RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
IKE SKELTON TRAINING SITE
JEFFERSON CITY, MISSOURI

OWNER:

STATE OF MISSOURI
MIKE PARSON,
GOVERNOR

DEPARTMENT OF PUBLIC SAFETY
OFFICE OF THE ADJUTANT GENERAL
MISSOURI NATIONAL GUARD
FACILITIES DIVISION

PROJECT MANAGEMENT:

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT
DESIGN AND CONSTRUCTION

APPLICABLE CODES:

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2020 NATIONAL ELECTRICAL CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL FUEL GAS CODE
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

DESIGNER:

CASCO DIVERSIFIED
CORPORATION

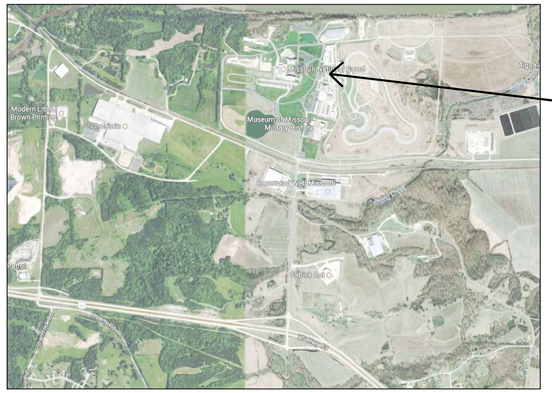
PROJECT NUMBER: T2122-01

SITE NUMBER: 6300

ASSET NUMBER: 8136300017

CASCO
12 SUNNEN DR. SUITE 100
ST. LOUIS, MO 63143
ARCHITECTS / ENGINEERS
314-821-1100

CASCO DIVERSIFIED CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY #000613 (ENG)
MISSOURI STATE CERTIFICATE OF AUTHORITY #000329 (ARCH)



ADDRESS:
2302 MILITIA DRIVE
JEFFERSON CITY, MO
65101

VICINITY MAP

NORTH

SHEET INDEX

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C-001	TOPOGRAPHIC SURVEY AND DEMOLITION PLAN
C-101	SITE PLAN
C-102	GRADING AND EROSION CONTROL PLAN
C-501	EROSION CONTROL DETAILS
C-502	SITE PLAN DETAILS
S-001	STRUCTURAL GENERAL NOTES
S-101	STRUCTURAL PARTIAL PLAN & DETAILS
A-001	ARCHITECTURAL SITE PLAN
A-002	CODE DATA, EGRESS FLOOR PLAN, NOTES AND SYMBOLS
A-101	DEMO FLOOR AND REFLECTED CEILING PLANS
A-102	FLOOR PLAN AND REFLECTED CEILING PLANS
A-103	ROOF PLAN AND DETAILS
A-201	EXTERIOR ELEVATIONS
A-401	ENLARGED PLANS & INTERIOR ELEVATIONS
A-501	PARTITION TYPES AND DETAILS
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E-102	ELECTRICAL LIGHTING FLOOR PLAN
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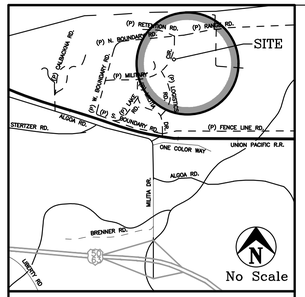
STATE OF MISSOURI
MICHAEL S. SUNDERMEYER
NUMBER A-2014026855
ARCHITECT
8/1/2023

MICHAEL S. SUNDERMEYER
License Number:2014026855
Expiration Date: 12/31/24

SHEET NUMBER:
G-001
08/01/2023
SHEET 1 OF 29



SITE LOCATION MAP

1 inch = 20 FEET

0 10 20 40 60

(Graphic Scale – Feet)

ALTERNATE #2

ALTERNATE #3

ALTERNATE #4

4000
△600.65
RP

4001
△610.95
RP

1007
△0.00
RP

5
△601.57
RP–X

524
600.03
RPSQ

4
596.39
RP

1
596.12
RP

2497
598.75
PK NAIL

3999
595.96
RPX

CSMS ANNEX
7100 MILITARY CIRCLE

MILITARY CIRCLE

U.I.P. EXIST. FENCE

REMOVE EXIST. ASPHALT PAVEMENT

FULL DEPTH SAW CUT

ASPHALT PAVEMENT TO REMAIN

REMOVE CONC. PAVEMENT

RELOCATE LIGHT POLE PER C–101

REMOVE EXIST. AGGREGATE SURFACE AND RE–GRADE TO PROPOSED PAVEMENT SUBGRADE

ADJUST INLET PER C–101
Ex. Grate Inlet
TC=597.37
FL In=594.62
E In 6"=594.77
E Out=594.57

REMOVE & REPLACE PER C–101

REMOVE EXIST. BOLLARDS

ADJUST MANHOLE PER C–101

Ex. Fuel Pumps

Fuel Tanks

Spill Containment
Ex. Grate Inlet
TC=597.97
FL=595.82

Ex. Manhole
TC=604.74
FL In=596.64
FL Out=596.34

Ex. Manhole
TC=593.88
FL In=590.28
FL Out=590.18

Ex. Manhole
TC=593.45
FL In(North)(8")=581.95
FL In(West)(8")=581.95
FL In(4")=581.80
FL Out(8")=581.70

Ex. Cleanout

15' Sanitary Sewer Easement

18" HDPE
E =595.16

8" PVC

4" PVC

15" RCP

15" CMP

FL=592.92

FL=591.79

FL=591.71

Grass

Conc.

Aggr.

Gate

Ex. Vault

Ex. Transformer

Charging Stations

Transformer

L.P.

F.H.

NOTES:

1. Basis of Bearing: Missouri State Plane Coordinate System
2. Elevation Basis: NAVD 88 as determined by GPS Ties to MoDOT GNSS Network, Modot Station, MOEL, 861.119 feet.

CONTROL POINT TABLE

Point #	Northing	Easting	Elevation	Description
1	990016.43	1763101.79	596.12	RP
4	990035.27	1763091.73	596.39	RP
5	990153.30	1762898.53	601.57	RP–X
524	990097.40	1762974.48	600.03	RPSQ
1007	990249.33	1762648.25	0.00	RP
2497	990045.95	1762959.53	598.75	PK NAIL
3999	990023.63	1763055.18	595.96	RPX
4000	990306.47	1762988.45	600.65	RP
4001	990255.55	1762696.53	610.95	RP

CALL BEFORE YOU DIG – DRILL – BLAST 1–800–344–7483 (TOLL FREE)

MISSOURI ONE CALL SYSTEM, INC.

NOTE: The Contractor will be responsible to call the Missouri One Call System 1–800–344–7483 and have the underground utilities marked or remarked prior to any construction.

NOTE: UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

SITE DEMOLITION NOTES:

1) REMOVALS ARE SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR AND MAY NOT INCLUDE EVERY ITEM REQUIRING REMOVAL. NO ADDITIONAL PAYMENT WILL BE MADE FOR REMOVAL OF ADDITIONAL ITEMS NECESSITATED BY THE PROPOSED IMPROVEMENTS.

2) ALL SITE DEMOLITION MATERIALS SHALL BE DISPOSED OF OFF–SITE BY THE CONTRACTOR IN ACCORDANCE WITH MISSOURI SOLID WASTE MANAGEMENT LAW AND IMPLEMENTING REGULATIONS, 10 CSR 80.

3) GRADE ADJUSTMENT OF UTILITY FACILITY COVERS AND LIDS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION.

4) COORDINATE ALL UTILITY OUTAGES WITH UTILITY COMPANY AND OWNER.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
BRIAN K. MCMILLIAN
NUMBER
PE-2003015009
PROFESSIONAL ENGINEER

08-01-2023

Brian K. McMillian
Professional Engineer
No. PE-2003015009

Central Missouri Professional Services, Inc.
ENGINEERING – SURVEYING – MATERIALS TESTING
2500 E. McCARTY (573) 634-3455
JEFFERSON CITY, MISSOURI 65101 CMPS–INC.COM
Central Missouri Professional Services, Inc.
Missouri State Certificate of Authority #001558

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX

COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE: C001.DWG
DRAWN BY: PLS
CHECKED BY: PLS/BKM
DESIGNED BY:

SHEET TITLE:

TOPOGRAPHIC SURVEY AND DEMOLITION PLAN

SHEET NUMBER:

C-001

08/01/2023
SHEET 2 OF 29

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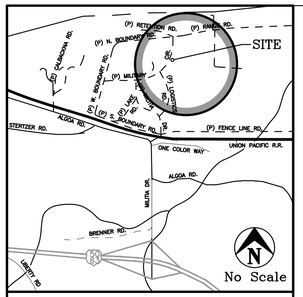

SITE LOCATION MAP

1 inch = 20 FEET

0 10 20 40 60

(Graphic Scale – Feet)

MILITARY CIRCLE

CSMS ANNEX
7100 MILITARY CIRCLE

ALTERNATE #2

ALTERNATE #3

ALTERNATE #4

SITE PLAN KEY NOTES

1. 8" NON-REINFORCED CONCRETE PAVEMENT (DETAIL 1/C-502)
2. INTEGRAL CONCRETE CURB (DETAIL 4/C-502)
3. RELOCATED LIGHT POLE. SEE ELEC. PLANS
4. LOWER INLET GRATE ELEVATION 1.0' TO 596.37
5. MIN. 4" THICK AGGREGATE SURFACING OVER ALL DISTURBED AREAS
6. 5" NON-REINFORCED CONCRETE PAVEMENT (DETAIL 2/C-502)
7. SEAL COAT EXISTING ASPHALT PAVEMENT
8. 4" PAVEMENT MARKING; ADA-BLUE, OTHER-WHITE
9. ADA SIGN (DETAIL 5/C-502)
10. RE-GRADE EXIST. SWALE TO INSURE POSITIVE DRAINAGE
11. SEED AND MULCH ALL DISTURBED AREAS
12. RAISE INLET GRATE ELEVATION 2.0' TO 596.30
13. RAISE INLET GRATE ELEVATION 1.75' TO 594.75
14. RAISE MANHOLE COVER ELEVATION 1.5' TO 594.95.
15. REPLACE EXIST. PULL BOX W/ 4'X6' PRECAST CONCRETE PULL BOX WITH TRAFFIC RATED COVER (DETAIL 6/C-502)
16. MATCH EXIST. ELEVATION AND DOWEL TO EXIST. CONCRETE PAVEMENT

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MISSOURI ONE CALL SYSTEM, INC.

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LAYOUT POINT TABLE

Point #	Northing	Easting	Elevation	Description
100	990294.05	1762990.56	601.06	EOP
101	990274.66	1763072.48	600.63	BC
102	990155.07	1763095.46	597.00	BC
103	990102.73	1763095.21	598.00	BC
104	990137.64	1762945.07	600.36	EOP
105	990215.88	1762963.26	601.23	EOP
106	990327.14	1762850.76	601.93	EOP
107	990345.62	1762855.19	601.54	EOP
108	990361.85	1762787.49	600.44	EOP
109	990343.37	1762783.06	600.58	EOP
110	990202.34	1762749.24	600.92	EOP
111	990160.53	1762748.63	601.70	EOP
112	990160.03	1762750.56	601.74	EOP
113	990014.53	1763092.02	596.42	EOP
114	989980.35	1763091.95	595.50	EOP
115	989961.11	1763087.34	596.00	EOP
116	989986.54	1762981.30	596.50	BC
117	989998.73	1762964.26	595.25	BC

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI BRIAN K. MCMILLIAN NUMBER PE-2003015009 PROFESSIONAL ENGINEER

08-01-2023

Brian K. McMillian
Professional Engineer
No. PE-2003015009

Central Missouri Professional Services, Inc.
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2500 E. McCARTY (573) 634-3455
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Missouri State Certificate of Authority #001558

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX

COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 08/01/2023

CAD DWG FILE: C101.DWG
DRAWN BY: PLS
CHECKED BY: PLS/BKM
DESIGNED BY:

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C-101

08/01/2023
SHEET 3 OF 29

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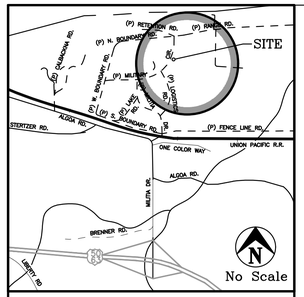

SITE LOCATION MAP

1 inch = 20 FEET

0 10 20 40 60

(Graphic Scale – Feet)

MILITARY CIRCLE

ALTERNATE #3

ALTERNATE #2

ALTERNATE #4

CSMS ANNEX
7100 MILITARY CIRCLE

15' Sanitary Sewer Easement

GRADING PLAN KEY NOTES

1. INLET BARRIER (DETAIL 1/C–501)
2. PERIMETER BARRIER (DETAIL 2/C–501)
3. DITCH CHECK (DETAIL 3/C–501)
4. AGGREGATE CONSTRUCTION ENTRANCE (DETAIL 4/C–501)

EROSION & SEDIMENT CONTROL NOTES

THE AREA DISTURBED FOR THIS PROJECT IS LESS THAN 1.0 ACRES THEREFORE A DNR LAND DISTURBANCE PERMIT IS NOT REQUIRED. HOWEVER, THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMPs) NECESSARY TO MINIMIZE EROSION AND SEDIMENT FROM ENTERING STORM SEWER SYSTEMS.

THE CONTRACTOR SHALL INSTALL BMPs PER DETAILS AT LOCATIONS SPECIFIED ON THE PLANS OR AS REQUIRED BY CONTRACTORS CONSTRUCTION OPERATION. BMPs SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION.

THE CONTRACTOR SHALL INSPECT AND MAINTAIN SEDIMENT CONTROL STRUCTURES WEEKLY OR FOLLOWING PRECIPITATION OF GREATER THAN 0.10 INCHES.

THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT AND MAINTAIN SEDIMENT CONTROL STRUCTURES AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.

FUEL, OIL, CHEMICALS, OR OTHER MATERIALS SHALL NOT BE STORED IN AREAS SUBJECT TO SURFACE RUNOFF. THE CONTRACTOR SHALL NOTE ON THE PLANS THE LOCATION OF ANY OUTDOOR MATERIALS STORAGE, LAYDOWN. OR STAGING AREAS. BMP'S SHALL BE INSTALLED AND NOTED ON THE PLANS TO MINIMIZE SEDIMENT LEAVING STORAGE, LAYDOWN OR STAGING AREAS. CONTAINMENT MEASURES SHALL BE INSTALLED AND NOTED AROUND ANY FUEL, OIL, OR CHEMICAL STORAGE AREAS.

