11/13/2023 8:06:53 PM

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

11.10.2023

COMMISSION # 22106.00

BID DOCUMENTS

1 VICINITY MAP
SCALE: 1/8" = 1'-0"

2 LOCATION PLAN
SCALE: 1/8" = 1'-0"

DRAWING INDEX

SHEET NO.	SHEET NAME
1-TITLE SHEET	
T001	TITLE SHEET
2-GENERAL	
G001	LEGEND, ABBREVIATIONS, AND LIFE SAFETY PLANS & DATA
G002	ALTERNATE PLANS
G003	PARTITION TYPES
3-CIVIL	
AS100	ARCHITECTURAL SITE PLAN
AS201	EXTERIOR STAIR AND RAILING DETAILS
AS202	EXTERIOR STAIR, RAMP AND RAILING DETAILS
C-0.0	TITLE SHEET
C-0.1	GENERAL NOTES
C-1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C-2.0	SITE PLAN
C-3.0	GRADING PLAN
C-3.1	ENLARGED GRADING PLAN
C-4.0	UTILITY PLAN
C-5.0	SITE DETAILS
C-5.1	INDOT DETAILS
C-6.0	EROSION CONTROL PLAN
C-7.0	SITE & GRADING PLAN ALTERNATE (BUILDING ADDITION)
4-STRUCTURAL	
S001	GENERAL NOTES
S002	GENERAL NOTES
S003	TYPICAL DETAILS
S004	TYPICAL DETAILS
S005	TYPICAL DETAILS
S006	TYPICAL DETAILS
SD100	DEMOLITION PLANS AND DETAILS
4.1-STRUCTURAL	
S101	FOUNDATION PLAN
S101.1	FOUNDATION PLAN - ALTERNATE #01
S102	UPPER LEVEL FRAMING PLAN
S102.1	UPPER LEVEL FRAMING PLAN -ALTERNATE #01 AND TRACK ALTERNATE
S103	ROOF FRAMING PLAN
S103.1	ROOF FRAMING PLAN - ALTERNATE #01
S104	ROOF TRUSS FRAMING PLAN
S104.1	ROOF TRUSS FRAMING PLAN - ALTERNATE #01
S300	FOUNDATION SECTIONS AND DETAILS
S301	FOUNDATION SECTIONS AND DETAILS
S310	FOUNDATION WALL ELEVATIONS
S311	FOUNDATION WALL ELEVATIONS
S500	FRAMING SECTIONS AND DETAILS
S501	FRAMING SECTIONS AND DETAILS
5-DEMOLITION	
AD101	LOWER LEVEL DEMOLITION FLOOR & REFLECTED CEILING PLANS
AD102	UPPER LEVEL DEMOLITION FLOOR & REFLECTED CEILING PLANS
AD102.1	ALTERNATE DEMOLITION PLANS
6-ARCHITECTURAL	
A001	DOOR SCHEDULES AND DETAILS
A101	LOWER LEVEL FLOOR PLAN - BASE BID
A102	UPPER LEVEL FLOOR PLAN - BASE BID
A102.1	ALTERNATE FLOOR PLANS
A103	ROOF PLAN
A103.1	ALTERNATE ROOF PLAN
A201	LOWER LEVEL REFLECTED CEILING PLAN - BASE BID

DRAWING INDEX

SHEET NO.	SHEET NAME
A202	UPPER LEVEL REFLECTED CEILING PLAN - BASE BID
A202.1	ALTERNATE REFELECTED CEILING PLANS
A301	EXTERIOR BUILDING ELEVATIONS
A401	VERTICAL CIRCULATION PLANS, SECTIONS AND DETAILS
A501	BUILDING SECTIONS
A502	WALL SECTIONS
A503	WALL SECTIONS
A504	WALL SECTIONS & DETAILS
A505	WALL SECTIONS & DETAILS
A506	WALL SECTIONS & DETAILS
A507	WALL SECTIONS & DETAILS
A509	MISCELLANEOUS DETAILS
A601	ENLARGED PLANS AND INTERIOR ELEVATIONS
A602	ENLARGED PLANS, INTERIOR ELEVATIONS AND CASEWORK DETAILS
A603	INTERIOR ELEVATIONS - BASE BID
A604	INTERIOR ELEVATIONS - ALTERNATES
A609	COMMUNITY AREA - COURT LAYOUT
A701	INTERIOR PLAN DETAILS, CEILING DETAILS, AND MISC. DETAILS
7-INTERIOR DESIGN	
ID101	LOWER LEVEL - FLOOR FINISH PLAN
ID102	UPPER LEVEL - FLOOR FINISH PLAN
ID201	LOWER LEVEL - WALL FINISH PLAN
ID202	UPPER LEVEL - WALL FINISH PLAN
ID301	LOWER LEVEL - FURNITURE PLAN
ID302	UPPER LEVEL - FURNITURE PLAN
11-PLUMBING	
P001	PLUMBING LEGEND
PD101	PLUMBING PLAN - LOWER LEVEL - DEMOLITION
PD102	PLUMBING PLAN - UPPER LEVEL - DEMOLITION
11.1-PLUMBING	
P200	PLUMBING PLAN - FOUNDATION LEVEL - NEW WORK
P201	PLUMBING PLAN - LOWER LEVEL - NEW WORK
P202	PLUMBING PLAN - UPPER LEVEL - NEW WORK
P501	PLUMBING SCHEDULES
P502	PLUMBING DETAILS
P601	SANITARY RISER DIAGRAM
12-MECHANICAL	
M001	MECHANICAL LEGEND, ABBREVIATIONS & SHEET LIST
MD101	LOWER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID
MD102	UPPER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID
MD102.1	MECHANICAL DEMOLITION ALTERNATE FLOOR PLANS
12.1-MECHANICAL	
M101	LOWER LEVEL MECHANICAL FLOOR PLAN - BASE BID
M102	UPPER LEVEL MECHANICAL FLOOR PLAN - BASE BID
M102.1	ALTERNATE FLOOR PLANS
M102.2	ALTERNATE FLOOR PLANS
M103	ROOF MECHANICAL PLAN - BASE BID
M103.1	ALTERNATE FLOOR PLANS
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M601.1	ALTERNATE SCHEDULES
M701	ATC LEGEND
M702	CONTROLS DIAGRAM
13-ELECTRICAL	

DRAWING INDEX

SHEET NO.	SHEET NAME
E001	ELECTRICAL LEGEND
ED100	ELECTRICAL SITE PLAN - DEMOLITION
ED101	ELECTRICAL PLAN - LOWER LEVEL - DEMOLITION
ED102	ELECTRICAL PLAN - UPPER LEVEL - DEMOLITION
ED102.1	ELECTRICAL LIGHTING - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE DEMOLITION
13.1-ELECTRICAL	
E100	ELECTRICAL SITE PLAN - NEW
E101	ELECTRICAL LIGHTING - LOWER LEVEL - NEW WORK
E102	ELECTRICAL LIGHTING - UPPER LEVEL - NEW WORK
E102.1	ELECTRICAL LIGHTING - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE NEW WORK
E201	ELECTRICAL POWER AND SYSTEMS - LOWER LEVEL - NEW WORK
E202	ELECTRICAL POWER AND SYSTEMS - UPPER LEVEL - NEW WORK
E202.1	ELECTRICAL POWER AND SYSTEMS - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE NEW WORK
E203	ELECTRICAL POWER AND SYSTEMS - ROOF - NEW WORK
E501	ELECTRICAL SCHEDULES
E502	DETAILS AND NOTES
E601	ELECTRICAL SINGLE-LINE DIAGRAM & PANELBOARD SCHEDULES

CIVIL:

BURKHARDT ENGINEERING

STRUCTURAL:

JPS CONSULTING ENGINEERS
SITE • CIVIL • STRUCTURAL
MBE

PME:

HEAPY
P: 317-571-8795 www.heapy.com

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

TITLE SHEET

STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No. T001
Checked: KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:30:33 PM

Note:
Existing building is permitted a B-occupancy. In areas where no changes are being made to walls, no changes to A-3 will be made.
All new construction will comply with current A-3 occupancy requirements.

CHAPTER 3 - CLASSIFICATION OF FACILITIES

Section 302 - Classification
Single use Occupancy
A-3 Assembly, one-story above grade
Type VB Construction

CHAPTER 5 - HEIGHT AND AREA

NOTE: The addition has been separated from the existing building by a 2-hour Fire Wall. Building #1 is the existing building. Building #2 is the new addition. Refer to plans below for extents.

BUILDING #1 (Existing)

Table 503
A3 Assembly use
Type VB Construction
Allowable Building Area, per floor = 6,000 SF
Allowable Height = 1 story, 40 feet

A(a) = A(1) + [A(1) x I(f)] + [A(1) x I(s)]
A(a) = 6,000 + [6,000 x 0.68] + [9,500 x 0]
A(a) = 6,000 + 4,080 + 0
A(a) = 10,080 SF per floor

I(f) = [F/P - 0.25] W/30
F = 340'
P = 361'
W = 216'
I(f) = [(340/361) - 0.25] x 216'/30'
I(f) = [0.94 - 0.25] x (0.94)
I(f) = 0.68

ACTUAL AREA, PER FLOOR
Lower Floor = 6,605 SF < 10,080 SF Allowable
Upper Floor = 6,605 SF < 10,080 SF Allowable

ACTUAL HEIGHT = 1 Story above grade, 32' feet (average of highest roof surface)

BUILDING #2 (Addition)

Table 503
A3 Assembly use
Type VB Construction
Allowable Building Area, per floor = 6,000 SF
Allowable Height = 1 story, 40 feet

A(a) = A(1) + [A(1) x I(f)] + [A(1) x I(s)]
A(a) = 6,000 + [6,000 x 0.68] + [9,500 x 0]
A(a) = 6,000 + 4,140 + 0
A(a) = 10,140 SF per floor

I(f) = [F/P - 0.25] W/30
F = 364'
P = 340'
W = 216'
I(f) = [(364/340) - 0.25] x 216'/30'
I(f) = [0.94 - 0.25] x (0.94)
I(f) = 0.64

ACTUAL AREA, PER FLOOR
Lower Floor = 3,962 SF < 10,140 SF Allowable
Upper Floor = 6,962 SF < 10,140 SF Allowable

ACTUAL HEIGHT = 1 Story above grade, 32' feet (average of highest roof surface)

CHAPTER 6 - CONSTRUCTION TYPES

Table 601 - Fire Resistance Rating Requirements for Building Elements
Construction Type VB

- Primary Structural Frame — 0 hours
- Bearing Walls, Exterior — 0 hours
- Bearing Walls, Interior — 0 hours
- Non-bearing walls, Exterior — 0 hour (based on 30' fire separation distance)
- Non-bearing walls, Interior — 0 hour
- Floor construction — 0 hours
- Roof construction — 0 hour for any portion (20' above the floor

Table 602 - Fire Resistance Rating Requirements, Group A Occupancy

- X < 5 = 1-Hour
- 5 < X < 10 = 1-Hour
- 10 < X < 30 = 0-Hour
- X > 30 = 0-Hour

CHAPTER 7 - FIRE RESISTANCE

Table 705.8 - Maximum area of exterior wall openings
- 15 to less than 10, Unprotected, Nonsprinklered = 10%
- 20 to less than 25, Unprotected, Nonsprinklered = 45%
- 30 or greater, Unprotected, Nonsprinklered = No Limit

Table 706.4 - Fire wall fire-resistance construction
- Note A: In Type II or V construction, walls shall be permitted to have 2-hour fire-resistance rating.

Section 706.5 - Horizontal continuity
- Exception 1: Fire walls shall be permitted to terminate at the interior surface of combustible exterior sheathing or siding provided the exterior wall has a fire-resistance rating of at least 1 hour for a horizontal distance of at least 4 feet on both sides of the fire wall. Openings within such exterior walls shall be protected by opening protectives having a fire protection rating of not less than 3/4 hour.

Section 706.5.1 - Exterior Walls
- The exterior walls on both sides of the fire wall shall have a 1-hour fire-resistance rating with 3/4-hour protection where opening protection is required by Section 705.8. The fire-resistance rating of the exterior wall shall extend a minimum of 4 feet on each side of the intersection of the fire wall to exterior wall. Exterior wall intersections at fire walls that form an angle equal to or greater than 180 degrees do not need exterior wall protection.

Section 706.6 - Vertical Continuity
- Exception 4: In buildings of Type III, IV, and V construction, walls shall be permitted to terminate at the underside of combustible roof or decks, provided:
  1. There are no openings in the roof within 4 feet of the fire wall
  2. The roof is covered with a minimum Class B roof covering, and
  3. The roof sheathing or deck is constructed of fire-retardant-treated wood for a distance of 4 feet on both sides of the wall or the roof is protected with 5/8-inch Type X gypsum board directly beneath the underside of the roof sheathing or deck, supported by a minimum of 2-inch nominal ledgers attached to the sides of the framing members for a minimum distance of 4 feet on both sides of the fire wall.

Table 716.5 - Fire Door and Fire Shutter Protection Ratings

- 2 hour fire wall/barrier — 90 minute rating
- 1 hour fire barrier — 1 hour rating
- 1 hour shaft fire barrier — 45 minute rating
- 1 hour corridor walls — 20 minute rating

CHAPTER 8 - INTERIOR FINISHES

Table 803.9 - Interior wall and ceiling finish requirements by occupancy
The following wall and ceiling finish requirements shall be provided for the project, which is Nonsprinklered:
Use Group A-3:
- Exit enclosures and exit passageways — Class A
- Corridors — Class A
- Room and enclosed spaces — Class C

Section 804.4.2 - Minimum critical radiant flux
Class II floor coverings are permitted in Group A Occupancy.

CHAPTER 9 - SPRINKLER SYSTEMS

None of the conditions under Section 903.2.1.3 Groups A-3 is met, therefore an automatic fire sprinkler system is not required.
- The new fire area is < 12,000 square feet
- The fire area has an occupant load < 300
- The fire area has exit discharge on the floor serving the occupancy

Table 906.3 - Fire Extinguishers for Class A Fire Hazards, Light Hazard
- Minimum Rated Single Extinguisher: 2-A
- Maximum Floor Area Per Unit of A: 3,000 square feet
- Maximum Floor Area for Extinguisher: 11,250 square feet
- Maximum Travel Distance to Extinguisher: 75 feet

Section 907.2.1 - Fire Alarm and Detection Systems, Group A
A manual fire alarm system is not required since the assembly occupancy is less than 300.

CHAPTER 10 - MEANS OF EGRESS

Section 1003.2 - Ceiling height
All ceilings in the Means of Egress shall have a minimum ceiling height of 7'-6"

Section 1004.1 - Occupant Load
Refer to Code Floor Plans in the documents for Occupancy Limits for each space. Total occupant load for the various floors is noted below:
The occupant load for each floor shall be as follows:

Building #1 (Existing)
- Lower Floor = 84 occupants
- Upper Floor = 106 occupants
- Total = 190 occupants

Building #2 (Addition)
- Lower Floor = 240 occupants
- Upper Floor = 91 occupants
- Total = 244 occupants

Section 1005.1 Minimum required egress width
- 1005.3.1 - Stairs. The capacity, in inches, of means of egress stairs shall be calculated by multiplying the occupant load served by such stairway by a mean of egress capacity factor of 0.3 inch per occupant.
- 1005.1.2 - Other egress components. The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch per occupant.

Building #1 (Existing)
- Lower Floor: 29 x 0.2" = 10" total egress width required across 2 Exits
- Upper Floor: 106 x 0.2" = 22" total egress width required across 2 Exits

Building #2 (Addition)
- Lower Floor: 248 x 0.2" = 50" total egress width required across 2 Exits
- Upper Floor: 91 x 0.2" = 11" total egress width required across 2 Exits

Section 1027.1 - Accessible means of egress required
All Accessible spaces shall have access to at least one accessible means of egress. Two Accessible Means of Egress shall be provided as stipulated by 1015.1 or 1021.1

Section 1007.6.3 - Two-way communication
Areas of refuge shall be provided with a two-way communication system complying with Section 1007.6.1 and 1007.6.2
- **The existing building has an area of refuge on each level with two-way communication. the existing two-way communication system shall be modified to provide two-way communication to the new main entrance.**

Table 1014.3 - Common path of egress travel
A-3 Occupancy without sprinkler system = 75 feet for all occupant loads.

Table 1015.1 - Spaces with one exit or exit access doorway
Refer to floor plan for areas with occupant loads of 49 or less.

Section 1015.1.1 - Three or more exits or exit access doorways
1,001+ occupants = 4 Exits required
501 to 1,000 occupants = 3 Exits required
90 to 501 occupants = 2 Exits required
1 - 49 occupants = 1 Exit required

Section 1015.2.1 - Two exits or exit access doorways
Per Exception #2, the distance between two exit access doorways shall not be less than 1/3 the diagonal distance of the area served.
Refer to plans for actual distances.

Table 1016.2 - Exit Access Travel Distance
'A' Occupancy allows 200 feet with out sprinkler system

Table 1018.1 - Corridor Fire-Resistance Rating
'A' Occupancy required 1-hour fire-resistance rating without sprinkler system

Section 1018.4 - Dead ends
In A-3 Occupancies, the maximum length of a dead end corridor is 20 feet.

Section 1022.1 - Enclosures required
Exit enclosures shall be constructed to the following ratings:
- 1-Hour when connecting less than 4 stories
- Equal to the floor assembly penetrated, not to exceed 2 hours.

CHAPTER 10 - MEANS OF EGRESS

Floor Area per Occupant (Indiana Building Code, Table 1004.1.2)
Library Reading function = 50sf/person
Library Stack function = 100sf/person
Business function = 100sf/person
Education Classroom function = 20sf/person
Assembly function = Actual occupancy or 15 SF/person (see notes)

Building #1
Lower Floor

Education Classroom Areas
Program Room
523 SF overall 1
523 20sf/person 523/20 = 27 Occupants

Storage Areas Based upon Accessory Storage Area (3 Total)
210 SF overall 3
210 300sf/person 210/300 = 4 Occupants

Mechanical/Equipment Areas
671 SF overall 1
671 300sf/person 671/300 = 3 Occupants

Children's
Stack Area
493 SF overall 2
493 100sf/person 493/100 = 6 Occupants

Reading Area
858 SF overall 2
858 50sf/person 858/50 = 18 Occupants

Staff Area Based upon Business use
681 SF overall 2
681 100sf/person 681/100 = 7 Occupants

Community Area A3-Unconcentraded
747 SF overall 1
747 15sf/person 747/15 = 50 Occupants

Total Count 114 Occupants

Upper Floor

Entry does not add to Occupancy Count
2,000 overall 0

Meeting Rooms (1 Total)
166 SF overall 943
166 15 sf/person 166/15 = 12 Occupants

Adult
Reading Area (3 Total)
2,846 overall 50
2,846 50sf/person 2,846/50 = 58 Occupants

Stack Area (1 Total)
903 overall 10
903 100sf/person 903/100 = 10 Occupants

Staff Area Based upon Business Area
Circulation Desk
603 SF overall 7
603 100sf/person 603/100 = 7 Occupants

Working Area
2051 SF overall 25
2051 100sf/person 2051/100 = 25 Occupants

Storage Areas Based upon Accessory Storage Area
1,245 SF overall 5
1,245 300sf/person 1,245/300 = 5 Occupants

Staff Area Based upon Business use
9,623 SF Overall 97
9,623 100sf/person 9,623/100 = 97 Occupants

Total Count 106 Occupants

CHAPTER 11 - ACCESSIBILITY FOR PHYSICALLY DISABLED PERSONS

Section 1101 - Accessibility
ICC A117.1 clearances and requirements are indicated on the drawings.

CHAPTER 12 - INTERIOR ENVIRONMENT

Section 1210.2.1 - Floors and wall base Finish Materials
Toilet, bathing and shower rooms shall have a nonabsorbent surface, including a 4" high base at the wall/floor transition.
Section 1210.2.2 - Walls and partitions within 2' of a water closet or urinal shall have a nonabsorbent surface to a height of 4' and made of a material that is not adversely impacted by moisture.

CHAPTER 29 - PLUMBING FIXTURES

Table 2902.1 - Minimum Number of Required Plumbing Fixtures

Total Occupants = 494

Fixture	Women - 247 total	Men - 247 total
Toilets	1 per 65 = 4 Req'd	1 per 125 = 2 Req'd
Lavatories	1 per 200 = 2 Req'd	1 per 200 = 2 Req'd
Drinking Fount.	1 per 500 = 1 Req'd	
Service Sink	1 Req'd	

Total Provided Fixtures:

Fixture	Women	Men
Toilets	5	5
Lavatories	5	5
Drinking Fount.	6	
Service Sink	1	

LIFE SAFETY PLAN LEGEND

- 1 HOUR RATED FIRE BARRIER
- 2 HOUR RATED FIRE WALL
- P — PANIC HARDWARE LOCATION
- EXIT LOCATION
- O.L. 32 — OCCUPANT LOAD
- 2 HOUR RATED ROOF DECK. REFER TO SECTION 706.6

VIEW TITLE

NORTH ARROW — REFERENCE SHEET NUMBER
VIEW NO. — 1 — View Name
SCALE: 1/8" = 1'-0" A101

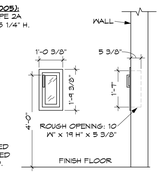
SYMBOL NAME	SYMBOL MARK
CALLOUT (PLAN / DETAIL)	AREA OF CALLOUT; A1 / A101 SIM
SECTION (BUILDING)	DIRECTION OF VIEW; VIEW NO. / SHEET NO.; A1 / A101
SECTION (GENERAL)	DIRECTION OF VIEW; VIEW NO. / SHEET NO.; A1 / A101 SIM
SECTION (DETAIL)	DIRECTION OF VIEW; VIEW NO. / SHEET NO.; A1 / A101 SIM
ELEVATION (EXTERIOR)	VIEW NO.; DIRECTION OF VIEW; SHEET NO.; A1 / A101 SIM
ELEVATION (INTERIOR)	VIEW NO.; DIRECTION OF VIEW; SHEET NO.; A1 / A101 SIM
ELEVATION (ALUM. FRAME)	DIRECTION OF VIEW; ALUM. FRAME NO.; AF##
ELEVATION (KEYPLAN ONLY)	DIRECTION OF VIEW; VIEW NO. / SHEET NO.; A1/A101

SYMBOL NAME	SYMBOL MARK
WALL TAG	M1 — PARTITION TYPE
WINDOW TAG	W-01 — MARK NO.
CEILING TAG	9ft-9ft — CEILING HEIGHT
INTERIOR FINISH MATERIAL TAG	- — MATERIAL CODE; ADDITIONAL REMARKS
SPECIALTY EQUIPMENT TAG	EQ-01 — MARK NO.
PLUMBING FIXTURE TAG	PL-01 — MARK NO.
CASEWORK TAG	A-01 — MARK NO.
FURNITURE TAG	F-01 — MARK NO.
DOOR TAG	5 — DOOR NO.
ROOM TAG	ROOM NAME; CONSTRUCTION; ROOM NO.; OWNER ROOM NO.; 150 SF — SQUARE FOOTAGE
LEVEL REFERENCE	FIRST FLOOR EL. 100'-0" — LEVEL; BENCHMARK HEIGHT
EXISTING GRIDLINE	1 — GRIDLINE INDICATOR
NEW GRIDLINE	1 — GRIDLINE INDICATOR
KEYED NOTE	99 — KEYNOTE NUMBER
MATCHLINE	1/A101 — VIEW NO. / SHEET NO.; 1/A102
REVISION	1 — REVISION NUMBER; AREA OF REVISION

4 SYMBOL LEGEND

CABINET:
PROVIDED CROKER 1600 FULLY RECESSED FIRE EXTINGUISHER CABINET WITH 1B GAUGE SHEET TUB, 20 GAUGE STEEL HORIZONTAL DUO-PANEL DOOR WITH SAFETY GLASS AND 16 GAUGE STEEL FRAME. PAINT TO MATCH ADJACENT WALLS. INSIDE BOX DIMENSIONS: 9" W x 18" H x 5 1/2" D

FIRE EXTINGUISHER (MODEL 4005):
PROVIDE CROKER 5lb ABC, TYPE 2A 10BC UL RATED. 4 1/4" DIA. X 15 1/4" H.

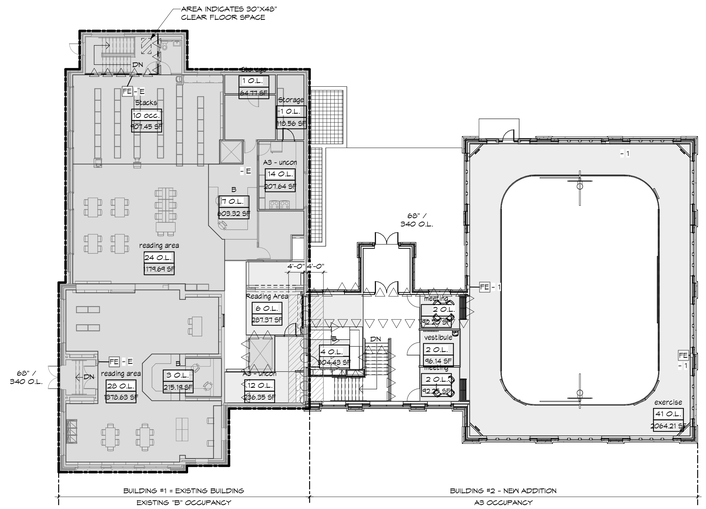


NOTE:
FOR FIRE-RESISTANCE-RATED WALLS, ONLY SURFACE-MOUNTED CABINETS OR LISTED FIRE-RATED CABINETS SHALL BE INSTALLED.

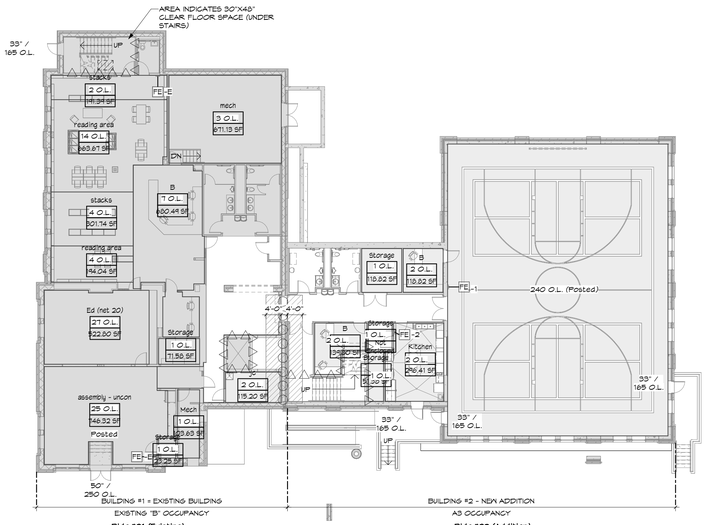
FE-E = EXISTING FIRE EXTINGUISHER
FE-1 = NEW FULLY RECESSED FIRE EXTINGUISHER
FE-2 = NEW SEMI RECESSED FIRE EXTINGUISHER

3 FIRE EXTINGUISHER CABINET (FE-1)
SCALE: 3/8" = 1'-0"

ABBREVIATIONS		ABBREVIATIONS	
&	AND	LVR	LOUVER
'	ANGLE	M	METER / THOUSAND
@	AT	MAS	MASONRY
A/C	AIR CONDITIONING	MAT	MATERIAL
A/V	AUDIO/VISUAL OR AV	MAX	MAXIMUM
AAP	ATTIC ACCESS PANEL	MB	MASONRY BEARING
AC, C.J.S	ACOUSTIC CEILING	MECH	MECHANICAL
ACT	ACOUSTICAL CEILING TILE	MEZZ	MEZZANINE
AD	AREA DRAIN	MFR	MANUFACTURER
ADJ	ADJUSTABLE	MH	MANHOLE
AFF	ABOVE FINISHED FLOOR	MIL	.001
AFP	ACOUSTICAL FOLDING PARTITION	MIN	MINIMUM
		MISC	MISCELLANEOUS
ALUM	ALUMINUM	MM	MILLIMETER
AP	ACCESS PANEL	MO	MASONRY OPENING
APPROX	APPROXIMATE	MTL	METAL
ARCH	ARCHITECT/ARCHITECTURAL	N	NORTH
ANT	ACOUSTICAL WALL TREATMENT	N.I.C	NOT IN CONTRACT
BD	BOARD	NO. or #	NUMBER
BLDG	BUILDING	NOM	NOMINAL
BLKG	BLOCKING	NTS	NOT TO SCALE
BM	BEAM/MARK/BEAM	OC	ON CENTER
BOS or BOT	BOTTOM OF STEEL	OD	OUTSIDE DIAMETER
BRK	BRICK	OFF	OFFICE
BTWN	BETWEEN	OPNG	OPENING
BUR	BUILT-UP ROOFING	OPP	OPPOSITE/OPPOSITE HAND
C	CENTERLINE	OW	OPERABLE WALL
CAB	CABINET	OZ	OUNCE
CAR	CARPET	P	PROPERTY LINE
CAT	CATALOGUE	PA	PUBLIC ADDRESS
CB	CATCH BASIN	PAT	PATENT
CFM	CHALK BOARD	PL	PLATE
CG	CORNER GUARD	PLAS	PLASTER
CI	CAST IRON	PLAM	PLASTIC LAMINATE
CJ	CONTROL JOINT	PLBG	PLUMBING
CL	CLOSET	PLYWD	PLYWOOD
CLG	CEILING	PREFAB	PREFABRICATED
CMP	CORRUGATED METAL PIPE	PRVT	PRIVATE
CMT	CERAMIC MOSAIC TILE	PS	PROJECTION SCREEN
CMU	CONCRETE MASONRY UNIT	PSF	POUNDS PER SQUARE FOOT
COL	COLUMN	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	PSS	PENCIL SHARPENER SUPPORT
CONSTR	CONSTRUCTION	PT	PRESSURE TREATED
CONT.	CONTINUOUS/CONTINUE	PVC	POLYVINYL CHLORIDE
CORR	CORRUGATED	QRY	QUARRY TILE
CORR.	CORRIDOR/CORRUGATED	R	RISER
CTSK	COUNTER BORE	RA	RETURN AIR
CTSK	COUNTER SINK	RAD	RADIUS
CU FT	CUBIC FEET	RB	RESILIENT BASE
CU N	CUBIC INCHES	RCP	REINFORCED CONCRETE PIPE
CU YD	CUBIC YARDS	RCPT	RECEPTACLE
CWF	CONTINUOUS WOOD FIBER	RD	ROOF DRAIN
D	DEGREE	REFR	REFERENCE
D	DEPTH/DEEP	REFR	REFRIGERATOR
d	PENNY (NAILS, EGT.)	REINF	REINFORCED/REINFORCEMENT
DBL	DOUBLE	REQ'D	REQUIRED
DEMO	DEMOLISH/DEMOLITION	REV	REVISION(S)
DEPT	DEPARTMENT	RM	ROOM
DF	DRINKING FOUNTAIN	RO	ROUGH OPENING
DIA	DIAMETER	ROW or R/W	RIGHT OF WAY
DIM	DIMENSION	S	SOUTH
DL	DEAD LOAD	SA	SUPPLY AIR
DS	DOWNSPOUT	SAC	SUSPENDED ACOUSTICAL CEILING
DT	DRAPERY TRACK		
DTL	DETAIL	SCH	SCHEDULE
DW	DRY WALL	SCND	SOLID CORE WOOD
DWC	DRINKING WATER COOLER	SD	STORM DRAIN
DWG	DRAWING	SECT	SECTION
E	EAST	SF or SQFT	SQUARE FEET
EA	EACH	SHT	STRUCTURAL GLAZED FACING TILE
EF	EXHAUST FAN		
EIFS	EXTERIOR INSULATED FINISH SYSTEM	SIM	SIMILAR
		SLV	SHORT LEG VERTICAL
EJ	EXPANSION JOINT	SPEC(S)	SPECIFICATION(S)
EL	ELEVATOR	SPKR	SPEAKER
ELEC	ELECTRIC	SQ	SQUARE
ELEV	ELEVATION	SS	STAINLESS STEEL
ENGR	ENGINEER	STL	STEEL
EP	ELECTRIC PANEL BOARD	STM	STORM SEWER
EQUIP	EQUIPMENT	STO	STORAGE
ERR	ELASTIC SHEET ROOFING	STRUCT	STRUCTURE
EW	EACH WAY	SUSP	SUSPENDED
EXH	EXHAUST	SW	SHORT WAY
EXIST	EXISTING	SYM	SYMMETRY / SYMMETRICAL
EXP	EXPANSION	SYN	SYNTHETIC
EXT	EXTERIOR / EXTENSION	T or TR	TREAD
F.D	FLOOR DRAIN	TB	TOP & BOTTOM
F.H.	FIRE HYDRANT	TEG	TOUNGE & GROOVE
FACT	FACTORY BUILT	TA	TOILET ACCESSORY(IES)
FNDT	FOUNDATION	TB	TACK BOARD
FRACT	FRACTIONAL	TEL	TELEPHONE
FT or '	FEET	TERR	TERRAZZO
FTG	FOOTING	TOC	TOP OF CONCRETE
GA	GAUGE	TOF	TOP OF FOOTING
GAL	GALLON	TOM	TOP OF MASONRY
GALV	GALVANIZED	TOS	TOP OF STEEL
GB	GRAB BAR	TRANS	TRANSFORMER
GC	GENERAL CONTRACTOR	TV	TELEVISION
GHM	GALVANIZED HOLLOW METAL	TWD	TACKABLE WALL SERVICE
GL	GLASS	TYP	TYPICAL
GWB	GYPSUM WALL BOARD	UL	UNDERWRITER'S LABORATORY
GYP	GYPSUM	UON or UNO	UNLESS OTHERWISE NOTED
H	HEIGHT / HIGH	UR	URINAL
HB	HOSE BIBB	UV	UNIT VENTILATOR
HDN	HARDWARE	V. RET	VAPOR RETARDER
HM	HOLLOW METAL	VC	VENT STACK
HORIZ	HORIZONTAL	VERT	VINYL COVERED GYPSUM WALLBOARD
HR	HOUR		
HTG	HEATING	VCT	VINYL COMPOSITION TILE
HVAC	HEATING/ VENTILATION / COOLING	VIF	VERIFY IN FIELD
		VIT	VITREOUS
HW	HOT WATER	VOL	VOLUME
HWG	HIGHWAY	VTR	VENT-THROUGH ROOF
ID	INSIDE DIAMETER	W	WEST
IN. or "	INCHES	WB	WITH
INFO	INFORMATION	WD	WITHOUT
INSUL	INSULATION / INSULATE	WH	WATER HEATER
INTR.	INTERIOR	WP	WORKING POINT
INV	INVERT	WR	WATER RESISTANT
JB	JOIST BEARING	WSB	WALL SERVICE BAY
JS	JOIST SUBSTITUTE	WWF	WELDED WIRE FABRIC
JT	JOINT	WWM	WOVEN WIRE MESH
KIT	KITCHEN	YD	YARD / YARD DRAIN
L	LENGHT / LONG		
LAB	LABORATORY		
LAM	LAMINATE		
LAV	LAVATORY		
LB OR #	POUND		
LKR	LOCKER		
LL	LIVE LOAD		
LLV	LONG LEG VERTICAL		
LM	LONG MAY		



1 UPPER LEVEL LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"



2 LOWER LEVEL LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

LEGEND, ABBREVIATIONS, AND LIFE SAFETY PLANS & DATA

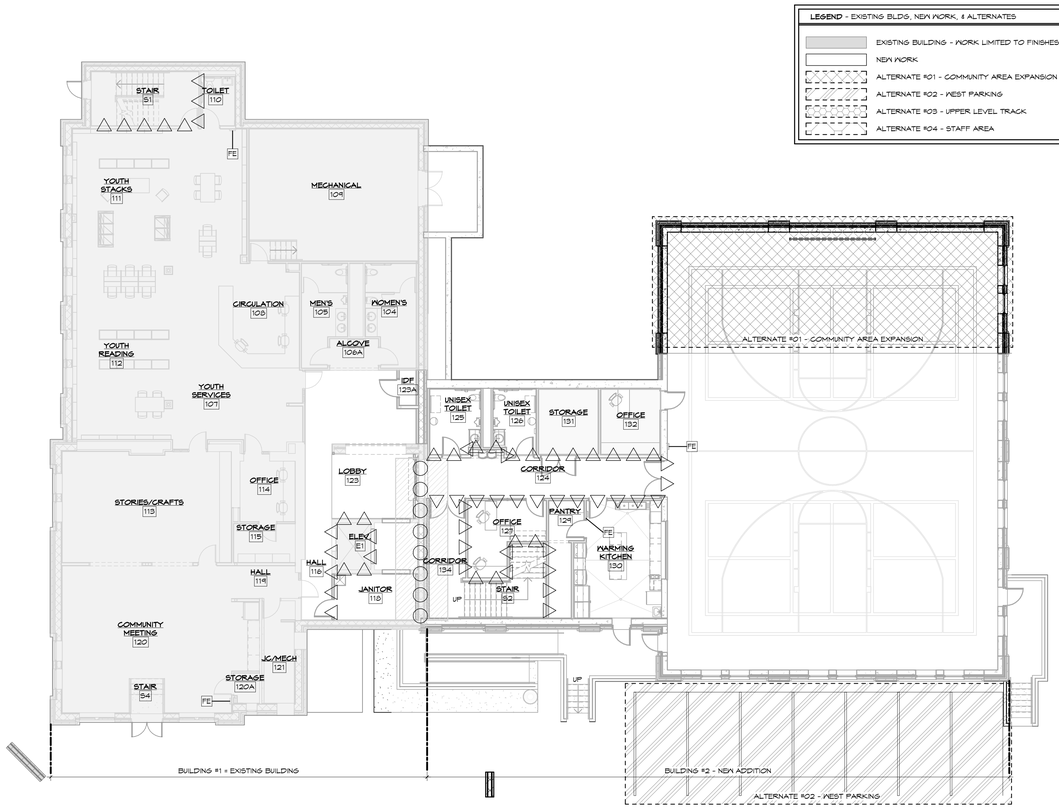
STATE OF INDIANA — KEVIN R. MCCURDY — 11200138 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No. G001
Checked: KRM	

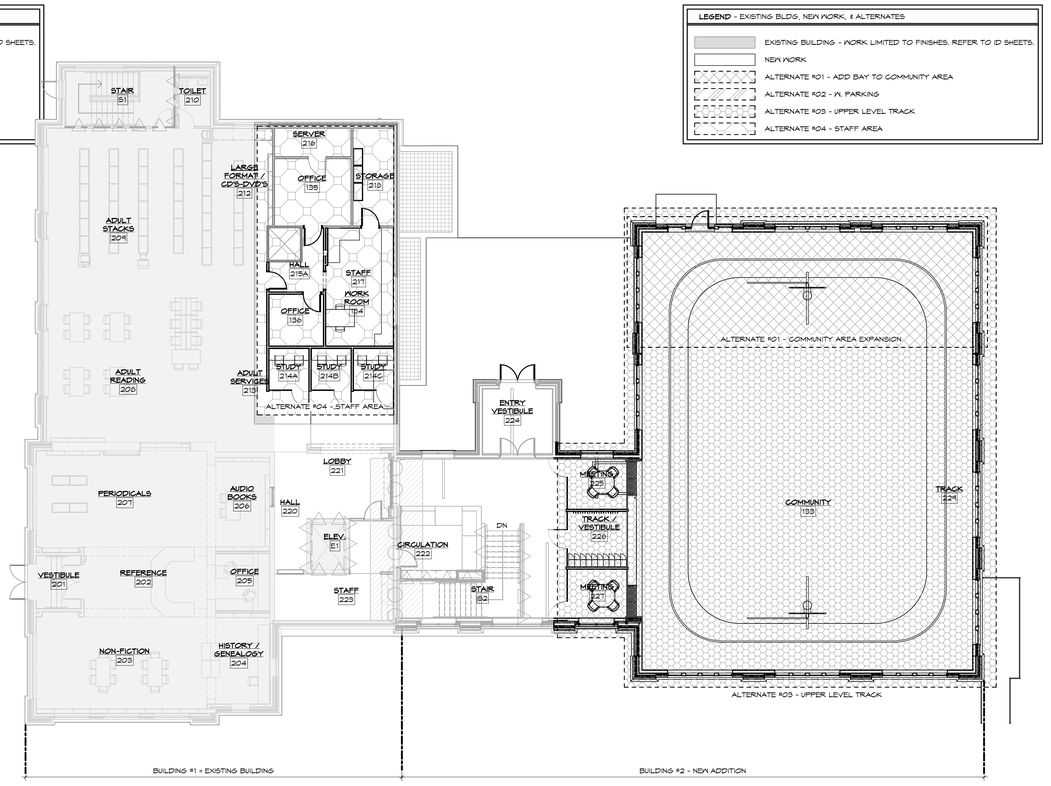
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

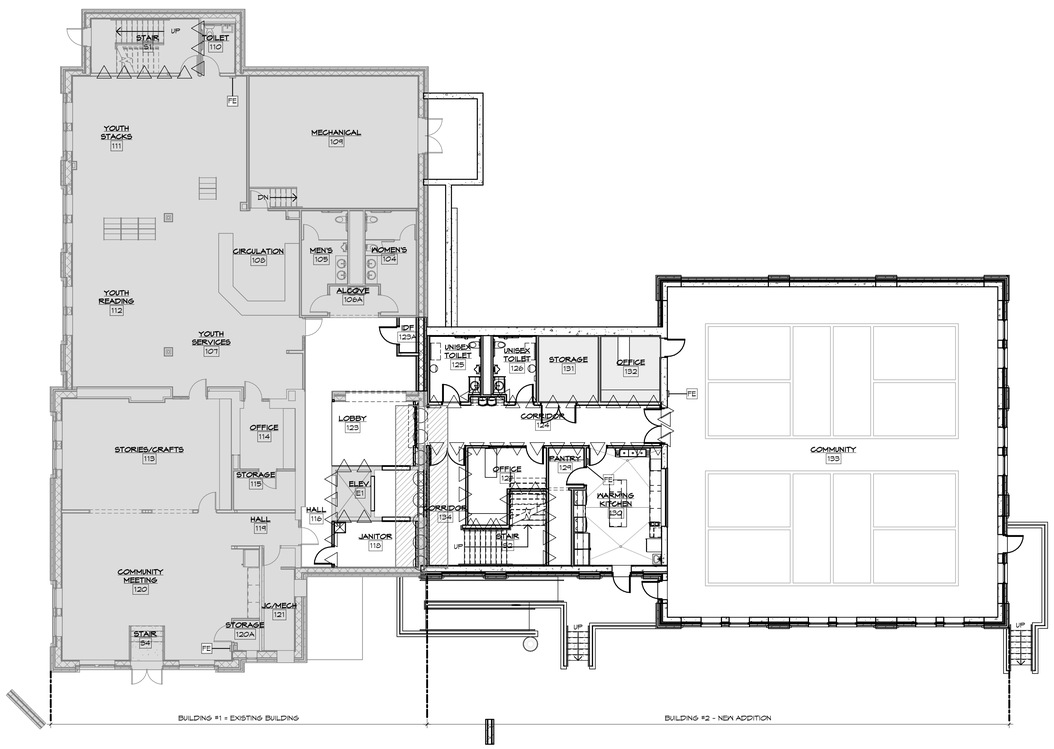
11/14/2023 9:31:32 PM



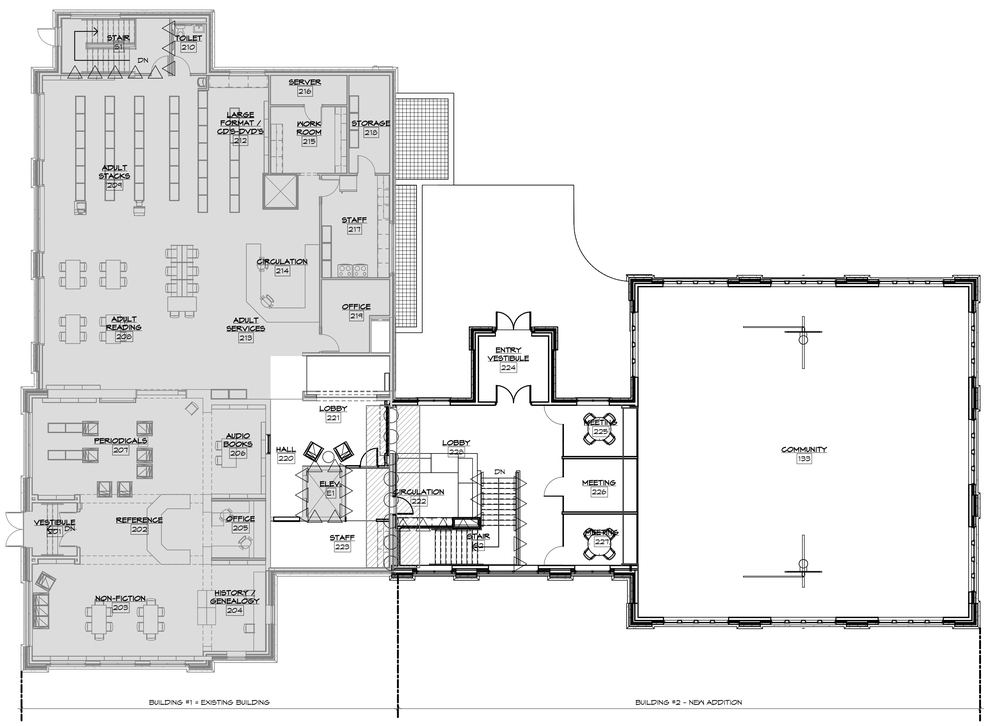
3 LOWER LEVEL ALTERNATE PLANS
SCALE: 3/32" = 1'-0"



4 UPPER LEVEL ALTERNATE PLANS
SCALE: 3/32" = 1'-0"



1 LOWER LEVEL BASE BID PLAN
SCALE: 3/32" = 1'-0"



2 UPPER LEVEL BASE BID PLAN
SCALE: 3/32" = 1'-0"

LIFE SAFETY PLAN LEGEND

- 1 HOUR RATED FIRE BARRIER
- 2 HOUR RATED FIRE WALL
- P — PANIC HARDWARE LOCATION
- EXIT LOCATION
- O.L. 32 — OCCUPANT LOAD
- 2 HOUR RATED ROOF DECK. REFER TO SECTION 706.6

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE PLANS

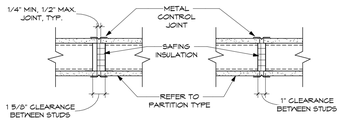
STATE OF INDIANA — REGISTERED ARCHITECT — KEVIN R. MCCURDY 11200138

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: G002
Checked: KRM	

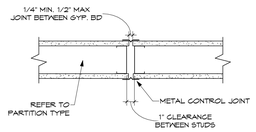
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

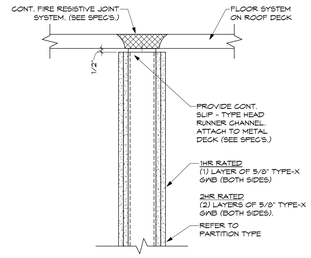
11/14/2023 9:31:37 PM



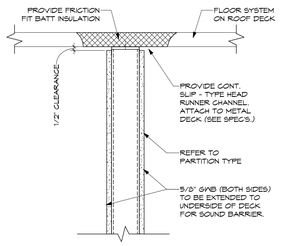
13 TYPICAL CONTROL JOINT - RATED



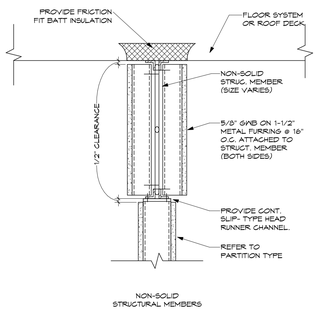
14 TYPICAL CONTROL JOINT - NON-RATED



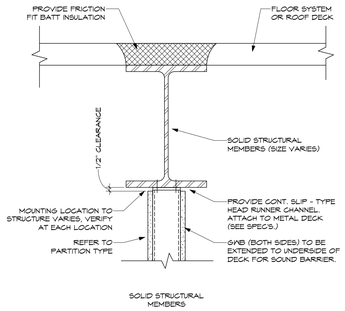
8 RATED GYPSUM PARTITION HEAD AT DECK



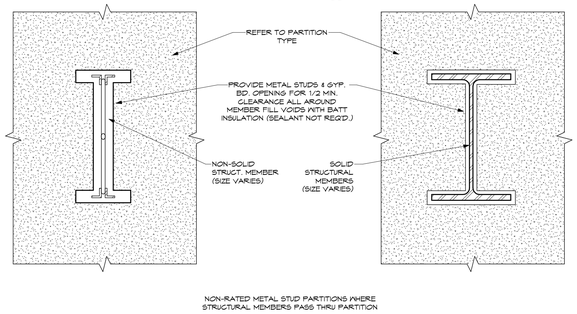
11 NON-RATED GYPSUM PARTITION HEAD AT DECK



NON-SOLID STRUCTURAL MEMBERS

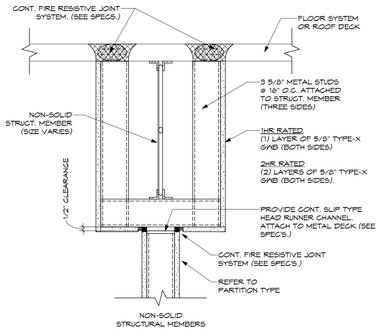


SOLID STRUCTURAL MEMBERS

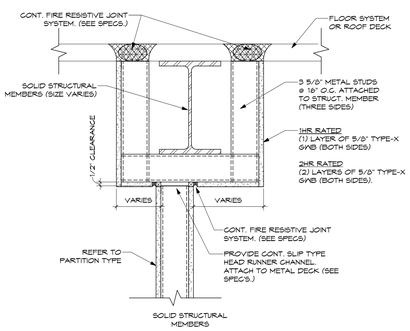


NON-RATED METAL STUD PARTITIONS WHERE STRUCTURAL MEMBERS PASS THRU PARTITION

10 NON-RATED GYPSUM PARTITON HEAD AT STRUCTURE

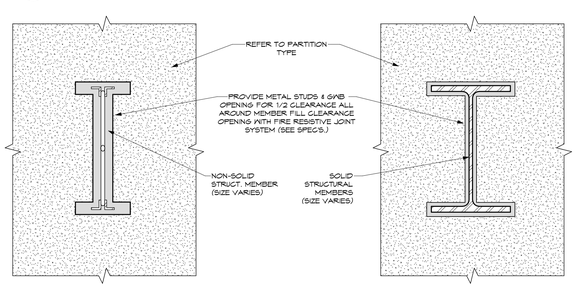


NON-SOLID STRUCTURAL MEMBERS



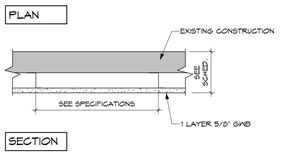
SOLID STRUCTURAL MEMBERS

12 NON-RATED GYPSUM PARTITION AT STRUCTURAL MEMBERS



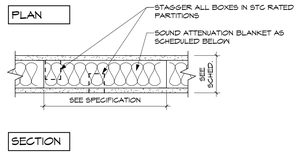
RATED METAL STUD PARTITIONS WHERE STRUCTURAL MEMBERS PASS THRU PARTITION

7 RATED GYPSUM PARTITION HEAD AT STRUCTURE



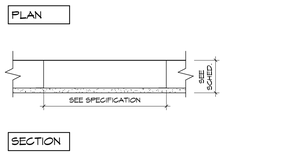
1 WALL TYPE F

WALL TYPE F FURRED PARTITION					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
F1	7/8" HC	1-1/2"	NONE	N/A	
F2	1-1/2" HC	2-1/8"	NONE	N/A	
F3	1" Z	1-5/8"	NONE	N/A	
F4	1-1/2" Z	2-1/8"	NONE	N/A	
F5	2" Z	2-5/8"	NONE	N/A	
F6	2-1/2" Z	3-1/8"	NONE	N/A	



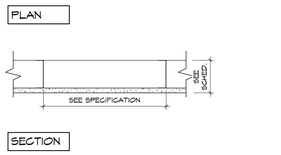
2 WALL TYPE P

WALL TYPE P NON-RATED LIGHT GAUGE METAL PARTITION					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
P1	3-5/8"	4-7/8"	NONE	N/A	
P2	3-5/8"	4-7/8"	3-1/2"	49	
P3	4"	5-1/4"	NONE	N/A	
P4	4"	5-1/4"	3-1/2"	49	
P5	6"	7-1/4"	NONE	N/A	
P6	6"	7-1/4"	5-1/2"	49	



3 WALL TYPE Q

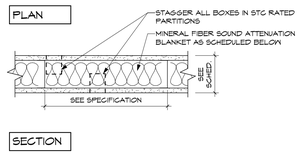
WALL TYPE Q NON-RATED LIGHT GAUGE METAL PARTITION (SINGLE FINISH SIDE)					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
Q1	2-1/2"	3-1/8"	NONE	N/A	
Q2	3-5/8"	4-1/4"	NONE	N/A	
Q3	4"	4-5/8"	NONE	N/A	
Q4	6"	6-5/8"	NONE	N/A	



4 WALL TYPE R

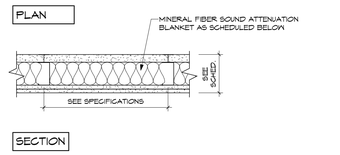
WALL TYPE R NON-RATED LIGHT GAUGE METAL PARTITION - PARTIAL HEIGHT (SINGLE FINISH SIDE)					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
R1	2-1/2"	3-1/8"	NONE	N/A	
R2	3-5/8"	4-1/4"	NONE	N/A	
R3	4"	4-5/8"	NONE	N/A	
R4	6"	6-5/8"	NONE	N/A	

FIRE RATED ASSEMBLIES



5 WALL TYPE A

WALL TYPE A 1-HOUR RATED LIGHT GAUGE METAL PARTITION					UL DESIGN + TEST #U465
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
A1	3-5/8"	4-7/8"	NONE	N/A	
A2	3-5/8"	4-7/8"	3-1/2"	49	
A3	4"	5-1/4"	NONE	N/A	
A4	4"	5-1/4"	3-1/2"	49	
A5	6"	7-1/4"	NONE	N/A	
A6	6"	7-1/4"	5-1/2"	49	



6 WALL TYPE S

WALL TYPE S 2-HOUR RATED SHAFTWALL					UL DESIGN + TEST #U415
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
S1	2-1/2" GH	5-1/2"	NONE	N/A	
S2	2-1/2" GH	5-1/2"	1"	34	
S3	4" GH	5"	NONE	N/A	
S4	4" GH	5"	3 1/2"	50	
S5	6" GH	7"	NONE	N/A	
S6	6" GH	7"	5 1/2"	51	

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

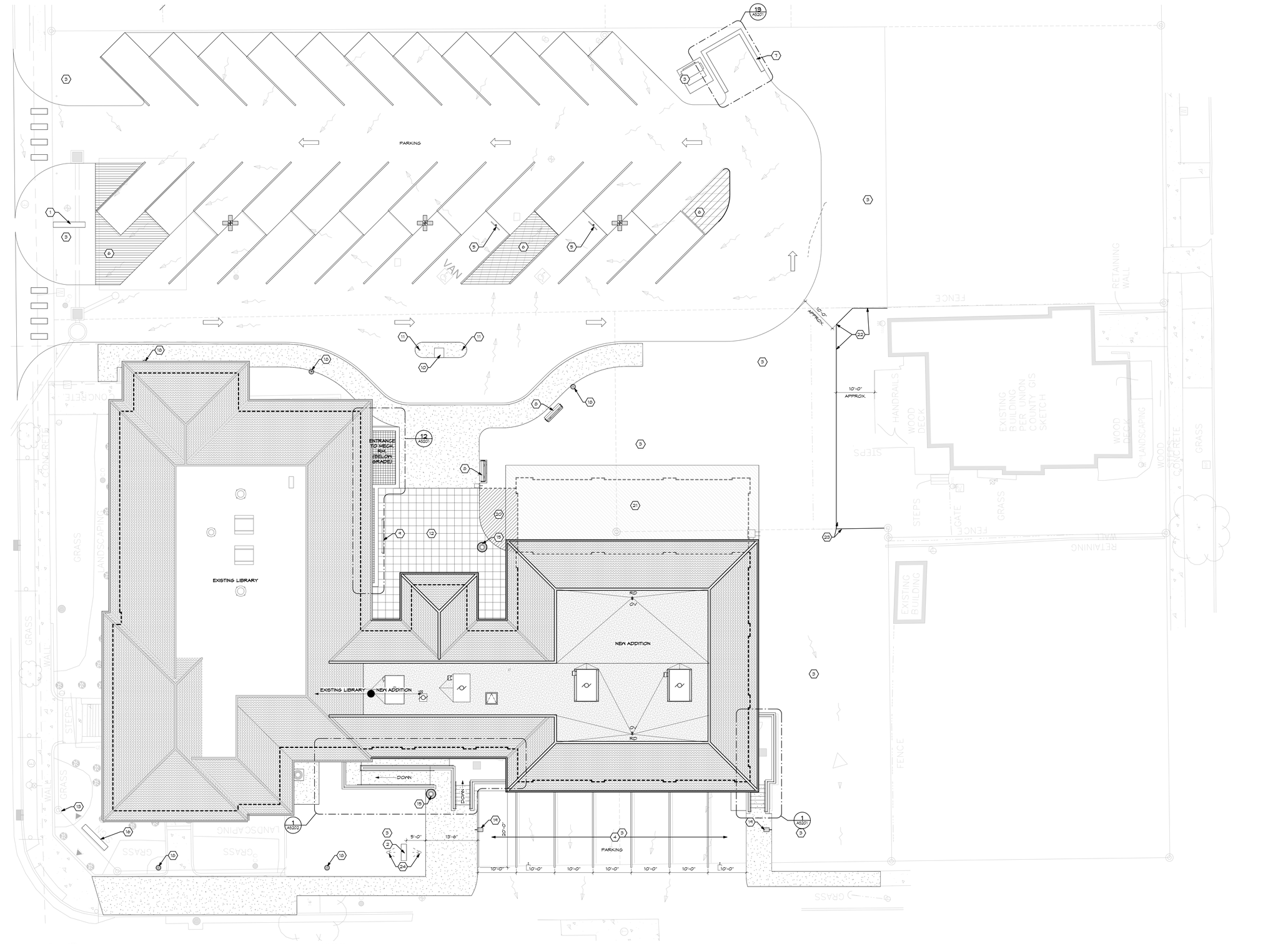
PARTITION TYPES

STATE OF INDIANA KEVIN R. MCCURDY 11200138 REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn SAG	Drawing No. G003
Checked KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



1 ARCHITECTUAL SITE PLAN
SCALE: 1" = 10'-0"

SHEET NOTES: (SITE SHEET NOTES ONLY.)

1. MONUMENT SIGN AT MAIN PARKING AREA - SEE DETAILS. SEE ELECTRICAL FOR LIGHTING.
2. MONUMENT SIGN AT WEST PARKING AREA. - SEE DETAILS - SEE ELECTRICAL FOR LIGHTING.
3. SEEDED GRASS AREA AS PART OF BASE BID
4. PARKING AREA AS PART OF ALTERNATE #02 SHOWN AS REFERENCE. NOT PART OF BASE BID.
5. HANDICAP PARKING STALLS WITH SIGNAGE. SEE CIVIL FOR SYMBOL DIMENSIONS.
6. PAINTED STRIPING.
7. DUMPSTER ENCLOSURE. - SEE DETAILS
8. BENCH.
9. BIKE RACK.
10. BOOK DROP WITH CARD READER.
11. PIPE BOLLARDS.
12. PAVERS.
13. EXISTING FLAG POLE TO REMAIN.
14. CONCRETE PAVERS.
15. TRASH CAN.
16. EXISTING MONUMENT SIGN TO REMAIN.
17. MAIN PARKING LIGHTING - SEE ELECTRICAL.
18. PEDESTRIAN POLE LIGHTS - SEE ELECTRICAL.
19. WEST PARKING LIGHTING AS PART OF ALTERNATE #02 - NOT PART OF BASE BID.
20. PAVERS TO EXTEND TO BUILDING EDGE AS PART OF ALTERNATE #01
21. INDICATES ROOF AREA AS PART OF ALTERNATE #01
22. RELOCATE VINYL FENCING.
23. SALVAGE VINYL FENCING TO EXISTING POST SUCH THAT DISTANCE BETWEEN RELOCATED VINYL FENCING & WOOD DECKING TO REMAIN IS APPROXIMATELY 10'-0"
24. SIGN LIGHTING - SEE ELECTRICAL

GENERAL NOTES: (SITE NOTES ONLY.)

A. ALL DIMENSIONS ARE APPROXIMATE AND THE G.C. SHALL FIELD VERIFY.
B. CONFIRM LOCATION OF ALL TREES, UTILITIES, AND OTHER SITE DEVELOPMENT IN THE LOCATION OF THE CONSTRUCTION LIMITS. NOTIFY ARCHITECT IMMEDIATELY IF A DISCREPANCY BETWEEN THE DRAWINGS AND EXISTING SITE CONDITIONS.
C. NEW GRADES SHALL BLEND SMOOTHLY INTO EXISTING GRADES.
D. PROVIDE PERMANENT SEEDING FOR ALL LOCATIONS WITHIN THE CONSTRUCTION LIMITS EXCEPT ASPHALT, CONCRETE, AND LANDSCAPING AREAS. SEED ALL DISTURBED AREAS OUTSIDE OF CONSTRUCTION LIMITS.
E. ALL WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF ALL STATE AND LOCAL GOVERNING AGENCIES.
F. PRIOR TO BEGINNING ANY PROPOSED WORK, ALL PERMITS FOR SITE WORK SHALL BE OBTAINED BY CONTRACTOR FROM REGULATING AUTHORITIES.
G. REMOVE ALL EXCAVATED SOLIDS OVER SIX (6) INCHES IN ANY DIMENSION.
H. CLEAN ALL DIRT, MUD, AND DEBRIS TRACKED ONTO ADJACENT ROADWAYS IMMEDIATELY.
I. DO NOT DISTURB ANY PROPERTY LINE IRON PINS, SURVEY MONUMENTS, OR ESTABLISHED BENCHMARKS. IF DISTURBED, THESE ITEMS SHALL BE RESET BY A PROFESSIONAL LICENSED SURVEYOR AT THE DISTURBING CONTRACTORS EXPENSE.
J. ALL AREAS SHALL RECEIVE TOPSOIL TO A MINIMUM DEPTH OF THREE AND A HALF (3.5) INCHES. THIS TOPSOIL MAY BE STOCKPILED FROM ONSITE EARTHWORK ACTIVITY AND REDISTRIBUTED AS REQUIRED ONCE EARTHWORK ACTIVITIES ARE COMPLETE. CONFIRM LOCATION FOR STOCKPILED SOIL WITH OWNER BEFORE PROCEEDING WITH ANY EARTHMOVING WORK.
K. COORDINATE WORK @ TOWN SIDEWALKS WITH TOWN OF LIBERTY. ALL ROAD AND CURB REPAIRS SHALL CONFORM TO TOWN OF LIBERTY STANDARDS FOR MATERIALS AND CONSTRUCTION.
L. THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLISH SHALL BE SPECIFIED BY A LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THIS PROJECT IS LOCATED, TO BE RETAINED BY THE CONTRACTOR.
M. THE CONTRACTOR SHALL REPAIR ALL DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE ARCHITECT.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

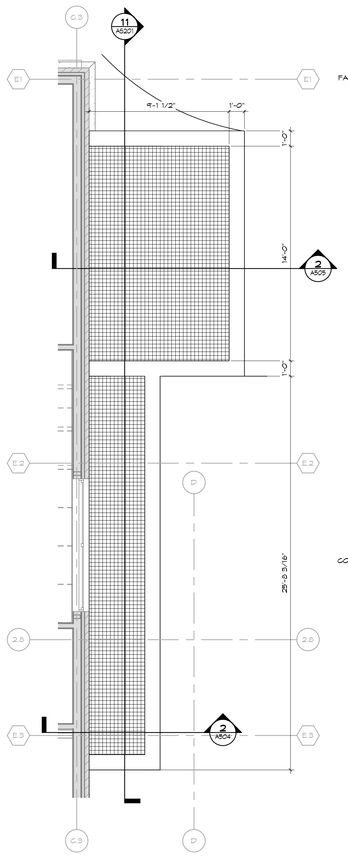
ARCHITECTURAL SITE PLAN

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

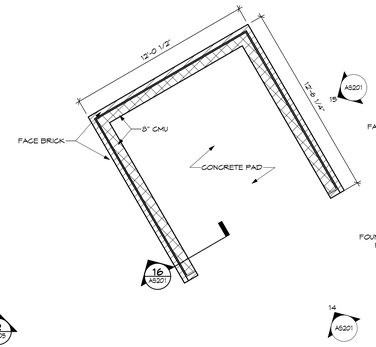
Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. AS100
Checked KRM	

© 2023 LWC INCORPORATED

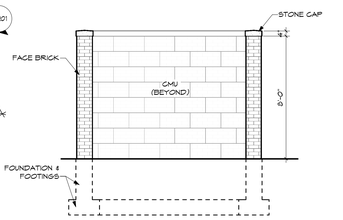
11/14/2023 9:29:34 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



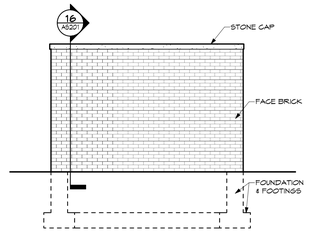
12 EXTERIOR EAST MECHANICAL AREAWAY PLAN
SCALE: 1/4" = 1'-0"



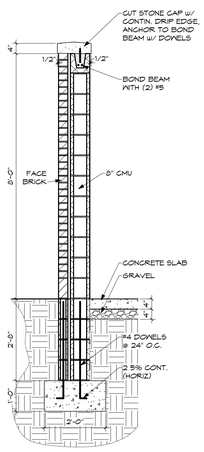
13 DUMPSTER ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"



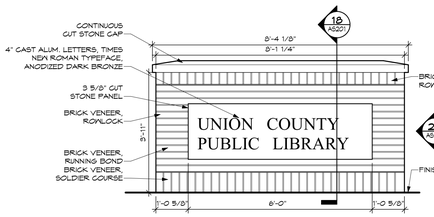
14 DUMPSTER ENCLOSURE - EAST ELEV.
SCALE: 1/4" = 1'-0"



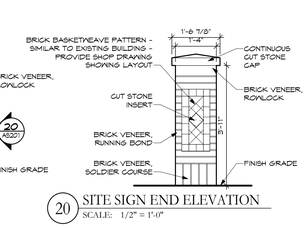
15 DUMPSTER ENCLOSURE - TYP.
SCALE: 1/4" = 1'-0"



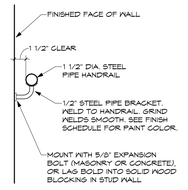
16 TYPICAL DUMPSTER ENCLOSURE
SCALE: 1/2" = 1'-0"



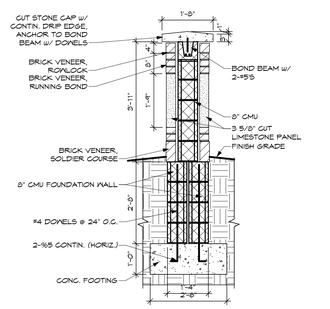
19 SITE SIGN
SCALE: 1/2" = 1'-0"

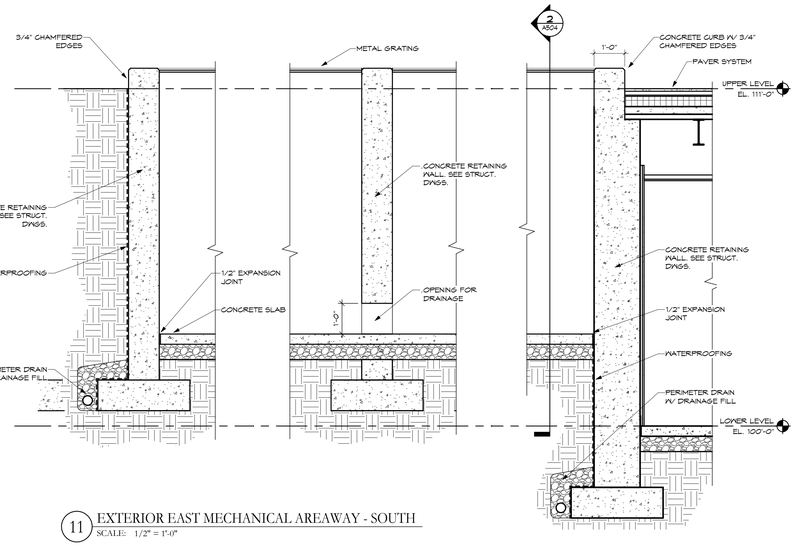


20 SITE SIGN END ELEVATION
SCALE: 1/2" = 1'-0"

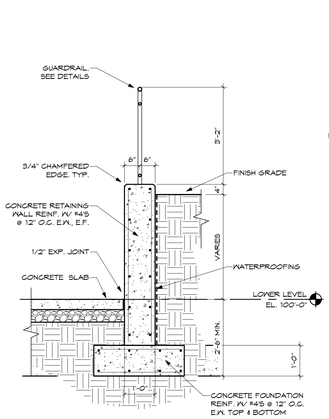


TYP. EXTERIOR HANDRAIL BRACKET @ WALL
SCALE: 1 1/2" = 1'-0"

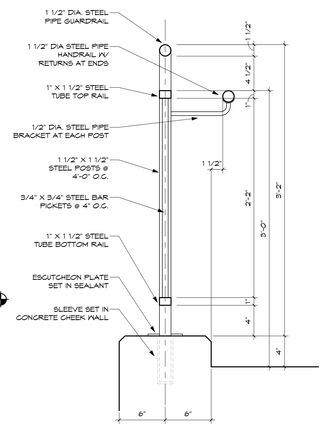




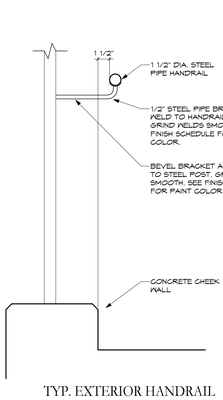
11 EXTERIOR EAST MECHANICAL AREAWAY - SOUTH
SCALE: 1/2" = 1'-0"



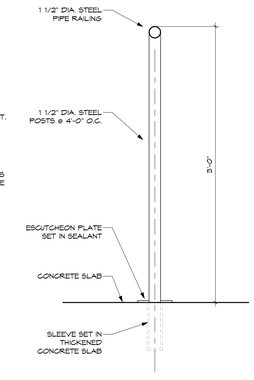
10 TYPICAL RETAINING WALL
SCALE: 1/2" = 1'-0"



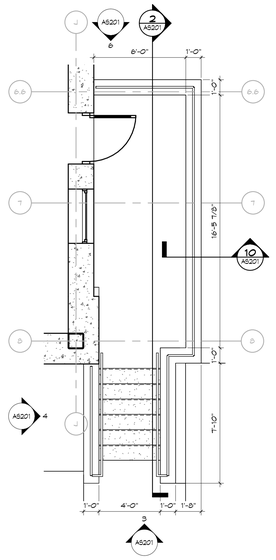
9 TYPICAL EXTERIOR GUARDRAIL
SCALE: 1 1/2" = 1'-0"



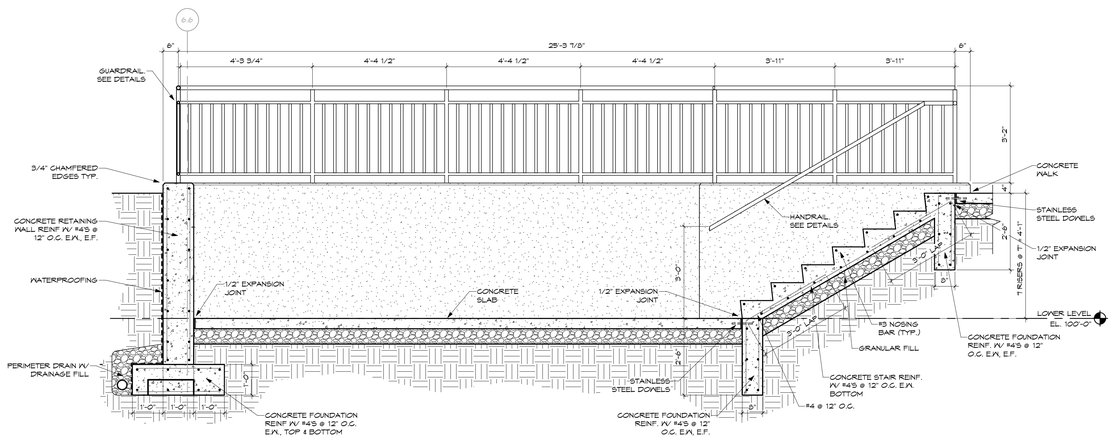
TYP. EXTERIOR HANDRAIL BRACKET @ GUARDRAIL
SCALE: 1 1/2" = 1'-0"



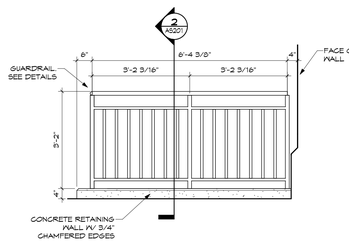
TYPICAL EXTERIOR FREESTANDING HANDRAIL
SCALE: 1 1/2" = 1'-0"



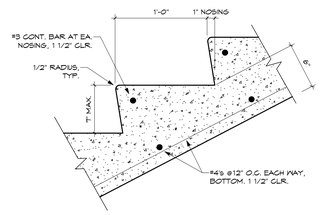
1 EXTERIOR SOUTH STAIR PLAN
SCALE: 1/4" = 1'-0"



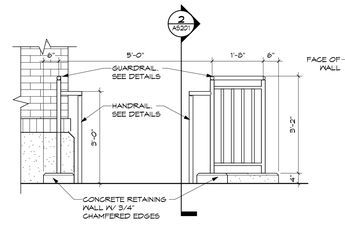
2 EXTERIOR SOUTH STAIR & RAILING - SOUTH
SCALE: 1/2" = 1'-0"



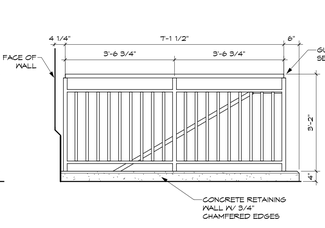
6 EXTERIOR SOUTH STAIR RAILING - WEST
SCALE: 1/2" = 1'-0"



5 TYPICAL EXTERIOR STAIR TREAD
SCALE: 1 1/2" = 1'-0"



3 EXTERIOR SOUTH STAIR RAILING - EAST
SCALE: 1/2" = 1'-0"



4 EXTERIOR SOUTH STAIR RAILING - SOUTH
SCALE: 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

EXTERIOR STAIR AND RAILING DETAILS

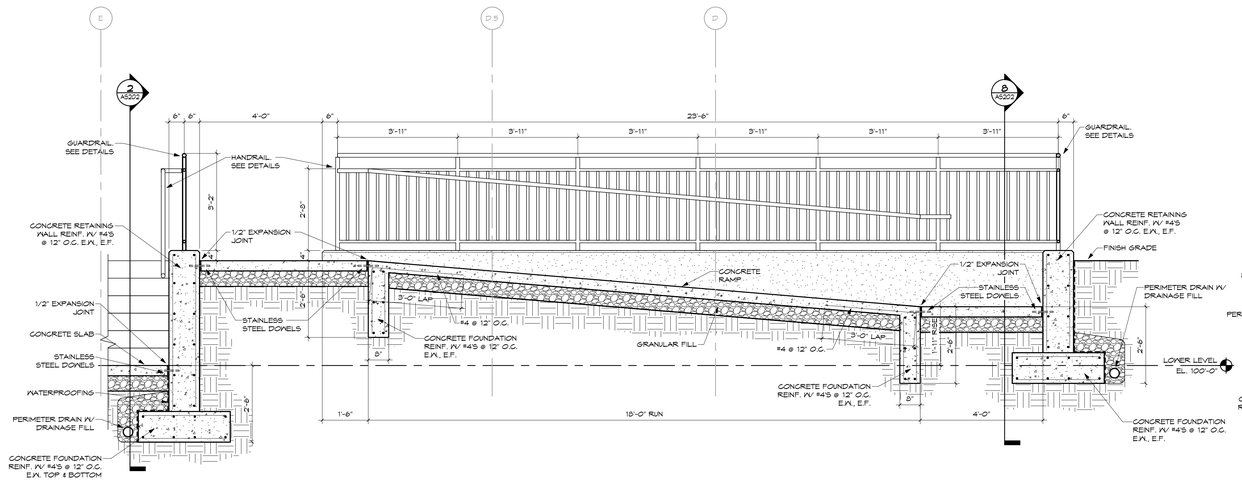
STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: SAG	Drawing No. AS201
Checked: KRM	

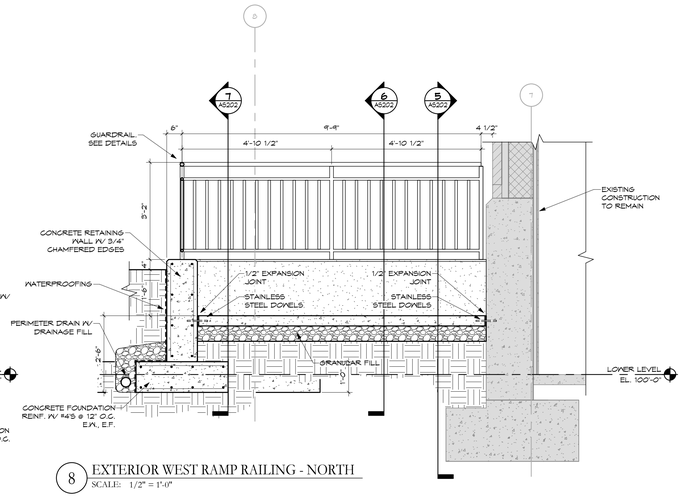
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt
11/14/2023 9:29:53 PM

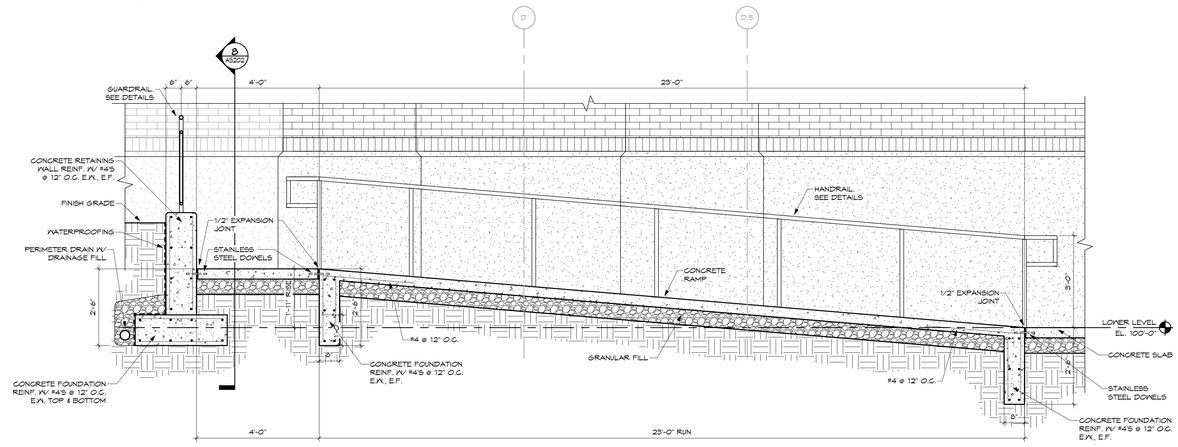
11/14/2023 9:30:01 PM



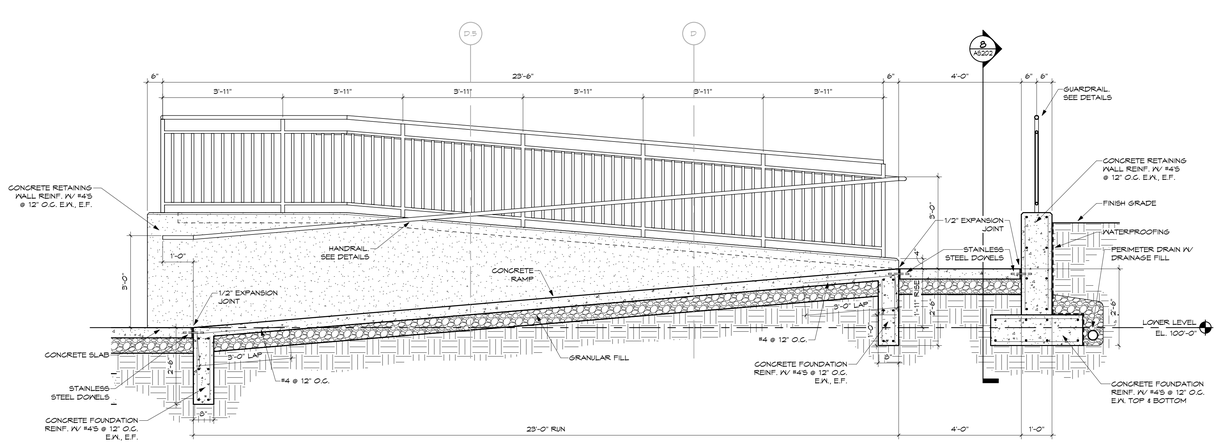
7 EXTERIOR WEST RAMP UPPER SECTION - WEST
SCALE: 1/2" = 1'-0"



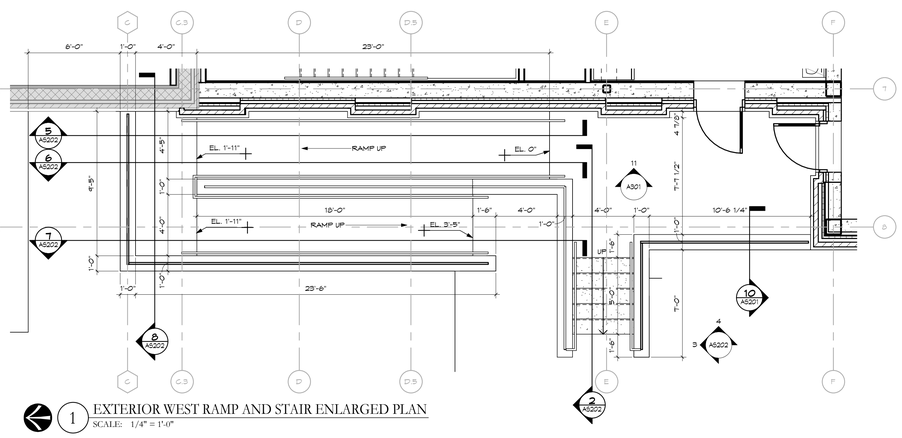
8 EXTERIOR WEST RAMP RAILING - NORTH
SCALE: 1/2" = 1'-0"



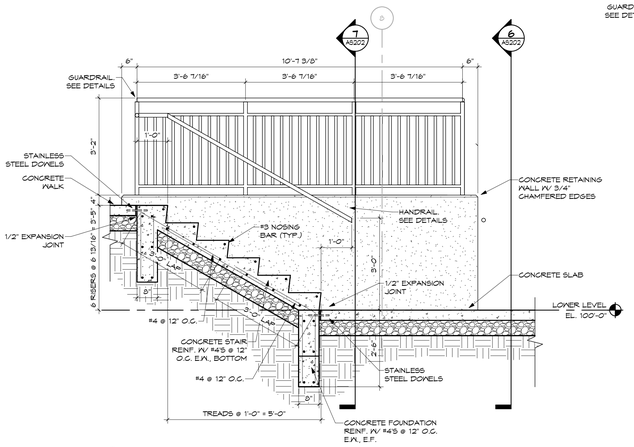
5 EXTERIOR WEST RAMP LOWER SECTION - EAST
SCALE: 1/2" = 1'-0"



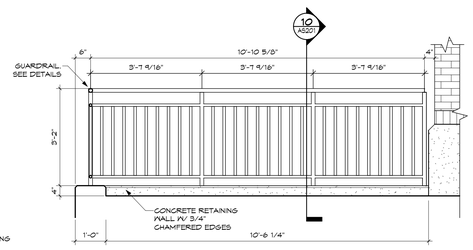
6 EXTERIOR WEST RAMP LOWER SECTION - WEST
SCALE: 1/2" = 1'-0"



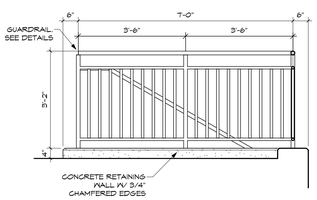
1 EXTERIOR WEST RAMP AND STAIR ENLARGED PLAN
SCALE: 1/4" = 1'-0"



2 EXTERIOR WEST STAIR SECTION - NORTH
SCALE: 1/2" = 1'-0"



4 EXTERIOR WEST STAIR RAILING - EAST
SCALE: 1/2" = 1'-0"



3 EXTERIOR WEST STAIR RAILING - NORTH
SCALE: 1/2" = 1'-0"

	BID DOCUMENTS	11.10.2023
No.	Revisions / Submissions	Date

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

EXTERIOR STAIR, RAMP AND RAILING DETAILS

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn SAG	Drawing No. AS202
Checked KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/10/2023 3:16:14 PM

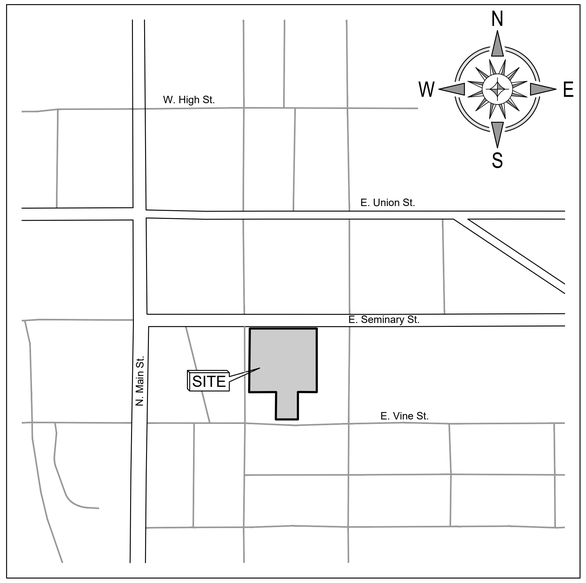
UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

GENERAL CONSTRUCTION NOTES

1. Site/Civil Specifications: All plans, construction, materials, workmanship, and methods shall be in accordance with the current "Rules and Regulations" of Union County and the Indiana Department of Transportation Construction and Material Specifications. When in conflict, the County requirements shall prevail.
2. Prior to the start of construction, the Contractor shall be responsible for ensuring that all required permits and approvals have been obtained. No construction or fabrication shall begin until the Contractor has received and reviewed all plans and other documents approved by all the permitting authorities. The Contractor shall post all bonds, pay all fees, and provide proof of insurance as required to obtain permits.
3. All sediment and erosion control measures, as shown on Sheet C-6.0, shall be in place prior to the start of any demolition, clearing and grubbing, or construction operations. Erosion control measures shall conform to all Local, State, and Federal regulations and requirements.
4. North arrow, existing topography, and property lines based on field survey of the subject property prepared by Burkhardt Engineering in July 2023. An ALTA/NSPS Land Title Survey was not performed, survey may not depict any or all easements impacting the subject property.
5. Information on existing utilities has been compiled from available information including utility company and municipal records and field survey and is not guaranteed correct and complete. Utilities are shown to alert the Contractor to their presence and the Contractor is solely responsible for determining actual locations and elevations of all utilities. Prior to demolition or construction, the Contractor shall contact "811", 72 hours before commencement of work and verify all utility locations.
6. The Contractor shall provide and maintain traffic control devices for protection of vehicles and pedestrians consisting of drums, barriers, signs, lights, fences and uniformed traffic officers as required by Local and State Authorities.
7. The Contractor shall protect all iron pins, monuments and property corners during construction. Any Contractor disturbed pins, monuments, etc. shall be reset by a Professional Land Surveyor (Registered with the State) at the expense of the Contractor.
8. Any disturbance incurred to any adjacent properties or public right-of-way during demolition and construction shall be restored to its original condition or better, in accordance with and to the satisfaction of Local and State Authorities.
9. The Contractor shall abide by all OSHA, Federal, State, and Local regulations when operating cranes, booms, hoists, etc. in close proximity to overhead electric lines. If Contractor must operate equipment close to electrical lines, contact the local Utility Provider to make arrangements for proper safeguards.
10. All material schedules shown on the plans are for general information only. The Contractor shall prepare their material schedules based upon their plan review. All schedules shall be verified in the field by the Contractor prior to ordering materials or performing work.
11. The Contractor shall review all plans prior to construction and immediately report any conflicts and/or discrepancies to the engineer-of-record.
12. All work within public rights-of-way shall be in accordance with the Indiana Department of Transportation rules, specifications, and regulations.



VICINITY MAP
NOT TO SCALE

DEVELOPMENT / DESIGN TEAM

OWNER
Union County
Phone: 765.458.5355
Email: ucplibrary@gmail.com

CIVIL ENGINEER / CONSULTANT
Burkhardt Engineering
Contact: Jonathan Burkhardt
Phone: 937.388.0060
Email: jdburkhardt@burkhardtinc.com

ARCHITECT
LWC
Contact: Kevin McCurdy
Phone: 765.966.3546
Email: kmccurdy@lwcinspires.com

PROJECT SUMMARY

Project will include the demolition and removal of utilities, vegetation, pavement, etc. as necessary to construct the Union County Library Addition and its associated pavement, parking facilities, utilities, landscaping, signage and any other proposed improvements which are needed to service the facility.

PROPERTY INFORMATION

Address: 2 E. Seminary Street, Liberty, Indiana 47353
Legal Description: Lots 36, 37, 63, & 64 Original Plat
Area: 1.19 acres
Zoning: UBD - Urban Business District
Flood Zone Designation: FIRM # 18161C0045C, effective date: February 5, 2014.
Zone "X" : Areas determined to be outside the 0.2% annual chance floodplain.

Sheet List Table

Sheet Number	Sheet Title
C-0.0	TITLE SHEET
C-0.1	GENERAL NOTES
C-1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C-2.0	SITE PLAN
C-3.0	GRADING PLAN
C-3.1	ENLARGED GRADING PLAN
C-4.0	UTILITY PLAN
C-5.0	SITE DETAILS
C-5.1	INDOT DETAILS
C-6.0	EROSION CONTROL PLAN
C-7.0	SITE & GRADING PLAN ALTERNATATE (BUILDING ADDITION)

Note: Architectural, Structural, Mechanical, Electrical and Plumbing Plans in separate set.

CIVIL ISSUE LOG

Description	Date
Bid Documents	11.10.2023

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT
ENGINEERS ▼ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

TITLE SHEET

JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No.	Date
22106.00	2023.11.10
Drawn: AFD	Drawing No.: C-0.0
Checked: JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS.dwg

GENERAL DEMOLITION NOTES

1. Within the subject property, the intent is to have a clean, clear site, free of all existing items noted to be removed in order to allow for the construction of the new project.
2. All items noted to be removed shall be done as part of the contract for general construction.
3. Remove and dispose of any materials requiring removal from the work area in an approved off-site landfill.
4. The Contractor shall secure all permits for demolition and disposal of demolition material to be removed from the site. The Contractor shall post all bonds and pay all permit fees as required.
5. The Contractor shall cut and plug, or arrange for the appropriate utility company to cut and plug service piping at the property line or at the main (as required). All services may not be shown on this plan.
6. For all items noted to be removed, remove not only above ground elements, but all underground elements as well, including, but not necessarily limited to: foundations, slabs, gravel fills, tree roots, pipes, wires, unsuitable materials, etc.
7. The Contractor shall sawcut existing pavement to provide a clean edge between existing pavement to remain and existing pavement to be removed.
8. Limits of removal and sawcut lines shown on demolition plan are approximate only. Actual quantities may vary due to construction activities. Contractor is responsible for all demolition, removal and restoration work necessary to allow for the construction of the new project.
9. Backfill excavations resulting from demolition work to meet the requirements for fill outlined in the Geotechnical / Soils Report.

GENERAL SITE NOTES

1. Building dimensions shown on the Civil Engineering Plans are for reference purposes only. The Contractor shall use the Architectural and Structural Plans for exact building dimensions.
2. All site and radii dimensions are referenced to the face of curbs or edge of paving unless otherwise noted.
3. All dimensions to the building are referenced to the outside face of the foundation wall.
4. All sidewalks, curb and gutter, street paving, curb cuts, driveway approaches, handicap ramps, etc. constructed outside the property line in the right-of-way shall conform to all Local and/or State specifications and requirements.
5. All proposed handicap ramps, parking areas, and accessible routes shall strictly comply with current Local, State, and Federal regulations, including but not necessarily limited to the ADA Accessibility Guidelines (ADAAG).
6. All ADA accessible routes shall have detectable warnings installed as required by the ADAAG. Detectable warnings shall consist of raised truncated domes which contrast visually with the adjoining surfaces, either light-on-dark, or dark-on-light.
7. Contractor shall sawcut existing pavement to provide a clean, straight joint where new pavement meets existing pavement and ensure positive drainage.
8. All concrete pavement shall have joints in accordance with ACI 330R-08, Section 3.7 and Appendix C. Contraction joints shall be 1/4 of the slab thickness. Isolation joints shall be placed between pavement and foundations, inlets, and other fixed structures. Contraction joints shall be tool finished and spaced as follows:
   Curbing: 10'-0" (max) spacing.
   Sidewalks: 5'-0" (max) spacing.
   Vehicular Traffic Areas: 24 x Concrete Pavement Thickness (feet), 15'-0" (max) spacing.

GENERAL GRADING, EARTHWORK & DRAINAGE NOTES

1. All spot elevations indicated in pavement areas are at bottom face of curb and/or finished pavement grade unless noted otherwise. All spot elevations indicated in grass or landscape areas are finished grade unless noted otherwise.
2. The Contractor shall be responsible for the removal and disposal of all vegetation and organic materials from the site that results from clearing & grubbing activities.
3. The Contractor shall be responsible for stripping and removal of all excess topsoil from the site. All topsoil that cannot be used on site shall be removed from the site at the Contractor's expense. The Contractor may dispose of excess topsoil by burying topsoil in landscape areas only at the direction of the Owner or the Owner's Representative.
4. The Contractor will be responsible for all safety requirements and for the protection of all existing and proposed utilities or structures during earthwork procedures.
5. The Contractor shall be responsible for the import of structural fill materials if suitable material is not available on site. The location and testing of suitable material shall be the Contractor's responsibility. The Contractor shall be responsible for the export and disposal of all excess or unsuitable materials.
6. The Contractor shall provide construction dewatering as necessary to complete construction as outlined in plans.
7. The Contractor shall exercise extreme care in establishing all grades and slopes in pavement areas, ramps and sidewalks in the vicinity of handicap parking and access areas and shall comply with Federal, State, and Local Codes.
8. In areas where sheet drainage flows from grass or landscape areas onto paved areas, the finished grade in grass or landscape areas shall be 1/2 inch above the top of curb or above the pavement in areas without curb. In areas where sheet drainage flows from pavement to grass or landscaped areas, the finished grade in grass or landscape areas shall be 1/2 inch below the pavement.
9. The Contractor shall provide positive drainage in all areas and away from all buildings.
10. All pavement shall be laid on a straight, even, and uniform grade with a minimum of 1:100 (1.0%) slope toward the collection points unless otherwise specified on plans. Cut or fill slopes in unpaved areas shall not exceed 3:1 (33.3%) maximum grade unless otherwise noted on plans.
11. ADA accessible areas shall not exceed the following slopes:
    Ramps - 1:12 (8.3%) max.
    Routes - 1:20 (5.0%) max.
    Parking - 1:50 (2.0%) max.
    Cross Slopes - 1:50 (2.0%) max.
12. The Contractor shall adjust tops/lids/grates of all cleanouts, manholes, inlets, valves, etc. to match final grade.
13. Following grading of subsoil to subgrade elevations, the Contractor shall provide 4" of topsoil (minimum) in all disturbed areas which are not to be paved. Final grades should be smoothly finished to surrounding areas and ensure positive drainage. Stockpiled topsoil shall be screened prior to respreading and should be free of subsoil, debris, and stones.
14. The Contractor shall be responsible for determining exact quantities of cut and/or fill for estimating and construction and should alert the Engineer of any excessive cut and/or fill, especially if additional cut and/or fill will be required due to poor existing soil conditions discovered during earthwork operations.
15. Refer to the Architectural and Structural Plans for information regarding any perimeter foundation drains.
16. The Contractor shall obtain a copy of the Geotechnical / Soils Report and become thoroughly familiar with site and subgrade information and fully implement recommendations given therein.
17. The Contractor shall provide geotextile weed mat under all landscape mulch/stone and rip-rap.
18. If field tiles are encountered, notify Engineer, field tiles will likely need to be replaced and connected to storm sewer system.

GENERAL UTILITY NOTES:

1. All utilities shown are approximate locations only and have been compiled from the latest available mapping. The exact location of all underground utilities shall be verified by the Contractor prior to the start of construction.
2. Contractor to coordinate with the local utility companies for all locations and connections. A preconstruction meeting with the various utility companies may be required prior to the start of any construction activity.
3. The Contractor shall visit the site and verify the location, elevation, and condition of all existing utilities by various means prior to beginning any excavation. Test pits shall be dug at all locations where existing and proposed utility lines cross, and the horizontal and vertical locations of the utilities shall be determined. The Contractor shall contact the Engineer in the event of any unforeseen conflicts between existing and proposed utilities so that an appropriate modification may be made.
4. The Contractor shall ensure that all utility companies and local standards for materials and construction methods are met. The Contractor shall perform proper coordination with the respective utility company. The Contractor shall coordinate work to be performed by the various utility companies and shall pay all fees for connections, disconnection, relocations, inspections, and demolition.
5. This plan details pipes up to 5' from the building face. Refer to the building drawings for building connections. Supply and install pipe adapters as necessary.
6. All valve boxes and curb boxes shall be adjusted to the final grades and located in grassed areas unless indicated otherwise on the plans.
7. The Contractor shall provide traffic bearing concrete collars and lids for all cleanouts, manholes, inlets, valves, etc. which are located in paved areas.
8. All existing pavement within the rights-of-way where utility piping is to be installed shall be saw cut and replaced or directionally bored in accordance with Local and/or State requirements. Existing pavement shall be repaired as necessary.
9. All utility lines and trenches shall be installed, bedded and backfilled according to manufacturer's specifications and to the satisfaction of Local and State Authorities.
10. Sanitary sewer laterals shall maintain (10' min. horizontal, 1.5' min. vertical) separation distance from water lines unless otherwise shown, or additional protection measures will be required. Where water line crosses above sanitary lateral by less than 2' vertical, a concrete encasement shall be installed, Contractor shall center one joint of pipe at crossing.
11. Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.

SANITARY SEWER NOTES:

Contractor to retain and protect existing sanitary sewer service, exact location unknown. Contractor to notify Burkhardt of any conflicts, adjustments, or questions that may arise due to location of existing sanitary sewer service.

WATER NOTES:

Contractor to retain and protect existing water (fire and/or domestic) services, exact location unknown. Contractor to notify Burkhardt of any conflicts, adjustments, or questions that may arise due to location of existing water services.

GAS NOTES:

Coordinate gas service lines, meter, and connections with Plumbing and Mechanical Plans and local utility provider. Contractor shall verify both location and availability of service prior to the start of construction.

ELECTRIC NOTES:

Coordinate electric service lines, transformer, meter, and connections with Electrical Plans and local utility provider. Contractor shall verify both location and availability of service prior to the start of construction.

Coordinate site lighting, signage wiring, conduit locations, connections, etc. with electrical plans. Notify Engineers of any potential conflicts.

TELECOM NOTES:

Coordinate telecommunication service lines and connections with electrical plans and local utility provider. Contractor shall verify both location and availability of service prior to the start of construction.

STORM SEWER NOTES:

All storm sewer shall be reinforced concrete pipe (RCP, ASTM C76 - Class III, minimum) or high-density polyethylene pipe (ADS N-12 WT, watertight, or equivalent), unless otherwise noted on plans. All pipe shall be installed according to manufacturer's specifications. All storm sewer pipe and joints to be watertight, including the downspout collection system.

Contractor to provide downspout collection system to connect building downspouts / roof drains to storm sewer system. See architectural plans for downspout locations.

Downspout collection pipe (DCP) may be HDPE (ADS N-12 WT, watertight, or equivalent) or Schedule 40 PVC pipe. All downspout collector pipes to be at 1.00% minimum slope. All pipe shall be installed according to Local, State, and manufacturer's specifications. Provide cleanouts at all bends, angles, and junctions. All cleanouts in pavement areas shall be installed with traffic bearing lids and concrete collars, per detail / Sheet C-5.0.

Contractor to retain and protect existing downspout collection system, exact locations unknown. Contractor to notify Burkhardt of any conflicts, adjustments, or questions that may arise due to location of existing downspout collection lines.

All catch basins installed in sump areas to have finger drains as detailed on Sheet C-5.0

Contractor to provide steps, as required by INDOT and OSHA, in all catch basins and manholes.

Storm sewer connection, permit and construction to be coordinated with Union County and the City of Liberty.

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS ▼ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

GENERAL NOTES

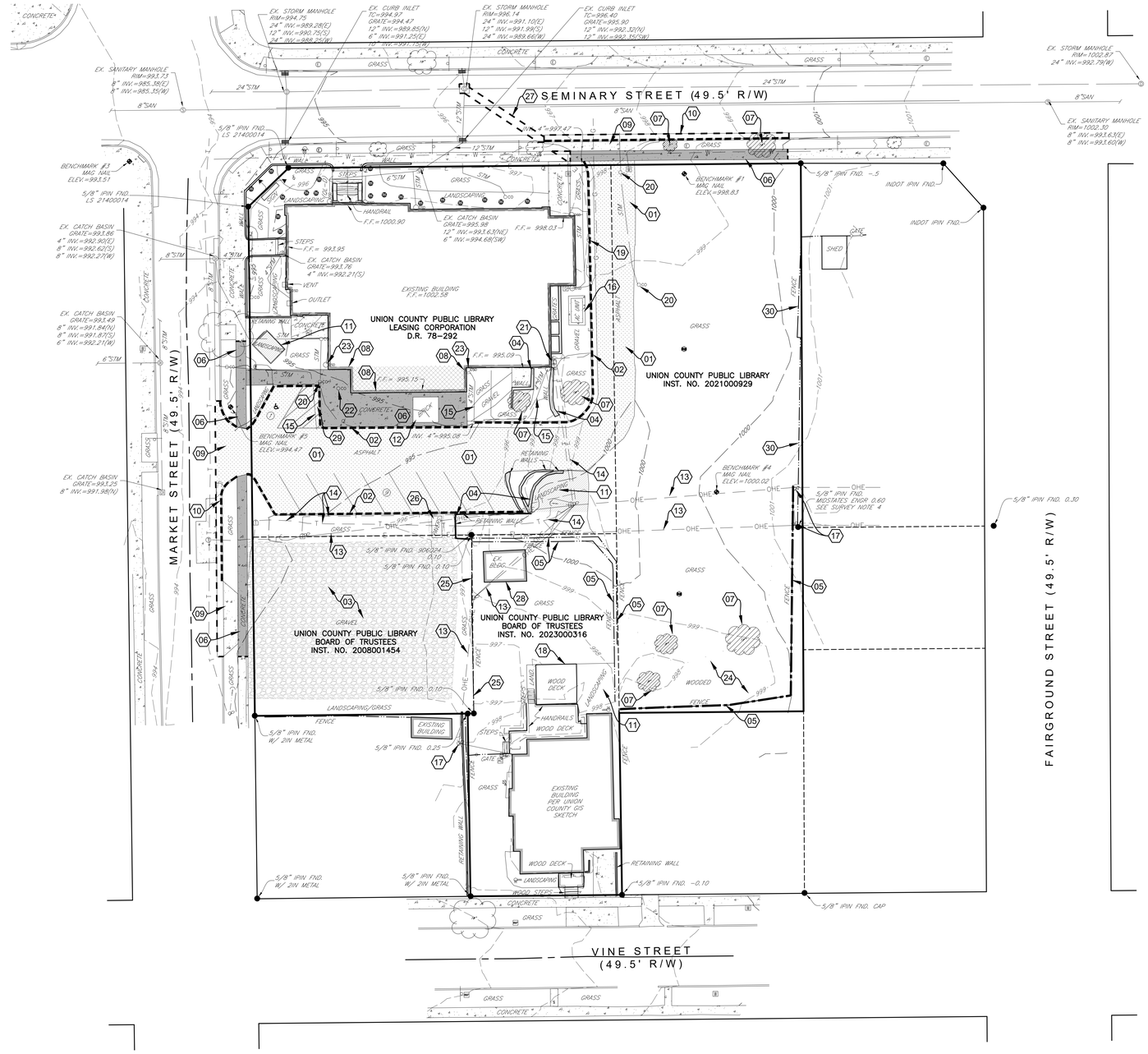
JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No. 22106.00	Date 2023.11.10
Drawn AFD	Drawing No. C-0.1
Checked JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

11/10/2023 3:16:18 PM
W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS.dwg



DEMOLITION KEYNOTES

01 REMOVE EX. ASPHALT PAVEMENT

02 REMOVE EX. CURB

03 REMOVE EX. GRAVEL

04 REMOVE EX. RETAINING WALL

05 REMOVE EX. FENCE
- CONTRACTOR TO COORDINATE WITH ADJACENT PROPERTY OWNER ON INSTALLATION OF NEW FENCE AT PROPERTY LINE

06 REMOVE EX. CONCRETE SIDEWALK

07 REMOVE EX.TREE

08 REMOVE EX. BUILDING
- SEE ARCHITECTURAL PLANS FOR EXTENTS OF EXISTING LIBRARY DEMOLITION

09 REMOVE EX. DRIVE APPROACH
- SEE SHEET C-2.0 FOR PROP. DRIVE APPROACH

10 REMOVE EX. CURB & GUTTER FOR NEW DRIVE APPROACH INSTALLATION
- SAWCUT FOR CLEAN EDGE
- SEE SHEET C-2.0 FOR NEW DRIVE APPROACH

11 REMOVE EX. LANDSCAPING BED

12 REMOVE & RELOCATE EX. BRICKS
- SEE ARCHITECTURAL PLANS FOR LOCATION OF SALVAGED BRICKS

13 REMOVE / RELOCATE EX. OVERHEAD ELECTRIC LINES & POLES
- CONTRACTOR TO COORDINATE REMOVAL / RELOCATION WITH LOCAL UTILITY PROVIDER.

14 REMOVE / RELOCATE EX. UNDERGROUND ELECTRIC & TELECOM LINES
- CONTRACTOR TO COORDINATE REMOVAL / RELOCATION WITH LOCAL UTILITY PROVIDER.

15 REMOVE / RELOCATE EX. DOWNSPOUT DRAINS AS NECESSARY FOR CONSTRUCTION OF PROP. LIBRARY ADDITION.

16 REMOVE EX. AIR CONDITIONING UNIT

17 RETAIN & PROTECT EX. POLE

18 REMOVE EX. WOOD DECK
- UPPER PORTION OF DECK AND STAIRS TO REMAIN

19 REMOVE & SALVAGE EX. LIGHT POLE

20 ADJUST RIM OF EX. CLEANOUTS AS NECESSARY
- SEE SHEET C-3.0 FOR PROP. GRADING

21 RETAIN & PROTECT EX. ELECTRIC SERVICE

22 REMOVE EX. SANITARY CLEANOUT

23 ADJUST EX. DOWNSPOUT AS NECESSARY FOR PROP. BUILDING
- SEE SHEET C-4.0 FOR DETAILS

24 REMOVE BRUSH / TREES

25 REMOVE AND SALVAGE VINYL FENCE
-SEE SHEET C-2.0 FOR PROPOSED LOCATION OF SALVAGED FENCE

26 REMOVE EX. PAVERS

27 SAW CUT EXISTING ASPHALT PAVEMENT FOR STORM SEWER CONNECTION.
- SEE SHEET C-4.0 FOR DETAILS.

28 RETAIN AND PROTECT EX. SHED
- SHED TO BE TURNED OVER TO OWNER.

29 REMOVE EXISTING BIKE RACK

30 RETAIN AND PROTECT EXISTING FENCE

EXISTING CONDITIONS SURVEY NOTES

1. Existing conditions and topography are based on a field survey of the subject property completed by Burkhardt Engineering in July 2023.
2. All data was collected in Indiana State Plane Coordinates, East Zone and all elevations reference datum NAVD88.
3. Existing utilities, as depicted on this plan, have been compiled from a combination of observed field evidence, record drawings obtained from the various utility providers, ground penetrating radar and electromagnetic locations. Underground utility information depicted hereon cannot be guaranteed.
4. Boundary depicted based on Retracment / Original Survey Plat by Meyer and Murray Land Surveyors, dated 10-4-2022.

DEMO LEGEND

- REMOVE EX. BUILDING
- REMOVE EX. ASPHALT PAVEMENT
- REMOVE EX. CONCRETE
- REMOVE EX. RETAINING WALL
- REMOVE EX. LANDSCAPE AREA
- SAWCUT EX. CONCRETE SIDEWALK & PAVEMENT
- REMOVE EX. CURB & GUTTER
- REMOVE EX. FENCE

EXISTING LEGEND

- IRON PIN FOUND
- AIR CONDITIONER
- ELECTRIC CABINET
- POWER POLE
- GUY ANCHOR
- ELECTRIC MANHOLE
- LIGHT POLE
- LANDSCAPE LIGHT
- TELEPHONE CABINET
- TELEPHONE MANHOLE
- ANTENNA
- GAS METER
- SANITARY CLEANOUT
- SANITARY MANHOLE
- CURB INLET - ONE GRATE
- CATCH BASIN
- CATCH BASIN
- STORM MANHOLE
- AREA DRAIN
- DOWNSPOUT DRAIN
- DOWNSPOUT SURFACE DRAIN
- FIRE HYDRANT
- WATER METER
- WATER METER PIT
- WATER SERVICE VALVE
- FLAG POLE
- GATE POST
- SIGN
- SOIL BORING
- TREE W/SIZE
- SHRUB
- ADA ACCESSIBLE PARKING

EXISTING LINETYPE LEGEND

- EX. WATER LINE
- EX. GAS LINE
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. ELECTRIC LINE
- EX. OVERHEAD ELECTRIC LINE
- EX. MINOR CONTOUR
- EX. MAJOR CONTOUR
- EX. FENCE
- EX. TREE LINE
- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE

GRAPHIC SCALE
20 0 10 20
1 inch = 20 ft.

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS • SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

EXISTING CONDITIONS & DEMOLITION PLAN

JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

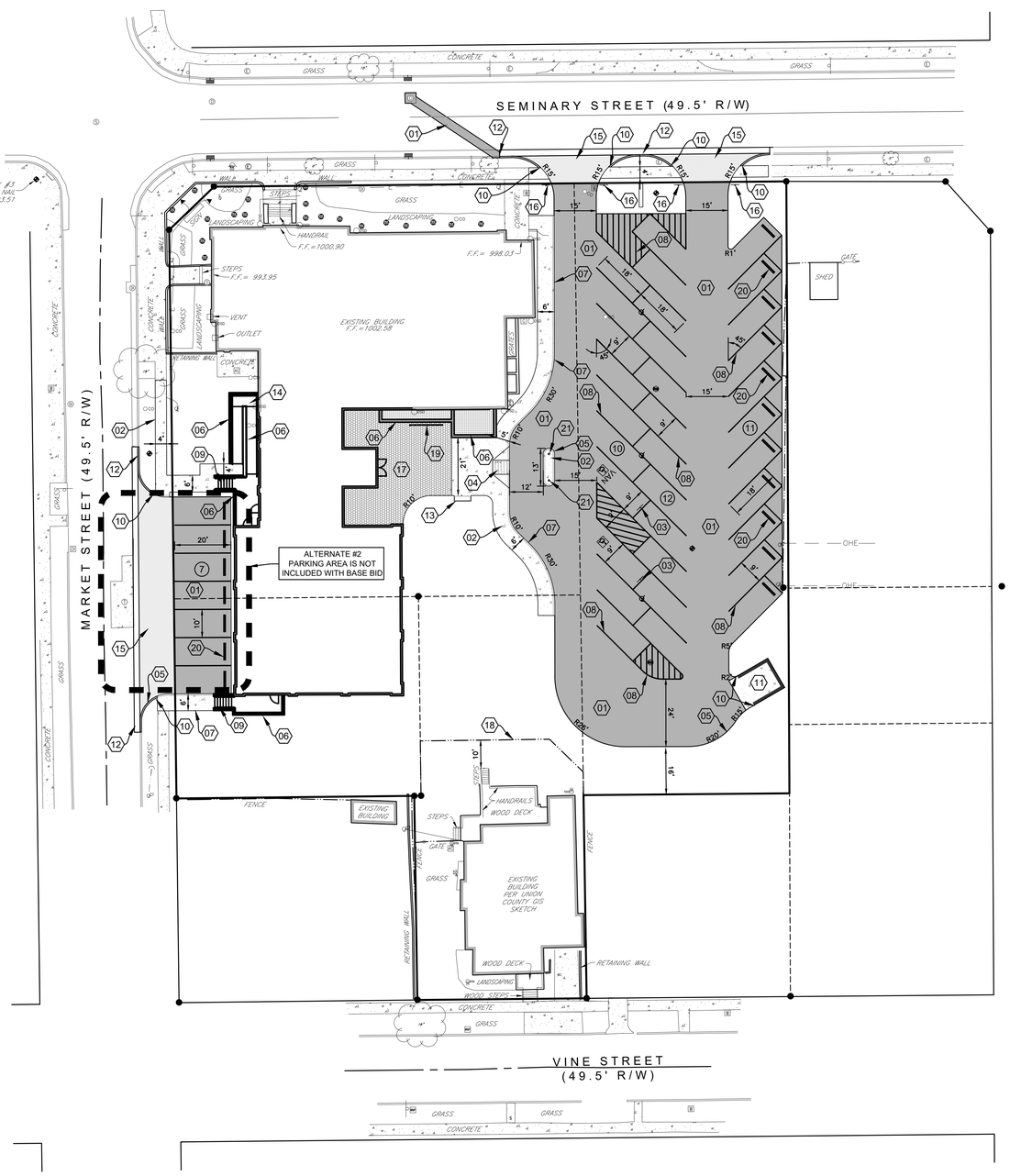
Comm. No.	22106.00
Date	2023.11.10
Drawn	AFD
Drawing No.	C-1.0
Checked	JDB

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS.dwg
11/10/2023 3:16:32 PM

11/10/2023 3:16:41 PM



SITE KEYNOTES

01 ASPHALT PAVEMENT
- PER DETAIL / SHEET C-5.0

02 CONCRETE SIDEWALK
- PER DETAIL / SHEET C-5.0

03 ADA PARKING SIGNAGE
- PER DETAIL / SHEET C-5.0

04 ADA ACCESSIBLE RAMP
- PER DETAIL / SHEET C-5.0

05 CONCRETE BARRIER CURB
- PER DETAIL / SHEET C-5.0

06 RETAINING WALL
- SEE STRUCTURAL PLANS FOR DETAILS.

07 CONCRETE SIDEWALK WITH INTEGRAL CURB
- PER DETAIL / SHEET C-5.0

08 PARKING STRIPE / HATCH
- 4" WIDE PAINTED STRIPES.
- HATCHING TO BE AT 45 DEGREE AND 2'-0" O.C.
- STRIPING ON CONCRETE PAVEMENT TO BE PAINTED YELLOW.

09 EXTERIOR STAIRS
- SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS.

10 CURB END TAPER
- PER DETAIL / SHEET C-5.0

11 TRASH ENCLOSURE
- SEE ARCHITECTURAL PLANS FOR DETAILS
- SEE SHEET C-5.0 FOR CONCRETE PAVEMENT DETAIL

12 CONCRETE CURB AND GUTTER
- PER DETAIL / SHEET C-5.1

13 PEDESTRIAN BENCH
- SEE ARCHITECTURAL PLANS FOR DETAILS

14 ADA ACCESSIBLE RAMP
- SEE ARCHITECTURAL PLANS FOR DETAILS

15 CLASS III DRIVE APPROACH
- PER INDOT DETAIL / SHEET C-5.1

16 ENTER / EXIT SIGNAGE
- SEE ARCHITECTURAL PLANS FOR DETAILS

17 BRICK PAVERS
- SEE ARCHITECTURAL FOR DETAILS

18 PROP. SALVAGED VINYL FENCE
- VINYL FENCING TO BE SALVAGED FROM EXISTING FENCE ON PROEPRTY

19 BIKE RACK
- SEE ARCHITECTURAL PLANS FOR DETAILS

20 CONCRETE PARKING BLOCKS
- PER DETAIL / SHEET C-5.0

21 PIPE BOLLARD
- PER DETAIL / SHEET C-5.0

GRAPHIC SCALE
20 0 10 20
1 inch = 20 ft.

SITE AND PAVEMENT LEGEND

- PROP. LIGHT POLE
- (#) NUMBER OF PARKING SPACES
- ADA PARKING SYMBOL SEE DETAIL / SHEET C-5.0
- CONCRETE
- ASPHALT PAVEMENT

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS • SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

SITE PLAN

JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No.	Date
22106.00	2023.11.10
Drawn: AFD	Drawing No.: C-2.0
Checked: JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS.dwg

11/10/2023 3:17:01 PM

SEMINARY STREET (49.5' R/W)

MARKET STREET (49.5' R/W)

FAIRGROUND STREET (49.5' R/W)

VINE STREET (49.5' R/W)

BENCHMARK #3
MAG. NAIL
ELEV.=993.51

EXISTING BUILDING
F.F.=1002.59

F.F.= 998.03

F.F.= 993.95

F.F.=1000.90

2% MAX CROSS SLOPES

GRAPHIC SCALE
20 0 10 20
1 inch = 20 ft.

GRADING LEGEND

TW	TOP-OF-WALL
	PROP. FLOW DIRECTION
+00.00	PROP. SPOT ELEVATION
+00.00	EX. SPOT ELEVATION
1000	PROP. CONTOUR
1000	EX. CONTOUR

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT
ENGINEERS ▾ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

GRADING PLAN

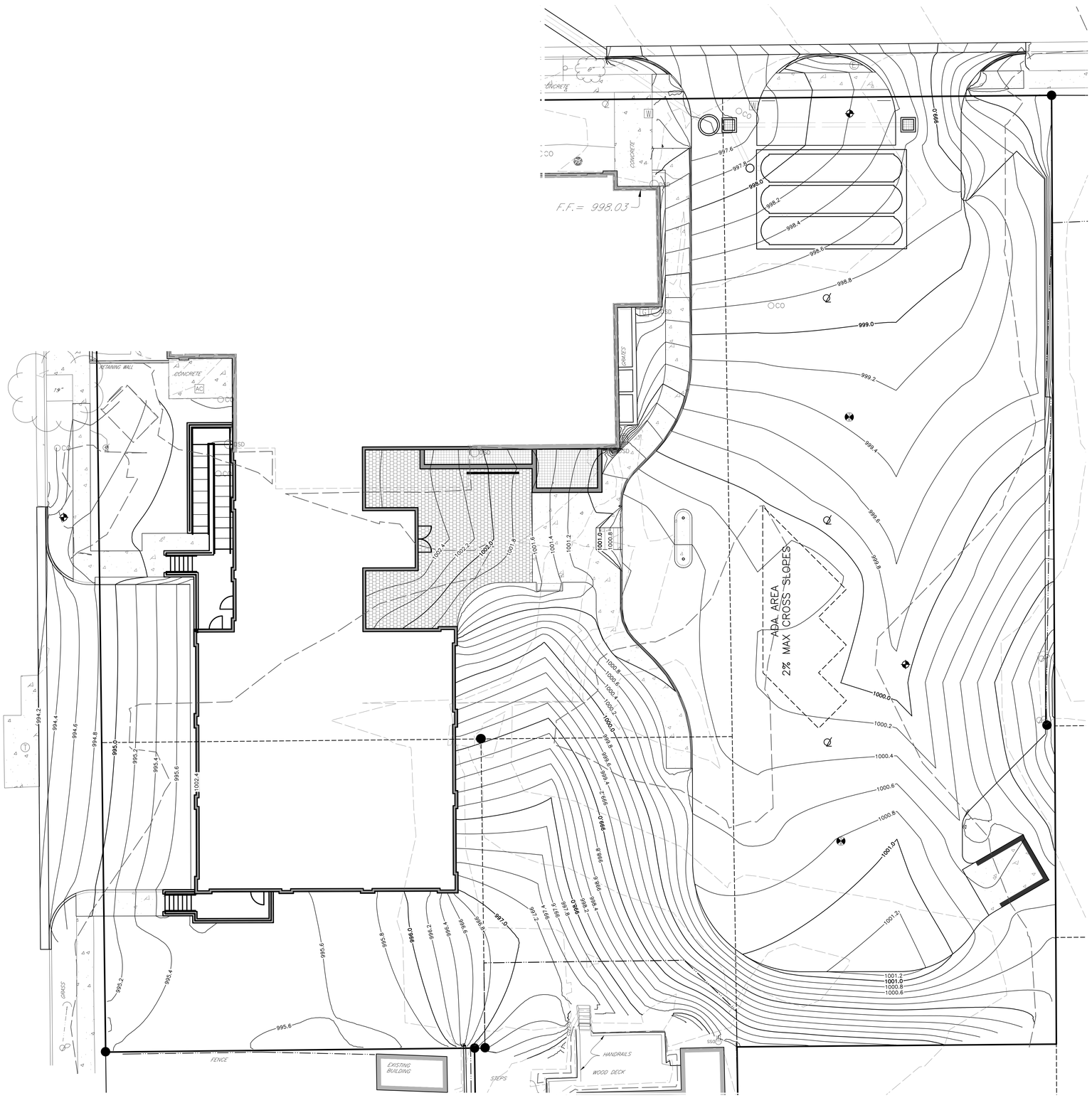
JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No.	22106.00
Date	2023.11.10
Drawn	AFD
Drawing No.	C-3.0
Checked	JDB

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS-GRD.dwg



GRAPHIC SCALE

10 0 5 10

1 inch = 10 ft.

