

# CONSTRUCTION OF AN ARCHIVAL VAULT

Capuchin Province of St. Joseph

1820 Mt. Elliott St.

Detroit, MI 48207



# 524 SQ. FT. REFERENCE ROOM



# 1,064 SQ. FT. ARCHIVAL VAULT



- ▶ Archival vault repository with a capacity to house 1 428 linear feet of archival materials.
- ▶ Repository maintains temperature and humidity levels within standard range to accommodate for various archival materials.
- ▶ Types of archival materials include: blueprints, historical cartography, artifacts, saint relics, paintings, statuary, textiles, photographs, newspaper clippings, scrapbooks, as well as paper based archival materials.
- ▶ Obsolete format audio visual materials including acetate film, polyester audio film, VHS, Beta, vinyl records, cassette tapes, floppy discs, glass plate negatives, and CD/DVDs.



- ▶ Dedicated HVAC installed: Liebert PDX Verativ HVAC with back up Generac generator on the roof.
- ▶ Liebert unit has a touchscreen that shows constant monitoring of temperature, humidity, and any power outages. When there is an issue, an alert is sent.
- ▶ Temperature is kept between a range of 60-65°F with humidity levels maintained between 35-45% for the preservation of varying types of archival materials.
- ▶ Compact size requires 36" x 36" of floor space.



# HEATING AND VENTILATION

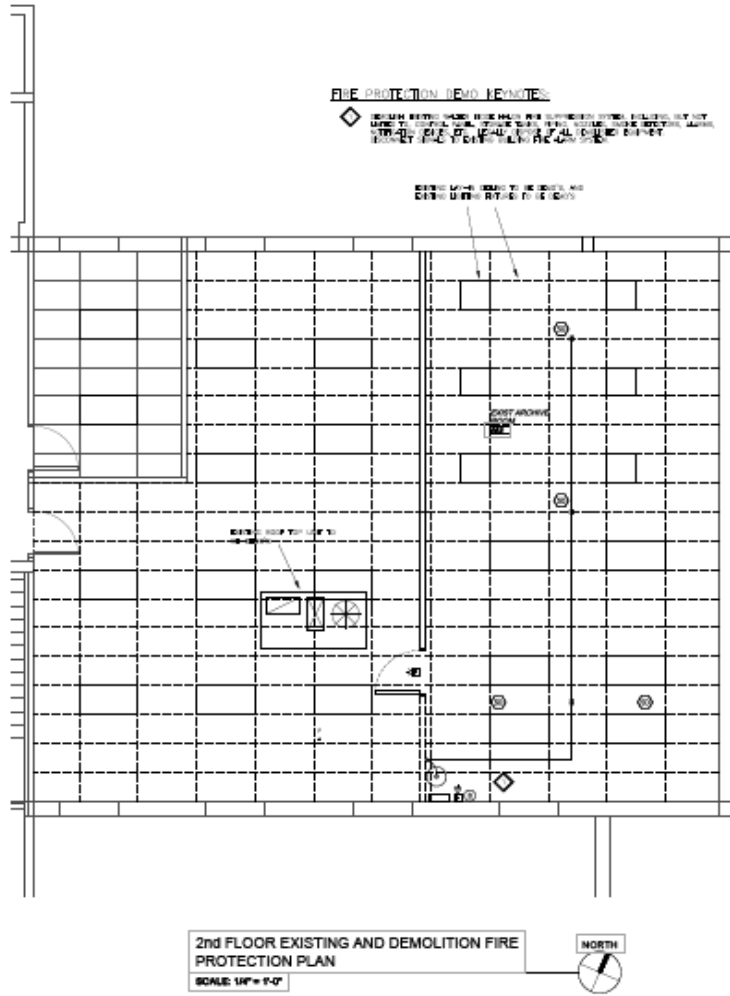


- ▶ Novec 1230 gaseous clean agent fire suppression system was chosen for its ability to put out a fire without water. Instead of water, it emits a fluorinated ketone from the ceiling when a fire is present.
- ▶ This fluorinated analog of ethyl isopropyl ketone takes out the heat from the flames to put the fire out.
- ▶ Leaves no residue on surfaces.
- ▶ Safe to use in occupied rooms with no suffocation hazard when it is discharged.
- ▶ Heat detectors alert when the room is out of temperature range.
- ▶ Directly connected to the local fire department for immediate assistance in the event of a fire.

