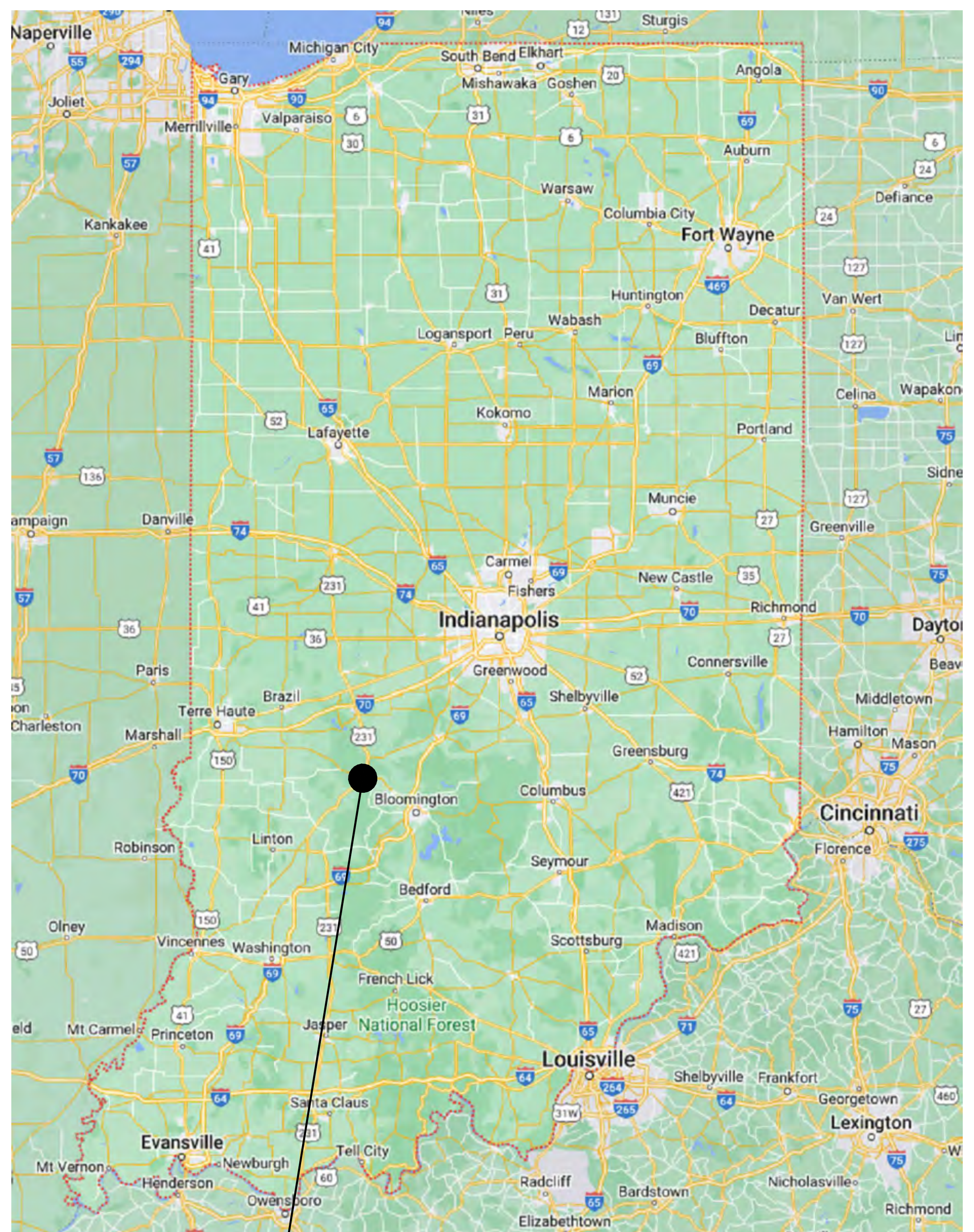
ADDITION AND INTERIOR RENOVATIONS

OWEN VALLEY MIDDLE SCHOOL

626 IN-46, SPENCER, INDIANA 47460

OCTOBER 19, 2023



SPENCER, INDIANA

CLIENT

SPENCER-OWEN COMMUNITY SCHOOLS
205 E HILLSIDE AVE
SPENCER, INDIANA 47512

SCHOOL BOARD MEMBERS

DEREK MORGAN	PRESIDENT
CHAD COOPER	VICE-PRESIDENT
RICK SMELTZER	SECRETARY
MARK ROGERS	SECRETARY PRO-TEM
SONIA BRINSON	MEMBER
ELIZABETH BIXLER	MEMBER
DAVE ALLEN	MEMBER

ADMINISTRATION

ANDY CLINE	SUPERINTENDENT
TOM ARTHUR	PRINCIPAL
DUANE POTTS	ASSISTANT PRINCIPAL

CLERK OF THE WORKS

The Stenftenagel GROUP, LLC
Clerk of The Works

THE STENFTENAGEL GROUP, LLC
2602 NEWTON STREET, SUITE C
JASPER, IN 47546 (812) 639-8177
WWW.STENGROUP.COM

ARCHITECT AND ENGINEER

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

PROJECT LOCATION

LOCATION PLAN
SPENCER, INDIANA
SCALE: NONE

DRAWING INDEX

GENERAL - CIVIL

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C2	EROSION CONTROL PLAN
C3	EROSION CONTROL DETAILS AND SPECIFICATIONS
C4	GRADING AND DRAINAGE PLAN
C5	DIMENSION AND LAYOUT PLAN
C6	DETAILS
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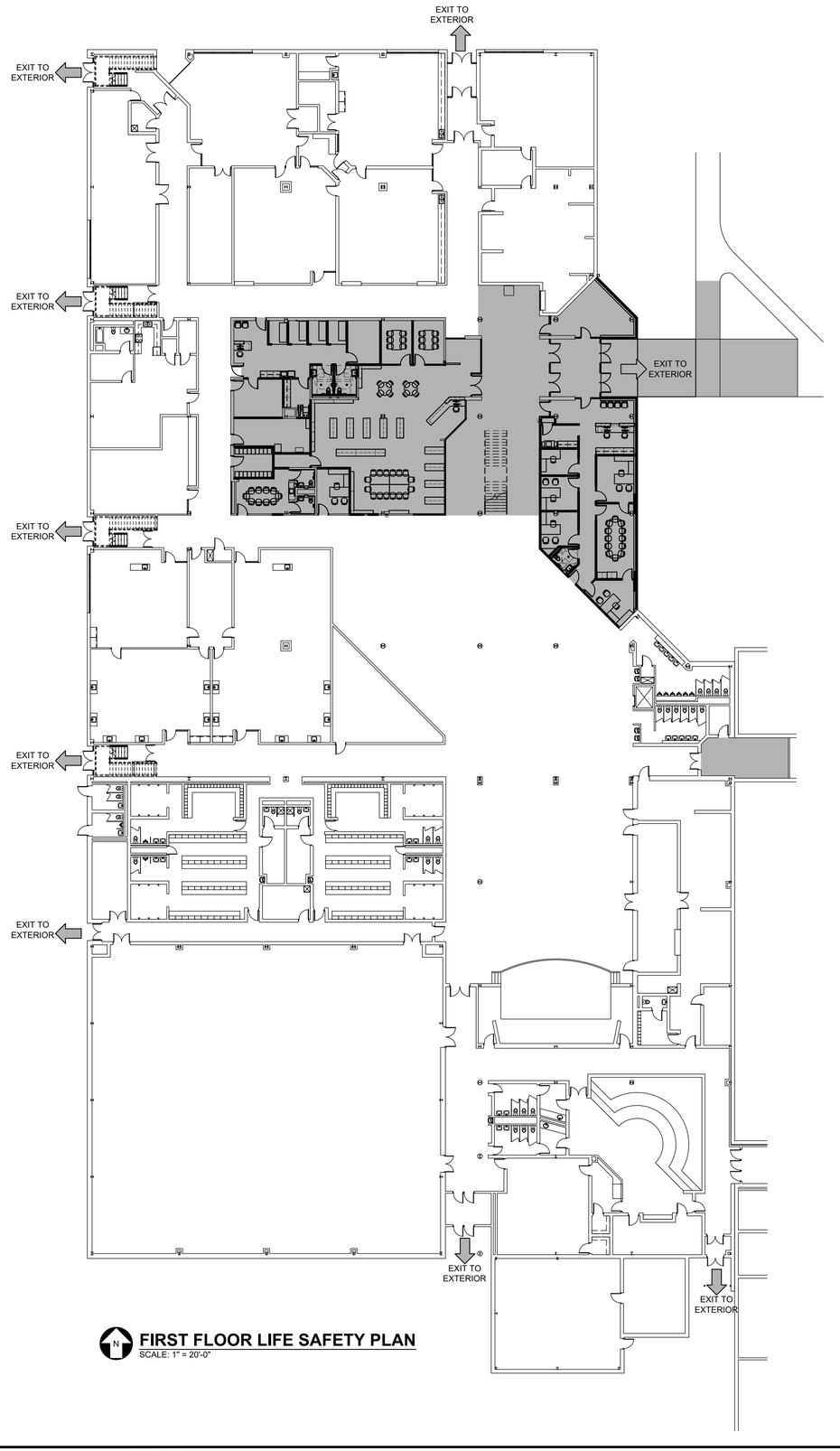
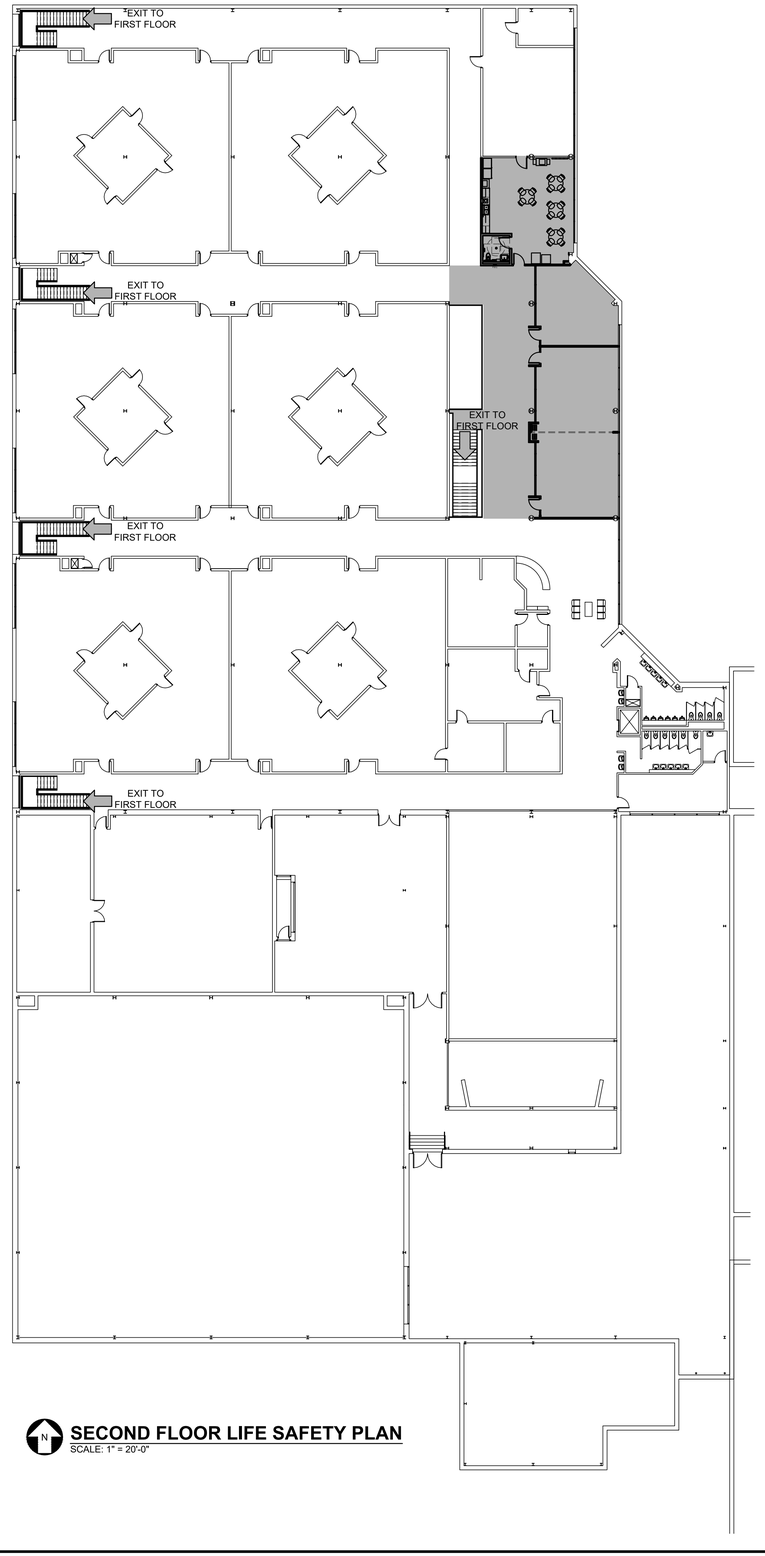
PROJECT NO: 22286A

D	11/01/23	LEW	ISSUED FOR BID
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
A	07/27/23	LEW	ISSUED FOR 30% REVIEW



FIRST FLOOR LIFE SAFETY PLAN
SCALE: 1" = 20'-0"



SECOND FLOOR LIFE SAFETY PLAN
SCALE: 1" = 20'-0"

GENERAL INFORMATION

OWNER: SPENCER-OWEN COMMUNITY SCHOOLS
205 E HILLSIDE AVE
SPENCER, INDIANA 47512

PROJECT LOCATION: OWEN VALLEY MIDDLE SCHOOL
626 IN-46
SPENCER, INDIANA 47460

PROJECT DESCRIPTION: THIS PROJECT CONSISTS OF A 2,343 SQ FT INFILL ADDITION OF THE EXISTING EXTERIOR CANOPY AREA FOR NEW ADMINISTRATIVE OFFICES, A WORK ROOM AND A CONFERENCE ROOM. IT ALSO INVOLVES RENOVATING 3,779 SQ FT ON THE FIRST FLOOR AND 2,265 SQ FT ON THE SECOND FLOOR. RENOVATED SPACES WILL INCLUDE A MEDIA CENTER, NURSE OFFICES, TEACHER'S LOUNGE, CONFERENCE ROOM, SMALL AND LARGE GROUP MEETING ROOMS, IT ROOM AND RESTROOMS.

LIFE SAFETY & INDIANA STATE BUILDING CODE REQUIREMENTS

INDIANA STATE BUILDING CODE:
THE STATE OF INDIANA BUILDING CODE SHALL BE THE INTERNATIONAL BUILDING CODE 2012 EDITION AS ADOPTED BY REFERENCE WITH 2014 AMENDMENTS. THIS CODE SHALL BE KNOWN AS THE 2014 INDIANA BUILDING CODE.

OCCUPANCY CLASSIFICATION:
EDUCATIONAL GROUP E

CONSTRUCTION TYPE:
TYPE II-B

CEILING SEISMIC DESIGN:
CATEGORY "C"

BUILDING HEIGHT (II-B):
ACTUAL = EXISTING, 31'-4"

BUILDING AREA:
ACTUAL = EXISTING FIRST FLOOR = 69,581 SQ FT
NEW FIRST FLOOR ADDITION = 2,343 SQ FT
TOTAL FIRST FLOOR = 70,193 SQ FT
EXISTING SECOND FLOOR = 70,444 SQ FT

FIRE SPRINKLER SYSTEM:
FULLY SPRINKLERED

EXTERIOR WALL FIRE-RESISTANCE RATING:
REQUIRED = 0 (FIRE SEPARATION DISTANCE GREATER THAN OR EQUAL TO 30'-0).

MAXIMUM AREA OF EXTERIOR WALL OPENINGS:
REQUIRED = NOT REQUIRED (FIRE SEPARATION DISTANCE GREATER THAN 30'-0").

OCCUPANT LOAD:
THE PROPOSED ADDITION AND RENOVATIONS DO NOT ALTER THE BUILDING'S EXISTING MAXIMUM ALLOWABLE OCCUPANT LOAD. ACTUAL OCCUPANT LOAD IS BASED ON STUDENT ENROLLMENT WHICH VARIES YEAR TO YEAR.

EGRESS WIDTH:
STAIRWAYS = EXISTING, PROJECT DOES NOT AFFECT EGRESS WIDTH.
OTHER EGRESS COMPONENTS = EXISTING, PROJECT DOES NOT AFFECT EGRESS WIDTH.

COMMON PATH OF EGRESS TRAVEL:
EXISTING, PROJECT DOES NOT AFFECT EGRESS TRAVEL.

TRAVEL DISTANCE:
EXISTING, PROJECT DOES NOT AFFECT TRAVEL DISTANCE.

CORRIDOR FIRE-RESISTANCE RATING:
REQUIRED = 0 (WITH SPRINKLER SYSTEM)

CORRIDOR WIDTH:
EXISTING, PROJECT DOES NOT AFFECT CORRIDOR WIDTH.

NUMBER OF EXITS:
EXISTING PROJECT DOES NOT AFFECT NUMBER OF EXITS.

LEGEND:
RENOVATION AREA

BID
11/01/23

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WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST AND SECOND FLOOR LIFE SAFETY PLANS AND CODE REVIEW INFORMATION

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

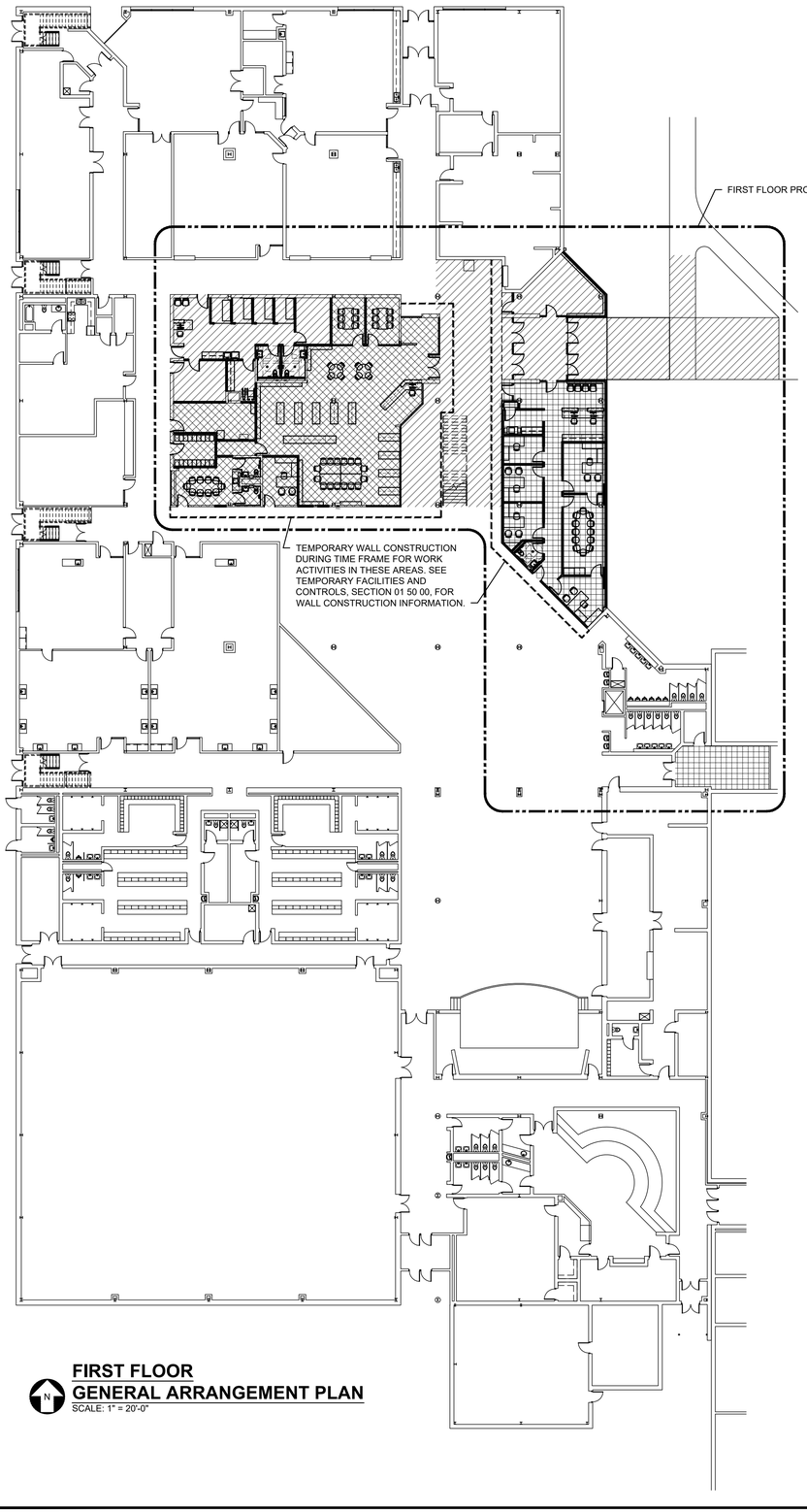
SCALE: 1" = 20'-0"

PROJECT NUMBER: 22286A

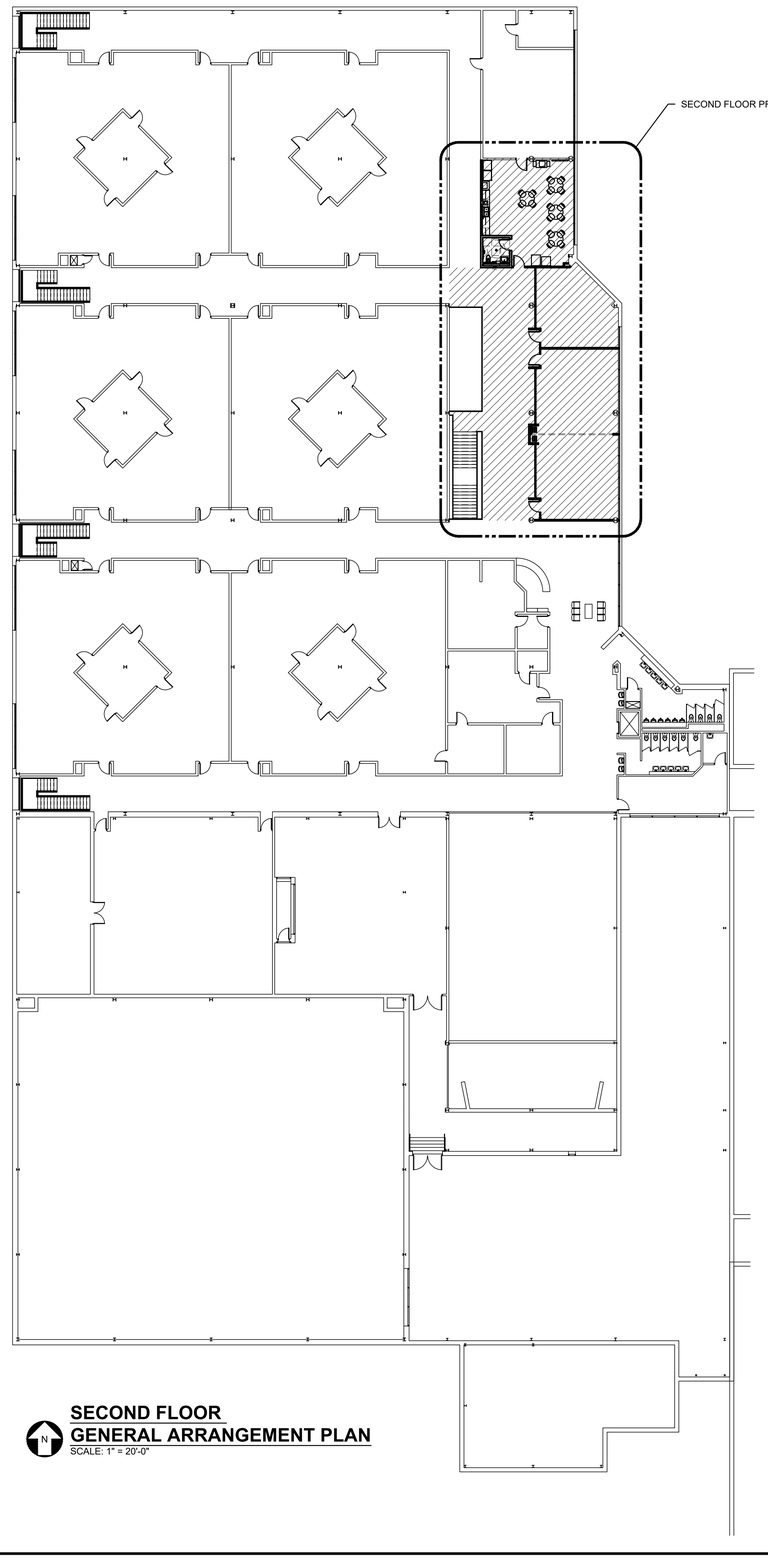
SHEET NO: LS
2 of 58

LEGEND:

- WORK TO START MAY 20, 2024
  SUBSTANTIAL COMPLETION AUGUST 2, 2024
- WORK TO START MAY 20, 2024
  SUBSTANTIAL COMPLETION NOVEMBER 8, 2024
- WORK TO START NOVEMBER 18, 2024
  SUBSTANTIAL COMPLETION FEBRUARY 28, 2025



FIRST FLOOR
GENERAL ARRANGEMENT PLAN
SCALE: 1" = 20'-0"



SECOND FLOOR
GENERAL ARRANGEMENT PLAN
SCALE: 1" = 20'-0"

BID
11/01/23

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REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
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ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST AND SECOND FLOOR GENERAL ARRANGEMENT PLANS

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 1" = 20'-0"

PROJECT NUMBER: 22286A

SHEET NO: G1

CONTRACTOR STAGING PLAN
SCALE: NONE

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE INDIANA STATE BUILDING CODES, CURRENT REGULATIONS IN EFFECT AT TIME OF CONSTRUCTION DOCUMENT REVIEW BY LOCAL BUILDING COMMISSIONER'S OFFICE.
2. THE CONTRACTOR (OR HIS SUB-CONTRACTORS) SHALL OBTAIN AND PAY FOR ALL REQUIRED BUILDING PERMITS, TAP-IN FEES, LICENSES AND TEMPORARY FACILITIES REQUIRED FOR THE CONSTRUCTION OF THE PROJECT.
3. THE COMPLETED PROJECT SHALL BE FULLY FUNCTIONAL AND COMPLETE IN EVERY DETAIL INCLUDING ANY AND ALL SUCH DETAIL ITEMS OF WORK OR MATERIAL REQUIRED FOR NORMALLY COMPLETE SYSTEMS, WHETHER OR NOT SUCH ITEMS ARE SPECIFIED OR SHOWN ON THE DRAWINGS.
4. ALL CONTRACTORS MUST VISIT THE SITE AND CAREFULLY EXAMINE AND NOTE ALL OF THE CONDITIONS AND EXISTING MATERIALS THERE. FAILURE TO DO SO WILL NOT BE CONSIDERED GROUNDS FOR ANY EXTRA CHARGES FOR MATERIAL, EQUIPMENT OR LABOR.
5. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A GOOD WORKMAN-LIKE MANNER, AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
6. THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE COORDINATION OF ALL TRADES INVOLVED WITH THE PROJECT.
7. THE CONTRACTOR IS TO PROTECT THE EXISTING FACILITY FROM DAMAGE DUE TO CONSTRUCTION.
8. OWNERSHIP OF ALL MATERIALS WHICH ARE DESIGNATED FOR REMOVAL SHALL BE DETERMINED BY THE OWNER.
9. ANY ITEM SLATED FOR RELOCATION THAT IS DAMAGED DURING THE PROJECT SHALL BE REPAIRED TO THE PRE-EXISTING CONDITION AND/OR REPLACED BY THE CONTRACTOR WITHOUT COST TO THE OWNER.
10. ALL EXISTING SURFACES WHICH ARE TO REMAIN AND ARE DAMAGED DURING CONSTRUCTION ARE TO BE REPAIRED TO THE PRE-EXISTING CONDITION AND REFINISHED TO MATCH EXISTING, OR REPLACED WITHOUT COST TO THE OWNER.
11. THE CONTRACTOR IS TO SUBMIT MATERIAL SAFETY DATA SHEETS (MSDS) TO OWNER PRIOR TO USE OF ANY PRODUCTS THAT MAY PRESENT SAFETY CONSIDERATIONS.
12. ALL CONSTRUCTION TRADES SHALL REFER TO ALL STRUCTURAL, ARCHITECTURAL, FIRE PROTECTION, PLUMBING, MECHANICAL (HVAC), ELECTRICAL, AND COMMUNICATION/DATA DRAWINGS TO ASSESS THE EXTENT OF NEW WORK OR REPAIR WORK REQUIRED TO THE FLOORS, WALLS, AND CEILINGS DUE TO ALL CONSTRUCTION TRADES.
13. THE CONTRACTOR SHALL CONTACT THREE I DESIGN REGARDING ANY SIGNIFICANT INTERFERENCES DISCOVERED IN THE FIELD PRIOR TO ANY WORK BEING PERFORMED. THE CONTRACTOR SHALL HAVE A PROPOSED COST ESTIMATE IN WRITING OF THE WORK REQUIRED.
14. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR IS TO FURNISH THREE I DESIGN A COMPLETE SET OF "RECORD" (AS-BUILT) DRAWINGS TO REVIEW AND FILE WITH THE OWNER.
15. THE CONTRACTOR SHALL COORDINATE ALL DEMOLITION AND NEW CONSTRUCTION WORK WITH THE OWNER'S PROJECT COORDINATOR.
16. THE CONTRACTOR SHALL PROTECT PERSONNEL AND THE FACILITY FROM DAMAGE OR HAZARD DURING DEMOLITION AND CONSTRUCTION AND PROVIDE DUST CONTROL AND TO CONTAIN DUST AND DEBRIS WITHIN THE IMMEDIATE AREAS OF WORK FOR THE DURATION OF THE PROJECT. DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION AREA AT THE END OF EACH SHIFT.
17. EXISTING FURNITURE AND EQUIPMENT RELOCATION IS TO BE DONE BY THE OWNER OR CONTRACTED PARTY UNLESS NOTED OTHERWISE.
18. USE OF THE SITE SHALL BE LIMITED TO THE AREAS AGREED UPON WITH THE OWNER'S PROJECT COORDINATOR. MATERIALS SHALL BE KEPT WITHIN THOSE AREAS OR STORED OFF THE SITE.
19. THE CONTRACTOR SHALL PATCH OR REPAIR ALL MISCELLANEOUS HOLES IN WALLS AND FLOORS WHERE WALL CABINETS, SHELVING, COVER PLATES, AND HOLES FROM PREVIOUSLY REMOVED ITEMS NOW EXIST.
20. THE CONTRACTOR IS TO PROVIDE ALL FLOOR, WALL AND CEILING SURFACES READY TO RECEIVE FINISHES WHERE FINISHES ARE INDICATED. THE FINISHES CONTRACTOR(S) SHALL PREPARE THE SURFACES FOR THE FINISH APPLICATION.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF ALL DUST AND DEBRIS GENERATED BY THE G.C. OR THEIR SUBCONTRACTORS WITHIN THE PROJECT SITE, INCLUDING ABOVE THE CEILING.
22. THE CONTRACTOR IS TO NOTIFY THE OWNER IMMEDIATELY IF ASBESTOS IS DISCOVERED IN THE EXISTING CONDITIONS. THE OWNER NOR THREE I DESIGN IS RESPONSIBLE FOR VERIFICATION OR ABATEMENT OF ASBESTOS. CONTRACTOR WILL BE RESPONSIBLE FOR HIRING AND COORDINATING ASBESTOS ABATEMENT WITH ENVIRONMENTAL CONTRACTOR.
23. CONTRACTOR(S) SHALL NOTIFY THREE I DESIGN AND THE OWNER'S PROJECT COORDINATOR IMMEDIATELY, IN WRITING, IF A DISCREPANCY IS FOUND IN THE DRAWING SET. FAILURE TO NOTIFY THREE I AND THE OWNER'S PROJECT COORDINATOR PRIOR TO THE RECEIPT OF BIDS WILL NOT BE GROUNDS FOR A CHANGE ORDER DURING CONSTRUCTION.

EXISTING CONSTRUCTION:

THREE I DESIGN HAS CONDUCTED REASONABLE RESEARCH AND FIELD VERIFICATION OF EXISTING CONSTRUCTION TO PREPARE THESE CONSTRUCTION DOCUMENTS. HOWEVER, SUCH RESEARCH MAY NOT IDENTIFY ALL EXISTING CONSTRUCTION, AND THE DRAWINGS THAT THREE I REASONABLY RELIED UPON MAY BE INACCURATE OR INCOMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND VERIFY EXISTING CONSTRUCTION THAT WILL BE EXTENDED OR CONNECTED TO, AS TO THEIR LOCATION, MATERIAL AND SIZE PRIOR TO ORDERING ANY MATERIAL, BRING ANY DISCREPANCIES, OR EXISTING CONSTRUCTION THAT WILL INTERFERE WITH THE PROPER INSTALLATION OF NEW MATERIALS OR CONSTRUCTION, TO THE ATTENTION OF THREE I DESIGN'S PROJECT MANAGER.

UNDERGROUND IMPROVEMENTS:

THREE I DESIGN HAS CONDUCTED REASONABLE RESEARCH TO PREPARE THESE CONSTRUCTION DOCUMENTS INDICATING THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND IMPROVEMENTS. HOWEVER, SUCH RESEARCH MAY NOT IDENTIFY ALL UNDERGROUND IMPROVEMENTS AND THE INFORMATION UPON WHICH THREE I REASONABLY RELIED, MAY CONTAIN ERRORS OR MAY BE INCOMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE (INCLUDING EXCAVATION) AND VERIFY EXISTING UNDERGROUND IMPROVEMENTS AS TO THEIR LOCATION, MATERIAL AND SIZE PRIOR TO STARTING THE PROJECT'S EXCAVATION OR ORDERING ANY MATERIAL FOR EXTENSION OF UNDERGROUND IMPROVEMENTS.

RECORD DRAWINGS:

RECORD DRAWINGS (OFTEN REFERRED TO AS "RED LINES" OR "AS-BUILTS") SHALL BE MAINTAINED BY EACH SUBCONTRACTOR AT THE DIRECTION OF THE CONTRACTOR. UPON THE COMPLETION OF CONSTRUCTION, RECORD DRAWINGS ARE TO BE TURNED OVER TO THREE I DESIGN, TOGETHER WITH REQUIRED MAINTENANCE MANUALS. RECORD DRAWINGS ARE TO DOCUMENT ANY CHANGES OCCURRING IN THE FIELD REGARDING MATERIALS INSTALLED, SIZES, DIMENSIONS OR LOCATIONS OF INSTALL CONSTRUCTION.

ALTERNATES

ALTERNATE #1 - SECOND FLOOR TEACHER'S LOUNGE / WORK ROOM #203 AND UNISEX RESTROOM #203A.

BASE BID TO INCLUDE NO WORK IN THIS AREA.

ALTERNATE WORK TO INCLUDE REMOVAL OF WALLS, DOORS, FLOOR FINISH AND WALL BASE. NEW WALLS, DOORS, CASEWORK AND RESTROOM TO BE INSTALLED PER DRAWINGS. AREAS TO RECEIVE NEW FLOOR FINISH, PAINT AND WALL BASE PER SCHEDULES. EXISTING CEILING TO BE REWORKED AT NEW WALL LOCATIONS.

ALTERNATE #2 - SECOND FLOOR REMODEL WORK IN CORRIDOR #200, LARGE GROUP MEETING ROOM #204, LARGE GROUP MEETING ROOM #207 AND LARGE GROUP MEETING ROOM #208.

BASE BID TO INCLUDE REPAIR FLOOR AND WALLS WHERE ITEMS WERE REMOVED, PAINT WALLS, DEEP CLEAN CARPET AND CEILING. AREA TO BE ONE LARGE OPEN AREA.

ALTERNATE WORK TO INCLUDE REMOVAL OF FLOOR FINISH, WALL BASE AND WINDOW TREATMENTS. NEW WALLS, INTERIOR WINDOWS, DOORS, OPERABLE PARTITION WALL AND WINDOW SHADES TO BE INSTALLED PER DRAWINGS. AREAS TO RECEIVE NEW FLOOR FINISH, PAINT AND WALL BASE PER SCHEDULES. EXISTING CEILING TO BE REWORKED AT NEW WALL LOCATIONS.

ALTERNATE #3 - RESKIN BOOKSHELVES FROM EXISTING MEDIA CENTER.

BASE BID TO INCLUDE MOVING EXISTING BOOKCASES TO NEW MEDIA CENTER #130 ON FIRST FLOOR.

ALTERNATE WORK TO INCLUDE REMOVING TOPS AND LAMINATE FROM SIDES / BACKS OF BOOKCASES AND PREPPING FOR NEW FINISHES. APPLY NEW LAMINATE FINISH ON EXPOSED SIDES AND PROVIDE NEW LAMINATE COUNTERTOP PER DRAWINGS.

ALTERNATE #4 - NEW CEILING TILE AND GRID IN TEACHER'S LOUNGE / WORK ROOM #203, RESTROOM #203A, LARGE GROUP MEETING ROOM #204, LARGE GROUP MEETING ROOM #207 AND LARGE GROUP MEETING ROOM #208.

BASE BID TO INCLUDE REWORKING GRID AND CEILING TILES AT NEW WALLS IN THESE AREAS.

ALTERNATE WORK TO INCLUDE REMOVAL OF EXISTING CEILING TILE AND GRID AND INSTALLING NEW CEILING TILE AND GRID IN THESE AREAS PER DRAWINGS.

ALTERNATE #5 - SECOND FLOOR WINDOW SHADES IN CONFERENCE ROOM #202 AND TEACHER'S LOUNGE / WORK ROOM #203.

BASE BID TO LEAVE EXISTING WINDOW TREATMENTS AS-IS IN THESE ROOMS.

ALTERNATE WORK TO INCLUDE REMOVAL OF EXISTING WINDOW TREATMENTS AND INSTALLATION OF NEW WINDOW SHADES IN THESE ROOMS PER DRAWINGS.

ALTERNATE #6 - ELECTRICAL FEED FOR NEW AHU.

BASE BID TO INCLUDE FEEDING NEW AHU FROM SECOND FLOOR MECHANICAL / ELECTRICAL ROOM #214.

ALTERNATE TO INCLUDE FEEDING NEW AHU FROM FIRST FLOOR MECHANICAL / ELECTRICAL ROOM #114.

ALTERNATE #7 - VAV BOX REPLACEMENT

BASE BID TO INCLUDE LEAVING EXISTING VAV BOXES AND ASSOCIATED THERMOSTATS THAT SERVE THE PROJECT AREAS.

ALTERNATE WORK TO INCLUDE UPGRADING EXISTING VAV BOXES AND ASSOCIATED THERMOSTATS PER DRAWINGS.

CLERK OF THE WORKS CONTACT:
DANA GELDHOF, THE STENFTENAGEL GROUP
EMAIL: DANA@STENGROUP.COM PHONE: 812-639-9709

IN ADDITION TO THE LISTED CONSTRUCTION NOTES AND TECHNICAL SPECIFICATION ON THIS SHEET AND ALL SHEETS IN THE SET, THE CONTRACTOR SHALL ALSO REFER TO AND REVIEW DIV 1 AND DIV 2 SPECIFICATIONS AND SHALL COMPLY WITH THESE SPECIFICATIONS.

BID
11/01/23

THREE i DESIGN
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WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	09/07/23	LEW	ISSUED FOR 100% REVIEW
B	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

GENERAL NOTES, LIST OF ALTERNATES, AND CONTRACTOR STAGING PLAN

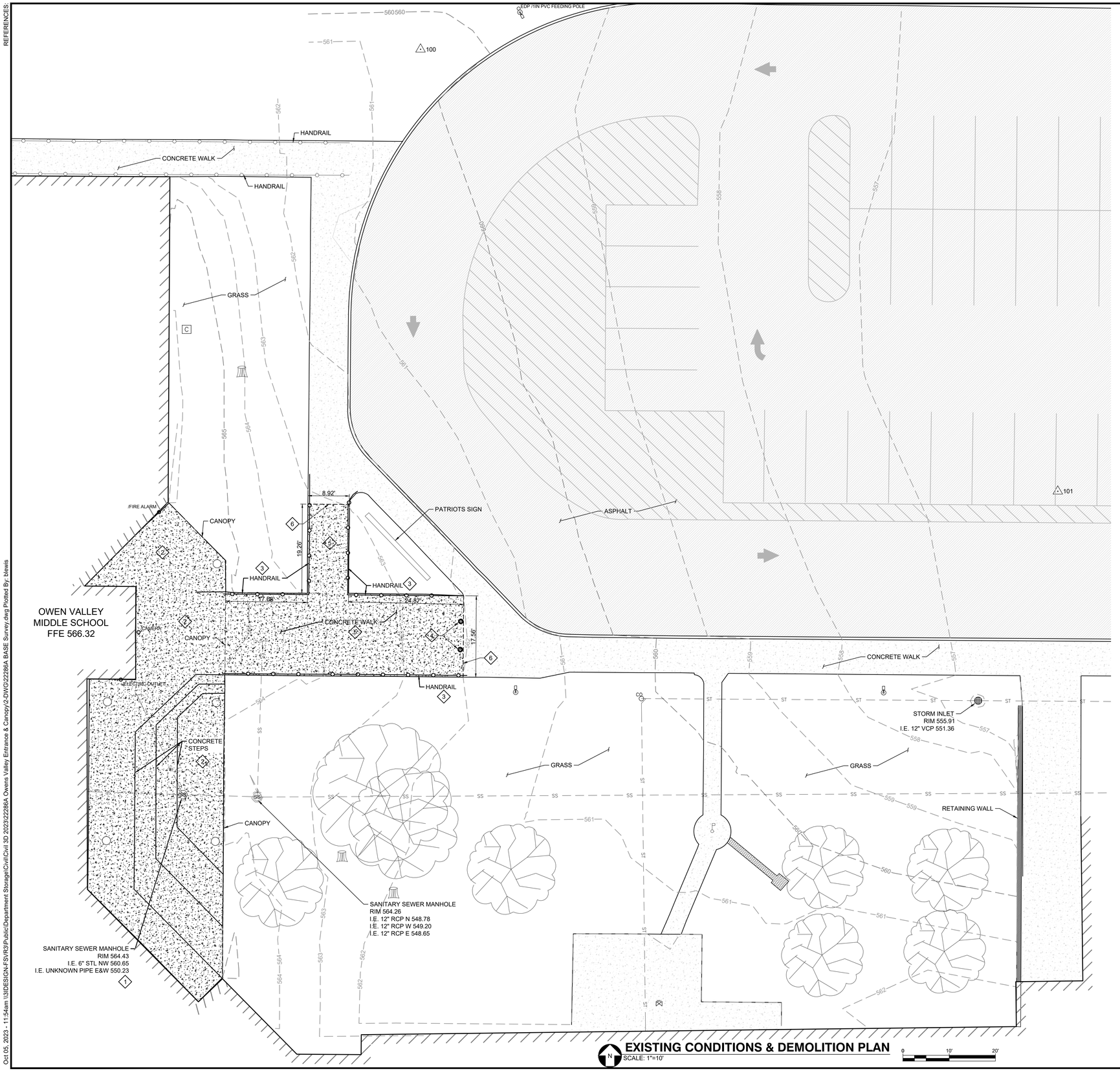
DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: AS NOTED

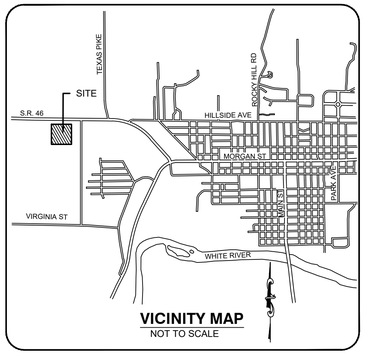
PROJECT NUMBER: **22286A**

SHEET NO: **G2**
4 of 58

REFERENCES:



EXISTING CONDITIONS & DEMOLITION PLAN
SCALE: 1"=10'



VICINITY MAP
NOT TO SCALE

LEGEND

△#	CONTROL POINT	FFE	FINISHED FLOOR ELEVATION
	BOLLARD	RCP	REINFORCED CONCRETE PIPE
	SINGLE HEAD LIGHT POLE	STL	STEEL PIPE
EDP	ELECTRIC DROP	VCP	VITRIFIED CLAY PIPE
C	CABLE PEDESTAL	IE	INVERT ELEVATION
SS	SANITARY SEWER MANHOLE	—ST—	STORM SEWER LINE
	WATER VALVE	—SS—	SANITARY SEWER LINE
	ROUND STORM INLET	~385~	EXISTING CONTOURS
	FLAG POLE		CONCRETE
	DECIDOUS TREE		ASPHALT
	TREE STUMP		PAVERS

GENERAL NOTES:

1. THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.
2. BURIED UTILITIES SHOWN ARE RESULT OF TOPOGRAPHIC SURVEY AND REFERENCE INFORMATION AND ARE NOT GUARANTEED FOR ACCURACY.
3. CONTRACTOR IS RESPONSIBLE FOR UTILITY LOCATES PRIOR TO COMMENCING WORK.
4. INSTALL ALL APPLICABLE EROSION CONTROL MEASURES PRIOR TO COMMENCING SOIL DISTURBING ACTIVITY. SEE EROSION CONTROL PLAN & DETAILS, SHEETS C2 AND C3.
5. SITE CONTRACTOR IS RESPONSIBLE FOR SITE DRAINAGE DURING DEMOLITION & CONSTRUCTION PHASES. SUPPLEMENTAL GRADING AND STORM WATER DE-WATERING SHALL BE PERFORMED AS NEEDED.
6. EACH ITEM TO BE DEMOLISHED IS NOT SPECIFICALLY NOTED WITHIN CONSTRUCTION AREA. REMOVE ALL ITEMS REQUIRED FOR NEW CONSTRUCTION.
7. UNLESS OTHERWISE INDICATED, ALL EXISTING MATERIAL STOCKPILE AND DEMOLITION WASTE BECOMES THE PROPERTY OF CONTRACTOR AND SHALL BE REMOVED FROM SITE AND DISPOSED OF PROPERLY IN A TIMELY MANNER.
8. PROVIDE MEASURES TO PROTECT EXISTING CONSTRUCTION TO REMAIN. PROTECT ALL EXISTING PAVEMENT AND UTILITIES. ANY ITEMS DAMAGED SHALL BE REPAIRED OR REPLACED AT EXPENSE OF CONTRACTOR.
9. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC BARRICADES, CONES, DRUMS, SIGNAGE, ETC. AS NECESSARY TO MAINTAIN A SAFE AND SECURE SITE.

DEMOLITION KEY NOTES:

1. REMOVE AND BACKFILL COMPLETE SANITARY SEWER MANHOLE INCLUDING FRAME & COVER. BACKFILL WITH FLOWABLE FILL UP TO BOTTOM OF NEW BUILDING SLAB'S AGGREGATE BASE. SEE FLOWABLE FILL SPECIFICATION ON SHEET C7. SEE STRUCTURAL PLAN BUILDING SLAB SECTION. SEE PLUMBING PLANS FOR REPLACEMENT PIPES, FITTINGS, AND CLEAN OUTS TO ALLOW UNINTERRUPTED FLOW TO EXISTING STRUCTURE TO THE EAST.
2. REMOVE CONCRETE PAVEMENT AND CONCRETE STEPS UNDER THE EXISTING CANOPY LINE INCLUDING AGGREGATE BASE. SEE STRUCTURAL PLANS FOR FURTHER INFORMATION ON REMOVAL AND REPLACEMENT.
3. REMOVING EXISTING HANDRAIL.
4. REMOVE EXISTING PIPE BOLLARDS, INCLUDING CONCRETE FOUNDATION BASE.
5. REMOVE EXISTING CONCRETE WALK INCLUDING AGGREGATE BASE. SAWCUT ALONG LINE TO REMAIN TO MAINTAIN CLEAN EDGE. PROTECT EXISTING CONCRETE TO REMAIN. REMOVE AGGREGATE BASE TO BOTTOM OF NEW CONCRETE WALK PAVEMENT AGGREGATE BASE SECTION. SEE SHEET C6 FOR NEW SECTION. REPAIR CONCRETE WALK PAVEMENT TO REMAIN AS NECESSARY.
6. LIMIT OF CONCRETE WALK REMOVAL.

HORIZONTAL & VERTICAL CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
△100	1472028.742	3037990.009	560.58	REBAR W/ 3i CAP
△101	1471933.291	3038127.65	556.13	MAG IN ASPHALT

HORIZONTAL DATUM - US STATE PLANE, INDIANA WEST NAD 1983
VERTICAL DATUM - NAVD 1988

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REV	DATE	BY	ITEM
A	07/27/23	3ID	ISSUED FOR 30% REVIEW
B	08/17/23	3ID	ISSUED FOR 60% REVIEW
C	09/07/23	3ID	ISSUED FOR 100% OWNER REVIEW
D	11/01/23	3ID	ISSUED FOR BID

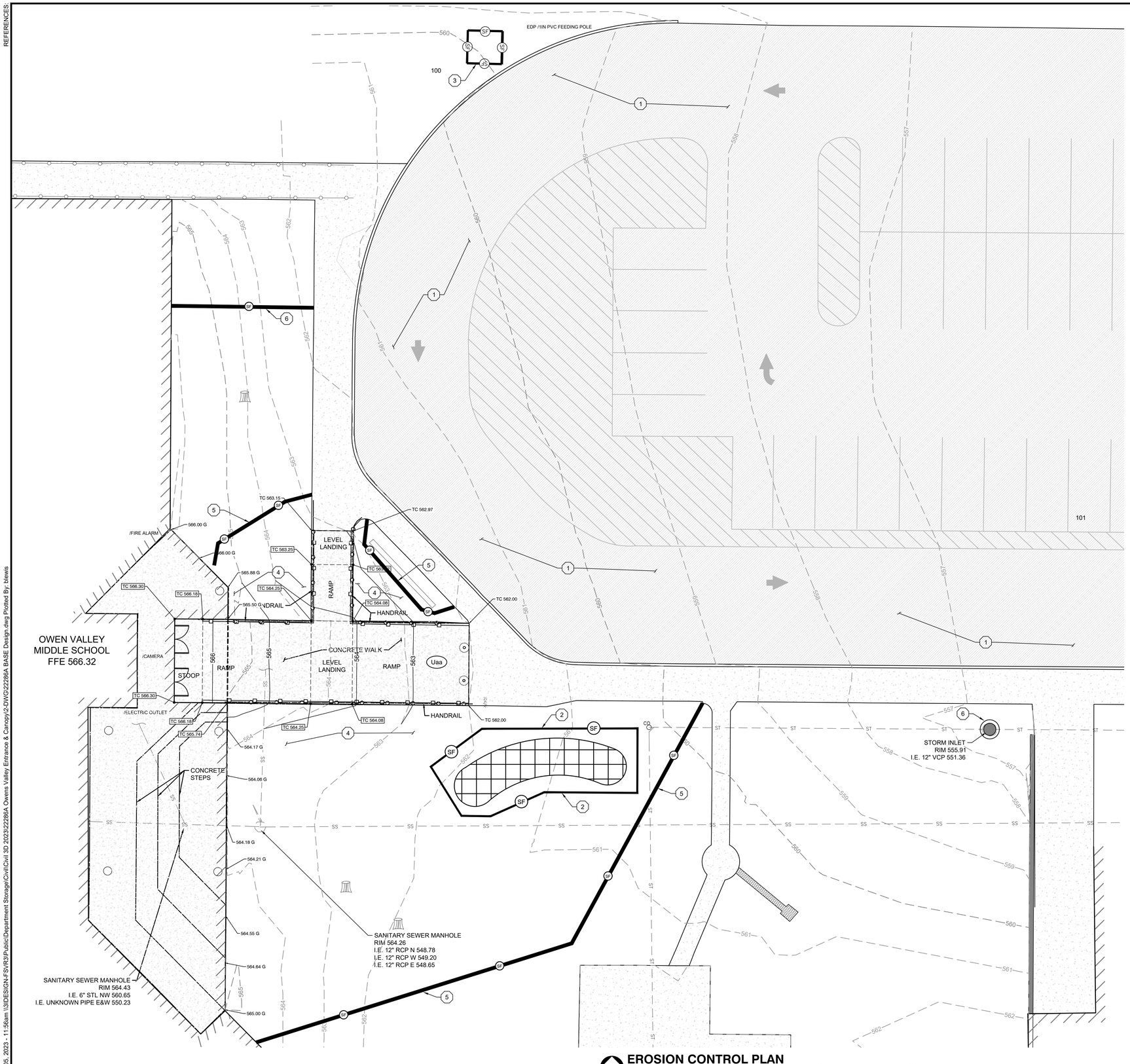
CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

EXISTING CONDITIONS AND DEMOLITION PLAN

DRAWN BY: RMY	DESIGNED BY: BLL
CHECKED BY: LAM	DATE: 07/10/23
SCALE: 1"=10'	
PROJECT NUMBER: 22286A	
SHEET NO: C1	5 of 58

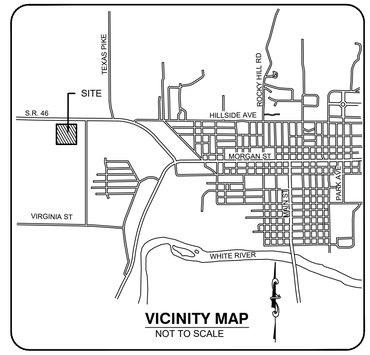
Oct 05, 2023 - 11:54am \\3IDESIGN-FSVR3\Public\Department Storage\Civil\Civil 3D 2023\22286A Owens Valley Entrances & Canopy\2.DWG\22286A BASE Survey.dwg Plotted By: blewis

REFERENCES:



EROSION CONTROL PLAN
SCALE: 1"=10'

0 10' 20'



VICINITY MAP
NOT TO SCALE

EROSION CONTROL LEGEND

- AfB2 — SOIL TYPE
- 397 — EXISTING CONTOURS
- 397 — NEW CONTOURS
- SF — SILT FENCE
- STONE BAGS
- EXISTING STRUCTURE / PIPE PROTECTION
- CONCRETE WASHOUT
- TOPSOIL STOCKPILE AREA

SOIL LEGEND

Uaa - UDORTHENTS, CUT AND FILLED

SOIL CLASSIFICATIONS OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

GENERAL EROSION CONTROL NOTES:

1. ALL SOIL EROSION CONTROL ITEMS MUST BE INSTALLED BEFORE SITE WORK BEGINS.
2. ALL STORM WATER QUALITY MEASURES IMPLEMENTED DURING AND AFTER CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH IDEM'S CONSTRUCTION STORM WATER GENERAL PERMIT.
3. SHOULD ADVERSE WEATHER CONDITIONS CAUSE EXCESSIVE SEDIMENT ACCUMULATIONS TO OCCUR, ADDITIONAL MEASURES SHALL BE IMPLEMENTED.
4. THE CONTRACTOR SHALL PROVIDE A DESIGNATED AREA TO PERFORM ALL EQUIPMENT FUELING AND MAINTENANCE. SPILL CONTROL AND COUNTERMEASURE MATERIAL MUST BE KEPT ON SITE AT ALL TIMES. ANY SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY.
5. CONCRETE WASHOUT (CWO) AREA IS TO BE PROVIDED FOR ANY CONCRETE WASHOUT OR WASH WATER USED TO CLEAN CONCRETE EQUIPMENT AND TOOLS. WASHOUT MUST PROVIDE LEAK PROOF CONTAINMENT, NO MATERIAL OR WASH WATER SHALL BE DISCHARGED. INSTALL SIGNAGE TO IDENTIFY CWO LOCATION. REFER TO WASH WATER CONTAINMENT DESIGN GUIDANCE DOCUMENT.
6. ANY SOIL TRACKED ON PUBLIC STREETS WILL BE CLEANED UP IMMEDIATELY. WASHING SOILS INTO THE PUBLIC STORM SEWERS IS NOT ACCEPTABLE. CONSTRUCTION INGRESS/EGRESS PAD SHALL BE CONSTRUCTED. LOCATIONS TO BE DETERMINED BY CONTRACTOR. SEE DETAIL 1, SHEET C3.
7. APPLY TEMPORARY SEEDING WHERE UNPROTECTED SOIL WILL BE EXPOSED WITHIN 7 DAYS OF INACTIVITY AND COMPLETED WITHIN 14 DAYS. SEE SPECIFICATIONS ON SHEET C3.
8. ALL EROSION CONTROL MEASURES MAY BE REMOVED AFTER 70% SEED GROWTH IS ESTABLISHED.
9. DE-WATER SITE AS NEEDED DURING CONSTRUCTION USING PUMP AND FILTER BAGS. SEE DETAILS 4 & 5, SHEET C3.
10. PLACE ANY TRENCH SPOILS NOT BEING REMOVED FROM THE SITE, UPHILL FROM TRENCH.

EROSION CONTROL KEYNOTES:

1. PUBLIC ROADWAY TO BE CLEANED OF SEDIMENT AND DEBRIS ON A DAILY BASIS.
2. SOIL STOCKPILE AREA FOR STRIPPED TOPSOIL (LOCATION & SIZE AS NEEDED). INSTALL SILT FENCE PROTECTION AROUND PERIMETER. SEE DETAIL 6, SHEET C3.
3. CONCRETE WASHOUT CONTAINMENT WITH SIGNAGE. LOCATION TO BE DETERMINED BY CONTRACTOR. SEE DETAIL 2, SHEET C3. LINED DUMPSTER MAY BE USED IN LIEU OF WASHOUT.
4. SOD ALL DISTURBED AREAS, NOT RECEIVING EROSION CONTROL BLANKETS OR PAVING, IMMEDIATELY AFTER FINAL GRADE IS ACHIEVED. TEMPORARY SEED ANY AREAS TO BE LEFT BARE AFTER 7 DAYS OF INACTIVITY AND COMPLETED WITHIN 14 DAYS. SEE PERMANENT AND TEMPORARY SEEDING SPECIFICATIONS ON SHEET C3.
5. SILT FENCE PROTECTION AROUND PERIMETER. SEE DETAIL 6, SHEET C3.
6. PROTECT EXISTING DRAINAGE PIPES & STRUCTURES WITH GEOTEXTILE PROTECTION UNTIL SOIL DISTURBING ACTIVITY IS COMPLETE AND GROUND COVER IS ESTABLISHED. SEE DETAIL 7 ON SHEET C3.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

EROSION CONTROL PLAN

DRAWN BY: RMY	DESIGNED BY: BLL
CHECKED BY: LAM	DATE: 7/12/23
SCALE: 1"=10'	
PROJECT NUMBER: 22286A	
SHEET NO: C2	6 of 58

Oct 05, 2023 - 11:56am \\3IDESIGN-FS\R3\Public\Department Storage\Civil\Civil 3D 2023\22286A Owens Valley Entrances & Canopy\2.DWG\22286A BASE Design.dwg Plotted By: blewis

REFERENCES:

TEMPORARY SEEDING:

PURPOSE

- To reduce erosion and sedimentation damage by stabilizing disturbed areas.
- To reduce problems associated with mud or dust from unvegetated soil surfaces during construction.
- To reduce sediment-laden storm water runoff from being transported to downstream areas.

Table 1. Temporary Seeding Specifications

Seed Species	Rates per Acre	Planting Depth	Optimum Dates
Wheat or Rye	150 lbs.	1 to 1-1/2 inches	Sept. 15- Oct 30
Spring Oats	100 lbs.	1 inch	March 1- April 15
Annual Ryegrass	40 lbs.	1/4 inch	March 1- May 1 Aug. 1- Sept. 1
German Millet	40 lbs.	1 to 2 inches	May 1- June 1
Sundangrass	35 lbs.	1 to 2 inches	May 1- July 30
Buckwheat	60 lbs.	1 to 2 inches	April 15- June 1
Corn (broadcast)	300 lbs.	1 to 2 inches	May 11- Aug. 10
Sorghum	35 lbs.	1 to 2 inches	May 1- July 15

Seeding done outside the optimum seeding dates increases the chances of seeding failure. Dates may be extended or shortened based on the location of the project site within the state.

APPLICATION

Seedbed Preparation

1. Test soil to determine pH and nutrient levels.
2. Apply soil amendments as recommended by the soil test. If testing is not done, apply 400 to 600 pounds per acre of 12-12-12 analysis fertilizer, or equivalent.
3. Work the soil amendments into the upper two to four inches of the soil with a disk or rake operated across the slope.

Seeding

1. Select a seed species or an appropriate seed mixture and application rate from Table 1.
2. Apply seed uniformly by broadcasting. Plant or cover seed to the depth shown in Table 1 above. Ensure good seed-to-soil contact by firming the seedbed with a roller after completing seeding operations. Seeding when the soil is moist is usually most effective.

Maintenance

- Inspect within 24 hours of each rain event and at least once every seven calendar days.
- Check for erosion or movement of mulch and repair immediately.
- Monitor for erosion damage and adequate cover (80 percent density); reseed and fertilize, where necessary.
- If nitrogen deficiency is apparent, top-dress fall seeded wheat or rye seeding with 50 pounds per acre of nitrogen in February or March.

PERMANENT SOD:

PURPOSE:

- To provide permanent vegetative cover and improve visual aesthetics of a project site.
- To reduce erosion and sedimentation damage by stabilizing disturbed areas.

APPLICATION:

Site Preparation

1. Grade the site to achieve positive drainage.
2. Add topsoil to achieve needed depth for establishment of vegetation. (Compost material may be added to improve soil moisture holding capacity, soil friability, and nutrient availability.)

Seedbed Preparation

1. Test soil to determine pH and nutrient levels.
2. Apply soil amendments as recommended by the soil test and work into the upper two to four inches of soil. If testing is not done, apply 400 to 600 pounds per acre of 12-12-12 analysis fertilizer, or equivalent.
3. Till the soil to obtain a uniform seedbed. Use a disk or rake, operated across the slope, to work the soil amendments into the upper two to four inches of the soil.

Dates

Optimum dates are March 1 to May 10 and August 10 to September 30. Permanent sod placed between May 10 and August 10 may need to be irrigated. Installation outside or beyond optimum dates is still possible with the understanding that replacement may be required if adequate surface cover is not achieved.

Quality Assurance

1. Root development shall be capable of supporting its own weight without tearing, when suspended vertically by holding upper two corners.
2. Deliver sod on pallets or in rolls. Protect exposed roots from dehydration.
3. Do not deliver more sod than can be laid within 24 hours.
4. Select field grown standard grade; cultivated grass sod; with strong fibrous root system, free of stones, burned or bare spots; containing no more than 5 weeds per 1000 sq ft.
5. Select sod based on site conditions, soil pH, intended land use, and expected level of maintenance. Generally, a tall fescue/blue grass will thrive in nearly all conditions.

Installation

1. Moisten prepared surface immediately prior to laying sod.
2. Lay sod within 24 hours after harvesting to prevent deterioration.
3. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.
4. Lay smooth. Align with adjoining grass areas.
5. Place top elevation of sod ½ inch below adjoining edging, paving, and curbs.
6. Do not place sod when temperature is lower than 32 degrees F.
7. Water sodded areas immediately after installation and for 10 consecutive days after placement and an additional 20 days as needed in the absence of rainfall or until established. When watering, soil should be saturated to a depth of 4 inches.

MAINTENANCE:

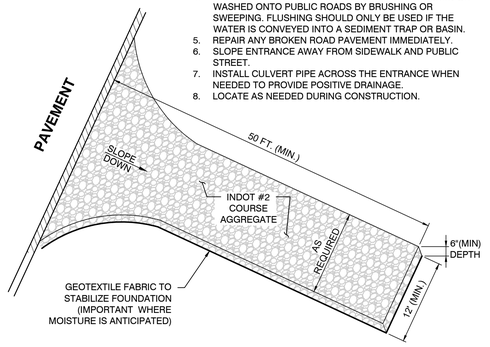
- Inspect within 24 hours of each rain event and at least once every seven calendar days until the vegetation is successfully established.
- Characteristics of a successful stand include vigorous dark green or bluish-green seedlings with a uniform vegetative cover density of 90 percent or more.
- Check for erosion.
- Replace damaged, bare, gullied, or sparsely vegetated areas.
- If cover is sparse or patchy, evaluate the material chosen, soil fertility, and moisture condition; replace affected areas.
- If vegetation fails to grow, consider soil testing to determine soil pH or nutrient deficiency problems. (Contact your soil and water conservation district or cooperative extension office for assistance.)
- If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.
- Add fertilizer the following growing season. Fertilize according to soil test recommendations.

DE-WATERING:

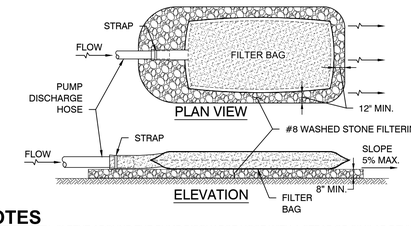
1. Drains, sumps, pumps, casings, well points, and all other items required to de-water the site shall be furnished, installed and maintained.
2. Where sumps are used, they shall meet the following requirements: a perforated vertical standpipe is placed in the center of the pit to collect filtered water. The standpipe will be a perforated 12 to 24-inch diameter corrugated metal of pvc pipe. Water is then pumped from the center of the pipe to a suitable discharge area. The pit will be filled with coarse aggregate.
3. Where there is low, intermittent amounts of de-watering, pumps with filtration bags shall be used. Filtration bags shall be attached to pump discharges and surrounded with a secondary containment or on a stabilized, flat area. The material for the filtration bag shall have a min. tensile strength of 200 lbs. The filtration bag shall be sized per manufacturer recommendations and based on the size of the pump. The largest size pump to be used with a filtration bag shall be 4-inch diameter.
4. All outlets for de-watering discharges shall be stable and protected from erosion.

GRAVEL PAD NOTES

1. INSPECT ENTRANCE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER STORM EVENTS OR HEAVY USE.
2. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN.
5. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.
6. SLOPE ENTRANCE AWAY FROM SIDEWALK AND PUBLIC STREET.
7. INSTALL CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
8. LOCATE AS NEEDED DURING CONSTRUCTION.



1 C2 CONSTRUCTION INGRESS/EGRESS PAD
NOT TO SCALE



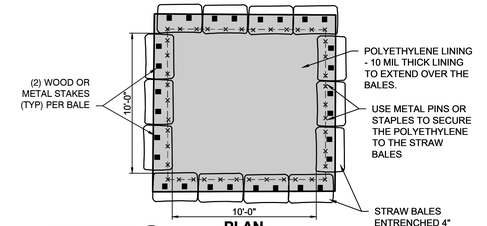
NOTES

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

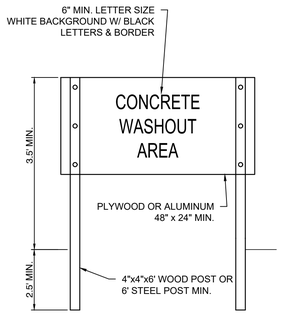
GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC^{-1})	1.2 SEC^{-1}	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.
7. REFER TO PLAN FOR FILTER BAG PLACEMENT LOCATION.

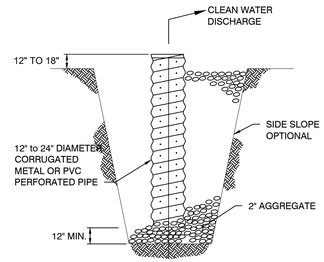
4 C2 FILTER BAG DETAIL
NOT TO SCALE



2 C2 CONCRETE WASHOUT
NOT TO SCALE



3 C2 CONCRETE WASHOUT SIGN
NOT TO SCALE



NOTES

1. PIT DIMENSIONS ARE OPTIONAL.
2. THE STANDPIPE WILL BE CONSTRUCTED BY PERFORATING A 12"-24" DIAMETER CORRUGATED METAL OR PVC PIPE.
3. A BASE OF 2" AGGREGATE WILL BE PLACED IN THE PIT TO A MINIMUM DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE WILL THEN BE BACKFILLED WITH 2" AGGREGATE.
4. THE STANDPIPE WILL EXTEND 12" TO 18" ABOVE THE LIP OF THE PIT.
5. IF DISCHARGE WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, THE STANDPIPE WILL BE WRAPPED WITH FILTER FABRIC BEFORE INSTALLATION.
6. IF DESIRED, 1/4"-1/2" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE PRIOR TO ATTACHING THE FILTER FABRIC. THIS WILL INCREASE THE RATE OF WATER SEEPAGE INTO THE PIPE.

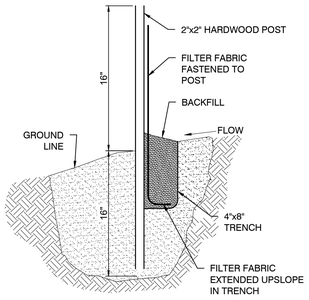
DE-WATERING

1. DRAINS, SUMPS, PUMPS, CASINGS, WELL POINTS, AND ALL OTHER ITEMS REQUIRED TO DE-WATER THE SITE SHALL BE FURNISHED, INSTALLED AND MAINTAINED.
2. WHERE SUMPS ARE USED, THEY SHALL MEET THE FOLLOWING REQUIREMENTS: A PERFORATED VERTICAL STANDPIPE IS PLACED IN THE CENTER OF THE PIT TO COLLECT FILTERED WATER. THE STANDPIPE WILL BE A PERFORATED 12 TO 24-INCH DIAMETER CORRUGATED METAL OF PVC PIPE. WATER IS THEN PUMPED FROM THE CENTER OF THE PIPE TO A SUITABLE DISCHARGE AREA. THE PIT WILL BE FILLED WITH COARSE AGGREGATE.
3. WHERE THERE IS LOW, INTERMITTENT AMOUNTS OF DE-WATERING, PUMPS WITH FILTRATION BAGS SHALL BE USED. FILTRATION BAGS SHALL BE ATTACHED TO PUMP DISCHARGES AND SURROUNDED WITH A SECONDARY CONTAINMENT OR ON A STABILIZED, FLAT AREA. THE MATERIAL FOR THE FILTRATION BAG SHALL HAVE A MIN. TENSILE STRENGTH OF 200 LBS. THE FILTRATION BAG SHALL BE SIZED PER MANUFACTURER RECOMMENDATIONS AND BASED ON THE SIZE OF THE PUMP. THE LARGEST SIZE PUMP TO BE USED WITH A FILTRATION BAG SHALL BE 4-INCH DIAMETER.
4. ALL OUTLETS FOR DE-WATERING DISCHARGES SHALL BE STABLE AND PROTECTED FROM EROSION.

5 C2 SUMP PIT DETAIL
NOT TO SCALE

SILT FENCE NOTES

1. INSTALL PARALLEL TO CONTOUR OF LAND.
2. EXTEND ENDS OF FENCE UPSLOPE TO ALLOW WATER TO POND BEHIND FENCE.
3. EXCAVATE A TRENCH 8" DEEP AND 4" WIDE.
4. INSTALL FENCE WITH STAKES ON DOWNSLOPE SIDES.
5. BURY 12" OF FABRIC IN TRENCH, EXTENDING THE BOTTOM 4" TOWARD THE UPSLOPE SIDE.
6. BACKFILL TRENCH WITH SOIL MATERIAL & COMPACT.
7. JOIN SILT FENCE SECTIONS.
8. INSPECT THE SILT FENCE PERIODICALLY AND AFTER EACH STORM EVENT.
9. IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
10. REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
11. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
12. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.
13. STEEL POSTS MAY BE SUBSTITUTED FOR HARDWOOD POSTS. STEEL POSTS SHOULD HAVE PROJECTIONS FOR FASTENING FABRIC.
14. MAX. POST SPACING IS SIX FEET.



6 C2 SILT FENCE
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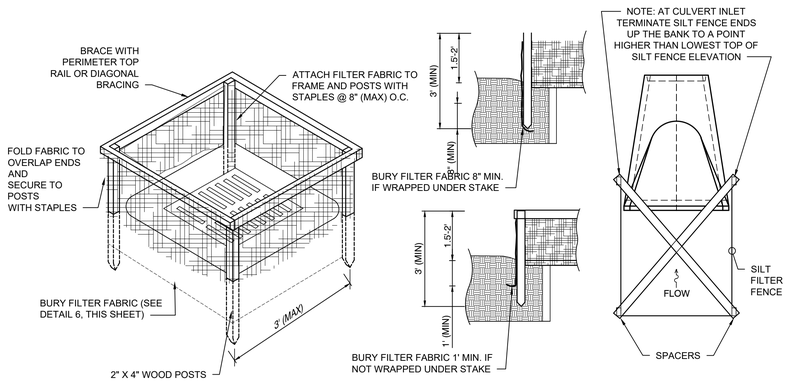

7 C2 GEOTEXTILE STRUCTURE AND PIPE PROTECTION
NOT TO SCALE

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

EROSION CONTROL DETAILS AND SPEIFICATIONS

DRAWN BY:	DESIGNED BY:
RMY	BLL
CHECKED BY:	DATE:
LAM	7/12/23

SCALE: AS NOTED

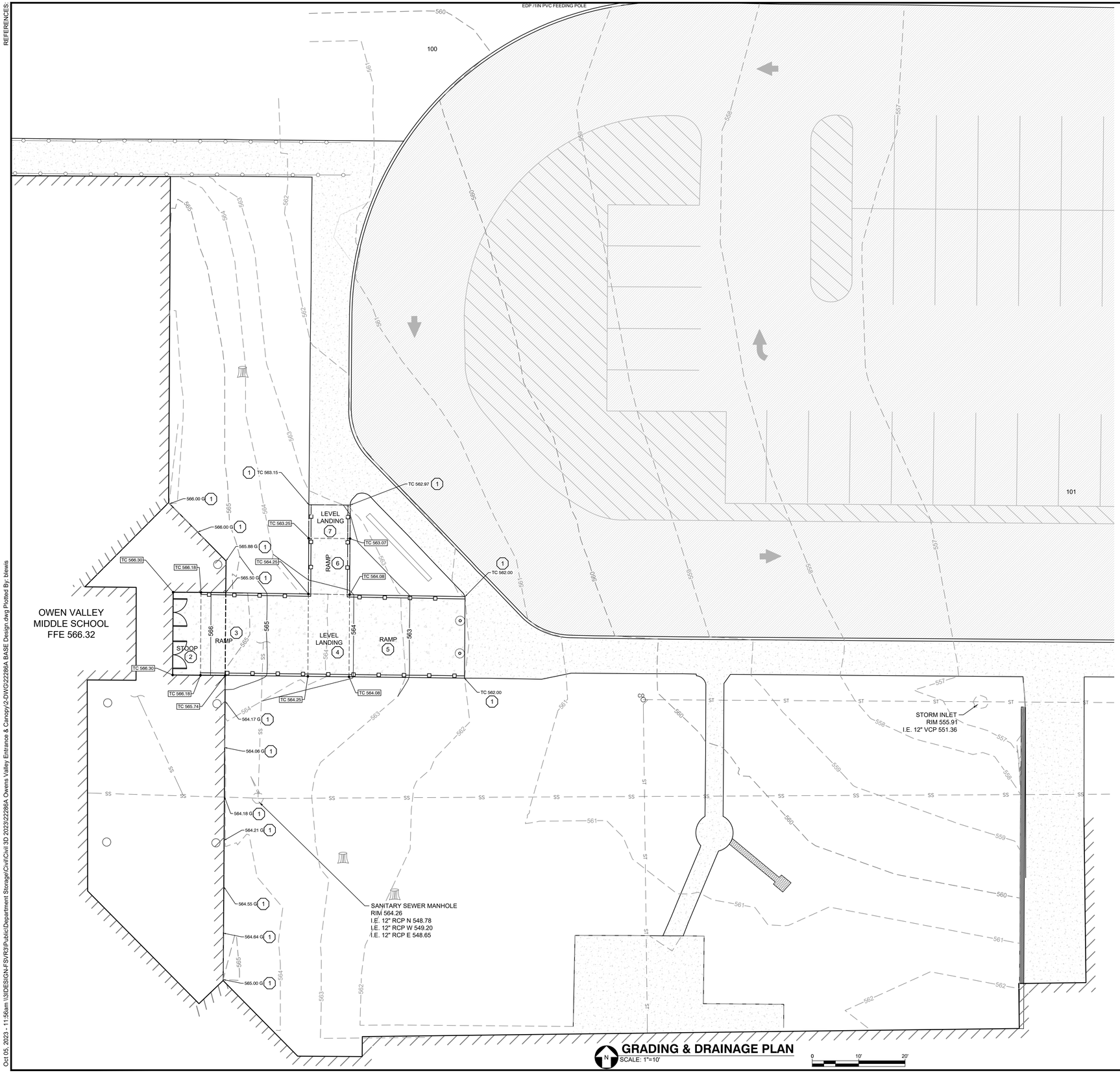
PROJECT NUMBER: 22286A

SHEET NO: C3

7 of 58

BID 11/01/23

REFERENCES:



LEGEND

- 385 EXISTING CONTOURS
- 385 DESIGN CONTOURS
- TC 495.80 DESIGN SPOT GRADE

TC = TOP OF CONCRETE

G = GROUND ELEVATION

GENERAL GRADING AND DRAINAGE NOTES:

1. INSTALL EROSION CONTROL MEASURES PRIOR TO SOIL DISTURBING ACTIVITY.
2. SEE SHEET C1 FOR VERTICAL CONTROL.
3. SPOT ELEVATIONS GIVEN TO TOP OF SURFACE. REFER TO SURFACE MATERIAL DETAILS FOR SECTION THICKNESS.
4. SUPPLEMENTAL GRADING AND DE-WATERING IS CONTRACTOR'S RESPONSIBILITY TO ENSURE SITE DRAINS DURING CONSTRUCTION PHASING. SUPPLEMENTAL GRADING MAY BE REQUIRED BEYOND WHAT IS SHOWN TO ENSURE SITE DRAINS DURING CONSTRUCTION PHASING.
5. CONTRACTOR SHALL PREVENT RUNOFF FORM PONDING ON PREPARED SUB-GRADES. SUB-GRADE PONDING, UNDERMINING AND WASH OUT WILL REQUIRE SUPPLEMENTAL GRADING NECESSARY TO PREPARE SUB-GRADE.
6. GRADE TO DRAIN, SEED AND MULCH ALL NON-PAVED AREAS NOT DESIGNATED TO RECEIVE PAVEMENT. REFER TO GROUND COVER SPECIFICATION ON SHEET C7.

(#) DRAINAGE KEYNOTES:

1. MATCH EXISTING GRADE.
2. 6' CONCRETE ENTRY/EXIT STOOP. SEE DETAIL 7, SHEET C6 AND SPECIFICATIONS ON SHEET C7. SLOPE FROM 566.30 (FFE) DOWN TO 566.18 (2% SLOPE).
3. CONCRETE RAMP. SEE CONCRETE DETAILS ON SHEET C6 AND SPECIFICATIONS ON SHEET C7. SLOPE DOWN @ 8.33% SLOPE (12:1).
4. CONCRETE LEVEL LANDING. SEE CONCRETE DETAILS ON SHEET C6 AND SPECIFICATIONS ON SHEET C7. SLOPE DOWN @ 2.0% SLOPE.
5. CONCRETE RAMP. SEE CONCRETE DETAILS ON SHEET C6 AND SPECIFICATIONS ON SHEET C7. SLOPE DOWN @ 8.33% SLOPE (12:1) TO MATCH EXISTING GRADES.
6. CONCRETE RAMP. SEE CONCRETE DETAILS ON SHEET C6 AND SPECIFICATIONS ON SHEET C7. SLOPE DOWN @ 8.33% SLOPE (12:1).
7. CONCRETE LEVEL LANDING. SEE CONCRETE DETAILS ON SHEET C6 AND SPECIFICATIONS ON SHEET C7. SLOPE DOWN @ MAXIMUM 2.0% SLOPE TO MATCH EXISTING GRADES.