GRADING LEGEND	
TW	TOP-OF-WALL
	PROP. FLOW DIRECTION
+00.00	PROP. SPOT ELEVATION
+00.00	EX. SPOT ELEVATION
1000	PROP. CONTOUR
1000	EX. CONTOUR

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT
ENGINEERS ▾ SURVEYORS

28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM

CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED

434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ENLARGED GRADING PLAN

JONATHAN D. BURKHARDT
REGISTERED
NO. 11600676
STATE OF INDIANA
PROFESSIONAL ENGINEER
11.10.2023

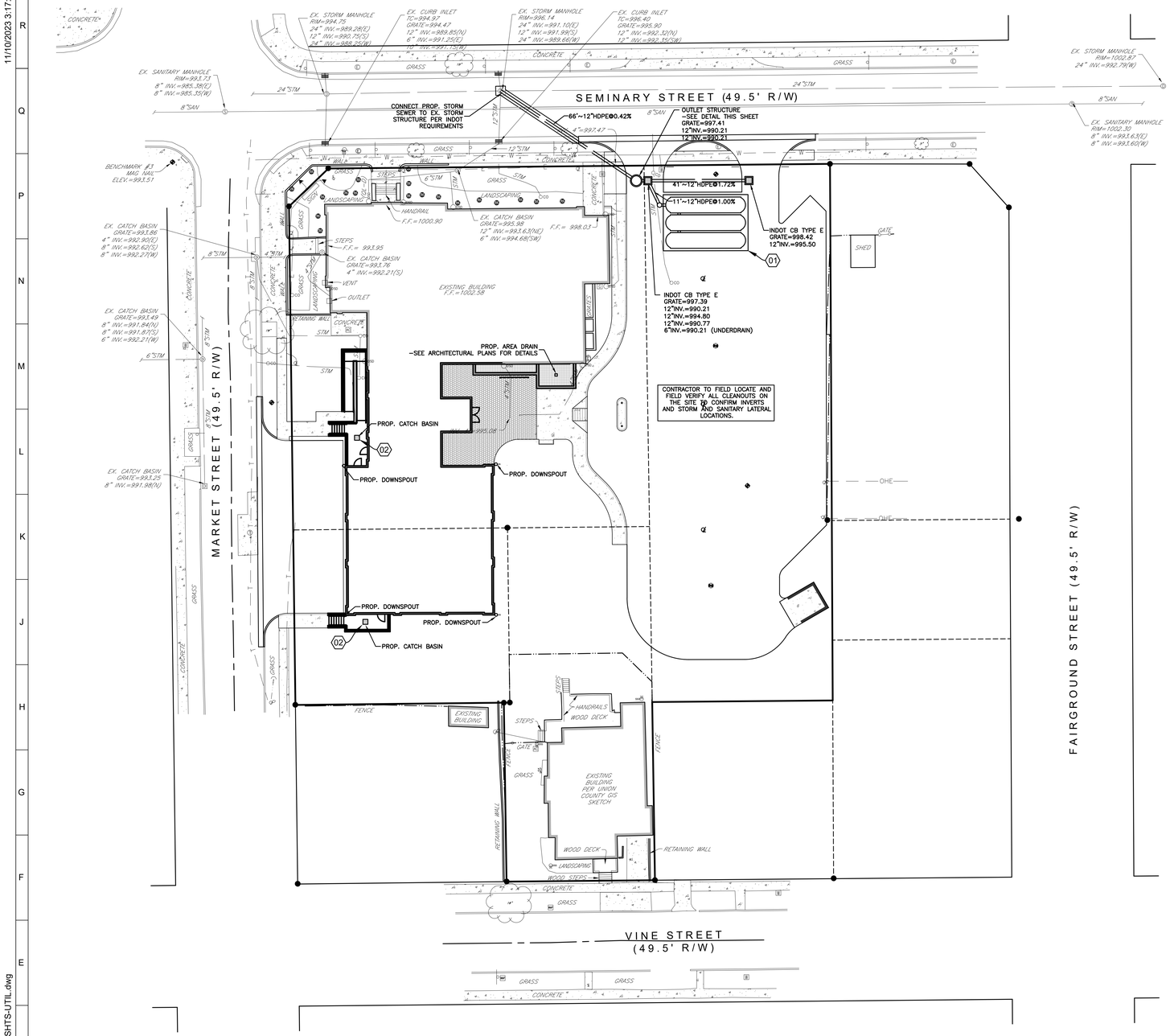
Comm. No.	Date
22106.00	2023.11.10
Drawn: AFD	Drawing No.: C-3.1
Checked: JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

11/10/2023 3:17:20 PM

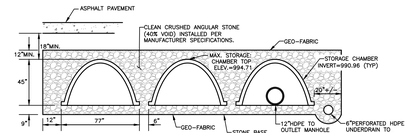
W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS-GRD-ENL.dwg



UTILITY KEYNOTES

01 UNDERGROUND STORM WATER DETENTION AREA
- ADS STORMTECH MC-3500 CHAMBER (4 CHAMBERS/ROW + 2 END CAPS/ROW) (3 ROWS)
-CHAMBER INVERT=990.96
-STONE FOOTPRINT= 34.4'L x 22.75'W = 783 SQ.FT.
-SEE GRADING, SHEET C-3.0 AND DETAIL, SHEET C-4.0
-TOTAL STORAGE VOLUME = 2,566 CU.FT.
-CONTRACTOR TO SUBMIT SHOP DRAWINGS OF CHAMBER SYSTEM TO BURKHARDT FOR APPROVAL PRIOR TO ORDERING MATERIALS.

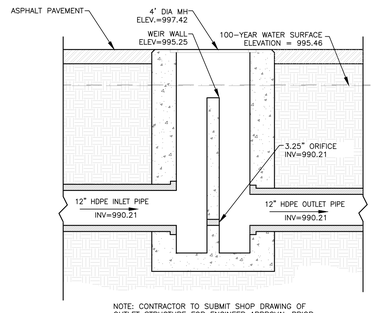
02 CATCH BASIN DRAINAGE TO BE HANDLED VIA PUMP TO EXISTING STORM IN RIGHT OF WAY. CONTRACTOR TO COORDINATE WITH PLUMBING PLANS FOR SIZING AND ROUTING OF PUMP AND PIPING.



ADS MC-3500 CHAMBERS:
3 ROWS OF 4 CHAMBERS, INCLUDING ISOLATOR ROW, END CAPS & 12"x12" TOP MANIFOLD CONNECTIONS.
INSTALLED SYSTEM VOLUME = 2,566 CU-FT

*CONTRACTOR TO COORDINATE FINAL DESIGN AND INSTALLATION WITH MANUFACTURER AND GEOTECHNICAL REPORT. CONTACT BURKHARDT ENGINEERING IF EQUIVALENT SYSTEM BY OTHER MANUFACTURER IS TO BE USED BY CONTRACTOR.

STORMWATER DETENTION SYSTEM SECTION
NOT TO SCALE



NOTE: CONTRACTOR TO SUBMIT SHOP DRAWING OF OUTLET STRUCTURE FOR ENGINEER APPROVAL PRIOR TO ORDERING MATERIALS.

OUTLET STRUCTURE DETAIL
NOT TO SCALE

GRAPHIC SCALE
20 0 10 20
1 inch = 20 ft.

UTILITY LEGEND

	PROP. CATCH BASIN / MANHOLE
DS	PROP. DOWNSPOUT
	PROP. STORM

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS ▾ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

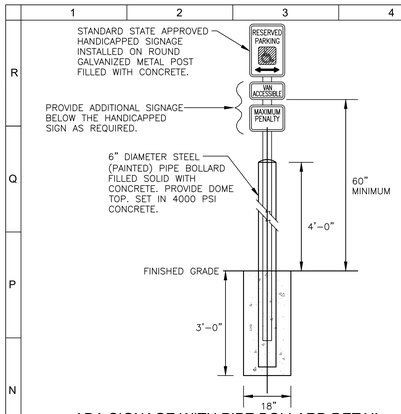
UTILITY PLAN

JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

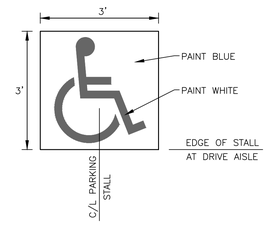
Comm. No. 22106.00	Date 2023.11.10
Drawn AFD	Drawing No. C-4.0
Checked JDB	

BURKHARDT NO.: 23.151

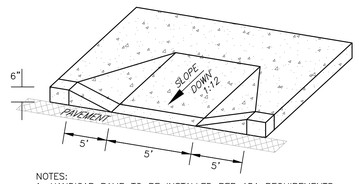
© 2023 LWC INCORPORATED



ADA SIGNAGE WITH PIPE BOLLARD DETAIL
NOT TO SCALE



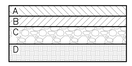
ADA PARKING SYMBOL
NOT TO SCALE



NOTES:
1. HANDICAP RAMP TO BE INSTALLED PER ADA REQUIREMENTS.

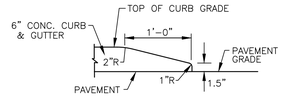
ADA ACCESSIBLE RAMP DETAIL
NOT TO SCALE

KEY
A – 1.5" SURFACE COURSE ASPHALT CONCRETE
B – 3.5" INTERMEDIATE COURSE ASPHALT CONCRETE
C – 6" AGGREGATE BASE
D – COMPACTED SUBGRADE

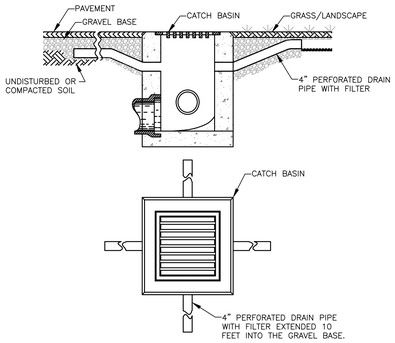


PAVEMENT SECTION
NOT TO SCALE

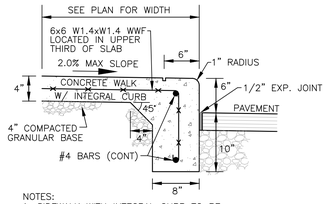
SEE GEOTECHNICAL REPORT PREPARED BY PATRIOT ENGINEERING & ENVIRONMENTAL DATED JULY 10, 2023 FOR ADDITIONAL INFORMATION.



CURB END TAPER DETAIL
NOT TO SCALE

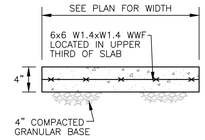


CATCH BASIN FINGER DRAIN DETAIL
NOT TO SCALE



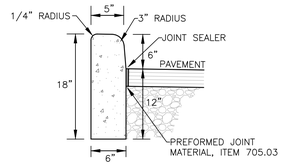
NOTES:
1. SIDEWALK WITH INTEGRAL CURB TO BE CONSTRUCTED OF 3500 PSI CONCRETE (MIN.).
2. SIDEWALK TO HAVE TOOLED CONTROL JOINTS NOT EXCEEDING 5 FT. SPACING IN ANY DIRECTION.
3. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALK ABUTS BUILDING.

CONCRETE SIDEWALK WITH INTEGRAL CURB DETAIL
NOT TO SCALE



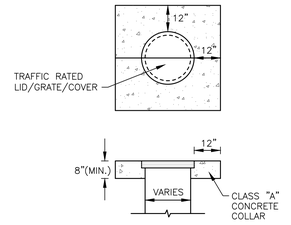
NOTES:
1. SIDEWALK TO BE CONSTRUCTED USING 3500 PSI CONCRETE.
2. SIDEWALK TO HAVE TOOLED CONTROL JOINTS NOT EXCEEDING 5 FT. SPACING IN ANY DIRECTION.
3. PROVIDE THICKENED EDGE / TURN DOWN WHERE SIDEWALK MEETS ASPHALT PAVEMENT.
4. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALK ABUTS BUILDING.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:
1. ODOT TYPE 6 CURB
2. PROVIDE A SMOOTH AND EVEN FINISH PLUS ROUNDED EDGING TO ALL EXPOSED SURFACES.

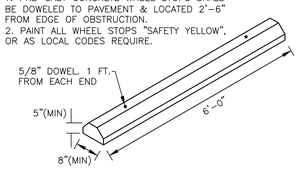
BARRIER CURB DETAIL
NOT TO SCALE



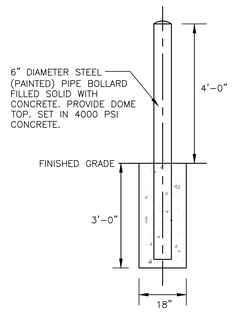
NOTE: COLLAR TO BE INSTALLED AROUND ALL STORM INLETS, MANHOLES, CLEANOUTS, PULL BOXES, VALVES, ETC. WHICH ARE LOCATED IN PAVEMENT AREAS.

CONCRETE COLLAR DETAIL
NOT TO SCALE

NOTES:
1. PRE-CAST CONCRETE WHEEL STOPS SHALL BE DOWELED TO PAVEMENT & LOCATED 2'-6" FROM EDGE OF OBSTRUCTION.
2. PAINT ALL WHEEL STOPS "SAFETY YELLOW", OR AS LOCAL CODES REQUIRE.

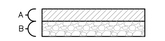


CONCRETE WHEEL STOP DETAIL
NOT TO SCALE



PIPE BOLLARD DETAIL
NOT TO SCALE

KEY
A – 8" PORTLAND CEMENT CONCRETE (4000 PSI) REINFORCED WITH MIN #4 REBARS @ 12 IN. ON CENTER IN EACH DIRECTION, LOCATED IN THE UPPER THIRD OF THE SLAB.
B – 6" CRUSHED AGGREGATE BASE



SEE GEOTECHNICAL REPORT PREPARED BY PATRIOT ENGINEERING & ENVIRONMENTAL DATED JULY 10, 2023 FOR ADDITIONAL INFORMATION.

CONCRETE PAVEMENT TRASH ENCLOSURE PAD
NOT TO SCALE

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS ▼ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

SITE DETAILS

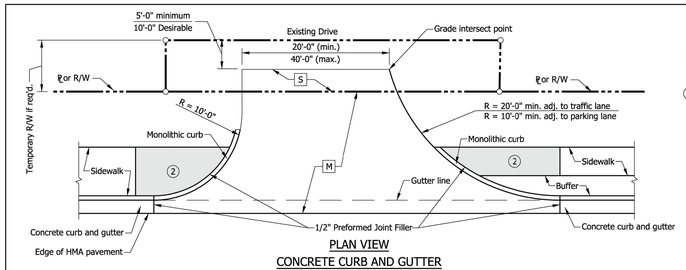
JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No.	Date
22106.00	2023.11.10
Drawn: AFD	Drawing No.: C-5.0
Checked: JDB	

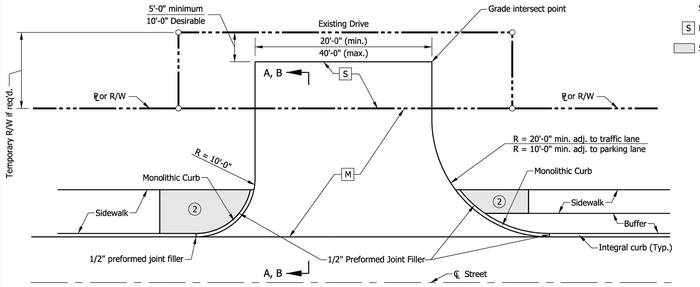
BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

11/10/2023 3:17:45 PM
W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS.dwg



PLAN VIEW
CONCRETE CURB AND GUTTER



PLAN VIEW
INTEGRAL CONCRETE CURB

NOTES:

1. See Standard Drawing E 610-DRIV-09 for Section A-A, and Section B-B.
2. See Standard Drawing E 604-SDWK-03 for sidewalk driveway crossing details.
3. See Standard Drawing E 610-DRIV-14 for joint placement, monolithic curb, and concrete curb and gutter details.

LEGEND

M PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid Type 1B, on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)

S For type and thickness equivalent to surface in place, see plans.

Sidewalk elevation transitions.

INDIANA DEPARTMENT OF TRANSPORTATION

CLASS III DRIVE
(COMMERCIAL)

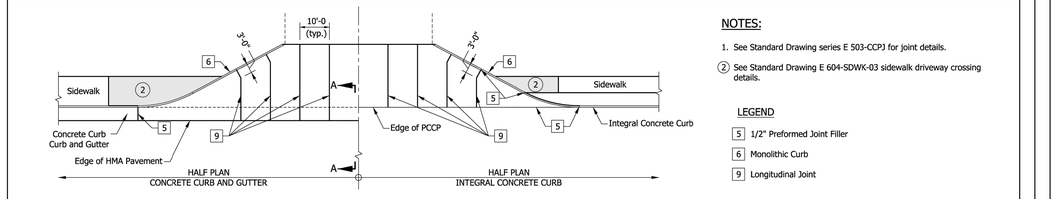
SEPTEMBER 2019

STANDARD DRAWING NO. E 610-DRIV-04

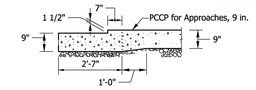
ELIZABETH W. PHILLIPS REGISTERED No. 10200124 STATE OF INDIANA PROFESSIONAL ENGINEER

5/1/2019
DESIGN STANDARDS ENGINEER DATE

6/5/2019
CHIEF ENGINEER DATE

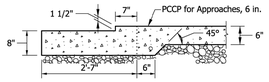


JOINT PLACEMENT DETAIL FOR PCCP DRIVES



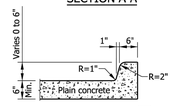
CLASS III AND CLASS VII DRIVE
CONCRETE CURB AND GUTTER DETAIL

SECTION A-A

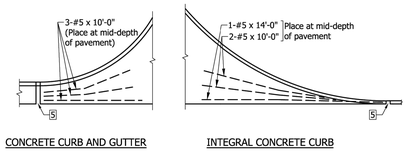


CLASS I DRIVE
CONCRETE CURB AND GUTTER DETAIL

SECTION A-A

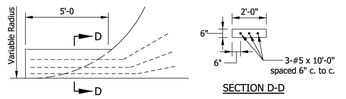


MONOLITHIC CURB 6



CONCRETE CURB AND GUTTER INTEGRAL CONCRETE CURB

TYPICAL CORNER REINFORCING FOR CLASS I DRIVE



SECTION D-D

TYPICAL CORNER REINFORCING FOR CLASS II DRIVE

NOTES:

1. See Standard Drawing series E 503-CCPJ for joint details.
2. See Standard Drawing E 604-SDWK-03 sidewalk driveway crossing details.

LEGEND

5 1/2" Preformed Joint Filler
6 Monolithic Curb
9 Longitudinal Joint

INDIANA DEPARTMENT OF TRANSPORTATION

JOINT PLACEMENT, CORNER REINFORCING, MONOLITHIC CURB, AND CONCRETE CURB AND GUTTER DETAILS

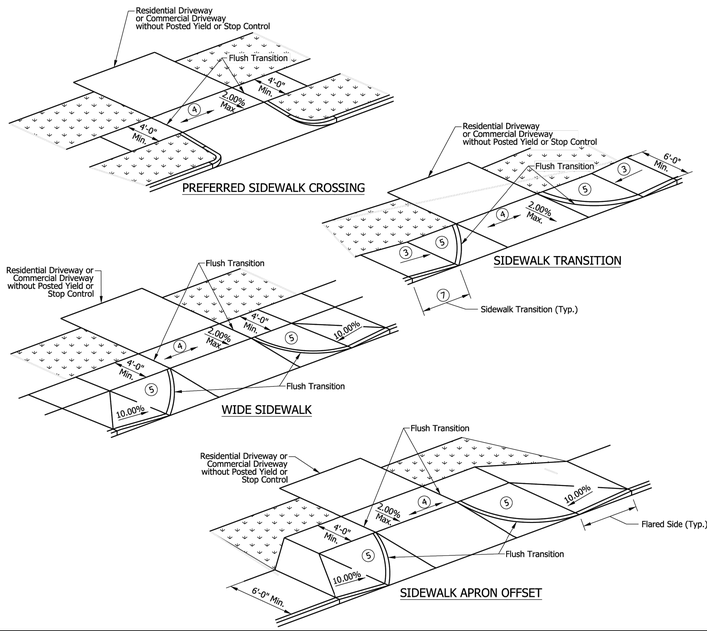
SEPTEMBER 2019

STANDARD DRAWING NO. E 610-DRIV-14

ELIZABETH W. PHILLIPS REGISTERED No. 10200124 STATE OF INDIANA PROFESSIONAL ENGINEER

5/29/2019
DESIGN STANDARDS ENGINEER DATE

6/5/2019
CHIEF ENGINEER DATE



NOTES:

1. All slopes are absolute rather than relative to the sidewalk or roadway grade. Slopes at least 0.50% less than the maximum are preferred.
2. A sidewalk driveway crossing shall only be used on a sidewalk at a residential driveway or a commercial driveway without posted yield or stop control. A curb ramp shall be used at all other crossings. See Standard Drawing Series E 604-SWCR for curb ramp details.
3. Where a sidewalk transition is used to lower or raise the sidewalk to connect with a residential driveway or commercial driveway without posted yield or stop control, the running slope of the transition shall be 8.33% maximum.
4. The grade of the sidewalk across the driveway shall not exceed the grade of the adjacent roadway.
5. The area between the driveway and a flared side or sidewalk transition shall match the driveway profile and transverse slope.
6. A turning space is not required at the top of a sidewalk transition.
7. Objects such as a utility cover, vault frame, and grating shall be placed outside a sidewalk transition.
8. A detectable warning surface shall not be placed at the crossings of a residential driveway. A detectable warning surface may be placed at the crossing of a commercial driveway without yield or stop control.
9. See Standard Drawing E 604-SDWK-01 and -02 for Sidewalk Details.
10. See Standard Drawing Series E 610-DRIV for drives.

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK DRIVEWAY CROSSING

SEPTEMBER 2016

STANDARD DRAWING NO. E 604-SDWK-03

ELIZABETH W. PHILLIPS REGISTERED No. 10200124 STATE OF INDIANA PROFESSIONAL ENGINEER

/s/ Elizabeth W. Phillips 03/16/16
DESIGN STANDARDS ENGINEER DATE

/s/ Mark A. Miller 03/18/16
CHIEF ENGINEER DATE

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS ▼ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

INDOT DETAILS

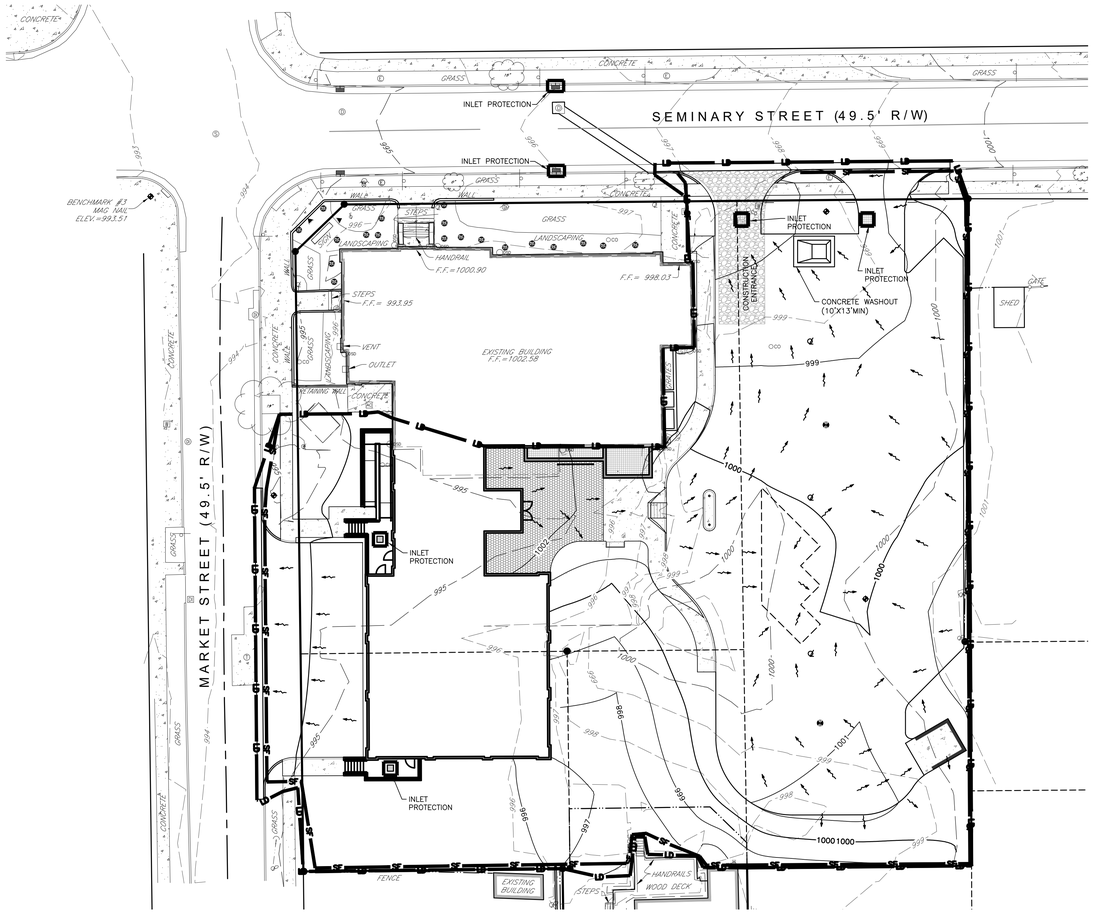
JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No.	Date
22106.00	2023.11.10
Drawn: AFD	Drawing No.: C-5.1
Checked: JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

11/10/2023 3:17:49 PM
W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS.dwg



GENERAL STORMWATER POLLUTION PREVENTION NOTES

1. All erosion and sediment control practices must conform to the standards and specifications set forth by the Local, State, and Federal Authorities.
2. Construction activities shall be scheduled such that a minimum area of the site is disturbed at a time. Construction operation shall be scheduled and performed so that preventative soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling operations. Contractor shall reduce effects of storm water by using and/or maintaining grassed swales, infiltration structures, or water diversions.
3. Special precautions will be taken in the use of construction equipment to prevent situations that promote erosion.
4. Cleanup will be done in a manner to ensure that erosion control measures are not disturbed.
5. The soil erosion controls are to be inspected once a week and within 24 hours of a 0.50 inch or greater rain event. A written log of these inspections and improvements to controls shall be kept on site. The logs shall include the date of inspection, name of the inspector, weather conditions, actions taken to correct any problems and the date corrective actions were taken.
6. Temporary soil stabilization shall occur within 7 days after rough grading if the area will remain idle longer than 14 days. Any disturbed area that is not going to be worked for 365 days or more must be permanently stabilized (seeded and mulched) within 7 days of most recent disturbance.
7. Trenches for underground utility lines and pipes shall be temporarily stabilized within 7 days if they are to remain inactive for 14 days. Trench dewatering devices shall discharge in a manner that filters soil-laden water before discharging it to a receiving drainage ditch or pond. If seeding, mulching or other erosion and sediment control measures were previously installed; these protective measures shall be reinstalled. Pipelines with joints that allow a manufactured length of pipe to be placed in the trench with the pipe joint assembled/made in the trench require an open pipeline trench that is only slightly longer than the length of pipe being installed. The total length of excavated trench open at any time should not be greater than the total length of pipeline/utility that can be placed in the trench and backfilled in one working day. No more than 50 linear feet of open trench should exist when pipeline/utility line installation ceases at the end of the work day.
8. Soil stockpiles shall be stabilized or protected to prevent soil loss.
9. All disturbed areas shall be permanently stabilized within 7 days of final grading. Further, soil erosion control measures shall be maintained until permanent stabilization is complete, at which time temporary measures will be removed. Permanent vegetation is a ground cover dense enough to cover 80% of the soil surface and mature enough to survive winter weather conditions.
10. Silt fence to be 2' minimum from property lines in areas where work is near adjacent properties.
11. The Contractor shall establish a permanent on-site benchmark prior to clearing, grubbing and/or demolition.
12. Haul Routes - The Contractor shall be responsible for the cleanup of any mud, dirt, or debris deposited on haul roads as a result of his operations. Soil shall be removed from roads and paved surfaces at the end of each day in such a manner that does not create off-site sedimentation in order to ensure safety and abate off-site soil loss. Collected sediments shall be placed in a stable location on site or taken off-site to a stable location. Contractor shall use State Routes (and shortest distance non-state routes) for project haul route.
13. No solid or liquid waste shall be discharged into storm water runoff.
14. Disposal of solid, sanitary and toxic waste - Solid, sanitary and toxic waste must be disposed of in a proper manner in accordance with local, state and federal regulations. It is prohibited to burn, bury or pour out onto ground or into storm sewer any solvents, paint, stains, gasoline, diesel fuel, used motor oil, hydraulic fluid, antifreeze, cement curing compounds and other such toxic or hazardous waste.
15. Wash out of cement trucks should occur in the designated area where the washing can collect and be disposed of properly when it hardens.
16. If a concrete washout area, and/or a stockpile area are needed, a delineated area for each must be provided and maintained for them. Areas can be located in an alternate location than that shown on the plans if necessary due to construction operations and other field considerations.
17. No fuel storage is permitted on-site.
18. All storm sewers, infiltration, detention, and retention areas shall be cleared of construction sediment upon completion of construction.
19. The General Contractor shall be responsible for submitting a Notice of Intent (NOI) and Notice of Termination (NOT) as required by the Indiana Department of Environmental Management (IDEM).
20. The General Contractor is responsible for ensuring that all soil erosion and sediment control practices comply with (IDEM).
21. Dumpsters shall be provided for the disposal of debris, trash, hazardous and petroleum waste. All containers must be covered and leak proof.
22. All construction and demolition debris waste will be disposed of in an IDEM approved landfill as required by the State of Indiana.
23. Any areas that will be used for mixing or storing fertilizers, lime, asphalt or concrete or used for vehicle fueling shall be designated and these areas should be kept away from any watercourses or storm sewers.
24. A Spill Prevention Control and Countermeasures (SPCC) Plan shall be developed if the site has one above ground storage tank of 660 gallons or more, total above ground tank storage of 1330 gallons, or below ground storage of 42,000 gallons of fuel.
25. All contaminated soils must be treated and/or disposed in IDEM approved solid waste management facilities or hazardous waste treatment, storage or disposal facilities (TSDFs).
26. In the event of a large release of petroleum waste (25 gallons or more) contractor shall contact IDEM at 1-800-451-6027, the local fire department and the local emergency planning committee (LEPC) within 30 minutes of spill.
27. Protected storage areas for industrial or construction materials shall be used to minimize exposure of such materials to storm water.
28. If the Contractor uses pumps to assist in construction dewatering efforts, the water must be filtered prior to discharging it into the municipal storm sewer system, ensuring that no soil, silt or sediment enters the system.
29. Contractor to review and determine the best locations for construction entrance, concrete washout, dumpsters, and other SWPPP elements. All dirt and sediment is to be kept off public streets.
30. Contractor shall coordinate all soil erosion control and construction entrance with the The City of Liberty prior to start.

SOIL EROSION CONTROL SEQUENCE OF CONSTRUCTION

1. Stone tracking pad atop geotextile liner.
2. Install silt fence and protection fencing.
3. Install sediment basin.
4. Initial clearing, grubbing, and demolition.
5. Strip and stockpile top soil.
6. Rough grade and balance site.
7. Install underground utilities (i.e. Sanitary, Storm & Water)
8. Place inlet filters on all storm inlets.
9. Install franchise utilities (i.e. Gas, Electric, Telephone & Cable TV).
10. Final grade site.
11. Install pavement, curb, and other hardscape structures/surfaces.
12. Stabilize ditches, swales, common areas and slopes.
13. Establish permanent vegetation for all disturbed areas.
14. Remove all temporary erosion and sediment control devices.
15. Clean out storm sewer system, infiltration, detention, and retention areas upon completion.

SOIL EROSION CONTROL MAINTENANCE

- Inlet protection devices and barriers shall be repaired or replaced if they show signs of undermining or deterioration.
- All seeded areas shall be checked regularly to see that a good stand is maintained. Areas should be fertilized, watered, and reseeded as necessary.
- Silt fences shall be repaired to their original conditions if damaged. Sediment shall be removed from the silt fences when it reaches one-half the height of the silt fence.
- The construction entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way.
- Sediment from the storm sewers, infiltration, detention, and retention areas shall be removed as necessary to maintain proper functionality.

SOIL EROSION CONTROL PRODUCT NOTES

All stormwater inlets shall be protected with Geotextile Inlet Protection or Inlet Filters (Dandy Products, Flexstorm, or equivalent).

INSPECTION NOTES

- Inspections shall be made weekly and within 24 hours after a rain event of 0.5 inches within a 24 hour period. Inspection frequency may be reduced to monthly for dormant sites if the entire site is temporarily stabilized or if runoff is unlikely due to weather conditions for extended periods of time.
- Only qualified inspection personnel shall perform inspections.
- Inspection checklist shall be completed and signed by the inspector after every inspection. The inspection checklist shall contain the following: date, name/title/qualifications of inspectors, weather for the period since the last inspection (rainfall amounts, duration, etc.), weather and description of any discharges occuring at time of inspection, location of discharges or other pollutants from the site, location of BMP needing maintenance, location of any failed BMPs, location for additional BMPs needed based on inspection, corrective actions required including any changes to the SWP3 and implementation dates.
- The inspection records are to be kept 3 years after termination of construction activity.
- Non sediment pond BMPs are to be repaired 3 days after inspections and sediment ponds to be repaired or cleaned out within 10 days after inspection.
- If a BMP is not functioning like it was intended to it shall be replaced within 10 days of inspection.
- For missing BMPs they shall be installed within 10 days of inspection.

SITE OVERVIEW:

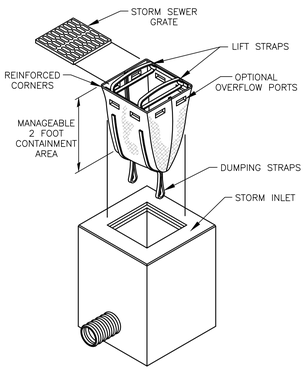
NATURE OF CONSTRUCTION ACTIVITY: Project consists of clearing the existing area to build a new building. Various pavement areas and sidewalks will also be constructed to service the new facilities. Mass grading will be performed as necessary to construct the project. Soil erosion control measures will be implemented throughout construction to prevent soil, silt, and other debris from entering the public storm sewer system.

TOTAL AREA TO BE DISTURBED: Approximately 0.94 acres will be disturbed.

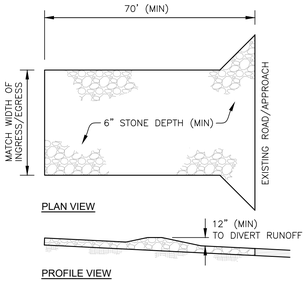
EXISTING SOILS: Site consists of Cyclone Silt Loam and Xenia Silt Loam.

EXISTING LAND USE: Land is currently an existing library and associated parking, gravel parking lot, and vacant land. Land use will change to a new building addition with some parking areas / driveways and lawn space. Property is not known to have had hazardous or solid waste.

WETLANDS: There are no wetlands in the work area.

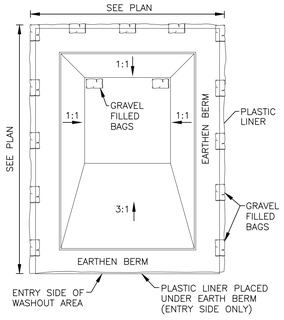


DANDY SACK™ DETAIL
NOT TO SCALE



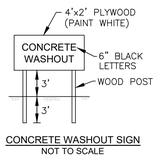
NOTES:
1. STONE SHALL BE 1.5"–2.5" IN DIAMETER
2. GEOTEXTILE FABRIC SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. (US 200 OR EQUIV.)

CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

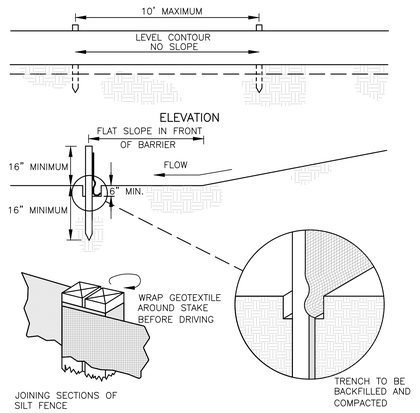


NOTES:
1. PLASTIC LINER SHALL BE ANCHORED WITH GRAVEL–FILLED BAGS.
2. CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE CONCRETE WASHOUT AREA.

CONCRETE WASHOUT AREA
NOT TO SCALE



CONCRETE WASHOUT SIGN
NOT TO SCALE



SILT FENCE & INLET PROTECTION INSTALLATION DETAIL
NOT TO SCALE

GRAPHIC SCALE
20 0 10 20
1 inch = 20 ft.

EROSION CONTROL LEGEND

LD	LIMITS OF DISTURBANCE
	CONSTRUCTION ENTRANCE
SF	PROP. SILT FENCE

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS • SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

EROSION CONTROL PLAN

JOHN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

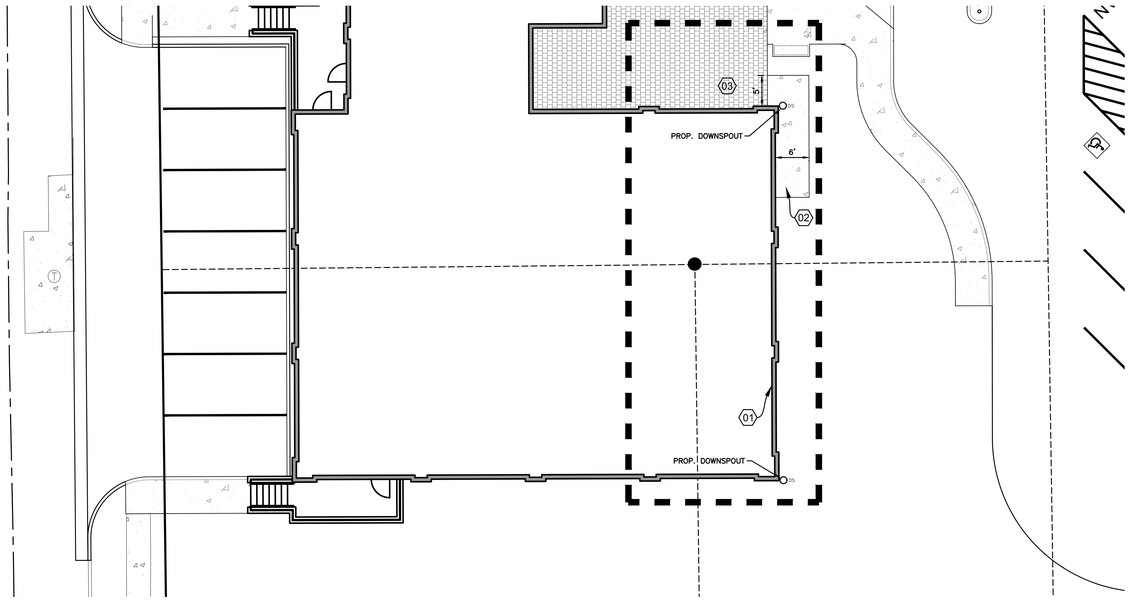
Comm. No. 22106.00	Date 2023.11.10
Drawn AFD	Drawing No. C-6.0
Checked JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS-ECP.dwg
11/10/2023 3:18:14 PM

11/10/2023 3:18:38 PM



SITE KEYNOTES

01 PROPOSED BUILDING
- SEE ARCHITECTURAL PLANS FOR DETAILS

02 CONCRETE SIDEWALK
- SEE DETAIL / SHEET C-5.0

03 BRICK PAVERS
- SEE ARCHITECTURAL PLANS FOR DETAILS

SITE PLAN

GRAPHIC SCALE
10 0 5 10
1 inch = 10 ft.

GRADING LEGEND

TW	TOP-OF-WALL
	PROP. FLOW DIRECTION
+00.00	PROP. SPOT ELEVATION
+00.00	EX. SPOT ELEVATION
1000	PROP. CONTOUR
1000	EX. CONTOUR
	ALTERNATE AREA

No.	Revisions / Submissions	Date
1	Issue for Permit Review	11.03.2023

BURKHARDT ENGINEERS • SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

SITE & GRADING PLAN ALTERNATATE (BUILDING ADDITION)

JONATHAN D. BURKHARDT REGISTERED NO. 11600676 STATE OF INDIANA PROFESSIONAL ENGINEER
11.10.2023

Comm. No. 22106.00	Date 2023.11.10
Drawn AFD	Drawing No. C-7.0
Checked JDB	

BURKHARDT NO.: 23.151

© 2023 LWC INCORPORATED

W:\Civil 3D Projects\23.151 - Union County Library Expansion_CAD\Sheets\23-151-SHTS-GRD-ALT2.dwg

11/13/2023 1:53:21 PM

GENERAL INFORMATION

1. THE CONTRACTOR SHALL RESOLVE ANY CONFLICT ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE ARCHITECT / EOR BEFORE PROCEEDING WITH THE WORK. IN GENERAL, WHERE THE DRAWINGS AND SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT RESTRICTIONS AND REQUIREMENTS SHALL GOVERN. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED AS SHOWN FOR SIMILAR WORK.
2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.
3. PLAN NOTES, DETAILS AND SECTIONS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES. "TYPICAL DETAILS" ARE APPLICABLE THROUGHOUT CONSTRUCTION DOCUMENTS AND MAY NOT BE SPECIFICALLY REFERENCED THEREIN. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE TYPICAL DETAILS AND UNDERSTANDING EXTENT OF THEIR APPLICATION PRIOR TO PERFORMING WORK.
4. CONTRACT DOCUMENTS INDICATE INFORMATION SUFFICIENT TO CONVEY DESIGN INTENT. REVIEW CONTRACT DOCUMENTS AND VERIFY FIELD AND EXISTING CONDITIONS. PROMPTLY NOTIFY ARCHITECT / EOR, PRIOR TO PROCEEDING WITH WORK, IF FURTHER CLARIFICATION OF DESIGN INTENT IS NEEDED.
5. REFER TO ARCHITECTURAL AND/OR MEP DRAWINGS FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT SCALE DRAWINGS.
6. CONTRACTORS ARE REQUIRED TO COORDINATE THEIR RESPECTIVE WORK WITH ALL OTHER DISCIPLINES TO AVOID ANY CONFLICTS DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE STRUCTURAL DRAWINGS WITH ALL OTHER CONSTRUCTION DOCUMENTS.
7. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS.
8. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING, SHORING, UNDERPINNING, ETC. THE ARCHITECT / EOR IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR SAFETY PROCEDURES DURING CONSTRUCTION.
9. SUBMIT SHOP DRAWINGS FOR REVIEW BEFORE FABRICATION. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS PRIOR TO SUBMISSION TO ARCHITECT / EOR. ARCHITECT / EOR REVIEW IS FOR GENERAL CONFORMANCE WITH DESIGN INTENT AND WHEN INDICATED, THE SUBMITTAL SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT LOCATION.
10. MODIFICATIONS AND SUBSTITUTIONS MUST BE ACCEPTED IN WRITING BY ARCHITECT / EOR. NO MODIFICATION OR SUBSTITUTION WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.
11. NON-STRUCTURAL ITEMS, INCLUDING BUT NOT LIMITED TO, STAIR FRAMING, ARCHITECTURAL CLADDING, ETC., WHEN NOT DETAILED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, SHALL BE THE DESIGN RESPONSIBILITY OF THE CONTRACTOR. THESE NON-STRUCTURAL ITEMS MAY BE SUPPORTED BY THE PRIMARY STRUCTURE BUT SHALL NOT IMPOSE TORSIONAL LOADS ONTO THE PRIMARY SUPPORT MEMBERS. PROVIDE BRACES, KICKERS, STIFFENERS, ETC., AS NECESSARY TO ELIMINATE TORSIONAL LOADS AT NO ADDITIONAL COSTS TO THE OWNER.

CONSTRUCTION LOADS

1. CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION.
2. PROVIDE ALL NECESSARY MEASURES TO PROTECT THE STRUCTURE DURING CONSTRUCTION.
3. CONSTRUCTION MATERIALS, IF PLACED ON FRAMED FLOORS AND ROOFS, SHALL BE SPREAD OUT SUCH THAT THE DESIGN LIVE LOAD PER SQUARE FOOT IS NOT EXCEEDED. THIS INCLUDES BUT IS NOT LIMITED TO WEIGHTS OF MATERIALS, WEIGHTS OF EQUIPMENT AND LOADS APPLIED BY TEMPORARY LIFTS, HOISTS, CRANES, ETC.
4. PROVIDE ADEQUATE SHORING IF OVERLOAD IS ANTICIPATED OR WHERE STRUCTURAL ELEMENTS HAVE NOT ATTAINED DESIGN STRENGTH. THE CONTRACTOR SHALL SUBMIT CALCULATIONS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED VERIFYING THE ADEQUACY OF THE STRUCTURE FOR ANY PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS.
5. THE EOR IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED TO THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY.
6. OBSERVATION VISITS TO THE SITE BY THE EOR SHALL NOT CONSTITUTE ACCEPTANCE OF CONSTRUCTION MEANS AND METHODS.

DELEGATED DESIGN

1. **DELEGATED DESIGN OF PRIMARY STRUCTURAL ITEMS:**
AGGREGATE PIERS, SHORING, UNDERPINNING, LIGHT GAGE TRUSSES, WOOD FLOOR/ROOF TRUSSES AND ITS CONNECTIONS, STRUCTURAL / ARCHITECTURAL PRECAST CONCRETE MEMBERS, PRE-ENGINEERED METAL BUILDINGS, POST-TENSIONED CONCRETE MEMBERS, AND STRUCTURAL STEEL CONNECTION DESIGN
2. **DELEGATED DESIGN OF SECONDARY STRUCTURAL ITEMS:**
STEEL STAIRS, HANDRAILS, GLAZING SYSTEMS - CURTAIN WALL AND STOREFRONT, DAVITS, AND ELEVATOR SUPPORT RAILS AND BEAMS, LIGHT GAGE METAL FRAMING
3. **DELEGATED DESIGN SUBMITTALS:**
FOR ALL MEMBERS INDICATED AS "DELEGATED DESIGN," THE CONTRACTOR SHALL ENGAGE A LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN, DETAIL AND SUBMIT SHOP DRAWINGS / DESIGN CALCULATIONS FOR EOR'S REVIEW AND APPROVAL.
4. AT A MINIMUM, THE SHOP DRAWINGS AND CALCULATIONS SUBMITTED SHALL CONTAIN OR INDICATE THE FOLLOWING:
   A. PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE RESPONSIBLE FOR THEIR PREPARATION. COMPLIANCE WITH THE PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA NOTED IN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS). LOCATION, TYPE, MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE BUILDING STRUCTURE
   B. THE EOR REVIEW OF DELEGATED DESIGN SUBMITTALS WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN LOADING, DESIGN INTENT AND LOADS IMPOSED AND DOES NOT ABSOLVE THE RESPONSIBILITYOF THE DELEGATE DESIGN ENGINEER.

SUBMITTALS

1. 20 WORKING DAYS PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR EOR REVIEW A SCHEDULE WHICH DETAILS THE ESTIMATED QUANTITY OF SHOP DRAWINGS AND THE DATE THE SHOP DRAWINGS WILL BE RECEIVED BY THE EOR. THE EOR SHALL HAVE THE OPPORTUNITY TO REVIEW THE PROPOSED SCHEDULE AND SUBMIT COMMENTS TO THE CONTRACTOR. THE FINAL SHOP DRAWING SCHEDULE SHALL BE DEVELOPED AND SUBMITTED TO THE EOR. IN ACCORDANCE WITH THE SHOP DRAWING SCHEDULE, THE EOR WILL RETURN THE SHOP DRAWING ITEMS WITHIN TEN WORKING DAYS AFTER HAVING RECEIVED THE SHOP DRAWING.
2. SHOP DRAWINGS SHALL ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS.
3. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTAL TO THE ARCHITECT/EOR. NON-CONFORMING DRAWING SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. THE CONTRACTOR IS TO STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:
   A. THE SHOP DRAWING IS BASED ON THE LATEST DESIGN DOCUMENTS.
   B. THE ARCHITECT' S AND EOR COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
   C. THE WORK IS COORDINATED AMONG ALL CONSTRUCTION TRADES.
   D. REVISIONS FROM PREVIOUS SUBMITTALS ARE CLEARLY MARKED BY CIRCLING OR CLOUDS.
   E. SUBMITTAL IS COMPLETE.
   F. SUBMITTAL DOES NOT INCLUDE SUBSTITUTION REQUESTS
   G. SUBMITTAL SHALL INCLUDE A STAMP INDICATING PROJECT NAME AND LOCATION, SUBMITTAL NUMBER, SPECIFICATION SECTION NUMBER.
4. THE EOR SHALL RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE ABOVE REQUIREMENTS. THE EOR REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.
5. FOR COMPONENTS THAT REQUIRE ENGINEERING BY THE CONTRACTOR, PROVIDE A NOTE ON EACH SHOP DRAWING, WRITTEN AND SIGNED BY THE SUPPLIER'S ENGINEER, INDICATING THAT THE SHOP DRAWING IS IN CONFORMANCE WITH THE CALCULATIONS OF THE CONTRACTOR' S ENGINEER.
6. THE FOLLOWING ITEMS REQUIRE SUBMITTALS FOR STRUCTURAL REVIEW AS OUTLINED IN THE SPECIFICATIONS:
   A. CONCRETE REINFORCING LAYOUT
   B. CONCRETE MIX DESIGNS
   C. CONCRETE CONSTRUCTION JOINT LAYOUT
   D. CONCRETE CONTROL JOINT LAYOUT
   E. STRUCTURAL STEEL
   F. STEEL JOISTS
   G. STEEL DECK
   H. CONCRETE MASONRY UNITS
   I. STRUCTURAL PRECAST CONCRETE & STRUCTURAL PRECAST CONCRETE CONNECTIONS
7. IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   A. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   B. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN FLOOR SLABS / ROOF.
   C. LAYOUT OF PENETRATIONS IN BEAMS AND JOISTS.
   D. ARCHITECTURAL PRECAST CONCRETE AND CONNECTIONS
   E. COLD-FORMED METAL FRAMING
   F. EXTERIOR CLADDING SYSTEMS
   G. METAL STAIRS
   H. ROOF TOP EQUIPMENT AND ANCHORAGES
   I. WINDOW WASHING AND FALL ARREST SYSTEMS
8. THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE EOR.

EXISTING CONDITIONS

1. EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM EXISTING CONSTRUCTION DOCUMENTS AND SITE INVESTIGATION AND CAN BE USED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK. DRAWINGS FOR THE EXISTING CONSTRUCTION ARE AVAILABLE FOR REVIEW.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT INFORMATION.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TAKE CARE TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE.
4. THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE AND SMALL TOOLS IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OF MEMBERS.
5. PRIOR TO CORING OR SAWING EXISTING CONCRETE WALLS AND SLABS FOR NEW PENETRATIONS, CONTRACTOR SHALL LOCATE EXISTING REINFORCING IN CONCRETE USING A NON-DESTRUCTIVE METHOD. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF NEW PENETRATION LOCATIONS IN CONFLICT WITH EXISTING REINFORCING. DO NOT CUT EXISTING REINFORCING WITHOUT PRIOR APPROVAL BY THE ARCHITECT/EOR.
6. THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF THE NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE SPECIFIED BY A LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THIS PROJECT IS LOCATED, TO BE RETAINED BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL REPAIR ALL DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE ARCHITECT.

DESIGN CRITERIA

PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS.

BUILDING CODE: THE 2012 INTERNATIONAL BUILDING CODE (IBC) W/ 2014 INDIANA BUILDING CODE AMENDMENTS.

DESIGN CODES:

- AMERICAN CONCRETE INSTITUTE (ACI), 318-11 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- AMERICAN CONCRETE INSTITUTE (ACI), 530-11 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES & 530.1-11 SPECIFICATIONS FOR MASONRY STRUCTURES
- AMERICAN FOREST & PAPER ASSOCIATION (AF&PA), NDS-2012 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH 2005 SUPPLEMENT
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 341-10 SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS
- AMERICAN IRON AND STEEL INSTITUTE (AISI), NAS-07 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS INCLUDING 2010 SUPPLEMENT
- AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE), 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- ALL OTHER APPLICABLE CODES AS REFERENCED IN CHAPTER 35 OF THE 2012 IBC

DESIGN LOAD CRITERIA:

GRAVITY LOADS

DEAD LOAD OF STRUCTURE : ACTUAL

SUPERIMPOSED DEAD LOADS:
SUSPENDED MEP TYPICAL : 5 PSF
CEILING/FLOORING : 5 PSF
ADDITIONAL CONCRETE TO MAINTAIN FLOOR FLATNESS : 8 PSF
ROOFING MATERIAL : 15 PSF

LIVE LOADS:
SLAB ON GRADE : 100 PSF
ELEVATED FLOOR LIVE LOAD : 80 PSF + 20 PARTITION
EXIT CORRIDORS & STAIRS : 100 PSF

PRE-ENGINEERED WOOD TRUSSES:
ROOFING + INSULATION : 3 PSF
MISCELLANEOUS : 1 PSF

SNOW LOAD

GROUND SNOW LOAD, P_g : 20 PSF
SNOW IMPORTANCE FACTOR, I_s : 1.0
SNOW EXPOSURE FACTOR, C_e : 1.0
THERMAL FACTOR, C_t : 1.0
FLAT ROOF SNOW LOAD, P_f : 14 PSF
MINIMUM ROOF SNOW LOAD, P_f : 20 PSF
SNOW DRIFTS ARE CALCULATED PER ASCE 7-10 AND SUPERIMPOSED ON FLAT ROOF SNOW LOADS AS APPLICABLE AT LOWER LEVELS.

WIND LOAD CRITERIA

BUILDING RISK CATEGORY : II
BASIC WIND SPEED : 115 MPH
WIND EXPOSURE CATEGORY : B
ENCLOSURE CLASSIFICATION : ENCLOSED

SEISMIC LOAD CRITERIA

BUILDING RISK CATEGORY : II
SEISMIC IMPORTANCE FACTOR, I_e : 1.0
SITE CLASS : C
MAPPED SPECTRAL RESPONSE ACCELERATION : S_S = 0.14, S_1 = 0.076
DESIGN SPECTRAL RESPONSE : S_{ds} = 0.112, S_{d1} = 0.086
SEISMIC DESIGN CATEGORY : B

LATERAL FORCE RESISTING SYSTEM : STEEL MOMENT FRAMES, NOT SPECIFICALLY DETAILED FOR SEISMIC
ANALYSIS PROCEDURE USED : EQUIVALENT STATIC LATERAL FORCE METHOD
RESPONSE MODIFICATION COEFFICIENT, R = 3

PROVISION FOR FUTURE EXPANSION IS NOTED AS FOLLOWS : NONE

BUILDING LAYOUT

1. NEW BUILDING ADDITION LAYOUT SHALL BEGIN WITH LAYING OUT COLUMN LINES "7" AND "C.3". NEW COLUMN "7" SHALL BE PLACED BY ALIGNING THE NEW FACE OF WALL WITH THE EXISTING FACE OF CONCRETE WALL AND SETTING COLUMN LINE "7" 1'-5 5/8 EAST OF THE NEW FACE OF CONCRETE. NEW COLUMN LINE "C.3" SHALL BE LOCATED 2'-1" SOUTH OF THE EXISTING CONCRETE WALL FACE.
2. ALL OTHER COLUMN LINES SHALL BE LOCATED WITH REFERENCE TO NEW COLUMN LINES "7" AND "C.3".
3. THE FINISHED FLOOR AT THE NEW BUILDING SHALL BE USED AS DATUM (100'-0") = USGS 991.58.
(111'-0") = USGS 1002.58

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF ACI 315, ACI 318, AND CRSI.
2. REINFORCEMENT SHALL HAVE DEFORMED SURFACES IN ACCORDANCE WITH ASTM A615 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. WELDED WIRE FABRIC SHALL BE SMOOTH CONFORMING TO ASTM A185.
4. THE SHOP DRAWINGS FOR REINFORCING STEEL SHALL INCLUDE SCALE ELEVATIONS OF ALL CONCRETE WALLS AS APPLICABLE.
5. PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF ALL WALLS AND GRADE BEAMS. REFER TO TYPICAL DETAILS.
6. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE PROTECTION (CLEAR COVER) UNLESS OTHERWISE NOTED:
   SURFACES NOT FORMED AND IN CONTACT WITH SOIL : 3"
   FORMED SURFACES IN CONTACT WITH SOIL OR WEATHER : 2"
   BEAMS, GIRDERS AND COLUMNS : 1 1/2"
   SLABS, WALLS AND JOISTS : 3/4"
7. PROVIDE ADDITIONAL REINFORCING BARS AROUND ALL OPENINGS IN CONCRETE SLABS AND WALLS EQUAL TO THE AMOUNT INTERRUPTED BY THE OPENINGS (1/2 EA. SIDE TYPICAL). WHERE OPENINGS ARE SUCH THAT THE REINFORCING STEEL IS NOT INTERRUPTED, NO ADDITIONAL REINFORCING IS REQUIRED. REFER TO YPICAL CONCRETE OPENING DETAIL.
8. ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN OR CALLED OUT ON THE DRAWINGS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE.
9. OPENINGS THROUGH CONCRETE WALLS, SLABS OR OTHER STRUCTURAL ELEMENTS NOT DETAILED ON THE STRUCTURAL DRAWINGS MUST BE LOCATED AND SHOWN ON THE APPLICABLE REINFORCING STEEL SHOP DRAWINGS. THE FINAL LOCATION OF ALL OPENINGS MUST BE REVIEWED BY THE A/E BEFORE THE CONCRETE IS POURED.
10. THE WELDED WIRE FABRIC IN THE COMPOSITE ELEVATED SLAB SHALL BE SUPPORTED BY PLACING CONTINUOUS HEAVY BOLSTERS AT 2'-6" O.C. MAXIMUM OVER THE COMPOSITE METAL DECK.
11. THE WELDED WIRE FABRIC IN THE CONCRETE SLAB-ON-GRADE SHALL BE SUPPORTED BY CONTINUOUS #4 SUPPORT BARS AT 2'-6" O.C. MAXIMUM. THE #4 BARS SHALL BE TIED AND SUPPORTED BY CONTINUOUS CHAIRS AT 2'-6" O.C. MAXIMUM.
12. CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF 2 TONS OF REINFORCING STEEL TO BE FABRICATED AND/OR PLACED DURING THE PROGRESS OF WORK AS MAY BE DIRECTED BY THE ARCHITECT (STRUCTURAL ENGINEER). THE UNUSED PORTION SHALL BE CREDITED TO THE OWNER AT THE COMPLETION OF CONCRETE WORK.

EARTHWORK / FOUNDATION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW THE PROJECT GEOTECHNICAL REPORT PRIOR TO BIDDING. CONTACT THE EOR WITH ANY DISCREPANCIES OR CONCERNS SO THAT A RESOLUTION MAY BE REACHED.
2. REFER TO GEOTECHNICAL REPORT NO. 23-0755-01G BY PATRIOT ENGINEERING AND ENVIRONMENTAL, INC, DATED JULY 10, 2023. SOIL BEARING PRESSURE TO BE FIELD VERIFIED BY A QUALIFIED SOILS ENGINEER PRIOR TO CONSTRUCTION.
3. BUILDING FOUNDATION DESIGN IS BASED ON NET ALLOWABLE SOIL BEARING PRESSURE OF:
   3000 PSF FOR COLUMN SPREAD FOOTINGS
   2500 PSF FOR CONTINUOUS WALL FOOTINGS
4. DESIGN VALUES FOR BELOW GRADE WALLS ARE BASED ON THE FOLLOWING PARAMETERS:
   TOTAL SOIL UNIT WEIGHT : 125 PCF
   COEFF. OF AT REST LATERAL EARTH PRESSURE : 0.45
   COEFF. OF ACTIVE LATERAL EARTH PRESSURE : 0.30
   COEFFICIENT OF FRICTION AT BASE : 0.3
5. DESIGN SOIL VALUES FOR BELOW GRADE WALLS ARE BASED ON DRAINABLE BACKFILL MATERIAL BEHIND THE WALLS AS SET FORTH IN THE GEOTECHNICAL REPORT.
6. BUILDING FOUNDATION SHALL BE PLACED ON FIRM, UNDISTURBED NATURAL SOILS OR ON ENGINEERED FILL MATERIAL. FOR AREAS REQUIRING ENGINEERED FILL, THIS MATERIAL SHALL CONSIST OF CLEAN GRANULAR FILL COMPACTED AS NOTED IN THE EARTHWORK SPECIFICATIONS AND PLACED IN LIFTS AS RECOMMENDED BY THE SOILS ENGINEER ON SITE OR AS SHOWN IN THE GEOTECHNICAL REPORT. SOIL BEARING PRESSURE OF ENGINEERED FILL TO BE FIELD VERIFIED BY A SOILS ENGINEER ON SITE PRIOR TO CONSTRUCTION.
7. BACKFILL MATERIAL FOR BASEMENT WALLS AND THE BACK SIDE (EARTH SIDE) OF RETAINING WALLS TO BE CLEAN, WASHED DRAINAGE FILL TO PERMIT DRAINAGE TO PERIMETER DRAIN SYSTEM. DRAINAGE FILL TO BE COMPACTED AS NOTED IN THE EARTHWORK SPECIFICATIONS AND PLACED IN LIFTS AS RECOMMENDED BY THE SOILS ENGINEER ON SITE OR AS SHOWN IN THE GEOTECHNICAL REPORT.
8. SUBBASE MATERIAL UNDER SLABS-ON-GRADE TO BE CLEAN GRANULAR FILL COMPACTED AS NOTED IN THE EARTHWORK SPECIFICATIONS AND/OR THE GEOTECHNICAL REPORT.
9. BACKFILL AGAINST GRADE BEAMS AND FROST WALLS SHALL BE PLACED EVENLY ON BOTH SIDES.
10. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL BOTH THE BASEMENT AND GROUND FLOOR SLABS HAVE BEEN COMPLETELY INSTALLED AND ATTAINED THEIR SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS AND ALL SLAB CONNECTIONS TO THE BASEMENT WALLS HAVE BEEN COMPLETELY INSTALLED.
11. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS.
12. ANY FOUNDATION INSULATION, WATERPROOFING, VAPOR BARRIER, ETC. SHOWN ON THE STRUCTURAL DRAWINGS IS FOR INFORMATION ONLY UNLESS SPECIFICALLY NOTED OTHERWISE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW THE ARCHITECTURAL DOCUMENTS FOR EXACT LOCATIONS, PLACEMENT AND MATERIAL REQUIREMENTS.
13. NO RECYCLED MATERIAL MAY BE USED AS BACKFILL BELOW THE BUILDING FOUNDATIONS OR SLABS. ALL BACKFILL MATERIAL SHALL BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE.
14. UNDERCUTTING OF THE SOIL FOR FOUNDATION PLACEMENT MAY BE REQUIRED. THE STRUCTURAL DRAWINGS MAY NOT INDICATE THE ENTIRE SCOPE OF UNDERCUTTING, FILL, BAD SOIL OR ROCK REMOVAL THAT MAY BE REQUIRED TO ATTAIN THE DESIGN SOIL BEARING PRESSURES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE GEOTECHNICAL REPORT, BEFORE BIDDING, TO ASSESS THE EXTENT OF EXCAVATION AND COMPACTION THAT MAY BE REQUIRED TO MEET THE DESIGN CRITERIA.
15. A REPORT CERTIFIED BY THE SOILS ENGINEER ON SITE SHALL BE FURNISHED TO THE A/E VERIFYING THAT ALL FOUNDATIONS WERE PLACED ON A MATERIAL CAPABLE OF SUSTAINING THE DESIGN BEARING PRESSURES.
16. IF DEWATERING IS REQUIRED, SUMPS SHALL NOT BE PLACED WITHIN THE FOUNDATION EXCAVATION.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", WITH MODIFICATIONS AS NOTED IN THE CONTRACT DOCUMENTS.
2. ALL CONCRETE, UNLESS OTHERWISE NOTED IN SCHEDULES OR DETAILS, SHALL HAVE A MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF), EXCEPT, ALL ELEVATED CONCRETE SLABS OVER METAL DECK SHALL BE LIGHTWEIGHT (110 PCF) U.N.O. ON PLANS.
3. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR-ENTRAINED. FOR SURFACE FINISHES AND OTHER REQUIREMENTS, REFER TO THE CONCRETE SPECIFICATIONS. CONCRETE MIX PROPORTIONING SHALL BE SUBMITTED TO THE ARCHITECT / EOR FOR REVIEW AND APPROVAL.
4. THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.
5. DETAILS OF FABRICATION OF REINFORCEMENT, HANDLING AND PLACEMENT OF THE CONCRETE, CONSTRUCTION OF FORMS AND PLACEMENT OF REINFORCEMENT, NOT OTHERWISE COVERED BY THE PLANS AND SPECIFICATIONS, SHALL COMPLY WITH THE LATEST ADDITION OF THE ACI CODE AND CRSI REQUIREMENTS.
6. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED EDGES OF CONCRETE AND THE EXPOSED CORNERS OF BEAMS, GIRDERS AND COLUMNS UNLESS OTHERWISE SHOWN OR NOTED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
7. CORED HOLES IN CONCRETE WALLS, SLABS ETC., SHALL NOT BE PERMITTED WITHOUT PRIOR REVIEW AND APPROVAL FROM THE ARCHITECT/EOR.
8. ALL MISCELLANEOUS ITEMS TO BE INSTALLED IN ANY CONCRETE WORK, SUCH AS PIPES, ELECTRICAL CONDUITS, DOVETAIL ANCHOR SLOTS, REGLETS, ETC., SHALL BE PROPERLY LOCATED, INSTALLED AND CHECKED BY THE G.C. PRIOR TO PLACEMENT OF CONCRETE. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR THE EXACT EXTENT AND LOCATION OF THESE ITEMS THAT ARE NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
9. PROVIDE SLEEVES FOR ALL PIPE AND CONDUIT PENETRATIONS IN FOUNDATION WALLS, GRADE BEAMS, WALL FOOTINGS AND TRENCH FOOTINGS TO TOTALLY SEPARATE THE PIPES FROM THE CONCRETE. REFER TO TYPICAL DETAILS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE PLACING SEQUENCES, SIZE, AND CONSTRUCTION PROCEDURES AND ACCOUNT FOR TEMPERATURE DIFFERENTIALS AND SHRINKAGE OCCURING DURING THE CONSTRUCTION PHASE UNTIL THE BUILDING IS PERMANENTLY IN A MECHANICALLY CONTROLLED ENVIRONMENT.
11. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER BEFORE STARTING CONCRETE WORK TO ESTABLISH A SATISFACTORY PLACING SCHEDULE AND TO DETERMINE THE LOCATION OF CONSTRUCTION JOINTS SO AS TO MINIMIZE THE EFFECTS OF SHRINKAGE.
12. NO HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE IN CONCRETE WALLS, FOOTINGS, BEAMS OR SLABS UNLESS SHOWN OR NOTED IN THE CONTRACT DRAWINGS. VERTICAL JOINTS ARE PERMITTED IN CONCRETE SLABS, WALLS, WALL FOOTINGS, TRENCH FOOTINGS AND GRADE BEAMS. REFER TO TYPICAL DETAILS.
13. FORMS AND FALSEWORK SUPPORTING ANY VERTICAL LOADS SHALL REMAIN IN PLACE UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS UNLESS RESHORES ARE INSTALLED IN SUFFICIENT QUANTITIES TO TRANSMIT THE LOADS TO ADEQUATE FOUNDATIONS OR SUBSTRATE WITHOUT OVERSTRESSING THE PARTIALLY CURED STRUCTURE. IN NO CASE SHALL SUPERIMPOSED LOAD ON RELATIVELY NEW CONCRETE EXCEED 50 POUNDS PER SQUARE FOOT UNLESS PROPER SHORING TO SUITABLE FOUNDATIONS OR SUBSTRATE IS INSTALLED AS REQUIRED BY THE EOR.
14. ALL CONSTRUCTION JOINTS IN CONCRETE WALLS, FOOTINGS, BEAMS OR SLABS SHALL BE PROVIDED WITH A KEYWAY. THE SURFACE OF THE CONCRETE SHALL BE THOROUGHLY CLEANED AND ALL LATIANCE REMOVED. IN ADDITION, THE JOINT SHALL BE THOROUGHLY WETTED AND SLUSHED WITH A COAT OF CEMENT GROUT OR A BONDING AGENT IMMEDIATELY BEFORE PLACING CONCRETE.
15. CONTROL JOINTS, IF NOT SHOWN ON DRAWINGS, SHALL BE PROVIDED IN ALL SLABS-ON-GRADE. JOINTS SHALL BE LOCATED ON EACH COLUMN LINE, AT RE-ENTRANT CORNERS AND THE JOINT SPACING SHALL NOT EXCEED:
   12' IN EITHER DIRECTION FOR 4" THICK SLABS
   15' IN EITHER DIRECTION FOR 6" THICK SLABS
   1.5:1 MAXIMUM PANEL LENGTH TO WIDTH RATIO
   SEE TYPICAL SLAB-ON-GRADE DETAILS FOR ADDITIONAL INFORMATION.
16. THE SAW CUTTING OF CONTROL JOINTS IN A SLAB-ON-GRADE MAY BEGIN WHEN THE CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE THE SURFACE AND BEFORE THE CONCRETE DEVELOPS RANDOM SHRINKAGE CRACKING. SAW CUTTING MAY BEGIN AND FINISH WITHIN 4 TO 12 HOURS AFTER SURFACE FINISHING IS COMPLETE.
17. REFER TO CONCRETE SPECIFICATIONS FOR FLOOR FLATNESS AND LEVELNESS REQUIREMENTS AT THE SLAB-ON-GRADE AND ELEVATED CONCRETE SLAB TYP.
18. CONCRETE SHALL BE PLACED AND CURED AS REQUIRED TO ACCOMMODATE ARCHITECTURAL FLOOR FINISHES AND MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW ALL ARCHITECTURAL DOCUMENTS AND DETERMINE APPROPRIATE CONCRETE MIX, PLACEMENT, FLATNESS REQUIREMENTS AND CURING TECHNIQUES TO COMPLY WITH FLOORING MANUFACTURERS' REQUIREMENTS.
19. FOR SLABS CONTAINING FIBER REINFORCEMENT, THE FIBER DOSAGE SHALL BE CONFIRMED BY THE MANUFACTURER.
20. SLABS CONTAINING FIBER REINFORCEMENT SHALL BE FINISHED IN ACCORDANCE WITH THE FIBER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED TO MINIMIZE FIBER EXPOSURE AT THE SURFACE OF THE SLAB. ALL PROTRUDING FIBERS SHALL BE REMOVED AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS TO PROPERLY INSTALL FLOOR FINISHES AND/OR MATERIALS. ALL PROTRUDING FIBERS AT EXPOSED OR POLISHED CONCRETE SLABS SHALL BE REMOVED PER THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO POLISHING CONCRETE OR COMPLETION OF CONSTRUCTION AS APPROPRIATE.
21. MAINTAIN A MAXIMUM SLOPE OF 1 VERTICAL TO 2 HORIZONTALS BETWEEN BEARING ELEVATIONS OF ADJACENT FOOTINGS TO AVOID UNDERMINING FOUNDATIONS UNLESS NOTED OTHERWISE IN PLANS.
22. SET ANCHOR BOLTS WITH 3/4" THICK PLYWOOD TEMPLATES OR 1/4" THICK STEEL PLATE TEMPLATES AND BRACE AGAINST DISPLACEMENT.

POST-INSTALLED ANCHORS

1. EXPANSION ANCHORS IN CONCRETE OR GROUTED CONCRETE MASONRY, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HILTI KWIK BOLT TZ2. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
2. MECHANICAL ANCHORS IN HOLLOW CONCRETE MASONRY, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HILTI HLC. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
3. ADHESIVE/EPOXY ANCHORS IN CONCRETE, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HILTI HIT-HY 200 V3 WITH HAS RODS. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
4. ADHESIVE/EPOXY ANCHORS IN GROUTED OR HOLLOW CONCRETE MASONRY UNITS, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HILTI HIT-HY 270 WITH HAS RODS. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
5. ALL POST-INSTALLED ANCHORS WITH EXTERIOR EXPOSURE TO THE ELEMENTS IN THE FINISHED STRUCTURE SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL OF MANUFACTURER'S INSTALLATION DATA AND REQUIREMENTS AND TO INSTALL POST-INSTALLED ANCHORS ACCORDING TO THESE REQUIREMENTS. INSTALLERS MUST BE TRAINED AND EXPERIENCED IN PROPER ANCHOR INSTALLATION TECHNIQUES FOR THE PRODUCT USED.
7. POST-INSTALLED ANCHORS MAY NOT BE INSTALLED IN CONCRETE UNTIL IT HAS ATTAINED ITS 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS AND HAS CURED FOR AT LEAST 21 DAYS.
8. POST-INSTALLED ANCHORS MAY NOT BE INSTALLED IN CONCRETE MASONRY UNTIL MORTAR AND GROUT HAVE ATTAINED THEIR 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS AND HAS CURED FOR AT LEAST 21 DAYS.
9. REINFORCING STEEL NOTED AS ADHESIVE OR EPOXY ANCHORED INTO EXISTING SUBSTRATE SHALL HAVE MINIMUM EMBEDMENT DEPTHS AS FOLLOWS UNLESS NOTED OTHERWISE:

# 3 3 3/8"	# 6 6 3/4"	# 9 10 1/8"
# 4 4 1/2"	# 7 7 7/8"	# 10 11 1/4"
# 5 5 5/8"	# 8 9"	

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW PLACEMENT OF ANCHORS IN CONCRETE MASONRY WALLS OR ANY CONCRETE MEMBER AND INSTALL IN ACCORDANCE WITH ALL OF MANUFACTURER'S REQUIREMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, EDGE DISTANCE, SPACING, NUMBER OF ANCHORS IN A CELL, ETC.

STRUCTURAL STEEL

1. DETAILS FOR DESIGN, FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST AISC STANDARDS UNLESS OTHERWISE NOTED OR SPECIFIED.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING U.N.O. ON THE STRUCTURAL DRAWINGS:
   WIDE FLANGE SHAPES : ASTM A572 OR ASTM A992 (Fy = 50 KSI)
   CHANNELS, ANGLES, PLATES, BARS : ASTM A572 (Fy = 36 KSI)
   RECTANGULAR TUBES (HSS) : ASTM A500 GRADE C (Fy = 50 KSI)
   STRUCTURAL PIPE : ASTM A53 GRADE B (Fy = 35 KSI)
3. ALL STRUCTURAL BOLTS (INCLUDING WASHERS AND NUTS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 OR A490. ALL BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION U.N.O. BOLTING OF STRUCTURAL STEEL SHALL CONFORM TO THE PROVISIONS OF RCSC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 AND A490 BOLTS."
4. MINIMUM SIZE OF BOLTS SHALL BE 3/4" DIAMETER U.N.O., AND EACH CONNECTION SHALL HAVE A MINIMUM OF 2 BOLTS WITH ONE HARDENED WASHER PER BOLT.
5. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 AS NOTED ON THE DRAWINGS. REFER TO DETAILS FOR SIZE, GRADE AND LENGTH.
6. PERMANENT MACHINE BOLTS, USING AN APPROVED TYPE OF SELF ANCHORING HEX NUT, MAY BE USED FOR SUCH MINOR CONNECTIONS AS SHELF ANGLES, CLOSURES, ETC.
7. WELDING PROCEDURES SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S (AWS) STRUCTURAL WELDING CODES. ALL WELDING SHALL BE PERFORMED BY PREQUALIFIED WELDERS.
8. WELDED CONNECTIONS FOR STEEL MEETING ASTM A992 OR A572 SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES. OTHER WELDED CONNECTIONS TO BE MADE WITH REGULAR E70XX ELECTRODES.
9. WELDS NOT OTHERWISE NOTED ON DRAWINGS SHALL BE CONTINUOUS FILLET WELDS. THE MINIMUM SIZE SHALL BE 1/4" OR AS REQUIRED BY THE AISC SPECIFICATIONS, WHICHEVER IS LARGER.
10. MINIMUM THICKNESS OF ALL CONNECTION MATERIAL TO BE 5/16" UNLESS NOTED OTHERWISE.
11. CONNECTIONS MAY BE BOLTED OR WELDED.
12. UNLESS NOTED OTHERWISE, ALL SIMPLE BEAM SHEAR CONNECTIONS SHALL BE MADE USING DOUBLE ANGLE CONNECTIONS AND/OR SHEAR PLATE CONNECTIONS. UNO CONNECTIONS SHALL BE HIGH STRENGTH BOLT BEARING TYPE MATCHING WITH CONNECTION TABLE. ALL CONNECTIONS, UNLESS FULLY DETAILED ON THE STRUCTURAL DRAWINGS, SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL STEEL FABRICATOR TO MEET BOTH AISC AND OSHA REQUIREMENTS. REFER TO TYPICAL DETAILS FOR TYPE OF SIMPLE BEAM CONNECTION AND MINIMUM BOLT REQUIREMENTS.
13. TYPICAL DETAILS FOR SIMPLE SHEAR CONNECTIONS ARE PROVIDED FOR BIDDING PURPOSES AND MAY BE USED FOR CONSTRUCTION IF THE FABRICATOR DOES NOT HIRE A CONNECTION ENGINEER. IF A CONNECTION DESIGN ENGINEER IS HIRED BY THE FABRICATOR, THE TYPICAL SIMPLE SHEAR CONNECTIONS DO NOT NEED TO BE FOLLOWED, AND THE CONNECTION DESIGN ENGINEER CAN PROVIDE SIGNED AND SEALED (IN THE STATE WHERE THE PROJECT IS LOCATED) CONNECTION CALCULATIONS FOR REVIEW AND APPROVAL OF THE EOR. LOADS WILL BE PROVIDED TO THE CONNECTION DESIGN ENGINEER UPON REQUEST.
14. BURNING OF HOLES IN STRUCTURAL STEEL IS STRICTLY PROHIBITED. DO NOT FLAME-CUT HOLES OR ENLARGE HOLES BY BURNING. ALL HOLES IN STRUCTURAL STEEL SHALL BE DRILLED. REAM HOLES THAT MUST BE ENLARGED TO ADMIT BOLTS. ALL FIELD MODIFICATIONS TO HOLES IN STRUCTURAL STEEL MUST BE APPROVED IN ADVANCE BY THE EOR.
15. PROVIDE TEMPORARY ERECTION BRACING OF THE STRUCTURE UNTIL ALL PERMANENT LATERAL SUPPORT IS IN PLACE.
16. STEEL COLUMNS BELOW GRADE SHALL BE PAINTED WITH 2 COATS OF ASPHALTIC PAINT AND ENCASED IN A MINIMUM OF 4" OF CONCRETE.
17. ALL EDGE ANGLES OR BENT PLATES SHALL BE FIELD APPLIED TO THE BEAMS WITH ±1/8" HORIZONTAL AND VERTICAL TOLERANCE TO ALLOW FOR FIELD ADJUSTMENT AND FACILITATE OTHER INSTALLATIONS.
18. ALL EXTERIOR STEEL INCLUDING ALL CONNECTION MATERIALS THAT IS EXPOSED TO THE ELEMENTS IN THE FINISHED STRUCTURE SHALL BE HOT-DIP GALVANIZED, TYPICAL.
19. FIELD PAINT, WHERE APPLICABLE, ALL FIELD WELDS, ABRASIONS, RUST SPOTS AND FIELD BOLTS ON STRUCTURAL STEEL, JOISTS AND DECKING AFTER ERECTION. SEE ARCHITECTURAL DOCUMENTS FOR PRIMER, PAINT AND FINISH REQUIREMENTS.
20. THE CONTRACTOR SHALL PROVIDE A UNIT COST TO SUPPLY, FABRICATE AND INSTALL 1 TON OF TOTAL STRUCTURAL STEEL IN ADDITION TO THAT SHOWN ON THE PLANS. THIS ADDITIONAL STRUCTURAL STEEL SHALL BE INSTALLED AT THE DIRECTION OF THE ARCHITECT / EOR. THE OWNER SHALL BE GIVEN A CREDIT AT THE CONTRACT UNIT PRICE FOR THE UNUSED PORTION.
21. THE CONTRACTOR SHALL PROVIDE A UNIT COST TO SUPPLY, FABRICATE AND INSTAL **2** TONS OF TOTAL MISCELLANEOUS STEEL (ANGLES, PLATES, ETC.) IN ADDITION TO THAT SHOWN ON THE PLANS. THIS ADDITIONAL MISCELLANEOUS STEEL SHALL BE INSTALLED AT THE DIRECTION OF THE A/E. THE OWNER SHALL BE GIVEN A CREDIT AT THE CONTRACT UNIT PRICE FOR THE UNUSED PORTION.
22. WHERE FIREPROOFING IS REQUIRED, ADJUST FIREPROOFING THICKNESS BASED ON MEMBER SIZES. SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS AND THICKNESS.
23. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF STEEL STAIRS. STAIRS SHOWN ON THE STRUCTURAL DRAWINGS ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. ITEMS THAT ARE SUPPORTED BY PRIMARY STRUCTURE SHALL NOT IMPOSE TORSIONAL LOADS INTO THE FRAMING MEMBERS. STAIRS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT, RETAINED BY THE FABRICATOR.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

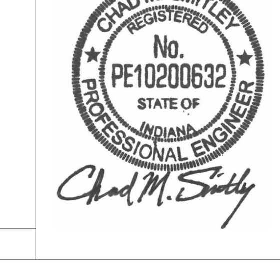
LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

GENERAL NOTES



Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.
Checked: CMS	S001

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

11/13/2023 1:53:23 PM

COMPOSITE METAL DECK

1. ALL METAL DECK MATERIAL, FABRICATION, AND INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE STEEL DECK INSTITUTE (SDI) "SPECIFICATIONS AND COMMENTARY" AND "CODE OF RECOMMENDED STANDARD PRACTICE".
2. DECKING AND ACCESSORIES SHALL BE COLD FORMED FROM GALVANIZED STEEL SHEETS COMPLYING WITH ASTM A653-SS GRADE 33 (MINIMUM), HAVING A MINIMUM TENSILE STRENGTH OF 45,000 PSI, WITH COATING DESIGNATION G60. GALVANIZING SHALL BE BY THE HOT-DIP PROCESS COMPLYING WITH ASTM A924.
3. COMPOSITE FLOOR DECK TO BE GALVANIZED AND MEET OR EXCEED LOAD CAPACITIES OF VULCRAFT "VLI SERIES" COMPOSITE STEEL FLOOR DECK AND CONFORM TO ALL SDI CRITERIA AND RECOMMENDATIONS. REFER TO STRUCTURAL PLANS FOR COMPOSITE DECK SIZE, GAUGE, ORIENTATION AND LOCATION. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. DECKING IS DESIGNED FOR UNSHORED CONSTRUCTION TO MAXIMUM SPANS INDICATED ON THE DRAWINGS, SUBJECT TO APPROVAL BY THE ARCHITECT (EOR), PROVIDE ADEQUATE SHORING OR HEAVIER GAUGE DECK WHERE MAXIMUM SPANS ARE EXCEEDED.
5. MINIMUM BEARING OF METAL DECKING ON SUPPORTS SHALL BE 2 INCHES FOR DECKS 2" OR LESS DEEP AND 3" FOR 3" DEEP DECK. ATTACH METAL DECKING TO SUPPORTING STEEL MEMBERS BY WELDING AS SPECIFIED ON THE DRAWINGS AND AS RECOMMENDED BY DECK MANUFACTURER USING E60 OR E70 ELECTRODES. DECK WELDING SHALL BE IN COMPLIANCE WITH ANSI/AWS D1.3.
6. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE JOB INCLUDING DECK SUPPORT ANGLES AT COLUMNS AND DECK SPAN CHANGES, COVER PLATES, CLOSURES AND SUMP PANS.
7. DECK SHALL BE PROVIDED IN A MINIMUM OF 3 SPAN LENGTHS WHERE POSSIBLE.
8. UNO DECK SHALL HAVE A MINIMUM 20 GAGE THICKNESS.
9. DECK SHALL BE FASTENED TO SUPPORTING MEMBERS WITH SHEAR CONNECTORS OR 3/4" MINIMUM DIAMETER FUSION WELDS THROUGH WELD WASHERS AT 12" O.C. MAXIMUM SPACING. FASTEN SIDELAPS AT INTERVALS NOT TO EXCEED 2'-0" O.C. MAXIMUM.
10. SCREEDS SHALL BE SET TAKING INTO ACCOUNT THE DEAD LOAD DEFLECTIONS OF THE STRUCTURE AND ANY CAMBER IN THE BEAMS IN ORDER TO ACHIEVE A LEVEL FLOOR. SCREED CONCRETE PARALLEL TO METAL DECKING MAINTAINING CONCRETE THICKNESS AS INDICATED ON DRAWINGS. ALL BEAMS AND GIRDERS SHALL BE SET WITH CAMBER UP. THE CONTRACTOR SHALL ALLOW FOR THE DEFLECTION OF THE FLOOR ASSEMBLY DUE TO THE WEIGHT OF WET CONCRETE WHEN CALCULATING CONCRETE QUANTITIES AT THE TIME OF BIDDING.
11. THE SEQUENCE AND METHOD OF POURING THE FLOORS SHALL BE SUBMITTED TO THE EOR PRIOR TO STARTING ANY CONCRETE OPERATIONS. IN GENERAL, CONCRETE POURS SHOULD BE MADE ACROSS THE ENTIRE WIDTH OF A FLOOR IN A DIRECTION PARALLEL TO THE GIRDERS. ANY SINGLE POUR SHOULD BE STOPPED AT A COLUMN LINE.
12. SHEAR CONNECTORS SHALL BE 3/4" DIA x (TOTAL SLAB THICKNESS MINUS ¾") LONG HEADED STUDS. SHEAR STUDS SHALL BE LOCATED IN ACCORDANCE WITH THE LATEST AISC SPECIFICATIONS.
13. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING SHEAR STUD QUANTITIES AND LOCATIONS ON EACH BEAM.
14. SHEAR STUD INSTALLATION SHALL BE TESTED BY THE TESTING INSPECTOR PER AWS SPECIFICATIONS AND APPROVED BEFORE ANY SLABS CAN BE POURED. THE ARCHITECT/ENGINEER MAY RANDOMLY TEST THE STUDS AND MAY REQUIRE ADDITIONAL WORK IF THE WORK IS DEEMED INADEQUATE.
15. IF ANY CONCENTRATED LOAD EXCEEDING 250 POUNDS IS TO BE SET ON THE COMPOSITE METAL DECK WHILE THE CONCRETE IS STILL WET, THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE DECK MANUFACTURER PRIOR TO SETTING THE LOAD. THIS INCLUDES WHEEL LOADS FOR ANY SCREEDS, TROWELS, OR OTHER CONCRETE CONSTRUCTION EQUIPMENT.

METAL ROOF DECK

1. ALL METAL DECK MATERIAL, FABRICATION, AND INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE STEEL DECK INSTITUTE (SDI) "SPECIFICATIONS AND COMMENTARY" AND "CODE OF RECOMMENDED STANDARD PRACTICE".
2. ROOF DECK TO BE GALVANIZED AND MEET OR EXCEED LOAD CAPACITIES OF VULCRAFT "B SERIES" METAL ROOF DECK AND CONFORM TO ALL SDI CRITERIA AND RECOMMENDATIONS. REFER TO STRUCTURAL PLANS FOR METAL ROOF DECK SIZE, GAGE, ORIENTATION AND LOCATION. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. DECK SHALL BE PROVIDED IN A MINIMUM OF 3 SPAN LENGTHS WHERE POSSIBLE.
4. MINIMUM BEARING OF METAL DECKING ON SUPPORTS SHALL BE 2 INCHES FOR DECKS 2" OR LESS DEEP AND 3" FOR 3" DEEP DECK. ATTACH METAL DECKING TO SUPPORTING STEEL MEMBERS BY WELDING AS SPECIFIED ON THE DRAWINGS AND AS RECOMMENDED BY DECK MANUFACTURER USING E60 OR E70 ELECTRODES. DECK WELDING SHALL BE IN COMPLIANCE WITH ANSI/AWS D1.3.
5. METAL ROOF DECK IS DESIGNED AS A HORIZONTAL DIAPHRAGM. ALL WELDS TO BE 5/8" PUDDLE WELDS. WELDING PATTERN SHALL BE 36/4 WITH #10 TEK SCREWS AT 24" O.C. AT SIDELAPS.
6. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE JOB INCLUDING DECK SUPPORT ANGLES AT COLUMNS AND DECK SPAN CHANGES, COVER PLATES, CLOSURES AND SUMP PANS.
7. DO NOT SUSPEND LIGHT FIXTURES, DUCTS, BULKHEADS, OTHER UTILITIES, ETC., FROM THE STEEL ROOF DECK.
8. UNO, ROOF DECK SHALL HAVE A MINIMUM 20 GAGE THICKNESS.

DIMENSIONSL LUMBER (CONVENTIONAL 2X) FRAMING

1. LUMBER AND ITS FASTENINGS SHALL CONFORM WITH THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION (LATEST EDITION AND REVISION).
2. LUMBER FOR EXTERIOR WALLS, INTERIOR BEARING WALLS AND SHEAR WALLS SHALL BE NO. 2 SOUTHERN PINE OR DOUGLS FIR OR BETTER UNLESS NOTED OTHERWISE IN THE WALL STUD SCHEDULE.
3. LUMBER FOR HEADERS, BEAMS, TOP AND SOLE PLATES, AND OTHER FRAMING MEMBERS SHALL BE NO. 1 SOUTHERN PINE OR DOUGLS FIR OR BETTER.
4. LOAD BEARING WALLS, INCLUDING SHEAR WALLS, CONSTRUCTED FROM FINGER JOINTED STUDS SHALL BE SHEATHED ON AT LEAST ONE FACE OR SHALL BE BRACED WITH CONTINUOUS 1X4 BRACING AT MID-HEIGHT OF WALL PRIOR TO LOADING THEM WITH FLOOR CONSTRUCTION.
5. BEARING WALL STUDS SHALL NOT BE LOADED WITH ANY CONSTRUCTION LOADS UNTIL SHEATHING HAS BEEN FULLY INSTALLED AND NAILED TO AT LEAST ONE FACE OF THE STUDS. IF BEARING WALLS MUST BE LOADED PRIOR TO SHEATHING INSTALLATION, CONTRACTOR SHALL PROVIDE CONTINUOUS TEMPORARY BRACING AT MID-HEIGHT OF ALL STUDS PRIOR TO LOAD APPLICATION.
6. SUBJECT TO ENGINEER'S REVIEW AND ACCEPTANCE, NON-STRUCTURAL WALLS SHALL BE CONSTRUCTION GRADE OR NO. 2. SPRUCE PINE FIR.
7. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED LUMBER SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH AWPA SPECIFICATIONS.
8. ALL HEADER AND BEAM SUPPORT STUDS SHALL BE BLOCKED CONTINUOUSLY THROUGH THE TRUSS CAVITY WITH AND EQUAL NUMBER OF STUDS.
9. BOLT HOLES THROUGH WOOD SHALL BE FITTED WITH STANDARD WASHERS AT HEAD AND NUT ENDS.
10. WOOD FRAMING CONNECTIONS SHALL BE MADE WITH JOIST HANGERS UNLESS NOTED OTHERWISE. TOE NAILING IS NOT PERMITTED FOR STRUCTURAL FRAMING MEMBERS.
11. FRAMING LAYOUTS ARE PROVIDED TO CONVEY INTENT AND DESIGN CONCEPTS AND SYSTEMS OF CONSTRUCTION. CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE FOR MATERIAL QUANTITIES AND FINAL LAYOUT AND ANY AND ALL UNSPECIFIED COMPONENTS REQUIRED FOR CONSTRUCTION.
12. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND STEPS TO ADEQUATELY BRACE THE BUILDING UNTIL ALL DIAPHRAGMS, SHEAR WALLS, AND PERMANENT BRACING IS INSTALLED. BEARING WALLS SHALL BE INSTALLED WITH 2X BLOCKING AT MID-HEIGHT OR AT 4'-6" OC (WHICHEVER IS LESSER SPACING).
13. CONNECTIONS AND FASTENERS FOR PRESSERVATIVE TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF STAINLESS STEEL, SILICON BRONZE, OR COPPER. THIS INCLUDES BUT IS NOT LIMITED TO ANCHOR BOLTS, POWDER ACTUATED FASTENERS, NAILS, SCREWS, BOLTS, AND METAL FRAMING HARDWARE.

LINTELS

1. WHERE LINTELS ARE NOT SPECIFICALLY SHOWN OR NOTED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, PROVIDE THE FOLLOWING LINTELS OVER ALL OPENINGS AND RECESSES IN BOTH INTERIOR AND EXTERIOR WALLS. PROVIDE 8" MINIMUM BEARING U.N.O:
   A. PRECAST LINTELS:
      a. PROVIDE 4", 6" OR A COMBINATION FOR OPENINGS UP TO 10'-0" WIDE.
   B. LOOSE LINTEL ANGLES FOR BRICK/STONE VENEER:
      a. OPENINGS UP TO 5'-0" : USE L5x5x5/16"
      b. OPENINGS 5'-0" TO 7'-0" : USE L6x4x5/16" (LLV)
      c. OPENINGS 7'-0" TO 10'-0" : USE L7x4x3/8" (LLV)
2. ALL LOOSE LINTEL AND CONTINUOUS RELIEF ANGLES IN EXTERIOR WALLS SHALL BE HOT-DIPPED GALVANIZED

STAIRS AND HAND RAILS

1. ALL STAIRS AND HANDRAILS SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT LOCATION BASED ON THE FOLLOWING DESIGN CRITERIA AND CALCULATIONS SHALL BE SIGNED AND SEALED:
   A. STAIR STRINGERS, TREADS AND RISERS SHALL BE DESIGNED TO SUPPORT 100 PSF LIVE LOAD.
   B. INDIVIDUAL STAIR TREADS SHALL BE DESIGNED TO SUPPORT A 300 POUND CONCENTRATED LOAD PLACED IN A POSITION THAT WOULD CAUSE MAXIMUM STRESS.
   C. THE TOP RAIL OF HANDRAILS SHALL BE DESIGNED TO WITHSTAND A LOAD OF 50 PLF APPLIED HORIZONTALLY AT RIGHT ANGLES, OR A 200 POUND CONCENTRATED LOAD APPLIED IN ANY DIRECTION.
   D. INTERMEDIATE RAILS, PANEL FILLERS AND THEIR CONNECTIONS SHALL BE DESIGNED TO WITHSTAND A LOAD OF 50 PSF APPLIED HORIZONTALLY AT RIGHT ANGLES OVER THE ENTIRE TRIBUTARY AREA, INCLUDING OPENINGS AND SPACES BETWEEN RAILS.
   E. ALL STAIRS AND HAND RAIL CONNECTIONS TO THE PRIMARY STRUCTURE SHALL BE DESIGNED AND DETAILED BY THE STAIR MANUFACTURER.

ENGINEERED WOOD FRAMING

1. LAMINTED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) ELEMENTS SHALL BE ULTRASONICALLY AND VISUALLY GRADED VENEERS ARRANGED TO SPECIFIC PATTERNS SO THAT NATURALLY OCCURRING DEFECTS HAVE NO CONCENTRATED EFFECT ON THE MEMBER'S PERFORMANCE. ELEMENTS SHALL BE FABRICATED WITH WATERPROOF ADHESIVE, BONDED UNDER PRESSURE AND HEAT.
2. LVL AND PSL MEMBERS SHALL BE FURNISHED WITH THE FOLLOWING PHYSICAL PROPERTIES AND MINIMUM ALLOWABLE STRESSES:
   MODULUS OF ELASTICITY (E) = 2,200,000 PSI
   FLEXURAL STRESS (F_b) = 2,900 PSI
   COMPRESSION PERPENDICULAR TO GRAIN (F_{cp}) = 575 PSI
   COMPRESSION PARALLEL TO GRAIN (F_c) = 2,900 PSI
   SHEAR STRENGTH (F_v) = 290 PSI
3. HEEL CUTS ON BEAMS SHALL NOT OVERHANG THE INSIDE FACE OF SUPPORT MEMBER.
4. MEMBERS SHALL BE SECURELY BRACED DURING CONSTRUCTION. TEMPORARY BRACING SHALL BE ANCHORED TO THE GROUND, FOUNDATION, A BRACED WALL OR OTHER COMPLETED, STABLE SECTION OF THE STRUCTURE.
5. CONTRACTOR SHALL EXERCISE CAUTION WHEN REMOVING TEMPORARY BRACING WHEN APPLYING SHEATHING. REMOVE BRACING AS SHEATHING IS ATTACHED.
6. MEMBERS SHALL BE PROTECTED FROM THE WEATHER WHILE IN STORAGE. CARE SHALL BE EXERCISED DURING HANDLING TO PREVENT DAMAGE.
7. CONTRACTOR SHALL NOT ALTER LVL MEMBERS WITH NOTCHES OR HOLES WITHOUT THE AUTHORIZATION OF THE ENGINEER. ALL NOTCHES AND HOLES SHALL MEET THE MANUFACTURERS GUIDELINES AND REQUIREMENTS.
8. ALL ENGINEERED LUMBER ELEMENTS EXPOSED TO THE ELEMENTS SHALL BE PRESSURE TREATED.

PRE-ENGINEERED WOOD TRUSSES

1. TRUSS MANUFACTURER SHALL DESIGN ALL FLOOR AND ROOF TRUSSES FOR ALL GRAVITY AND LATERAL LOADS SPECIFIED IN THE CONSTRUCTION DOCUMENTS AND IN THE PROJECT MANUAL. ALL TRUSSES SHALL BE DESIGNED BASED ON SERVICE LOAD CONDITIONS (ALLOWABLE STRESS DESIGN) ONLY. THE DESIGN SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED AS SUCH IN THE PROJECT JURISDICTION.
2. TRUSS DESIGN SHALL INCLUDE CONSIDERATION OF TOP PLATE CRUSHING. ADDITIONAL PLIES OR CLOSER TRUSS/JOIST SPACING MAY BE REQUIRED. ALL TRUSS JOIST SPACING MODIFICATIONS MUST BE APPROVED BY THE ARCHITECT/EOR.
3. TRUSS MANUFACTURER SHALL SUBMIT CALCULATIONS AND DESIGN DRAWINGS FOR APPROVAL (INCLUDING LAYOUT AND PLACEMENT DRAWINGS). SUBMITTED CALCULATIONS AND DRAWINGS INCLUDING ALL LOADS REQUIRED FOR THE DESIGN OF THE TRUSSES, TRUSS PLACEMENT LOCATION, TRUSS CONNECTIONS AND CONNECTIONS TO THE MAIN STRUCTURE SHALL BEAR THE SEAL AND SIGNATURE OF THE TRUSS MANUFACTURER'S ENGINEER.
4. TRUSS LENGTHS AND PROFILES SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION. CONFIGURATION AND SIZE OF WEB AND CHORD MEMBERS SHALL BE DETERMINED BY TRUSS MANUFACTURER. LOCATION, ORIENTATION AND PROFILES SHOWN IN THE CONSTRUCTION DOCUMENTS ARE FOR SCHEMATIC PURPOSES ONLY.
5. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROPERLY BRACE TRUSSES DURING LIFTING AND ERECTION. CONTRACTOR SHALL KEEP ALL TRUSSES LATERALLY BRACED UNTIL ALL FLOOR AND ROOF DIAPHRAGMS AND ALL PERMANENT BRACING ARE INSTALLED.
6. DESIGN AND FABRICATION CRITERIA OF ALL WOOD TRUSSES SHALL BE IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION (LATEST EDITION AND REVISION), "TIMBER CONSTRUCTION STANDARDS" BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (LATEST EDITION AND REVISION), AND THE "DESIGN SPECIFICATIONS FOR LIGHT METAL CONNECTED WOOD TRUSSES" BY THE TRUSS PLATE INSTITUTE.
7. MAXIMUM LIVE LOAD DEFLECTION SHALL BE SPAN/360 FOR ROOF TRUSSES AND SPAN/480 FOR FLOOR AND CORRIDOR TRUSSES UNLESS NOTED OTHERWISE.
8. SHOP DRAWINGS OF ALL TRUSSES SHALL BE SUBMITTED BY THE TRUSS MANUFACTURER FOR APPROVAL.
9. THE FOLLOWING DESIGN DATA SHALL BE INCLUDED ON THE SHOP DRAWINGS:
   A. SLOPE, DEPTH, SPAN AND SPACING OF ALL TRUSSES
   B. LOCATION OF ALL JOINTS AND CONNECTIONS
   C. REQUIRED BEARING WIDTHS
   D. DESIGN LOADINGS AND ALLOWABLE UNIT STRESS INCREASES
   E. TOP AND BOTTOM CHORD DEAD AND LIVE LOADS
   F. CONCENTRATED LOADS AND THEIR POINTS OF APPLICATION
   G. CONTROLLING WIND AND EARTHQUAKE LOADS
   H. ADJUSTMENTS TO LUMBER AND CONNECTOR PLATE DESIGN VALUES FOR CONDITIONS OF USE EACH REACTION FORCE AND DIRECTION
   I. METAL CONNECTOR PLATE TYPE, SIZE, THICKNESS OR GAGE, AND THE DIMENSIONED LOCATION OF EACH CONNECTOR PLATE EXCEPT WHERE SYMMETRICALLY LOCATED WITH RESPECT TO THE JOINT INTERFACE
   J. LUMBER SIZE, SPECIES, AND GRADE FOR EACH MEMBER
   K. CONNECTION REQUIREMENT FOR TRUSS-TO-TRUSS, TRUSS-TO-TRUSS PLY, AND FIELD SPLICES
   L. CALCULATED DEFLECTION RATIO AND MAXIMUM VERTICAL AND HORIZONTAL DEFLECTIONS FOR TOTAL LOAD AND LIVE LOAD
   M. MAXIMUM AXIAL TENSION AND COMPRESSION FORCE IN THE TRUSS MEMBER
   N. REQUIRED PERMANENT INDIVIDUAL TRUSS MEMBER BRACING
   O. EACH INDIVIDUAL TRUSS DRAWING SHALL BEAR THE SEAL AND SIGNATURE OF THE TRUSS MANUFACTURER'S ENGINEER
10. TRUSS MANUFACTURER SHALL PROVIDE END WALL TRUSSES AT EACH SIDE OF VAULTED CEILINGS, AT GABLE ENDS, BUILDING STEP-DOWNS AND AT CHANGE OF ROOF LINES.
11. TRUSS DRAWINGS SHALL BE MADE AVAILABLE AT THE JOB SITE DURING THE TIMES OF INSPECTION. THESE DRAWINGS SHALL BEAR CLEAR INDICATION THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE EOR.
12. CONTRACTOR SHALL BRACE ALL TRUSSES IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE'S HANDLING, INSTALLING, AND BRACING OF PLATE CONNECTED WOOD TRUSSES SUMMARY SHEET. TRUSS MANUFACTURER SHALL CLEARLY INDICATE BRACING LOCATIONS ON THE SHOP DRAWINGS AND ERECTION DRAWINGS.
13. THE MOISTURE CONTENT OF LUMBER SHALL NOT BE LESS THAN 19% NOR SHALL IT BE LESS THAN 7% AT THE TIME OF FABRICATION.
14. ALL TRUSS CONNECTOR PLATES SHALL BE MANUFACTURED FROM STRUCTURAL QUALITY GALVANIZED SHEET METAL NOT LESS THAN 20 GAUGE IN THICKNESS, WITH A MINIMUM YIELD STRENGTH OF 33,00 PSI AND A MINIMUM ULTIMATE TENSILE STRENGTH OF 45,000 PSI. THE CORROSION RESISTANT COATING SHALL MEET OR EXCEED ASTM A446 STANDARD SPECIFICATION FOR SHEET STEEL.
15. OPEN JOINTS WHICH DEPEND ON THE STIFFNESS OF THE METAL CONNECTOR PLATE TO TRANSMIT STRESSES AND IMPROPER FITTING JOINTS WILL NOT BE ACCEPTED.
16. DEAD KNOTS AND WANES ON LUMBER SHALL NOT BE LOCATED UNDER THE CONNECTOR PLATES.
17. DESIGN AND DETAILING OF PRE-ENGINEERED PRODUCTS, CONNECTIONS, AND ACCESSORIES SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE NFPA "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION".
18. TRUSSES SHALL BE KEPT COVERED DURING SHIPPING, STORAGE AND CONSTRUCTION. TRUSSES SHALL BE STORED OFF THE GROUND IN A MANNER WHICH WILL NOT DAMAGE OR WARP THE TRUSSES PRIOR TO ERECTION.

ABBREVIATIONS AND SYMBOLS

#	NUMBER, SIZE OR SECTION IDENTIFICATION	LB	POUND
&	AND	LF	LINEAL FOOT
2L	DOUBLE ANGLE SECTION	LIN	LINEAL, LINEAR
Ø	DIAMETER	LL	LIVE LOAD
A/E	ARCHITECT/ENGINEER	LLH	LONG LEG HORIZONTAL
ACI	AMERICAN CONCRETE INSTITUTE	LLV	LONG LEG VERTICAL
ADDL	ADDITIONAL	LONGIT	LONGITUDINAL
ADJ	ADJACENT	LP	LOW POINT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LSLT	LONG SLOTTED HOLE
ALT	ALTERNATE	LTWT	LIGHT WEIGHT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LWC	LIGHT WEIGHT CONCRETE
APPRX	APPROXIMATE	M	MOMENT
ARCH	ARCHITECTURAL	MATL	MATERIAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MAX	MAXIMUM
B/	BOTTOM OF	MC	MOMENT CONNECTION(S)
B/B	BACK TO BACK	MECH	MECHANICAL
BLDG	BUILDING	MEMB	MEMBRANE
BLK	BLOCK	MEP	MECHANICAL/ELECTRICAL/PLUMBING
BLKG	BLOCKING	MEZZ	MEZZANINE
BM	BEAM	MFGR	MANUFACTURER
BOT	BOTTOM	MID	MIDDLE
BRDG	BRIDGING	MIN	MINIMUM
BTWN	BETWEEN	MISC	MISCELLANEOUS
C	STANDARD CHANNEL	MULT	MULTIPLE
C/C	CENTER TO CENTER	N/A	NOT APPLICABLE
CANT	CANTILEVER	NIC	NOT IN CONTRACT
CG	CENTER OF GRAVITY	NO	NUMBER
CIP	CAST-IN-PLACE	NOM	NOMINCAL
CJ	CONTROL, CONTRACTION OR CONSTRUCTION JOINT	NS	NEAR SIDE
CL	CENTERLINE	NTS	NOT TO SCALE
CLR	CLEAR	NWC	NORMAL WEIGHT CONCRETE
CMU	CONCRETE UNIT MASONRY	NWT	NORMAL WEIGHT
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONN	CONNECTION	OF	OUTSIDE FACE
CONST	CONSTRUCTION	OFD	OVERFLOW DRAIN
CONT	CONTINUOUS	OH	OVER HEAD
CU FT	CUBIC FEET	OPNG	OPENING
CU IN	CUBIC INCH	OPP	OPPOSITE
CYD	CUBIC YARD	OPPHD	OPPOSITE HAND
DBA	DEFORMED BAR ANCHOR	ORIG	ORIGINAL
DBL	DOUBLE	P#	STRUCTURAL STEEL PIPE SECTION
DEG	DEGREE	PC	PIECE
DEMO	DEMOLITION, DEMOLISH	PCY	POUNDS PER CUBIC YARD
DET	DETAIL	PERIM	PERIMETER
DIA	DIAMETER	PERP	PERPENDICULAR
DIAG	DIAGONAL	PG	PLATE GIRDER
DIAPH	DIAPHRAGM	PL	PLATE
DIM	DIMENSION	PLF	POUNDS PER LINEAL FOOT
DL	DEAD LOAD	PRCST	PRECAST
DWG	DRAWINGS	PREFAB	PREFABRICATED
DWL	DOWEL	PRELIM	PRELIMINARY
EA	EACH	PREP	PREPERATION, PREPARE
ECC	ECCENTRICITY	PRLL	PARALLEL
EF	EACH FACE	PROJ	PROJECTION
EJ	EXPANSION JOINT	PSF	POUNDS PER SQUARE FOOT
EL. ELEV	ELEVATION	PSI	POUNDS PER SQUARE INCH
ELEC	ELECTRICAL	PT	POINT
ENCL	ENCLOSURE	PX#	EXTRA STRONG STRUCTURAL STEEL PIPE SECTION
ENGR	ENGINEER	PXX#	DOUBLE EXTRA STRONG STRUCTURAL STEEL PIPE SECTION
EOD	EDGE OF DECK		
EOS	EDGE OF SLAB	RAD	RADIUS
EQ	EQUAL	RD	ROOF DRAIN
EQUIP	EQUIPMENT	REF	REFERENCE
ES	EACH SIDE	REINF	REINFORCE(D) (ING) OR (MENT)
EW	EACH WAY	REQD	REQUIRED
EXP	EXPANSION	RO	ROUGH OPENING
EXST	EXISTING	S	SLOPE
EXT	EXTERIOR	SCHED	SCHEDULE
F/F	FACE TO FACE	SDL	SUPERIMPOSED DEAD LOAD
FD	FLOOR DRAIN	SECT	SECTION
FIN	FINISH	SF	SQUARE FEET
FL	FLOOR	SHT	SHEET
FND	FOUNDATION	SIM	SIMILAR
FP	FIRE PROOF(ING)	SOG	SLAB ON GRADE
FS	FAR SIDE	SP	SPACE(S)
FT	FEET	SPECS	SPECIFICATIONS
FTG	FOOTING	SS	STAINLESS STEEL
FV	FIELD VERIFY	SSLT	SHORT SLOTTED HOLE
GA	GAGE OR GAUGE	STD	STANDARD
GALV	GALVANIZED	STL	STEEL
GB	GRADE BEAM	STRUCT	STRUCTURE
GEN	GENERAL	STRUCTL	STRUCUTURAL
GR	GRADE	SUPPTS	SUPPORT(S)
HAS	HEADED ANCHOR STUD	SYM	SYMMETRICAL
HK	HOOK	T	TENSION
HORZ	HORIZONTAL	T&B	TOP AND BOTTOM
HP	HIGH POINT	T/	TOP OF
HSS	HOLLOW STRUCTURAL SECTION	TEMP	TEMPERATURE
HT	HEIGHT	TH	THICK OR THICKNESS
ID	INSIDE DIAMETER	THRU	THROUGH
IF	INSIDE FACE	TRANS	TRANSVERSE
IN	INCH	TYP	TYPICAL
INFO	INFORMATION	UNO	UNLESS NOTED OTHERWISE
INSUL	INSULATION	V	SHEAR
INT	INTERIOR	VERT	VERTICAL
JST	JOIST	W/	WITH
JT	JOINT	W/O	WITHOUT
KB	KNEE BRACE	WP	WORK POINT
KIP, K	1,000 POUNDS	WPFG	WATERPROOFING
KLF	KIP PER LINEAR FOOT	WS	WATERSTOP
KSF	KIP PER SQUARE FOOT	WT	WEIGHT
KSI	KIP PER SQUARE INCH	WWF, WWR	WELDED WIRE FABRIC/REINFORCEMENT
L	ANGLE OR LENGTH		

PLAN ANNOTATION SYMBOL KEY

- INDICATES DEPRESSED OR RASIED EDGE OF SLAB
- INDICATES START OR END OF SLOPED SLAB
- INDICATES NON-SEISMIC BEAM-TO-COLUMN MOMENT CONNECTION
- INDICATES NON-SEISMIC BEAM-TO-GIRDER MOMENT CONNECTION
- MCX — INDICATES SEISMIC BEAM-TO-COUMN MOMENT CONNECTION
- (A) — INDICATES SPAN DIRECTION OF COMPOSITE FLOOR SLAB. REFER TO FRAMING PLANS FOR SLAB EXTENTS AND INFORMATION
- (B) — INDICATES SPAN DIRECTION OF STEEL ROOF DECK. REFER TO FRAMING PLANS FOR ROOF DECK EXTENTS AND INFORMATION
- TC — INDICATES BEAM OR GIRDER RUNS OVER TOP OF COLUMN. REFER TO TYPICAL DETAILS FOR CONNECTION DETAILS
- TB — INDICATES COLUMN SUPPORTED BY BEAM OR GIRDER. REFER TO TYPICAL DETAILS FOR CONNECTION DETAILS

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

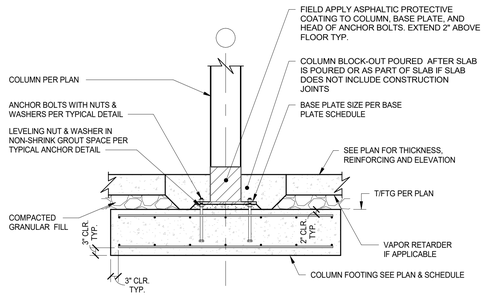
GENERAL NOTES

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

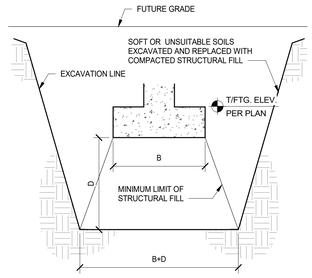
Comm. No. 22106.00	Date 2023/11/10
Drawn JCB	Drawing No. S002
Checked CMS	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

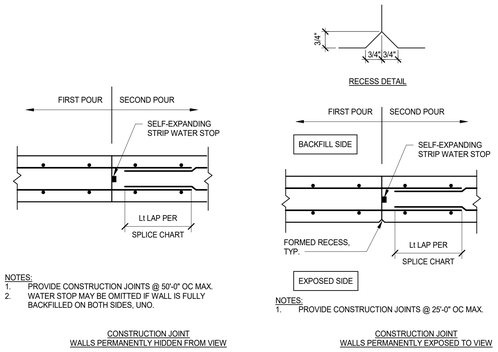


1 S003 TYPICAL GRAVITY COLUMN ON FOOTING DETAIL
N.T.S

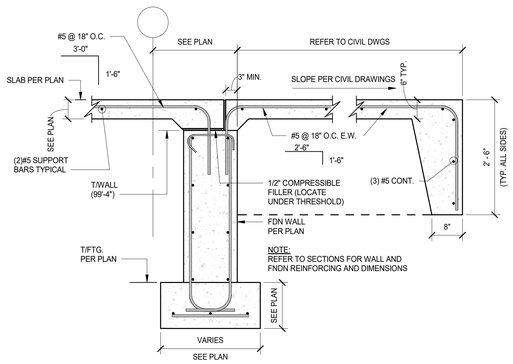


B = WIDTH OF FOOTING
D = DEPTH OF SUITABLE SOILS

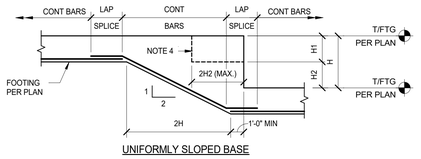
2 S003 FOUNDATION UNDERCUTTING DETAIL
N.T.S



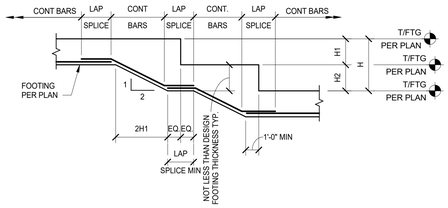
3 S003 TYPICAL CONCRETE FOUNDATION WALL AND BASEMENT WALL JOINT DETAILS
N.T.S



4 S003 TYPICAL STOOP DETAIL
N.T.S



UNIFORMLY SLOPED BASE

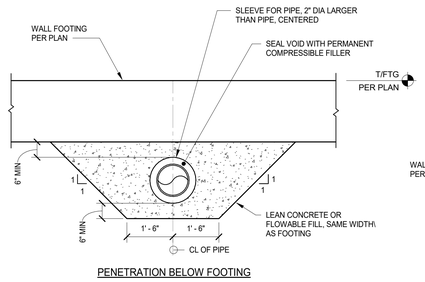


BENCHED BASE

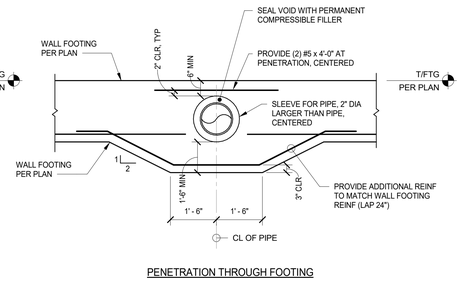
NOTES:

1. SEE PLAN FOR STEP LOCATIONS AND ELEVATIONS.
2. MAXIMUM SINGLE STEP HEIGHT = 4'-0".
3. USE BENCHED BASE FOR MULTIPLE ADJACENT STEPS AND WHEN TOTAL ELEVATION CHANGE "H" EXCEEDS 4'-0".
4. AT CONTRACTOR'S OPTION, DOUBLE STEP MAY BE USED AS SHOWN WHEN SINGLE STEP HEIGHT INDICATED ON PLAN EXCEEDS 2'-0". COORDINATE IN ADVANCE WITH ALL AFFECTED TRADES.

5 S003 TYPICAL STEPPED FOOTING
N.T.S



PENETRATION BELOW FOOTING

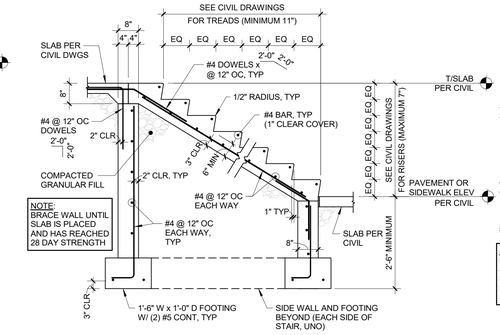


PENETRATION THROUGH FOOTING

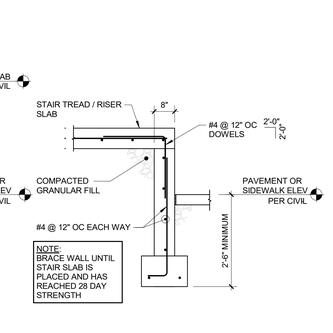
NOTES :

1. SEE PLUMBING DRAWINGS FOR LOCATION AND SIZE OF PENETRATIONS.
2. DETAIL SHOWN IS FOR MAXIMUM OF 12" DIA PIPE. FOR LARGER SIZE, CONTACT STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

6 S003 TYPICAL WALL FOOTING AT CONDUIT/PIPE PENETRATION
N.T.S



SECTION

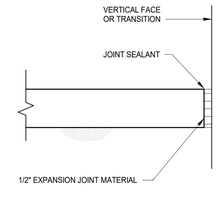


SIDE WALL DETAIL

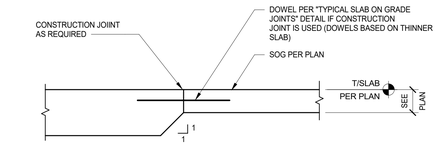
NOTES:

1. SEE ARCH AND CIVIL DRAWINGS FOR RAILING REQUIREMENTS.

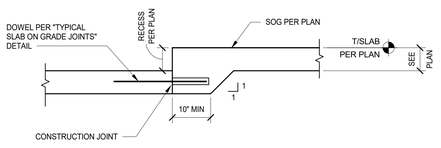
7 S003 TYPICAL EXTERIOR CONCRETE STAIR (WITH SIDE WALLS)
N.T.S



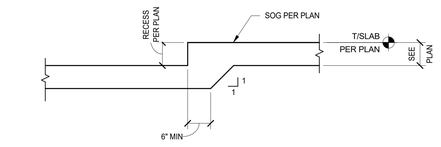
8 S003 TYPICAL SOG ISOLATION JOINT
N.T.S



SLAB THICKNESS TRANSITION

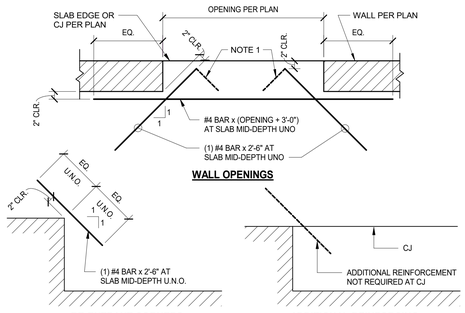


CONSTRUCTION JOINT



SINGLE POUR

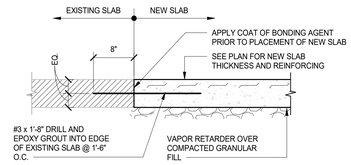
9 S003 TYPICAL SLAB ON GRADE STEP DETAILS
N.T.S



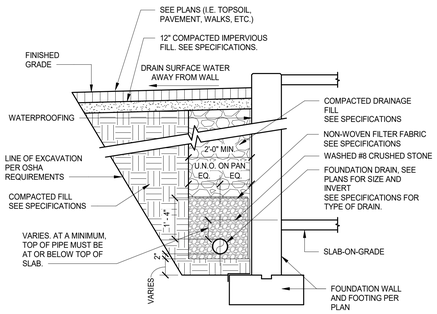
NOTES:

1. WHERE THERE IS INSUFFICIENT ROOM TO INSTALL A STRAIGHT BAR AS SHOWN CENTERED WITH EQUAL LENGTH EACH SIDE OF THE RE-ENTRANT CORNER, PROVIDE BAR WITH A 90- OR 180- DEGREE HOOK INSTALLED ON THE SIDE WITH SHORTER EMBEDMENT.
2. FOR SLABS WITH 2 LAYERS OF REINFORCEMENT, INSTALL ADDITIONAL REINFORCEMENT AT ELEVATION OF TOP LAYER ONLY.

