


PROPERTY OWNER

Wayne County Airport Authority
Facilities, Design and Construction Division
Michael Berry Administration Building
11050 Rogell Dr., Building 602
Detroit, MI 48242



ARCHITECT

arconcepts
ARCHITECTURE • DESIGN • PLANNING

17177 N. Laurel Park Dr., Suite 256 Livonia, MI 48152
Ph: 734.591.1090 arconceptsarchitects.com
A CERTIFIED DBE/WBE BUSINESS • MUCP CERTIFIED
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Architect of Record: Shirley A. Ghannam
Michigan License NO. 1301037406
Principal State of Practice: Michigan
Expiration Date: October 31, 2023

Michigan | Illinois | Florida | Indiana | Ohio | Georgia |
North Carolina | Nevada | Minnesota | West Virginia |
South Carolina | Texas


PROJECT REPRESENTATIVE

WAYNE COUNTY AIRPORT AUTHORITY
Paul H. Swift, C.M., LEED GA
Deputy Director - Facilities | Planning, Design and
Construction
11050 Rogell Drive, Bldg. 602, Detroit, MI 48242-5004
Office: 734.955.3581 | Mobile: 734.818.9410

PROJECT TENANT

WAYNE COUNTY AIRPORT AUTHORITY
FIRE DEPARTMENT
MR. GLENN OSUCH, FIRE CHIEF
12901 DINGELL DRIVE #802
ROMULUS (DETROIT), MI 48242
GLENN.OSUCH@WCAA.US

ARCHITECTS CONSULTANTS



Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666
www.PeterBassoAssociates.com
PBA Project No.: 2019.0041

PROJECT GENERAL CONTRACTOR

DETROIT METROPOLITAN WAYNE COUNTY AIRPORT DTW ARFF STATION 1

WAYNE COUNTY AIRPORT AUTHORITY SOLICITATION #230824 WOMEN'S LOCKER ROOM IMPROVEMENTS 12901 DINGELL DRIVE #802 ROMULUS (DETROIT), MI 48242

LOCATION PLAN
SCALE: NTS

SECURITY SENSITIVE INFORMATION:
"WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT THE NEED TO KNOW", AS DERIVED IN 49 CFR PARTS 15 AND 1520. EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OR THE TRANSPORTATION SECURITY ADMINISTRATION OR SECRETARY OF TRANSPORTATION, UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520."


DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	SAG	SAG
2022 10-05	ISSUE FOR BIDS (IFB)	VTD	SAG
2022 09-19	OWNER REVIEW	VTD	SAG

DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016	CLIENT REFERENCE #: S857
NOT ISSUED FOR CONSTRUCTION	

PROJECT INFORMATION

SEAL:	
	SHEET: G-01

DEFERRED SUBMITTALS

SECTION 107.3.4.2 DEFERRED SUBMITALS

DOCUMENTS FOR DEFERRED SUBMITAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR RECORD IN COMPLIANCE WITH THE DESIGN INTENT OF THE PROJECT. DEFERRED SUBMITAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE APPLICABLE AUTHORITIES HAVING JURISDICTION OVER EACH SCHEDULED WORK.

DEFERRED SUBMITTALS MAY INCLUDE:

- X THRU WALL AND FLOOR PENETRATION - FIRESTOP PRODUCT SUBMITTALS (IF REQUIRED BY A.H.J. / WCAA)
- X FIRE SUPPRESSION SYSTEM (PREPARED BY APPROVED LICENSED CONTRACTOR IN STATE OF MICHIGAN)
- X FIRE ALARM | COMMUNICATION SYSTEM - TIED DIRECTLY INTO BASE BUILDING SYSTEM (NO REMOTE PANELS)
- X UL LISTED COMPONENTS (IF REQUIRED BY A.H.J. / WCAA)
- X INTERIOR FLAMESPREAD DOCUMENTATION FROM MANUFACTURER (IF REQUIRED BY A.H.J. / WCAA)
- X SIGNAGE SUBMITTAL (IF REQUIRED BY A.H.J. / WCAA)

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS (PER AIRPORT FIRE MARSHAL)

- A. ABOVE CEILING (PRIOR TO CEILING TILES BEING INSTALLED)
- B. FIRE SUPPRESSION (SPRINKLER) / HYDRO TEST
- C. EMERGENCY LIGHTING TESTING
- D. 911 REPORTING (AS REQUIRED)
- E. FIRE ALARM ACCEPTANCE TEST
- F. FINAL WALK-THROUGH

ALL INSPECTIONS MUST BE SCHEDULED 48 HOURS IN ADVANCE BY CALLING THE FIRE MARSHALS OFFICE: 734.942.0061

PROJECT DATA

ARCHITECTS STATEMENT OF RESPONSIBILITY

These Documents have been prepared under the supervision of the Architect, Shirley A. Ghannam, as the person in responsible charge with the firm of Arconcepts, Inc., a Michigan Corporation. An original embossed or rubber stamp seal and original signature of the Architect is required and shall be affixed to any copy of this Document (all sheets) submitted to a governmental agency for approval or record. This is in conformance with the State of Michigan's P.A. 299, Article 20 and the General Rules of the Board of Architects.

When applicable, these Documents have been prepared in a cooperative effort by the entities identified on the Cover Sheet or Title Block of individual sheets. All engineers, contractors and suppliers involved with this Project shall comply with the same codes, issued and approved code modifications and or specific Construction Boards of Appeals rulings and whenever required, shall provide Shop Drawings and Submittals clearly describing compliance to the Registered Design Professional in Responsible Charge for review and approval.

The Architect's seal provided hereon does not take responsibility for certain portions of the Documentation or project requiring the services of a licensed Professional Engineer (or others). An original embossed or rubber stamp seal and original signature of the Professional Engineer (or others) is required and shall be affixed to any copy of this or other Documents submitted to a governmental agency for approval or record.

The Responsible Parties | Licensees are as follows:

- Structural Engineering: N/A to scope of Project
- Mechanical Engineering: PETER BASSO ASSOCIATES, INC.
- Electrical Engineering: PETER BASSO ASSOCIATES, INC.
- Fire Suppression: Under separate contract between General Contractor and their 'Design-Build' Fire Suppression Contractor.
- Fire Alarms | Controls: Under separate contract between General Contractor and their 'Design-Build' Fire Alarm | Controls Contractor.
- Interior Design: arconcepts / WCAA

PROJECT DESCRIPTION

Scope of work includes removals of existing tenancy elements and reconstruction / improvements / modifications of 345 SF of existing interior tenant space. Scope of work includes construction of one (1) ADA compliant Restroom (Female) and Shower / Locker Room Facility.

Existing building square footage, use group, construction type, and egress paths are unaffected by this project scope.

PROJECT INFORMATION

General Information / Design Criteria

Project Designed to the following building codes (As Applicable):

- 2015 Michigan Rehabilitation Code for Existing Buildings
- 2015 Michigan Building Code
- 2015 International Building Code
- MI 1107.1 State of Michigan Additions | Amendments to the International Building Code 2015
- 2015 Part 4, Building Code (Storm Shelters)
- 2018 Michigan Plumbing Code
- 2015 Michigan Mechanical Code
- 2015 International Fuel Gas Code
- 2017 National Electrical Code (NEC)
- 2017 Michigan Part 8 Rules
- 2015 Michigan Energy Code
- Rules Part 10 and 10-A (2015 Michigan Residential Code - Chapter 11) with ASHRAE 90.1-2013
- 2015 International Fire Code
- Michigan Barrier Free Design Law PA 1 of 1966 Incorporating the 2009 ICC/ANSI A117.1 Standard
- Michigan ADA / Architectural Barrier Removal and Compliance Manual, based on:
- American National Standard ICC/ANSI A117.1 2009
- International Building Code 2015 Provisions
- MI 107.1 State of Michigan Additions | Amendments to the 2015 International Building Code
- NFPA 13 - Most Current Edition
- NFPA 72 - Most Current Edition
- Life Safety based on:
- NFPA 101
- Flame Spread Ratings based on:
- 2015 Michigan Building Code (Chapter 8) and NFPA 13
- Means of Egress | Hardware Requirements based on:
- 2015 Michigan Building Code (Chapter 10) and NFPA 101 | 13
- FAA 7460-1 FORMS AND ANY ADDITIONAL FAA REQUIREMENTS
- AVIATION SECURITY IMPROVEMENT ACT
- ALL APPLICABLE ENVIRONMENTAL LAWS

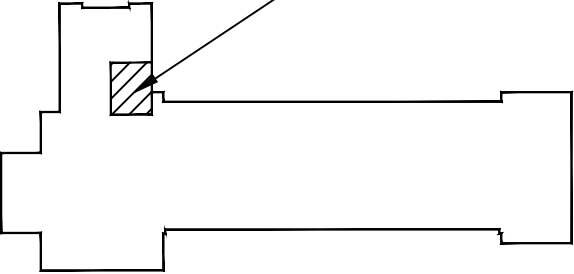
Building Data:

Building Data noted below was obtained and provided by WCAA via prior construction 'asbuilt' drawings and noted for reference.

- Jurisdiction: ROMULUS, MI
- Building Use and Classification (Per Chapter 3)
- (NO CHANGE BASED ON PROJECT SCOPE)
- NON-SEPARATE, MIXED USES: A3,B, R-2, S-1.
- General Building Heights and Areas:
- (NO CHANGE BASED ON PROJECT SCOPE)
- Building Height and Number of Stories (Per Section 504 and Table 504.3)
- Mezzanines and Equipment Platforms (Per Section 505)
- Building Area (Per Section 506)
- Unlimited Area Buildings (Per Section 507)
- Mixed Use and Occupancy (Per Section 508)
- Accessory Occupancies (Per Section 508.2) | Non-separated Occupancies (Per Section 508.3) | Separated Uses (Per Section 508.4)
- Type of Construction (Per Chapter 6 and Table 601)
- (NO CHANGE BASED ON PROJECT SCOPE)
- II B (PER SECTION 602.2 AND 603)
- Interior Finishes (Per Chapter 8 and Table 803.11)
- Fire Suppression (Per Chapter 9):
- (NO CHANGE BASED ON PROJECT SCOPE)
- Equipped with an automatic sprinkler system (Per Section 903)
- Fire Alarm and Detection Systems (Per Section 907)
- Building area:
- (NO CHANGE BASED ON PROJECT SCOPE)
- EXISTING FIRST FLOOR: 27,055 SF
- EXISTING MEZZANINE: 2,999 SF
- TOTAL EXISTING SQUARE FOOT / AREA: 30,054 SF
- Design Occupant Load (Per Chapter 10, Section 1004 and Table 1004.1.2):
- (NO CHANGE BASED ON PROJECT SCOPE)
- 166 PEOPLE EXISTING COUNT (NO NEW PERSONNEL IS PROPOSED)
- Egress Components (Per Chapter 10):
- (NO CHANGE BASED ON PROJECT SCOPE)
- Minimum Required Exit Width (Per Section 1005.1):
- Total width of means of egress:
- Occupant load x .2' = 2 Means of Egress by design
- 66' Total exit width required
- Building is provided with 99' of total exit width.
- Number of Exits and Exit Access Doorways (Per Section 1006):
- Compliance with Table 1006.2.1
- A, B, F, U: One exit (< or = to 49 persons)
- H-1, H-2, H-3: One exit (< or = to 3 persons)
- H-4, H-5, I, R: One exit (< or = to 10 persons)
- S: One exit (< or = to 29 persons)
- Required Accessible Exits (Per Section 1009):
- Minimum of one / two where two or more exits required
- (3) of (3) deemed accessible
- Per **IBC 2015** (Section 1017 and Table 1017.2) Exit Access Travel Distance:
- A, E, F-1, M, R, S-1
- 250 feet with sprinkler system
- B, Business
- 300 feet with sprinkler system
- Corridor Width (Per Table 1020.2):
- 44' minimum
- 24' for access to and utilization of electrical, mechanical or plumbing systems or equipment
- 36' for occupant capacity of 50 or less
- Maximum Length of Dead-End Corridor (Per Section 1020.4):
- 20 feet (all classifications)
- 50 feet with sprinkler system (B, E, F, I-1, M, R-1, R-4, S and U use classification exception)
- no limitation where corridor length of dead-end corridor is less than 2.5 times width of such dead-end corridor.
- Exit passageway width (Per Section 1024):
- 44' minimum
- 36' for occupant load of less than 50

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		<div><div></div><div>EMPTY CIRCLE DENOTES NO REVISIONS - ISSUED FOR REFERENCE ONLY.</div></div>					
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MECHANICAL / ELECTRICAL / PLUMBING ENGINEERING BY PETER BASSO ASSOCIATES, INC. (MEP ENGINEERS OF RECORD)							
LIFE SAFETY / FIRE SUPPRESSION BY RESPECTIVE DESIGN-BUILD ENGINEERING CONTRACTORS (UNDER CONTRACT WITH GENERAL CONTRACTOR) - DRAWINGS MUST BE SUBMITTED TO AHJ PRIOR TO COMMENCEMENT OF WORK.							
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KEYPLAN: PROJECT AREA



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2023 03-02 PERMITS/CONSTRUCTION SAG SAG

2022 10-05 ISSUE FOR BIDS (IFB) VTD SAG


DATE	ISSUED FOR	DRN	CKD
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arconcepts, inc. ©

CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingelt Drive, #802
Detroit, MI 48242

arconcepts PROJECT #: WCA22-916	
NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857

PROJECT INFORMATION / CODE COMPLIANCE

SEAL:

SHEET:

G-01.1

SECURITY REQUIREMENTS:

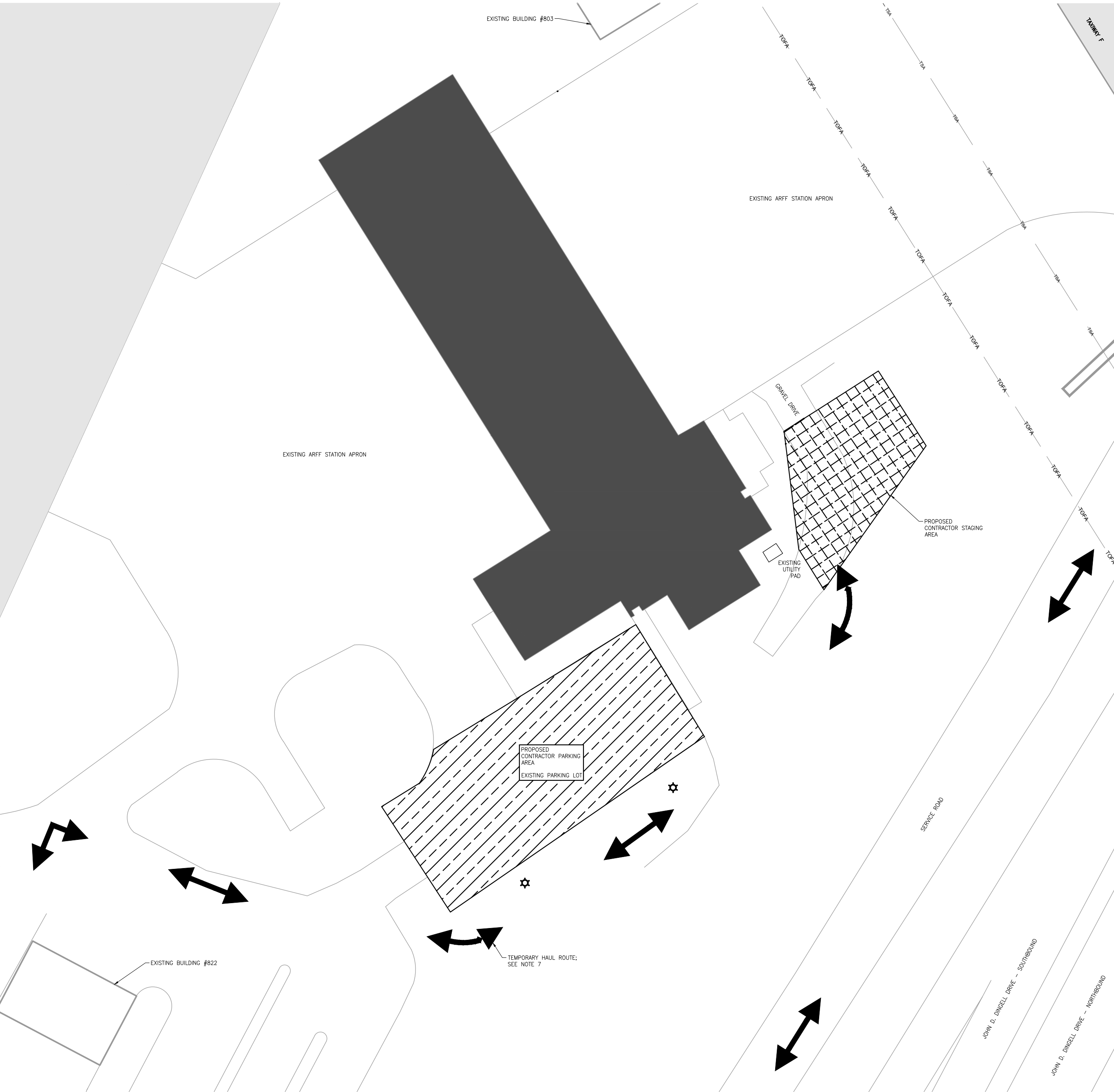
1. ACCESS TO THE SITE: CONTRACTOR'S ACCESS TO THE SITE SHALL BE AS SHOWN ON THE PLANS. NO OTHER ACCESS POINTS SHALL BE ALLOWED UNLESS APPROVED BY WCAA. ALL CONTRACTOR TRAFFIC AUTHORIZED TO ENTER THE SITE SHALL BE EXPERIENCED IN THE ROUTE OR GUIDED BY CONTRACTOR PERSONNEL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL TO AND FROM THE VARIOUS CONSTRUCTION AREAS ON THE SITE, AND FOR THE OPERATION AND SECURITY OF ACCESS TO THE SITE. THE CONTRACTOR SHALL NOT PERMIT ANY UNAUTHORIZED CONSTRUCTION PERSONNEL OR TRAFFIC ON THE SITE. ACCESS POINTS TO THE SITE SHALL BE SECURED AND LOCKED AT ALL TIMES WHEN NOT ATTENDED BY THE CONTRACTOR. THE GATE MUST BE CLOSED AFTER EACH ACCESS. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS DEPOSITED ALONG THE ACCESS ROUTE AS A RESULT OF HIS CONSTRUCTION TRAFFIC. DIRECTIONAL SIGNING FROM THE ACCESS POINT ALONG THE DELIVERY ROUTE TO THE STORAGE AREA OR WORK SITE SHALL BE AS DIRECTED BY WCAA.
2. MATERIALS DELIVERY TO THE SITE: ALL CONTRACTOR'S MATERIAL ORDERS FOR DELIVERY TO THE WORK SITE WILL USE AS A DELIVERY ADDRESS, THE STREET NAME ASSIGNED TO THE ACCESS POINT AT THE CONTRACTOR'S STAGING SITE AT THE AIRPORT. DELIVERIES MUST REFERENCE THE PROJECT NAME AND CONTRACTOR'S NAME, ON-SITE SUPERVISOR, AND PHONE NUMBER. THIS CONSTRUCTION ADDRESS WILL BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.
3. CONSTRUCTION AREA LIMITS: THE LIMITS OF CONSTRUCTION, MATERIAL STORAGE AREAS, EQUIPMENT STORAGE AREA, PARKING AREA AND OTHER AREAS DEFINED AS REQUIRED FOR THE CONTRACTOR'S EXCLUSIVE USE DURING CONSTRUCTION SHALL BE MARKED BY THE CONTRACTOR. TEMPORARY BARRICADES, FLAGGING AND FLASHING WARNING LIGHTS WILL BE REQUIRED AT CRITICAL ACCESS POINTS. TYPE OF MARKING AND WARNING DEVICES SHALL BE APPROVED BY THE WCAA.
4. SUPERVISION: CONTRACTOR SHALL, AT ALL TIMES, HAVE A SUPERVISOR ON SITE DURING ALL OPERATIONS INCLUDING ALL SUBCONTRACTOR OPERATIONS.
5. IDENTIFICATION—VEHICLES: THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A LIST OF CONTRACTOR AND SUBCONTRACTOR VEHICLES AUTHORIZED TO OPERATE ON THE SITE WHICH SHALL BE MADE AVAILABLE UPON DEMAND BY THE RESIDENT PROJECT REPRESENTATIVE (RPR) OR ANY AIRPORT REPRESENTATIVES. EACH VEHICLE SHALL DISPLAY A LARGE COMPANY SIGN ON BOTH SIDES OF THE VEHICLE. THE CONTRACTOR SHALL PROVIDE THE WCAA WITH A CURRENT LIST OF COMPANIES AUTHORIZED TO ENTER AND CONDUCT WORK ON THE AIRPORT. CONTRACTOR EMPLOYEE VEHICLES SHALL BE RESTRICTED TO THE CONTRACTOR'S EMPLOYEE PARKING AREA AS DESIGNATED BY THE WCAA.
6. FINES: PAYMENT OF ALL FINES ASSESSED TO WCAA DUE TO FAA OR TSA VIOLATIONS BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SUCH FINES WILL BE DEDUCTED FROM THE CONTRACT VIA CHANGE ORDER.
7. ONSITE PARKING IS AVAILABLE IN THE MAIN FIRE STATION PARKING LOT NEXT TO THE DESIGNATED STAGING AREA. CONTRACTOR PARKING IS LIMITED TO 3 COMPANY VEHICLES THAT ARE PROPERLY MARKED AND INSURED PER THE GENERAL TERMS AND CONDITIONS AND IN ACCORDANCE WITH SP-20. ADDITIONAL PARKING IS AVAILABLE AT THE BIG BLUE AND/OR MCNAMARA PARKING DECK AT THE CONTRACTOR'S EXPENSE.

SAFETY REQUIREMENTS:

1. THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO THIS AIRPORT AND SHALL CONDUCT THE CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY REQUIREMENTS AND GUIDELINES ON SAFETY AS SPECIFIED IN NOTE NO. 4 BELOW. ALL CONTRACTOR CONSTRUCTION COMMUNICATIONS WITH WAYNE COUNTY AIRPORT AUTHORITY (WCAA) OPERATIONS OR ADMINISTRATION SHALL BE VIA AIRPORT COMMUNICATIONS, AS DIRECTED BY WCAA STAFF. CONTRACTOR MUST PROVIDE WCAA WITH TWO CONTACT NUMBERS FOR THE ON-SITE SUPERVISOR THAT CAN BE REACHED 24 HOURS A DAY, SEVEN DAYS A WEEK. THE SUPERVISOR SHALL HAVE AUTHORITY TO MAKE DECISIONS IN RESOLVING ANY EMERGENCY OR OTHER ISSUES.
2. DEBRIS, WASTE AND LOOSE MATERIAL SHALL NOT BE ALLOWED ON ACTIVE AIRCRAFT OPERATING SURFACES. IF THESE MATERIALS ARE OBSERVED TO BE ON ACTIVE AIRCRAFT OPERATING SURFACES, THE CONTRACTOR SHALL INFORM WCAA OPERATIONS IMMEDIATELY. DEBRIS, WASTE AND LOOSE MATERIAL WILL BE REMOVED IMMEDIATELY AND/OR CONTINUOUSLY DURING CONSTRUCTION BY USE OF VACUUM TRUCK (SEE SAFETY NOTE 6 BELOW).
3. THE CONTRACTOR IS DIRECTED TO COMPLY WITH AND ACQUAINT HIS/HER EMPLOYEES WITH THE FOLLOWING SAFETY GUIDELINES, RELATED MATERIALS AND FAA ADVISORY CIRCULARS:
 - 150/5370-2G "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"
 - DETROIT METROPOLITAN WAYNE COUNTY (DTW) AIRPORT RULES AND REGULATIONSCOPIES OF THESE DOCUMENTS ARE AVAILABLE ONLINE AT
 - [HTTP://WWW.FAA.GOV/AIRPORTS/RESOURCES/ADVISORY_CIRCULARS/](http://www.faa.gov/airports/resources/advisory_circulars/)
 - [HTTPS://WWW.METROAIRPORT.COM/BUSINESS/EMPLOYMENT/DTW-AIRPORT-ID-BADGES/SECURITY-RULES-PROCEDURES](https://www.metroairport.com/business/employment/dtw-airport-id-badges/security-rules-procedures)
4. CONSTRUCTION DURING THE PROJECT MAY BE HALTED AT ANY TIME BY THE AIRPORT IF IT IS DETERMINED TO BE IN THE BEST INTEREST OF AIRPORT OPERATIONS OR SAFETY. THE CONTRACTOR MAY BE DIRECTED TO REMOVE EQUIPMENT AND/OR EVACUATE THE SITE. NECESSARY EXTENSIONS IN CONTRACT TIME WILL BE GRANTED OR A STOP WORK ORDER WILL BE ISSUED DUE TO THESE DELAYS. HOWEVER, THERE WILL BE NO ADJUSTMENTS IN CONTRACT COST DUE TO THESE DELAYS.
5. FAILURE TO COMPLY WITH ANY OF THE SAFETY AND SECURITY REQUIREMENTS MAY RESULT IN ANY OR ALL OF THE FOLLOWING ACTIONS:
 - PROJECT SHUT DOWN
 - REMOVAL FROM AIRPORT (PERSONNEL AND/OR EQUIPMENT)
 - FINES, IN ACCORDANCE WITH AIRPORT RULES AND REGULATIONS
6. THE CONTRACTOR'S EQUIPMENT STORAGE AREA SHALL BE WITHIN THE CONSTRUCTION SITE OR WITHIN THE STAGING AREA AS SHOWN ON THE CONTRACT LAYOUT. THE CONTRACTOR'S EQUIPMENT AND CONSTRUCTION VEHICLES SHALL BE RESTRICTED TO THE CONSTRUCTION SITE OR STORAGE AREAS DURING CONSTRUCTION AND PARKED IN THE STAGING AREA DURING NON-WORKING PERIODS OR AS APPROVED BY WCAA ENGINEERING STAFF. ALL CONSTRUCTION VEHICLES SHALL BE EQUIPPED WITH A CONSTRUCTION SAFETY FLAG
7. FOR SAFETY REASONS CONSTRUCTION AREAS ARE DESIGNATED AS NO SMOKING AREAS.

LEGEND:

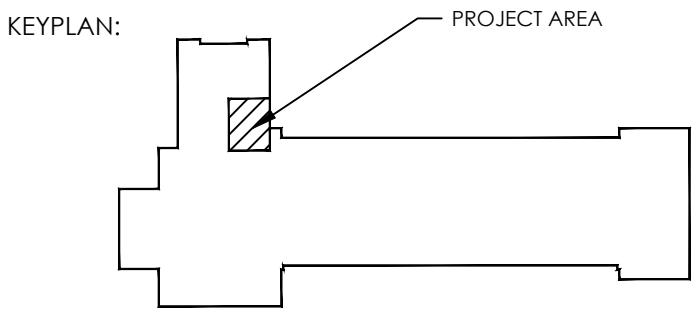
- CONTRACTOR STAGING AREA
- CONTRACTOR PARKING AREA
- EXISTING AIRPORT BUILDING
- EXISTING ARFF STATION 1
- EXISTING AIRFIELD PAVEMENTS
- HAUL ROUTE



2 STAGING PLAN
G-01.2 SCALE: NTS



1 OVERALL PROJECT ACCESS PLAN
G-01.2 SCALE: NTS




SECURITY SENSITIVE INFORMATION:
WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT THE NEED TO KNOW, AS DERIVED IN 49 CFR PARTS 15 AND 1520. EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OR THE TRANSPORTATION SECURITY ADMINISTRATION OR SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520.

DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	SAG	SAG
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DATE	ISSUED FOR	DRN	CKD

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CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingelt Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016	CLIENT REFERENCE #: S857
NOT ISSUED FOR CONSTRUCTION	

OVERALL PROJECT ACCESS PLAN / STAGING PLAN

SEAL:


NORTH

SHEET:
G-01.2

AIRPORT AUTHORITY REQUIREMENTS

THE INFORMATION CONTAINED HEREIN IS AN ABBREVIATED REPRESENTATION OF THE REQUIREMENTS OF THE PROJECT WITH RESPECTS TO WCAA RULES AND REQUIREMENTS. CONTRACTORS MUST OBTAIN AND FOLLOW ALL WCAA / FAA / TSA / AHJ RULES AND REGULATIONS.

REFERENCE DOCUMENTS

1. THE GUIDELINES ARE TO BE READ IN CONJUNCTION WITH:
 - 1.1. THE CITY OF ROMULUS BUILDING PERMIT
 - 1.2. ALL APPLICABLE CODES AND REQUIREMENTS LISTED ON G-01.1
 - 1.3. SP-20 "AIRPORT SECURITY REQUIREMENTS" FOR REFERENCE TO PROJECT SCOPE. SP-20 IS REQUIRED WHEN PROJECTS ARE ON THE AOA OR SIDA AREAS. SP-20 DOCUMENT IN ITS ENTIRETY SHOULD BE REVIEWED DURING PRICING AND CONSTRUCTION PHASES FOR SECURITY DESIGN REQUIREMENTS AS APPLICABLE TO THE PROJECT.

GENERAL REQUIREMENTS OF CONTRACT

1. **SITE REVIEW**
 - 1.1. PRIOR TO THE BID BEING SUBMITTED, THE GENERAL CONTRACTOR (AND RELATED SUB-CONTRACTORS) WILL BE PROVIDED PHOTOGRAPHS OF THE PROJECT SITE DURING THE PRE-BID MEETING.
2. **PROGRESS SCHEDULE**
 - 2.1. THE CONTRACTOR SHALL SUBMIT AN ASSUMED CONSTRUCTION SCHEDULE WITH THEIR BID FOR CONSTRUCTION; PRIOR TO BEING AWARDED THE CONTRACT, CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT | OWNER A COMPLETE PROJECT SCHEDULE FOR CONSTRUCTION FOR THE WORK.
3. **ORDERING OF MATERIALS**
 - 3.1. WITHIN FIVE (5) DAYS FROM AWARD OF CONTRACT, CONTRACTOR SHALL NOTIFY THE WCAA IN WRITING AS TO THE NAMES OF ALL SUBCONTRACTORS (AND SIGNATORY UNIONS IF REQUIRED) AND VERIFY THAT ALL MATERIALS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THE PROJECT HAVE BEEN ORDERED TO THE PROJECT SITE BY THE CONTRACTOR IN COMPLIANCE WITH LEAD TIMES) WITH CONFIRMED DELIVERY DATES AND COORDINATE WITH THE PROGRESS SCHEDULE. SUCH NOTIFICATION SHALL LIST ANY EXCEPTIONS, INCLUDING THE CAUSES AND REQUEST FOR SUBSTITUTIONS. CONTRACTOR SHALL PROVIDE A DETAILED SHOP DRAWING SUBMITTAL AND SAMPLE SCHEDULE TO WCAA.
4. **SUBSTITUTIONS**
 - 4.1. WHERE A PARTICULAR MANUFACTURER OR ITEM HAS BEEN SPECIFIED, AN OR EQUAL SUBSTITUTION IS ACCEPTABLE UPON ARCHITECT / WCAA REVIEW AND APPROVAL. IN THE EVENT A SPECIFIED PRODUCT IS NO LONGER AVAILABLE OR THERE ARE OTHER VALID REASONS FOR SUBMITTING REQUEST FOR SUBSTITUTION TO THE ARCHITECT, AN EQUAL OR BETTER PRODUCT OF ANOTHER MANUFACTURER MAY BE PRESENTED FOR REVIEW AND WRITTEN ACCEPTANCE BY ARCHITECT / WCAA. IT IS MANDATORY THAT SUCH REVIEW BE OBTAINED PRIOR TO BID SUBMISSION OR THE SUBSTITUTION WILL NOT BE CONSIDERED. ANY SUCH PROPOSED SUBSTITUTION SHALL BE SUBMITTED TO ARCHITECT / WCAA WITH ALL APPROPRIATE MANUFACTURER'S DATA AND LITERATURE, AND FULL DISCLOSURE AS TO WHY THE SUBSTITUTION IS BEING REQUESTED. ARCHITECT / WCAA DECISION AS TO WHETHER A PRODUCT IS EQUAL OR SUPERIOR TO THE ONE SPECIFIED SHALL BE FINAL. THIS SECTION APPLIES TO ANY "OR EQUAL" NOTED IN THE SPECIFICATIONS OR DRAWINGS HEREIN.
5. **WORKMANSHIP AND MATERIALS**
 - 5.1. ALL WORK SHALL BE DONE IN THE FINEST QUALITY, WORKMANSHIP-LIKE MANNER IN ACCORDANCE WITH THE INDUSTRY STANDARD FOR CONSTRUCTION, FABRICATION, AND INSTALLATION FOR EACH TRADE. UNLESS OTHERWISE NOTED, USE ONLY NEW HIGHEST QUALITY MATERIALS CONSISTENT WITH SPECIFICATIONS AS INDICATED. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF ALL APPLICABLE BUILDING CODES AND GOVERNMENTAL REGULATIONS, INCLUDING THOSE DEALING WITH ENERGY, ACCESSIBILITY REQUIREMENTS AND ANY REQUIREMENT DIRECTED BY THE AUTHORITIES HAVING JURISDICTION (AHJ) OVER THIS PROJECT.
 - 5.2. WORK SHALL INCLUDE ALL LABOR, ASSEMBLIES, AND FINISH WORK WITH ALL PARTS AND MATERIALS NECESSARY TO MAKE A COMPLETE, IN-PLACE, PROPERLY WORKING, AND FINISHED INSTALLATION IMPLIED OR SHOWN ON DRAWINGS.
6. **SHOP DRAWINGS AND CUT SHEETS**
 - 6.1. THE GENERAL CONTRACTOR SHALL SUBMIT REVIEWED AND QUALIFIED SHOP DRAWINGS FOR ALL FABRICATED ITEMS, CUT SHEETS FOR ALL FIXTURES AND EQUIPMENT, AND SAMPLES OF ALL FINISHES TO ARCHITECT / WCAA FOR REVIEW AND APPROVAL FOR TIMELY ORDERING.
 - 6.2. MECHANICAL, ELECTRICAL, AND PLUMBING SUBMITTALS SHALL BE FORWARDED TO ARCHITECT / WCAA (WHO SHALL ROUTE TO MECHANICAL AND/OR ELECTRICAL ENGINEERS) FOR REVIEW. UPON REVIEW, ENGINEERS WILL SEND ARCHITECT COPY OF ALL REVIEWED INFORMATION AND ARCHITECT SHALL FORWARD TO CONTRACTOR AND/OR WCAA.
 - 6.3. THE GENERAL CONTRACTOR SHALL INFORM ARCHITECT / WCAA IN WRITING AT THE TIME OF SUBMISSION OF ANY PROPOSED DEVIATION IN SUBMITTALS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. BY APPROVING AND SUBMITTING SHOP DRAWINGS AND SAMPLES TO ARCHITECT / WCAA, THE CONTRACTOR REPRESENTS THAT THEY HAVE CONFIRMED THAT EACH SUBMITTAL HAS BEEN CHECKED AND COORDINATED WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE TO VERIFY THAT THE TRADE SUBMITTING SAME HAS VERIFIED THE RESPECTIVE FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA. REJECTED SHOP DRAWINGS AND SAMPLES (BY THE ARCHITECT / WCAA) SHALL BE RESUBMITTED AS SOON AS POSSIBLE AND SHALL BE IDENTIFIED AS "RE-SUBMITTAL".
7. **PROVISION OF WORK**
 - 7.1. ALL DIMENSIONS AND DESCRIPTIONS ON CONSTRUCTION DRAWINGS ARE COMPLEMENTARY TO ALL DRAWINGS RELATED TO SUCH ITEM. ANY WORK SHOWN OR REFERRED, INCLUDING THE PHRASE "TYPICAL" OR "TYPICAL WHERE SHOWN" ON ANY CONSTRUCTION DOCUMENT SHALL BE ASSUMED AS THOUGH SHOWN ON ALL RELATED DOCUMENTS. THE USE OF THE WORD "PROVIDE" IN CONNECTION WITH ANY ITEM SPECIFIED IS INTENDED TO MEAN THAT SUCH ITEM OR SYSTEM SHALL BE FURNISHED, INSTALLED, AND CONNECTED, WHERE SO REQUIRED, EXCEPT AS OTHERWISE NOTED.
8. **CLARIFICATION OF DRAWINGS**
 - 8.1. ALL REQUESTS FOR CLARIFICATION OF THESE DRAWINGS SHALL BE DIRECTED TO THE ARCHITECT / WCAA. ALL INFORMATION SHALL BE ISSUED THROUGH ARCHITECT / WCAA IN THE FORM OF CLARIFICATION DRAWINGS AND WRITTEN CORRESPONDENCE.
9. **DIMENSIONS**
 - 9.1. ALL CLEAR DIMENSIONS ARE TO THE FACE OF FINISH, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT SCALE DRAWINGS. VERIFY DIMENSIONS LAYOUT OF WALLS, PARTITIONS, MILLWORK, FINE, AND OTHER FINISHES REFERENCED DIMENSIONALLY WITH ARCHITECT BEFORE BEGINNING CONSTRUCTION. WHEN DIMENSIONS ARE SHOWN INSIDE OF INTERIOR PARTITIONS, DIMENSIONS ARE TO CENTER LINE OF FLOOR TRACK/WALL.
10. **RECORD DRAWINGS**
 - 10.1. THE CONTRACTOR SHALL KEEP A DAILY RECORD DRAWING OF THE ON-GOING CONSTRUCTION (INCLUDING HVAC, PLUMBING, ELECTRICAL, AND ARCHITECTURAL) WORK, AND SHALL HAVE THESE RECORDS AVAILABLE TO THE ARCHITECT | OWNER AT ALL TIMES. CONTRACTOR SHALL SUBMIT SUCH RECORD DRAWINGS TO THE ARCHITECT | OWNER AT THE COMPLETION OF THE WORK. DRAWINGS SHALL GIVE THE ACCURATE DIMENSIONS OF ALL COMPLETED WORK, INCLUDING UNDERGROUND OR OTHER CONCEALED WORK.

SECURITY REQUIREMENTS

SAFETY AND SECURITY OF PROJECT SPACE

1. THE TENANT AND ITS CONTRACTORS HAVE SOLE AND COMPLETE RESPONSIBILITY FOR SAFETY ON THE PROJECT. THE TENANT SHALL DESIGNATE A SAFETY REPRESENTATIVE DURING THE ENTIRE CONSTRUCTION PERIOD. THE TENANT AND ITS CONTRACTORS SHALL COMPLY WITH ALL HEALTH AND SAFETY REQUIREMENTS OR STANDARDS IN EFFECT UNDER THE FEDERAL, OSHA, STATE OF MICHIGAN, WAYNE COUNTY, AND WCAA STANDARDS.
2. FIRE PROTECTION SHALL COMPLY WITH ALL LIFE SAFETY/FIRE REGULATIONS IN EFFECT UNDER FEDERAL, OSHA, EPA, STATE OF MICHIGAN, WAYNE COUNTY, AND WCAA STANDARDS.
3. SECURITY OF THE TENANT'S / OWNER'S PREMISES DURING THE TENANT'S / OWNER'S CONSTRUCTION ACTIVITY PERIOD SHALL BE THE RESPONSIBILITY OF SAME, WHO SHALL TAKE ALL NECESSARY STEPS TO SECURE THE PREMISES. THE WCAA SHALL HAVE NO LIABILITY FOR ANY LOSS OR DAMAGE INCLUDING THEFT OF BUILDING MATERIALS, EQUIPMENT, SUPPLIES, FIXTURES OR STOCK.

SITE SAFETY AND SECURITY - GENERAL

1. GENERAL REQUIREMENTS AND CONTRACTOR RULES
 - 1.1. ALL INDIVIDUALS WORKING INSIDE OR TRAVERSING SECURITY SENSITIVE AREAS SHALL HAVE AIRPORT IDENTIFICATION BADGES OBTAINED FROM THE AIRPORT'S CREDENTIALS OFFICE (734) 942-3606. ALL FORMS AND INFORMATION ARE AVAILABLE AT WWW.AIRPORT.COM. CHECK THE "SECURITY" TAB ON THE TOP RIGHT OF THE PAGE.
 - 1.2. UNSCORTED ACCESS REQUIRES A DTW PHOTO ID BADGE. CONTRACTORS MAY CONTACT THE AIRPORT'S CREDENTIALS OFFICE FOR SPECIFIC BADGE PROCESSING PROCEDURES.
 - 1.3. ALL CONTRACTOR VEHICLES AND EQUIPMENT THAT OPERATE ON THE AOA MUST DISPLAY A DTW AOA ACCESS PERMIT. PER FEDERAL REGULATION 49 CFR 1520, ALL SECURITY RELATED DOCUMENTS SHALL BE IDENTIFIED AS "SECURITY SENSITIVE INFORMATION" OR "FOR OFFICIAL USE ONLY." DOCUMENTS THAT IDENTIFY CRITICAL INFRASTRUCTURE AND/OR SECURITY SYSTEMS SHALL BE MARKED WITH THE FOLLOWING STATEMENT (WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PART 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT A "NEED TO KNOW", AS DIRECTED IN 49 CFR PART 1520, EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OR THE TRANSPORTATION SECURITY ADMINISTRATION OR THE SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION, FOR U.S. GOVERNMENT AGENCIES. PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PART 1520). ALL OTHER DOCUMENTS SHALL BE MARKED OFFICIAL USE ONLY - PUBLIC AVAILABILITY TOO BE DETERMINED UNDER 5 USC 552.
 - 1.5. THE CONTRACTOR AND/OR HIS EMPLOYEES SHALL NOT PROP OPEN ANY GATES OR DOORS THAT ALLOW ACCESS TO ANY SECURITY SENSITIVE AREA. THIS MAY INCLUDE TALKING TO ANY INDIVIDUALS WHO ARE IN THE SECURITY SENSITIVE AREA. CONTRACTOR WALLS SHALL MEET SECURITY ACCESS REQUIREMENTS (FENCE STANDARDS OR SCAS SYSTEM). CONTRACT SECURITY OFFICERS ARE REQUIRED (AT THE COST OF THE CONTRACTOR) FOR ANY SECURITY SENSITIVE AREA ACCESS OPENING.
 - 1.6. TO PREVENT POSSIBLE EXPLOSIVE OR INCENDIARY DEVICES FROM BEING HIDDEN IN AREAS CLOSE TO AIRPORT FACILITIES, EQUIPMENT, AIRCRAFT, OR VEHICLES, NO CONTAINERS (TOOL BOXES, STORAGE CONTAINERS, MATERIAL TRAILERS) SHALL BE LEFT UNSECURED OR UNATTENDED IN SECURITY SENSITIVE AREAS.
 - 1.7. IF A TEMPORARY OPENING IS MADE THAT WOULD ALLOW ACCESS INTO A SECURITY SENSITIVE AREA, THE CONTRACTOR SHALL ERECT A PARTITION TO PREVENT ACCESS UNTIL THE AREA IS INSPECTED AND APPROVED BY THE AIRPORT SECURITY. THE CONTRACTOR SHALL NOT INSTALL ANY OPENINGS/DOORS THAT WOULD ALLOW ACCESS TO THE SECURITY SENSITIVE AREA UNLESS APPROVED IN ADVANCE AND TESTED BY THE AIRPORT SECURITY.
 - 1.8. ACCESS THROUGH SECURITY DOORS AND GATES CAN BE COORDINATED BY CONTACTING AIRPORT SECURITY. ACCESS TO OTHER TENANT OR AIRLINE LOCATIONS REQUIRES THE PERMISSION OF THE SPECIFIC LEASHOLDER.
 - 1.9. DUMPSTER LOCATION TO BE APPROVED BY WCAA PRIOR TO START OF WORK.
 - 1.10. PRIOR TO ANY AREA BEING OPENED TO THE PUBLIC A SECURITY SWEEP OF THE AREA IS REQUIRED - CONTACT A SECURITY MANAGER.

CONSTRUCTION REGULATIONS

1. PRE-CONSTRUCTION REQUIREMENTS

1.1. PRE-CONSTRUCTION MEETING

A PRE-CONSTRUCTION MEETING MUST BE SCHEDULED THROUGH THE WCAA. THOSE PRESENT AT THIS MEETING SHOULD BE THE TENANT, THE TENANT'S ARCHITECT, THE TENANT'S CONTRACTOR AND JOB SITE SUPERINTENDENT AND RELEVANT WCAA STAFF INCLUDING CONSTRUCTION AND SAFETY/SECURITY. THE PURPOSE OF THE MEETING IS TO CLARIFY SITE RULES FOR CONTRACTORS, PROCEDURES, SCOPE OF WORK, IDENTITY CONTACT PERSONS, HOURS OF OPERATION, STAGING AREAS, ROUTES OF ACCESS, SAFETY PROCEDURES, AND OTHER ISSUES PERTINENT TO THE COORDINATED CONSTRUCTION EFFORT OF THE IMPROVEMENT. THE 24 HOUR PHONE NUMBERS OF THE RELEVANT REPRESENTATIVES SHALL BE PROVIDED TO THE WCAA REPRESENTATIVE. A JOINT TOUR OF THE PREMISES WILL FORM PART OF THIS MEETING. THE REQUIREMENTS OF SUBMISSIONS REQUIRED AT THIS MEETING ARE FOUND IN THE WCAA CONSTRUCTION GUIDELINES AND TDCM.

1.2. IDENTIFICATION BADGING

ALL CONSTRUCTION PERSONNEL MUST BE SELF BADGED (COMPANY/EMPLOYEE) OR WITH VISITOR BADGE AND BE ACCOMPANIED BY SOMEONE WITH A COMPANY/EMPLOYEE BADGE AND WITH ESCORT PRIVILEGES AT ALL TIMES. .

AIRPORT AUTHORITY REQUIREMENTS (CONT.)

- 1.2.1. THE TENANT'S CONTRACTOR(S) AND SUB-CONTRACTORS SHALL COMPLY WITH ALL RULES AND REGULATIONS CONCERNING SECURITY.

2. CONSTRUCTION RULES AND REGULATIONS

2.1. GENERAL

- 2.1.1. ALL WORK AT THE BUILDING SHALL BE PERFORMED BY SKILLED WORKERS USING NEW MATERIAL. TO THE HIGHEST STANDARDS OF CONSTRUCTION PRACTICE. ALL WORKMANSHIP BY THE TENANT SHALL BE TO THE SATISFACTION OF WCAA.
- 2.1.2. WORKERS ON SITE SHALL USE ONLY THOSE TOILET FACILITIES DESIGNATED BY THE TENANT FOR CONSTRUCTION PERSONNEL.
- 2.1.3. MATERIALS SHALL NOT BE STORED OUTSIDE THE LIMITS OF THE TENANT'S PREMISES ON THE AIRPORT PROPERTY.
- 2.1.4. IF THE CONTRACTOR AND/OR ITS TRADES REQUIRE ACCESS TO A SPACE NOT CURRENTLY BEING UTILIZED OR OPERATED BY THE SAME TENANT, PRIOR APPROVAL MUST BE OBTAINED FOR ACCESS TO THAT SPACE. THE CONTRACTOR MUST REQUEST, FROM WCAA, ACCESS TO THE SPACE A MINIMUM OF 48 HOURS PRIOR TO THE DESIRED TIME OF ACCESS.
- 2.1.5. PROJECT RULES AND REGULATIONS ARE ESTABLISHED TO PROMOTE SAFE AND TIMELY COMPLETED PROJECTS WITH MINIMAL DISRUPTION TO OTHER SITE ACTIVITIES AND AIRPORT OPERATIONS. WCAA RESERVES THE RIGHTS, AT ITS SOLE DISCRETION, TO MODIFY, DELETE, ADD OR ALTER THESE PROCEDURES AND REQUIREMENTS AS NEEDED FROM TIME TO TIME.
- 2.1.6. THE CONTRACTOR SHALL REQUEST, AND HAVE COMPLETED, UNDERGROUND UTILITY SWEEPS FROM AIRPORT MAINTENANCE, AIRPORT SECURITY, THE FAA AND/OR MISS DIG PRIOR TO THE COMMENCEMENT OF ANY EXCAVATING OR UNDERLAB UTILITY WORK.
- 2.1.7. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM ANY UNDERGROUND SCANNING OR CONFIRMATION OF MEP CONFLICTS PRIOR TO EXCAVATION.
- 2.1.8. PROVIDE 3-DAYS ADVANCED NOTICE TO WCAA ELECTRICAL DEPARTMENT TO MARK AIRPORT ELECTRICAL PRIOR TO THE COMMENCEMENT OF WORK. NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 2.1.9. ALL CUTTING OR WELDING SHALL REQUIRE A SITE INSPECTION AND BURN PERMIT FROM WCAA AIRPORT FIRE MARSHAL PRIOR TO WORK TAKING PLACE. CONTRACTORS MUST CONTACT FIRE MARSHAL'S OFFICE AT 734-942-3603 FOR REQUIRED INSPECTIONS.
- 2.1.10. WCAA OPERATIONS, SECURITY AND THE WCAA INSPECTOR MUST APPROVE ALL DELIVERY ROUTES.
- 2.1.11. MATERIAL STORAGE ON SITE MUST BE COORDINATED WITH THE WCAA INSPECTOR.
- 2.1.12. COPIES OF APPROVED MIX DESIGNS, TESTING RESULTS, ROUGH/FINAL BUILDING AND MECHANICAL INSPECTIONS, CERTIFICATE OF OCCUPANCY FROM THE CITY OF ROMULUS BUILDING AUTHORITY AND "AS BUILT" DRAWINGS, MUST BE SUBMITTED TO WCAA INSPECTORS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF THE BUILDING.
- 2.1.13. THE WCAA INSPECTOR SHALL BE GRANTED ACCESS TO JOB SITE FOR THE PURPOSE OF INSPECTING FOR COMPLIANCE TO THE CONDITIONS OUTLINED IN THIS PERMIT. INSPECTIONS INCLUDE, BUT ARE NOT LIMITED TO, PERMIT COMPLIANCE, SEWER CONNECTIONS, WATER TAPS, GAS TAPS, FOOTING EXCAVATIONS, SITE PREPARATION AND CONSTRUCTION METHODS. UTILITY TAPPING FEES WILL BE PAID DIRECTLY TO THE WCAA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A SITE SUPERVISOR PRESENT AT ALL TIMES WHEN ANY WORK IS BEING PERFORMED.
- 2.1.14. ANY DAMAGE TO EXISTING FACILITIES, FINISHES, AND UTILITIES IS THE RESPONSIBILITY OF THE PERMIT HOLDER. REPAIR AND/OR REPLACEMENT MUST BE COMPLETED WITHIN THE TIMEFRAME AND REQUIREMENTS OF THE WCAA.
- 2.1.15. UTILITY SHUT DOWNS AND INTERFACES ARE TO BE COORDINATED WITH WCAA INSPECTOR AND WCAA OPERATIONS CONSTRUCTION DEPT. AT LEAST 48 HOURS IN ADVANCE. THIS ALSO INCLUDES FIRE SUPPRESSION SHUT DOWNS, COORDINATED WITH THE WCAA INSPECTOR.
- 2.1.16. ALL WATER TIES/CONNECTIONS REQUIRING A SHUTOFF SHALL BE COORDINATED WITH THE WCAA INSPECTOR. THE CONTRACTOR, TO ALL EFFECTED PARTIES 72 HRS PRIOR TO SHUTOFF, SHALL PROVIDE WRITTEN NOTICE OF SHUTOFF. SHUTOFFS NORMALLY TAKE PLACE BETWEEN 11:00PM TO 5:00AM.
- 2.1.17. ALL WORK REQUIRING ANY POWER INTERRUPTIONS MUST BE COORDINATED THROUGH WCAA OPERATIONS, ELECTRICIANS AND INSPECTORS OFFICES. THE CONTRACTORS MUST PROVIDE WRITTEN NOTICE TO ALL APPROPRIATE WCAA DEPARTMENTS AND ALL AFFECTED PARTIES 72 HOURS PRIOR TO ANY POWER INTERRUPTION. ALL TEMPORARY POWER WILL BE SUPPLIED THROUGH WCAA STAFF.
- 2.1.18. POWER INTERRUPTIONS WILL NORMALLY TAKE PLACE BETWEEN THE HOURS OF 11:00 P.M. AND 5:00 A.M.
- 2.1.19. BARRICADES ARE ANTICIPATED AND MUST BE SUBMITTED AND APPROVED BY THE WCAA PRIOR TO ERECTION. PERMIT APPLICATIONS FOR THE ERECTION OF BARRICADES MUST INCLUDE A DETAILED LIST OF ANY HAZARDOUS MATERIALS REMOVED FROM THIS SITE INCLUDING TYPE OF MATERIAL AND FINAL DISPOSAL POINT.
- 2.1.20. ALL PARTIES WILL CONFORM TO FAA AND WCAA STANDARDS FOR SECURITY.
- 2.1.21. CONTRACTORS, SUBCONTRACTORS AND DELIVERY PERSONS MUST FOLLOW TSA GUIDELINES.
- 2.1.22. FIRE SAFETY DURING CONSTRUCTION, ALTERATION AND DEMOLITION WILL BE ENSURED THROUGH STRICT COMPLIANCE WITH INTERNATIONAL FIRE PREVENTION CODE, CHAPTER 14. THIS SECTION WILL ALSO ENSURE SITE ACCESS.
- 2.1.23. FOR ALL CONSTRUCTION MATERIALS, CONTRACTORS SHALL SUBMIT AT THE REQUEST OF THE WCAA FIRE MARSHAL, PRIOR TO INSTALLATION, SUBSTANTIATION OF THE FIRE RESISTANCE RATING AND FLAME SPREAD/SMOKE DEVELOPMENT DATA.

2.2. HOURS OF CONSTRUCTION

- 2.2.1. REGULAR WORKING HOURS ARE FROM 8:00 A.M. TO 8:00 P.M., MONDAY THROUGH FRIDAY. CONSTRUCTION ACTIVITIES MUST TAKE PLACE BETWEEN 8:00 A.M. AND 8:00 P.M. UNLESS OTHERWISE ALLOWED OR AGREED UPON DURING PRICING PHASE OR AT PRE-CONSTRUCTION MEETING.
- 2.2.2. CONTRACTOR MUST CONFIRM AND ADHERE TO FIRE DEPARTMENT / FIRE MARSHAL'S REQUIREMENTS FOR CONSTRUCTION ACTIVITY HOURS PRIOR TO COMMENCEMENT.

2.3. CONSTRUCTION SITE MAINTENANCE

- 2.3.1. ALL CONSTRUCTION SITES MUST BE KEPT IN A BROOM CLEAN AND ORGANIZED MANNER AT ALL TIMES. DEBRIS MUST BE KEPT WITHIN THE CONSTRUCTION SITE, REMOVED ON A TIMELY BASIS AND LEGALLY DISPOSED OF AS SET FORTH BY FEDERAL, ENVIRONMENTAL PROTECTION AGENCY, COUNTY AND STATE STANDARDS AND/OR ORDINANCES. ANY ADDITIONAL CLEAN-UP COSTS INCURRED BY THE CONTRACTOR OR SUB-CONTRACTOR SHALL BE PAID BY THE PROJECT CONTRACTOR SHALL BE BACK-CHARGED TO SAME BY THE WCAA, UNDER NO CIRCUMSTANCES WILL ANY DUMPING BE ALLOWED ON AIRPORT PROPERTY.

TECHNICAL REQUIREMENTS

GENERAL

1. BONDS SHALL NOT BE REQUIRED.
2. FLOOR PROTECTION TO BE USED DURING ALL CONSTRUCTION RELATED DELIVERIES (INCLUDING MATERIALS, CASEWORK, EQUIPMENT, ETC.). CONTRACTOR TO USE FLOOR PROTECTION DURING DELIVERY OF EQUIPMENT / TOOLS / MISCELLANEOUS MATERIALS REQUIRED TO COMPLETE PROJECT.
3. DELIVERY OF CONSTRUCTION MATERIALS AND DEBRIS REMOVAL MUST BE PERFORMED IN A PROFESSIONAL MANNER AND ONLY DURING WORKING HOURS NOTED. ALL DEBRIS MUST BE REMOVED FROM AIRPORT PROPERTY.
4. INSTALLATION AND REMOVAL OF ANY CONSTRUCTION BARRICADE WALLS CANNOT IMPEDE OCCUPANT ACCESS DURING OPERATIONAL HOURS.
5. ANY PENETRATIONS IN RATED COMPONENTS OR ASSEMBLIES ARE TO BE RE-STOPPED WITH EQUAL CODE RELATED / APPROVED PRODUCT MATERIALS. **PRODUCT SUBMITTALS ARE REQUIRED FOR ARCHITECT / WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
6. ANY FIREPROOFING MATERIAL THAT IS DAMAGED OR PENETRATED DURING THE COURSE OF THE PROJECT CONSTRUCTION PROCESS MUST BE REPAIRED OR REPLACED WITH EQUAL CODE RELATED / APPROVED MATERIAL. **PRODUCT SUBMITTALS ARE REQUIRED FOR ARCHITECT / WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A SITE SUPERVISOR PRESENT AT ALL TIMES WHEN ANY WORK IS BEING PERFORMED FOR THIS FACILITY.
8. ANY DAMAGE TO EXISTING FACILITIES, FINISHES, AND UTILITIES IS THE RESPONSIBILITY OF THE PERMIT HOLDER. REPAIR AND/OR REPLACEMENT MUST BE COMPLETED WITHIN THE TIMEFRAME AND REQUIREMENTS OF THE WCAA.
9. WCAA INSPECTOR, ALONG WITH WCAA OPERATIONS CONSTRUCTION DEPT WILL DECIDE ON LOCATIONS OF A COVERED DUMPSTER IF ONE IS REQUESTED.
10. UPON COMPLETION OF THE PROJECT SITE RESTORATION SHALL BE THE BURDEN OF THE CONTRACTOR. THIS RESTORATION INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF ALL TEMPORARY TRAILERS, TEMPORARY FENCING, PORTABLE TOILET, DUMPSTERS, TEMPORARY FUEL STORAGE CONTAINERS, CUTTING AND CAP OF ALL TEMPORARY UTILITY CONNECTIONS AT THEIR POINT OF ORIGIN, AND ANY OTHER ITEMS DEEMED NECESSARY BY THE WCAA. FINAL INSPECTION AND APPROVAL OF THE SITE BY THE WCAA FIRE MARSHAL, WCAA OPERATIONS, WCAA SECURITY AND THE WCAA INSPECTOR MUST BE OBTAINED PRIOR TO OCCUPANCY AND USE OF THE PREMISES.
11. ALL PARTIES WILL CONFORM TO FAA AND WCAA STANDARDS FOR SECURITY.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED FIRE EXTINGUISHERS PER AIRPORT FIRE MARSHAL REVIEW. LOCATION OF NEW, EXISTING GAS CABINETS / EXTINGUISHERS TO BE DETERMINED IN 49 CFR PART 1520.
13. PERMIT HOLDER (CONTRACTOR) RESPONSIBLE FOR REVIEW AND COMPLIANCE WITH WCAA (WAYNE COUNTY AIRPORT AUTHORITY) REQUIREMENTS FOR CONSTRUCTION.
14. PERMIT HOLDER (CONTRACTOR) MAY BE RESPONSIBLE FOR REVIEW AND COMPLIANCE WITH WCAA REQUIREMENTS AS OUTLINED IN CONSTRUCTION ALTERATION PERMIT.
15. CONSTRUCTION SAFEGUARDS SHALL BE DONE IN ACCORDANCE WITH CHAPTER 33 OF THE **WCAA 2015**. A SAFETY PLAN MUST BE SUBMITTED TO WCAA FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF CONSTRUCTION.
16. SITE AND SURROUNDING PUBLIC AREAS MUST BE KEPT CLEAR OF ALL TRAFFIC RESTRICTED BY CONSTRUCTION ACTIVITIES.
17. CONTRACTOR SHALL PREPARE ALL SURFACES FOR NEW FINISHES AS DESIGNATED IN FINISH SCHEDULE AND/OR FLOOR (FINISH) PLAN.
18. FIRE ALARMS & ASSOCIATED HARDWARE TO BE INCLUDED IN CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES AND REQUIREMENTS.
19. DATA, TELECOMMUNICATIONS & CABLEING SHALL BE INCLUDED IN CONTRACT. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS ONLY.

AS BUILT DOCUMENTATION REQUIREMENTS

1. ALL PROJECTS REQUIRE SUBMISSION OF ACCURATE AS-BUILT RECORD DOCUMENTS TO THE ARCHITECT FOR REVIEW WITHIN 30 DAYS OF COMPLETING THE PROJECT.
2. **FINAL PAYMENT TO CONTRACTOR SHALL NOT BE APPROVED UNTIL RECEIPT AND ACCEPTANCE OF AS-BUILTS BY ARCHITECT.**
 - 3.1. AT A MINIMUM, THE AS-BUILT CONTENT MUST INCLUDE THE FOLLOWING:
 - 3.1.1. ARCHITECTURAL / ENGINEERING DRAWINGS PREPARED BY ARCHITECT HEREIN, IDENTIFIED AS "AS-BUILT" AND DATED. SUBMITTAL MUST INCLUDE ANY DEVIATIONS, MODIFICATIONS, ALTERNATES, SUBSTITUTIONS, ETC., FROM THE CONTRACT DOCUMENTS, PERFORMED BY THE GENERAL CONTRACTOR AND/OR THEIR TRADES, DURING THE COURSE OF CONSTRUCTION. SUCH DOCUMENTS MUST BE MARKED UP AND SUBMITTED VIA "UNLOCKED" PDFs, AND INCLUDE, AS A MINIMUM:
 - 3.1.1. TRADE LIST DESCRIBING WHICH TRADE / COMPANY NAME IS RESPONSIBLE FOR THE MARK-UPS / SUBMISSIONS.
 - 3.1.2. CUT SHEETS AS REQUESTED IN THE INDEX OF SUBMITTALS, INCLUDING ACCEPTED ALTERNATES, AND ANY ADDITIONAL REQUIRED FOR RECORDS OR COMPLETE CONSTRUCTION DOCUMENTATION BY GENERAL CONTRACTOR, INCLUDING BUT NOT LIMITED TO:
 - 3.2.1. DOORS / FRAMES / HARDWARE
 - 3.2.2. PAINT COLOR / FINISH / MANUFACTURER CONFIRMATION
 - 3.2.3. FLOORING / WALL BASE
 - 3.2.4. LIGHT FIXTURES
 - 3.2.5. PLUMBING FIXTURES
 - 3.2.6. MECHANICAL EQUIPMENT
 - 3.4. DESIGN-BUILD ENGINEERING PREPARED BY OTHERS UNDER CONTRACT WITH GENERAL CONTRACTOR. THIS ITEM INCLUDES ACTUAL AUTO-CAD ENGINEERING DRAWINGS AS PREPARED BY THE DESIGN-BUILD TRADES INVOLVED.
 - 3.4.1. LIFE SAFETY / FIRE SUPPRESSION
 - 3.4.2. SECURITY / DATA
 - 3.4.3. ANY OTHER AS APPLICABLE TO EACH PROJECT
 - 3.3.1. SUBMISSION PROCEDURE / REQUIREMENTS.
 - 3.3.2. TRANSMITTAL DESCRIBING CONTENTS OF SUBMITTAL INCLUDING PROJECT NAME, PROJECT DESCRIPTION, ARCHITECTS PROJECT NUMBER, AHJ PERMIT NUMBER, AND WCAA PROJECT NUMBER.
 - 3.3.3. ONE (1) FULL SIZE SET OF PRINTED DRAWINGS
 - 3.3.4. ONE (1) SET OF AUTOCAD 2020 FORMAT DRAWING FILES OF ALL "DESIGN-BUILD" ENGINEERING DRAWINGS (FIRE

AIRPORT AUTHORITY REQUIREMENTS (CONT.)

- ALARM, FIRE SUPPRESSION, SECURITY, SPECIALTY ENGINEERING, ETC.) SUBMITTED ON CD IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
 - 3.3.1. LAYERING CONFORMING TO AIA CAD LAYERING GUIDELINES.
 - 3.3.2. ALL FONTS, BLOCKS, X-REFS, IMAGES, AND ANY OTHER ELEMENTS RESIDING WITHIN THE CAD FILES MUST BE INCLUDED IN THE FILES.
 - 3.3.3. ONE (1) ELECTRONIC PDF (UNPROTECTED) IMAGE SET OF ABOVE, LABELED AS "AS-BUILT RECORD DOCUMENTS".

ALL DOCUMENTS MUST BE FORWARDED TO:

ARCONCEPTS, INC. (ARCHITECTS COPY AS WELL AS OWNER'S COPY)
17177 N. LAUREL PARK DRIVE
SUITE 256
LIVONIA, MICHIGAN 48152
734.591.1090 PH
ARCHITECT@ARCONCEPTS.NET

ARCHITECTURAL | INTERIOR FINISHES AND MATERIALS

1. ANY DAMAGE TO THE PREMISES CAUSED BY THE CONTRACTOR OR ANY OF ITS EMPLOYEES, CONTRACTOR(S) OR WORKPERSON(S) SHALL BE REPAIRED FORTHWITH BY AND AT THE EXPENSE OF THE CONTRACTOR(S), OR WHICHEVER ENTITY / WORKPERSONS HAVING CAUSED SUCH DAMAGE.
2. LUMBER USED IN ROUGHWORK OR FRAMING SHALL BE TREATED WITH A FIRE RETARDANT CHEMICAL AND SHALL CARRY APPROPRIATE ULL OR EQUIVALENT MARKING.

MECHANICAL | ELECTRICAL

HVAC (NOT ALL ITEMS MAY BE APPLICABLE TO PROJECT SCOPE)

1. AS A REQUIREMENT OF THE PROJECT, HVAC SYSTEMS IN THE TENANT'S SPACE WILL BE BALANCED BY A CERTIFIED AIR-BALANCING CONTRACTOR AS PART OF THE TENANT'S RENOVATION WORK AT TENANT'S EXPENSE.
2. SUPPLY AIR, RETURN AIR AND SANITARY EXHAUST DISTRIBUTION DUCTWORK, CEILING DIFFUSERS, REGISTERS, GRILLES AND CEILING FIRE STOP FLAPS, SMOKE DETECTOR/PIR LIGHT, AND ANY OTHER EQUIPMENT REQUIRED BY CODE AND THE WCAA, WITHIN THE PREMISES FOR THE HVAC SYSTEM, SHALL BE CARRIED OUT BY THE CONTRACTOR.
3. FINAL MOUNTING LOCATION OF THERMOSTAT(S) SHALL BE BY THE TENANT, AS NECESSARY.
4. ACOUSTIC CRITERIA: ACCEPTABLE HVAC NOISE LEVELS IN THE PREMISES SHALL BE NOISE CRITERIA (NC) 35-40.
5. ANY ELECTRICAL OR MECHANICAL EQUIPMENT PENETRATE A FIRE WALL / BARRIER. THE PENETRATION SHALL BE SEALED (FIRE STOPPED) WITH A MATERIAL OR DEVICE THAT MAINTAINS THE REQUIRED FIRE RESISTANCE RATING OF THE FIRE WALL BARRIER.
6. FLEX DUCTS ARE LIMITED TO 5'-0" IN LENGTH.
7. PROVIDE WCAA INSPECTOR WITH A COPY OF CITY OF ROMULUS APPROVAL PRIOR TO COMPLETION.

PLUMBING (NOT ALL ITEMS MAY BE APPLICABLE TO PROJECT SCOPE)

1. ALL DOMESTIC WATER LINES ARE TO BE INSULATED WITH A MINIMUM OF 1 1/2" FIBERGLASS INSULATION AND A VAPOR BARRIER.
2. ALL COPPER PIPING SHALL BE TYPE "L". ALL VENT LINES SHALL BE DWV COPPER OR CAST IRON. PLASTIC PIPING WILL NOT BE PERMITTED.
3. ALL PLUMBING VENT LINES ARE TO BE GROUP VENTED.
4. "Y" CLEAN OUTS AND CAST IRON "P" TRAPS SHALL BE SUPPORTED, AND SHALL BE MADE ACCESSIBLE AT ALL TIMES.
5. CONNECTIONS TO DOMESTIC WATER LINES SHALL BE INSTALLED WITH BACKFLOW PREVENTION VALVES WHERE REQUIRED BY THE APPLICABLE PLUMBING CODE.
6. ALL EXISTING PLUMBING LINES NOT BEING RE-USED ARE TO BE CAPPED OR TERMINATED AT THE SOURCE OF ORIGIN. SEE WCAA INSPECTOR FOR FURTHER CLARIFICATION IF NEEDED.
7. ALL WATER MAINS SHALL BE CLASS 54 PIPE 250PSI RATED. THRUST BLOCKING IS REQUIRED ON ALL BENDS IN THE UNDERGROUND WATER SUPPLY SYSTEM.
8. ALL MATERIALS USED FOR SANITARY AND STORM SEWER LINES SHALL COMPLY WITH WCAA STANDARDS AND SPECIFICATIONS.
9. MAINTAIN A MINIMUM SEPARATION OF 10' BETWEEN SANITARY AND STORM SEWER LINES. A MINIMUM 18" SEPARATION SHALL BE MAINTAINED FOR CROSS OVER OF WATER AND SEWER PIPES WITH THE WATER MAIN ON TOP.
10. CROSS CONNECTIONS BETWEEN POTABLE AND OTHER WATER SYSTEMS IS NOT ALLOWED.
11. ALL UNDERGROUND PIPE AND STRUCTURES MUST COMPLY WITH WCAA SPECIFICATIONS AND BE CLEARLY MARKED. COPIES OF CERTIFICATES FOR ALL PIPE AND STRUCTURES SHALL BE SUBMITTED TO AIRPORT INSPECTOR'S OFFICE PRIOR TO INSTALLATION.
12. BACTERIAL AND PRESSURE TESTS ON ALL UNDERGROUND PIPE WORK SHALL BE COMPLETED PRIOR TO PERMANENT COVERING OF THE SITE AND COPIES OF ALL TEST RESULT WILL BE SUBMITTED TO WCAA INSPECTOR'S OFFICE AS SOON AS THEY BECOME AVAILABLE.
13. ALL UNDERGROUND COMPONENTS OF ANY WATER SUPPLY SYSTEM (WATER MAINS, VALVES, THRUST BLOCKS, TS, ETC.) SHALL COMPLY WITH THE WCAA STANDARDS.
14. SANITARY PUMPS ARE TO BE VAUGHN CHOPPER PUMPS
15. ALL HOT AND COLD WATER LINES INCLUDING WASTE DISCHARGE LINES SHALL BE WRAPPED AND HEAT TRACED IF APPROPRIATE TO PREVENT FREEZING AND CONDENSATION REGARDLESS OF LOCATION, INCLUDING ABOVE CEILING AREAS. HEAT TRACE SPECIFICATIONS SHALL BE SUBMITTED TO WCAA INSPECTOR FOR APPROVAL PRIOR TO PLACEMENT.
16. PROVIDE HEAT TAPE PRODUCT INFORMATION, INSULATION INFORMATION, AND ULL APPROVAL TO AIRPORT INSPECTOR FOR FINAL APPROVAL. PIPES CANNOT BE INSULATED UNTIL THIS PRODUCT RECEIVES WAYNE COUNTY AIRPORT AUTHORITY APPROVAL.

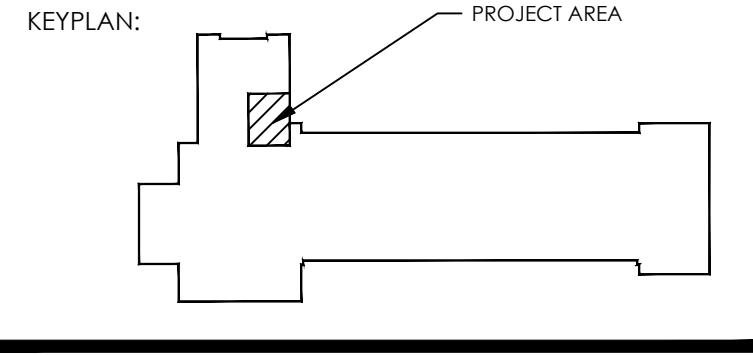
ELECTRICAL REQUIREMENTS (NOT ALL ITEMS MAY BE APPLICABLE TO PROJECT SCOPE)

1. ALL ELECTRICAL | LIGHTING | POWER PANEL LABELING IS REQUIRED TO BE UPDATED BY ELECTRICAL | DATA CONTRACTOR AS PART OF THIS PROJECT.

1. ALL EXISTING ELECTRICAL AND DATA LINES NOT BEING RE-USED ARE TO BE CAPPED OR TERMINATED AT THE SOURCE OF ORIGIN. SEE WCAA INSPECTOR FOR FURTHER CLARIFICATION IF NEEDED.
2. PROVIDE WCAA INSPECTOR WITH A COPY OF CITY OF ROMULUS APPROVAL PRIOR TO OPENING FACILITY.
3. ANY UTILITIES DAMAGED BY THE CONTRACTOR IN THE SCOPE OF WORK UNDER THIS PERMIT SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
4. THE TENANT SHALL ENSURE THAT ALL WIRING FOR LIGHTING, POWER, FIRE ALARM, TELEPHONE, DATA, TELEVISION AND LOW-TENSION SYSTEMS WITHIN WALLS AND CEILING PLENUMS IS INSTALLED IN METAL CONDUIT OR METAL RACEWAYS OR CABLE TRAYS, NO EXPOSED WIRING IS ALLOWED AND "N" CONDUIT MINIMUM SHALL BE USED.
5. ALL MATERIALS SHALL BE NEW, UL APPROVED OR EQUAL, AND STANDARD OR NOT LESS THAN THE EXISTING SURROUNDING PROJECT SPACE.
6. ALL WIRING SHALL BE COPPER. BRANCH WIRING SHALL BE MINIMUM #12 GAUGE SOLID (STRANDED FOR #8 OR LARGER). ALL WIRING MUST BE INSTALLED IN CONDUIT. BX CABLE MAY BE USED IN PARTITION WALLS WITH NO HORIZONTAL RUNS AROUND CORNERS OF WALLS AND IN CEILING FOR DROPS (MAXIMUM 10') FROM THE JUNCTION BOXES TO THE LIGHT FIXTURES. DAISY CHAININGS WITH BX WIRES BETWEEN LIGHT FIXTURES IS NOT PERMITTED.
7. ALL LIFE SAFETY DEVICES WITHIN THE PROJECT SPACE TO BE IN ACCORDANCE WITH CODE. TYING-IN OF THE TENANT'S FIRE SUPPRESSION SYSTEM TO WCAA FIRE DEPARTMENTS CENTRAL DISPATCH IS THE CONTRACTOR'S RESPONSIBILITY.
8. ALL EQUIPMENT AND LIGHT FIXTURES SHALL BE Labeled TYPE AND ENERGY EFFICIENT RATED (UNLESS SPECIFIED OTHERWISE ON DRAWINGS).
9. FLEX CBX ELECTRICAL CABLEING IS ONLY PERMITTED IN STRINGINGS LIGHTS AND OTHER AREAS PERMITTED BY THE WCAA INSPECTOR.
11. ZIP TIES TO ALL CONDUIT/INTERDUCT MUST ATTACH IDENTIFICATION PLASTIC TAGS AT INTERVALS OF NOT MORE THAN 20 FEET ON CENTER.
12. ALL JUNCTION BOXES SHALL BE NUMBERED TO IDENTIFY THE SOURCE OF POWER (BREAKER) IN THE NEW PANEL BOARDS.
13. ALL EXISTING ELECTRICAL LINES NOT BEING RE-USED ARE TO BE CAPPED OR TERMINATED AT THE SOURCE OF ORIGIN. SEE WCAA INSPECTOR FOR FURTHER CLARIFICATION IF NEEDED.
14. PROVIDE 3-DAYS ADVANCED NOTICE TO WCAA ELECTRICAL DEPARTMENT TO MARK AIRPORT ELECTRICAL PRIOR TO THE COMMENCEMENT OF WORK. NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
15. ELECTRICAL WIRES, CABLES AND OPTICAL FIBER CABLES SHALL BE LISTED AS NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE AND HAVE A MAXIMUM SMOKE DEVELOPED INDEX OF 50 OR SHALL BE LISTED AS HAVING A MAXIMUM PEARK OPTICAL DENSITY OF 0.5 OR LESS, AN AVERAGE OPTICAL DENSITY OF 0.15 OR LESS, AND A MAXIMUM FLAME SPREAD DISTANCE OF 1.5 M (5 FT) OR LESS WHEN TESTED IN ACCORDANCE WITH NFPA 262, NFPA 90A 4.3.10.2.6.1.
16. WHEN ANY ELECTRICAL OR MECHANICAL EQUIPMENT PENETRATE A FIRE WALL / BARRIER, THE PENETRATION SHALL BE SEALED (FIRE STOPPED) WITH A MATERIAL OR DEVICE THAT MAINTAINS THE REQUIRED FIRE RESISTANCE RATING OF THE FIRE WALL BARRIER.
17. THE EXISTING EMERGENCY LIGHTING WITHIN THE PUBLIC SPACES SHALL REMAIN. ADDITIONAL EMERGENCY LIGHTS SHALL BE INSTALLED WITHIN PROJECT SPACE AS REQUIRED BY STATE AND LOCAL BUILDING CODES.
- 18.1. AIRPORT ACCEPTANCE TEST
- 18.2. FINAL WALL THROUGH
- 18.3. THESE INSPECTIONS CAN BE SCHEDULED BY CALLING THE FIRE MARSHALS OFFICE 734-942-0061 FORTY- EIGHT HOURS IN ADVANCE.