GRADING & DRAINAGE PLAN
SCALE: 1"=10'

0 10' 20'

BID
11/01/23

THREE i DESIGN
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REV	DATE	BY	ITEM
A	07/27/23	3ID	ISSUED FOR 30% REVIEW
B	08/17/23	3ID	ISSUED FOR 60% REVIEW
C	09/07/23	3ID	ISSUED FOR 100% OWNER REVIEW
D	11/01/23	3ID	ISSUED FOR BID

CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

GRADING AND DRAINAGE PLAN

DRAWN BY:	DESIGNED BY:
RMY	BLL
CHECKED BY:	DATE:
LAM	7/12/23

SCALE: 1"=10'

PROJECT NUMBER: 22286A

SHEET NO: C4

REFERENCES:

EDP /TIN PVC FEEDING POLE

100

101

OWEN VALLEY
MIDDLE SCHOOL
FFE 566.32

STOOP

RAMP

LEVEL
LANDING

RAMP

LEVEL
LANDING

RAMP

6'

11.32'

17.81'

8.92'

19.23'

12'

24.86'

6.5'

5'

17.56'

51.53'

STORM INLET
RIM 555.91
I.E. 12" VCP 551.36

SANITARY SEWER MANHOLE
RIM 564.26
I.E. 12" RCP N 548.78
I.E. 12" RCP W 549.20
I.E. 12" RCP E 548.65

GENERAL CONSTRUCTION NOTES:

1. REFER TO SHEET C1 FOR HORIZONTAL AND VERTICAL CONTROL.
2. POTHOLE AND PROTECT ANY EXISTING UTILITIES IN CONSTRUCTION AREAS.

(#) CONSTRUCTION KEYNOTES:

1. CONCRETE BOLLARDS. SEE DETAIL 6, SHEET C6.
2. CONCRETE ENTRY/EXIT STOOP. SEE DETAIL 7, SHEET C6 AND SPECIFICATIONS ON SHEET C7.
3. NEW CANOPY OVERHANG.
4. CONCRETE WALK. SEE DETAILS ON SHEET C6 AND SPECIFICATIONS ON SHEET C7.
5. TIE INTO EXISTING CONCRETE WALK. SEE DETAIL 5, SHEET C6.
6. NEW HANDRAIL. SEE DETAILS 9 AND 10 ON SHEET C6.

DIMENSION & LAYOUT PLAN

SCALE: 1"=10'

0 10' 20'

BID
11/01/23

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

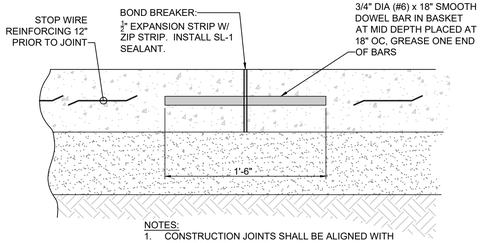
DIMENSION AND LAYOUT PLAN

DRAWN BY:	DESIGNED BY:
RMY	BLL
CHECKED BY:	DATE:
LAM	7/12/23

SCALE: 1"=10'

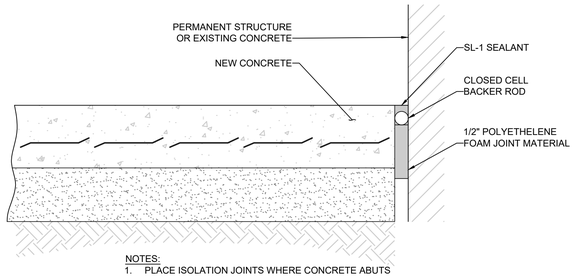
PROJECT NUMBER: 22286A

SHEET NO: C5



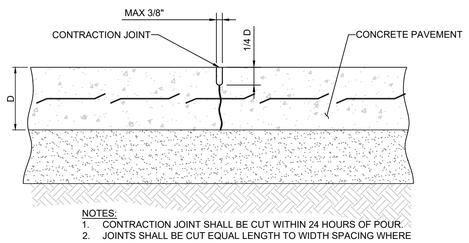
NOTES:
1. CONSTRUCTION JOINTS SHALL BE ALIGNED WITH CONTRACTION JOINTS.
2. USE BUTT CONSTRUCTION JOINT WHERE CONCRETE IS PLACED WITH SEPARATE POURS.

1/C5 BUTT CONSTRUCTION JOINT
SCALE: 1-1/2" = 1'-0"



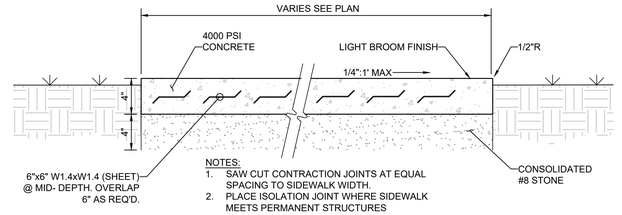
NOTES:
1. PLACE ISOLATION JOINTS WHERE CONCRETE ABUTS PERMANENT STRUCTURE

2/C5 ISOLATION JOINT
SCALE: 1-1/2" = 1'-0"



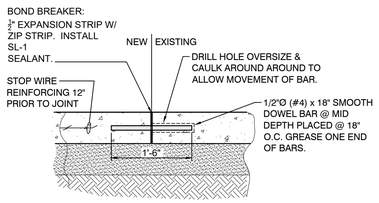
NOTES:
1. CONTRACTION JOINT SHALL BE CUT WITHIN 24 HOURS OF POUR.
2. JOINTS SHALL BE CUT EQUAL LENGTH TO WIDTH SPACING WHERE POSSIBLE, OR AS NOTED ON PLANS.
3. RATIO SHALL NOT EXCEED 1.25:1

3/C5 CONTRACTION JOINT
SCALE: 1-1/2" = 1'-0"

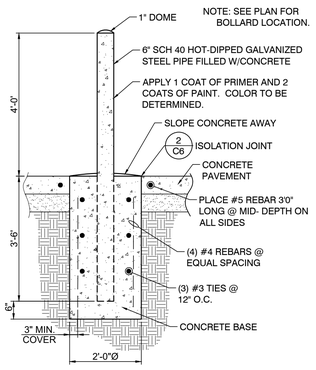


NOTES:
1. SAW CUT CONTRACTION JOINTS AT EQUAL SPACING TO SIDEWALK WIDTH.
2. PLACE ISOLATION JOINT WHERE SIDEWALK MEETS PERMANENT STRUCTURES
3. COAT WITH CONCRETE SEALANT
4. 48' BETWEEN EXPANSION JOINTS.

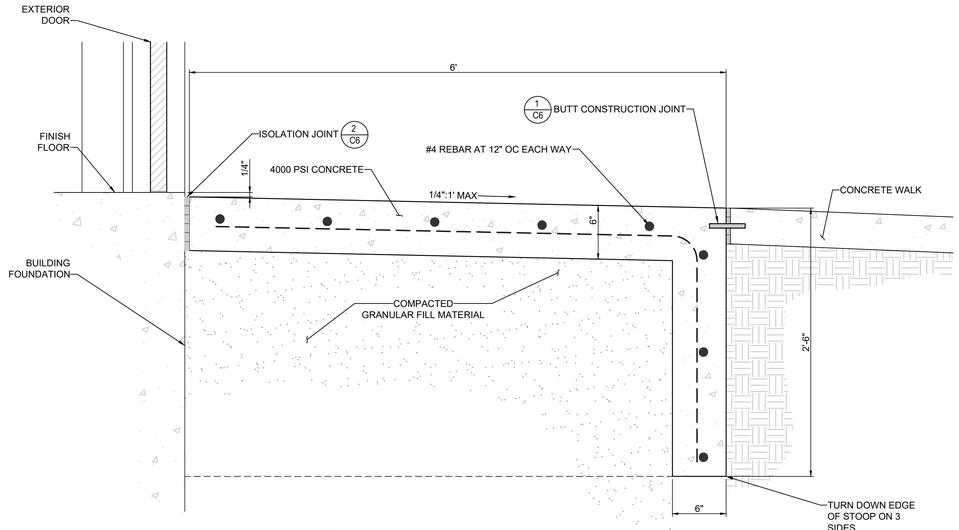
4/C5 CONCRETE WALK - SECTION
SCALE: 1-1/2" = 1'-0"



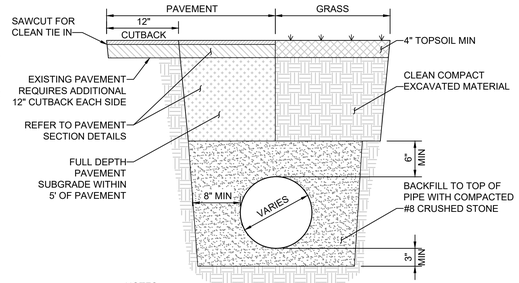
5/C5 CONCRETE WALK TIE-IN
SCALE: 3/4"=1'-0"



6/C5 BOLLARD BASE IN CONCRETE
1"=1'-0"

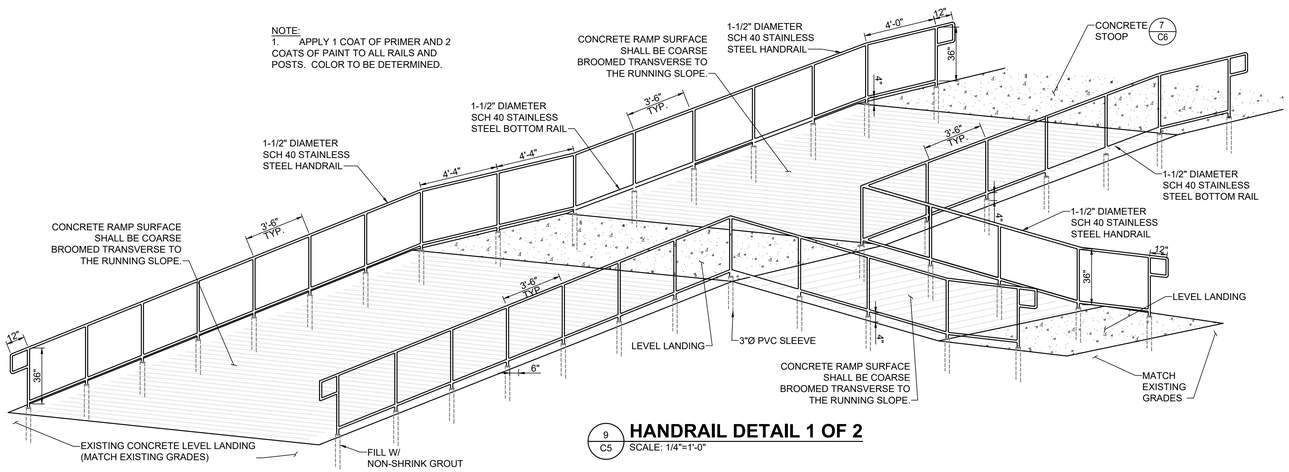


7/C5 CONCRETE STOOP DETAIL
SCALE: 1-1/2" = 1'-0"

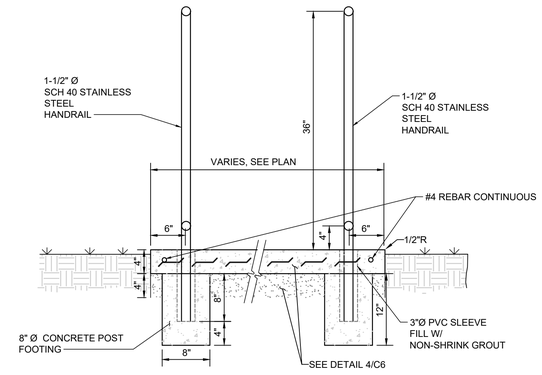


NOTES:
1. REFER TO EARTHWORK SPECIFICATIONS FOR BACKFILL COMPACTION REQUIREMENTS
2. LOCATE AND PROTECT ALL EXISTING UTILITY CROSSINGS.
3. USE TRENCH BOXES PER OSHA REQUIREMENTS AND TO LIMIT TRENCH WIDTH.

8/C5 TRENCH BACKFILL
1"=1'-0"



9/C5 HANDRAIL DETAIL 1 OF 2
SCALE: 1/4"=1'-0"



10/C5 HANDRAIL DETAIL 2 OF 2
SCALE: 1-1/2" = 1'-0"

BID
11/01/23

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REV	DATE	BY	ITEM
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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

DETAILS

DRAWN BY:	DESIGNED BY:
RMY	BLL
CHECKED BY:	DATE:
LAM	7/12/23

SCALE: AS NOTED

PROJECT NUMBER: 22286A

SHEET NO: C6

REFERENCES:

A. GENERAL INFORMATION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING UNLESS NOTED OTHERWISE:

1. SITE VISIT TO VERIFY EXISTING CONDITIONS PRIOR TO BID.
2. NOTIFY ENGINEER OF ANY DISCREPANCIES IN PLANS AND OR EXISTING SITE CONDITIONS.
3. LOCATION & PROTECTION OF ALL BURIED UTILITIES & STRUCTURES.
4. NOTIFY UTILITY LOCATOR SERVICE FOR UTILITY LOCATION, 2 DAYS PRIOR TO DIGGING.
5. COMPACTION TESTING.
6. ALL SAFETY AND TRAFFIC CONTROL BARRICADES AND WARNING SIGNS.
7. AS-BUILT RECORD DRAWINGS OF ALL MODIFICATIONS AND BELOW GRADE FEATURES/UTILITIES.
8. ALL PERMITS ASSOCIATED WITH CONSTRUCTION UNLESS NOTED OTHERWISE.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE TOWN OF SPENCER, OWEN COUNTY, & INDOT STANDARD SPECIFICATIONS.

ANY CHANGES TO THE PROPOSED WORK MUST BE SUBMITTED FOR APPROVAL BY THE ENGINEER, OWNER, OWNER'S REPRESENTATIVE, AND AUTHORITY HAVING JURISDICTION, PRIOR TO THE WORK TAKING PLACE.

THE CONTRACTOR SHALL SUBMIT DIGITAL SHOP DRAWINGS TO THE THREE I DESIGN PROJECT ENGINEER FOR REVIEW AND APPROVAL.

ANY DAMAGE TO THE EXISTING FEATURES INVOLVED IN THIS CONSTRUCTION ACTIVITY SHALL BE REPAIRED TO ITS ORIGINAL CONDITION PRIOR TO THE DISTURBANCE.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING STABILITY OF THE BACKFILL FOR A PERIOD OF 12 MONTHS UPON PROJECT COMPLETION.

CONTRACTOR SHALL WARRANT PAVEMENT (CONCRETE) FOR 1 YEAR AFTER ACCEPTANCE.

ALL MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FULLY AWARE OF THE CONSTRUCTION SITE CONDITIONS AND PARAMETERS PRIOR TO SUBMITTING A BID. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITIES OR BE GROUNDS FOR EXTRA CHARGES.

B. EARTHWORK:

1. DO NOT COMMENCE SITE CLEARING OPERATIONS OR EARTHWORK UNTIL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND HAVE BEEN INSPECTED.

2. TOP 3"-5" OF TOPSOIL SHOULD BE EXPECTED TO BE STRIPPED PRIOR TO COMPACTING OR PLACING FILL MATERIAL.

3. PROVIDE BORROW SOIL MATERIALS WHEN SUFFICIENT SATISFACTORY SOILS MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS. FILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH INDOT EMBANKMENT SPECIFICATIONS 203.23.

4. SOIL MOISTURE CONTROL
   a. UNIFORMLY MOISTEN OR AERATE SUBGRADE AFTER EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
   b. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY OR FROZEN.
   c. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY OTHERWISE SATISFACTORY SOIL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO BE COMPACTED TO THE SPECIFIED DRY UNIT WEIGHT.

6. PROOF ROLL SUBGRADE UNDER SUPERVISION OF GEOTECHNICAL ENGINEER TO IDENTIFY AREAS OF SOFT POCKETS AND EXCESS YIELDING. TEST SHALL BE PERFORMED WITH 2 PASSES OF A FULLY LOADED TANDEM DUMP TRUCK. DO NOT PROOF ROLL WET OR SATURATED SOILS. IF ANY POCKETS OF UNSUITABLE OR UNSTABLE SOILS ARE ENCOUNTERED, THE MATERIAL SHOULD BE REMEDIATED BY CHEMICAL STABILIZATION, DISC, AND AERATING SOILS, OR UNDERCUT AND REPLACING THE SOILS WITH SUITABLE STRUCTURAL FILL. THE METHOD OF STABILIZATION WILL BE DETERMINED BY THE PROOF-ROLL AND WEATHER CONDITIONS AT THE TIME OF CONSTRUCTION.

7. COMPACTION OF SOIL BACKFILLS AND FILLS
   a. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIALS COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIALS COMPACTED BY HAND-OPERATED TAMPERS.
   b. PLACE BACKFILL AND FILL MATERIALS EVENLY ON ALL SIDES TO THE TOP OF ALL STRUCTURES AND UNIFORMLY ALONG THE FULL LENGTH OF SIDEWALKS AND CURBS.
   c. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698. ONE PROCTOR PER MATERIAL SHALL BE REQUIRED.
   d. COMPACT SOIL MATERIAL UNDER SIDEWALKS, CURBS, AND PAVEMENT, INCLUDING SUBGRADE, TO 98 PERCENT OF A STANDARD PROCTOR FOR ALL ITEMS.
   e. COMPACT SOIL MATERIAL UNDER LAWNS OR UNPAVED AREAS TO 85 PERCENT OF A STANDARD PROCTOR.

9. UNIFORMLY GRADE ALL AREAS TO A SMOOTH SURFACE FREE OF IRREGULAR CHANGES. SLOPE GRADES TO DRAIN TOWARD DRAINAGE STRUCTURES AND PREVENT PONDING. HYDROSEED AND STRAW MULCH ALL DISTURBED AREAS.

10. FIELD QUALITY CONTROL
    a. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PROFESSIONAL TESTING SERVICES SUBJECT TO THE APPROVAL OF THE OWNER AND THEIR REPRESENTATIVES.
    b. ANY FAILED TEST MUST BE RECTIFIED BEFORE CONSTRUCTION CAN PROCEED.
    c. TESTS SHALL BE PERFORMED FOR EACH LIFT OF FILL MATERIAL PER 2,000 SF AND ONE TEST PER 100' OF TRENCH BACKFILL. NO FEWER THAN TWO TESTS SHALL BE PERFORMED.

C. GROUND COVER:

1. STOCKPILE AND PROTECT TOPSOIL FROM EROSION.

2. AFTER CONSTRUCTION AND CONSOLIDATION OR COMPACTION OF BACKFILL, SPREAD TOPSOIL TO A DEPTH OF 4", GRADE TO DRAIN.

3. LOOSEN SEED BED TO 4".

4. FERTILIZE PER SOIL TEST OR APPLY 12-12-12 AT A RATE OF 400-600 #/ACRE OR AS INDICATED BY SOIL TEST.

5. WORK FERTILIZER INTO SOIL AND APPLY LIME AT A RATE OF 400#/ACRE (IF REQUIRED).

6. INSTALL SOD ON ALL AREAS DISTURBED BY CONSTRUCTION NOT RECEIVING HARD SURFACE, LANDSCAPING, OR HARDSCAPE AS INDICATED ON THE PLAN SHEETS. SEE SPECIFICATIONS ON SHEET C3.

7. THE CONTRACTOR WILL BE REQUIRED TO PRODUCE A STAND OF GRASS AND SHALL REPAIR ANY AREAS DAMAGED BY EROSION OR CONSTRUCTION FOR A PERIOD OF SIX MONTHS AFTER THE COMPLETION OF CONSTRUCTION.

D. CONCRETE:

1. ALL EXTERIOR CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE".

2. MATERIALS:
   a. WELDED WIRE FABRIC: ASTM A 185, WELDED STEEL WIRE FABRIC.
   b. REINFORCING BARS: ASTM A 615, GRADE 60, DEFORMED.
   c. PORTLAND CEMENT: ASTM C 150, TYPE I (OR APPROVED EQUAL).
   d. FLY ASH: PERMITTED, ASTM C-618, CLASS F
   e. NORMAL WEIGHT AGGREGATES: ASTM C 33, OR LOCAL AGGREGATES WHICH CAN PRODUCE CONCRETE OF SPECIFIED STRENGTH.
   f. WATER: DRINKABLE
   g. AIR-ENTRAINING ADMIXTURE: ASTM C260
   h. LIQUID MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, TYPE I, CLASS A. (EQUAL TO "KURE-N-SEAL" BY SONNEBORN-REXNORD)
   i. MEDIUM BROOM FINISH ALL EXPOSED CONCRETE.

3. CONCRETE STRENGTH SHALL BE MINIMUM 4000 PSI FOR STOOPS AND SIDEWALK; 28-DAY COMPRESSIVE STRENGTH; WATER/CEMENT RATIO 0.58 MAXIMUM (NON-AIR- ENTRAINED), 0.46 MAXIMUM (AIR-ENTRAINED). READY-MIXED CONCRETE SHALL COMPLY WITH ASTM C 94. MAXIMUM SLUMP SHALL BE 4 INCHES. USE AIR-ENTRAINING ADMIXTURE TO ACHIEVE 4 TO 6 PERCENT TOTAL AIR CONTENT IN EXTERIOR EXPOSED CONCRETE.

4. CONCRETE TESTING: TAKE COMPRESSION TEST SPECIMENS IN ACCORDANCE WITH ASTM C31; ONE SET OF 4 STANDARD CYLINDERS FOR EACH COMPRESSIVE STRENGTH TEST. PERFORM COMPRESSIVE STRENGTH TESTS IN ACCORDANCE WITH ASTM C 39; ONE SET FOR EACH DAY'S POUR EXCEEDING 5 CU. YDS. PLUS ADDITIONAL SETS FOR EACH 50 CU. YDS. OVER AND ABOVE THE FIRST 25 CU. YDS. OF CONCRETE PLACED IN ANY ONE DAY. ONE SPECIMEN TESTED AT 3 DAYS AND 7 DAYS, TWO SPECIMENS TESTED AT 28 DAYS, AND ONE SPECIMEN RETAINED IN RESERVE FOR LATER TESTING IF REQUIRED. TESTING IS TO BE PERFORMED BY PATRIOT ENGINEERING AND PAID FOR BY THE GENERAL CONTRACTOR. A COPY OF THE TEST REPORT IS TO BE SENT DIRECTLY TO THE OWNER AND THREE I DESIGN WITHIN 24 HOURS AFTER THE TEST (FOR ALL EXTERIOR CONCRETE OTHER THAN BUILDINGS) AS REQUIRED BY OWNER.

5. IF ANY CYLINDER TEST FAILS AT 28 DAY THE RESERVE CYLINDER SHALL BE BROKEN. IF THE RESERVE CYLINDER FAILS THAT SEGMENT OF CONCRETE SHALL BE REMOVED AND REPLACED AT NO COST TO THE OWNER.

6. APPLY CURING COMPOUND AS DIRECTED BY MANUFACTURER'S SPECIFICATIONS. APPLY SECOND COAT WHERE CONCRETE IS EXPOSED TO VIEW.

7. REFER TO STRUCTURAL PLAN SPECIFICATIONS FOR INTERIOR BUILDING CONCRETE.

E. SIDEWALKS AND STOOPS:

1. SIDEWALKS SHALL BE 4" THICK, UNLESS NOTED OTHERWISE, AND REINFORCED WITH 6"x6" W1.4xW1.4 (SHEET) WELDED WIRE FABRIC LOCATED AT MID-DEPTH. PLACE SIDEWALKS ON 4" THICK CONSOLIDATED #8 CLEAN STONE BASE. SEE DETAILS ON SHEET C6.

2. STOOPS SHALL BE 6" THICK AND REINFORCED AS SHOWN ON DETAIL 7, SHEET C6. TURN DOWN EDGES ON THREE SIDES.

3. APPLY LIGHT BROOM FINISH TO FLOATED CONCRETE. FINISH TO BE APPROVED BY OWNER'S REPRESENTATIVE.

4. THE MAXIMUM LONGITUDINAL SLOPE FOR ACCESSIBLE ROUTES SHALL BE 5% AND THE MAXIMUM CROSS SLOPE SHALL BE 1/4" PER FOOT.

5. TOOL ALL EXPOSED EDGES TO A 1/2" RADIUS.

6. INSTALL SIDEWALK CONTRACTION JOINTS AT AN INTERVAL EQUAL TO WIDTH FOR SIDEWALKS GREATER THAN 5' IN WIDTH. SAWCUT TO 1/4 SLAB DEPTH. MAXIMUM WIDTH 3/8".

7. ISOLATION JOINTS SHALL BE USED WHEN A SIDEWALK OR STOOP COMES IN CONTACT WITH ANY FIXED OBJECTS (WALLS, FOOTINGS, ETC.).

8. INSTALL CLOSED CELL BACKER RODS AND URETHANE SEALANT AT ISOLATION JOINTS. SEALANT SHALL BE SONNEBORN NP1 OR APPROVED EQUAL. COLOR MATCH SEALANT (SEE SPECIFICATIONS).

9. ALL CONCRETE SIDEWALKS AND STOOPS SHALL BE MINIMUM 4000 PSI CONCRETE.

F. FLOWABLE FILL:

1. FLOWABLE FILL SHALL BE CEMENTITIOUS MATERIAL, AGGREGATE, AND WATER.

2. MIX DESIGN SHALL CONFORM TO SECTION 213 OF THE INDOT STANDARD SPECIFICATIONS, LATEST REVISION.

3. REMOVABLE FLOWABLE FILL SHALL HAVE AN AVERAGE PENETRATION RESISTANCE BLOW COUNT BETWEEN 12 AND 30.

4. NON-REMOVABLE FLOWABLE FILL SHALL HAVE AN AVERAGE PENETRATION RESISTANCE BLOW COUNT GREATER THAN 30.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

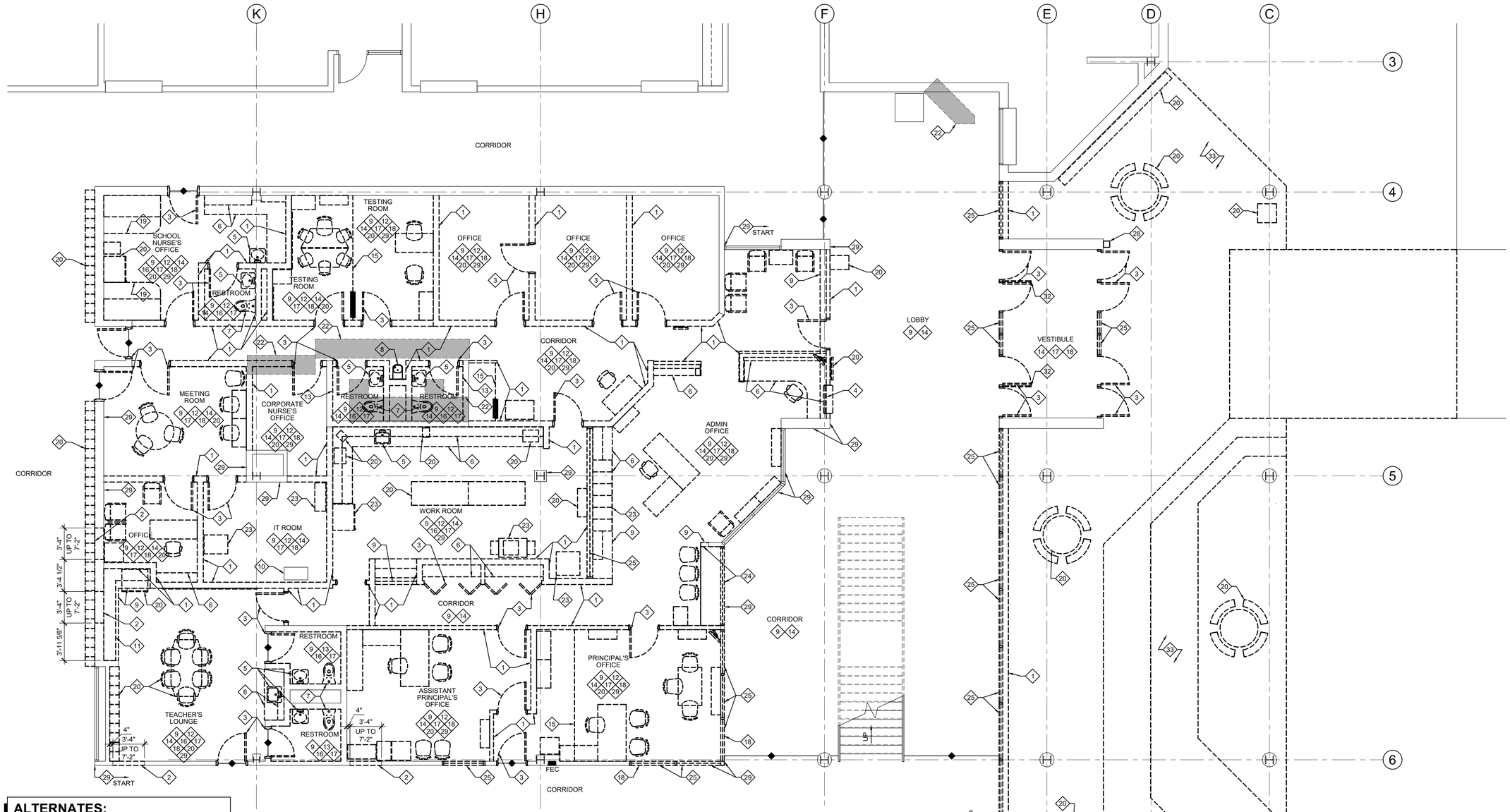
SPECIFICATIONS

DRAWN BY:	DESIGNED BY:
RMY	BLL
CHECKED BY:	DATE:
LAM	7/12/23

SCALE: NONE

PROJECT NUMBER: **22286A**

SHEET NO: **C7**
11 of 58



FIRST FLOOR DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

ALL DIMENSIONS ARE TAKEN FROM FINISH FACE OF WALL (UNLESS NOTED OTHERWISE).

ALL WALL, WINDOW AND DOOR OPENINGS TO BE COVERED WITH PLYWOOD DURING DEMOLITION TO PROTECT BUILDING FROM OUTSIDE ELEMENTS AND MAINTAIN A LEVEL OF SECURITY. EXISTING STOREFRONTS ARE ALSO TO BE COVERED WITH PLYWOOD FOR PROTECTION.

LEGEND:

- EXISTING CONDITION TO REMAIN
- ITEM TO BE REMOVED
- X — DEMOLITION KEYNOTE
- LIMITS OF FLOOR REMOVAL
- (X) — COLUMN LABEL

DEMOLITION KEYNOTES:

1. REMOVE WALL IN ITS ENTIRETY. REMOVE MISCELLANEOUS WALL MOUNTED ITEMS PRIOR TO WALL DEMOLITION. RETURN OR DISPOSE OF PER OWNER'S DIRECTION.
2. REMOVE PORTION OF WALL AS INDICATED. REMOVE MISCELLANEOUS WALL MOUNTED ITEMS PRIOR TO WALL DEMOLITION. RETURN OR DISPOSE OF PER OWNER'S DIRECTION.
3. REMOVE DOOR, FRAME AND HARDWARE. RETURN HARDWARE TO OWNER.
4. REMOVE SHUTTER DOOR AND ASSOCIATED HARDWARE.
5. REMOVE SINK. SEE PLUMBING PLANS FOR EXTENT OF WORK.
6. REMOVE CASEWORK, COUNTERTOP, SHELVING AND ASSOCIATED ITEMS.
7. REMOVE TOILET FIXTURE. SEE PLUMBING PLANS FOR EXTENT OF WORK.
8. REMOVE DRINKING FOUNTAIN. SEE PLUMBING PLANS FOR EXTENT OF WORK.
9. REMOVE CEILING / BULKHEAD IN ITS ENTIRETY.
10. EQUIPMENT TO REMAIN IN PLACE DURING CONSTRUCTION. PROTECT FROM DAMAGE AND DEBRIS. WORK AROUND EQUIPMENT TO BE COORDINATED WITH OWNER.
11. REMOVE SHELVING, CLOSET ROD AND ASSOCIATED ITEMS.
12. PATCH FLOOR AS REQUIRED WHERE ITEMS WERE REMOVED. PATCH TO BE FLUSH WITH ADJACENT FLOOR, LEVELED AND PREPPED FOR FINISHES.
13. REMOVE CERAMIC TILE AND GYPSUM BOARD FROM WALL.
14. REMOVE FLOOR FINISH AND WALL BASE INCLUDING ANY REMAINING ADHESIVE MATERIAL DOWN TO EXISTING CONCRETE FLOOR. EXISTING SLAB TO BE PREPPED FOR NEW FINISHES.
15. REMOVE ACCORDION DOOR, STRUCTURAL SUPPORTS, TRACK AND ASSOCIATED ITEMS.
16. OWNER TO REMOVE MIRROR, SOAP DISPENSER, PAPER TOWEL DISPENSER AND RECESSED SHELF PRIOR TO THE START OF CONSTRUCTION.
17. REMOVE MISCELLANEOUS WALL MOUNTED ITEMS. RETURN OR DISPOSE OF PER OWNER'S DIRECTION.
18. PATCH WALL AS REQUIRED AFTER REMOVAL OF WALL MOUNTED ITEM(S) OR AS NEEDED. PATCH TO BE FLUSH WITH ADJACENT WALL SURFACE AND PREPPED FOR NEW FINISHES.
19. REMOVE CEILING MOUNTED TRACK AND CURTAIN.
20. LOCKERS / FURNITURE / EQUIPMENT / APPLIANCE TO BE REMOVED BY OWNER PRIOR TO THE START OF CONSTRUCTION.
21. NOT USED THIS SHEET.
22. SAWCUT EXISTING CONCRETE AS REQUIRED TO ALLOW CONNECTION OF NEW PLUMBING PIPING TO EXISTING SANITARY PIPING. SEE PLUMBING PLANS FOR EXTENT OF WORK.
23. APPLIANCE / EQUIPMENT TO BE RELOCATED. OWNER TO REMOVE AND STORE IN A SAFE AND SECURE LOCATION PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REINSTALL IN NEW LOCATION AS INDICATED ON REMODEL PLAN.
24. REMOVE DISPLAY CASE IN ITS ENTIRETY.
25. REMOVE WINDOW, FRAME SYSTEM, AND HARDWARE COMPLETE.
26. NOT USED THIS SHEET.
27. NOT USED THIS SHEET.
28. REMOVE EXTERIOR HIGH-SECURITY KEY LOCK BOX. RELOCATE AS INDICATED ON REMODEL PLAN.
29. REMOVE WALL FINISH AND WALL BASE FROM ENTIRE WALL INCLUDING ANY REMAINING ADHESIVE. REMOVE EXISTING CEILING AS NECESSARY FOR WALL TO BE PREPPED FOR NEW FINISHES.
30. NOT USED THIS SHEET.
31. NOT USED THIS SHEET.
32. REMOVE HANDRAIL AND ASSOCIATED ITEMS. PATCH FLOOR AS REQUIRED.
33. REMOVE EXISTING PLASTER CEILING / SOFFIT AND ASSOCIATED FRAMING AND HANGERS COMPLETE.

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REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

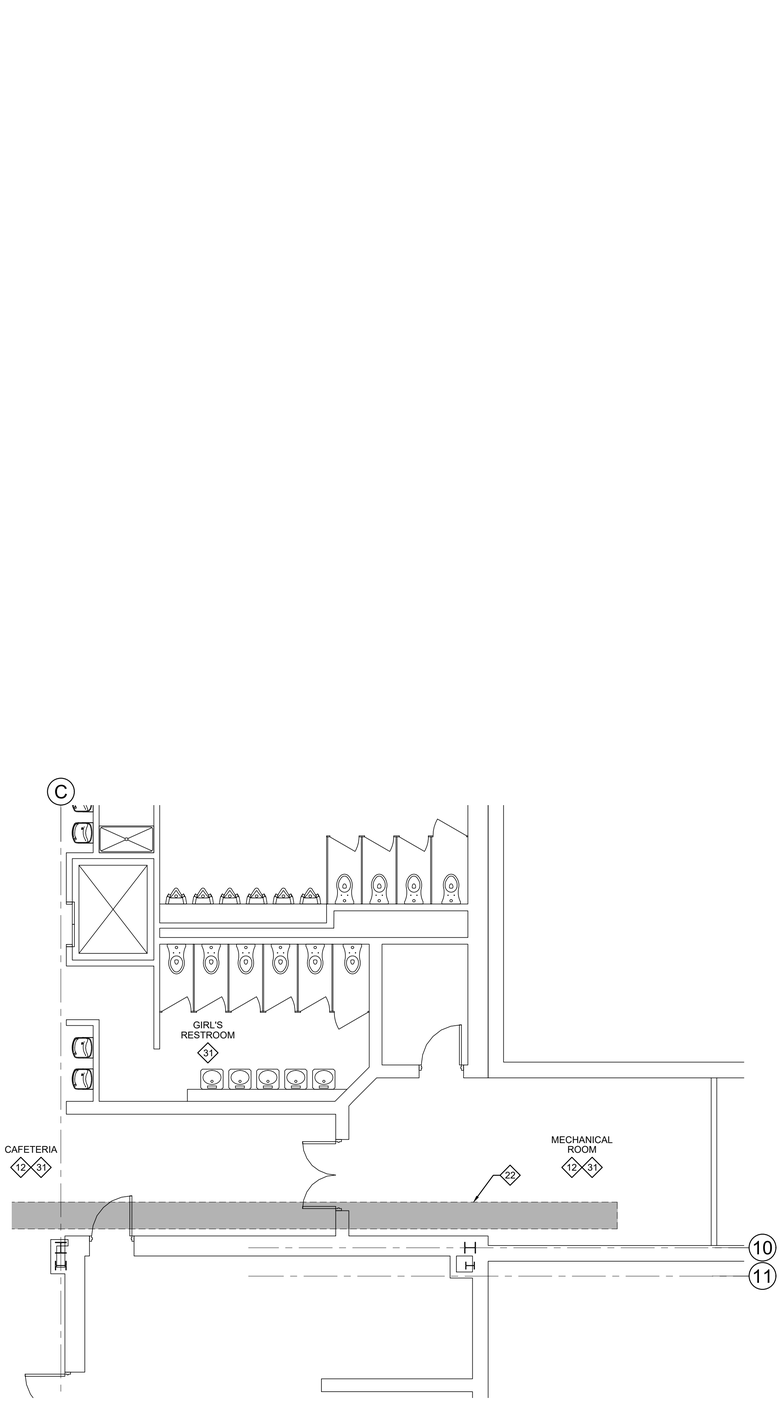
FIRST FLOOR DEMOLITION PLAN

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

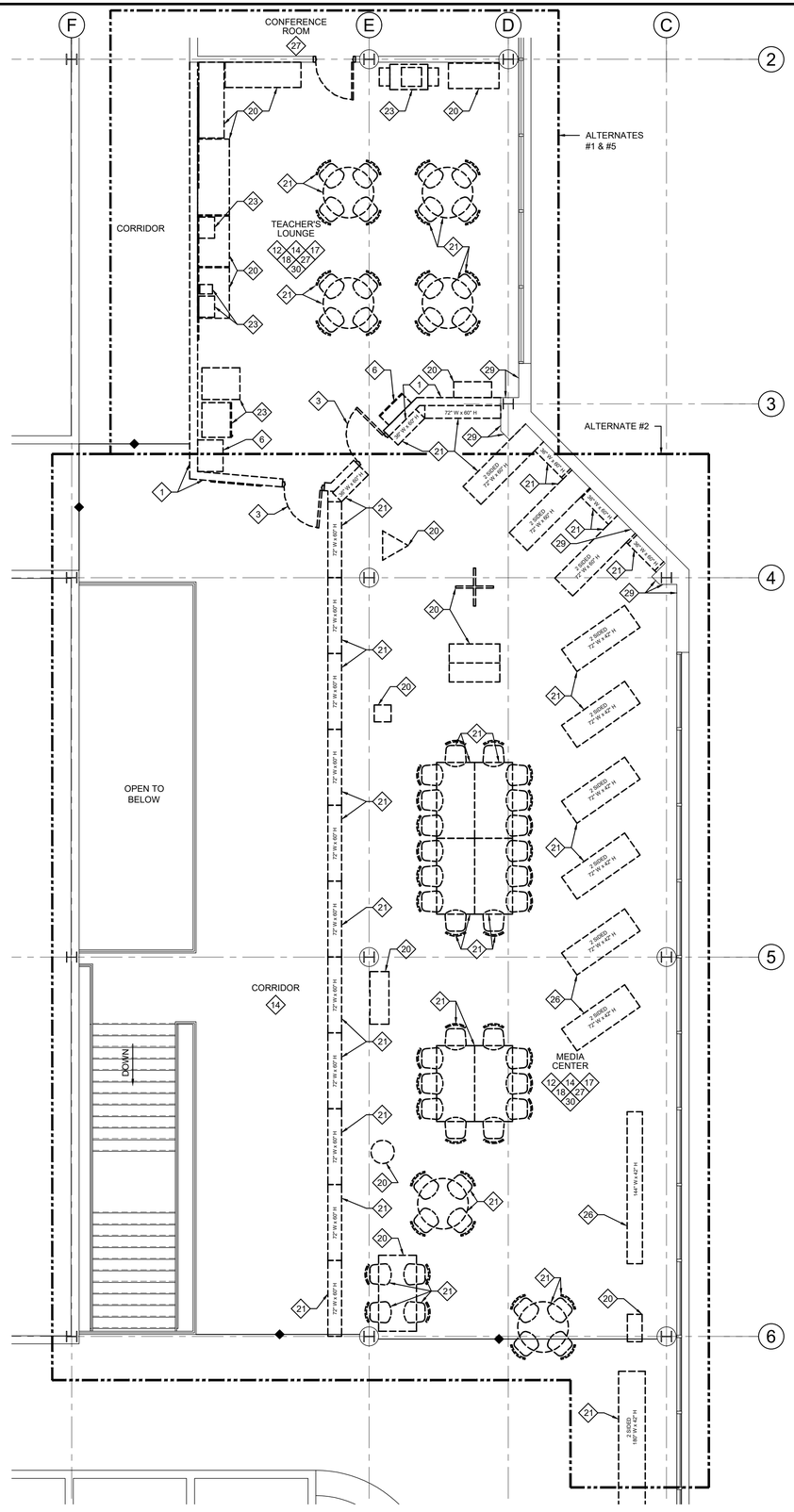
SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: **A1**



N **PARTIAL FIRST FLOOR DEMOLITION PLAN**
SCALE: 3/16" = 1'-0"



N **SECOND FLOOR DEMOLITION PLAN**
SCALE: 3/16" = 1'-0"

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

ALL DIMENSIONS ARE TAKEN FROM FINISH FACE OF WALL (UNLESS NOTED OTHERWISE).

ALL WALL, WINDOW AND DOOR OPENINGS TO BE COVERED WITH PLYWOOD DURING DEMOLITION TO PROTECT BUILDING FROM OUTSIDE ELEMENTS AND MAINTAIN A LEVEL OF SECURITY. EXISTING STOREFRONTS ARE ALSO TO BE COVERED WITH PLYWOOD FOR PROTECTION.

LEGEND:

- EXISTING CONDITION TO REMAIN
- ITEM TO BE REMOVED
- X — DEMOLITION KEYNOTE
- LIMITS OF FLOOR REMOVAL
- (X) — COLUMN LABEL

DEMOLITION KEYNOTES:

1. REMOVE WALL IN ITS ENTIRETY. REMOVE MISCELLANEOUS WALL MOUNTED ITEMS PRIOR TO WALL DEMOLITION. RETURN OR DISPOSE OF PER OWNER'S DIRECTION.
2. NOT USED THIS SHEET.
3. REMOVE DOOR, FRAME AND HARDWARE. RETURN HARDWARE TO OWNER.
4. NOT USED THIS SHEET.
5. NOT USED THIS SHEET.
6. REMOVE CASEWORK, COUNTERTOP, SHELVING AND ASSOCIATED ITEMS.
7. NOT USED THIS SHEET.
8. NOT USED THIS SHEET.
9. NOT USED THIS SHEET.
10. NOT USED THIS SHEET.
11. NOT USED THIS SHEET.
12. PATCH FLOOR AS REQUIRED WHERE ITEMS WERE REMOVED. PATCH TO BE FLUSH WITH ADJACENT FLOOR, LEVELED AND PREPPED FOR FINISHES.
13. NOT USED THIS SHEET.
14. REMOVE FLOOR FINISH AND WALL BASE INCLUDING ANY REMAINING ADHESIVE MATERIAL DOWN TO EXISTING CONCRETE FLOOR. EXISTING SLAB TO BE PREPPED FOR NEW FINISHES.
15. NOT USED THIS SHEET.
16. NOT USED THIS SHEET.
17. REMOVE MISCELLANEOUS WALL MOUNTED ITEMS. RETURN OR DISPOSE OF PER OWNER'S DIRECTION.
18. PATCH WALL AS REQUIRED AFTER REMOVAL OF WALL MOUNTED ITEM(S) OR AS NEEDED. PATCH TO BE FLUSH WITH ADJACENT WALL SURFACE AND PREPPED FOR NEW FINISHES.
19. NOT USED THIS SHEET.
20. LOCKERS / FURNITURE / EQUIPMENT / APPLIANCE TO BE REMOVED BY OWNER PRIOR TO THE START OF CONSTRUCTION.

ALTERNATE #3

21. BOOKCASE / FURNITURE TO BE RELOCATED. REMOVE TOPS AND LAMINATE FROM SIDE / BACK OF BOOKCASES. PREP FOR NEW FINISHES. STORE IN A SAFE AND SECURE LOCATION AND REINSTALL IN NEW LOCATION AS INDICATED ON REMODEL PLAN.
22. SAWCUT EXISTING CONCRETE AS REQUIRED TO ALLOW CONNECTION OF NEW PLUMBING PIPING TO EXISTING SANITARY PIPING. SEE PLUMBING PLANS FOR EXTENT OF WORK.
23. APPLIANCE / EQUIPMENT TO BE RELOCATED. OWNER TO REMOVE AND STORE IN A SAFE AND SECURE LOCATION PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REINSTALL IN NEW LOCATION AS INDICATED ON REMODEL PLAN.
24. NOT USED THIS SHEET.
25. NOT USED THIS SHEET.
26. REMOVE BOOKCASE / FURNITURE. RETURN OR DISPOSE OF PER OWNER'S DIRECTION.
27. REMOVE WINDOW TREATMENTS AND ASSOCIATED HARDWARE.
28. NOT USED THIS SHEET.
29. REMOVE WALL FINISH AND WALL BASE FROM ENTIRE WALL INCLUDING ANY REMAINING ADHESIVE. REMOVE EXISTING CEILING AS NECESSARY FOR WALL TO BE PREPPED FOR NEW FINISHES.

ALTERNATE #4

30. REWORK EXISTING CEILING TILE AND GRID AS REQUIRED AT NEW WALLS.
31. REMOVE AND REINSTALL CEILING TILES AS REQUIRED FOR NEW DUCTWORK. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
32. NOT USED THIS SHEET.

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ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

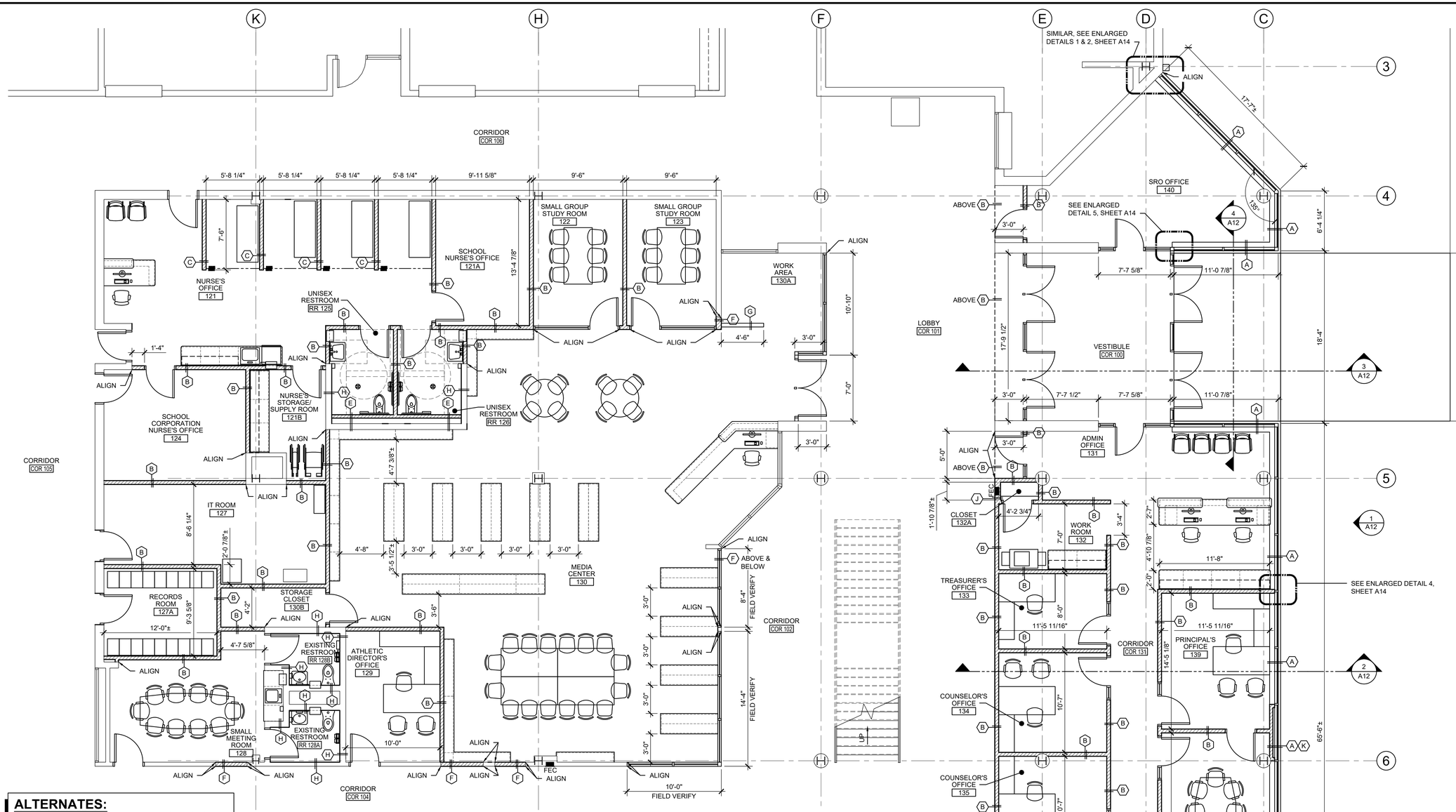
PARTIAL FIRST FLOOR AND SECOND FLOOR DEMOLITION PLANS

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: **A2**
13 of 58



ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

ALL DIMENSIONS ARE TAKEN FROM FINISH FACE OF WALL (UNLESS NOTED OTHERWISE).

LEGEND:

- EXISTING CONDITION
- NEW STUD WALL
- XXX — ROOM NUMBER, SEE ROOM FINISH SCHEDULE, SHEET A16
- X — WALL TYPE
- X — COLUMN LABEL
- X / AX — ELEVATION NUMBER / ELEVATION SHEET LOCATION
- X / XX — SECTION NUMBER / SHEET LOCATION

WALL TYPES:

A 6" REINFORCED CONCRETE MASONRY UNIT WALL WITH 1 1/2" POLYISO FOAM INSULATION (MIN R-9.5), 1 1/2" HAT CHANNEL FRAMING @ 16" OC AND 5/8" GYPSUM BOARD ON INTERIOR SIDE OF WALL AND FLUID APPLIED WEATHER BARRIER, 2 5/8" AIR SPACE AND BRICK VENEER ON EXTERIOR SIDE OF WALL. SEE SECTIONS AND DETAILS, SHEETS A13-A14. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

B 3 5/8" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION AND 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

C 3 5/8" METAL STUD FRAMING @ 16" OC WITH 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

D 3 5/8" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION, 5/8" GYPSUM BOARD (ROOM SIDE), 6" AIR SPACE AND 3 5/8" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION AND 5/8" GYPSUM BOARD (ROOM SIDE). EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

E 3 5/8" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION, 5/8" GYPSUM BOARD (ROOM SIDE), 7" AIR SPACE AND EXISTING STUD WALL. EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

F METAL STUD WALL INFILL TO MATCH EXISTING ADJACENT WALL CONSTRUCTION AND THICKNESS. WALL TO APPEAR SEAMLESS AND CONTINUOUS. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

G 3 5/8" METAL STUD FRAMING @ 16" OC WITH 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING AND GYPSUM BOARD TO 3'-0" AFF. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

H EXISTING STUD WALL WITH NEW GYPSUM BOARD, RESTROOM SIDE. EXTEND GYPSUM BOARD TO TOP OF EXISTING STUD. SEE ROOM FINISH SCHEDULE, SHEET A16, FOR FINISH SPECIFICATIONS.

J 6" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION AND 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

K 3 5/8" METAL STUD FRAMING @ 16" OC AND 5/8" GYPSUM BOARD ON INTERIOR SIDE OF WALL WITH 2 1/4" AIR SPACE AT WINDOW. SEE SECTIONS AND DETAILS, SHEETS A13-A14. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

L NOT USED THIS SHEET.

*ALL NEW GYPSUM BOARD IN RESTROOMS AND TEACHER'S LOUNGE TO BE MOLD AND MOISTURE RESISTANT. MOLD RESISTANCE SCORE OF 0 PER ASTM G21 AND 10 PER ASTM D3273. SEE ROOM FINISH SCHEDULE, SHEET A16, FOR FINISH SPECIFICATIONS.

*GYPSUM BOARD TO BE OMITTED FROM WALLS INSIDE CHASE SPACES.

FIRST FLOOR DIMENSION PLAN

SCALE: 3/16" = 1'-0"

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ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

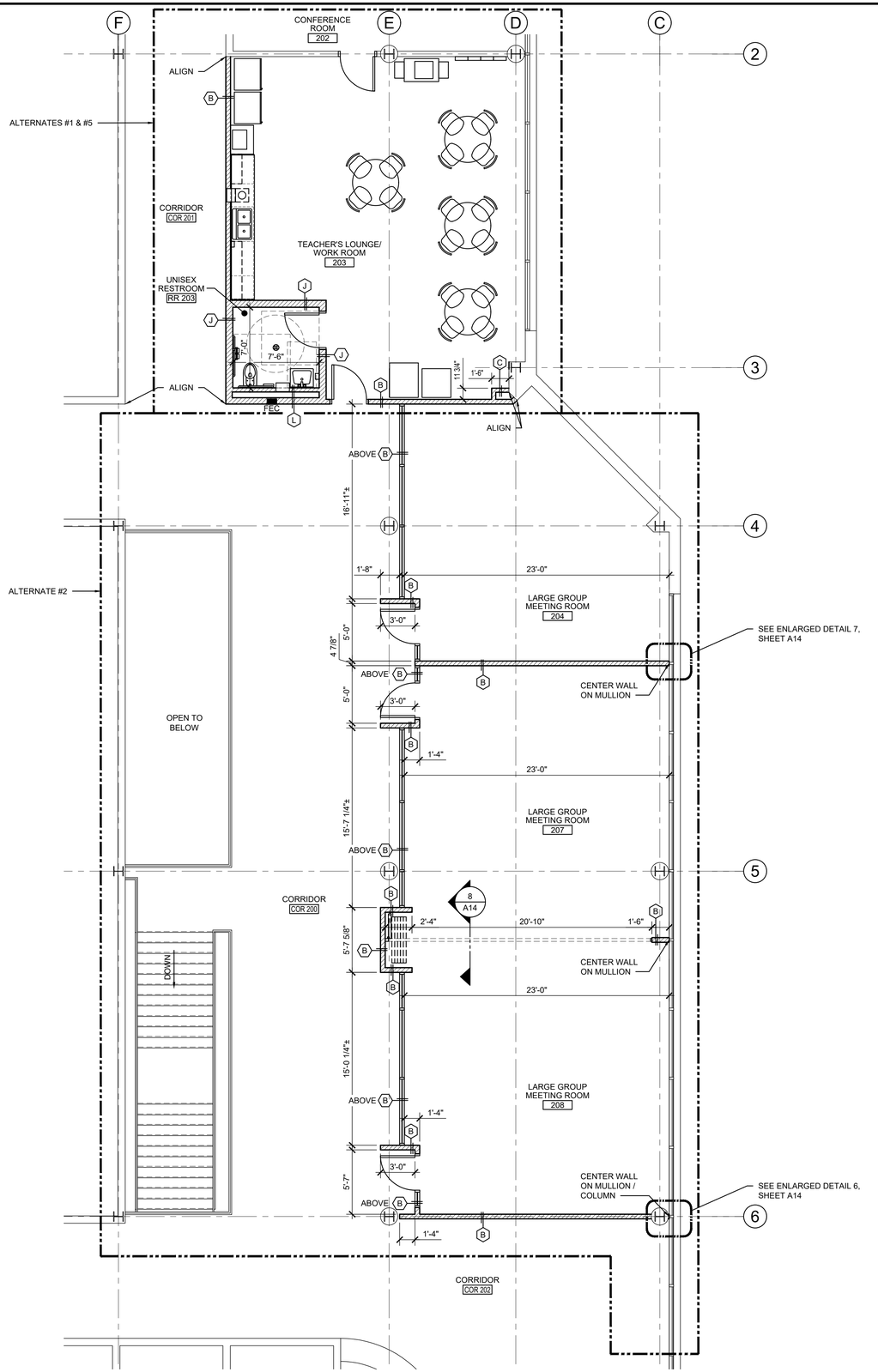
FIRST FLOOR DIMENSION PLAN

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: A3



SECOND FLOOR DIMENSION PLAN

SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

ALL DIMENSIONS ARE TAKEN FROM FINISH FACE OF WALL (UNLESS NOTED OTHERWISE).

LEGEND:

- EXISTING CONDITION
- NEW STUD WALL
- XXX — ROOM NUMBER, SEE ROOM FINISH SCHEDULE, SHEET A16
- X — WALL TYPE
- X — COLUMN LABEL

WALL TYPES:

A NOT USED THIS SHEET.

B 3 5/8" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION AND 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

C 3 5/8" METAL STUD FRAMING @ 16" OC WITH 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

D NOT USED THIS SHEET.

E NOT USED THIS SHEET.

F NOT USED THIS SHEET.

G NOT USED THIS SHEET.

H NOT USED THIS SHEET.

J 6" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION AND 5/8" GYPSUM BOARD (BOTH SIDES). EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

K NOT USED THIS SHEET.

L 6" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION, 5/8" GYPSUM BOARD (ROOM SIDE), 6" AIR SPACE AND 3 5/8" METAL STUD FRAMING @ 16" OC WITH SOUND INSULATION AND 5/8" GYPSUM BOARD (ROOM SIDE). EXTEND FRAMING, INSULATION AND GYPSUM BOARD TO BOTTOM OF DECK ABOVE. PROVIDE SLIP TRACK AT TOP OF WALL. GYPSUM BOARD ABOVE WALL DOES NOT NEED TO BE TAPED / MUDDED. SEE ROOM FINISH SCHEDULE, SHEET A16 FOR FINISH SPECIFICATIONS.

*ALL NEW GYPSUM BOARD IN RESTROOMS AND TEACHER'S LOUNGE TO BE MOLD AND MOISTURE RESISTANT. MOLD RESISTANCE SCORE OF 0 PER ASTM G21 AND 10 PER ASTM D3273. SEE ROOM FINISH SCHEDULE, SHEET A16, FOR FINISH SPECIFICATIONS.

*GYPSUM BOARD TO BE OMITTED FROM WALLS INSIDE CHASE SPACES.

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ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

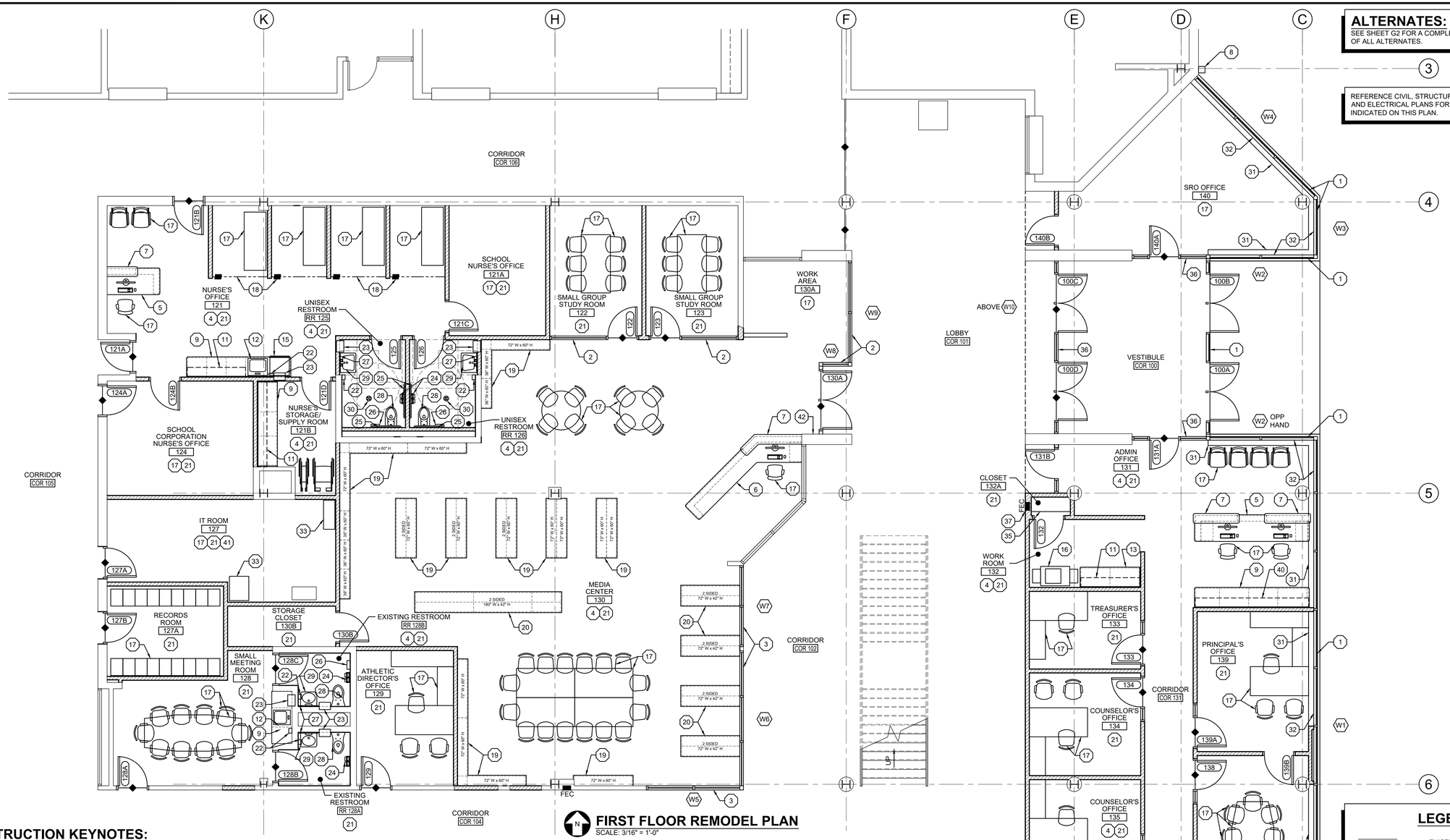
SECOND FLOOR DIMENSION PLAN

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: A4



FIRST FLOOR REMODEL PLAN

SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

CONSTRUCTION KEYNOTES:

1. EXTERIOR ATTACK RESISTANT GLAZING IN BLACK ANODIZED ALUMINUM FRONT PLANE FRAME SYSTEM SIMILAR OR EQUAL TO TRIFAB VG 451T BY KAWNEER. TEMPERED GLASS, SCHOOL GUARD GLASS AND OPAQUE SPANDREL GLASS TO BE INSTALLED AT LOCATIONS INDICATED ON THE WINDOW ELEVATIONS, SHEET A11. SEE PRODUCT SPECIFICATIONS, SHEET A19.
2. 1/4" CLEAR GLASS IN 4 1/2" DEEP, BLACK ANODIZED ALUMINUM CENTER PLANE FRAME SYSTEM SIMILAR OR EQUAL TO TRIFAB VG 451 BY KAWNEER. TEMPERED GLASS TO BE INSTALLED AT LOCATIONS INDICATED ON THE WINDOW ELEVATIONS, SHEET A11. SEE PRODUCT SPECIFICATIONS, SHEET A19.
3. 1/4" CLEAR GLASS IN HOLLOW METAL FRAME. TEMPERED GLASS TO BE INSTALLED AT LOCATIONS INDICATED ON THE WINDOW ELEVATIONS, SHEET A11. SEE PRODUCT SPECIFICATIONS, SHEET A19.
4. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10.
5. 25" DEEP AND 33" DEEP SOLID SURFACE COUNTERTOP AT 30" AFF ON OPEN KNEE SPACE AND (2) 24" DEEP PLASTIC LAMINATE BASE CABINETS WITH FULL EXTENSION DRAWER SLIDES AND WIRE DRAWER PULLS. DRAWERS TO BE LOCKABLE. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19. COUNTERTOP TO BE SUPPORTED BY CONCEALED WORKSTATION BRACKETS BY A&M HARDWARE, INC. BRACKETS TO BE C-24. COLOR TO BE WHITE.
6. 25" DEEP SOLID SURFACE COUNTERTOP AT 30" AFF ON OPEN KNEE SPACE AND 24" DEEP PLASTIC LAMINATE BASE CABINET WITH FULL EXTENSION DRAWER SLIDES AND WIRE DRAWER PULLS. DRAWERS TO BE LOCKABLE. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19. COUNTERTOP TO BE SUPPORTED BY CONCEALED WORKSTATION BRACKETS BY A&M HARDWARE, INC. BRACKETS TO BE C-24 AND C-15. COLOR TO BE WHITE.
7. 12" DEEP SOLID SURFACE COUNTERTOP AT 42" AFF. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
8. RELOCATED EXTERIOR HIGH-SECURITY KEY LOCK BOX. BOX TO BE MOUNTED AT 5'-0" ABOVE FINISHED GRADE.
9. 25" DEEP SOLID SURFACE COUNTERTOP AT 34" AFF WITH 4" HIGH BACKSPLASH AND RETURNS ON 24" DEEP PLASTIC LAMINATE BASE CABINET WITH FLUSH PANEL DOORS, CONCEALED HINGES, FULL EXTENSION DRAWER SLIDES, (1) 20" DEEP x 3/4" WOOD SHELF WITH ADJUSTABLE SUPPORT HARDWARE AND WIRE DOOR AND DRAWER PULLS. DOORS AND DRAWERS TO BE LOCKABLE. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
10. SOLID SURFACE COUNTERTOP AT 34" AFF WITH 4" HIGH BACKSPLASH AND RETURNS ON PLASTIC LAMINATE CORNER OPEN BASE CABINET WITH (2) 3/4" WOOD SHELVES WITH ADJUSTABLE SUPPORT HARDWARE. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
11. 12" DEEP PLASTIC LAMINATE WALL CABINET WITH FLUSH PANEL DOORS, CONCEALED HINGES, (2) 10" DEEP x 3/4" WOOD SHELVES WITH ADJUSTABLE SHELF SUPPORT HARDWARE AND WIRE DOOR PULL. DOORS AND DRAWERS TO BE LOCKABLE IN NURSE'S OFFICE #121 AND NURSE'S STORAGE / SUPPLY ROOM #121B. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
12. STAINLESS STEEL DROP-IN SINK. SEE PLUMBING PLANS FOR EXTENT OF WORK.
13. 25" DEEP SOLID SURFACE COUNTERTOP AT 34" AFF WITH 4" HIGH BACKSPLASH AND RETURN ON PLASTIC LAMINATE BASE CABINET WITH FLUSH PANEL DOORS, CONCEALED HINGES, FULL EXTENSION DRAWER SLIDES, (1) 20" DEEP x 3/4" WOOD SHELF WITH ADJUSTABLE SUPPORT HARDWARE AND WIRE DOOR AND DRAWER PULLS. PROVIDE 8"Ø HOLE IN COUNTERTOP, AS INDICATED, FOR TRASH CAN ACCESS IN TEACHER'S LOUNGE #203. DOORS ONLY, NO DRAWERS, IN LARGE MEETING ROOM #138. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
14. NOT USED THIS SHEET
15. UNDERCOUNTER REFRIGERATOR. PROVIDED BY OWNER, INSTALLED BY CONTRACTOR.
16. RELOCATED COPY MACHINE. INSTALLED BY CONTRACTOR.
17. FURNITURE BY OWNER. NEW INSTALLED BY VENDOR. RELOCATED INSTALLED BY CONTRACTOR.
18. CEILING MOUNTED PRIVACY CURTAIN AND TRACK. SEE PRODUCT SPECIFICATIONS, SHEET A19.
19. RELOCATED 60" HIGH BOOKCASE. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10. SEE PRODUCT SPECIFICATIONS, SHEET A19.
20. RELOCATED 42" HIGH BOOKCASE. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10. SEE PRODUCT SPECIFICATIONS, SHEET A19.
21. INSTALL WOOD BLOCKING AS REQUIRED TO SECURE WALL HUNG ITEMS. CONFIRM LOCATION(S) AND HEIGHTS WITH OWNER PRIOR TO GYPSUM BOARD INSTALLATION.
22. AUTOMATIC SOAP DISPENSER. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
23. SEMI-RECESSED AUTOMATIC PAPER TOWEL DISPENSER. REMOVE PORTION OF WALL AS REQUIRED AT EXISTING WALLS. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
24. WALL MOUNTED TOILET TISSUE DISPENSER. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
25. 1 1/2"Ø STAINLESS STEEL GRAB BARS. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHTS. SEE PRODUCT SPECIFICATIONS, SHEET A19.
26. SURFACE MOUNTED SANITARY NAPKIN DISPOSAL. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHTS. SEE PRODUCT SPECIFICATIONS, SHEET A19.
27. 24" W x 42"H LAMINATED GLASS MIRROR IN STAINLESS STEEL FRAME. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
28. WALL MOUNTED WATER CLOSET. SEE PLUMBING PLANS FOR EXTENT OF WORK.
29. WALL HUNG LAVATORY. SEE PLUMBING PLANS FOR EXTENT OF WORK.
30. FLOOR DRAIN. SEE PLUMBING PLANS FOR EXTENT OF WORK.
31. WINDOW SILL. SEE PRODUCT SPECIFICATIONS, SHEET A19.
32. WINDOW SHADES. SEE PRODUCT SPECIFICATIONS, SHEET A19.
33. RELOCATED IT EQUIPMENT / FURNITURE.
34. NOT USED THIS SHEET.
35. (5) PLASTIC LAMINATE SHELVES ON ADJUSTABLE WALL STANDARDS AND BRACKETS. BRACKET DEPTH TO BE 18". WALL STANDARDS TO BE 48" LONG AND START MINIMUM 12" AFF. STANDARDS, BRACKETS AND SHELVES TO BE WHITE.
36. INTERIOR ATTACK RESISTANT GLAZING IN 4 1/2" DEEP, BLACK ANODIZED ALUMINUM CENTER PLANE FRAME SYSTEM SIMILAR OR EQUAL TO TRIFAB VG 451 BY KAWNEER. TEMPERED GLASS AND SCHOOL GUARD GLASS TO BE INSTALLED AT LOCATIONS INDICATED ON THE WINDOW ELEVATIONS, SHEET A11. SEE PRODUCT SPECIFICATIONS, SHEET A19.
37. FIRE EXTINGUISHER CABINET. SEE PRODUCT SPECIFICATIONS, SHEET A19.
38. NOT USED THIS SHEET.
39. 84" TALL x 24" DEEP PLASTIC LAMINATE CABINET WITH (2) LOCKABLE FLUSH PANEL DOORS, CONCEALED HINGES, (5) 20" DEEP x 3/4" WOOD SHELVES WITH ADJUSTABLE SUPPORT HARDWARE AND WIRE DOOR PULLS. SEE INTERIOR ELEVATIONS SHEETS A9 AND A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
40. 12" DEEP SOLID SURFACE FLOATING SHELF. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19. SHELF TO BE SUPPORTED BY FLOATING SHELF 9" BRACKETS BY A&M HARDWARE, INC. COLOR TO BE WHITE. PROVIDE WOOD STUDS AT BRACKET LOCATIONS.
41. PROVIDE AND INSTALL (1) 4'-0" x 6'-0" SHEET OF SANDED AC PLYWOOD. SURFACE MOUNT TO WALL AND PAINT. COORDINATE LOCATION WITH OWNER.
42. PROVIDE OCCUPANCY SIGNAGE. MAXIMUM CAPACITY - 49.
43. NOT USED THIS SHEET.

LEGEND:

- EXISTING CONDITION
- NEW STUD WALL
- XXX — ROOM NUMBER, SEE ROOM FINISH SCHEDULE, SHEET A16
- XXX — DOOR NUMBER, SEE DOOR SCHEDULE, SHEET A15
- CHANGE IN FLOOR COVERING PROVIDE APPROPRIATE TRANSITION STRIP/THRESHOLD AS REQUIRED
- X — CONSTRUCTION KEYNOTE
- WX — WINDOW NUMBER, SEE WINDOW ELEVATIONS, SHEET A11
- X — COLUMN LABEL

BID 11/01/23

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REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

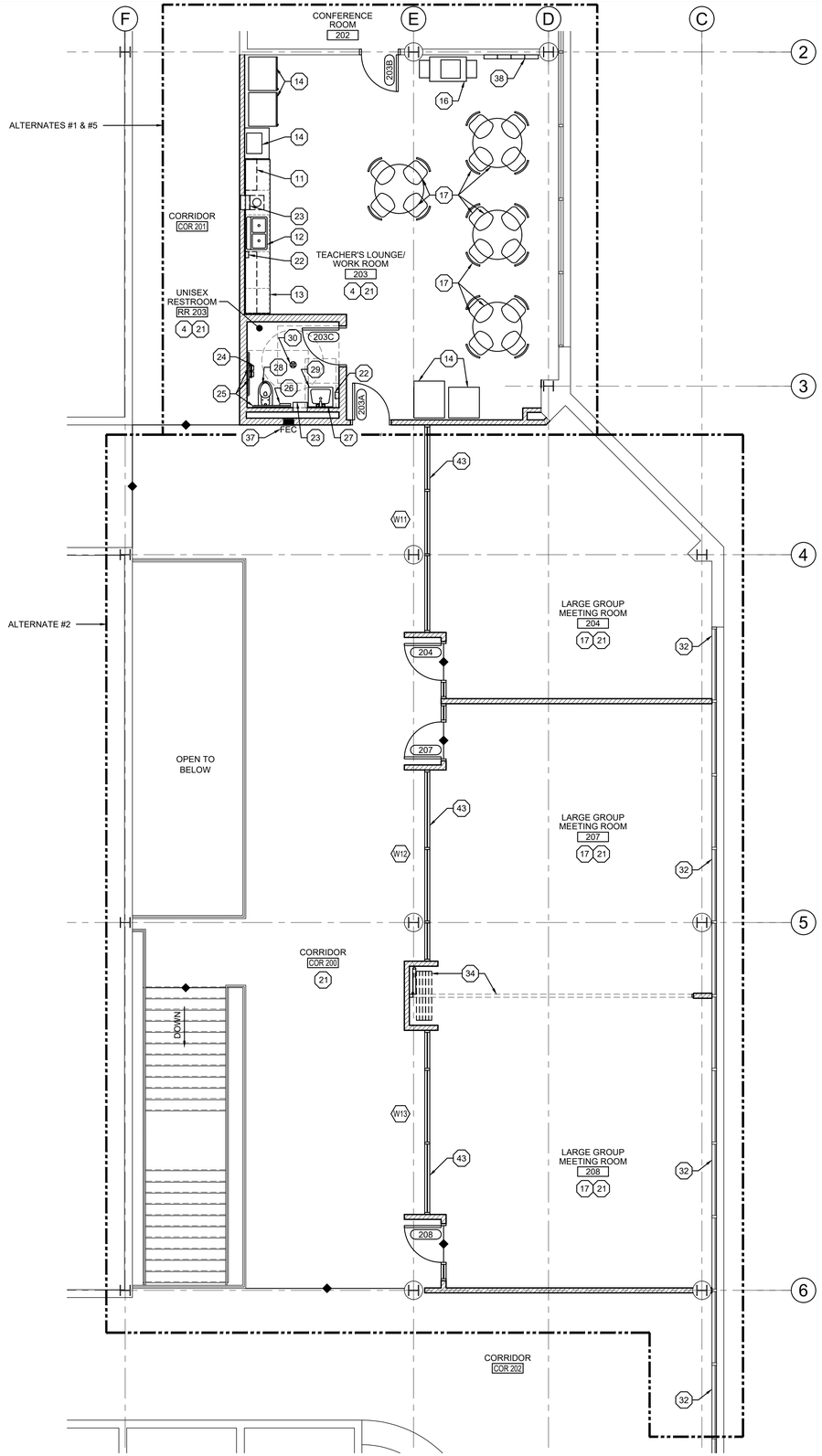
FIRST FLOOR REMODEL PLAN

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: A5



SECOND FLOOR REMODEL PLAN
SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

LEGEND:

- EXISTING CONDITION
- NEW STUD WALL
- XXX — ROOM NUMBER, SEE ROOM FINISH SCHEDULE, SHEET A16
- XXX — DOOR NUMBER, SEE DOOR SCHEDULE, SHEET A15
- CHANGE IN FLOOR COVERING PROVIDE APPROPRIATE TRANSITION STRIP/THRESHOLD AS REQUIRED
- X — CONSTRUCTION KEYNOTE
- WX — WINDOW NUMBER, SEE WINDOW ELEVATIONS, SHEET A11
- X — COLUMN LABEL

(X) CONSTRUCTION KEYNOTES:

1. NOT USED THIS SHEET.
2. NOT USED THIS SHEET.
3. NOT USED THIS SHEET.
4. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10.
5. NOT USED THIS SHEET.
6. NOT USED THIS SHEET.
7. NOT USED THIS SHEET.
8. NOT USED THIS SHEET.
9. NOT USED THIS SHEET.
10. NOT USED THIS SHEET.
11. 12" DEEP PLASTIC LAMINATE WALL CABINET WITH FLUSH PANEL DOORS, CONCEALED HINGES, (2) 10" DEEP x 3/4" WOOD SHELVES WITH ADJUSTABLE SHELF SUPPORT HARDWARE AND WIRE DOOR PULL. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
12. STAINLESS STEEL DROP-IN SINK. SEE PLUMBING PLANS FOR EXTENT OF WORK.
13. 25" DEEP SOLID SURFACE COUNTERTOP AT 34" AFF WITH 4" HIGH BACKSPLASH AND RETURN ON PLASTIC LAMINATE BASE CABINET WITH FLUSH PANEL DOORS, CONCEALED HINGES, FULL EXTENSION DRAWER SLIDES. (1) 20" DEEP x 3/4" WOOD SHELF WITH ADJUSTABLE SUPPORT HARDWARE AND WIRE DOOR AND DRAWER PULLS. PROVIDE 8"Ø HOLE IN COUNTERTOP, AS INDICATED, FOR TRASH CAN ACCESS IN TEACHER'S LOUNGE #203. DOORS ONLY, NO DRAWERS, IN LARGE MEETING ROOM #138. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, AND PRODUCT SPECIFICATIONS, SHEET A19.
14. RELOCATED FULL SIZE REFRIGERATOR / VENDING MACHINE / MICROWAVE.
15. NOT USED THIS SHEET.
16. RELOCATED COPY MACHINE. INSTALLED BY CONTRACTOR.
17. FURNITURE BY OWNER. NEW INSTALLED BY VENDOR. RELOCATED INSTALLED BY CONTRACTOR.
18. NOT USED THIS SHEET.
19. NOT USED THIS SHEET.
20. NOT USED THIS SHEET.
21. INSTALL WOOD BLOCKING AS REQUIRED TO SECURE WALL HUNG ITEMS. CONFIRM LOCATION(S) AND HEIGHTS WITH OWNER PRIOR TO GYPSUM BOARD INSTALLATION.
22. AUTOMATIC SOAP DISPENSER. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
23. SEMI-RECESSED AUTOMATIC PAPER TOWEL DISPENSER. REMOVE PORTION OF WALL AS REQUIRED AT EXISTING WALLS. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
24. WALL MOUNTED TOILET TISSUE DISPENSER. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
25. 1 1/2"Ø STAINLESS STEEL GRAB BARS. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHTS. SEE PRODUCT SPECIFICATIONS, SHEET A19.
26. SURFACE MOUNTED SANITARY NAPKIN DISPOSAL. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHTS. SEE PRODUCT SPECIFICATIONS, SHEET A19.
27. 24" W x 42"H LAMINATED GLASS MIRROR IN STAINLESS STEEL FRAME. SEE INTERIOR ELEVATIONS, SHEETS A9 - A10, FOR MOUNTING HEIGHT. SEE PRODUCT SPECIFICATIONS, SHEET A19.
28. WALL MOUNTED WATER CLOSET. SEE PLUMBING PLANS FOR EXTENT OF WORK.
29. WALL HUNG LAVATORY. SEE PLUMBING PLANS FOR EXTENT OF WORK.
30. FLOOR DRAIN. SEE PLUMBING PLANS FOR EXTENT OF WORK.
31. NOT USED THIS SHEET.
32. WINDOW SHADES. SEE PRODUCT SPECIFICATIONS, SHEET A19.
33. NOT USED THIS SHEET.
34. OPERABLE PARTITION WALL. SEE PRODUCT SPECIFICATIONS, SHEET A19.
35. NOT USED THIS SHEET.
36. NOT USED THIS SHEET.
37. FIRE EXTINGUISHER CABINET. SEE PRODUCT SPECIFICATIONS, SHEET A19.
38. (4) WALL MOUNTED FILE ORGANIZERS. SEE PRODUCT SPECIFICATIONS, SHEET A19.
39. NOT USED THIS SHEET.
40. NOT USED THIS SHEET.
41. NOT USED THIS SHEET.
42. NOT USED THIS SHEET.
43. 1/4" GLASS IN HOLLOW METAL FRAME WITH SPLIT FACE NONSTANDARD JAMBS AND 3/8" METAL PANEL IN BOTTOM SECTION. PROVIDE ANCHORS IN JAMBS, HEAD AND BASE. SEE WINDOW ELEVATIONS, SHEET A11.