10 S003 TYPICAL ADDITIONAL SLAB ON GRADE REINFORCEMENT AT RE-ENTRANT CORNERS
N.T.S



11 S003 TYPICAL NEW TO EXISTING SLAB-ON-GRADE TIE IN DETAIL
N.T.S



12 S003 TYPICAL BASEMENT WALL BACKFILLING AND FOUNDATION DRAIN DETAIL
N.T.S

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

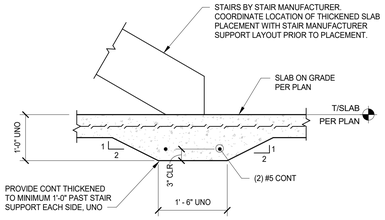
TYPICAL DETAILS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF Indiana PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn JCB	Drawing No. S003
Checked CMS	

© 2023 LWC INCORPORATED

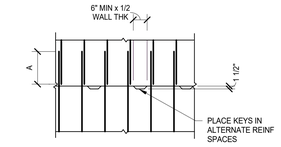
11/13/2023 1:53:26 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt



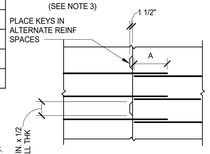
1 S004 TYPICAL THICKENED SLAB AT STAIRS
N.T.S

MINIMUM WALL REINFORCEMENT			
WALL THICKNESS	HORIZ BARS	VERT BARS	LOCATION
6" AND UNDER	#4 @ 12"	#4 @ 12"	CENTERLINE
> 6" TO 8"	#5 @ 15"	#5 @ 15"	CENTERLINE
> 8" TO 10"	#5 @ 12"	#5 @ 12"	CENTERLINE
> 10" TO 12"	#4 @ 12"	#4 @ 12"	EACH FACE
> 12" TO 14"	#5 @ 18"	#5 @ 18"	EACH FACE
> 14" TO 16"	#5 @ 15"	#5 @ 15"	EACH FACE
> 16" TO 18"	#5 @ 14"	#5 @ 14"	EACH FACE

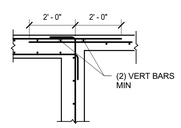
NOTES:
1) WALLS ARE TO BE REINFORCED WITH THE MINIMUM REINFORCEMENT INDICATED, UNO.
2) "A" INDICATES Lt LAP SPLICE. SEE TYPICAL LAP SPLICE TABLES.
3) PROVIDE KEYED HORIZONTAL JOINT AT SHEAR WALLS AND RETAINING WALLS.
4) PROVIDE KEYED VERTICAL JOINT AT SHEAR WALLS.
5) SMALL WALL SECTION DETAILS APPLY TO BOTH HORIZONTAL AND VERTICAL DIRECTIONS.



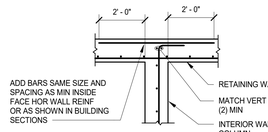
ELEVATION OF HORIZONTAL JOINT
(SEE NOTE 3)



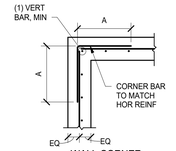
ELEVATION OF VERTICAL JOINT
(SEE NOTE 4)



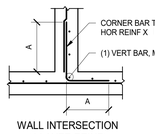
WALL INTERSECTION OF SINGLE AND DOUBLE LAYER REINFORCING



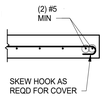
WALL INTERSECTION AT RETAINING WALL



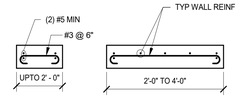
WALL CORNER
(1 LAYER REINF)



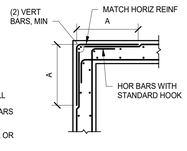
WALL INTERSECTION
(1 LAYER REINF)



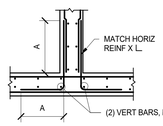
WALL ENDS SINGLE LAYER
(1 LAYER REINF)



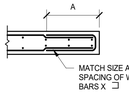
SMALL WALL SECTIONS
(NOTE 5)



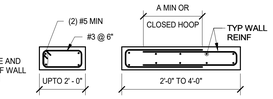
WALL CORNER
(2 LAYERS REINF)



WALL INTERSECTION
(2 LAYERS REINF)



WALL ENDS DOUBLE LAYER
(2 LAYERS REINF)



SMALL WALL SECTIONS
(NOTE 5)

2 S004 TYPICAL CONCRETE WALL REINFORCING DETAILS
N.T.S

NON-COATED REINFORCING BAR DEVELOPMENT AND SPLICE LENGTHS

f'c = 3000 PSI				
BAR SIZE	Ld	Ldt	Lt	Ltt
#3	17	23	23	29
#4	22	29	29	38
#5	28	37	37	48
#6	33	43	43	56
#7	48	63	63	82
#8	55	72	72	93
#9	62	81	81	105
#10	69	90	90	117
#11	76	99	99	129

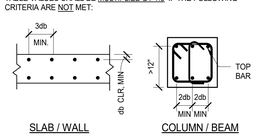
f'c = 4000 PSI				
BAR SIZE	Ld	Ldt	Lt	Ltt
#3	15	20	20	26
#4	19	25	25	33
#5	24	32	32	41
#6	29	38	38	50
#7	42	55	55	71
#8	48	63	63	82
#9	54	71	71	92
#10	60	78	78	102
#11	66	86	86	112

f'c = 5000 PSI				
BAR SIZE	Ld	Ldt	Lt	Ltt
#3	13	17	17	22
#4	17	23	23	29
#5	22	29	29	38
#6	26	34	34	44
#7	38	50	50	65
#8	43	56	56	73
#9	48	63	63	82
#10	54	71	71	92
#11	59	77	77	100

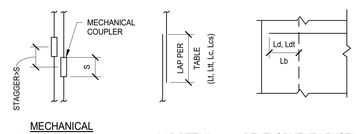
ALL CONCRETE STRENGTHS			
BAR SIZE	Lb	Lc	Lcs
#3	9	12	12
#4	11	13	12
#5	14	16	15
#6	17	19	17
#7	20	22	20
#8	22	25	23
#9	25	29	26
#10	28	32	29
#11	31	35	31

NOTES:
1. db = NOMINAL BAR DIAMETER
   Ld = TENSION DEVELOPMENT LENGTH
   Ldt = DEVELOPMENT LENGTH OF TOP BARS IN TENSION
   Lt = TENSION LAP SPLICE LENGTH
   Ltt = TENSION LAP SPLICE LENGTH OF TOP BARS
   Lb = COMPRESSION DEVELOPMENT LENGTH
   Lc = TIED COLUMN LAP SPLICE IN COMPRESSION
   Lcs = SPIRAL COLUMN LAP SPLICE IN COMPRESSION
2. REBAR DEVELOPMENT/SPLICE LENGTHS ARE BASED ON ACI 318. REINFORCEMENT YIELD STRENGTH, Fy = 60 KSI.
3. "TOP BARS" = HORIZONTAL BEAM, MAT, OR SLAB REINFORCING WITH MORE THAN 12" CAST BELOW.
4. ALL SPLICES SHALL BE TENSION SPLICES, UNO.
5. LARGER DIAMETER SPLICE LENGTHS GOVERN AT BAR SIZE TRANSITIONS.
6. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABLE VALUES BY 1.33, UNO.

TABLE VALUES SHALL BE MULTIPLIED BY 1.5 IF THE FOLLOWING CRITERIA ARE NOT MET:



SLAB / WALL
COLUMN / BEAM



MECHANICAL SPLICE STAGGER | LAP DETAIL | DEVELOPMENT LENGTH

TYPICAL REINFORCING BAR DEVELOPMENT / SPLICE DETAILS

3 S004 CONCRETE REINFORCMENT DEVELOPMENT AND LAP SPLICE TABLE
N.T.S

COLUMN BASE PLATE SCHEDULE

MARK	PLATE SIZE	ANCHOR RODS		EMBED LENGTH	WELD TO BASE PLATE
	B" X N" X T"	QTY	DIA		
BP1	12" X 12" X 3/4"	4	3/4"	12"	5/16"
BP2	14" X 14" X 1 1/2"	4	1 1/4"	21"	7/16"
BP3	20" X 20" X 1 1/2"	6	1 1/4"	21"	7/16"

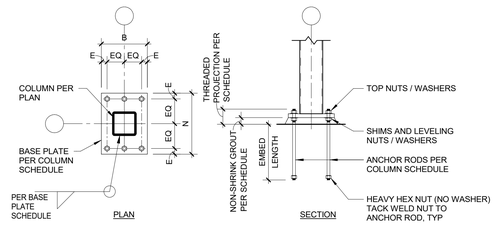
NOTE:
1. BASE PLATES SHALL BE ASTM A572 OR A992 GRADE 50 STEEL

ANCHOR ROD TABLE

ANCHOR ROD DIA	BASEPLATE HOLE DIA	MINIMUM WASHER SIZE	MINIMUM WASHER THICKNESS	MINIMUM PROJ ABOVE T/CONC	NON-SHRINK GROUT BED THK	MIN EDGE DISTANCE, E
3/4"	1 5/16"	2"	1/4"	7"	2"	2"
1 1/4"	2 1/16"	3 1/2"	1/2"	7"	2"	2"

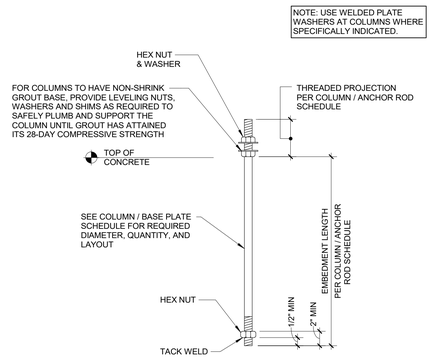
NOTES:
1. ANCHOR RODS ARE ASTM F1554 GR. 36 UNO.
2. PROVIDE WELDED PLATE WASHERS IN ACCORDANCE WITH TYPICAL DETAIL AT ALL STEEL MOMENT FRAMES, UNO.

COLUMN BASE PLATE SCHEDULE AND ANCHOR ROD TABLE
S004 N.T.S



NOTES:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.
2. THE PLACEMENT OF THE ANCHOR RODS SHOULD BE TRANSVERSE TO THE BEAM LINE.

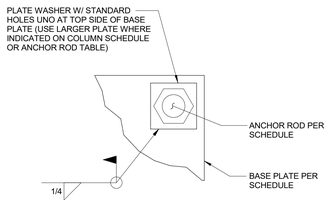
5 S004 TYPICAL COLUMN BASE DETAIL @ MOMENT FRAME COLUMNS
N.T.S



6 S004 TYPICAL COLUMN ANCHOR ROD DETAIL
N.T.S

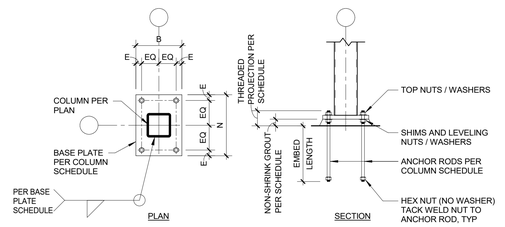
PLATE WASHER DIMENSIONS

ANCHOR ROD DIA	REQD PLATE WASHER
<= 3/4"	1/4x2x2
1"	3/8x3x3
> 1" TO 1.5"	1/2x3-1/2x3-1/2



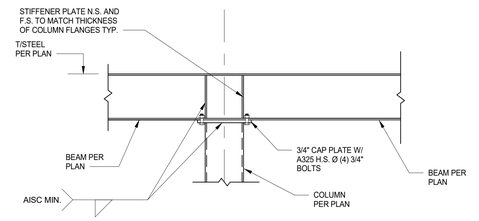
NOTES:
1. THIS DETAIL APPLIES AT ALL COLUMN ANCHOR RODS AT BRACED FRAMES AND MOMENT FRAMES UNO.

7 S004 TYPICAL WELDED PLATE WASHER DETAIL
N.T.S



NOTES:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.

8 S004 TYPICAL COLUMN BASE DETAIL @ NON MOMENT FRAME COLUMNS
N.T.S



9 S004 TYPICAL STEEL BEAM OVER HSS COLUMN DETAIL
N.T.S

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.30.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

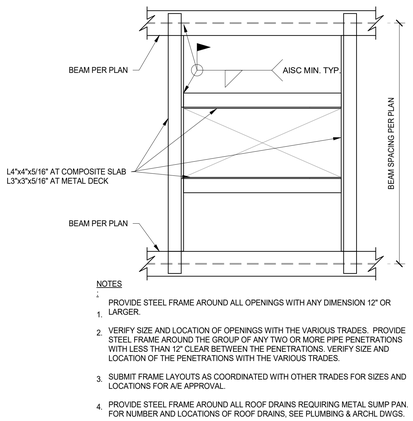
TYPICAL DETAILS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S004
Checked: CMS	

© 2023 LWC INCORPORATED

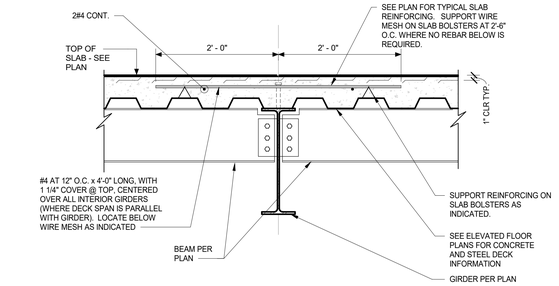
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt
11/13/2023 1:53:29 PM



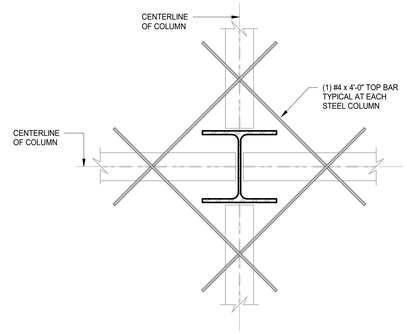
NOTES

1. PROVIDE STEEL FRAME AROUND ALL OPENINGS WITH ANY DIMENSION 12" OR LARGER.
2. VERIFY SIZE AND LOCATION OF OPENINGS WITH THE VARIOUS TRADES. PROVIDE STEEL FRAME AROUND THE GROUP OF ANY TWO OR MORE PIPE PENETRATIONS WITH LESS THAN 12" CLEAR BETWEEN THE PENETRATIONS. VERIFY SIZE AND LOCATION OF THE PENETRATIONS WITH THE VARIOUS TRADES.
3. SUBMIT FRAME LAYOUTS AS COORDINATED WITH OTHER TRADES FOR SIZES AND LOCATIONS FOR A/E APPROVAL.
4. PROVIDE STEEL FRAME AROUND ALL ROOF DRAINS REQUIRING METAL SUMP PAN. FOR NUMBER AND LOCATIONS OF ROOF DRAINS, SEE PLUMBING & ARCHL DWGS.

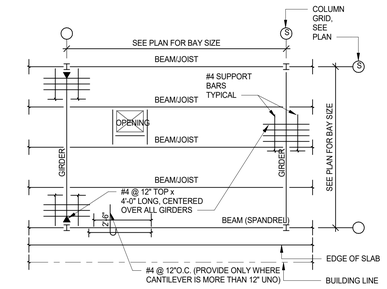
1 S005 TYPICAL FRAMED OPENING DETAIL
N.T.S



2 S005 TYPICAL COMPOSITE SLAB REINFORCING DETAIL OVER GIRDER
N.T.S



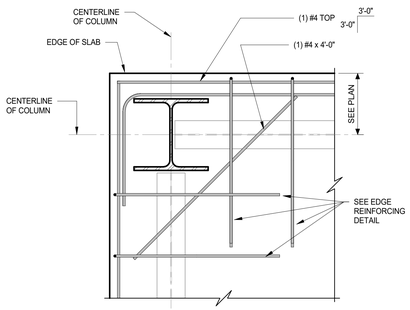
3 S005 TYPICAL COMPOSITE SLAB REINFORCEMENT AT INTERIOR COLUMN
N.T.S



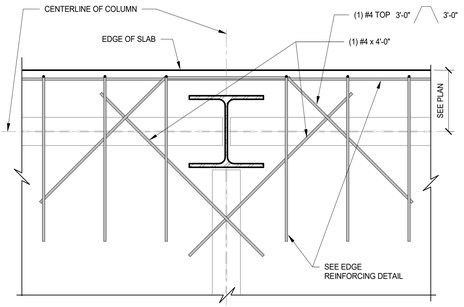
NOTES:

1. HOOK REINFORCING AT SPANDREL BEAMS AND GIRDERS 180° UNLESS SHOWN OR NOTED OTHERWISE IN PLANS OR DETAILS.
2. REINFORCING OVER GIRDERS TO HAVE 3/4" COVER OVER TOP.
3. WELDED WIRE FABRIC TO BE SUPPORTED OVER BEAMS (3/4" COVER OVER TOP).
4. PROVIDE CONTINUOUS HEAVY BEAM OR SLAB BOLSTERS @ 2'-6" O.C. MAX. OVER THE METAL DECK. PROVIDE ADDITIONAL REINFORCING AS SHOWN AND NOTED ON PLANS AND SECTIONS.

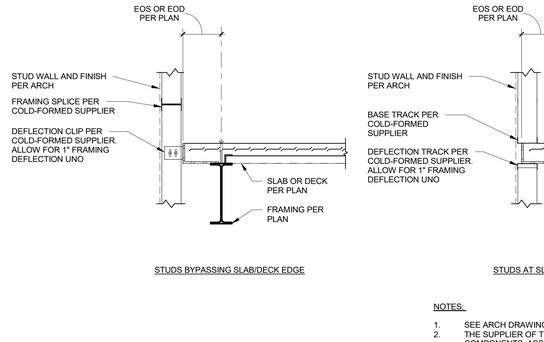
4 S005 TYPICAL COMPOSITE SLAB REINFORCING DETAIL
N.T.S



5 S005 TYPICAL COMPOSITE SLAB REINFORCEMENT AT CORNER COLUMN
N.T.S



6 S005 TYPICAL COMPOSITE SLAB REINFORCEMENT AT EDGE COLUMN
N.T.S

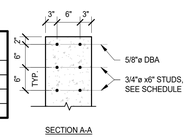


NOTES:

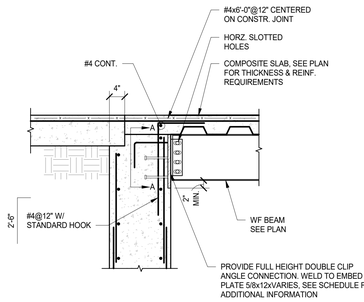
1. SEE ARCH DRAWINGS FOR ADDITIONAL INFORMATION AND TO DETERMINE APPLICABLE FRAMING SUPPORT CONDITION.
2. THE SUPPLIER OF THE COLD-FORMED STEEL FRAMING IS RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL MEMBERS, COMPONENTS, ASSEMBLIES AND CONNECTIONS.

7 S005 TYPICAL NON-LOAD BEARING COLD-FORMED WALL SUPPORT DETAILS
N.T.S

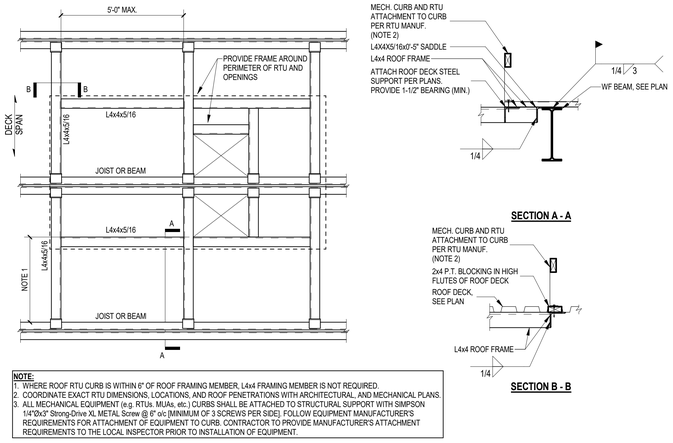
BEAM SIZE	PL. SIZE	# OF DBA'S	# OF STUDS
W8, W10, W12	5/8x12x1'-4"	2	4
W14, W16, W18	5/8x12x1'-10"	2	6
W21, W24	5/8"x12x2'-4"	2	8
W27, W30	5/8"x12x2'-10"	2	10



SECTION A-A

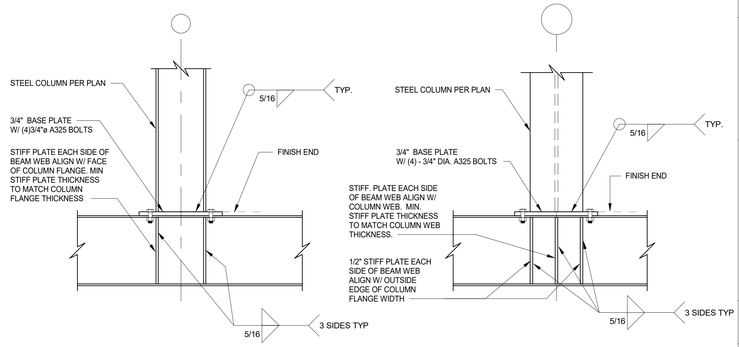


8 S005 TYPICAL STEEL BEAM EMBED DETAIL
N.T.S



NOTE:
1. WHERE ROOF RTU CURB IS WITHIN 5" OF ROOF FRAMING MEMBER, L4x4 FRAMING MEMBER IS NOT REQUIRED.
2. COORDINATE EXACT RTU DIMENSIONS, LOCATIONS, AND ROOF PENETRATIONS WITH ARCHITECTURAL, AND MECHANICAL PLANS.
3. ALL MECHANICAL EQUIPMENT (e.g. RTUs. MUAs, etc.) CURBS SHALL BE ATTACHED TO STRUCTURAL SUPPORT WITH SIMPSON 1/4"Dx3" Strong-Drive XL METAL Screw @ 6" o/c (MINIMUM OF 3 SCREWS PER SIDE). FOLLOW EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR ATTACHMENT OF EQUIPMENT TO CURB. CONTRACTOR TO PROVIDE MANUFACTURER'S ATTACHMENT REQUIREMENTS TO THE LOCAL INSPECTOR PRIOR TO INSTALLATION OF EQUIPMENT.

9 S005 TYPICAL RTU FRAME DETAIL
N.T.S



10 S005 TYPICAL TRANSFER COLUMN DETAIL
N.T.S

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

TYPICAL DETAILS

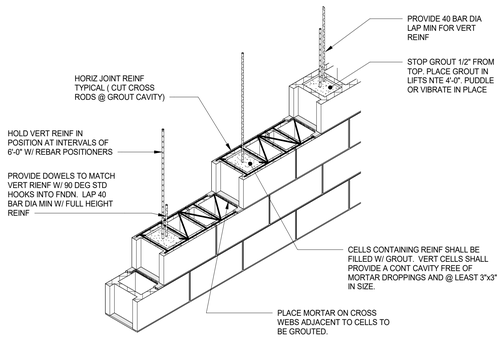
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn JCB	Drawing No. S005
Checked CMS	

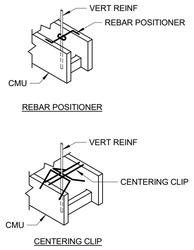
© 2023 LWC INCORPORATED

11/13/2023 1:53:32 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

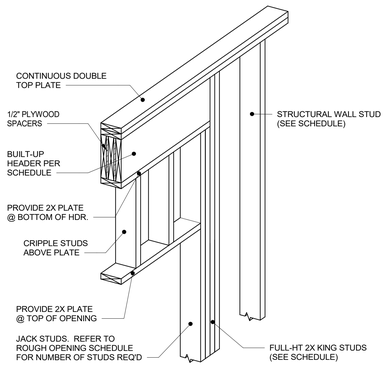
11/13/2023 1:53:34 PM



1 S006 TYPICAL CMU CONSTRUCTION DETAIL
3/4" = 1'-0"

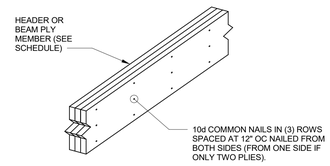


2 S006 TYPICAL REBAR POSITIONERS
3/4" = 1'-0"



NOTE: FOR HEADERS IN INTERIOR WALLS PROVIDE 1/2" PLYWOOD BETWEEN HEADER ELEMENTS

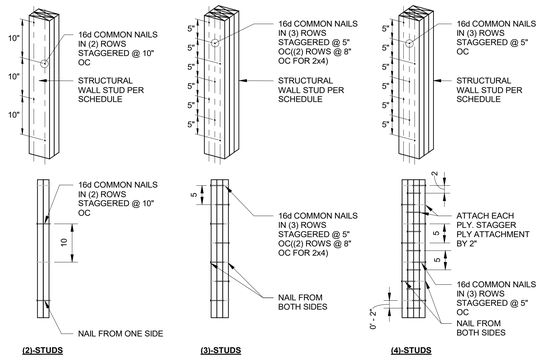
3 S006 TYPICAL HEADER DETAIL
3/4" = 1'-0"



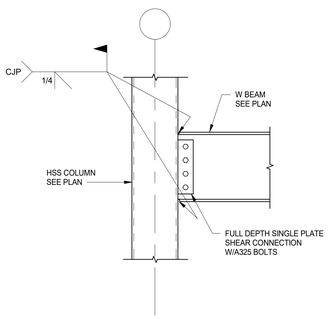
NOTES:

1. WHEN NAILS REQ'D ON BOTH FACES, OFFSET NAIL PATTERN ON OPP. FACES BY 6".
2. WHEN NUMBER OF PLIES EXCEEDS (3), INDIVIDUAL PLIES SHALL BE NAILED TO EACH OTHER. PLY-TO-PLY NAILS SHALL BE OFFSET BY 2" FROM THE PLY BELOW.
3. MULTIPLE PLYS OF LVL MEMBERS SHALL BE JOINED TOGETHER IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS / INSTRUCTIONS. FOR MAXIMUM RATED CAPACITY.

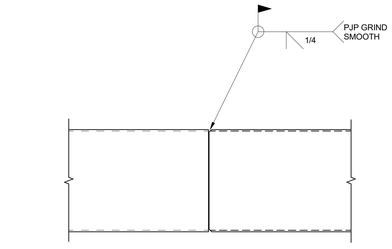
4 S006 TYPICAL ATTACHMENT DETAIL FOR MULTIPLE BEAM/HEADER MEMBERS
3/4" = 1'-0"



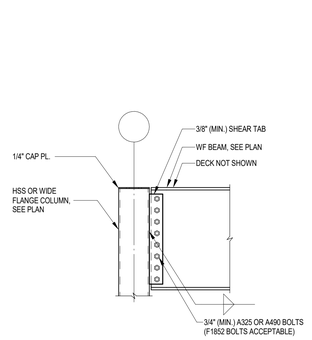
5 S006 TYPICAL ATTACHMENT DETAIL FOR MULTIPLE STUDS
3/4" = 1'-0"



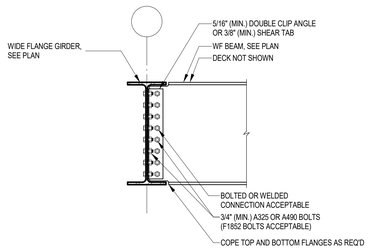
6 S006 TYPICAL HSS BEAM DIRECTLY WELDED TO COLUMN
3/4" = 1'-0"



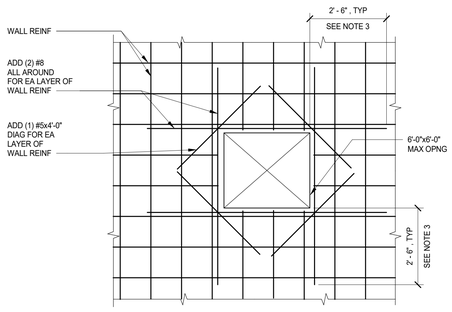
7 S006 TYPICAL DETAIL OF HSS20x4 SPLICE AT TRACK
1" = 1'-0"



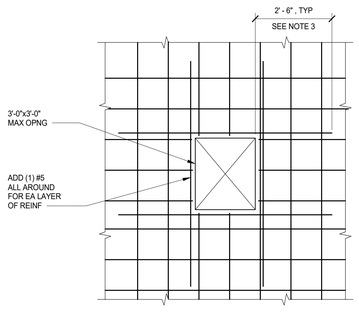
8 S006 TYPICAL WF BEAM SHEAR TAB TO COLUMN
3/4" = 1'-0"



9 S006 TYPICAL WF BEAM TO WF GIRDER
3/4" = 1'-0"



LARGE OPENING



SMALL OPENING

NOTES:

1. OMIT ADDED REINFORCEMENT NOTED ABOVE WHEN SPECIAL REINFORCEMENT, INDICATED ON PLANS OR DETAILS, EXCEEDS THIS REINFORCEMENT.
2. CONTRACTOR SHALL VERIFY ALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS WITH THE STRUCTURAL ENGINEER BEFORE PLACEMENT.
3. WHEN EDGE OF CONCRETE CLOSE TO OPENING WILL NOT ALLOW THIS LENGTH, CONSULT STRUCTURAL ENGINEER BEFORE CONSTRUCTION.

10 S006 TYPICAL CONCRETE WALL OPENING REINFORCEMENT
1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

TYPICAL DETAILS

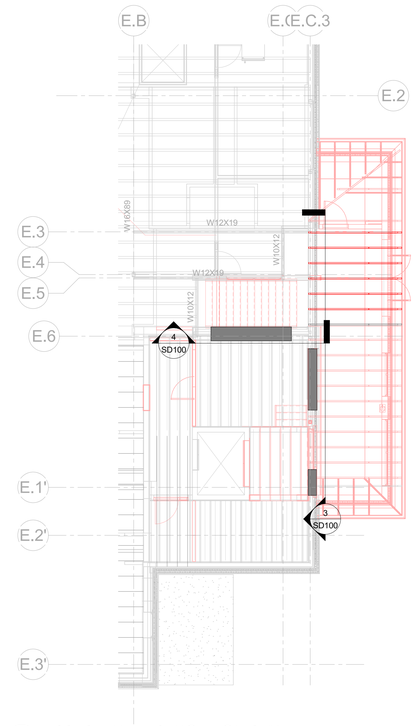
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn JCB	Drawing No. S006
Checked CMS	

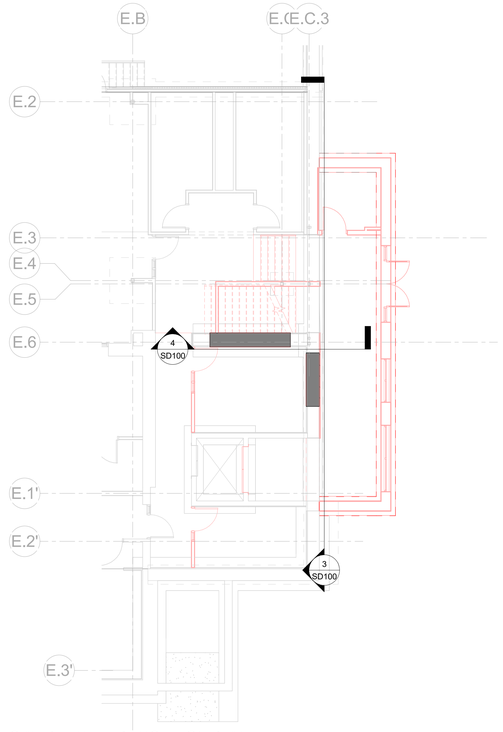
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

11/13/2023 1:54:10 PM



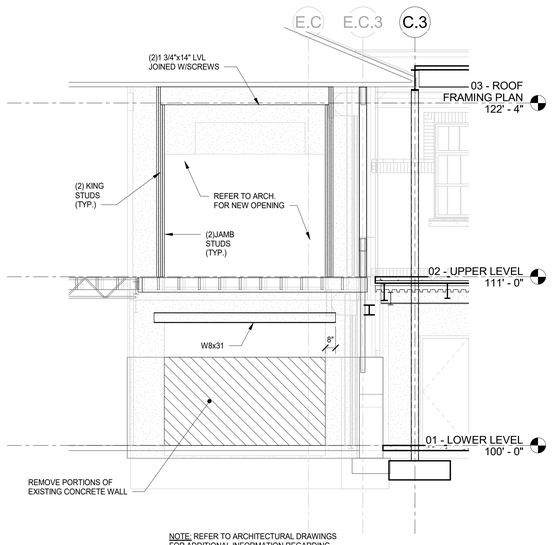
2 SD100 UPPER LEVEL - DEMOLITION PLAN
1/8" = 1'-0"



1 SD100 LOWER LEVEL - DEMOLITION PLAN
1/8" = 1'-0"

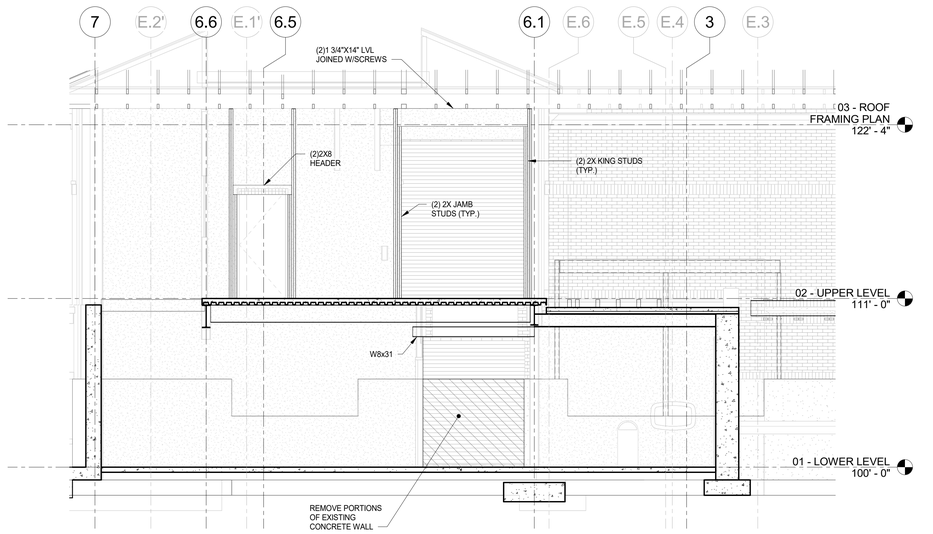
PLAN NOTES.

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OF WORK.
2. FOR ADDITIONAL DEMOLITION PLANS AND DETAILS REFER TO THE ARCHITECTURAL DRAWINGS.
3. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AS REQUIRED FOR SUPPORT OF THE EXISTING STRUCUTRE FOR PLACEMENT OF NEW OPENINGS. SHORING SHALL BE DELEGATED DESIGN AND BE SUBMITTED TO THE A/E FOR REVIEW.



NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING NEW OPENINGS IN EXISTING WALLS.

4 SD100 ELEVATION LOOKING EAST
1/4" = 1'-0"



NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING NEW OPENINGS IN EXISTING WALLS.

3 SD100 ELEVATION LOOKING NORTH
1/4" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.30.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

DEMOLITION PLANS AND DETAILS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn JCB	Drawing No. SD100
Checked CMS	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

1 S101 FOUNDATION PLAN
1/8" = 1'-0"

COLUMN FOOTING SCHEDULE

MARK	FOOTING SIZE (W x L x D)	FOOTING REINFORCEMENT	REMARKS
F4	4'-0" x 4'-0" x 1'-3"	(10) #5 EW BOTTOM	
F5	6'-0" x 6'-0" x 2'-0"	(11) #5 EW BOTTOM	
F7	7'-0" x 7'-0" x 2'-0"	(9) #6 EW TOP & BOTTOM	
F8	8'-0" x 8'-0" x 2'-0"	(10) #6 EW TOP & BOTTOM	

NOTES:
1. ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF (UNFACTORED), UNO.

PLAN NOTES:

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. FOR ADDITIONAL DIMENSIONS SEE ARCH. DWGS.
3. THE SLAB ON GRADE SHALL BE A 4" NORMAL WEIGHT SLAB OVER VAPOR RETARDER OVER 9" COMPACTED GRANULAR FILL OVER PROOF ROLLED SUBGRADE. THE SLAB SHALL BE REINFORCED WITH 6x6-W2.1xW2.1 W.W.F. (OR FIBERMESH EQUIVALENT) TOP OF SLAB SHALL BE @ ELEV. (100'-0")
4. THE TOP OF ALL FOOTINGS SHALL BE @ ELEVATION (98'-0") U.N.O.
5. COORDINATE W/SITE DRAWINGS FOR STOOP LOCATION/EXTENT.
6. PROVIDE ONE #4 x 2'-6" LONG BAR CENTERED IN THE MIDDLE OF THE SLAB ON ALL RE-ENRANT CORNERS.
7. ALL COLUMNS BEAR ON TOP OF THE FOOTING.
8. REFER TO SHEET S005 FOR COLUMN BASE PLATE SCHEDULE AND ANCHOR ROD SCHEDULE.
9. PROVIDE THICKENED SLAB UNDER BASE OF STAIR PER DETAIL 9/S003.
10. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OF WORK.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR RAMPS AND WALLS.
12. REFER TO SHEET S001 FOR BUILDING LAYOUT OF THE NEW ADDITION.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

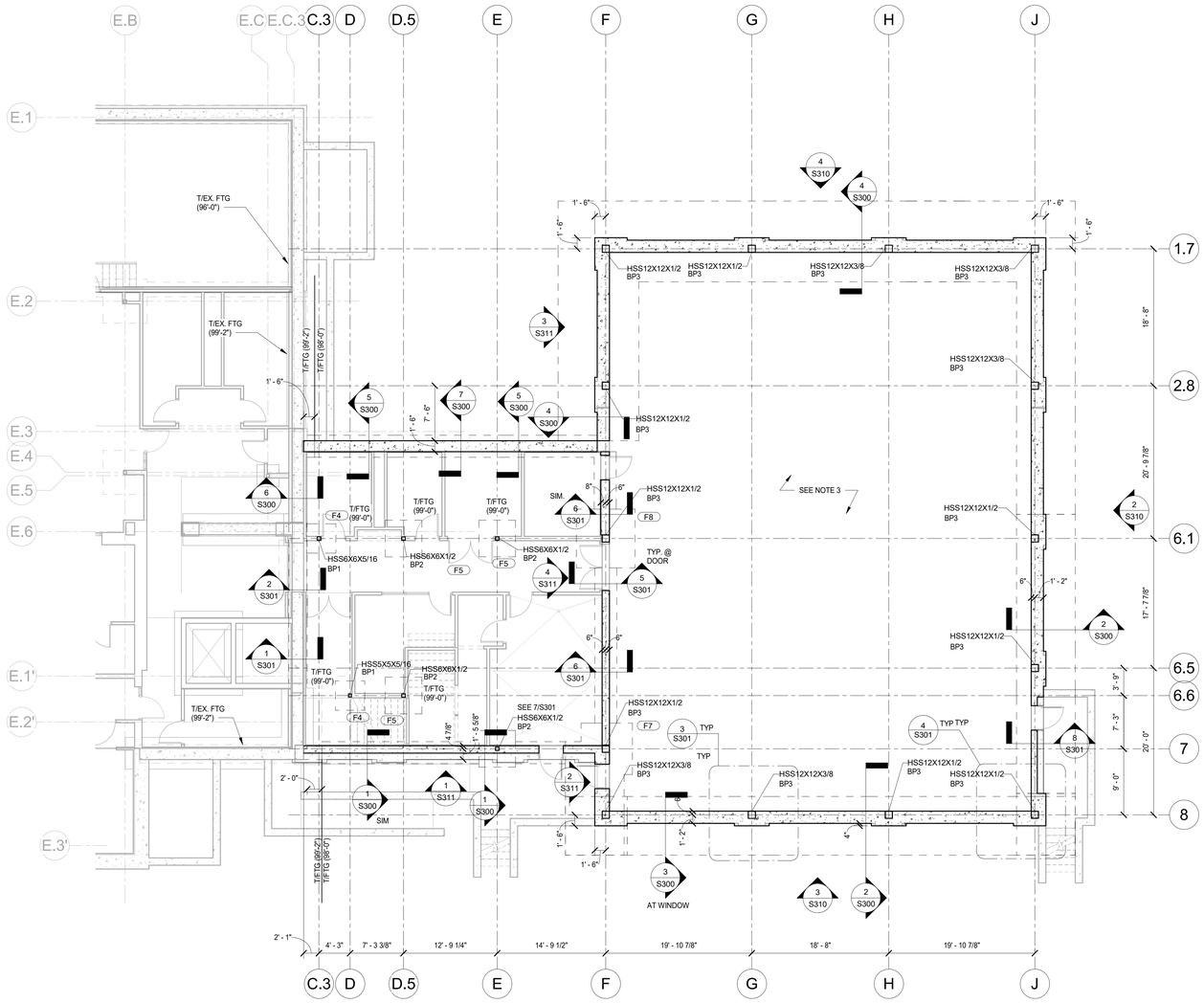
FOUNDATION PLAN

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S101
Checked: CMS	

© 2023 LWC INCORPORATED

11/13/2023 1:53:37 PM



1 S101.1 FOUNDATION PLAN - ALTERNATE #01
1/8" = 1'-0"

COLUMN FOOTING SCHEDULE

MARK	FOOTING SIZE (W x L x D)	FOOTING REINFORCEMENT	REMARKS
F4	4'-0" x 4'-0" x 1'-3"	(10) #5 EW BOTTOM	
F5	6'-0" x 6'-0" x 2'-0"	(11) #5 EW BOTTOM	
F7	7'-0" x 7'-0" x 2'-0"	(9) #6 EW TOP & BOTTOM	
F8	8'-0" x 8'-0" x 2'-0"	(10) #6 EW TOP & BOTTOM	

NOTES:
1. ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF (UNFACTORED), UNO.

PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. FOR ADDITIONAL DIMENSIONS SEE ARCH. DWGS.
3. THE SLAB ON GRADE SHALL BE A 4" NORMAL WEIGHT SLAB OVER VAPOR RETARDER OVER 9" COMPACTED GRANULAR FILL OVER PROOF ROLLED SUBGRADE. THE SLAB SHALL BE REINFORCED WITH 6x6-W2.1xW2.1 W.W.F. (OR FIBERMESH EQUIVALENT) TOP OF SLAB SHALL BE @ ELEV. (100'-0")
4. THE TOP OF ALL FOOTINGS SHALL BE @ ELEVATION (98'-0") U.N.O.
5. COORDINATE W/SITE DRAWINGS FOR STOOP LOCATION/EXTENT.
6. PROVIDE ONE #4 x 2'-6" LONG BAR CENTERED IN THE MIDDLE OF THE SLAB ON ALL RE-ENRANT CORNERS.
7. ALL COLUMNS BEAR ON TOP OF THE FOOTING.
8. REFER TO SHEET S005 FOR COLUMN BASE PLATE SCHEDULE AND ANCHOR ROD SCHEDULE.
9. PROVIDE THICKENED SLAB UNDER BASE OF STAIR PER DETAIL 9/S003.
10. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OF WORK.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR RAMPS AND WALLS.
12. REFER TO SHEET S001 FOR BUILDING LAYOUT OF THE NEW ADDITION.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

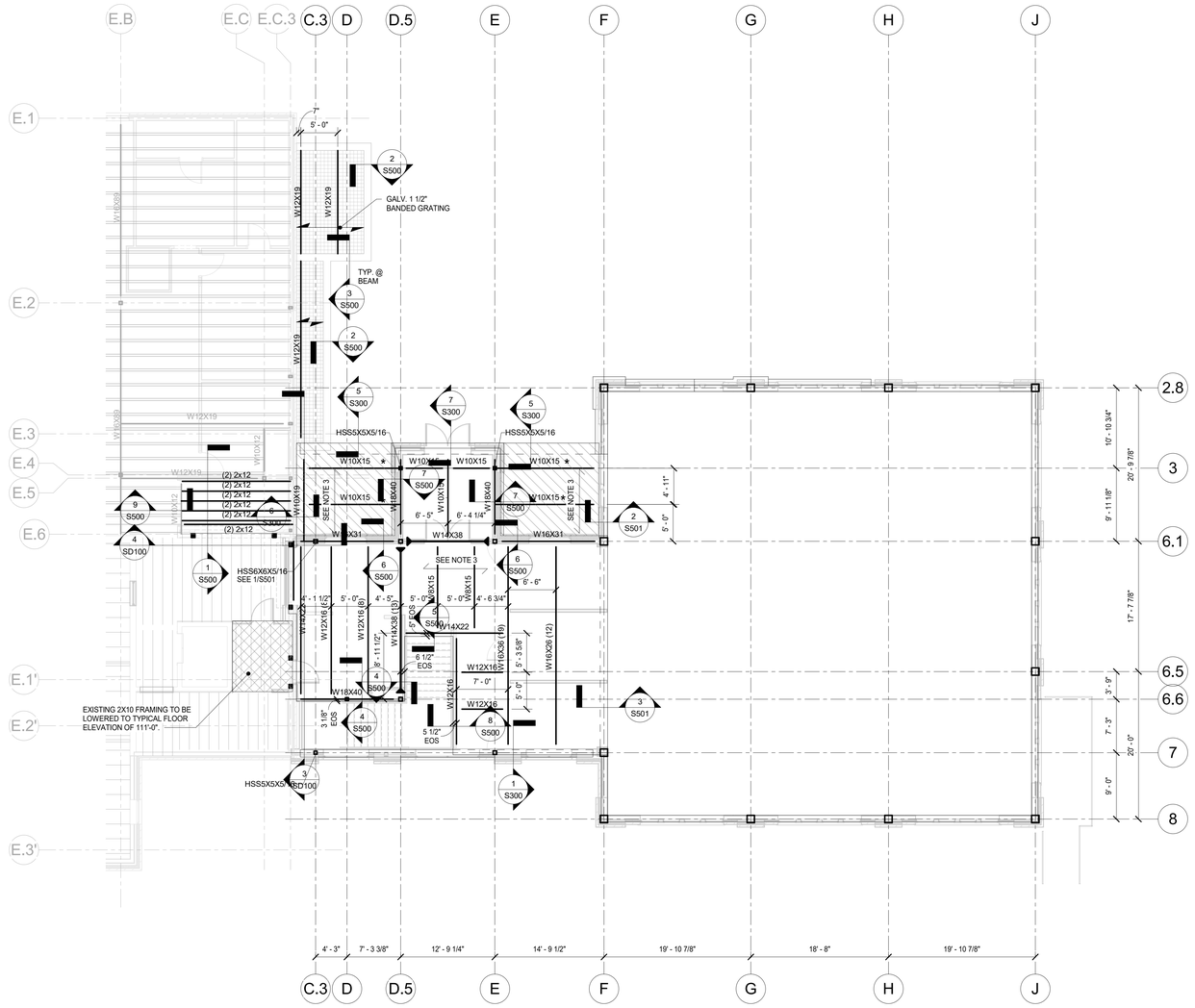
FOUNDATION PLAN - ALTERNATE #01

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S101.1
Checked: CMS	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt



1 S102 UPPER LEVEL FRAMING PLAN

1/8" = 1'-0"

PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. THE TOP OF STEEL ELEVATION SHALL BE (110'-7") U.N.O.
3. THE SLAB SHALL CONSISTS OF 3" NORMAL WEIGHT CONCRETE OVER 2" 20 GA GALVANIZED COMPOSITE METAL DECK (5" TOTAL THICKNESS) REINFORCED WITH A NON-METALLIC FIBERMESH EQUIVALENT TO 6x6 - W2.1/W2.1 WIRE MESH REINFORCING IN SHEET FORM. TOP OF SLAB SHALL BE AT ELEVATION (111'-0")± (V.I.F.) MATCH EXISTING FLOOR ELEVATION.
4. PROVIDE FULL DEPTH SHEAR CONNECTIONS FOR ALL FRAMING MEMBERS. REFER TO NOTE 12 ON SHEET S001 UNDER STRUCTURAL STEEL FOR CONNECTION REQUIREMENTS.
5. "EOS" REFERS TO NOMINAL PERIMETER BENT PLATE/ANGLE AT EDGE OF SLAB. ALL PERIMETER BENT PLATES/ANGLES SHALL BE FIELD INSTALLED. THE BENT PLATE/ANGLE SHALL BE FIELD ALIGNED WITH THE ARCHITECTURAL BUILDING LINE TAKING INTO ACCOUNT ALL TOLERANCES IN FABRICATION AND ERECTION. REFER TO TYPICAL DETAILS FOR BENT PLATE/ANGLE FABRICATION AND INSTALLATON REQUIREMENTS.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS. REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OR WORK.
7. (★) INDICATES TOP OF STEEL ELEVATION (110'-0").
8. (▶) INDICATES A LATERAL MOMENT CONNECTION. REFER TO DETAIL 6/S006 FOR ADDITIONAL DETAILS.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

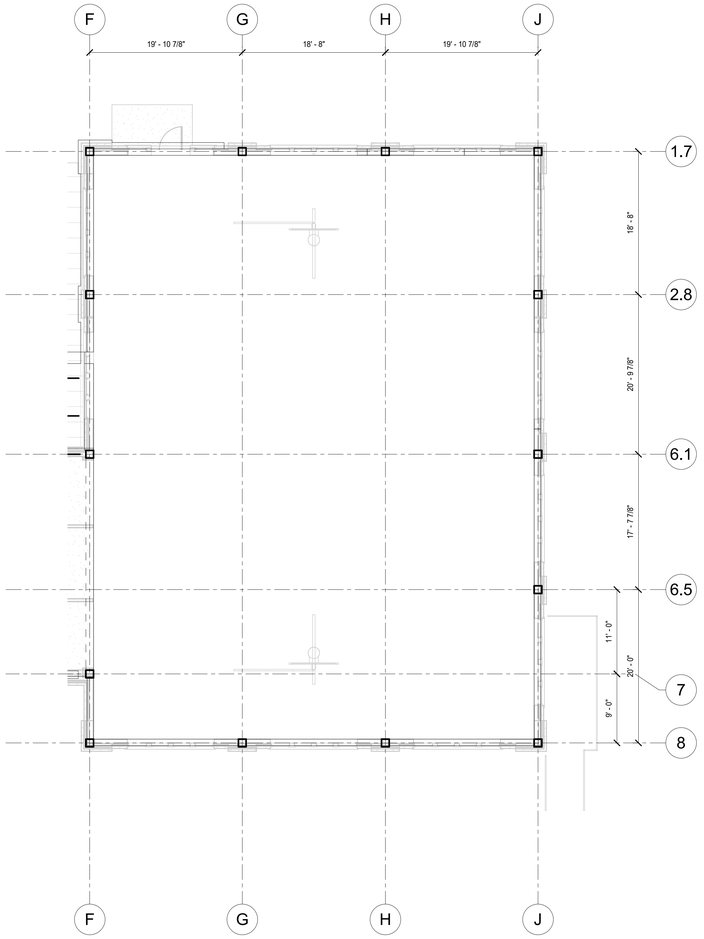
UPPER LEVEL FRAMING PLAN

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comms. No. 22106.00	Date 2023/11/10
Drawn JCB	Drawing No. S102
Checked CMS	

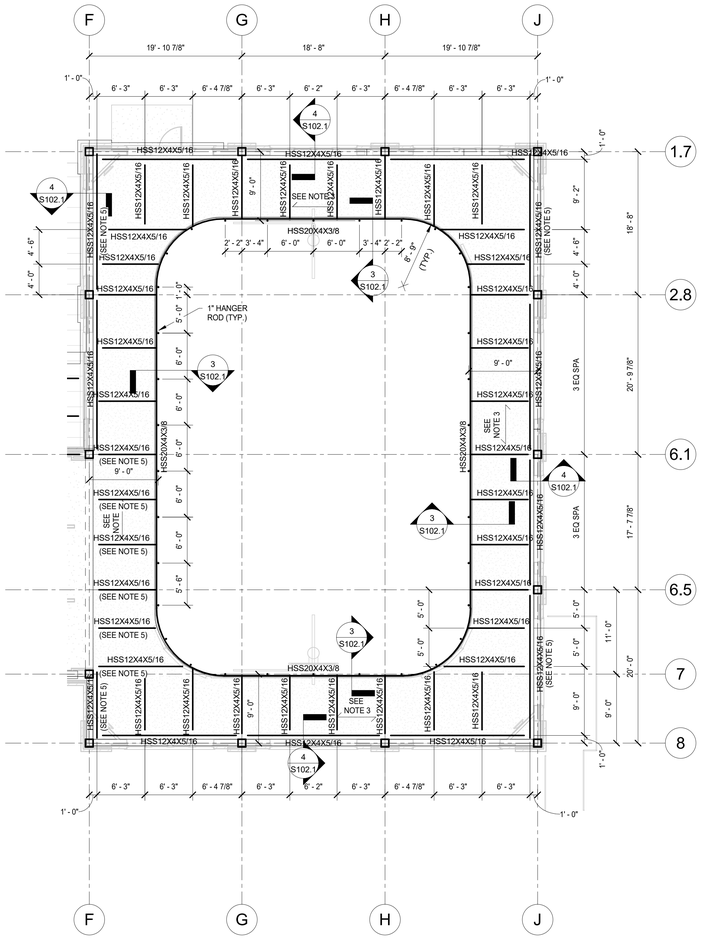
© 2023 LWC INCORPORATED

11/13/2023 1:53:43 PM



2 S102.1 UPPER LEVEL FRAMING PLAN - ALTERNATE #01

1/8" = 1'-0"

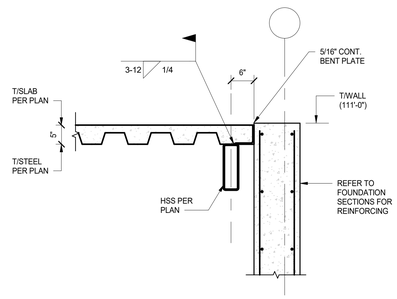


1 S102.1 UPPER LEVEL FRAMING PLAN - ALTERNATE #03

1/8" = 1'-0"

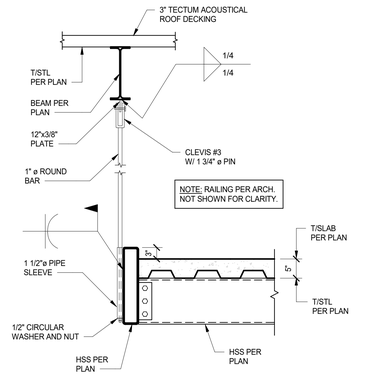
PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. THE TOP OF STEEL ELEVATION SHALL BE (110'-6 1/2") U.N.O.
3. THE SLAB SHALL CONSISTS OF 3" NORMAL WEIGHT CONCRETE OVER 2" 20 GA GALVANIZED COMPOSITE METAL DECK (5" TOTAL THICKNESS) REINFORCED WITH A NON-METALLIC FIBERMESH EQUIVALENT TO 6x6 - W2.1xW2.1 WIRE MESH REINFORCING IN SHEET FORM. TOP OF SLAB SHALL BE AT ELEVATION (110'-11 1/2").
4. PROVIDE FULL DEPTH SHEAR CONNECTIONS FOR ALL FRAMING MEMBERS. REFER TO NOTE 12 ON SHEET S001 UNDER STRUCTURAL STEEL FOR CONNECTION REQUIREMENTS.
5. PROVIDE EMBEDS IN CONCRETE WALL PER TYPICAL DETAIL IF ALTERNATE #03 IS ACCEPTED. DISREGARD EMBEDS IF ALTERNATE #03 IS NOT ACCEPTED.



4 S102.1 SECTION

3/4" = 1'-0"



3 S102.1 SECTION

3/4" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.30.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

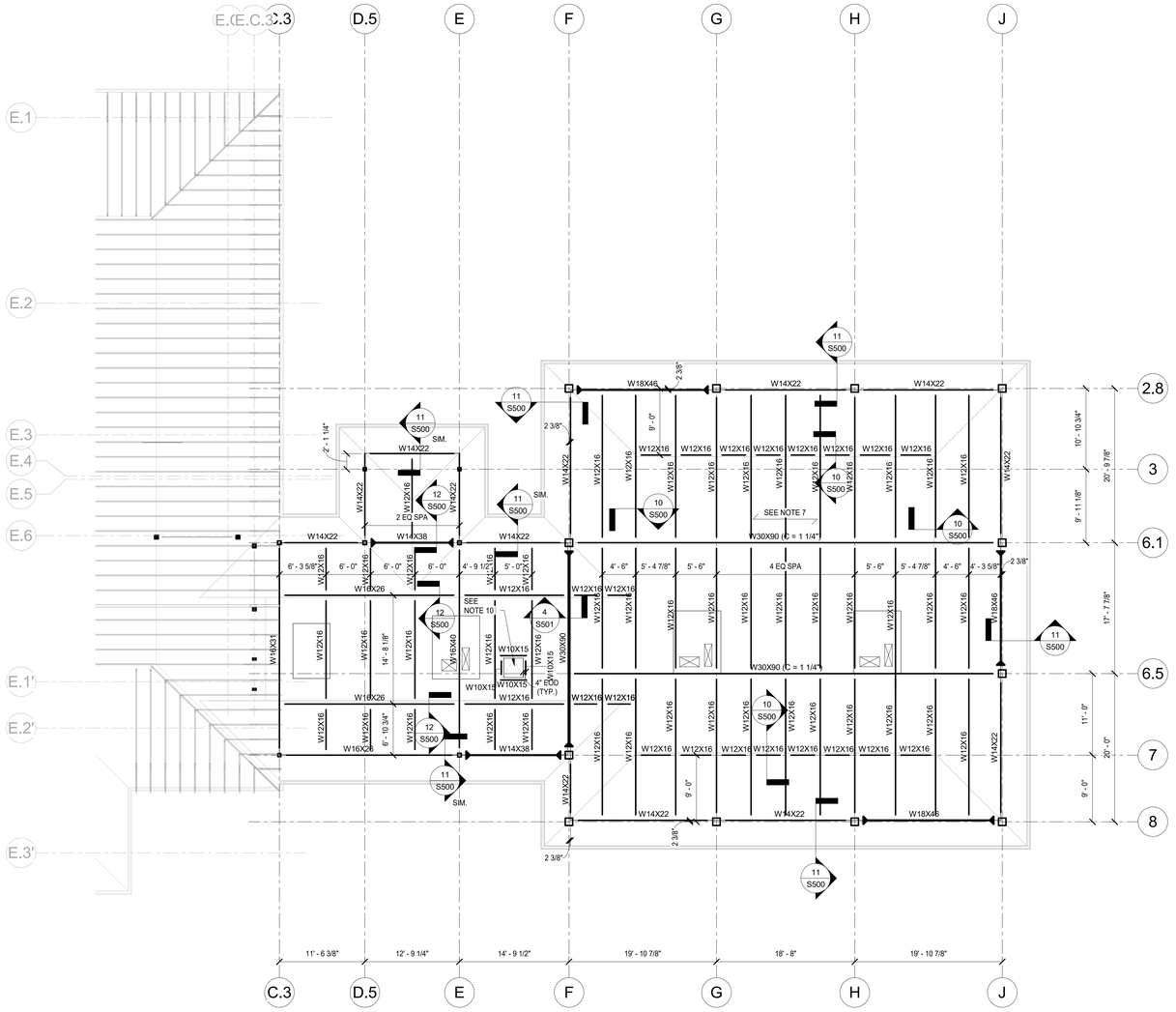
UPPER LEVEL FRAMING PLAN - ALTERNATE #01 AND ALTERNATE #03

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S102.1
Checked: CMS	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt



1 S103 ROOF FRAMING PLAN
1/8" = 1'-0"

PLAN NOTES:

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. THE G.C. SHALL COORDINATE THE SIZE AND LOCATION OF ALL ROOF PENETRATIONS WITH THE VARIOUS TRADES AND PROVIDE STEEL FRAMING PER TYPICAL THE DETAILS.
3. THE TOP OF STEEL ELEVATION SHALL BE (124'-8") U.N.O.
4. ROOF DECK SHALL BE 3" (TYPE N) GALVANIZED 20 GAGE METAL ROOF DECK.
5. PROVIDE FULL DEPTH SHEAR CONNECTIONS FOR ALL FRAMING MEMBERS. REFER TO NOTE 12 ON SHEET S001 UNDER STRUCTURAL STEEL FOR CONNECTION REQUIREMENTS.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OR WORK.
7. ROOF DECK SHALL BE 3" TECTUM I LONG SPAN (LS) PLAN STRUCTURAL ACOUSITCAL ROOF DECK OR APPROVED EQUAL.
8. (▲) INDICATES A LATERAL MOMENT CONNECTION. REFER TO DETAIL 6/S006 FOR ADDITIONAL DETAILS.
9. THE BEAMS SHALL BE PROVIDED WITH CAMBER AS NOTED ON THE PLAN AS "C=X". BEAMS WITHOUT THIS DESIGNATION ARE NOT CAMBERED. ALL CAMBER SHALL BE ORIENTED UP.
10. ROOF HATCH. GC TO COORDINATE OPENING WITH THE ROOF HATCH MANUFACTURER.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

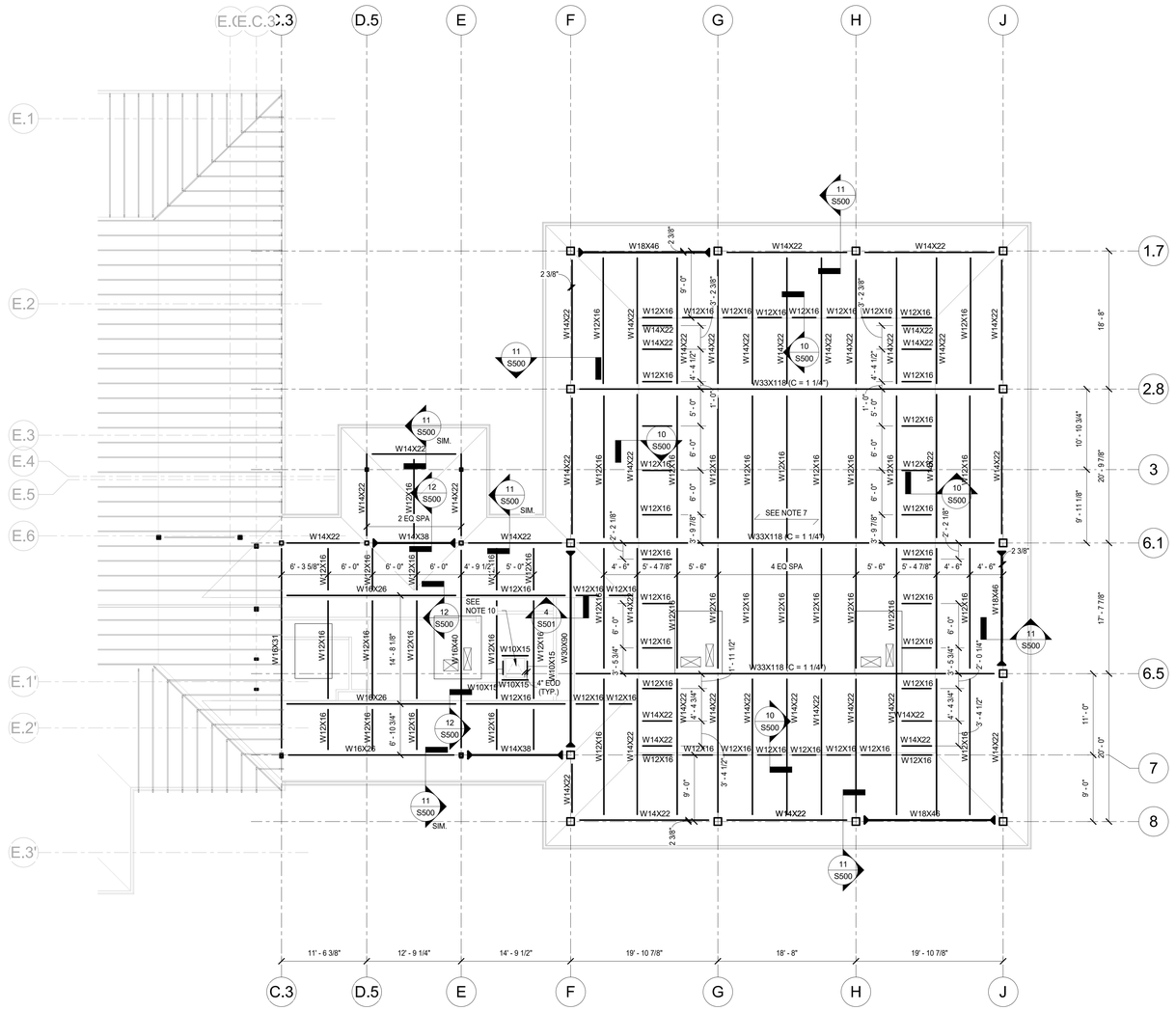
ROOF FRAMING PLAN

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S103
Checked: CMS	

© 2023 LWC INCORPORATED

11/13/2023 1:53:50 PM



1 S103.1 ROOF FRAMING PLAN - ALTERNATE #01

1/8" = 1'-0"

PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. THE G.C. SHALL COORDINATE THE SIZE AND LOCATION OF ALL ROOF PENETRATIONS WITH THE VARIOUS TRADES AND PROVIDE STEEL FRAMING PER THE TYPICAL DETAILS.
3. THE TOP OF STEEL ELEVATION SHALL BE (124'-6") U.N.O.
4. ROOF DECK SHALL BE 3" (TYPE N) GALVANIZED 20 GAGE METAL ROOF DECK.
5. PROVIDE FULL DEPTH SHEAR CONNECTIONS FOR ALL FRAMING MEMBERS. REFER TO NOTE 12 ON SHEET S001 UNDER STRUCTURAL STEEL FOR CONNECTION REQUIREMENTS.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OR WORK.
7. ROOF DECK SHALL BE 3" TECTUM I LONG SPAN (LS) PLAN STRUCTURAL ACOUSITCAL ROOF DECK OR APPROVED EQUAL.
8. (▶) INDICATES A LATERAL MOMENT CONNECTION. REFER TO DETAIL 6/S006 FOR ADDITIONAL DETAILS.
9. THE BEAMS SHALL BE PROVIDED WITH CAMBER AS NOTED ON THE PLAN AS "C=X". BEAMS WITHOUT THIS DESIGNATION ARE NOT CAMBERED. ALL CAMBER SHALL BE ORIENTED UP.
10. ROOF HATCH. GC TO COORDINATE OPENING WITH THE ROOF HATCH MANUFACTURER.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ROOF FRAMING PLAN - ALTERNATE #01

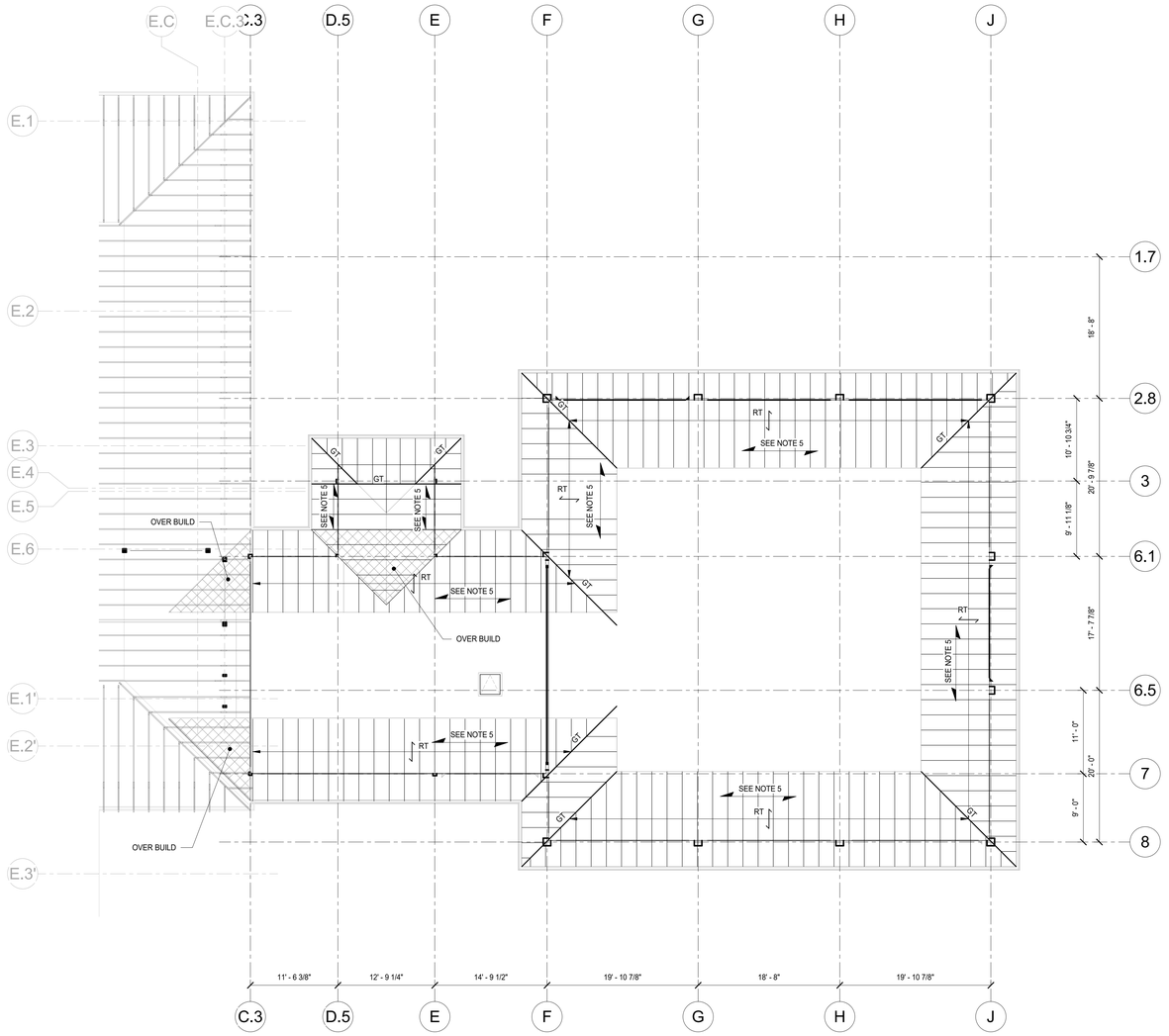
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.
Checked: CMS	S103.1

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

11/13/2023 1:53:52 PM



1 S104 ROOF TRUSS FRAMING PLAN
1/8" = 1'-0"

PLAN NOTES.

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. TRUSS BEARING ELEVATION SHALL BE (124'-9 3/4") U.N.O.
3. "GT" REFERS TO GIRDER TRUSSES.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OR WORK.
5. ROOF DECKING SHALL BE 5/8" APA RATED SHEATHING. GRADE SHEATHING NAILED TO ROOF FRAMING.
6. SHOWN REPRESENTS TRUSS SPAN DIRECTION AND BASIC DESIGN INTENT ONLY. REFER TO TRUSS MANUFACTURER'S APPROVED SHOP DRAWINGS FOR PLACEMENT, DIMENSIONS, BRACING AND CONNECTIONS. THIS DRAWING SHALL NOT BE USED FOR PLACEMENT OF TRUSSES.
7. "RT" REFERS TO ROOF TRUSSES. ROOF TRUSSES SHALL SPACED AT 24" O.C. MAX.
8. ROOF TRUSSES SHALL BE ANCHORED AT EACH END TO THE BEARING MEMBER USING SIMPSON A34 CLIPS ON EACH SIDE OR APPROVED EQUAL.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240

ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ROOF TRUSS FRAMING PLAN

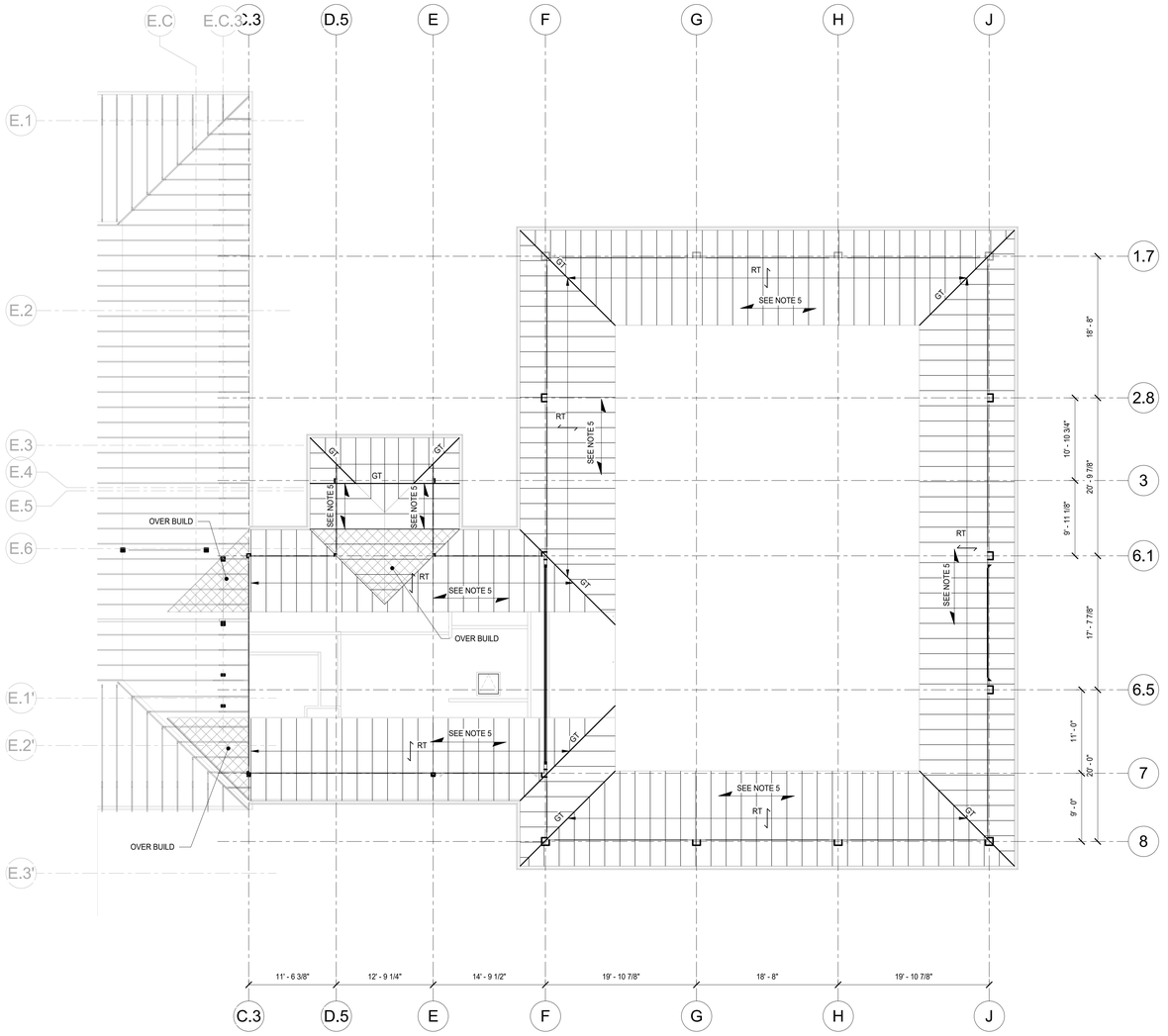
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER
Chad M. Smitley

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S104
Checked: CMS	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

11/13/2023 1:53:54 PM



1 S104.1 ROOF TRUSS FRAMING PLAN - ALTERNATE #01

1/8" = 1'-0"

PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. TRUSS BEARING ELEVATION SHALL BE (124'-9 3/4") U.N.O.
3. "GT" REFERS TO GIRDER TRUSSES.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO ANY CONSTRUCTION AND CONTACT A/E WITH ANY DISCREPANCIES PRIOR TO ANY FABRICATIONS OR WORK.
5. ROOF DECKING SHALL BE 5/8" APA RATED SHEATHING. GRADE SHEATHING NAILED TO ROOF FRAMING.
6. SHOWN REPRESENTS TRUSS SPAN DIRECTION AND BASIC DESIGN INTENT ONLY. REFER TO TRUSS MANUFACTURER'S APPROVED SHOP DRAWINGS FOR PLACEMENT, DIMENSIONS, BRACING AND CONNECTIONS. THIS DRAWING SHALL NOT BE USED FOR PLACEMENT OF TRUSSES.
7. "RT" REFERS TO ROOF TRUSSES. ROOF TRUSSES SHALL SPACED AT 24" O.C. MAX.
8. ROOF TRUSSES SHALL BE ANCHORED AT EACH END TO THE BEARING MEMBER USING SIMPSON A34 CLIPS ON EACH SIDE OR APPROVED EQUAL.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.30.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240

ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ROOF TRUSS FRAMING PLAN - ALTERNATE #01

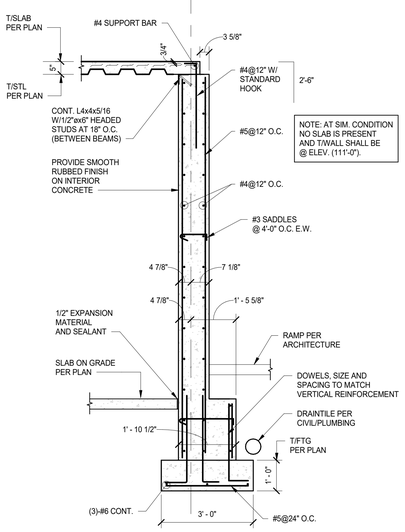
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No. S104.1
Checked: CMS	

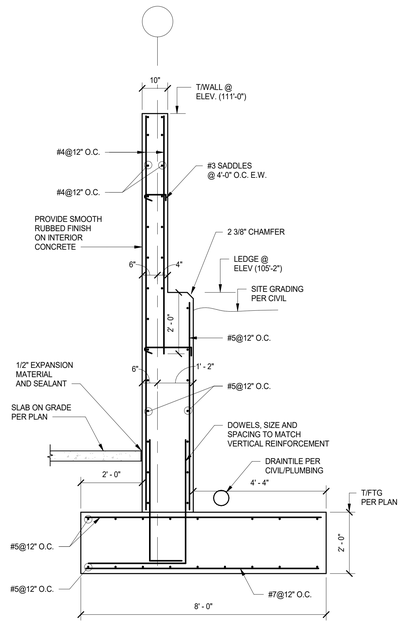
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

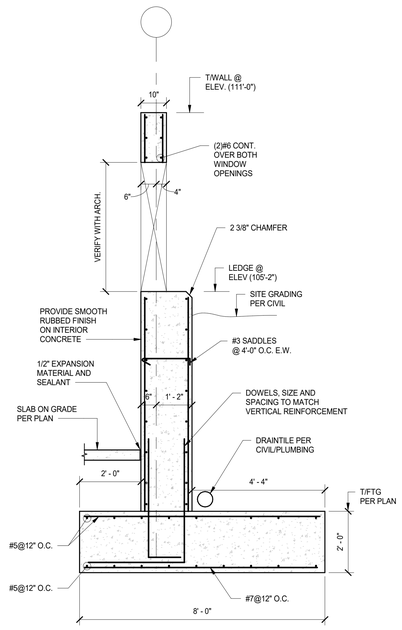
11/13/2023 1:53:56 PM



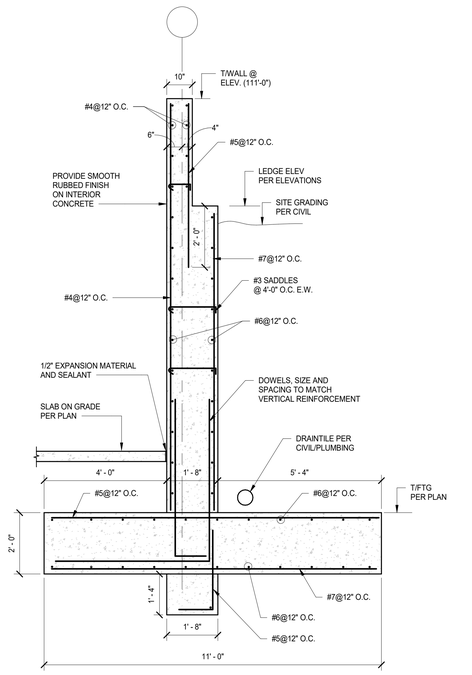
1 S300 SECTION
1/2" = 1'-0"



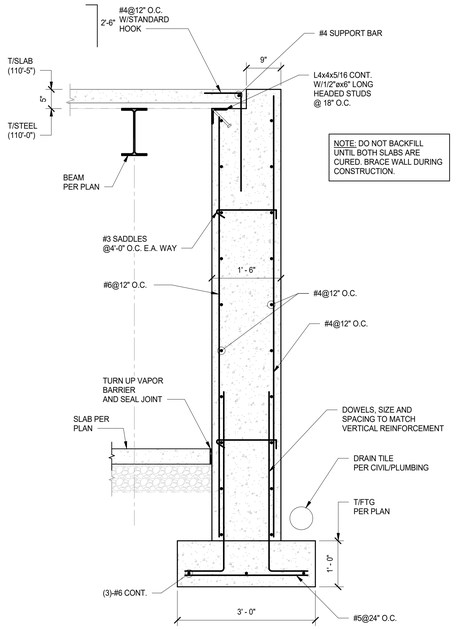
2 S300 SECTION
1/2" = 1'-0"



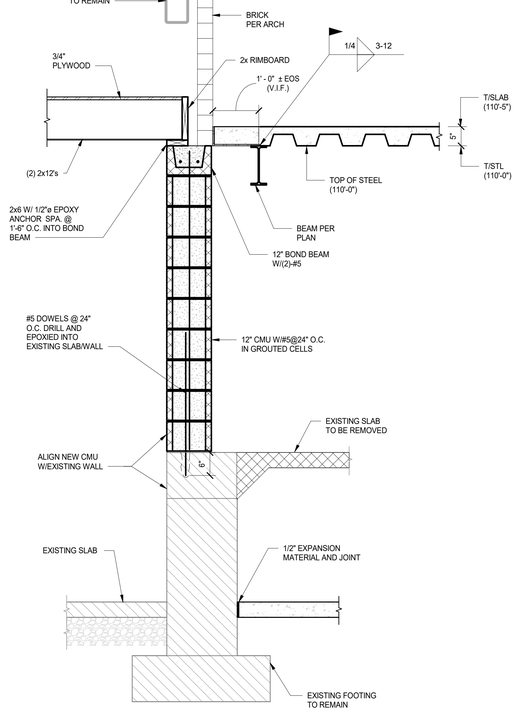
3 S300 SECTION
1/2" = 1'-0"



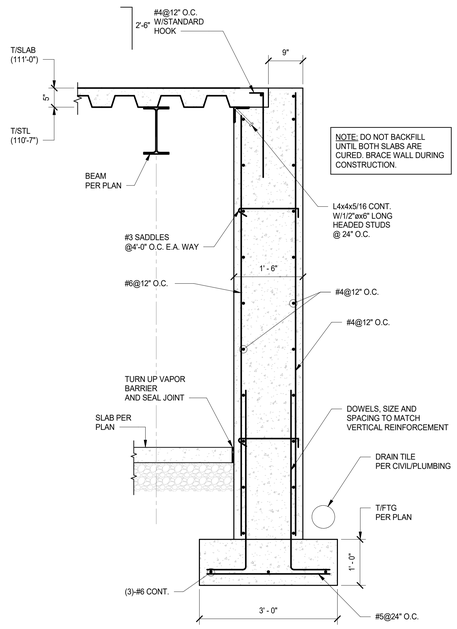
4 S300 SECTION
1/2" = 1'-0"



5 S300 SECTION
3/4" = 1'-0"



6 S300 SECTION
3/4" = 1'-0"



7 S300 SECTION
3/4" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

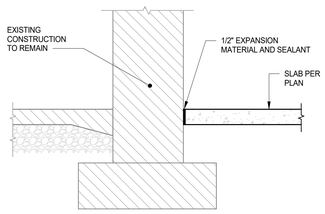
FOUNDATION SECTIONS AND DETAILS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER
Chad M. Smitley

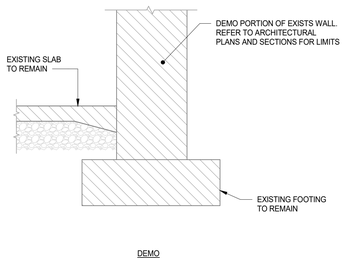
Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S300
Checked: CMS	

© 2023 LWC INCORPORATED

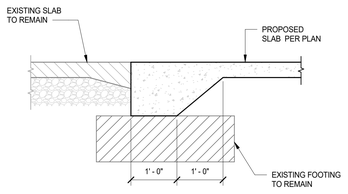
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt



1 S301 **SECTION**
3/4" = 1'-0"

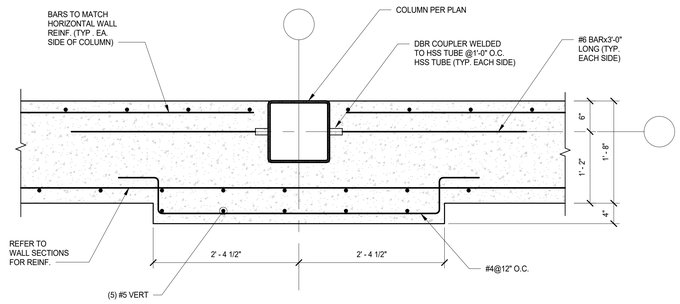


DEMO

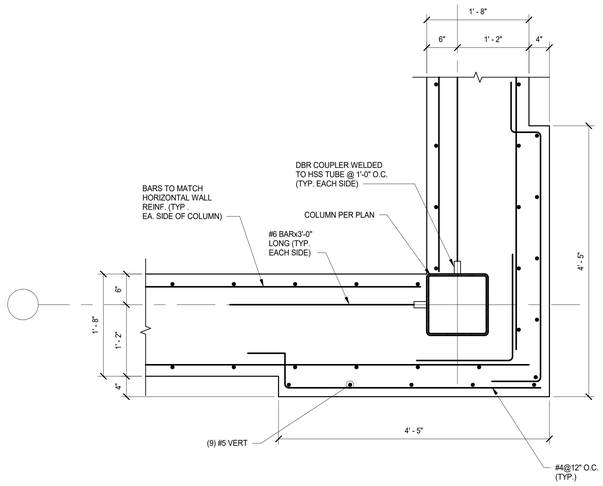


NEW

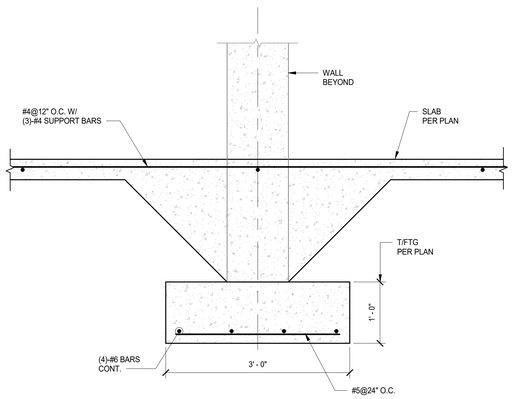
2 S301 **SECTION**
3/4" = 1'-0"



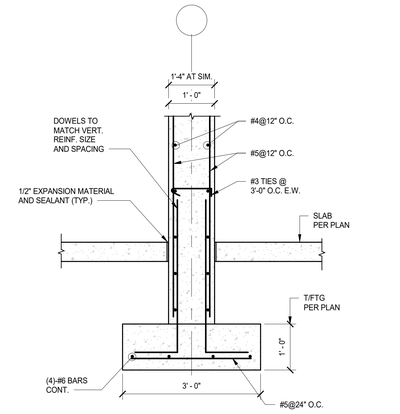
3 S301 **DETAIL**
1" = 1'-0"



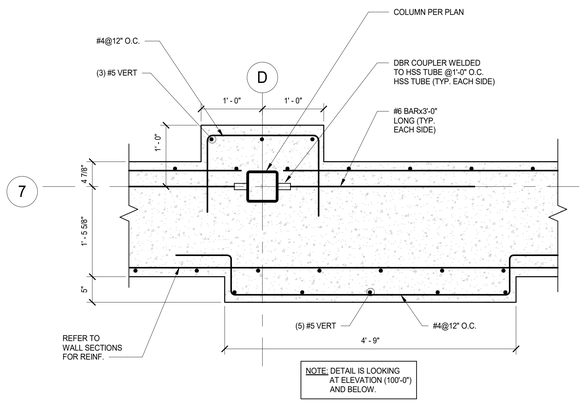
4 S301 **DETAIL**
1" = 1'-0"



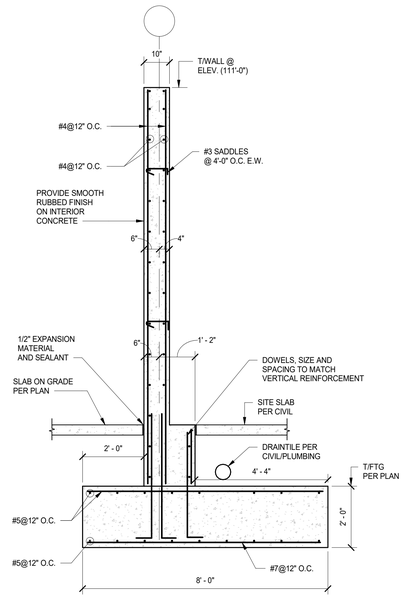
5 S301 **SECTION**
1" = 1'-0"



6 S301 **SECTION**
3/4" = 1'-0"



7 S301 **DETAIL**
1" = 1'-0"



8 S301 **SECTION**
1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.30.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240

ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

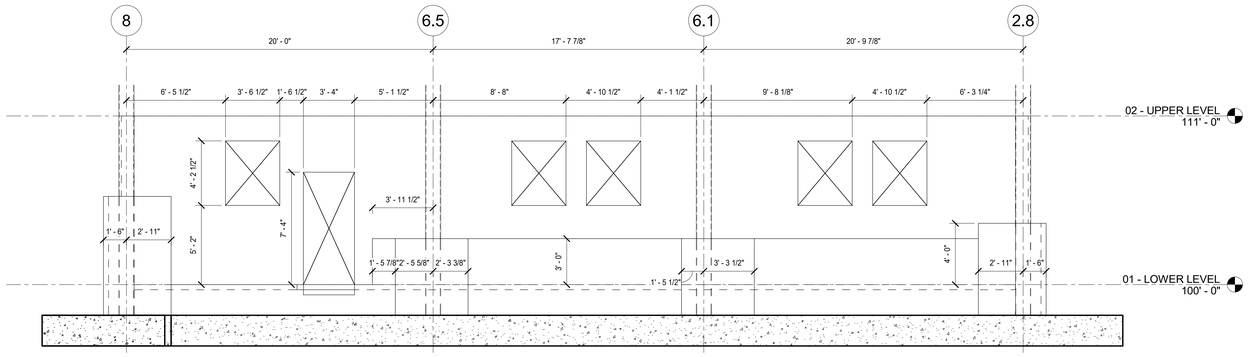
UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

FOUNDATION SECTIONS AND DETAILS

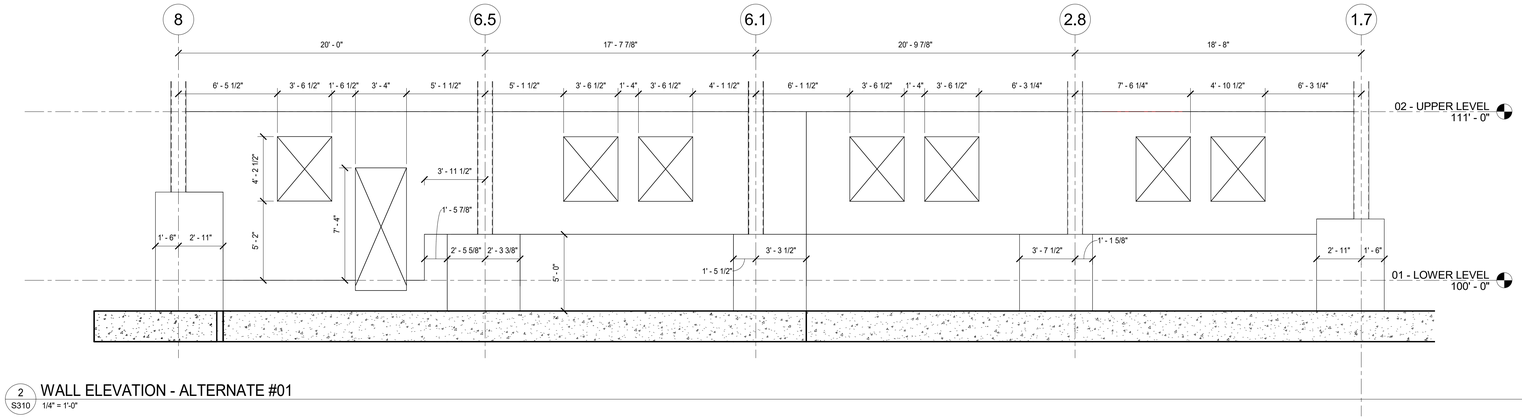
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S301
Checked: CMS	

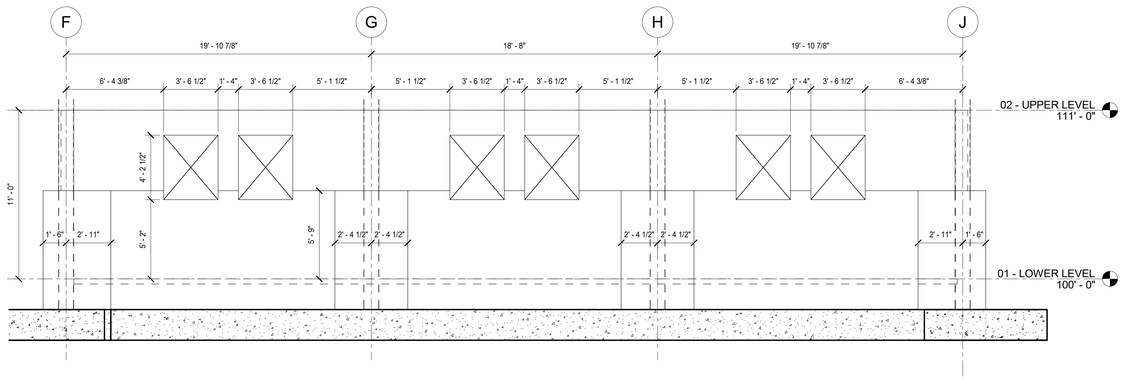
© 2023 LWC INCORPORATED



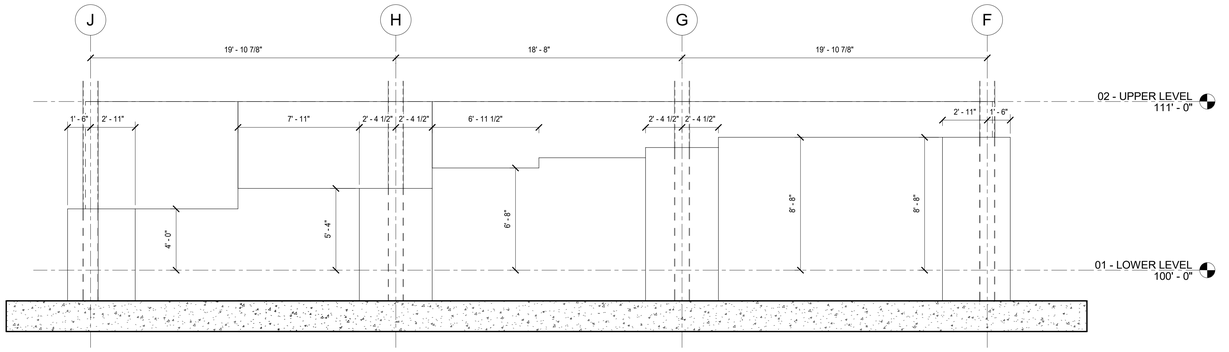
1 S310 WALL ELEVATION
1/4" = 1'-0"



2 S310 WALL ELEVATION - ALTERNATE #01
1/4" = 1'-0"



3 S310 WALL ELEVATION
1/4" = 1'-0"



4 S310 WALL ELEVATION - ALTERNATE #01 AND ALTERNATE #03
1/4" = 1'-0"

PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. FOR ADDITIONAL DIMENSIONS SEE ARCH. DWGS.
3. OPENINGS FOR DOORS AND WINDOWS AS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHOULD VERIFY ROUGH OPENINGS IN CONCRETE WITH THE WINDOW AND DOOR MANUFACTURER'S PRIOR TO ANY POURING OF CONCRETE.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.30.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

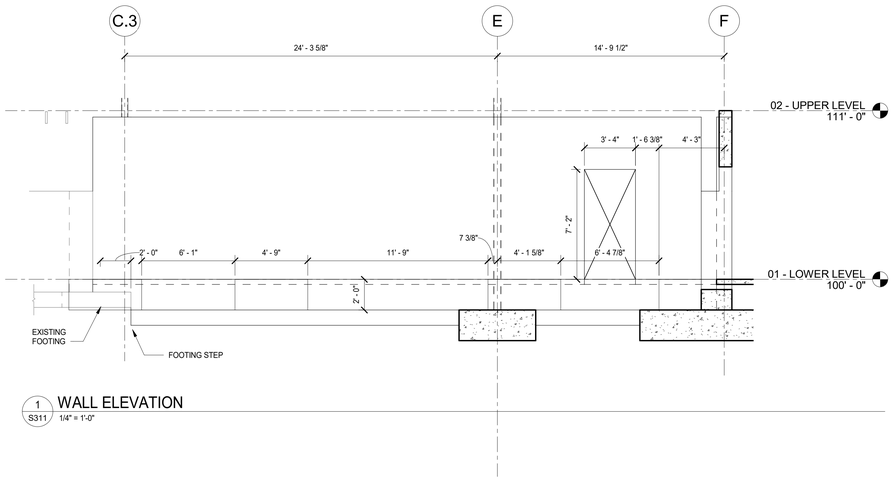
FOUNDATION WALL ELEVATIONS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

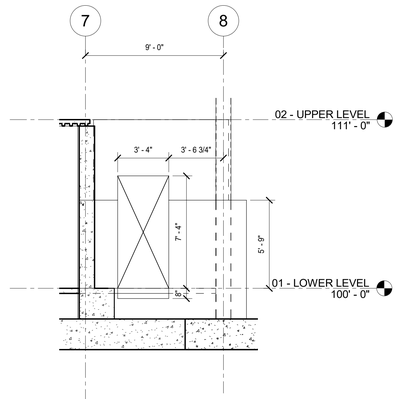
Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.: S310
Checked: CMS	

© 2023 LWC INCORPORATED

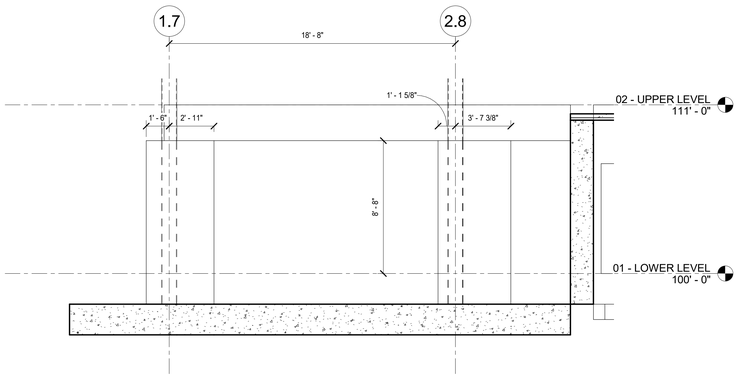
11/13/2023 1:54:00 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt



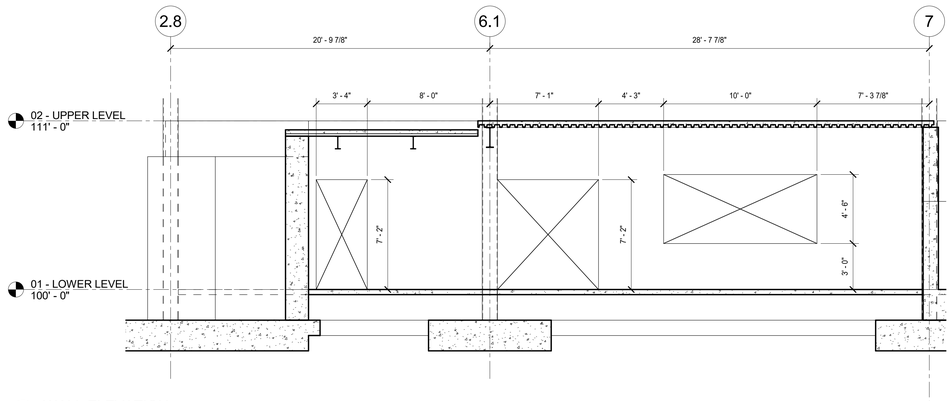
1 S311 WALL ELEVATION
1/4" = 1'-0"



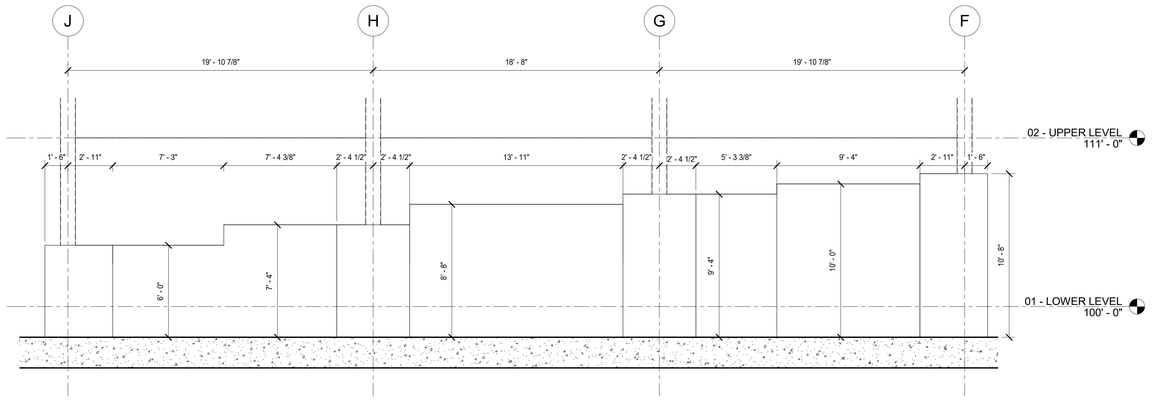
2 S311 WALL ELEVATION
1/4" = 1'-0"



3 S311 WALL ELEVATION - ALTERNATE #01
1/4" = 1'-0"



4 S311 WALL ELEVATION
1/4" = 1'-0"



5 S311 WALL ELEVATION
1/4" = 1'-0"

PLAN NOTES

1. REFER TO SHEETS S001-S006 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. FOR ADDITIONAL DIMENSIONS SEE ARCH. DWGS.
3. OPENINGS FOR DOORS AND WINDOWS AS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHOULD VERIFY ROUGH OPENINGS IN CONCRETE WITH THE WINDOW AND DOOR MANUFACTURER'S PRIOR TO ANY POURING OF CONCRETE.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

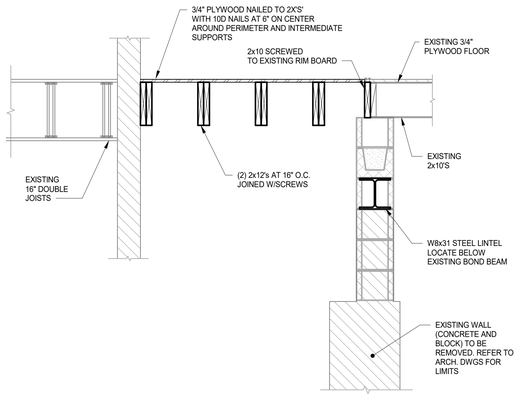
UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

FOUNDATION WALL ELEVATIONS

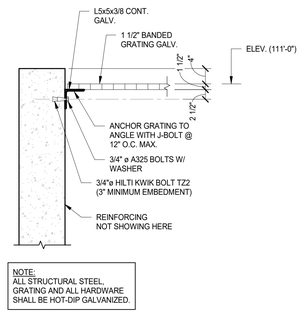
CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No. S311
Checked: CMS	

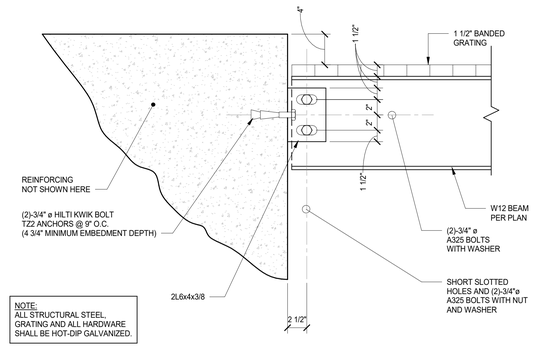
© 2023 LWC INCORPORATED



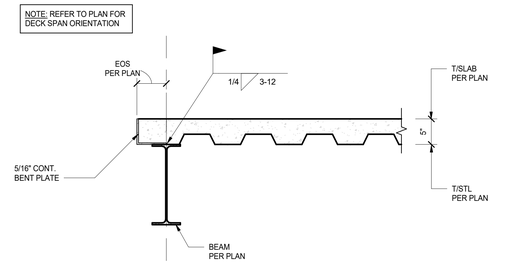
1 S500 SECTION
3/4" = 1'-0"



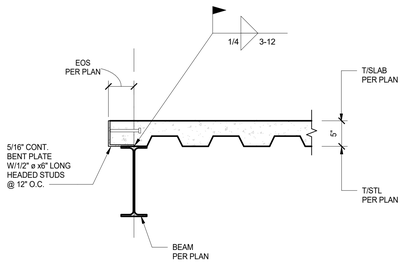
2 S500 SECTION
3/4" = 1'-0"



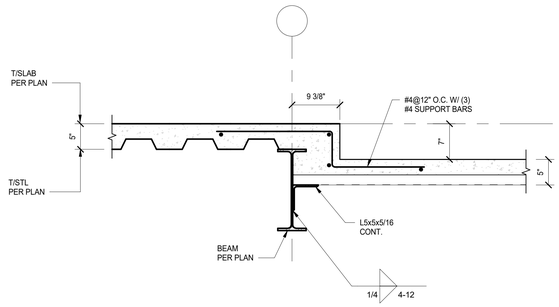
3 S500 SECTION
1 1/2" = 1'-0"



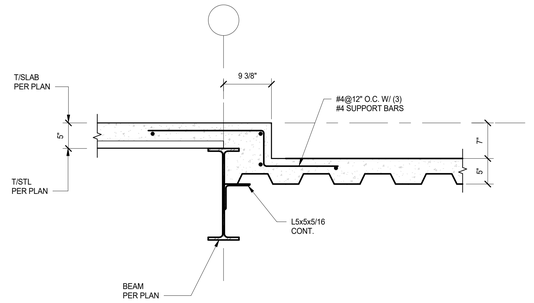
4 S500 SECTION
1" = 1'-0"



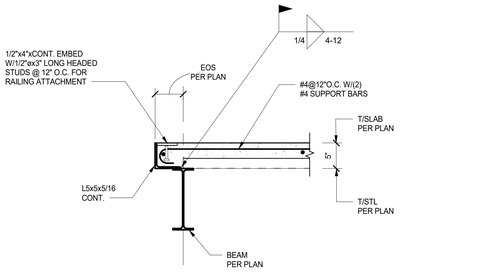
5 S500 SECTION
1" = 1'-0"



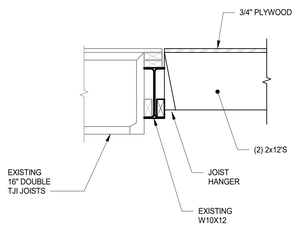
6 S500 SECTION
1" = 1'-0"



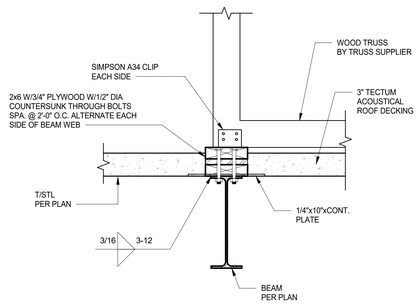
7 S500 SECTION
1" = 1'-0"



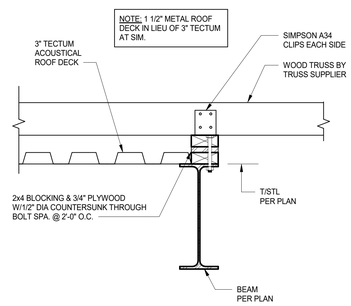
8 S500 SECTION
1" = 1'-0"



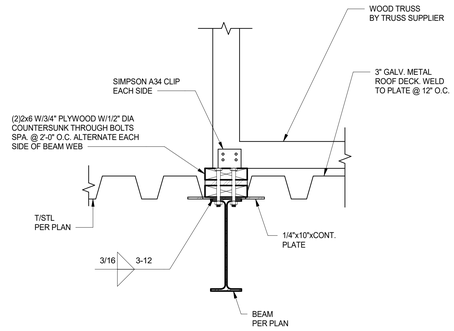
9 S500 SECTION
1" = 1'-0"



10 S500 SECTION
1 1/2" = 1'-0"



11 S500 SECTION
1 1/2" = 1'-0"



12 S500 SECTION
1 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240
ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

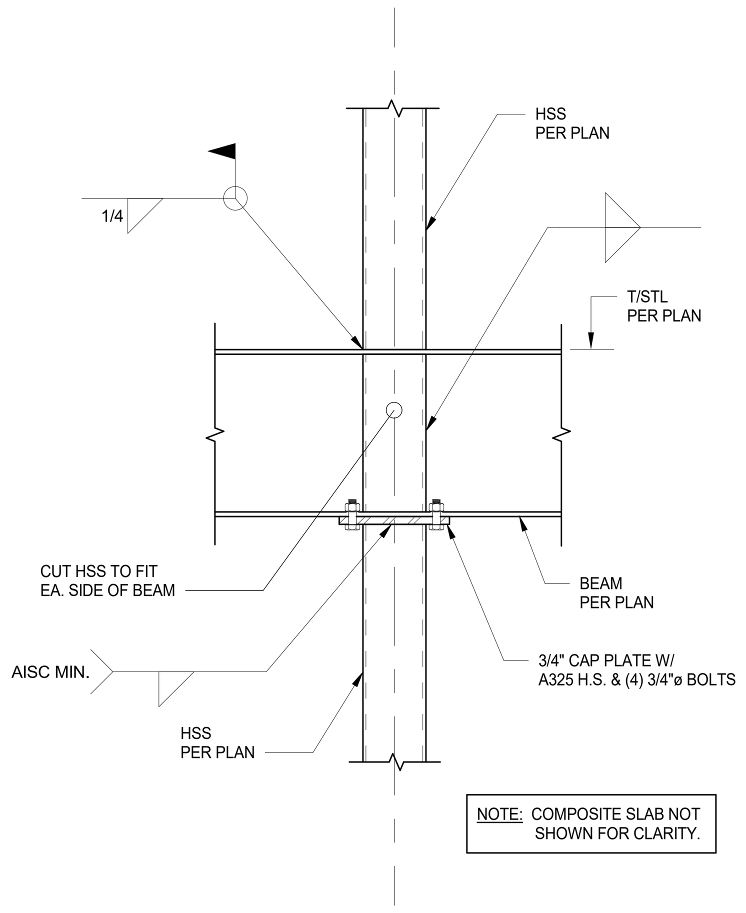
FRAMING SECTIONS AND DETAILS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

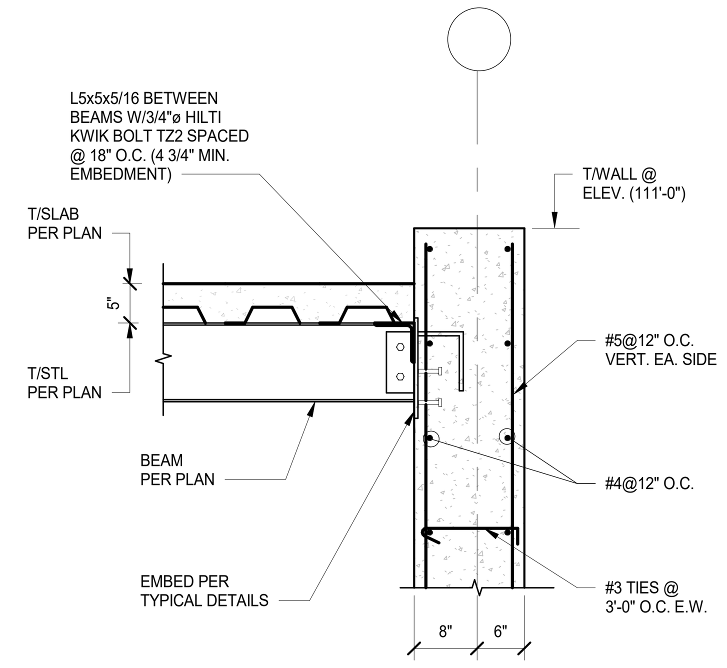
Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No. S500
Checked: CMS	

© 2023 LWC INCORPORATED

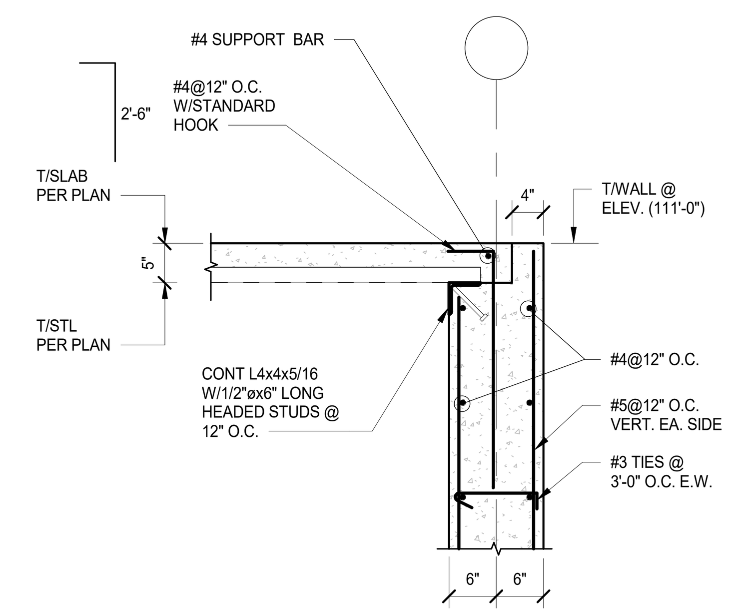
11/13/2023 1:54:06 PM



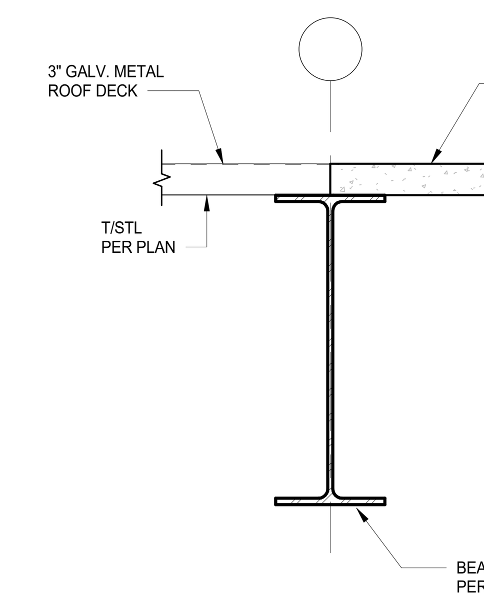
1 SECTION
S501 1" = 1'-0"



2 SECTION
S501 3/4" = 1'-0"



3 SECTION
S501 3/4" = 1'-0"



4 SECTION
S501 1" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

JPS CONSULTING ENGINEERS, LLC
9365 Counselors Row, Suite 116
Indianapolis, IN 46240

ph 317.617.4270
www.jpsconsultingengineers.com

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

FRAMING SECTIONS AND DETAILS

CHAD M. SMITLEY REGISTERED No. PE10200632 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JCB	Drawing No.
Checked: CMS	S501

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - Struct - (R22).rvt

11/15/2023 7:30:16 AM

FLOOR PLAN LEGEND

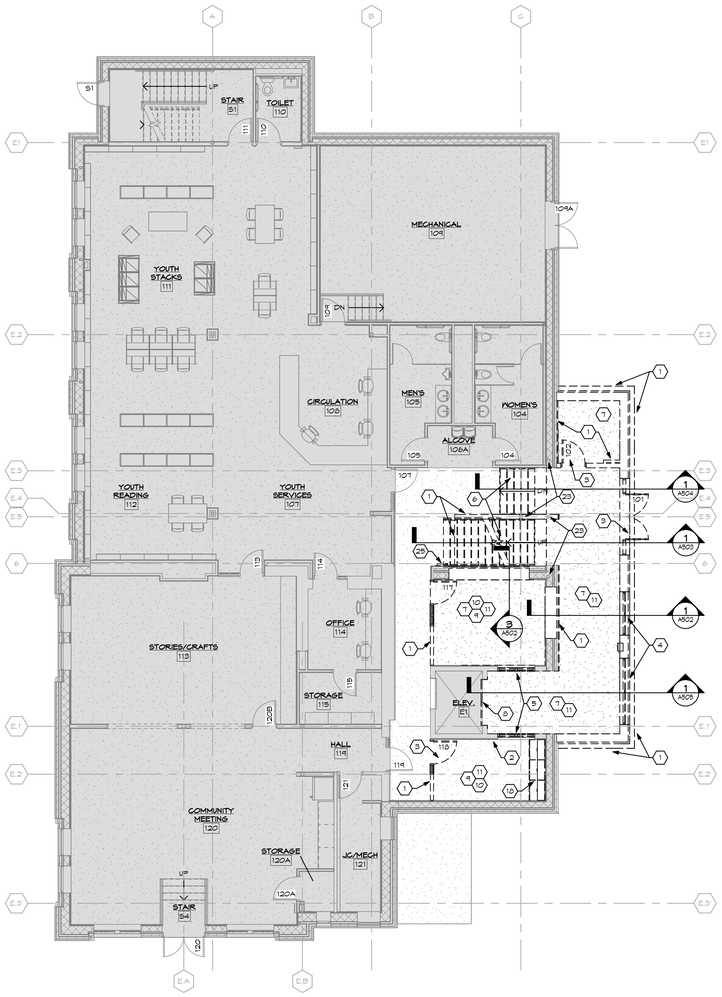
TYPICAL FOR ALL SHEETS.
SEE GENERAL (G SERIES) SHEETS FOR ADDITIONAL SYMBOLS

- WALL TO BE DEMOLISHED
- CMU BLOCK WALL
- METAL STUDS WITH DRYWALL AND SOUND ATTENUATION BLANKETS
- CONTROL JOINT (SEE DIMENSIONED FLOOR PLANS FOR LOCATIONS)
- 1 HOUR RATED FIRE BARRIER
- 2 HOUR RATED FIRE WALL
- CE — CARPET EDGE
- VE — VINYL EDGE
- MT — MARBLE THRESHOLD

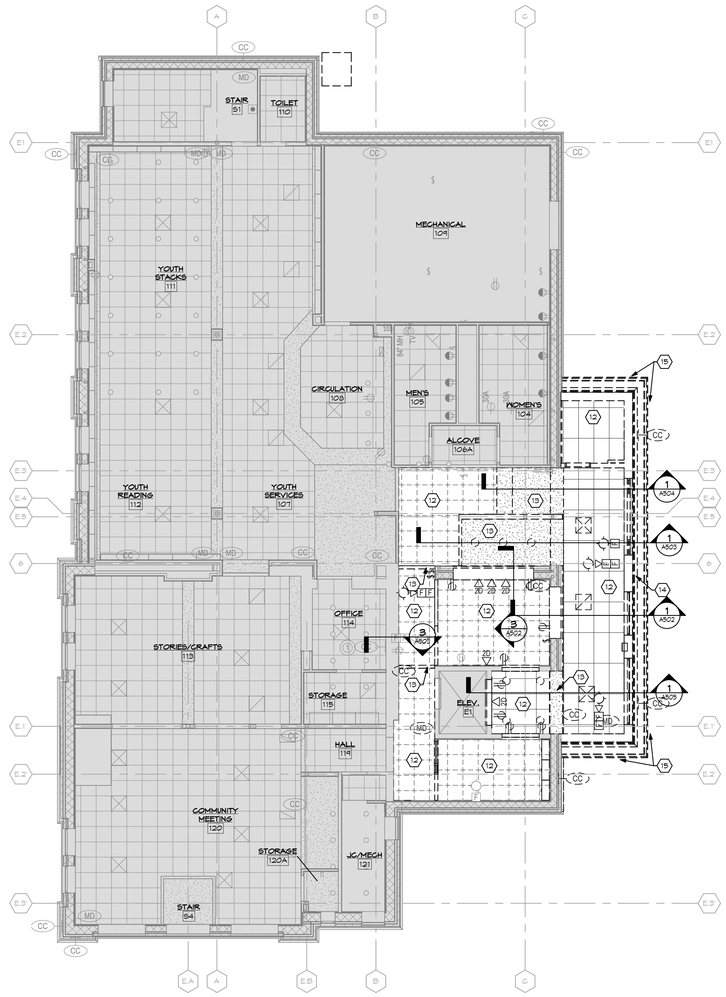
REFLECTED CEILING PLAN LEGEND

TYPICAL FOR ALL SHEETS.
SEE GENERAL (G SERIES) SHEETS FOR ADDITIONAL SYMBOLS

- ROW OF CEILING TILE TO BE CUT
- DEMOLISH ACOUSTICAL LAY-IN TILE CEILING
- RECESSED LIGHT FIXTURES SQUARE, RECTANGULAR, ROUND (SEE ELECTRICAL DRAWINGS)
- SURFACE MOUNTED LIGHT FIXTURES (SEE ELECTRICAL DRAWINGS)
- ACOUSTICAL LAY-IN TILE CEILING
- PLASTER OR DRYWALL SURFACES
- GRILLES, DIFFUSERS, REGISTERS, ETC. (SEE MECHANICAL DRAWINGS)
- OCCUPANCY SENSOR (SEE ELECTRICAL DWGS.)
- CEILING DUPLEX RECEPTACLE (SEE ELECTRICAL DWGS.)
- CLASSROOM SOUND REINFORCEMENT SPEAKER
- EXIT LIGHTS
- HEATING UNITS
- SMOKE DETECTORS
- HEAT DETECTORS
- CEILING MOUNTED VIDEO PROJECTOR
- MOTION DETECTOR



1 LOWER LEVEL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2 LOWER LEVEL REFLECTED CEILING DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. REMOVE EXISTING WALL IN ITS ENTIRETY.
2. REMOVE PORTION OF EXISTING WALL AS INDICATED FOR NEW WORK.
3. REMOVE EXISTING DOOR AND FRAME.
4. REMOVE EXISTING WINDOW AND TRIM.
5. REMOVE EXISTING BORROW LIGHT FRAME.
6. REMOVE EXISTING WOOD STAIR, RAILING AND TRIM.
7. REMOVE EXISTING CONCRETE FLOOR SLAB.
8. REMOVE EXISTING ELEVATOR DOOR AND FRAME.
9. REMOVE EXISTING CARPET AND/OR VINYL TILE AND PREP. FOR NEW FINISH.
10. SALVAGE ALL EXISTING WOOD BASE THAT IS IN GOOD CONDITION TO BE REUSED AS NOTED ON NEW FINISH PLANS. CONTRACTOR TO VERIFY QUANTITIES OF REQUIRED BASE NEEDED FOR REUSE AS NOTED ON NEW FINISH PLAN.
11. REMOVE EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OWNER.
12. REMOVE EXISTING SUSPENDED ACOUSTICAL TILE CEILING AND GRID.
13. REMOVE EXISTING GYPSUM WALLBOARD SOFFIT AND/OR CEILING.
14. REMOVE EXISTING WOOD SOFFIT AND TRIM.
15. REMOVE EXISTING WOOD FASCIA, GUTTER AND DOWNSPOUTS.
16. REMOVE EXISTING ROOF STRUCTURE, ROOFING AND FLASHING IN ITS ENTIRETY.
17. REMOVE EXISTING COUNTERTOP AND SUPPORTS.
18. REMOVE EXISTING CASEWORK AND COUNTERTOP.
19. REMOVE PORTION OF EXISTING WOOD JOISTS AND SUBFLOOR AS REQUIRED FOR NEW WORK.
20. REMOVE PORTION OF EXISTING WOOD FASCIA AND GUTTER AS REQUIRED FOR NEW WORK.
21. REMOVE PORTION OF EXISTING WOOD SOFFIT AND TRIM.
22. REMOVE EXISTING COLUMN AND REPLACE WITH NEW. SEE STRUCTURAL DWGS.
23. EXISTING COLUMN TO REMAIN.
24. REMOVE EXISTING FINISH TO EXPOSE REMNANT WINDOW OPENINGS.
25. REMOVE EXISTING AED CABINET AND TURN OVER TO OWNER.
26. REMOVE EXISTING APPLIANCES AND TURN OVER TO OWNER.
27. REMOVE EXISTING MECHANICAL UNIT.

