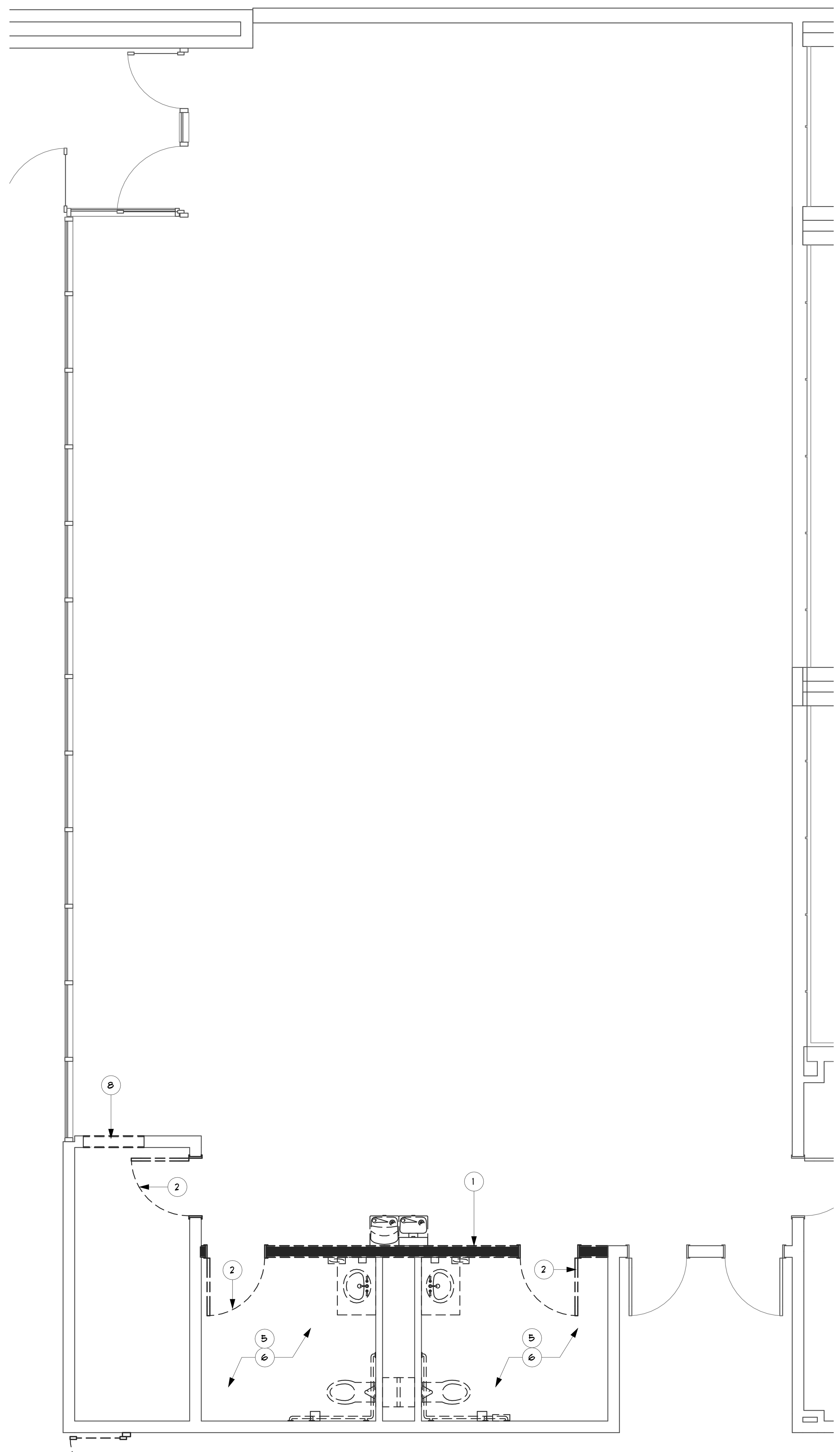


B ENLARGED PLAN
1/4" = 1'-0"



A ENLARGED DEMOLITION PLAN
1/4" = 1'-0"

TOILET ACCESSORY SCHEDULE				
TA#	DESCRIPTION	MANUFACTURER	MODEL	NOTES
TA-1	CLASSIC SERIES SURFACE MOUNTED SOAP DISPENSER	BOBRICK WASHROOM EQUIPMENT, INC.	B-2111	
TA-3	GLASS MIRROR WITH STAINLESS STEEL ANGLE FRAME	BOBRICK WASHROOM EQUIPMENT, INC.	B-2908 SERIES	
TA-4	SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER	BOBRICK WASHROOM EQUIPMENT, INC.	B-2888	
TA-5	SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL	BOBRICK WASHROOM EQUIPMENT, INC.	B-270	
TA-6	CLASSIC SERIES SURFACE MOUNTED SEAT COVER DISPENSER	BOBRICK WASHROOM EQUIPMENT, INC.	B-221	
TA-17	GRAB BARS	BRADLEY CORPORATION	812	
TA-19	GRAB BARS	BRADLEY CORPORATION	812	
TA-20	GRAB BARS	BRADLEY CORPORATION	812	

TOILET ACCESSORIES GENERAL NOTES

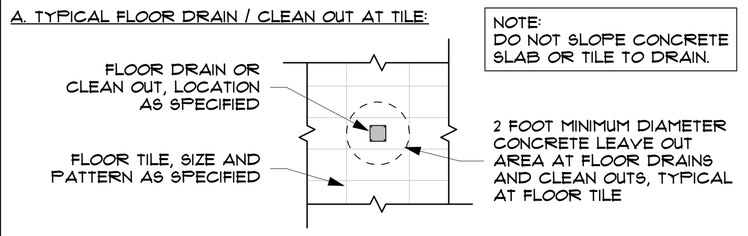
1. REFER TO ACCESSIBLE MOUNTING HEIGHTS AND CLEARANCES INDICATED ON SHEET G004. REFER TO SPECIFICATION 102800 - TOILET, BATH AND LAUNDRY ACCESSORIES FOR ADDITIONAL INFORMATION. COORDINATE AND VERIFY ALL OFOI AND OFCI ITEMS WITH OWNER.
2. TOILET PAPER DISPENSER, OFOI. LOCATIONS NOT SHOWN. PROVIDE ONE PER WATER CLOSET. COORDINATE MOUNTING WITH TOILET PARTITION DOOR SWING.
3. AUTOMATIC SOAP DISPENSER, CFCI. LOCATIONS NOT SHOWN. DECK-MOUNTED, RIGHT SIDE OF FAUCET, ONE PER LAVATORY, RE: MEP.
4. MANUAL SOAP DISPENSER, CFCI. LOCATIONS NOT SHOWN. PROVIDE OWNER PER TILE SHOWER, RE: SPECIFICATIONS.
5. GRAB BARS, CFCI. PROVIDE 18 INCH, 36 INCH AND 42 INCH GRAB BARS AS INDICATED ON SHEET G001 AND AS REQUIRED BY CODE AT ALL WATER CLOSETS.
6. SANITARY NAPKIN DISPOSAL UNIT, CFCI. LOCATIONS NOT SHOWN. PROVIDE ONE PER WATER CLOSET IN WOMENS TOILET ROOMS. PROVIDE ONE PER SINGLE OCCUPANCY TOILET ROOMS.
7. DOOR AND STALL DOOR HOOKS, CFCI. LOCATIONS NOT SHOWN. PROVIDE ONE HOOK PER ENTRY DOOR AT SINGLE OCCUPANCY WATER CLOSETS. RE: SPECIFICATION SECTION 087100 - DOOR HARDWARE. PROVIDE ONE HOOK PER STALL DOOR. RE: SPECIFICATION 102113.19 - PLASTIC TOILET COMPARTMENTS.
8. MOP AND BROOM HOLDER / COMBINATION UTILITY SHELF, CFCI. PROVIDE ONE AT EACH UTILITY SINK, RE: SPECIFICATIONS.
9. PROVIDE TILE BEHIND MIRRORS, TYPICAL. VANITY MIRROR TO BE INSTALLED AT 3'-0" ABOVE FINISH FLOOR TO ALIGN WITH GROUT LINES.

TYPICAL TILE AND FLOOR DRAIN DIAGRAMS

THE FOLLOWING DESIGN CRITERIA APPLIES UNLESS SPECIFICALLY NOTED AND DIMENSIONED OTHERWISE.

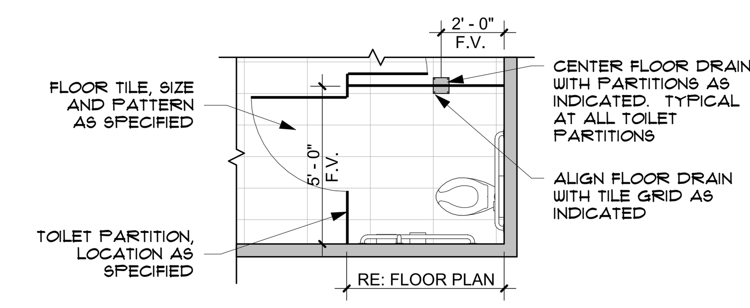
A. TYPICAL FLOOR DRAIN / CLEAN OUT AT TILE:

NOTE:
DO NOT SLOPE CONCRETE SLAB OR TILE TO DRAIN.



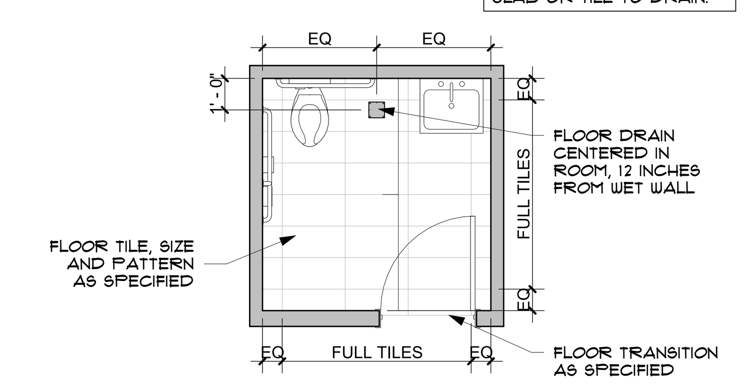
B. TYPICAL FLOOR DRAIN AT TOILET PARTITION:

NOTE:
DO NOT SLOPE CONCRETE SLAB OR TILE TO DRAIN.



C. TYPICAL FLOOR DRAIN AND TILE LAYOUT:

NOTE:
DO NOT SLOPE CONCRETE SLAB OR TILE TO DRAIN.



DEMOLITION KEYOTES	
KEY NOTE NUMBER	KEY NOTE TEXT
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15	REMOVE SECURITY CAMERAS AND RETURN TO OWNER.
16	REMOVE EXISTING EXTERIOR SIGNAGE AND RETURN TO OWNER.

blue river ARCHITECTS
A Native American Owned Firm

5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
A3
ENLARGED DIMENSION PLANS, INTERIOR ELEVATIONS, AND CASEWORK

blue river ARCHITECTS
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CONSTRUCTION DOCUMENTS

OTHER ISSUE DATES:

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SHEET NAME:
ENLARGED DIMENSION PLANS, INTERIOR ELEVATIONS, AND CASEWORK

SHEET NUMBER:
A3

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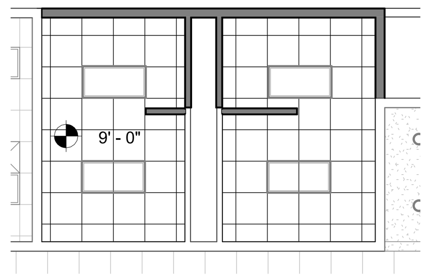
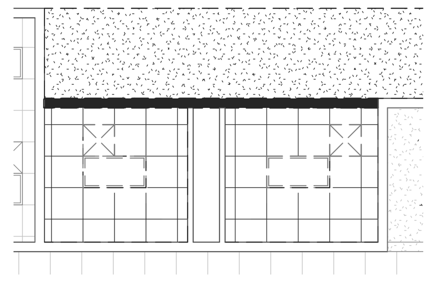


G ENLARGED RCP
1/8" = 1'-0"



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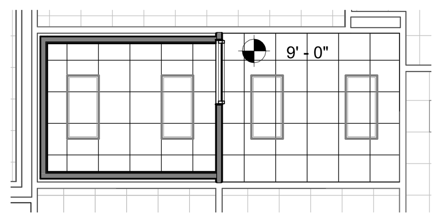

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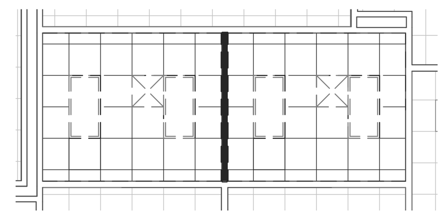

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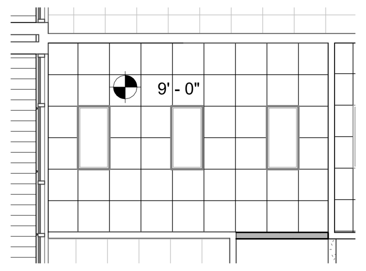

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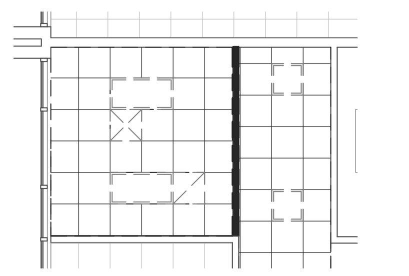
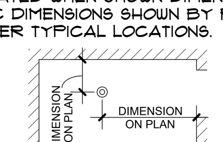


B ENLARGED DEMOLITION RCP
1/8" = 1'-0"

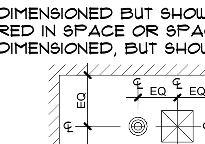
REFLECTED CEILING PLAN DIAGRAMS

THE FOLLOWING DESIGN CRITERIA APPLIES UNLESS SPECIFICALLY NOTED AND DIMENSIONED OTHERWISE.

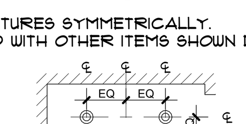
A. DIMENSIONS: WHEN COMPLETELY DIMENSIONED ON CEILING PLAN. LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED BY A REFLECTED CEILING PLAN. SPECIFIC DIMENSIONS SHOWN BY REFLECTED CEILING PLANS TAKE PRECEDENCE OVER TYPICAL LOCATIONS.



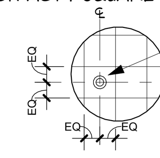
B. CENTERING: WHEN NOT DIMENSIONED BUT SHOWN CENTERED. LOCATE ITEMS CENTERED IN SPACE OR SPACE CREATED BETWEEN TWO ELEMENTS WHEN NOT DIMENSIONED, BUT SHOWN CENTERED.



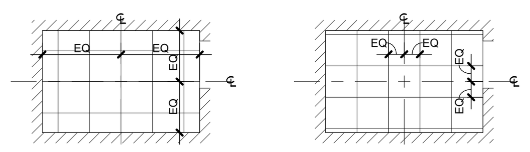
C. SYMMETRY: LOCATE FEATURES SYMMETRICALLY. LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE.



D. FIXTURES IN ACOUSTICAL CEILING TILE: WHEN NOT DIMENSIONED BUT OCCURS ON ACT / SQUARE GRID-TYPE CEILING. LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, AND OTHER DEVICES) AT CENTER OF PANEL ON ACT / SQUARE GRID-TYPE CEILINGS.



E. ACOUSTICAL CEILING TILE PLACEMENT: ACT / SQUARE AND / OR RECTANGULAR GRID-TYPE CEILINGS TO BE EVENLY SPACED. CUT TO FIT IRREGULAR GRID AND PERIMETER EDGE TRIM. MAKE FIELD CUT EDGES OF SAME PROFILE AS FACTORY EDGES. DOUBLE CUT AND FIELD PAINT EXPOSED REVEAL EDGES.



F. CONDUIT: CONCEAL ALL WIRE IN CONDUIT WHERE EXPOSED TO VIEW. INCLUDES:
1. ALL ELECTRICAL WIRING.
2. ALL DATA / IT / SECURITY WIRING; PROVIDE CONDUIT. CABLE TRAYS ARE ONLY ALLOWED WHERE CONCEALED BY ACT, DROP CEILING / CLOUDS AND WHERE WIRE IS FULLY CONCEALED FROM VIEW. EXPOSED UNDERSIDES OF CABLE TRAYS ARE ONLY ALLOWED WHERE MATERIAL IS PLACED SIMILAR TO MECHANICAL DUCTWORK. EXPOSED RANDOMLY PLACED CABLE TRAYS ARE NOT ALLOWED.
3. MC CABLE IS NOT ALLOWED AT EXPOSED LOCATIONS.

REFLECTED CEILING PLAN LEGEND

- 2X4 LAY IN LENS
- 2X2 LAY IN LENS
- 2X2 ACOUSTIC CEILING TILE (ACT)
- NOT IN SCOPE
- SUPPLY DIFFUSER
- RETURN
- 10' - 0" AFF — CEILING HEIGHT
- ALIGN — ALIGN FINISHED SURFACES
- OTS — OPEN TO STRUCTURE

NOTE: REFER TO STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

DEMOLITION LEGEND

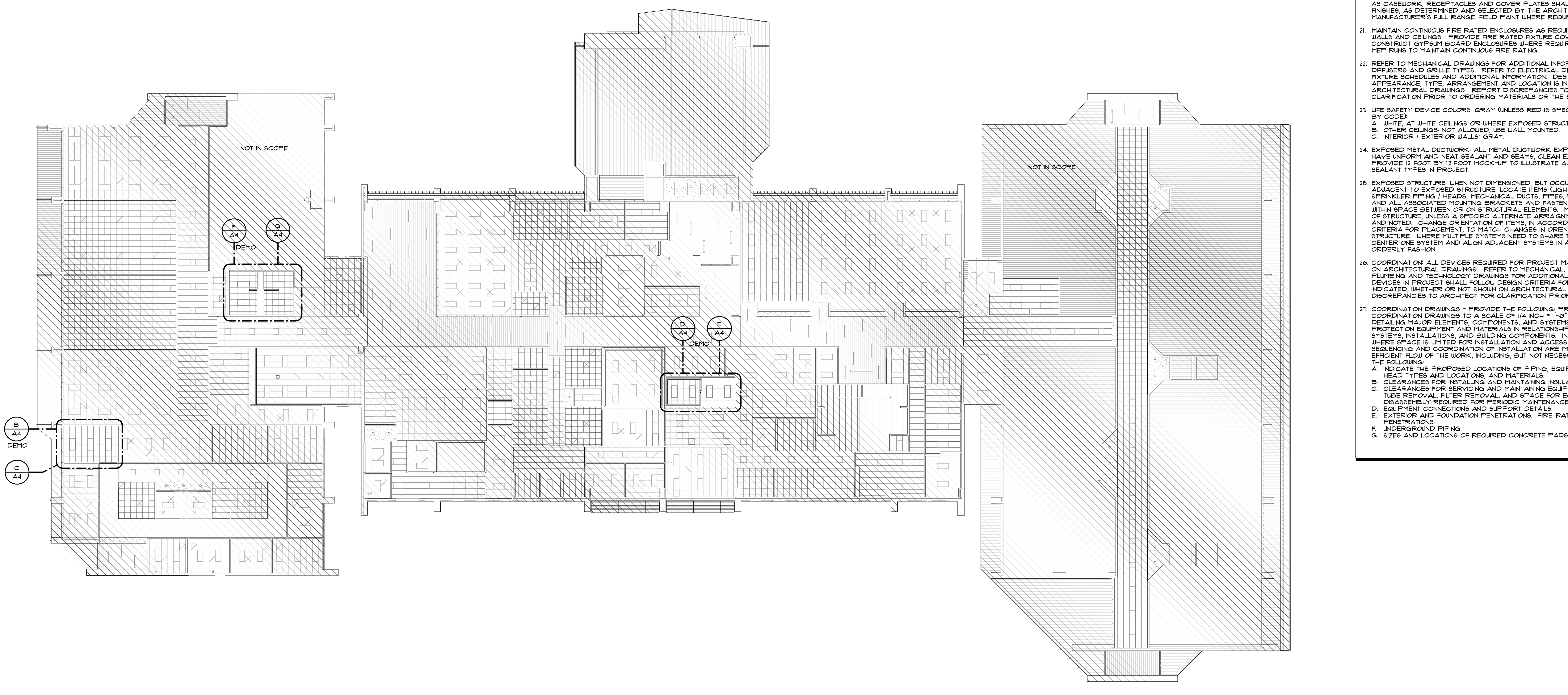
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED

DEMOLITION KEYOTES

KEY NOTE NUMBER	KEY NOTE TEXT
1	REMOVE PARTITION INCLUDING ALL ELECTRICAL DEVICES.
2	REMOVE DOOR, HARDWARE, AND FRAME ASSEMBLY IN ITS ENTIRETY.
3	REMOVE WINDOW SYSTEM.
4	REMOVE EXISTING LIGHT FIXTURES, CONDUIT AND WIRING IN ITS ENTIRETY.
5	REMOVE ALL ROOM FINISHES INCLUDING CEIING AND FLOORING, UNLESS NOTED OTHERWISE.
6	REMOVE ALL RESTROOM PLUMBING FIXTURES AND ACCESSORIES, INCLUDING TOILET PARTITIONS, MIRRORS, HAND WASHING ACCESSORIES, AND FLOOR DRAINS.
7	REMOVE EXISTING CONCRETE SLAB IN ITS ENTIRETY.
8	REMOVE PORTION OF INTERIOR WALL - PREPARE AREA FOR NEW DOOR OR WALL OPENING.
9	REMOVE PORTION OF EXTERIOR WALL - PREPARE AREA FOR NEW DOOR OR WALL OPENING.
10	REMOVE PAVING, SIDEWALKS AND RAMPS.
11	REMOVE EXISTING DOWNSPOUTS AND GUTTER SYSTEMS.
12	REMOVE EXTERIOR LIGHTING.
13	REMOVE METAL RAILING, GRATES AND GUARDRAILS.
14	REMOVE EXISTING MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DEMOLITIONS SHEETS FOR MORE INFORMATION.
15	REMOVE SECURITY CAMERAS AND RETURN TO OWNER.
16	REMOVE EXISTING EXTERIOR SIGNAGE AND RETURN TO OWNER.

REFLECTED CEILING PLAN NOTES

1. ALL CEILINGS SHALL BE 9' - 0" AFF, UNLESS NOTED OTHERWISE.
2. ALL CEILING FINISHES TO BE ACT-1, UNLESS NOTED OTHERWISE. ALL CEILING GRIDS TO BE CENTERED IN ROOM, UNLESS NOTED OTHERWISE.
3. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR MOUNTING LOCATIONS OF ITEMS WHERE NO CEILING IS REQUIRED OR INDICATED.
4. IN THE CASE OF MINOR DISCREPANCIES BETWEEN MECHANICAL, ELECTRICAL, PLUMBING AND ARCHITECTURAL DOCUMENTS IN THE LOCATION OF CEILING MOUNTED COMPONENTS, THE ARCHITECTURAL REFLECTED CEILING PLAN SHALL GOVERN. IN THE CASE OF MAJOR DISCREPANCIES, THE ARCHITECT SHALL BE NOTIFIED AS SOON AS THE DISCREPANCY IS DISCOVERED PRIOR TO PROCEEDING WITH THE WORK.
5. LIGHTS, EXIT SIGNS, SMOKE DETECTORS, SPEAKERS, DIFFUSERS, STROBES, AND MISCELLANEOUS DEVICES SHALL BE CENTERED IN THE CEILING TILE IN WHICH THEY OCCUR, UNLESS NOTED OTHERWISE.
6. CENTER, ALIGN AND / OR LOCATE LIGHT FIXTURES, MECHANICAL GRILLES, LIFE SAFETY DEVICES, OCCUPANCY SENSORS, SECURITY AND DATA FIXTURES AND OTHER MISCELLANEOUS COMPONENTS IN A UNIFORM AND ORDERLY FASHION, UNLESS ALTERNATE ARRANGEMENT IS SPECIFICALLY DIMENSIONED AND NOTED. INSTALL TRUE AND SQUARE.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FIT OF ALL WORK AND TO PROVIDE A UNIFORM AND ORDERLY PLACEMENT AND APPEARANCE, WHETHER EXPOSED TO VIEW OR CONCEALED BY FINISHES.
8. ALL SPRINKLER HEADS SHALL BE ALIGNED IN THE SAME CEILING LOCATION PARALLEL TO THE WALL WITHIN EACH SPECIFIC CEILING CONSTRUCTION.
9. CENTER EXIT SIGNS ABOVE DOORS, UNLESS ALTERNATE ARRANGEMENT IS SPECIFICALLY DIMENSIONED AND NOTED.
10. CENTER, ALIGN AND LOCATE ACCESS PANELS IN ACCORDANCE WITH DESIGN CRITERIA FOR OTHER DEVICES. SUBMIT SHOP DRAWINGS THAT INDICATE EXACT SIZE, TYPE AND LOCATION OF CEILING AND WALL ACCESS PANELS FOR REVIEW AND ACCEPTANCE BEFORE INSTALLATION. ALL ACCESS PANELS SHALL BE PAINTED, UNLESS NOTED OTHERWISE AND EXTERIOR GRADE WHERE REQUIRED.
11. PROVIDE GYPSUM BOARD BULKHEADS WHERE CEILINGS OF DIFFERENT HEIGHTS OR ORIENTATION ABUT. DO NOT BUILD BULKHEADS OF ACOUSTICAL CEILING MATERIAL.
12. ALIGN ALL SOFFITS AND / OR BULKHEADS WITH ADJACENT WALLS, UNLESS NOTED OTHERWISE.
13. PROVIDE SUFFICIENT SUPPORT AND GRID SYSTEMS TO SUPPORT ALL CEILING MOUNTED DEVICES. ALL FIXTURES SHALL BE SUPPORTED AT EACH CORNER.
14. ALL OUTLETS, RECEPTACLES, DEVICES AND COVER PLATES SHALL BE INSTALLED PLUMB AND LEVEL. CROOKED INSTALLATION IS NOT ALLOWED.
15. MISALIGNED MEP FIXTURES OF ANY TYPE OR AT ANY LOCATION EXPOSED TO VIEW ARE NOT ALLOWED. MISALIGNED FIXTURES SHALL BE ADJUSTED OR REMOVED AND REPLACED IF REQUIRED FOR PROPER ALIGNMENT AT NO ADDITIONAL COST.
16. ALL RECESSED LIGHTING TO BE SEALED AIR-TIGHT, ICC-RATED AND SEALED TO GYPSUM BOARD OR FINISH MATERIAL AS REQUIRED BY THE IECC (INTERNATIONAL ENERGY CONSERVATION CODE). ALL MECHANICAL, ELECTRICAL AND PLUMBING FIXTURES SHALL BE IECC COMPLIANT.
17. CONTRACTOR TO COORDINATE ALL OUTLETS, SWITCHES AND POWER FEED WITH CASEWORK, PARTITIONS, FINISHES, FIXTURES AND EQUIPMENT.
18. SPRINKLER HEAD TYPES AND FINISHES:
    A. EXPOSED STRUCTURE: EXPOSED / CHROME.
    B. FINISHED CEILING OR WALLS: FULLY RECESSED AND CONCEALED WITH WHITE COVER PLATE, FLAT AND FLUSH WITH CEILING OR WALL.
    C. PRE-FINISHED METAL CEILING OR WALL FEATURES: FULLY RECESSED AND CONCEALED WITH COVER PLATE, FLAT AND FLUSH TO MATCH ADJACENT FINISH, CUSTOM COLOR MAY BE REQUIRED IF MANUFACTURER'S RANGE DOES NOT PROVIDE MATCH, IN THE OPINION OF THE ARCHITECT.
    D. PROVIDE SPRINKLER GUARDS WHERE REQUIRED BY CODE.
19. PROVIDE SPRINKLER HEADS AND COVERS IN ACCORDANCE WITH SPECIFIED LEVEL OF EXPOSURE (TO VIEW), DESIGN CRITERIA AND AS INDICATED. PROVIDE BRAIDED METAL FLEXIBLE SPRINKLER DROPS AT ALL FINISHED CEILINGS OR WHERE REQUIRED FOR SPECIFIED PLACEMENT. CENTER AND ALIGN PIPES WITH ARCHITECTURAL FEATURES. PROVIDE ADDITIONAL HEADS BEYOND THAT REQUIRED FOR MINIMUM COVERAGE AS REQUIRED TO COMPLY WITH ARCHITECTURAL LAYOUT, AND UNIFORM ALIGNMENT WITH OTHER FIXTURES. SUBMIT LAYOUT FOR REVIEW PRIOR TO AHJ REVIEW OR INSTALLATION.
20. PROVIDE PRE-FINISHED GRAY ELECTRICAL DEVICES AND STAINLESS STEEL COVER PLATES AT ALL WALLS IN PROJECT. AT ALL OTHER LOCATIONS, SUCH AS CASEWORK, RECEPTACLES AND COVER PLATES SHALL MATCH ADJACENT FINISHES, AS DETERMINED AND SELECTED BY THE ARCHITECT FROM MANUFACTURER'S FULL RANGE. FIELD PAINT WHERE REQUIRED.
21. MAINTAIN CONTINUOUS FIRE RATED ENCLOSURES AS REQUIRED AT RATED WALLS AND CEILINGS. PROVIDE FIRE RATED FIXTURE COVERS, J-BOXES OR CONSTRUCT GYPSUM BOARD ENCLOSURES WHERE REQUIRED FOR FIXTURE OR MEP RUNS TO MAINTAIN CONTINUOUS FIRE RATING.
22. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION FOR DIFFUSERS AND GRILLE TYPES. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE SCHEDULES AND ADDITIONAL INFORMATION. DESIGN INTENT FOR APPEARANCE, TYPE, ARRANGEMENT AND LOCATION IS INDICATED ON ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ARCHITECT FOR CLARIFICATION PRIOR TO ORDERING MATERIALS OR THE START OF ROUGH-IN.
23. LIFE SAFETY DEVICE COLORS: GRAY (UNLESS RED IS SPECIFICALLY REQUIRED BY CODE):
    A. WHITE, AT WHITE CEILINGS OR WHERE EXPOSED STRUCTURES.
    B. OTHER CEILINGS: NOT ALLOWED, USE WALL MOUNTED.
    C. INTERIOR / EXTERIOR WALLS: GRAY.
24. EXPOSED METAL DUCTWORK: ALL METAL DUCTWORK EXPOSED TO VIEW SHALL HAVE UNIFORM AND NEAT SEALANT AND SEAMS, CLEAN EXCESS SEALANT. PROVIDE 12 FOOT BY 12 FOOT MOCK-UP TO ILLUSTRATE ALL SEAMS AND SEALANT TYPES IN PROJECT.
25. EXPOSED STRUCTURE: WHEN NOT DIMENSIONED, BUT OCCURS ON OR ADJACENT TO EXPOSED STRUCTURE. LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER PIPING / HEADS, MECHANICAL DUCTS, PIPES, PLUMBING, DEVICES, AND ALL ASSOCIATED MOUNTING BRACKETS AND FASTENERS) CENTERED WITHIN SPACE BETWEEN OR ON STRUCTURAL ELEMENTS. MATCH ORIENTATION OF STRUCTURE, UNLESS A SPECIFIC ALTERNATE ARRAIGNMENT IS DIMENSIONED AND NOTED. CHANGE ORIENTATION OF ITEMS, IN ACCORDANCE WITH DESIGN CRITERIA FOR PLACEMENT, TO MATCH CHANGES IN ORIENTATION OF STRUCTURE. WHERE MULTIPLE SYSTEMS NEED TO SHARE THE SAME SPACE, CENTER ONE SYSTEM AND ALIGN ADJACENT SYSTEMS IN A UNIFORM AND ORDERLY FASHION.
26. COORDINATION: ALL DEVICES REQUIRED FOR PROJECT MAY NOT BE SHOWN ON ARCHITECTURAL DRAWINGS. REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND TECHNOLOGY DRAWINGS FOR ADDITIONAL DEVICES. ALL DEVICES IN PROJECT SHALL FOLLOW DESIGN CRITERIA FOR PLACEMENT, AS INDICATED, WHETHER OR NOT SHOWN ON ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ARCHITECT FOR CLARIFICATION PRIOR TO INSTALLATION.
27. COORDINATION DRAWINGS - PROVIDE THE FOLLOWING: PREPARE COORDINATION DRAWINGS TO A SCALE OF 1/4 INCH = 1'-0" OR LARGER, DETAILING MAJOR ELEMENTS, COMPONENTS, AND SYSTEMS OF FIRE PROTECTION EQUIPMENT AND MATERIALS IN RELATIONSHIP WITH OTHER SYSTEMS, INSTALLATIONS, AND BUILDING COMPONENTS. INDICATE LOCATIONS WHERE SPACE IS LIMITED FOR INSTALLATION AND ACCESS AND WHERE SEQUENCING AND COORDINATION OF INSTALLATION ARE IMPORTANT TO THE EFFICIENT FLOW OF THE WORK, INCLUDING, BUT NOT NECESSARILY LIMITED TO THE FOLLOWING:
    A. INDICATE THE PROPOSED LOCATIONS OF PIPING, EQUIPMENT, HANGERS, HEAD TYPES AND LOCATIONS, AND MATERIALS.
    B. CLEARANCES FOR INSTALLING AND MAINTAINING INSULATION.
    C. CLEARANCES FOR SERVICING AND MAINTAINING EQUIPMENT, INCLUDING TUBE REMOVAL, FILTER REMOVAL, AND SPACE FOR EQUIPMENT DISASSEMBLY REQUIRED FOR PERIODIC MAINTENANCE.
    D. EQUIPMENT CONNECTIONS AND SUPPORT DETAILS.
    E. EXTERIOR AND FOUNDATION PENETRATIONS. FIRE-RATED WALL AND FLOOR PENETRATIONS.
    F. UNDERGROUND PIPING.
    G. SIZES AND LOCATIONS OF REQUIRED CONCRETE PADS AND BASES.



A FIRST FLOOR REFLECTED CEILING PLAN
1/16" = 1'-0"

0' 2' 4' 8' 16'
NORTH

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blue river ARCHITECTS
A Native American Owned Firm

STATE OF OKLAHOMA — THOMAS C. SE... — No. 4183 — TULSA, OK — LICENSED ARCHITECT
5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
A4
ENLARGED REFLECTED CEILING PLANS

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20210121.60

ISSUE DATE:
5/12/2025

ISSUE:
CONSTRUCTION DOCUMENTS

OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
ENLARGED REFLECTED CEILING PLANS

SHEET NUMBER:
A4

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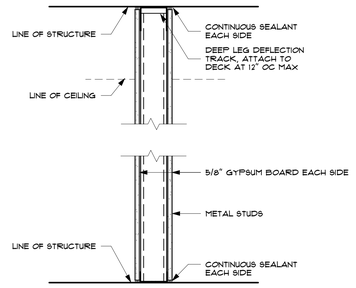
METAL STUD - SUBTYPE B - 0-1 HR



APPEARANCE	TYPE	STUD SIZE (NOM.)	PART. WIDTH	RATING	UL LISTING	SOUND ATTENUATION		REMARKS
						STC	SAB	
DS 0X	DS0 X	3 5/8"	4 7/8"	SMOKE RESIST	N/A	40	-	
DS 0	DS0	3 5/8"	6 7/8"	NON-RATED	N/A			ACOUSTIC WALL
DS 1	DS1	3 5/8"	12"	NON-RATED	N/A			ACOUSTIC WALL

PARTITION TYPES NAMING CONVENTION

STRUCTURE

A	7/8"	HAT CHANNEL
B	1 5/8"	METAL STUD
C	2 1/2"	METAL STUD
D	3 5/8"	METAL STUD
E	4"	METAL STUD
F	6"	METAL STUD
G	3 5/8"	DOUBLE METAL STUD
J	2 1/2"	C-H METAL STUD
K	4"	C-H METAL STUD
L	6"	C-H METAL STUD
M	2X4	WOOD STUD
N	2X6	WOOD STUD
P	4"	CMU
Q	6"	CMU
R	8"	CMU
S	12"	CMU
Z	1 1/2"	"Z" FURRING CHANNEL

SUB-TYPE

A	6" ABOVE CEILING, BRACED HEAD (OR STR TO STRUCTURE ABOVE IF UNDER 24")
B	TO UNDERSIDE OF STRUCTURE ABOVE
C	STR TO UNDERSIDE OF STRUCTURE ABOVE, GYP TO 6" ABOVE CEILING
D	STR & GYP ONE SIDE TO STRUCTURE, GYP OTHER SIDE TO 6" ABOVE CEILING
F	FURRING: 6" ABOVE CEILING
G	FURRING: TO UNDERSIDE OF STRUCTURE
H	FURRING: PARTIAL HEIGHT
L	LEAD LINED
P	PARTIAL HEIGHT
R	SHEAR WALL: REFER TO STRUCTURAL
S	SOUND: TO STRUCTURE ABOVE, SOUND BATTS
V	SOUND PART: (2) LAYERS GYP ONE SIDE (1) LAYER OTHER SIDE, SOUND BATTS
W	SOUND PART: (2) LAYERS GYP, SOUND BATTS

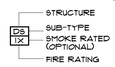
FIRE RESISTANCE RATING

0	NON-RATED
1	1 HOUR
2	2 HOUR
3	3 HOUR
4	4 HOUR

SMOKE RATED

X	SMOKE PARTITON, SMOKE BARRIER OR WALL RESISTING THE PASSAGE OF SMOKE

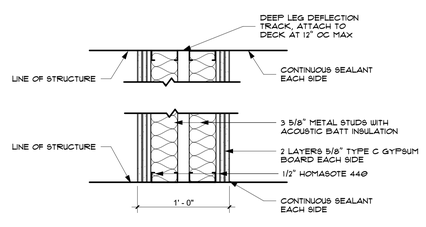
EXAMPLE



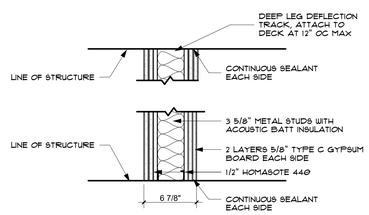
D = 3 5/8" METAL STUD
S = SOUND PARTITION
1 = 1 HR FIRE RESISTANCE RATING
X = SMOKE RATED PARTITION

FRAMING LIMITING HEIGHTS

STUD DEPTH (IN.)	STUD SPACING (IN. O.C.)	DESIGN LIMIT (PSF)	ALLOWABLE DEFLECTION	25 GAUGE	20 GAUGE
6	24	5	L / 240	16' - 9"	21' - 7"
6	16	5	L / 240	19' - 8"	24' - 6"
2-1/2	24	5	L / 240	10' - 7"	11'-7"
2-1/2	16	5	L / 240	11' - 3"	12' - 10"
3-5/8	24	5	L / 240	13' - 5"	14' - 9"
3-5/8	16	5	L / 240	14' - 4"	16' - 5"



B PARTITION TYPE - DS1
1 1/2" = 1'-0"



A PARTITION TYPE - DS0
1 1/2" = 1'-0"

blue river ARCHITECTS
A Native American Owned Firm

STATE OF OKLAHOMA
THOMAS C. RUPP
No. 9183
LICENSED ARCHITECT
5/12/2025

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

A5
PARTITION TYPES

blue river ARCHITECTS
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NO.	DESCRIPTION	DATE

SHEET NAME:
PARTITION TYPES

SHEET NUMBER:
A5

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DOOR SCHEDULE

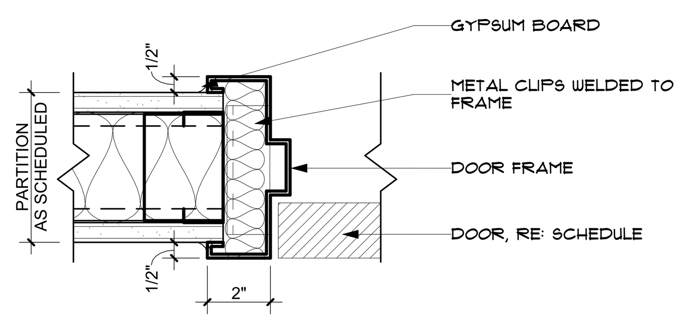
DOOR NO.	DOOR WIDTH	DOOR HEIGHT	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	GLAZING TYPE	HARDWARE	FIRE RATING (MIN.)	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
114A.1	6' - 0"	7' - 0"	B3	AL/GL	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	G1	RE: SPECIFICATIONS	-				
114A.2	6' - 0"	7' - 0"	B3	AL/GL	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	G1	RE: SPECIFICATIONS					
114B.1	6' - 0"	7' - 0"	B3	AL/GL	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	G1	RE: SPECIFICATIONS	-				
114C.1	7' - 4"	7' - 0"	B3	AL/GL	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	G1	RE: SPECIFICATIONS	-				
114A.3	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				
114A.4	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				
119.1	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				
120.1	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				
121.1	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				
132.1	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				
177.1	3' - 0"	7' - 0"	A1	SC	MATCH EXISTING	HM-1	MATCH EXISTING	MATCH EXISTING	-	RE: SPECIFICATIONS	-				

DOOR SCHEDULE GENERAL NOTES

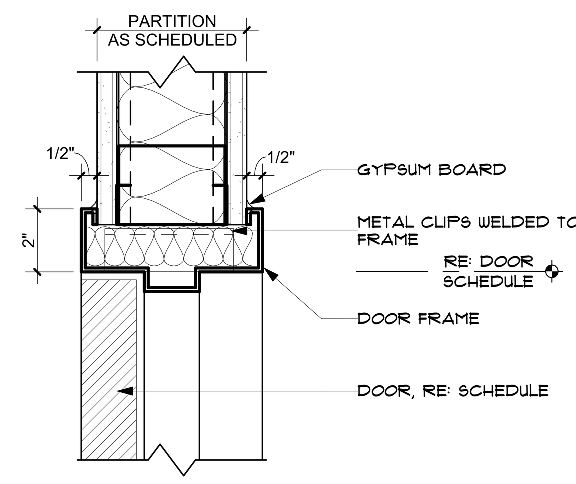
1. SEE SPECIFICATIONS FOR HARDWARE GROUPS.
2. PAINT ALL HOLLOW METAL DOORS AND FRAMES, UNLESS NOTED OTHERWISE.
3. COORDINATE ALL DETAILS WITH PARTITION TYPES, INTERIOR / EXTERIOR FINISHES AND CEILING CONDITIONS AS INDICATED ON FLOOR PLANS, CEILING PLANS, AND OTHER DRAWINGS.
4. ALL DOORS, FRAMES AND HARDWARE SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS, AS INDICATED.
5. PROVIDE CONTINUOUS SEALANT AT JOINTS BETWEEN DOOR / LITE FRAMES AND ADJACENT SURFACES EACH SIDE OF ALL HEADS / JAMBS / SILLS AND AROUND THE BASE OF ALL DOOR FRAMES.
6. ALL EXTERIOR HOLLOW METAL DOORS AND FRAMES TO BE INSULATED WITH THERMAL BREAKS.

DOOR SCHEDULE ABBREVIATIONS

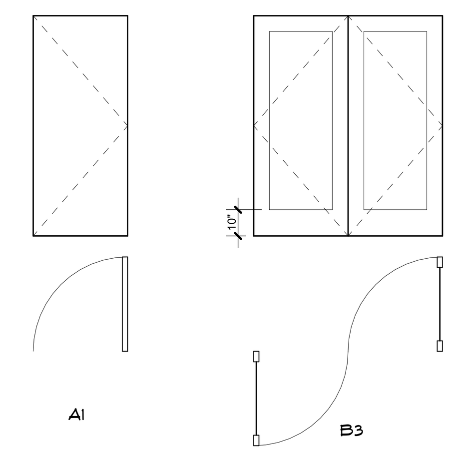
AL	ALUMINUM	SC	SOLID CORE
HM	HOLLOW METAL		



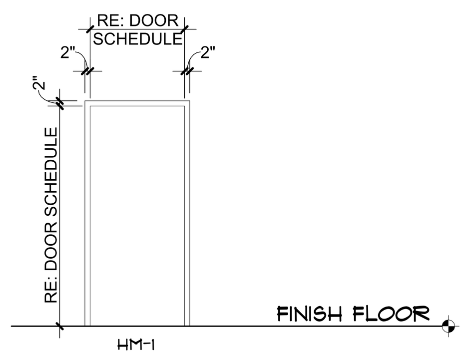
D TYPICAL INTERIOR H.M. JAMB
3" = 1'-0"



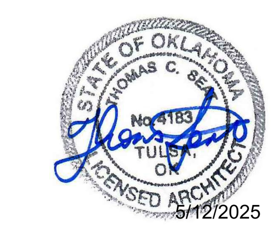
C TYPICAL INTERIOR H.M. HEAD
3" = 1'-0"



DOOR TYPES
NTS



FRAME TYPES
NTS



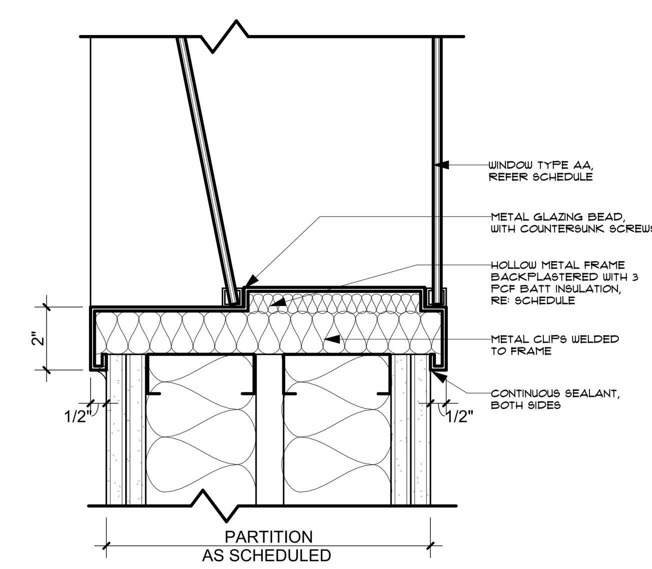
WINDOW SCHEDULE

WINDOW TYPE	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	DIMENSIONS SILL HEIGHT	FRAME FINISH	FRAME MATERIAL	GLAZING TYPE	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	COMMENTS
AA	4' - 0"	3' - 0"	3' - 6"	MATCH EXISTING	AL	GL-1	<VARIES>	<VARIES>	<VARIES>	-

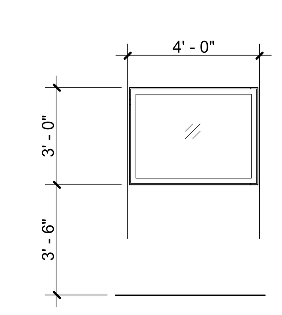
GLAZING TYPES

GL-1: 1" INSULATED

NOTE: PROVIDE SAFETY GLAZING WHERE REQUIRED PER CODE.