BID 11/01/23

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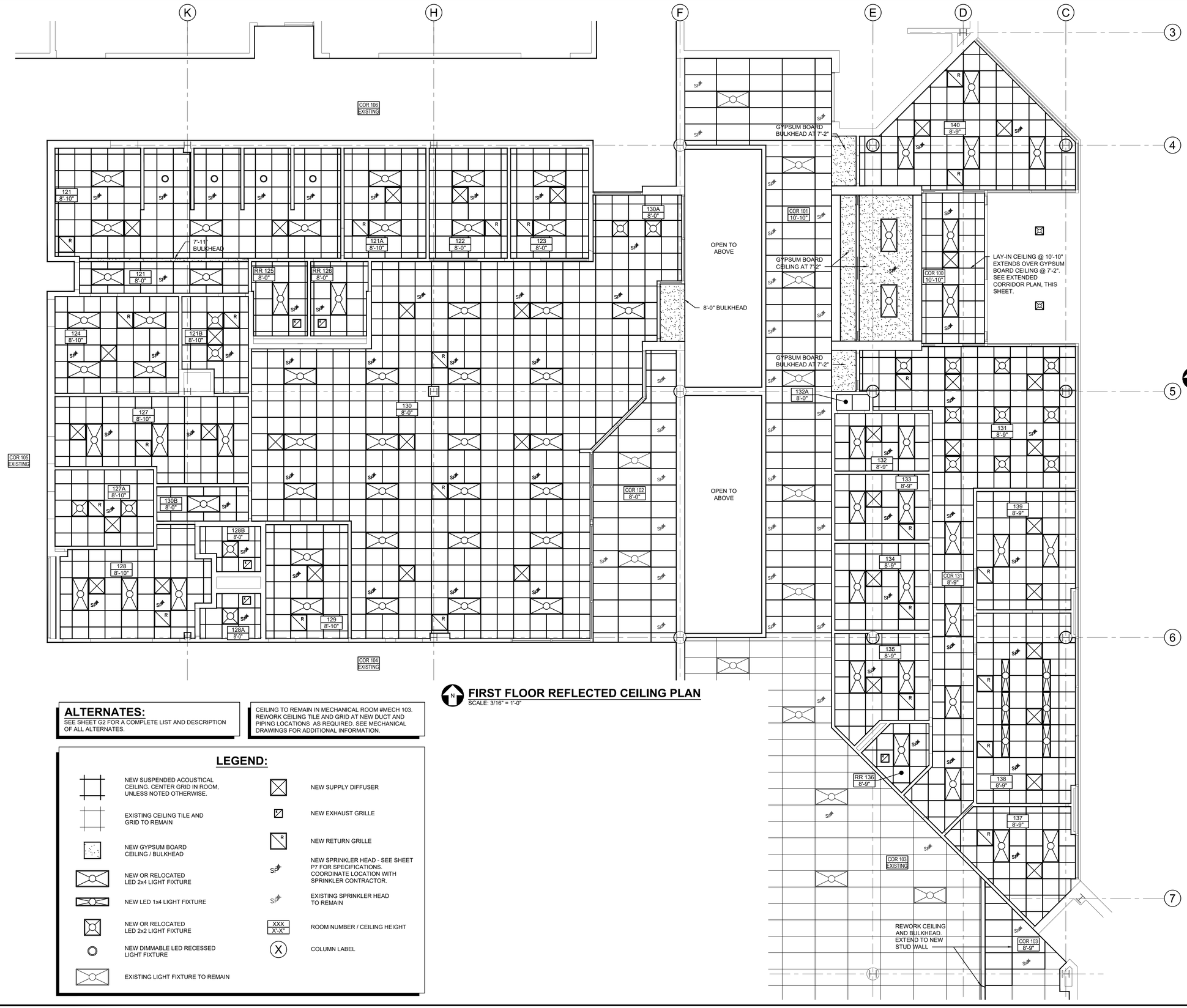
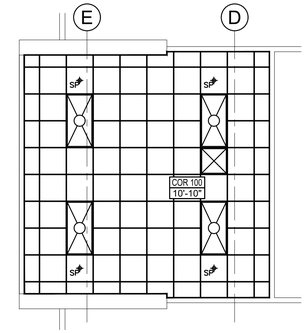
ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR REMODEL PLAN

DRAWN BY: LEW	DESIGNED BY: GPK
CHECKED BY: GPK	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: A6	17 of 58



FIRST FLOOR REFLECTED CEILING PLAN
SCALE: 3/16" = 1'-0"



EXTENDED CORRIDOR PLAN
SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

CEILING TO REMAIN IN MECHANICAL ROOM #MECH 103. REWORK CEILING TILE AND GRID AT NEW DUCT AND PIPING LOCATIONS AS REQUIRED. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

LEGEND:

- NEW SUSPENDED ACOUSTICAL CEILING. CENTER GRID IN ROOM, UNLESS NOTED OTHERWISE.
- EXISTING CEILING TILE AND GRID TO REMAIN
- NEW GYPSUM BOARD CEILING / BULKHEAD
- NEW OR RELOCATED LED 2x4 LIGHT FIXTURE
- NEW LED 1x4 LIGHT FIXTURE
- NEW OR RELOCATED LED 2x2 LIGHT FIXTURE
- NEW DIMMABLE LED RECESSED LIGHT FIXTURE
- EXISTING LIGHT FIXTURE TO REMAIN
- NEW SUPPLY DIFFUSER
- NEW EXHAUST GRILLE
- NEW RETURN GRILLE
- NEW SPRINKLER HEAD - SEE SHEET P7 FOR SPECIFICATIONS. COORDINATE LOCATION WITH SPRINKLER CONTRACTOR.
- EXISTING SPRINKLER HEAD TO REMAIN
- XXX / X'-X" ROOM NUMBER / CEILING HEIGHT
- (X) COLUMN LABEL

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11/01/23

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REV	DATE	BY	ITEM
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D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

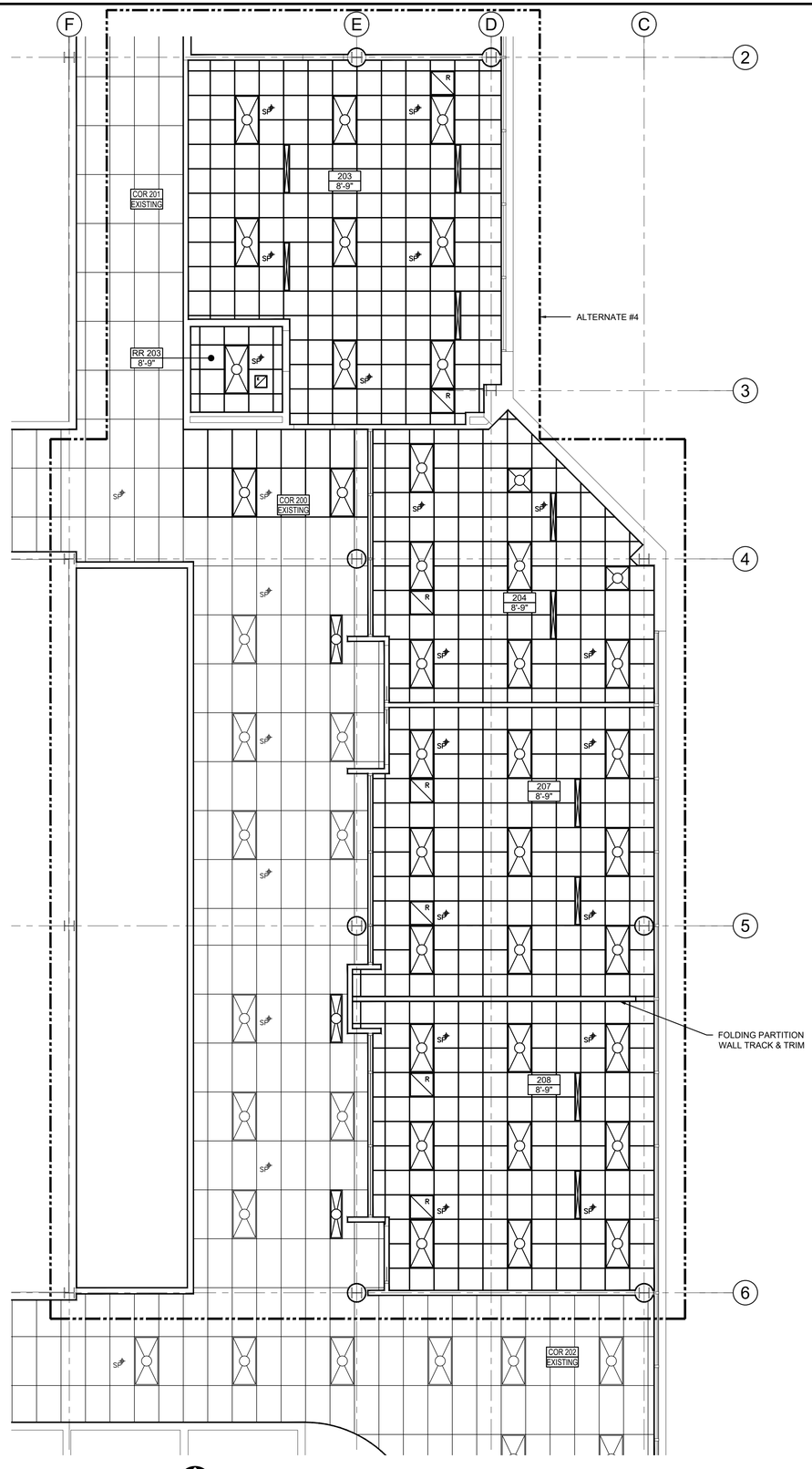
FIRST FLOOR
REFLECTED CEILING PLAN

DRAWN BY:	DESIGNED BY:
LEW	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: A7



SECOND FLOOR REFLECTED CEILING PLAN
SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

LEGEND:

- NEW SUSPENDED ACOUSTICAL CEILING. CENTER GRID IN ROOM, UNLESS NOTED OTHERWISE.
- EXISTING CEILING TILE AND GRID TO REMAIN
- NEW OR RELOCATED LED 2x4 LIGHT FIXTURE
- NEW LED 2x2 LIGHT FIXTURE
- NEW LED 1x4 LIGHT FIXTURE
- EXISTING LIGHT FIXTURE TO REMAIN
- NEW SUPPLY DIFFUSER
- NEW EXHAUST GRILLE
- R — NEW RETURN GRILLE
- SP — NEW SPRINKLER HEAD - SEE SHEET P7 FOR SPECIFICATIONS. COORDINATE LOCATION WITH SPRINKLER CONTRACTOR.
- SP — EXISTING SPRINKLER HEAD TO REMAIN
- XXX / X'-X" — ROOM NUMBER / CEILING HEIGHT
- (X) — COLUMN LABEL

SEISMIC DESIGN REQUIREMENTS:

1. CATEGORY C PROJECTS MUST MEET CATEGORIES A & B PLUS ADDITIONAL PROVISIONS LISTED IN ASTM E580
2. IBC CATEGORY A, B - CEILING INSTALLATION SHOULD CONFORM TO BASIC MINIMUMS ESTABLISHED IN ASTM C636.
   A. 12 GA HANGER WIRES, MINIMUM.
   B. HANGER WIRES SPACED 4FT ON CENTER, MAXIMUM, ALONG MAIN BEAMS.
   C. HANGER WIRES SUPPORTING MAIN BEANS MUST BE WRAPPED AROUND THEMSELVES A MINIMUM OF THREE FULL TURNS WITHIN A 3" LENGTH.
   D. HANGER WIRES SHALL NOT HANG MORE THAN ONE-IN-SIX OUT-OF-PLUMB, UNLESS A COUNTER-SLOPING WIRE OR HORIZONTAL BRACE IS PROVIDED.
3. IBC CATEGORY C - INSTALLED TO ASTM E580 SEISMIC DESIGN CATEGORY C.
   A. MINIMUM 7/8" WALL MOLDING.
   B. SUSPENSION SYSTEM MUST NOT BE ATTACHED TO THE WALL MOLDING.
   C. MINIMUM 3/8" CLEARANCE ON ALL SIDES.
   D. MINIMUM 3/8" OVERLAP OF THE SUSPENSION SYSTEM ON THE WALL MOLDING.
   E. ENDS OF MAIN BEAMS AND CROSS TEES MUST BE TIED TOGETHER TO PREVENT THEIR SPREADING.
   F. SAFETY WIRES REQUIRED ON LIGHT FIXTURES.

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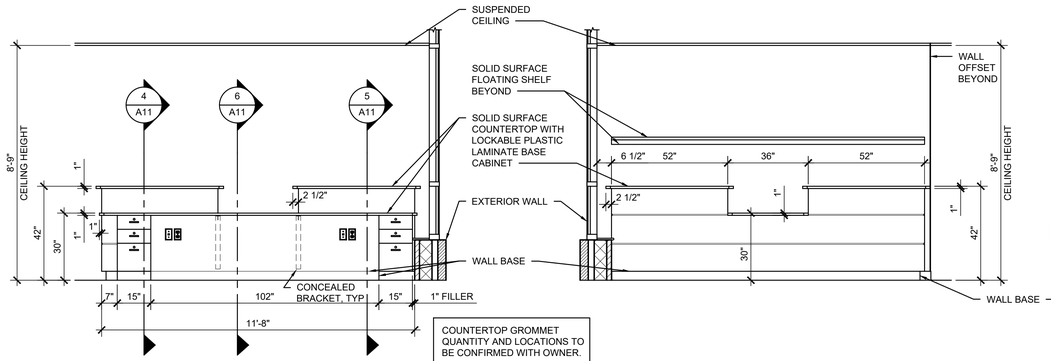
ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR
REFLECTED CEILING PLAN

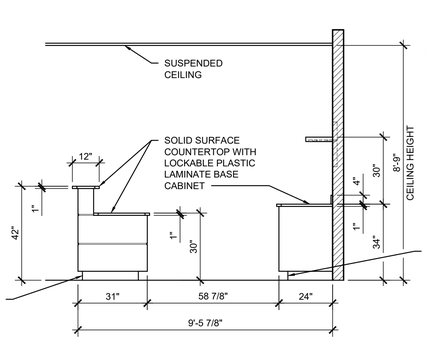
DRAWN BY: LEW	DESIGNED BY: GPK
CHECKED BY: GPK	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: A8	19 of 58

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

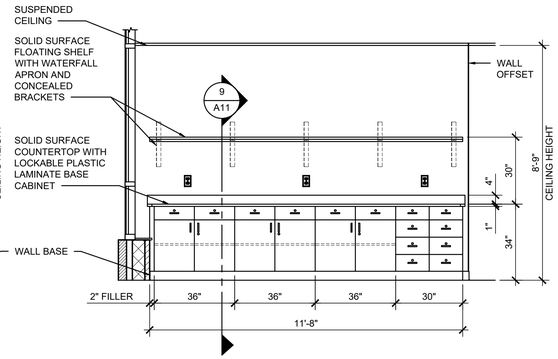


COUNTERTOP GROMMET QUANTITY AND LOCATIONS TO BE CONFIRMED WITH OWNER.

ADMIN OFFICE #131
NORTH ELEVATION
1 / A5 — SCALE: 3/8" = 1'-0"

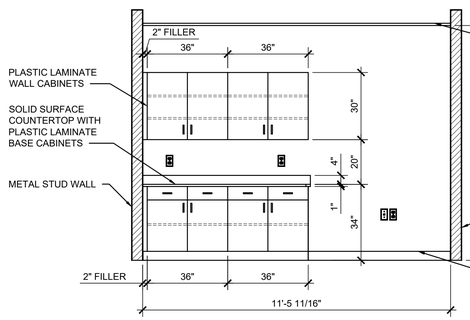


ADMIN OFFICE #131
SOUTH ELEVATION
2 / A5 — SCALE: 3/8" = 1'-0"

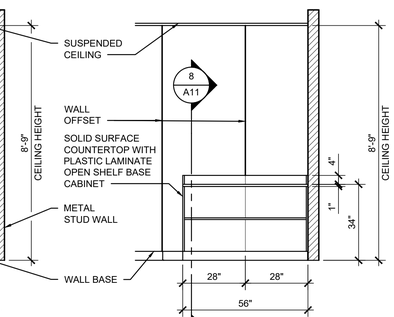


ADMIN OFFICE #131
EAST ELEVATION
3 / A5 — SCALE: 3/8" = 1'-0"

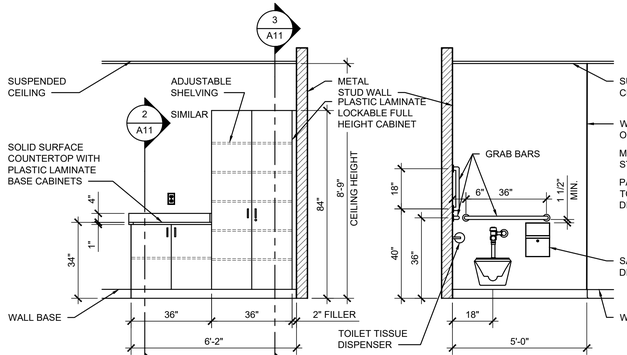
ADMIN OFFICE #131
SOUTH ELEVATION
4 / A5 — SCALE: 3/8" = 1'-0"



WORK ROOM #132
SOUTH ELEVATION
5 / A5 — SCALE: 3/8" = 1'-0"

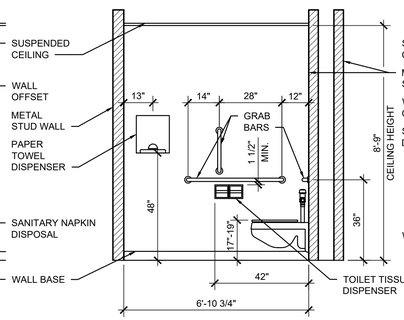


COUNSELOR'S OFFICE #135
SOUTH ELEVATION
6 / A5 — SCALE: 3/8" = 1'-0"

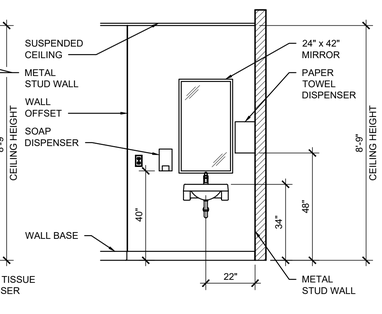


LARGE MEETING ROOM #138
SOUTH ELEVATION
7 / A5 — SCALE: 3/8" = 1'-0"

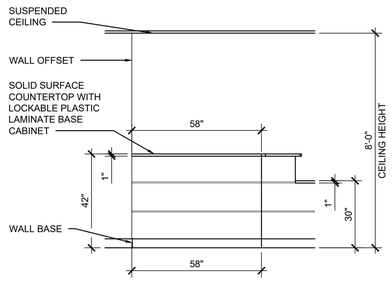
UNISEX RESTROOM #RR 136
NORTHWEST ELEVATION
8 / A5 — SCALE: 3/8" = 1'-0"



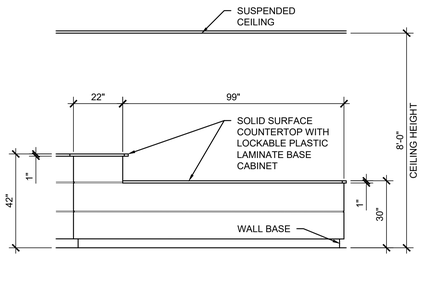
UNISEX RESTROOM #RR 136
SOUTHWEST ELEVATION
9 / A5 — SCALE: 3/8" = 1'-0"



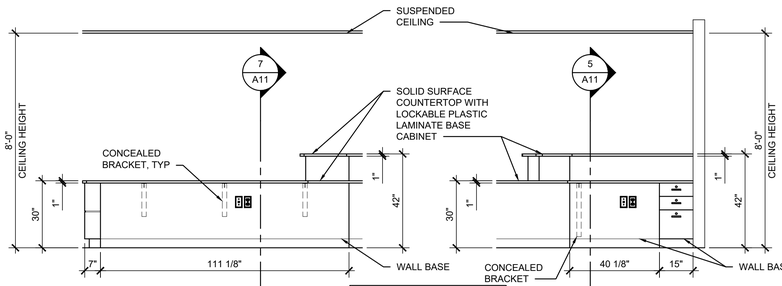
UNISEX RESTROOM #RR 136
SOUTHEAST ELEVATION
10 / A5 — SCALE: 3/8" = 1'-0"



MEDIA CENTER #130
SOUTH ELEVATION
11 / A5 — SCALE: 3/8" = 1'-0"



MEDIA CENTER #130
SOUTHEAST ELEVATION
12 / A5 — SCALE: 3/8" = 1'-0"

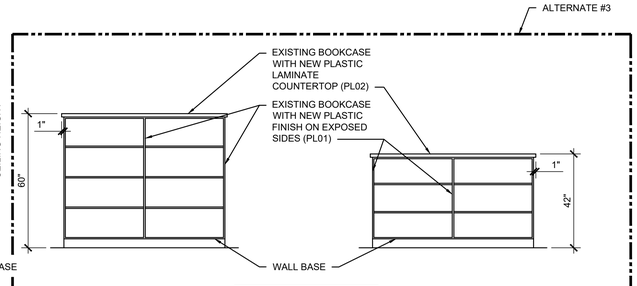


COUNTERTOP GROMMET QUANTITY AND LOCATIONS TO BE CONFIRMED WITH OWNER.

MEDIA CENTER #130
NORTHWEST ELEVATION
13 / A5 — SCALE: 3/8" = 1'-0"

MEDIA CENTER #130
NORTH ELEVATION
14 / A5 — SCALE: 3/8" = 1'-0"

ALTERNATE #3



ALL TOPS TO BE ATTACHED TO BOOKCASES.

MEDIA CENTER #130
TYPICAL 60" BOOKCASE
15 / A5 — SCALE: 3/8" = 1'-0"

MEDIA CENTER #130
TYPICAL 42" BOOKCASE
16 / A5 — SCALE: 3/8" = 1'-0"

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
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C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

INTERIOR ELEVATIONS

DRAWN BY:	DESIGNED BY:
LEW	LEW
CHECKED BY:	DATE:
GPK	05/02/23

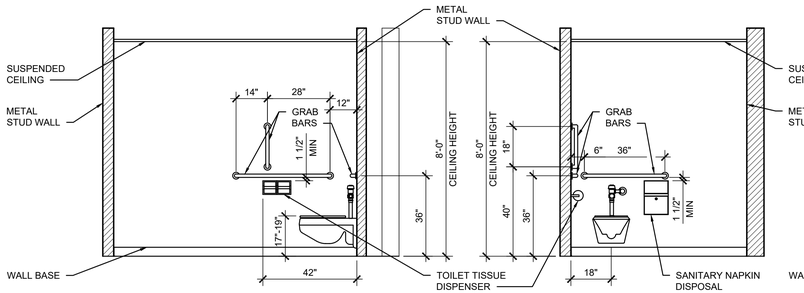
SCALE: 3/8" = 1'-0"

PROJECT NUMBER: 22286A

SHEET NO: **A9**
20 of 58

ALTERNATES:

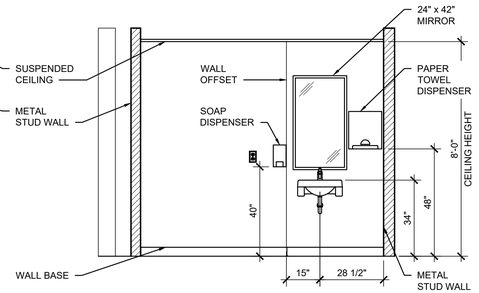
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.



UNISEX RESTROOM #RR 125 EAST ELEVATION

1 / A5 SCALE: 3/8" = 1'-0"

UNISEX RESTROOM #RR 126 WEST ELEVATION OPPOSITE HAND



UNISEX RESTROOM #RR 125 SOUTH ELEVATION

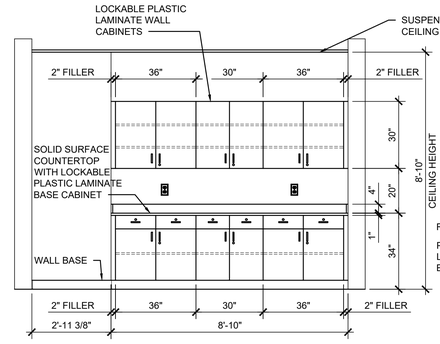
2 / A5 SCALE: 3/8" = 1'-0"

UNISEX RESTROOM #RR 126 SOUTH ELEVATION OPPOSITE HAND

UNISEX RESTROOM #RR 125 WEST ELEVATION

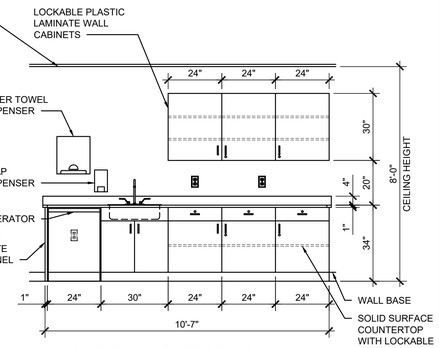
3 / A5 SCALE: 3/8" = 1'-0"

UNISEX RESTROOM #RR 126 EAST ELEVATION OPPOSITE HAND



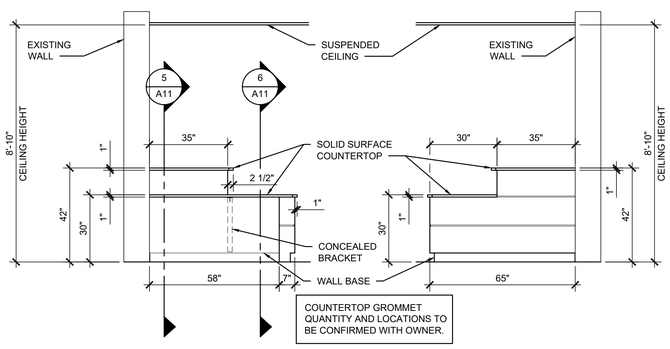
NURSE'S STORAGE/SUPPLY ROOM #121B WEST ELEVATION

4 / A5 SCALE: 3/8" = 1'-0"



NURSE'S OFFICE #121 SOUTH ELEVATION

5 / A5 SCALE: 3/8" = 1'-0"

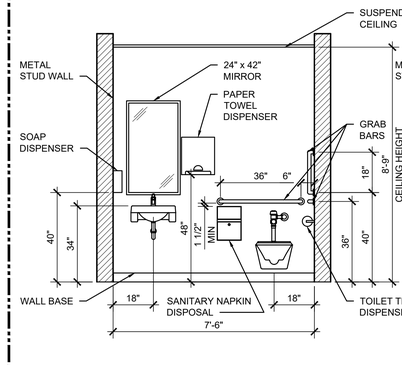


NURSE'S OFFICE #121 NORTH ELEVATION

6 / A5 SCALE: 3/8" = 1'-0"

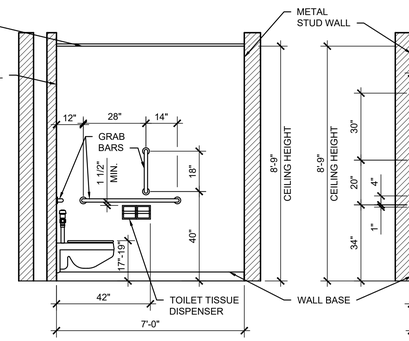
NURSE'S OFFICE #121 SOUTH ELEVATION

7 / A5 SCALE: 3/8" = 1'-0"



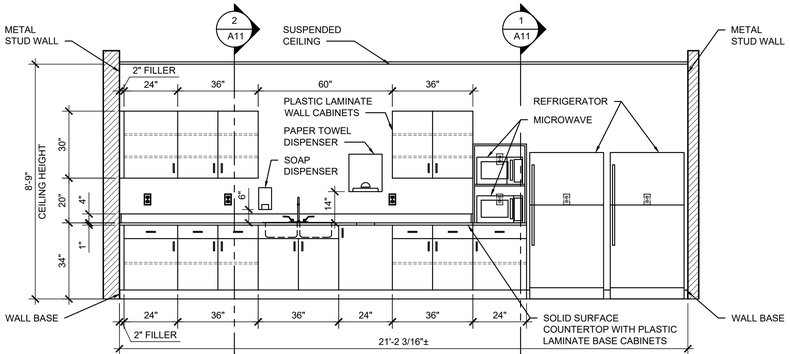
UNISEX RESTROOM #RR 203 SOUTH ELEVATION

8 / A6 SCALE: 3/8" = 1'-0"



UNISEX RESTROOM #RR 203 WEST ELEVATION

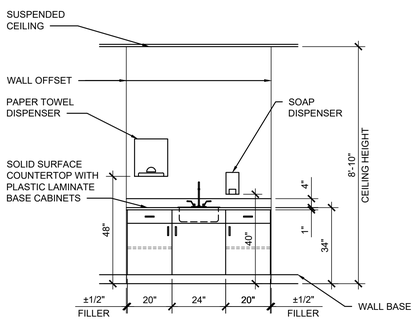
9 / A6 SCALE: 3/8" = 1'-0"



TEACHER'S LOUNGE #203 WEST ELEVATION

10 / A6 SCALE: 3/8" = 1'-0"

ALTERNATE #1



SMALL MEETING ROOM #128 EAST ELEVATION

11 / A5 SCALE: 3/8" = 1'-0"

BID 11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

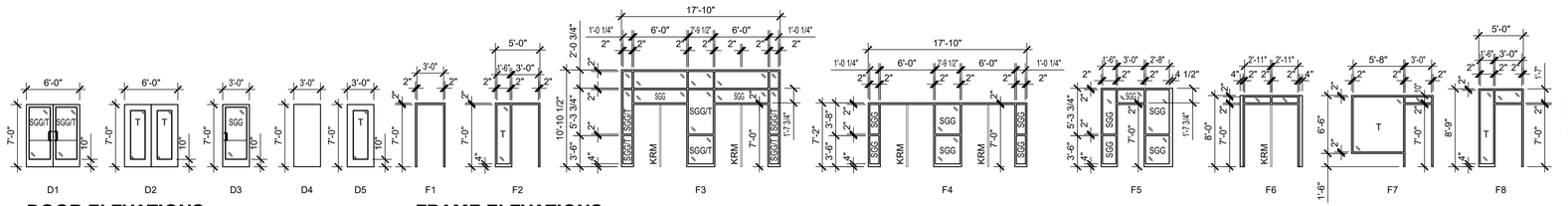
INTERIOR ELEVATIONS

DRAWN BY:	DESIGNED BY:
LEW	LEW
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/8" = 1'-0"

PROJECT NUMBER: 22286A

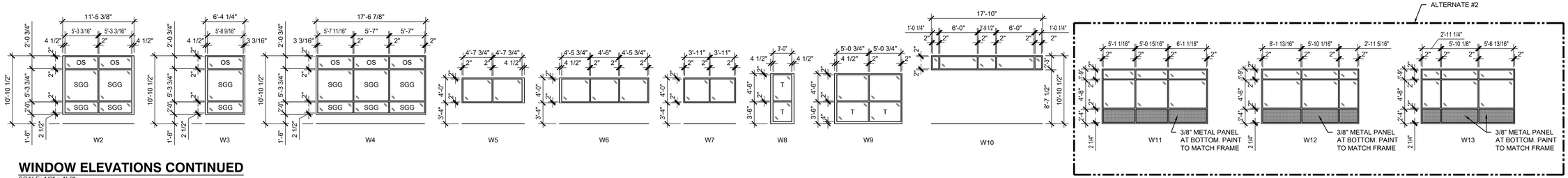
SHEET NO: A10



DOOR ELEVATIONS
SCALE: 1/8" = 1'-0"

FRAME ELEVATIONS
SCALE: 1/8" = 1'-0"

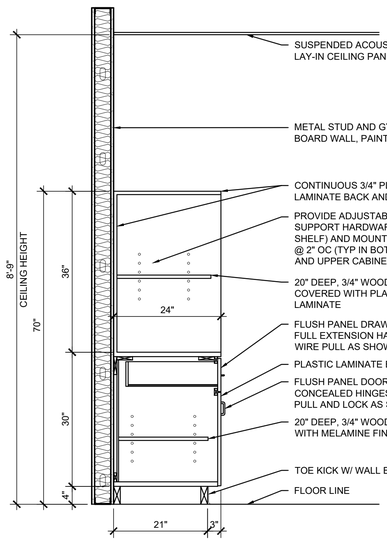
WINDOW ELEVATIONS
SCALE: 1/8" = 1'-0"



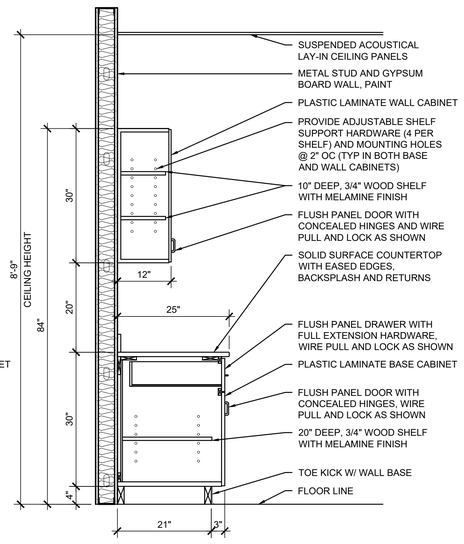
WINDOW ELEVATIONS CONTINUED
SCALE: 1/8" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

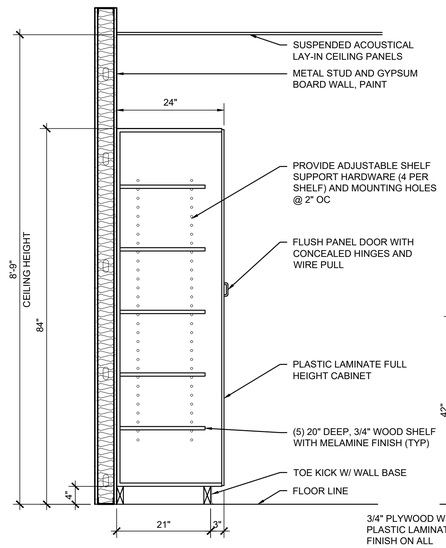
LEGEND:
T - TEMPERED GLASS
SGG - SCHOOL GUARD GLASS
OS - OPAQUE SPANDREL GLASS



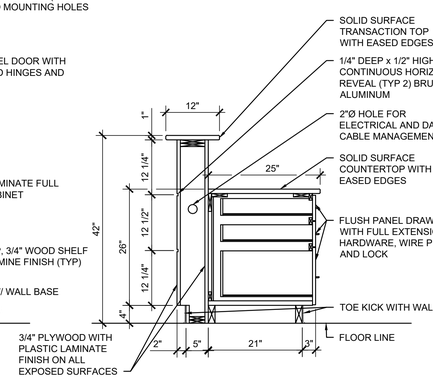
1 A10 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



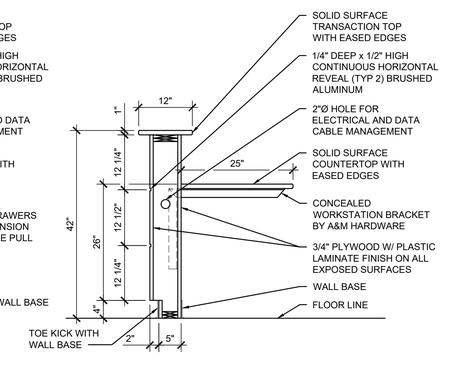
SIM 2 A9 2 A10 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



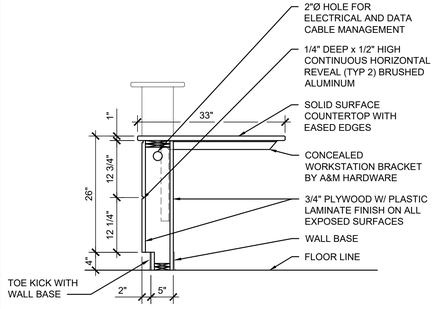
3 A9 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



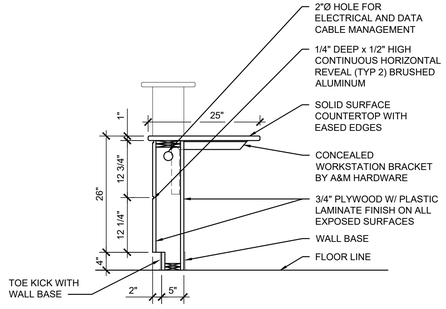
4 A9 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



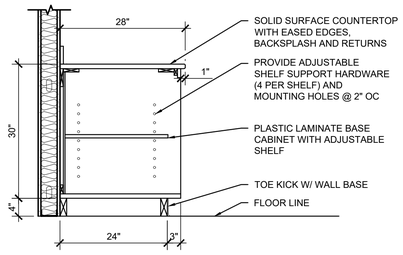
5 A9 5 A10 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



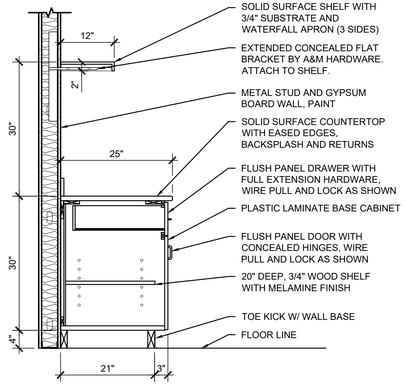
6 A9 6 A10 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



7 A9 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



8 A9 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"



9 A9 **CASEWORK SECTION**
SCALE: 3/4" = 1'-0"

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

DOOR, FRAME AND WINDOW ELEVATIONS AND CASEWORK SECTIONS

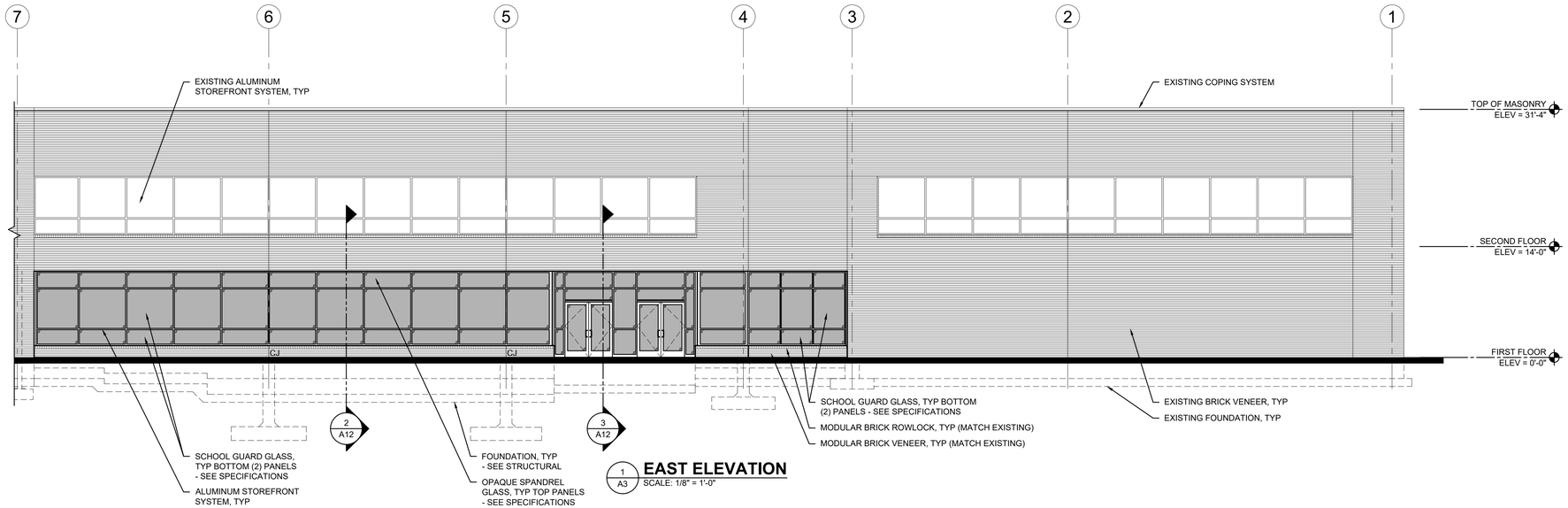
DRAWN BY:	DESIGNED BY:
LEW	LEW
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: AS NOTED

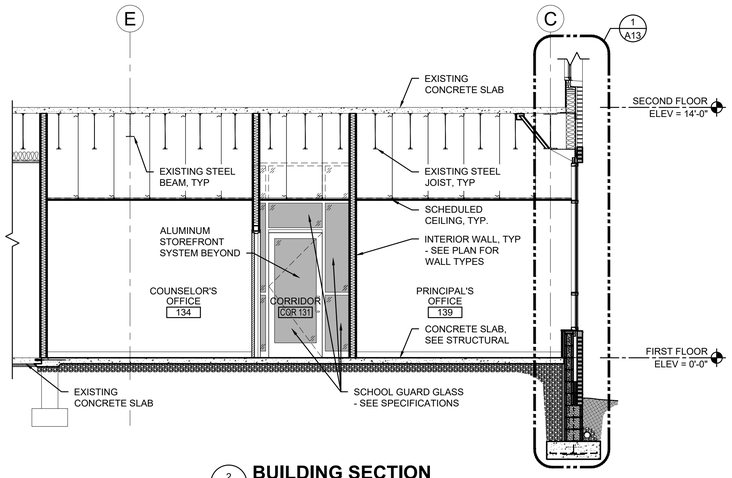
PROJECT NUMBER: 22286A

SHEET NO: A11
22 of 58

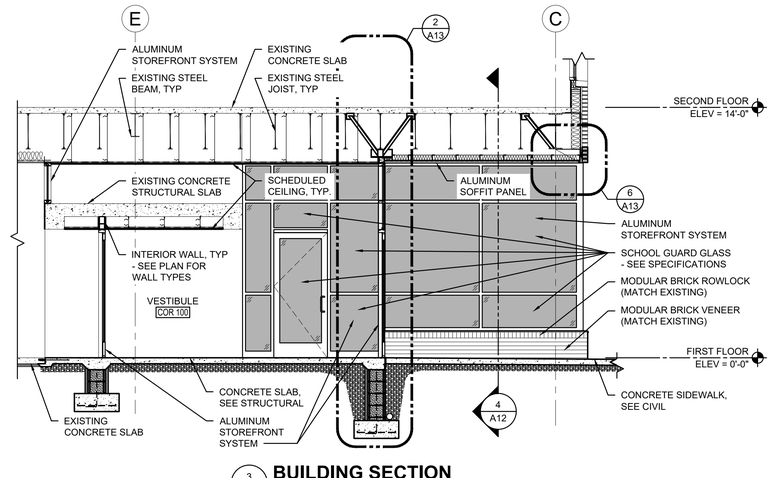
REFER TO SHEET A19 FOR PRODUCT SPECIFICATIONS



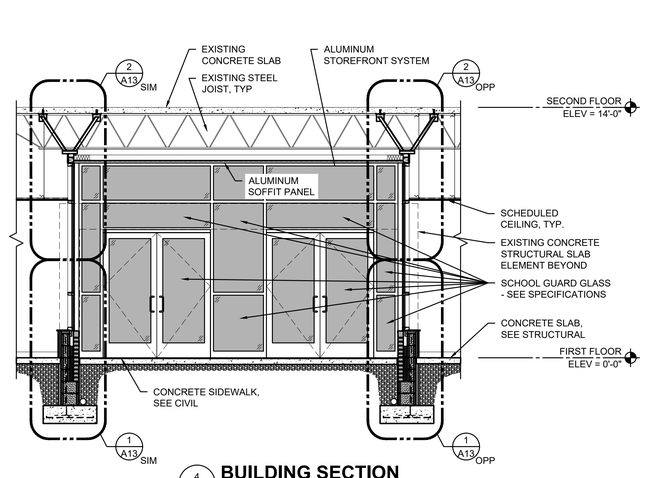
1 A3 **EAST ELEVATION**
SCALE: 1/8" = 1'-0"



2 A3 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"



3 A3 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"



4 A3 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"

BID 11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	AWM	ISSUED FOR 30% REVIEW
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C	09/07/23	AWM	ISSUED FOR 100% REVIEW
D	11/01/23	AWM	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

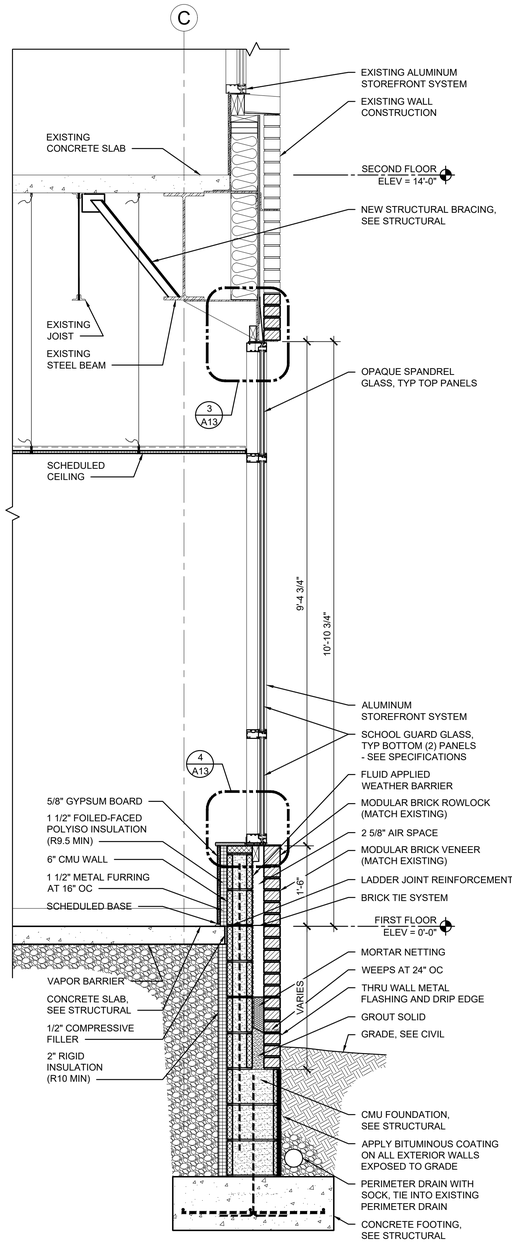
EXTERIOR ELEVATION AND BUILDING SECTIONS

DRAWN BY:	DESIGNED BY:
AWM	GPK
CHECKED BY:	DATE:
GPK	05/02/23

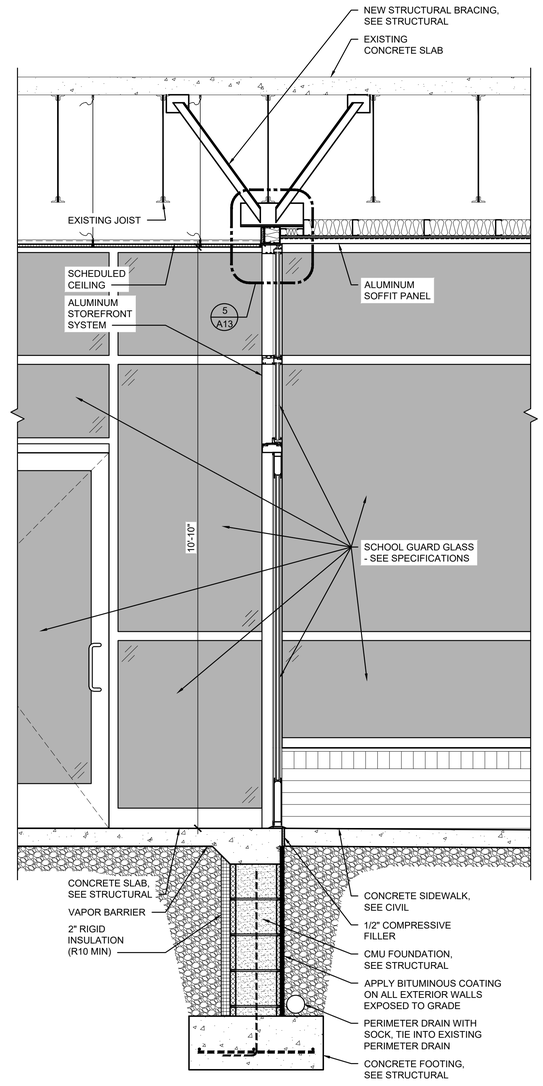
SCALE: AS NOTED

PROJECT NUMBER: 22286A

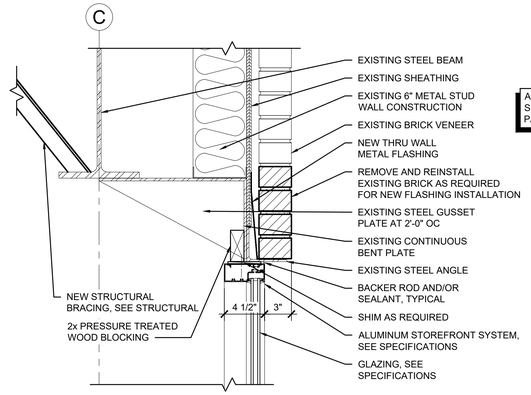
SHEET NO: **A12**
23 of 58



1 A12 **WALL SECTION**
SCALE: 3/4" = 1'-0"



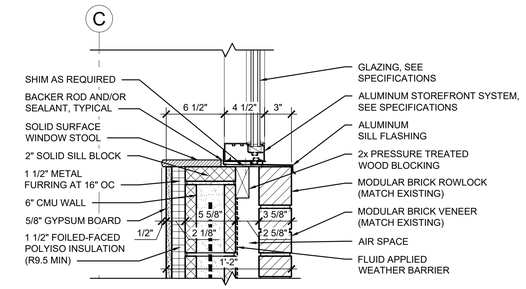
2 A12 **WALL SECTION**
SCALE: 3/4" = 1'-0"



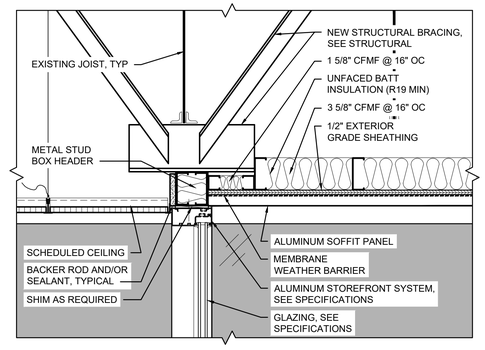
3 A13 **WALL SECTION**
SCALE: 1 1/2" = 1'-0"

REFER TO SHEET A19 FOR PRODUCT SPECIFICATIONS

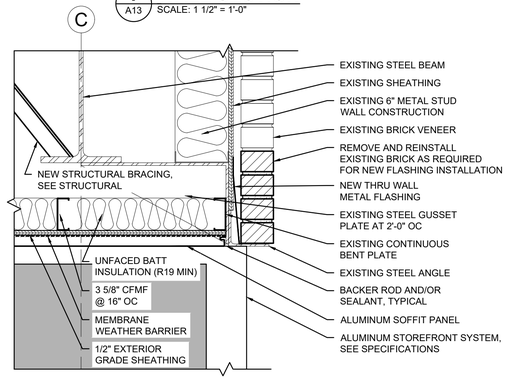
ALL EXISTING EXTERIOR ANGLES/ LINTELS SHALL NE PROPERLY PREPPED AND PAINTED WITH HIGH PERFORMANCE PAINT



4 A13 **WALL SECTION**
SCALE: 1 1/2" = 1'-0"



5 A13 **WALL SECTION**
SCALE: 1 1/2" = 1'-0"



6 A12 **WALL SECTION**
SCALE: 1 1/2" = 1'-0"

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	AWM	ISSUED FOR 30% REVIEW
B	08/17/23	AWM	ISSUED FOR 60% REVIEW
C	09/07/23	AWM	ISSUED FOR 100% REVIEW
D	11/01/23	AWM	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

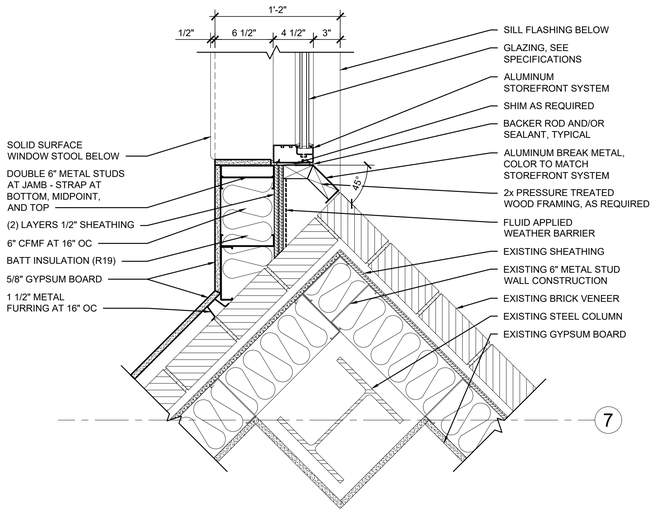
WALL SECTIONS AND DETAILS

DRAWN BY:	DESIGNED BY:
AWM	GPK
CHECKED BY:	DATE:
GPK	05/02/23

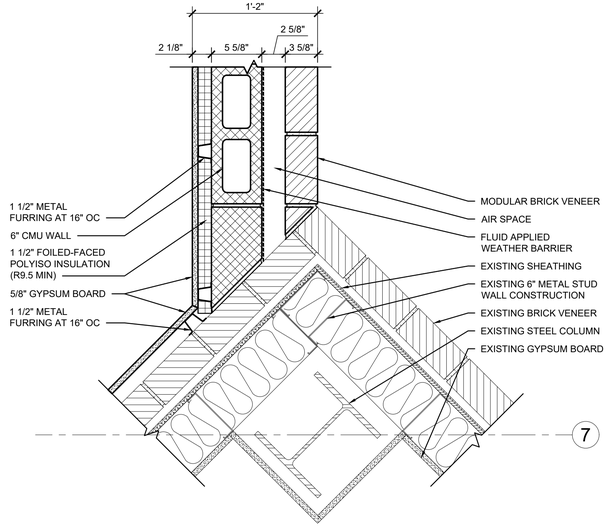
SCALE: AS NOTED

PROJECT NUMBER: 22286A

SHEET NO: A13

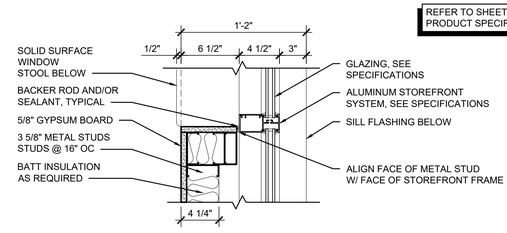


1 A3 **PLAN DETAIL (HIGH)**
SCALE: 1 1/2" = 1'-0"

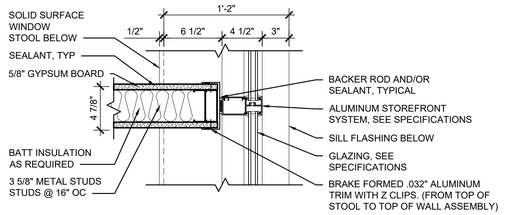


2 A3 **PLAN DETAIL (LOW)**
SCALE: 1 1/2" = 1'-0"

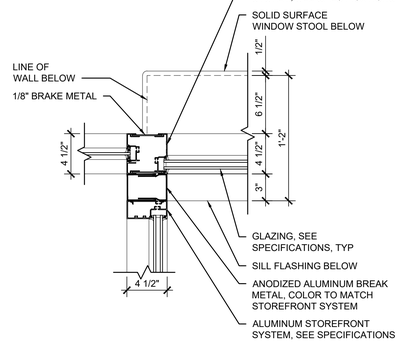
REFER TO SHEET A19 FOR PRODUCT SPECIFICATIONS



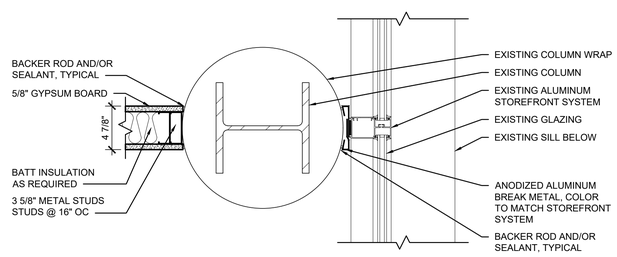
3 A3 **PLAN DETAIL**
SCALE: 1 1/2" = 1'-0"



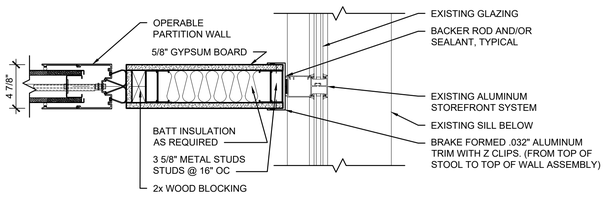
4 A3 **PLAN DETAIL**
SCALE: 1 1/2" = 1'-0"



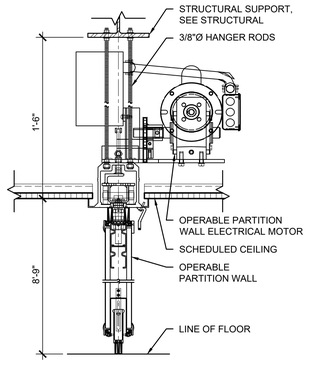
5 A3 **PLAN DETAIL**
SCALE: 1 1/2" = 1'-0"



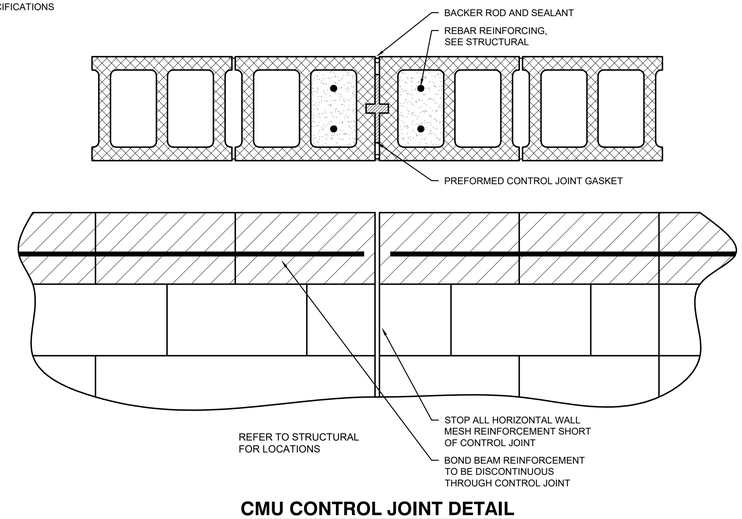
6 A3 **PLAN DETAIL**
SCALE: 1 1/2" = 1'-0"



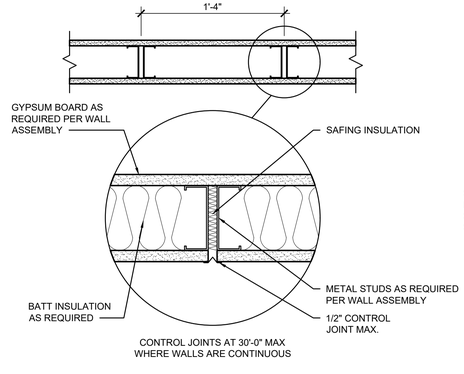
7 A4 **PLAN DETAIL**
SCALE: 1 1/2" = 1'-0"



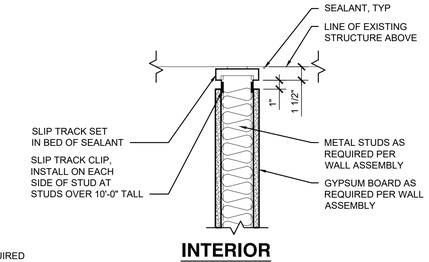
8 A4 **SECTION**
SCALE: 1 1/2" = 1'-0"



CMU CONTROL JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



GYPSUM BOARD CONTROL JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



INTERIOR WALL HEAD DETAIL
9
SCALE: 1 1/2" = 1'-0"

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
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D	11/01/23	AWM	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

PLAN DETAILS

DRAWN BY:	DESIGNED BY:
AWM	GPK
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: AS NOTED

PROJECT NUMBER: 22286A

SHEET NO: A14
25 of 58

DOOR HARDWARE SETS:

SET #1 - OPENING: 100A (ONE SET PER OPENING)

1)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
1)	EA	SL11HD 83" CTW 10	BLACK	ELECTRIC CONTINUOUS HINGE
1)	EA	4110-SCUSH	693	CLOSER (PARALLEL ARM)
1)	EA	4110-18	693	PLATE
1)	EA	4110-30	693	SHOE
1)	EA	4110-61	693	SPACER
1)	EA	M FORCE OPERATOR		STANLEY DOOR OPERATOR (WITH 75" HEADER)
2)	EA	BEA10PBJMI 1.75x4.75	SS	ACTUATOR (JAMB MTD PP, LOGO & TEXT, HW W/ JAMB FLUSH MTD BOX)
1)	EA	653-04 x L2 x NS	630	REMOTE KEY SWITCH (POWER OFF DOOR OPERATOR)
1)	EA	QEL 33A-NL-OP	711	ELECTRIC EXIT DEVICE
1)	EA	CD 33A-EO	711	EXIT DEVICE
2)	EA	23Q 18" CTC	US32D	OFFSET PULL
2)	EA	KR-4954	BLACK	KEYED REMOVABLE MULLION
1)	EA	425	AL	THRESHOLD
1)	EA	PS902	BLACK	POWER SUPPLY
3)	EA	1E74	US26D	MORTISE CYLINDER (EXIT DOGGING, MULLION & KEY SWITCH)
1)	EA	1E72	US26D	RIM CYLINDER (NL-OP EXIT)
				PROXIMITY READER (BY SECURITY CONTRACTOR)
				VIDEO INTERCOM (BY SECURITY CONTRACTOR)
				DOOR CONTACT (BY SECURITY CONTRACTOR)
				WEATHER STRIP (BY ALUM DOOR MANUF)
				DOOR SWEEP (BY ALUM DOOR MANUF)

SET #2 - OPENING: 100B (ONE SET PER OPENING)

2)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
1)	EA	CD 33A-NL-OP	711	EXIT DEVICE
1)	EA	CD 33A-EO	711	EXIT DEVICE
2)	EA	4110-SCUSH	693	CLOSER (PARALLEL ARM)
2)	EA	4110-18	693	PLATE
2)	EA	4110-30	693	SHOE
2)	EA	4110-61	693	SPACER
2)	EA	23Q 18" CTC	US32D	OFFSET PULL
1)	EA	KR-4954	BLACK	KEYED REMOVABLE MULLION
1)	EA	425	AL	THRESHOLD
1)	EA	1E72	US26D	RIM CYLINDER (NL-OP EXIT)
2)	EA	1E74	US26D	MORTISE CYLINDER (EXIT DOGGING & MULLION)
				DOOR CONTACT (BY SECURITY CONTRACTOR)
				WEATHER STRIP (BY ALUM DOOR MANUF)
				DOOR SWEEP (BY ALUM DOOR MANUF)

SET #3 - OPENING: 100C (ONE SET PER OPENING)

2)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
1)	EA	CD 33A-NL-OP	711	EXIT DEVICE
1)	EA	CD 33A-EO	711	EXIT DEVICE
2)	EA	4110-SCUSH	693	CLOSER (PARALLEL ARM)
2)	EA	4110-18	693	PLATE
2)	EA	4110-30	693	SHOE
2)	EA	4110-61	693	SPACER
2)	EA	23Q 18" CTC	US32D	OFFSET PULL
1)	EA	KR-4954	BLACK	KEYED REMOVABLE MULLION
4)	EA	307D	GREY	DOOR BUMPER
1)	EA	1E72	US26D	RIM CYLINDER (NL-OP EXIT)
2)	EA	1E74	US26D	MORTISE CYLINDER (EXIT DOGGING & MULLION)
				DOOR CONTACT (BY SECURITY CONTRACTOR)

SET #4 - OPENINGS: 100D (ONE SET PER OPENING)

1)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
1)	EA	SL11HD 83" CTW 10	BLACK	ELECTRIC CONTINUOUS HINGE
1)	EA	CD 33A-EO	711	EXIT DEVICE
1)	EA	4110-SCUSH	693	CLOSER (PARALLEL ARM)
1)	EA	4110-18	693	PLATE
1)	EA	4110-30	693	SHOE
1)	EA	4110-61	693	SPACER
1)	EA	M FORCE OPERATOR		STANLEY DOOR OPERATOR (WITH 75" HEADER)
2)	EA	BEA10PBJMI 1.75x4.75	SS	ACTUATOR (JAMB MTD PP, LOGO & TEXT, HW W/ JAMB FLUSH MTD BOX)
1)	EA	653-04 x L2 x NS	630	REMOTE KEY SWITCH (POWER OFF DOOR OPERATOR)
1)	EA	QEL 33A-NL-OP	711	ELECTRIC EXIT DEVICE
2)	EA	23Q 18" CTC	US32D	OFFSET PULL
1)	EA	KR-4954	BLACK	KEYED REMOVABLE MULLION
1)	EA	PS902	BLACK	POWER SUPPLY
4)	EA	307D	GREY	DOOR BUMPER
1)	EA	1E72	US26D	RIM CYLINDER (NL-OP EXIT)
3)	EA	1E74	US26D	MORTISE CYLINDER (EXIT DOGGING, MULLION & KEY SWITCH)
				PROXIMITY READER (BY SECURITY CONTRACTOR)
				DOOR CONTACT (BY SECURITY CONTRACTOR)

SET #5 - OPENING: 131A (ONE SET PER OPENING)

1)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
1)	EA	1500	630	ELECTRIC STRIKE
1)	EA	4110-SCUSH	693	CLOSER (PARALLEL ARM)
1)	EA	4110-18	693	PLATE
1)	EA	4110-30	693	SHOE
1)	EA	4110-61	693	SPACER
1)	EA	ND80BDC RHO	US26D	STOREROOM LOCK SET
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	PS902	BLACK	POWER SUPPLY
1)	EA	IE74	US26D	MORTISE CYLINDER
1)	EA	1C72	US26D	RIM CYLINDER
				PROXIMITY READER (BY SECURITY CONTRACTOR)
				DOOR CONTACT (BY SECURITY CONTRACTOR)

SET #6 - OPENINGS: 121C, 124B, 129, 133, 134, 135, 137A, 137B, 139A, 139B (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	WS401/402CCV	US26D	WALL STOP (EXCLUDE ON 124B)
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND50BDC RHO	US26D	ENTRANCE LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #7 - OPENINGS: 204, 207, 208 (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5 NRP	652	HINGE
1)	EA	WS401/402CVX	US26D	WALL STOP
1)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND70BDC RHO	US26D	CLASSROOM LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #8 - OPENINGS: 122, 123, 138 (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	WS401/402CCV	US26D	WALL STOP
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND10S RHO	US26D	PASSAGE SET

SET #9 - OPENINGS: 203A, 203B (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	4010-SCUSH	ALUM	CLOSER (PARALLEL ARM)
1)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
1)	EA	WS401/402CCV	US26D	WALL STOP
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND10S RHO	US26D	PASSAGE SET

SET #10 - OPENING: 131C, 140B (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	1500	630	ELECTRIC STRIKE
1)	EA	4010-SCUSH	ALUM	CLOSER (PARALLEL ARM)
1)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
1)	EA	WS401/402CVX	US26D	WALL STOP
1)	EA	PS902	BLACK	POWER SUPPLY
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND80BDC RHO	US26D	STOREROOM LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER
				PROXIMITY READER (BY SECURITY CONTRACTOR)
				DOOR CONTACT (BY SECURITY CONTRACTOR)

SET #11 - OPENINGS: 125, 126, 128B, 128C, 136, 203C (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	4010-SCUSH	ALUM	CLOSER (PARALLEL ARM)
1)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
1)	EA	WS401/402CCV	US26D	WALL STOP
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND40S RHO	US26D	PRIVACY LOCK SET

SET #12 - OPENINGS: 121D, 130B (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5 NRP	652	HINGE
1)	EA	4010-SCUSH	ALUM	CLOSER (PARALLEL ARM)
1)	EA	8400 10x34.5 B-CS	US32D	KICKPLATE (PUSH SIDE)
1)	EA	WS401/402CVX	US26D	WALL STOP
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND80BDC RHO	US26D	STOREROOM LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #13 - OPENING: 130A (ONE SET PER OPENING)

2)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
2)	EA	CD 33A-L-06	US26D	EXIT DEVICE
2)	EA	4110-SHCUSH	ALUM	CLOSER (HOLD OPEN ARM)
2)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
1)	EA	KR-4954	628	KEYED REMOVABLE MULLION
4)	EA	307D	GREY	DOOR BUMPER
2)	EA	1E72	US26D	RIM CYLINDER (EXIT DEVICE)
3)	EA	1E74	US26D	MORTISE CYLINDER (EXIT DOGGING & MULLION)
1)	EA	WS401/402CVX	US26D	WALL STOP
1)	EA	FS436	US28	FLOOR STOP

SET #14 - OPENING: 127B (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	4010-SCUSH	ALUM	CLOSER (WITH STOP)
1)	EA	8400 10x34.5 B-CS	US32D	KICKPLATE (PUSH SIDE)
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND80BDC RHO	US26D	STOREROOM LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #15 - OPENINGS: 124A, 127A, 131B (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5 NRP	652	HINGE
1)	EA	WS401/402CVX	US26D	WALL STOP
1)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
4)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND50BDC RHO	US26D	ENTRANCE LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #16 - OPENINGS: 121A, 121B, 128A (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	WS401/402CVX	US26D	WALL STOP
1)	EA	8400 10x34.5 B-CS	US32D	KICK PLATE (PUSH SIDE)
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND70PD RHO	US26D	CLASSROOM LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #17 - OPENING: 132 (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5 NRP	652	HINGE
1)	EA	WS401/402CVX	US26D	WALL STOP
4)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND10S RHO	US26D	PASSAGE SET

SET #18 - OPENING: 121D (ONE SET PER OPENING)

3)	EA	5BB1 4.5 x 4.5	652	HINGE
1)	EA	4011-SCUSH	ALUM	CLOSER (PARALLEL ARM)
1)	EA	8400 10x34.5 B-CS	US32D	KICKPLATE (PUSH SIDE)
1)	EA	WS401/402CCV	US26D	WALL STOP
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	ND80BDC RHO	US26D	STOREROOM LOCK SET
1)	EA	1C72	US26D	RIM CYLINDER

SET #19 - OPENING: 140A (ONE SET PER OPENING)

1)	EA	SL11HD 83"	BLACK	CONTINUOUS HINGE
1)	EA	4110-SCUSH	693	CLOSER (PARALLEL ARM)
1)	EA	4110-18	693	PLATE
1)	EA	4110-30	693	SHOE
1)	EA	4110-61	693	SPACER
1)	EA	ND80BDC RHO	US26D	STOREROOM LOCK SET
3)	EA	307D	GREY	DOOR BUMPER
1)	EA	IE74	US26D	MORTISE CYLINDER
1)	EA	1C72	US26D	RIM CYLINDER

DOOR SCHEDULE

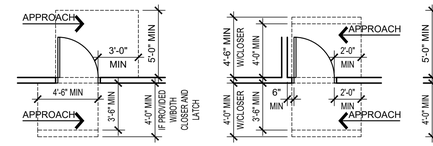
NO	NAME	HANDED	DOOR INFORMATION SIZE	ELEV	MATL	FINISH	GLAZING	FRAME INFORMATION ELEV	MATL	FINISH	HARDWARE SET	REMARKS
100A	VESTIBULE	RHR	(2) 3'-0" x 7'-0" x 1 3/4"	D1	ANODIZED ALUMINUM	BLACK	1" THERMAL w/ 3/8" RESISTANT LAM COMPOSITE	F3	ANODIZED ALUMINUM	BLACK	1	
100B	VESTIBULE	RHR	(2) 3'-0" x 7'-0" x 1 3/4"	D1	ANODIZED ALUMINUM	BLACK	1" THERMAL w/ 3/8" RESISTANT LAM COMPOSITE	F3	ANODIZED ALUMINUM	BLACK	2	
100C	VESTIBULE	RHR	(2) 3'-0" x 7'-0" x 1 3/4"	D1	ANODIZED ALUMINUM	BLACK	3/8" RESISTANT LAM COMPOSITE	F4	ANODIZED ALUMINUM	BLACK	3	
100D	VESTIBULE	RHR	(2) 3'-0" x 7'-0" x 1 3/4"	D1	ANODIZED ALUMINUM	BLACK	3/8" RESISTANT LAM COMPOSITE	F4	ANODIZED ALUMINUM	BLACK	4	
121A	NURSE'S OFFICE	LHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	16	
121B	NURSE'S OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	16	
121C	SCHOOL NURSE'S OFFICE	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	6	
121D	NURSE'S STORAGE / SUPPLY ROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	12	
122	SMALL GROUP STUDY ROOM	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F7	HOLLOW METAL	PAINT	8	
123	SMALL GROUP STUDY ROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F7	HOLLOW METAL	PAINT	8	
124A	SCHOOL CORPORATION NURSE'S OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	15	
124B	SCHOOL CORPORATION NURSE'S OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	6	
125	UNISEX RESTROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	11	
126	UNISEX RESTROOM	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	11	
127A	IT ROOM	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	15	
127B	RECORDS ROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	14	
128A	SMALL MEETING ROOM	LH	3'-0" x 7'-0" x 1 3/4"	D5	WOOD VENEER	STAIN	1/4" CLEAR TEMPERED	F1	HOLLOW METAL	PAINT	16	
128B	EXISTING RESTROOM	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	11	
128C	EXISTING RESTROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	11	
129	ATHLETIC DIRECTOR'S OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D5	WOOD VENEER	STAIN	1/4" CLEAR TEMPERED	F1	HOLLOW METAL	PAINT	6	
130A	MEDIA CENTER	RHR	(2) 3'-0" x 7'-0" x 1 3/4"	D2	WOOD VENEER	STAIN	1/4" CLEAR TEMPERED	F6	ANODIZED ALUMINUM	BLACK	14	
130B	MEDIA CENTER	LHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	12	
131A	ADMIN OFFICE	RH	3'-0" x 7'-0" x 1 3/4"	D3	ANODIZED ALUMINUM	BLACK	3/8" RESISTANT LAM COMPOSITE	F5	ANODIZED ALUMINUM	BLACK	5	
131B	ADMIN OFFICE	LHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	15	
131C	CORRIDOR	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	10	
132	CLOSET	LHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	17	
133	TREASURER'S OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	6	
134	COUNSELOR'S OFFICE	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	6	
135	COUNSELOR'S OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	6	
136	UNISEX RESTROOM	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	11	
137A	ASSISTANT PRINCIPAL'S OFFICE	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	6	
137B	ASSISTANT PRINCIPAL'S OFFICE	RHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	6	
138	CONFERENCE ROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	8	
139A	PRINCIPAL'S OFFICE	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F2	HOLLOW METAL	PAINT	6	
139B	PRINCIPAL'S OFFICE	RHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	6	
140A	SRO OFFICE	LH	3'-0" x 7'-0" x 1 3/4"	D3	ANODIZED ALUMINUM	BLACK	3/8" RESISTANT LAM COMPOSITE	F5	ANODIZED ALUMINUM	BLACK	19	
140B	SRO OFFICE	RHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	10	
203A	TEACHER'S LOUNGE / WORK ROOM	LH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	9	
203B	TEACHER'S LOUNGE / WORK ROOM	RHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	9	
203C	UNISEX RESTROOM	RH	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F1	HOLLOW METAL	PAINT	11	
204	LARGE GROUP MEETING ROOM	LHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F8	HOLLOW METAL	PAINT	7	
207	LARGE GROUP MEETING ROOM	RHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F8	HOLLOW METAL	PAINT	7	
208	LARGE GROUP MEETING ROOM	LHR	3'-0" x 7'-0" x 1 3/4"	D4	WOOD VENEER	STAIN	-	F8	HOLLOW METAL	PAINT	7	

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

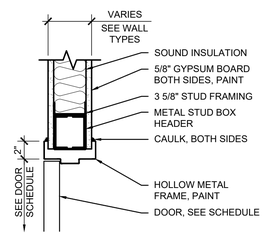
GENERAL DOOR NOTES:

1. ALL EGRESS DOORS SHALL BE NON-LOCKING AGAINST EGRESS. ALL LOCKING DEVICES ON MEANS OF EGRESS DOORS SHALL BE ACTIVATED BY EXIT DEVICE.
2. DOOR HANDLE SHALL NOT REQUIRE ANY TIGHT GRASPING, PINCHING, OR TWISTING TO OPERATE.
3. ALL GLASS IN DOORS SHALL BE TEMPERED AND INSTALLED BY THE DOOR MANUFACTURER.
4. ALL DOORS AND HARDWARE SHALL COMPLY WITH BARRIER FREE REQUIREMENTS AND THE AMERICANS WITH DISABILITIES ACT.
5. ALL HOLLOW METAL DOOR FRAMES SHALL BE CONSTRUCTED OF 16 GAUGE MATERIAL.



