GENERAL DEMOLITION NOTES

1. REMOVE EXISTING DOOR AND FRAME.
2. REMOVE EXISTING PARTITIONS, WALL FINISHES, TOILET ENCLOSURES, TOILETS, LIGHTING, MECHANICAL INFRASTRUCTURE, FIRE PROTECTION AND ALL OTHER ITEMS NOT PART OF THE SCOPE OF DEMOLITION.
3. REMOVE ALL ACOUSTIC CEILING TILES AND GRIDS, GYPSUM BOARD SOFFITS.
4. REMOVE ALL INTERIOR PARTITIONS, DOORS, AND FRAMES SHOWN DASHED.
5. REMOVE EXISTING DOOR AND FRAME.
6. REMOVE EXISTING DOOR AND ENLARGE OPENING TO ACCOMMODATE NEW 3'-0" STAIR ELEVATOR SHAFT.
7. REMOVE ALL EXISTING BUILT-INS AND CASEWORK COMPLETELY.
8. REMOVE EXISTING WOOD PANELING AND PREPARE SURFACE FOR NEW FINISHES.
9. REMOVE EXISTING DOOR AND FRAME AND PREPARE OPENING TO RECEIVE NEW 9'-6" ± 275 STAIR ELEVATOR SHAFT.
10. REMOVE EXISTING DRINKING FOUNTAIN. SEE PLUMBING DRAWINGS.
11. REMOVE EXISTING INTEGRATED FLOOR URINALS. SEE ENLARGED TOILET ROOM ACCESSORIES THROUGHOUT AREA OF RENOVATION - COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS.
12. REMOVE EXISTING MARBLE SILL AND ASSOCIATED DUCTWORK. SEE DETAIL.
13. REMOVE GYP. BOARD AS REQUIRED TO ACCESS CHASE FOR PLUMBING WORK.
14. REMOVE EXISTING MARBLE SILL AND ASSOCIATED DUCTWORK. SEE DETAIL.
15. REMOVE EXISTING MARBLE SILL AND ASSOCIATED DUCTWORK. SEE DETAIL.
16. REMOVE EXISTING MARBLE SILL AND ASSOCIATED DUCTWORK. SEE DETAIL.
17. REMOVE EXISTING MARBLE SILL AND ASSOCIATED DUCTWORK. SEE DETAIL.
18. REMOVE EXISTING MARBLE SILL AND ASSOCIATED DUCTWORK. SEE DETAIL.

DEMO/LATION SYMBOL LEGEND

- EXISTING WALLS TO REMAIN
- EXISTING WALLS TO BE REMOVED
- EXISTING DOOR TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING WALLS TO REMAIN
- EXISTING WALLS TO BE REMOVED
- CONSTRUCTION.

TIGHTNESS, AND CONTINUING OPERATIONS FOR OWNER.
COORDINATE AND PHASE DEMOLITION IN ACCORDANCE WITH PLANS AND DEMOLITION GUIDELINES.
WITH CONTRACT DOCUMENTS, BUT ARE INTENDED TO SERVE AS GENERAL
DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH THESE DEMOLITION NOTES AND PLANS DO NOT FULLY REPRESENT ALL DEMOLITION PLANS INCLUDED WITHIN THIS DOCUMENT SET.

CONSTRUCTION.
AND PROTECTED THROUGHOUT THE DURATION OF DEMOLITION AND ALL ITEMS NOT PART OF THE SCOPE OF DEMOLITION ARE TO BE PRESERVED AND REPAIR REQUIREMENTS.
OTHERWISE NOTED.
ALL WORK INDICATED WITH SOLID LINES IS EXISTING TO REMAIN, UNLESS TRADES, INCLUDING STRUCTURAL, MECHANICAL, AND ELECTRICAL.
COORDINATE ALL DEMOLITION WORK WITH ALL OTHER CONSTRUCTION.

THESE DEMOLITION NOTES AND PLANS DO NOT FULLY REPRESENT ALL SPECIFICATIONS (DIVISION 2 GENERAL DEMOLITION NOTES, KEYED DEMOLITION NOTES AND PLANS) INCLUDED WITHIN THIS DOCUMENT SET.

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REMOVE GYP. BOARD AS REQUIRED TO ACCESS CHASE FOR PLUMBING WORK. COORD. WITH PLUMBING DRAWINGS. REINSTALL GYP. BOARD AS REQUIRED PRIOR TO COMPLETION OF PROJECT TO MATCH EXISTING. MAINTAIN FIRE RATING. PAINT TO MATCH ADJACENT COLORS. COORDINATE WITH OWNER'S REPRESENTATIVE ON ACCESS.
Mechanical Drawings

Prentis Building Computer Lab Relocation

Wayne State University

5201 Cass Ave, Detroit, MI 48202

Prentis Building Computer Lab Relocation

WSU Project: 022

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FLOOR PLAN SYMBOL LEGEND

ABUTTING SLAB - SHEET CLAY
EXTERIOR WALL TYPE
GROUND MARKERS
LOCATIONS OF EXISTING MASONRY
LID FRAME PATTERN
METAL STUD WALL
STAIR
CLEARANCE REQUIRED AT INTERIOR WALLS
NO CLEARANCE REQUIRED AT EXTERIOR WALLS
STAIR

