

ARCH D - 24"x36" - 6 0ummx9 4mm (rounded)



WAYNE STATE UNIVERSITY

STATE HALL ELEVATOR REFURBISHMENT & RENOVATION - PHASE 1 ELEVATOR MODERNIZATION

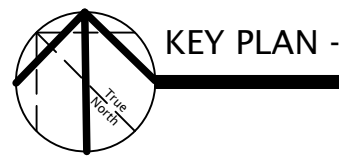
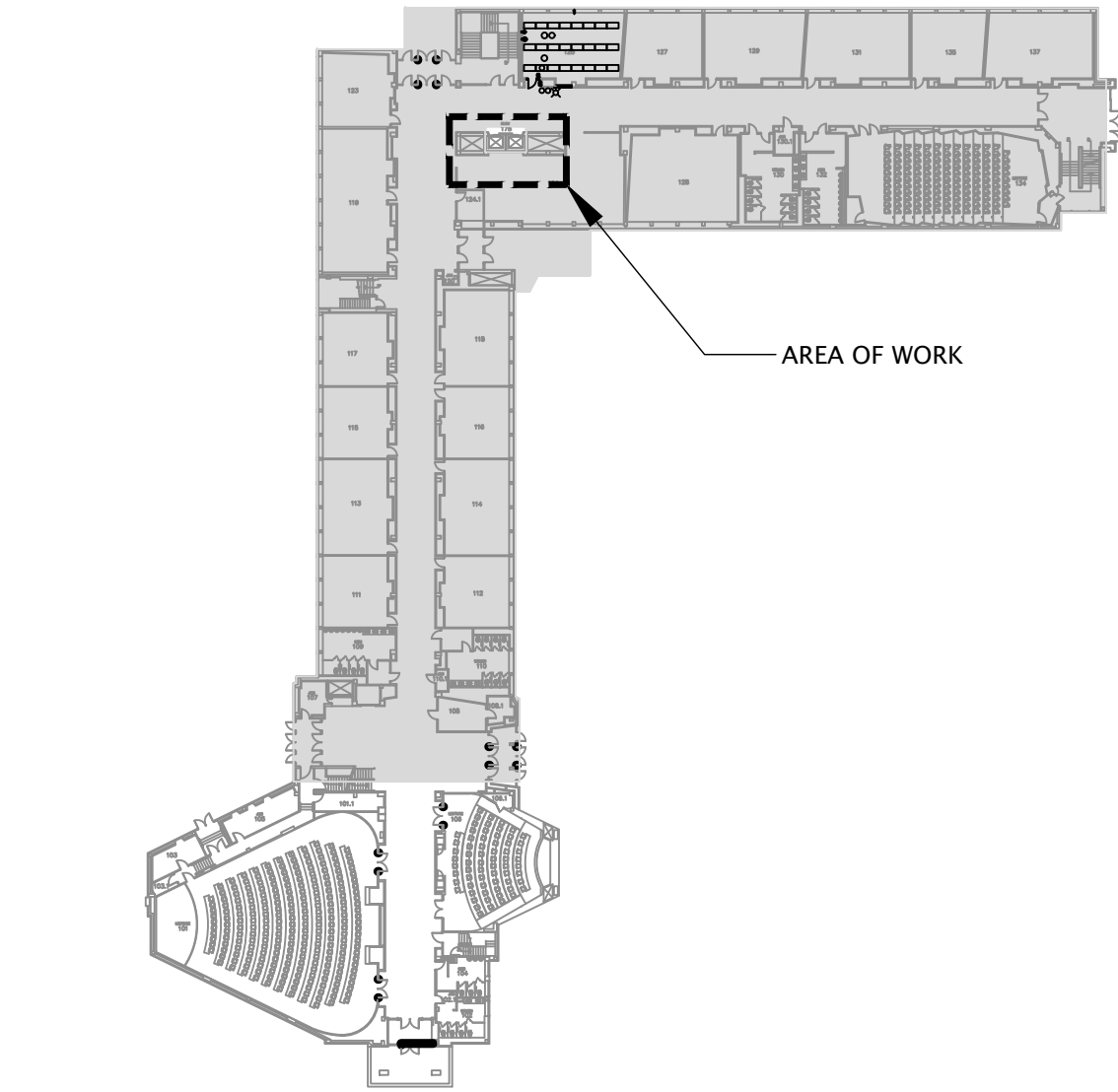
5143 Cass Ave
Detroit, MI 48202
Wayne State Project No.: 16-327661
NORR Project No.: JCDT18-0229

PROJECT DIRECTORY

WAYNE STATE PROJECT MANAGER:
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DETROIT, MI 48226
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KEY PLAN -



LOCATION MAP

PROJECT NOTES

- PROJECT SCALES ARE PROVIDED FOR REFERENCE ONLY. INCASE OF A DIMENSIONAL QUESTION OR DISCREPANCY SUBMIT A REQUEST FOR INFORMATION (RFI) TO THE CONSTRUCTION COORDINATOR
- ALL WORK IS TO BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES HAVING JURISDICTION.
- COORDINATE WITH WAYNE STATE UNIVERSITY PROJECT MANAGER AND FACILITY ENGINEERS FOR CONSTRUCTION ROUTES LOCATION OF DUMPSTER AND PROTECTION OF EXISTING OCCUPANTS AND MATERIAL FINISHES
- AREA OUTSIDE OF PROJECT SCOPE ARE TO REMAIN OCCUPIED DURING RENOVATION. PROTECT ELECTRICAL POWER, LIGHTING AND DATA CABLES TO MAINTAIN FUNCTIONAL USE.
- PROVIDE A SCHEDULE FOR SHUTDOWN OF MECHANICAL AND ELECTRICAL SYSTEMS
- PROVIDE PROTECTION ALONG ENTIRE ROUT FOR REMOVAL OF DEBRIS INCLUDING CORRIDOR AND ALL ELEVATOR LOBBIES
- ELEVATORS TO BE PROTECTED & "NOT IN SERVICE" SIGNAGE INSTALLED DURING PROJECT LENGTH.

SCOPE OF WORK

- EXISTING STATE HALL ELEVATORS & HOISTWAY TO BE MODERNIZED, WITH EXISTING CONTROLLERS, DEFLECTOR SHEAVES, TAIL END SHEAVES, CAB DOORS, DOOR DETECTORS, OPERATORS, FANS, CABLES, EMERGENCY LIGHTS, AND ROLLER GUIDES BEING REPLACED IN THEIR ENTIRETY. MACHINE ROOM AND HOISTWAY (BASEMENT THROUGH FOURTH FLOOR) WILL BE UPGRADED TO MEET CURRENT ELEVATOR CODES. EXISTING SMOKE EXHAUST LOUVER WILL BE ENLARGED AND CONNECTED TO AN AUTOMATIC SMOKE/FIRE DAMPER
- FIRE SUPPRESSION SPRINKLER HEADS WILL BE ADDED TO THE TOP OF SHAFT & MACHINE ROOM. A SHUNT TRIP IS TO BE INSTALLED AT THE ELEVATOR EQUIPMENT ROOM.
- EXISTING ELECTRICAL SERVICE WILL BE UPGRADED TO MEET CURRENT CODE REQUIREMENTS .

ALTERNATE #1: PAINT EXIST CORRIDOR ELEVATORS DOORS & FRAMES. PAINT TBD

CODES / STANDARDS

AUTHORITY HAVING JURISDICTION: CITY OF DETROIT, MI		
MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA)	BUREAU OF CONSTRUCTION CODES	(MRCEB) MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS (MBC) MICHIGAN BUILDING CODE - 2015 (MMC) MICHIGAN MECHANICAL CODE - 2015 PART 9A MECHANICAL CODE - 2015 (MPC) MICHIGAN PLUMBING CODE - 2015 (MEC) NATIONAL ELECTRICAL CODE - 2014 MICHIGAN ELECTRICAL CODE RULES PART 8 (MUEC) MICHIGAN ENERGY CODE - 2015
	BUREAU OF FIRE SERVICES	NFPA 101 LIFE SAFETY CODE - 2012 NFPA 99 - 2012 EDITION
ASME A17.1 -2004 - SAFETY CODE FOR ELEVATORS AND ESCALATORS		
ASME A17.1 -2004 - SAFETY CODE FOR ELEVATORS AND ESCALATORS		
ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDING AND FACILITIES		
DEPARTMENT OF JUSTICE, FEDERAL ADA ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES (28 CFR PART-35)		

PROJECT CODE SUMMARY

BUILDING CLASSIFICATION:

OCCUPANCY CLASSIFICATION AND CONSTRUCTION TYPES PER MBC CHAPTERS 3, 4, 5, AND 6
BASIC OCCUPANCY GROUP(S) : [PER MBC CHAPTER 3]
O GROUP A-1 O GROUP O GROUP
O GROUP O GROUP ● GROUP B
O GROUP E O GROUP F-1 O GROUP F-2
O GROUP H-1 O GROUP H-2 O GROUP H-3
O GROUP H-4 O GROUP H-5 O GROUP I-1
O GROUP I-2 O GROUP I-3 O GROUP I-4
O GROUP M O GROUP R-1 O GROUP R-2
O GROUP R-3 O GROUP R-4 O GROUP S-1
O GROUP S-2 O GROUP U

MIXED USE AND OCCUPANCY : [PER MBC SECTION 508]

● ACCESSORY OCCUPANCIES [MBC 508.2]
[Accessory Occupancies <10% of Story]
○ INCIDENTAL ACCESSORY [MBC 509]
○ NONSEPARATED [MBC 508.3]
○ SEPARATED OCCUPANCIES [MBC 508.4]

*REFER TO FIRE AND LIFE SAFETY PLANS FOR REQUIREMENTS

TYPE(S) OF CONSTRUCTION : TYPE I : ○ A ● B
TYPE II : ○ A OB
TYPE III : ○ A OB
TYPE IV : ○ HT
TYPE V : ○ A OB

SPECIAL DETAILED REQUIREMENTS :

○ HIGH-RISE BUILDING [PER MBC SECTION 403]
○ ATRIUM [PER MBC SECTION 404]
○ OPEN PARKING [PER MBC SECTION 406.5]
○ GROUP I-2: [PER MBC SECTION 407]
- SMOKE COMPARTMENTS
- REFUGE AREA
○ HAZARDOUS MATERIALS: [PER MBC SECTION 414]
- CONTROL
○ MEZZANINE [PER MBC SECTION 505]

MEANS OF EGRESS:

*REFER TO THE LIFE SAFETY PLANS FOR ACTUAL MEASURED DISTANCES.

DOORS : [PER MBC 1010.1.1]
THE MINIMUM CLEAR WIDTH AND HEIGHT OF A DOOR SHALL NOT BE LESS THAN 32 INCHES AND 80 INCHES RESPECTIVELY.

[PER MBC 1010.1.2.1]
DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL, WHERE SERVING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.

CORRIDORS: [PER MBC 1020.2]
CORRIDOR WIDTH SHALL BE 44 INCHES MINIMUM.

COMMON PATH OF EGRESS TRAVEL (MBC 1006.2.1)		
OCCUPANCY	SPRINKLERED	MAX. DISTANCE
B	YES	100' - 0"

EXIT ACCESS TRAVEL DISTANCE (MBC TABLE 1017.2)		
OCCUPANCY	SPRINKLERED	MAX. DISTANCE
B	YES	300' - 0"

DEAD ENDS (MBC 1020.4 EX 2)		
OCCUPANCY	SPRINKLERED	MAX. DISTANCE
B	YES	50' - 0"

MIN. NUMBER OF EXITS FOR OCCUPANT LOAD (MBC 1006.3.1)	
OCCUPANT LOAD	MIN. # OF EXITS PER STORY
1-500	2
501-1,000	3
MORE THAN 1,000	4

EXIT CAPACITY FACTORS:

[PER MBC 1005.3.1, 1005.3.2]
MINIMUM REQUIRED EGRESS WIDTH : ○ SPRINKLERED STAIRWAYS 0.2 (4TH FLOOR ONLY)
OTHER EGRESS COMPONENTS 0.15

*REFER TO THE LIFE SAFETY PLANS FOR COMPLIANCE WITH MEANS OF EGRESS WIDTH REQUIREMENTS.

LIFE SAFETY SYSTEMS:

[PER MBC AND IFC CHAPTER 9]
AUTOMATIC SPRINKLER SYSTEM : ● PROVIDED PER NFPA 13 (FOURTH FLOOR ONLY)

ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS : ○ PROVIDED - REFER TO FIRE PROTECTION DRAWINGS

STANDPIPE SYSTEM (FOURTH FLOOR COVERAGE) : ● PROVIDED PER NFPA 14

PORTABLE FIRE EXTINGUISHERS : ● PROVIDED PER NFPA 10

FIRE ALARM SYSTEM : ● PROVIDED PER NFPA 72

ARCHITECTURAL INDEX

Sheet Number	Sheet Title			PERMIT & BID SET	OWNER REVIEW
G0-00	COVER SHEET			●	●
G0-01	CODE COMPLIANCE PLANS			●	●
G0-02	CODE COMPLIANCE PLANS			●	●
A1-01	DEMOLITION AND NEW WORK FLOOR PLANS			●	●

ELECTRICAL INDEX

Sheet Number	Sheet Title			PERMIT & BID SET	OWNER REVIEW
E0-01	ELECTRICAL SYMBOLS AND ABBREVIATIONS			●	●
E0-02	ONE LINE DIAGRAM AND PANEL SCHEDULES			●	●
ED-01	ELECTRICAL DEMOLITION PLANS			●	●
E1-01	ELECTRICAL NEW PLANS			●	●

MECHANICAL INDEX

Sheet Number	Sheet Title			PERMIT & BID SET	OWNER REVIEW
FP1-01	FIRE PROTECTION AND PLUMBING PLANS - BASEMENT			●	●
M1-01	MECHANICAL DEMOLITION AND NEW WORK PLANS NOTES AND SCHEDULES			●	●

DATE	ISSUED FOR	REV
08-02-19	OWNER REVIEW	-
08-19-19	PERMIT AND BID SET	-
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This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer.		

Keyplan

AREA OF WORK

KEY PLAN

North Arrow

True North

Detail Symbol

Detail No. Sheet No.

Seal(s)

NORR

NORR LLC
An Ingenium Group Company

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Detroit, Michigan, 48226 USA
www.norr.com

Project Manager A. NOLFE	Drawn R. HAAS
Project Leader R. HAAS	Checked G. KARANFILOVSKI

Client

WAYNE STATE UNIVERSITY
Facilities Planning & Management
5143 Cass Ave, Detroit, MI 48202

Project

STATE HALL ELEVATOR
REFURBISHMENT &
RENOVATION
5143 Cass Ave, Detroit, MI 48202

Drawing Title
COVER SHEET

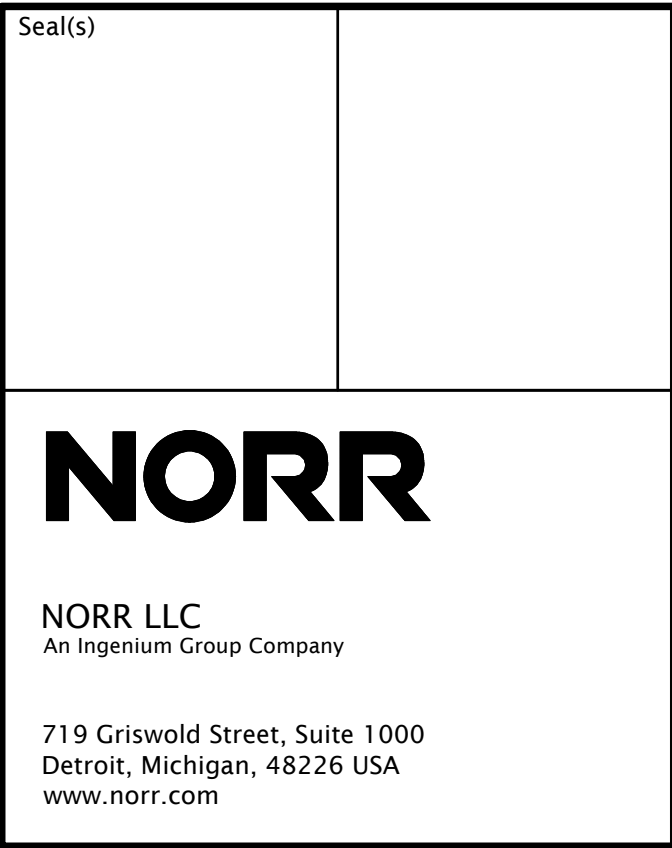
Check Scale (may be photo reduced)
0 1 inch 0 10mm