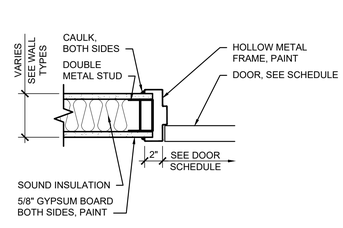
MINIMUM DOOR CLEARANCE DETAILS

SCALE: 3/16" = 1'-0"



1 / A14 **TYPICAL HEAD DETAIL**

SCALE: 1 1/2" = 1'-0"



2 / A14 **TYPICAL JAMB DETAIL**

SCALE: 1 1/2" = 1'-0"

BID 11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

DOOR, FRAME AND HARDWARE SCHEDULE, DETAILS AND SPECIFICATIONS

DRAWN BY: LEW	DESIGNED BY: GPK
CHECKED BY: GPK	DATE: 05/02/23
SCALE: AS NOTED	
PROJECT NUMBER: 22286A	
SHEET NO: A15	26 of 58

ROOM FINISH SCHEDULE

ROOM		FLOOR								BASE		WALLS					CEILING					
		LUXURY VINYL TILE, LVT01	LUXURY VINYL TILE, LVT02	LUXURY VINYL TILE, LVT03	CARPET TILE, CPT01	CARPET TILE, CPT02	CARPET TILE, CPT03	WALK-OFF CARPET TILE	EXISTING	WALL BASE, RB01	EXISTING	1. BASE PAINT, PT01 2. ACCENT PAINT, PT02 3. PAINT TO MATCH EXISTING 4. EXISTING TO REMAIN					2x2 ACOUSTICAL CEILING PANEL, ACT01	2x4 ACOUSTICAL CEILING PANEL, ACT02	GYPSUM BOARD, PAINT, PT04	EXISTING		
NO	NAME	1	2	3	4	5	6	7	8	1	2	N	E	S	W	REMARKS	1	2	3	4	HEIGHT	REMARKS
COR 100	VESTIBULE							7		1		1	1	1	1		1		3		10'-10", 7'-2"	
COR 101	LOBBY	1								1		1	1,2	-	1,2	COLUMN WRAPS TO BE PT02		2	3		10'-10", 8'-0"	
COR 102	CORRIDOR	1								1		1	2,4	-	1	COLUMN WRAPS TO BE PT02. STAIR FRAMING TO BE PT01.		2			8'-0"	
COR 103	CAFETERIA	1							8	1	2	-	1,4	4	4					4	EXISTING	CEILING AND BULKHEAD TO BE REWORKED - MATCH EXISTING HEIGHTS
COR 104	CORRIDOR								8	1	2	1	-	4	-					4	EXISTING	
COR 105	CORRIDOR								8	1	2	-	3,4	-	4	TOUCH-UP PAINT AS REQUIRED				4	EXISTING	
COR 106	CORRIDOR								8		2	4	-	3,4	-	TOUCH-UP PAINT AS REQUIRED				4	EXISTING	
121	NURSE'S OFFICE	1								1		1	1	1	1		1				8,-10", 8'-0"	
121A	SCHOOL NURSE'S OFFICE	1								1		2	1	1	1		1				8'-10"	
121B	NURSE'S STORAGE / SUPPLY ROOM	1								1		1	1	1	1		1				8'-10"	
122	SMALL GROUP STUDY ROOM	1	2							1		2	1	1	1		1				8'-0"	
123	SMALL GROUP STUDY ROOM	1	2							1		2	1	1	1		1				8'-0"	
124	SCHOOL CORPORATION NURSE'S OFFICE	1								1		1	1	2	1		1				8'-10"	
RR 125	UNISEX RESTROOM	1								1		1	1	1	1	EPOXY PAINT	1				8'-0"	
RR 126	UNISEX RESTROOM	1								1		1	1	1	1	EPOXY PAINT	1				8'-0"	
127	IT ROOM	1								1		1	1	1	1		1				8'-10"	
127A	RECORDS ROOM	1								1		1	1	1	1		1				8'-10"	
128	SMALL MEETING ROOM	1								1		2	1	1	1		1				8'-10"	
RR 128A	EXISTING RESTROOM								8	2		1	1	1	1	EPOXY PAINT	1				8'-0"	
RR 128B	EXISTING RESTROOM								8	2		1	1	1	1	EPOXY PAINT	1				8'-0"	
129	ATHLETIC DIRECTOR'S OFFICE	1								1		2	1	1	1		1				8'-10"	
130	MEDIA CENTER						6			1		1,2	1	1,2	2		1				8'-0"	
130A	WORK AREA						6			1		1	1	1	1		1				8'-0"	
130B	STORAGE CLOSET						6			1		1	1	1	1		1				8'-0"	
131	ADMIN OFFICE	1								1		1	1,2	1,2	1,2	COLUMN WRAPS TO BE PT02	1				8'-9"	
COR 131	CORRIDOR	1								1		1	1	1	1		1				8'-9"	
132	WORK ROOM	1								1		2	1	1	1		1				8'-9"	
132A	CLOSET	1								1		1	1	1	1		1				8'-0"	
133	TREASURER'S OFFICE				4	5				1		2	1	1	1		1				8'-9"	
134	COUNSELOR'S OFFICE				4	5				1		1	1	2	1		1				8'-9"	
135	COUNSELOR'S OFFICE				4	5				1		2	1	1	1	COLUMN WRAPS TO BE PT02	1				8'-9"	
RR 136	UNISEX RESTROOM	1								1		1	1	1	1	EPOXY PAINT	1				8'-9"	
137	ASSISTANT PRINCIPAL'S OFFICE				4	5				1		1	1	1	2		1				8'-9"	
138	LARGE MEETING ROOM				4	5				1		1	1,2	1	2	COLUMN WRAPS TO BE PT02	1				8'-9"	
139	PRINCIPAL'S OFFICE				4	5				1		2	1	1	1		1				8'-9"	
140	SRO OFFICE	1								1		1	1,2	1	1,2	COLUMN WRAPS TO BE PT02	1				8'-9"	
COR 200	CORRIDOR	1	2	3						1		1	1,2	-	1	COLUMN WRAPS TO BE PT02		2		4	EXISTING	
COR 201	CORRIDOR								8	1	2	4	1	-	4					4	EXISTING	
COR 202	CORRIDOR								8	1	2	1,2	4	4	-	COLUMN WRAPS TO BE PT02				4	EXISTING	
202	CONFERENCE ROOM								8	1	2	4	4	2,4	4	COLUMN WRAPS TO BE PT02				4	EXISTING	
203	TEACHER'S LOUNGE	1								1		1,2	1	2	1,2	COLUMN WRAPS TO BE PT02	1				8'-9"	
RR 203	UNISEX RESTROOM	1								1		1	1	1	1	EPOXY PAINT	1				8'-9"	
204	LARGE GROUP MEETING ROOM				4	5				1		1	1	1	1		1				8'-9"	
207	LARGE GROUP MEETING ROOM				4	5				1		1	1,2	1	1	COLUMN WRAPS TO BE PT02	1				8'-9"	
208	LARGE GROUP MEETING ROOM				4	5				1		1	1	1,2	1	COLUMN WRAPS TO BE PT02	1				8'-9"	

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

SEE SHEETS A17 AND A18 FOR FLOOR PATTERNS AND ACCENT WALL LOCATIONS.

GENERAL FINISH NOTES:

1. SUBMIT COLOR AND TEXTURE SAMPLES OF ALL FINISHES AND PRODUCTS FOR APPROVAL BY ARCHITECT.
2. PREPARE ALL SURFACES AND APPLY ALL PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. CAULK ALL DISSIMILAR SURFACES PRIOR TO FINISHING WALLS WITH PAINT ACCEPTING CAULK. CAULK SHALL BE WHITE IN COLOR.
4. ALL FINISH CAULKING/SEALANTS TO BE BY THE PAINTING CONTRACTOR.
5. ALL FLOORING MATERIALS TO EXTEND TO WALL UNDER OPEN COUNTERS AND CASEWORK.
6. PROVIDE TRANSITION STRIPS BETWEEN DISSIMILAR FLOOR MATERIALS. TRANSITIONS BETWEEN ROOMS TO BE LOCATED CENTERED UNDER THE DOOR.
7. CONTRACTOR SHALL PROVIDE AN ADDITIONAL 10% OF ALL FLOOR, WALL BASE, & CEILING FINISHES TO THE OWNER FOR FUTURE USE.
8. FACE OF GYPSUM BOARD BULKHEADS TO MATCH WALL PAINT, UNDERSIDE TO MATCH CEILING PAINT.
9. ALL DOOR AND WINDOW FRAMES TO BE SPRAYED OR FINELY ROLLED, NOT BRUSHED.

FINISH SPECIFICATIONS:

LUXURY VINYL TILE - LVT:

LVT SHALL BE MANUFACTURED BY INTERFACE STUDIO SET. WEAR LAYER: 22 MIL; OVERALL THICKNESS: 4.5 MM; SIZE: 10" X 40". FOLLOW ALL MANUFACTURER INSTALLATION STEPS & INSTRUCTIONS. PATTERN AS INDICATED ON SHEETS A17 AND A18. *15 YEAR STANDARD LVT WARRANTY

- LVT01 - PEWTER #A00702 (FIELD)
- LVT02 - RED #A00717 (ACCENT)
- LVT03 - ROYAL BLUE #A00720 (ACCENT)

CARPET TILE:

CPT01 - CARPET SHALL BE MANUFACTURED BY INTERFACE. B702 NET EFFECT COLLECTION, STYLE #126620AK0H. COLOR 102901 CASPIAN, ASHLAR INSTALLATION. (FIELD COLOR - 85%) *15 YEAR STANDARD CARPET WARRANTY

CPT02 - CARPET SHALL BE MANUFACTURED BY INTERFACE. B702 NET EFFECT COLLECTION, STYLE #126620AK0H. COLOR 102900 ATLANTIC, ASHLAR INSTALLATION. (ACCENT COLOR - 15%) *15 YEAR STANDARD CARPET WARRANTY

CPT03 - CARPET SHALL BE MANUFACTURED BY INTERFACE. SS218 STREET SMART COLLECTION, STYLE #142650AK00. COLOR 105019 CROSSROAD / LAGUNA, ASHLAR INSTALLATION. *15 YEAR STANDARD CARPET WARRANTY

WALK-OFF CARPET TILE:

CARPET SHALL BE MANUFACTURED BY INTERFACE. PRODUCT #SR999, COLOR 104945 ONYX, INSTALLED NON DIRECTIONAL. *15 YEAR STANDARD CARPET WARRANTY

WALL BASE:

RB01 - ROPPE PINNACLE (TYPE TS), 4" HIGH, 1/8" THICK, WITH STANDARD TOE, ON A ROLL, COLOR: BLACK #100. USE MANUFACTURED INSIDE AND OUTSIDE CORNER PROFILES.

TRANSITION STRIPS:

RUBBER TRANSITION STRIP AS MANUFACTURED BY ROPPE TO BE INSTALLED WITH EPOXY ADHESIVE. COLOR TO BE BLACK #100. VERIFY SIZE REQUIRED AFTER INSTALLATION OF FLOORING.

PAINT COLORS:

- PT01 - SHERWIN WILLIAMS, KNITTING NEEDLES #SW7672 (BASE WALLS)
- PT02 - SHERWIN WILLIAMS, GEORGIAN BAY #SW6509 (ACCENT WALLS AND ROUND COLUMN WRAPS)
- PT03 - SHERWIN WILLIAMS, DOVETAIL #SW7018 (HOLLOW METAL DOOR & WINDOW FRAMES)
- PT04 - SHERWIN WILLIAMS, PURE WHITE #SW7005 (GYPSUM BOARD CEILINGS & BULKHEADS)

LAY-IN TILES AND CEILING SUSPENSION SYSTEM:

ACT01 - SUSPENDED LAY-IN TILE SHALL BE ARMSTRONG ULTIMA, #1912, BEVELED TEGULAR 9/16, 2'x2'x3/4" PANEL WITH 0.75 NRC, 35 CAC OR APPROVED EQUAL.

ACT02 - SUSPENDED LAY-IN TILE SHALL BE ARMSTRONG ULTIMA, #1913, SQUARE EDGE, 2'x4'x3/4" PANEL WITH 0.75 NRC, 35 CAC OR APPROVED EQUAL.

CEILING SUSPENSION SYSTEM SHALL BE 15/16" EXPOSED TEE GRID SYSTEM, WITH WHITE FINISH.

FRAMING SHALL COMPLY WITH INTERMEDIATE CLASSIFICATION OF ASTM C 635, "STANDARD SPECIFICATION FOR METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND LAY-IN PANEL CEILINGS".

SOLID SURFACE COUNTERTOP, BACKSPLASH, RETURNS AND WINDOW SILLS:

SOLID SURFACE TO BE CORIAN ARROWROOT. PROVIDE EASED EDGE TOP & BOTTOM. PROVIDE CLEAR SILICONE SEALER AT COUNTERTOP TO BACKSPLASH, COUNTERTOP TO RETURN & WINDOW SILL TO FRAME JOINTS.

PLASTIC LAMINATE CASEWORK:

PL01 - FORMICA BURNT STRAND 6307-58, MATTE FINISH.

PL02 - FORMICA LAYERED WHITE SAND 9512-34, SCOVATO FINISH (BOOKCASE COUNTERTOPS)

REVEAL ON ALL CASEWORK TO BE DECOMETAL SOLID METAL LAMINATE BY FORMICA. COLOR TO BE BRUSHED ALUMINUM M605-99.

SOLID WOOD DOORS:

WOOD SPECIES TO BE RED OAK. STAIN FINISH TO BE SERENGETI SE18.

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

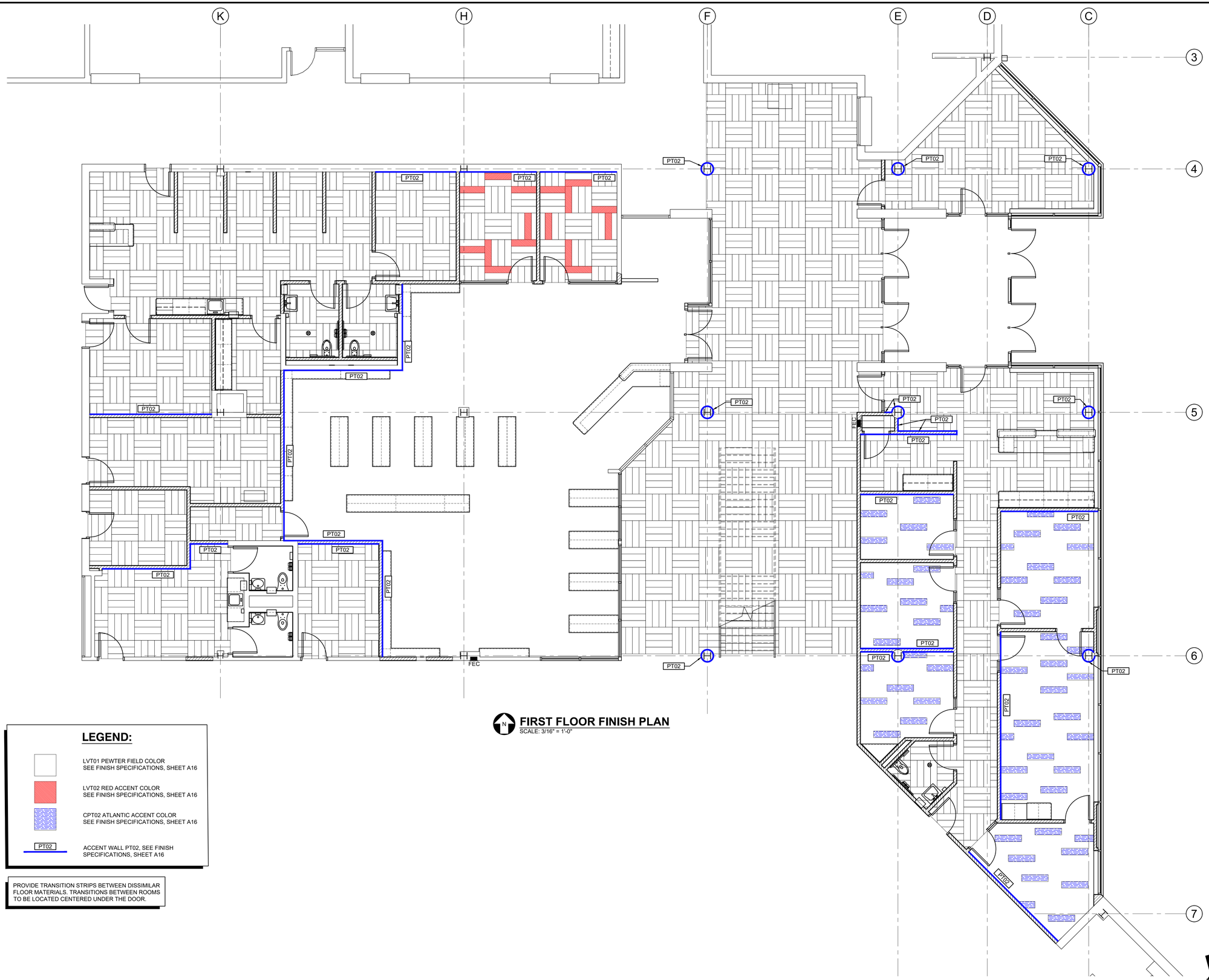
ROOM FINISH SCHEDULE AND SPECIFICATIONS

DRAWN BY:	DESIGNED BY:
LEW	LEW
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: NONE

PROJECT NUMBER: 22286A

SHEET NO: A16
27 of 58



FIRST FLOOR FINISH PLAN
SCALE: 3/16" = 1'-0"

LEGEND:

- LVT01 PEWTER FIELD COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- LVT02 RED ACCENT COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- CPT02 ATLANTIC ACCENT COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- PT02 — ACCENT WALL PT02, SEE FINISH SPECIFICATIONS, SHEET A16

PROVIDE TRANSITION STRIPS BETWEEN DISSIMILAR FLOOR MATERIALS. TRANSITIONS BETWEEN ROOMS TO BE LOCATED CENTERED UNDER THE DOOR.

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST FLOOR
FINISH PLAN

DRAWN BY:	DESIGNED BY:
LEW	LEW
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: A17
28 of 58

SECOND FLOOR FINISH PLAN
SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

LEGEND:

- LVT01 PEWTER FIELD COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- LVT02 RED ACCENT COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- LVT03 ROYAL BLUE ACCENT COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- CPT02 ATLANTIC ACCENT COLOR — SEE FINISH SPECIFICATIONS, SHEET A16
- PT02 — ACCENT WALL PT02, SEE FINISH SPECIFICATIONS, SHEET A16

PROVIDE TRANSITION STRIPS BETWEEN DISSIMILAR FLOOR MATERIALS. TRANSITIONS BETWEEN ROOMS TO BE LOCATED CENTERED UNDER THE DOOR.

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REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR
FINISH PLAN

DRAWN BY:	DESIGNED BY:
LEW	LEW
CHECKED BY:	DATE:
GPK	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: A18

BID
11/01/23

DIVISION 04 - MASONRY

1. CONCRETE MASONRY UNITS (CMU):
   STANDARD UNITS WITH NOMINAL FACE DIMENSION OF 16" WIDE x 8" HIGH x 6" DEEP. PROVIDE ALL ACCESSORIES FOR A COMPLETE INSTALLATION (MORTAR, JOINT REINFORCEMENT, WALL REINFORCEMENT, TWO-PIECE WALL TIES, ANCHORS, FLASHINGS, CONTROL JOINTS, JOINT FILLER, CAVITY MORTAR CONTROL, DRIP EDGE, WEEPS, ETC.)

2. MODULAR FACE BRICK VENEER & MORTAR:
   BRICK AND MORTAR (TYPE N) TO MATCH EXISTING. PROVIDE ALL ACCESSORIES FOR A COMPLETE INSTALLATION (JOINT REINFORCEMENT, TWO-PIECE WALL TIES, FLASHINGS, CONTROL JOINTS, JOINT FILLER, CAVITY MORTAR CONTROL, DRIP EDGE, WEEPS, ETC.)

3. BRICK TIE SYSTEM:
   ADJUSTABLE VENEER ANCHOR SIMILAR OR EQUAL TO HB-213-2X BY HOHMANN & BARNARD, INC. HOT-DIPPED GALVANIZED ANCHOR BACKPLATE AND WIRE. SPACE TIES AT 16" VERTICALLY AND HORIZONTALLY.

4. WEEP VENT:
   WEEP VENT SIMILAR OR EQUAL TO QV- QUADRO-VENT BY HOHMANN & BARNARD, INC. PROVIDE GRAY, STANDARD SIZE (3/8" W x 3 3/8" D x 2 1/2" H) FOR MODULAR FACE BRICK LOCATIONS. SPACE AT 24" HORIZONTALLY.

5. CMU CONTROL / EXPANSION JOINTS:
   CMU CONTROL / EXPANSION JOINTS TO BE RS - SERIES RUBBER CONTROL JOINT, RS-STANDARD AS MANUFACTURED BY HOHMANN & BARNARD, INC.

6. LADDER JOINT REINFORCEMENT:
   LADDER JOINT REINFORCEMENT TO BE 220 LADDER-MESH BY HOHMANN & BARNARD, INC. FINISH TO BE MILL GALVANIZED COATING. WIRE SIZE TO BE (S) STANDARD WEIGHT 9 GAUGE SIDE RODS x 9 GAUGE CROSS RODS. FOR BLOCK SIZE 6". USE PREFABRICATED CORNERS AND PREFABRICATED TEES.

7. DRIP EDGE FLASHING:
   DRIP EDGE FLASHING TO BE DRIP PLATE AS MANUFACTURED BY HOHMANN & BARNARD, INC. TO BE DP - STANDARD DRIP PLATE, 3" WIDTH, TYPE 304 STAINLESS STEEL (26 GAUGE)

8. THRU-WALL FLASHING:
   THRU-WALL FLASHING TO BE TEXTROFLASH FLASHING, SELF ADHERING FLASHING BY HOHMANN & BARNARD, INC. 40 MIL THICK, 16" WIDTH WITH 3" STAINLESS STEEL DRIP PLATE AND TYPE 304 STAINLESS STEEL T1 TERMINATION BAR.

9. THRU-WALL FLASHING TERMINATION BAR:
   THRU-WALL FLASHING TERMINATION BAR TO BE T1 - TERMINATION BAR, TYPE 304 STAINLESS STEEL AS MANUFACTURED BY HOHMANN & BARNARD, INC.

10. PRE-FORMED FLASHING CORNERS & END DAMS:
    PRE-FORMED FLASHING STAINLESS STEEL CORNERS & END DAMS FOR INSIDE CORNERS, OUTSIDE CORNERS AND END DAMS AS MANUFACTURED BY HOHMANN & BARNARD, INC.

DIVISION 05 - METALS

1. COLD-FORMED METAL FRAMING (CFMF):
   CFMF SHALL BE STRUCTURAL STUDS SIMILAR OR EQUAL TO CLARKDIETRICH COLD-FORMED STEEL C-STUD (C-SERIES). STRUCTURAL STUDS TO BE 16 GA. AND HAVE 1 5/8" FLANGE x MEMBER DEPTH INDICATED ON THE DRAWINGS AND PUNCHED.

2. COLD-FORMED STEEL TRACK (CFST):
   CFST SHALL BE STRUCTURAL TRACK SIMILAR OR EQUAL TO CLARKDIETRICH COLD-FORMED STEEL TRACK. TRACK TO BE 16 GA. AND HAVE 1 1/4" FLANGE x MEMBER DEPTH INDICATED ON THE DRAWINGS AND UNPUNCHED.

3. NON-STRUCTURAL METAL WALL FRAMING:
   NON-STRUCTURAL METAL WALL FRAMING SHALL BE SIMILAR OR EQUAL TO CLARKDIETRICH PROSTUD 20 DRYWALL STUD. FRAMING TO BE 18 GA. AND HAVE 1 5/8" FLANGE x MEMBER DEPTH INDICATED ON THE DRAWINGS AND PUNCHED.

4. NON-STRUCTURAL METAL WALL TRACK:
   NON-STRUCTURAL METAL WALL TRACK SHALL BE SIMILAR OR EQUAL TO CLARKDIETRICH PROTRACK 20 DRYWALL TRACK. TRACK TO BE 18 GA. AND HAVE 1 1/4" FLANGE x MEMBER DEPTH INDICATED ON THE DRAWINGS AND UNPUNCHED.

5. NON-STRUCTURAL METAL WALL FURRING:
   NON-STRUCTURAL METAL WALL FURRING SHALL BE SIMILAR OR EQUAL TO CLARKDIETRICH FURRING / HAT CHANNEL. FURRING TO BE 20 GA. AND HAVE 1 1/4" WIDTH x MEMBER DEPTH AS INDICATED ON THE DRAWINGS.

DIVISION 06 - WOOD AND PLASTICS

1. EXTERIOR SHEATHING:
   EXTERIOR SHEATHING SHALL BE GOLD BOND EXP SHEATHING AS BY NATIONAL GYPSUM COMPANY, 1/2" THICK WITH TYPE X MOISTURE AND MOLD RESISTANT GYPSUM CORE ENCASED IN A COATED FIBERGLASS MAT ON THE FACE, BACK AND SIDES. SHEATHING TO BE ATTACHED TO METAL FRAMING WITH 1" LONG, TYPE S-12 SCREWS. INSTALL WITH STAGGERED END JOINTS BUTTED OVER THE CENTER OF FRAMING MEMBERS.

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

1. GENERAL INTERIOR JOINT SEALANTS/CAULKS:
   JOINT SEALANTS/CAULKS SHALL BE ALEX PLUS, ACRYLIC LATEX CAULK PLUS SILICONE. COLOR SHALL MATCH OR BLEND WITH THE SURFACES BEING CAULKED. JOINT SEALANT/CAULK SHALL BE MULTI-PURPOSE, HIGHLY FLEXIBLE, AND DURABLE WITH AN EXCELLENT ADHESION. JOINT SEALANT/CAULK SHALL BE PAINTABLE, SHALL HAVE A 35 YEAR DURABILITY GUARANTEE, AND SHALL MEET OR EXCEED ASTM SPECIFICATION C 834. PROVIDE BACKER RODS AND PRIMERS WHERE REQUIRED.

2. MASONRY CONTROL JOINT SEALANT:
   A HIGH-PERFORMANCE, HIGH MOVEMENT, SINGLE-COMPONENT, MEDIUM MODULUS, LOW-VOC, UV-STABLE, NON-SAG POLYURETHANE SEALANT SUCH AS DYMONIC 100 BY TREMCO. PROVIDE BACKING MATERIAL AS REQUIRED FOR DEEP PENETRATIONS / JOINTS, INSTALL PER MANUFACTURER'S INSTRUCTIONS. COLOR TO BE ANODIZED ALUMINUM.

3. FIRESTOP SEALANT:
   AN ACRYLIC BASED FIRESTOP SEALANT THAT PROVIDES MOVEMENT CAPABILITY IN FIRE RATED JOINTS AND SEALS THROUGH-PENETRATIONS APPLICATIONS SUCH AS FLEXIBLE FIRESTOP SEALANT CP 606 BY HILTI. PROVIDE MINERAL WOOD BACKING MATERIAL FOR DEEP PENETRATIONS / JOINTS, INSTALL PER MANUFACTURER'S INSTRUCTIONS. COLOR TO BE RED.

4. BITUMINOUS COATING:
   BITUMINOUS COATING SHALL BE SIMILAR OR EQUAL TO "BITHUTHENE 3000" WATERPROOF MEMBRANE BY GRACE CONSTRUCTION PRODUCTS.

5. UNDERSLAB VAPOR BARRIER:
   UNDERSLAB VAPOR BARRIER SHALL BE PERMINATOR, 15 MIL: 12'-0" WIDE x 200'-0" LONG AS MANUFACTURED BY W.R. MEADOWS, INC. SEAL SEAMS WITH SELF-ADHESIVE PERMINATOR VAPOR-MAT TAPE. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.

6. FIBERGLASS BATT / BLANKET INSULATION:
   UNFACED BATT / BLANKET ECOBATT INSULATION AS MANUFACTURED BY KNAUF INSULATION. FRICTION FIT, 3 1/2" (R-13) AND 6 1/4" (R-19) WHERE INDICATED ON THE DRAWINGS.

7. FOIL-FACED RIGID WALL INSULATION:
   Xci FOIL, CLOSED CELL POLYISOCYANURATE, HIGH THERMAL RIGID INSULATION PANEL BY HUNTER PANELS. 1 1/2" THICK, 20 PSI GRADE 2 TO PROVIDE A MINIMUM R-VALUE OF 10.0. BUTT EDGES AND STAGGER JOINTS OF ADJACENT PANELS. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

8. FOUNDATION AND BELOW GRADE INSULATION:
   FOAMULAR 250 EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION BY OWENS CORNING. 2" THICK, 25 PSI, TO PROVIDE A MINIMUM R-VALUE OF 10.0. BUTT EDGES AND STAGGER JOINTS OF ADJACENT PANELS. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

9. FLUID APPLIED AIR AND WATER BARRIER (MASONRY):
   FLUID APPLIED AIR AND WATER BARRIER TO BE TYVEK FLUID APPLIED WB SYSTEM BY DUPONT. INSTALL PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

10. AIR AND WATER BARRIER MEMBRANE (CFMF LOCATIONS):
    AIR AND WATER BARRIER MEMBRANE TO BE TYVEK COMMERCIALWRAP BY DUPONT. INSTALL PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

11. ALUMINUM SOFFIT PANEL:
    ALUMINUM SOFFIT PANELS TO BE 1" HIGH FLUSH SOLID SOFFIT PANELS, 0.032 ALUMINUM, 12" O.C., AS MANUFACTURED BY PAC-CLAD. PRE-FINISHED KYNAR 500 FINISH, COLOR TO BE SELECTED FROM PAC-CLAD STANDARD COLORS. INSTALL PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

DIVISION 08- DOORS AND WINDOWS

1. INTERIOR WOOD DOOR:
   INTERIOR WOOD DOOR TO BE AWS SYSTEM 9 UV CURED ACRYLATED POLYURETHANE AS MANUFACTURED BY VT INDUSTRIES HERITAGE COLLECTION OR APPROVED EQUAL. POLYURETHANE SHALL BE UV CURED TO PRODUCE A FINISH PER AWS SECTION 5. TOP AND BOTTOM RAILS SHALL BE FACTORY SEALED WITH AN APPROVED WOOD SEALER. SEE FINISH SPECIFICATION, SHEET A16, FOR DOOR FINISH.

2. HOLLOW METAL DOOR FRAME:
   INTERIOR HOLLOW METAL DOOR FRAME SHALL BE F-SERIES, FLUSH, STANDARD DOUBLE RABBET FRAME, 16 GAUGE, COLD-ROLLED STEEL WITH 2" FACE FOR JAMBS, 2" FACE FOR HEAD, AS MANUFACTURED BY STEELCRAFT MANUFACTURING. FRAMES SHALL HAVE WELDED CORNERS AND GROUND SMOOTH. MORTISE AND ADEQUATELY REINFORCE FRAMES FOR REQUIRED HARDWARE. FRAMES SHALL BE PHOSPHATIZED AND RECEIVE ONE (1) COAT OF BAKED ON PRIME PAINT. FRAMES SHALL BE PROVIDED WITH APPROPRIATE ANCHORS, MINIMUM OF THREE (3) PER JAMB FOR DOORS UP TO 7'-0" TALL, FOUR (4) PER JAMB FOR DOORS TALLER THAN 7'-0". FRAMES SHALL HAVE FACTORY INSTALLED DOOR BUMPERS. PROVIDE 4" HIGH BASE AT GLASS SIDELITE LOCATIONS.

3. HOLLOW METAL WINDOW FRAME:
   INTERIOR HOLLOW METAL WINDOW FRAME SHALL BE F-SERIES, FLUSH, STANDARD DOUBLE RABBET FRAME, 16 GAGE, COLD-ROLLED STEEL WITH 2" FACE FOR JAMBS AND HEAD, AS MANUFACTURED BY STEELCRAFT MANUFACTURING. FRAMES SHALL HAVE WELDED CORNERS AND GROUND SMOOTH. PROVIDE STOPS FOR 1/4" OR 3/8" GLAZING. FRAMES SHALL BE PHOSPHATIZED AND RECEIVE ONE (1) COAT OF BAKED ON PRIME PAINT. FRAMES SHALL BE PROVIDED WITH APPROPRIATE ANCHORS.

4. EXTERIOR ALUMINUM ENTRANCE DOOR:
   350T INSULPOUR THERMAL ENTRANCE BY KAWNEER. MEDIUM STILE, 3 1/2" VERTICAL STILE AND TOP RAIL, 10" BOTTOM RAIL, 2 1/2" DEPTH FOR 1" INSULATED GLAZING, BLACK FINISH. GLASS AND FRAME ASSEMBLY TO MEET MAX. U VALUE- (0.50), MAX. SHGC- (0.40). INCLUDE WEATHER-STRIPPING AND SILL SWEEP STRIP.

5. INTERIOR ALUMINUM SWING DOOR:
   350 SWING DOOR BY KAWNEER. MEDIUM STILE, 3 1/2" VERTICAL STILE AND TOP RAIL, 10" BOTTOM RAIL, 1 3/4" DEPTH FOR 1/4" OR 3/8" MONOLITHIC GLAZING, BLACK FINISH.

6. EXTERIOR ALUMINUM-FRAMED STOREFRONT:
   TRIFAB VERSAGLAZE 451T FRAMING SYSTEM BY KAWNEER. 2" SIGHT LINE, 4 1/2" DEPTH FOR 1" INSULATED GLAZING, FRONT PLANE, THERMALLY BROKEN, BLACK FINISH. LOCATE INTERMEDIATE FRAME MEMBERS AS SHOWN ON THE DRAWINGS. GLASS AND FRAME ASSEMBLY TO MEET MAX U VALUE - (0.50), MAX SHGC - (0.40).

7. INTERIOR ALUMINUM-FRAMED STOREFRONT:
   TRIFAB VERSAGLAZE 451 FRAMING SYSTEM BY KAWNEER. 2" SIGHT LINE, 4 1/2" DEPTH FOR 1/4" OR 3/8" MONOLITHIC GLAZING, FRONT PLANE, BLACK FINISH. LOCATE INTERMEDIATE FRAME MEMBERS AS SHOWN ON THE DRAWINGS. PROVIDE 4" HIGH BASE AT FULL HEIGHT FRAME LOCATIONS.

8. EXTERIOR ATTACK RESISTANT GLAZING:
   1" UNIT THICKNESS, CONSISTING OF 3/8" THICK TINTED ATTACK RESISTANT LAMINATED GLASS COMPOSITE FROM "SCHOOL GUARD GLASS", PRODUCT #SGG-L6-SG4HS, 3/8" SPACER (90% ARGON FILLED), 1/4" CLEAR INBOARD LITE WITH LOW-E COATING ON #3 SURFACE. TEMPERED WHERE INDICATED ON THE FRAME ELEVATIONS. GLASS AND FRAME ASSEMBLY TO MEET MAX U VALUE - (0.50), MAX SHGC - (0.40). TINTED EXTERIOR LITE COLOR TO MATCH EXISTING TINTED GLASS. FOLLOW BASIC INSTALLATION SPECIFICATIONS DETAILED BY WINDOW/DOOR FRAMING VENDOR AND SCHOOL GUARD GLASS MUST ALSO BE INSTALLED WITH WET STRUCTURAL GLAZING TECHNIQUES OUTLINED BY SEPARATE SCHOOL GUARD GLASS INSTALL SPECIFICATIONS. CHILDGARD SECURITY GLAZING IS ALSO AN APPROVED MANUFACTURER. SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL.

9. EXTERIOR OPAQUE SPANDREL ATTACK RESISTANT GLAZING:
   1" UNIT THICKNESS, CONSISTING OF 3/8" THICK TINTED ATTACK RESISTANT LAMINATED GLASS COMPOSITE FROM "SCHOOL GUARD GLASS", PRODUCT #SGG-L6-SG4HS, 3/8" SPACER (90% ARGON FILLED), 1/4" CLEAR INBOARD LITE WITH LOW-E COATING ON #3 SURFACE, 100% OPAQUE SPANDREL FILM, WARM GRAY, ON SURFACE #4. TEMPERED WHERE INDICATED ON THE FRAME ELEVATIONS. GLASS AND FRAME ASSEMBLY TO MEET MAX U VALUE - (0.50), MAX SHGC - (0.40). TINTED EXTERIOR LITE COLOR TO MATCH EXISTING TINTED GLASS. FOLLOW BASIC INSTALLATION SPECIFICATIONS DETAILED BY WINDOW/DOOR FRAMING VENDOR AND SCHOOL GUARD GLASS MUST ALSO BE INSTALLED WITH WET STRUCTURAL GLAZING TECHNIQUES OUTLINED BY SEPARATE SCHOOL GUARD GLASS INSTALL SPECIFICATIONS. CHILDGARD SECURITY GLAZING IS ALSO AN APPROVED MANUFACTURER. SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL.

10. INTERIOR ATTACK RESISTANT GLAZING:
    3/8" THICK CLEAR ATTACK RESISTANT LAMINATE GLASS COMPOSITE FROM "SCHOOL GUARD GLASS", SG4 IN HEAT STRENGTHENED GLASS PRODUCT #: SGG-L6-SG4HS. TEMPERED WHERE INDICATED ON THE FRAME ELEVATIONS. FOLLOW BASIC INSTALLATION SPECIFICATIONS DETAILED BY WINDOW/DOOR FRAMING VENDOR AND SCHOOL GUARD GLASS MUST ALSO BE INSTALLED WITH WET STRUCTURAL GLAZING TECHNIQUES OUTLINED BY SEPARATE SCHOOL GUARD GLASS INSTALL SPECIFICATIONS. CHILDGARD SECURITY GLAZING IS ALSO AN APPROVED MANUFACTURER. SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL.

11. INTERIOR GLAZING:
    1/4" THICK, CLEAR MONOLITHIC GLAZING, TEMPERED WHERE INDICATED ON THE FRAME ELEVATIONS.

DIVISION 09 - FINISHES

1. GYPSUM BOARD:
   GYPSUM BOARD SHALL BE 5/8" THICK (AS INDICATED ON THE DRAWINGS), REGULAR TYPE "X" FIRE-RESISTIVE COMPLYING WITH ASTM C 36/C OR ASTM C 1396/C AS APPLICABLE TO TYPE OF GYPSUM BOARD INDICATED AND WHICHEVER IS MORE STRINGENT. PROVIDE ALL ACCESSORIES AS REQUIRED FOR INTENDED APPLICATION. FINISH GYPSUM BOARD TO A LEVEL FOUR (4) FINISH, READY TO RECEIVE WALL FINISHES. USE SAME MANUFACTURER COMPONENTS FOR A COMPLETE INSTALLATION (TAPES, COMPOUNDS, CORNER BEAD, CONTROL JOINT, ETC.).

2. MOISTURE RESISTANT & MOLD RESISTANT GYPSUM BOARD (RESTROOMS, NURSE'S OFFICE & TEACHER'S LOUNGE):
   GYPSUM BOARD SHALL BE 5/8" THICK, MOLD & MOISTURE RESISTANT TYPE "XP" FIRE-SHIELD COMPLYING WITH ASTM G21 WITH A SCORE OF 0 AND ASTM D3273 WITH A SCORE OF 10 AS APPLICABLE TO TYPE OF GYPSUM BOARD INDICATED AND WHICHEVER IS MORE STRINGENT. PROVIDE ALL ACCESSORIES AS REQUIRED FOR INTENDED APPLICATION. FINISH GYPSUM BOARD TO A LEVEL FOUR (4) FINISH, READY TO RECEIVE WALL FINISHES. USE SAME MANUFACTURER COMPONENTS FOR A COMPLETE INSTALLATION (TAPES, COMPOUNDS, CORNER BEAD, CONTROL JOINT, ETC.)

3. PAINTING:
   A. WORK INCLUDES SURFACE PREPARATION, PAINTING, AND FINISHING OF INTERIOR EXPOSED ITEMS AND SURFACES THROUGHOUT THE PROJECT, EXCEPT AS OTHERWISE INDICATED. DO NOT INCLUDE PAINTING, UNLESS OTHERWISE NOTED, WHEN FACTORY-FINISHING IS SPECIFIED FOR SUCH ITEMS AS (BUT NOT LIMITED TO) COUNTERTOPS, ACOUSTIC MATERIALS, FINISHED MECHANICAL AND ELECTRICAL EQUIPMENT, INCLUDING LIGHT FIXTURES. UNLESS OTHERWISE INDICATED, METAL SURFACES OF ANODIZED ALUMINUM, STAINLESS STEEL, CHROMIUM PLATE, COPPER, BRONZE AND SIMILAR FINISHED MATERIALS WILL NOT REQUIRE FINISH PAINTING.

   B. ALL PAINT PRODUCTS SHALL BE PREMIUM QUALITY LINES AS SUPPLIED BY SHERWIN-WILLIAMS. APPLICATION PROCEDURES SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR ENVIRONMENTAL CONDITIONS AND SURFACE PREPARATION. REMOVE HARDWARE, HARDWARE ACCESSORIES, LIGHT FIXTURES, AND SIMILAR ITEMS WHICH ARE IN PLACE AND WILL NOT BE PAINTED PRIOR TO PAINTING; OR PROVIDE SURFACE-APPLIED PROTECTION PRIOR TO SURFACE PREPARATION. AFTER PAINTING, REINSTALL OR REMOVE PROTECTION FROM ALL ITEMS.

   C. ALL DOOR AND WINDOW FRAMES TO BE SPRAYED OR FINELY ROLLED, NOT BRUSHED.

   D. PROVIDE THE FOLLOWING PAINT SYSTEMS FOR THE VARIOUS SUBSTRATES AS INDICATED.

      a. GYPSUM BOARD (ENAMEL)
         PRIME: 1 COAT, PROMAR 200 ZERO VOC INTERIOR LATEX, WHITE.
         FINAL (TOP COAT): 2 COATS, SCUFF TUFF INTERIOR WATERBASED ENAMEL, EG-SHEL

      b. GYPSUM BOARD (EPOXY)
         PRIME: 1 COAT, PROMAR 200 ZERO VOC INTERIOR LATEX, WHITE.
         FINAL (TOP COAT): 2 COATS, PRO INDUSTRIAL PRECATALYZED WATERBASED EPOXY, EG-SHEL

      c. CONCRETE AND MASONRY
         PRIME: 1 COAT, PREPRITE BLOCK FILLER
         FINAL (TOP COAT): 2 COATS, SCUFF TUFF INTERIOR WATERBASED ENAMEL, EG-SHEL

      d. PRE-PRIMED & GALVANIZED METALS
         PRIME: 1 COAT, PRO INDUSTRIAL PRO-CRYL PRIMER
         FINAL (TOP COAT): 2 COATS, PRO INDUSTRIAL WATER BASED ALKYD URETHANE ENAMEL, SEMI-GLOSS

   E. SEE FINISH SPECIFICATIONS, SHEET A16, FOR PAINT COLORS.

DIVISION 10 - SPECIALTIES

1. OPERABLE PARTITION WALL:
   OPERABLE PARTITION WALL SHALL BE MODEL 2050 CONTINUOUSLY HINGED ELECTRIC AS MANUFACTURED BY KWIK-WALL. STC RATING OF 50, PANEL SKINS TO BE STANDARD ACOUSTICAL SUBSTRATE, TYPE II REINFORCED VINYL PANEL FINISH, COLOR TO BE LINDEN, DOVER GRAY, KWC-5. TRACK AND CARRIER TO BE HD ELECTRIC TRACK AND CARRIERS. WALL TO HAVE STANDARD ELECTRIC MOTOR, VERTICAL TRIM AND SEALS TO BE CAP-TYPE ASTRAGAL. ALL EXPOSED PANEL TRIM AND HINGES TO BE GREY. INSTALL PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

   *KWIK-WALL COMPANY WARRANTS OPERABLE WALL AND ITS COMPONENT PARTS TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF (5) FIVE YEARS FROM DATE OF DELIVERY TO ORIGINAL PURCHASER, WHEN INSTALLED BY AN AUTHORIZED KWIK-WALL DISTRIBUTOR.

2. COUNTERTOP SUPPORT BRACKETS:
   CONCEALED BRACKET C-24 AS MANUFACTURED BY A&M HARDWARE, INC TO BE USED IN NURSE'S OFFICE #121, MEDIA CENTER #130 AND ADMIN OFFICE #131. COLOR TO BE WHITE.

   CONCEALED BRACKET C-15 AS MANUFACTURED BY A&M HARDWARE, INC TO BE USED IN MEDIA CENTER #130. COLOR TO BE WHITE.

   EXTENDED CONCEALED EC-9" BRACKET AS MANUFACTURED BY A&M HARDWARE, INC TO BE USED IN ADMIN OFFICE #131. COLOR TO BE WHITE.

3. WINDOW SHADES:
   WINDOW SHADES TO BE MANUFACTURED BY DRAPER OR APPROVED EQUAL. SHADES TO BE MANUAL CLUTCH-OPERATED FLEXSHADE, SINGLE ROLLER SHADE, CEILING MOUNTED SHADE BRACKET, BLACK SQUARE FASCIA WITH ENDCAPS, SHEERWEAVE PW4400, 3% OPEN BASKET WEAVE, COLOR TO BE PEWTER (SOFT GRAY) #U63, PROVIDE ENTIRE SHADE SYSTEM, INCLUDING ALL HARDWARE AND ACCESSORIES. GENERAL CONTRACTOR TO PROVIDE WOOD BLOCKING AS REQUIRED.

   *DRAPER, INC. WARRANTS TO THE END USER THAT ITS PRODUCTS ARE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR: 25 YEARS FOR MOST DRAPER FLEXSHADE INTERIOR WINDOW SHADE HARDWARE AND FABRICS (EXCLUDING PVC-FREE FABRICS, CLEAR VINYL, INSECT SCREENS AND THE SPRING ASSIST MECHANISM).

4. FIRE EXTINGUISHER CABINET:
   FIRE EXTINGUISHER CABINET TO BE "COSMOPOLITAN" MODEL # 8135 AS MANUFACTURED BY JL INDUSTRIES. CABINET TO BE RECESSED 3/8" FLAT TRIM STAINLESS STEEL CABINET WITH HANDLE AND VERTICAL DUO DOOR WITH CLEAR ACRYLIC GLAZING. INSTALL CABINET AT 48" AFF TO CENTER OF HANDLE. PROVIDE AND INSTALL 5 LB ABC FIRE EXTINGUISHER.

5. GRAB BAR:
   GRAB BARS SHALL BE B-6806 SERIES, TYPE-304 STAINLESS STEEL WITH SATIN FINISH, AS MANUFACTURED BY BOBRICK CORPORATION. MODEL NUMBERS B-6806x36" (BACK OF TOILET - HORIZONTAL), B-6806x42" (SIDE OF TOILET - HORIZONTAL), AND B-6806x18" (SIDE OF TOILET - VERTICAL). GRAB BARS SHALL NOT ROTATE IN THEIR FITTINGS. GRAB BARS SHALL HAVE 18-GAUGE WALL THICKNESS AND 1-1/2" OUTSIDE DIAMETER. CLEARANCE BETWEEN THE GRAB BAR AND WALL SHALL BE 1-1/2". CONCEALED MOUNTING FLANGES SHALL BE 1/8" THICK STAINLESS STEEL PLATE, 2" x 3-1/8", AND EQUIPPED WITH TWO SCREW HOLES FOR ATTACHMENT TO WALL. FLANGE COVERS SHALL BE 22 GAUGE, 3-1/4" DIAMETER x 1/2" DEEP, AND SHALL SNAP OVER MOUNTING FLANGE TO CONCEAL MOUNTING SCREWS. ENDS OF GRAB BAR SHALL PASS THROUGH CONCEALED MOUNTING FLANGES AND BE HELIARC WELDED TO FORM ONE STRUCTURAL UNIT. GRAB BAR SHALL COMPLY WITH ACCESSIBLE DESIGN (INCLUDING ADAAG IN THE U.S.A.) FOR STRUCTURAL STRENGTH. THE STRUCTURAL STRENGTH OF GRAB BARS AND THEIR MOUNTING DEVICES SHOULD WITHSTAND A MINIMUM 250 POUNDS OF FORCE. PROVIDE SOLID BLOCKING IN WALLS.

6. TOILET TISSUE DISPENSER:
   TOILET TISSUE DISPENSERS SHALL BE MODEL NUMBER B-2740, DOUBLE ROLL CAPACITY, CAST ALUMINUM WITH SATIN FINISH, AS MANUFACTURED BY BOBRICK CORPORATION. SPINDLE SHALL BE EQUIPPED WITH A HEAVY-DUTY INTERNAL SPRING.

7. SANITARY NAPKIN DISPOSAL:
   SANITARY NAPKIN DISPOSALS SHALL BE MODEL NUMBER B-254 CLASSIC SERIES, TYPE-304 STAINLESS STEEL WITH SATIN FINISH, AS MANUFACTURED BY BOBRICK CORPORATION. DOOR SHALL HAVE A TUMBLER LOCK AND PIANO HINGE. UNIT SHALL HAVE A SELF-CLOSING PANEL COVERING EACH DISPOSAL OPENING. PANEL SHALL HAVE BOTTOM EDGE HEMMED FOR SAFETY, BE SECURED TO DOOR WITH SPRING-LOADED, PIANO-HINGE, AND EQUIPPED WITH INTERNATIONAL GRAPHIC SYMBOLS IDENTIFYING SANITARY NAPKIN DISPOSAL. UNIT SHALL BE FURNISHED WITH A REMOVABLE, LEAK-PROOF MOLDED POLYETHYLENE RECEPTACLE. RECEPTACLE SHALL HAVE A CAPACITY OF 1.2-GAL.

8. SEMI-RECESSED AUTOMATIC PAPER TOWEL DISPENSER:
   PAPER TOWEL DISPENSERS SHALL BE MODEL NUMBER B-29744 AUTOMATIC, UNIVERSAL SEMI-RECESSED ROLL TOWEL DISPENSER EQUIPPED WITH LED LIGHT. UNIT SHALL BE SEAMLESS SATIN-FINISH STAINLESS STEEL WITH STEEL BEVELED FLANGE, TUMBLER LOCK ON DOOR AND PIANO HINGE. PROVIDE 3974-57 AC EXTERNAL ADAPTER.

9. AUTOMATIC SOAP DISPENSER:
   AUTOMATIC SOAP DISPENSER SHALL BE MODEL NUMBER B-2013 AUTOMATIC WALL MOUNTED FOAM SOAP DISPENSER, TYPE-304 STAINLESS STEEL WITH SATIN-FINISH.

10. FRAMED MIRROR:
    FRAMED MIRRORS SHALL BE MODEL NUMBER B-290, 24"x42", TYPE-304 STAINLESS STEEL CHANNEL FRAME WITH SATIN FINISH FRAME, AS MANUFACTURED BY BOBRICK. MIRROR SHALL HAVE A ONE-PIECE, 3/4"x3/4"x3/8" (13x13x9.5MM), WITH 90° HELIARC WELDED, GROUND AND POLISHED SMOOTH CORNERS WITH BEVELED FRAME EDGE. NO. 1 QUALITY, 1/4" LAMINATED GLASS MIRROR. CORNERS SHALL BE PROTECTED BY FRICTION-ABSORBING FILLER STRIPS AND THE BACK SHALL BE PROTECTED BY FULL-SIZE, SHOCK-ABSORBING, WATER-RESISTANT, NONABRASIVE, 3/16" (5MM) THICK POLYETHYLENE PADDING. GALVANIZED STEEL BACK SHALL HAVE INTEGRAL HORIZONTAL HANGING BRACKETS LOCATED AT TOP AND BOTTOM FOR MOUNTING ON CONCEALED RECTANGULAR WALL HANGER TO PREVENT THE MIRROR FROM PULLING AWAY FROM THE WALL. LOCKING DEVICES SECURE MIRROR TO CONCEALED WALL.

11. OVERHEAD PRIVACY CURTAIN AND TRACK:
    CURTAINS TO BE 6'-0"± LINEAR FEET EACH. STYLE TO BE CLICKEZE PRIVACY CURTAIN WITH 12" EZE-MESH (COLOR SNOW), FABRIC ARRAY: WATERSCAPE, AS MANUFACTURED BY INPRO. BOTTOM OF CURTAIN TO BE 12-15" AFF. FIELD VERIFY AMOUNT OF CURTAIN NEEDED. ALUMINUM CURTAIN TRACK TO BE OPTITRAC, WHITE IN COLOR WITH CE5041 SPOOL CARRIER AS MANUFACTURED BY INPRO. SIZE TO BE 5'-8"±. FIELD VERIFY FINAL SIZE AND LOCATION. CURTAIN LOCATION TO AVOID INTERFERING WITH ANY CEILING OR WALL ITEMS.

    *INPRO CORPORATION (INPRO) WARRANTS TO ITS PURCHASERS THAT ALL CLICKEZE ® PRIVACY SYSTEMS CUBICLE TRACK ACCESSORIES SOLD BY IT WILL BE FREE OF MANUFACTURING AND MATERIAL DEFECTS. FAILURE TO USE PROPER FASTENERS OR OTHER INSTALLATION METHODS CONSISTENT WITH INPRO INSTALLATION INSTRUCTIONS SHALL RELIEVE INPRO OF ANY LIABILITY. ANY DEFECTIVE PRODUCT WILL BE REPLACED FREE OF ANY CHARGE IF A CLAIM IS PRESENTED IN WRITING TO INPRO, WITHIN ONE YEAR FROM RECEIPT OF THE PRODUCT. INPRO WILL NOT BE RESPONSIBLE FOR ANY INSTALLATION COSTS INVOLVED IN SUCH REPLACEMENT. REPLACEMENT WILL INCLUDE SHIPMENT COSTS WITHIN THE UNITED STATES. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. OUR LIABILITY UNDER THIS LIMITED LIFETIME WARRANTY IS LIMITED TO REPLACEMENT AND DOES NOT INCLUDE ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE. THIS WARRANTY WILL BE VOIDED IN ITS ENTIRETY IF THE PRODUCT HAS BEEN DEFACED, DAMAGED OR OTHERWISE TAMPERED WITH.

12. WASTE RECEPTACLE:
    (QUANTITY 30) WASTE RECEPTACLE SHALL BE MODEL NUMBER 2543, FIRE RESISTANT WASTEBASKET, GRAY PLASTIC #FG254300GRAY, 14.5" x 10.5" x 15.5" HEIGHT, AS MANUFACTURED BY RUBBERMAID. ONE-PIECE, SEAMLESS CONSTRUCTION. RECEPTACLE SHALL HAVE A MINIMUM CAPACITY OF 28-QT.

13. WASTE RECEPTACLE (TEACHER'S LOUNGE):
    WASTE RECEPTACLE SHALL BE SKU NUMBER 1971258, VENTED SLIM JIM, GRAY PLASTIC, 22" x 11" X 25" HIGH, AS MANUFACTURED BY RUBBERMAID. ONE-PIECE, SEAMLESS CONSTRUCTION WITH VENTING CHANNELS. RECEPTACLE SHALL HAVE A MINIMUM CAPACITY OF 16-GAL.

14. WALL MOUNTED FILE ORGANIZER:
    STEEL MULTI-TIERED FILE ORGANIZER AS MANUFACTURED BY DISPLAYS2GO. ORGANIZER TO BE RUST RESISTANT POWDER COATED STEEL WITH 11 POCKETS, COLOR GRAY, SKU JMFF11GRY.

DIVISION 12 - FURNISHINGS

1. FABRICATED WOOD CASEWORK:
   PLASTIC LAMINATE CASEWORK SHALL BE CUSTOM MANUFACTURED BY A CABINET FABRICATOR PRIOR TO CONSTRUCTION. UNITS SHALL BE OF THE SIZE AND ARRANGEMENT AS INDICATED ON THE DRAWINGS. CABINETS SHALL BE MADE FROM 3/4" HIGH DENSITY INDUSTRIAL MELAFACED PARTICLE BOARD. ALL EXTERIOR EXPOSED SURFACES SHALL BE COVERED WITH A HIGH PRESSURE PLASTIC LAMINATE FINISH (0.030" THICK VERTICAL GRADE MINIMUM) DOOR AND DRAWER EDGES ARE TO HAVE A 3mm PVC EDGE HOT MELT GLUE APPLIED. THE INTERIOR OF THE CABINET AND THE SHELVES ARE TO BE AN OFF-WHITE MELAMINE FINISH. CABINETS ARE TO BE BUILT WITH 170 DEGREE HINGES. ALL HARDWARE (HINGES, DRAWER SLIDES, ETC.) ARE TO BE "BLUM", NO SUBSTITUTIONS. DOOR AND DRAWER TO HAVE WIRE PULLS. EXPOSED SHELVING INSIDE BASE OR WALL UNIT (NO DOORS) SHALL BE 3/4" PLYWOOD WITH LAMINATE FINISH. CABINETS TO BE COMPLETE WITH ALL HARDWARE, SHELVING AND ACCESSORIES. FURNISH DETAILED SHOP DRAWINGS FOR ARCHITECT'S APPROVAL. INSTALL 3/8"Ø± ADHESIVE MOUNT CLEAR RUBBER BUMPERS AS REQUIRED WHERE WIRE PULLS, ETC. COME IN CONTACT WITH OTHER SURFACES. SEE FINISH SPECIFICATION, SHEET A16, FOR CABINET LAMINATE COLORS.

2. SOLID SURFACE COUNTERTOP AND WINDOW SILL:
   SOLID SURFACE COUNTERTOP AND WINDOW SILL SHALL HAVE ALL EXPOSED OUTSIDE CORNERS OF COUNTERTOPS TO BE RADIUSED 2" WHERE EXPOSED TO PEDESTRIAN TRAFFIC. FURNISH ALL COUNTERS WITH 4" HIGH BACKSPLASH AND RETURNS AT ENDS WITH WALLS, UNLESS INDICATED OTHERWISE. PROVIDE EASED EDGE TOP & BOTTOM. BACKSPLASH AND RETURN JOINTS TO BE SEALED AT COUNTERTOPS AND WALLS. PROVIDE COLOR MATCHING CAULK AT BACKSPLASH AND RETURN JOINTS. CAULK TO BE APPROVED PRIOR TO APPLICATION. SEE FINISH SPECIFICATIONS, SHEET A16, FOR SOLID SURFACE COLORS.

BID
11/01/23

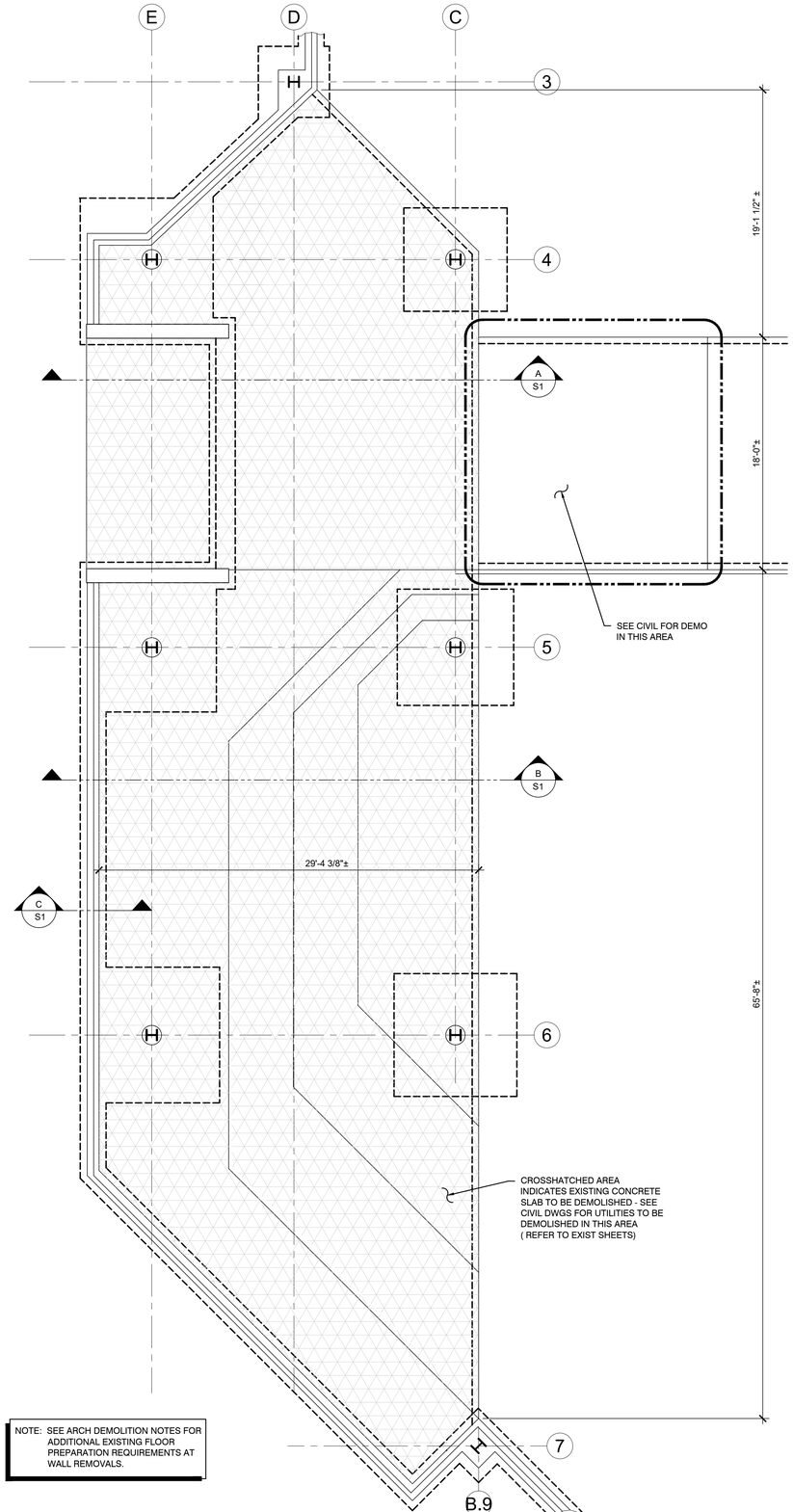
THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	LEW	ISSUED FOR 30% REVIEW
B	08/17/23	LEW	ISSUED FOR 60% REVIEW
C	09/07/23	LEW	ISSUED FOR 100% REVIEW
D	11/01/23	LEW	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

PRODUCT SPECIFICATIONS

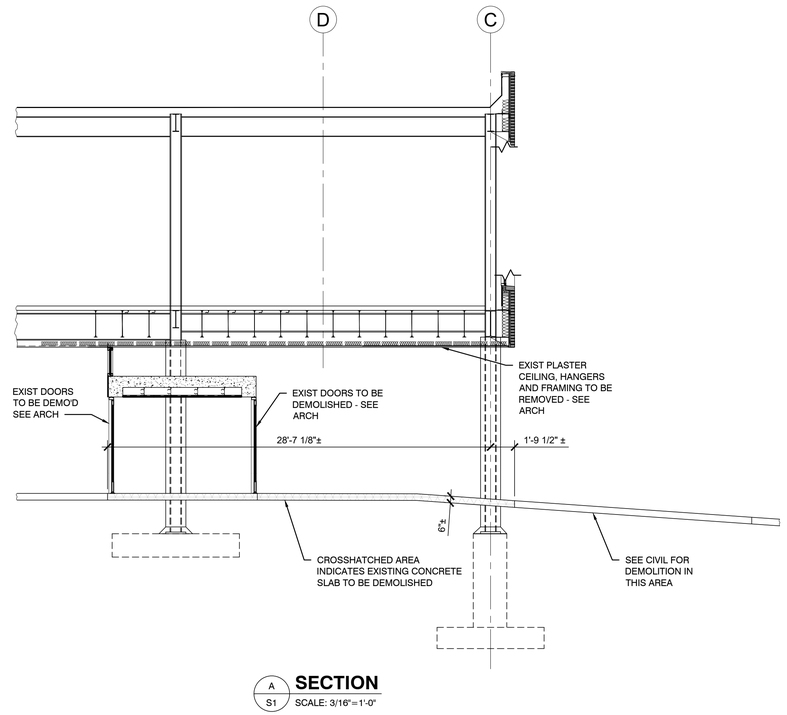
DRAWN BY: LEW	DESIGNED BY: LEW
CHECKED BY: GPK	DATE: 05/02/23
SCALE: NONE	
PROJECT NUMBER: 22286A	
SHEET NO: A19	



NOTE: SEE ARCH DEMOLITION NOTES FOR ADDITIONAL EXISTING FLOOR PREPARATION REQUIREMENTS AT WALL REMOVALS.

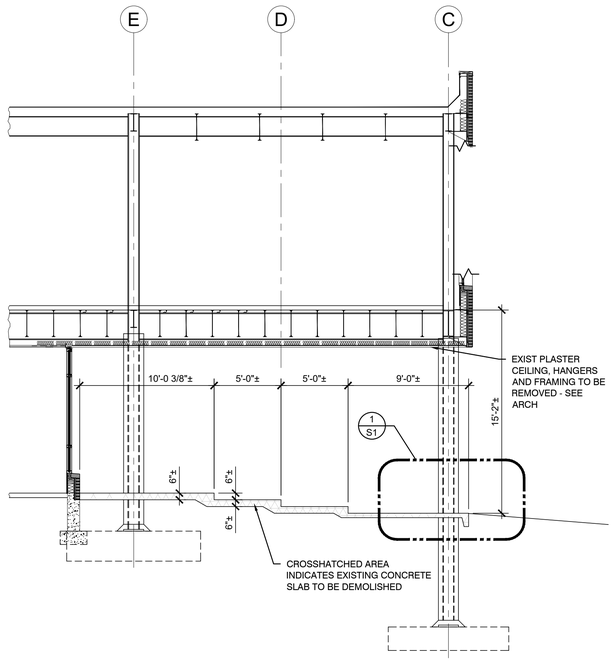
STRUCTURAL DEMOLITION PLAN

SCALE: 3/16" = 1'-0"



A S1 **SECTION**

SCALE: 3/16"=1'-0"



B S1 **SECTION**

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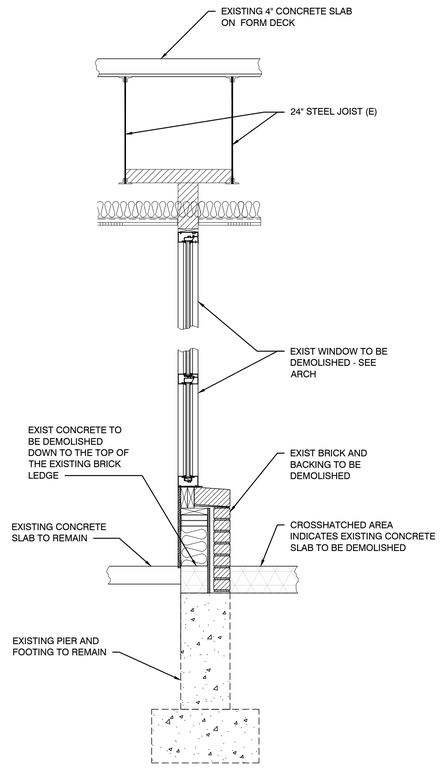

C S1 **SECTION**

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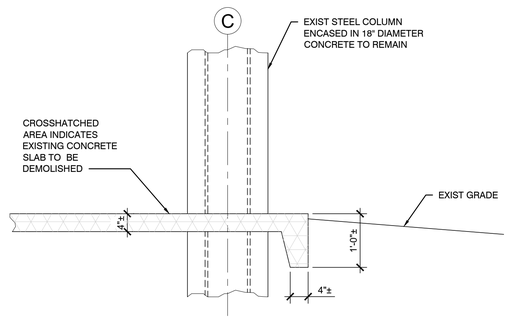

1 S1 **DETAIL**

SCALE: 3/4"=1'-0"

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11/01/23

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REV	DATE	BY	ITEM
A	07/27/23	TLM	ISSUED FOR 30% REVIEW
B	08/17/23	TLM	ISSUED FOR 60% REVIEW
C	09/07/23	TLM	ISSUED FOR 100% REVIEW
D	11/01/23	TLM	ISSUED FOR BID

CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

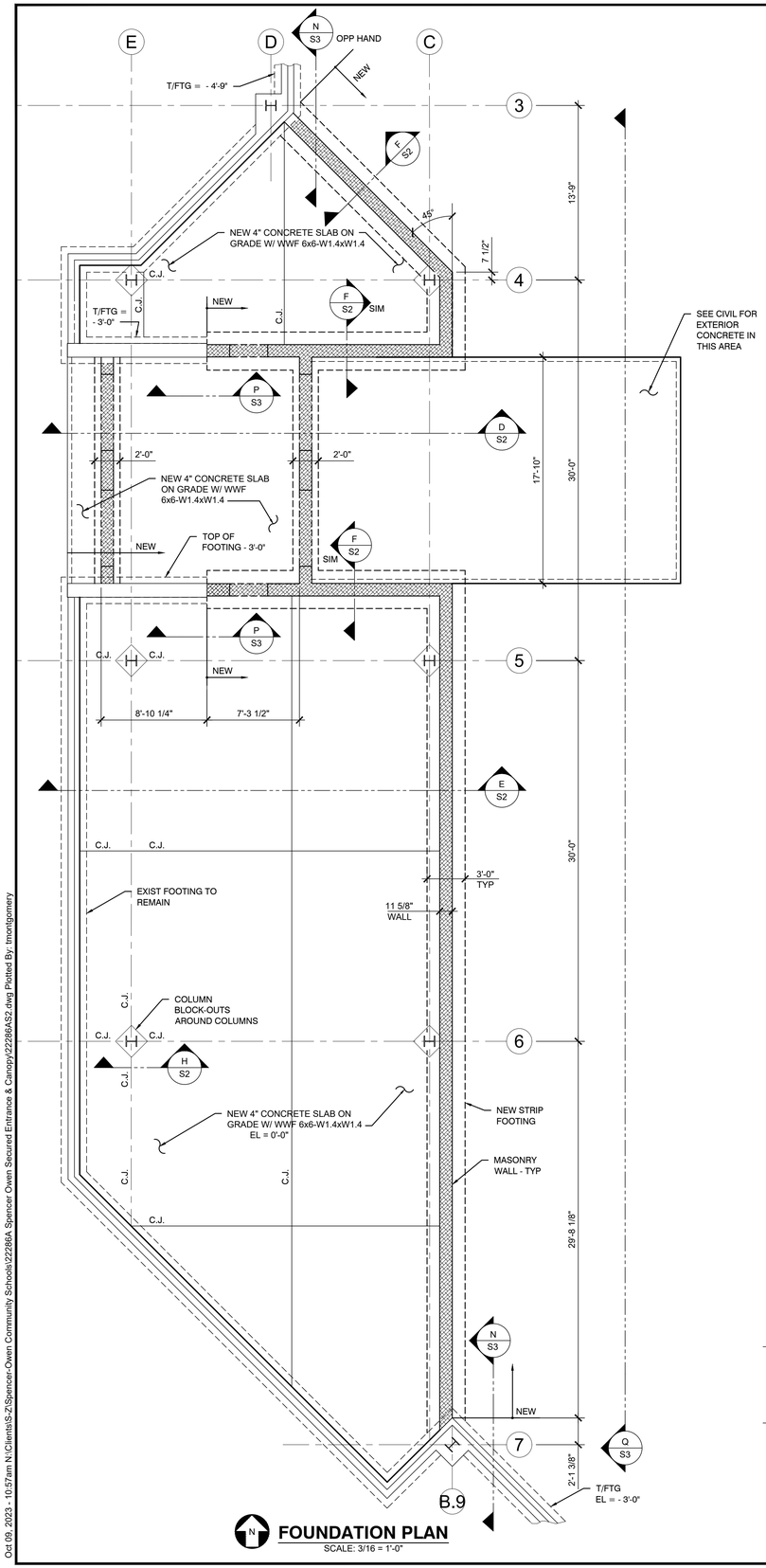
SLAB DEMOLITION PLAN
SECTIONS AND DETAIL

DRAWN BY:	DESIGNED BY:
TLM	MES
CHECKED BY:	DATE:
MES	09/01/23

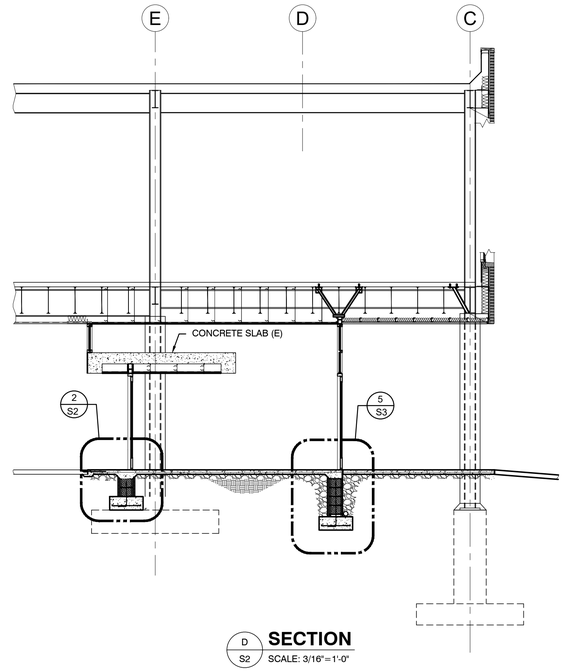
SCALE: VARIES

PROJECT NUMBER: 22286A

SHEET NO: **S1**



FOUNDATION PLAN
SCALE: 3/16 = 1'-0"



D S2 **SECTION**
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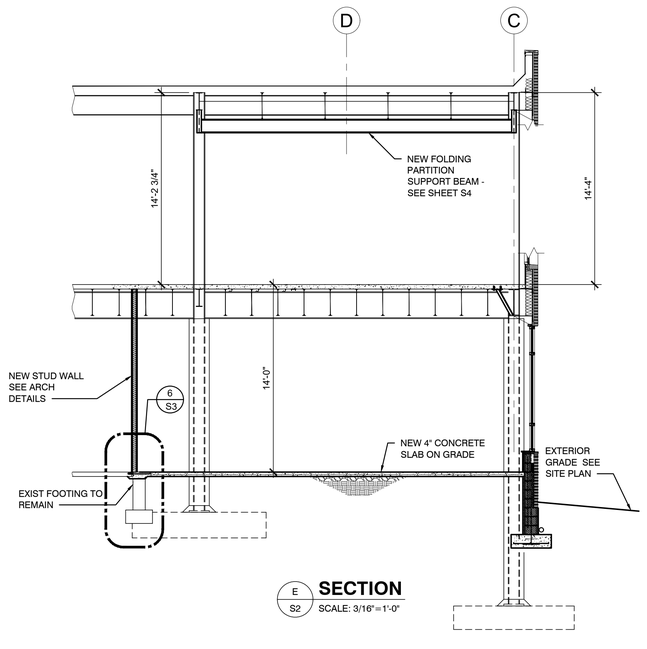
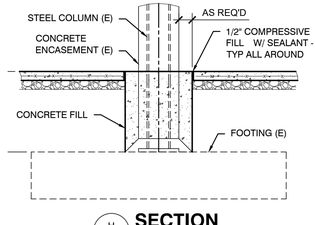
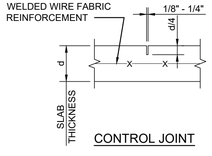


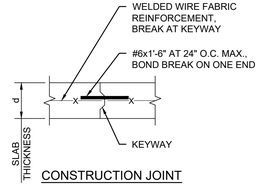
E S2 **SECTION**
SCALE: 3/16"=1'-0"



H S2 **SECTION**
SCALE: 3/8"=1'-0"

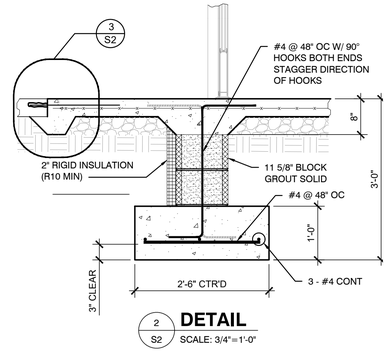


CONTROL JOINT

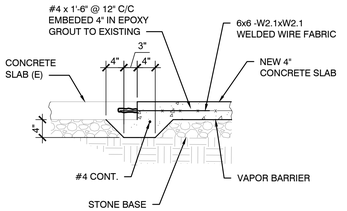


CONSTRUCTION JOINT

TYPICAL SLAB JOINT DETAILS
SCALE: 1" = 1'-0"



2 S2 **DETAIL**
SCALE: 3/4"=1'-0"



3 S2 **DETAIL**
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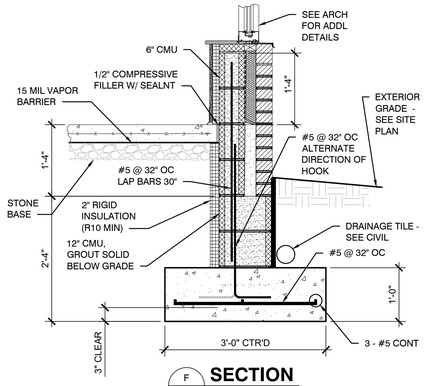
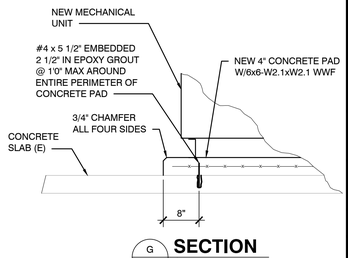
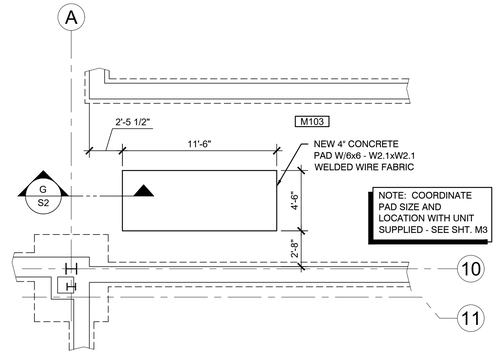


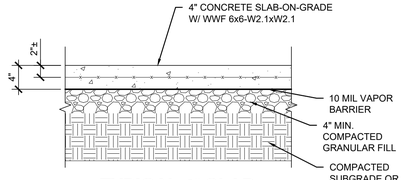
F S2 **SECTION**
SCALE: 3/4"=1'-0"



G S2 **SECTION**
SCALE: 3/4"=1'-0"



N **EXISTING FOUNDATION PLAN AT NEW MECHANICAL UNIT**
SCALE: 3/16 = 1'-0"



TYPICAL 4" SLAB ON GRADE DETAIL
SCALE: 1" = 1'-0"

BID 11/01/23

THREE i DESIGN
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WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	TLM	ISSUED FOR 30% REVIEW
B	08/17/23	TLM	ISSUED FOR 60% REVIEW
C	09/07/23	TLM	ISSUED FOR 100% REVIEW
D	11/01/23	TLM	ISSUED FOR BID

CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

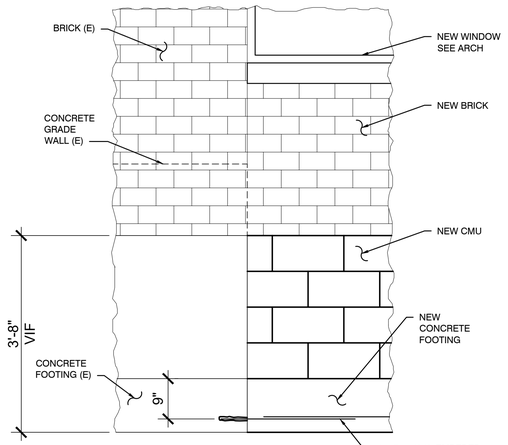
FOUNDATION PLAN, SECTIONS AND DETAILS

DRAWN BY:	DESIGNED BY:
TLM	MES
CHECKED BY:	DATE:
MES	09/01/23

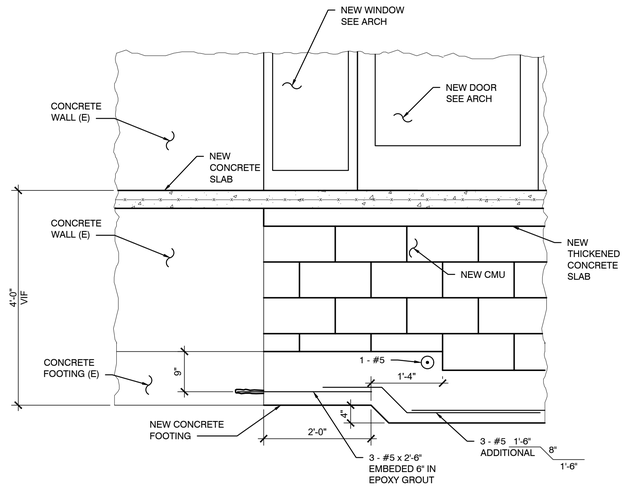
SCALE: VARIES

PROJECT NUMBER: 22286A

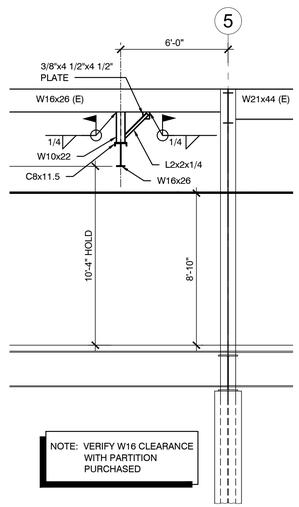
SHEET NO: S2



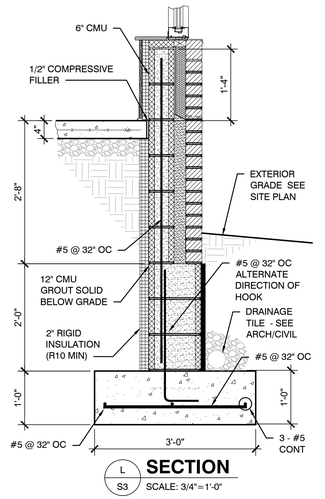
N / S2 **ELEVATION**
SCALE: 3/4"=1'-0"



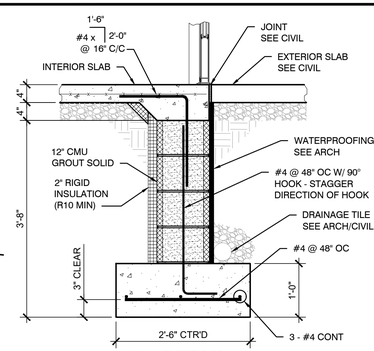
P / S2 **ELEVATION**
SCALE: 3/4"=1'-0"



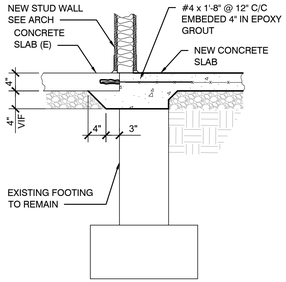
K / S4 **SECTION**
SCALE: 1/4"=1'-0"



L / S3 **SECTION**
SCALE: 3/4"=1'-0"



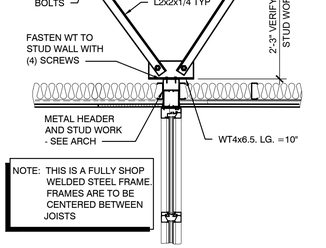
5 / S2 **DETAIL**
SCALE: 3/4"=1'-0"



6 / S2 **DETAIL**
SCALE: 3/4"=1'-0"

Q / S2 **ELEVATION**
SCALE: 3/16"=1'-0"

M / S3 **SECTION**
SCALE: 3/4"=1'-0"



R / S4 **SECTION**
SCALE: 3/4"=1'-0"

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE INDIANA STATE BUILDING CODE, LOCAL BUILDING CODES, ORDINANCES, AND CURRENT REGULATIONS IN EFFECT AT TIME OF CONSTRUCTION.
2. THE COMPLETED PROJECT SHALL BE FULLY FUNCTIONAL AND COMPLETE IN EVERY DETAIL INCLUDING ANY AND ALL SUCH DETAIL ITEMS OF WORK OR MATERIAL REQUIRED FOR NORMALLY COMPLETE SYSTEMS, WHETHER OR NOT SUCH ITEMS ARE SPECIFIED OR SHOWN ON THE DRAWINGS.
3. ALL CONTRACTORS MUST VISIT THE SITE AND CAREFULLY EXAMINE AND NOTE ALL OF THE CONDITIONS AND EXISTING MATERIALS THERE. FAILURE TO DO SO WILL NOT BE CONSIDERED GROUNDS FOR ANY EXTRA CHARGES FOR MATERIAL, EQUIPMENT, SERVICES OR LABOR.
4. THE CONTRACTOR SHALL CONTACT THE OWNER'S PROJECT COORDINATOR REGARDING ANY SIGNIFICANT INTERFERENCES DISCOVERED IN THE FIELD PRIOR TO ANY WORK BEING PERFORMED. THE CONTRACTOR SHALL HAVE A PROPOSED COST ESTIMATE IN WRITING OF THE WORK REQUIRED.
5. THE GENERAL CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER'S PROJECT COORDINATOR.
6. THE GENERAL CONTRACTOR SHALL PROTECT PERSONNEL AND THE FACILITY FROM DAMAGE OR HAZARD DURING CONSTRUCTION.
7. USE OF THE SITE SHALL BE LIMITED TO THE AREAS AGREED UPON WITH THE OWNER, MATERIALS SHALL BE KEPT WITHIN THOSE AREAS OR STORED OFF THE SITE.
8. IT SHALL BE THE RESPONSIBILITY OF EACH TRADE TO CLEAN UP ALL DEBRIS CREATED FROM THEIR PORTION OF THEIR WORK DAILY.
9. THESE DRAWINGS REPRESENT STRUCTURAL COMPONENTS IN THEIR FINAL AND FINISHED STATE. CONSTRUCTION PROCEDURES, METHODS, SAFETY PRECAUTIONS, OR MECHANICAL REQUIREMENTS USED TO ERECT THEM ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR SUBCONTRACTOR DOING THE WORK.
10. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS DURING CONSTRUCTION AND REPORT TO THE ENGINEER DURING CONSTRUCTION ANY DISCREPANCIES. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION.