BUILDING | AOA SECURITY

1. CONTRACTOR RESPONSIBLE FOR COORDINATING WITH WCAA FOR FINAL TERMINATION AND TESTING OF THE NEW DEVICES.
2. ALL CONTRACTORS MUST COMPLY WITH WCAA SECURITY REQUIREMENTS FOR INSTALLATION OF ANY NEW OR MODIFIED SECURITY EQUIPMENT / CONSTRUCTION.
3. GENERAL CONTRACTOR RESPONSIBLE FOR MAINTAINING FACILITY SECURITY DURING ALL PHASE OF CONSTRUCTION AS APPLICABLE TO THIS PROJECT.
 - 3.1. UPON CREATING AN UNSECURED OPENING TO THE AOA OR SECURED AREAS, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WCAA SECURITY GUARD AT THAT SITE UNTIL THE AREA IS SECURED.
 - 3.2. UPON CREATING ANY OPENING IN EXISTING WALL OR ROOF, OR OPENING OF ANY SECURED DOOR, OR IF THE AOA SECURITY HAS BEEN COMPROMISED, CONTRACTOR IS RESPONSIBLE FOR OBTAINING WCAA SECURITY GUARD AT THAT SITE UNTIL THE AREA IS SECURED.
 - 3.3. WCAA SECURITY CONTROL CENTER 734-942-5304.
 4. CONTRACTOR RESPONSIBLE FOR FIRE SYSTEM INTERFACE AS AFFECTED ON THIS PROJECT.





SECURITY SENSITIVE INFORMATION:

WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT A "NEED TO KNOW", AS DIRECTED IN 49 CFR PARTS 15 AND 1520, EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OR THE TRANSPORTATION SECURITY ADMINISTRATION OR SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES. PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520.

DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

DATE	ISSUED FOR	DRN	CKD
2023-03-02	PERMITS/CONSTRUCTION	SAG	
2022-10-05	ISSUE FOR BIDS (IFB)	YTD	SAG
2022-09-19	OWNER REVIEW	YTD	SAG

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arconcepts, inc. ®

CLIENT:	CONSULTANT:
	

PROJECT:
**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARRF STATION 100
Women's Locker Room Improvements**
12901 Detroit Drive, #802
Detroit, MI 48242

PROJECT PRICING REQUIREMENTS

- CONTRACT SUM / INTENT OF DOCUMENTS:**
- IT IS THE REQUIREMENT OF THIS PROJECT FOR THE CONSTRUCTION CONTRACTING ENTITY INCLUDE ALL SHEETS / SPECS OF THE PROJECT CONTRACT DOCUMENTS TO ALL TRADES FOR PRICING AND CONSTRUCTION.
 - UNDER NO CONDITIONS SHALL ANY TRADE / INSTALLING ENTITY BE PROVIDED AN INCOMPLETE SET OF CONTRACT DOCUMENTS FOR ANY SCOPE OF WORK.
 - IT IS THE INTENT OF THE DOCUMENTS TO INCLUDE THE FOLLOWING (BUT NOT BE LIMITED TO) ITEMS IN THE CONTRACT SUM / CONTRACT FOR CONSTRUCTION.
 - TURNISHING/INSTALLATION OF ALL ITEMS EXCEPT THOSE ITEMS CLEARLY INDICATED AS 'EXISTING' OR 'NOT IN CONTRACT' (N.I.C.).
 - RELATED REMOVALS, SAW-CUTTING, PATCHING.
 - ALL NECESSARY ITEMS, ACCESSORIES, FASTENERS, HARDWARE, TRIM, AND ANY OTHER REASONABLY INFERRABLE ITEM, REQUIRED TO COMPLETE THE INTENT OF THE DESIGN /CONSTRUCTION DOCUMENTS TO PROVIDE COMPLETE, FUNCTIONAL AND FINISHED AND OCCUPIED PROJECT.
 - ALL APPLICABLE TAXES.
 - ALL PERMITS, BONDS, FEES REQUIRED BY A.H.J.
 - THE WORD 'PROVIDE' SHALL MEAN 'FURNISH AND INSTALL' UNLESS OTHERWISE INDICATED.
 - THE WORK SHALL NOT BE DEEMED COMPLETE UNTIL A VALID FINAL CERTIFICATE OF OCCUPANCY' IS GRANTED.

- CONTRACTOR ADDITIONAL REQUIREMENTS:**
- CONTRACTOR TO PROVIDE SAFETY PLAN FOR THE PROJECT CONSTRUCTION PROCESS AND SUBMIT TO WCAA WITH BID SUBMISSION.
 - PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL CONFIRM SITE ACCESS PLAN WITH WCAA AND PREPARE FOR DISTRIBUTION TO ALL CONSTRUCTION TEAMS ON SITE. SITE ACCESS PLAN TO INCLUDE:
 - ACCESS POINT TO SECURED AREAS.
 - PARKING LOCATIONS FOR TRUCKS.
 - DUMPSTER LOCATION.
 - ENTRY POINT(S) TO FACILITY.
 - ANY OTHER LOGISTICS / SAFETY / ACCESS INFORMATION NEEDED FOR CONSTRUCTION.

HARDWARE REQUIREMENTS

- ALL DOORS AND HARDWARE TO COMPLY WITH ICC/ANSI A117.1-2009 [SECTION 404].
- PER **MBC 2015** [SECTION 1010.1.9.1] AND ICC/ANSI A117.1-2009 [SECTION 404.2.6] HARDWARE: DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE BY CHAPTER 11 SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.
- PER **MBC 2015** [SECTION 1010.1.9.2] HARDWARE HEIGHT: DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERING DEVICES SHALL BE INSTALLED 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISHED FLOOR.
 - EXCEPTION: LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT.
- PROVIDE RATED ASSEMBLIES AS REQUIRED BY LOCAL FIRE MARSHALL OR AS SPECIFIED.
- ALL HARDWARE TO BE RATED FOR A MINIMUM MEDIUM DUTY COMMERCIAL GRADE UNLESS SPECIFIED OTHERWISE.
- HARDWARE FINISH TO BE AS SPECIFIED. IN THE EVENT OF OMITTED FINISH, CONTRACTOR TO PRICE US26D AND AWAIT SPECIFICATION FROM ARCHITECT.
- WHERE WALL STOPS CANNOT BE USED, CONTRACTOR TO PROVIDE FLOOR STOP 'HAGER' 241F US26D. 7.1. OBTAIN ARCHITECTS APPROVAL ON FLOOR STOP LOCATION PRIOR TO INSTALLATION.
- ALL HINGES TO BE FULLY MORTISED.
- ALL DOORS TO BE FINISHED AS NOTED IN FINISH DIRECTIVES. CONTRACTOR TO SUBMIT SAMPLES AND RECEIVE ARCHITECT / WCAA APPROVAL ON FINISH / COLOR PRIOR TO PURCHASE.

PROJECT GENERAL REGULATIONS (CONT.)

SIGNAGE

ONE NEW PROJECT SIGNAGE COMPONENT SHALL BE REQUIRED FOR THIS PROJECT SCOPE. CONTRACTOR TO PROVIDE NEW ADA COMPLIANT WITH ILLUSTRATED UNIVERSAL SIGN OF ACCESSIBILITY AND INCLUDE ROOM NAME WOMEN'S LOCKER ROOM'.

SIGNAGE MUST MEET THE CURRENT STANDARDS/REQUIREMENTS OF THE ICC A117.1 LATEST EDITION, CHAPTER 7. COMMUNICATION ELEMENTS AND FEATURES. THE BELOW PARTIAL REPRESENTATIVE TEXT REPRESENTS ONLY A PORTION OF THE REQUIREMENTS FOR SIGNAGE. UNDER NO CONDITIONS SHALL THE CONTRACTOR / SIGNAGE CONTRACTOR CONSTRUE THIS WRITING AS THE COMPLETE REQUIREMENTS FOR SIGNAGE. IT IS THE SIGNAGE CONTRACTOR AND THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL REQUIREMENTS FOR SIGNAGE AS IT PERTAINS TO THIS PROJECT.

- ACCESSIBLE SIGNS SHALL COMPLY WITH SECTION 703 OF THE ICC A117.1-2009. TACTILE SIGNS SHALL CONTAIN BOTH RAISED CHARACTERS AND BRAILLE. WHERE SIGNS WITH BOTH VISUAL AND RAISED CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND RAISED CHARACTERS, OR TWO SEPARATE SIGNS, ONE WITH VISUAL, AND ONE WITH RAISED CHARACTERS, SHALL BE PROVIDED.
- INTERIOR AND EXTERIOR SIGNS IDENTIFYING PERMANENT ROOMS AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF SIGNAGE - 'VISUAL CHARACTERS' AND 'RAISED CHARACTERS'.
- DIRECTIONAL AND INFORMATIONAL SIGNS - SIGNS THAT PROVIDE DIRECTION TO OR INFORMATION ABOUT INTERIOR SPACES AND FACILITIES OF THE SITE SHALL COMPLY WITH THE REQUIREMENTS OF 'VISUAL CHARACTERS'.
- VISUAL CHARACTERS**
 - UPPERCASE, LOWERCASE, OR BOTH.
 - CONVENTIONAL IN FORM (NOT ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE OR OF OTHER UNUSUAL FORMS.
 - THE UPPERCASE LETTER 'Y' SHALL BE USED TO DETERMINE ALLOWABLE HEIGHT OF ALL CHARACTERS OF A FONT.

HEIGHT ABOVE FLOOR TO BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40 INCHES TO LESS THAN OR EQUAL TO 70 INCHES	LESS THAN 6 FEET 6 FEET AND GREATER	5/8 INCH 5/8 INCH PLUS 1/8 INCH PER FOOT OR VIEWING DISTANCE ABOVE 6 FEET
GREATER THAN 70 INCHES TO LESS THAN OR EQUAL TO 120 INCHES A.F.F.	LESS THAN 15 FEET 15 FEET AND GREATER	2 INCHES 2 INCHES PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 15 FEET
GREATER THAN 120 INCHES	LESS THAN 21 FEET 21 FEET AND GREATER	3 INCHES 3 INCHES PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 21FEET

- VISUAL CHARACTERS SHALL BE 40 INCHES MINIMUM ABOVE THE FLOOR OF THE VIEWING POSITION MEASURED TO THE BASELINE OF THE CHARACTER.
- CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH AND CONTRAST WITH ONE ANOTHER.
- RAISED CHARACTERS**
 - SHALL BE RAISED 1/32 INCH MINIMUM ABOVE THEIR BACKGROUND.
 - UPPER CASE.
 - SANS SERIF CHARACTERS IN STYLE (NOT ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE OR OF OTHER UNUSUAL FORMS).
 - THE UPPERCASE LETTER 'Y' SHALL BE USED TO DETERMINE ALLOWABLE HEIGHT OF ALL CHARACTERS OF A FONT, MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER. SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM.
 - RAISED CHARACTERS SHALL BE 48" MINIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE LOWEST RAISED CHARACTER AND 60 INCHES MAXIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE HIGHEST RAISED CHARACTER.
 - LOCATION - WHERE PROVIDED AT A DOOR, THE SIGN SHALL BE ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A SIGN CONTAINING RAISED CHARACTERS AND BRAILLE IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF.
- BRAILLE**
 - GRADE 2 BRAILLE
 - BRAILLE SHALL BE BELOW THE CORRESPONDING TEXT.
 - IN MULTI LINE TEXT, BRAILLE SHALL BE PLACED BELOW ENTIRE TEXT.
 - BRAILLE SHALL BE 48 INCHES MINIMUM AND 60 INCHES MAXIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE BRAILLE CELLS.
- PICTOGRAMS**
 - FIELD OF 6 INCHES MINIMUM IN HEIGHT. CHARACTERS OR BRAILLE SHALL NOT BE LOCATED IN TEH PICTOGRAM FIELD.
 - PICTOGRAMS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH AND CONTRAST WITH ONE ANOTHER.

PROJECT GENERAL REGULATIONS

SECTION 403 COMBUSTIBLE MATERIAL IN TYPE I AND II CONSTRUCTION

SECTION 718 CONCEALED SPACES

- PER SECTION 718.5 COMBUSTIBLE MATERIALS IN CONCEALED SPACES IN TYPE I OR II CONSTRUCTION. ANY WOOD MATERIAL USED ON THIS PROJECT WITHIN CONCEALED SPACES SHALL BE NON-COMBUSTIBLE FIRE TREATED MATERIAL AND SHOW PROOF OF SUCH RATING. WOOD MUST BE LEFT EXPOSED UNTIL PROPERLY INSPECTED BY ENTITIES HAVING JURISDICTION OVER PROJECT.
- PER SECTION 720.2 CONCEALED INSTALLATION, INSULATING MATERIALS WHERE CONCEALED AS INSTALLED IN BUILDINGS OF ANY TYPE OF CONSTRUCTION SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450.

INTERIOR FINISHES (PER CHAPTER 8)

WALL AND CEILING FINISHES (PER SECTION 803) | INTERIOR FLOOR FINISHES (PER SECTION 804)

- REFER TO GENERAL CONDITIONS, SPECIFICATIONS, DRAWINGS AND SCHEDULES FOR WORK.
- REFER TO ELEVATIONS, SECTIONS AND DETAILS FOR SPECIFIC INFORMATION PERTAINING TO INDIVIDUAL COMPONENTS AND FINISHES.
- LEVEL ALL EXISTING CONCRETE FLOORS SURFACES AS NECESSARY TO PROVIDE LEVEL SURFACE VARYING NO MORE THAN 1/4" WITHIN 10'-0" OF DISTANCE.
- SECTION 803.1.1 INTERIOR WALL AND CEILING FINISH MATERIALS.
- INTERIOR WALL AND CEILING FINISHES SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM E 84 OR UL 723. SUCH INTERIOR FINISH MATERIALS SHALL BE GROUPED IN THE FOLLOWING CLASSES IN ACCORDANCE WITH THEIR FLAME SPREAD AND SMOKE-DEVELOPED INDICES:

CLASS A: FLAME SPREAD 0 - 25; SMOKE-DEVELOPED 0 - 450
CLASS B: FLAME SPREAD 26 - 75; SMOKE-DEVELOPED 0 - 450
CLASS C: FLAME SPREAD 76 - 200; SMOKE-DEVELOPED 0 - 450

- TABLE 803.11 - INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY:

USE GROUPS	INTERIOR EXIT STAIRWAYS AND RAMPS AND EXIT PASSAGEWAYS		CORRIDORS AND ENCLOSURES FOR EXIT ACCESS STAIRWAYS AND RAMPS		ROOMS AND ENCLOSED SPACES	
	SPRINK.	NON SPRINK.	SPRINK.	NON SPRINK.	SPRINK.	NON SPRINK.
A-3	B	A	B	A	C	C
B	B	A	B	A	C	C
R-2	C	B	C	B	C	C
S	C	B	C	B	C	C

- SECTION 804 INTERIOR FLOOR FINISH
EXCEPTION: FLOOR FINISHES AND COVERINGS OF A TRADITIONAL TYPE SUCH AS WOOD, VINYL, LINOLEUM, TERRAZZO, AND RESILIENT FLOOR COVERING MATERIALS THAT ARE NOT COMPRISED OF FIBERS.
 - SECTION 804.2 - INTERIOR FLOOR FINISH AND FLOOR COVERINGS MATERIALS SHALL BE OF CLASS I OR II MATERIALS IN ACCORDANCE WITH NFPA 253.
CLASS I: 0.45 WATTS/CM2 OR GREATER
CLASS II: 0.22 WATTS/CM2 OR GREATER.
 - SECTION 804.4.1 TEST REQUIREMENT. IN ALL OCCUPANCIES, INTERIOR FLOOR COVERING MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF DOC FF-1 "PIL TEST".
 - SECTION 804.4.2 MINIMUM CRITICAL RADIANT FLUX. IN ALL OCCUPANCIES, INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS ENCLOSURES FOR STAIRWAYS AND RAMPS, EXIT PASSAGEWAYS, CORRIDORS AND ROOMS OR SPACES NOT SEPARATED FROM CORRIDORS BY PARTITIONS EXTENDING FROM THE FLOOR TO UNDERSIDE OF CEILING, SHALL WITHSTAND A MINIMUM CRITICAL RADIANT FLUX. MINIMUM CRITICAL RADIANT FLUX SHALL NOT BE LESS THAN CLASS I IN GROUPS 1.1, 1.2 AND 1.3 AND NOT LESS THAN CLASS II IN GROUPS A, B, E, H, I, 4, M, R, 1, R-2 AND S.
 - EXCEPTION: WHEN BUILDING IS EQUIPPED THROUGHOUT WHIT AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2, CLASS II MATERIALS ARE PERMITTED ANY AREA WHERE CLASS I MATERIALS ARE REQUIRED, AND MATERIALS COMPLYING WITH DOC FF-1 "PIL TEST" ARE PERMITTED IN ANY AREA WHERE CLASS II MATERIALS ARE REQUIRED.
 - SECTION 806.4 - INTERIOR FLOOR-WALL BASE. INTERIOR FLOOR-WALL BASE THAT IS 6 INCHES OR LESS IN HEIGHT SHALL NOT BE LESS THAN CLASS II (UNLESS FLOOR FINISH IS REQUIRED TO BE CLASS I).
- WALKING SURFACES OF THE MEANS OF EGRESS SHALL HAVE A SLIP-RESISTANT SURFACE AND BE SECURELY ATTACHED PER THE 2015 MICHIGAN BUILDING CODE, SECTION 1003.4.
- SECTION 1210 - TOILET AND BATHROOM REQUIREMENTS
 - SECTION 1210.2.1 FLOORS AND WALL BASES. TOILET AND SHOWER ROOM FLOOR FINISH MATERIALS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE. THE INTERSECTIONS OF SUCH FLOORS WITH WALLS SHALL HAVE A SMOOTH, HARD, NONABSORBENT VERTICAL BASE THAT EXTENDS UPWARD ONTO THE WALLS NO LESS THAN 4 INCHES.
 - SECTION 1210.2.2 WALLS AND PARTITIONS. WALLS AND PARTITIONS WITHIN 2 FEET OF SERVICE SINKS, URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE TO A HEIGHT OF NOT LESS THAN 4 FEET ABOVE THE FLOOR. MATERIAL USED SHALL BE OF A TYPE THAT IS NOT ADVERSELY AFFECTED BY MOISTURE.
 - EXCEPTIONS: TOILET ROOMS THAT ARE NOT ACCESSIBLE TO THE PUBLIC AND WHICH HAVE NOT MORE THAN ONE WATER CLOSET.

WCAA FIRE MARSHAL REQUIREMENTS (AS APPLICABLE TO PROJECT SCOPE):

- ANY OPERATION THAT MAY BE CLASSIFIED AS A 'SOURCE OF IGNITION' FACTOR (I.E. BURNING, CUTTING, WELDING, ETC.) SHALL REQUIRE A CONSTRUCTION INSPECTION. IF THE OPERATION CONFORMS TO CODE, AND AIRPORT RULES AND REGULATION REQUIREMENTS, THE AIRPORT FIRE DEPARTMENT WILL ISSUE A SITE SURVEY. CONTRACTORS MUST CALL 734.942.3603, STATION #100 FOR SCHEDULING OF INSPECTION.
- RUBBISH AND TRASH SHALL NOT BE ALLOWED TO ACCUMULATE ON THE SITE. THE ENTIRE PREMISES AND AREA ADJOINING AND AROUND THE OPERATION SHALL BE KEPT IN A SAFE AND SANITARY CONDITION.
- ALL DUMPSTERS STAGED ON SITE OR TERMINAL GROUNDS SHALL BE APPROVED FOR LOCATION BY WCAA AND MUST BE COVERED.
- EXIT SIGNAGE SHALL COMPLY WITH SECTION 1011.3 OF THE **MBC 2015** AND CHAPTER 7 OF THE ICC/ANSI A117.1-LATEST EDITION.
- CONTRACTOR SHALL NOTE THAT THE LOCATION OF ALL PROJECT SCOPE EXIT SIGNS SHALL BE REVIEWED AND APPROVED BY A.H.J. DURING THE INSPECTION PROCESS. ANY RELOCATION OF SUCH SIGNAGE IS THE RESPONSIBILITY OF THE CONTRACTOR.
- THE FIRE ALARM SHALL TIE INTO THE BASE BUILDING ALARM SYSTEM AND SHALL COMPLY WITH SECTION 702 OF THE ICC/ANSI A117.1-LATEST EDITION.
- ALL FIRE ALARM AND LIFE SAFETY SYSTEMS, AND THEIR COMPONENTS, SHALL COMPLY WITH NFPA 72. IN ADDITION, ANY DUCT DETECTOR INSTALLATION SHALL COMPLY WITH THE 2015 MICHIGAN MECHANICAL CODE, AND SHALL REPORT AS A SUPERVISORY SIGNAL.
- REFER TO MEP DRAWINGS FOR EXIT LIGHTING REQUIREMENTS.**
- REFER TO MEP DRAWINGS AND D-B ENGINEERING DRAWINGS FOR FIRE ALARM SYSTEM REQUIREMENTS.**
- REFER TO MEP DRAWINGS AND D-B ENGINEERING DRAWINGS FOR FIRE PROTECTION SYSTEMS REQUIREMENTS.**
- ALL FIRE PROTECTION SYSTEMS OR COMPONENTS (I.E. SPRINKLER SYSTEMS, SMOKE DETECTION, HEAT DETECTORS, MANUAL PULL STATIONS, EMERGENCY EXITING AND EMERGENCY LIGHTING, ETC.) SHALL BE TIED INTO PROPER BASE BUILDING RISER AND BE FULLY OPERATIONAL PRIOR TO OCCUPANCY AND/OR USE OF SAID AREA AND SHALL BE DOCUMENTED BY A PRE-OCCUPANCY INSPECTION BY THE FIRE MARSHAL.
- FIRE EXTINGUISHERS / FIRE EXTINGUISHER CABINETS, IF REQUIRED AS PART OF PROJECT SCOPE, SHALL BE PROVIDED AND LOCATED PER NFPA 10.
- FIRE EXTINGUISHERS SHALL BE LOCATED PER NFPA 10.
- PLANS MAY SHOW THE LOCATION OF LIFE SAFETY DEVICES (I.E. HORNS/STROBES, PULLS, ETC.) TO THE EXTENT POSSIBLE WITH AVAILABLE VISUAL ACCESS. CONTRACTOR RESPONSIBLE FOR VERIFICATION OF ALL EXISTING ELEMENTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- PLANS MAY SHOW SPRINKLER HEAD LOCATIONS AND PIPING TO THE EXTENT POSSIBLE WITH AVAILABLE VISUAL ACCESS. CONTRACTOR RESPONSIBLE FOR VERIFICATION OF ALL EXISTING ELEMENTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL PIPING SHALL BE IDENTIFIED BY CONTRACTOR WITH **LABELS OR PAINTED RED**.
- THE CONTRACTOR **SHALL** ENSURE THAT NO ARCHITECTURAL FEATURE, LIGHT, DUCT, STEEL, OR OTHER OBJECT WILL OBSTRUCT ANY SPRINKLER DISCHARGE PATTERNS.
- THE CONTRACTOR **SHALL** PROVIDE AUXILIARY DRAINS WHERE A CHANGE IN DIRECTION PREVENTS DRAINAGE OF ANY SYSTEM PIPING THROUGH THE MAIN DRAIN VALVE.
- ALL NEW STROBES, OR STROBE CIRCUITS SHALL ACTIVATE IN ACCORDANCE WITH THE SCHEDULE OF EVENTS REQUIREMENTS FOR THE FIRE ZONE CONTAINING THE PROPOSED SPACE. THE NEW STROBES, OR STROBE CIRCUITS SHALL BE SYNCHRONIZED WITH THE FIRE ZONE CONTAINING THE SPACE.
- ALL FIRE PROTECTION SYSTEMS OR COMPONENTS, (I.E. SPRINKLER SYSTEMS, SMOKE DETECTION, HEAT DETECTORS, MANUAL PULL STATIONS, EMERGENCY EXITING AND EMERGENCY LIGHTING, ETC.), SHALL BE FULLY OPERATIONAL PRIOR TO OCCUPANCY AND/OR USE OF SAID AREA AND THIS SHALL BE DOCUMENTED BY A PRE-OCCUPANCY INSPECTION BY FIRE MARSHAL'S OFFICE.

MEANS OF EGRESS ILLUMINATION

- REFER TO SHEET A-110 FOR MEANS OF EGRESS ILLUMINATION REQUIREMENTS.

- REFER TO SHEET A-110 FOR EXIT SIGNAGE REQUIREMENTS.

ABBREVIATIONS

NOT ALL ABBREVIATIONS LISTED HEREIN MAY BE USED IN THIS PACKAGE. MODIFIED ABBREVIATIONS MAY BE USED AS APPLICABLE THROUGHOUT THIS PROJECT.

ABV	ABOVE	DISP	DISPENSER DISPOSAL	INSUL	INSULATION	QT	QUARRY TILE	VERT	VERTICAL
A.F.F.	ABOVE FINISHED FLOOR	DR	DOOR	INT	INTERIOR	R	RADIUS RISER	VEST	VESTIBULE
ACC	ACCESSIBLE	D.O.	DOOR OPENING	JC	JANITOR CLOSET	RR	RAILROAD	VIR	VENT THRU ROOF
ACG	ACCOUSTICAL	D.B.	DOUBLE	J/JT	JOINT	REC/REC	RECEPTACLE	VWC	VINYL WALL COVERING
ADD	ADDENDUM	DN	DOWN	JB	JUNCTION BOX	REIN	REINFORCED REINFORCEMENT	WB	WALL BASE
ADJ	ADJACENT	DS	DOWNSPOUT	K/KIT	KITCHEN	REF	REFERENCE REFER	WC	WATER CLOSET
AHU	AUTHORITY(IES) HAVING JURISDICTION	DWR	DRAWER	LAB	LABORATORY	REM	REMOVE	WCO	WALL CLEAN OUT
ALT	ALTERNATE	DWG	DRAWING	LAM	LAMINATE	REGD	REQUIRED	WH	WALL HYDRANT WATER HEATER
ALUM	ALUMINUM	DW	DRYWALL	LDS/LDNG	LANDING	RES	RESILIENT	WP	WATERPROOF WEATHERPROOF
APPROX	APPROXIMATE	EACH	EACH	LAV	LAVATORY	R.A.	RETURN AIR	W	WEIGHT
ARCH	ARCHITECTURAL ARCHITECT	E EAST	E EAST	LH	LEFT HAND	REV	REVIEW REVISION	WWF	WELDED WIRE FABRIC
ASPH	ASPHALT	ELEC	ELECTRIC ELECTRICAL	L LENGTH	L LENGTH	R.H.	RIGHT HAND	W	WATER WEST WIDTH WIDE
ASSY	ASSEMBLY	ELWC	ELECTRIC WATER COOLER	L LEVEL	L LEVEL	R.C.	ROOF CONDUCTOR	W/WDW	WINDOW
ASSOC	ASSOCIATE ASSOCIATED	EL/ELEV	ELEVATION ELEVATOR	LT	LIGHT	R.D.	ROOF DRAIN	W.O.	WINDOW OPENING
ASTR	ASIRAGAL	EM/EMER	EMERGENCY	LOC	LOCATION LOCATE	R.S.	ROOF SUMP	W/	WITH
AVG	AVERAGE	EW	EMERGENCY EYE WASH	LP	LOW POINT	R.V.	ROOF VENT	W/O	WITHOUT
B/B	BACK TO BACK	ENCL	ENCLOSURE	LVR	LOUVER	RFG	ROOFING	WO	WOOD
B.D.	BALANCING DAMPER	EQ	EQUAL EQUIPMENT	MACH	MACHINE	RM	ROOM	W.L.	WATER LINE
BSMT	BASEMENT	EXCV	EXCAVATED EXCAVATION	MFR	MANUFACTURER	RO	ROUGH OPENING	WP	WORKING POINT
BM	BEAM	EXH	EXHAUST	MFG	MANUFACTURING	SAN	SANITARY LINE	W	WASTE
BRG	BEARING	EF	EXHAUST FAN	M/MRBL	MARBLE	SCH	SCHEDULE		
BTW	BETWEEN	EXV/EX	EXISTING	MAS	MASONRY	SECT	SECTION		
BVL	BEVEL	EXP	EXPANSION	MASO	MASONRY OPENING	SEP	SEPARATE		
BTUM	BITUMINOUS	EJ	EXPANSION JOINT	MTL	METAL MATERIAL	SHTG	SHEDTING		
BKG	BLOCKING	EXP/EXC	EXPOSED CONSTRUCTION	MAX	MAXIMUM	SHT	SHEET		
BD	BOARD	EXT	EXTERIOR EXTENDED	MCH	MECHANICAL	SH	SHIELD		
B/S	BOTH SIDES	F	FAHRENHEIT	MD/MED	MEDIUM	SIM	SIMILAR		
BOT	BOTTOM	F/FT	FEET	MEMB	MEMBRANE	SK	SINK SKETCH		
BC	BOTTOM CHORD	FIN	FINISH	M.S.	METAL STUD	S	SMOKE DETECTOR		
B.O.S.	BOTTOM OF STEEL	FEC	FIRE EXTINGUISHER CABINET	MEZZ	MEZZANINE	SC	SOLID CORE		
BRCT	BRACING	FHC	FIRE HOSE CABINET	MIN	MINIMUM	S	SOUTH		
BRK	BRACKET	FIXT	FIXTURE	M	MIRROR	SP	SPACE		
BR	BRICK	FLASH	FLASHING	MISC	MISCELLANEOUS	SPR	SPEAKER		
BTU	BRITISH THERMAL UNIT	FLVLR	FLOOR	MLDGO	MOLDING	SPEC	SPECIFICATION SPECIFIC		
BTU/HR	BRITISH THERMAL UNIT PER HOUR	FD	FLOOR DRAIN	MTD	MOUNTED	SQ	SQUARE		
BLDG	BUILDING	FLUR	FLOURESCENT	MTG	MOUNTING	SF	SQUARE FOOT (SQ. FT.)		
BULL	BULLETIN	FOOTING	FOOTING	MULLION	MULLION	FG	SQUARE YARD (SQ. YD.)		
CAB	CABINET	NOM	NOMINAL	NOM	NOMINAL	STAGG	STAGGERED		
CPT	CARPET	FR/FRM	FRAME	N	NORTH	SS /S.T.SD	STAINLESS STRUCTURAL STEEL		
CLG	CEILING	FRMG	FRAMING	N/A	NOT APPLICABLE	STD	STANDARD		
CUR	CURB	FURN	FURNISHING	N.I.C.	NOT IN CONTRACT	FUR	FUR STONE		
CEM	CEMENT	FUT	FUTURE	N.T.S.	NOT TO SCALE	STIFF	STIFFENER		
CJR	CENTER	GA	GAGE (GAUGE)	NO.	NUMBER	STORM	STORM LINE		
C/C	CENTER TO CENTER DIMENSION	GALV	GALVANIZED	OFF	OFFICE	STOR	STORAGE		
CT	CERAMIC TILE	GAS	GAS	O/C / O.C.	ON CENTER	STRUCT	STRUCTURAL STRUCTURE		
CLR	CLEAR	GEN	GENERAL	OPNG	OPENING	S.A.	SUPPLY AIR		
C.O.	CLEAN OUT	GC	GENERAL CONTRACTOR	OPER	OPERATOR OPERABLE	SURF	SURFACE		
C.L. CLOS.	CLOSET CLOSET	GLASS	GLASS	OPR	OPPOSITE	SUSP	SUSPENDED		
CW	COLD WATER	G	GRADE	O.H.	OPPOSITE HAND	SYM	SYMMETRICAL SYMBOL		
COL	COLLUM	GYP	GYPSPUM	OZ	OUNCE	TB	TACK BOARD		
CONC	CONCRETE	HOW	HARDWARE	OUT	OUT TO OUT DIMENSION	T/TEL	TELEPHONE TELEVISION		
CMU	CONCRETE MASONRY UNIT	HWD	HEAD HARD	O.C.	OUTSIDE DIAMETER	T/T-STAT	THERMOSTAT		
CONF	CONFIRM CONFERENCE	HVAC	HEATING, VENTILATING & AIR CONDITIONING	O.H.	OVERHEAD	THK	THICK		
CONN	CONNECTION	HT/HTG	HEIGHT	PT	PANEL PRESSURE TREATED	T.H.	THRESHOLD		
CONST	CONSTRUCTION	PNL	PANEL	PNL	PANIC BAR	THRU	THROUGHOUT		
CONT	CONTINUOUS	HEX	HEXAGON	PANIC	PANIC BAR	TBD	TO BE DETERMINED		
CONTR	CONTRACTOR	H	HIGH	PN	PARTITION	I/G	TONGUE AND GROOVE		
CJ	CONTROL JOINT	HCP	HIGH POINT	PNT	PENETRATION	T.O.S.	TOP OF STEEL		
CONV	CONVENTIONAL CONVECTOR	HC	HOLLOW CORE	PEN	PENETRATION	T/B	TOP AND BOTTOM		
CORR	CORRIDOR	HM	HOLLOW METAL	PERF	PERFORATED PERFORMANCE	T/D	TREAD		
CU	CUBIC FEET	HHORIZ	HORIZONTAL	PRMT	PIECE PERMANENT	TR.DR.	TRENCH DRAIN		
CFM	CUBIC FEET PER MINUTE	HOR	HORSEPOWER	PI	PIECE	TP	TYPICAL		
CYL	CYLINDER	HB	HOSE BIBB	PL	PLASTER PLASTIC LAMINATE PLATE	U.C.	UNDERCUT		
DEPT	DEPARTMENT	HW	HOT WATER	PLTF	PLATFORM	U.G.	UNDERGROUND		
DTL	DETAIL	HOUR	HOUR	PLY/PWLD	PLYWOOD	UNIT	UNIT HEATER		
DIA	DIAMETER	HWDISTAT	HUMIDISTAT	LB	POUND	UNF	UNFINISHED		
DIAG	DIAGRAM	INCAN	INCANDESCENT	PSF	POUNDS PER SQUARE FOOT	U.N.O.	UNLESS NOTED OTHERWISE		
DIFF	DIFFERENCE DIFFUSER	IN	INCH	PS	POUNDS PER SQUARE INCH	U	URNAL		
DNM	DIMENSION	INCL	INCLUDE INCORPORATE	PREF	PREFABRICATED	VAC	VACUUM VACATED		
		ID.	INSIDE DIAMETER	PROJ	PROJECT PROJECTION	V	VENT VINYL		
				PROP	PROPERTY PROPERLY	VCT	VINYL COMPOSITION TILE		

CONSTRUCTION LEGEND

WHERE PROJECT WORK INVOLVES EXISTING CONSTRUCTION, ANY ITEM(S) SCHEDULED FOR REMOVALS/DEMOLITION WILL APPEAR AS A BOLD/DASHED LINE-WEIGHT (AS NOTED IN CONSTRUCTION LEGEND). WHERE EXISTING CONSTRUCTION ELEMENT OR AREA IS TO BE REMOVED, ITEMS WILL APPEAR AS A SOLID/LIGHT LINE-WEIGHT (AS NOTED IN CONSTRUCTION LEGEND). REFER TO SPECIFIC KEYNOTES FOR ADDITIONAL INFORMATION AS NEEDED.

SYMBOL *	DESCRIPTION	SYMBOL *	DESCRIPTION
	EXISTING CONSTRUCTION TO REMAIN (NO POCHÉ)		REFERENCE IDENTIFICATION FOR REMOVALS/DEMOLITION WILL BE SCHEDULED FOR REMOVAL AND/OR RELOCATION
	EXISTING CONSTRUCTION TO BE REMOVED (DEMOLITION ELEMENTS)		DETAIL/ELEVATION IDENTIFICATION: DETAIL/ELEVATION NUMBER IDENTIFICATION SHEET ON WHICH DETAIL/ELEVATION OCCURS FROM
	MULTIPLE EXISTING ELEMENTS TO BE REMOVED (DEMOLITION ELEMENTS SHOWN CROSS-HATCHED)		ELEVATION REFERENCE (EXAMPLE: SEE ELEVATION #4 LOCATED ON SHEET ID-108)
	EXISTING DOOR/FRAME UNIT TO REMAIN. REFER TO HARDWARE SCHEDULE FOR HARDWARE REQUIREMENTS.		ELEVATION DESIGNATIONS (EXAMPLE: SEE ELEVATIONS #1 THROUGH #4, LOCATED ON SHEET ID-108)
	EXISTING DOOR/FRAME UNIT TO BE REMOVED (DEMOLITION ELEMENT)		SECTION/DETAIL CUT REFERENCE CUT (EXAMPLE: SEE SECTION OR DETAIL #4 LOCATED ON SHEET ID-108)
	NEW CONSTRUCTION PARTITION SHOWN BOLD. REFER TO WALL TYPE/DETAILS AS NOTED.		WALL CONSTRUCTION TYPE DESIGNATION (REFER TO WALL TYPE DETAILS)
	NEW PARTITION TO UNDERSIDE OF CEILING GRID. REFER TO WALL TYPE/DETAILS AS NOTED.		CEILING HEIGHT ABOVE FINISHED FLOOR - EXISTING OR NEW
	NEW DOOR/FRAME/HARDWARE PACKAGE. REFER TO DOOR AND HARDWARE NOTES OR SCHEDULE.		LAYOUT WORK POINT/ELEVATION ABOVE FINISHED FLOOR (A.F.F.)

PROJECT GENERAL REQUIREMENTS

THE TERM 'OWNER' SHALL BE USED AS REFERENCE TO 'CLIENT', 'OWNER', 'TENANT' OR 'OTHER' WITH REFERENCE TO THE CONTRACTUAL RELATIONSHIPS BETWEEN THE ARCHITECT OR GENERAL CONTRACTOR/SUBCONTRACTORS.

NOT ALL ITEMS NOTED BELOW ARE APPLICABLE TO PROJECT SCOPE AND INCLUDED HEREIN FOR OVERALL / GENERAL REQUIREMENTS TO BE ADHERED TO AS REQUIRED FOR THE COMPLETION OF THE PROJECT SCOPE OF WORK.

DEMOLITION

- REFER TO MODIFIED GENERAL CONDITIONS, SPECIFICATIONS, AND SCHEDULES FOR EXTENT OF WORK.
- DRAWINGS LISTED UNDER "DRAWING INDEX" ON SHEET G-01 MUST BE READ IN CONJUNCTION WITH THIS DRAWING FOR COMPLETE PROJECT INFORMATION.
- CONFIRM WITH ARCHITECT THAT THESE DRAWINGS ARE THE CURRENT, MOST RECENT ISSUE BEFORE BEGINNING LAYOUT AND CONSTRUCTION.
- ENSURE THAT ANY SERVICES TO OTHER SPACES IN THE BUILDING, ANY LIFE SAFETY SYSTEM, AND MEANS OF EGRESS ARE MAINTAINED. COORDINATE DEMOLITION WITH CODE REQUIREMENTS FOR SAFE EGRESS.
- ALL EXISTING DOORS AND HARDWARE SHALL BE SALVAGED & STORED IF DIRECTED BY OWNER.
- WORK SHALL INCLUDE ALL DEMOLITION, PATCHING, AND REPAIR REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. EXTENT OF WORK IS TO BE ASCERTAINED BY CONTRACTOR AT PRE-BID SITE VISIT AND SHALL BE SUFFICIENT TO ACCOMMODATE NEW WORK. SEE REFLECTED CEILING PLAN FOR EXTENT OF CEILING GRID & LIGHT FIXTURES TO REMAIN.
- BEFORE BEGINNING DEMOLITION, CONTRACTOR SHALL VERIFY ALL UTILITY CONNECTIONS, SERVICES, AND GENERAL SERVICE LOCATIONS/AVAILABILITY.
- CUTTING WORK SHALL BE DONE WITH MINIMUM DAMAGE TO SURROUNDING SURFACES TO BE RETAINED. ADDITIONALLY, WORK SHALL BE DONE DURING NON-OPERATIONAL HOURS WITHIN CURRENT FACILITY UNLESS APPROVED IN WRITING BY OWNER.
- EXPPOSE FRAMING PRIOR TO DEMOLITION. DO NOT ENDANGER ANY EXISTING STRUCTURAL SYSTEM. NOTIFY ARCHITECT OF ANY STRUCTURAL CONFLICTS.
- ALL SURFACES SHALL BE RESTORED TO APPEAR AS NEW AND READY TO RECEIVE SPECIFIED FINISH (OR FINISH TO MATCH ADJACENT SURFACE). PATCH, FILL & SAND SMOOTH ALL GOUGES, HOLES, CRACKS, AND DENTS TO MATCH ADJACENT SURFACE FOR UNIFORM FINAL FINISH ON ALL EXISTING SURFACES.
- ANY EXISTING DUCT WORK, PIPING, PLUMBING, AND CONDUITS TO BE DEMOLISHED SHALL BE CAPPED AT POINT OF ORIGIN. SEE ENGINEERING DRAWING IF APPLICABLE FOR EXTENT OF WORK.
- REMOVE ALL FLOOR MONUMENTS AND OUTLETS, UNLESS SPECIFIED OTHERWISE.
 - 12.1. ALL FLOOR PENETRATIONS (OUTLETS, HOLES, ETC.) TO BE FIRE-SAFE AND FILLED SMOOTH PRIOR TO INSTALLATION OF SCHEDULED FLOOR FINISH. MAKE FLOOR SMOOTH FOR CONTIGUOUS SURFACE / APPEARANCE THROUGHOUT FLOOR SURFACE AFTER REMOVAL.
- ALL ELECTRICAL DATA AND TELEPHONE OUTLETS AND SWITCHES LOCATED WITHIN PARTITIONS SCHEDULED FOR DEMOLITION OR IF FLOOR CORES ARE TO BE REMOVED UNLESS OTHERWISE NOTED TO SAVE FOR REUSE (ONLY IF IN COMPLIANT WITH CURRENT CODES AND REQUIREMENTS). ALL ELECTRICAL, DATA, TELEPHONE WIRING, AND CONDUITS FROM SUCH REMOVED ELEMENTS SHALL BE REMOVED BACK TO PANEL. REFER TO DRAWINGS FOR EXTENT OF WORK.
- ANY ITEM SCHEDULED TO BE REMOVED AND REINSTALLED/RELOCATED SHALL BE CAREFULLY REMOVED FROM THEIR ORIGINAL LOCATION, FREE OF DAMAGE AND STORED IN A DESIGNATED AREA OF THE FACILITY / FLOOR / BUILDING AS APPROVED BY 'OWNER', OR UNTIL SCHEDULED FOR RELOCATION/REINSTALLATION. A
 - 14.1.1. OTHER MATERIAL DISASSEMBLED OR REMOVED FROM EXISTING SITE SHALL BECOME THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO OWNER.
 - 14.2. PREPARE INVENTORY OF ITEMS TO BE SALVAGED AND REUSED AND INDICATE QUANTITIES FOR BID.
- PARTITIONS AND EQUIPMENT ADJACENT TO THE CEILING MUST BE CAREFULLY REMOVED TO MINIMIZE DAMAGE TO CEILING SYSTEM. REPAIR CEILING GRID AND/OR REPLACE CEILING PADS TO MATCH EXISTING WHERE DAMAGED AS NECESSARY FOR COMPLETE PROJECT.
 - 15.1. IF EXISTING CEILING GRID AND / OR TILES ARE SCHEDULED TO REMAIN, CONTRACTOR TO MAKE EVERY EFFORT TO ENSURE / RETAIN STRUCTURAL INTEGRITY AND APPEARANCE THROUGHOUT CONSTRUCTION PROCESS.
- WHERE EXISTING WALL COVERING IS SCHEDULED FOR REUSE, REMOVE WALL COVERING FROM ENTIRE WALL, SAND SMOOTH AND PREPARE FOR NEW WALL COVERING OR PAINT APPLICATION AS SPECIED ON DRAWINGS.
- CONTRACTOR SHALL REMOVE ALL SITE DEBRIS (INCLUDING ITEMS NOT SCHEDULED FOR REUSE OR SALVAGING) AND BROOM SWEEP AREAS DAILY. CONTRACTOR SHALL PROVIDE AND COORDINATE LOCATION OF DUMPSTER WITH 'OWNER'. CONTRACTOR SHALL NOT STORE DEMOLISHED MATERIALS OR TOOLS WITHIN THE PROJECT AREA.
- CONTRACTOR SHALL COORDINATE THE USE OF THE FREIGHT ELEVATOR (IF APPLICABLE) WITH 'OWNER' PRIOR TO BIDDING.
- CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND COMPARE TO CURRENT CONSTRUCTION DOCUMENTS. IF DISCREPANCIES EXIST, CONTRACTOR MUST NOTIFY ARCHITECT AND 'OWNER' PRIOR TO BID SUBMISSION.
- CONTRACTOR SHALL PROTECT AND KEEP ALL EXISTING AREAS THAT ARE NOT SCHEDULED FOR MODIFICATION FREE OF DUST AND DEBRIS.
- CONTRACTOR SHALL REPLACE/REPAIR ALL EXISTING ITEMS/AREAS DAMAGED BY CONTRACTOR (AND / OR SUBCONTRACTORS) NOT RELATED TO PROJECT RELATED DEMO/CONSTRUCTION TO THE NEAREST INTERSECTION AT NO ADDITIONAL COST TO THE OWNER.
- IF UTILITIES THAT ARE AFFECTED BY THIS PROJECT NEED TO BE DISCONNECTED, TERMINATED, OR RELOCATED IN ORDER TO COMPLETE THE PROJECT SCOPE, PRIOR WRITTEN APPROVAL BY THE 'OWNER' IS REQUIRED.

ARCHITECTURAL

- REFER TO MODIFIED GENERAL CONDITIONS, SPECIFICATIONS AND SCHEDULES FOR EXTENT OF WORK.
- DRAWINGS LISTED UNDER "DRAWING INDEX" ON SHEET G-01 MUST BE READ IN CONJUNCTION WITH THIS DRAWING FOR COMPLETE ADDITIONAL INFORMATION.
- CONFIRM WITH ARCHITECT THAT THESE DRAWINGS ARE THE CURRENT, RECENT ISSUE BEFORE BEGINNING LAYOUT AND CONSTRUCTION.
- CONTRACTOR MUST GIVE ARCHITECT FOUR (4) WORKING DAYS NOTICE TO REVIEW PARTITION LAYOUT AND FLOOR OUTLET LOCATIONS AS "CHALK-LINE STAGE, TRACK AND STUDY WORK MUST BEGIN BEFORE ARCHITECT HAS REVIEWED EACH LAYOUT IF AGREED UPON DURING "PRE-CONSTRUCTION" MEETING.
- FOR DOOR & HARDWARE INFORMATION, REFER TO DRAWINGS AND/OR HARDWARE SCHEDULE.
- DIMENSIONS SHOWN AS "AFF" OR ELEVATIONS OF RECEPTABLES, COUNTERS, ETC. REFER TO "ABOVE FINISH FLOOR" ELEVATIONS.
- FIRE SAFE ALL PENETRATIONS IN FIRE RATED WALLS USING FIRECAULK/PACKING MATERIALS AS MANUFACTURED BY "3M FIRE PROTECTION PRODUCTS" TO A 1 1/4" DEPTH, APPLY A 1/4" PERIMETER OF PIPE, CONDUIT, ETC., ANNUAL SPACE NOT TO EXCEED 1/4". DO NOT LEAVE ANY VOIDS IN A RATED COMPONENT OF CONSTRUCTION.
- PATCH ALL HOLES LEFT IN DRYWALL PARTITIONS FROM ELEC/DATA RECEPTACLE REMOVAL WITH MATCHING CONSTRUCTION OF SURFACE SURROUNDINGS. ENTIRE SURFACE MUST BE A CONTIGUOUS LEVEL, SMOOTH, AESTHETICALLY CONSISTENT APPEARANCE.
- PREPARE/REFINISH CORE WALLS, DOORS, FRAMES, CEILING, ETC. WITHIN EXISTING SPACE TO APPEAR AS NEW AND TO RECEIVE SPECIFIED FINISH TO THE EXTENT NOTED ON DRAWINGS.
- CONTRACTOR TO VERIFY ALL EXISTING RATED PARTITIONS ARE PROPERLY CONSTRUCTED, SECURED & THAT THE INTEGRITY OF FIRE RATING IS MET. IF EXISTING CONSTRUCTION IS NOT PER CURRENT CODES / REQUIREMENTS, AND OUTSIDE OF CONTRACTORS SCOPE, CONTRACTOR MUST NOTIFY 'OWNER' IMMEDIATELY.
- RATED PARTITIONS TO BE CONTINUOUS OVER DOOR OPENINGS OR ANY OTHER ELEMENT.
- CONTRACTOR TO PROVIDE BLINDS ON ALL NEW SIDELIGHTS / EXISTING EXTERIOR WINDOWS / ETC. REFER TO FINISH SCHEDULE FOR SPECIFICATIONS.
 - 12.1. REPAIR OR REPLACE ANY DAMAGED EXISTING BASE BUILDING BLINDS AT EXTERIOR WINDOWS. PROVIDE COST ALLOWANCE IN BID IF APPLICABLE.
- CORRECT ANY EXISTING CONDITION SUCH AS IMPROPERLY CAPPED UTILITY LINES, FLOORS OUT OF LEVEL BY MORE THAN 1/4" IN 10 FEET, CEILING OUT OF LEVEL BY MORE THAN 1/8" IN 12 FEET, AND / OR ANY CONDITION THAT WOULD PREVENT THE CONTRACTOR IN PROVIDING THE HIGHEST QUALITY FINISHED WORK.
- UNMARKED (UNIDENTIFIED) DOORS ARE EXISTING AND SCHEDULED TO REMAIN.
- IF CR IS DESIGNATED AT A SPECIFIC DOOR, CONTRACTOR TO INSTALL CARD READER AS SPECIFIED IN DOOR / HARDWARE SCHEDULE. UNLESS NOTED OTHERWISE, CONTRACTOR TO PERFORM ALL INSTALLATION OF CARD READERS AND ASSOCIATED WIRING IN COMPLIANCE WITH OWNER SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR TO CLEAN ALL EXISTING FLOORING SURFACES AT COMPLETION OF CONSTRUCTION AND PRIOR TO TURNOVER TO 'OWNER'. IF FLOORING CANNOT BE CLEANED TO AN ACCEPTABLE APPEARANCE, CONTACT 'OWNER' FOR FURTHER DIRECTION.

REFLECTED CEILING

- REFER TO MODIFIED GENERAL CONDITIONS, SPECIFICATIONS, AND SCHEDULES FOR EXTENT OF WORK.
- REFER TO DRAWINGS FOR LIGHT SWITCH CIRCUITING AND SPECIFICATION OF LIGHT FIXTURES, AND LOCATION / SPECIFICATION OF EXIT SIGNS AND ANY OTHER ELECTRICAL & MECHANICAL COMPONENTS SHOWN. ELECTRICAL CONTRACTOR TO INCLUDE OCCUPANCY SENSORS ON ALL LIGHTING AS REQUIRED FOR COMPLIANCE WITH CURRENT NEC AND ENERGY CODES.
 - 2.1. EXIT SIGN AND LIFE SAFETY DEVICE LOCATIONS ARE SUBJECT TO APPROVAL BY FIRE MARSHAL.
- ALL FIXTURES NOT LOCATED BY DIMENSIONS OR SHOWN CLEARLY MUST HAVE THEIR LOCATION APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
- IN THE EVENT OF ANY CONFLICTS OF CEILING PLAN LAYOUT WITH EXISTING UTILITY LINES AND DUCT WORK WHICH COULD NOT BE FORESEEN AT THE OUTSET OF THE WORK, THE ARCHITECT AND GENERAL CONTRACTOR SHALL MEET TO DETERMINE A FAIR AND EQUITABLE SOLUTION.
- PROVIDE ANY ADDITIONAL CEILING BRACING REQUIRED BY DESIGN AND BY LOCAL BUILDING CODES WHETHER NEW OR EXISTING CEILING CONSTRUCTION.
- ALL FIXTURES TO BE CENTERED IN BOTH DIRECTIONS OF CEILING TILE U.N.O.
 - 6.1. IN DRYWALL APPLICATIONS, LOCATIONS MUST MEET DIMENSIONAL LAYOUT AS SHOWN ON ARCHITECTURAL DRAWINGS. IN THE EVENT OF CONFLICT OR INSUFFICIENT INFORMATION, CONTRACTOR MUST NOTIFY ARCHITECT AND OBTAIN DIRECTION PRIOR TO COMMENCEMENT OF INSTALLATION.
- SPRINKLER HEAD LOCATIONS: IN DRYWALL CEILING APPLICATIONS, SPRINKLER SYSTEMS SHALL BE FLUSH STYLE - WHITE UNLESS NOTED OTHERWISE ON DRAWINGS.
- IN EXISTING CONDITIONS, RECONFIGURE, REPLACE AND/OR EXTEND CEILING GRID AND TILES TO PROVIDE PATTERN AS SHOWN FOR PROVISION OF A LEVEL AND AESTHETICALLY CONTIGUOUS CEILING SURFACE.
- PROVIDE FLUSH ACCESS HATCHES IN ALL NEW GYP. BD. CEILINGS AS WELL AS ANY EXISTING GYP. BD. CEILINGS INCLUDED AS PART OF THIS PROJECT. LOCATIONS AND PRODUCT SPECIFICATION TO BE REVIEWED AND APPROVED BY ARCHITECT PRIOR TO COMMENCEMENT OF INSTALLATION. REFER TO USG DRYWALL HANDBOOK STANDARDS FOR COMPLIANT PRODUCT SPECIFICATIONS. HATCHES WILL BE REQUIRED BY EITHER OF THE FOLLOWING:
 - 9.1. ARCHITECTS DRAWINGS.
 - 9.2. ENGINEER'S DRAWINGS.
 - 9.3. STATE AND LOCAL BUILDING CODES AND REQUIREMENTS.
 - 9.4. ACCESS / MAINTENANCE OF ANY MECHANICAL / ELECTRICAL / PLUMBING SYSTEM WITHIN CONCEALED SPACE, AND / OR DEEMED NECESSARY BY 'OWNER'.
- IN EXISTING CONDITIONS, SALVAGE EXISTING LIGHT FIXTURES IF SCHEDULED AS SUCH ON DRAWINGS. REPLACE ALL LAMPS FOR MATCHING / CONSISTENT COLOR AND LUMINOUSITY; REPLACE ANY EXISTING INOPERABLE FIXTURE AS SPECIFIED BY ARCHITECT.
- IN EXISTING CONDITIONS, CONTRACTOR TO PATCH ALL CEILING SYSTEM LOCATIONS EFFECTED BY DEMOLITION OR NEW CONSTRUCTION. PATCH GRID TO FORM CONTIGUOUS APPEARANCE WITH ADJACENT CEILING SYSTEM WITH RESPECTS TO COLOR, STYLE, SIZE AND PROFILE.
- CONTRACTOR TO PROVIDE NEW CIRCUITING FOR NEWLY PROPOSED LIGHTING LAYOUT. PROVIDE MULTIPLE, (5-WAY/4-WAY) SWITCHING AS NECESSARY IN ORDER TO ACHIEVE INTENDED DESIGN INTENT.
- SWITCH SYMBOL INDICATES THE LOCATION FOR SWITCHING OF ALL FIXTURES WITHIN THAT ROOM UNLESS NOTED OTHERWISE.

ROUGH CARPENTRY

- WOOD FOR ROUGH CARPENTRY SHALL BE GRADED BY AN AGENCY CERTIFIED BY THE NATIONAL FOREST PRODUCTS

PROJECT GENERAL REQUIREMENTS (CONT.)

ASSOCIATION (NFPFA) AND SHALL BE OF THE TYPE RECOMMENDED FOR APPLICATION INVOLVED.

FINISH CARPENTRY / ARCHITECTURAL WOODWORK

- SEE ARCHITECTURAL DRAWINGS FOR EXTENT AND DETAILS OF WORK. ALL DIMENSIONS ARE TO BE FIELD VERIFIED.
- FINISH CARPENTRY SHALL CONFORM TO THE QUALITY STANDARDS OF THE ARCHITECTURAL WOODWORK INSTITUTE, LATEST EDITION - CUSTOM GRADE FOR PLASTIC LAMINATE WORK, PREMIUM GRADE FOR WOOD VENEER WORK.
 - 3.1. VERTICAL SURFACES: 0.020
 - 3.2. VERTICAL SURFACES: 0.028
 - 3.3. BACK-UP SHEETS: 0.020
 - 3.4. ADHESIVE: CONTACT TYPE PS-AMM-A-130.
 - 3.5. SCRIBE ALL LAMINATE AT JUNCTION WITH ADJACENT CONSTRUCTION.
- PAINTED FINISH MILLWORK SHALL BE PAINT-GRADE SOLID WOOD OR EDGE BANDED PLYWOOD OR EDGE BANDED PARTICLE BOARD.
- PLASTIC LAMINATE WORK SURFACES, SHELVES AND VERTICAL COUNTER SUPPORTS TO BE 3/4" PLYWOOD EDGE BANDED OR INDUSTRIAL GRADE PARTICLE BOARD, ANSI 1-M-3, MIN. DENSITY 45 PSF U.N.O. OTHER COMPONENTS TO BE 3/4" MDF OR 3/4" PLYWOOD EDGE BANDED.
- PLYWOOD BACKBOARDS TO BE GRADE B-C.
- MILLWORK:
 - 7.1. LARGE SCALE DETAILED SHOP DRAWINGS TO BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND INSTALLATION. SUBMITTAL TO CONSIST OF ONE FOR COPY OF EACH PACKAGE ARCHITECT SHALL MARK-UP AND RETURNED TO GENERAL CONTRACTOR/CONSTRUCTION MANAGER.
 - 7.2. GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL SUBMIT THREE (3) PHYSICAL SAMPLES OF EACH FINISH AND MATERIAL TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION.
 - 7.3. UNLESS OTHERWISE NOTED, FABRICATE WOODWORK/MILLWORK ITEMS TO ARCHITECTURAL WOODWORK INSTITUTE (AWI) QUALITY STANDARDS, WHICH BY REFERENCE ARE HEREBY APPENDED TO THIS SPECIFICATION. FABRICATOR SHALL BE FAMILIAR WITH AWI STANDARDS.
 - 7.4. UNLESS OTHERWISE NOTED, FABRICATE WOODWORK/MILLWORK ITEMS TO ARCHITECTURAL WOODWORK INSTITUTE (AWI) QUALITY STANDARDS, WHICH BY REFERENCE ARE HEREBY APPENDED TO THIS SPECIFICATION. FABRICATOR SHALL BE FAMILIAR WITH AWI STANDARDS.
 - 7.5. FABRICATE ITEMS TO ACTUAL FIELD DIMENSIONS. SHOP DRAWINGS SHALL INCLUDE DIMENSIONS OBTAINED BY CONTRACTOR IN FIELD.
 - 7.6. EXPOSED SURFACES NOTED AS "PLASTIC LAMINATE" SHALL RECEIVE HIGH-PRESSURE DECORATIVE LAMINATE (HPDL) AS SPECIFIED BY ARCHITECT IN DRAWINGS.
- MATERIALS AND CONSTRUCTION SHALL MEET THE FOLLOWING AWI QUALITY GRADE REQUIREMENTS:
 - 7.1.1. CUSTOM, FOR ITEMS WITH PLASTIC LAMINATE CLAD OR PAINTED FINISHES.
- EXCEPT AS NOTED OTHERWISE, ALL SEMI-EXPOSED SURFACES SHALL RECEIVE CABINET GRADE HPDL OR MELAMINE-FUSED FINISH (NOT MELAMINE PAPER OVERLAY) SUCH AS "MICABOARD" OR APPROVED EQUAL: INTERIOR SURFACE AND EDGES OF DOORS SHALL MATCH EXTERIOR FINISH.
- ALL MILLWORK SUBSTRATES SHALL BE MDO.

DOORS AND FRAMES

- SEE ARCHITECTURAL DRAWINGS AND/OR DOOR AND HARDWARE SCHEDULE FOR EXTENT OF WORK.
- DOORS SHALL BE HOLLOW METAL DOORS WITH HOLLOW METAL FRAMES, FLUSH TYPE, UNLESS OTHERWISE NOTED ON DRAWINGS. MATCH EXISTING DOORS IF RENOVATION / ADDITION.
- FOR DOOR HARDWARE SEE HARDWARE SCHEDULE. HARDWARE TO BE HEAVY DUTY COMMERCIAL GRADE.
- ENSURE HOLLOW METAL DOORS ARE UNDERCUT TO 3/4", INCLUDE INTEGRAL VENT / SWEEP AS NOTED IN SCHEDULE.
- SUBMIT DOOR AND HARDWARE SCHEDULE FROM SUPPLIER FOR ARCHITECT / WCAA TO REVIEW AS PART OF THIS CONTRACT.

ACOUSTICAL INSULATION

- SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF WORK / LOCATIONS.
- UNLESS OTHERWISE NOTED, LOW DENSITY ACOUSTIC BATT INSULATION TO BE 3/4 LB./CU.FT. 2-1/2" UNFACED FIBERGLASS ACOUSTICAL INSULATION OWENS-CORNING NOISE BARRIER, SG THERMAFIBER OR APPROVED EQUAL. MINIMUM THICKNESS: 2-1/2". FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450.
- UNLESS OTHERWISE NOTED, PLENUM INSULATION (ABOVE CEILING) TO BE OWENS CORNING "SONORBATS INSULATION", UNFACED, IN ACCORDANCE WITH UL 181 AIR EROSION TEST. DO NOT INSTALL INSULATION ON TOP OF OR WITHIN 3 INCHES OF RECESSED LIGHT FIXTURES UNLESS FIXTURES ARE APPROVED FOR SUCH USE. THICKNESS 3-1/2". FLAME SPREAD INDEX OF 10, OR NOT MORE THAN 25, AND SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450. INSTALLER TO ADHERE PACKAGING LABEL TO SURROUNDING SURFACE SUBJECT TO INSPECTION.

ACOUSTICAL CEILINGS

- SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF WORK, DETAILS AND SPECIFICATIONS.
- THE ACOUSTICAL CEILINGS SHALL BE INSTALLED COMPLETE WITH SUSPENDED EXPOSED "T" GRID AND LAY-IN TILES. REFER TO DRAWINGS FOR SPECIFICATIONS OF CEILING GRID AND TILES.
- INSTALL SUSPENSION SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND TO COMPLY WITH THE REQUIREMENTS OF ASTI C635, MEDIUM DUTY SYSTEM.
- COORDINATE INSTALLATION WITH ELECTRICAL AND MECHANICAL TRADES.
- SUSPENSION SYSTEM: PROVIDE DIRECT HUNG SUSPENSION SYSTEM. GRILLAGE SHALL CONSIST OF MAIN RUNNERS, CROSS-RUNNERS, AND STABILIZER BARS AS REQUIRED. HANGER WIRES SHALL NOT BE LESS THAN 12 GAUGE GALVANIZED SOFT ANNEALED MILD STEEL WIRE. WIRES SHALL BE WRAPPED AT SUPPORTS. LEAST FOUR (4) COMPLETE TURNS AROUND.
- MOLDINGS: PROVIDE MANUFACTURER'S STANDARD "L" SHAPED MOLDINGS TO MATCH EXPOSED "T" - MINIMUM LENGTH 18".
- CONTRACTOR SHALL FIELD CHECK THE PREMISES AND VERIFY CLEARANCES FOR ALL LIGHTING FIXTURES BEFORE PROCEEDING WITH ANY INSTALLATION. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY AND BEFORE INSTALLATION.
- ALL FIXTURE TRIM (LIGHTING, SPEAKER, HVAC GRILLES, ETC.) SHALL BE AS SPECIFIED ON ARCHITECTS DRAWINGS.
- LEVEL CEILING TO WITHIN 1/8" IN 12 FEET IN ANY DIRECTION. LEVEL WITH HANGER WIRE TAUT AND PLUMB, WITHOUT KINKING OR BENDING HANGERS. EXISTING CONDITIONS, CEILING HEIGHT SHALL MATCH EXISTING CEILING BEING ATTACHED TO UNLESS NOTED OTHERWISE.
- PROVIDE 5% ATTIC STOCK OF ACOUSTICAL MATERIAL USED. CONFIRM WITH 'OWNER' FOR LOCATION OF ATTIC STOCK STORAGE.
- SUBMIT ONE FULL SIZE SAMPLE OF ACOUSTICAL MATERIAL AND ONE OF EACH TYPE SUSPENSION SYSTEM MEMBER, MOLDING, AND HANGER FOR ARCHITECT REVIEW.
- ACOUSTICAL CEILING TILES SHALL CONFORM TO ASTM E 84, BE CLASS A WITH A FLAME SPREAD OF 0-25 AND SMOKE DEVELOPED INDEX OF 0-450.7.

GYPSUM BOARD AND METAL FRAMING SPECIFICATIONS

- SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF WORK, DETAILS AND SPECIFICATIONS.
- INSTALL DRYWALL WORK IN ACCORDANCE WITH THE CURRENT VERSION OF UNITED STATES GYPSUM CONSTRUCTION HANDBOOK, ASTI C445, ASTI C446, ASTI C454, AND ASTI C460; MOST STRINGENT REQUIREMENTS TO PREVAIL.
- RATED AND NON-RATED DRYWALL ASSEMBLIES SHALL BE PROVIDED AS SHOWN AND AS SCHEDULED ON DRAWINGS. DRYWALL TO BE TAPED, MUDDER, SANDED SMOOTH TO A SMOOTH FINISH, AND PREPARED TO RECEIVE FINAL FINISHES. ANY EXISTING DRYWALL MUST BE REFINISHED TO BE SMOOTH AND PROVIDE A CONTIGUOUS APPEARANCE WITH NEW CONSTRUCTION.
- ALL PARTITIONS SHALL BE ANCHORED FIRMLY, CONTRACTOR TO PROVIDE BRACING TO PARTITIONS AND CEILINGS AS REQUIRED BY CODE. SEE DETAILS FOR TYPICAL WALL BRACING REQUIREMENTS.
- PARTITION ASSEMBLIES AND BRACING SHALL BE INSTALLED AROUND ANY ABOVE-CEILING INTERFERENCES ENCOUNTERED SUCH AS HVAC DUCT WORK OR SPRINKLER LINES, SO AS TO MAINTAIN THE INTEGRITY OF THE PARTITION ASSEMBLY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM CHANGES INCURRED TO ENSURE INTEGRITY OF REFLECTED CEILING PLAN LAYOUT.
- ENSURE WALL AND CEILING SURFACE TOLERANCE DOES NOT VARY MORE THAN 1/8" IN 12 FEET IN ANY DIRECTION.
- PROVIDE FIRELESS, FLUSH ACCESS HATCH IN GYP. BD. CEILING AS REQUIRED FOR MECHANICAL & ELECTRICAL TRADES. CONFIRM SITE STYLE AND LOCATION WITH ENGINEER & ARCHITECT (MFR, MLCOR, OR APPROVED EQUAL).
- ALL SPRINKLER HEADS WITHIN DRYWALL CEILINGS TO BE FLUSH STYLE (CONFORM COLOR OPTIONS WITH ARCHITECT).
- METAL FRAMING MANUFACTURER: DALE INDUSTRIES, INC., GOLD BOND BUILDING PRODUCTS, MILCORE, U.S. GYPSUM COMPANY OR APPROVED EQUAL.
- GYPSUM BOARD AND ACCESSORIES MANUFACTURER: GEORGIA-PACIFIC CORPORATION, GOLD BOND BUILDING PRODUCTS, U.S. GYPSUM COMPANY, OR APPROVED EQUAL.
- COMPLY WITH STANDARD SPECIFICATIONS:
 - 11.1. METAL SUPPORT INSTALLATION: ASTM C 754
 - 11.2. GYPSUM BOARD APPLICATION AND FINISHING: ASTM C 840 AND GA 216
 - 11.3. METAL SUPPORT COMPONENTS: ASTM C 645
 - 11.4. GYPSUM BOARD: ASTM C 36
 - 11.5. GYPSUM BOARD SCREWS: ASTM C 954, C 1002
 - 11.6. JOINT REINFORCING TAPE AND COMPOUND: ASTM C 474, C 475
- INSTALL HEAVY-GAGE STUDS AND SUPPLEMENTARY FRAMING, METAL OR NON-COMB BLOCKING, AND BRACING FOR DOORS, FIXTURES, WALL CABINETS, COUNTERS, GRAB BARS, TOILET PARTITIONS, SHELVING, DISPLAY WALLS, WALL-MOUNTED FURNITURE, RAILINGS AND ANY OTHER SIMILAR CONDITIONS.
- FIRE-RATE/RESIST: CONSTRUCT FIRE-RATED PARTITIONS AND CEILINGS IN ACCORDANCE WITH UL DESIGNS ACCEPTABLE TO GOVERNING BUILDING OFFICIALS.
- BLOCKING: PROVIDE BLOCKING FOR ALL WALL HUNG CABINETS/SHELVING, MILLWORK AND HARDWARE. ALL CONCEALED WOOD AND PLYWOOD BLOCKING SHALL BE TREATED AND LABELED FOR FIRE-RETARDANCY. BLOCKING TO SPAN AT LEAST THREE STUDS AND AT HEIGHT SPECIFIED.
- JOINT FINISHING: COMPLY WITH ASTM C 475. USE PAPER REINFORCING TAPE. USE CHEMICAL-HARDENING COMPOUND FOR BEDDING AND FILLING; USE VINYL COMPOUND FOR TOPPING. APPLY COMPOUND IN 3 COATS (NOT INCLUDING PRE-FILL OF OPENINGS IN BASE); SAND BETWEEN LAST 2 COATS AND AFTER LAST COAT.
- ACOUSTIC INSULATION: COMPLY WITH ASTM C 665, TYPE I, SEMI-RIGID MINERAL FIBER BLANKET WITHOUT MEMBRANE, CLASS 25, FLAME-SPREAD, PROVIDE 2" THICKNESS IF NOT OTHERWISE INDICATED. FOR INSULATION ABOVE CEILINGS, SEE "ACOUSTICAL INSULATION" SECTION.

PROJECT GENERAL REQUIREMENTS (CONT.)

- PARTITIONS THAT RECEIVE ACOUSTIC INSULATION SHALL ALSO BE ACOUSTICALLY SEALED AT ELECTRIC BOXES AND SIMILAR PENETRATIONS. USE CONCEALED SEALANT CONFORMING TO ASTM C 919.
- METAL TRIM: PROVIDE METAL CORNER BEADS AT EXPOSED CORNERS AND METAL EDGE TRIM WHENEVER EDGE OF GYPSUM BOARD WOULD OTHERWISE BE FULLY OR PARTIALLY EXPOSED. TRIM SHALL BE METAL, WITH FLANGES CONCEALED BY FINISHED COMPOUND.
- DETAILS: REQUEST CLARIFICATIONS IN A TIMELY MANNER. EXCEPT AS SPECIFICALLY INDICATED OTHERWISE, CONFORM TO THE PRINTED RECOMMENDATIONS OF THE BOARD OR FRAMING MANUFACTURER, OR IF NOT AVAILABLE, TO THE "GYPSUM CONSTRUCTION HANDBOOK", LATEST EDITION, PUBLISHED BY U.S. GYPSUM.
- CONTRACTOR TO PROVIDE CONTROL JOINTS IN GYPSUM BOARD AT EVERY LINEAL 20'-0" MAXIMUM IN ANY DIRECTION. IF NO INDICATION IS SHOWN ON DRAWINGS, SUBMIT SHOP DRAWING ILLUSTRATING LOCATIONS OF CONTROL JOINTS FOR ARCHITECTS REVIEW AND APPROVAL. CONTRACTOR TO PROVIDE CONTROL JOINTS IN GYPSUM BOARD AT TRANSITIONS AS SHOWN ON ARCHITECTS DRAWINGS AND / OR AS REQUIRED BY THE GYPSUM INDUSTRY. REFER TO DRAWINGS FOR DETAILS.
- PROVIDE FLUSH ACCESS HATCHES IN ALL NEW GYP. BD. CONSTRUCTION AS WELL AS EXISTING GYP. BD. CONSTRUCTION INCLUDED AS PART OF THIS PROJECT. LOCATIONS AND PRODUCT SPECIFICATION TO BE REVIEWED AND APPROVED BY ARCHITECT PRIOR TO COMMENCEMENT OF INSTALLATION. REFER TO USG DRYWALL HANDBOOK STANDARDS FOR COMPLIANT PRODUCT SPECIFICATIONS. HATCHES WILL BE REQUIRED BY EITHER OF THE FOLLOWING:
 - 21.1. ARCHITECTS DRAWINGS.
 - 21.2. ENGINEER'S DRAWINGS.
 - 21.3. STATE AND LOCAL BUILDING CODES AND REQUIREMENTS.
 - 21.4. ACCESS / MAINTENANCE OF ANY MECHANICAL / ELECTRICAL / PLUMBING SYSTEM WITHIN CONCEALED SPACE, AND / OR DEEMED NECESSARY BY 'OWNER'.

CARPENTRY

- SEE PLANS/SCHEDULE FOR EXTENT OF WORK AND SPECIFICATIONS.
- REMOVE ANY EXISTING CARPET PRIOR TO INSTALLATION OF NEW CARPET, CLEAN FLOOR OF ALL RESIDUE TO PREPARE FLOOR FOR "LIKE NEW" INSTALLATION.
- COMPLY WITH CARPET MANUFACTURER'S PRINTED INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN DIRECTION FOR PATTERN AND TEXTURE, INCLUDING LAT OF PILE AS NOTED ON DRAWINGS. DO NOT MIX DYE LOTS WITHIN ONE ROOM OR DERIVED AREA. IN THE EVENT OF A DIRECTIONAL CARPET NOT BEING SPECIED ON DRAWINGS FOR INSTALLATION DIRECTION, CONTRACTOR TO NOTIFY ARCHITECT AT TIME OF BIDDING FOR CLARIFICATION.
- SECURE ALL EXPOSED CARPET EDGES WITH REDUCERS OR OTHER AS APPROVED BY ARCHITECT.
- EXTEND CARPET UNDER OPEN-BOTTOMED AND RAISED BOTTOM OBSTRUCTIONS. EXTEND CARPET INTO CLOSETS AND CLOVES OF ROOM / AREA INDICATED TO BE CARPETED, UNLESS ANOTHER FLOOR FINISH IS INDICATED FOR SUCH SPACE.
- PROVIDE RUBBER REDUCER STRIP AT FLOOR MATERIAL JUNCTION, COLOR: AS SPECIFIED. IN ABSENCE OF SPECIFIED COLOR, SUBMIT TO ARCHITECT FOR SELECTION. IF NO SPECIFICATION IS SHOWN, AND PROJECT IS DESIGN-BUILD, CONTRACTOR TO MATCH FLOORING TO EXISTING.
- INTERIOR FLOOR FINISHES AND FLOOR COVERING MATERIALS SHALL BE CLASS 1 OR II MATERIALS AND BE CLASSIFIED IN ACCORDANCE WITH NFPA 253.

HARD TILE INSTALLATION REQUIREMENTS

- INSTALLATION (OR PATCHING) OF ANY HARD FLOOR SURFACE PRODUCT MUST MEET THE INSTALLATION REQUIREMENTS AND SPECIFICATIONS OF THE FOLLOWING GUIDELINES:
 - LATEST VERSION OF THE TCA HANDBOOK FOR CERAMIC TILE INSTALLATION
 - LATEST VERSION ANSI A108/A118/A136.1 SPECIFICATIONS FOR THE INSTALLATION OF CERAMIC TILE
 - LATEST VERSION ANSI A137.1 SPECIFICATIONS FOR CERAMIC TILE
- INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING THAT SURFACE ON WHICH THE HARD TILE FLOORING PRODUCT IS TO BE INSTALLED MEETS THE REQUIREMENTS OF THE INDIVIDUAL PRODUCT INSTALLATION REQUIREMENTS BEING INSTALLED. UNDER NO CONDITIONS SHALL FAILURE TO VERIFY THE LEVEL/STABILITY/CONDITION OF SUBSTRATE PROVIDE MEANS FOR ADDITIONAL COST OR DENIAL OF RESPONSIBILITY OF FINAL INSTALLED PRODUCT.
- INSTALLATION OF TILE MUST INCLUDE THE REQUIREMENTS SET FORTH IN THE ABOVE REFERENCED STANDARDS FOR INTEGRATED CONTROL JOINTS.
 - 3.1. CONTROL JOINT LAYOUT MUST BE SUBMITTED TO ARCHITECT/OWNER/TENANT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- CONTRACTOR TO INSTALL SCHLUTER DITRA UNCOUPLING AND WATERPROOFING MEMBRANE. PROVIDE ALL ASSOCIATED ELEMENTS FOR COMPLETE SYSTEM. CONTRACTOR MUST PROVIDE PROOF OF INSTALL.

RUBBER WALL BASE

- REFER TO DRAWINGS AND FINISH / MATERIALS SCHEDULE FOR SPECIFICATIONS AND LOCATIONS.
- WARRANTY: PROVIDE MANUFACTURER'S STANDARD ONE-YEAR WARRANTY AGAINST DEFECTS IN MANUFACTURING AND WORKMANSHIP OF ALL FLOORING PRODUCTS. PROVIDE MANUFACTURER'S STANDARD LIMITED WARRANTY AS SPECIFIED UNDER EACH PRODUCT AS APPLICABLE.
- MINIMUM PRODUCT REQUIREMENTS:
 - 3.1. FLAMMABILITY: ASTM E 648; NFPA 253; NSIR 75-950 RESULT TO BE NOT LESS THAN 0.45 WATTS PER SQUARE CENTIMETER, CLASS 1.
 - 3.2. SMOKE DENSITY: ASTM E 662, NFPA 258. NBS SMOKE DENSITY, LESS THAN 450.
 - 3.3. BURN RESISTANCE: CIGARETTE AND SOLDER BURN RESISTANCE.
 - 3.4. HALOGEN-FREE: PRODUCTS SHALL CONTAIN NO HALOGENS.
 - 3.5. PVC-FREE: PRODUCTS SHALL CONTAIN NO POLY-VINYL-CHLORIDE.
 - 3.6. ASBESTOS-FREE: PRODUCTS SHALL CONTAIN NO ASBESTOS.
 - 3.7. COLOR: AS SELECTED.
- EXAMINATION:
 - 4.1. VERIFY THAT SPACES TO RECEIVE RUBBER WALL BASE ARE SUITABLE FOR INSTALLATION. DO NOT PROCEED WITH WORK UNTIL ACCEPTABLE CONDITIONS ARE MET. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS/REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
 - 4.1.1. SUBSTRATES SHALL BE DRY AND CLEAN.
 - 4.1.2. SUBSTRATES SHALL BE FREE OF DEPRESSIONS, RAISED AREAS, OR OTHER DEFECTS WHICH WOULD TELEGRAPH THROUGH INSTALLED FLOORING.
 - 4.1.3. TEMPERATURE AND SUBSTRATE SHALL BE WITHIN SPECIFIED TOLERANCES.
 - 4.1.4. MOISTURE CONDITION AND ADHESIVE BOND TESTS SHALL BE PERFORMED AS SPECIFIED.