## FIRE SUPPRESSION



# FIRE



**0 FIRE PROTECTION NOTES:**

**1. DEMO:** DEMO ALL EXISTING FIRE PROTECTION SYSTEMS AND EQUIPMENT AS SHOWN ON THIS PLAN. ALL EXISTING FIRE PROTECTION SYSTEMS AND EQUIPMENT SHALL BE DEMOLISHED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES. ALL DEMOLITION SHALL BE COMPLETED PRIOR TO THE START OF NEW CONSTRUCTION.

**2. NEW:** INSTALL NEW FIRE PROTECTION SYSTEMS AND EQUIPMENT AS SHOWN ON THIS PLAN. ALL NEW CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES. ALL NEW CONSTRUCTION SHALL BE COMPLETED PRIOR TO THE START OF OCCUPANCY.

**3. EXISTING:** EXISTING FIRE PROTECTION SYSTEMS AND EQUIPMENT SHALL BE MAINTAINED AND OPERATED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES. ALL EXISTING CONSTRUCTION SHALL BE COMPLETED PRIOR TO THE START OF OCCUPANCY.

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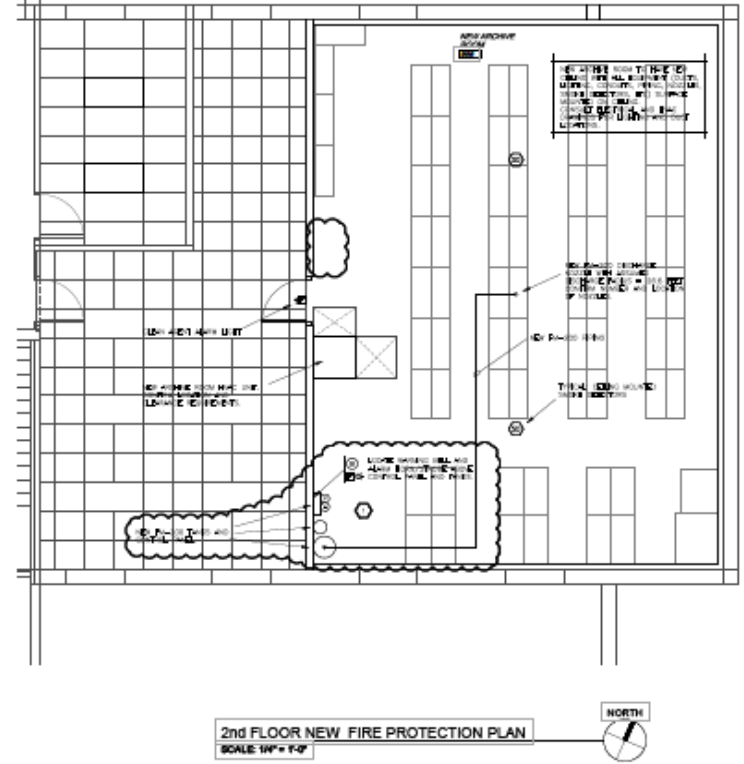
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CONTRACTOR'S RESPONSIBILITY: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AUTHORITIES.

REVISIONS:

NO.	DATE	DESCRIPTION
1	08-20-20	ISSUED FOR PERMITS
2	08-20-20	ISSUED FOR PERMITS
3	08-20-20	ISSUED FOR PERMITS
4	08-20-20	ISSUED FOR PERMITS
5	08-20-20	ISSUED FOR PERMITS
6	08-20-20	ISSUED FOR PERMITS
7	08-20-20	ISSUED FOR PERMITS
8	08-20-20	ISSUED FOR PERMITS
9	08-20-20	ISSUED FOR PERMITS
10	08-20-20	ISSUED FOR PERMITS

ARCHITECT: SYDESIGN

MECHANICAL & ELECTRICAL ENGINEERING: KF ENGINEERING, INC.