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "F2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FOCHE 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW GLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

LOWER LEVEL DEMOLITION FLOOR & REFLECTED CEILING PLANS

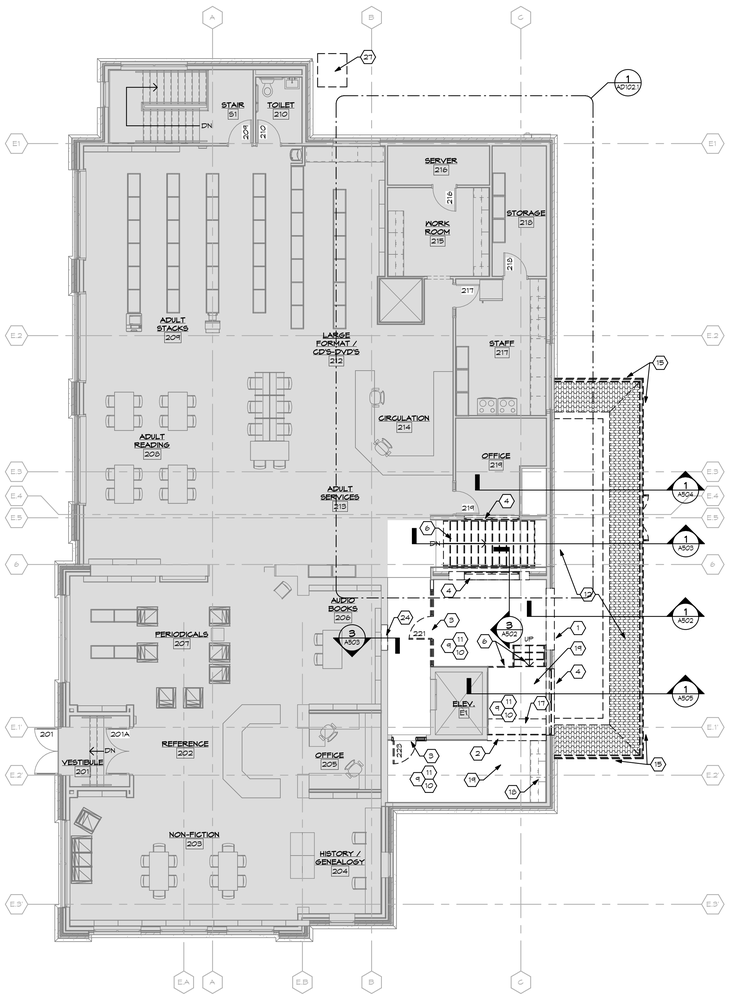
STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. AD101
Checked KRM	

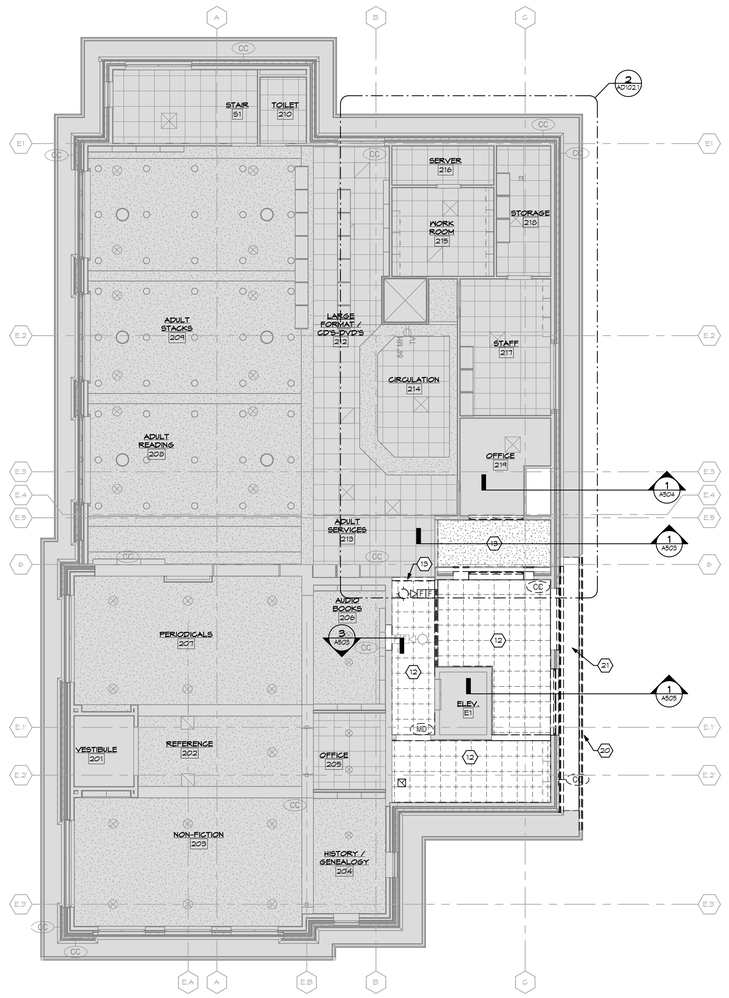
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/15/2023 7:31:56 AM



1 UPPER LEVEL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2 UPPER LEVEL REFLECTED CEILING DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. REMOVE EXISTING WALL IN ITS ENTIRETY.
2. REMOVE PORTION OF EXISTING WALL AS INDICATED FOR NEW WORK.
3. REMOVE EXISTING DOOR AND FRAME.
4. REMOVE EXISTING WINDOW AND TRIM.
5. REMOVE EXISTING BORROW LIGHT FRAME.
6. REMOVE EXISTING WOOD STAIR, RAILING AND TRIM.
7. REMOVE EXISTING CONCRETE FLOOR SLAB.
8. REMOVE EXISTING ELEVATOR DOOR AND FRAME.
9. REMOVE EXISTING CARPET AND/OR VINYL TILE AND PREP. FOR NEW FINISH.
10. SALVAGE ALL EXISTING WOOD BASE THAT IS IN GOOD CONDITION TO BE REUSED AS NOTED ON NEW FINISH PLANS. CONTRACTOR TO VERIFY QUANTITIES OF REQUIRED BASE NEEDED FOR REUSE AS NOTED ON NEW FINISH PLAN.
11. REMOVE EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OWNER.
12. REMOVE EXISTING SUSPENDED ACOUSTICAL TILE CEILING AND GRID.
13. REMOVE EXISTING GYPSUM WALLBOARD SOFFIT AND/OR CEILING.
14. REMOVE EXISTING WOOD SOFFIT AND TRIM.
15. REMOVE EXISTING WOOD FASCIA, GUTTER AND DOWNSPOUTS.
16. REMOVE EXISTING ROOF STRUCTURE, ROOFING AND FLASHING IN ITS ENTIRETY.
17. REMOVE EXISTING COUNTERTOP AND SUPPORTS.
18. REMOVE EXISTING CASEWORK AND COUNTERTOP.
19. REMOVE PORTION OF EXISTING WOOD JOISTS AND SUBFLOOR AS REQUIRED FOR NEW WORK.
20. REMOVE PORTION OF EXISTING WOOD FASCIA AND GUTTER AS REQUIRED FOR NEW WORK.
21. REMOVE PORTION OF EXISTING WOOD SOFFIT AND TRIM.
22. REMOVE EXISTING COLUMN AND REPLACE WITH NEW. SEE STRUCTURAL DWGS.
23. EXISTING COLUMN TO REMAIN.
24. REMOVE EXISTING FINISH TO EXPOSE REMNANT WINDOW OPENING.
25. REMOVE EXISTING AED CABINET AND TURN OVER TO OWNER.
26. REMOVE EXISTING APPLIANCES AND TURN OVER TO OWNER.
27. REMOVE EXISTING MECHANICAL UNIT.

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "F2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FOCHE 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

UPPER LEVEL DEMOLITION FLOOR & REFLECTED CEILING PLANS

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

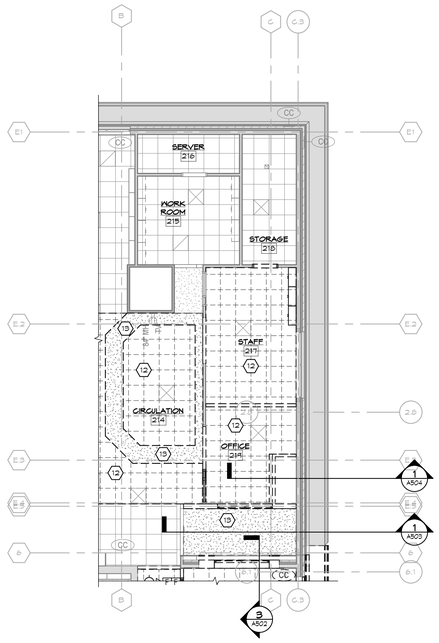
Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. AD102
Checked KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/15/2023 7:32:48 AM

ALTERNATE #04 - STAFF AREA - UPPER LEVEL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



ALTERNATE #04 - STAFF AREA - UPPER LEVEL REFLECTED CEILING DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. REMOVE EXISTING WALL IN ITS ENTIRETY.
2. REMOVE PORTION OF EXISTING WALL AS INDICATED FOR NEW WORK.
3. REMOVE EXISTING DOOR AND FRAME.
4. REMOVE EXISTING WINDOW AND TRIM.
5. REMOVE EXISTING BORROW LIGHT FRAME.
6. REMOVE EXISTING WOOD STAIR, RAILING AND TRIM.
7. REMOVE EXISTING CONCRETE FLOOR SLAB.
8. REMOVE EXISTING ELEVATOR DOOR AND FRAME.
9. REMOVE EXISTING CARPET AND/OR VINYL TILE AND PREP. FOR NEW FINISH.
10. SALVAGE ALL EXISTING WOOD BASE THAT IS IN GOOD CONDITION TO BE REUSED AS NOTED ON NEW FINISH PLANS. CONTRACTOR TO VERIFY QUANTITIES OF REQUIRED BASE NEEDED FOR REUSE AS NOTED ON NEW FINISH PLAN.
11. REMOVE EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OWNER.
12. REMOVE EXISTING SUSPENDED ACOUSTICAL TILE CEILING AND GRID.
13. REMOVE EXISTING GYPSUM WALLBOARD SOFFIT AND/OR CEILING.
14. REMOVE EXISTING WOOD SOFFIT AND TRIM.
15. REMOVE EXISTING WOOD FASCIA, GUTTER AND DOWNSPOUTS.
16. REMOVE EXISTING ROOF STRUCTURE, ROOFING AND FLASHING IN ITS ENTIRETY.
17. REMOVE EXISTING COUNTERTOP AND SUPPORTS.
18. REMOVE EXISTING CASEWORK AND COUNTERTOP.
19. REMOVE PORTION OF EXISTING WOOD JOISTS AND SUBFLOOR AS REQUIRED FOR NEW WORK.
20. REMOVE PORTION OF EXISTING WOOD FASCIA AND GUTTER AS REQUIRED FOR NEW WORK.
21. REMOVE PORTION OF EXISTING WOOD SOFFIT AND TRIM.
22. REMOVE EXISTING COLUMN AND REPLACE WITH NEW. SEE STRUCTURAL DWGS.
23. EXISTING COLUMN TO REMAIN.
24. REMOVE EXISTING FINISH TO EXPOSE REMNANT WINDOW OPENING.
25. REMOVE EXISTING AED CABINET AND TURN OVER TO OWNER.
26. REMOVE EXISTING APPLIANCES AND TURN OVER TO OWNER.
27. REMOVE EXISTING MECHANICAL UNIT.

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. ROOM 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE DEMOLITION PLANS

STATE OF INDIANA
KEVIN R. MCCURDY
11200136
REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: AD102.1
Checked: KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

DOOR SCHEDULE - BASE BID

NOTES:
1.

DOOR NO.	EXISTING / NEW	INTERIOR / EXTERIOR	SINGLE / PAIR	DOOR SIZE			DOOR			FRAME				HARDWARE SET #	FIRE RATING	REMARKS
												DETAILS				
				WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	JAMB	HEAD			
110	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM	J1	H1	01	20 MIN.	
120A	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM	J1	H1			
124	NEW	INT	COILING	8'-8"	8'-1"		D9	METAL	N/A	*	*	*	*		90 MIN.	COILING FIRE DOOR. * = REFER TO SECTIONS & DETAILS
125	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D6	WD	N/A	F1	HM	J2	H2	02	20 MIN.	NOTE #3
126	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D6	WD	N/A	F1	HM	J2	H2	02	20 MIN.	NOTE #3
127	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F4	HM	J1	H1	09	20 MIN.	NOTE #1
128	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	WD	N/A	F1	HM	J1	H1	03	N/A	
130	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	WD	N/A	F1	HM	J1	H1	01	20 MIN.	NOTE #1
130A	NEW	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D2	INSUL. METAL	1" INSUL., TEMP.	*	*	*	*	04	N/A	* = REFER TO SECTIONS & DETAILS
130B	NEW	INT	COILING	10'-0"	7'-4"		D5	METAL	N/A	*	*	*	*			COILING COUNTER DOOR. * = REFER TO SECTIONS & DETAILS
131	NEW	INT	PAIR	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM	J2	H2		20 MIN.	
132	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	WD	N/A	F1	HM	*	*			* = REFER TO SECTIONS & DETAILS
133	NEW	INT	PAIR	3'-0"	7'-0"	1 3/4"	D3	WD	1/4" TEMPERED	F1	HM	*	*	05	N/A	* = REFER TO SECTIONS & DETAILS; NOTE #1
133A	NEW	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D2	INSUL. METAL	1" INSUL., TEMP.	*	*	*	*	04	N/A	* = REFER TO SECTIONS & DETAILS
133B	NEW	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D2	INSUL. METAL	1" INSUL., TEMP.	*	*	*	*	04	N/A	* = REFER TO SECTIONS & DETAILS; NOTE #3
134	NEW	INT	PAIR	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM	J1	H1		20 MIN.	NOTE #2
221	NEW	INT	COILING	8'-0"	10'-0"		D9	METAL	N/A	*	*	*	*		90 MIN.	COILING FIRE DOOR. * = REFER TO SECTIONS & DETAILS
222	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM				90 MIN.	
223	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM	J1	H1			NOTE #1
224	NEW	EXT	PAIR	3'-0"	7'-2"	1 3/4"	D7	WD	1" INSUL., TEMP.	F2	HM	*	*	06	N/A	* = REFER TO SECTIONS & DETAILS; NOTE #1,3
224A	NEW	INT	PAIR	3'-0"	7'-2"	1 3/4"	D7	WD	1/4" TEMPERED	F3	HM	*	*	07	N/A	* = REFER TO SECTIONS & DETAILS; NOTE #3
225	NEW	INT	SINGLE	3'-0"	7'-0"	1/2"	ALL GLASS ENTRANCE	GLASS	1/2" TEMPERED	*	S.S.	*	*	08	N/A	* = REFER TO SECTIONS & DETAILS
226	NEW	INT	SINGLE	3'-0"	7'-0"	1/2"	ALL GLASS ENTRANCE	GLASS	1/2" TEMPERED	*	S.S.	*	*	08	N/A	* = REFER TO SECTIONS & DETAILS
227	NEW	INT	SINGLE	3'-0"	7'-0"	1/2"	ALL GLASS ENTRANCE	GLASS	1/2" TEMPERED	*	S.S.	*	*	08	N/A	* = REFER TO SECTIONS & DETAILS

DOOR SCHEDULE - ALTERNATE #03 - TRACK

NOTES:
1.

DOOR NO.	EXISTING / NEW	INTERIOR / EXTERIOR	SINGLE / PAIR	DOOR SIZE			DOOR			FRAME				HARDWARE SET #	FIRE RATING	REMARKS
												DETAILS				
				WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	JAMB	HEAD			
229	NEW	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D2	INSUL. METAL	1" INSUL., TEMP.	W-6	ALUM	*	*			ALTERNATE TRACK. * = REFER TO SECTIONS & DETAILS

DOOR SCHEDULE - ALTERNATE #04 - STAFF AREA

NOTES:
1.

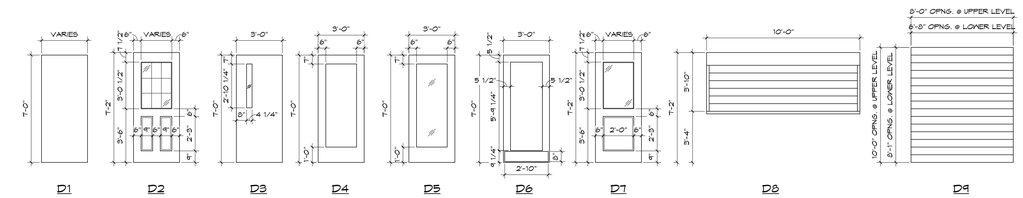
DOOR NO.	EXISTING / NEW	INTERIOR / EXTERIOR	SINGLE / PAIR	DOOR SIZE			DOOR			FRAME				HARDWARE SET #	FIRE RATING	REMARKS
												DETAILS				
				WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	JAMB	HEAD			
214A	NEW	INT	SINGLE	3'-0"	7'-0"	1/2"	ALL GLASS ENTRANCE	GLASS	1/2" TEMPERED	*	S.S.	*	*			SEE ALTERNATE. * = REFER TO SECTIONS & DETAILS
214B	NEW	INT	SINGLE	3'-0"	7'-0"	1/2"	ALL GLASS ENTRANCE	GLASS	1/2" TEMPERED	*	S.S.	*	*			SEE ALTERNATE. * = REFER TO SECTIONS & DETAILS
214C	NEW	INT	SINGLE	3'-0"	7'-0"	1/2"	ALL GLASS ENTRANCE	GLASS	1/2" TEMPERED	*	S.S.	*	*			SEE ALTERNATE. * = REFER TO SECTIONS & DETAILS
215	NEW	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	WD	N/A	F1	HM	J1	H1			SEE ALTERNATE

DOOR SCHEDULE NOTES

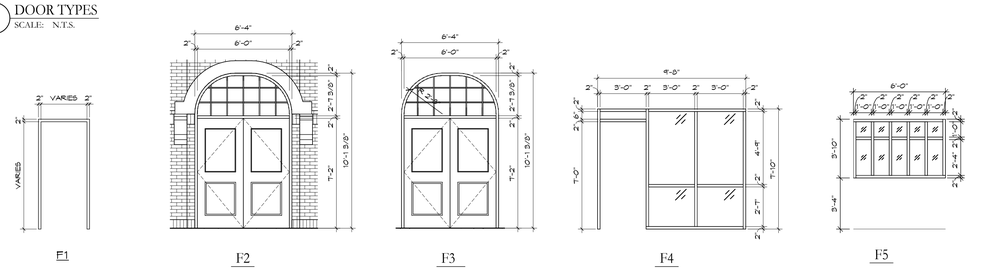
1. PROVIDE POWER & DATA FOR ACCESS CONTROLS. COORDINATE CARD READER LOCATION.

2. PROVIDE MAGNETIC HOLD OPENS. PROVIDE POWER & TIE INTO FIRE ALARM SYSTEM.

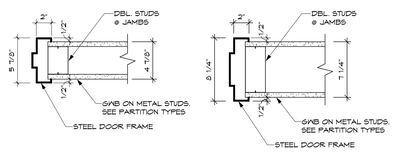
3. PROVIDE DOOR OPERATOR W/ HARD-WIRE ACTIVATION BUTTON.



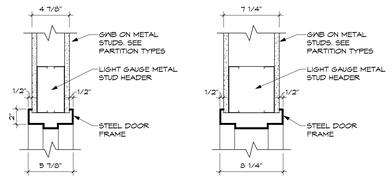
1 DOOR TYPES
SCALE: N.T.S.



2 DOOR FRAME TYPES
SCALE: N.T.S.

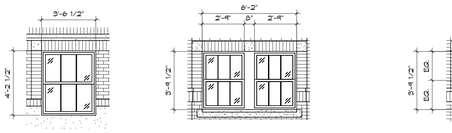


3 DOOR JAMB DETAILS
SCALE: 1 1/2" = 1'-0"



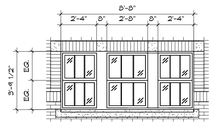
17 DOOR HEAD DETAILS
SCALE: 1 1/2" = 1'-0"

GENERAL NOTES:

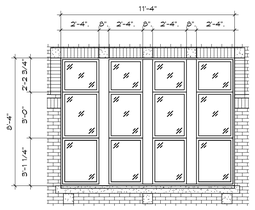


11 W-1
SCALE: 1/4" = 1'-0"

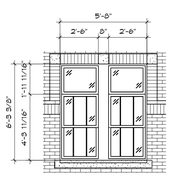
12 W-2
SCALE: 1/4" = 1'-0"



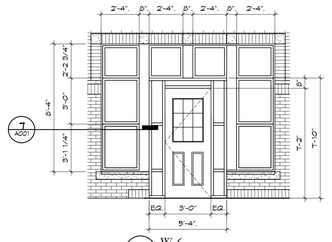
13 W-3
SCALE: 1/4" = 1'-0"



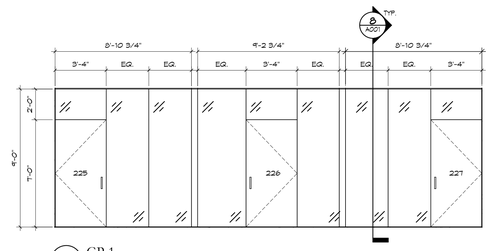
14 W-4
SCALE: 1/4" = 1'-0"



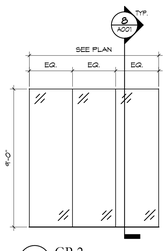
15 W-5
SCALE: 1/4" = 1'-0"



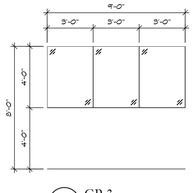
10 W-6
SCALE: 1/4" = 1'-0"



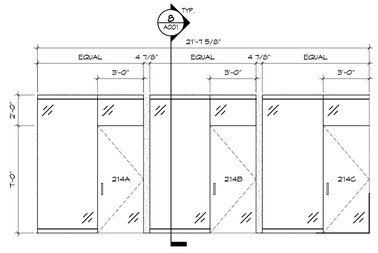
4 GP-1
SCALE: 1/4" = 1'-0"



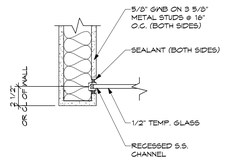
6 GP-2
SCALE: 1/4" = 1'-0"



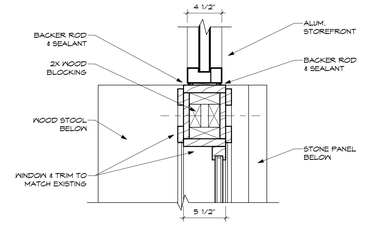
9 GP-3
SCALE: 1/4" = 1'-0"



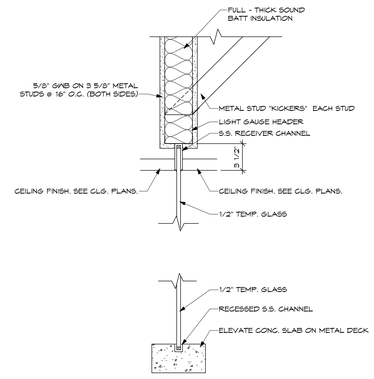
5 GP-4 - ALT #04
SCALE: 1/4" = 1'-0"



21 TYPICAL GLASS PARTITION DETAIL
SCALE: 1 1/2" = 1'-0"



7 ALTERNATE TRACK EXIT DOOR
SCALE: 1 1/2" = 1'-0"



8 TYPICAL GLASS PARTITION SECTION
SCALE: 1 1/2" = 1'-0"

	BID DOCUMENTS	11.10.2023
No.	Revisions / Submissions	Date

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

DOOR SCHEDULES AND DETAILS

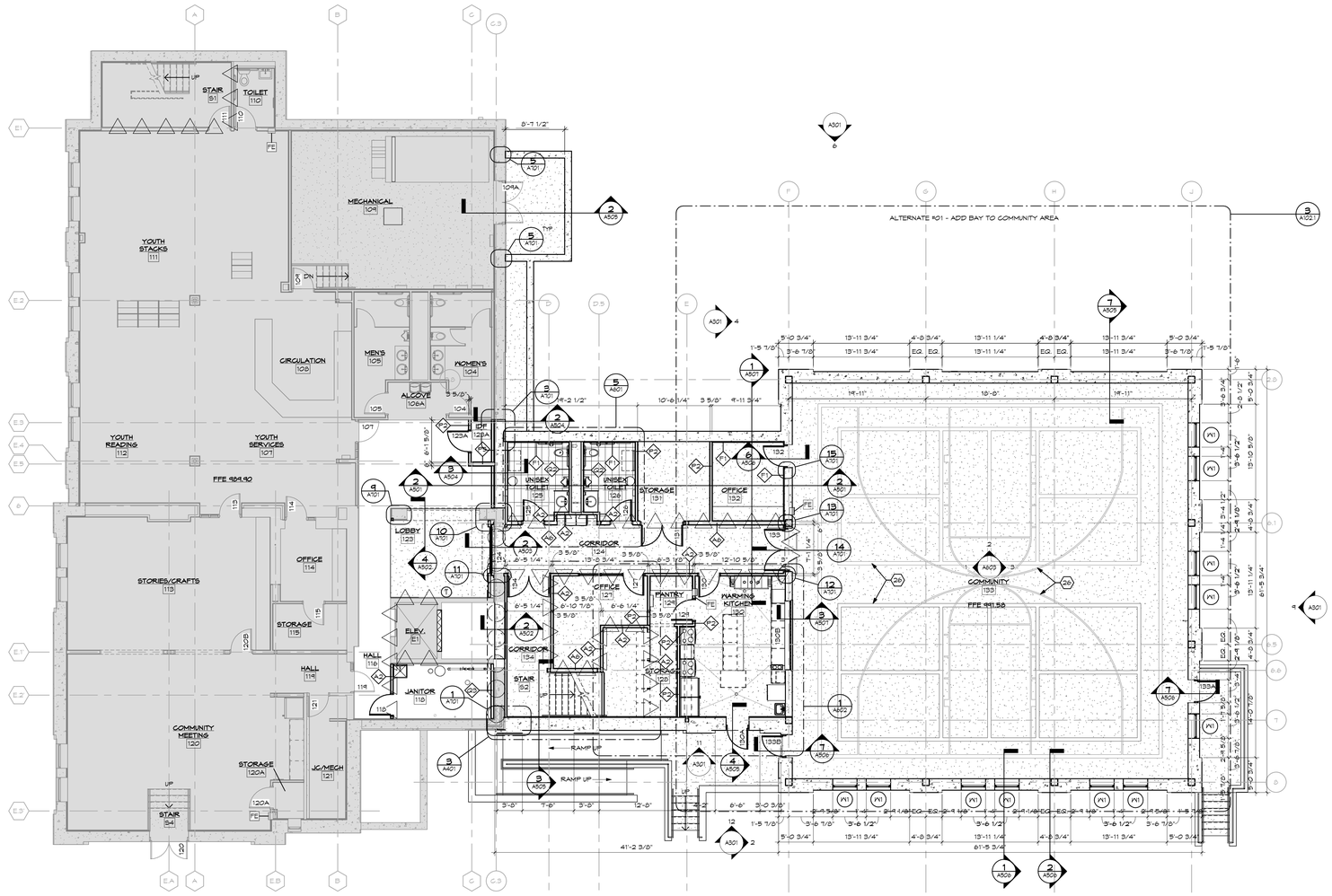
STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A001
Checked KRM	

© 2023 LWC INCORPORATED

11/14/2023 9:24:39 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/15/2023 8:36:53 AM



1 BASE BID - LOWER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"

FLOOR PLAN LEGEND

TYPICAL FOR ALL SHEETS.
SEE GENERAL (G SERIES) SHEETS FOR ADDITIONAL SYMBOLS

- WALL TO BE DEMOLISHED
- CMU BLOCK WALL
- METAL STUDS WITH DRYWALL AND SOUND ATTENUATION BLANKETS
- CONTROL JOINT (SEE DIMENSIONED FLOOR PLANS FOR LOCATIONS)
- 1 HOUR RATED FIRE BARRIER
- 2 HOUR RATED FIRE WALL
- CPT — CARPET EDGE
- VE — VINYL EDGE
- MT — MARBLE THRESHOLD

SHEET NOTES: TYPICAL FOR ALL NEW WORK PLAN SHEETS. ALL NOTES MAY NOT BE USED.

1. ALIGN FACE OF NEW AND EXISTING WALL.
2. BOOK RETURN - SEE SPECS.
3. STUD WALL INFILL OF DOOR OPENING. SALVAGE DOOR & TURN OVER TO OWNER.
4. PROVIDE RECESSED SLAB FOR WALK-OFF MAT. SEE FINISH & STRUCTURAL DRAWINGS.
5. NOT USED.
6. INFILL CONCRETE FLOOR SLAB. SEE STRUCT DWGS.
7. RAILING SYSTEM. SEE SPECS & DETAILS.
8. MATCH EXISTING WOOD TRIM ON WALLS. SEE ELEVATIONS.
9. REFINISH ALL WOOD TRIM.
10. INFILL EXISTING OPENING WITH FACE BRICK, 1/2" GYP SHEATHING, 6" METAL STUDS @16" O.C. & 5/8" GWB TO MATCH EXISTING. PROVIDE FULL THICK BATT INSULATION.
11. TEMPORARY CONSTRUCTION BARRIERS.
12. BASEBOARDS TO MATCH EXISTING ADJACENT IN COLOR, SIZE, & STYLE. - TYP.
13. CONCRETE PAVERS.
14. MOTORIZED RETRACTABLE BASKETBALL GOAL.
15. TERRACOTTA TILES - TO MATCH EXISTING ADJACENT.
16. ACCESS TO ROOF HATCH
17. UNDER STAIRS TO BE TYPE 'X' GWB.
18. OPEN TO STRUCTURE ABOVE.
19. STRUCTURAL BEAMS ON CEILING IN ROOM 133 TO BE PAINTED P-2 U.N.O.
20. UNDERSIDE OF SOFFIT TO BE PAINTED AS INDICATED BY FINISH TAG.
21. SOFFIT VENTS.
22. EXISTING SOFFIT, FASCIA, AND TRIM WORK TO BE CLEANED, PREPPED, & REPAINTED - TYP.
23. NEW WINDOW. - STAIN GLAZING BY OWNER. CONTRACTOR TO COORDINATE R.O. WITH OWNERS GLAZING.
24. CABINET HEATERS - SEE MECHANICAL.
25. DOOR TO BE REMOVED & REINSTALLED FOR MAG-LOCK.
26. COURT STRIPING - SEE DETAILS.
27. EXIT LIGHT - SEE ELECTRICAL.
28. EXTERIOR LIGHTING - SEE ELECTRICAL
29. PENDANT DOWN LIGHT - SEE ELECTRICAL
30. 2X4 LIGHTING FIXTURE - SEE ELECTRICAL
31. 4" DOWN LIGHT - SEE ELECTRICAL
32. EXHAUST FAN - SEE MECHANICAL
33. 1X4 LIGHTING FIXTURE - SEE ELECTRICAL

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. ROOME 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

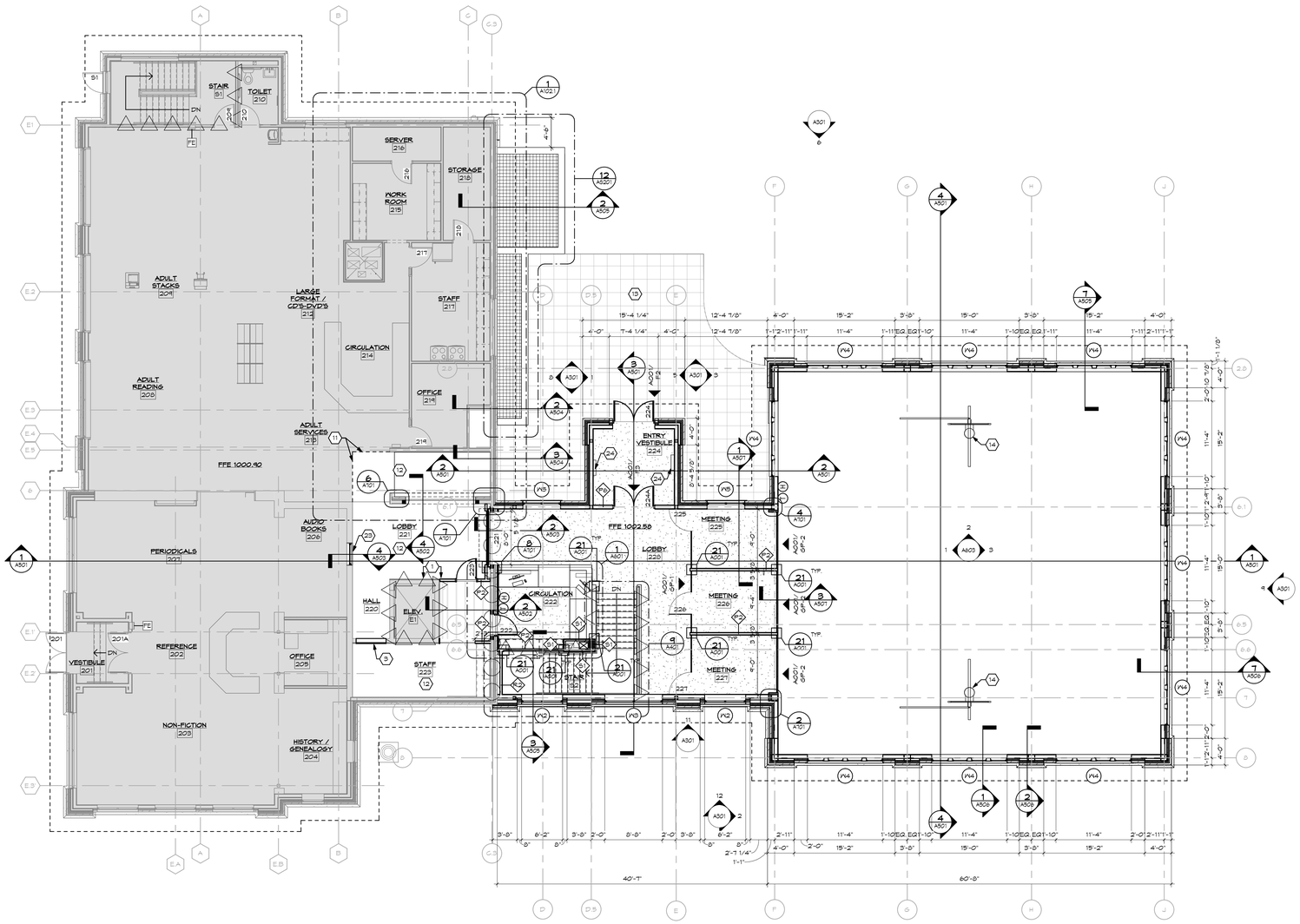
LOWER LEVEL FLOOR PLAN - BASE BID

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A101
Checked KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



1 BASE BID - UPPER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL NEW WORK PLAN SHEETS. ALL NOTES MAY NOT BE USED.

1. ALIGN FACE OF NEW AND EXISTING WALL.
2. BOOK RETURN - SEE SPECS.
3. STUD WALL INFILL OF DOOR OPENING. SALVAGE DOOR & TURN OVER TO OWNER.
4. PROVIDE RECESSED SLAB FOR MAIK-OFF MAT. SEE FINISH & STRUCTURAL DRAWINGS.
5. NOT USED.
6. INFILL CONCRETE FLOOR SLAB. SEE STRUCT DWGS.
7. RAILING SYSTEM. SEE SPECS & DETAILS.
8. MATCH EXISTING WOOD TRIM ON WALLS. SEE ELEVATIONS.
9. REFINISH ALL WOOD TRIM.
10. INFILL EXISTING OPENING WITH FACE BRICK, 1/2" GYP SHEATHING, 6" METAL STUDS @16" O.C. & 5/8" GWB TO MATCH EXISTING. PROVIDE FULL THICK BATT INSULATION.
11. TEMPORARY CONSTRUCTION BARRIERS.
12. BASEBOARDS TO MATCH EXISTING ADJACENT IN COLOR, SIZE, & STYLE. - TYP.
13. CONCRETE PAVERS.
14. MOTORIZED RETRACTABLE BASKETBALL GOAL.
15. TERRACOTTA TILES - TO MATCH EXISTING ADJACENT.
16. ACCESS TO ROOF HATCH
17. UNDER STAIRS TO BE TYPE 'X' GWB.
18. OPEN TO STRUCTURE ABOVE.
19. STRUCTURAL BEAMS ON CEILING IN ROOM 133 TO BE PAINTED P-2 U.N.O.
20. UNDERSIDE OF SOFFIT TO BE PAINTED AS INDICATED BY FINISH TAG.
21. SOFFIT VENTS.
22. EXISTING SOFFIT, FASCIA, AND TRIM WORK TO BE CLEANED, PREPPED, & REPAINTED - TYP.
23. NEW WINDOW. - STAIN GLAZING BY OWNER. CONTRACTOR TO COORDINATE R.O. WITH OWNERS GLAZING.
24. CABINET HEATERS - SEE MECHANICAL.
25. DOOR TO BE REMOVED & REINSTALLED FOR MAG-LOCK.
26. COURT STRIPING - SEE DETAILS.
27. EXIT LIGHT - SEE ELECTRICAL.
28. EXTERIOR LIGHTING - SEE ELECTRICAL
29. PENDANT DOWN LIGHT - SEE ELECTRICAL
30. 2X4 LIGHTING FIXTURE - SEE ELECTRICAL
31. 4" DOWN LIGHT - SEE ELECTRICAL
32. EXHAUST FAN - SEE MECHANICAL
33. 1X4 LIGHTING FIXTURE - SEE ELECTRICAL

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. ROOME 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

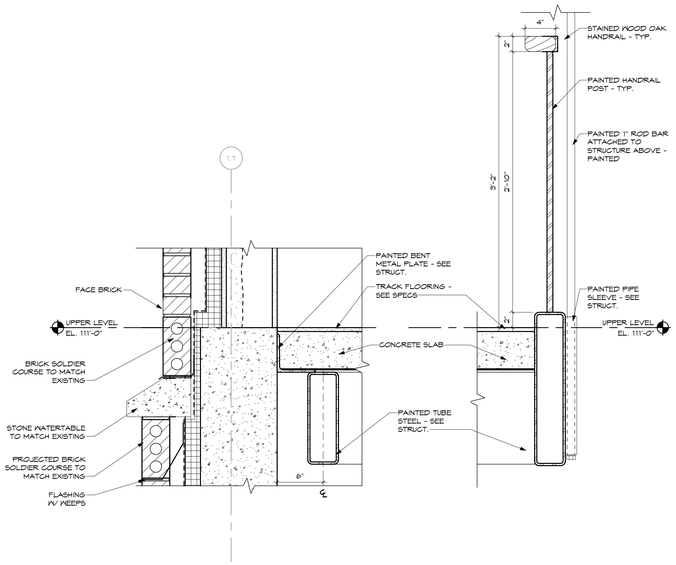
UPPER LEVEL FLOOR PLAN - BASE BID

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

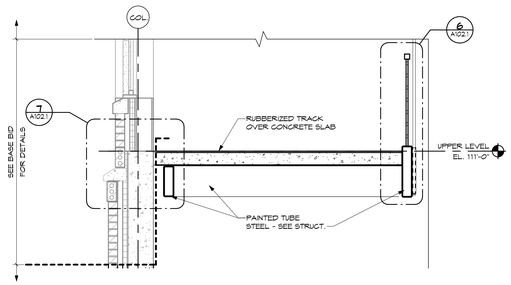
Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A102
Checked KRM	

© 2023 LWC INCORPORATED

11/14/2023 9:24:55 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

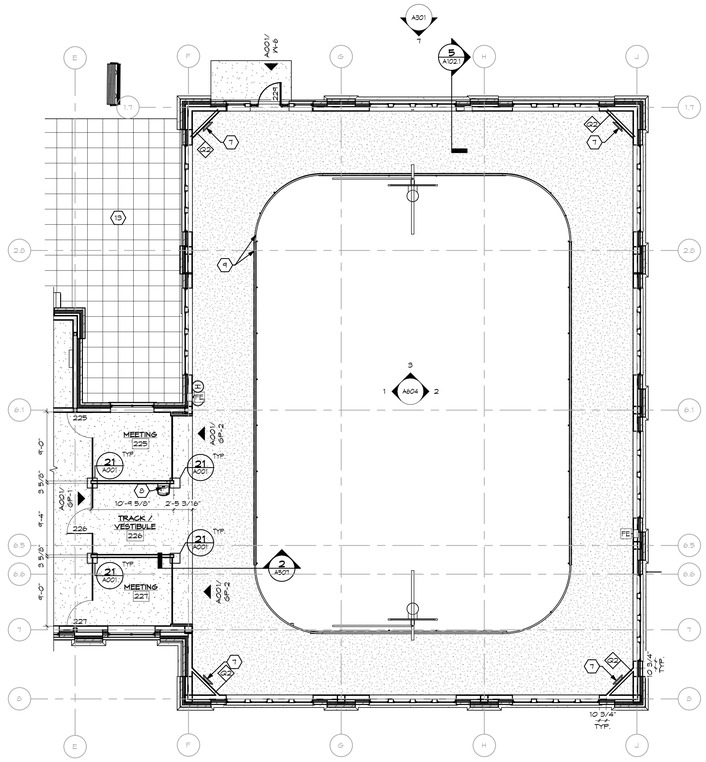


7 DETAIL @ TRACK
SCALE: 1 1/2" = 1'-0"

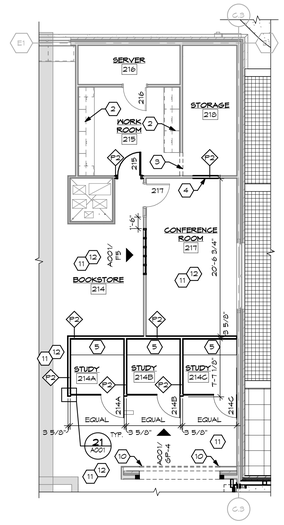


6 DETAIL @ TRACK RAILING
SCALE: 1 1/2" = 1'-0"

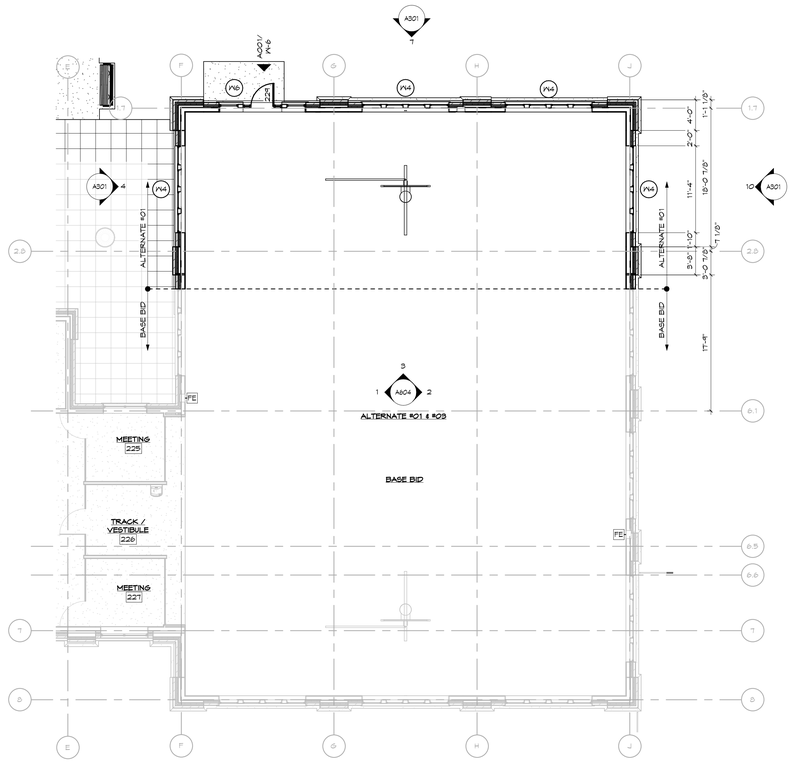
5 WALL SECTION @ Alt #03
SCALE: 1/2" = 1'-0"



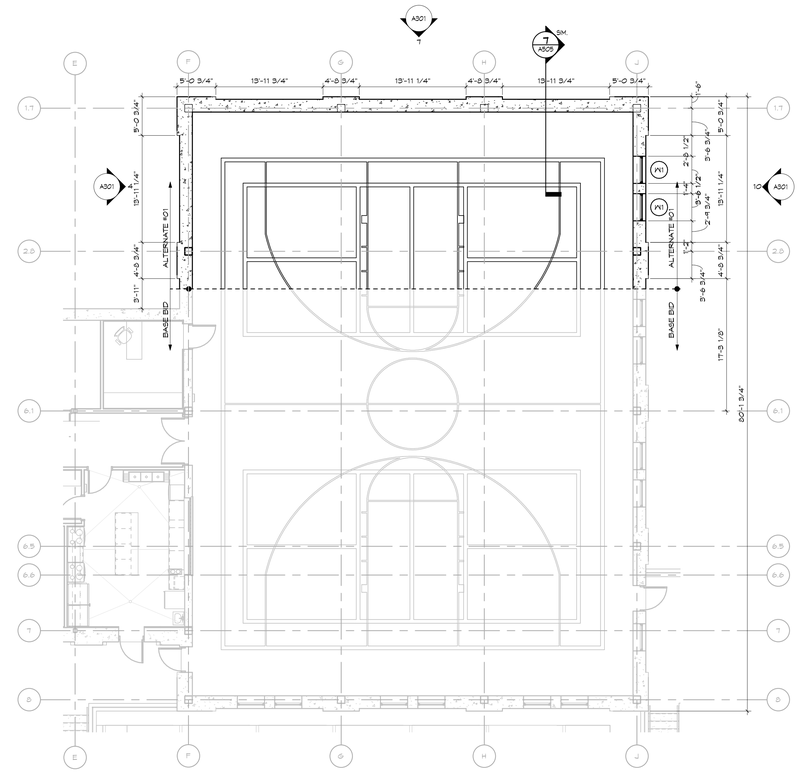
2 ALTERNATE #03 - TRACK - UPPER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"



1 ALTERNATE #04 - STAFF AREA UPPER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"



4 ALTERNATE #01 - BAY ADDTION - UPPER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"



3 ALTERNATE #01 - BAY ADDITION - LOWER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL NEW WORK PLAN SHEETS. ALL NOTES MAY NOT BE USED.

1. ALIGN FACE OF NEW AND EXISTING WALL.
2. EXISTING CASEWORK TO REMAIN.
3. NEW OPENING IN EXISTING WALL.
4. INFILL EXISTING DOOR OPENING. SALVAGE DOOR & TURN OVER TO OWNER.
5. WORK SURFACE.
6. PROVIDE RECESSED SLAB FOR WALK-OFF MAT. SEE FINISH & STRUCTURAL DRAWINGS.
7. DIGITAL DISPLAY.
8. DRINKING FOUNTAIN WITH BOTTLE FILLER. SEE PLUMBING.
9. STEEL & WOOD RAILING SYSTEM AROUND TRACK PERIMETER - TYP. SEE SPECS & DETAILS.
10. MATCH EXISTING WOOD TRIM ON WALLS. SEE DETAILS.
11. REFINISH ALL WOOD TRIM.
12. BASEBOARDS TO MATCH EXISTING ADJACENT SIZE, COLOR, & STYLE. TYP.

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FOCHE 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW GLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

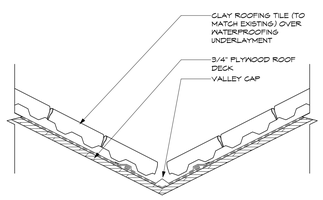
ALTERNATE FLOOR PLANS

STATE OF INDIANA — KEVIN R. MCCURDY 11200136 — REGISTERED ARCHITECT

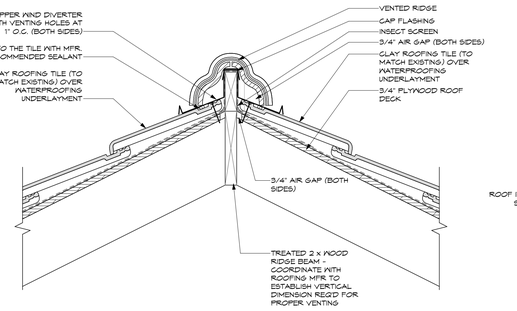
Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A102.1
Checked: KRM	

© 2023 LWC INCORPORATED

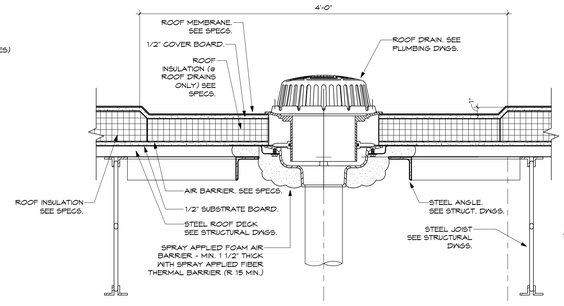
11/14/2023 9:25:05 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



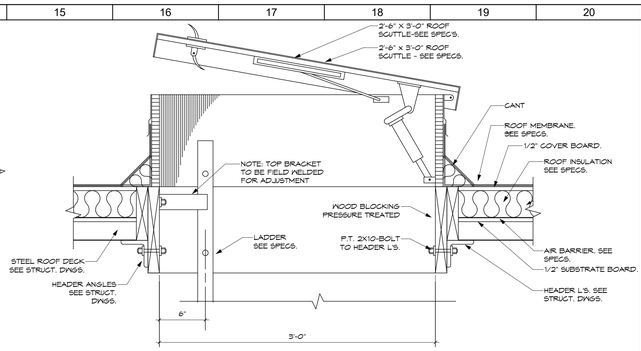
5 TYP. VALLEY DETAIL
SCALE: 1 1/2" = 1'-0"



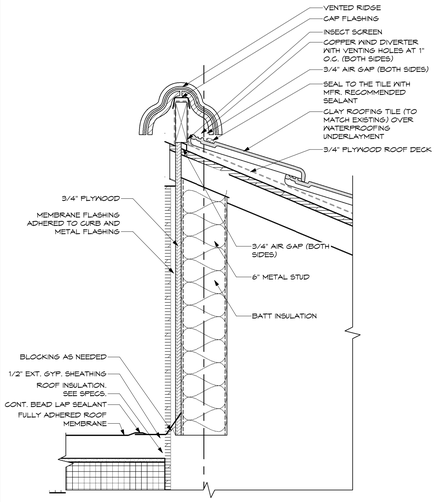
6 TYP. RIDGE DETAIL
SCALE: 1 1/2" = 1'-0"



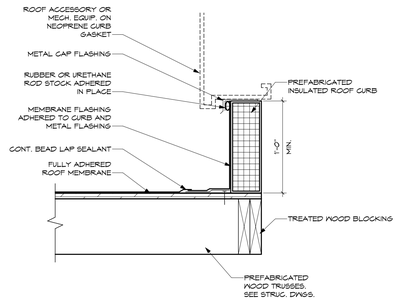
7 TYP. ROOF DRAIN
SCALE: 1 1/2" = 1'-0"



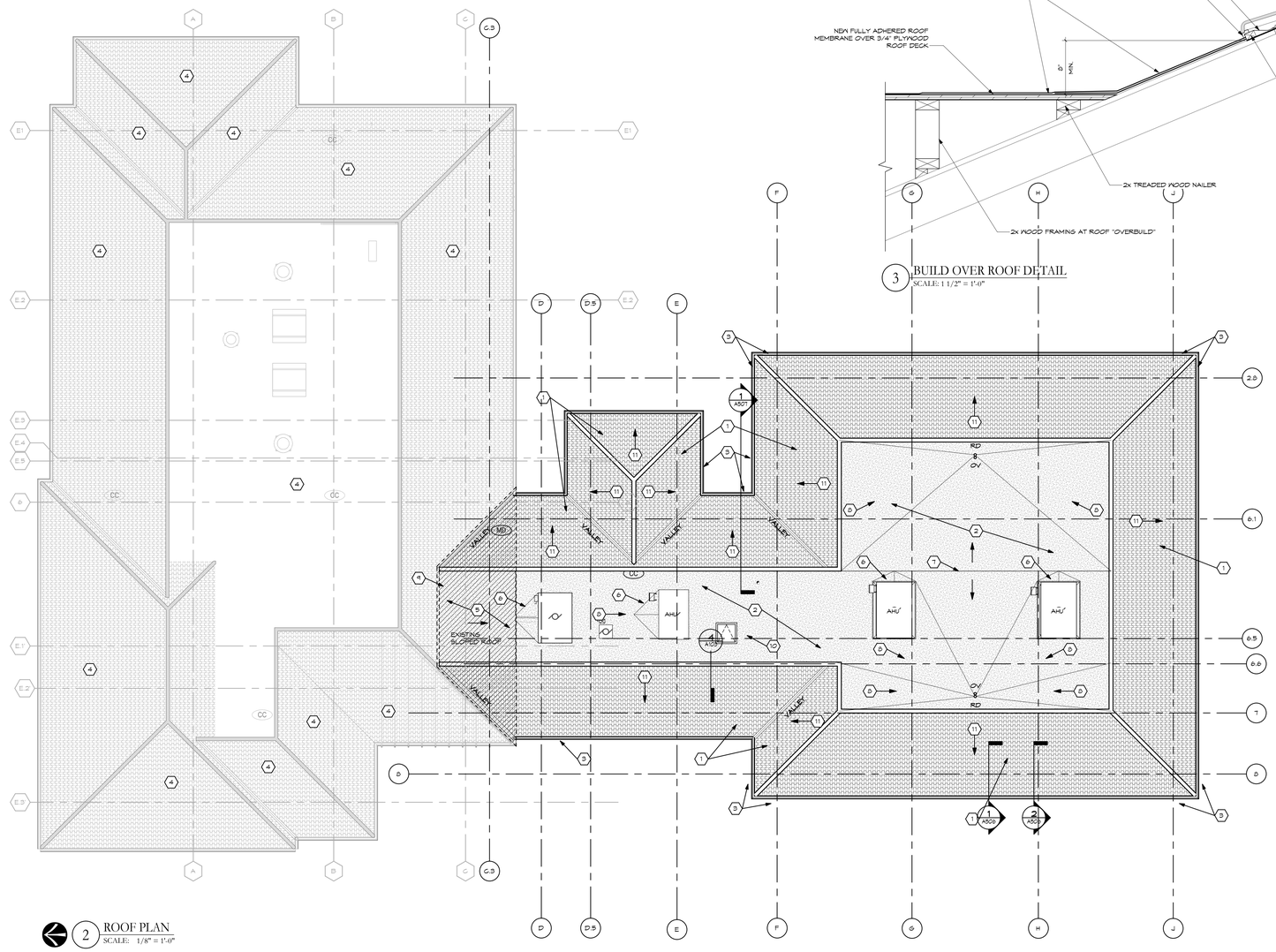
8 ROOF - HATCH DETAIL
SCALE: 1 1/2" = 1'-0"



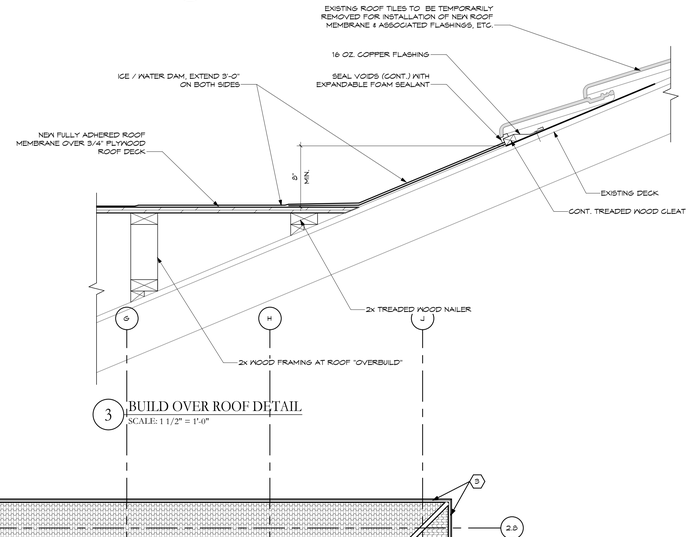
4 DETAIL @ PARAPET
SCALE: 1 1/2" = 1'-0"



1 TYP. ROOF CURB DETAIL
SCALE: 1 1/2" = 1'-0"



2 ROOF PLAN
SCALE: 1/8" = 1'-0"



3 BUILD OVER ROOF DETAIL
SCALE: 1 1/2" = 1'-0"

SHEET NOTES: (ROOF SHEET NOTES ONLY.)

1. CLAY TILE ROOFING SYSTEM TO MATCH EXISTING OVER WATERPROOFING UNDERLAYMENT AND 3/4" PLYWOOD ROOD DECK.
2. SINGLE PLY ROOFING SYSTEM OVER TAPERED RIGID INSULATION.
3. COPPER GUTTER AND DOWNSPOUTS TO MATCH EXISTING IN SIZE AND PROFILE.
4. EXISTING TO REMAIN.
5. ROOF MEMBRANE SYSTEM TO COVER EXISTING ROOF SHEATHING.
6. CRICKET AS REQUIRED.
7. RIDGE OF TAPERED INSULATION.
8. TAPERED INSULATION SLOPED TOWARDS ROOF DRAIN.
9. HATCHED AREA INDICATES - REMOVE EXISTING CLAY TILE ROOFING, GUTTERS, DOWNSPOUTS AT OVERBUILD AREA. RETAIN ROOFING TILES FOR OWNER STOCK.
10. ROOF HATCH - SEE DETAILS.
11. CLAY TILE ROOFING SYSTEM. ROOF SLOPE TO MATCH EXISTING TYP. MATCH EXISTING COLOR, STYLE AND SHAPE.

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FOCHE "GRAY" AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ROOF PLAN

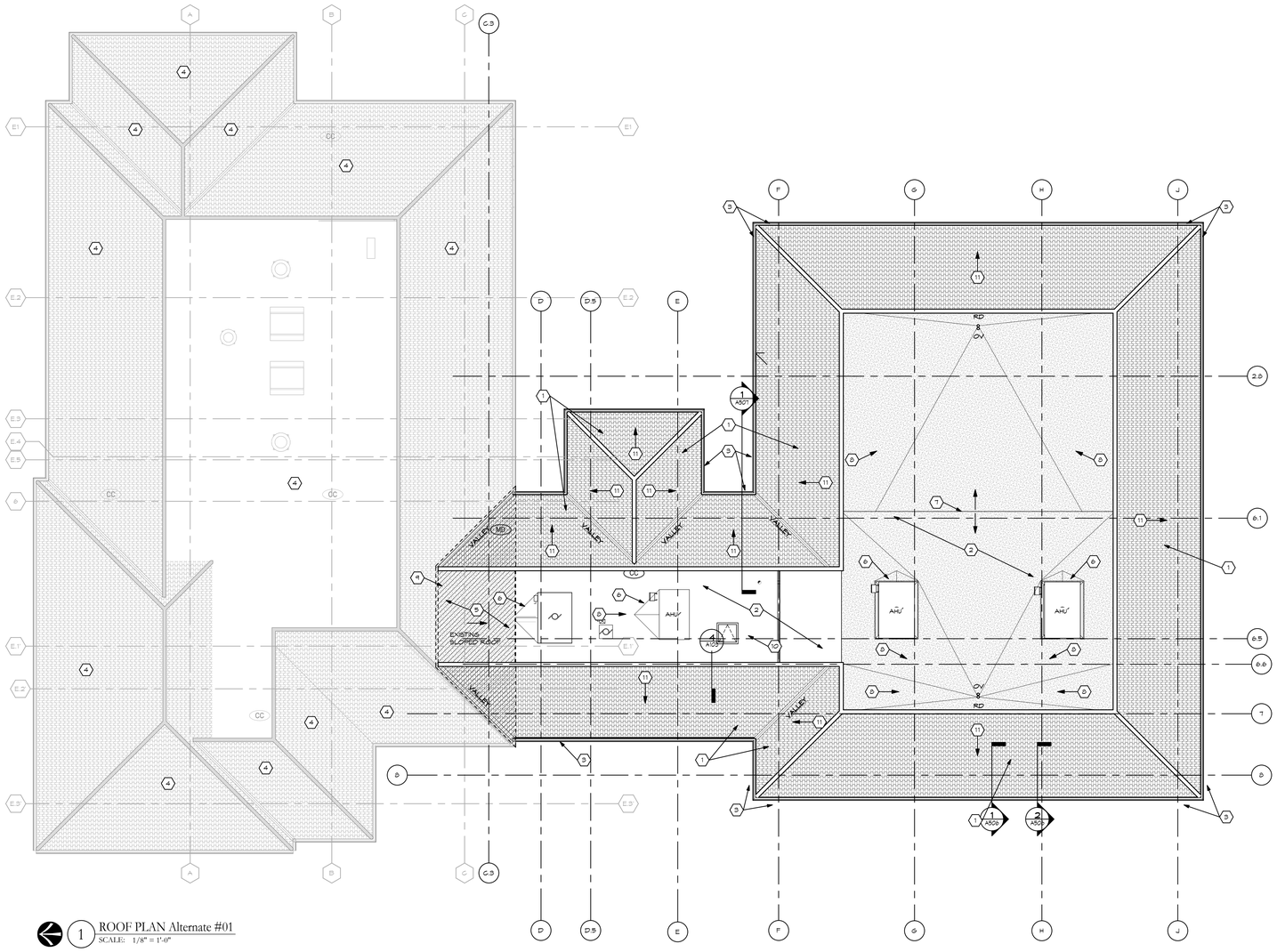
STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A103
Checked KRM	

© 2023 LWC INCORPORATED

11/14/2023 9:25:30 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:25:38 PM



1 ROOF PLAN Alternate #01
SCALE: 1/8" = 1'-0"

SHEET NOTES: (ROOF SHEET NOTES ONLY.)

1. CLAY TILE ROOFING SYSTEM TO MATCH EXISTING OVER WATERPROOFING UNDERLAYMENT AND 3/4" PLYWOOD ROOD DECK.
2. SINGLE PLY ROOFING SYSTEM OVER TAPERED RIGID INSULATION.
3. COPPER GUTTER AND DOWNSPOUTS TO MATCH EXISTING IN SIZE AND PROFILE.
4. EXISTING TO REMAIN.
5. ROOF MEMBRANE SYSTEM TO COVER EXISTING ROOF SHEATHING.
6. CRICKET AS REQUIRED.
7. RIDGE OF TAPERED INSULATION.
8. TAPERED INSULATION SLOPED TOWARDS ROOF DRAIN.
9. HATCHED AREA INDICATES - REMOVE EXISTING CLAY TILE ROOFING, GUTTERS, DOWNSPOUTS AT OVERBUILD AREA. RETAIN ROOFING TILES FOR OWNER STOCK.
10. ROOF HATCH - SEE DETAILS.
11. CLAY TILE ROOFING SYSTEM. ROOF SLOPE TO MATCH EXISTING TYP. MATCH EXISTING COLOR, STYLE AND SHAPE.

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FOCHE "GRAY" AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE ROOF PLAN

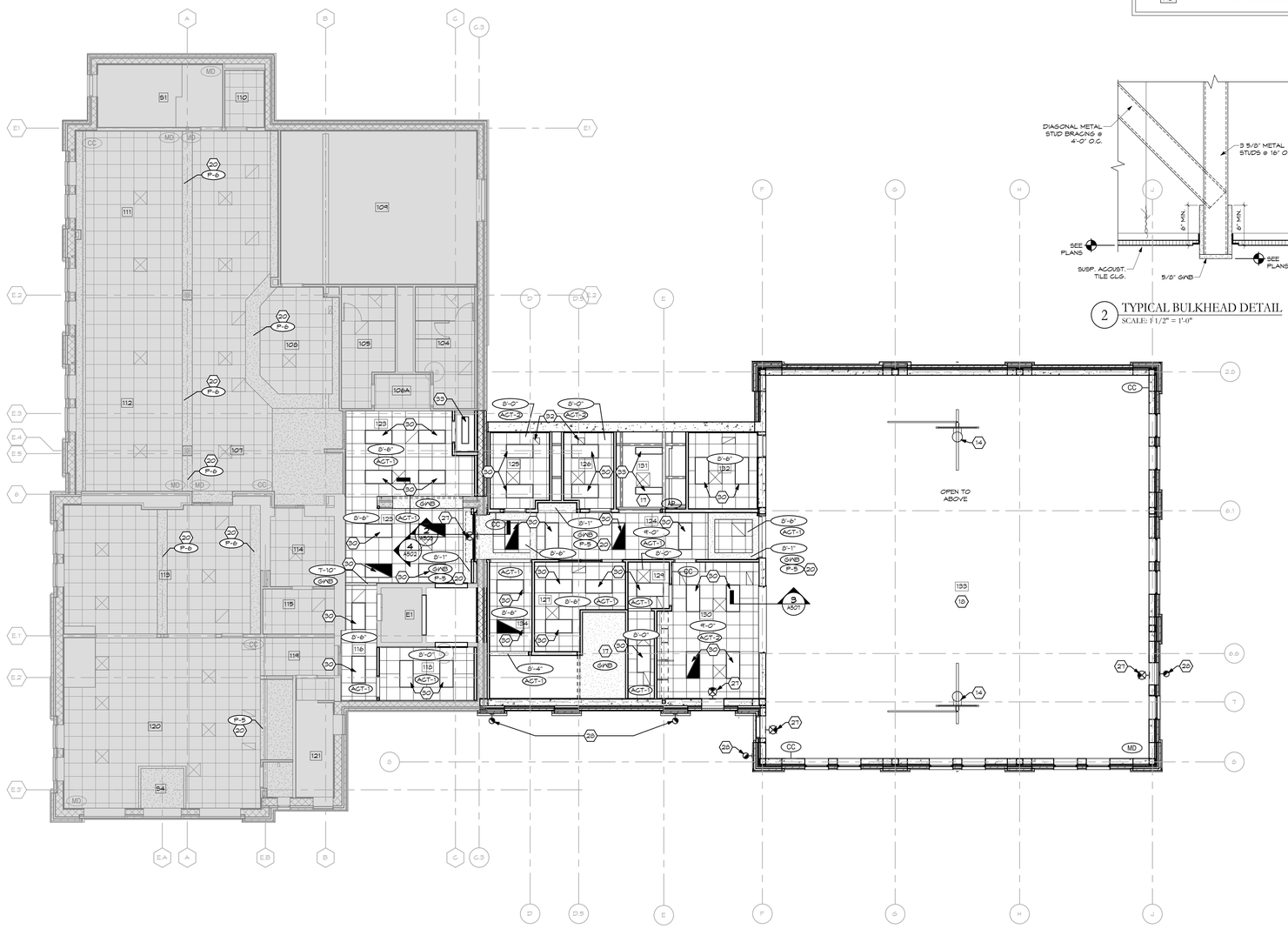
STATE OF INDIANA — KEVIN R. MCCURDY — 11200138 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A103.1
Checked: KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:25:44 PM

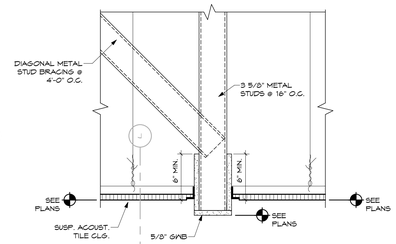


1 BASE BID - LOWER LEVEL REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND

TYPICAL FOR ALL SHEETS.
SEE GENERAL (G SERIES) SHEETS FOR ADDITIONAL SYMBOLS

- ROW OF CEILING TILE TO BE CUT
- DEMOLISH ACOUSTICAL LAY-IN TILE CEILING
- RECESSED LIGHT FIXTURES SQUARE, RECTANGULAR, ROUND (SEE ELECTRICAL DRAWINGS)
- SURFACE MOUNTED LIGHT FIXTURES (SEE ELECTRICAL DRAWINGS)
- ACOUSTICAL LAY-IN TILE CEILING
- PLASTER OR DRYWALL SURFACES
- GRILLES, DIFFUSERS, REGISTERS, ETC. (SEE MECHANICAL DRAWINGS)
- OCCUPANCY SENSOR (SEE ELECTRICAL DWGS.)
- CEILING DUPLEX RECEPTACLE (SEE ELECTRICAL DWGS.)
- CLASSROOM SOUND REINFORCEMENT SPEAKER
- EXIT LIGHTS
- HEATING UNITS
- SMOKE DETECTORS
- HEAT DETECTORS
- CEILING MOUNTED VIDEO PROJECTOR
- MOTION DETECTOR



2 TYPICAL BULKHEAD DETAIL
SCALE: 1 1/2" = 1'-0"

SHEET NOTES:
TYPICAL FOR ALL NEW WORK PLAN SHEETS. ALL NOTES MAY NOT BE USED.

1. ALIGN FACE OF NEW AND EXISTING WALL.
2. BOOK RETURN - SEE SPECS.
3. STUD WALL INFILL OF DOOR OPENING. SALVAGE DOOR & TURN OVER TO OWNER.
4. PROVIDE RECESSED SLAB FOR WALK-OFF MAT. SEE FINISH & STRUCTURAL DRAWINGS.
5. NOT USED.
6. INFILL CONCRETE FLOOR SLAB. SEE STRUCT DWGS.
7. RAILING SYSTEM. SEE SPECS & DETAILS.
8. MATCH EXISTING WOOD TRIM ON WALLS. SEE ELEVATIONS.
9. REFINISH ALL WOOD TRIM.
10. INFILL EXISTING OPENING WITH FACE BRICK, 1/2" GYP SHEATHING, 6" METAL STUDS @16" O.C. & 5/8" GWB TO MATCH EXISTING. PROVIDE FULL THICK BATT INSULATION.
11. TEMPORARY CONSTRUCTION BARRIERS.
12. BASEBOARDS TO MATCH EXISTING ADJACENT IN COLOR, SIZE, & STYLE. - TYP.
13. CONCRETE PAVERS.
14. MOTORIZED RETRACTABLE BASKETBALL GOAL.
15. TERRACOTTA TILES - TO MATCH EXISTING ADJACENT.
16. ACCESS TO ROOF HATCH
17. UNDER STAIRS TO BE TYPE 'X' GWB.
18. OPEN TO STRUCTURE ABOVE.
19. STRUCTURAL BEAMS ON CEILING IN ROOM 133 TO BE PAINTED P-2 U.N.O.
20. UNDERSIDE OF SOFFIT TO BE PAINTED AS INDICATED BY FINISH TAG.
21. SOFFIT VENTS.
22. EXISTING SOFFIT, FASCIA, AND TRIM WORK TO BE CLEANED, PREPPED, & REPAINTED - TYP.
23. NEW WINDOW. - STAIN GLAZING BY OWNER. CONTRACTOR TO COORDINATE R.O. WITH OWNERS GLAZING.
24. CABINET HEATERS - SEE MECHANICAL.
25. DOOR TO BE REMOVED & REINSTALLED FOR MAG-LOCK.
26. COURT STRIPING - SEE DETAILS
27. EXIT LIGHT - SEE ELECTRICAL.
28. EXTERIOR LIGHTING - SEE ELECTRICAL
29. PENDANT DOWN LIGHT - SEE ELECTRICAL
30. 2X4 LIGHTING FIXTURE - SEE ELECTRICAL
31. 4" DOWN LIGHT - SEE ELECTRICAL
32. EXHAUST FAN - SEE MECHANICAL
33. 1X4 LIGHTING FIXTURE - SEE ELECTRICAL

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FIGURE 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW GLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

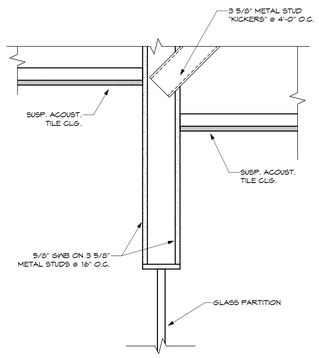
LOWER LEVEL REFLECTED CEILING PLAN - BASE BID

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

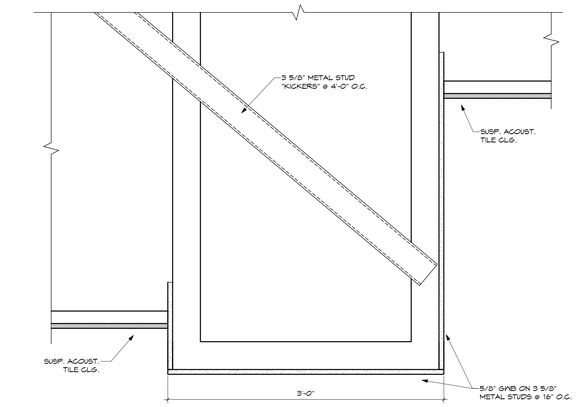
Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A201
Checked KRM	

© 2023 LWC INCORPORATED

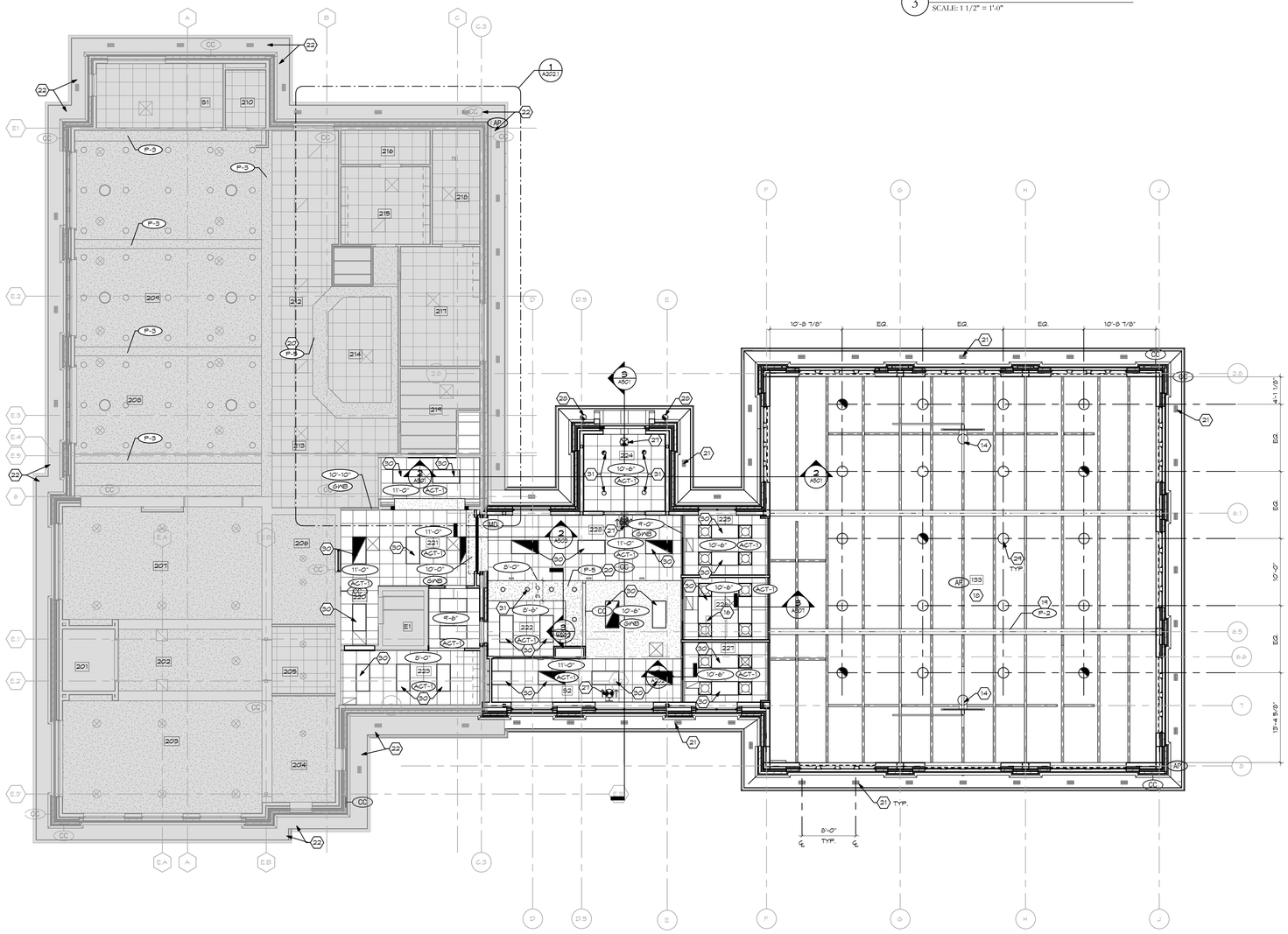
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



2 SOFFIT AT GLASS PARTITION
SCALE: 1 1/2" = 1'-0"



3 BULKHEAD AT CIRCULATION DESK
SCALE: 1 1/2" = 1'-0"



1 BASE BID - UPPER LEVEL REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL NEW WORK PLAN SHEETS. ALL NOTES MAY NOT BE USED.

1. ALIGN FACE OF NEW AND EXISTING WALL.
2. BOOK RETURN - SEE SPECS.
3. STUD WALL INFILL OF DOOR OPENING. SALVAGE DOOR & TURN OVER TO OWNER.
4. PROVIDE RECESSED SLAB FOR WALK-OFF MAT. SEE FINISH & STRUCTURAL DRAWINGS.
5. NOT USED.
6. INFILL CONCRETE FLOOR SLAB. SEE STRUCT DWGS.
7. RAILING SYSTEM. SEE SPECS & DETAILS.
8. MATCH EXISTING WOOD TRIM ON WALLS. SEE ELEVATIONS.
9. REFINISH ALL WOOD TRIM.
10. INFILL EXISTING OPENING WITH FACE BRICK, 1/2" GYP SHEATHING, 6" METAL STUDS @16" O.C. & 5/8" GWB TO MATCH EXISTING. PROVIDE FULL THICK BATT INSULATION.
11. TEMPORARY CONSTRUCTION BARRIERS.
12. BASEBOARDS TO MATCH EXISTING ADJACENT IN COLOR, SIZE, & STYLE. - TYP.
13. CONCRETE PAVERS.
14. MOTORIZED RETRACTABLE BASKETBALL GOAL.
15. TERRACOTTA TILES - TO MATCH EXISTING ADJACENT.
16. ACCESS TO ROOF HATCH
17. UNDER STAIRS TO BE TYPE 'X' GWB.
18. OPEN TO STRUCTURE ABOVE.
19. STRUCTURAL BEAMS ON CEILING IN ROOM 133 TO BE PAINTED P-2 U.N.O.
20. UNDERSIDE OF SOFFIT TO BE PAINTED AS INDICATED BY FINISH TAG.
21. SOFFIT VENTS.
22. EXISTING SOFFIT, FASCIA, AND TRIM WORK TO BE CLEANED, PREPPED, & REPAINTED - TYP.
23. NEW WINDOW. - STAIN GLAZING BY OWNER. CONTRACTOR TO COORDINATE R.O. WITH OWNERS GLAZING.
24. CABINET HEATERS - SEE MECHANICAL.
25. DOOR TO BE REMOVED & REINSTALLED FOR MAG-LOCK.
26. COURT STRIPING - SEE DETAILS.
27. EXIT LIGHT - SEE ELECTRICAL.
28. EXTERIOR LIGHTING - SEE ELECTRICAL
29. PENDANT DOWN LIGHT - SEE ELECTRICAL
30. 2X4 LIGHTING FIXTURE - SEE ELECTRICAL
31. 4" DOWN LIGHT - SEE ELECTRICAL
32. EXHAUST FAN - SEE MECHANICAL
33. 1X4 LIGHTING FIXTURE - SEE ELECTRICAL

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. FOCHE 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

UPPER LEVEL REFLECTED CEILING PLAN - BASE BID

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

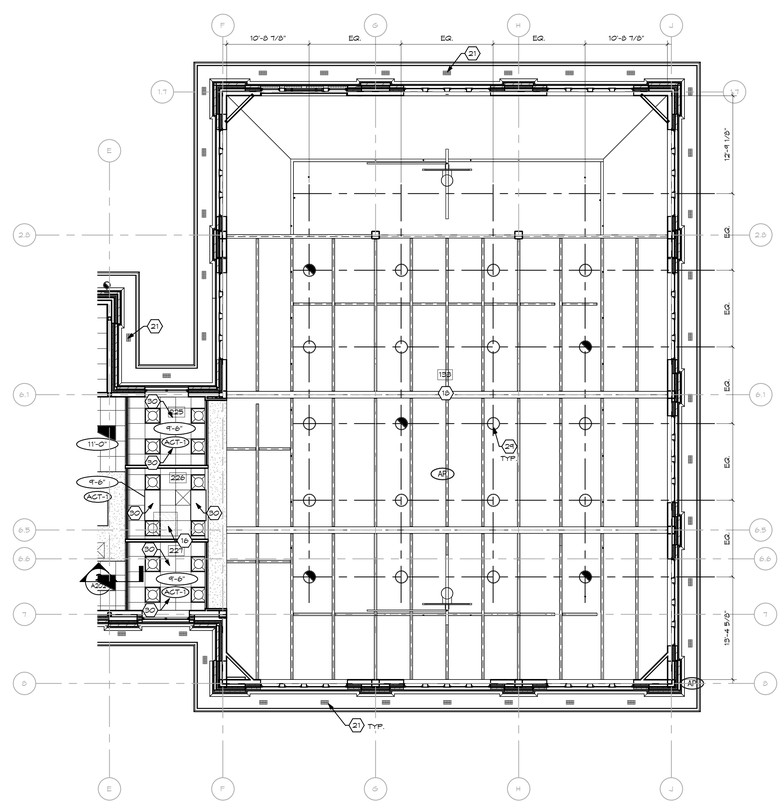
Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A202
Checked: KRM	

© 2023 LWC INCORPORATED

11/14/2023 9:25:52 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:25:58 PM

ALTERNATE #04 - STAFF AREA -
UPPER LEVEL REFLECTED CEILING PLAN
1 SCALE: 1/8" = 1'-0"



ALTERNATE #01 - COMMUNITY AREA
EXPANSION - UPPER LEVEL REFLECTED CEILING PLAN
2 SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL NEW WORK PLAN SHEETS. ALL NOTES MAY NOT BE USED.

1. ALIGN FACE OF NEW AND EXISTING WALL.
2. BOOK RETURN - SEE SPECS.
3. STUD WALL INFILL OF DOOR OPENING. SALVAGE DOOR & TURN OVER TO OWNER.
4. PROVIDE RECESSED SLAB FOR WALK-OFF MAT. SEE FINISH & STRUCTURAL DRAWINGS.
5. NOT USED.
6. INFILL CONCRETE FLOOR SLAB. SEE STRUCT DWGS.
7. RAILING SYSTEM. SEE SPECS & DETAILS.
8. MATCH EXISTING WOOD TRIM ON WALLS. SEE ELEVATIONS.
9. REFINISH ALL WOOD TRIM.
10. INFILL EXISTING OPENING WITH FACE BRICK, 1/2" GYP SHEATHING, 6" METAL STUDS @16" O.C. & 5/8" GWB TO MATCH EXISTING. PROVIDE FULL THICK BATT INSULATION.
11. TEMPORARY CONSTRUCTION BARRIERS.
12. BASEBOARDS TO MATCH EXISTING ADJACENT IN COLOR, SIZE, & STYLE. - TYP.
13. CONCRETE PAVERS.
14. MOTORIZED RETRACTABLE BASKETBALL GOAL.
15. TERRACOTTA TILES - TO MATCH EXISTING ADJACENT.
16. ACCESS TO ROOF HATCH
17. UNDER STAIRS TO BE TYPE 'X' GWB.
18. OPEN TO STRUCTURE ABOVE.
19. STRUCTURAL BEAMS ON CEILING IN ROOM 153 TO BE PAINTED P-2 U.N.O.
20. UNDERSIDE OF SOFFIT TO BE PAINTED AS INDICATED BY FINISH TAG.
21. SOFFIT VENTS.
22. EXISTING SOFFIT, FASCIA, AND TRIM WORK TO BE CLEANED, PREPPED, & REPAINTED - TYP.
23. NEW WINDOW. - STAIN GLAZING BY OWNER. CONTRACTOR TO COORDINATE R.O. WITH OWNERS GLAZING.
24. CABINET HEATERS - SEE MECHANICAL.
25. DOOR TO BE REMOVED & REINSTALLED FOR MAG-LOCK.
26. COURT STRIPING - SEE DETAILS
27. EXIT LIGHT - SEE ELECTRICAL.
28. EXTERIOR LIGHTING - SEE ELECTRICAL
29. PENDANT DOWN LIGHT - SEE ELECTRICAL
30. 2X4 LIGHTING FIXTURE - SEE ELECTRICAL
31. 4" DOWN LIGHT - SEE ELECTRICAL
32. EXHAUST FAN - SEE MECHANICAL
33. 1X4 LIGHTING FIXTURE - SEE ELECTRICAL

GENERAL NOTES:

A. SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL ASSOCIATED ITEMS.
B. DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING UNLESS NOTED OTHERWISE.
C. PROTECT ALL EXISTING CONSTRUCTION TO REMAIN. PATCH ALL GWB TO REMAIN WHERE ADJACENT WALLS HAVE BEEN REMOVED TO LEVEL 5 FINISH. PRIME AND (2) COATS FINISH PAINT TO COLOR INDICATED ON FINISH PLANS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FIRE-RATINGS AT EXISTING WALLS & CEILINGS.
E. SEE FINISH PLANS FOR NEW FLOOR AND WALL FINISHES.
F. ALL DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.
G. ALL INTERIOR WALLS SHALL RECEIVE FULL-THICK BATT SOUND INSULATION, UNLESS NOTED OTHERWISE.
H. ALL INTERIOR WALLS SHALL EXTEND TO STRUCTURE ABOVE AND SEAL THERE TO, UNLESS NOTED OTHERWISE.
I. ALL WALLS ARE TYPE "P2" UNLESS NOTED OTHERWISE.
J. ALL ITEMS PASSING THROUGH RATED WALLS MUST BE SEALED (WITH MATERIALS APPROVED BY ARCHITECT/ENGINEER) BY THE CONTRACTOR INSTALLING THE ITEMS.
K. ROOME 'GRAY' AREAS INDICATE AREAS OF NO WORK. THERE MAY BE SOME OVERLAP OF NEW WORK WITH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO COORDINATE AREAS WHERE OVERLAP OCCUR.
L. PROVIDE TAPERED RIGID INSULATION ROOF CRICKETS AT THE HIGH SIDE OF ALL MECHANICAL CURBS.
M. PROVIDE APPROPRIATE CORROSION PROTECTION WHERE EVER DISSIMILAR MATERIALS COME IN CONTACT WITH ONE ANOTHER.
N. NEW CLAY TILE ROOF SHALL MATCH SLOPE OF EXISTING ROOF (TYP.)
O. PROVIDE GUTTER EXPANSION JOINTS AS RECOMMENDED BY SMACNA.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

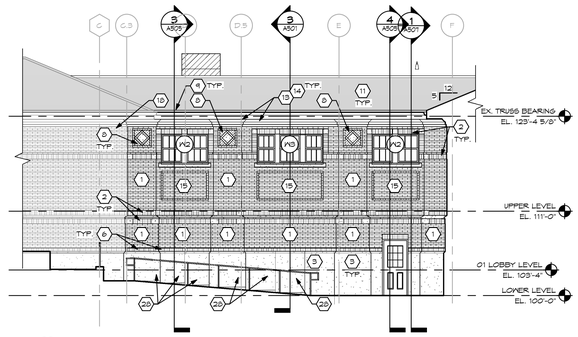
ALTERNATE REFELECTED CEILING PLANS

STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

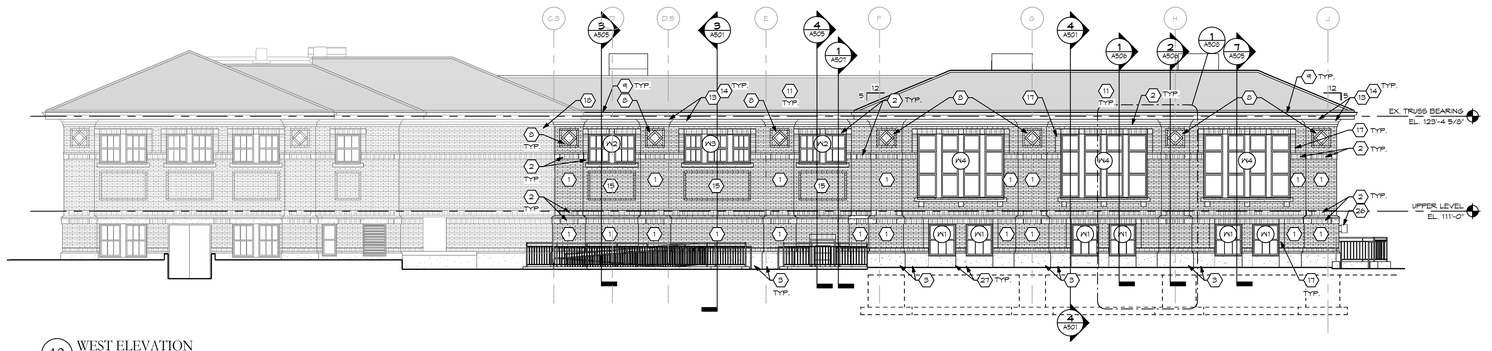
Comm. No. 22106.00	Date 11.10.2023
Drawn SAG	Drawing No. A202.1
Checked KRM	

© 2023 LWC INCORPORATED

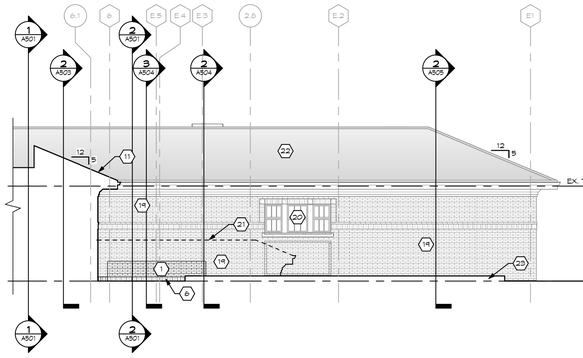
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



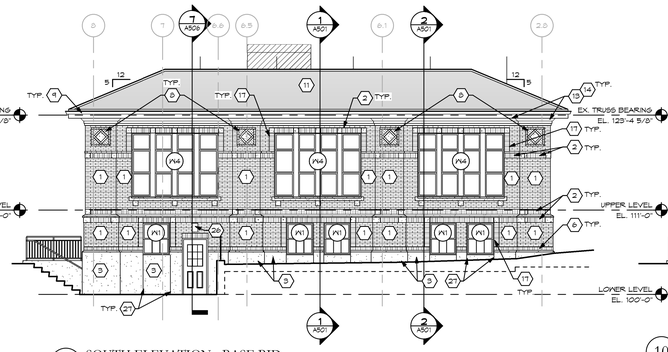
11 PARTIAL WEST ELEVATION
SCALE: 1/8" = 1'-0"



12 WEST ELEVATION
SCALE: 1/8" = 1'-0"

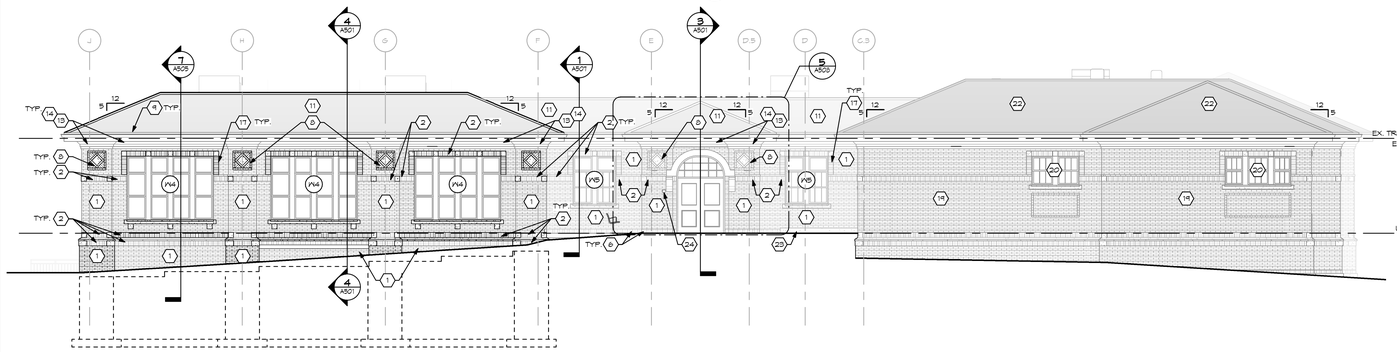


8 PARTIAL SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

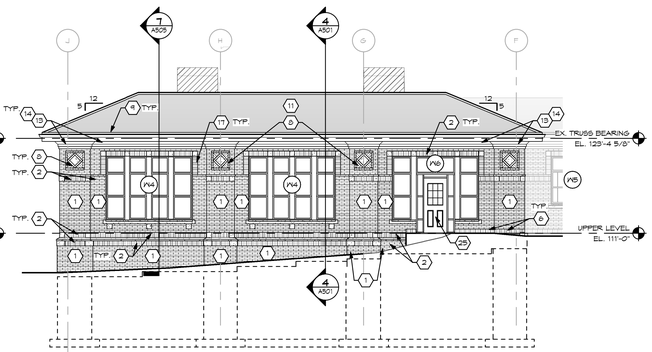


9 SOUTH ELEVATION - BASE BID
SCALE: 1/8" = 1'-0"

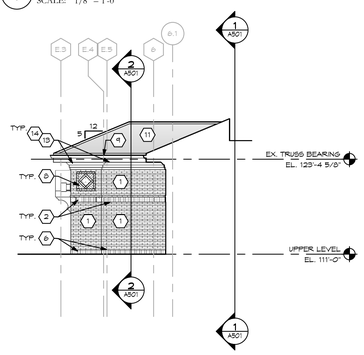
10 SOUTH ELEVATION - ALTERNATE #01
SCALE: 1/8" = 1'-0"



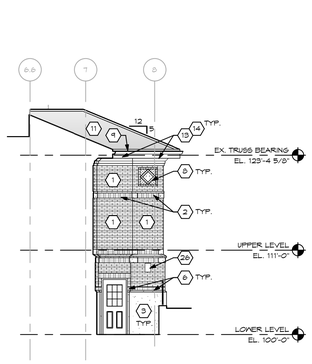
6 EAST ELEVATION - BASE BID
SCALE: 1/8" = 1'-0"



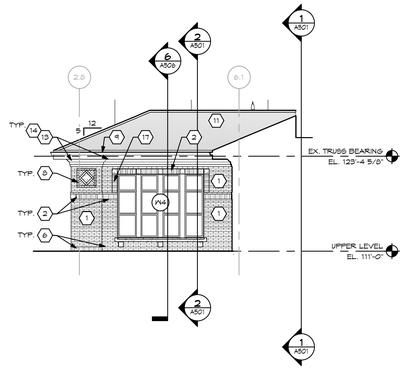
7 PARTIAL EAST ELEVATION - ALTERNATE #03
SCALE: 1/8" = 1'-0"



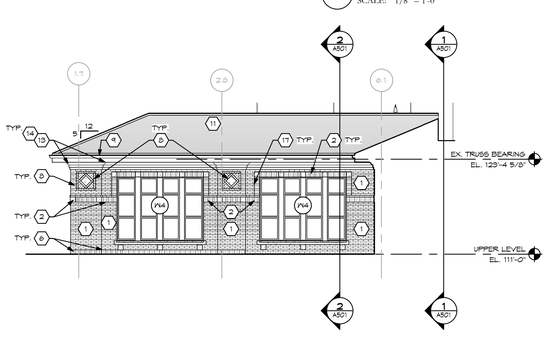
1 PARTIAL NORTH ELEVATION @ ENTRANCE
SCALE: 1/8" = 1'-0"



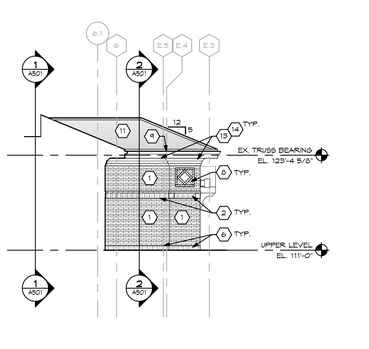
2 PARTIAL NORTH ELEVATION @ KITCHEN STAIR
SCALE: 1/8" = 1'-0"



3 PARTIAL NORTH ELEVATION - BASE BID
SCALE: 1/8" = 1'-0"



4 PARTIAL NORTH ELEVATION - ALTERNATE #01
SCALE: 1/8" = 1'-0"



5 PARTIAL SOUTH ELEVATION @ ENTRANCE
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. 4" FACE BRICK - MODULAR SIZE - MATCH EXISTING COLOR, TEXTURE. ADJUST HORIZONTAL GROUT JOINTS AS REQUIRED TO MATCH COURSING OF EXISTING ORIGINAL (1915 CARNEGIE) BUILDING.
2. BRICK SOLDIER COURSE TO MATCH EXISTING (1915 CARNEGIE) BUILDING.
3. STONE PANEL - SEE SECTIONS.
4. CAST-IN-PLACE FORMED CONCRETE FOUNDATION WALL WITH CHAMFER - MATCH EXISTING - SEE WALL SECTIONS AND STRUCT. FOR FURTHER N INFORMATION.
5. PROJECTED RUNNING BRICK BAND TO MATCH DETAIL AT EXISTING - SEE WALL SECTIONS.
6. SPECIAL CUT 'SOLDIER' WITH STACK BOND DETAIL AT CORNERS - SEE WALL SECTIONS.
7. WINDOW AS SCHEDULED.
8. FACE BRICK BASKETWEAVE DETAIL WITH CUT STONE CENTER TO MATCH EXISTING. PROVIDE SHOP DRAWINGS SHOWING LAYOUT.
9. COPPER GUTTER - MATCH EXISTING - SEE ROOF PLAN.
10. COPPER DOWNSPOUT (MATCH EXISTING) WITH CAST-IRON SHOE. SEE ROOF PLAN.
11. CLAY TILE ROOFING SYSTEM. TO MATCH EXISTING. 5/12 ROOF SLOPE TYP. - VERIFY - MATCH EXISTING.
12. EXISTING CLAY TILE TO REMAIN.
13. WOOD FASCIA - PAINTED TO MATCH EXISTING
14. WOOD MOULDINGS - PAINTED TO MATCH EXISTING
15. BRICK 'PANEL' BENEATH WINDOW WITH RUNNING CUT BRICK AT TOP & BOTTOM. CUT VERTICAL RUN BRICK AT SIDES TO MATCH EXISTING.
16. PAINTED WOOD FASCIA, SOFFIT, MOULDING - SEE WALL SECTIONS.
17. STACK BOND AT SIDE OF WINDOW / DOOR OPENING TO MATCH EXISTING.
18. COPPER DOWNSPOUT TO BE RELOCATED AS REQUIRED. - LOCATE AT JOINT BETWEEN NEW AND EXISTING CONSTRUCTION.
19. EXISTING TO REMAIN.
20. EXISTING WINDOW TO REMAIN.
21. EXTENTS OF DEMOLITIONED FRONT ENTRANCE.
22. EXISTING CLAY TILE ROOF TO REMAIN.
23. TOP OF CONCRETE AREA WAY. SEE PLANS
24. EMERGENCY KNOX BOX - SEE SPECS
25. EXIT DOOR IN W-6 IS ONLY USED IF ALTERNATE #03 IS CHOSEN.
26. LIGHT FIXTURE - SEE ELECTRICAL.
27. STONE PANEL JOINT - TYP.
28. STONE PANEL - STEP +/- 4" ALONG RAMP.

GENERAL NOTES:

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

EXTERIOR BUILDING ELEVATIONS

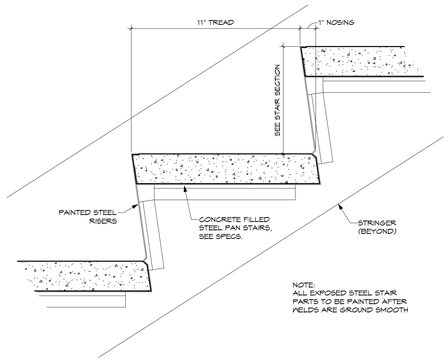
STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A301
Checked: KRM	

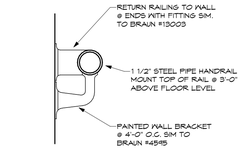
© 2023 LWC INCORPORATED

11/14/2023 9:26:21 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

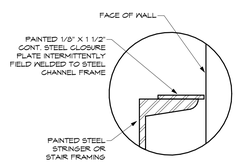
11/15/2023 8:12:19 AM



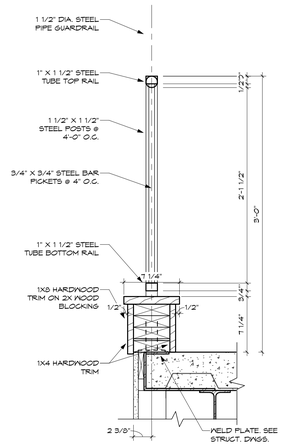
5 TYP. STAIR PAN SECTION
SCALE: 3" = 1'-0"



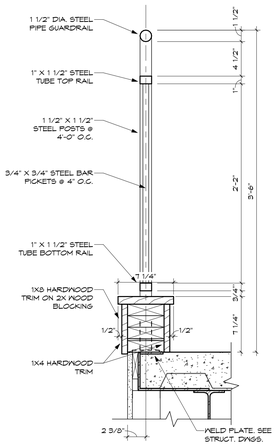
7 TYP. INTERIOR HANDRAIL DETAIL
SCALE: 3" = 1'-0"



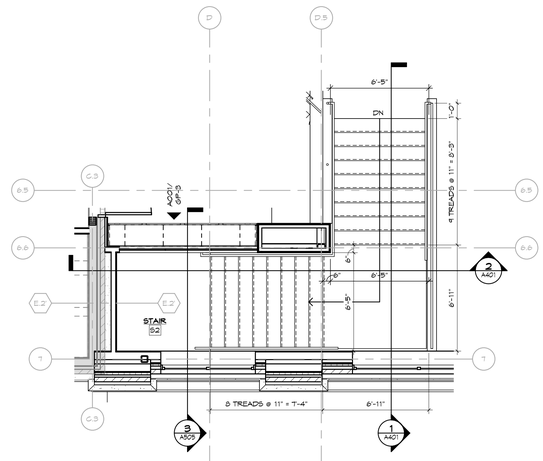
6 TYP. CLOSURE PLATE DETAIL
SCALE: 6" = 1'-0"



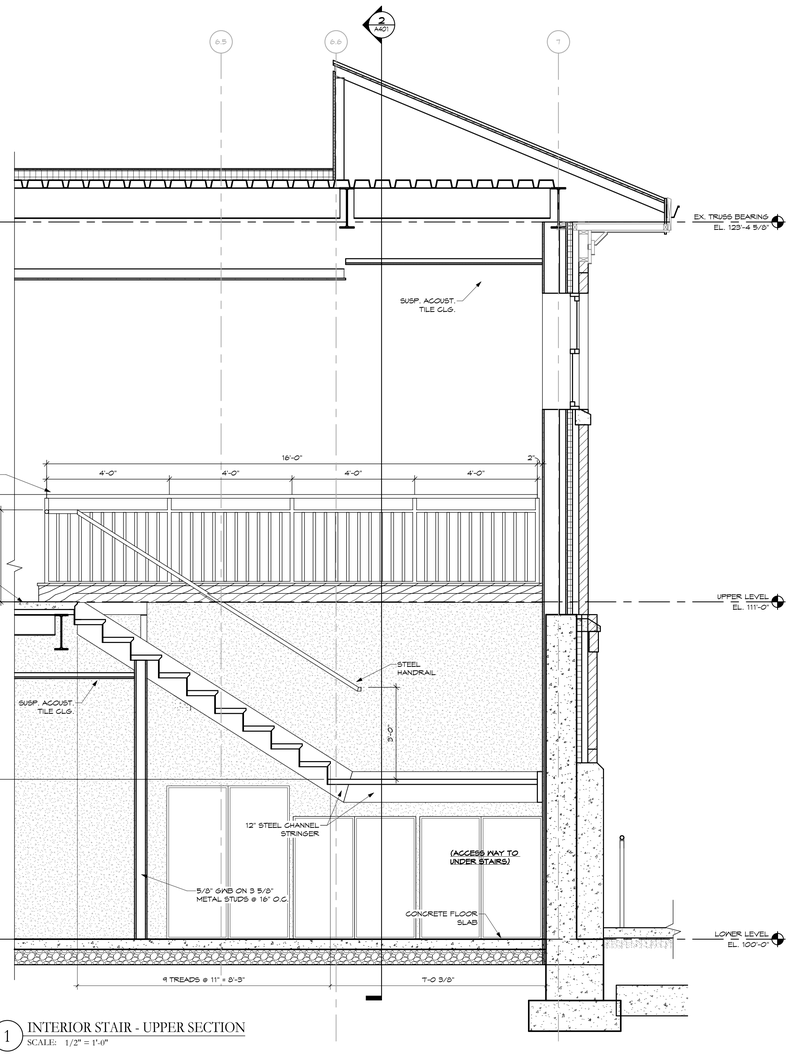
8 TYPICAL INTERIOR HANDRAIL
SCALE: 1 1/2" = 1'-0"



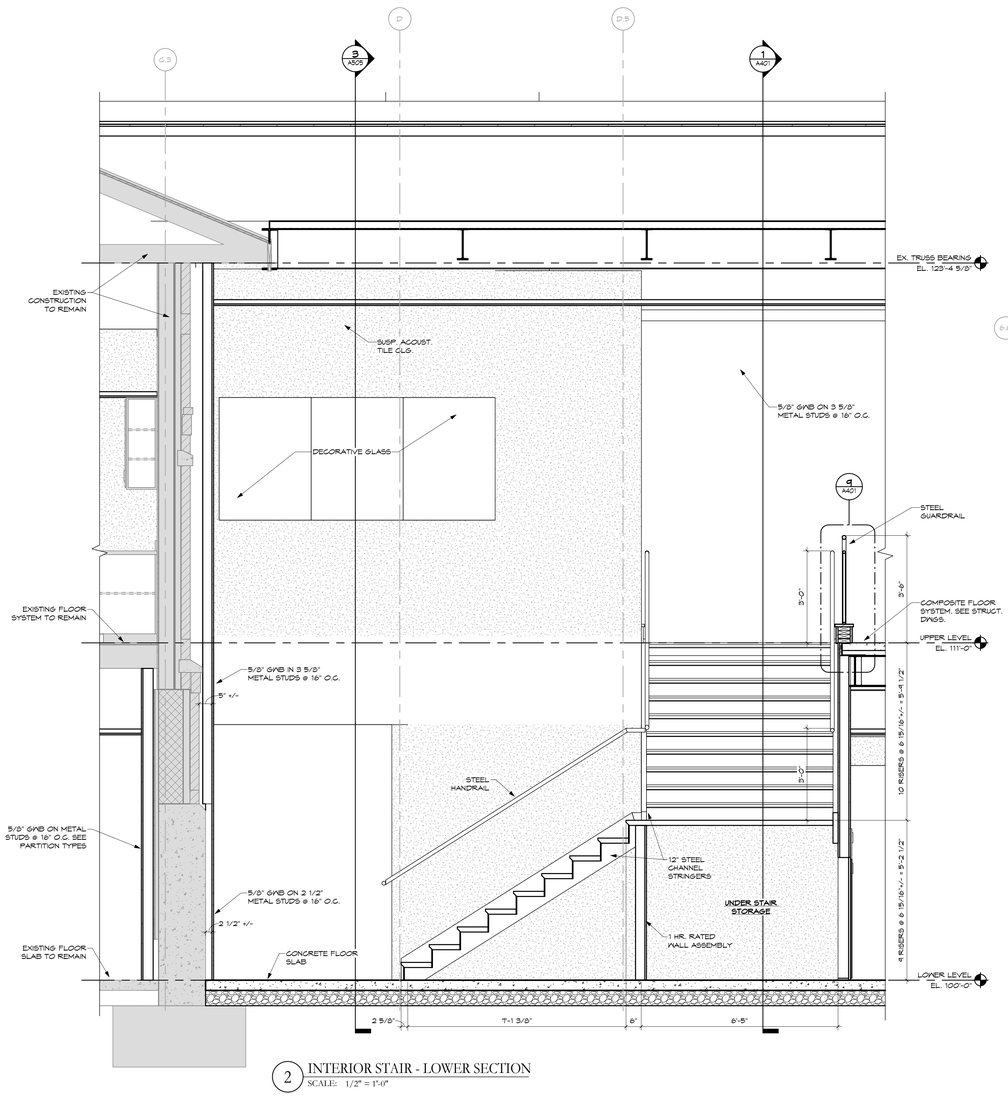
9 TYPICAL INTERIOR GUARDRAIL
SCALE: 1 1/2" = 1'-0"



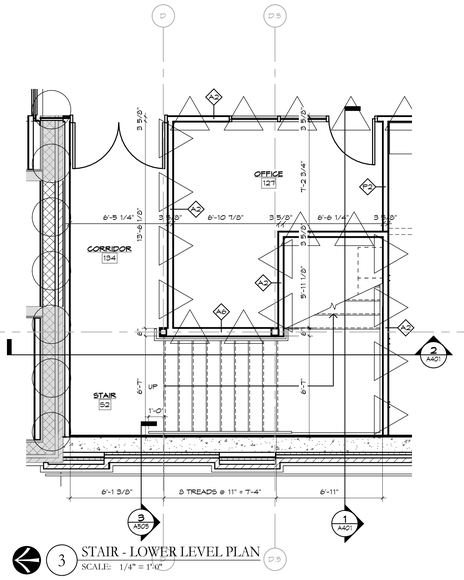
10 STAIR - UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"



1 INTERIOR STAIR - UPPER SECTION
SCALE: 1/2" = 1'-0"



2 INTERIOR STAIR - LOWER SECTION
SCALE: 1/2" = 1'-0"



3 STAIR - LOWER LEVEL PLAN
SCALE: 1/4" = 1'-0"

	BID DOCUMENTS	11.10.2023
No.	Revisions / Submissions	Date

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

VERTICAL CIRCULATION PLANS, SECTIONS AND DETAILS

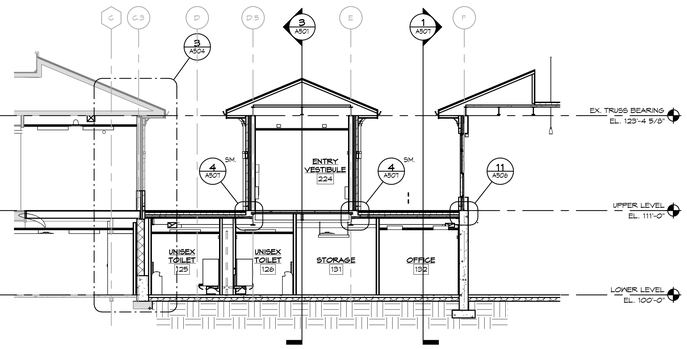
STATE OF INDIANA — KEVIN R. MCCURDY — 11200138 — REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A401
Checked KRM	

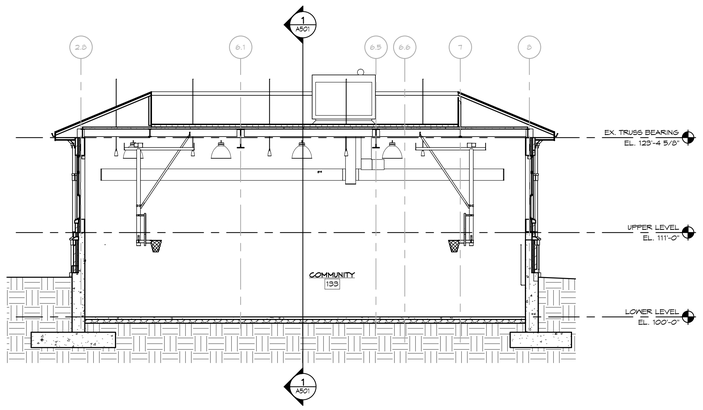
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/15/2023 8:14:27 AM

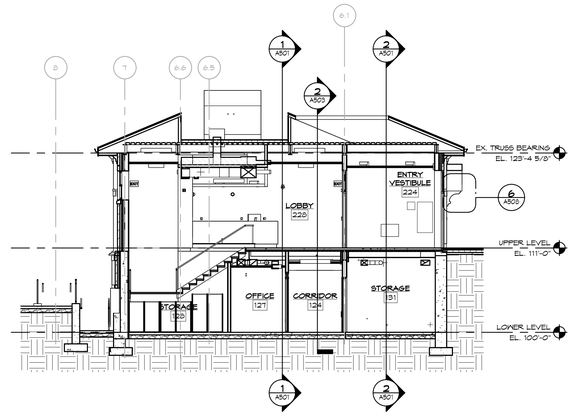


2 TRANSVERSE BUILDING SECTION THRU ENTRY & RESTROOMS



4 TRANSVERSE BUILDING SECTION THRU COMMUNITY ROOM
SCALE: 1/8" = 1'-0"

1 LONGITUDINAL BUILDING SECTION THRU COMMUNITY ROOM, LOBBY & EXISTING BUILDING
SCALE: 1/8" = 1'-0"



3 LONGITUDINAL BUILDING SECTION THRU ENTRY & STAIR
SCALE: 1/8" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

BUILDING SECTIONS

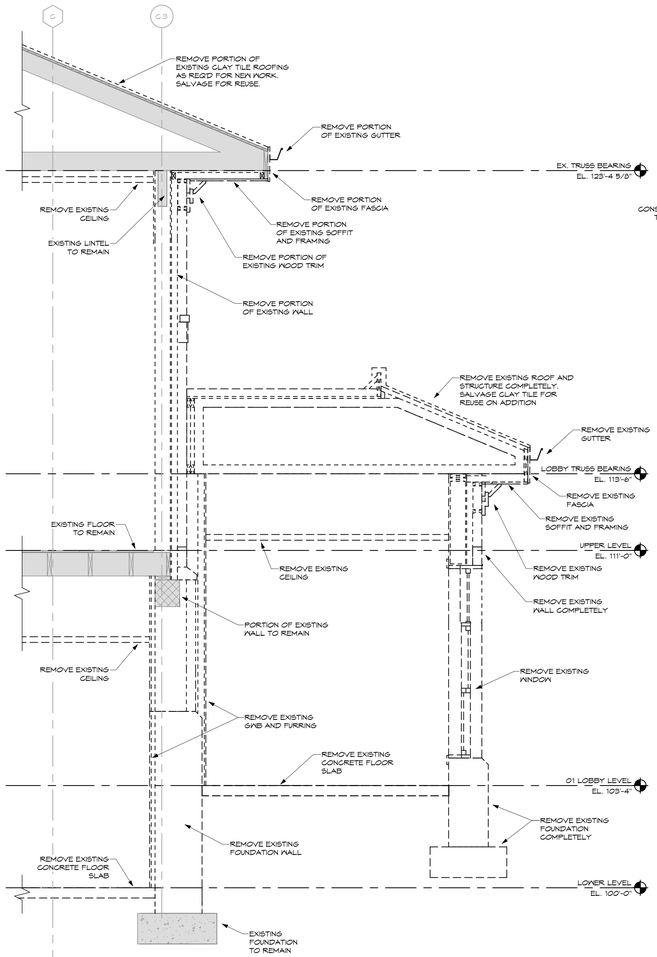
STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A501
Checked: KRM	

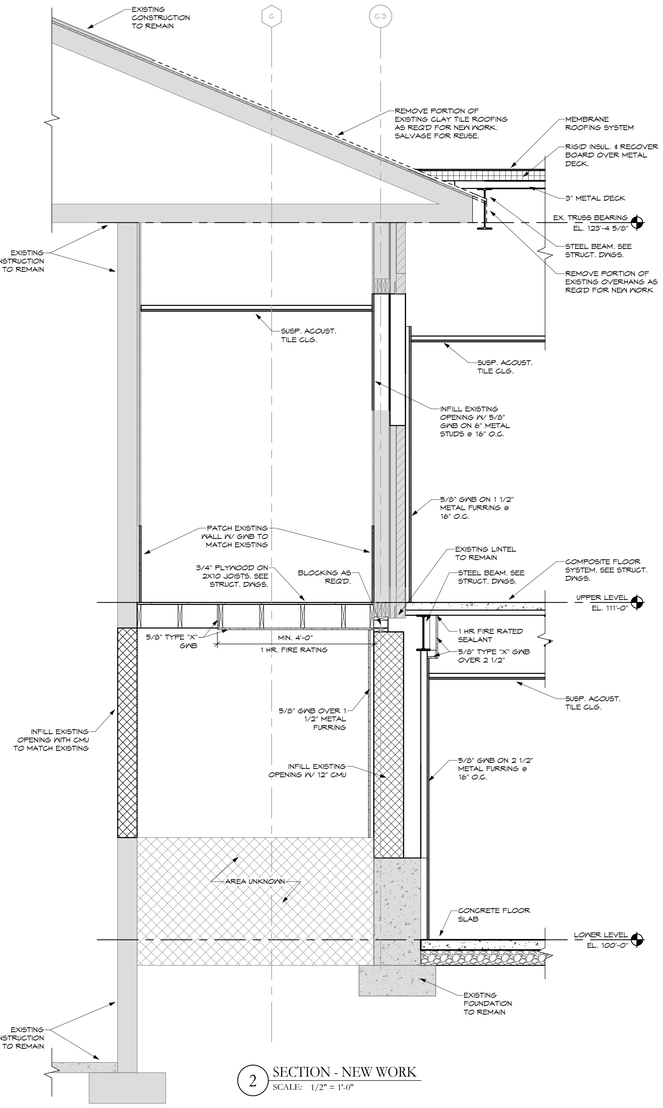
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

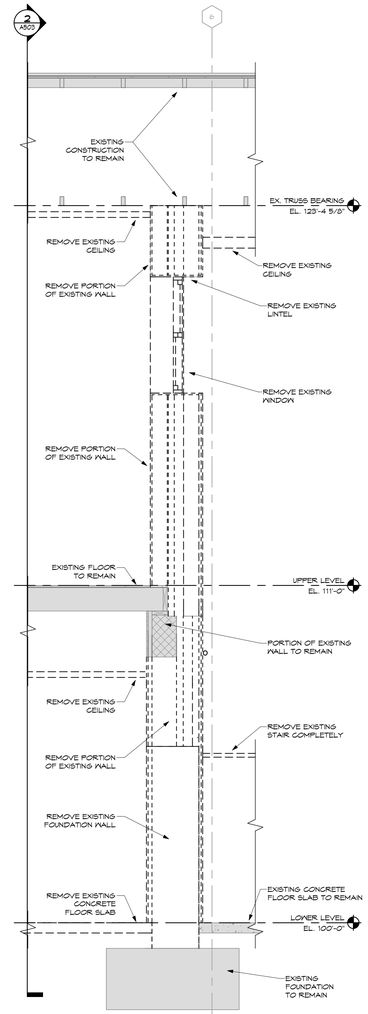
11/14/2023 9:26:45 PM



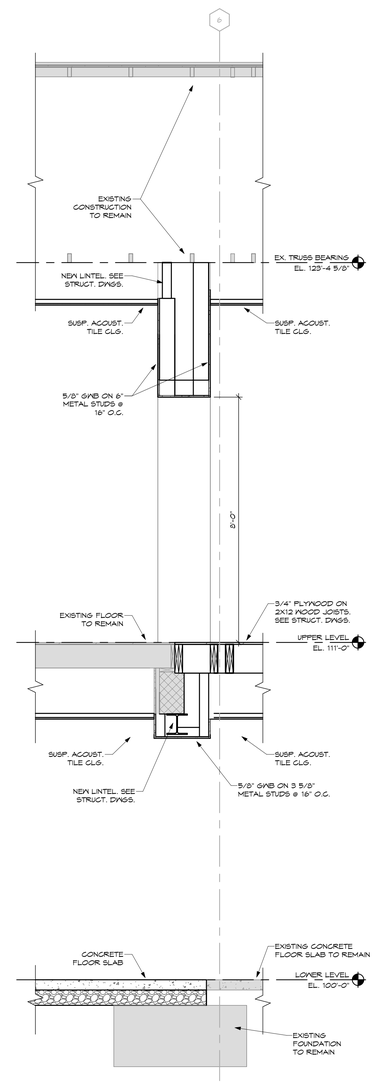
1 DEMO SECTION @ EXISTING LOBBY LEVEL ENTRY
SCALE: 1/2" = 1'-0"