CLEANING AND PROTECTION:

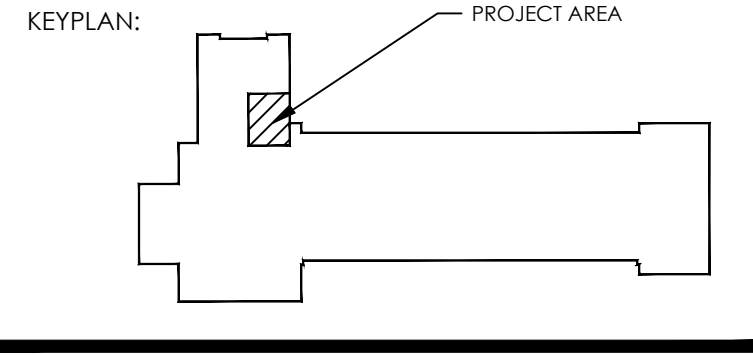
- TOUCH-UP AND REPAIR MINOR DAMAGE TO ELIMINATE ALL EVIDENCE OF REPAIR. REMOVE AND REPLACE WORK WHICH CANNOT BE SATISFACTORILY REPAIRED.
- CLEAN SURFACES ONLY AFTER ADHESIVE HAS FULLY CURED, NO SOONER THAN 72 HOURS AFTER INSTALLATION. CLEAN SURFACES USING NON-ABRASIVE MATERIAL AND METHODS RECOMMENDED BY MANUFACTURER. REMOVE AND REPLACE WORK THAT CANNOT BE SUCCESSFULLY CLEANED.
- PROTECT COMPLETED WORK FROM DAMAGE AND CONSTRUCTION OPERATIONS AND INSPECT IMMEDIATELY BEFORE FINAL ACCEPTANCE OF PROJECT.
- APPLY RUBBER BASE TO WALLS, COLUMNS, CASEWORK, AND OTHER PERMANENT FIXTURES IN ROOMS OR AREAS WHERE BASE IS SPECIFIED. INSTALL BASE IN AS LONG LENGTHS AS PRACTICABLE. TIGHTLY BOND BASE TO BACKING THROUGHOUT THE LENGTH AND HEIGHT OF EACH PIECE, WITH CONTINUOUS CONTACT AT HORIZONTAL AND VERTICAL SURFACES. ALL CORNERS TO BE PRE-MOLDED.
- PROVIDE REPAIR STRIPS AT FLOOR MATERIAL JUNCTIONS, COLOR: AS SPECIFIED IN ABSENCE OF SPECIFIED COLOR, MATCH FLOOR COLOR.
- PROVIDE 5% ATTIC STOCK.
- SUBMIT THREE (3)-8" X 11" SAMPLES OF FLOORING AND BASE TO ARCHITECT / WCAA FOR REVIEW.

PAINTING

- REFER TO DRAWINGS / FINISH SCHEDULE FOR EXTENT OF WORK AND SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR QUALITY OF PAINTING WORK, INCLUDING DETERMINATION OF THE FOLLOWING:
 - 2.1. COMPATIBILITY OF ALL PAINTING PRODUCTS AND SUBSTRATE.
 - 2.2. ACCEPTABILITY OF SUBSTRATES PRIOR TO PAINT APPLICATION.
 - 2.3. FILM THICKNESS, SPREADING RATES, AND COATS REQUIRED BEYOND SPECIFIED MINIMUMS.
 - 2.4. MATCHING OF EXISTING COLOR / FINISH.
 - 2.5. CONFIRMATION OF PAINT FINISH TYPE COMPATIBILITY WITH USE INTENDED.
- PAINTED SURFACES SHALL BE SMOOTH AND FREE OF RUNS, DRIPS, BRUSH MARKS, ROLLER MARKS, VARIATION IN GLOSS AND TEXTURE, AND SIMILAR DEFECTS.
- EXCEPT AS NOTED OTHERWISE, PROVIDE LATEX "EGG-SHELL" FINISH ON WALLS AND LATEX "FLAT" FINISH ON CEILINGS.
- EXCEPT AS OTHERWISE INDICATED, PROVIDE THE BEST QUALITY, COMMERCIAL GRADE PAINT PRODUCTS OF THE FOLLOWING MANUFACTURERS: BENJAMIN MOORE, PITTSBURGH, OR SHERWIN-WILLIAMS.
- ALL WALLS ARE TO RECEIVE ONE COAT PRIMER/SEALER AND TWO COATS OF FINISH PAINT AS SPECIFIED. ALL SURFACES ARE TO BE SMOOTH AND WITHOUT TEXTURE. PAINT IS TO BE ROLLED FLAT, NO STIPPLE EFFECT.
- INTERIOR GYPSUM BOARD: ONE (1) COAT WALL PRIMER/SEALER AND TWO (2) COATS LATEX EGG-SHELL UNLESS NOTED OTHERWISE ON FINISH SCHEDULE.
- INTERIOR FERROUS METAL: ONE (1) COAT PRIMER, TWO (2) COATS OIL SEMI-GLOSS FOR NEW MATERIAL WITH PRIMER, OR LATEX SEMI-GLOSS FOR EXISTING METAL TO BE REPAINTED, UNLESS NOTED OTHERWISE ON FINISH SCHEDULE.
- INTERIOR WOOD TRIM: ONE (1) COAT PRIMER TWO (2) COATS LATEX SEMI-GLOSS UNLESS NOTED OTHERWISE ON FINISH SCHEDULE.
- INTERIOR ALUMINUM: ONE (1) COAT PRIMER, TWO (2) COATS LATEX SEMI-GLOSS SPRAY FINISH, UNLESS NOTED OTHERWISE ON FINISH SCHEDULE.
- ALL PAINT TO BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
- SAND LIGHTLY BETWEEN COATS IF REQUIRED TO ACHIEVE REQUIRED FINISHES.
- ALLOW EACH COAT OF FINISH TO DRY BEFORE THE FOLLOWING COAT IS APPLIED, UNLESS DIRECTED OTHERWISE BY MANUFACTURER.

PROJECT GENERAL REQUIREMENTS (CONT.)

- PATCH AND REPAIR DEFECTS IN EXISTING SURFACES TO BE PAINTED.
- FILL NICKS, GOUGES, AND OTHER MINOR IMPERFECTIONS OF SURFACES WITH LATEX FILLER. SAND SMOOTH AND FLUSH WITH SURFACE.
- WHERE GRILLES OCCUR IN CEILING OR WALL, DO NOT PAINT. TAPE OFF OR REMOVE BEFORE PAINTING.
- REMOVE OR OTHERWISE PROTECT FINISH HARDWARE, ACCESSORIES, PLATES, LIGHTING FIXTURES, AND SIMILAR ITEMS BEFORE PAINTING. DO NOT PAINT ANY MOVING PARTS OF OPERATING UNITS, OR UL REQUIRED LABELS, AND EQUIPMENT.
- RETOUCH OR REFINISH PAINTED SURFACES DAMAGED BY SUBSEQUENT WORK.
- PROVIDE OWNER WITH AN ATTIC STOCK OF ONE GALLON OF EACH COLOR AND TYPE OF PAINT AND STAIN USED IN THE WORK. CLEARLY LABEL CONTENT AND LOCATION WHERE USED. CONSULT WITH OWNER FOR LOCATION OF SUCH STOCK.
- SUBMIT THREE (3)- 8" X 11" SAMPLES OF EACH FINISH FOR ARCHITECT / WCAA TO REVIEW.



SECURITY SENSITIVE INFORMATION:

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DATE	ISSUED FOR	DRN	CKD
2023-03-02	PERMITS/CONSTRUCTION	SAG	SAG
2022-10-05	ISSUE FOR BIDS (IFB)	YTD	SAG
2022-09-19	OWNER REVIEW	YTD	SAG

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CLIENT:	CONSULTANT:

PROJECT: WAYNE COUNTY AIRPORT AUTHORITY DTW ARRF STATION 100 Women's Locker Room Improvements 12901 Dingles Drive, #802 Detroit, MI 48242	
arconcepts PROJECT # WCA22-014	
NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857

PROJECT GENERAL REQUIREMENTS

SEAL:	
	SHEET: G-04

PLACEMENT OF TEMPORARY CONSTRUCTION BARRICADE:

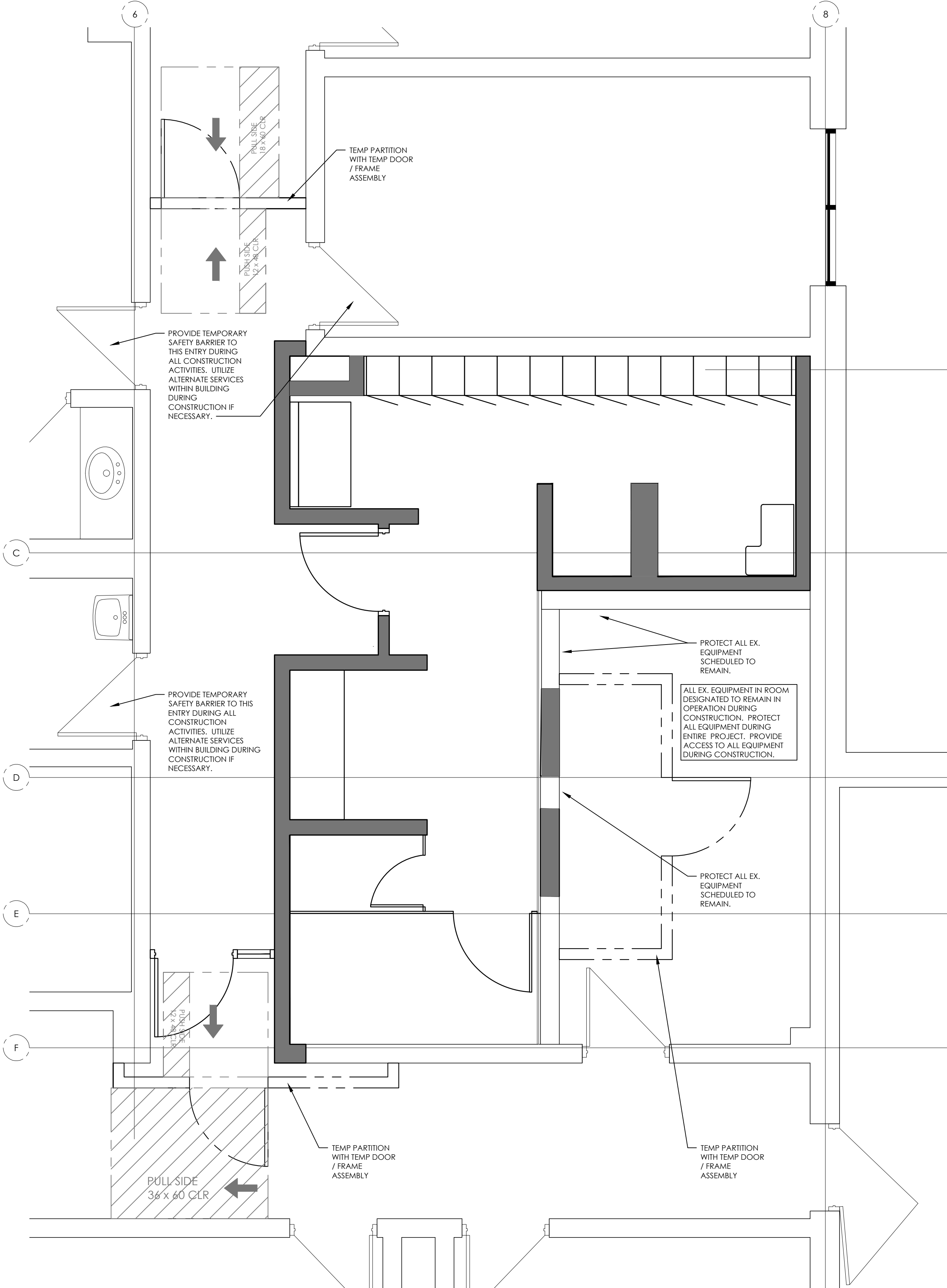
- CONTRACTOR TO LOCATE TEMPORARY BARRICADE / PROTECTION AS SHOWN. THE FINAL LOCATION OF THE PARTITION / PROTECTION MUST BE APPROVED BY THE WCAA AND AHJ PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- LOCATION MUST NOT IMPEDE OR BLOCK ANY LIFE SAFETY DEVICES CURRENTLY IN PLACE. ANY LIFE SAFETY DEVICE MUST BE RELOCATED TO PUBLIC SIDE OF WALL AS REQUIRED.
- LOCATION MUST NOT IMPEDE ANY OCCUPANT INGRESS / EGRESS TO THE GENERAL AREA FOR ACCESS TO OTHER SPACES.
- LOCATION MUST NOT IMPEDE ANY OCCUPANT EGRESS ABILITY.
- CONTRACTOR TO CONFIRM WITH AHJ / WCAA IF ADDITIONAL LIFE SAFETY DEVICES MUST BE ADDED TO THE NEWLY CREATED "VACANT" OR "WORK-SPACE" SIDE OF THE TEMPORARY WALL. DEVICES MAY INCLUDE:
 - ALARM/STROBE
 - FIRE EXTINGUISHER (MOUNTED TO NEW PARTITION/STUDS).
 - EXIT LIGHT
- DURING DEMOLITION (REMOVALS) SCOPE, IF THE USE OF A TEMPORARY BARRICADE/PARTITION WOULD NOT BE FEASIBLE, CONTRACTOR SHALL PREPARE PLAN FOR VISQUEEN / CONES FOR PROTECTION OF OCCUPANTS DURING THE REMOVALS SCOPE AS NOTED AND REQUIRED. SUBMIT TO WCAA FOR APPROVALS PRIOR TO COMMENCEMENT.
- CONSTRUCTION OF TEMPORARY BARRICADE / PROTECTION, THE FOLLOWING WILL APPLY:

4.1. NEW TEMPORARY CONSTRUCTION PARTITION LOCATION.

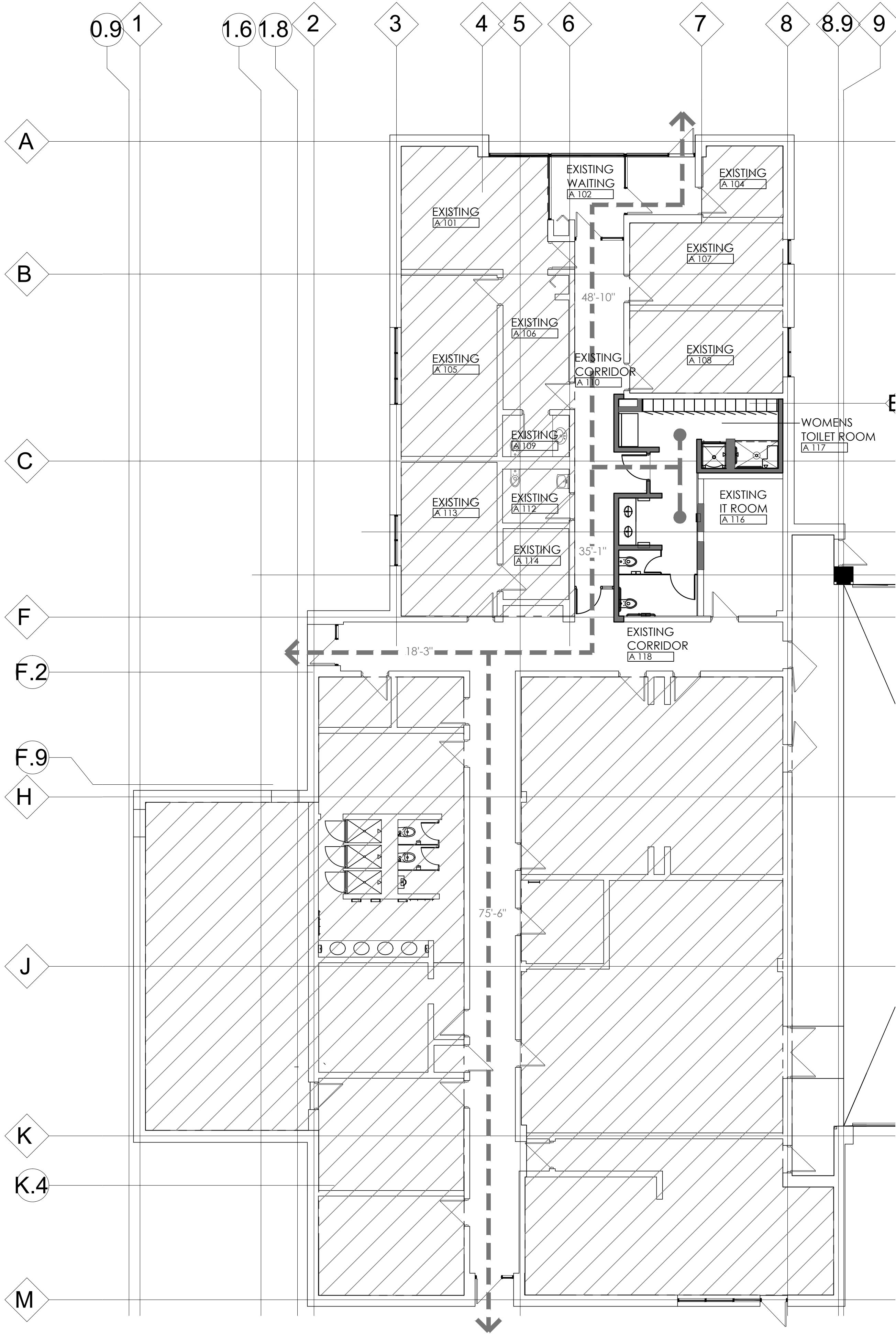
- NEW TEMPORARY CONSTRUCTION PARTITION TO BE CONSTRUCTED IN A MANNER THAT WILL NOT DAMAGE EXISTING BUILDING MATERIALS. IN THE EVENT OF DAMAGE, CONTRACTOR TO PATCH / REPAIR ANY DAMAGE TO BUILDING TO CREATE CONTIGUOUS APPEARANCE WITH EXISTING ADJACENT.
 - CONTRACTOR TO CONFIRM EXACT LOCATION OF NEW ACCESS DOOR AND KEYPAD WITH AHJ PRIOR TO INSTALLATION.
 - HATCHED AREAS SHOWN ON 1/A-110 ARE N.I.C. ALL CORRIDORS SHOWN NON HATCHED FOR CLARITY.
- TEMP. BARRICADE GENERAL NOTES:**
- ALL NEW WORK TO BE IN COMPLIANCE WITH PROJECT SPECIFICATIONS NOTED HEREIN.
 - TEMPORARY CONSTRUCTION BARRICADES SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS.
 - VISQUEEN ON METAL STUD FRAMING.
 - A DOOR WITH A METAL FRAME, INCLUDING STOPS AROUND FRAME, AND CIPHER LOCK HARDWARE SHALL BE INSTALLED TO SWING INTO THE SPACE UNDER CONSTRUCTION. DOOR AND FRAME SHALL BE PAINTED TO MATCH DRYWALL. PROVIDE CIPHER CODES TO THE WCAA INSPECTOR / AHJ PRIOR TO THE START OF CONSTRUCTION.
 - PROVIDE A TOTALLY SEALED MEMBRANE AT THE TOP OF THE PARTITION TO PREVENT THE SPREAD OF DUST (I.E. VISQUEEN) NEATLY INSTALLED.
 - PARTITIONS, FRAMING AND BRACING SHALL BE DESIGNED TO BE SELF-SUPPORTING AND SHALL REQUIRE MINIMAL ATTACHMENT TO EXISTING FINISHED SURFACES. ANY DAMAGE TO EXISTING SURFACES SHALL BE REPAIRED TO A FINISHED CONDITION

SIGNAGE GENERAL NOTES:

- REFER TO SHEET G-03 FOR SIGNAGE CONTRACTOR REQUIREMENTS.
- VERIFY ALL COPY WITH FIRE MARSHALL AND WCAA PRIOR TO FABRICATION AND INSTALLATION.
- PROVIDE (1) - NEW SIGN TO READ "WOMEN'S LOCKER ROOM".
- SIGNAGE TO BE PROVIDED BY:
LAFORCE/JESS INC.
STEVE MANACI
586-909-1268
(ACCEPTABLE EQUAL MAY BE PROPOSED)



2 TEMPORARY BARRICADE PLAN
SCALE: 3/8" = 1'-0"



1 EGRESS PLAN
SCALE: 1/8" = 1'-0"

NOTE: TEMPORARY BARRICADEING / PROTECTION IS NOT SHOWN ON THIS PLAN FOR CLARITY OF PROJECT WORK AREA EGRESS PATH.

EXIT SIGNAGE REQUIREMENTS:

MBC SECTION 1011 EXIT SIGNS

SECTION 1011.1 WHERE REQUIRED

EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL IN CASE WHERE THE EXIT OR THE PATH OF EGRESS TRAVEL IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS.

SECTION 1011.3 ILLUMINATION

EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED (EXCEPTION: TACTILE SIGNS REQUIRED BY SECTION 1011.4 NEED NOT BE PROVIDED WITH ILLUMINATION).

SECTION 1011.4 RAISED CHARACTER AND BRAILLE EXIT SIGNS (TACTILE EXIT SIGNS)

A SIGN STATING "EXIT" IN RAISED CHARACTERS AND BRAILLE, AND COMPLYING WITH ICC A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN AREA OF REFUGE, AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY, AN EXIT RAMP, AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE.

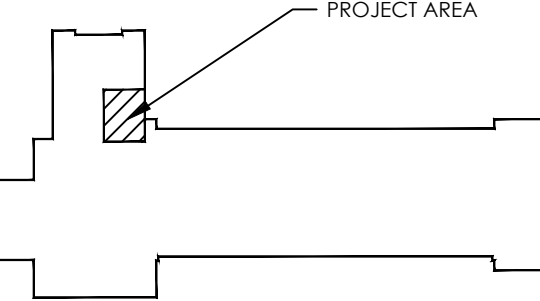
MEANS OF EGRESS / LIFE SAFETY GENERAL NOTES:

- REFER TO SHEET G-03 FOR REQUIREMENTS OF THIS PROJECT.
- ANY PENETRATIONS IN RATED COMPONENTS OR ASSEMBLIES ARE TO BE FIRE-STOPPED WITH EQUAL CODE RELATED / APPROVED PRODUCT MATERIALS. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
- ANY FIREPROOFING MATERIAL THAT IS DAMAGED OR PENETRATED DURING THE COURSE OF THE PROJECT CONSTRUCTION PROCESS MUST BE REPAIRED OR REPLACED WITH EQUAL CODE RELATED / APPROVED MATERIAL. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
- LIFE SAFETY CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING DEVICES FOR COMPLIANCE WITH FEDERAL, STATE, AND LOCAL BUILDING CODES AND REQUIREMENTS. WORK SHALL BE ENGINEERED BY LICENSED CONTRACTOR AND SUBMITTED TO A.H.J. FOR REVIEW AND APPROVALS. MODIFICATIONS REQUIRED TO CARRY OUT THE DESIGN INTENT OF THE PROJECT SCOPE OF WORK SHALL BE INCLUDED IN GENERAL CONTRACTORS PACKAGE UNLESS DIRECTED OTHERWISE.
- SCOPE INCLUDES FIRE ALARMS, STROBES, FIRE EXTINGUISHERS, ETC.
 - SPRINKLERS ARE EXISTING IN SPACE AND WILL REQUIRE RELOCATION / RE-ENGINEERING (UNDER DIRECT CONTRACT BETWEEN GENERAL CONTRACTOR AND LIFE SAFETY-SPRINKLER CONTRACTOR) BASED ON REMOVALS AND NEW WORK LAYOUTS.

EXISTING CONDITIONS:

ANY EXISTING CONDITION THAT DIFFERS FROM THAT WHICH IS INDICATED WITHIN THESE DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF WCAA BY THE CONTRACTOR(S) WHO SHALL SUBMIT A REQUEST FOR CLARIFICATION OR A CONSTRUCTION CHANGE NOTIFICATION IN ACCORDANCE WITH THE WCAA GENERAL TERMS AND CONDITIONS WITHIN THE TIMEFRAME SPECIFIED.

KEYPLAN:



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DATE	ISSUED FOR	DRN	CKD
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arconcepts, inc. @

CLIENT:



CONSULTANT:

PROJECT:

WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingel Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-916

NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857
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EGRESS PLAN / TEMP BARRICADE PLAN

SEAL:



NORTH

SHEET:

A-110

CEILING DEMOLITION GENERAL NOTES:

1. PREPARE FOR PATCHING OF ALL AREAS OF CEILING COMPONENT DEMOLITION AND EFFECTED ADJACENT AREAS WHEN SCHEDULED TO REMAIN.
2. FIRE ALARM & SECURITY HARDWARE TO BE RESPONSIBILITY OF CONTRACTOR (UNLESS STATED OTHERWISE). CONTRACTOR RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES AND REQUIREMENTS AND OBTAIN APPROVALS FROM A.H.J. (AUTHORITY HAVING JURISDICTION) FOR ALL WORK.
3. LIFE SAFETY: CONTRACTOR TO VERIFY LOCATIONS OF ALL DEVICES FOR COMPLIANCE WITH FEDERAL, STATE, AND LOCAL BUILDING CODES AND REQUIREMENTS. WORK SHALL BE ENGINEERED BY LICENSED CONTRACTOR AND SUBMITTED TO A.H.J. FOR REVIEWS AND APPROVALS. THIS SCOPE OF WORK SHALL BE INCLUDED IN GENERAL CONTRACTORS PACKAGE UNLESS DIRECTED OTHERWISE.
4. **PROJECT IS WITHIN EXISTING FACILITY.** CONTRACTOR TO COMPLY WITH REQUIREMENTS OF DUST CONTROL DURING ALL ACTIVITIES OF DEMOLITION AND NEW CONSTRUCTION. UNDER NO CONDITIONS SHALL ANY WORK BE UNPROTECTED OR ACCESSIBLE TO OCCUPANTS OF SURROUNDING PROJECT AREA. INCLUDE ALL DUST CONTROL MATERIALS AS SPECIFIED (OR AS SUBMITTED FOR APPROVAL TO OWNER) AND PROCEDURES FOR DAILY MOBILIZATION AND DE-MOBILIZATION IN PROJECT SCOPE.
5. **HVAC / ELECTRICAL SYSTEMS ARE EXISTING IN SPACE.** CONTRACTOR SHALL CONFIRM EXISTING CONDITIONS PRIOR TO COMMENCEMENT.
6. **AUTOMATIC SPRINKLERS ARE EXISTING IN SPACE.** CONTRACTOR TO VERIFY EXISTING CONDITIONS OF ALL SYSTEMS PRIOR TO COMMENCEMENT.
- 6.1. GENERAL CONTRACTOR MUST ENGAGE THE SERVICES OF APPROVED CERTIFIED COMPANY FOR ENGINEERING OF ALL SPRINKLER SYSTEM MODIFICATIONS / NEW WORK AS REQUIRED FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL / STATE / LOCAL BUILDING CODES AND REQUIREMENTS. SPRINKLER ENGINEERING / DESIGN SHALL BE PREPARED UNDER SEPARATE CONTRACT BY GENERAL CONTRACTOR. CONTRACTOR MUST OBTAIN ALL APPROVALS BY A.H.J.
7. **EXISTING LIGHT FIXTURE LOCATIONS ARE SHOWN.** CONFIRM CURRENT LOCATIONS AND OPERABILITY OF FIXTURE PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO TURN OVER ALL REMOVED AND OPERATING FIXTURES TO OWNER (IF REQUESTED) OR DISPOSE OF PROPERLY. OBTAIN APPROVAL OF SPECIFICATION BY ARCHITECT PRIOR TO PRICING. ALL LIGHTS TO BE CIRCUITED TO NEW SWITCHES PER ELECTRICAL ENGINEERING DOCUMENTS.

DEMOLITION GENERAL NOTES:

1. ANY PENETRATIONS IN RATED COMPONENTS OR ASSEMBLIES ARE TO BE FIRE-STOPPED WITH EQUAL CODE RELATED / APPROVED PRODUCT MATERIALS. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
2. ANY FIREPROOFING MATERIAL THAT IS DAMAGED OR PENETRATED DURING THE COURSE OF THE PROJECT CONSTRUCTION PROCESS MUST BE REPAIRED OR REPLACED WITH EQUAL CODE-RELATED / APPROVED MATERIAL. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
3. WHERE SHOWN DASHED, REMOVE ELEMENTS TO EXTENT SHOWN. INCLUDE ALL ASSOCIATED ITEMS WITHIN DESIGNATED REMOVAL, INCLUDING DOORS, FRAMES, HARDWARE, ELECTRICAL WIRING, DEVICES, MECHANICAL DUCTING, GRILLES, DEVICES, AND ANY OTHER ELEMENT PRESENT WITHIN THE ELEMENT SCHEDULED FOR REMOVAL. CONFIRM EXTENTS OF REMOVALS PRIOR TO COMMENCEMENT OF WORK.
- 3.1. CONFIRM CONSTRUCTION TYPE OF EACH WALL SCHEDULED FOR DEMOLITION / REMOVALS PRIOR TO COMMENCEMENT OF WORK.
4. CONTRACTOR TO COORDINATE THE WORK SCOPE / SHUTDOWN / RELOCATION WITH WCAA / TENANT PRIOR TO COMMENCEMENT OF WORK.
5. WHERE WORK INVOLVES DEMOLITION, PATCHING, OR NEW CONSTRUCTION, CONTRACTOR TO MAINTAIN CONTIGUOUS APPEARANCE THROUGHOUT ENTIRE SPACE.
6. PATCH ALL AREAS OF DEMOLITION AND WHERE PARTITIONS ARE TO REMAIN.
7. CONTRACTOR TO PREPARE ALL SURFACES FOR NEW FINISH AS DESIGNATED.
8. RELOCATE EXISTING LIFE SAFETY DEVICES TO COMPLY WITH NEW ARCHITECTURAL / ELECTRICAL / MECHANICAL LAYOUT. DEVICES MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REQUIREMENTS. DRAWINGS OF PROPOSED WORK SHALL BE PREPARED BY LICENSED CONTRACTOR ABLE TO PERFORM SUCH WORK AND APPROVALS MUST BE OBTAINED BY THE LEGAL ENTITY HAVING JURISDICTION OVER PROJECT.
9. RELOCATE EXISTING SWITCHES TO COMPLY WITH NEW ARCHITECTURAL / ELECTRICAL / MECHANICAL LAYOUT WHERE APPLICABLE.
10. REMOVE OUTLETS / DATA RECEPTACLES WHERE SHOWN ON PARTITIONS SCHEDULED FOR REMOVAL. ALL ELECTRICAL / DATA SCHEDULED FOR REMOVAL MUST BE TAKEN BACK TO ASSOCIATED PANEL (ELECTRICAL / DATA) AND PANEL UPDATED TO REPRESENT CHANGE.
11. CONTRACTOR TO REMOVE EXISTING CASEWORK WHERE SHOWN AS DASHED. CAP PLUMBING WITHIN CASEWORK IN PREPARATION OF NEW CASEWORK AND/OR PLUMBING. REFER TO A-101 FOR LOCATION OF NEW WORK.
12. CONTRACTOR TO COMPLY WITH WCAA REQUIREMENTS OF DUST CONTROL DURING ALL ACTIVITIES OF DEMOLITION AND NEW CONSTRUCTION. UNDER NO CONDITIONS SHALL ANY WORK BE UNPROTECTED OR ACCESSIBLE TO PATRONS. INCLUDE ALL DUST CONTROL MATERIALS AND PROCEDURES FOR DAILY MOBILIZATION AND DE-MOBILIZATION.
13. REMOVE ALL TOILET ACCESSORIES IN EX. TOILET ROOM DESIGNATED TO BE DEMOLISHED.
14. **CONTRACTOR TO REFER TO NEW WORK PLAN PLAN 3 / F-111 FOR EXTENTS OF FLOOR FINISH REMOVAL IN EXISTING WAITING A 102 EXISTING CORRIDOR A 110. REMOVE EX. FLOORING TO ACCOMMODATE NEW FLOOR FINISH SPECIFIED.**

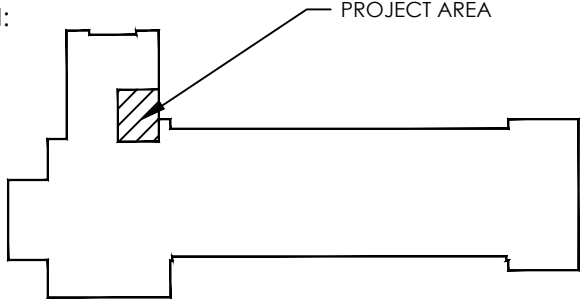
DEMOLITION GENERAL NOTES:

1. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS AND REGULATIONS INCLUDING OWNER REQUIREMENTS.
2. PRIOR TO THE COMMENCEMENT OF DEMOLITION WORK, INSPECT ALL AREAS IN WHICH WORK IS TO BE PERFORMED. THE EXISTING BUILDING INFORMATION SHOWN WAS COMPILED FROM DRAWINGS FURNISHED BY THE OWNER. THESE DRAWINGS WERE NOT "AS-BUILT" DRAWINGS & ACTUAL CONDITIONS, DIMENSIONS MAY VARY FROM WHAT WAS INDICATED. VERIFY ALL CONDITIONS/ DIMENSIONS PRIOR TO DEMOLITION. NOTIFY ARCHITECT IF A HIDDEN FIELD CONDITION IS UNCOVERED OR A DISCREPANCIES IN THE CONTRACT DOCUMENTS ARE FOUND THAT CONFLICTS WITH THE INTENDED FINAL PRODUCT & REQUIRES MODIFICATIONS TO THE LAYOUT.
3. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & THE SURROUNDING AREAS, ANY WORK WHICH INTERFERES WITH THE OWNERS OPERATION OF THE SURROUNDING AREAS AND ANY INTERRUPTION OF SERVICES INCLUDING THE SHUTDOWN OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNERS REPRESENTATIVE.
4. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ITEMS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE MISCONSTRUED AS DAMAGE RESULTING FROM DEMOLITION WORK & FILE WITH OWNERS REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACES AT NO EXPENSE TO THE OWNER.
5. PROVIDE INTERIOR AND/OR EXTERIOR SHORING, BRACING OR SUPPORT AS REQUIRED TO PREVENT MOVEMENT, SETTLEMENT, DAMAGE OR COLLAPSE OF STRUCTURE WITHIN DEMOITION CONTRACT LIMITS.
6. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNERS PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION WORK. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE DURING CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITHIN THE CONSTRUCTION AREA.
7. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR IS TO STOP WORK IMMEDIATELY AND INFORM THE OWNERS REPRESENTATIVE, CONSTRUCTION MANAGER AND THE ARCHITECTS FOR FURTHER DIRECTION.
8. ALL DEBRIS CAUSED BY DEMOLITION & CONSTRUCTION SHALL BE CLEARED AND REMOVED FROM SITE.
9. ADDITIONAL FLOOR SLAB CUT AND REMOVAL NOT INDICATED ON ARCHITECTURAL PLANS MAY BE REQUIRED FOR PLUMBING, ELECTRICAL WORK, REFER TO PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF WORK AS REQUIRED FOR COMPLETE PROJECT.
10. FLOOR SLAB CUT AND REMOVAL IS REQUIRED FOR DEMOLITION OF PLUMBING AND INSTALLATION OF NEW PLUMBING. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. AREAS OF REMOVALS SHOWN ON PLAN ARE FOR DESIGN INTENT ONLY. ADDITIONAL REMOVALS MAY BE REQUIRED BASED ON FIELD CONDITIONS.

EXISTING CONDITIONS:

ANY EXISTING CONDITION THAT DIFFERS FROM THAT WHICH IS INDICATED WITHIN THESE DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF WCAA BY THE CONTRACTOR(S) WHO SHALL SUBMIT A REQUEST FOR CLARIFICATION OR A CONSTRUCTION CHANGE NOTIFICATION IN ACCORDANCE WITH THE WCAA GENERAL TERMS AND CONDITIONS WITHIN THE TIMEFRAME SPECIFIED.

KEY PLAN:



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DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:
	

PROJECT:
**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements**
12901 Dingel Drive, #802
Detroit, MI 48242

arconcepts PROJECT #: WCA22-916

NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857
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**INTERIOR ARCHITECTURAL
DEMOLITION FLOOR /
CEILING PLANS**

SEAL:



SHEET:

AD-111

2 ARCHITECTURAL DEMOLITION CEILING PLAN
AD-111 SCALE: 3/8" = 1'-0"

1 ARCHITECTURAL DEMOLITION FLOOR PLAN
AD-111 SCALE: 3/8" = 1'-0"

NOTE: REFER TO MECHANICAL/PLUMBING SHEETS FOR ADDITIONAL FLOOR SLAB REMOVALS AS PART OF THIS WORK SCOPE.

CEILING GENERAL NOTES:

- ANY PENETRATIONS IN RATED COMPONENTS OR ASSEMBLIES ARE TO BE FIRE-STOPPED WITH EQUAL CODE RELATED / APPROVED PRODUCT MATERIALS. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA / FIRE MARSHAL REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
- ANY FIREPROOFING MATERIAL THAT IS DAMAGED OR PENETRATED DURING THE COURSE OF THE PROJECT CONSTRUCTION PROCESS MUST BE REPAIRED OR REPLACED WITH EQUAL CODE RELATED / APPROVED MATERIAL. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA / FIRE MARSHAL REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
- PATCH ALL AREAS OF CEILING COMPONENT DEMOLITION AND EFFECTED ADJACENT AREAS WHEN SCHEDULED TO REMAIN.
- CONTRACTOR TO PREPARE ALL CEILING SURFACES FOR NEW FINISH AS DESIGNATED.
- FOR PARTICULAR MOUNTING/INSTALLATION CONDITIONS OF SPECIFIED LIGHTING FIXTURES, CONTRACTOR TO REFER TO MANUFACTURERS SPECIFICATIONS AND MODEL NUMBERS.
- FIRE ALARM & SECURITY HARDWARE TO BE RESPONSIBILITY OF CONTRACTOR (UNLESS STATED OTHERWISE). CONTRACTOR RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES AND REQUIREMENTS AND OBTAIN APPROVALS FROM A.H.J. FOR ALL WORK.
- CONTRACTOR TO PROVIDE ALL NEW CIRCUITING FOR PROPOSED LIGHTING LAYOUT. PROVIDE 3-WAY / 4-WAY SWITCHING AS NECESSARY FOR ROOM CONFIGURATION.
- SWITCH SYMBOL SHALL INDICATE THE LOCATION FOR SWITCHING ALL FIXTURES WITHIN THAT ROOM UNLESS NOTED OTHERWISE BY CIRCUITING DIAGRAM ON PLAN.
1. INCLUDE MULTIPLE SWITCHES PER COVER PLATE (CUSTOM IF NECESSARY).
2. WHERE SWITCH PLATES ARE NECESSARY TO BE SEPARATED, BANK PLATES AS CLOSE AS POSSIBLE TO ONE ANOTHER AND EVENLY SPACED.
9. LIFE SAFETY CONTRACTOR TO VERIFY LOCATIONS OF ALL DEVICES FOR COMPLIANCE WITH FEDERAL, STATE, AND LOCAL BUILDING CODES AND REQUIREMENTS.
- 9.1. WORK MUST BE ENGINEERED BY LICENSED CONTRACTOR AND SUBMITTED TO A.H.J. FOR REVIEWS AND APPROVALS PRIOR TO COMMENCEMENT OF WORK.
- 9.2. THIS SCOPE OF WORK SHALL BE INCLUDED IN GENERAL CONTRACTORS OVERALL SCOPE OF WORK / PACKAGE UNLESS DIRECTED OTHERWISE.

10. **PROJECT IS WITHIN EXISTING FACILITY:** CONTRACTOR TO COMPLY WITH REQUIREMENTS OF DUST CONTROL DURING ALL ACTIVITIES OF DEMOLITION AND NEW CONSTRUCTION. UNDER NO CONDITIONS SHALL ANY WORK BE UNPROTECTED OR ACCESSIBLE TO OCCUPANTS OF SURROUNDING PROJECT AREA.
- 10.1. INCLUDE PLAN FOR DUST CONTROL MEASURES AND MATERIALS AS PART OF PRE-PROJECT SUBMITTAL PROCESS. IF SPECIFIC DESIGN IS INCLUDED IN CONTRACT DOCUMENTS, THESE MUST BE INCLUDED IN SUBMITTAL.
- 10.2. SUBMIT FOR REVIEW AND APPROVAL OF WCAA PRIOR TO COMMENCEMENT AND INCLUDE PROCEDURES FOR DAILY MOBILIZATION AND DE-MOBILIZATION FOR ENTIRE PROJECT SCOPE.
11. **ELECTRICAL SYSTEMS ARE EXISTING IN SPACE.** CONTRACTOR SHALL CONFIRM EXISTING CONDITIONS PRIOR TO PRICING AND COMMENCEMENT OF WORK. CONTRACTOR TO MODIFY/RELOCATE/ADD/DELETE AS REQUIRED IN ORDER TO COMPLY WITH ALL FEDERAL, STATE, LOCAL BUILDING CODES AND REQUIREMENTS.
- 11.1. CONTRACTOR TO COMPLY WITH THE REQUIREMENTS SET FORTH IN THE ELECTRICAL ENGINEERING DRAWINGS HEREIN.
- 11.1.1. **PARTIAL EXISTING LIGHT FIXTURE LOCATIONS ARE SHOWN.** CONFIRM CURRENT LOCATIONS AND OPERABILITY OF FIXTURE PRIOR TO COMMENCEMENT OF WORK. IF NOT EXISTING ENERGY COMPLIANT, CONTRACTOR TO REPLACE ALL EXISTING LAMPS WITH LED LAMPS AND INCLUDE DIMMING CAPABILITIES WHERE SHOWN AND/OR POSSIBLE. OBTAIN APPROVAL OF LAMP SPECIFICATION BY ENGINEER PRIOR TO PRICING.
- 11.2. **ALL LIGHTS TO BE CIRCUITED TO NEW SWITCHES AS SHOWN.**
12. **HVAC IS EXISTING IN PROJECT SPACE.** CONTRACTOR SHALL CONFIRM EXISTING CONDITIONS PRIOR TO PRICING AND COMMENCEMENT OF WORK. CONTRACTOR TO MODIFY/RELOCATE/ADD/DELETE AS REQUIRED IN ORDER TO COMPLY WITH ALL FEDERAL, STATE, LOCAL BUILDING CODES AND REQUIREMENTS.
- 12.1. CONTRACTOR TO COMPLY WITH THE REQUIREMENTS SET FORTH IN THE MECHANICAL ENGINEERING DRAWINGS HEREIN.
- 12.2. ALL HVAC WITHIN PROJECT WORK AREAS AND NEW WORK AREAS SHALL COMPLY WITH THE SPECIFIED USAGE / FUNCTION OF EACH SPACE OR ENCLOSED AREA.
- 12.3. CONTRACTOR MUST BALANCE THE ALL WORK AREAS AND ENSURE PROPER BALANCE OF ENTIRE PROJECT AREA.
- 12.3.1. SUPPLY AND RETURNS MUST BE BALANCED FOR EACH SPACE/ROOM; IF INADEQUATE GRILLS / DIFFUSERS ARE PRESENT, CONTRACTOR MUST ADD IN ORDER TO COMPLY WITH THE BALANCING REQUIREMENTS.

- 12.3.2. HVAC CONTRACTOR SHALL PROVIDE PROOF OF BALANCING VIA CERTIFIED REPORT BY CERTIFIED BALANCING ENTITY.
13. **AUTOMATIC SPRINKLERS / LIFE SAFETY (FIRE ALARM) ARE EXISTING IN SPACE.** CONTRACTOR TO MODIFY (RELOCATE/ADD/DELETE) AS REQUIRED IN ORDER TO COMPLY WITH ALL APPLICABLE FEDERAL, STATE, LOCAL BUILDING CODES AND REQUIREMENTS.
14. **AUTOMATIC SPRINKLER / LIFE SAFETY (FIRE ALARM) SCOPE OF WORK:** FULLY ENGINEERED SPRINKLER DESIGN AND ENGINEERING PACKAGE IS REQUIRED IN ORDER TO COMPLY WITH THE DESIGN INTENT OF THE PROJECT AND ALL APPLICABLE FEDERAL, STATE, LOCAL BUILDING CODES AND REQUIREMENTS.
- 14.1. SPRINKLER SYSTEM REDESIGN / EXTENSION MUST BE PREPARED UNDER DIRECT CONTRACT WITH GENERAL CONTRACTOR. SCOPE OF WORK MUST INCLUDE ALL DESIGN AND ENGINEERING NECESSARY FOR APPLICABLE PLAN REVIEWS AND PERMITS FOR A COMPLETED PROJECT. CONTRACTOR MUST OBTAIN ALL APPROVALS BY A.H.J. PRIOR TO COMMENCEMENT OF WORK.
- 14.1.1. SPRINKLER HEADS LOCATED WITHIN ANY DRYWALL CEILING OR SOFFIT APPLICATION MUST BE FLUSH-STYLE HEAD AND CENTERED WHERE POSSIBLE. HEAD COVER TO BE WHITE.
- 14.1.2. SPRINKLER HEADS LOCATED WITHIN ACOUSTICAL LAY-IN CEILINGS MUST BE CENTERED IN TILE AT EACH LOCATION WHERE POSSIBLE.
- 14.2. FIRE ALARM SYSTEM MUST BE PREPARED UNDER DIRECT CONTRACT WITH GENERAL CONTRACTOR. SCOPE OF WORK MUST INCLUDE ALL DESIGN AND ENGINEERING NECESSARY FOR APPLICABLE PLAN REVIEWS AND PERMITS FOR A COMPLETED PROJECT. CONTRACTOR MUST OBTAIN ALL APPROVALS BY A.H.J. PRIOR TO COMMENCEMENT OF WORK.

ARCHITECTURAL GENERAL NOTES:

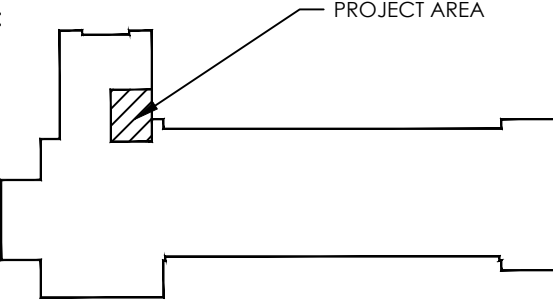
- ANY PENETRATIONS IN RATED COMPONENTS OR ASSEMBLIES ARE TO BE FIRE-STOPPED WITH EQUAL CODE RELATED / APPROVED PRODUCT MATERIALS. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
- ANY FIREPROOFING MATERIAL THAT IS DAMAGED OR PENETRATED DURING THE COURSE OF THE PROJECT CONSTRUCTION PROCESS MUST BE REPAIRED OR REPLACED WITH EQUAL CODE RELATED / APPROVED MATERIAL. **PRODUCT SUBMITTALS ARE REQUIRED FOR WCAA REVIEW AND APPROVAL PRIOR TO INSTALLATION.**
- CONTRACTOR TO PREPARE ALL SURFACES FOR NEW FINISH AS DESIGNATED.
- CONSTRUCT NEW PARTITIONS OF AS NOTED.
- PATCH ALL AREAS OF DEMOLITION AND/OR WHERE PARTITIONS ARE SCHEDULED TO REMAIN.
- GENERAL CONTRACTOR TO BE RESPONSIBLE FOR ALL FIRE ALARM & SECURITY HARDWARE IN THIS PROJECT SCOPE AS REQUIRED FOR COMPLETE PROJECT. PERFORMING CONTRACTOR IS RESPONSIBLE FOR SUBMITTING PERMIT DRAWINGS AND APPLICATIONS TO AUTHORITIES HAVING JURISDICTION AND FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES AND REQUIREMENTS.
- GENERAL CONTRACTOR CONTRACTOR RESPONSIBLE FOR PROVIDING REQUIRED FIRE EXTINGUISHERS PER FIRE MARSHAL REQUIREMENTS. SPECIFICATION OF CABINETS TO BE APPROVED BY ARCHITECT DURING PRICING PHASE. FINAL LOCATION OF ALL EXTINGUISHERS AND/OR CABINETS MUST BE APPROVED BY ARCHITECT AND AHJ PRIOR TO INSTALLATION.
- ANY DAMAGE TO THE EXISTING BUILDING/PROJECT SPACE CAUSED BY THE CONTRACTOR(S) FOR THIS SCOPE OF WORK SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF ENTITY HAVING CAUSED SUCH DAMAGE.
- PROVIDE SOLID NON-COMB WOOD BLOCKING OR METAL BACKING FOR ALL WALL MOUNTED EQUIPMENT, TOILET ACCESSORIES, AND ANY OTHER WALL MOUNTED / SUPPORTED ELEMENT. REFER TO SHEET A-513 FOR ADDITIONAL INFORMATION.
- CONTRACTOR TO PROVIDE, AS PART OF THIS SCOPE OF WORK, ALL ACCESS PANELS FOR ALL MEP ITEMS REQUIRING MAINTENANCE OR

- ACCESS. CONFIRM LOCATION AND PANEL SIZE, APPEARANCE WITH ARCHITECT / ENGINEER / WCAA PRIOR TO START OF NEW WORK.
- PROVIDE CONTINUOUS VERTICAL CORNER BEAD AT ALL GYP BOARD TO CMU PARTITION TRANSITIONS. PROVIDE A SOFT JOINT WITH SEALANT PAINTED TO MATCH WALL AND BACKER ROD AT TRANSITION (TYP.) TOOTH IN CMU WITH SINGLE CORNER UNITS (TYP.) REFER TO DETAIL 1/A-513.
- PATCH FLOOR AT ALL AREAS OF CMU PARTITION REMOVALS TO CREATE CONTIGUOUS FINISH WITH EX. ADJACENT FLOOR SLAB.
- PATCH CMU PARTITIONS AT AREA OF PERPENDICULAR CMU REMOVALS TO CREATE CONTIGUOUS APPEARANCE WITH EX. ADJACENT. REMOVE DAMAGED CMU AND TOOTH IN WITH NEW CMU.
- PATCH WALLS AT ALL AREAS OF REMOVALS TO CREATE CONTIGUOUS APPEARANCE WITH EXISTING ADJACENT. (TYP.)
- REFER TO F-101 FOR FLOOR FINISH PATTERN / FLOOR FINISH SPECIFIED.
- DIMENSIONS THIS SHEET FROM FACE OF WALL FINISH MATERIAL SPECIFIED (UNO).
- PROVIDE AND INSTALL NEW ROOF CURB WITH STRUCTURAL STEEL AS PART OF MECHANICAL SCOPE AS REQUIRED. CONTRACTOR TO VERIFY EX. CONDITIONS PRIOR TO START OF WORK. REFER TO DETAILS SHEET A-513 FOR ADDITIONAL INFORMATION.
- ALL ROOF WORK TO BE PERFORMED BY ROOF CONTRACTOR IN COMPLIANCE WITH EX. ROOF WARRANTY. REFER TO A-513 FOR ADDITIONAL ROOF PENETRATION DETAILS.
- UPDATE OF EX. CFMF (COLD FORM METAL FRAMING) STRUCTURAL SUPPORT AT STOREFRONT SYSTEM RECONFIGURATION TO BE PERFORMED AS D-B BY THE CONTRACTOR. CONTRACTOR RESPONSIBLE TO VERIFY CONDITIONS AND MODIFY AS REQUIRED TO PROVIDE A COMPLETE INSTALLATION. REFER TO A-513 FOR SIM. DETAIL.
- FINAL DIMENSIONS AT FRAMING LAYOUT FOR ADA SHOWER UNITS MAY NEED TO BE MODIFIED BASED ON FINAL SHOWER UNITS) SELECTED. CONTRACTOR RESPONSIBLE TO CONFIRM FRAMING / BLOCKING REQUIREMENTS WITH MANUFACTURER PRIOR TO START OF WORK.
- CONFIRM LAYOUT WITH WCAA / ARCHITECT PRIOR TO INSTALLATION.
- REFER TO A-552 FOR ARCHITECTURAL DOOR / FRAME / HARDWARE GENERAL NOTES. (TYP. FOR THIS SHEET)

EXISTING CONDITIONS:

ANY EXISTING CONDITION THAT DIFFERS FROM THAT WHICH IS INDICATED WITHIN THESE DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF WCAA BY THE CONTRACTOR(S) WHO SHALL SUBMIT A REQUEST FOR CLARIFICATION OR A CONSTRUCTION CHANGE NOTIFICATION IN ACCORDANCE WITH THE WCAA GENERAL TERMS AND CONDITIONS WITHIN THE TIMEFRAME SPECIFIED.

KEYPLAN:



SECURITY SENSITIVE INFORMATION:

WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT THE NEED TO KNOW, AS DERIVED IN 49 CFR PARTS 15 AND 1520. EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OR THE TRANSPORTATION SECURITY ADMINISTRATION OR SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520.

DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	VTD	SAG
2022 10-05	ISSUE FOR BIDS (IFB)	VTD	SAG
2022 09-19	OWNER REVIEW	VTD	SAG

DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:

PROJECT:
**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements**
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT #: WCA22-916

NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857
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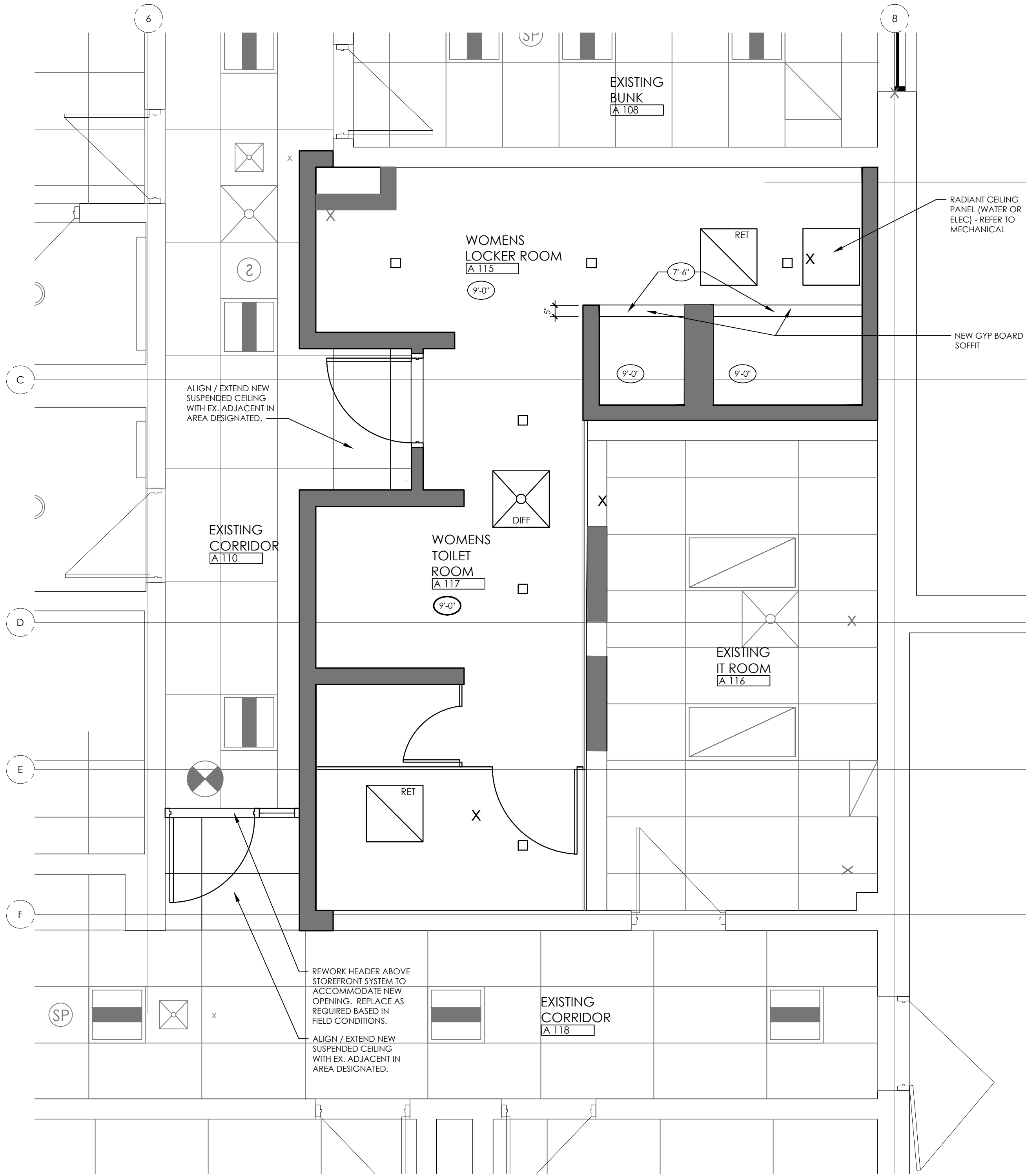
**INTERIOR ARCHITECTURAL
FLOOR / CEILING PLANS**

SEAL:

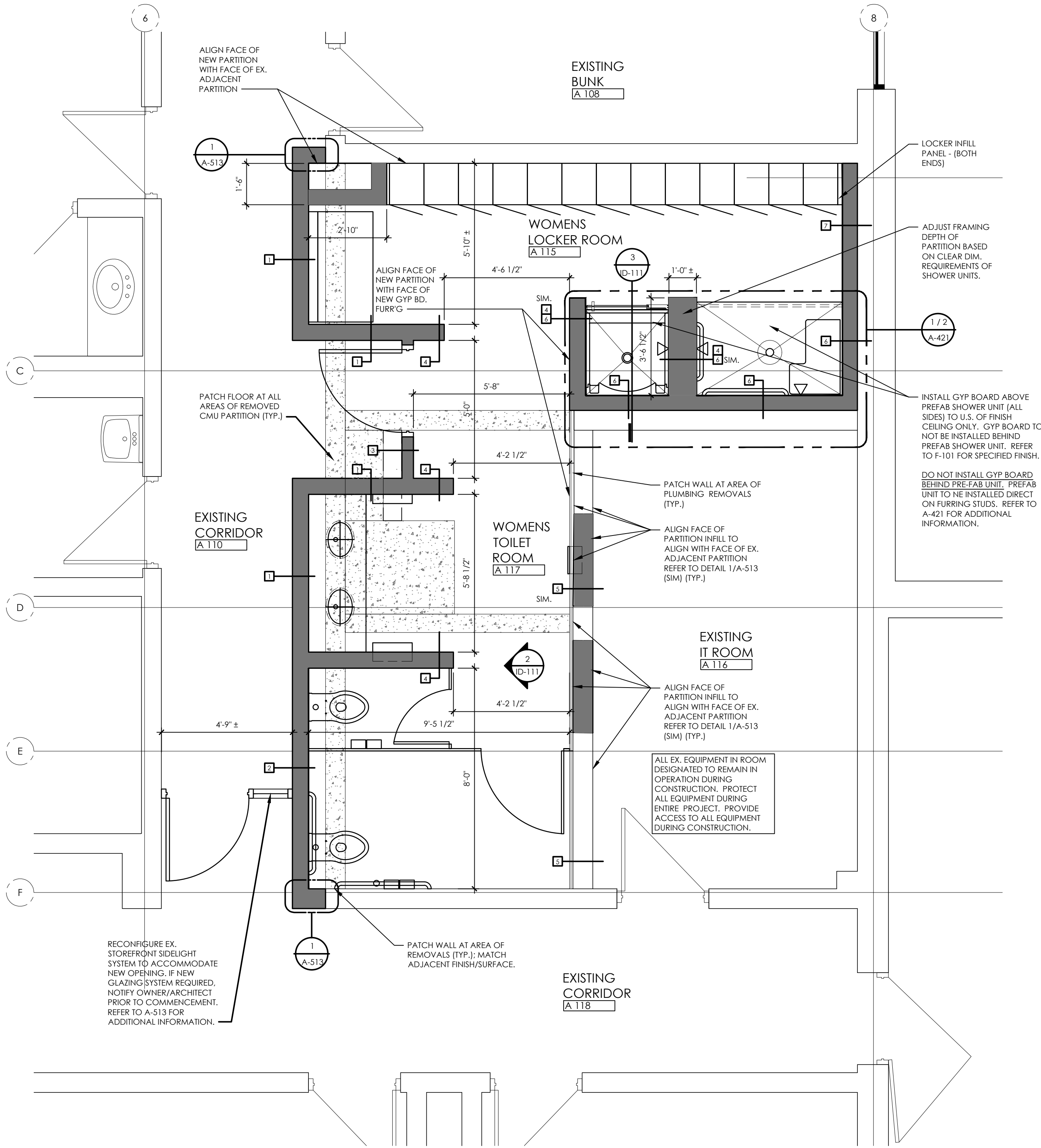


SHEET:

A-111



2
A-111
INTERIOR ARCHITECTURAL CEILING PLAN
SCALE: 3/8" = 1'-0"



1
A-111
INTERIOR ARCHITECTURAL FLOOR PLAN
SCALE: 3/8" = 1'-0"

Chapter 6. Plumbing Elements and Facilities

608.3.2 Standard Roll-in-Type Showers. In standard roll-in-type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

With Seat
FIG. 608.3.2
GRAB BARS IN STANDARD ROLL-IN-TYPE SHOWERS

608.4 Controls and Hand Showers. Controls and hand showers shall comply with Sections 608.4 and 309.4.

608.4.2 Standard Roll-in Showers. In standard roll-in showers, the controls and hand shower shall be located on the back wall above the grab bar, 48 inches (1220 mm) maximum above the shower floor and 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the end wall behind the seat.

With Seat
FIG. 608.4.2
STANDARD ROLL-IN-TYPE SHOWER CONTROL AND HANDSHOWER LOCATION

608.5 Hand Showers. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature. Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

608.6 Thresholds. Thresholds in roll-in-type shower compartments shall be 1/2 inch (13 mm) maximum in height in accordance with Section 303. In transfer-type shower compartments, thresholds 1/2 inch (13 mm) maximum in height shall be beveled, rounded, or vertical.

EXCEPTION: In existing facilities, in transfer-type shower compartments where provision of a threshold 1/2 inch (13 mm) in height would disturb the structural reinforcement of the floor slab, a threshold 2 inches (51 mm) maximum in height shall be permitted.

608.2.2 Standard Roll-in-type Shower Compartments. Standard roll-in-type shower compartments shall comply with Section 608.2.2.

608.2.2.1 Size. Standard roll-in-type shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 60 inches (1525 mm) minimum in width shall be provided.

608.2.2.2 Clearance. A clearance of 60 inches (1525 mm) minimum in length adjacent to the 60-inch (1525 mm) width of the open face of the shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

608.2.2.3 Seat. A folding seat complying with Section 610 shall be provided on an end wall.

608.3 Grab Bars. Grab bars shall comply with Section 609 and shall be provided in accordance with Section 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor.

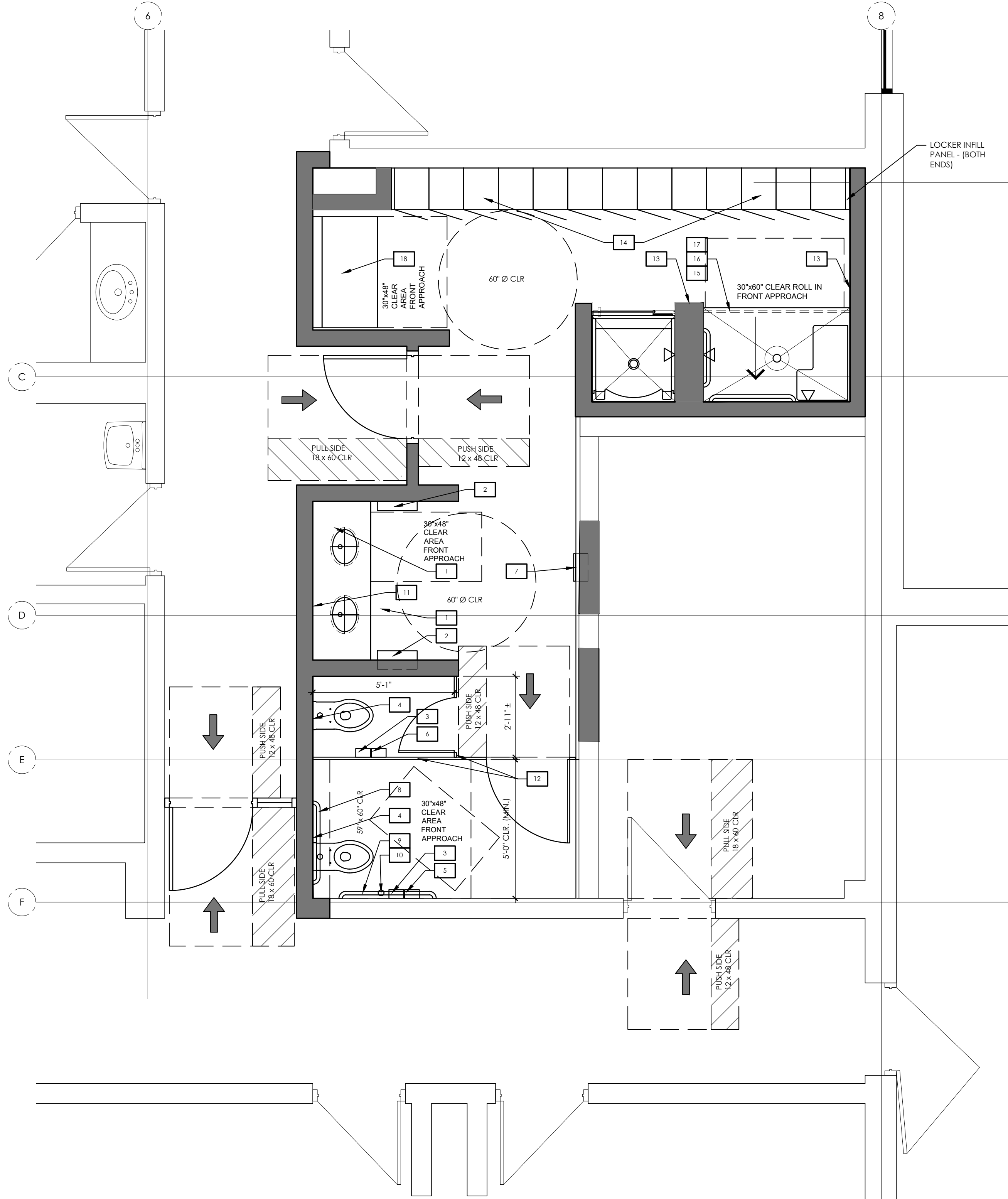
Note: inside finished dimensions measured at the center points of opposing sides

FIG. 608.2.2
STANDARD ROLL-IN-TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

608.3.1.1 Horizontal Grab Bars. Horizontal grab bars shall be provided across the control wall and on the back wall to a point 18 inches (455 mm) from the control wall.

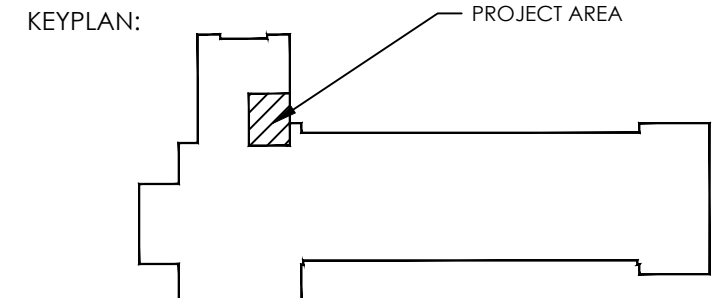
608.3.1.2 Vertical Grab Bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the control end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

KEY	NAME	MANUF.	MODEL #	FINISH / COLOR
1	SOAP DISPENSER (DECK MOUNTED) INDIVIDUAL TANK CAPACITY	BRADLEY	VERGE DECK-MOUNTED SOAP DISPENSER - METROSERIES #6-3300	BRUSHED NICKLE
2	AUTOMATIC PAPER TOWEL DISPENSER DISPOSAL (RECESSED)	GEORGIA PACIFIC	ENMOTION 8" RECESSED AUTOMATED TOUCHLESS ROLL PAPER TOWEL DISPENSER #59466A HIGH CAPACITY TRASH RECEPTACLE FOR ENMOTION RECESSED AUTOMATED TOWEL DISPENSER #59491 HARDWIRED CONNECTION 24V AC CONVERSION KIT (AC TRANSFORMER NOT INCLUDED) #59477 A	STAINLESS STEEL
3	MULTI-ROLL TOILET TISSUE DISP. (SURFACE MOUNTED) - REFER TO PLANS FOR WALL MOUNTED / PARTITION MOUNTED LOCATIONS	BOBRICK	CONTURA SERIES #B-4288	SATIN ST/ STEEL
4	SEAT-COVER DISPENSER (RECESSED)	BRADLEY	RECESSED BRADEX #584	SATIN ST/ STEEL
5	SANITARY NAPKIN DISPOSAL (RECESSED)	BRADLEY	RECESSED BRADEX #A400	SATIN ST/ STEEL
6	SANITARY NAPKIN DISPOSAL (PARTITION MOUNTED)	BRADLEY	PARTITION-MOUNTED #A411	SATIN ST/ STEEL
7	SANITARY NAPKIN DISPENSER (RECESSED) VERIFY FRAMING / WALL DEPTH IN FIELD PRIOR TO PURCHASE WILL ACCOMMODATE RECESSED OPTION.	BRADLEY	SEMI-RECESSED - FREE #4017-40	STAINLESS STEEL
8	GRAB BAR 36" (CONCEALED MOUNTING)	BOBRICK	#B-5806 X 36 HORIZONTAL	SATIN ST/ STEEL
9	GRAB BAR 42" (CONCEALED MOUNTING)	BOBRICK	#B-5806 X 42 HORIZONTAL	SATIN ST/ STEEL
10	GRAB BAR 18" (CONCEALED MOUNTING)	BOBRICK	#B-5806 X 18 VERTICAL	SATIN ST/ STEEL
11	FRAMED MIRROR - (3/4" X 3/4") ANGLE-FRAME, TYPE 304 STAINLESS STEEL ANGLE WITH SATIN FINISH, BEVELED FRAME EDGE AT MIRROR, NO. 1 QUALITY, (1/4") GLASS MIRROR; GALVANIZED STEEL BACK, SECURED TO CONCEALED WALL HANGER.	---	REFER TO PLANS / ELEVATIONS FOR ADDITIONAL INFORMATION.	#304 ST/ STEEL
12	TOILET PARTITIONS POWDER COATED METAL (FLOOR MOUNTED/OVERHEAD BRACED)	METPAR	STANDARD OVERHEAD BRACED NO PEEK DOORS; ALUMINUM PRIVACY STRIPS AT WALL TO PARTITION CONDITIONS; INCLUDE BUMPER DOOR STOPS AND OCCUPIED/OPEN LATCH MECHANISM.	POWDER COATED METPAR EXPRESS GREY DAWN #700
13	SINGLE HOOK (SURFACE MOUNTED)	BRADLEY	#9134 BRADEX	ST/STEEL
14	BLACK CORE PHENOLIC LOCKERS	ASI STORAGE SOLUTIONS TRADITIONAL SERIES	15" W X 18" D X 72" H - SINGLE TIER / FINISHED END PANELS / BASE KIT / CONTINUOUS SLOPING HOOD. LOCK TYPES FOR PRICING: BASIS OF DESIGN: LATCH WITH HASP TO ACCEPT STANDARD PADLOCK. PROVIDE ALL REQUIRED ELEMENTS FOR A COMPLETE INSTALLATION INCLUDING CORNER UNITS, BRACING, BLOCKING IN WALL END PANELS.	STANDARD COLOR DOVE GRAY #3010
15	CONCEALED MOUNTING STAINLESS STEEL SHOWER CURTAIN ROD: 1" O.D.	BRADLEY	#9538 - 1" O.D. REFER TO PLAN - FOR SHOWER DIMENSIONS	SATIN ST/ STEEL
16	ANTIMICROBIAL VINYL SHOWER CURTAIN	BRADLEY	#9533 REFER TO PLAN - FOR SHOWER DIMENSIONS	WHITE
17	SHOWER CURTAIN HOOK	BRADLEY	#9540 - SHOWER CURTAIN HOOK WITH ROLLERS REFER TO PLAN - FOR SHOWER DIMENSIONS	SATIN ST/ STEEL
18	ADA BENCH UNIT W/ SEAT BACK	WB MANUFACTURING	2'-0"D x 4'-0" W # 18S-ADA2448SS ADA KIT WITH BACK (BACK AND PEDESTAL WELDED TO FRAME)	WOOD ST. STEEL FRAME
19				



- PLUMBING / PLACEMENTS / FIXTURE GENERAL NOTES:**
- REFER TO PLUMBING ENGINEERING DRAWINGS FOR PLUMBING FIXTURE SCHEDULE.
 - REFER TO PLUMBING ENGINEERING DRAWINGS FOR PLUMBING REQUIREMENTS.
 - ALL PLUMBING FIXTURES TO BE HARD WIRED. REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.
 - ALL FIXTURES SPECIFIED MUST BE VERIFIED FOR COMPLIANCE WITH THE DESIGN INTENT OF THE DRAWING AND THE APPLICATION FOR WHICH IT IS SPECIFIED.
 - CONTRACTOR MUST NOTIFY ARCHITECT DURING THE PRICING PHASE IF DISCREPANCIES IN THE SPECIFICATIONS CONTAINED HEREIN ARE LACKING REQUIRED CONTENT OR IF THE APPLICATION OF USAGE SPECIFIED DOES NOT MEET WITH THE SITE OR OVERALL PROJECT CONDITIONS.
 - ACCESSORIES SPECIFIED IN SCHEDULE ARE NOTED TO BE PROVIDED OR "AS EQUAL". IF ALTERNATES SUBMITTED FOR WCA REVIEW, CONTRACTOR TO PROVIDE EVIDENCE OF EQUAL OR BETTER PERFORMANCE, PRICING, AND LEAD TIME AT TIME OF SUBMITTAL REVIEW.
- MILLWORK AND BLOCKING GENERAL NOTES:**
- REFER TO SHEET ID SHEETS FOR MILLWORK RELATED NOTES.
- FIXTURE NOTES:**
- REFER TO TYPICAL MOUNTING HEIGHT DETAILS REGARDING ADA / BFD ACCESSIBILITY AND PRODUCT SPECIFICATIONS.
 - CONTRACTOR RESPONSIBLE FOR PROVIDING ALL FITTINGS, ACCESSORIES, ETC. FOR ANY ITEM SPECIFIED BY ARCHITECT. CONTRACTOR TO SUPPLY CUT SHEETS FOR ALL ACCESSORIES TO ARCHITECT / ENGINEER AS PART OF SUBMITTAL PROCESS.
- ACCESSORIES GENERAL NOTES:**
- LOCKERS SPECIFIED BASED ON PRODUCT FROM R. E. LEGGETTE COMPANY.
 - CONTRACTOR / SUPPLIER RESPONSIBLE FOR PROVIDING ALL TRIM, ACCESSORIES, POWER CONNECTIONS, ETC. FOR ANY ITEM SPECIFIED BY ARCHITECT FOR A COMPLETE INSTALL OPERATION. CONTRACTOR TO SUPPLY CUT SHEETS FOR ALL ACCESSORIES TO WCAA AS PART OF SUBMITTAL PROCESS.
 - ALL POWERED ACCESSORIES TO BE HARD WIRED. (TYP.) REFER TO ELECTRICAL ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.

EXISTING CONDITIONS:
ANY EXISTING CONDITION THAT DIFFERS FROM THAT WHICH IS INDICATED WITHIN THESE DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF WCAA BY THE CONTRACTOR(S) WHO SHALL SUBMIT A REQUEST FOR CLARIFICATION OR A CONSTRUCTION CHANGE NOTIFICATION IN ACCORDANCE WITH THE WCAA GENERAL TERMS AND CONDITIONS WITHIN THE TIMEFRAME SPECIFIED.