ARCHITECTURAL KEY NOTES

1. INFILL EXISTING DOOR OPENING AND PROVIDE FURRING ON CLASSROOM-SIDE OF DOOR.
2. PATCH AND REPAIR EXISTING WALLS AFFECTED BY DEMOLITION OR SCOPE OF WORK TO MATCH ADJACENT CONSTRUCTION AND FINISH. PREP WALLS TO RECEIVE NEW FINISHES AS INDICATED IN THE FINISH SCHEDULE.
3. PROVIDE AND INSTALL RESTROOM ACCESSORIES PER ELEVATIONS AND UNLESS OTHERWISE INDICATED. SEE ELECTRICAL PLANS FOR MORE EXACT SIZE(S) AND LOCATION(S) WITH OWNER.
4. INFILL EXISTING SLAB. REMOVE EXISTING MARBLE SILL. NEW CERAMIC TILE AND BASE.
5. INFILL EXISTING SLAB. PROVIDE AND INSTALL BARRIER FREE DRINKING FOUNTAIN WITH BOTTLE FILL STATION.
6. INFILL EXISTING SLAB. NEW MINIMUM ENCLOSURE FOR DUCTWORK TO WOMEN'S RESTROOM CEILING.
7. INFILL EXISTING SLAB. PROVIDE AND INSTALL MATT ON EXISTING. PATCH WALL & FLOOR TO MATCH ADJACENT CONSTRUCTION AND FINISH.
8. PROVIDE AND INSTALL RESTROOM ACCESSORIES PER ELEVATIONS AND UNLESS OTHERWISE INDICATED. SEE ELECTRICAL PLANS FOR MORE EXACT SIZE(S) AND LOCATION(S) WITH OWNER.
9. INFILL EXISTING OPENING TO FLOOR PLAN SYMBOL LEGEND

5. PROVIDE AND INSTALL MATT ON EXISTING. PATCH WALL & FLOOR TO MATCH ADJACENT CONSTRUCTION AND FINISH.
6. INFILL EXISTING SLAB. PROVIDE AND INSTALL BARRIER FREE DRINKING FOUNTAIN WITH BOTTLE FILL STATION.
7. INFILL EXISTING SLAB. NEW MINIMUM ENCLOSURE FOR DUCTWORK TO WOMEN'S RESTROOM CEILING.
8. PROVIDE AND INSTALL RESTROOM ACCESSORIES PER ELEVATIONS AND UNLESS OTHERWISE INDICATED. SEE ELECTRICAL PLANS FOR MORE EXACT SIZE(S) AND LOCATION(S) WITH OWNER.
9. INFILL EXISTING OPENING TO EXISTING DUCTWORK WITH COORDINATE REMOVAL OF INFILL EXISTING SLAB.
Provide furring for acoustic control at interior partitions of mechanical room. See detail 1/A102.

Coordinate removal of existing ductwork with mechanical drawings.

Remove existing doors and frames.

Remove existing partitions and shelving.

Cut opening for new 4'-0" door.

Coordinate removal of existing ceiling with electrical drawings.

Remove existing ceiling. Coordinate with electrical drawings.

Remove existing gypsum board and resilient channel at interior of mechanical room only.

Existing gypsum board and resilient channel to remain.

Existing metal studs to remain.

New acoustic batt insulation in existing metal studs.

Continuous acoustical sealant to fill 3/8" to 1/2" gap between wall finish and structure (typ).

Two layers of 5/8" Type 'X' gypsum board extended to structure above. Stagger gypsum board seams. Paint to match building standard.

Existing concrete structure to remain.

Resilient sound isolation clip and hat channel on existing metal studs. Install according to manufacturer specifications (typ).

Coordinate removal of existing ceiling with electrical drawings.
SECOND FLOOR REFLECTED CEILING PLAN
NEW WET SPRINKLER SERVICE

BASEMENT FIRE PROTECTION PLAN - PARTIAL

NOTES:

1. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED PIPING.
2. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIREFIGHTER ACCESSIBILITY TO THE FIRE PROTECTION SYSTEM.
3. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION SYSTEMS.
4. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION EQUIPMENT.
5. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION HANGING AND ACCESSIBILITY.
6. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION INSPECTION.
7. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION TESTING.
8. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION MAINTENANCE.
9. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION RECORDS.
10. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION TRAINING.
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52. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION TESTING.
53. PROVIDE CONSTRUCTION DRAWINGS SHOWING ALL REQUIRED FIRE PROTECTION MAINTENANCE.
1. REMOVE EXISTING FLOOR MOUNTED URINAL. REMOVE EXISTING 1" CW FROM URINAL BACK TO BRANCH CONNECTION, CW MAIN SHALL REMAIN TO BE REUSED.
2. REMOVE EXISTING 4" SANITARY FROM URINAL BACK TO BRANCH WYE CONNECTION, WYE SHALL REMAIN TO BE REUSED.
3. SAW CUT AND REMOVE EXISTING FLOOR AND WALL AS NEEDED FOR REMOVAL OF EXISTING URINAL AND SANITARY DRAIN EMBEDDED IN CONCRETE.
4. REMOVE EXISTING WATER CLOSET AND 4" SANITARY BACK TO BRANCH WYE CONNECTION, WYE SHALL REMAIN TO BE REUSED. REMOVE EXISTING 1-1/2" CW FROM WC BACK TO BRANCH CONNECTION. BRANCH CONNECTION SHALL BE REUSED.
5. REMOVE EXISTING WATER CLOSET AND 4" SANITARY BACK TO BRANCH WYE CONNECTION, WYE SHALL BE REMOVED FROM 4" SANITARY MAIN. REMOVE EXISTING 1-1/2" CW FROM WC BACK TO BRANCH CONNECTION. BRANCH CONNECTION SHALL BE CAPPED.
6. REMOVE EXISTING WALL MOUNTED LAVATORY. REMOVE EXISTING 1/2" CW, 1/2" HW, AND 1-1/4" SAN FROM LAV BACK TO BRANCH CONNECTIONS.
7. REMOVE EXISTING 2" CW PIPING AND TEE DOWNSTREAM OF WATER CLOSET CONNECTION. REMOVE EXISTING 1" HW PIPING AND TEE DOWNSTREAM OF FIRST LAVATORY CONNECTION. REMOVE EXISTING SANITARY PIPING DOWNSTREAM OF WATER CLOSET CONNECTION.
8. REMOVE EXISTING ELECTRIC WATER COOLER. REMOVE 3/4" CW PIPING BACK TO BRANCH CONNECTION AND CAP. DEMOLISH 1-1/2" SANITARY FROM P-TRAP TO SANITARY STACK AND CAP. DEMOLISH 1-1/2" VENT FROM EWC TRAP UP TO 2" VENT AND CAP, 2" VENT SHALL REMAIN.
KEY NOTES
1. Existing water closet 1/2" VENT from EWC to existing 1 1/2" VENT from EWC to existing 4" SANITARY VENT PIPING not shown for clarity, refer dated 5/8/1962 Yamasaki and Associates Drawings (Project 6015), existing conditions shown are based on Minoru Yamashita. Shall field verify existing conditions.