MINIMIZE TRACKING OF DEBRIS ONTO PAVED SURFACES

THE CONTRACTOR SHALL SWEEP PAVEMENT TO REMOVE ANY DIRT, SILT, OR CONSTRUCTION DEBRIS A MINIMUM OF ONCE PER WEEK OR AS NEEDED.

ALL DISTURBED AREAS SHALL BE STABILIZED PER THE SITE PLAN.

CALL BEFORE YOU DIG – DRILL – BLAST 1–800–344–7483 (TOLL FREE)

MISSOURI ONE CALL SYSTEM, INC.

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CONTRACTOR SHALL SPECIFY LOCATION OF CONSTRUCTION STAGING AREAS, CONSTRUCTION TRAILER, FUEL/CHEMICAL STORAGE AREAS, AND CONCRETE WASHOUTS.

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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI – BRIAN K. MCMILLIAN – NUMBER PE-2003015009 – PROFESSIONAL ENGINEER

08-01-2023

Brian K. McMillian
Professional Engineer
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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

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2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI 65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE: C102.DWG
DRAWN BY: PLS
CHECKED BY: PLS/BKM
DESIGNED BY:

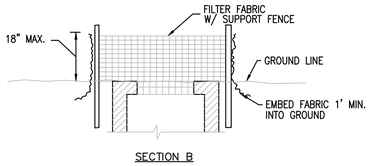
SHEET TITLE:

GRADING AND EROSION CONTROL PLAN

SHEET NUMBER:

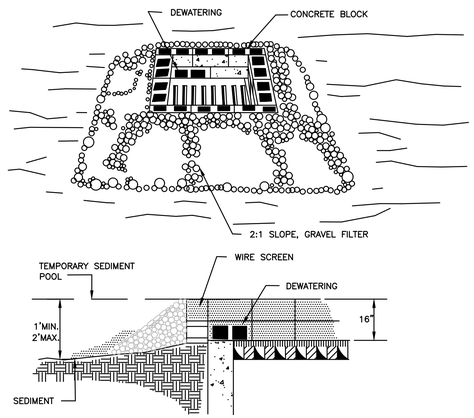
C-102

08/01/2023
SHEET 4 OF 29



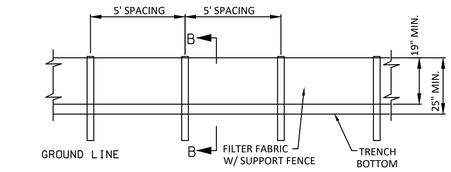
NOTE:
STRAW BALES MAY BE USED IN LIEU OF FABRIC AROUND CATCH BASINS. BALES SHALL BE IMBEDDED 4" INTO GROUND AND SECURELY STAKED IN PLACE.

SILT FENCE INLET BARRIER

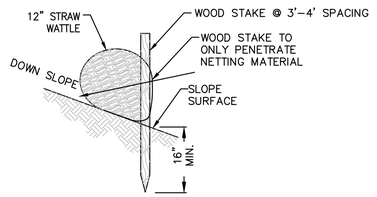


BLOCK & GRAVEL INLET BARRIER

1 C-501 INLET PROTECTION BARRIER
NOT TO SCALE

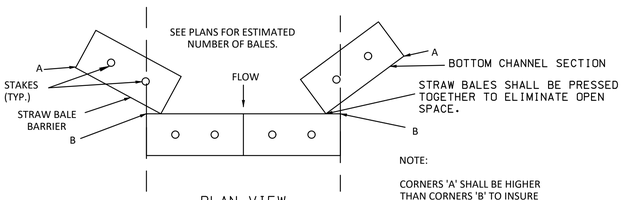


FABRIC SILT FENCE

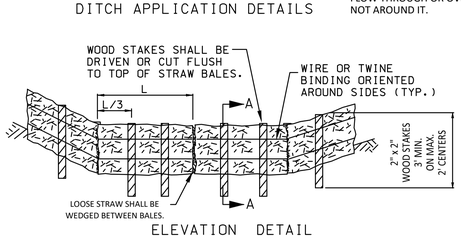


STRAW WATTLE

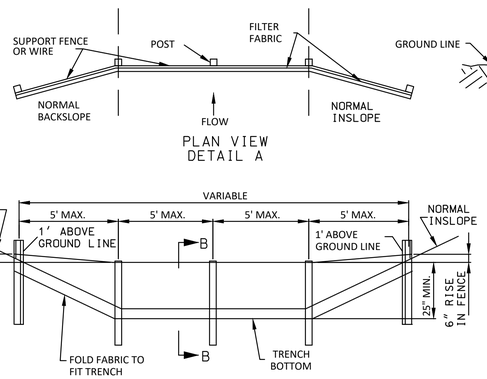
2 C-501 PERIMETER BARRIER FENCE
NOT TO SCALE



NOTE:
CORNERS 'A' SHALL BE HIGHER THAN CORNERS 'B' TO INSURE FLOW THROUGH OR OVER BARRIER, NOT AROUND IT.

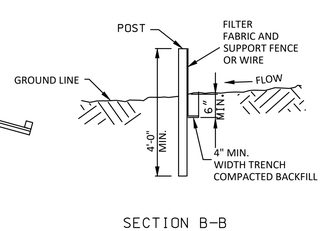


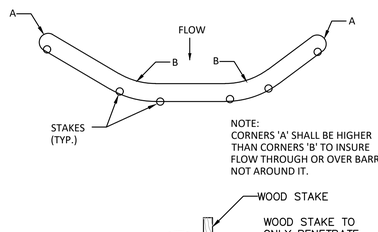
STRAW BALE DITCH CHECK



GEOTEXTILE FABRIC DITCH CHECK

NOTES:
SUPPORT FENCE SHALL BE PROVIDED WITH GEOTEXTILE FABRIC DITCH CHECK.
POST SHALL BE STEEL T-POST OR EQUIVALENT.





NOTE:
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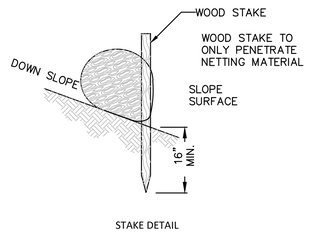
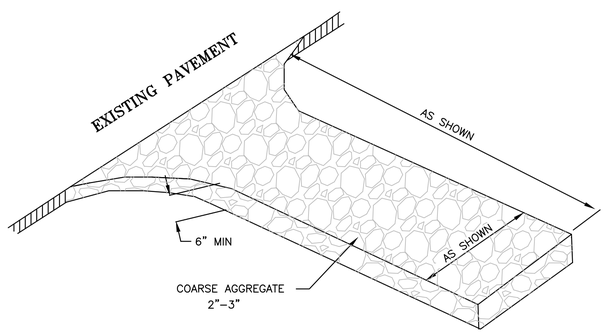


STRAW WATTLE CHECK

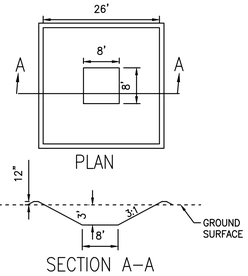
3 C-501 DITCH CHECKS
NOT TO SCALE



CONSTRUCTION ENTRANCE NOTES

1. An aggregate construction entrance shall be constructed as shown on the plans.
2. Aggregate size – Use 3" minus crushed limestone.
3. Length – Per plan.
4. Thickness – Not less than six (6) inches.
5. Width – Twenty five (25) foot minimum, but not less than the full width at points where ingress or egress occurs.
6. Filter Cloth – Shall be placed over the entire area prior to placing of stone.
7. Surface Water – Construction entrance surface shall be graded to drain away from the entrance. Any surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 3:1 slopes shall be permitted.
8. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto existing pavements. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
9. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
10. Periodic inspection as needed maintenance shall be provided after each rain.

4 C-501 AGGREGATE CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTES:
1. CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. AGGREGATE CONSTRUCTION ENTRANCE IS REQUIRED AT CONCRETE WASHOUT ENTRANCE IF ACCESS TO WASHOUT AREA IS OFF PAVEMENT.
3. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTE CONCRETE.
4. WASTE MATERIAL FROM CONCRETE WASHOUT OPERATIONS MUST BE REMOVED AND LEGALLY DISPOSED OF WHEN IT HAS ACCUMULATED 2/3 OF THE CAPACITY OF THE STRUCTURE.
5. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED AND LEGALLY DISPOSED OF. THE DISTURBED AREA SHALL BE GRADED, SEEDED AND MULCHED.
6. THE CONTRACTOR MAY ELECT TO USE AN ALTERNATE CONCRETE WASHOUT CONFIGURATION OR LOCATION WITH PRIOR APPROVAL FROM THE ENGINEER.

5 C-501 CONCRETE WASHOUT AREA
NOT TO SCALE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
BRIAN K. MCMILLIAN
NUMBER
PE-2003015009
PROFESSIONAL ENGINEER

08-01-2023

Brian K. McMillian
Professional Engineer
No. PE-2003015009

Central Missouri Professional Services, Inc.
ENGINEERING – SURVEYING – MATERIALS TESTING
2500 E. McCARTY (573) 634-3455
JEFFERSON CITY, MISSOURI 65101 CMPS-INC.COM

Central Missouri Professional Services, Inc.
Missouri State Certificate of Authority #001558

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI 65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE: C501.DWG
DRAWN BY: PLS
CHECKED BY: PLS/BKM
DESIGNED BY:

SHEET TITLE:
EROSION CONTROL DETAILS

SHEET NUMBER:
C-501

08/01/2023
SHEET 5 OF 29

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GENERAL NOTES:

1. All work shall comply with State of Missouri Codes, Standards, Technical Specifications, and all other applicable requirements.

2. It is the contractor's responsibility to obtain all necessary permits associated with the installation, notify municipal and state agencies and utility companies having jurisdiction, and to coordinate all inspection required.

3. Location of existing utilities are from best information available. Exact location and completeness are not guaranteed. Prior to construction the Contractor shall contact all utility companies concerned. (1-800-DIG-RITE Missouri One Call) If this data is not complete, make test pits and other field locations necessary in order to determine the exact locations of the concerned utilities. Any existing utilities, structures, trees, or other objects which could interfere with the correct completion of the project are also to be located by the Contractor. Any conflicts are to be addressed to the Engineer prior to construction. Additional work resulting from a failure to initially address these items will be at the expense of the Contractor.

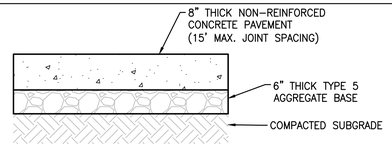
4. Contractor to be responsible for the protection of new and existing structures, vegetation, walkways, or improvements. No trees outside cuts and fills are to be removed without the approval of the Engineer. No fill is to be placed around existing trees. Damages resulting from construction activities are to be repaired by Contractor at no additional cost to Owner. Any damages shall be brought to the immediate attention of the Engineer.

5. All written dimensions, coordinates, bearings, and other written data govern. Prior to starting work all data is to be verified by the contractor.

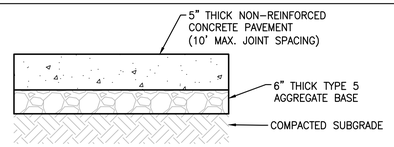
6. Consult Engineer regarding proposed changes, relocation, or modifications prior to the start of work.

7. Locations of all existing topographical features are based upon a survey by Central Missouri Professional Services. Horizontal and vertical control points used for this project are noted hereon. The contractor shall use these bench marks for all work performed.

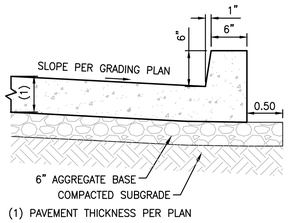
8. All fill under pavement is to have 95% compaction. All cut areas under pavement are to be treated as the final lift of fill and compacted to 95%. Non-compressible fill materials such as crushed rock with minimal fines may be used instead of compacted fill to backfill trench excavations.



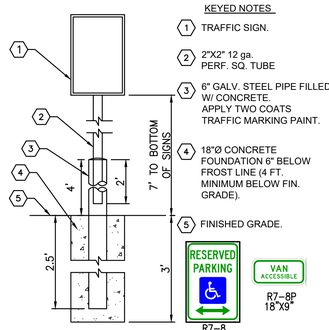
1 C-502 8" NON-REINFORCED CONCRETE PAVEMENT
NOT TO SCALE



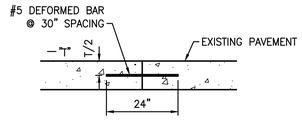
2 C-502 5" NON-REINFORCED CONCRETE PAVEMENT
NOT TO SCALE



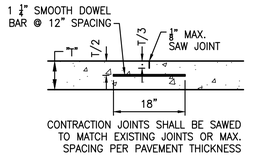
4 C-502 INTEGRAL CONCRETE CURB DETAIL
NOT TO SCALE



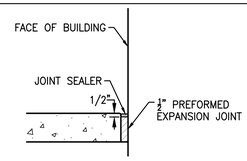
5 C-502 ADA SIGN DETAIL
NOT TO SCALE



Construction Joint

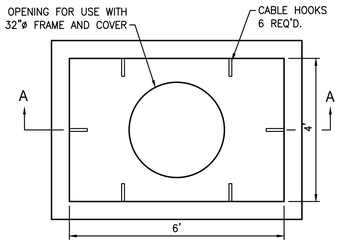


Contraction Joint

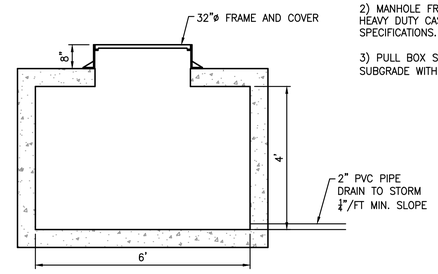


Expansion Joint

3 C-502 CONCRETE PAVEMENT JOINT DETAILS
NOT TO SCALE



Plan View



Section A-A

NOTES:
1) PULL BOX SHALL BE PRE-CAST CONCRETE MEETING THE FOLLOWING REQUIREMENTS:
4,000 PSI CONCRETE @ 28 DAYS
4%-6% AIR ENTRAINMENT
GRADE 60 REINFORCEMENT
DESIGNED FOR H-20 TRAFFIC LOAD

2) MANHOLE FRAME AND COVER SHALL BE HEAVY DUTY CASTING MEETING ASTM A-48 SPECIFICATIONS.