GENERAL CONTRACTOR: CORNADO CONTRACTING, LLC

OWNER: The Province of St. Joseph of the Capuchin Order

PROJECT: PROVINCIAL ARCHIVES RENOVATION

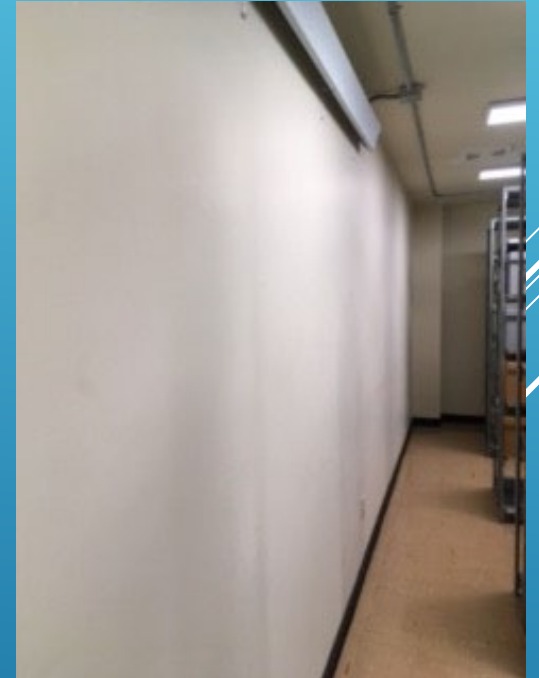
DATE: DEMO & NEW FIRE PROTECTION LAYOUT

PROJECT NUMBER: 1910CAP

DATE: 08-20-20

PROJECT NUMBER: FP101

- ▶ Walls and ceiling are insulated with an insulation rating (R value) of R-40, which reduces the flow of heat/cold into the room to maintain the inside temperature. Fiberglass insulation was chosen.
- ▶ Insulation with a double 5/8" drywall was used on both sides of the interior wall. Exterior cinder block walls were covered with 2" insulation and 5/8" drywall. Fire rated for 3 hours of a hot fire.
- ▶ Ceiling has 8" blown in insulation and 5/8" drywall with metal roof.
- ▶ Sufficient insulation means the HVAC unit does not have to work as hard to keep the room at the set temperature, making it more cost effective.
- ▶ Additionally, if there is a power outage and the backup generator fails, the vault could still maintain its temperature for two days or longer depending on the time of year.



# INSULATION



- ▶ Interior wall is 8" thick and extends to the roof line, providing no possible entry through tray ceiling in reference room.
- ▶ No windows: four windows were blocked out with a vapor barrier film, 6" insulation and drywall.
- ▶ Exterior walls have an auxiliary heat source for subzero weather.
- ▶ Ceiling is 9" thick with metal rafters and roof above ceiling.
- ▶ There is no plumbing above or adjacent to the vault room.