B H.M. SILL @ SOUND WALL
3" = 1'-0"



A GLAZING ELEVATION
1/4" = 1'-0"

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CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

A6
DOOR SCHEDULE, DOOR DETAILS, WINDOW SCHEDULE, AND WINDOW DETAILS

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BLUE RIVER PROJECT NUMBER:
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NO.	DESCRIPTION	DATE

SHEET NAME:
DOOR SCHEDULE, DOOR DETAILS, WINDOW SCHEDULE, AND WINDOW DETAILS

SHEET NUMBER:
A6

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INTERIOR FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH: NORTH WALL	WALL FINISH: EAST WALL	WALL FINISH: SOUTH WALL	WALL FINISH: WEST WALL	CEILING FINISH	COMMENTS
105	CORRIDOR	VWP-1	RB	PT-1	PT-1	PT-1	PT-1	SA1	
107	CONFERENCE	CPT	RB	-	PT-1	-	PT-1	SA1	
114A	CORRIDOR	VWP-1-7	RB	WP-1	WP-1	WP-1	WP-1	WDC / SA1/ GYP	
114B	CORRIDOR	VWP-1-7	RB	WP-1	WP-1	WP-1	WP-1	WDC	
114C	CORRIDOR	VWP-1-7	RB	WP-1	WP-1	WP-1	WP-1	WDC / SA1/ GYP	
118	GYMNASIUM / AUDITORIUM	RF-1 & 2	RB	WP-1	WP-1	WP-1	WP-1	OPEN / GYP	
119	WOMEN	PTF-1	TR-2	PWT-1	PWT-1	PWT-1	AT-1	SA1	
120	MEN	PTF-1	TR-2	PWT-1	AT-1	PWT-1	PWT-1	SA1	
121	STORAGE	ECS	RB	PT-1	PT-1	PT-1	PT-1	SA2	
122	VESTIBULE	EM	RB	-	-	-	-	WDC	
123	CORRIDOR	VWP-1, 3, 5, 6, 7	RB	WP-1	WP-1	WP-1	WP-1	SA1 / GYP	
132	M.A. OFFICE	CPT	RB	PT-1	PT-1	PT-1	PT-1	SA1	
147	CORRIDOR	VWP-1	RB	WP-2	WP-2	WP-2	WP-2	SA1 / GYP	
152B	OFFICE	CPT-1	RB	PT-1	PT-1	PT-1	PT-1	SA1	
163	CORRIDOR	VWP-1	RB	WP-2	WP-2	WP-2	WP-2	SA1	
176	OBSERVATION	CPT-1	RB	PT-1	PT-1	PT-1	PT-1	SA1	
177	SOUND BOOTH	CPT-1	RB	WP-3	WP-3	WP-3	WP-3	SA1	
191	CORR.	VWP-1	RB	WP-2	WP-2	WP-2	WP-2	SA1	
231	CORRIDOR	VWP-1-7	RB	WP-1	WP-1	WP-1	WP-1	SA1 / GYP	

GENERAL FINISH NOTES

1. ALL NEW BUILDING MATERIALS AND PRODUCTS SHALL NOT CONTAIN LEAD, CADMIUM, OR ASBESTOS.
2. RECYCLE ALL ELIGIBLE FINISH MATERIALS PER MANUFACTURER'S RETURN OR RECLAMATION PROGRAM.
3. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION AT NON-ELEVATED AREAS.
4. PROVIDE CORNER AND END-WALL GUARDS AT OUTSIDE GYPSUM BOARD CORNERS.
5. WALL FINISHES TO HAVE MINIMUM CLASS "A" RATING FOR FLAME SPREAD AND SMOKE DEVELOPMENT.
6. FINISH HATCHES AND PATTERNS ARE FOR GRAPHIC PURPOSES ONLY, AND ARE NOT INTENDED TO SHOW EXACT PATTERN OR SIZES OF FINISHES.
7. PROVIDE TILE BACKER BOARD AT ALL WALLS SHOWN TO RECEIVE TILE.
8. PROVIDE SEALANT AT ALL TILE INSIDE CORNERS AND AT DOOR FRAMES. COLOR TO MATCH ADJACENT GROUT COLOR.

TILE

1. AT ALL WALLS TO RECEIVE TILE: INSTALL TILE PATTERN CENTERED ON EACH MAIN WALL.
2. "LEVEL LINE" OF TILE INSTALLATION TO BE TAKEN AT THE LOW POINT OF THE FLOOR SLAB TO ALLOW TILE TO BE FLUSH WITH VARIATION IN FLOOR SLAB.
3. USE SCHLUTER QUADEC TRANSITION STRIP FOR ALL OUTSIDE CORNERS OF TILE CONDITIONS AND UNFINISHED EXPOSED EDGES OF TILE INSTALLATION. MITER OUTSIDE CORNERS OF TRIM. BUTT JOINTS ARE NOT ALLOWED. FINISH: SATIN NICKEL.
4. TILE SOFT JOINTS TO MATCH GROUT COLOR. RE: SPECIFICATIONS FOR ADDITIONAL INFORMATION. INSTALL TILE AT WALLS WITH FULL PIECE AT FLOOR, CUTS TO OCCUR AT CEILING IF NEEDED, UNLESS NOTED OTHERWISE.

PAINT

1. ALL GYPSUM BOARD WALLS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.
2. ALL ELECTRICAL PANEL DOORS, AND WALL AND CEILING GRILLES ARE TO HAVE A FINISH TO MATCH ADJACENT SURFACE, UNLESS NOTED OTHERWISE.
3. SWITCH PLATES AND ELECTRICAL DEVICES ARE NOT TO BE PAINTED.
4. ALL LOCATIONS RECEIVING NEW FINISHES ARE TO BE REPAINTED. PAINT TO MATCH EXISTING.

FLOORING

1. CHANGES IN FLOORING HEIGHTS UP TO 1/4 INCH MAY BE VERTICAL AND WITHOUT REDUCING EDGE TREATMENT. CHANGES IN FLOORING HEIGHTS BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. IF CHANGES IN FLOORING LEVEL ARE GREATER THAN 1/2 INCH, NOTIFY ARCHITECT FOR DETAILS TO PROVIDE ADA COMPLIANT RAMP.
2. ALL FLOORING TRANSITIONS ARE TO OCCUR AT THE CENTERLINE OF DOOR, UNLESS NOTED OTHERWISE.
3. PROVIDE STAINLESS STEEL SCHLUTER TRANSITION STRIP BETWEEN CHANGE IN FLOOR SURFACE, UNLESS NOTED OTHERWISE.

CASEWORK

1. CONTRACTOR TO FIELD MEASURE AND VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF CASEWORK.
2. REFER TO FLOOR PLANS AND INTERIOR ELEVATIONS FOR EXACT LOCATIONS OF CASEWORK.
3. COUNTERTOPS AND BACKSPLASHES TO RECEIVE CLEAR SEALANT AT WALL.
4. PROVIDE SIDE, TOP, AND BOTTOM FILLER PIECES AS REQUIRED TO COMPLETE THE CASEWORK AS INDICATED ON THE PLANS AND INTERIOR ELEVATIONS.
5. PROVIDE FINISHED END PANELS AT ALL EXPOSED CABINET ENDS, KNEE SPACES, AND BANQUETTE ENDS.
6. PROVIDE FILLER STRIPS TO MATCH ADJACENT CABINETS AT ALL NOTED LOCATIONS. MAXIMUM FILLER WIDTH 3 INCHES.

FINISH LEGEND

FLOOR FINISH

PFT-1 PORCELAIN FLOOR TILE
MANUF: CROSSVILLE STUDIOS
STYLE: AMELIA
COLOR: CARBON ANA68-307
FINISH: UNPOLISHED
SIZE: 6"X36"
NOTE: RUNNING BOND INSTALLATION, MAXIMUM 30% OFFSET WITH 3/16" GROUT JOINT. GROUT: MAPEI, ULTRACOLOR PLUS FA, 47 CHARCOAL

CPT-1 CARPET TILE
MANUF: MILLIKEN
STYLE: MAJOR FREQUENCY THREE, IMPROMPTU
COLOR: IPR124-13-144 PRODUCTION
SIZE: 9.85" X 39.4"
NOTE: ASHLAR RANDOM INSTALLATION

VWP-1 VINYL WOOD PLANK
MANUF: TREAD COLLECTIVE-AVA FLOR
STYLE: 2 DSGN
COLOR: TUSCANY OAK STEEL TOD005
SIZE: 6" X 48"
THICKNESS: 2.5MM
INSTALLATION: 1/3 RUNNING BOND
NOTE: AVA SPARK PLANK TO BE MADE W/ SQUARE EDGE

VWP-3 VINYL WOOD PLANK
MANUF: TREAD COLLECTIVE-AVA FLOR
STYLE: SPRK SP029
COLOR: NOT YOUR RAVENS PURPLE
SIZE: 6" X 48"
THICKNESS: 2.5MM
INSTALLATION: 1/3 RUNNING BOND
NOTE: AVA SPARK PLANK TO BE MADE W/ SQUARE EDGE. LOCATION TO MATCH EXISTING.

VWP-5 VINYL WOOD PLANK
MANUF: TREAD COLLECTIVE-AVA FLOR
STYLE: SPRK SP015
COLOR: FIRE IN THE HOLE
SIZE: 6" X 48"
THICKNESS: 2.5MM
INSTALLATION: 1/3 RUNNING BOND
NOTE: AVA SPARK PLANK TO BE MADE W/ SQUARE EDGE. LOCATION TO MATCH EXISTING.

VWP-7 VINYL WOOD PLANK
MANUF: TREAD COLLECTIVE-AVA FLOR
STYLE: SPRK SP027
COLOR: METRO RETRO
SIZE: 6" X 48"
THICKNESS: 2.5MM
INSTALLATION: 1/3 RUNNING BOND
NOTE: AVA SPARK PLANK TO BE MADE W/ SQUARE EDGE. LOCATION TO MATCH EXISTING.

CEILING FINISH

SA-1 ACOUSTICAL CEILING
MANUF: ARMSTRONG
STYLE: CALLA
COLOR: WHITE
FINISH: SMOOTH
SIZE: 24" X 24"
SUSPENSION SYSTEM: PRELUDE XL 15" X 16"
EDGE PROFILE: SQUARE LAY-IN 15/16"

BASE FINISH

RB-1 RESILIENT BASE
MANUF: ROPPE
STYLE: 700 SERIES
COLOR: 193 BLACK BROWN
SIZE: 4"

WALL FINISH

PWT-1 PORCELAIN WALL TILE
MANUF: CROSSVILLE STUDIOS
STYLE: AMELIA
COLOR: MIST ANA68-305
FINISH: UNPOLISHED
SIZE: 6"X36"
NOTE: RUNNING BOND INSTALLATION, MAXIMUM 30% OFFSET WITH 3/16" GROUT JOINT. GROUT: MAPEI, ULTRACOLOR PLUS FA, 47 CHARCOAL

AWT-1 ACCENT WALL TILE
MANUF: CROSSVILLE STUDIOS
STYLE: SWATCHES
COLOR: SHADOW NEU11
SIZE: 3"X12"
FINISH: GLOSSY
NOTE: HORIZONTAL INSTALLATION WITH MINIMUM 3/16" GROUT JOINT. GROUT: MAPEI, ULTRACOLOR PLUS FA, 47 CHARCOAL

PT-1 GENERAL WALL PAINT
MANUF: SHERWIN WILLIAMS
STYLE: EG-SHEL
COLOR: COLONNADE GRAY SW7641

PT-2 ACCENT WALL PAINT
MANUF: SHERWIN WILLIAMS
STYLE: EG-SHEL
COLOR: ST. BART'S SW7614

PT-3 ACCENT WALL PAINT
MANUF: SHERWIN WILLIAMS
STYLE: EG-SHEL
COLOR: EARTHEN JUG SW7703

PT-4 ACCENT WALL PAINT
MANUF: SHERWIN WILLIAMS
STYLE: EG-SHEL
COLOR: GRAND CANAL SW6488

PT-5 ACCENT WALL PAINT
MANUF: SHERWIN WILLIAMS
STYLE: EG-SHEL
COLOR: MYTHICAL SW6550

WP-1 WALL PROTECTION PANEL
MANUF: INPRO
STYLE:ASPEX PRINTED WALL PROTECTION PANEL
COLOR: DESIGN TO MATCH ALTRO TEGULIS PANEL 3X12 STACKED PATTERN IN COLOR: AUTUMN WEAVE
SIZE:4'X10' PANEL
NOTE: PANELS TO BE 4' HIGH AND HAVE A FINISHED END.

WP-2 WALL PROTECTION PANEL
MANF: INPRO
STYLE:PAKKADIUM RIGID SHEET
COLOR: SHARKSKIN 0350
SIZE: 4' X 8' SHEET
NOTE: PANELS TO BE 4' HIGH AND HAVE A FINISHED END.

WP-3 NOISE ABSORBING PANEL
MANUF: SONEX
STYLE: CLASSIC NOISE ABSORBING FOAM PANELS
COLOR: BLACK
SIZE: 24" X 48"
THICKNESS: 2"
NOTE: FULL HEIGHT WALL INSTALLTION WHERE PANELS ARE INDICATED ON DRAWINGS

FRP-1 FIBER REINFORCED PLASTIC
MATCH EXISTING COLOR AND SURFACE FINISH

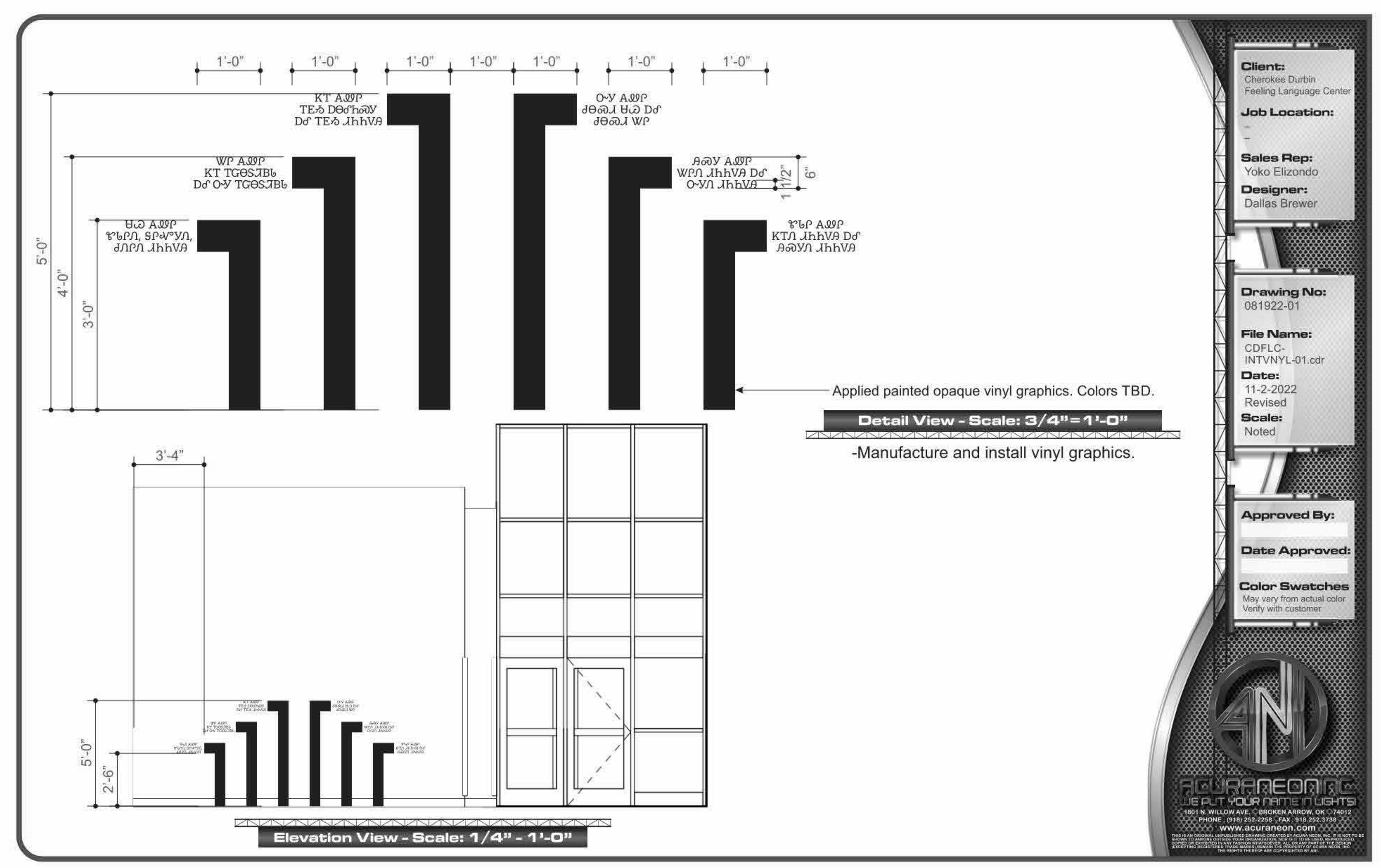
MISCELLANEOUS

PL-1 PLASTIC LAMINATE
MANUF: WILSONART
COLOR: SKYLINE WALNUT 7997-12
FINISH: 12 SOFT GRAIN

QZ-1 QUARTZ STONE (COUNTER)
MANUF: CAMBIRA
PRODUCT: LUXURY SERIES QUARTZ
COLOR: BRITTANICCA WARM
THICKNESS: 2CM

TP-1 TOILET PARTITION
MANUF: INPRO CORPORATION
PRODUCT: WASHROOM SYSTEMS - FLOOR TO CEILING MOUNTED PARTITIONS
PARTITION MATERIAL: BIOPRISM SOLID SURFACE
COLOR: DUSK
HARDWARE AND TRIM: PARTIAL BIOPRISM SOLID SURFACE TRIM PACKAGE

RS-1 ROLLER SHADES
MANUF: DRAPER
PRODUCT: CLUTCH OPERATED FLEX SHADE
HARDWARE: BLACK
FABRIC: GREYSTONE, 3% OPENESS
SIZE: FIELD VERIFICATION REQUIRED, ONE SHADE PER VERTICAL ROW OF WINDOWS



WALL SIGNAGE DECAL TO MATCH EXISTING GRAPHIC SET FOR REMOVAL.

A VINYL SIGNAGE DECAL
NTS

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CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
ID1
GENERAL FINISH AND SIGNAGE INFORMATION

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20210121.60
ISSUE DATE:
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ISSUE:
CONSTRUCTION DOCUMENTS

OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
GENERAL FINISH AND SIGNAGE INFORMATION

SHEET NUMBER:
ID1

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KEYNOTES

1 REMODELED AREA. MODIFY EXISTING SPRINKLER SYSTEM FOR NEW CEILING AND ROOM LAYOUT. ADD SPRINKLER HEADS AND PIPING AS REQUIRED TO MAINTAIN COVERAGE PER NFPA 13. MATCH EXISTING SPRINKLER PIPING AND HEADS.

GENERAL NOTES

1. SPRINKLER CONTRACTOR MUST REVIEW ALL CONSTRUCTION DOCUMENTS AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS PRIOR TO BID.
2. ROUTE SPRINKLER LINES TO COORDINATE WITH OTHER TRADES.
3. PENETRATIONS OF "RATED ASSEMBLIES" SHALL BE FIRE STOPPED WITH AN APPROVED MATERIAL PER METHODS REQUIRED BY THE AUTHORITY HAVING JURISDICTION (AHJ).
4. THE FIRE PROTECTION ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. NOR SHALL THEY BE REQUIRED TO SUPERVISE THE CONDUCT OF THE WORK. THE CONSTRUCTION PROCEDURES FOLLOWED BY THE CONTRACTOR, SUBCONTRACTORS, THEIR RESPECTIVE EMPLOYEES OR ANY OTHER PERSON AT THE JOB SITE OTHER THAN THAT OF THE ENGINEERING FIRM'S EMPLOYEES.
5. THESE PLANS ARE PROVIDED TO ASSIST THE CONTRACTOR IN BIDDING ONLY. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR AND MATERIALS REQUIRED FOR A COMPLETE FIRE SPRINKLER SYSTEM, ACCEPTABLE TO BOTH THE OWNER AND THE AUTHORITY HAVING JURISDICTION. NOTHING ON THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS RESPONSIBILITY.
6. PROVIDE FLUSHING CONNECTIONS IN ACCORDANCE WITH NFPA 13.
7. PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS.
8. ALL MATERIALS SHALL SHALL BE UL LISTED AND/OR FM GLOBAL APPROVED. SPRINKLER PIPE SHALL BE MANUFACTURED TO STANDARDS RECOGNIZED BY NFPA 13. THREADED PIPE SHALL HAVE A CORROSION RESISTANCE RATING OF 1.0 OR GREATER. CRIMP-TYPE COUPLINGS SHALL NOT BE USED.
9. PRIOR TO INTERIOR FINISHING , HYDROSTATICALLY TEST SPRINKLER SYSTEM FOR LEAKAGE IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION ADOPTED EDITION OF NFPA 13. COORDINATE ALL TESTING WITH THE OWNER'S REPRESENTATIVE AND THE AUTHORITY HAVING JURISDICTION.
10. COMPLETED TEST CERTIFICATES SHALL BE PROVIDED TO THE AUTHORITY HAVING JURISDICTION AND THE OWNER'S REPRESENTATIVE.
11. SUBMIT SPRINKLER SYSTEM DRAWINGS IDENTIFIED AS "WORKING PLANS", MATERIAL DATA SHEETS, AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION ADOPTED EDITION OF NFPA 13. SHOP DRAWINGS SHALL INCLUDE ALL INCLUDE ALL INFORMATION REQUIRED BY THE CHECKLIST PROVIDED WITHIN NFPA 13. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN DISAPPROVAL OF FIRE SPRINKLER SHOP DRAWINGS. HYDRAULIC CALCULATIONS SHALL INCLUDE ALL INFORMATION REQUIRED BY NFPA 13. HYDRAULIC CALCULATIONS SHALL BE PERFORMED BACK TO THE STATIC/RESIDUAL FIRE HYDRANT UTILIZED FOR FLOW TEST. INCLUDE HOSE STREAM ALLOWANCE AS REQUIRED BY NFPA 13.
12. PROVIDE SPRINKLER HEAD GUARDS ON ALL SPRINKLERS IN AREAS THAT ARE SUBJECT TO DAMAGE.

SEC. 15300 – WET PIPE FIRE SUPPRESSION SPRINKLERS (AS APPLICABLE)

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. GENERAL: FIRE PROTECTION CONTRACTOR SHALL HAVE A MINIMUM OF A NICET LEVEL III FOR DESIGN AND INSTALLATION OF FIRE PROTECTION SYSTEMS. SPRINKLER PIPE SIZING SHALL BE HYDROSTATICALLY CALCULATED IN ACCORDANCE WITH THE LATEST ED. OF NFPA 13 STANDARDS AS APPLICABLE TO THIS PROJECT AND AS REQUIRED BY INSURING AUTHORITIES. PREPARE AND SUBMIT SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO THE STATE AND LOCAL FIRE MARSHALL FOR APPROVAL. SUBMIT FIRE MARSHAL APPROVED SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO THE ARCHITECT/ENGINEER OF RECORD FOR FINAL REVIEW PRIOR TO INSTALLING OR FABRICATING SYSTEM. SUBMIT (2) COPIES OF "AS-BUILT" DRAWINGS TO THE OWNER AND ENGINEER OF RECORD FOR HIS FILES. FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A VALID WATER FLOW TEST (WATER FLOW TEST MUST HAVE BEEN PERFORMED WITHIN THE LAST 6 MONTHS). THE FIRE SPRINKLER DRAWINGS MUST SHOW A CURRENT AND CORRECT SITE UTILITY PLAN SHOWING ALL UNDERGROUND PIPING. THE UTILITY PLAN MUST SHOW THE EFFECTIVE POINT OF THE FLOW TEST, THE FLOW HYDRANT, AND BE CALCULATED TO THE BASE OF RISER. BASE OF RISER CALCULATIONS MUST I NCLUDE ALL FRICTION LOSSES, HYDRANT COEFFICIENT, AND SIGNED BY THR AHJ.

B. SUBMITTALS: PRODUCT DATA FOR VALVES, SPRINKLERS, SPECIALTIES, AND ALARMS.

1. SUBMIT SPRINKLER SYSTEM DRAWINGS IDENTIFIED AS "WORKING PLANS" AND CALCULATIONS ACCORDING TO NFPA 13. SUBMIT REQUIRED NUMBER OF SETS TO AUTHORITIES HAVING JURISDICTION FOR REVIEW, COMMENT, AND APPROVAL. INCLUDE SYSTEM HYDRAULIC CALCULATIONS WHERE APPLICABLE.
2. SUBMIT ALL ABOVE GROUND MATERIAL AND TEST PAPERS TO THE GC AND ENGINEER OF RECORD. ALL TEST PAPERS MUST BE FILLED OUT CORRECTLY AND ENTIRELY AND BE SIGNED BY THE SPRINKLER CONTRACTOR AND LOCAL FIRE MARSHAL OR AHJ.

C. DESIGN AND INSTALLATION APPROVAL: COMPLY WITH THE MOST RECENTLY REVISED VERSIONS OF ALL APPLICABLE LAWS, CODES, STANDARDS, RECOMMENDATIONS OF TECHNICAL SOCIETIES, RULES, REGULATIONS, AND ORDINANCES OF FEDERAL, STATE, AND LOCAL AUTHORITIES. THESE CODES AND STANDARDS SHALL BE CONSIDERED A PART OF THIS SPECIFICATION AS THOUGH FULLY REPEATED HEREIN. MODIFICATIONS REQUIRED BY THE ABOVE MENTIONED AUTHORITIES SHALL BE MADE WITHOUT ADDITIONAL CHARGE TO THE OWNER.

D. HYDRAULICALLY DESIGN SPRINKLER SYSTEMS ACCORDING TO THE LATEST ADOPTED ED. OF NFPA 13.

E. COMPLY WITH ADOPTED EDITIONS OF NFPA 13, 24, 70 AND 72. F. UL-LISTED AND -LABELED AND FM-APPROVED PIPE AND FITTINGS.

PART 2 - PRODUCTS

2.1 GENERAL

A. ALL VALVES, FITTINGS AND PIPING SHALL BE SUITABLE FOR INTENDED SERVICE AND SYSTEM PRESSURES AND TEMPERATURES.

B. ALL EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF LAWS, CODES, ORDINANCES, LEGISLATION, ETC. OF ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, WHETHER INDICATED ON THE CONTRACT DOCUMENTS OR NOT.

C. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF BEST GRADE AND QUALITY. PROVIDE STANDARD PRODUCTS OF REPUTABLE MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH MATERIALS AND EQUIPMENT.

2.2 PIPE AND FITTINGS

ABOVE GROUND PIPING: STEEL SCH 10 AND SCH 40 BLACK.

BELOW GROUND PIPING: DUCTILE IRON PER NFPA 24.

A. STEEL PIPE: ASTM A 53, ASTM A 135, OR ASTM A 795.

B. CAST-IRON THREADED FLANGES: ASME B16.1, CLASS 250, RAISED GROUND FACE, BOLT HOLES SPOT FACED.

C. CAST-IRON THREADED FITTINGS: ASME B16.4, CLASS 250, STANDARD PATTERN.

D. GROOVED-END FITTINGS: UL-LISTED AND FM-APPROVED, ASTM A 536, GRADE 65-45-12 DUCTILE IRON OR ASTM A 47 GRADE 32510 MALLEABLE IRON, WITH GROOVES OR SHOULDERS DESIGNED TO ACCEPT GROOVED COUPLINGS.

E. GROOVED-END COUPLINGS: UL 213, ASTM A 536 DUCTILE-IRON OR ASTM A 47 MALLEABLE-IRON HOUSING, WITH ENAMEL FINISH. INCLUDE GASKETS, BOLTS, AND ACCESSORIES.

2.3 VALVES

SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE VALVES WITH ONE OF THE FOLLOWING MANUFACTURERS: TYCO, RELIABLE, VIKING, VICTAULIC, KENNEDY, OR MUELLER.

A. FIRE-PROTECTION SERVICE VALVES: UL LISTED AND FM APPROVED, WITH 175-PSIG NONSHOCK MINIMUM WORKING-PRESSURE RATING. VALVES FOR USE WITH GROOVED PIPING MAY BE GROOVED TYPE. INDICATING VALVES SHALL BE BUTTERFLY OR BALL TYPE, BRONZE BODY WITH THREADED ENDS, AND INTEGRAL INDICATING DEVICE WITH A 115-V AC, ELECTRIC, SINGLE-CIRCUIT SUPERVISORY SWITCH INDICATOR.

B. GATE VALVES: UL 262, CAST BRONZE, THREADED ENDS, SOLID WEDGE, OUTSIDE SCREW AND YOKE, RISING STEM.

C. SWING CHECK VALVES, NPS 2 AND SMALLER: UL 312 OR MSS SP-80, CLASS 150; BRONZE BODY WITH BRONZE DISC AND THREADED ENDS.

D. SWING CHECK VALVES, NPS 2-1/2 AND LARGER: UL 312, CAST-IRON BODY AND BOLTED CAP, WITH BRONZE DISC OR CAST-IRON DISC WITH BRONZE-DISC RING AND FLANGED ENDS.

E. ALARM CHECK VALVES: NOT REQUIRED

F. BALL DRIP VALVES: UL 1726, AUTOMATIC DRAIN VALVE, NPS 1/2, BALL CHECK DEVICE WITH THREADED ENDS. PIPE BALL DRIP TO FLOOR DRAIN OR OUTSIDE OF STRUCTURE.

2.4 SPRINKLERS

SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING SPRINKLERS WHICH MAY BE INCORPORATED IN THE WORK INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: TYCO, RELIABLE, & VIKING.

A. AUTOMATIC SPRINKLERS: WITH HEAT-RESPONSIVE ELEMENT COMPLYING WITH:

1. UL 199, FOR APPLICATIONS EXCEPT RESIDENTIAL.

B. SPRINKLER TYPES AND CATEGORIES: NOMINAL 1/2" OR 3/4" ORIFICE FOR 155 OR 165 DEGREE TEMPERATURE CLASSIFICATION RATING, UNLESS OTHERWISE INDICATED OR REQUIRED BY THE APPLICATION OR THE AUTHORITY HAVING JURISDICTOIN.

C. SPRINKLER TYPES INCLUDE THE FOLLOWING:

1. UPRIGHT, PENDENT, AND SIDEWALL SPRINKLERS.
2. EXTENDED COVERAGE AND QUICK-RESPONSE SPRINKLERS WHERE POSSIBLE.
3. PENDENT AND SIDEWALL, DRY-TYPE SPRINKLERS.

D. SPRINKLER FINISHES: CHROME PLATED AND BRASS

E. SPRINKLER ESCUTCHEONS: SHALL BE SEMI-RECESSED WITH CHROME FINISH

F. SPRINKLER GUARDS: WIRE-CAGE TYPE, INCLUDING FASTENING DEVICE.

G. SPRINKLER CABINETS: FINISHED STEEL CABINET AND HINGED COVER, WITH SPACE FOR MINIMUM OF 6 SPARE SPRINKLERS PLUS SPRINKLER WRENCH, SUITABLE FOR WALL MOUNTING. INCLUDE NUMBER OF SPRINKLERS REQUIRED BY NFPA 13 AND ONE WRENCH FOR SPRINKLERS. INCLUDE SEPARATE CABINET WITH SPRINKLERS AND WRENCH FOR EACH STYLE SPRINKLER ON PROJECT.

H. NOTE. ALL PENDENT SPRINKLERS SHALL BE CHROME FINISH WITH CHROME SEMI-RECESSED ESCUTCHEONS. ALL PENDENT SPRINKLERS BE CENTERED IN QUARTER POINTS OF ALL CEILING TILE MODULES.

2.5 SPECIALTIES AND ALARMS

A. FIRE DEPARTMENT CONNECTIONS: FDC THREADS TO MATCH THE AUTHORITY HAVING JURISDICTION THREAD TYPE.

B. LOCAL ALARM DEVICE SHALL BE AN ELECTRONIC NOTIFICATION DEVICE PER THE AUTHORITY HAVING JURISDICTION REQUIREMENTS.

C. WATER-FLOW INDICATORS: UL 346; ELECTRICAL-SUPERVISION, VANE-TYPE WATER-FLOW DETECTOR; WITH 250-PSIG PRESSURE RATING; AND DESIGNED FOR HORIZONTAL OR VERTICAL INSTALLATION. INCLUDE 2 SINGLE-POLE, DOUBLE-THROW, CIRCUIT SWITCHES FOR ISOLATED ALARM AND AUXILIARY CONTACTS, 7 A, 125-V AC AND 0.25 A, 24-V DC; COMPLETE WITH FACTORY-SET, FIELD-ADJUSTABLE RETARD ELEMENT TO PREVENT FALSE SIGNALS AND TAMPERPROOF COVER THAT SENDS SIGNAL IF REMOVED.

D. ELECTRICAL-SUPERVISION-TYPE, WATER-FLOW SWITCH WITH RETARD FEATURE. INCLUDE SINGLE-POLE, DOUBLE-THROW, NORMALLY CLOSED CONTACTS AND DESIGN THAT OPERATES ON RISING PRESSURE AND SIGNALS WATER FLOW.

E. VALVE SUPERVISORY SWITCHES: UL 753; ELECTRICAL; SINGLE-POLE, DOUBLE THROW; WITH NORMALLY CLOSED CONTACTS. INCLUDE DESIGN THAT SIGNALS CONTROLLED VALVE IS IN OTHER THAN FULLY OPEN POSITION.

F. PRESSURE GAGES: UL 393, 3-1/2 TO 4-1/2 INCH DIAMETER DIAL WITH DIAL RANGE OF 0 TO 250 PSIG.

PART 3 - EXECUTION

3.1 GENERAL:

A. WORK SHALL BE EXECUTED AND ALL MATERIALS INSTALLED IN ACCORDANCE WITH THE BEST PRACTICE OF THE TRADES IN A THOROUGH, SUBSTANTIAL, WORKMANLIKE MANNER BY COMPETENT WORMEN, PRESENTING A NEAT APPEARANCE WHEN COMPLETED.

3.2 PIPE AND FITTING APPLICATION

A. USE STEEL PIPE WITH THREADED, ROLL-GROOVED, OR CUT-GROOVED JOINTS; COPPER TUBE WITH WROUGHT-COPPER FITTINGS AND BRAZED JOINTS; OR CPVC PLASTIC PIPE AND FITTINGS AND METAL-TO-PLASTIC TRANSITION FITTINGS WITH SOLVENT-CEMENTED JOINTS.

1. FOR STEEL PIPE JOINED BY THREADED FITTINGS, USE SCHEDULE 40.
2. FOR STEEL PIPE JOINED BY WELDING OR ROLL- GROOVED PIPE AND FITTINGS, USE SCHEDULE 10.

B. PIPE BETWEEN FIRE DEPARTMENT CONNECTIONS AND CHECK VALVES: USE GALVANIZED STEEL PIPE WITH FLANGED OR THREADED JOINTS.

C. INSTALL SHUTOFF VALVE, BACKFLOW PREVENTOR PRESSURE GAGE, DRAIN, AND OTHER ACCESSORIES INDICATED AT CONNECTION TO WATER SERVICE PIPING.

3.3 PIPING INSTALLATION

A. THE INSPECTORS TEST CONNECTIONS SHALL BE LOCATED AT THE MOST REMOTE POINT OF SYSTEM PER LOCAL FIRE MARSHAL. ANY AUXILIARY DRAINAGE SHALL BE LOCATED IN AN INCONSPICUOUS AREA WITH SIGNAGE PROVIDED.

B. INSTALL BALL DRIP VALVES TO DRAIN PIPING BETWEEN FIRE DEPARTMENT CONNECTIONS AND CHECK VALVES, AND WHERE INDICATED. DRAIN TO FLOOR DRAIN. (NOT APPLICABLE)

C. INSTALL ALARM DEVICES IN PIPING SYSTEMS.

D. INSTALL PRESSURE GAGES ON RISER OR FEED MAIN, AT EACH SPRINKLER TEST CONNECTION, AND AT TOP OF EACH RISER. INSTALL GAGES TO PERMIT REMOVAL, AND INSTALL WHERE THEY WILL NOT BE SUBJECT TO FREEZING.

E. INSTALL FIRE-PROTECTION SERVICE VALVES SUPERVISED-OPEN, LOCATED TO CONTROL SOURCES OF WATER SUPPLY EXCEPT FROM FIRE DEPARTMENT CONNECTIONS. WHERE THERE IS MORE THAN ONE CONTROL VALVE, PROVIDE PERMANENTLY MARKED IDENTIFICATION SIGNS INDICATING PORTION OF SYSTEM CONTROLLED BY EACH VALVE.

F. INSTALL BACKFLOW PREVENTOR INSIDE THE THE BUILDING AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. REFER TO PLAN AND DETAIL.

3.4 SPRINKLER APPLICATIONS (PROVIDE WHERE REQUIRED)

A. ROOMS WITHOUT CEILINGS: UPRIGHT SPRINKLERS.

B. ROOMS WITH SUSPENDED CEILINGS: PENDENT SPRINKLERS INSTALLED IN QUARTER POINTS OF CEILING TILES.

C. WALL MOUNTING: SIDEWALL SPRINKLERS.

D. SPACES SUBJECT TO FREEZING: PENDENT DRY-TYPE, AND SIDEWALL DRY-TYPE SPRINKLERS.

E. SPECIAL APPLICATIONS: USE EXTENDED COVERAGE, AND QUICK-RESPONSE SPRINKLERS WHERE INDICATED.

F. SPRINKLER FINISHES: CHROME PLATED IN FINISHED SPACES EXPOSED TO VIEW; ROUGH BRASS IN UNFINISHED SPACES NOT EXPOSED TO VIEW.

G. ALL SPRINKLERS IN SUSPENDED CEILINGS SHALL BE CENTERED IN CEILING TILE MODULES.

3.5 SPECIALTIES AND ALARMS INSTALLATIONS

A. INSTALL FIRE DEPARTMENT CONNECTIONS WITH BALL DRIP VALVES INSTALLED AT EACH CHECK VALVE FOR FIRE DEPARTMENT CONNECTION TO MAINS. EXTEND TO FLOOR DRAIN.

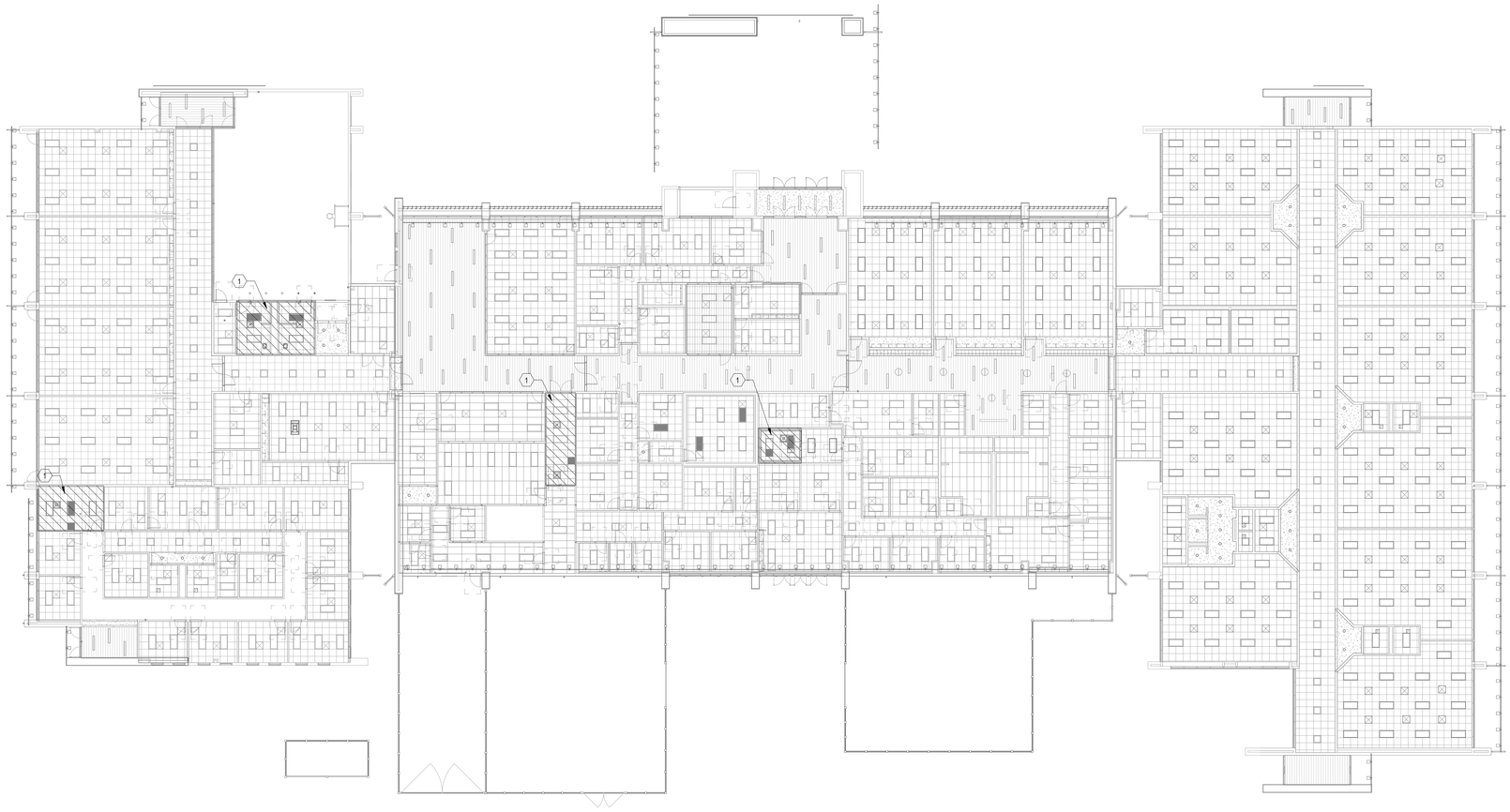
B. CONNECT ALARM DEVICES TO FIRE ALARM SYSTEM.