2 SECTION - NEW WORK
SCALE: 1/2" = 1'-0"



3 DEMO SECTION @ EXISTING STAIR
SCALE: 1/2" = 1'-0"



4 SECTION - NEW WORK
SCALE: 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

WALL SECTIONS

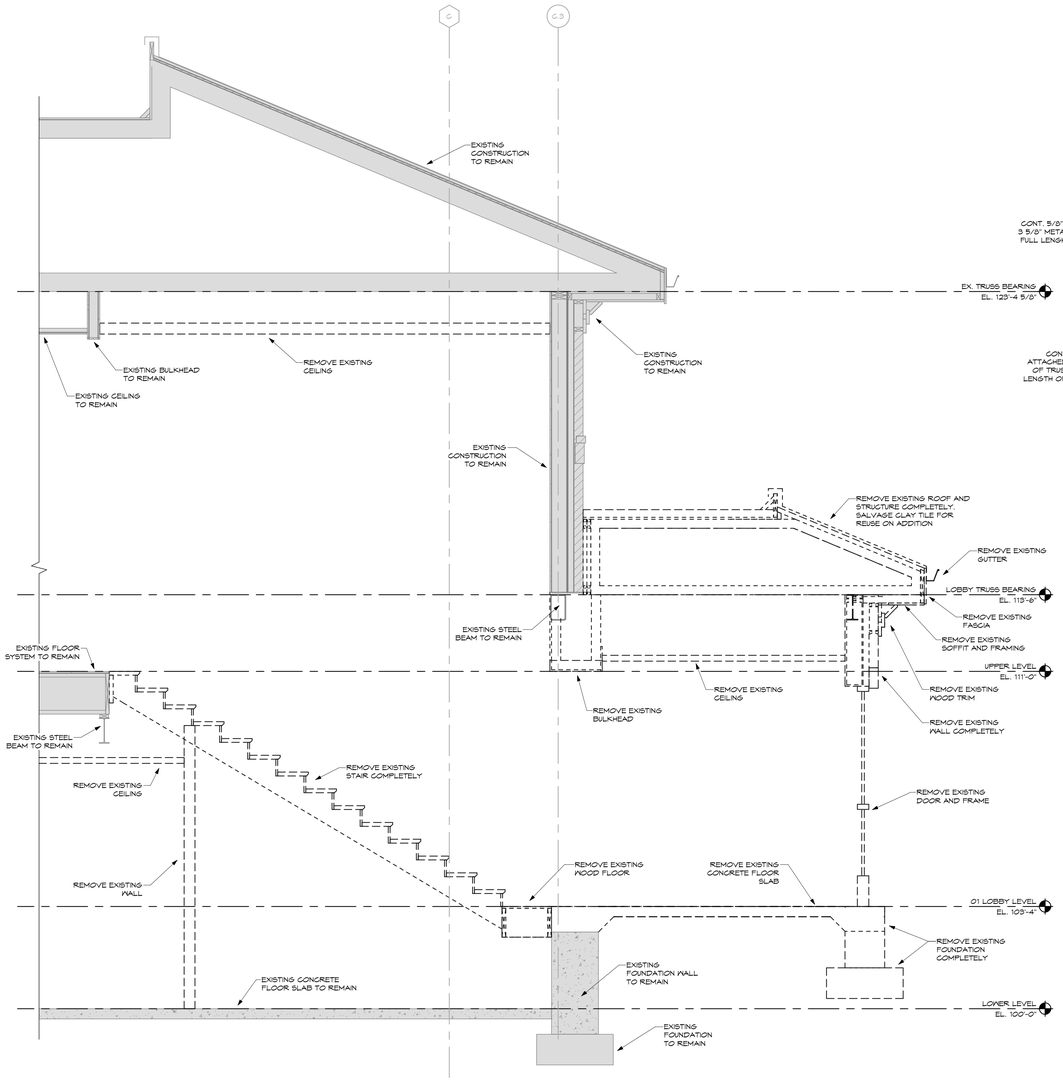
STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: SAG	Drawing No.: A502
Checked: KRM	

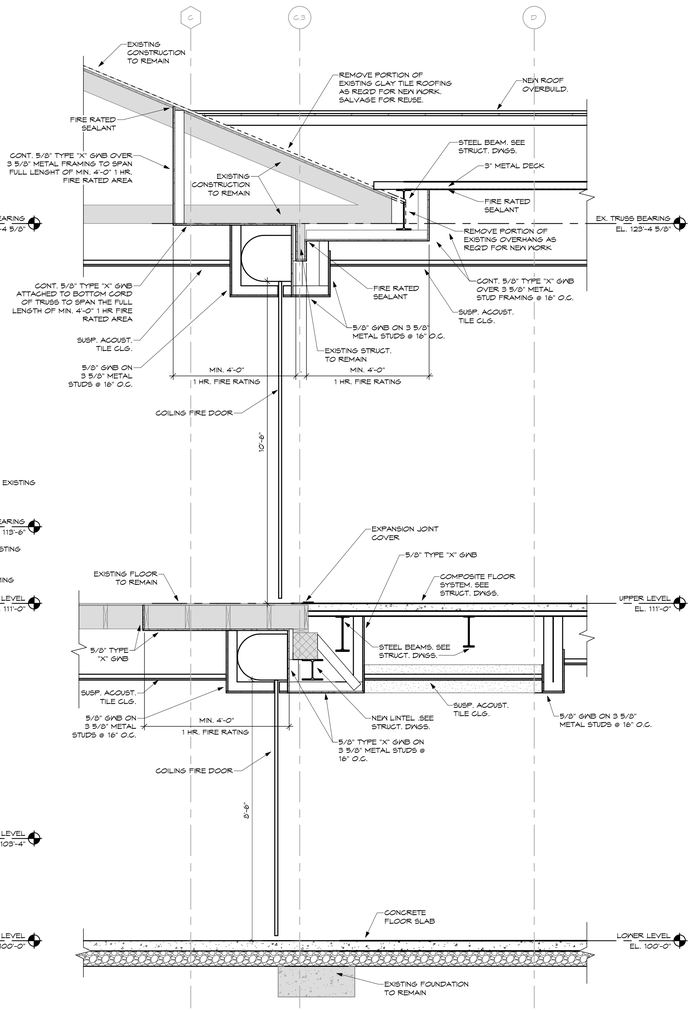
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

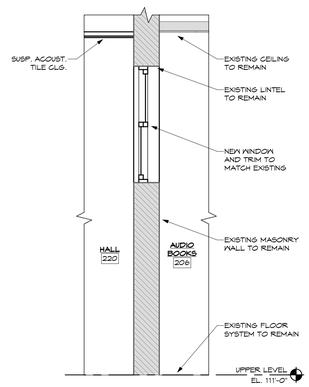
11/14/2023 9:26:50 PM



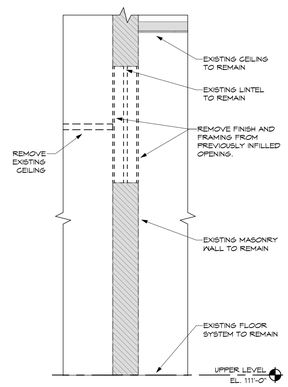
1 DEMO SECTION @ EXISTING UPPER STAIR
SCALE: 1/2" = 1'-0"



2 SECTION - NEW WORK
SCALE: 1/2" = 1'-0"



4 WALL SECTION - NEW WORK
SCALE: 1/2" = 1'-0"



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

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

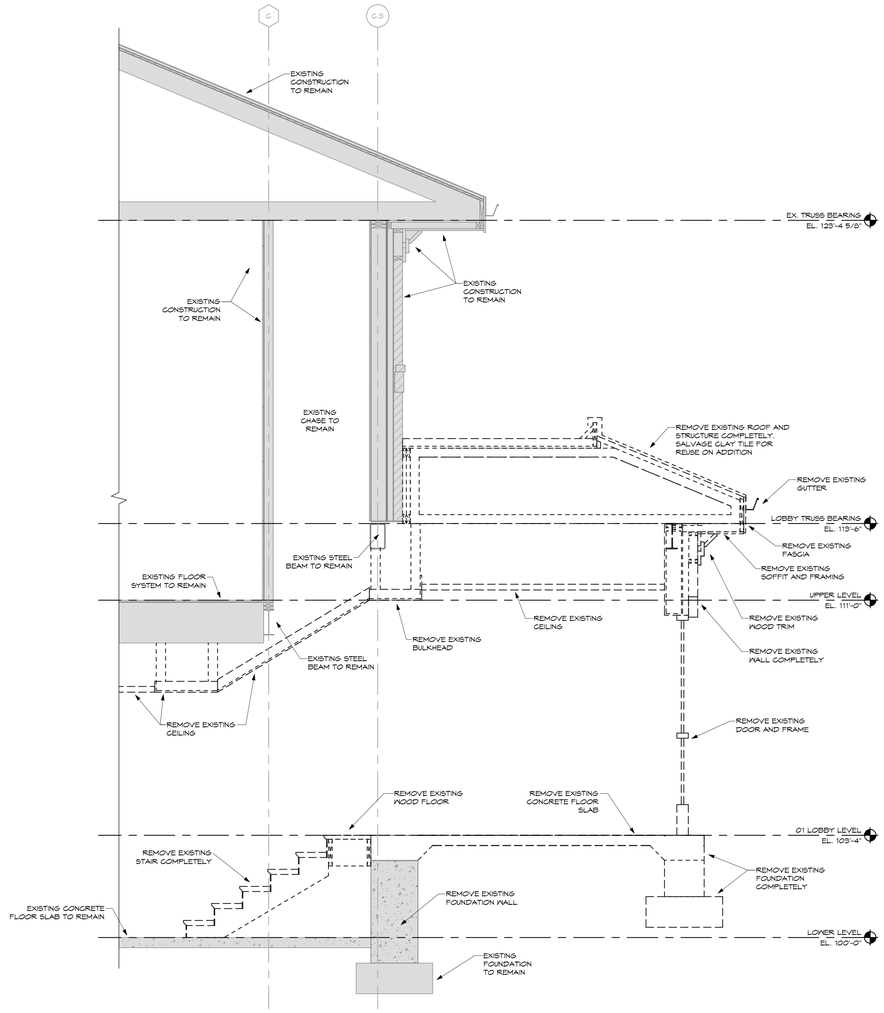
WALL SECTIONS

STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

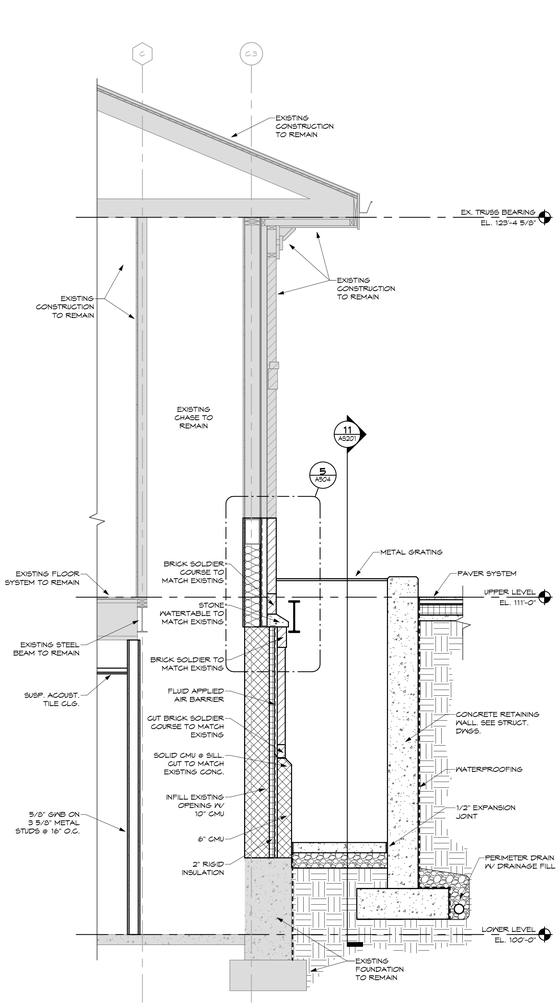
Comm. No.	Date
22106.00	11.10.2023
Drawn: SAG	Drawing No.: A503
Checked: KRM	

© 2023 LWC INCORPORATED

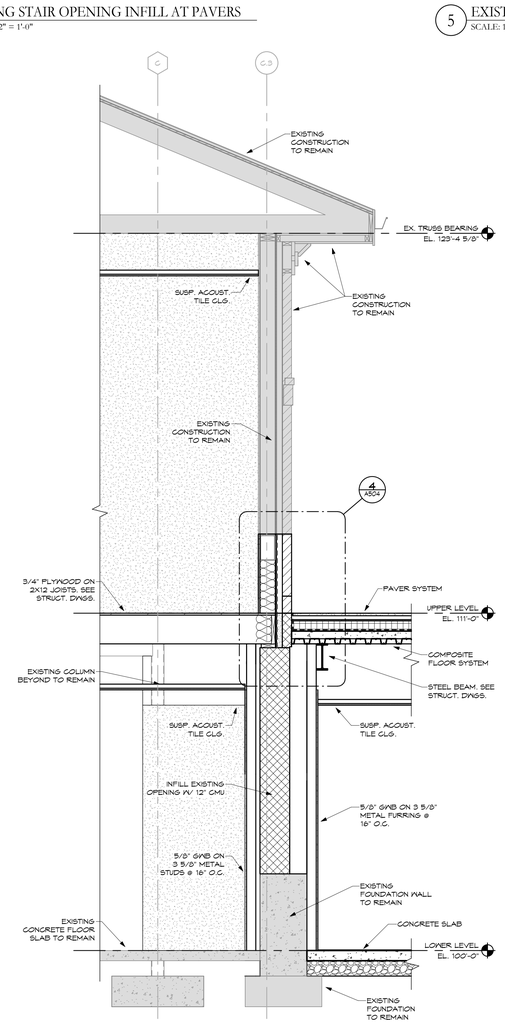
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



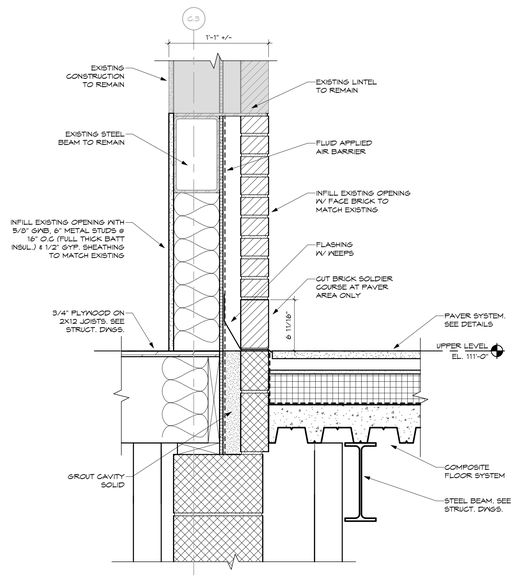
1 DEMO SECTION @ EXISTING LOWER STAIR
SCALE: 1/2" = 1'-0"



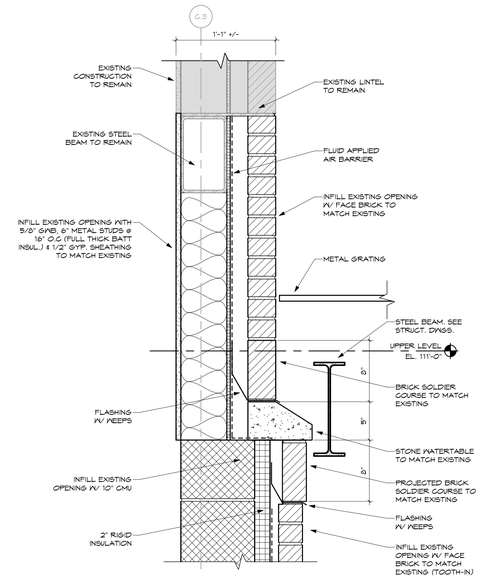
2 SECTION @ STAIR INFILL
SCALE: 1/2" = 1'-0"



3 SECTION @ NEW LOWER LEVEL DOOR
SCALE: 1/2" = 1'-0"



4 EXISTING STAIR OPENING INFILL AT PAVERS
SCALE: 1 1/2" = 1'-0"



5 EXISTING STAIR OPENING INFILL AT AREAWAY
SCALE: 1 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

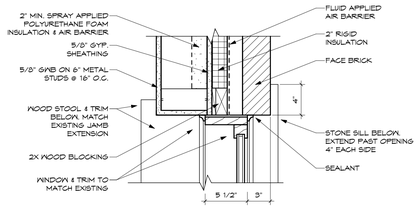
WALL SECTIONS & DETAILS

STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

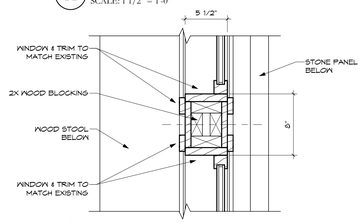
Comm. No.	Date
22106.00	11.10.2023
Drawn: SAG	Drawing No.: A504
Checked: KRM	

© 2023 LWC INCORPORATED

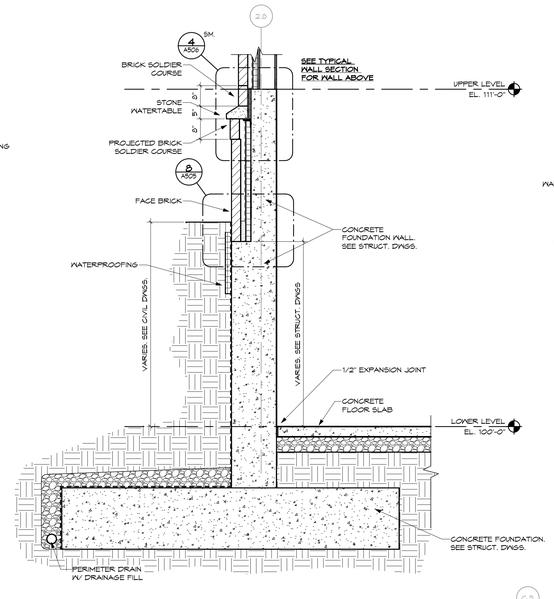
11/14/2023 9:26:57 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



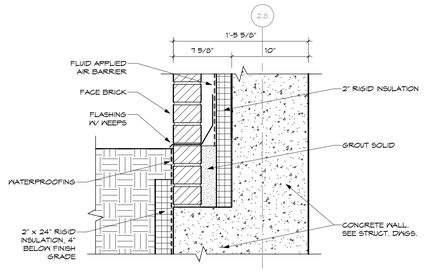
11 TYPICAL UPPER WINDOW JAMB
SCALE: 1 1/2" = 1'-0"



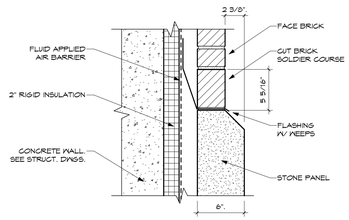
10 TYPICAL UPPER WINDOW MULLION
SCALE: 1 1/2" = 1'-0"



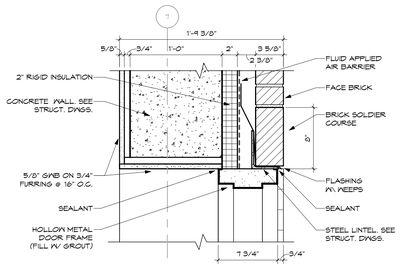
7 COMMUNITY CENTER EAST WALL
SCALE: 1/2" = 1'-0"



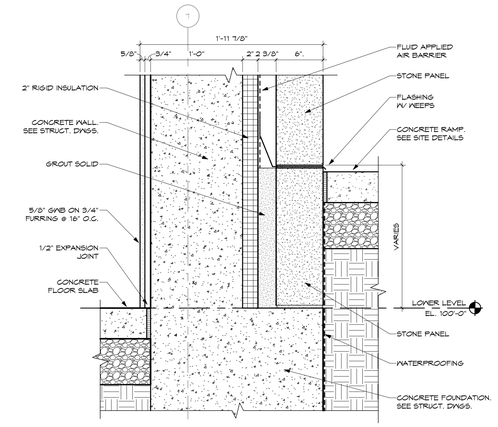
8 TYPICAL EAST WALL BRICK LEDGE
SCALE: 1 1/2" = 1'-0"



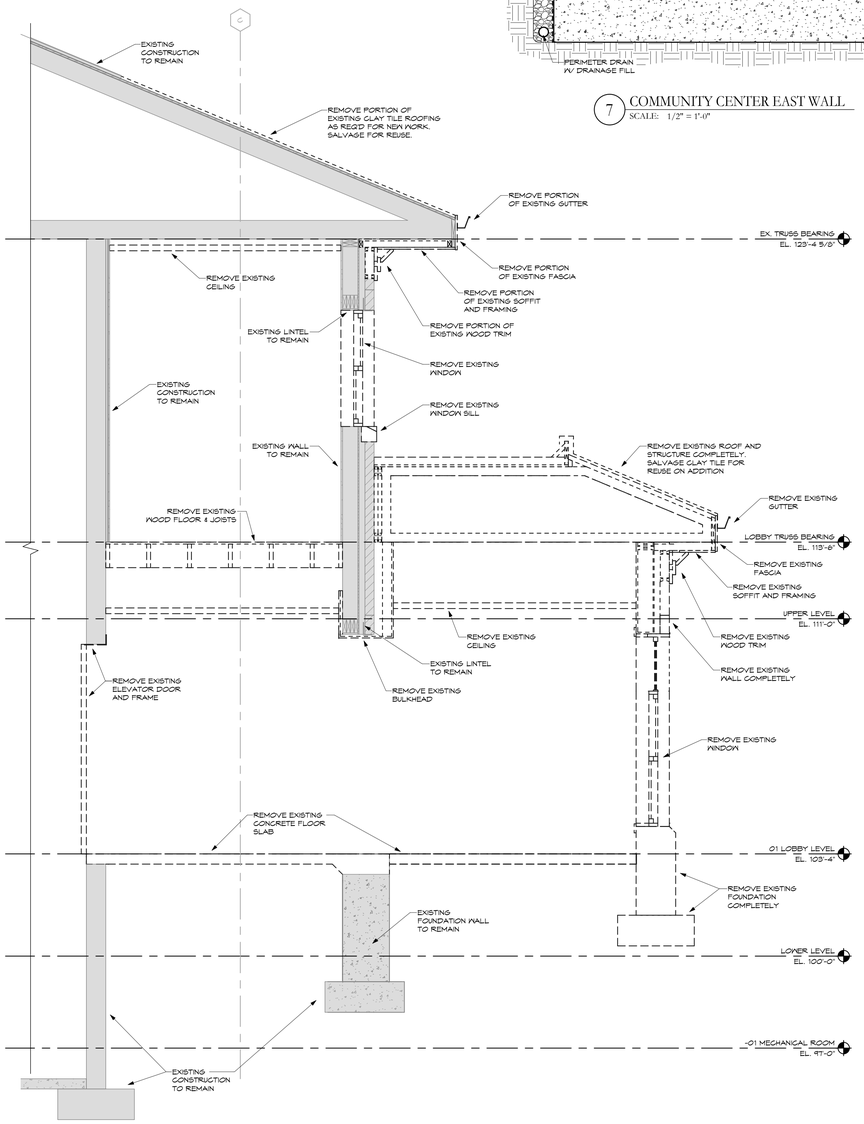
6 TYPICAL STONE PANEL
SCALE: 1 1/2" = 1'-0"



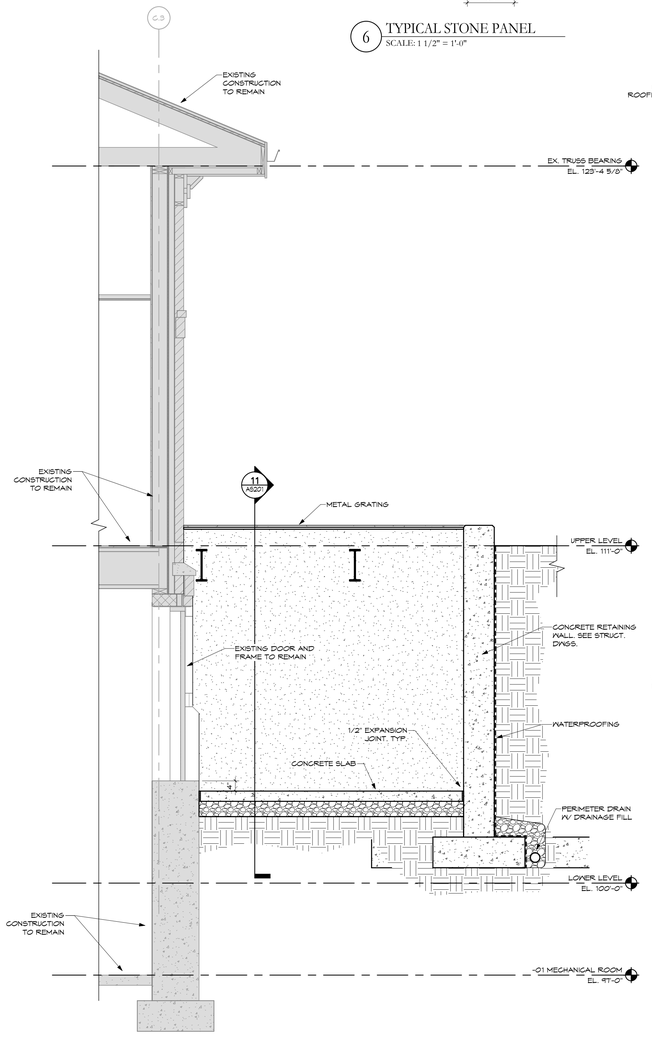
9 WARMING KITCHEN DOOR HEAD
SCALE: 1 1/2" = 1'-0"



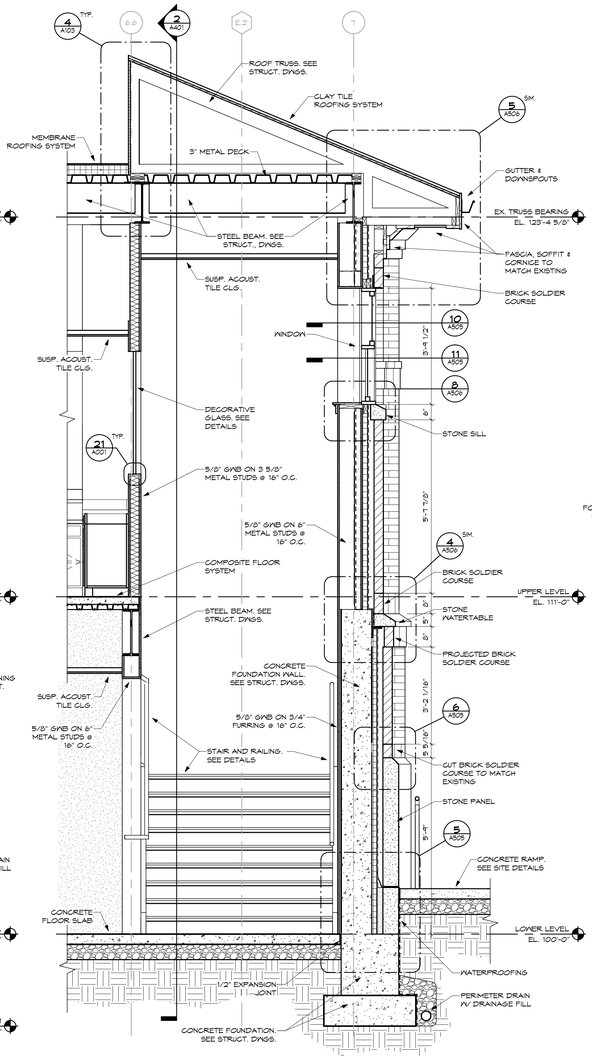
5 STONE PANEL LEDGE
SCALE: 1 1/2" = 1'-0"



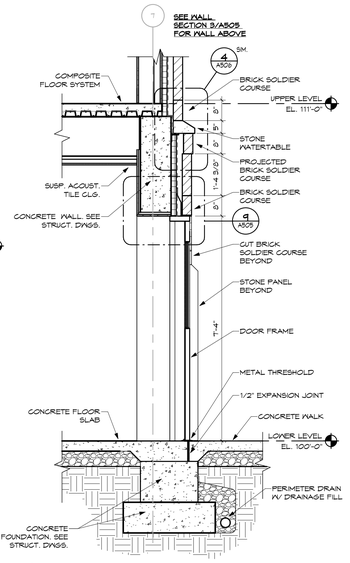
1 DEMO SECTION @ ELEVATOR
SCALE: 1/2" = 1'-0"



2 SECTION @ MECHANICAL AREAWAY
SCALE: 1/2" = 1'-0"



3 SECTION @ STAIR CORRIDOR / CIRCULATION
SCALE: 1/2" = 1'-0"



4 SECTION THRU WARMING KITCHEN DOOR
SCALE: 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

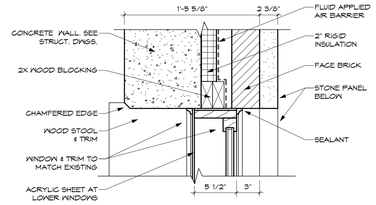
WALL SECTIONS & DETAILS

STATE OF INDIANA — KEVIN R. MCCURDY — 11200136 — REGISTERED ARCHITECT

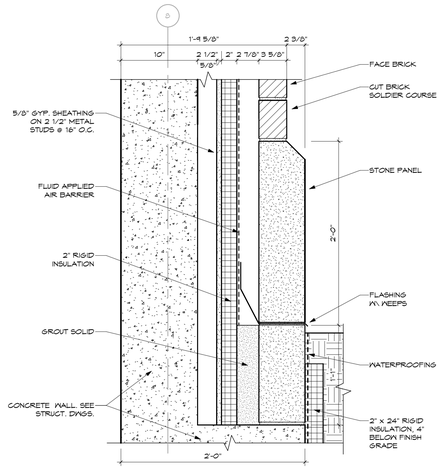
Comm. No.	Date
22106.00	11.10.2023
Drawn: SAG	Drawing No.: A505
Checked: KRM	

© 2023 LWC INCORPORATED

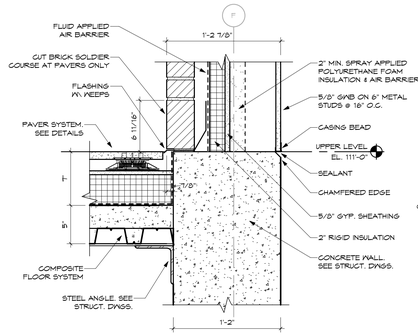
11/14/2023 9:27:05 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



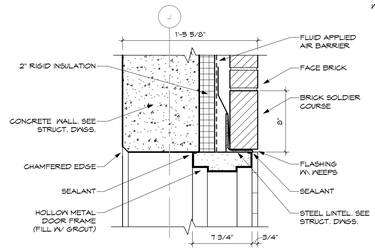
13 TYPICAL LOWER WINDOW JAMB
SCALE: 1 1/2" = 1'-0"



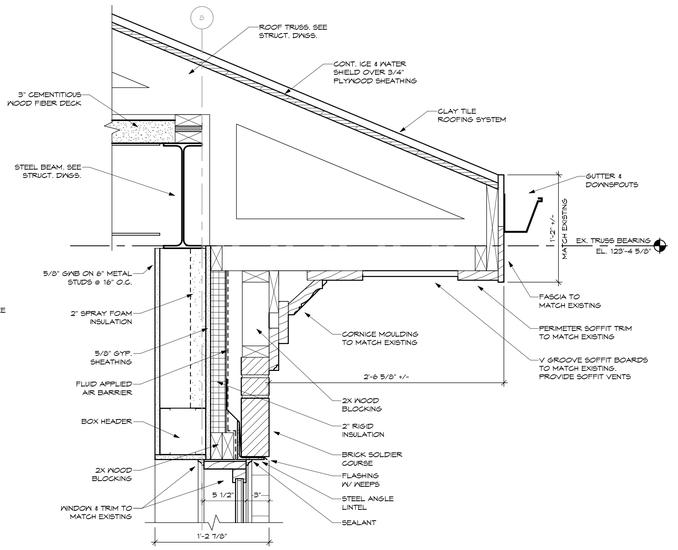
12 TYPICAL STONE PANEL @ PIER
SCALE: 1 1/2" = 1'-0"



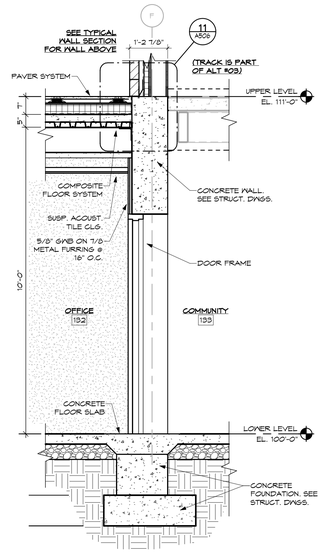
11 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



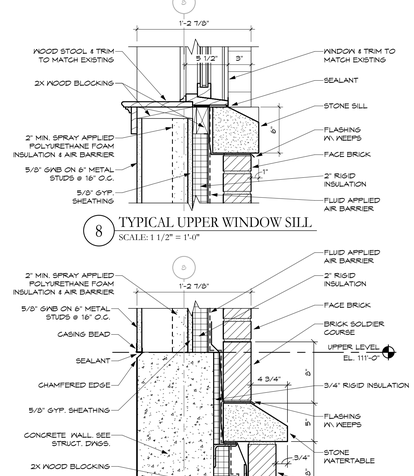
10 TYPICAL EXTERIOR DOOR HEAD
SCALE: 1 1/2" = 1'-0"



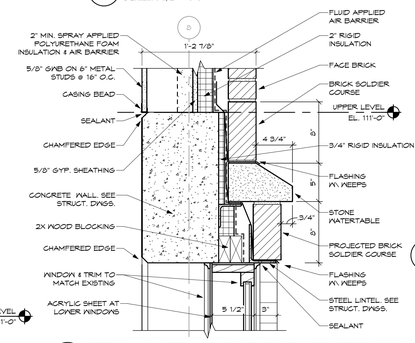
5 TYPICAL UPPER WINDOW HEAD, CORNICE, SOFFIT & FASCIA
SCALE: 1 1/2" = 1'-0"



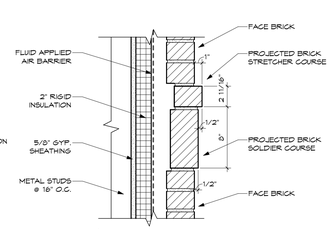
6 SECTION THRU COMMUNITY CENTER OFFICE
SCALE: 1/2" = 1'-0"



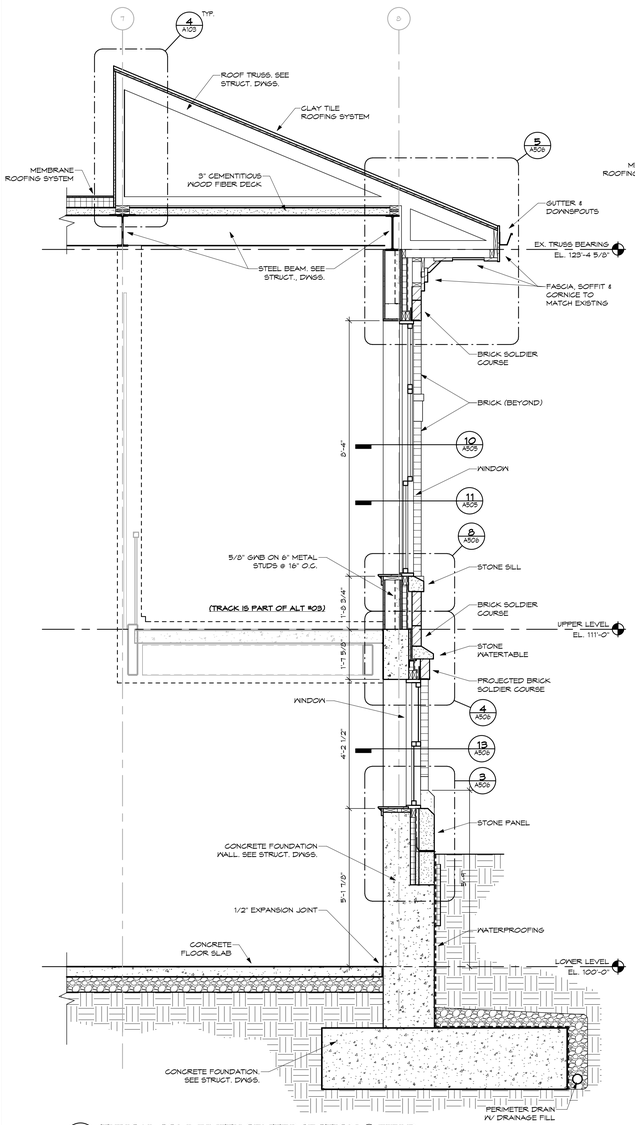
8 TYPICAL UPPER WINDOW SILL
SCALE: 1 1/2" = 1'-0"



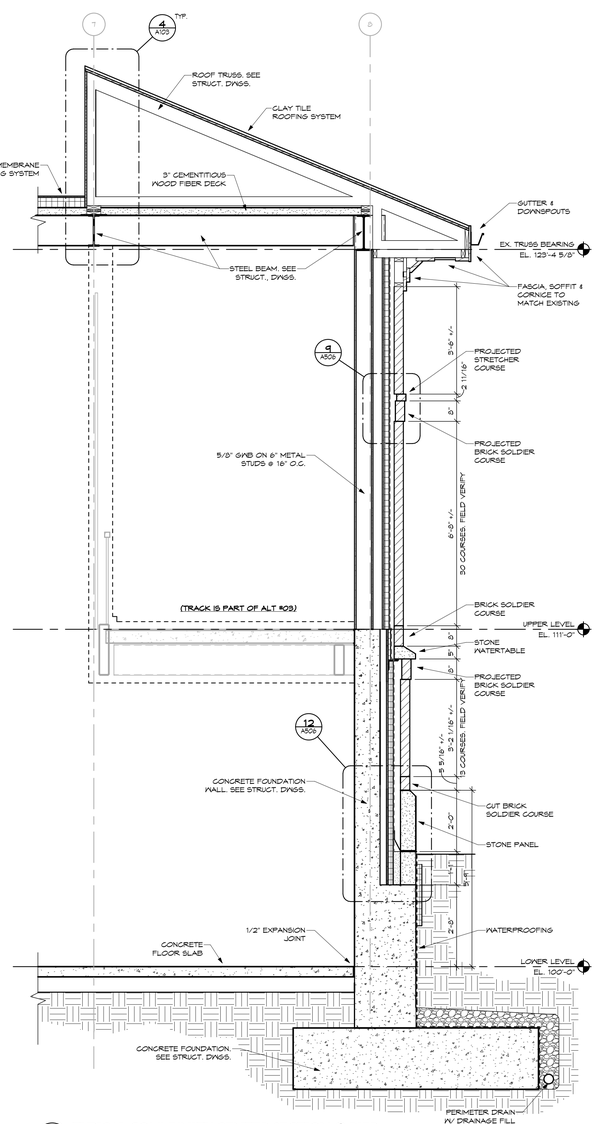
4 TYPICAL LOWER WINDOW HEAD & WATERTABLE
SCALE: 1 1/2" = 1'-0"



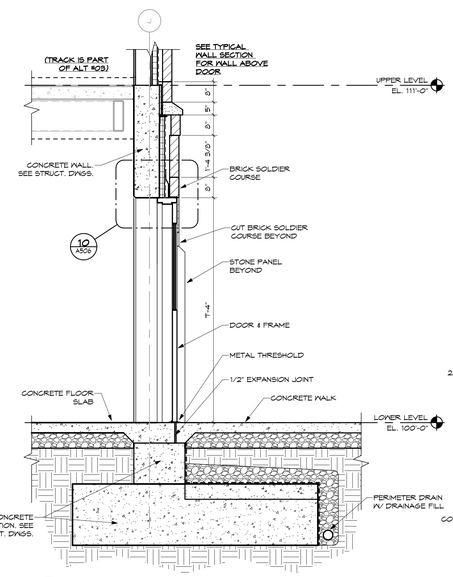
9 TYPICAL PROJECTED SOLDIER & STRETCHER
SCALE: 1 1/2" = 1'-0"



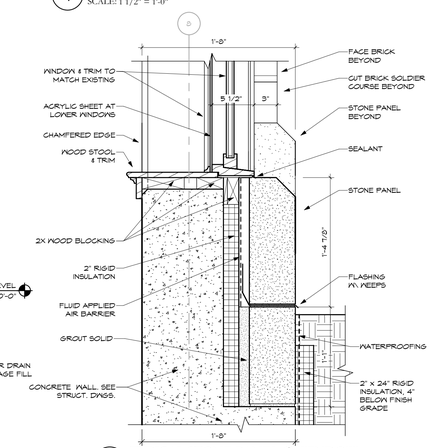
1 TYPICAL COMMUNITY CENTER SECTION @ FIELD
SCALE: 1/2" = 1'-0"



2 TYPICAL COMMUNITY CENTER SECTION @ PIER
SCALE: 1/2" = 1'-0"



7 TYPICAL COMMUNITY CENTER DOOR
SCALE: 1/2" = 1'-0"



3 TYPICAL STONE PANEL @ WINDOW
SCALE: 1 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

WALL SECTIONS & DETAILS

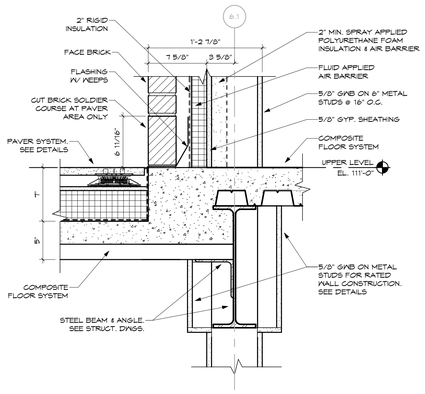
STATE OF INDIANA — KEVIN R. MCCURDY 11200138 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A506
Checked: KRM	

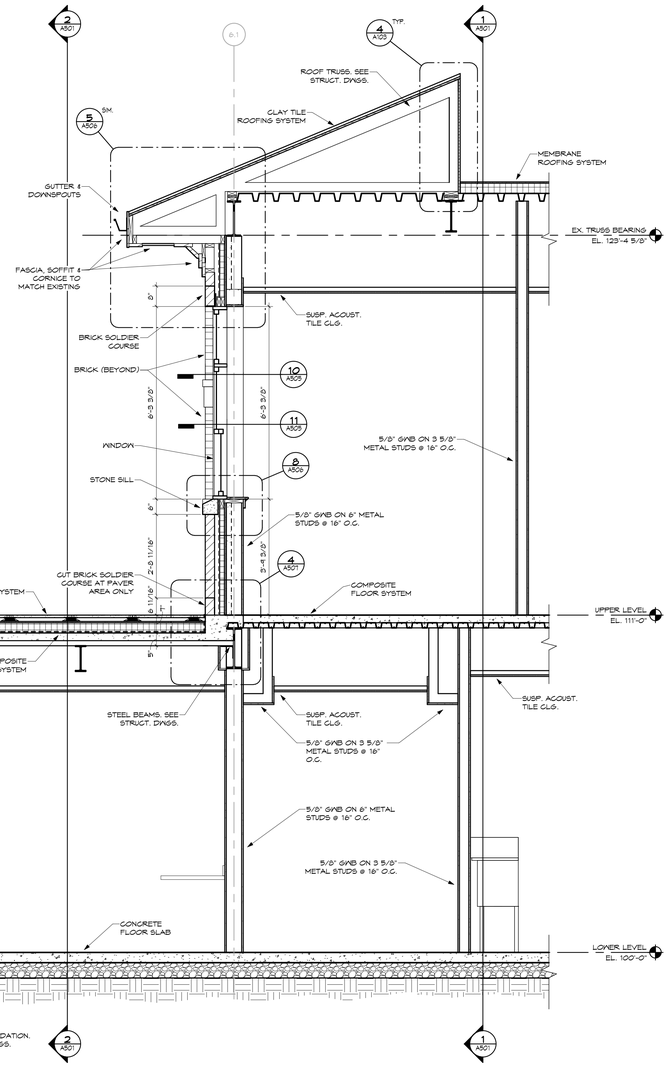
© 2023 LWC INCORPORATED

11/15/2023 8:39:33 AM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

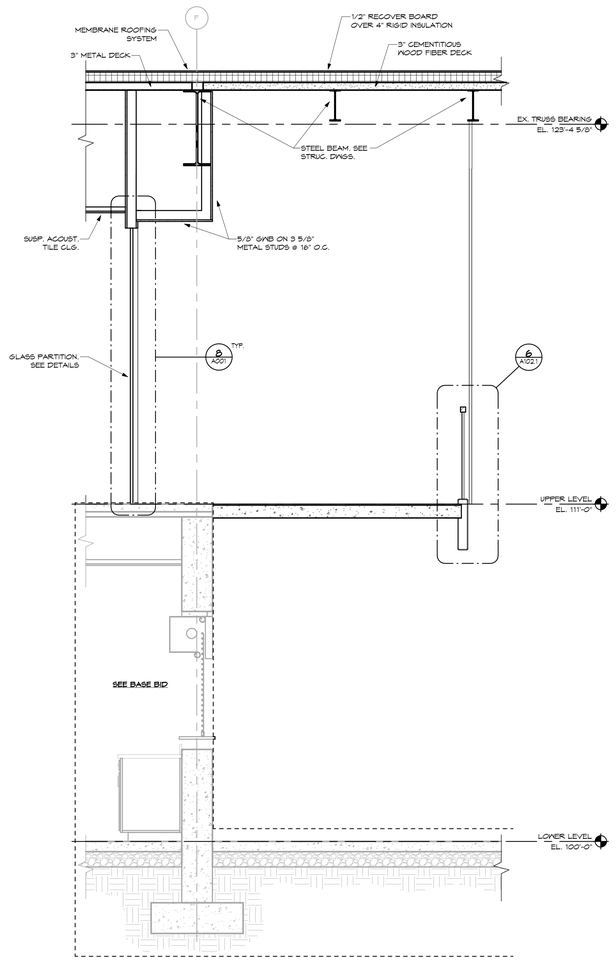
11/14/2023 9:27:22 PM



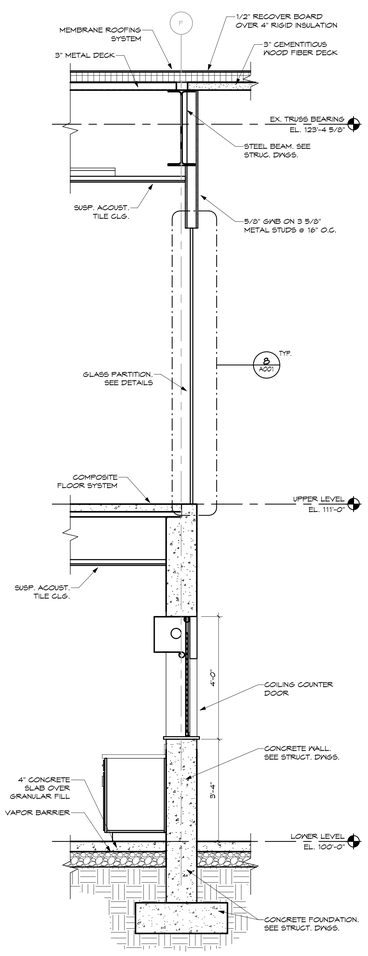
4 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



1 SECTION THRU LOBBY/COMMUNITY OFFICE
SCALE: 1/2" = 1'-0"



2 SOFFIT AT GLASS PARTITION - ALT #03
SCALE: 1/2" = 1'-0"



3 WARMING KITCHEN OPENING & GLASS PARTITION AT MEETING
SCALE: 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

WALL SECTIONS & DETAILS

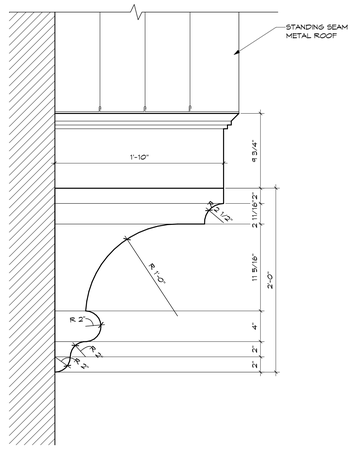
STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn S.A.G.	Drawing No. A507
Checked KRM	

© 2023 LWC INCORPORATED

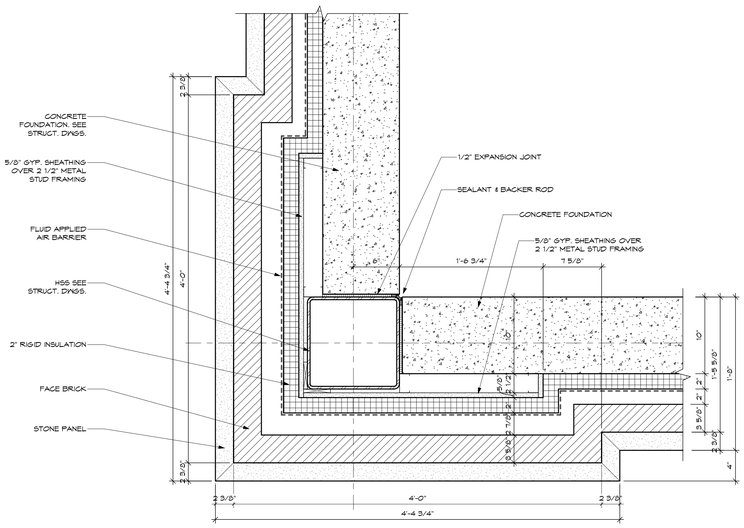
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:27:37 PM



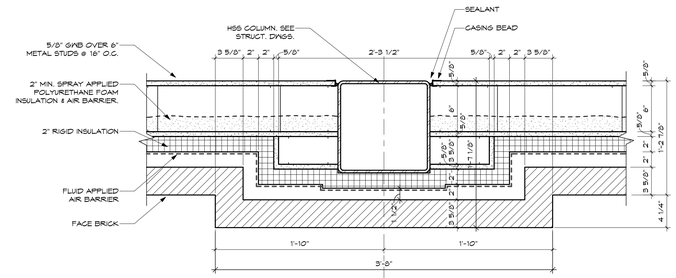
6 ROOF BRACKET - DETAIL
SCALE: 1 1/2" = 1'-0"

5 FRONT ENTRANCE
SCALE: 1/2" = 1'-0"

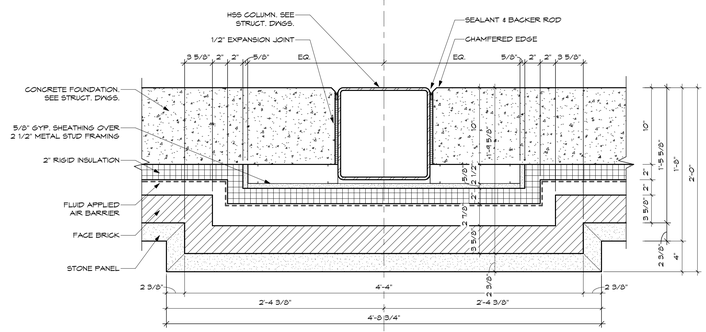


CUT ABOVE UPPER FLOOR LEVEL - CORNER CONDITION

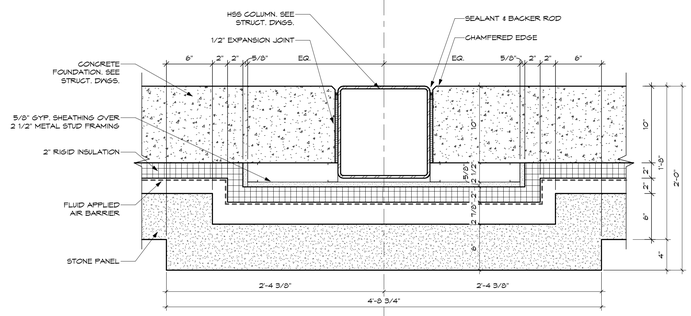
3 TYPICAL EXTERIOR CORNER PIER DETAIL
SCALE: 1 1/2" = 1'-0"



CUT ABOVE UPPER FLOOR LEVEL
SECTION C-C

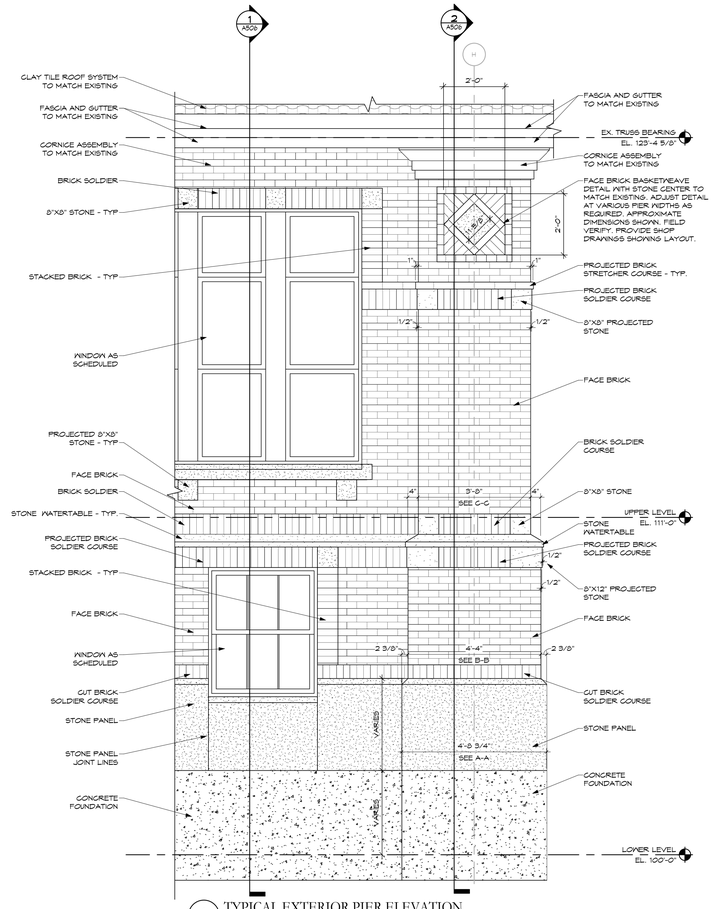


CUT ABOVE STONE WATERTABLE
SECTION B-B

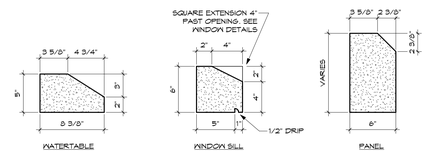


CUT THROUGH STONE WATERTABLE
SECTION A-A

4 TYPICAL EXTERIOR PIER DETAIL
SCALE: 1 1/2" = 1'-0"



1 TYPICAL EXTERIOR PIER ELEVATION
SCALE: 1/2" = 1'-0"



2 STONE PROFILE DETAILS
SCALE: 1 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

MISCELLANEOUS DETAILS

STATE OF INDIANA
KEVIN R. MCCURDY
11200136
REGISTERED ARCHITECT

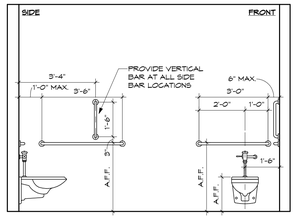
Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A508
Checked: KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

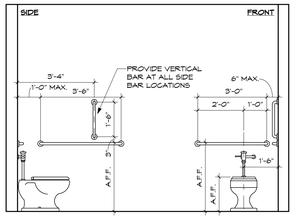
11/15/2023 8:17:51 AM

WALLHUNG WATERCLOSET

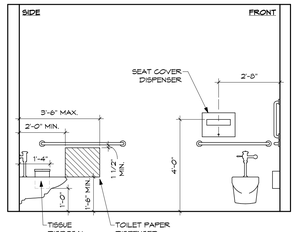


TAG	DESCRIPTION	A.F.F.	GB A.F.F.
WC-1	ADULT NON-ADA	1'-3"	-
WC-2	ADULT ADA	1'-6"	3'-0"

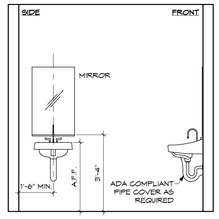
FLOORSET WATERCLOSET



ADDITIONAL ACCESSORY MOUNTING LOCATIONS

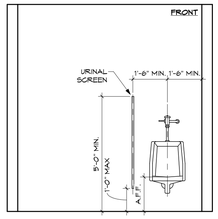


LAVATORY



TAG	A.F.F.	DESCRIPTION
LV-1	3'-0"	ADULT NON-ADA
LV-2	2'-10"	ADULT ADA

URINAL & URINAL SCREEN



TAG	A.F.F.	DESCRIPTION
UR-1	2'-0"	ADULT NON-ADA
UR-2	1'-5"	ADULT ADA

GENERAL NOTES:

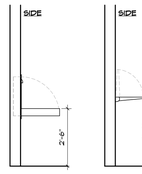
A. NOT ALL ITEMS SHOWN MAY BE APPLICABLE TO THIS PROJECT.

B. ALL ACCESSIBLE REACH AND MOUNTING DIMENSIONS SHALL CONFORM TO THE "ICC A117.1, 2009 VERSION" STANDARDS.

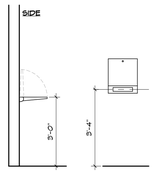
C. PROJECT SPECIFIC ITEMS NOT SHOWN, OR THAT REQUIRE SELECTIVE ALTERATIONS TO LOCATION, MOUNTING, ETC., SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.

D. ALL DIMENSIONS ARE TO FINISH FACE. COORDINATE FINAL FINISH MATERIALS AND THICKNESS.

E. ALL DIMENSIONS ARE TO INCLUDE ACCESS TO OPERABLE LEVERS, CONTROLS, BUTTONS, CONSLOTS, AND/OR, OTHER ITEMS THAT MAY REQUIRE INTERACTION BY A PATRON.

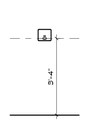


CHANGING STATION

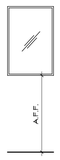


FOLDING UTILITY SHELF

PAPER TOWEL DISPENSER

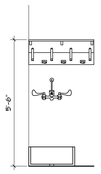


SOAP DISPENSER

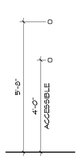


MIRROR

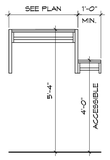
TAG	W x H	A.F.F.
M-1	2'-0" x 5'-0"	1'-0"
M-2	2'-0" x 3'-0"	3'-4"
M-3	6'-0" x 3'-0"	3'-0"



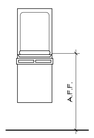
MOP & BROOM HOLDER W/SHELF, HOOKS & HOLDERS



COAT HOOK

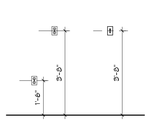


COAT RACK



ELECTRIC WATER COOLER

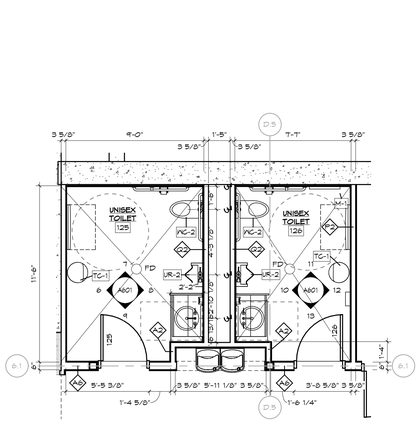
TAG	DESCRIPTION	A.F.F.
EWC-1	ADULT NON-ADA	3'-4"
EWC-2	ADULT ADA	2'-0"



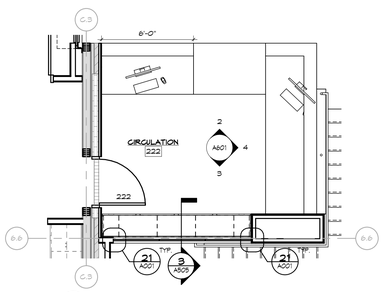
RECEPTACLES

WALL SWITCH

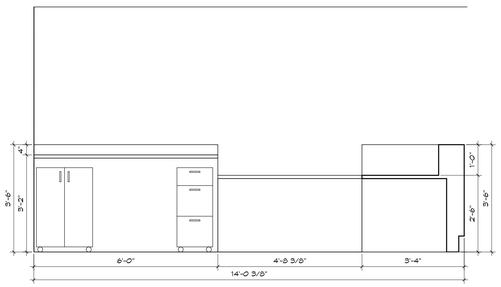
14 GENERAL - TYPICAL MOUNTING HEIGHTS
SCALE: 3/8" = 1'-0"



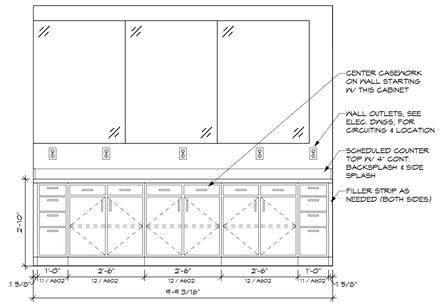
5 ENLARGED RESTROOM PLAN
SCALE: 1/4" = 1'-0"



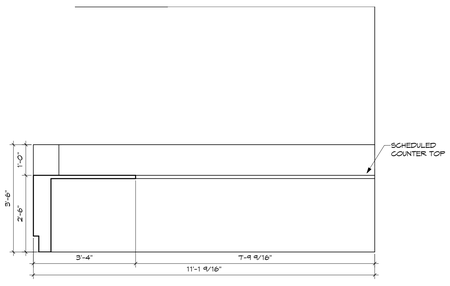
1 ENLARGED CIRCULATION 222
SCALE: 1/4" = 1'-0"



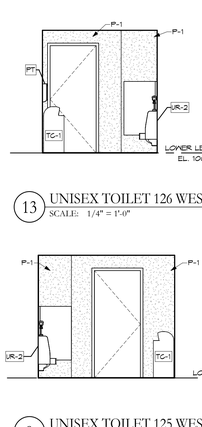
2 CIRCULATION 222 - EAST
SCALE: 1/2" = 1'-0"



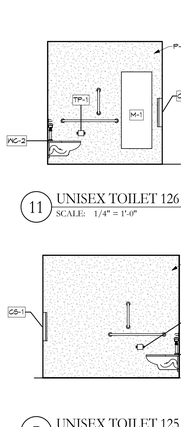
3 CIRCULATION 222 - WEST
SCALE: 1/2" = 1'-0"



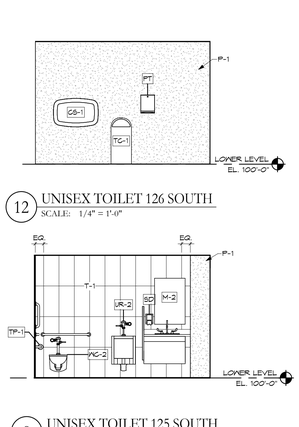
4 CIRCULATION 222 - SOUTH
SCALE: 1/2" = 1'-0"



10 UNISEX TOILET 126 NORTH
SCALE: 1/4" = 1'-0"



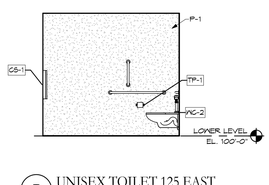
11 UNISEX TOILET 126 EAST
SCALE: 1/4" = 1'-0"



12 UNISEX TOILET 126 SOUTH
SCALE: 1/4" = 1'-0"

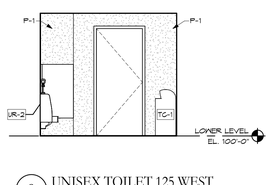
13 UNISEX TOILET 126 WEST
SCALE: 1/4" = 1'-0"

6 UNISEX TOILET 125 NORTH
SCALE: 1/4" = 1'-0"



7 UNISEX TOILET 125 EAST
SCALE: 1/4" = 1'-0"

8 UNISEX TOILET 125 SOUTH
SCALE: 1/4" = 1'-0"



9 UNISEX TOILET 125 WEST
SCALE: 1/4" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

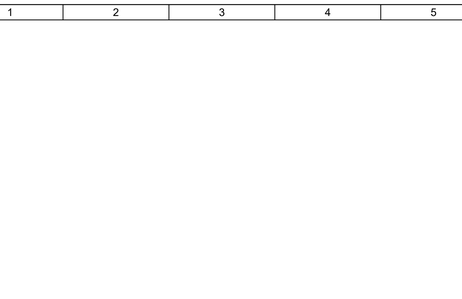
ENLARGED PLANS AND INTERIOR ELEVATIONS

STATE OF INDIANA — KEVIN R. MCCURDY — 11200136 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: M.K.S.	Drawing No.: A601
Checked: KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

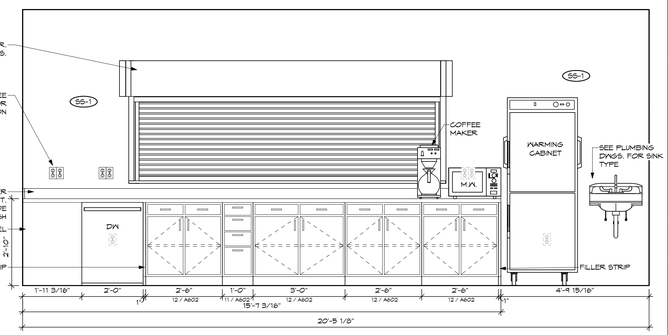


10 STORAGE 129A - NORTH
SCALE: 1/2" = 1'-0"

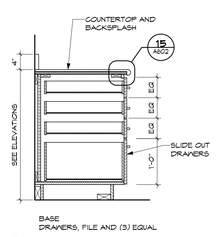
1 ENLARGED PLAN @ WARMING KITCHEN 130
SCALE: 1/4" = 1'-0"

2 WARMING KITCHEN 130 - NORTH
SCALE: 1/2" = 1'-0"

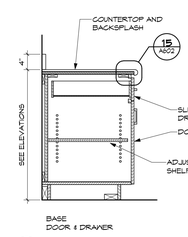
3 WARMING KITCHEN 130 - EAST
SCALE: 1/2" = 1'-0"



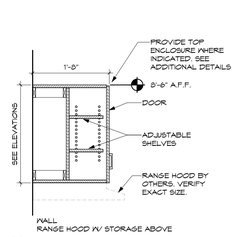
4 WARMING KITCHEN 130 - SOUTH
SCALE: 1/2" = 1'-0"



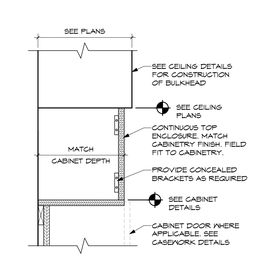
11 BASE CABINET
SCALE: 3/4" = 1'-0"



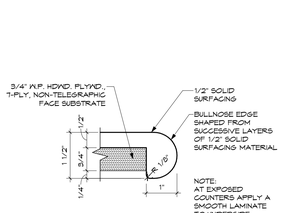
12 BASE CABINET
SCALE: 3/4" = 1'-0"



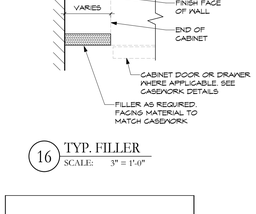
13 WALL CABINET
SCALE: 3/4" = 1'-0"



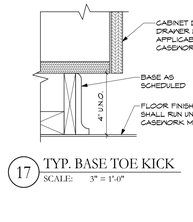
14 TYP. CASEWORK CAP, VERTICAL
SCALE: 1 1/2" = 1'-0"



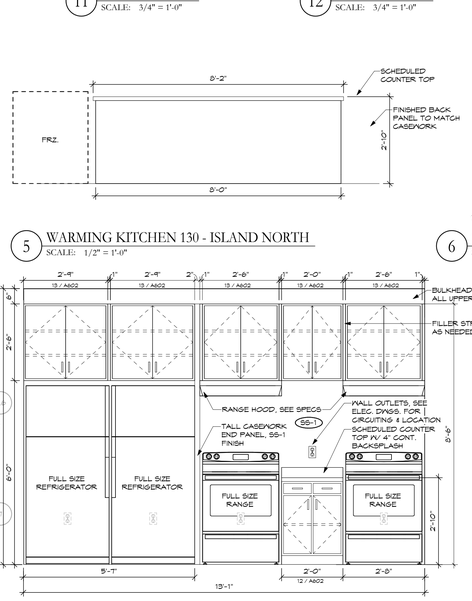
15 TYP. COUNTER EDGE, BULLNOSE
SCALE: 6" = 1'-0"



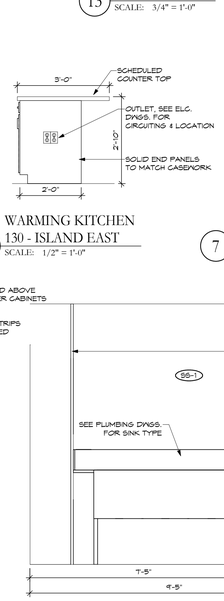
16 TYP. FILLER
SCALE: 3" = 1'-0"



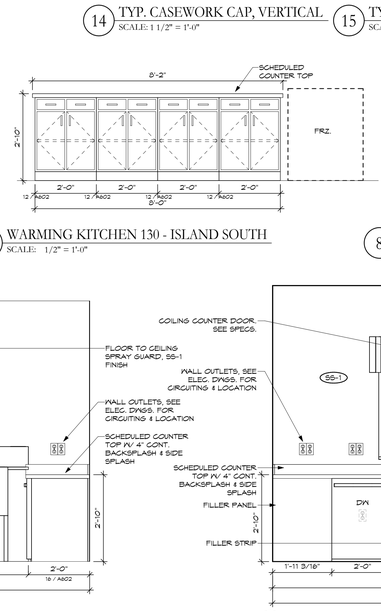
17 TYP. BASE TOE KICK
SCALE: 3" = 1'-0"



5 WARMING KITCHEN 130 - ISLAND NORTH
SCALE: 1/2" = 1'-0"

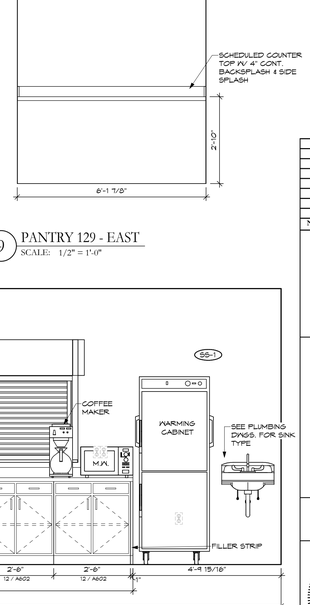


6 WARMING KITCHEN 130 - ISLAND EAST
SCALE: 1/2" = 1'-0"



7 WARMING KITCHEN 130 - ISLAND SOUTH
SCALE: 1/2" = 1'-0"

8 WARMING KITCHEN 130 - ISLAND WEST
SCALE: 1/2" = 1'-0"



9 PANTRY 129 - EAST
SCALE: 1/2" = 1'-0"

No.	Revisions / Submissions	Date

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ENLARGED PLANS, INTERIOR ELEVATIONS AND CASEWORK DETAILS

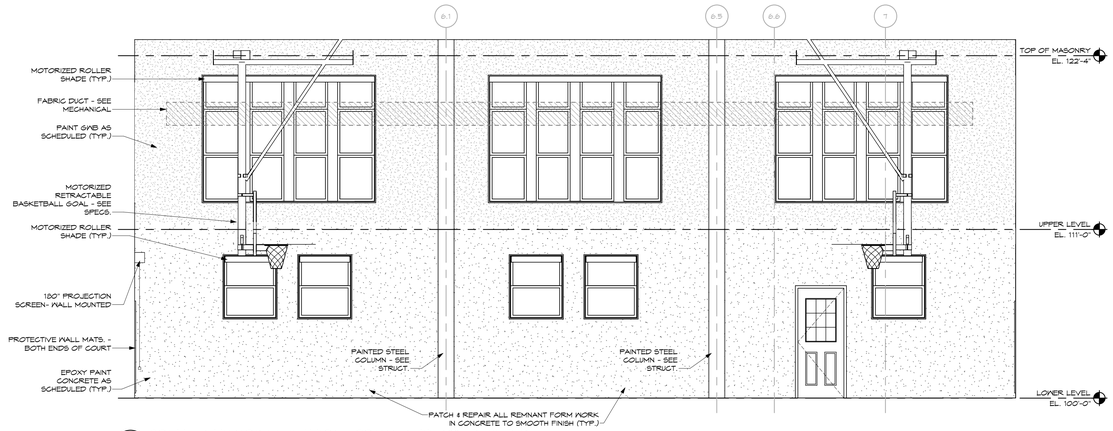
STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: M.K.S.	Drawing No. A602
Checked: KRM	

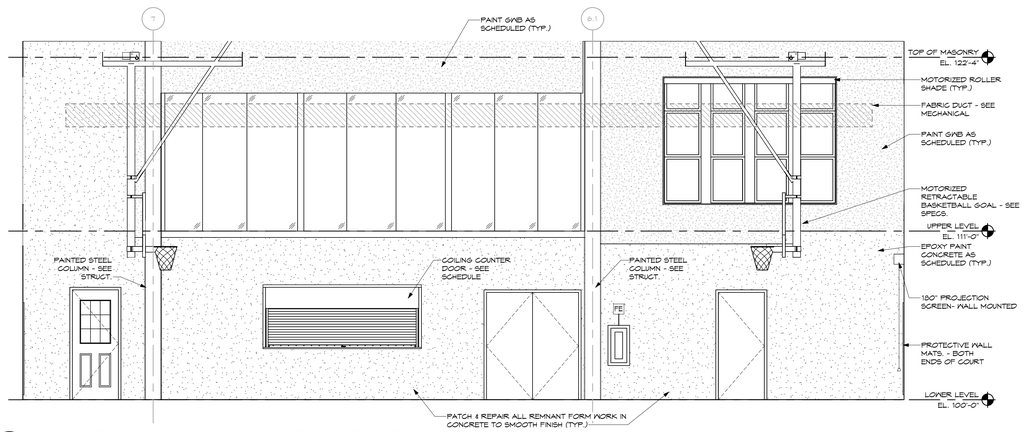
© 2023 LWC INCORPORATED

11/15/2023 8:19:29 AM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

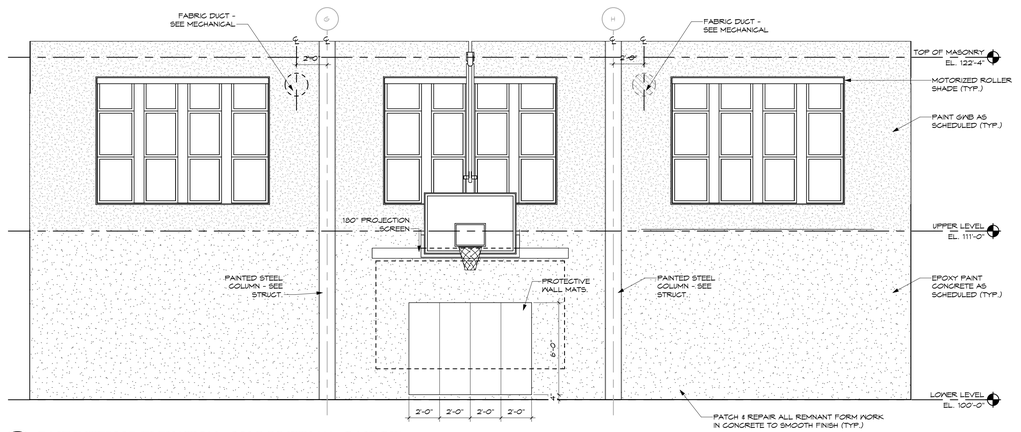
11/15/2023 7:12:49 AM



3 SOUTH INTERIOR ELEVATION - COMMUNITY 133 - BASE BID
SCALE: 1/4" = 1'-0"



1 NORTH INTERIOR ELEVATION - COMMUNITY 133 - BASE BID
SCALE: 1/4" = 1'-0"



2 EAST INTERIOR ELEVATION - COMMUNITY 133 - BASE BID
SCALE: 1/4" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

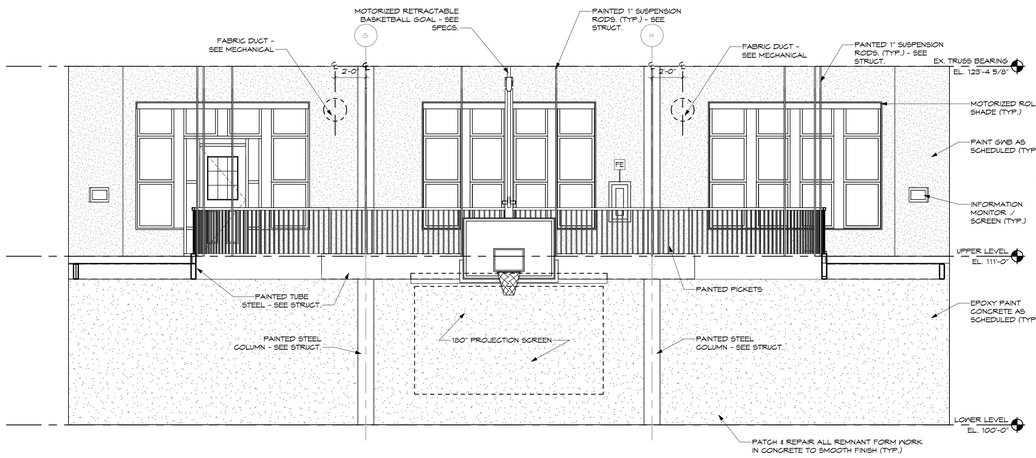
INTERIOR ELEVATIONS - BASE BID

STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

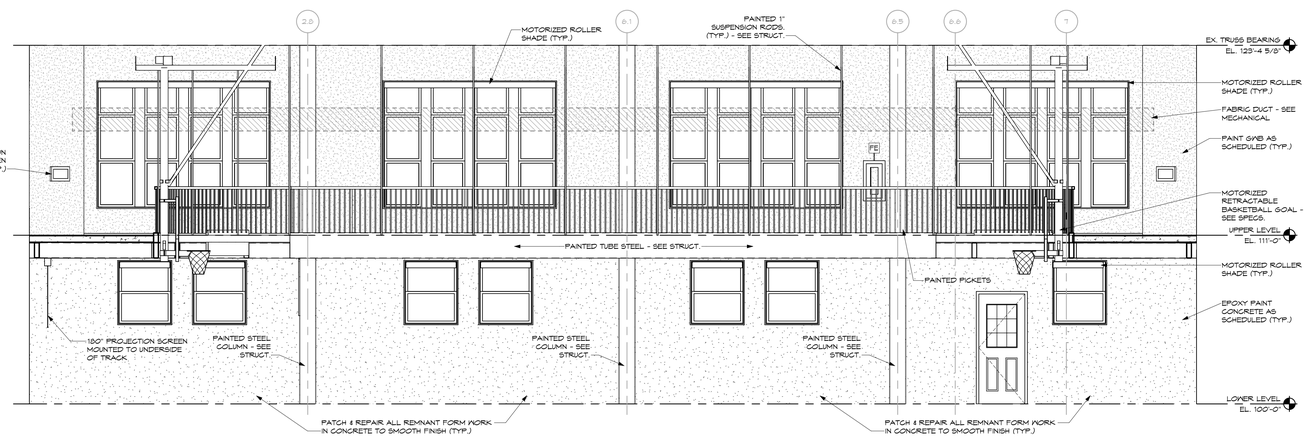
Comm. No. 22106.00	Date 11.10.2023
Drawn TOD	Drawing No. A603
Checked KRM	

© 2023 LWC INCORPORATED

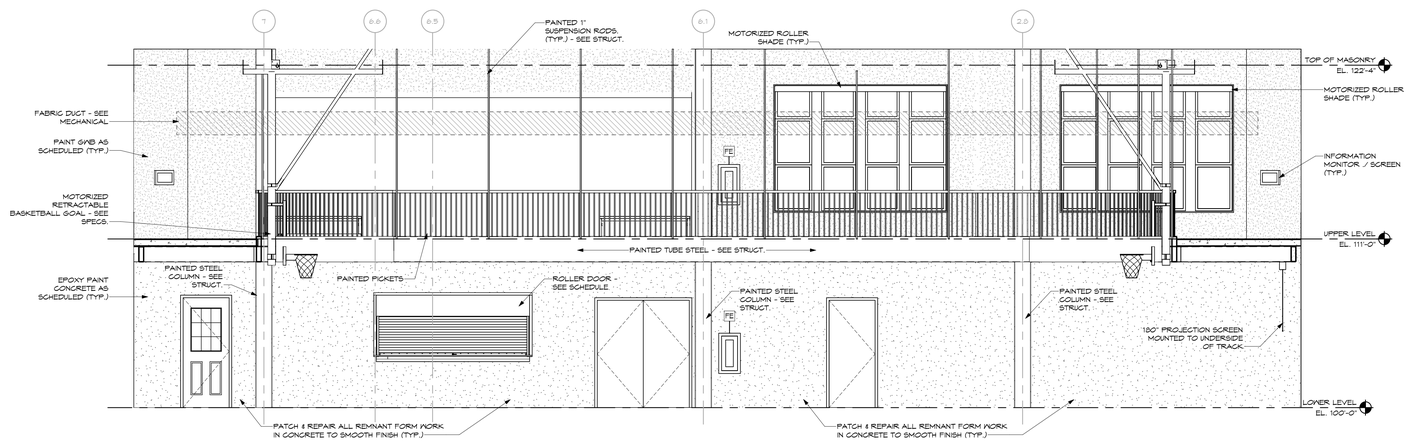
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



3 ALTERNATE #01 & #03 - INTERIOR
EAST ELEVATION - COMMUNITY 133
SCALE: 1/4" = 1'-0"



2 ALTERNATE #01 & #03 - INTERIOR
SOUTH ELEVATION - COMMUNITY 133
SCALE: 1/4" = 1'-0"



1 ALTERNATE #01 & #03 - INTERIOR
NORTH ELEVATION - COMMUNITY 133
SCALE: 1/4" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

INTERIOR ELEVATIONS - ALTERNATES

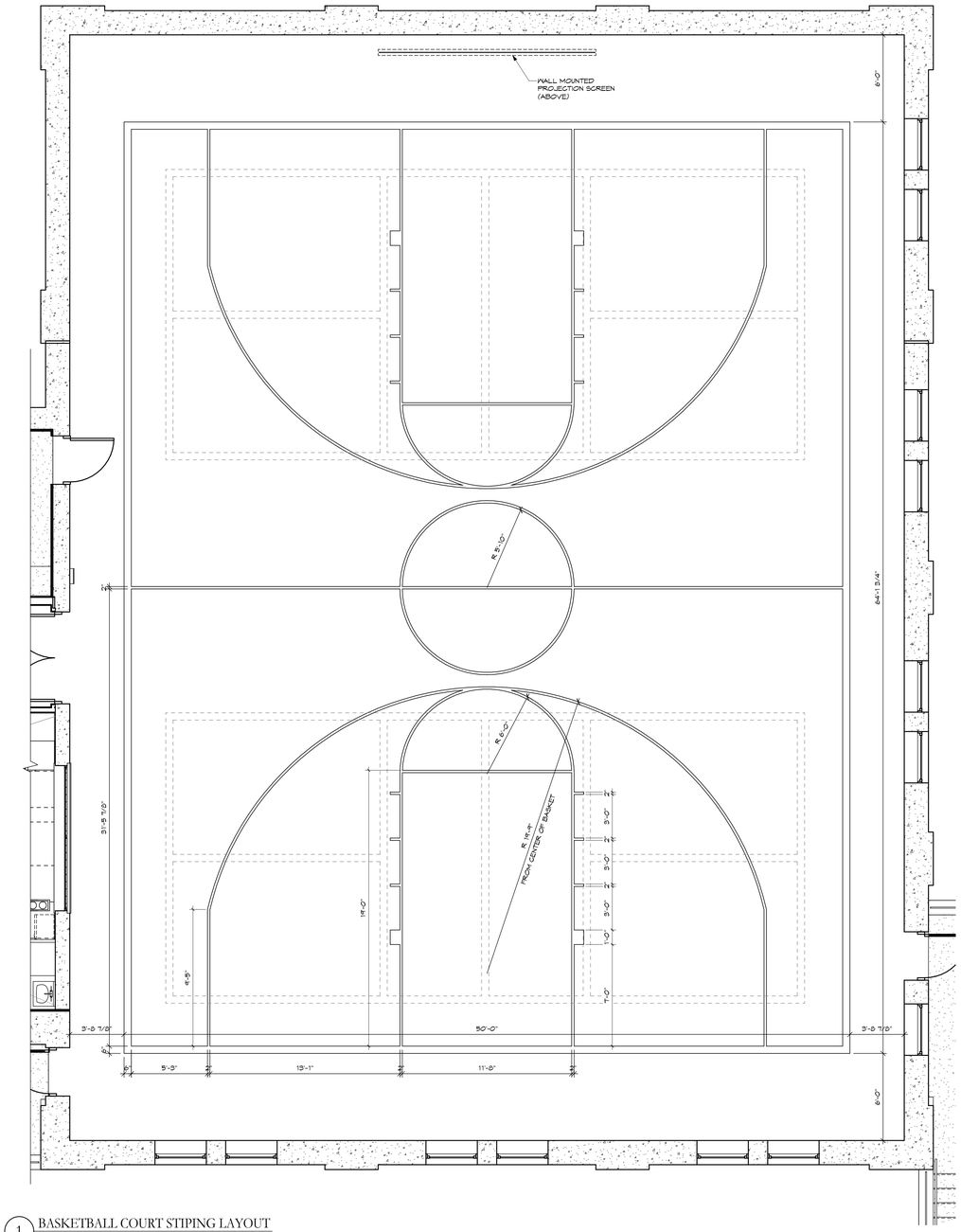
STATE OF INDIANA
KEVIN R. MCCURDY
11200136
REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No. A604
Checked: KRM	

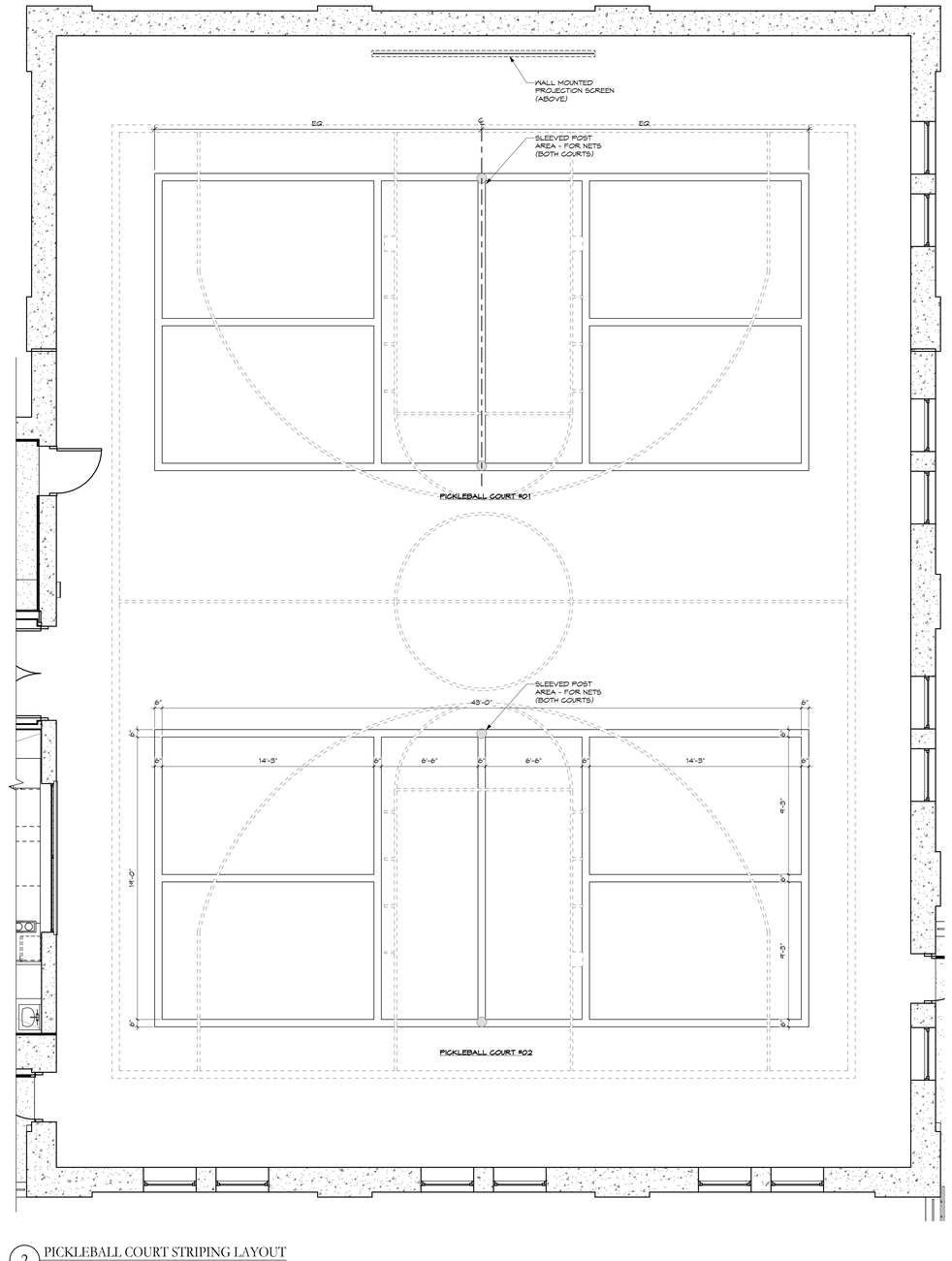
© 2023 LWC INCORPORATED

11/15/2023 7:13:33 AM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:28:14 PM



1 BASKETBALL COURT STIPING LAYOUT
SCALE: 1/4" = 1'-0"



2 PICKLEBALL COURT STRIPING LAYOUT
SCALE: 1/4" = 1'-0"

COURT LAYOUT STRIPING

- SPORTS STRIPING AS DIMENSIONED
- OTHER COURT STRIPING ON FLOOR. - FOR REFERENCE

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

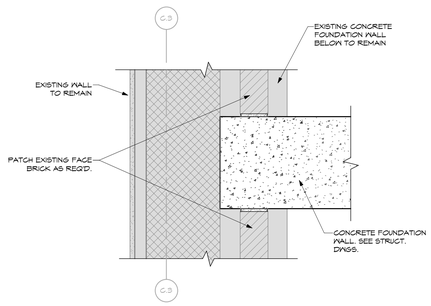
COMMUNITY AREA - COURT LAYOUT

STATE OF INDIANA
KEVIN R. MCCURDY
11200136
REGISTERED ARCHITECT

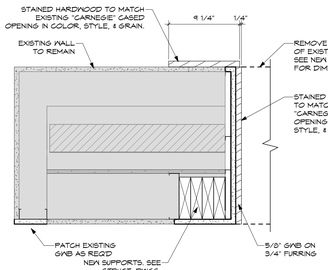
Comm. No.	Date
22106.00	11.10.2023
Drawn: TOD	Drawing No.: A605
Checked: KRM	

© 2023 LWC INCORPORATED

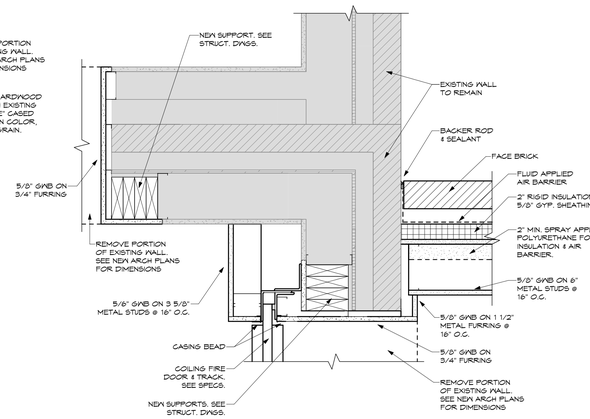
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



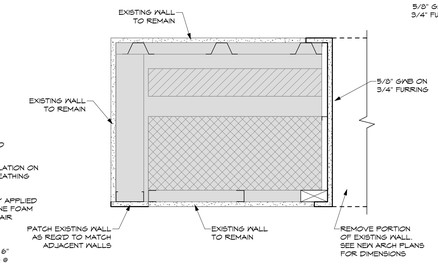
5 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



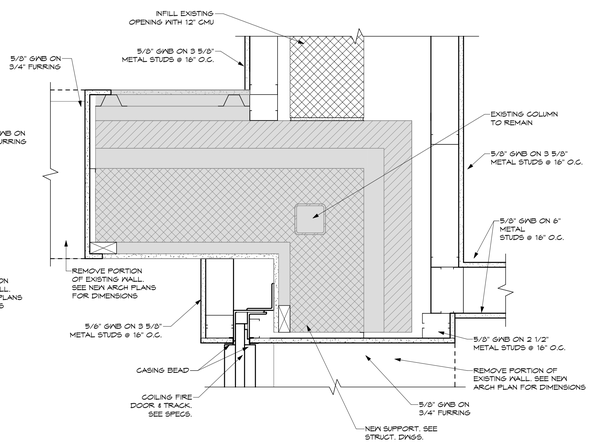
6 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



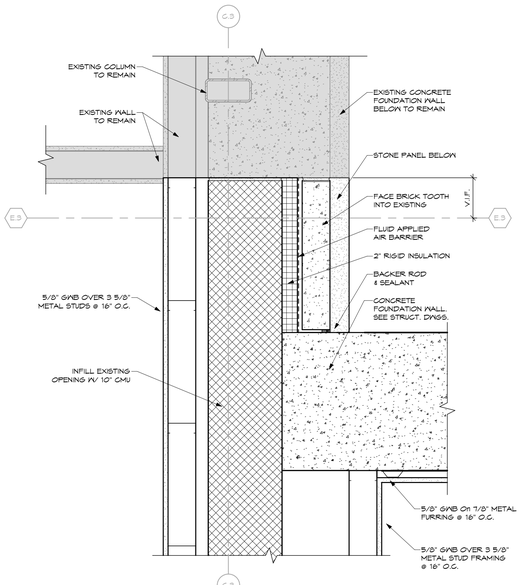
7 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



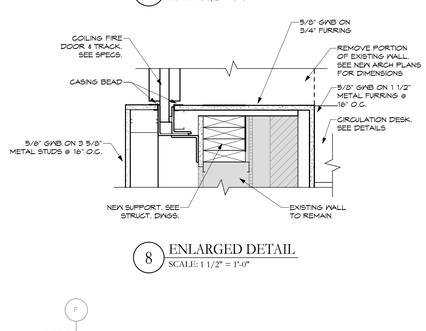
9 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



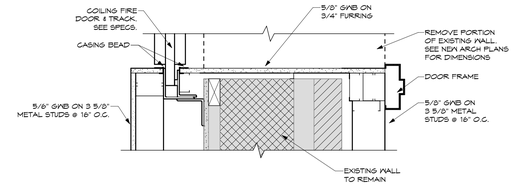
10 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



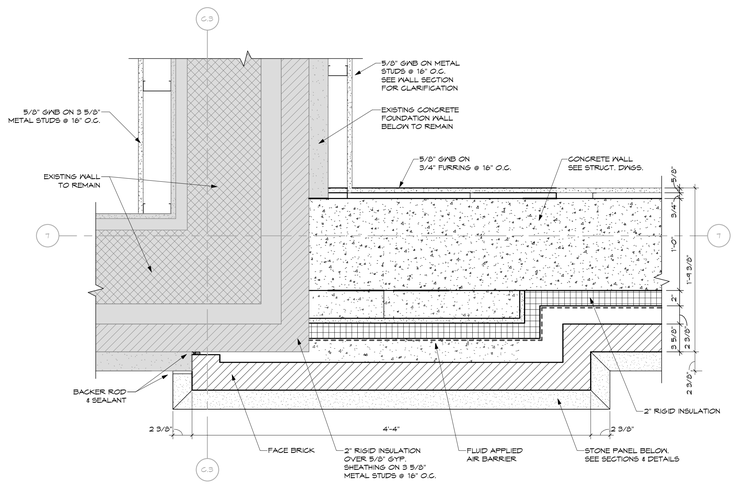
3 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



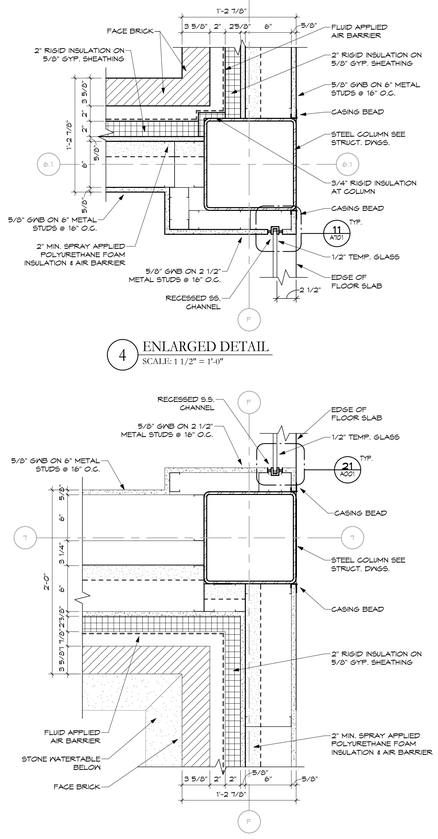
8 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



11 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"

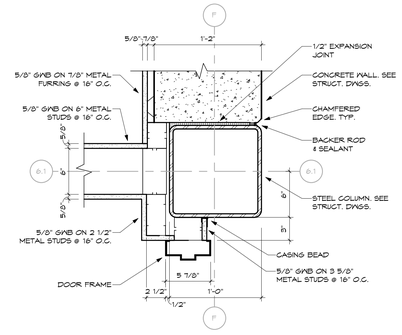


1 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"

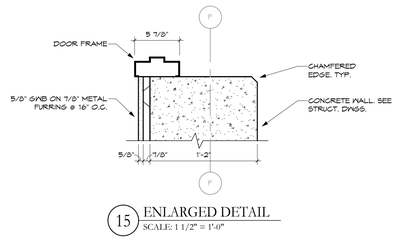


4 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"

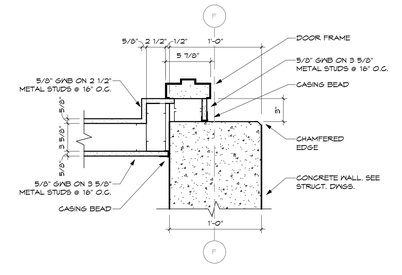
2 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



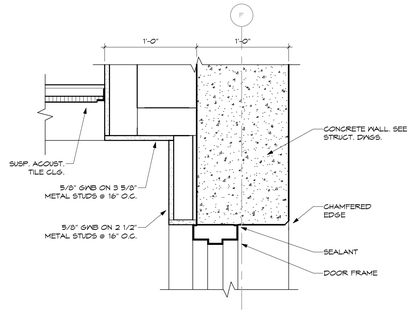
13 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



15 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



12 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"



14 ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

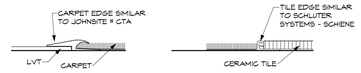
INTERIOR PLAN AND MISC. DETAILS

STATE OF INDIANA — KEVIN R. MCCURDY 11200136 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: M.K.S.	Drawing No.: A701
Checked: KRM	

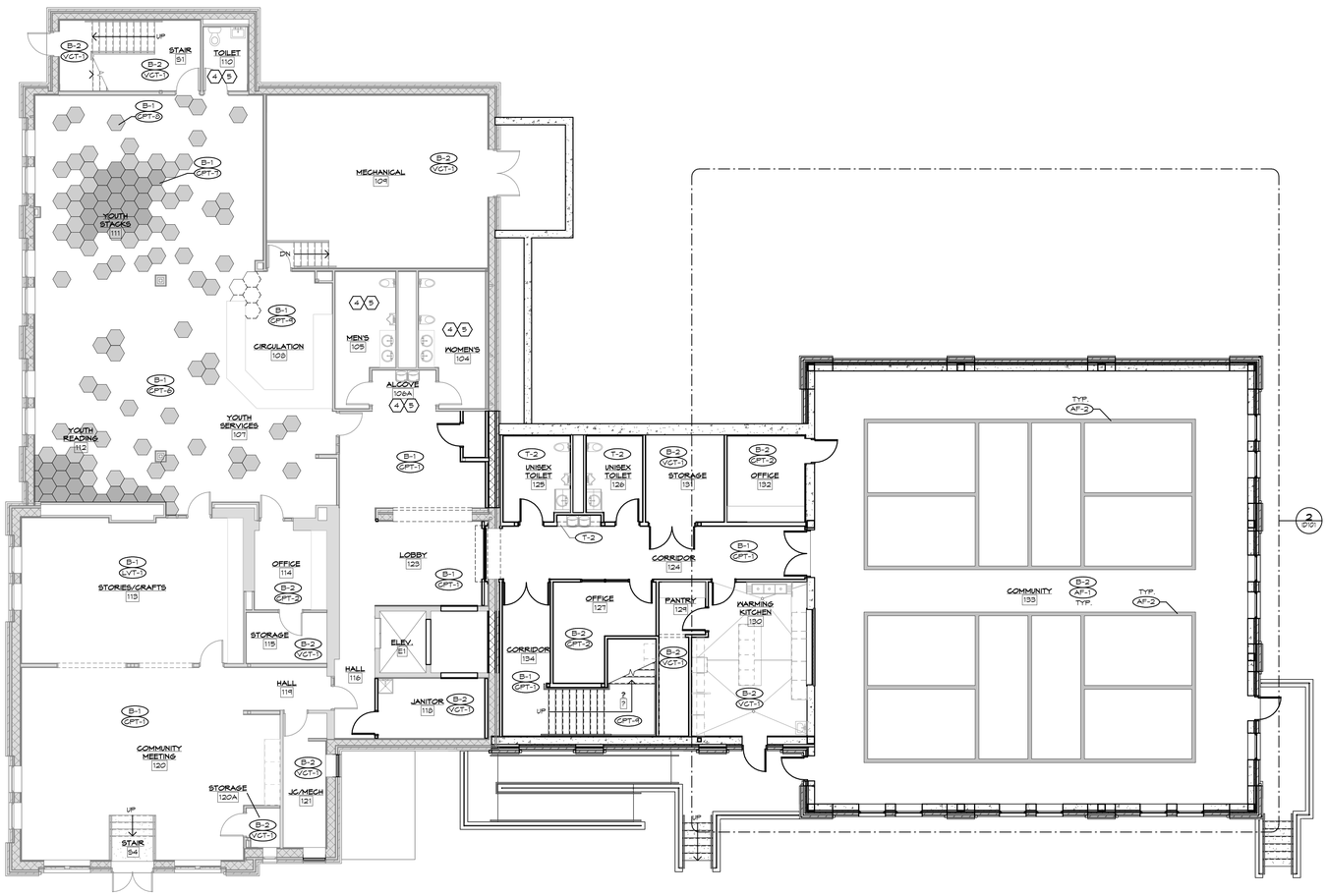
© 2023 LWC INCORPORATED

11/15/2023 8:41:35 AM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

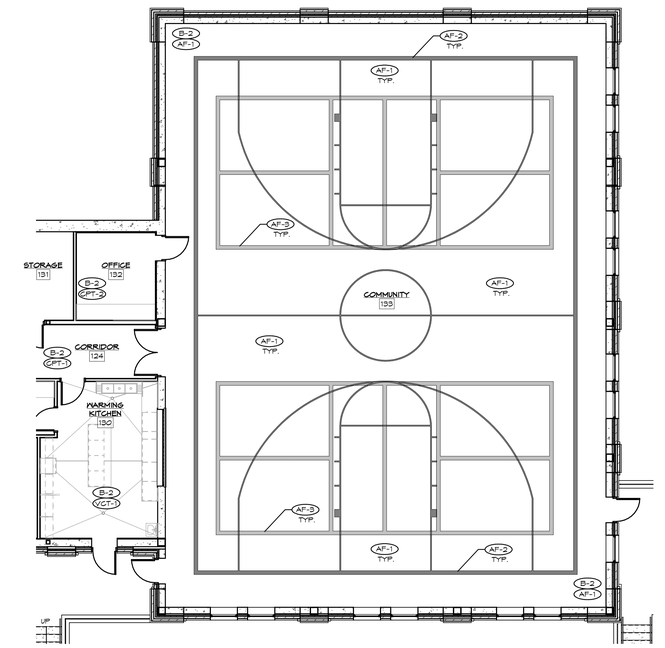


3 FLOOR EDGE DETAILS
SCALE: 6" = 1'-0"

FINISH MATERIAL SCHEDULE					
CODE	MATERIAL	MANUFACTURER	DESCRIPTION / PATTERN	COLOR / MATERIAL	REMARKS
ACT-1	ACOUSTICAL CEILING TILE	ARMSTRONG	MATCH TO EXISTING	--	
ACT-2	ACOUSTICAL CEILING TILE	ARMSTRONG	ULTIMA HEALTH ZONE	WHITE	BATHROOMS AND KITCHEN
AF-1	ATHLETIC FLOORING	TARKETT	OMNISPORTS MULTI-USE	TBD	WOOD PATTERN
AF-2	ATHLETIC FLOORING	TARKETT	OMNISPORTS MULTI-USE	TBD	BLUE COURT LINES
AF-3	ATHLETIC FLOORING	TARKETT	OMNISPORTS MULTI-USE	TBD	BLACK COURT LINES
AF-4	ATHLETIC FLOORING	ROBBINS SPORT SURFACES	PULASTIC CLASSIC 110	TBD	UPPER JOGGING TRACK BLUE COLOR FLOORING
AF-5	ATHLETIC FLOORING	ROBBINS SPORT SURFACES	PULASTIC CLASSIC 110	TBD	UPPER JOGGING TRACK NEUTRAL COLOR FLOORING
B-1	WOOD BASE	MATCH TO EXISTING	--	--	
B-2	RUBBER BASE	TARKETT	4" TRADITIONAL VINYL 1/8"	80 FAWN	
B-3	TILE BASE	DALTILE	BULLNOSE BASE/PORTFOLIO	PF11 NOCE	
CG-1	CORNER GUARD	INPRO	SURFACE MOUNTED CORNER GUARD	0243 WHISPER	PARTIAL HEIGHT x 5'9"
CPT-1	CARPET	PATCRAFT	18"x36" / 10655 RECONSTRUCT	00150 SATIN	FIELD / ASHLAR INSTALLATION METHOD
CPT-2	CARPET	SHAW	24"x24" / 5T206 POURED TILE	06761 CONCRETE	OFFICE AND STAFF / ASHLAR INSTALLATION METHOD
CPT-3	CARPET	TBD	--	--	INSET AREA RUG
CPT-4	CARPET	PATCRAFT	24"x24" / 10204 COLOR CHOICE	00761 PORTABELLA	NEUTRAL SOLID / MONOLITHIC INSTALLATION METHOD
CPT-5	CARPET	TBD	--	--	ACCENT / ASHLAR INSTALLATION METHOD
CPT-6	CARPET	TBD	--	--	CHILDRENS FIELD
CPT-7	CARPET	TBD	--	--	CHILDREND ACCENT
CPT-8	CARPET	TBD	--	--	CHILDRENS ACCENT
CPT-9	CARPET	TBD	--	--	CARPET ON MAIN STAIRCASE LANDINGS
FRP-1	FIBERGLASS REINFORCED PANEL	--	--	--	ENTIRE HEIGHT OF WALL
G-1	GROUT	MAPI	KERAPOXY	38 IVORY	TO BE USED WITH T-1
G-2	GROUT	MAPI	KERAPOXY	105 DRIFTWOOD	TO BE USED WITH T-2 & B-3
LVT-1	LUXURY VINYL TILE	PATCRAFT	1321V TREELINE 9MM	00163 HONEY-V2	BRICK INSTALLATION METHOD
M-1	STAINLESS STEEL SURROUND	--	--	--	STAINLESS STEEL SURROUND IN KITCHEN
P-1	PAINT	SHERWIN WILLIAMS	EG-SHEL	SW7555 PATIENCE	FIELD
P-2	PAINT	SHERWIN WILLIAMS	SEMI-GLOSS	SW2835 SYCAMORE TAN	DOOR AND WINDOW FRAMES, ROOM 133 CEILING STRUCTURE BEAMS
P-3	PAINT	SHERWIN WILLIAMS	EG-SHEL	SW6090 JAVA	HANDRAIL PAINT
P-4	PAINT	SHERWIN WILLIAMS	EG-SHEL	SW2835 SYCAMORE TAN	NEUTRAL ACCENT
P-5	PAINT	SHERWIN WILLIAMS	EG-SHEL	SW6604 DIGNITY BLUE	BLUE ACCENT
P-6	PAINT	SHERWIN WILLIAMS	EG-SHEL	SW6678 SUNFLOWER	ORANGE ACCENT
P-7	PAINT	SHERWIN WILLIAMS	EG-SHEL	SW7007 CEILING BRIGHT WHITE	GYP CEILING PAINT U.N.O.
PL-1	PLASTIC LAMINATE	WILSONART	WOOD PATTERN	7813K LANDMARK WOOD	CASEWORK
RST-1	RUBBER STAIR TREAD	TARKETT	RNRD 80 SQ RAISED ROUND	80 FAWN	CONTRACTOR TO VERIFY SIZE NEEDED
SS-1	SOLID SURFACE	WILSONART	--	9200GS MYSTIQUE	COUNTERTOPS
ST-1	STAIN	MATCH TO EXISTING WOOD WALL BASE	--	--	
T-1	TILE	FLORIDA TILE	12"x24"/PORTFOLIO	PF01 CREAM	WALL TILE
T-2	TILE	DALTILE	12"x24"/PORTFOLIO	PF11 NOCE	FLOOR TILE
TS-1	TRANSITION	TARKETT	GTA-24-H	80 FAWN	CONTRACTOR TO VERIFY SIZE WITH FINAL FINISH MATERIAL
VCT-1	VINYL COMPOSITE TILE	TARKETT	VCT 1	521 MILITARY TAN	BRICK INSTALLATION METHOD
WD-1	WALK OFF CARPET	MOHAWK GROUP	STEP UP II	8519 WALNUT	BRICK INSTALLATION METHOD



1 BASE BID - LOWER LEVEL FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"



2 ALTERNATE #01 - COMMUNITY AREA EXPANSION - LOWER LEVEL FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL FLOOR FINISH SHEETS. ALL NOTES MAY NOT BE USED.

1. PREP EXISTING SUBSTRATE TO RECEIVE NEW FLOORING.
2. WALK OFF MAT TO BE CENTERED ON ENTRY DOORS.
3. REUSE SALVAGED BASE WHEN POSSIBLE. NEW WOOD BASE TO MATCH EXISTING.
4. EXISTING TILE TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
5. CLEAN TILE AND GROUT IN THIS AREA.

GENERAL NOTES:

A. REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION.
B. COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
C. CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.
D. ALL ACOUSTICAL CEILINGS TO BE FINISH CODE ACT-1 UNLESS OTHERWISE NOTED. SEE RCP FOR FURTHER INFORMATION.
E. FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
F. REFER TO FLOOR FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
G. PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
H. PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.
I. CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
J. FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.
K. CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
L. CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E. MONOLITHIC, BRICK PATTER, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
M. FLOORING SEAMS SHALL BE KEPT TO A MINIMUM, POSITION IN INCONSPICUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEEMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.
N. ALL SHEET FLOORING SEEMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
O. USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
P. PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.
Q. USE LUXURY VINYL TILE ADHESIVE AS RECOMMENDED BY MFG TO MEET SITE CONDITIONS.
R. PREPARE SUBSTRATES ACCORDING TO MFG'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF LUXURY VINYL TILE.
S. BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
T. PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.
U. ALL WALLS TO BE PAINTED FINISH CODE P-1 UNLESS NOTED OTHERWISE.
V. ALL DOOR FRAMES TO BE PAINTED FINISH CODE P-2 UNLESS OTHERWISE NOTED.
W. CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
X. APPLY TWO COATS OF FINAL FINISH PRODUCT.
Y. FURNISH CERTIFICATION BY THE PAINT MFG THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
Z. EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).
AA. WOODGRAIN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND; UNLESS OTHERWISE NOTED.
BB. ALL SOLID SURFACE SEEMS TO BE HARD SEAM (NO SEAMS SHOWING).
CC. USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
DD. SOLID SURFACE SIDES/BACKSPLASHES TO BE INTEGRAL COVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.).
EE. SOLID SURFACE TO HAVE EASED EDGE DETAIL; UNLESS OTHERWISE NOTED.
FF. CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
GG. TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

LOWER LEVEL - FLOOR FINISH PLAN

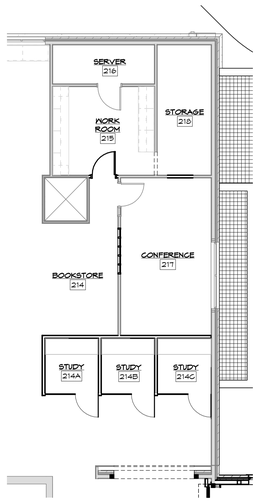
STATE OF INDIANA — KEVIN R. MCCURDY — 11200138 — REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn M.K.S.	Drawing No. ID101
Checked KRM	

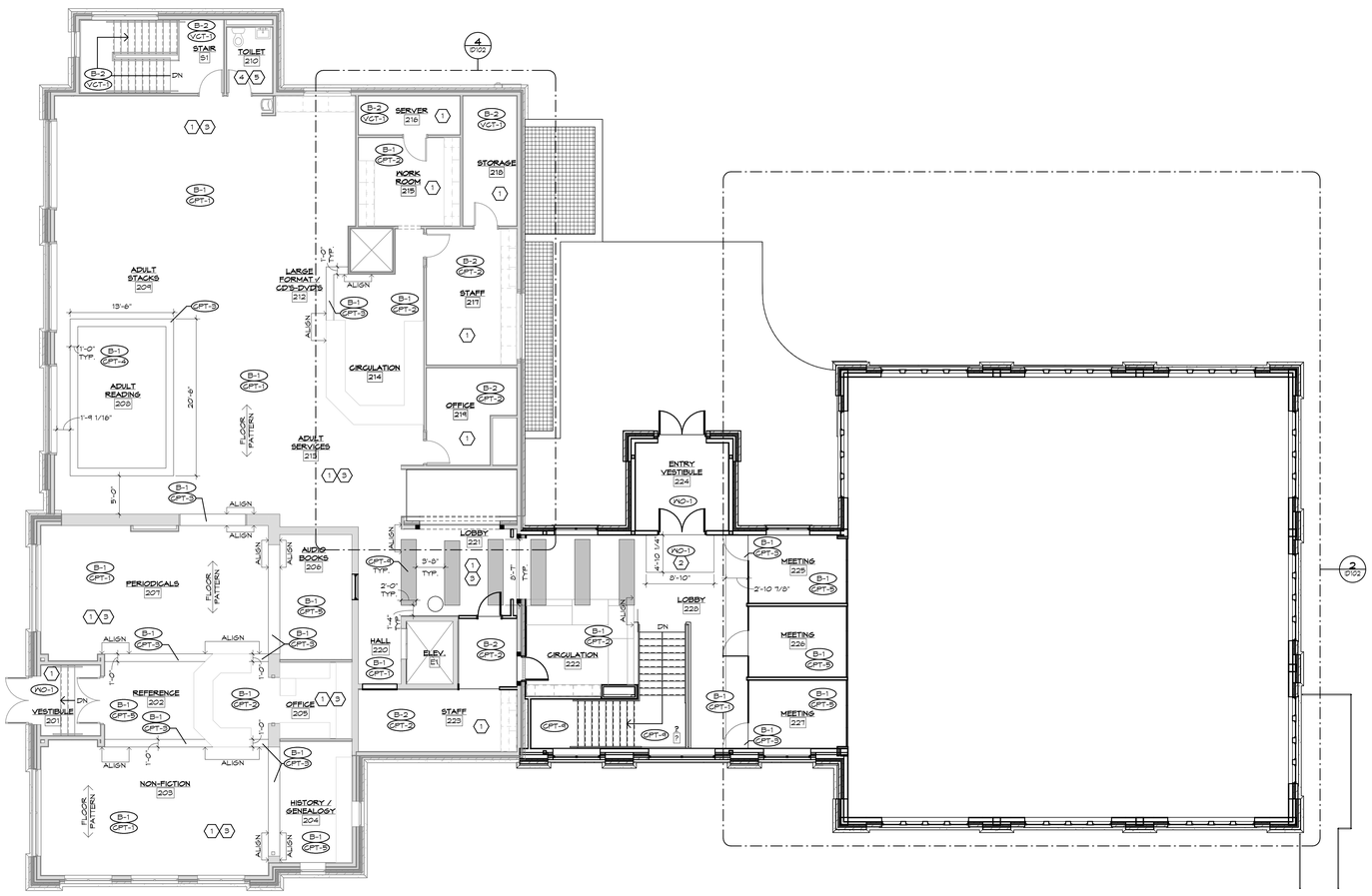
© 2023 LWC INCORPORATED

11/14/2023 9:31:47 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

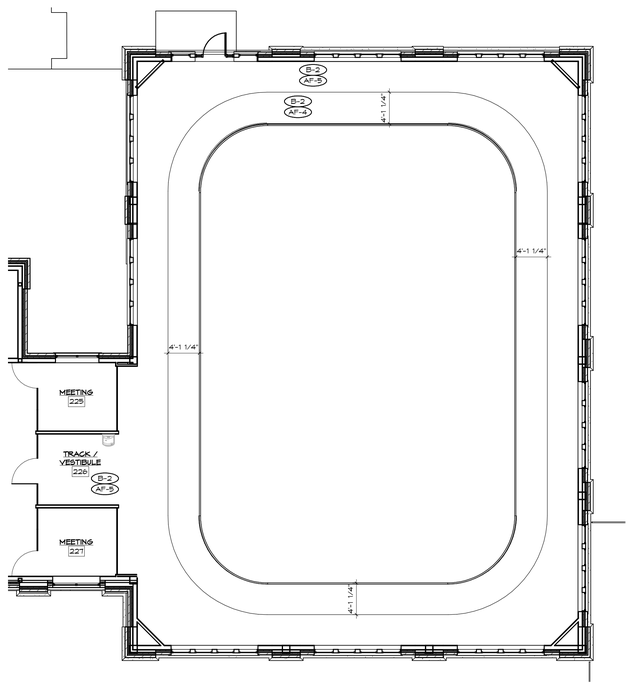
11/14/2023 9:31:55 PM



ALTERNATE #04 - STAFF AREA - UPPER LEVEL FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"



1 BASE BID - LOWER LEVEL FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"



2 ALTERNATE #03 - TRACK - UPPER LEVEL FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL FLOOR FINISH SHEETS. ALL NOTES MAY NOT BE USED.

1. PREP EXISTING SUBSTRATE TO RECEIVE NEW FLOORING.
2. WALK OFF MAT TO BE CENTERED ON ENTRY DOORS.
3. REUSE SALVAGED BASE WHEN POSSIBLE. NEW WOOD BASE TO MATCH EXISTING.
4. EXISTING TILE TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
5. CLEAN TILE AND GROUT IN THIS AREA.