NOTES

2. Existing conditions shown for reference. Changes made on associated drawings, (Project 6015), dated 5/8/1962. All rights reserved.


GENERAL NOTES

AREAS OF DEMOLITION WORK.

COORDINATION. PATCH AND SEAL DUCTWORK AFTER DAMPER REPLACE TO MATCH EXISTING.

REMOVE ALL FIRE, FIRE/SMOKE AND SMOKE DAMPERS IN WALLS.

PROVIDE ISOLATION, DRAIN AND FILLING OF PIPING SYSTEMS AS INDICATED.

PENETRATIONS IN CORRIDORS AND OTHER RATED WALLS IN

PIPE AND DUCT INSULATION THAT IS DAMAGED DURING WORK OF THE CURRENT CONSTRUCTION PHASE.

SHALL BE PATCHED TO MATCH SURROUNDING SURFACES.

ALL EXISTING DUCT, PIPING, AND CONDUIT HANGERS THAT ARE INADEQUATE. DUCTWORK LOCATION SHALL TAKE PRECEDENCE OVER AND STRUCTURAL PLANS FOR CLEARANCES. ALTERNATE DUCT DIFFUSER LOCATIONS.

AND NEW AND EXISTING DIFFUSERS AND GRILLES SHALL BE TO REDUCE NOISE, A MAXIMUM OF 5' OF INSULATED FLEX DUCT SHALL BE REPLACED TO MATCH EXISTING.

SYSTEMS IS INTENDED TO INDICATE REUSE OF AS MUCH OF THE EXISTING DUCTWORK AND EQUIPMENT SHOWN LIGHTLY SHALL

REPAIRED AND SEALED WHERE ACCESSIBLE. FIELD VERIFY TERMINAL UNITS SHALL BE MOUNTED TO NOT IMPAIR ACCESS TO

DETERMINED THAT ADEQUATE SPACE EXISTS BUT NO ATTEMPT HAS WHERE AND HOW TO INSTALL THESE SYSTEMS. IT HAS BEEN

SYSTEMS IS INTENDED TO INDICATE REUSE OF AS MUCH OF THE

EXHAUST AIR OR RETURN AIR AND THERMAL BLANKET.

ROUND DUCT DOWN

AIR DUCT DOWN

EXISTING DUCT DOWNTIME.

TIME OF EXISTING PIPING REROUTING WITH OWNER TO MINIMIZE INTERFERENCES AND THEIR REROUTING SHALL BE INCLUDED.

ADDITIONAL PIPE, MATERIAL, LABOR AND LAYOUT TIME REQUIRED TO RESOLVE REQUIRED RESOLUTION OF INTERFERENCES. ADDITIONAL PIPE, MATERIAL, LABOR AND LAYOUT TIME REQUIRED TO RESOLVE INTERFERENCES AND THEIR REROUTING SHALL BE INCLUDED.

DIFFUSER LOCATIONS.

TO MAIN DUCT AS POSSIBLE.

EXISTING DUCTWORK AND EQUIPMENT SHOWN LIGHTLY SHALL

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DIFFUSER LOCATIONS.

TO MAIN DUCT AS POSSIBLE.
1. REMOVE EXISTING CONDENSING WATER BYPASS VALVE AND CAP OPENINGS AT TEE’S.
2. REMOVE EXISTING DUCTWORK FROM EXISTING TERMINAL BOX AS SHOWN. TERMINAL BOX SHALL REMAIN TO BE REUSED.
3. REMOVE EXISTING DUCTWORK UP THROUGH FLOOR TO 2ND FLOOR LEVEL.
4. REMOVE EXISTING DUCTWORK UP THROUGH FLOOR TO 2ND FLOOR LEVEL AND CAP AT DUCT TAKE-OFF.

NOTES:
1. ALL EXISTING CONDITIONS ARE BASED ON MINORU YAMASAKI AND ASSOCIATES DRAWINGS (PROJECT 6015), DATED 5-7-1962.