3.6 TESTING

A. PERFORM FIELD ACCEPTANCE TESTS OF EACH FIRE PROTECTION SYSTEM.

B. FLUSH, TEST, AND INSPECT SPRINKLER PIPING SYSTEMS ACCORDING TO NFPA 13, CHAPTER "SYSTEM ACCEPTANCE."

END OF SECTION 15300



1 FIRE PROTECTION PLAN
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REGISTERED PROFESSIONAL ENGINEER
ABDOU JAAFAR
18906
3.21.25
OKLAHOMA

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

FP100
FIRE PROTECTION PLAN

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BLUE RIVER PROJECT NUMBER:
20210121.60

ISSUE DATE:
04/07/2025

ISSUE:

OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
FIRE PROTECTION PLAN

SHEET NUMBER:
FP100

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PIPING MATERIAL SPECIFICATIONS

1. DOMESTIC WATER SYSTEM:
   - 1.1. PIPE AND FITTINGS:
     - 1.1.1. ABOVE GRADE: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING WITH SOLDERED JOINTS AND WROUGHT COPPER SOCKET FITTING FOR ALL WATER PIPING ABOVE GROUND.
     - 1.1.2. BELOW GRADE: PROVIDE TYPE "K" HARD DRAWN COPPER TUBING WITH BRAZED JOINTS AND WROUGHT COPPER SOCKET FITTING. NO FITTINGS SHALL BE ALLOWED BELOW GRADE INSIDE BUILDING FOOTPRINT.
     - 1.1.3. JOINTS: SOLDER JOINTS FOR TYPE "L" COPPER TUBING SHALL BE MADE USING 95-5 ANTIMONY SOLDER WITH A COMPATIBLE FLUX. BRAZED JOINTS SHALL USE A BCUP BRAZING ALLOY WITH A COMPATIBLE FLUX. SOLDER FOR POTABLE WATER PIPING SHALL BE LEAD FREE. DIELECTRIC ADAPTERS SHALL BE PROVIDED BETWEEN COPPER AND IRON PIPE CONNECTIONS AND BETWEEN FERROUS AND NONFERROUS PIPING OR EQUIPMENT
   - 1.2. ALTERNATE MATERIAL(S) FOR CONCEALED SPACES, WHERE ALLOWED BY LOCAL AUTHORITY AND OWNER:
     - 1.2.1. ABOVE GROUND: CROSSLINKED POLYETHYLENE (PEX) "A" OR "B" (ASTM F876 & F877) TUBING WITH BRASS INSERT FITTINGS (ASTM F1807) OR PLASTIC INSERT FITTINGS (ASTM F2159) AND COPPER CRIMP RINGS OR COLD EXPANSION FITTINGS (ASTM F1960). DO NOT INSTALL WHERE EXPOSED TO DIRECT SUNLIGHT.
     - 1.2.2. BELOW GROUND: CROSSLINKED POLYETHYLENE (PEX) "A" OR "B" (ASTM F876 & F877)TUBING WITH BRASS INSERT FITTINGS (ASTM F1807) OR PLASTIC INSERT FITTINGS (ASTM F2159) AND COPPER CRIMP RINGS OR COLD EXPANSION FITTINGS (ASTM F1960). NO JOINTS OR UNIONS SHALL BE ALLOWED BELOW GRADE INSIDE BUILDING FOOTPRINT.
2. SANITARY, WASTE AND VENT SYSTEM
   - 2.1. PIPE AND FITTINGS:
     - 2.1.1. PROVIDE SCH.40 PVC PLASTIC PIPING WITH DRAINAGE PATTERN FITTINGS AND SOLVENT-CEMENTED JOINTS PER ANSI/ASTM D1789 & D2729.
   - 2.2. HANGERS AND SUPPORT:
     - 2.2.1 FURNISH AND INSTALL HANGERS, CLAMPS, INSERTS, ETC. NECESSARY FOR THE INSTALLATION OF ALL PIPES AND EQUIPMENT. SOIL, WASTE AND VENT STACKS SHALL BE WELL SUPPORTED AT THE BASE OF THE RISER. SUPPORTS FOR COPPER PIPES SHALL BE PLACED ON 8 FOOT CENTERS. SUPPORT FOR VERTICAL PIPE SHALL BE PLACED AT TOP AND BOTTOM OF EACH FLOOR. INSULATION SHALL RUN CONTINUOUS THROUGH ALL HANGERS AND SUPPORTS.
3. TESTING:
   - 3.1. DOMESTIC COLD WATER PIPING SYSTEMS SHALL BE TESTED AT A HYDROSTATIC PRESSURE OF NOT LESS THAN 100 POUNDS PER SQUARE INCH GAUGE (BEFORE INSULATION APPLIED), AND PROVED TIGHT AT THIS PRESSURE FOR NOT LESS THAN 30 MINUTES IN ORDER TO PERMIT INSPECTION OF ALL JOINTS.
   - 3.2. SANITARY, WASTE AND VENT PIPING SHALL BE TESTED WITH WATER BEFORE INSTALLING PLUMBING FIXTURES.
4. CONDENSATE SYSTEM:
   - 4.1. SCHEDULE 40 OR 80 PVC OR ABS PIPING WITH DWV PATTERN FITTINGS TO BE USED UNLESS OTHERWISE REQUIRED BY LOCAL CODE.
5. NATURAL GAS OR PROPANE PIPING (LESS THAN 10PSI):
   - 5.1. ABOVE GRADE: SCHEDULE 40, ASTM A120, BLACK IRON PIPE WITH 150 LB. BLACK MALLEABLE THREADED OR SOCKET WELDED FITTINGS.
   - 5.2. BELOW GRADE: POLYETHYLENE, SDR-11 ASTM D25 D2513 PIPE AND FITTINGS WITH HEAT FUSION SOCKET JOINTS.
     - 5.2.1. PLASTIC GAS SERVICE PIPE SHALL BE INSTALLED WITH AN INSULATED COPPER TRACE WIRE NO LESS THAN 18 GAUGE LOCATED ADJACENT TO THE TOP OF THE PIPING. THE COPPER TRACE WIRE SHALL EXTEND TO GRADE AND TERMINATE AT EACH END OF THE PLASTIC SERVICE PIPING. A CONTINUOUS PLASTIC BANNER LABELED "CAUTION - GAS PIPING" SHALL BE INSTALLED 12 INCHES ABOVE ALL BURIED GAS PIPING.

DWV PLUMBING GENERAL NOTES

1. SLOPE STORM DRAINAGE PIPING AT 1/8" PER FOOT UNLESS NOTED OTHERWISE.
2. SLOPE SANITARY SEWER PIPING 2-1/2" AND SMALLER AT 1/4" PER FOOT. SLOPE SANITARY SEWER PIPING 3" AND LARGER AT 1/8" PER FOOT.
3. CLEANOUTS ARE TO BE PROVIDED AT THE END OF EACH RUN, AT ANY CHANGE OF DIRECTION GREATER THAN 45 DEGREES, AT A MAXIMUM OF 100FT ON CENTER INSIDE THE BUILDING AND AT A MAXIMUM SPACING OF 100FT ON CENTER OUTSIDE THE BUILDING, OR AS SHOWN ON DRAWINGS. LOCATE CLEANOUTS A MINIMUM OF 18 INCHES CLEAR FROM WALLS AND OBSTRUCTIONS TO ALLOW SERVICING.
4. FOR CONTINUATION OF UTILITIES 5'-0" BEYOND BUILDING REFER TO CIVIL DRAWINGS UNLESS NOTED OTHERWISE.
5. VERIFY FLOW LINE INVERTS OF BUILDING MAIN SEWER EXIT(S) REQUIRED FROM FURTHERMOST BRANCH LINE AND SITE SEWER TIE-IN LOCATION INVERT PRIOR TO BEGINNING BUILDING ROUGH-IN. NOTIFY ARCHITECT IF ADEQUATE FALL BETWEEN BUILDING AND SEWER CONNECTION CANNOT BE ACHIEVED.
6. MAKE CHANGES IN PIPE SIZE NOTED ON THE PLANS DOWNSTREAM OF FITTING OF THE LARGER PIPE. WHEN PIPES ARE LARGER THAN EQUIPMENT TAPINGS, REDUCE SIZE IMMEDIATELY PRIOR TO CONNECTION.
7. FLOOR DRAINS AND CLEANOUTS SHALL BE FURNISHED WITH TOP AND TRIM COMPATIBLE WITH FLOOR COVERING MATERIAL. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISH ALTERNATES AFFECTING FLOOR DRAIN AND CLEANOUT TRIM REQUIREMENTS.
8. ALL FLOOR DRAINS SHALL HAVE 3 INCHES MINIMUM WATER SEAL.
9. PROVIDE FUNNEL RECEPTOR FOR FLOOR DRAINS WHERE REQUIRED TO PREVENT SPILLAGE FROM INDIRECT WASTE LINES.
10. INSTALL A CLEANOUT AT THE FOOT OF EACH SINK WASTE STACK.
11. COORDINATE LOCATION OF TERMINATION OF VENT PIPING WITH OTHER TRADES AND ARCHITECTURAL FEATURES AND CONDITIONS. MAINTAIN REQUIRED CLEARANCES TO OUTSIDE AIR INTAKES, WINDOW, ETC. AS REQUIRED BY LOCALLY ACCEPTED CODE.
12. RUN ALL DRAIN LINES FROM EQUIPMENT OVERFLOW RECEIVERS, ETC. TO FLOOR/HUB DRAINS. DRAIN LINES SHALL BE HARD DRAWN COPPER INSTALLED WITH MINIMUM 1/8 INCH PER FOOT SLOPE SECURED BY GUIDES AND SUPPORTS FOR PIPE SIZE SHOWN. NO DRAIN LINE TO BE SMALLER THAN 3/4 INCH. INSTALL TEE AT EACH ELBOW OF CONDENSATE DRAIN WITH CLEANOUT PLUG ON BLIND TEE.
13. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS WHERE REQUIRED BY LOCAL AUTHORITY. PROVIDE PERMANENT ACCESS WITH SHUT-OFF VALVE UPSTREAM OF PRIMING DEVICE. ALTERNATE: IF ALLOWED BY LOCAL AUTHORITY, PROVIDE BARRIER TYPE EVAPORATION PREVENTION ZURN Z1072 OR EQUAL.

GAS PIPING GENERAL NOTES

1. FURNISH AND INSTALL INDIVIDUAL GAS SHUT-OFF VALVE AND UNION AT EACH GAS FIRED APPLIANCE AND BUILDING PENETRATION THRU ROOF OR EXTERIOR WALLS.
2. GAS SHUT OFF VALVE SHALL BE FULL SIZE OF REQUIRED EQUIPMENT BRANCH RUNOUT PIPE SIZE BASED ON GAS PRESSURE AND FURTHERMOST PIPE DISTANCE FROM GAS METER OR POINT OF PRESSURE REDUCTION. RUNOUT PIPE SHALL NOT BE REDUCED TO EQUIPMENT CONNECTION PIPE SIZE UNTIL IMMEDIATELY AHEAD OF CONNECTION TO EQUIPMENT. VALVES SHALL NOT BE LOCATED ABOVE CEILINGS WHERE NOT ACCESSIBLE.
3. BRANCH GAS PIPING SHALL BE CONNECTED TO THE TOP OR SIDE OF HORIZONTAL PIPING.
4. GAS PIPING SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS. WHERE VERTICAL CHASES ENCLOSE PIPE RISERS, CHASES SHALL BE FIRE RATED AND VENTILATED AT THE TOP WITH FREE AREA VENTS EQUAL TO OR GREATER THAN ONE-HALF THE SERVICE PRESSURE IN INCHES WATER COLUMN TIMES THE NOMINAL DIAMETER OF THE PIPE. GAS PIPING JOINTS WITHIN CONCEALED SPACES SHALL BE WELDED.
5. GAS PIPING SHALL NOT BE INSTALLED BELOW BUILDING SLAB.
6. USE ECCENTRIC REDUCERS TO MAKE REDUCTIONS IN PIPE SIZES IN HORIZONTAL PIPING. INSTALL FITTINGS WITH LEVEL SIDE ON BOTTOM OF PIPING.
7. INSTALL PIPING SO AS TO ALLOW FOR SERVICE AND MAINTENANCE OF EQUIPMENT AND APPLIANCES.
8. OPEN ENDS OF GAS PIPING SHALL BE CAPPED DURING CONSTRUCTION TO PREVENT INTRODUCTION OF FOREIGN MATERIALS. VALVE AND PIPING OUTLETS SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND LEFT CLOSED UNTIL FINAL CONNECTION TO EQUIPMENT OR APPLIANCES.
9. PLUMBING CONTRACTOR SHALL WIRE BRUSH AND PAINT ALL GAS PIPE AND ACCESSORIES EXPOSED TO WEATHER WITH 2 COATS OF YELLOW ENAMEL PAINT (2 MIL THICKNESS MINIMUM) OR COLOR AS PER ARCHITECT'S DIRECTION, UNLESS SPECIFICALLY DICTATED BY LOCAL CODE OR UTILITY COMPANY.
10. GAS PIPING SHALL ENTER THE BUILDING A MINIMUM OF 12 INCHES ABOVE FINISHED GRADE.
11. THE CONTRACTOR IS TO VERIFY THE FINAL APPROVED LOCATION OF THE GAS SERVICE METER AND/OR PRESSURE REDUCING STATION AND ADJUST THE GAS PIPE SIZES INDICATED FOR THE TOTAL SYSTEM LENGTH IF DIFFERENT FROM THE DISTANCE LISTED OR SHOWN ON THE DRAWINGS. DRAWINGS INDICATING THE SYSTEM REVISIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
12. COORDINATE INSTALLATION OF GAS SERVICE METER AND PRESSURE REGULATING STATIONS WITH THE GAS UTILITY COMPANY. PROVIDE ALL VALVES AND PIPING ARRANGEMENT FOR INSTALLATION OF THE SERVICE GAS METER AND PRESSURE REGULATING EQUIPMENT AS DIRECTED BY THE GAS UTILITY COMPANY. COORDINATE WITH CIVIL PLANS.
13. TRANSITION RISER FROM PLASTIC SERVICE PIPING TO BLACK STEEL BUILDING PIPING IS TO BE MADE BELOW GRADE. BLACK STEEL PIPING EXTENDING BELOW GRADE SHALL BE FURNISHED WITH FACTORY APPLIED CORROSION RESISTANT POLYETHYLENE COATING. PROVIDE ANODE FOR CATHODIC PROTECTION.
14. WHERE GAS SERVICE UNDERGROUND PIPING RISES THROUGH PAVING OR CONCRETE SURFACES, PROVIDE PIPE SLEEVE TWO PIPE SIZES LARGER THAN INSTALLED PIPING. EXTEND SLEEVE A MINIMUM OF 1 INCH ABOVE FINISHED SURFACE AND DEEPER THAN DEPTH OF PAVING OR CONCRETE. FILL SLEEVE VOID WITH SMALL, ROUNDED, WASHED GRAVEL.
15. EACH ABOVE GROUND PORTION OF METAL PIPING GAS SYSTEM UPSTREAM OF EQUIPMENT SHUT-OFF VALVES SHALL BE ELECTRICALLY CONTINUOUS AND BONDED TO GROUNDING ELECTRODE PER NFPA 70 AND NFPA 54.

SUPPLY PLUMBING GENERAL NOTES

1. DOMESTIC WATER PIPING SHALL BE INSTALLED TO SLOPE TO DRAIN POINTS. WHERE CONDITIONS DICTATE TRAPPED SECTION OF PIPING, A DRAIN VALVE SHALL BE INSTALLED TO FACILITATE DRAINING OF TRAPPED SECTION OF PIPING. INSTALL MANUAL AIR VENTS AT HIGH POINTS IN SYSTEM FOR AIR VENTING.
2. THOROUGHLY FLUSH DOMESTIC WATER PIPING. SCREENED OUTLETS SHALL BE REMOVED DURING FLUSHING PROCESS AND REINSTALLED AT COMPLETION.
3. INSULATE ALL DOMESTIC HOT, HOT WATER RETURN AND COLD WATER PIPING. CONDENSATE AND STORM PIPING SHALL BE INSULATED WHEN WITHIN BUILDING TO PREVENT CONDENSATION. COLD WATER, CONDENSATE AND STORM PIPING SHALL BE INSULATED WITH 1/2" CLOSED CELL INSULATION. HOT WATER AND HOT WATER RETURN SHALL BE INSULATED PER ADOPTED ENERGY CODE.
4. INSTALL SHUT-OFF VALVES AND UNIONS IN HOT WATER AND COLD WATER LINES AHEAD OF CONNECTIONS TO ALL PLUMBING FIXTURES & EQUIPMENT TO ALLOW SERVICING, MAINTENANCE AND EQUIPMENT REMOVAL.
5. PROVIDE ACCESS DOORS FOR ALL INACCESSIBLE VALVES. COORDINATE ACCESS DOOR WITH ARCHITECT.
6. LOCATE VALVES FOR EASY ACCESS AND PROVIDE SEPARATE SUPPORT WHERE NECESSARY. LOCATION SHALL ALLOW FOR FULL STEM MOVEMENT OF VALVE.
7. INSTALL VALVES IN HORIZONTAL PIPING WITH STEM AT OR ABOVE THE CENTER OF THE PIPE.
8. INSTALLATION OF CHECK VALVES: INSTALL FOR PROPER DIRECTION OF FLOW.
9. CONTRACTOR SHALL PROVIDE TEST AND BALANCE OF HYDRONIC PIPING SYSTEMS WHERE SPECIFIED. TEST AND BALANCE SHALL BE PERFORMED AND REPORTED AS DESCRIBED BY NEBB OR AABC. PUMP STRAINERS SHALL BE CLEAN AND EQUIPMENT CONTROLS AND DEVICES FULLY FUNCTIONAL AT THE TIME OF PERFORMING BALANCE WORK. AFTER INSTALLATION OF NEW EQUIPMENT, THE CONTRACTOR SHALL BALANCE FLOW THROUGH HEATING AND COOLING COILS AND RECORD MEASUREMENTS. THE TEST FINDINGS SHALL BE REPORTED TO THE ARCHITECT FOR REVIEW AND COMMENT. IF THE SYSTEM IS FOUND TO BE OUTSIDE OF THE INSTALLED PUMPING EQUIPMENT ESTABLISHED PERFORMANCE CURVE, THE CONTRACTOR SHALL REBALANCE SYSTEM TO BRING IT TO THE PUMP MANUFACTURER'S PERFORMANCE PUMP CURVE.
10. NEW POTABLE WATER SYSTEM SHALL BE DISINFECTED BY FILLING WITH WATER/CHLORINE SOLUTION IN COMPLIANCE WITH IPC 610 AND AWWA C651 OR AWWA C652.
11. BASIS OF DESIGN FOR DOMESTIC WATER, UNLESS OTHERWISE NOTED, IS TYPE L COPPER PIPING. WHEN ALTERNATE IS UTILIZED, SIZE OF ALTERNATE SHALL BE MODIFIED AS REQUIRED TO MAINTAIN SAME INTERNAL DIAMETER.

PLUMBING GENERAL NOTES

1. ALL WORK AND INSTALLATIONS SHALL COMPLY WITH BUILDING SPECIFICATIONS, CURRENT CITY BUILDING CODE, AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS OF REGULATORY AGENCIES HAVING JURISDICTION AND SHALL ALSO CONFORM TO THE REQUIREMENTS OF THE OWNER'S INSURANCE CARRIER, THE STRUCTURAL ENGINEER, THE ARCHITECT, AND SHALL BE IN COMPLIANCE WITH ALL INDUSTRY STANDARDS. CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER SPECIFICATIONS AND DRAWINGS WHERE THERE IS A CONFLICT.
2. PAY ALL LAWFUL FEES FOR PERMITS OR LICENSES TO ACCOMPLISH THE WORK. OBTAIN AND PAY FOR ALL NECESSARY CERTIFICATES OF APPROVAL.
3. WORK SHOWN ON THE DRAWINGS IS TO BE COORDINATED WITH WORK OF ALL OTHER TRADES AND ACTUAL CONDITIONS OF CONSTRUCTION.
4. ESTABLISH LOCATION AND SIZE OF ALL UTILITY SERVICES PRIOR TO BUILDING ROUGH-IN. COORDINATE LOCATION OF BUILDING SERVICE ENTRANCES AND SYSTEM PIPE ROUTING WITH UTILITY SERVICE MAINS ON SITE AND SITE FEATURES AND CONDITIONS.
5. LAY OUT PIPES TO FALL WITHIN PARTITIONS OR CHASES. DO NOT REQUIRE FURRING OTHER THAN THOSE SHOWN ON THE DRAWINGS.
6. INSTALL ALL PIPING PARALLEL AND PERPENDICULAR TO BUILDING WALLS AND PARTITIONS UNLESS DISTINCTLY SHOWN OR NOTED OTHERWISE USING ONLY THE MINIMUM NUMBER OF BENDS REQUIRED. ROUTE PIPING LOCATED NEAR EACH OTHER PARALLEL IN ALL PLANES, WITH SUFFICIENT CLEARANCE.
7. ALL UNDERGROUND PLUMBING PIPING SUBJECT TO FREEZE SHALL BE INSTALLED BELOW LOCAL AREA FROST LINE MINIMUM. VERIFY SITE FROST DEPTH.
8. PIPING ON EXTERIOR WALLS SHALL BE INSTALLED ON THE ROOM SIDE OF EXTERIOR WALL INSULATION FOR FREEZE PROTECTION.
9. COPPER AND PLASTIC PIPING INSTALLED IN STUD WALLS SHALL BE PROTECTED WITH MINIMUM 1/16 INCH SHIELD PLATES EXTENDING BEYOND THE PIPE IN ALL DIRECTIONS.
10. LABEL PIPING TO IDENTIFY SYSTEM TYPE AND DUTY. FOR EXISTING BUILDINGS, FOLLOW ESTABLISHED IDENTIFICATION NOMENCLATURE.
11. REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS AND DIMENSIONED LOCATIONS OF PLUMBING FIXTURES. FIXTURES DESIGNATED FOR HANDICAP USE SHALL BE INSTALLED TO MEET MOST CURRENT APPLICABLE ADA AND/OR ANSI REQUIREMENTS FOR INSTALLATION CLEARANCE AND ACCESS.
12. SLEEVE PIPING THROUGH EXTERIOR WALLS, FIRE AND SMOKE RATED WALLS AND ASSEMBLIES, ON GRADE SLAB FLOORS, MULTI-STORY FLOORS. ANNULAR SPACE BETWEEN PIPE AND SLEEVE SHALL BE CAULKED AND SEALED. FIRE RATED PENETRATIONS SHALL BE FIRE STOPPED TO MEET RATING OF CONSTRUCTION PENETRATED. EXTEND SLEEVE A MINIMUM OF 1 INCH ABOVE FLOOR PENETRATIONS IN POTENTIALLY WET AREAS SUCH MECHANICAL AND EQUIPMENT ROOMS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO PLUMBING FIXTURES. THIS INCLUDES, BUT IS NOT LIMITED, TO PROVIDING (FURNISHING AND INSTALLING) ALL TRAPS, DRAINS, AND SUPPLIES WITH STOPS.
14. LAY OUT THE PIPING SYSTEM IN CAREFUL COORDINATION WITH THE BUILDING CONDITIONS AND ALLOW FOR SERVICE OF ALL INSTALLED EQUIPMENT, ACCESS AND OPERATION OF VALVES, SERVICE OF ALL PIPING COMPONENTS, SERVICE OF HVAC EQUIPMENT. DETERMINE PROPER ELEVATION FOR ALL COMPONENTS OF THE SYSTEM. ESTABLISH STANDARD OF INSTALLATION AND REVIEW WITH OWNER'S REPRESENTATIVE FOR APPROVAL. DEMONSTRATE ACCESS OF ALL SYSTEM COMPONENTS. MAKE MODIFICATIONS REQUIRED BY THE OWNER AND INSTALL ALL OTHER SYSTEMS TO MEET INSTALLATION OF OWNER APPROVED UNIT PIPING.
15. KEEP ALL PIPE OPENINGS COVERED DURING CONSTRUCTION. VERIFY PIPING IS CLEAN AND CLEAR BEFORE EXTENDING PIPING SECTIONS.
16. INSTALL ALL EQUIPMENT AND PIPING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
17. COORDINATE LOCATION AND METHOD OF ATTACHMENT OF HANGERS AND SUPPORTS FOR PIPING SYSTEM TO BUILDING STRUCTURE WITH THE ARCHITECT AND STRUCTURE ENGINEER. ESTABLISH LOCATIONS OF SYSTEM PIPE ANCHORS AND OBTAIN APPROVAL FROM THE ARCHITECT AND STRUCTURAL ENGINEER. INSTALL HANGERS AND SUPPORTS, COMPLETE WITH NECESSARY INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES, TO ALLOW CONTROLLED MOVEMENT OF PIPING SYSTEMS, PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND FACILITATE ACTION OF EXPANSION AND CONTRACTION IN PROPER DIRECTION. LOCATE PIPING SUPPORTS AWAY FROM PIPE JOINTS TO ALLOW FREE MOVEMENT OF PIPING WITHOUT INTERFERENCE OF PIPE SUPPORTS.
18. LOAD DISTRIBUTION: INSTALL HANGERS AND SUPPORTS SO THAT PIPING LIVE AND DEAD LOADING AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT.
19. REVIEW CONNECTION REQUIREMENTS OF ACTUAL EQUIPMENT FURNISHED PRIOR TO ROUGH-IN. THIS INCLUDES EQUIPMENT FURNISHED BY THIS TRADE, ANY OTHER TRADES WORK, OR THE OWNER. ADJUST ROUGH-IN TO MEET EQUIPMENT INSTALLATION REQUIREMENTS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO PLUMBING FIXTURES. THIS INCLUDES, BUT IS NOT LIMITED, TO PROVIDING (FURNISHING AND INSTALLING) ALL TRAPS, DRAINS, AND SUPPLIES WITH STOPS.
21. PROVIDE EXPANSION LOOP(S) IN PIPING WHERE BUILDING EXPANSION JOINTS ARE CROSSED AND AS RECOMMENDED BY MANUFACTURER OF PIPING.

SUPPLY PLUMBING GENERAL NOTES

AN APPROVED BACKFLOW PREVENTER MUST BE INSTALLED ON ANY WATER SUPPLY LINE TO ANY
EQUIPMENT OR SYSTEM THAT MAY BE SOURCES OF CONTAMINATION. ALL POSSIBLE CROSS-CONNECTIONS MUST BE ELIMINATED OR PROTECTED WITH AN APPROVED BACKFLOW DEVICE.

RPZ BACKFLOW DEVICES ARE REQUIRED ON THE SERVICE LINE TO ANY CARBONATED DRINK MACHINE (NO COPPER PIPING DOWNSTREAM OF BACKFLOW DEVICE ON CARBONATED DRINK MACHINES). PROVIDE WATTS MODEL 009 FOR CARBINATOR, AND WATTS MODEL SD-3 FOR ANY OTHER WATER SUPPLY LINE SUPPLYING DRINKING WATER EQUIPMENT.

IF A LAWN IRRIGATION SYSTEM IS TO BE INSTALLED, A RPZ IF REQUIRED.

ALL BACKFLOW DEVICES MUST BE INSTALLED IN TESTABLE LOCATIONS AND ACCORDING TO MANUFACTURES DIRECTIONS AND STATE AND LOCAL REGULATIONS.

ALL BACK FLOW DEVICES MUST BE TESTED BY THE LOCAL CITY OR A CERTIFIED BACK FLOW TESTER. BACK FLOW TESTER MUST REGISTER ANNUALLY WITH THE CITY OF GREENVILLE AND MUST SUBMIT PAPERWORK TO THE LOCAL CITY.

INSPECTIONS FROM ENVIRONMENTAL SERVICES ARE REQUIRED ON ALL BACKFLOW ASSEMBLIES.

A DISCHARGE PERMIT MAY BE REQUIRED FOR FACILITIES WISHING TO PREPARE AND SERVE FOOD. CONTACT ENVIRONMENTAL SERVICE IN ADVANCE TO OBTAIN A PERMIT APPLICATION.

GENERAL MECHANICAL SYMBOLS

- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- NUMBER OF DETAIL ON SHEET
- NUMBER OF SHEET WHERE DETAIL APPEARS
- 1 — KEYNOTE
- CONTINUATION SYMBOL
- Room 4 — ROOM NAME AND NUMBER
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT
- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 1/8" / 12" SLOPE — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MU/A	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EWC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FD	FIRE DAMPER	RH	RELATIVE HUMIDITY
FDV	FIRE DEPARTMENT VALVE	RL/A	RELIEF AIR
FL	FLOOR	RM	ROOM
FO	FUEL OIL	RPM	REVOLUTIONS PER MINUTE
FOV	FUEL OIL VENT	RW	RAIN WATER
FOR	FUEL OIL RETURN	SF	SQUARE FOOT
FOS	FUEL OIL SUPPLY	S/A	SUPPLY AIR
FPM	FEET PER MINUTE	SAN	SANITARY
FS	FLOOR SINK	SF	SQUARE FOOT
FT	FOOT/FEET	SD	SMOKE DAMPER
FTR	FIN TUBE RADIATION	SM	SURFACE MOUNT
GAL	GALLON	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

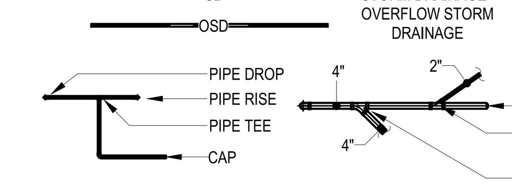
EQUIPMENT ABBREVIATIONS

AC	AIR CONDITIONING UNIT	ET	EXPANSION TANK
ACCU	AIR COOLING CONDENSING UNIT	EWH	ELECTRIC WATER HEATER
AHU	AIR HANDLING UNIT	FCU	FAN COIL UNIT
AS	AIR SEPARATOR	FP	FIRE PUMP
B	BOILER	GI	GREASE INTERCEPTOR
CH	CHILLER	GRV	GRAVITY ROOF VENTILATOR
CT	COOLING TOWER	HWP	HEATING WATER PUMP
CUH	CABINET UNIT HEATER	HRU	HEAT RECOVERY UNIT
CHWP	CHILLED WATER PUMP	PRV	POWER ROOF VENTILATOR
DBP	DOMESTIC WATER BOOSTER PUMP	RE	RETURN/EXHAUST FAN
DC	DUCT MOUNTED COIL	RTU	ROOFTOP UNIT
DCP	DOMESTIC WATER CIRCULATING PUMP	SP	SUMP PUMP
EF	EXHAUST FAN	UH	UNIT HEATER
EDC	ELECTRIC DUCT COIL	WH	WATER HEATER

* NOTE *
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

PLUMBING AND PIPING SYMBOLS

CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CD	CONDENSATE DRAINAGE
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
GWR	GEOTHERMAL WATER RETURN
GWS	GEOTHERMAL WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
G	NATURAL GAS
PG	PROPANE GAS
REF-L	REFRIGERANT-LIQUID
REF-S	REFRIGERANT-SUCTION
REF-HG	REFRIGERANT-HOT GAS
STM	STEAM
CDR	CONDENSATE RETURN
CWV	COMBINATION WASTE & VENT
CA	COMPRESSED AIR
CW	DOMESTIC COLD WATER
H-CW	HARD COLD WATER
S-CW	SOFT COLD WATER
F-CW	FILTERED COLD WATER
RO	REVERSE OSMOSIS WATER
HW	HOT WATER
HW 140°	HOT WATER 140°
HW-R	HOT WATER RECIRCULATION
HW-R 140°	HOT WATER RECIRCULATION 140°
GV	GREASE VENT
GW	GREASE WASTE
IW	INDIRECT WASTE
OV	OIL VENT
OW	OIL WASTE
PD	PUMP DISCHARGE
V	SANITARY VENT
SS	SANITARY SEWER
SHWR	SOLAR HOT WATER RETURN
SHWS	SOLAR HOT WATER SUPPLY
SD	STORM DRAINAGE
OSD	OVERFLOW STORM DRAINAGE



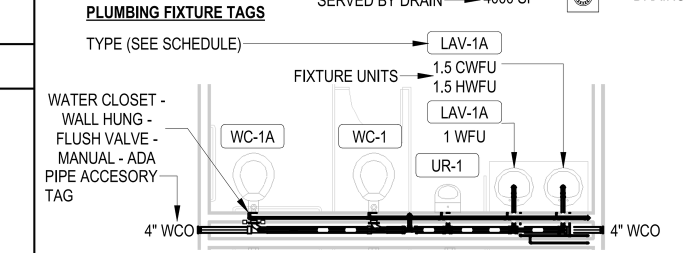
PIPE ACCESSORY TAGS

- 2" DOM. WM — DOMESTIC WATER METER
- 2" M-CNTRL — MOTORIZED CONTROL VALVE
- 2" BALANCING — BALANCING VALVE
- 2" 3-WAY CNTRL — 3 WAY MOTORIZED CONTROL VALVE
- 2" SHUTOFF — 1/4 TURN BALL VALVE
- 2" PRV — PRESSURE REDUCING VALVE
- 2" CHECK — CHECK VALVE
- 3/8" SOLENOID — REFRIGERANT SOLENOID VALVE
- 2" TMV — 3-WAY MIXING VALVE
- 2" BUTTERFLY — BUTTERFLY VALVE

DRAIN TAGS

- DRAIN SIZE
- FLOOR DRAIN — FD-EX — TYPE (SEE SCHEDULE)
- FLOOR DRAIN — FD-3P — "P" - INDICATES PRIMER CONNECTION
- FLOOR SINK — FS-4
- HUB DRAIN — FD-13 — 8 WFU — FIXTURE UNITS
- AD-6 — AREA DRAIN
- SD-29 — DECK DRAIN
- SD-12 — FLOW CONTROL DRAIN
- SD-15 — STORM DRAIN
- SD-1 — 4000 SF — ROOF AREA SERVED BY DRAIN — COMBINATION DRAINS

PLUMBING FIXTURE TAGS



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CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

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GENERAL NOTES, LEGENDS, & SYMBOLS

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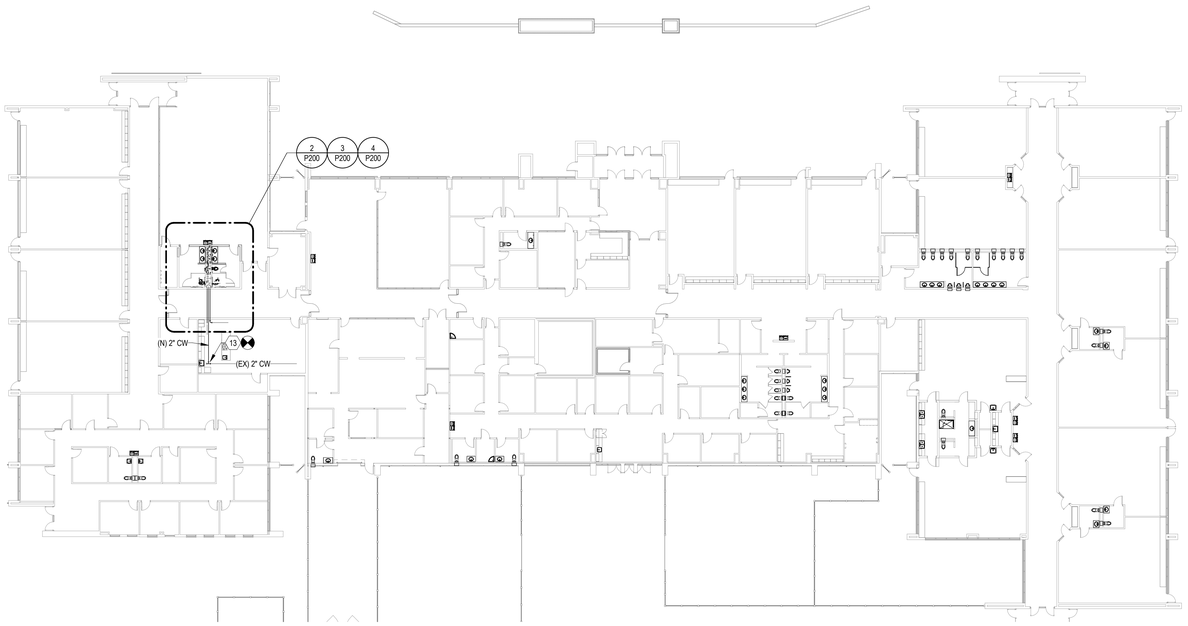


1 OVERALL PLUMBING PLAN

3/64" = 1'-0"

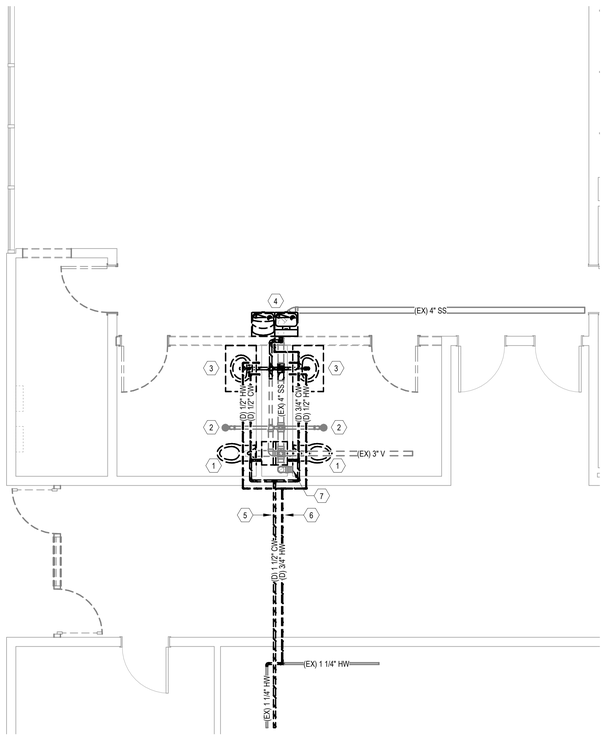
PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER	MODEL	TRIM	CONNECTIONS WASTE	CONNECTIONS VENT	CONNECTIONS CW	CONNECTIONS HW	REMARKS
WC-1	WATER CLOSET (FLOOR MOUNT, MANUAL FLUSH VALVE)	ZURN	Z5655-BWL1	15" HEIGHT FLUSHOMETER ELONGATED TOILET, WHITE, 12" ROUGH-IN. VALVE: ZURN ZTR6200-EV-HW 1.28 GPF HARD-WIRED SENSOR-OPERATED FLUSH VALVE, POLISHED CHROME FINISH. SEAT: ZURN Z5955SS-EL HEAVY DUTY OPEN FRONT ELONGATED SEAT.	4"	2"	1-1/4"	—	—
WC-2	WATER CLOSET (FLOOR MOUNT, MANUAL FLUSH VALVE, ADA COMPLIANT)	ZURN	Z5665-BWL1	16-1/2" HEIGHT FLUSHOMETER ELONGATED TOILET, WHITE, 12" ROUGH-IN. VALVE: ZURN ZTR6200-EV-HW, 1.28 GPF HARD-WIRED SENSOR-OPERATED FLUSH VALVE, POLISHED CHROME FINISH. SEAT: ZURN Z5955SS HEAVY DUTY OPEN FRONT ELONGATED SEAT. INSTALL IN ACCORDANCE WITH ADA REQUIREMENTS.	4"	2"	1-1/4"	—	—
UR-1	URINAL (WALL HUNG, MANUAL FLUSH VALVE)	ZURN	Z5755-U	FLUSHOMETER URINAL, WHITE, WITH INTEGRAL TRAP. INSTALL WITH RIM AT 24" ABOVE FINISHED FLOOR, OR 17" WHERE ADA INSTALLATION INDICATED. VALVE: ZURN ZTR6203-EWS-HW, 0.5 GPF HARD-WIRED SENSOR-OPERATED FLUSH VALVE, POLISHED CHROME FINISH. COORDINATE CARRIER WITH FIXTURE, MOUNTING HEIGHT, WALL THICKNESS, AND PIPING ROUTING. INSTALL IN ACCORDANCE WITH ADA REQUIREMENTS WHERE INDICATED BY ARCHITECT.	2"	1-1/2"	3/4"	—	1
L-1	LAVATORY (COUNTERTOP, SELF-RIMMING, ADA)	ZURN	Z5114	OVAL SELF-RIMMING LAVATORY, WHITE, 3 HOLE DRILLING ON 4" CENTERS. FAUCET: ZURN MODEL Z6915-XL-F-HWB-CWB, HARD-WIRED SENSOR FAUCET WITH 0.5 GPM VANDAL RESISTANT AERATOR, POLISHED CHROME FINISH. DRAIN: ZURN Z8743-PC GRID DRAIN. INSTALL IN ACCORDANCE WITH ADA REQUIREMENTS WHERE INDICATED BY ARCHITECT.	2"	1-1/2"	1/2"	1/2"	2,3,4,5
EWC-1	ELECTRIC WATER COOLER (BI-LEVEL, ADA COMPLIANT, BOTTLE FILLER)	ELKAY	EZSTL8WSLK	BARRIER FREE SURFACE MOUNTED, WITH FRONT PUSH BUTTONS, AND INTEGRAL FLOW CONTROL. INCLUDES HANDS-FREE BOTTLE FILLER. SHALL PROVIDE 8 GPH CHILLED WATER. INSTALL IN ACCORDANCE WITH ADA REQUIREMENTS.	2"	1-1/4"	1/2"	—	1,6,7
TMV	THERMOSTATIC MIXING VALVE	ZURN	ZW3870XLT	FACTORY ASSEMBLED ASSE 1070 COMPLIANT MIXING VALVE FOR SINGLE FIXTURE. MINIMUM FLOW RATE 0.06 GPM. ADJUSTABLE THERMAL ACTUATOR, INTEGRAL CHECKS. SET TO 105°F.	—	—	1/2"	1/2"	5
WHA	WATER HAMMER ARRESTOR	JAY R. SMITH	5000 SERIES	STAINLESS STEEL, FACTORY PRE-CHARGED, PERMANENTLY SEALED, ENGINEERED WATER HAMMER ARRESTER. SIZE AND LOCATE PER PDI-WH 201.	—	—	—	—	8

REMARKS:
1. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS. IN CASE OF DISCREPANCY, ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE.
2. PROVIDE CHROME-PLATED BRASS QUARTER-TURN ANGLE SUPPLY (HOT AND COLD, AS REQUIRED) WITH STAINLESS STEEL FLEXIBLE RISER HOSE AND WALL ESCUTCHEON. ACCEPTABLE MANUFACTURERS: MCGUIRE, ZURN.
3. PROVIDE CHROME-PLATED 17 GAUGE TUBULAR OR CAST BRASS P-TRAP WITH CLEANOUT AND WALL ESCUTCHEON. ACCEPTABLE MANUFACTURERS: MCGUIRE, ZURN.
4. WHERE ADA INSTALLATION IS INDICATED, PROVIDE ADA-COMPLIANT UNDERSINK PROTECTIVE PIPE COVERING, AS REQUIRED FOR ALL EXPOSED WASTE, HOT, AND COLD PIPING, COLOR: WHITE. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE INSTALLATION MEETING CURRENT ADA STANDARDS WHERE REQUIRED. ACCEPTABLE MANUFACTURERS: MCGUIRE, ZURN.
5. INSTALL THERMOSTATIC MIXING VALVE (TMV) ON HW SUPPLY TO LAVATORIES AND HAND SINKS. SET OUTLET TEMPERATURE TO 105°F.
6. UNIT SHALL PROVIDE 8.0 GPH OF 50 DEGREE FAHRENHEIT WATER BASED ON 80 DEGREE FAHRENHEIT INLET WATER AND 90 DEGREE FAHRENHEIT ROOM TEMPERATURE.
7. PROVIDE SOLID BLOCKING IN WALL BEHIND UNIT FOR MOUNTING.
8. WATER HAMMER ARRESTORS SHALL BE PROPERLY SIZED, PROPERLY LOCATED IN AN EFFECTIVE RANGE FROM EQUIPMENT, AND IN ACCORDANCE WITH PDI STANDARD WH201.

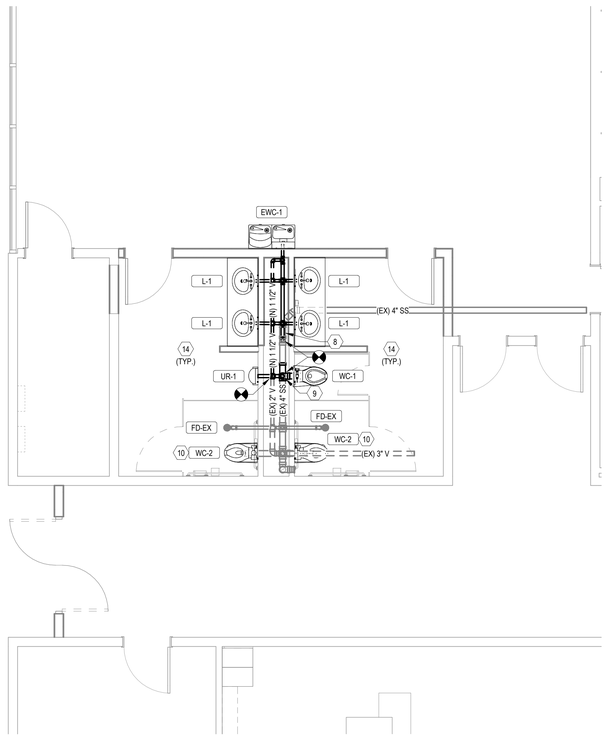
KEYNOTES

1 REMOVE EXISTING WATER CLOSET. EXISTING ROUGH-IN TO REMAIN FOR REPLACEMENT FIXTURE.
2 EXISTING FLOOR DRAIN TO REMAIN.
3 REMOVE EXISTING LAVATORY AND ASSOCIATED PIPING.
4 REMOVE EXISTING DRINKING FOUNTAIN AND ASSOCIATED WATER AND VENT PIPING. REMOVE DRAIN PIPING DOWN TO ABOVE SLAB FOR RECONNECTION OF NEW FIXTURES.
5 REMOVE EXISTING 1-1/2" COLD WATER LINE TO EXISTING RESTROOMS.
6 REMOVE EXISTING 3/4" HOT WATER LINE FROM HOT WATER LOOP TO RESTROOMS.
7 EXISTING CLEANOUT TO REMAIN.
8 ROUTE NEW 2" SANITARY SEWER IN CHASE ABOVE SLAB, AND CONNECT INTO EXISTING 2" DRAIN PREVIOUSLY SERVING DRINKING FOUNTAIN.
9 ROUTE NEW 4" DRAIN FROM WATER CLOSET DOWN AND CONNECT TO EXISTING 4" SANITARY SEWER BELOW SLAB. URINAL TO DRAIN INTO 2" STACK ABOVE. PROVIDE WITH 2" VENT.
10 INSTALL NEW WATER CLOSET IN PLACE OF EXISTING. MODIFY EXISTING ROUGH-IN AS REQUIRED.
11 PROVIDE LAVATORY WITH THERMOSTATIC MIXING VALVE (TMV) SET TO 105°F.
12 EXTEND HOT WATER LOOP TO NEW RESTROOM AS SHOWN. FIELD VERIFY EXACT ROUTING AND DIRECTION OF FLOW.
13 EXTEND NEW 2" CW TO EXISTING MINIMUM 2" CW PIPING AND CONNECT. FIELD VERIFY BEST ROUTING AND POINT OF CONNECTION. REFER TO DETAIL 1 FOR APPROXIMATE LOCATION BASED ON EXISTING DRAWINGS.
14 NEW HARDWIRED FIXTURES TO BE SERVED BY EXISTING HARDWIRED ADAPTER. IF EXISTING ADAPTER CANNOT BE REUSED, PROVIDE NEW ADAPTER AND COORDINATE WITH ELECTRICAL FOR RECONNECTION TO JUNCTION BOX POWERING EXISTING FIXTURES.