SECURITY SENSITIVE INFORMATION:
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2022 10-05	ISSUE FOR BIDS (IFB)	VTD	SAG
2022 09-19	OWNER REVIEW	VTD	SAG
DATE	ISSUED FOR	DRN	CKD

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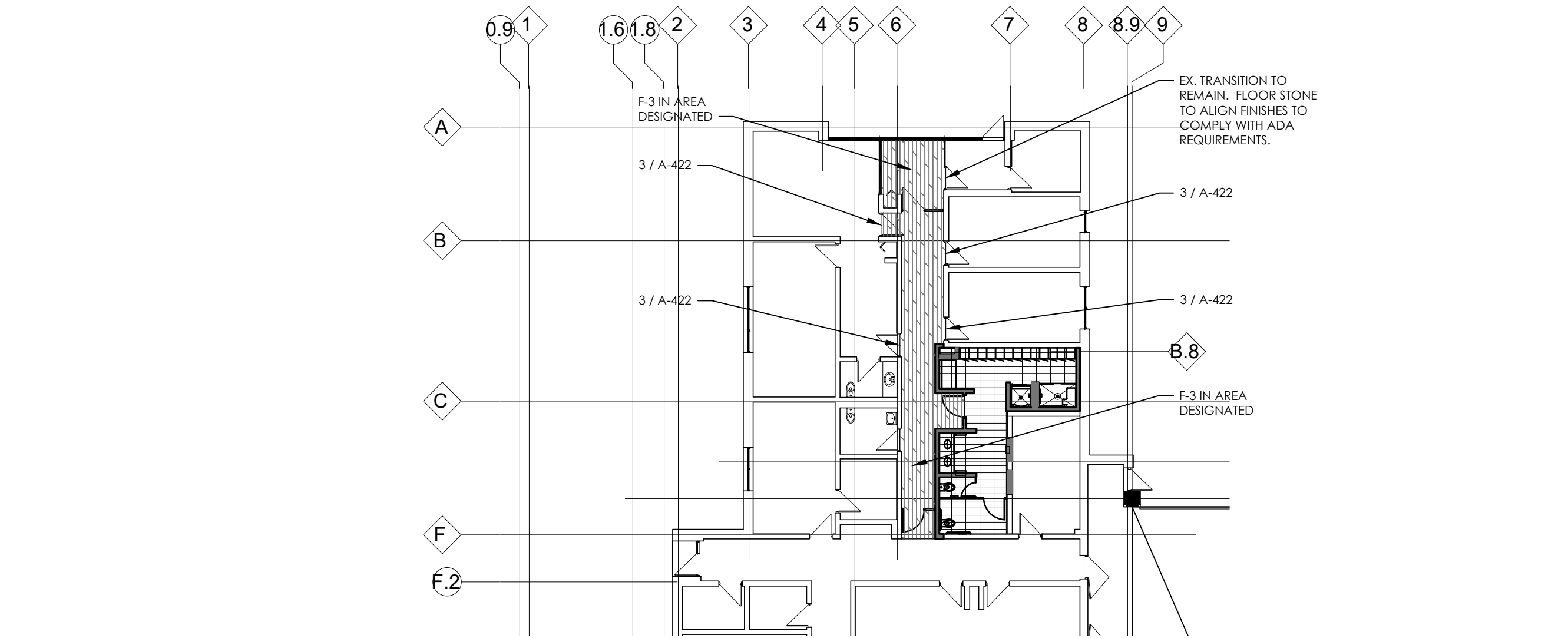
CLIENT:	CONSULTANT:

PROJECT:
**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements**
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-916	CLIENT REFERENCE #: 5857
NOT ISSUED FOR CONSTRUCTION	

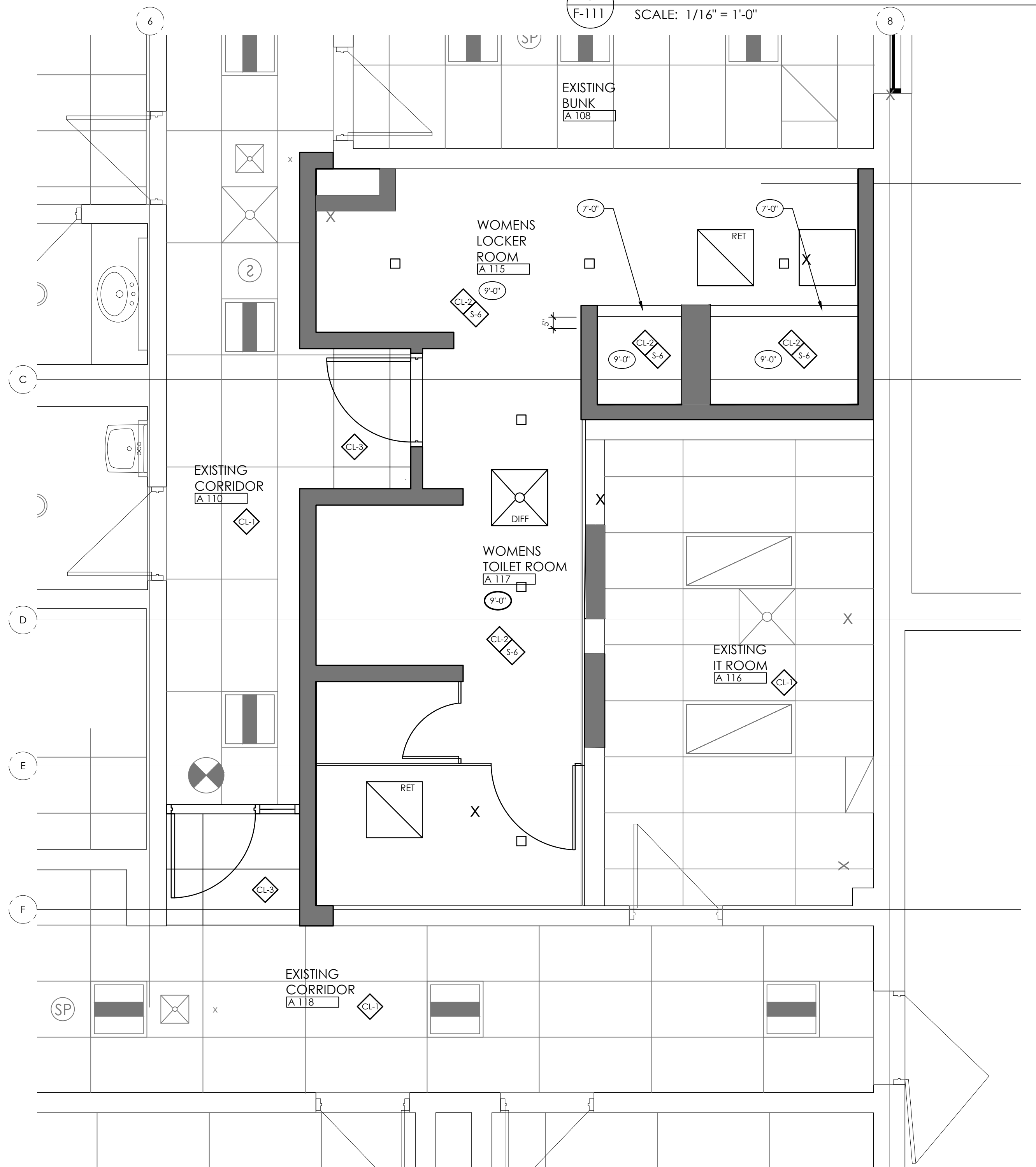
ENLARGED PLAN - ARCHITECTURAL
DIMENSIONS AND ACCESSORY /
EQUIPMENT PLACEMENT

SEAL:	
	NORTH
SHEET:	A-411

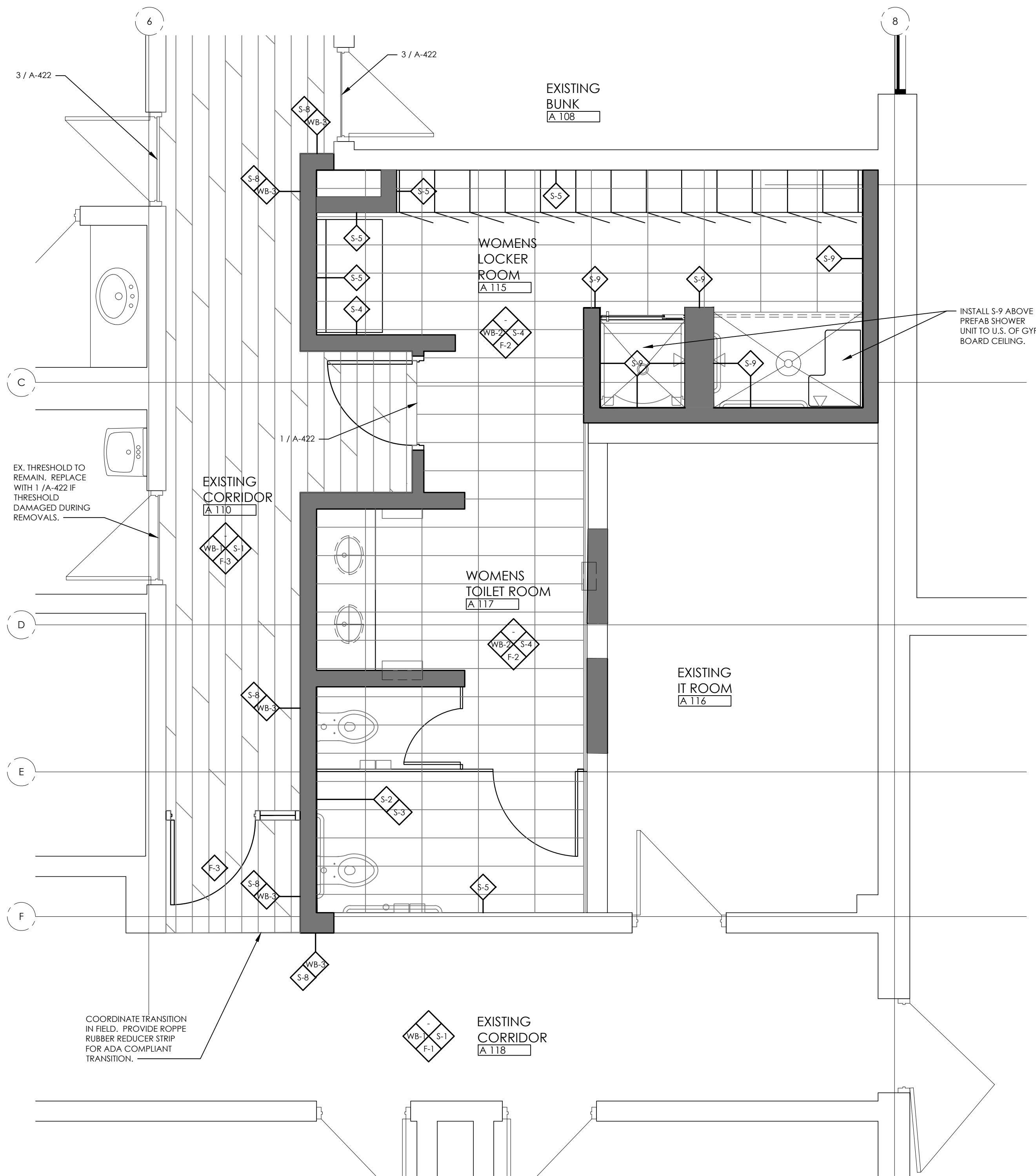


EX. WAITING A102 / EX. CORRIDOR
A110 FLOOR FINISH PLAN

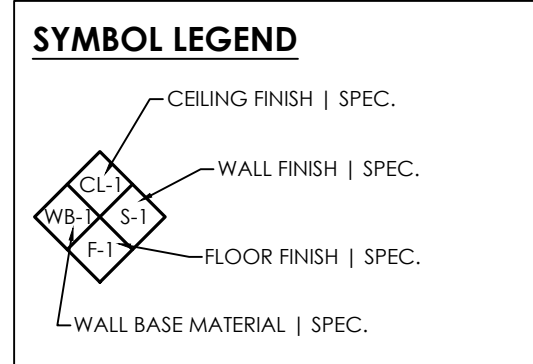
3
F-111
SCALE: 1/16" = 1'-0"



2
F-111
INTERIOR FINISH CEILING PLAN
SCALE: 3/8" = 1'-0"



1
F-111
INTERIOR FINISH FLOOR PLAN
SCALE: 3/8" = 1'-0"



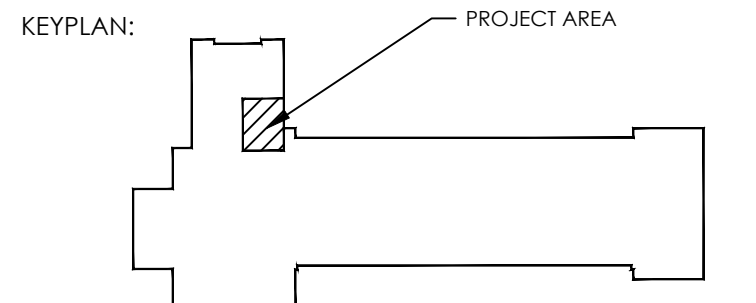
- NOTES:**
- REFER TO FINISH PLANS | SCHEDULES FOR ALL FINISH AND MATERIAL SPECIFICATIONS
 - REFER TO ELEVATIONS | DETAILS FOR ADDITIONAL FINISH INFORMATION.

- PROJECT FINISH NOTES**
- REFER TO A-612 FOR ADDITIONAL FINISH GENERAL NOTES.
 - CONTRACTOR RESPONSIBLE FOR ANY SIGNAGE / LABEL REMOVAL PRIOR TO PAINTING COMMENCEMENT. OWNER WILL REPLACE ANY SIGNAGE AFTER COMPLETION OF PROJECT.
 - PROTECT ANY EXISTING BUILDING SIGNAGE THAT REMAINS (TAPE-OFF) PRIOR TO COMMENCEMENT OF WORK. PROTECTION SHALL BE APPLIED PROPERLY TO AVOID OVER-SPRAY DURING PAINTING PROCESS.
 - PROTECT ALL ELEMENTS NOT SCHEDULED FOR REPAIRS / REFINISHING / PAINTING. PROTECTION SHALL BE APPLIED PROPERLY TO AVOID OVER-SPRAY DURING PAINTING PROCESS.
 - CONTRACTOR TO PREPARE ALL NEW AND AFFECTED SURFACES FOR NEW FINISH AS DESIGNATED IN FINISH SCHEDULE, PLANS, OR ELEVATIONS. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION OF PROPER METHOD OF CLEANING AND PREP TO ACHIEVE DESIRED END FINISH ON EACH MATERIAL.
 - ANY DAMAGE TO THE EXISTING BUILDING CAUSED BY THE CONTRACTOR(S) FOR THIS SCOPE OF WORK SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF SAME.
 - TO THE MAXIMUM EXTENT POSSIBLE, CONTRACTOR TO MAINTAIN CONTIGUOUS APPEARANCE THROUGHOUT ENTIRE SURFACE BEING TREATED.
 - PROJECT FINISH NOTES CONTAINED HEREIN SHALL BE REFERENCED FOR ALL DRAWINGS IN THIS PROJECT.
 - ALL HOLLOW METAL DOORS / FRAMES TO BE CLEANED PREPPED FOR NEW FINISH ON ALL INSIDE AND OUTSIDE SURFACES. SAME SHALL BE PRIMED AND PAINTED PER MANUFACTURER'S RECOMMENDATIONS PRIOR TO APPLYING NEW PRIME AND PAINT FINISH. SUBMIT COPIES OF ALL MANUFACTURERS RECOMMENDED PREPARATION TO OWNER / ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
 - REFER TO A-422 FOR FLOOR TRANSITION AND WALL BASE DETAILS.
 - CLEAN / PATCH / REPAIR IN EXISTING CORRIDOR A118 AT AREAS OF DAMAGED FLOOR FINISH. (TYP.)
 - F-3 PATTERN SHOWN FOR GRAPHICAL PURPOSES ONLY. CONFIRM LAYOUT IN FIELD WITH WCAA PRIOR TO INSTALLATION.

- FIXTURE NOTES**
- ALL FIXTURE SPECIFICATIONS MUST MEET THE REQUIREMENTS OF WCAA GUIDELINES AND REQUIREMENTS.
 - REFER TO TYPICAL MOUNTING HEIGHT DETAILS REGARDING ADA/BFD ACCESSIBILITY AND PRODUCT SPECIFICATIONS ON SHEET A-421.

EXISTING CONDITIONS:

ANY EXISTING CONDITION THAT DIFFERS FROM THAT WHICH IS INDICATED WITHIN THESE DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF WCAA BY THE CONTRACTOR(S) WHO SHALL SUBMIT A REQUEST FOR CLARIFICATION OR A CONSTRUCTION CHANGE NOTIFICATION IN ACCORDANCE WITH THE WCAA GENERAL TERMS AND CONDITIONS WITHIN THE TIMEFRAME SPECIFIED.



SECURITY SENSITIVE INFORMATION:

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DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

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Ph: 734.591.1090 arconceptsarchitects.com

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CLIENT:	CONSULTANT:
	


PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingel Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-916

NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: S857
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INTERIOR FLOOR / CEILING
FINISH PLANS

SEAL:



NORTH

SHEET:

F-111

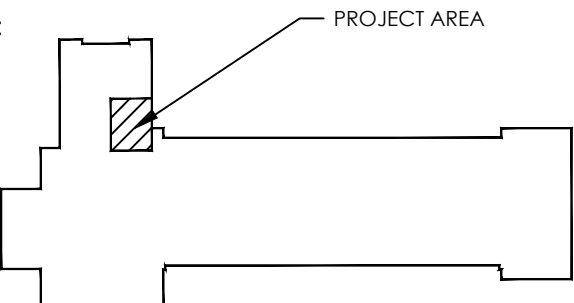
MILLWORK GENERAL NOTES

1. IN-WALL BLOCKING:
 - 1.1. PROVIDE CONTINUOUS NON-COMB | METAL BLOCKING FOR TOILET ROOM ACCESSORIES, GRAB BARS, AND COUNTERS AT LOCATIONS DESIGNATED. BLOCKING TO EXTEND ENTIRE WIDTH OF WALL WHERE SHOWN CONFINED; BLOCKING TO BE CENTERED WHERE SHOWN ON WALL SURFACE.
 - 1.2. PROVIDE CONTINUOUS NON-COMB | STEEL SUPPORT FOR LAV COUNTER. BLOCKING TO EXTEND ENTIRE WIDTH OF COUNTER WHERE SHOWN CONFINED.
 - 1.3. AT LAVATORY MILLWORK LOCATIONS, PROVIDE IN-WALL BLOCKING AT BACK AND SIDE WALL OF COUNTER IN EACH TOILET ROOM. BLOCKING TO BRACE NEW SIDE PANEL TO SUPPORT LAV FOR AT LEAST 300 POUNDS.
2. SOLID SURFACE COUNTER STRUCTURAL SUPPORT IS DESIGNED AS DESIGN-BUILD AND IS THE RESPONSIBILITY OF THE MILLWORK FABRICATOR. CONTRACTOR RESPONSIBLE TO DESIGN STRUCTURAL SUPPORT TO COMPLY WITH ALL REQUIRED ADA / BF CLEAR REQUIREMENTS.
3. CONTRACTOR TO PROVIDE SEALANT AT ALL SEAMS, JUNCTURES, AND AREAS NOT EASILY ACCESSIBLE FOR CLEANING. SEALANT TO BE PAINTED TO MATCH ADJACENT SURFACES OR TRANSLUCENT IF SPECIFIED AS SUCH. CONTRACTOR TO RECEIVE ARCHITECT'S APPROVAL FOR FINISH AND COLOR PRIOR TO INSTALLATION.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SAMPLES FOR REVIEW AND APPROVAL OF WCAA | ARCHITECT PRIOR TO FABRICATION. CONTRACTOR TO FIELD VERIFY SITE CONDITIONS PRIOR TO SUBMISSION OF SHOP DRAWINGS AND COMMENCEMENT OF FABRICATION.
5. CONTRACTOR TO FILED TEMPLATE ALL COUNTERS PRIOR TO START OF NEW WORK.
6. PROVIDE MDO SUBSTRATE AT LOCATION OF LAMINATE FACED MILLWORK AND SOLID SURFACE COUNTERTOPS AS PART OF THIS CONTRACT. INCLUDE TEMPLATING AS REQUIRED FOR COMPLETE INSTALLATION.
7. CONTRACTOR TO PROVIDE SOLID SURFACE COUNTER TOP; PROVIDE MATCHING 4" BACKSPLASH.
8. CONTRACTOR TO SCRIBE ALL MILLWORK AND COUNTERS FOR EXACT FIT PRIOR TO FABRICATION | ASSEMBLY.
9. NO PARTICLE BOARD SHALL BE ALLOWED AS A SUBSTRATE FOR MILLWORK. MDO OR EQUAL SHALL BE USED.
10. INTERIOR OF ALL MILLWORK TO BE WHITE PLASTIC LAMINATE UNLESS NOTED OTHERWISE ON SPECIFIC DETAILS.

EXISTING CONDITIONS:

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KEY PLAN:



SECURITY SENSITIVE INFORMATION:

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Ph: 734.591.1090 arconceptsarchitects.com

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CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: S857
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INTERIOR ELEVATIONS /
MILLWORK DETAILS

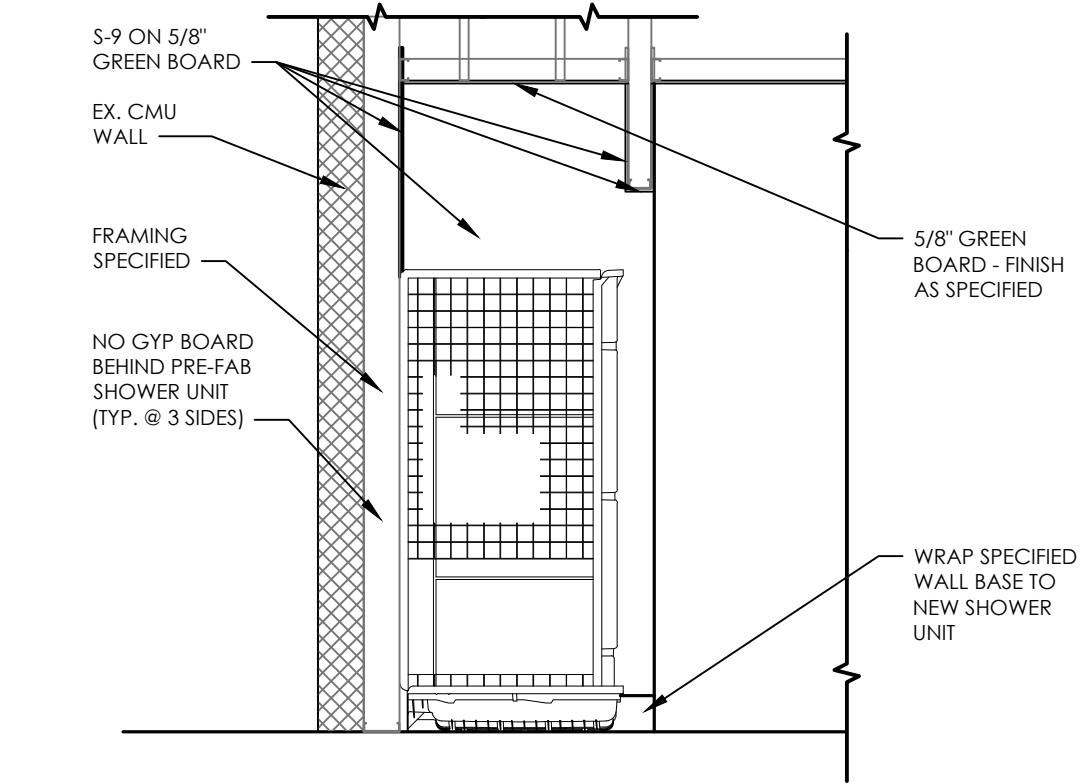
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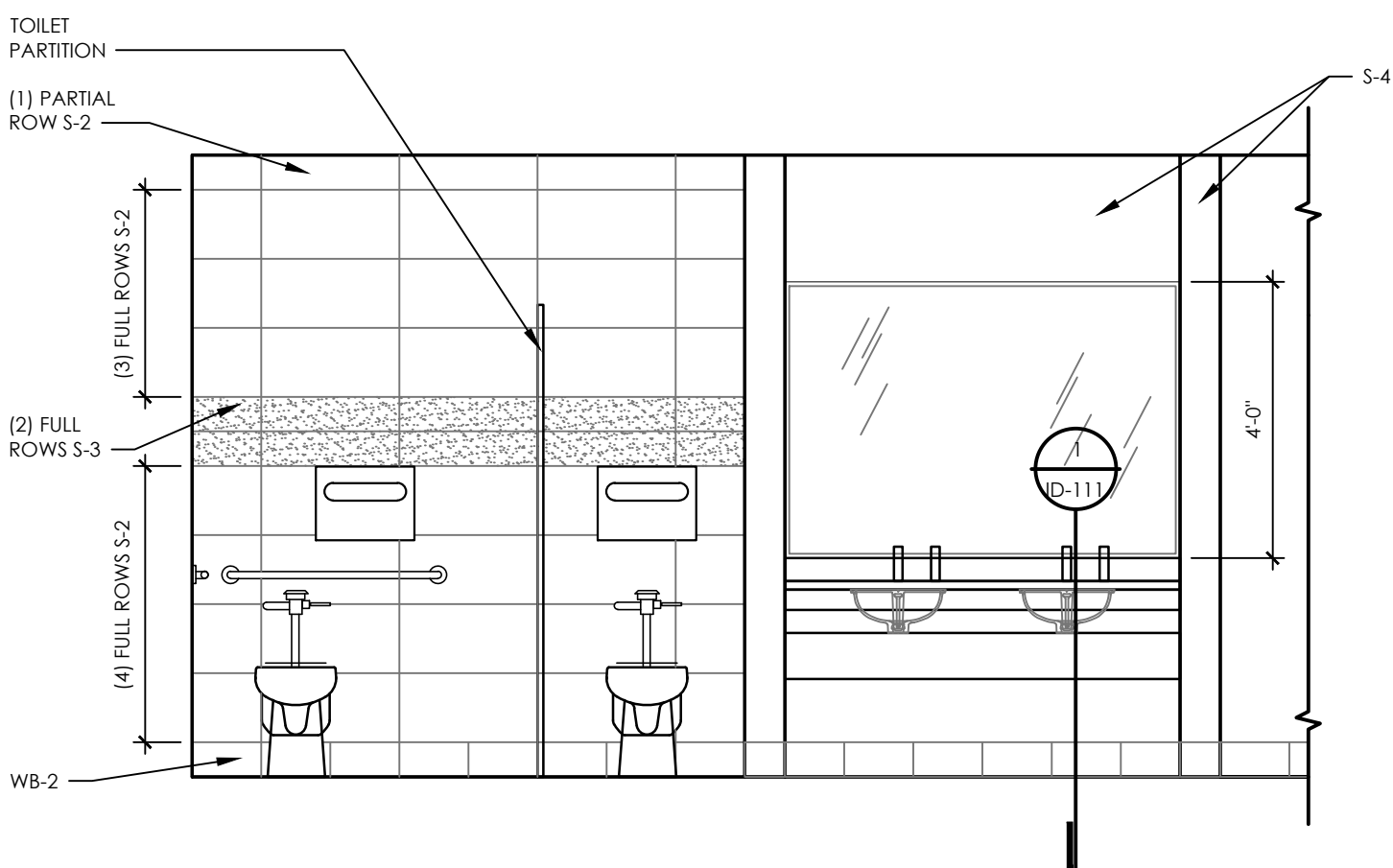
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SHEET:

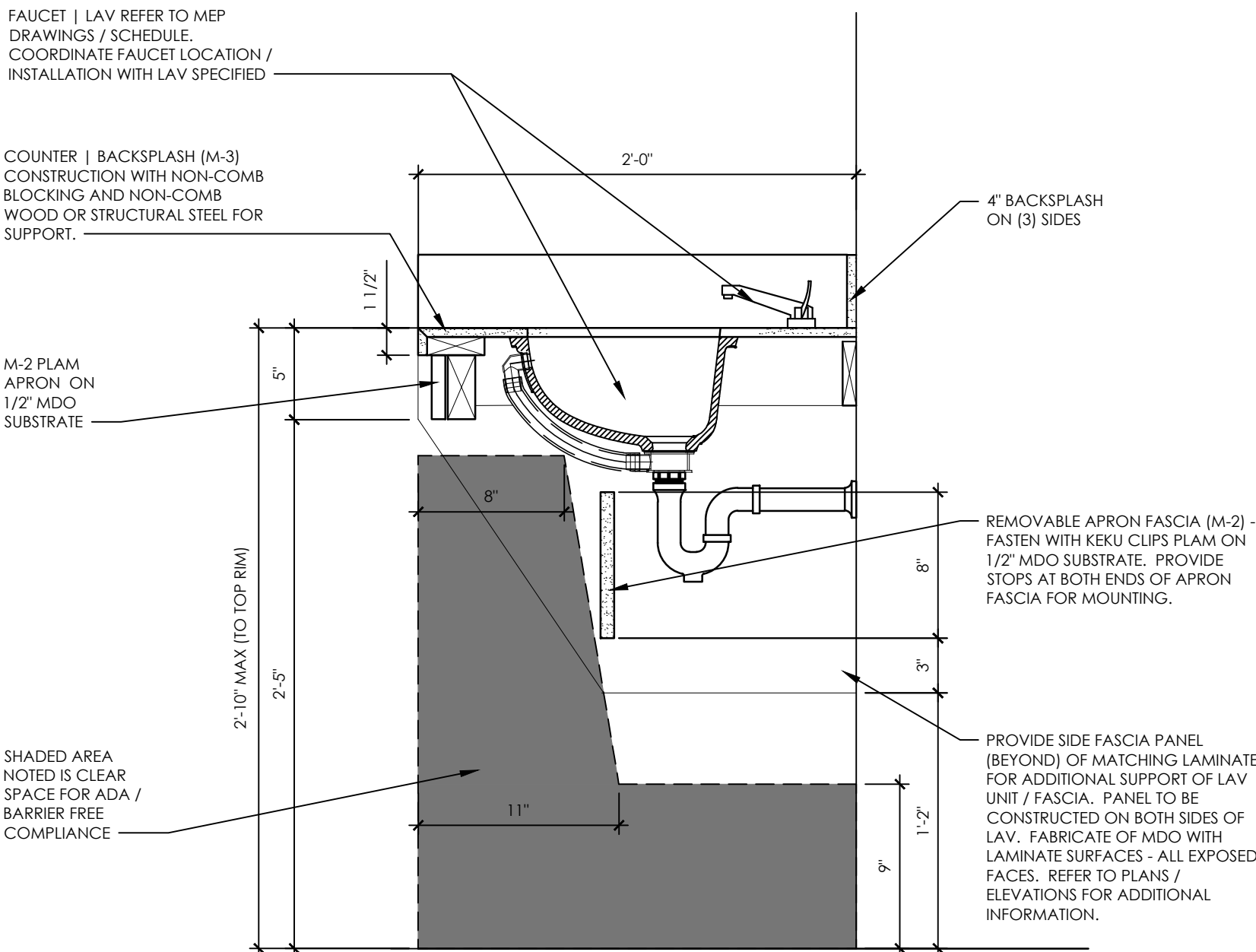
ID-111



3 SECTION @ SHOWER
SCALE: 3/8" = 1'-0"



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



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

GENERAL INTERIOR WALL CONSTRUCTION GENERAL NOTES:

1. DETAILS SHOWN FOR PROJECT SCOPE.
 - 1.1. NOT ALL DETAILS MAY BE APPLICABLE TO PROJECT SCOPE.
 - 1.2. VARIATIONS IN DETAIL MAY BE NECESSARY IN ORDER TO COMPLY WITH ACTUAL CONDITIONS OF PROJECT/PROJECT SITE.
 - 1.3. CONSULT WITH ARCHITECT IF MODIFICATIONS OR ALTERNATE IN CONSTRUCTION IS NECESSARY IN ORDER TO CARRY OUT THE DESIGN INTENT OF THE DOCUMENT.
2. FASTEN ALL SILL TRACK TO FLOOR W/ TYPE 'S' SCREWS OR POWER DRIVEN FASTENER. U.N.O.
3. WALL THICKNESS ARE BASED ON A FINISHED TILE LAYER OF 1" THICK; UPON INSTALLATION, IF TILE INSTALL THICKNESS IS LESS THAN 1", CONTRACTOR SHALL CONSULT WITH ARCHITECT PRIOR TO COMMENCEMENT.
4. CONTRACTOR MUST CONFIRM STUD SPACING IS ADEQUATE FOR EACH WALL TYPE/CONDITION PRIOR TO CONSTRUCTION.
 - 4.1. IF ADJUSTMENTS ARE NECESSARY, CONTRACTOR MUST NOTIFY ARCHITECT IMMEDIATELY FOR FURTHER DIRECTION.
5. WHERE FINISHES SUCH AS HARD TILE OR OTHER SPECIALTY MATERIALS ARE SCHEDULED TO BE ADHERED/MOUNTED TO WALL, CONTRACTOR MUST CONFIRM STRUCTURAL INTEGRITY OF WALL CONSTRUCTION PRIOR TO CONSTRUCTION AND INSTALLATION.
 - 5.1. IF ADJUSTMENTS ARE NECESSARY, CONTRACTOR MUST NOTIFY ARCHITECT IMMEDIATELY FOR FURTHER DIRECTION.
6. WHEN APPLYING HARD TILE TO WALL, CONTRACTOR MUST CONFIRM COMPLIANCE WITH CONSTRUCTION STANDARDS OF THE LATEST EDITION OF THE HANDBOOK FOR CERAMIC TILE INSTALLATION PRIOR TO CONSTRUCTION.
- 6.1. AT ANY PARTITION LOCATION WHICH IS SCHEDULED TO INCLUDE SURFACE MOUNTED ELEMENTS (CABINETS, BOARDS, CHAIR RAILS, ETC.) MUST INCLUDE NON-COMB CONCEALED BLOCKING BEHIND ENTIRE ELEMENT.
- 6.1. IF ADDITIONAL CLARIFICATION IS NECESSARY, OR IF CURRENT CONDITIONS (IN EXISTING CONDITIONS PROJECTS) CANNOT COMPLY WITH THIS REQUIREMENT, CONFIRM EXTENT WITH ARCHITECT PRIOR TO PRICING/CONSTRUCTION.
7. TYPICAL INTERIOR NON LOAD BEARING WALL LOADING CALCULATIONS:
 - 7.1. WIND LOADS: N/C (INTERIOR PARTITION FRAMING)
 - 7.2. GRAVITY LIVE LOADS: N/C (VERTICAL APPLICATION)
 - 7.1. LATERAL LIVE LOADS: INTERIOR PARTITION FRAMING; 7.5 PSF
 - 7.2. DEAD LOADS: TYPICAL PARTITION WALL: 7.0 PSF / FRAMING; GYP. BD(2) / INSUL: MISC.
 - 7.3. DEFLECTION CRITERIA:
 - 7.4. DEFLECTION LIMITS: L/240 @ FINISHED GWB AT TYPICAL PARTITIONS;
 - 7.8. DEFLECTION LIMITS: L/360 @ FINISHED GWB AT ALL WALL TILE INSTALLATION PARTITIONS;
 - 7.9. DEFLECTION LIMITS: L/360 @ FINISHED GWB AT ALL GLAZING STOREFRONT INSTALLATION PARTITIONS;
 - 7.10. MAXIMUM ALLOWABLE SPAN DEFLECTION: $L/1600$; L = SPAN LENGTH @ CANTILEVERS: 2L/700X
8. LIGHT GAUGE FRAMING SIZING / THROAT DEPTH / SPACING / GAUGE IS DESIGNATED AS DESIGN BUILD AND IS THE RESPONSIBILITY OF THE CONTRACTOR FOR ALL FRAMING MEMBERS TO COMPLY WITH NON LOAD BEARING WALL LOADING CALCULATIONS NOTED ABOVE AND ALL AHJ DESIGN REQUIREMENTS.
9. INFO PROVIDED ON ATTACHED SCHEDULE IS FOR DESIGN INTENT AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM.

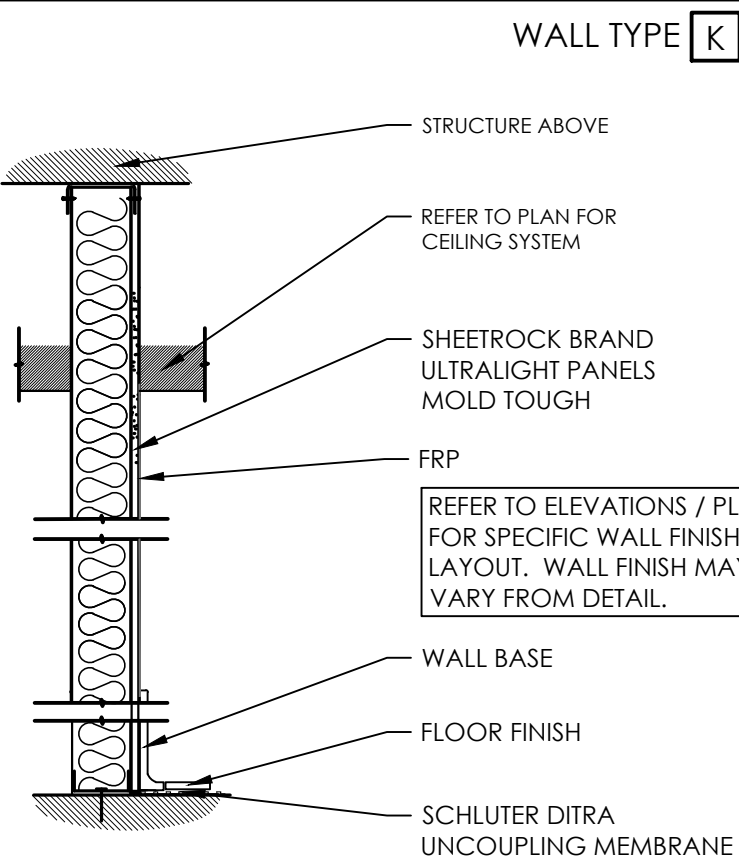
GENERAL INTERIOR WALL CONSTRUCTION SPECIFICATIONS:

ALL PRODUCTS NOTED BELOW ARE MINIMUM PRODUCT REQUIREMENTS.

1. GALVANIZED METAL STUDS:
 - 1.1. CLARK DIETRICH or equal.
 - 1.2. ProSTUD
 - 1.3. Profile Information:
 - 1.3.1. Web widths: 1-5/8" (162), 2-1/2" (250), 3-1/2" (350), 3-5/8" (362), 4" (400), 5-1/2" (550), & 6" (600)
 - 1.3.2. Flange: 1-1/4"
 - 1.3.3. Lip: Varies by stud size
 - 1.3.4. Smart Edge™ Technology
 - 1.4. Material Thicknesses:
 - 1.4.1. ProSTUD 25 / 15mil (25ga EQ) 50ksi
 - 1.4.2. ProSTUD 20 / 18mil (20ga EQ) 70ksi
 - 1.4.3. ProSTUD 30MIL 33ksi
 - 1.4.4. ProSTUD 33MIL 33ksi
 - 1.5. Coatings: G40 EQ, G40 (CP60 available as special order)
 - 1.6. G40EQ DiamondPlus™ available for 15mil & 18mil only. Contact your ClarkDietrich Sales Representative for market availability.
 - 1.7. HORIZONTAL RESILIENT CHANNEL (RCUR)
 - 1.7.1. RC-1 Pro™ Resilient Channel (RCUR)
 - 1.12. ProTRAK
 - 1.13. Profile Information:
 - 1.13.1. Web widths: 1-5/8", 2-1/2", 3-1/2", 3-5/8", 4", 5-1/2", & 6"
 - 1.13.2. Legs: 1", 1-1/4", 1-1/2", 2", 2-1/2", & 3"
 - 1.14. Material Thicknesses:
 - 1.14.1. ProTRAK 25 / 15mil (25ga EQ) 50ksi
 - 1.14.2. ProTRAK 20 / 18mil (20ga EQ) 50ksi
 - 1.14.3. ProTRAK 30MIL 33ksi
 - 1.14.4. ProTRAK 33MIL 33ksi
 - 1.15. Coatings: G40 EQ, G40 (CP60 available as special order)
 - 1.16. G40EQ DiamondPlus™ available for 15mil & 18mil only. Contact your ClarkDietrich Sales Representative for market availability.
 - 1.16.1.
2. HEAD DEFLECTION / DRIFT SLIP TRACK SYSTEM:
 - 2.1. CLARK DIETRICH or equal.
 - 2.2. Deep Leg Deflection Track (Slip Track)ProTRAK™ deep leg deflection track for interior walls
 - 2.2.1. Material/Yield Strength: 15mil and 18mil = 50ksi 30mil and 33mil = 33ksi
 - 2.2.2. Coating: G40EQ (G40 and G40 available)ProTRAK 25 (15mil): 0.0158" Design Thickness, 0.0159" Min. ThicknessProTRAK 20 (18mil): 0.0190" Design Thickness, 0.0181" Min. ThicknessProTRAK 30mil: 0.0312" Design Thickness, 0.0296" Min. ThicknessProTRAK 33mil: 0.0346" Design Thickness, 0.0329" Min. Thickness
 - 2.2.4. Dimensions: 2", 2-1/2" or 3" legs with an inside depth equal to the depth of the stud. Standard depths available: 2-1/2", 3-5/8", 4", and 6". Custom depths available by special orders.
 - 2.3. MaxTrack® 2D (SLT/H)Slotted Deflection and Drift Track for non-structural drywall framing.
 - 2.3.1. Material:Grade 33ksi min. yield strengthCoating:CP60 per ASTM C955 (G90 available)
 - 2.3.2. Thickness:33mil: 20ga, 0.0346" Design Thickness, 0.0329" Min. Thickness
 - 2.3.3. Dimensions:2-1/2" legs with an inside depth equal to the depth of the stud
 - 2.3.4. Available in 2-1/2", 3-5/8", 4", 6" and 8" wide systems
 - 2.3.5. Vertical slots in leg are 0.22" wide x 1-1/2" long and spaced 1" o.c.
 - 2.3.6. Horizontal slots in web are 0.22" wide x 4" long and spaced 8" o.c.
 - 2.3.7. Track length:10'-0"
 - 2.3.8. Allows up to 1-1/2" (3/4" +/-) vertical deflection
 - 2.3.9. Allows up to 4" (2" +/-) horizontal drift
 - 2.3.10. Intertek CCR-0205+UL Approved 1 & 2 hour systems
 - 2.3.11. Guideline at center of vertical slots

TYPICAL FLOOR-TO-DECK FURR PARTITION DETAIL

SCALE: 1" = 1'-0"



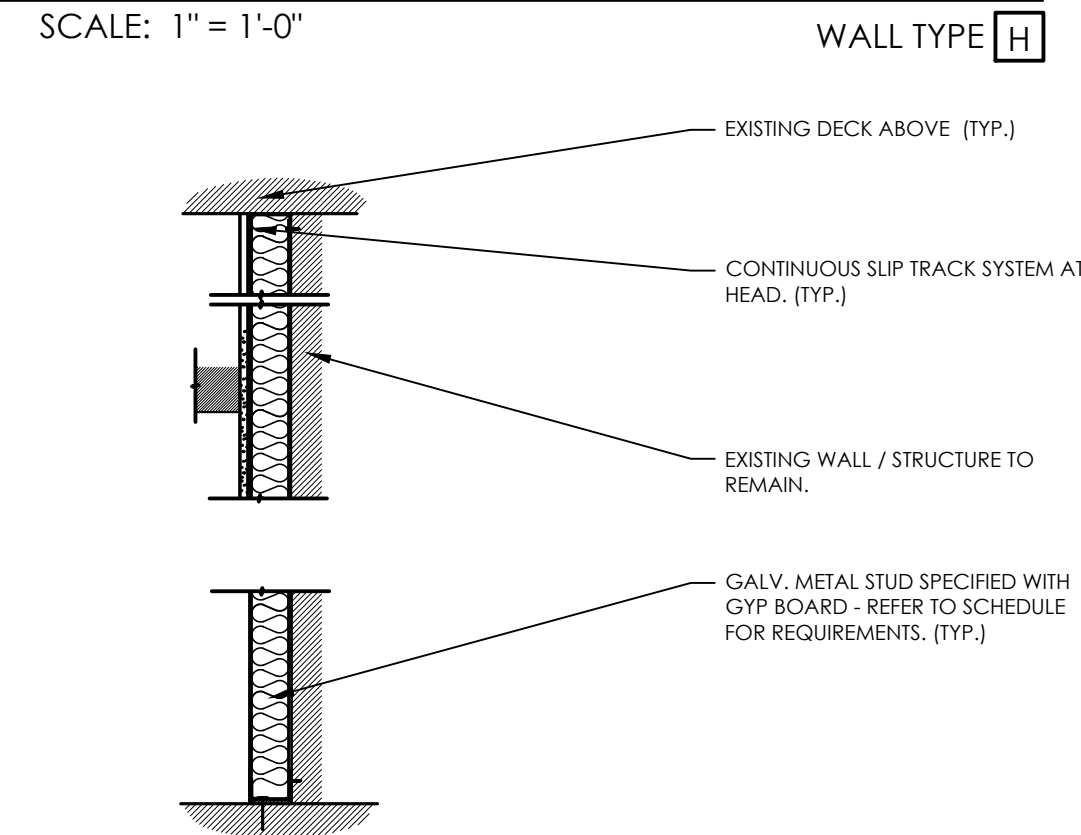
TYPICAL WALL FRP INSTALLATION DETAIL

SCALE: 1" = 1'-0"



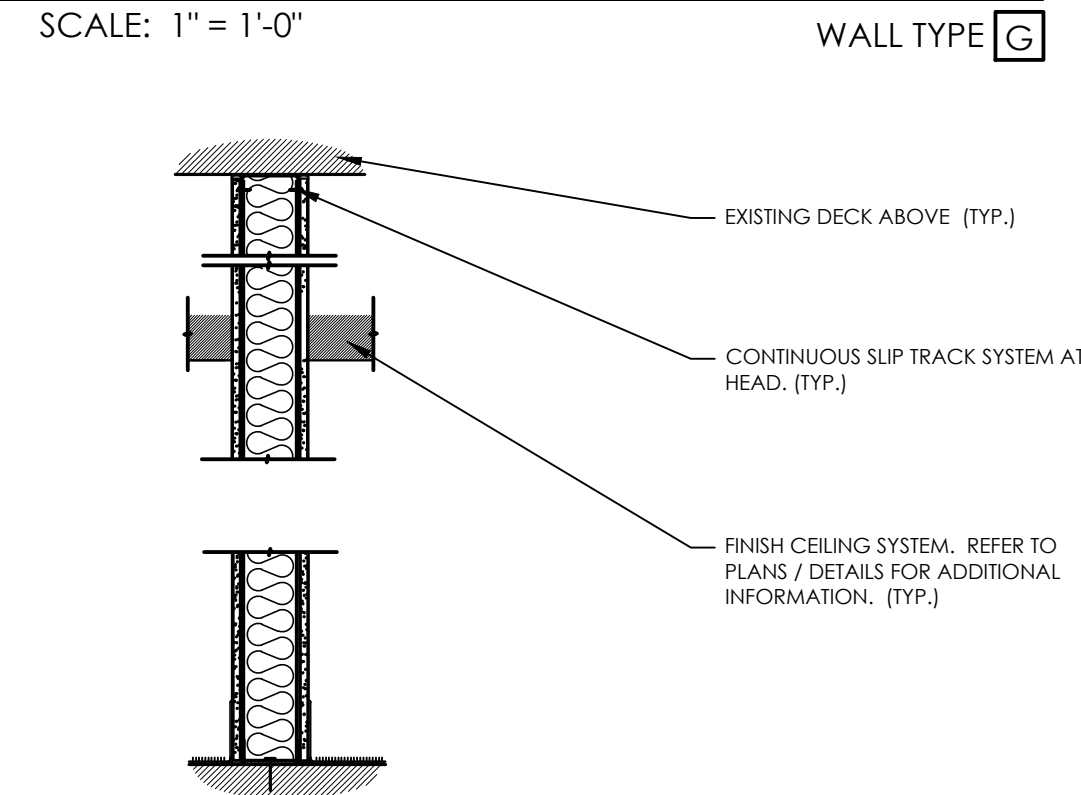
TYPICAL WALL TILE INSTALLATION DETAIL

SCALE: 1" = 1'-0"



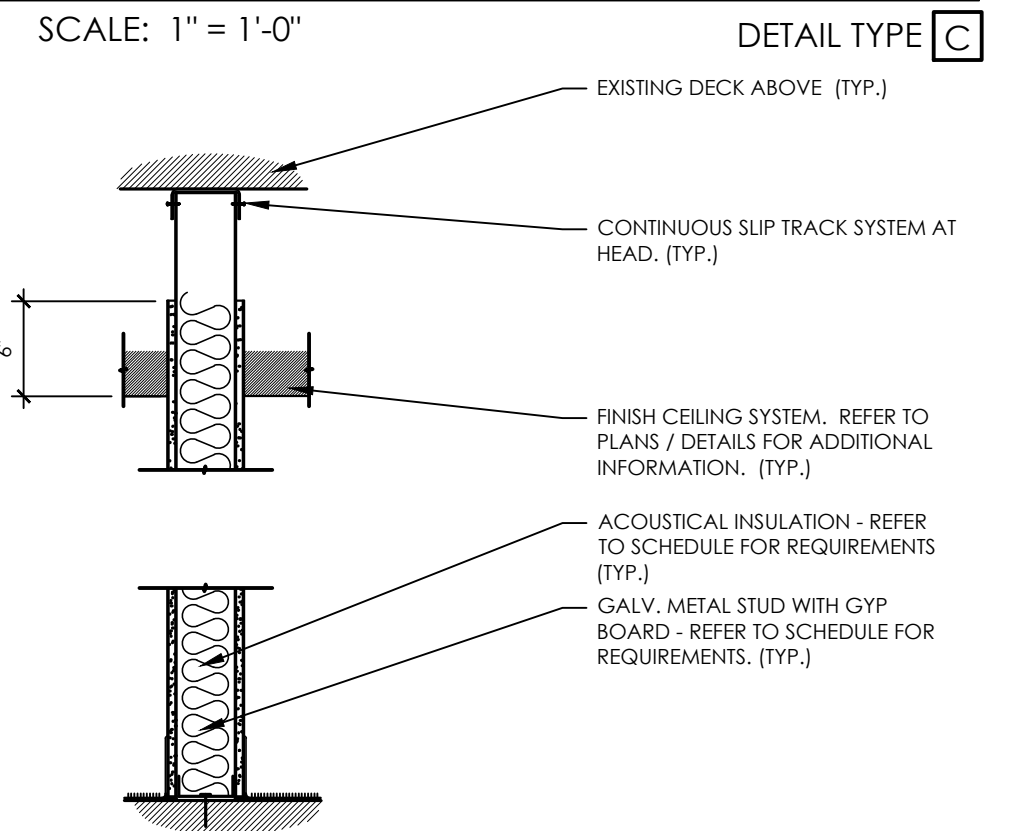
TYPICAL FLOOR-TO-DECK FURR PARTITION DETAIL

SCALE: 1" = 1'-0"



TYPICAL FLOOR-TO-DECK PARTITION DETAIL

SCALE: 1" = 1'-0"



TYPICAL 6" ABOVE FINISH CEILING PARTITION DETAIL

SCALE: 1" = 1'-0"

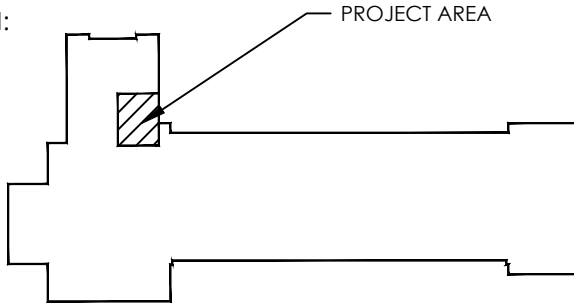


NEW INTERIOR WALL TYPE SCHEDULE

REFER TO PRODUCT SPECIFICATIONS THIS SHEET FOR ADDITIONAL INFORMATION: PRIOR TO START OF PROJECT CONTRACTOR TO CONFIRM PRODUCT SPECIFICATIONS, SAMPLES, AND LEAD TIME FOR DELIVERY. NO PRODUCT SHALL BE PURCHASED WITHOUT THIS SUBMITTAL.

WALL TYPES	TYPICAL OF ALL WALL TYPES	WALL TYPE 1	WALL TYPE 2	WALL TYPE 3	WALL TYPE 4	WALL TYPE 5	WALL TYPE 6	WALL TYPE 7		
		CORRIDOR WALL (GREEN BOARD)	CORRIDOR WALL (TILE BACKER BOARD)	CORRIDOR WALL (AT DOOR)	WALL INSIDE TOILET ROOMS	FURR OUT 7/8" HAT	FURR OUT 6" NO GYP BOARD / FRP	FURR OUT 6" FRP		
WALL DETAIL #		C	C / H	C	B	G	K	J		
RATED ASSEMBLY										
1 HR.										
2 HR.										
FRAMING										
HEAD SLIP TRACK	X	X	X	X	X	X	X	X		
DEFLECTION TRACK										
DEFLECTION AND DRIFT TRACK										
STUD DEPTH / WEB WIDTH										
7/8" HAT CHANNEL						X				
2 1/2"										
3 1/2"										
3 5/8"				X						
4"										
5 1/2"										
6"		X	X		X		X	X		
STUD SPACING										
12" O.C.										
16" O.C.	X	X	X	X	X	X	X	X		
24" O.C.										
HORIZONTAL RESILIENT CHANNEL										
FRAMING GAUGE / MATERIAL THICKNESS (ALL COMPONENTS OF WALL TYPE)										
CONTRACTOR TO PROVIDE FRAMING GAUGE TO MEET SPECIFIED LOAD REQUIREMENTS NOTED IN GENERAL NOTES. (MIN)	X	X	X	X	X	X	X	X		
GYPSUM BOARD										
NO GYP BOARD							X			
ONE LAYER (BOTH SIDES)		X	X	X	X					
TWO LAYERS (BOTH SIDES)										
ONE LAYER (ONE SIDE)						X	X	X		
1/2"										
5/8"		X	X	X	X	X	X	X		
1/2" TYPE X										
GREEN BOARD		X		X	X	X	X	X		
1/2" SOUND REDUCING										
TILE BACKER			X							
ACOUSTICAL INSULATION										
ACOUSTIC INSULATION		X	X	X	X		X	X		
AT EXTERIOR WALL PROVIDE THERMAL BATT INSULATION (R-19) PROVIDE AIR / VAPOR BARRIER										
ACOUSTIC INSULATION ABOVE CEILING 2'-0" BOTH SIDES OF PARTITION										
ACOUSTICAL SEALANT AT SILL PLATE		X	X	X	X	X		X		
NOTES:		INSTALL GREEN BOARD ON TOILET / LOCKER ROOM SIDE OF WALL (TYP.)	INSTALL TILE BACKER BOARD ON TOILET / LOCKER ROOM SIDE OF WALL (TYP.)	INSTALL GREEN BOARD ON TOILET / LOCKER ROOM SIDE OF WALL (TYP.)	INSTALL GREEN BOARD ON BOTH SIDES OF WALL (TYP.)		REFER TO A-421 FOR FRAMING SPACING AT PRE FAB SHOWER UNITS. REFER TO ID-111 FOR SECTION AT SHOWER UNITS. PROVIDE GYP BOARD ABOVE SHOWER UNITS	REFER TO ID-111 FOR SECTION AT SHOWER UNITS.		

KEYPLAN:



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CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT #: WCA22-916	
NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857

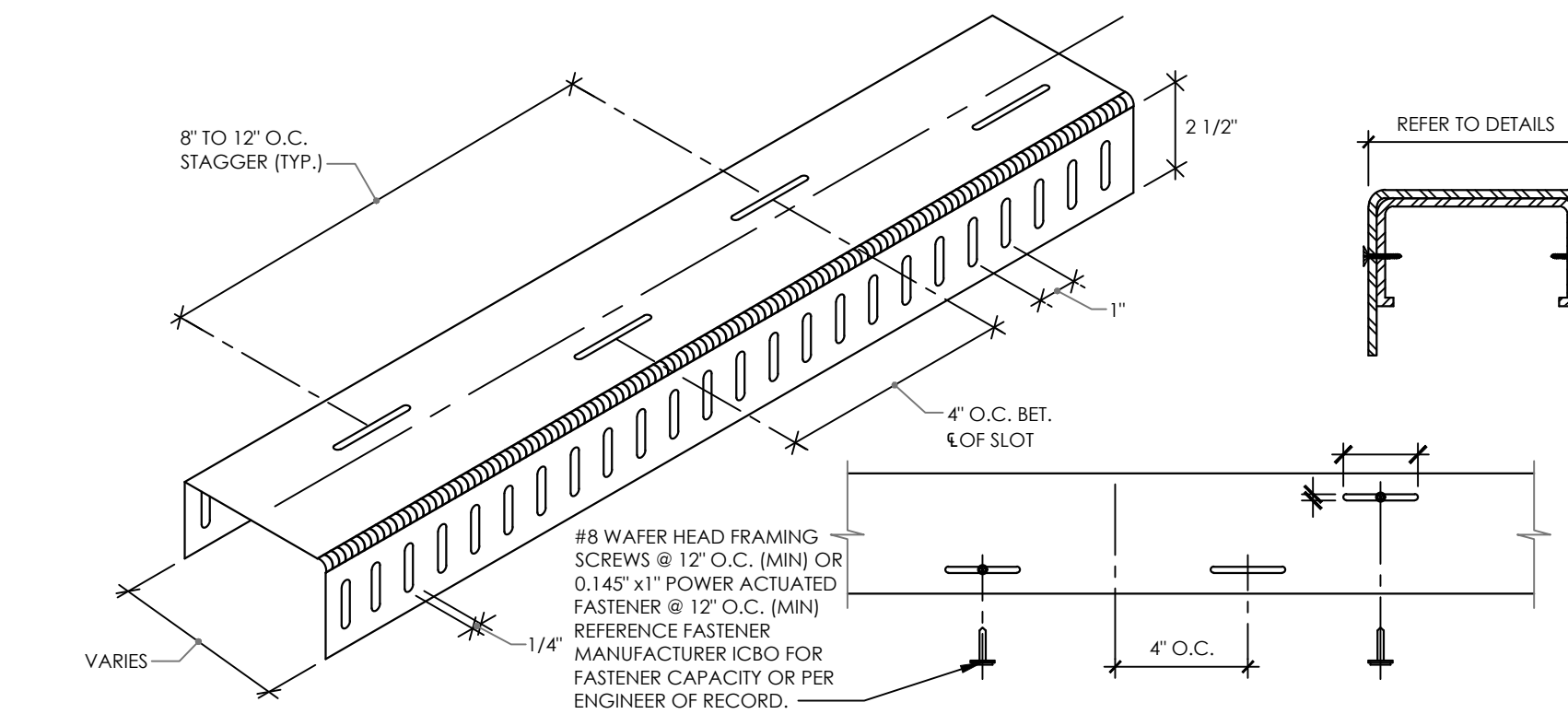
INTERIOR WALL CONSTRUCTION DETAILS

SEAL:



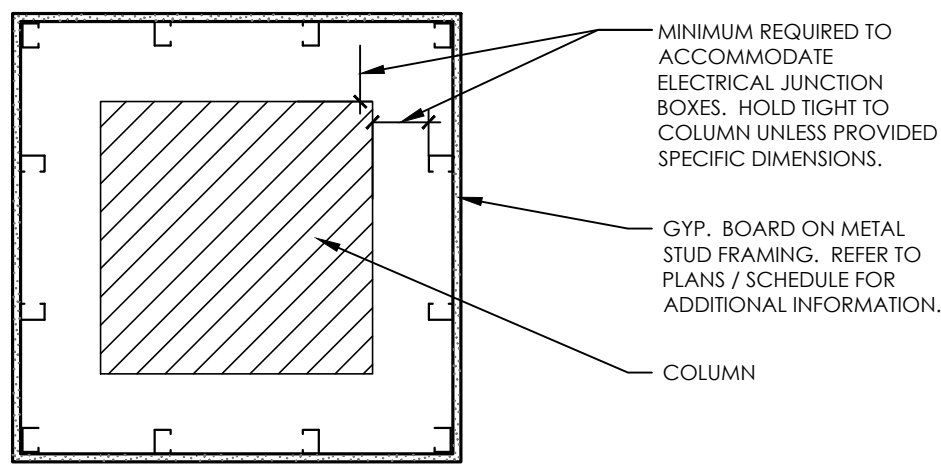
SHEET:

A-511



HEAD OF WALL HORIZONTAL SLOTTED TRACK

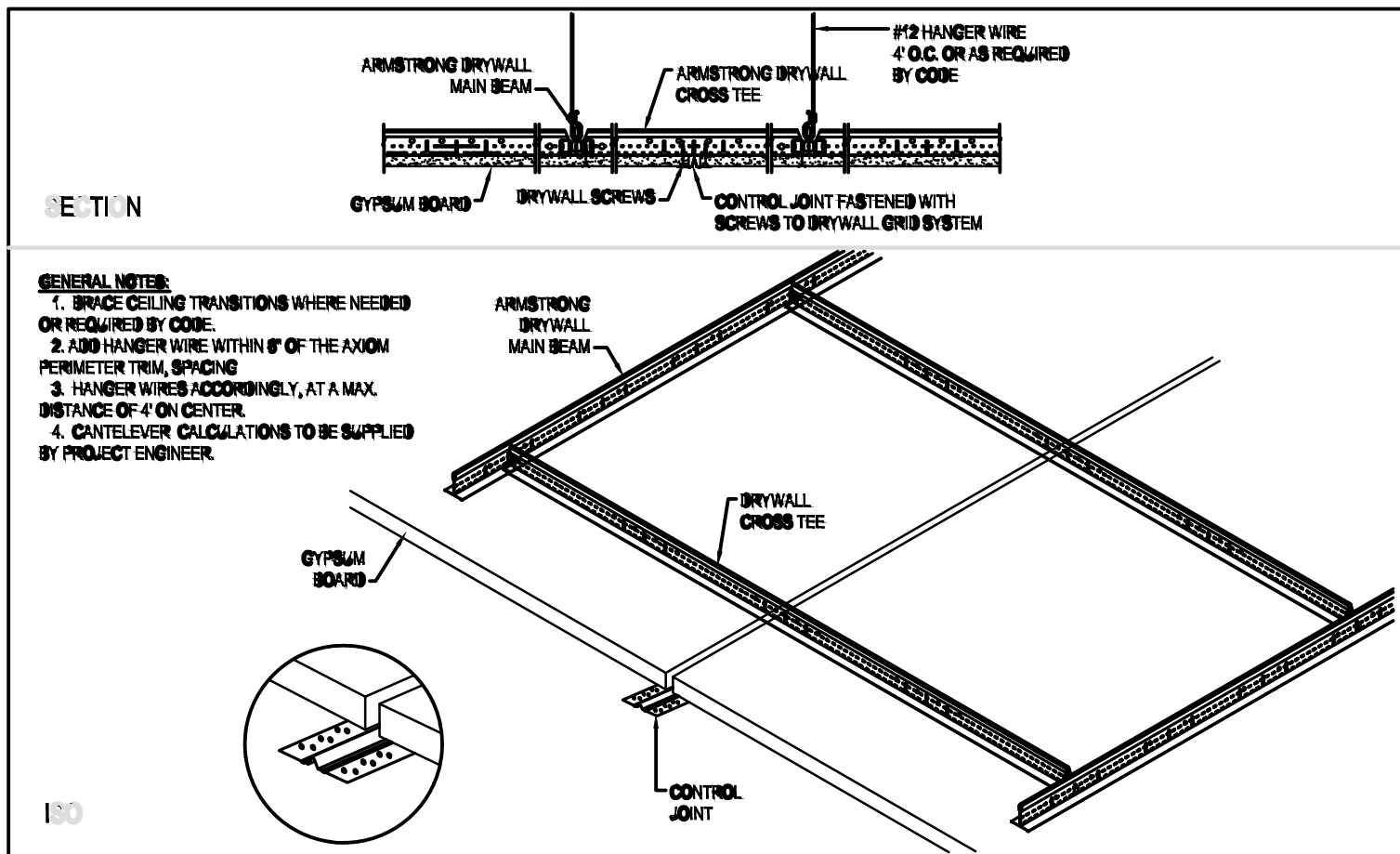
SLOTTED TOP TRACK - STUD TO TRACK CONNECTION
HORIZONTAL SLOTTED SLIDING CONNECTION
SCALE: NOT TO SCALE



TYPICAL NEW | EXISTING COLUMN ENCLOSURE DETAIL

SCALE: 1" = 1'-0"

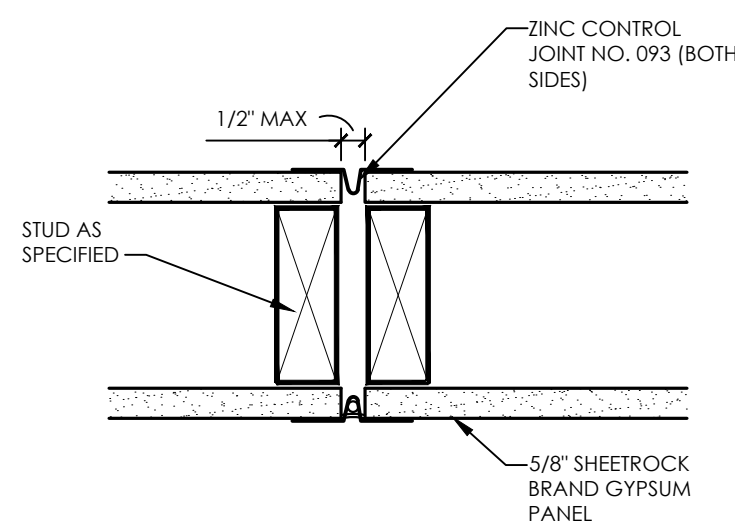
CONDITIONS WILL VARY -
CONTRACTOR TO MODIFY
ACCORDING TO SPECIFIC
LOCATIONS.



TYPICAL INTERIOR STOREFRONT PARTITION DETAIL

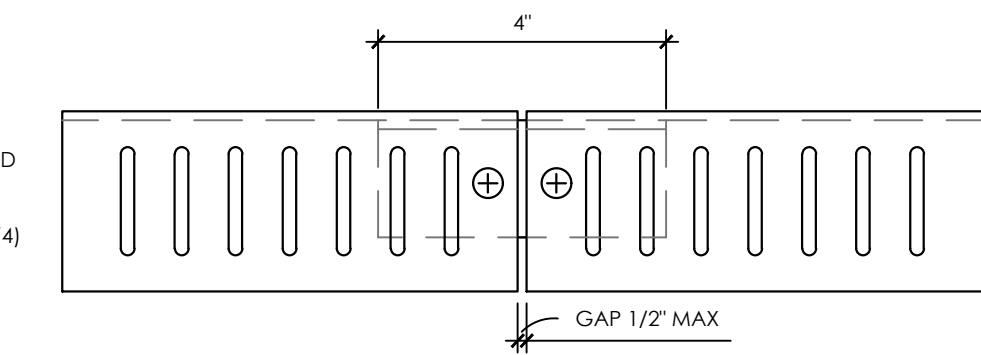
SCALE: 1" = 1'-0"

- NOTE:
1. REFER TO PLAN FOR ADDITIONAL C.J. LOCATIONS. IF C.J. NOT SHOWN ON PLAN REFER TO NOTE #2.
 2. PROVIDE GYP. BD. CONTROL JOINTS @ 20'-0" O.C., MAX.
 3. DETAIL REFERENCED FROM USG DRYWALL WOOD FRAMED SYSTEMS HANDBOOK # SA924 09250 - OR EQUAL IS ACCEPTABLE.



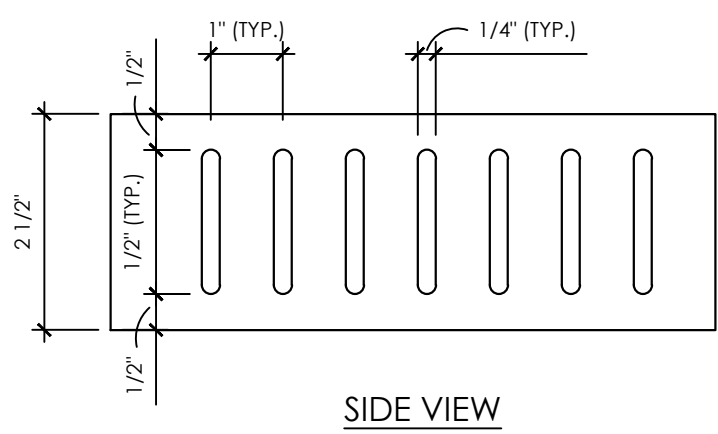
GYP. BRD. CONTROL JOINT

SCALE: 3" = 1'-0"



SPLICE DETAIL (STANDARDS)

SLOTTED TOP TRACK - STUD TO TRACK CONNECTION
SCALE: NOT TO SCALE

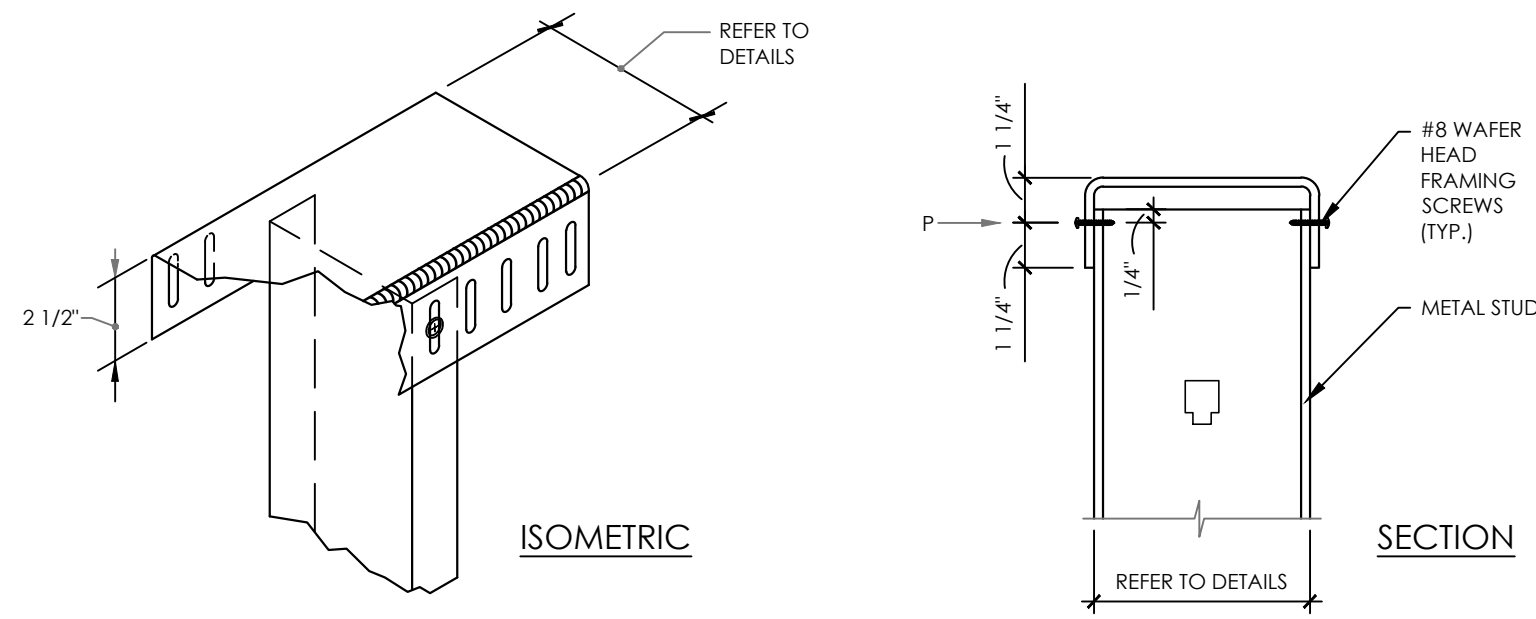


HEAD OF WALL ISOMETRIC AND SECTION DETAIL (STANDARDS)

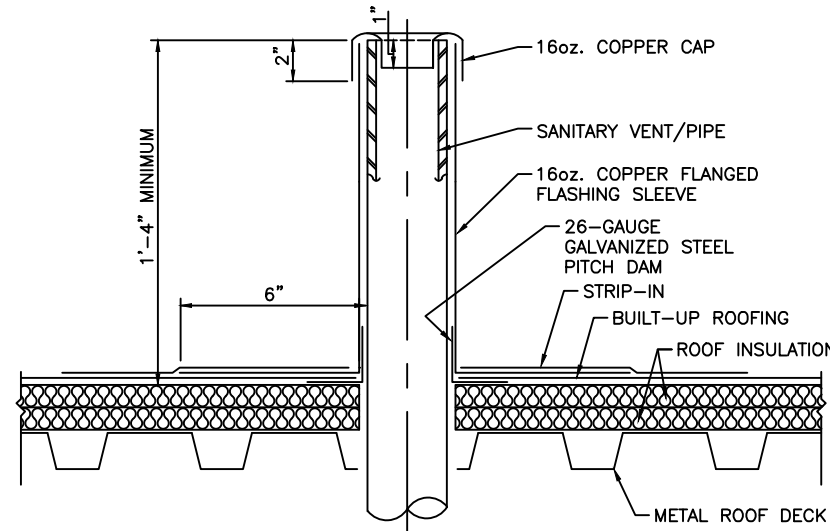
SLOTTED TOP TRACK - STUD TO TRACK CONNECTION
SCALE: NOT TO SCALE

METAL STUD SLIP TRACK DETAILS

SCALE: 3" = 1'-0"

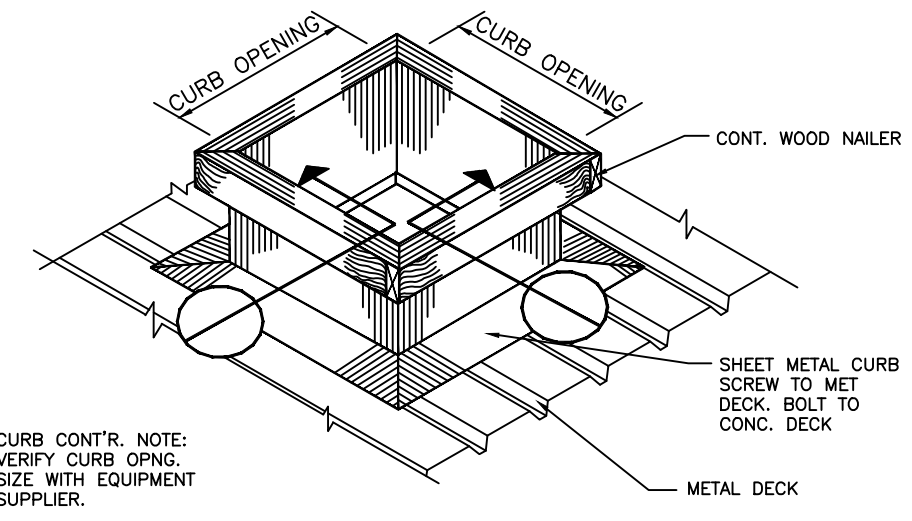


METAL STUD SLIP TRACK DETAILS THIS SHEET BASED ON CLARK DIETRICH SLOTTED DEFLECTION TRACK. ADDITIONAL 'AS EQUAL' SLIP TRACK OPTIONS ACCEPTABLE UPON ARCHITECT REVIEW.



VENT PIPE ROOF PENETRATION DETAIL

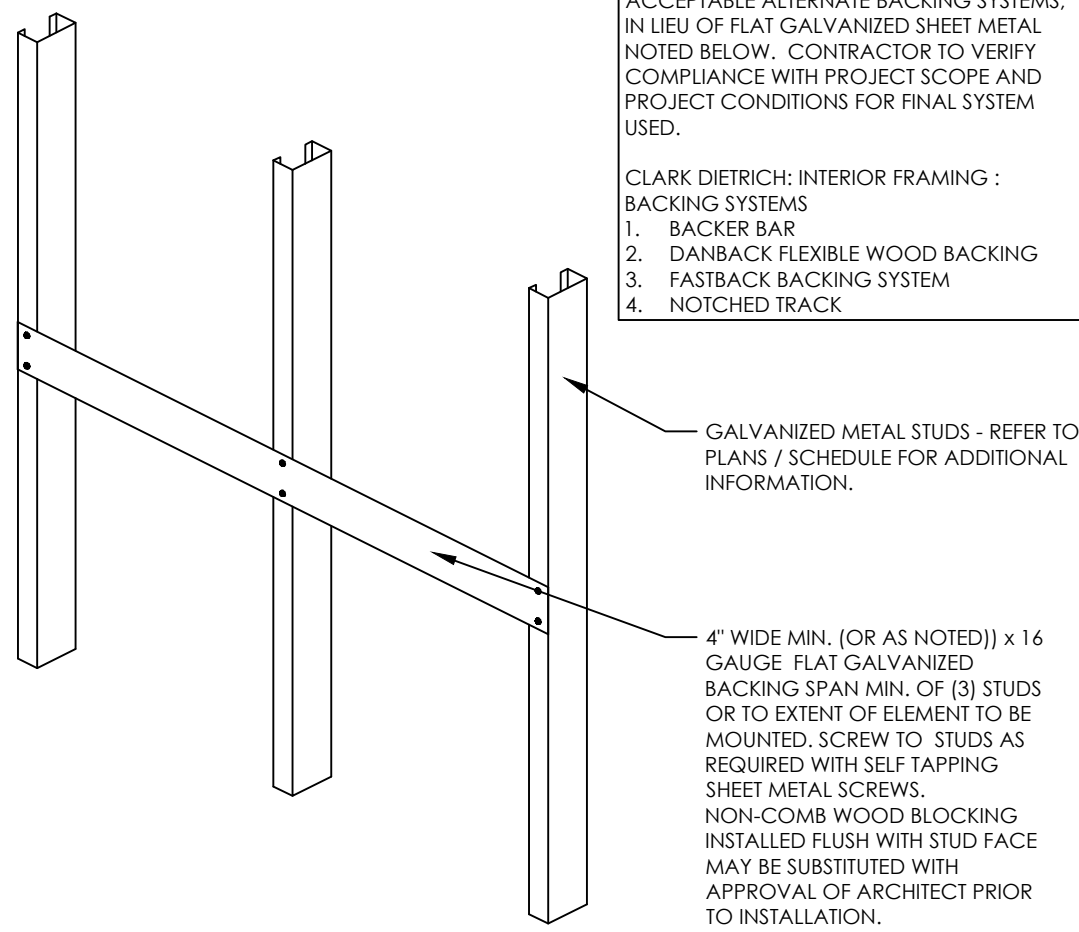
SCALE: NTS



TYPICAL OUTLET INSTALLATION DETAIL

SCALE: 3" = 1'-0"

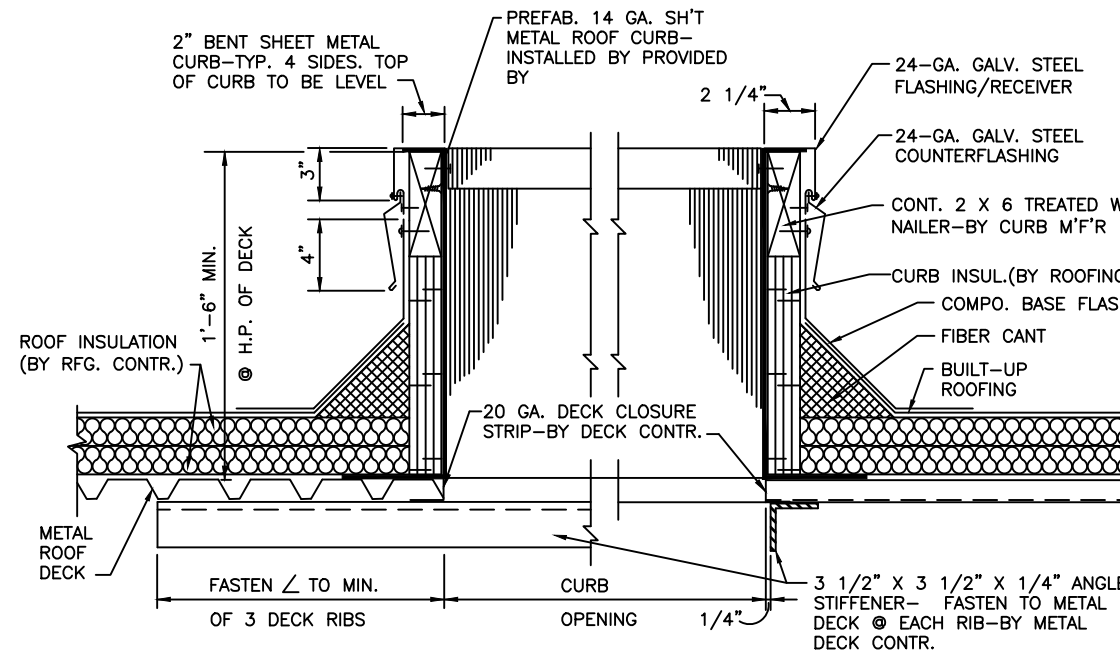
- ACCEPTABLE ALTERNATE BACKING SYSTEMS, IN LIEU OF FLAT GALVANIZED SHEET METAL NOTED BELOW. CONTRACTOR TO VERIFY COMPLIANCE WITH PROJECT SCOPE AND PROJECT CONDITIONS FOR FINAL SYSTEM USED.
- CLARK DIETRICH: INTERIOR FRAMING : BACKING SYSTEMS
1. BACKER BAR
 2. DANBACK FLEXIBLE WOOD BACKING
 3. FASTBACK BACKING SYSTEM
 4. NOTCHED TRACK



TYPICAL INTERIOR PARTITION CONCEALED BLOCKING DETAIL

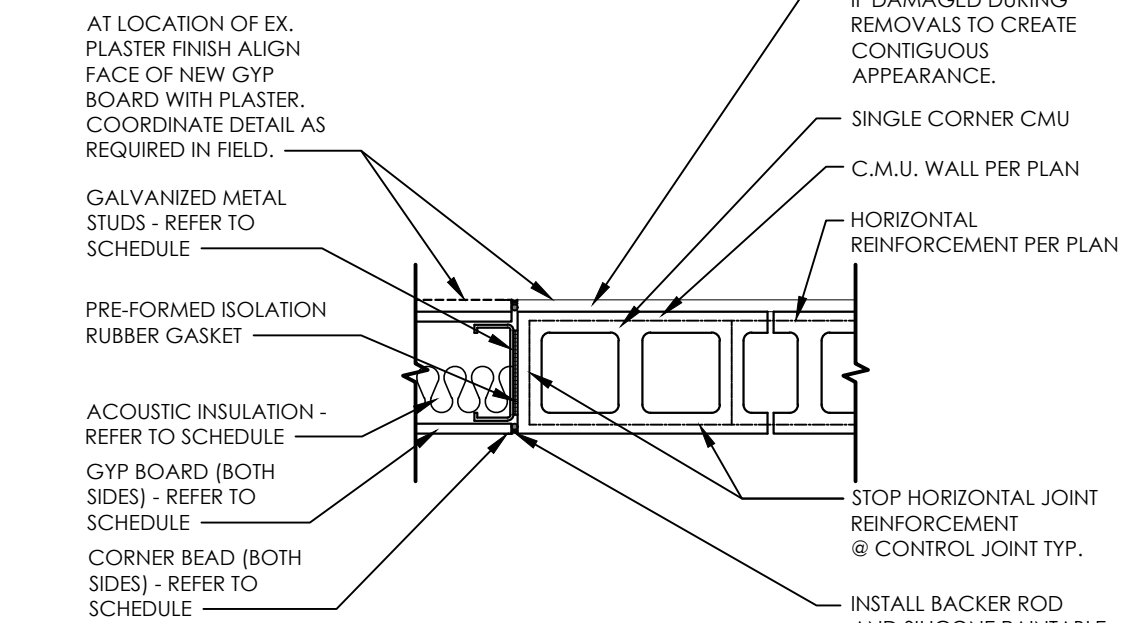
SCALE: NOT TO SCALE

CONDITIONS WILL VARY -
CONTRACTOR TO MODIFY
ACCORDING TO SPECIFIC
LOCATIONS.