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NOTES:
1. REMOVE EXISTING TERMINAL BOX ELECTRICAL, HYDRONIC AND VARIOUS METER SCAFFOLDING FROM THE FOUNDATION WITHIN THE FOUNDATION.
2. REMOVE EXISTING WALL EXHAUST FAN. WALL PENETRATION SHOWN AND CAP OPEN END.
3. EXISTING WIRING SHALL BE REMOVED BACK TO NEAREST BRANCH CONNECTION AND LIMITS SHOWN. EXISTING HYDRONIC PIPING SHALL BE REMAIN TO BE RECONNECTED.
4. DISCONNECT AND REMOVE EXISTING DUCTWORK FROM EXISTING DUCTWORK AND RECONNECTED TO NEW DUCTWORK.
5. REMOVE EXISTING SCAFFOLDING TO LIMITS SHOWN.
6. REMOVE EXISTING TERMINAL BOX ELECTRICAL TO LIMITS SHOWN.
7. REMOVE EXISTING TERMINAL BOX ELECTRICAL TO LIMITS SHOWN.
8. REMOVE EXISTING TERMINAL BOX ELECTRICAL TO LIMITS SHOWN.
9. REMOVE EXISTING TERMINAL BOX ELECTRICAL TO LIMITS SHOWN.
10. REMOVE EXISTING TERMINAL BOX ELECTRICAL TO LIMITS SHOWN.

EXISTING CONDITIONS SHOWN ARE APPROXIMATE. DATED 5/20/18. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.

ALL EXISTING CONDITIONS NOT SHOWN, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.

MD102
WSU Project: 022
Wayne State University
Prentis Building Computer Lab Relocation
Project No. 823456

Drawn By
Manager

BASEMENT HYDRONIC HEATING PIPING REPLACEMENT PLAN - ALTERNATE 2

KEY NOTES:
1. ALL MECHANICAL PIPING AND DRAINAGE PIPING IS TO BE INDICATED.
2. INSTALLATION OF NEW MECHANICAL PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.
3. INSTALLATION OF DRAINAGE PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.
4. INSTALLATION OF DRAINAGE PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.
5. INSTALLATION OF DRAINAGE PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.
6. INSTALLATION OF DRAINAGE PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.

NOTES:
1. ALL MECHANICAL PIPING AND DRAINAGE PIPING IS TO BE INDICATED.
2. INSTALLATION OF NEW MECHANICAL PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.
3. INSTALLATION OF DRAINAGE PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.
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6. INSTALLATION OF DRAINAGE PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES.

PRENTIS BUILDING COMPUTER LAB RELOCATION
WSU Project: 022

WAYNE STATE UNIVERSITY
5201 Cass Ave Detroit, MI 48202

Prentis Building Computer Lab Relocation
Project: 022

M101

1/8" = 1'-0"
1. INSTALL HYDRONIC BALANCING VALVE ABOVE RIM.
2. ROUTE 1" DRAIN LINES DOWN FROM FLOORS ABOVE.
3. ROUTE 1" DRAIN DOWN THROUGH PLUMBING CHASE TO ISOLATION VALVE ON DRAIN.
4. INSTALL ISOLATION VALVE ON HEATING HOT WATER (HHWS) PIPING.
5. INSTALL WYE STRAINER ON HEATING HOT WATER SUPPLY PIPING.
6. KEY NOTES:
   1. NEW PIPING SHOWN IS REPLACING EXISTING PIPING THAT SHALL FIELD VERIFY EXISTING CONDITIONS.
   2. REMOVAL OF NORTH MECHANICAL CHASE IS NEEDED FOR MORE INFORMATION.
   3. EXISTING TERMINAL BOX LOCATIONS, PIPE SIZES AND VALVE LOCATIONS ARE TAKEN DIRECTLY FROM EXISTING TERMINAL BOX LOCATIONS, PIPE SIZES AND VALVE LOCATIONS ARE TAKEN DIRECTLY.
   4. NEW PIPING TO TERMINAL BOXES THAT HAS NOT ALREADY BEEN PATCHED, AND PAINTED TO MATCH EXISTING WALL AFTER WALL OF CHASE SHOULD BE PROPERLY REPAIRED, PROPER INSTALLATION OF NEW MECHANICAL PIPING.
   5. EXISTING CONDITIONS SHOWN ARE BASED ON MINORU YAMASAKI AND ASSOCIATES DRAWINGS (PROJECT 6015), DATED 5/1962.
1. All existing conditions noted in previous drawings shall be verified by contractor. Existing conditions shown are based on Minoru Yamasaki and Associates Drawings (Project 6015), dated 5-7-1962.

**KEY NOTES**

1. Connect new 1-1/2" LPS into existing 4" LPS pipe with isolation valve. Connection shall be made into the top of existing pipe.

2. Connect new 1" LPC into existing 4" LPC pipe. Connection shall be made into the top of existing pipe.

3. Install new motorized isolation/bypass valve for chiller (CH-1), and install new 8" CWS bypass piping between 8" CWS & CWR pipes. See cooling tower and condenser water diagram on M602 for more information.
STEAM HEATING COIL. INSTALL STEAM TO FLOOR DRAIN, TERMINATE PIPE 1".