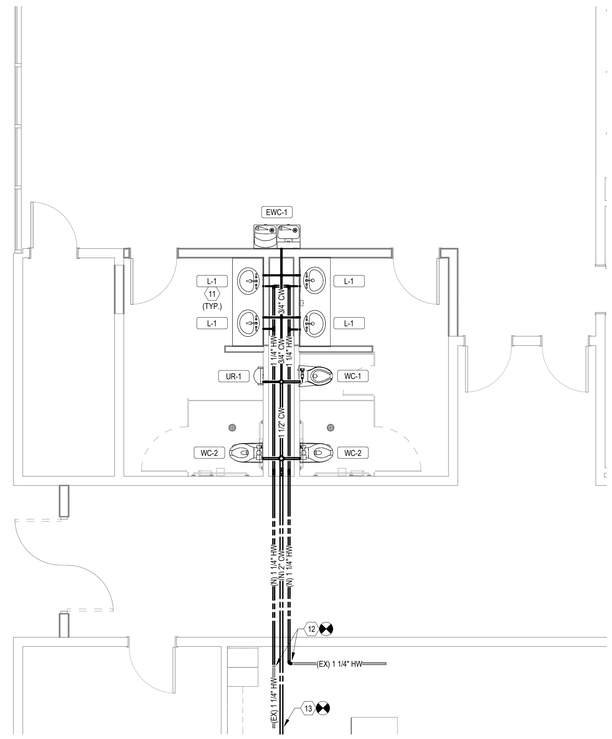
2 ENLARGED PLUMBING PLAN - DEMO

1/4" = 1'-0"



3 ENLARGED PLUMBING PLAN - WASTE & VENT

1/4" = 1'-0"



4 ENLARGED PLUMBING PLAN - DOMESTIC WATER

1/4" = 1'-0"

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A Native American Owned Firm

REGISTERED PROFESSIONAL ENGINEER
ABDOU JAAFAR
18906
3.21.25
OKLAHOMA

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

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PLUMBING PLANS & SCHEDULES

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PLUMBING SPECIFICATIONS

GENERAL

THE GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS AND INSTRUCTIONS TO BIDDERS SHALL APPLY TO AND BE PART OF THIS SPECIFICATION.
CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS.
CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CERTIFICATES OF INSPECTION AND APPROVALS REQUIRED.

SCOPE OF WORK

WATER PIPING SYSTEMS
SOIL, WASTE, AND VENT PIPING SYSTEMS
GAS PIPING
PLUMBING FIXTURES
PLUMBING EQUIPMENT
PAINTING AND ELECTRICAL WORK IS NOT PART OF THIS CONTRACT.

GENERAL STANDARDS

THE APPLICABLE PROVISIONS OF THE FOLLOWING STANDARDS SHALL GOVERN:

AMERICAN SOCIETY FOR TEST MATERIALS (ASTM);
AMERICAN STANDARDS ASSOCIATION (ASA);
UNDERWRITERS LABORATORIES (UL);
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA);
STATE BUILDING AND PLUMBING CODE.

THE INSTALLATION OF ALL PLUMBING WORK SHALL CONFORM TO THE APPLICABLE LOCAL PLUMBING CODES AND STATUES.

EXCAVATION AND BACKFILL

DO ALL EXCAVATION AND BACKFILLING. LAY SEWER AND UNDERGROUND PIPING LINES ON 6" COMPACTED SAND. BACKFILL UNDER BUILDING AND ALL DRIVES, ROADS AND WALKS WITH BANK-RUN GRAVEL.

WATER PIPING SYSTEMS

DOMESTIC COLD-WATER PIPING
DOMESTIC HOT-WATER PIPING
TRAP PRIMERS FOR FLOOR DRAINS

INTERIOR WATER PIPING:
TUBE SIZE 2" AND SMALLER: COPPER TUBE.
WALL THICKNESS: TYPE L, HARD-DRAWN TEMPER.
FITTINGS: WROUGHT-COPPER, SOLDER-JOINTS.
TUBE SIZE 2-1/2" AND LARGER: COPPER TUBE.
WALL THICKNESS: TYPE L, HARD-DRAWN TEMPER.
FITTINGS: WROUGHT-COPPER, SOLDER-JOINTS.

WHERE ALLOWED BY CODES AND OWNER:
PEX DISTRIBUTION SYSTEM: ASTM F877, ASTM F1960, SDR 9 TUBING.

PEX TUBING FITTING TUBE SHALL BE PER ASTM F1960 AND
ASTM 2080, WITH METAL-INSERT TYPE WITH COPPER OR
STAINLESS-STEEL CRIMP RINGS AND MATCHING PEX TUBE DIMENSIONS.

MANIFOLD: MULTIPLE-OUTLET, COOPER ASSEMBLY
COMPLYING WITH ASTM F877, WITH BRASS OR BRONZE FULL PORT BALL VALVE FOR EACH OUTLET.

PEX PIPING SHALL NOT BE INSTALLED WHERE EXPOSED TO DIRECT SUNLIGHT.
NO JOINTS OR UNIONS SHALL BE INSTALLED BELOW THE BUILDING SLAB.
PEX TUBING SHALL BE INSULATED TO MAINTAIN SMOKE AND FIRE SPREAD PER ASTM E 84 WHEN INSTALLED IN RETURN AIR PLENUM.
PROVIDE TUBING WITH NOMINAL INSIDE DIAMETER IN ACCORDANCE WITH ASTM F876.

THE DOMESTIC WATER PIPING SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL CONTAMINATED WATER DOES NOT APPEAR AT THE OUTLET AND SHALL BE FILLED WITH A SOLUTION CONTAINING FIFTY (50) PARTS PER MILLION OF CHLORINE AND ALLOWED TO STAND AS REQUIRED BY CODE BEFORE FLUSHING. THE SYSTEM SHALL BE FLUSHED COMPLETELY WITH CLEAR WATER UNTIL ALL RESIDUAL CHLORINE CONTENT IS REMOVED. CHLORINATION SHALL BE PERFORMED AFTER ALL PIPING AND FINAL CONNECTIONS AND PRESSURE TESTING HAS BEEN COMPLETED.

TESTING

DOMESTIC COLD WATER PIPING SYSTEMS SHALL BE TESTED AT A HYDROSTATIC
PRESSURE OF NOT LESS THAN 100 POUNDS PER SQUARE INCH GAUGE (BEFORE
INSULATION APPLIED), AND PROVED TIGHT AT THIS PRESSURE FOR NOT LESS
THAN 30 MINUTES IN ORDER TO PERMIT INSPECTION OF ALL JOINTS. SOIL, WASTE
AND VENT PIPING SHALL BE TESTED WITH WATER BEFORE INSTALLING PLUMBING
FIXTURES.

SOIL, WASTE AND VENT/GAS PIPING SYSTEM

FURNISH AND INSTALL A COMPLETE SOIL, WASTE AND VENT SYSTEM IN THE BUILDING AND ON THE SITE AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.

ABOVE GROUND SOIL, WASTE AND VENT PIPING WITHIN BUILDINGS INCLUDING SOIL STACKS, VENT STACKS, HORIZONTAL BRANCHES, TRAPS, AND CONNECTIONS TO FIXTURES AND DRAINS.

UNDERGROUND BUILDING DRAIN PIPING INCLUDING MAINS, BRANCHES, TRAPS, CONNECTIONS TO FIXTURES AND DRAINS, AND CONNECTIONS TO STACKS, TERMINATING AT CONNECTION TO EXISTING SANITARY SEWER.

INTERIOR PIPING:

PIPE AND FITTINGS:
PROVIDE SCH.40 PVC PLASTIC PIPING WITH DRAINAGE PATTERN FITTINGS AND
SOLVENT-CEMENTED JOINTS PER ANSI/ASTM D1789 & D2729.

PIPING ALIGNMENT SHALL BE AS INDICATED ON THE DRAWINGS USING APPROVED Y BRANCHES OR EIGHTH BENDS FOR DIRECTION CHANGES AND SHALL BE SURELY SUPPORTED OR SECURED TO MAINTAIN SUCH ALIGNMENT.

PITCH OF PIPING SHALL BE UNIFORM AT A MINIMUM OF 1/8" PER FOOT FOR BUILDING DRAINS AND AS INDICATED ON THE DRAWINGS FOR SEWERS.

PROTECTION SHALL BE GIVEN ALL FOOTINGS, OTHER STRUCTURAL ELEMENTS DURING UNDERGROUND WORK ADJACENT TO SUCH ITEMS. REFER TO STRUCTURAL DRAWINGS.

VENT ALL FIXTURES, CONNECT BRANCH VENTS TO MAIN VENT RISERS AT LEAST THREE FEET AND SIX INCHES ABOVE VENTED FIXTURES. PITCH VENT LINES BACK TO SOIL OR WASTE PIPE, FREE OF DROPS AND SAGS.

CLEANOUTS SHALL BE FULL SIZE OF PIPE UP TO 4", AND 4" FOR LARGER SIZES. FOR UNDERGROUND AND CONCEALED LINES, PROVIDE CLEANOUTS IN ACCESSIBLE POSITIONS AT EACH RIGHT ANGLE TURN AND AT INTERVALS NOT TO EXCEED ONE HUNDRED FEET. IN FLOORS, INSTALL FLUSH WITH FINISH FLOOR WITH EXTENSION PIPE FROM CLEANOUT "Y".

NATURAL GAS PIPING:

PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH X-HEAVY BLACK MALLEABLE IRON BANDED SCREWED OR WELDED FITTINGS. EACH PIECE OF EQUIPMENT SHALL BE PROVIDED WITH LUBRICATED BRONZE PLUG AND BODY VALVE WITH A HANDLE, UNION AND DRIP LEG AT THE UNIT CONNECTION. PROVIDE A PRESSURE REGULATOR FOR EACH PIECE OF GAS FIRED EQUIPMENT IF EXISTING GAS PRESSURE IS .25 PSI OR GREATER.

HANGERS AND SUPPORT:
FURNISH AND INSTALL HANGERS, CLAMPS, INSERTS, ETC. NECESSARY FOR THE INSTALLATION OF ALL PIPES AND EQUIPMENT. SOIL, WASTE AND VENT STACKS SHALL BE WELL SUPPORTED AT THE BASE OF THE RISER. SUPPORTS FOR COPPER PIPES SHALL BE PLACED ON 8 FOOT CENTERS. SUPPORT FOR VERTICAL PIPE SHALL BE PLACED AT TOP AND BOTTOM OF EACH FLOOR. INSULATION SHALL RUN CONTINUOUS THROUGH ALL HANGERS AND SUPPORTS.

FLOOR DRAINS

REFER TO SCHEDULE ON DRAWINGS.

(WHERE SHOWN ON PLAN) THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL TRAP PRIMERS FOR ALL FLOOR DRAINS. TRAP PRIMER SHALL BE EQUAL TO PPP INC. MODEL "OREGON #1" TRAP PRIMER VALVE. BARRIER TYPE TRAP GUARDS ARE PERMISSIBLE WHERE ALLOWED BY CODE AND OWNER.

PLUMBING FIXTURES (REFER TO SCHEDULE)

WATER CLOSETS.
LAVATORIES.
SERVICE SINKS.
WATER COOLERS.

FIXTURE SCHEDULE

SEE PLUMBING DRAWINGS FOR FIXTURE SCHEDULE.

PLUMBING EQUIPMENT
WATER HEATERS

ACCEPTABLE MANUFACTURERES
A. FIXTURES: WATER CLOSET, URINALS, LAVATORIES, SEATS, FLUSH VALVES, SHOWERS, SERVICE SINKS, MOP BASINS.

MANUFACTURERS: KOHLER, AMERICAN STANDARD, ADVANCE TABCO, ZURN, CRANE & ELJER, OLSONITE, BENEKE, SLOAN, DELANEY, FIAT AND STERN-WILLIAMS.

B. ELECTRIC WATER COOLERS
MANUFACTURERS: ELKAY, HALSEY, OASIS AND HAWS.

C. STAINLESS STEEL SINKS (CONTRACTOR FURNISHED)
MANUFACTURERS: ELKAY, KROWNE AND JUST.

D. FIXTURES: CARRIERS
MANUFACTURERS: JAY R. SMITH, JOSAM, WADE, ZURN.

E. FIXTURES: HYDRANT & HOSE BIBS
MANUFACTURERS: JAY R. SMITH, CHICAGO, WOODFORD, ZURN, JOSAM.

CATHODIC PROTECTION

PROVIDE DIELECTRIC INSULATION AT POINTS WHERE COPPER OR BRASS PIPE COMES IN CONTACT WITH FERROUS PIPING, REINFORCING STEEL OR OTHER DISSIMILAR METAL IN STRUCTURE.

WATER HAMMER ARRESTORS

REMOVE SHOCK CONDITIONS FROM ALL PIPING. PROVIDE AND INSTALL PDI-WH 201 CERTIFIED WATER HAMMER ARRESTORS ON ALL WATER PIPING SERVING QUICK-CLOSING VALVES. SIZE AND PLACE WATER HAMMER ARRESTORS IN ACCORDANCE WITH THE REQUIREMENTS OF PDI-WH 201. AIR CHAMBERS SHALL NOT BE USED.

VALVES

MAIN SHUT OFF VALVES SHALL BE INSTALLED AS SHOWN ON THE PLANS. SHUT OFF VALVES SHALL BE NIBCO S/T 580 BALL VALVES OR EQUAL. VALVES SHALL HAVE BLOWOUT PROOF STEM, TFE SEATS AND BRASS BALL. PRESSURE RATING OF ALL MAIN VALVES SHALL HAVE A RATING OF AT LEAST 400 PSI WORKING PRESSURE.

VALVES SHALL BE INSTALLED AS SHOWN ON THE PLANS. WHEN VALVES ARE NOT SHOWN IN DETAIL ON THE PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL VALVES NECESSARY FOR THE CONTROL OPERATION AND ISOLATION OF EQUIPMENT. PITCH ALL PIPE TO LOW POINTS AND INSTALL DRAIN VALVES.

GATE VALVES OR BALL VALVES SHALL BE USED IN SERVICES REQUIRING THE VALVES TO BE FULLY OPENED OR TIGHTLY CLOSED. GLOBE OR ANGLE VALVES SHALL BE USED WHERE THROTTLING OR FLOW CONTROL IS DESIRED, OR IN BY-PASS LINES. GLOBE AND ANGLE VALVES SHALL BE EQUIPPED WITH THE APPROPRIATE DISC MATERIAL FOR THE INTENDED SERVICE. COLD WATER GLOBE VALVES SHALL HAVE RUBBER DISC; HOT WATER SHALL HAVE COMPOSITION DISC.

THIS CONTRACTOR SHALL FURNISH AND INSTALL SHUT-OFF VALVES TO ISOLATE EACH FIXTURES, ITEM OR UNIT AT THE FIXTURE ITEMS OR UNIT WHETHER FURNISHED BY THIS CONTRACTOR OR BY OTHERS.

FIXTURES, ITEM OR UNITS FURNISHED BY THE MANUFACTURER WITH INTEGRAL STOPS OR STOPS SPECIFIED WITH THE FIXTURE ARE CONSIDERED TO BE PROPERLY VALVED OFF AT THE FIXTURES.

ACCESS SHALL BE PROVIDED TO ALL VALVES.

PIPE JOINTS AND CONNECTION

ALL CUTTING AND PATCHING OF FINISHED CONSTRUCTION OF BUILDING SHALL BE PERFORMED BY THIS CONTRACTOR UNDER THE SECTION OF SPECIFICATIONS COVERING THESE MATERIALS.

ANY MINOR ADJUSTMENT IN LOCATION OF ALIGNMENT OF NEW WORK OR TO CONNECT TO EXISTING UTILITIES SHALL BE PERFORMED AS DIRECTED BY THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO THE GROUNDS, WALKS, ROAD, BUILDING, PIPING SYSTEMS, ELECTRICAL SYSTEMS, AND THEIR EQUIPMENT AND CONTENTS, CAUSED BY LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED BY CONTRACTOR. CONTRACTOR SHALL REPAIR AT THEIR SOLE EXPENSE ALL DAMAGE SO CAUSED. ALL REPAIR WORK SHALL BE DONE AS DIRECTED BY AND IN SUCH MANNER AS SATISFACTORY TO THE ARCHITECT.

OWNER RESERVES THE RIGHT TO MAKE EMERGENCY REPAIRS AS REQUIRED TO KEEP EQUIPMENT IN OPERATION WITHOUT VOIDING THE CONTRACTOR'S GUARANTEE BOND NOR RELIEVING THE CONTRACTOR OF THEIR RESPONSIBILITIES DURING THE BONDING PERIOD.

PIPE INSULATION

FIBERGLASS PIPING INSULATION: ASTM C 547, CLASS 1

FLEXIBLE CLOSED CELL ELASTOMERIC PIPING INSULATION: ASTM C 534, TYPE I, (EQUAL TO ARMAFLEX).

ENCASE PIPE FITTINGS INSULATION WITH ONE-PIECE PRE-MOLDED PVC FITTING COVERS.

VAPOR BARRIER MATERIAL: PAPER-BACKED ALUMINUM FOIL, EXCEPT AS OTHERWISE INDICATED, STRENGTH AND PERMEABILITY RATING EQUIVALENT TO ADJOINING PIPE INSULATION JACKETING.

STAPLES, BANDS, WIRES, AND CEMENT: AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

ADHESIVES, SEALERS, AND PROTECTIVE FINISHES: AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

COVER ALL COLD WATER AND CONDENSATE (IF ROUTED INSIDE THE BUILDING) PIPING WITH 1/2" THICK FLEXIBLE CLOSED CELL ELASTOMERIC INSULATION, HAVING A "K" VALUE OF .25.

COVER ALL HOT WATER PIPING, WITH A MAXIMUM FLUID TEMPERATURE OF 140°F, WITH JACKETED GLASS FIBER PREFORMED INSULATION WITH JACKET SEALED AND TAPED, HAVING A "K" VALUE BETWEEN 0.21-0.28 WITH THICKNESS AS FOLLOWS:

PIPE SIZE:	INSULATION THICKNESS:
0"-1-1/2"	1"
> 1-1/2"	1.5"

COVER ALL HOT WATER PIPING, WITH A MAXIMUM FLUID TEMPERATURE OF 200°F, WITH JACKETED GLASS FIBER PREFORMED INSULATION WITH JACKET SEALED AND TAPED, HAVING A "K" VALUE BETWEEN 0.25-0.29 WITH THICKNESS AS FOLLOWS:

PIPE SIZE:	INSULATION THICKNESS:
0"-1-1/2"	1.5"
> 1-1/2"	2.0"

FLEXIBLE CLOSED CELL ELASTOMERIC INSTALLATION: SLIT TUBULAR SECTIONS ONTO PIPE. ON AREAS WHERE PIPE END IS OPEN, SLIDE FULL SECTIONS ONTO PIPE. ALL EDGES SHALL BE CLEAN CUT. INSULATION SHALL BE PUSHED ONTO PIPE, NEVER PULLED. ALL SEAMS AND BUTT JOINTS SHALL BE ADHERED AND SEALED USING ADHESIVE EQUAL TO ARMAFLEX 520 ADHESIVE.

INTERRUPTION OF SERVICES

WHEN IT IS REQUIRED TO INTERRUPT EXISTING SERVICES, THIS CONTRACTOR SHALL FIRST NOTIFY THE ARCHITECT THAT AN INTERRUPTION IS REQUIRED. IT SHOULD BE NOTED THAT FACILITIES MUST BY KEPT IN OPERATION AS MUCH AS POSSIBLE.

THIS CONTRACTOR SHALL ADVISE THE ARCHITECT OF THE LENGTH OF TIME THE SERVICE WILL BE INTERRUPTED AND SHALL OBTAIN PERMISSION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

WARRANTY

THIS CONTRACTOR SHALL WARRANT THAT ALL WORK UNDER THIS SECTION SHALL BE FREE OF DEFECTIVE WORK, MATERIALS AND PARTS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE WORK AND SHALL REPAIR, REVISE, AND REPLACE, AT NO COST TO THE OWNER, ANY SUCH DEFECTS OCCURRING WITHIN THE WARRANTY PERIOD.

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PLUMBING SPECIFICATIONS

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EXHAUST FAN SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	TYPE	CFM	ESP IN W.C.	MOTOR			CONTROL	REMARKS
							DRIVE	POWER	ELECTRICAL		
EF-1	119 WOMEN	COOK	GC-148	CEILING	100	0.4	DIRECT	40W	115/1/60	BUILDING TIMER	ALL
EF-2	120 MEN	COOK	GC-148	CEILING	100	0.4	DIRECT	40W	115/1/60	BUILDING TIMER	ALL

NOTES:
1. EQUIPMENT TO BE CLEARLY LABELED.
2. DISCONNECT SWITCH OR PLUG BY ELECTRICAL CONTRACTOR.
3. PROVIDE VIBRATION ISOLATION HANGERS - HANG FROM STRUCTURE.
4. PROVIDE WITH SOLID STATE FAN SPEED CONTROLLER.
5. PROVIDE WITH BACKDRAFT DAMPER.
6. PROVIDE WITH MANUFACTURER'S CEILING GRILLE.
7. FAN TO RUN CONTINUOUSLY DURING OCCUPIED HOURS. INTERLOCK WITH BUILDING TIMER BY ELECTRICAL.

ACCEPTABLE AS EQUAL MANUFACTURERS: ACME, TWIN CITY FANS, GREENHECK, PENN

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

MARK	MANUFACTURER	MODEL	FACE SIZE	SERVICE	MOUNTING	REMARKS
A	TITUS	OMNI	24x24	SUPPLY	CEILING	1,2,3,4
B	TITUS	PAR-AA	24x24	RETURN/EXH	CEILING	1,2

REMARKS:
1. BRANCH DUCT SERVING DIFFUSER TO BE SAME SIZE AS DIFFUSER NECK UNLESS OTHERWISE NOTED.
2. REFER TO REFLECTED CEILING PLAN FOR EXACT LOCATION.
3. PROVIDE WITH 4-WAY THROW PATTERN UNLESS OTHERWISE NOTED ON PLAN.
4. PROVIDE WITH OPPOSED BLADE DAMPER ADJUSTABLE THROUGH FACE.

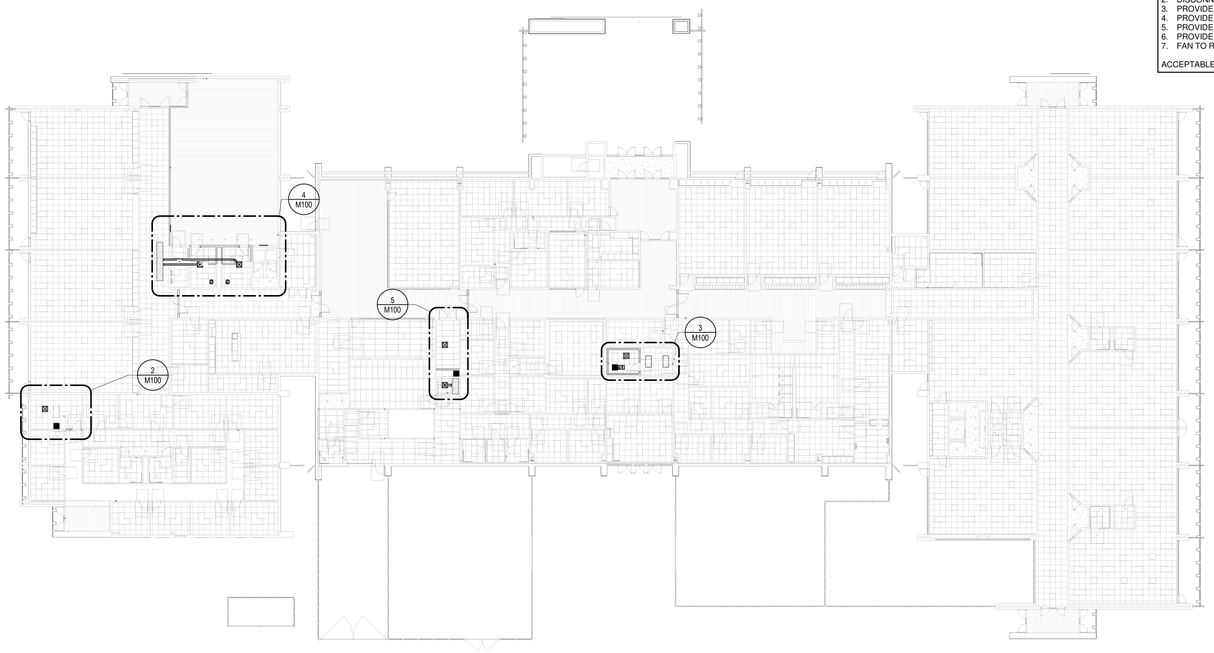
NOTE:
CEILING SPACE IS USED AS RETURN AIR PLENUM. DUCTWORK, INSULATION, WIRING, AND PIPING SHALL BE PLENUM-RATED OR NON-COMBUSTIBLE.

KEYNOTES

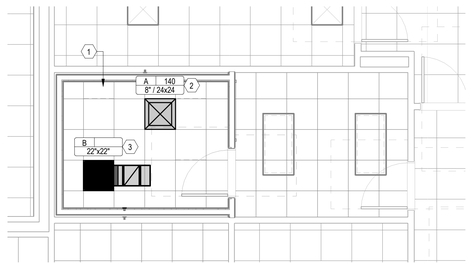
1. EXISTING CEILING TO BE REPLACED. REFER TO ARCHITECTURAL PLANS.
2. NEW DIFFUSER TO REPLACE EXISTING IN SAME LOCATION. NOTED CFM BASED ON EXISTING DRAWINGS - FIELD VERIFY. RECONNECT TO EXISTING SUPPLY DUCT BRANCH SERVING SPACE.
3. NEW RETURN GRILLE TO REPLACE EXISTING. PROVIDE ACOUSTIC RETURN BOOT PER DETAIL 6, THIS SHEET.
4. NEW PLENUM RETURN GRILLE TO REPLACE EXISTING.
5. 161 GENERAL STORAGE TO BE SEPARATED INTO TWO SPACES - REFER TO ARCHITECTURAL PLANS. PROVIDE NEW DIFFUSER IN NEW LOCATION SHOWN TO REPLACE EXISTING AND RECONNECT TO EXISTING SUPPLY DUCT BRANCH SERVING SPACE.
6. PROVIDE NEW SUPPLY DIFFUSER AS SHOWN. PROVIDE NEW 8" SUPPLY DUCT AND TAP FROM EXISTING VAV-2-2 SUPPLY DUCT AS SHOWN. FIELD VERIFY EXACT ROUTING OF EXISTING DUCTWORK. REBALANCE EXISTING DIFFUSERS SERVED BY VAV-2-2 EQUALLY TO PROVIDE 80 CFM FOR THIS DIFFUSER.
7. PROVIDE NEW SUPPLY DIFFUSER AS SHOWN. PROVIDE NEW 8" SUPPLY DUCT AND TAP FROM EXISTING FPV-1-2 SUPPLY DUCT AS SHOWN. FIELD VERIFY EXACT ROUTING OF EXISTING DUCTWORK.
8. EXISTING WALL-MOUNTED SUPPLY DIFFUSER. EXISTING PLANS INDICATE 1100 CFM SUPPLY. CONTRACTOR SHALL REBALANCE TO 950 CFM.
9. REPLACE EXISTING EXHAUST FAN WITH NEW AS SHOWN. RECONNECT NEW EXHAUST FAN TO EXISTING 6" DUCT UP THROUGH ROOF.

GENERAL NOTES

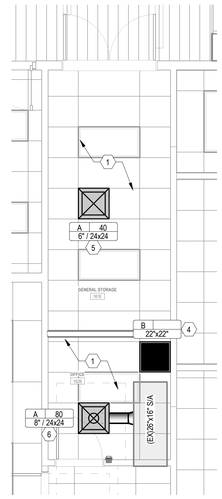
1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH LATEST EDITIONS OF ALL APPLICABLE LOCAL AND STATE CODES, AND INSTALLED ACCORDING TO MANUFACTURES RECOMMENDATIONS ADHERING TO REQUIRED CLEARANCES FOR OPERATION AND SERVICING.
2. CONTRACTOR TO FURNISH, INSTALL, PROVIDE AND MAKE OPERATIVE ALL EQUIPMENT, MATERIALS, SUPERVISION, LABOR AND ANY AND ALL ITEMS NECESSARY, INCLUDING FEES AND PERMITS, FOR THE PROPER INSTALLATION OF A CORRECTLY FUNCTIONING HEATING, VENTILATION, AIR CONDITIONING AND PLUMBING SYSTEM AS INDICATED ON THESE DRAWINGS AND IN THE SPECIFICATIONS.
3. DRAWINGS ARE DIAGRAMMATIC AND THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND UTILITY LOCATIONS, SIZES AND BUILDING CONSTRUCTION MEASUREMENTS. THE LOCATION OF DUCTS, PIPING AND EQUIPMENT AS SHOWN ON THE DRAWINGS IS DIAGRAMMATIC AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES BEFORE FINAL INSTALLATION. LIGHT FIXTURE LOCATIONS SHALL SUPERSEDE HVAC DUCTWORK, GRILLES AND DIFFUSERS. PROVIDE OFFSET AS REQUIRED TO AVOID STRUCTURE AND/OR ANY OTHER PIPING WITHOUT ADDITIONAL COST TO THE OWNER.
4. ALL DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH LOCAL AND STATE ENERGY CODES AND IN ACCORDANCE WITH SMACNA STANDARDS.
   A. EXTERIOR DUCTWORK SHALL BE INTERNALLY LINED OR EXTERNALLY INSULATED TO MINIMUM R-8 INSTALLED VALUE. EXTERNALLY INSULATED EXTERIOR DUCTWORK SHALL BE PROVIDED WITH VAPOR BARRIER. EXTERIOR DUCTWORK SHALL COMPLY WITH LEAKAGE REQUIREMENTS OF 2021 IECC. ALL INTERNAL EXPOSED DUCTWORK SHALL BE INTERNALLY LINED WITH MINIMUM R-6 INSTALLED DUCT LINER. INTERNAL CONCEALED DUCTWORK SHALL BE INTERNALLY LINED OR WRAPPED WITH R-VALUE EQUAL TO INTERNAL EXPOSED DUCTWORK.
5. FIRST 10'-0" OF SUPPLY AND RETURN DUCTWORK SHALL BE INTERNALLY LINED WITH OWENS-CORNING "QUIETR" ROTARY DUCT LINER, MINIMUM 1-1/2" R-6 FOR SOUND ATTENUATION (OR EQUAL).
6. MOUNT TOP OF THERMOSTAT AT 48" A.F.F. TYPICAL UNLESS OTHERWISE NOTED.
7. PROVIDE FLEXIBLE DUCT CONNECTION IN MAIN SUPPLY AND RETURN AIR DUCTS SERVING ALL ELECTRICALLY DRIVEN MECHANICAL EQUIPMENT.
8. ALL MOTORIZED DAMPERS ARE TO BE HONEYWELL MARD MODULATING AUTOMATIC OPPOSED BLADE LOW LEAKAGE MOTORIZED DAMPERS. DAMPERS ARE TO HAVE 24V MOTOR WITH TRANSFORMER AND RELAYS.
9. PROVIDE ACCESS PANELS WHERE INDICATED OR REQUIRED FOR ACCESS TO PIPING AND DUCT WORK ACCESSORIES; SUCH AS, VALVES, DAMPERS, VENTS, OTHER ACCESSORIES, ETC.
10. BRANCH DUCTS SHALL BE THE SAME SIZE AS AIR DEVICE NECK UNLESS NOTED OTHERWISE.
11. PROVIDE BLANKET INSULATION OVER TOP OF ALL SUPPLY DIFFUSERS AND RETURN AIR GRILLES.
12. ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT AND SYSTEM COMPONENTS SHALL BE COORDINATED IN WRITING WITH ELECTRICAL CONTRACTOR FOR INCLUSION AND COORDINATION.
13. DUCTWORK CONSTRUCTION AND INSTALLATION SHALL BE PER MOST RECENT SMACNA STANDARDS FOR PRESSURE AND VELOCITY OF SYSTEM INSTALLATION. ALL DUCT JOINTS SHALL BE SEALED AS NOTED IN THE SPECIFICATIONS.
14. ALL RETURN AIR DUCTWORK SHALL BE RIGID SHEET METAL (FLEXIBLE DUCTWORK SHALL NOT BE ALLOWED). PROVIDE LINED RETURN AIR PLENUM AT R/A GRILLES. PLENUM SHALL BE SAME SIZE AS RETURN AIR GRILLE. RETURN AIR DUCTWORK AND AIR DEVICES SHALL BE SIZED FOR 100% OF SUPPLY AIR QUANTITIES.
15. DUCT SIZES SHOWN ON DRAWING ARE NET FREE AREA.
16. MAKE TRANSITION FROM DUCTWORK SIZES SHOWN ON THE DRAWINGS TO EQUIPMENT DUCT CONNECTION SIZES. VERIFY EQUIPMENT CONNECTION SIZES WITH FACTORY CERTIFIED DRAWINGS. MAKE ALL TRANSITIONS PER MOST RECENT SMACNA STANDARDS.
17. ALL MAJOR BRANCH DUCTS SHALL BE CONSTRUCTED USING OPPOSED BLADE DAMPERS WITH LOCKING DEVICE OR WITH SPLITTER DAMPER WITH LOCKING DEVICE FOR BALANCE OF DUCT SYSTEM.
18. TURNING VANES SHALL BE INSTALLED IN ALL RECTANGULAR 90 DEGREE ELBOWS IN SUPPLY, AND RETURN DUCTWORK, AND AS INDICATED ON THE DRAWINGS.
19. USE MINIMUM LENGTH FLEXIBLE DUCT TO AIR DEVICES, (MAXIMUM 5 FT.). USE FLEX DUCT ONLY IN FULLY ACCESSIBLE CEILING SPACES. PROVIDE 90 DEGREE SHEET METAL ELBOW AT CEILING DIFFUSER NECK CONNECTION. PROVIDE SADDLE UNDER FLEXIBLE DUCT HANGER TO SUPPORT DUCT AND PREVENT "PINCHING" OF DUCTWORK. FLEXIBLE DUCT SHALL BE INSTALLED SO AS NOT TO REDUCE CROSS SECTION AREA OF DUCT. ALL FLEXIBLE DUCTWORK SHALL HAVE R-8 INSULATION.
20. THE CONTRACTOR SHALL COORDINATE ROUTING AND SIZE OF DUCTWORK WITH ACTUAL FINAL BUILDING CONDITIONS OF STRUCTURE SIZE AND LOCATION, LIGHT LOCATIONS, ARCHITECTURAL FEATURES, AND WORK OF OTHER TRADES. WHERE DUCT SIZES MUST BE REVISED FROM THOSE SHOWN ON THE DRAWINGS, MAINTAIN SAME CROSS SECTIONAL AREA, VELOCITY, AND PRESSURE DROP. WHEN NECESSARY, REROUTE DUCT TO CLEAR OBSTRUCTIONS WITH MINIMUM NUMBER OF FITTINGS AND ELEVATION CHANGES. WHERE DUCT MUST BE SIGNIFICANTLY ALTERED FROM THAT SHOWN ON THE DRAWINGS, NOTIFY THE ARCHITECT PRIOR TO PROCEEDING.
21. CONTRACTOR MAY SUBSTITUTE ROUND DUCT IN LIEU OF RECTANGULAR DUCT SHOWN ON PLANS. SIZE ROUND DUCT EQUAL TO OR GREATER THAN NET FREE AREA OF RECTANGULAR DUCT. CONTRACTOR TO COORDINATE ROUTING AND CLEARANCES FOR ROUND DUCT.
22. EXPOSED DUCTWORK AND ACCESSORIES IN FINISHED AREAS TO BE PAINTED AS DIRECTED BY ARCHITECT.
23. CONTRACTOR SHALL PROVIDE TEST AND BALANCE OF HVAC SYSTEMS BY THIRD PARTY. TEST AND BALANCE SHALL BE PERFORMED BY CERTIFIED TECHNICIANS AND REPORTED AS DESCRIBED BY NEBB OR AABC. FILTERS SHALL BE NEW AND CLEAN, DUCTWORK CLEAN, AND EQUIPMENT CONTROLS AND DEVICES FULLY FUNCTIONAL AT THE TIME OF PERFORMING BALANCE WORK.
24. EXTEND FLUE VENTS 3'-0" ABOVE ROOF. MAINTAIN MINIMUM 10'-0" CLEAR BETWEEN ANY FLUE, VENT OR TOILET EXHAUST AND OUTSIDE AIR INTAKES. WHERE HORIZONTAL DISTANCE CANNOT BE PROVIDED, EXTEND FLUE VENTS 3'-0" ABOVE OUTSIDE AIR INTAKE.
25. INSTALL ALL MOTOR DRIVEN EQUIPMENT WITH VIBRATION ISOLATORS AND OR PADS TO REDUCE NOISE TRANSFER. TYPE AND METHOD OF ISOLATION SHALL BE IN CONFORMANCE WITH THOSE DESCRIBED IN THE SPECIFICATIONS FOR THE DUTY, TYPE, AND APPLICATION OF THE EQUIPMENT.
26. ALL EQUIPMENT SHALL BE PERMANENTLY LABELED WITH BAKELITE SIGNAGE SECURED TO EQUIPMENT WITH TEXT MINIMUM 3/4" TALL ON CONTRASTING BACKGROUND.
27. CONDENSATE PIPING SHALL BE AS NOTED ON THE DRAWING, BUT IN NO CASE LESS THAN 3/4 INCHES.
28. ROUTE CONDENSATE PIPING TO APPROVED DISCHARGE LOCATION. PROVIDE CONDENSATE TRAP WITH CLEANOUTS AND VENT ON DISCHARGE SIDE OF TRAP FOR ALL UNITS WITH COOLING COILS. TRAP DEPTH SHALL BE A MINIMUM OF THE UNIT TOTAL PRESSURE PLUS 2 INCHES.
29. CONDENSATE PIPING INSTALLED WITHIN THE BUILDING SHALL BE FULLY INSULATED AND PROVIDED WITH VAPOR BARRIER. CONDENSATE FROM FURNACES LOCATED IN LOCATIONS SUSCEPTIBLE TO FREEZING SHALL BE WRAPPED WITH HEAT TAPE. POWER REQUIREMENTS SHALL BE COORDINATED WITH ELECTRICAL CONTRACTOR.
30. FIRE DAMPERS SHALL BE MINIMUM 98% FREE AREA DYNAMIC TYPE. PROVIDE FIRE DAMPERS IN ALL DUCT PENETRATIONS TO FIRE RATED ASSEMBLIES. PROVIDE ACCESS DOORS IN DUCTWORK AND FIRE RATED ASSEMBLIES FOR OBSERVATION AND MAINTENANCE OF DAMPERS. REFER ARCHITECTURAL DRAWINGS FOR LOCATION, RATING, AND ASSEMBLY DEFINITION OF FIRE RATED WALL, CEILING, AND FLOOR ASSEMBLIES.
31. ALL LIQUID AND SUCTION REFRIGERANT PIPING SHALL BE INSULATED WITH MINIMUM 1" THICK INSULATION. INSULATION SHALL BE IN COMPLIANCE WITH 2021 IECC 403.12.3. INSULATION THICKNESS SHALL BE INCREASED WHERE RECOMMENDED BY MANUFACTURE OF EQUIPMENT. ANY REFRIGERANT PIPING EXTERIOR OF BUILDING SHALL HAVE UV RESISTANT INSULATION OR AN UV RESISTANT WRAP APPLIED.
32. COORDINATE WORK SHOWN ON THE DRAWINGS WITH ALL OTHER TRADES WORK AND ACTUAL CONDITIONS OF CONSTRUCTION.
33. HEAT PUMP UNITS SHALL BE MOUNTED ON A MINIMUM 42" TALL STAND DIVERSITECH QSTD3000 OR EQUAL.
34. IF UNIT AMPERAGES AND VOLTAGE ARE DIFFERENT FROM SCHEDULED AMPERAGES AND VOLTAGE; MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR EXACT BRANCH CIRCUIT BREAKER SIZES AND WIRE SIZES PRIOR TO ORDERING EQUIPMENT.



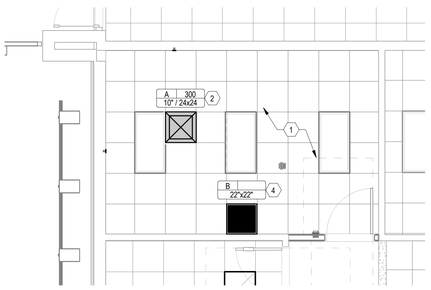
1 OVERALL MECHANICAL PLAN
3/64" = 1'-0"



3 ENLARGED MECHANICAL PLAN
1/4" = 1'-0"



5 ENLARGED MECHANICAL PLAN
1/4" = 1'-0"



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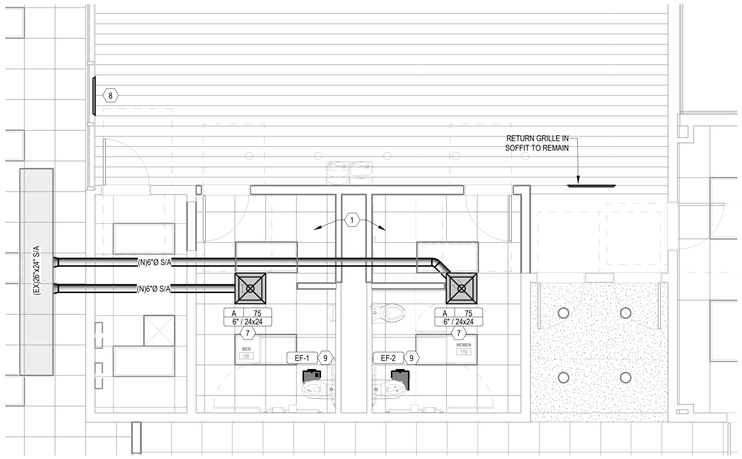
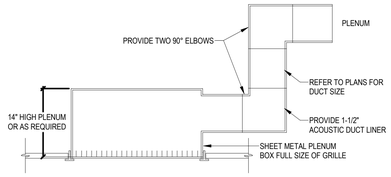
1/4" = 1'-0"



4 ENLARGED MECHANICAL PLAN
1/4" = 1'-0"



6 RETURN GRILLE WITH ACOUSTIC BOOT
12" = 1'-0"

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M100
MECHANICAL PLAN

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HVAC SPECIFICATION

GENERAL:
GENERAL PROVISIONS OF THE CONTRACT INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS APPLY TO WORK OF THIS SECTION.

SCOPE:
THE BASE BID INCLUDES FURNISHING ALL MATERIALS, LABOR, TOOLS, AND EQUIPMENT AND THE PERFORMANCE OF ALL WORK REQUIRED TO INSTALL A COMPLETE HEATING AND AIR CONDITIONING SYSTEM AS OUTLINED HEREIN.

QUALITY ASSURANCE:
PROVIDE A COMPLETE INSTALLATION IN CONFORMANCE WITH THE FOLLOWING STANDARDS.
AGA AMERICAN GAS ASSOCIATION
ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
NFPA NATIONAL FIRE PROTECTION ASSOCIATION
SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
STATEWIDE BUILDING CODE
IMC INTERNATIONAL MECHANICAL CODE

WORK NOT INCLUDED:
THE FOLLOWING WORK IS NOT INCLUDED UNDER THIS CONTRACT:
-ELECTRIC POWER WIRING OF MOTORS
-STARTERS AND DISCONNECT SWITCHES EXCEPT AS HEREINAFTER SPECIFIED
-FIELD PAINTING OF EQUIPMENT EXCEPT AS HEREINAFTER SPECIFIED

PERMITS, FEES, INSPECTIONS, LAWS, AND REGULATIONS:
PERMITS AND FEES OF EVERY NATURE REQUIRED IN CONNECTION WITH THIS WORK SHALL BE OBTAINED AND PAID FOR BY THIS CONTRACTOR WHO SHALL ALSO PAY FOR ALL THE INSTALLATION FEES AND SIMILAR CHARGES. LAWS AND REGULATIONS, WHICH BEAR UPON OR AFFECT THE VARIOUS BRANCHES OF THIS WORK SHALL BE COMPLIED WITH BY THIS CONTRACTOR AND ARE HEREBY MADE A PART OF THIS CONTRACT. ALL WORK, WHICH SUCH LAWS REQUIRE TO BE INSPECTED, SHALL BE SUBMITTED TO THE PROPER PUBLIC OFFICIAL FOR INSPECTION AND A CERTIFICATE OF FINAL APPROVAL MUST BE FURNISHED.