CONCRETE NOTES:

1. DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 315-99 "ACI DETAILING MANUAL - 2004" (SP-66 C04).
2. UNLESS OTHERWISE NOTED, ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 (60,000 PSI YIELD).
3. ALL CONCRETE WORK SHALL CONFORM TO THE "A.C.I. BUILDING CODE", ACI 318 LATEST EDITION.
4. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A1064. WWF TO BE SUPPLIED IN FLAT SHEETS ONLY.
5. SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) APPLY.
6. ALL REINFORCING STEEL MARKED "CONTINUOUS" SHALL BE LAPPED 36 BAR DIAMETERS AT SPLICES (UNLESS NOTED OTHERWISE) AND AROUND CORNERS OR INTERSECTIONS WITH A STANDARD 90 DEGREE BEND ON CORNER BARS.
7. LAP TOP BARS AT CENTER OF SPAN; LAP BOTTOM BARS AT SUPPORTS.
8. CONCRETE PROTECTION FOR REINFORCEMENT OF POURED-IN-PLACE MEMBERS: (SEE SECTION 20.6 ACI 318 LATEST EDITION)

STRUCTURAL ELEMENT	MINIMUM COVER (INCHES)	CONCRETE STRENGTH (PSI)
SLAB	CENTERED	4000 PSI
FOOTING	3"	4000 PSI
WALLS	2"	4000 PSI

9. SLABS, WALLS, AND FOUNDATIONS AND OTHER CONSTRUCTION SHALL BE PROTECTED FROM FROST HEAVE.
10. PRIOR TO PLACING CONCRETE, REMOVE WATER FROM EXCAVATION, DEBRIS AND FOREIGN MATERIAL FROM FORMS. CHECK REINFORCING STEEL FOR PROPER PLACEMENT AND CORRECT ANY DISCREPANCIES.
11. REFER TO ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR ANY OTHER ADDITIONAL SLEEVES, ANCHORS, VENT OPENINGS, EMBEDDED ITEMS, DEPRESSIONS, ETC. NOT SHOWN ON STRUCTURAL PLANS THAT MIGHT BE REQUIRED.
12. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE WALLS, AND SLABS, UNLESS NOTED OTHERWISE.
13. PLACING CONCRETE IN COLD WEATHER:
    A. DO NOT PLACE CONCRETE WHEN THE AMBIENT TEMPERATURE IS BELOW 40 DEGREES F. OR APPROACHING 40 DEGREES F. AND FALLING WITHOUT SPECIAL PROTECTION CONFORMING TO ACI 306.
    B. REMOVE AND REPLACE CONCRETE DAMAGED BY FREEZING AT NO COST TO OWNER.
14. CONCRETE FINISH:
    A. INTERIOR SLAB ON GRADE: FINISHING CLASS 4 AND 5 PER ACI 302.
    B. WALLS: KNOCK OFF PROJECTIONS & PATCH HONEYCOMB AREAS & ROCK POCKETS. SMALL AIR HOLES DO NOT REQUIRE PATCHING.
15. PREFORMED JOINT MATERIAL: 1/2 INCH THICK, CONFORMING TO ASTM D994, D1751, OR D1752.
16. ELASTOMERIC JOINT SEALANT: BASF, SHAKOPEE, MN, MASTERSEAL SL1. INSTALL PER MANUFACTURER RECOMMENDATIONS.
17. ADHESIVE ANCHOR SYSTEM SHALL CONFORM TO HILTI HIT-HY 200 FOR SOLID BLOCK OR CONCRETE AND HILTI HIT-HY 270 FOR HOLLOW BLOCK OR BRICK, OR APPROVED EQUAL.
18. CONCRETE SURFACE REPAIR MATERIAL SHALL CONFORM TO SIKAREPAIR 223 OR APPROVED EQUAL.
19. EXPANSION BOLTS SHALL CONFORM TO HILTI KWIK BOLT 3 OR APPROVED EQUAL.
20. FOLLOW ALL MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTION REQUIREMENTS FOR ANCHORS.

EXISTING CONSTRUCTION:

THREE I DESIGN HAS CONDUCTED REASONABLE RESEARCH AND FIELD VERIFICATION OF EXISTING CONSTRUCTION TO PREPARE THESE CONSTRUCTION DOCUMENTS. HOWEVER, SUCH RESEARCH MAY NOT IDENTIFY ALL EXISTING CONSTRUCTION, AND THE DRAWINGS THAT THREE I REASONABLY RELIED UPON MAY BE INACCURATE OR INCOMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND VERIFY EXISTING CONSTRUCTION THAT WILL BE EXTENDED OR CONNECTED TO, AS TO THEIR LOCATION, MATERIAL AND SIZE PRIOR TO ORDERING ANY MATERIAL. BRING ANY DISCREPANCIES, OR EXISTING CONSTRUCTION THAT WILL INTERFERE WITH THE PROPER INSTALLATION OF NEW MATERIALS OR CONSTRUCTION, TO THE ATTENTION OF THREE I DESIGN'S PROJECT MANAGER.

RECORD DRAWINGS:

RECORD DRAWINGS (OFTEN REFERRED TO AS "RED LINES" OR "AS-BUILTS") SHALL BE MAINTAINED BY EACH SUBCONTRACTOR AT THE DIRECTION OF THE CONTRACTOR. UPON THE COMPLETION OF CONSTRUCTION, RECORD DRAWINGS ARE TO BE TURNED OVER TO THREE I DESIGN, TOGETHER WITH REQUIRED MAINTENANCE MANUALS. RECORD DRAWINGS ARE TO DOCUMENT ANY CHANGES OCCURRING IN THE FIELD REGARDING MATERIALS INSTALLED, SIZES, DIMENSIONS OR LOCATIONS OF INSTALLED CONSTRUCTION.

MASONRY NOTES:

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE RECOMMENDATIONS OF BRICK INSTITUTE OF AMERICA (BIA) AND NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) AND MINIMUM REQUIREMENTS ESTABLISHED BY LOCAL BUILDING CODE.
2. ALL CONCRETE MASONRY UNITS (CMU) SHALL BE ASTM C-90 TYPE N WITH TYPE "S" MORTAR UNLESS OTHERWISE SPECIFIED BY APPLICABLE BUILDING CODE. $F'c = 1500$ PSI. NEW CMU TO MATCH COLOR AND SURFACE TEXTURE OF EXISTING. NEW INFILL COURSING IS TO MATCH EXISTING WHERE POSSIBLE.
3. NO SPECIAL INSPECTION IS REQUIRED FOR CMU WALLS.
4. REINFORCE NEW WALLS AS SHOWN ON PLANS.
5. GROUT SOLID ALL REINFORCED CELLS AND BOND BEAMS WITH 2500 PSI GROUT.

STEEL NOTES:

1. ALL STRUCTURAL SHAPES ARE TO CONFORM TO ASTM A992, TUBES SHALL BE ASTM A500 GR. B AND STEEL PLATES, ANGLES & CHANNELS SHALL BE ASTM A36. ALL STEEL SHALL BE PAINTED, FIELD TOUCH-UP AS REQUIRED FOR WELDED AREAS.
2. ALL WELDS SHALL BE MADE BY QUALIFIED WELDERS. STEEL MANUFACTURER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALIFICATION OF THEIR WELDERS, WELDING OPERATORS AND TACK WELDERS. QUALIFICATIONS MAY BE CONDUCTED BY THE STEEL MANUFACTURER OR CONTRACTOR OR BY AN INDEPENDENT TESTING AGENCY. ALL TESTING REQUIREMENTS SHALL BE AS SPECIFIED IN THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (AWS D1.1), CHAPTER 4.
3. WELDING ELECTRODES E70XX.
4. ALL WELDING SHALL CONFORM TO AWS D1.1
5. ALL BOLTS ARE TO BE ASTM A325
6. CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
7. DETAILING, FABRICATION AND ERECTION IS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.

COATING NOTES:

SHOP AND FIELD PAINTING PER SPECIFICATIONS AS FOLLOWS:

ALL NEW STEEL TO RECEIVE BY SHOP :

SHERWIN-WILLIAMS PRO INDUSTRIAL PRO-CRYL UNIVERSAL ACRYLIC PRIMER OFF WHITE - B66W310 (HMC 15850).

1. APPLICABLE BUILDING CODES AND AMENDMENTS
   A. 2014 INDIANA BUILDING CODE
   B. 2012 INTERNATIONAL BUILDING CODE
   C. ASCE STANDARDS: ASCE 7-10
2. PROJECT LOCATION: SPENCER, INDIANA (OWEN COUNTY)
3. DESIGN LOADS: LIVE & MISC. LOADS:
   1) FIRST FLOOR (SLAB ON GRADE ....100 PSF
   D. WIND LOADS:
      1) ULTIMATE WIND SPEED = 115 MPH
      2) RISK CATEGORY: III
      3) WIND IMPORTANCE FACTOR: $I_W = 1.15$
      4) EXPOSURE CATEGORY: C
   E. EARTHQUAKE LOADS:
      1) RISK CATEGORY: III
      2) SEISMIC IMPORTANCE FACTOR: $I_E = 1.25$
      3) SEISMIC DESIGN CATEGORY: C
      4) SITE CLASS: D
      5) $S_S = 0.33$
      6) $S_1 = 0.12$
      7) $S_{DS} = 0.26$
      8) $S_{D1} = 0.17$
      9) SEISMIC FORCE RESISTING SYSTEM - BRACED FRAME

BID 11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECTIONS, DETAILS AND NOTES

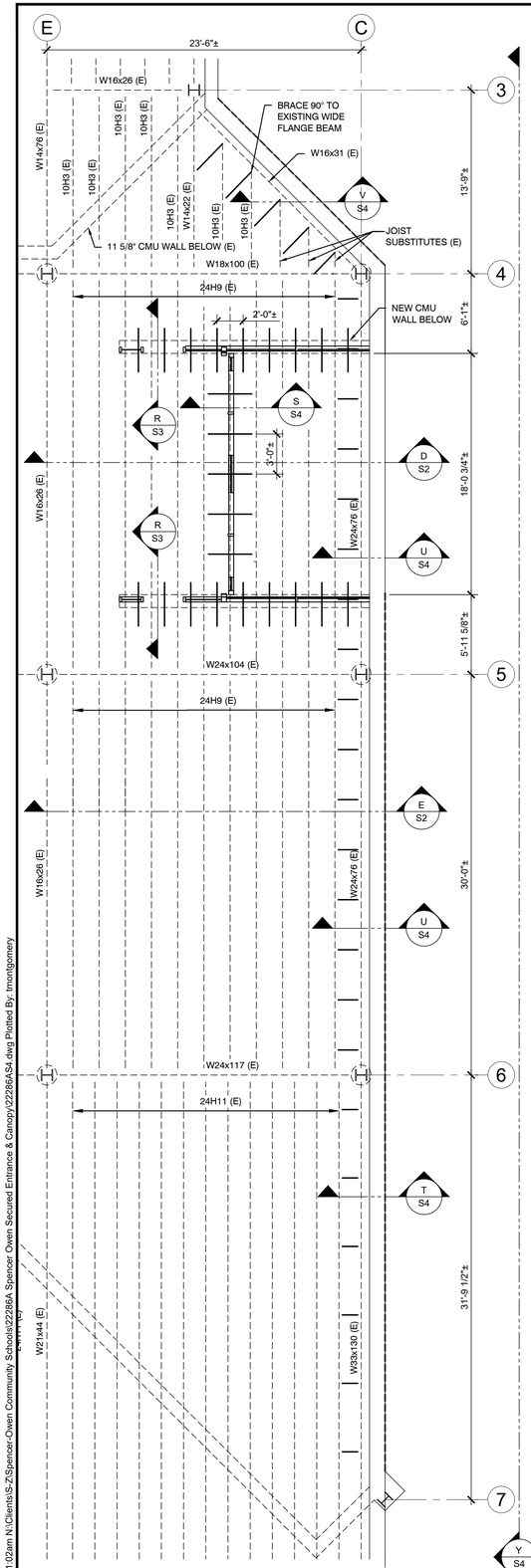
DRAWN BY:	DESIGNED BY:
TLM	MES
CHECKED BY:	DATE:
MES	09/01/23

SCALE: VARIES

PROJECT NUMBER: 22286A

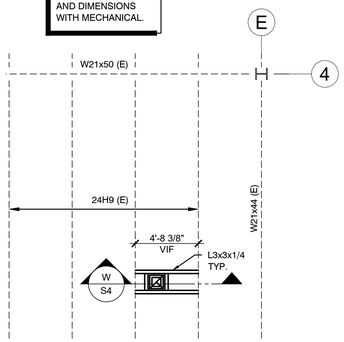
SHEET NO: S3
33 of 58

Oct 09, 2023 - 10:59am N:\Clients\S-Z\Spencer-Owen Community Schools\22286A Spencer Owen Secured Entrance & Canopy\22286AS3.dwg Plotted By: lmontgomery

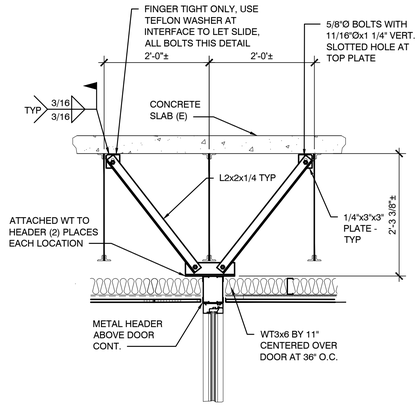


SECOND FLOOR FRAMING PLAN
SCALE: 3/16 = 1'-0"

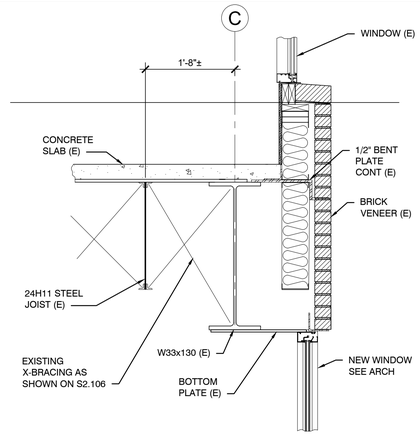
NOTE: COORDINATE OPENING LOCATION AND DIMENSIONS WITH MECHANICAL.



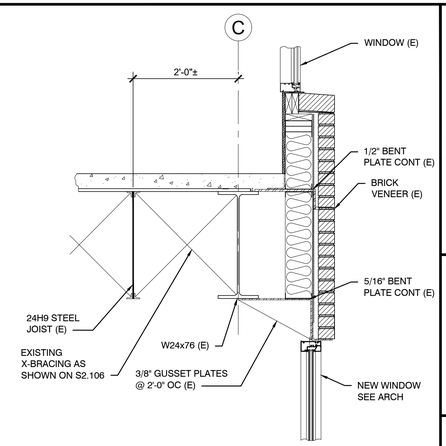
EXISTING ROOF FRAMING PLAN AT NEW EXHAUST FAN
SCALE: 3/16 = 1'-0"



SECTION S/S4 SCALE: 3/4"=1'-0"

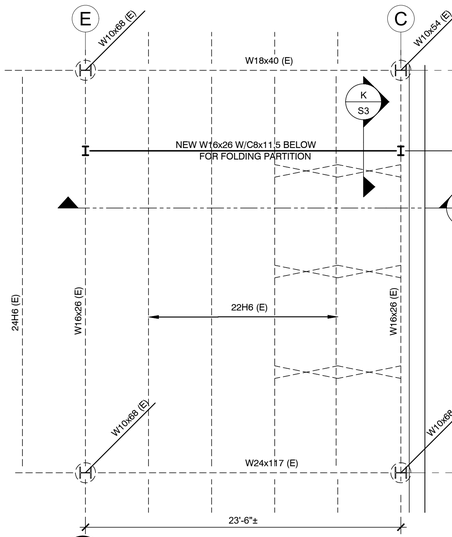


SECTION T/S4 SCALE: 3/4"=1'-0"

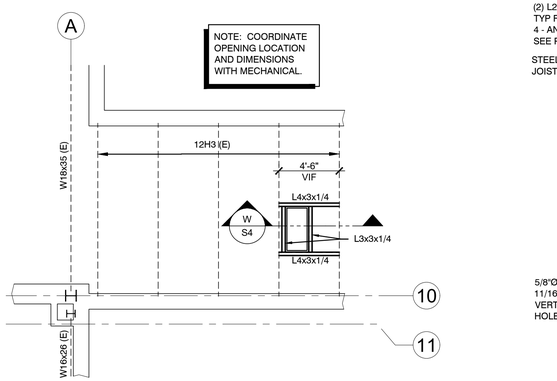


SECTION U/S4 SCALE: 3/4"=1'-0"

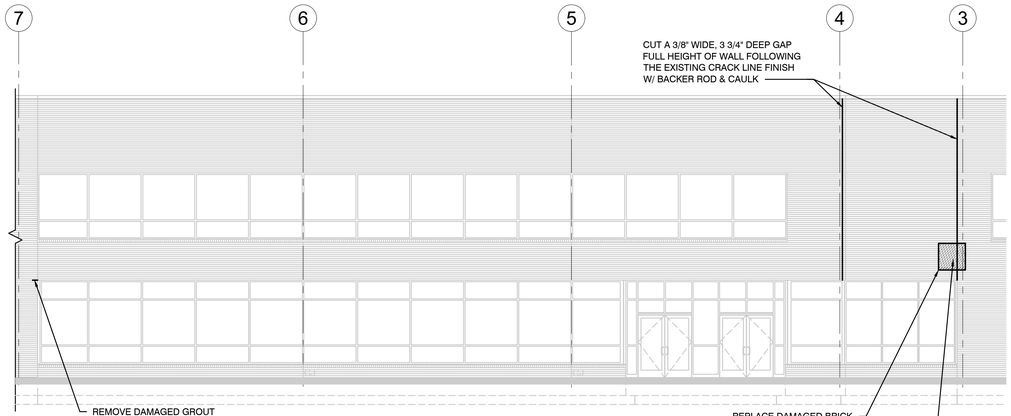
NOTE: COORDINATE OPENING LOCATION AND DIMENSIONS WITH MECHANICAL.



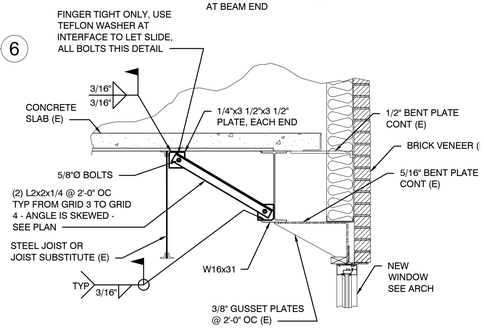
EXISTING ROOF FRAMING PLAN AT NEW FOLDING PARTITION
SCALE: 3/16 = 1'-0"



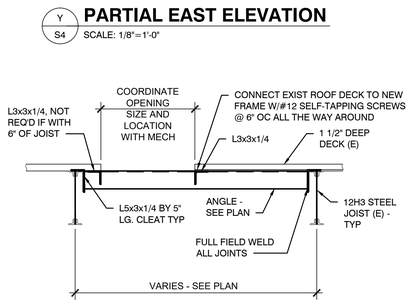
EXISTING ROOF FRAMING PLAN AT NEW MECHANICAL UNIT
SCALE: 3/16 = 1'-0"



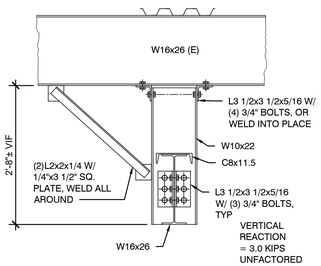
PARTIAL EAST ELEVATION
Y/S4 SCALE: 1/8"=1'-0"



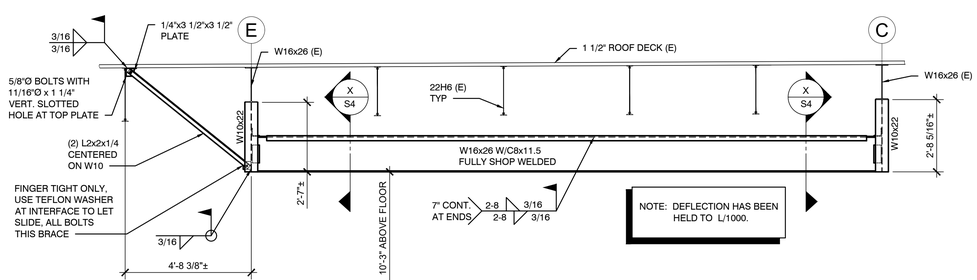
SECTION V/S4 SCALE: 3/4"=1'-0"



SECTION W/S4 SCALE: 3/4"=1'-0"



SECTION X/S4 SCALE: 3/4"=1'-0"



NOTE: DEFLECTION HAS BEEN HELD TO L/1000.

SECTION Z/S4 SCALE: 3/8"=1'-0"

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D	11/01/23	TLM	ISSUED FOR BID

CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

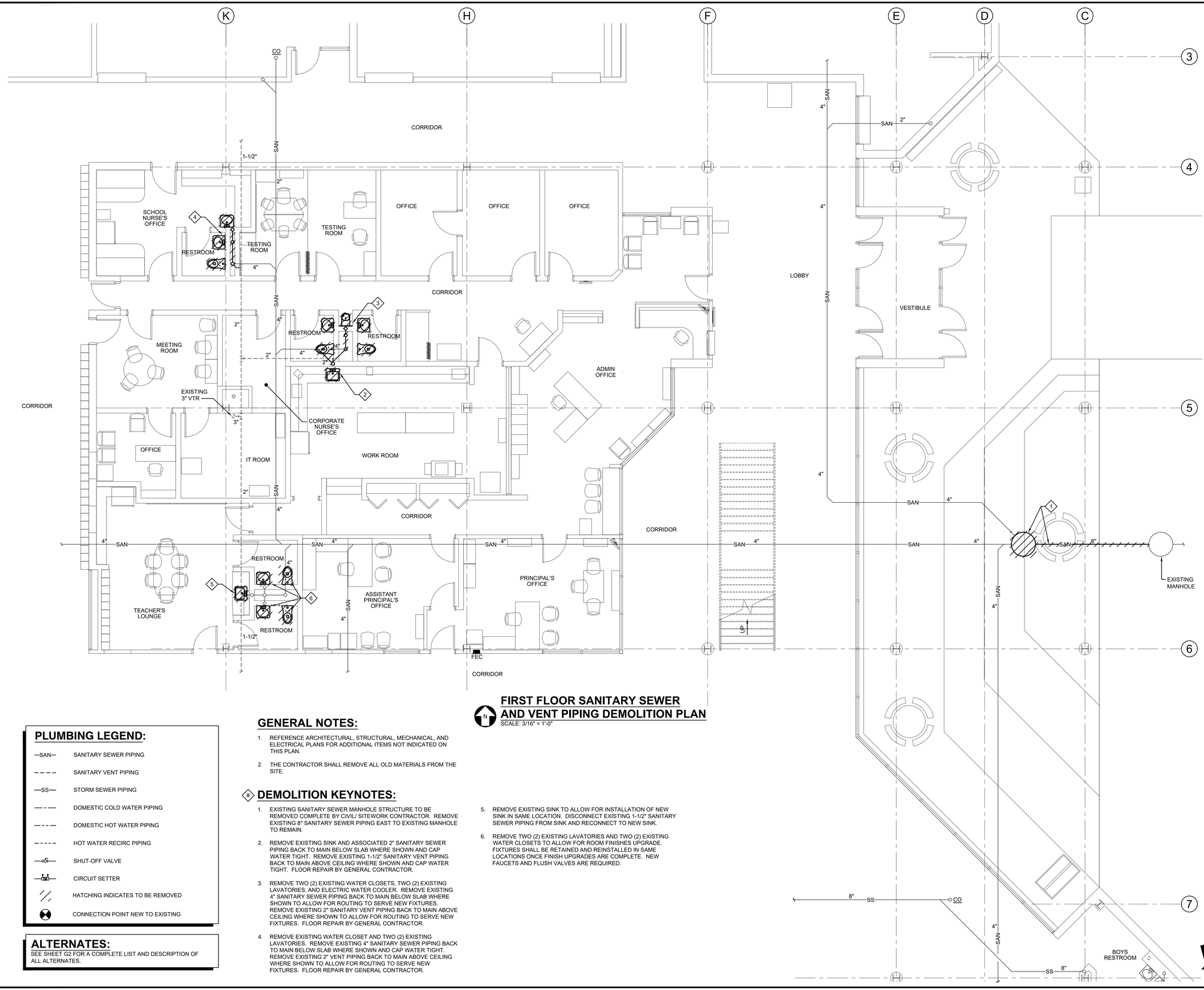
SECOND FLOOR AND ROOF FRAMING PLANS AND SECTIONS

DRAWN BY:	DESIGNED BY:
TLM	MES
CHECKED BY:	DATE:
MES	09/01/23

SCALE: VARIES

PROJECT NUMBER: 22286A

SHEET NO: **S4**
34 of 58



FIRST FLOOR SANITARY SEWER AND VENT PIPING DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

PLUMBING LEGEND:

—SAN—	SANITARY SEWER PIPING
– – – –	SANITARY VENT PIPING
—SS—	STORM SEWER PIPING
— · —	DOMESTIC COLD WATER PIPING
— – —	DOMESTIC HOT WATER PIPING
– – – –	HOT WATER RECIRC PIPING
—⋈—	SHUT-OFF VALVE
—⋈—	CIRCUIT SETTER
// //	HATCHING INDICATES TO BE REMOVED
	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

DEMOLITION KEYNOTES:

1. EXISTING SANITARY SEWER MANHOLE STRUCTURE TO BE REMOVED COMPLETE BY CIVIL/ SITEWORK CONTRACTOR. REMOVE EXISTING 8" SANITARY SEWER PIPING EAST TO EXISTING MANHOLE TO REMAIN.
2. REMOVE EXISTING SINK AND ASSOCIATED 2" SANITARY SEWER PIPING BACK TO MAIN BELOW SLAB WHERE SHOWN AND CAP WATER TIGHT. REMOVE EXISTING 1-1/2" SANITARY VENT PIPING BACK TO MAIN ABOVE CEILING WHERE SHOWN AND CAP WATER TIGHT. FLOOR REPAIR BY GENERAL CONTRACTOR.
3. REMOVE TWO (2) EXISTING WATER CLOSETS, TWO (2) EXISTING LAVATORIES, AND ELECTRIC WATER COOLER. REMOVE EXISTING 4" SANITARY SEWER PIPING BACK TO MAIN BELOW SLAB WHERE SHOWN TO ALLOW FOR ROUTING TO SERVE NEW FIXTURES. REMOVE EXISTING 2" SANITARY VENT PIPING BACK TO MAIN ABOVE CEILING WHERE SHOWN TO ALLOW FOR ROUTING TO SERVE NEW FIXTURES. FLOOR REPAIR BY GENERAL CONTRACTOR.
4. REMOVE EXISTING WATER CLOSET AND TWO (2) EXISTING LAVATORIES. REMOVE EXISTING 4" SANITARY SEWER PIPING BACK TO MAIN BELOW SLAB WHERE SHOWN AND CAP WATER TIGHT. REMOVE EXISTING 2" VENT PIPING BACK TO MAIN ABOVE CEILING WHERE SHOWN TO ALLOW FOR ROUTING TO SERVE NEW FIXTURES. FLOOR REPAIR BY GENERAL CONTRACTOR.
5. REMOVE EXISTING SINK TO ALLOW FOR INSTALLATION OF NEW SINK IN SAME LOCATION. DISCONNECT EXISTING 1-1/2" SANITARY SEWER PIPING FROM SINK AND RECONNECT TO NEW SINK.
6. REMOVE TWO (2) EXISTING LAVATORIES AND TWO (2) EXISTING WATER CLOSETS TO ALLOW FOR ROOM FINISHES UPGRADE. FIXTURES SHALL BE RETAINED AND REINSTALLED IN SAME LOCATIONS ONCE FINISH UPGRADES ARE COMPLETE. NEW FAUCETS AND FLUSH VALVES ARE REQUIRED.

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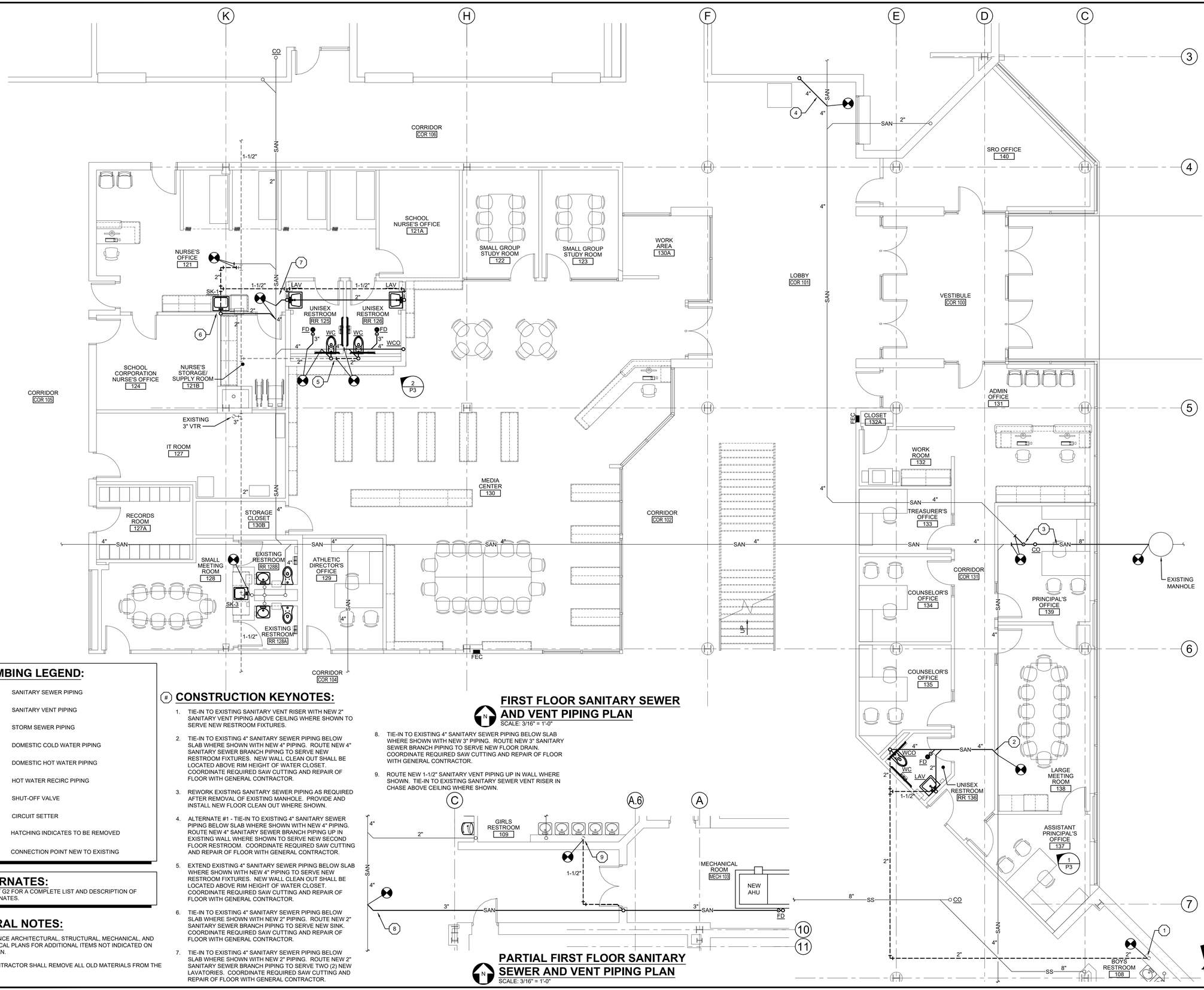
C	09/07/23	RTN	ISSUED FOR 100% REVIEW
D	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST FLOOR SANITARY SEWER AND VENT PIPING DEMOLITION PLAN

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: P1	35 of 58



PLUMBING LEGEND:

—SAN—	SANITARY SEWER PIPING
– – – –	SANITARY VENT PIPING
—SS—	STORM SEWER PIPING
—– —–	DOMESTIC COLD WATER PIPING
—– – —–	DOMESTIC HOT WATER PIPING
– – – – –	HOT WATER RECIRC PIPING
—⊖—	SHUT-OFF VALVE
—⊘—	CIRCUIT SETTER
//	HATCHING INDICATES TO BE REMOVED
⊗	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

(#) CONSTRUCTION KEYNOTES:

1. TIE-IN TO EXISTING SANITARY VENT RISER WITH NEW 2" SANITARY VENT PIPING ABOVE CEILING WHERE SHOWN TO SERVE NEW RESTROOM FIXTURES.
2. TIE-IN TO EXISTING 4" SANITARY SEWER PIPING BELOW SLAB WHERE SHOWN WITH NEW 4" PIPING. ROUTE NEW 4" SANITARY SEWER BRANCH PIPING TO SERVE NEW RESTROOM FIXTURES. NEW WALL CLEAN OUT SHALL BE LOCATED ABOVE RIM HEIGHT OF WATER CLOSET. COORDINATE REQUIRED SAW CUTTING AND REPAIR OF FLOOR WITH GENERAL CONTRACTOR.
3. REWORK EXISTING SANITARY SEWER PIPING AS REQUIRED AFTER REMOVAL OF EXISTING MANHOLE. PROVIDE AND INSTALL NEW FLOOR CLEAN OUT WHERE SHOWN.
4. ALTERNATE #1 - TIE-IN TO EXISTING 4" SANITARY SEWER PIPING BELOW SLAB WHERE SHOWN WITH NEW 4" PIPING. ROUTE NEW 4" SANITARY SEWER BRANCH PIPING UP IN EXISTING WALL WHERE SHOWN TO SERVE NEW SECOND FLOOR RESTROOM. COORDINATE REQUIRED SAW CUTTING AND REPAIR OF FLOOR WITH GENERAL CONTRACTOR.
5. EXTEND EXISTING 4" SANITARY SEWER PIPING BELOW SLAB WHERE SHOWN WITH NEW 4" PIPING TO SERVE NEW RESTROOM FIXTURES. NEW WALL CLEAN OUT SHALL BE LOCATED ABOVE RIM HEIGHT OF WATER CLOSET. COORDINATE REQUIRED SAW CUTTING AND REPAIR OF FLOOR WITH GENERAL CONTRACTOR.
6. TIE-IN TO EXISTING 4" SANITARY SEWER PIPING BELOW SLAB WHERE SHOWN WITH NEW 2" PIPING. ROUTE NEW 2" SANITARY SEWER BRANCH PIPING TO SERVE NEW SINK. COORDINATE REQUIRED SAW CUTTING AND REPAIR OF FLOOR WITH GENERAL CONTRACTOR.
7. TIE-IN TO EXISTING 4" SANITARY SEWER PIPING BELOW SLAB WHERE SHOWN WITH NEW 2" PIPING. ROUTE NEW 2" SANITARY SEWER BRANCH PIPING TO SERVE TWO (2) NEW LAVATORIES. COORDINATE REQUIRED SAW CUTTING AND REPAIR OF FLOOR WITH GENERAL CONTRACTOR.
8. TIE-IN TO EXISTING 4" SANITARY SEWER PIPING BELOW SLAB WHERE SHOWN WITH NEW 3" PIPING. ROUTE NEW 3" SANITARY SEWER BRANCH PIPING TO SERVE NEW FLOOR DRAIN. COORDINATE REQUIRED SAW CUTTING AND REPAIR OF FLOOR WITH GENERAL CONTRACTOR.
9. ROUTE NEW 1-1/2" SANITARY VENT PIPING UP IN WALL WHERE SHOWN. TIE-IN TO EXISTING SANITARY SEWER VENT RISER IN CHASE ABOVE CEILING WHERE SHOWN.

FIRST FLOOR SANITARY SEWER AND VENT PIPING PLAN

SCALE: 3/16" = 1'-0"

PARTIAL FIRST FLOOR SANITARY SEWER AND VENT PIPING PLAN

SCALE: 3/16" = 1'-0"

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FIRST FLOOR SANITARY SEWER AND VENT PIPING PLAN

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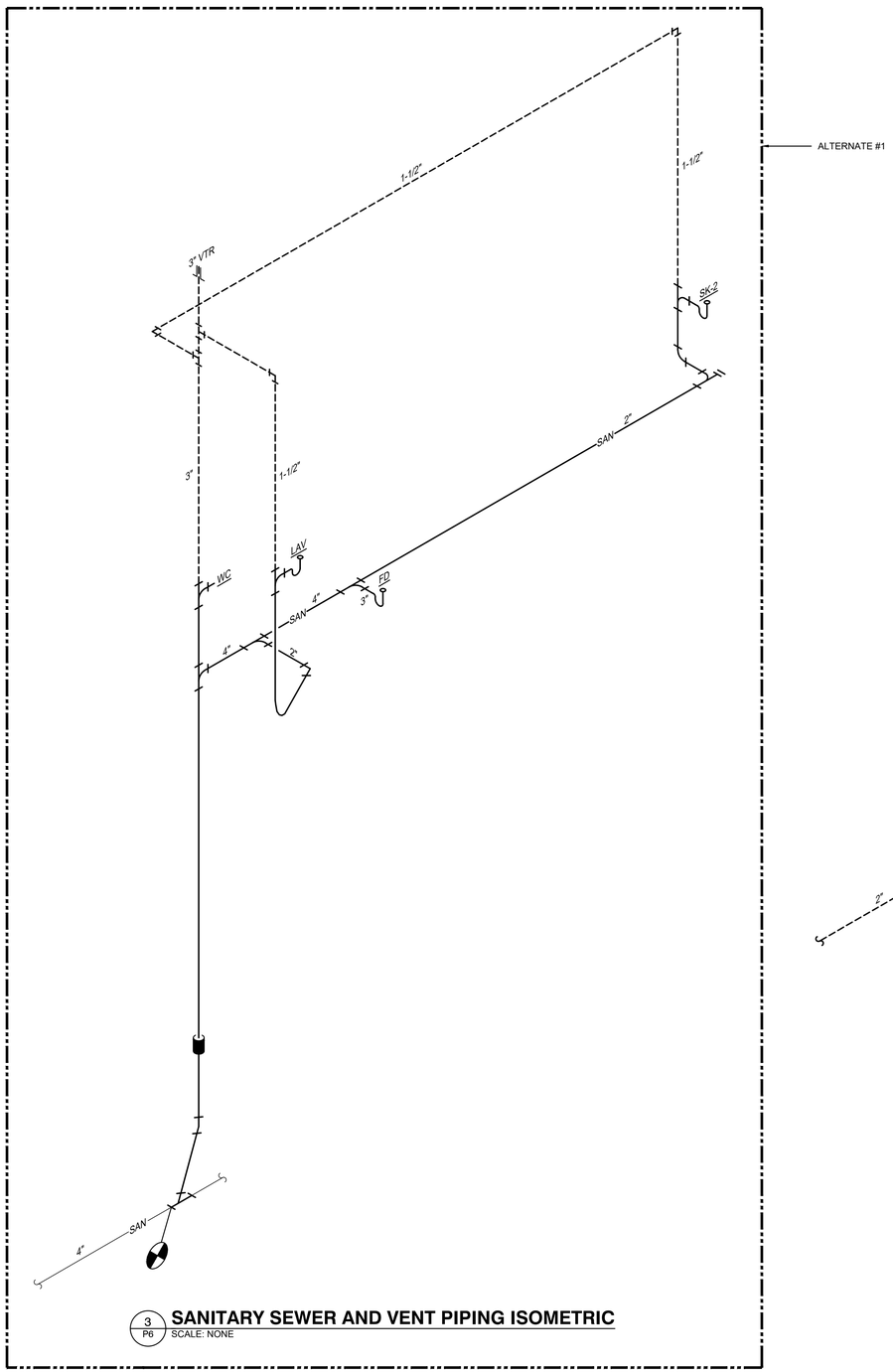
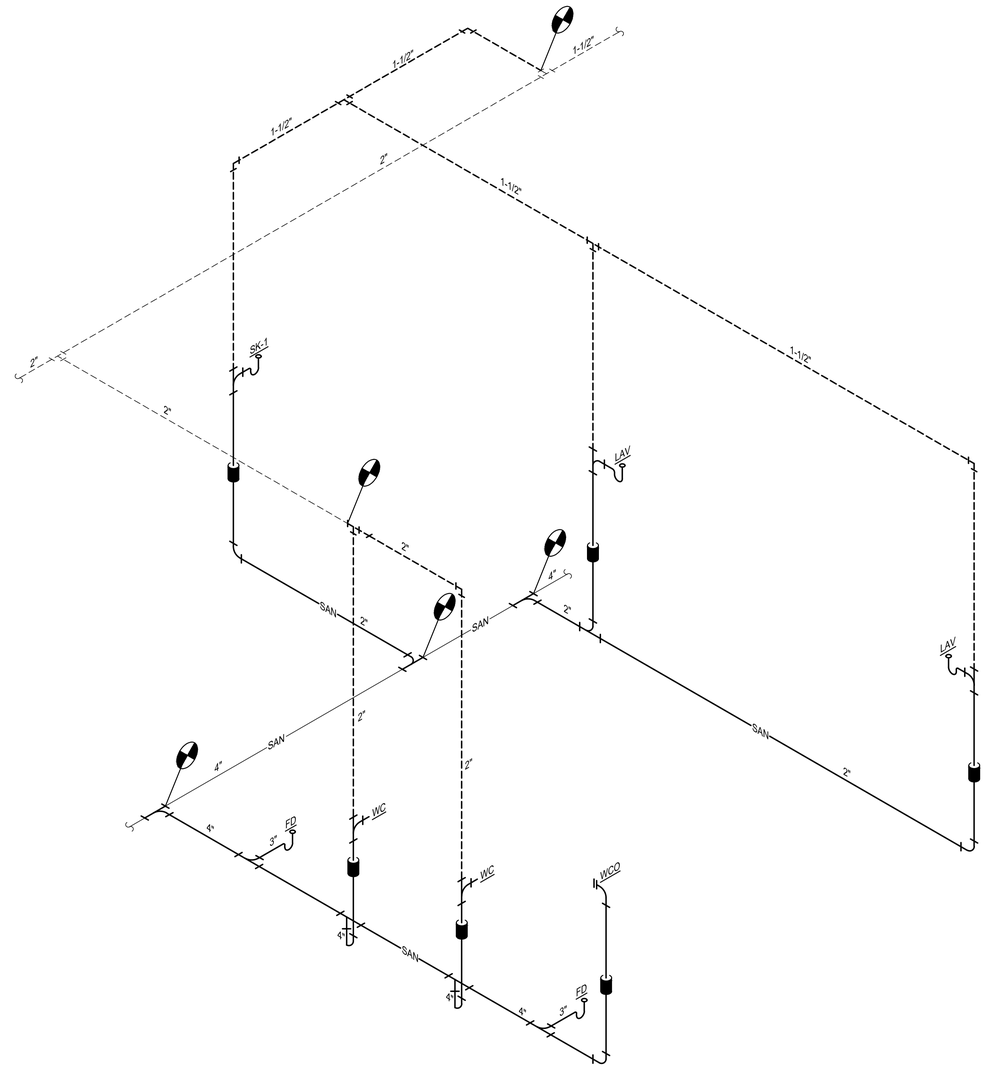
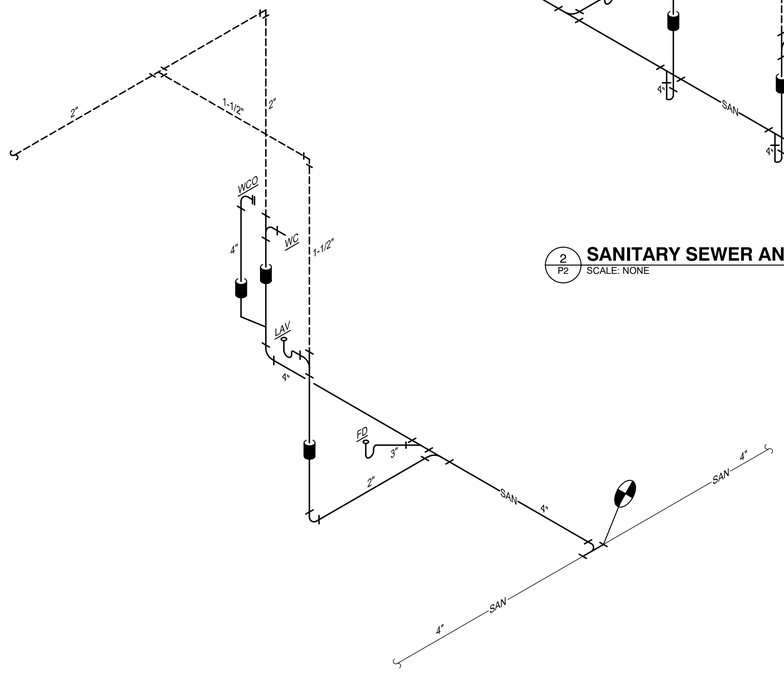
CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: P2	36 of 58



3 P6 **SANITARY SEWER AND VENT PIPING ISOMETRIC**
SCALE: NONE



2 P2 **SANITARY SEWER AND VENT PIPING ISOMETRIC**
SCALE: NONE



1 P2 **SANITARY SEWER AND VENT PIPING ISOMETRIC**
SCALE: NONE

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B	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
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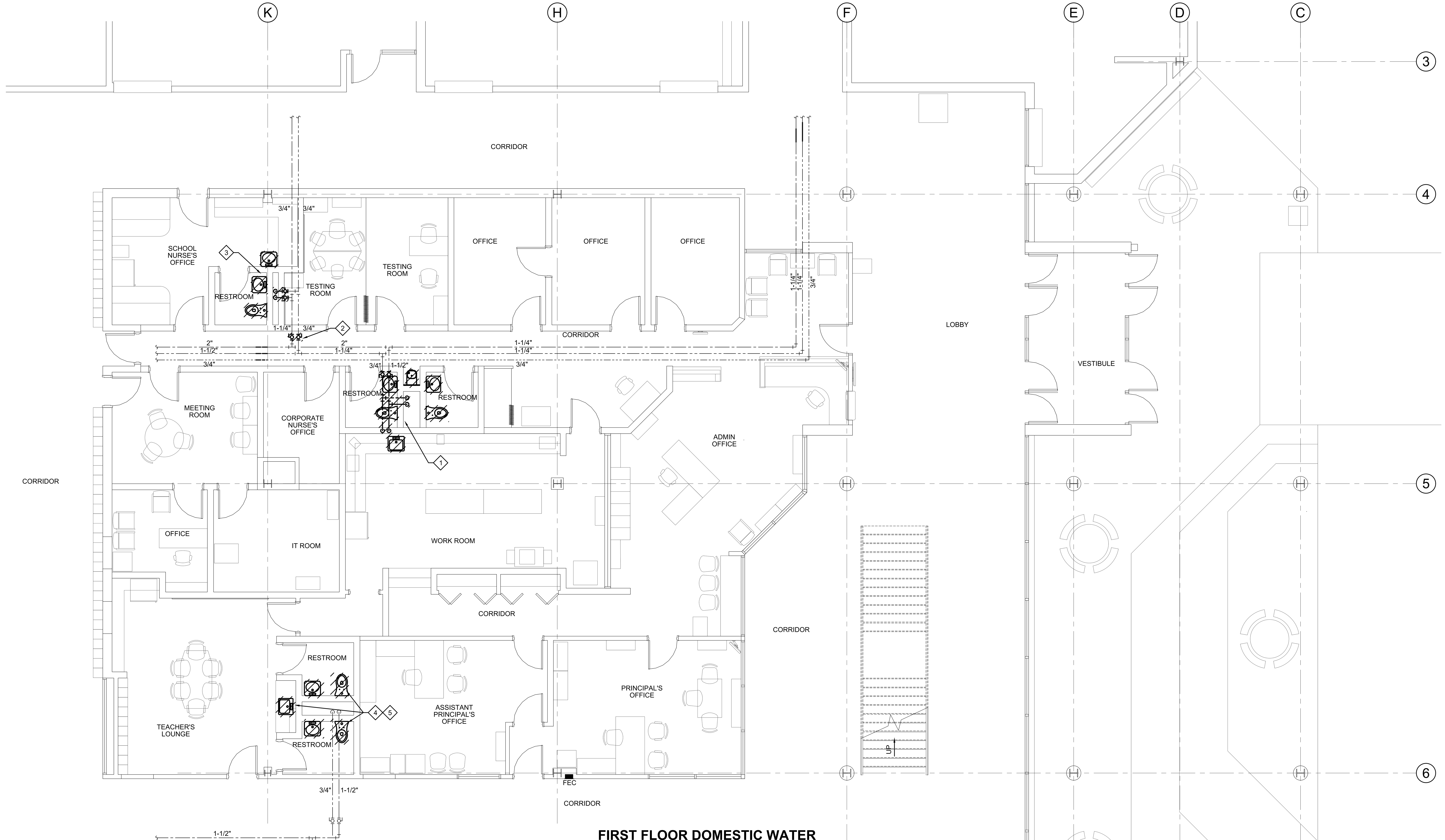
SANITARY SEWER AND VENT PIPING ISOMETRICS

DRAWN BY:	DESIGNED BY:
RTN	RTN
CHECKED BY:	DATE:
BWW	05/02/23

SCALE: NONE

PROJECT NUMBER: 22286A

SHEET NO: **P3**



FIRST FLOOR DOMESTIC WATER PIPING DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

PLUMBING LEGEND:

Symbol	Description
—SAN—	SANITARY SEWER PIPING
- - - -	SANITARY VENT PIPING
—SS—	STORM SEWER PIPING
— · —	DOMESTIC COLD WATER PIPING
— ·· —	DOMESTIC HOT WATER PIPING
- - - -	HOT WATER RECIRC PIPING
	SHUT-OFF VALVE
	CIRCUIT SETTER
//	HATCHING INDICATES TO BE REMOVED
	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.
3. CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL DOMESTIC WATER ISOLATION VALVES AS REQUIRED TO ALLOW FOR UNINTERRUPTED SERVICE TO OTHER AREAS OF THE BUILDING DURING CONSTRUCTION.

DEMOLITION KEYNOTES:

1. REMOVE EXISTING 1-1/2" DOMESTIC COLD WATER AND 3/4" DOMESTIC HOT WATER BRANCH PIPING SERVING RESTROOM FIXTURES BACK TO ABOVE CEILING WHERE SHOWN TO ALLOW FOR REROUTING TO NEW FIXTURES. EXISTING SHUT-OFF ISOLATION VALVES ABOVE CEILING SHALL BE REPLACED.
2. REMOVE AND REPLACE EXISTING 1-1/4" DOMESTIC COLD WATER AND 3/4" DOMESTIC HOT WATER SHUT-OFF ISOLATION VALVES ABOVE CEILING WHERE SHOWN.
3. REMOVE EXISTING 1-1/4" DOMESTIC COLD WATER AND 3/4" DOMESTIC HOT WATER BRANCH PIPING SERVING RESTROOM FIXTURES BACK TO ABOVE CEILING WHERE SHOWN TO ALLOW FOR REROUTING TO NEW FIXTURES. EXISTING SHUT-OFF ISOLATION VALVES ABOVE CEILING SHALL BE REPLACED.
4. REMOVE EXISTING SINK TO ALLOW FOR INSTALLATION OF NEW SINK IN SAME LOCATION. DISCONNECT EXISTING 1/2" DOMESTIC HOT AND COLD WATER PIPING FROM SINK AND RECONNECT TO NEW SINK.
5. REMOVE TWO (2) EXISTING LAVATORIES AND TWO (2) EXISTING WATER CLOSETS TO ALLOW FOR ROOM FINISHES UPGRADE. FIXTURES SHALL BE RETAINED AND REINSTALLED IN SAME LOCATIONS ONCE FINISH UPGRADES ARE COMPLETE. NEW FAUCETS AND FLUSH VALVES ARE REQUIRED.

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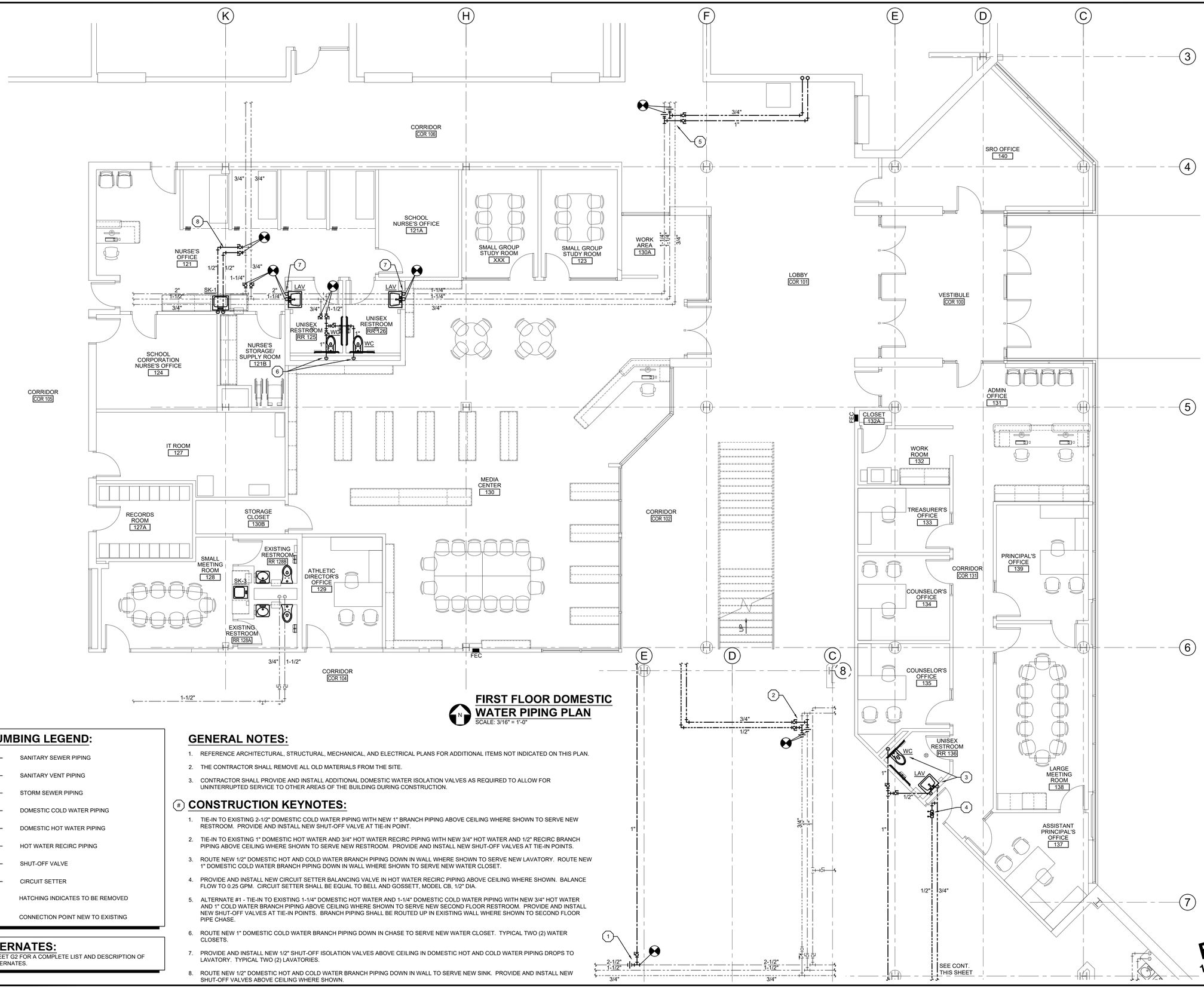
C	09/07/23	RTN	ISSUED FOR 100% REVIEW
D	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST FLOOR DOMESTIC WATER PIPING DEMOLITION PLAN

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: P4	



FIRST FLOOR DOMESTIC WATER PIPING PLAN

SCALE: 3/16" = 1'-0"

PLUMBING LEGEND:

—SAN—	SANITARY SEWER PIPING
- - - -	SANITARY VENT PIPING
—SS—	STORM SEWER PIPING
— — —	DOMESTIC COLD WATER PIPING
— - — - —	DOMESTIC HOT WATER PIPING
- - - - -	HOT WATER RECIRC PIPING
—⋈—	SHUT-OFF VALVE
—⋈—	CIRCUIT SETTER
//	HATCHING INDICATES TO BE REMOVED
	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.
3. CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL DOMESTIC WATER ISOLATION VALVES AS REQUIRED TO ALLOW FOR UNINTERRUPTED SERVICE TO OTHER AREAS OF THE BUILDING DURING CONSTRUCTION.

(#) CONSTRUCTION KEYNOTES:

1. TIE-IN TO EXISTING 2-1/2" DOMESTIC COLD WATER PIPING WITH NEW 1" BRANCH PIPING ABOVE CEILING WHERE SHOWN TO SERVE NEW RESTROOM. PROVIDE AND INSTALL NEW SHUT-OFF VALVE AT TIE-IN POINT.
2. TIE-IN TO EXISTING 1" DOMESTIC HOT WATER AND 3/4" HOT WATER RECIRC PIPING WITH NEW 3/4" HOT WATER AND 1/2" RECIRC BRANCH PIPING ABOVE CEILING WHERE SHOWN TO SERVE NEW RESTROOM. PROVIDE AND INSTALL NEW SHUT-OFF VALVES AT TIE-IN POINTS.
3. ROUTE NEW 1/2" DOMESTIC HOT AND COLD WATER BRANCH PIPING DOWN IN WALL WHERE SHOWN TO SERVE NEW LAVATORY. ROUTE NEW 1" DOMESTIC COLD WATER BRANCH PIPING DOWN IN WALL WHERE SHOWN TO SERVE NEW WATER CLOSET.
4. PROVIDE AND INSTALL NEW CIRCUIT SETTER BALANCING VALVE IN HOT WATER RECIRC PIPING ABOVE CEILING WHERE SHOWN. BALANCE FLOW TO 0.25 GPM. CIRCUIT SETTER SHALL BE EQUAL TO BELL AND GOSSETT, MODEL CB, 1/2" DIA.
5. ALTERNATE #1 - TIE-IN TO EXISTING 1-1/4" DOMESTIC HOT WATER AND 1-1/4" DOMESTIC COLD WATER PIPING WITH NEW 3/4" HOT WATER AND 1" COLD WATER BRANCH PIPING ABOVE CEILING WHERE SHOWN TO SERVE NEW SECOND FLOOR RESTROOM. PROVIDE AND INSTALL NEW SHUT-OFF VALVES AT TIE-IN POINTS. BRANCH PIPING SHALL BE ROUTED UP IN EXISTING WALL WHERE SHOWN TO SECOND FLOOR PIPE CHASE.
6. ROUTE NEW 1" DOMESTIC COLD WATER BRANCH PIPING DOWN IN CHASE TO SERVE NEW WATER CLOSET. TYPICAL TWO (2) WATER CLOSETS.
7. PROVIDE AND INSTALL NEW 1/2" SHUT-OFF ISOLATION VALVES ABOVE CEILING IN DOMESTIC HOT AND COLD WATER PIPING DROPS TO LAVATORY. TYPICAL TWO (2) LAVATORIES.
8. ROUTE NEW 1/2" DOMESTIC HOT AND COLD WATER BRANCH PIPING DOWN IN WALL TO SERVE NEW SINK. PROVIDE AND INSTALL NEW SHUT-OFF VALVES ABOVE CEILING WHERE SHOWN.

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B	08/17/23	RTN	ISSUED FOR 60% REVIEW
C	09/07/23	RTN	ISSUED FOR 100% REVIEW
D	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
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626 IN-46, SPENCER, INDIANA 47460

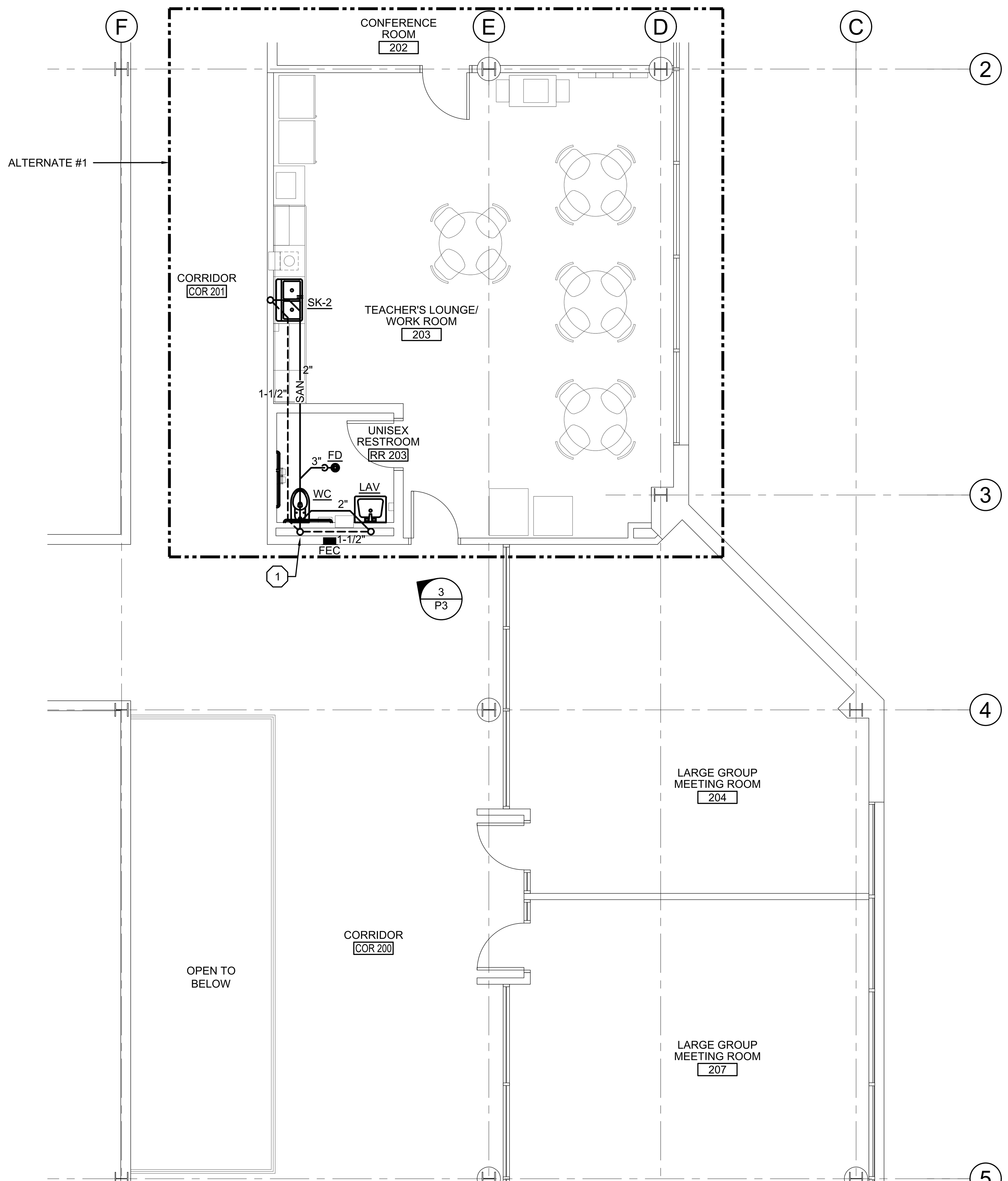
FIRST FLOOR DOMESTIC WATER PIPING PLAN

DRAWN BY:	DESIGNED BY:
RTN	RTN
CHECKED BY:	DATE:
BWW	05/02/23

SCALE: 3/16" = 1' - 0"

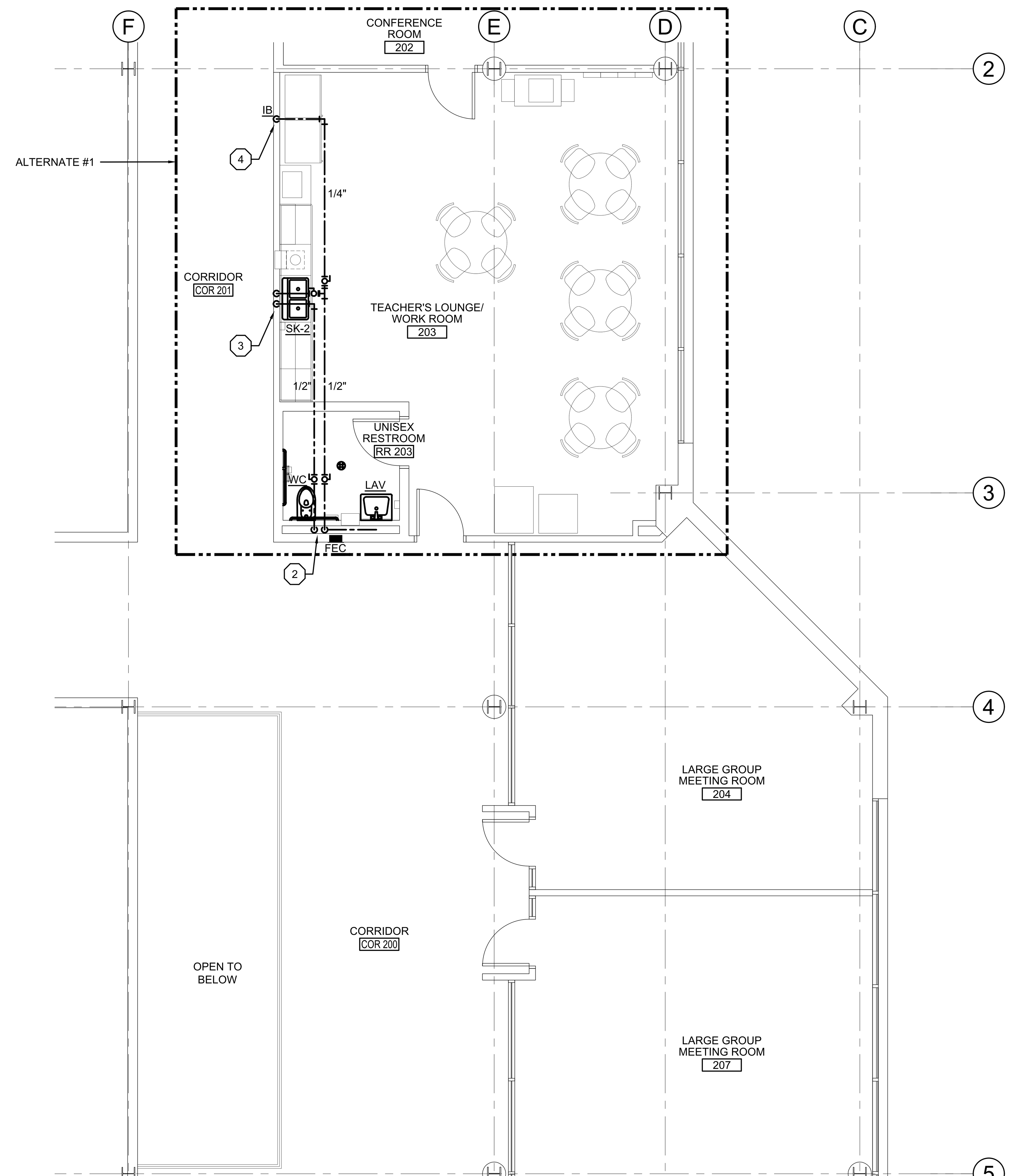
PROJECT NUMBER: 22286A

SHEET NO: P5



SECOND FLOOR SANITARY SEWER AND VENT PIPING PLAN

SCALE: 3/16" = 1'-0"



SECOND FLOOR DOMESTIC WATER PIPING PLAN

SCALE: 3/16" = 1'-0"

PLUMBING LEGEND:

—SAN—	SANITARY SEWER PIPING
– – – –	SANITARY VENT PIPING
—SS—	STORM SEWER PIPING
— · —	DOMESTIC COLD WATER PIPING
– · · –	DOMESTIC HOT WATER PIPING
– – – –	HOT WATER RECIRC PIPING
	SHUT-OFF VALVE
	CIRCUIT SETTER
//	HATCHING INDICATES TO BE REMOVED
	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

REFERENCE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.

THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

CONSTRUCTION KEYNOTES:

1. ALTERNATE #1 - ROUTE NEW 4" SANITARY SEWER RISER FROM FIRST FLOOR UP IN WALL WHERE SHOWN TO SERVE NEW RESTROOM FIXTURES. RISER SHALL BE TERMINATED WITH NEW 3" SANITARY VENT THRU ROOF. PROVIDE AND INSTALL PIPE BOOT AT NEW PENETRATION THRU ROOF. COORDINATE REQUIRED ROOF OPENING AND REPAIR WITH GENERAL CONTRACTOR.
2. ALTERNATE #1 - ROUTE NEW 1" DOMESTIC COLD WATER AND 3/4" DOMESTIC HOT WATER RISERS FROM FIRST FLOOR UP IN WALL WHERE SHOWN TO SERVE NEW RESTROOM FIXTURES. ROUTE 1" DOMESTIC COLD WATER BRANCH PIPING TO WATER CLOSET AND 1/2" DOMESTIC HOT AND COLD WATER BRANCH PIPING TO LAVATORY IN CHASE.
3. ALTERNATE #1 - ROUTE NEW 1/2" DOMESTIC COLD AND HOT WATER BRANCH PIPING DOWN IN WALL TO SERVE NEW SINK WHERE SHOWN. PROVIDE AND INSTALL NEW SHUT-OFF VALVES ABOVE CEILING WHERE SHOWN.
4. ALTERNATE #1 - PROVIDE AND INSTALL NEW ICE MAKE BOX IN WALL WHERE SHOWN. COORDINATE INSTALLATION OF BOX WITH GENERAL CONTRACTOR. BOX SHALL BE EQUAL TO OATEY METAL ICE MAKER BOX, MODEL NO. 38689, WITH 20 GAUGE PAINTED STEEL OUTLET BOX, 28 GAUGE PAINTED STEEL FACEPLATE, 1/4 TURN BRASS BALL VALVE WITH 3/8-INCH COMPRESSION FITTING OUTLET, COPPER SWEAT CONNECTION. VALVE: ASME A112.18.1/NSF STANDARD 61; BOX: IAPMO-LISTED, PS-54.

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C	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR PLUMBING PLANS

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: P6	

PLUMBING SPECIFICATIONS

GENERAL

THE PLUMBING DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT AND PIPING. THE CONTRACTOR SHALL ATTEMPT TO ADHERE TO THE ARRANGEMENT SHOWN. THE CONTRACTOR SHALL MAKE REASONABLE MODIFICATIONS IN THE INSTALLATION AS REQUIRED SO ALL EQUIPMENT AND MATERIALS FIT PROPERLY AND CAN BE SERVICED.

IT IS THE INTENTION OF THE PLUMBING DRAWINGS TO CALL FOR FINISHED WORK, TESTED, AND READY FOR OPERATION. ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT INDICATED ON THE DRAWINGS OR ANY INCIDENTAL ACCESSORIES REQUIRED TO MAKE WORK COMPLETE TO ALL RESPECTS AND READY FOR OPERATION SHALL BE FURNISHED, DELIVERED, AND INSTALLED WITHOUT ADDITIONAL EXPENSE OR TIME TO THE PROJECT.

THE PLUMBING CONTRACTOR SHALL EXAMINE ALL DRAWINGS RELATING TO WORK OF ALL TRADES AND BECOME FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK REQUIRED AND ITS RELATIONSHIP TO ALL OTHER WORK ON THE PROJECT. THE CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS IN LOCATING PIPING, EQUIPMENT, ETC. IN ORDER TO AVOID CONFLICT WITH OTHER CONTRACTOR'S WORK.

INSPECT THE SITE AND BE INFORMED WITH RESPECT TO THE CONDITIONS, FACILITIES, DIFFICULTIES, AND RESTRICTIONS UNDER WHICH THE WORK SHALL BE DONE. IF DISCREPANCIES IN OR OMISSIONS FROM THE CONTRACT DOCUMENTS ARE FOUND, NOTIFY THE ENGINEER IN WRITING. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF MATERIAL TO BE FURNISHED OR WORK TO BE DONE.

ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.

COORDINATE ALL ACTIVITIES, EQUIPMENT, AND UTILITY SHUTDOWNS WHICH MAY AFFECT ACTIVITIES OF THE BUILDING. COOPERATE WITH THE OWNER'S REPRESENTATIVE TO MINIMIZE DISRUPTIONS TO THE BUILDING OCCUPANTS. ALL SHUT DOWNS OF EXISTING SYSTEMS SHALL BE SCHEDULED AND APPROVED BY THE OWNER PRIOR TO COMMENCING WITH THE WORK.

ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNER SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.

USE OF THE OWNER'S ELEVATORS AND BUILDING CORRIDORS FOR HANDLING OF NEW AND REMOVED EQUIPMENT AND MATERIALS SHALL BE AT THE DIRECTION OF THE OWNER AND SHALL BE COORDINATED WITH HIS OPERATIONS.

COORDINATE ALL FINAL CONNECTIONS WITH THE OTHER TRADES AND OWNER FURNISHED EQUIPMENT. IF THIS CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATION WITH THE OTHER TRADES OR THE OWNER SO AS TO CAUSE INTERFERENCE WITH THE WORK OF OTHER TRADES, HE SHALL MAKE ALL NECESSARY CHANGES IN HIS WORK AND CORRECT THE CONDITION WITHOUT EXTRA CHARGE OR SCHEDULE EXTENSION.

ALL EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.

ALL MATERIALS SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE NOTED.

EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED TO BE RELOCATED.

ALL UNDERGROUND UTILITIES SHALL BE VERIFIED FOR PIPE SIZE AND LOCATION PRIOR TO FABRICATING AND INSTALLING ANY NEW PIPING. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITIES OR BE GROUNDS FOR EXTRA CHARGES.

TAKE PRECAUTION AGAINST DAMAGE TO ANY EXISTING UTILITIES, FURNISHINGS, AND CONSTRUCTION NOT INCLUDED WITHIN THE SCOPE OF THIS WORK. ANY DAMAGE CAUSED BY THE CONTRACTORS OPERATION SHALL BE REPAIRED AT HIS EXPENSE COMPLETE AND TO THE SATISFACTION OF THE OWNER.

PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.

CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT, AND ENVIRONMENTAL CONDITIONS.

IF CONTRACTOR ENCOUNTERS WHAT APPEARS TO BE A HAZARDOUS OR QUESTIONABLE MATERIAL, HE SHALL DISCONTINUE WORK IMMEDIATELY AND CONTACT THE OWNER'S REPRESENTATIVE.

THE PLUMBING CONTRACTOR SHALL KEEP ACCURATE RECORDS OF ALL CONCEALED PIPING AND EQUIPMENT WHICH DEVIATED FROM THE DRAWINGS. AT COMPLETION OF WORK, CONTRACTOR SHALL PRESENT TO THE OWNER'S REPRESENTATIVE A MARKED RECORD SET OF DESIGN PRINTS INDICATING CHANGES.

THE PLUMBING CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES OF EQUIPMENT INFORMATION TO THE THREE I DESIGN PROJECT ENGINEER FOR REVIEW AND APPROVAL. THIS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, THE FOLLOWING:

1. SANITARY SEWER PIPING AND FITTINGS
2. DOMESTIC WATER PIPING AND FITTINGS
3. PLUMBING FIXTURES
4. VALVES
5. PIPE INSULATION

SUBSTITUTION OF PRODUCTS SHALL BE MADE ONLY WITH THE APPROVAL OF THE THREE I DESIGN PROJECT ENGINEER. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DESIGN CHANGES AND ASSOCIATED COSTS RELATED TO THE USE OF THE PROPOSED EQUAL.

ALL PLUMBING WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS:

1. THE STATE PLUMBING CODE
2. THE STATE MECHANICAL CODE
3. THE STATE BUILDING CODE
4. APPLICABLE NFPA STANDARDS
5. APPLICABLE OSHA STANDARDS

PIPING SPECIFICATIONS

UNDERGROUND SANITARY SEWER AND VENT PIPING

PVC PIPE: SCHEDULE 40, DWV, PVC PLASTIC, ASTM D1785 AND ASTM D2665.

PVC FITTINGS: PVC PLASTIC SOCKET FITTINGS, ASTM D 2665, MADE TO ASTM D3311 DRAIN, WASTE, AND VENT PATTERNS.

PVC SOLVENT CEMENT: ASTM D 2564. INCLUDE PRIMER ACCORDING TO ASTM F 656.

ABOVEGROUND SANITARY SEWER AND VENT PIPING

CAST IRON HUBLESS PIPE AND FITTINGS: ASTM A 888 OR CISPI 301. COUPLINGS SHALL BE TYPE 304 STAINLESS STEEL SHIELDED COUPLINGS, ASTM C 1277 OR CISPI 310, WITH TYPE 304 STAINLESS STEEL SHIELD, STAINLESS STEEL BANDS, AND ASTM C 564 RUBBER SLEEVE WITH INTEGRAL CENTER PIPE STOP. FOR UNDERGROUND SERVICE OR OTHERWISE NOTED, PROVIDE HEAVY-DUTY TYPE 304 STAINLESS STEEL SHIELDED COUPLINGS, ASTM C 1540, SUITABLE FOR UNDERGROUND INSTALLATION. INSTALL COUPLINGS ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

LEAK TESTS: THE PIPING OF THE PLUMBING, DRAINAGE, AND VENT SYSTEMS SHALL BE TESTED WITH WATER OR AIR. THE TESTS SHALL BE PER THE PLUMBING CODE AND THE AUTHORITIES HAVING JURISDICTION. AFTER THE PLUMBING FIXTURES HAVE BEEN SET AND THEIR TRAPS FILLED WITH WATER, THEY SHALL BE SUBMITTED TO A FINAL TEST.