3) PULL BOX SHALL BE SET ON COMPACTED SUBGRADE WITH MIN 4" CRUSHED STONE BASE.

6 C-502 TRAFFIC RATED PULL BOX DETAIL
NOT TO SCALE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — BRIAN K. MCMILLIAN — NUMBER PE-2003015009 — PROFESSIONAL ENGINEER

08-01-2023
Brian K. McMillian
Professional Engineer
No. PE-2003015009

Central Missouri Professional Services, Inc.
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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX

COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE: C502.DWG
DRAWN BY: PLS
CHECKED BY: PLS/BKM
DESIGNED BY:

SHEET TITLE:

SITE PLAN DETAILS

SHEET NUMBER:

C-502

08/01/2023
SHEET 6 OF 29

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BUILDING DESIGN DATA:

GOVERNING BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE (IBC)

1. ROOF DEAD LOAD, D (ESTIMATED EXISTING) =25.0 PSF

2. MINIMUM ROOF LIVE LOADS, Lr
   - A. METAL DECK = 20 PSF
   - B. JOISTS, JOIST GIRDERS, BEAMS, COLUMNS, & FOOTINGS
     - 1- TRIBUTARY LOADED AREA (At): 0 TO 200 SF. = 20 PSF
     - 2- TRIBUTARY LOADED AREA (At): 201 TO 599 SF. = 20*(1.2-0.001*At) PSF
     - 3- TRIBUTARY LOADED AREA (At): 600 SF. AND GREATER = 12 PSF

3. ROOF SNOW LOADS, S
   - A. GROUND SNOW LOAD, Pg = 20 PSF
   - B. SNOW EXPOSURE FACTOR, Ce = 1.0
   - C. SNOW LOAD IMPORTANCE FACTOR, Is = 1.0
   - D. THERMAL FACTOR, Ct = 1.0
   - E. FLAT-ROOF SNOW LOAD*, Pf = 20 PSF *INCLUDES 5.0 PSF RAIN-ON-SNOW SURCHARGE
   - F. ALL APPLICABLE EFFECTS DUE TO UNBALANCED SNOW LOADING AND SNOW DRIFTING

4. WIND LOADS, W
   - A. BASIC WIND SPEED (3 SECOND GUST), V = 115 MPH
   - B. WIND LOAD IMPORTANCE FACTOR, Iw = 1.0
   - C. BUILDING CATEGORY: ENCLOSED, SIMPLE DIAPHRAGM
   - D. OVERALL EXPOSURE CATEGORY: C
   - E. HEIGHT AND EXPOSURE ADJUSTMENT COEFFICIENT = 1.26 (Kzt=1.0)
   - F. MAIN-WIND-FORCE-RESISTING-SYSTEM WIND DESIGN (ULTIMATE) PRESSURES, W:

MWFRS WIND DESIGN PRESSURES		
LOCATION		DESIGN PRESSURE (PSF)
HORIZONTAL	-INTERIOR ZONE -END ZONE **	17.5 26.4
	* THE TOTAL HORIZONTAL LOAD EFFECT ON THE BUILDING SHALL NOT BE LESS THAN THAT BY ASSUMING THAT THE WIND PRESSURES IN ALL ZONES IS EQUAL TO 16.0 PSF	
	** END ZONE PRESSURES SHALL APPLY WITHIN 15 FEET OF EACH BUILDING CORNER	
VERTICAL	MAXIMUM WINDWARD ROOF PRESSURE -INTERIOR ZONE -END ZONE **	 -22.0 -31.7
	MAXIMUM LEEWARD ROOF PRESSURE -INTERIOR ZONE -END ZONE **	 -14.0 -18.0

   - G. COMPONENTS AND CLADDING WIND DESIGN (SERVICE LOAD) PRESSURES: PER TABLE BELOW.

COMPONENTS AND CLADDING WIND DESIGN PRESSURES (PSF)				
	ZONE*	EFFECTIVE WIND AREA (SF)	WINDWARD PRESSURE	LEEWARD PRESSURE
ROOF	1	10	10.0	-18.0
		20	10.0	-17.5
		50	10.0	-16.9
		100	10.0	-16.5
	2	10	10.0	-30.1
		20	10.0	-26.9
		50	10.0	-22.7
		100	10.0	-19.5
	3	10	10.0	-45.4
		20	10.0	-37.6
		50	10.0	-27.2
		100	10.0	-19.5
WALLS	4	10	18.0	-19.5
		20	17.1	-18.6
		50	16.1	-17.6
		100	15.2	-16.8
		500	13.4	-14.9
	5	10	18.0	-24.1
		20	17.1	-22.4
		50	16.1	-20.3
		100	15.2	-18.6
		500	13.4	-14.9

* ZONE 1 INCLUDES THOSE ROOF ELEMENTS LOCATED OUTSIDE OF 8 FEET OF A ROOF EDGE.
ZONE 2 INCLUDES THOSE ROOF ELEMENTS LOCATED WITHIN 8 FEET A ROOF EDGE.
ZONE 3 INCLUDES THOSE ROOF ELEMENTS LOCATED WITHIN 8 FEET OF A ROOF EDGE AND WITHIN 12 FEET OF A BUILDING CORNER.
ZONE 4 INCLUDES THOSE WALL ELEMENTS LOCATED OUTSIDE OF 8 FEET OF A BUILDING CORNER.
ZONE 5 INCLUDES THOSE WALL ELEMENTS LOCATED WITHIN 8 FEET OF A BUILDING CORNER.

6. SEISMIC DESIGN DATA
   - A. SEISMIC USE GROUP = I
   - B. MAPPED SPECTRAL RESPONSE COEFFICIENTS
     - 1- S_S = 0.207
     - 2- S_1 = 0.108
   - C. SITE CLASS = E
   - D. SPECTRAL RESPONSE COEFFICIENTS
     - 1- S_{DS} = 0.322
     - 2- S_{D1} = 0.305
   - E. SEISMIC DESIGN CATEGORY = D
   - F. BASIC SEISMIC-FORCE-RESISTING SYSTEM: BEARING WALL INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
   - G. RESPONSE MODIFICATION COEFFICIENT = 3.5
   - H. DEFLECTION AMPLIFICATION FACTOR = 4.0
   - I. SYSTEM OVERSTRENGTH FACTOR = 2.5
   - J. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   - K. BASE SHEAR: V = 33.2 kips

SUBGRADE PREPARATION NOTE:

1. THE SITE SUBGRADE SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE "SUBSURFACE INVESTIGATION, ANLAYSIS AND GEOTECHNICAL ENGINEERING RECOMMENDATIONS FOR T1921-01 CSMS RENOVATION, JEFFERSON CITY, MISSOURI" DATED JANUARY 31, 2020, PREPARED BY GREDELL ENGINEERING RESOURCES, INC.

CONCRETE:

1. ALL CONCRETE SHALL BE NORMAL-WEIGHT (DENSITY=145 PCF) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:
   - ALL FOUNDATIONS, INTERIOR SLAB ..... 3000 PSI
   - EXTERIOR SLABS, CURBS, SIDEWALKS ..... 4000 PSI
   - ALL OTHER CONCRETE (U.N.O.) ..... 3000 PSI

2. THE SLUMP OF ALL CONCRETE SHALL NOT EXCEED 4 IN. UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE PRIOR TO ADDITION OF A HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 4 IN. THE SLUMP OF CONCRETE CONTAINING A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 8 IN.

3. ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED WITH 5% +/- 1.5% AIR CONTENT.

4. THE COARSE AGGREGATE SIZE SHALL MEET AASHTO #57.

5. THE MINIMUM PORTLAND CEMENT CONTENT (ASTM C150 TYPE I/II) OF ALL CONCRETE SHALL CONFORM TO THE FOLLOWING TABLE (FLY ASH NOT PERMITTED):

SPECIFIED COMPRESSIVE STRENGTH (PSI)	NON AIR-ENTRAINED CONCRETE (LBS.)	AIR-ENTRAINED CONCRETE (LBS.)
3000	470	517
4000	564	611

6. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW A MINIMUM OF ONE WEEK PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE CONCRETE MIX DESIGNS SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD.

7. CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.

8. CONCRETE REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.

9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

10. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL.

11. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".

12. THE MINIMUM CONCRETE CLEAR COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE:
   - UNFORMED SURFACE IN CONTACT WITH THE GROUND ..... 3 IN.
   - FORMED SURFACES EXPOSED TO EARTH OR WEATHER:
     - #5 BARS AND SMALLER ..... 1 1/2 IN.
   - SLABS, WALLS, AND JOISTS:
     - #11 BARS AND SMALLER ..... 3/4 IN.

13. ALL BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC., WHICH ARE BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.

14. ALL LAP SPLICES SHALL BE IN ACCORDANCE WITH THAT SHOWN ON THE DRAWINGS.

REINFORCED MASONRY:

1. THE REINFORCED CONCRETE MASONRY FOR THIS PROJECT HAS BEEN DESIGNED AND DETAILED IN ACCORDANCE WITH THE ALLOWABLE STRESS DESIGN METHOD OF THE BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES.

2. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, f'm, OF 2000 PSI. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90 AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2000 PSI. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI.

3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.

4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD - DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS.

5. ALL REINFORCED CELLS, ALL CELLS BELOW GRADE AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.

6. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING. GROUT THE CELL FOR THE FULL HEIGHT OF THE DOWEL.

7. REINFORCING STEEL SHALL BE CENTERED IN THE MASONRY UNIT CELL, UNLESS NOTED OTHERWISE.

8. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM GROUT COVER OF 1/2 OF AN INCH TO THE INSIDE FACE OF MASONRY UNIT AND A MINIMUM TOTAL MASONRY COVER NOT LESS THAN TWO INCHES.

9. PARALLEL ADJACENT VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEAR DISTANCE NOT LESS THAN 1 1/2 BAR DIAMETERS NOR 1 1/2 INCHES.

10. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 3"x4".

11. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.

12. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.

13. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION.

14. SPLICED REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 72 BAR DIAMETERS.

STRUCTURAL STEEL:

1. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:
   - WIDE FLANGE SHAPES ..... A992 OR A572 GR. 50 (Fy = 50 KSI)
   - CHANNELS, ANGLES, PLATES, ETC. (UNO) ..... A36 (Fy = 36 KSI)
   - STRUCTURAL TUBE ..... A500 (Fy = 46 KSI)
   - STEEL PIPE ..... A53 (Fy = 35 KSI)
   - THREADED RODS ..... F1554, A36 OR A307
   - BOLTS A325
   - WELDING ELECTRODES E70XX

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (AISC 303-16), EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.

3. ALL STRUCTURAL STEEL TO HAVE A SHOP GRADE PRIMER UNLESS NOTED OTHERWISE.

MISCELLANEOUS:

1. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.

2. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.

3. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.

4. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.

5. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

6. ANY DETAIL TITLED AS A TYPICAL DETAIL IS APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.

7. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

EXISTING CONSTRUCTION:

1. WORK SHOWN IS NEW UNLESS INDICATED AS EXISTING.

2. EXISTING CONSTRUCTION SHOWN IS BASED UPON ASSUMED EXISTING CONDITIONS AND CAN BE USED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS, ELEVATIONS, AND MEMBER SIZES PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. THE CONTRACTOR SHALL NOTIFY THE PROFESSIONAL OF RECORD IN WRITING OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.

3. THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING CONSTRUCTION SHALL BE PERFORMED WITH GREAT CARE IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE PROFESSIONAL OF RECORD SHALL BE IMMEDIATELY NOTIFIED AND PRIOR WRITTEN APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OR MODIFICATION OF MEMBERS.

4. THE CONTRACTOR SHALL RESTORE ALL EXISTING INCIDENTAL CONSTRUCTION REQUIRED TO BE REMOVED TO ACCOMMODATE THE ERECTION OF THE NEW JOIST CONSTRUCTION TO ITS ORIGINAL WORKING CONDITION.

5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS & METHOD OF ALL DEMOLITION WORK & FOR PROVIDING ALL NECESSARY TEMPORARY SHORING, BRACING & PROTECTION AS NECESSARY FOR SAFETY, STABILITY & PROTECTION OF ALL BUILDING ELEMENTS & STRUCTURE DURING CONSTRUCTION & DEMOLITION.

SPECIAL INSPECTIONS:

1. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS (ACCEPTABLE TO THE STATE OF MISSOURI) TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.

2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE STATE OF MISSOURI AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   - A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   - B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE STATE OF MISSOURI, THE PROFESSIONAL-OF-RECORD, AND THE OWNER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE STATE OF MISSOURI AND THE PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   - C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.

4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.

5. STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE STATE OF MISSOURI.

6. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLE:

SPECIAL INSPECTIONS SCHEDULE		
SPECIAL INSPECTION	FREQ.	REFERENCED STANDARD(S)
STEEL CONSTRUCTION:		
1. INSPECTION OF BEARING-TYPE CONNECTIONS	PERIODIC	AISC LRFD Sec. M2.5
2. MATERIAL VERIFICATION OF STRUCTURAL STEEL:		AISC LRFD Sec. M2.5
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	ASTM A-6 OR ASTM A-568
B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED	---	
3. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	---	AISC ASD Sec. A3.6; AISC LRFD Sec. A3.5
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	---	
4. INSPECTION OF WELDING:		
SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC	AWS D1.1
5. INSPECTION OF STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS ON THE APPROVED CONSTRUCTION DOCUMENTS:		
A. DETAILS SUCH AS BRACING AND STIFFENING	PERIODIC	IBC 1704.3.2
B. MEMBER LOCATIONS		
C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION		
MASONRY CONSTRUCTION:		
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
A. PROPORTIONS OF SITE PREPARED MORTAR.	PERIODIC	ACI 530.1/ASCE 6/TMS 602:Art. 2.6A
B. CONSTRUCTION OF MORTAR JOINTS.		ACI 530.1/ASCE 6/TMS 602:Art. 3.3B
C. LOCATION OF REINFORCEMENT AND CONNECTORS.		ACI 530.1/ASCE 6/TMS 602: Art. 3.4, 3.6A
2. THE INSPECTION PROGRAM SHALL VERIFY:		
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.		ACI 530.1/ASCE 6/TMS 602:Art.3.3G
B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.		ACI 530/ASCE 5/TMS 402-SEC. 1.2.2(e), 2.1.4, 3.1.6, 1.12, 2.1.10.6.2, 3.2.3.4(b)
C. SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT	PERIODIC	ACI 530.1/ASCE 6/TMS 602: Sec. 1.12;ACI 530.1/ASCE 6/TMS 602:Art. 2.4, 3.4
D. WELDING OF REINFORCING BARS.		ACI 530/ASCE 5/TMS 402: Sec. 2.1.10.2, 3.2.3.4(b)
E. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)		ACI 530.1/ASCE 6/TMS 602: Art. 1.8C, 1.8D
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
A. GROUT SPACE IS CLEAN.	PERIODIC	ACI 530.1/ASCE 6/TMS 602:Art. 3.2D
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS.		ACI 530/ASCE 5/TMS 402:Sec. 1.12; ACI 530.1/ASCE 6/TMS 602:Art. 3.4
C. PROPORTIONS OF SITE PREPARED GROUT.		ACI 530.1/ASCE 6/TMS 602:Art. 2.6B
D. CONSTRUCTION OF MORTAR JOINTS.		ACI 530.1/ASCE 6/TMS 602:Art. 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	CONTINUOUS	ACI 530/ASCE 6/TMS 602-ART. 3.5
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS SHALL BE OBSERVED.	CONTINUOUS	ACI 530/ASCE 6/TMS 602-ART. 1.4. AND IBC SEC. 2105.2.2 AND 2105.3
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	PERIODIC	ACI 530/ASCE 6/TMS 602-ART. 1.5.
ADHESIVE ANCHORS/REINFORCEMENT:		
1. DURING PLACEMENT OF ADHESIVE ANCHORS OR REINFORCEMENT EMBEDDED WITH ADHESIVE (AS SPECIFIED ON THE CONSTRUCTION DOCUMENTS) IN MASONRY AND CONCRETE:		
A. SIZE AND EMBEDMENT OF ANCHORS/REINF.	CONTINUOUS	MANUFACTURERS INSTALLATION INSTRUCTIONS
B. ANCHORS/REINFORCEMENT INSTALLED PER MANUFACTURERS RECOMMENDATIONS.	CONTINUOUS	

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

MARK A. SPALINGER
License Number: E-27576
Expiration Date: 12/31/23
PROFESSIONAL SEAL
8/1/23

CASCO Diversified Corporation
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 08/01/2023

CAD DWG FILE: _____
DRAWN BY: BWT
CHECKED BY: NDM
DESIGNED BY: NDM

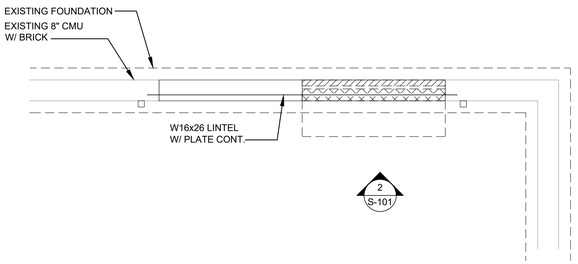
SHEET TITLE:

STRUCTURAL GENERAL NOTES

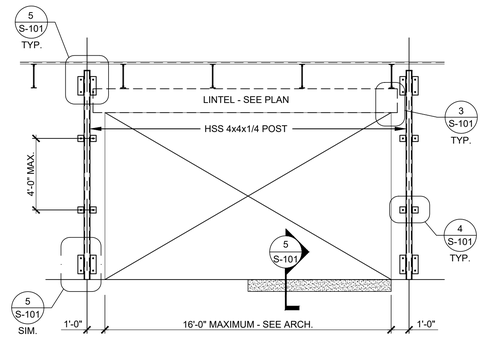
SHEET NUMBER:

S-001

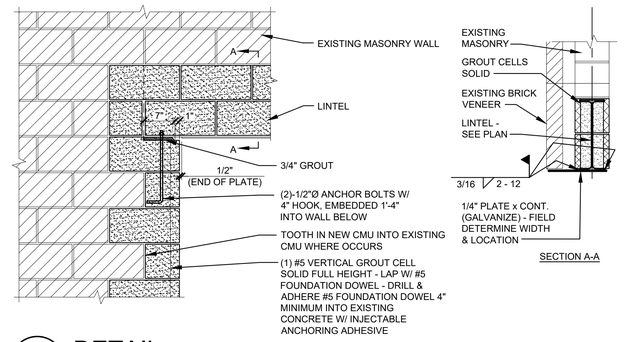
08/01/2023
SHEET 7 OF 27



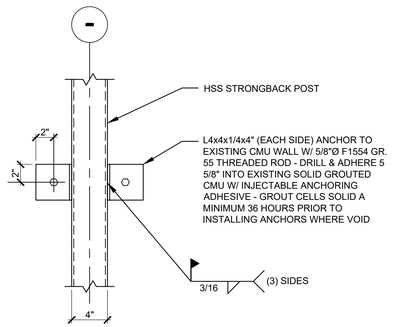
1 S-101 PARITAL EXISTING FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



2 S-101 ELEVATION
SCALE: 1/4" = 1'-0"



3 S-101 DETAIL
SCALE: 3/4" = 1'-0"



4 S-101 DETAIL
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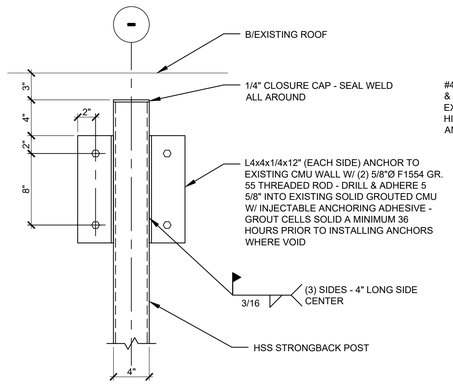

5 S-101 DETAIL
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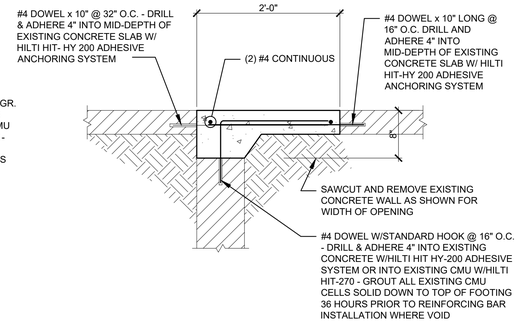

6 S-101 DETAIL
SCALE: 1" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

MARK A. SPALINGER
License Number: E-27576
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DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

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2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
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ISSUE DATE: 08/01/2023

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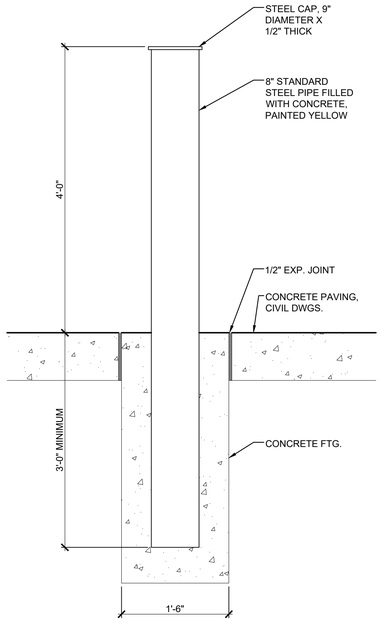
STRUCTURAL PARTIAL PLAN & DETAILS

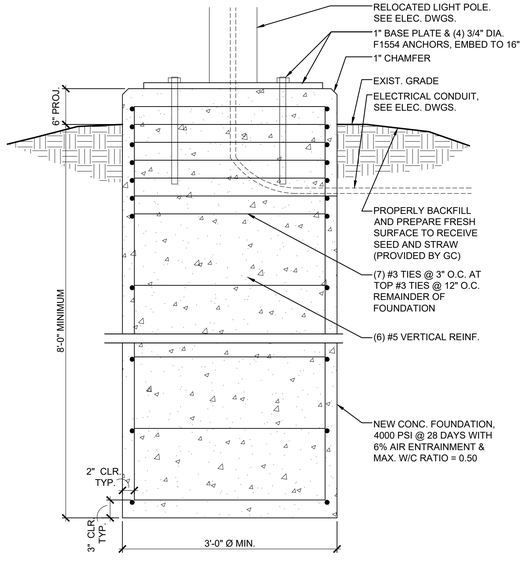
SHEET NUMBER:
S-101

08/01/2023
SHEET 8 OF 27



2 A-001 BOLLARD DETAIL

SCALE: 1" = 1'-0"



3 A-001 LIGHT POLE BASE DETAIL

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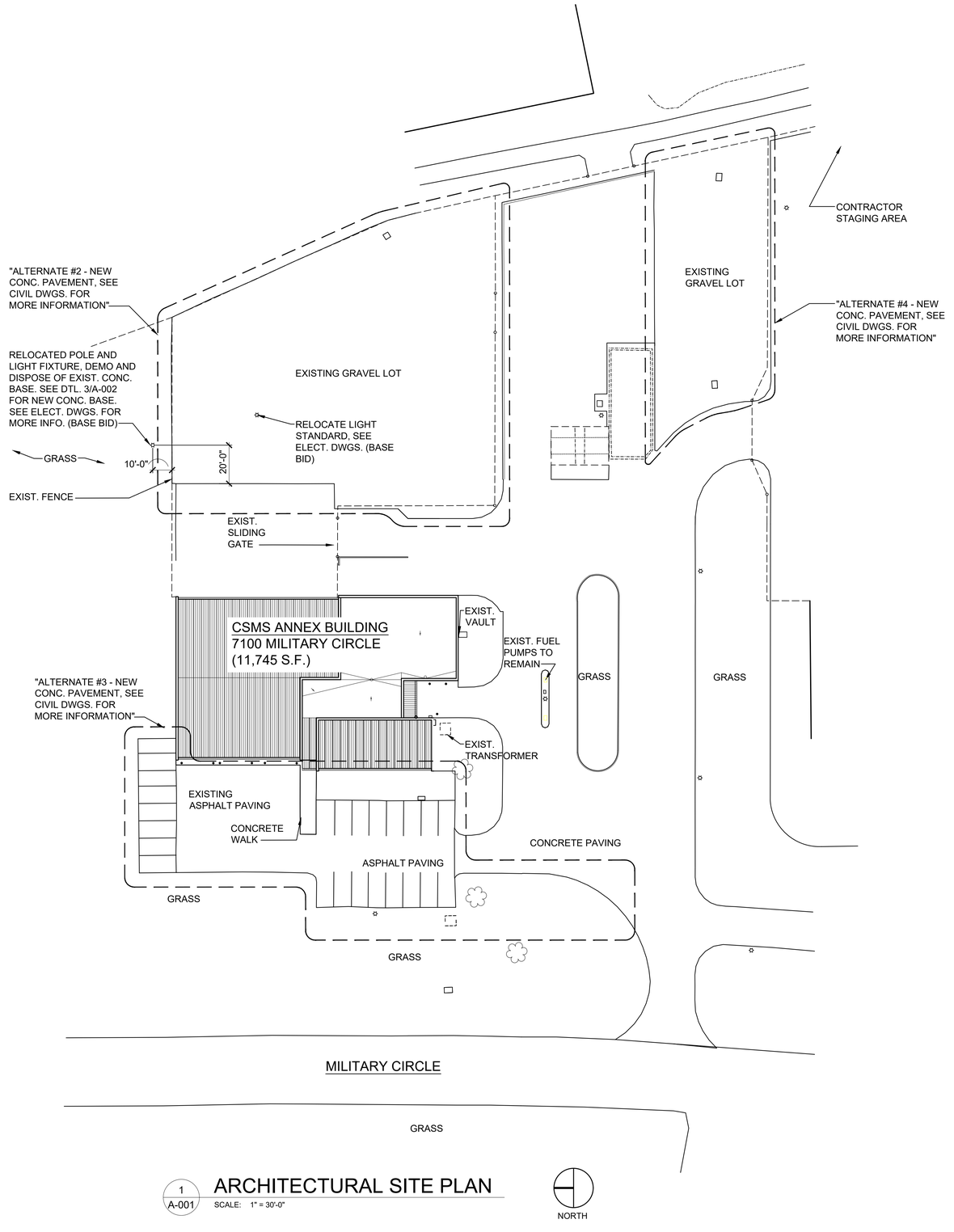

1 A-001 ARCHITECTURAL SITE PLAN

SCALE: 1" = 30'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL S. SUNDERMEYER
NUMBER A-2014026855
ARCHITECT
8/1/2023

MICHAEL S. SUNDERMEYER
License Number:2014026855
Expiration Date: 12/31/24

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OFFICE OF ADMINISTRATION
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2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
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DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY:
CHECKED BY:
DESIGNED BY:

SHEET TITLE:

ARCHITECTURAL SITE PLAN

SHEET NUMBER:

A-001

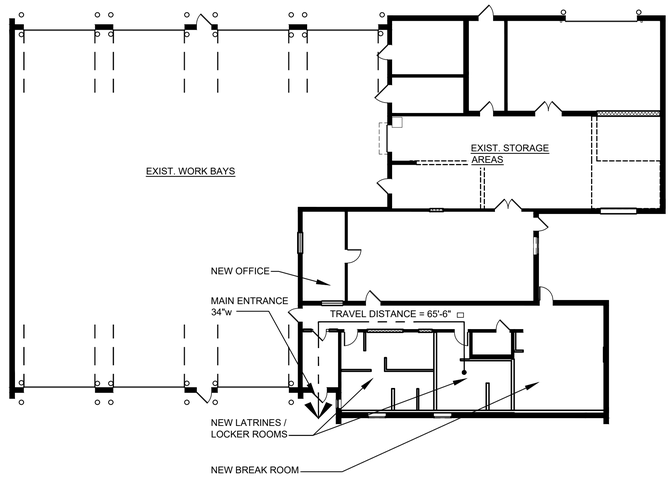
08/01/2023
SHEET 9 OF 29

GENERAL NOTES:

1. SEE ALTERNATES BELOW FOR ITEMS OUTSIDE OF BASE SCOPE OF WORK.
2. ALL NEW BUILDING MATERIALS TO BE OF NON-COMBUSTIBLE OR WOOD FIRE RETARDANT TREATED MATERIAL.
3. THE CONTRACTOR SHALL COMPLY WITH FEDERAL ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION REGULATIONS AND ALL LOCAL AND STATE HEALTH DEPARTMENT REQUIREMENTS AND RECOMMENDATIONS REGARDING MOLD AND MILDEW.
4. IN THE EVENT THE CONTRACTOR DISCOVERS, AT ANY TIME THE PRESENCE OF MOLD AND / OR MILDEW, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE ARCHITECT / ENGINEER OF RECORD, IN WRITING, OF THE CONCERNS AND/OR SUSPICIONS.
5. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITY (WHICH SHALL INCLUDE STORAGE OF MATERIALS AND EQUIPMENT) WITHIN THE LIMITS OF CONSTRUCTION OR WITHIN THE DESIGNATED STAGING AREA AS DETERMINED BY THE PRE-BID MEETING.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY SURFACES DAMAGED BY CONSTRUCTION ACTIVITY THAT IS UNDER THE CONTROL OF THE CONTRACTOR (THIS INCLUDES ALL SUBCONTRACTOR WORK). REPAIRS SHALL MATCH EXISTING MATERIALS AND BE APPROVED BY THE OWNER.
7. THE CONTRACTOR SHALL REMOVE CONSTRUCTION DEBRIS FROM THE JOBSITE ON A REGULAR BASIS, AS IDENTIFIED IN THE SPECIFICATIONS. KEEP DEBRIS CONTAINED TO THE LIMITS OF CONSTRUCTION.
8. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION.
9. THE CONTRACTOR SHALL ENSURE THAT ALL MOISTURE AND DEBRIS HAVE BEEN ELIMINATED PRIOR TO INSTALLING NEW MATERIALS AND PREPARE SURFACE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. REFERENCE SPECIFICATIONS FOR FURTHER DIRECTION.
10. SHOULD THE CONTRACTOR OBSERVE ANY DETERIORATED MATERIALS OR DAMAGED STRUCTURAL CONDITIONS, THE ARCHITECT AND OWNER SHALL BE NOTIFIED.
11. CONTRACTOR SHALL INSPECT ALL INTERNAL /EXTERNAL ROOF DRAINS AND INCLUDE ALL COMPONENTS NECESSARY TO CONSTRUCT A COMPLETE DRAINAGE SYSTEM.
12. ANY EQUIPMENT NOT IDENTIFIED TO BE REMOVED IS TO REMAIN UNLESS NOTED OTHERWISE.
13. THE CONTRACT WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS, LABOR & SERVICES NECESSARY FOR COMPLETION OF THE PROJECT.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY OF WORKMANSHIP & FOR COMPLIANCE WITH THE DESIGN. THE CONTRACTOR SHALL CORRECT ALL ERRORS & DEVIATIONS AS REQUESTED BY THE OWNER.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR QUALITY OF ALL REFURBISHED MATERIALS. ALL REFURBISHED MATERIALS TO APPEAR NEW.
16. THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE AFFECTED WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY. ALL DISCREPANCIES SHALL BE RESOLVED PRIOR TO PROCEEDING WITH AFFECTED WORK.
17. SHOULD ANY OF THE DETAILED INSTRUCTIONS ON THE DRAWINGS CONFLICT WITH THE NOTES OR SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL APPLY.
18. JOB SITE CLEANING: DURING DEMOLITION & CONSTRUCTION, THE JOB SITE SHALL BE CLEANED ON A DAILY BASIS, INCLUDING REMOVAL OF TRASH, RUBBLE, DEBRIS & ORGANIZATION OF MATERIALS & EQUIPMENT. UPON COMPLETION OF THE WORK, THE JOB SITE SHALL BE THOROUGHLY CLEANED, INCLUDING AREAS OF THE BUILDING MADE DIRTY BY CONSTRUCTION WORK. THE G.C. SHALL REMOVE TRASH, RUBBLE, TOOLS, EQUIPMENT & EXCESS MATERIALS FROM THE PREMISES. THE BUILDING IS TO BE LEFT IN A CLEAN CONDITION.
19. THE CONTRACTOR IS TO PROVIDE SUPERVISION OF ALL TRADES / SUBS, AS WELL AS ON-SITE SUPERVISION DURING ALL CONSTRUCTION.
20. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL DUMPSTERS REQUIRED FOR EXECUTION OF THE PROJECT SCOPE INCLUDING DISPOSAL OF ALL NON-REUSED FIXTURES.
21. IF ROOF PENETRATIONS ARE REQUIRED ON EXISTING ROOF, THEN THE CONTRACTOR SHALL EMPLOY A ROOFING CONTRACTOR TO MAINTAIN EXISTING WARRANTIES.

BID ALTERNATES:

1. VEHICLE EXHAUST REELS - PROVIDE 7 INDIVIDUAL, RETRACTABLE, EXHAUST REELS FOR VEHICLE MAINTENANCE IN THE WORK BAYS (ONE PER DRIVE-IN DOOR). EACH UNIT IS SUPPORTED FROM THE EXISTING STRUCTURE WITH 25' OF 6" DIAMETER FLEXIBLE TUBING, AND WILL BE CONNECTED TO THE EXISTING VEHICLE (DIESEL) EXHAUST STACK WITH COUPLING DEVICES. SEE MECHANICAL DRAWINGS FOR MORE INFORMATION.
2. EAST PARKING LOT - REPLACE EXISTING AGGREGATE PARKING AREA WITH CONCRETE PAVEMENT INCLUDING INTEGRAL 6" CONCRETE CURBS ALONG THE NORTH AND EAST EDGES FOR DRAINAGE TO EXISTING STORM WATER INLETS. SEE SHEET C-101 FOR MORE INFORMATION.
3. EMPLOYEE PARKING - REPAVE EXISTING CAR SPACES, ADD 8 NEW CAR PARKING SPACES ON NORTH END OF LOT. REPLACE CONCRETE AND WIDEN DRIVE ISLE AT ENTRANCE. SEE SHEET C-101 FOR MORE INFORMATION.
4. SOUTHEAST PARKING LOT - REPLACE EXISTING AGGREGATE WITH CONCRETE PAVEMENT, AN INTEGRAL 6" CURB ALONG THE EAST EDGE FOR DRAINAGE TO EXISTING STORM WATER INLETS. SEE SHEET C-101 FOR MORE INFORMATION.



1 A002 EGRESS PLAN

SCALE: NO SCALE

MATERIAL KEY

- NEW CONSTRUCTION
- NEW BRICK
- NEW CMU
- DEMO CONSTRUCTION
- EXIST. CONSTRUCTION
- EXISTING DOOR
- STEEL
- CONCRETE
- DEMO DOOR
- NEW DOOR
- 4" U.N.O

SYMBOL LEGEND

- FINISH FLOOR EL: 100'-0" — FLOOR / STRUCT. ELEVATIONS
- X — COLUMN BUBBLE
- # / X# — SECTION CUTS
- X / AX.X / XXX — ENLARGED PLAN / DETAIL BUBBLE
- # / X# — EXTERIOR ELEV. TAG
- # / X# / # — INTERIOR ELEV. TAG
- ROOM NAME / ### — ROOM TAG
- # — DOOR TAG
- # — EQUIP. TAG
- # — KEYED NOTE
- ## — PARTITION TYPE

CODE DATA

THESE PLANS WERE PREPARED AND SHALL COMPLY WITH THE FOLLOWING CODES:

2018 INTERNATIONAL BUILDING CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2017 NATIONAL ELECTRICAL CODE

OCCUPANCY CLASSIFICATION (MIXED OCCUPANCY):

USE GROUP TYPES:

B: BUSINESS (IBC 304)
H-2: HIGH HAZARD, GROUP H-2 (IBC 307.4)
S-2: STORAGE, LOW-HAZARD (IBC 311.3)

BUILDING AREA - PRIMARY COMBINED SUPPORT MAINTENANCE SHOP (CSMS):

AREA RESTRICTIONS: PER IBC 506.2 THIS FACILITY IS ALLOWED UNLIMITED AREA

BUILDING SQUARE FOOTAGE: 11,845 S.F.

HEIGHT RESTRICTIONS: PER IBC 504.3 THIS FACILITY WILL BE KEPT TO ONE STORY
BUILDING CONSTRUCTION TYPE: 2-B (NON-COMBUSTIBLE, UNPROTECTED)

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT: (IBC TABLE 1004.5):

-WORK BAYS	200 GROSS
-OFFICES	150 GROSS
-LOCKER ROOMS	50 GROSS
-ACCESSORY STORAGE AREAS	300 GROSS

MINIMUM OCCUPANT LOAD (TABLE 1004.1.2):

5,860 S.F. AT 200 S.F. / PERSON =	30 PERSONS (WORK BAYS)
1,033 S.F. AT 150 S.F. / PERSON =	7 PERSONS (OFFICE)
607 S.F. AT 50 S.F. / PERSON =	12 PERSONS (LOCKER ROOMS)
3,344 S.F. AT 300 S.F. / PERSON =	11 PERSONS (STORAGE/UTILITY AREA)
	TOTAL = 60 PERSONS

MEANS OF EGRESS (SECTION 1005):
EXIT DOORS - .2" PER PERSON x 60 = 12" < 36"

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AC	ACOUSTICAL
A/C	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
AB	ANCHOR BOLT
ARCH	ARCHITECT(URAL)
BRG	BEARING
BM	BENCH MARK
BLK	BLOCK
BLKG	BLOCKING
BD	BOARD
B.O.	BOTTOM OF
BRK	BRICK
BLDG	BUILDING
CAB	CABINET
CLG	CEILING
CL	CENTER LINE
C/O	CENTER OF
CC	CENTER TO CENTER
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CONT	CONTINUOUS
CNTR	COUNTER
CFL	COUNTER FLASHING
CISK	COUNTERSUNK
CRS	COURSE(S)
CF	CUBIC FOOT
CY	CUBIC YARD
DL	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DTL	DETAIL
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DIMENSION
DR	DOOR
DS	DOWN SPOUT
D	DRAIN
DWG	DRAWING
DF	DRINKING FOUNTAIN
E	EAST
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
ELEC	ELECTRIC(AL)
EWC	ELECTRIC WATER COOLER
ELEV	ELEVATION
EMER	EMERGENCY
EQ	EQUAL
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FOF	FACE OF FINISH
FO	FACE OF
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FRP	FIBERGLASS REINFORCED PLASTIC
FIN	FINISH(ED)
FFE	FINISHED FLOOR ELEV.
FFL	FINISHED FLOOR LINE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FT	FIRE TREATED
FLG	FLASHING
FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
FDN	FOUNDATION
FUR	FURRED(ING)
GA	GAGE, GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACT(OR)
GL	GLASS, GLAZING
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
HTG	HEATING
HVAC	HEATING/VENTILATION /AIR CONDITIONING
HT	HEIGHT
HC	HOLLOW CORE
HM	HOLLOW METAL
HK	HOOK(S)
HOR	HORIZONTAL
HB	HOSE BIBB
INSUL	INSULATE(D), (ION)
INT	INTERIOR
JST	JOIST
JT	JOINT
LH	LEFT HAND
LF	LINEAL FOOT
L	LINTEL
LL	LIVE LOAD
MACH	MACHINE
MH	MANHOLE
MFR	MANUFACTURER
MAS	MASONRY
MO	MASONRY OPENING
MAX	MAXIMUM
MECH	MECHANIC(AL)
MED	MEDIUM
MTL	METAL
M	METER(S)
MWK	MILLWORK
MIN	MINIMUM
MISC	MISCELLANEOUS
MT	MOUNT(ED), (ING)
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER(S)
OPNG	OPENING
OPH	OPPOSITE HAND
OD	OUTSIDE DIAMETER
OO	OUT TO OUT
OA	OVERALL
OH	OVERHEAD
PTD	PAINT(ED)
PKG	PARKING
PLAM	PLASTIC LAMINATE
PL	PLATE
PWD	PLYWOOD
PVC	POLYVINYL CHLORIDE
PSF	POUNDS PER SQUARE FT.
PSI	POUNDS PER SQUARE IN.
PT	PRESSURE TREATED
PL	PROPERTY LINE
REM	REMOVE
RET	RETURN
RH	RIGHT HAND
RD	ROOF DRAIN
RFG	ROOFING
RM	ROOM
RO	ROUGH OPENING
SLNT	SEALANT
SECT	SECTION
SHTHG	SHEATHING
SHT	SHEET
SIM	SIMILAR
SC	SOLID CORE
S	SOUTH
SF	SQUARE FOOT
SI	SQUARE INCH
SY	SQUARE YARD
STD	STANDARD
STO	STORAGE
SUSP	SUSPENDED
SYM	SYMMETRY, (ICAL)
TEL	TELEPHONE
TV	TELEVISION
THK	THICK(NESS)
T&G	TONGUE & GROOVE
TOM	TOP OF MASONRY
TPO	THERMOPLASTIC POLYOLEFIN
TS	TOP OF STEEL
TOS	TOP OF STEEL
TW	TOP OF WALL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VT	VINYL TILE
WSCT	WAINSCOT
WC	WATER CLOSET
WWF	WELDED WIRE FABRIC
W	WEST
W	WIDTH, WIDE
WIN	WINDOW
W/O	WITHOUT
WD	WOOD