Project No.
JCDT18-0229

Drawing No.
G0-00

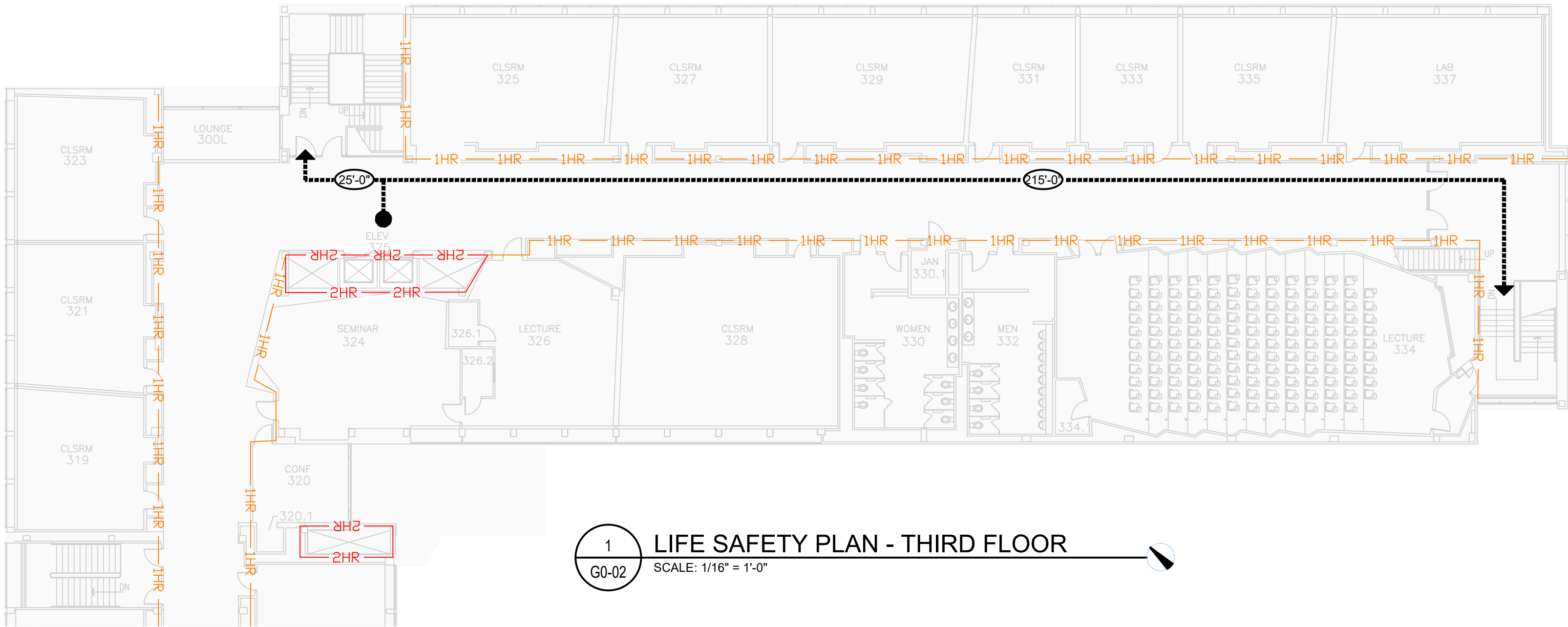


DATE	ISSUED FOR	REV
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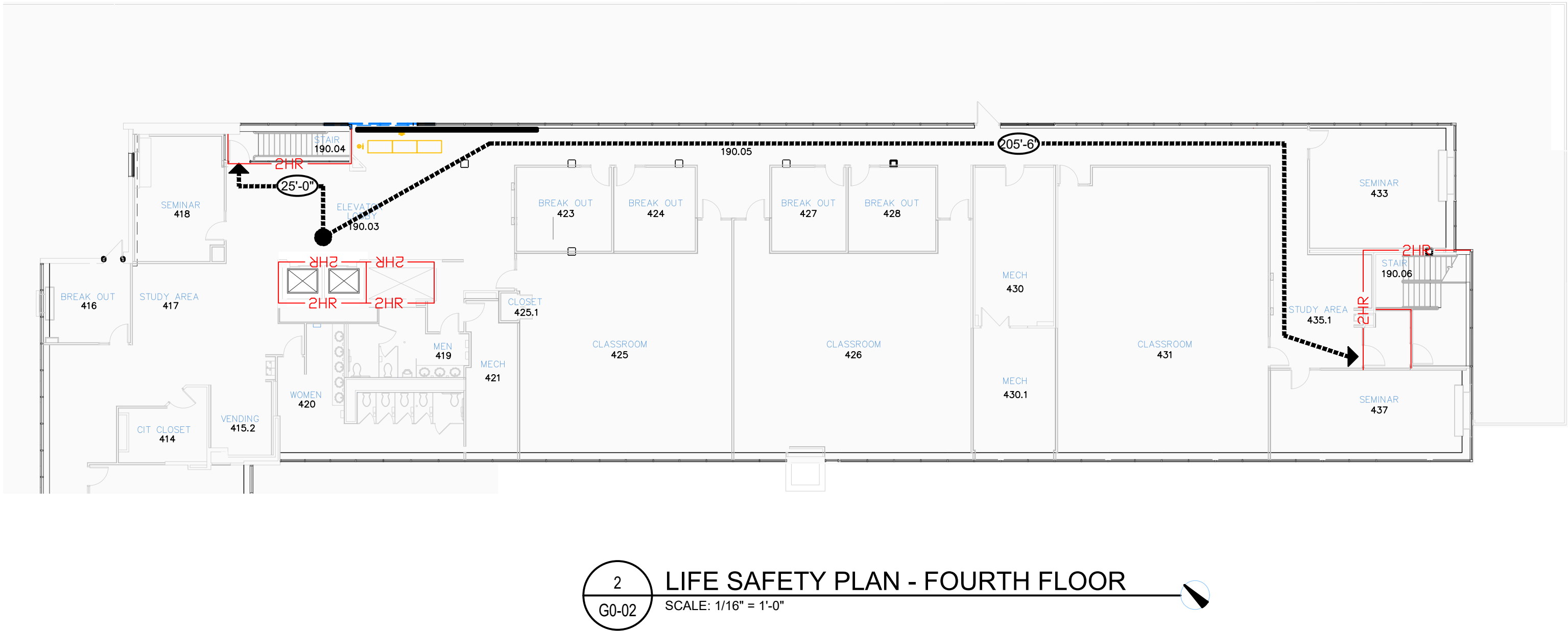


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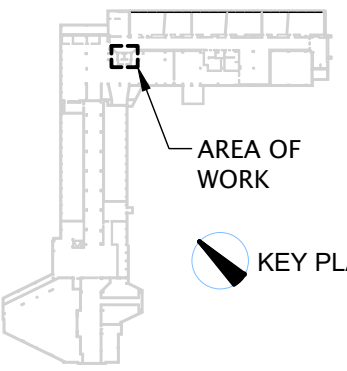
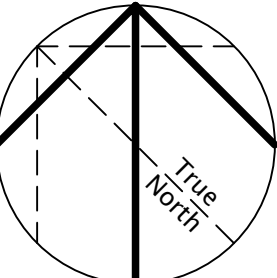

ARCH D - 24"x36" - 6 (0mmx914mm (rounded))



PARTITION LEGEND	
NFPA 101 - LIFE SAFETY CODE: 2001 / 2006 EDITION	
FULLY SPRINKLERED WITH QUICK RESPONSE SPRINKLER HEADS	
One - Hour 1HR	* Opening Protectives Shall Be Self Closing Or Released Upon Activation Of Fire Alarm * Positive Latching Doors * Gap At Door Slip Max. 1/8" * Double Doors Require Astragals If Gap Between Doors Is Greater Than 1/8" * Door Undercuts Max. 3/8" * Maximum Measurement For Doors That Are Skewed Or Out Of Plumb Is 1/2" * No Fire Dampers Required * 3/4 Hour Door * All Penetrations Shall Be Sealed With Approved (H/L/T) Fire Stopping - Floor To Deck
Two - Hour 2HR	* Opening Protectives Shall Be Self Closing Or Released Upon Activation Of Fire Alarm * Positive Latching Doors * Gap At Door Slip Max. 1/8" * Double Doors Require Astragals If Gap Between Doors Is Greater Than 1/8" * Maximum Measurement For Doors That Are Skewed Or Out Of Plumb Is 1/2" * Fire Dampers Required * 1 1/2 Hour Door * All Penetrations Shall Be Sealed With Approved (H/L/T) Fire Stopping - Floor To Deck
Exterior Entry / Egress Door ↕	* Entry / Egress Door Way
=====	* Egress Travel Pass
■	EXISTING AREA NOT IN PROJECT SCOPE



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Keyplan 	AREA OF WORK KEY PLAN
North Arrow 	Detail Symbol 

Seal(s)	
NORR NORR LLC An Ingenium Group Company 719 Griswold Street, Suite 1000 Detroit, Michigan, 48226 USA www.norr.com	

Project Manager A. NOLFF	Drawn R. HAAS
Project Leader R. HAAS	Checked G. KARANFILOVSKI
Client WAYNE STATE UNIVERSITY Facilities Planning & Management 5454 Cass Ave, Detroit, MI 48202	
Project STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202	
Drawing Title CODE COMPLIANCE PLANS	
Check Scale (may be photo reduced) 0 1 inch 0 10mm	
Project No.	JCDT18-0229
Drawing No.	G0-02



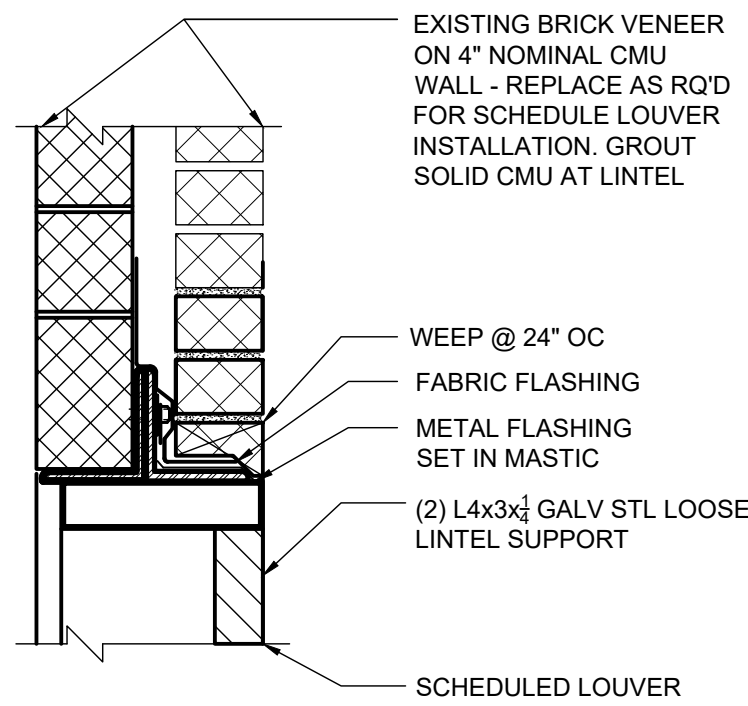
9
A1-01
PENTHOUSE DEMO
SCALE: 1/8" = 1'-0"

STEEL LINTELS FOR CMU WALLS

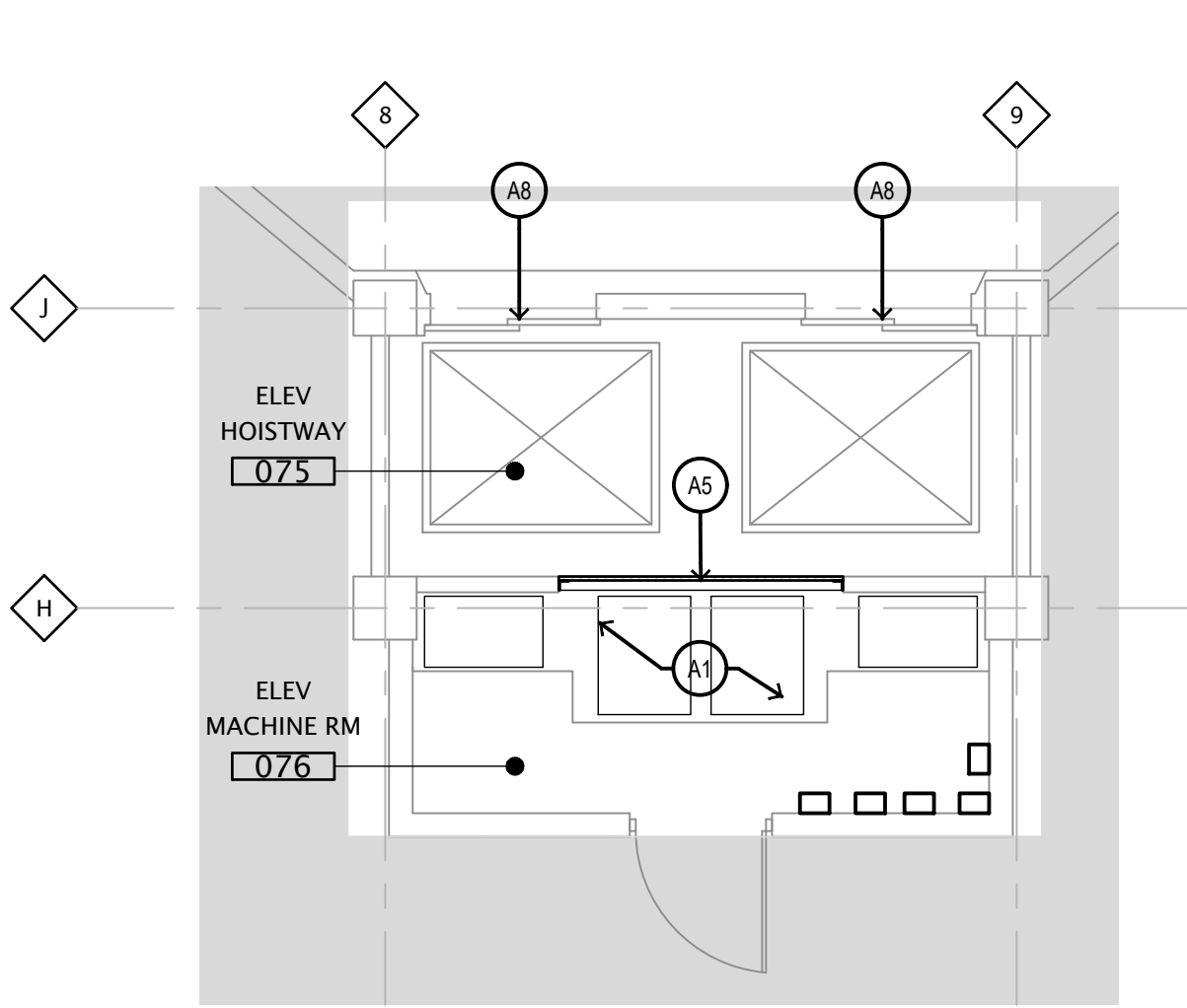
SPAN	4"	6"
< 3'-11"	L3x3x $\frac{3}{4}$	(2) L3x2 $\frac{1}{2}$ x $\frac{3}{4}$ (LLV) OR WT 4x9
4'-0" TO 5'-11"	L4x3x $\frac{3}{4}$ (LLV)	(2) L3x2 $\frac{1}{2}$ x $\frac{3}{4}$ (LLV) OR WT 4x9
6'-0" TO 7'-11"	L5x3x $\frac{3}{4}$ (LLV)	(2) L3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x $\frac{3}{4}$ (LLV) OR WT 7x11

NOTES:

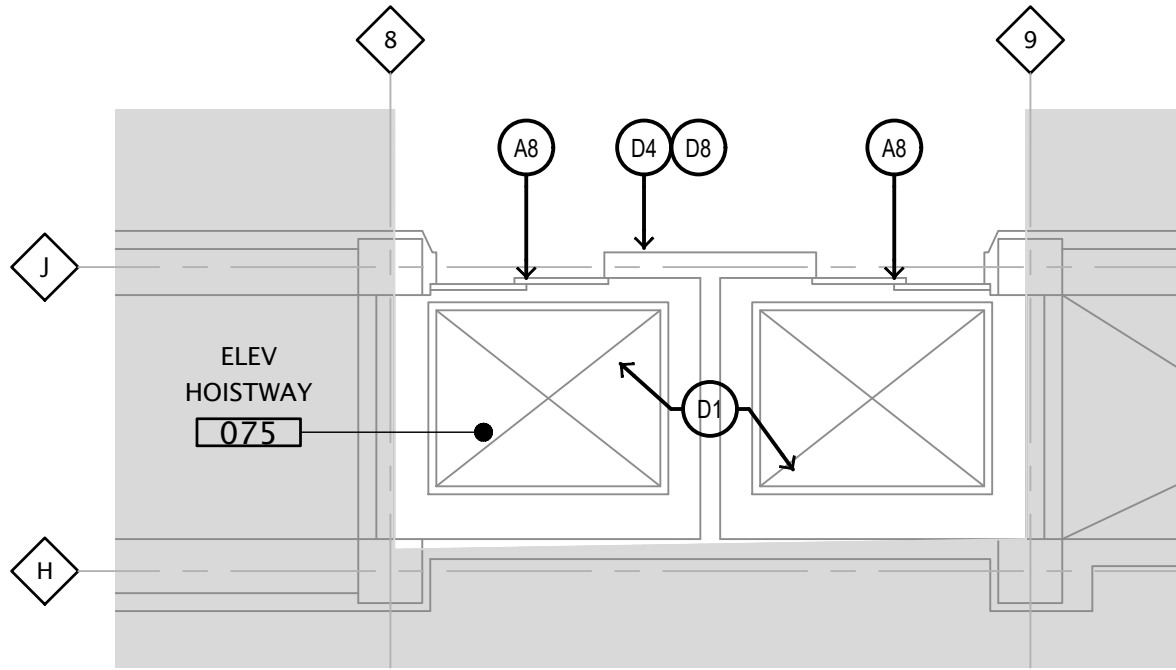
1. LINTELS FOR SPANS TO 7'-11" REQUIRE 6" BEARING EACH END.
2. LINTELS FOR SPANS OVER 8'-0" REQUIRE 8" BEARING EACH END.
3. GROUT CMU SOLID OR USE SOLID CMU 12" BACK FROM OPENING
2 COURSES BELOW BEARING POINT.
4. LINTEL DESIGN BASED ON NON LOAD BEARING WALL CONDITIONS
5. COPE ENDS OF LINTELS AS REQUIRED TO PROVIDE 3/4" MIN MORTAR IN JOINT.