WORK IN EXISTING SPACES:
GENERAL: CARE SHALL BE TAKEN WHEN WORKING IN EXISTING SPACES SO AS NOT TO DAMAGE EXISTING WALLS AND CEILINGS WHERE WORK IS BEING PERFORMED.
CEILINGS: WHERE WORK IS BEING PERFORMED ABOVE CEILINGS, AND THE ARCHITECTURAL DRAWINGS DO NOT INDICATE CEILING MODIFICATIONS BY THE GENERAL CONTRACTOR, IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO REMOVE AND REPLACE EXISTING CEILINGS WHERE WORK IS BEING PERFORMED. IN THOSE INSTANCES, ALL REPAIR AND INSTALLATION OF NEW GRID, CEILING PANELS, ETC SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. MATCH EXISTING FINISHES.
WALLS & FLOORS: IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO PATCH EXISTING WALLS AND FLOORS AND MATCH EXISTING FINISHES WHERE WORK IS BEING REMOVED OR INSTALLED AND PATCHING IS BEING PERFORMED, UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DRAWINGS.

TESTS AND ADJUSTMENTS:
NO DUCTS, PIPING, FIXTURES OR EQUIPMENT SHALL BE CONCEALED OR COVERED UNTIL THEY HAVE BEEN INSPECTED AND APPROVED BY THE ARCHITECT AND THE INSPECTOR WHO SHALL BE NOTIFIED BY THE CONTRACTOR WHEN THE WORK IS READY FOR INSPECTION.
WORK SHALL BE COMPLETELY INSTALLED, TESTED AND LEAK TIGHT BEFORE INSPECTION IS REQUIRED. ALL TESTS SHALL BE REPEATED TO THE SATISFACTION OF THOSE MAKING THE INSPECTION.

METAL DUCTWORK

DUCTWORK MATERIALS
EXPOSED DUCTWORK MATERIALS: WHERE DUCTWORK IS INDICATED TO BE EXPOSED TO VIEW IN OCCUPIED SPACES, PROVIDE MATERIALS WHICH ARE FREE FROM VISUAL IMPERFECTIONS INCLUDING PITTING, SEAM MARKS, ROLLER MARKS, STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, INCLUDING THOSE WHICH WOULD IMPAIR PAINTING. EXPOSED DUCTWORK WHICH IS TO BE PAINTED SHALL HAVE PAINT GRIP APPLIED.
SHEET METAL: EXCEPT AS OTHERWISE INDICATED, FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL, LOCK FORMING QUALITY; WITH G 90 ZINC COATING AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS. MINIMUM GAUGE SHALL BE 24.

MISCELLANEOUS DUCTWORK MATERIALS
VOLUME DAMPERS: PROVIDE VOLUME DAMPERS IN ALL BRANCH DUCTS OR AS REQUIRED FOR BALANCING TO REQUIRED AIR FLOWS.
FITTINGS: PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15 DEG. CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEG. LATERALS AND 45 DEG. ELBOWS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEG. BRANCHES ARE INDICATED, PROVIDE CONICAL TYPE TEES.
DUCT SEALANT: NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT, TYPE APPLICABLE FOR FABRICATION/INSTALLATION DETAIL, AS COMPOUNDED AND RECOMMENDED BY MANUFACTURER SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK.
DUCT CEMENT: NON-HARDENING MIGRATING MASTIC OR LIQUID NEOPRENE BASED CEMENT, TYPE APPLICABLE FOR FABRICATION/INSTALLATION DETAIL, AS COMPOUNDED AND RECOMMENDED BY MANUFACTURER SPECIFICALLY FOR CEMENTING FITTING COMPONENTS, OR LONGITUDINAL SEAMS IN DUCTWORK.
DUCTWORK SUPPORT MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE HOT-DIPPED GALVANIZED STEEL FASTENERS, ANCHORS, RODS, STRAPS, TRIM AND ANGLES FOR SUPPORT OF DUCTWORK.

FLEXIBLE DUCTS:
EITHER SPIRAL-WOUND SPRING STEEL WITH FLAMEPROOF VINYL SHEATHING, OR CORRUGATED ALUMINUM. UNLESS SPECIFICALLY MENTIONED, THE MAXIMUM LENGTH OF FLEX DUCT ON THE SUPPLY EQUALS 5 FEET. FLEX IS NOT ALLOWED FOR RETURN, RELIEF OR EXHAUST APPLICATIONS. THE FLEXIBLE DUCTS INDICATED FOR USE IN THE H.V.A.C. SYSTEM SHALL CONFORM TO THE REQUIREMENTS OF UL 181 FOR CLASS 0 OR CLASS 1 FLEXIBLE AIR DUCTS AND SHALL BE SO IDENTIFIED.
FLEXIBLE DUCTS: WHERE INSTALLED IN UNCONDITIONED SPACES OTHER THAN RETURN AIR PLENUMS, PROVIDE 1" THICK 1-1/2 LB. CONTINUOUS FLEXIBLE FIBERGLASS SHEATH WITH VINYL VAPOR BARRIER JACKET.
FLEXIBLE DUCTS: INSTALLATION IS NOT PERMITTED ABOVE DRYWALL CEILINGS AND INACCESSIBLE CEILINGS.

FABRICATION
SHOP FABRICATE DUCTWORK IN 4, 8, 10 OR 12-FT LENGTHS, UNLESS OTHERWISE INDICATED OR REQUIRED TO COMPLETE RUNS. ALL DUCTWORK SHALL BE PITTSBURGH CONSTRUCTION WITH A MINIMUM OF THICKNESS OF 24 GAUGE. IN ADDITION, DUCTWORK USED IN SYSTEMS OVER 3" W.G. SHALL HAVE COLD SEALANT APPLIED. SHOP FABRICATE DUCTWORK OF GAUGES AND REINFORCEMENT COMPLYING WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS".

LINED DUCT
FABRICATE DUCTWORK WITH DUCT LINER IN EACH SECTION OF DUCT WHERE INDICATED. LAMINATE LINER TO INTERNAL SURFACES OF DUCT IN ACCORDANCE WITH INSTRUCTIONS BY MANUFACTURERS OF LINING AND ADHESIVE, AND FASTEN WITH MECHANICAL FASTENERS. DUCT LINER TO BE 3-LB DENSITY FOR ACOUSTIC REQUIREMENTS 1" THICK OR AS NOTED. SIZE OF DUCTWORK SHOWN ON THE DRAWINGS IS FREE NET AREA, OUTSIDE DIMENSION OF DUCTS WILL NEED TO BE INCREASED IF LINED DUCT IS USED.
SIZE OF DUCTWORK SHOWN ON THE DRAWINGS IS FREE NET AREA, OUTSIDE DIMENSION OF DUCTS WILL NEED TO BE INCREASED IF LINED DUCT IS USED.
DUCT LINER: FIBROUS GLASS OF THICKNESS INDICATED. 3-LB DENSITY. ALL LINERS, INSULATION AND ADHESIVES SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50.

DUCT LINER ADHESIVE:
DUCT LINER FASTENERS: COMPLY WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

INSTALLATION OF METAL DUCTWORK
GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE AIR-TIGHT (5% LEAKAGE FOR SYSTEMS RATED 3" AND UNDER; 1% FOR SYSTEMS RATED OVER 3") AND NOISELESS (NO OBJECTIONABLE NOISE) SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE. INSTALL EACH RUN WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY AT CONNECTIONS, WITHIN 1/8" MISALIGNMENT TOLERANCE AND WITH INTERNAL SURFACES SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE TIES, BRACES, HANGERS AND ANCHORS OF TYPE WHICH WILL HOLD DUCTS TRUE-TO-SHAPE AND TO PREVENT BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.

SEALING: SEAL ALL LONGITUDINAL SEAMS, S'S AND DRIVES AND ALL JOINTS WITH MASTIC OR CEMENT. INSTALL ACCORDING TO SMACNA STANDARDS.
BALANCING DAMPERS: THE SHEET METAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR INSTALLING BALANCING DAMPERS IN THE DUCTWORK, (WHETHER SHOWN ON THE DRAWING OR NOT) IN ORDER TO ARRIVE AT THE INTENDED AIR FLOW. THE BALANCING SUB-CONTRACTOR SHALL PROVIDE DIRECTION AND ASSISTANCE IN DETERMINING LOCATIONS WHERE DAMPERS ARE REQUIRED. ADDITIONAL DAMPERS, IF REQUIRED SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.

WALL PENETRATIONS: SEAL AND PACK AROUND ALL DUCTS AND PIPING SLEEVES WHICH PASS THROUGH WALLS THAT EXTEND TO BOTTOM SIDE OF STRUCTURE AND RATED WALLS.

FIELD FABRICATION: COMPLETE FABRICATION OF WORK AT PROJECT AS NECESSARY TO MATCH SHOP-FABRICATED WORK AND ACCOMMODATE INSTALLATION REQUIREMENTS.

ROUTING: LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. RUN DUCTWORK IN SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USEABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. LIMIT CLEARANCE TO 1/2" WHERE FURRING IS SHOWN FOR ENCLOSURE OR CONCEALMENT OF DUCTS, BUT ALLOW FOR INSULATION THICKNESS, IF ANY. WHERE POSSIBLE, LOCATE INSULATED DUCTWORK FOR 1" CLEARANCE OUTSIDE OF INSULATION. WHEREVER POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW, BY LOCATING IN MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS. DO NOT ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS, EXCEPT AS SPECIFICALLY SHOWN.
COORDINATE LAYOUT WITH SUSPENDED CEILING AND LIGHTING LAYOUTS AND SIMILAR FINISHED WORK.
ELECTRICAL EQUIPMENT SPACES: DO NOT ROUTE DUCTWORK THROUGH TRANSFORMER VAULTS AND THEIR ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES.
PENETRATIONS: WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS AND EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN CONSTRUCTION OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2". FASTEN TO DUCT AND SUBSTRATE.
WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRE DAMPERS AND FIRESTOPPING BETWEEN DUCT AND SUBSTRATE, IN ACCORDANCE WITH REQUIREMENTS OF DIVISION-7 SECTION "FIRESTOPPING".
COORDINATION: COORDINATE DUCT INSTALLATIONS WITH INSTALLATION OF ACCESSORIES, DAMPERS, COIL FRAMES, EQUIPMENT, CONTROLS AND OTHER ASSOCIATED WORK OF DUCTWORK SYSTEM.

INSTALLATION OF DUCT LINER
GENERAL: INSTALL DUCT LINER IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. SIZE OF DUCTWORK SHOWN ON THE DRAWINGS IS FREE NET AREA, OUTSIDE DIMENSION OF DUCTS WILL NEED TO BE INCREASED IF LINED DUCT IS USED.
STORE INTERNALLY LINED DUCTWORK UP OFF OF THE FLOOR. PROTECT INTERNALLY LINED DUCTWORK FROM WATER AND DUST. "BUTTER THE LEADING EDGE OF ALL INTERNAL DUCT LINING WITH THE MANUFACTURER'S RECOMMENDED ADHESIVE.
INSPECT AND REPAIR ALL DAMAGED LINING PRIOR TO INSTALLATION OF DUCTWORK.

INSTALLATION OF FLEXIBLE DUCTS
MAXIMUM LENGTH: FOR ANY DUCT RUN USING FLEXIBLE DUCTWORK, DO NOT EXCEED 5' - 0" EXTENDED LENGTH. INSTALLATION SHALL HAVE SMOOTH FULL RADIUS TURNS DOWN TO DIFFUSER.
INSTALLATION NOT PERMITTED ABOVE INACCESSIBLE CEILINGS.

ACCESS PANELS:
FURNISH ALL ACCESS PANELS REQUIRED FOR PROPER SERVICING OF EQUIPMENT. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES, VENTS, CONTROLS AND CLEANOUT DOORS, AND SPRINKLER DEVICES REQUIRED BY NFPA. PROVIDE FRAME AS REQUIRED FOR FINISH. FURNISH PANELS TO GENERAL CONTRACTOR. EXACT LOCATIONS TO BE APPROVED BY THE ARCHITECT. MINIMUM SIZE TO BE 12" X 12", UNITS TO BE 16 GAUGE STEEL, LOCKING DEVICE SHALL BE SCREWDRIVER CAM LOCKS.

HANGERS AND SUPPORTS:

CONTRACTOR TO HIRE A STRUCTURAL ENGINEER TO VERIFY THE INTEGRITY OF THE ROOF DECK AND EXISTING RTU SUB FRAMING, IF ANY EXISTS. ADDITIONAL STRUCTURAL REQUIREMENTS ARE THE RESPONSIBILITY OF THIS CONTRACTOR. SUBMIT TO THE LANDLORD IN WRITING A SIGNED AND SEALED LETTER FROM A LICENSED STRUCTURAL ENGINEER INDICATING ADEQUATE STRUCTURAL SUPPORT BENEATH THE RTU'S. INCLUDE DRAWINGS AND CALCULATIONS FOR ANY SUPPLEMENTAL FRAMING REQUIRED. DO NOT PLACE UNITS UNTIL AUTHORIZED BY THE LANDLORD.

SUPPORT ALL PIPING, DUCTWORK AND EQUIPMENT BY HANGERS OR BRACKETS. FURNISH STRUCTURAL STEEL MEMBERS WHERE REQUIRED TO SUPPORT PIPING AND EQUIPMENT. NO PORTION OF PIPING OR VALVES SHALL BE SUPPORTED BY EQUIPMENT.
DUCTWORK - SUPPORT BY MEANS OF HANGERS AS FOLLOWS:

DUCT WIDTH HANGER SIZE AND TYPE	MAX. SPACING
30 OR LESS (#16 GAGE)	8
31 TO 60 (#14 GAGE)	8
61 TO 90 3/8" DIA. ROD	8

A PAIR OF HANGERS SHALL BE LOCATED AT EVERY TRANSVERSE JOINT AND ELSEWHERE ACCORDING TO THE TABLE.

CEILING AIR DIFFUSERS:
DIFFUSER FACES:
ROUND: ROUND HOUSING, CORE OF CONCENTRIC RINGS, ROUND DUCT CONNECTION.
SQUARE: SQUARE HOUSING, CORE OF SQUARE CONCENTRIC LOUVERS, SQUARE OR ROUND DUCT CONNECTION.
LINEAR: EXTRUDED ALUMINUM CONTINUOUS SLOT, SINGLE OR MULTIPLE.

DIFFUSER MOUNTINGS:
SURFACE MOUNT: DIFFUSER SHALL HAVE ROLLED EDGE BELOW FINISHED CEILING FOR SURFACE MOUNTING OR DIFFUSER SHALL BE FURNISHED WITH ACCESSORY PLASTER FRAME.

LAY-IN: DIFFUSER HOUSING SIZED TO FIT BETWEEN CEILING EXPOSED SUSPENSION TEE BARS AND REST ON TOP SURFACE OF TEE BAR.

DIFFUSER DAMPERS:
OPPOSED BLADE DAMPERS: MULTIPLE OPPOSED BLADE DAMPERS CONNECTED TO LINKAGE ADJUSTABLE FROM FACE OF DIFFUSER WITH KEY.

INTEGRAL: COMBINATION VOLUME CONTROL AND PATTERN ADJUSTMENT FOR LINEAR DIFFUSERS.

DIFFUSER ACOUSTIC PERFORMANCE:
NC LESS THAN OR EQUAL TO 25

DIFFUSER ACCESSORIES:
PLASTER RING: PERIMETER RING DESIGNED TO ACT AS PLASTER STOP AND DIFFUSER ANCHOR.
TITUS TRM FRAME KIT

DIFFUSER FINISHES:
WHITE ENAMEL: SEMI-GLOSS WHITE ENAMEL PRIME FINISH.

MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE DIFFUSERS OF ONE OF THE FOLLOWING:
ANEMOSTAT PRODUCTS DIV., DYNAMICS CORP. OF AMERICA.
METAL-AIRE
TITUS PRODUCTS DIV., PHILIPS INDUSTRIES, INC.
TUTTLE AND BAILEY.
PRICE

CEILING & WALL REGISTERS & GRILLES:
STEEL CONSTRUCTION: MANUFACTURER'S STANDARD STAMPED SHEET STEEL FRAME AND ADJUSTABLE BLADES.

REGISTER DAMPERS:
OPPOSED BLADE: ADJUSTABLE OPPOSED-BLADE DAMPER ASSEMBLY, KEY OPERATED FROM FACE OF REGISTER.
REGISTER AND GRILLE FINISHES:
WHITE ENAMEL: SEMI-GLOSS WHITE ENAMEL PRIME FINISH.

REGISTER AND GRILLE ACOUSTIC PERFORMANCE: NC LESS THAN OR EQUAL TO 25

MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE DIFFUSERS OF ONE OF THE FOLLOWING:
ANEMOSTAT PRODUCTS DIV., DYNAMICS CORP. OF AMERICA.
METAL-AIRE
TITUS PRODUCTS DIV., PHILIPS INDUSTRIES, INC.
TUTTLE AND BAILEY.
PRICE

FANS AND VENTILATORS

CEILING VENTILATORS
CENTRIFUGAL CEILING EXHAUSTERS: PROVIDE CENTRIFUGAL ROOF OR CEILING EXHAUST, OF TYPE, SIZE AND CAPACITY AS SCHEDULED.
PROVIDE AMCA CERTIFIED RATINGS SEAL.
MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE CENTRIFUGAL CEILING EXHAUSTERS OF ONE OF THE FOLLOWING:
ACME
COOK CO., LOREN.
GREENHECK.
PENN VENTILATOR CO., INC.
TWIN CITY FAN & BLOWER

INSPECTION
GENERAL: EXAMINE AREAS AND CONDITIONS UNDER WHICH POWER AND GRAVITY VENTILATORS ARE TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

INSTALLATION OF POWER AND GRAVITY VENTILATORS
COORDINATE VENTILATOR WORK WITH WORK OF ROOFING, WALLS, AND CEILINGS, AS NECESSARY FOR PROPER INTERFACING.
PROVIDE ACCESS DOOR IN DUCT BELOW VENTILATOR TO SERVICE DAMPER.
SOLDER BOTTOM JOINTS AND UP 2" OF SIDE JOINTS OF DUCT UNDER ROOF VENTILATOR TO RETAIN ANY MOISTURE ENTERING VENTILATOR.
ACCESS: PROVIDE ACCESS AND SERVICE SPACE AROUND AND OVER FANS AS INDICATED, BUT IN NO CASE LESS THAN THAT RECOMMENDED BY MANUFACTURER.
ROOF CURBS: FURNISH ROOF CURBS TO ROOFING INSTALLER FOR INSTALLATION. INSTALL ACCORDING TO ROOFING MANUFACTURER'S RECOMMENDATION AND SPECIFICATIONS.
ELECTRICAL WIRING: INSTALL ELECTRICAL DEVICES FURNISHED BY MANUFACTURER BUT NOT SPECIFIED TO BE FACTORY-MOUNTED. FURNISH COPY OF MANUFACTURER'S WIRING DIAGRAM SUBMITTAL TO ELECTRICAL INSTALLER.
VERIFY THAT ELECTRICAL WIRING INSTALLATION IS IN ACCORDANCE WITH MANUFACTURER'S SUBMITTAL AND INSTALLATION REQUIREMENTS OF DIVISION-16 SECTIONS. ENSURE THAT ROTATION IS IN DIRECTION INDICATED AND INTENDED FOR PROPER PERFORMANCE. DO NOT PROCEED WITH CENTRIFUGAL FAN START-UP UNTIL WIRING INSTALLATION IS ACCEPTABLE TO FAN INSTALLER.

FIELD QUALITY CONTROL
TESTING: AFTER INSTALLATION OF VENTILATORS HAS BEEN COMPLETED, TEST EACH VENTILATOR TO DEMONSTRATE PROPER OPERATION OF UNITS AT PERFORMANCE REQUIREMENTS SPECIFIED. WHEN POSSIBLE, FIELD CORRECT MALFUNCTIONING UNITS, THEN RETEST TO DEMONSTRATE COMPLIANCE. REPLACE UNITS, WHICH CANNOT BE SATISFACTORILY CORRECTED.

ADJUSTING AND CLEANING
CLEANING: CLEAN FACTORY-FINISHED SURFACES. REPAIR ANY MARRED OR SCRATCHED SURFACES WITH MANUFACTURER'S TOUCH-UP PAINT.

CONTROL WIRING
LOW VOLTAGE THERMOSTATS
LOW VOLTAGE THERMOSTATS SHALL BE FURNISHED, INSTALLED AND WIRED BY THE HVAC CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE 4" SQUARE X 1- ½" DEEP WALL OUTLET BOXES AT 54" ABOVE FINISHED FLOOR (WITH SINGLE-GANG RINGS) FOR ALL THERMOSTATS/SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ONE ¾" EMPTY CONDUIT FROM EACH THERMOSTAT/SENSOR LOCATION, TURNED OUT ABOVE ACCESSIBLE CEILINGS (IN JOIST SPACE OR AGAINST OVERHEAD SLAB/DECK). THE HVAC/TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE ALL OTHER NECESSARY CONDUIT, RACEWAY AND WIRING RELATED WORK. CONDUIT SHALL BE IDENTIFIED IN CEILING CAVITY AND SHALL BE PROVIDED WITH SWEEP BENDS, BUSHINGS AND DRAGLINE.
GENERAL CONTROL WIRING REQUIREMENTS AND INSTALLATION METHODS
EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE ABOVE, THE HVAC/TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WORK AS REQUIRED FOR ALL TEMPERATURE CONTROL RELATED WIRING (I.E. CONDUIT, RACEWAY, OUTLET BOXES, JUNCTION BOXES, WIRING, ETC.) IN ACCORDANCE WITH DIVISION 16 REQUIREMENTS. ALL CONDUIT SHALL BE ¾" MINIMUM.
COORDINATE ALL THERMOSTAT/SENSOR LOCATIONS IN FIELD (CASE BY CASE) WITH ARCHITECT, OWNER AND ELECTRICAL CONTRACTOR TO ENSURE THAT THEY ARE PLACED IN LOCATIONS THAT WILL NOT INTERFERE WITH FURNITURE, EQUIPMENT, ARTWORK, WALL-HUNG SPECIALTIES, ROOM FINISHES, ETC. ALL THERMOSTAT/SENSOR WALL LOCATIONS INDICATED ON HVAC DRAWINGS ARE SCHEMATIC ONLY AND MUST BE VERIFIED CASE-BY-CASE PRIOR TO ROUGH-IN.
ALL ELECTRICAL WORK AS DESCRIBED IN THIS SPECIFICATION SHALL BE PER THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND PER APPLICABLE STATE AND LOCAL CODES.
WHERE "FREE-AIR" INSTALLATION METHODS (EITHER EXPOSED ABOVE THE CEILINGS, IN BRIDLE RINGS OR IN CABLE TRAYS) ARE PERMITTED UNDER DIVISION 16 ABOVE CEILINGS, PROVIDE PLENUM-RATED CABLES WHEREVER PLENUM CEILINGS (IF ANY) EXIST AND INSTALL AS DEFINED UNDER DIVISION 16. INSTALL LOW VOLTAGE CIRCUITS, LOCATED IN CONCRETE SLABS AND MASONRY WALLS, IN INACCESSIBLE LOCATIONS, OR EXPOSED IN OCCUPIED AREAS, IN ELECTRICAL CONDUIT REGARDLESS OF WHAT WIRING METHODS ARE PERMITTED UNDER DIVISION 16.
WHERE CABLE TRAYS OR BRIDLE RINGS ARE PROVIDED BY THE ELECTRICAL CONTRACTOR FOR LOW VOLTAGE CABLES, THESE RACEWAYS MAY BE UTILIZED FOR CONTROL WIRING BY THIS CONTRACTOR (PROVIDE SPECIAL COLOR CODED JACKETS, LABEL CABLE JACKETS PER DIVISION 16 AND GROUP CONTROL WIRING CABLES TOGETHER). PROVIDE CONDUIT DROPS FROM CABLE TRAY/BRIDLE RING PATHS TO WALL OUTLET BOXES AND EQUIPMENT UNLESS DIRECTED OTHERWISE UNDER DIVISION 16.
REGARDLESS OF PERMITTED METHODS IN DIVISION 16, ALL CABLES/WIRING INSTALLED CONCEALED BY GYPSUM BOARD, MASONRY OR OTHER INACCESSIBLE MATERIALS IN WALLS OR ABOVE CEILINGS SHALL BE INSTALLED IN CONDUIT, ¾" MINIMUM.
ALL CONDUIT, BRIDLE RINGS, RACEWAY, OUTLET BOXES, ETC. NECESSARY FOR COMPLETE OPERATIONAL INSTALLATION OF CONTROL WIRING SHALL BE PROVIDED (FURNISHED AND INSTALLED) BY THE TEMPERATURE CONTROL CONTRACTOR IN STRICT COMPLIANCE WITH DIVISION 16 DOCUMENTS. COORDINATE ALL WORK WITH ALL OTHER APPLICABLE TRADES INCLUDING THE ELECTRICAL CONTRACTOR.
PROVIDE ALL REQUIRED CONDUIT WORK TO AND BETWEEN EQUIPMENT IN A MANNER COMPLIANT WITH THAT DESCRIBED ABOVE (I.E. BETWEEN VAV BOXES, TO BOILERS, STARTERS, CONDENSING UNITS, ETC. AS APPLICABLE).

SMOKE DETECTOR
ALL DUCT SMOKE DETECTORS WILL BE FURNISHED BY ELECTRICAL CONTRACTOR, INSTALLED BY THE HVAC CONTRACTOR, AND WIRED BY THE ELECTRICAL CONTRACTOR PER LOCAL CODES. HVAC CONTRACTOR WILL INTERLOCK RTU FAN WITH SMOKE DETECTOR.

CONTROLS:
ELECTRICAL CONTRACTOR WILL PROVIDE POWER WIRING. HVAC CONTRACTOR SHALL PROVIDE ALL THE LOW VOLTAGE WIRING OF HVAC UNITS AND CONTROLS, THERMOSTATS AND CONTROLLERS. THERMOSTAT SHALL BE (HEAT/COOL/AUTO/OFF) WITH NIGHT SETBACK. REFER TO MECHANICAL DRAWINGS. PROVIDE PLASTIC PROTECTIVE COVER FOR ALL THERMOSTATS.

MOTOR OPERATED DAMPERS:
ALL FRESH AIR INTAKES AND EXHAUST LOUVERS SHALL HAVE MOTOR OPERATED DAMPERS. DAMPERS SHALL BE LOW LEAK WITH BLADE AND EDGE SEALS. MOTOR OPERATED DAMPERS SHALL BE LINE VOLTAGE, PROVIDED, INSTALLED AND WIRED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED. PROVIDE ALL NECESSARY TRANSFORMERS, CONTACTORS, CONTROLS AND WIRING FOR INTERLOCKING EQUIPMENT TO MOTOR OPERATED DAMPERS.

AIR BALANCING:
BEFORE FINAL APPROVAL, BALANCE ENTIRE SYSTEM WITH QUANTITIES LISTED. PROVIDE MANUAL VOLUME DAMPERS AS REQUIRED TO OBTAIN DESIGN AIR FLOWS. BALANCE REPORT SHALL CLEARLY STATE THE SUPPLY, RETURN, OUTSIDE AIR AND EXHAUST CFM FOR EACH OUTLET OR INLET. BALANCE REPORT SHALL INDICATE THE DESIGN AND ACTUAL TOTAL AIR FLOW, SUCTION AND DISCHARGE STATIC PRESSURE, BRAKE HORSEPOWER AND AMPS OF ALL FANS FOR THE PROJECT. PROVIDE ALL NECESSARY DAMPERS, DIVERTERS AS REQUIRED. PROVIDE A COPY OF THE BALANCE REPORT TO THE OWNER AND LANDLORD.

LOUVERS AND DAMPERS:
PROVIDE LOUVERS, DAMPERS, AND FIRE DAMPERS OF SIZE AS NOTED. FIRE DAMPERS SHALL BE "HIGH HAT" TYPE "B" WITH DAMPER OUTSIDE OF AIR STREAM. MANUFACTURER EQUAL TO LOUVERS AND DAMPERS, AEROLITE, PREFCO.

GAS PIPING:
ALL GAS PIPING AND CONNECTIONS BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE NOTED.

DUCTWORK INSULATION:(R-6 MINIMUM)
PROVIDE INSULATION ON ALL CONCEALED SUPPLY AND RETURN DUCTWORK. ALL LINERS, INSULATION AND ADHESIVES SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50.
RIGID FIBERGLASS DUCTWORK INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 612, TYPE IB, WITHOUT FACING AND WITH VAPOR BARRIER ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL, AND VINYL FILM. INSULATION SHALL HAVE A MINIMUM R VALUE AS REQUIRED BY CODE.
FLEXIBLE FIBERGLASS DUCTWORK INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 553, TYPE II, WITHOUT FACING AND WITH VAPOR BARRIER ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL, AND VINYL FILM. INSULATION SHALL HAVE A MINIMUM R VALUE AS REQUIRED BY CODE.
VAPOR BARRIER MATERIAL FOR DUCTWORK: PAPER-BACKED ALUMINUM-FOIL, EXCEPT AS OTHERWISE INDICATED; STRENGTH AND PERMEABILITY RATING EQUIVALENT TO FACTORY-APPLIED VAPOR BARRIERS ON ADJOINING DUCTWORK INSULATION, WHERE AVAILABLE; WITH FOLLOWING ADDITIONAL CONSTRUCTION CHARACTERISTICS:
HIGH PUNCTURE RESISTANCE: LOW VAPOR TRANSMISSION (FOR DUCTS IN EXPOSED AREAS: MECH. ROOMS, ETC.)
MODERATE PUNCTURE RESISTANCE: MEDIUM VAPOR TRANSMISSION (FOR DUCTS IN CONCEALED AREAS).

GUARANTEE
THE CONTRACTOR SHALL PROVIDE A GUARANTEE IN WRITTEN FORM STATING THAT ALL WORK UNDER THIS SECTION SHALL BE FREE OF DEFECTIVE WORK, MATERIALS, OR PARTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S FINAL ACCEPTANCE AND SHALL REPAIR, REVISE OR REPLACE AT NO COST TO THE OWNER ANY SUCH DEFECTS OCCURRING WITHIN THE GUARANTEE PERIOD. CONTRACTOR SHALL ALSO STATE IN WRITTEN FORM THAT ANY ITEMS OR OCCURRENCES ARISING DURING THE GUARANTEE PERIOD WILL BE ATTENDED TO IN A TIMELY MANNER AND WILL IN NO CASE EXCEED FOUR (4) WORKING DAYS FROM DATE OF NOTIFICATION BY OWNER.

blue river®
ARCHITECTS
A Native American Owned Firm

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
M200
MECHANICAL SPECIFICATIONS

blue river
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ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	WALL MOUNTED FLOODLIGHT (TYPE DENOTED)
	RECESSED LIGHT (TYPE DENOTED)
	POLE MOUNTED LIGHT (TYPE DENOTED)
	POLE MOUNTED FLOODLIGHT (TYPE DENOTED)
	SURFACE LINEAR LIGHT (TYPE DENOTED)
	SUSPENDED OR PENDANT LIGHT (TYPE DENOTED)
	RECESSED LINEAR LIGHT (TYPE DENOTED)
	STRIP LIGHT (TYPE DENOTED)
	TRACK AND TRACK LIGHT (TYPES DENOTED)
	EMERGENCY BATTERY LIGHT (TYPE DENOTED)
	EXIT SIGN (TYPE DENOTED)
	LIGHT FIXTURE ON (EM) LIFE SAFETY BRANCH
	LIGHT FIXTURE ON (EM) CRITICAL BRANCH
	LIGHT ON CORD REEL (TYPE DENOTED)
	LIGHTING CHANNEL WIRE (TYPE DENOTED)
	SINGLE POLE SW.
$_2$	2 POLE SINGLE THROW SW.
$_3$	3-WAY SW.
$_4$	4-WAY SW.
$_K$	KEYED SW.
$_P$	SW. W/PILOT
$_D$	DIMMER SWITCH
$_{OS}$	OCCUPANCY SENSOR SWITCH
$_{OSD}$	OCCUPANCY SENSOR / DIMMER SWITCH
$_{MC}$	MOMENTARY CONTACT SWITCH
$_M$	MOTOR SWITCH
$_{TD}$	TIME DELAY SWITCH
PB	PUSH BUTTON
	SINGLE RECEPT.
	DUPLEX RECEPT.
	SPLIT DUPLEX RECEPT.
	ISOLATED GROUND RECEPT (DUPLEX SHOWN)
	RECEPT ON EMERGENCY CKT (DUPLEX SHOWN)
	FOURPLEX RECEPT.
	FOURPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	240 VOLT RECEPT.
	FLOOR RECEPT. (DUPLEX SHOWN)
	RECEPT ON DROP CORD (DUPLEX SHOWN)
	RECEPT ON CORD REEL (DUPLEX SHOWN)

SYMBOL	DESCRIPTION
	MULTIOUTLET ASSEMBLY
	CLOCK
P	POWER POLE (OPEN OFFICE STYLE)
	SURGERY SERVICE COLUMN
	STATIC GROUND RECEPTACLE
	LIGHTNING PROTECTION AIR TERMINAL
	LIGHTNING PROTECTION CONDUCTOR SPLICE
	GROUND ROD (PLAN VIEW)
P	UTILITY SERVICE POWER POLE (SITE)
	SPECIAL RECEPT. OR CONN.
J	JUNCTION BOX
PB	PULL BOX
	CIRCUIT BREAKER PANEL
	POWER OR DISTRIBUTION PANEL
	TRANSFORMER
XX-1	MOTOR
	COMB. MOTOR STARTER (FUSED)
	SAFETY DISC. SW. (NON-FUSED)
	SAFETY DISC. SW. (FUSED)
	BUS DUCT WITH PLUG IN DISCONNECT (FUSED)
R	RELAY
	ENCLOSED CIRCUIT BREAKER
	PRESSURE SWITCH
	FLOAT SWITCH
OS	OCCUPANCY SENSOR
LS	LIGHT LEVEL SENSOR
	POWERPACK
	PHOTOCELL
TC	TIME CONTROL SWITCH (TIME SWITCH)
H	HUMIDISTAT
T	THERMOSTAT
	SOLENOID VALVE
	HALFTONE SYMBOL INDICATES EXISTING
	DASHED SYMBOL INDICATES REMOVED

SYMBOL	DESCRIPTION
	TELEPHONE OUTLET (TYPE DENOTED)
W	WALL TELEPHONE OUTLET (TYPE DENOTED)
	INFORMATION OUTLET (TYPE DENOTED)
WAP	WIRELESS ACCESS POINT
	TELEVISION OUTLET
	BELL
	BUZZER
	CHIME
D	DOOR SIGNAL - APT. UNIT
SPK	SPEAKER (WALL OR CEILING MT.)
HS	HORN TYPE SPEAKER
V	VOLUME CONTROL
M	MICROPHONE OUTLET
	FIRE ALARM HORN W/STROBE (CANDELAS)
	FIRE ALARM BELL
B	FIRE ALARM BELL W/STROBE (CANDELAS)
	FIRE ALARM CHIME W/STROBE (CANDELAS)
F	FIRE ALARM STROBE (CANDELAS)
FS	FIRE ALARM SPEAKER W/STROBE (CANDELAS)
	FIRE ALARM REMOTE ANNUNCIATOR
H	SMOKE DETECTOR
CO	SMOKE/CO DETECTOR
H	HEAT DETECTOR
	LINEAR HEAT DETECTOR
	DUCT SMOKE DETECTOR
	REMOTE TEST/STATUS STATION
	FLAME DETECTOR
	GAS DETECTOR
P	F.A. PULLSTATION
Z	F.A. ZONE ADDRESSABLE MODULE
I	F.A. INDIVIDUAL ADDRESSABLE MODULE
	F.A. DOOR HOLDER
	F.A. DOOR CLOSER
FR	FIRE ALARM SHUT DOWN RELAY
	SPRINKLER FLOW SWITCH
OS&Y	SPRINKLER VALVE TAMPER SWITCH
	SPRINKLER LEVEL SWITCH
	SPRINKLER PRESSURE SWITCH
	SPRINKLER TEMPERATURE SWITCH

SYMBOL	DESCRIPTION
ES	ELECTRIC STRIKE
ML	MAGNETIC LOCK
CL	COMBINATION LOCK
DC	DOOR CONTACTS
CR	CARD READER
KP	KEYPAD
MD	MOTION DETECTOR
E	NURSE CALL EMERG. STATION
B	NURSE CALL CODE BLUE EMERG. STATION
D	NURSE CALL DUTY STATION
S	NURSE CALL STAFF STATION
P_1	NURSE CALL SINGLE PATIENT STATION
P_2	NURSE CALL DUAL PATIENT STATION
DL_1	NURSE CALL DOME LIGHT (2 LAMP)
	CCTV CAMERA
	CCTV CAMERA WITH PAN/TILT DRIVE
1	KEYED NOTE (SEE SCHEDULE)
TWC	TWO WAY COMMUNICATION SYSTEM

ELECTRICAL SYMBOL NOTES

(A2) / A-12.b — THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

EXAMPLE 1: LIGHTING FIXTURE TYPE "A2" IS CONNECTED TO CIRCUIT A-12 AND CONTROLLED BY SWITCH "b". WHERE NO SWITCH DESIGNATOR IS GIVEN, THE WALL SWITCH/OCCUPANCY SENSOR CONTROLS ONLY THOSE FIXTURES IN THE ROOM.

E 14 — EXIT LIGHTS. STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. EXAMPLE: THE WALL MOUNTED EXIT LIGHT TYPE "E" WITH SINGLE FACE AND DIRECTIONAL ARROW IS CONNECTED TO CIRCUIT 14.

16c — DEVICES. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SPLIT DUPLEX RECEPTACLE IS CONNECTED TO CIRCUIT 16 AND ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH "c".

d — THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SINGLE POLE SWITCH "d" TO CONTROL LIGHTING FIXTURES INDICATED BY "d".

1 — SPECIAL NOTE. SEE THE SPECIAL NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.

CONDUIT SHOWN WITHOUT SLASH MARKS SHALL CONTAIN 2 # 12 CONDUCTORS IN 3/4" CONDUIT UNLESS SPECIFIC EQUIPMENT REQUIRES A DIFFERENT SIZE.

SLASH MARK INDICATORS ARE: SHORT STRAIGHT=PHASE CONDUCTOR, LONG STRAIGHT=NEUTRAL CONDUCTOR, LONG STRAIGHT WITH A DOT=GROUND CONDUCTOR

H-1,3,5 — HOME RUN TO BRANCH CIRCUIT PANELBOARD. THE PANELBOARD DESIGNATION IS SHOWN ADJACENT TO THE HOME RUN ARROW AS A NUMERATOR AND THE CIRCUIT DESIGNATION IS SHOWN AS THE DENOMINATOR. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANELBOARD SCHEDULE WITH THE CORRESPONDING PANELBOARD AND CIRCUIT DESIGNATION. EXAMPLE: HOME RUN TO PANELBOARD "H"; CIRCUITS 1, 3, 5.

SPECIFIC CODE NOTES

FIRE PROTECTION REQUIREMENTS

A. PENETRATIONS IN WALLS REQUIRING PROTECTED OPENINGS MUST BE FIRESTOPPED WITH AN APPROVED MATERIAL.
   1. CONDUITS MAY PENETRATE WALLS OR PARTITIONS, PROVIDED THEY ARE FIRE-STOPPED.
   2. OPENINGS FOR STEEL ELECTRICAL BOXES NOT EXCEEDING 16 SQUARE INCHES ARE PERMITTED PROVIDED OPENINGS DO NOT AGGREGATE MORE THAN 100 SQUARE INCHES FOR ANY 100 SQUARE FEET OF WALL OR PARTITION.
   3. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES.

B. LIGHT FIXTURES AND OTHER APPARATUS SUPPORTED BY THE ACOUSTICAL CEILING GRID MUST MEET THE REQUIREMENTS OF NEC SECTION 410.16, MEANS OF SUPPORT.

C. RECESSED LIGHTING FIXTURES INSTALLED IN FIRE RATED CEILING ASSEMBLIES SHALL BE FIRE RATED FIXTURES BEARING THE UL FIRE RATED LABEL. FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE UL FIRE RESISTANCE DIRECTORY, AND SHALL INCLUDE A FIRE RATED ENCLOSURE INSTALLED OVER THE FIXTURE THAT MEETS THE REQUIREMENTS OF THE UL FIRE RESISTANCE DIRECTORY.

GFCI PROTECTION

A. ALL SINGLE-PHASE RECEPTACLES THAT ARE 50 AMPERES OR LESS, RATED 150 VOLTS TO GROUND OR LESS, AND ALL THREE-PHASE RECEPTACLES THAT ARE 100 AMPERES OR LESS, RATED 150 VOLTS TO GROUND OR LESS IN BATHROOMS, KITCHENS, ROOFTOPS, OUTDOORS, WET LOCATIONS, LOCKER ROOMS, GARAGES, UNFINISHED BASEMENTS, AND WITHIN 6FT OF SINKS TO BE GFCI AND IN READILY ACCESSIBLE LOCATION. IF READILY ACCESSIBLE LOCATION NOT AVAILABLE CIRCUIT TO BE FURNISHED WITH GFCI BREAKER

SELECT THIS NOTE A FOR DWELLING UNITS. DELETE IF NON DWELLING.

AFCI PROTECTION FOR DWELLING UNITS, DORMITORY UNITS, GUEST ROOMS AND GUEST SUITES

A. ALL 120-VOLT, SINGLE-PHASE. 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES. DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED

TAMPER-RESISTANT RECEPTACLES

A. ALL 15- AND 20-AMPERE, 125- AND 250-VOLT NONLOCKING-TYPE RECEPTACLES IN THE AREAS SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
   (1) DWELLING UNITS IN ALL AREAS SPECIFIED IN 210.52 AND 550.13
   (2) GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS
   (3) CHILD CARE FACILITIES
   (4) PRESCHOOLS AND ELEMENTARY EDUCATION FACILITIES
   (5) BUSINESS OFFICES, CORRIDORS, WAITING ROOMS AND THE LIKE IN CLINICS, MEDICAL AND DENTAL OFFICES AND OUTPATIENT FACILITIES
   (6) SUBSET OF ASSEMBLY OCCUPANCIES DESCRIBED IN 518.2 TO INCLUDE PLACES OF WAITING TRANSPORTATION, GYMNASIUMS, SKATING RINKS, AND AUDITORIUMS
   (7) DORMITORIES

EXCEPTION TO (1), (2), (3), (4), (5), (6), AND (7): RECEPTACLES IN THE FOLLOWING LOCATIONS SHALL NOT BE REQUIRED TO BE TAMPER RESISTANT: (1) RECEPTACLES LOCATED MORE THAN 1.7 M (5 ½ FT) ABOVE THE FLOOR (2) RECEPTACLES THAT ARE PART OF A LUMINAIRE OR APPLIANCE
(3) A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED WITHIN THE DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER AND THAT IS CORD-AND-PLUG-CONNECTED IN ACCORDANCE WITH 400.10(A)(6), (A)(7), OR (A)(8)
(4) NONGROUNDING RECEPTACLES USED FOR REPLACEMENTS AS PERMITTED IN 406.4(D)(2)(A)

WEATHER-RESISTAN RECEPTACLES

A. ALL 15 AND 20 AMPERE RECEPTACLES FOR BOTH DAMP AND WET LOCATIONS ARE REQUIRED TO BE LISTED WEATHER RESISTANT (WR) TYPE EVEN WHEN WEATHERPROOF ENCLOSURES ARE PROVIDED. NEC 406.9

SELECT THIS NOTE A FOR SEISMIC ZONES. DELETE IF NOT SEISMIC ZONE.

SEISMIC BRACING REQUIREMENTS

A. CONTRACTOR TO IMPLEMENT SEISMIC CODE REQUIREMENTS FOR ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDUITS, LIGHT FIXTURES AND ETC. REFER TO SEISMIC SPECIFICATIONS, SEISMIC RESTRAINT SUBMITTALS, MANUFACTURER INSTRUCTIONS AND IN ACCORDANCE WITH YOUR LOCAL CODES.

ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)	CTR	CENTER	HT	HEIGHT	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	SWBD	SWITCHBOARD
A	AMPERE	CU	COPPER	HTG	HEATING	NFDS	NON-FUSED SAFETY DISCONNECT SWITCH	SYM	SYMMETRICAL
AC	ABOVE COUNTER OR AIR CONDITIONER	DCP	DOMESTIC WATER CIRCULATING PUMP	HTR	HEATER			SYS	SYSTEM
		DEPT	DEPARTMENT	HV	HIGH VOLTAGE			TEL	TELEPHONE
ACLG	ABOVE CEILING	DET	DETAIL	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	NIC	NOT IN CONTRACT	TEL/DATA	TELEPHONE/DATA
ADO	AUTOMATIC DOOR OPENER	DIA	DIAMETER			NL	NIGHT LIGHT	TERM	TERMINAL
AF	AMP FRAME	DISC	DISCONNECT	HWP	HYDRONIC WATER PUMP	N.O.	NORMALLY OPEN	TL	TWIST LOCK
AFF	ABOVE FINISHED FLOOR	DIST	DISTRIBUTION	IC	INTERRUPTING CAPACITY	NPF	NORMAL POWER FACTOR	TR	TAMPER RESISTANT
AFG	ABOVE FINISHED GRADE	DN	DOWN	IG	ISOLATED GROUND	NTS	NOT TO SCALE	T-STAT	THERMOSTAT
AFI	ARC FAULT CIRCUIT INTERRUPTER	DPR	DAMPER	IMC	INTERMEDIATE METAL CONDUIT	OH	OVERHEAD	TTC	TELEPHONE TERMINAL CABINET
		DS	SAFETY DISCONNECT SWITCH	INCAND	INCANDESCENT	OL	OVERLOADS	TV	TELEVISION
AHU	AIR HANDLING UNIT	DT	DOUBLE THROW	IR	INFRARED	PA	PUBLIC ADDRESS	TVTC	TELEVISION TERMINAL CABINET
AL	ALUMINUM	DWG	DRAWING	I/W	INTERLOCK WITH	PB	PULL BOX OR PUSHBUTTON	TYP	TYPICAL
ALT	ALTERNATE	EC	ELECTRICAL CONTRACTOR	J-BOX	JUNCTION BOX	PE	PNEUMATIC ELECTRIC	UC	UNDER COUNTER
AMP	AMPERE	ELEC	ELECTRIC, ELECTRICAL	KV	KILOVOLT	PED	PEDESTAL	UE	UNDERGROUND ELECTRICAL
AMPL	AMPLIFIER	ELEV	ELEVATOR	KVA	KILOVOLT-AMPERE	PF	POWER FACTOR	UG	UNDERGROUND
ANNUN	ANNUNCIATOR	EM	EMERGENCY	KVAR	KILOVOLT-AMPERE REACTIVE	PH	PHASE	UH	UNIT HEATER
APPROX	APPROXIMATELY	EMS	ENERGY MANAGEMENT SYSTEM	KW	KILOWATT	PIV	POST INDICATING VALVE	UT	UNDERGROUND TELEPHONE
AQ-STAT	AQUASTAT	EMT	ELECTRICAL METALLIC TUBING	KWH	KILOWATT HOUR	PNL	PANEL	UTIL	UTILITY
ARCH	ARCHITECT, ARCHITECTURAL	EP	ELECTRIC PNEUMATIC	LOC	LOCATE OR LOCATION	PP	POWER POLE	UV	UNIT VENTILATOR OR ULTRAVIOLET
AS	AMP SWITCH	EQUIP	EQUIPMENT	LT	LIGHT	PR	PAIR		
AT	AMP TRIP	EWC	ELECTRIC WATER COOLER	LTG	LIGHTING	PRI	PRIMARY	V	VOLT
ATS	AUTOMATIC TRANSFER SWITCH	EXIST	EXISTING	LTNG	LIGHTNING	PROJ	PROJECTION	VA	VOLT-AMPERES
AUTO	AUTOMATIC	EXH	EXHAUST	LV	LOW VOLTAGE	PRV	POWER ROOF VENTILATOR	VDT	VIDEO DISPLAY TERMINAL
AUX	AUXILIARY	EXP	EXPLOSION PROOF	MAX	MAXIMUM	PT	POTENTIAL TRANSFORMER	VERT	VERTICAL
AV	AUDIO VISUAL	FA	FIRE ALARM	MAG.S	MAGNETIC STARTER	PVC	POLYVINYL CHLORIDE (CONDUIT)	VFD	VARIABLE FREQUENCY DRIVE
AWG	AMERICAN WIRE GAUGE	FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	M/C	MOMENTARY CONTACT	PWR	POWER	VOL	VOLUME
BATT	BATTERY			MC	MECHANICAL CONTRACTOR	QUAN	QUANTITY	W	WATT
BD	BOARD	FACP	FIRE ALARM CONTROL PANEL	MCB	MAIN CIRCUIT BREAKER	RCPT	RECEPTACLE	W/	WITH
BLDG	BUILDING	FCU	FAN COIL UNIT	MCC	MOTOR CONTROL CENTER	REQD	REQUIRED	WG	WIRE GUARD
BMS	BUILDING MANAGEMENT SYSTEM	FIXT	FIXTURE	MDC	MAIN DISTRIBUTION CENTER	RM	ROOM	WH	WATER HEATER
C	CONDUIT	FLR	FLOOR	MDP	MAIN DISTRIBUTION PANEL	RSC	RIGID STEEL CONDUIT	W/O	WITHOUT
CAB	CABINET	FLUOR	FLUORESCENT	MFR	MANUFACTURER	RTU	ROOF TOP UNIT	WP	WEATHERPROOF
CAT	CATALOG	FU	FUSE	MFS	MAIN FUSED DISCONNECT SWITCH	SC	SURFACE CONDUIT	XFMR	TRANSFORMER
CATV	CABLE TELEVISION	FUDS	FUSED SAFETY DISCONNECT SWITCH	MH	MANHOLE	SEC	SECONDARY	XFR	TRANSFER
CB	CIRCUIT BREAKER	GA	GAUGE	MIC	MICROPHONE	SHT	SHEET		
CCTV	CLOSED CIRCUIT TELEVISION	GAL	GALLON	MIN	MINIMUM	SIM	SIMILAR		
CKT	CIRCUIT	GALV	GALVANIZED	MISC	MISCELLANEOUS	S/N	SOLID NEUTRAL		
CLG	CEILING	GC	GENERAL CONTRACTOR	MLO	MAIN LUGS ONLY	SPEC	SPECIFICATION	∠	ANGLE
COMB	COMBINATION	GEN	GENERATOR	MMS	MANUAL MOTOR STARTER	SPKR	SPEAKER	@	AT
CMPR	COMPRESSOR	GFI	GROUND FAULT CIRCUIT INTERRUPTER	MOA	MULTIOUTLET ASSEMBLY	SP	SPARE	▲	DELTA
CONN	CONNECTION	GFP	GROUND FAULT PROTECTOR	MSP	MOTOR STARTER PANELBOARD	SR	SURFACE RACEWAY	'	FEET
CONST	CONSTRUCTION	GND	GROUND	MSBD	MAIN SWITCHBOARD	SS	STAINLESS STEEL	"	INCHES
CONT	CONTINUATION OR CONTINUOUS	GRS	GALVANIZED RIGID STEEL (CONDUIT)	MT	MOUNT	SSW	SELECTOR SWITCH	#	NUMBER
CONTR	CONTRACTOR	GYP BD	GYPSUM BOARD	MT.C	EMPTY CONDUIT	SS	STOP/START PUSHBUTTONS	Ø	PHASE
CONV	CONVECTOR	HOA	HANDS-OFF-AUTOMATIC SWITCH	MTS	MANUAL TRANSFER SWITCH	STA	STATION	C	CENTER LINE
CP	CIRCULATING PUMP	HORIZ	HORIZONTAL	MTR	MOTOR, MOTORIZED	STD	STANDARD	P	PLATE
CRT	CATHODE-RAY TUBE	HP	HORSEPOWER	N.C.	NORMALLY CLOSED	SURF	SURFACE MOUNTED		
CT	CURRENT TRANSFORMER	HPF	HIGH POWER FACTOR	NEC	NATIONAL ELECTRICAL CODE	SW	SWITCH		

GENERAL ELECTRICAL NOTES

A. ALL CONDUCTORS OPERATING AT 50 VOLTS OR GREATER SHALL BE IN RACEWAY. ALL RACEWAY WITHIN THE STRUCTURE ABOVE THE FLOOR SLAB SHALL BE METAL. RACEWAY BELOW THE FLOOR SLAB AND UNDERGROUND RACEWAY OUTSIDE THE STRUCTURE SHALL BE PVC.

B. ALL LOW VOLTAGE CABLES OR CONDUCTORS OPERATING AT LESS THAN 50 VOLTS SHALL BE IN METAL RACEWAY WHERE INSTALLED WITHIN WALLS OR INACCESSIBLE SPACES. LOW VOLTAGE CABLES MAY BE RUN IN CABLE TRAY WHERE NOTED. LOW VOLTAGE CABLES MAY BE RUN IN CABLE SUPPORT HOOKS ABOVE ACCESSIBLE CEILINGS WHERE NOTED.

C. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND DETAILS. ARCHITECTURAL ELEVATIONS AND DETAILS TAKE PRECEDENCE OVER LOCATIONS SHOWN ON ELECTRICAL DRAWINGS. SEE ARCHITECTURAL ELEVATIONS FOR LOCATIONS OF ELECTRICAL DEVICES AT PATIENT BED HEADWALLS.

D. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.

E. CONDUIT AND WIRE SHALL NOT BE INSTALLED BELOW FLOOR SLAB UNLESS INDICATED ON PLAN BY DASHED CONDUIT.

F. CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON DRAWINGS EXCEPT FOR ITEMS LISTED IN NOTE G.

G. TV OUTLETS, VOLUME CONTROLS, NURSE CALL DOME LIGHTS, NURSE CALL DEVICES, TELEPHONE OUTLETS, DATA OUTLETS, AND FIRE ALARM DEVICES SHALL CONSIST OF A BACK BOX WITH CONDUIT STUBBED ABOVE THE ACCESSIBLE CEILING, SEE STUB UP DETAIL. VERIFY SIZE OF BACK BOX REQUIRED WITH DEVICE TO BE INSTALLED. LOCATE BACK BOXES 8' FROM ADJACENT POWER RECEPTACLE INTENDED FOR COMPUTER USE.

H. FURNISH AND INSTALL CONDUIT FROM BACK BOXES FOR THE FOLLOWING DEVICES INTO THE ACCESSIBLE CEILING SPACE IN THE CORRIDOR, UNLESS NOTED OTHERWISE:

1/2"C	TV OUTLETS
1/2"C	VOLUME CONTROLS
1/2"C	NURSE CALL DOME LIGHTS
3/4"C	NURSE CALL DEVICES
3/4"C	TELEPHONE OUTLETS
1"C	INFORMATION OUTLETS
3/4"C	FIRE ALARM DEVICES

I. PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRICAL GEAR (SWITCHBOARDS,DISTRIBUTION BOARDS, TRANSFORMERS, ETC).

ELECTRICAL DRAWINGS

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blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER — OKLAHOMA — 19695 — 3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

E001
ELECTRICAL TITLE SHEET

blue river ARCHITECTS
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SHEET NUMBER:
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LIGHTING FIXTURE SCHEDULE

	CONSTRUCTION		LIGHT SOURCE					ELECTRICAL					PRODUCT		
TYPE	DESCRIPTION	MOUNTING	LAMP	LUMENS DOWN	LUMENS UP	CCT	CRI	BALLAST/DRIVER	VOLT	WATTS	WATTS PER FOOT	EMERGENCY COMPONENT	MFR	CATALOG NUMBER	NOTE
A1	2X4 PANEL	LAY-IN	LED	4800 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	46 W	---	--	LITHONIA	EPANL 2X4 4800LM 80CRI 40K MIN1 MVOLT	--
A1E	2X4 PANEL W/ EM BATTERY PACK	LAY-IN	LED	4800 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	46 W	---	10W CONSTANT BATTERY	LITHONIA	EPANL 2X4 4800LM 80CRI 40K MIN1 MVOLT E10WCP	--
D1	6" DOWNLIGHT	RECESSED	LED	2000 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	22 W	---	--	HALO	PR6 FS12 D010 / PR6M 12 MD 8FS MW	--
D1E	6" DOWNLIGHT W/ EM BATTERY PACK	RECESSED	LED	2000 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	22 W	---	14W BATTERY	HALO	PR6 FS12 D010 / PR6M 12 MD 8FS MW REM14	--

KEYNOTES

NOTES:
1. COORDINATE WITH ARCHITECTECT FOR FINAL COLOR AND TRIM SELECTIONS
2. FIXTURE UTILIZES A 90 MINUTE MINIMUM EMERGENCY BATTERY BACK UP SYSTEM
3. FIXTURE UTILIZES AN EMERGENCY BATTERY BACK UP SYSTEM AND SHALL PROVIDE 600-700 LUMENS FOR 90 MINUTES ON BATTERY BACKUP POWER
4. FIXTURE UTILIZES AN EMERGENCY BATTERY BACK UP SYSTEM AND SHALL PROVIDE 1400 LUMENS FOR 90 MINUTES ON BATTERY BACKUP POWER
5. FIXTURE FURNISHED BY OWNER. INSTALLED BY ELECTRICAL CONTRACTOR
6. MOUNTING HEIGHTS TO BE VERIFIED WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN
7. PROVIDE (5) ADDITIONAL EXIT LIGHTS
8. PROVIDE 10'-0" WHIPS
9. PROVIDE UNISTRUT FOR MOUNTING OF LIGHT FIXTURES CENTERED IN AISLES
10. FIXTURE SHALL BE U.L. LISTED AND LABELED FOR WET LOCATIONS
11. CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED COMPONENTS FOR A COMPLETE AND WORKING SYSTEM
12. NO SUBSTITUTIONS PERMITTED
13. VERIFY WITH ARCHITECT FOR DECORATIVE FIXTURES

LIGHTING GENERAL NOTES

1. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE METAL CONDUIT.
2. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
3. SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS EXTERIOR LIGHTING FIXTURES.
4. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH GOOD INSTALLATION PRACTICES, SPECIFICATIONS, AND THE LATEST EDITIONS OF ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. ALL COMPONENTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
5. PLANS SHOWN ARE DIAGRAMMATICAL IN NATURE AND DO NOT INDICATE EVERY FITTING, TRANSITION, BOX, ETC REQUIRED. THEREFORE, CONTRACTOR IS TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH OTHER TRADES PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE AND OPERATIONAL SYSTEMS SHOWN ON PLAN.
7. ALL CONDUIT, POWER WIRES, RECEPTACLE BOXES, RECEPTACLES, AND OVERLOAD PROTECTION DEVICES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
8. ALL CONDUIT SIZES SHALL BE DETERMINED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
9. WIRING DEVICES:
   A. SWITCHES +46"
   B. RECEPTACLES +18"
   C. VOICE/DATA +18"
10. EXIT SIGN MOUNTING:

    A. WALL FIXTURE: CENTER 12" ABOVE DOOR OPENIG

    B. CEILING/PENDANT FIXTURE: ON CEILING OR AT HEIGHT SPECIFIED ON DRAWINGS.
11. EXIT SIGNS, EMERGENCY BATTERY PACKS, AND NIGHT LIGHTS SHALL NOT BE SWITCHED.
12. ELECTRICAL CONTRACTOR WILL PROVIDE A ROOF MOUNTED PHOTOCELL IN A NEUTRAL POSITION THAT IS NOT FACING EAST OR WEST, TO CONTROL ALL EXTERIOR LIGHTS AND SIGNS.
13. PROVIDE SEPARATE BOXES FOR GANGED SWITCHES ON SEPARATE BRANCH CIRCUITS.
14. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH ARCHITECT PRIOR TO ROUGH-IN.
15. ADDITIONAL EXIT AND EMERGENCY LIGHTS MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. ADDITIONAL FIXTURES SHALL BE ADDED AS DIRECTED BY THE LOCAL AUTHORITY.
16. MAXIMUM COMBINED FEEDER AND BRANCH CIRCUITS SHALL NOT EXCEED 5% VOLTAGE DROP, AND THE MAXIMUM ON THE FEEDER OR BRANCH CIRCUIT SHALL NOT EXCEED 3% VOLTAGE DROP. ELECTRICAL CONTRACTOR TO INCREASE WIRE/CONDUIT SIZE AS NECESSARY TO MAINTAIN VOLTAGE DROP RECOMMENDATIONS.
17. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR GROUNDING OF ALL ELECTRICAL EQUIPMENT.
18. EMERGENCY LIGHT MOUNTING:

    A. WALL FIXTURE: 12" BELOW FINISHED CEILING OR +10'-0" IN AREAS OF EXPOSED STRUCTURE, UNLESS NOTED OTHERWISE.

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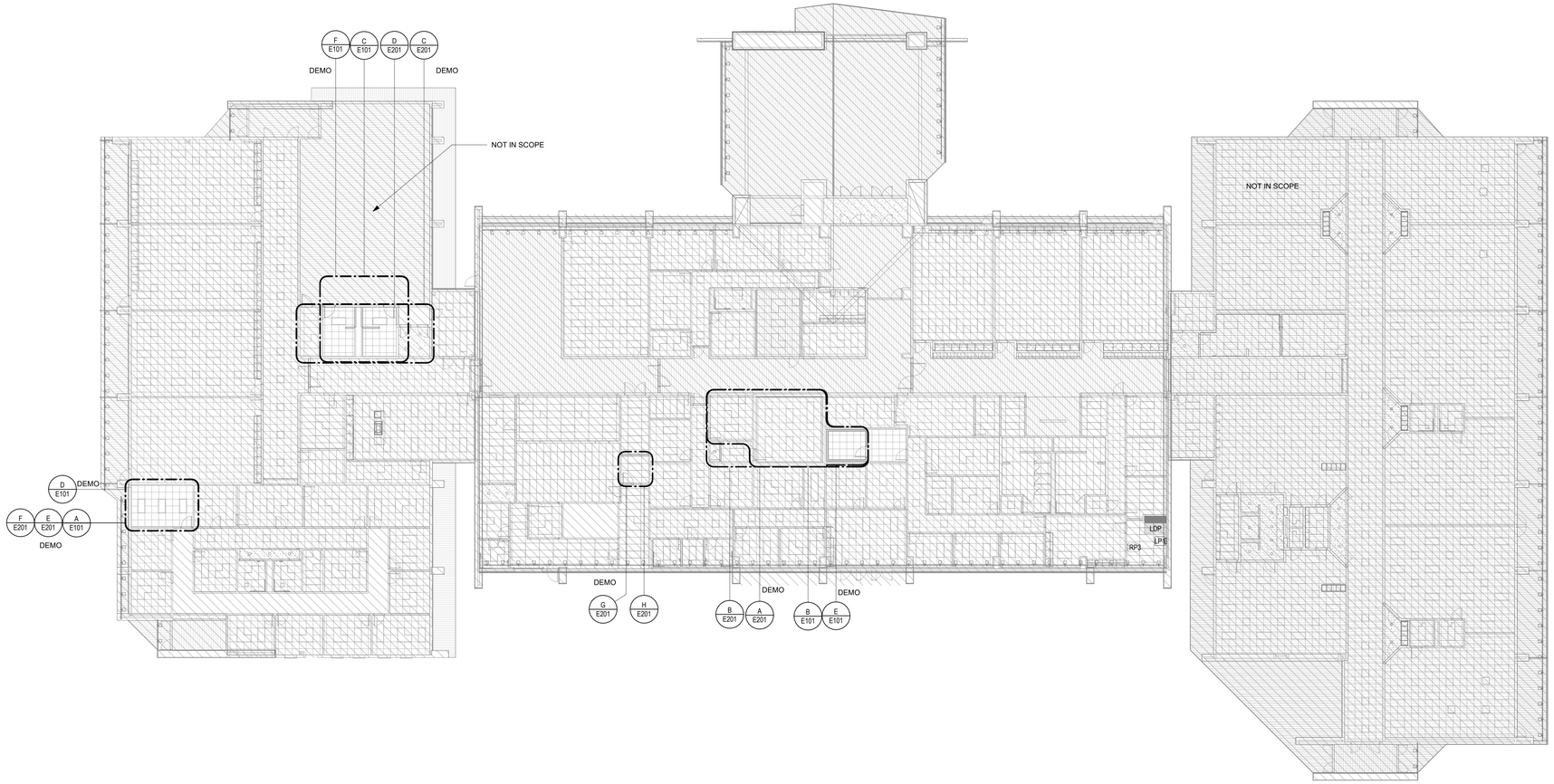
    C. REMOTE HEAD FIXTURE: HEADS CENTERED ABOVE DOOR OPENING +9'-0", UNLESS NOTED OTHERWISE AND BATTERY PACK MOUNTED ON INTERIOR SIDE OF WALL 12" BELOW FINISHED CEILING OR AT BAR JOIST IN AREAS OF EXPOSED STRUCTURE.



A OVERALL ELECTRICAL PLAN
1/16" = 1'-0"

0 4' 8' 16'

PROJECT NORTH

4/4/2025 10:24:56 AM

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER 19695 OKLAHOMA PROFESSIONAL ENGINEER
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

E100
OVERALL ELECTRICAL PLAN

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
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SHEET NAME:
OVERALL ELECTRICAL PLAN

SHEET NUMBER:
E100

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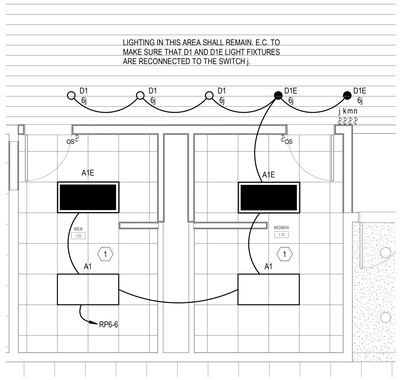

C ENLARGED LIGHTING PLAN
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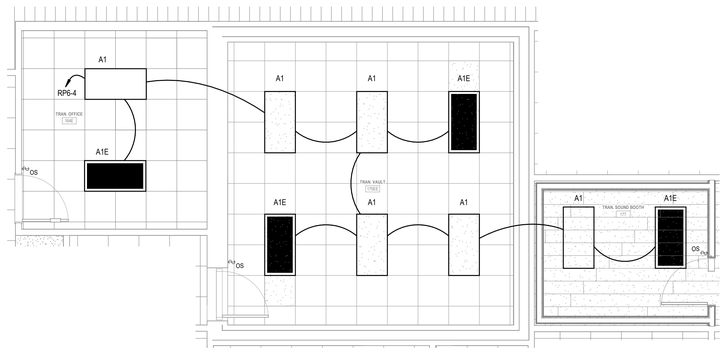

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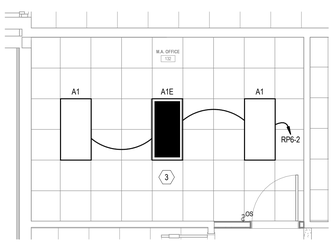

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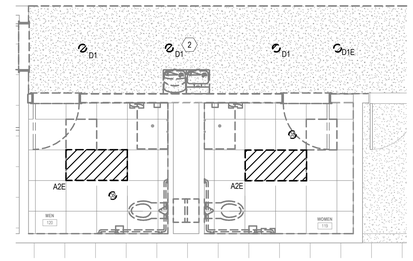

F ENLARGED DEMOLITION LIGHTING PLAN
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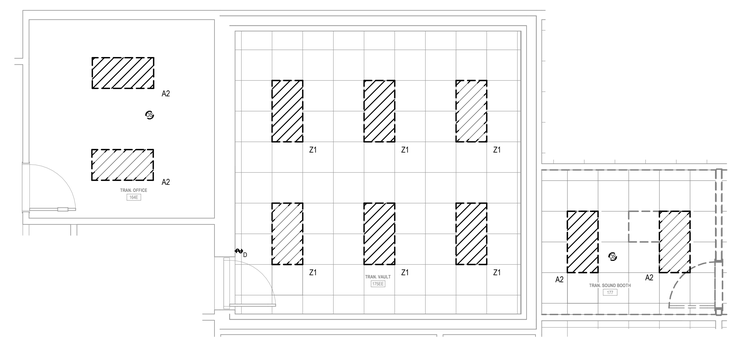

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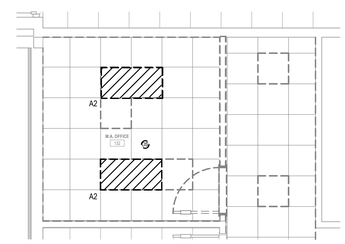

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KEYNOTES

1. THE EXISTING LIGHTS NEED TO BE REMOVE AND REPLACED.PLEASE NOTE TO RECONNECT TO SWITCH J.
2. EXISTING CAN LIGHTS IN THIS AREA TO BE REMOVED.
3. E.C. TO REPLACE LIGHTING AND THEIR CONTROLS IN THIS AREA. RECONNECT TO THE EXISTING CIRCUIT.

blue river ARCHITECTS
A Native American Owned Firm

PETER A. JULGER
19695
OKLAHOMA
PROFESSIONAL ENGINEER
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

E101
ENLARGED LIGHTING PLAN

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
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ENLARGED LIGHTING PLAN

SHEET NUMBER:
E101

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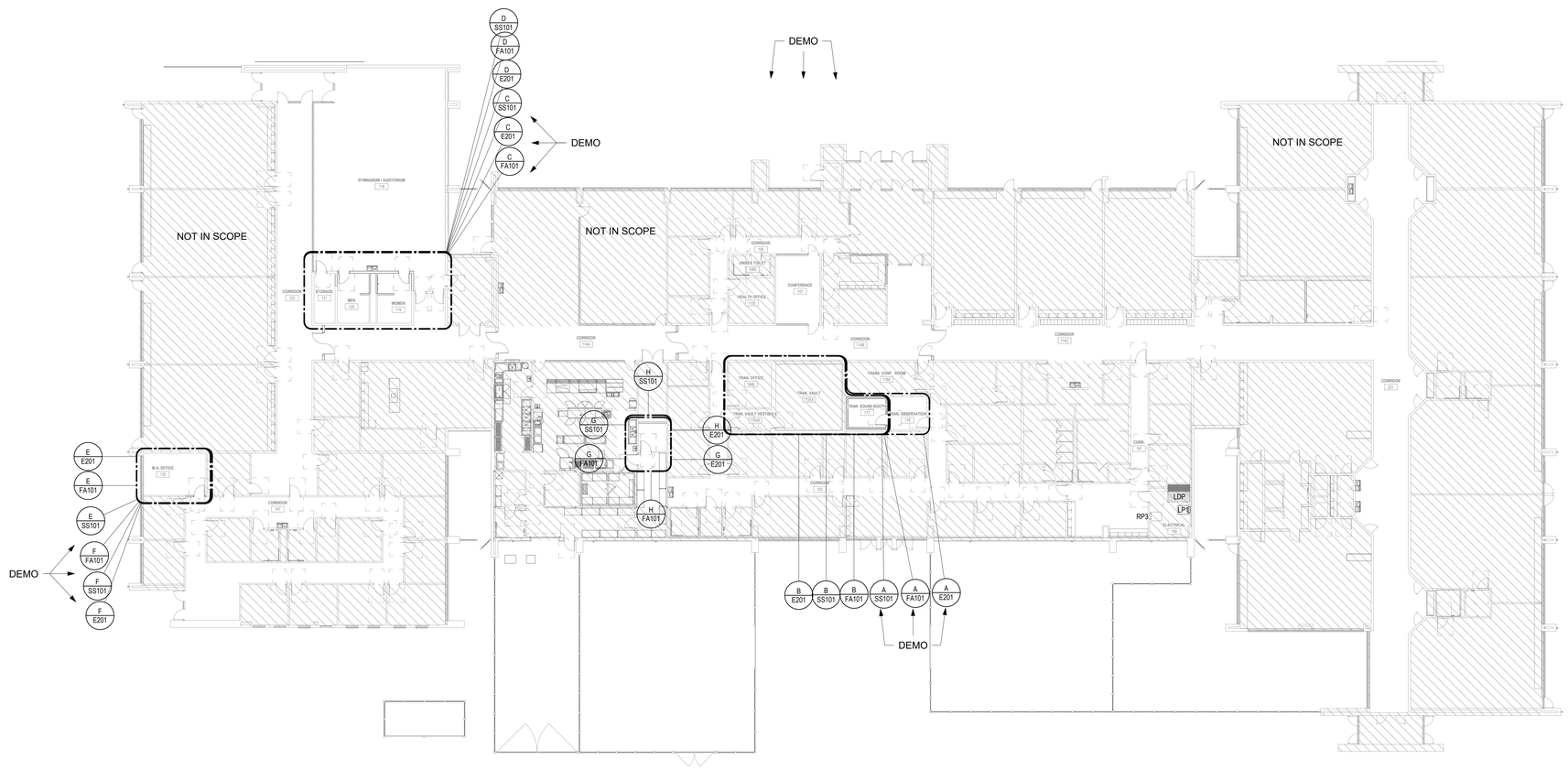

A OVERALL ELECTRICAL PLAN

1/16" = 1'-0"

0 4' 8' 16'

PROJECT NORTH

POWER GENERAL NOTES

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7 WIRING DEVICES:
A. SWITCHES +46"
B. RECEPTACLES +18"
C. VOICE/DATA +18"

8 WIRING SHALL INCLUDE FINAL CONNECTION TO ALL EQUIPMENT IN CONFORMANCE WITH EQUIPMENT SUPPLIER WIRING DIAGRAMS.

9 UPON COMPLETION OF ELECTRICAL INSTALLATION AND PRIOR TO ENERGIZING CIRCUIT:

A. INSPECT WIRE AND CABLE FOR PHYSICAL DAMAGE.

B. PERFORM CONTINUITY TEST.

C. VERIFY PROPER PHASING CONNECTION TO ALL THREE PHASE MOTOR LOADS.

10 CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE PANELBOARD TYPEWRITTEN IDENTIFICATION SCHEDULES.

11 WHERE BRANCH CIRCUITS ARE GROUPED, SIZE CONDUIT AND DERATE CURRENT CARRYING CONDUCTORS PER NEC.

12 WHERE EQUIPMENT NAMEPLATE PROTECTIVE DEVICE RATING DIFFERS FROM SIZE PROVIDED, CHANGE OUT BRANCH CIRCUIT WIRING AND OVERCURRENT DEVICE TO APPROPRIATE RATING PER NEC.

13 NO ALUMINUM WIRE CONDUCTORS SHALL BE USED FOR INSTALLATION OF BRANCH CIRCUITS. USE COPPER WIRE CONDUCTORS. ALUMINUM CONDUCTORS FOR FEEDERS WILL NEED TO BE APPROVED BY ENGINEER AND OWNER.

14 EQUIPMENT SHALL BE OF MATERIALS SUITABLE FOR AND RATED FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED.

A. WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC 110.

B. THE EXCLUSIVELY DEDICATED SPACE EXTENDING FROM FLOOR TO STRUCTURAL CEILING WITH A WIDTH AND DEPTH OF THE PANELBOARD OR SWITCHBOARD MUST BE CLEAR OF ALL PIPING, DUCTS, EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT OR ARCHITECTURAL APPURTENANCES IN ACCORDANCE WITH NEC 408.

15 MAXIMUM COMBINED FEEDER AND BRANCH CIRCUITS SHALL NOT EXCEED 5% VOLTAGE DROP, AND THE MAXIMUM ON THE FEEDER OR BRANCH CIRCUIT SHALL NOT EXCEED 3% VOLTAGE DROP. ELECTRICAL CONTRACTOR TO INCREASE WIRE/CONDUIT SIZE AS NECESSARY TO MAINTAIN VOLTAGE DROP RECOMMENDATIONS.

16 WHERE CONNECTED TO A 20A. BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.

17 CIRCUIT NUMBERS AT DEVICES CORRESPOND TO PANELBOARD BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

18 PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED AND GRADE MOUNTED ELECTRICAL EQUIPMENT. MINIMUM REQUIREMENTS: 4" HIGH, 4% AIR ENTRAINED, POLYFIBER REINFORCED CONCRETE, 4" WIDER AND 4" LONGER THAN EQUIPMENT TO BE PLACED ON IT. REFER TO ELECTRICAL DETAIL DRAWINGS FOR TRANSFORMER, GENERATOR, OR SWITCHGEAR PADS THAT MAY EXCEED THESE REQUIREMENTS.

blue river ARCHITECTS
A Native American Owned Firm

REGISTERED PROFESSIONAL ENGINEER
PETER A. HILGER
19685
OKLAHOMA
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

E200
OVERALL ELECTRICAL PLAN

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
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SHEET NAME:
OVERALL ELECTRICAL PLAN

SHEET NUMBER:
E200

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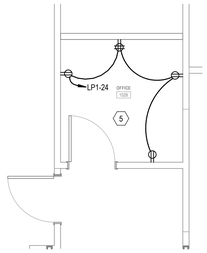
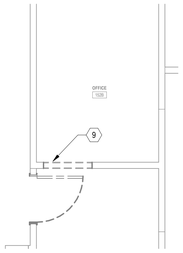


H ENLARGED POWER PLAN
1/4" = 1'-0"



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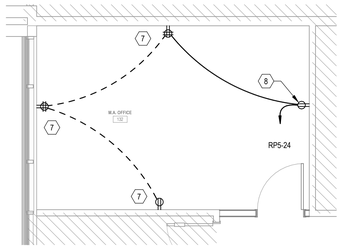
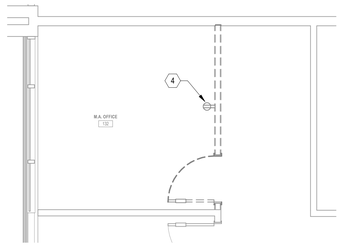
1/4" = 1'-0"



F ENLARGED POWER PLAN
1/4" = 1'-0"



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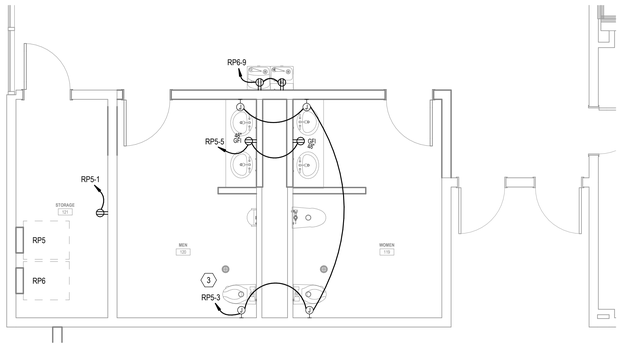

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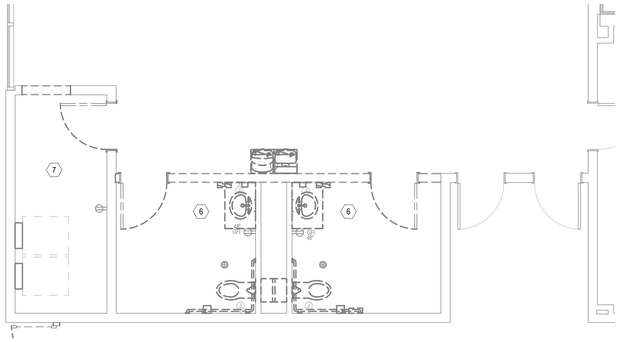

C ENLARGED DEMOLITION POWER PLAN
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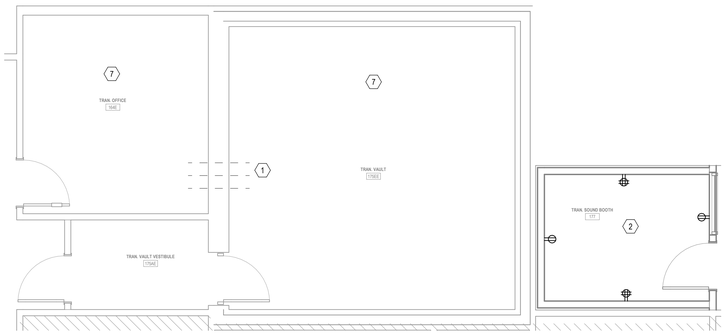

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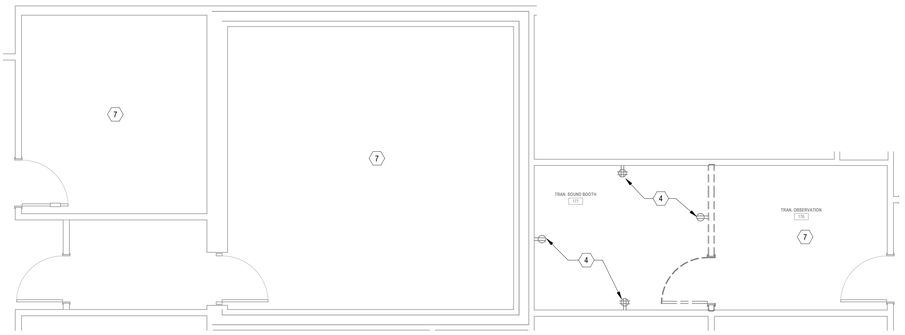

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16 WHERE CONNECTED TO A 20A. BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.

17 CIRCUIT NUMBERS AT DEVICES CORRESPOND TO PANELBOARD BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

18 PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED AND GRADE MOUNTED ELECTRICAL EQUIPMENT. MINIMUM REQUIREMENTS: 4" HIGH, 4% AIR ENTRAINED, POLYFIBER REINFORCED CONCRETE, 4" WIDER AND 4" LONGER THAN EQUIPMENT TO BE PLACED ON IT. REFER TO ELECTRICAL DETAIL DRAWINGS FOR TRANSFORMER, GENERATOR, OR SWITCHGEAR PADS THAT MAY EXCEED THESE REQUIREMENTS.

KEYNOTES

1 E.C. TO PROVIDE (3) 4-INCH CONDUITS CONNECTING A VAULT TO AN OFFICE. ENSURE THAT THE CONDUITS ARE TREATED FOR ACOUSTIC AND VIBRATION CONTROL BETWEEN THE TWO AREAS.

2 E.C TO PROVIDE JUCTION BOX EXTENTIONS AND REINSTALL DEVICE TO EXISTING CIRCUITS. E.C TO VERIFY THE EXACT LOCATION IN THE FIELD.

3 PROVIDE CIRCUIT AND JUNCTION BOX FOR PLUMBING FIXTURE POWER TRANSFORMER (BY OTHERS). PROVIDE EMPTY CONDUIT AND PULL STRING FOR LOW VOLTAGE POWER WIRING TO JUNCTION BOXES IN THE WALL BEHIND EACH ADDITIONAL POWERED PLUMBING FIXTURE. COORDINATE EXACT LOCATIONS AND ELEVATIONS WITH PLUMBING FIXTURES IN THE FIELD. PRIOR TO ROUGH-IN.

4 E.C. TO REMOVE EXISTING DEVICE. DEVICE TO BE REINSTALLED IN THE SAME LOCATION AFTER EXISTING WALL HAS BEEN MODIFIED. REFER TO DETAIL B ON THIS SHEET FOR ADDITIONAL INFORMATION

5 E.C. TO REMOVE EXISTING DEVICE. DEVICE TO BE RELOCATED AND RECONNECTED TO EXISTING LOCAL CIRCUIT. REFER TO DETAIL F ON THIS SHEET FOR ADDITIONAL INFORMATION.

6 EXISTING DEVICES IN THIS AREA TO BE REMOVED. REFER TO DETAIL D ON THIS SHEET FOR NEW DEVICE LOCATIONS AND CIRCUITS.

7 EXISTING DEVICES IN THIS ARE TO REMAIN AS-IS.

8 NEW RECEPTACLE TO BE CONNECTED TO EXISTING LOCAL CIRCUIT AS SHOWN.

9 CONTRACTOR TO VERIFY IF ANY ELECTRICAL DEVICE/WIRE IS RUNNING IN WALL TO BE REMOVED. RELOCATE AS REQUIRED.

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER
19695
OKLAHOMA
PROFESSIONAL ENGINEER
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

E201
ENLARGED POWER PLAN

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20210121.60

ISSUE DATE:
04/07/2025

ISSUE:

OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
ENLARGED POWER PLAN

SHEET NUMBER:
E201

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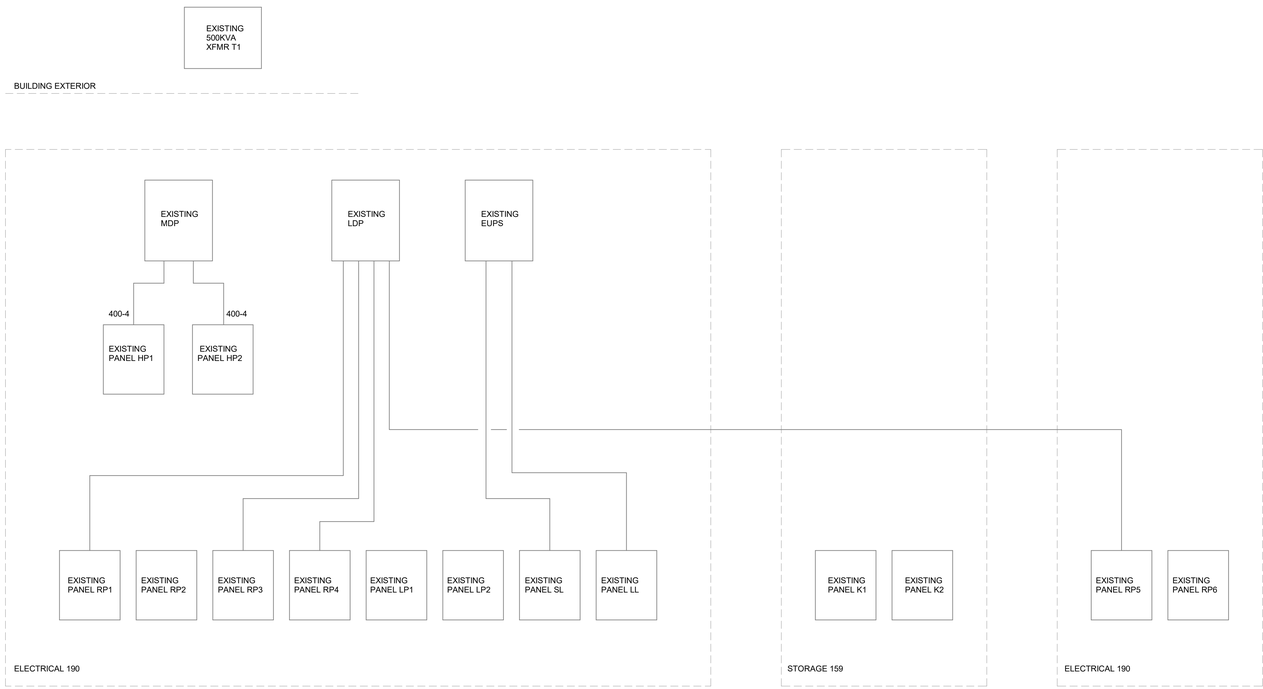
NOTE:

E.C. TO VERIFY RATING, OPERABLE CONDITION AND EXACT LOCATION OF THE EXISTING ELECTRICAL EQUIPMENT AND EXACT POWER DISTRIBUTION IN FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.



B EXISTING ONE-LINE DIAGRAM

N.T.S.