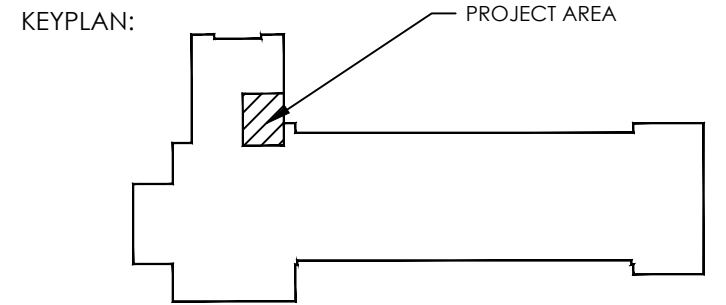
PREFAB ROOF CURB DETAIL

SCALE: NTS



WALL TRANSITION DETAIL

SCALE: 1" = 1'-0"



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CLIENT:	CONSULTANT:
	

PROJECT:
**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements**
12901 Dingell Drive, #802
Detroit, MI 48242

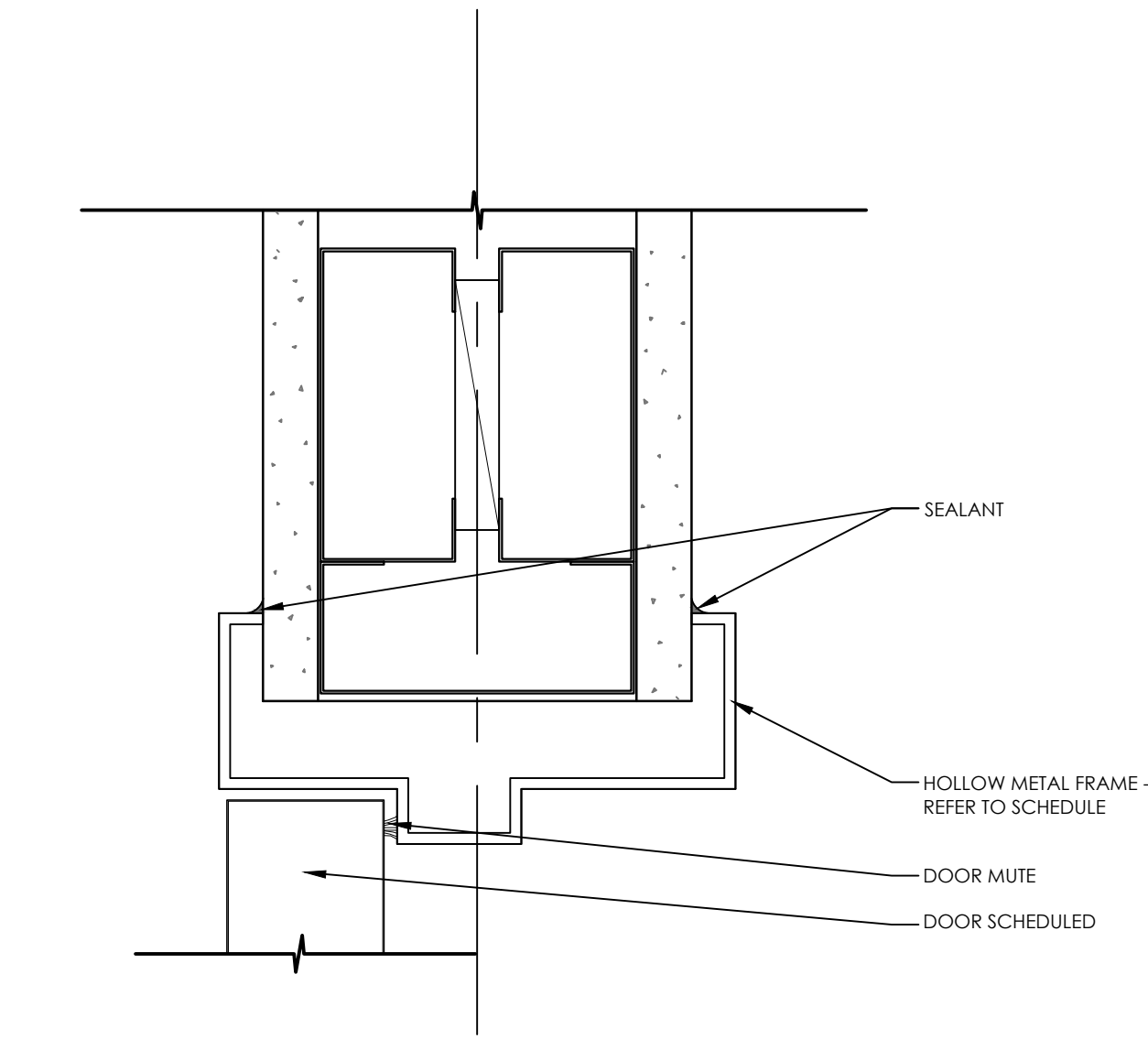
arconcepts PROJECT # WCA22-916	CLIENT REFERENCE #: 5857
NOT ISSUED FOR CONSTRUCTION	

INTERIOR CONSTRUCTION DETAILS

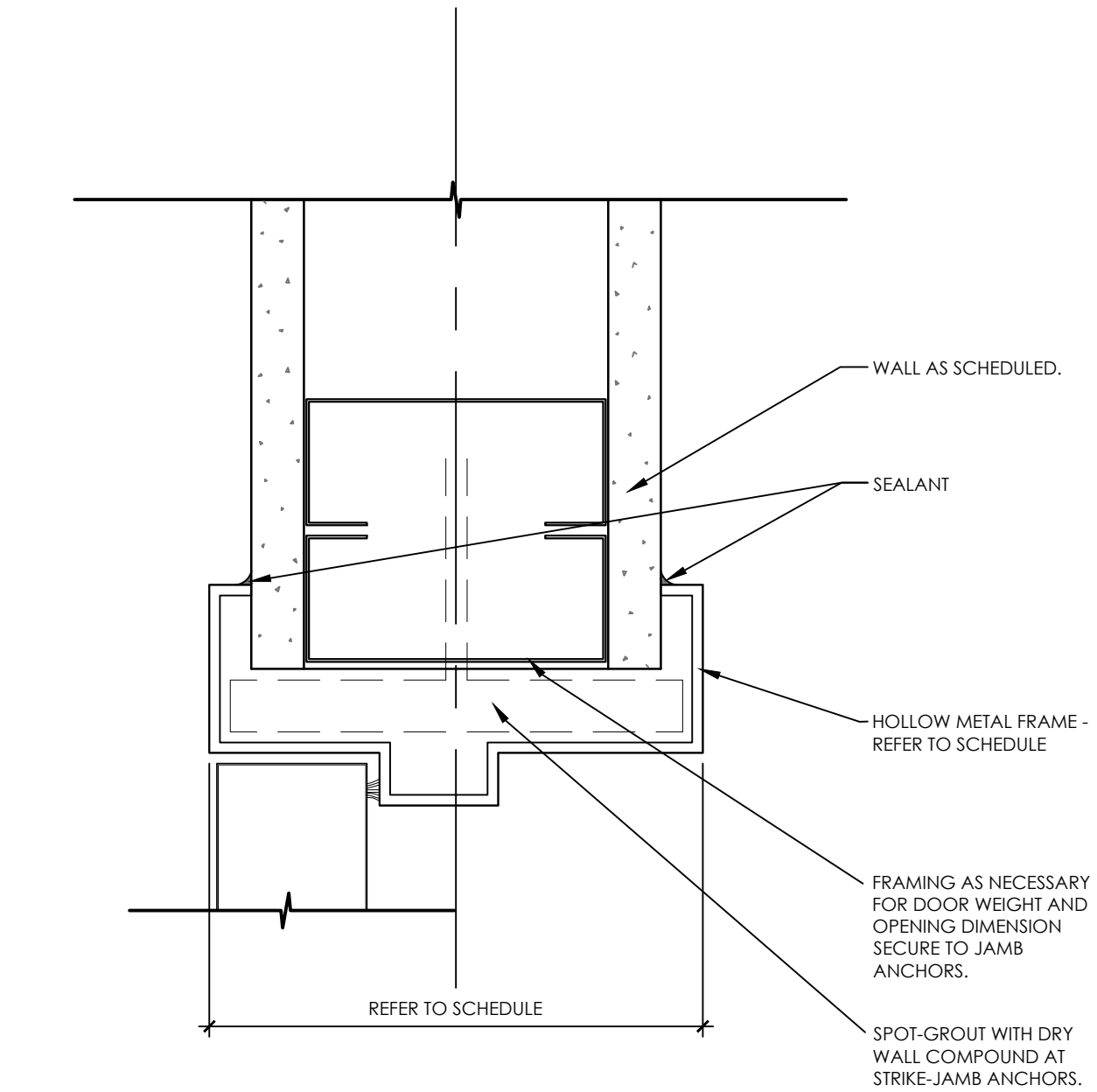


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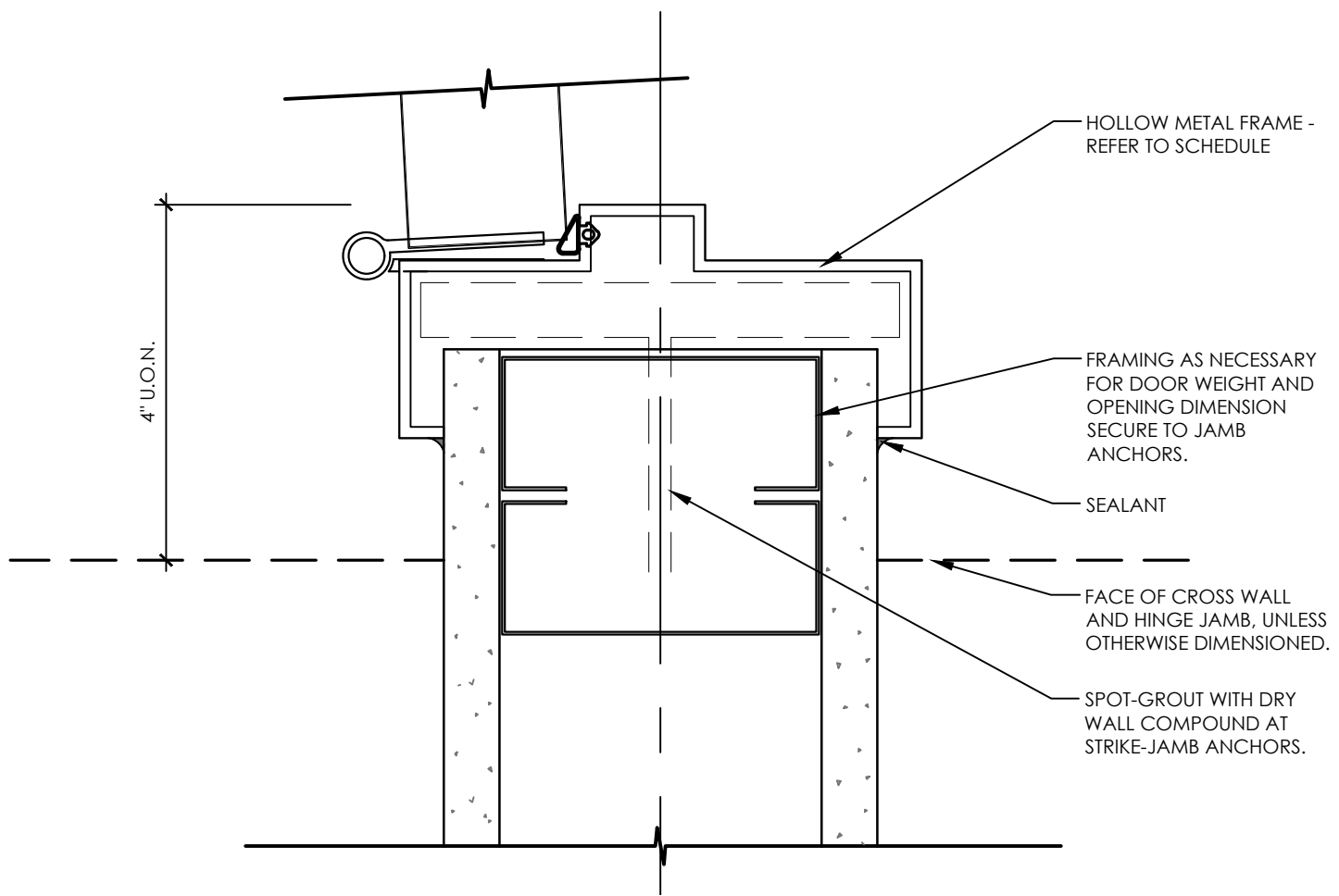
SHEET:
A-513



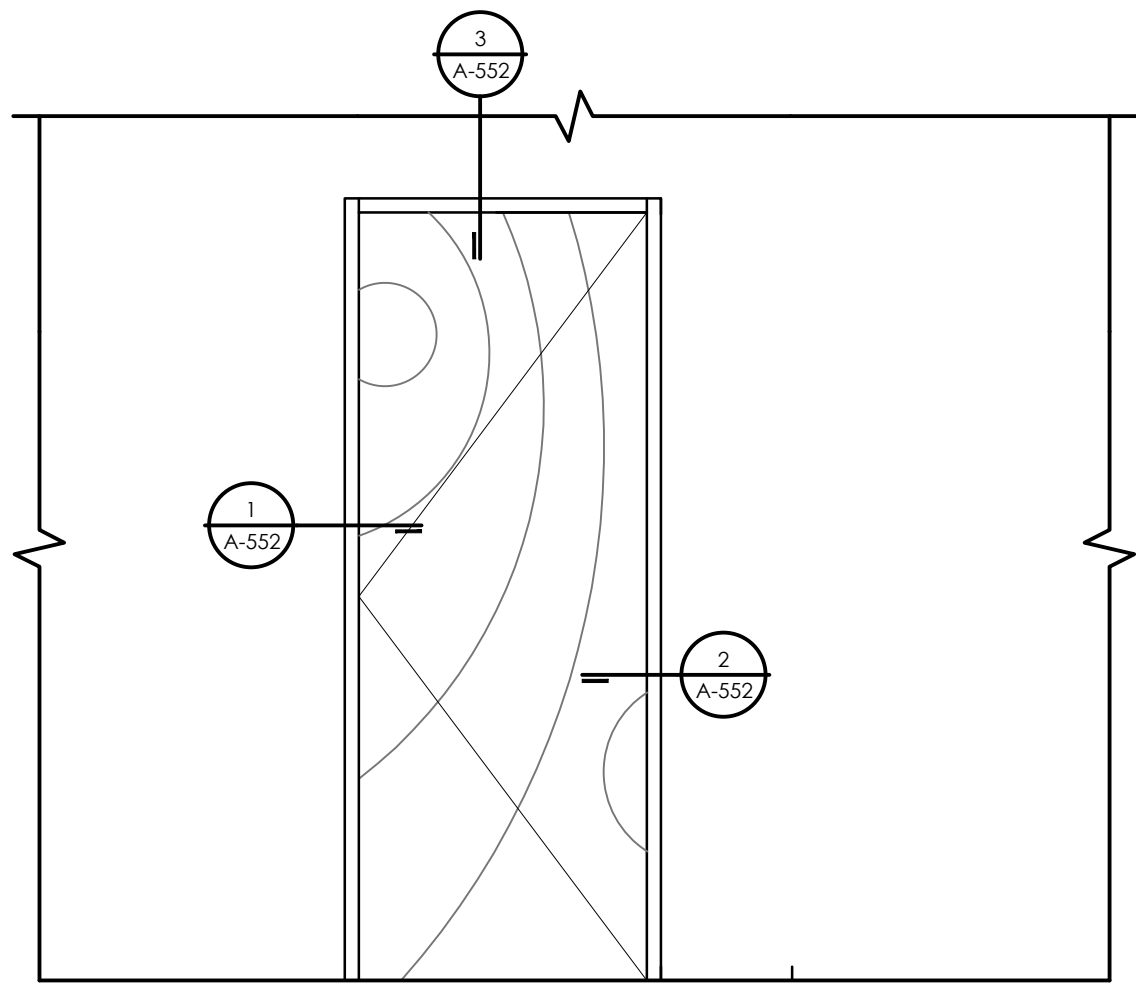
3 HOLLOW METAL (HEAD | JAMB)
SCALE: 6" = 1'-0"



2 HOLLOW METAL STRIKE (JAMB)
SCALE: 6" = 1'-0"



1 HOLLOW METAL HINGE (JAMB)
SCALE: 6" = 1'-0"



4 TYPICAL DOOR-SIDELIGHT FRAME
SCALE: 1/2" = 1'-0"

GENERAL WALL CONSTRUCTION GENERAL NOTES:

1. REFER TO SHEET A-511 FOR GENERAL NOTES APPLICABLE TO THIS SHEET.

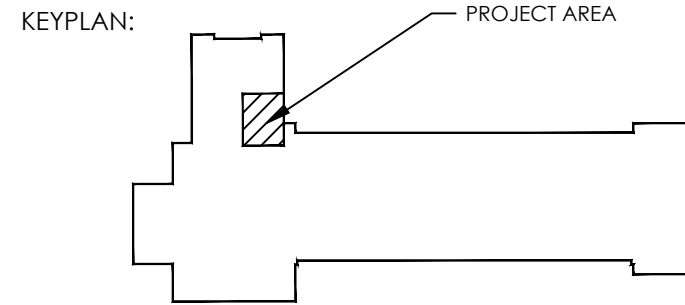
HOLLOW METAL FRAME NOTES:

1. WHERE FRAME IS SCHEDULED FOR RATING WITHIN RATED WALL CONSTRUCTION, REFER TO U.L. DESIGN NO. AND WALL DETAILS FOR COORDINATION OF DETAILS.
 - 1.1. FRAME TO BE UL LISTED / LABELED; DO NOT PAINT LABEL.
2. CONTRACTOR DOOR FRAME CONNECTIONS DESIGNED AS 'KNOCK DOWN' STYLE.
3. CONTRACTOR TO REFER TO DOOR / HARDWARE SCHEDULE FOR FRAME DIMENSION AND FINISH.
4. CONTRACTOR TO SEAL ALL EDGES OF FRAME AT GYPSUM BOARD. CONTRACTOR TO USE PAINTABLE CAULK THROUGHOUT (AS APPROVED OR SPECIED BY ARCHITECT).
5. ALL GLAZING TO COMPLY WITH SAFETY GLAZING REQUIREMENTS OF THE 2015 MBC, SECTION 2406 "SAFETY GLAZING" ITEM 2406.2 - ITEM 7.2.
6. CONTRACTOR TO PRIME AND PAINT ALL SURFACES OF FRAME AS REQUIRED BY MANUFACTURER AND AS SPECIFIED IN FINISH SCHEDULE. DO NOT PAINT LABEL IF RATED.

ARCHITECTURAL DOOR / FRAME / HARDWARE GENERAL NOTES:

- 1 - HM FRAME 3'0" X 7'0" X 5 7/8" (4 7/8" THROAT) KD
- 1 - HM DOOR 3'0" X 7'0" X 1 3/4" FLUSH W/ 3/4" UNDERCUT.
- 3 - HINGE HAGER BB1279 4.5 X 4.5 626
- 1 - PULL PLATE HAGER 33E 3.5 X 16 630
- 1 - PUSH PLATE HAGER 30S 3.5 X 15 630
- 1 - CLOSER HAGER 5100 689
- 1 - KICKPLATE HAGER 190S 10 X 34 630
- 1 - WALL STOP HAGER 236W 630

FINISH PAINT DOOR AND FRAME UNIT IN FIELD. REFER TO FINISH SCHEDULE FOR ADDITIONAL INFORMATION.



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CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857
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HOLLOW METAL FRAME
DETAILS

SEAL:



SHEET:

A-552

MATERIALS SCHEDULE				ALL FINISHES NOTED IN FINISH SCHEDULE AND/OR ON DRAWINGS SHALL BE SUBMITTED TO ARCHITECT IN FORM OF SHOP DRAWING AND INCLUDE: PRODUCT SPECIFICATIONS, SAMPLES, AND LEAD TIME FOR DELIVERY. NO PRODUCT SHALL BE PURCHASED WITHOUT THIS SUBMITTAL.			
FINISH CATEGORY	ID #	FINISH DESCRIPTION	SIZE FORM	MANUFACTURER DISTRIBUTOR	MODEL STYLE	COLOR - STYLE - CODE GROUT COLOR - TYPE	REMARKS NOTES DIRECTIVES
FLOOR	F-1	EXISTING TO REMAIN	-	-	-	-	-
	F-2	PORCELAIN TILE	12" x 24" 9 MM THICK	CROSSVILLE	SHADES 2.0	#SHD48 THUNDER UPS HONED	GROUT: MANUFACTURER: TEC PRODUCT: ACCU COLOR PREMIUM COLOR: 929, CHARCOAL GRAY JOINT RECOMMENDATION: 1/8"
	F-3	VINYL LAMINATE PLANK FLOORING	7"W x 48"L x 2.5MM	LG HAUSYS	PIKES PEAK PLANK	FEATHERED OAK #DTW1362	INSTALL IN AREA DESIGNATED ON F-111 IN DIRECTION DESIGNATED. PROVIDE COMPLETE INSTALLATION PER MANUFACTURERS RECOMMENDATIONS.
BASE	WB-1	EXISTING TO REMAIN	-	-	-	-	-
	WB-2	PORCELAIN TILE	6" x 12" COVE	CROSSVILLE	SHADES 2.0	#SHD48 THUNDER UPS HONED	GROUT: MANUFACTURER: TEC PRODUCT: ACCU COLOR PREMIUM COLOR: 929, CHARCOAL GRAY JOINT RECOMMENDATION: MINIMUM 1/8"
	WB-3	RUBBER	4" COVE	-	-	-	MATCH EX. ADJACENT
SURFACE FINISHES	S-1	EXISTING TO REMAIN	-	-	-	-	-
	S-2	PORCELAIN TILE	12" x 24" 9 MM THICK	CROSSVILLE	SHADES 2.0	#SHD44 MIST UPS HONED	GROUT: MANUFACTURER: TEC PRODUCT: ACCU COLOR PREMIUM COLOR: 929, MIST JOINT RECOMMENDATION: 1/8"
	S-3	PORCELAIN TILE	6" x 24" 9 MM THICK	CROSSVILLE	SHADES 2.0	#SHD48 THUNDER UPS HONED	GROUT: MANUFACTURER: TEC PRODUCT: ACCU COLOR PREMIUM COLOR: 929, MIST JOINT RECOMMENDATION: 1/8"
	S-4	PAINT	-	SHERWIN WILLIAMS LATEX EGGSHELL	-	#SW6196 FROSTY WHITE	FIELD PAINT COLOR
	S-5	PAINT	-	SHERWIN WILLIAMS LATEX EGGSHELL	-	#SW6803 DANUBE	ACCENT COLOR
	S-6	PAINT	-	SHERWIN WILLIAMS FLAT LATEX	-	#SW7007 CEILING BRIGHT WHITE	CEILING PAINT COLOR
	S-7	PAINT	-	SHERWIN WILLIAMS LATEX SEMI-GLOSS	-	-	METAL DOORS FRAMES - PRIMED NEW PAINT MATCH EX. BASE BUILDING STANDARD
	S-8	PAINT	-	SHERWIN WILLIAMS LATEX	-	-	MATCH EX. ADJACENT BASE BUILDING STANDARD COLOR AND SHEEN
	S-9	ACROVYN WALLCOVERING	-	CONSTRUCTION SPECIALTIES ACROVYN SOLID COLORS	.060"	#136 PEARL GREY	PROVIDE ALL ASSOCIATED TRIM REQUIRED FOR A COMPLETE INSTALLATION.
CEILING	CL-1	EXISTING TO REMAIN	-	-	-	-	-
	CL-2	GYP BOARD CEILING	-	5/8" DRYWALL ON METAL SUSPENSION SYSTEM	-	-	-
	CL-3	ACOUSTICAL LAY IN CEILING SYSTEM - GENERAL	24" x 48" x 1"	-	-	WHITE (WH)	MATCH EX. ADJACENT BASE BUILDING STANDARD COLOR AND FINISH MATCH EX. SUSPENDED GRID SYSTEM
MISCELLANEOUS	M-1	EXISTING TO REMAIN	-	-	-	-	-
	M-2	PLASTIC LAMINATE	-	PIONITE	-	#WY160 ABSOLUTE ACAJOU	
	M-3	SOLID SURFACE	1/2"	CORIAN	-	ANTARCTICA	EASED EDGES

FINISH & MATERIAL SUPPLIER INFORMATION

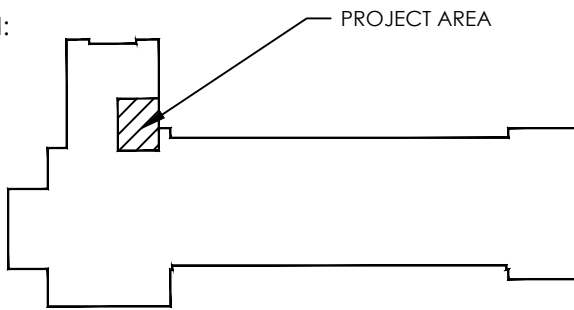
SUPPLIERS LISTED BELOW ARE FAMILIAR WITH THIS PROJECT AND SHALL BE CONTACTED BY RESPECTIVE CONTRACTOR IN ORDER TO OBTAIN APPROPRIATE PRICING | SAMPLES | LEAD TIMES AND DELIVERY SCHEDULES. ALL FINISHES NOTED IN FINISH SCHEDULE AND/OR ON DRAWINGS SHALL BE SUBMITTED TO ARCHITECT IN FORM OF SHOP DRAWING SUBMITTALS AND INCLUDE: 3 COPIES OF EACH - PRODUCT SPECIFICATIONS, SAMPLES, AND LEAD TIME FOR DELIVERY. NO PRODUCT SHALL BE PURCHASED WITHOUT THIS SUBMITTAL.

<p>WALL BASE:</p> <p>JOHNSONITE WALL BASE DISTRIBUTED BY BISHOP DISTRIBUTING CONTACT: JIM HAGOOD (734) 260-2177</p> <p>ROPPE WALL BASE DISTRIBUTED BY BLAKELY PRODUCTS COMPANY CONTACT: MARCUS PERRY (586) 246-1338 / MARCUS.PERRY@BLAKELYPRODUCTS.COM</p> <p>FLOOR WALL TILE:</p> <p>PRODUCTS BY VIRGINIA TILE COMPANY CONTACT: ROBIN C. SPEER CSI (734) 765-6875 / SPEER@VIRGINIATILE.COM</p> <p>PAINT:</p> <p>SHERWIN WILLIAMS PAINT CONTACT: DAWN M CENOWA, CSI, CDI / 248-660-3067 / DAWN.M.CENOWA@SHERWIN.COM</p>	<p>LAMINATES:</p> <p>PRODUCT BY NEVAMAR LAMINATES CONTACT: BETH GWYN (248) 321-7887</p> <p>PRODUCT BY FORMICA CORPORATION CONTACT: BRYCE HARTMAN (734) 368-7048</p> <p>PRODUCT BY WILSONART INTERNATIONAL CONTACT: HEATHER SABINO (734) 673-3003</p> <p>SOLID SURFACE:</p> <p>PRODUCT BY CORIAN, REPRESENTED BY H.J. OLDENKAMP CO. CONTACT: SABRINA KASSAB (586) 980-2413 SKASSAB@OLDENKAMP.COM</p>	<p>SYMBOL LEGEND</p> <p>REFER TO ELEVATIONS DETAILS SPECIFICATIONS FOR APPLICABILITY OF EACH FINISH AND ADDITIONAL INFORMATION.</p> <p>CEILING SPEC. - REFER TO FINISH SCHEDULE</p> <p>WALL FINISH SPEC. - REFER TO FINISH SCHEDULE</p> <p>FLOORING SPEC. - REFER TO FINISH SCHEDULE</p> <p>WALL BASE SPEC. - REFER TO FINISH SCHEDULE</p>
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FINISH NOTES

- WHEN PROJECT REQUIRES, ALL FINISHES MUST MEET THE REQUIREMENTS OF THE BUILDING DEPARTMENT AUTHORITY HAVING JURISDICTION OVER THIS PROJECT. CONTRACTOR MUST SUBMIT 3 SAMPLES OF ALL FINISHES - CUSTOM FABRICATIONS, MATERIALS, ETC. TO WCAA FOR REVIEW AND APPROVAL PRIOR TO FABRICATION (NO EXCEPTIONS).
- TILE FLOORS SHALL INCLUDE UNDER-FLOOR UNCOUPLING MEMBRANE INSTALLED BENEATH ALL NEW HARD FLOOR TILE.
- CONTRACTOR TO PROVIDE NEW SCHLUTER DITRA UNCOUPLING AND WATERPROOFING MEMBRANE THROUGHOUT SPACE DESIGNATED FOR HARD TILE. CONTRACTOR TO INSTALL PER ALL MANUFACTURE RECOMMENDATIONS.
 - DESCRIPTION: 1/8" (3 MM) THICK, ORANGE, HIGH-DENSITY POLYETHYLENE MEMBRANE WITH A GRID STRUCTURE OF 1/2" X 1/2" (12 MM X 12 MM) SQUARE CAVITIES, EACH CUT BACK IN A DOWNTAIL CONFIGURATION, AND A POLYPROPYLENE ANCHORING FLEECE LAMINATED TO ITS UNDERSIDE. CONFORMS TO DEFINITION FOR UNCOUPLING MEMBRANES IN THE TILE COUNCIL OF NORTH AMERICA HANDBOOK FOR CERAMIC TILE INSTALLATION; AND MEETS OR EXCEEDS THE REQUIREMENTS OF THE "AMERICAN NATIONAL STANDARD SPECIFICATIONS FOR LOAD BEARING, BONDED, WATERPROOF MEMBRANES FOR THIN-SET CERAMIC TILE AND DIMENSION STONE INSTALLATION A118.10" AND IS LISTED BY CUPIC®; AND IS EVALUATED BY ICC-ES (SEE REPORT NO. ESR-2467 AND PMG 1204).
 - WATERPROOFING SEAMING MEMBRANE.
 - PROVIDE WITH SCHLUTER-KERD-BAND SEAMS AND CORNERS MATERIAL. 0.004" (4 MIL) THICK, ORANGE POLYETHYLENE MEMBRANE, WITH POLYPROPYLENE FLEECE LAMINATED ON BOTH SIDES.
- AFTER INSTALLATION OF ANY FLOORING SURFACE AND/OR ANY CONSTRUCTION ACTIVITY, CLEAN ALL FLOOR FINISHES USING PROCEDURES OUTLINED BY EACH SPECIFIC MANUFACTURER.
- ALL FLOOR TILE INSTALLATIONS MUST BE "THINSET," CONFIRM THICKNESS OF ALL TILES PRIOR TO FABRICATION OF ANY DOOR | OPENING OVER TILE.
- ANY FLOOR TRANSITIONS (FINISH TO FINISH) SHALL NOT EXCEED 2% IN SLOPE.
- ANY DAMAGE TO THE BASE BUILDING CAUSED BY THE TENANT'S CONTRACTOR(S) SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE TENANT'S CONTRACTOR(S).
- CONTRACTOR TO PROVIDE HOLES | GROMMETS IN COUNTER TOPS AND AS NOTED FOR ALL PLUMBING FIXTURES / ACCESSORIES. CONTRACTOR TO VERIFY REQUIREMENT OF EACH HOLE PRIOR TO DRILLING.
- ALL TILE SPECIFICATIONS MUST BE CONFIRMED BY CONTRACTOR PRIOR TO ORDER AND INSTALLATION. TILE THICKNESS MUST BE CONFIRMED PRIOR TO ANY PLACEMENT AND SHALL BE COORDINATED WITH ADJACENT FLOOR FINISH SPECIFICATIONS.
- ALL PAINTING FINISHES SPECIFIED HEREIN MUST BE CONFIRMED BY CONTRACTOR FOR THE FOLLOWING:
 - COMPATIBILITY OF ALL PAINTING PRODUCTS AND SUBSTRATES.
 - ACCEPTABILITY OF SUBSTRATES PRIOR TO PAINT APPLICATION.
 - FILM THICKNESS, SPREADING RATES, AND COATS REQUIRED BEYOND SPECIFIED MINIMUMS.
 - MATCHING OF EXISTING COLOR | FINISH WHERE APPLICABLE.
 - CONFIRMATION OF PAINT FINISH TYPE SPECIFIED AND THE COMPATIBILITY WITH USE INTENDED. UNDER NO CONDITIONS SHALL A FINISH TYPE SPECIFIED BE USED IF IT IS NOT ACCEPTABLE FOR AN INTENDED END-USER FUNCTION. CONSULT WITH ARCHITECT PRIOR TO COMMENCEMENT.
 - QUALITY OF APPLICATION TO EACH CONDITION.
 - PAINTING CONTRACTOR MUST SUBMIT 3 STRIKE-OFF SAMPLES OF EACH COLOR | TYPE OF PAINT FINISH SPECIFIED TO ARCHITECT FOR REVIEW AND APPROVALS PRIOR TO COMMENCEMENT.
- REFER TO STANDARD TRANSITION DETAILS | NOTES ON SHEET A-422 FOR ADDITIONAL REQUIREMENTS.
- IF GROUT COLOR SPECIFIED IS NO LONGER AVAILABLE CONTRACTOR TO SUBMIT ALTERNATE / OR EQUAL COLOR FOR REVIEW PRIOR TO INSTALLATION.
- CENTER FLOOR FINISH TRANSITION UNDER DOOR IN CLOSEST POSITION. U.N.O. REFER TO FLOOR FINISH TRANSITION DETAIL FOR ADDITIONAL INFORMATION.

KEYPLAN:



FINISH & MATERIAL REQUIREMENTS

- TOILET ROOM | SHOWER ROOM FLOORS AND WALL BASE FINISH MATERIALS (PER SECTION 1210.1 **MBC 2015**): TOILET ROOM | SHOWER ROOM FLOOR FINISH MATERIALS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE. THE INTERSECTIONS OF SUCH FLOORS WITH WALLS SHALL HAVE A SMOOTH, HARD, NONABSORBENT VERTICAL BASE THAT EXTENDS UPWARD ONTO THE WALL AT LEAST 4 INCHES.
- WALLS AND PARTITIONS (PER SECTION 1210.2 **MBC 2015**): WALLS AND PARTITIONS WITHIN 2 FEET OF URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE, TO A HEIGHT OF 4 FEET ABOVE THE FLOOR AND SHALL BE OF A TYPE THAT IS NOT ADVERSELY AFFECTED BY MOISTURE.
- MEANS OF EGRESS FLOOR SURFACE (PER SECTION 1003.4 **MBC 2015**): WALKING SURFACES OF THE MEANS OF EGRESS SHALL HAVE A SLIP-RESISTANT SURFACE AND BE SECURITY ATTACHED.
- ALL TILE, LAMINATE FLOORING, CARPET, WALLCOVERING AND OTHER PRODUCTS MUST BE ORDERED FROM THE SAME DETLOITS. UNDER NO CONDITION SHALL DIFFERENT DETLOITS BE USED WITHIN SAME ROOM OR WITHIN VIEW OF ONE ANOTHER.

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HARD TILE INSTALLATION NOTES | REQUIREMENTS

- PLUMBING CONTRACTOR TO COORDINATE WITH TILE CONTRACTOR TO ENSURE FLOOR DRAINS ARE SET FLUSH WITH TOP OF FINISH TILE FLOOR OR SEALED CONCRETE. REFER TO PLUMBING DRAWINGS FOR DRAIN LOCATIONS AND FLOOR FINISH SCHEDULE FOR FLOORING THICKNESS | SETTING METHOD.
- CONTRACTOR TO FOLLOW MOST CURRENT EDITION OF THE TCNA HANDBOOK (TILE COUNCIL OF NORTH AMERICA) STANDARDS AND REQUIREMENTS FOR TILE INSTALLATION.
- TYPICAL BASE INSTALLATION - COMPLY WITH INTERIOR ELEVATIONS FOR JOINT ALIGNMENT DIAGRAMS OR ALIGN JOINTS IN BASE WITH JOINTS IN WALL / FLOOR TILE PATTERN WHEREVER POSSIBLE. CONSULT WITH ARCHITECT IF JOINTS CANNOT MATCH.
- FLOORING CONTRACTOR IS RESPONSIBLE FOR ALL FLOOR PREP NECESSARY FOR SMOOTH SURFACE TRANSITION AT ALL NEW FLOORING.
- NO ACID TO BE USED FOR CLEANING FLOORS AFTER INSTALLATION AND DURING CONSTRUCTION TURNOVER. USE SOAP AND WATER OR CLEANING AGENT APPROVED BY EACH INDIVIDUAL FLOORING MANUFACTURER.
- AVERAGE AREA CONTACT FOR WALL TILE TO BE 95%. MORTAR COVERAGE TO BE EVENLY DISTRIBUTED TO SUPPORT EDGES AND CORNERS.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF THE TILE/GROUT IN ALL AREAS DURING CONSTRUCTION.
- EXTRA MATERIALS:
 - PROVIDE TO SQ FT OF EACH SIZE, COLOR AND SURFACE FINISH OF TILE SPECIFIED.
 - PROVIDE 1 GALLON OF EACH FLOOR CLEANER
 - HEAVY GROUT AND STAIN REMOVER: TEXSPAR AND TEXSPAR PLUS (OR SIMILAR - SUBMIT TO ARCHITECT FOR APPROVAL)
 - FLOOR CLEANER/SEALER: FLOORSHINE R20 (OR SIMILAR - SUBMIT TO ARCHITECT FOR APPROVAL)
- PROTECTION OF FINISHED WORK:
 - DO NOT PERMIT TRAFFIC OVER FINISHED FLOOR SURFACE FOR 4 DAYS AFTER INSTALLATION.
 - PROVIDE TWO LAYERS OF CRAFT PAPER OVER ALL TILE AND GROUT ON FLOORS.
 - TAPE DOWN AND STAGGER SEAMS BY HALF THE WIDTH ON SECOND LAYER.
- FLOORING CONTRACTOR TO CONFIRM CONDITION OF CONCRETE FLOOR SLAB PRIOR TO INSTALLATION OF FLOOR FINISHES.
 - FLOORING CONTRACTOR RESPONSIBLE FOR DETERMINING ACCEPTABILITY OF FLOOR FINISH AND LEVEL PRIOR TO INSTALLATION OF MATERIALS AND FINISHES.
 - CONTRACTOR(S) MUST PREPARE FLOOR SURFACE PER FLOOR FINISH PER MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS PRIOR TO INSTALLATION OF MATERIALS.
- WALL FINISH CONTRACTOR TO CONFIRM CONDITION OF WALL CONSTRUCTION AND LEVEL OF FINISH PRIOR TO INSTALLATION OF WALL FINISHES.
 - WALL FINISH CONTRACTOR RESPONSIBLE FOR DETERMINING ACCEPTABILITY OF WALL FINISH AND TAPING PRIOR TO INSTALLATION OF MATERIALS AND FINISHES.
- REFER TO INTERIOR SECTIONS / ELEVATIONS / DETAILS FOR ADDITIONAL FINISH INFORMATION.
- CONTROL JOINTS (TYP.) PER TCA HANDBOOK FOR CERAMIC TILE INSTALLATION LATEST EDITION - MOVEMENT JOINT ESSENTIALS E1171-03.
 - CONTRACTOR TO COORDINATE LOCATION OF CONTROL JOINTS ALONG GROUT LINES. CONTRACTOR TO CONFIRM WITH ARCHITECT PRIOR TO INSTALLATION.

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DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:
<div><div>DETROIT AIRPORT AUTHORITY www.detroit-airport-authority.com</div></div>	
PROJECT: WAYNE COUNTY AIRPORT AUTHORITY DTW ARRF STATION 100 Women's Locker Room Improvements 12901 Dingell Drive, #802 Detroit, MI 48242	
arconcepts PROJECT # WCA22-016	
NOT ISSUED FOR CONSTRUCTION	CLIENT REFERENCE #: 5857

FINISHES / MATERIALS SCHEDULE

SEAL:



SHEET:

A-612

MECHANICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	COMPRESSED AIR	FD	FLOOR DRAIN	PAQU	PACKAGED AIR CONDITIONING UNIT
A (#)	COMPRESSED AIR (SPECIFIC PSIG)	FDL	FUNNEL FLOOR DRAIN	PBD	PARALLEL BLADE DAMPER
AAV	AUTOMATIC AIR VENT	FDH	FIRE HYDRANT	PC	PUMPED CONDENSATE
ACC	AIR COOLED CONDENSER	FHC	FIRE HOSE CABINET	PCW	PROCESS COOLING WATER
ACCU	AIR COOLED CONDENSING UNIT	FHR	FIRE HOSE RACK	PCHW	PROCESS COOLING WATER RETURN
AD	ACCESS DOOR	FHV	FIRE HOSE VALVE	PCWS	PROCESS COOLING WATER SUPPLY
AD	AREA DRAIN	FLA	FULL LOAD AMPS	PD	PRESSURE DROP (FEET OF WATER)
AE	AIR EXTRACTOR	FLR	FLOOR	PH	PERIMETER HEAT
AFF	ABOVE FINISHED FLOOR	FM	FLOW METER	PHR	CIRCULATING PUMP
AHU	AIR HANDLING UNIT	FMS	FLOW MEASURING STATION	PHS	PERIMETER HEAT RETURN
ALT	ALTERNATE	FOT	FEET PER MINUTE	PHS	PERIMETER HEAT SUPPLY
AMP	AMPERE	FT	FEET	PHL	PANEL
APD	AIR PRESSURE DROP	FTR	FINNED TUBE RADIATION	PHM	PARTS PER MILLION
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS	FV	FACE VELOCITY	PI	PRESSURE
ASR	AUTOMATIC SPRINKLER RISER	G	NATURAL GAS	PIV	PRESSURE REDUCING VALVE
ATD	AIR TRANSFER DUCT	GA	GAUGE	PSAN	PUMPED SANITARY
AUX	AUXILIARY	GAL	GALLON	PST	PUMPED STORM
AV	ACID VENT	GRH	GRAVITY RELIEF HOOD	PSI	POUNDS PER SQUARE INCH
AVTR	ACID VENT THROUGH ROOF	GPH	GALLONS PER HOUR	PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
AW	ACID WASTE	GPM	GALLONS PER MINUTE	PSIG	POUNDS PER SQUARE INCH - GAUGE
		GSAN	GREASE SANITARY WASTE	PW	PURIFIED WATER
		H	HYDROGEN	PWR	PURIFIED WATER RETURN
BAS	BUILDING AUTOMATION SYSTEM	HB	HOSE BIBB	PWS	PURIFIED WATER SUPPLY
BCU	BLOWER COIL UNIT	HC	HEATING COIL		
BDD	BACKDRAFT DAMPER	HD	HOT DECK		
BFF	BELOW FINISHED FLOOR	HEPA	HIGH EFFICIENCY PARTICULATE ARRESTANCE		
BFP	BACKFLOW PREVENTER	HL	HIGH LIMIT		
BHP	BRAKE HORSEPOWER	HOA	HAND/OFF/AUTO		
BDU	BOTTOM OF DUCT	HP	HORSEPOWER		
BOP	BOTTOM OF PIPE	HPW	HIGH PRESSURE DOMESTIC COLD WATER		
BTU	BRITISH THERMAL UNIT	HPWH	HIGH PRESSURE DOMESTIC HOT WATER		
BTUH	BRITISH THERMAL UNIT PER HOUR	HPWHR	HIGH PRESSURE DOMESTIC HOT WATER RETURN		
BVC	BEVERAGE CONDUIT	HPL	HEAT PUMP LOOP		
BWV	BACKWATER VALVE	HPLR	HEAT PUMP LOOP RETURN		
		HPLS	HEAT PUMP LOOP SUPPLY		
C	COMMON	HR	HOUR		
CAP	CAPACITY	HRTG	HEATING		
CAV	CONSTANT AIR VOLUME	HRTV	HEATING VENTILATING		
CB	CATCH BASIN	HVAC	HEATING, VENTILATING, AIR CONDITIONING		
CC	COOLING COIL	HWH	HOT WATER HEATING		
CD	COLD DECK	HWR	HOT WATER RETURN		
CD	CONDENSATE DRAIN	HWHS	HOT WATER HEATING SUPPLY		
CFH	CUBIC FEET PER HOUR	HW	DOMESTIC HOT WATER		
CFM	CUBIC FEET PER MINUTE	HWL	DOMESTIC HOT WATER (SPECIFIC TEMP °F)		
CH	CHILLER	HWR	DOMESTIC HOT WATER RETURN		
CHW	CHILLED WATER	HX	HEAT EXCHANGER		
CHWR	CHILLED WATER RETURN	HZ	HERTZ		
CHWS	CHILLED WATER SUPPLY				
CLG	COOLING				
CND	CONDENSATE				
CND5	CONDENSATE (SPECIFIC PSIG)				
CND5 (#)	CLEAN OUT				
CO	CARBON DIOXIDE				
CONT	CONTINUATION OR CONTINUED				
CONTR	CONTRACTOR				
CONV	CONVECTOR				
COP	COEFFICIENT OF PERFORMANCE				
CP	CIRCULATING PUMP				
CRU	CONDENSATE RETURN UNIT				
CSS	CLINICAL SERVICE SINK				
CT	CULING TOWER				
CUH	CABINET UNIT HEATER				
CW	DOMESTIC COLD WATER				
CWF	DOMESTIC COLD WATER - FILTERED				
CWR	CONDENSER WATER RETURN				
CWS	CONDENSER WATER SUPPLY				
D&T	DRIP AND TRAP				
DA	DISCHARGE AIR				
DAT	DISCHARGE AIR TEMPERATURE				
DB	DRY BULB				
DDC	DIRECT DIGITAL CONTROL				
DDC	DEGREE				
DFU	DRAINAGE FIXTURE UNITS				
DIA	DIAMETER				
DAMP	DAMPER				
D/N	DAY/NIGHT				
DN	DOWN				
DNZ	DOWNSPOUT NOZZLE				
DS	DUCT SLENDER				
DT	DRAIN TILE				
DTIC	DRAIN TILE CONNECTION				
DWH	DOMESTIC WATER HEATER				
DWG	DRAWING				
(E)	EXISTING				
E	EXHAUST GRILLE OR REGISTER				
EA	EACH				
EAT	ENTERING AIR TEMPERATURE				
EC	EXPANSION COMPENSATOR				
ECOH	ELECTRIC CABINET UNIT HEATER				
EDB	ENTERING DRY BULB				
EER	ENERGY EFFICIENCY RATIO				
EES	EMERGENCY EYE WASH / SHOWER				
EW	EMERGENCY EYE WASH				
EF	EXHAUST FAN				
EFF	EFFICIENCY				
EHC	ELECTRIC HEATING COIL				
EJ	EXPANSION JOINT				
EL	ELEVATION				
ELEC	ELECTRICAL				
EMS	ENERGY MANAGEMENT SYSTEM				
ERL	ENERGY RECOVERY LOOP				
ERLR	ENERGY RECOVERY LOOP RETURN				
ERLS	ENERGY RECOVERY LOOP SUPPLY				
ERU	ENERGY RECOVERY UNIT				
ESC	EMERGENCY SHOWER				
ESP	EXTERNAL STATIC PRESSURE				
EUH	ELECTRIC UNIT HEATER				
EWB	ELECTRIC WATER COOLER				
EWG	ELECTRIC WATER COOLER				
EWT	ENTERING WATER TEMPERATURE				
EXH	EXHAUST				
F	FIRE PROTECTION				
F&B	FACE AND BYPASS				
F&T	FLOAT AND THERMOSTATIC				
FA	FACE AREA				
FOU	FAN COIL UNIT				

TEMPERATURE CONTROL - PARTIAL SYMBOLS LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CARBON DIOXIDE SENSOR		OCCUPANCY SENSOR
	CARBON MONOXIDE SENSOR		PRESSURE TRANSMITTER
	DIFFERENTIAL PRESSURE TRANSMITTER		STATIC PRESSURE SENSOR OR PROBE
	FLOW METER		VALVE - 2 WAY CONTROL VALVE
	GUARD FOR STAT OR SENSOR		VALVE - 3 WAY CONTROL VALVE
	HUMIDISTAT OR HUMIDITY SENSOR (AS DEFINED ON TC DRAWINGS)		THERMOSTAT OR TEMPERATURE SENSOR (AS DEFINED ON TC DRAWINGS)

NOTE: LIST OF ADDITIONAL SYMBOLS & ABBREVIATIONS ASSOCIATED WITH TEMPERATURE CONTROLS ARE IDENTIFIED ON TC DRAWINGS.

MECHANICAL SYMBOL LIST

PIPING SYMBOLS		DUCTWORK SYMBOLS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AIR VENT - AUTOMATIC		AIR VENT - AUTOMATIC
	AIR VENT - MANUAL		AIR TERMINAL UNIT
	BACKFLOW PREVENTER		AIR TERMINAL UNIT WITH HEATING COIL
	CATCH BASIN		VENTURI AIR TERMINAL UNIT
	CIRCULATING PUMP		VENTURI AIR TERMINAL UNIT WITH HEATING COIL
	CLEAN OUT - IN FLOOR		DAMPER - HORIZONTAL FIRE (EXISTING, NEW)
	CLEAN OUT - FLANGE		DAMPER - HORIZONTAL FIRE / SMOKE (EXISTING, NEW)
	DIRECTION OF FLOW		DAMPER - SMOKE (EXISTING, NEW)
	DIRECTION OF PITCH - DOWN		DAMPER - VERTICAL FIRE (EXISTING, NEW)
	FINNED TUBE RADIATION		DAMPER - VERTICAL FIRE / SMOKE (EXISTING, NEW)
	FIRE PROTECTION - SIAMESE CONNECTION - FREE STANDING		DAMPER - BACK DRAFT
	FIRE PROTECTION - SIAMESE CONNECTION - WALL MOUNTED		DAMPER - MOTORIZED
	FIRE PROTECTION - SPRINKLER HEAD, CONCEALED		DAMPER - VOLUME (MANUALLY ADJUSTABLE)
	FIRE PROTECTION - SPRINKLER HEAD, PENDANT		DIFFUSER - BLANK OFF
	FIRE PROTECTION - SPRINKLER HEAD, UPRIGHT		DIFFUSER - LINEAR SLOT
	FIRE PROTECTION - SPRINKLER HEAD, SIDEWALL		DIFFUSER - SQUARE OR RECTANGULAR
	FLOOR DRAIN		DUCT CROSS SECTION - SUPPLY
	FLOOR DRAIN - ELEVATION		DUCT CROSS SECTION - RETURN
	FLOOR DRAIN - FUNNEL		DUCT - FLEXIBLE CONNECTION
	FLOOR DRAIN - FUNNEL, ELEVATION		DUCT - FLEXIBLE DUCT
	FLOW MEASURING DEVICE (FOR TEST AND BALANCING)		DUCT TAKE-OFF - ROUND CONICAL
	FLOW SWITCH		DUCT TAKE-OFF - RECTANGULAR WITH SHOE TAP
	FLOW METER		ELBOW - RECTANGULAR WITH TURNING VANES
	HOSE BIBB		ELBOW - RECTANGULAR/ ROUND SMOOTH RADIUS
	OPEN SITE DRAIN		ELBOW DOWN - RECTANGULAR
	PIPE - ANCHOR		ELBOW DOWN - ROUND
	PIPE - CAP OR PLUG		ELBOW UP - RECTANGULAR
	PIPE - ELBOW DOWN		ELBOW UP - ROUND
	PIPE - ELBOW UP		FAN - AXIAL
	PIPE - EXPANSION JOINT OR COMPENSATOR		FAN - CENTRIFUGAL (ELEVATION)
	PIPE - FLANGE		HEATING COIL
	PIPE - HOSE AND BRAID FLEXIBLE CONNECTION		INCLUDED DROP IN DIRECTION OF AIRFLOW
	PIPE - RUBBER FLEXIBLE CONNECTION		INCLUDED RISE IN DIRECTION OF AIRFLOW
	PIPE - GUIDE		INTAKE OR RELIEF HOOD
	PIPE - TEE DOWN		REGISTER - RETURN OR EXHAUST
	PIPE - TEE UP		REGISTER - RETURN WITH BOOT
	PIPE - UNION		REGISTER - TRANSFER GRILLE
	PRESSURE AND TEMPERATURE TEST PLUG		ROOF EXHAUST FAN
	PRESSURE GAUGE AND COOK		TRANSITION - CONCENTRIC
	REDUCER - CONCENTRIC		TRANSITION - ECCENTRIC
	REDUCER - ECCENTRIC		UNIT HEATER - HORIZONTAL THROW
	REDUCER - FLOAT AND THERMOSTATIC		UNIT HEATER - VERTICAL THROW
	STEAM TRAP - BUDGET		
	STEAM TRAP - TRAP		
	STRAINER		
	STRAINER WITH VALVE AND BLOW-OFF		
	THERMOMETER		
	TRAP		
	VALVE - ANGLE		
	VALVE - BALL		
	VALVE - BUTTERFLY		
	VALVE - BALANCE (I.e. BALANCE VALVE TO 0.5 GPM)		
	VALVE - COMBINATION BALANCE & FLOW MEASURING (I.e. BALANCE VALVE TO 0.5 GPM)		
	VALVE - CHECK		
	VALVE - SPRING CHECK		
	VALVE - GAS (MANUAL)		
	VALVE - GLOBE		
	VALVE - ISOLATION		
	VALVE - NEEDLE		
	VALVE - OS&Y		
	VALVE - PLUG		
	VALVE - PRESSURE REGULATING		
	VALVE - PRESSURE REDUCING		
	VALVE - PRESSURE RELIEF		
	VALVE - PRESSURE & TEMPERATURE RELIEF		
	VENT THROUGH ROOF		
	WALL HYDRANT		
	WATER METER		
	GAS METER		

DOUBLE LINE PIPING SYMBOLS

SYMBOL	DESCRIPTION
	FLANGE
	FLEX CONNECTION
	STRAINER - BASKET
	STRAINER - Y TYPE
	VALVE - 2 WAY CONTROL
	VALVE - 3 WAY CONTROL
	VALVE - BUTTERFLY
	VALVE - CHECK
	VALVE - DETECTOR CHECK
	VALVE - OS&Y HORIZONTAL STEM
	VALVE - OS&Y VERTICAL STEM

MECHANICAL DRAWING INDEX

SHEET NO.	SHEET TITLE
M-001	MECHANICAL STANDARDS AND DRAWING INDEX
M-002	MECHANICAL SPECIFICATIONS
M-003	MECHANICAL SPECIFICATIONS
M-004	FIRE PROTECTION AND PLUMBING SPECIFICATIONS
M-101	FIRE PROTECTION PLAN
M-200	UNDERGROUND PLUMBING PLANS
M-201	PLUMBING PLANS
M-401	SHEET METAL PLANS
M-601	MECHANICAL DETAILS
M-602	MECHANICAL DETAILS
M-701	MECHANICAL SCHEDULES
M-702	MECHANICAL SCHEDULES
M-703	MECHANICAL SCHEDULES
M-801	TEMPERATURE CONTROL STANDARDS AND GENERAL NOTES
M-802	TEMPERATURE CONTROLS

STANDARD METHODS OF NOTATION

	SUPPLY DIFFUSER WITH SCHEDULE TAG "1", 10" DIAMETER NECK SIZE 350 CFM TYPICAL FOR 4
	RETURN REGISTER WITH SCHEDULE TAG "1", 22" X 22" NECK SIZE 640 CFM TYPICAL FOR 2
	EXHAUST REGISTER E DESIGNATION SIMILAR.
	AIR TERMINAL UNIT WITH HEATING COIL NO. 101 WITH SERVICE CLEARANCE SHOWN
	VENTURI AIR TERMINAL WITH HEATING COIL NO. 101 WITH SERVICE CLEARANCE SHOWN
	PLUMBING FIXTURE UNIT IDENTIFICATION TAG WATER CLOSET TYPE "1" TYPICAL FOR 2
	PIPE DIAMETER NOTATION ALL SIZES IN INCHES
	DUCT SIZE NOTATION ALL SIZES IN INCHES
	OVAL DUCT RECTANGULAR DUCT
	CONSTRUCTION KEY NOTE (NUMBER) OR DEMOLITION KEY NOTE (LETTER)
	EQUIPMENT DESIGNATION, (I.e. EXHAUST FAN NUMBER 1)
	PIPING RISER DESIGNATION (I.e. HOT WATER RISER NUMBER 1)
	NEW SYSTEM COMPONENT
	EXISTING SYSTEM COMPONENT TO REMAIN
	POINT OF NEW CONNECTION SYMBOL
	SECTION OR PLAN NUMBER
	SHEET WHERE SECTION IS DRAWN
	AREA OF ENLARGEMENT
	PLAN NUMBER
	SHEET WHERE ENLARGED PLAN IS DRAWN
	SECTION OR PLAN NUMBER
	SHEET WHERE SECTION IS CUT OR ENLARGED PLAN IS REFERENCED
	MATCH LINE
	HEAVY LINE WEIGHT INDICATES NEW WORK
	LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT OR REFERENCED INFORMATION
	GRAY LINE INDICATES BACKGROUND INFORMATION
	DASHED LINES INDICATE PIPING ROUTED BELOW SLAB OR GRADE
	HATCH MARKS INDICATE EQUIPMENT OR MATERIALS TO BE DISCONNECTED AND REMOVED.

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.



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KEYPLAN:

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DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023-03-02	PERMITS/CONSTRUCTION	MDR	DAC
2022-10-05	ISSUED FOR BIDS (IFB)	MDR	DAC
2022-09-19	OWNER REVIEW	MDR	DAC

DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:
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PROJECT:

WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016	CLIENT REFERENCE:
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MECHANICAL STANDARDS AND DRAWING INDEX

SEAL:

SHEET:

M-001

g:\2022\2022-0270-00\CAD\2022-0270-MO-SPC.dwg, M-003, 3/3/2023 9:36:36 AM, Nadeen F. Hamid, Peter Basso Associates Inc.

- a. MANUFACTURERS: HARDCAST; FLEX-GRIP 550 AND VERSA-GRIP 181 | POLYMER ADHESIVES; NO. 11 | UNITED MCGILL.
4. FLANGED JOINT MASTIC: ONE-PART, AID-CURING, ELASTOMERIC JOINT SEALANT COMPLYING WITH ASTM C 920, TYPE S, GRADE NS, CLASS 25, USE 0.
5. GASKETS: CHLOROPRENE ELASTOMER, 40 DUROMETER, 1/8 INCH THICK, FULL FACE, ONE PIECE VULCANIZED OR DOVETAILED AT JOINTS.
- C. HANGERS AND SUPPORTS:
1. BUILDING ATTACHMENTS: CONCRETE INSERTS, OR STRUCTURAL-STEEL FASTENERS APPROPRIATE FOR CONSTRUCTION MATERIALS TO WHICH HANGERS ARE BEING ATTACHED.
2. HANGER MATERIALS: GALVANIZED SHEET STEEL OR THREADED STEEL ROD.
3. DUCT ATTACHMENTS: SHEET METAL SCREWS, BLIND RIVETS, OR SELF-TAPPING METAL SCREWS; COMPATIBLE WITH DUCT MATERIALS. ATTACHMENTS FOR STAINLESS STEEL AND PVC-COATED DUCT SHALL BE STAINLESS STEEL.
4. TRAPEZE AND RISER SUPPORTS: STEEL SHAPES COMPLYING WITH ASTM A 36/A 36M.
5. LOAD RATED CABLE SUSPENSION SYSTEM: TESTED TO FIVE TIMES THE SAFE WORKING LOADS AND VERIFIED BY THE SMAQNA TESTING AND RESEARCH INSTITUTE.
- a. MANUFACTURERS: DUCTMATE INDUSTRIES, INC., CLUTCHER AND EZ-LOCK | DURO DYNE CORP., DYNA-TITE SYSTEM | GRIPPLE INC., HANG-FAST SYSTEM.
6. WELDED SUPPORTS: STRUCTURAL STEEL SHAPES WITH ZINC RICH PAINT, EQUIVALENT, PROPRIETARY DESIGN ROLLED STEEL STRUCTURAL SUPPORT SYSTEMS MAY BE USED IN LIEU OF MILL ROLLED STRUCTURAL STEEL.
- D. RECTANGULAR DUCT FABRICATION: FABRICATE DUCTS, ELBOWS, TRANSITIONS, OFFSETS, BRANCH CONNECTIONS, AND OTHER CONSTRUCTION ACCORDING TO SMAQNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE" AND COMPLYING WITH REQUIREMENTS FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE-ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS.
- E. ROUND AND FLAT-OVAL DUCT AND FITTING FABRICATION:
1. DIAMETER AS APPLIED TO FLAT-OVAL DUCTS IN THIS ARTICLE IS THE DIAMETER OF A ROUND DUCT WITH A CIRCUMFERENCE EQUAL TO THE PERIMETER OF A GIVEN SIZE OF FLAT-OVAL DUCT.
2. ROUND, SPIRAL LOCK-SEAM DUCTS: FABRICATE SUPPLY DUCTS OF GALVANIZED STEEL ACCORDING TO SMAQNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE."
3. FLAT-OVAL, SPIRAL LOCK-SEAM DUCTS: FABRICATE SUPPLY DUCTS ACCORDING TO SMAQNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE."

233300 – DUCT ACCESSORIES

- A. QUALITY ASSURANCE: COMPLY WITH NFPA 90A, "INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS," AND NFPA 90B, "INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS."
- B. BIRD SCREENS: NO. 2 MESH, 0.063 INCH DIAMETER GALVANIZED WIRE SCREEN WITH OPEN AREA OF NOT LESS THAN 72 PERCENT. CONCEAL SHARP EDGES BY ADDING METAL EDGING CONSISTING OF ROD, FLAT OR ANGLE IRON, OR 16 GAGE GALVANIZED SHEET STEEL TURNED OVER AT LEAST 3/4 INCH ON BOTH SIDES.
- C. MANUAL VOLUME DAMPERS (LOW PRESSURE):
1. FACTORY FABRICATED, WITH REQUIRED HARDWARE AND ACCESSORIES. STIFFEN DAMPER BLADES FOR STABILITY. INCLUDE LOCKING DEVICE TO HOLD SINGLE-BLADE DAMPERS IN A FIXED POSITION WITHOUT VIBRATION. CLOSE DUCT PENETRATIONS FOR DAMPER COMPONENTS TO SEAL DUCT CONSISTENT WITH PRESSURE CLASS.
2. DAMPER HARDWARE: ZINC-PLATED, DIE-CAST CORE WITH DIAL AND HANDLE MADE OF 3/32-INCH- THICK ZINC-PLATED STEEL, AND A 3/4-INCH HEXAGON LOCKING NUT. INCLUDE CENTER HOLE TO SUIT DAMPER OPERATING-ROD SIZE. INCLUDE ELEVATED PLATFORM FOR INSULATED DUCT MOUNTING.
3. MANUFACTURERS: AMERICAN WARMING AND VENTILATING | ARROW UNITED INDUSTRIES | GREENHECK | KRUEGER | LOUVERS AND DAMPERS | NAILOR INDUSTRIES INC. | RUSKIN COMPANY | VENT PRODUCTS COMPANY, INC. | YOUNG REGULATOR COMPANY.
- D. TURNING VANES:
1. FABRICATE TO COMPLY WITH SMAQNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE" FOR VANES AND VANE RUNNERS. VANE RUNNERS SHALL AUTOMATICALLY ALIGN VANES.
2. MANUFACTURED TURNING VANES: DOUBLE-VANE OR AIRFOIL-SHAPED, CURVED BLADES OF GALVANIZED SHEET STEEL SET INTO VANE RUNNERS SUITABLE FOR DUCT MOUNTING.
- a. MANUFACTURERS: AERO/DYNE COMPANY | DUCTMATE INDUSTRIES, INC. | DURO DYNE CORP. | WARD INDUSTRIES, INC.
3. ACOUSTIC TURNING VANES: DOUBLE-VANE CURVED BLADES OF GALVANIZED SHEET STEEL WITH PERFORATED FACES AND FIBROUS-GLASS FILL SET INTO VANE RUNNERS SUITABLE FOR DUCT MOUNTING.
- a. MANUFACTURERS: DUCTMATE INDUSTRIES, INC. | WARD INDUSTRIES, INC.
- E. DUCT-MOUNTING ACCESS DOORS:
1. FABRICATE DOORS AIRTIGHT AND SUITABLE FOR DUCT PRESSURE CLASS. DOORS MAY BE FIELD FABRICATED IN ACCORDANCE WITH SMAQNA STANDARDS, OR COMMERCIALY PRODUCED.
2. DOOR: DOUBLE WALL, DUCT MOUNTING, AND RECTANGULAR; FABRICATED OF GALVANIZED SHEET METAL WITH INSULATION FILL AND THICKNESS AS INDICATED FOR DUCT PRESSURE CLASS. INCLUDE VISION PANEL WHERE INDICATED. INCLUDE BUTT OR PIANO HINGE AND CAM LATCHES.
- a. MANUFACTURERS: AIR BALANCE, INC. | GREENHECK | NAILOR INDUSTRIES INC. | RUSKIN COMPANY.
3. DOOR: DOUBLE WALL, DUCT MOUNTING, AND ROUND; FABRICATED OF GALVANIZED SHEET METAL WITH INSULATION FILL AND 1-INCH THICKNESS. INCLUDE CAM LATCHES.
- a. MANUFACTURERS: DUCTMATE INDUSTRIES, INC. | FLEXMASTER U.S.A., INC.
4. INSTALL DUCT-MOUNTING, RECTANGULAR ACCESS DOORS WITH LONG DIMENSION AT RIGHT ANGLES TO DIRECTION OF AIRFLOW AND OF LARGEST STANDARD SIZE WHICH CAN BE ACCOMMODATED IN DUCT. MAXIMUM SIZE: 21 BY 14 INCHES.
- F. FLEXIBLE CONNECTORS:
1. FLAME-RETARDANT OR NONCOMBUSTIBLE FABRICS, COATINGS, AND ADHESIVES COMPLYING WITH UL 181, CLASS 1.
2. METAL-EDGED CONNECTORS: FACTORY FABRICATED WITH A FABRIC STRIP ATTACHED TO TWO STRIPS OF GALVANIZED SHEET STEEL, STAINLESS STEEL OR ALUMINUM SHEETS. SELECT METAL COMPATIBLE WITH DUCTS.
3. INDOOR SYSTEM, FLEXIBLE CONNECTOR FABRIC: GLASS FABRIC DOUBLE COATED WITH NEOPRENE.
4. OUTDOOR SYSTEM, FLEXIBLE CONNECTOR FABRIC: GLASS FABRIC DOUBLE COATED WITH WEATHERPROOF, SYNTHETIC RUBBER RESISTANT TO UV RAYS AND OZONE.
5. HIGH-TEMPERATURE SYSTEM, FLEXIBLE CONNECTORS: GLASS FABRIC COATED WITH SILICONE RUBBER.
6. HIGH-CORROSIVE-ENVIRONMENT SYSTEM, FLEXIBLE CONNECTORS: GLASS FABRIC WITH CHEMICAL-RESISTANT COATING.
7. MANUFACTURERS: ADSCO MANUFACTURING LLC. | DURO DYNE CORP. | SENIOR FLEXONICS PATHWAY. | VENTFABRICS, INC.
- G. FLEXIBLE DUCTS, LOW AND MEDIUM PRESSURE:
1. FLEXIBLE DUCTS: INTERLOCKING SPIRAL OF GALVANIZED STEEL OR ALUMINUM CONSTRUCTION OR FABRIC SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE OR FLAT STEEL BANDS; RATED TO 6 INCHES WG POSITIVE AND 4 INCHES WG NEGATIVE FOR LOW AND MEDIUM PRESSURE DUCTS.
2. INSULATED FLEXIBLE DUCTS: FLEXIBLE DUCT WRAPPED WITH FLEXIBLE GLASS FIBER INSULATION, ENCLOSED BY A FIRE RETARDANT POLYETHYLENE VAPOR BARRIER JACKET; MAXIMUM 0.23 K VALUE AT 75 DEG F.
3. ACOUSTICAL PERFORMANCE SHALL BE TESTED IN ACCORDANCE WITH THE AIR DIFFUSION COUNCIL'S "FLEXIBLE AIR DUCT TEST CODE FD 72-R1, SECTION 3.0, SOUND PROPERTIES."
4. FLEXIBLE DUCT FITTINGS: GALVANIZED STEEL, TWIST-IN DESIGN WITH DAMPER. SIZE AS INDICATED.
5. FLEXIBLE DUCT CLAMPS: STAINLESS-STEEL BAND WITH CADMIUM-PLATED HEX SCREW TO TIGHTEN BAND WITH A WORM-GEAR ACTION, IN SIZES 3 THROUGH 18 INCHES TO SUIT DUCT SIZE.
6. MANUFACTURERS: FLEXMASTER U.S.A., INC. | AUTOMATION INDUSTRIES THERMAFLEX | HART & COOLEY, INC.
- H. FLEXIBLE DUCT ELBOW SUPPORTS:
1. ELBOW SUPPORTS SHALL BE CONSTRUCTED OF DURABLE COMPOSITE MATERIAL AND BE FULLY ADJUSTABLE TO SUPPORT FLEXIBLE DUCT DIAMETERS 6 INCHES THROUGH 16 INCHES.
2. ELBOW SUPPORTS SHALL BE UL LISTED FOR USE IN RETURN AIR PLENUM SPACES.
3. MANUFACTURERS: AUTOMATION INDUSTRIES THERMAFLEX; FLEXFLOW ELBOW | SMART AIR & ENERGY SOLUTIONS; SMART FLOW ELBOW.
- I. DUCT ACCESSORY HARDWARE: ADHESIVES: HIGH STRENGTH, QUICK SETTING, NEOPRENE BASED, WATERPROOF, AND RESISTANT TO GASOLINE AND GREASE.

233423 – POWER VENTILATORS

- A. PERFORMANCE REQUIREMENTS: CLASSIFY ACCORDING TO AMCA 99.
- B. POWER VENTILATORS: BASIS OF DESIGN UNITS ARE SCHEDULED ON THE DRAWINGS. PROVIDE THE PRODUCT INDICATED ON DRAWINGS OR A COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:
1. MANUFACTURERS: AOME ENGINEERING & MFG. CORP. | AEROVENT | GREENHECK | LOREN COOK COMPANY | MOFFITT CORPORATION, INC. | PENNBARRY.
- C. ROOF CURBS:
1. CONSTRUCTION: GALVANIZED STEEL; MITERED AND WELDED CORNERS; 1-1/2-INCH- THICK, RIGID, FIBERGLASS INSULATION ADHERED TO INSIDE WALLS; AND 1-1/2-INCH CHEMICALLY TREATED WOOD NAILER. SIZE AS REQUIRED TO SUIT ROOF OPENING AND FAN BASE.
2. HEIGHT: CURB SHALL EXTEND A MINIMUM 18 INCHES ABOVE TOP SURFACE OF ROOF INSULATION.
3. MANUFACTURERS: CREATIVE METALS | PATE | ROOF PRODUCTS & SYSTEMS | THYCURB | ANY OF THE APPROVED ROOF MOUNTED EXHAUST FAN MANUFACTURERS.

238229 – ELECTRIC RADIANT HEATING UNITS

- A.ELECTRIC RADIANT HEATING PANELS ARE SCHEDULED ON THE DRAWINGS.
1. MANUFACTURERS: BERKO ELECTRIC HEATING | MARKEL PRODUCTS | QMARK ELECTRIC HEATING.
2. SHEET METAL ENCLOSED PANEL WITH HEATING ELEMENT SUITABLE FOR INSTALLATION FLUSH WITH SURFACE MOUNTING. COMPLY WITH UL 2021.
- a. PANEL: MINIMUM 0.0276-INCH-THICK, GALVANIZED-STEEL SHEET BACK PANEL RIVETED TO MINIMUM 0.0396-INCH-THICK, GALVANIZED-STEEL FRONT PANEL WITH FUSED-ON CRYSTALLINE SURFACE.

- b. NOMINAL PANEL SIZE: AS INDICATED ON DRAWNGS: 24 BY 24 INCHES.
- c. HEATING ELEMENT: POWDERED GRAPHITE SANDWICHED BETWEEN SHEETS OF ELECTRIC INSULATION.
- d. HEATING ELEMENT: INSULATED RESISTIVE WIRES
- e. ELECTRICAL CONNECTIONS: NONHEATING, HIGH-TEMPERATURE, INSULATED-COPPER LEADS, FACTORY CONNECTED TO HEATING ELEMENT.
- f. EXPOSED-SIDE PANEL FINISH: BAKED ENAMEL FINISH IN MANUFACTURER'S STANDARD PAINT COLOR AS SELECTED BY ARCHITECT.
9. SURFACE MOUNTING TRIM: SHEET METAL WITH BAKED-ENAMEL FINISH IN MANUFACTURER'S STANDARD PAINT COLOR AS SELECTED BY ARCHITECT.
3. WALL THERMOSTAT: BIMETAL, SENSING ELEMENTS CALIBRATED FROM 55 TO 90 DEG F; WITH CONTACTS SUITABLE FOR LINE-VOLTAGE CIRCUIT, AND MANUALLY OPERATED ON-OFF SWITCH WITH CONTACTORS, RELAYS, AND CONTROL TRANSFORMERS.
4. CAPACITIES AND CHARACTERISTICS: REFER TO SCHEDULES ON DRAWINGS.

233713 – DIFFUSERS, REGISTERS, AND GRILLES

- A. AIR DIFFUSION DEVICES ARE SCHEDULED ON THE DRAWINGS.
1. MANUFACTURERS: KREUGER| NAILOR INDUSTRIES | PRICE INDUSTRIES | TITUS | TUTTLE & BAILEY.
2. PROVIDE PLASTER FRAMES FOR UNITS INSTALLED IN PLASTER CEILINGS.
3. PROVIDE GASKETS FOR SUPPLY TERMINAL AIR DEVICES MOUNTED IN FINISHED SURFACES.
4. AIR DIFFUSION DEVICE FACE AND VISIBLE TRIM: STANDARD OFF WHITE BAKED ENAMEL FINISH UNLESS NOTED OTHERWISE.
- AIR DIFFUSION DEVICE INTERIOR SURFACES, INCLUDING BLANK-OFFS: BLACK MATTE FINISH.