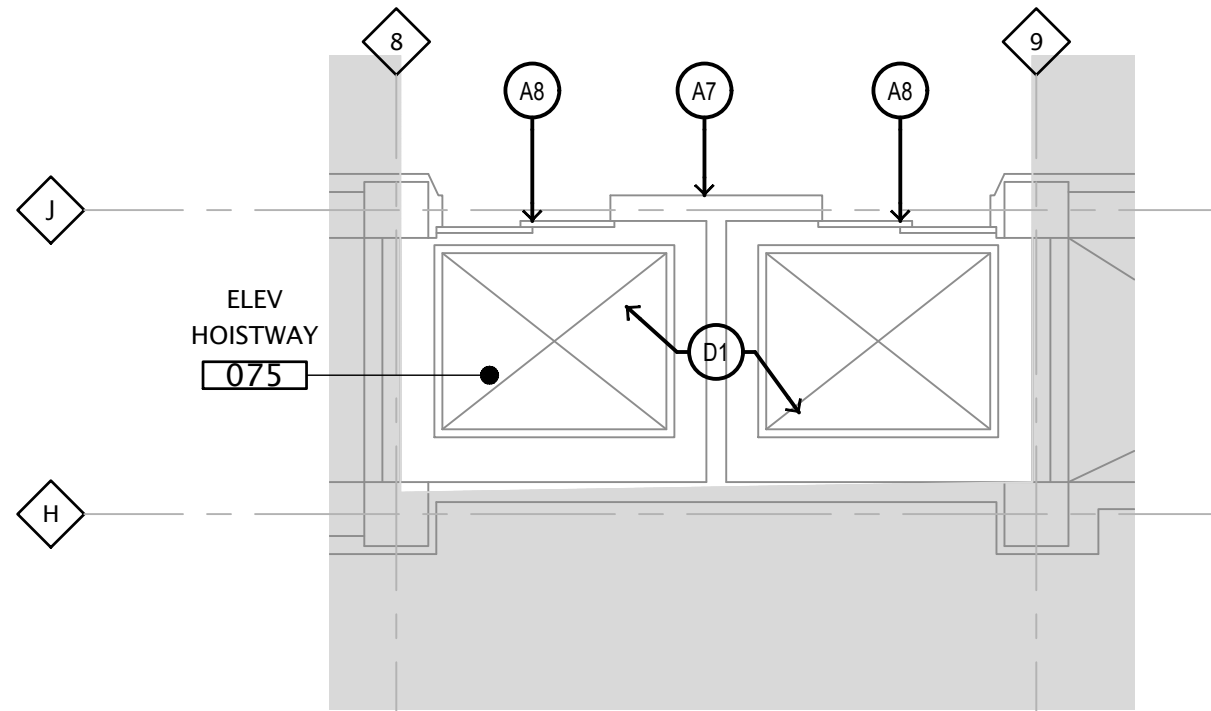
10
A1-01
MECHANICAL LOUVER LINTEL
SCALE: 1/8" = 1'-0"



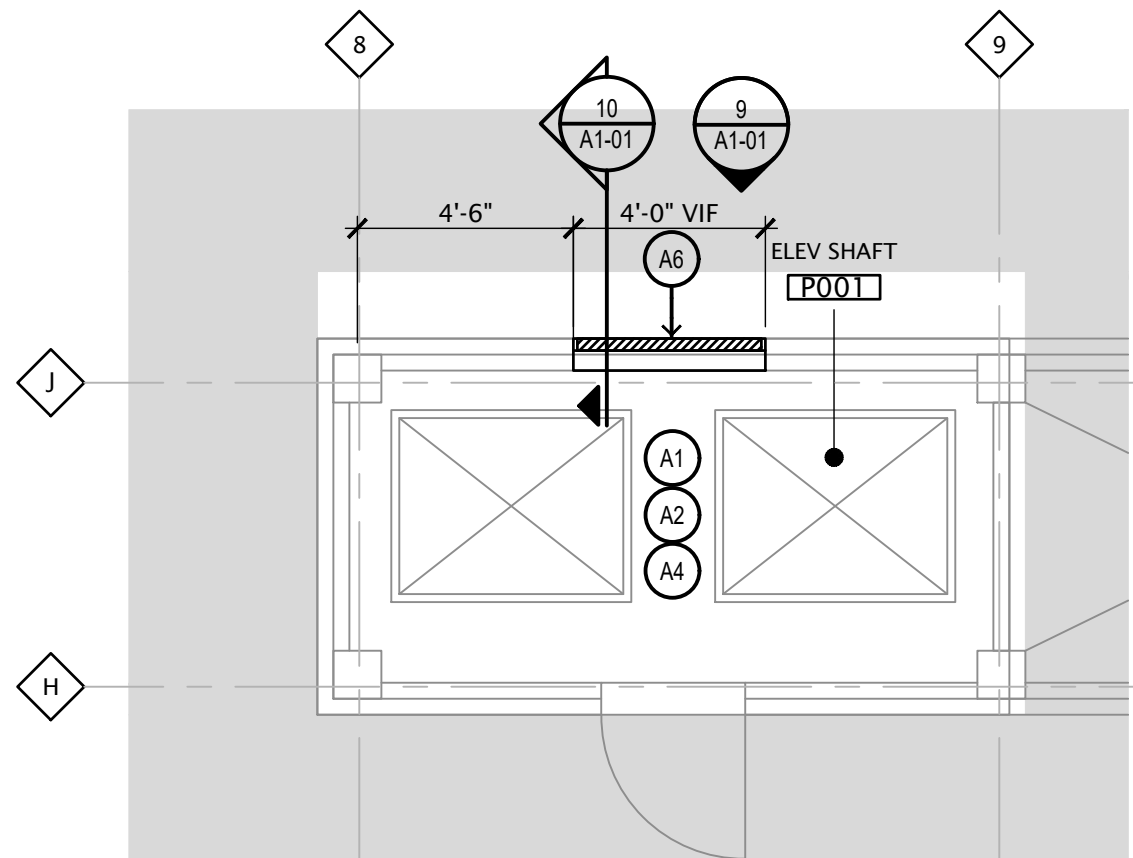
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A1-01
BASEMENT FLOOR PLAN
SCALE: 1/8" = 1'-0"



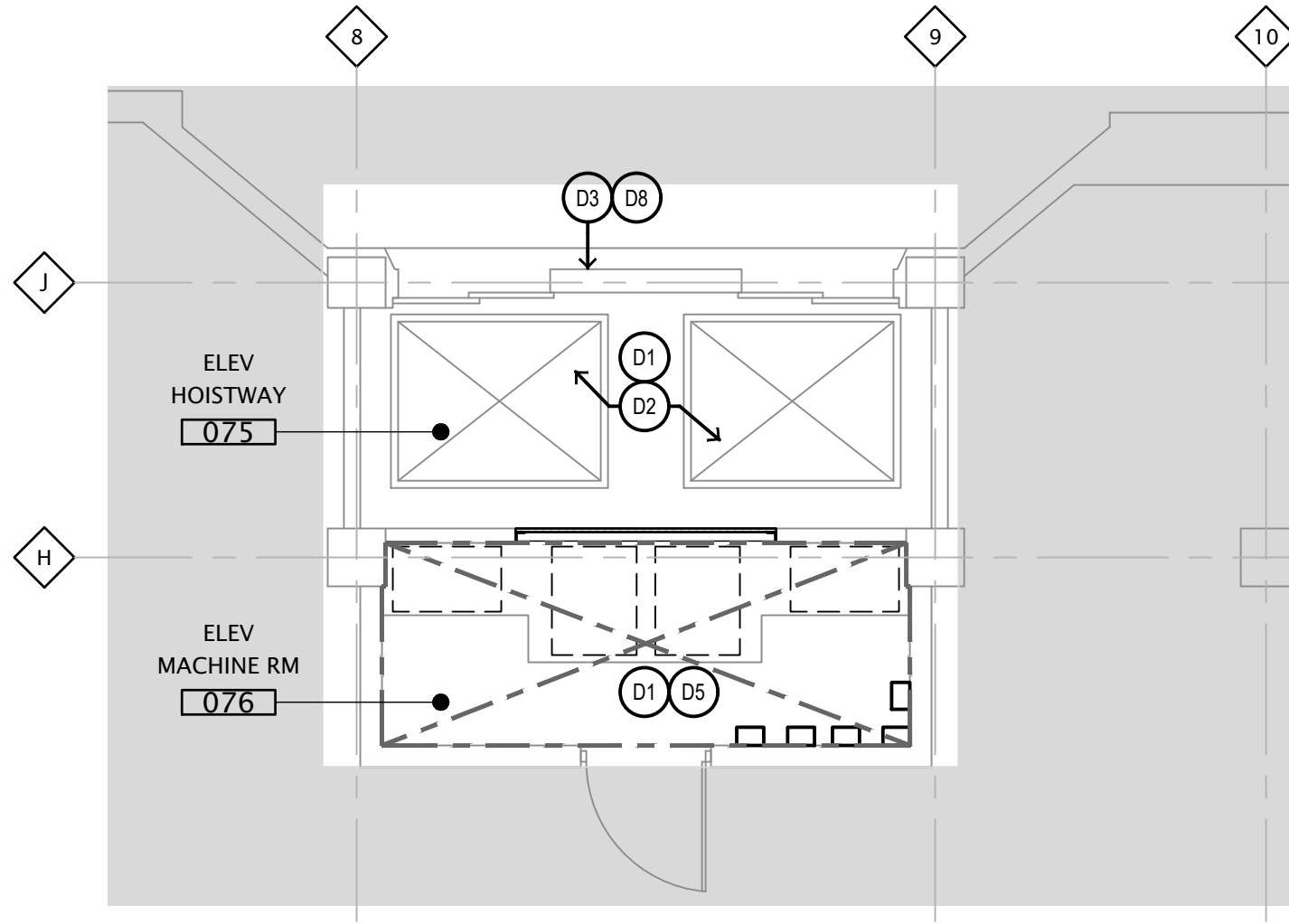
6
A1-01
FIRST FLOOR PLAN
DEMOLITION PLAN - FIRST FLOOR
SCALE: 1/8" = 1'-0"



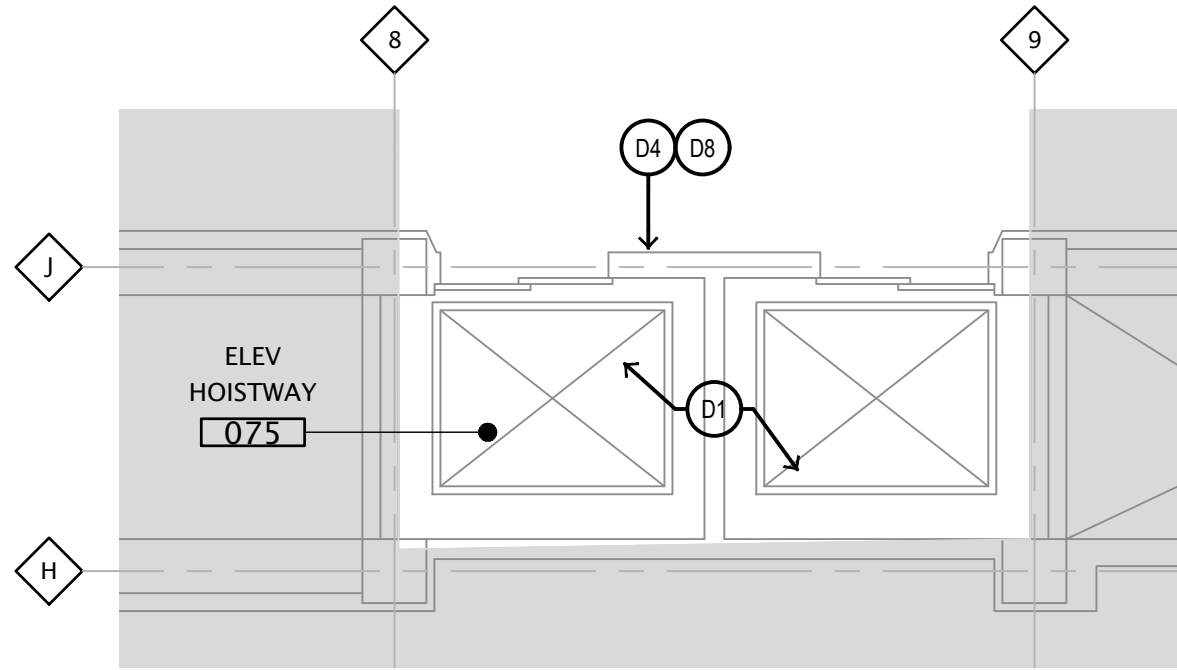
7
A1-01
SECOND THROUGH
FOURTH FLOOR PLAN
SCALE: 1/8" = 1'-0"



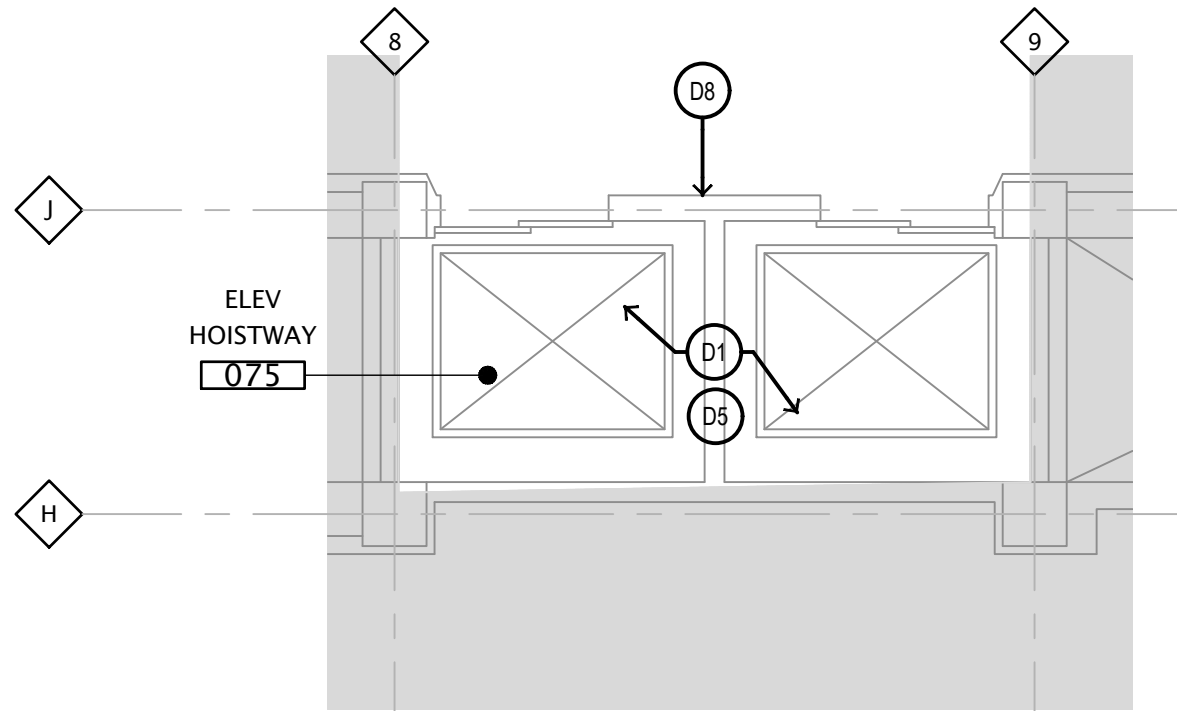
8
A1-01
PENTHOUSE PLAN
SCALE: 1/8" = 1'-0"



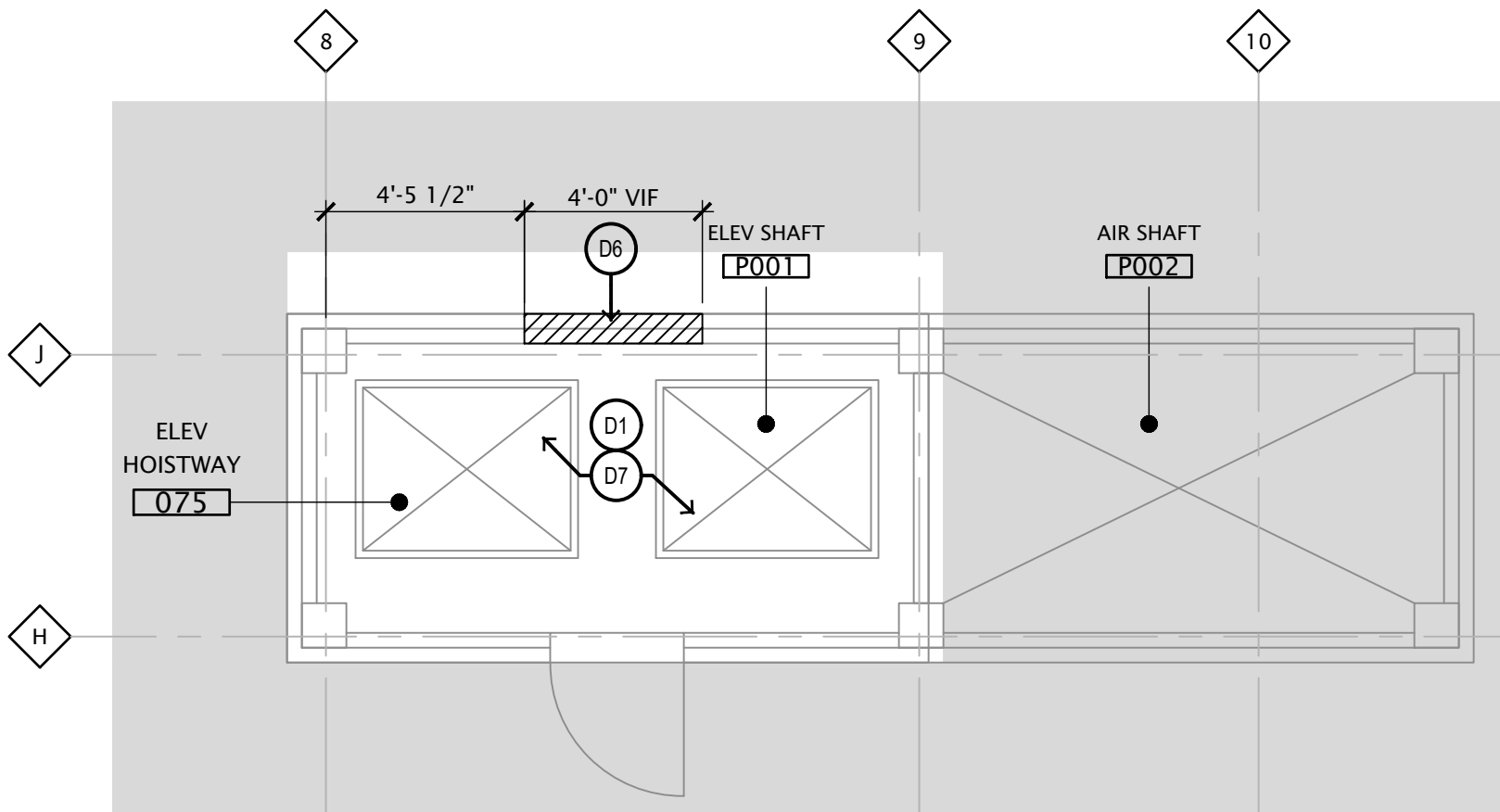
1
A1-01
DEMOLITION PLAN - BASEMENT
SCALE: 1/8" = 1'-0"



2
A1-01
DEMOLITION PLAN - FIRST FLOOR
SCALE: 1/8" = 1'-0"



3
A1-01
DEMOLITION PLAN -
SECOND THROUGH FOURTH FLOOR
SCALE: 1/8" = 1'-0"



4
A1-01
DEMOLITION PLAN - PENTHOUSE
SCALE: 1/8" = 1'-0"

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	EXISTING PARTITIONS TO REMAIN. PATCH AND REPAIR GYP. BD AS NECESSARY TO ENSURE A SMOOTH, SEAMLESS FINISH SUITABLE FOR NEW PAINT OR WALL COVERING.
	EXISTING PARTITION OR CASEWORK TO BE REMOVED. ALL LARGE CASEWORK SHALL BE DISASSEMBLED AND RELOCATED INTO DESIGNATED STAGING AREA WHERE THE SECTIONS MAY BE SAW CUT OR BROKEN DOWN INTO DISPOSABLE PIECES.
	KEY NOTE DESIGNATION
	AREA OF EXISTING NOT IN CONTRACT

GENERAL DEMOLITION NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, AND REGULATIONS, INCLUDING THE RULES AND STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, BOCA, NFPA AND OSHA.
2. THE CONTRACTOR SHALL VISIT THE EXISTING SITE AND BUILDING AND SHALL EXAMINE ALL OF THE PHYSICAL CONDITIONS THAT AFFECT THE CONTRACT PRICE, NOTING THE LOCATION OF EXISTING EQUIPMENT AND SERVICES, ETC. NO ADDITIONS TO THE CONTRACT PRICE WILL BE PERMITTED DUE TO AN IGNORANCE OF EXISTING CONDITIONS THAT ARE OBSERVABLE PRIOR TO CONSTRUCTION.
3. DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING FIELD CONDITIONS TO FAMILIARIZE HIMSELF WITH DEMOLITION AND OR REMOVAL WORK WHICH MAY BE REQUIRED TO PRODUCE THE END RESULTS OF THE CONTRACT DOCUMENTS.
4. PROTECT ALL ITEMS AND FINISHES INCLUDING BUT NOT LIMITED TO EXISTING COLUMNS, EXISTING TO REMAINING WINDOWS, DOORS, GLAZING, STRUCTURAL MEMBERS NOT SPECIFIED TO BE DEMOLISHED OR REMOVED FROM DUST AND DAMAGE.
5. CONTRACTOR SHALL PROVIDE OWN DUMPSTER(S). ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM SITE BY DEMOLITION CONTRACTOR. DUMPSTER LOCATION SHALL BE APPROVED BY OWNER OR PROJECT MANAGER.
6. AREA OF DEMOLITION/ CONSTRUCTION SHALL BE LEFT BROOM CLEAN.
7. IN AREA OF CONSTRUCTION REMOVE FLOORING, WALL BASE, WALL COVERING LIGHTING AND OTHER ITEMS AS SHOWN ON DRAWING (U.O.N.)
8. MOST SCHEDULED SHUT DOWNS OF BUILDING SYSTEMS WILL BE AT NIGHT OR ON WEEKENDS.
9. SECURE CONSTRUCTION ZONE OF BUILDING THROUGHOUT ENTIRE DEMOLITION PROCESS.