4/4/2025 10:25:13 AM

blue river ARCHITECTS
A Native American Owned Firm

LICENSED PROFESSIONAL ENGINEER
PETER A. HILGER
19695
OKLAHOMA
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

E300
ELECTRICAL ONE-LINE DIAGRAM, SCHEDULES, & DETAILS

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20210121.60

ISSUE DATE:
04/07/2025

ISSUE:

OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
ELECTRICAL ONE-LINE DIAGRAM, SCHEDULES, & DETAILS

SHEET NUMBER:
E300

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PANELBOARD: LDP

BUS AMPS: 1600.0 A
MAIN SIZE/TYPE: EXISTING
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY:
AIC RATING: EXISTING
SERVES: EXISTING
MOUNTING: SURFACE
LOCATION: ELECTRICAL 190

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A		B		C		P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1							0	0											2
3	EXISTING	--	--	--	25	3			0	0			3	15	--	--	--	EXISTING	4
5											0	0							6
7							0	0											8
9	SPARE	--	--	--	100	3			0	0			3	125	--	--	--	SPARE	10
11											0	0							12
13							0	0											14
15	EXISTING	--	--	--	250	3			0	0			3	250	--	--	--	EXISTING	16
17											0	0							18
19							0	0											20
21	EXISTING	--	--	--	250	3			0	0			3	200	--	--	--	EXISTING	22
23											0	0							24
25							0	0											26
27	EXISTING	--	--	--	100	3			0	0			3	200	--	--	--	EXISTING	28
29											0	0							30
31							0	0											32
33	RP3	EX			225	3			0	0			3	250	--	--	--	SPARE	34
35											0	0							36
37							0	0											38
39	SPARE	--	--	--	200	3			0	0			3	225	--	--	--	SPARE	40
41											0	0							42
43							0	180											44
45	SPARE	--	--	--	150	3			0	720			3	225			EX	RP5	46
47											0	1056							48
49							138	0											50
51	RP6	EX			225	3			820	0			3	50	--	--	--	SPARE	52
53											294	0							54
					TOTAL LOAD (VA):		318 VA		1501 VA		1347 VA								
					TOTAL AMPS:		2.7 A		13.8 A		12.5 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	892 VA	125.00%	1115 VA
Other	720 VA	100.00%	720 VA
RCPT	1592 VA	100.00%	1592 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
CIF - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS

TOTAL CONNECTED LOAD:	3.2 kVA
TOTAL ESTIMATED DEMAND:	3.4 kVA
TOTAL CONNECTED CURRENT:	8.8 A
TOTAL ESTIMATED DEMAND CURRENT:	9.4 A

PANELBOARD: RP3

BUS AMPS: 400.0 A
MAIN SIZE/TYPE: EXISTING
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: LDP
AIC RATING: EXISTING
SERVES: EXISTING
MOUNTING: SURFACE
LOCATION: ELECTRICAL 190

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A		B		C		P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	EXISTING	--	--	--	20	1	0	0											2
3	EXISTING	--	--	--	20	1			0	0			2	30	--	--	--	EXISTING	4
5	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	6
7	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	8
9	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	10
11	EXISTING	--	--	--	15	1					0	0	1	20	--	--	--	SPARE	12
13	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	14
15	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	16
17	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	18
19	EXISTING	--	--	--	20	1	0	0											20
21	EXISTING	--	--	--	20	1			0	0			3	15	--	--	--	EXISTING	22
23	SPARE	--	--	--	20	1					0	0							24
25	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	26
27	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	28
29	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	30
31	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	32
33	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	34
35	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	36
37	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	38
39	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	40
41	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	42
					TOTAL LOAD (VA):		0 VA		0 VA		0 VA								
					TOTAL AMPS:		0.0 A		0.0 A		0.0 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
CIF - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS

TOTAL CONNECTED LOAD:	0.0 kVA
TOTAL ESTIMATED DEMAND:	0.0 kVA
TOTAL CONNECTED CURRENT:	0.0 A
TOTAL ESTIMATED DEMAND CURRENT:	0.0 A

PANELBOARD: RP5

BUS AMPS: 400.0 A
MAIN SIZE/TYPE: EXISTING
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: LDP
AIC RATING: EXISTING
SERVES: EXISTING
MOUNTING: SURFACE
LOCATION: STORAGE 121

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A		B		C		P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	RCPT-STORAGE 121		12	12	20	1	180	0					1	20	--	--	--	EXISTING	2
3	AUTOFLUSH (4)	GF	12	12	20	1			720	0			1	20	--	--	--	EXISTING	4
5	RCPT-TOILET 119 & 120		12	12	20	1					360	0	1	20	--	--	--	EXISTING	6
7	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	EXISTING	8
9	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	EXISTING	10
11	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	EXISTING	12
13	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	EXISTING	14
15	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	EXISTING	16
17	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	EXISTING	18
19	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	EXISTING	20
21	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	EXISTING	22
23	EXISTING	--	--	--	20	1					0	720	1	20	12	12		RCPT- M.A. OFFICE 132	24
25	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	EXISTING	26
27	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	EXISTING	28
29	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	EXISTING	30
31	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	EXISTING	32
33	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	EXISTING	34
35	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	EXISTING	36
37	EXISTING	--	--	--	20	1	0	0					1	20	--	--	--	EXISTING	38
39	EXISTING	--	--	--	20	1			0	0			1	20	--	--	--	EXISTING	40
41	EXISTING	--	--	--	20	1					0	0	1	20	--	--	--	EXISTING	42
					TOTAL LOAD (VA):		180 VA		720 VA		1056 VA								
					TOTAL AMPS:		1.5 A		6.7 A		9.5 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Other	720 VA	100.00%	720 VA
RCPT	1234 VA	100.00%	1234 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
CIF - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS

TOTAL CONNECTED LOAD:	1.9 kVA
TOTAL ESTIMATED DEMAND:	1.9 kVA
TOTAL CONNECTED CURRENT:	5.4 A
TOTAL ESTIMATED DEMAND CURRENT:	5.4 A

PANELBOARD: RP6

BUS AMPS: 125.0 A
MAIN SIZE/TYPE: EXISTING
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: LDP
AIC RATING: EXISTING
SERVES: EXISTING
MOUNTING: SURFACE
LOCATION: STORAGE 121

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A		B		C		P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	EXISTING	--	--	--	20	1	0	138					1	20	12	12		CORRIDOR 147/OFFICES LTG	2
3	EXISTING	--	--	--	20	1			0	460			1	20	12	12		TRANS VAULT/OFFICE/SOUND...	4
5	EXISTING	--	--	--	20	1					0	294	1	20			EX	GYM/AUDITORIUM LIGHTING	6
7	EXISTING	--	--	--	20	1	0	0					2	15	--	--	--	EXISTING	8
9	DRINKING FOUNTAIN	GF	12	12	20	1			360	0									10
11	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	12
13	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	14
15	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	16
17	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	18
19	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	20
21	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	22
23	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	24
25	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	26
27	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	28
29	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	30
31	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	32
33	SPARE	--	--	--	20	1			0	0			1	20	--	--	--	SPARE	34
35	SPARE	--	--	--	20	1					0	0	1	20	--	--	--	SPARE	36
37	SPARE	--	--	--	20	1	0	0					1	20	--	--	--	SPARE	38
39	SPARE	--	--	--	60	2			0	0			2	60	--	--	--	SPARE	40
41											0	0							42
					TOTAL LOAD (VA):		138 VA		820 VA		294 VA								
					TOTAL AMPS:		1.2 A		7.0 A		2.7 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	892 VA	125.00%	1115 VA
RCPT	360 VA	100.00%	360 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
CIF - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS

TOTAL CONNECTED LOAD:	1.3 kVA
TOTAL ESTIMATED DEMAND:	1.5 kVA
TOTAL CONNECTED CURRENT:	3.5 A
TOTAL ESTIMATED DEMAND CURRENT:	4.1 A

PANELBOARD: LP1

BUS AMPS: 400.0 A
MAIN SIZE/TYPE: EXISTING
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY:
AIC RATING: EXISTING
SERVES:
MOUNTING: SURFACE
LOCATION: ELECTRICAL 190

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A		B		C		P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	2
3	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	4
5	EXISTING	--	--	--	--	1					--	--	1	--	--	--	--	EXISTING	6
7	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	8
9	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	10
11	EXISTING	--	--	--	--	1					--	--	1	--	--	--	--	EXISTING	12
13	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	14
15	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	16
17	EXISTING	--	--	--	--	1					--	--	1	--	--	--	--	EXISTING	18
19	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	20
21	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	22
23	EXISTING	--	--	--	--	1					--	720	1	20	12	12		RCPT-OFFICE -152B	24
25	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	26
27	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	28
29	EXISTING	--	--	--	--	1					--	--	1	--	--	--	--	EXISTING	30
31	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	32
33	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	34
35	EXISTING	--	--	--	--	1					--	--	1	--	--	--	--	EXISTING	36
37	EXISTING	--	--	--	--	1	--	--					1	--	--	--	--	EXISTING	38
39	EXISTING	--	--	--	--	1			--	--			1	--	--	--	--	EXISTING	40
41	EXISTING	--	--	--	--	1					--	--	1	--	--	--	--	EXISTING	42
					TOTAL LOAD (VA):		0 VA		0 VA		720 VA								
					TOTAL AMPS:		0.0 A		0.0 A		6.0 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
RCPT	720 VA	100.00%	720 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
CIF - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS

TOTAL CONNECTED LOAD:	0.7 kVA
TOTAL ESTIMATED DEMAND:	0.7 kVA
TOTAL CONNECTED CURRENT:	2.0 A
TOTAL ESTIMATED DEMAND CURRENT:	2.0 A

4/4/2025 10:25:17 AM

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER 19695 OKLAHOMA LICENSED PROFESSIONAL ENGINEER
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION
16951 W CHEROKEE ST., TAHLEQUAH, OK 74465
E301
ELECTRICAL SCHEDULES

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
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ISSUE:

OTHER ISSUE DATES:
NO. DESCRIPTION DATE

SHEET NAME:
ELECTRICAL SCHEDULES

SHEET NUMBER:
E301

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DIVISION 26 - ELECTRICAL

SECTION 26 01 00 - GENERAL PROVISIONS

1.01 WORK INCLUDED:

A. THE WORK INCLUDED BY THIS DIVISION OF THE SPECIFICATIONS INCLUDES FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES, INCLUDING MINOR ITEMS OMITTED BUT NECESSARY TO CONSTRUCT AND INSTALL THE COMPLETE SYSTEMS DESCRIBED BY THE CONTRACT DOCUMENTS AND SPECIFIED BELOW. "CONTRACTOR" REFERS TO THE ELECTRICAL CONTRACTOR. THE GENERAL CONDITIONS OF THE SPECIFICATIONS APPLY AND ARE INCLUDED IN THIS PART OF THIS SECTION.
1. POWER DISTRIBUTION SYSTEM
2. INTERIOR AND EXTERIOR LIGHTING SYSTEM
3. TELEPHONE RACEWAY SYSTEM
4. DATA RACEWAY SYSTEM
5. FIRE ALARM SYSTEM
6. EMERGENCY LIGHTING SYSTEM
7. ELECTRIC HEATING SYSTEM

1.02 CODES AND REGULATIONS:

A. COMPLY WITH STATE AND LOCAL CODES, AND UTILITY COMPANY REGULATIONS. FINAL INTERPRETATIONS WILL BE MADE BY THE LOCAL INSPECTION AUTHORITY.

1.03 EQUIPMENT AND MATERIALS STANDARDS:

A. EQUIPMENT AND MATERIALS SHALL BE NEW, UL-LISTED FOR THE USE INTENDED, AND FREE FROM DAMAGE OR DEFECT. THEY SHALL COMPLY WITH THE LATEST INDUSTRY STANDARDS.

1.04 CONTRACT DRAWINGS:

A. ILLUSTRATE THE GENERAL DESIGN AND EXTENT OF PERFORMANCE REQUIRED. ALL DIMENSIONS AND LOCATIONS SHALL BE TAKEN FROM THE ARCHITECTURAL DRAWINGS. CONSULT WITH ARCHITECTURAL PLANS AND LOCATE ALL CEILING EQUIPMENT WHERE INDICATED ON REFLECTED CEILING PLANS.

1.05 SHOP DRAWINGS

A. SUBMIT PRODUCTS DATA AND/OR SHOP DRAWINGS AS REQUIRED BY THE ARCHITECT FOR THE FOLLOWING:
1. SWITCHES, DIMMERS, RECEPTACLES AND COVERPLATES
2. SWITCHBOARDS, PANELBOARDS
3. DISCONNECT SWITCHES
4. FUSES
5. LIGHT FIXTURES(PROVIDED BY OWNER)
6. FIRE ALARM SYSTEM AND EQUIPMENT

B. QUALITY OF SPECIFIC EQUIPMENT IS ESTABLISHED BY MANUFACTURER'S CATALOG NUMBER. ALTERATIONS CAUSED BY ANY SUBSTITUTION SHALL BE ACCOMPLISHED AT NO ADDITIONAL EXPENSE TO THE OWNER

C. MANUFACTURERS NOT LISTED MAY SUBMIT FOR ACCEPTANCE AS AN "APPROVED EQUIVALENT." REQUESTS FOR AN "EQUIVALENT" MEANS "APPROVED EQUIVALENT". FOUR COPIES OF SUCH SUBMITTAL MUST BE RECEIVED BY THE ENGINEER SEVEN (7) WORKING DAYS PRIOR TO BID DATE.

1.06 WARRANTY:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. DEFECTIVE EQUIPMENT OR MATERIALS SHALL BE REPAIRED OR REPLACED AT NO EXPENSE TO THE OWNER.

1.07 PRODUCT HANDLING AND CLEAN UP:

A. EQUIPMENT SHALL BE LEFT CLEAN AND UNDAMAGED, TO THE SATISFACTION OF THE OWNER. THE GENERAL CONDITIONS TAKE PRECEDENCE.

1.08 CUTTING AND REPAIRING:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, DRILLING, WELDING, AND REPAIR REQUIRED FOR HIS PORTION OF THE WORK. COORDINATE WITH THE ARCHITECT. THE GENERAL CONDITIONS TAKE PRECEDENCE.

1.09 OPERATING AND MAINTENANCE DATA:

A. PROVIDE THE OWNER WITH OPERATING AND MAINTENANCE INSTRUCTIONS(FOUR COPIES) REQUIRED FOR OPERATION OF ALL ELECTRICAL SYSTEMS. BIND THE WRITTEN INSTRUCTIONS IN A NOTEBOOK. THE GENERAL CONDITIONS TAKE PRECEDENCE.

1.10 PERMITS:

A. THE CONTRACTOR SHALL PAY FOR ALL FEES, TAXES, SECURE PERMITS, LICENSES, AND INSPECTIONS REQUIRED FOR THE PROJECT.

1.11 TEMPORARY SERVICES:

A. PROVIDE TEMPORARY POWER AND LIGHTING AS REQUIRED BY THE GENERAL CONTRACTOR, IN ACCORDANCE WITH OSHA AND N.E.C. STANDARDS.

1.12 COORDINATION

A. COORDINATE OUTLET DEVICE AND EQUIPMENT LOCATIONS WITH THE ARCHITECTURAL PLANS AND WORK OF OTHER TRADES. LOCATE ON HORIZONTAL AND VERTICAL LINES TO AVOID INTERFERENCE AND TO PROVIDE FUNCTIONAL USE OF ALL EQUIPMENT. VERIFY ELECTRICAL POWER CHARACTERISTICS BEFORE ORDERING FIXTURES, EQUIPMENT, ETC.

B. MECHANICAL WORK PERFORMED BY THIS CONTRACTOR WILL CONFORM TO THE STANDARDS OF DIVISION 21-23. MECHANICAL EQUIPMENT MOTORS AND CONTROLS SHALL BE FURNISHED, SET IN PLACE, AND WIRED ACCORDING WITH THE FOLLOWING SCHEDULE UNLESS OTHERWISE NOTED OR SPECIFIED.
MC = DIVISION 21-23
EC = DIVISION 26-28
OW = OWNER VENDOR

ITEM	FURN BY	SET BY	POWER WIRING	CONTROL WIRING
COMBINATION STARTERS	MC	EC	EC	MC
EQUIPMENT MOTORS	MC	MC	EC	--
MOTOR STARTERS & O.L. RELAYS	MC	EC	EC	MC
DISCONNECT SWITCHES	EC	EC	EC	MC
THERMAL OVERLOAD HEATERS (1)	EC	EC	EC	--
VARIABLE SPEED DRIVES	MC	EC	EC	MC
CONTROL RELAYS/TRANSFORMERS	MC	MC	EC	MC
TEMPERATURE CONTROL PANELS	MC	MC	EC	MC
TEMP. CONTROLS CONDUIT/WIRING	MC	MC	--	MC
ACTUATOR AND SOLENOID WIRING	MC	MC	--	MC
PUSHBUTTONS & PILOT LIGHTS	EC	EC	--	EC
ROOM THERMOSTATS	MC	MC	--	MC
THERMOSTATS: LINE VOLTAGE	MC	EC	EC	--

C. THE GENERAL GUIDELINE FOR THE DIVISION BETWEEN CONTROL(BY MC) WIRING AND POWER WIRING(BY EC) IS THAT POWER WIRING CARRIES THE CURRENT WHICH ENERGIZES A MOTOR, CONTROL WIRING DOES NOT. CONTROL WIRING MAY BE 120V, WHICH WOULD BE THE RESPONSIBILITY OF THE MC. CONTROL MOTORS ARE WIRED BY THE MC.

D. EXAMINE THE SITE AND BECOME AWARE OF EXISTING CONDITIONS, UTILITIES, AND OTHER ISSUES AFFECTING THE SATISFACTORY COMPLETION OF THE PROJECT.

1.13 DELIVERY, STORAGE, HANDLING:

A. PROVIDE NECESSARY HAULING AND HOISTING EQUIPMENT. PROTECT THE MATERIALS OF THIS DIVISION BEFORE, DURING, AND AFTER INSTALLATION.

1.14 AS-BUILT DRAWINGS:

A. KEEP A CURRENT SET OF "AS-BUILT" DRAWINGS ON SITE. UPON COMPLETION OF THE WORK, FURNISH ENGINEER WITH A REPRODUCIBLE PRINTS SHOWING THE "AS-BUILT" INSTALLATION.

1.15 PROJECT/SITE CONDITIONS:

A. VISIT THE SITE TO BECOME FAMILIAR WITH LOCATION AND THE VARIOUS CONDITIONS AFFECTING THE WORK, INCLUDING EXISTING UTILITIES.

2.01 ACCESS PANELS:

A. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND GENERAL CONTRACTOR SHALL INSTALL ACCESS PANELS WHERE REQUIRED FOR ACCESS TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL INCLUDE THE COST OF INSTALLATION IN HIS BID. ACCESS PANELS SHALL BE ADEQUATELY SIZED, OF A TYPE APPROVED BY THE ARCHITECT AND SHALL BE FIRE OR SMOKE-RATED AS REQUIRED.

3.01 EXCAVATION AND BACKFILLING:

A. VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATION; THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES. PROVIDE EXCAVATING AND BACKFILLING FOR ELECTRICAL WORK. BACKFILL IN 12" LAYERS, MECHANICALLY TAMP TO 95% PROCTOR STANDARDS. PROTECT ACCORDING TO OSHA STANDARDS. THE GENERAL CONDITIONS TAKE PRECEDENCE.

B. PROVIDE MARKER TAPE 12" ABOVE (OR AS DIRECTED BY GEOTECHNICAL ENGINEER) EXTERIOR UNDERGROUND SERVICE CONDUITS(POWER, TELEPHONE, TELEVISION).

3.02 START-UP PROCEDURES:

A. FOLLOW MANUFACTURER'S RECOMMENDED PROCEDURES IN STARTING UP THE EQUIPMENT; DAMAGE CAUSED DURING START-UP SHALL BE REPLACED AT NO EXPENSE TO THE OWNER.

3.03 HANGERS AND SUPPORTS:

A. SUPPORT CONDUIT AND EQUIPMENT FROM THE STRUCTURE TO PREVENT SAGGING, POCKETING, SWAYING, AND VIBRATIONS, AND ARRANGED TO PROVIDE FOR EXPANSION AND CONTRACTION. BRACKETS, CLAMPS, AND HANGERS SHALL BE STEEL OR COPPER OF A TYPE, ACCEPTABLE TO THE ENGINEER. CHAIN, PERFORATED IRON OR WIRE HANGERS ARE NOT PERMITTED.

B. CONDUIT ON THE ROOF WILL BE SUPPORTED ABOVE THE ROOF ON ROOF PADS. THE PADS SHALL BE APPROXIMATELY 6"WIDE BY 6" HIGH BY THE LENGTH AS REQUIRED. THEY SHALL BE MADE OF RECYCLED RUBBER, RATED FOR 500LBS/FT LOADING EACH. THE PADS WILL HAVE GALVANIZED STEEL "C" CHANNEL ATTACHED TO THE TOP, WHICH CAN ACCOMMODATE PIPE CLAMPS TO SECURE THE CONDUIT. THIS CONFIGURATION OF INDIVIDUAL PIPING PADS MAY BE EXPANDED TO INCLUDE TWO PADS SUPPORTING A TRAPEZE STYLE SUPPORT WHERE MULTIPLE CONDUITS ARE RACKED TOGETHER. THE PADS ARE C-SERIES MANUFACTURED BY COOPER B-LINE OR APPROVED EQUIVALENT.

3.04 SLEEVES AND PLATES

A. PROVIDE SLEEVES AND INSERTS FOR ALL CONDUIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF CUTTING AND PATCHING REQUIRED FOR PIPING WHERE SLEEVES AND INSERTS WERE NOT INSTALLED OR WHERE INCORRECTLY LOCATED. SHEETROCK JOINT COMPOUND MAY BE USED TO SEAL OPENINGS IN NON-RATED WALLS(INSULATION TO BE CONTINUOUS THROUGH WALLS.

B. DRILL HOLES AS REQUIRED FOR THE INSTALLATION OF HANGERS REQUIRED FOR THE MECHANICAL WORK.

C. WHERE SLEEVES ARE PLACED IN EXTERIOR WALLS BELOW GRADE, THE SPACE BETWEEN THE PIPE OR CONDUIT AND THE SLEEVES SHALL BE MADE COMPLETELY WATER-TIGHT.

D. SEAL ALL PIPING PASSING THROUGH FIRE-RATED CONSTRUCTION WITH APPROVED MATERIAL TO MAINTAIN AIR-TIGHT, FIRE-RATED INTEGRITY, WITH A U.L. LISTED ASSEMBLY COMPATIBLE WITH THE WALL OR FLOOR ASSEMBLY BEING PENETRATED.

SECTION 26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL

1.01 GENERAL:

A. PROVIDE COMPLETE SYSTEMS OF CONDUCTORS AND RACEWAYS USING CONDUIT AND/OR CABLE ASSEMBLIES APPROPRIATE TO THE FUNCTION AND LOCATION, AND SPECIFICALLY APPROVED IN CHAPTER THREE OF THE N.E.C.

2.01 CONDUIT:

A. THE FOLLOWING RACEWAYS ARE APPROVED FOR USE ON THIS PROJECT, WHERE APPROVED BY THE N.E.C.:
1. EMT: ELECTRICAL METALLIC TUBING, GALVANIZED
2. GRC: RIGID STEEL CONDUIT, GALVANIZED
3. PVC: POLYVINYL CHLORIDE CONDUIT, SCHEDULE 40
4. IMC: INTERMEDIATE METAL CONDUIT, GALVANIZED

2.02 CABLE ASSEMBLIES:

A. THE FOLLOWING CABLE ASSEMBLIES MAY BE USED IN THE POWER DISTRIBUTION SYSTEM IN CONCEALED LOCATIONS, WHERE APPROVED BY THE N.E.C.:
MC: METAL CLAD CABLE(FOR LIGHT CONNECTIONS ONLY, WHERE ALLOWED BY AHJ.)

2.03 BOXES:

A. PROVIDE GALVANIZED STEEL OUTLET AND JUNCTION BOXES, EXCEPT WHERE OTHERWISE INDICATED. BOXES SHALL BE A MINIMUM 4" SQUARE OR OCTAGONAL, DEPTH AS REQUIRED. PROVIDE WEATHER-PROOF TYPE CAST BOXES WITH GASKET AND CAST COVERPLATE FOR EXTERIOR OUTLETS OR WET LOCATIONS. OUTLET BOXES SHALL BE OF THE PROPER TYPE AND DESIGN FOR THE FIXTURE OR DEVICE TO BE INSTALLED. THROUGH THE WALL BOXES ARE NOT PERMITTED. PROVIDE PLASTER OR TILE RINGS FOR ALL FLUSH OUTLETS INSTALLED WHERE REQUIRED. BOXES SHALL BE MANUFACTURED BY RACO, STEEL CITY, NATIONAL OR EQUIVALENT.

B. INTERIOR FLOOR BOXES SHALL BE NON-METALLIC OR CAST STEEL IN CONCRETE OR SLAB ON GRADE INSTALLATIONS, AND SHALL BE RATED FOR THE USE. FLOOR BOXES ABOVE GRADE SHALL BE NON-METALLIC OR STAMPED STEEL, RATED FOR THE USE. MULTI-GANG BOXES SHALL BE USED WHERE SPECIFIED. COVERPLATES SHALL BE POLISHED BRASS WITH 'FLIP LIDS' FOR RECEPTACLES AND CONNECTORS. PROVIDE CARPET FLANGES WHERE APPROPRIATE.

2.04 CONDUCTORS:

A. PROVIDE A COMPLETE SET OF POWER CONDUCTORS, RATED 600 VOLTS, OF THE QUANTITY, SIZE AND TYPE REQUIRED FOR THE FUNCTION.
1. CONDUCTORS SHALL BE COPPER, EXCEPT WHERE SPECIFICALLY NOTED. CONDUCTORS SHALL BE SOLID FOR WIRE SIZES NO. 10 AWG AND SMALLER; STRANDED FOR NO. 8 AWG AND LARGER.

2.05 INSULATION:

A. PROVIDE WIRE WITH THE FOLLOWING MINIMUM INSULATION STANDARDS:
1. BRANCH CIRCUITS, PANELBOARD FEEDERS, SERVICE ENTRANCE CONDUCTORS: THWN-2, XHHW(90C). THE CONDUCTORS SHALL BE APPLIED USING THE 75C RATING.
2. CONNECTIONS TO FIXTURE BALLASTS, AND WIRING RUNS IN OR THROUGH FIXTURE WIRING CHANNELS: INSULATIONS LISTED IN TABLE 402.5 OF THE N.E.C., EXCEPT FOR WIRING MADE WITH ASBESTOS.
3. CORD CONNECTIONS: CORDS LISTED IN TABLE 400.4 OF THE N.E.C., EXCEPT FOR WIRING MADE WITH ASBESTOS.

2.06 LUGS:

A. LUGS FOR ALL EQUIPMENT WILL BE RATED FOR THE USE. LUGS WILL BE SUITABLE FOR COPPER OR ALUMINUM CONDUCTORS, RATED FOR 75C.

2.07 SWITCHES AND RECEPTACLES:

A. PROVIDE SPECIFICATION GRADE DEVICES THROUGHOUT. SWITCHES AND DUPLEX RECEPTACLES MAY BE COMMERCIAL GRADE. SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, RATED 20 AMP, 120/277 VOLT, AC. RECEPTACLES SHALL BE SPECIFICATION GRADE DUPLEX CONVENIENCE 125 VOLTS, 2 POLE, 3 WIRE, U GROUND SLOT. GROUNDED, EXCEPT AS NOTED. MEETING NEMA STANDARDS, PUBLICATION WD-1-1971.
1. SINGLE, EXCEPT AS NOTED:
A. 20 AMP STRAIGHT BLADE,
b. 125 VOLT, 2 POLE, 3 WIRE, GROUNDED.
2. SPECIAL USE: NONINTERCHANGEABLE TYPES AND RATINGS
3. GROUND FAULT INTERRUPTER RECEPTACLES:
A. NON-FEED-THRU TYPE.
4. DEVICES SHALL BE MANUFACTURED BY HUBBELL, LEVITON, GENERAL ELECTRIC, BRYANT, SLATER, PASS & SEYMOUR, INC., SIERRA, LUTRON, OR ARROW-HART.

B. EXCEPT WHERE NOTED, PLATES SHALL BE PLASTIC, COLOR TO MATCH THE DEVICES WITH MATCHING SCREWS FOR RECEPTACLES, SWITCHES, TELEPHONE, AND TV OUTLETS. PROVIDE BLANK COVERPLATES FOR UNUSED OUTLETS. COVERPLATES FOR MULTI-GANG BOXES SHALL BE SIZED FOR THE BOX IT COVERS.

C. FINISHES AND COLORS OF DEVICES AND THEIR COVERPLATES TO BE VERIFIED WITH ARCHITECT.

2.08 DIMMERS:

A. INCANDESCENT DIMMERS SHALL BE THE LINEAR SLIDE-TYPE WITH ALUMINUM FINS. DIMMERS SHALL BE LUTRON NOVA SERIES OR EQUIVALENT.

B. FLUORESCENT DIMMERS SHALL BE THE LINEAR SLIDE-TYPE WITH ALUMINUM FINS. THE DIMMERS SHALL BE CLOSELY COORDINATED WITH THE BALLAST TYPE OF THE SPECIFIC FIXTURE BEING CONTROLLED AND MUST BE FIELD COORDINATED BEFORE ORDERING. DIMMERS SHALL BE LUTRON NOVA SERIES OR EQUIVALENT.

C. LED DIMMERS MUST BE SELECTED BY, OR SPECIFICALLY APPROVED BY, THE SPECIFIC FIXTURE MANUFACTURER OR SUPPLIER. SLIDE TYPE DIMMERS ARE PREFERRED WHERE AVAILABLE.

D. WHEN SWITCHES AND DIMMERS ARE LOCATED SIDE BY SIDE, SWITCHES SHALL HAVE IDENTICAL APPEARANCE AS DIMMERS. DIMMERS SHALL IN NO CASE HAVE HEAT FINS REMOVED OR MODIFIED.

E. DIMMERS SHALL BE MANUFACTURED BY LUTRON, HUNT, PRESCOLITE, OR EQUIVALENT

3.01 WIRING:

A. THE DRAWINGS ARE SCHEMATIC IN NATURE; ALTERNATIVE WIRING PATHS, DIFFERENT CONDUIT FILL, ETC, INSTALLED IN CONFORMANCE WITH THE N.E.C. ARE ALLOWED. CONDUCTORS MUST BE DERATED PER CODE.

B. BRANCH CIRCUITS SHALL USE MINIMUM NO. 12 AWG WIRING FOR BRANCH CIRCUITS, PROTECTED BY 20 AMPERE CIRCUIT BREAKERS. CONTROL WIRING MAY BE NO. 14 MINIMUM. IF DISTANCE FROM PANEL TO FIRST OUTLET IS 75 FEET OR GREATER (FOR 120-VOLT CIRCUITS) OR 150 FEET OR GREATER (FOR 277-VOLT CIRCUITS), PROVIDE NO. 10 AWG.

C. USE PVC IN EARTH OR IN SLABS IN CONTACT WITH EARTH. OUTSIDE THE BUILDING, INSTALL A MINIMUM OF 30" BELOW FINISHED GRADE.

D. WHERE MECHANICAL DAMAGE OCCUR, USE GALVANIZED RIGID STEEL OR INTERMEDIATE METAL CONDUIT.

E. ELECTRIC METALLIC TUBING MAY BE USED IN ALL APPLICATIONS, EXCEPT WHERE PROHIBITED BY CODE OR OTHERWISE NOTED.

F. DO NOT INSTALL EXPOSED CONDUIT IN AREAS OPEN TO THE PUBLIC. EXPOSED CONDUIT MAY BE INSTALLED AT SURFACE-MOUNTED EQUIPMENT AND OTHER LOCATIONS ACCEPTABLE TO THE ARCHITECT. RUN EXPOSED CONDUIT PARALLEL TO, AND AT RIGHT ANGLES WITH, THE BUILDING LINES.

G. DIRECT BURIAL WIRING SHALL NOT BE USED.

H. USE FLEXIBLE METALLIC CONDUIT FOR CONNECTIONS TO MOTORS, FIXTURES, OR OTHER EQUIPMENT WHERE VIBRATION IS ENCOUNTERED. PROVIDE SEALTITE FLEXIBLE METALLIC CONDUIT IN WET AREAS SUCH AS KITCHENS, EQUIPMENT ROOMS, ON ROOFS, ETC.

I. PROVIDE A GROUND WIRE IN NON-METALLIC CONDUIT AND FLEXIBLE CONDUIT. GROUND WIRES SHALL BE INCREASED IN SIZE WHERE CIRCUIT WIRING IS INCREASED FOR VOLTAGE DROP.

J. MULTI-WIRE BRANCH CIRCUITS SHALL UTILIZE HANDLE TIES ON BREAKERS, OR OTHER GROUPED DISCONNECTING MEANS PER NEC 210.4(B).

3.02 OUTLET BOXES, DEVICES AND FITTINGS:

A. INSTALL RECEPTACLE AND TELEPHONE OUTLETS 18" TO CENTER-LINE ABOVE FLOOR IN GENERAL LOCATIONS; INSTALL AT SWITCH HEIGHT WHERE SHOWN IN COMBINATION; INSTALL 42"AFF IN MECHANICAL EQUIPMENT ROOMS. UNLESS NOTED OTHERWISE.

B. INSTALL RECEPTACLES VERTICALLY, GROUND POLE DOWN.

C. INSTALL SWITCH OUTLETS 42" ABOVE FLOOR ON LATCH SIDE OF DOOR. VERIFY DOOR SWING PRIOR TO INSTALLATION. USE GANG BOXES FOR MULTIPLE-DEVICE INSTALLATION AS REQUIRED.

D. INSTALL OUTLETS SHOWN ON THE DRAWINGS "BACK-TO-BACK" WITH A MINIMUM OF 6" LATERAL SEPARATION BETWEEN THEM.

SECTION 26 20 00 - SERVICE AND DISTRIBUTION

1.01 SERVICE ENTRANCE:

A. POWER WILL BE AVAILABLE FROM THE SECONDARY SIDE OF TRANSFORMER(S) PROVIDED BY THE UTILITY COMPANY. REFER TO ELECTRICAL DRAWINGS FOR SERVICE SIZE. GENERAL ARRANGEMENT OF THE SERVICE EQUIPMENT IS SHOWN ON THE DRAWINGS. LOAD BALANCE THE ENTIRE SYSTEM TO WITHIN 15% PER PHASE. ALL SECONDARY AND FEEDER CONDUCTORS TO BE COPPER.

1.02 GROUNDING:

A. PROVIDE A COMPLETE GROUNDING SYSTEM IN ACCORDANCE WITH SECTION 250 OF THE N.E.C.

B. SUPPLEMENTAL ELECTRODE TO BE INSTALLED UNLESS RESISTANCE OF 25 OHMS TO EARTH CAN BE DOCUMENTED.

2.01 PANELBOARDS:

A. PROVIDE CIRCUIT BREAKER-TYPE PANELBOARDS AS DETAILED ON THE DRAWINGS. PROVIDE SEPARATE GROUND BUS. PROVIDE FRONTS WITH DOOR AND LATCH WITH LOCKS KEYED ALIKE. INSTALL PANELS 6'6" ABOVE FINISHED FLOOR TO TOP OF TRIM. WHERE PANELS ARE MOUNTED SIDE BY SIDE, ALIGN TOPS OF PANELS. MOUNT A TYPED DIRECTORY, IDENTIFYING EACH CIRCUIT, IN A DIRECTORY FRAME. PROVIDE TYPED SOURCE LABEL IDENTIFYING SOURCE OF POWER FOR EACH PANEL. INSTALL TRIMS AND DOORS WITH PRIMER COATS IN FINISHED AREAS. PROVIDE ONE SPARE 3/4" CONDUIT FOR EACH 3 UNUSED POLES IN FLUSH-MOUNTED PANELBOARDS; EXTEND FROM TO AN ACCESSIBLE POINT ABOVE A HUNG CEILING; CAP AND IDENTIFY.

B. BREAKERS SHALL BE FULL WIDTH, THERMAL MAGNETIC, BOLT-ON TYPE. PROVIDE MULTI-POLE BREAKERS WITH COMMON TRIP AND SINGLE OPERATING HANDLE; HANDLE TIES ARE ACCEPTABLE FOR MULTI-WIRE BRANCH CIRCUITS.
1. BREAKERS SERVING RESTAURANT KITCHENS AND BARS, OR WHERE REQUIRED BY CODE, SHALL BE GFCI BREAKERS. GFCI RECEPTACLES MAY BE USED ONLY WHERE THE RECEPTACLES ARE NOT LOCATED BEHIND EQUIPMENT.
2. HACR BREAKERS SHALL BE USED FOR HVAC EQUIPMENT IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER.
3. HID BREAKERS SHALL BE USED WHERE HID OR FLUORESCENT FIXTURES ARE NORMALLY PANEL SWITCHED.

C. LUGS ON MAINS AND BRANCH BREAKERS SHALL BE RATED FOR 75C OR 60C, COPPER OR ALUMINUM WIRING.

D. PANELBOARDS(240VAC) SHALL BE SQUARE D TYPE NQOD OR EQUIVALENT BY I.T.E., G.E., OR CUTLER HAMMER.

2.02 CURRENT TRANSFORMER CABINETS:

A. PROVIDE CURRENT TRANSFORMER CABINETS, INCLUDING INTERIOR LUGS AND BUSSING, AS REQUIRED TO ACCOMMODATE THE REQUIREMENTS OF THE UTILITY COMPANY. THE CABINETS SHALL BE U.L. LISTED, WEATHERPROOF AS REQUIRED. ALL LUGS SHALL BE RATED FOR 75C OR 60C WIRING.

2.03 SAFETY SWITCHES:

A. PROVIDE HEAVY DUTY, ENCLOSED, FUSIBLE AND NON-FUSIBLE SAFETY SWITCHES AS INDICATED ON THE PLANS. ALL LUGS SHALL BE RATED FOR 75C OR 60C COPPER OR ALUMINUM WIRING. PROVIDE ENCLOSURES SUITABLE FOR THE SURROUNDING AREA AND CONDITIONS. LABEL SWITCHES FOR FEEDER OR MOTOR SUPPLIED. THE SWITCHES SHALL BE MANUFACTURED BY SQUARE D, I.T.E., G.E., CUTLER HAMMER, OR EQUIVALENT.

2.04 FUSES:

A. PROVIDE POWER FUSES OF THE TIME-DELAY TYPE UNLESS OTHERWISE INDICATED. FUSES SHALL BE MANUFACTURED BY BUSSMAN, GOULD SHAWMUT, OR EQUIVALENT. PROVIDE ONE (1) COMPLETE SET OF FUSES FOR FUSE-HOLDING DEVICES, SIZED ACCORDING TO THE MOTOR AND/OR CONDUCTOR TO BE PROTECTED. PROVIDE A HINGED COVER CABINET FOR STORAGE OF SPARE FUSES: THREE SPARE FUSES OF EACH FUSE SIZE.

3.01 WIRING FOR EQUIPMENT:

A. PROVIDE BRANCH CIRCUITS, FEEDERS, JUNCTION BOXES, DISCONNECT SWITCHES, ETC AS REQUIRED FOR A COMPLETE SYSTEM; MAKE POWER CONNECTIONS TO MOTORS AND CONTROLS FOR HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, OWNER FURNISHED AND FIRE PROTECTION EQUIPMENT AS REQUIRED.

B. KITCHEN EQUIPMENT. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DRAWINGS FOR FINAL SIZING, LOCATIONS, AND ROUGH-IN HEIGHTS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CIRCUITS AND CONNECTIONS TO KITCHEN ELECTRICAL EQUIPMENT. SEALTITE CONDUIT AND FITTINGS SHALL BE USED ON RUNS INSIDE REFRIGERATED BASES AND AT DISH TABLES.

C. PROVIDE CONNECTIONS TO HOOD FIRE SUPPRESSION SYSTEM(S). THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR WIRING THE INTERLOCK CONTROLS FOR HOOD RELATED AIR HANDLING EQUIPMENT, INCLUDING LOW VOLTAGE INTERLOCKS, AND INTERLOCKS WITHIN BUILDING HVAC EQUIPMENT WHERE REQUIRED.

SECTION 26 50 00 - LIGHTING

1.01 LIGHT FIXTURE LOCATIONS:

A. LIGHT FIXTURES SHOWN ON THE DRAWINGS REPRESENT GENERAL ARRANGEMENTS ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR MORE EXACT LOCATIONS. COORDINATE LOCATION WITH ALL OTHER TRADES BEFORE INSTALLATION TO AVOID CONFLICTS. COORDINATE LIGHT FIXTURE LOCATIONS WITH FINAL INSTALLED PIPING AND DUCTWORK LAYOUTS.

1.02 LIGHT FIXTURES:

A. LIGHT FIXTURE SCHEDULE ON ELECTRICAL DRAWINGS IS FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS/SPECIFICATIONS FOR LIGHTING FIXTURE INFORMATION.

B. REFER TO ARCHITECTURAL SPECIFICATIONS AND LIGHT FIXTURE SCHEDULE FOR ALL LAMP REQUIREMENTS.

C. LED DRIVERS SHALL COMPLY WITH NRTL REQUIREMENTS AND ANSI C82.77; DESIGNED FOR TYPE AND QUANTITY OF LAMPS SERVED; SOUND LEVELS NOT EXCEEDING CLASS A AMBIENT NOISE LEVELS; LAMP CURRENT CREST FACTOR OF 1.6 OR LESS; 90-PERCENT POWER FACTOR OR GREATER; LINE TRANSIENT WITHSTAND RATINGS AS DEFINED IN ANSI/IEEE C62.41, CATEGORY A.; TOTAL HARMONIC DISTORTION LESS THAN 20 PERCENT; SHALL TOLERATE SUSTAINED OPEN CIRCUIT AND SHORT CIRCUIT OUTPUT CONDITIONS WITHOUT DAMAGE; SHALL NOT OVER-DRIVE LEDs AT A CURRENT OR VOLTAGE ABOVE LED RATED VALUES; ROHS COMPLIANT; MEETS EN610000 REQUIREMENTS FOR INPUT HARMONICS.

D. FOR DIMMABLE LIGHT FIXTURES PROVIDE BOTH CONTROL AND POWER WIRING BETWEEN LIGHT FIXTURE AND CONTROL DEVICE AND BETWEEN LIGHT FIXTURES. QUANTITY OF LOW VOLTAGE AND LINE VOLTAGE WIRING AND WIRE TYPE SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE LIGHT FIXTURE AND CONTROL DEVICE DIMMING TYPES FOR COMPATIBILITY.

E. INSTALL LIGHTING FIXTURES AT LOC

1.03 EMERGENCY LIGHTING UNITS AND EXIT SIGNS:

A. DESCRIPTION:
SELF-CONTAINED UNITS COMPLYING WITH UL 924.

B. BATTERY:
SEALED, MAINTENANCE-FREE, LEAD-ACID TYPE. THE BATTERIES SHALL BE OF SUITABLE RATING AND CAPACITY TO SUPPLY AND MAINTAIN AT NOT LESS THAT 87-1/2 PERCENT OF AT LEAST 1-1/2 HOURS, OR THE UNIT EQUIPMENT SHALL SUPPLY AND MAINTAIN NOT LESS THAN 60 PERCENT OF THE INITIAL EMERGENCY ILLUMINATION FOR A PERIOD OF AT LEAST 1-1/2 HOURS.

C. CHARGER:
FULLY AUTOMATIC, SOLID-STATE TYPE WITH SEALED TRANSFER RELAY.

D. OPERATION:
RELAY AUTOMATICALLY TURNS LAMP ON WHEN POWER SUPPLY CIRCUIT VOLTAGE DROPS TO 80 PERCENT OF NOMINAL VOLTAGE OR BELOW. LAMP AUTOMATICALLY DISCONNECTS FROM BATTERY WHEN VOLTAGE APPROACHES DEEP-DISCHARGE LEVEL. WHEN NORMAL VOLTAGE IS RESTORED, RELAY DISCONNECTS LAMP FROM BATTERY IS AUTOMATICALLY RECHARGED AND FLOATED ON CHARGER. TEST PUSH BUTTON IN UNIT HOUSING SIMULATES LOSS OF NORMAL POWER AND DEMONSTRATES UNIT OPERABILITY. LED INDICTOR LIGHT INDICATES NORMAL POWER ON. NORMAL GLOW INDICATES TRICKLE CHARGE, AND BRIGHT GLOW INDICATES CHARGING AT END OF DISCHARGE CYCLE.

2.01 INSTALLATION OF LIGHTING FIXTURES:

A. INSTALL LIGHTING IN ACCORDANCE WITH FIXTURE MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC, NECA'S "STANDARD OF INSTALLATION", NEMA STANDARDS, AND WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT LIGHTING FIXTURES FULFILL REQUIREMENTS. COORDINATE WITH OTHER ELECTRICAL WORK AS APPLICABLE TO PROPERLY INTERFACE INSTALLATION OF INTERIOR LIGHTING FIXTURES WITH OTHER WORK. FASTEN FIXTURES SECURELY TO INDICATED STRUCTURAL SUPPORT.

B. INTERIOR LIGHTING FIXTURES:
SECURELY SUPPORT AND ANCHOR FIXTURES AND OUTLET BOXES. WHERE LIGHTING FIXTURES ARE INSTALLED IN A LAY-IN GRID CEILING SYSTEM, SECURE FIXTURES TO TEES BY INSTALLING EARTHQUAKE CLIPS AT EACH CORNER OF THE FIXTURE. PROVIDE SUPPORTS REQUIRED, INCLUDING STRUCTURAL MEMBERS IF NEEDED. PROVIDE SEPARATE JUNCTION BOXES AND WIRE TO RECESSED FIXTURES IN FLEXIBLE CONDUIT WITH TYPE AF WIRE, UNLESS ACCEPTABLE PRE-WIRED FIXTURES ARE USED. CONCEAL OPENINGS CUT IN CEILINGS FOR RECESSED FIXTURES WITH FIXTURE TRIM INSTALLED. COORDINATE INSTALLATION OF RECESSED FIXTURES WITH CEILING INSTALLER.

C. EXTERIOR LIGHTING FIXTURES:
EXTERIOR LIGHTING FIXTURES, RACEWAYS, EQUIPMENT, ETC. SHALL BE WEATHER-PROOF AND SUITABLE FOR TEMPERATURES DOWN TO -20F.

2.02 EXTERIOR/INTERIOR LIGHTING CONTROLS:

A. PROVIDE COMBINATION PHOTO-CELL TIME SWITCH, LIGHTING CONTROL SYSTEM AS SHOWN ON DRAWINGS. INCLUDE CONTACTORS, PHOTO-ELECTRIC CELLS, TIME SWITCHES, TRANSFORMERS, SELECTOR SWITCHES, RELAYS, WIRING, ETC. AS REQUIRED.

B. MOUNT PHOTO-ELECTRIC CELL FACING NORTH ON ROOF IN A PROTECTED AREA, SHIELDED SO ARTIFICIAL LIGHT DOES NOT AFFECT PROPER OPERATION. SET PHOTO-ELECTRIC CELLS TO CLOSE THEIR RELAY CONTACTS AT APPROXIMATELY TWO (2) FOOT CANDLES.