GENERAL NOTES:

A. REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION
B. COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
C. CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.
D. ALL ACOUSTICAL CEILINGS TO BE FINISH CODE ACT-1 UNLESS OTHERWISE NOTED. SEE RCP FOR FURTHER INFORMATION.
E. FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
F. REFER TO FLOOR FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
G. PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
H. PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.
I. CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
J. FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.
K. CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
L. CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E., MONOLITHIC, BRICK PATTER, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
M. FLOORING SEAMS SHALL BE KEPT TO A MINIMUM. POSITION IN INCONSPICUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEEMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.
N. ALL SHEET FLOORING SEEMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
O. USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
P. PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.
Q. USE LUXURY VINYL TILE ADHESIVE AS RECOMMENDED BY MFG TO MEET SITE CONDITIONS.
R. PREPARE SUBSTRATES ACCORDING TO MFG'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF LUXURY VINYL TILE.
S. BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
T. PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.
U. ALL WALLS TO BE PAINTED FINISH CODE P-1 UNLESS NOTED OTHERWISE.
V. ALL DOOR FRAMES TO BE PAINTED FINISH CODE P-2 UNLESS OTHERWISE NOTED.
W. CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
X. APPLY TWO COATS OF FINAL FINISH PRODUCT.
Y. FURNISH CERTIFICATION BY THE PAINT MFG THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
Z. EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).
AA. WOODGRAIN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND, UNLESS OTHERWISE NOTED.
BB. ALL SOLID SURFACE SEEMS TO BE HARD SEAM (NO SEAMS SHOWN).
CC. USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
DD. SOLID SURFACE SIDE/BACKSPLASHES TO BE INTEGRAL GOVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.)
EE. SOLID SURFACE TO HAVE EASED EDGE DETAIL; UNLESS OTHERWISE NOTED.
FF. CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
GG. TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

UPPER LEVEL - FLOOR FINISH PLAN

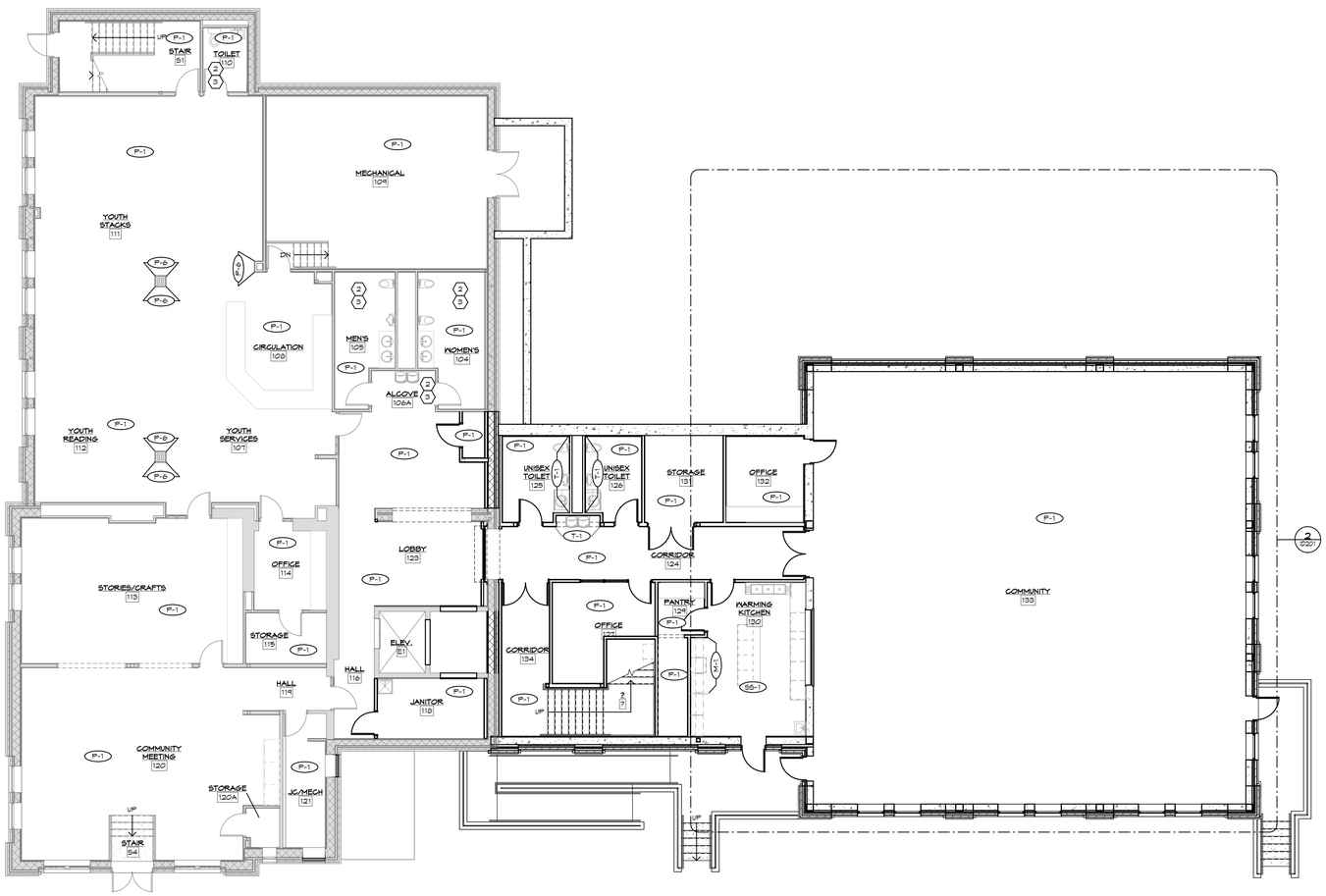
STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

Comm. No. 22106.00	Date 11.10.2023
Drawn M.K.S.	Drawing No. ID102
Checked KRM	

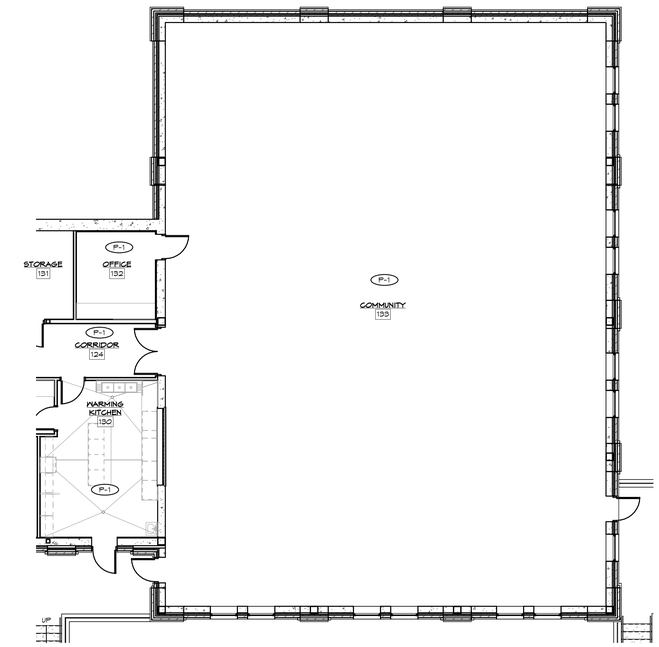
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/14/2023 9:32:02 PM



1 BASE BID - LOWER LEVEL WALL FINISH PLAN
SCALE: 1/8" = 1'-0"



ALTERNATE #01 - COMMUNITY AREA EXPANSION - LOWER LEVEL WALL FINISH PLAN
2 SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL WALL FINISH SHEETS. ALL NOTES MAY NOT BE USED.

1. PREP EXISTING SURFACES TO RECEIVE NEW PAINT.
2. EXISTING TILE TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
3. CLEAN TILE AND GROUT IN THIS AREA.

GENERAL NOTES:

A. REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION
B. COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
C. CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.
D. ALL ACOUSTICAL CEILINGS TO BE FINISH CODE ACT-1 UNLESS OTHERWISE NOTED. SEE RCP FOR FURTHER INFORMATION.
E. FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
F. REFER TO FLOOR FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
G. PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
H. PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.
I. CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
J. FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.
K. CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
L. CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E., MONOLITHIC, BRICK PATTER, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
M. FLOORING SEAMS SHALL BE KEPT TO A MINIMUM. POSITION IN INCONSPICUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEEMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.
N. ALL SHEET FLOORING SEEMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
O. USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
P. PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.
Q. USE LUXURY VINYL TILE ADHESIVE AS RECOMMENDED BY MFG TO MEET SITE CONDITIONS.
R. PREPARE SUBSTRATES ACCORDING TO MFG'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF LUXURY VINYL TILE.
S. BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
T. PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.
U. ALL WALLS TO BE PAINTED FINISH CODE P-1 UNLESS NOTED OTHERWISE.
V. ALL DOOR FRAMES TO BE PAINTED FINISH CODE P-2 UNLESS OTHERWISE NOTED.
W. CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
X. APPLY TWO COATS OF FINAL FINISH PRODUCT.
Y. FURNISH CERTIFICATION BY THE PAINT MFG'S THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
Z. EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).
AA. WOOD GRAIN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND, UNLESS OTHERWISE NOTED.
BB. ALL SOLID SURFACE SEEMS TO BE HARD SEAM (NO SEAMS SHOWING).
CC. USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
DD. SOLID SURFACE SIDE/BACKSPLASHES TO BE INTEGRAL GOVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.)
EE. SOLID SURFACE TO HAVE EASED EDGE DETAIL; UNLESS OTHERWISE NOTED.
FF. CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
GG. TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

LOWER LEVEL - WALL FINISH PLAN

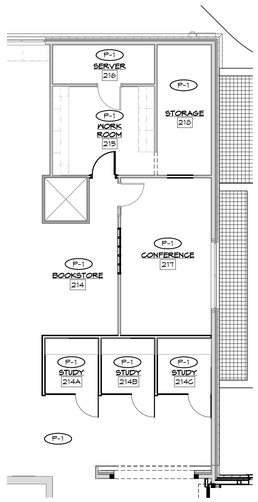
STATE OF INDIANA — KEVIN R. MCCURDY — 11200139 — REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: M.K.S.	Drawing No.: ID201
Checked: KRM	

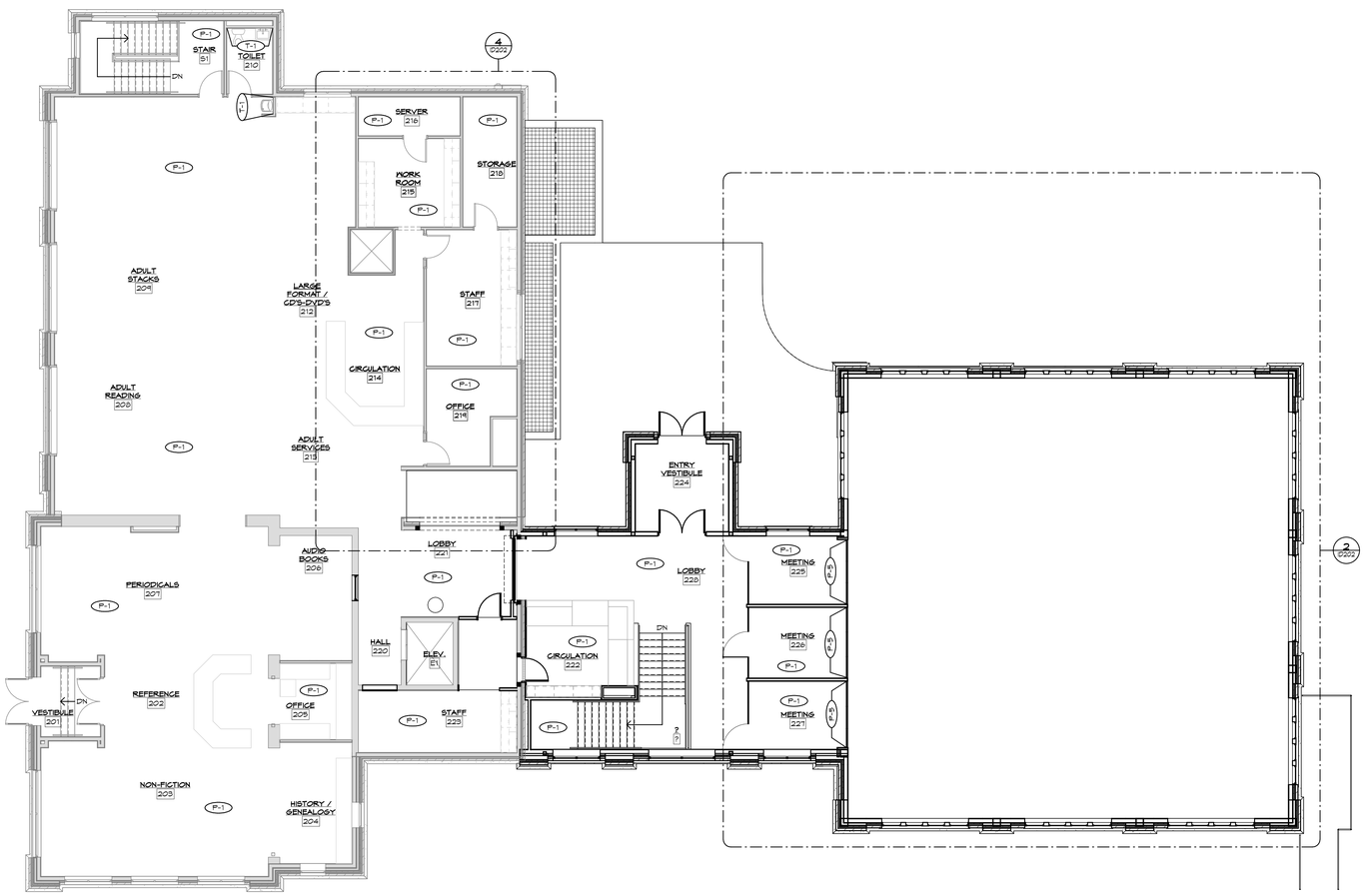
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

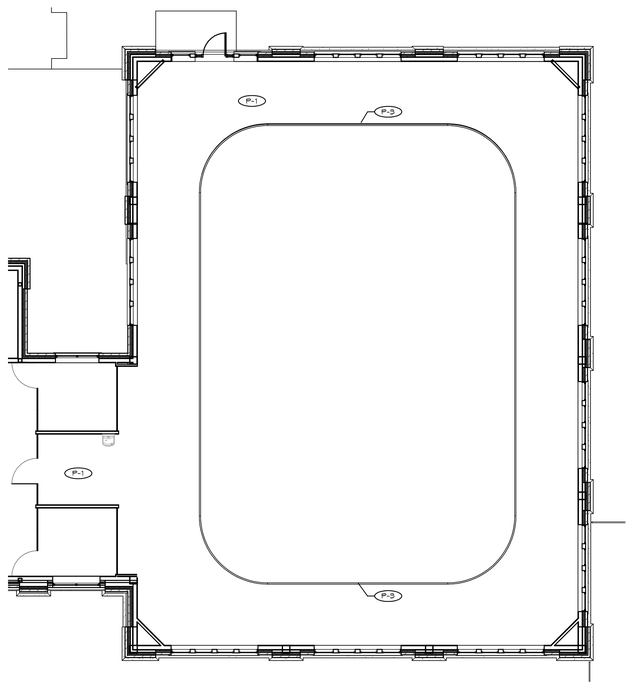
11/14/2023 9:32:08 PM



ALTERNATE #04 - STAFF AREA - UPPER LEVEL WALL FINISH PLAN
SCALE: 1/8" = 1'-0"



BASE BID - UPPER LEVEL WALL FINISH PLAN
SCALE: 1/8" = 1'-0"



ALTERNATE #03 - TRACK - UPPER LEVEL WALL FINISH PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL WALL FINISH SHEETS. ALL NOTES MAY NOT BE USED.

1. PREP EXISTING SURFACES TO RECEIVE NEW PAINT.
2. EXISTING TILE TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
3. CLEAN TILE AND GROUT IN THIS AREA.

GENERAL NOTES:

A. REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION
B. COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
C. CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.
D. ALL ACOUSTICAL CEILINGS TO BE FINISH CODE ACT-1 UNLESS OTHERWISE NOTED. SEE RCP FOR FURTHER INFORMATION.
E. FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
F. REFER TO FLOOR FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
G. PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
H. PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.
I. CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
J. FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.
K. CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
L. CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E.: MONOLITHIC, BRICK PATTER, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
M. FLOORING SEAMS SHALL BE KEPT TO A MINIMUM. POSITION IN INCONSPICUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEEMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.
N. ALL SHEET FLOORING SEEMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
O. USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
P. PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.
Q. USE LUXURY VINYL TILE ADHESIVE AS RECOMMENDED BY MFG TO MEET SITE CONDITIONS.
R. PREPARE SUBSTRATES ACCORDING TO MFG'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF LUXURY VINYL TILE.
S. BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
T. PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.
U. ALL WALLS TO BE PAINTED FINISH CODE P-1 UNLESS NOTED OTHERWISE.
V. ALL DOOR FRAMES TO BE PAINTED FINISH CODE P-2 UNLESS OTHERWISE NOTED.
W. CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
X. APPLY TWO COATS OF FINAL FINISH PRODUCT.
Y. FURNISH CERTIFICATION BY THE PAINT MFG THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
Z. EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).
AA. WOODGRAIN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND, UNLESS OTHERWISE NOTED.
BB. ALL SOLID SURFACE SEEMS TO BE HARD SEAM (NO SEAMS SHOWING).
CC. USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
DD. SOLID SURFACE SIDE/BACKSPLASHES TO BE INTEGRAL COVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.).
EE. SOLID SURFACE TO HAVE EASED EDGE DETAIL; UNLESS OTHERWISE NOTED.
FF. CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
GG. TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

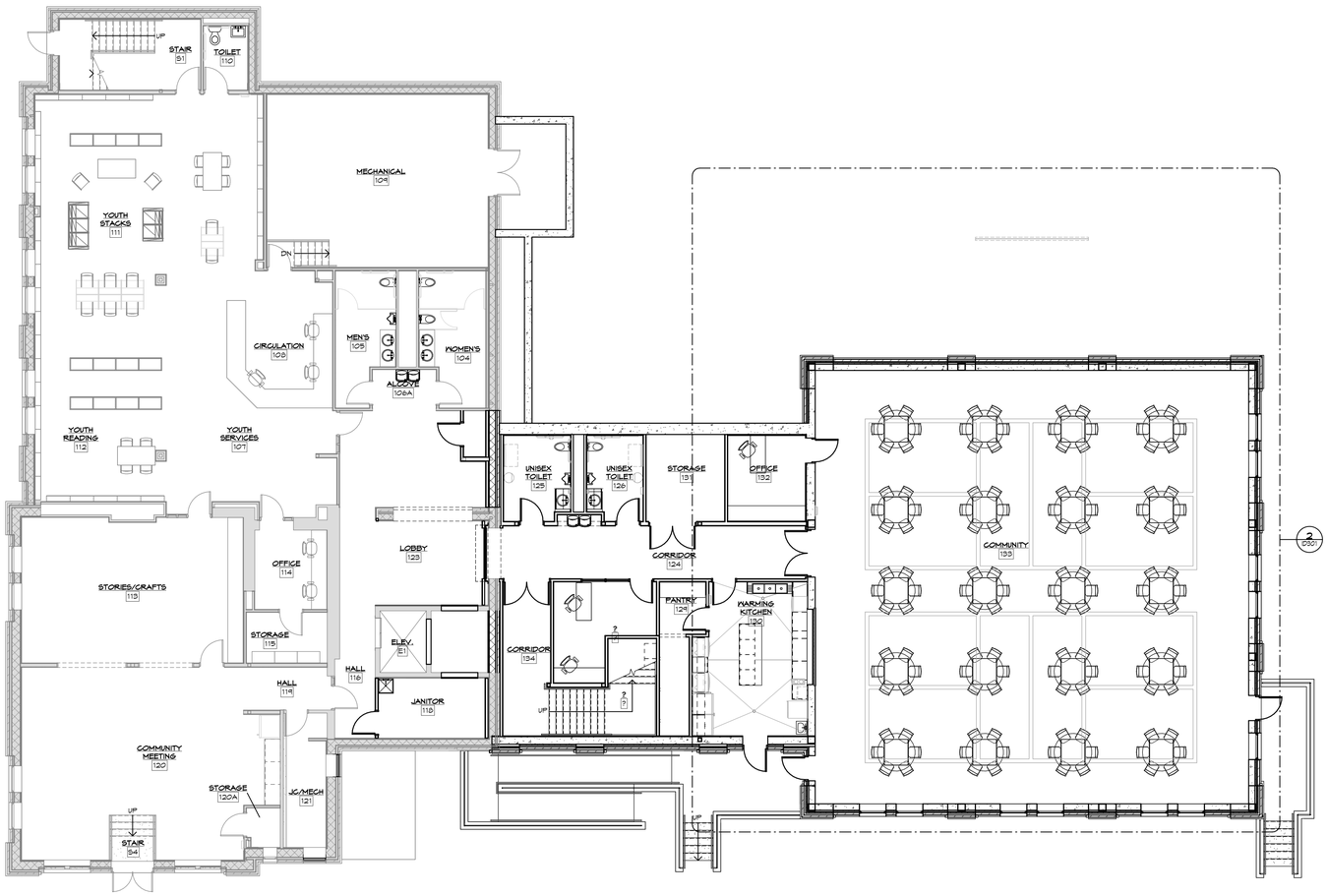
UPPER LEVEL - WALL FINISH PLAN

STATE OF INDIANA
KEVIN R. MCCURDY
11200138
REGISTERED ARCHITECT

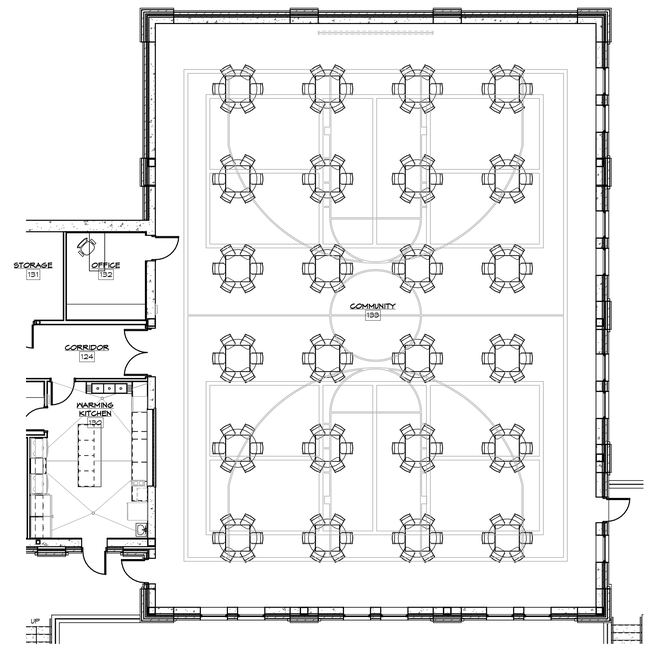
Comm. No. 22106.00	Date 11.10.2023
Drawn M.K.S.	Drawing No. ID202
Checked KRM	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



1 BASE BID - LOWER LEVEL FUNITURE PLAN
SCALE: 1/8" = 1'-0"



2 ALTERNATE #01 - COMMUNITY AREA EXPANSION - LOWER LEVEL FURNITURE PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL FURNITURE SHEETS. ALL NOTES MAY NOT BE USED.

1. XILL SHOWN ONLY ON ID FURNITURE SHEETS.

GENERAL NOTES:

A. REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION
B. COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
C. CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.
D. ALL ACOUSTICAL CEILINGS TO BE FINISH CODE ACT-1 UNLESS OTHERWISE NOTED. SEE RCP FOR FURTHER INFORMATION.
E. FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
F. REFER TO FLOOR FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
G. PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
H. PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.
I. CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
J. FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.
K. CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
L. CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E., MONOLITHIC, BRICK PATTER, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
M. FLOORING SEAMS SHALL BE KEPT TO A MINIMUM. POSITION IN INCONSPICUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEEMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.
N. ALL SHEET FLOORING SEEMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
O. USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
P. PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.
Q. USE LUXURY VINYL TILE ADHESIVE AS RECOMMENDED BY MFG TO MEET SITE CONDITIONS.
R. PREPARE SUBSTRATES ACCORDING TO MFG'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF LUXURY VINYL TILE.
S. BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
T. PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.
U. ALL WALLS TO BE PAINTED FINISH CODE P-1 UNLESS NOTED OTHERWISE.
V. ALL DOOR FRAMES TO BE PAINTED FINISH CODE P-2 UNLESS OTHERWISE NOTED.
W. CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
X. APPLY TWO COATS OF FINAL FINISH PRODUCT.
Y. FURNISH CERTIFICATION BY THE PAINT MFG THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
Z. EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).
AA. WOODGRAIN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND, UNLESS OTHERWISE NOTED.
BB. ALL SOLID SURFACE SEEMS TO BE HARD SEAM (NO SEAMS SHOWING).
CC. USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
DD. SOLID SURFACE SIDE/BACKSPLASHES TO BE INTEGRAL GOVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.)
EE. SOLID SURFACE TO HAVE EASED EDGE DETAIL, UNLESS OTHERWISE NOTED.
FF. CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
GG. TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

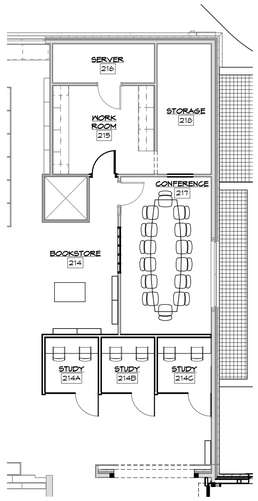
LOWER LEVEL - FURNITURE PLAN

STATE OF INDIANA — KEVIN R. MCCURDY — 11200138 — REGISTERED ARCHITECT

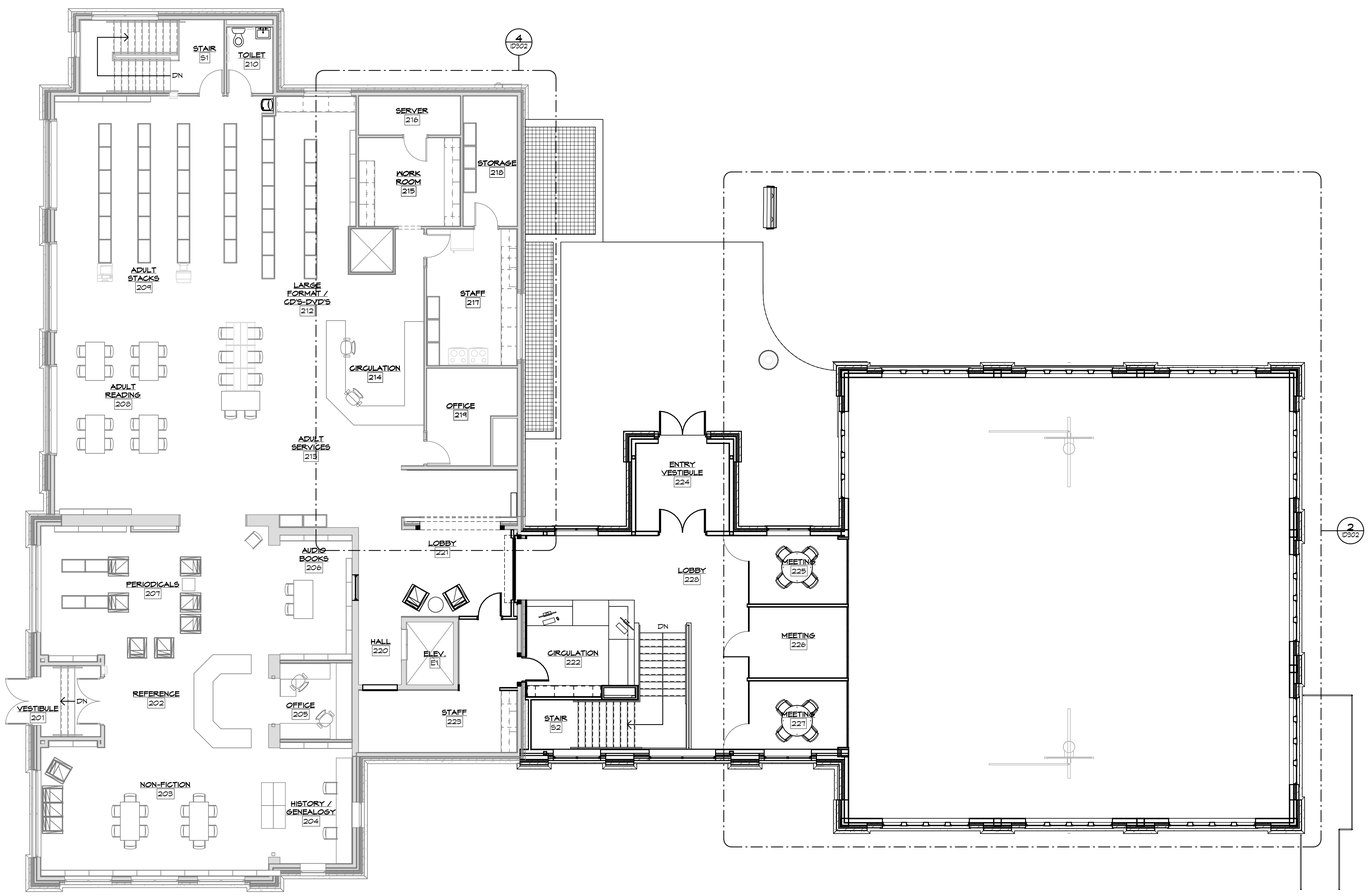
Comm. No.	Date
22106.00	11.10.2023
Drawn: M.K.S.	Drawing No.: ID301
Checked: KRM	

© 2023 LWC INCORPORATED

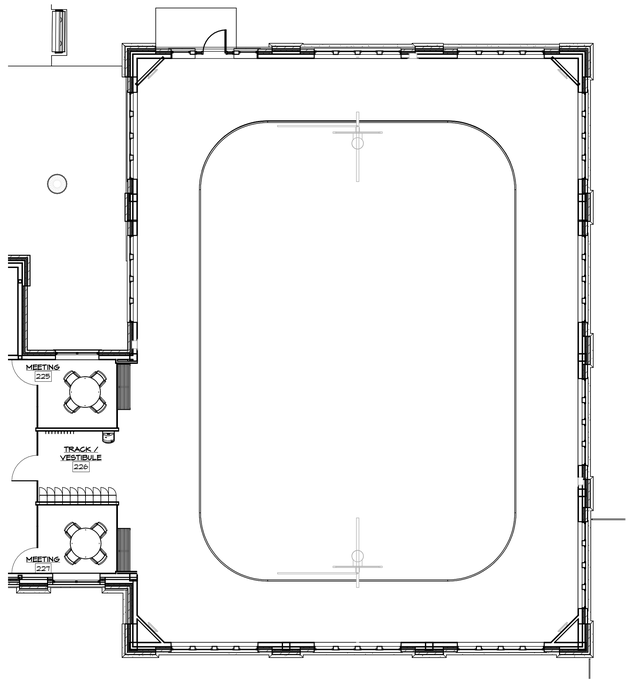
11/14/2023 9:32:15 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt



4 ALTERNATE #04 - STAFF AREA - UPPER LEVEL FURNITURE PLAN
SCALE: 1/8" = 1'-0"



1 BASE BID - UPPER LEVEL FURNITURE PLAN
SCALE: 1/8" = 1'-0"



2 ALTERNATE #03 - TRACK - UPPER LEVEL FURNITURE PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES: TYPICAL FOR ALL FURNITURE SHEETS. ALL NOTES MAY NOT BE USED.

1. WILL SHOW ONLY ON ID FURNITURE SHEETS.

GENERAL NOTES:

A. REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION
B. COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
C. CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.
D. ALL ACOUSTICAL CEILINGS TO BE FINISH CODE ACT-1 UNLESS OTHERWISE NOTED. SEE RCP FOR FURTHER INFORMATION.
E. FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
F. REFER TO FLOOR FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
G. PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
H. PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.
I. CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
J. FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.
K. CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
L. CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E.: MONOLITHIC, BRICK PATTER, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
M. FLOORING SEAMS SHALL BE KEPT TO A MINIMUM. POSITION IN INCONSPICUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEEMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.
N. ALL SHEET FLOORING SEEMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
O. USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
P. PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.
Q. USE LUXURY VINYL TILE ADHESIVE AS RECOMMENDED BY MFG TO MEET SITE CONDITIONS.
R. PREPARE SUBSTRATES ACCORDING TO MFG'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF LUXURY VINYL TILE.
S. BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
T. PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.
U. ALL WALLS TO BE PAINTED FINISH CODE P-1 UNLESS NOTED OTHERWISE.
V. ALL DOOR FRAMES TO BE PAINTED FINISH CODE P-2 UNLESS OTHERWISE NOTED
W. CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
X. APPLY TWO COATS OF FINAL FINISH PRODUCT.
Y. FURNISH CERTIFICATION BY THE PAINT MFG THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
Z. EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).
AA. WOODGRAIN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND, UNLESS OTHERWISE NOTED.
BB. ALL SOLID SURFACE SEEMS TO BE HARD SEAM (NO SEAMS SHOWING).
CC. USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
DD. SOLID SURFACE SIDE/BACKSPLASHES TO BE INTEGRAL COVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.)
EE. SOLID SURFACE TO HAVE EASED EDGE DETAIL; UNLESS OTHERWISE NOTED.
FF. CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
GG. TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

No.	Revisions / Submissions	Date
	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY
LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

UPPER LEVEL - FURNITURE PLAN

STATE OF INDIANA KEVIN R. MCCURDY 11200138 REGISTERED ARCHITECT

Comm. No.	Date
22106.00	11.10.2023
Drawn: M.K.S.	Drawing No.: ID302
Checked: KRM	

© 2023 LWC INCORPORATED

11/14/2023 9:32:23 PM
Autodesk Docs://Union County Public Library/22106.00-UCPL - Addition & Renovation - (R22).rvt

11/10/2023 1:53:54 PM

VALVES AND FITTINGS

DOUBLE LINE	SINGLE LINE	
		CHECK VALVE
BALL VALVE BUTTERFLY VALVE GATE VALVE		SHUTOFF VALVE (REFER TO SPECIFICATIONS FOR REQUIRED TYPE BASED ON APPLICATIONS)
		COMBINATION SHUTOFF AND BALANCING VALVE (REFER TO SPECIFICATIONS FOR REQUIRED TYPE BASED ON APPLICATIONS)
		CONCENTRIC PIPE REDUCER
	FOT / FOB	ECCENTRIC PIPE REDUCER
	P	PRESSURE GAUGE
	T	TEMPERATURE GAUGE OR THERMOMETER
		UNION
		CLEANOUT
		STRAINER
		STRAINER WITH A BLOW DOWN VALVE AND HOSE CONNECTION
		DRAIN VALVE WITH HOSE END CONNECTION
		AUTOMATIC FLOW CONTROLLER WITH P/T PLUG IN AND OUT
		EXPANSION JOINT
		PRESSURE REGULATING VALVE
		SAFETY RELIEF VALVE. PIPE DISCHARGE AIR GAPPED TO FLOOR DRAIN UNLESS NOTED OTHERWISE.
	P/T	PRESSURE AND TEMPERATURE SAFETY RELIEF VALVE. PIPE DISCHARGE AIR GAPPED TO FLOOR DRAIN UNLESS NOTED OTHERWISE.
		PRESSURE AND TEMPERATURE TEST PLUG
	TP	TRAP PRIMER
	V	VACUUM GAUGE WITH STOP
	CO	CLEANOUT TO GRADE OR FINISHED FLOOR
		END CAP
		MIXING FAUCET
		PLUG
		HOSE BIB
		WALL HYDRANT
		PLUG VALVE
	VB	SHUTOFF VALVE AND BOX
		SHUTOFF VALVE ON RISER
	S	SOLENOID VALVE
	M	WATER METER

PLUMBING AND FIRE SUPPRESSION PIPING DESIGNATIONS

	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	EXISTING PIPE TO REMAIN
	EXISTING PIPE TO BE REMOVED
OS	SPRINKLER PIPE (DRY)
F	FIRE SUPPRESSION (STANDPIPE / SPRINKLER MAIN)
FS	FIRE SERVICE
G	NATURAL GAS PIPE
GS	GAS SERVICE
K	KITCHEN WASTE PIPE
OD	(OVERFLOW) SECONDARY STORM DRAINAGE PIPE
PD	PUMP DISCHARGE PIPE
S	SPRINKLER PIPE (WET)
SAN	SANITARY DRAINAGE PIPE
SCW	SOFT COLD WATER
SD	SPRINKLER DRAIN PIPE
STM	STORM DRAINAGE PIPE
V	SANITARY SEWER VENT
WS	WATER SERVICE

GENERAL FLOOR PLAN NOTES

10" ELEV: 8' - 0" / 10" ELEV: 8' - 0"	APPROXIMATE DIMENSION ABOVE FINISHED FLOOR TO CENTERLINE OF PIPE, UNLESS NOTED OTHERWISE
TOE: 3' - 0" / BOE: 0' - 6"	APPROXIMATE DIMENSION ABOVE FINISHED FLOOR TO TOP OR BOTTOM OF EQUIPMENT, UNLESS NOTED OTHERWISE
2	RISER OR STACK NUMBER
B / P2	DETAIL: B = DETAIL DESIGNATION P2 = SHEET WHERE DETAIL IS LOCATED
1 / P2	SECTION: 1 = SECTION DESIGNATION P2 = SHEET WHERE DETAIL IS LOCATED
GH-1	FIRE SUPPRESSION HAZARD CLASSIFICATION AND HAZARD CLASSIFICATION GROUP
P1 OR P1	EQUIPMENT REFERENCE. LETTER DESIGNATION VARIES. REFER TO SCHEDULES.
A1	EQUIPMENT, DEVICE, OR PLUMBING FIXTURE MARK. LETTER DESIGNATIONS REFER TO SCHEDULES.
	CONNECT TO EXISTING
	DEMOLISH TO POINT INDICATED
3	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN UNLESS NOTED OTHERWISE.
3	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
A1	"UP TO" SYMBOL (ITEM ON FLOOR ABOVE)

PIPING SYMBOLS

DOUBLE LINE	SINGLE LINE	
		BOTTOM CONNECTION (45°)
		BOTTOM CONNECTION (90°)
		BRANCH TEE CONNECTION (NOTE: BULLHEAD TEE'S ARE NOT PERMITTED)
		DIRECTION OF PITCH
D	D	DROP
		ELBOW DOWN
		ELBOW UP
		EXISTING PIPE TO BE REMOVED
		EXISTING PIPE TO REMAIN
		FLOW DIRECTION DESIGNATION
		PIPE RISER
		PUMP
R	R	RISE
		TOP CONNECTION (45°)
		TOP CONNECTION (90°)

PLUMBING DESIGN NOTES

A. ALL SUPPLY, STORM DRAINAGE, SANITARY AND VENT PIPING IS ABOVE THE CEILING (AT THE UNDERSIDE OF STRUCTURE IN EXPOSED STRUCTURE AREAS), UNLESS OTHERWISE NOTED. ALL SANITARY AND STORM DRAINAGE PIPING IS BELOW THE FLOOR, UNLESS OTHERWISE NOTED.

B. REFER TO SCHEDULES, DETAILS AND DIAGRAMS FOR PIPING, PIPE SIZES AND PIPELINE DEVICES NOT INDICATED ON THE FLOOR PLAN.

C. ABOVE CEILING UTILITY SPACE IS LIMITED. COORDINATION WITH ALL TRADES IS CRITICAL, PRIOR TO INSTALLATION ON ANY WORK.

D. MANUAL AIR VENTS SHALL BE LOCATED AT ALL HIGH POINTS OF THE UPPER MOST LEVEL OF DOMESTIC COLD, DOMESTIC HOT, AND DOMESTIC HOT RETURN SYSTEMS. DISCHARGE SHALL BE TO CLOSEST WASTE RECEPTOR ON FLOOR LEVEL.

E. LOCATIONS AND SIZES OF EXISTING PIPING HAVE BEEN DETERMINED FROM A REVIEW OF EXISTING DRAWINGS AND/OR SITE INSPECTION, WHERE POSSIBLE. FIELD VERIFICATION OF EXACT LOCATIONS, ELEVATIONS, INVERTS, SIZES, DIRECTION OF FLOW, ETC. SHALL BE REQUIRED PRIOR TO BEGINNING NEW WORK.

F. ALL PIPING SHALL BE REMOVED BACK TO ACTIVE MAINS AND CAPPED, OR REMOVED BACK TO POINTS OF CONNECTION IN NEW WORK. INACCESSIBLE PIPING, WHERE SO NOTED, TO BE ABANDONED SHALL BE DISCONNECTED FROM ACTIVE SYSTEMS AND CAPPED OR PLUGGED IN CONCEALED LOCATIONS.

G. NEW CONNECTIONS TO EXISTING PIPING SHALL BE WITH THE SAME SIZE AS THE EXISTING PIPING, UNLESS OTHERWISE NOTED.

H. ALL REMOVED MATERIAL AND EQUIPMENT, SO DESIGNATED BY THE OWNER, SHALL BE TURNED OVER AND PLACED WHERE DIRECTED. ALL MATERIAL AND EQUIPMENT, WHICH THE OWNER DOES NOT WISH TO RETAIN, SHALL BECOME THE PROPERTY OF THE CONTRACTOR RESPONSIBLE FOR THE REMOVAL.

I. REFER TO THE ARCHITECTURAL PLANS FOR PROJECT PHASING REQUIREMENTS.

ABBREVIATIONS

AAP	- AREA ALARM PANEL (MEDICAL GAS)	FOF	- FUEL OIL FLOW	P	- PROPANE GAS
AC	- AIR COMPRESSOR OR AIR CONDITIONER	FOG	- FUEL OIL GAUGE	PC	- PLUMBING CONTRACTOR (DIVISION 22)
ACC	- ACCESS	FOR	- FUEL OIL RETURN		OR PUMPED CONDENSATE RETURN
ACCU	- AIR COOLED CONDENSING UNIT	FOS	- FUEL OIL SUPPLY	PD	- PUMP DISCHARGE OR PARAPET DRAIN
AD	- ACCESS DOOR OR AREA DRAIN	FOT	- FLAT ON TOP	PIV	- POST INDICATOR VALVE
ADB	- ACID DILUTION BASIN	FPM	- FEET PER MINUTE	PLBG	- PLUMBING
ADJ	- ADJUSTABLE	FR	- FIRE RISER	PS	- PRE-ACTION/DELUGE SPRINKLER
AFF	- ABOVE FINISHED FLOOR	FS	- FLOOR SINK OR FIRE SERVICE	PRESS	- PRESSURE
AFG	- ABOVE FINISHED GRADE	FSC	- FIRE SUPPRESSION CONTRACTOR (DIVISION 21)	PRV	- PRESSURE REGULATING VALVE
ALT	- ALTERNATE	FT	- FEET	PSF	- POUNDS PER SQUARE FOOT
AP	- ACCESS PANEL	FTG	- FOOTING	PSI	- POUNDS PER SQUARE INCH
APPROX	- APPROXIMATE			PSV	- PRESSURE SUSTAINING VALVE
AR	- AIR RECEIVER OR ARGON	G	- GAS OR NATURAL GAS	PSIG	- POUNDS PER SQUARE INCH GAUGE
ARCH	- ARCHITECT OR ARCHITECTURAL	GA	- GAUGE	PW	- PURE WATER
ASSY	- ASSEMBLY	GAL	- GALLON		
AV	- ACID VENT	GALV	- GALVANIZED	RA	- RETURN AIR
AW	- ACID WASTE	GC	- GENERAL TRADES CONTRACTOR	RAD	- RADIUS
		GD	- GARAGE DRAINAGE	RCP	- REINFORCED CONCRETE PIPE
BDD	- BACK DRAFT DAMPER	GPM	- GALLONS PER MINUTE	RD	- ROOF DRAIN
BFP	- BACKFLOW PREVENTER	GS	- GAS SERVICE	REC	- RECESSED
BLDG	- BUILDING	GW	- GREASE WASTE	REQD	- REQUIRED
BOB	- BOTTOM OF BEAM			RI	- ROUGH IN
BOD	- BOTTOM OF DUCT	H2	- HYDROGEN	RL	- REFRIGERANT LIQUID
BOE	- BOTTOM OF EQUIPMENT	HB	- HOSE BIBB	ROS	- REVERSE OSMOSIS WATER SUPPLY
BOF	- BOTTOM OF FOOTING	HC	- HVAC CONTRACTOR (DIVISION 23)	ROR	- REVERSE OSMOSIS WATER RETURN
BOG	- BOTTOM OF GRILLE	HD	- HUB DRAIN	RPM	- REVOLUTIONS PER MINUTE
BOP	- BOTTOM OF PIPE	HE	- HELIUM	RS	- REFRIGERANT SUCTION
BOT	- BOTTOM	HG	- REFRIGERANT HOT GAS	RV	- RELIEF VALVE
BT	- BATHTUB	HP	- HORSEPOWER OR HIGH POINT		
BTU	- BRITISH THERMAL UNIT	HPC	- HIGH PRESSURE CONDENSATE RETURN	S	- SPRINKLER (WET)
BTUH	- BRITISH THERMAL UNIT PER HOUR	HPS	- HIGH PRESSURE STEAM SUPPLY	SA	- SHOCK ARRESTOR OR SUPPLY AIR
BTWN	- BETWEEN	HPW	- HIGH PURITY WATER	SAN	- SANITARY OR SANITARY DRAIN
		HPWR	- HIGH PURITY WATER RETURN	SCH	- SCHEDULE
CA	- COMPRESSED AIR	HR	- HOSE REEL	SCW	- SOFT COLD WATER
CB	- CATCH BASIN	HT	- HEAT TRACE	SD	- SPRINKLER DRAIN OR SUBSOIL DRAIN
CBD	- COUNTER BALANCED BACKDRAFT DAMPER	HTR	- HEATER	SH	- SHOWER
CFCI	- CONTRACTOR FURNISHED CONTRACTOR INSTALLED	HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING	SHT	- SHEET
		HW	- HOT WATER	SK	- SINK
CFM	- CUBIC FEET PER MINUTE			SPEC	- SPECIFICATIONS
CHS	- CHILLED WATER SUPPLY	IA	- MEDICAL INSTRUMENT AIR	SQ	- SQUARE
CHR	- CHILLED WATER RETURN	ID	- INSIDE DIAMETER	SR	- SUPPLY RISER
CI	- CAST IRON	INV	- INVERT ELEVATION	SS	- SANITARY STACK (SOIL OR WASTE) OR STAINLESS STEEL
CK	- CLINICAL SINK	IN	- INCHES		
CLG	- CEILING	IV	- INDIRECT VENT	STD	- STANDARD
CMU	- CONCRETE MASONRY UNIT	IW	- INDIRECT WASTE	STM	- STORM OR STORM DRAINAGE
CO	- CLEAN OUT			STRUC	- STRUCTURAL OR STRUCTURE
CO2	- MEDICAL CARBON DIOXIDE	JS	- JANITOR SINK	SUC	- SITE UTILITY CONTRACTOR
CONN	- CONNECT OR CONNECTION				
CONTR	- CONTRACTOR	K	- KITCHEN WASTE	T	- FUEL TANK VENT
CORR	- CORRIDOR	KEC	- KITCHEN EQUIPMENT CONTRACTOR	TD	- TRENCH DRAIN
CS	- CLINICAL SINK OR COLD SOFT WATER			TEMP	- TEMPERATURE
CTR	- CENTER	L	- LENGTH	TOB	- TOP OF BEAM
CU	- COPPER	LA	- LABORATORY COMPRESSED AIR	TOD	- TOP OF DUCT
CWS	- COMBINATION WATER SERVICE OR CONDENSER WATER SUPPLY	LAV	- LAVATORY	TOE	- TOP OF EQUIPMENT
		LBS	- POUNDS	TOF	- TOP OF FOOTING
CWR	- CONDENSER WATER RETURN	LCW	- LABORATORY COLD WATER	TOJ	- TOP OF JOIST
		LEC	- LABORATORY EQUIPMENT CONTRACTOR	TOP	- TOP OF PIPE
D	- DEPTH OR DRAIN LINE	LHW	- LABORATORY HOT WATER	TOS	- TOP OF SLAB OR TOP OF STEEL
DCW	- DOMESTIC COLD WATER	LHWR	- LABORATORY HOT WATER RETURN	TF	- TRAP FILLER
DD	- DECK DRAIN	LPC	- LOW PRESSURE CONDENSATE RETURN	TP	- TRAP PRIMER OR TRAP PRIMER DISCHARGE
DET	- DETAIL	LPS	- LOW PRESSURE STEAM SUPPLY	TW	- TEMPERED WATER
DF	- DRINKING FOUNTAIN OR WATER COOLER OR DIESEL FUEL	LV	- LABORATORY VACUUM OR LABORATORY VENT	TYP	- TYPICAL
		LW	- LABORATORY WASTE		
DFU	- DRAINAGE FIXTURE UNIT			UR	- URINAL
DHW	- DOMESTIC HOT WATER	MA	- MEDICAL COMPRESSED AIR	UNO	- UNLESS NOTED OTHERWISE
DHWR	- DOMESTIC HOT WATER RETURN	MAP	- MASTER ALARM PANEL (MEDICAL GAS)		
DI	- DEIONIZED WATER	MAX	- MAXIMUM	V	- VENT OR SANITARY SEWER VENT
DIA	- DIAMETER	MB	- MOP BASIN	VAC	- VACUUM
DIM	- DIMENSION	MC	- MECHANICAL CONTRACTOR (DIVISION 23)	VC	- VACUUM CLEANING
DN	- DOWN	MEZZ	- MEZZANINE	VCV	- VACUUM CLEANING VALVE
DS	- DOWN SPOUT OR SPRINKLER (DRY)	MFR	- MANUFACTURER	VE	- VACUUM EXHAUST
DT	- PERFORATED DRAIN TILE	MH	- MANHOLE	VEL	- VELOCITY
DWG	- DRAWING	MIN	- MINIMUM OR MINUTE	VIB	- VALVE IN BOX
		MISC	- MISCELLANEOUS	VOL	- VOLUME
EA	- EACH	MTD	- MOUNTED	VP	- VACUUM PUMP
EC	- ELECTRICAL CONTRACTOR (DIVISION 26)	MTG	- MOUNTING	VS	- VENT STACK
EEW	- EMERGENCY EYE WASH	MPC	- MEDIUM PRESSURE CONDENSATE RETURN	VTR	- VENT THROUGH ROOF
EJ	- EXPANSION JOINT	MPS	- MEDIUM PRESSURE STEAM SUPPLY	VR	- VENT RISER
ELEC	- ELECTRICAL	MU	- WATER MAKE-UP		
ELEV	- ELEVATOR	MV	- MEDICAL SURGICAL VACUUM	W/	- WITH
EQ	- EQUAL			W/O	- WITHOUT
EQUIP	- EQUIPMENT	N2	- MEDICAL NITROGEN	W	- WASTE
ET	- EXPANSION TANK	N/C	- NORMALLY CLOSED	WAGD	- WASTE ANESTHESIA GAS DISPOSAL
ETR	- EXISTING TO REMAIN	NG	- GASOLINE (NON-LEAD)	WC	- WATER CLOSET
ES	- EMERGENCY SHOWER	NIC	- NOT IN CONTRACT	WCO	- WALL CLEANOUT
EQS	- EQUIPMENT SUPPLIER	N/O	- NORMALLY OPEN	WH	- WALL HYDRANT OR WATER HEATER
EWC	- ELECTRICAL WATER COOLER	NO	- MEDICAL NITROUS OXIDE	WIV	- WALL INDICATOR VALVE
EXH	- EXHAUST AIR	NOM	- NOMINAL	WS	- WATER SERVICE
EXP	- EXPANSION	NPW	- NON-POTABLE WATER		
EXT	- EXTERIOR	NPT	- NATIONAL PIPE THREAD	YCO	- YARD CLEANOUT
EX	- EXISTING	NTS	- NOT TO SCALE		
				ZVC	- ZONE VALVE CABINET
F	- FIRE SUPPRESSION (STANDPIPE/SPRINKLER MAIN)	02	- MEDICAL OXYGEN		
FCE	- FIRE CONTROL EQUIPMENT	OA	- OUTDOOR AIR		
FCO	- FLOOR CLEANOUT	OD	- OUTSIDE DIAMETER OR OVERFLOW DRAIN		
FD	- FLOOR DRAIN	OFCI	- OWNER FURNISHED CONTRACTOR INSTALLED		
FDC	- FIRE DEPARTMENT CONNECTION				
FDV	- FIRE DEPARTMENT VALVE	OFOI	- OWNER FURNISHED OWNER INSTALLED		
FF	- FINISHED FLOOR ELEVATION				
FHC	- FIRE HOSE CABINET				
FLR	- FLOOR				
FM	- FORCE MAIN				
FOB	- FLAT ON BOTTOM				

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS.

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.

PLUMBING INDEX

SHEET NUMBER	SHEET NAME
P001	PLUMBING LEGEND
PD101	PLUMBING PLAN - LOWER LEVEL - DEMOLITION
PD102	PLUMBING PLAN - UPPER LEVEL - DEMOLITION
P200	PLUMBING PLAN - FOUNDATION LEVEL - NEW WORK
P201	PLUMBING PLAN - LOWER LEVEL - NEW WORK
P202	PLUMBING PLAN - UPPER LEVEL - NEW WORK
P501	PLUMBING SCHEDULES
P502	PLUMBING DETAILS
P601	SANITARY RISER DIAGRAM

SHEET NOTES:

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

PLUMBING LEGEND

HEAPY
PROJECT NO. 2023-07083

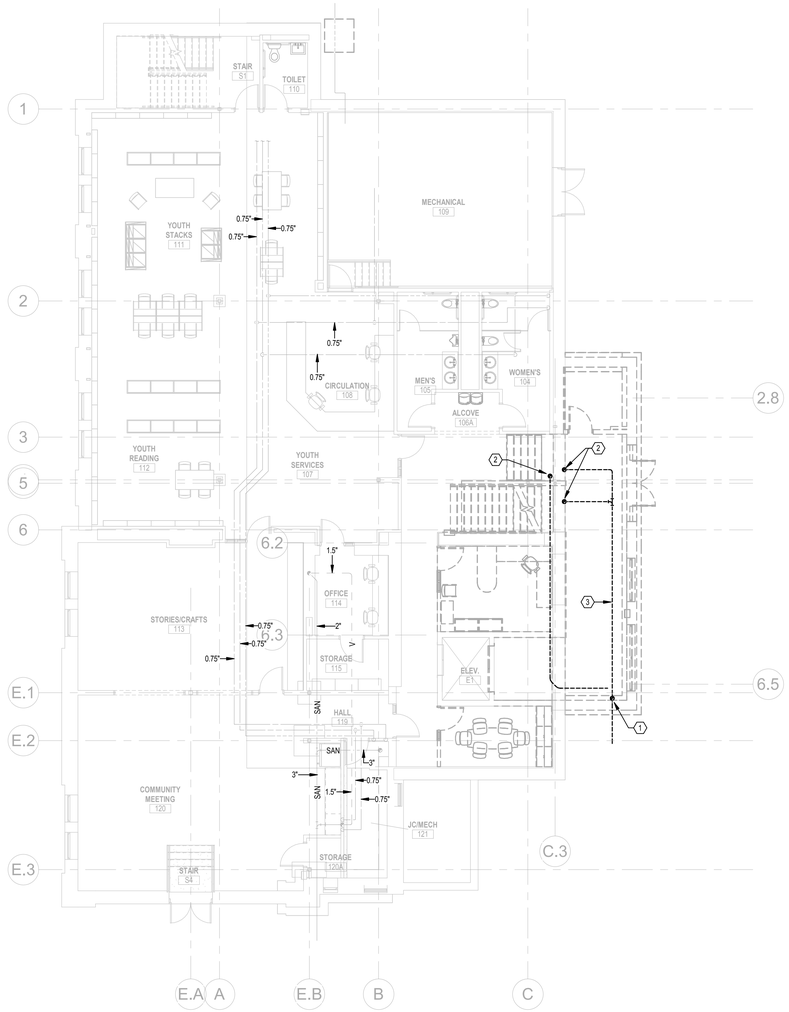
EILEEN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: ME	Drawing No.: P001
Checked: SAP	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 1:54:09 PM



1 PLUMBING LOWER LEVEL - DEMOLITION

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

SHEET NOTES:

1. REMOVE EXISTING 6" DS.
2. REMOVE EXISTING 4" DS.
3. REMOVE EXISTING STM PIPING COMPLETE.

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC
INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

PLUMBING PLAN - LOWER LEVEL - DEMOLITION

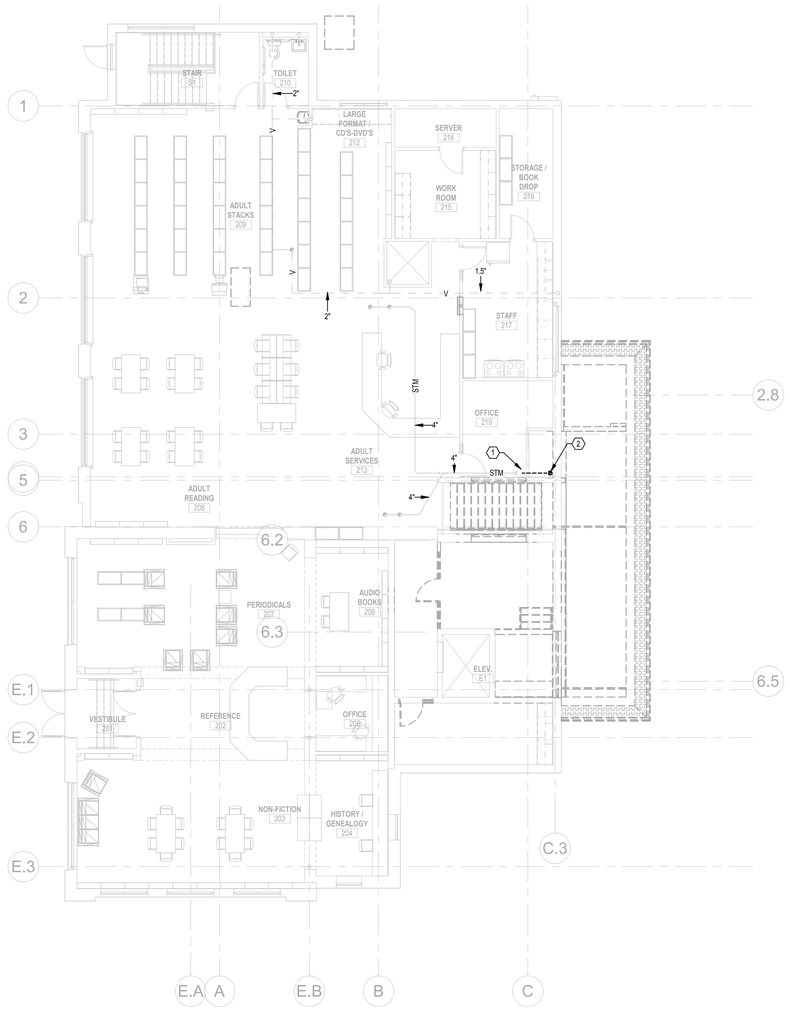
EUGEN E. LOHRMANN
REGISTERED
No. PE10911293
STATE OF INDIANA
PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: ME	Drawing No.: PD101
Checked: SAP	

HEAPY
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt



1 **PLUMBING UPPER LEVEL - DEMOLITION**
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. CUT EXISTING 4" STM AND PREP FOR RECONNECTION.
2. REMOVE EXISTING 4" DS.
3. ....

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

PLUMBING PLAN - UPPER LEVEL - DEMOLITION

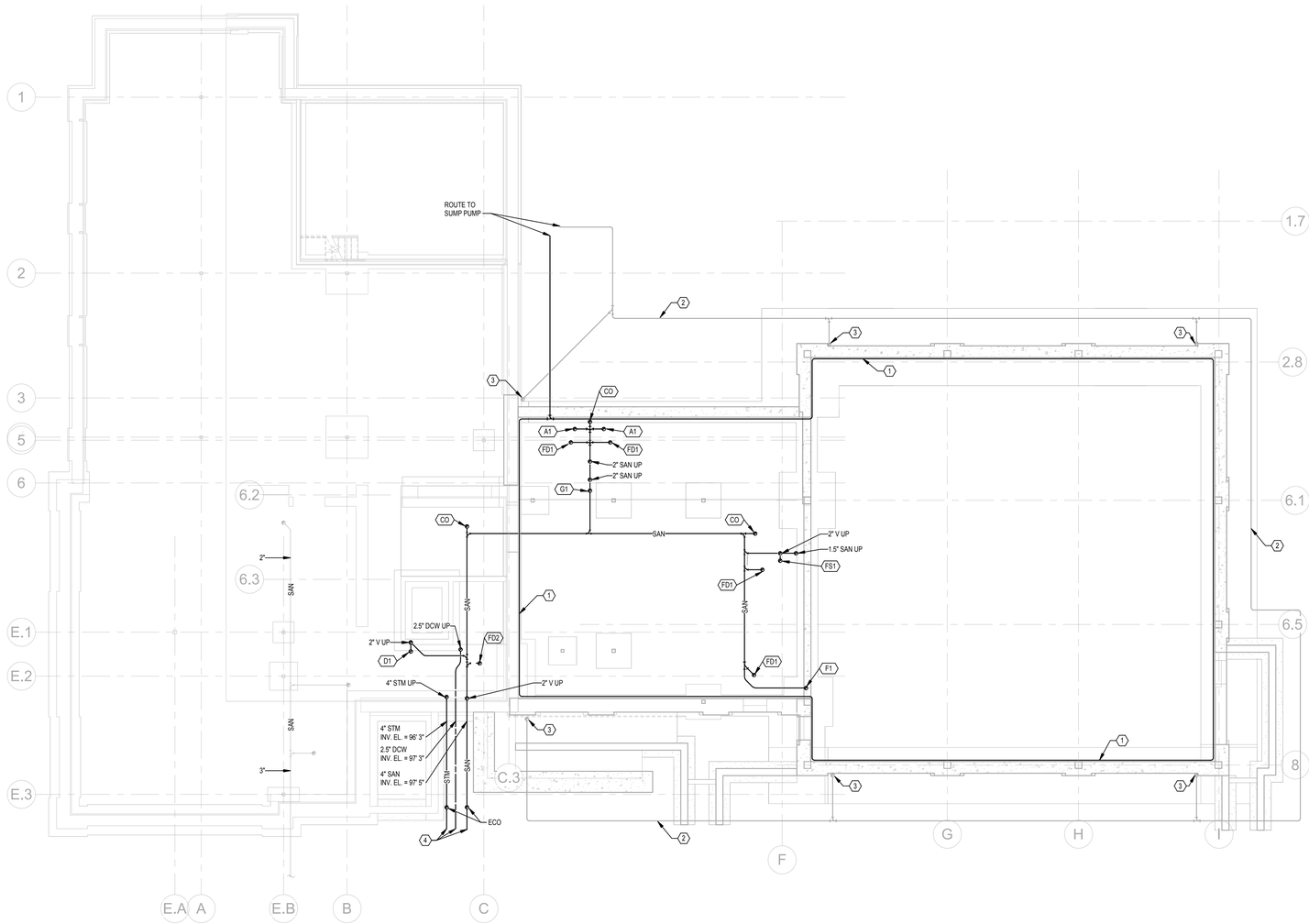
EHREN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: ME	Drawing No.
Checked: SAP	PD102

HEAPY
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

11/10/2023 1:54:12 PM
Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt



1 PLUMBING FOUNDATION LEVEL

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

SHEET NOTES:

1. PROVIDE INTERIOR PERIMETER DRAIN.
2. DOWN SPOUT STORM DRAIN BY OTHERS. SHOWN FOR REFERENCE ONLY.
3. UP TO DOWN SPOUT.
4. SEE SITE UTILITY PLAN FOR CONTINUATION.

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

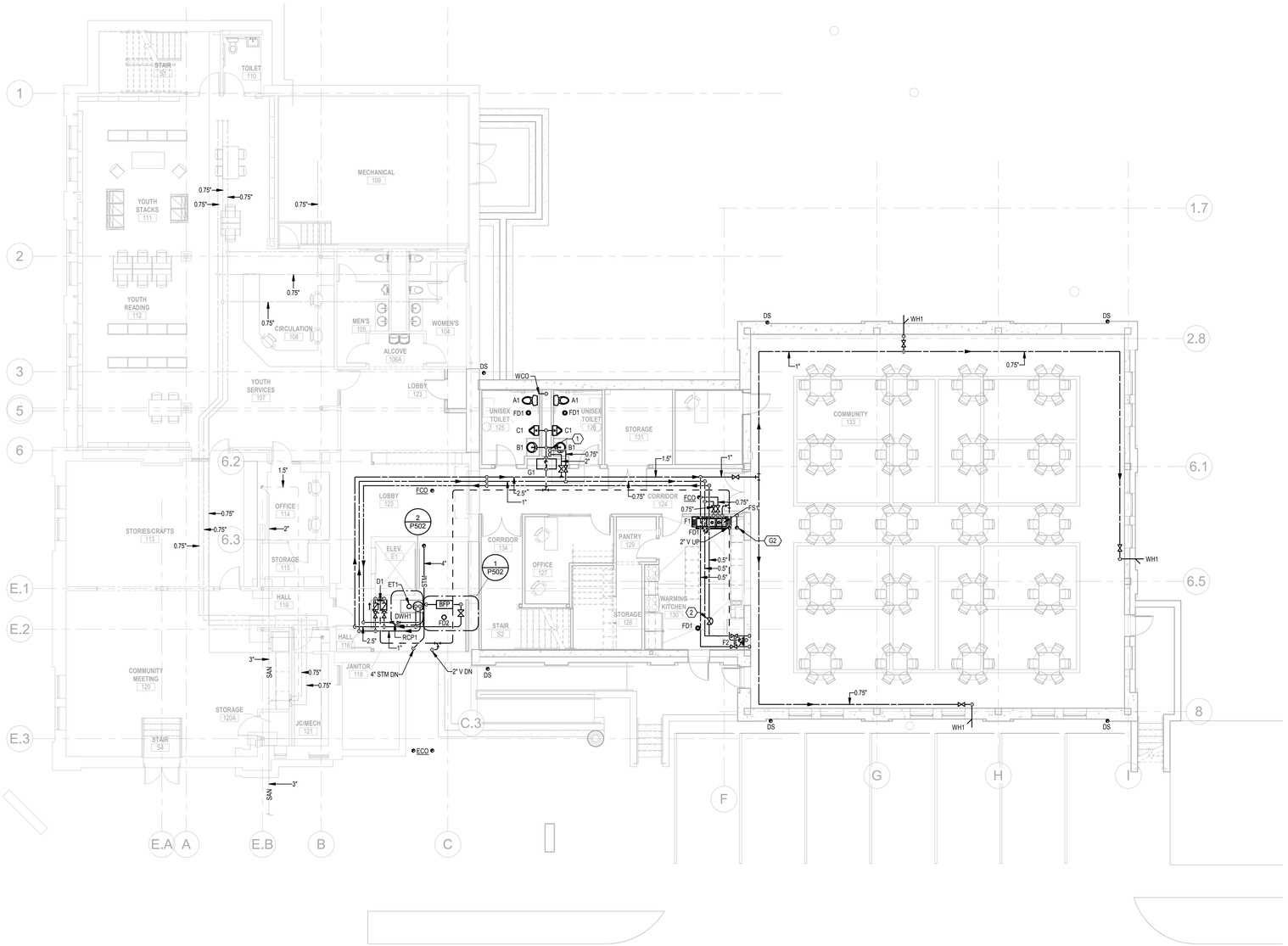
PLUMBING PLAN - FOUNDATION LEVEL - NEW WORK

LOREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

HEAPY PROJECT NO. 2023-07083

Comm. No.	Date
22106.00	2023/11/10
Drawn: JAG	Drawing No.: P200
Checked: SAP	

© 2023 LWC INCORPORATED



SHEET NOTES:

1. 1. 2" DCW, 0.75" DHW DROP TO SERVE FIXTURES. PROVIDE FULL SIZE DCW MANIFOLD WITH VALVE ANS SERVE EACH FIXTURE INDIVIDUALLY. INSTALL HAMMER ARRESTOR PER PDI REQUIREMENTS.
2. FLOW CONTROLLER. SEE DETAIL 3/P502.

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

PLUMBING PLAN - LOWER LEVEL - NEW WORK

EUGENE E. LOWRIMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: ME	Drawing No.: P201
Checked: SAP	

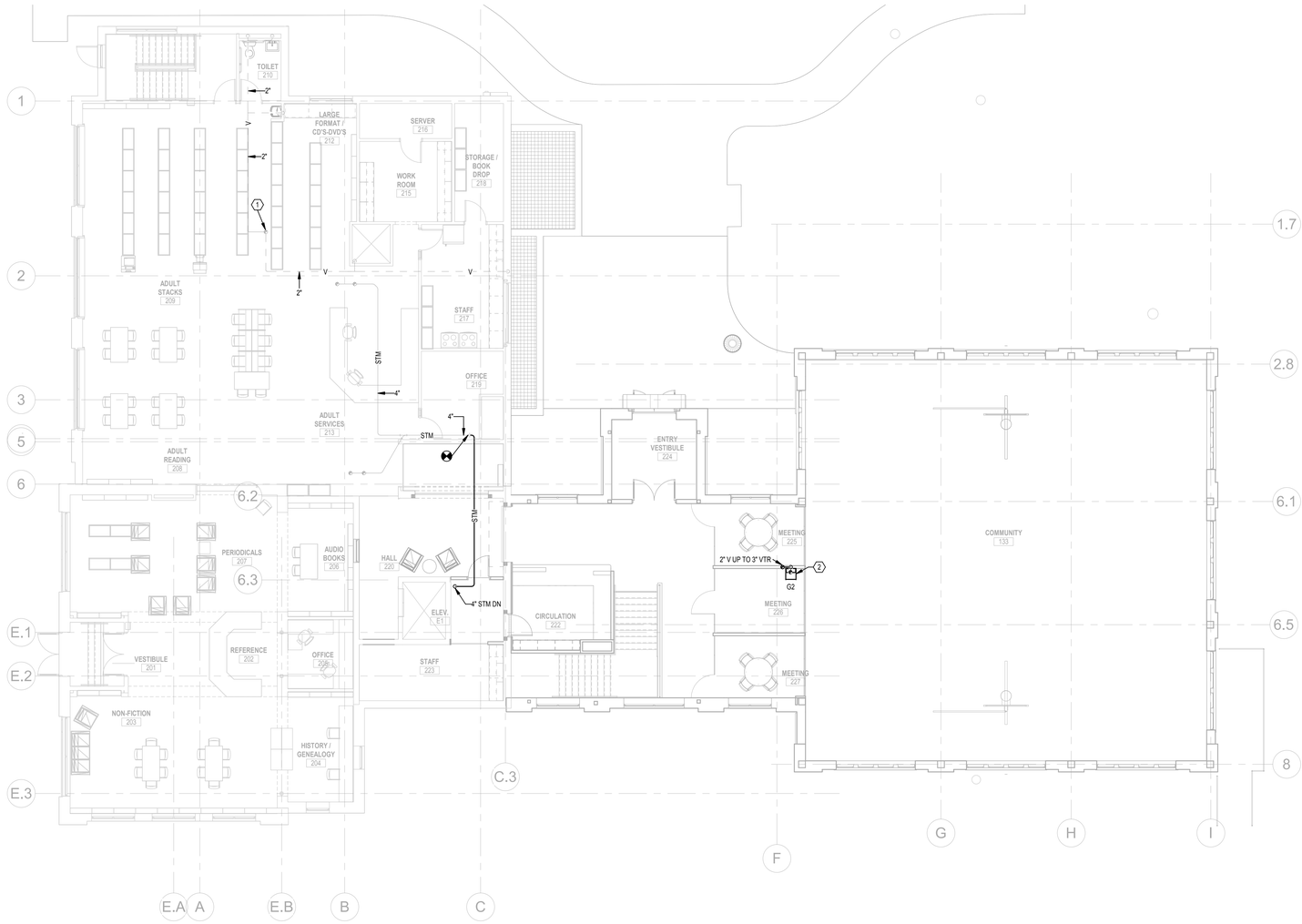
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

1 PLUMBING LOWER LEVEL

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

11/10/2023 1:54:03 PM



1 PLUMBING UPPER LEVEL

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

SHEET NOTES:

1. EXISTING VTR TO REMAIN.
2. DRINKING FOUNTAIN IS PART OF ALTERNATE #03.

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

PLUMBING PLAN - UPPER LEVEL - NEW WORK

EBREN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn ME	Drawing No. P202
Checked SAP	

© 2023 LWC INCORPORATED

HEAPY (317) 571-8795 www.heapy.com
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 1:54:03 PM

PLUMBING EQUIPMENT

GENERAL NOTES:
A. PROVIDE ROUGH-IN.
B. INSTALL ALL "LOOSE" COMPONENTS.
C. CONNECTION SIZES SHALL BE AS LISTED. TERMINAL OUTLETS AND INLETS ON EQUIPMENT MAY BE SMALLER AND INCREASER/REDUCER FITTINGS REQUIRED.

NOTES:
1. BASIS OF DESIGN: AO SMITH DEL-50
2. BASIS OF DESIGN: AMTROL ST-5
3. BASIS OF DESIGN: B&G ECOCIRC 20-18
4.

MARK	DESCRIPTION	CAPACITY	PRESSURE		VOLUME		EFFICIENCY	INPUT				ELECTRICAL (VOLTAGE - PHASE)	CONNECTIONS			APPROX. DIMENSIONS			SEE NOTE
			HEAD	DROP	TOTAL	ACCEPTANCE		CFH	KW	BTU	HP		FLUID IN	FLUID OUT	FUEL	WIDTH / DIA.	LENGTH	HEIGHT	
DWH1	DOMESTIC WATER HEATER	50 GAL							9			208 - 3							1
ET1	EXPANSION TANK	2 GAL				0.45													2
RCP1	RECIRC PUMP	0.5 GPM	3 FT.						0.07			120 - 1							3

PLUMBING FIXTURES

CATALOG NUMBERS INDICATED ARE THOSE OF THE FIRST NAMED MANUFACTURER IN EACH CATEGORY LISTED BELOW - ADDITIONAL MANUFACTURERS ARE LISTED IN PARENTHESIS

A. AMERICAN STD. (KOHLER, TOTO, ZURN, SLOAN)
B. SLOAN (DELANY, ZURN)
C. BEMIS (BENEKE, KOHLER, AMERICAN STD.)
D. SMITH (WADE, ZURN, JOSAM, WATTS)
E. CHICAGO (TOTO, T&S BRASS, ZURN)
F. GUY GRAY (OATEY, PLASTIC ODDITIES)
G. McGUIRE (EBC, DEARBORN BRASS, ZURN)
H. FIAT (STERN WILLIAMS, CREATIVE IND., MUSTEE, ZURN)
J. ELKAY (JUST WITH LUG AND SCREW)
K. ELKAY (ACORN, HALSEY TAYLOR, HAWS, OASIS)
L. LEONARD (POWERS, SYMMONS)
M. AQUARIUS (AQUA-BATH, KOHLER, COMFORT DESIGNS)
N. IN-SINK ERATOR (OR APPROVED EQUAL)
O. GUARDIAN (BRADLEY, SPEAKMAN, HAWS)
P. SPEAKMAN (CHICAGO)
Q. TRUEBRO (ZURN, PLUMBEREX)

SCHEDULE ABBREVIATIONS:
ADA HANDICAP ACCESSIBLE
BO BACK OUTLET
BPW BED PAN WASHER
DB DOUBLE BOWL
FS FLOOR SET
FT FLUSH TANK
FV FLUSH VALVE
GN GOOSENECK
HS HAND SHOWER
QD QUICK DISCONNECT
SB SINGLE BOWL
SST STAINLESS STEEL
UCM UNDER COUNTER MOUNT
VB VACUUM BREAKER
VR VANDAL RESISTANT
WB WRIST BLADE
WH WALL HUNG

GENERAL NOTE:
1. SUPPLY PIPE SIZES IN THIS SCHEDULE ARE FIXTURE OR SUPPLY STOP CONNECTION SIZES. DOMESTIC COLD AND HOT WATER SUPPLY PIPE SIZES SERVING FIXTURES SHALL BE, AT A MINIMUM, THE SIZES LISTED UNLESS NOTED OTHERWISE OR LABELED ON THE FLOOR PLANS. DOMESTIC COLD WATER SUPPLY PIPE SIZES SERVING FLUSH VALVES SHALL BE AT MINIMUM ONE PIPE SIZE LARGER THAN THE INDICATED CONNECTION SIZE, OR SIZED AS SHOWN ON THE FLOOR PLANS. PIPING AT THE FLUSH VALVE CONNECTION OF A SIZE EQUAL TO THE CONNECTION SIZE SHALL BE LIMITED TO A MAXIMUM 2 FEET IN DEVELOPED LENGTH AND INCLUDE A MAXIMUM OF ONE 90 DEGREE ELBOW FITTING. FULL SIZE MANIFOLDS, WHERE INDICATED ON THE FLOOR PLANS, SHALL BE PROVIDED FULL SIZE FOR THE LENGTH OF THE PIPING CHASE AND TERMINATED WITH A FULL SIZE CAP.

NOTES:
1. PLUMBING FIXTURES AND INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF ANSI 117.1.
2. PROVIDE ASSE 1070 MIXING VALVE FOR LAVATORY FAUCET.

MARK	DESCRIPTION	MOUNTING HEIGHT	FLOW		CONTROL				SUPPLY					WASTE & VENT								FIXTURE		SUPPLY TRIM		SUPPLY / STOP		WASTE TRIM		TRAP / FIX. DR.		MISC.		SEE NOTE
			GPM	GPF	MANUAL	SENSOR METERING	SENSOR ELECTRIC	SENSOR BATTERY	COLD WATER	HOT WATER	TEMPERED	NAT. GAS		FIX. OUTLET	TRAP	FIX. DRAIN	WASTE-MIN.	VENT-MIN.	INDIRECT	AIR GAP	AIR BREAK	MFR.	CAT. NO.	MFR.	CAT. NO.	MFR.	CAT. NO.	MFR.	CAT. NO.	MFR.	CAT. NO.	MFR.	CAT. NO.	
A1	WATER CLOSET / ADA / FT / FS	17" TO THE RIM		1.6	•				0.75"					4"	INT	4"	4"	2"				A	2467.016	A		A	UNIT	A	INTEGRAL	A	INTEGRAL	C	1655SSCT	1
B1	LAVATORY / ADA	C'TOP	0.5		•				0.5"	0.5"				1.25"	1.25"	1.25"	2"	2"				A	0495.221	E	Z81000-XL-28M	G	LFBV2165CC	G	155AECO	G	8912CBECO	Q	102 E-Z	1,2
C1	URINAL / ADA / FV / WH	17" TO THE RIM	1		•				0.75"					2"	INT	2"	2"	2"				A	6561.017	B	Z6003AV-WS1	B	UNIT	A	UNIT	A	INTEGRAL			
D1	MOP BASIN	36" TO THE FAUCET			•				0.75"	0.75"				3"	3"	3"	3"	2"				H	MSB 2424	E	897-CP	B	UNIT	H	UNIT	H	ROUGH		-	
F1	SINK / 3 BOWL / SS				•																	K	3C10X14-2-16X	K	LK945DS20T4T	G	LFBV2165CC	G	155AECO	G	8912CBECO			
F2	HAND WASHING SINK / SS / ADA				•				0.5"	0.5"				1.25"								K	CHS1716C	K	UNIT	G	LFBV2165CC	K	UNIT	K	UNIT			2
G1	WATER COOLER / ADA / BILEVEL / FILTERED	36" FLOOR TO LOWER BUBBLER			•				0.5"					1.25"	1.25"	1.25"	2"	2"				K	LZSTL8LC	K	UNIT	G	LFBV2165CC	K	UNIT	G	8912CBECO		-	1
G2	DRINKING FOUNTAIN / ADA / BOTTLE FILLER - ALT #3 ONLY	36" FLOOR TO BUBBLER			•				0.375"					1.25"	1.25"							K	LZSDWSLK	K	UNIT	G	LFBV2165CC	K	UNIT	G	8912CBECO		-	1
WH1	WALL HYDRANT	18" AFF			•				0.75"													D	5619											

DRAINS

GENERAL NOTES:
1. ALL DRAINS ARE MANUFACTURED BY J.R. SMITH UNLESS NOTED OTHERWISE.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL MANUFACTURERS.
3. ADDITIONAL ACCEPTABLE MANUFACTURERS ARE ZURN, SIOUX CHIEF, MIFAB, WATTS, WADE, AND JOSAM.

NOTES:
1. PROVIDE MECHANICAL TRAP SEAL.

MARK	CATALOG NOS.	TYPE			BODY				OUTLET			STRAINER / GRATE								TOP FINISH					ADDITIONAL FEATURES										SEE NOTE
		FLOOR	ROOF	AREAWAY	CAST IRON	BRASS	ACID RESIST.	STAINLESS STEEL	PLASTIC	SIZE	BOTTOM	SIDE	SIZE DIAMETER / WIDTH	SIZE LENGTH	ADJUSTABLE	FLAT	DOME	RECESSED	FUNNEL	HINGED	STAINLESS STEEL	NICKLE-BRONZE	CAST IRON	ACID RESIST.	STAINLESS STEEL	PLASTIC	DUCTILE IRON	ANCHOR FLANGE	FLASHING CLAMP	DBL DRAINAGE	SED. BUCKET	TRAP PRIMER CON.	AUX. STRAINER	VARIABLE EXTENSION	SUMP RECEIVER	U'DECK CLAMP	INTERIOR WATER DAM	EXTERIOR WATER DAM	
FD1	2005-A	•			•					3"	•		5"	8"	•							•						•	•	•							1
FD2	2110	•			•					3"	•		8"	8"	•													•	•	•							1
FS1	325-Y03	•					•	•		4"	•					•								•							•							

SHEET NOTES:

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

PLUMBING SCHEDULES

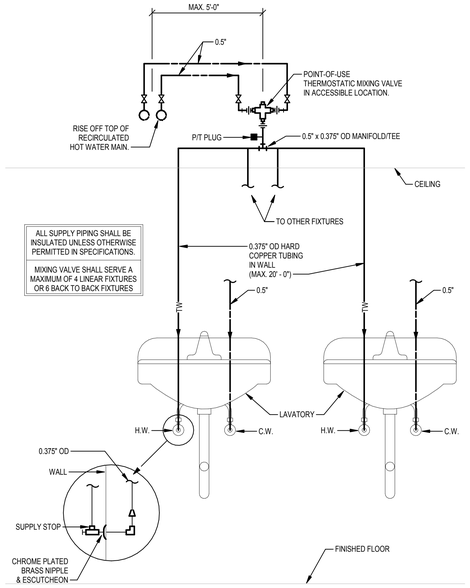
EUREN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

HEAPY
PROJECT NO. 2023-07083

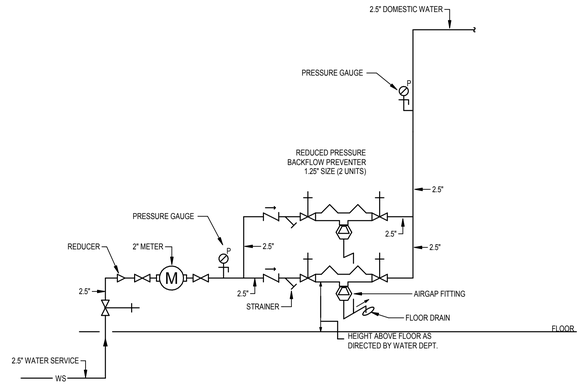
Comm. No. 22106.00	Date 2023/11/10
Drawn ME	Drawing No. P501
Checked SAP	

© 2023 LWC INCORPORATED

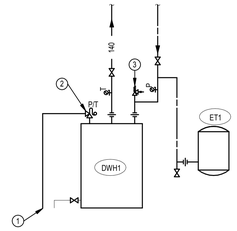
Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt



4 **POINT OF USE MIXING VALVE**
SCALE: NONE



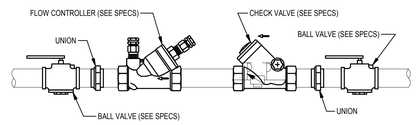
1 **WATER SERVICE BACKFLOW PREVENTION**
SCALE: NONE



NOTES

1. AIR GAP OVER FLOOR.
2. COMBINATION TEMPERATURE-PRESSURE RELIEF VALVE.
3. VACUUM RELIEF VALVE.

2 **DOMESTIC WATER HEATER PIPING**
SCALE: NONE



3 **FLOW CONTROLLER ASSEMBLY**
SCALE: NONE

HEAPY ENGINEERING

PROJECT NO. 2023-07083

SHEET NOTES:

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

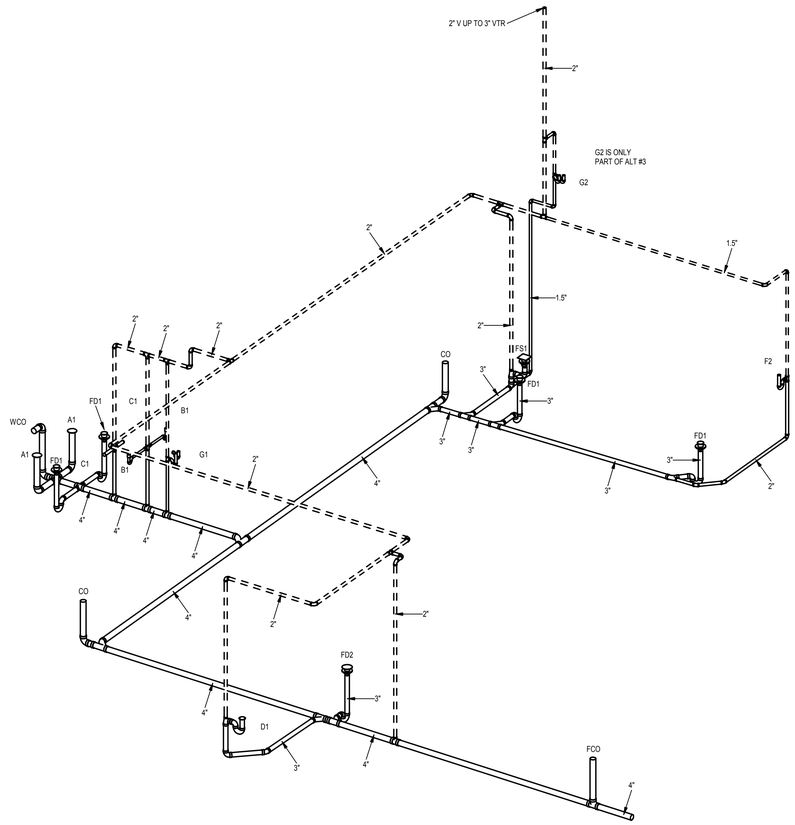
PLUMBING DETAILS

EAREN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: ME	Drawing No.: P502
Checked: SAP	

© 2023 LWC INCORPORATED

11/10/2023 1:54:06 PM



1 **STACK**
SCALE:

SHEET NOTES:

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

SANITARY RISER DIAGRAM

EMREN E. LOHRMANN
REGISTERED
No. PE10911293
STATE OF INDIANA
PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: ME	Drawing No.: P601
Checked: SAP	

© 2023 LWC INCORPORATED

HEAPY
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:14:43 AM

DUCTWORK SYMBOLS

RECTANGULAR	ROUND / OVAL	
	CONICAL FITTING	ROUND BRANCH DUCTWORK
ACOUSTIC FITTING	ACOUSTIC FITTING	RECTANGULAR BRANCH DUCTWORK
		SQUARE TEE WITH TURNING VANES NOTE: ALL SQUARE ELBOWS IN RECTANGULAR AND ROUND / OVAL DUCTWORK SHALL BE PROVIDED WITH TURNING VANES. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.
		RADIUS'D TEE
		RADIUS'D BRANCH
		UNLESS NOTED OTHERWISE ON DRAWINGS, 15° MAX FOR DIVERGING, 30° MAX FOR CONVERGING TRANSITION
		EXISTING DUCTWORK TO REMAIN
		EXISTING DUCTWORK TO REMOVED
		RETURN AIR, RELIEF AIR, OR TRANSFER AIR DUCTWORK. (UP AND DOWN) RADIUSED OR SQUARE WITH TURNING VANES.
		SUPPLY AIR OR OUTDOOR AIR DUCTWORK. (UP AND DOWN) RADIUSED OR SQUARE WITH TURNING VANES.
		EXHAUST AIR DUCTWORK. (UP AND DOWN) RADIUSED OR SQUARE WITH TURNING VANES.
		RECTANGULAR AND ROUND / OVAL DUCTWORK RISE / DROP WITH 90° RADIUSED OR SQUARE ELBOWS AND TURNING VANES.
		RADIUS ELBOW
		90° SQUARE ELBOW (WITH TURNING VANES) NOTE: ALL SQUARE ELBOWS IN RECTANGULAR AND ROUND DUCTWORK SHALL BE PROVIDED WITH TURNING VANES.
		SQUARE THROAT / RADIUS HEEL FITTINGS NOT ACCEPTABLE
AD	AD	ACCESS DOOR OR PANEL
R	R	DUCTWORK RISE IN DIRECTION OF AIR FLOW
D	D	DUCTWORK DROP IN DIRECTION OF AIR FLOW
		FLEXIBLE DUCTWORK
		DUCTWORK WITH ACOUSTICAL LINER. LISTED DUCT SIZES ARE INSIDE CLEAR DIMENSIONS.
		FLEXIBLE CONNECTION
		DUCTWORK CONSTRUCTED OF SPECIAL MATERIAL AS NOTED
		DIRECTION OF PITCH
26x20		RECTANGULAR DUCTWORK DIMENSIONS (W x H)
26ø		ROUND DUCTWORK DIMENSIONS (DIA)
26x20 OV		OVAL DUCTWORK DIMENSIONS (W x H)

DUCTWORK DEVICE SYMBOLS

A3 10ø 300	AIR DEVICE. A3 = DESIGNATION (REFER TO FLOOR PLANS AND AIR DEVICE SCHEDULE FOR VARIOUS DESIGNATIONS). 10ø = NECK SIZE (IN INCHES). 300 = REQUIRED CFM. ALL AIR DEVICE DISCHARGE 4-WAY UNLESS NOTED WITH FLOW ARROWS. AIR DEVICE SHOWN IS 2-WAY SIDE THROW. METHOD OF IDENTIFICATION ALSO APPLIES TO OTHER CEILING MOUNTED AIR DEVICES.
SG1 20x12 300 BOG: 9'-0"	WALL OR DUCTWORK MOUNTED AIR DEVICE. SG1 = DESIGNATION (REFER TO AIR DEVICE SCHEDULE). 20x12 = DUCT CONNECTION SIZE (IN INCHES). 300 = REQUIRED CFM. 9'-0" = MOUNTING HEIGHT FROM FLOOR TO BOTTOM OF GRILLE.
	MANUAL BALANCING DAMPER WITH LOCKING DEVICE
XXX	BDD = BACK DRAFT DAMPER CBD = COUNTER-BALANCED BACK DRAFT DAMPER
A-D	FIRE DAMPER A = TYPE (REFER TO FLOOR PLANS FOR VARIOUS TYPES) D OR S = DYNAMIC OR STATIC
XX	SD = SMOKE DAMPER FS = COMBINATION FIRE - SMOKE DAMPER MDD = MOTORIZED DAMPER AFMS = AIR FLOW MEASURING STATION
SD	DUCT MOUNTED SMOKE DETECTOR. COORDINATE LOCATION.
H	HUMIDITY SENSOR - DUCT MOUNTED
SP	STATIC PRESSURE SENSOR - DUCT MOUNTED
C	CARBON DIOXIDE SENSOR - DUCT MOUNTED
S	TEMPERATURE SENSOR - DUCT MOUNTED

VALVES AND FITTINGS

	CHECK VALVE
	SHUTOFF VALVE (REFER TO SPECIFICATIONS FOR REQUIRED TYPE BASED ON APPLICATIONS)
	COMBINATION SHUTOFF AND BALANCING VALVE (REFER TO SPECIFICATIONS FOR REQUIRED TYPE BASED ON APPLICATIONS)
	CONCENTRIC PIPE REDUCER
FOT / FOB	ECCENTRIC PIPE REDUCER
P	PRESSURE GAUGE
T	TEMPERATURE GAUGE OR THERMOMETER
	UNION
	CLEANOUT
	STRAINER
	STRAINER WITH A BLOW DOWN VALVE AND HOSE CONNECTION
	DRAIN VALVE WITH HOSE END CONNECTION
	AUTOMATIC FLOW CONTROLLER WITH P/T PLUG IN AND OUT
	EXPANSION JOINT
	MANUAL AIR VENT
A	AUTOMATIC AIR VENT
	PRESSURE REDUCING VALVE
M	MODULATING 2 PORT AUTOMATIC CONTROL VALVE
M	2 PORT AUTOMATIC CONTROL VALVE, 2-POSITION UNLESS SPECIFIED OTHERWISE
M	MODULATING 3 PORT AUTOMATIC CONTROL VALVE
M	3 PORT AUTOMATIC CONTROL VALVE, 2-POSITION UNLESS SPECIFIED OTHERWISE
M	AUTOMATIC PRESSURE INDEPENDENT CONTROL VALVE
	QUICK OPENING MANUAL VALVE
	SAFETY RELIEF VALVE. FOR HYDRONIC SYSTEMS PIPE DISCHARGE AIR GAPPED TO FLOOR DRAIN UNLESS NOTED OTHERWISE. FOR STEAM SYSTEMS PIPE DISCHARGE TO OUTDOORS.
	VACUUM BREAKER
N	NEEDLE VALVE
	PRESSURE AND TEMPERATURE TEST PLUG
V	VACUUM GAUGE WITH STOP
	END CAP
	GLOBE VALVE
VB	SHUTOFF VALVE AND BOX
	SHUTOFF VALVE ON RISER
S	SOLENOID VALVE
M	WATER METER
F	FLOW METER
BM	BI-METALIC STEAM TRAP AND DRIP ASSEMBLY
TD	THERMODYNAMIC STEAM TRAP AND DRIP ASSEMBLY
IB	INVERTED BUCKET STEAM TRAP AND DRIP ASSEMBLY
FT	FLOAT AND THERMOSTATIC STEAM TRAP AND DRIP ASSEMBLY
TS	THERMOSTATIC STEAM TRAP AND DRIP ASSEMBLY
	PRESSURE GAUGE WITH COCK AND SIPHON LOOP

MISC SYMBOLS

C	CARBON DIOXIDE SENSOR. WHEN WALL MOUNTED, MOUNTING HEIGHT 46" TO MEET ADA REQUIREMENTS. WHEN MOUNTED NEXT TO WALL SWITCH COORDINATE WITH ARCHITECT.
CO	CARBON MONOXIDE SENSOR. WHEN WALL MOUNTED, MOUNTING HEIGHT 46" TO MEET ADA REQUIREMENTS. WHEN MOUNTED NEXT TO WALL SWITCH COORDINATE WITH ARCHITECT.
DP	DIFFERENTIAL PRESSURE SENSOR. WHEN WALL MOUNTED, MOUNTING HEIGHT 46" TO MEET ADA REQUIREMENTS. WHEN MOUNTED NEXT TO WALL SWITCH COORDINATE WITH ARCHITECT.
H	HUMIDITY SENSOR. WHEN WALL MOUNTED, MOUNTING HEIGHT 46" TO MEET ADA REQUIREMENTS. WHEN MOUNTED NEXT TO WALL SWITCH COORDINATE WITH ARCHITECT.
S	TEMPERATURE SENSOR. WHEN WALL MOUNTED, MOUNTING HEIGHT 46" TO MEET ADA REQUIREMENTS. WHEN MOUNTED NEXT TO WALL SWITCH COORDINATE WITH ARCHITECT.
S	TEMPERATURE SENSOR MOUNTED IN CEILING PLENUM.
SP	STATIC PRESSURE SENSOR.
T	SPACE TEMPERATURE SENSOR / THERMOSTAT. WHEN WALL MOUNTED, MOUNTING HEIGHT 46" TO MEET ADA REQUIREMENTS. WHEN MOUNTED NEXT TO WALL SWITCH COORDINATE WITH ARCHITECT.
	EMERGENCY SHUTOFF STATION. 46" MOUNTING HEIGHT UNLESS NOTED OTHERWISE.

GENERAL FLOOR PLAN NOTES

3	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN UNLESS NOTED OTHERWISE.
3	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
A1	EQUIPMENT, DEVICE, OR PLUMBING FIXTURE MARK. LETTER DESIGNATIONS REFER TO SCHEDULES.
H1 OR H1	EQUIPMENT REFERENCE. LETTER DESIGNATION VARIES. REFER TO SCHEDULES.
2	RISER OR STACK NUMBER
B H2	DETAIL: B = DETAIL DESIGNATION H2 = SHEET WHERE DETAIL IS LOCATED
1 H2	SECTION: 1 = SECTION DESIGNATION H2 = SHEET WHERE DETAIL IS LOCATED
A1	"UP TO" SYMBOL (ITEM ON FLOOR ABOVE)
TOE: 3'-0"	APPROXIMATE DIMENSION ABOVE FINISHED FLOOR TO TOP OR BOTTOM OF EQUIPMENT, UNLESS NOTED OTHERWISE
BOE: 0'-6"	
10" ELEV: 8'-0"	APPROXIMATE DIMENSION ABOVE FINISHED FLOOR TO CENTERLINE OF PIPE, UNLESS NOTED OTHERWISE
10" ELEV: 8'-0"	
20x20 TOD: 8'-10"	APPROXIMATE DIMENSION ABOVE FINISHED FLOOR TO TOP OR BOTTOM OF DUCTWORK, UNLESS NOTED OTHERWISE
20x20 BOD: 7'-2"	
UC-X	DOOR UNDERCUT. X = HEIGHT OF UNDERCUT IN INCHES. 0.75 INCH UNDERCUT IF NO HEIGHT IS NOTED. COORDINATE WITH GC.
DL-1	DOOR LOUVER. 1 = SQUARE FEET OF LOUVER.
	CONNECT TO EXISTING
	DEMOLISH TO POINT INDICATED

PIPING SYMBOLS

DOUBLE LINE	SINGLE LINE	
		BOTTOM CONNECTION (45°)
		BOTTOM CONNECTION (90°)
		BRANCH TEE CONNECTION (NOTE: BULLHEAD TEE'S ARE NOT PERMITTED)
		DIRECTION OF PITCH
D	D	DROP
		ELBOW DOWN
		ELBOW UP
		EXISTING PIPE TO BE REMOVED
		EXISTING PIPE TO REMAIN
		FLOW DIRECTION DESIGNATION
		PIPE RISER
		PUMP
R	R	RISE
		TOP CONNECTION (45°)
		TOP CONNECTION (90°)

HVAC PIPING DESIGNATIONS

CHS	CHILLED WATER SUPPLY PIPE
CHR	CHILLED WATER RETURN PIPE
CWS	CONDENSER WATER SUPPLY PIPE
CWR	CONDENSER WATER RETURN PIPE
CHGS	CHILLED WATER GLYCOL SOLUTION SUPPLY PIPE
CHGR	CHILLED WATER GLYCOL SOLUTION RETURN PIPE
D	DRAIN LINE. PITCH IN DIRECTION INDICATED
HWR	HEATING HOT WATER RETURN PIPE
HWS	HEATING HOT WATER SUPPLY PIPE
MU	WATER MAKE-UP PIPE
V	VENT PIPE
ET	EXPANSION TANK PIPE
HG	REFRIGERANT HOT GAS LINE
RL	REFRIGERANT LIQUID LINE
RS	REFRIGERANT SUCTION LINE
10	STEAM SUPPLY PIPE - NUMBER INDICATES P.S.I.G.
HPC	HIGH PRESSURE CONDENSATE RETURN PIPE
HPS	HIGH PRESSURE STEAM SUPPLY PIPE
LPC	LOW PRESSURE CONDENSATE RETURN PIPE
LPS	LOW PRESSURE STEAM SUPPLY PIPE
MPC	MEDIUM PRESSURE CONDENSATE RETURN PIPE
MPS	MEDIUM PRESSURE STEAM SUPPLY PIPE
PC	PUMPED CONDENSATE RETURN PIPE

ABBREVIATIONS

AC	- AIR COMPRESSOR OR AIR CONDITIONER
ACCU	- AIR COOLED CONDENSING UNIT
AD	- ACCESS DOOR OR AREA DRAIN
ADJ	- ADJUSTABLE
AFF	- ABOVE FINISHED FLOOR
AFG	- ABOVE FINISHED GRADE
AFMS	- AIR FLOW MEASURING STATION
ALT	- ALTERNATE
AP	- ACCESS PANEL
APPROX.	- APPROXIMATE
ARCH	- ARCHITECT OR ARCHITECTURAL
ASSY	- ASSEMBLY
ATC	- AUTOMATIC TEMPERATURE CONTROL (SYNONYMOUS WITH BAS)
BAS	- BUILDING AUTOMATION SYSTEM
BDD	- BACK DRAFT DAMPER
BFP	- BACKFLOW PREVENTER
BLDG	- BUILDING
BOB	- BOTTOM OF BEAM
BOD	- BOTTOM OF DUCT
BOE	- BOTTOM OF EQUIPMENT
BOF	- BOTTOM OF FOOTING
BOG	- BOTTOM OF GRILLE
BOP	- BOTTOM OF PIPE
BOT	- BOTTOM
BTU	- BRITISH THERMAL UNIT
BTUH	- BRITISH THERMAL UNIT PER HOUR
CBD	- COUNTER BALANCED BACKDRAFT DAMPER
CFCI	- CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFM	- CUBIC FEET PER MINUTE
CHS	- CHILLED WATER SUPPLY
CHR	- CHILLED WATER RETURN
CHGR	- CHILLED WATER GLYCOL SOLUTION RETURN
CHGS	- CHILLED WATER GLYCOL SOLUTION SUPPLY
CLG	- CEILING
CMU	- CONCRETE MASONRY UNIT
CO	- CLEAN OUT
CO2	- CARBON DIOXIDE
CONN	- CONNECT OR CONNECTION
CONTR	- CONTRACTOR
CTR	- CENTER
CU	- COPPER
CW	- COLD WATER
CWR	- CONDENSER WATER RETURN
CWS	- CONDENSER WATER SUPPLY
D	- DRAIN LINE
DB	- DRY BULB
DDC	- DIRECT DIGITAL CONTROLS
DI	- DEIONIZED WATER
DIA	- DIAMETER
DIM	- DIMENSION
DN	- DOWN
DWG	- DRAWING
EA	- EACH OR EXHAUST AIR
EAT	- ENTERING AIR TEMPERATURE
EC	- ELECTRICAL CONTRACTOR (DIVISION 26)
EJ	- EXPANSION JOINT
ELEC	- ELECTRICAL
ELEV	- ELEVATOR
EQUIP	- EQUIPMENT
ET	- EXPANSION TANK
ETR	- EXISTING TO REMAIN
EQS	- EQUIPMENT SUPPLIER
EWT	- ENTERING WATER TEMPERATURE
EXH	- EXHAUST
EXP	- EXPANSION
EXT	- EXTERIOR
EX	- EXISTING
FD	- FLOOR DRAIN
FF	- FINISHED FLOOR ELEVATION
FLR	- FLOOR
FOB	- FLAT ON BOTTOM
FOF	- FUEL OIL FLOW
FOG	- FUEL OIL GAUGE
FOR	- FUEL OIL RETURN
FOS	- FUEL OIL SUPPLY
FOT	- FLAT ON TOP
FPM	- FEET PER MINUTE
FSC	- FIRE SUPPRESSION CONTRACTOR (DIVISION 21)
FT	- FEET
FTG	- FOOTING
G	- GAS OR NATURAL GAS
GA	- GAUGE
GAL	- GALLON
GALV	- GALVANIZED
GC	- GENERAL TRADES CONTRACTOR
GPM	- GALLONS PER MINUTE
HB	- HOSE BIBB
HC	- HVAC CONTRACTOR (DIVISION 23)
HD	- HUB DRAIN
HG	- REFRIGERANT HOT GAS
HP	- HORSEPOWER
HPC	- HIGH PRESSURE CONDENSATE RETURN
HPS	- HIGH PRESSURE STEAM SUPPLY
HR	- HOUR
HT	- HEAT TRACE
HTR	- HEATER
HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING
HW	- HOT WATER
HWR	- HEATING HOT WATER RETURN
HWS	- HEATING HOT WATER SUPPLY
ID	- INSIDE DIAMETER
INV	- INVERT ELEVATION
IN	- INCHES
KEC	- KITCHEN EQUIPMENT CONTRACTOR
L	- LENGTH
LAT	- LEAVING AIR TEMPERATURE
LAV	- LAVATORY
LBS	- POUNDS
LPC	- LOW PRESSURE CONDENSATE RETURN
LPS	- LOW PRESSURE STEAM SUPPLY
LWT	- LEAVING WATER TEMPERATURE
MAX	- MAXIMUM
MDD	- MOTORIZED DAMPER
MEZZ	- MEZZANINE
MFR	- MANUFACTURER
MH	- MANHOLE
MIN	- MINIMUM OR MINUTE
MISC	- MISCELLANEOUS
MTD	- MOUNTED
MTG	- MOUNTING
MPC	- MEDIUM PRESSURE CONDENSATE RETURN
MPS	- MEDIUM PRESSURE STEAM SUPPLY
MU	- WATER MAKE-UP
N/C	- NORMALLY CLOSED
NIC	- NOT IN CONTRACT
N/O	- NORMALLY OPEN
NOM	- NOMINAL
NPT	- NATIONAL PIPE THREAD
NTS	- NOT TO SCALE
OA	- OUTDOOR AIR
OBD	- OPPOSED BLADE DAMPER
OD	- OUTSIDE DIAMETER
OFCI	- OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	- OWNER FURNISHED OWNER INSTALLED
P	- PROPANE GAS
PC	- PLUMBING CONTRACTOR (DIVISION 22) OR PUMPED CONDENSATE RETURN
PLBG	- PLUMBING
PRESS	- PRESSURE
PRV	- PRESSURE REGULATING VALVE
PSF	- POUNDS PER SQUARE FOOT
PSI	- POUNDS PER SQUARE INCH
PSIG	- POUNDS PER SQUARE INCH GAUGE
RA	- RETURN AIR
RAD	- RADIUS
RCP	- REFLECTED CEILING PLAN
RD	- ROOF DRAIN
REC	- RECESSED
REQD	- REQUIRED
RI	- ROUGH IN
RL	- REFRIGERANT LIQUID
ROS	- REVERSE OSMOSIS WATER SUPPLY
ROR	- REVERSE OSMOSIS WATER RETURN
RPM	- REVOLUTIONS PER MINUTE
RS	- REFRIGERANT SUCTION
S	- SPRINKLER (WET)
SA	- SUPPLY AIR
SAN	- SANITARY OR SANITARY DRAIN
SCH	- SCHEDULE
SCW	- SOFT COLD WATER
SHT	- SHEET
SPEC	- SPECIFICATIONS
SQ	- SQUARE
SR	- SUPPLY RISER
SRV	- SAFETY RELIEF VALVE
SS	- STAINLESS STEEL
STD	- STANDARD
STM	- STORM OR STORM DRAINAGE
STRUC	- STRUCTURAL OR STRUCTURE
SUC	- SITE UTILITY CONTRACTOR
TEMP	- TEMPERATURE
TOB	- TOP OF BEAM
TOD	- TOP OF DUCT
TOE	- TOP OF EQUIPMENT
TOF	- TOP OF FOOTING
TOJ	- TOP OF JOIST
TOP	- TOP OF PIPE
TOS	- TOP OF SLAB OR TOP OF STEEL
TYP	- TYPICAL
UNO	- UNLESS NOTED OTHERWISE
V	- VENT
VAC	- VACUUM
VEL	- VELOCITY
VFD	- VARIABLE FREQUENCY DRIVE (ADJUSTABLE FREQUENCY MOTOR CONTROLLER)
VIB	- VALVE IN BOX
VOL	- VOLUME
VTR	- VENT THROUGH ROOF
VR	- VENT RISER
W/	- WITH
W/O	- WITHOUT
WB	- WET BULB
WCO	- WALL CLEANOUT

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS.

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.

GENERAL NOTES

A. THESE NOTES APPLY TO ALL DIVISION 23 DRAWINGS.
B. HVAC AND ATC SHALL COORDINATE CLOSELY WITH OTHER TRADES IN LOCATING AND INSTALLING ALL SYSTEMS ABOVE SUSPENDED CEILINGS. SPECIFICALLY, COORDINATE LAYOUT WITH E.C., F.S.C AND P.C. TO ALLOW SUFFICIENT ROOM FOR RECESSED LIGHT FIXTURES, SKELETAL PATHWAY CONDUITS, AND PLUMBING VENTS.
C. ALL WORK SHALL BE IN ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE, AND SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS. THE SAME ARE MADE A PART OF THESE CONTRACT DOCUMENTS.
D. CONTRACT DOCUMENTS CONSIST OF BOTH THE PROJECT MANUAL AND DRAWINGS, AND BOTH ARE INTENDED TO BE COMPLEMENTARY. ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.
E. CONSTRUCTION DOCUMENTS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. HOWEVER, SYSTEMS HAVE BEEN SHOWN DIAGRAMMATICALLY AND IN SOME CASES, ENLARGED FOR CLARITY. ANY OFFSETS, ADDITIONAL FITTINGS, AND OR APPURTENANCES REQUIRED TO PROVIDE A COMPLETE AND COORDINATED SYSTEM SHALL BE BORN BY THE CONTRACTOR AND INCLUDED WITH THE CONTRACT.
F. ALL EQUIPMENT AND DUCT OR PIPING ACCESSORIES REQUIRING ACCESS AND LOCATED ABOVE SHEET ROCK CEILINGS SHALL BE LOCATED WITHIN REACH OF AN ACCESS PANEL.
G. DUCT RUNOUT SIZES TO DIFFUSERS SHALL BE THE SAME AS THE GRILLE OR DIFFUSER NECK SIZE UNLESS OTHERWISE NOTED.
H. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING DEVICES.
I. MAINTAIN REQUIRED SERVICE ACCESS SPACE AT EQUIPMENT.
J. REFER TO CONTROL GENERAL NOTES FOR COORDINATION INFORMATION.
K. ALL CUTTING AND PATCHING WORK REQUIRED FOR THE HVAC WORK SHALL BE INCLUDED IN THE CONTRACT UNLESS NOTED OTHERWISE BELOW. REFINISH ANY SURFACE DISTURBED UNDER THIS WORK TO MATCH EXISTING, EXCEPT WHERE REFINISHING OF THAT SURFACE IS INCLUDED UNDER THE GENERAL TRADES CONTRACT.
L. CONTRACTOR IS RESPONSIBLE FOR DRAINING AND REFILLING THE SYSTEM(S) AS REQUIRED TO COMPLETE THE WORK. ANY ADDITIONAL ISOLATION VALVES OR DRAIN VALVES REQUIRED TO DO SO SHALL BE CONSIDERED PART OF THIS CONTRACT.
M. EXISTING SYSTEMS AFFECTED BY THE NEW / RENOVATION WORK SHALL HAVE CHEMICAL TREATMENT RE-ESTABLISHED BY A CHEMICAL TREATMENT PROFESSIONAL AFTER THE WORK IS COMPLETE. THE COST FOR DOING SO SHALL BE INCLUDED IN DIVISION 23.
N. COORDINATE ALL REQUIRED SHUT-DOWNS WITH THE OWNER 14 DAYS IN ADVANCE OF SHUT-DOWN.
O. AIRFOIL TURNING VANES SHALL BE INSTALLED IN ALL 90 DEGREE ELBOWS EXCEPT TRANSFER DUCTS AND OPEN RETURN AIR BOOTS.
P. FLOOR PLANS DO NOT INDICATE ALL OF THE REQUIRED VALVING, DEVICES, ETC. ON THE PIPING REQUIRED. REFER TO STANDARD DETAILS, FLUID FLOW DIAGRAMS AND SPECIFICATION FOR ADDITIONAL INFORMATION.
Q. ALL RETURN PIPING SHALL BE PIPED TO AVOID 'BULL HEAD TEES' WHERE FLOWS COLLIDE.
R. ALL DUCTWORK DESIGNATIONS REFER TO NET FREE AREA INSIDE THE DUCTWORK.
S. VOLUME DAMPERS SHALL BE LOCATED AT BRANCH CONNECTION TO THE MAIN PRIOR TO EACH AIR DEVICE.
T. ALL DUCTS AND PIPES SHALL BE RUN ABOVE CEILING. WHERE NO CEILINGS ARE INSTALLED HOLD AS HIGH AS POSSIBLE TO STRUCTURE UNLESS NOTED OTHERWISE. IN GENERAL, KEEP DUCT AND PIPING MAINS NEXT TO THE UNDERSIDE OF STRUCTURE.
U. OFFSET PIPING AND DUCTWORK AS REQUIRED TO MAINTAIN ALL MANUFACTURER RECOMMENDED CLEARANCES.
V. COORDINATE WALL AND FLOOR OPENINGS WITH ALL TRADES CONTRACTOR.
W. BRANCH PIPING TO UNITS SHALL BE SAME SIZE INDICATED ON UNIT SCHEDULE UNLESS NOTED OTHERWISE.
X. FIELD VERIFY EXISTING CONDITIONS DURING BIDDING PERIOD, INCLUDING EQUIPMENT, PIPE, AND DUCT SIZES AND LOCATIONS, CLEARANCES, ETC.
Y. DUCTWORK AND PIPING ON DRAWINGS DOES NOT INDICATE ALL REQUIRED OFFSETS AND FITTINGS. INCLUDE THESE OFFSETS AND FITTINGS TO COORDINATE WITH OTHER CONTRACTORS AS PART OF THE CONTRACT.
Z. COORDINATE LOCATION OF THERMOSTATS AND OTHER WALL-MOUNTED DEVICES WITH FURNITURE, WALL FRAMING, ELECTRICAL OUTLETS AND DEVICES, AND TECHNOLOGY OUTLETS AND DEVICES PRIOR TO ROUGH-IN.
AA. THERMOSTATS SHALL BE MOUNTED PERPENDICULAR AND IN VERTICAL ALIGNMENT WITH THE ROOM LIGHT SWITCH WHERE POSSIBLE.
BB. CONTRACTOR TO LEAK TEST ALL EXISTING DUCTWORK AND SEAL ANY DUCTWOK THAT IS LEAKING ON THE SUPPLY, EXHAUST AND RELIEF. CONTRACTOR SHALL ALSO INSPECT ALL EXISTING DUCTWORK AND REPAIR INSULATION THAT HAS BEEN COMPRISED OR MISSING.
CC. CONTRACTOR TO VISIT SITE AND CONFIRM ALL EXISTING CONDITIONS PRIOR TO BID. ALL WORK REQUIRED IS TO BE INCLUDED IN PRICING FOR A COMPLETE JOB AS NO OTHER SHALL BE ACCEPTED.
DD. ALL MATERIALS TO BE REMOVED ARE TO BE DISPOSED OF IN A SAFE AND LEGAL MANNER.

MECHANICAL SHEET LIST

SHEET NUMBER	SHEET NAME
M001	MECHANICAL LEGEND, ABBREVIATIONS & SHEET LIST
MD101	LOWER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID
MD102	UPPER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID
MD102.1	MECHANICAL DEMOLITION ALTERNATE FLOOR PLANS
M101	LOWER LEVEL MECHANICAL FLOOR PLAN - BASE BID
M102	UPPER LEVEL MECHANICAL FLOOR PLAN - BASE BID
M103	ROOF MECHANICAL PLAN - BASE BID
M102.1	ALTERNATE FLOOR PLANS
M102.2	ALTERNATE FLOOR PLANS
M103.1	ALTERNATE FLOOR PLANS
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M601.1	ALTERNATE SCHEDULES
M701	ATC LEGEND
M702	CONTROLS DIAGRAM

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

MECHANICAL LEGEND, ABBREVIATIONS & SHEET LIST

EAREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

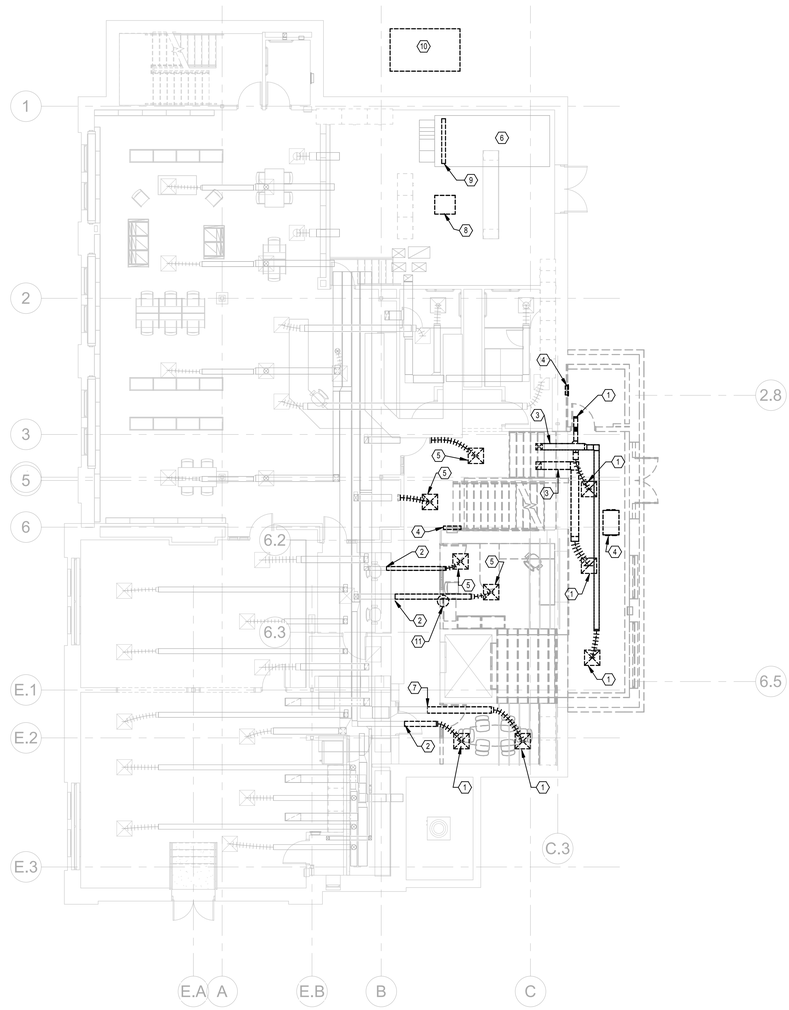
Comm. No. 22106.00	Date 2023/11/10
Drawn JME	Drawing No. M001
Checked DNH	

HEAPY T: (317) 571-8700 www.heapy.com
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:15:09 AM



1 **LOWER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID**
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. REMOVE DIFFUSER/GRILLE AND ASSOCIATED INSULATION, SUPPORTS, ETC.
2. REMOVE DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. TO POINT INDICATED. PREPARE TO CONNECT TO NEW.
3. REMOVE DIFFUSERS AND DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. BACK TO MAIN ON UPPER FLOOR AS INDICATED.
4. REMOVE CABINET UNIT HEATER, CONTROLS AND SUPPORT COMPLETELY.
5. REMOVE DIFFUSER AND ASSOCIATED INSULATION, SUPPORTS, ETC. REPLACE WITH NEW DIFFUSER AND REBALANCE.
6. PRIOR TO START OF DEMOLITION, PERFORM PRETAB SERVICES ON THE EXISTING AIR HANDLING UNIT SERVING THE EXISTING BUILDING. THIS SHALL INCLUDE A DUCT TRAVERSE AT THE SUPPLY AND RETURN DUCT MAINS NEAR THE UNIT AND EVERY SUPPLY AND RETURN GRILLE. SUBMIT REPORT TO ENGINEER FOR REVIEW TO DOCUMENT EXISTING CONDITIONS.
7. REMOVE DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. TO POINT INDICATED. CAP AND SEAL.
8. REMOVE EXISTING BOILER ALLOWING THE COOLING COIL TO BE REMOVED. STORE BOILER IN BASEMENT DURING CONSTRUCTION AND PREPARE TO REINSTALL AFTER COOLING COIL HAS BEEN INSTALLED.
9. REMOVE COOLING COIL AND REFRIGERANT PIPING.
10. REMOVE CONDENSING UNIT AND ALL ASSOCIATED REFRIGERANT PIPING, POWER WIRING, ETC.
11. REMOVE EXISTING THERMOSTAT AND RELOCATE AS INDICATED ON NEW WORK PLAN.

GENERAL NOTES:

1. CONTRACTOR TO VISIT SITE AND CONFIRM ALL EXISTING CONDITIONS PRIOR TO BID. ALL WORK REQUIRED IS TO BE INCLUDED IN PRICING FOR A COMPLETE JOB AS NO OTHER SHALL BE ACCEPTED.
2. ALL MATERIALS TO BE REMOVED ARE TO BE DISPOSED OF IN A SAFE AND LEGAL MANNER.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

LOWER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID

EUGENE E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

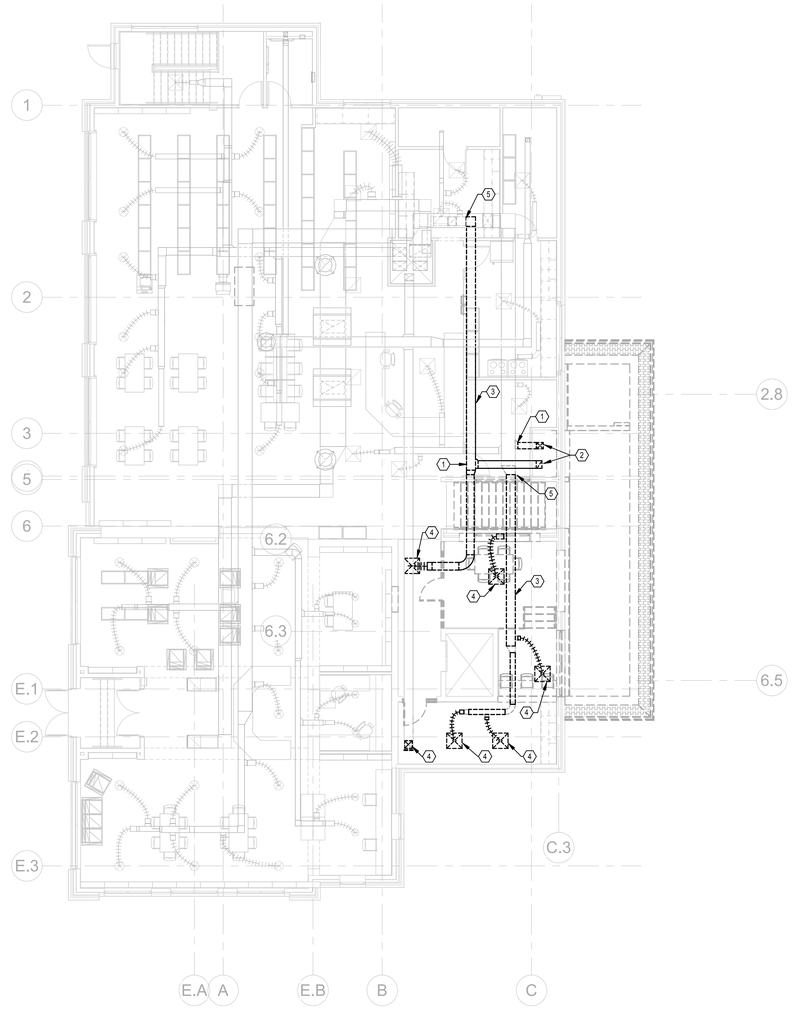
Comm. No. 22106.00	Date 2023/11/10
Drawn JME	Drawing No. MD101
Checked NH	

HEAPY (317) 571-8700 www.heapy.com
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:15:12 AM



1 **LOWER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID**
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. REMOVE DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. TO POINT INDICATED.
2. REMOVE DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. FROM FLOOR BELOW.
3. REMOVE DUCTWORK AND INSULATION COMPLETELY.
4. REMOVE DIFFUSER/GRILLE AND ASSOCIATED INSULATION, SUPPORTS, ETC.
5. REMOVE DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. TO POINT INDICATED AND CAP.