M106 - THIRD FLOOR MECHANICAL PLAN

NOTES:

1. REVIEW AND APPROPRIATE CONSTRUCTION; PREPARE EXISTING DRAWINGS TO MATCH.
2. INSTALL STEAM HEATING COILS., INSTALL STEAM TO FLOOR DRAIN, TERMINATE PIPE 1".
3. INSTALL NEW DRAIN SYSTEMS TO EXISTING DRAIN POINTS WITHOUT INJECTING PURGE ADDITIONAL FLOOR DRAIN.
4. INSTALL SHUTOFF VALVES NEW DRAIN POINTS WITHOUT INJECTING PURGE ADDITIONAL FLOOR DRAIN.
5. INSTALL SHUTOFF VALVES AND INSTALL DRAIN TO SECOND FLOOR.
6. INSTALL NEW FLOOR DRAIN TO SECOND FLOOR.
7. INSTALL SHUTOFF VALVES FOR FLOOR DRAIN.
8. INSTALL DRAIN TO SECOND FLOOR.
9. INSTALL NEW FLOOR DRAIN TO SECOND FLOOR.
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12. INSTALL NEW FLOOR DRAIN TO SECOND FLOOR.
13. INSTALL SHUTOFF VALVES FOR FLOOR DRAIN.
14. INSTALL DRAIN TO SECOND FLOOR.
15. INSTALL NEW FLOOR DRAIN TO SECOND FLOOR.
16. INSTALL SHUTOFF VALVES FOR FLOOR DRAIN.
17. INSTALL DRAIN TO SECOND FLOOR.
18. INSTALL NEW FLOOR DRAIN TO SECOND FLOOR.
19. INSTALL SHUTOFF VALVES FOR FLOOR DRAIN.
20. INSTALL DRAIN TO SECOND FLOOR.

KEY NOTES:

1. REVIEW AND APPROPRIATE CONSTRUCTION; PREPARE EXISTING DRAWINGS TO MATCH.
2. INSTALL STEAM HEATING COILS., INSTALL STEAM TO FLOOR DRAIN, TERMINATE PIPE 1".
3. INSTALL NEW DRAIN SYSTEMS TO EXISTING DRAIN POINTS WITHOUT INJECTING PURGE ADDITIONAL FLOOR DRAIN.
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17. INSTALL DRAIN TO SECOND FLOOR.
18. INSTALL NEW FLOOR DRAIN TO SECOND FLOOR.
19. INSTALL SHUTOFF VALVES FOR FLOOR DRAIN.
20. INSTALL DRAIN TO SECOND FLOOR.
1. All roof mounted equipment, including ductwork and exhaust fans, shall be prepared in accordance with ASCE 7-10, Ultimate Wind Speed Restraint Requirements.
2. Mechanical contractor shall be responsible for designing connections of all roof mounted mechanical equipment to the supporting structure. Where mechanical equipment is supported on a curb, mechanical contractor shall design and provide connection of the curb to the supporting structure and the equipment to the curb. Connections shall be designed for all applicable loads in accordance with ASCE 7, including wind and seismic loads.

NOTES:

1. ANGLED OUTSIDE AIR INTAKE HOOD

2. 0-12,000 CFM

3. 32"x32" OUTSIDE AIR DUCT DOWN TO 3RD FLOOR LEVEL INSIDE RECESSED COOLING TOWER AREA.

4. EXISTING COOLING TOWER

5. 8" CWR

6. 8" CWS

7. 8" CWR

8. COOLING TOWER 3-WAY BYPASS VALVE

9. 25'-0" (MINIMUM)

10. LEADING EDGE OF OUTSIDE AIR INTAKE HOOD SHALL BE 25'-0" FROM COOLING TOWER (MINIMUM)

11. 3" SANITARY VTR

12. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING CONNECTIONS OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT TO THE SUPPORTING STRUCTURE. WHERE MECHANICAL EQUIPMENT IS SUPPORTED ON A CURB, MECHANICAL CONTRACTOR SHALL DESIGN AND PROVIDE CONNECTION OF THE CURB TO THE SUPPORTING STRUCTURE AND THE EQUIPMENT TO THE CURB. CONNECTIONS SHALL BE DESIGNED FOR ALL APPLICABLE LOADS IN ACCORDANCE WITH ASCE 7, INCLUDING WIND AND SEISMIC LOADS.
SENSING DEVICE

AIRFLOW

GENERAL NOTES:

DAMPER

FURNISHED, MOUNTED AND WIRED BY THE TEMPERATURE CONTROL CONTRACTOR.

THE TERMINAL BOX CONTROLLER, DAMPER ACTUATOR AND AIR FLOW PROBE ARE

OCCUPIED:

RANGES: +/-

THE ROOM CONTROL SYSTEM SHALL MODULATE THE VAV SUPPLY DAMPER TO THE

MODULATE TOWARD THE MAXIMUM COOLING AIRFLOW SETPOINT.

UPON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT THE SUPPLY DAMPER WILL

THE VAV SUPPLY DAMPER TO MAINTAIN THE DESIRED SPACE TEMPERATURE.

THE ROOM CONTROL SYSTEM WITH INPUT FROM A SPACE SENSOR SHALL MODULATE

TERMINAL UNIT

DISCHARGE AIR

BACNET COMMUNICATION NETWORK

DISCHARGE AIR

BASIN TEMPERATURE

BASIN STEAM

HEATER

CONTROL PANEL

HEAT TRACE

ALARM

AO

COLD WATER BASIN

DI

EXISTING COOLING TOWER

TO BMS

8" CWS

8" CWR

8" CWR

TO BMS

8" CWR

8" CWR

-1

CHILLER

(1,200 GPM)

(90 GPM)

3" CWR

P

P

CHILLER

(TYP.)

(TYP.)

(TYP.)

TEMPERATURE GAGE

PLUG VALVE

V

V

1

1

-1

CH

CH

THROUGH BYPASS.

CLOSE AND BYPASS VALVE

TOWER FAN SHALL REMAIN DE

1.