DEMOLITION NOTES BY SYMBOL:

- D1 ELEVATOR INSTALLER TO REMOVE EXISTING ELEVATOR CONTROLLERS, MOTORS, GOVERNORS AND MISC. ADDITIONAL EQUIPMENT AS REQUIRED FOR ELEVATOR MODERNIZATION UPGRADES.
- D2 DEMOLISH AND REPLACE EXIST ELEVATOR PIT LIGHT FIXTURES AND GFCI POWER OUTLETS. REFER TO ELEC DWGS FOR ADDITIONAL INFO.
- D3 DEMOLISH EXIST ELEVATOR KEYSWITCH @ BASEMENT LEVEL. PROVIDE COVERPLATE AT FORMER LOCATION. PAINT WALL TO MATCH EXIST ADJACENT FINISH.
- D4 MOVE EXIST FIRST FLOOR KEYSWITCH TO APPROX 60" AFF FROM ITS CURRENT LOCATION. ABANDON EXIST FIRST FLOOR AND BASEMENT KEYSWITCH JUNCTION BOX AND PROVIDE STEEL COVERPLATE AT EXISTING LOCATION. PAINT TO MATCH EXIST ADJACENT
- D5 SCHEDULED FOURTH FLOOR FIRE SUPPRESSION LINE PENETRATION TO RECEIVE 2-HR THROUGH PENETRATION FIRE RATED ASSEMBLY. REFER TO MECH DWGS
- D6 EXIST ELEVATOR HOISTWAY EXHAUST LOUVER TO BE DEMOLISHED IN ITS ENTIRETY. ADJACENT EXTERIOR MASONRY WALL AND ROOF EDGE ASSEMBLY TO BE PARTIALLY DEMOLISHED AS REQ'D FOR INSTALLED SCHEDULED LOUVER AND MISC. STEEL LINTEL. PATCH AND REPAIR ROOF EDGE ASSEMBLY AS NECESSARY.
- D7 EXISTING SMOKE DETECTORS TO BE REPLACED & TIED INTO EXISTING BUILDING MANAGEMENT SYSTEM. SMOKE DETECTOR & HEAT DETECTOR IN SHAFT TO ACTIVATE DAMPER AT EXTERIOR EXHAUST LOUVER.
- D8 ELEVATOR VENDOR TO REMOVE EXIST ELEVATOR LANTERNS/CALL BUTTON CONTROL PANELS AS REQUIRED FOR ELEVATOR MODERNIZATION UPGRADES - TYP @ EA FLOOR.

CONSTRUCTION NOTES BY SYMBOL:

- A1 ELEVATOR VENDOR RESPONSIBLE FOR SCHEDULED ELEVATOR MODERNIZATION EQUIPMENT UPGRADES/REPLACEMENT THROUGHOUT HOISTWAY, CABS AND MACHINE ROOM/
- A2 GC TO PROVIDE NEW SMOKE & HEAT DETECTOR TIED INTO SCHEDULED EXHAUST LOUVER - REFER TO MECH & ELEC DWGS.
- A3 GC TO INSTALL SCHEDULED ELEVATOR PIT LIGHTS AND REPLACEMENT GFCI JUNCTION BOXES.
- A4 INSTALL NEW SPRINKLER HEAD @ TOP OF HOISTWAY SHAFT CONNECTED WITH SHUNT HEAT TRIP DETECTOR
- A5 MESH SCREENWALL DIVIDER BETWEEN HOISTWAY SHAFT AND MECHANICAL ROOM BY ELEVATOR VENDOR
- A6 SCHEDULED SMOKE EXHAUST LOUVER. PROVIDE (2) L3x3x $\frac{3}{4}$ STEEL LINTEL ANGLES. LENGTH TO ACCOMMODATE NEW MASONRY OPENING. PATCH AND REPAIR EDGE OF AND PORTION OF ROOF AND FLASHING THAT MAY BE DAMAGED DURING LOUVER INSTALLATION.
- A7 REPLACEMENT ELEVATOR CALL BUTTON PANEL BY ELEVATOR VENDOR
- A8 ALTERNATE #1: PAINT CORRIDOR FACING ELEVATOR DOOR AND FRAME - PAINT COLOR TBD

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Keyplan

AREA OF WORK

KEY PLAN

North Arrow

Detail Symbol

Detail No.
Sheet No.

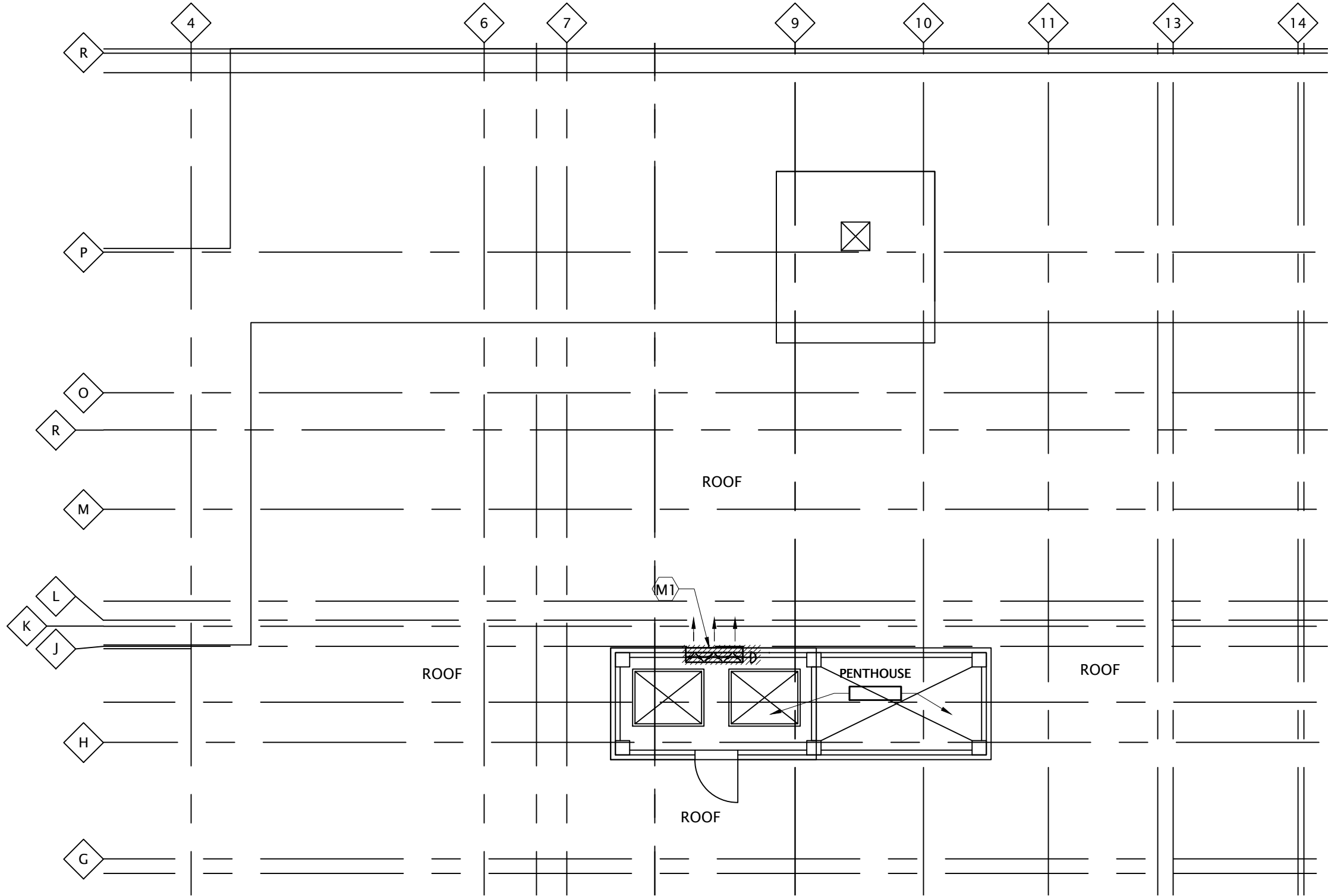
Seal(s)

NORR

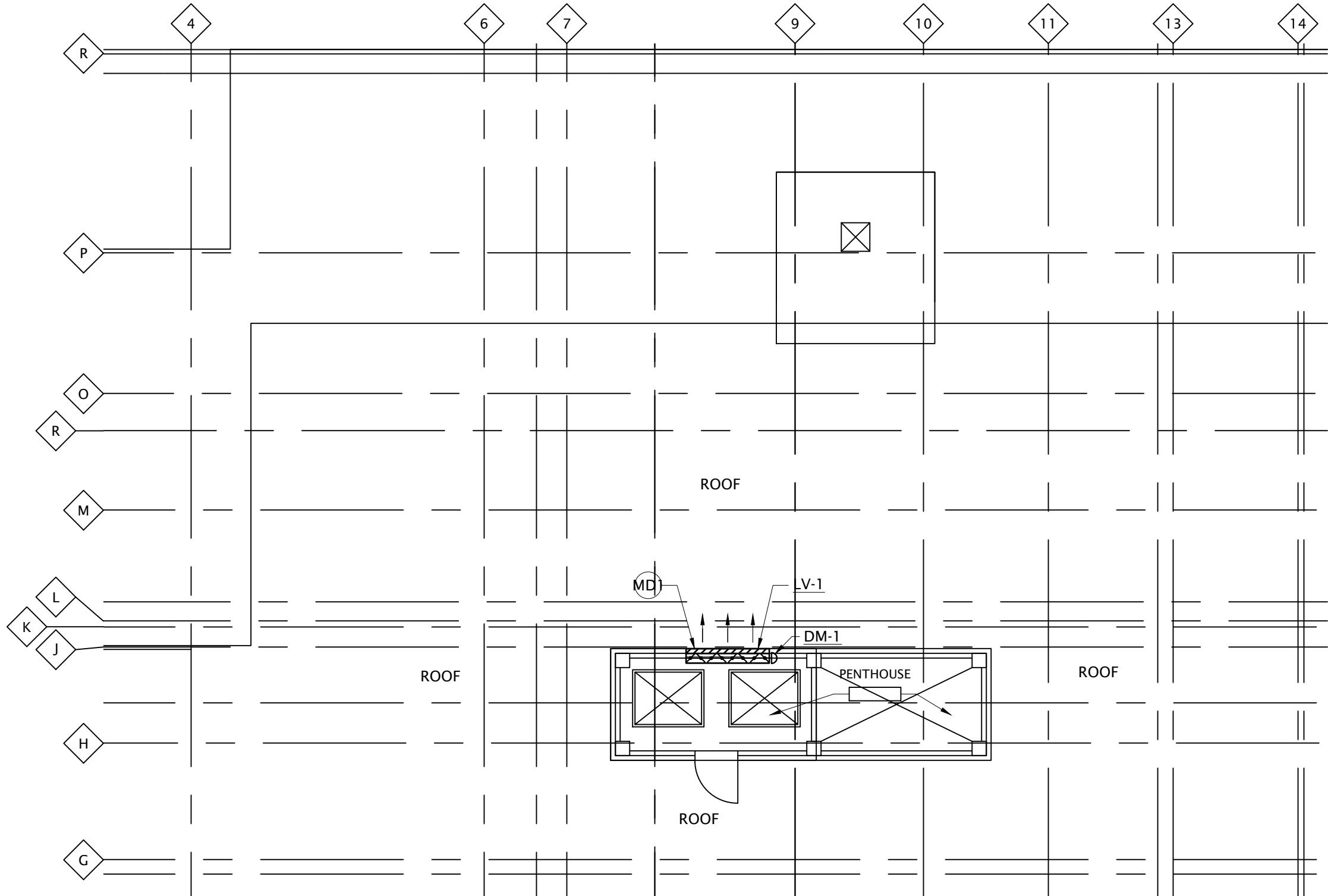
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Project Leader R. HAAS	Checked G. KARANFILOVSKI
Client WAYNE STATE UNIVERSITY Facilities Planning & Management 5454 Cass Ave, Detroit, MI 48202	
Project STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202	
Drawing Title DEMOLITION AND NEW WORK FLOOR PLANS	
Check Scale (may be photo reduced) 0 1 inch 0 10mm	
Project No. JCDT18-0229	
Drawing No. A1-01	



1 MECHANICAL DEMOLITION PLAN - PENTHOUSE
M1-01 SCALE: 1/8" = 1'-0"



2 MECHANICAL NEW WORK PLAN - PENTHOUSE
M1-01 SCALE: 1/8" = 1'-0"

DEMOLITION NOTES BY SYMBOL:

(MD) EXISTING ELEVATOR HOISTWAY VENTILATION LOUVER AND MOTORIZED DAMPER TO BE REMOVED COMPLETELY. CONTRACTOR FIELD VERIFY EXACT SIZE.

NEW WORK NOTES BY SYMBOL:

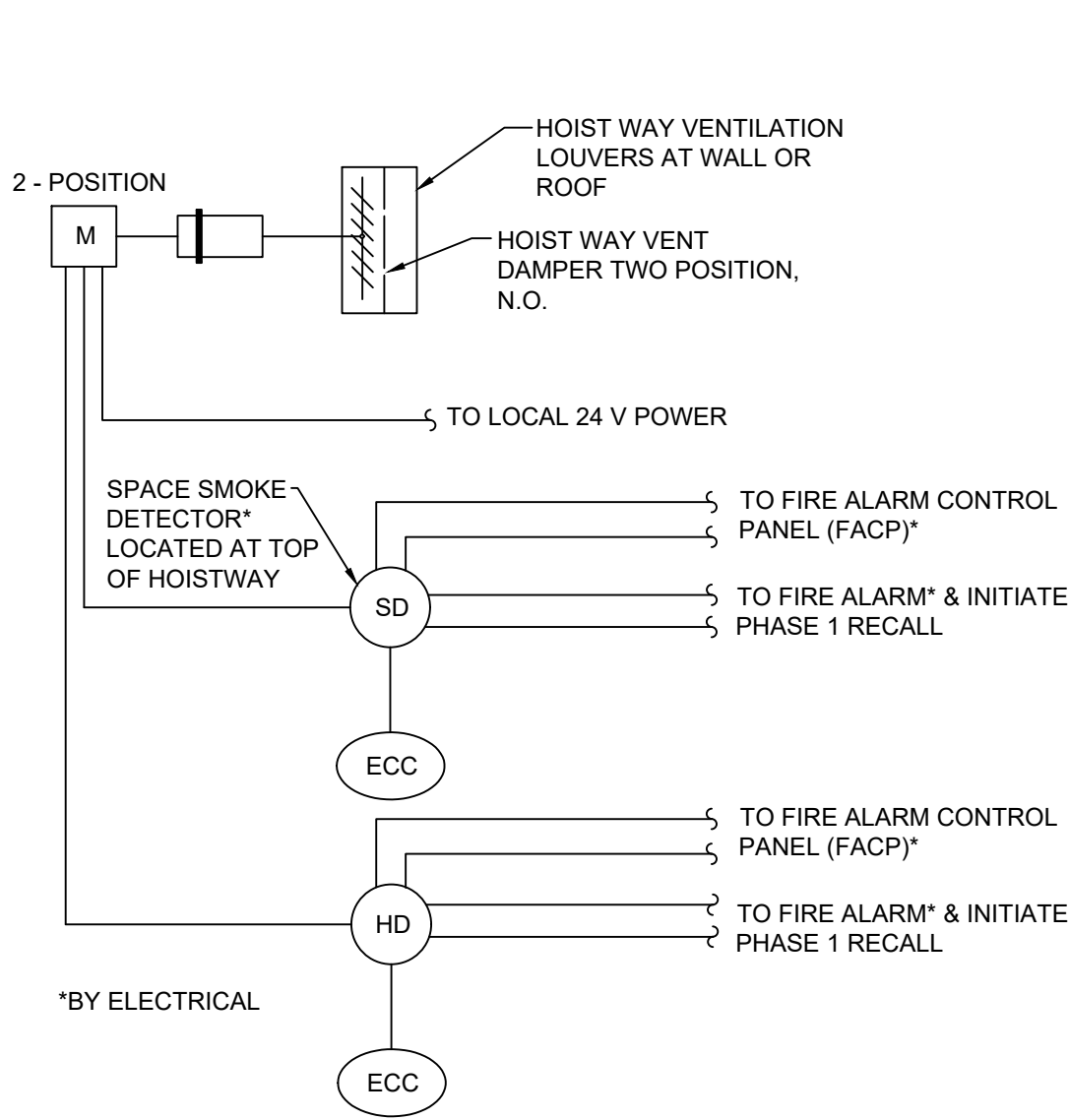
(M1) INSTALL NEW HOISTWAY VENTILATION LOUVER AND MOTORIZED DAMPER. COORDINATE OPENING WITH ARCHITECTURAL. CONNECT DAMPER ACTUATOR WITH SMOKE DETECTOR, HEAT DETECTOR AND ELECTRICAL

GENERAL NOTES:

- THE FACILITY SHALL REMAIN OPERATIONAL DURING CONSTRUCTION
- THE CONTRACTOR SHALL REPLACE/RESTORE ANY ITEM OR EQUIPMENT REQUIRED TO REMAIN OPERATIONAL OR BEING RELOCATED, THAT IS DAMAGED DURING CONSTRUCTION. EQUIPMENT THAT IS TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF NEW WORK SHALL BE REINSTALLED AND RESTORED TO ITS ORIGINAL CONDITION. PATCH ALL WALL OPENINGS AS REQUIRED TO MATCH EXISTING
- VERIFY ALL BUILDING DIMENSIONS AND LOCATIONS IN FIELD AND NOTIFY THE RESPECTIVE DISCIPLINE OF ANY DISCREPANCIES BEFORE COMMENCEMENT OF WORK
- THE CONTRACTOR SHALL PERFORM WORK SO AS NOT TO INTERFERE WITH THE OWNER'S USE OF THE BUILDING AND SHALL NOTIFY THE OWNER IN WRITING 5 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES. AT NO TIME SHALL THE PLUMBING, HVAC OR FIRE PROTECTION SYSTEMS BE INOPERATIVE UNLESS APPROVED BY THE OWNER. THE CONTRACTOR SHALL PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN ALL NECESSARY SERVICES FOR THE BUILDING. AT NO ADDITIONAL COST, THE RELOCATION OF EXISTING UTILITIES SHALL BE SCHEDULED AT THE CONVENIENCE OF THE OWNER.
- FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING MECHANICAL SERVICES BEING REUSED.
- PERFORM WORK IN ACCORDANCE WITH THE LATEST EDITIONS, REVISIONS, AMENDMENTS, OR SUPPLEMENTS OF APPLICABLE STATUTES, ORDINANCES, CODES OR REGULATIONS OF FEDERAL, STATE, AND LOCAL AUTHORITIES HAVING JURISDICTION IN EFFECT ON THE DATE BIDS ARE RECEIVED.