## WALLS AND CEILING



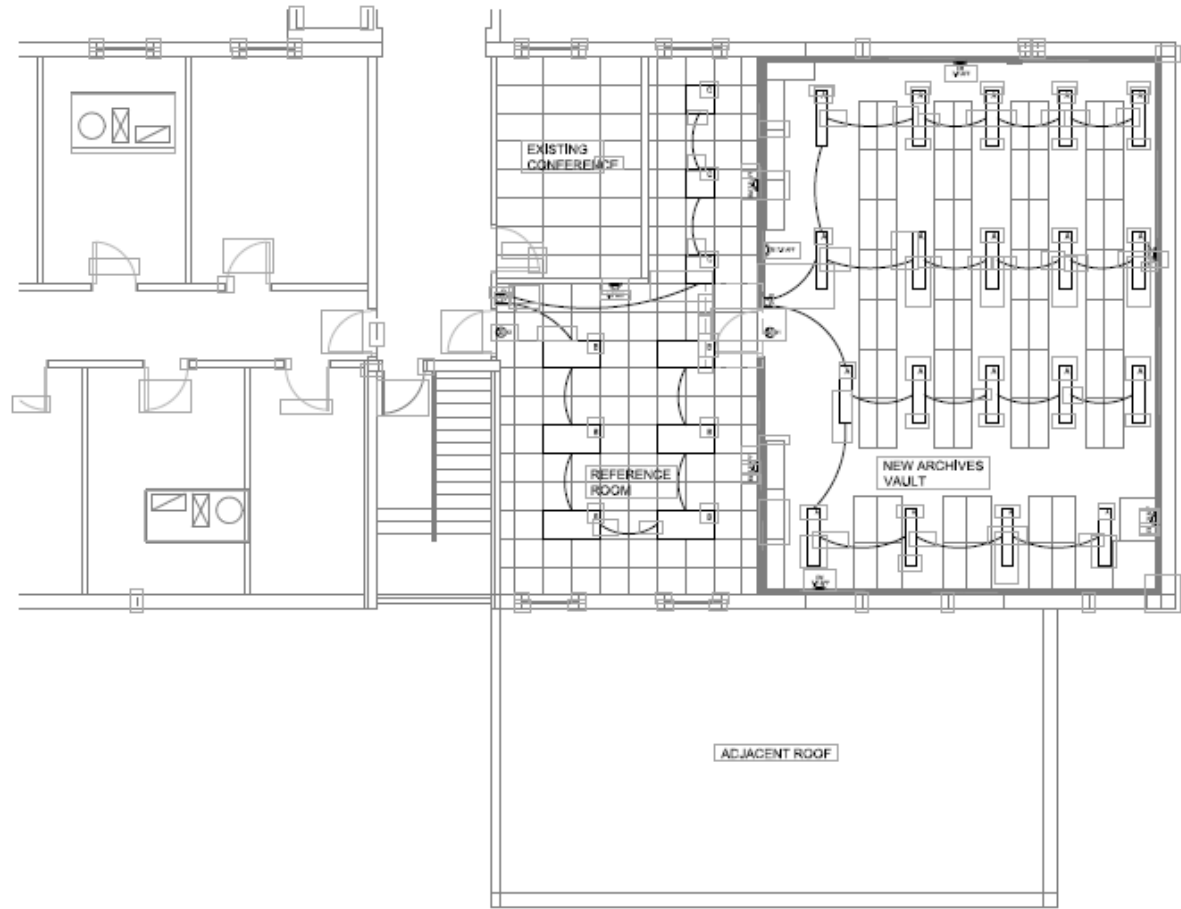
# LIGHTING

## INSTALLATION NOTES

1. PROVIDE ALL NECESSARY POWER PAGES, RELAYS, SWITCHES, ETC., FOR THE LIGHTING CONTROL SYSTEM.
2. REVIEW DIMENSIONS SHOWN ON CONTRACT DRAWINGS, SHEET DRAWINGS, AND SUBMITTALS, CORRELATE CEILING LAYOUT WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE AS BUILT DRAWINGS WITH PANEL AND CIRCUIT IDENTIFICATION AND WITH CONTROL WIRING FOR A LIGHT SYSTEM, SHOW ALL POWER PAGES, RELAYS, SWITCHES, ETC.
4. PROVIDE CIRCUIT IDENTIFICATION ON FACE PLATE OF ALL SWITCHES, ETC., AND IDENTIFICATION TO BE MACHINE MADE, BLACK LETTERING ON CLEAR BACKGROUND.
5. LIGHTING SWITCH MANUFACTURER TO REVIEW DRAWINGS, MAKE ADJUSTMENTS, AND ADD DEVICES TO PROVIDE SWITCHING, OCCUPANCY AND DIMMING FUNCTIONS.
6. PROPERLY BALANCE CONNECTED LOAD TO CIRCUITS IN EXISTING PANEL.
7. UPDATE CIRCUIT INDEXES IN FIRE ALARM CONTROL PANEL WHERE CIRCUITS ARE REVISED INCLUDING NEW AND EXISTING PANELS.
8. PROVIDE CIRCUIT IDENTIFICATION ON THE SURFACE OF ALL NEW ELECTRICAL DEVICES, IDENTIFICATION TO BE MACHINE MADE, SIMILAR TO BROTHER TO-TOUCH LABELING SYSTEM. NOT QUALIFIED WITH TAPK WITH BLACK LETTERING, INDICATE PANEL NAME AND CIRCUIT NUMBER.

## LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION
	15W SURFACE MOUNTED FLAT PANELLED LIGHT FIXTURE, 1500MM SPAN, LED T8A 400LM ROOM 400 DIMMER KIT, OR EQUIVALENT
	24W RECESSED ARCHITECTURAL GRADE DIMMABLE LED LIGHT FIXTURE WITH TRANSMITTANCE DIFFUSER AND CONCAVE REFLECTOR, MULTI-PL SOURCE, 240-240, 220 LPMK, OR EQUIVALENT
	24W RECESSED ARCHITECTURAL GRADE DIMMABLE LED LIGHT FIXTURE WITH TRANSMITTANCE DIFFUSER AND CONCAVE REFLECTOR, MULTI-PL SOURCE, 240-240, 220 LPMK, OR EQUIVALENT
	EMERGENCY LIGHT FIXTURE, SURFACE MOUNTED WITH THERMOPLASTIC, TWO SURVIV, 30W, 200 LUMENS, UP TO 24 SPACING FOR A 3 WIDE, 1 FC, PATH OF EGRESS QUANTITY, BLANK, 400MM LED, OR EQUIVALENT, MOUNT ON APPROPRIATE MOUNT
	DIMMING WALL SWITCH



ELECTRICAL LIGHTING PLAN  
SCALE: 1/4" = 1'-0"



DO NOT SCALE THE DRAWING.  
BY THE REPRESENTATIVE OF THE CONTRACTOR TO REVIEW AND VERIFY ALL DIMENSIONS, DETAILS AND MATERIALS TO BE USED TO CONFORMANCE CONTRACTUAL.  
INDICATED BY THE ARCHITECT OF RECORD OR HIS SUCCESSOR.