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KEYPLAN:

SECURITY SENSITIVE INFORMATION:


"WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT "THE NEED TO KNOW", AS DEFINED IN 49 CFR PARTS 15 AND 1520, EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OR THE TRANSPORTATION SECURITY ADMINISTRATION OR SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520."

DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	MDR	DAC
2022 10-05	ISSUED FOR BIDS (IFB)	MDR	DAC
2022 09-19	OWNER REVIEW	MDR	DAC
DATE	ISSUED FOR	DRN	CKD

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CLIENT:	CONSULTANT:
	

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARRF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

CLIENT REFERENCE:

MECHANICAL
SPECIFICATIONS

SEAL:

SHEET:

M-003

211100 – FIRE-SUPPRESSION SYSTEM

- A. DEFINITIONS: WORKING PLANS: DOCUMENTS, INCLUDING DRAWINGS, CALCULATIONS, AND MATERIAL SPECIFICATIONS, PREPARED ACCORDING TO NFPA 13 AND NFPA 14 FOR OBTAINING APPROVAL FROM AUTHORITIES HAVING JURISDICTION.
- A. SYSTEM DESCRIPTIONS:
1. WET PIPE SPRINKLER PIPING NPS 2 AND SMALLER: STANDARD–WEIGHT BLACK STEEL PIPE AND FITTINGS.
 2. WET PIPE SPRINKLER PIPING NPS 2–1/2 AND LARGER: STANDARD–WEIGHT BLACK STEEL PIPE AND FITTINGS.
 - a. EXCEPTION: STANDPIPES AND RISERS MUST BE STANDARD–WEIGHT BLACK STEEL.
- B. PERFORMANCE REQUIREMENTS:
1. STANDARD PIPING SYSTEM COMPONENT WORKING PRESSURE: LISTED FOR AT LEAST 175 PSIG.
 2. DELEGATED DESIGN: DESIGN SPRINKLER SYSTEM(S), INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.
 3. FIRE–SUPPRESSION SPRINKLER SYSTEM DESIGN SHALL BE APPROVED BY AUTHORITIES HAVING JURISDICTION.
 4. SUBMITTALS:
 - a. DELEGATED–DESIGN SUBMITTAL: FOR SPRINKLER SYSTEMS INDICATED TO COMPLY WITH PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA, INCLUDING ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
 6. QUALIFICATION DATA: FOR QUALIFIED INSTALLER.
 7. APPROVED SPRINKLER PIPING DRAWINGS: WORKING PLANS, PREPARED ACCORDING TO NFPA 13, THAT HAVE BEEN APPROVED BY AUTHORITIES HAVING JURISDICTION, AND THE OWNER'S INSURANCE UNDERWRITER INCLUDING HYDRAULIC CALCULATIONS, IF APPLICABLE.
 8. SPRINKLERS SHALL BE REFERRED TO ON DRAWINGS, SUBMITTALS, AND OTHER DOCUMENTATION, BY THE SPRINKLER IDENTIFICATION NUMBER (SIN) OR MODEL NUMBER AS SPECIFICALLY PUBLISHED IN THE APPROPRIATE AGENCY LISTING OR APPROVAL. TRADE NAMES OR OTHER ABBREVIATED DESIGNATIONS SHALL NOT BE ALLOWED.
 9. QUALITY ASSURANCE:
 10. INSTALLER QUALIFICATIONS: INSTALLER'S RESPONSIBILITIES INCLUDE DESIGNING, FABRICATING, AND INSTALLING FIRE–SUPPRESSION SYSTEMS AND PROVIDING PROFESSIONAL ENGINEERING SERVICES NEEDED TO ASSUME ENGINEERING RESPONSIBILITY.
 11. THE PROVISIONS AND REQUIREMENTS OF THE NFPA AND THE OWNER'S INSURANCE UNDERWRITER CONSTITUTE MANDATORY MINIMUM REQUIREMENTS FOR THE WORK OF THIS SECTION.
 12. NFPA STANDARDS: FIRE–SUPPRESSION–SYSTEM EQUIPMENT, SPECIALTIES, ACCESSORIES, INSTALLATION, AND TESTING SHALL COMPLY WITH THE FOLLOWING:
 - a. NFPA 13, "INSTALLATION OF SPRINKLER SYSTEMS."
 - b. NFPA 14, "INSTALLATION OF STANDPIPE, PRIVATE HYDRANT, AND HOSE SYSTEMS."
 - c. NFPA 24, "INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES."
 - d. NFPA 230, "FIRE PROTECTION OF STORAGE."
- C. STANDARD–WEIGHT BLACK STEEL PIPE AND FITTINGS:
1. THREADED–END, STANDARD–WEIGHT STEEL PIPE: ASTM A 53/A 53M, ASTM A 135, OR ASTM A 795, WITH FACTORY– OR FIELD–FORMED THREADED ENDS.
 - a. CAST–IRON THREADED FLANGES: ASME B16.1.
 - b. MALLEABLE–IRON THREADED FITTINGS: ASME B16.3.
 - c. GRAY–IRON THREADED FITTINGS: ASME B16.4.
 - d. STEEL THREADED PIPE NIPPLES: ASTM A 733, MADE OF ASTM A 53/A 53M OR ASTM A 106, SCHEDULE 40, SEAMLESS STEEL PIPE. INCLUDE ENDS MATCHING JOINING METHOD.
 - e. STEEL THREADED COUPLINGS: ASTM A 865.
- D. LISTED FIRE–PROTECTION VALVES: VALVES SHALL BE UL LISTED OR FMG APPROVED.
1. BALL VALVES: COMPLY WITH UL 1091, EXCEPT WITH BALL INSTEAD OF DISC. NPS 1–1/2 AND SMALLER: BRONZE BODY WITH THREADED ENDS. NPS 2 AND NPS 2–1/2: BRONZE BODY WITH THREADED ENDS OR DUCTILE–IRON BODY WITH GROOVED ENDS. NPS 3: DUCTILE–IRON BODY WITH GROOVED ENDS.
 - a. MANUFACTURERS: NIBCO | VICTAULIC CO. OF AMERICA.
 2. SPRINKLERS: SPRINKLERS SHALL BE UL LISTED OR FMG APPROVED.
 1. MANUFACTURERS: RELIABLE AUTOMATIC SPRINKLER CO., INC. | TYCO FIRE & BUILDING PRODUCTS LP. | VICTAULIC CO. OF AMERICA | VIKING CORP.
 2. AUTOMATIC SPRINKLERS: WITH HEAT–RESPONSIVE GLASS BULB ELEMENT COMPLYING WITH THE FOLLOWING:
 - a. UL 199, FOR NONRESIDENTIAL APPLICATIONS.
 - b. UL 1767, FOR EARLY–SUPPRESSION, FAST–RESPONSE APPLICATIONS.
 3. SPRINKLER TYPES AND CATEGORIES: NOMINAL 1/2-INCH ORIFICE FOR 165 DEG F "ORDINARY" TEMPERATURE RATINGS; UNLESS OTHERWISE INDICATED OR REQUIRED BY APPLICATION.
 3. SPRINKLER TYPES, FEATURES, AND OPTIONS AS FOLLOWS:
 - a. CONCEALED CEILING SPRINKLERS, INCLUDING COVER PLATE.
 - b. UPRIGHT SPRINKLERS
 - c. SPRINKLER FINISHES: CHROME PLATED, BRONZE, AND PAINTED.
 - d. SPRINKLER ESCUTCHEONS: MATERIALS, TYPES, AND FINISHES FOR THE FOLLOWING SPRINKLER MOUNTING APPLICATIONS: ESCUTCHEONS FOR CONCEALED, FLUSH, AND RECESSED–TYPE SPRINKLERS ARE SPECIFIED WITH SPRINKLERS. ESCUTCHEONS LISTED, SUPPLIED, AND APPROVED FOR USE WITH THE SPRINKLER BY THE SPRINKLER MANUFACTURER.
 - e. CEILING MOUNTING: CHROME–PLATED STEEL, 2–PIECE, WITH 3/4–INCH VERTICAL ADJUSTMENT.
 - F. PERFORM THE FOLLOWING FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS:
 1. LEAK TEST: AFTER INSTALLATION, CHARGE SYSTEM AND TEST FOR LEAKS. REPAIR LEAKS AND RETEST UNTIL NO LEAKS EXIST.
 2. TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.
 3. FLUSH, TEST, AND INSPECT SPRINKLER SYSTEMS ACCORDING TO NFPA 13, "SYSTEMS ACCEPTANCE" CHAPTER.
 4. FLUSH, TEST, AND INSPECT STANDPIPE SYSTEMS ACCORDING TO NFPA 14, "SYSTEM ACCEPTANCE" CHAPTER.
 5. CLEANING AND PROTECTION:
 6. CLEAN DIRT AND DEBRIS FROM SPRINKLERS.
 7. REMOVE AND REPLACE SPRINKLERS WITH PAINT OTHER THAN FACTORY FINISH.
 8. PROTECT SPRINKLERS FROM DAMAGE UNTIL SUBSTANTIAL COMPLETION.
- 220523 – GENERAL–DUTY VALVES FOR PLUMBING
- A. QUALITY ASSURANCE:
1. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS IN PUBLIC LAW 111–380, "REDUCTION OF LEAD IN DRINKING WATER ACT," ABOUT LEAD CONTENT IN MATERIALS THAT WILL BE IN CONTACT WITH POTABLE WATER FOR HUMAN CONSUMPTION.
 2. NSF COMPLIANCE: NSF 61 AND NSF 372 FOR VALVE MATERIALS FOR POTABLE–WATER SERVICE.
 3. TWO–PIECE, REGULAR PORT BRONZE BALL VALVES WITH STAINLESS–STEEL TRIM: TYPE 316 STAINLESS–STEEL BALL AND STEM, REINFORCED TFE SEATS, BLOW–OUT–PROOF STEM, WITH ADJUSTABLE STEM PACKING, SOLDERED OR THREADED ENDS; AND 150 PSIG SWP AND 600–PSIG CWP RATINGS.
 4. MANUFACTURERS: APOLLO VALVES; BY CONBRACO INDUSTRIES, INC.; SERIES 70LF–140/240 | HAMMOND VALVE | MILWAUKEE VALVE COMPANY; MODEL UPB4100S/150S | NIBCO INC.; MODELS S–580–70–66–LF/71–580–70–66–LF | WATTS WATER TECHNOLOGIES, INC.
 5. INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUTDOWN.
 - B. LOCATE VALVES FOR EASY ACCESS AND PROVIDE SEPARATE SUPPORT WHERE NECESSARY.
 8. INSTALL VALVES IN HORIZONTAL PIPING WITH STEM AT OR ABOVE CENTER OF PIPE. BUTTERFLY VALVES SHALL BE INSTALLED WITH STEM HORIZONTAL TO ALLOW SUPPORT FOR THE DISC AND THE CLEANING ACTION OF THE DISC.
 - D. INSTALL VALVES IN POSITION TO ALLOW FULL STEM MOVEMENT.
 - E. INSTALL CHECK VALVES FOR PROPER DIRECTION OF FLOW AND AS FOLLOWS:
- 221116 – DOMESTIC WATER PIPING
- A. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS IN PUBLIC LAW 111–380, "REDUCTION OF LEAD IN DRINKING WATER ACT," ABOUT LEAD CONTENT IN MATERIALS THAT WILL BE IN CONTACT WITH POTABLE WATER FOR HUMAN CONSUMPTION.
- B. PIPING SYSTEM MATERIALS ARE SCHEDULED ON THE DRAWINGS.
- C. DRAWINGS INDICATE VALVE TYPES TO BE USED. WHERE SPECIFIC VALVE TYPES ARE NOT INDICATED, THE FOLLOWING REQUIREMENTS APPLY:
1. HOT–WATER–PIPING, BALANCING DUTY: CALIBRATED BALANCING VALVES.
 2. TRANSITION AND SPECIAL FITTINGS WITH PRESSURE RATINGS AT LEAST EQUAL TO PIPING RATING MAY BE USED IN APPLICATIONS BELOW, UNLESS OTHERWISE INDICATED.
 - D. FLANGES MAY BE USED ON ABOVEGROUND PIPING, UNLESS OTHERWISE INDICATED.
 - E. HARD COPPER TUBE: ASTM B 88, TYPE L, WATER TUBE, DRAWN TEMPER.
 1. COPPER PRESSURE FITTINGS: ASME B16.18, CAST–COPPER–ALLOY OR ASME B16.22, WROUGHT– COPPER, SOLDER–JOINT FITTINGS. FURNISH WROUGHT–COPPER FITTINGS IF INDICATED.
 2. BRONZE FLANGES: ASME B16.24, CLASS 150, WITH SOLDER–JOINT ENDS. FURNISH CLASS 300 FLANGES IF REQUIRED TO MATCH PIPING.
 3. COPPER UNIONS: MSS SP–123, CAST–COPPER–ALLOY, HEXAGONAL–STOCK BODY, WITH BALL–AND–SOCKET, METAL–TO–METAL SEATING SURFACES, AND SOLDER–JOINT OR THREADED ENDS.
 4. GENERAL–DUTY VALVES; AND DRAIN VALVES ARE SPECIFIED IN "VALVES."
 - F. BALANCING VALVES ARE SPECIFIED IN "DOMESTIC WATER PIPING SPECIALTIES."
 - G. PIPE HANGER AND SUPPORT DEVICES ARE SPECIFIED IN "HANGERS AND SUPPORTS." INSTALL THE FOLLOWING:

1. VERTICAL PIPING: MSS TYPE 8 OR TYPE 42, CLAMPS.
2. INDIVIDUAL, STRAIGHT, HORIZONTAL PIPING RUNS: ACCORDING TO THE FOLLOWING:
 - a. 100 FEET AND LESS: MSS TYPE 1, ADJUSTABLE, STEEL CLEVS HANGERS.
 - b. LONGER THAN 100 FEET: MSS TYPE 43, ADJUSTABLE ROLLER HANGERS.
 - c. LONGER THAN 100 FEET: MSS TYPE 49, SPRING CUSHION ROLLS, IF INDICATED.
 - d. MULTIPLE, STRAIGHT, HORIZONTAL PIPING RUNS 100 FEET OR LONGER: MSS TYPE 44, PIPE ROLLS. SUPPORT PIPE ROLLS ON TRAPEZE.
3. BASE OF VERTICAL PIPING: MSS TYPE 52, SPRING HANGERS.
4. INSTALL SUPPORTS ACCORDING TO "HANGERS AND SUPPORTS."
- H. SUPPORT VERTICAL PIPING AND TUBING AT BASE AND AT EACH FLOOR.
1. ROD DIAMETER MAY BE REDUCED 1 SIZE FOR DOUBLE–ROD HANGERS, TO A MINIMUM OF 3/8 INCH.
- J. INSTALL HANGERS FOR COPPER TUBING WITH THE FOLLOWING MAXIMUM HORIZONTAL SPACING AND MINIMUM ROD DIAMETERS:
 1. NPS 3/4 AND SMALLER: 60–INCHES WITH 3/8–INCH ROD.
 2. NPS 1 AND NPS 1–1/4: 72 INCHES WITH 3/8–INCH ROD.
 3. NPS 1–1/2 AND NPS 2: 96 INCHES WITH 3/8–INCH ROD.
 4. INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET.
- K. SUPPORT PIPING AND TUBING NOT LISTED ABOVE ACCORDING TO MSS SP–69 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.
- L. TEST DOMESTIC WATER PIPING AS FOLLOWS:
 1. CAP AND SUBJECT PIPING TO STATIC WATER PRESSURE OF 150 PSIG. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR FOUR HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.
 2. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.
 3. PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.
 4. CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING AS FOLLOWS:
 5. PURGE NEW PIPING AND PARTS OF EXISTING DOMESTIC WATER PIPING THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED BEFORE USING.
 6. USE PURGING AND DISINFECTING PROCEDURES PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR, IF METHODS ARE NOT PRESCRIBED, PROCEDURES DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW:
 - a. FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.
 - b. FILL AND ISOLATE SYSTEM ACCORDING TO EITHER OF THE FOLLOWING: FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION WITH AT LEAST 50 PPM OF CHLORINE. ISOLATE WITH VALVES AND ALLOW TO STAND FOR 24 HOURS. FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION WITH AT LEAST 200 PPM OF CHLORINE. ISOLATE AND ALLOW TO STAND FOR THREE HOURS.
 - c. FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL NO CHLORINE IS IN WATER COMING FROM SYSTEM AFTER THE STANDING TIME.
 - d. SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AUTHORITIES HAVING JURISDICTION. REPEAT PROCEDURES IF BIOLOGICAL EXAMINATION SHOWS CONTAMINATION.
 - e. PREPARE AND SUBMIT REPORTS OF PURGING AND DISINFECTING ACTIVITIES.

221119 – DOMESTIC WATER PIPING SPECIALTIES

- A. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS IN PUBLIC LAW 111–380, "REDUCTION OF LEAD IN DRINKING WATER ACT," ABOUT LEAD CONTENT IN MATERIALS THAT WILL BE IN CONTACT WITH POTABLE WATER FOR HUMAN CONSUMPTION.
- B. MINIMUM WORKING PRESSURE FOR DOMESTIC WATER PIPING SPECIALTIES: 125 PSIG, UNLESS OTHERWISE INDICATED.
- C. BRONZE CALIBRATED BALANCING VALVES NPS 1/2 :
1. TYPE: BALL OR Y–PATTERN GLOBE VALVE WITH TWO READOUT PORTS AND MEMORY SETTING INDICATOR.
 2. BODY: BRONZE.
 3. MINIMUM FLOW RATE: 0.3 GPM.
 4. MANUFACTURERS: ARMSTRONG INTERNATIONAL, INC. | ARMSTRONG PUMPS, INC. | FLO FAB INC. | GRISWOLD CONTROLS | BELL & GOSSETT; KYLEM INC. | NIBCO INC. | IMI INDOOR CLIMATE; TOUR & ANDERSSON | TACO, INC. | WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR CO.
 5. WATER–TEMPERATURE LIMITING DEVICES:
 6. STANDARD: ASSE 1070.
 7. PRESSURE RATING: 125 PSIG.
 8. TYPE: THERMOSTATICALLY CONTROLLED WATER MIXING VALVE.
 9. MATERIAL: BRONZE BODY WITH CORROSION–RESISTANT INTERIOR COMPONENTS.
 10. CONNECTIONS: 1/2–INCH UNION OR 3/8–INCH COMPRESSION; WITH INTEGRAL CHECK VALVES.
 11. OUTLET TEMPERATURE RANGE: ADJUSTABLE FROM 85 DEG F TO 120 DEG F. SET AT 105 DEG F.
 12. MINIMUM FLOW RATE: 0.5 GPM
 13. VALVE FINISH: CHROME PLATED.
 14. MANUFACTURERS: APOLLO VALVES; MODEL MVD (340 SERIES) | BRADLEY CORPORATION | LAWLOR MANUFACTURING COMPANY, INC. | LEONARD VALVE COMPANY; SERIES 170 AND 270 | WATTS WATER TECHNOLOGIES, INC.; POWERS DIVISION; HYDROGUARD SERIES E480 AND LM495 | WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR CO. | ZURN PLUMBING PRODUCTS GROUP; WILKINS DIV.
 15. WATER HAMMER ARRESTERS (COPPER TUBE TYPE):
 16. STANDARD: ASSE 1010 OR PDI–WH 201.
 17. TYPE: COPPER TUBE WITH PISTON.
 18. SIZE: ASSE 1010, SIZES AA AND A THROUGH F OR PDI–WH 201, SIZES A THROUGH F.
 19. MANUFACTURERS: MIFAB, INC. | PPP INC. | SIOUX CHIEF MANUFACTURING COMPANY, INC. | TYLER PIPE; WADE DIV. | WATTS DRAINAGE PRODUCTS INC. | WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR CO.

221316 – SANITARY WASTE AND VENT PIPING

- A. PIPING SYSTEM MATERIALS ARE SCHEDULED ON THE DRAWINGS.
- B. PIPING MATERIALS SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY.
- C. CAST–IRON SOIL PIPE SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF CAST IRON SOIL PIPE INSTITUTE (CISPI).
- D. COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF–DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING; "NSF–DRAIN" FOR PLASTIC DRAIN PIPING; "NSF–TUBULAR" FOR PLASTIC CONTINUOUS WASTE PIPING; AND "NSF–SEWER" FOR PLASTIC SEWER PIPING.
- E. SOLID–WALL PVC PIPE: SCHEDULE 40, ASTM D 2665, DRAIN, WASTE, AND VENT.
1. PVC SOCKET FITTINGS: ASTM D 2665, SOCKET TYPE, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE.
 2. INSTALL SOIL AND WASTE DRAINAGE AND VENT PIPING AT THE FOLLOWING MINIMUM SLOPES, UNLESS OTHERWISE INDICATED:
 3. BUILDING SANITARY DRAIN: 1/8–INCH PER FOOT DOWNWARD IN DIRECTION OF FLOW, UNLESS OTHERWISE NOTED.
 4. HORIZONTAL SANITARY DRAINAGE PIPING: 1/8–INCH PER FOOT DOWNWARD IN DIRECTION OF FLOW, UNLESS OTHERWISE NOTED.
 5. VENT PIPING: 1/8–INCH PER FOOT DOWN TOWARD VERTICAL FIXTURE VENT OR TOWARD VENT STACK.
 6. PIPE HANGERS AND SUPPORTS ARE SPECIFIED IN "HANGERS AND SUPPORTS." INSTALL THE FOLLOWING:
 7. VERTICAL PIPING: MSS TYPE 8 OR TYPE 42, CLAMPS.
 8. INSTALL INDIVIDUAL, STRAIGHT, HORIZONTAL PIPING RUNS ACCORDING TO THE FOLLOWING:
 - a. 100 FEET AND LESS: MSS TYPE 1, ADJUSTABLE, STEEL CLEVS HANGERS.
 - b. LONGER THAN 100 FEET: MSS TYPE 43, ADJUSTABLE ROLLER HANGERS.
 - c. LONGER THAN 100 FEET, IF INDICATED: MSS TYPE 49, SPRING CUSHION ROLLS.
 - d. MULTIPLE, STRAIGHT, HORIZONTAL PIPING RUNS 100 FEET OR LONGER: MSS TYPE 44, PIPE ROLLS. SUPPORT PIPE ROLLS ON TRAPEZE.
 9. BASE OF VERTICAL PIPING: MSS TYPE 52, SPRING HANGERS.
 10. INSTALL SUPPORTS ACCORDING TO "HANGERS AND SUPPORTS."
 - F. SUPPORT VERTICAL PIPING AND TUBING AT BASE AND AT EACH FLOOR.
 - G. ROD DIAMETER MAY BE REDUCED 1 SIZE FOR DOUBLE–ROD HANGERS, WITH 3/8–INCH MINIMUM RODS.
 - H. INSTALL HANGERS FOR CAST–IRON SOIL PIPING WITH THE FOLLOWING MAXIMUM HORIZONTAL SPACING AND MINIMUM ROD DIAMETERS:
 1. NPS 1–1/2 AND NPS 2: 60 INCHES WITH 3/8–INCH ROD.
 2. NPS 3: 60 INCHES WITH 1/2–INCH ROD.
 3. NPS 4 AND NPS 5: 60 INCHES WITH 5/8–INCH ROD.
 4. NPS 6: 60 INCHES WITH 3/4–INCH ROD.
 5. NPS 8 TO NPS 12: 60 INCHES WITH 7/8–INCH ROD.
 6. INSTALL SUPPORTS FOR VERTICAL CAST–IRON SOIL PIPING EVERY 15 FEET.
 - I. TEST SANITARY DRAINAGE AND VENT PIPING ACCORDING TO PROCEDURES OF AUTHORITIES HAVING JURISDICTION OR, IN ABSENCE OF PUBLISHED PROCEDURES, AS FOLLOWS:

1. TEST FOR LEAKS AND DEFECTS IN NEW PIPING AND PARTS OF EXISTING PIPING THAT HAVE BEEN ALTERED, EXTENDED, IF, OR REPAIRED. IF TESTING IS PERFORMED IN SEGMENTS, SUBMIT SEPARATE REPORT FOR EACH TEST, COMPLETE WITH DIAGRAM OF PORTION OF PIPING TESTED.

2. ROUGHING–IN PLUMBING TEST PROCEDURE: TEST DRAINAGE AND VENT PIPING, EXCEPT OUTSIDE LEADERS, ON COMPLETION OF ROUGHING–IN. CLOSE OPENINGS IN PIPING SYSTEM AND FILL WITH WATER TO POINT OF OVERFLOW, BUT NOT LESS THAN 10–FOOT HEAD OF WATER. FROM 15 MINUTES BEFORE INSPECTION STARTS TO COMPLETION OF INSPECTION, WATER LEVEL MUST NOT DROP. INSPECT JOINTS FOR LEAKS.
 3. FINISHED PLUMBING TEST PROCEDURE: AFTER PLUMBING FIXTURES HAVE BEEN SET AND TRAPS FILLED WITH WATER, TEST CONNECTIONS AND PROVE THEY ARE GASTIGHT AND WATERTIGHT. PLUG VENT–STACK OPENINGS ON ROOF AND BUILDING DRAINS WHERE THEY LEAVE BUILDING. INTRODUCE AIR INTO PIPING SYSTEM EQUAL TO PRESSURE OF 1–INCH WG. USE U–TUBE OR MANOMETER INSERTED IN TRAP OF WATER CLOSET TO MEASURE THIS PRESSURE. AIR PRESSURE MUST REMAIN CONSTANT WITHOUT INTRODUCING ADDITIONAL AIR THROUGHOUT PERIOD OF INSPECTION. INSPECT PLUMBING FIXTURE CONNECTIONS FOR GAS AND WATER LEAKS.
 4. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING, OR PORTION THEREOF, UNTIL SATISFACTORY RESULTS ARE OBTAINED.
 5. PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.
- 221319 – DRAINAGE PIPING SPECIALTIES
- A. DRAINAGE PIPING SPECIALTIES SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY.
- B. CLEANOUTS SHALL BE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF CLEANOUT SHALL BE 4 INCHES.
- C. CAST–IRON FLOOR CLEANOUTS (ON–GRADE INTERIOR FLOOR AREAS):
1. STANDARD: ASME A112.36.2M.
 2. TYPE: ADJUSTABLE HOUSING.
 3. BODY OR FERRULE: CAST IRON.
 4. OUTLET CONNECTION: SPIGOT.
 5. CLOSURE: BRASS OR BRONZE PLUG WITH TAPERED THREADS.
 6. FRAME AND COVER MATERIAL AND FINISH: NICKEL–BRONZE, COPPER ALLOY WITH SCORIATED COVER IN SERVICE AREAS, AND RECESSED COVER TO ACCEPT FLOOR FINISH MATERIAL IN FINISHED FLOOR AREAS.
 7. TOP LOADING CLASSIFICATION: MEDIUM DUTY.
 - a. MANUFACTURERS: JOSAM COMPANY; JOSAM DIV. | SMITH, JAY R. MFG. CO.; MODEL 4023S–F | SIOUX CHIEF MANUFACTURING COMPANY, INC. | TYLER PIPE; WADE DIV. | WATTS DRAINAGE PRODUCTS INC. | ZURN PLUMBING PRODUCTS GROUP; SPECIFICATION DRAINAGE OPERATION.
- D. CAST–IRON FLOOR DRAINS (TOILET ROOMS AND JANITOR'S CLOSET) FD–1:
1. STANDARD: ASME A112.6.3.
 2. BODY MATERIAL: GRAY IRON.
 3. SEEPAGE FLANGE: REQUIRED.
 4. CLAMPING DEVICE: REQUIRED.
 5. OUTLET: BOTTOM.
 6. COATING ON INTERIOR AND EXPOSED EXTERIOR SURFACES: ENAMEL.
 7. TOP OF BODY AND STRAINER FINISH: NICKEL BRONZE.
 8. TOP SHAPE: ROUND.
 9. DIMENSIONS OF TOP OR STRAINER: 7 INCH DIAMETER.
 - a. SIZE: SAME AS FLOOR DRAIN OUTLET WITH NPS 1/2 SIDE INLET.
 - b. MANUFACTURERS: JOSAM COMPANY; JOSAM DIV. | MIFAB, INC. | SIOUX CHIEF MANUFACTURING COMPANY, INC.; FINISH LINE ADJUSTABLE DRAINAGE SYSTEM | SMITH, JAY R. MFG. CO.; MODEL 2010–A | TYLER PIPE; WADE DIV. | WATTS DRAINAGE PRODUCTS INC. | ZURN PLUMBING PRODUCTS GROUP; SPECIFICATION DRAINAGE OPERATION.

10. CAST–IRON FLOOR DRAINS (SHOWERS) FD–2:
11. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
- a. JOSAM COMPANY; JOSAM DIV.
 - b. MIFAB, INC.
 - c. SIOUX CHIEF MANUFACTURING COMPANY, INC.; FINISH LINE ADJUSTABLE DRAINAGE SYSTEM.
 - d. SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.; MODEL 2005Y–A.
 - e. TYLER PIPE; WADE DIV.
 - f. WATTS DRAINAGE PRODUCTS INC.
 - g. ZURN PLUMBING PRODUCTS GROUP; SPECIFICATION DRAINAGE OPERATION.
 - h. STANDARD: ASME A112.6.7.
12. PATTERN: FLOOR DRAIN.
13. BODY MATERIAL: GRAY IRON.
14. SEEPAGE FLANGE: REQUIRED.
15. CLAMPING DEVICE: REQUIRED.
16. OUTLET: BOTTOM UNLESS OTHERWISE NOTED.
17. COATING ON INTERIOR AND EXPOSED EXTERIOR SURFACES: ENAMEL.
18. TOP OR STRAINER MATERIAL: NICKEL BRONZE.
19. TOP OF BODY AND STRAINER FINISH: NICKEL BRONZE.
20. TOP SHAPE: ROUND, WITH VANDAL PROOF SOREWS.
21. DIMENSIONS OF TOP OR STRAINER: 5 INCH DIAMETER.
22. TOP LOADING CLASSIFICATION: LIGHT DUTY.
23. INLET FITTING: GRAY IRON, WITH SPIGOT OUTLET.
24. TRAP SEAL PROTECTION
25. BARRIER TYPE TRAP SEAL PROTECTION DEVICES:
- a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
 - b. SMITH, JAY R. MFG. CO.; QUAD CLOSE TRAP SEAL DEVICE FIG. 2692.
 - c. RECTORSEAL; A CSW INDUSTRIALS COMPANY; SURESEAL PLUS INLINE FLOOR DRAIN TRAP SEALER.
 - d. STANDARD: ASSE 1072–2007.
 26. SEALING ELEMENT: NEOPRENE RUBBER OR CHEMICALLY RESISTANT ELASTOMER.
 27. SIZE: 2 INCH, 3 INCH.
 28. GRAVITY DRAIN OUTLET CONNECTION: COMPRESSION FIT SEALING GASKET 80 DUROMETER.
 29. FLASHING MATERIALS

224200 – PLUMBING FIXTURES

- A. SELECT COMBINATIONS OF FIXTURES AND TRIM, FAUCETS, FITTINGS, AND OTHER COMPONENTS THAT ARE COMPATIBLE.
- B. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS IN ICC A117.1, "ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES" FOR PLUMBING FIXTURES FOR PEOPLE WITH DISABILITIES.
- C. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS IN PUBLIC LAW 102–486, "ENERGY POLICY ACT," ABOUT WATER FLOW AND CONSUMPTION RATES FOR PLUMBING FIXTURES.
- D. REGULATORY REQUIREMENTS: COMPLY WITH REQUIREMENTS IN PUBLIC LAW 111–380, "REDUCTION OF LEAD IN DRINKING WATER ACT," ABOUT LEAD CONTENT IN MATERIALS THAT WILL BE IN CONTACT WITH POTABLE WATER FOR HUMAN CONSUMPTION.
- E. ACCEPTABLE PLUMBING FIXTURES ARE SCHEDULED ON THE DRAWINGS.
- F. FIXTURE SUPPLIES: CHROME–PLATED BRASS; LOOSE–KEY OR SCREWDRIVER ANGLE STOPS WITH BRASS STEMS, CHROME–PLATED COPPER RISERS, AND CHROME–PLATED WALL FLANGES.
1. MANUFACTURERS: BRASSORAF; A MASCO COMPANY | MCGUIRE MFG. CO., INC. | ANY OF THE APPROVED PLUMBING FIXTURE MANUFACTURERS.
 2. WATER CLOSETS, WC–1:
 3. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 - a. KOHLER CO.; HIGHCUFF ULTRA K–96057.
 4. DESCRIPTION: FLOOR MOUNTED, FLOOR OUTLET, VITREOUS–CHINA FIXTURE DESIGNED FOR FLUSHOMETER VALVE OPERATION.
 - a. STYLE: FLUSHOMETER VALVE.
 - 1) BOWL TYPE: ELONGATED.
 - 2) SUPPLY SPUD LOCATION: TOP.
 - 3) DESIGN CONSUMPTION: 1.1 GAL./FLUSH.
 - 4) COLOR: WHITE.
 - 5) FLUSHOMETER: FV–2–1.
 - b. TOILET SEAT: TS–1.
 4. HARD–WIRED SENSOR WATER CLOSET FLUSHOMETERS, FV–2–1.

1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 - a. ZURN PLUMBING PRODUCTS GROUP ZEM560004V–ONE–IS.


- b. DESCRIPTION: FLUSHOMETER FOR WATER–CLOSET–TYPE FIXTURE. INCLUDE BRASS BODY WITH CORROSION–RESISTANT INTERNAL COMPONENTS, NON–HOLD–OPEN FEATURE, COURTESY FLUSH FEATURE, CONTROL STOP WITH CHECK VALVE, VACUUM BREAKER, COPPER OR BRASS TUBING, AND POLISHED CHROME–PLATED FINISH ON EXPOSED PARTS.
 - c. INTERNAL DESIGN: DIAPHRAGM OR PISTON OPERATION.
 - d. STYLE: CONCEALED.
 - e. INLET SIZE: NPS 1.
 - f. TRIP MECHANISM: HARD–WIRED, ELECTRIC–SENSOR ACTUATOR.
 - g. CONSUMPTION: 1.1 GAL./FLUSH.
 - h. TAILPIECE SIZE: NPS 1–1/2 AND STANDARD LENGTH TO TOP OF BOWL.
 - i. TRANSFORMER: ZURN P8000–HWB. 1 REQUIRED FOR UP TO 8 FLUSHOMETERS.
- H. TOILET SEATS, TS–1:
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
 - a. BEIMS MANUFACTURING COMPANY; 1955SSC/1955SSCT.
 - b. CENTOCO MANUFACTURING CORP.
 - c. CHURCH SEATS; 295SSC/295SSCT.
 - d. COMFORT SEATS; A JONES STEPHENS BRAND; MODEL NUMBER C106SSC.
 - e. FERGUSON ENTERPRISES, INC.; PROFLO PFT50CF2000WH.
 - f. OLSONITE SEAT COMPANY; MODEL 105SC/105SCT.
 - g. PLUMBTECH; PLUMBING TECHNOLOGIES, LLC.
 - h. SANDERSON PLUMBING PRODUCTS, INC.; BENEKE DIV.
 - i. ZURN PLUMBING PRODUCTS GROUP; 5955STS–WH.
 2. DESCRIPTION: TOILET SEAT FOR WATER–CLOSET–TYPE FIXTURE.
 - a. MATERIAL: MOLDED, SOLID PLASTIC.
 - b. CONFIGURATION: OPEN FRONT WITHOUT COVER.
 - c. SIZE: ELONGATED.
 - d. HINGE TYPE: SC, SELF–SUSTAINING, CHECK.
 - e. CLASS: STANDARD COMMERCIAL.
 - f. COLOR: WHITE.

- I. LAVATORYS, LAV–1:
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 - a. CORIAN MODEL 820P.
 - b. DESCRIPTION: ACCESSIBLE, UNDER–COUNTER MOUNTING, VITREOUS–CHINA FIXTURE WITH UNGLAZED RIM, AND CONCEALED OVERFLOW.
 - c. OVAL LAVATORY SIZE: 16–1/2 BY 12–1/4 INCHES.
 - d. COLOR: WHITE.
 - e. FAUCET: LF–1.
 - f. WATER TEMPERATURE LIMITING DEVICE: REQUIRED.
 - g. DRAIN: GRID.
 - h. DRAIN PIPING: NPS 1–1/4 CHROME–PLATED, CAST–BRASS P–TRAP; NPS 1–1/4, 17 GAGE TUBULAR BRASS WASTE TO WALL; AND WALL ESCUTCHEON.
 - J. LAVATORY FAUCETS, LF–1:
 1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 - a. BRADLEY VERGE S53–3300 AND VERGE 6–3300.
 - b. DESCRIPTION: FAUCET AND SOAP DISPENSER.
 - c. BODY MATERIAL: COMMERCIAL, SOLID BRASS.
 - d. FINISH: BRUSHED NICKEL.
 - e. MOUNTING: DECK, SINGLE HOLE FOR EACH.
 - f. INLET: NPS 1/2.
 - g. SPOUT OUTLET: VANDAL PROOF SPRAY, 0.5 GPM.
 - h. OPERATION OF FAUCET AND SOAP DISPENSER: HARD–WIRED.
 - i. STEP–DOWN TRANSFORMERS: REQUIRED.
 - j. AC ADAPTER: INCLUDE AC ADAPTER SPLITTER KIT. AC ADAPTER SPLITTER KIT ASSEMBLY ACCOMMODATES UP TO 4 DEVICES. (2) FAUCETS AND (2) SOAP DISPENSERS SHALL BE COMBINED AND CONNECTED TO THIS ASSEMBLY.

K. INDIVIDUAL SHOWERS

1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 - a. STERLING PLUMBING GROUP, INC. MODEL 72240100 (SH–1).
 - b. STERLING PLUMBING GROUP, INC. MODEL 62070125 (SH–2): BASIS OF DESIGN.
 - c. AQUATIC INDUSTRIE, INC. MODEL 16037BFSD (SH–2): ALTERNATE 1.
 - d. AQUA BATH COMPANY, INC. MODEL C6536BF–FUS (SH–2): ALTERNATE 2.
 - e. DESCRIPTION: ACCESSIBLE, [FRP] PMMA SHOWER ENCLOSURE WITH SLIP–RESISTANT BATHING SURFACE AND SHOWER ROD WITH CURTAIN.
 - f. SIZE: 36 BY 36 BY 76 INCHES (SH–1), 63 BY 40 BY 74 INCHES (SH–2).
 - g. SURROUND: ONE PIECE.
 - h. COLOR: WHITE.
 - i. DRAIN LOCATION: CENTER.
 - j. ACCESSIBILITY OPTIONS: INCLUDE GRAB BAR AND BENCH.
 - k. FAUCET: SHF–1.
 - l. DRAIN: GRID, NPS 2.
 - m. DOOR: KOHLER CO.; REVEL PIVOT 707511–L–BNK CRYSTAL CLEAR GLASS (SH–1).
- L. SHOWER VALVE ASSMBY
1. SHOWER FAUCETS; SHF–1:
- a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
 - i. KOHLER CO.; TS97077–4G–BN WITH 8304–KS–NA VALVE.
2. DESCRIPTION: SINGLE–HANDLE THERMOSTATIC AND PRESSURE–BALANCE VALVE. INCLUDE HOT– AND COLD–WATER INDICATORS; CHECK STOPS; AND SHOWER HEAD, ARM, AND FLANGE. COORDINATE FAUCET INLETS WITH SUPPLIES AND OUTLET WITH DIVERTER VALVE.
3. BODY MATERIAL: SOLID BRASS.
 - a. FINISH: VIBRANT BRUSHED NICKEL.
- b. MAXIMUM FLOW RATE: 1.75 GPM, UNLESS OTHERWISE INDICATED.
4. MOUNTING: CONCEALED.
5. BACKFLOW PROTECTION DEVICE FOR HAND–HELD SHOWER: NOT REQUIRED.
6. OPERATION: NONCOMPRESSION, MANUAL.
7. ANTISCALD DEVICE: ASSE 1016, INTEGRAL WITH MIXING VALVE.
8. CHECK STOPS: CHECK–VALVE TYPE, INTEGRAL WITH OR ATTACHED TO BODY; ON HOT– AND COLD–WATER SUPPLY CONNECTIONS.
9. SUPPLY CONNECTIONS: NPS 1/2.
10. SHOWER HEAD TYPE: INTEGRAL WITH MOUNTING FLANGE.
11. SHOWER HEAD MATERIAL: VIBRANT BURSHED NICKEL.
12. SPRAY PATTERN: ADJUSTABLE.
13. INTEGRAL VOLUME CONTROL: NOT REQUIRED.
14. SHOWER–ARM FLOW–CONTROL FITTING: NOT REQUIRED.
15. TEMPERATURE INDICATOR: INTEGRAL WITH FAUCET.
16. VALVE TRIM: KOHLER CO.; T97091–4–BN.
17. TRANSFER VALVE: KOHLER CO.; 728–K–NA.
18. HANDSHOWER (SH–2 ONLY): KOHLER CO.; FORTE 22177–BN VIBRANT BRUSHED NICKEL MULTIFUNCTION SHOWER KIT SLDEBAR.
19. SUPPLY ELBOW (SH–2 ONLY): KOHLER CO.; 22172–BN WALL–MOUNT SUPPLY ELBOW WITH CHECK VALVE.
20. PROTECTIVE SHIELDING PIPE COVERS (PSG–1): MANUFACTURED PLASTIC WRAPS FOR COVERING PLUMBING FIXTURE HOT– AND COLD–WATER SUPPLIES AND TRAP AND DRAIN PIPING. COMPLY WITH AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.
21. MANUFACTURERS: ENGINEERED BRASS CO. | INSUL–TECT PRODUCTS CO.; A SUBSIDIARY OF MWG MOLDED PRODUCTS | MCGUIRE MANUFACTURING CO., INC. | PLUMBEREX SPECIALTY PRODUCTS INC. | TCI PRODUCTS; SC–2001V | TRUEBRO, INC. | ZURN PLUMBING PRODUCTS GROUP; TUBULAR BRASS PLUMBING PRODUCTS OPERATION.
22. FIXTURE SUPPORTS:

MANUFACTURERS: JOSAM COMPANY | MIFAB MANUFACTURING INC. | SMITH, JAY R. MFG. CO. | TYLER PIPE; WADE DIV. | WATTS DRAINAGE PRODUCTS INC.; A DIV. OF WATTS INDUSTRIES, INC. | ZURN PLUMBING PRODUCTS GROUP; SPECIFICATION DRAINAGE OPERATION.



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PBA Project No. 2022-0270

KEYPLAN:

SCHEMATIC

2023 03-02

PERMITS/CONSTRUCTION

SCM

WE

2022 10-05

ISSUED FOR BIDS (IFB)

SCM


WE

2022 09-19

OWNER REVIEW

SCM

WE

DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:		
 <p>PROJECT: DWAYNE COUNTY AIRPORT AUTHORITY T4W ARFF STATION 100 Women's Locker Room Improvements 12901 Dinglel Drive, #802 Detroit, MI 48242</p>			
arconcepts PROJECT #WCA22-016		CLIENT REFERENCE:	

FIRE PROTECTION AND
PLUMBING SPECIFICATIONS

8

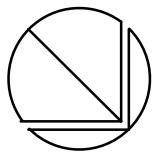
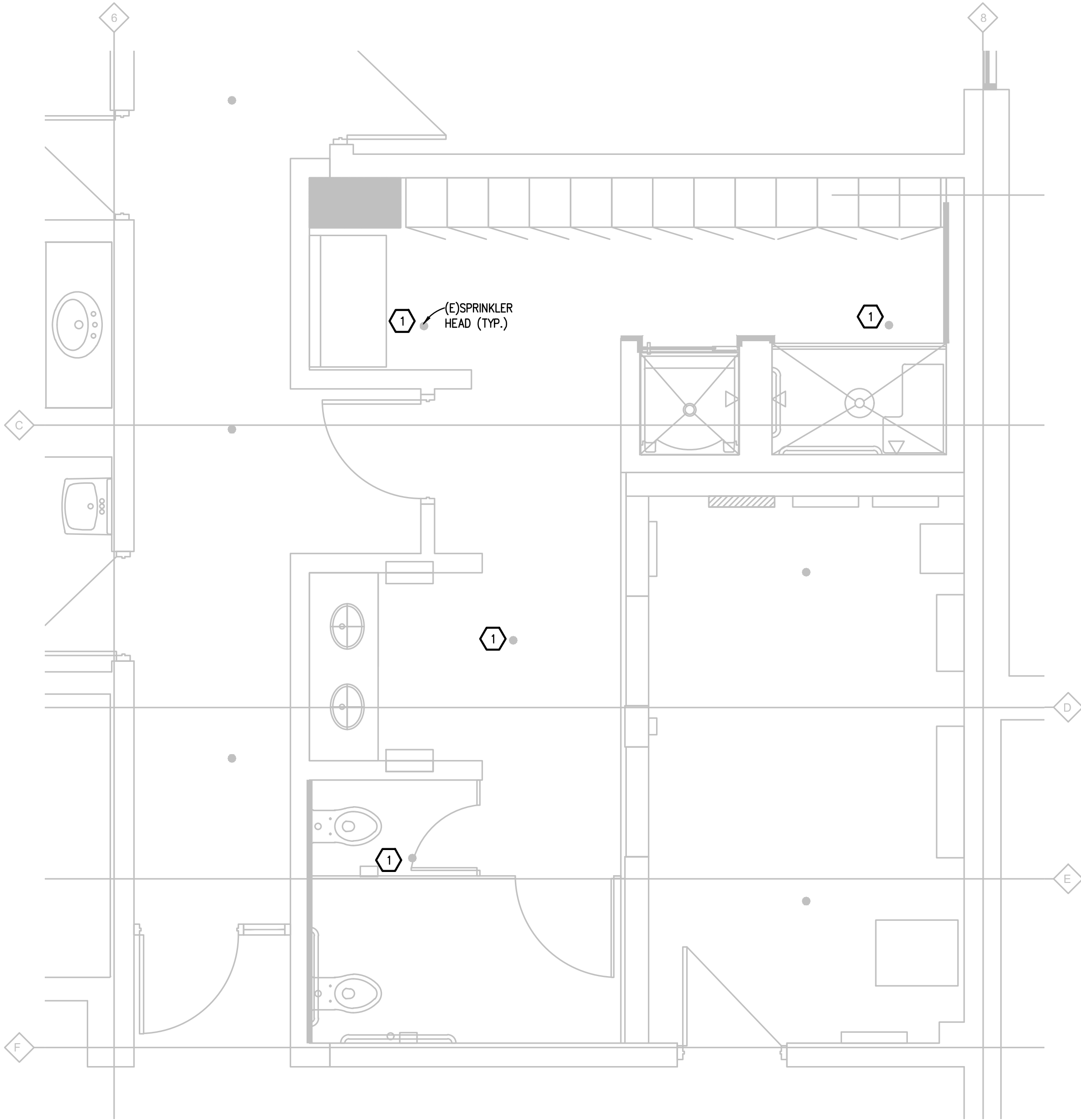
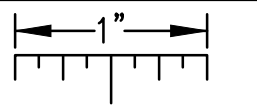
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THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.



FIRE PROTECTION PLAN

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

FIRE PROTECTION GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. NO SPRINKLER PIPING SHALL BE ROUTED THROUGH ELECTRICAL EQUIPMENT ROOMS, TELECOMMUNICATION EQUIPMENT ROOMS, ELEVATOR EQUIPMENT ROOMS OR SIMILAR ROOMS. ONLY SPRINKLER PIPING SERVING SPRINKLERS HEADS IN THOSE ROOMS SHALL BE ALLOWED.
4. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
5. MINIMUM RUN-OUT PIPE SIZE TO SPRINKLER HEADS SHALL BE 1".
6. LICENSED FIRE SUPPRESSION PROFESSIONAL TO PROVIDE DELEGATED DESIGN DRAWINGS.

CONSTRUCTION KEY NOTES:

1. REMOVE AND REVISE EXISTING SPRINKLER HEADS AND ASSOCIATED PIPING, FITTINGS AND SUPPORTS TO NEW CEILING PLAN IF NECESSARY.



Peter Basso Associates Inc
CONSULTING ENGINEERS

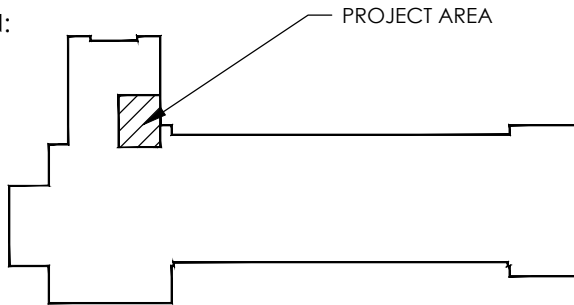
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PBA Project No.: 2022.0270

KEYPLAN:



SECURITY SENSITIVE INFORMATION:

"WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED IN 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT "THE NEED TO KNOW", AS DEFINED IN 49 CFR PARTS 15 AND 1520, EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OF THE TRANSPORTATION SECURITY ADMINISTRATION OR SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520."

DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	SCM	WE
2022 10-05	ISSUED FOR BIDS (IFB)	SCM	WE
2022 09-19	OWNER REVIEW	SCM	WE
DATE	ISSUED FOR	DRN	CKD

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arconcepts, inc.®

CLIENT:



CONSULTANT:

PROJECT:

**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100**
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

CLIENT REFERENCE:

FIRE PROTECTION PLAN

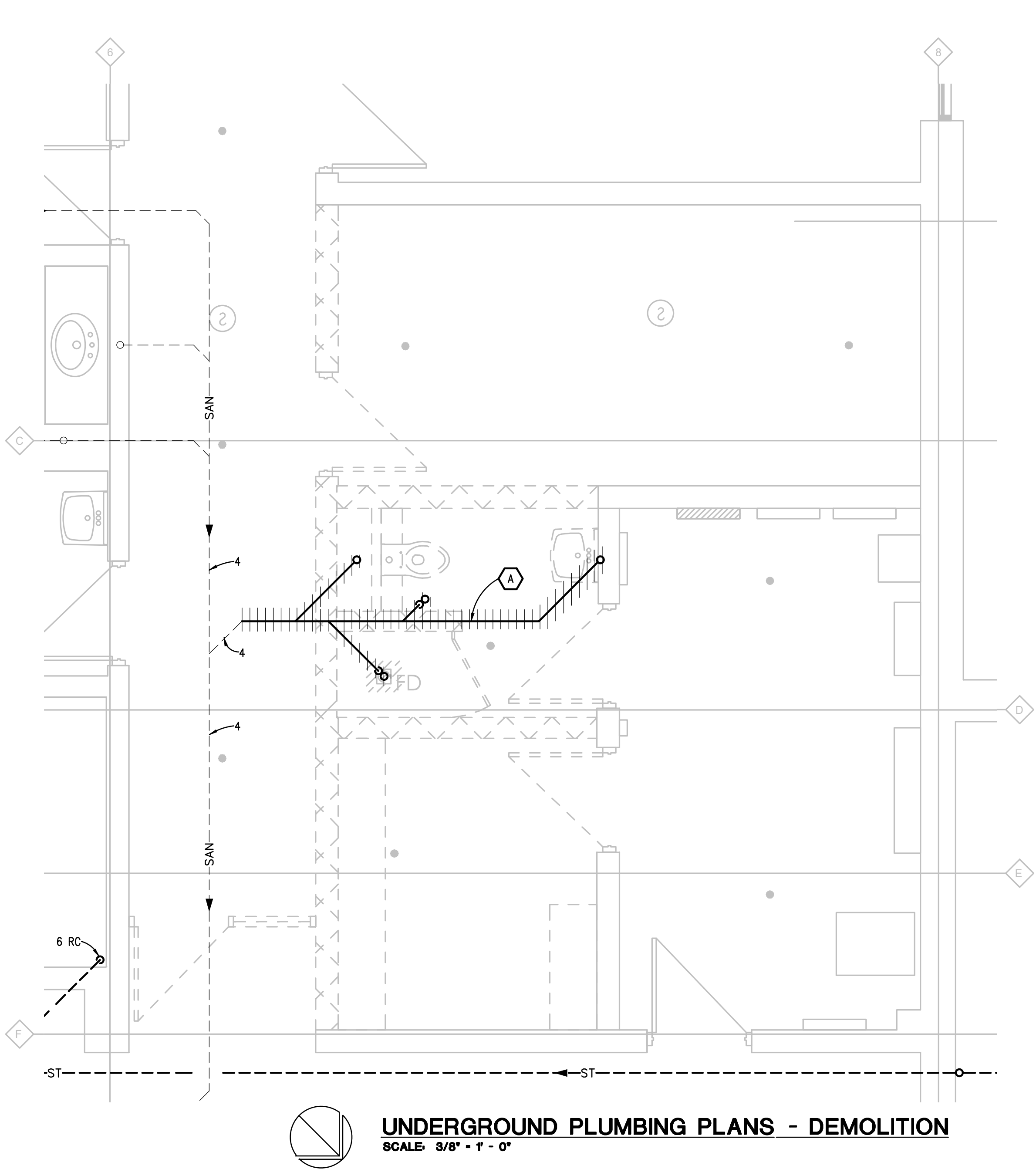
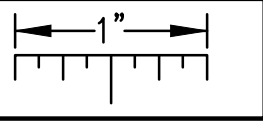
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THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.



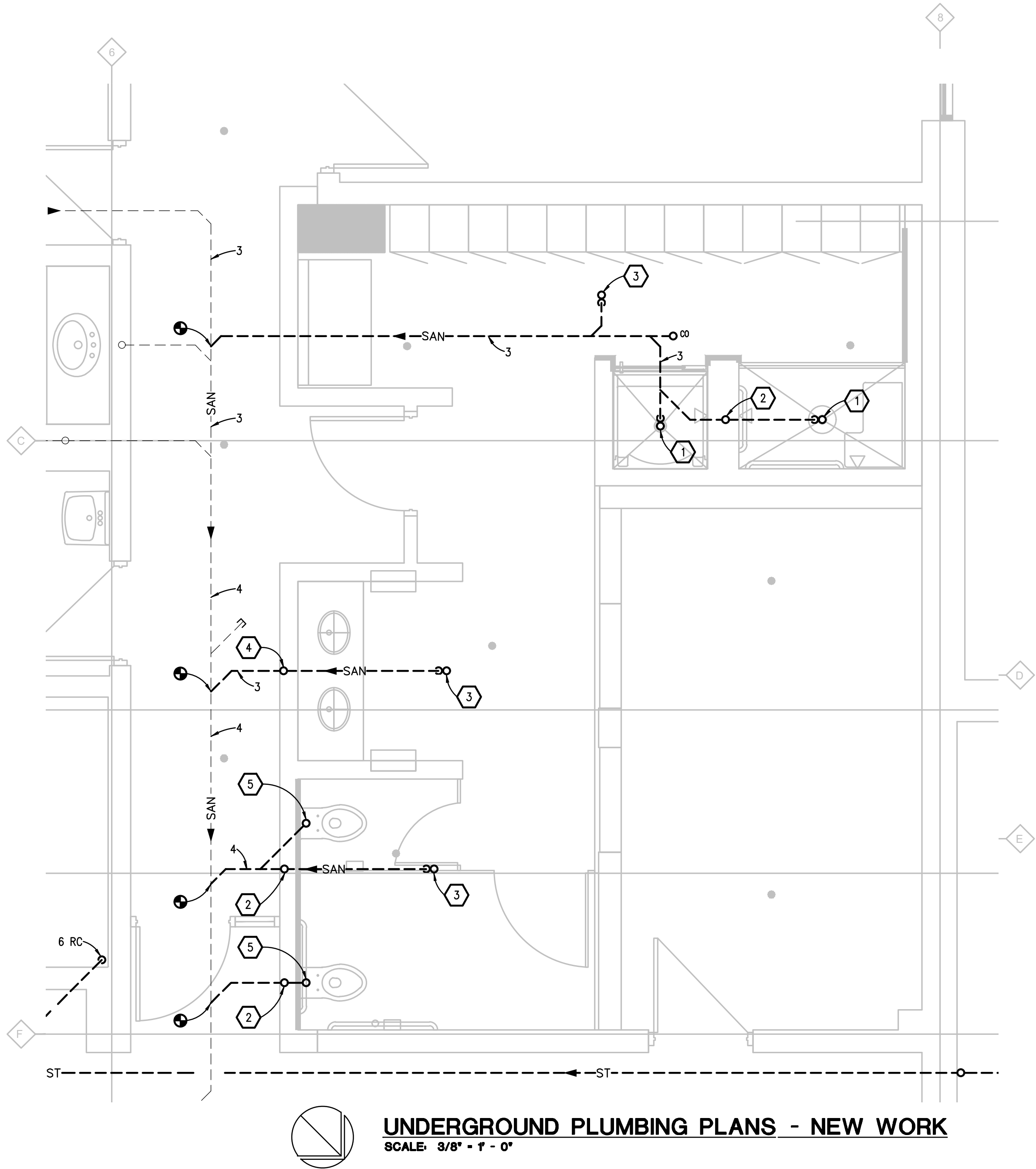
UNDERGROUND PLUMBING PLANS - DEMOLITION
SCALE: 3/8" = 1' - 0"

MECHANICAL DEMOLITION GENERAL NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. ACTUAL ROUTING AND SIZES OF EXISTING PIPING AND DUCTWORK MIGHT DIFFER TO A LIMITED EXTENT FROM WHAT IS SHOWN. MAJOR DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

DEMOLITION KEY NOTES:

- A. REMOVE EXISTING SANITARY PIPING AND ASSOCIATED FITTINGS. REFER TO ARCHITECTURAL PLANS FOR SAWCUT LOCATIONS.
- B. REMOVE EXISTING DOMESTIC WATER PIPING AND ASSOCIATED FITTINGS.



UNDERGROUND PLUMBING PLANS - NEW WORK
SCALE: 3/8" = 1' - 0"

PLUMBING GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES. ADDITION OF ACCESS PANELS SHALL BE APPROVED IN ADVANCE BY THE OWNER.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
7. HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
8. PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
9. MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".
10. PLUMBING CONTRACTOR SHALL REBALANCE DOMESTIC HOT WATER RETURN SYSTEM DUE TO ADDITIONAL BALANCE VALVE. REPORT SHALL BE PROVIDED TO THE OWNER.

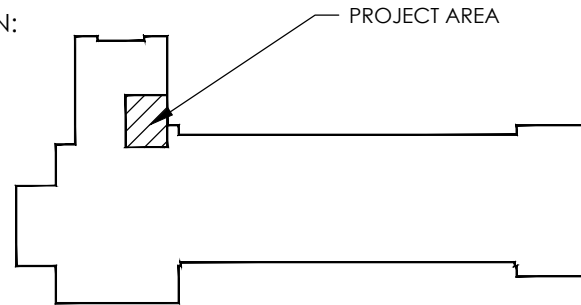
CONSTRUCTION KEY NOTES:

1. 2 SAN TO FLOOR DRAIN.
2. 2 V.
3. 3 SAN TO FLOOR DRAIN.
4. 2 SAN TO LAV'S.
5. 4 SAN TO WATER CLOSET.



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PBA Project No.: 2022.0270

KEYPLAN: PROJECT AREA



SECURITY SENSITIVE INFORMATION:
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2023 03-02	PERMITS/CONSTRUCTION	SCM	WE
2022 10-05	ISSUED FOR BIDS (IFB)	SCM	WE
2022 09-19	OWNER REVIEW	SCM	WE

DATE	ISSUED FOR	DRN	CKD
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PROJECT:
**WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100**
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

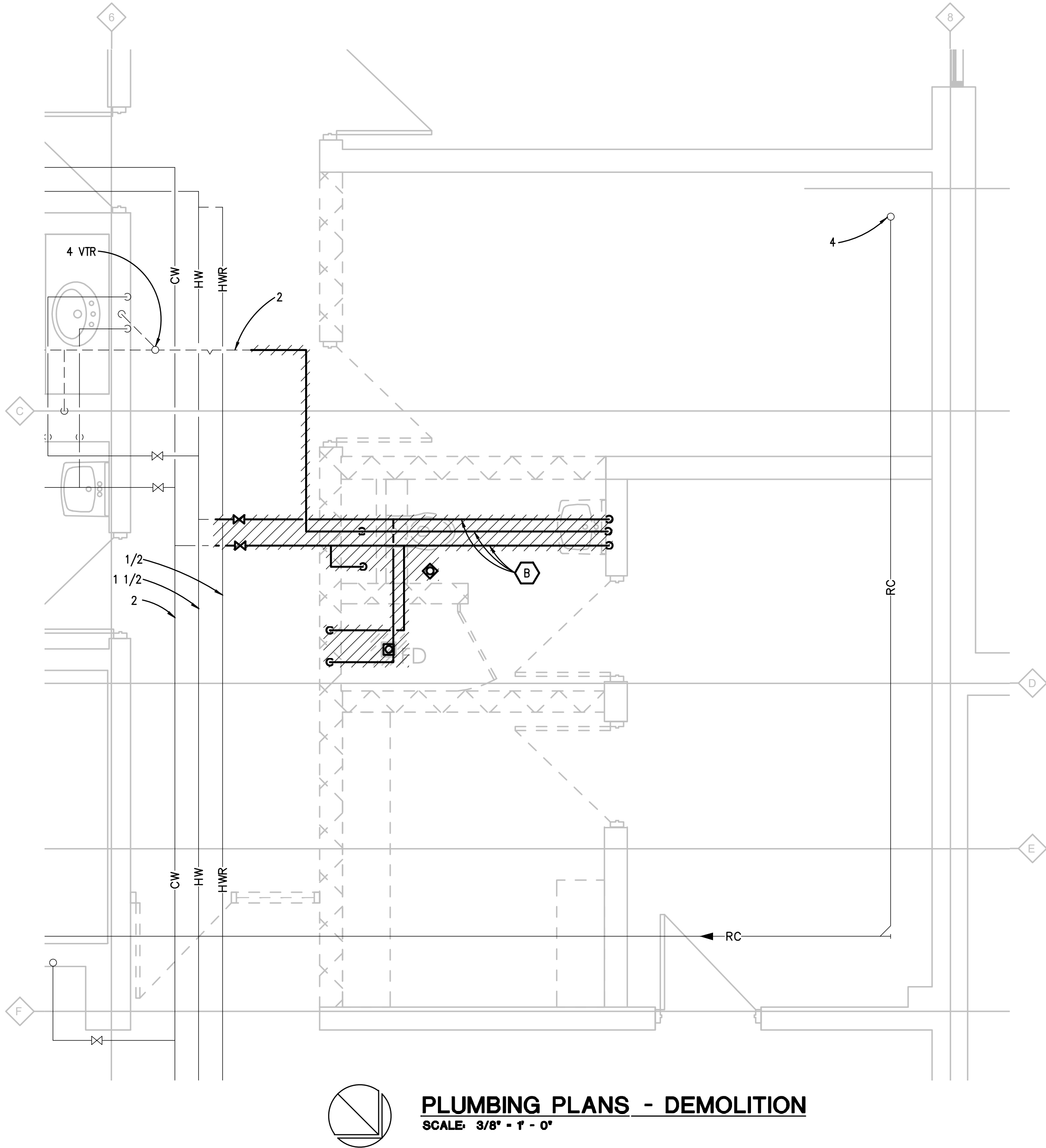
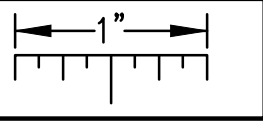
arconcepts PROJECT # WCA22-016

CLIENT REFERENCE:

UNDERGROUND PLUMBING
PLANS

SEAL:	
	SHEET: M-200

THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.



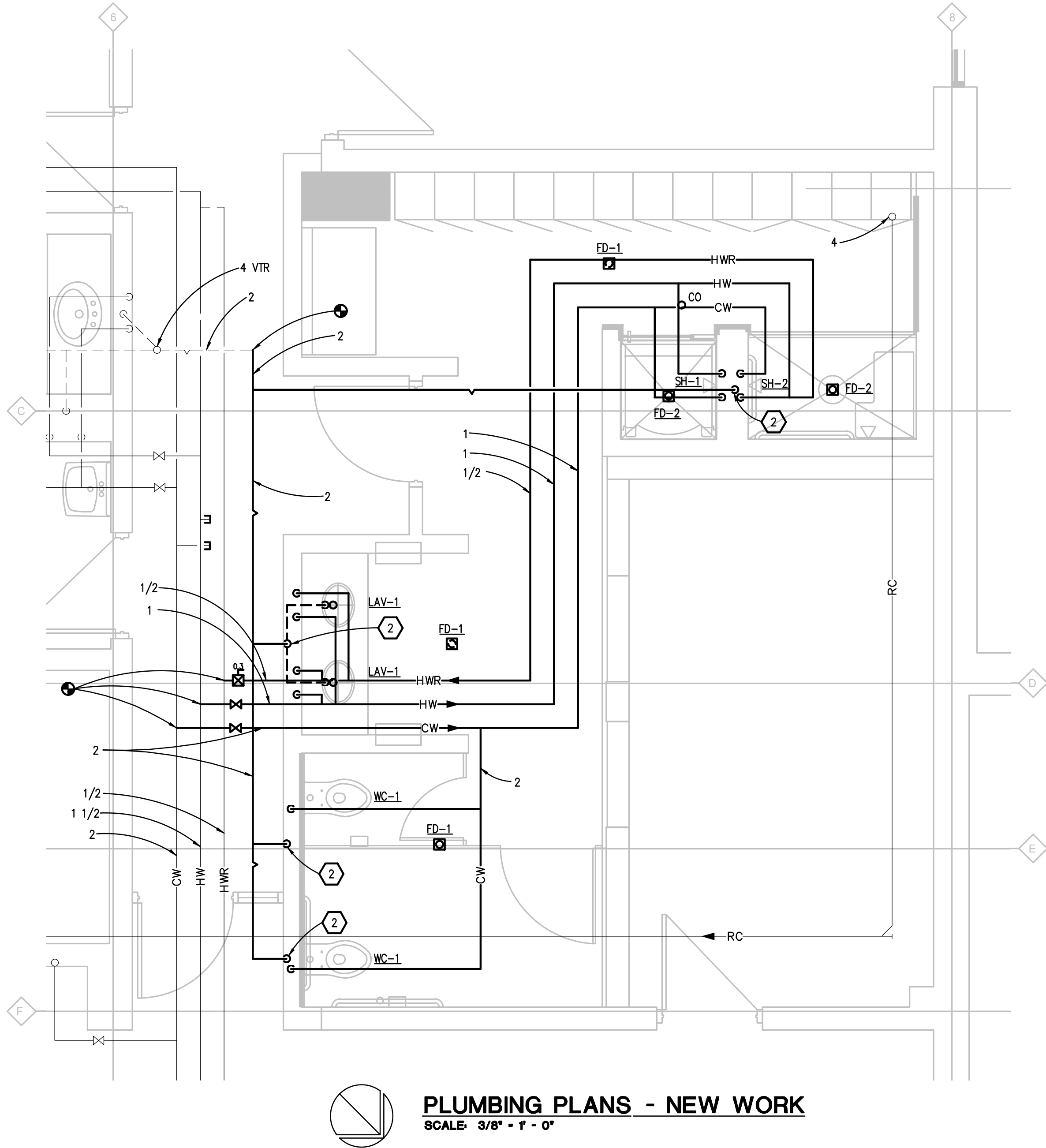
PLUMBING PLANS - DEMOLITION
SCALE: 3/8" = 1' - 0"

MECHANICAL DEMOLITION GENERAL NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. ACTUAL ROUTING AND SIZES OF EXISTING PIPING AND DUCTWORK MIGHT DIFFER TO A LIMITED EXTENT FROM WHAT IS SHOWN. MAJOR DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

DEMOLITION KEY NOTES:

- A. REMOVE EXISTING SANITARY PIPING AND ASSOCIATED FITTINGS. REFER TO ARCHITECTURAL PLANS FOR SAWCUT LOCATIONS.
- B. REMOVE EXISTING DOMESTIC WATER PIPING AND ASSOCIATED FITTINGS.



PLUMBING PLANS - NEW WORK
SCALE: 3/8" = 1' - 0"

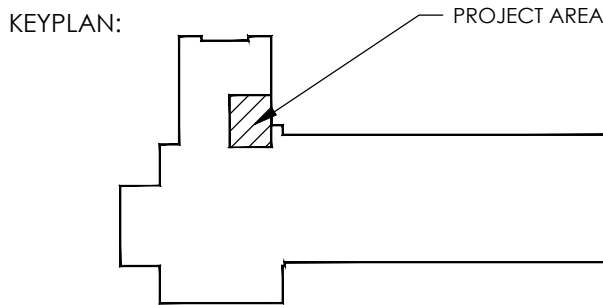
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PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

CLIENT REFERENCE:

PLUMBING PLANS

SEAL:



SHEET:

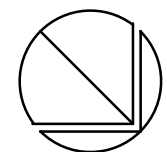
M-201



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

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- A. REMOVE EXISTING EF-1 ON ROOF, TEMPERATURE CONTROLS, AND ASSOCIATED COMPONENTS.
- B. REMOVE EXISTING FINNED TUBE RADIATOR AND HVAC PIPING.
- C. REMOVE THERMOSTAT AND RETAIN FOR RE-INSTALLATION.
- D. REMOVE PLENUM RETURN AIR GRILLES.
- E. REMOVE FIRE DAMPERS.
- F. REMOVE EXHAUST AIR DUCTWORK AND GRILLE.
- G. REMOVE HWHR PIPING TO CONSTRUCT NEW LOCKER ROOM WALL.



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6. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONED LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
7. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES.


1. RE-BALANCE DIFFUSER TO AIRFLOW INDICATED.
2. RELOCATE EXISTING VAV BOX TO AVOID CONFLICT WITH NEW WALLS. RECONNECT TO EXISTING DUCTWORK.
3. PROVIDE NEW ROOF CURB FOR EF-1. COORDINATE WITH STRUCTURAL FOR ADDITIONAL SUPPORT AS REQUIRED.
4. RE-BALANCE TERMINAL UNIT TO AIRFLOWS INDICATED ON TERMINAL UNIT SCHEDULE ON SHEET M703.
5. PROVIDE NEW HHWR PIPING AND RE-CONNECT TO EXISTING HHWR PIPING SYSTEM. RUN HHWR PIPING ABOVE CEILING AND AROUND NEW LOCKER ROOM WALL.

The diagram shows a simplified floor plan of a building. A specific rectangular area on the left side of the plan is shaded with diagonal hatching. A leader line points from the text 'PROJECT AREA' to this shaded region.

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DATE	ISSUED FOR	DRN	CKD

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PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive. #802
Detroit, MI.48242

arconcepts PROJECT #WCA22-016

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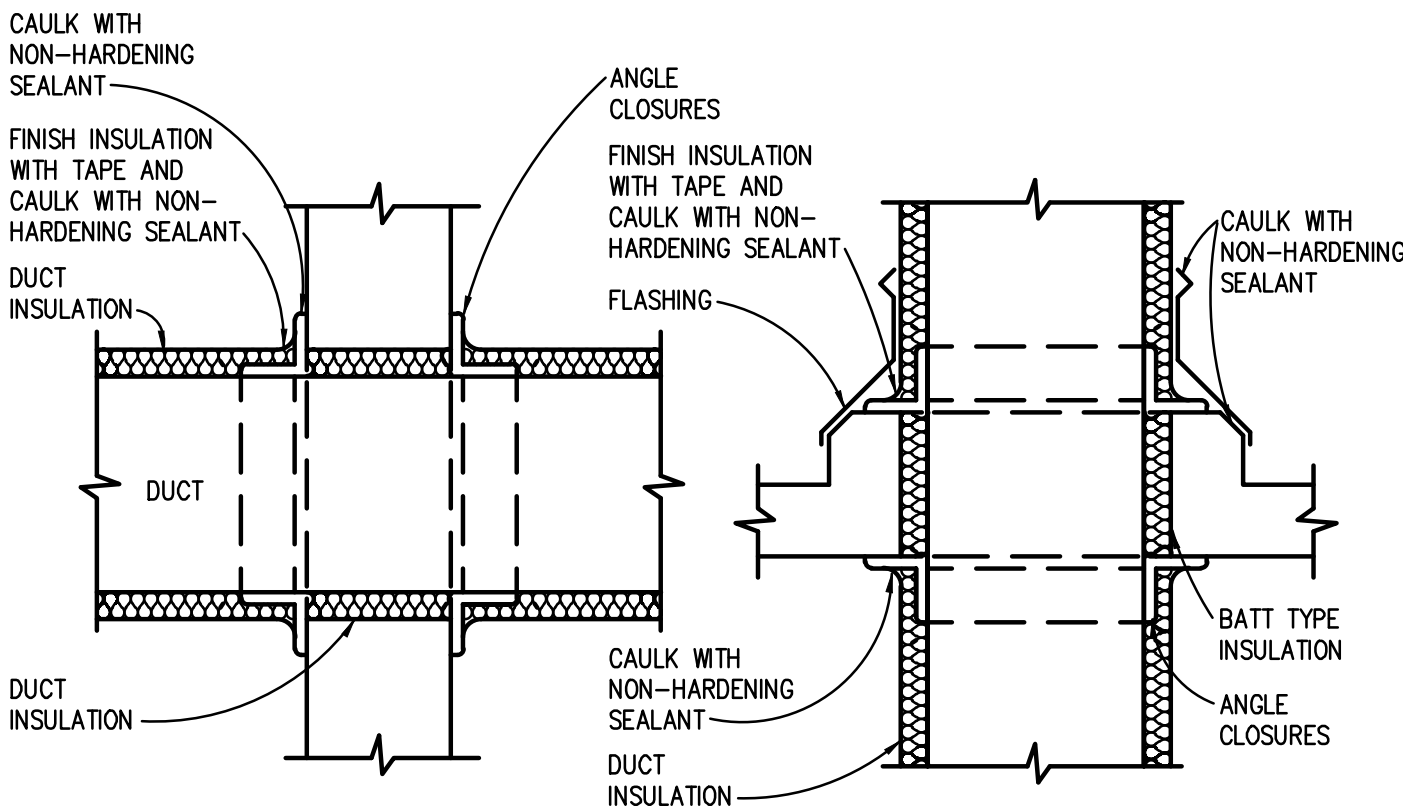
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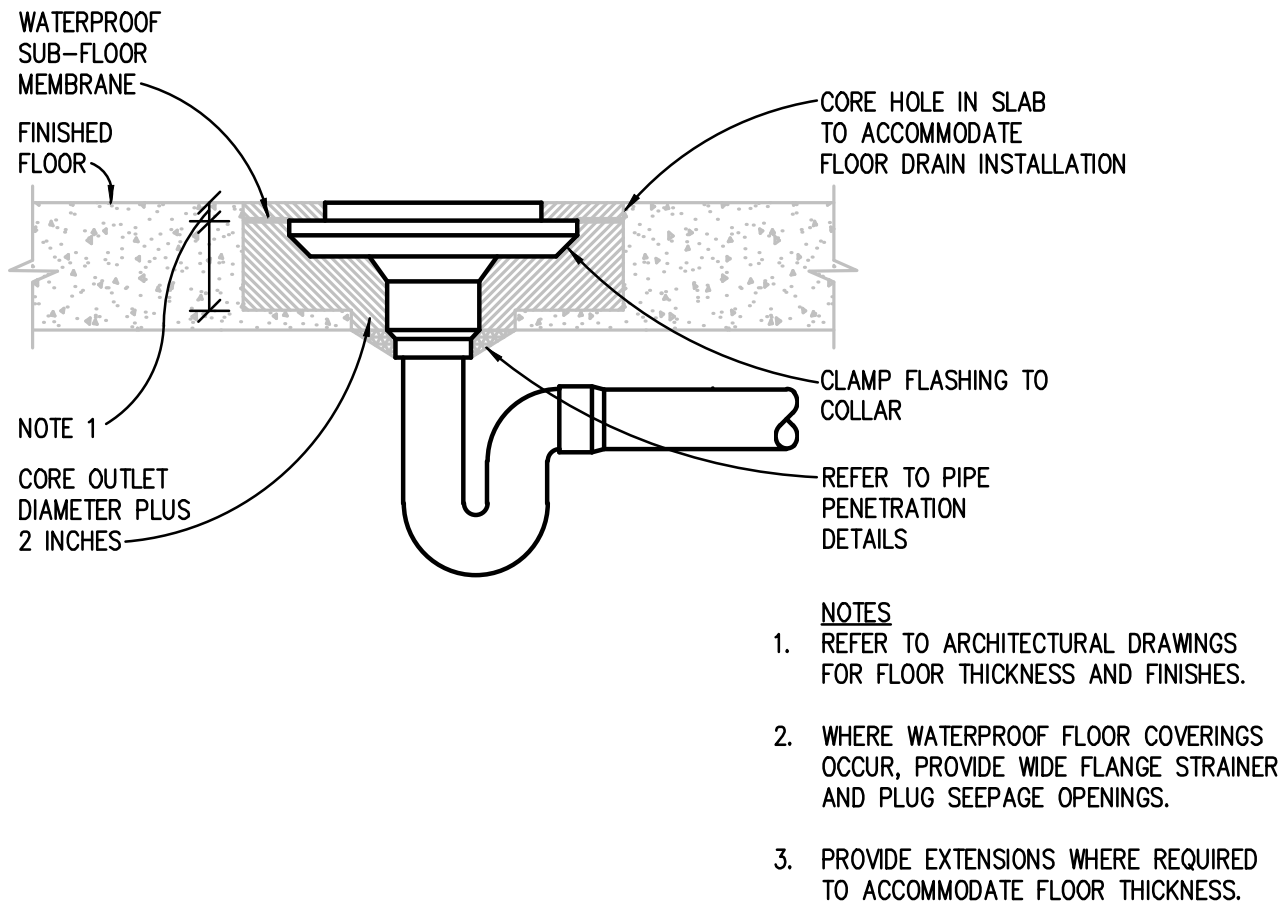
SHEET:

M-401

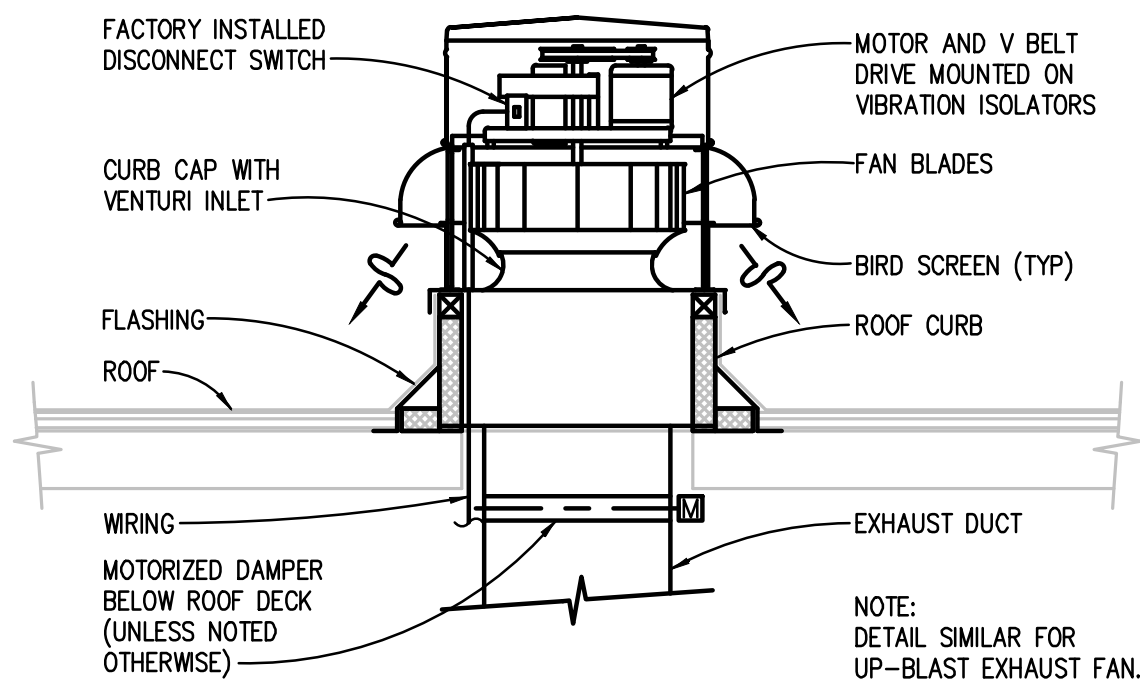
g:\2022\2022-0270-00\CAD\2022-0270-M6-DT.dwg, M-601, 3/3/2023 9:37:59 AM, Nadeen F. Hamid, Peter Basso Associates Inc.