AND BYPASS VALVE

1.

UNIT

1.

UPON CALL FOR DEACTIVATION OF CHILLER

1.

UPON CALL FOR ACTIVATION OF HEATING VENTILATING AND AIR CONDITIONING

UNIT

ENERGIZE (PRIMARY/STANDBY)

CHILLER IS OPERATING, THE BYPASS VALVE SHALL DIRECT ALL FLOW TO THE

CONDENSING WATER PUMPS

ASSOCIATED CONDENSING WATER PUMPS

UPON CWR TEMPERATURE FALLING BELOW THE SETPOINT OF 95F (ADJ.) THE

THE COOLING TOWER FILL MEDIA.

THE LOW LOAD BYPASS VALVE SHALL MODULATE TO DIRECT ALL FLOW TO THE

CHILLER ISOLATION VALVES

AFTER THE TIME DELAY, THE CONDENSING WATER PUMPS AND COOLING

THE COOLING TOWER FILL MEDIA.

THE COOLING TOWER FAN SHALL REMAIN DE

1.

AFTER THE TIME DELAY, THE CONDENSING WATER PUMPS AND COOLING

THE COOLING TOWER FILL MEDIA.

THE COOLING TOWER BYPASS VALVE SHALL MODULATE TO

DIRECT CONDENSING WATER TO THE COOLING TOWER MEDIA.

SETPOINT OF 85F (ADJ.), THE COOLING TOWER BYPASS VALVE SHALL MODULATE TO

CWS TEMPERATURE REMAINS ABOVE THE SETPOINT OF 95F.  AFTER THE

THE COOLING TOWER FAN SHALL REMAIN DE

1.

1.

1 OPERATING & CHILLER DISABLED:

THE CWS TEMPERATURE REMAINS ABOVE THE SETPOINT OF 95F.  AFTER THE

THE COOLING TOWER FAN SHALL REMAIN DE

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1.

1 OPERATING:

THE CWS TEMPERATURE REMAINS ABOVE THE SETPOINT OF 95F.  AFTER THE

THE COOLING TOWER FAN SHALL REMAIN DE

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THE CWS TEMPERATURE REMAINS ABOVE THE SETPOINT OF 95F.  AFTER THE

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THE CWS TEMPERATURE REMAINS ABOVE THE SETPOINT OF 95F.  AFTER THE

THE COOLING TOWER FAN SHALL REMAIN DE

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1 OPERATING:

THE CWS TEMPERATURE REMAINS ABOVE THE SETPOINT OF 95F.  AFTER THE

THE COOLING TOWER FAN SHALL REMAIN DE
### FAN SCHEDULE

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<th>Motor Phase</th>
<th>RPM</th>
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### VAV TERMINAL UNIT SCHEDULE

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### AUTOMATIC DAMPER SCHEDULE

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### LOUVER SCHEDULE

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### REGISTER, GRILLE AND DIFFUSER SCHEDULE

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**Notes:**
- Details and specifications for HVAC and mechanical systems.
- Fan and pump ratings, motor specifications, and control configurations.
- Louvers, registers, grilles, and diffusers for air distribution.
- Special notes for equipment and system performance.

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**Wayne State University**

Prentis Building Computer Lab Relocation

WSU Project: 022

313456
KEY NOTES

1. EXISTING CORRIDOR LIGHT FIXTURES AND EXIT/EMERGENCY UNIT TO REMAIN, WITH LIGHTING CONTROL SYSTEM.
2. EXISTING DATA SERVICE TO REMAIN.
3. REMOVE RECEPTACLE FOR WATER COOLER. CIRCUIT TO BE EXTENDED TO NEW WATER COOLER.
4. EXISTING POWER AND DATA OUTLETS TO REMAIN.
5. EXISTING ELECTRICAL PANEL TO BE REMOVED. FEEDER TO BE TERMINATED BACK AT THE SOURCE.
6. EXISTING EXIT/EMERGENCY UNIT TO BE RELOCATED. SEE SHEET E102 FOR NEW LOCATION.
7. EXISTING FIRE ALARM DEVICES TO BE TIE-DOWN TO NEW FIRE ALARM CONTROL PANEL IN ENTRANCE FLOOR.
KEY NOTES