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2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI 65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION: DATE:
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REVISION: DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
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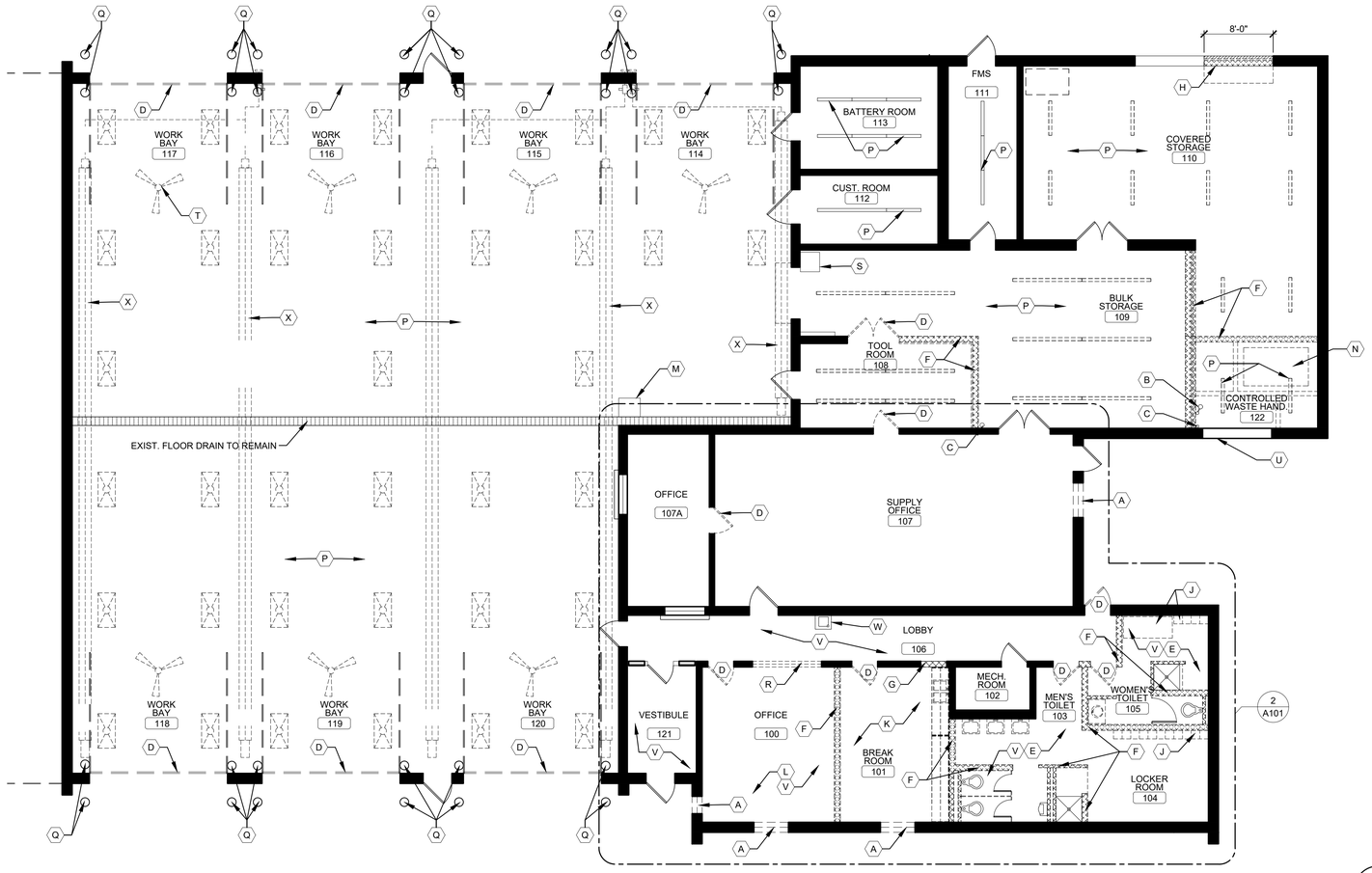
SHEET TITLE:

CODE DATA, EGRESS FLOOR PLAN, NOTES & SYMBOLS

SHEET NUMBER:

A-002

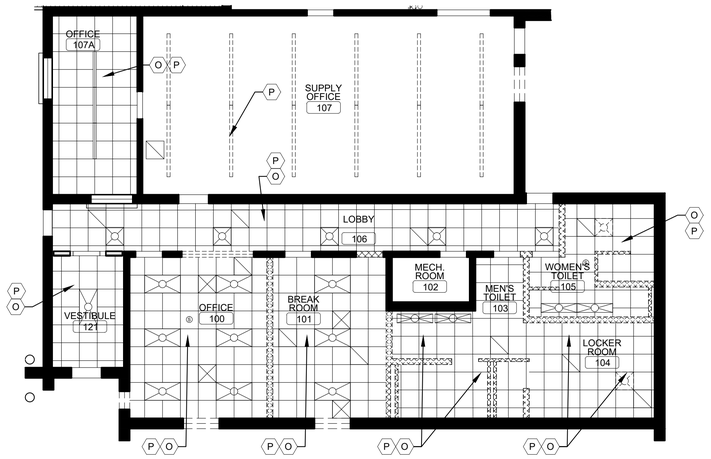
08/01/2023
SHEET 10 OF 29



1 A-101 DEMO FLOOR / DEMO REFLECTED CEILING PLAN

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

NORTH



2 A-101 DEMO CEILING PLAN @ OFFICES, TOILET RMS, & BREAKROOM

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

NORTH

GENERAL DEMOLITION NOTES:

1. REFER TO DEMOLITION SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. REFER TO FLOOR PLAN FOR PROPOSED NEW CONSTRUCTION, SHEET A-102.
3. REFER TO STRUCTURAL, MEP DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE AND REQUIREMENTS.
4. REMOVE ALL EXISTING SITE CONSTRUCTION AND DELETERIOUS MATERIALS UNLESS NOTED OTHERWISE.

DEMO KEYED NOTES:

- (A) REMOVE AND DISPOSE OF EXISTING EXTERIOR WINDOWS, REPLACE WITH NEW OF SAME SIZE.
- (B) EXISTING EYEWASH TO REMAIN. PROTECT DURING DEMO AND CONSTRUCTION
- (C) EXISTING ROOF DRAIN TO REMAIN. PROTECT DURING DEMO AND CONSTRUCTION.
- (D) REMOVE AND DISPOSE OF EXISTING DOOR, FRAME, AND ASSOC. HARDWARE.
- (E) REMOVE EXISTING PLUMBING FIXTURES, COORDINATE UTILITIES BELOW SLAB WITH NEW PLUMBING FIXTURE LOCATIONS, SEE PLUMBING DRAWINGS.
- (F) DEMOLISH EXISTING CMU BLOCK PARTITIONS COMPLETE. (SHOWN DASHED, TYP.)
- (G) REMOVE PORTION OF INTERIOR CMU BLOCK WALL FOR RELOCATION OF INTERIOR DOOR. MATCH EXISTING CONSTRUCTION.
- (H) REMOVE PORTION OF EXISTING EXTERIOR MASONRY WALL, LINTEL, AND CONCRETE SLAB FOR INSTALLATION OF NEW OVERHEAD DOOR. SEE STRUCTURAL FOR MORE INFORMATION.
- (J) REMOVE AND DISPOSE OF EXISTING LOCKERS.
- (K) REMOVE AND DISPOSE OF EXISTING BREAK ROOM CASEWORK, EQUIPMENT, FLOORING, AND FINISHES.
- (L) REMOVE AND SALVAGE EXISTING OFFICE FURNITURE FOR RELOCATION.
- (M) REMOVE AND SALVAGE EXISTING ICE MACHINE FOR RELOCATION. CAP WATER LINE.
- (N) EXISTING CURBS AND SLAB TO BE REMOVED COMPLETELY.
- (O) DEMOLISH CEILING GRID, TILE, LIGHTS (BACK TO SOURCE), AND ALL OTHER RELATED CEILING ITEMS COMPLETE (I.E. DIFFUSERS, SPEAKERS, EMERG. LIGHTS, DUCTWORK, ETC.) SEE MECH. AND ELEC. DWGS. FOR MORE INFO.
- (P) REMOVE EXISTING LIGHT FIXTURES, SEE ELECT. DWGS.
- (Q) EXISTING BOLLARD TO REMAIN.
- (R) REMOVE AND DISPOSE OF EXISTING INTERIOR WINDOW, INFILL TO MATCH WITH ADJACENT CONSTRUCTION.
- (S) EXISTING STACKED WASHER / DRYER TO REMAIN.
- (T) REMOVE EXISTING CEILING FANS, TYP.
- (U) EXISTING OVERHEAD DOOR TO REMAIN, PROTECT DURING DEMO AND PREP TO REFINISH.
- (V) REMOVE AND DISPOSE OF EXISTING FLOORING. DEMO CONCRTE FLOORS FOR NEW PLUMBING. SEE PLUMBING DRAWINGS.
- (W) REMOVE EXISTING DRINKING FOUNTAIN, CAP PLUMBING, PATCH / REPAIR WALL FOR REFINISH. SEE ELECTRICAL FOR MORE INFORMATION
- (X) DEMO EXISTING INFRARED HEATERS, SEE MECHANICAL DRAWINGS FOR MORE INFORMATION.

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PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

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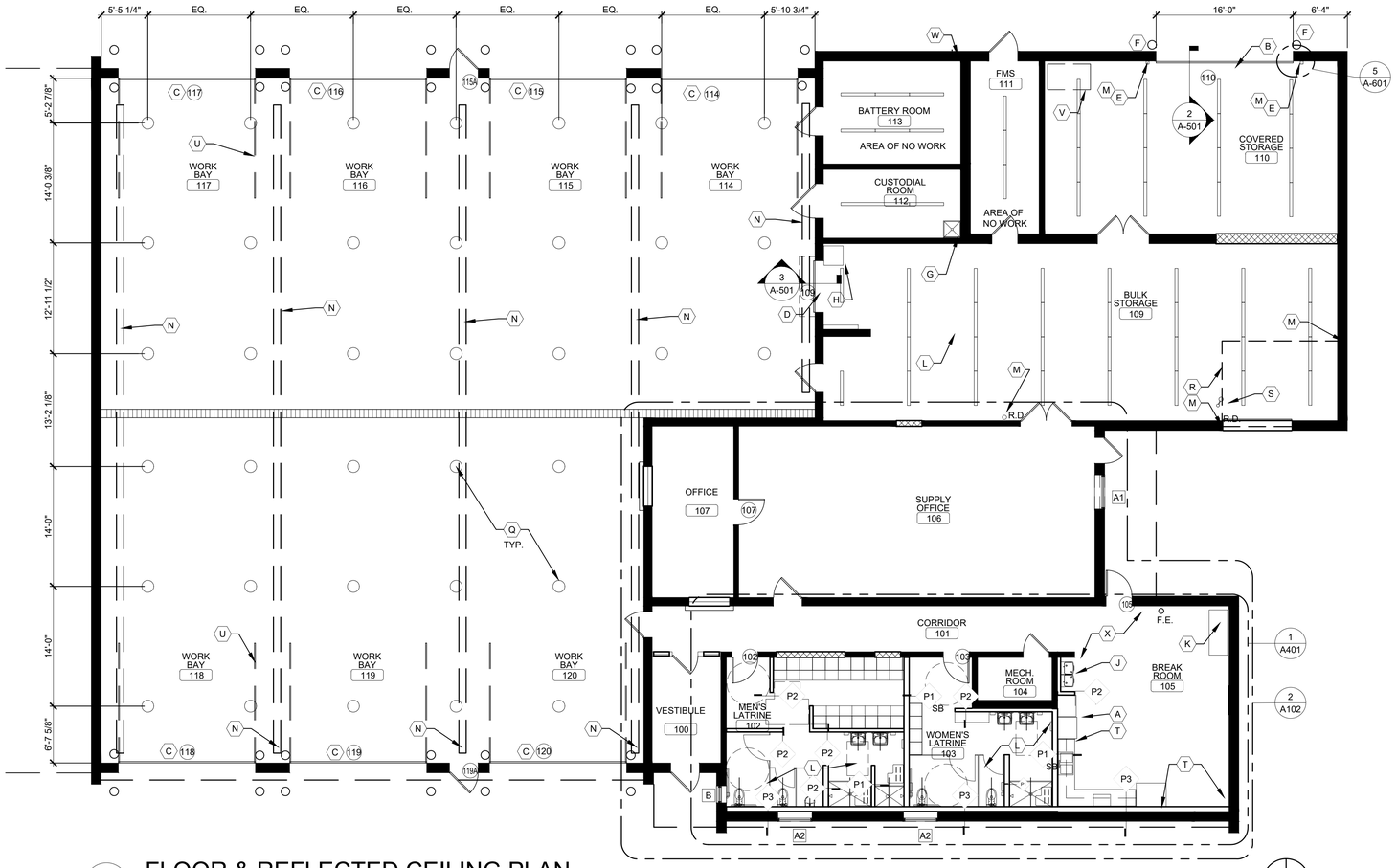
DEMOLITION FLOOR AND REFLECTED CEILING PLANS

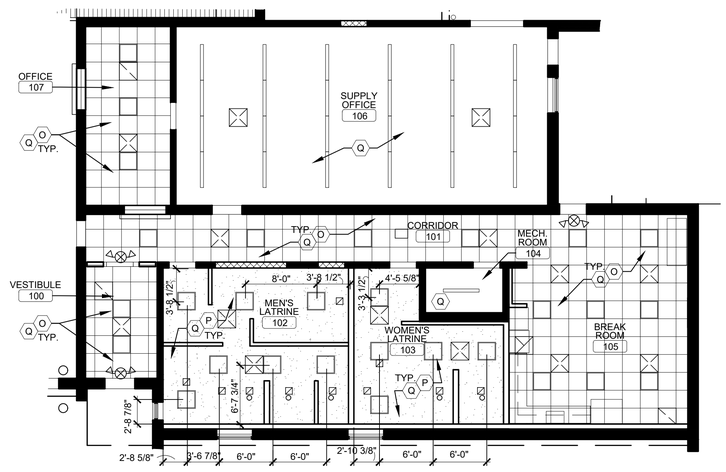
SHEET NUMBER:
A-101
08/01/2023
SHEET 11 OF 29



1 A-102 FLOOR & REFLECTED CEILING PLAN

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

NORTH



2 A-102 REFECTED CEILING PLAN

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

NORTH

FLOOR PLAN GENERAL NOTES:

1. REFER TO GENERAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. ALL NEW BUILDING MATERIALS TO BE OF NON-COMBUSTIBLE OR WOOD FIRE RETARDANT TREATED MATERIAL.
3. REFER TO DEMOLITION PLANS FOR LOCATIONS OF ALL ITEMS TO BE REMOVED UNLESS NOTED OTHERWISE.
4. REFER TO INTERIOR FINISH SCHEDULE FOR NEW WALL FINISHES, FLOOR FINISH AND CEILING HEIGHTS. (A-601)
5. ALL INTERIOR WALL DIMENSIONS ARE FROM FACE OF EXISTING OR NEW CMU AND GYPSUM WALLBOARD UNLESS NOTED OTHERWISE.
6. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE CLEANED. PATCH AND REPAIR TO LIKE NEW CONDITION. COORDINATE WITH PROJECT ADMINISTRATOR FOR REPAINTING IF REQUIRED.
7. PORTABLE FIRE EXTINGUISHERS (F.E.): PROVIDE PORTABLE FIRE EXTINGUISHERS (MIN.10-LB, QUANTITY OF 1) AS REQUIRED PER LOCAL FIRE MARSHAL.
8. SEE PARTITION TYPES ON A-501.