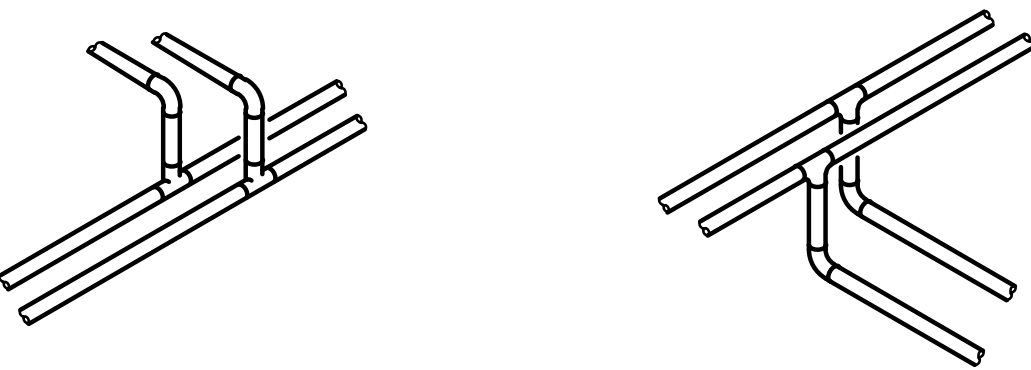
VERTICAL OR HORIZONTAL (NON FIRE RATED ASSEMBLY) DUCT PENETRATION DETAIL
NO SCALE



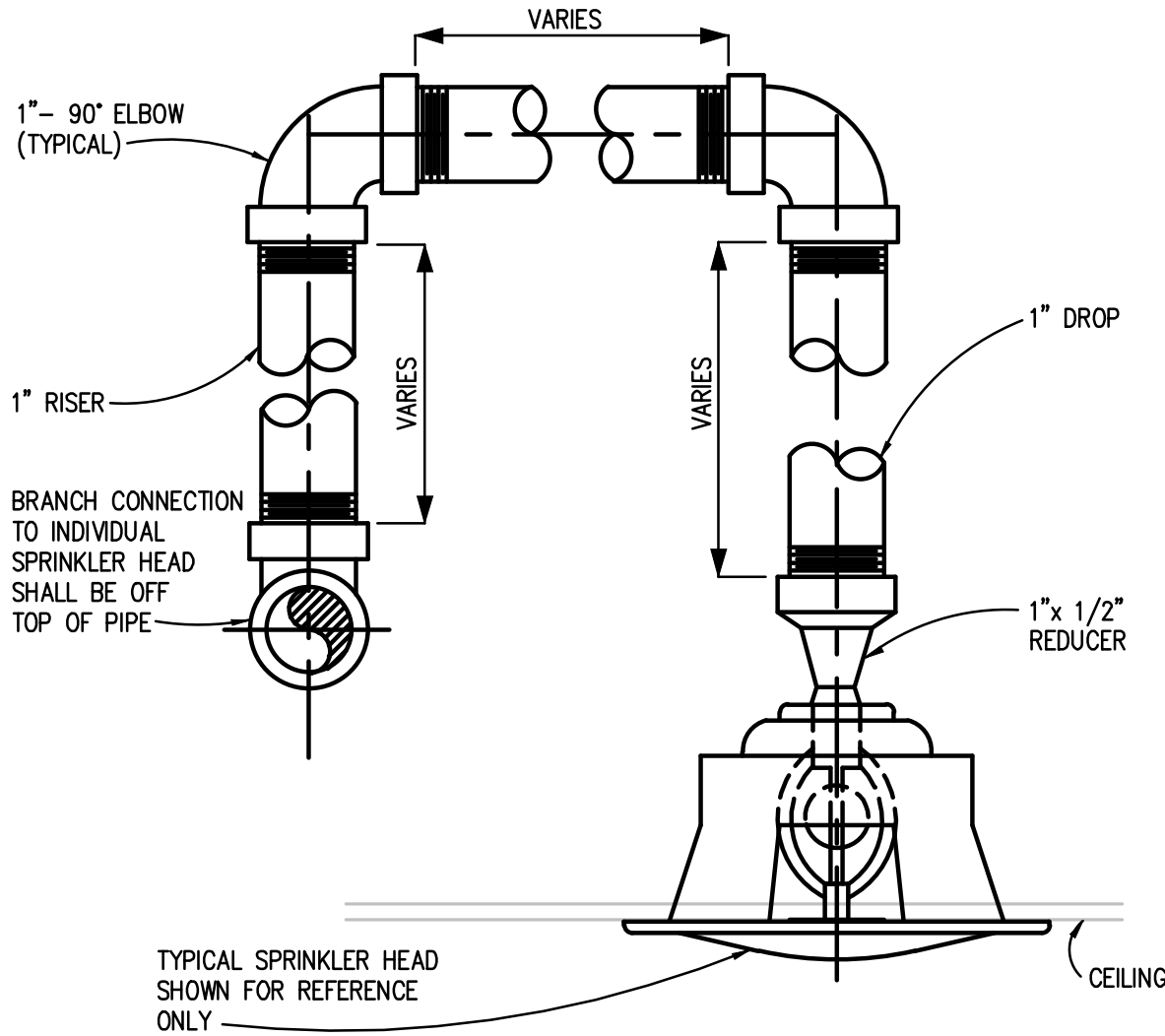
FLOOR DRAIN DETAIL (EXISTING FLOORS)
NO SCALE



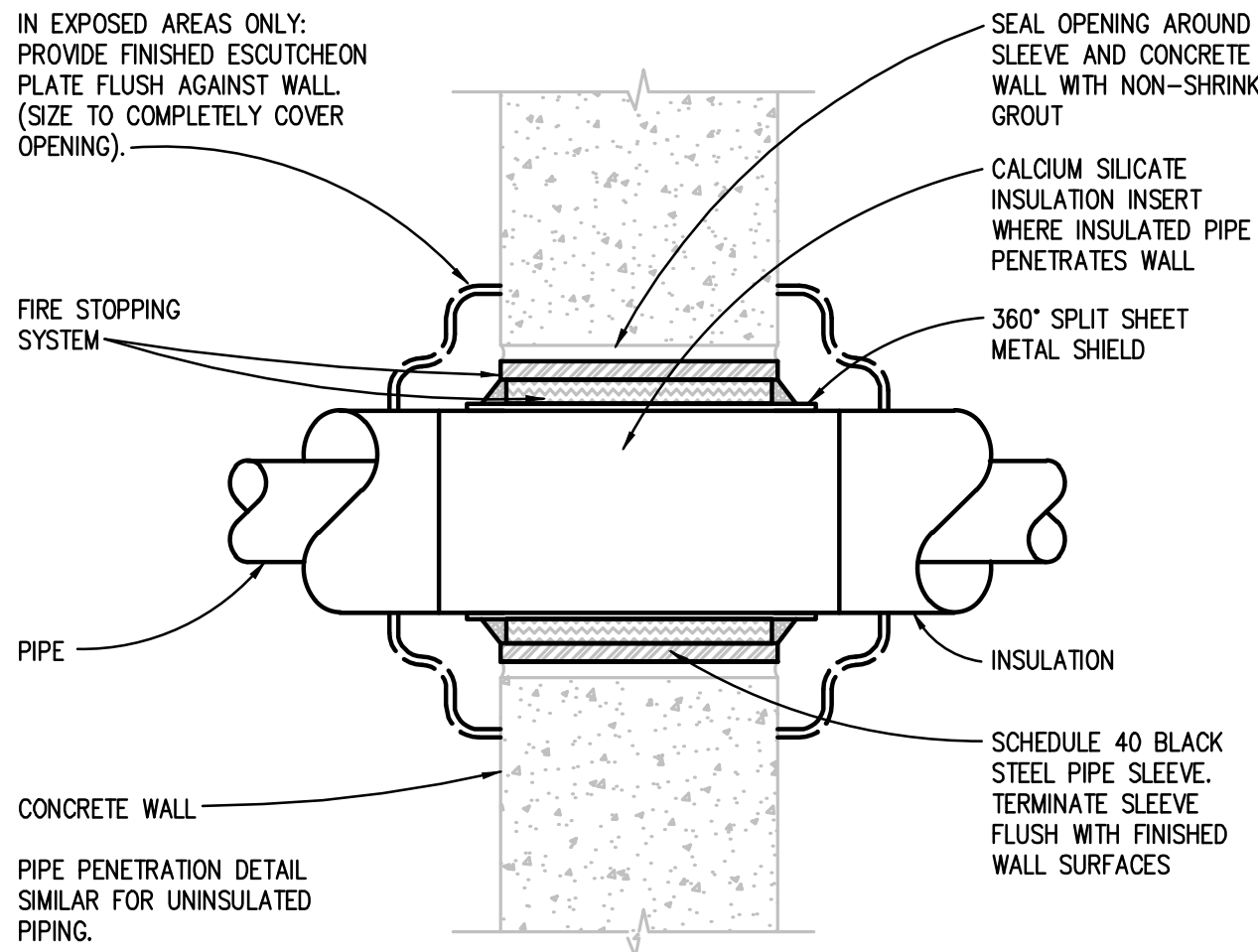
ROOF MOUNTED POWER VENTILATOR EXHAUST FAN DETAIL
NO SCALE



TYPICAL BRANCH TAKE-OFF CONNECTION PIPING DETAIL
NO SCALE

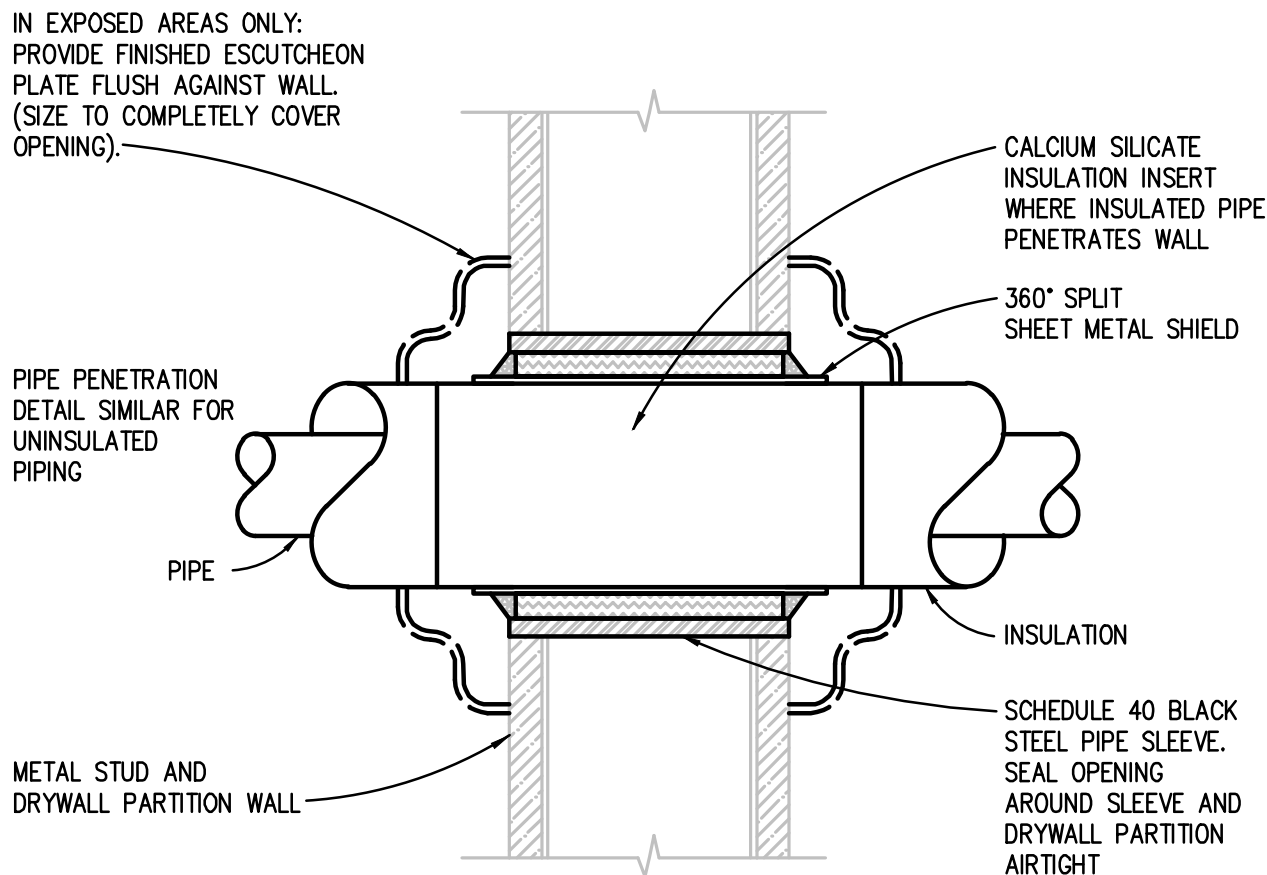


TYPICAL SPRINKLER PIPING DETAIL
NO SCALE



DETAIL INDICATES THE INSTALLATION REQUIREMENTS FOR A FIRE RATED ASSEMBLY. FOR A NON-FIRE RATED ASSEMBLY PACK SLEEVED OPENING WITH INSULATION MATERIAL AND CAULK WITH NON-HARDENING SEALANT.

FIRE RATED AND NON-FIRE RATED POURED CONCRETE OR BLOCK WALL PIPE PENETRATION DETAIL
NO SCALE



DETAIL INDICATES THE INSTALLATION REQUIREMENTS FOR A FIRE RATED ASSEMBLY. FOR A NON-FIRE RATED ASSEMBLY PACK SLEEVED OPENING WITH INSULATION MATERIAL AND CAULK WITH NON-HARDENING SEALANT.

FIRE RATED AND NON-FIRE RATED METAL STUD AND DRYWALL PARTITION WALL PIPE PENETRATION DETAIL
NO SCALE



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Fax: 248-879-0007

www.PeterBassoAssociates.com

PBA Project No.: 2022.0270

KEYPLAN:

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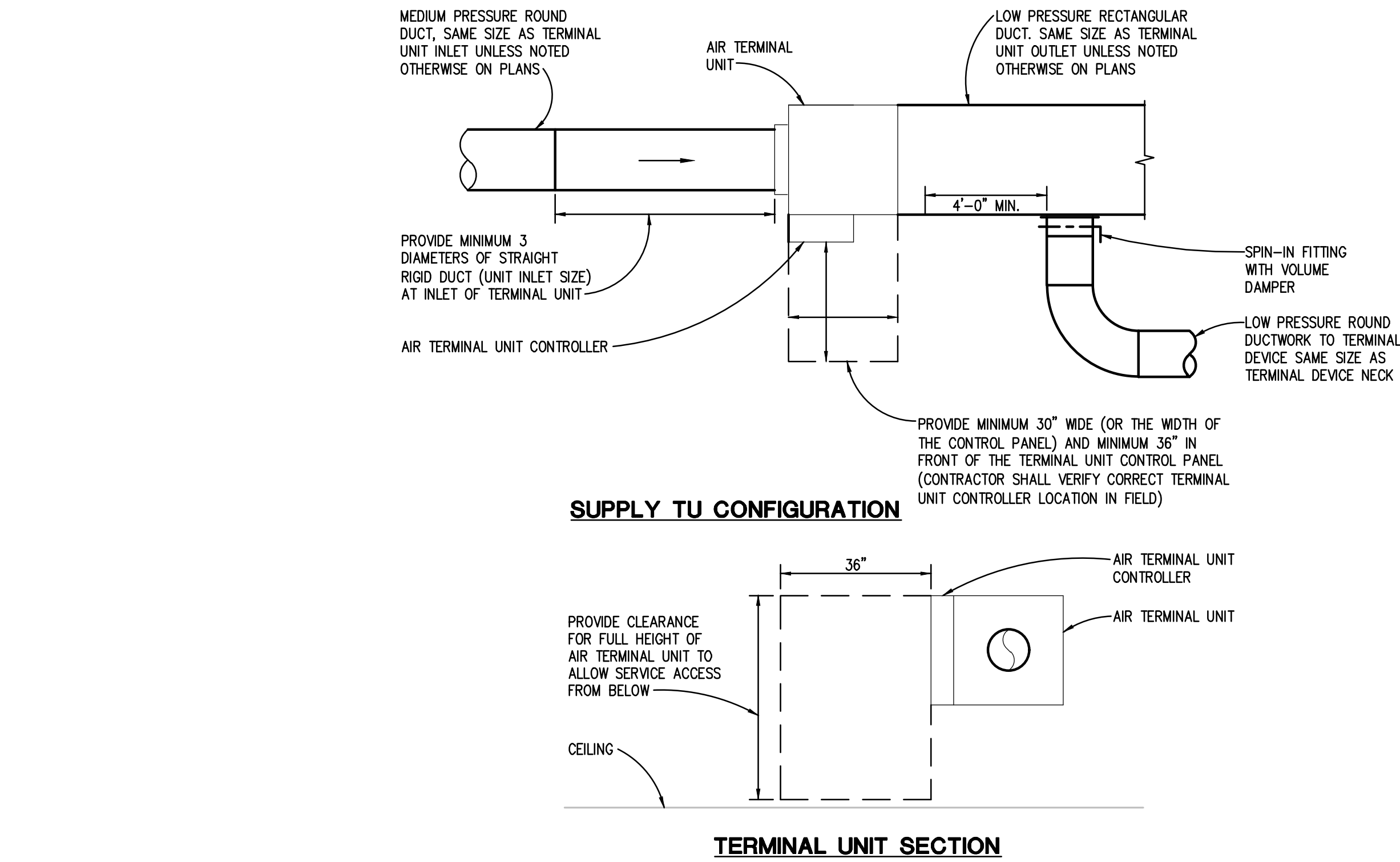
MECHANICAL DETAILS

SEAL:

SHEET:

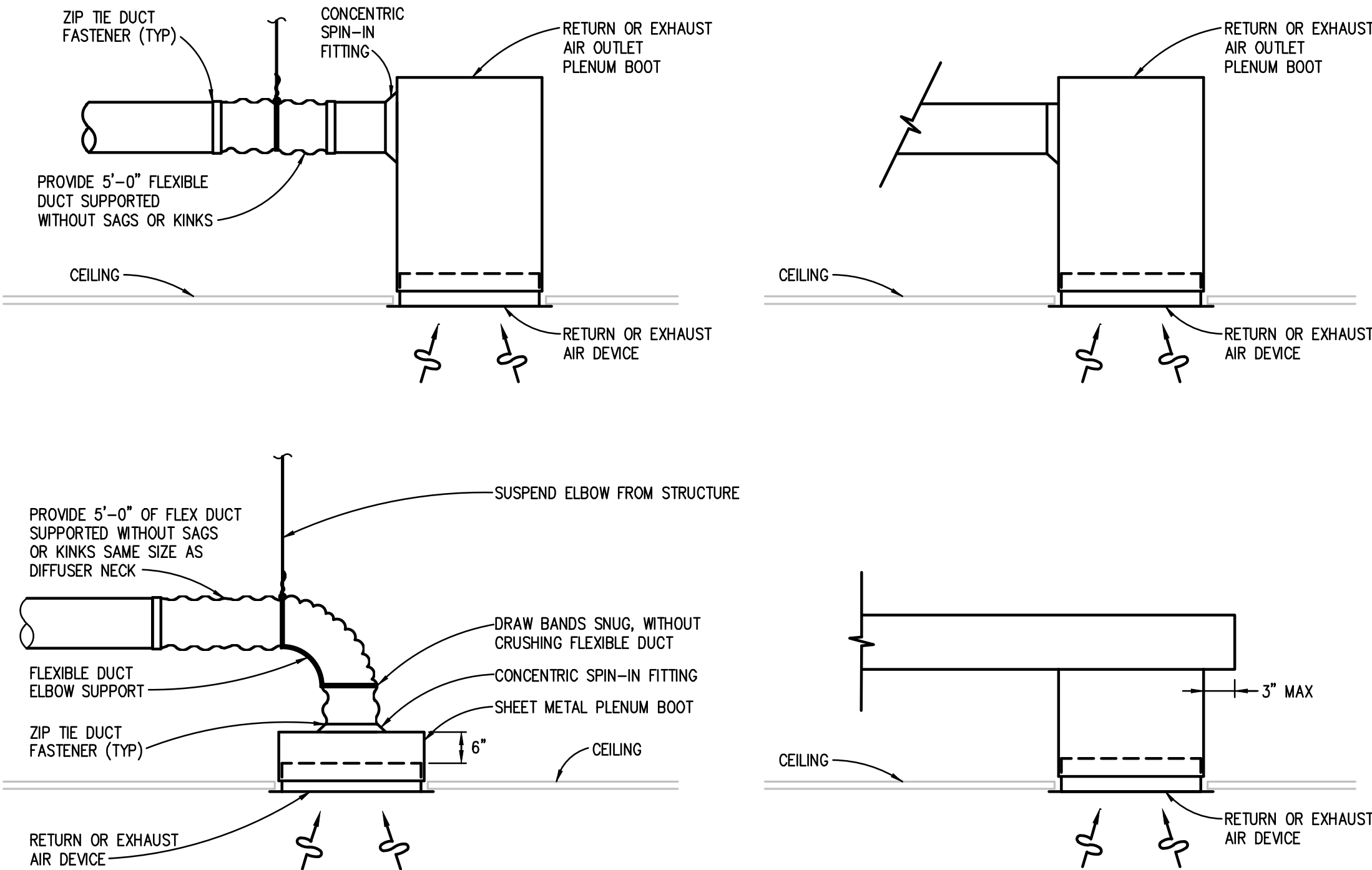
M-601

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AIR TERMINAL UNIT (TU) DETAIL

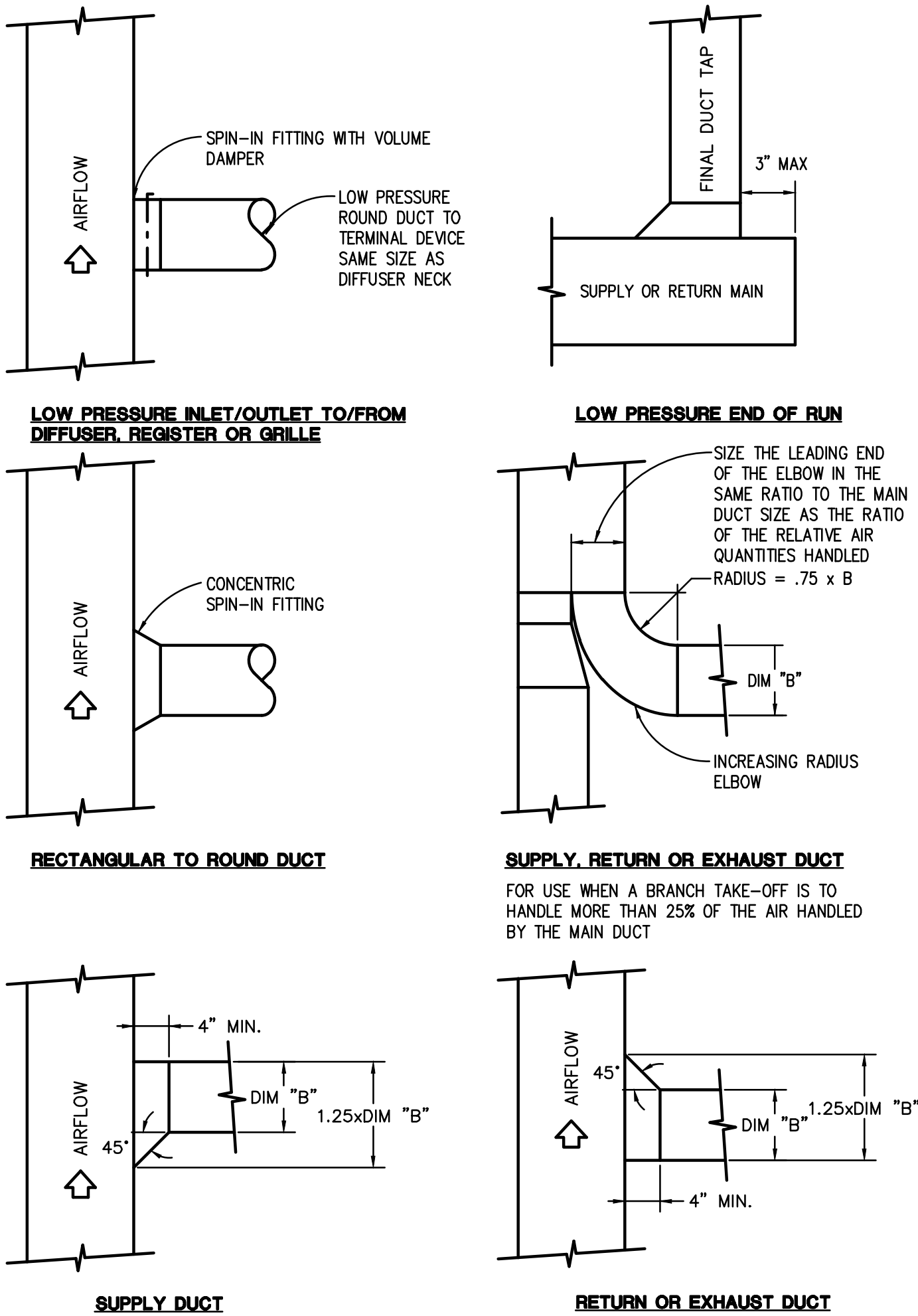
NO SCALE



RETURN OR EXHAUST AIR DEVICE INSTALLATION DETAIL

NO SCALE

NOTE: PAINT INTERIOR SURFACE OF PLENUM BOX FLAT BLACK.



RECTANGULAR DUCT BRANCH TAKE-OFF DETAILS

NO SCALE



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arconcepts PROJECT # WCA22-016

	CLIENT REFERENCE:
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MECHANICAL DETAILS

SEAL:

SHEET:

M-602

ABOVEGROUND HVAC PIPE & ACCESSORY INSULATION APPLICATION SCHEDULE														
	INSULATION MATERIAL & THICKNESS (INCHES)							FIELD-APPLIED JACKET MATERIAL						
	FLEXIBLE ELASTOMERIC	FIBERGLASS	MINERAL WOOL	POLYISOCYANURATE	PHENOLIC	CELLULAR GLASS	CALCIUM SILICATE	ALUMINUM	STAINLESS STEEL	PVC	SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)	PVC (INDOOR)		PVC (OUTDOOR)
KEYED NOTES														
INDOOR PIPE SYSTEM AND SIZE (INCHES)														
HEATING HOT WATER SUPPLY & RETURN 200 DEG F AND LOWER														
NPS 1-1/4 AND SMALLER		1.5								X				A

UNLESS OTHERWISE INDICATED OR SCHEDULED, THE FOLLOWING DO NOT REQUIRE INSULATION:
 DIRECT BURIED COOLING SYSTEM PIPING
 PIPING THAT CONVEYS FLUIDS HAVING DESIGN OPERATING TEMPERATURE RANGE BETWEEN 60 DEG F. AND 105 DEG F., INCLUSIVE.

GENERAL NOTES

1. "X" OR THICKNESS IN INCHES INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. INSULATE PIPING WITHIN AIR HANDLING EQUIPMENT THE SAME AS INDOOR PIPING. PROVIDE ALUMINUM OR STAINLESS STEEL JACKET.
3. FOR PIPING NPS 1-1/4 AND SMALLER WITHIN PARTITIONS IN CONDITIONED SPACES INSULATION MAY BE REDUCED BY ONE-INCH THICKNESS, BUT NOT TO LESS THAN ONE-INCH THICKNESS.
4. FOR PIPING NPS 1 AND SMALLER, INSULATION IS NOT REQUIRED FOR STRAINERS, CONTROL VALVES, AND BALANCING VALVES.

KEYED NOTES

- A. PROVIDE FIELD APPLIED JACKET FOR PIPING EXPOSED IN EQUIPMENT ROOMS, STORAGE ROOMS, JANITORS CLOSETS, RECEIVING ROOMS, TEST AREAS, CIRCULATION AREAS AND SUCH AREAS SUBJECT TO DAMAGE WITHIN 10 FEET (3 METERS) OF FINISHED FLOOR..

ABOVEGROUND HVAC PIPING & VALVE APPLICATION SCHEDULE																				
		MATERIAL					CONNECTION						ISOLATION VALVES							
PIPE SIZE (INCHES)	SOFT COPPER TYPE K	HARD COPPER TYPE L	HARD COPPER TYPE M	CARBON STEEL (SCHD. 40)	CARBON STEEL (SCHD. 80)	CARBON STEEL (STD.)	COPPER TYPE DWV	SOLDERED	BRAZED	WELDED	THREADED	FLANGED	GROOVED	PRESSURE SEAL	MECHANICALLY FORMED TEE	BALL	GENERAL SERVICE BUTTERFLY	HI-PERF BUTTERFLY	GATE	KEYED NOTES
HEATING HOT WATER SUPPLY & RETURN - MIN. WORKING PRESS. & TEMP.: 125 PSIG AT 200 DEG F																				
UP TO 2		X						X	X					X	X	X				

GENERAL NOTES

1. "X" INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A PIPING SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. DISSIMILAR-METAL PIPING JOINTS: CONSTRUCT JOINTS USING DIELECTRIC FITTINGS COMPATIBLE WITH BOTH PIPING MATERIALS. IF A BRONZE VALVE CONNECTS THE DISSIMILAR METALS NO FURTHER DIELECTRIC ISOLATION IS REQUIRED.
 - a. NPS 2 AND SMALLER: USE BRASS COUPLING, NIPPLE, OR UNION.
 - b. NPS 2-1/2 AND LARGER: USE DIELECTRIC FLANGE KITS.
3. USE UNIONS OR FLANGES AT VALVE AND EQUIPMENT CONNECTIONS.
4. HVAC EQUIPMENT DRAINS, VENTS, SAFETY VALVE PIPING, BLOWDOWN PIPING AND THE LIKE SHALL BE SAME PIPING MATERIAL AS ASSOCIATED PIPING SYSTEM.
5. GROOVED END VALVES MAY BE USED WITH GROOVED PIPING.

KEYED NOTES

DUCT SYSTEM APPLICATION SCHEDULE						
		DUCT MATERIAL				
AIR SYSTEMS	G90 GALV. SHEET METAL	DOUBLE-WALL LINED G90 GALV. SHEET METAL (SOLID INNER WALL)	DOUBLE-WALL LINED G90 GALV. SHEET METAL (PERF. INNER WALL)	G90 GALV. SHEET METAL WITH 1-INCH LINING	GALVANNEALD SHEET METAL	ALUMINUM
SUPPLY AIR UPSTREAM OF TERMINAL UNITS	X					
SUPPLY AIR DOWNSTREAM OF TERMINAL UNITS	X					
EXHAUST AIR WITHOUT TERMINAL UNITS	X					
LOCKER ROOM AND WET AREA EXHAUST					X	X
						TYPE 304 STAINLESS STEEL
						TYPE 316 STAINLESS STEEL
						PVC COATED GALV. SHEET METAL (4X1)
						PVC COATED GALV. SHEET METAL (1'x4)
						PVC COATED GALV. SHEET METAL (4'x4)
						16 GA. CARBON STEEL
						ZERO-CLEARANCE PREFABRICATED RANGE HOOD EXHAUST DUCT
						FABRIC
						DESIGN PRESSURE CLASS (INCHES WG)
						SEAL CLASS
						MAX. ALLOWABLE LEAKAGE RATE (PERCENT)
						KEYED NOTES

GENERAL NOTES

1. "X" INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A DUCT SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. 4 X 1 PVC-COATED GALVANIZED STEEL: FACTORY-APPLIED PVC COATINGS SHALL BE 4 MILS (0.10 MM) THICK ON EXTERIOR SHEET METAL SURFACES OF DUCTS AND FITTINGS EXPOSED TO CORROSIVE CONDITIONS AND MINIMUM 1 MIL (0.025 MM) THICK ON INTERIOR SURFACES.
3. 1 X 1 4 (4 X 1 REVERSE COATED) PVC-COATED GALVANIZED STEEL: FACTORY-APPLIED PVC COATINGS SHALL BE 4 MILS (0.10 MM) THICK ON INTERIOR SHEET METAL SURFACES OF DUCTS AND FITTINGS EXPOSED TO CORROSIVE CONDITIONS AND MINIMUM 1 MIL (0.025 MM) THICK ON EXTERIOR SURFACES.
4. 4 X 4 PVC-COATED GALVANIZED STEEL: FACTORY-APPLIED PVC COATINGS SHALL BE 4 MILS (0.10 MM) THICK ON SHEET METAL SURFACES OF DUCTS AND FITTINGS EXPOSED TO CORROSIVE CONDITIONS AND 4 MILS (0.10 MM) THICK ON OPPOSITE SURFACES.

KEYED NOTES

DUCT SYSTEM INSULATION APPLICATION SCHEDULE											
		INSULATION MATERIAL & THICKNESS (INCHES)						FIELD APPLIED JACKET MATERIAL		KEYED NOTES	
		FIBERGLASS BLANKET 0.75 LB/CU FT	FIBERGLASS BLANKET 1.0 LB/CU FT	FIBERGLASS BOARD 2.25 LB/CU FT	FIBERGLASS BOARD 6.0 LB/CU FT	FLEXIBLE ELASTOMERIC	ASTM E2336 2-HOUR FIRE RATED BLANKET	2-HOUR FIRE RATED BLANKET	ALUMINUM		SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)
DUCT SYSTEMS LOCATED INDOORS											
SUPPLY AIR, EXCEPT AS NOTED BELOW			1.5							A, B	
EXHAUST AND RELIEF AIR BETWEEN ISOLATION DAMPER AND PENETRATION OF BUILDING EXTERIOR, EXCEPT AS NOTED BELOW			1.5								
LOCKER ROOM AND WET AREA EXHAUST BETWEEN EXHAUST GRILLE & CONNECTION TO GENERAL EXHAUST OR BETWEEN EXHAUST GRILLE AND PENETRATION OF BUILDING EXTERIOR			1.5								
PLENUMS, DUCTS, AND DUCT ACCESSORIES NOT REQUIRING INSULATION: FIBROUS-GLASS DUCTS DOUBLE-WALL METAL DUCTS WITH INSULATION OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1 – 2013 METAL DUCTS WITH DUCT LINER OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1 – 2013 FABRIC SUPPLY DUCTS FACTORY-INSULATED FLEXIBLE DUCTS FACTORY-INSULATED PLENUMS AND CASINGS FLEXIBLE CONNECTORS VIBRATION-CONTROL DEVICES FACTORY-INSULATED ACCESS PANELS AND DOORS											

GENERAL NOTES

1. 'X' OR THICKNESS IN INCHES INDICATE ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A DUCT SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. REFER TO METAL DUCT SECTION OF SPECIFICATIONS FOR DUCT LINING AND DOUBLE-WALL INSULATED DUCT.
3. REFER TO HVAC CASINGS SECTION OF SPECIFICATIONS FOR DOUBLE-WALL INSULATED PLENUMS.

KEYED NOTES

- B. EXPOSED SUPPLY DUCTWORK LOCATED IN A CONDITIONED SPACE SERVED BY THE SAME AIR HANDLING SYSTEM IS NOT REQUIRED TO BE INSULATED.



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PBA Project No. 2022.0270

KEYPLAN:


SECURITY SENSITIVE INFORMATION:
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<p>CLIENT:</p>  <p>DETROIT METRO • WILLOW RUN METRO COUNTY AGENT AUTHORITY</p>	<p>CONSULTANT:</p>
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PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT #WCA22-016

MECHANICAL SCHEDULES

SEAL:

SHEET:

M-702

g:\2022\2022-0270-00\CAD\2022-0270-M7-SH3.dwg, M-703, 3/3/2023 9:38:30 AM, Peter Basso Associates Inc.

SCHEDULE IS FOR REBALANCING EXISTING
TERMINAL UNITS, NOT FOR ORDERING NEW.

AIR TERMINAL UNIT WITH ELECTRIC COIL SCHEDULE							
UNIT IDENTIFICATION	INLET SIZE	AREA SERVED	UNIT SERVED FROM	AIR FLOW			KEYED NOTES
				COOLING MAXIMUM CFM	MINIMUM CFM	HEATING MAXIMUM CFM	
TU-4	5	WOMEN'S LOCKER ROOM	AHU-1	315	315	315	
TU-6	6	WATCH ALARM	AHU-1	270	80	160	

GENERAL NOTES:
1. REFER TO SCHEDULES GENERAL NOTES.



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KEYPLAN:

GRILLE, REGISTER, AND DIFFUSER SCHEDULE									
UNIT IDENTIFICATION	TYPE	FACE SIZE	NECK SIZE	FRAME TYPE	ACCESSORY	CONSTRUCTION	FINISH	MODEL NUMBER	KEYED NOTES
S-1	DIFFUSER	24x24	SEE PLAN	SURFACE	REMOTE BALANCE DAMPER	ALUMINUM	WHITE	ASCD	
E-1	GRILLE	24x24	SEE PLAN	SURFACE	---	ALUMINUM	WHITE	80SR	

GENERAL NOTES:
1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED. APPROVED, ALTERNATE MANUFACTURERS FOR COMPARABLE EQUIPMENT: KRUEGER, NAILOR INDUSTRIES, TITUS,
TUTTLE & BAILEY

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POWER VENTILATOR SCHEDULE																										
UNIT IDENTIFICATION	SYSTEM SERVED	TYPE	AIRFLOW CFM	T.S.P. IN. W.G.	TIP SPEED FPM	FAN RPM	MOTOR				CURB HEIGHT INCHES	MODULATION/CONTROL TYPE	ELECTRICAL				UNIT INLET Lw BY OCTAVE BAND								MODEL NUMBER	KEYED NOTES
							BHP	HP	RPM	DRIVE TYPE			VOLTS	PHASE	SCCR KA (NOTE 3)	OPTIONS/ACCESSORIES										
																	63 HZ (DB)	125 HZ (DB)	250 HZ (DB)	500 HZ (DB)	1000 HZ (DB)	2000 HZ (DB)	4000 HZ (DB)	8000 HZ (DB)		
EF-1	TOILET AND LOCKER ROOMS	CENTRIFUGAL	390	0.3	3222	1132	0.04	1/6	1725	ECM	18	MANUAL	120	1	5	B	76	68	62	54	49	49	42	35	G-095-VG	

GENERAL NOTES:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE GREENHECK UNLESS OTHERWISE NOTED. APPROVED, ALTERNATE MANUFACTURERS FOR COMPARABLE EQUIPMENT: AEROVENT, LOREN COOK COMPANY, MOFFIT CORPORATION, INC, PENNBARRY.
3. CONTROLLER (E.G. VARIABLE FREQUENCY CONTROLLER, MOTOR STARTER) FOR SPECIFIED EQUIPMENT SHALL BE MANUFACTURED AND MARKED PER NEC WITH A MINIMUM SHORT CIRCUIT CURRENT RATING AS INDICATED.

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M-703

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TEMPERATURE CONTROL - SYMBOLS LIST

SCHEMATIC SYMBOLS	
SYMBOL	DESCRIPTION
	AIR FLOW CONTROLLER
	AQUASTAT, STRAP ON BULB
	CARBON DIOXIDE SENSOR – WALL MOUNTED
	CARBON DIOXIDE SENSOR – DUCT MOUNTED
	CARBON MONOXIDE SENSOR – WALL MOUNTED
	CARBON MONOXIDE SENSOR – DUCT MOUNTED
	CURRENT SWITCH
	CURRENT TRANSMITTER
	DAMPER – INLET VANES
	DAMPER – OPPOSED BLADE
	DAMPER – PARALLEL BLADE
	DAMPER MOTOR
	DAMPER MOTOR W/ POSITIVE POSITIONER
	DIFFERENTIAL PRESSURE TRANSMITTER
	DIFFERENTIAL PRESSURE SWITCH
	ELECTRIC–PNEUMATIC RELAY
	ELECTRIC TO PNEUMATIC TRANSDUCER
	FIRE ALARM SYSTEM, ADDRESSABLE CONTROL MODULE
	FIRE ALARM SYSTEM, ADDRESSABLE INTERFACE MODULE
	FLOW MEASURING STATION
	FLOW METER
	FLOW SWITCH
	FREEZESTAT
	GAUGE – FLOW
	GAUGE – PRESSURE
	GAUGE – TEMPERATURE
	GUARD FOR STAT OR SENSOR
	HUMIDIFIER
	HUMIDISTAT OR HUMIDITY SENSOR (AS DEFINED ON TC DRAWINGS)
	HUMIDITY SENSOR, DUCT MOUNTED
	LEVEL SWITCH OR TRANSMITTER
	LIMIT SWITCH
	LINE – ELECTRIC
	LINE – PNEUMATIC
	MAIN CONTROL AIR SUPPLY
	MOTOR STARTER
	OCCUPANCY SENSOR
	PILOT LIGHT OR BEACON R – RED LENS A – AMBER LENS B – BLUE LENS G – GREEN LENS
	PNEUMATIC–ELECTRIC SWITCH
	PRESSURE SWITCH
	PRESSURE TRANSMITTER
	RELAY, ELECTRIC
	SELECTOR SWITCH, (N=NUMBER OF POSITIONS)
	SIGNAL – DDC/BAS, ANALOG INPUT
	SIGNAL – DDC/BAS, ANALOG OUTPUT
	SIGNAL – DDC/BAS, DIGITAL INPUT
	SIGNAL – DDC/BAS, DIGITAL OUTPUT
	SIGNAL – PACKAGED EQUIPMENT, ANALOG INPUT
	SIGNAL – PACKAGED EQUIPMENT, ANALOG OUTPUT
	SIGNAL – PACKAGED EQUIPMENT, DIGITAL INPUT
	SIGNAL – PACKAGED EQUIPMENT, DIGITAL OUTPUT

NOTES:

1. SOME SYMBOLS & ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.
2. REFER TO MECHANICAL STANDARDS ON DRAWING M0.1 FOR ADDITIONAL SYMBOLS & ABBREVIATIONS THAT MAY BE USED ON TEMPERATURE CONTROL DRAWINGS.

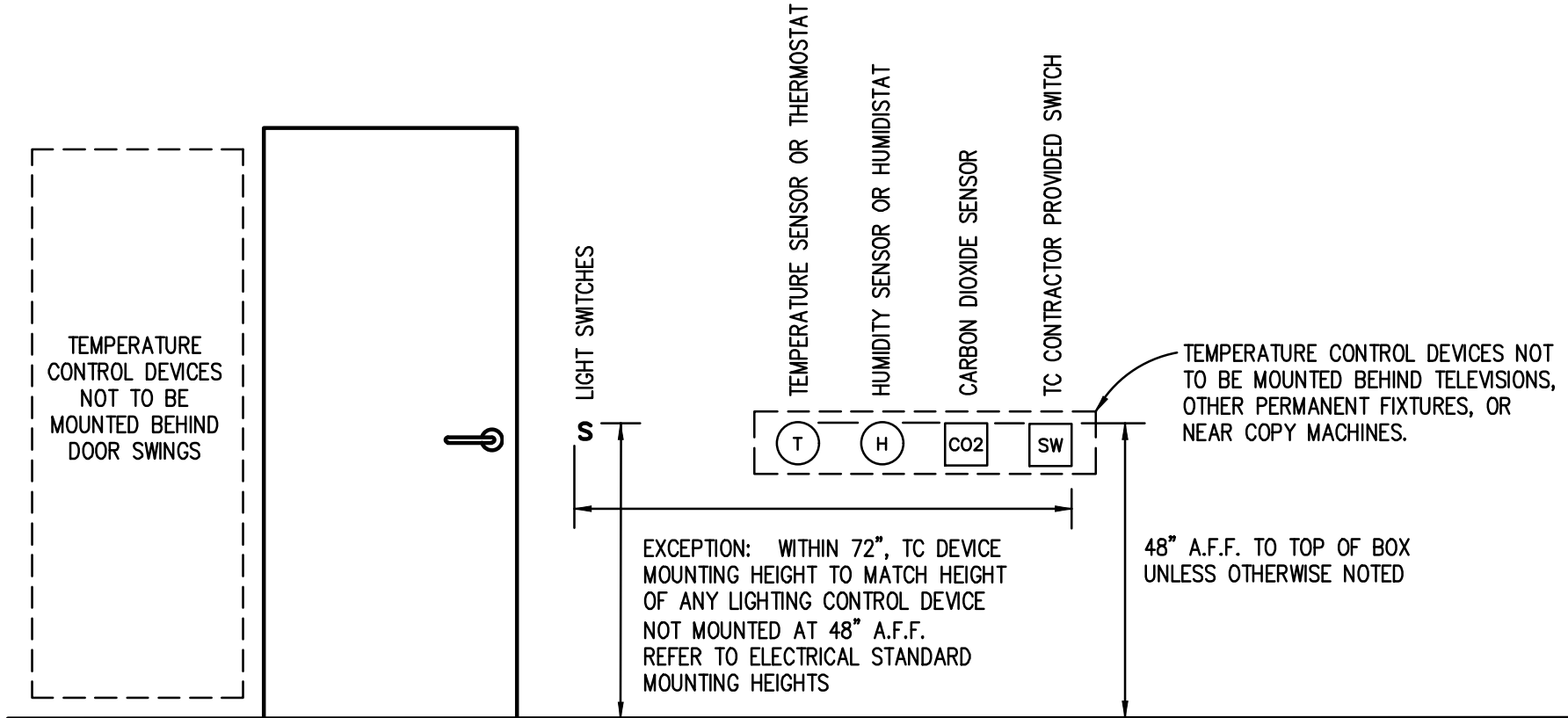
SCHEMATIC SYMBOLS (CONT.)	
SYMBOL	DESCRIPTION
	SMOKE DETECTOR – DUCT MOUNTED
	SMOKE DETECTOR – SPACE MOUNTED
	START/STOP RELAY
	STATIC PRESSURE TRANSMITTER
	STATIC PRESSURE SENSOR OR PROBE
	SWITCH
	TEMPERATURE SENSOR – RIGID ELEMENT IN WELL
	TEMPERATURE SENSOR – STRAP ON BULB
	TEMPERATURE SENSOR – DUCT MOUNTED AVG ELEMENT
	TEMPERATURE SENSOR – DUCT MOUNTED RIGID ELEMENT
	THERMOSTAT OR TEMPERATURE SENSOR (AS DEFINED ON TC DRAWINGS)
	THERMOSTAT FOR NIGHT SETBACK
	TIMER SWITCH
	TRANSFORMER
	VALVE – 2 WAY CONTROL VALVE
	VALVE – 3 WAY CONTROL VALVE
	VALVE – 2 WAY CONTROL W/ POSITIONER
	VALVE – 3 WAY CONTROL W/ POSITIONER
	VARIABLE FREQUENCY CONTROLLER
	VELOCITY SENSOR
	VIBRATION SWITCH
	VOLTAGE SENSOR

WIRING SYMBOLS	
SYMBOL	DESCRIPTION
	AUDIBLE DEVICE (AS DEFINED ON TC DRAWINGS)
	COIL – MOTOR STARTER CONTACTOR
	COIL – RELAY
	COIL – TIME DELAY RELAY
	COIL – VARIABLE SPEED DRIVE CONTACTOR
	COIL – EP OR SOLENOID VALVE
	CONTACT – INSTANT OPERATING, NO
	CONTACT – INSTANT OPERATING, NC
	CONTACT – TIMED AFTER COIL IS ENERGIZED, NOTC
	CONTACT – TIMED AFTER COIL IS ENERGIZED, NCTO
	CONTACT – TIMED AFTER COIL IS DE-ENERGIZED, NOTO
	CONTACT – TIMED AFTER COIL IS DE-ENERGIZED, NCTC
	GROUND
	MOTOR, SINGLE PHASE
	PILOT LIGHT OR BEACON R – RED LENSE A – AMBER LENS B – BLUE LENS G – GREEN LENS
	PILOT LIGHT, WITH PUSH–TO–TEST
	PUSH BUTTON – MOMENTARY CONTACT, NO
	PUSH BUTTON – MOMENTARY CONTACT, NC
	PUSH BUTTON – MOMENTARY CONTACT, NO & NC
	PUSH BUTTON – MOMENTARY, NO (MUSHROOM HEAD)
	PUSH BUTTON – MOMENTARY, NC (MUSHROOM HEAD)

WIRING SYMBOLS (CONT.)	
SYMBOL	DESCRIPTION
	SWITCH – 2 POSITION SELECTOR
	SWITCH – 3 POSITION SELECTOR HAND/OFF/AUTO
	SWITCH – FLOW (AIR, WATER, ETC.), NO
	SWITCH – FLOW (AIR, WATER, ETC.), NC
	SWITCH – LIMIT, NO
	SWITCH – LIMIT, NO, HELD CLOSED
	SWITCH – LIMIT, NC
	SWITCH – LIMIT, NC, HELD OPEN
	SWITCH – LIQUID LEVEL, NO
	SWITCH – LIQUID LEVEL, NC
	SWITCH – MANUAL SPST, NO
	SWITCH – MANUAL DPST, NO
	SWITCH – MANUAL SPST, NC
	SWITCH – MANUAL DPST, NC
	SWITCH – MANUAL SPDT
	SWITCH – MANUAL DPDT
	SWITCH – PRESSURE & VACUUM, NO
	SWITCH – PRESSURE & VACUUM, NC
	SWITCH – TEMPERATURE ACTUATED, NO
	SWITCH – TEMPERATURE ACTUATED, NC
	THERMAL OVERLOAD, SINGLE PHASE
	THERMAL OVERLOAD CONTACTS – 3 PHASE
	TRANSFORMER
	WIRE TERMINATION AT DEVICE
	WIRE TO WIRE TERMINATION
	WIRING NOT CONNECTED

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
BAS	BUILDING AUTOMATION SYSTEM
DDC	DIRECT DIGITAL CONTROL
TC	TEMPERATURE CONTROLS
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NOTO	NORMALLY OPEN TIMED OPEN
NOTC	NORMALLY OPEN TIMED CLOSED
NCTO	NORMALLY CLOSED TIMED OPEN
NCTC	NORMALLY CLOSED TIMED CLOSED
SPST	SINGLE POLE SINGLE THROW
SPDT	SINGLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DPDT	DOUBLE POLE DOUBLE THROW

PNEUMATIC CONTROL SYMBOLS (ADDITIONAL)	
SYMBOL	DESCRIPTION
	LOAD ANALYZER
	LOW PRESSURE SELECTOR RELAY
	MANUAL GRADUAL POSITION SWITCH
	PNEUMATIC SWITCH
	RATIO RELAY
	RECEIVER CONTROLLER
	SWITCHED CONTROL AIR SUPPLY



TC DEVICE STANDARD MOUNTING HEIGHTS DETAIL

NO SCALE

TC GENERAL NOTES

1. THESE GENERAL NOTES SHALL BE APPLICABLE FOR ALL TEMPERATURE CONTROL (TC) DRAWINGS.
2. "PROVIDE" IS DEFINED AS 'FURNISH AND INSTALL'.
3. TEMPERATURE CONTROLS CONTRACTOR (TC CONTRACTOR) SHALL BE RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.
4. FOR TEMPERATURE CONTROL DRAWINGS ONLY: ALL DETAILED INFORMATION IDENTIFIED WITH HEAVY LINE WEIGHT SHALL BE PROVIDED BY TC CONTRACTOR. ALL OTHER INFORMATION IDENTIFIED WITH LIGHT LINE WEIGHT SHALL BE PROVIDED BY OTHER TRADES.
5. ALL CONTROL SCHEMATICS AND WIRING DIAGRAMS ARE FOR THE CLARIFICATION OF EQUIPMENT INTERLOCKING FUNCTIONS AND THE INTERFACE OF VARIOUS CONTRACTORS' WORK AND SHALL NOT BE MISTAKEN AS SHOP DRAWINGS FOR ACTUAL INSTALLATION.
6. TC CONTRACTOR SHALL PROVIDE DDC CONTROLLERS AS REQUIRED TO MEET INTENT OF DESIGN DOCUMENTS. REFER TO THE PLANS FOR THE DDC FUNCTIONS THAT APPLY TO EACH MECHANICAL SYSTEM.
7. ALL TC PROVIDED COMPONENTS AND ALL TC CONTRACTOR INSTALLED WIRING SHALL BE LABELED PER SPECIFICATIONS.
8. ALL WIRING AND SYSTEM CONTROL VOLTAGES SHALL BE IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATION AND THE ELECTRICAL SPECIFICATIONS.
9. VARIABLE FREQUENCY CONTROLLER, FAN AND PUMP MOTOR STARTERS, STARTER WIRING, CONTROL VOLTAGE TRANSFORMERS AND ASSOCIATED POWER WIRING SHALL BE PROVIDED BY OTHER TRADES.
10. DUCT SMOKE DETECTORS SHALL BE FURNISHED, INSTALLED AND WIRED TO THE FIRE ALARM SYSTEM BY THE ELECTRICAL CONTRACTOR. ELECTRICAL SHALL PROVIDE FIRE ALARM SYSTEM CONTROL MODULES FOR REQUIRED SAFETIES TO MOTOR STARTERS OR VFC'S AS INDICATED. CONTROL MODULES SHALL BE LOCATED NEAR RESPECTIVE MOTOR STARTERS OR VFC'S. TC CONTRACTOR SHALL PROVIDE INTERLOCK WIRING FROM CONTROL MODULES TO MOTOR STARTERS OR VFC'S.
11. ALL DDC AND CONTROL INTERLOCK WIRING SHALL BE BY TC CONTRACTOR UNLESS OTHERWISE NOTED. TC CONTRACTOR SHALL COORDINATE WITH VFC AND MOTOR STARTER SUPPLIERS TO DETERMINE EXACT WIRING REQUIREMENTS AND TERMINATION POINTS.
12. ALL DDC AND CONTROL INTERLOCK WIRING BETWEEN COMPONENTS SHALL BE INSTALLED WITHOUT INTERMEDIATE STOPS. WIRE SPLICING AT INTERMEDIATE TERMINAL STRIPS IS NOT ACCEPTABLE.
13. ALL ELECTRICAL WIRING AND RACEWAY SYSTEMS SHALL COMPLY WITH ELECTRICAL SPECIFICATION REQUIREMENTS. WHERE RACEWAY IS REQUIRED, TWO SEPARATE ELECTRICAL RACEWAY SYSTEMS SHALL BE PROVIDED: ONE FOR 120V WIRING AND THE OTHER FOR 24V WIRING.
14. TC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER SUPPLIES REQUIRED FOR TC SYSTEM UNLESS OTHERWISE NOTED. REFER TO ELECTRICAL PANEL SCHEDULES FOR SPARE CIRCUITS OR CIRCUITS DEDICATED TO TEMPERATURE CONTROLS. COORDINATE CIRCUIT USE WITH ELECTRICAL CONTRACTOR.
15. TC CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL FIELD MOUNTED COMPONENTS.
16. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES. PROVIDE WALL MOUNTED DEVICE GUARDS WHERE INDICATED ON TC DETAILS OR AT SPECIFIC LOCATIONS INDICATED ON MECHANICAL FLOOR PLANS.
17. TC CONTRACTOR SHALL PROVIDE AUXILIARY PANELS FOR REQUIRED PANEL MOUNTED EQUIPMENT SUCH AS RELAYS, TRANSDUCERS, CONTROL TRANSFORMERS, ETC. AUXILIARY PANELS SHALL BE LOCATED NEXT TO ASSOCIATED DDC PANEL. DEPENDING ON WIRE QUANTITY OR COMPLEXITY, PROVIDE CONDUITS BETWEEN PANELS OR WIRING THROUGH WITH CONDUIT STUBS ABOVE ALL ASSOCIATED PANELS.
18. REMOTELY MOUNTED FIELD DEVICES SUCH AS RELAYS, CONTROL TRANSFORMERS, ETC., SHALL BE HOUSED IN AN ENCLOSURE PROVIDED BY THE TC CONTRACTOR.
19. CONTROL TRANSFORMERS WHEN REQUIRED SHALL BE SIZED FOR 150% OF ACTUAL LOAD.
20. FREEZESTATS SHALL BE MOUNTED ON UPSTREAM FACE OF COOLING COILS. FREEZESTAT QUANTITY SHALL BE ONE PER 20 SQ. FT OF CROSS SECTIONAL AREA.
21. CURRENT SWITCHES USED FOR OPERATIONAL STATUS SHALL HAVE CURRENT THRESHOLD SETPOINT ADJUSTED TO INDICATE BELT OR DRIVE FAILURE.
22. ALL CONTROL VALVES, CONTROL DAMPERS AND ASSOCIATED CONTROL ACTUATORS IDENTIFIED ON TC DRAWINGS SHALL BE FURNISHED BY TC CONTRACTOR UNLESS OTHERWISE NOTED. DAMPER SIZE AND LOCATIONS ARE INDICATED ON MECHANICAL FLOOR PLAN DRAWINGS.
23. ALL CONTROL VALVES AND DAMPERS FURNISHED BY THE TC CONTRACTOR SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR. ALL PIPE PENETRATIONS AND BASIC FITTINGS REQUIRED FOR SENSOR INSTALLATIONS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR.
24. DAMPER ACTUATORS SHALL BE INSTALLED BY TC CONTRACTOR WHEN FURNISHED BY TC CONTRACTOR.
25. ALL INSTRUMENTATION TUBING REQUIRED FOR DPS AND DPT COMPONENT INSTALLATIONS SHALL BE PROVIDED BY TC CONTRACTOR.
26. TC CONTRACTOR SHALL FIELD MOUNT ALL REQUIRED "SHIPPED LOOSE" PACKAGED CONTROL COMPONENTS FURNISHED BY EQUIPMENT SUPPLIERS WHERE INDICATED. ALL REQUIRED 24V AND 120V FIELD WIRING SHALL BE PROVIDED BY TC CONTRACTOR UNLESS NOTED OTHERWISE. TC CONTRACTOR SHALL COORDINATE SPECIFIC SYSTEM WIRING REQUIREMENTS WITH PACKAGED EQUIPMENT SUPPLIERS.

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CLIENT:	CONSULTANT:

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

CLIENT REFERENCE:

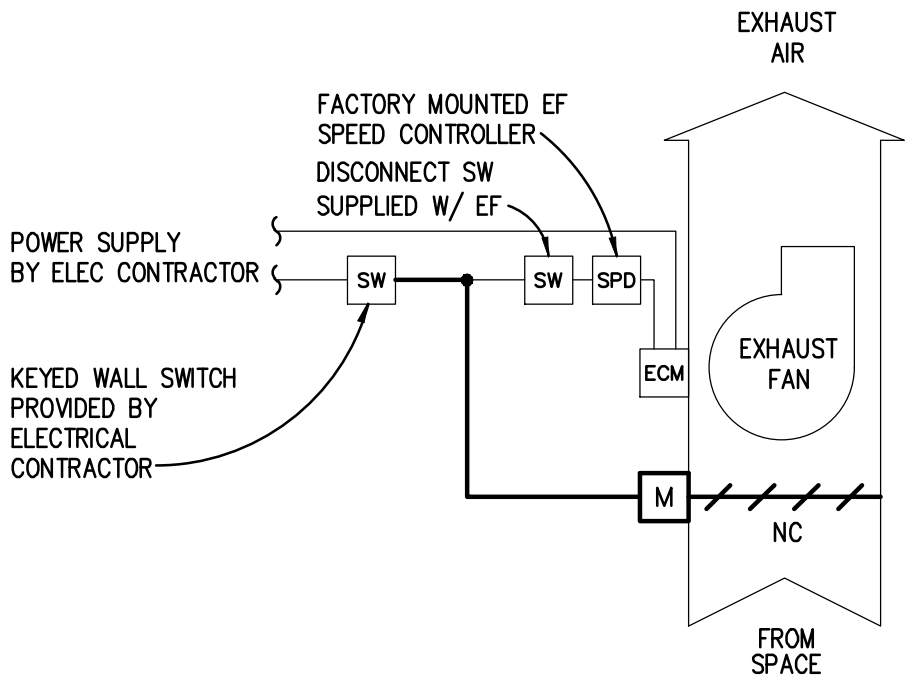
TEMPERATURE CONTROL
STANDARDS AND GENERAL
NOTES

SEAL:

SHEET:

M-801

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EF-1 CONTROL

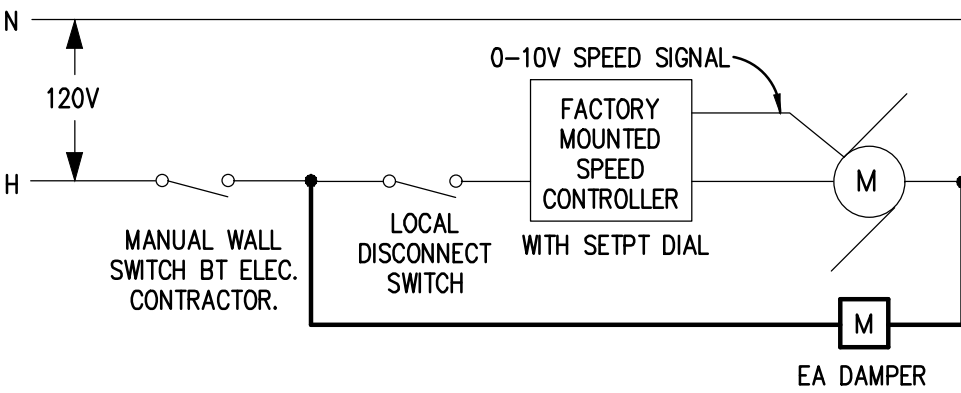
EF-1 SERVES WOMEN'S LOCKER ROOM AND PRIVATE TOILET ROOMS

NOTES:

- REFER TO MECH FLOOR PLANS FOR LOCATION.
- EXHAUST FAN SPEED SHALL BE MANUALLY SET VIA ON BOARD POTENTIOMETER DIAL DURING SYSTEM BALANCING.

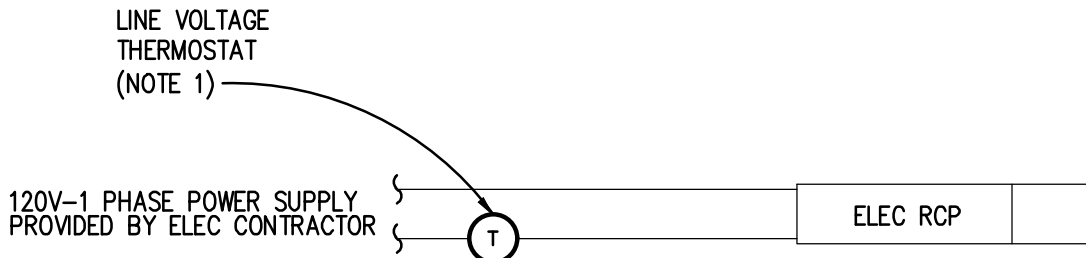
SEQUENCE OF OPERATION:

- EXHAUST FAN SHALL BE STARTED BY KEYED SWITCH AND SHALL RUN CONTINUOUSLY. INTERLOCK WIRING SHALL OPEN DAMPERS.



EF-1 MOTOR CONTROL WIRING

TYPICAL



ELEC RADIANT CEILING PANEL CONTROL

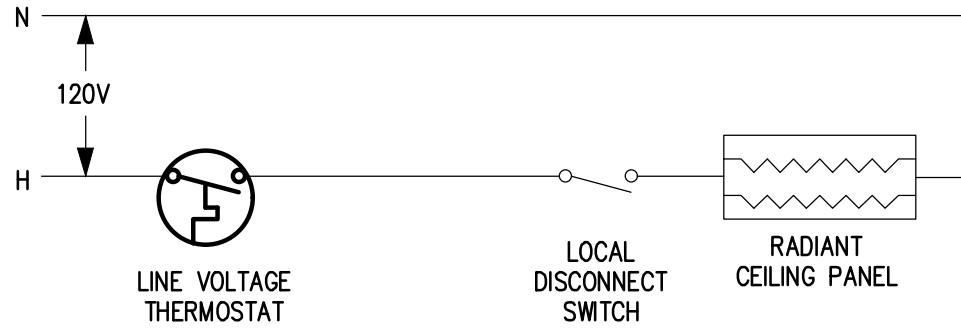
TYPICAL

NOTES:

- REFER TO FLOOR PLANS FOR LOCATION OF UNITS AND THERMOSTATS.
- COORDINATE TERMINATION REQUIREMENTS WITH EQUIPMENT SUPPLIER.

SEQUENCE OF OPERATION:

- THERMOSTAT SHALL ENABLE/DISABLE RADIANT CEILING PANEL UNIT AS REQUIRED TO MAINTAIN SPACE TEMP SETPOINT OF 68°F (ADJUSTABLE).



ELEC RADIANT CEILING PANEL CONTROL WIRING

TYPICAL



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KEYPLAN:

SECURITY SENSITIVE INFORMATION:
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2023-03-02	PERMITS/CONSTRUCTION	MDR	DAC
2022-10-05	ISSUED FOR BIDS (IFB)	MDR	DAC
2022-09-19	OWNER REVIEW	MDR	DAC

DATE	ISSUED FOR	DRN	CKD
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TEMPERATURE CONTROLS

SEAL:

SHEET:

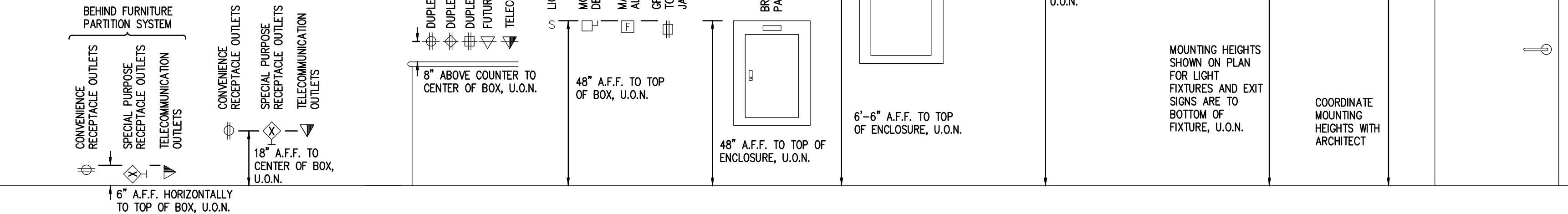
M-802

ELECTRICAL SYMBOL LIST

(NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
FX (NL)	FIXTURE TYPE (NL INDICATES NIGHT LIGHT)	TWC	TWO-WAY COMMUNICATION SYSTEM CALL STATION	CP	CONTROL PANEL	SEC	SECURITY CAMERA
[rectangle]	LIGHTING FIXTURE	TWCD	TWO-WAY COMMUNICATION SYSTEM AUTO DIALER	[diagonal line]	MOTOR	MD	MOTION DETECTOR
[rectangle with lines]	DIRECT/INDIRECT LIGHTING FIXTURE	TWCA	TWO-WAY COMMUNICATION SYSTEM ANNUNCIATOR & COMMUNICATION PANEL	[VFC]	VARIABLE FREQUENCY CONTROLLER	[diamond]	SECURITY KEY SWITCH
[rectangle with circle]	EMERGENCY FIXTURE	TWCP	TWO-WAY COMMUNICATION SYSTEM POWER SUPPLY WITH BATTERY BACK-UP	[M]	MANUAL CONTROLLER	DC	DOOR CONTACT
[rectangle with lines]	LIGHTING FIXTURE	TWCDP	TWO-WAY COMMUNICATION SYSTEM AUTO DIALER POWER SUPPLY WITH BATTERY BACK-UP	[M]	MAGNETIC CONTROLLER	KP	KEY PAD
[rectangle with lines]	LIGHTING FIXTURE	RGP	REMOTE GENERATOR ANNUNCIATOR PANEL	[M]	COMBINATION MAGNETIC CONTROLLER	CR	CARD READER
[rectangle with lines]	DIRECTIONAL LIGHTING FIXTURE	ATS	AUTOMATIC TRANSFER SWITCH	[M]	NON-FUSIBLE DISCONNECT SWITCH	DB	DURESS PUSH BUTTON STATION
[rectangle with lines]	PENDANT LIGHTING FIXTURE	UPS	UNINTERRUPTIBLE POWER SUPPLY	[M]	FUSIBLE DISCONNECT SWITCH	DE	DELAYED EGRESS
[rectangle with lines]	WALL SCONCE	CSX	LOW VOLTAGE CONTROL STATION "X" INDICATES TYPE	[M]	ENCLOSED CIRCUIT BREAKER	REX	REQUEST TO EXIT STATION
[rectangle with lines]	LIGHTING TRACK	[diagonal line]	SINGLE/DUPLEX RECEPTACLE OUTLET "X" INDICATES TYPE	[M]	PUSH BUTTON STATION	PP	AUTOMATIC DOOR PUSH PAD OPERATOR
[rectangle with lines]	TRACK LIGHTING FIXTURE	[diagonal line]	SINGLE/DUPLEX RECEPTACLE OUTLET CONTROLLED BY AUTOMATIC CONTROL DEVICE/SYSTEM	[M]	JUNCTION BOX	DO	DOOR OPERATOR
[rectangle with lines]	POLE MOUNTED LIGHTING FIXTURE	[diagonal line]	QUAD RECEPTACLE OUTLET	[M]	HARD WIRE POWER CONNECTION	DA	DOOR ACTUATOR
[rectangle with lines]	POLE MOUNTED LIGHTING FIXTURE - POST TOP	[diagonal line]	ABOVE COUNTER DUPLEX RECEPTACLE (SIMILAR FOR TAMPER RESISTANT, QUADS, EMERGENCY, USB AND GFI RECEPTACLES)	[M]	GROUND ROD	AC	ACCESS CONTROL STATION
[rectangle with lines]	BOLLARD LIGHTING FIXTURE	[diagonal line]	DUPLEX RECEPTACLE-GROUND FAULT CIRCUIT INTERRUPTER	[M]	GROUND CONNECTION	ACCP	ACCESS CONTROL CONTROL PANEL
[rectangle with lines]	EMERGENCY LIGHTING UNIT	[diagonal line]	DEAD FRONT-GROUND FAULT CIRCUIT INTERRUPTER	[M]	HANDHOLE	ACPS	ACCESS CONTROL POWER SUPPLY
[rectangle with lines]	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE)	[diagonal line]	DUPLEX EMERGENCY RECEPTACLE OUTLET	[M]	CONDUIT SLEEVE WITH BUSHINGS LENGTH AS REQUIRED "X" INDICATES CONDUIT SIZE	[M]	CIRCUIT BREAKER
[rectangle with lines]	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE)	[diagonal line]	QUAD TAMPER RESISTANT RECEPTACLE OUTLET	[M]	CONDUIT UP	[M]	DRAWOUT CIRCUIT BREAKER MANUALLY/ OPERATED
[rectangle with lines]	EXIT LIGHTING FIXTURE - WALL MOUNTED	[diagonal line]	ABOVE COUNTER DUPLEX TAMPER RESISTANT RECEPTACLE OUTLET	[M]	CONDUIT DOWN	[M]	DRAWOUT CIRCUIT BREAKER ELECTRICALLY/ OPERATED
[rectangle with lines]	EXIT/EMERGENCY LIGHTING COMBO	[diagonal line]	DUPLEX UPS RECEPTACLE	[M]	EMPTY BOX FOR FUTURE TELECOMMUNICATION OUTLET	[M]	SWITCH
[rectangle with lines]	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH	[diagonal line]	4 PORT USB CHARGING STATION	[M]	ABOVE COUNTER EMPTY BOX FOR FUTURE TELECOMMUNICATION OUTLET	[M]	AUTOMATIC OR MANUAL TRANSFER SWITCH
[rectangle with lines]	AUTOMATIC LOAD CONTROL RELAY	[diagonal line]	CEILING MOUNTED DUPLEX/QUAD RECEPTACLE	[M]	TELECOMMUNICATION OUTLET "X" INDICATES TYPE	[M]	FUSE
[rectangle with lines]	LIGHTING CONTROL DEVICE - REFER TO LIGHTING CONTROL SCHEDULE	[diagonal line]	MULTI-OUTLET SURFACE RACEWAY	[M]	TELECOMMUNICATION CEILING MOUNTED OUTLET "X" INDICATES TYPE	[M]	TRANSFORMER
[rectangle with lines]	ROOM CONTROL DESIGNATION - REFER TO LIGHTING CONTROL SCHEDULE	[diagonal line]	WALL/CEILING MOUNTED SPECIAL RECEPTACLE - REFER TO ELECTRICAL STANDARD SCHEDULES	[M]	TELECOMMUNICATION BACKBOARD	[M]	CURRENT TRANSFORMER
[rectangle with lines]	SINGLE POLE TOGGLE SWITCH	[diagonal line]	INTERCOM OUTLET	[M]	TELECOMMUNICATION GROUNDING BUS BAR	[M]	POTENTIAL TRANSFORMER
[rectangle with lines]	TWO POLE TOGGLE SWITCH	[diagonal line]	SPEAKER	[M]	TELECOMMUNICATION MAIN GROUNDING BUS BAR	[M]	LIGHTNING ARRESTOR
[rectangle with lines]	3 WAY TOGGLE SWITCH	[diagonal line]	MICROPHONE	[M]		[M]	PANELBOARD
[rectangle with lines]	4 WAY TOGGLE SWITCH	[diagonal line]	VOLUME CONTROL/STATION SELECTOR	[M]		[M]	"X" INDICATES PANELBOARD NAME
[rectangle with lines]	KEY OPERATED SWITCH	[diagonal line]	SIGNALING BELL	[M]		[M]	GROUND
[rectangle with lines]	3 WAY KEY OPERATED SWITCH	[diagonal line]	DOUBLE FACE CLOCK - CEILING MOUNTED	[M]		[M]	STRESS CONE TERMINATION
[rectangle with lines]	4 WAY KEY OPERATED SWITCH	[diagonal line]	DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED	[M]		[M]	SECURITY KEY INTERLOCK
[rectangle with lines]	DIMMER SWITCH	[diagonal line]	DOUBLE FACE CLOCK - WALL MOUNTED	[M]		[M]	ENGINE GENERATOR
[rectangle with lines]	3 WAY DIMMER SWITCH	[diagonal line]	DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED	[M]		[M]	UTILITY METER
[rectangle with lines]	DIMMER OCCUPANCY SENSOR SWITCH	[diagonal line]	DOUBLE FACE CLOCK - WALL MOUNTED	[M]		[M]	ELECTRONIC METERING UNIT
[rectangle with lines]	LOW VOLTAGE DIMMER SWITCH	[diagonal line]	DOUBLE FACE COMBINATION CLOCK/SPEAKER WALL MOUNTED	[M]		[M]	AMMETER
[rectangle with lines]	PILOT SWITCH	[diagonal line]	TIME CLOCK	[M]		[M]	VOLTMETER
		[diagonal line]	CONTACTOR	[M]		[M]	AMMETER SWITCH
		[diagonal line]	PHOTOCELL	[M]		[M]	VOLTMETER SWITCH
		[diagonal line]	TIME SWITCH	[M]		[M]	SURGE PROTECTIVE DEVICE
		[diagonal line]		[M]		[M]	CONTROL RELAY
		[diagonal line]		[M]		[M]	TIME DELAY RELAY
		[diagonal line]		[M]		[M]	PHASE ROTATION MONITOR
		[diagonal line]		[M]		[M]	CAMLOCK - MALE
		[diagonal line]		[M]		[M]	CAMLOCK - FEMALE

STANDARD MOUNTING HEIGHTS



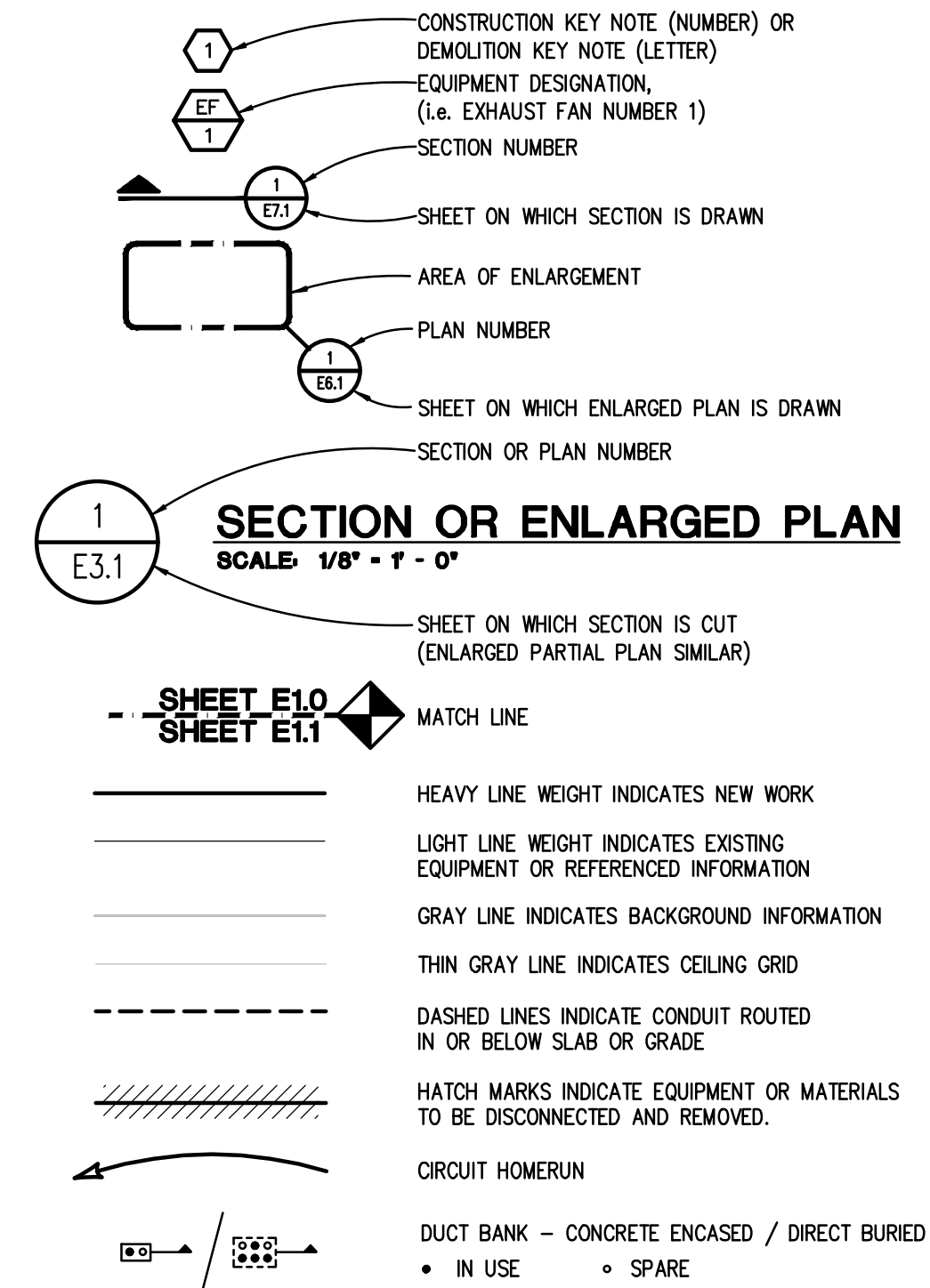
ELECTRICAL DRAWING INDEX

SHEET NO.	SHEET TITLE
E-001	ELECTRICAL STANDARDS AND DRAWING INDEX
E-002	ELECTRICAL STANDARD SCHEDULES
E-003	ELECTRICAL SPECIFICATIONS
ED-201	ELECTRICAL DEMOLITION PLAN
E-201	ELECTRICAL NEW WORK PLANS
E-501	PANEL SCHEDULES

ELECTRICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AMPERES	JB	JUNCTION BOX	PB	POLE
AER	ARC ENERGY REDUCTION	KA	THOUSAND AMP	PH	PHASE
AF	AMPERES FRAME (BREAKER RATING)	KV	KILOVOLT	PT	POTENTIAL TRANSFORMER
AFCI	ARC FAULT CIRCUIT INTERRUPTER	KVA	KILOVOLT - AMPERES	PDP	POWER DISTRIBUTION PANEL
A.F.F.	ABOVE FINISH FLOOR	KW	KILOWATT	RECEPT.	RECEPTACLE
AIC	AMPS INTERRUPTING CAPACITY	KWH	KILOWATT - HOURS	RDP	RECEPTACLE DISTRIBUTION PANEL
AL	AUDIENCE LEFT	LA	LIGHTNING ARRESTOR	RP	RECEPTACLE PANEL
ALC	AUTOMATIC LOAD CONTROL RELAY	LP	LIGHTING PANEL	RSC	RIGID STEEL CONDUIT
ALR	AUDIENCE RIGHT	LDP	LIGHTING DISTRIBUTION PANEL	SCCR	SHORT CIRCUIT CURRENT RATING
AR	AMPERES TRIP (BREAKER SETTING)	MAX	MAXIMUM	SCHED	SCHEDULE
ATS	AUTOMATIC TRANSFER SWITCH	MCA	MINIMUM CIRCUIT AMPACITY	SPD	SURGE PROTECTION DEVICE
AUX	AUXILIARY	MCB	MAIN CIRCUIT BREAKER	ST	SHUNT TRIP
BCELTS	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH	MCC	MOTOR CONTROL CENTER	SW	SWITCH
BKR	BREAKER	MDP	MAIN DISTRIBUTION PANEL	SWB	SWITCHBOARD
BPS	BOLTED PRESSURE SWITCH	MECH	MECHANICAL	SWGR	SWITCHGEAR
C	CONDUIT	MIN	MINIMUM	TB	TERMINAL BOX
CB	CIRCUIT BREAKER	MISC.	MISCELLANEOUS	TELECOM	TELECOMMUNICATIONS
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	MLO	MAIN LUGS ONLY	TR	TAMPER RESISTANT
CKT	CIRCUIT	MOP	MAXIMUM OVERCURRENT PROTECTION	TTB	TELEPHONE TERMINAL BACKBOARD
CT	CURRENT TRANSFORMER	MTD	MOUNTED	TYP	TYPICAL
DEMO	DEMOLITION	MTG	MOUNTING	U.O.N.	UNLESS OTHERWISE NOTED
DIM	DIMENSION	MTR	MOTOR	US	UPSTAGE
DISC	DISCONNECT	N	NEUTRAL	V	VOLTS
DP	DISTRIBUTION PANEL	NC	NORMALLY CLOSED	W	WIRE OR WATTS
DS	DOWNSTAGE	NEC	NATIONAL ELECTRICAL CODE	WG	WIRE GUARD
DWG	DRAWING	NF	NON-FUSIBLE	WP	WEATHERPROOF
EBU	EMERGENCY BATTERY UNIT	NIC	NOT IN CONTRACT	WR	WEATHER RESISTANT
EC	ELECTRICAL CONTRACTOR	NL	NIGHT LIGHT	XFMR	TRANSFORMER
ELEC	ELECTRICAL	NO	NORMALLY OPEN	XP	EXPLOSION PROOF
EM/ EMERG	EMERGENCY	NTS	NOT TO SCALE	(E)	EXISTING
EMT	ELECTRICAL METALLIC TUBING	OC	ON CENTER	(R)	RELOCATED
EO	ELECTRICALLY OPERATED	OCFI	OWNER FURNISHED, CONTRACTOR INSTALLED		
EPO	EMERGENCY POWER OFF	OFCI	OWNER FURNISHED, OWNER INSTALLED		
EW	ELECTRIC WATER COOLER	OFOI			
EXIST	EXISTING				
FA	FIRE ALARM				
FLA	FULL LOAD AMPS				
FLR	FLOOR				
FOH	FRONT OF HOUSE				
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR				
FU	FUSE				
G/GRD/EG	GROUND				
GFI	GROUND FAULT CIRCUIT INTERRUPTER				
GFP	GROUND FAULT PROTECTION				
HOA	HAND-OFF-AUTO				
HP	HORSEPOWER				
HV	HIGH VOLTAGE				
HZ	HERTZ				
IG	ISOLATED GROUND				

STANDARD METHODS OF NOTATION



KEYPLAN:

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2022 09-19	OWNER REVIEW	CAD	EMG
DATE	ISSUED FOR	DRN	CKD

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arconcepts PROJECT # WCA22-016	CLIENT REFERENCE:

ELECTRICAL STANDARDS AND DRAWING INDEX

SEAL:	SHEET: E-001
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LUMINAIRE SCHEDULE							
TYPE	DESCRIPTION	MANUFACTURER(S)	WATTAGE	VOLTAGE	LIGHT CHARACTERISTICS	CONTROLS	MODEL NUMBER
L1-4FT	4FT RECESSED LINEAR	NEO-RAY	35.6	120-277V	LED 4000K 1020L/FT 80CRI	0-10V DIMMING 1%	QS-S124DR-S1020D840 GYP4F0-1-UD0-F-W
L1-8FT	8FT RECESSED LINEAR	NEO-RAY	71.2	120-277V	LED 4000K 1020L/FT 80CRI	0-10V DIMMING 1%	QS-S124DR-S1020D840 GYP8F0-1-UD0-F-W
L2	4IN SQUARE DOWNLIGHT	PORTFOLIO	15	120-277V	LED 4000K 900L 80CRI	0-10V DIMMING 1%	LDSQA4A09840D010TE LAR35FL 4LSQAL1MWWF HB26
GENERAL NOTES:							
1. WATTAGE LISTED IS FROM THE BASIS OF DESIGN MANUFACTURER.							
2. FINISH TO BE APPROVED BY INTERIOR DESIGNER, ARCHITECT OR CLIENT.							
3. PROVIDE AS SPECIFIED ABOVE OR SIMILAR, WHICHEVER HAS A SHORTER LEAD TIME.							
4. ALL LUMINAIRES TO BE AS SPECIFIED OR EQUAL APPROVED BY PBA.							