1. ALL NEW FIRE ALARM DEVICES TO BE CONNECTED TO NEW FIRE ALARM CONTROL PANEL.

2. PROVIDE SMOKE DETECTOR TO MONITOR CONTROL FLOW SWITCH LOCATED IN THE BASEMENT HALLWAY.

FIRST FLOOR POWER AND SYSTEMS PLAN
SECOND FLOOR LIGHTING PLAN

SECOND FLOOR POWER AND SYSTEMS PLAN

KEY NOTES
1. PROVIDE OFFICE, LOUNGE ROOM AND STORAGE, MANAGERS, CIRC. EIGHT破除 ON COMMAND TO BE ENSURED AT VARIOUS OF NORMAL
2. RESTROOMS MANUAL DRY , AUTOMATIC DRY, PM. ENSURED AT VARIOUS OF NORMAL
3. ENSURE WOMEN'S RESTROOM TO BE ENSURED AT VARIOUS OF NORMAL
4. PROVIDE (2) TWO DATA SLEEVES FROM IDF ROOM ON BREAKERS AS REQUIRED.
5. PROVIDE CIRCUIT LOCATION AND MOUNTING
6. PROVIDE EXISTING LIGHT FIXTURE TO REMAIN, CIRCUIT TO BE POWERED TO REMAIN CIRCUIT
7. COORDINATE DEVICES LOCATION AND MOUNTING
8. EMERGENCY LIGHT FIXTURES TO BE MANUALLY ON OCCUPANCY SENSOR.
9. PRIVATE OFFICES, LOUNGE ROOM AND STORAGE:
10. PROVIDE EXISTING LIGHTING AND POWER CIRCUITS TO BE MOUNTED AT 0' ON WALL.
11. PROVIDE EXISTING LIGHT FIXTURE TO REMAIN, CIRCUIT TO BE POWERED TO REMAIN CIRCUIT
12. PROVIDE CIRCUIT LOCATION AND MOUNTING
13. PROVIDE (2) TWO DATA SLEEVES FROM IDF ROOM ON BREAKERS AS REQUIRED.
14. PROVIDE EXISTING LIGHTING AND POWER CIRCUITS TO BE MOUNTED AT 0' ON WALL.
15. PROVIDE CIRCUIT LOCATION AND MOUNTING
16. PROVIDE EXISTING LIGHT FIXTURE TO REMAIN, CIRCUIT TO BE POWERED TO REMAIN CIRCUIT
17. COORDINATE DEVICES LOCATION AND MOUNTING
18. EMERGENCY LIGHT FIXTURES TO BE MANUALLY ON OCCUPANCY SENSOR.
19. PRIVATE OFFICES, LOUNGE ROOM AND STORAGE:
20. PROVIDE EXISTING LIGHTING AND POWER CIRCUITS TO BE MOUNTED AT 0' ON WALL.
21. PROVIDE CIRCUIT LOCATION AND MOUNTING
22. PROVIDE (2) TWO DATA SLEEVES FROM IDF ROOM ON BREAKERS AS REQUIRED.
23. PROVIDE EXISTING LIGHTING AND POWER CIRCUITS TO BE MOUNTED AT 0' ON WALL.
24. PROVIDE CIRCUIT LOCATION AND MOUNTING
25. PROVIDE EXISTING LIGHT FIXTURE TO REMAIN, CIRCUIT TO BE POWERED TO REMAIN CIRCUIT
26. COORDINATE DEVICES LOCATION AND MOUNTING
27. EMERGENCY LIGHT FIXTURES TO BE MANUALLY ON OCCUPANCY SENSOR.
28. PRIVATE OFFICES, LOUNGE ROOM AND STORAGE:
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33. PROVIDE CIRCUIT LOCATION AND MOUNTING
34. PROVIDE EXISTING LIGHT FIXTURE TO REMAIN, CIRCUIT TO BE POWERED TO REMAIN CIRCUIT
35. COORDINATE DEVICES LOCATION AND MOUNTING
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37. PRIVATE OFFICES, LOUNGE ROOM AND STORAGE:
38. PROVIDE EXISTING LIGHTING AND POWER CIRCUITS TO BE MOUNTED AT 0' ON WALL.
39. PROVIDE CIRCUIT LOCATION AND MOUNTING
40. PROVIDE (2) TWO DATA SLEEVES FROM IDF ROOM ON BREAKERS AS REQUIRED.
Wayne State University
Prentis Building Computer Lab Relocation
WSU Project: 022-313456

1. Coordinate location of light fixtures with mechanical equipment. Connect to room lighting circuit.
2. Emergency light fixtures to remain energized upon loss of power.
3. Connect new receptacles to removed receptacles circuit.
4. Duct smoke detector mounted on the supply and return duct. Coordinate exact location with Division 23.
5. Provide power connection for heat trace control panel on the roof. Refer to M106 for panel location.
6. Existing receptacles to remain.

THIRD FLOOR LIGHTING PLAN

THIRD FLOOR POWER AND SYSTEMS PLAN

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LOAD CALCULATIONS

EXISTING SITE DEMAND =
1600A, 208Y/120V, 3PH, 4W

DETERMINED LOAD OF OFFICE (1W/SQFT) =
288.0 KVA

ESTIMATED DEMAND OF OFFICE (1W/SQFT) =
288.0 KVA

ESTIMATED LOAD OF NEW LAYOUT (3W/SQFT) =
363.6 KVA

KEY NOTES

1. REMOVE PANELS LP-2A AND LP-2B AND PROVIDE NEW PANELS. MAINTAIN FEEDER CONNECTION FROM PANEL LP-1A TO LP-3A AND FROM LP-1B TO LP-3B, PROVIDE NEW FEEDER AS REQUIRED.

EXISTING DTE DEMAND =
288.0 KVA

NEW HVAC =
57.6 KVA

ESTIMATED DEMO OF OFFICE (1W/SQFT) =
9.0 KVA

ESTIMATED LOAD OF NEW LAYOUT (3W/SQFT) =
27.0 KVA

363.6 KVA

ONE LINE DIAGRAM

One line diagram for Wayne State University's Prentis Building Computer Lab Relocation project.
SINGLE GANG BOX

ELECTRICAL OR COMMUNICATION CONDUIT.

W/WIRING AS REQUIRED.

DUAL CHANNEL RACEWAY W/DIVIDER BUSHED HOLE (LOCATE ON POWER OR DATA SIDE OF DIVIDER AS REQUIRED)

WALL SECTION

POWER JUNCTION BOX LOCATED IN WALL

NOTES:

1. PART NUMBERS ARE FOR USE WITH WIREMOLD V4000 RACEWAY.

2. REFER TO THE FLOOR PLANS FOR DEVICE QUANTITIES.

TELECOMMUNICATION JUNCTION BOX, LOCATED IN WALL.