REFLECTED CEILING PLAN GENERAL NOTES:

9. MECHANICAL EQUIPMENT SHOWN ON THE REFLECTED CEILING PLAN ARE FOR ARCHITECTURAL LOCATIONS ONLY. REFER TO MECHANICAL DRAWINGS FOR TYPES, SIZES, DISTRIBUTION, CONNECTIONS, AND ALL OTHER REQUIREMENTS.
10. LIGHTING FIXTURES SHOWN ON THE REFLECTED CEILING PLAN ARE FOR ARCHITECTURAL LOCATIONS, QUANTITIES, AND GENERAL FIXTURE TYPE ONLY. REFER TO ELECTRICAL DRAWINGS FOR EXACT FIXTURE TYPE AND CIRCUITING.
11. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE VARIOUS TRADE ITEMS WITHIN THE SPACE ABOVE ALL CEILINGS (INCLUDING, BUT NOT LIMITED TO: STRUCTURAL MEMBERS, MECHANICAL DUCTS AND INSULATION, CONDUITS, RACEWAYS, SPRINKLER SYSTEM, LIGHT FIXTURES, CEILING SYSTEMS, AND ANY SPECIAL STRUCTURAL SUPPORTS REQUIRED) AND SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISH CEILING HEIGHT ABOVE THE FINISH FLOOR INDICATED ON THE DRAWING.

EQUIPMENT SUPPORT NOTES:

1. DO NOT PUNCH OR USE DECK ABOVE TO SUPPORT ANY ITEMS SUCH AS; MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC. SHALL BE SUPPORTED FROM STRUCTURAL SUPPORT MEMBERS. GENERAL CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL SUB-CONTRACTORS PRIOR TO WORK TO BE PERFORMED.
2. ALL LIGHTS MUST BE PROPERLY INSTALLED AND SUPPORTED TO STRUCTURAL SUPPORT MEMBERS ABOVE CEILING SYSTEM AND ATTACHED DIAGONALLY ON LIGHT FIXTURE OR WHERE SURFACE MOUNT LIGHT FIXTURES OCCURS AT SUSPENDED CEILING SYSTEM, DO NOT SUPPORT FROM FINISH CEILING MATERIAL.

KEYED NOTES:

- (A) REUSE EXISTING ICE MACHINE SALVAGED, SEE PLUMBING DRAWINGS. COORDINATE WITH OWNER EQUIPMENT LOCATIONS.
- (B) NEW 16'-0" x 10'-0" MOTORIZED OVERHEAD DOOR, SEE DOOR SCHEDULE ON SHEET A-601
- (C) NEW 16'-0" x 14'-0" MOTORIZED OVERHEAD DOOR, SEE DOOR SCHEDULE ON SHEET A-601
- (D) NEW 6'-0" x 6'-8" MOTORIZED COILING OVERHEAD DOOR, SEE DOOR SCHEDULE ON SHEET A-601
- (E) NEW STEEL STRONG-BACK SUPPORT AT NEW OVERHEAD DOOR OPENING. SEE STRUCT. DWGS.
- (F) NEW BOLLARD, SEE DETAIL 2/A-001
- (G) NEW MOP SINK AT CUSTODIAL ROOM. SEE PLUMBING DWGS.
- (H) EXISTING WASHER & DYER TO REMAIN.
- (J) NEW HI-LO WATER COOLER. SEE PLUMBING AND ELECT. DWGS.
- (K) EXISTING COPIER RELOCATED.
- (L) REPAIR, PATCH AND FINISH FLOOR AND WALLS TO LIKE NEW CONDITION, WHERE EXISTING FLOOR AND WALL WAS REMOVED. SEE MEP DWGS FOR RELOCATED OR DISCONNECTED CONDUIT AND PIPING. SEE ROOM FINISH SCHEDULE FOR WALL PAINT.
- (M) CLEAN, PATCH, AND REPAIR EXISTING CMU TO LIKE NEW CONDITION WHERE EXISTING BRICK, BLOCK, INSULATION AND MASONRY TIES HAVE BEEN REMOVED. SEE ROOM FINISH SCHEDULE FOR PAINT FINISH ON SHEET A-601.
- (N) NEW GAS FIRED INFRARED HEATERS, SEE MECH. DWGS.
- (O) NEW 2'-0" x 2'-0" ACT.
- (P) NEW WATER RESISTANT GYP BOARD CEILING
- (Q) NEW LED LIGHTING, SEE ELECT. DWGS. ONE FOR ON REPLACEMENT U.N.O.
- (R) AREA OF SLAB INFILL
- (S) EXIST. EYE WASH TO REMAIN
- (T) NEW EQUIPMENT BY OWNER
- (U) OVERHEAD DOOR TRACKS, TYP.
- (V) POWER WASHER, SEE MECH. DWGS.
- (W) PLUMBING FOR RETRACTABLE HOSE, SEE PLUMBING DWGS.

CEILING DEVICE LEGEND

- MOISTURE RESISTANT GYP BD CEILING
- RECESSED LED LIGHT FIXTURES, SEE ELECTRICAL DWGS.
- NEW LED STRIP LIGHT FIXTURE, SEE ELECT. DWGS.
- NEW HIGH BAY LED LIGHTS, SEE ELECT. DWGS.
- EXIT LIGHT, SEE ELECTRICAL DWGS.
- DIFFUSER, SEE MECH. DWGS.
- EXHAUST FAN, SEE MECH. DWGS.
- BUG EYE LIGHT, SEE ELECTRICAL DWGS.
- NEW AIR DIFFUSER
- (S) EXISTING SPEAKER
- INFRARED HEATER, SEE MECH. DWGS.

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65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
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DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

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CHECKED BY:
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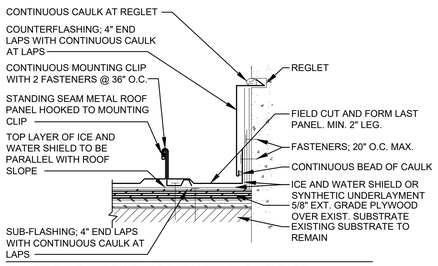
SHEET TITLE:

FLOOR PLAN AND REFLECTED CEILING PLANS

SHEET NUMBER:

A-102

08/01/2023
SHEET 12 OF 29



1. FIELD CUT LAST PANEL AND FORM NEW LEG. PANEL TO BE CONTINUOUS FROM RIDGE TO EAVE

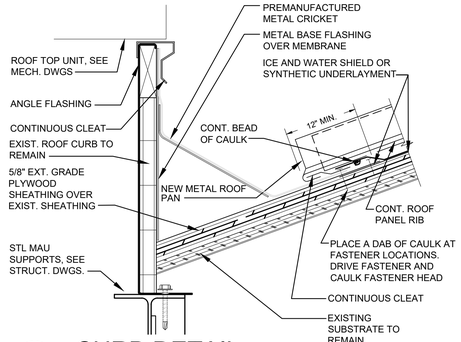
2. SOLID SHEATHING TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

1 A-103 RAKE WALL DETAIL

SCALE: 3" = 1'-0"

2 A-103 NOT USED

SCALE: 3" = 1'-0"

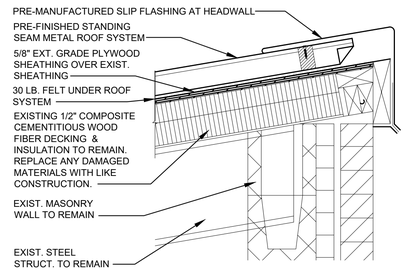


3 A-103 CURB DETAIL

SCALE: 3" = 1'-0"

4 A-103 NOT USED

SCALE: 3" = 1'-0"

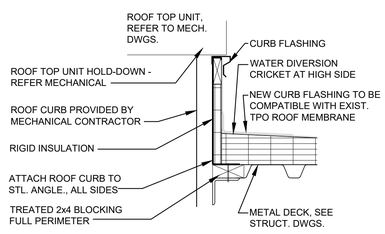


5 A-103 ROOF EDGE DETAIL

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

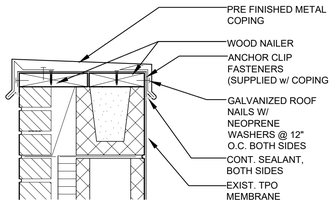
6 A-103 NOT USED

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



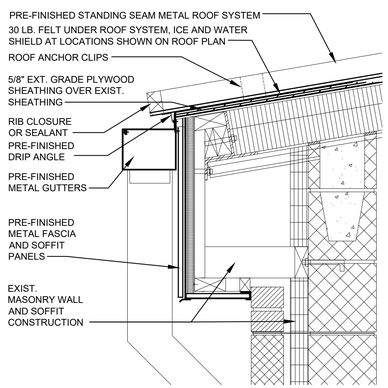
8 A-103 CURB DTL. AT TPO ROOF

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



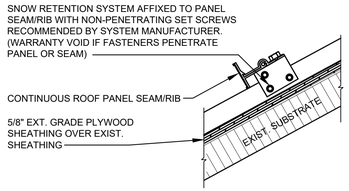
9 A-103 METAL COPING DETAIL

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



10 A-102 GUTTER / FASCIA DTL.

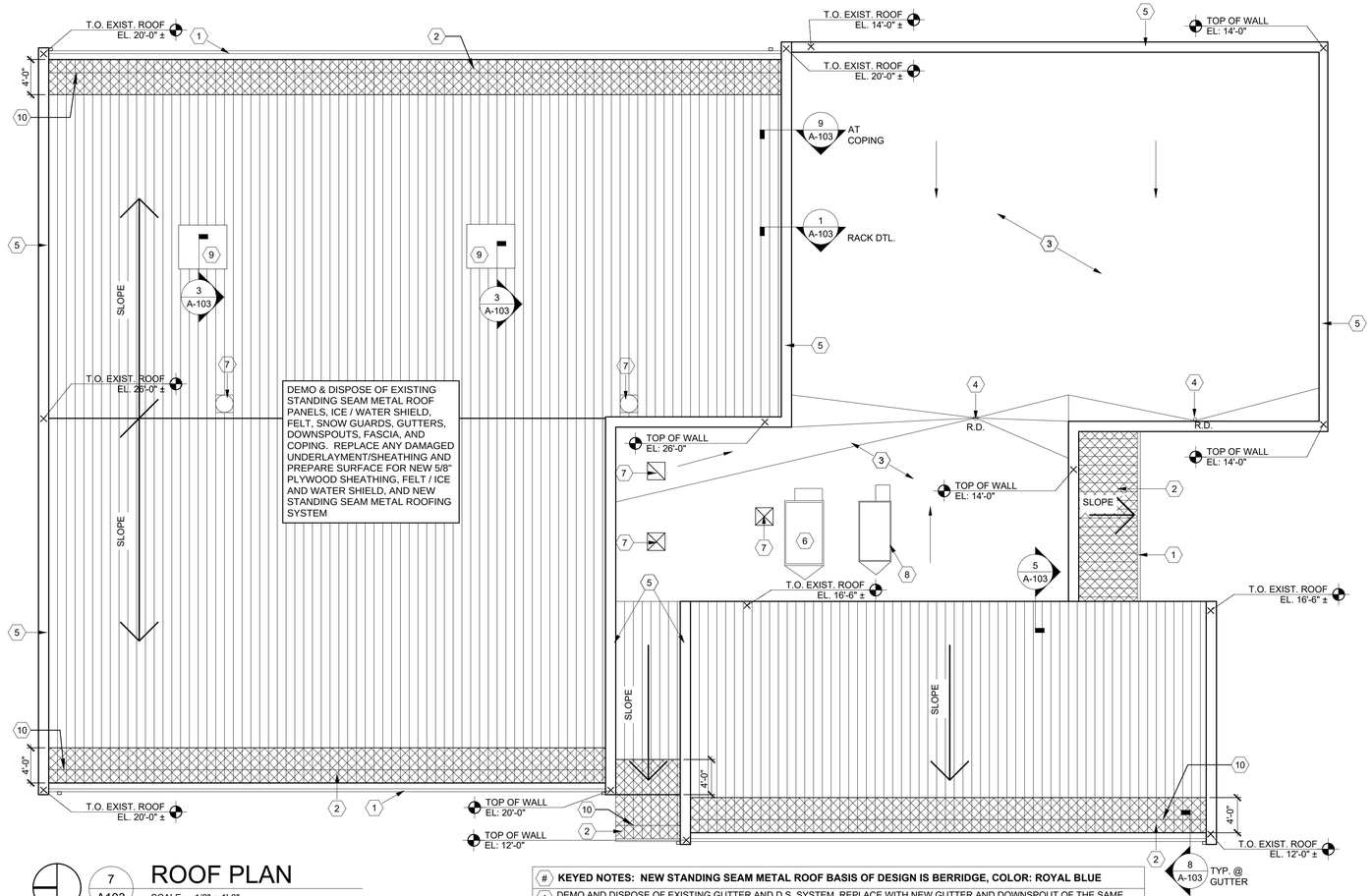
SCALE: 1 1/2" = 1'-0"



NOTES:
1. ONLY SEAM/RIB MOUNTED SNOW RETENTION DEVICES WHICH INCORPORATE SET SCREWS ALLOWED.
2. REFER TO ROOFING MANUFACTURER FOR PANEL SPACING, SEAM/RIB THICKNESS AND HEIGHT.
3. REFER TO ROOFING MANUFACTURER FOR FASTENER COMPATIBILITY WITH METAL.
4. SPECIFIC TYPE, NUMBER AND SPACING OF SNOW RETENTION CLIPS TO BE DETERMINED BY SNOW RETENTION SYSTEM MANUFACTURE OR A QUALIFIED DESIGN PROFESSIONAL.
5. CAUTION: ADHERED SNOWGUARDS ARE NOT ACCEPTABLE.

11 A-103 SNOW GUARD DETAL

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



7 A103 ROOF PLAN

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

NORTH

GENERAL DEMOLITION NOTES:

1. ROOF WORK AT EXISTING TPO AREAS REQUIRES THE USE OF A ROOFER THAT IS APPROVED BY THE MANUFACTURER IN ORDER NOT TO VOID WARRANTIES IN PLACE. REFERENCE SPECIFICATIONS FOR ROOF WARRANTY INFORMATION.