LOUVER SCHEDULE					
TAG	QTY	WIDTH	HEIGHT	FRAME	COMMENTS
LV-1	1	5'-10"	2'-1"	STANDARD	INSTALL BIRD AND INSECT SCREEN, PRIME COAT, BAKED ENAMEL FINISH, COLOUR TO BE SELECTED BY ARCHITECT

MOTORIZED DAMPER SCHEDULE							
TAG	QTY	WIDTH	HEIGHT	DEPTH	BLADE ACTION	FRAME	COMMENTS
DM-1	1	5'-10"	2'-1"	0'-8 1/8"	OPPOSED BLADE	STANDARD	ANODIZED FINISH, FACTORY INSTALLED ELECTRIC ACTUATOR (24V, 2.5W, 5.5VIA TRANSFORMER), WITH FRAME MOUNTING BRACKET AND SP100 SWITCH PACKAGE TO REMOTELY INDICATE BLADE POSITION, FRONT FLANGE FRAME



- THE DAMPER SHALL REMAIN CLOSED DURING NORMAL OPERATION AND OPEN UPON LOSS OF POWER ON A SIGNAL FROM THE SMOKE DETECTOR OR HEAT DETECTOR, LOCATED AT THE TOP OF THE HOIST WAY. COORDINATE NUMBER OF CONTACTS WITH THE ELECTRICAL AND FIRE PROTECTION DESIGN.
- REFER TO PENTHOUSE PLAN AND SCHEDULES FOR LOCATION OF DAMPER AND FOR LOUVER SIZE.
- PROVIDE A BINARY DDC POINT TO SOUND AN ALARM AT ECC.
- REMOTE ALARM SHALL BE ACTIVATED WHEN THE HOIST WAY SMOKE DETECTOR DETECTS SMOKE.
- REMOTE ALARM SHALL BE ACTIVATED WHEN THE HOISWAY HEAT DETECTOR EXCEEDS TEMPERATURE.

3 HOSTWAY VENT DAMPER CONTROLS
M1-01 SCALE: NOT TO SCALE

DATE	ISSUED FOR	REV
08-02-19	OWNER REVIEW	-
08-19-19	PERMIT AND BID SET	-
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Keyplan

AREA OF WORK

KEY PLAN

North Arrow

Detail Symbol

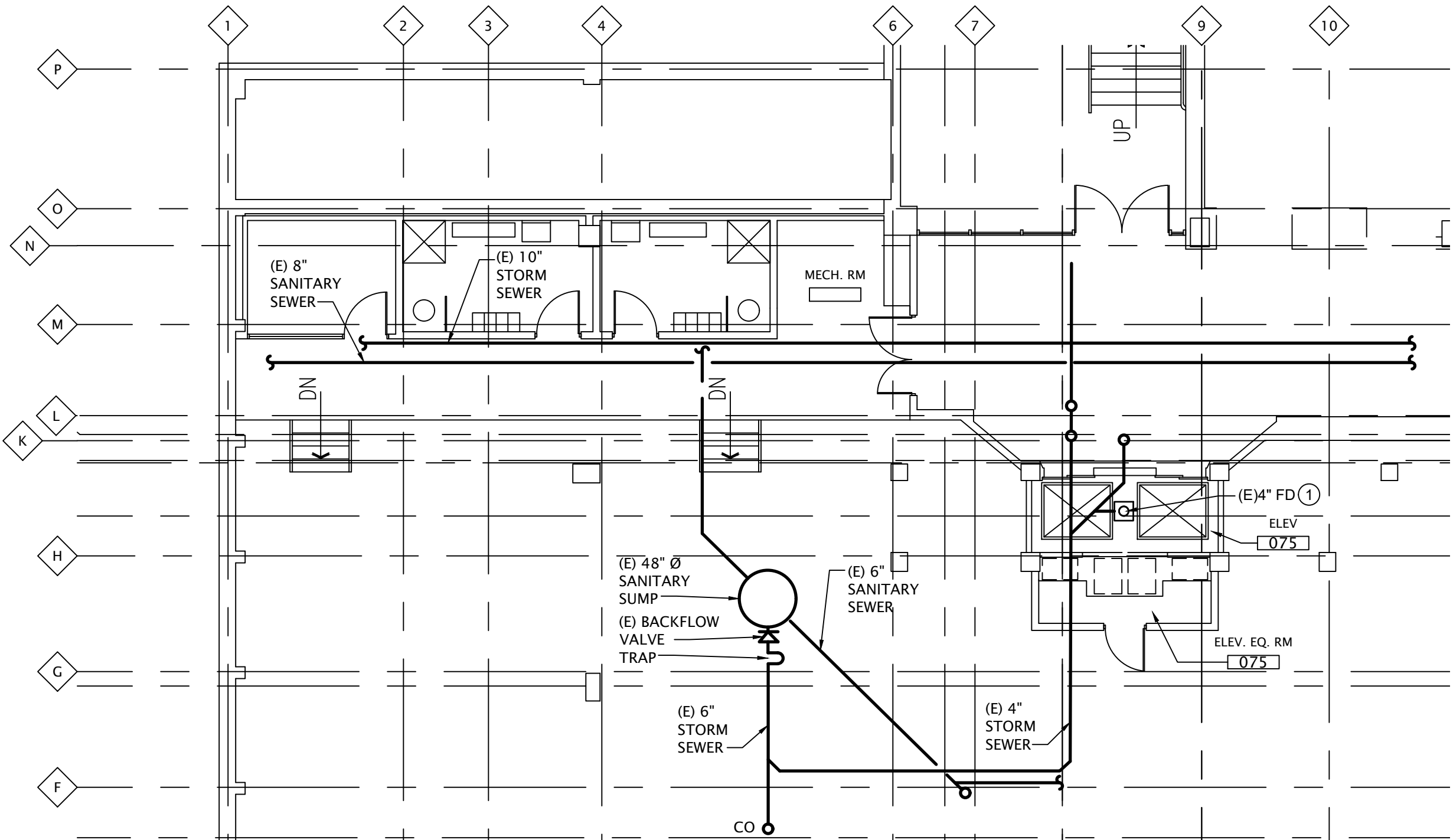
Seal(s)

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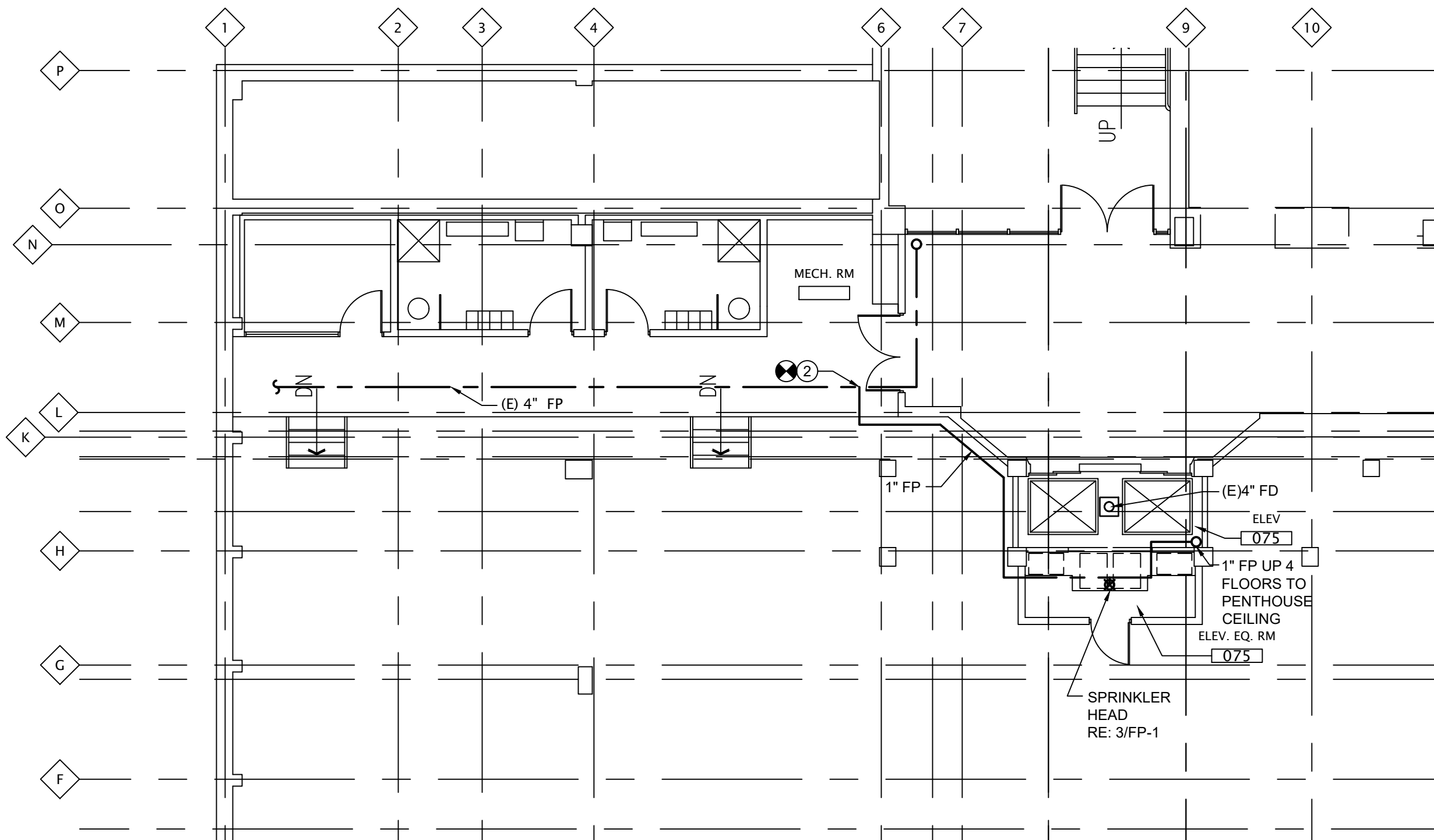
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Detroit, Michigan, 48226 USA
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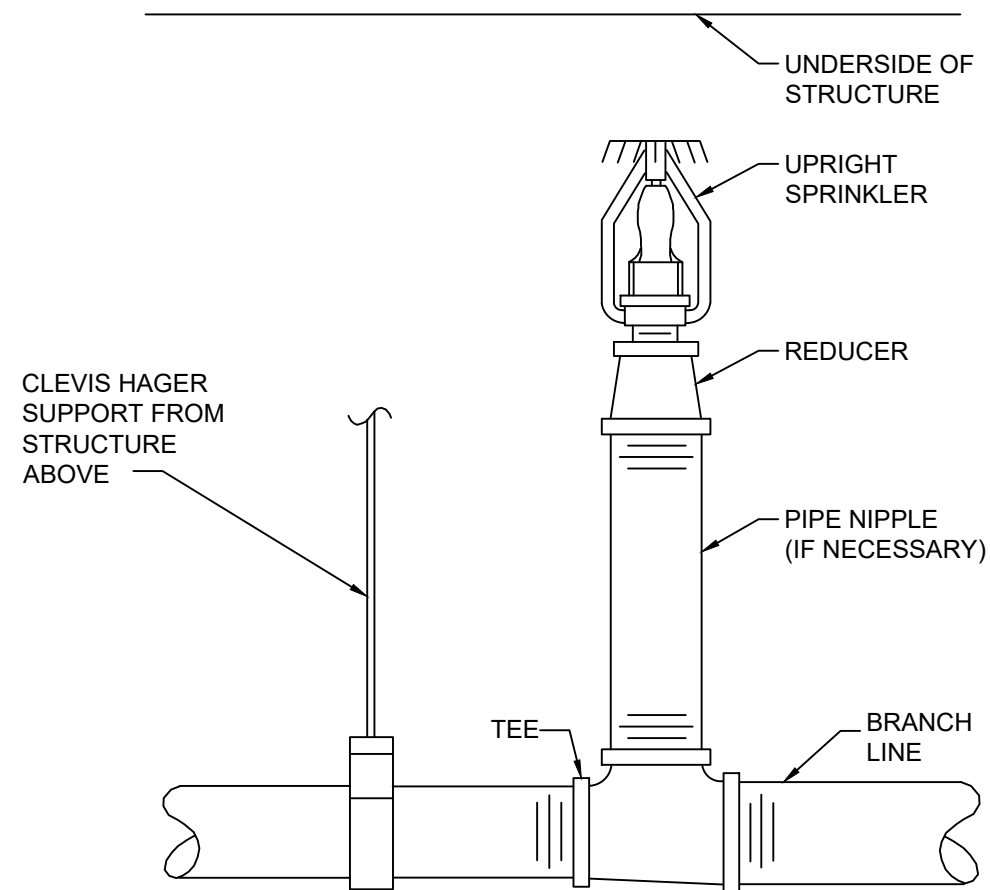
Project Manager A. NOLFF	Drawn I. FONAREV
Project Leader	Checked G. KARANFILOVSKI
Client WAYNE STATE UNIVERSITY Facilities Planning & Management 5454 Cass Ave, Detroit, MI 48202	
Project STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202	
Drawing Title MECHANICAL DEMOLITION AND NEW WORK PLANS NOTES AND SCHEDULES	
Check Scale (may be photo reduced) 0 1 inch 0 10mm	
Project No. JCDT18-0229	
Drawing No. M1-01	



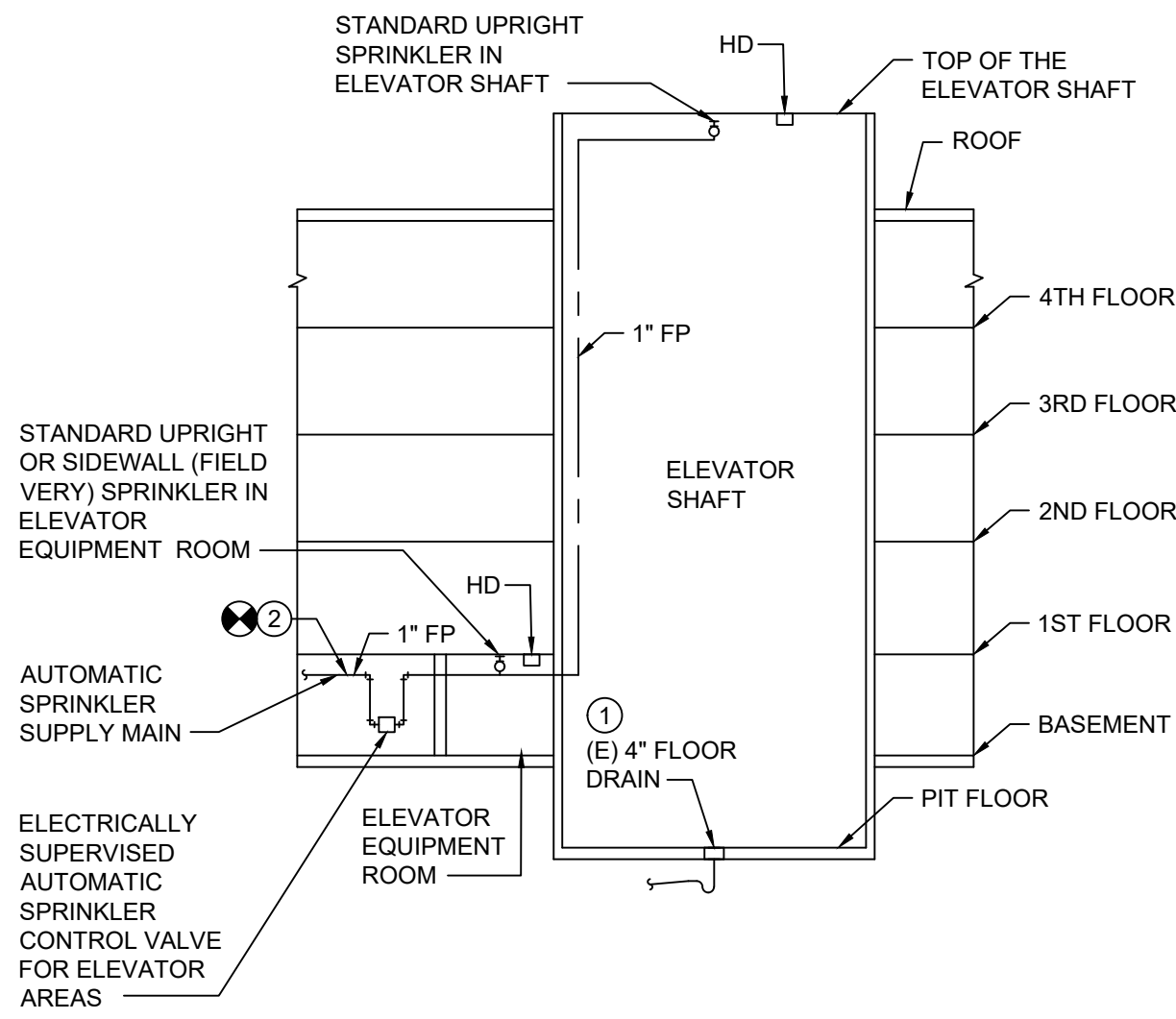
2 PLUMBING PLAN - BASEMENT
SCALE: 1/8" = 1'-0"



1 FIRE PROTECTION PLAN - BASEMENT
SCALE: 1/8" = 1'-0"



4 UPRIGHT SPRINKLER HEAD DETAIL
SCALE: NOT TO SCALE



3 AUTOMATIC SPRINKLERS FOR ELEVATOR HOISTWAYS DIAGRAM
SCALE: NOT TO SCALE

NOTES BY SYMBOL:

- EXISTING 4" FLOOR DRAIN TO BE REUSED. INSTALL TRAP SEAL PRIMER FOR THE EXISTING DRAIN.
- NEW 1" FIRE PROTECTION PIPE TO BE CONNECTED TO 6" EXISTING FIRE PROTECTION MAIN IN BASEMENT MECHANICAL ROOM. FIELD VERIFY EXACT SIZE AND POINT OF CONNECTION TO THE EXISTING PIPE.