DOMESTIC WATER PIPING

PIPING: HARD COPPER TUBE, TYPE L, ASTM B88, HARD DRAWN TEMPER.

FITTINGS: ASME B16.18, CAST-COPPER-ALLOY OR ASME B16.22, WROUGHT-COPPER, SOLDER-JOINT FITTINGS.

UNIONS: ASME B16.18, CAST COPPER-ALLOY BODY, HEXAGONAL STOCK, WITH BALL AND SOCKET JOINT, METAL-TO-METAL SEATING SURFACES, AND SOLDER JOINT ENDS.

BRONZE FLANGES: ASME B16.24, CLASS 150, WITH SOLDER-JOINT ENDS. FURNISH CLASS 300 FLANGES IF REQUIRED TO MATCH PIPING.
DIELECTRIC UNIONS AND FLANGES: JOIN PIPING OF DISIMILAR MATERIALS WITH DIELECTRIC UNIONS OR FLANGES TO PROTECT AGAINST GALVANIC AND STRAY CURRENT CORROSION. DIELECTRIC UNIONS SHALL BE RATED FOR 250 PSI, ANSI B 16.39. FLANGES SHALL BE RATED FOR 175 PSI, ANSI B16.42 OR B16.24. THE BODY AND NUT SHALL BE STEEL WITH GALVANIZED COAT, THE INSULATOR SHALL BE NYLON, THE TAILPIECE SHALL BE BRASS, AND THE GASKETS SHALL BE EPDM (STANDARD) OR VITON (HIGH TEMP.). WILKINS MODEL DU, DUC, OR DUM OR EQUAL.

Y-PATTERN STRAINERS, NPS 2" AND SMALLER: 250 LB., CAST BRONZE ASTM B62, BRASS SCREEN RETAINER, COPPER GASKET, 20 MESH TYPE 304 STAINLESS STEEL SCREEN, AND THREADED OR SOLDERED CONNECTIONS. MUELLER STEAM SPECIALTY MODEL 352M AND 358S.

VALVES, NPS 2" AND SMALLER: LEAD FREE BALL VALVE, 600 PSI CWP, TWO-PIECE CONSTRUCTION WITH LEAD FREE BRONZE BODY CONFORMING TO ASTM C89836, STANDARD PORT, CHROME-PLATED LEAD FREE BRASS BALL, REPLACEABLE RPTFE SEATS, BLOWOUT PROOF LEAD FREE BRASS STEM, VINYL-COVERED STEEL HANDLE, AND SOLDER ENDS. MSS SP-110; ANSI/NSF 61-8 2008. VALVES SHALL HAVE STAINLESS STEEL STEM EXTENSIONS WHERE REQUIRED TO ALLOW FOR PROPER INSTALLATION OF INSULATION. APOLLO 70LF-200 OR EQUAL.

WATER HAMMER ARRESTORS: EQUAL TO ZURN MODEL Z-1700 SHOKTROL WATER HAMMER ARRESTORS WITH NESTING TYPE BELLOWS CONTAINED WITHIN A CASING HAVING SUFFICIENT DISPLACEMENT VOLUME TO DISSIPATE THE CALCULATED KINETIC ENERGY GENERATED IN THE PIPING SYSTEM. CASING AND BELLOWS CONSTRUCTED OF TYPE 304 STAINLESS STEEL. SIZES SHALL BE NOTED ON THE DRAWINGS.

SOLDERED JOINTS: USE ASTM B 813, WATER-FLUSHABLE, LEAD-FREE FLUX; ASTM B 32, LEAD-FREE-ALLOY SOLDER; AND ASTM B 828 PROCEDURE, UNLESS OTHERWISE INDICATED.

BRAZING FILLER METALS: AWS A5.8, BCUP SERIES, COPPER-PHOSPHORUS ALLOYS FOR GENERAL-DUTY BRAZING, UNLESS OTHERWISE INDICATED.

INSULATION: INSULATE ALL DOMESTIC WATER PIPING WITH ½ -INCH THICK FOR PIPING 1 ½-INCHES DIAMETER AND SMALLER AND 1-INCH THICK FOR PIPING 2-INCHES DIAMETER AND LARGER FLEXIBLE ELASTOMERIC EXPANDED CLOSED CELL THERMAL INSULATION, ASTM C534, TYPE 1-TUBULAR. FLAME SPREAD 25/SMOKE DEVELOPED 50 IN ACCORDANCE WITH ASTM E84. ARMACELL AP ARMAFLEX PIPE INSULATION AND ARMAFLEX 520 ADHESIVE. INSTALL ACCORDING TO INSULATION MANUFACTURER'S WRITTEN INSTRUCTIONS.

LEAK TESTS: UPON COMPLETION OF A SECTION OR OF THE ENTIRE HOT AND COLD WATER SYSTEM, IT SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE UNDER WHICH IT IS USED. THE WATER USED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY. A 50 PSIG AIR PRESSURE TEST MAY BE SUBSTITUTED FOR THE WATER TEST. IN EITHER METHOD OF TESTING, THE PIPING SHALL WITHSTAND THE TEST WITHOUT LEAKING FOR A PERIOD OF NOT LESS THAN 15 MINUTES. REPAIR ALL LEAKS AS REQUIRED.

FLUSHING AND DISINFECTION OF POTABLE WATER SYSTEMS: NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE THOROUGHLY FLUSHED AND DISINFECTED PRIOR TO USE WHENEVER REQUIRED BY THE ADMINISTRATIVE AUTHORITY. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY, OR, IN CASE NO METHOD IS PRESCRIBED, PER THE STATE PLUMBING CODE REQUIREMENTS. CONTRACTOR SHALL PERFORM WATER SAMPLE BACTERIA TEST AT THE END OF THE PROJECT AND PROVIDE RESULTS TO THE OWNER'S REPRESENTATIVE.

PIPE SUPPORTS

CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED HANGERS, SUPPORTS, ANCHORS, FASTENERS, FITTINGS, ACCESSORIES, AND HARDWARE AS NECESSARY FOR THE COMPLETE INSTALLATION OF PLUMBING WORK. COMPLY WITH MSS-SP-58. CARBON STEEL PIPE HANGERS SHALL HAVE GALVANIZED METAL COATING, CONTINUOUS THREAD HANGER RODS, AND CARBON STEEL NUTS AND WASHERS. COPPER PIPE HANGERS SHALL HAVE COPPER-COATED STEEL.

PROVIDE PRODUCTS LISTED, CLASSIFIED, AND LABELED AS SUITABLE FOR THE PURPOSE INTENDED, WHERE APPLICABLE. CONTRACTOR SHALL TAKE SEISMIC REQUIREMENTS INTO CONSIDERATION WHILE SELECTING PRODUCTS. SEE SEISMIC SPECIFICATIONS BELOW.

WHERE SUPPORT AND ATTACHMENT COMPONENT TYPES AND SIZES ARE NOT INDICATED, SELECT IN ACCORDANCE WITH MANUFACTURER'S APPLICATION CRITERIA AS REQUIRED FOR THE LOAD TO BE SUPPORTED. INCLUDE CONSIDERATION FOR VIBRATION, EQUIPMENT OPERATION, AND SEISMIC/SHOCK LOADS WHERE APPLICABLE. INSTALL BUILDING ATTACHMENTS TO STRUCTURAL STEEL.

DO NOT USE WIRE, CHAIN, PERFORATED PIPE STRAP, OR WOOD FOR PERMANENT SUPPORTS UNLESS SPECIFICALLY INDICATED OR PERMITTED.

ALL STRUCTURAL STEEL COMPONENTS SHALL COMPLY WITH ASTM A992.

ALL WELDS SHALL BE BY A CERTIFIED WELDER PER AWS CODES.

SUPPORT SPACING SHALL NOT EXCEED 8'-0" OR PER MECHANICAL CODE LIMITATIONS, WHICHEVER IS MORE STRINGENT.

PIPE IDENTIFICATION

ALL NEW PIPING SYSTEMS SHALL BE LABELED WITH MANUFACTURED PIPE MARKERS NOTING UTILITY SERVICE AND FLOW DIRECTION. COMPLY WITH ASME A13.1, "SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS," FOR LETTER SIZE, LENGTH OF COLOR FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION DEVICES FOR PIPING.

FIRE SEALANTS

ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS SHALL BE SEALED PROPERLY IN ORDER TO MAINTAIN THE INTEGRITY OF THE RATED SYSTEM.

SEISMIC SPECIFICATIONS

SEISMIC RESTRAINTS: CONTRACTOR SHALL PROVIDE AND INSTALL ALL PIPING AND EQUIPMENT WITH SEISMIC RESTRAINTS AS REQUIRED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE WITH INDIANA AMENDMENTS AND ASCE STANDARD ASCE 7. SEISMIC DESIGN CATEGORY D.

SEISMIC RESTRAINT REFERENCE GUIDELINES: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FEMA 414 - INSTALLING SEISMIC RESTRAINTS FOR DUCTWORK AND PIPING - DECEMBER 2004; FEMA 412 - INSTALLING SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT - DECEMBER 2002; SMACNA - SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS - THIRD EDITION, 2008.

PLUMBING FIXTURE SPECIFICATIONS

FLOOR DRAIN, FD: EQUAL TO ZURN FLOOR DRAIN, MODEL NO. ZN415S-NL, WITH DURA-COATED CAST IRON BODY WITH 3-INCH BOTTOM NEO-LOC OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND "TYPE S" SQUARE POLISHED NICKEL BRONZE, LIGHT-DUTY STRAINER. QUANTITY FIVE (5).

LAVATORY, LAV: EQUAL TO AMERICAN STANDARD, MODEL NO. 0355.012, "LUCERNE" WALL-HUNG VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW, D-SHAPED BOWL, SELF-DRAINING DECK AREA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE, FAUCET HOLES ON 4-INCH CENTERS, CONCEALED ARMS SUPPORT, 20-1/2" x 18-1/4" NOMINAL DIMENSIONS, ADA COMPLIANT, AND CONFORMS TO ASME A112.19.2. PROVIDE ZURN MODEL NO. Z1231, LAVATORY SUPPORT SYSTEM WITH 250 LBS. CAPACITY COMPLETE WITH DURA-COATED RECTANGULAR STEEL UPRIGHTS WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, CONCEALED ARMS, STEEL SLEEVES, ALIGNMENT TRUSS, AND MOUNTING FASTENERS. FAUCET SHALL BE EQUAL TO CHICAGO FAUCET, MODEL NO. 895-317GN2AE72ABCP, DECK MOUNTED MANUAL SINK FAUCET WITH 4-INCH FIXED CENTERS, 5-1/4" RIGID / SWING GOOSENECK SPOUT, 0.5 GPM NON-AERATING LAMINAR OUTLET, 4-INCH VANDAL PROOF WRIST BLADE HANDLES, QUATURN COMPRESSION OPERATING CARTRIDGE, 1/2-INCH NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8-INCH FLEXIBLE RISERS, TOTAL LEAD CONTENT EQUAL TO OR LESS THAN 0.25% BY WEIGHTED AVERAGE, ASME A112.18.1 COMPLIANT, CERTIFIED NSF 61, AND ADA COMPLIANT. PROVIDE CHROME PLATED CAST BRASS P-TRAP, CHROME PLATED CAST BRASS ANGLE SUPPLY STOPS, AND TRUBRO LAV GUARD 2 FAST-FIT UNDER SINK PIPE COVERS, MODEL 102 EZ. ADA; ASME A 112.19.2. CONTRACTOR SHALL INSTALL LAVATORY TIGHT TO WALL AND SEAL WITH WATERPROOF SEALANT WHERE LAVATORY MEETS WALL TO PREVENT LEAKS. QUANTITY FOUR (4). PROVIDE FAUCET ONLY FOR TWO (2) EXISTING LAVATORIES TO REMAIN.

WATER CLOSET, WC: EQUAL TO AMERICAN STANDARD, MODEL NO. 2257.101, "AFWALL" MILLENNIUM FLO-WISE ELONGATED FLUSHOMETER WALL-MOUNTED TOILET, WITH 1-1/2" INLET TOP SPUD INLET. PROVIDE SLOAN ROYAL 111 (1.6 GALLON) FLUSH VALVE. PROVIDE INJECTION MOLDED SOLID POLYPROPYLENE HEAVY DUTY OPEN FRONT SEAT LESS COVER. PROVIDE AND INSTALL APPROPRIATE ADJUSTABLE, VERTICAL SIPHON JET WATER CLOSET CARRIER WITH 4-INCH NO-HUB CONNECTIONS COMPLETE WITH DURA-COATED CAST IRON RIGHT HAND, LEFT HAND, OR DOUBLE MAIN FITTING WITH 2-INCH VENT, ADJUSTABLE GASKETED FACEPLATE, UNIVERSAL FLOOR MOUNTED FOOT SUPPORTS, CORROSION RESISTANT ADJUSTABLE ABS COUPLING WITH INTEGRAL TEST CAP, FIXTURE BOLTS, TRIM, STUD PROTECTORS, REAR ANCHOR TIE DOWN, AND BONDED NEO-SEAL GASKET. QUANTITY FOUR (4). PROVIDE FLUSH VALVE ONLY FOR TWO (2) EXISTING WATER CLOSETS TO REMAIN.

SINK, SK-1: EQUAL TO JUST ARMOR GROUP LEDGE TYPE SINGLE COMPARTMENT DEEP STAINLESS STEEL SINK, MODEL NO. SLX-2019-16-GR, WITH SEAMLESS DIE-DRAWN CONSTRUCTION OF 16 GA. TYPE 304 STAINLESS STEEL, INTERIOR AND TOP SURFACES POLISHED TO A NON-POROUS HAND BLENDED FINISH, FULLY COATED UNDERSIDE FOR SOUND AND CONDENSATION CONTROL, STRAIGHT-SIDED COMPARTMENT WITH 1-3/4" RADIUS CORNERS, SELF-RIMMING TOP MOUNT WITH GRIP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS, DRAIN PUNCHED FOR JUST J-35-SSF DRAIN, AND THREE (3) HOLES ON 4-INCH CENTERS. 20" x 19" OVERALL DIMENSIONS AND 14" x 16" x 10-1/2" DEEP BOWL DIMENSIONS. FAUCET SHALL BE CHICAGO FAUCET DECK MOUNTED MANUAL SINK FAUCET, MODEL NO. 786-GN8AE72ABCP, WITH 8-INCH FIXED CENTERS, 8-INCH RIGID / SWING GOOSENECK SPOUT, 0.5 GPM NON-AERATING LAMINAR OUTLET, 4-INCH VANDAL PROOF WRIST BLADE HANDLES, QUATURN COMPRESSION OPERATING CARTRIDGE, 1/2-INCH NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8-INCH FLEXIBLE RISERS, TOTAL LEAD CONTENT EQUAL TO OR LESS THAN 0.25% BY WEIGHTED AVERAGE, ASME A112.18.1 COMPLIANT, CERTIFIED NSF 61, AND ADA COMPLIANT. PROVIDE CHROME PLATED CAST BRASS P-TRAP AND CHROME PLATED CAST BRASS ANGLE SUPPLY STOPS. QUANTITY ONE (1).

SINK, SK-2: EQUAL TO JUST DOUBLE COMPARTMENT DEEP STAINLESS STEEL SINK, MODEL NO. DLX-1933A-J, WITH SEAMLESS DIE-DRAWN CONSTRUCTION OF 16 GA. TYPE 304 STAINLESS STEEL, INTERIOR AND TOP SURFACES POLISHED TO A NON-POROUS HAND BLENDED FINISH, FULLY COATED UNDERSIDE FOR SOUND AND CONDENSATION CONTROL, STRAIGHT-SIDED COMPARTMENT WITH 1-3/4" RADIUS CORNERS, SELF-RIMMING TOP MOUNT WITH GRIP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS, DRAIN PUNCHED FOR JUST J-35-SSF DRAIN, AND THREE (3) HOLES ON 4-INCH CENTERS. 33" x 19" OVERALL DIMENSIONS AND 14" x 14" x 10" DEEP BOWL DIMENSIONS. FAUCET SHALL BE CHICAGO FAUCET DECK MOUNTED MANUAL SINK FAUCET, MODEL NO. 786-GN8AE72ABCP, WITH 8-INCH FIXED CENTERS, 8-INCH RIGID / SWING GOOSENECK SPOUT, 0.5 GPM NON-AERATING LAMINAR OUTLET, 4-INCH VANDAL PROOF WRIST BLADE HANDLES, QUATURN COMPRESSION OPERATING CARTRIDGE, 1/2-INCH NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8-INCH FLEXIBLE RISERS, TOTAL LEAD CONTENT EQUAL TO OR LESS THAN 0.25% BY WEIGHTED AVERAGE, ASME A112.18.1 COMPLIANT, CERTIFIED NSF 61, AND ADA COMPLIANT. PROVIDE CHROME PLATED CAST BRASS P-TRAP AND CHROME PLATED CAST BRASS ANGLE SUPPLY STOPS. QUANTITY ONE (1).

SINK, SK-3: EQUAL TO JUST DROP-IN LEDGE TYPE SINGLE COMPARTMENT STAINLESS STEEL SINK, MODEL NO. SL1613A-J, WITH SEAMLESS DIE-DRAWN CONSTRUCTION OF 16 GA. TYPE 304 STAINLESS STEEL, INTERIOR AND TOP SURFACES POLISHED TO A NON-POROUS HAND BLENDED FINISH, FULLY COATED UNDERSIDE FOR SOUND AND CONDENSATION CONTROL, STRAIGHT-SIDED COMPARTMENT WITH 1-3/4" RADIUS CORNERS, SELF-RIMMING TOP MOUNT WITH GRIP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS, DRAIN PUNCHED FOR JUST J-35-SSF DRAIN, AND ONE (1) HOLE CENTERED. 13" x 16" OVERALL DIMENSIONS AND 10" x 10" x 7-5/8" DEEP BOWL DIMENSIONS. FAUCET SHALL BE CHICAGO FAUCET DECK MOUNTED MANUAL SINK FAUCET, MODEL NO. 430-ABCP, WITH 8-INCH RIGID / SWING GOOSENECK SPOUT, 1.5 GPM NON-AERATING LAMINAR OUTLET, VANDAL PROOF LEVER HANDLE, 1/2-INCH NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8-INCH FLEXIBLE RISERS, TOTAL LEAD CONTENT EQUAL TO OR LESS THAN 0.25% BY WEIGHTED AVERAGE, ASME A112.18.1 COMPLIANT, CERTIFIED NSF 61, AND ADA COMPLIANT. PROVIDE CHROME PLATED CAST BRASS P-TRAP AND CHROME PLATED CAST BRASS ANGLE SUPPLY STOPS. QUANTITY ONE (1).

FLOOR CLEANOUT, CO: EQUAL TO ZURN, MODEL NO. Z1400-SZ, "LEVEL-TROL" SQUARE ADJUSTABLE LEVELING FLOOR CLEANOUT WITH DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS THREAD PLUG, 4-INCH NO-HUB OUTLET, AND ROUND SCORIATED SECURED LIGHT-DUTY TOP WITH SQUARE FRAME. QUANTITY ONE (1).

WALL CLEANOUT, WCO: EQUAL TO ZURN, MODEL NO. Z1441, WALL CLEANOUT WITH SMOOTH ACCESS COVER, CAST IRON BODY, AND WATERTIGHT ABS TAPERED THREAD PLUG. QUANTITY TWO (2).

FIRE PROTECTION SPECIFICATIONS

GENERAL

THE FIRE PROTECTION CONTRACTOR SHALL CAREFULLY EXAMINE ALL ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS PERTAINING TO THE CONSTRUCTION PRIOR TO FABRICATING AND INSTALLING THE WORK. THE FIRE PROTECTION CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS IN LOCATING SPRINKLER PIPING AND SPRINKLER HEADS IN ORDER TO AVOID CONFLICT WITH OTHER CONTRACTORS WORK.

ALL FIRE PROTECTION WORK SHALL CONFORM TO THE LATEST EDITION OF NFPA 13, "STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS" AND TO ALL STATE AND LOCAL BUILDING CODES, FIRE MARSHAL, AND INSURANCE UNDERWRITER REQUIREMENTS.

ALL MATERIALS SHALL BE PROVIDED BY THE FIRE PROTECTION CONTRACTOR UNLESS OTHERWISE NOTED.

INSURANCE UNDERWRITER INFORMATION (I.E. COVERAGE REQUIREMENTS, CONTACT PERSON) SHALL BE OBTAINED FROM THE OWNER.

OCCUPANCY AND HAZARD CLASSIFICATIONS AS WELL AS DENSITY/COVERAGE REQUIREMENTS SHALL BE APPROVED BY THE OWNER'S INSURANCE UNDERWRITER AS WELL AS THE AUTHORITIES HAVING JURISDICTION PRIOR TO THE INSTALLATION.

THE OCCUPANCY/HAZARD CLASSIFICATION AND DENSITY/COVERAGE REQUIREMENTS SHALL BE CLEARLY INDICATED ON THE BID.

THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS TO THE AUTHORITIES HAVING JURISDICTION FOR APPROVAL PRIOR TO THE INSTALLATION. IN ADDITION, THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES OF THE DESIGN DRAWINGS AND EQUIPMENT SUBMITTALS TO THREE I DESIGN FOR GENERAL REVIEW. AT PROJECT CLOSEOUT, CONTRACTOR SHALL SUBMIT "FOR RECORD" ELECTRONIC COPIES OF THE DESIGN DRAWINGS TO THE OWNER.

TENTATIVELY, THE SYSTEM SHALL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY WITH A DESIGN DENSITY PER THE INSURANCE CARRIER AND AUTHORITIES HAVING JURISDICTION REQUIREMENTS. SPRINKLER REQUIREMENTS SHALL BE MAXIMUM 225 SQUARE FOOT PER HEAD WITH MAXIMUM 15 FOOT SPACING USING 162 DEGREES F SEMI-RECESSED SPRINKLERS. THESE REQUIREMENTS SHALL BE CONFIRMED BY THE AUTHORITIES HAVING JURISDICTION AND THE INSURANCE UNDERWRITER PRIOR TO THE DESIGN.

THE SYSTEM(S) SHALL BE HYDRAULICALLY CALCULATED. FLOW INFORMATION AND DESIGN INFORMATION OF EXISTING SYSTEMS SHALL BE OBTAINED FROM THE OWNER.

UNLESS SHOWN OTHERWISE, EXACT PIPE ROUTING SHALL BE DETERMINED BY THE FIRE PROTECTION CONTRACTOR AND SHALL BE CLOSELY COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.

TENTATIVE HEAD LOCATIONS ARE SHOWN ON THE DRAWING(S) BASED ON THE ABOVE LISTED REQUIREMENTS AND IS FOR GUIDELINE PURPOSES ONLY. THE FIRE PROTECTION CONTRACTOR SHALL ADJUST QUANTITY AND LOCATIONS OF SPRINKLER HEADS AS REQUIRED TO MEET REQUIREMENTS. THE FIRE PROTECTION CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS WITH THE GENERAL CONTRACTOR PRIOR TO THE INSTALLATION. ALL SPRINKLER HEADS SHALL BE CENTERED IN SUSPENDED LAY-IN TYPE CEILING APPLICATIONS.

PROVIDE SEISMIC RESTRAINTS ON FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH NFPA 13.

THE FIRE PROTECTION CONTRACTOR SHALL INCLUDE COORDINATION AND INSTALLATION OF ALL REQUIRED ALARM DEVICES (I.E. FLOW SWITCHES, TAMPER SWITCHES, ETC.) INTO THE BUILDING ANNUNCIATOR PANEL AS DIRECTED BY THE OWNER. THE INSTALLATION SHALL CONFORM TO NFPA 13 REQUIREMENTS AS WELL AS ALL APPLICABLE ELECTRICAL CODES AND STANDARDS.

FIRE PROTECTION CONTRACTOR SHALL COORDINATE ALL SERVICE SHUTDOWNS AS WELL AS WORK SCHEDULES WITH THE OWNER PRIOR TO COMMENCING WITH THE WORK.

ALL UNDERGROUND UTILITIES SHALL BE VERIFIED FOR PIPE SIZE AND LOCATION PRIOR TO FABRICATING AND INSTALLING ANY NEW PIPING. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITIES OR BE GROUNDS FOR EXTRA CHARGES.

THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FULLY AWARE OF THE PROJECT CONDITIONS AND PARAMETERS PRIOR TO SUBMITTING THE BID.

SCOPE OF WORK

THE FIRE PROTECTION CONTRACTOR'S WORK SHALL INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:

1. RELOCATION OF EXISTING SPRINKLER HEADS DUE TO THE ASSOCIATED RENOVATION WORK. SEE REFLECTED CEILING PLANS ON SHEETS A7 THROUGH A8 FOR TENTATIVE SPRINKLER HEAD LOCATIONS.
2. ADDITION OF NEW SPRINKLER HEADS DUE TO THE ASSOCIATED RENOVATION WORK AS REQUIRED. SEE REFLECTED CEILING PLANS ON SHEETS A7 THROUGH A8 FOR TENTATIVE SPRINKLER HEAD LOCATIONS.

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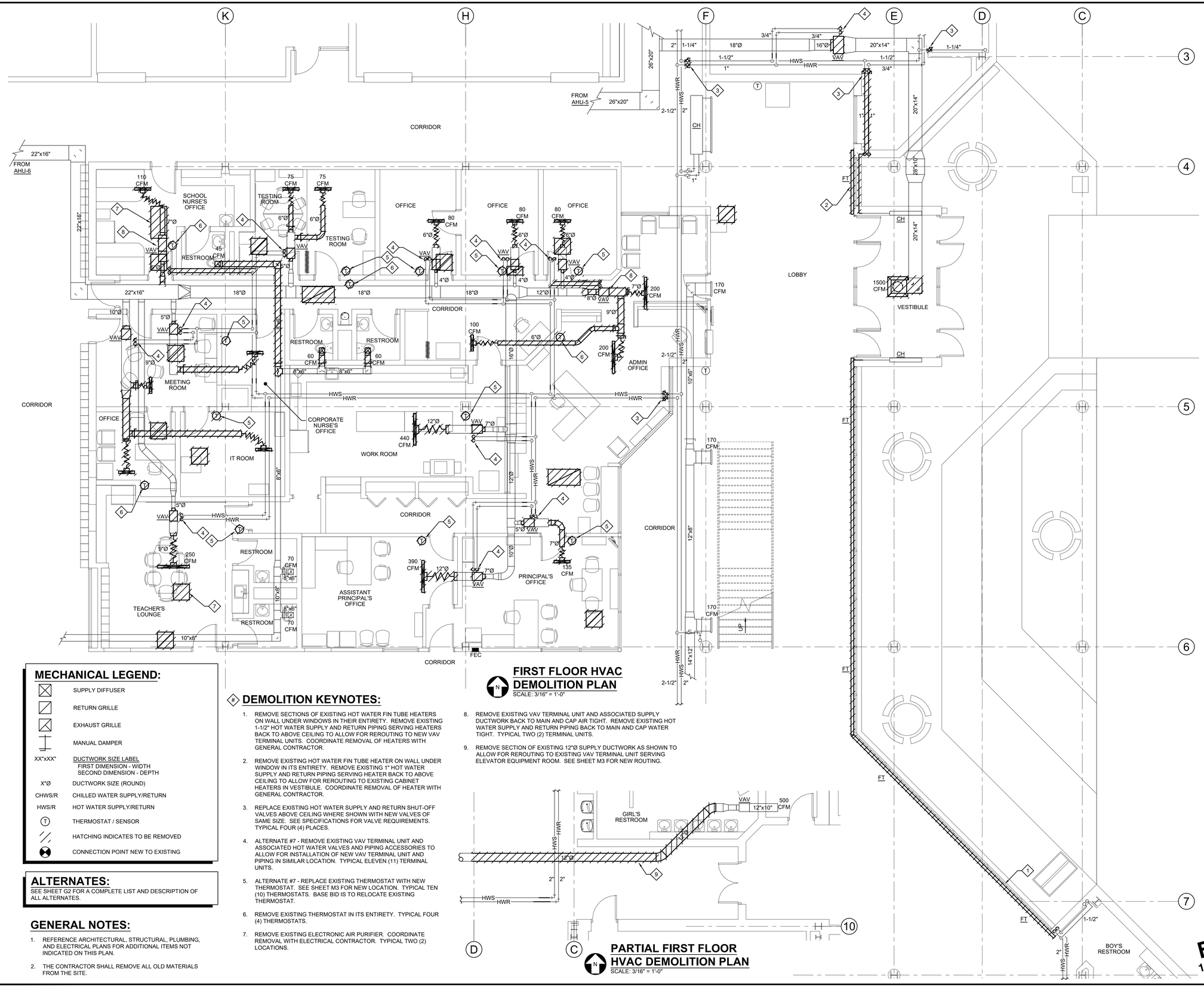
ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

PLUMBING AND FIRE PROTECTION SPECIFICATIONS

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23
SCALE: NONE	
PROJECT NUMBER: 22286A	
SHEET NO: P7	



FIRST FLOOR HVAC DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

MECHANICAL LEGEND:

- SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE
- MANUAL DAMPER
- XX"xXX" — DUCTWORK SIZE LABEL (FIRST DIMENSION - WIDTH; SECOND DIMENSION - DEPTH)
- X"Ø — DUCTWORK SIZE (ROUND)
- CHWS/R — CHILLED WATER SUPPLY/RETURN
- HWS/R — HOT WATER SUPPLY/RETURN
- (T) — THERMOSTAT / SENSOR
- HATCHING INDICATES TO BE REMOVED
- CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, PLUMBING, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

DEMOLITION KEYNOTES:

1. REMOVE SECTIONS OF EXISTING HOT WATER FIN TUBE HEATERS ON WALL UNDER WINDOWS IN THEIR ENTIRETY. REMOVE EXISTING 1-1/2" HOT WATER SUPPLY AND RETURN PIPING SERVING HEATERS BACK TO ABOVE CEILING TO ALLOW FOR REROUTING TO NEW VAV TERMINAL UNITS. COORDINATE REMOVAL OF HEATERS WITH GENERAL CONTRACTOR.
2. REMOVE EXISTING HOT WATER FIN TUBE HEATER ON WALL UNDER WINDOW IN ITS ENTIRETY. REMOVE EXISTING 1" HOT WATER SUPPLY AND RETURN PIPING SERVING HEATER BACK TO ABOVE CEILING TO ALLOW FOR REROUTING TO EXISTING CABINET HEATERS IN VESTIBULE. COORDINATE REMOVAL OF HEATER WITH GENERAL CONTRACTOR.
3. REPLACE EXISTING HOT WATER SUPPLY AND RETURN SHUT-OFF VALVES ABOVE CEILING WHERE SHOWN WITH NEW VALVES OF SAME SIZE. SEE SPECIFICATIONS FOR VALVE REQUIREMENTS. TYPICAL FOUR (4) PLACES.
4. ALTERNATE #7 - REMOVE EXISTING VAV TERMINAL UNIT AND ASSOCIATED HOT WATER VALVES AND PIPING ACCESSORIES TO ALLOW FOR INSTALLATION OF NEW VAV TERMINAL UNIT AND PIPING IN SIMILAR LOCATION. TYPICAL ELEVEN (11) TERMINAL UNITS.
5. ALTERNATE #7 - REPLACE EXISTING THERMOSTAT WITH NEW THERMOSTAT. SEE SHEET M3 FOR NEW LOCATION. TYPICAL TEN (10) THERMOSTATS. BASE BID IS TO RELOCATE EXISTING THERMOSTAT.
6. REMOVE EXISTING THERMOSTAT IN ITS ENTIRETY. TYPICAL FOUR (4) THERMOSTATS.
7. REMOVE EXISTING ELECTRONIC AIR PURIFIER. COORDINATE REMOVAL WITH ELECTRICAL CONTRACTOR. TYPICAL TWO (2) LOCATIONS.
8. REMOVE EXISTING VAV TERMINAL UNIT AND ASSOCIATED SUPPLY DUCTWORK BACK TO MAIN AND CAP AIR TIGHT. REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING BACK TO MAIN AND CAP WATER TIGHT. TYPICAL TWO (2) TERMINAL UNITS.
9. REMOVE SECTION OF EXISTING 12"Ø SUPPLY DUCTWORK AS SHOWN TO ALLOW FOR REROUTING TO EXISTING VAV TERMINAL UNIT SERVING ELEVATOR EQUIPMENT ROOM. SEE SHEET M3 FOR NEW ROUTING.

PARTIAL FIRST FLOOR HVAC DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

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D	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

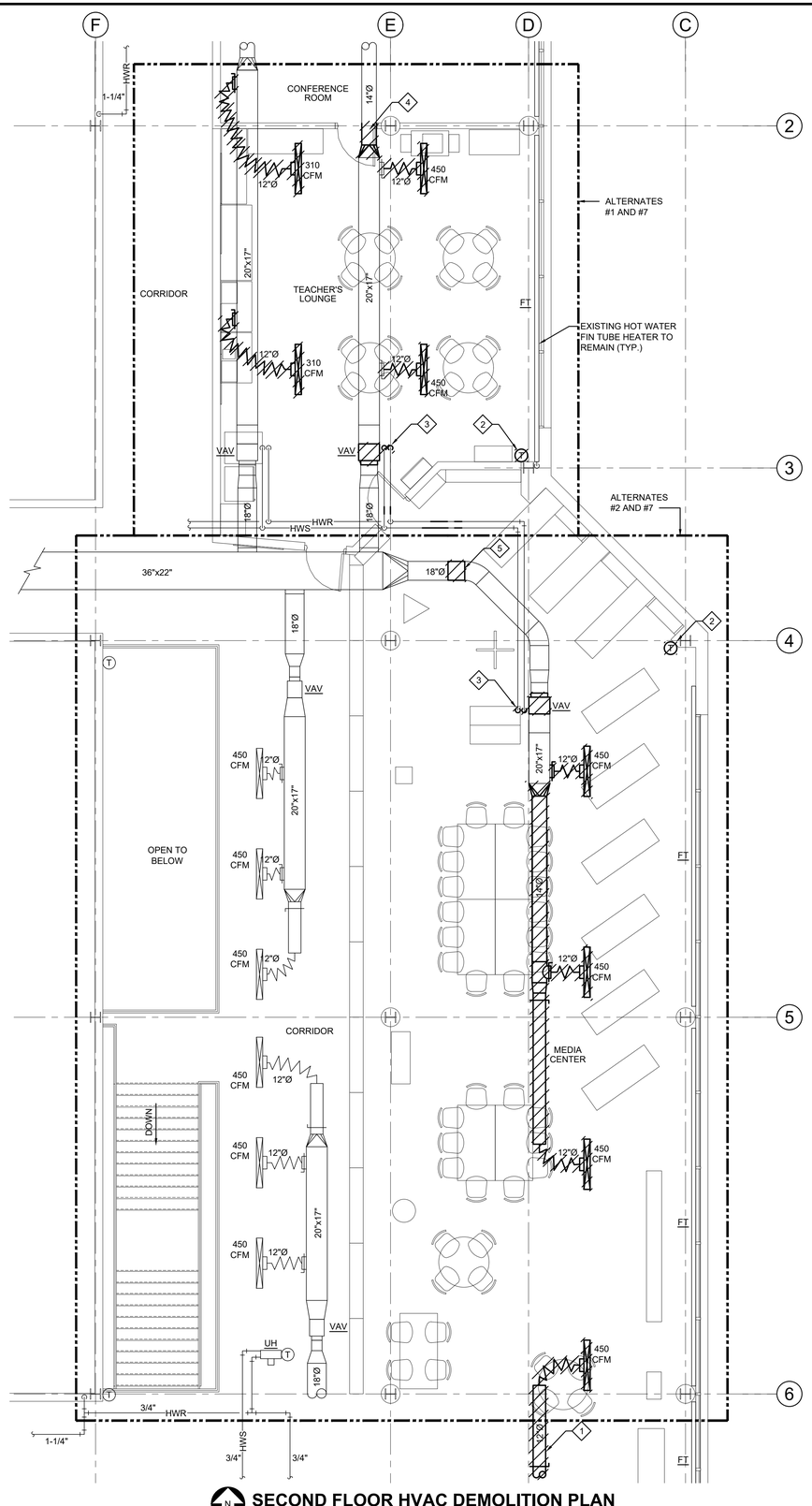
FIRST FLOOR
HVAC DEMOLITION PLAN

DRAWN BY:	DESIGNED BY:
RTN	RTN
CHECKED BY:	DATE:
BWW	05/02/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: M1



SECOND FLOOR HVAC DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

MECHANICAL LEGEND:

	SUPPLY DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
	MANUAL DAMPER
XX"xXX"	DUCTWORK SIZE LABEL FIRST DIMENSION - WIDTH SECOND DIMENSION - DEPTH
X"Ø	DUCTWORK SIZE (ROUND)
CHWS/R	CHILLED WATER SUPPLY/RETURN
HWS/R	HOT WATER SUPPLY/RETURN
T	THERMOSTAT / SENSOR
	HATCHING INDICATES TO BE REMOVED
	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, PLUMBING, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

DEMOLITION KEYNOTES:

1. ALTERNATE #2 - REMOVE EXISTING SLOT DIFFUSER AND ASSOCIATED 12"Ø BRANCH DUCTWORK BACK TO MAIN AND CAP AIR TIGHT.
2. ALTERNATES #1, #2, AND #7 - REPLACE EXISTING THERMOSTAT WITH NEW THERMOSTAT. SEE SHEET M4 FOR NEW LOCATION. TYPICAL TWO (2) THERMOSTATS. BASE BID IS TO RELOCATE EXISTING THERMOSTAT.
3. ALTERNATES #1, #2, AND #7 - REMOVE EXISTING VAV TERMINAL UNIT AND ASSOCIATED HOT WATER PIPING ACCESSORIES TO ALLOW FOR INSTALLATION OF NEW VAV TERMINAL UNIT AND PIPING IN SIMILAR LOCATION. TYPICAL TWO (2) TERMINAL UNITS.
4. ALTERNATE #1 - REMOVE SECTION OF EXISTING SUPPLY DUCTWORK WHERE SHOWN TO ALLOW FOR CONNECTION TO EXISTING CONFERENCE ROOM TERMINAL UNIT SUPPLY DUCTWORK.
5. ALTERNATE #2 - REMOVE SECTION OF EXISTING 18"Ø SUPPLY DUCTWORK WHERE SHOWN TO ALLOW FOR INSTALLATION OF NEW VAV TERMINAL UNIT.

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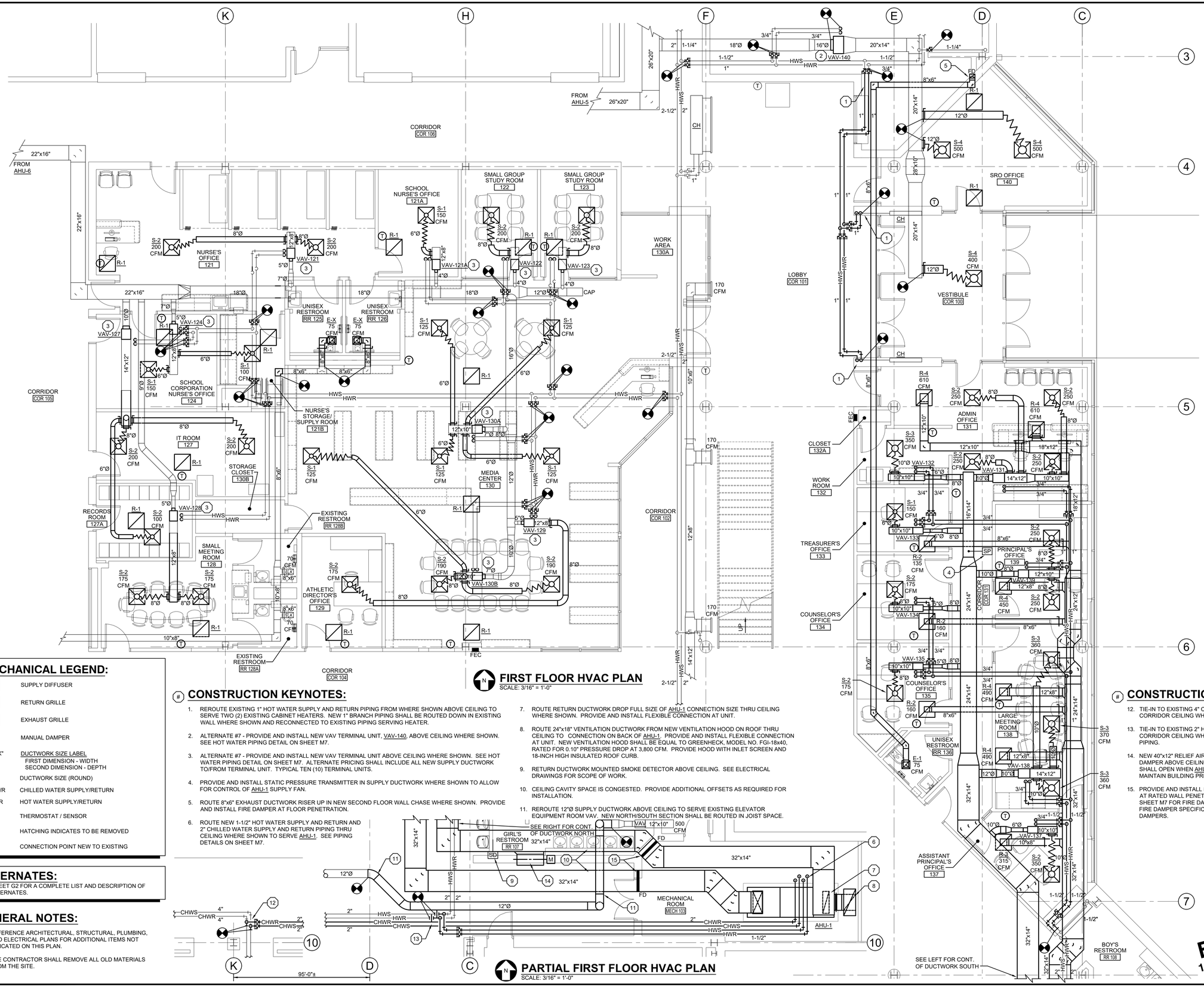
CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR
HVAC DEMOLITION PLAN

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: M2	



MECHANICAL LEGEND:

- SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE
- MANUAL DAMPER
- XX"xXX" — DUCTWORK SIZE LABEL (FIRST DIMENSION - WIDTH; SECOND DIMENSION - DEPTH)
- X"Ø — DUCTWORK SIZE (ROUND)
- CHWS/R — CHILLED WATER SUPPLY/RETURN
- HWS/R — HOT WATER SUPPLY/RETURN
- (T) — THERMOSTAT / SENSOR
- HATCHING INDICATES TO BE REMOVED
- CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, PLUMBING, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

FIRST FLOOR HVAC PLAN

SCALE: 3/16" = 1'-0"

CONSTRUCTION KEYNOTES:

1. REROUTE EXISTING 1" HOT WATER SUPPLY AND RETURN PIPING FROM WHERE SHOWN ABOVE CEILING TO SERVE TWO (2) EXISTING CABINET HEATERS. NEW 1" BRANCH PIPING SHALL BE ROUTED DOWN IN EXISTING WALL WHERE SHOWN AND RECONNECTED TO EXISTING PIPING SERVING HEATER.
2. ALTERNATE #7 - PROVIDE AND INSTALL NEW VAV TERMINAL UNIT, VAV-140, ABOVE CEILING WHERE SHOWN. SEE HOT WATER PIPING DETAIL ON SHEET M7.
3. ALTERNATE #7 - PROVIDE AND INSTALL NEW VAV TERMINAL UNIT ABOVE CEILING WHERE SHOWN. SEE HOT WATER PIPING DETAIL ON SHEET M7. ALTERNATE PRICING SHALL INCLUDE ALL NEW SUPPLY DUCTWORK TO/FROM TERMINAL UNIT. TYPICAL TEN (10) TERMINAL UNITS.
4. PROVIDE AND INSTALL STATIC PRESSURE TRANSMITTER IN SUPPLY DUCTWORK WHERE SHOWN TO ALLOW FOR CONTROL OF AHU-1 SUPPLY FAN.
5. ROUTE 8"x6" EXHAUST DUCTWORK RISER UP IN NEW SECOND FLOOR WALL CHASE WHERE SHOWN. PROVIDE AND INSTALL FIRE DAMPER AT FLOOR PENETRATION.
6. ROUTE NEW 1-1/2" HOT WATER SUPPLY AND RETURN AND 2" CHILLED WATER SUPPLY AND RETURN PIPING THRU CEILING WHERE SHOWN TO SERVE AHU-1. SEE PIPING DETAILS ON SHEET M7.
7. ROUTE RETURN DUCTWORK DROP FULL SIZE OF AHU-1 CONNECTION SIZE THRU CEILING WHERE SHOWN. PROVIDE AND INSTALL FLEXIBLE CONNECTION AT UNIT.
8. ROUTE 24"x18" VENTILATION DUCTWORK FROM NEW VENTILATION HOOD ON ROOF THRU CEILING TO CONNECTION ON BACK OF AHU-1. PROVIDE AND INSTALL FLEXIBLE CONNECTION AT UNIT. NEW VENTILATION HOOD SHALL BE EQUAL TO GREENHECK, MODEL NO. FGI-18x40, RATED FOR 0.10" PRESSURE DROP AT 3,800 CFM. PROVIDE HOOD WITH INLET SCREEN AND 18-INCH HIGH INSULATED ROOF CURB.
9. RETURN DUCTWORK MOUNTED SMOKE DETECTOR ABOVE CEILING. SEE ELECTRICAL DRAWINGS FOR SCOPE OF WORK.
10. CEILING CAVITY SPACE IS CONGESTED. PROVIDE ADDITIONAL OFFSETS AS REQUIRED FOR INSTALLATION.
11. REROUTE 12"Ø SUPPLY DUCTWORK ABOVE CEILING TO SERVE EXISTING ELEVATOR EQUIPMENT ROOM VAV. NEW NORTH/SOUTH SECTION SHALL BE ROUTED IN JOIST SPACE.

PARTIAL FIRST FLOOR HVAC PLAN

SCALE: 3/16" = 1'-0"

CONSTRUCTION KEYNOTES:

12. TIE-IN TO EXISTING 4" CHILLED WATER PIPING ABOVE CORRIDOR CEILING WHERE SHOWN WITH NEW 2" PIPING.
13. TIE-IN TO EXISTING 2" HOT WATER PIPING ABOVE CORRIDOR CEILING WHERE SHOWN WITH NEW 1-1/2" PIPING.
14. NEW 40"x12" RELIEF AIR DUCTWORK AND CONTROL DAMPER ABOVE CEILING WHERE SHOWN. DAMPER SHALL OPEN WHEN AHU-1 IS IN ECONOMIZER MODE TO MAINTAIN BUILDING PRESSURIZATION SETPOINT.
15. PROVIDE AND INSTALL NEW FIRE DAMPER IN DUCTWORK AT RATED WALL PENETRATION WHERE SHOWN. SEE SHEET M7 FOR FIRE DAMPER DETAIL AND SHEET M8 FOR FIRE DAMPER SPECIFICATIONS. TYPICAL TWO (2) DAMPERS.

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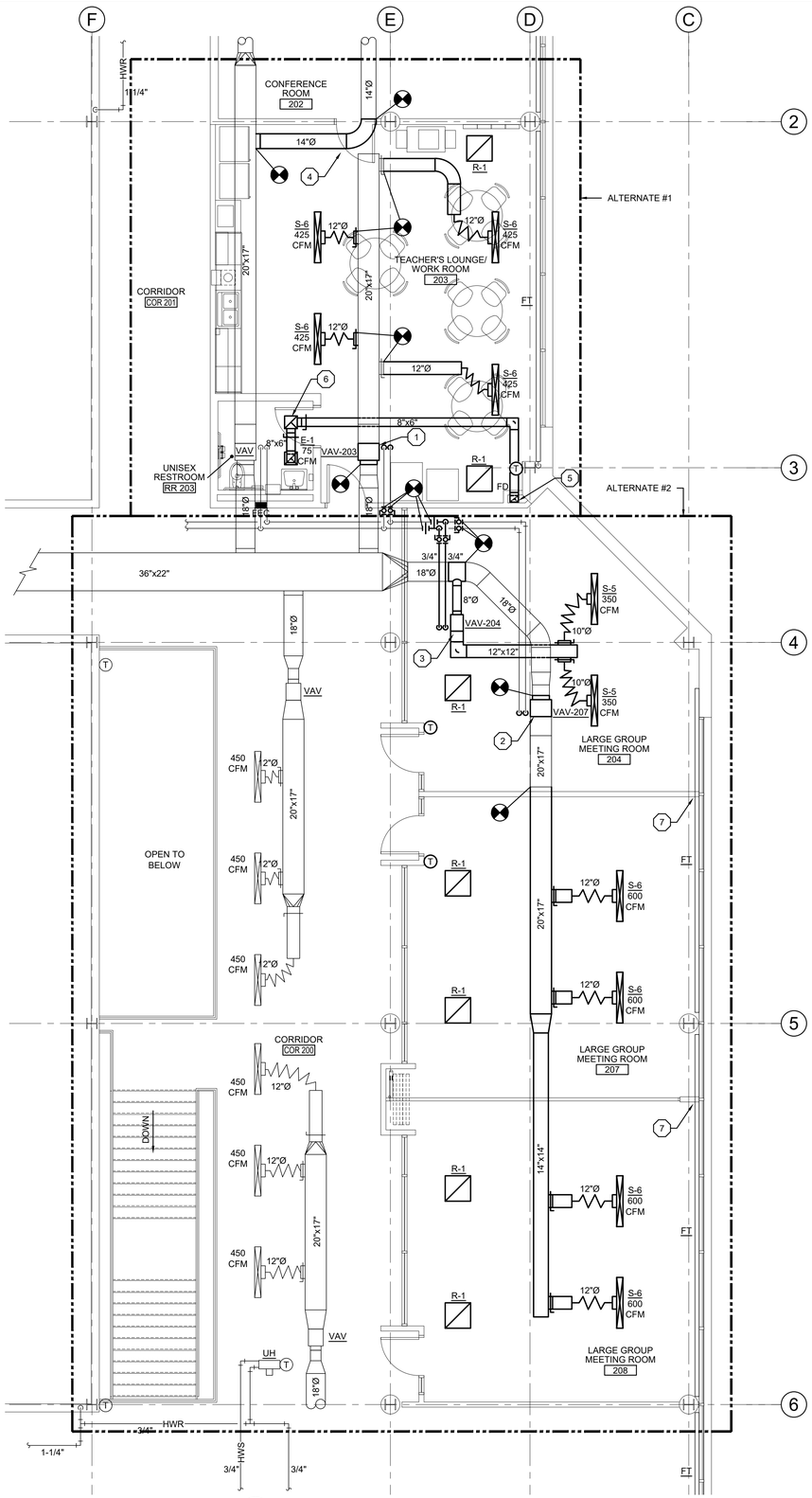
ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST FLOOR HVAC PLAN

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: M3	44 of 58



SECOND FLOOR HVAC PLAN

SCALE: 3/16" = 1'-0"

MECHANICAL LEGEND:

	SUPPLY DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
	MANUAL DAMPER
XX"xXX"	DUCTWORK SIZE LABEL FIRST DIMENSION - WIDTH SECOND DIMENSION - DEPTH
X"Ø	DUCTWORK SIZE (ROUND)
CHWS/R	CHILLED WATER SUPPLY/RETURN
HWS/R	HOT WATER SUPPLY/RETURN
T	THERMOSTAT / SENSOR
	HATCHING INDICATES TO BE REMOVED
	CONNECTION POINT NEW TO EXISTING

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL, STRUCTURAL, PLUMBING, AND ELECTRICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
2. THE CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE.

(#) CONSTRUCTION KEYNOTES:

1. ALTERNATES #1 AND #7 - PROVIDE AND INSTALL NEW VAV TERMINAL UNIT, VAV-203, ABOVE CEILING WHERE SHOWN. SEE HOT WATER PIPING DETAIL ON SHEET M7.
2. ALTERNATES #2 AND #7 - PROVIDE AND INSTALL NEW VAV TERMINAL UNIT, VAV-207, ABOVE CEILING WHERE SHOWN. SEE HOT WATER PIPING DETAIL ON SHEET M7.
3. ALTERNATE #2 - PROVIDE AND INSTALL NEW VAV TERMINAL UNIT, VAV-204, ABOVE CEILING WHERE SHOWN. SEE HOT WATER PIPING DETAIL ON SHEET M7.
4. ALTERNATE #1 - ROUTE NEW 14"Ø SUPPLY DUCTWORK BRANCH AS SHOWN TO SERVE "CONFERENCE ROOM 202" WITH EXISTING VAV TERMINAL UNIT.
5. ROUTE 8"x6" EXHAUST DUCTWORK DROP DOWN IN NEW WALL CHASE WHERE SHOWN TO SERVE FIRST FLOOR RESTROOM. PROVIDE AND INSTALL FIRE DAMPER AT FLOOR PENETRATION. COORDINATE REQUIRED FLOOR OPENING WITH GENERAL CONTRACTOR.
6. ROUTE 12"x12" EXHAUST DUCTWORK RISER THRU ROOF WHERE SHOWN TO NEW EXHAUST FAN, EF-1. COORDINATE REQUIRED ROOF OPENING WITH GENERAL CONTRACTOR.
7. ALTERNATE #2 - MODIFY COVER OF EXISTING FINTUBE RADIATION AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW WALL WHERE SHOWN. COVER SHALL STOP AT WALL BOTH SIDES. TYPICAL TWO (2) LOCATIONS.

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ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR HVAC PLAN

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CHECKED BY: BWW	DATE: 05/02/23
SCALE: 3/16" = 1' - 0"	
PROJECT NUMBER: 22286A	
SHEET NO: M4	45 of 58

BUILDING AUTOMATION SYSTEM (BAS)

TRIDIUM NIAGRA BASED JACE-8000

TEMPERATURE CONTROLS CONTRACTOR (TCC) SHALL PROVIDE AND INSTALL ONE (1) NIAGARA-BASED JACE-8000 IN ONE (1) CONTROL PANEL LOCATED IN THE SECOND FLOOR "MECHANICAL ROOM 214". THE EXACT LOCATION OF THE BAS SHALL BE COORDINATED WITH THE GENERAL AND ELECTRICAL CONTRACTORS. A SINGLE 120 VAC PANEL CIRCUIT SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. THE JACE-8000 SHALL SERVE AS THE MAIN BUILDING CONTROLLER AND SHALL BE INTEGRATED INTO A NEW NIAGARA 4 SERVER. THE GRAPHICAL USER INTERFACE SHALL BE SERVED BY THE NIAGARA 4 SERVER. THE JACE-8000 SHALL PROVIDE SCHEDULING, TRENDING, ALARMING, AND BACNET INTEGRATION TO THE FOLLOWING EQUIPMENT:

1. AHU-1 - UNIT SUPPLIED WITH FACTORY INSTALLED SUPPLY FAN VFD WITH BACNET INTERFACE. CONTROLS CONTRACTOR SHALL PROVIDE BACNET DDC CONTROLS TO INTEGRATE WITH UNIT.

   CONTROLS CONTRACTOR SHALL PROVIDE BACNET DDC CONTROLS FOR EIGHT (8) NEW VAV TERMINAL UNITS WITH HOT WATER REHEAT THAT ARE FED BY AHU-1.
2. CONTROLS CONTRACTOR SHALL PROVIDE BACNET DDC CONTROLS FOR ELEVEN (11) NEW VAV TERMINAL UNITS VAV-121, 121A, 122, 123, 124, 127, 128, 129, 130A, 130B, AND 140 WITH HOT WATER REHEAT FED BY EXISTING AHU AS PART OF ALTERNATE #7.
3. CONTROLS CONTRACTOR SHALL PROVIDE BACNET DDC CONTROLS FOR ONE (1) NEW VAV TERMINAL UNIT VAV-203 WITH HOT WATER REHEAT FED BY EXISTING AHU AS PART OF ALTERNATES #1 AND #7.
4. CONTROLS CONTRACTOR SHALL PROVIDE BACNET DDC CONTROLS FOR TWO (2) NEW VAV TERMINAL UNITS VAV-204 AND VAV-207 WITH HOT WATER REHEAT FED BY EXISTING AHU AS PART OF ALTERNATES #2 AND #7.
5. CHL-1 - INTEGRATION OF EXISTING 250-TON MULTISTACK CHILLER IN "MECHANICAL ROOM 214".

TEMPERATURE CONTROL SPECIFICATIONS

GENERAL

TEMPERATURE CONTROLS CONTRACTOR (TCC) SHALL BE FACTORY TRAINED AND CERTIFIED TO INSTALL/PROGRAM THE SYSTEM. TCC SHALL PROVIDE DOCUMENTATION THAT THE TECHNICIAN PERFORMING THE WORK IS TRAINED AND CERTIFIED BY THE MANUFACTURER.

PROVIDE ALL LABOR AND MATERIAL AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM THAT PERFORMS THE INDICATED SEQUENCES OF OPERATION.

SUBMITTALS

TCC SHALL SUBMIT AT MINIMUM:
1. WIRING DIAGRAMS WITH ALL TERMINATIONS LABELED
2. SEQUENCES OF OPERATIONS
3. BILL OF MATERIALS
4. SYSTEM ARCHITECTURE

LIST IN SUBMITTALS ANY DIFFERENCES BETWEEN PROPOSED TEMPERATURE CONTROL SYSTEM AND THE SYSTEM SPECIFIED AND THE REASON(S) FOR THE DIFFERENCES.

THE TCC SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR PRELIMINARY REVIEW. AFTER THE ENGINEER REVIEWS THE SHOP DRAWINGS, THE ENGINEER, TCC, AND OWNER'S REPRESENTATIVE SHALL MEET AT THE SITE TO REVIEW THE SHOP DRAWINGS. THE TCC SHALL UPDATE THE TEMP CONTROL SHOP DRAWINGS BASED ON THE ON-SITE REVIEW COMMENTS. THE TCC SHALL SUBMIT THE REVISED SHOP DRAWINGS FOR FINAL REVIEW AND APPROVAL.

INSTALLATION

PRE-INSTALLATION CONFERENCE: CONDUCT A PRE-INSTALLATION CONFERENCE AT THE PROJECT SITE TO COMPLY WITH REQUIREMENTS IN DIVISION 1 SECTION "PROJECT MANAGEMENT AND COORDINATION". REVIEW METHODS AND PROCEDURES RELATED TO THE TEMPERATURE CONTROL INSTALLATION.

COORDINATE ALL CONTROL INTERFACES TO EQUIPMENT WITH THE EQUIPMENT MANUFACTURER.

ALL CABLES AND WIRING SHALL BE LABELED/NUMBERED AT BOTH ENDS.

PROVIDE POWER TO ANY CONTROL DEVICES REQUIRING POWER. CONNECT TO SPARE BREAKER IN NEAREST PANEL.

MOUNT AND/OR WIRE ANY EQUIPMENT AND FIELD CONTROLLED DEVICES NOT FACTORY MOUNTED AND/OR WIRED.

EXPOSED CONDUIT SHALL ONLY BE ALLOWED IN MECHANICAL ROOMS OR AREAS WITH NO CEILINGS. ALL OUTDOOR WIRING SHALL BE INSTALLED IN ALUMINUM OR GALVANIZED CONDUIT.

TURN OVER PACKAGE

UPON THE COMPLETION OF THE PROJECT, UPDATE ALL TEMPERATURE CONTROL DRAWINGS TO REFLECT "AS-BUILT" CONDITIONS. DRAWINGS SHALL BE PLACED IN A PROTECTIVE SLEEVE AT EACH CONTROL PANEL.

PROVIDE 32 HOURS (MIN.) FOR PROGRAMMING MODIFICATIONS. PROVIDE 16 HOURS (MIN.) FOR OWNER TRAINING.

IF INITIAL CHECKOUT AND TUNING IF CONTROL LOOPS IS NOT PERFORMED DURING NEAR-PEAK SUMMER AND/OR WINTER CONDITIONS, THE TCC SHALL RETURN TO THE JOB SITE AND SHALL VERIFY ALL TUNING PARAMETERS WHEN CONDITIONS ARE NEAR-PEAK SUMMER AND/OR WINTER CONDITIONS.

PROVIDE TWO YEARS PARTS AND LABOR WARRANTY UNDER THE PROVISIONS OF DIVISION 1 FROM DATE OF OWNER'S ACCEPTANCE OF THE SYSTEM. PROVIDE 24 HOUR ON-SITE RESPONSE TO SERVICE REQUESTS FROM THE INITIAL CUSTOMER CONTACT, INCLUDING WEEKENDS AND HOLIDAYS. PROVIDE SOFTWARE UPGRADES FOR ALL DDC, AUXILIARY DEVICES, CONTRACTOR SUPPLIED DEVICES AND SYSTEM COMPONENTS TO THE MANUFACTURER'S CURRENT REVISION LEVEL FOR HE FULL WARRANTY PERIOD.

AHU-1 TEMPERATURE CONTROLS

OCCUPIED MODE

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE MIXED AIR DAMPERS SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS.

THE CHILLED AND HOT WATER CONTROL VALVES SHALL CONTROL TO MAINTAIN THE ACTIVE DISCHARGE AIR TEMPERATURE SETPOINT. IF ECONOMIZING IS ENABLED, THE OUTDOOR AIR OR MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT AND THE RELIEF AIR DAMPER SHALL TRACK THE MIXED AIR DAMPERS. THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE DYNAMICALLY RESET BASED ON THE DEVIATION OF ACTUAL SPACE TEMPERATURE FROM THE ACTIVE SPACE TEMPERATURE SETPOINT. IF THE DISCHARGE AIR TEMPERATURE SENSOR FAILS, THE CHILLED AND HOT WATER CONTROL VALVES SHALL CLOSE AND AN ALARM SHALL ANNUNCIATE AT THE BAS.

UNOCCUPIED MODE

WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 80.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL START, THE OUTSIDE AIR DAMPER SHALL OPEN IF ECONOMIZING IS ENABLED AND REMAIN CLOSED IF ECONOMIZING IS DISABLED AND THE CHILLED WATER CONTROL VALVE SHALL OPEN. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT OF 80.0 DEG. F (ADJ.) MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP, THE CHILLED AND HOT WATER CONTROL VALVES SHALL CLOSE AND THE OUTSIDE AIR DAMPER SHALL CLOSE.

OPTIMAL START

THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

MORNING WARM-UP MODE

DURING OPTIMAL START, IF THE AVERAGE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT A MORNING WARM-UP MODE SHALL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED THE UNIT SHALL ENABLE THE HEATING AND FAN(S). THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

PRE-COOL MODE

DURING OPTIMAL START, IF THE AVERAGE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, PRE-COOL MODE SHALL BE ACTIVATED. WHEN PRE-COOL IS INITIATED THE UNIT SHALL ENABLE THE FAN AND COOLING OR ECONOMIZER. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED, UNLESS ECONOMIZING. WHEN THE SPACE TEMPERATURE REACHES OCCUPIED COOLING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

AHU-1 TEMPERATURE CONTROLS

OPTIMAL STOP

THE BAS SHALL MONITOR THE SCHEDULED UNOCCUPIED TIME, OCCUPIED SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL STOP OCCURS. WHEN THE OPTIMAL STOP MODE IS ACTIVE THE UNIT CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE TO THE SPACE TEMPERATURE OFFSET SETPOINT. OUTSIDE AIR DAMPER SHALL REMAIN ENABLED TO PROVIDE MINIMUM VENTILATION.

OCCUPIED BYPASS

THE BAS SHALL MONITOR THE STATUS OF THE "ON" AND "CANCEL" BUTTONS OF THE SPACE TEMPERATURE SENSOR. WHEN AN OCCUPIED BYPASS REQUEST IS RECEIVED FROM A SPACE SENSOR, THE UNIT SHALL TRANSITION FROM ITS CURRENT OCCUPANCY MODE TO OCCUPIED BYPASS MODE AND THE UNIT SHALL MAINTAIN THE SPACE TEMPERATURE TO THE OCCUPIED SETPOINTS (ADJ.). OCCUPIED BYPASS SHALL LAST FOR FOUR (4) HOURS (ADJ.).

HEAT/COOL MODE

WHEN THE SPACE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING SETPOINT THE MODE SHALL TRANSITION TO COOLING. WHEN THE SPACE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING SETPOINT THE MODE SHALL TRANSITION TO HEATING. WHEN THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT OR BELOW THE OCCUPIED HEATING SETPOINT THE MODE SHALL REMAIN IN ITS LAST STATE. IF THE SPACE TEMPERATURE SENSOR FAILS THE MODE SHALL REMAIN IN ITS LAST STATE AND AN ALARM SHALL ANNUNCIATE AT THE BAS. IF THE LOCAL AND COMMUNICATED SETPOINTS FAIL THE CONTROLLER SHALL DISABLE THE SUPPLY FAN AND AN ALARM SHALL ANNUNCIATE AT THE BAS.

DISCHARGE AIR TEMPERATURE RESET CONTROL

THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE RESET TO THE OPTIMAL SETPOINT COMMUNICATED BY THE BAS. THE BAS SHALL RESET THE DISCHARGE AIR TEMPERATURE SETPOINT BASED ON THE CURRENT OUTSIDE AIR TEMPERATURE, BUT SHALL OVERRIDE THIS RESET FUNCTION AND RETURN THE DISCHARGE AIR TEMPERATURE SETPOINT TO 55.0 DEG. F (ADJ.) IF MORE THAN TWO (ADJ.) ZONES BEGIN TO OVERHEAT. ALSO, THE BAS SHALL OVERRIDE THIS RESET FUNCTION WHENEVER OUTDOOR DEW POINT IS HIGHER THAN 60.0 DEG. F (ADJ.) OR INDOOR HUMIDITY IS HIGHER THAN 60% RH (ADJ.). IF THE DISCHARGE AIR TEMPERATURE DROPS BELOW THE MINIMUM LIMIT, A LOW TEMPERATURE ALARM SHALL ANNUNCIATE AND THE UNIT SHALL SHUT DOWN. IF THE DISCHARGE AIR TEMPERATURE RISES ABOVE THE MAXIMUM LIMIT, A HIGH TEMPERATURE ALARM SHALL ANNUNCIATE.

DISCHARGE AIR TEMPERATURE SETPOINT AND DISCHARGE STATIC PRESSURE SETPOINT SHALL BE RESET PER ADDENDUM B OF ASHRAE GUIDELINE 36-2018, SECTION 5.1.14 "TRIM AND RESPOND LOGIC".

SUPPLY FAN

THE SUPPLY FAN SHALL BE OFF IN THE UNOCCUPIED MODE. THE SUPPLY FAN SHALL BE ON IF THE CONTROL IS HEATING OR COOLING IN THE UNOCCUPIED MODE. WHEN THE CONTROLLER IS IN THE OCCUPIED MODE, THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY AND ITS SPEED SHALL BE MODULATED TO MAINTAIN THE DUCT STATIC PRESSURE SETPOINT. THE DUCT STATIC PRESSURE SETPOINT SHALL BE SENT BY THE BAS AND IS RESET BETWEEN THE MINIMUM AND MAXIMUM STATIC PRESSURE LIMITS TO MAINTAIN THE CRITICAL ZONE VAV AIR DAMPER IN A POSITION BETWEEN 65% AND 75% OPEN.

A MANUAL RESET OF THE HIGH STATIC PRESSURE CUT-OFF SWITCH SHALL BE REQUIRED TO RESTART THE FAN. UPON SENSING NO SUPPLY FAN OPERATION FOR 30 SECONDS, THE DDC CONTROLLER SHALL STOP THE AHU SUPPLY FAN, CLOSE THE OUTSIDE AIR DAMPER, OPEN THE RETURN AIR DAMPER, CLOSE THE RELIEF AIR DAMPER, AND CLOSE THE CHILLED AND HOT WATER CONTROL VALVES.

MIXED AIR LOW LIMIT

THE INITIAL DAMPER OPENING RATE SHALL BE LIMITED TO 2% PER MINUTE (ADJ.) UNTIL THE DAMPER HAS REACHED ITS MINIMUM VENTILATION POSITION. THE OUTSIDE AIR DAMPER SHALL MODULATE TO A POSITION LESS THAN THE MINIMUM DAMPER POSITION IF THE MIXED AIR TEMPERATURE DROPS BELOW 50.0 DEG. F (ADJ.). IF THE MIXED AIR TEMPERATURE SENSOR FAILS AN ALARM SHALL ANNUNCIATE AT THE BAS AND THE OUTSIDE AIR DAMPER SHALL RETURN TO THE MINIMUM POSITION.

FREEZE PROTECTION

A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE FAN CONTROLLER. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED (38.0 DEG. F ADJ.), THE SUPPLY FAN SHALL BE DISABLED, THE OUTSIDE AIR DAMPER SHALL CLOSE, CHILLED WATER AND HOT VALVES SHALL OPEN TO 100% (ADJUST PER CLIMATE) AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS. A MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE FAN. A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE VARIABLE SPEED DRIVE. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED 38.0 DEG. F (ADJ.), THE FAN SHALL BE COMMANDED OFF AND THE OUTSIDE AIR DAMPER SHALL CLOSE. ALL VALVES SHALL BE COMMANDED OPEN TO 100% (ADJUST PER CLIMATE). AN ALARM SHALL ANNUNCIATE AT THE BAS AND MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE FAN.

FILTER STATUS

A DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER(S) WHEN THE FAN IS RUNNING. IF THE SWITCH CLOSES DURING NORMAL OPERATION A DIRTY FILTER ALARM SHALL ANNUNCIATE AT THE BAS.

DAYTIME WARM-UP CONTROL

DURING OCCUPIED PERIODS, WHEN THE SPACE TEMPERATURE IS BELOW THE DAYTIME WARM-UP INITIATE SETPOINT, A DAYTIME WARM-UP SEQUENCE SHALL BE ACTIVATED. THE OUTSIDE AIR DAMPER SHALL MODULATE TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS, AND THE HEATING SHALL ENABLE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE HEATING SETPOINT. DAYTIME WARM-UP SHALL TERMINATE WHEN THE AVERAGE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT.

PREHEAT CONTROL

WHEN THE FAN IS OFF, IF THE OUTDOOR AIR TEMPERATURE IS BELOW 40.0 DEG. F (ADJ.) OR THE OUTSIDE AIR TEMPERATURE SENSOR IS FAILED, THE PREHEAT VALVE SHALL MODULATE TO MAINTAIN A MIXED AIR TEMPERATURE OF 45.0 DEG. F (ADJ.). IF THE OUTDOOR AIR TEMPERATURE IS ABOVE 40.0 DEG. F (ADJ.) AND THE OUTDOOR AIR TEMPERATURE SENSOR IS NOT FAILED THE PREHEAT VALVE SHALL BE CLOSED. IF THE MIXED AIR TEMPERATURE SENSOR FAILS THE PREHEAT VALVE SHALL BE 10% OPEN.

WHEN THE FAN IS ON, THE PREHEAT SHALL CONTROL TO MAINTAIN A LEAVING PREHEAT TEMPERATURE OF 45.0 DEG. F (ADJ.). IF THE PREHEAT TEMPERATURE SENSOR FAILS AND THE MIXED AIR TEMPERATURE IS BELOW 45.0 DEG. F (ADJ.) THE PREHEAT VALVE SHALL BE 10% OPEN. IF THE PREHEAT TEMPERATURE SENSOR FAILS AND THE MIXED AIR TEMPERATURE IS ABOVE 50.0 DEG. F (ADJ.) THE PREHEAT VALVE SHALL BE COMMANDED CLOSED. AN ALARM SHALL ANNUNCIATE AT THE BAS IF THE LEAVING PREHEAT TEMPERATURE SENSOR, THE MIXED AIR TEMPERATURE SENSOR OR THE OUTSIDE AIR TEMPERATURE SENSOR ARE FAILED.

ECONOMIZER

ENABLE

OUTSIDE AIR (OA) ENTHALPY SHALL BE COMPARED WITH RETURN AIR (RA) ENTHALPY POINT. THE ECONOMIZER SHALL ENABLE WHEN OA ENTHALPY IS LESS THAN RA ENTHALPY - 2.0 BTU/LB. THE ECONOMIZER SHALL DISABLE WHEN OA ENTHALPY IS GREATER THAN RA ENTHALPY.

OPERATION

WHEN ECONOMIZING IS ENABLED AND THE UNIT IS OPERATING IN THE COOLING MODE, THE ECONOMIZER DAMPER SHALL BE MODULATED BETWEEN ITS MINIMUM POSITION AND 100% TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE ECONOMIZER DAMPER SHALL MODULATE TOWARD MINIMUM POSITION IN THE EVENT THE MIXED AIR TEMPERATURE FALLS BELOW THE LOW TEMPERATURE LIMIT SETTING.

WHEN ECONOMIZER IS ENABLED, THE RELIEF AIR DAMPER SHALL MODULATE AS REQUIRED TO MAINTAIN A BUILDING PRESSURIZATION OF +0.005" WC (ADJ.) IN THE SPACE.

THE MINIMUM OUTDOOR AIR VENTILATION FLOW REQUIREMENT SHALL BE MAINTAINED ANYTIME THE UNIT IS IN ITS OCCUPIED MODE.

CONDENSATE OVERFLOW MONITORING

IF THE CONDENSATE LEVEL REACHES THE TRIP POINT, A CONDENSATE OVERFLOW DIAGNOSTIC SHALL ANNUNCIATE AT THE BAS. THE FAN SHALL BE DISABLED AND THE CHILLED WATER VALVE SHALL CLOSE.

POINTS LIST: VAV AIR SYSTEM AHU

SYSTEM POINT DESCRIPTION	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
AIRSIDE ECONOMIZER ENABLE SFT 001	X					X									
DISCHARGE AIR TEMPERATURE ACTIVE SETPOINT SFT 002	X					X									
DISCHARGE AIR TEMPERATURE MAXIMUM SETPOINT SFT 003						X									
DISCHARGE AIR TEMPERATURE MINIMUM SETPOINT SFT 004						X									
DISCHARGE AIR TEMPERATURE STARTUP SETPOINT SFT 005						X									
DUCT STATIC PRESSURE ACTIVE SETPOINT SFT 006	X					X									
DUCT STATIC PRESSURE MAXIMUM SETPOINT SFT 007						X									
DUCT STATIC PRESSURE MINIMUM SETPOINT SFT 008						X									
FACILITY OUTDOOR DRY-BULB TEMPERATURE SFT 009	X					X									
FACILITY OUTDOOR RELATIVE HUMIDITY SFT 010	X					X									
FURTHEST OPEN VAV DAMPER POSITION SFT 011	X					X									
FURTHEST OPEN VAV DAMPER ZONE NAME SFT 012	X					X									
HEAT-COOL MODE FOR AHU SFT 013	X					X									
HEAT-COOL MODE FOR VAV TERMINAL SFT 015	X					X									
OCCUPANCY MODE SFT 016	X					X									
OUTDOOR TEMPERATURE TO BEGIN DAT RESET SFT 017						X									
OUTDOOR TEMPERATURE TO END DAT RESET SFT 018						X									
OUTDOOR DEW POINT TO DISABLE DAT RESET SFT 019						X									
MAXIMUM ZONE TEMPERATURE SFT 020	X					X									
MAXIMUM ZONE TEMPERATURE ZONE NAME SFT 021	X					X									
MINIMUM ZONE TEMPERATURE SFT 022	X					X									
MINIMUM ZONE TEMPERATURE ZONE NAME SFT 023	X					X									
VENTILATION OUTDOOR AIRFLOW ACTIVE SETPOINT (AT AHU) SFT 024	X					X									
VENTILATION RATIO LIMIT (AT AHU) SFT 026	X					X									
VENTILATION RATIO LIMIT (AT VAV TERMINAL) SFT 028						X									
ZONE OCCUPIED COOLING SETPOINT SFT 029						X									
ZONE OCCUPIED HEATING SETPOINT SFT 030						X									
ZONE VAV DAMPER POSITION REQUEST SFT 031						X									
ZONE PRIMARY AIRFLOW SFT 032						X									
ZONE TEMPERATURE SFT 033	X					X									
ZONE TEMPERATURE AVERAGE SFT 034	X					X									
ZONE VENTILATION AIRFLOW SETPOINT SFT 035						X									
ZONE VENTILATION RATIO SFT 036						X									
ZONE VENTILATION RATIO HIGHEST SFT 037	X					X									
ZONE VENTILATION RATIO HIGHEST ZONE NAME SFT 038	X					X									

POINTS LIST: VAV TERMINAL UNIT

SYSTEM POINTS DESCRIPTION	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
AIR VALVE DRIVE CLOSE COMMAND AIR VLV CLS	X				X										
AIR VALVE DRIVE OPEN COMMAND AIR VLV OPN	X				X										
DISCHARGE AIR TEMPERATURE DAT	X	X								X	X			X	
HEATING VALVE COMMAND CLOSE HW VLV CLS	X				X										
HEATING VALVE COMMAND OPEN HW VLV OPN	X				X										
BAS COMMUNICATION STATE BAS COM						X									X
DESIGN HEAT DISCHARGE AIR TEMP SETPOINT DSNG HT DAT SP						X									
SPACE TEMPERATURE LOCAL SPT	X							X							
SPACE TEMPERATURE SETPOINT LOCAL SPT SP	X							X							
SUPPLY AIRFLOW DA FLW	X	X								X	X				
MAXIMUM COOLING AIRFLOW SETPOINT MAX CLG FLW SP						X									
MINIMUM COOLING AIRFLOW SETPOINT MIN CLG FLW SP						X									
MAXIMUM HEATING AIRFLOW SETPOINT MAX HTG FLW SP						X									
MINIMUM HEATING AIRFLOW SETPOINT MIN HTG FLW SP						X									
OCCUPIED BYPASS TIMER OCC BYP TMR	X					X									
OCCUPIED COOLING SETPOINT OCC CLG SP	X					X									
OCCUPIED HEATING SETPOINT OCC HTG SP	X					X									
UNOCCUPIED COOLING SETPOINT UNOCC CLG SP	X					X									
UNOCCUPIED HEATING SETPOINT UNOCC HTG SP	X					X									

AHU-1 TEMPERATURE CONTROLS

DEMAND CONTROL VENTILATION

WHEN THE UNIT IS IN UNOCCUPIED MODE, THE VENTILATION AIRFLOW SETPOINT WILL BE ZERO. WHEN THE UNIT IS IN OCCUPIED MODE, THE VENTILATION AIRFLOW SETPOINT SHALL EQUAL THE DESIGN OUTDOOR AIRFLOW (SEE VAV SCHEDULE).

THE CURRENT VENTILATION AIRFLOW SETPOINT SHALL BE COMMUNICATED TO THE BAS FOR CONTROL OF THE SYSTEM OUTDOOR AIR INTAKE.

SMOKE DETECTOR SHUTDOWN

THE UNIT SHALL SHUT DOWN IN RESPONSE TO A SIGNAL FROM THE SMOKE DETECTOR INDICATING THE PRESENCE OF SMOKE. THE SMOKE DETECTOR SHALL BE INTERLOCKED TO THE UNIT THROUGH THE DRY CONTACTS OF THE SMOKE DETECTOR. A MANUAL RESET OF THE SMOKE DETECTOR SHALL BE REQUIRED TO RESTART THE UNIT.

ANTHRAX SWITCH SHUTDOWN

THE EXISTING ANTHRAX SWITCH BEING RELOCATED AS PART OF THE PROJECT SENDS A BINARY INPUT SIGNAL TO THE EXISTING DX-9100 CONTROLLER AT AHU-5 TO SHUT DOWN ALL SIX (6) OF THE BUILDING'S AHUS. THIS SWITCH SHALL SHUT DOWN AHU-1 AND CLOSE ITS OUTSIDE AIR DAMPER WHEN ACTIVATED.