GENERAL NOTES:

1. CONTRACTOR TO VISIT SITE AND CONFIRM ALL EXISTING CONDITIONS PRIOR TO BID. ALL WORK REQUIRED IS TO BE INCLUDED IN PRICING FOR A COMPLETE JOB AS NO OTHER SHALL BE ACCEPTED.
2. ALL MATERIALS TO BE REMOVED ARE TO BE DISPOSED OF IN A SAFE AND LEGAL MANNER.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC
INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

UPPER LEVEL MECHANICAL FLOOR PLAN DEMOLITION - BASE BID

LOREN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

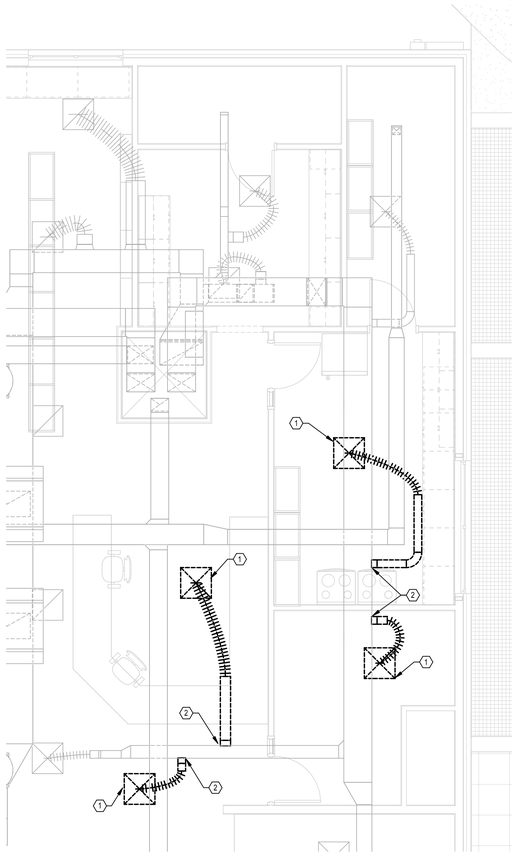
Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No.: MD102
Checked: NH	

© 2023 LWC INCORPORATED

HEAPY
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:15:14 AM



1 **MECHANICAL UPPER LEVEL ALTERNATE STAFF ROOM - DEMO**
SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. REMOVE DIFFUSER/GRILLE AND ASSOCIATED INSULATION, SUPPORTS, ETC.
2. REMOVE DUCTWORK AND ASSOCIATED INSULATION, SUPPORTS, ETC. TO POINT INDICATED AND CAP.

GENERAL NOTES:

1. CONTRACTOR TO VISIT SITE AND CONFIRM ALL EXISTING CONDITIONS PRIOR TO BID. ALL WORK REQUIRED IS TO BE INCLUDED IN PRICING FOR A COMPLETE JOB AS NO OTHER SHALL BE ACCEPTED.
2. ALL MATERIALS TO BE REMOVED ARE TO BE DISPOSED OF IN A SAFE AND LEGAL MANNER.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

MECHANICAL DEMOLITION ALTERNATE FLOOR PLANS

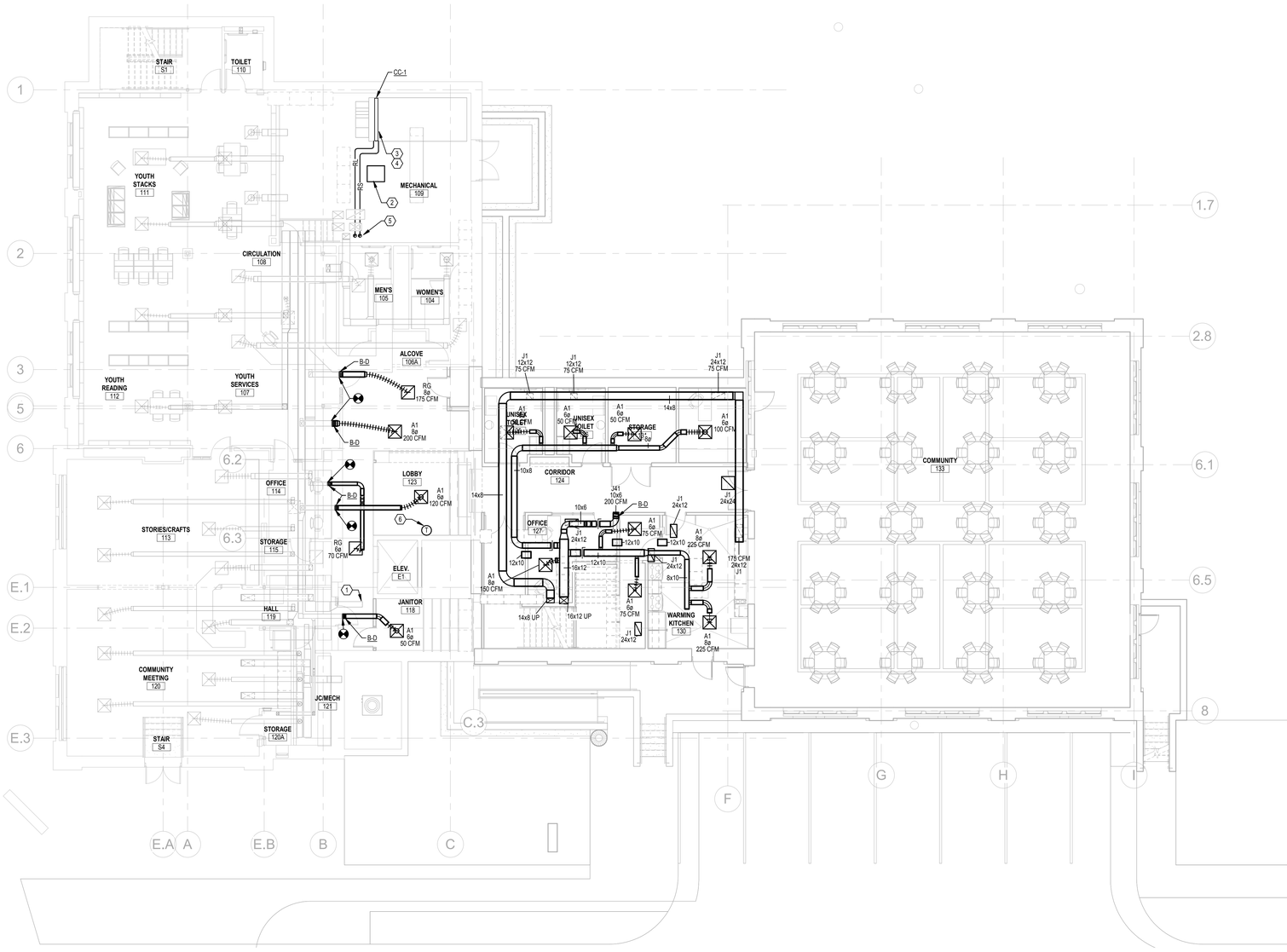
EUREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No. MD102.1
Checked: NH	

HEAPY
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt



1 LOWER LEVEL MECHANICAL FLOOR PLAN - BASE BID

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

SHEET NOTES:

1. CAP AND SEAL EXISTING DUCTWORK.
2. REINSTALL EXISTING BOILER AFTER THE COOLING COIL HAS BEEN INSTALLED AND IS OPERATING AS REQUIRED.
3. INSTALL COOLING COIL. PROVIDE FINAL CLEAN ON INSIDE OF UNIT, AND INSTALL REQUIRED BLANKOFFS INTERNAL TO THE UNIT.
4. ROUTE CONDENSATE TO NEAREST DRAIN.
5. ROUTE REFRIGERANT PIPING UP IN EXISTING CHASE. SIZE REFRIGERANT PIPING PER MANUFACTURERS RECOMMENDATIONS. SUPPORT PIPING AS REQUIRED.
6. RELOCATE THERMOSTAT TO NEW LOCATION. PROVIDE CONDITION IN WALL.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

LOWER LEVEL MECHANICAL FLOOR PLAN - BASE BID

LAUREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No.: M101
Checked: NH	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

11/10/2023 8:14:50 AM

DETAIL SECTION - 2000 CFM
ISOTHERMAL THROW
BASED ON THERMINAL
VOLOCITY OF 50, 100 & 150 FPM

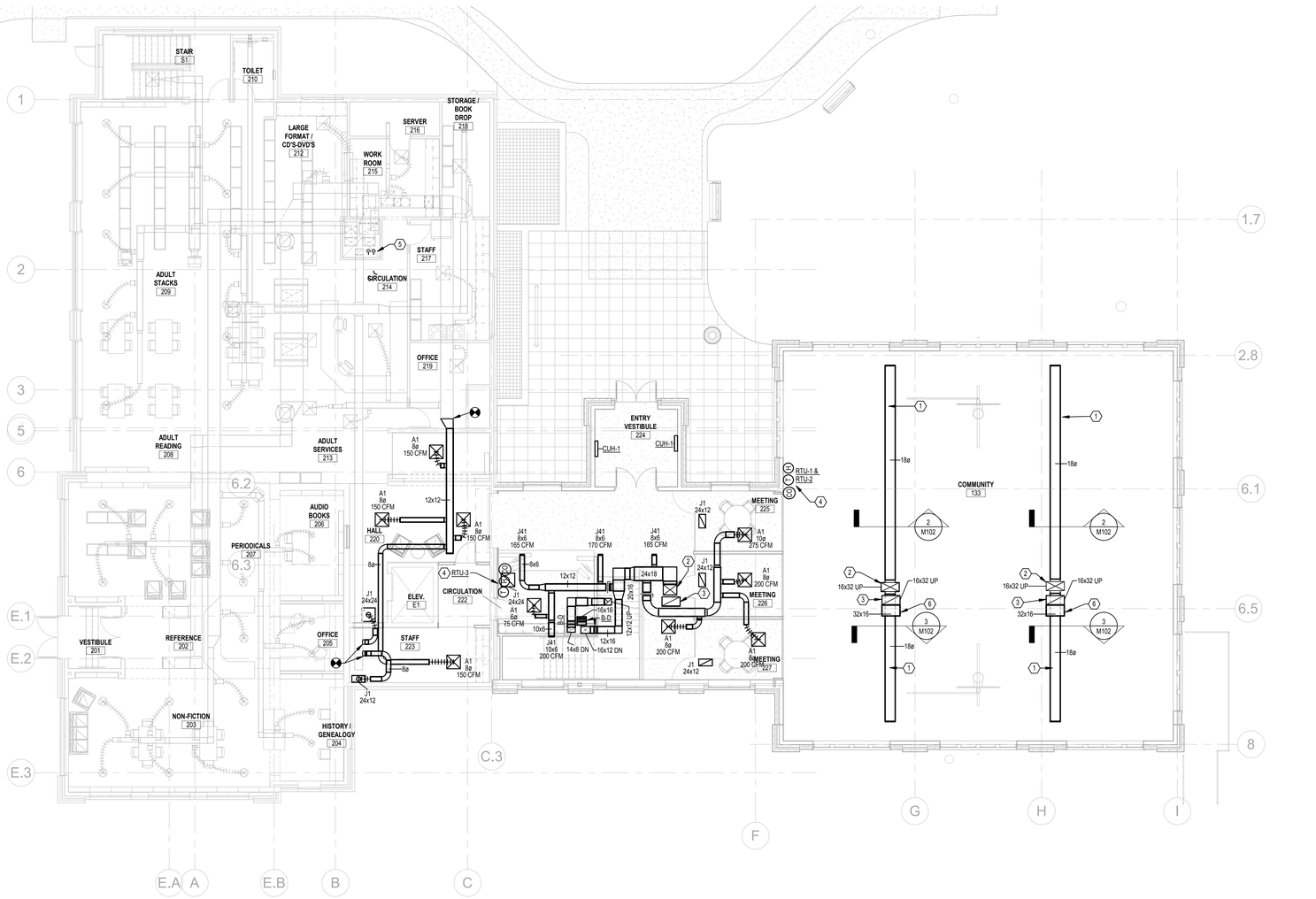
1 3/4" ORIFICES AT 4:00 = 36" 18" 12"
1 3/4" ORIFICES AT 8:00 = 36" 18" 12"

2 DUCTSOX SECTION VIEW - 2000 CFM
SCALE: NONE

DETAIL SECTION - 1000 CFM
ISOTHERMAL THROW
BASED ON THERMINAL
VOLOCITY OF 50, 100 & 150 FPM

1 3/4" ORIFICES AT 4:00 = 34" 17" 11"-6"
1 3/4" ORIFICES AT 8:00 = 34" 17" 11"-6"

3 DUCTSOX SECTION VIEW - 1000 CFM
SCALE: NONE



1 UPPER LEVEL MECHANICAL FLOOR PLAN - BASE BID
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. PROVIDE FABRIC DUCT AS INDICATED.
2. SUPPLY DUCT UP TO RTU ON ROOF.
3. RETURN DUCT UP TO RTU ON ROOF.
4. PROVIDE PLASTIC LOCKABLE COVER.
5. ROUTE PIPING IN EXSIITING CHASE. SUPPORT AS REQUIRED.
6. INSTALL RETURN DUCTWORK OVER THE TOP OF SUPPLY DUCTWORK.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

UPPER LEVEL MECHANICAL FLOOR PLAN - BASE BID

EARLEN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

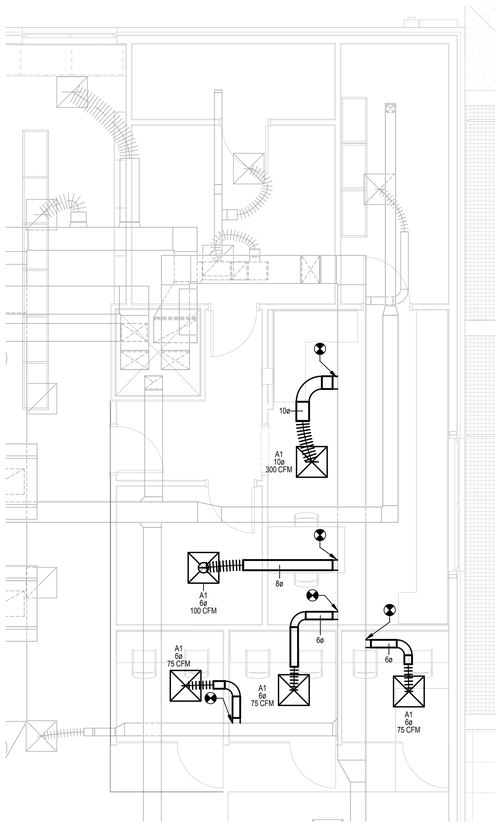
Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No.: M102
Checked: NH	

© 2023 LWC INCORPORATED

HEAPY © 2017/2019 www.heapy.com
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:14:52 AM



1 **ALTERNATE - STAFF AREA - UPPER LEVEL FLOOR PLAN**
SCALE: 1/4" = 1'-0"

SHEET NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE FLOOR PLANS

EUGEN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn DNH	Drawing No. M102.1
Checked DNH	

HEAPY

PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:14:54 AM

DETAIL SECTION - 3000 CFM
ISOTHERMAL THROW
BASED ON THERMINAL
VOLOCITY OF 50, 100 & 150 FPM

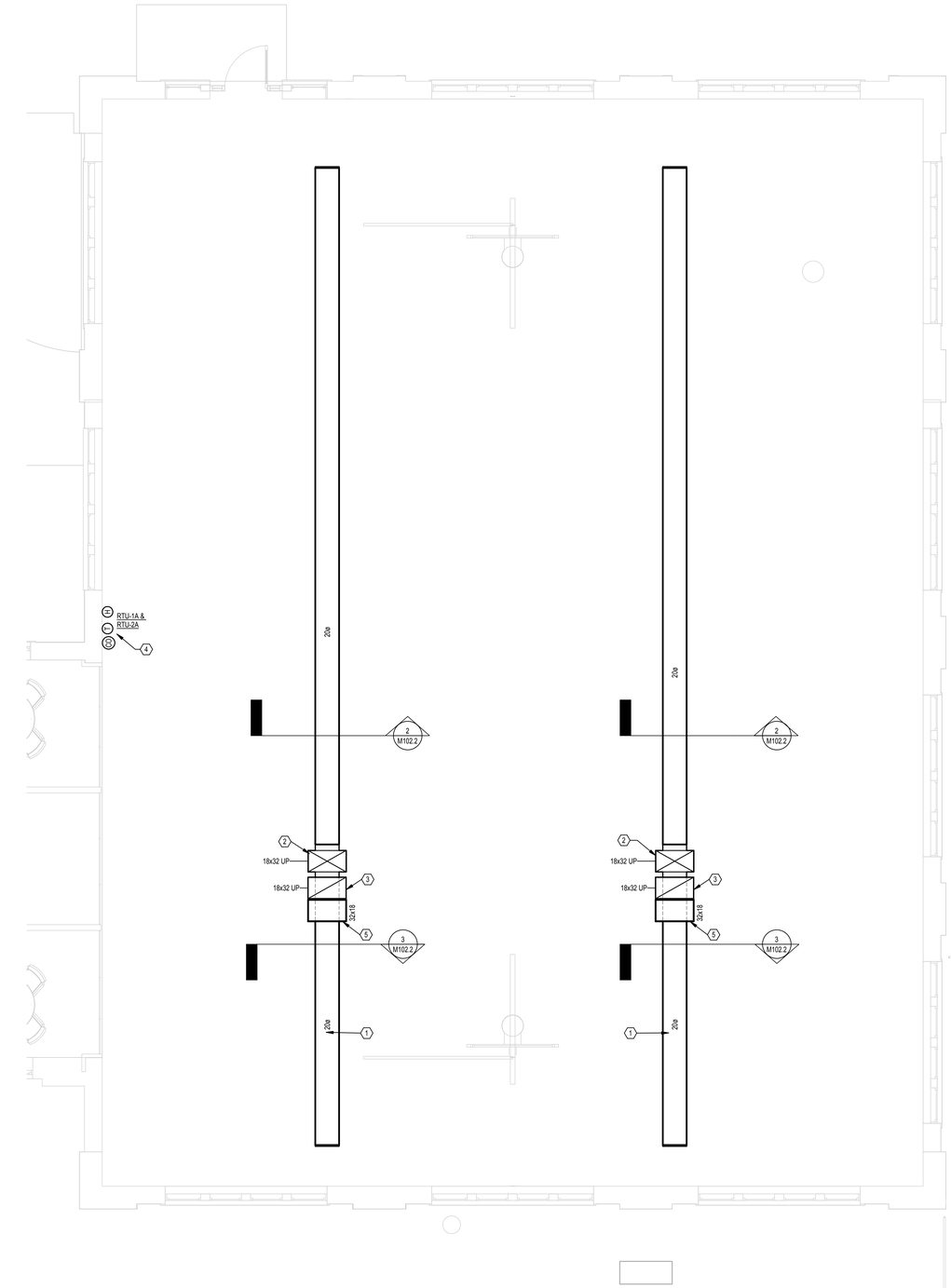
1 3/4" ORIFICES AT 4:00 = 36" 18" 12"
1 3/4" ORIFICES AT 8:00 = 36" 18" 12"

2 DUCTSOX SECTION VIEW 1 3000 CFM
SCALE: NONE

DETAIL SECTION - 1000 CFM
ISOTHERMAL THROW
BASED ON THERMINAL
VOLOCITY OF 50, 100 & 150 FPM

1 3/4" ORIFICES AT 4:00 = 34" 17" 11"-6"
1 3/4" ORIFICES AT 8:00 = 34" 17" 11"-6"

3 DUCTSOX SECTION VIEW 1000 CFM
SCALE: NONE



1 ALTERNATE - BAY ADDITION - LOWER LEVEL FLOOR PLAN
SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. PROVIDE FABRIC DUCT AS INDICATED.
2. SUPPLY DUCT UP TO RTU ON ROOF.
3. RETURN DUCT UP TO RTU ON ROOF.
4. PROVIDE PLASTIC LOCKABLE COVER.
5. INSTALL RETURN DUCTWORK OVER THE TOP OF SUPPLY DUCTWORK.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE FLOOR PLANS

EMBER E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

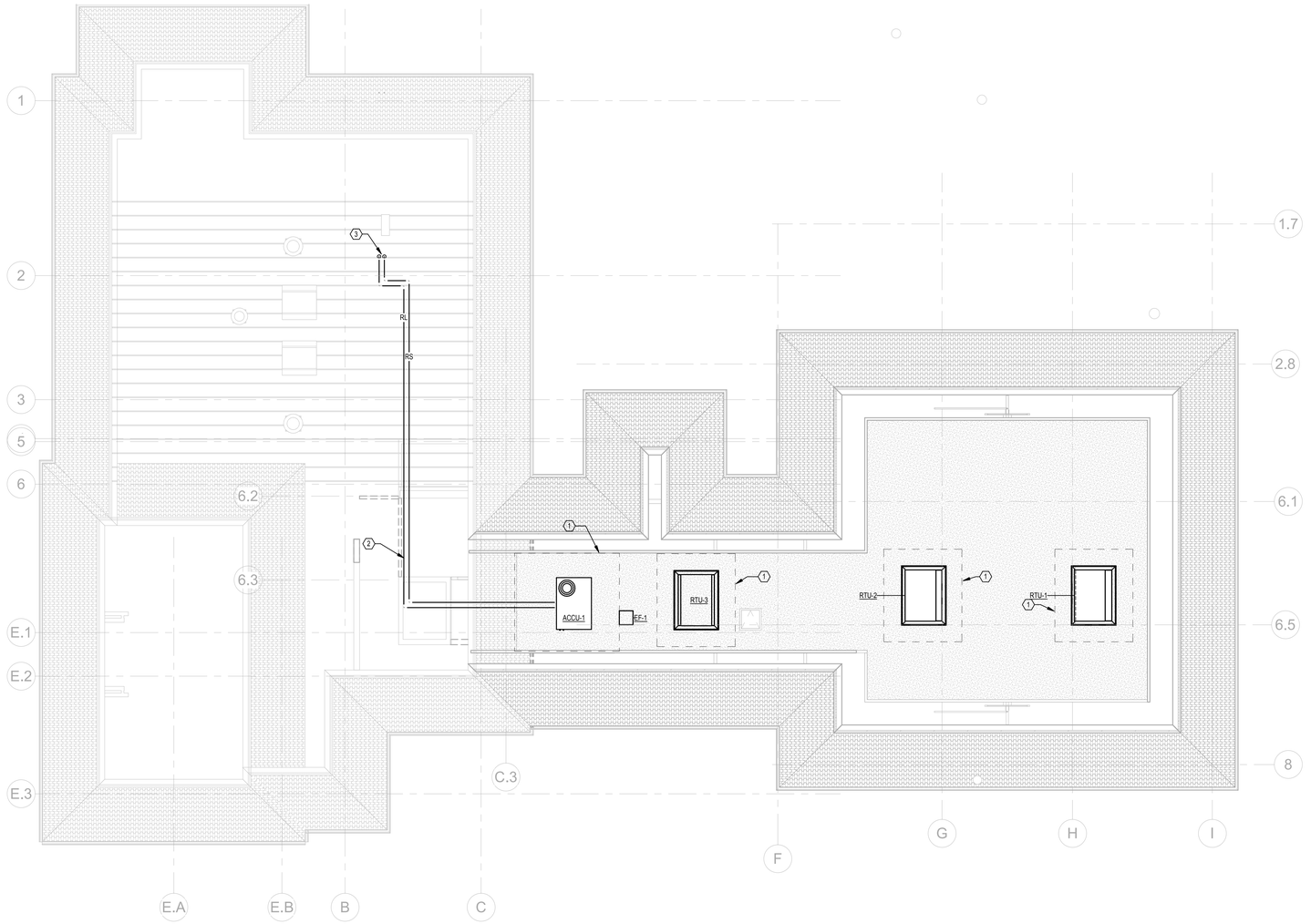
Comm. No.	Date
22106.00	2023/11/10
Drawn: DNH	Drawing No.: M102.2
Checked: DNH	

HEAPY (317) 571-8700 www.heapy.com
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:14:56 AM



1 MECHANICAL FLOOR PLAN - ROOF - NEW WORK

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

SHEET NOTES:

1. EQUIPMENT CLEARANCES.
2. SUPPORT REFRIGERANT PIPING OFF ROOF WITH DURABLOCKS. MANUFACTURER TO SIZE PIPING BASED ON LAYOUT FROM CONTRACTOR.
3. ROUTE PIPING IN EXISTING CHASE. SUPPORT AS REQUIRED. PROVIDE CUSTOM PIPE BOX ASSEMBLY SO PIPING EXITS HORIZONTALLY.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ROOF MECHANICAL PLAN - BASE BID

EUGEN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

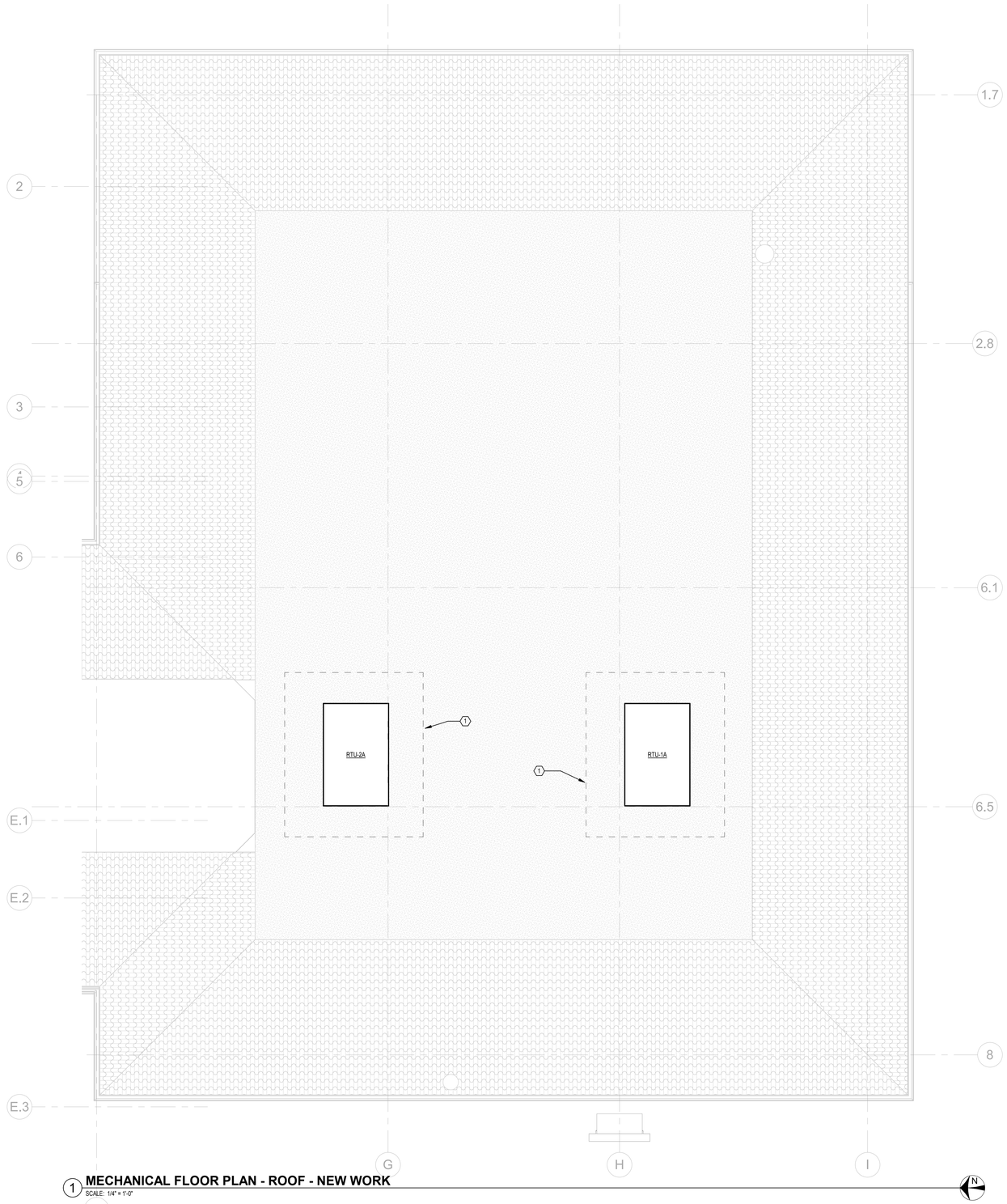
Comm. No. 22106.00	Date 2023/11/10
Drawn JME	Drawing No. M103
Checked NH	

HEAPY
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:14:59 AM



1 **MECHANICAL FLOOR PLAN - ROOF - NEW WORK**
SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. EQUIPMENT CLEARANCES.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE FLOOR PLANS

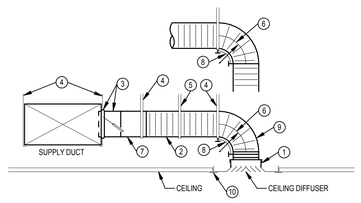
EMMETT E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: DNH	Drawing No.: M103.1
Checked: DNH	

HEAPY T: (317) 571-8795 www.heapy.com
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

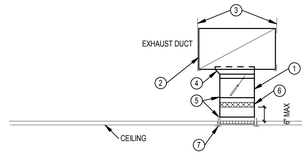
Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt



NOTES

1. SQUARE-TO-ROUND ADAPTER IF DIFFUSER NECK IS SQUARE. CONNECT ADAPTOR TO DIFFUSER. SEAL TO AIR DEVICE, SEAL CLASS A. INSULATE ADAPTOR AND EXPOSED BACKSIDE SURFACES OF AIR DEVICE.
2. INSULATED FLEXIBLE DUCT SAME DIAMETER AS BRANCH DUCT (7), 3 FT. MAXIMUM TOTAL LENGTH PER AIR DEVICE. STRETCH FLEXIBLE DUCT TO AT LEAST 90% OF FULLY EXTENDED LENGTH.
3. SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE WITH MANUAL DAMPER. DAMPER SHAFT IN HORIZONTAL. INTEGRAL INSULATION GUARD SLEEVE REQUIRED FOR TAP FITTING TO MAIN DUCT WITH INTERNAL INSULATION, AND EXTENDED DAMPER SHAFT AND HANDLE WITH STAND-OFF TO ACCOMMODATE EXTERNAL INSULATION.
4. DUCT STRAP HANGER. ATTACH TO STRUCTURE.
5. STRAP HANGER REQUIRED IF LENGTH OF FLEXIBLE DUCT IS LONGER THAN 2 FT.
6. MINIMUM CENTERLINE RADIUS EQUAL TO DUCT DIAMETER.
7. ROUND SHEET METAL BRANCH DUCT, SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE.
8. FLEXIBLE DUCT ELBOW SUPPORT, INSTALLED WITH NYLON BANDING PER MANUFACTURER'S INSTRUCTIONS.
9. A RADIUS'D SHEET METAL ELBOW MAY BE USED IN LIEU OF A FLEXIBLE ELBOW SUPPORT WHEN CONNECTED DIRECTLY TO AIR DEVICE.
10. CEILING T-BAR SUPPORT (FOR LAY-IN APPLICATIONS). COORDINATE AND VERIFY T-BAR TYPE FOR COMPATIBILITY WITH DIFFUSER.

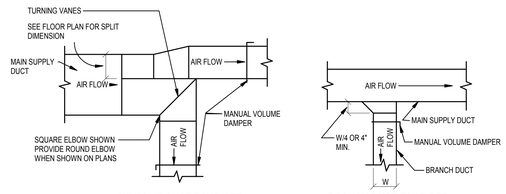
1 CEILING DIFFUSER DUCT CONNECTION
SCALE: NONE



NOTES

1. 45 DEGREE STATIC BOOT AND MANUAL DAMPER. INTEGRAL INSULATION GUARD SLEEVE REQUIRED WHEN MAIN DUCT HAS INTERNAL INSULATION. EXTENDED DAMPER SHAFT AND HANDLE WITH STAND-OFF REQUIRED FOR EXTERNALLY INSULATED DUCTWORK.
2. SHEET METAL DUCT, SIZE AS NOTED ON PLANS.
3. DUCT STRAP HANGER.
4. STATIC BOOT SIMILAR TO (1) EXCEPT NO DAMPER.
5. SHEET METAL DUCT. FULL SIZE OF GRILLE NECK SIZE. CONNECT AND SEAL DUCT TO GRILLE. SEAL CLASS A.
6. FLEXIBLE DUCT CONNECTOR.
7. CEILING T-BAR SUPPORT (FOR LAY-IN APPLICATIONS). COORDINATE AND VERIFY T-BAR TYPE FOR COMPATIBILITY WITH GRILLE.

2 EXHAUST GRILLE DUCT CONNECTION
SCALE: NONE

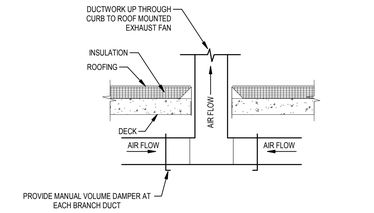


AIR SPLIT DUCT TAKE-OFF PLAN VIEW

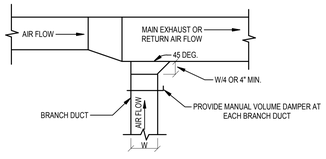
BRANCH DUCT TAKE-OFF PLAN VIEW

THE BRANCH DUCT TAKE-OFF MAY BE USED FOR UP TO 15% OF THE MAIN DUCT CFM, AND UP TO 40% WHEN THE MAIN DUCT VELOCITY IS 1000 FPM OR LESS. THE AIR SPLIT DUCT TAKE-OFF SHALL BE USED IN ALL OTHER CASES

3 SUPPLY DUCTWORK BRANCH TAKE-OFFS
SCALE: NONE

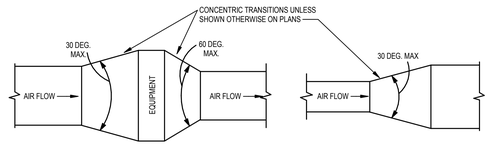


4 EXHAUST DUCTWORK
SCALE: NONE



PLAN VIEW

5 EXHAUST OR RETURN BRANCH DUCTWORK
SCALE: NONE

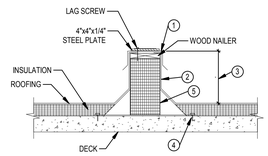


TYPICAL DUCTWORK TRANSITION WITH EQUIPMENT MOUNTED IN DUCT PLAN OR SIDE VIEW

TYPICAL DUCTWORK TRANSITION PLAN OR SIDE VIEW

NOTE:
A. UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.
B. TRANSITION ANGLES IN AND OUT OF FANS SHALL BE 50% OF THOSE SHOWN ABOVE.

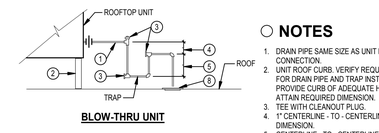
6 DUCTWORK TRANSITIONS
SCALE: NONE



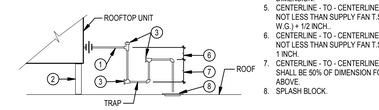
NOTES

1. PROVIDE COUNTER-FLASHING.
2. HEAVY GAUGE CONTINUOUS SUPPORT EXTENDS 6" BEYOND LAST EQUIPMENT LEG. SCREW ATTACHMENT TO DECK.
3. MINIMUM 12 INCHES.
4. EXPANSION LAGS TO DECK.
5. 24 INCH HIGH INSULATED STEEL CURB.

7 ROOF EQUIPMENT SUPPORT
SCALE: NONE



BLOW-THRU UNIT



DRAW-THRU UNIT

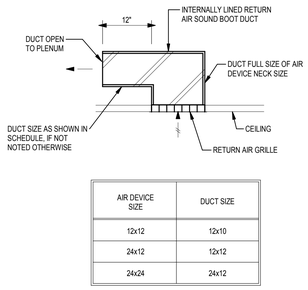
NOTES

1. DRAIN PIPE SAME SIZE AS UNIT DRAIN PAN CONNECTION.
2. UNIT ROOF CURB. VERIFY REQUIRED HEIGHT FOR DRAIN PIPE AND TRAP INSTALLATION. PROVIDE CURB OF ADEQUATE HEIGHT TO ATTAIN REQUIRED DIMENSION.
3. TEE WITH CLEANOUT PLUG.
4. 1" CENTERLINE - TO - CENTERLINE DIMENSION.
5. CENTERLINE - TO - CENTERLINE DIMENSION NOT LESS THAN SUPPLY FAN T.S.P. (INCH W.G.) + 1/2 INCH.
6. CENTERLINE - TO - CENTERLINE DIMENSION NOT LESS THAN SUPPLY FAN T.S.P. (IN W.G.) + 1 INCH.
7. CENTERLINE - TO - CENTERLINE DIMENSION SHALL BE 50% OF DIMENSION FOUND IN (6) ABOVE.
8. SPLASH BLOCK.

DESIGNER NOTES:

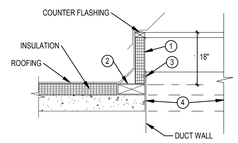
1. NORMAL SEASONAL MAINTENANCE IS TO DRAIN AND BLOW-OUT TRAP FOR THE WINTER. CONSIDER HEAT TRACING FOR "HIGH END" OWNERS.

8 ROOFTOP UNIT DRAIN PIPING
SCALE: NONE



AIR DEVICE SIZE	DUCT SIZE
12x12	12x10
24x12	12x12
24x24	24x12

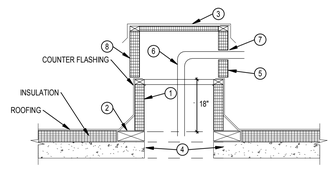
9 RETURN AIR SOUND BOOT
SCALE: NONE



NOTES

1. 18" HIGH INSULATED STEEL CURB.
2. PROVIDE PRESSURE TREATED RIGID WOOD BLOCK FRAME SAME THICKNESS AS ROOF INSULATION. BOLT TO CONCRETE ROOF DECK.
3. SHEET METAL SCREW.
4. CONCRETE ROOF DECK OPENING. COORDINATE REQUIRED OPENING SIZE.

10 FAN MOUNTING CURB
SCALE: NONE



NOTES

1. 18" HIGH INSULATED STEEL CURB.
2. PROVIDE PRESSURE TREATED RIGID WOOD BLOCK FRAME SAME THICKNESS AS ROOF INSULATION. BOLT TO CONCRETE ROOF DECK.
3. REMOVABLE COVER.
4. ROOF DECK OPENING. COORDINATE REQUIRED OPENING SIZE.
5. PIPE BOX.
6. PIPING UP THROUGH ROOF.
7. PIPE OPENINGS ARE TO BE FIELD CUT AND SEALED WATER TIGHT.
8. CONTRACTOR TO CONFIRM REQUIRE DIMENSIONS.

11 PIPING THRU ROOF
SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

MECHANICAL DETAILS

EILEEN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

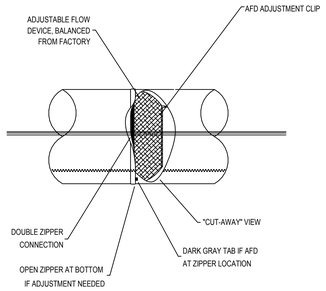
Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No.: M501
Checked: NH	

HEAPY

PROJECT NO. 2023-07083

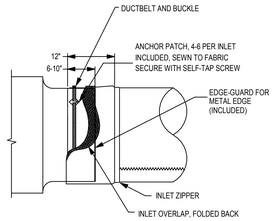
© 2023 LWC INCORPORATED

11/10/2023 8:15:02 AM

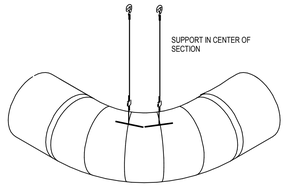


INSTALLED AT ZIPPER LOCATION AT INLET OR AS SPECIFIED IN OTHER LOCATIONS. ZIPPER TO ZIPPER CONNECTION AS SHOWN. EXTERNAL LABEL IDENTIFIES LOCATION

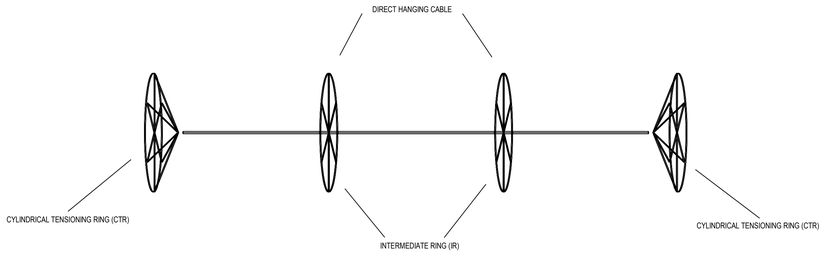
1 FABRIC DUCT ADJUSTABLE FLOW DEVICE
SCALE: NONE



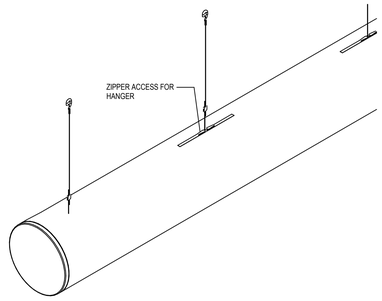
2 FABRIC DUCT INLET ATTACHMENT
SCALE: NONE



3 ELBOW SECTION SUSPENSION
SCALE: NONE



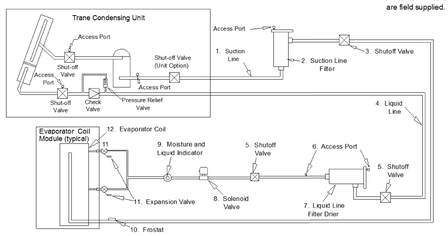
4 SKELECORE FABRIC TENSIONING SYSTEM
SCALE: NONE



5 STRAIGHT SECTION SUSPENSION
SCALE: NONE

Required Components for Refrigerant Circuits

All items numbered are field supplied.



SUCTION LINE

1. Interconnected Tubing (Suction line)
   Maximum of 50 feet if condenser is above evaporator (If risers are more than 50 feet, the application must be viewed by Trane) Refer to SS-APG012-EN for more details

2. Suction Line
   Filter Drier 1 / ckt suction filter should be the replaceable-core type, and a clean core should be installed after the system is cleaned up

3. Shut-Off Valve
   Manual ball valves for 1 5/8"" tubing.

LIQUID LINE

4. Interconnected Tubing (Liquid Line)
   Refer to applications guide SS-APG012 - EN for vertical & horizontal piping limitations.

5. Shut-Off Valve
   2 Manual ball valves

6. Access Port
   Port used to determine suction pressure. This port is usually a Schraeder valve with a core.

7. Liquid Line
   Filter Drier 1 / ckt liquid filter should be the replaceable-core type, and a clean core should be installed after the system is cleaned up.

8. Solenoid Valves
   Liquid line requires a field supplied and installed isolation solenoid valve within 10 feet of the evaporator. The suggested solenoid uses a 120-volt service and requires code-compliant wiring to the RAUJ condensing unit.

   Note: Trim solenoids cannot be used. They are not compatible with Microchannel condenser coils

9. Moisture and Liquid Indicator
   One moisture-indicating sight glass is to be installed in the main liquid line.

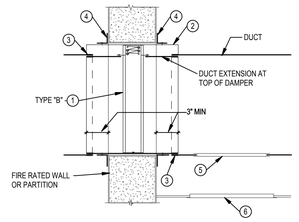
6 REFRIGERANT DETAIL
SCALE: NONE

GENERAL NOTES

A. FIRE DAMPERS SHALL BE UL LABELED.
B. INSTALLATION OF FIRE DAMPERS AND ACCESSORIES SHALL CONFORM TO NFPA 90A, SMACNA AND MANUFACTURER'S INSTRUCTIONS.
C. DETAILS SHOW INSTALLATION OF FIRE DAMPER IN WALL. DAMPER INSTALLATION IN FLOOR SIMILAR. COORDINATE REQUIRED ACCESS LOCATIONS.
D. INSULATE RETAINING ANGLES FOR SYSTEMS REQUIRED TO BE INSULATED.

○ NOTES

1. FIRE DAMPER, FOLDED BLADE CURTAIN TYPE, EXCEPT AS NOTED. VERTICAL MOUNT, GRAVITY DROP; HORIZONTAL MOUNT, SPRING LOADED TO CLOSE. REFER TO SPECS FOR VELOCITY LIMITATIONS OF EACH TYPE. REFER TO DRAWINGS FOR STATIC OR DYNAMIC REQUIREMENTS.
   • TYPE "B" - BLADES STORED OUT OF AIR STREAM. RECTANGULAR, ROUND OR OVAL DUCT CONNECTION.
2. SHEET METAL WALL SLEEVE, SAME MATERIAL AS DUCT (EXCEPT GALVANIZED SHEET METAL FOR FIBERGLASS DUCT). SHEET METAL GAUGE PER SMACNA. USE EXTENDED HEAVY GAUGE SLEEVES WHEN INSTALLED CONDITION REQUIRES.
3. DUCT/SLEEVE CONNECTION. BREAKAWAY TYPE SHOWN. CONNECTION MAY BE RIGID TYPE IF ALLOWED BY CODE AUTHORITY.
4. RETAINING ANGLE ALL FOUR SIDES, GAUGE PER SMACNA. 1" MINIMUM OVERLAP OF WALL OPENING. LONGER LEG MAY BE REQUIRED TO ATTAIN REQUIRED OVERLAP. BOLT, SCREW OR TACK WELD TO WALL SLEEVE. SPACING OF FASTENERS PER SMACNA.
5. DUCT ACCESS PANEL OR DOOR. REFER TO SPECIFICATIONS.
6. CEILING ACCESS PANEL IF CEILING IS NOT ACCESSIBLE.
7. HIGH VELOCITY DUCT COUPLING.
8. 10 GAUGE WALL SLEEVE WITH 0.5" WIDE LEG (ALL FOUR SIDES) ON END OPPOSITE DUCT CONNECTION TO OVERLAP WALL OPENING.
9. 14 GAUGE RETAINER STRIP FASTENED TO UNDERSIDE OF FLOOR SLAB, ALL FOUR SIDES.



7 FIRE DAMPER NOTES
SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

MECHANICAL DETAILS

EPHREM E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

HEAPY PROJECT NO. 2023-07083

Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No.: M502
Checked: NH	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

DUCT CONSTRUCTION, SEALING, AND INSULATION

GENERAL NOTES:
A. REFER TO SPECIFICATIONS FOR DUCT CONSTRUCTION: SHEET METAL DUCT; INTERIOR LINING; EXTERIOR INSULATION; FIBERGLASS DUCTBOARD; ETC.
B. DUCT CONSTRUCTION AND SEALING SHALL BE PER LATEST S.M.A.C.N.A. STANDARDS.

NOTES:
1. RETURN DUCTWORK WITHIN 15' OF AIR HANDLING UNIT SHALL BE INTERNALLY LINED.
2. FABRIC DUCTWORK CONNECTED TO SHEET METAL PLENUM OFF BOTTOM OF RTU..
3. REFER TO DETAIL 9 ON SHEET M501.
4. INSULATE FROM 24" UPSTREAM OF BACKDRAFT / ISOLATION DAMPER TO PENETRATION OF WALL / ROOF.
5. CONCEALED ROUND RUNOUT DUCTS TO AIR DEVICES MAY BE 1" S.P. CLASS.

	S.M.A.C.N.A. CLASS.								
			LEAKAGE CLASS						
DUCT SYSTEM	S.P. CONSTRUCT.	SEAL CLASS	RECT	RND	INTERNALLY LINED	EXTERNAL INSULATION	DOUBLE WALL INSULATED	NOT INSULATED	SEE NOTE
SUPPLY DUCTWORK DOWNSTREAM FOR SINGLE ZONE - RTU-3	+2"	A	16	8	●	-	-	-	-
SUPPLY DUCTWORK FOR GYM UNIT	+2"	A	16	8	-	-	●	-	2
RETURN DUCTWORK	-2"	A	16	8	-	-	-	●	1,5
TRANSFER/RETURN AIR SOUND BOOT	-1"	A	16	-	●	-	-	-	3
TOILET OR GENERAL EXHAUST DUCTWORK	-1"	A	16	8	-	NOTE 4	-	-	-

HVAC DESIGN DATA

GENERAL NOTES:
A. OUTDOOR DESIGN CONDITIONS:
95°F DB SUMMER
76°F WB SUMMER
-10°F DB WINTER
B. DESIGN ALTITUDE: 850 FT.

NOTES:
1. REFER TO ATC SEQUENCES FOR ACTUAL ROOM SETPOINTS.
2. "FLOATING" MEANS THERE IS NO ACTIVE CONTROL.

	INTERIOR DESIGN DATA				
	SUMMER		WINTER		
SPACE NAME / TYPE	°F DB	% RH (NOTE 1)	°F DB	% RH	SEE NOTE
OFFICES	74	55	72	FLOATING	1,2
ALL OTHER SPACES	74	55	72	FLOATING	1,2
-	-	-	-	-	-

ELECTRIC UNIT HEATERS

GENERAL NOTES:
A. HEATING CAPACITY BASED ON 60°F ENT. AIR.
B. ELECTRIC SERVICE - SINGLE POINT POWER CONNECTION WITH INTEGRAL CONTROLS TRANSFORMER. ADEQUACY OF LISTED CIRCUIT SIZE MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C.
C. ELECTRICAL SERVICE TO 3-PHASE UNITS SHALL BE 3-WIRE UNLESS NOTED OTHERWISE.
D. 3-PHASE COIL LOADS SHALL BE DIVIDED EVENLY ACROSS EACH PHASE.
E. VERIFY / COORDINATE CABINET DIMENSIONS, MOUNTING & RECESS REQUIREMENTS PRIOR TO ORDERING.
F. RECESSED UNITS SHALL HAVE FOUR(4) SIDE OVERLAP UNLESS NOTED OTHERWISE.
G. COORDINATE LINTELS IN MASONRY WALLS FOR FULL & SEMI-RECESSED UNIT WALL OPENINGS.
H. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.
I. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR VIBRATION ISOLATOR TYPES AND SEISMIC RESTRAINT REQUIREMENTS.

NOTES:
1. MOUNTING HEIGHT TO BOTTOM OF UNIT, UNLESS NOTED OTHERWISE ON FLOOR PLANS.
2. BASIS OF DESIGN: QMARK AWH AWH4408.
3. PROVIDE 14 GAUGE SECURITY COVER.
4. UNIT TO BE PARTIALLY RECESSED. PROVIDE REQUIRED TRIM KIT.

		HEATING	ELECTRICAL SERVICE			APPROX. CABINET DIMENSIONS			THERMOSTAT		
MARK	MOUNTING	CAPACITY(WATTS)	VOLTAGE - PHASE	AMPS	INTEGRAL DISCONNECT	WIDTH	DEPTH	HEIGHT	MOUNTING HEIGHT (AFF, NOTE 1)	UNIT MOUNTED	WALL MOUNTED	SEE NOTE
CUH-1	RECESSED	2000	208 / 1	9.6	●	27.5"	5.25"	19.25"	1'-0"	●	-	1,2,3,4

AIR DISTRIBUTION DEVICES

GENERAL NOTES:
A. ALL LAY-IN AIR DEVICES SHALL FIT IN 24"X24" LAY-IN CLG SYSTEM. VERIFY GRID TYPE AND COORDINATE AIR DEVICE COMPATIBILITY.
B. FINISH KEY: "W.B.E." - WHITE BAKED ENAMEL;
"E.C.L." - ETCHED CLEAR LACQUER OR ANODIZED;
"C.C.B.A." - CUSTOM COLOR SELECTED BY ARCHITECT.
C. SUPPLY AIR DIFFUSERS SHALL BE 4-WAY BLOW, UNLESS INDICATED OTHERWISE ON DRAWINGS.
D. PROVIDE AUX. FRAMES FOR AIR DEVICES IN PLASTER, GYPSUM BOARD, TILE OR OTHER HARD SURFACES.

NOTES:

		MOUNTING TYPE					MATERIAL			FINISH					BASIS OF DESIGN		
MARK	DESCRIPTION	LAY-IN	SURFACE	DUCT	SPLINE	SNAP-IN	STEEL	ALUMINUM	STAINLESS STEEL	W.B.E.	E.C.L.	C.C.B.A.	OPPOSED BLADE DAMPER	SQ-TO-RD NECK ADAPTOR	MANUFACTURER	MODEL	SEE NOTE
A1	STANDARD SQ. PLAQUE CEILING DIFFUSER - ROUND NECK - 24 X 24	●					●			●					TITUS	SPD	
J1	EGGCRATE RETURN CEILING GRILLE	●					●			●					PRICE	80	
J41	SIDEWALL SUPPLY GRILLE		●				●			●					PRICE	300	
RG	EGGCRATE CEILING GRILLE	●					●			●					PRICE	80	

FANS

GENERAL NOTES:
A. ALL FANS SHALL BE A.M.C.A. 211 AND 311 PERFORMANCE CERTIFIED AND SHALL BEAR THE A.M.C.A. LABEL.
B. SONES VALUES BASED ON A.M.C.A. 301 MEASURED AT 5 FT.
C. MOTOR HORSEPOWERS LISTED SHALL BE CONSIDERED MINIMUM.
E. ROOF & WALL OPENINGS ARE APPROX. VERIFY SIZE & COORDINATE.
F. COORDINATE STEEL FRAMING AROUND ROOF OPENING WHERE REQUIRED FOR DECK SUPPORT, AND WALL LINTELS FOR WALL OPENINGS.
G. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR VIBRATION ISOLATOR TYPES.
H. VFD'S SHALL BE CONSTRUCTED AND LABELED FOR REQUIRED SCCR (SHORT CIRCUIT CURRENT RATING). COORDINATE WITH DIVISION 26.
I. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.

NOTES:
1.

				MOTOR						BASIS OF DESIGN		
MARK	DESCRIPTION	FAN CFM	STATIC PRESSURE (IN. W.C.)	HORSEPOWER (HP)	VOLTAGE - PHASE	ECM MCA (AMPS, TOTAL)	ECM MOCP (AMPS, TOTAL)	APPROX. WEIGHT (LBS.)	VIBRATION ISOLATOR TYPE	MANUFACTURER	MODEL	SEE NOTE
EF-1	CENTRIFUGAL DOWNBLAST EXHAUST	400	0.75	1/6	120 / 1	3.5	15	29	A1	GREENHECK	G-095-VG	

DX COOLING COIL

GENERAL NOTES:
A. COOLING CAPACITY BASED ON 80°F / 67°F ENTERING AIR TEMPERATURE.
B. MAXIMUM 0.64" W.C. AIR STATIC PRESSURE DROP , UNLESS NOTED OTHERWISE.
C. COIL SIZED USING R-410A.

NOTES:
1. PROVIDE RAWAL APR VALVES.
2. CONTRACTOR TO VERIFY COOLING COIL SIZE.
3. CONTRACTOR / MANUFACTURER TO VERIFY PIPE ROUTING AND SIZE.
4. BASIS OF DESIGN: TRANE

		CAPACITY		DIMENSIONS		
MARK	SERVICE	CFM	COOLING (MBH)	FINNED WIDTH	FINNED HEIGHT	SEE NOTE
CC-1	AHU-1 COOLING COIL	9,000	374.5	78"	36"	1,2,3,4

AIR-COOLED CONDENSING UNITS

GENERAL NOTES:
A. COOLING CAPACITY BASED ON 95°F AMBIENT AIR TEMPERATURE.
B. REFRIGERANT PIPING - SIZES LISTED ARE APPROX. CIRCUITING, SIZING, NUMBER OF PIPES AND CIRCUITS, ARRANGEMENT, ETC. SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
C. ELECTRIC SERVICE - SINGLE POINT POWER SERVICE CONNECTION. ADEQUACY OF LISTED CIRCUIT SIZES MUST BE VERIFIED BY CONTRACTOR AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY HVAC CONTRACTOR.

NOTES:
1. REFRIGERANT LINES SIZED BY MANUFACTURER.
2. INTEGRATE INTO EXISTING BMS.
3. PROVIDE RAWAL APR VALVES ON THE COMPRESSORS.

						CONDENSER FANS / MOTORS		COMPRESSORS		ELECTRICAL SERVICE				DIMENSIONS			MISC.					BASIS OF DESIGN		
MARK	DESCRIPTION	SERVICE	NOMINAL CAPACITY (TONS)	UNIT RATING (EER)	REFRIGERANT TYPE	MINIMUM QUANTITY	MOTOR (HP / WATTS, EACH)	TYPE	MINIMUM QUANTITY	VOLTAGE - PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	LENGTH	WIDTH	HEIGHT	LOW AMBIENT CONTROL	HOT GAS BYPASS	CRANKCASE HEATER	CONCRETE PAD	VIBRATION ISOLATOR TYPE	MANUFACTURER	MODEL	SEE NOTE
ACCU-1	AIR-COOLED CONDENSING UNIT	EXISTING AHU	30	11.4	R-410A	3	-1	SCROLL	2	208 / 3	141	175	5K	60"	89"	74"	-	-	-	-	A1	TRANE	RAUC20	1,2,3

ROOFTOP HEATING & COOLING UNITS - AIR-COOLED DX/GAS-FIRED

GENERAL NOTES:
A. COOLING CAPACITIES BASED ON 95°F AMBIENT AIR TEMPERATURE.
B. NATURAL GAS DELIVERY PRESSURE TO UNIT IS 14" W.C. PROVIDE SECONDARY REGULATOR IF REQ'D FOR UNIT OPERATION.
C. ELECTRIC SERVICE - SINGLE POINT POWER SERVICE CONNECTION TO UNIT. ADEQUACY OF LISTED CIRCUIT SIZE MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C. THIS SHALL INCLUDE LUG SIZE AND QUANTITY REQUIREMENTS.
D. UNIT CONFIGURATIONS (SUPPLY FAN POSITION RELATIVE TO COOLING COIL) - "HDT" - HORIZONTAL DRAW THRU; "VDT" - VERTICAL DRAW THRU; "HBT" - HORIZONTAL BLOW THRU; "VBT" - VERTICAL BLOW THRU. REFER TO DRAWINGS FOR LAYOUT.
F. HEATING L.A.T. IS BASED ON FULL UNIT CFM AT LISTED E.A.T. AND MBH OUTPUT.
G. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION
H. THE LISTED MAX UNIT HEIGHT INCLUDES THE INTEGRAL UNIT BASE RAIL BUT DOES NOT INCLUDE THE SPECIFIED CURB (HEIGHT). IF THE HEIGHT OF THE SPECIFIED CURB IS REQUIRED TO BE INCREASED, SUCH AS TO ACCOMMODATE CONDENSATE TRAP HEIGHT, THEN THE LISTED MAX UNIT HEIGHT SHALL BE DECREASED BY THAT SAME AMOUNT.

NOTES:
1.

			SUPPLY FAN					COOLING SECTION					HEATING SECTION			FINAL FILTERS	OUTSIDE AIR			DIMENSIONS			MISCELLANEOUS						ELECTRICAL SERVICE				BASIS OF DESIGN		
						SPEED CONTROL		DX-COOLING COIL																											
UNIT NUMBER	NOMINAL TONS	AREA SERVED	CFM (TOTAL)	EXTERNAL / TOTAL STATIC PRESSURE (IN. W.C.)	MOTOR (HP EACH)	ELECTRONICALLY COMMUTATED MOTORS	VARIABLE FREQUENCY DRIVE	VARIABLE FREQUENCY DRIVE (QTY)	INTEGRAL PIEZO RING AIRFLOW STATION (EACH)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENTERING AIR TEMPERATURE DB/WB (°F)	LEAVING AIR TEMPERATURE DB/WB (°F)	REFRIGERANT TYPE	HEATING CAPACITY (MBH OUTPUT)	ENTERING AIR TEMPERATURE DB (°F)	LEAVING AIR TEMPERATURE DB (°F) (NOTE F)	THICKNESS / MERV	MINIMUM MINIMUM CFM / MAXIMUM MINIMUM CFM	ECONOMIZER	BAROMETRIC RELIEF	MAX UNIT LENGTH (INCHES)	MAX UNIT WIDTH (INCHES)	MAX UNIT HEIGHT (INCHES) (NOTE I)	ENERGY RECOV. SECTION (REFER TO SEPARATE SCHED.)	INTEGRAL 100% BAROMETRIC RELIEF	AIR BLENDER HOT GAS REHEAT	INTERNAL LIGHTS	SERVICE RECEPTACLE	UV'GI	MINIMUM CURB HEIGHT	VOLTAGE - PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	MANUFACTURER	MODEL	SEE NOTE
RTU-1	8.5	COMMUNITY ROOM	3,000	1.25	3	-	●	1		102.8	77.2	79.4 / 66.2	55.3 / 54.7	R-410A	200.0	50.8	99.9	2" / MERV 13	660 / 3000	●	●	88"	53"	52"		●	●	●	●		24"	208-3	48	60	5K	TRANE	YSJ102A	
RTU-2	8.5	COMMUNITY ROOM	3,000	1.25	3	-	●	1		102.8	77.2	79.4 / 66.2	55.3 / 54.7	R-410A	200.0	50.8	99.9	2" / MERV 13	660 / 3000	●	●	88"	53"	52"		●	●	●	●		24"	208-3	48	60	5K	TRANE	YSJ102A	
RTU-3	8.5	CONNECTOR AREA	3,000	1.25	3	-	●	1		102.8	77.2	79.4 / 66.2	55.3 / 54.7	R-410A	200.0	50.8	99.9	2" / MERV 13	660 / 3000	●	●	88"	53"	52"		●	●	●	●		24"	208-3	48	60	5K	TRANE	YSJ102A	

HEAPY
PROJECT NO. 2023-07083

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

MECHANICAL SCHEDULES

EAREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: JME	Drawing No.: M601
Checked: NH	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt
11/10/2023 8:15:03 AM

11/10/2023 8:15:04 AM

ROOFTOP HEATING & COOLING UNITS - AIR-COOLED DX/GAS-FIRED - ALTERNATE

GENERAL NOTES:
A. COOLING CAPACITIES BASED ON 95°F AMBIENT AIR TEMPERATURE.
B. NATURAL GAS DELIVERY PRESSURE TO UNIT IS 14" W.C. PROVIDE SECONDARY REGULATOR IF REQ'D FOR UNIT OPERATION.
C. ELECTRIC SERVICE - SINGLE POINT POWER SERVICE CONNECTION TO UNIT. ADEQUACY OF LISTED CIRCUIT SIZE MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C. THIS SHALL INCLUDE LUG SIZE AND QUANTITY REQUIREMENTS.
D. UNIT CONFIGURATIONS (SUPPLY FAN POSITION RELATIVE TO COOLING COIL) - "HDT" - HORIZONTAL DRAW THRU; "VDT" - VERTICAL DRAW THRU; "HBT" - HORIZONTAL BLOW THRU; "VBT" - VERTICAL BLOW THRU. REFER TO DRAWINGS FOR LAYOUT.
F. HEATING L.A.T. IS BASED ON FULL UNIT CFM AT LISTED E.A.T. AND MBH OUTPUT.
G. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION
H. THE LISTED MAX UNIT HEIGHT INCLUDES THE INTEGRAL UNIT BASE RAIL BUT DOES NOT INCLUDE THE SPECIFIED CURB (HEIGHT). IF THE HEIGHT OF THE SPECIFIED CURB IS REQUIRED TO BE INCREASED, SUCH AS TO ACCOMMODATE CONDENSATE TRAP HEIGHT, THEN THE LISTED MAX UNIT HEIGHT SHALL BE DECREASED BY THAT SAME AMOUNT.

			SUPPLY FAN						COOLING SECTION					HEATING SECTION			FINAL FILTERS	OUTSIDE AIR			DIMENSIONS			MISCELLANEOUS						ELECTRICAL SERVICE				BASIS OF DESIGN		
							SPEED CONTROL			DX-COOLING COIL																									
UNIT NUMBER	NOMINAL TONS	AREA SERVED	CFM (TOTAL)	EXTERNAL STATIC PRESSURE (IN. W.C.)	MOTOR (HP EACH)	ELECTRONICALLY COMMUTATED MOTORS	VARIABLE FREQUENCY DRIVE	VARIABLE FREQUENCY DRIVE (QTY)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENTERING AIR TEMPERATURE DB/WB (°F)	LEAVING AIR TEMPERATURE DB/WB (°F)	REFRIGERANT TYPE	HEATING CAPACITY (MBH OUTPUT)	ENTERING AIR TEMPERATURE DB (°F)	LEAVING AIR TEMPERATURE DB (°F) (NOTE F)	THICKNESS / MERV	MINIMUM MINIMUM CFM / MAXIMUM MINIMUM CFM	ECONOMIZER	BAROMETRIC RELIEF	MAX UNIT LENGTH (INCHES)	MAX UNIT WIDTH (INCHES)	MAX UNIT HEIGHT (INCHES) (NOTE I)	ENERGY RECOV. SECTION (REFER TO SEPARATE SCHED.)	INTEGRAL 100% BAROMETRIC RELIEF	HOT GAS REHEAT	INTERNAL LIGHTS	SERVICE RECEPTACLE	LIVGI	MINIMUM CURB HEIGHT FROM ROOF DECK	VOLTAGE - PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	MANUFACTURER	MODEL	SEE NOTE
RTU-1A	12.5	COMMUNITY ROOM	4,000	1.25	4.6	-	•	1	147.4	107.2	79.4 / 66.2	54.6 / 53.9	R-410A	250.0	50.9	96.5	2" / MERV 13	880 / 4000	•	•	99"	63"	52"		•	•	•	•		24"	208-3	64	90	5K	TRANE	YSJ150A	
RTU-2A	12.5	COMMUNITY ROOM	4,000	1.25	4.6	-	•	1	147.4	107.2	79.4 / 66.2	54.6 / 53.9	R-410A	250.0	50.9	96.5	2" / MERV 13	880 / 4000	•	•	99"	63"	52"		•	•	•	•		24"	208-3	64	90	5K	TRANE	YSJ150A	

HEAPY
© 2017/21 BY HEAPY www.heapy.com
PROJECT NO. 2023-07083

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC
INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ALTERNATE SCHEDULES

EMREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: DNH	Drawing No.: M601.1
Checked: DNH	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/10/2023 8:15:06 AM

LEGEND-
AUTOMATIC TEMPERATURE CONTROLS

XX-01	CONTROL POINT - SEE POINTS SCHEDULE
AI	ANALOG INPUT
AO	ANALOG OUTPUT
BI	BINARY INPUT
BO	BINARY OUTPUT
PI	PULSED INPUT
OAT	OUTSIDE AIR TEMPERATURE
MAT	MIXED AIR TEMPERATURE
RAT	RETURN AIR TEMPERATURE
SAT	SUPPLY AIR TEMPERATURE
CCAT	COOLING COIL LEAVING AIR TEMPERATURE
HCAT	HEATING COIL LEAVING AIR TEMPERATURE
OAHY	OUTSIDE AIR HUMIDITY
RAH	RETURN AIR HUMIDITY
SAH	SUPPLY AIR HUMIDITY
NC	NORMALLY CLOSED (CLOSES ON LOSS OF POWER)
NO	NORMALLY OPEN (OPENS ON LOSS OF POWER)
L	LOW
H	HIGH
C	COMMON
M	2-WAY AUTOMATIC 2-POSITION CONTROL VALVE
M	3-WAY AUTOMATIC 2-POSITION CONTROL VALVE
M	2-WAY AUTOMATIC MODULATING CONTROL VALVE
M	3-WAY AUTOMATIC MODULATING CONTROL VALVE
H DP L	DIFFERENTIAL PRESSURE SENSOR
L DP H	DIFFERENTIAL PRESSURE SWITCH
C	CARBON DIOXIDE SENSOR
CO	CARBON MONOXIDE SENSOR
CS	CURRENT SENSOR TRANSMITTER
EPT	ELECTRONIC TO PNEUMATIC TRANSDUCER
FM	FLOW METER TRANSMITTER
H	HUMIDITY SENSOR
LC	LEVEL CONTROLLER
LT	LEVEL TRANSMITTER
P	PRESSURE SENSOR
SP	STATIC PRESSURE SENSOR
T	TEMPERATURE SENSOR
WF	WATER FLOW SENSOR
WL	WATER LEVEL SENSOR
CS	CURRENT SWITCH
ES	END SWITCH
FS	FLOW SWITCH
H	HUMIDISTAT
OS	OCCUPANCY SENSOR
P HL	PRESSURE SWITCH, HIGH LIMIT
P LL	PRESSURE SWITCH, LOW LIMIT
T LL	TEMPERATURE LOW LIMIT (FREEZE STAT)
T	ROOM THERMOSTAT
WL	WATER LEVEL SWITCH
	EMERGENCY SHUT-OFF STATION

LEGEND-
AUTOMATIC TEMPERATURE CONTROLS

AFMS	AIR FLOW MEASURING STATION
VFD	VARIABLE FREQUENCY DRIVE (ADJUSTABLE FREQUENCY MOTOR CONTROLLER)
MS	MOTOR STARTER
CON	CONTACTOR
TCP	LOCAL TEMPERATURE CONTROL PANEL
PSH	PRESSURE SAFETY - HIGH
PSL	PRESSURE SAFETY - LOW
SD	SMOKE DETECTOR
M	DAMPER OR VALVE ACTUATOR - MODULATING
M	DAMPER OR VALVE ACTUATOR - 2-POSITION
R	RELAY
UV	UVGI LIGHT
	PUMP
	FAN
	COOLING COIL
	HEATING COIL
	HUMIDIFIER
	FILTER
	ENERGY RECOVERY WHEEL
	OPPOSED BLADE CONTROL DAMPER
	PARALLEL BLADE CONTROL DAMPER
SD	SMOKE DAMPER
ECON M / MIN M	MIN OA / ECON DAMPER
R	DX COIL
X	WALL MOUNTED DEVICE
X	DUCT INSERTION DEVICE
X	PIPE INSERTION OR IMMERSION DEVICE WITH WELL
X	AVERAGING SENSOR OR DEVICE
X	OUTDOOR SENSOR OR DEVICE, SHIELDED
X x Y	FAN ARRAY, "X" FANS VERTICAL x "Y" FANS HORIZONTAL

GENERAL NOTES-
AUTOMATIC TEMPERATURE CONTROLS

A A COMPLETE SYSTEM OF AUTOMATIC TEMPERATURE CONTROLS SHALL BE INSTALLED AS REQUIRED TO ACCOMPLISH THE SEQUENCE OF CONTROL FOR VARIOUS ITEMS OF EQUIPMENT AND SYSTEMS DESCRIBED HEREINAFTER. THE SYSTEM SHALL BE A DIRECT DIGITAL CONTROL SYSTEM UTILIZING ELECTRIC OR PNEUMATIC ACTUATION AS DEFINED IN THE SPECIFICATIONS.

B THE CONTROL DIAGRAMS AND INFORMATION CONTAINED WITHIN ARE TO SHOW DESIGN INTENT. IT IS THE CONTROL SYSTEM SUPPLIERS RESPONSIBILITY TO DEVELOP DETAILED AND COMPLETE CONTROL DIAGRAMS AND SHOP DRAWINGS TO ACCOMPLISH THE SPECIFIED SEQUENCES.

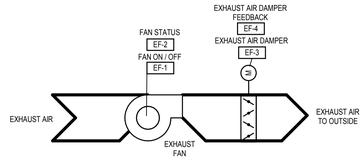
C THE POINTS LIST IS SHOWN AS AN AID TO THE CONTRACTOR INDICATING THE MINIMUM POINTS REQUIRED FOR CONTROL, AND MONITORING. ALL INPUT AND OUTPUT POINTS, AND THEIR REQUIRED INTERFACE AND ACCESSORY HARDWARE, SHALL BE PROVIDED FOR A COMPLETE AND FUNCTIONAL CONTROL SYSTEM. IF OR WHEN ADDITIONAL POINTS ARE REQUIRED TO ACCOMPLISH THE SEQUENCES OF CONTROL SPECIFIED, THESE POINTS, ALONG WITH ADDITIONAL DIRECT DIGITAL CONTROL PANE(S) (IF REQUIRED), SHALL ALSO BE PROVIDED.

D BULB WELLS FOR TEMPERATURE SENSING AS INDICATED SHALL BE PROVIDED BY THE HVAC CONTRACT. PIPING WORK SHALL INCLUDE PROPERLY SIZED WELDOLET OR THREADOLET FITTINGS PLACED AS DIRECTED BY THE CONTROL SYSTEM SUPPLIER.

E ELECTRICAL WORK INCLUDES A POWER SOURCE TO THE MOTOR STARTERS. PROVIDE ALL HVAC POWER SOURCES REQUIRED BEYOND THESE STARTERS OR BEYOND SOURCES EXPLICITLY SHOWN ON THE ELECTRICAL DRAWINGS. THIS SHALL INCLUDE BUT NOT BE LIMITED TO WIRING, CONDUIT, TRANSFORMERS, RELAYS AND FUSES.

F ALL NEW CONTROL DEVICES ARE TO BE INTEGRATED INTO THE EXISTING CONTROL SYSTEM AND DISPLAYED ON FRONT END.

G CONTROL SYSTEM FRONT END SHALL BE VISIBLE THROUGH WEB WHEN COMPLETE.



EXHAUST FAN SEQUENCE

1. THE TEMPERATURE CONTROL CONTRACTOR TO PROVIDE ALL CONTROL COMPONENTS. ALL CONTORL ITEMS ARE TO BE FIELD MOUNTED. ALSO REFER TO DRAWINGS FOR LISTED CFM SET POINTS.
2. FAN SHALL RUN CONTINUOUSLY WHEN BUILDING IS "OCCUPIED".
   A. PROVIDE A TIME OF DAY SCHEDULE WHICH IS ADJUSTABLE.

EXHAUST FAN ATC DIAGRAM
SCALE: NONE

EXHAUST FAN POINTS LIST

GENERAL NOTES:
A. THE FOLLOWING LIST SHALL BE THE MINIMUM POINTS REQUIRED OF THE DIRECT DIGITAL CONTROL SYSTEM (BUILDING AUTOMATION SYSTEM). IT IS NOT THE INTENT TO SHOW ALL REQUIRED POINTS. IF OR WHEN ADDITIONAL POINTS ARE REQUIRED TO ACCOMPLISH THE SEQUENCES OF CONTROL SPECIFIED, THOSE POINTS SHALL ALSO BE PROVIDED.

NOTES:
1. CURRENT SENSOR.

POINT NO.	EF-1	EF-2	EF-3	EF-4				
POINT NAME	EXHAUST FAN ON / OFF	EXHAUST FAN STATUS	EXHAUST FAN DAMPER	EXHAUST AIR DAMPER FEEDBACK				
TYPE	BO	BI	AO	AI				
ALARM		ON FAULT		ON MISMATCH				
NOTES		1						

1 EXHAUST FAN CONTROLS DIAGRAM
SCALE: NONE

SHEET NOTES:

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ATC LEGEND

EMREN E. LOHRMAN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

HEAPY © 2023 HEAPY www.heapy.com

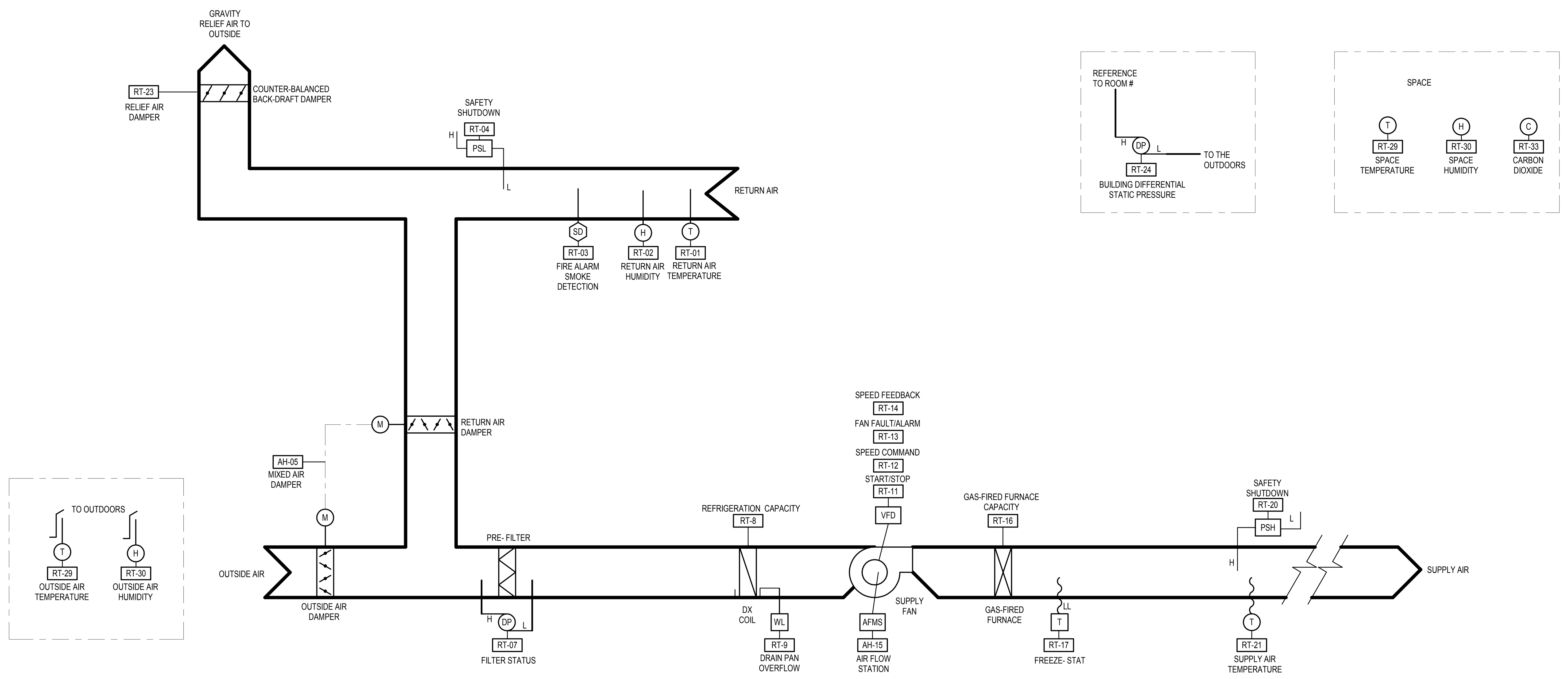
PROJECT NO. 2023-07083

Comm. No.	Date
22106.00	2023/11/10
Drawn: DNH	Drawing No.: M701
Checked: DNH	

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



ROOFTOP UNIT CONTROLS DIAGRAM

SCALE: NONE

ROOFTOP UNIT POINTS LIST SCHEDULE

GENERAL NOTES:

A. POINT "TYPE" IS IN REFERENCE TO "POINT BY".
B. MANUFACTURER SHALL PROVIDE SUPPLEMENTAL CONTROLLERS / DEVICES AS REQUIRED TO PROVIDE THE SPECIFIED SEQUENCES, POINTS, AND BAS INTEGRATION AS INDICATED BELOW.
C. POINTS COMMUNICATED TO RTU CONTROLLER FROM BAS ARE TO BE BY THE BAS.
D. VFD POINTS SHALL BE DONE THROUGH HARDWIRE CONNECTION WHEN POSSIBLE. WHEN NOT POSSIBLE POINTS THROUGH INTEGRATION ARE ACCEPTABLE.

NOTES:

1. COORDINATE SMOKE DETECTION ALARM SIGNAL FROM FIRE ALARM SYSTEM SMOKE DETECTOR BY DIV 26/28.
2. IN ADDITION TO BEING A (BI) SAFETIES SHALL BE WIRED INTO THE FAN STARTERS/VFD(S) STARTER CIRCUIT SUCH THAT THE SAFETY SHALL FUNCTION WHETHER THE SELECTOR SWITCH IS IN THE "HAND" OR "AUTOMATIC" POSITION.
3. RTU FAULT SHALL INDICATE WHEN THE RTU HAS SHUT-DOWN IN ALARM FOR ANY REASON.
4. SHALL BE MULTI-STATE POINT CONTAINING AT A MINIMUM: OCCUPIED, UNOCCUPIED, MORNING WARM-UP
5. BAS SHALL MONITOR AND INITIATE AN ALARM ON COMMUNICATION FAILURE.
6. POINT SHALL BE BY THE BAS FOR BAS USE ONLY (NO COMMUNICATION TO THE RTU CONTROLLER UNLESS REQUIRED FOR SEQUENCE OF OPERATION).
7. SAFETY SHALL BE PROVIDED BY THE BAS, HARD-WIRED TO THE FAN SAFETY CIRCUIT PER NOTE 2, AND ALARMED VIA THE BAS.
8. "REPRESENTATIVE" HUMIDITY SHALL BE USED BY THE RTU FOR NIGHT SETBACK DEHUMIDIFICATION MODE.
9. MAY BE PROVIDED BY THE RTU IF AVAILABLE.
10. "REPRESENTATIVE TEMPERATURE" SHALL BE CALCULATED BY THE BAS TO COMMUNICATE TO THE RTU FOR USE DURING NIGHT SETBACK, NIGHT SETUP, MORNING WARM-UP, MORNING COOL-DOWN, AND OPTIMAL START/STOP.
11. "REPRESENTATIVE" CARBON DIOXIDE SHALL BE USED BY THE RTU FOR OUTSIDE AIR.

POINT NO.	RT-01	RT-02	RT-03	RT-04	RT-05	RT-06	RT-07	RT-8	RT-9	RT-10	RT-11	RT-12	RT-13	RT-14	RT-15	RT-16	RT-17
POINT NAME	RETURN AIR TEMPERATURE	RETURN AIR HUMIDITY	RETURN AIR SMOKE DETECTION	RETURN DUCT PRESSURE SAFETY SHUT-DOWN	MIXED AIR DAMPERS	MORNING COOL-DOWN SUPPLY AIR TEMPERATURE SETPOINT	PRE FILTER STATUS	DX REFRIGERATION CAPACITY	DRAIN PAN OVERFLOW	MORNING WARM-UP SUPPLY AIR TEMPERATURE SETPOINT	SUPPLY FAN START/STOP	SUPPLY FAN SPEED COMMAND	SUPPLY FAN FAULT/ALARM	SUPPLY FAN SPEED FEEDBACK	SUPPLY AIR - AIRFLOW MEASURING STATION	GAS FIRED FURNACE CAPACITY	FREEZESTAT
TYPE	AI	AI	BI	BI	AO	AO	BI	AO	BI	AO	BO	AO	BI	AI	AI	AO	BI
POINT BY RTU CONTROLLER	•	•	•		•		•	•	•		•	•	•	•	•	•	•
POINT COMMUNICATED TO BAS BY RTU CONTROLLER	•	•	•				•	•	•				•	•	•	•	•
POINT COMMUNICATED TO RTU CONTROLLER FROM BAS						•				•							
ALARM	HIGH/LOW	HIGH/LOW	ON TRIP	ON TRIP			ON TRIP		ON TIRP				ON TRIP	S/S = ON FBK<MIN SPD			ON TRIP
NOTES			1,2	6,7,9					2								2

POINT NO.	RT-18	RT-19	RT-20	RT-21	RT-22	RT-23	RT-24	RT-25	RT-26	RT-27	RT-28	RT-29	RT-30	RT-29	RT-30	RT-31	RT-32	RT-33				
POINT NAME	NIGHT SETBACK SPACE HEATING SETPOINT	NIGHT SETUP SPACE COOLING SETPOINT	SUPPLY HIGH DUCT PRESSURE SAFETY SHUT-DOWN	SUPPLY AIR TEMPERATURE	SUPPLY AIR STATIC PRESSURE SETPOINT	RELIEF AIR DAMPER	BUILDING DIFFERENTIAL STATIC PRESSURE	OCCUPANCY MODE REQUEST	RTU FAULT STATUS	OCCUPANCY MODE STATUS	CONTROLLER COMMUNICATION	OUTSIDE AIR TEMPERATURE	OUTSIDE AIR HUMIDITY	REPRESENTATIVE SPACE TEMPERATURE	REPRESENTATIVE SPACE HUMIDITY	MINIMUM OUTSIDE AIRFLOW SETPOINT	SUPPLY AIR TEMPERATURE SETPOINT	REPRESENTATIVE SPACE CARBON DIOXIDE				
TYPE	AO	AO	BI	AI	AO	AO	AI	AO	BO	AO		AO	AO	AO	AO	AO	AO	AO				
POINT BY RTU CONTROLLER			•	•					•	•												
POINT COMMUNICATED TO BAS BY RTU CONTROLLER			•	•					•	•												
POINT COMMUNICATED TO RTU CONTROLLER FROM BAS	•	•			•			•				•	•	•	•	•	•	•				
ALARM			ON TRIP	HIGH/LOW			HIGH/LOW		ON TRIP	ON MISMATCH												
NOTES			2			6	6	4	3	4	5			10	8			11				

RTU SEQUENCES

A. RTU CONTROLLER(S) SEQUENCES OF OPERATION
1. ALL SEQUENCES SHALL COMPLY WITH ASHRAE STANDARD 90.1 – 2013.
2. THE RTU VENDOR SHALL WORK WITH AND COORDINATE WITH THE BAS VENDOR TO PROVIDE A WELL COORDINATED CONTROL SYSTEM.
3. THE RTU OCCUPANCY SCHEDULE SHALL RESIDE WITH-IN THE RTU CONTROLLER, EDITABLE VIA THE BAS.
   a. ALTERNATIVE SCHEDULING OPTION: IF THE SCHEDULE RESIDING IN THE RTU CONTROLLER IS NOT EDITABLE BY THE BAS, THE SCHEDULE MAY RESIDE IN THE BAS, WITH THE BAS SENDING A "NEXT STATE" OCCUPIED / UNOCCUPIED DATE/TIME SIGNAL TO THE RTU CONTROLLER SO THE RTU CONTROLLER CAN MANAGE OPTIMAL START (MORNING WARM-UP / COOL-DOWN), NIGHT SETBACK, NIGHT SET-UP FUNCTIONS, AND OCCUPIED FUNCTIONS. IF NETWORK COMMUNICATION IS LOST, THE RTU CONTROLLER SHALL DETERMINE MODES BASED ON HISTORICAL DATA. EXACT DETAILS SHALL BE COORDINATED WITH THE BAS.
4. NIGHT SETBACK HEATING MODE SHALL BE INITIATED WHILE THE RTU IS IN UNOCCUPIED MODE TO KEEP THE REPRESENTATIVE SPACE TEMPERATURE ABOVE THE NIGHT SETBACK TEMPERATURE SETPOINT (60 DEGF DEFAULT, ADJUSTABLE VIA THE BAS). THE REPRESENTATIVE SPACE TEMPERATURE WILL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
5. NIGHT SET-UP COOLING MODE SHALL BE INITIATED WHILE THE RTU IS IN UNOCCUPIED MODE TO KEEP THE REPRESENTATIVE SPACE TEMPERATURE AND HUMIDITY BELOW THE NIGHT SET-UP TEMPERATURE SETPOINT (80 DEGF DEFAULT, ADJUSTABLE VIA THE BAS) AND RH BELOW 60% (ADJUSTABLE VIA THE BAS). THE REPRESENTATIVE SPACE TEMPERATURE AND RH WILL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
6. AN ADAPTIVE OPTIMAL START PROGRAM SHALL START THE UNIT IN MORNING WARM-UP OR COOLDOWN IN ADVANCE OF THE SCHEDULED "OCCUPIED" TIME TO ENSURE PROPER SPACE TEMPERATURE AT OCCUPANCY TIME. MORNING WARM-UP SHALL END WHEN THE REPRESENTATIVE SPACE TEMPERATURE IS ABOVE 68 DEGF (ADJUSTABLE VIA THE BAS). MORNING COOLDOWN SHALL END WHEN THE REPRESENTATIVE SPACE TEMPERATURE IS BELOW 75 DEGF (ADJUSTABLE VIA THE BAS). THE REPRESENTATIVE SPACE TEMPERATURE WILL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
7. SAFETIES SHALL SHUT DOWN THE UNIT IN AN ORDERLY FASHION AND ALARM THE BAS.
8. THE AIR HANDLING UNIT COMPONENTS (DX COIL, GAS HEATER, ECONOMIZER, FAN SPEED, ETC.) SHALL BE SEQUENCED TO SATISFY THE "OCCUPIED" DISCHARGE AIR TEMPERATURE SETPOINT SET BY THE BAS. SUPPLY AIR TEMPERATURE SETPOINT FOR "WARM-UP" CYCLES SHALL BE 90 DEGF (ADJUSTABLE VIA THE BAS), AND 54 DEGF DURING "COOL-DOWN" CYCLES (ADJUSTABLE VIA THE BAS).
9. MINIMUM OUTSIDE AIR CONTROL SHALL CONTROL TO THE MINIMUM OUTSIDE AIR CFM SETPOINT VIA THE AIRFLOW MEASURING STATION IN THE OUTSIDE AIR INTAKE. CFM SETPOINT SHALL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
10. ECONOMIZER CONTROL SHALL BE A DIFFERENTIAL ENTHALPY SEQUENCE WITH AN "OFF" SETPOINT OF 75 DEGF DB OUTSIDE AIR TEMPERATURE. ECONOMIZER SHALL BE DISABLED WHEN OUTSIDE AIR TEMPERATURE FALLS BELOW 35 DEGF DB. MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE.
11. DX COIL – IF THE RTU FAN SYSTEM IS "ON" AND THE ECONOMIZER IS ACTIVE AND AT 100 PERCENT (OUTSIDE AIR DAMPERS FULL OPEN) AND RTU SUPPLY AIR TEMPERATURE IS ABOVE SETPOINT, THE SOLENOID VALVES AND COMPRESSOR STEPPING /SPEED SHALL BE SEQUENCED TO SATISFY THE SETPOINT. IF THE RTU FAN SYSTEM IS "ON" AND THE ECONOMIZER IS NOT ACTIVE AND THE RTU SUPPLY AIR TEMPERATURE IS ABOVE SETPOINT, THE SOLENOID VALVES AND COMPRESSOR STEPPING / SPEED SHALL BE SEQUENCED TO SATISFY THE SETPOINT. PROVIDE ON AND OFF TIME DELAYS BETWEEN STEPS. USE SUPPLY FAN DRIVE SPEED INTERLOCK ALARM STATE, AS SPECIFIED IN POINTS LIST SCHEDULE, FOR INTERLOCK THRU SOFTWARE TO KEEP COOLING OFF UNLESS THE SUPPLY FAN SYSTEM IS OPERATING.
12. GAS HEATER – MODULATE TO MAINTAIN DISCHARGE AIR SETPOINT.

B. BAS SEQUENCES OF OPERATION
1. ALL SEQUENCES SHALL COMPLY WITH ASHRAE STANDARD 90.1 – 2010 / 2013 / 2016 / 2019.
2. THE BAS VENDOR SHALL WORK WITH AND COORDINATE WITH THE RTU VENDOR TO PROVIDE A WELL COORDINATED CONTROL SYSTEM.
3. OCCUPIED / UNOCCUPIED SCHEDULE SHALL BE DETERMINED BY THE OWNER, RESIDE IN THE BAS, AND PASSED TO THE RTU CONTROLLER.
   a. REFER TO RTU SEQUENCES ABOVE FOR ALTERNATIVE SCHEDULING OPTION AS DETERMINED BY THE RTU VENDOR.
4. THE OUTDOOR AIR TEMPERATURE AND HUMIDITY FOR THE NETWORK SHALL BE PASSED TO THE RTU CONTROLLER FOR ECONOMIZER CALCULATION PURPOSES AS SPECIFIED IN THE RTU SEQUENCES.
5. "REPRESENTATIVE SPACE TEMPERATURE" SHALL BE CALCULATED BY TAKING THE AVERAGE OF ALL EXTERIOR-ZONED ZONE TEMPERATURES AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
6. "REPRESENTATIVE SPACE HUMIDITY" SHALL BE DETERMINED BY AN RH SENSOR MOUNTED IN A REPRESENTATIVE COMMON AREA AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
7. UNOCCUPIED SPACE TEMPERATURE SETPOINTS AND SUPPLY AIR TEMPERATURE SETPOINTS SHALL BE COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES AS SPECIFIED IN THE RTU SEQUENCES.
8. MINIMUM OUTSIDE AIR CFM FOR OCCUPIED MODE SHALL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
9. GENERAL BUILDING EXHAUST FANS SHALL ONLY OPERATE DURING OCCUPIED HOURS BUT SHALL BE SEPARATE START/STOP POINTS OF THE BAS.

ROOFTOP UNIT #1 CONTROLS DIAGRAM

1 — SCALE: 12" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

KEY PLAN:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

CONTROLS DIAGRAM

EHREN E. LOHRMANN REGISTERED No. PE10911293 STATE OF INDIANA PROFESSIONAL ENGINEER

HEAPY
PROJECT NO. 2023-07083

Comm. No.	Date
22106.00	2023/11/10
Drawn: DNH	Drawing No.: M702
Checked: DNH	

© 2023 LWC INCORPORATED

11/10/2023 8:15:07 AM
Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

AV SYMBOLS WITH ELECTRICAL REQUIREMENTS

Symbol	Description
15 W	SINGLE FACED WALL MOUNTED CLOCK (102" MH UNLESS NOTED OTHERWISE). 12" DIAMETER FACE ANALOG CLOCK UNLESS SUBSCRIPT "15" FOR 15" DIAMETER FACE ANALOG CLOCK OR "LED" FOR LED DIGITAL CLOCK. SUBSCRIPT "W" INDICATES WIRE GUARD. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26.
15	DOUBLE FACED WALL MOUNTED CLOCK (102" MH UNLESS NOTED OTHERWISE). 12" DIAMETER FACE ANALOG CLOCK UNLESS SUBSCRIPT "15" FOR 15" DIAMETER FACE ANALOG CLOCK OR "LED" FOR LED DIGITAL CLOCK. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26.
A X	ROOF MOUNTED ANTENNA. REFER TO ANTENNA MOUNTING DETAIL FOR MORE INFORMATION. SUBSCRIPT INDICATES TYPE.
CA	WALL MOUNTED CALL ANNUNCIATOR FOR PAGING/INTERCOM SYSTEM (90" MH UNLESS NOTED OTHERWISE). CUSTOM BACKBOX FURNISHED PER DIV 27, INSTALLED WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. ANNUNCIATOR, INSTALLATION AND WIRING PER DIV 27.
CO	WALL MOUNTED CALL ORIGINATION SWITCH FOR PAGING/INTERCOM SYSTEM (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. CALL SWITCH, FACEPLATE AND WIRING PER DIV 27.
CS W	CLASSROOM SOUND FIELD SYSTEM RECEIVER/AMPLIFIER/MIXER AND WALL OUTLET (44" MH UNLESS NOTED OTHERWISE). TWO 1-GANG BOXES WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. SUBSCRIPT "W" INDICATES WALL MOUNTED ON SHELF. SOUND FIELD SYSTEM, GROMMETED FACEPLATES AND CABLING PER DIV 27.
M# X	MICROPHONE JACK PLATE (18" MH UNLESS NOTED OTHERWISE). "#"=NUMBER OF GANG, "X"=NUMBER OF JACKS IF OTHER THAN TWO (2). PROVIDE 0.75" CONDUIT FOR 1-GANG BOX OR 1" CONDUIT FOR 2-GANG AND LARGER BOX TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING PER DIV 27.
M H(x)	HANGING MICROPHONE OUTLET. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. SUBSCRIPT "X" INDICATES QUANTITY OF MICROPHONES IF MORE THAN ONE (1). MICROPHONE, JACK, FACEPLATE AND WIRING PER DIV 27.
M S	LOCAL SOUND SYSTEM SENSING MICROPHONE. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. MICROPHONE WITH GROMMETED FACEPLATE, INSTALLATION AND WIRING PER DIV 27.
MA	MIC/AUX WALL MOUNTED INPUT (18" MH UNLESS NOTED OTHERWISE). 2-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING PER DIV 27.
ME	MONITOR/EFFECTS WALL OUTLET (18" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND WIRING PER DIV 27.
MP	MULTI-PIN CONNECTOR WALL OUTLET (18" MH UNLESS NOTED OTHERWISE). NEMA BOX FOR 8"x8" PLATE WITH 2" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. 8"x8" PLATE WITH CONNECTORS AND WIRING PER DIV 27.
MS	MICROPHONE/SPEAKER WALL MOUNTED JACK PLATE (18" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING PER DIV 27.
P	PROGRAM SOURCE CABINET FOR PAGING/INTERCOM SYSTEM. TWO 1-GANG BOXES WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. GROMMETED FACEPLATES, CABINET, INSTALLATION AND WIRING PER DIV 27.
PR X	WALL MOUNTED PROJECTOR. BACKBOX WITH 1-1.25" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. PROJECTOR, MOUNT AND CABLING PER DIV 27. SUBSCRIPT "X" INDICATES CONFIGURATION TYPE, REFER TO FACEPLATE DETAILS.
PS E	CEILING MOUNT ELECTRIC PROJECTION SCREEN. 1-GANG BOX WITH 1" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. SCREEN AND LOW VOLTAGE CONTROL PER DIV 27.
PS E	WALL MOUNT ELECTRIC PROJECTION SCREEN. 1-GANG BOX WITH 1" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. SCREEN AND LOW VOLTAGE CONTROL PER DIV 27.
R	REMOTE POWER SWITCH OUTLET (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. SWITCH, FACEPLATE AND WIRING PER DIV 27.
SF R	RECESSED SOUND SYSTEM SPEAKER. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. GROMMETED FACEPLATE, SPEAKER, INSTALLATION ADJACENT TO BOX AND WIRING PER DIV 27. REFER TO ARCHITECTURAL DRAWINGS FOR RECESSED ENCLOSURE DETAILS.
SF W	WALL MOUNTED SOUND SYSTEM SPEAKER. 1-GANG BOX WITH 1" CONDUIT TO ABOVE CEILING PER DIV 26. SPEAKER AND CABLING PER DIV 27.
SJ	SPEAKER JACK PLATE (18" MH UNLESS NOTED OTHERWISE). 3-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26.
SP	HORN TYPE PAGING/INTERCOM SYSTEM SPEAKER (120" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. GROMMETED FACEPLATE, SPEAKER, INSTALLATION AND WIRING PER DIV 27.
SP W	SURFACE MOUNTED PAGING/INTERCOM SPEAKER (120" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. SPEAKER, INSTALLATION AND CABLING PER DIV 27.
V	PAGING/INTERCOM SYSTEM WALL MOUNTED SPEAKER VOLUME CONTROLLER (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX AND 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. VOLUME CONTROLLER WITH FACEPLATE, INSTALLATION AND WIRING PER DIV 27.
WC X	WALL MOUNTED AV SYSTEM CONTROL INTERFACE. SUBSCRIPT "X" INDICATES TYPE. REFER TO SYSTEM DIAGRAMS. BACKBOX (46" MH UNLESS NOTED OTHERWISE) WITH 1" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. CONTROLLER WITH CABLING PER DIV 27.

SECURITY SYMBOLS WITH ELECTRICAL REQUIREMENTS

Symbol	Description
BR	WALL MOUNTED BIOMETRIC READER (46" MH UNLESS NOTED OTHERWISE). 2-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. READER AND CABLING PER DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
CC X	CCTV SYSTEM WALL MOUNTED CAMERA (REFER TO CAMERA SCHEDULE FOR MOUNTING HEIGHT AND CAMERA SPECIFICATIONS). SUBSCRIPT "X" INDICATES ENTRY IN CAMERA SCHEDULE. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. CAMERA AND CABLING PER DIV 28.
CM	WALL MOUNTED MONITOR OUTLET FOR CCTV SYSTEM (84" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 1" CONDUIT TO ABOVE CORRIDOR CEILING PER DIV 26. JACK, FACEPLATE AND CABLING PER DIV 28.
CR	WALL MOUNTED PROXIMITY CARD READER (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. CARD READER AND CABLING PER DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
CR EL	ELEVATOR CAB MOUNTED CARD READER. READER TO BE INSTALLED IN ELEVATOR CAB AS COORDINATED WITH ELEVATOR CONTRACTOR. WIRING FROM CAB THRU TRAVELING CABLE TO ELEVATOR CONTROLLER IN ELEVATOR MACHINE ROOM AND INTERFACE WITH ELEVATOR CONTROLLER AND SMS PER DIV 28, COORDINATE WITH ELEVATOR CONTRACTOR. REFER TO SECURITY ROUGH-IN DETAILS.
DC	LOCAL IP BASED 2-DOOR ACCESS CONTROL PANEL SERVING LOCAL CARD READER/SECURITY CONTROLLED DOORS. LOCATE ABOVE ADJACENT ACCESSIBLE CEILING. PROVIDE DATA DROP IN 0.75" CONDUIT TO LOCAL DATA CLOSET. EXTEND 1" CONDUIT WITH DOOR SECURITY WIRING TO LOCAL SECURITY SYSTEM JUNCTION BOX. REFER TO SECURITY ROUGH-IN DETAILS.
DM	DOOR POSITION SWITCH WITH WIRING PER DIV 28. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. PROVIDE ONE CONTACT FOR EACH LEAF IN MULTI-DOOR OPENINGS. REFER TO SECURITY ROUGH-IN DETAILS.
EDC X	ELECTRONIC DOOR CONTROL. SUBSCRIPT "X" INDICATES SPECIFIC DOOR. REFER TO ELECTRONIC DOOR CONTROL SCHEDULE FOR REQUIREMENTS.
EL	ELECTRONIC DOOR LOCK AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER DIV 28. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
EM	ELECTRONIC MAG LOCK AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER DIV 28. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
ES	ELECTRONIC STRIKE AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER DIV 28. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
HA	WALL/PEDESTAL MOUNT HANDICAP DOOR ACTUATOR BUTTON, FURNISHED BY OTHERS. BOX AS REQUIRED BY SYSTEM MANUFACTURER WITH INSTALLATION AND CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. ALL LOW VOLTAGE WIRING AND INTERFACE WITH SMS AND DOOR MOTOR PER DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
HD	HANDICAP DOOR OPERATOR MOTOR ASSEMBLY BY OTHERS. 120V POWER CONNECTION AND CONDUIT FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. LOW VOLTAGE WIRING AND INTERFACE WITH SMS AND DOOR ACTUATOR BUTTONS PER DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
HO FA	WALL/FLOOR MOUNTED ELECTROMAGNETIC DOOR HOLD OPEN WITH POWER SUPPLY INSTALLED BY OTHERS. 120V POWER AND CONNECTION, BOX AS REQUIRED BY MANUFACTURER AND CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. LOW VOLTAGE WIRING FROM POWER SUPPLY TO HOLD OPEN AND INTERFACE WITH SMS PER DIV 28. SUBSCRIPT "FA" INDICATES DEVICES POWERED FROM FIRE ALARM SYSTEM AND INTERFACE FROM SMS TO FIRE ALARM SYSTEM REQUIRED FOR DOOR RELEASE PER DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
IC	WALL MOUNTED INTERCOM DOOR STATION (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. INTERCOM AND CABLING PER DIV 28.
JB M	SECURITY SYSTEM JUNCTION BOX TO BE LOCATED ABOVE ACCESSIBLE CEILING (MIN 6"X6"X4"). ROUTE LOCAL DOOR SECURITY WIRING CONDUITS/RACEWAYS TO JUNCTION BOX. EXTEND 1" CONDUIT WITH DOOR SECURITY WIRING TO LOCAL 2-DOOR CONTROL PANEL/REMOTE DOOR CONTROL PANEL AS INDICATED ON DRAWINGS. REFER TO SECURITY ROUGH-IN DETAILS.
K	WALL MOUNTED SECURITY KEYPAD ENTRY STATION (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. KEYPAD AND CABLING PER DIV 28.
KC	WALL MOUNTED COMBINATION KEYPAD/CARD READER (46" MH UNLESS NOTED OTHERWISE). 2-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING PER DIV 28.
LB	ELECTRONIC LATCH BOLT MONITORING. HARDWARE AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER DIV 28. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SECURITY JUNCTION BOX ABOVE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
MD	CEILING MOUNTED MOTION DETECTOR. 1-GANG BOX MOUNTED IN CEILING PER DIV 26. DETECTOR AND CABLING PER DIV 28.
MD	WALL MOUNTED MOTION DETECTOR (90" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. MOTION DETECTOR, WALL MOUNT HARDWARE, AND CABLING PER DIV 28.
MIC	CEILING MOUNTED SECURITY/CCTV SYSTEM AUDIO MICROPHONE. 1-GANG BOX MOUNTED IN CEILING PER DIV 26. MICROPHONE AND CABLING PER DIV 28.
PB W	WALL MOUNTED PUSH BUTTON FOR LOCAL ELECTRONIC DOOR RELEASE (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. BUTTON AND CABLING PER DIV 28.
PL	SITE POLE FOR MOUNTING SECURITY CAMERAS (REFER TO SPECIFICATIONS FOR SIZE/TYPE). PROVIDE POLE WITH CONCRETE BASE AS INDICATED ON PLANS. EXTEND AND CONNECT TO SITE CONDUIT SYSTEM AS INDICATED ON PLANS. PROVIDE NEMA 3R JUNCTION BOX AT BASE OF POLE FOR CAMERA EQUIPMENT (120V POWER SUPPLY, FIBER CONVERTERS, ETC.). REFER TO SECURITY ROUGH-IN DETAILS.
PP W	WALL MOUNTED PANIC/DURESS BUTTON (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. BUTTON AND CABLING PER DIV 28.
PS X	LOCAL LOW VOLTAGE POWER SUPPLY FOR EXTERIOR CAMERA. SUBSCRIPT "X" INDICATES ASSOCIATED CAMERA. 120V POWER INTO LOCAL JUNCTION BOX ABOVE CEILING AND CONNECTION TO POWER SUPPLY PER DIV 26. POWER SUPPLY MOUNTED ABOVE CEILING AND LOW VOLTAGE WIRING TO LOCAL CAMERA PER DIV 28.
RX	REQUEST TO EXIT SWITCH IN DOOR HARDWARE BY OTHERS. LOW VOLTAGE WIRING PER DIV 28. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
X	WALL MOUNTED SECURITY SYSTEM WIRING OUTLET MOUNTED BELOW COUNTER TOP. 2-GANG BOX WITH 2-1" CONDUITS TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. GROMMETED FACEPLATE AND SECURITY SYSTEM CABLING PER DIV 28.

ELECTRICAL SYMBOLS

Symbol	Description
3 $	DASH SYMBOL INDICATES PARTICULAR OUTLET OR DEVICE TO BE REMOVED AND CIRCUITRY MADE CONTINUOUS WHERE REQUIRED.
3 $	EXISTING OUTLET OR DEVICE TO REMAIN. MAINTAIN EXISTING CIRCUITING.
	ELECTRICAL CONNECTION.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE). WHEN ⏻ SHOWN, RECEPTACLE TO HAVE "CONTROLLED" MARKINGS.
	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE).
	SPECIAL PURPOSE RECEPTACLE. REFER TO NOTE ON PLAN.
	20A-125V DOUBLE DUPLEX RECEPTACLE. NEMA 5-20R, (18" MH UNLESS NOTED OTHERWISE) TWO GANG ASSEMBLY.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R WITH BOTTOM OUTLET CONTROLLED BY WALL SWITCH. (18" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (46" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R WITH 2 INTEGRAL USB CHARGERS (18" MH UNLESS NOTED OTHERWISE).
GF	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE).
WP	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R (HORIZONTAL 18" MH UNLESS NOTED OTHERWISE) WITH TAYMAC #MM420G EXTRA DUTY GRAY COVER, VERTICAL MOUNT.
WP/GF	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE), WITH TAYMAC #MM420G EXTRA DUTY GRAY COVER, VERTICAL MOUNT.
EM	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, ON EMERGENCY POWER (18" MH UNLESS NOTED OTHERWISE).
T	20A-125V POWERLOCK GROUNDING TYPE RECEPTACLE, HOSPITAL USE (66" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX PEDESTAL TYPE FLOOR RECEPTACLE, NEMA 5-20R, IN HUBBELL BA-2527 FLOOR BOX WITH SA-2525 COVERPLATE AND SC-3091 HOUSING. PROVIDE CARPET FLANGE WHERE REQUIRED.
# X	FLOOR BOX, # INDICATES TYPE, REFER TO FLOOR BOX (FB) SCHEDULE. IF NO #, PROVIDE HUBBELL BA-2527 FLUSH FLOOR BOX WITH ROUND SA-3925 COVERPLATE AND ONE 20A-125V DUPLEX RECEPTACLE. PROVIDE CARPET FLANGE WHERE REQD.
# X	FIRE RATED POKE-THRU, # INDICATES TYPE, REFER TO POKE-THRU (PT) SCHEDULE. IF NO #, PROVIDE HUBBELL 6 INCH RECESSED ACCESS POKE-THRU WITH TWO 20A-125V DUPLEX RECEPTACLES. PROVIDE CARPET FLANGE WHERE REQD.
IG	20-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH ISOLATED GROUND (18" MH UNLESS NOTED OTHERWISE).
20A	20A-125/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-20R (18" MH UNLESS NOTED OTHERWISE).
30A	30A-125/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-30R (18" MH UNLESS NOTED OTHERWISE).
50A	50A-125/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-50R (18" MH UNLESS NOTED OTHERWISE).
20A	20A-250V-3PH-4W SINGLE RECEPTACLE, NEMA 15-20R (18" MH UNLESS NOTED OTHERWISE).
30A	30A-250V-3PH-4W SINGLE RECEPTACLE, NEMA 15-30R (18" MH UNLESS NOTED OTHERWISE).
50A	50A-250V-3PH-4W SINGLE RECEPTACLE, NEMA 15-50R (18" MH UNLESS NOTED OTHERWISE).
J	JUNCTION BOX.
	MULTI-OUTLET RECEPTACLES ASSEMBLY, NEMA 5-15R (SINGLE OUTLETS ON 18" CENTERS) (46" MH UNLESS NOTED OTHERWISE).
	WIREMOLD RACEWAY, AS NOTED ON PLANS.
C	CLOCK HANGER OUTLET, SINGLE NEMA 5-15R RECESSED IN COVER PLATE (84" MH UNLESS NOTED OTHERWISE).
$	SINGLE POLE SWITCH (46" MH UNLESS NOTED OTHERWISE).
2 $	TWO POLE WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
# $	MULTI-WAY WALL SWITCH, # INDICATES NUMBER OF WAYS (46" MH UNLESS NOTED OTHERWISE).
P $	SWITCH WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
K $	KEY OPERATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
L $	LOW-VOLTAGE MOMENTARY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
DM $	LIGHTING DIMMER SWITCH (46" MH UNLESS NOTED OTHERWISE) 1000 WATTS UNLESS OTHERWISE INDICATED.
R $	SWITCH WITH RECEPTACLE (46" MH UNLESS NOTED OTHERWISE) STANDARD TWO-GANG ASSEMBLY OF SWITCH AND RECEPTACLE.
M $	FLUSH FRACTIONAL HORSEPOWER MOTOR STARTER WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
H $	HP RATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	ELECTRICAL PANEL OR SWITCHBOARD PER DRAWINGS.
P/B	PULL BOX.
	DISCONNECT SWITCH.
	MOTOR STARTER.
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH.
	ELECTRIC MOTOR.
UH	UNIT HEATER.
FC	FAN COIL.
AC	AIR CONDITIONER.
CU	CONDENSING UNIT.
UV	UNIT VENTILATOR.
CR	CORD REEL.
PP	POWER POLE.
T	LINE VOLTAGE THERMOSTAT.
H DH	DUCT HEATER.
H EB	ELECTRIC BASEBOARD HEATER.
M	INTERCOM SYSTEM DESK MOUNTED MASTER CONTROL STATION. SUBSCRIPT "W" INDICATES WALL MOUNT (46" MH UNLESS NOTED OTHERWISE).
I	INTERCOM STAFF STATION (46" MH UNLESS NOTED OTHERWISE).
H	INTERCOM HORN TYPE SPEAKER (84" MH UNLESS NOTED OTHERWISE).
S	INTERCOM SPEAKER FLUSH MOUNT IN CEILING.
	PUSHBUTTON (46" MH UNLESS NOTED OTHERWISE) EDWARDS 852 (120 VOLT).
	BUZZER (90" MH UNLESS NOTED OTHERWISE) EDWARDS 340-A (120 VOLT).
B	4" DIAMETER (90" MH UNLESS NOTED OTHERWISE) EDWARDS "ADAPTABEL" (120 VOLT).
	ELAPSED TIME INDICATOR CLOCK (90" MH UNLESS NOTED OTHERWISE) WITH RESET SWITCH (46" MH UNLESS NOTED OTHERWISE).
PC	PHOTOELECTRIC SENSOR.
LC	LIGHTING CONTACTOR.
OS M	CEILING MOUNTED OCCUPANCY SENSOR.
OS M	WALL MOUNTED OCCUPANCY SENSOR.
DS	CEILING MOUNTED DAYLIGHT SENSOR.
OP	OCCUPANCY SENSOR POWER PACK.

FIRE ALARM SYMBOLS

Symbol	Description
FACP	FIRE ALARM CONTROL PANEL.
RAP	REMOTE ANNUNCIATOR PANEL.
NAC	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL.
ASSD	AIR SAMPLING SMOKE DETECTOR BASE UNIT.
F 15	FIRE ALARM SPEAKER & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
F 15	FIRE ALARM BELL & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
F 15	FIRE ALARM CHIME & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
F 15	FIRE ALARM HORN & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
F W	FIRE ALARM BELL (88" AFF UNLESS NOTED OTHERWISE). SUBSCRIPT "W" INDICATES EXTERIOR WEATHERPROOF UNIT.
15 F	FIRE ALARM SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
S 15 F	CEILING MOUNTED FIRE ALARM SPEAKER & SIGNAL LIGHT. # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 F	CEILING MOUNTED FIRE ALARM HORN & SIGNAL LIGHT. # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 F	CEILING MOUNTED FIRE ALARM SIGNAL LIGHT. # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
S F	CEILING MOUNTED FIRE ALARM SPEAKER.
S R	SURFACE MOUNTED FIRE ALARM SPEAKER (88" AFF). SUBSCRIPT "R" INDICATES RECESSED MOUNTING.
F K	FIRE ALARM MANUAL STATION (46" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "K" INDICATES KEY OPERATED.
S	CEILING MOUNTED SMOKE DETECTOR.
H	CEILING MOUNTED HEAT DETECTOR.
S S/R	DUCT MOUNTED SMOKE DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
H S/R	DUCT MOUNTED HEAT DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
B T/R	BEAM DETECTOR. SUBSCRIPT "T" INDICATES TRANSMITTER FUNCTION. SUBSCRIPT "R" INDICATES RECEIVER FUNCTION.
C	ELECTRIC RELEASE DOOR CLOSER.
D	ELECTRO-MAGNETIC DOOR HOLDER.
FS	WATER FLOW SWITCH.
V	VALVE SUPERVISORY SWITCH.
R W	CEILING MOUNTED REMOTE TEST STATION AND ALARM INDICATOR LIGHT FOR DUCT DETECTOR. SUBSCRIPT "W" INDICATES WALL MOUNTED.
SD	SMOKE DAMPER.
FT	FIRE FIGHTER'S TELEPHONE (60" MH UNLESS NOTED OTHERWISE).
PS	PRESSURE SWITCH.
AM C/I	ADDRESSABLE MODULE. SUBSCRIPT "I" INDICATES INPUT. SUBSCRIPT "C" INDICATES CONTROL.
PIV	POST INDICATOR VALVE.
K S	KNOX BOX (46" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "S" INDICATES SUPERVISED UNIT.
A	AIR SAMPLING SMOKE DETECTOR SAMPLING PORT.

TECHNOLOGY SYMBOLS WITH ELEC. REQUIREMENTS

Symbol	Description
	CONDUIT SLEEVE / FIRE RATED SLEEVE ASSEMBLY THRU WALL (1-2" SLEEVE UNLESS NOTED OTHERWISE) PER DIV 26.
X	WALL MOUNTED DATA OUTLET (18" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT(S) TO ABOVE CORRIDOR CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING PER DIV 27. SUBSCRIPT "X" DESIGNATES QUANTITY OF DATA CABLES. REFER TO FACEPLATE DETAILS.
XD/XV	WALL MOUNTED VOICE/DATA OUTLET (18" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT(S) TO ABOVE CORRIDOR CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING PER DIV 27. SUBSCRIPT "XD/XV" INDICATES QUANTITY OF DATA/VOICE CABLES. REFER TO FACEPLATE DETAILS.
W	WALL MOUNTED PHONE OUTLET (46" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING PER DIV 27. SUBSCRIPT "W" INDICATES WALL PHONE MOUNTING PLATE. REFER TO FACEPLATE DETAILS.
AP	WALL MOUNTED WIRELESS ACCESS POINT (96" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. WAP AND CABLING PER DIV 27.
I X	WALL MOUNTED AV OUTLET (18" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUITS TO ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO FACEPLATE DETAILS. JACKS, FACEPLATE AND CABLING PER DIV 27. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION.
J	TELECOM BOX AND CONDUIT PER DIV 26, REFER TO PLANS.
R X	WALL MOUNTED AV OUTLET (84" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT PER DIV 26. REFER TO FACEPLATE DETAILS. JACKS, FACEPLATE AND CABLING PER DIV 27. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION.
V X	WALL MOUNTED AV OUTLET (44" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT PER DIV 26. REFER TO FACEPLATE DETAILS. JACKS, FACEPLATE AND CABLING PER DIV 27. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION.
W	CUSTOM OUTLET IN SURFACE RACEWAY. SURFACE RACEWAY PER DIV 26. OUTLET JACKS, FACEPLATE AND CABLING PER DIV 27.
# X	FLOOR BOX PER DIV 26. # INDICATES TYPE, REFER TO FLOOR BOX (FB) SCHEDULE. SUBSCRIPT "X" INDICATES TECHNOLOGY DEVICE(S), REFER TO TECHNOLOGY DETAILS.
# X	POKE-THRU PER DIV 26. # INDICATES TYPE, REFER TO POKE-THRU (PT) SCHEDULE. SUBSCRIPT "X" INDICATES TECHNOLOGY DEVICE(S), REFER TO TECHNOLOGY DETAILS.

LUMINAIRE SYMBOLS

Symbol	Description
A a	LIGHTING FIXTURE. CAPITAL LETTER DENOTES FIXTURE TYPE, LOWER CASE LETTER DENOTES SWITCHING ARRANGEMENT.
	LIGHTING FIXTURE ON NIGHT LIGHT OR EMERGENCY CIRCUIT.
	EXIT LIGHTING FIXTURE, ARROWS AS INDICATED.