FIRE PROTECTION GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL INTENT OF THE WORK. PROVIDE FIRE PROTECTION SYSTEMS COMPLETE, PER APPLICABLE CODES, PER NFPA, AND PER REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION INCLUDING ALL PIPING, OFFSETS, FITTINGS, DRAINS, VALVES, SPRINKLER HEADS, ETC. AS REQUIRED FOR A COMPLETE OPERABLE SYSTEM.
- FIRE PROTECTION CONTRACTOR SHALL COORDINATE WORK WITH THE WORK OF ALL OTHER TRADES.
- MINIMUM RUN-OUT PIPE SIZE TO SPRINKLER HEADS SHALL BE 1".
- FIRE PROTECTION WATER SUPPLY SOURCE SHALL BE PER NFPA 24.
- CONTRACTOR SHALL MAKE APPLICATION AND PAY FOR ALL INSPECTION, PERMIT AND LICENSE REQUIRED BY THE LOCAL AUTHORITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE TURN KEY INSTALLATION USING UNDERWRITER LABORATORIES UL LISTED PRODUCTS INCLUDING DESIGN, OBTAINING APPROVALS AND COORDINATION WITH OTHER TRADES.
- INSTALL TO MEET NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS AND NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE AND LOCAL AUTHORITY HAVING JURISDICTION.
- NORR DESIGN DOCUMENTS ARE FOR PERMIT PURPOSES.
- THE DESIGN IS NOT INTENDED TO LIMIT THE CONTRACTOR FROM PROVIDING ANOTHER DESIGN THAT MAY BE MORE ECONOMICAL AND STILL MEET THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- HYDRAULIC CALCULATIONS:
 - SUBMIT WORKING PLANS PER NFPA 13 AND HYDRAULIC CALCULATIONS USING HYDRAULIC CALCULATIONS PROCEDURES IN ACCORDANCE WITH NFPA 13. SIGNED AND SEALED BY A REGISTERED PROFESSIONAL FIRE PROTECTION ENGINEER TO THE AUTHORITY THAT HAVE JURISDICTION.
 - WORKING PLANS AND COMPUTERIZED HYDRAULIC CALCULATIONS SHALL BE PREPARED A MINIMUM LEVEL 3 N.I.C.E.T. CERTIFIED SPRINKLER LAYOUT DESIGNER. DRAWINGS SHALL BE SIGNED AND THE N.I.C.E.T. CERTIFICATE NUMBER INDICATED ON PLAN. ALL DRAWINGS, INCLUDING AS-BUILTS, SHALL BE SUBMITTED ON DISC USING AUTO CAD.
 - THE HYDRAULIC CALCULATIONS SHALL INCLUDE THE PRESSURE DROP THROUGH ALL PIPE, FITTINGS AND DEVICES, INCLUDING THE PRESSURE DROP THROUGH THE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER, FROM THE MOST HYDRAULIC REMOTE POINT OF THE SPRINKLER SYSTEM TO THE LOCATION OF THE TEST HYDRANT.
 - THE HYDRAULIC CALCULATIONS SHALL BE BASED ON THE LATEST FLOW TEST DATA.
- FIRE PROTECTION CONTRACTOR SHALL PROVIDE A GUARANTEE COVERING ALL DESIGNED, INSTALLATION, MATERIAL AND WORKMANSHIP FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE.
- PIPING SHALL BE SLOPED TO DRAIN BACK TO SPRINKLER RISER. AUXILIARY DRAINAGE IN ACCORDANCE WITH NFPA 13 SHALL BE PROVIDED FOR ALL TRAPPED SECTIONS OF PIPE.
- SPRINKLER DESIGN SHALL BE IN CONFORMANCE WITH NFPA 13 AND THE AUTHORITY HAVING JURISDICTION.
- SPRINKLER DESIGN:
 - PROVIDE AUTOMATIC SPRINKLER BELOW OBSTRUCTIONS 48 INCHES AND WIDER. (PLATFORMS, DUCTWORK, STAIRWAYS, UNIT HEATER, ETC.)
 - THE SPRINKLER DESIGN SHALL BE BASED ON LISTED SPRINKLERS. AT THE CONTRACTOR'S OPTION, LISTED QUICK-RESPONSE SPRINKLERS MAY BE USED, IN CONFORMANCE WITH NFPA 13 AND AUTHORITY HAVING JURISDICTION.
 - SPRINKLERS WITH A TEMPERATURE RATING OF 135°F TO 170°F ARE CLASSIFIED AS ORDINARY TEMPERATURE RATED SPRINKLERS. SPRINKLERS WITH A RATINGS OF 175°F TO 225°F ARE CLASSIFIED AS INTERMEDIATE TEMPERATURE RATED SPRINKLERS.
- CONTRACTOR SHALL MAKE PRESSURE AND FLOW TEST PRIOR TO SYSTEM DESIGN. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- THE FOLLOWING INFORMATION SHALL BE PROVIDED BY THE FIRE PROTECTION CONTRACTOR AT SUBMITTAL OF SHOP DRAWINGS AND CALCULATIONS:
 - STATIC PRESSURE PSI: XX
 - RESIDUAL PRESSURE PSI: XX
 - FLOW GPM: XX
 - FLOW TEST HYDRANT LOCATIONS: HYD. #1 - LOCATION, HYD #2 - I-OCATION
 - DATE OF TEST: XX-XX-XXXX
 - TIME OF TEST: XXXX
 - RESPONSIBLE PARTY CONDUCTING TEST: XXXXX
 - HYDRANT OUTLET DISCHARGE COEFFICIENT: XXX
- PIPE ALL DRAINS AND INSPECTOR'S TEST TO OUTSIDE, OR DISCHARGE TO A DRAIN APPROVED BY THE OWNER FOR SPRINKLER DISCHARGE.

NOTES:

- AUTOMATIC SPRINKLER IN ELEVATOR EQUIPMENT ROOM TO BE 1/2" ORIFICE, 212 °F RATED.
- HEAT DETECTORS IN ELEVATOR EQUIPMENT ROOM AND AT TOP OF ELEVATOR SHAFT TO BE 160°F RATED.
- HEAT DETECTOR AND AUTOMATIC SPRINKLER CONTROL VALVE TO BE WIRED TO ELEVATOR CONTROLS TO SHUT DOWN ELEVATOR PRIOR TO ACTUATION OF AUTOMATIC SPRINKLERS.
- SPRINKLERS INDICATED ARE SCHEMATIC ONLY. ACTUAL LOCATION AND SPACING OF SPRINKLERS TO BE IN ACCORDANCE WITH NFPA 13.

DATE	ISSUED FOR	REV
08-02-19	OWNER REVIEW	-
08-19-19	PERMIT AND BID SET	-

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Keyplan	AREA OF WORK
North Arrow	Detail Symbol
True North	Detail No. Sheet No.

Seal(s)
NORR
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Project Manager A. NOLFF	Drawn I. FONAREV
Project Leader	Checked G. KARANFILOVSKI
Client	WAYNE STATE UNIVERSITY Facilities Planning & Management 5454 Cass Ave, Detroit, MI 48202
Project	STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202
Drawing Title	FIRE PROTECTION AND PLUMBING PLANS - BASEMENT
Check Scale (may be photo reduced)	0 1 inch 0 10mm
Project No.	JCDT18-0229
Drawing No.	FP1-01

ELECTRICAL SYMBOL LIST

CONDUIT SYSTEM

	CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING EXPOSED IN UNFINISHED AREAS
	CONDUIT CONCEALED IN FLOOR SLAB OR UNDERGROUND
	CONDUIT OR CABLE TURNED UP
	CONDUIT OR CABLE TURNED DOWN
	BRANCH CIRCUIT HOMERUNS TO PANELS OR AS NOTED, LINES INDICATE NUMBER OF WIRES IN CONDUIT SHORT LINE IS NEUTRAL OPPOSITE SHORT SLANT IS GROUND
	JUNCTION BOX (SIZE PER NEC OR AS INDICATED)
	PULL BOX (SIZE PER NEC OR AS INDICATED)

MOUNTING HEIGHTS

(ALL MOUNTING HEIGHTS ARE TO THE CENTER OF THE DEVICE, UNLESS OTHERWISE NOTED)

RECEPTACLE	18" AFF
LIGHT SWITCHES	48" AFF
CLOCK OUTLETS	7'-6" AFF
FIRE ALARM AUDIO AND VISUAL SIGNALS, OFFICE AREA	7'-6" AFF
MANUAL PULL STATION	48" AFF
CARD READERS	48" AFF
DISTRIBUTION PANELS	7'-0" AFF TO TOP
LIGHTING OR RECEPTACLE PANELS	6'-0" AFF TO TOP
MOTOR STARTERS OR SAFETY SWITCHES	5'-0" AFF TO TOP

POWER SYSTEMS

	PANEL BOARD
	TRANSFORMER, 480-208Y/120 VOLT DRY TYPE UNLESS OTHERWISE NOTED
	MOTOR CONTROL CENTER
	MULTI-OUTLET ASSEMBLY WITH OUTLETS UNLESS OTHERWISE NOTED
	MOTOR - SIZE AS INDICATED
	PUSH BUTTON STATION
	UNFUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MANUAL STARTER, WITH PILOT LIGHT
	3 PHASE FUSIBLE COMBINATION STARTER
	20A, 125V, 3W, SINGLE GROUNDING RECEPTACLE, NEMA 5-20R 'C' INDICATES CEILING MOUNTED
	20A, 125V, 3W, DUPLEX GROUNDING RECEPTACLE, NEMA 5-20R 'C' INDICATES CEILING MOUNTED
	20A, 125V, 3W, DUPLEX GROUNDING RECEPTACLE, NEMA 5-20R MOUNTED 6" ABOVE FINISHED COUNTER
	20A, 125V, 3W, DOUBLE DUPLEX GROUNDING RECEPTACLE, NEMA 5-20R 'C' INDICATES CEILING MOUNTED
	SPECIAL RECEPTACLE. REFER TO DRAWINGS FOR NEMA CONFIGURATION
	CLOCK OUTLET
	FLOOR BOX
	POKE THROUGH

LIGHTING CONTROL SYSTEMS

	SWITCH, SINGLE POLE, 20A
	SWITCH, DOUBLE POLE, 20A
	SWITCH, THREE WAY, 20A
	DIMMER SWITCH
	SWITCH, LOW VOLTAGE
	SWITCH, OCCUPANCY SENSOR
	SWITCH, TIMER
	LIGHTING CONTROL BOX/RELAY
	OCCUPANCY SENSOR - WALL/CEILING MOUNTED
	DAYLIGHT SENSOR
	PHOTOCELL

FIRE ALARM SYSTEM

	MANUAL PULL STATION
	AREA SMOKE DETECTOR
	DUCT TYPE SMOKE DETECTOR
	AUDIO/VISUAL ALARM SIGNAL RECESSED MOUNTED 'C' INDICATES CEILING MOUNTED
	VISUAL ALARM STROBE SIGNAL - WALL/CEILING MOUNTED
	AUDIO ALARM SIGNAL SIGNAL 'C' INDICATES CEILING MOUNTED
	HEAT DETECTOR
	FLAME DETECTOR
	BEAM SMOKE DETECTOR - RECEIVER
	BEAM SMOKE DETECTOR - TRANSMITTER
	ADDRESSABLE INTERFACE MODULE
	SPRINKLER FLOW SWITCH
	SPRINKLER PRESSURE SWITCH
	SPRINKLER VALVE TAMPER SWITCH
	FIREMANS TELEPHONE JACK
	FIRE ALARM SYSTEM CONTROL PANEL
	REMOTE FIRE ALARM SYSTEM ANNUNCIATOR PANEL

TELECOMMUNICAITON SYSTEM

	WIRELESS ACCESS POINT
	TELECOMMUNICATION OUTLET - EMPTY 'C' INDICATES CEILING MOUNTED
	TELECOMMUNICATION OUTLET - CABLES AS INDICATED 'C' INDICATES CEILING MOUNTED

CLOCK

	CLOCK - WALL/CEILING MOUNTED
	CLOCK- DOUBLE FACED - WALL/CEILING MOUNTED

GROUNDING

	GROUND ROD
	1/4 " X 2" COPPER GROUND BAR
	DOT INDICATES THERMIT WELD OR CONNECTION

LIGHTING SYSTEM

	2'X4' FIXTURE 'X' INDICATES FIXTURE TYPE
	2'X2' FIXTURE 'X' INDICATES FIXTURE TYPE
	1'X4' FIXTURE 'X' INDICATES FIXTURE TYPE
	FIXTURE WITH NIGHT LIGHT CIRCUIT 'X' INDICATES FIXTURE TYPE
	STRIP FIXTURE 'X' INDICATES FIXTURE TYPE
	DOWNLIGHT FIXTURE 'X' INDICATES FIXTURE TYPE
	NIGHT LIGHT DOWNLIGHT FIXTURE 'X' INDICATES FIXTURE TYPE
	EXIT LIGHT
	DIRECTIONAL ARROWS IF INDICATED
	BATTERY OPERATED AUTOMATIC EMERGENCY LIGHTING UNIT WITH NUMBER OF HEADS AS SHOWN
	REMOTE MOUNTED LIGHT HEAD FROM BATTERY EMERGENCY UNIT
	POLE MOUNTED FIXTURE
	FLOODLIGHT

SECURITY SYSTEM

	CCTV CAMERA
	CCTV MONITOR
	MOTION DETECTOR
	MAGNETIC DOOR CONTACTS
	SIGNAL BELL
	INTERCOM STATION
	CARD READER

PAGING SYSTEM

	SPEAKER - WALL/CEILING MOUNTED
	PAGING SYSTEM AMPLIFIER & CONTROL PANEL
	MICROPHONE OUTLET - WALL/CEILING MOUNTED

NURSE CALL SYSTEM

	CALL LIGHT - WALL/CEILING MOUNTED
	CALL/PULL STATION

TELEVISION SYSTEM

	TELEVISION OUTLET
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ELECTRICAL ABBREVIATIONS

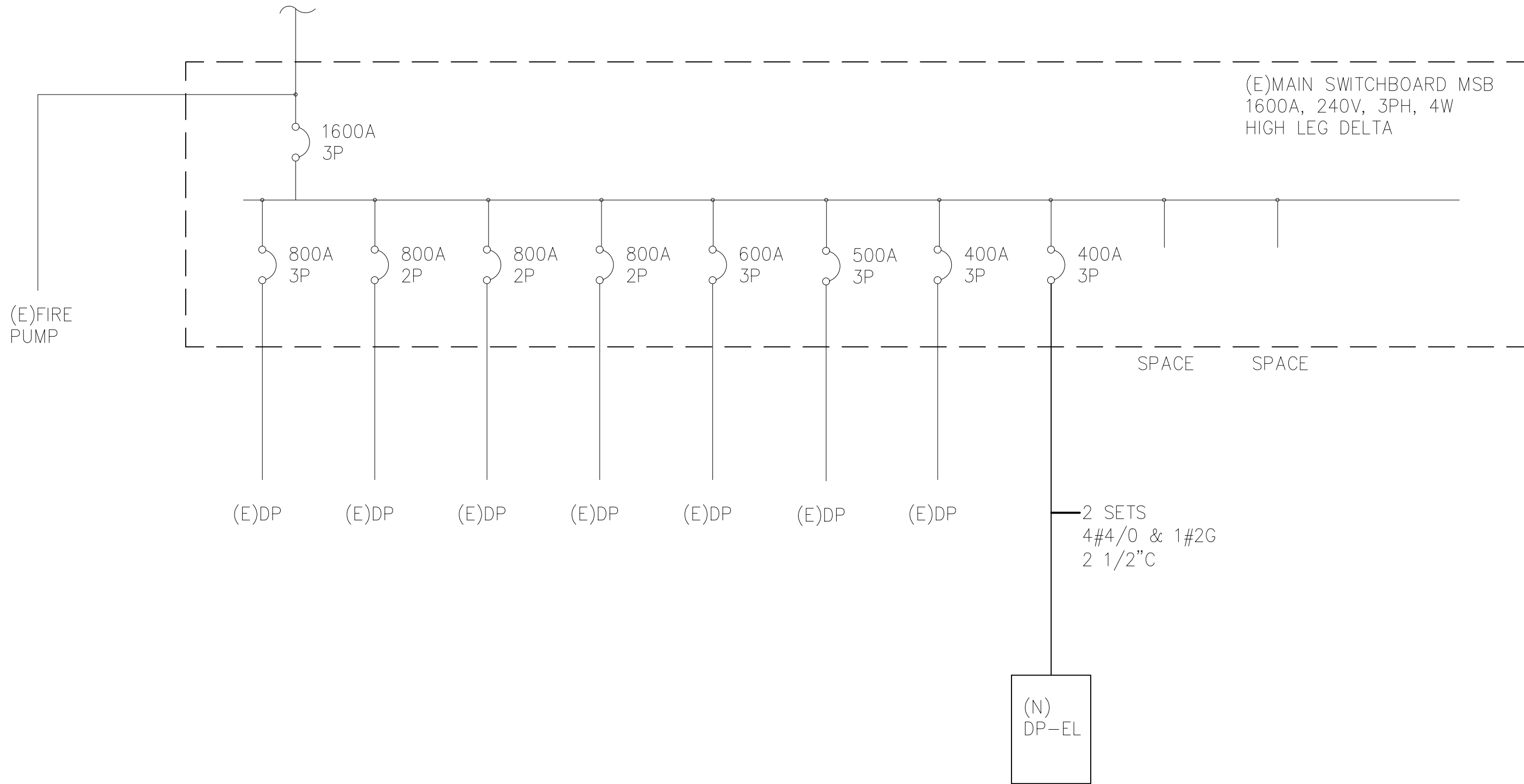
ONE LINE DIAGRAMS

	DRAW OUT SUBSTATION CIRCUIT BREAKER
	AMMETER SWITCH
	VOLTMETER SWITCH
	KEY INTERLOCK
	AMMETER
	VOLTMETER
	WATT-HOUR METER
	KILOWATT HOUR METER
	GROUND CONNECTION
	REVERSE PHASE OR PHASE BALANCE CURRENT RELAY
	PHASE SEQUENCE VOLTAGE RELAY
	TIME OVERCURRENT RELAY
	INSTANTANEOUS OVERCURRENT GROUND SENSING RELAY
	FUSE
	CIRCUIT BREAKER
	SINGLE THROW SWITCH
	LIGHTNING ARRESTOR
	AUTOMATIC TRANSFER SWITCH
	POWER TRANSFORMER
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER

A	AMPERE	M	METER
AC	ARMORED CABLE	MA	MILLIAMPERE
ALC	ALTERNATING CURRENT	MAX	MAXIMUM
ADD	ADDENDUM	MCC	MOTOR CONTROL CENTER
AF	AMPERES, FRAME (BREAKER RATING)	MECH	MECHANICAL
AFF	ABOVE FINISHED FLOOR	MEZZ	MEZZANINE
AFG	ABOVE FINISHED GRADE	MFG	MANUFACTURING
AG	ABOVE GROUND	MFR	MANUFACTURER
AL	ALUMINUM	MH	MANHOLE, METAL HALIDE
AM	AMMETER		MOUNTING HEIGHT
APPROX	APPROXIMATE	MIC	MICROPHONE
ARCH	ARCHITECTURAL	MIN	MINIMUM
AS	AMMETER SWITCH	MISC	MISCELLANEOUS
ASR	AUTOMATIC SPRINKLER RISER	MLO	MAIN LUG ONLY
AT	AMPERE TRIP (BREAKER SETTING)	MO	MOTOR OPERATED
ATS	AUTOMATIC TRANSFER SWITCH	MTD	MOUNTED
AUX	AUXILIARY	MTG	MOUNTING
AWG	AMERICAN WIRE GAUGE	MTS	MANUAL TRANSFER SWITCH
BC	BOTTOM CHORD	N	NEW, NEUTRAL, NORTH
BD	BUS DUCT	NC	NORMALLY CLOSED
BLDG	BUILDING	NEC	NATIONAL ELECTRICAL CODE
BRK	BREAKER	NF	NOT FUSED
C	CONDUIT	NIC	NOT IN CONTRACT
CAS	CONTROLLED ACCESS SYSTEM	NL	NIGHT LIGHT
CB	CIRCUIT BREAKER	NO	NORMALLY OPEN, NUMBER
CCTV	CLOSED CIRCUIT TELEVISION	NTS	NOT TO SCALE
CLF	CURRENT LIMITING FUSE	OC	ON CENTER
CLG	CEILING	OFF	OFFICE
CKT	CIRCUIT	OL	OVERLOAD
COAX	COAXIAL CABLE	OPNG	OPENING
COL	COLUMN	P	POLE
CONT	CONTINUATION (CONTINUOUS)	PA	PUBLIC ADDRESS SYSTEM
CP	CONTROL PANEL	PB	PULLBOX
CT	CURRENT TRANSFORMER	PBS	PUSH BUTTON STATION
CTB	CURRENT TEST BLOCK	PDP	POWER DISTRIBUTION PANEL
CU	COPPER	PF	POWER FACTOR
DC	DIRECT CURRENT	PH	PHASE
DEG	DEGREE	PIV	POST INDICATOR VALVE
DEPT	DEPARTMENT	PL	PILOT LIGHT
DET	DETAIL	PNL	PANEL
DIA	DIAMETER	PP	POWER PANEL
DISC	DISCONNECT	PR	PAIR
DN	DOWN	PRI	PRIMARY
DP	DISTRIBUTION PANEL	PS	PULL SWITCH
DT	DOUBLE THROW	PT	POTENTIAL TRANSFORMER
DWG	DRAWING	PVC	POLYVINYL CHLORIDE
EA	EACH	PWR	POWER
EDP	EMERGENCY POWER DISTRIBUTION PANEL	R, (R)	RELOCATED (EXISTING)
EF	EXHAUST FAN	RC	REMOTE CONTROL
EL	ELEVATION	RECPT	RECEPTACLE
ELEC	ELECTRIC (ELECTRICAL)	RP	RECEPTACLE PANEL
ELP	EMERGENCY LIGHTING PANEL	RSC	RIGID STEEL CONDUIT
ELR	END-OF-LINE RESISTOR	SD	SMOKE DETECTOR
EM	EMERGENCY	SEC	SECONDARY
EMCC	EMERGENCY MOTOR CONTROL CENTER	SHLD	SHIELDED
EMT	ELECTRIC METALLIC TUBING	SHT	SHEET
EO	ELECTRIC OPERATED	SIG	SIGNAL
EPO	EMERGENCY POWER OFF	SP	SINGLE POLE
EQPT	EQUIPMENT	SPEC	SPECIFICATION
ERP	EMERGENCY RECEPTACLE PANEL	SPKR	SPEAKER
EUH	ELECTRIC UNIT HEATER	SS	SELECTION SWITCH
EW	ELECTRIC WATER COOLER	ST	SINGLE THROW
EXST/(E)	EXISTING	STP	SHIELDED TWISTED PAIR
FA	FIRE ALARM	STP/OS	SHIELDED TWISTED PAIR W/ OVERALL SHIELD
FAA	FIRE ALARM ANNUNCIATOR PANEL	STRUCT	STRUCTURAL
FACP	FIRE ALARM CONTROL PANEL	SUBST	SUBSTATION
FDR	FEEDER	SW	SWITCH
FIN	FINISH	SWBD	SWITCHBOARD
FIXT	FIXTURE	SWGR	SWITCHGEAR
FL	FLOOR	SYS	SYSTEM
FU	FUSE	T	THERMOSTAT
FUT	FUTURE	TB	TERMINAL BLOCK
GND/G	GROUND	TEL	TELEPHONE
GEN	GENERATOR	TRP	POWER FACTOR TRANSDUCER
GFI	GROUND FAULT INTERRUPTER	TOS	TOP OF STEEL
HID	HIGH INTENSITY DISCHARGE	TYP	TYPICAL
HGT	HEIGHT	UG	UNDERGROUND
HORIZ	HORIZONTAL	UH	UNIT HEATER
HP	HORSEPOWER	UON	UNLESS OTHERWISE NOTED
HPS	HIGH PRESSURE SODIUM	UTP	UNSHIELDED TWISTED PAIR
HTR	HEATER	UTP/OS	UNSHIELDED TWISTED PAIR W/ OVERALL SHIELD
HV	HIGH VOLTAGE	V	VOLT OR VOLTAGE
HVAC	HEATING VENTILATING AND AIR CONDITIONING	VM	VOLTMETER
IAC	INTERLOCKING ARMOR CABLE	VP	VAPOR PROOF
IC	INTERCOM	VS	VOLTMETER SWITCH
IE	INVERT ELEVATION	VTR	VOLTAGE TRANSDUCER
INC	INCANDESCENT, INCORPORATE	W	WATT
ISO	ISOLATED NEUTRAL	WH	WATT-HOUR METER
JB	JUNCTION BOX	WHD	WATT-HOUR DEMAND METER
kcml	THOUSAND CIRCULAR MIL(S)	WP	WEATHER PROOF
KV	KILOVOLT	WLR	WELDING RECEPTACLE
KVA	KILOVOLT-AMPERES	WR	WEATHER RESISTANT
KVAR	KILOVOLT-AMPERES REACTIVE	W/	WITH
KW	KILOWATT	W/O	WITHOUT
KWH	KILOWATT-HOUR	XFMR	TRANSFORMER
LA	LIGHTNING ARRESTOR	XP	EXPLOSION PROOF
LDP	LIGHTING DISTRIBUTION PANEL		
LP	LIGHTING PANEL		
LT	LIGHT		
LTG	LIGHTING		
LV	LOW VOLTAGE		

DATE	ISSUED FOR	REV
08-02-19	OWNER REVIEW	-
08-15-19	PERMIT AND BID SET	-
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<p>Keyplan</p> <p>North Arrow</p> <p>Detail Symbol</p>		
<p>Seal(s)</p>		
<p>NORR</p> <p>NORR LLC An Ingenium Group Company</p> <p>719 Griswold Street, Suite 1000 Detroit, Michigan, 48226 USA www.norr.com</p>		
Project Manager A. NOLFF	Drawn M. GOOD	
Project Leader	Checked G. KARABELOVSKI	
<p>Client</p> <p>WAYNE STATE UNIVERSITY Facilities Planning & Management 5454 Cass Ave, Detroit, MI 48202</p>		
<p>Project</p> <p>STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202</p>		
<p>Drawing Title</p> <p>ELECTRICAL SYMBOLS AND ABBREVIATIONS</p>		
<p>Check Scale (may be photo reduced)</p>		
<p>Project No.</p> <p>JCDT18-0229</p>		
<p>Drawing No.</p> <p>E0-01</p>		

ARCH D - 24"x36" - 610mmx914mm (rounded)



MAIN SWITCHBOARD IS BEING PROVIDED WITH THE PLD/DTE UTILITY SWITCH OVER PROJECT. CONSTRUCTION IS DUE TO START FALL OF 2019. COORDINATE CONNECTION TO MAIN SWITCHBOARD WITH PLD/DTE PROJECT.

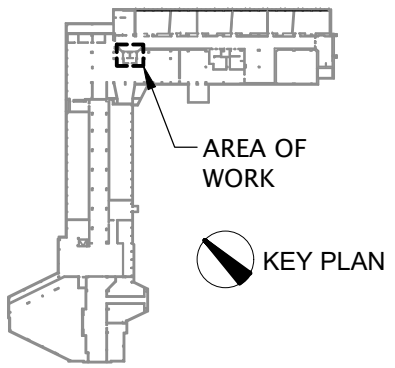
1 ONE LINE DIAGRAM
E0-02 SCALE: NONE

LIGHTING FIXTURE SCHEDULE			
TAG	DESCRIPTION	MANUFACTURER	LAMP
A	24" WALL MOUNTED LED SEALED STRIP FIXTURE. IP65 RATED.	LITHONIA DMW2-L24-3000LM-ACL-MD-120-GZ10-35K-80CRI	LED, 27W

EXISTING PANELBOARD RP-ELEV SCHEDULE																									
VOLTAGE: 240/120 BUS SIZE: 100 AMP												MAINS 100A MCB				MOUNTING: SURFACE FAULT DUTY: 10k				REMARKS:					
No.	SERVES	LOAD (KVA)						BRKR		PH	A	B	BRKR		LOAD (KVA)						SERVES	No.			
		LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P				TRIP	MISC	HTG	A/C	MTR	RCPT	LTG						
1	ELEV ROOM LIGHTS	0.5						20	1	X			1	20					0.2		ELEV ROOM GFI	2			
3	CAB LIGHTS ELEV 2	0.5						20	1	X			1	20					0.5		CAB LIGHTS ELEV 1	4			
5	EXHAUST FAN			0.5				15	1	X			1	20					0.4		PIT GFI	6			
7	SPACE									X			1	20					0.2		PIT LIGHTS	8			
9	SPACE									X											SPACE	10			
11	SPACE									X											SPACE	12			
13	SPACE									X											SPACE	14			
15	SPACE									X											SPACE	16			
17	SPACE									X											SPACE	18			
19	SPACE									X											SPACE	20			
															0.0	0.0	0.0	0.5	0.5	1.7	CONNECTED KVA	2.7			
															0.0	0.0	0.0	0.6	0.5	1.7	DEMAND KVA	2.9			
																					DEMAND AMPS	12			

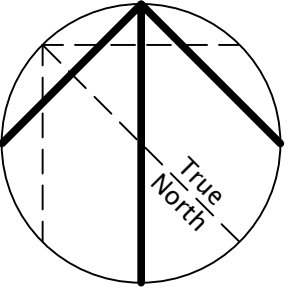
NEW PANELBOARD										DP-EL				SCHEDULE									
VOLTAGE: 240HLD/120 BUS SIZE: 400 AMP										MAINS: 400A MLO				MOUNTING: RECESSED FAULT DUTY 42k				REMARKS:					
No.	SERVES	LOAD (KVA)						BRKR		PH		BRKR		LOAD (KVA)						SERVES	No.		
		LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P	A	B	C	P	TRIP	MISC	HTG	A/C	MTR	RCPT			LTG	
1	ELEVATOR 1									X			3	60				14.9			ELEVATOR 2	2	
3				14.9				60	3	X			X									4	
5										X												6	
7		SPACE								X			X									SPACE	8
9	SPACE									X											SPACE	10	
11	SPACE									X											SPACE	12	
13	SPACE									X											SPACE	14	
15	SPACE									X											SPACE	16	
17	SPACE									X		X									SPACE	18	
19	SPACE									X											SPACE	20	
21	SPACE									X											SPACE	22	
23	SPACE									X		X									SPACE	24	
25	SPACE									X											SPACE	26	
27	SPACE									X		X									SPACE	28	
29	SPACE									X		X									SPACE	30	
31	SPACE									X											SPACE	32	
33	SPACE									X		X									SPACE	34	
35	SPACE									X		X									SPACE	36	
37	SPACE									X											SPACE	38	
39	SPACE									X		X									SPACE	40	
41	SPACE									X		X									SPACE	42	
															0.0	0.0	0.0	29.8	0.0	0.0	CONNECTED KVA		29.8
															0.0	0.0	0.0	37.3	0.0	0.0	DEMAND KVA		37.3
																					DEMAND AMPS		90

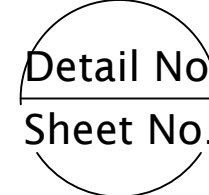
DATE	ISSUED FOR	REV
08-02-19	OWNER REVIEW	-
08-15-19	PERMIT AND BID SET	-
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This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer.		


Keyplan

AREA OF WORK

KEY PLAN

North Arrow

Detail Symbol

Seal(s)

8-19-19

NORR

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Project Manager
A. NOLFF

Drawn
M. GOOD

Project Leader

Checked
G. KARANFILOVSKI

Client
WAYNE STATE UNIVERSITY
Facilities Planning & Management
5454 Cass Ave, Detroit, MI 48202

Project
**STATE HALL ELEVATOR
REFURBISHMENT &
RENOVATION**
5143 Cass Ave, Detroit, MI 48202

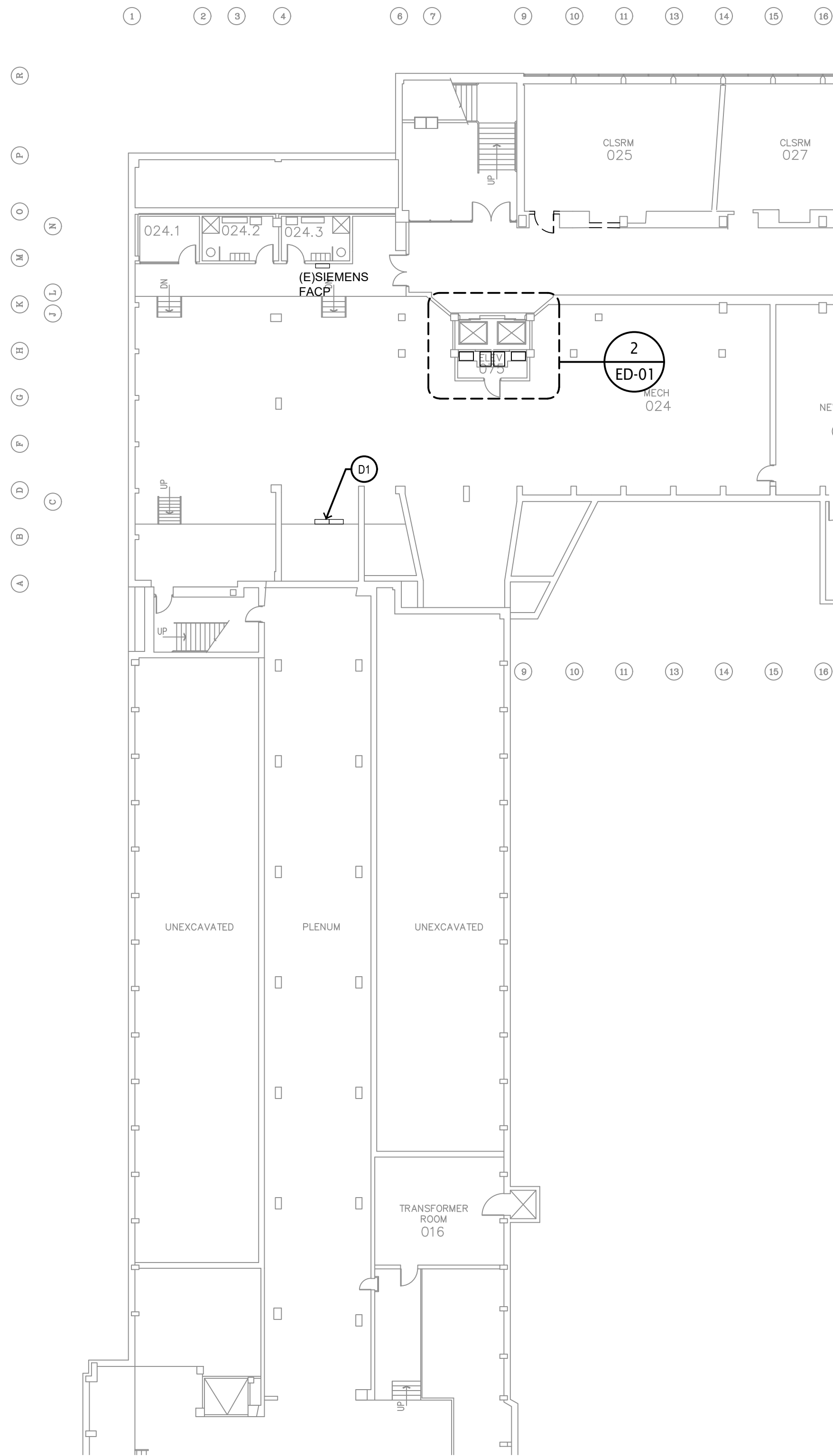
Drawing Title
**ONE LINE DIAGRAM AND
SCHEDULES**