POINTS LIST: VAV AIR SYSTEM AHU

SYSTEM POINT DESCRIPTION	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
AIR CLEANING ACCESS DOOR INTERLOCK UV INTLK							X								
CONDENSATE OVERFLOW DETECTION LOCAL OVRFL	X		X									X	X		
COOLING COIL LEAVING TEMPERATURE LOCAL CC LAT	X	X								X	X			X	
COOLING OUTPUT COMMAND CLG	X			X											
DISCHARGE AIR TEMPERATURE DAT	X	X								X	X			X	
DISCHARGE AIR STATIC PRESSURE LOCAL DA SP	X	X								X			X	X	
FILTER STATUS FIL	X		X									X			
HIGH STATIC ALARM HSP ALM	X		X									X	X		
HIGH STATIC ALARM INTERLOCK HSP INTLK							X								
MIXED AIR DAMPER COMMAND MAD	X			X											
MIXED AIR LOW TEMPERATURE CUTOUT ALARM MA LLT			X										X		
MIXED AIR TEMPERATURE LOCAL MAT	X	X									X			X	
OUTDOOR AIR DAMPER COMMAND OAD	X			X											
OUTDOOR AIR FLOW OA FLW	X	X													
OUTDOOR AIR RELATIVE HUMIDITY LOCAL OAH	X	X													
OUTDOOR AIR TEMPERATURE LOCAL OAT	X	X													
PREHEAT LEAVING COIL TEMPERATURE LOCAL PH LAT	X	X												X	
PREHEAT OUTPUT COMMAND PH	X			X											
RETURN AIR DAMPER COMMAND RAD	X			X											
RETURN AIR TEMPERATURE LOCAL RAT	X	X													
RETURN SMOKE DETECTOR INPUT RA SD							X								
SUPPLY FAN AIR FLOW LOCAL SF FLW	X	X													
SUPPLY FAN SPEED COMMAND SF	X			X											
SUPPLY FAN START STOP COMMAND SF	X				X										
SUPPLY FAN STATUS SF	X		X												
BAS COMMUNICATION STATE BAS COM						X									X
DISCHARGE AIR COOLING SETPOINT DA CL SP						X									
DISCHARGE AIR HEATING SETPOINT DA HT SP						X									
MAINTENANCE REQUIRED MNT REQ						X						X			
MIXED AIR TEMPERATURE LOW LIMIT SETPOINT MA LLT SP						X									
OCCUPIED COOLING SETPOINT OCC CL SP	X					X									
OCCUPIED HEATING SETPOINT OCC HT SP	X					X									
SUPPLY FAN FAILURE SF FAIL	X					X						X			
UNOCCUPIED COOLING SETPOINT UNOCC CL SP	X					X									
UNOCCUPIED HEATING SETPOINT UNOCC HT SP	X					X									

POINTS LIST: CHILLED WATER SYSTEM

SYSTEM POINT DESCRIPTION	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
CHILLED WATER PUMP 1 COMMAND STATUS PMP1 COM	X				X										
CHILLED WATER PUMP 1 STATUS PMP1 ON	X		X												
CHILLED WATER PUMP 2 COMMAND STATUS PMP2 COM	X				X										
CHILLED WATER PUMP 2 STATUS PMP2 ON	X		X												
CHILLED WATER SUPPLY TEMPERATURE BLDG CHWS BLDG	X	X													
CHILLED WATER RETURN TEMPERATURE BLDG CHWR BLDG	X	X													
OUTDOOR AIR TEMPERATURE LOCAL OAT	X	X													
CHILLER ENABLE/DISABLE CHL ON	X				X										
CHILLER CAPACITY CHL CAP	X	X													
CHILLER DEMAND CHL DEM	X	X													
CHILLER ENTERING WATER CHWR CHL	X	X													
CHILLER LEAVING WATER CHWS CHL	X	X													
CHILLER ENTERING CONDENSER WATER COND ENT	X	X													
CHILLER LEAVING CONDENSER WATER COND LVG	X	X													
COMPRESSOR 1 CIRCUIT A REFRIGERANT SUCTION TEMP COM1 CIRA STMP	X	X													
COMPRESSOR 1 CIRCUIT A REFRIGERANT DIS TEMP COM1 CIRA DTMP	X	X													
COMPRESSOR 1 CIRCUIT B REFRIGERANT SUCTION TEMP COM1 CIRB STMP	X	X													
COMPRESSOR 1 CIRCUIT B REFRIGERANT DIS TEMP COM1 CIRB DTMP	X	X													
COMPRESSOR 1 COMMAND STATUS COM1 COM	X				X										
COMPRESSOR 1 STATUS COM1 ON	X		X												
COMPRESSOR 2 CIRCUIT A REFRIGERANT SUCTION TEMP COM2 CIRA STMP	X	X													
COMPRESSOR 2 CIRCUIT A REFRIGERANT DIS TEMP COM2 CIRA DTMP	X	X													
COMPRESSOR 2 CIRCUIT B REFRIGERANT SUCTION TEMP COM2 CIRB STMP	X	X													
COMPRESSOR 2 CIRCUIT B REFRIGERANT DIS TEMP COM2 CIRB DTMP	X	X													
COMPRESSOR 2 COMMAND STATUS COM2 COM	X				X										
COMPRESSOR 2 STATUS COM2 ON	X		X												
COMPRESSOR 3 CIRCUIT A REFRIGERANT SUCTION TEMP COM3 CIRA STMP	X	X													
COMPRESSOR 3 CIRCUIT A REFRIGERANT DIS TEMP COM3 CIRA DTMP	X	X													
COMPRESSOR 3 CIRCUIT B REFRIGERANT SUCTION TEMP COM3 CIRB STMP	X	X													
COMPRESSOR 3 CIRCUIT B REFRIGERANT DIS TEMP COM3 CIRB DTMP	X	X													
COMPRESSOR 3 COMMAND STATUS COM3 COM	X				X										
COMPRESSOR 3 STATUS COM3 ON	X		X												
COMPRESSOR 1 CIRCUIT A FAULT COM1 CIRA FLT	X											X			
COMPRESSOR 1 CIRCUIT B FAULT COM1 CIRB FLT	X											X			
COMPRESSOR 2 CIRCUIT A FAULT COM2 CIRA FLT	X											X			
COMPRESSOR 2 CIRCUIT B FAULT COM2 CIRB FLT	X											X			
COMPRESSOR 3 CIRCUIT A FAULT COM3 CIRA FLT	X											X			
COMPRESSOR 3 CIRCUIT B FAULT COM3 CIRB FLT	X											X			
CHILLER FAIL TO RUN CHL FTR	X											X			
CHILLER LOW TEMPERATURE CHL LOWT	X											X			

TYPICAL VAV TERMINAL UNIT CONTROLS

GENERAL

THE FOLLOWING SEQUENCES SHALL APPLY TO TWENTY TWO (22) NEW VAV TERMINAL UNITS. SEE SHEET M6 FOR TERMINAL UNIT SCHEDULES INCLUDING ALTERNATES.

BUILDING AUTOMATION SYSTEM INTERFACE

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED AND UNOCCUPIED COMMANDS. THE BAS MAY ALSO SEND A HEAT/COOL MODE, PRIORITY SHUTDOWN COMMANDS, SPACE TEMPERATURE AND/OR SPACE TEMPERATURE SETPOINT. IF COMMUNICATION IS LOST WITH THE BAS, THE CONTROLLER SHALL OPERATE USING ITS LOCAL SETPOINTS.

OCCUPIED MODE

NORMAL OPERATING MODE FOR OCCUPIED SPACES OR DAYTIME OPERATION. WHEN THE UNIT IS IN THE OCCUPIED MODE THE VAV SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE OCCUPIED HEATING OR COOLING SETPOINT. APPLICABLE VENTILATION AND AIRFLOW SETPOINTS SHALL BE ENFORCED. THE OCCUPIED MODE SHALL BE THE DEFAULT MODE OF THE VAV.

UNOCCUPIED MODE

NORMAL OPERATING MODE FOR UNOCCUPIED SPACES OR NIGHTTIME OPERATION. WHEN THE UNIT IS IN UNOCCUPIED MODE THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE STORED UNOCCUPIED HEATING OR COOLING SETPOINT REGARDLESS OF THE PRESENCE OF A HARDWIRED OR COMMUNICATED SETPOINT. WHEN THE SPACE TEMPERATURE EXCEEDS THE ACTIVE UNOCCUPIED SETPOINT THE VAV SHALL MODULATE FULLY CLOSED.

OCCUPIED BYPASS

MODE USED TO TEMPORARILY PLACE THE UNIT INTO THE OCCUPIED OPERATION. TENANTS SHALL BE ABLE TO OVERRIDE THE UNOCCUPIED MODE FROM THE SPACE SENSOR. THE OVERRIDE SHALL LAST FOR A MAXIMUM OF 4 HOURS (ADJ.). THE TENANTS SHALL BE ABLE TO CANCEL THE OVERRIDE FROM THE SPACE SENSOR AT ANY TIME. DURING THE OVERRIDE THE UNIT SHALL OPERATE IN OCCUPIED MODE.

HEAT/COOL MODE

THE HEAT/COOL MODE SHALL BE SET BY A COMMUNICATED VALUE OR AUTOMATICALLY BY THE VAV. IN STANDALONE OR AUTO MODE THE VAV SHALL COMPARE THE PRIMARY AIR TEMPERATURE WITH THE CONFIGURED AUTO CHANGEOVER SETPOINT TO DETERMINE IF THE AIR IS "HOT" OR "COLD". HEATING MODE IMPLIES THE PRIMARY AIR TEMPERATURE IS "HOT". COOLING MODE IMPLIES THE PRIMARY AIR TEMPERATURE IS "COLD".

HEAT/COOL SETPOINT

THE SPACE TEMPERATURE SETPOINT SHALL BE DETERMINED EITHER BY A LOCAL (E.G., THUMBWHEEL) SETPOINT, THE VAV DEFAULT SETPOINT OR A COMMUNICATED VALUE. THE VAV SHALL USE THE LOCALLY STORED DEFAULT SETPOINTS WHEN NEITHER A LOCAL SETPOINT NOR COMMUNICATED SETPOINT IS PRESENT. IF BOTH A LOCAL SETPOINT AND COMMUNICATED SETPOINT EXIST, THE VAV SHALL USE THE COMMUNICATED VALUE.

COOLING MODE

WHEN THE UNIT IS IN COOLING MODE, THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE COOLING SETPOINT BY MODULATING THE AIRFLOW BETWEEN THE ACTIVE COOLING MINIMUM AIRFLOW SETPOINT TO THE MAXIMUM COOLING AIRFLOW SETPOINT. THE VAV SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE COOLING SETPOINT TO DETERMINE THE REQUESTED COOLING CAPACITY OF THE UNIT. THE OUTPUTS WILL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED COOLING CAPACITY. WHEN IN THE OCCUPIED MODE, THE CONTROLLER SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE COOLING SETPOINT TO DETERMINE THE REQUESTED COOLING CAPACITY OF THE UNIT. THE OUTPUTS SHALL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED COOLING CAPACITY.

HEATING MODE

WHEN THE UNIT IS IN HEATING MODE, THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE HEATING SETPOINT BY MODULATING THE AIRFLOW BETWEEN THE ACTIVE HEATING MINIMUM AIRFLOW SETPOINT TO THE MAXIMUM HEATING AIRFLOW SETPOINT. THE VAV CONTROLLER SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE HEATING SETPOINT TO DETERMINE THE REQUESTED HEATING CAPACITY OF THE UNIT. THE OUTPUTS WILL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED HEATING CAPACITY.

REHEAT CONTROL

REHEAT WILL ONLY BE ALLOWED WHEN THE PRIMARY AIR TEMPERATURE IS 5.0 DEG. F BELOW THE CONFIGURED REHEAT ENABLE SETPOINT OF 70.0 DEG. F (ADJ.). THE REHEAT SHALL BE ENABLED WHEN THE SPACE TEMPERATURE DROPS BELOW THE ACTIVE HEATING SETPOINT AND THE MINIMUM AIRFLOW REQUIREMENTS ARE MET. DURING REHEAT THE VAV SHALL OPERATE AT ITS MINIMUM HEATING AIRFLOW SETPOINT AND ENERGIZE THE HEAT AS FOLLOWS:

PROPORTIONAL HOT WATER REHEAT
IF THE SPACE TEMPERATURE IS BELOW THE HEATING SETPOINT THE HOT WATER REHEAT VALVE SHALL CONTROL AS REQUIRED TO MAINTAIN THE ACTIVE HEATING SETPOINT.

SPACE SENSOR FAILURE

IF THERE IS A FAULT WITH THE OPERATION OF THE ZONE SENSOR AN ALARM SHALL BE ANNUNCIATED AT THE BAS. SPACE SENSOR FAILURE SHALL CAUSE THE VAV TO DRIVE THE DAMPER TO MINIMUM AIRFLOW IF THE VAV IS IN THE OCCUPIED MODE, OR DRIVE IT CLOSED IF THE VAV IS IN THE UNOCCUPIED MODE.

CHL-1 TEMPERATURE CONTROLS

GENERAL

THE EXISTING CHILLED WATER SYSTEM IS COMPRISED OF A THREE (3) MODULE, 250-TON INDOOR MULTISTACK CHILLER, TWO (2) PRIMARY CHILLED WATER PUMPS, AND A ROOFTOP MOUNTED, SINGLE CELL COOLING TOWER. INTEGRATION OF THE EXISTING CHILLER CONTROLS INTO THE NEW BUILDING AUTOMATION SYSTEM IS REQUIRED.

ANY AND ALL CONTROL DEVICES AND/OR PROGRAMMING REQUIRED TO INTEGRATE THE CHILLED WATER SYSTEM CONTROL POINTS AND ALARMS LISTED ON THIS SHEET SHALL BE PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROLS CONTRACTOR.

MULTISTACK CONTROLS COORDINATION

THE TCC SHALL FILL OUT AN OWNER PROVIDED CHILLER SITE SURVEY FORM. MULTISTACK WILL LOAD THE INFORMATION ONTO A SERIAL CARD AND SHIP TO THE TCC FOR INSTALLATION AT THE CHILLER MASTER CONTROLLER. A FIFTEEN HUNDRED (1500) DOLLAR ALLOWANCE SHALL BE INCLUDED IN THE BID TO COVER THIS EXPENSE. THE EXISTING CHILLER MASTER CONTROLLER IS BACNET/IP.

EF-1 EXHAUST FAN CONTROL

OCCUPIED MODE

THE DDC SHALL ENABLE THE EXHAUST FAN. ONCE ENABLED, THE MOTORIZED BACKDRAFT DAMPER SHALL BE ENERGIZED AND SHALL FULLY OPEN. WHEN THE BACKDRAFT DAMPER IS OPEN, A LIMIT SWITCH ON THE DAMPER ACTUATOR SHALL ENERGIZE THE FAN.

UNOCCUPIED MODE

THE DDC SHALL DISABLE THE EXHAUST FAN. ONCE DISABLED, THE MOTORIZED BACKDRAFT DAMPER SHALL FULLY CLOSE. THE DAMPER SHALL CLOSE ANYTIME THE POWER TO THE EXHAUST FAN IS DISCONNECTED.

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REV	DATE	BY	ITEM
A	09/07/23	RTN	ISSUED FOR 100% REVIEW
B	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

TEMPERATURE CONTROLS

DRAWN BY: RTN | DESIGNED BY: RTN
CHECKED BY: BWW | DATE: 05/02/23
SCALE: NONE
PROJECT NUMBER: 22286A
SHEET NO: M5

SCHEDULE OF AIR HANDLING UNITS

SYMBOL	PROVIDED BY	MANUFACTURER	MODEL	DESCRIPTION	SIZE	ESP	CFM@TSP	MIN. VENTILATION	BHP	FAN RPM	MOTOR HP	MOTOR RPM	VOLTS/PH/Hz	COMPONENTS
AHU-1	CONTRACTOR	MILLER-PICKING	MPI-47x45	INDOOR MODULAR	47x45	3.0 IN WG	3,800@5.28 IN WG	380 CFM	4.53	2393	5.0	1800	460/3/60	SEE BELOW

REMARKS:
1. COMPONENTS IN ORDER OF AIRFLOW: FILTER MIXING BOX, HOT WATER HEATING COIL, CHILLED WATER COOLING COIL, SUPPLY FAN.
2. PROVIDE UNIT WITH 10-INCH BASERAIL, 2-INCH THK. INSULATED CASING, SUPPLY FAN VFD WITH BACNET INTERFACE, 120V/1PH ELECTRICAL OUTLET AND LIGHT SWITCH, LIGHTS IN COIL AND FAN SECTIONS, S.S. DRAIN PAN, 2-INCH MERV 8 FINAL FILTERS, PRESSURE GAUGE ACROSS FILTERS, RIGHT HAND ACCESS DOORS AND COIL CONNECTIONS, LEFT HAND DRAIN CONNECTION.
3. BASE UNIT IS 130" L x 45" W x 57" H AND 2,926 LBS.
4. ELECTRICAL LOAD: 6.6 FLA, 8.25 MCA, AND 15 MOP.
5. AIR HANDLING UNIT SHALL BE PROVIDED WITH FACTORY START-UP AND ONE (1) YEAR MANUFACTURER WARRANTY. NO MANUFACTURER EXCEPTIONS.

SCHEDULE OF COOLING COILS

SYMBOL	PROVIDED BY	MANUFACTURER	TYPE	SIZE	ROWS	FINS PER INCH	CFM	FACE VELOCITY	ENTERING AIR TEMP DB/WB	LEAVING AIR TEMP DB/WB	SENSIBLE CAPACITY-MBH	TOTAL CAPACITY-MBH	CHILLED WATER TEMP ENT	CHILLED WATER TEMP LVG	GPM	APD - IN WG	MAX WPD - FT WG
CC-1	CONTRACTOR	MILLER-PICKING	CHILLED WATER	32.5" H x 40" L	6	10	3800	428 FPM	80.0°/67.0°	53.3°/52.5°	113.0	168.0	45.0° F	55.0° F	33.7	0.56	10.1

REMARKS:
1. PROVIDED AND INSTALLED IN AHU-1.

SCHEDULE OF HEATING COILS

SYMBOL	PROVIDED BY	MANUFACTURER	TYPE	SIZE	ROWS	FINS PER INCH	CFM	FACE VELOCITY	ENTERING AIR TEMP	LEAVING AIR TEMP	EWT	LWT	CAPACITY - MBH	GPM	WPD - FT	APD - IN WG
HC-1	CONTRACTOR	MILLER-PICKING	HOT WATER	32.5" H x 40" L	1	11	3800	427 FPM	0° F	58.8° F	180° F	160° F	242.0	24.8	6.1	0.05

REMARKS:
1. PROVIDED AND INSTALLED IN AHU-1.

SCHEDULE OF FANS

SYMBOL	PROVIDED BY	MANUFACTURER	MODEL	DESCRIPTION	CFM	TSP - IN WC	FAN RPM	BHP	MOTOR HP	MOTOR RPM	VOLTS/PH/Hz
EF-1	CONTRACTOR	GREENHECK	G-097-VG	DIRECT DRIVE CENTRIFUGAL	150	1.0	1612	0.09	0.25	1725	115/1/60

REMARKS:
1. PROVIDE WITH VARI-GREEN EC MOTOR, CONTROL DIAL FOR BALANCING, GALVANIZED BIRD SCREEN, FACTORY MOUNTED DISCONNECT SWITCH, AND 12-INCH ROOF CURB.
2. ELECTRICAL LOAD: 4.0 MCA AND 15 MOP.
3. ALL FAN PARTS, INCLUDING MOTOR, SHALL HAVE ONE (1) YEAR MANUFACTURER WARRANTY.

SCHEDULE OF GRILLES AND DIFFUSERS

SYMBOL	PROVIDED BY	MANUFACTURER	MODEL	CONNECTION SIZE	PANEL SIZE	CORE STYLE	CFM	TOTAL PRESS - IN WG	THROW @ 50 FPM	NC	MOUNTING	REMARKS
S-1	CONTRACTOR	TITUS	TMS-AA	6"Ø	24" x 24"	3 CONE	150	0.06	7	15	LAY-IN	1,2
S-2	CONTRACTOR	TITUS	TMS-AA	8"Ø	24" x 24"	3 CONE	250	0.05	9	16	LAY-IN	1,2
S-3	CONTRACTOR	TITUS	TMS-AA	10"Ø	24" x 24"	3 CONE	370	0.05	13	18	LAY-IN	1,2
S-4	CONTRACTOR	TITUS	TMS-AA	12"Ø	24" x 24"	3 CONE	500	0.04	15	18	LAY-IN	1,2
S-5	CONTRACTOR	TITUS	MLTI-39	10"Ø	6" x 48"	3 SLOT	350	0.03	25	22	LAY-IN	1,2
S-6	CONTRACTOR	TITUS	MLTI-39	12"Ø	6" x 48"	3 SLOT	600	0.06	35	30	LAY-IN	1,2
R-1	CONTRACTOR	TITUS	50F	18" x 18"	24" x 24"	EGGCRATE	850	0.03	N/A	10	LAY-IN	1
R-2	CONTRACTOR	TITUS	50F	8" x 8"	24" x 24"	EGGCRATE	160	0.03	N/A	10	LAY-IN	1
R-3	CONTRACTOR	TITUS	50F	10" x10"	24" x 24"	EGGCRATE	315	0.04	N/A	11	LAY-IN	1
R-4	CONTRACTOR	TITUS	50F	12" x 12"	24" x 24"	EGGCRATE	610	0.06	N/A	18	LAY-IN	1
E-1	CONTRACTOR	TITUS	50F	8" x 8"	12" x 12"	EGGCRATE	75	0.01	N/A	10	SURFACE	1,3

REMARKS:
1. FINISH SHALL BE WHITE.
2. PROVIDE WITH FACTORY APPLIED BACK PANEL INSULATION.
3. CENTER IN 24"x24" CEILING GRID.

SCHEDULE OF VAV REHEAT TERMINALS

SYMBOL	PROVIDED BY	MANUFACTURER	MODEL NO	TYPE	INLET SIZE	RATED CFM	MIN/MAX PRIMARY AIR CFM SETTING	MAX BOX PD @ NOMINAL CFM	HEATING CFM	COIL TYPE	HEATING CAPACITY MBH	GPM @ 180°F EWT
VAV-121	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	06	515	200/400	0.17	200	1-ROW	8.7	0.9
VAV-121A	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	75/150	0.21	75	1-ROW	3.2	0.3
VAV-122	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	100/200	0.21	100	1-ROW	4.4	0.5
VAV-123	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	100/200	0.21	100	1-ROW	4.4	0.5
VAV-124	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	125/250	0.21	125	1-ROW	5.4	0.6
VAV-127	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	07	700	250/500	0.16	250	1-ROW	10.9	1.1
VAV-128	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	06	515	175/350	0.17	175	1-ROW	7.6	0.8
VAV-129	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	90/175	0.21	90	1-ROW	3.9	0.4
VAV-130A	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	07	700	250/500	0.16	250	1-ROW	10.9	1.1
VAV-130B	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	07	700	250/500	0.16	250	1-ROW	10.9	1.1
VAV-131	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	10	1430	500/1000	0.17	500	2-ROW	21.7	2.2
VAV-132	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	06	515	175/350	0.17	175	1-ROW	7.6	0.8
VAV-133	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	75/150	0.21	75	1-ROW	3.2	0.3
VAV-134	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	90/175	0.21	90	1-ROW	3.9	0.4
VAV-135	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	05	360	90/175	0.21	90	1-ROW	3.9	0.4
VAV-137	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	06	515	175/350	0.17	175	2-ROW	7.6	0.8
VAV-138	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	10	1430	550/1100	0.17	550	2-ROW	23.9	2.4
VAV-139	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	07	700	250/500	0.16	250	2-ROW	10.9	1.1
VAV-140	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	12	2060	700/1400	0.17	700	2-ROW	30.4	3.0
VAV-203	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	14	2800	850/1700	0.18	850	2-ROW	36.9	3.7
VAV-204	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	08	920	350/700	0.17	350	2-ROW	15.2	1.5
VAV-207	CONTRACTOR	KRUEGER	LMHS	SHUT OFF	16	3660	1200/2400	0.17	1200	2-ROW	52.1	5.2

REMARKS:
1. VAV-121, 121A, 122, 123, 124, 127, 128 129, 130A, 130B, AND 140 TO BE INSTALLED AS PART OF ALTERNATE #7.
2. VAV-203 TO BE REPLACED AS PART OF ALTERNATES #1 AND #7.
3. VAV-204 TO BE INSTALLED AND 207 TO BE REPLACED AS PART OF ALTERNATES #2 AND #7.
4. SEE DRAWINGS FOR RIGHT OR LEFT HAND CONNECTION LOCATIONS.
5. PRESSURE INDEPENDENT UNITS WITH 1-INCH (MIN.) FIBERGLASS INSULATION CONSTRUCTION.
6. PROVIDE WITH SLIP AND DRIVE CONNECTIONS, ACCESS PANEL, HANGER BRACKETS, AND FOUR QUADRANT AVERAGING FLOW SENSOR.
7. VAV BACNET CONTROLLER SHALL BE PROVIDED AND INSTALLED IN THE FIELD BY THE TEMPERATURE CONTROLS CONTRACTOR.
8. VAV TERMINAL UNITS SHALL BE PROVIDED WITH ONE (1) YEAR MANUFACTURER WARRANTY.

SCHEDULE OF CHILLED WATER CONTROL VALVES

COIL TAG	PROVIDED BY	GPM	TYPE	VALVE PRESS DROP	Cv	ACTUATOR TYPE	REMARKS
CC-1	TCC	33.7	2-WAY	4 PSIG	16.1	ELECTRONIC	NORMALLY CLOSED

REMARKS:
1. VALVES SHALL HAVE S.S. BALL AND TRIM AND SHALL BE TWO PIPE DIAMETERS (MAX.) SMALLER THAN PIPE SIZE.

SCHEDULE OF HOT WATER CONTROL VALVES

COIL TAG	PROVIDED BY	GPM	TYPE	VALVE PRESS DROP	Cv	ACTUATOR TYPE	REMARKS
HC-1	TCC	24.8	2-WAY	4 PSIG	10.9	ELECTRONIC	NORMALLY OPEN
VAV-121	TCC	0.9	2-WAY	4 PSIG	0.5	ELECTRONIC	NORMALLY OPEN
VAV-121A	TCC	0.3	2-WAY	4 PSIG	0.2	ELECTRONIC	NORMALLY OPEN
VAV-122	TCC	0.5	2-WAY	4 PSIG	0.3	ELECTRONIC	NORMALLY OPEN
VAV-123	TCC	0.5	2-WAY	4 PSIG	0.3	ELECTRONIC	NORMALLY OPEN
VAV-124	TCC	0.6	2-WAY	4 PSIG	0.3	ELECTRONIC	NORMALLY OPEN
VAV-127	TCC	1.1	2-WAY	4 PSIG	0.6	ELECTRONIC	NORMALLY OPEN
VAV-128	TCC	0.8	2-WAY	4 PSIG	0.4	ELECTRONIC	NORMALLY OPEN
VAV-129	TCC	0.4	2-WAY	4 PSIG	0.2	ELECTRONIC	NORMALLY OPEN
VAV-130A	TCC	1.1	2-WAY	4 PSIG	0.6	ELECTRONIC	NORMALLY OPEN
VAV-130B	TCC	1.1	2-WAY	4 PSIG	0.6	ELECTRONIC	NORMALLY OPEN
VAV-131	TCC	2.2	3-WAY	4 PSIG	1.1	ELECTRONIC	NORMALLY OPEN
VAV-132	TCC	0.8	2-WAY	4 PSIG	0.4	ELECTRONIC	NORMALLY OPEN
VAV-133	TCC	0.3	2-WAY	4 PSIG	0.2	ELECTRONIC	NORMALLY OPEN
VAV-134	TCC	0.4	2-WAY	4 PSIG	0.2	ELECTRONIC	NORMALLY OPEN
VAV-135	TCC	0.4	2-WAY	4 PSIG	0.2	ELECTRONIC	NORMALLY OPEN
VAV-137	TCC	0.8	2-WAY	4 PSIG	0.4	ELECTRONIC	NORMALLY OPEN
VAV-138	TCC	2.4	2-WAY	4 PSIG	1.2	ELECTRONIC	NORMALLY OPEN
VAV-139	TCC	1.1	2-WAY	4 PSIG	0.6	ELECTRONIC	NORMALLY OPEN
VAV-140	TCC	3.0	2-WAY	4 PSIG	1.5	ELECTRONIC	NORMALLY OPEN
VAV-203	TCC	3.7	2-WAY	4 PSIG	1.9	ELECTRONIC	NORMALLY OPEN
VAV-204	TCC	1.5	2-WAY	4 PSIG	0.8	ELECTRONIC	NORMALLY OPEN
VAV-207	TCC	5.2	2-WAY	4 PSIG	2.6	ELECTRONIC	NORMALLY OPEN

REMARKS:
1. CONTROL VALVES FOR VAV-121, 121A, 122, 123, 124, 127, 128, 129, 130A, 130B, AND 140 TO BE REPLACED AS PART OF ALTERNATE #7.
2. CONTROL VALVE FOR VAV-203 TO BE REPLACED AS PART OF ALTERNATES #1 AND #7.
3. CONTROL VALVES FOR VAV-204 AND 207 TO BE REPLACED AS PART OF ALTERNATES #2 AND #7.
4. VALVES SHALL HAVE S.S. BALL AND TRIM AND SHALL BE TWO PIPE DIAMETERS (MAX.) SMALLER THAN PIPE SIZE.

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

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ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

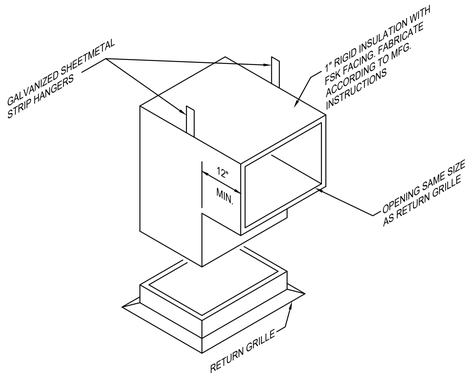
MECHANICAL SCHEDULES

DRAWN BY:	DESIGNED BY:
RTN	RTN
CHECKED BY:	DATE:
BWW	05/02/23

SCALE: NONE

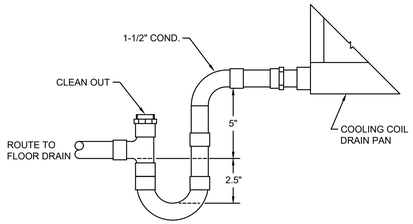
PROJECT NUMBER: 22286A

SHEET NO: M6
47 of 58

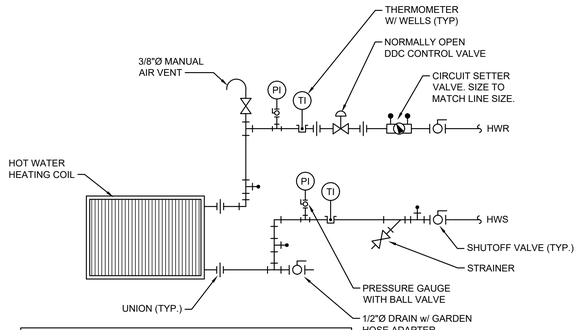


NOTES:
1. INSIDE SURFACE OF SOUND ELBOW SHALL BE PAINTED FLAT BLACK. NO VISIBLE GALVANIZED METAL.

RETURN GRILLE R-1 SOUND TRAP DETAIL
SCALE: NONE (TYP. ALL R-1 RETURN GRILLES)

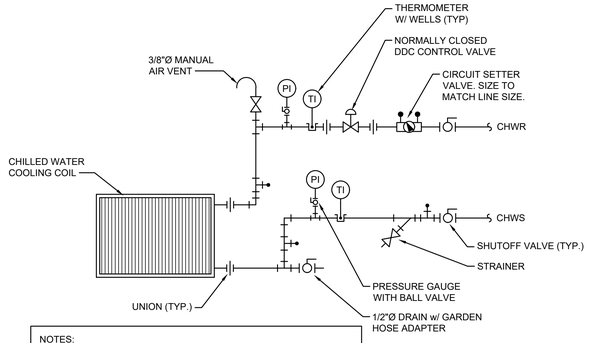


AHU CONDENSATE TRAP PIPING DIAGRAM
SCALE: NONE



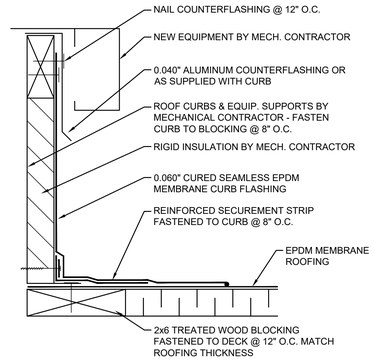
NOTES:
1. THIS DIAGRAM SHOWS THE PIPING SPECIALTIES REQUIRED & THEIR POSITIONS ONLY. THE PHYSICAL ARRANGEMENT OF THE PIPING IN RELATION TO THE COIL WILL VARY AS REQUIRED.

AHU-1 HOT WATER HEATING COIL PIPING DIAGRAM
SCALE: NONE



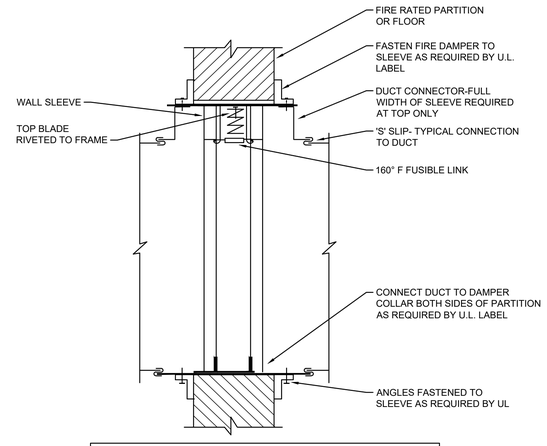
NOTES:
1. THIS DIAGRAM SHOWS THE PIPING SPECIALTIES REQUIRED & THEIR POSITIONS ONLY. THE PHYSICAL ARRANGEMENT OF THE PIPING IN RELATION TO THE COIL WILL VARY AS REQUIRED.

AHU-1 CHILLED WATER COOLING COIL PIPING DIAGRAM
SCALE: NONE



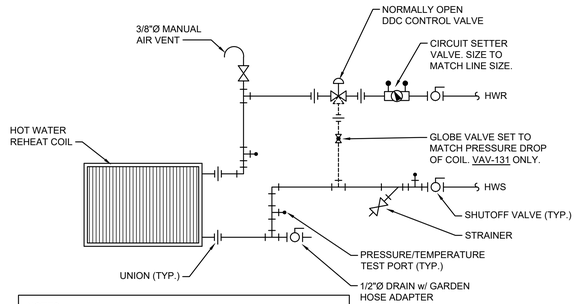
TYPICAL ROOF CURB FLASHING DETAIL
SCALE: NONE (TYP. FOR EXHAUST FAN AND VENTILATION HOOD)

NOTE: SEE SHEET S4 FOR FRAMED OPENING DETAILS.



NOTES:
1. PROVIDE HINGED OR DOUBLE CATCH ACCESS DOOR SIZED AND LOCATED TO PERMIT REPLACEMENT OF FUSIBLE LINK AND LABELED "FIRE DAMPER ACCESS."
2. INSTALL FIRE DAMPER PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

TYPICAL WALL/FLOOR FIRE DAMPER DETAIL
SCALE: NONE



NOTES:
1. THIS DIAGRAM SHOWS THE PIPING SPECIALTIES REQUIRED & THEIR POSITIONS ONLY. THE PHYSICAL ARRANGEMENT OF THE PIPING IN RELATION TO THE COIL WILL VARY AS REQUIRED.

TYPICAL VAV HOT WATER REHEAT COIL PIPING DIAGRAM
SCALE: NONE

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MECHANICAL DETAILS

DRAWN BY:	DESIGNED BY:
RTN	RTN
CHECKED BY:	DATE:
BWW	05/02/23

SCALE: AS NOTED

PROJECT NUMBER: 22286A

SHEET NO: M7

HVAC SPECIFICATIONS

GENERAL

THE HVAC DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTWORK, AND PIPING. THE CONTRACTOR SHALL ATTEMPT TO ADHERE TO THE ARRANGEMENT SHOWN. THE CONTRACTOR SHALL MAKE REASONABLE MODIFICATIONS IN THE INSTALLATION AS REQUIRED SO ALL EQUIPMENT AND MATERIALS FIT PROPERLY AND CAN BE SERVICED.

IT IS THE INTENTION OF THE HVAC DRAWINGS TO CALL FOR FINISHED WORK, TESTED, AND READY FOR OPERATION. ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT INDICATED ON THE DRAWINGS OR ANY INCIDENTAL ACCESSORIES REQUIRED TO MAKE WORK COMPLETE TO ALL RESPECTS AND READY FOR OPERATION SHALL BE FURNISHED, DELIVERED, AND INSTALLED WITHOUT ADDITIONAL EXPENSE OR TIME TO THE PROJECT.

THE HVAC CONTRACTOR SHALL EXAMINE ALL DRAWINGS RELATING TO WORK OF ALL TRADES AND BECOME FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK REQUIRED AND ITS RELATIONSHIP TO ALL OTHER WORK ON THE PROJECT. THE CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS IN LOCATING DUCTWORK, PIPING, EQUIPMENT, ETC. IN ORDER TO AVOID CONFLICT WITH OTHER CONTRACTOR'S WORK.

INSPECT THE SITE AND BE INFORMED WITH RESPECT TO THE CONDITIONS, FACILITIES, DIFFICULTIES, AND RESTRICTIONS UNDER WHICH THE WORK SHALL BE DONE. IF DISCREPANCIES IN OR OMISSIONS FROM THE CONTRACT DOCUMENTS ARE FOUND, NOTIFY THE ENGINEER IN WRITING. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF MATERIAL TO BE FURNISHED OR WORK TO BE DONE.

ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.

COORDINATE ALL ACTIVITIES, EQUIPMENT, AND UTILITY SHUTDOWNS WHICH MAY AFFECT ACTIVITIES OF THE BUILDING. COOPERATE WITH THE OWNER'S REPRESENTATIVE TO MINIMIZE DISRUPTIONS TO THE BUILDING OCCUPANTS. ALL SHUT DOWNS OF EXISTING SYSTEMS SHALL BE SCHEDULED AND APPROVED BY THE OWNER PRIOR TO COMMENCING WITH THE WORK.

ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNER SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.

USE OF THE OWNER'S ELEVATORS AND BUILDING CORRIDORS FOR HANDLING OF NEW AND REMOVED EQUIPMENT AND MATERIALS SHALL BE AT THE DIRECTION OF THE OWNER AND SHALL BE COORDINATED WITH HIS OPERATIONS.

COORDINATE ALL FINAL CONNECTIONS WITH THE OTHER TRADES AND OWNER FURNISHED EQUIPMENT. IF THIS CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATION WITH THE OTHER TRADES OR THE OWNER SO AS TO CAUSE INTERFERENCE WITH THE WORK OF OTHER TRADES, HE SHALL MAKE ALL NECESSARY CHANGES IN HIS WORK AND CORRECT THE CONDITION WITHOUT EXTRA CHARGE OR SCHEDULE EXTENSION.

ALL EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.

ALL MATERIALS SHALL BE PROVIDED BY THE HVAC CONTRACTOR UNLESS OTHERWISE NOTED.

EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED TO BE RELOCATED.

TAKE PRECAUTION AGAINST DAMAGE TO ANY EXISTING UTILITIES, FURNISHINGS, AND CONSTRUCTION NOT INCLUDED WITHIN THE SCOPE OF THIS WORK. ANY DAMAGE CAUSED BY THE CONTRACTORS OPERATION SHALL BE REPAIRED AT HIS EXPENSE COMPLETE AND TO THE SATISFACTION OF THE OWNER.

PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING AND DUCTWORK. DO NOT LEAVE PIPING OPEN ENDED.

CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT, AND ENVIRONMENTAL CONDITIONS.

IF THE CONTRACTOR ENCOUNTERS WHAT APPEARS TO BE A HAZARDOUS OR QUESTIONABLE MATERIAL, HE SHALL DISCONTINUE WORK IMMEDIATELY AND CONTACT THE OWNER'S REPRESENTATIVE.

THE HVAC CONTRACTOR SHALL KEEP ACCURATE RECORDS OF ALL CONCEALED PIPING AND EQUIPMENT WHICH DEVIATED FROM THE DRAWINGS. AT COMPLETION OF WORK, CONTRACTOR SHALL PRESENT TO THE OWNER'S REPRESENTATIVE A MARKED RECORD SET OF DESIGN PRINTS INDICATING CHANGES.

THE HVAC CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES OF EQUIPMENT INFORMATION TO THE THREE I DESIGN PROJECT ENGINEER FOR REVIEW AND APPROVAL. THIS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, THE FOLLOWING:

1. EXHAUST FAN
2. VAV TERMINAL UNITS
3. GRILLES AND DIFFUSERS
4. VENTILATION/INTAKE HOOD
5. VOLUME DAMPERS
6. FIRE DAMPERS
7. VALVES
8. INSULATION
9. TEMPERATURE CONTROLS

THE HVAC CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES OF EQUIPMENT OEM MANUALS AND SPARE PARTS LISTS TO THE THREE I DESIGN PROJECT ENGINEER FOR RECORD. THIS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, THE FOLLOWING:

1. AIR HANDLING UNIT
2. EXHAUST FAN
3. VAV TERMINAL UNITS

SUBSTITUTION OF PRODUCTS SHALL BE MADE ONLY WITH THE APPROVAL OF THE THREE I DESIGN PROJECT ENGINEER. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DESIGN CHANGES AND ASSOCIATED COSTS RELATED TO THE USE OF THE PROPOSED EQUAL.

ALL HVAC WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS:

1. THE STATE MECHANICAL CODE
2. THE STATE PLUMBING CODE
3. THE STATE BUILDING CODE
4. SMACNA STANDARDS
5. NFPA 90A
6. APPLICABLE NFPA STANDARDS
7. APPLICABLE OSHA STANDARDS

DUCTWORK MATERIAL SPECIFICATIONS

ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED TO COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE", THIRD EDITION - 2005.

UNLESS OTHERWISE NOTED, CONSTRUCT ALL RECTANGULAR AND ROUND DUCTWORK OF GALVANIZED SHEET STEEL COMPLYING WITH ASTM A527, LOCKFORMING QUALITY, WITH ASTM A525, G90 ZINC COATING, AND MILL PHOSPHATIZED.

CROSS BREAK OR CROSS BEAD RECTANGULAR DUCT SIDES 18" AND LARGER.

UNLESS OTHERWISE NOTED, ALL RECTANGULAR TEES AND ELBOWS SHALL HAVE DUAL-WALL TURNING VANES FABRICATED AND INSTALLED PER SMACNA STANDARDS.

UNLESS OTHERWISE NOTED, ALL ROUND ELBOWS SHALL BE 5-PIECE WITH A MINIMUM 1.5 CENTERLINE RADIUS.

ALL RECTANGULAR MANUAL VOLUME DAMPERS (MVD) SHALL BE OPPOSED BLADE TYPE FOR DUCT HEIGHTS OVER 12-INCHES WITH LOCKING QUADRANT OPERATORS. PROVIDE WHERE INDICATED ON THE DRAWINGS.

ALL ROUND MANUAL VOLUME DAMPERS AND RECTANGULAR MANUAL VOLUME DAMPERS 12-INCHES AND UNDER IN HEIGHT SHALL BE SINGLE BLADE BUTTERFLY TYPE WITH MANUAL LOCKING QUADRANT OPERATORS. PROVIDE WHERE INDICATED ON THE DRAWINGS.

ALL DUCTWORK ON CONSTANT VOLUME AND VARIABLE AIR VOLUME SYSTEMS SHALL BE LOW PRESSURE DUCTWORK, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

PRESSURE/VELOCITY CLASS AND SEAL CLASSIFICATION:

LOW PRESSURE SUPPLY DUCTWORK: +3" W.C. PRESSURE CLASS
SEAL CLASS B

RETURN DUCTWORK: -2" W.C. PRESSURE CLASS
SEAL CLASS C

EXHAUST DUCTWORK: -2" W.C. PRESSURE CLASS
SEAL CLASS C

FLEXIBLE DUCTWORK: UL 181, CLASS 1, TRILAMINATE OF ALUMINUM FOIL, FIBERGLASS, AND ALUMINIZED POLYESTER SUPPORTED BY HELICALLY WOUND, SPRING-STEEL WIRE; FIBROUS-GLASS INSULATION; POLYETHYLENE VAPOR BARRIER FILM. LIMITED TO 5 LINEAL FEET MAXIMUM.

1. PRESSURE RATING: 12-INCH WG POSITIVE.
2. MAXIMUM AIR VELOCITY: 4000 FPM.
3. TEMPERATURE RANGE: MINUS 20 TO PLUS 250 DEG F.

FLEXMASTER TYPE 3-INSULATED OR EQUAL.

METAL-EDGED FLEXIBLE CONNECTORS: FLAME-RETARDANT OR NONCOMBUSTIBLE FABRICS, COATINGS, AND ADHESIVES COMPLYING WITH UL 181, CLASS 1. FACTORY FABRICATED WITH A FABRIC STRIP 3-1/2 INCHES WIDE ATTACHED TO TWO STRIPS OF 2-3/4-INCH-WIDE, 0.028-INCH-THICK, GALVANIZED SHEET STEEL OR 0.032-INCH-THICK ALUMINUM SHEETS. SELECT METAL COMPATIBLE WITH DUCTS. GLASS FABRIC DOUBLE COATED WITH NEOPRENE.

ACCESS DOORS: FABRICATE DOORS AIRTIGHT AND SUITABLE FOR DUCT PRESSURE CLASS. DOUBLE WALL, DUCT MOUNTING, AND RECTANGULAR; FABRICATED OF GALVANIZED SHEET METAL WITH INSULATION FILL AND THICKNESS AS INDICATED FOR DUCT PRESSURE CLASS. INCLUDE 1-BY-1 INCH BUTT OR PIANO HINGE AND CAM LATCHES.

FIRE DAMPERS: FIRE DAMPERS SHALL BE DYNAMIC FIRE DAMPERS TESTED, CONSTRUCTED, AND LABELED IN ACCORDANCE WITH THE LATEST EDITION OF UL STANDARD 555. DAMPERS SHALL HAVE A FIRE RATING OF 1 1/2 HOURS AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF NFPA 90A. DAMPERS SHALL HAVE 165 DEGREES F FUSIBLE LINK AND SHALL BE LABELED FOR USE IN STATIC OR DYNAMIC SYSTEMS. DAMPERS LABELED FOR USE IN STATIC SYSTEMS ONLY SHALL NOT BE PERMITTED. THE DAMPER SHALL BE RATED FOR DYNAMIC CLOSURE AT 2,000 FPM AND 4" W.C. STATIC PRESSURE AND SHALL BE RATED TO CLOSE WITH AIRFLOW IN EITHER DIRECTION. INSTALL DAMPERS ACCORDING TO THE DAMPER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

DUCT INSULATION SPECIFICATIONS

EXTERNALLY INSULATE ALL SUPPLY, RETURN, AND OUTSIDE AIR ROUND AND RECTANGULAR DUCTWORK WITH 2" THICK, 1.0 PCF FIBERGLASS DUCT WRAP WITH FOIL-SCRIM-KRAFT (FSK) FACING CONFORMING TO ASTM C553, TYPE I, II, III, NFPA 90A AND 90B, AND FLAME SPREAD 25/SMOKE DEVELOPED 50 IN ACCORDANCE WITH ASTM E84. KNAUF DUCT WRAP OR EQUAL. INSTALL ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
EXHAUST DUCTWORK SHALL NOT BE INSULATED.

WELDING SPECIFICATIONS

STRUCTURAL WELDING PROCESSES AND OPERATORS SHALL BE PRE-QUALIFIED PER THE LATEST EDITION OF AWS D1.1. STRUCTURAL WELDING INCLUDES STRUCTURAL MEMBERS GREATHER THAN 0.125" THICK USED FOR THE PURPOSE OF DUCT OR PIPE SUPPORTS WELDED TO THE BUILDING STRUCTURE AND ANY WELDING OF MISCELLANEOUS STRUCTURAL MEMBER SUPPORT STEEL GREATHER THAN 0.125" THICK FOR ANY PORTION OF THE SYSTEM. MAKE WELDS TO EXISTING/NEW STEEL WITH LOW HYDROGEN ELECTRODES. STORE ELECTRODES IN ACCORDANCE WITH AWS SPECIFICATIONS.

SHEET METAL WELDING PROCESSES AND OPERATORS SHALL BE PRE-QUALIFIED PER THE LATEST EDITION OF AWS D9.1. SHEET METAL WELDING SHALL INCLUDE ANY SINGULAR BASE SHEET METAL THICKNESS OF 0.2391 INCHES OR LESS PRESENT IN THE WELD FOR DUCT JOINTS, THE ATTACHMENT OF ACCESSORIES AND COMPONENTS OF THE DUCT SYSTEM, AND THE JOINING OR ATTACHMENT OF STRUCTURAL MEMBERS, REGARDLESS OF THICKNESS, FOR THE PUPOSE OF STIFFENING, SUPPORTING, OR REINFORCING THE SHEET METAL.

MECHANICAL CONTRACTOR SHALL PROVIDE ZINC-RICH COATING TO ALL WELDS.

HVAC PIPING SPECIFICATIONS

CHILLED AND HOT WATER PIPING

PIPE, NPS 2" AND SMALLER: DRAWN-TEMPER COPPER TUBING, ASTM B 88, TYPE L.

FITTINGS, NPS 2" AND SMALLER: WROUGHT-COPPER FITTINGS, ASME B16.22, SOLDER JOINT.

UNIONS, NPS 2" AND SMALLER: WROUGHT-COPPER UNIONS, ASME B16.22, SOLDER JOINT.

SOLDER FILLER METALS: ASTM B 32, 95-5 TIN ANTIMONY.

BRAZING FILLER METALS: AWS A5.8, CLASSIFICATION BAG-1 (SILVER).

FLANGES AND FLANGED FITTINGS, NPS 2-1/2" AND LARGER: WROUGHT CAST- AND FORGED-STEEL, CLASS 150, ASME B16.5, INCLUDING BOLTS, NUTS, AND GASKETS OF THE FOLLOWING MATERIAL GROUP, END CONNECTIONS, AND FACINGS:

1. MATERIAL GROUP: 1.1.
2. END CONNECTIONS: BUTT WELDING.
3. FACINGS: RAISED FACE.

FLANGE GASKETS: 1/16" THICK, CONFORMING TO ANSI B16.21 (NONMETALLIC GASKETS FOR PIPE FLANGES). GARLOCK BLUE-GARD STYLE 3200, PREMIUM GRADE.

Y-PATTERN STRAINERS, NPS 2" AND SMALLER: 250 LB., CAST BRONZE ASTM B62, BRONZE BODY AND CAP, NON-ASBESTOS GASKET, 20 MESH TYPE 304 STAINLESS STEEL SCREEN, AND THREADED CONNECTIONS. MUELLER MODEL 352M OR EQUAL.

VALVES, NPS 2" AND SMALLER: COPPER-ALLOY BALL VALVES, MSS SP-110, TWO-PIECE BRASS OR BRONZE BODY WITH FULL-PORT, CHROME-PLATED BRONZE BALL; PTFE OR TFE SEATS; 400-PSIG MINIMUM CWP RATING AND BLOWOUT-PROOF STEM. THREADED ENDS. VALVES SHALL HAVE STAINLESS STEEL STEMS AND STEM EXTENSIONS WHERE REQUIRED TO ALLOW FOR PROPER INSTALLATION OF INSULATION. APOLLO 77-100 OR EQUAL.

CHECK VALVES, NPS 2" AND SMALLER: BRONZE Y-PATTERN SWING CHECK VALVES, MSS SP-80, TYPE 4, CLASS 125 OR 150, BRONZE BODY WITH NONMETALLIC DISC, BRONZE SEAT, AND THREADED ENDS. CRANE FIGURE 41TF OR EQUAL.

WAFER CHECK VALVES, NPS 2-1/2" AND LARGER: API 594, SPRING LOADED, SINGLE- OR DUAL-PLATE TYPE, CLASS 125 OR 150, CAST IRON BODY, ALUMINUM BRONZE PLATE, EPDM SEALS, WAFER TYPE CHECK VALVE. DUO-CHEK STYLE G, 125 SERIES OR EQUAL.

CALIBRATED BALANCING VALVES, NPS 2" AND SMALLER: BRONZE BODY, BALL TYPE, 125-PSIG WORKING PRESSURE, 250 DEG F MAXIMUM OPERATING TEMPERATURE, AND HAVING THREADED ENDS. VALVES SHALL HAVE CALIBRATED ORIFICE OR VENTURI, CONNECTIONS FOR PORTABLE DIFFERENTIAL PRESSURE METER WITH INTEGRAL SEALS, AND BE EQUIPPED WITH A MEMORY STOP TO RETAIN SET POSITION. BELL AND GOSSETT CIRCUIT SETTER MODEL CB OR EQUAL.

FLEXIBLE CONNECTORS: STAINLESS-STEEL BELLOWS WITH WOVEN, FLEXIBLE, BRONZE OR STAINLESS STEEL, WIRE-REINFORCING PROTECTIVE JACKET; 150-PSIG MINIMUM WORKING PRESSURE AND 250 DEG F MAXIMUM OPERATING TEMPERATURE. CONNECTORS SHALL HAVE FLANGED- OR THREADED-END CONNECTIONS TO MATCH EQUIPMENT CONNECTED AND SHALL BE CAPABLE OF 3/4-INCH MISALIGNMENT. METRAFLEX OR EQUAL.

TEMPERATURE INDICATORS: ASHCROFT BIMETAL THERMOMETER, EI SERIES, EVERYANGLE CASE CONNECTION, 3" DIAL, 0-200 DEGREE F RANGE. PROVIDE THREADED THERMOWELL.

PRESSURE/TEMPERATURE TEST PORTS: CORROSION-RESISTANT BRASS OR STAINLESS-STEEL BODY WITH CORE INSERTS AND GASKETED AND THREADED CAP, WITH EXTENDED STEM FOR UNITS TO BE INSTALLED IN INSULATED PIPING. MINIMUM PRESSURE AND TEMPERATURE RATING SHALL BE 500 PSIG AT 200 DEG F. CORE INSERTS: ONE OR TWO SELF-SEALING RUBBER VALVES. SISCO P/T PLUGS.

CONDENSATE DRAIN PIPING

PIPE: HARD COPPER TUBE, ASTM B 88, TYPES L, WATER TUBE, DRAWN TEMPER.

FITTINGS: COPPER PRESSURE FITTINGS, ASME B16.18, CAST-COPPER-ALLOY OR ASME B16.22, WROUGHT-COPPER, SOLDER-JOINT FITTINGS.

COPPER UNIONS: MSS SP-123, COPPER-ALLOY, HEXAGONAL-STOCK BODY WITH BALL-AND-SOCKET, METAL-TO-METAL SEATING SURFACES, AND SOLDER-JOINT OR THREADED ENDS.

PIPE INSULATION

INSULATE ALL CHILLED AND HOT WATER PIPE AND FITTINGS WITH ONE-PIECE MOLDED FIBERGLASS INSULATION WITH ALL SERVICE JACKET CONFORMING TO ASTM C547, TYPE I, AND ASTM C1136, TYPES I AND II. FLAME SPREAD 25/SMOKE DEVELOPED 50 IN ACCORDANCE WITH ASTM E84. USE PROTO 25/50 RATED PVC FITTING COVERS. FITTINGS SHALL BE INSULATED THE SAME THICKNESS AS THE ADJOINING INSULATION. APPLY ALL INSULATION AND FITTING COVERS PER THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. THICKNESSES SHALL BE AS SCHEDULED BELOW:

CHILLED WATER, NPS 2" AND SMALLER: 1" THK
HOT WATER, NPS 2" AND SMALLER: 1" THK

JACKET ALL INDOOR EXPOSED INSULATION WITH 0.022" THICK 25/50 RATED PVC JACKETING EQUAL TO PROTO LO-SMOKE PVC. INSTALL ACCORDING TO THE JACKET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

PIPE SUPPORTS

CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED HANGERS, SUPPORTS, ANCHORS, FASTENERS, FITTINGS, ACCESSORIES, AND HARDWARE AS NECESSARY FOR THE COMPLETE INSTALLATION OF PIPING WORK. COMPLY WITH MSS-SP-58. CARBON STEEL PIPE HANGERS SHALL HAVE GALVANIZED METAL COATING, CONTINUOUS THREAD HANGER RODS, AND CARBON STEEL NUTS AND WASHERS. COPPER PIPE HANGERS SHALL HAVE COPPER-COATED STEEL.

PROVIDE PRODUCTS LISTED, CLASSIFIED, AND LABELED AS SUITABLE FOR THE PURPOSE INTENDED, WHERE APPLICABLE. CONTRACTOR SHALL TAKE SEISMIC REQUIREMENTS INTO CONSIDERATION WHILE SELECTING PRODUCTS. SEE SEISMIC SPECIFICATIONS BELOW.

WHERE SUPPORT AND ATTACHMENT COMPONENT TYPES AND SIZES ARE NOT SPECIFICALLY INDICATED, SELECT IN ACCORDANCE WITH MANUFACTURER'S APPLICATION CRITERIA AS REQUIRED FOR THE LOAD TO BE SUPPORTED. INCLUDE CONSIDERATION FOR VIBRATION, EQUIPMENT OPERATION, AND SEISMIC/SHOCK LOADS WHERE APPLICABLE. INSTALL BUILDING ATTACHMENTS TO STRUCTURAL STEEL.

DO NOT USE WIRE, CHAIN, PERFORATED PIPE STRAP, OR WOOD FOR PERMANENT SUPPORTS UNLESS SPECIFICALLY INDICATED OR PERMITTED.

ALL STRUCTURAL STEEL COMPONENTS SHALL COMPLY WITH ASTM A992.

ALL WELDS SHALL BE BY A CERTIFIED WELDER PER AWS CODES.

SUPPORT SPACING SHALL NOT EXCEED 8'-0" OR PER MECHANICAL CODE LIMITATIONS, WHICHEVER IS MORE STRINGENT.

PIPE IDENTIFICATION

ALL NEW PIPING SYSTEMS SHALL BE LABELED WITH MANUFACTURED PIPE MARKERS NOTING UTILITY SERVICE AND FLOW DIRECTION. COMPLY WITH ASME A13.1, "SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS," FOR LETTER SIZE, LENGTH OF COLOR FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION DEVICES FOR PIPING.

HYDRONIC PIPING SYSTEM TESTS

PRIOR TO INSTALLING PIPE INSULATION, SUBJECT PIPING SYSTEM TO HYDROSTATIC TEST PRESSURE THAT IS NOT LESS THAN 1.5 TIMES THE DESIGN PRESSURE. TEST PRESSURE SHALL NOT EXCEED MAXIMUM PRESSURE FOR ANY VESSEL, PUMP, VALVE, OR OTHER COMPONENT IN SYSTEM UNDER TEST. AFTER HYDROSTATIC TEST PRESSURE HAS BEEN APPLIED FOR AT LEAST 30 MINUTES, EXAMINE PIPING, JOINTS, AND CONNECTIONS FOR LEAKAGE. ELIMINATE LEAKS BY TIGHTENING, REPAIRING, OR REPLACING COMPONENTS, AND REPEAT HYDROSTATIC TEST UNTIL THERE ARE NO LEAKS. ON LARGE INSTALLATIONS, PREPARE WRITTEN REPORT OF TESTING AND SUBMIT TO THE THREE I DESIGN PROJECT ENGINEER.

CLEANING

FLUSH PIPING SYSTEMS WITH CLEAN WATER. REMOVE AND CLEAN OR REPLACE STRAINER SCREENS. AFTER CLEANING AND FLUSHING HYDRONIC PIPING SYSTEMS, BUT BEFORE BALANCING, REMOVE DISPOSABLE FINE-MESH STRAINERS IN PUMP SUCTION DIFFUSERS.

FIRE SEALANTS

ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS SHALL BE SEALED PROPERLY IN ORDER TO MAINTAIN THE INTEGRITY OF THE RATED SYSTEM.

PAINTING

WORK INCLUDES SURFACE PREPARATION, PAINTING, AND FINISHING OF EXTERIOR EXPOSED ITEMS AND SURFACES THROUGHOUT THE PROJECT, EXCEPT AS OTHERWISE INDICATED.

APPLICATION PROCEDURES SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ENVIRONMENTAL CONDITIONS AND SURFACE PREPARATION.
FERROUS-METAL PRIMER: FACTORY-FORMULATED RUST-INHIBITIVE METAL PRIMER FOR EXTERIOR APPLICATION. BENJAMIN MOORE; MOORE'S IMC ALKYD METAL PRIMER NO. M06: APPLIED AT A DRY FILM THICKNESS OF NOT LESS THAN 2.0 MILS.

GALVANIZED METAL PRIMER: FACTORY-FORMULATED GALVANIZED METAL PRIMER FOR EXTERIOR APPLICATION. BENJAMIN MOORE; MOORE'S IMC ACRYLIC METAL PRIMER NO. M04: APPLIED AT A DRY FILM THICKNESS OF NOT LESS THAN 2.0 MILS.
EXTERIOR FINISH COAT: EXTERIOR FULL-GLOSS ACRYLIC ENAMEL FOR FERROUS AND OTHER METALS, FACTORY-FORMULATED FULL-GLOSS WATERBORNE ACRYLIC-LATEX ENAMEL FOR EXTERIOR APPLICATION. BENJAMIN MOORE; MOORE'S IMC ACRYLIC GLOSS ENAMEL M28: APPLIED AT A DRY FILM THICKNESS OF NOT LESS THAN 2.0 MILS.

INTERIOR FINISH COAT: INTERIOR FULL-GLOSS ALKYD ENAMEL FOR METAL SURFACES: FACTORY-FORMULATED FULL-GLOSS ALKYD INTERIOR ENAMEL. BENJAMIN MOORE; MOORE'S IMC URETHANE ALKYD ENAMEL NO. M22: APPLIED AT A DRY FILM THICKNESS OF NOT LESS THAN 2.0 MILS.

SEISMIC SPECIFICATIONS

SEISMIC RESTRAINTS: CONTRACTOR SHALL PROVIDE AND INSTALL ALL DUCTWORK, PIPING, AND EQUIPMENT WITH SEISMIC RESTRAINTS AS REQUIRED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE WITH INDIANA AMENDMENTS AND ASCE STANDARD ASCE 7. SEISMIC DESIGN CATEGORY D.

SEISMIC RESTRAINT REFERENCE GUIDELINES: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FEMA 414 - INSTALLING SEISMIC RESTRAINTS FOR DUCTWORK AND PIPING - DECEMBER 2004; FEMA 412 - INSTALLING SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT - DECEMBER 2002; SMACNA - SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS - THIRD EDITION, 2008.

TEST AND BALANCE

ALL AIR AND WATER SYSTEMS SHALL BE TESTED, ADJUSTED, AND BALANCED TO WITHIN PLUS OR MINUS 10% OF THE DESIGN VALUES BY AN INDEPENDENT, LICENSED, TEST AND BALANCE AGENCY CONFORMING TO THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). FURNISH FOUR (4) CERTIFIED TEST AND BALANCE REPORTS TO THE THREE I DESIGN PROJECT ENGINEER.

HVAC CONTRACTOR SHALL PROVIDE AND INSTALL NEW AIR FILTERS IN AIR HANDLING UNIT AHU-1 PRIOR TO TEST AND BALANCE. ALL TEST AND BALANCE WORK SHALL BE COMPLETED BY FLO-TECH, INC. NO SUBSTITUTIONS. CONTACT INFO: BOB LETTERMAN (812) 459-6740.

INDOOR AIR QUALITY GUIDELINES DURING CONSTRUCTION FOR PROJECT AREA

THE HVAC CONTRACTOR SHALL COORDINATE PROJECT AREA EXHAUST REQUIREMENTS AND BARRIER PROTECTION DURING CONSTRUCTION WITH THE OWNER AND GENERAL CONTRACTOR IN ORDER TO MAINTAIN THE PROJECT AREA UNDER NEGATIVE PRESSURE WITH RESPECT TO THE SURROUNDING AREA. THIS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, SEALING OFF THE PROJECT AREA, PROVIDING EXHAUST FANS AS REQUIRED, AND TEMPORARILY SEALING OFF OR FILTERING EXISTING DUCTWORK IN THE AREA. IN GENERAL, REQUIREMENTS SHALL CONFORM TO SMACNA'S "IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION", SECOND EDITION, 2007.

BID
11/01/23

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REV	DATE	BY	ITEM
A	09/07/23	RTN	ISSUED FOR 100% REVIEW
B	11/01/23	RTN	ISSUED FOR BID

ADDITION AND INTERIOR RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

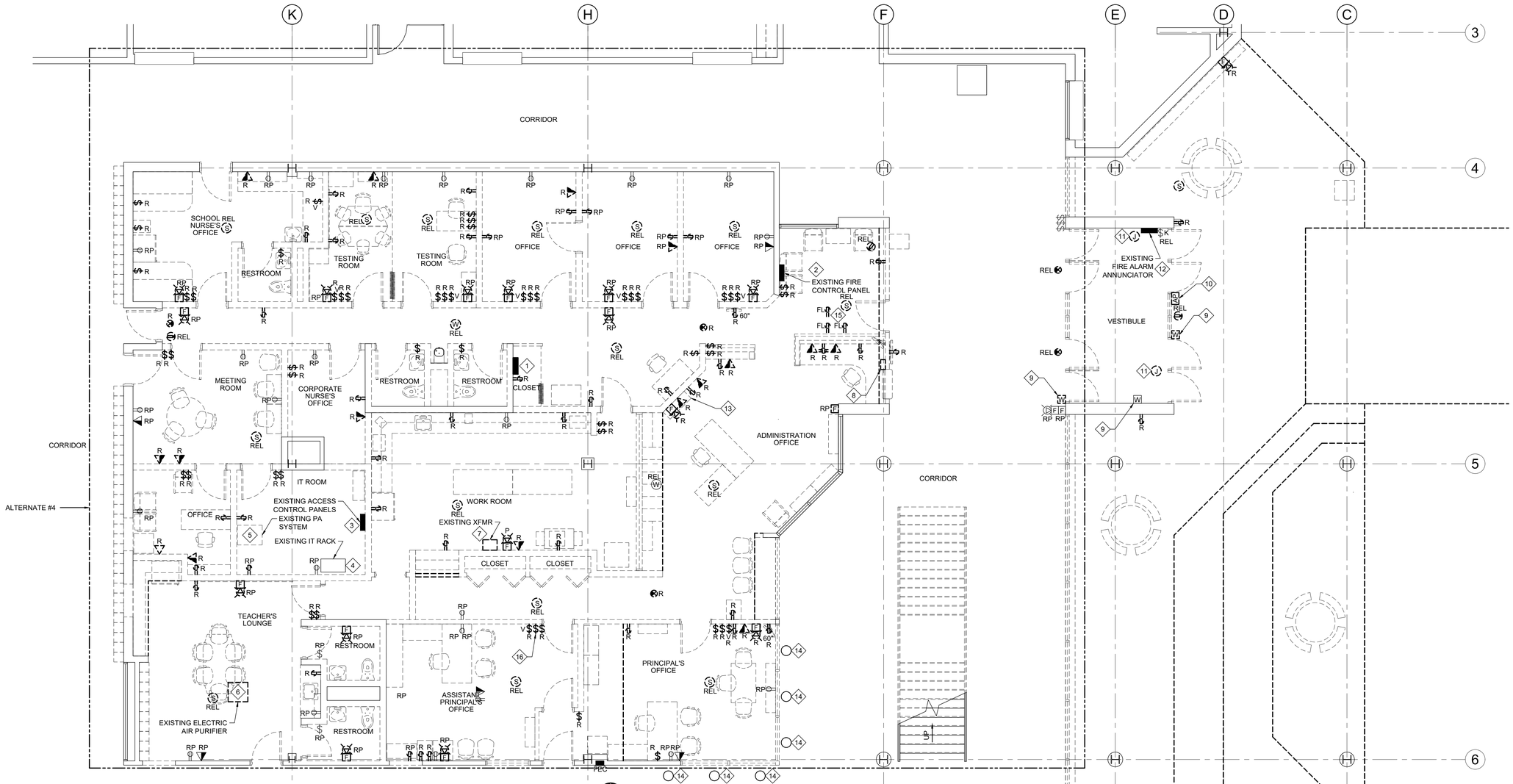
HVAC SPECIFICATIONS

DRAWN BY: RTN	DESIGNED BY: RTN
CHECKED BY: BWW	DATE: 05/02/23

SCALE: NONE

PROJECT NUMBER: 22286A

SHEET NO: M8
49 of 58



FIRST FLOOR DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
2. CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE, UNLESS OTHERWISE NOTED.
3. "RP" - REPLACE DEVICE, WIRE TO REMAIN FOR NEW DEVICE, TIE WIRE ABOVE CEILING GRID AND RE-WORK CIRCUITS WHERE APPLICABLE. "R" REMOVE DEVICE, REMOVE WIRE AND CONDUIT TO NEAREST JUNCTION POINT. "REL" - EXISTING DEVICE TO BE RELOCATED, RE-WORK WIRE AND CONDUIT TO NEW LOCATION.
4. REFERENCE CIVIL, STRUCTURAL, PLUMBING, ARCHITECTURAL, AND MECHANICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
5. CONTRACTOR SHALL COORDINATE WITH KOORSEN PRIOR TO REMOVING ANY FIRE ALARM DEVICES.
6. CONTRACTOR SHALL REMOVE ALL EXISTING SOFFIT LIGHT FIXTURES FOR CANOPY. REMOVE WIRE BACK TO SOURCE.
7. CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURES IN PROJECT AREA . WIRE TO REMAIN FOR NEW LIGHT FIXTURE. COIL WIRE AND TIE TO STRUCTURE ABOVE. STORE LIGHT FIXTURES IN SAFE AND SECURE LOCATION. SEE SHEET E5 AND E6 FOR NEW LOCATION.
8. CONTRACTOR SHALL REMOVE EXISTING CEILING SPEAKERS AND RE-INSTALL IN NEW LOCATION. STORE IN SAFE AND SECURE LOCATION. SEE SHEET E5 AND E6.
9. DEVICES AND/OR FIXTURES IN EXISTING CORRIDOR TO REMAIN AND BE TEMPORARILY SUPPORTED FROM STRUCTURE ABOVE, UNLESS OTHERWISE NOTED. CEILING IS BEING REMOVED AND INSTALLED BY OTHERS.

ALTERNATE #4

DEMOLITION KEYNOTES:

1. CONTRACTOR SHALL REMOVE EXISTING SOUND PANEL, CONDUIT AND WIRE. CONTRACTOR SHALL REMOVE POWER CABLE BACK TO SOURCE.
2. EXISTING FIRE CONTROL PANEL TO REMAIN.
3. EXISTING ACCESS CONTROL PANEL TO REMAIN.
4. EXISTING IT RACK TO REMAIN.
5. CONTRACTOR SHALL RELOCATE EXISTING PA SYSTEM IN IT ROOM, SEE SHEET E3 FOR NEW LOCATION. COORDINATE WITH SCHOOL IT PRIOR TO RELOCATING IN ORDER TO MITIGATE NETWORK DOWNTIME.
6. CONTRACTOR SHALL REMOVE CONDUIT AND WIRE TO ELECTRIC PURIFIER BACK TO SOURCE. PURIFIER FEED FROM PANEL 1LN2 CKT. 40 IN ROOM 114. PURIFIER TO BE REMOVED BY OTHERS.
7. CONTRACTOR SHALL REMOVE TRANSFORMER, CONDUIT AND WIRE BACK TO SOURCE.
8. CONTRACTOR SHALL RELOCATE EXISTING AIPHONE VIDEO MASTER STATION AND RE-WORK WIRING AND CONDUIT, SEE SHEET E3 FOR NEW LOCATION.
9. CONTRACTOR SHALL REMOVE EXISTING PUSHBUTTON DEVICE. WIRE TO REMAIN, RE-WORK WIRING AND CONDUIT FOR NEW JAMB PUSHBUTTON DEVICES, SEE SHEET E3 FOR NEW LOCATION.
10. CONTRACTOR SHALL RELOCATE EXISTING AIPHONE. RE-WORK CONDUIT AND WIRE, SEE SHEET E3 FOR NEW LOCATION.
11. CONTRACTOR SHALL RE-WORK SURFACE MOUNT JUNCTION BOXES, CONDUIT AND WIRE TO BE IN NEW CEILING CAVITY.
12. EXISTING FIRE ALARM ANNUNCIATOR TO REMAIN.
13. CONTRACTOR SHALL RELOCATE EXISTING NETWORK SWITCH. RE-WORK NETWORK CABLE, SEE SHEET E3 FOR NEW LOCATION.
14. CONTRACTOR SHALL REMOVE DOWN-LIGHT FIXTURE AND WIRE BACK TO SWITCH IN PRINCIPAL'S OFFICE. FILL IN WALL CAVITY TO MATCH EXISTING WALL ELEVATION.
15. CONTRACTOR SHALL REMOVE IN-FLOOR RECEPTACLES AND COVER PLATES. REMOVE WIRE BACK TO SOURCE. PATCH FLOOR TO MATCH SURROUNDING ELEVATION.
16. CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY AIR HVAC SHUT-OFF SWITCH TO PRINCIPAL'S OFFICE. RE-WORK EXISTING WIRE AND CONDUIT AS NECESSARY TO NEW LOCATION, SEE SHEET E3.

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

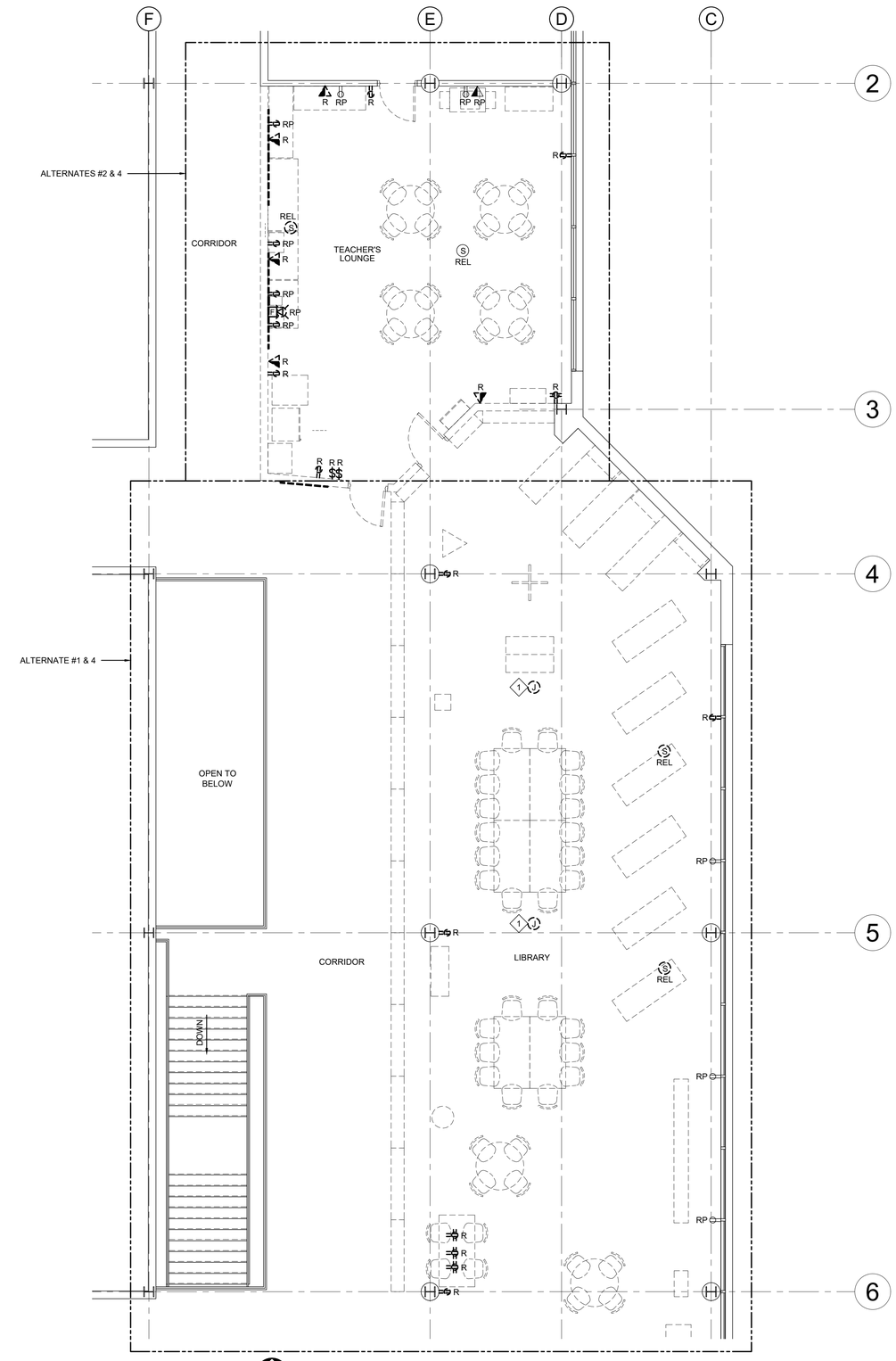
FIRST FLOOR
DEMOLITION PLAN

DRAWN BY:	DESIGNED BY:
NDH	NDH
CHECKED BY:	DATE:
NKZ	06/22/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: E1



SECOND FLOOR DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
2. CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE, UNLESS OTHERWISE NOTED.
3. "RP" - REPLACE DEVICE, WIRE TO REMAIN FOR NEW DEVICE, TIE WIRE ABOVE CEILING GRID AND RE-WORK CIRCUITS WHERE APPLICABLE. "R" REMOVE DEVICE, REMOVE WIRE AND CONDUIT TO NEAREST JUNCTION POINT. "REL" - EXISTING DEVICE TO BE RELOCATED, RE-WORK WIRE AND CONDUIT TO NEW LOCATION.
4. REFERENCE CIVIL, STRUCTURAL, PLUMBING, ARCHITECTURAL, AND MECHANICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
5. CONTRACTOR SHALL COORDINATE WITH KOORSEN PRIOR TO REMOVING ANY FIRE ALARM DEVICES.
6. CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURES IN PROJECT AREA, WIRE TO REMAIN FOR NEW LIGHT FIXTURE LAYOUT COIL WIRE AND TIE TO STRUCTURE ABOVE.
7. CONTRACTOR SHALL REMOVE EXISTING CEILING SPEAKERS, STORE IN SAFE AND SECURE LOCATION AND RE INSTALL IN NEW LOCATION, SEE SHEET E5 AND E6.