ELECTRICAL SHEET LIST

SHEET NUMBER	SHEET NAME
E001	ELECTRICAL LEGEND
ED100	ELECTRICAL SITE PLAN - DEMOLITION
ED101	ELECTRICAL PLAN - LOWER LEVEL - DEMOLITION
ED102	ELECTRICAL PLAN - UPPER LEVEL - DEMOLITION
ED102.1	ELECTRICAL LIGHTING - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE DEMOLITION
E100	ELECTRICAL SITE PLAN - NEW
E101	ELECTRICAL LIGHTING - LOWER LEVEL - NEW WORK
E102	ELECTRICAL LIGHTING - UPPER LEVEL - NEW WORK
E102.1	ELECTRICAL LIGHTING - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE STAFF AND TRACK - NEW WORK
E201	ELECTRICAL POWER AND SYSTEMS - LOWER LEVEL - NEW WORK
E202	ELECTRICAL POWER AND SYSTEMS - UPPER LEVEL - NEW WORK
E202.1	ELECTRICAL POWER AND SYSTEMS - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE STAFF AND TRACK - NEW WORK
E203	ELECTRICAL POWER AND SYSTEMS - ROOF - NEW WORK
E501	ELECTRICAL SCHEDULES
E502	DETAILS AND NOTES
E601	ELECTRICAL SINGLE-LINE DIAGRAM & PANELBOARD SCHEDULES

ABBREVIATIONS

AAP	- AREA ALARM PANEL - MEDICAL GAS	HC	- HVAC CONTRACTOR (DIVISION 23)
ACC	- ACCESS	HP	- HORSE POWER OR HIGH POINT
ADJ	- ADJUSTABLE	HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING
AF	- ARC FAULT CIRCUIT INTERRUPTER	ID	- INSIDE DIAMETER
AFCI	- ARC FAULT CIRCUIT INTERRUPTER	IN	- INCHES
AFF	- ABOVE FINISHED FLOOR TO BOTTOM OF ITEM	KEC	- KITCHEN EQUIPMENT CONTRACTOR
AFG	- ABOVE FINISHED GRADE TO BOTTOM OF ITEM	L	- LENGTH
ALT	- ALTERNATE	LBS	- POUNDS
AP	- ACCESS PANEL	MAP	- MASTER ALARM PANEL (MEDICAL GAS)
APPROX	- APPROXIMATE	MAX	- MAXIMUM
ARCH	- ARCHITECT OR ARCHITECTURAL	MEZZ	- MEZZANINE
ASSY	- ASSEMBLY	MFR	- MANUFACTURER
ATS	- AUTOMATIC TRANSFER SWITCH	MH	- MANHOLE OR MOUNTING HEIGHT TO CENTER LINE OF ITEM
BLDG	- BUILDING	MIN	- MINIMUM OR MINUTE
BOE	- BOTTOM OF EQUIPMENT	MISC	- MISCELLANEOUS
BOT	- BOTTOM	MTD	- MOUNTED
BTWN	- BETWEEN	MTG	- MOUNTING
CFCI	- CONTRACTOR FURNISHED CONTRACTOR INSTALLED	NIC	- NOT IN CONTRACT
CKT	- CIRCUIT	NOM	- NOMINAL
CLG	- CEILING	NTS	- NOT TO SCALE
CMU	- CONCRETE MASONRY UNIT	OD	- OUTSIDE DIAMETER
CONN	- CONNECT OR CONNECTION	OFCI	- OWNER FURNISHED CONTRACTOR INSTALLED
CONTR	- CONTRACTOR	OFOI	- OWNER FURNISHED OWNER INSTALLED
CORR	- CORRIDOR	PC	- PLUMBING CONTRACTOR (DIVISION 22)
CTR	- CENTER	PLBG	- PLUMBING
D	- DEPTH	RAD	- RADIUS
DET	- DETAIL	REC	- RECESSED
DIA	- DIAMETER	REQD	- REQUIRED
DIM	- DIMENSION	RI	- ROUGH-IN
DIV	- DIVISION	S	- SURFACE MOUNTED
DN	- DOWN	SC	- SECURITY CONTRACTOR
DWG	- DRAWING	SCH	- SCHEDULE
EA	- EACH	SHT	- SHEET
EC	- ELECTRICAL CONTRACTOR (DIVISION 26)	SMS	- SECURITY MANAGEMENT SYSTEM
EJ	- EXPANSION JOINT	SPEC	- SPECIFICATIONS
ELEC	- ELECTRICAL	SQ	- SQUARE
ELEV	- ELEVATION OR ELEVATOR	SS	- STAINLESS STEEL
EM	- EMERGENCY	STD	- STANDARD
EQ	- EQUAL	STRUC	- STRUCTURAL OR STRUCTURE
EQS	- EQUIPMENT SUPPLIER	SUC	- SITE UTILITY CONTRACTOR
EQUIP	- EQUIPMENT	TC	- TECHNOLOGY CONTRACTOR
E/R	- EXISTING TO BE RELOCATED	TEMP	- TEMPERATURE
EX	- EXISTING TO REMAIN	TOE	- TOP OF EQUIPMENT
EXP	- EXPANSION	TYP	- TYPICAL
EXT	- EXTERIOR	UNO	- UNLESS NOTED OTHERWISE
FCE	- FIRE CONTROL EQUIPMENT	VFD	- VARIABLE FREQUENCY DRIVE
FF	- FINISHED FLOOR ELEVATION	VOL	- VOLUME
FLR	- FLOOR	W/	- WITH
FSC	- FIRE SUPPRESSION CONTRACTOR (DIVISION 21)	W/O	- WITHOUT
FT	- FEET	WP	- WEATHERPROOF
FTG	- FOOTING	ZVC	- ZONE VALVE CABINET
GC	- GENERAL CONTRACTOR		
GF	- GROUND FAULT CIRCUIT INTERRUPTER		
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER OR GOVERNMENT FURNISHED CONTRACTOR INSTALLED		
GFFT	- GROUND FAULT FEED THRU		

GENERAL FLOOR PLAN NOTES

Symbol	Description
B / E2	DETAIL: B = DETAIL DESIGNATION E2 = SHEET WHERE DETAIL IS LOCATED
1 / E2	SECTION: 1 = SECTION DESIGNATION E2 = SHEET WHERE SECTION IS LOCATED
T2 1	ELEVATION: 1 = ELEVATION DESIGNATION T2 = SHEET WHERE ELEVATION IS LOCATED
3	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN.
3	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
3	LIGHTING CONTROL DETAIL NOTE. APPLIES TO THE LIGHTING CONTROL SEQUENCE OF OPERATIONS SCHEDULE FOR ROOM CONTROL.
3	DEVICE QUANTITY - POWER NOTE. REFER TO DEVICE QUANTITIES - POWER SCHEDULE.
	LADDER TRAY, 12" x 4" DEEP UNLESS NOTED OTHERWISE.
	CABLE TRAY, 12" x 4" DEEP UNLESS NOTED OTHERWISE.
4"	WIRE & CONDUIT IN WALL OR ABOVE CEILING.
4"	WIRE & CONDUIT IN OR BELOW SLAB OR GRADE.
4"	CONDUIT TO BE REMOVED.
EX	EXISTING WIRE & CONDUIT TO REMAIN.
DAT	CONDUIT FOR DATA CIRCUITRY.
EM	WIRE & CONDUIT FOR EMERGENCY CIRCUITRY.
FA	WIRE & CONDUIT FOR FIRE ALARM CIRCUITRY.
I	WIRE & CONDUIT FOR INTERCOM SYSTEM CIRCUITRY.
NC	WIRE & CONDUIT FOR NURSE CALL CIRCUITRY.
NL	WIRE & CONDUIT FOR NIGHT LIGHT CIRCUITRY.
PHO	CONDUIT FOR PHONE CIRCUITRY.
S	WIRE & CONDUIT FOR SOUND SYSTEM CIRCUITRY.
SEC	WIRE & CONDUIT FOR SECURITY SYSTEM CIRCUITRY.
TV	WIRE & CONDUIT FOR TELEVISION SYSTEM CIRCUITRY.
W	WIRE RUN IN SURFACE WIREWAY.
CM	CABLE MANAGEMENT SYSTEM PATHWAY.
X - 1,2	EACH ARROWHEAD REPRESENTS ONE COMPLETE CIRCUIT; "X" DENOTES PANEL NAME; NUMBER(S) DENOTES CIRCUIT(S).

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS.

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.

HEAPY
PROJECT NO. 2023-07083

SHEET NOTES:

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

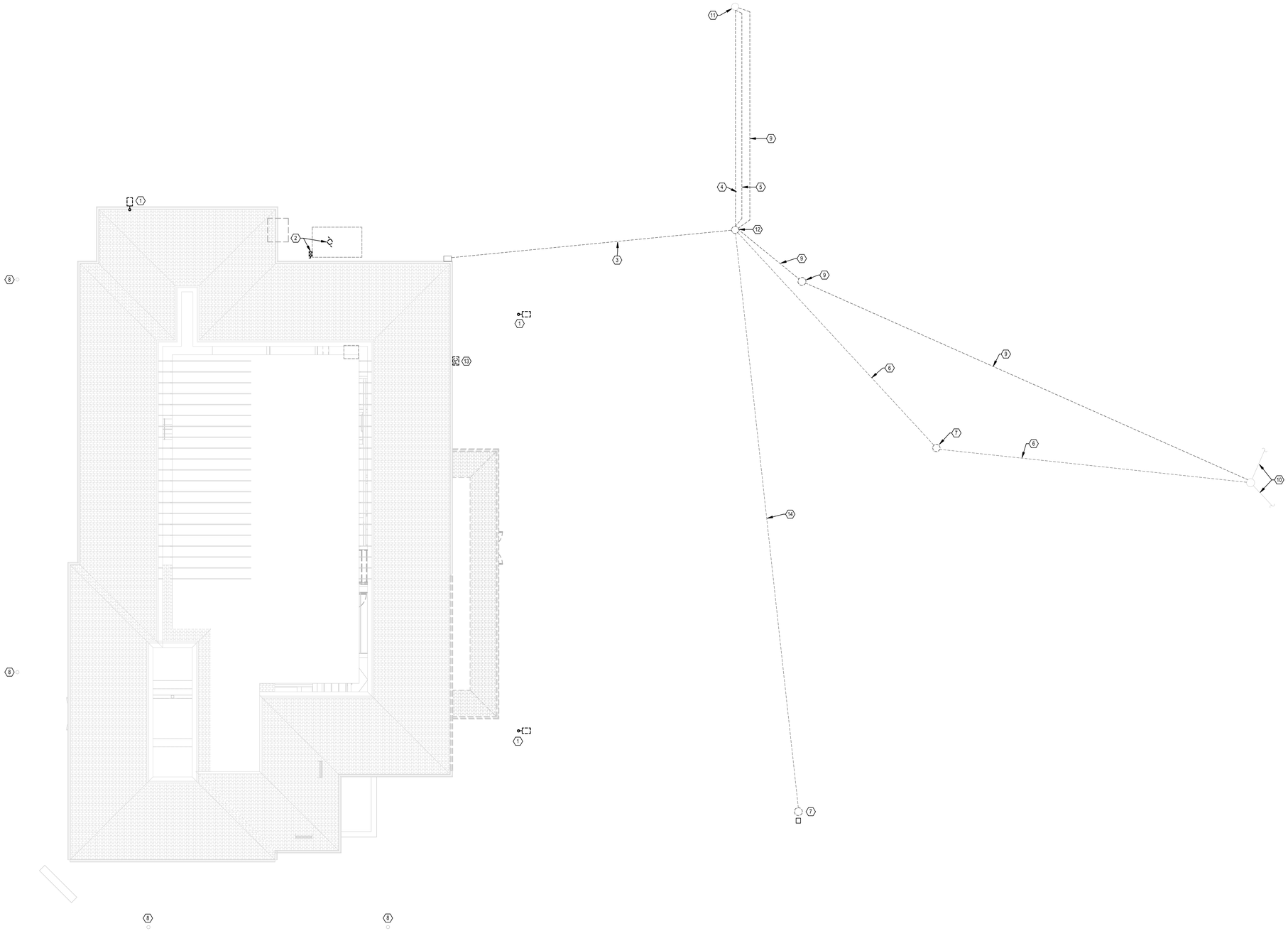
ELECTRICAL LEGEND

KEITH A SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E001
Checked: KAS	

© 2023 LWC INCORPORATED

11/13/2023 12:41:35 PM



1 ELECTRICAL SITE PLAN - DEMO
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. REMOVE LIGHT FIXTURE, LIGHT, POLE, AND FOUNDATION COMPLETELY. REMOVE CONDUCTORS TO PANEL CONDUIT (BELOW GRADE MAY BE ABANDONED).
2. DISCONNECT EQUIPMENT TO BE REMOVED. REMOVE CONDUCTORS AND EXPOSED CONDUIT TO PANEL L1B.
3. UNDERGROUND ELECTRIC SERVICE TO BUILDING TO BE REMOVED.
4. 120/240V-1Φ OVERHEAD ELECTRIC UTILITY SERVICE. ELECTRIC UTILITY TO REMOVE TO UTILITY POLE AT PROPERTY LINE.
5. 120/208V-3Φ OVERHEAD ELECTRIC UTILITY SERVICE. ELECTRIC UTILITY TO REMOVE TO UTILITY POLE AT PROPERTY LINE.
6. OVERHEAD 120/240V-1Φ ELECTRIC SERVICE TO HOUSES SHALL BE RELOCATED BY THE ELECTRIC UTILITY.
7. UTILITY POLE TO BE REMOVED BY ELECTRIC UTILITY.
8. LIGHT FIXTURE AND CIRCUIT SHALL REMAIN. LIGHT POLES SHALL BE PREPPED AND PAINTED TO MATCH NEW POLES.
9. OVERHEAD CABLE/PHONE SERVICE TO BE REMOVED TO POLE AT EDGE OF PROPERTY. UTILITY COMPANY TO REROUTE OVERHEAD CABLING TO HOUSES AS INDICATED ON NEW SITE PLAN.
10. OVERHEAD 120/240V-1Φ ELECTRIC SERVICE TO HOUSES SHALL REMAIN.
11. EXISTING UTILITY POLE TO REMAIN.
12. ELECTRIC UTILITY TO REMOVE POLE MOUNTED UTILITY TRANSFORMERS AND UTILITY POLE.
13. RELOCATE PHOTO CELL TO BE OUT OF NEW AREAWAY. REFER TO NEW SITE PLAN.
14. UTILITY COMPANY TO REMOVE ABANDONED OVERHEAD UTILITY.

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL SITE PLAN - DEMOLITION

KEITH A SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

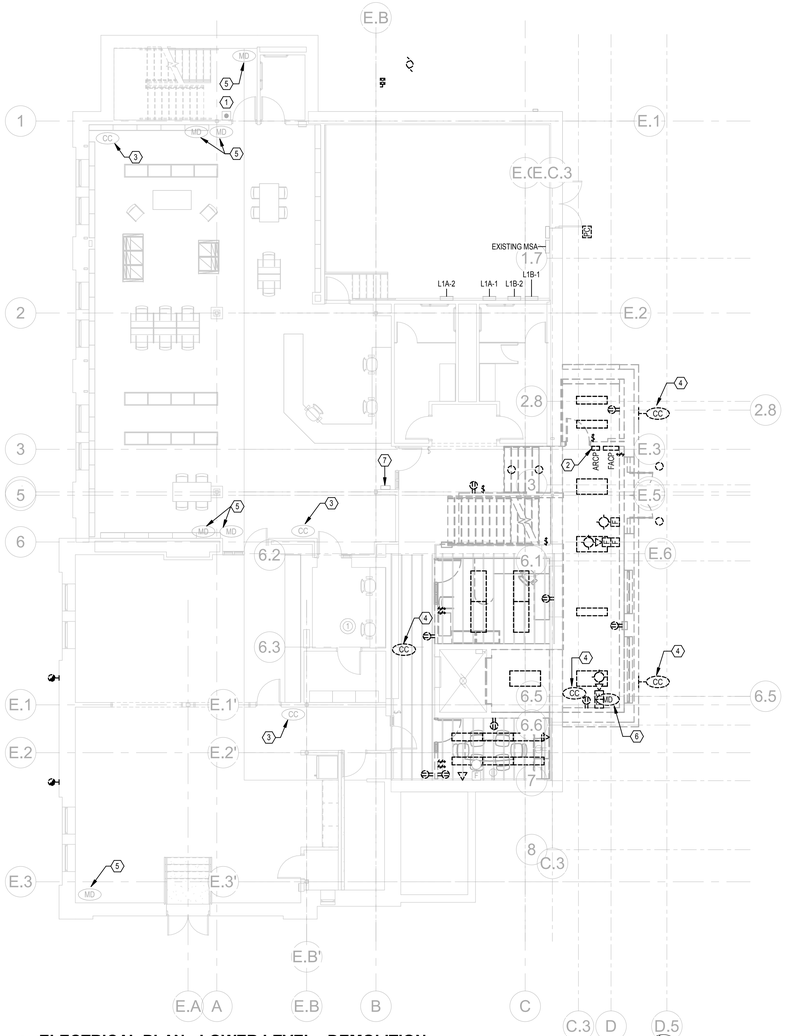
Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: ED100
Checked: EWH	

HEAPY
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:38 PM



1 **ELECTRICAL PLAN - LOWER LEVEL - DEMOLITION**
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. AREA OF REFUGE CALL BUTTON TO REMAIN.
2. AREA OF REFUGE CONTROL PANEL TO BE RELOCATED TO NEW MAIN ENTRY. REFER TO NEW POWER AND SYSTEMS PLANS.
3. EXISTING CAMERA TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
4. CAMERA AND CABLING TO BE REMOVED BY OWNER'S CAMERA CONTRACTOR. REFER TO SPECIFICATIONS AND COORDINATE WITH OWNER'S CAMERA CONTRACTOR.
5. EXISTING MOTION DETECTOR TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
6. MOTION DETECTOR AND CABLING TO BE REMOVED BY OWNER'S SECURITY CONTRACTOR. REFER TO SPECIFICATIONS AND COORDINATE WITH OWNER'S SECURITY CONTRACTOR.
7. SECURITY CONTROL PANEL TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.

GENERAL NOTES:

A. COORDINATE DEMOLITION WORK WITH ALL OTHER TRADES. REFER TO MECHANICAL, PLUMBING & ARCHITECTURAL DEMOLITION PLANS FOR COORINDATION OF ELECTRICAL DEMOLITION. THIS MAY INCLUDE DISCONNECTION AND RECONNECTION OF RELOCATED EQUIPMENT AND/OR DISCONNECTION AND REMOVAL OF EQUIPMENT AND DEVICES RENDERED UNUSED BY THIS PROJECT.

B. MAINTAIN POWER TO ALL FEEDERS AND BRANCH CIRCUITS NOT AFFECTED BY THIS PROJECT AND TO BRANCH CIRCUITS CUT OFF BY REMOVALS, VERIFY CIRCUITS PRIOR TO REMOVAL.

C. ALL EXISTING FLUORESCENT LAMPS AND BALLASTS REMOVED UNDER THIS CONTRACT ARE TO BE PUT INTO CONTAINERS AND DISPOSED OF BY A QUALIFIED CONTRACTOR AT AN APPROVED DISPOSAL FACILITY.

D. DEVICES, EQUIPMENT, ETC. INDICATED BOLD AND DASHED SHALL BE DISCONNECTED AND REMOVED BY THIS PROJECT, UNLESS OTHERWISE NOTED. REMOVAL OF ELECTRIAL ITEMS INCLUDE REMOVAL BACK TO THE PANELBOARD OR POINT OF COMMON USE, UNLESS OTHERWISE NOTED. REUSE OF EXISTING CONDUIT-IN-PLACE IS PERMITTED WHERE IT IS WITHIN THE LIMITS OF THE N.E.C.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL PLAN - LOWER LEVEL - DEMOLITION

KEITH A. SCHEIC REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

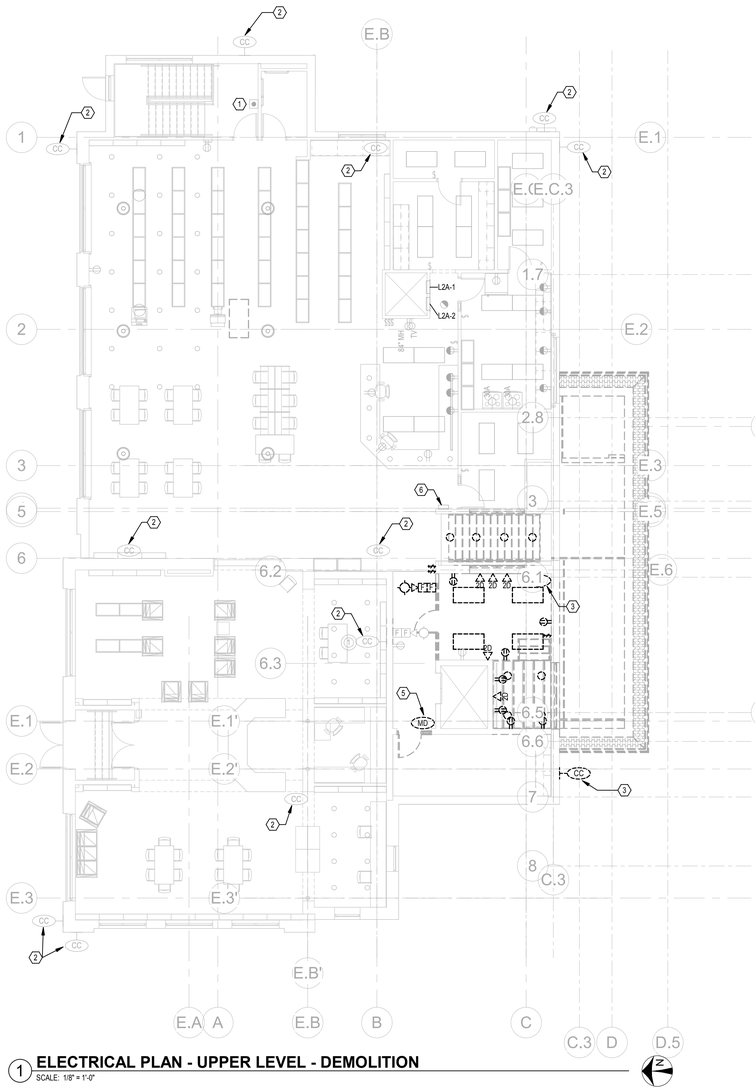
Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: ED101
Checked: EWH	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:43 PM



1 ELECTRICAL PLAN - UPPER LEVEL - DEMOLITION

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

SHEET NOTES:

1. AREA OF REFUGE CALL BUTTON TO REMAIN.
2. EXISTING CAMERA TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
3. CAMERA AND CABLING TO BE REMOVED BY OWNER'S CAMERA CONTRACTOR. REFER TO SPECIFICATIONS AND COORDINATE WITH OWNER'S CAMERA CONTRACTOR.
4. EXISTING MOTION DETECTOR TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.
5. MOTION DETECTOR AND CABLING TO BE REMOVED BY OWNER'S SECURITY CONTRACTOR. REFER TO SPECIFICATIONS AND COORDINATE WITH OWNER'S SECURITY CONTRACTOR.
6. SECURITY CONTROL PANEL TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.

GENERAL NOTES:

A. COORDINATE DEMOLITION WORK WITH ALL OTHER TRADES. REFER TO MECHANICAL, PLUMBING & ARCHITECTURAL DEMOLITION PLANS FOR COORINDATION OF ELECTRICAL DEMOLITION. THIS MAY INCLUDE DISCONNECTION AND RECONNECTION OF RELOCATED EQUIPMENT AND/OR DISCONNECTION AND REMOVAL OF EQUIPMENT AND DEVICES RENDERED UNUSED BY THIS PROJECT.

B. MAINTAIN POWER TO ALL FEEDERS AND BRANCH CIRCUITS NOT AFFECTED BY THIS PROJECT AND TO BRANCH CIRCUITS CUT OFF BY REMOVALS, VERIFY CIRCUITS PRIOR TO REMOVAL.

C. ALL EXISTING FLUORESCENT LAMPS AND BALLASTS REMOVED UNDER THIS CONTRACT ARE TO BE PUT INTO CONTAINERS AND DISPOSED OF BY A QUALIFIED CONTRACTOR AT AN APPROVED DISPOSAL FACILITY.

D. DEVICES, EQUIPMENT, ETC. INDICATED BOLD AND DASHED SHALL BE DISCONNECTED AND REMOVED BY THIS PROJECT, UNLESS OTHERWISE NOTED. REMOVAL OF ELECTRIAL ITEMS INCLUDE REMOVAL BACK TO THE PANELBOARD OR POINT OF COMMON USE, UNLESS OTHERWISE NOTED. REUSE OF EXISTING CONDUIT-IN-PLACE IS PERMITTED WHERE IT IS WITHIN THE LIMITS OF THE N.E.C.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL PLAN - UPPER LEVEL - DEMOLITION

KEITH A. SCHED REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

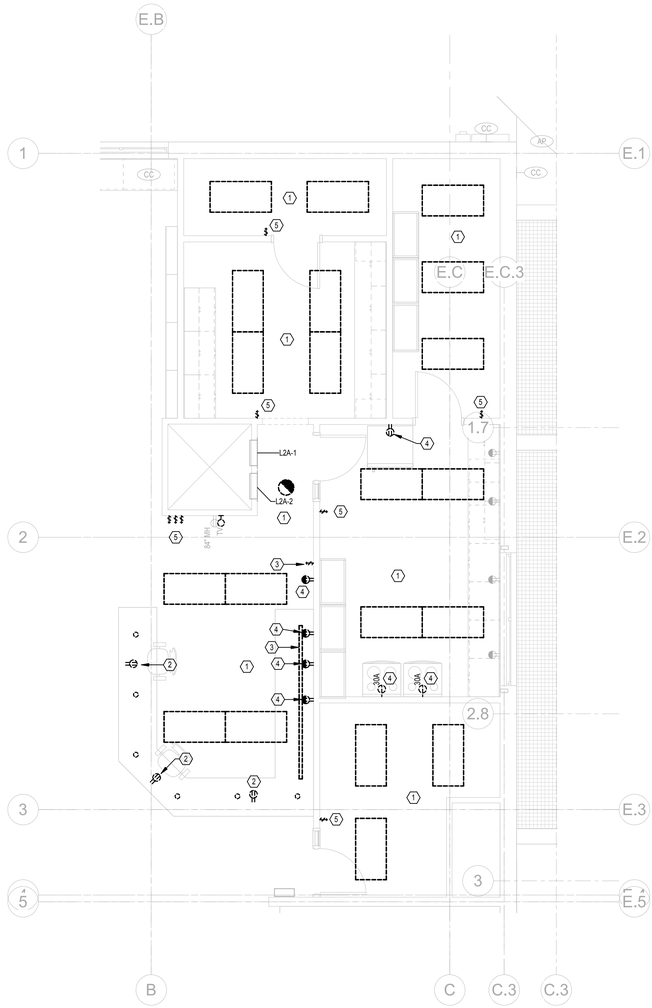
Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: ED102
Checked: EWH	

HEAPY
PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:45 PM



1 **ELECTRICAL PLAN UPPER LEVEL ALTERNATE STAFF ROOM - DEMO**
SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. EXISTING LIGHTING CIRCUITS AND CONDUITS SERVING THE STAFF AREA SHALL REMAIN. CONDUITS AND CONDUCTORS SHALL BE EXTENDED AS REQUIRED TO NEW LIGHTING FIXTURES TO BE INSTALLED IN THIS AREA. SEE SHEET E102.1.
2. REMOVE RECEPTACLE, DEVICE BOX, AND CONDUIT EXPOSED BY CASEWORK DEMOLITION. REMOVE CIRCUIT WIRING TO NEXT DEVICE ON CIRCUIT THAT REMAINS, OR IF NO DEVICES REMAIN ON CIRCUIT. REMOVE CIRCUIT TO PANEL.
3. REMOVE UNDERCABINET LIGHT FIXTURE AND SWITCH. REMOVE CIRCUIT WIRING TO NEXT DEVICE ON CIRCUIT THAT REMAINS, OR IF NO DEVICES REMAIN ON CIRCUIT, REMOVE CIRCUIT TO PANEL.
4. REMOVE RECEPTACLE AND DEVICE PLATE. REMOVE CIRCUIT WIRING TO NEXT DEVICE ON CIRCUIT THAT REMAINS, OR IF NO DEVICES REMAIN ON CIRCUIT, REMOVE CIRCUIT TO PANEL. PROVDIE BLANK DEVICE PLATE ON DEVICE BOX THAT REMAINS.
5. REMOVE LIGHT SWTICH, DEVICE BOX, AND SWITCHLEG WIRING. DEVICE BOX SHALL REMAIN FOR NEW LIGHT SWTICH.

GENERAL NOTES:

A. COORDINATE DEMOLITION WORK WITH ALL OTHER TRADES. REFER TO MECHANICAL, PLUMBING & ARCHITECTURAL DEMOLITION PLANS FOR COORINDATION OF ELECTRICAL DEMOLITION. THIS MAY INCLUDE DISCONNECTION AND RECONNECTION OF RELOCATED EQUIPMENT AND/OR DISCONNECTION AND REMOVAL OF EQUIPMENT AND DEVICES RENDERED UNUSED BY THIS PROJECT.

B. MAINTAIN POWER TO ALL FEEDERS AND BRANCH CIRCUITS NOT AFFECTED BY THIS PROJECT AND TO BRANCH CIRCUITS CUT OFF BY REMOVALS, VERIFY CIRCUITS PRIOR TO REMOVAL.

C. ALL EXISTING FLUORESCENT LAMPS AND BALLASTS REMOVED UNDER THIS CONTRACT ARE TO BE PUT INTO CONTAINERS AND DISPOSED OF BY A QUALIFIED CONTRACTOR AT AN APPROVED DISPOSAL FACILITY.

D. DEVICES, EQUIPMENT, ETC. INDICATED BOLD AND DASHED SHALL BE DISCONNECTED AND REMOVED BY THIS PROJECT, UNLESS OTHERWISE NOTED. REMOVAL OF ELECTRIAL ITEMS INCLUDE REMOVAL BACK TO THE PANELBOARD OR POINT OF COMMON USE, UNLESS OTHERWISE NOTED. REUSE OF EXISTING CONDUIT-IN-PLACE IS PERMITTED WHERE IT IS WITHIN THE LIMITS OF THE N.E.C.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL LIGHTING - ALTERNATE LOCATIONS
ENLARGED VIEWS - ALTERNATE DEMOLITION

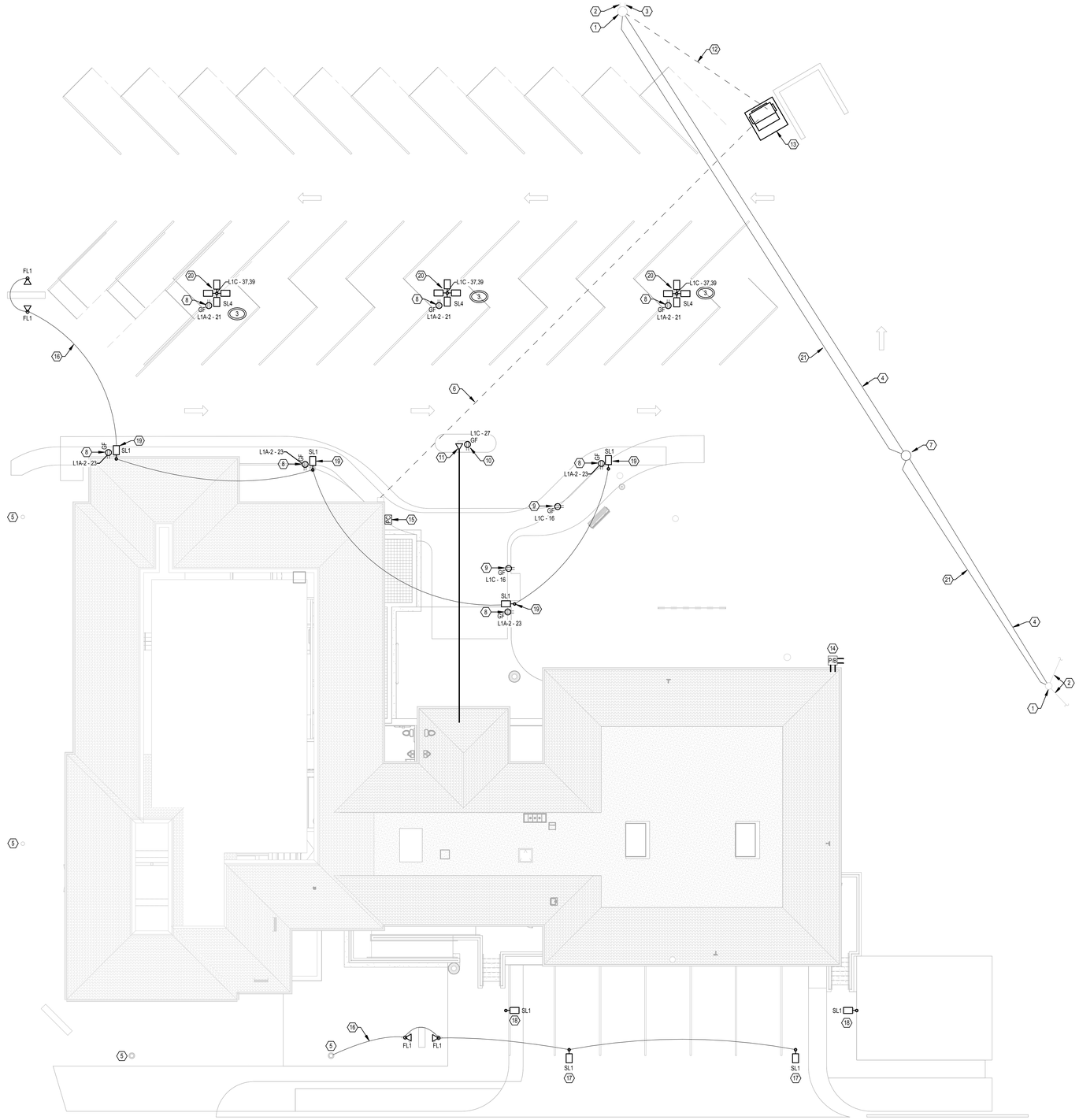
KEITH A SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: ED102.1
Checked: EWH	

PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt



1 ELECTRICAL SITE PLAN - NEW
SCALE: 3/32" = 1'-0"

SHEET NOTES:

1. EXISTING UTILITY POLE TO REMAIN.
2. EXISTING 120/240V-1Φ OVERHEAD ELECTRIC SERVICE TO REMAIN.
3. EXISTING 120/208V-3Φ OVERHEAD ELECTRIC SERVICE TO REMAIN.
4. ELECTRIC UTILITY TO RELOCATE/REROUTE 120/240V-1Φ SERVICE TO HOUSES THAT REMAIN.
5. EXISTING LIGHT FIXTURE TO REMAIN.
6. PROVIDE NEW 600 AMP UNDERGROUND SERVICE FROM NEW PAD MOUNTED TRANSFORMER TO EXISTING MAIN SWITCHBOARD. TWO SETS OF # 350MCM, #1G, 3.5"C 3'-0" BELOW FINISH GRADE.
7. NEW UTILITY POLE BY ELECTRIC UTILITY.
8. GFI RECEPTACLE INSTALLED IN LIGHT POLE.
9. WP/GFI RECEPTACLE MOUNTED IN PEDESTAL.
10. DUPLEX RECEPTACLE FOR BOOK DROP.
11. PROVIDE 1" CONDUIT, 3'-0" BELOW FINISH GRADE, FROM ABOVE LOWER LEVEL CEILING TO BOOK DROP.
12. NEW UNDERGROUND ELECTRIC PRIMARY PROVIDED BY THE ELECRIC UTILITY. CONTRACTOR TO PROVIDE ONE 5" CONDUIT FROM UTILITY POLE TO PAD MOUNTED TRANSFORMER.
13. NEW PAD MOUNTED UTILITY TRANSFORMER. CONTRACTOR TO PROVIDE 6" THICK CONCRETE PAD. COORDINATE EXACT REQUIREMENTS WITH ELECTRIC UTILITY.
14. 2'-0" x 2'-0" x 1'-0" QUAZITE IN-GRADE PULL BOX. PROVIDE 1" CONDUITS FROM PULL BOX UP IN EXTERIOR WALL STUBBED OUT INTO JOIST SPACE FOR FUTURE DATA CONDUITS. PROVIDE 20 AMP, 120 VOLT CIRCUIT FROM PANEL L1C TO PULL BOX. COIL IN BOX FOR EXTENSION IN FUTURE. STUB OUT TWO 1" CONDUITS FROM PULL BOX AND CAP. IF ALTERNATE FOR EXPANDED COMMUNITY ROOM IS ACCEPTED ADJUST LOCATION AS REQUIRED.
15. RELOCATE EXISTING PHOTO CELL. EXTEND WIRING AS REQUIRED TO NEW LOCATION. COORDINATE NEW LOCATION OF PHOTO CELL AND ROUTING OF NEW CONDUIT.
16. CONNECT TO EXISTING CIRCUIT.
17. BASE BID LOCATION.
18. ALTERNATE BID LOCATION.
19. CONNECT TO EXISTING CIRCUIT AND LIGHTING CONTACTOR/CONTROLS THAT SERVED REMOVED POST LIGHTS.
20. NEW PARKING LOT LIGHTS TO BE CONTROLLED VIA LIGHTING CONTACTOR AND EXISTING PHOTO CELL. PROVIDE NEW LIGHTING CONTACTOR IN MAIN MECHANICAL ROOM FOR THIS LIGHTING CIRCUIT. INCORPORATE EXISTING PHOTO CELL AS REQUIRED.
21. REROUTED OVERHEAD CABLE/PHONE UTILITY TO HOUSES BY UTILITY COMPANY.

GENERAL NOTES:

A. FIELD VERIFY ACCURACY OF LOCATIONS AS REQUIRED. EXISTING CONDITIONS SHALL GOVERN.

B. REFER TO CIVIL PLANS FOR ADDITIONAL INFORMATION REGARDING LOCATIONS, ELEVATIONS, ETC.

C. VERIFY LOCATION AND ROUTING OF ALL NEW AND EXISTING SITE UTILITES PRIOR TO EXCAVATION.

D. CONDUITS SHALL PITCH AWAY FROM THE BUILDING TO PULL BOXES AND / OR HAND HOLES. INTENT IS FOR ALL CONDUITS TO DRAIN AWAY FROM THE BUILDING AND INTO PULL BOX AND / OR HANDHOLES.

E. ALL CONDUITS THAT PENETRATE EXTERIOR WALLS SHALL BE SEALED WATER-TITE.

F. ALL HOMERUNS VIA LIGHTING CONTACTOR IN ELECTRICAL ROOM.

G. LIGHT POLES AND FIXTURES WILL BE INSTALLED UNDER THE CONSTRUCTION DOCUMENT PACKAGE. COORDINATE POLE BOLT PATTERNS WITH APPROVED LIGHTING SHOP DRAWINGS.

H. ALL LIGHTING CONDUITS ARE 2" PVC, UNLESS OTHERWISE NOTED. REFER TO DETAIL 6 / E502.

I. ALL SITE LIGHTING CIRCUIT SHALL BE FED WITH #10 AWG CU CONDUCTORS UNLESS OTHERWISE NOTED.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL SITE PLAN - NEW

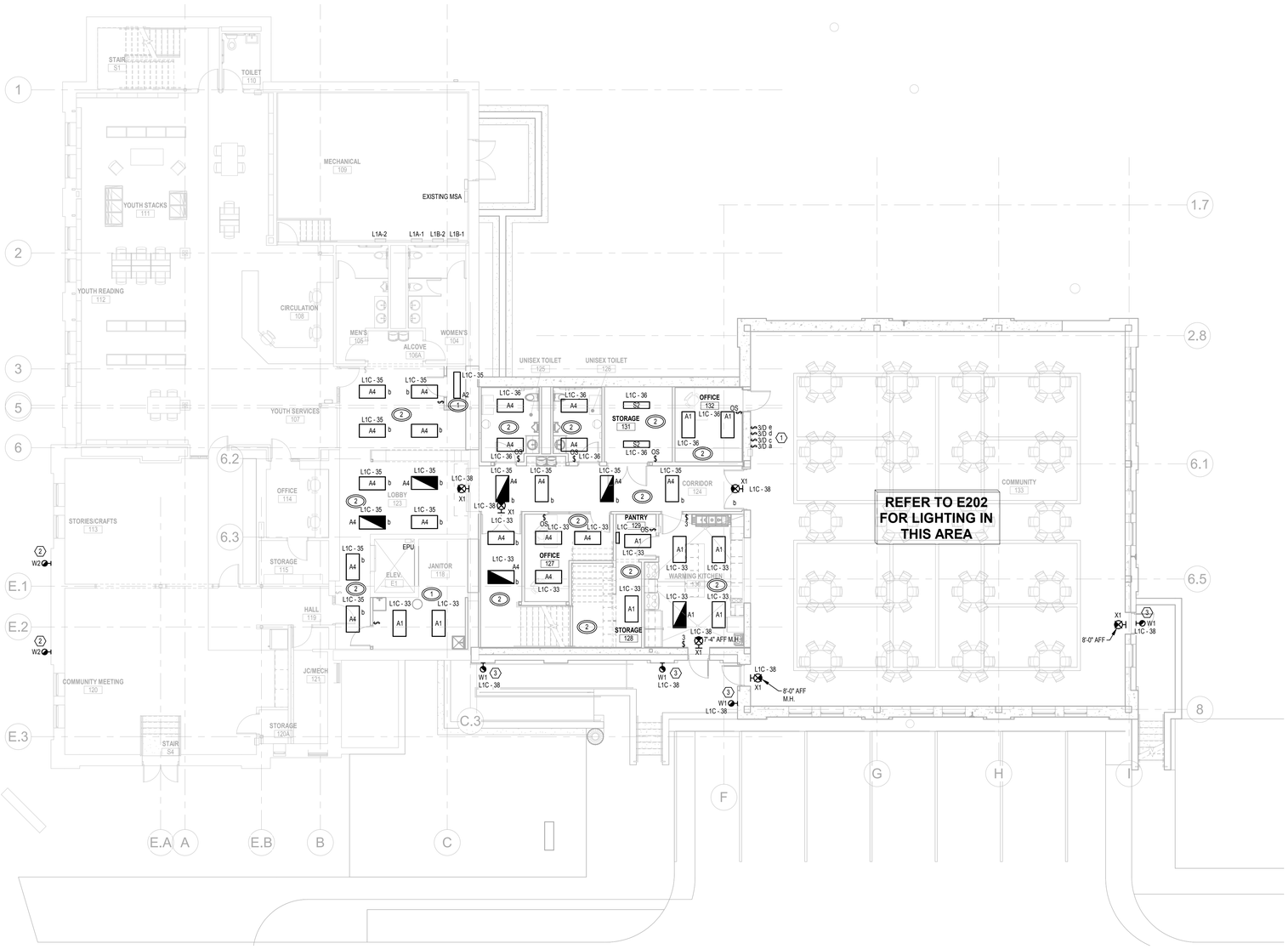
KEITH A SCHMID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E100
Checked: KAS	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

11/13/2023 12:40:51 PM



1 ELECTRICAL LIGHTING - LOWER LEVEL - NEW WORK

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

SHEET NOTES:

1. PROVIDE SECONDARY SWITCHES TO CONTROL COMMUNITY AREA.
2. CONNECT TO EXISTING LIGHTING CIRCUIT THAT SERVED REMOVED FIXTURES.
3. BOTTOM OF FIXTURE TO BE 8'-2" AFF.

GENERAL NOTES:

A REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL PLANS FOR LUMINAIRE LOCATIONS.

B ALL "EXIT" SIGNS AND NITE LIGHTS "NL" ARE TO BE CIRCUITED TO THE LIGHTING CIRCUIT IN THE SPACE / ROOM AHEAD OF ANY LIGHTING CONTROL DEVICES, UNLESS NOTED OTHERWISE.

C COORDINATE OCCUPANCY SENSOR AIMING AND PLACEMENT WITH MANUFACTURER OR SUPPLIER PRIOR TO INSTALLATION.

D OCCUPANCY SENSOR MANUFACTURERS' COVERAGE PATTERNS VARY. THUS MANUFACTURER SHALL SUBMIT 1/8-INCH SCALE FLOOR PLANS SHOWING PROPOSED LAYOUT WITH DEVICES CLEARLY IDENTIFIED DURING THE SHOP DRAWING REVIEW PHASE. SHOP DRAWINGS MISSING INFORMATION WILL BE REJECTED. REQUEST AUTOCAD FLOOR PLANS IN ADVANCE OF SHOP DRAWING SUBMITTAL TO ENSURE ON TIME DELIVERY.

E IN ROOMS WITH EXPOSED CEILINGS CONTRACTORS SHALL COORDINATE LIGHTING LAYOUT WITH DUCTWORK AND PIPING ROUTING PRIOR TO INSTALLATION BEGINING. PROVIDE ALL NECESSARY SUPPORTS FOR LIGHTS OR PORTIONS OF LIGHTS THAT MAY BE LOCATED BELOW DUCTWORK.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL LIGHTING - LOWER LEVEL - NEW WORK

KEITH A SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

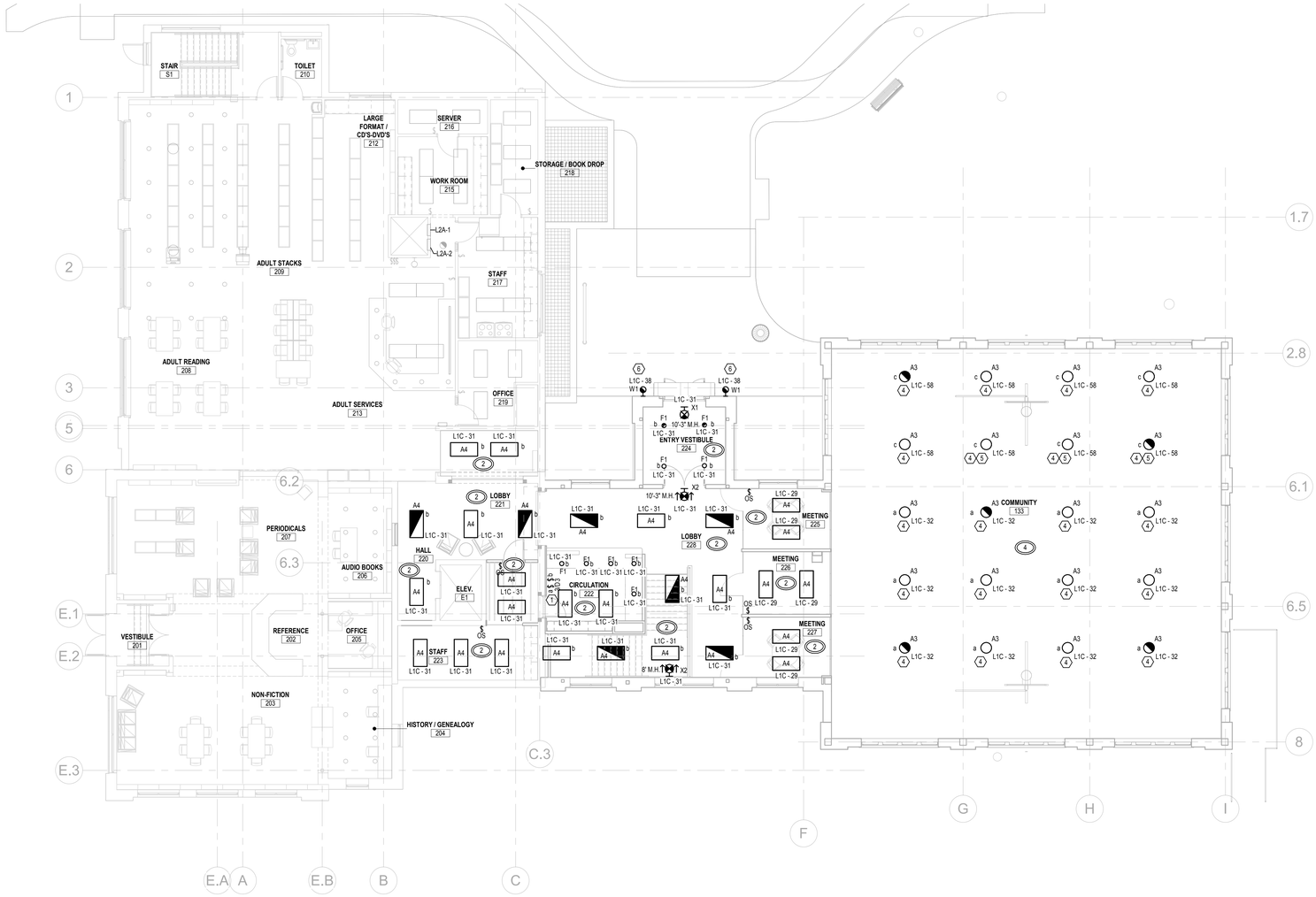
Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E101
Checked: KAS	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:40:58 PM



1 ELECTRICAL LIGHTING - UPPER LEVEL - NEW WORK

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

SHEET NOTES:

1. PROVIDE SECONDARY SWITCHES TO CONTROL COMMUNITY AREA.
2. CONNECT TO EXISTING LIGHTING CIRCUIT THAT SERVED REMOVED FIXTURES.
3. BOTTOM OF FIXTURE TO BE 8'-2" AFF.
4. BOTTOM OF FIXTURE TO BE 18'-6" AFF.
5. COORDINATE LOCATION TO AVOID DIVIDER CURTAIN.
6. BOTTOM OF FIXTURE TO BE 8'-2" AFF.

GENERAL NOTES:

A. REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL PLANS FOR LUMINAIRE LOCATIONS.

B. ALL "EXIT" SIGNS AND NITE LIGHTS "NL" ARE TO BE CIRCUITED TO THE LIGHTING CIRCUIT IN THE SPACE / ROOM AHEAD OF ANY LIGHTING CONTROL DEVICES, UNLESS NOTED OTHERWISE.

C. COORDINATE OCCUPANCY SENSOR AIMING AND PLACEMENT WITH MANUFACTURER OR SUPPLIER PRIOR TO INSTALLATION.

D. OCCUPANCY SENSOR MANUFACTURERS' COVERAGE PATTERNS VARY. THUS MANUFACTURER SHALL SUBMIT 1/8-INCH SCALE FLOOR PLANS SHOWING PROPOSED LAYOUT WITH DEVICES CLEARLY IDENTIFIED DURING THE SHOP DRAWING REVIEW PHASE. SHOP DRAWINGS MISSING INFORMATION WILL BE REJECTED. REQUEST AUTOCAD FLOOR PLANS IN ADVANCE OF SHOP DRAWING SUBMITTAL TO ENSURE ON TIME DELIVERY.

E. IN ROOMS WITH EXPOSED CEILINGS CONTRACTORS SHALL COORDINATE LIGHTING LAYOUT WITH DUCTWORK AND PIPING ROUTING PRIOR TO INSTALLATION BEGINING. PROVIDE ALL NECESSARY SUPPORTS FOR LIGHTS OR PORTIONS OF LIGHTS THAT MAY BE LOCATED BELOW DUCTWORK.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL LIGHTING - UPPER LEVEL - NEW WORK

KEITH A. SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

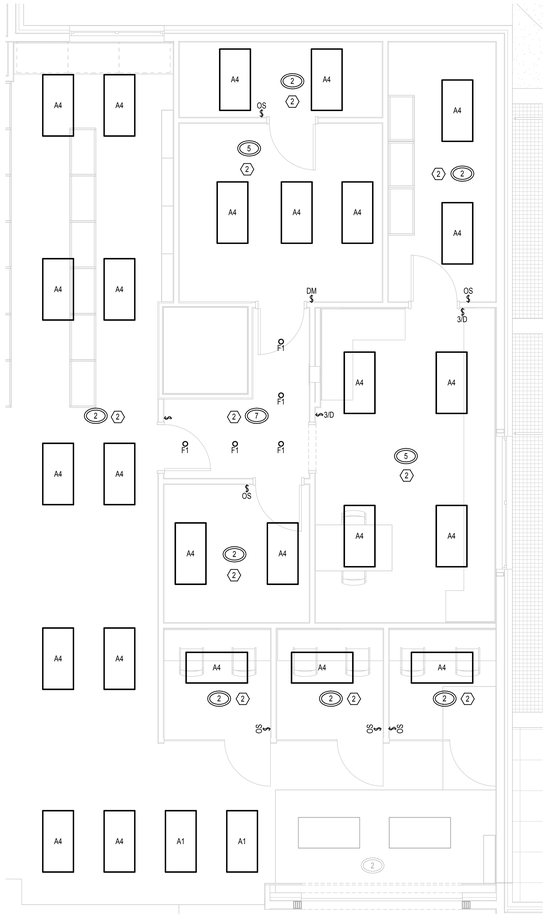
Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E102
Checked: KAS	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

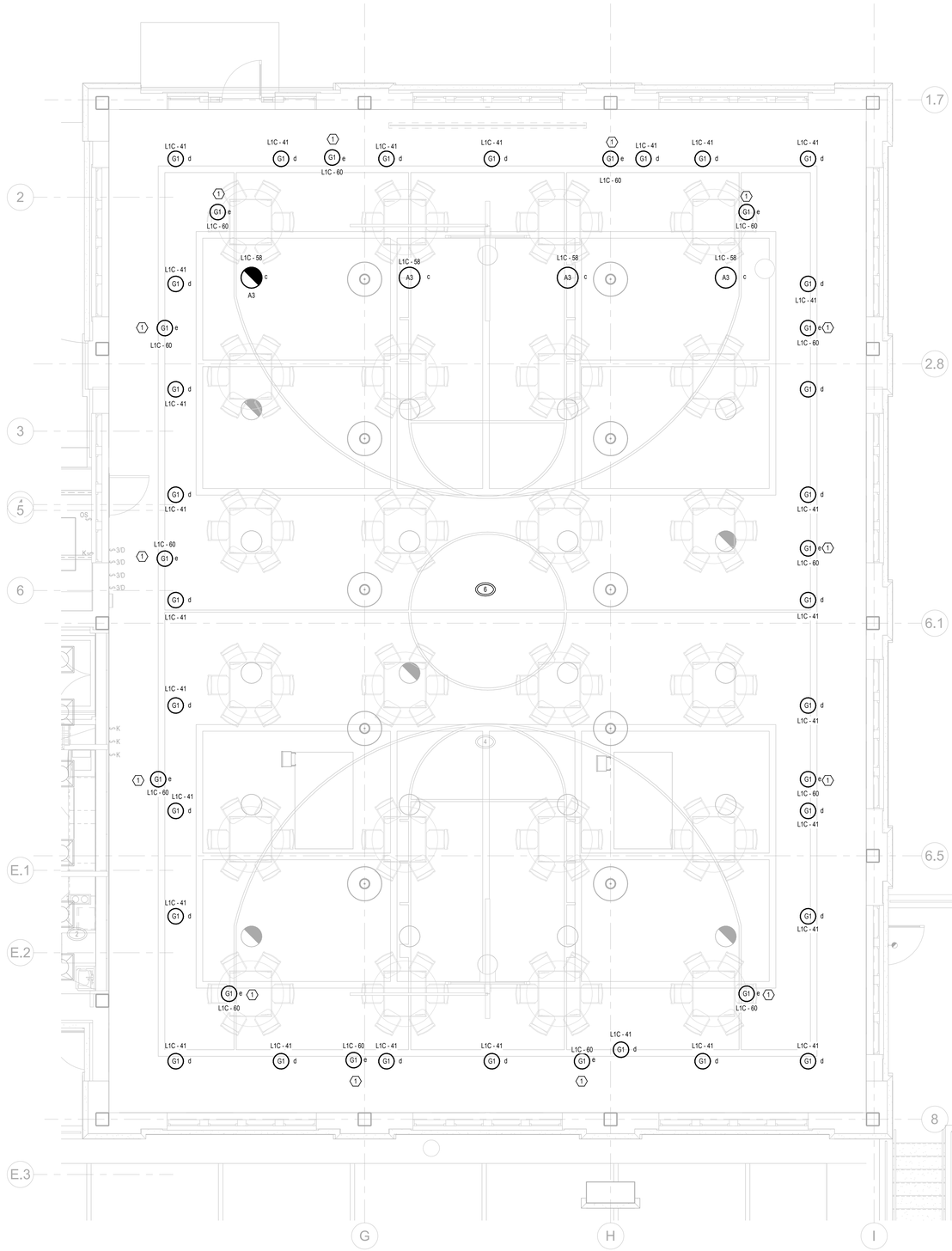
Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:04 PM



2 ELECTRICAL LIGHTING PLAN - STAFF ROOM - NEW WORK

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



1 ELECTRICAL LIGHTING PLAN - TRACK - NEW WORK

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

SHEET NOTES:

1. MOUNTED TO BOTTOM OF TRACK.
2. CONNECT EXISTING LIGHTING CIRCUIT THAT SERVED REMOVED LIGHTS IN THIS ROOM TO NEW LIGHT FIXTURES. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.

GENERAL NOTES:

A REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL PLANS FOR LUMINAIRE LOCATIONS.

B ALL "EXIT" SIGNS AND NITE LIGHTS "NL" ARE TO BE CIRCUITED TO THE LIGHTING CIRCUIT IN THE SPACE / ROOM AHEAD OF ANY LIGHTING CONTROL DEVICES, UNLESS NOTED OTHERWISE.

C COORDINATE OCCUPANCY SENSOR AIMING AND PLACEMENT WITH MANUFACTURER OR SUPPLIER PRIOR TO INSTALLATION.

D OCCUPANCY SENSOR MANUFACTURERS' COVERAGE PATTERNS VARY. THUS MANUFACTURER SHALL SUBMIT 1/8-INCH SCALE FLOOR PLANS SHOWING PROPOSED LAYOUT WITH DEVICES CLEARLY IDENTIFIED DURING THE SHOP DRAWING REVIEW PHASE. SHOP DRAWINGS MISSING INFORMATION WILL BE REJECTED. REQUEST AUTOCAD FLOOR PLANS IN ADVANCE OF SHOP DRAWING SUBMITTAL TO ENSURE ON TIME DELIVERY.

E IN ROOMS WITH EXPOSED CEILINGS CONTRACTORS SHALL COORDINATE LIGHTING LAYOUT WITH DUCTWORK AND PIPING ROUTING PRIOR TO INSTALLATION BEGINNING. PROVIDE ALL NECESSARY SUPPORTS FOR LIGHTS OR PORTIONS OF LIGHTS THAT MAY BE LOCATED BELOW DUCTWORK.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL LIGHTING - ALTERNATE LOCATIONS
ENLARGED VIEWS - ALTERNATE STAFF AND TRACK - NEW WORK

KEITH A. SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No. 22106.00	Date 2023/11/10
Drawn WXT	Drawing No. E102.1
Checked KAS	

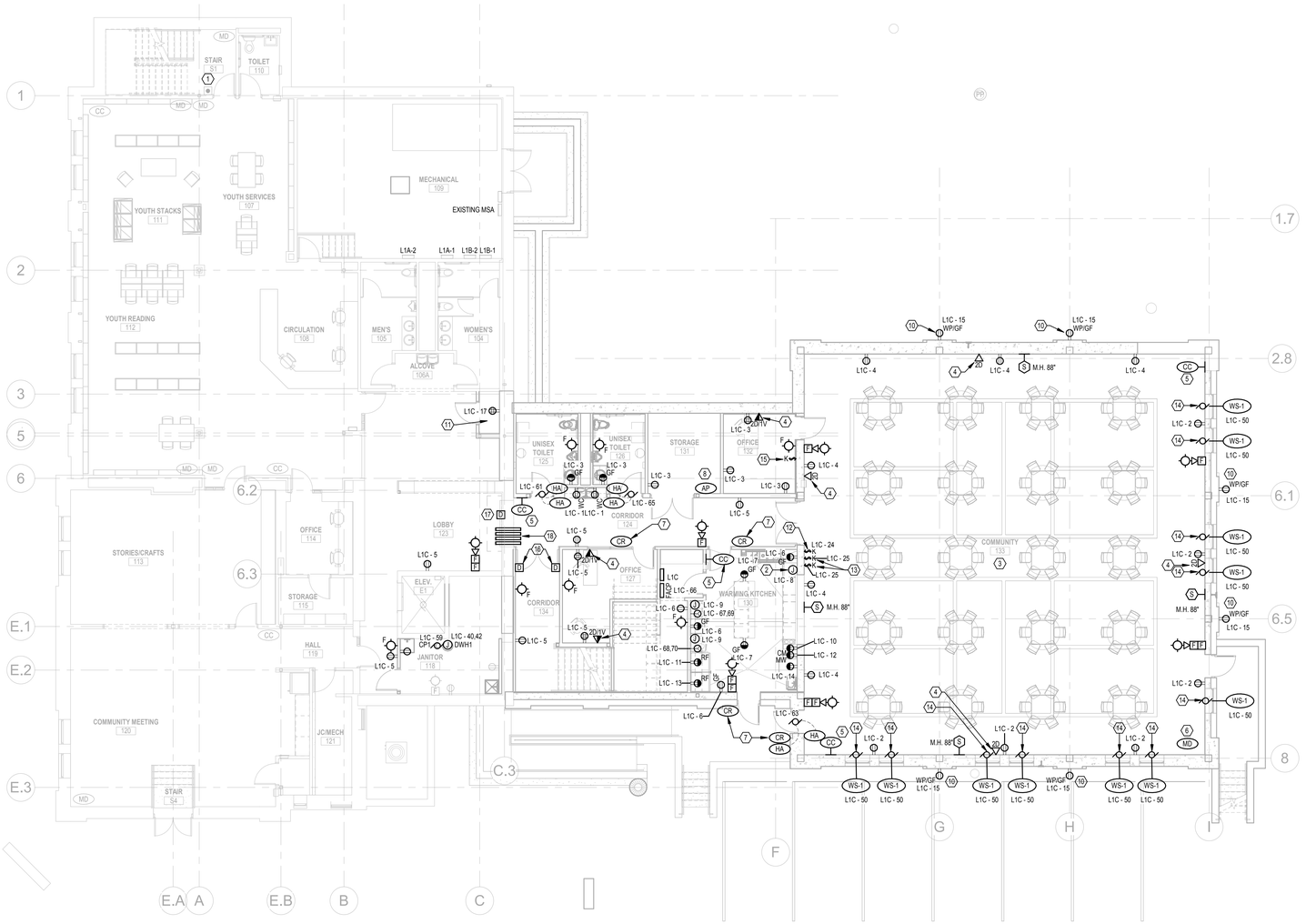
HEAPY

PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:06 PM



1 ELECTRICAL POWER AND SYSTEMS - LOWER LEVEL - NEW WORK

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

SHEET NOTES:

1. EXISTING AREA OF REFUGE CALL BUTTON. EXTEND WIRING TO RELOCATED CONTROL PANEL.
2. 20 AMP, 120V CIRCUIT TO DISHWASHER.
3. ALL CONDUIT IN COMMUNITY ROOM SHALL BE CONCEALED IN CONCRETE WALLS. SURFACE MOUNTED CONDUIT ON WALLS IS NOT ALLOWED IN COMMUNITY ROOM. COORDINATE ROUTING OF CONDUIT PRIOR TO POURING OF CONCRETE WALLS.
4. PROVIDE ROUGH-IN (BOX & CONDUIT) FOR OWNER PROVIDED DATA JACKS AND CABLING. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND TERMINATING JACKS AND CABLES AT EACH END.
5. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED SECURITY CAMERA. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVDIE AND INSTALL CAMERA AND CABLING AND TERMINATE CABLING AT EACH END.
6. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED MOTION DETECTOR. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE SECURITY DEVICE AND CABLING AND TERMINATE CABLING AT EACH END.
7. PROVIDE CABLING TO DOOR FOR ACCESS CONTROLS. COORDINATE WITH DOOR HARDWARE MANUFACTURER.
8. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED WIRELESS ACCESS POINT. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE AND INSTALL WAP AND CABLING AND TERMINATE CABLING AT EACH END.
9. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED SOFFIT MOUNTED WIRELESS ACCESS POINT. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE AND INSTALL WAP AND CABLING AND TERMINATE CABLING AT EACH END.
10. INSTALL 24" ABOVE FINISH GRADE. COORDINATE EXACT MOUNTING HEIGHT WITH FINISH GRADE AND CONDUIT ROUTING PRIOR TO POURING OF EXTERIOR CONCRETE WALL.
11. LOCATION OF ONWER PROVIDED DATA RACK THAT SERVES ALL OWNER PROVIDED DATA CABLING IN NEW ADDITION.
12. KEY SWITCH FOR DIVIDER CURTAIN. SWITCH FURNISHED BY CURATIN MANUFACTURER.
13. KEY SWITCH FOR BASKETBALL MOTOR CONTROL.
14. 120V, 20A AMP CIRCUIT TO MOTORIZED WINDOW SHADE. COORDINATE EXACT ROUGH-IN AND WIRING REQUIREMENTS WITH WINDOW SHADE MANUFACTURER.
15. CONTROL SWITCH FOR MOTORIZED WINDOW SHADES (OPEN/AV MODE). COORDINATE EXACT ROUGH-IN AND WIRING REQUIREMENTS WITH WINDOW SHADE MANUFACTURER.
16. DOOR HOLD OPEN DEVICE CONNECTED TO FIRE ALARM SYSTEM. DOORS SHALL CLOSE ON ACTIVATION OF FIRE ALARM SYSTEM.
17. CONNECT FIRE SHUTTER TO FIRE ALARM SYSTEM. FIRE SHUTTER SHALL RELEASE UPON ACTIVATION FROM FIRE ALARM SYSTEM.
18. PROVIDE FOUR 4" FIRE RATED SLEEVES THROUGH WALL FOR FUTURE OWNER PROVIDED CABLING.

GENERAL NOTES:

A REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN.

B COORDINATE ELECTRICAL REQUIREMENTS WITH OTHER TRADES' SHOP DRAWINGS FOR ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED BY OTHER TRADES AND/OR THE OWNER.

C ALL IT / DATA ROUGH-INS ARE TO BE AT THE SAME ELEVATION AS THE ADJACENT RECEPTACLE, UNLESS OTHERWISE NOTED.

D BRANCH CIRCUIT WIRE SIZING CHART TO BE UTILIZED AS A GUIDELINE FOR VOLTAGE DROP COMPENSATION. INCREASE CONDUIT AND WIRING AS REQUIRED.

20A – 120V CIRCUITS		20A – 277V CIRCUITS	
#12 WIRE	75' MAX	#12 WIRE	175' MAX
#10 WIRE	125' MAX	#10 WIRE	300' MAX
# 8 WIRE	200' MAX	# 8 WIRE	450' MAX

E STAGGER RECEPTACLES AND OTHER RECESSED DEVICES WHEN LOCATED ON OPPOSITE SIDES OF A PARTITION / WALL TO ELIMINATE SOUND TRANSMISSION FROM ONE SPACE TO THE OTHER.

F NEW WIRE AND CONDUITS SHALL NOT BE RUN EXPOSED UNLESS APPROVED BY THE OWNER, ARHCITECT OR THE ENGINEER.

G ALL RECEPTACLES IN PUBLIC ACCESSIBLE SPACES ARE TO BE OF THE TAMPER-RESISTANT DESIGN.

H RECEPTACLES FOR WATER COOLERS ARE TO BE GFCI PROTECTED.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL POWER AND SYSTEMS - LOWER LEVEL - NEW WORK

KEITH A SCHEU REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

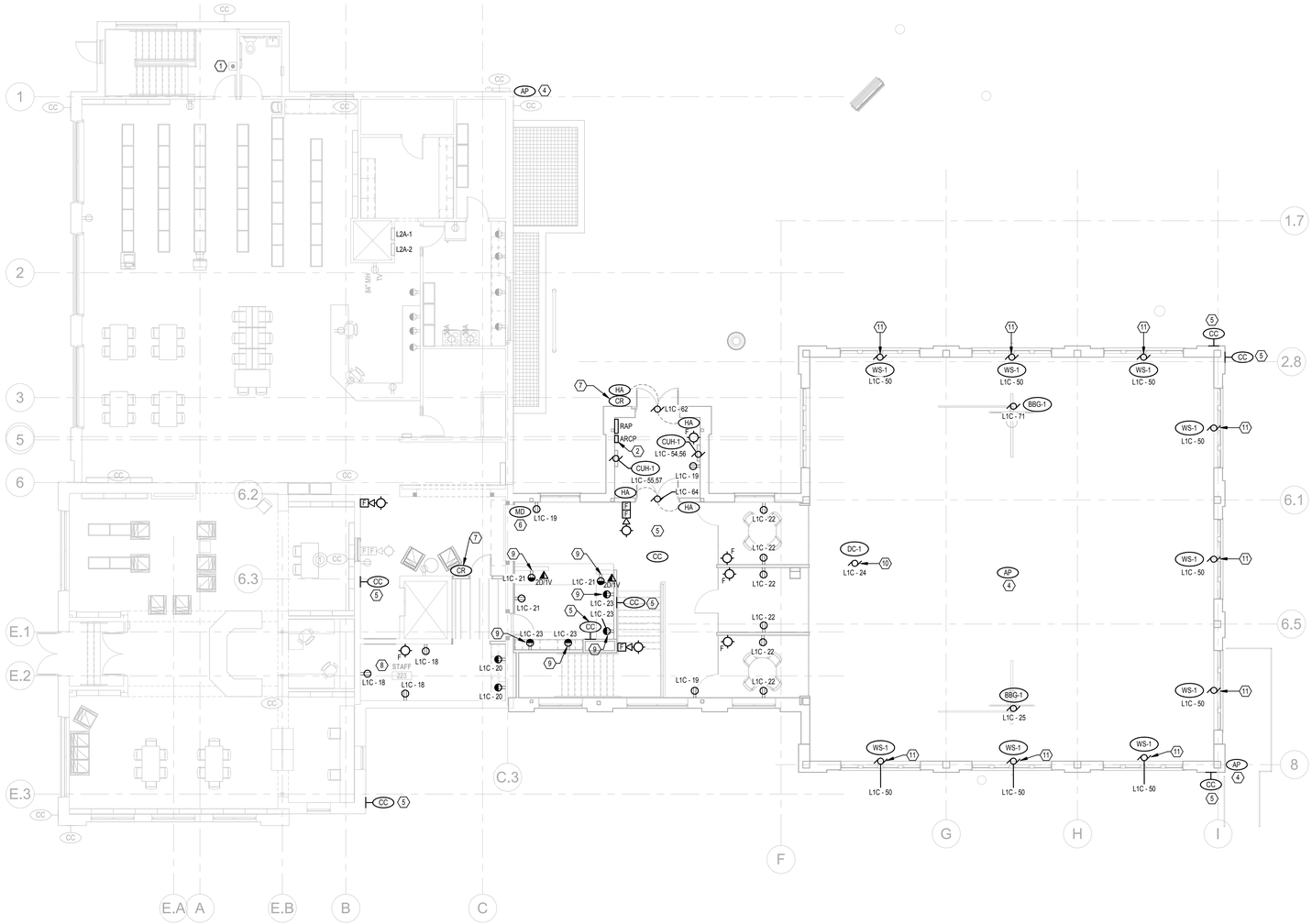
Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E201
Checked: KAS	

© 2023 LWC INCORPORATED

HEAPY
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:10 PM



1 ELECTRICAL POWER AND SYSTEMS - UPPER LEVEL - NEW WORK

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

SHEET NOTES:

1. EXISTING AREA OF REFUGE CALL BUTTON. EXTEND WIRING TO RELOCATED CONTROL PANEL.
2. RELOCATED AREA OF REFUGE CONTROL PANEL. EXTEND ALL EXISTING WIRING FROM EXISTING CONTROL PANEL LOCATION TO THE NEW LOCATION.
3. ALL CONDUIT IN COMMUNITY ROOM SHALL BE CONCEALED IN CONCRETE WALLS. SURFACE MOUNTED CONDUIT ON WALLS IS NOT ALLOWED IN COMMUNITY ROOM. COORDINATE ROUTING OF CONDUIT PRIOR TO POURING OF CONCRETE WALLS.
4. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED SOFFIT MOUNTED WIRELESS ACCESS POINT. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE AND INSTALL WAP AND CABLING AND TERMINATE CABLING AT EACH END.
5. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED SECURITY CAMERA. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE AND INSTALL CAMERA AND CABLING AND TERMINATE CABLING AT EACH END.
6. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED MOTION DETECTOR. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE SECURITY DEVICE AND CABLING AND TERMINATE CABLING AT EACH END.
7. PROVIDE CABLING TO DOOR FOR ACCESS CONTROLS. COORDINATE WITH DOOR HARDWARE MANUFACTURER.
8. DEVICES AND RACEWAY IN THIS ROOM TO BE SURFACE MOUNTED.
9. MOUNT 4" ABOVE COUNTER BACKSPLASH. COORDINATE WITH CASEWORK ELEVATIONS.
10. INSTALL DIVIDER CURTAIN, LIMIT SWITCHES, KEYED OPERATION SWITCH, AND WIRING TO ALL ASSOCIATED DEVICES.
11. 120V, 20A AMP CIRCUIT TO MOTORIZED WINDOW SHADE. COORDINATE EXACT ROUGH-IN AND WIRING REQUIREMENTS WITH WINDOW SHADE MANUFACTURER.

GENERAL NOTES:

A REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN.

B COORDINATE ELECTRICAL REQUIREMENTS WITH OTHER TRADES' SHOP DRAWINGS FOR ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED BY OTHER TRADES AND/OR THE OWNER.

C ALL IT / DATA ROUGH-INS ARE TO BE AT THE SAME ELEVATION AS THE ADJACENT RECEPTACLE, UNLESS OTHERWISE NOTED.

D BRANCH CIRCUIT WIRE SIZING CHART TO BE UTILIZED AS A GUIDELINE FOR VOLTAGE DROP COMPENSATION. INCREASE CONDUIT AND WIRING AS REQUIRED.

20A – 120V CIRCUITS		20A – 277V CIRCUITS	
#12 WIRE	75' MAX	#12 WIRE	175' MAX
#10 WIRE	125' MAX	#10 WIRE	300' MAX
# 8 WIRE	200' MAX	# 8 WIRE	450' MAX

E STAGGER RECEPTACLES AND OTHER RECESSED DEVICES WHEN LOCATED ON OPPOSITE SIDES OF A PARTITION / WALL TO ELIMINATE SOUND TRANSMISSION FROM ONE SPACE TO THE OTHER.

F NEW WIRE AND CONDUITS SHALL NOT BE RUN EXPOSED UNLESS APPROVED BY THE OWNER, ARHCITECT OR THE ENGINEER.

G ALL RECEPTACLES IN PUBLIC ACCESSIBLE SPACES ARE TO BE OF THE TAMPER-RESISTANT DESIGN.

H RECEPTACLES FOR WATER COOLERS ARE TO BE GFCI PROTECTED.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL POWER AND SYSTEMS - UPPER LEVEL - NEW WORK

KEITH A SCHNEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E202
Checked: KAS	

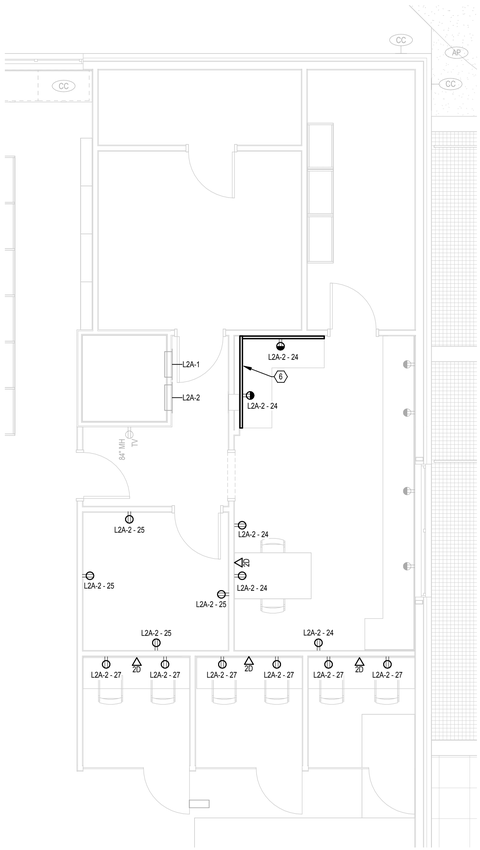
HEAPY

PROJECT NO. 2023-07083

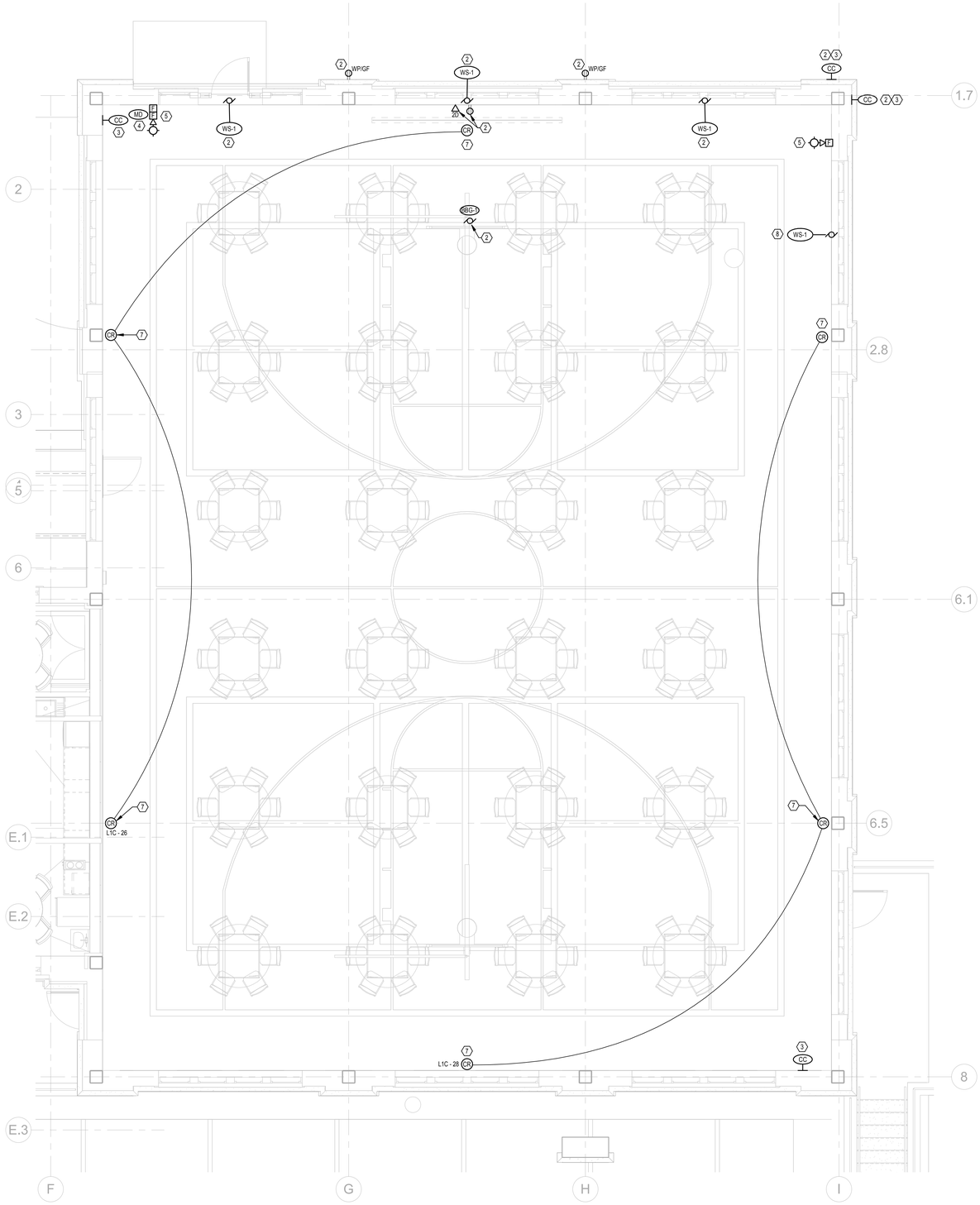
© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:12 PM



3 **ALTERNATE ELECTRICAL POWER AND SYSTEMS PLAN - STAFF ROOM - NEW WORK**
SCALE: 1/4" = 1'-0"



1 **ALTERNATE ELECTRICAL POWER AND SYSTEMS PLAN - TRACK - NEW WORK**
SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. ALL CONDUIT IN COMMUNITY ROOM SHALL BE CONCEALED IN CONCRETE WALLS. SURFACE MOUNTED CONDUIT ON WALLS IS NOT ALLOWED IN COMMUNITY ROOM. COORDINATE ROUTING OF CONDUIT PRIOR TO POURING OF CONCRETE WALLS.
2. ADJUST LOCATION OF BASE BID DEVICE AND WIRING TO LOCATION INDICATED. CIRCUIT NUMBERING SHALL REMAIN AS INDICATED ON BASE BID PLAN.
3. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED SECURITY CAMERA. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE AND INSTALL CAMERA AND CABLING AND TERMINATE CABLING AT EACH END.
4. PROVIDE ROUGH-IN (BOX AND CONDUIT) FOR OWNER PROVIDED MOTION DETECTOR. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE. OWNERS LOW VOLTAGE CONTRACTOR SHALL PROVIDE SECURITY DEVICE AND CABLING AND TERMINATE CABLING AT EACH END.
5. PROVIDE ADDITIONAL FIRE ALARM DEVICES AND WIRING.
6. INSTALL SURFACE MOUNTED RACEWAY AND RECEPTACLES 4" ABOVE COUNTER BACKSPLASH.
7. INSTALL CORD REEL ON UNDERSIDE OF TRACK.
8. ADDITIONAL MOTORIZED WINDOW SHADES. CONNECT TO MOTORIZED WINDOW SHADE CIRCUIT INDICATED ON BASE BID DRAWINGS.

GENERAL NOTES:

A REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN.

B COORDINATE ELECTRICAL REQUIREMENTS WITH OTHER TRADES' SHOP DRAWINGS FOR ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED BY OTHER TRADES AND/OR THE OWNER.

C ALL IT / DATA ROUGH-INS ARE TO BE AT THE SAME ELEVATION AS THE ADJACENT RECEPTACLE, UNLESS OTHERWISE NOTED.

D BRANCH CIRCUIT WIRE SIZING CHART TO BE UTILIZED AS A GUIDELINE FOR VOLTAGE DROP COMPENSATION. INCREASE CONDUIT AND WIRING AS REQUIRED.

20A – 120V CIRCUITS		20A – 277V CIRCUITS	
#12 WIRE	75' MAX	#12 WIRE	175' MAX
#10 WIRE	125' MAX	#10 WIRE	300' MAX
# 8 WIRE	200' MAX	# 8 WIRE	450' MAX

E STAGGER RECEPTACLES AND OTHER RECESSED DEVICES WHEN LOCATED ON OPPOSITE SIDES OF A PARTITION / WALL TO ELIMINATE SOUND TRANSMISSION FROM ONE SPACE TO THE OTHER.

F NEW WIRE AND CONDUITS SHALL NOT BE RUN EXPOSED UNLESS APPROVED BY THE OWNER, ARHCITECT OR THE ENGINEER.

G ALL RECEPTACLES IN PUBLIC ACCESSIBLE SPACES ARE TO BE OF THE TAMPER-RESISTANT DESIGN.

H RECEPTACLES FOR WATER COOLERS ARE TO BE GFCI PROTECTED.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL POWER AND SYSTEMS - ALTERNATE LOCATIONS ENLARGED VIEWS - ALTERNATE STAFF AND TRACK - NEW WORK

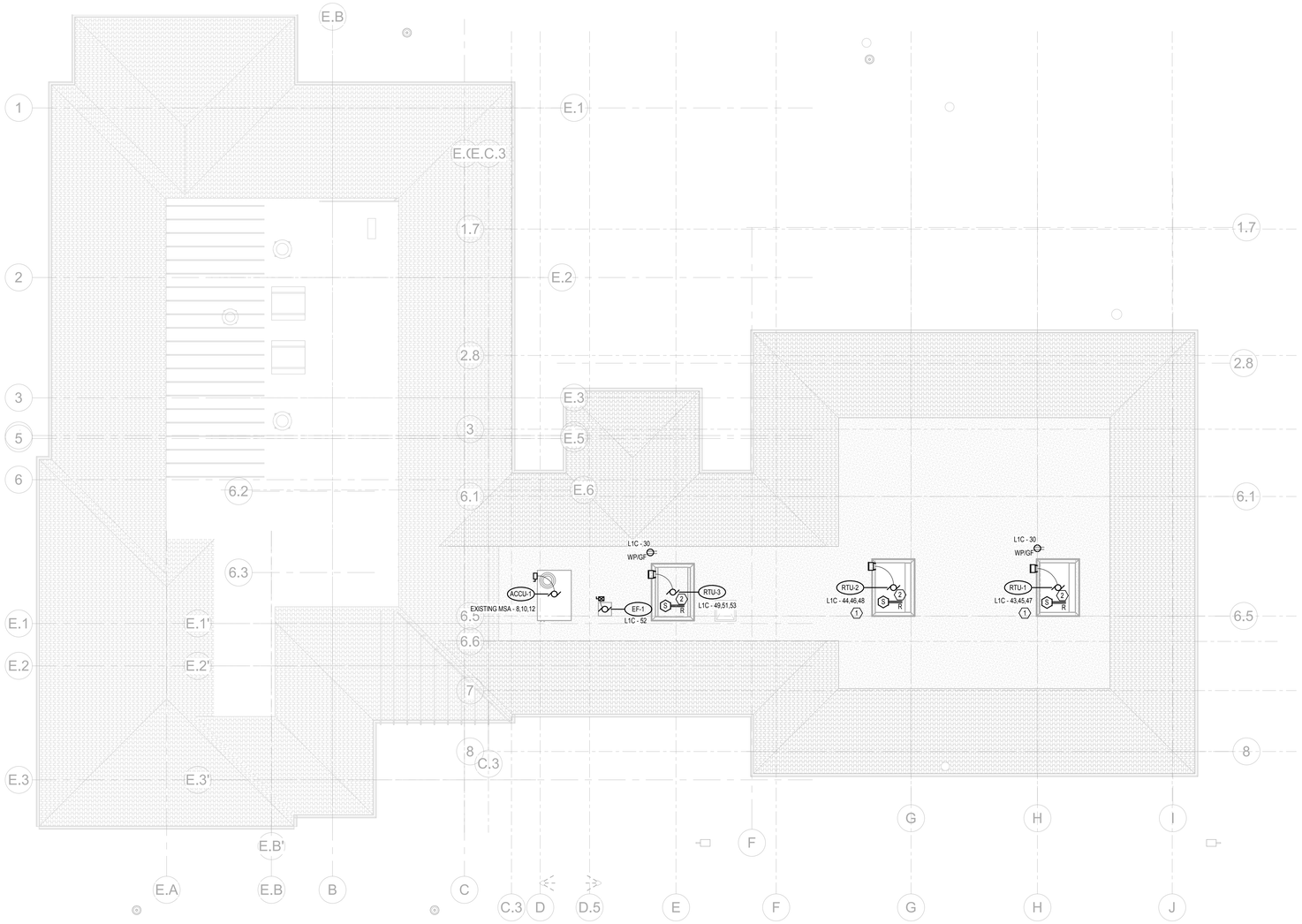
Comm. No. 22106.00	Date 2023/11/10
Drawn WXT	Drawing No. E202.1
Checked KAS	

© 2023 LWC INCORPORATED

HEAPY 317.571.8700 www.heapy.com
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:18 PM



1 **ELECTRICAL POWER AND SYSTEMS - ROOFTOP - NEW WORK**
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. IF ALTERNATE FOR ENLARGE COMMUNITY ROOM IS ACCEPTED, REVISE FEEDER SIZE AND OVERCURRENT PROTECTION DEVICE AS INDICATED ON PANEL SCHEDULE AND MOTOR SCHEDULE.
2. PROVIDE A DUCT MOUNTED SMOKE DETECTOR. COORDINATE EXACT LOCATION WITH HVAC DRAWINGS PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY.

GENERAL NOTES:

A REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK DRAWINGS FOR DEVICE MOUNTING HEIGHTS PRIOR TO ROUGH-IN.

B COORDINATE ELECTRICAL REQUIREMENTS WITH OTHER TRADES' SHOP DRAWINGS FOR ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED BY OTHER TRADES AND/OR THE OWNER.

C ALL IT / DATA ROUGH-INS ARE TO BE AT THE SAME ELEVATION AS THE ADJACENT RECEPTACLE, UNLESS OTHERWISE NOTED.

D BRANCH CIRCUIT WIRE SIZING CHART TO BE UTILIZED AS A GUIDELINE FOR VOLTAGE DROP COMPENSATION. INCREASE CONDUIT AND WIRING AS REQUIRED.

20A – 120V CIRCUITS		20A – 277V CIRCUITS	
#12 WIRE	75' MAX	#12 WIRE	175' MAX
#10 WIRE	125' MAX	#10 WIRE	300' MAX
# 8 WIRE	200' MAX	# 8 WIRE	450' MAX

E STAGGER RECEPTACLES AND OTHER RECESSED DEVICES WHEN LOCATED ON OPPOSITE SIDES OF A PARTITION / WALL TO ELIMINATE SOUND TRANSMISSION FROM ONE SPACE TO THE OTHER.

F NEW WIRE AND CONDUITS SHALL NOT BE RUN EXPOSED UNLESS APPROVED BY THE OWNER, ARHCITECT OR THE ENGINEER.

G ALL RECEPTACLES IN PUBLIC ACCESSIBLE SPACES ARE TO BE OF THE TAMPER-RESISTANT DESIGN.

H RECEPTACLES FOR WATER COOLERS ARE TO BE GFCI PROTECTED.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL POWER AND SYSTEMS - ROOF - NEW WORK

KEITH A. SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E203
Checked: KAS	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

MOTORS, STARTERS, DISCONNECTS & CONTROLS

NOTES:
1. PROVIDE COMBINATION STARTER/DISCONNECT WITH HAND/OFF/AUTO
2. DISCONNECT INTEGRAL TO VFD
3. IF ALTERNATE FOR ENLARGE COMMUNITY ROOM IS ACCEPTED FEEDER SHALL BE 3 #3, #8G, 1.25"C.

	MOTOR CHARACTERISTICS										STARTER	STARTER TYPE						STARTER LOCATION						DISCONNECT MEANS TYPE							DISCONNECT MEANS LOCATION						CONTROL					FEEDER				
MARK	HORSEPOWER (HP)	LOAD (kVA)	120V-1PH	208V-1PH	208V-3PH	240V-1PH	240V-3PH	277V-1PH	480V-1PH	480V-3PH	NEMA SIZE	MANUAL	MAGNETIC	BUILT-IN MOTOR O/L	2-SPEED	VFD	SEE NOTE	NEAR MOTOR	MOTOR CONT CENTER	EQUIP CONT PANEL	ROOM NUMBER	SEE NOTE	FURNISHED BY	DISC SWITCH	MANUAL STARTER	RECEPTACLE	FEEDER SW OR BREAKER	NEMA TYPE	DISC SIZE	FUSE SIZE	NEAR MOTOR	MOTOR CONT CENTER	EQUIP CONT PANEL	PANELBOARD	SEE NOTE	FURNISHED BY	INTERLOCK WITH MOTOR NO. BY E.C.	MANUAL AT STARTER	INTEGRAL WITH EQUIPMENT	FURNISHED BY	SEE NOTE	NUMBER OF CONDUCTORS	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	SEE NOTE
ACCU-1		50.8			•								•					•						•							•						•					3	3/0	6	2.5	
BBG-1		1.18	•											•				•						•							•							•				2	12	12	0.75	
CP1		0	•																																											
CUH-1		2		•										•						•				•									•				•					2	12	12	0.75	1
DC-1		1.66	•											•				•						•							•							•				2	12	12	0.75	
DWH1		4																																												
EF-1		0.53	•										•					•						•				3R			•						•					2	12	12	0.75	1
RTU-1		17.29			•											•		•						•				3R			•						•					3	6	10	1	2, 3
RTU-2		17.29			•											•		•						•				3R			•						•					3	6	10	1	2, 3
RTU-3		17.29			•											•		•						•				3R			•						•					3	6	10	1	2
WS-1		0.06	•																																											

LUMINAIRES

NOTES:
1. WHERE INDICATED ON PLANS, PROVIDE REMOTE BATTERY INVERTER FOR 90 MINUTES OF EGRESS ILLUMINATION.
2. VERIFY COLOR OF EXISTING POLE MOUNTED SITE FIXTURES. COLOR TEMP SHALL MATCH EXISTING SITE FIXTURES.
3. REFER TO BASE DETAIL 1/E502.
4. REFER TO BASE DETAIL 2/E502.

MARK	LAMPS: QUANTITY L.E.D.	DELIVERED LUMENS	COLOR	LOAD (VA)	FIXTURE VOLTAGE	MANUFACTURER	CATALOG NO.	DESCRIPTION	OTHER ACCEPTABLE MANUFACTURERS	DIFFUSING MEDIA	TRIM COLOR: WHITE	BLACK	ALUMINUM	BRONZE	STANDARD	SEE NOTE	MOUNTING: S-SURFACE R-RECESSED SM-STEM MTD WM-WALL MTD C-CHAIN MTD UC-UNDER CAB CS-CEIL SURFACE	SIZE: DIAMETER	WIDTH	LENGTH	DEPTH	SEE NOTE
A1	X	4077	3500K	38	120	LITHONIA	SERIES "CPANL"	2X4 RECESSED FLAT PANEL, ALUMINUM HOUSING	COLUMBIA, METALUX	FLUSH					•		R		24"	48"	6"	
A2	X	6083	3500K	47	120	LITHONIA	SERIES "BLT"	1X4 RECESSED PANEL	COLUMBIA, METALUX	EXTRUDED ACRYLIC					•		R		12"	48"	6"	
A3	X	9731	3500K	74	120	LUMINIS	SERIES "HC1600"	19" PENDANT DOWNLIGHT, 0-10V DIMMING		SEMI OPAQUE POLYETHYLENE LENS					•		SM	19"			11"	1
A4	X	4197	3500K	23	120	LITHONIA	SERIES "BLT"	2X4 RECESSED TROFFER, 0-10V DIMMING	COLUMBIA, METALUX	EXTRUDED ACRYLIC					•		R		24"	48"	6"	1
F1	X	3007	3500K	32	120	LITHONIA	SERIES "LDN4"	4" DOWNLIGHT, CLEAR TRIM, SEMI-SPECULAR FINISH, 0-10V DIMMING	PRESCOLITE, PORTFOLIO	CLEAR							R	4"			8.75"	
FL1	X	3327	4000K	26	208	KIM LIGHTING	SERIES " RFL2"	SIGN FLOOD LIGHT, GRADE MOUNTED, 6X6 DISTRIBUTION, PROVIDE BARN DOORS FOR GLARE CONTROL,		HIGH IMPACT ACRYLIC LENS				•	•		KNUCKLE	4.313"			3.25"	
S2		4190	3500K	36	120	LITHONIA	SERIES "ZL1D"	2FT PENDANT STRIP, 0-10V DIMMING,	COLUMBIA, METALUX	CLEAR					•		C		12"	48"	3.75"	
SL1	X	8000	3500K	105	208	STERNBERG LIGHTING	SERIES " A850"	16.5" DIAMETER x 39" TALL, ACORN STYLE, SYMMETRIC DISTRIBUTION, SINGLE LIGHT ON 12'-0" POLE. POLE TO BE 2500 LINCOLN SERIES BY STERNBERG LIGHTING WITH 15 AMP, GFCI DUPLEX RECEPTACLE WITH IN USE COVER MOUNTED IN POLE		TEXTURED ACRYLIC GLOBE				•	•		POLE		12"	17.125"	6"	4
SL4	X	7000	4000K	106	208	KIM LIGHTING	SERIES "UR20"	20" DIAMETER, LOW PROFILE, ARM MOUNTED, AREA LIGHT MOUNTED TO 12' POLE, TYPE IV DISTRIBUTION. 80 CRI, DARK BRONZE MATTE TEXTURED FINISH.		CLEAR POLYCARBONATE LENS				•	•		POLE		12"	17.125"	6"	3
W1	X	2320	3500K	49	120	STERNBERG LIGHTING	SERIES " 0630LED"	"PRAIRIE II" PRAIRIE STYLE WALL MOUNTED SCONCE, CAST ALUMINUM HOUSING, ARM MOUNT, TYPE IV DISTRIBUTION, 22" TALL, 16" WIDE, DARK BRONZE FINISH		VANDAL RESISTANT ACRYLIC				•	•		WM	16"			22"	1, 2
W2	X	2320	3500K	49	120	STERNBERG LIGHTING	SERIES " 0630LED"	"PRAIRIE II" PRAIRIE STYLE CHAIN SCONCE, CAST ALUMINUM HOUSING, TYPE IV DISTRIBUTION, 22" TALL, 16" WIDE, DARK BRONZE FINISH		VANDAL RESISTANT ACRYLIC				•	•		C	16"			22"	1, 2
X1	X		RED	3	120	LITHONIA	SERIES "LQM"	EMERGENCY EXIT SIGN, SINGLE SIDED, RED LETTERS	DUAL LITE, EVENLITE	RED LETTERS					•		WM		9"	13"	2.375"	1
X2	X		RED	3	120	LITHONIA	SERIES "LQM"	EMERGENCY EXIT SIGN, DOUBLE SIDED, RED LETTERS	DUAL LITE, EVENLITE	RED LETTERS					•		CM		9"	13"	2.375"	1

LUMINAIRES - ALTERNATE BID

NOTES:
1. WHERE INDICATED ON PLANS, PROVIDE REMOTE BATTERY INVERTER FOR 90 MINUTES OF EGRESS ILLUMINATION.
2. VERIFY COLOR OF EXISTING POLE MOUNTED SITE FIXTURES. COLOR TEMP SHALL MATCH EXISTING SITE FIXTURES.

MARK	LAMPS: QUANTITY L.E.D.	DELIVERED LUMENS	COLOR	LOAD (VA)	FIXTURE VOLTAGE	MANUFACTURER	CATALOG NO.	DESCRIPTION	OTHER ACCEPTABLE MANUFACTURERS	DIFFUSING MEDIA	TRIM COLOR: WHITE	BLACK	ALUMINUM	BRONZE	STANDARD	SEE NOTE	MOUNTING: S-SURFACE R-RECESSED SM-STEM MTD WM-WALL MTD C-CHAIN MTD UC-UNDER CAB CS-CEIL SURFACE	SIZE: DIAMETER	WIDTH	LENGTH	DEPTH	SEE NOTE
A1	X	4077	3500K	38	120	LITHONIA	SERIES "CPANL"	2X4 RECESSED FLAT PANEL, ALUMINUM HOUSING	COLUMBIA, METALUX	FLUSH					•		R		24"	48"	6"	
A3	X	9731	3500K	74	120	LUMINIS	SERIES "HC1600"	19" PENDANT DOWNLIGHT, 0-10V DIMMING		SEMI OPAQUE POLYETHYLENE LENS					•		SM	19"			11"	1
A4	X	4197	3500K	23	120	LITHONIA	SERIES "BLT"	2X4 RECESSED TROFFER, 0-10V DIMMING	COLUMBIA, METALUX	EXTRUDED ACRYLIC					•		R		24"	48"	6"	1
F1	X	3007	3500K	32	120	LITHONIA	SERIES "LDN4"	4" DOWNLIGHT, CLEAR TRIM, SEMI-SPECULAR FINISH, 0-10V DIMMING	PRESCOLITE, PORTFOLIO	CLEAR							R	4"			8.75"	
G1	X	6000	3500K	32	120	LITHONIA	SERIES "LDN8CYL"	8" CYLINDER DOWNLIGHT, WHITE TRIM, 0-10V DIMMING.			•						AC	14.125"			13.5"	

LIGHTING CONTROL SEQUENCE OF OPERATIONS

NOTES:
1. CEILING MOUNTED SENSOR
2. ON/OFF VIA PHOTOCELL AT EXISTING SCHEDULED TIMES
3. OCCUPANCY SENSOR INTEGRAL TO SWITCH.

CONTROL NUMBER	TYPICAL CONTROL NAME	OCCUPANCY SENSOR: VACANCY MODE (MANUAL ON)	OCCUPANCY MODE (AUTO ON)	SENSOR TIME OUT PERIOD (IN MINUTES)	HIGH / LOW OPERATION: OCCUPIED: 100% / VACANT: 30%	TIME CLOCK: SCHEDULED ON AT	SCHEDULED OFF AT	OCCUPIED TIME START	UNOCCUPIED TIME START	AFTER HOURS OVERRIDE SWITCH (2 HOURS)	WALL SWITCH: ON / OFF ONLY	DIMMER SWITCH	KEY SWITCH	SCENE SWITCH	GRAPHICAL WALL STATION	SEE NOTE	DETAIL NUMBER
1	LINE-VOLTAGE SWITCHING										•						N/A
2	OCCUPANCY SENSOR LOCAL CONTROL		•	30							•					3	4/E502
3	SITE LIGHTING						EXISTING SCHEDULE				•					2	NA
4	GYM GENERAL LIGHTING											•				1	5/E502
5	OCCUPANCY CONTROL WITH DIMMING		•	30								•				1	NA
6	OCCUPANCY SENSOR LOCAL CONTROL											•		•		1	5/E502
7	OCCUPANCY SENSOR LOCAL CONTROL		•	30							•					1	4/E502

SHEET NOTES:

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION
2 EAST SEMINARY STREET
LIBERTY, IN 47353

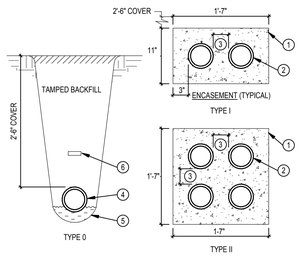
ELECTRICAL SCHEDULES

KEITH A SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER
Keith Scheid 11-10-2023

HEAPY P: 317-571-8795 www.heapy.com
PROJECT NO. 2023-07083

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.
Checked: KAS	E501

© 2023 LWC INCORPORATED



DETAIL NOTES

1 3000 LB. CONCRETE - MARK TOP WITH RED DYE, RED DUST OR RED TAPE.

2 4" I.D. DUCTS

3 3" SPACING BETWEEN CONDUITS (TYPICAL).

4 DIRECT BURIAL DUCT "NO-CRETE" OR RIGID PVC. SIZE AS NOTED ON PLANS.

5 3" SAND CUSHION.

6 RED MARKER TAPE ON COMPACTED FILL.

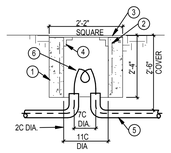
GENERAL DETAIL NOTES

A APPROVED PREFABRICATED DUCT RUNS ARE ACCEPTABLE.

B PLACE PREFABRICATED DUCT BANKS ON 2" GRAVEL OR SAND.

6 SMALL UNDERGROUND DUCTS

SCALE: NONE



DETAIL NOTES

1 4" CONCRETE WALLS-FOUR SIDES.

2 3/8" DIA. REINFORCED STEEL 10" CC BOTH WAYS.

3 1/4" CHECKERED STEEL PLATE.

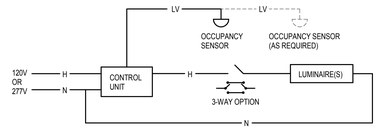
4 2" L WELDED TO PLATE TWO SIDES ONLY - 1/4" CLEARANCE FIT.

5 UNDERGROUND DUCT OR DIRECT BURIAL CABLE AS INDICATED.

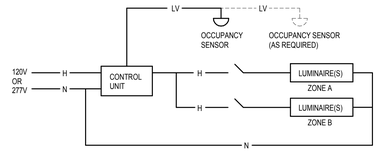
6 CONDUCTORS-LOOP/PULL OR SPLICE.

7 SMALL GROUND PULLBOX

SCALE: NONE



SINGLE ZONE



BI-LEVEL OR (MULTI-ZONE)

LV - LOW VOLTAGE CONTROL CABLE AS REQUIRED BY MANUFACTURER
H - HOT WIRE LINE VOLTAGE
N - NEUTRAL WIRE LINE VOLTAGE

GENERAL NOTES

A OPERATION INTENT IS FOR OCCUPANCY SENSING ON/OFF WITH MANUAL OVERRIDE AND MULTIPLE ZONES OPERATION OF ALL LIGHTS. CONTROL UNIT SHALL PROVIDEAN ON/OFF FOR ALL ZONES. WALL STATION(S) TO PROVIDE ON/OFF AND SWITCHES. REFER TO PLANS FOR QUANTITY OF LIGHTING ZONES.

B CONTROL UNIT SHALL BE MOUNTED IN AN ENCLOSURE PER MANUFACTURER'S DIRECTION. MOUNT CONTROL UNIT ABOVE ACCESSIBLE CEILING AT ROOM ENTRY.

C CONTRACTOR SHALL COORDINATE WITH MANUFACTURER FOR EXACT QUANTITY OF OCCUPANCY SENSORS (FOR COMPLETE ROOM COVERAGE) AND PROVIDE ANY ADDITIONAL COMPONENTS FOR A COMPLETE AND OPERABLE SYSTEM. COORDINATE COMPONENT MOUNTING LOCATIONS FOR PROPER CLEARANCE AND ACCESSIBILITY PRIOR TO ROUGH-IN. COORDINATE PROGRAMMING OF ZONES AND WALL STATION CONFIGURATIONS, AS SHOWN ON DRAWINGS, WITH MANUFACTURER.

D DETAIL IS SCHEMATIC IN NATURE. REFER TO MANUFACTURER'S WIRING DIAGRAMS FOR EXACT WIRING INFORMATION.

4 OCCUPANCY SENSOR WITH OVERRIDE CONTROL

SCALE: NONE

LV - LOW VOLTAGE CONTROL CABLE AS REQUIRED BY MANUFACTURER.
H - HOT WIRE LINE VOLTAGE
N - NEUTRAL WIRE LINE VOLTAGE

GENERAL NOTES

A OPERATION INTENT IS FOR OCCUPANCY SENSING AUTOMATIC ON/OFF WITH MANUAL OVERRIDE AND MULTIPLE ZONES OPERATION OF ALL LIGHTS. CONTROL UNIT SHALL PROVIDE AN ON/OFF FOR ALL ZONES. CONTROL UNIT TO BE LISTED UL924. TIME DELAY OFF SET AT 15 MINUTES.

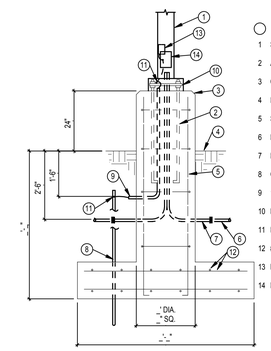
B CONTROL UNIT SHALL BE MOUNTED IN AN ENCLOSURE FER MANUFACTURER'S DIRECTION. MOUNT CONTROL UNIT ABOVE ACCESSIBLE CEILING AT ONE END OF THE CORRIDOR ABOVE DOOR.

C CONTRACTOR SHALL COORDINATE WITH MANUFACTURER FOR EXACT QUANTITIY OF OCCUPANCY SENSORS (FOR COMPLETE ROOM COVERAGE) AND PROVIDE ANY ADDITIONAL COMPONENTS FOR A COMPLETE AND OPERABLE SYSTEM. COORDINATE COMPONENT MOUNTING LOCATIONS FOR PROPER CLEARANCE AND ACCESSIBILITY PRIOR TO ROUGH-IN. COORDINATE PROGRAMMING OF ZONES AND WALL STATION CONFIGURATIONS, AS SHOWN ON DRAWINGS, WITH MANUFACTURER.

D DETAIL IS SCHEMATIC IN NATURE. REFER TO MANUFACTURER'S WIRING DIAGRAMS FOR EXACT WIRING INFORMATION.

5 OCCUPANCY SENSOR CONTROL

SCALE: NONE



DETAIL NOTES

1 SEE FIXTURE SCHEDULE FOR POLE AND FIXTURE ASSEMBLY.

2 ANCHOR BOLTS BY POLE SUPPLIER, WELD TO REBARS.

3 CHAMFERED EDGE.

4 FINISH GRADE, COMPACT TO 90%.

5 SIX #6 REINFORCING BARS VERTICALLY ON #4 STIRRUPS AT 18" O.C.

6 PVC CONDUIT, SCHEDULE 40.

7 RIGID GALVANIZED STEEL CONDUIT.

8 GROUND ROD.

9 1/2" PVC GROUND CONDUCTOR SLEEVE WITH #8 GROUND CONDUCTOR.

10 BASE PLATE, LEVELING NUTS, GROUT BASE.

11 EXOTHERMICALLY WELDED GROUND CONNECTION.

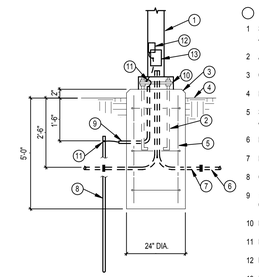
12 #7 REINFORCING BARS, 12" CENTER TO CENTER EACH WAY.

13 LIGHTNING ARRESTOR.

14 HANDHOLE.

1 TYPE I POLE BASE

SCALE: NONE



DETAIL NOTES

1 SEE FIXTURE SCHEDULE FOR POLE AND FIXTURE ASSEMBLY.

2 ANCHOR BOLTS BY POLE SUPPLIER, WELD TO REBARS.

3 CHAMFERED EDGE.

4 FINISH GRADE, COMPACT TO 95%.

5 SIX #4 REINFORCING BARS VERTICALLY ON #3 STIRRUPS AT 18" O.C.

6 PVC CONDUIT, SCHEDULE 40.

7 RIGID GALVANIZED STEEL CONDUIT.

8 GROUND ROD.

9 1/2" PVC GROUND CONDUCTOR SLEEVE WITH #8 GROUND CONDUCTOR.

10 BASE PLATE, LEVELING NUTS, BASE GROUT.

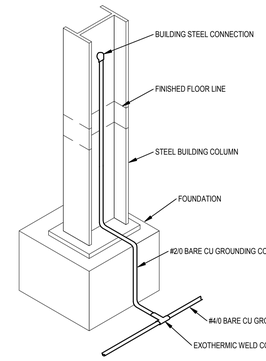
11 EXOTHERMICALLY WELDED GROUND CONNECTION.

12 LIGHTNING ARRESTOR.

13 HANDHOLE.

8 TYPE III POLE BASE

SCALE: NONE



GENERAL DETAIL NOTES

A BUILDING STEEL CONNECTION SHALL BE EXOTHERMIC WELD. CLEAN SURFACE TO BRIGHT METAL BEFORE CONNECTION AND RESTORE TO ORIGINAL FINISH AFTER MAKING CONNECTION.

B BUILDING STEEL CONNECTION SHALL BE LOCATED ABOVE THE FINISH FLOOR. IN SOME CASES CONNECTIONS ARE TO BE MADE BELOW SLAB ON EXPOSED TUBE STEEL CASES.

3 STRUCTURAL GROUNDING - WELDED

SCALE: NONE

SHEET NOTES:

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

DETAILS AND NOTES

KEITH A SCHMID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn: WXT	Drawing No.: E502
Checked: KAS	

HEAPY PROJECT NO. 2023-07083

© 2023 LWC INCORPORATED

11/13/2023 12:41:25 PM
Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt

11/13/2023 12:41:29 PM

Panel: L1C

Location: PANTRY 129 **Mounting:** SURFACE **A.I.C. Rating:** 22,000
Supply From: EXISTING MSA **Enclosure:** Type 1 **Mains Type:** MLO
Voltage: 120/208 Wye-3PH-4W **Mains Rating:** 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	WATER COOLER	20 A	1	1000...	1080...					1	20 A	RECEPTACLES	2
3	RECEPTACLES	20 A	1			1260...	1260...			1	20 A	RECEPTACLES	4
5	RECEPTACLES	20 A	1					1620...	720 VA	1	20 A	RECEPTACLES	6
7	RECEPTACLES	20 A	1	360 VA	1000...					1	20 A	DISHWASHER	8
9	RANGE HOODS	20 A	1			800 VA	1500...			1	20 A	COFFEE MAKER	10
11	REFRIGERATOR	20 A	1					1500...	1500...	1	20 A	MICROWAVE	12
13	REFRIGERATOR	20 A	1	1500...	180 VA					1	20 A	REFRIGERATOR	14
15	RECEPTACLES	20 A	1			1080...	360 VA			1	20 A	RECEPTACLES	16
17	RECEPTACLES	20 A	1					360 VA	540 VA	1	20 A	RECEPTACLE	18
19	RECEPTACLES	20 A	1	540 VA	360 VA					1	20 A	RECEPTACLES	20
21	RECEPTACLE	20 A	1			540 VA	1080...			1	20 A	RECEPTACLES	22
23	RECEPTACLES	20 A	1					720 VA	1656...	1	20 A	DIVIDER CURTAIN	24
25	B-BALL GOAL	20 A	1	1176...	540 VA					1	20 A	CORD REELS	26
27	BOOK DROP	20 A	1			180 VA	540 VA			1	20 A	CORD REELS	28
29	LIGHTING	20 A	1					139 VA	360 VA	1	20 A	RECEPTACLES	30
31	LIGHTING	20 A	1	807 VA	892 VA					1	20 A	LIGHTING	32
33	LIGHTING	20 A	1			420 VA	93 VA			1	20 A	LIGHTING	34
35	LIGHTING	20 A	1					446 VA	241 VA	1	20 A	LIGHTING	36
37	EXTERIOR LIGHTS	20 A	2	159 VA	312 VA					1	20 A	EXTERIOR LIGHTS	38
39	--	--	--			159 VA	2000...			2	20 A	DWH-1	40
41	LIGHTING	20 A	1					896 VA	2000...	--	--	--	42
43	RTU-1 *	60 A	3	5764...	5764...					3	60 A	RTU-2 *	44
45	--	--	--			5764...	5764...			--	--	--	46
47	--	--	--					5764...	5764...	--	--	--	48
49	RTU-3	60 A	3	5764...	1200...					1	20 A	WINDOW SHADE	50
51	--	--	--			5764...	528 VA			1	20 A	EF-1	52
53	--	--	--					5764...	998 VA	2	20 A	CUH-1	54
55	CUH-1	20 A	2	998 VA	998 VA					--	--	--	56
57	--	--	--			998 VA	892 VA			1	20 A	LIGHTING	58
59	CP1	20 A	1					0 VA	448 VA	1	20 A	LIGHTING	60
61	MOTORIZED DOOR	20 A	1	996 VA	996 VA					1	20 A	MOTORIZED DOOR	62
63	MOTORIZED DOOR	20 A	1			996 VA	996 VA			1	20 A	MOTORIZED DOOR	64
65	MOTORIZED DOOR	20 A	1					996 VA	0 VA	1	20 A	FACP	66
67	RANGE	30 A	2	2500...	2500...					2	30 A	RANGE	68
69	--	--	--			2500...	2500...			--	--	--	70
71	B-BALL GOAL	20 A	1					1176...	0 VA	1	20 A	SPARE	72
73	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	74
75	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	76
77	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	78
79	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	80
81	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	82
83	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	84
		Total Load:		37.39 kVA		37.97 kVA		33.61 kVA					

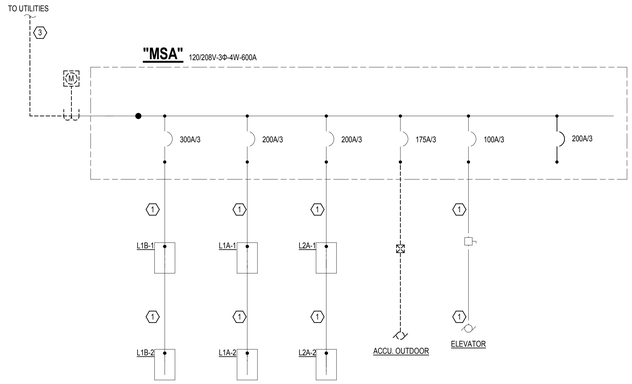
Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Equipment	0 VA	0.00%	0 VA		
Lighting	5904 VA	125.00%	7379 VA	**Total Conn. Load:**	108.97 kVA
Motor	66588 VA	106.49%	70911 VA	**Total Est. Demand:**	101.53 kVA
Other	0 VA	0.00%	0 VA	**Total Conn.:**	302 A
Receptacle	36480 VA	63.71%	23240 VA	**Total Est. Demand:**	282 A

Notes: * IF ALTERNATE FOR ENLARGED COMMUNITY ROOM IS ACCEPTED PROVIDE A 90A-3P CIRCUIT BREAKER

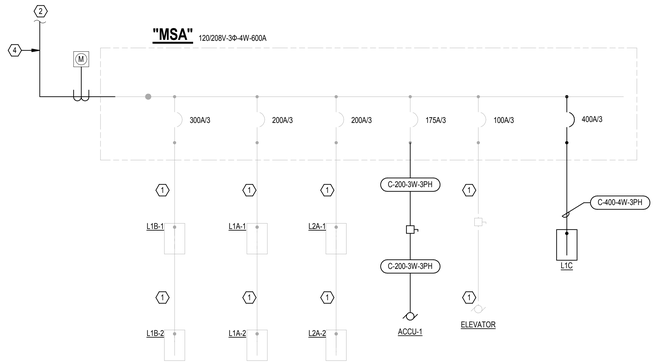
TOTAL CONNECTED		ESTIMATED DEMAND
108.97 kVA		

FEEDER WIRE SIZES

FEEDER TAG	# OF SETS	# OF CONDUCTORS	CONDUCTOR SIZE	GROUND SIZE	CONDUIT SIZE
C 200 3W 3PH	1	3	3/0	6	2"
C 400 4W 3PH	1	4	500	3	3.5"



2 **DEMOLITION SINGLE LINE**



1 **REVISED SINGLE LINE**

Panel: EXISTING MSA

Location: MECHANICAL 109 **Mounting:** Surface **A.I.C. Rating:**
Supply From: **Enclosure:** Type 1 **Mains Type:**
Voltage: 120/208 Wye-3PH-4W **Mains Rating:** 600 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	L1A-1	200 A	3	0 VA	0 VA					3	300 A	L1B-1	2
3	--	--	--			540 VA	0 VA			--	--	--	4
5	--	--	--					720 VA	0 VA	--	--	--	6
7	L2A-1	200 A	3	720 VA	1693...					3	175 A	ACCU-1	8
9	--	--	--			2160...	1693...			--	--	--	10
11	--	--	--					1980...	1693...	--	--	--	12
13	EPU	100 A	3	0 VA	3738...					**3**	**200...**	**L1C**	**14**
15	--	--	--			0 VA	3797...			--	--	--	**16**
17	--	--	--					0 VA	3360...	--	--	--	**18**
		Total Load:		55.04 kVA		57.61 kVA		53.24 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Equipment	0 VA	0.00%	0 VA		
Lighting	5904 VA	125.00%	7379 VA	**Total Conn. Load:**	165.89 kVA
Motor	117386 VA	110.82%	130085 VA	**Total Est. Demand:**	163.76 kVA
Other	0 VA	0.00%	0 VA	**Total Conn.:**	460 A
Receptacle	42600 VA	61.74%	26300 VA	**Total Est. Demand:**	455 A

Notes:

TOTAL CONNECTED		ESTIMATED DEMAND
165.89 kVA		163.76 kVA (455 A)

EXISTING PEAK DEMAND = 41,791 WATTS / 116 AMPS
ACCU-1 LOAD IS A ONE FOR ONE REPLACEMENT
TOTAL ADDITIONAL LOAD ADDED TO PANEL = 108.59 KW / 301.4 AMPS
REVISED ESTIMATED DEMAND = 417.42 AMPS

Panel: L1A-2

Location: MECHANICAL 109 **Mounting:** Surface **A.I.C. Rating:**
Supply From: L1A-1 **Enclosure:** Type 1 **Mains Type:**
Voltage: 120/208 Wye-3PH-4W **Mains Rating:** 200 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING	20 A	1	0 VA	0 VA					1	20 A	EXISTING	2
3	EXISTING	20 A	1			0 VA	0 VA			1	20 A	EXISTING	4
5	EXISTING	15 A	2					0 VA	0 VA	2	15 A	EXISTING	6
7	--	--	--	0 VA	0 VA					--	--	--	8
9	EXISTING	20 A	1			0 VA	0 VA			1	20 A	EXISTING	10
11	EXISTING	20 A	1					0 VA	0 VA	1	20 A	EXISTING	12
13	EXISTING	20 A	1	0 VA	0 VA					1	20 A	EXISTING	14
15	EXISTING	20 A	2			0 VA	0 VA			1	20 A	EXISTING	16
17	--	--	--					0 VA	0 VA	1	20 A	EXISTING	18
19	EXISTING	20 A	1	0 VA	0 VA					1	20 A	EXISTING	20
21	* EXTERIOR REC	20 A	1			540 VA	0 VA			1	20 A	EXISTING	22
23	* EXTERIOR REC	20 A	1					720 VA	0 VA	2	20 A	EXISTING	24
25					0 VA					--	--	--	26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
		Total Load:		0.00 kVA		0.54 kVA		0.72 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Receptacle	1260 VA	100.00%	1260 VA		
				Total Conn. Load:	1.26 kVA
				Total Est. Demand:	1.26 kVA
				Total Conn.:	3 A
				Total Est. Demand:	3 A

Notes: * PROVIDE CIRCUIT BREAKER MANUFACTURED AND UL LISTED FOR INSTALLATION IN EXISTING PANELBOARD BRAND AND TYPE.

TOTAL CONNECTED		ESTIMATED DEMAND
1.26 kVA		1.26 kVA (3 A)

Panel: L2A-2

Location: ADULT SERVICES 213 **Mounting:** RECESSED **A.I.C. Rating:** EXISTING
Supply From: L2A-1 **Enclosure:** Type 1 **Mains Type:** MLO
Voltage: 120/208 Wye-3PH-4W **Mains Rating:** 200 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING LOAD	20 A	2	0 VA	0 VA					1	20 A	EXISTING LOAD	2
3	--	--	--			0 VA	0 VA			1	20 A	EXISTING LOAD	4
5	EXISTING LOAD	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD	6
7	EXISTING LOAD	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD	8
9	EXISTING LOAD	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD	10
11	EXISTING LOAD	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD	12
13	EXISTING LOAD	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD	14
15	EXISTING LOAD	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD	16
17	EXISTING LOAD	50 A	2					0 VA	0 VA	1	20 A	EXISTING LOAD	18
19	--	--	--	0 VA	0 VA					2	50 A	EXISTING LOAD	20
21	* RECEPTACLES	20 A	1			1080...	0 VA			--	--	--	22
23	* RECEPTACLES	20 A	1					1080...	900 VA	1	20 A	* RECEPTACLES	24
25	* RECEPTACLES	20 A	1	720 VA									26
27	* RECEPTACLES	20 A	1			1080...	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
		Total Load:		0.72 kVA		2.16 kVA		1.98 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Receptacle	4860 VA	100.00%	4860 VA		
				Total Conn. Load:	4.86 kVA
				Total Est. Demand:	4.86 kVA
				Total Conn.:	13 A
				Total Est. Demand:	13 A

Notes: * PROVIDE CIRCUIT BREAKER MANUFACTURED AND UL LISTED FOR INSTALLATION IN EXISTING EATON PANELBOARD.

TOTAL CONNECTED		ESTIMATED DEMAND
4.86 kVA		4.86 kVA (13 A)

SHEET NOTES:

1. EXISTING FEEDER TO REMAIN.
2. TO NEW UTILITY PROVIDED PAD MOUNTED TRANSFORMER. REFER TO NEW ELECTRICAL SITE PLAN.
3. REMOVE EXISTING UNDERGROUND SECONDARY CONDUCTORS TO EXISTING UTILITY POLE. ELECTRIC UTILITY IS REPLACING EXISTING PRIMARY SERVICE AND TRANSFORMERS. REFER TO ELECTRICAL SITE AND DEMOLITION PLANS.
4. PROVIDE TWO SETS OF 4 #350MCM, #1G, 3.5"C FROM PAD MOUNTED UTILITY TRANSFORMER TO EXISTING SWITCHBOARD.

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	11.10.2023

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

Union County Public Library

UNION COUNTY PUBLIC LIBRARY

LIBRARY ADDITION AND RENOVATION

2 EAST SEMINARY STREET
LIBERTY, IN 47353

ELECTRICAL SINGLE-LINE DIAGRAM & PANELBOARD SCHEDULES

KEITH A SCHEID REGISTERED No. PE60910071 STATE OF INDIANA PROFESSIONAL ENGINEER

Comm. No.	Date
22106.00	2023/11/10
Drawn	**Drawing No.**
WXT	E601
Checked	
KAS	

© 2023 LWC INCORPORATED

HEAPY © 2017/2019 www.heapy.com
PROJECT NO. 2023-07083

Autodesk Docs://Union County Public Library/2023-07083-MEP-Central.rvt