MOTOR CIRCUIT SIZING SCHEDULE (120V, SINGLE PHASE)				
MOTOR HP	CIRCUIT BREAKER	MANUAL MOTOR STARTER SIZE	COMBINATION STARTER SIZE	MOTOR DISCONNECT (NOTE 3)
1/6	15A	1 HP	0	20A
1/4	15A	1 HP	0	20A
1/3	15A	1 HP	0	20A
1/2	20A	1 HP	0	20A

- GENERAL NOTES:
- BASED ON MOTOR FULL LOAD AMPERES AS PROVIDED BY THE NEC
 - BASED ON MOTOR RUNNING OVERLOAD PROTECTIONS PROVIDED BY THERMAL OVERLOAD RELAYS.
 - WHERE THE STARTER IS LOCATED REMOTE FROM THE MOTOR, PROVIDE DISCONNECT LOCATED AT THE MOTOR, SIZE AS INDICATED.

BRANCH CIRCUIT VOLTAGE DROP WIRING SCHEDULE FOR SINGLE PHASE CIRCUITS						
BRANCH CKT RATING (A)	WIRE SIZE (AWG)	MAXIMUM BRANCH CIRCUIT LENGTH (IN FEET)				
		120V	208V	240V	277V	480V
20A	12	83	143	165	191	331
	10	128	222	256	295	511
	8	201	348	402	464	804
	6	313	542	625	721	1250
30A	10	85	148	170	197	341
	8	134	232	268	309	536
	6	208	361	417	481	833
	4	313	542	625	721	1250

- GENERAL NOTES:
- THE ABOVE TABLE VALUES ARE BASED ON COPPER CONDUCTORS, IN STEEL CONDUIT, WITH A LOAD POWER FACTOR OF 0.85 PER NEC CHAPTER 9, TABLE 9.
 - PROVIDE BRANCH CIRCUIT CONDUCTORS AS INDICATED IN THE TABLE ABOVE FOR ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS. WHERE BRANCH CIRCUITS SERVE DEDICATED EQUIPMENT, THE CONTRACTOR MAY PERFORM VOLTAGE DROP CALCULATIONS BASED ON ACTUAL EQUIPMENT CONNECTED LOAD AND PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
 - CONDUCTOR SIZES ARE BASED ON MAXIMUM OF 9 CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
 - LIMITS FOR CONDUCTOR LENGTHS SHOWN ARE BASED ON A MAXIMUM BRANCH CIRCUIT LOADING OF 64% OF THE BRANCH BREAKER RATING AND A MAXIMUM OF 3 PERCENT VOLTAGE DROP TO COMPLY WITH ASHRAE 90.1 AND THE NEC. FOR CIRCUITS LOADED GREATER THAN 64% OF BRANCH BREAKER RATING, THE CONTRACTOR SHALL PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO 3%.

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

RACEWAY / CONDUCTOR / CABLE APPLICATION SCHEDULE									
		WIRE		RACEWAY				CABLE /CORD	
		COPPER, TYPE THHN/THWN-2	COPPER, TYPE XHHW-2	ELECTRICAL METALLIC TUBING (EMT)	INTERMEDIATE METAL CONDUIT (IMC)	RIGID STEEL CONDUIT (RSC)	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-40	FLEXIBLE METAL CONDUIT (FMC)	LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC)
BRANCH CIRCUITS - INTERIOR	CONCEALED, ACCESSIBLE CEILINGS	X	X	X					X
	CONCEALED, INACCESSIBLE CEILINGS	X	X	X					
	CONCEALED IN GYPSUM BOARD PARTITION WALLS	X	X	X			X		X
	CONCEALED IN CMU WALLS	X	X	X					
	EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE	X		X	X				
	EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE	X	X	X					
	EXPOSED, ABOVE 10' AFF UNFINISHED SPACES	X	X	X					
	EXPOSED, FINISHED SPACES	X							
	BELOW SLAB ON GRADE	X				X			
	EMBEDDED IN ELEVATED CONCRETE SLAB	X				X			
SPECIAL APPLICATIONS	DAMP AND WET LOCATIONS	X		X	X	X	X	X	
	CLASS 1 CONTROL CIRCUITS	X	X	X	X				
	CLASS 2 CONTROL CIRCUITS	X	X	X	X				
	CLASS 3 CONTROL CIRCUITS	X	X	X	X				
	CONNECTIONS TO TRANSFORMERS, MOTORS AND VIBRATING EQUIPMENT		X					X	
GENERAL NOTES:									
1. TRANSITION FROM PVC/HDPE AND PROVIDE RIGID STEEL OR RTRC SWEEPS WHERE CONDUITS PENETRATE WALLS, CONCRETE SLABS, CONCRETE BASES, AND ASPHALT.									
2. REFER TO SPECIFICATIONS FOR RESTRICTIONS ON MC/AC CABLE INSTALLATION.									
3. EMT SHALL NOT BE USED ON THE EXTERIOR OF A BUILDING OR IN AREAS SUBJECT TO DAMAGE BELOW 10' AFF.									
4. INSTALL SURFACE RACEWAYS ONLY WHERE INDICATED ON DRAWINGS.									
KEYED NOTES:									
1. NON-ARMORED CABLE SHALL BE INSTALLED IN RACEWAY. ARMORED CABLE SHALL BE INSTALLED IN TRAY OR FREE-AIR AS APPLICABLE.									
2. CONDUIT AND BUILDING WIRE ALLOWED WHEN ENCASED IN MINIMUM 2" CONCRETE.									
3. EMERGENCY FEEDERS IN OCCUPANCIES THAT ARE UNDER 700.10(D) SHALL HAVE A TWO HOUR RATING. RATING SHALL BE OBTAINED BY ROUTING CONDUIT AND BUILDING WIRE IN SPRINKLERED SPACE.									
IN A TWO HOUR SHAFT, OUTSIDE OF THE BUILDING, IN A LISTED TWO HOUR RATED RACEWAY, OR UNDER A MINIMUM OF 2" OF CONCRETE; OR BY USING A LISTED TWO-HOUR RATED CABLE ASSEMBLY.									
4. SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS BASED ON UL TESTING AND RATING.									

FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE							KEYED NOTES
OVERCURRENT DEVICE RATING (AMPERES)	COPPER CONDUCTORS						
	WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE				
	PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH, 1N, 1G, 2PH, 1G)	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH, 1N, 1G)	
15-20	12	12	3/4"	3/4"	3/4"	3/4"	
25-30	10	10	3/4"	3/4"	3/4"	3/4"	
35-40	8	10	3/4"	3/4"	3/4"	3/4"	
45-50	8 (6)	10	3/4"	3/4"	3/4"	3/4"	1
60	6 (4)	10	3/4" (1")	3/4" (1")	3/4" (1")	1" (1 1/4")	1
70	4	8	1"	1 1/4"	1 1/4"	1 1/4"	
80	4 (3)	8	1"	1 1/4"	1 1/4"	1 1/4"	1
90-100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1
110	2 (1)	6	-	1 1/4"	1 1/4"	1 1/4" (1 1/2")	1
125	1 (1/0)	6	-	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"	1
150	1/0	6	-	1 1/2"	1 1/2"	1 1/2"	
175	2/0	6	-	2"	2"	2"	
200	3/0	6	-	2"	2"	2 1/2"	
225	4/0	4	-	2"	2"	2 1/2"	
250	250	4	-	2 1/2"	2 1/2"	2 1/2"	
300	350	4	-	2 1/2"	2 1/2"	3"	
350	500	3	-	3"	3"	3"	
400	500	3	-	3"	3"	3"	

- GENERAL NOTES:
- CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
 - CONTRACTOR MAY COMBINE 20A CIRCUITS AS NOTED IN SPECIFICATION.
 - CONDUCTORS ARE BASED ON THHN/THWN UP TO AND INCLUDING #4/0. LARGER THAN #4/0 ARE BASED ON TYPE XHHW.
 - CONDUIT SIZES ARE VALID FOR EMT OR RGS. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHER TYPES OF CONDUIT.
 - ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE REQUIRED WIRE SIZES TO ACCOMMODATE MECHANICAL EQUIPMENT LUG SIZES.
 - SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
 - OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.
 - SPLICE FROM ALUMINUM TO COPPER PRIOR TO ENTERING EQUIPMENT LISTED FOR USE WITH COPPER CONDUCTORS ONLY OR USE COPPER CONDUCTORS FOR THE ENTIRE LENGTH OF FEEDER.
- KEYED NOTES:
- CONDUCTORS ARE BASED ON 90°C, 600V, INSULATED WIRE APPLIED AT 75°C FOR TERMINATION RATED 60/75°C OR 75°C. FOR TERMINATION RATED AT 60°C, USE CONDUCTORS AND CONDUIT SIZES INDICATED IN PARENTHESES.



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KEYPLAN:

SECURITY SENSITIVE INFORMATION:
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DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	CAD	EMG
2022 10-05	ISSUED FOR BIDS (IFB)	CAD	EMG
2022 09-19	OWNER REVIEW	CAD	EMG

DATE	ISSUED FOR	DRN	CKD
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CLIENT:	CONSULTANT:

PROJECT:
WAYNE COUNTY AIRPORT AUTHORITY
DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

arconcepts PROJECT # WCA22-016

CLIENT REFERENCE:

ELECTRICAL STANDARD
SCHEDULES

SEAL:

SHEET:

E-002

260010 – ELECTRICAL GENERAL REQUIREMENTS

- A. SCOPE OF WORK: ALL MATERIAL SHALL BE NEW UNLESS OTHERWISE INDICATED. FURNISH ALL LABOR, EQUIPMENT, TECHNICAL SUPERVISION, AND INCIDENTAL SERVICES REQUIRED TO COMPLETE, TEST, AND LEAVE READY FOR OPERATION THE ELECTRICAL SYSTEMS AS SPECIFIED AND AS INDICATED ON DRAWINGS.
- B. ALL ELECTRICAL ITEMS SHALL HAVE A +/- 2 WEEK LEAD TIME.
- C. ORDINANCES AND CODES: PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL ORDINANCES AND REGULATIONS, THE RULES AND REGULATIONS OF NFPA, NECA, AND UL, UNLESS OTHERWISE INDICATED.
- D. UNLESS OTHERWISE INDICATED, ALL REQUIRED PERMITS, LICENSES, INSPECTIONS, APPROVALS AND FEES FOR ELECTRICAL WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES, RULES AND REGULATIONS.
- E. THE DRAWINGS SHOW THE LOCATION AND GENERAL ARRANGEMENT OF EQUIPMENT, ELECTRICAL SYSTEMS AND RELATED ITEMS. THEY SHALL BE FOLLOWED AS CLOSELY AS ELEMENTS OF THE CONSTRUCTION WILL PERMIT.
- F. EXAMINE THE DRAWINGS OF OTHER TRADES AND VERIFY THE CONDITIONS GOVERNING THE WORK ON THE JOB SITE. ARRANGE WORK ACCORDINGLY, PROVIDING SUCH FITTINGS, CONDUIT, JUNCTION BOXES AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS.
- G. COORDINATE ARRANGEMENT, MOUNTING AND SUPPORT OF ELECTRICAL EQUIPMENT WITH OTHER TRADES.
- H. VISIT THE SITE, EXAMINE AND VERIFY THE CONDITIONS UNDER WHICH THE WORK MUST BE CONDUCTED BEFORE SUBMITTING PROPOSAL. THE SUBMITTING OF A PROPOSAL IMPLIES THAT THE CONTRACTOR HAS VISITED THE SITE AND UNDERSTANDS THE CONDITIONS UNDER WHICH THE WORK MUST BE CONDUCTED. NO ADDITIONAL CHARGES WILL BE ALLOWED BECAUSE OF FAILURE TO MAKE THIS EXAMINATION OR TO INCLUDE ALL MATERIALS AND LABOR TO COMPLETE THE WORK.
- I. BIDS SHALL BE BASED UPON MANUFACTURED EQUIPMENT SPECIFIED. VOLUNTARY ALTERNATES MAY BE SUBMITTED FOR CONSIDERATION, WITH LISTED ADDITION OR DEDUCTION TO THE BID.
- J. WARRANTY: CONTRACTOR SHALL WARRANTY THAT THE ELECTRICAL INSTALLATION IS FREE FROM DEFECTS AND AGREES TO REPLACE OR REPAIR, TO THE OWNER'S SATISFACTION, ANY PART OF THIS ELECTRICAL INSTALLATION WHICH BECOMES DEFECTIVE WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION FOLLOWING FINAL ACCEPTANCE, PROVIDED THAT SUCH FAILURE IS DUE TO DEFECTS IN THE EQUIPMENT, MATERIAL, WORKMANSHIP OR FAILURE TO FOLLOW THE CONTRACT DOCUMENTS.
- K. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY SERVICES INCLUDING EQUIPMENT AND INSTALLATION REQUIRED TO MAINTAIN OPERATION AS A RESULT OF ANY EQUIPMENT FAILURE OR DEFECT DURING WARRANTY PERIOD.
- L. FILE WITH THE OWNER ANY AND ALL WARRANTIES FROM THE EQUIPMENT MANUFACTURERS INCLUDING THE OPERATING CONDITIONS AND PERFORMANCE CAPACITIES THEY ARE BASED ON.
- M. CONSULT WITH THE OWNER'S REPRESENTATIVE AS TO THE METHODS OF CARRYING ON THE WORK SO AS NOT TO INTERFERE WITH THE OWNER'S OPERATION ANY MORE THAN ABSOLUTELY NECESSARY. ACCORDINGLY, ALL SERVICE LINES SHALL BE KEPT IN OPERATION AS LONG AS POSSIBLE AND THE SERVICES SHALL ONLY BE INTERRUPTED AT SUCH TIME AS WILL BE DESIGNATED BY THE OWNER'S REPRESENTATIVE.
- N. ALL CUTTING, PATCHING AND REPAIR WORK SHALL BE PERFORMED BY THE CONTRACTOR THROUGH APPROVED, QUALIFIED SUBCONTRACTORS. CONTRACTOR SHALL INCLUDE FULL COST OF SAME IN BID.
- O. INSPECT THE INSTALLATION OF ALL EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATION AND APPLICABLE CODES.
- P. PROVIDE UL APPROVED FIRE-STOPPING SYSTEM FOR ALL PENETRATIONS PASSING THROUGH FIRE RATED ASSEMBLIES.
- Q. COMPLY WITH NECA 1.
- R. PROVIDE COMPLETE OPERATION AND MAINTENANCE INSTRUCTIONAL MANUALS COVERING ALL ELECTRICAL EQUIPMENT HEREIN SPECIFIED, TOGETHER WITH PARTS LISTS.
- S. CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER, RECORD DRAWINGS ON ELECTRONIC MEDIA OR MYLAR WHICH HAVE BEEN NEATLY MARKED TO REPRESENT AS-BUILT CONDITIONS FOR ALL NEW ELECTRICAL WORK.
- T. SUBMIT FOR REVIEW SHOP DRAWINGS FOR ELECTRICAL SYSTEMS OR EQUIPMENT LISTED BELOW:
1. DISCONNECT SWITCHES
 2. WIRING DEVICES
 3. LIGHTING FIXTURES
 4. LIGHTING CONTROL DEVICES

DEMOLITION WORK

- A. IN GENERAL, DEMOLITION WORK IS INDICATED ON THE DRAWINGS. HOWEVER, THE CONTRACTOR SHALL VISIT THE JOB SITE, TO DETERMINE THE FULL EXTENT AND SCOPE OF THIS WORK.
- B. UNLESS SPECIFICALLY NOTED TO THE CONTRACTOR, REMOVED MATERIALS SHALL NOT BE REUSED IN THE WORK. SALVAGED MATERIALS THAT ARE TO BE REUSED SHALL BE STORED SAFE AGAINST DAMAGE AND TURNED OVER TO THE APPROPRIATE TRADE FOR REUSE. SALVAGED MATERIALS OF VALUE THAT ARE NOT TO BE REUSED SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS SUCH OWNERSHIP IS WAIVED. ITEMS ON WHICH THE OWNER WAIVES OWNERSHIP SHALL BECOME THE PROPERTY OF THE CONTRACTOR, WHO SHALL REMOVE AND LEGALLY DISPOSE OF SAME, AWAY FROM THE PREMISES.
- C. WHERE EQUIPMENT OR FIXTURES ARE REMOVED AND WALLS REMAIN, OUTLETS SHALL BE PROPERLY BLANKED OFF, CONDUITS CARPED AND CONDUCTORS REMOVED BACK TO SOURCE OR NEAREST UPSTREAM DEVICE REMAINING IN SERVICE. AFTER ALTERATIONS ARE DONE, THE ENTIRE INSTALLATION SHALL PRESENT A "FINISHED" LOOK, AS APPROVED BY THE ARCHITECT/ENGINEER. THE ORIGINAL FUNCTION OF THE PRESENT ELECTRICAL WORK TO BE MODIFIED SHALL NOT BE CHANGED UNLESS REQUIRED BY THE SPECIFIC REVISIONS TO THE SYSTEM AS SPECIFIED OR AS INDICATED.
- D. REROUTE SIGNAL WIRES, LIGHTING AND POWER WIRING AS REQUIRED TO MAINTAIN SERVICE. WHERE WALLS AND CEILINGS ARE TO BE REMOVED AS SHOWN ON THE DRAWINGS, THE CONDUIT IS TO BE CUT OFF BY THE ELECTRICAL TRADES SO THAT THE ABANDONED CONDUIT IN THESE WALLS AND CEILINGS MAY BE REMOVED WITH THE WALLS AND CEILINGS BY THE ARCHITECTURAL TRADES. ALL DEAD-END CONDUIT RUNS SHALL BE PLUGGED AT THE REMAINING LINE OUTLET BOXES OR AT THE PANELS.
- E. WHERE NEW WALLS AND/OR FLOORS ARE INSTALLED WHICH INTERFERE WITH EXISTING OUTLETS, DEVICES, ETC., THE ELECTRICAL TRADES SHALL ADJUST, EXTEND AND RECONNECT SUCH ITEMS AS REQUIRED TO MAINTAIN CONTINUITY OF SAME.
- F. ALL ELECTRICAL WORK IN ALTERED AND UNALTERED AREAS SHALL BE RUN CONCEALED WHEREVER POSSIBLE. USE OF SURFACE RACEWAY OR EXPOSED CONDUITS WILL BE PERMITTED ONLY WHERE APPROVED BY THE ARCHITECT/ENGINEER.
- G. EXISTING LIGHTING SHALL BE REUSED WHERE INDICATED ON PLANS. REUSED FIXTURES SHALL BE DETERGENT CLEANED, RELAMPED AND RECONDITIONED SUITABLE FOR SATISFACTORY OPERATION AND APPEARANCE.

260519 – CONDUCTORS AND CABLES

- A. CONDUCTOR MATERIAL: COPPER COMPLYING WITH NEMA WC 70; STRANDED CONDUCTOR.
- B. CONDUCTOR INSULATION TYPES: TYPE THHN-THWN, XHHW-2, SO, COMPLYING WITH NEMA WC 70.
- C. CONCEAL CABLES IN FINISHED WALLS, CEILINGS, AND FLOORS, UNLESS OTHERWISE INDICATED.
- D. USE CONDUCTOR NOT SMALLER THAN 12 AWG FOR POWER AND LIGHTING CIRCUITS. UNLESS INDICATED OTHERWISE, ALL CIRCUITS SHALL BE 2#12, 1#12G, 3/4" C.
- E. USE CONDUCTOR NOT SMALLER THAN 14 AWG FOR CONTROL CIRCUITS, PROVIDED BY ELECTRICAL CONTRACTOR.
- F. SUPPORT COMMUNICATION CABLES ABOVE ACCESSIBLE CEILING, USING SPRING METAL CLIPS OR PLASTIC CABLE TIES TO SUPPORT CABLES FROM STRUCTURE. DO NOT REST CABLE ON CEILING PANELS.
- G. USE "STA-KON" CONNECTORS TO TERMINATE STRANDED CONDUCTORS #10 AWG AND SMALLER TO SCREW TERMINALS.
- H. CONDUCTOR AND INSULATION APPLICATIONS:
1. REFER TO APPLICATION SCHEDULE INCLUDED ON THE DRAWINGS.

260526 – GROUNDING AND BONDING

- A. EQUIPMENT GROUNDING: COMPLY WITH NFPA 70, ARTICLE 250, FOR TYPES, SIZES, AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, UNLESS SPECIFIC TYPES, LARGER SIZES, OR MORE CONDUCTORS THAN REQUIRED BY NFPA 70 ARE INDICATED.
- B. PROVIDE EQUIPMENT GROUNDING CONDUCTORS IN EACH RACEWAY.

260533 – RACEWAYS AND BOXES

- A. INSTALL CONDUIT IN ACCORDANCE WITH NECA "NATIONAL ELECTRICAL INSTALLATION STANDARDS".
- B. ROUTE CONDUITS IN FINISHED AREAS WITH EXPOSED CEILINGS AT UNDERSIDE OF STRUCTURAL DECK OR AS HIGH AS POSSIBLE. WHERE STEEL METAL DECK ON STEEL JOIST CONSTRUCTION, ROUTE CONDUITS ABOVE JOISTS. DO NOT SECURE CONDUIT TO BOTTOM OF JOISTS.
- C. RACEWAY APPLICATIONS: REFER TO RACEWAY APPLICATIONS SCHEDULE INCLUDED ON THE DRAWINGS.
- D. FITTINGS FOR EMT: STEEL, COMPRESSION OR SET SCREW TYPE.
- E. CONCEAL CONDUIT AND EMT WITH FINISHED WALLS, CEILINGS, AND FLOORS UNLESS OTHERWISE INDICATED.

260553 – ELECTRICAL IDENTIFICATION

- A. COMPLY WITH ANSI A13.1, ANSI C2, NFPA 70, AND 29 CFR 1910.145.
- B. COORDINATE IDENTIFICATION NAMES, ABBREVIATIONS, COLORS, AND OTHER FEATURES WITH REQUIREMENTS IN THE CONTRACT DOCUMENTS, SHOP DRAWINGS, MANUFACTURER'S WIRING DIAGRAMS, AND THE OPERATION AND MAINTENANCE MANUAL, AND WITH THOSE REQUIRED BY CODES, STANDARDS, AND 29 CFR 1910.145. USE CONSISTENT DESIGNATIONS THROUGHOUT PROJECT.
- C. COORDINATE INSTALLATION OF IDENTIFYING DEVICES WITH COMPLETION OF COVERING AND PAINTING OF SURFACES WHERE DEVICES ARE TO BE APPLIED, WITH LOCATION OF ACCESS PANELS AND DOORS.
- D. INSTALL IDENTIFYING DEVICES BEFORE INSTALLING ACOUSTICAL CEILINGS AND SIMILAR CONCEALMENT.
- E. WIRING DEVICES: USE ADHESIVE LABEL WITH BLACK FILLED LETTERING ON THE REAR OF THE FACEPLATE AND DURABLE WIRE MARKERS OR TAGS INSIDE OUTLET BOXES. LABELS SHALL BE CLEAR POLYESTER WITH BLACK LETTER, FONT SIZE OF 7. IDENTIFY PANELBOARD AND CIRCUIT NUMBER FROM WHICH SERVED.
- F. USE THE COLORS LISTED BELOW FOR UNGROUNDED SERVICE, FEEDER, AND BRANCH-CIRCUIT CONDUCTORS.
1. COLOR SHALL BE FACTORY APPLIED OR, FOR SIZES LARGER THAN NO. 10 AWG IF AUTHORITIES HAVING JURISDICTION PERMIT, FIELD APPLIED.
 2. COLORS FOR 208/120-V CIRCUITS:

- a. PHASE A: BLACK.
 - b. PHASE B: RED.
 - c. PHASE C: BLUE.
 - d. NEUTRAL: WHITE.
3. COLORS FOR 480/277-V CIRCUITS:
- a. PHASE A: BROWN.
 - b. PHASE B: ORANGE.
 - c. PHASE C: YELLOW.
 - d. NEUTRAL: GRAY.
4. FIELD-APPLIED, COLOR-CODING CONDUCTOR TAPE: APPLY IN HALF-LAPPED TURNS FOR A MINIMUM DISTANCE OF 6 INCHES FROM TERMINAL POINTS AND IN BOXES WHERE SPLICES OR TAPS ARE MADE. APPLY LAST TWO TURNS OF TAPE WITH NO TENSION TO PREVENT POSSIBLE UNWINDING. LOCATE BANDS TO AVOID OBSCURING FACTORY CABLE MARKINGS.
- G. ACCESSIBLE RACEWAYS AND CABLES OF AUXILIARY SYSTEMS: IDENTIFY THE FOLLOWING SYSTEMS WITH COLOR-CODED, SELF-ADHESIVE VINYL TAPE APPLIED IN BANDS:
1. FIRE ALARM SYSTEM: RED.
 2. CONTROL WIRING: GREEN AND RED.

260923 – LIGHTING CONTROL DEVICES

- H. INSTALL LIGHTING CONTROL DEVICES AS INDICATED ON PLAN. INSTALL AT ACCESSIBLE LOCATIONS.
- I. COORDINATE OCCUPANCY SENSOR LOCATIONS, COVERAGES AND REQUIRED QUANTITIES WITH MANUFACTURER'S RECOMMENDATIONS. COVERAGE AREAS INDICATED ON THE DRAWINGS ARE FOR MINOR MOTION (6 TO 8 INCHES OF HAND MOVEMENT). PROVIDE ADDITIONAL OCCUPANCY SENSORS AND CONTROL UNITS AS REQUIRED TO ACHIEVE COMPLETE MINOR MOTION COVERAGE OF THE SPACE INDICATED.
- J. OCCUPANCY SENSOR ADJUSTMENTS: WHEN REQUESTED WITHIN 12 MONTHS OF DATE OF SUBSTANTIAL COMPLETION, PROVIDE ON-SITE ASSISTANCE IN ADJUSTING SENSORS TO SUIT ACTUAL OCCUPIED CONDITIONS. PROVIDE UP TO TWO VISITS TO SITE OUTSIDE NORMAL OCCUPANCY HOURS FOR THIS PURPOSE.
- K. OCCUPANCY SENSOR:
1. 360° CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR: WATTSTOPPER DT 300 OR EQUAL.
- L. OCCUPANCY SENSOR CONTROL UNITS:
1. DESCRIPTION: TRANSFORMER AND RELAY COMBINED IN SINGLE UNIT TO PROVIDE 240C POWER TO SENSORS AND PROVIDE 20A CONTACT(S) FOR CONTROL OF LIGHTING LOADS AT 120 OR 277V. CONTROL UNIT INPUT POWER SHALL BE FROM UNSWITCHED LEG OF LIGHTING CIRCUIT IT IS CONTROLLING.
 - a. CONTROL UNITS SHALL BE PROVIDED AS REQUIRED TO POWER CEILING MOUNTED OCCUPANCY SENSORS, CONTROL LIGHTING LOADS AND PROVIDE A MINIMUM OF ONE AUXILIARY CONTACT.
 - b. OCCUPANCY SENSOR CONTROL UNITS SHALL MOUNT EXTERNAL TO 4"SQ. JUNCTION BOX IN THE CEILING SPACE. ALL WIRING BETWEEN CONTROL UNIT AND OCCUPANCY SENSOR SHALL BE PLENUM RATED.
 - c. LOCATE CONTROL UNIT IN ACCESSIBLE LOCATION IN GYP-BOARD CEILINGS, ADJACENT TO RETURN AIR GRILLES, OR PROVIDE ACCESS PANEL.
 - d. ADDITIONAL AUXILIARY RELAY MODULES SHALL BE PROVIDED TO PROVIDE CONTROL OF ALL LIGHTING CIRCUITS AND ADDITIONAL AUXILIARY CONTACTS AS REQUIRED.
 - e. IT IS ACCEPTABLE TO PROVIDE CONTROLS AND AUXILIARY CONTACTS AS REQUIRED INTEGRAL TO THE CEILING SENSOR, PROVIDED ALL REQUIRED CONTACTS ARE PROVIDED.
 - f. MAXIMUM OF 3 SENSORS PER POWER PACK. VERIFY EXACT QUANTITIES REQUIRED WITH MANUFACTURER.

262726 – WIRING DEVICES

- A. GENERAL WIRING DEVICE REQUIREMENTS: COMPLY WITH NFPA 70, NEMA WD 1, NEMA WD 6, AND UL498.
- B. WIRING DEVICE AND WALL SWITCH COLOR TO BE WHITE.
- C. STANDARD GRADE RECEPTACLES:
1. DUPLEX RECEPTACLE, NEMA 5-20R: COMMERCIAL GRADE. HUBBELL BR20 OR EQUAL BY EATON/ARROW HART, LEVITON, OR LEGRAND PASS & SEYMOUR.
- D. GFCI RECEPTACLES:
1. COMPLY WITH UL943
 2. DUPLEX GFCI RECEPTACLE, NEMA 5-20R: HUBBELL GFRST20 OR EQUAL BY EATON/ARROW HART, LEVITON, OR LEGRAND PASS & SEYMOUR.
 3. WEATHER-RESISTANT DUPLEX GFCI RECEPTACLE, NEMA 5-20R: EATON/ARROW HART WRSQF20 OR EQUAL BY LEVITON OR LEGRAND PASS & SEYMOUR.
- E. INSTALL RECEPTACLES FLUSH, WITH LONG DIMENSION VERTICAL, AND WITH GROUNDING TERMINAL ON TOP.
- F. INSTALL GFCI RECEPTACLES SO THAT THE "PUSH TO TEST" AND "RESET" DESIGNATIONS CAN BE READ CORRECTLY. IF PRINTED IN BOTH DIRECTIONS, INSTALL WITH GROUNDING TERMINAL ON TOP.
- G. WALL SWITCHES: SINGLE AND DOUBLE-POLE SWITCHES COMPLY WITH DSCC W-C-896F AND UL 20. HUBBELL 1220 SERIES OR EQUAL BY EATON/ARROW HART, LEVITON, OR LEGRAND PASS & SEYMOUR.
- H. LED DIMMER SWITCHES: LUTRON OR EQUAL, COMPATIBLE WITH LED DIMMING DRIVER SPECIFIED.
- I. DIMMERS:
1. CONTROL: CONTINUOUSLY ADJUSTABLE SLIDER WITH PRE-SET; SINGLE-POLE OR THREE-WAY SWITCHING TO SUIT CONNECTIONS.
 2. INSTALL WALL DIMMERS TO ACHIEVE FULL RATING SPECIFIED AND INDICATED AFTER DERATING FOR GANGING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
 3. INSTALL UNSHARED NEUTRAL CONDUCTORS ON LINE AND LOAD SIDE OF DIMMERS ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS.
- J. WHERE MULTIPLE SWITCHES, DIMMERS, AND/OR OCCUPANCY SENSORS ARE ADJACENT TO EACH OTHER, PROVIDE A SINGLE COVER PLATE.
- K. WALL PLATES:
1. PROVIDE SATIN-FINISHED STAINLESS-STEEL WHITE WALL PLATES IN FINISHED AREAS.
 2. PROVIDE GALVANIZED STEEL WHITE WALL PLATES IN UNFINISHED AREAS.
- L. CONNECT WIRING DEVICE GROUNDING TERMINAL TO OUTLET BOX WITH BONDING JUMPER. USE OF QUICK GROUND STRAP OR SCREW IS NOT ACCEPTABLE.

262816 – ENCLOSED SWITCHES AND CIRCUIT BREAKERS

- A. SUBJECT TO COMPLIANCE WITH REQUIREMENTS; PROVIDE PRODUCTS BY SQUARE D, EATON, GENERAL ELECTRIC, OR SIEMENS.
- B. NON-FUSIBLE SWITCHES: NEMA KS 1, QUICK MAKE, QUICK-BREAK LOAD INTERRUPTER ENCLOSED KNIFE SWITCH TYPE HD, WITH CLIPS OR BOLT PADS TO ACCOMMODATE SPECIFIED FUSES (IF REQUIRED), EXTERNALLY OPERABLE LOCKABLE HANDLE WITH CAPABILITY TO ACCEPT TWO PADLOCKS, AND INTERLOCKED WITH COVER IN CLOSED POSITION. SQUARE D OR EQUAL.
- C. TOGGLE DISCONNECT SWITCH: HEAVY DUTY, 30A, 600 VOLT, DOUBLE OR THREE POLE AS REQUIRED, SINGLE THROW, MOTOR RATED SWITCH WITHOUT OVERLOAD PROTECTION. PROVIDE NEMA 1 ENCLOSURE AND PADLOCK ATTACHMENT.
- D. COMPLY WITH APPLICABLE PORTIONS OF NECA 1, NEMA PB 1.1, AND NEMA PB 2.1 FOR INSTALLATION OF ENCLOSED SWITCHES AND CIRCUIT BREAKERS.
- E. SET FIELD-ADJUSTABLE SWITCHES AND CIRCUIT-BREAKER TRIP AND TIME DELAY SETTINGS.

265119 – LED INTERIOR LIGHTING

- A. PROVIDE LUMINAIRES (LIGHTING FIXTURES) AS INDICATED ON DRAWINGS.
- B. PROVIDE DRIVERS AS AN INTEGRATED COMPONENT OF THE LUMINAIRE OR AS AN EXTERNAL COMPONENT OF AN ASSEMBLY OF LUMINAIRES.
- C. INSTALL FIXTURES LEVEL, PLUMB, AND SQUARE WITH CEILINGS AND WALLS UNLESS OTHERWISE INDICATED.
- D. SUPPORT LUMINAIRES INDEPENDENT OF CEILING FRAMING. SUPPORT RECESSED GRID LUMINAIRES FROM TWO OPPOSITE CORNERS DIRECTLY TO STRUCTURE. WIRE OR ROD SHALL HAVE BREAKING STRENGTH OF THE WEIGHT OF FIXTURE AT A SAFETY FACTOR OF 3.
- E. INSTALL RECESSED LUMINAIRES TO PERMIT REMOVAL FROM BELOW.
- F. INSTALL RECESSED LUMINAIRES USING ACCESSORIES AND FIRESTOPPING MATERIALS TO MEET REGULATORY REQUIREMENTS FOR FIRE RATING.
- G. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B.
- H. MAKE WIRING CONNECTIONS TO BRANCH CIRCUIT USING BUILDING WIRE WITH INSULATION SUITABLE FOR TEMPERATURE CONDITIONS WITHIN LUMINAIRE.
- I. BOND PRODUCTS AND METAL ACCESSORIES TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR.
- J. CONNECT LUMINAIRES TO BRANCH CIRCUIT OUTLET BOXES PROVIDED UNDER RACEWAYS AND BOXES SECTION USING 1/2" FLEXIBLE CONDUIT.
- K. CLEAN ELECTRICAL PARTS TO REMOVE CONDUCTIVE AND DELETERIOUS MATERIALS.
- L. REMOVE DIRT AND DEBRIS FROM ENCLOSURES AND LENSES.
- M. CLEAN FINISHES AND TOUCH UP DAMAGE.

283100 – FIRE ALARM

- A. SUBJECT TO COMPLIANCE WITH REQUIREMENTS; PROVIDE SYSTEM COMPONENTS COMPATABLE WITH SIMPLEX.
- B. PERFORMANCE REQUIREMENTS:
1. DESIGN AND INSTALLATION OF NEW DEVICES ONTO AN EXISTING FIRE ALARM SYSTEM. THE COMPLETE FUNCTIONAL SYSTEM SHALL MEET THE REQUIREMENTS OF THIS SPECIFICATION, APPLICABLE CODES, AND AHJ REQUIREMENTS.
 2. COMPLY WITH NFPA 72.
 3. PROVIDE DEVICE LOCATIONS AND RATINGS AS REQUIRED TO MEET THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION (AHJ) AND ALL APPLICABLE CODES.
 4. FIRE ALARM SYSTEM VENDOR SHALL PROVIDE SOUND PRESSURE LEVEL CALCULATIONS DEMONSTRATING COMPLIANCE WITH NFPA 72 AND ESTABLISH QUANTITIES AND TAP SETTINGS OF AUDIBLE DEVICES.

5. NO ADDITIONAL CHARGE FOR FIRE ALARM DEVICES WILL BE ALLOWED UNLESS SPACE DEFINITION, USE OR CONSTRUCTION IS SUBSTANTIALLY REVISED.
- C. NOTIFICATION APPLIANCES: EQUIPPED FOR MOUNTING AS INDICATED AND WITH SCREW TERMINALS FOR SYSTEM CONNECTIONS.
1. COMBINATION DEVICES: FACTORY-INTEGRATED AUDIBLE AND VISIBLE DEVICES IN A SINGLE-MOUNTING ASSEMBLY.
 2. HORNS SHALL PRODUCE A SOUND-PRESSURE LEVEL OF 90 DBA, MEASURED 10 FEET (3 M) FROM THE HORN.
 3. VISIBLE ALARM DEVICES: XENON STROBE LIGHTS LISTED UNDER UL 1971, WITH CLEAR OR NOMINAL WHITE POLYCARBONATE LENS MOUNTED ON AN ALUMINUM FACEPLATE. THE WORD "FIRE" IS ENGRAVED IN MINIMUM 1-INCH- (25-MM-) HIGH LETTERS ON THE LENS.
 - a. RATED LIGHT OUTPUT: 15, 30, 60, 75, 110, 135, 185 CANDELA AS REQUIRED TO MEET NFPA 72 REQUIREMENTS.
 - 1) STROBE LEADS: FACTORY CONNECTED TO SCREW TERMINALS.
 - 2) VOICE/TONE SPEAKERS:
 - a. UL 1480 LISTED.
 - b. HIGH-RANGE UNITS: RATED 2 TO 15 W.
 - c. LOW-RANGE UNITS: RATED 1 TO 2 W.
 - d. MOUNTING: FLUSH, SEMI-RECESSED, OR SURFACE MOUNTED; BIDIRECTIONAL AS INDICATED.
 - e. WATCHING TRANSFORMERS: TAP RANGE MATCHED TO THE ACOUSTICAL ENVIRONMENT OF THE SPEAKER LOCATION.
 4. AUDIBLE ALARM-INDICATING DEVICES: INSTALL AT 96" AFF OR 6 INCHES (150 MM) BELOW THE CEILING, WHICHEVER IS LESS. INSTALL BELLS AND HORNS ON FLUSH-MOUNTED BACK BOXES WITH THE DEVICE-OPERATING MECHANISM CONCEALED BEHIND A GRILLE.
 5. VISIBLE ALARM-INDICATING DEVICES: INSTALL AT 96" AFF OR 6 INCHES (150 MM) BELOW THE CEILING, WHICHEVER IS LESS.
 6. FINISHES: WALL MOUNTED APPLIANCES: PROVIDE WHITE FINISH WITH RED LETTERING. CEILING MOUNTED APPLIANCES: PROVIDE WHITE FINISH.
- D. ADDRESSABLE INTERFACE DEVICE: MICROELECTRONIC MONITOR MODULE LISTED FOR USE IN PROVIDING A SYSTEM ADDRESS FOR LISTED ALARM-INITIATING DEVICES FOR WIRED APPLICATIONS WITH NORMALLY OPEN CONTACTS.
- E. ADDRESSABLE CONTROL MODULE: PROVIDE FOR INTEGRATION OF AUXILIARY CONTROL FUNCTIONS INTO THE ANALOG SIGNALING CIRCUIT. INTELLIGENT ANALOG SIGNALING CIRCUIT CONTROL WITH COMMUNICATION INTERACTION WITH THE ANALOG SIGNALING CIRCUIT HAVING THE CAPABILITY OF INITIATING A CONTROL FUNCTION TO AN AUXILIARY DEVICE BASED ON A SPECIFIED EVENT AND NO/NC CONTACT PAIRS RATED AT 2 AMPS 120 VAC OR 24 VDC.
- F. WIRE AND CABLE: WIRE AND CABLE FOR FIRE ALARM SYSTEMS SHALL BE UL LISTED AND LABELED AS COMPLYING WITH NFPA 70, ARTICLE 760.
1. FIRE ALARM WIRE AND CABLE SHALL BE AS SPECIFIED BY THE SYSTEM MANUFACTURER INCLUDING CONDUCTOR GAGE, CONDUCTOR QUANTITY, CONDUCTOR TWISTS AND SHIELDING REQUIRED TO MEET NFPA CLASS AND STYLE PERFORMANCE SPECIFIED.
 2. NON-POWER-LIMITED CIRCUITS: SOLID-COPPER CONDUCTORS WITH 600-V RATED, 75 DEG C, COLOR-CODED INSULATION. LOW-VOLTAGE CIRCUITS: NO. 16 AWG, MINIMUM. LINE-VOLTAGE CIRCUITS: NO. 12 AWG, MINIMUM.
 3. INSTALL WIRING ACCORDING TO NECA 1 AND TIA/EIA 568-A.
 4. FIRE ALARM CIRCUITS AND EQUIPMENT CONTROL WIRING ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN A DEDICATED RACEWAY SYSTEM IN AREAS OF EXPOSED CONSTRUCTION.
- G. SUBMIT FIRE ALARM DRAWINGS AND DOCUMENTATION TO THE AUTHORITIES HAVING JURISDICTION AND THE ARCHITECT/ENGINEER.
- H. INSTALLER QUALIFICATIONS: PERSONNEL CERTIFIED BY NICET AS FIRE ALARM LEVEL II.
- I. INTERRUPTION OF EXISTING FIRE ALARM SERVICE: DO NOT INTERRUPT FIRE ALARM SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY GUARD SERVICE ACCORDING TO REQUIREMENTS INDICATED. NOTIFY ARCHITECT, OWNER OR CONSTRUCTION MANAGER NO FEWER THAN SEVEN DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF FIRE ALARM SERVICE. DO NOT PROCEED WITH INTERRUPTION OF FIRE ALARM SERVICE WITHOUT OWNER'S WRITTEN PERMISSION.
- J. EXISTING FIRE ALARM EQUIPMENT: MAINTAIN FULLY OPERATIONAL AS NEW EQUIPMENT IS INSTALLED, LABEL IT "NOT IN SERVICE" UNTIL IT IS ACCEPTED.
- K. FIRE ALARM SYSTEM AND COMPONENTS SHALL OPERATE AS AN EXTENSION OF AN EXISTING SYSTEM. ALL NEW DEVICES SHALL BE SUITABLE AND LISTED WITH EXISTING FIRE ALARM CONTROL PANEL.
- L. CONNECTING TO EXISTING EQUIPMENT: VERIFY THAT EXISTING FIRE ALARM SYSTEM IS OPERATIONAL BEFORE MAKING CHANGES OR CONNECTIONS.
- M. ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO INSPECT TEST, AND ADJUST FIELD-ASSEMBLED COMPONENTS AND EQUIPMENT INSTALLATION, INCLUDING CONNECTIONS, AND TO ASSIST IN FIELD TESTING. REPORT RESULTS IN WRITING.
- TEST AND INSPECTION RECORDS: PREPARE ACCORDING TO NFPA 72, INCLUDING DEMONSTRATION OF SEQUENCES OF OPERATION BY USING THE MATRIX-STYLE FORM IN APPENDIX A IN NFPA 7.

KEYPLAN:

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2023-03-02	PERMITS/CONSTRUCTION	CAD	EMG
2022-10-05	ISSUED FOR BIDS (IFB)	CAD	EMG
2022-09-19	OWNER REVIEW	CAD	EMG

DATE	ISSUED FOR	DRN	CKD
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Detroit, MI 48242

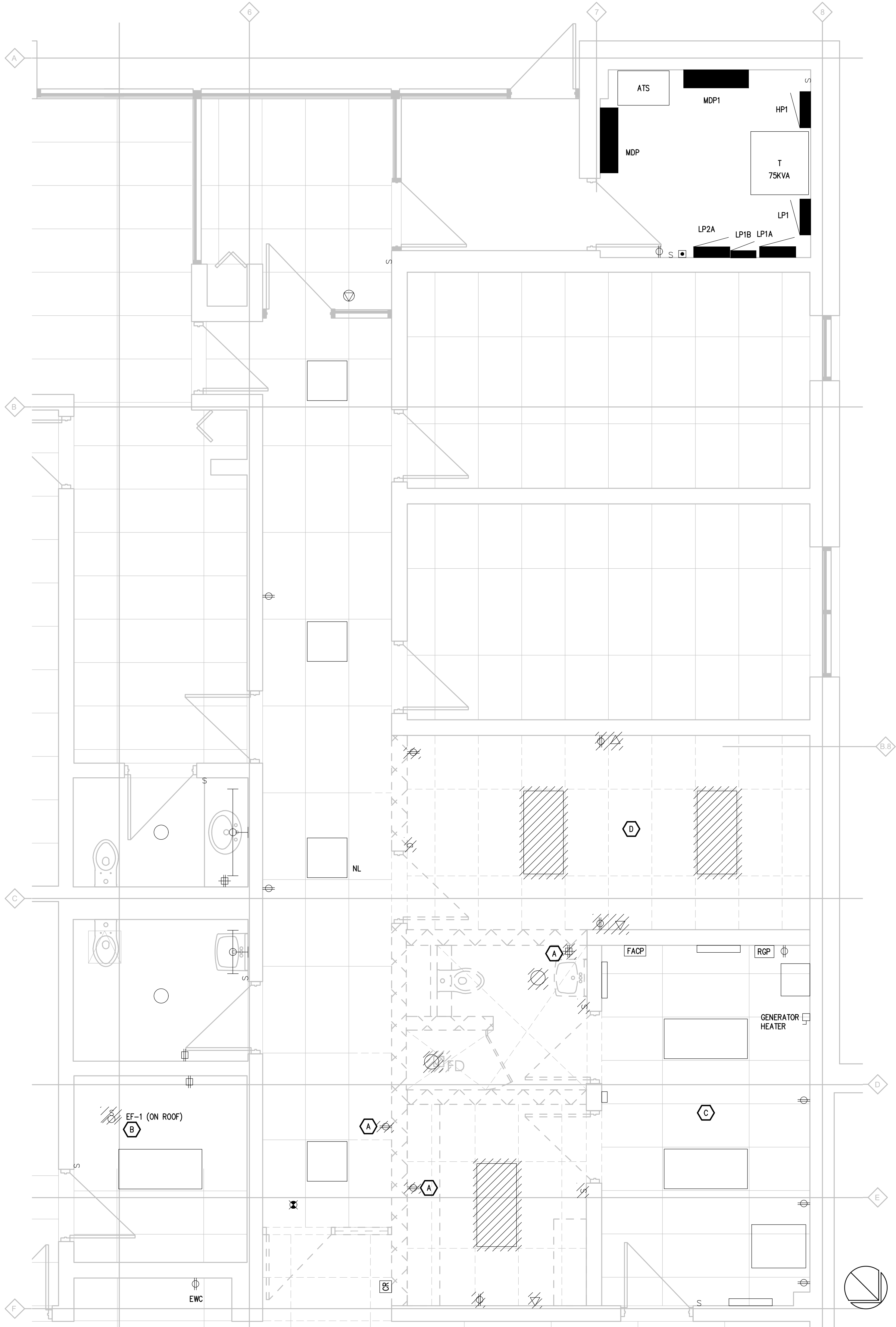
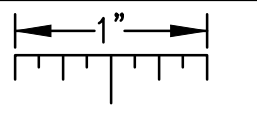
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ELECTRICAL SPECIFICATIONS

SEAL:	
	SHEET: E-003

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THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.



ELECTRICAL DEMOLITION
GENERAL NOTES:

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES AND BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES, WHETHER OR NOT SPECIFICALLY INDICATED.
3. REMOVE EQUIPMENT OR MATERIALS AS INDICATED ON PLAN WITH CROSS HATCHING. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO, THOSE COMPONENTS SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE DIAGRAMS AND RISER DIAGRAM FOR EXTENT OF DEMOLITION WORK.
5. PROVIDE PROPER SUPPORT FOR EXISTING TO REMAIN CONDUITS AND BOXES WHERE EXISTING SUPPORT IS TO BE REMOVED. RE-ROUTE BRANCH CIRCUIT CONDUITS AND RELOCATE JUNCTION BOXES AS REQUIRED TO FACILITATE INSTALLATION OF NEW EQUIPMENT AND SYSTEMS IN CEILING SPACES.
6. REMOVE ALL CONDUIT AND WIRE BACK TO THE SOURCE OR NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
7. MAINTAIN ELECTRICAL SERVICE TO ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT THAT ARE TO REMAIN. EXTEND CONDUIT AND WIRE AS REQUIRED WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM LOADS THAT ARE TO REMAIN.
8. DISPOSE OF ALL MATERIALS OFF SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PROPER DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
9. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED BUT EXISTING WALLS REMAIN INTACT.
10. RING OUT AND TAG ALL CIRCUITS AFFECTED BY THIS ALTERATION AT BOTH ENDS. MARK ALL UNUSED CIRCUIT BREAKERS "SPARE".
11. PROVIDE UPDATED TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
12. VERIFY ALL UNDERGROUND AND IN SLAB UTILITY LOCATIONS PRIOR TO SAW-CUTTING OR PENETRATING ANY FLOOR SLAB.
13. COORDINATE ANY SHUT DOWN OF EXISTING SERVICES AND EQUIPMENT THAT ARE REMAINING IN USE WITH THE OWNER'S REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COSTS TO PERFORM THIS WORK DURING WEEKENDS AND EVENINGS INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWNS MUST OCCUR FOR PERIODS LONGER THAN THESE HOURS. COORDINATE ELECTRICAL SHUT DOWNS WITH THE OWNER 72 HOURS PRIOR TO SHUT DOWN.

DEMOLITION KEY NOTES:

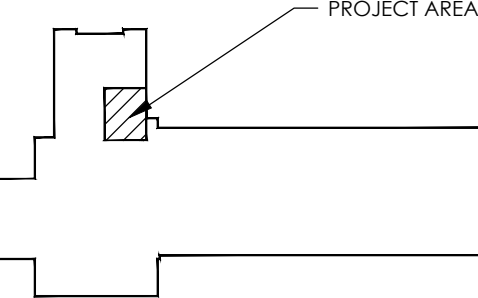
- A. BRANCH CIRCUIT FOR RECEPTACLE TO REMAIN AND BE REUSED FOR NEW WORK.
- B. BRANCH CIRCUIT FOR EXISTING EXHAUST FAN TO REMAIN AND BE REUSED FOR NEW EXHAUST FAN.
- C. ALL EQUIPMENT IN ROOM TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.
- D. EXISTING LIGHTING BRANCH CIRCUIT IN ROOM TO REMAIN AND BE REUSED IN NEW WORK.



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PBA Project No.: 2022.0270

KEYPLAN:



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2022 09-19	OWNER REVIEW	CAD	EMG

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PROJECT:
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DTW ARFF STATION 100**
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Detroit, MI 48242

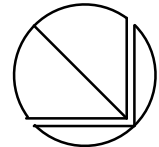
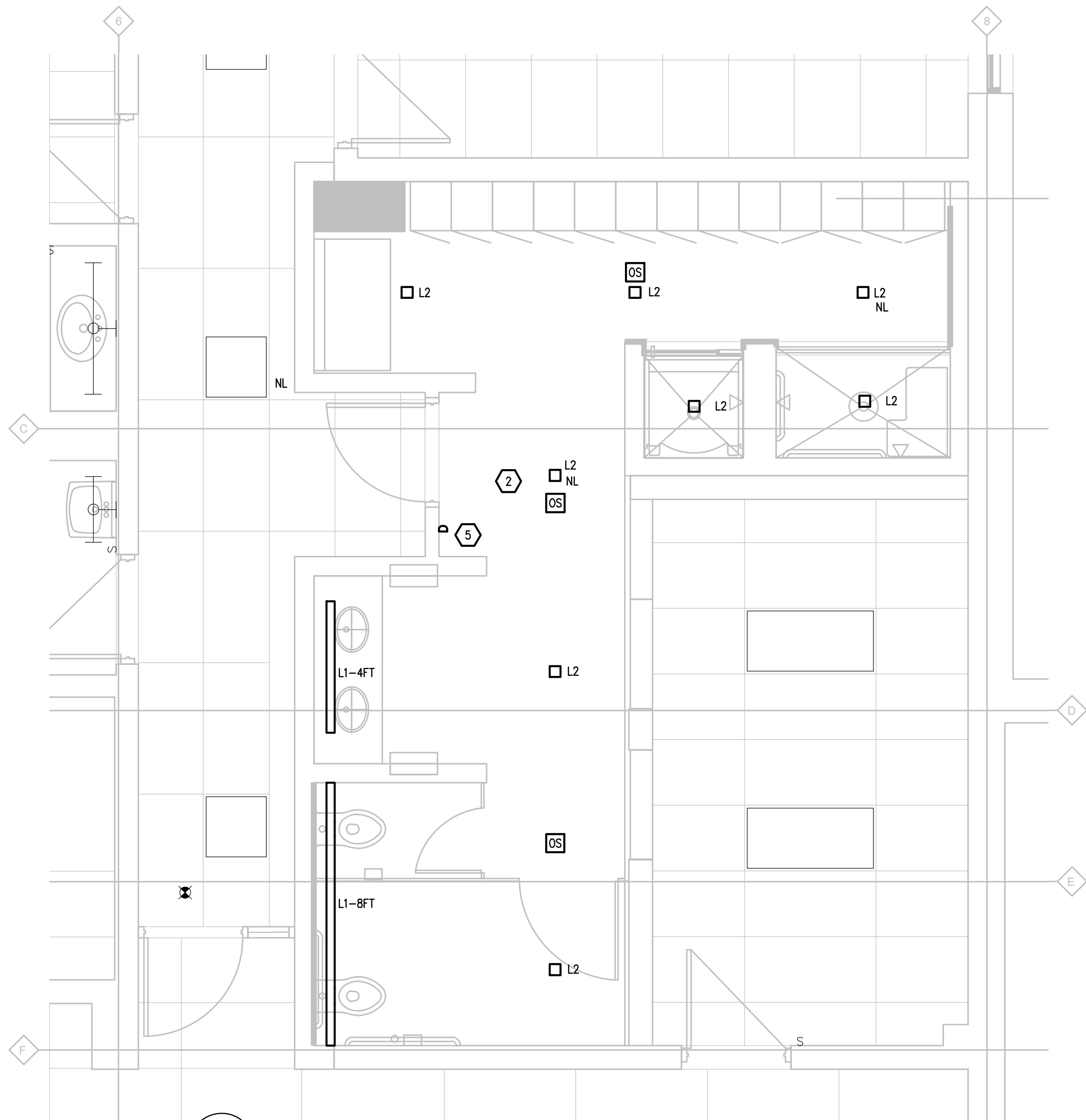
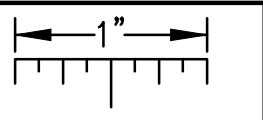
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ELECTRICAL DEMOLITION
PLAN

SEAL:	
	NORTH
	SHEET: ED-201

ELECTRICAL DEMOLITION PLAN
SCALE: 3/8" = 1' - 0"

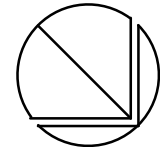
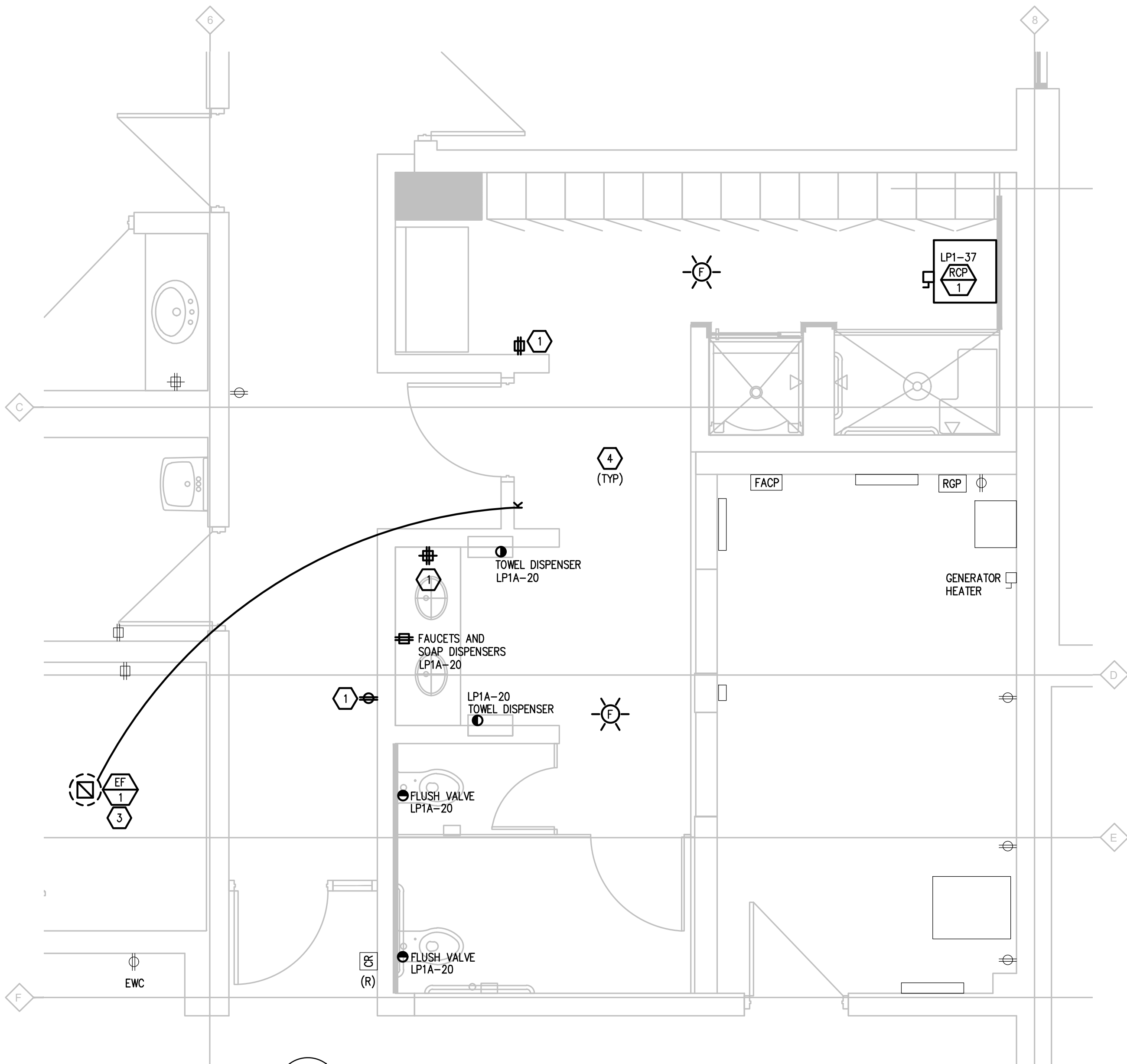
THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.



LIGHTING NEW WORK PLAN
SCALE: 3/8" = 1' - 0"

ELECTRICAL GENERAL NOTES:

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS TO FACILITATE OPERABLE DEVICES.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING SIMPLEX FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- ALL ELECTRICAL PANELBOARDS IN THIS BUILDING ARE SERVED FROM A GENERATOR. THESE PANELS BOARDS ARE USED TO SERVE THE LIGHTING IN THE BUILDING.



POWER AND AUXILIARY SYSTEMS NEW WORK PLAN
SCALE: 3/8" = 1' - 0"

CONSTRUCTION KEY NOTES:

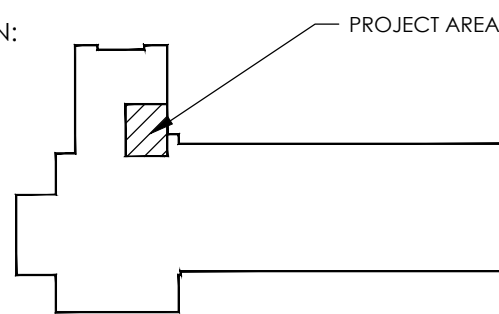
- EXTEND AND REUSE EXISTING BRANCH CIRCUIT FOR NEW DEVICE.
- LIGHTING CONTROL IN LOCKER ROOM TO BE AS FOLLOWS: LIGHTS MUST BE MANUALLY TURNED ON VIA WALL SWITCH. AFTER 20 MINUTES OF INACTIVITY, THE SENSORS SHALL TURN THE LIGHTS OFF. SENSORS TO BE DUAL TECH. QUANTITY AND LAYOUT TO BE DETERMINED BASED ON MANUFACTURERS RECOMMENDATION.
- USE EXISTING BRANCH CIRCUIT FOR NEW EXHAUST FAN. PROVIDE KEYED SWITCH WITHIN WOMEN'S LOCKER ROOM.
- RELOCATE EXISTING SPEAKERS TIED TO ANNUNCIATOR SYSTEM AND PROVIDE NEW SPEAKERS IF NEEDED FOR PROPER COVERAGE.
- REUSE EXISTING LIGHTING BRANCH CIRCUIT TO FEED NEW LIGHT FIXTURES IN LOCKER ROOM.



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PBA Project No.: 2022.0270

KEYPLAN:



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Detroit, MI 48242

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CLIENT REFERENCE:

**ELECTRICAL NEW WORK
PLANS**

SEAL:



SHEET:

E-201

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EXISTING PANELBOARD LP1A																	
#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#			
1		FIRE ALARM PANEL		20						20		TOILET RM LITE		2			
3		DOOR MASTER PANEL		20						20		WALL LITE DORM		4			
5		EM ALERT SYSTEM		20						20		TRUCK CORD DROP BAY 1		6			
7		HAND DRYER		20						20		PLUGS		8			
9							528		528	20		EF-1 TOILET RM 1/6HP	M	10			
11		HAIR DRYER		20						20		PLUGS		12			
13										20		TICKET PRINTER		14			
15		HAIR DRYER		20						20		BC OFFICE		16			
17										20		PLUGS		18			
19		LIGHTING CONTROL PANEL		20		1060			1060	20	NEW	TOWEL, FAUCET, VALVES WOMENS LKR	R	20			
21		HORN/STROBE LIGHT		20						20	NEW	SPARE		22			
23		EGRESS LIGHTS		20						20		VAV BOX TRANSFORMERS		24			
						1060	528										
						ØA	ØB	ØC									
PANELBOARD INFORMATION					BRANCH CIRCUIT CONNECTED LOAD					DEMAND FACTOR		CALCULATED LOAD		FEEDER AND OVERCURRENT SIZING		NOTES:	
VOLTAGE: 208Y/120					CONTINUOUS LOAD (C)					100%		100%		125%		FED FROM LP1	
BUS AMPACITY: 100A					ELECTRIC HEAT (E)					100%		100%		100%			
MAIN TYPE: MLO					NON-CONTINUOUS LOAD (NC)					100%		100%		100%			
MINIMUM A.I.C.: 14,000					KITCHEN LOAD (K)					100%		100%		100%			
MOUNTING: SURFACE					RECEPTACLE BASE LOAD (R)					100%		1060		100%			
					RECEPTACLE DEMAND LOAD (R)					50%				100%			
<input type="checkbox"/> FEED-THROUGH LUGS					LIGHTING LOAD (L)					100%				125%			
<input type="checkbox"/> DOUBLE LUGS					ADDITIONAL TRACK LIGHTING LOAD									100%			
<input type="checkbox"/> INTEGRAL SPD					MOTORS, HIGHEST LOAD (MH)					125%				100%			
					MOTORS, REMAINING LOAD (M)					528		100%		528			
PANELBOARD LOCATION					NOTE: DEMAND AND SIZING INFORMATION IS CALCULATED FROM CONNECTED LOAD					TOTAL(KVA): 1.59							
ELECTRICAL CLOSET										TOTAL (AMPS): 4				TOTAL (AMPS): 4			

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KEYPLAN:

EXISTING PANELBOARD LP1																
#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#		
1		FOU#1 EXERCISE ROOM		15						20		HOT WATER TANK CONTROLS		2		
3		EF-8 EXERCISE RM		20						20		PLUGS EXERCISE RM		4		
5		EF-2 TOILET RM		20						20		AMU CONTROL PANEL		6		
7		PLUGS TOILET RM MICROWAVE		20						20		HOT WATER CIR PUMP		8		
9		PLUGS AUDIO VISUAL RM		20						30		R.R. LAWN SPRINKLERS		10		
11		PLUGS CHIEFS SEC		20						20		UNIT HEATER #9 MECH RM		12		
13		PLUGS KITCHEN		20						20		FRIDGE KITCHEN		14		
15										20		FREEZER KITCHEN		16		
17		HOOD FAN WALKING MACHINE		20						20		MW CP KIT		18		
19		PLUGS DAY TRAINING RM		20						20		DISPOSAL		20		
21		PLUGS STORE & DORMITORY		20						20		DISPOSAL		22		
23		PLUGS DORMITORY		20						20		MICROWAVE		24		
25		TRUCK CORD DROP DAY 3		20						20		DISHWASHER		26		
27		TRUCK CORD DROP DAY 2		20						20		ELECTRIC WATER COOLER		28		
29		GENERATOR PANEL		50						20		PLUGS WATCH RM		30		
31										20		MASTER CLOCK		32		
33		UC FRIDGE		20						20		COUNTER LITE SERVICE AREA		34		
35		TRUCK CORD DROP BAY 2		20						20		TRUCK COR DROP BAY 1		36		
37	E	RCP-1 WOMENS LOCKER	NEW	15	310	310				20		SUBFEED TO LP1A		38		
39														40		
41		KITCHEN SANITIZER		40										42		
						310	ØB	ØC								
						ØA	ØB	ØC								
<div><div><div><div>PANELBOARD INFORMATION</div><div>VOLTAGE: 208Y/120</div><div>BUS AMPACITY: 225A</div><div>MAIN TYPE: 225A MCB</div><div>MINIMUM A.I.C.: 14,000</div><div>MOUNTING: SURFACE</div><div><div><div><input type="checkbox"/></div>FEED-THROUGH LUGS</div><div><input type="checkbox"/></div>DOUBLE LUGS</div><div><input type="checkbox"/></div>INTEGRAL SPD</div><div>PANELBOARD LOCATION</div><div>ELECTRICAL CLOSET</div></div><div><div>BRANCH CIRCUIT CONNECTED LOAD</div><div>CONTINUOUS LOAD (C)</div><div>ELECTRIC HEAT (E)</div><div>NON-CONTINUOUS LOAD (NC)</div><div>KITCHEN LOAD (K)</div><div>RECEPTACLE BASE LOAD (R)</div><div>RECEPTACLE DEMAND LOAD (R)</div><div>LIGHTING LOAD (L)</div><div>ADDITIONAL TRACK LIGHTING LOAD</div><div>MOTORS, HIGHEST LOAD (MH)</div><div>MOTORS, REMAINING LOAD (M)</div><div>NOTE: DEMAND AND SIZING INFORMATION IS CALCULATED FROM CONNECTED LOAD</div></div><div><div>DEMAND FACTOR</div><div>100%</div><div>100%</div><div>100%</div><div>100%</div><div>100%</div><div>50%</div><div>100%</div><div>125%</div><div>100%</div><div>100%</div><div>TOTAL(KVA): 0.31</div><div>TOTAL (AMPS): 1</div></div><div><div>FEEDER AND OVERCURRENT SIZING</div><div>125%</div><div>100%</div><div>100%</div><div>100%</div><div>100%</div><div>100%</div><div>125%</div><div>100%</div><div>100%</div><div>100%</div><div>TOTAL (AMPS): 1</div><div>NOTES:</div><div>FED FROM T-1</div></div></div>																

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DO NOT SCALE DRAWINGS / PRINTS. USE ONLY FIGURED DIMENSIONS.

2023 03-02	PERMITS/CONSTRUCTION	CAD	EMG
2022 10-05	ISSUED FOR BIDS (IFB)	CAD	EMG
2022 09-19	OWNER REVIEW	CAD	EMG

DATE	ISSUED FOR	DRN	CKD
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PROJECT:
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DTW ARFF STATION 100
Women's Locker Room Improvements
12901 Dingell Drive, #802
Detroit, MI 48242

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	CLIENT REFERENCE:
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PANEL SCHEDULES

SEAL:

SHEET:

E-501