(#) DEMOLITION KEYNOTES:

1. CONTRACTOR SHALL REMOVE EXISTING DROP RECEPTACLES. CONTRACTOR SHALL REMOVE CONDUIT AND WIRE TO NEAREST JUNCTION POINT.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR DEMOLITION PLAN

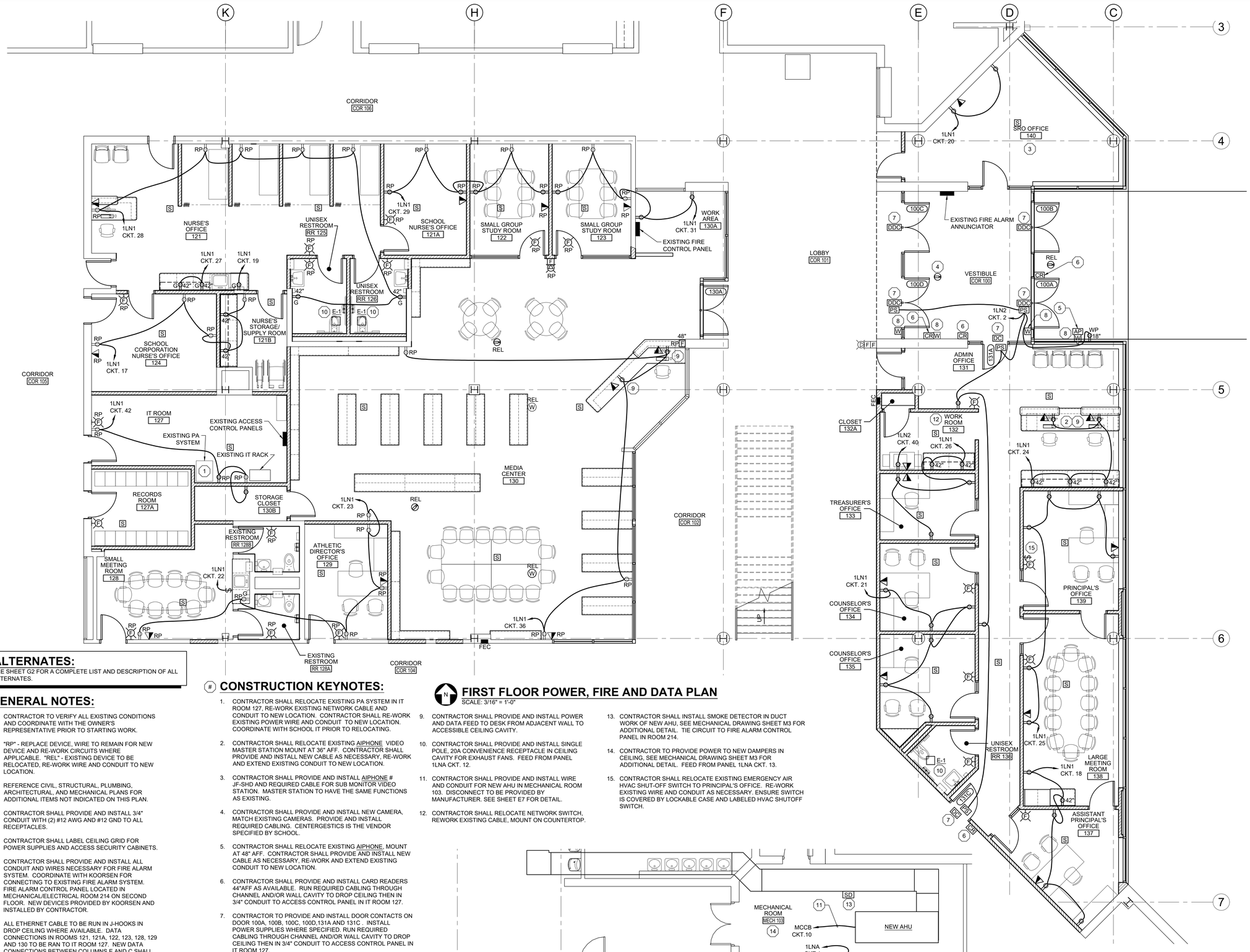
DRAWN BY:	DESIGNED BY:
NDH	NDH
CHECKED BY:	DATE:
NKZ	06/22/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: **E2**

BID 11/01/23



ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
2. "RP" - REPLACE DEVICE, WIRE TO REMAIN FOR NEW DEVICE AND RE-WORK CIRCUITS WHERE APPLICABLE. "REL" - EXISTING DEVICE TO BE RELOCATED, RE-WORK WIRE AND CONDUIT TO NEW LOCATION.
3. REFERENCE CIVIL, STRUCTURAL, PLUMBING, ARCHITECTURAL, AND MECHANICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
4. CONTRACTOR SHALL PROVIDE AND INSTALL 3/4" CONDUIT WITH (2) #12 AWG AND #12 GND TO ALL RECEPTACLES.
5. CONTRACTOR SHALL LABEL CEILING GRID FOR POWER SUPPLIES AND ACCESS SECURITY CABINETS.
6. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT AND WIRES NECESSARY FOR FIRE ALARM SYSTEM. COORDINATE WITH KOORSEN FOR CONNECTING TO EXISTING FIRE ALARM SYSTEM. FIRE ALARM CONTROL PANEL LOCATED IN MECHANICAL/ELECTRICAL ROOM 214 ON SECOND FLOOR. NEW DEVICES PROVIDED BY KOORSEN AND INSTALLED BY CONTRACTOR.
7. ALL ETHERNET CABLE TO BE RUN IN J-HOOKS IN DROP CEILING WHERE AVAILABLE. DATA CONNECTIONS IN ROOMS 121, 121A, 122, 123, 128, 129 AND 130 TO BE RAN TO IT ROOM 127. NEW DATA CONNECTIONS BETWEEN COLUMNS E AND C SHALL BE RAN TO RELOCATED NETWORK SWITCH IN CLOSET 132.
8. SEE SHEET E9 FOR LEGEND DETAIL.
9. CONTRACTOR SHALL LABEL ALL FACEPLATES WITH APPLICABLE PANEL AND CIRCUIT.

(#) CONSTRUCTION KEYNOTES:

1. CONTRACTOR SHALL RELOCATE EXISTING PA SYSTEM IN IT ROOM 127, RE-WORK EXISTING NETWORK CABLE AND CONDUIT TO NEW LOCATION. CONTRACTOR SHALL RE-WORK EXISTING POWER WIRE AND CONDUIT TO NEW LOCATION. COORDINATE WITH SCHOOL IT PRIOR TO RELOCATING.
2. CONTRACTOR SHALL RELOCATE EXISTING AIPHONE VIDEO MASTER STATION MOUNT AT 36" AFF. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CABLE AS NECESSARY, RE-WORK AND EXTEND EXISTING CONDUIT TO NEW LOCATION.
3. CONTRACTOR SHALL PROVIDE AND INSTALL AIPHONE # JF-SHD AND REQUIRED CABLE FOR SUB MONITOR VIDEO STATION. MASTER STATION TO HAVE THE SAME FUNCTIONS AS EXISTING.
4. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CAMERA, MATCH EXISTING CAMERAS. PROVIDE AND INSTALL REQUIRED CABLING. CENTERGESTICS IS THE VENDOR SPECIFIED BY SCHOOL.
5. CONTRACTOR SHALL RELOCATE EXISTING AIPHONE, MOUNT AT 48" AFF. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CABLE AS NECESSARY, RE-WORK AND EXTEND EXISTING CONDUIT TO NEW LOCATION.
6. CONTRACTOR SHALL PROVIDE AND INSTALL CARD READERS 44"AFF AS AVAILABLE. RUN REQUIRED CABLING THROUGH CHANNEL AND/OR WALL CAVITY TO DROP CEILING THEN IN 3/4" CONDUIT TO ACCESS CONTROL PANEL IN IT ROOM 127.
7. CONTRACTOR TO PROVIDE AND INSTALL DOOR CONTACTS ON DOOR 100A, 100B, 100C, 100D,131A AND 131C . INSTALL POWER SUPPLIES WHERE SPECIFIED. RUN REQUIRED CABLING THROUGH CHANNEL AND/OR WALL CAVITY TO DROP CEILING THEN IN 3/4" CONDUIT TO ACCESS CONTROL PANEL IN IT ROOM 127.
8. CONTRACTOR SHALL PROVIDE AND INSTALL NEW JAMB PUSH PLATE, MOUNT AT 42" AFF. RUN REQUIRED CABLING THROUGH WALL CAVITY AND/OR CHANNEL TO DROP CEILING THEN IN 3/4" CONDUIT TO CONTROLLER. RE-USE EXISTING POWER FEED TO CONTROLLER, RE-WORK EXISTING CONDUIT AND CABLE AS NECESSARY FOR NEW CONTROLLER LOCATION.
9. CONTRACTOR SHALL PROVIDE AND INSTALL POWER AND DATA FEED TO DESK FROM ADJACENT WALL TO ACCESSIBLE CEILING CAVITY.
10. CONTRACTOR SHALL PROVIDE AND INSTALL SINGLE POLE, 20A CONVENIENCE RECEPTACLE IN CEILING CAVITY FOR EXHAUST FANS. FEED FROM PANEL 1LNA CKT. 12.
11. CONTRACTOR SHALL PROVIDE AND INSTALL WIRE AND CONDUIT FOR NEW AHU IN MECHANICAL ROOM 103. DISCONNECT TO BE PROVIDED BY MANUFACTURER. SEE SHEET E7 FOR DETAIL.
12. CONTRACTOR SHALL RELOCATE NETWORK SWITCH. REWORK EXISTING CABLE, MOUNT ON COUNTERTOP.
13. CONTRACTOR SHALL INSTALL SMOKE DETECTOR IN DUCT WORK OF NEW AHU, SEE MECHANICAL DRAWING SHEET M3 FOR ADDITIONAL DETAIL. TIE CIRCUIT TO FIRE ALARM CONTROL PANEL IN ROOM 214.
14. CONTRACTOR TO PROVIDE POWER TO NEW DAMPERS IN CEILING, SEE MECHANICAL DRAWING SHEET M3 FOR ADDITIONAL DETAIL. FEED FROM PANEL 1LNA CKT. 13.
15. CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY AIR HVAC SHUT-OFF SWITCH TO PRINCIPAL'S OFFICE. RE-WORK EXISTING WIRE AND CONDUIT AS NECESSARY. ENSURE SWITCH IS COVERED BY LOCKABLE CASE AND LABELED HVAC SHUTOFF SWITCH.

FIRST FLOOR POWER, FIRE AND DATA PLAN

SCALE: 3/16" = 1'-0"

PARTIAL FIRST FLOOR HVAC PLAN

SCALE: 3/16" = 1'-0"

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST FLOOR POWER, FIRE AND DATA PLAN

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SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: E3

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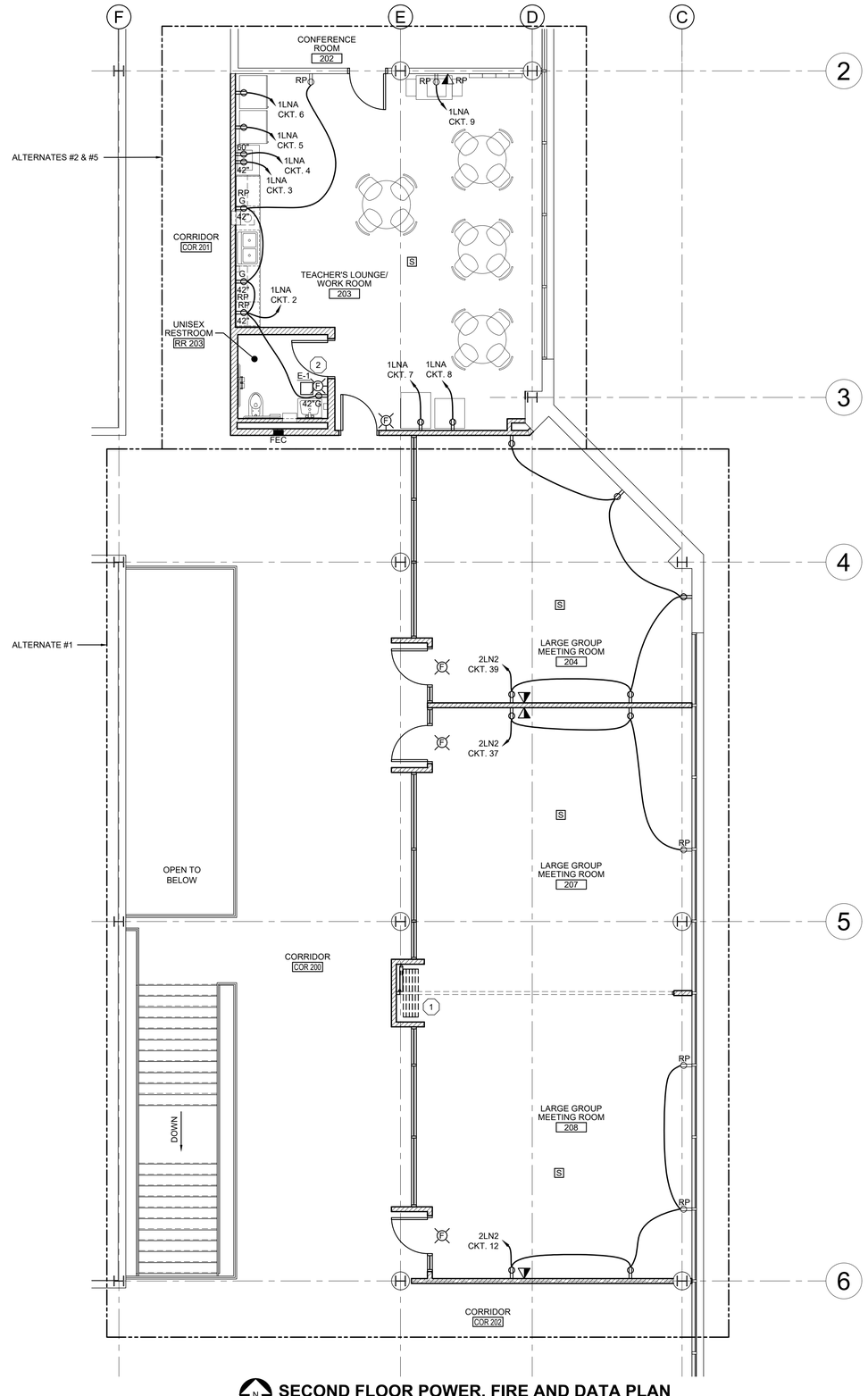

SECOND FLOOR POWER, FIRE AND DATA PLAN

SCALE: 3/16" = 1'-0"

ALTERNATES:

SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE SCHOOL PRINCIPAL PRIOR TO STARTING WORK.
2. "RP" - REPLACE DEVICE, WIRE TO REMAIN FOR NEW DEVICE AND RE-WORK CIRCUITS WHERE APPLICABLE. "E" - EXISTING DEVICE, WIRE AND CONDUIT TO REMAIN.
3. REFERENCE CIVIL, STRUCTURAL, PLUMBING, ARCHITECTURAL, AND MECHANICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
4. CONTRACTOR SHALL PROVIDE AND INSTALL 3/4" CONDUIT WITH (2) #12 AWG AND #12 GND TO ALL RECEPTACLES.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT AND WIRES NECESSARY FOR FIRE ALARM SYSTEM. COORDINATE WITH KOORSEN FOR CONNECTING TO EXISTING FIRE ALARM SYSTEM. FIRE ALARM CONTROL PANEL LOCATED IN MECHANICAL/ELECTRICAL ROOM 214 ON SECOND FLOOR.
6. ALL ETHERNET CABLE TO BE RUN IN J-HOOKS IN DROP CEILING WHERE AVAILABLE. RUN CABLES TO IT CLOSET IN ROOM 202.
7. SEE SHEET E9 FOR LEGEND DETAIL.

(#) CONSTRUCTION KEYNOTES:

1. CONTRACTOR SHALL INSTALL FOLLOWING EQUIPMENT FOR AUTOMATED WALL. ACTIVATION OF THE OPERATOR SHALL BE CONTROLLED BY A TWO (2) POSITION (LOW VOLTAGE) KEY SWITCH TO ARM THE SYSTEM. CONTROL OF THE OPERATOR SHALL CONSIST OF TWO (2) STATIONS WITH EXTEND AND RETRACT MOMENTARY PUSH BUTTON SWITCHES. SWITCHES SHALL BE LOW VOLTAGE, WIRED IN SERIES, AND LOCATED ON OPPOSITE SIDES AND ENDS OF THE PARTITION. ELECTRIC OPERATOR SHALL INCLUDE SAFETY DEVICES (LIMIT SWITCHES) TO AUTOMATICALLY SHUT OFF THE OPERATOR AT THE FULLY EXTENDED AND FULLY RETRACTED POSITION. OPERATOR SHALL BE LOCATED AT THE OPPOSITE END OF STACK AREA OFF CENTER TO THE SIDE OF THE PARTITION. EQUIPMENT PROVIDED BY WALL MANUFACTURER. CONTRACTOR TO PROVIDE AND INSTALL FEED FROM PANEL 1LNA CKT. 10.
2. CONTRACTOR SHALL PROVIDE AND INSTALL SINGLE POLE, 20A CONVENIENCE RECEPTACLE IN CEILING CAVITY FOR EXHAUST FANS. FEED FROM PANEL 1LNA CKT. 11.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR POWER, FIRE AND DATA PLAN

DRAWN BY:	DESIGNED BY:
NDH	NDH
CHECKED BY:	DATE:
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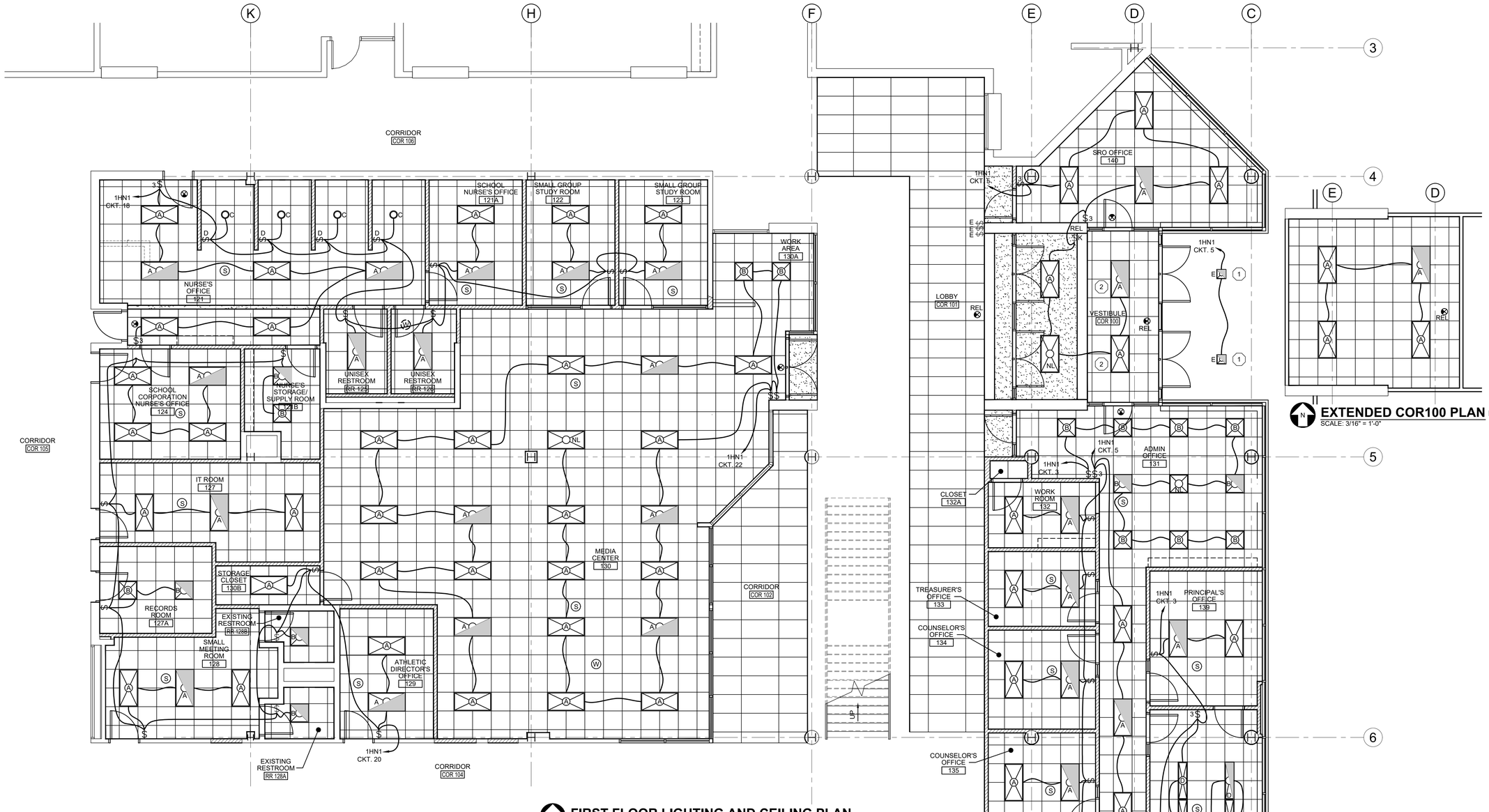
SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: E4



EXTENDED COR100 PLAN (2)
SCALE: 3/16" = 1'-0"

FIRST FLOOR LIGHTING AND CEILING PLAN
SCALE: 3/16" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE SCHOOL PRINCIPAL PRIOR TO STARTING WORK.
2. "RP" - REPLACE DEVICE, WIRE TO REMAIN FOR NEW DEVICE AND RE-WORK CIRCUITS WHERE APPLICABLE. "R" REMOVE DEVICE, REMOVE WIRE AND CONDUIT TO NEAREST JUNCTION POINT. "E" - EXISTING DEVICE, WIRE AND CONDUIT TO REMAIN.
3. REFERENCE CIVIL, STRUCTURAL, PLUMBING, ARCHITECTURAL, AND MECHANICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
4. CONTRACTOR SHALL INSTALL LIGHT FIXTURES IN PROJECT AREA, UNLESS OTHERWISE NOTED. CONTRACTOR TO USE EXISTING WIRE AND CONDUIT WHERE APPLICABLE. CONTRACTOR TO PROVIDE AND INSTALL 3/4" CONDUIT WITH (2) #12 AWG AND #12 GND TO ALL FIXTURES AS NEEDED.
5. CONTRACTOR SHALL TIE ALL EXIT LIGHTS TO NEAREST LIGHTING CIRCUIT.
6. SEE SHEET E9 FOR LEGEND DETAIL.
7. CONTRACTOR SHALL RE-INSTALL SPEAKERS AND RE-WORK EXISTING WIRE AND CONDUIT TO NEW LOCATION. PROVIDE AND INSTALL REQUIRED CABLING AS NECESSARY FOR NEW SPEAKER LOCATIONS.

(#) CONSTRUCTION KEYNOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL OUTSIDE LIGHT FIXTURES WITH VAPOR BARRIER.
2. CONTRACTOR SHALL PROVIDE AND INSTALL LIGHT FIXTURES FOR SPACE ABOVE PORTAL. LAY-IN CEILING @ 10'-10" EXTENDS OVER GYPSUM BOARD CEILING @ 7'-2". SEE EXTENDED COR100 PLAN, THIS SHEET. SEE REFLECTED CEILING PLAN ON SHEET A7.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

FIRST FLOOR LIGHTING AND CEILING PLAN

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NDH	NDH
CHECKED BY:	DATE:
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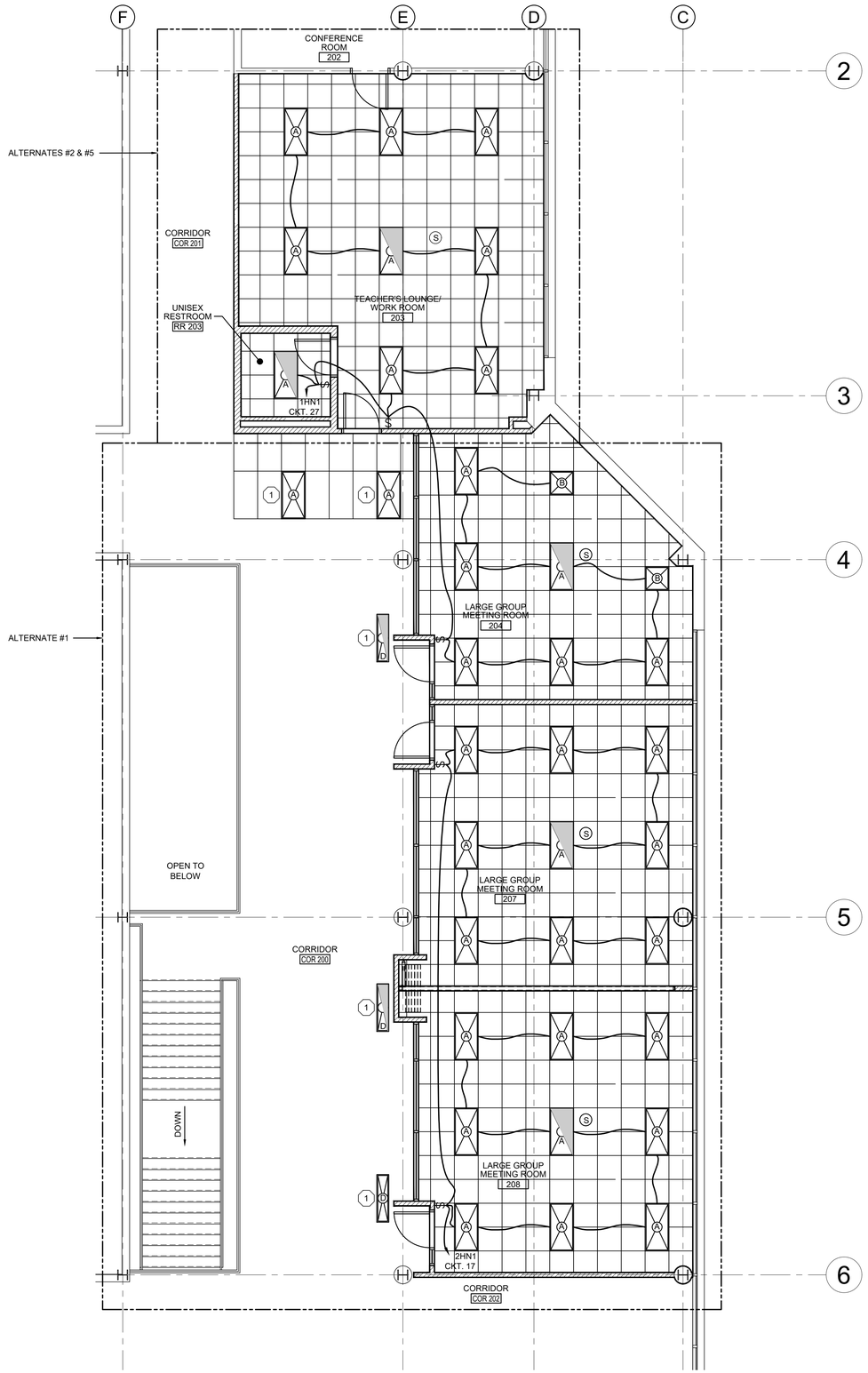
SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: E5



SECOND FLOOR LIGHTING AND CEILING PLAN
SCALE: 3/16" = 1'-0"

ALTERNATES:
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE SCHOOL PRINCIPAL PRIOR TO STARTING WORK.
2. CONTRACTOR SHALL REMOVE ALL OLD MATERIALS FROM THE SITE, UNLESS OTHERWISE NOTED.
3. "RP" - REPLACE DEVICE, WIRE TO REMAIN FOR NEW DEVICE AND RE-WORK CIRCUITS WHERE APPLICABLE. "R" REMOVE DEVICE, REMOVE WIRE AND CONDUIT TO NEAREST JUNCTION POINT, UNLESS OTHERWISE NOTED. "E" - EXISTING DEVICE, WIRE AND CONDUIT TO REMAIN.
4. REFERENCE CIVIL, STRUCTURAL, PLUMBING, ARCHITECTURAL, AND MECHANICAL PLANS FOR ADDITIONAL ITEMS NOT INDICATED ON THIS PLAN.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NEW LIGHT FIXTURES. CONTRACTOR TO USE EXISTING WIRE AND CONDUIT WHERE APPLICABLE. CONTRACTOR TO PROVIDE AND INSTALL 3/4" CONDUIT WITH (2) #12 AWG AND #12 GND TO ALL FIXTURES WHERE APPLICABLE.
6. SEE SHEET E9 FOR LEGEND DETAIL.
7. CONTRACTOR SHALL RE-INSTALL SPEAKERS AND RE-WORK EXISTING WIRE AND CONDUIT TO NEW LOCATION. PROVIDE AND INSTALL REQUIRED CABLING AS NECESSARY FOR NEW SPEAKER LOCATIONS.

(#) CONSTRUCTION KEYNOTES:

1. CONTRACTOR SHALL TIE NEW LIGHT FIXTURES IN CORRIDOR 200 TO EXISTING LIGHT CIRCUIT.

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

SECOND FLOOR LIGHTING AND CEILING PLAN

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NKZ	06/22/23

SCALE: 3/16" = 1' - 0"

PROJECT NUMBER: 22286A

SHEET NO: E6

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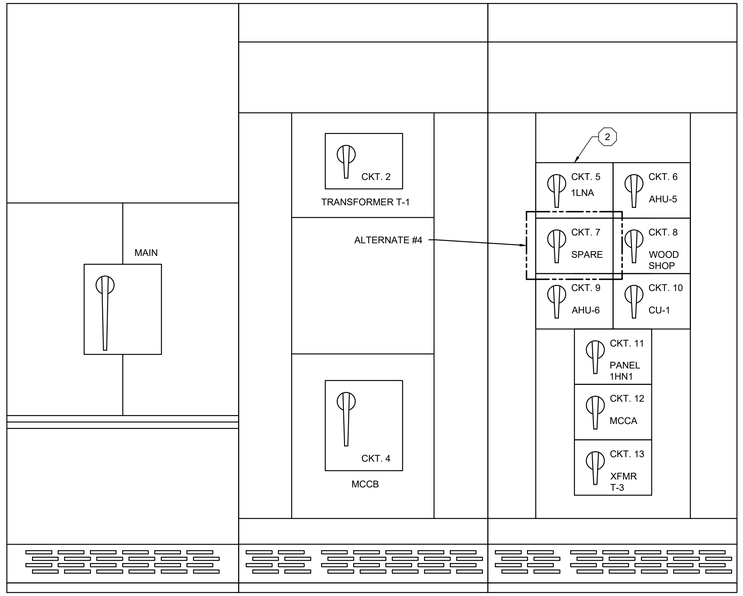
BID 11/01/23

ALTERNATES:

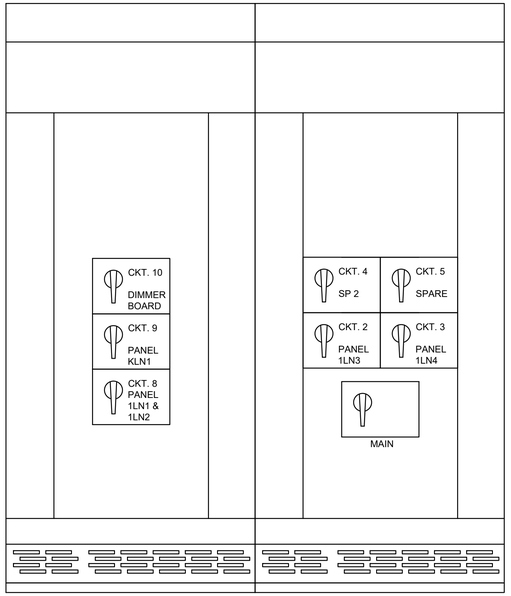
SEE SHEET G2 FOR A COMPLETE LIST AND DESCRIPTION OF ALL ALTERNATES.

GENERAL NOTES:

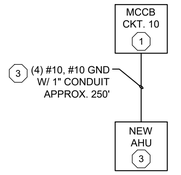
1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE SCHOOL PRINCIPAL PRIOR TO STARTING WORK.
2. MDSH AND MDSL IS LOCATED ON THE FIRST FLOOR ROOM 114, SEE SHEET G2 FOR ROOM LOCATION.
3. MCCB IS LOCATED ON THE SECOND FLOOR ROOM 214, SEE SHEET G2 FOR SCHOOL LAYOUT.



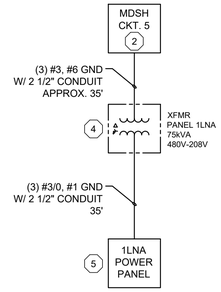
MDSH SWITCHBOARD 2000A 480/277V ELEVATION
SCALE: NONE



SHOWN FOR REFERENCE ONLY
MDSL SWITCHBOARD 800A 208/120V ELEVATION
SCALE: NONE



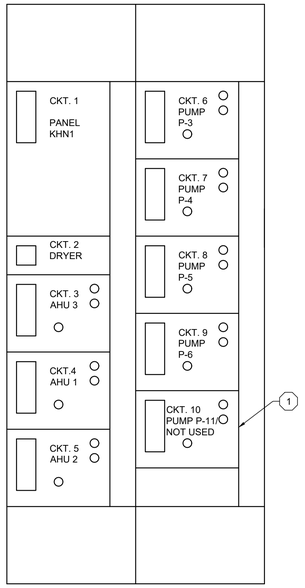
NEW AHU ONE-LINE DIAGRAM
SCALE: NONE



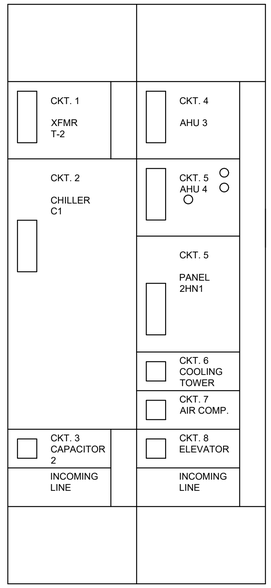
1LNA ONE-LINE DIAGRAM
SCALE: NONE

CONSTRUCTION KEYNOTES:

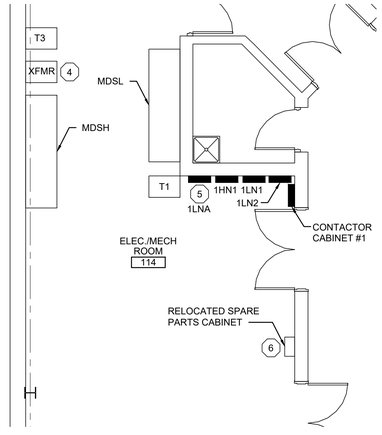
1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW GE 7700 PLUS SIZE 1 STARTER 30A WITH 15A FUSES. FVNR MCC BUCKET 12", 480V, 3 PHASE FOR NEW AIR HANDLER UNIT.
2. CONTRACTOR SHALL PROVIDE AND INSTALL (3) 90A FUSES IN MDSH SWITCHBOARD CKT. 5.
3. CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT AND WIRE FOR NEW AIR HANDLER UNIT ON 1ST FLOOR MECH ROOM 103. RUN WIRE TO MANUFACTURER PROVIDED DISCONNECT AND CONTROL PANEL.
4. CONTRACTOR SHALL PROVIDE AND INSTALL NEW SQUARE D TRANSFORMER, #EXN75T3H, 3 PHASE, 480V/208-120V SECONDARY, TYPE 2.
5. CONTRACTOR SHALL PROVIDE AND INSTALL NEW SQUARE D PANELBOARD #NQ430L2C AND ASSOCIATED BREAKERS. SEE SHEET E8 FOR BREAKER DETAIL.
6. RELOCATE EXISTING SPARE PARTS CABINET TO CREATE SPACE FOR NEW POWER PANEL.



MCCB 1200A SOUTH SIDE 480/277V ELEVATION
SCALE: NONE



SHOWN FOR REFERENCE ONLY
MCCB 1200A NORTH SIDE 480/277V ELEVATION
SCALE: NONE



ELECTRICAL/MECHANICAL ROOM 114 LAYOUT
SCALE: 3/16" = 1'-0"

BID 11/01/23

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CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

POWER DISTRIBUTION ELEVATION AND ONE LINE

DRAWN BY:	DESIGNED BY:
NDH	NDH
CHECKED BY:	DATE:
NKZ	06/22/23

SCALE: AS NOTED

PROJECT NUMBER: 22286A

SHEET NO: E7

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE WITH THE SCHOOL PRINCIPAL PRIOR TO STARTING WORK.

(#) CONSTRUCTION KEYNOTES:

1. CONTRACTOR SHALL PROVIDE AN UPDATED LAMINATED PANEL SCHEDULE AFTER PROJECT IS COMPLETE.
2. CONTRACTOR SHALL IDENTIFY SPARE BREAKERS WHERE EXISTING CIRCUITS ARE NO LONGER IN USE.
3. CONTRACTOR SHALL RE-WORK CIRCUIT TO FEED NEW TEMPERATURE CONTROL PANEL. PANEL IS PROVIDED BY MECHANICAL CONTRACTOR AND MOUNTED IN ROOM 214.
4. CONTRACTOR SHALL PROVIDE AND INSTALL NEW SQUARE D PANELBOARD #NQ430L2C AND ASSOCIATED BREAKERS.

1	LIGHTS FRONT LOBBY C167	2	LIGHTS ROOM C116
3	LIGHTS 131, 137-139	4	LIGHTS ROOM C105-C112
5	LIGHTS COR100, 140, 132-136	6	LIGHTS ROOM C101
7	LIGHTS ROOM C117, C118, C120, C125	8	LIGHTS CORRIDOR C114, C115, C126, C127, C128, C151
9	LIGHTS ROOM C122-C124	10	LIGHTS SPECIAL ED. C108, C109
11	LIGHTS ROOM C121	12	LIGHTS SPECIAL ED.
13	LIGHTS CORRIDOR C140, C165, C172, C177-C179	14	LIGHTS ROOM C180, C181
15	LIGHTS LOCKER ROOM C173	16	LIGHTS ROOM C175, C176
17	LIGHTS LOCKER ROOM C169	18	LIGHTS 121, 121A, 122, 123, 125, 126
19	POLE LIGHTS FRONT LOT, OUTSIDE WALL LIGHTS	20	LIGHTS 121B, 124, 127, 127A, 128, 129, 130B
21	LIGHTS ROOM C260-C263	22	LIGHTS 130
23	LIGHTS ROOM C256-C259	24	LIGHTS ROOM C252-C255
25	LIGHTS ROOM CORRIDOR C266, C267, STAIRS C265,C268	26	LIGHTS ROOM C248-C251
27	LIGHTS 203, RR203, 204	28	LIGHTS ROOM C237-C240
29	LIGHTS ROOM C247	30	LIGHTS ROOM C241-C244
31	LIGHTS ROOM C229-C232	32	POLE LIGHTS FRONT DRIVE, TENNIS COURT
33	LIGHTS ROOM C233-C236	34	LIGHTS ROOM C129, C130
35	UNIDENTIFIED CIRCUIT	36	UNIDENTIFIED CIRCUIT
37	UNIDENTIFIED CIRCUIT	38	UNIDENTIFIED CIRCUIT
39	UNIDENTIFIED CIRCUIT	40	UNIDENTIFIED CIRCUIT
41		42	

PANEL NO. - 1HN1 (1) (2)
PHASE - 3
WIRES - 4
MFG. - GENERAL ELECTRIC
TYPE - NHB

VOLTAGE - 480/277V
MAIN - 225A FRAME RATED
CKTS - 42
ROOM # - 114 ELECTRICAL/MECHANICAL
FED FROM - MDSH

1	LIGHTING GYM	2	LIGHTING GYM
3	LIGHTING GYM	4	LIGHTING GYM
5	LIGHTING GYM	6	LIGHTING GYM
7	LIGHTS ROOM B102, B109-B113, B121-B123	8	SPARE
9	LIGHTS ROOM B103-108	10	SPARE
11	LIGHTS ROOM B115-B120	12	LIGHTS ROOM C216-C219
13	LIGHTS ROOM C208-C211	14	LIGHTS ROOM C220-C223
15	LIGHTS ROOM C212-C215	16	LIGHTS ROOM C201, C224
17	LIGHTS ROOM 207 AND 208	18	LIGHTS ROOM C203, C204
19	LIGHTS ROOM C246	20	LIGHTS A201, A202, A205, A206
21	LIGHTS ROOM C228, C245	22	LIGHTS ROOM C170, C171, C174, A107, A108, A140
23	LIGHTS A119-A122, A131, A133, A134, A136, A137	24	LIGHTS ROOM A101, A102, A105, A106, A109, A110 RESTROOMS
25	LIGHTS ROOM A123, A125, A126, A128, A130, A130, R.R. BY GYM	26	LIGHTS ROOM A112, A113, A115-A118
27	LIGHTS ROOM A129, A141	28	LIGHTS CAFETORIUM
29	LIGHTS ROOM B201, A207	30	LIGHTS CAFETORIUM
31	LIGHTS ROOM B202, B203	32	SPARE
33	SPARE	34	SPARE
35	SPARE	36	SPARE
37		38	
39		40	
41		42	

PANEL NO. - 2HN1 (1) (2)
PHASE - 3
WIRES - 4
MFG. - GENERAL ELECTRIC
TYPE - NHB

VOLTAGE - 480/277V
MAIN - 225A FRAME RATED
CKTS - 42
ROOM # - 214 ELECTRICAL/MECHANICAL
FED FROM - MCCB

1	RECEPT. ROOM 220, 221	2	RECEPT. C208, 209
3	RECEPT. 214, 216-223	4	RECEPT. C209, 214, 224
5	RECEPT. 214, 217, 222, 224, CHORUS ROOM	6	RECEPT. C208-215
7	RECEPT. 222, 223, CH RM, LIGHTS 226	8	RECEPT. C201
9	RECEPT. 203, 207	10	RECEPT. C246
11	RECEPT. 206, 207	12	RECEPT. C204, 205, 208
13	SCOREBOARD	14	WATERCOOLER C170
15	SCOREBOARD	16	WATERCOOLER C170
17	WATERCOOLER ROOM A135	18	RECEPT. A101, 105-107, ELEV. PIT, UH A101
19	UH RM A134, 135	20	ELEVATOR LIGHTS
21	RECEPT. A139, 140	22	RECEPT. A130, 131, 123
23	RECECPT. A135, 136, 139, 140	24	RECEPT A128, 129, UH A125
25	UV#1 ROOM B202	26	RECEPT. A123, 128
27	RECEPT. A123, 137	28	RECEPT. A123
29	RECEPT. A119, 122, UH ROOM A120, 122, 125	30	RECEPT. A123
31	FAN F1 ROOM A206	32	TEMPERATURE CONTROLLER (3)
33	RECEPT. A201, 205, C201, UH ROOM A201, 206, C201	34	RECEPT. BY ELEV.
35	RECEPT. B202	36	LIBRARY POWER POLE MIDDLE ROOM
37	RECEPTACLES ROOM 207	38	POWER POLE C203
39	RECEPTACLES ROOM 204	40	POWER POLE C203
60 41	GYM BLEACHERS	42	UNIDENTIFIED CIRCUIT

PANEL NO. - 2LN2 (1) (2)
PHASE - 3
WIRES - 4
MFG. - GENERAL ELECTRIC
TYPE - NLAB

VOLTAGE - 208/120V
MAIN - 225A FRAME RATED
CKTS - 42
ROOM # - 214 ELECTRICAL/MECHANICAL
FED FROM -

1	LIGHTS ROOM C101	2	LIGHTS ROOM C146, C147, C153, C156, C157
3	LIGHTS ROOM C161-C163	4	ROLL UP GRILLS ROOM C152
5	RECEPTACLE ROOM C126, C142, C142C, C145, C147, C158	6	RECEPTACLE ROOM C133, DISPOSAL ROOM C133
7	RECEPTACLE ROOM C132, C135, C139, CAB. HEATER ROOM C135	8	RECEPTACLE ROOM C133, C134, WEST OUTSIDE
9	RECEPTACLE ROOM C132, C135, C135A, C139, C139A	10	REFRIGERATOR ROOM C133
11	RECEPTACLE ROOM C139, C177, CAB HEATER C139, SOL. C181	12	WASHER ROOM C133
30 13	DRYER ROOM C133	50 14	RANGE ROOM C133 SPEC. ED
15		16	
17	RECEPTACLES ROOM 121B AND 124	18	RECEPTACLES ROOM 137 AND 138
19	ROOM 121 REFRIGERATOR	20	RECEPTACLE ROOM C140
21	RECEPTACLES ROOM 134 AND 135	22	GARBAGE DISPOSAL ROOM 128
23	RECEPTACLES ROOM 128 AND 129	24	RECEPTACLES ROOM 131
25	RECEPTACLES ROOM 138 AND139	26	RECEPTACLES ROOM 132 AND 133
27	RECEPTACLES ROOM 121 COUNTERTOP	28	RECEPTACLES ROOM 121
29	RECEPTACLES ROOM 121A AND 122	30	RECEPTACLE ROOM C116, C120, C121
31	RECEPTACLES ROOM 123 AND 130A	32	RECEPTACLE ROOM C116
50 33	KILN	34	UNIT HEATER STAIRS C127, C131, C182, C183
35		36	RECEPTACLES ROOM 130
37		38	HEARING BOOTH ROOM C144
39	4-6 PUMP	40	HEARING BOOTH ROOM C144
30 41	FAN F3, F13	42	SERVER RACK/RECEPTACLES IN ROOM 127, 130B

PANEL NO. - 1LN1 (1) (2)
PHASE - 3
WIRES - 4
MFG. - GENERAL ELECTRIC
TYPE - NLAB

VOLTAGE - 208/120V
MAIN - 225A FRAME RATED
CKTS - 42
ROOM # - 114 ELECTRICAL/MECHANICAL
FED FROM - MDSL

1	RECEPTACLE ROOM C121 ART	2	DOOR POWER SUPPLIES AND HALLWAY RECEPTACLES
3	RECEPTACLE ROOM C121 ART, C151, C167, CAB HEATER C151	4	RECEPTACLE ROOM C116 ART
5	RECEPTACLE ROOM C121 ART	6	RECEPTACLE ROOM C116 ART
7	RECEPTACLE ROOM C101	8	SEWING MACHINES ROOM C101
9	RECEPTACLE ROOM C101, C115, WAITING ROOM CLINIC S WALL	10	SEWING MACHINE ROOM C101
11	SEWING MACHINE ROOM C101	12	SEWING MACHINE ROOM C101
13	SEWING MACHINE ROOM C101	14	SEWING MACHINE ROOM C101
15	SPARE	16	RECEPTACLE ROOM C262, C267, C257, CAB HEATERS C262, C267
17	RECEPTACLE C229, C230, CAB HEATERS ROOM C229, C230	18	RECEPTACLE ROOM C256, C263, C266, CAB HEATERS C263, LITE C264
19	RECEPTACLE ROOM C30, C235, C238	20	RECEPTACLE ROOM C256-C263
21	RECEPTACLE ROOM C228, C236, C237	22	RECEPTACLE ROOM C254, C257
23	RECEPTACLE ROOM C229-C236	24	RECEPTACLE ROOM C248-C255
25	POWER POLES ROOM C247	26	RECEPTACLE ROOM C255, C256, C266, C267, CAB HEATER C267
27	POWER POLES ROOM C247	28	POWER POLES ROOM C247
29	POWER POLES ROOM C247	30	POWER POLES ROOM C247
31	RECEPTACLE ROOM C247, C249, C267	32	POWER POLES ROOM C247
33	RECEPTACLE C247-C249, C267	34	RECEPTACLE ROOM C228, C243, C244
35	CONTACTOR PANEL #1 CONTROL	36	RECEPTACLE ROOM C237-C244
37	UNIT HEATER ROOM C114, C116, C125	38	TELEPHONE BOARD ROOM C130
39	CEILING DROPS SEWING	40	PRINTER RECEPTACLE ROOM 132
41	CEILING DROPS SEWING	42	SPARE

PANEL NO. - 1LN2 (1) (2)
PHASE - 3
WIRES - 4
MFG. - GENERAL ELECTRIC
TYPE - NLAB

VOLTAGE - 208/120V
MAIN - 225A FRAME RATED
CKTS - 42
ROOM # - 114 ELECTRICAL/MECHANICAL
FED FROM - MDSL

1	RECEPTACLE ROOM M103 NEW AHU	2	RECEPTACLES ROOM 203 COUNTERTOPS
3	MICROWAVE ROOM 203	4	MICROWAVE ROOM 203
5	REFRIGERATOR ROOM 203	6	REFRIGERATOR ROOM 203
7	VENDING MACHINE ROOM 203	8	VENDING MACHINE ROOM 203
9	PRINTER ROOM 203	10	AUTOMATED WALL ROOM 207 AND 208
11	EXHAUST FAN RR 203	12	EXHAUST FANS RR 125 AND RR126
13	DAMPERS MECH 103	14	SPARE
15	SPARE	16	SPARE
17	SPARE	18	SPARE
19	SPARE	20	SPARE
21	SPARE	22	SPARE
23	SPARE	24	SPARE
25	SPARE	26	SPARE
27	SPARE	28	SPARE
29	SPARE	30	SPARE

PANEL NO. - 1LNA (4)
PHASE - 3
WIRES - 4
MFG. - SQUARE D
TYPE - NQ

VOLTAGE - 208/120V
MAIN - 200A
CKTS - 30
ROOM # - 114 ELECTRICAL/MECHANICAL
FED FROM - MDSL

BID
11/01/23

THREE i DESIGN
ENGINEERING + ARCHITECTURE
WWW.THREEIDESIGN.COM EVANSVILLE, IN 812-423-6800

REV	DATE	BY	ITEM
A	07/27/23	NDH	ISSUED FOR 30% REVIEW
B	08/17/23	NDH	ISSUED FOR 60% REVIEW
C	09/07/23	NDH	ISSUED FOR 100% REVIEW
D	11/01/23	NDH	ISSUED FOR BID

CANOPY AND SECURED ENTRY RENOVATIONS
OWEN VALLEY MIDDLE SCHOOL
626 IN-46, SPENCER, INDIANA 47460

PANEL SCHEDULES

DRAWN BY: NDH	DESIGNED BY: NDH
CHECKED BY: NKZ	DATE: 06/22/23

SCALE: NONE

PROJECT NUMBER: 22286A

SHEET NO: E8
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GENERAL SPECIFICATIONS:

1. THREE I DESIGN HAS CONDUCTED REASONABLE RESEARCH AND FIELD VERIFICATION OF EXISTING CONSTRUCTION TO PREPARE THESE DOCUMENTS. HOWEVER, SUCH RESEARCH MAY NOT IDENTIFY ALL EXISTING CONDITIONS, AND THE DRAWINGS THAT THREE I REASONABLY RELIED UPON MAY BE INACCURATE OR INCOMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND VERIFY EXISTING CONSTRUCTION THAT WILL BE EXTENDED OR CONNECTED TO, AS TO THEIR LOCATION, MATERIAL AND SIZE PRIOR TO ORDERING ANY MATERIAL. BRING ANY DISCREPANCIES, OR EXISTING CONDITIONS THAT WILL INTERFERE WITH THE PROPER INSTALLATION OF NEW MATERIALS OR CONSTRUCTION, TO THE ATTENTION OF THREE I DESIGN'S PROJECT MANAGER.
2. RECORD DRAWINGS (OFTEN REFERRED TO AS "RED LINES" OR "AS-BUILTS") SHALL BE MAINTAINED BY EACH SUBCONTRACTOR AT THE DIRECTION OF THE GENERAL CONTRACTOR. UPON THE COMPLETION OF CONSTRUCTION, RECORD DRAWINGS SHALL BE TURNED OVER TO THREE I DESIGN, TOGETHER WITH O&M MANUALS FOR ALL NEW INSTALLED EQUIPMENT. CONTRACTOR'S FINAL PAY APPLICATION WILL BE RETAINED UNTIL RECORD DRAWINGS AND MANUALS ARE SUBMITTED. RECORD DRAWINGS SHALL DOCUMENT ALL CHANGES OCCURRING IN THE FIELD REGARDING MATERIALS INSTALLED, SIZES, DIMENSIONS, OR LOCATIONS OF INSTALLED CONSTRUCTION.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL ELECTRICAL MATERIAL, EQUIPMENT AND INCIDENTALS NOT SPECIFICALLY CALLED OUT AND LABOR, FOR A FULLY OPERATIONAL AND COMPLETE SYSTEM AS DESIGNED. MINOR ITEMS, ACCESSORIES OR DEVICES REASONABLY INFERABLE AS NECESSARY FOR COMPLETION AND PROPER OPERATION OF THE SYSTEM SHALL BE PROVIDED WHETHER SPECIFICALLY CALLED FOR BY THE SPECIFICATIONS OR DRAWINGS WITHOUT ADDITIONAL COST TO THE PROJECT.
4. ELECTRICAL CONTRACTOR SHALL ORDER MATERIALS AND EQUIPMENT PER DESCRIPTION AND SPECIFICATIONS. CATALOG NUMBERS, IF PROVIDED, ARE FOR REFERENCE ONLY. ELECTRICAL CONTRACTOR SHALL VERIFY CATALOG NUMBER(S) QUANTITIES AND VOLTAGE REQUIREMENTS BEFORE ORDERING. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ORDERING THE CORRECT MATERIAL AS PER DESCRIPTION.
5. THIS ELECTRICAL SYSTEM HAS BEEN DESIGNED PER THE 2017 NATIONAL ELECTRIC CODE (NEC). MATERIAL AND EQUIPMENT SHALL CONFORM TO THE STANDARDS WHERE APPLICABLE OF THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), NATIONAL ELECTRIC CODE (NEC), AND UNDERWRITERS LABORATORIES (UL), LATEST EDITIONS. WORK SHALL CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL CODES.
6. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR UNLOADING OR LOADING ALL SHIPMENTS OF ELECTRICAL EQUIPMENT RELATED TO THIS JOB, AND STORING OF THESE MATERIALS AT A SITE SPECIFIED BY THE OWNER.
7. THE DRAWINGS IN THIS PROJECT, SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT, APPARATUS, DEVICES, AND ACCESSORIES NECESSARY TO COMPLETE THIS PROJECT. THEIR EXACT LOCATION OR ARRANGEMENT, UNLESS DIMENSIONED, ARE SUBJECT TO MINOR CHANGES NECESSITATED BY FIELD CONDITIONS OR AS REQUIRED WITHOUT ANY ADDITIONAL COST TO THE PROJECT.
8. CONTRACTOR SHALL REMOVE ABANDONED WIRING SHALL BE REMOVED TO SOURCE. ABANDONED CONDUIT SHALL BE REMOVED AND CUT FLUSH WITH WALLS AND FLOORS.
9. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVERS FOR ABANDONED OUTLETS THAT ARE NOT REMOVED.
10. PROVIDE SINGLE CONDUCTOR BUILDING WIRE INSTALLED IN SUITABLE RACEWAY UNLESS OTHERWISE NOTED. ALL WIRING AND CABLE SHALL BE STRANDED, SOFT DRAWN COPPER WITH THWN-2/THHN TYPE INSULATION. WIRE SHALL BE RATED MINIMALLY FOR 600V, AND SHALL HAVE A MINIMUM SIZE OF #12 AWG FOR BRANCH CIRCUIT WIRING. #4 AWG AND LARGER CABLE SHALL BE STRANDED XHHW-2.
13. SINGLE CONDUCTOR BUILDING WIRE ACCEPTABLE MANUFACTURERS ARE CERRO WIRE, ENCORE WIRE CORPORATION, AND SOUTHWIRE COMPANY.
14. METAL CLAD CABLE IS PERMITTED WHERE CONCEALED ABOVE ACCESSIBLE CEILINGS FOR FINAL CONNECTION FROM JUNCTION BOXES TO LUMINAIRES. THE MAXIMUM LENGTH SHALL BE 6 FEET. IT IS ALSO PERMITTED IN HOLLOW STUD WALLS FOR BRANCH CIRCUITS UP TO 20 AMPS. SINGLE CONDUCTOR BUILDING WIRE IN RACEWAY SHALL BE RUN FROM THE CIRCUIT HOMERUN FROM THE FIRST OUTLET TO THE PANELBOARD.
15. METAL CLAD CABLE ACCEPTABLE MANUFACTURERS ARE AFC CABLE SYSTEMS, ENCORE WIRE CORPORATION, AND SOUTHWIRE COMPANY.
16. ELECTRICAL CONTRACTOR SHALL PROVIDE STANDARD VINYL-CLOTH, SELF-ADHESIVE CABLE/CONDUCTOR MARKERS OF WRAP- AROUND TYPE, EITHER PRE-NUMBERED PLASTIC COATED TYPE, OR WRITE-ON TYPE CLEAR PLASTIC SELF-ADHESIVE COVER FLAP; NUMBERED TO SHOW CIRCUIT IDENTIFICATION.
17. CABLE/CONDUCTOR MARKERS SHALL INCLUDE FEEDER NUMBER ON EACH END OF EACH CONDUCTOR IN EACH CONDUIT, AND AT EACH BOX/ENCLOSURE/CABINET WHERE WIRES OF MORE THAN ONE CIRCUIT OR SYSTEM ARE PRESENT. MATCH CABLE CONDUCTOR MARKERS WITH MARKING SYSTEM IN PANELBOARDS, SHOP DRAWINGS, CONTRACT DOCUMENTS AND DRAWINGS.
18. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL COMPLETE UPDATED TYPEWRITTEN PANEL SCHEDULES FOR ALL AFFECTED PANELS AT THE COMPLETION OF THE PROJECT.
19. ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH OTHER CONTRACTORS TO PREVENT INTERFERENCE OF THE INSTALLATION, OPERATION AND/OR MAINTENANCE OF EQUIPMENT.
20. ELECTRICAL CONTRACTOR SHALL PATCH ALL HOLES IN CEILINGS, WALLS, ETC. FOR ELECTRICAL DEMOLITION AND CONSTRUCTION TO OWNER SATISFACTION AND TO MAINTAIN REQUIRED FIRE RATING.
21. ALL BLANK BOXES AND EMPTY CONDUITS SHALL HAVE PULL WIRES IN PLACE.
22. ELECTRICAL CONTRACTOR SHALL MOUNT ALL ELECTRICAL DEVICE BOXES AND OBTAIN APPROVAL OF LOCATION FROM OWNER BEFORE INSTALLING CONDUIT AND WIRE.
23. MIXING OF WIRES FROM DIFFERENT PANELS IN JUNCTION BOXES SHALL BE AVOIDED.
24. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING A BID. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITIES OR BE GROUNDS FOR ANY EXTRA CHARGES.
25. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN, WIRING AND DEVICES (PROVIDE AND INSTALL), AND/OR DESCRIBED IN THE CONSTRUCTION DOCUMENTS, UNLESS NOTED OTHERWISE. ANY CONTROL WIRING NOT SHOWN ON THE ELECTRICAL DRAWINGS IS THE RESPONSIBILITY OF THE TEMPERATURE CONTROL CONTRACTOR OR MECHANICAL CONTRACTOR OR AS NOTED.
26. AT COMPLETION SUBMIT TO OWNER ALL THE WARRANTY DOCUMENTATION FOR ALL NEW INSTALLED EQUIPMENT. PROVIDE AT A MINIMUM 5-YEAR WARRANTY FOR ALL EMERGENCY UNITS, BATTERY OPERATED AND 1-YEAR FOR ALL OTHER EQUIPMENT.
27. COMPLY WITH PROJECT'S GENERAL NOTES AND REQUIREMENTS OUTLINED ON ARCHITECTURAL DRAWINGS.
28. ALL EQUIPMENT, EQUIPMENT INSTALLATION, WIRING AND WIRING METHODS, GROUNDING, LABELING ETC. SHALL BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS, INDIANA AND LOCAL BUILDING CODES, ORDNANCES, AND CURRENT REGULATIONS IN EFFECT AT TIME OF CONSTRUCTION. WHERE THERE IS A DIFFERENCE BETWEEN THE STANDARDS, CODES, SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
29. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A GOOD WORKMANLIKE MANNER, AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
30. IT SHALL BE THE RESPONSIBILITY OF EACH TRADE TO CLEAN UP ALL DEBRIS CREATED FROM THEIR PORTION OF WORK. SEE G2 REGARDING CLEANING STANDARDS.
31. PROVIDE SUBMITTALS FOR PANELBOARDS FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
32. MANUFACTURERS: NO SUBSTITUTIONS WILL BE ACCEPTABLE WITHOUT THE WRITTEN APPROVAL FROM OWNER REPRESENTATIVE/ARCHITECT/ENGINEER PRIOR TO OPENING THE BIDS.
33. WHERE LIQUID TIGHT FLEXIBLE CONDUIT IS USED, AN ADDITIONAL STRANDED COPPER-GROUNDING CONDUCTOR SHALL BE INSTALLED AS A GROUNDING CONNECTION. THE CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH NEC ARTICLE 250, BUT SHALL NOT BE LESS THAN #12 AWG.
34. SPLICES IN WIRE OR CABLE GROUND CONDUCTORS SHALL NOT BE PERMITTED, UNLESS SPECIFIED.
35. WIRE AND CABLE FOR GENERAL BUILDING USE SHALL BE SINGLE CONDUCTOR STRANDED COPPER, RATED 600V, IN ACCORDANCE WITH APPLICABLE ASTM, UL, CSA, ANSI AND ICEA/NEMA STANDARDS FOR THE TYPE OF WIRE AND INSULATION SPECIFIED.
36. WIRE AND CABLE SHALL BE MARKED AND LABELED IN ACCORDANCE WITH NEC ARTICLE 310.
37. WIRE AND CABLE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE ARTICLES AND SECTIONS OF THE NEC OR AS APPLICABLE AND SHALL BE IN ACCORDANCE WITH THE CABLE MANUFACTURER'S PULLING TENSION AND SIDEWALL PRESSURE REQUIREMENTS.

GENERAL SPECIFICATIONS (CONTINUED):

38. CABLE SHALL BE INSTALLED LEVEL AND PLUMB IN NEAT SYMMETRICAL LINES PARALLEL TO BUILDING COLUMN LINES OR WALLS AND CLOSELY FOLLOWING THE BUILDING OUTLINE.
39. CONDUCTORS PASSING THROUGH OR TERMINATING IN JUNCTION OR DEVICE BOXES SHALL HAVE SUFFICIENT SLACK TO ALLOW CONDUCTORS TO BE PULLED ACROSS THE ENTIRE LENGTH OF THE BOX PLUS A MINIMUM OF 6 INCHES.
40. WIRE AND CABLE SHALL BE CONTINUOUS IN LENGTH AND DELIVERED IN REELS OR IN COILS. REELS AND COILS SHALL BE PLAINLY MARKED WITH COMPLETE IDENTIFICATION, INCLUDING THE WIRE OR CABLE SIZE, THE NUMBER OF CONDUCTORS, THE TYPE OF WIRE OR CABLE, LENGTH, WEIGHT, INSULATION THICKNESS, TYPE OF THE INSULATION, NAME OF THE MANUFACTURER, ORIGINAL DATE OF MANUFACTURER, ORIGINAL DATE OF MANUFACTURE AND UL LABEL AS APPROPRIATE.
41. THE MINIMUM BENDING RADII FOR SINGLE-CONDUCTOR CABLES AND MULTICONDUCTOR CABLES SHALL NOT BE LESS THAN THE MINIMUM RECOMMENDED BY ICEA AND THE MANUFACTURER.
42. INSTALL PHASE AND NEUTRAL CONDUCTORS OF EACH BRANCH OR FEEDER CIRCUIT IN A SINGLE RACEWAY EXCEPT WHERE PARALLELING CIRCUITS. INSTALL PARALLELING CIRCUITS OF IDENTICAL MAKEUP AND LENGTH AS THE PARALLELED CIRCUIT, AND TERMINATE CONDUCTORS AT THE SAME LOCATION, MECHANICALLY AND ELECTRICALLY, AT BOTH ENDS, TO ENSURE EQUAL DIVISION OF THE TOTAL CURRENT BETWEEN CONDUCTORS.
43. CABLE LUBRICANT SHALL BE APPLIED TO THE PULLING CABLE AS WELL AS THE INSULATED CABLE DURING INSTALLATION. THE LUBRICANT SHALL BE COMPATIBLE WITH EXPOSED CABLING MATERIALS, SHALL NOT GUM, HARDEN OR CEMENT TO THE DUCT OR CONDUIT. THE CABLE LUBRICANT SHALL BE IN ACCORDANCE WITH THE CABLE MANUFACTURER'S RECOMMENDATIONS.
44. CONDUCTOR INSULATION SHALL MEET THE REQUIREMENTS OF NEMA WC 70 FOR TYPE THHN-THWN FOR CONDUCTORS UP TO AND INCLUDING #4/0, AND TYPE XHHW FOR CONDUCTORS LARGER THAN #4/0. ALL CONDUCTORS SHALL BE SOLID FOR #10 AWG AND SMALLER; STRANDED FOR #8 AWG AND LARGER
45. ALL POWER WIRING AND BRANCH CIRCUIT WIRING SHALL BE INSTALLED IN CONDUIT. CONCEAL CABLES IN FINISHED WALLS, CEILINGS, AND FLOORS, UNLESS OTHERWISE INDICATED.
46. MULTICONDUCTOR SHIELDED WIRING FOR SYSTEMS OPERATING BELOW 30 VOLTS, SUCH AS TELEPHONE, CONTROL, AND NETWORK WIRING SHALL BE INSTALLED IN CONDUIT FROM THE DEVICE BOX TO THE CEILING SPACE. WIRING IN THE CEILING SPACE AND IN EQUIPMENT ROOMS MAY BE RUN EXPOSED PROVIDED THE CABLE IS PLENUM RATED AND IT IS INSTALLED IN A HANGER SYSTEM. ALL SUPPORT HANGERS SHALL BE SUPPORTED FROM THE STRUCTURAL CEILING AND NOT THE SUSPENDED CEILING SYSTEM.
47. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B.
48. MAKE SPLICES AND TAPS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL AND THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPLICED CONDUCTORS.
49. RACEWAY SYSTEMS AND RACEWAY SYSTEM INSTALLATION SHALL COMPLY WITH ALL APPLICABLE ARTICLES AND SECTIONS OF THE NATIONAL ELECTRICAL CODE (NEC), AND OTHER APPLICABLE CODES AND STANDARDS AND SHALL BE UL LISTED FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED.
50. EMT MAY BE USED FOR ALL INTERIOR RACEWAYS. LIQUID-TIGHT FLEXIBLE METAL CONDUIT WITH LIQUID-TIGHT CONNECTORS SHALL BE USED FOR ALL MECHANICAL EQUIPMENT CONNECTIONS. FLEXIBLE METALLIC (NON-LIQUID-TIGHT) CONDUIT SHALL BE USED FOR LAY-IN TYPE LIGHTING FIXTURES.
51. THE USE OF CONDUIT BODIES SHALL BE LIMITED TO THOSE INSTALLATIONS WHERE FACTORY MANUFACTURED ELBOWS CANNOT BE USED. THE PURCHASING DIVISION SHALL APPROVE EACH CONDUIT BODY INSTALLATION (E.G., LB, LLB, ETC.).
52. WHERE STANDARD FACTORY CONDUIT ELBOWS FOR CONDUITS LARGER THAN 2 INCH, CANNOT BE UTILIZED AND IT IS NECESSARY THAT ELBOWS, BENDS OR OFFSETS BE MADE BY THE CONTRACTOR, THE MINIMUM RADIUS OF THE CURVE OF ANY CONDUIT FIELD BEND TO THE CENTERLINE OF THE CONDUIT SHALL NOT BE LESS THAN THAT SPECIFIED IN THE NEC TABLE 2, CHAPTER 9, OR AS REQUIRED BY LOCAL CODES.
53. MINIMUM ACCEPTABLE CONDUIT SIZES SHALL BE 3/4 INCH.
54. INSTALLER SHALL BE RESPONSIBLE FOR CUTTING OPENINGS IN WALLS AND CEILINGS AS REQUIRED FOR THE INSTALLATION OF RACEWAYS. ALL OPENINGS RESULTING FROM RACEWAY SHALL BE REPAIRED AND COMPLETELY SEALED TO PREVENT THE PASSAGE OF DUST, SMOKE, AND OTHER FOREIGN MATERIALS AND IN A MANNER THAT MAINTAINS THE AREA'S REQUIRED FIRE RATING.
55. CONDUIT SHALL BE INSTALLED LEVEL AND PLUMB IN NEAT SYMMETRICAL LINES PARALLEL TO BUILDING COLUMN LINES OR WALLS AND CLOSELY FOLLOWING THE BUILDING OUTLINE. VERTICAL AND HORIZONTAL RUNS OF CONDUIT SHALL BE GROUPED ON COMMON SUPPORTS.
56. ROUTE CONDUIT AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF HIGH TEMPERATURE SURFACES, SUCH AS STEAM OR HOT WATER PIPES AND DO NOT RUN CONDUIT DIRECTLY UNDER STEAM OR WATER LINES.
57. DIFFERENT SOURCE CONDUCTORS SHALL NOT SHARE THE SAME CONDUIT TO FEED LOADS.
58. SOURCE AND LOAD CONDUCTORS SHALL NOT SHARE THE SAME CONDUIT AFTER THE LOCKOUT POINT FOR THE SYSTEM.
59. SUPPORT SINGLE CONDUITS WITH SINGLE HOLE MALLEABLE IRON GALVANIZED PIPE STRAPS OR CLEVIS TYPE HANGERS. DO NOT USE PERFORATED STRAP OR WIRE FOR CONDUIT OR HANGER SUPPORT. BEAM CLAMPS OF MALLEABLE IRON OR WROUGHT STEEL WITH HOOK RODS TO GRIP THE BEAM FLANGE SHALL BE PROVIDED FOR CONDUIT OR HANGER SUPPORT. DO NOT USE C_CLAMP TYPE FITTINGS. WHERE INDIVIDUAL CONDUITS ARE SUSPENDED FROM CONCRETE, MASONRY, WOOD, ETC. THE CONDUIT HANGER SHALL BE SECURED TO A STRUCTURE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE NEC.
60. COMPLY WITH NECA 1 AND NECA 101 FOR INSTALLATION REQUIREMENTS EXCEPT WHERE REQUIREMENTS ON DRAWINGS OR IN THIS ARTICLE ARE STRICTER.
61. COMPLETE RACEWAY INSTALLATION BEFORE STARTING CONDUCTOR INSTALLATION.
62. INSTALL NO MORE THAN THE EQUIVALENT OF THREE 90-DEGREE BENDS IN ANY CONDUIT RUN EXCEPT FOR CONTROL WIRING CONDUITS, FOR WHICH FEWER BENDS ARE ALLOWED. SUPPORT WITHIN 12 INCHES OF CHANGES IN DIRECTION.
63. ALL CONDUIT IN FINISHED AREAS SHALL BE RUN CONCEALED. CONDUIT IN UNFINISHED AREAS MAY BE RUN EXPOSED.
64. SUPPORT CONDUIT WITHIN 12 INCHES OF ENCLOSURES TO WHICH ATTACHED.
65. USE INSULATING BUSHINGS TO PROTECT CONDUCTORS INCLUDING CONDUCTORS SMALLER THAN #4 AWG FOR RACEWAY TERMINATIONS AT LOCATIONS SUBJECT TO MOISTURE OR VIBRATION.
66. TERMINATE THREADED CONDUITS INTO THREADED HUBS OR WITH LOCKNUTS ON INSIDE AND OUTSIDE OF BOXES OR CABINETS. INSTALL BUSHINGS ON CONDUITS UP TO 1-1/4-INCH TRADE SIZE AND INSULATED THROAT METAL BUSHINGS ON 1-1/2-INCH TRADE SIZE AND LARGER CONDUITS TERMINATED WITH LOCKNUTS. INSTALL INSULATED THROAT METAL GROUNDING BUSHINGS ON SERVICE CONDUITS.
67. INSTALL RACEWAYS SQUARE TO THE ENCLOSURE AND TERMINATE AT ENCLOSURES WITH LOCKNUTS. INSTALL LOCKNUTS HAND TIGHT PLUS 1/4 TURN MORE. DO NOT RELY ON LOCKNUTS TO PENETRATE NONCONDUCTIVE COATINGS ON ENCLOSURES. REMOVE COATINGS IN THE LOCKNUT AREA PRIOR TO ASSEMBLING CONDUIT TO ENCLOSURE TO ASSURE A CONTINUOUS GROUND PATH.
68. CUT CONDUIT PERPENDICULAR TO THE LENGTH. FOR CONDUITS 2-INCH (53-MM) TRADE SIZE AND LARGER, USE ROLL CUTTER OR A GUIDE TO MAKE CUT STRAIGHT AND PERPENDICULAR TO THE LENGTH.
69. ELECTRICAL METALLIC TUBING (EMT) SHALL COMPLY WITH ALL APPLICABLE ARTICLES OR SECTIONS OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE STANDARDS.
70. EMT CONDUIT AND FITTINGS SHALL BE OF MILD STEEL TUBE, HAVING A CIRCULAR CROSS- SECTION AND STANDARD WALL THICKNESS. THE INSIDE AND OUTSIDE SURFACE OF EMT SHALL BE PROTECTED AGAINST CORROSION WITH AN EVEN AND THOROUGH COATING OF ZINC. THE ZINC COATING OF THE FINISHED TUBING SHALL HAVE AN EVEN AND SMOOTH APPEARANCE AND BE OF UNIFORM QUALITY FOR THE FULL LENGTH OF THE TUBE.
71. EMT SYSTEMS SHALL BE SUPPORTED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND IN A MANNER TO PREVENT EMT FROM SEPARATING AT COMPRESSION OR SET SCREW TYPE COUPLINGS AND CONNECTORS IF THE EMT WAS STRUCK BY A MOVING OBJECT. ALL CUT ENDS OF EMT SHALL BE REAMED OR OTHERWISE FINISHED TO REMOVE ROUGH EDGES.

LIGHTING FIXTURE SCHEDULE:

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	LAMP	LUMENS	WATTS	NOTES:
A	2'x4' CPX LED PANEL, MULTIVOLT, 3500K	LITHONIA	CPX 2X4 4000LM 80CRI 35K SWL MIN10 ZT MVOLT	LED	5037	39.29	
A	2'x4' CPX LED PANEL, MULTIVOLT, 3500K	LITHONIA	CPX 2X4 4000LM 80CRI 35K SWL MIN10 ZT MVOLT E10WLCP	LED	5037	39.29	LIGHT FIXTURE WITH BATTERY PACK
NL	2'x4' CPX LED PANEL, MULTIVOLT, 3500K WITH NIGHT LIGHT	LITHONIA	CPX 2X4 4000LM 80CRI 35K SWL MIN10 ZT MVOLT NLIGHT PIR	LED	5037	39.29	nLIGHT ENABLE WITH PASSIVE INFRARED SENSOR, ON/OFF FUNCTIONALITY
B	2'x2' CPX LED PANEL, MULTIVOLT, 3500K	LITHONIA	CPX 2X2 4000LM 80CRI 35K SWL MIN10 ZT MVOLT	LED	4425	36.3	
B	2'x2' CPX LED PANEL, MULTIVOLT, 3500K	LITHONIA	CPX 2X2 4000LM 80CRI 35K SWL MIN10 ZT MVOLT E10WLCP	LED	4425	36.3	LIGHT FIXTURE WITH BATTERY PACK
C	WF6 LED SWITCHABLE WHITE COLOR TEMPERATURE, DIMMABLE, MATTE WHITE	LIITHONIA	WF6 LED 30K40K50K 90CRI MW	LED	1090-1120	13.8	
D	2'x4' CPX LED PANEL, MULTIVOLT, 3500K	LIITHONIA	CPX 1X4 4000LM 80CRI 35K SWL MIN10 ZT MVOLT	LED	4172	35.5	
D	2'x4' CPX LED PANEL, MULTIVOLT, 3500K	LIITHONIA	CPX 1X4 4000LM 80CRI 35K SWL MIN10 ZT MVOLT E10WLCP	LED	4172	35.5	LIGHT FIXTURE WITH BATTERY PACK
E	6" SQUARE LED SLIM PROFILE RECESS RETROFIT, 4000K, EMERGENCY BACKUP, COLOR BLACK, 120-277V	LITELINE	SLMPRO6S-40K-EM-BK	LED	1175	17.0	LIGHT FIXTURE WITH EMERGENCY BACKUP. ACCESSORIES TO INCLUDE MOUNTING PLATE #P-6020S, VAPOUR BARRIER #VBE-3
	EXIT SIGN FIXTURE, BRUSHED ALUMINUM HOUSING, SINGLE FACE, GREEN LETTERING, NICKEL-CADMIUM BATTERY	LITHONIA	EDGR 1 G EL	LED		34	

POWER LEGEND:

- =⊖# DUPLEX RECEPTACLE. PROVIDE AND INSTALL (1) 120V, 20A, 2P, 3W, GROUNDING, SPECIFICATION GRADE RECEPTACLE, WHITE WITH STAINLESS STEEL PLATE IN SINGLE GANG OUTLET BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING CAVITY. BUSH CONDUIT ENDS. INSTALL OUTLET BOX AT 18" ABOVE FINISHED FLOOR TO CENTER, UNLESS NOTED OTHERWISE. +"XX" IS DIMENSION RECEPTACLE SHALL BE MOUNTED AFF TO CENTER. HUBBELL "BR20WHI" AND "NP8W" OR EQUAL.
- =⊖G DUPLEX RECEPTACLE. PROVIDE AND INSTALL (1) 120V, 20A, 2P, 3W, GROUNDING, SPECIFICATION GRADE GFCI RECEPTACLE, WHITE WITH STAINLESS STEEL PLATE IN SINGLE GANG OUTLET BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING CAVITY. BUSH CONDUIT ENDS. INSTALL OUTLET BOX AT 18" ABOVE FINISHED FLOOR TO CENTER, UNLESS NOTED OTHERWISE. +"XX" IS DIMENSION RECEPTACLE SHALL BE MOUNTED AFF TO CENTER. HUBBELL "GFRST20W" AND "NP26W" OR EQUAL.
- =⊖WP DUPLEX RECEPTACLE. PROVIDE AND INSTALL (1) 120V, 20A, 2P, 3W, GROUNDING, SPECIFICATION GRADE GFCI RECEPTACLE, WHITE IN SINGLE GANG OUTLET WEATHER PROOF BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING CAVITY. BUSH CONDUIT ENDS. INSTALL OUTLET BOX AT 18" ABOVE FINISHED FLOOR TO CENTER, UNLESS NOTED OTHERWISE. +"XX" IS DIMENSION RECEPTACLE SHALL BE MOUNTED AFF TO CENTER. HUBBELL "GF20WLA" OR EQUAL.
- POWER CIRCUIT, 3/4" CONDUIT WITH (2) #12 AWG AND #12 GND, UNLESS OTHERWISE NOTED. ARROW DENOTES HOME RUN TO PANEL.
- (J) EXISTING JUNCTION BOX.

SECURITY SYSTEM LEGEND:

- CR CARD READER - INSTALL AT 44" ABOVE FINISHED FLOOR TO CENTER
- DC DOOR CONTACT - GRI 29AWG-GY-SR, MAGNETIC REED SWITCH SET, SURFACE MOUNT, CLOSED LOOP
- DDC DOUBLE DOOR CONTACT - SAME AS DOOR CONTACT ABOVE, QUANTITY TWO PER DOOR.
- AP EXISTING AIPHONE TO BE RELOCATED.
- SECURITY CAMERA.
- PS POWER SUPPLY FOR DOOR SET, PROVIDED BY OTHERS.
- W JAMB PUSH PLATE, PROVIDED BY OTHERS.

DATA LEGEND:

- DATA ONLY OUTLET LOCATION. PROVIDE AND INSTALL TWO BLUE CAT6 DATA CABLES IN DOUBLE GANG OUTLET BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING CAVITY. INSTALL OUTLET BOX AT 18" ABOVE FINISHED FLOOR TO CENTER, UNLESS NOTED OTHERWISE. PROVIDE WHITE COVER WITH 4 OUTLETS AND RJ45 CONNECTORS. DATA CONNECTIONS SHALL BE YELLOW. PROVIDE TERMINATIONS ON BOTH ENDS OF EACH CABLE AND TEST.
- (W) EXISTING WIRELESS ACCESS POINT.

LIGHTING LEGEND:

- $ OUTLET BOX AND 20A, 120-277V, SINGLE POLE SPECIFICATION GRADE TOGGLE SWITCH WITH STAINLESS STEEL FACEPLATE. INSTALL AT 44" ABOVE FINISHED FLOOR TO CENTER AND LOCATE WITHIN 12" OF STRIKE SIDE OF DOOR, UNLESS NOTED OTHERWISE. PROVIDE HUBBELL "CSB120W" OR EQUAL.
- $3 OUTLET BOX AND 20A, 120-277V. THREE-WAY SPECIFICATION GRADE TOGGLE SWITCH WITH STAINLESS STEEL FACEPLATE. INSTALL AT 44" ABOVE FINISHED FLOOR TO CENTER AND LOCATE WITHIN 12" OF STRIKE SIDE OF DOOR, UNLESS NOTED OTHERWISE. PROVIDE HUBBELL "CSB320W" OR EQUAL.
- $D OUTLET BOX AND 20A, 120-277V. SPECIFICATION GRADE DIMMER SWITCH, SLIDE TYPE WITH (1) BUTTON, STAINLESS STEEL FACEPLATE. INSTALL AT 44" ABOVE FINISHED FLOOR TO CENTER, UNLESS NOTED OTHERWISE. PROVIDE HUBBELL "IPL06-LED" OR EQUAL.
- $K KEYED SWITCH EXISTING.

FIRE ALARM LEGEND:

- F MANUAL PULL STATION. INSTALL PULL STATION AT 44" TO CENTER ABOVE FINISHED FLOOR TO BOTTOM, UNLESS NOTED OTHERWISE. MANUAL PULL STATION SHALL BE WHITE LETTERS ON RED BACKGROUND.
- F AUDIO-VISUAL ALARM DEVICE, WHITE WITH RED LETTERS. INSTALL ON WALL AT 80" ABOVE FINISHED FLOOR.
- S SMOKE DETECTOR, CEILING MOUNT DEVICE, WHITE.
- H VISUAL ONLY ALARM DEVICE, WHITE WITH RED LETTERS. INSTALL ON WALL AT 80" ABOVE FINISHED FLOOR TO BOTTOM OR 6" BELOW CEILING TO TOP, WHICHEVER IS LOWER.
- F INSTALL VISUAL ONLY ALARM DEVICE, WHITE WITH RED LETTERS, CEILING MOUNT.
- SD INSTALL DUCT SMOKE DETECTOR.

BID 11/01/23

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REV	DATE	BY	ITEM
A	07/27/23	NDH	ISSUED FOR 30% REVIEW
B	08/17/23	NDH	ISSUED FOR 60% REVIEW
C	09/07/23	NDH	ISSUED FOR 100% REVIEW
D	11/01/23	NDH	ISSUED FOR BID

CANOPY AND SECURED ENTRY RENOVATIONS
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SPECIFICATIONS AND LEGENDS

DRAWN BY:	DESIGNED BY:
NDH	NDH
CHECKED BY:	DATE:
NKZ	06/22/23

SCALE: NONE

PROJECT NUMBER: 22686A

SHEET NO: E9
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