Check Scale (may be photo reduced)
0 1inch 0 10mm

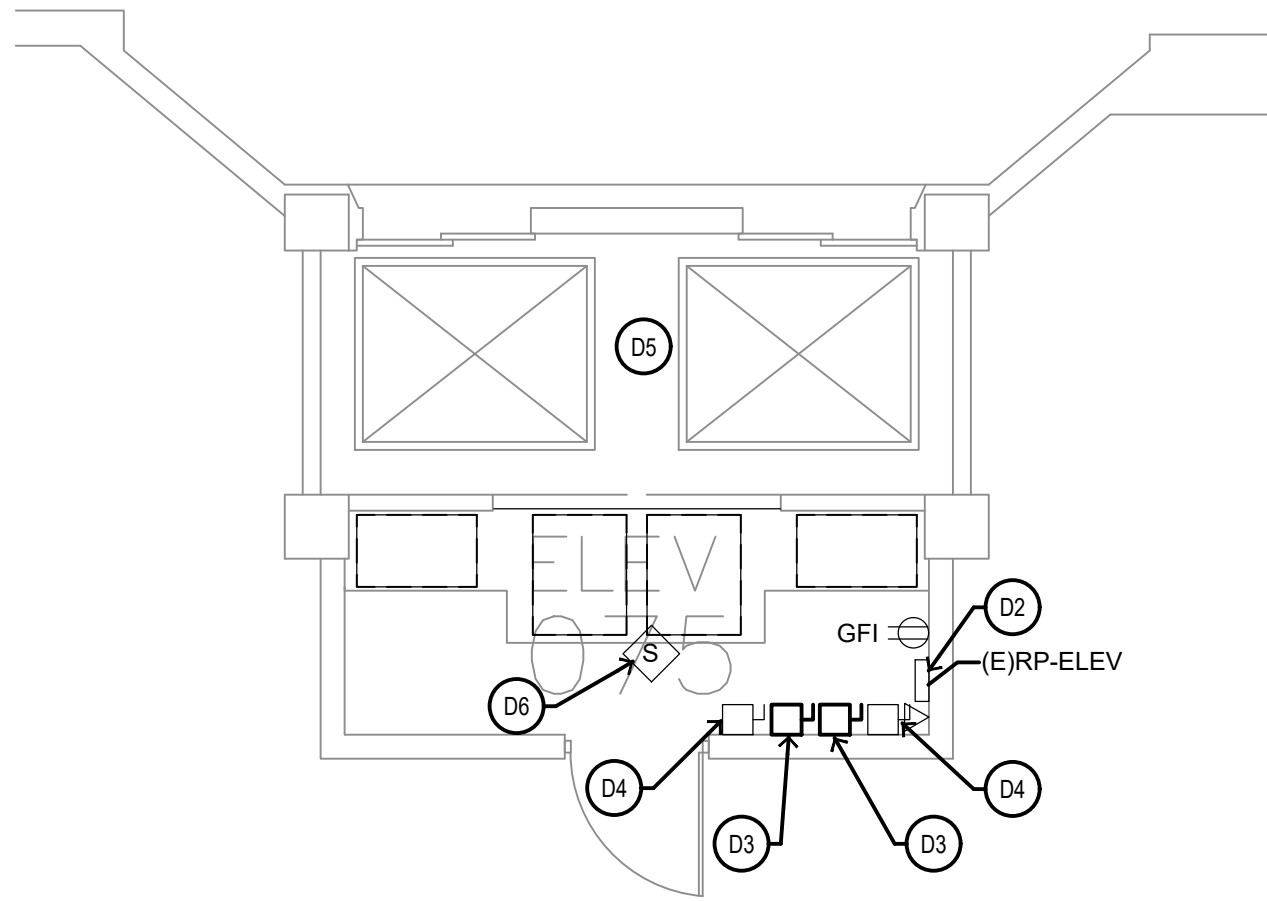
Project No.
JCDT18-0229

Drawing No.
E0-02

ARCH D - 24"x36" - 610mmx914mm (rounded)



1
ED-01
DEMOLITION PLAN - BASEMENT
SCALE: 1/16" = 1'-0"



2
ED-01
DEMOLITION PLAN - BASEMENT
SCALE: 1/4" = 1'-0"

ELECTRICAL DEMOLITION KEY NOTES:

- D1 EXISTING DISTRIBUTION PANEL. DISCONNECT EXISTING ELEVATORS FROM DISTRIBUTION PANEL. RELABEL CIRCUIT BREAKERS 'SPARE'.
- D2 EXISTING 100A, 240V, 1PH PANEL TO REMAIN.
- D3 DISCONNECT AND REMOVE ELEVATOR DISCONNECT SWITCH AND ASSOCIATED FEEDERS BACK TO SOURCE.
- D4 EXISTING ELEVATOR CAB LIGHT DISCONNECT SWITCH TO REMAIN. DISCONNECT AND EXTEND CABLES TO EXISTING ELEVATOR CABS.
- D5 DISCONNECT AND REMOVE PIT LIGHT FIXTURES AND RECEPTACLES. SAVE CIRCUIT FOR REUSE.
- D6 EXISTING SMOKE DETECTOR TO REMAIN.

DATE	ISSUED FOR	REV
08-02-19	OWNER REVIEW	-
08-15-19	PERMIT AND BID SET	-

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Keyplan

AREA OF WORK

KEY PLAN

North Arrow

True North

Detail Symbol

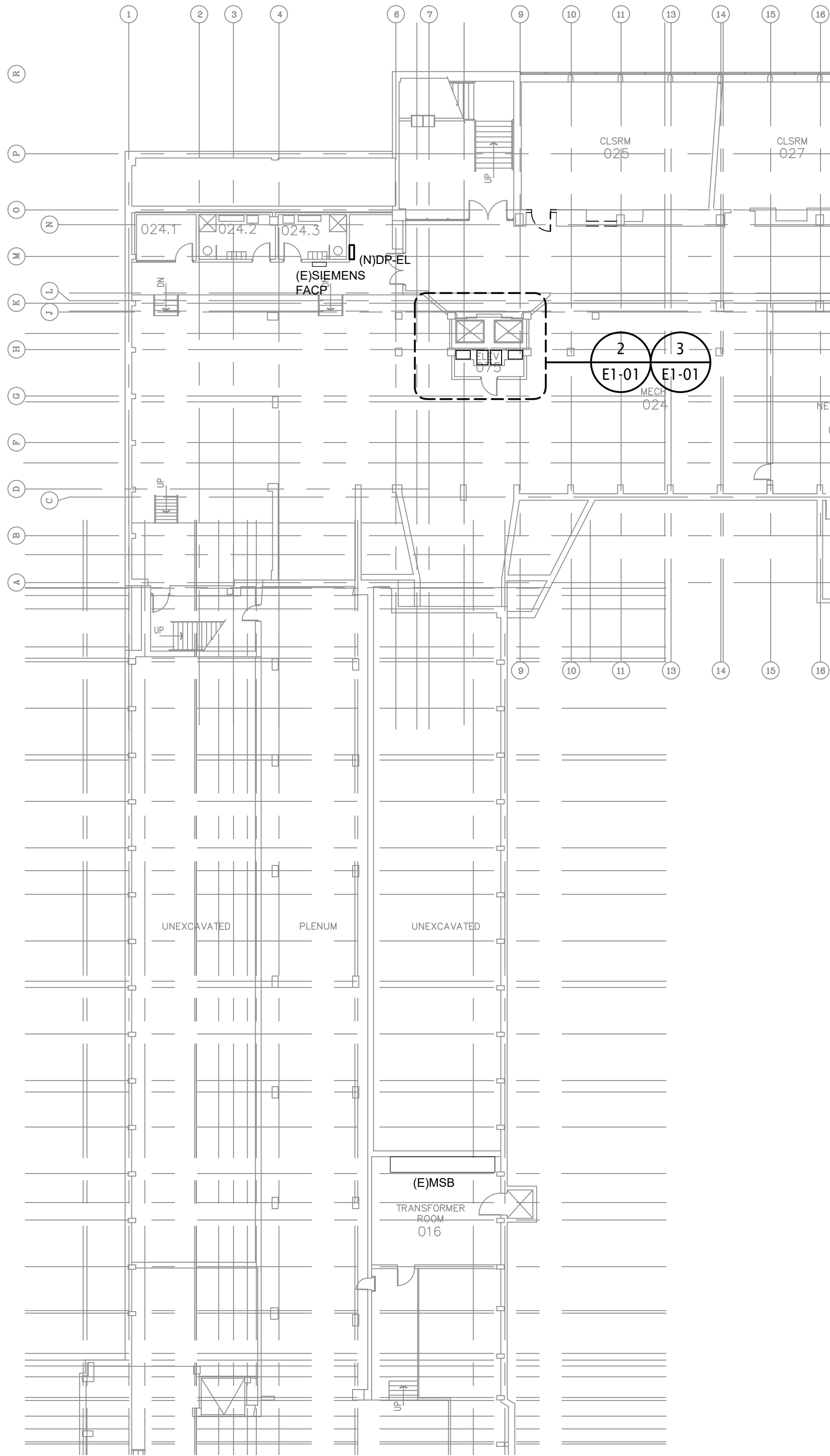
Detail No.
Sheet No.

Seal(s)

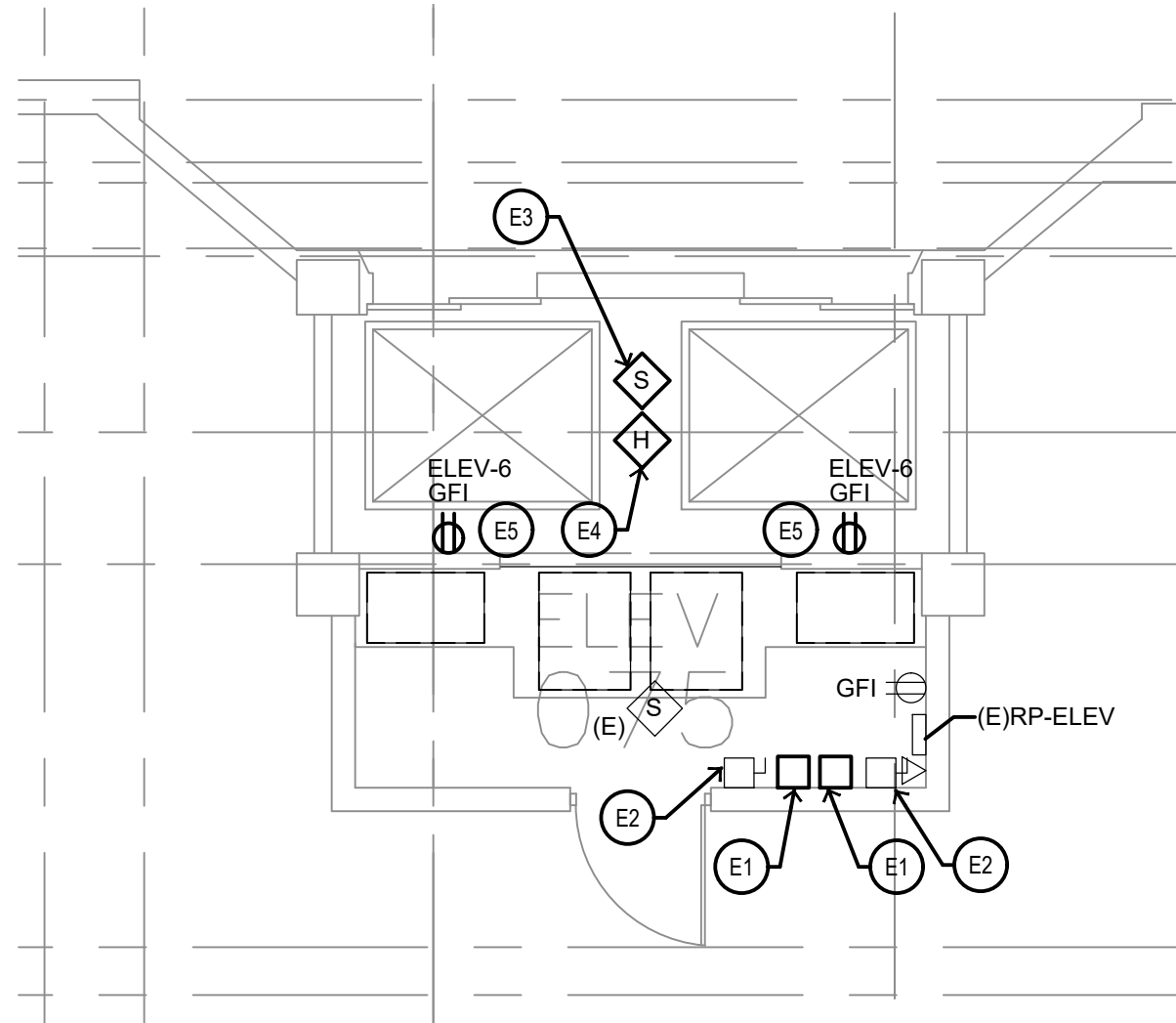
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Project Manager A. NOLFF	Drawn M. GOOD
Project Leader	Checked G. KARONFILOVSKI
Client WAYNE STATE UNIVERSITY Facilities Planning & Management 5454 Cass Ave, Detroit, MI 48202	
Project STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202	
Drawing Title ELECTRICAL DEMOLITION PLANS	
Check Scale (may be photo reduced) 0 1 inch 0 10mm	
Project No. JCDT18-0229	
Drawing No. ED-01	

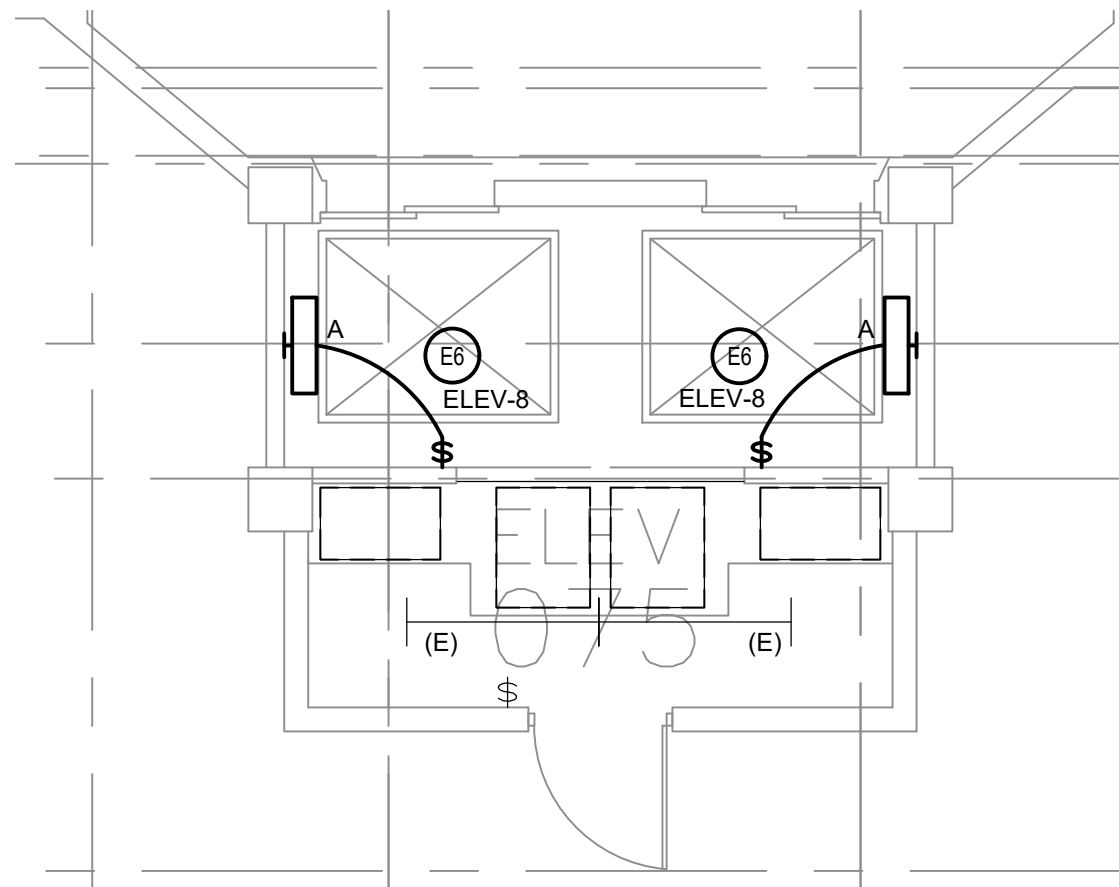
ARCH D - 24"x36" - 610mmx914mm (rounded)



1 POWER PLAN - BASEMENT
E1-01 SCALE: 1/16" = 1'-0"



2 POWER PLAN - BASEMENT
E1-01 SCALE: 1/8" = 1'-0"



3 LIGHTING PLAN - BASEMENT
E1-01 SCALE: 1/8" = 1'-0"

NEW WORK KEY NOTES:

- E1 NEW 60A, 3P SHUNT TRIP CIRCUIT BREAKER FOR ELEVATOR. PROVIDE 4#6 & 1#8G - 1" C TO PANEL DP-EL.
- E2 EXISTING DISCONNECT TO ELEVATOR CAB LIGHT. CONNECT TO NEW ELEVATOR CAB LIGHTS. COORDINATE WORK WITH ELEVATOR MANUFACTURER.
- E3 NEW SMOKE DETECTOR LOCATED AT THE TOP OF ELEVATOR SHAFT. CONNECT TO ELEVATOR SMOKE EXHAUST DAMPER.
- E4 NEW HEAT DETECTOR LOCATED AT THE TOP OF ELEVATOR SHAFT. HEAT DETECTOR SHALL HAVE RATE-OF RISE AND FIXED TEMPERATURE SETTINGS. CONNECT HEAT DETECTOR TO ELEVATOR SMOKE EXHAUST DAMPER AND ELEVATOR SHUNT TRIP CIRCUIT BREAKER.
- E5 CONNECT RECEPTACLES TO EXISTING CIRCUIT AS INDICATED.
- E6 CONNECT LIGHT TO EXISTING CIRCUIT AS INDICATED.

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Keyplan

AREA OF WORK
KEY PLAN

North Arrow

True North

Detail Symbol

Detail No.
Sheet No.

Seal(s)

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Project STATE HALL ELEVATOR REFURBISHMENT & RENOVATION 5143 Cass Ave, Detroit, MI 48202	
Drawing Title ELECTRICAL NEW PLANS	
Check Scale (may be photo reduced) 0 1 inch 0 10mm	
Project No. JCDDT18-0229	
Drawing No. E1-01	