TYPICAL NEMA 5-20R RECEPTACLE (WITH GFI IF WITHIN 6' OF SINK)

WIREMOLD V4050 OVERLAPPING DEVICE MOUNTING PLATE (TYP.)

LENGTH AS REQUIRED ON DRAWING PROVIDE AT LEAST 1-1/4" FOR EVERY 3 TELCOM OUTLETS

PROVIDE BLANK FACEPLATES FOR ALL TELE/DATA LOCATIONS.

DO NOT USE "HANGING BOXES".

FINISHED SURFACE RACEWAY WITH VERTICAL FEED

ACCESSORIES SHOWN ARE DELIVERABLE AT MFG.

NOTE:

1. THIS DETAIL TYPICAL IN ALL FINISHED AREAS WHERE A 120 VOLT RECEPTACLE AND LOW VOLTAGE OUTLET ARE SHOWN ADJACENT TO EACH OTHER.

CONFIRM EXACT COLOR OF ALL DEVICES AND COVERPLATES WITH ARCHITECTURAL TRADES.

2. COMPARE ELECTRICAL OUTLETS WITH COMPUTER OUTLET LOCATIONS.

FINISHED SPACE OUTLET SPACING DETAIL

TYPICAL DATA OUTLET DETAIL

TYPICAL FINISHED SPACE OUTLET DETAIL

COVERPLATE WITH JACKS

RADIUS ELBOW V4011FO W/ 1-1/4" BEND RADIUS

PROVIDE BLANK FACEPLATES FOR ALL TELE/DATA LOCATIONS.

DO NOT USE "HANGING BOXES"

FOR CURVED TOP DESIGNER SERIES RACEWAY USE WIREMOLD #DS4047CDV FOR TELCOM LOCATIONS

WIREMOLD V4000 (VERTICAL CONDUIT DROPS SHALL NOT BE USED)

PROVIDE BLANK FACEPLATES FOR ALL TELE/DATA LOCATIONS.

DO NOT USE "HANGING BOXES".
### Table: Panelboard Schedule

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<thead>
<tr>
<th>No.</th>
<th>Circuit Description</th>
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<tbody>
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<td>Space</td>
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</tr>
<tr>
<td>2</td>
<td>Space</td>
<td>0 VA / 0 VA</td>
</tr>
<tr>
<td>3</td>
<td>Space</td>
<td>0 VA / 2700 VA</td>
</tr>
<tr>
<td>4</td>
<td>Pump P-1</td>
<td>2 20 A</td>
</tr>
<tr>
<td>5</td>
<td>Student Station Math 213</td>
<td>20 A 1 780 VA / 780 VA</td>
</tr>
<tr>
<td>6</td>
<td>Student Station Math 213</td>
<td>20 A 1 800 VA / 800 VA</td>
</tr>
<tr>
<td>7</td>
<td>Lighting Math 213, Women 203</td>
<td>20 A 1 1366 VA / 800 VA</td>
</tr>
<tr>
<td>8</td>
<td>Existing Load</td>
<td>20 A 1 0 VA / 0 VA</td>
</tr>
<tr>
<td>9</td>
<td>Existing Load</td>
<td>20 A 1 0 VA / 0 VA</td>
</tr>
<tr>
<td>10</td>
<td>Student Station Math Lab 205</td>
<td>20 A 1 1960 VA / 1080 VA</td>
</tr>
<tr>
<td>11</td>
<td>Student Station CS Lab 208</td>
<td>20 A 1 600 VA / 1080 VA</td>
</tr>
<tr>
<td>12</td>
<td>Student Station CS Lab 210</td>
<td>20 A 1 600 VA / 600 VA</td>
</tr>
<tr>
<td>13</td>
<td>Student Station CS Lab 211</td>
<td>20 A 1 800 VA / 360 VA</td>
</tr>
</tbody>
</table>

### Notes:
- **Equip.** 8300 VA 100.00% 8300 VA
- **Motor** 6300 VA 125.00% 7875 VA
- **Equip.** 500 VA 100.00% 500 VA
- **Recept** 11000 VA 95.45% 10500 VA

### Additional Information:
- **Mains Type:** 208/120 Wye
- **Wires:** COPPER 100 A
- **Enclosure:** SURFACE
- **Mounting:** SURFACE
- **Location:** NEMA 1
- **Voltage:** 240 V, 480 V
- **COPPER** MAIN LUGS ONLY
- **COPPER** 22K
- **Total Est. Demand Current:** 14600 VA
- **Total Connected Load:** 12708 VA
- **Total Load:** 12866 VA
- **Total Amps:** 30
- **No. of Poles:** 42
- **Bussing:** 28 A
- **A.I.C. Rating:** 14600 VA
- **Supply From:** Phase: A, B, C
- **No. CKT:** 28, 26, 24, 22, 20, 18, 16, 14, 12, 10, 8, 6, 4, 2, 1, 9, 7, 5, 3, 2, 1
- **Mains Rating:** 208/120 Wye

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**Review:**
- **Thompson, Carr & Huber, Inc.**
- **Scientist, Engineers, Architects, Constructors**
- **WSU Project: 022**
Wayne State University

Prentis Building Computer Lab Relocation

WSU PROJECT NUMBER: 022-313456

COMMUNICATION SYMBOL LEGEND

COMMUNICATION CABLE SCHEDULE

COMMUNICATION EQUIPMENT SCHEDULE

TYPICAL HORIZONTAL CABLEING DETAIL

WIRELESS PANEL LABELING

DATA PANEL LABELING