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DIVISION 27 - COMMUNICATIONS

SECTION 27 20 00 - COMPUTER SYSTEM

1.01 DESCRIPTION:
A. PROVIDE A COMPLETE SYSTEM OF RACEWAYS, PULL BOXES, OUTLET BOXES, AND TERMINALS. RACEWAYS SHALL FORM A COMPLETE PATH UP WALLS AND ACROSS INACCESSIBLE CEILINGS. COMPUTER WIRING MAY BE RUN WILD ABOVE ACCESSIBLE CEILING.
2.01 CONDUIT:
A. CONDUIT IN THE BUILDING SHALL BE GALVANIZED EMT, WITH PLASTIC BUSHINGS ON ENDS WHICH ARE NOT TERMINATED IN A BOX.
2.02 WALL OUTLETS:
A. WALL OUTLETS SHALL BE 4" SQUARE PRESSED STEEL BOXES, WITH SINGLE GANG PLASTER RING. CONNECTORS AND COVERPLATES ARE TO BE PROVIDED BY THE COMPUTER SYSTEM INSTALLER.
B. PROVIDE AN ALTERNATE PRICE FOR PLASTER RINGS AT OUTLET LOCATION, AND PULLSTRINGS IN WALL UP TO ACCESSIBLE CEILING, IN LIEU OF CONDUIT AND BOXES.
2.03 WIRING:
A. WIRING SHALL BE PROVIDED BY THE COMPUTER SYSTEM INSTALLER. WIRING RUN WILD IN AIR PLENUMS SHALL BE TEFLON COATED OR SIMILARLY RATED FOR THE APPLICATION.
3.01 EXECUTION:
A. PROVIDE PULL STRINGS IN ALL CONDUIT.
B. FIELD VERIFY ALL COMPUTER OUTLET LOCATIONS. FINAL LOCATIONS AND HEIGHTS SHALL BE AS DESIGNATED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.

SECTION 27 30 00 - TELEPHONE SYSTEM

1.01 DESCRIPTION:
A. PROVIDE A COMPLETE SYSTEM OF RACEWAYS, PULL BOXES, OUTLET BOXES, AND TERMINALS. RACEWAYS SHALL FORM A COMPLETE PATH UP WALLS AND ACROSS INACCESSIBLE CEILINGS. TELEPHONE WIRING MAY BE RUN WILD ABOVE ACCESSIBLE CEILING.
B. SYSTEM WILL INCLUDE EXTERIOR UNDERGROUND CONDUIT ROUTED TO A POINT OF CONNECTION(USUALLY A PEDESTAL OR A POWER POLE) AS DIRECTED BY THE TELEPHONE COMPANY. EXTERIOR CONDUIT SHALL BE SIZED AND INSTALLED AS DIRECTED BY THE TELEPHONE COMPANY.
2.01 CONDUIT:
A. CONDUIT IN THE BUILDING SHALL BE GALVANIZED EMT, WITH PLASTIC BUSHINGS ON ENDS WHICH ARE NOT TERMINATED IN A BOX. EXTERIOR UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC WITH SOLVENT JOINTS.
B. WALL OUTLETS SHALL BE 4" SQUARE PRESSED STEEL BOXES, WITH SINGLE GANG PLASTER RING. CONNECTORS AND COVERPLATES ARE TO BE PROVIDED BY THE TELEPHONE SYSTEM INSTALLER.
C. PROVIDE AN ALTERNATE PRICE FOR PLASTER RINGS AT OUTLET LOCATION, AND PULLSTRINGS IN WALL UP TO ACCESSIBLE CEILING, IN LIEU OF CONDUIT AND BOXES.
2.02 TERMINALS:
A. TELEPHONE TERMINALS SHALL BE CONSTRUCTED OF 1/2" THICK, FIRE RESISTANT, INTERIOR FINISH PLYWOOD, PAINTED WHITE. SIZED AS SHOWN OR REQUIRED. PROVIDE POWER AND GROUND CONNECTION AS REQUIRED OR SHOWN ON THE PLANS. TELEPHONE BOARD TO BE MOUNTED A MAXIMUM 10'0" ABOVE FINISHED FLOOR OR PER LOCAL TELEPHONE COMPANY REQUIREMENTS.
2.03 WIRING:
A. WIRING SHALL BE PROVIDED BY THE TELEPHONE SYSTEM INSTALLER. WIRING RUN IN AIR PLENUMS SHALL BE TEFLON COATED OR SIMILARLY RATED FOR THE APPLICATION.
3.01 EXECUTION:
A. PROVIDE PULL STRINGS IN ALL CONDUIT.
B. EXTERIOR UNDERGROUND CONDUIT SHALL USE LONG RADIUS, SWEEP ELLS. THESE ELBOWS SHALL BE SCHEDULE 80 PVC, OR PVC COATED GRC CONDUIT.
C. FIELD VERIFY ALL TELEPHONE OUTLET LOCATIONS. FINAL LOCATIONS AND HEIGHTS SHALL BE AS DESIGNATED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.

SECTION 27 40 00 - VIDEO SYSTEM

1.01 DESCRIPTION:
A. PROVIDE A COMPLETE SYSTEM OF RACEWAYS, PULL BOXES, OUTLET BOXES, AND TERMINALS. RACEWAYS SHALL FORM A COMPLETE PATH UP WALLS AND ACROSS INACCESSIBLE CEILINGS. VIDEO WIRING MAY BE RUN WILD ABOVE ACCESSIBLE CEILING.
2.01 CONDUIT:
A. CONDUIT IN THE BUILDING SHALL BE GALVANIZED EMT, WITH PLASTIC BUSHINGS ON ENDS WHICH ARE NOT TERMINATED IN A BOX. EXTERIOR UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PVC RADIUS ELBOWS) WITH SOLVENT JOINTS.
2.02 WALL OUTLETS:
A. WALL OUTLETS SHALL BE 4" SQUARE PRESSED STEEL BOXES, WITH SINGLE GANG PLASTER RING. CONNECTORS AND COVERPLATES ARE TO BE PROVIDED BY THE VIDEO SYSTEM INSTALLER. PROVIDE AN ALTERNATE PRICE FOR PLASTER RINGS AT OUTLET LOCATION, AND PULLSTRINGS IN WALL UP TO ACCESSIBLE CEILING, IN LIEU OF CONDUIT AND BOXES.
B. TERMINAL SHALL CONTAIN ONE TYPE F CONNECTOR MOUNTED ON A BRUSHED ALUMINUM PLATE. "CATV" WILL BE ENGRAVED ON PLATE ABOVE EACH CONNECTOR IN 1/*4 HIGH BLACK LETTERS.
2.03 WIRING:
A. WIRING SHALL BE PROVIDED BY THE VIDEO SYSTEM INSTALLER. WIRING RUN IN AIR PLENUMS SHALL BE TEFLON COATED OR SIMILARLY RATED FOR THE APPLICATION.
3.01 EXECUTION:
A. PROVIDE PULL STRINGS IN ALL CONDUIT.
B. EXTERIOR UNDERGROUND CONDUIT SHALL USE LONG RADIUS, SWEEP ELLS. THESE ELBOWS SHALL BE SCHEDULE 80 PVC CONDUIT.
C. FIELD VERIFY ALL TELEVISION OUTLET LOCATIONS. FINAL LOCATIONS AND HEIGHTS SHALL BE AS DESIGNATED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

SECTION 28 10 00 - SECURITY ALARM SYSTEM

1.01 DESCRIPTION:
A. PROVIDE A COMPLETE DOOR SECURITY ALARM SYSTEM TO AUDIBLY AND VISUALLY ANNUNCIATE DOOR ENTRY/EXIT AT A MASTER CONTROL PANEL. THE DOOR ALARMS MAY BE INDIVIDUALLY RESET AT THE MASTER CONTROL PANEL AS WELL AS BY-PASSED DURING CERTAIN HOURS OF THE DAY.
2.01 ANNUNCIATOR PANEL:
A. THE ANNUNCIATOR PANEL SHALL BE COMPRISED OF (3) 4 DOOR MODULES EACH WITH INDIVIDUAL DOOR RESET/BYPASS PUSHBUTTONS WITH ASSOCIATED LED'S. THE ANNUNCIATOR SHALL CONTAIN A COMMON CALL PLACED LED, AND ALARM TONE SPEAKER, MOMENTARY ACTION TONE SILENCING PUSH BUTTON. THE TONE SILENCING CIRCUITRY SHALL AUTOMATICALLY RESET AFTER THE ALARM IS RESET. EACH BUTTON CAP SHALL BE MARKED WITH THE DOOR IDENTITY. THE PANEL SHALL BE CONSTRUCTED OF ANODIZED ALUMINUM, SUPPLIED WITH A RECESSED MOUNTING FRAME.
2.02 CONTROL UNIT:
A. THE CONTROL UNIT SHALL INCLUDE A VOLUME CONTROL AND BE CONFIGURED FOR PULSATING ALARM SIGNAL. A POWER SUPPLY SHALL BE PROVIDED IN CONJUNCTION WITH THE CONTROL UNIT.
2.03 DOOR CONTACTS:
A. DOOR CONTACTS SHALL BE NORMALLY CLOSED MECHANICAL DOOR CONTACTS.
2.04 WIRING:
A. WIRING SHALL BE LOW VOLTAGE 18 AWG, RUN PER THE MANUFACTURERS INSTRUCTIONS. WIRING MAY BE RUN WILD ABOVE ACCESSIBLE CEILINGS, IN RACEWAYS IN INACCESSIBLE LOCATIONS.
2.05 MANUFACTURER:
A. THE EQUIPMENT SHALL BE MANUFACTURED BY AUTH-FLORENCE, DUKANE OR APPROVED EQUIVALENT.
3.01 EXECUTION:
A. PROVIDED CONDUITS, JUNCTION BOXES AND PULL STRINGS. SECURITY SYSTEM PROVIDED AND INSTALLED BY OWNER VENDOR.

SECTION 28 30 00 - FIRE ALARM SYSTEM

1.01 GENERAL:
A. PROVIDE AN ELECTRONICALLY-OPERATED, DOUBLE-SUPERVISED, CLOSED-CIRCUIT, ADDRESSABLE TYPE FIRE ALARM SYSTEM CONSISTING OF A CONTROL UNIT, MANUAL-PULL STATIONS, ALARM SIGNALS, AUTOMATIC SMOKE AND HEAT DETECTORS, SPRINKLER MONITOR MODULES, AND CONTROL RELAYS AS REQUIRED, LOCATED AS SHOWN ON THE DRAWINGS AND WIRED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO MAKE A COMPLETE AND WORKABLE SYSTEM AS HEREINAFTER DESCRIBED.
B. ADD, REMOVE, MOVE OR CHANGE DEVICES AS REQUIRED TO PROVIDE A FIRE ALARM SYSTEM MEETING THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
C. PROVIDE EQUIPMENT MANUFACTURED BY SIMPLEX TIME RECORDER COMPANY (SYSTEM 4000), OR EQUIVALENT BY FIRE LITE, NOTIFIER, OR SILENT KNIGHT.
1.02 CODES AND REGULATIONS:
A. FIRE ALARM SYSTEM SHALL COMPLY WITH NFPA 72(1999 EDITION).
2.01 CONTROL PANEL:
A. THE CONTROL PANEL SHALL BE MODULAR WITH SOLID STATE, MICROPROCESSOR BASED ELECTRONICS. PANEL SHALL CONTAIN AN 80-CHARACTER LCD DISPLAY TO INDICATE PANEL STATUS. THE PANEL SHALL INCLUDE INITIATION DEVICE CIRCUITS, ALARM INDICATING APPLIANCE CIRCUIT, SUPERVISED ANNUNCIATOR CIRCUITS, AUTOMATIC BATTERY CHARGER AND STANDBY BATTERIES.
B. THE FIRE ALARM CONTROL PANEL SHALL BE SIMPLEX SERIES 4010 OR EQUIVALENT.
2.02 ANNUNCIATOR:
A. THE ANNUNCIATOR SHALL BE FLUSH MOUNTED AND BACK LIT USING LED LIGHTS FOR POWER ON, TROUBLE AND ALARM INDICATION. REMOTE ANNUNCIATOR SHALL HAVE AN 80-CHARACTER LCD DISPLAY. UNITS MAY BE STACKED WITHIN ONE ENCLOSURE TO ACCOMMODATE THE PROPER NUMBER OF ZONES. THE ANNUNCIATOR SHALL INCLUDE TROUBLE SILENCE, ALARM SILENCE, AND SYSTEM RESET SWITCHES. THE REMOTE ANNUNCIATOR SHALL BE ELECTRICALLY SUPERVISED FROM THE CONTROL PANEL.
B. THE ANNUNCIATOR SHALL BE SIMPLEX 4602 SERIES OR EQUIVALENT.
2.03 MANUAL PULL STATIONS:
A. MANUAL PULL STATIONS SHALL BE DOUBLE ACTION TYPE MADE OF RED LEXAN WITH RAISED WHITE LETTER; ACTIVATION SHALL REQUIRE TWO SEPARATE AND DISTINCT ACTIONS. RESET SHALL REQUIRE A KEY COMMON TO THE CONTROL PANEL
B. PULL STATIONS SHALL BE SIMPLEX 4099-SERIES OR EQUIVALENT.
2.04 SMOKE DETECTORS:
A. SMOKE DETECTORS SHALL BE A DUAL-CHAMBER, PHOTOELECTRIC TYPE DETECTORS, COMPLETE WITH FLASHING STATUS-INDICATING LED FOR VISUAL SUPERVISION. WHEN THE DETECTOR IS ACTUATED, THE FLASHING LED WILL LATCH ON STEADY AND AT FULL BRILLIANCE. THE DETECTOR MAY BE RESET BY ACTUATING THE CONTROL PANEL RESET SWITCH.
B. THE DETECTORS SHALL BE SIMPLEX 4098 SERIES OR EQUIVALENT.
2.05 AUTOMATIC HEAT DETECTORS:
A. AUTOMATIC HEAT DETECTORS SHALL BE COMBINATION RATE-OF-RISE AND FIXED-TEMPERATURE TYPE. WHEN THE FIXED TEMPERATURE PORTION IS ACTIVATED, THE UNITS SHALL BE NON-RESTORABLE AND GIVE VISUAL EVIDENCE OF THE OPERATION.
B. THE DETECTORS SHALL BE SIMPLEX 4098 SERIES OR EQUIVALENT.
2.06 DUCT SMOKE DETECTORS:
A. DUCT SMOKE DETECTORS SHALL BE SOLID-STATE PHOTOELECTRIC TYPE AND SHALL OPERATE ON THE LIGHT SCATTERING PRINCIPLE. DETECTOR CONSTRUCTION SHALL BE OF THE SPLIT TYPE, A MOUNTING BASE WITH TWIST-LOCK DETETING HEAD. REMOVAL OF THE DETECTOR HEAD SHALL INTERRUPT THE SUPERVISORY CIRCUIT. DETECTOR SHALL BE COMPATIBLE WITH NORMALLY OPEN FIRE ALARM DETECTION DEVICES. DETECTOR SHALL HAVE AN ALARM LED VISIBLE THROUGH A TRANSPARENT FRONT COVER.
B. DETECTORS TO BE PROVIDED WITH ROOF TOP UNITS, MOUNTED INSIDE THE UNIT. EC TO PROVIDED REMOTE TEST/RESET WITHIN SPACE.
C. THE DETECTORS SHALL BE SIMPLEX 4098 SERIES OR EQUIVALENT.
2.07 ALARM HORN/ STROBE:
A. ALARM HORN/ STROBE SHALL BE COMBINATION DEVICES. THEY SHALL BE POLARIZED AND OPERATED BY 24VDC. EACH HORN SHALL INCLUDE SEPARATE WIRE LEAD FOR IN/OUT WIRING. THE STROBE SHALL BE A XENON FLASHTUBE. THE LEXAN LENS SHALL BE PYRAMIDAL IN SHAPE. THE UNITS SHALL HAVE PANEL MODULE AND WIRING INSTALLED TO OPERATE STROBES INDEPENDENTLY WHEN HORNS ARE TURNED OFF.
B. THE ALARMS SHALL BE SIMPLEX 4903 SERIES OR EQUIVALENT.
2.08 ALARM STROBE:
A. ALARM STROBE SHALL BE A XENON FLASHTUBE. THE LEXAN LENS SHALL BE PYRAMIDAL IN SHAPE.
B. THE ALARMS SHALL BE SIMPLEX 4904 SERIES OR EQUIVALENT.
2.09 DOOR HOLDERS:
A. DOOR HOLDERS SHALL BE LOW VOLTAGE MAGNETIC TYPE WITH A MINIMUM HOLDING FORCE OF 25 LBS. THE HOLDERS WILL BE FLUSH MOUNTED WHEREVER POSSIBLE. COORDINATE THE EXACT LOCATION, VOLTAGE, ETC WITH THE DOOR SUPPLIER TO ASSURE COMPATIBILITY IF THE HOLDERS ARE PROVIDED BY OTHERS.
B. THE HOLDERS SHALL BE SIMPLEX 2088 SERIES OR EQUIVALENT.
2.10 REMOTE ALARM INDICATORS:
A. REMOTE ALARM INDICATORS SHALL BE PROVIDED FOR DETECTORS, WHICH ARE CONCEALED ABOVE CEILINGS OR IN LOCKED ROOMS. THE INDICATORS SHALL INCLUDE TEST STATION SWITCH FOR DETECTORS ABOVE CEILINGS OR IN AREAS DIFFICULT TO ACCESS. THE REMOTE ALARM OR REMOTE ALARM/TEST STATIONS SHALL BE SIMPLEX SERIES 2098 OR EQUIVALENT.
2.11 AUTODIALER:
A. INSTALL AND WIRE AN OWNER FURNISHED AUTO DIALER UNIT FOR COMMUNICATION TO A CENTRAL STATION OVER LEASED PHONE WIRES. FIELD COORDINATE EXACT DETAILS WITH THE OWNER OR OWNER'S REPRESENTATIVE.
2.12 MONITOR MODULE:
A. PROVIDE AN ADDRESSABLE MONITOR MODULE FOR SUPERVISION OF WATERFLOW AND TAMPER SWITCHES.
B. SIMPLEX IAM OR EQUIVALENT.
2.13 WIRING:
A. PROVIDE A COMPLETE SYSTEM OF RACEWAYS, PULL BOXES, AND OUTLET BOXES. RACEWAYS SHALL FORM A COMPLETE PATH UP WALLS AND ACROSS INACCESSIBLE CEILINGS. WIRING MAY BE RUN WILD ABOVE ACCESSIBLE CEILINGS.
3.01 INITIATION:
A. UPON THE OPERATION OF ANY MANUAL PULL STATION OR AUTOMATIC INITIATING DEVICE (SMOKE DETECTOR, SPRINKLER FLOW SWITCH, ETC.):
3. SOUND A CONTINUOUS, AUDIBLE AND VISIBLE ALARM IN THE ENTIRE BUILDING
4. PROVIDE DESCRIPTION OF ALARM CONDITION VIA LCD DISPLAY AT FACP AND REMOTE ANNUNCIATOR.
5. IN ADDITION, PROVIDE CONTROLS AND WIRING REQUIRED FOR THE FOLLOWING FUNCTIONS:
a. SHUT DOWN ALL AIR HANDLING UNITS, EXCEPT EXHAUST FANS.
b. SEND A SIGNAL TO A REMOTE MONITORING STATION.
3.02 SYSTEM REPRESENTATIVE:
A. ALL SYSTEM REPRESENTATIVE SHALL BE AN AUTHORIZED ENGINEERED SYSTEMS DISTRIBUTOR LOCATED WITHIN A 50 MILE RADIUS OF THE PROJECT.
3.03 REMOTE INDICATING LIGHTS:
A. REMOTE INDICATING LIGHTS SHALL BE PROVIDED FOR EXISTING DETECTORS OBSCURED FROM VIEW IN LOCKED ROOMS.
3.04 COMPONENT PROTECTION:
A. PROVIDE A WIRE GUARD OVER ANY DETECTOR OR HORN IN AN AREA SUSCEPTIBLE TO PHYSICAL DAMAGE.
3.05 FLOW AND TAMPER SWITCHES:
A. WIRE ALL FLOW SWITCHES AND TAMPER SWITCHES INSTALLED BY THE FIRE SPRINKLER CONTRACTOR TO MONITOR MODULES. DETERMINE EXACT QUANTITY AND LOCATION BEFORE BIDDING AND INCLUDE THE COSTS OF ANY WIRING AND CONDUIT.
3.06 HORN LIGHT:
A. WIRE THE EXTERIOR FIRE PROTECTION HORN LIGHT WHERE SHOWN ON THE PLANS OR AS REQUIRED BY THE FIRE DEPARTMENT.

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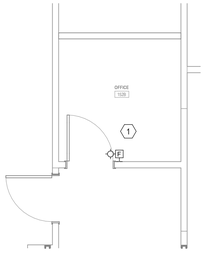
FIRE ALARM GENERAL NOTES

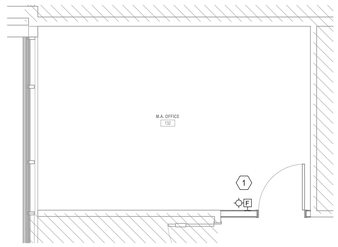
1. THE CONTRACTOR SHALL PREPARE AND SUBMIT ALL DRAWINGS AND SUPPORT MATERIAL REQUIRED BY THE FIRE MARSHAL FOR HIS APPROVAL. FIRE ALARM SHALL BE FULLY-DESIGNED BY NICET LEVEL 4 DESIGNER.
2. THE CONTRACTOR SHALL DO ALL COORDINATION WORK WITH THE FIRE MARSHAL TO GET HIS FINAL APPROVAL.
3. THE CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR SMOKE/FIRE DAMPER REQUIREMENTS.
4. THE CONTRACTOR SHALL PROVIDE UNIT PRICES FOR PROVIDING, INSTALLING, AND CONNECTING ANY ADDITIONAL DEVICES REQUIRED BY THE FIRE MARSHAL IN HIS ID PROPOSAL. IF NO UNIT PRICES ARE PROVIDED, ANY ADDITIONAL DEVICES REQUIRED BY THE FIRE MARSHALL SHALL BE PROVIDED, INSTALLED, AND CONNECTED AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL COORDINATE EXACT NUMBER AND LOCATION OF DEVICES WITH FLOOR PLANS.
6. THE CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR DUCT DETECTOR REQUIREMENTS.
7. FIRE ALARM DEVICES LOCATED TO ACCOMPLISH AUDIO/VISUAL COVERAGE AS NFPA 72.
8. FIRE ALARM SHALL BE SOLID COPPER CONDUCTORS. STRANDED WIRE SHALL NOT BE ALLOWED. WIRE INSTALLATION SHALL BE IN STRICT ACCORDANCE TO MANUFACTURER'S PUBLISHED INSTALLATION RECOMMENDATIONS AND ARTICLE 760 OF THE N.E.C.
9. MINIMUM WIRING SIZE TO BE AWG#16 OR LARGER, AND FOR INDICATING CIRCUITS SHALL BE AWG#14 OR LARGER.
10. POSITIVE WIRES SHALL BE COLORED - RED NEGATIVE WIRES SHALL BE COLORED - BLACK
11. INITIATING CIRCUIT IS SHIELDED. NO WIRING OTHER THAN THAT INITIATING AND INDICATING CIRCUITS SHALL UTILIZE THE SAME RACEWAY UNLESS IT IS DIRECTLY ASSOCIATED WITH THE FIRE ALARM SYSTEM, SHALL BE PERMITTED IN FIRE ALARM RACEWAYS.
12. FIRE ALARM CONDUITS SHALL BE IDENTIFIED WITH RED MARKING EVERY TWENTY FEET.
13. SYSTEM RE-ACCEPTANCE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 72 AND THE FIRE MARSHAL'S REQUIREMENTS.
14. COMPLIANCE WITH ADA SECTION 4.28 FOR AUDIBLE AND VISUAL ALARM SHALL BE ENFORCED.
15. MINIMUM WIRING SIZE FOR INITIAL CIRCUITS SHALL BE AWG #16 OR LARGER.
16. JUNCTION AND PULL BOXES FOR FIRE ALARM SHALL BE PAINTED RED. JUNCTION AND PULL BOXES SHALL BE SIZED ACCORDING TO THE N.E.C.
17. CONTRACTOR TO VERIFY WITH A.H.J. IF AN AUDIO SPEAKER FIRE ALARM SYSTEM SHALL BE PROVIDED AS PART OF THE SCOPE OF WORK. COORDINATE LOCATIONS WITH REFLECTED CEILING PLAN.
18. VOID SMOKE DETECTION SHALL BE PROVIDED AS REQUIRED IN CLOSED CEILING AREAS. SEE CEILING PLAN.
19. CONTRACTOR TO VERIFY EXISTING FIRE ALARM SYSTEM HAS THE CAPACITY FOR THE ADDED DEVICES AND TO INCLUDE -AS PART OF BID - THE REPLACEMENT OR UPGRADE OF THE EXISTING SYSTEM AS REQUIRED WHEN APPLICABLE.
20. THESE PLANS ARE PERFORMANCE SPECIFICATION ONLY. CONTRACTOR IS TO PROVIDE ACTUAL PLANS SHOWING ALL CODE AND AHJ REQUIRED DEVICES UPON COMPLETION OF BIDDING PROCESS AND SHALL INCLUDE SUCH REQUIRED DEVICES IN THEIR PROPOSAL SHOWN ON THESE PLANS OR NOT.
21. FIRE ALARM DEVICES SHOWN ON ENGINEERED ELECTRICAL DRAWINGS ARE FOR SCHEMATIC PURPOSES ONLY. THE CONTRACT DOCUMENTS REPRESENT THE MINIMUM DESIGN INTENT. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM APPROVED BY THE OWNER AND THE AUTHORITY HAVING JURISDICTION. FIRE ALARM CONTRACTOR SHALL SUBMIT FIRE DRAWINGS, EQUIPMENT CUT-SHEETS, ETC., PER LOCAL CODE AND NFPA 72 TO LOCAL AUTHORITIES HAVING JURISDICTION AND OWNERS INSURANCE COMPANY FOR APPROVAL PRIOR TO ORDERING EQUIPMENT. ENGINEER WILL NOT APPROVE FIRE ALARM DRAWINGS, EQUIPMENT CUT-SHEETS, ETC. INCLUDE IN BID ALL COSTS FOR PERMITS AND FEES. ALL DEVICES SHALL BE STANDARD PRODUCT OF SINGLE MANUFACTURER AND SHALL DISPLAY THE MANUFACTURER'S NAME ON EACH COMPONENT. COORDINATE WITH OWNER FOR ACCEPTABLE MODELS AND DESIGN REQUIREMENTS.
22. FIRE ALARM WIRING IN EXPOSED CEILINGS SHALL BE IN CONDUIT. CONDUIT TO BE PAINTED TO MATCH CEILING.

KEYNOTES

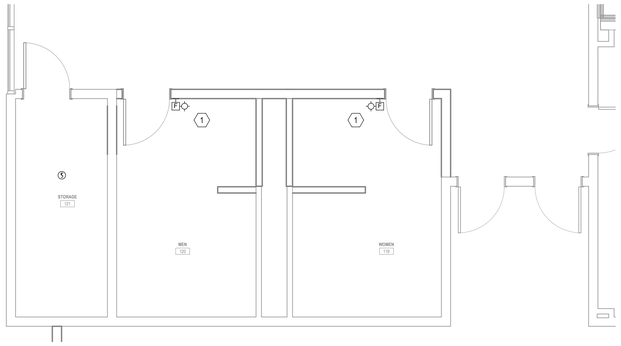
1. EXISTING STROBE NEED TO REMOVED AND REPLACED ON NEW WALL. E.C TO VERIFY THE EXACT LOCATION IN FIELD.
2. EXISTING STROBE NEED TO REMOVED,EXTENDED AND REPLACED ON NEW THICKENED WALL. E.C TO VERIFY THE EXACT LOCATION IN FIELD.
3. THE EXISTING FIRE ALARM DEVICES BEING REMOVED AND REPLACED.



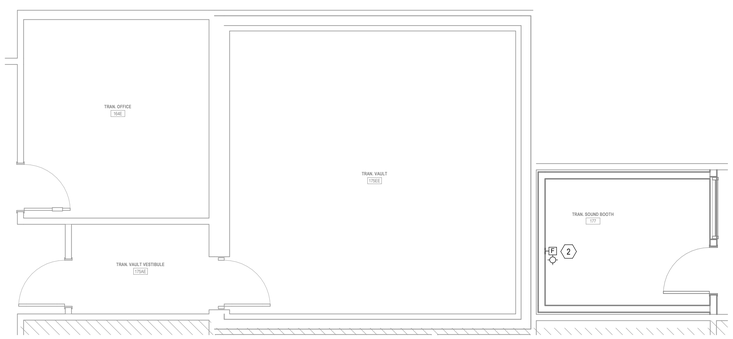
H ENLARGED FIRE ALARM PLAN
1/4" = 1'-0"



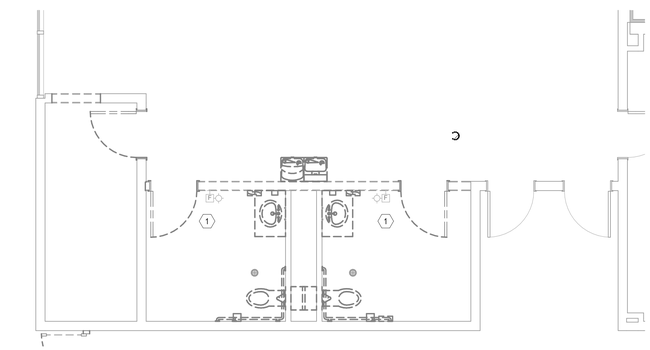
F ENLARGED FIRE ALARM PLAN
1/4" = 1'-0"



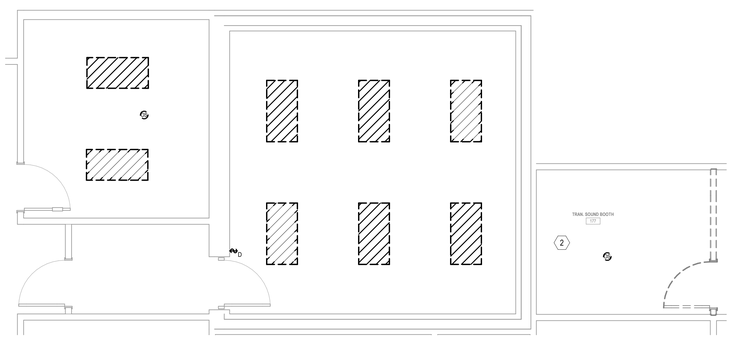
D ENLARGED FIRE ALARM PLAN
1/4" = 1'-0"



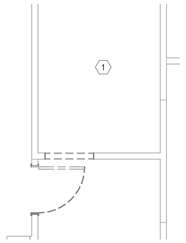
B ENLARGED FIRE ALARM PLAN
1/4" = 1'-0"



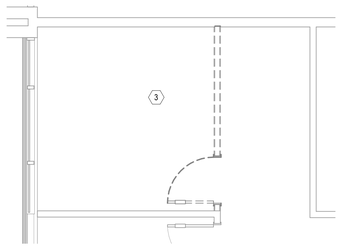
C ENLARGED DEMOLITION FIRE ALARM PLAN
1/4" = 1'-0"



A ENLARGED DEMOLITION FIRE ALARM PLAN
1/4" = 1'-0"



G ENLARGED DEMOLITION FIRE ALARM PLAN
1/4" = 1'-0"



E ENLARGED DEMOLITION FIRE ALARM PLAN
1/4" = 1'-0"

DEMOLITION NOTES

- CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND SHALL BE FAMILIAR WITH THE LIMITS OF DEMOLITION REQUIRED FOR ALL TRADES. COORDINATE DEMOLITION WITH REQUIREMENTS OF NEW CONSTRUCTION PRIOR TO INITIATING WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE REMOVAL AND DISCARDING OF ALL DEMOLITION WASTE INCLUDING ANY UNFORESEEN ITEMS WITHIN THE SCOPE OF THE PROJECT.
- CONTRACTOR SHALL COORDINATE DEMOLITION OPERATIONS WITH CONTINUING OWNER OCCUPATION OF ADJACENT SPACES. ALL DEMOLITION WORK TO BE COORDINATED WITH OWNER AND CONDUCTED UNDER CONTROLLED CONDITIONS.
- REPAIR/PATCH AS REQUIRED FOR DEMOLITION OF VARIOUS CONSTRUCTION ITEMS. VERIFY AND COORDINATE ANY REQUIRED OPENINGS WITH RESPECTIVE TRADES. FOR ANY WORK THAT SHALL OCCUR OUTSIDE OF DEMOLITION AREA, CONTRACTOR SHALL RETURN SPACE TO ORIGINAL CONDITION.
- PROPERLY CAP, PLUG AND CONCEAL ANY PIPING LEFT IN PLACE. CAP ABANDONED SEWER PIPING A MINIMUM OF 8" BELOW FINISH FLOOR PATCH AND REPAIR SLAB.
- CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ALL NOT USED WATER PIPING, WASTE AND VENT, DUCTWORK, EQUIPMENT IN THE REMODEL AREA.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH OWNER REPRESENTATIVE FOR WHETHER TO DISPOSE HVAC OUTLETS REMOVED OR RE-USE.
- DEMOLISH EXISTING AS REQUIRED PER NEW CONSTRUCTION AS DIRECTED BY ARCHITECT AND/OR AS NOTED ON DRAWINGS. AVOID DISRUPTION OF SERVICES DURING BUSINESS HOURS (IF APPLICABLE). ALL SYSTEM SHUT-DOWNS AND DISRUPTION OF SCHEDULED AFTER NORMAL BUILDING HOURS OR AS OTHERWISE APPROVED BY OWNER.
- PRIOR TO DEMOLITION FIELD VERIFY AND IDENTIFY ANY EXISTING EQUIPMENT TO REMAIN IN SERVICE THAT IS SERVED BY SYSTEMS TO BE DEMOLISHED. NOTIFY ENGINEER OF ANY SUCH CONDITIONS AND REMOVE AND/OR RELOCATE THE SERVICES AS DIRECTED.
- MEET WITH OWNER REPRESENTATIVE AND LANDLORD PRIOR TO DEMOLITION TO IDENTIFY WHETHER EXISTING MATERIALS SYSTEMS, EQUIPMENT, ETC. ARE CONSIDERED SALVAGE OR DEBRIS. REMOVE DEBRIS FROM SITE AND DISPOSE OF IN AN APPROVED MANNER AS DIRECTED BY OWNER.
- TERMINATE DEMOLISHED SYSTEM SERVICES IN A CONCEALED LOCATION IN AN APPROVED MANNER. COORDINATE WITH NEW AND EXISTING CONSTRUCTION.
- FIELD VERIFY EXISTING PIPING LOCATIONS PRIOR TO WORK.
- VERIFY EXTENT OF DEMOLITION OF SANITARY SEWER, DOMESTIC WATER AND FIRE PROTECTION PIPING PRIOR TO WORK. ALL DEMOLITION WORK SHALL BE IN COMPLIANCE WITH APPLICABLE CODES, STANDARDS AND THE AUTHORITY HAVING JURISDICTION.
- WHERE REQUIRED, COORDINATE EQUIPMENT ELECTRICAL TERMINATION REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- AT ALL LOCATIONS WHERE PLUMBING FIXTURES ARE TO BE REMOVED, PLUMBING SUBCONTRACTOR SHALL REMOVE PIPING (WATER, WASTE, VENT) TO A POINT BEYOND FINISH SURFACE AND CAP OFF. WHERE PIPING SERVING EXISTING FIXTURE TO BE REMOVED ALSO SERVES FIXTURES THAT ARE TO REMAIN, PIPING SHALL BE REROUTED AND RECONNECTED AS REQUIRED TO ACCOMMODATE REMODELED AREAS AS REQUIRED.
- WHERE EXISTING WALLS ARE REMOVED AND PIPING IS FOUND THAT MUST REMAIN, PLUMBING SUBCONTRACTOR SHALL REROUTE AND RECONNECT PIPING AS REQUIRED, E.G. DOMESTIC WATER PIPING, GAS, SOIL, WASTE, VENT, AND ROOF LEADER PIPING.
- WHEREVER POSSIBLE, NEW PIPING AND RELOCATED PIPING SHALL BE RUN CONCEALED. COORDINATE LOCATION OF ALL PIPING WITH HVAC AND ELECTRIC SUBCONTRACTOR. COORDINATE CUTTING AND PATCHING WITH GENERAL CONTRACTOR.
- WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OTHERS, OWNER, OR ARE RELOCATED, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS AND MAKE FINAL PLUMBING CONNECTIONS AT NEW LOCATIONS.
- ALL CUTTING AND PATCHING FOR REMOVAL, REMODELING OR INSTALLATION OF NEW PLUMBING WORK SHALL BE DONE BY PLUMBING CONTRACTOR.
- CUTTING, COREING AND REPAIR OF SLAB PENETRATIONS MUST CONFORM TO LANDLORD PROCEDURES.
- REFER TO ARCHITECTURAL DEMOLITION PLANS FOR EXTENT OF DEMOLITION WORK. COORDINATE WITH SAME.

NOTE:
DEMOLITION OF EXISTING SYSTEMS SHALL BE SAFE. CONTRACTOR SHALL COORDINATE THE
FOLLOWING PRIOR TO DEMOLITION:
- POWER IS TO BE DISCONNECTED BY A LICENSED ELECTRICIAN.
- DOMESTIC WATER TO BE SHUT OFF TO EQUIPMENT BEING WORKED ON OR REMOVED.
- INTERRUPTION TO UTILITIES SHALL BE COORDINATED WITH LANDLORD.

NOTE:
DEMOLITION CONTRACTOR SHALL VERIFY WITH MECHANICAL AND PLUMBING CONTRACTOR FOR EQUIPMENT, DUCTWORK, PIPING, CONTROLS SALVAGING PRIOR TO DEMOLITION AND REMOVAL OF EXISTING SYSTEMS.

IF CANNOT BE RE-USED.
REMOVE EXISTING DUCTWORK, PLUMBING FIXTURES AND PIPING . CAP EXISTING SANITARY SEWER BELOW SLAB. CAP ROOF VENT THRU ROOF. REMOVE PIPING TO BRANCH MAIN.

ALL EXISTING PLUMBING FIXTURES SHALL BE DEMOLISHED. CONSTRUCTION MANAGER SHALL DETERMINE CONDITION OF EXISTING PLUMBING FIXTURES AND DECIDE WHETHER THEY ARE TO BE REUSED OR REPLACED.

blue river ARCHITECTS
A Native American Owned Firm

REGISTERED PROFESSIONAL ENGINEER
PETER A. HILGER
19695
OKLAHOMA
3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

FA101
ENLARGED FIRE ALARM PLAN

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20210121.60

ISSUE DATE:
04/07/2025

ISSUE:

OTHER ISSUE DATES:

NO.	DESCRIPTION	DATE

SHEET NAME:
ENLARGED FIRE ALARM PLAN

SHEET NUMBER:
FA101

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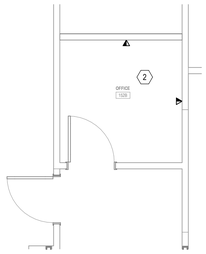
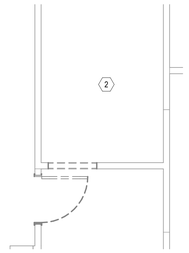


H ENLARGED SYSTEM PLAN
1/4" = 1'-0"



G ENLARGED DEMOLITION SYSTEM PLAN
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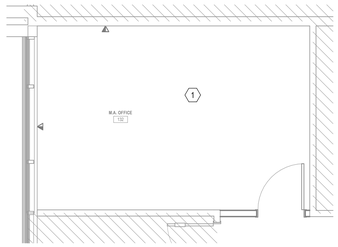

F ENLARGED SYSTEM PLAN
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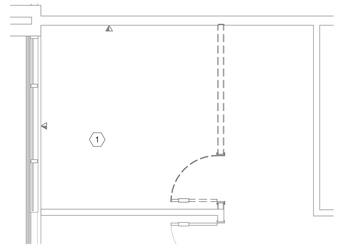

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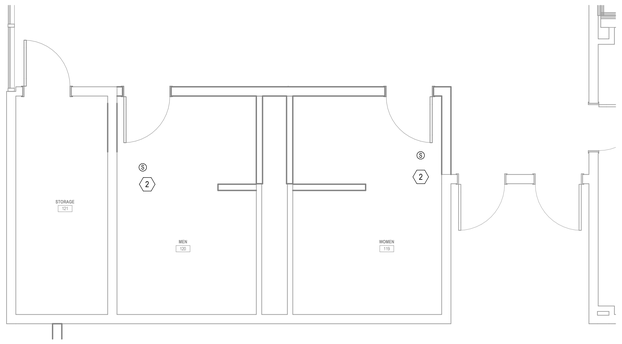

D ENLARGED SYSTEM PLAN
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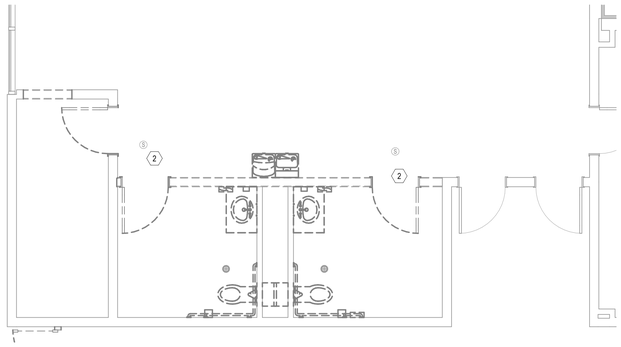
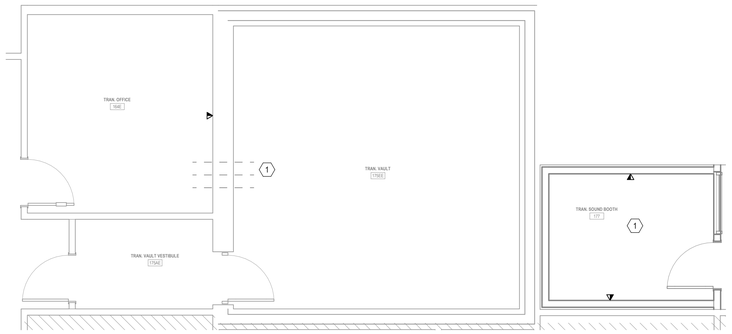


C ENLARGED DEMOLITION SYSTEM PLAN
1/4" = 1'-0"



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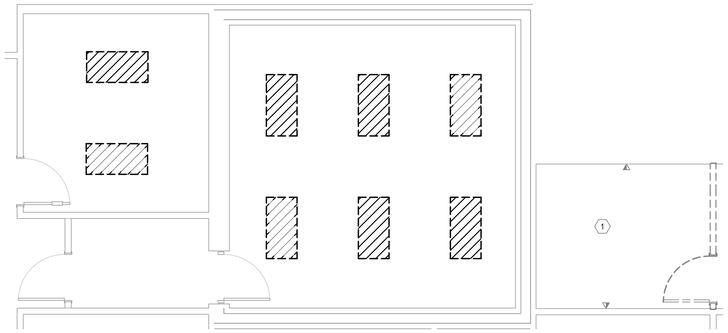

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SYSTEMS GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THE DRAWINGS, EXCEPT ITEMS LISTED ON SHEET E0.01 GENERAL ELECTRICAL NOTES.
2. MAXIMUM NUMBER OF 4 INFORMATION OUTLET LOCATIONS PER CONDUIT HOME RUN TO MDF OR IDF IS PERMITTED. CONDUIT SHALL BE SIZED AS FOLLOWS
3. 1 INFORMATION OUTLET LOCATION: 1"
4. 2 INFORMATION OUTLET LOCATIONS:1 1/4"
5. 3 INFORMATION OUTLET LOCATIONS:1 1/2"
6. ALL COMMUNICATIONS CABLES SHALL BE INSTALLED IN CONDUIT, CABLE TRAY, OR SUPPORTED BY CABLE HOOKS. PROVIDE BUSHINGS AT THE ENDS OF ALL CONDUIT WHERE STUBBED ABOVE ACCESSIBLE CEILINGS OR WHERE DROPPED INTO CABLE TRAY. PROVIDE CABLE HOOKS ABOVE ACCESSIBLE CEILINGS FOR CABLE INSTALLATION WHERE NOT INSTALLED IN CONDUIT OR CABLE TRAY.

KEYNOTES

1. EXISTING DATA OUTLET TO REMOVED, EXTENDED AND REPLACED ON NEW THICKENED WALL. E.C TO VERIFY THE EXACT LOCATION IN FIELD.
2. EXISTING SPECIAL SYSTEM DEVICES NEED TO REMOVE AND REINSTALL. E.C TO VERIFY THE EXACT LOCATION IN FIELD.

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REGISTERED PROFESSIONAL ENGINEER
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3-20-25

CHEROKEE NATION - DURBIN FEELING LANGUAGE CENTER RENOVATION

16951 W CHEROKEE ST., TAHLEQUAH, OK 74465

SS101
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