CONSTRUCTION	2023.02
DATE	2023.02
SCALE FOR	REV. ISSUE DATE
DRAWN	DFM
CHECKED	DFM
APPROVED	DFM

REAL

ARCHITECT

SYDESIGN  
1314 HIGHLAND AVE. #101  
PORT HURON, MI 48166  
PH: 810-963-8888  
C/O: 810-963-8888  
www.sydesign.com

MEP ENGINEERING CONSULTANTS

KF ENGINEERING, INC.  
MECHANICAL & ELECTRICAL ENGINEERS  
3610 24th AVE. SUITE 2  
PORT HURON, MI 48166  
PH: 810-963-8888  
www.kfengineering.com

GENERAL CONTRACTOR

ADRIAN CONSTRUCTION, LLC  
12817 24th DR  
WARREN, MI 48090  
PH: 586-266-1000  
www.adrianconstruction.com

OWNER

The Province of St. Joseph  
of the Capuchin Order  
14700 W. 14th  
Detroit, MI 48227  
Owner: Rev. John Salski  
PH: 313-963-8888  
www.stjosephcapuchin.org

PROJECT

PROVINCIAL ARCHIVES  
RENOVATION  
1825 MT. ELLIOT ST  
DETROIT, MI 48207

DIRECT

ELECTRICAL  
LIGHTING PLAN

PROJECT NUMBER

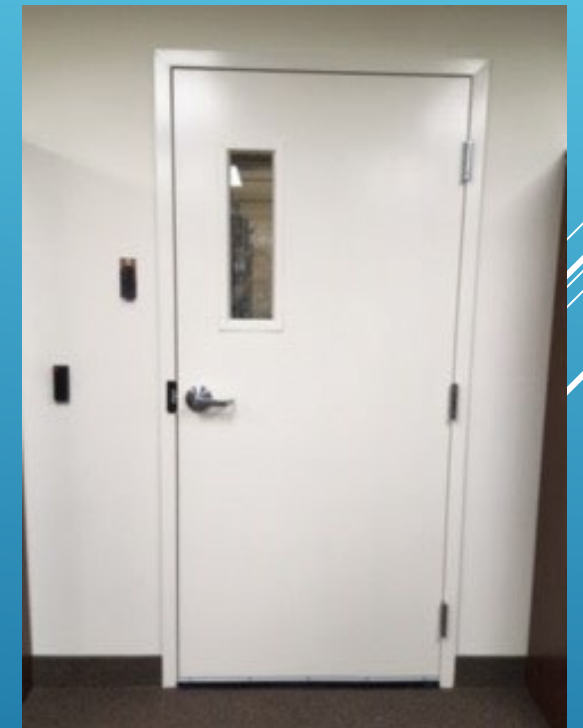
1910CAP

DRAWING NUMBER

E200

- ▶ Vault door is made of 18 gauge steel and is guaranteed to withstand 90 minutes of a hot fire.
- ▶ Door frame is fire rated for 3 hours of a hot fire.
- ▶ Fire rated 3/16" glass with wire mesh is guaranteed for 90 minutes of a hot fire. The added security of wire in the glass mitigates potential break in.
- ▶ Fire glass is not permitted in 3 hour fire rated doors.
- ▶ Key fob entrance with back up key entry. Vault door is always locked whether archivist is working in the vault or in the reference room.
- ▶ Key fob system records who opened the door with the time and date.

## SECURITY DOOR



- ▶ 20 gauge steel shelving with rounded edges so boxes don't get snagged.
- ▶ Free standing shelving units are bolted together for increased stability.
- ▶ Each shelf is 42" x 15" to accommodate 3 standard size archival boxes per shelf. Six shelves per bay.
- ▶ 60 shelving bays, 2 map cabinets and 10 lateral filing cabinets.
- ▶ All shelves are numbered with box locations in AdLib archival software.
- ▶ Aisle width is 35" between the stacks and 45" in the oversized area.
- ▶ No shelving is against an exterior wall.



## METAL SHELVING

- ▶ Long-term Preservation of over 165 years of historical materials for the Capuchin Province of St. Joseph that includes the four states of Wisconsin, Illinois, Montana, and Michigan as well as other locations where our Capuchins have served.
- ▶ Archives for the Blessed Solanus Casey Center and the Midwest Capuchins.
- ▶ Private repository; visitors seen by appointment.
- ▶ This presentation is dedicated in memory of Jose Soberal, who was the Maintenance Director during the archival vault renovation.

# CAPUCHIN ARCHIVES IN DETROIT

JUNIA (YASENOV) PAPAS, MARA, CA

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