2. PROVIDE TEMPORARY WEATHER PROTECTION AND SECURITY DEVICES DURING INTERVAL BETWEEN DEMOLITION AND REMOVAL OF EXISTING CONSTRUCTION ON EXTERIOR SURFACES AND INSTALLATION ON NEW CONSTRUCTION TO ENSURE THAT NO WATER LEAKAGE OR DAMAGE OCCURS TO STRUCTURE OR TO INTERIOR AREAS OF EXISTING BUILDING.

3. EXISTING ROOF HAS SHEATHING BUT IS NOT OF ADEQUATE DEPTH TO MEET FASTENING REQUIREMENTS OF THE STANDING SEAM MANUFACTURER. CONTRACTOR SHALL INSTALL NEW 5/8" PLYWOOD SHEATHING OVER EXISTING SHEATHING IN ORDER TO PROPERLY SECURE NEW ROOFING. REFERENCE DETAILS THIS SHEET FOR NEW PLYWOOD SHEATHING.

KEYED NOTES: NEW STANDING SEAM METAL ROOF BASIS OF DESIGN IS BERRIDGE, COLOR: ROYAL BLUE

1. DEMO AND DISPOSE OF EXISTING GUTTER AND D.S. SYSTEM. REPLACE WITH NEW GUTTER AND DOWNSPOUT OF THE SAME DIMENSIONS AND LOCATIONS.
2. NEW ICE AND WATER SHIELD, TYP.,EXTEND 2'-0" PAST EXTERIOR WALL AND AT PERIMETER OF ROOF TOP PENETRATIONS.
3. EXISTING TPO ROOF TO REMAIN.
4. EXISTING ROOF DRAIN TO REMAIN.
5. REMOVE & DISPOSE OF EXISTING METAL COPING AND ANY DAMAGED BLOCKING. REPLACE WITH NEW FRT BLOCKING AS REQUIRED, AND NEW METAL COPING. SEE DETAIL 10/A-103.
6. EXIST. RTU TO REMAIN, SEE MECH. DWGS.
7. EXISTING EXHAUST FAN TO REMAIN
8. NEW RTU, SEE MECH. AND STRUCT. DWGS. FOR MORE INFORMATION. SEE DTL. 3/A-103 FOR CURB DETAILS.
9. EXISTING AIR INTAKE TO REMAIN
10. SNOW AND ICE GUARDS, SEE DETAIL 11/A-103 AND SPECIFICATIONS FOR MORE INFORMATION

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ROOF PLAN AND DETAILS

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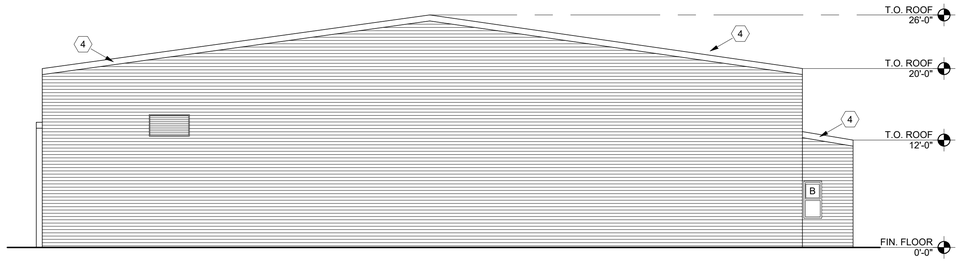
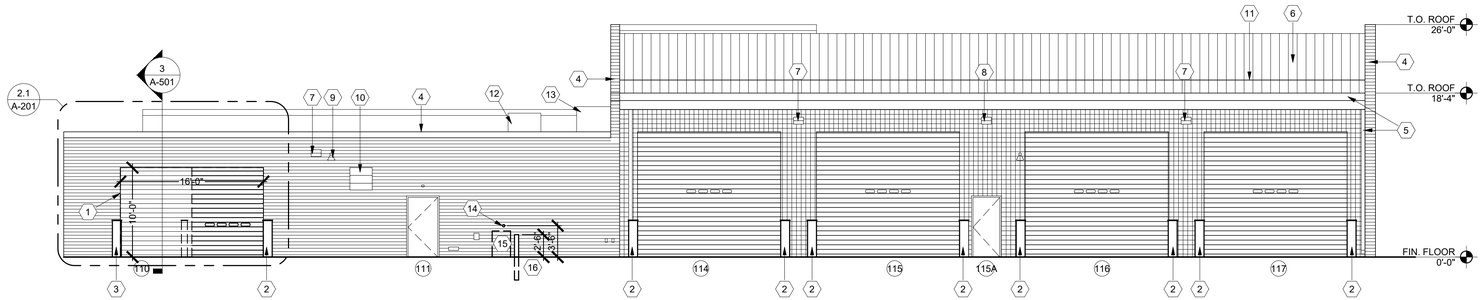
08/01/2023
SHEET 13 OF 29



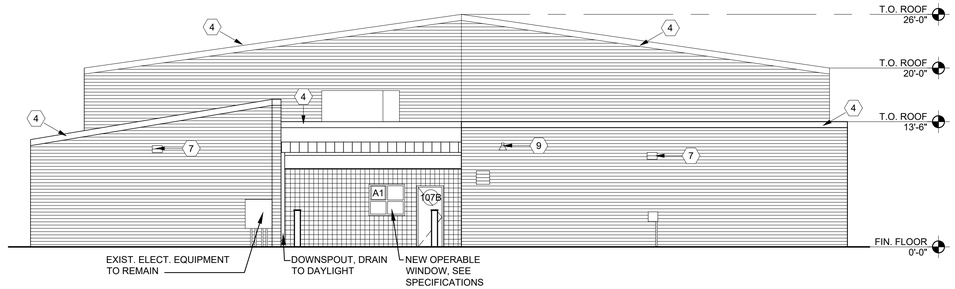
1 A-201 **NORTH ELEVATION**

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



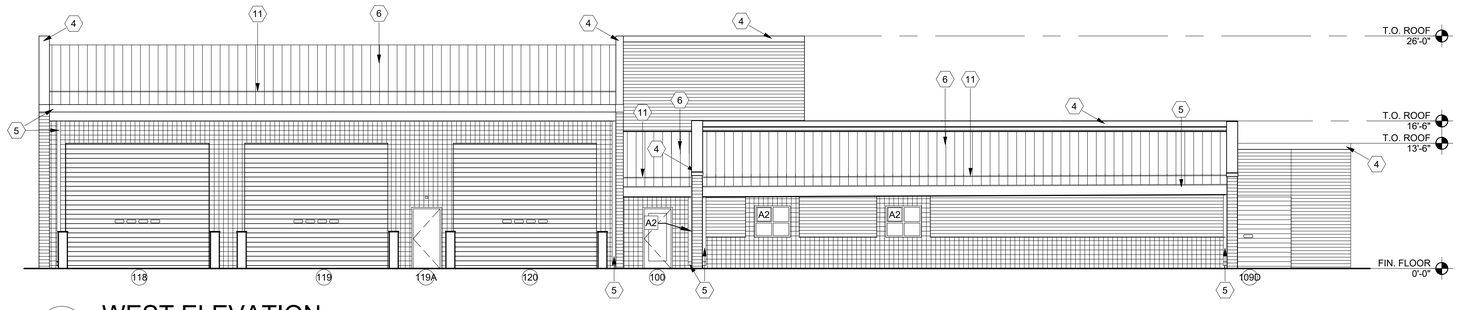
2 A-201 **EAST ELEVATION**

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



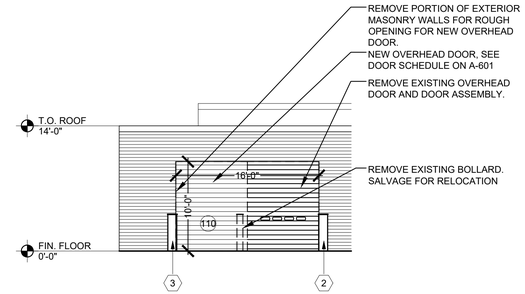
3 A-201 **SOUTH ELEVATION**

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



4 A-201 **WEST ELEVATION**

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



2.1 A-201 **EAST ELEVATION DEMO**

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

GENERAL NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. ALL NEW BUILDING MATERIALS TO BE OF NON-COMBUSTIBLE OR WOOD FIRE RETARDANT TREATED MATERIAL.
3. REFER TO DEMOLITION PLANS FOR LOCATIONS OF ALL ITEMS TO BE REMOVED UNLESS NOTED OTHERWISE.
4. REFER TO INTERIOR FINISH SCHEDULE FOR NEW WALL FINISHES, AND FLOOR FINISH. (A-601)
5. ALL INTERIOR WALL DIMENSIONS ARE FROM FACE OF EXISTING OR NEW CMU UNLESS NOTED OTHERWISE.
6. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE CLEANED, PATCHED AND REPAIRED TO LIKE NEW CONDITION.

LEGEND:

EXISTING BLOCK

EXISTING BRICK

A1 - NEW OPERABLE ALUM. WINDOW, MATCH EXIST.

A2, NEW FIXED ALUM. WINDOW, MATCH EXIST. W/SPANDREL GLASS

B - NEW FIXED ALUM. WINDOW, MATCH EXIST. W/ SPANDREL GLASS

ROOF MATERIALS (BERRIDGE, CEE-LOCK PANEL - B.O.D.):

STANDING SEAM METAL ROOF, PREFABRICATED GUTTERS, DOWNSPOUTS, FASCIA, AND SOFFITS. COLOR TO BE DETERMINED BY ARCHITECT AND OWNER. SEE ROOF PLAN AND DETAILS ON SHEET A-102 AND SPECIFICATIONS FOR MORE INFORMATION.

KEYED NOTES:

1. NOT USE
2. EXISTING BOLLARDS TO REMAIN.
3. RELOCATED CONC. BOLLARDS. SEE DETAIL ON SHT. A-001. REPAINT TO MATCH EXISTING.
4. NEW METAL COPING, SEE DETAILS ON SHEET A-102
5. PRE-FINISHED GUTTER AND DOWNSPOUT, SEE SPECS.
6. NEW STANDING SEAM METAL ROOF, SEE SHEET A-103 (TYP).
7. EXIST LIGHT TO REMAIN.
8. NEW LIGHT WALL PACK, SEE ELECT. DWGS.
9. EXIST. LOUD SPEAKER TO REMAIN.
10. EXIST. VENT TO REMAIN.
11. NEW SNOW AND ICE GUARDS, SEE DETAIL 11/A-102 AND SPECIFICATIONS FOR MORE INFORMATION.
12. NEW MAU, SEE MECHANICAL DRAWING.
13. EXISTING RTU TO REMAIN.
14. NEW PRESSURE WASH CONNECTION
15. PRESSURE WASHER HOSE REEL
16. 4" DIAMETER STEEL PIPE PRESSURE WASHER WAND HOLDER

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MICHAEL L. PARSON, GOVERNOR

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MICHAEL S. SUNDERMEYER
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MICHAEL S. SUNDERMEYER
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MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX

COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY:
CHECKED BY:
DESIGNED BY:

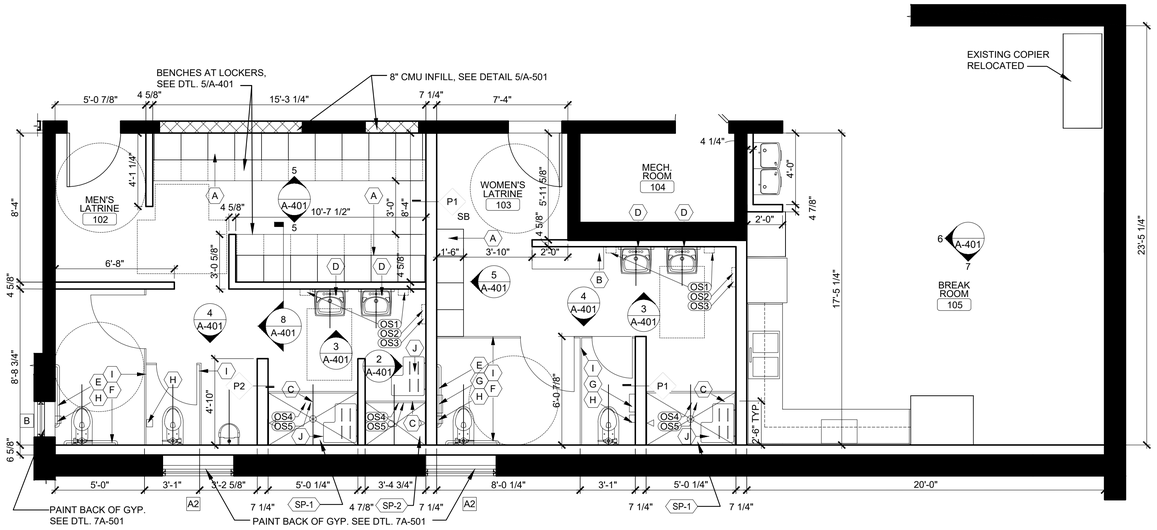
SHEET TITLE:

EXTERIOR ELEVATIONS

SHEET NUMBER:

A-201

08/01/2023
SHEET 14 OF 29

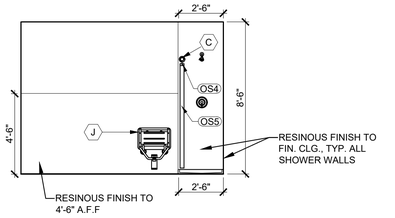


1 A-401 — ENLARGED LATRINES AND BREAK ROOM PLAN

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

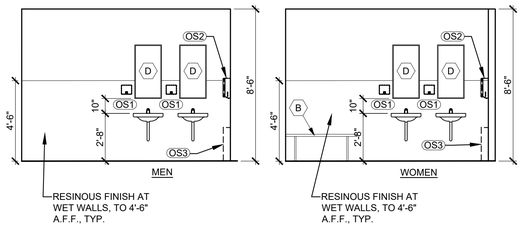
TOILET ACCESSORIES LEGEND			
	MFGR. - USED FOR BASIS OF DESIGN	ITEM DISCRIPTION	QUANTITY
A	SCHOOLLOCKERS.COM	18"x18"x72" METAL LOCKERS	21
B	LOCKERS.COM	15"x48" WOOD BENCH	1
C	BOBRICK	HEAVY DUTY SHOWER CURTAIN ROD	3
D	BOBRICK	18"x36" MIRROR WITH FRAME - B290 1836	4
E	BOBRICK	42" GRAB BAR 6806x42	2
F	BOBRICK	36" GRAB BAR 6806x36	2
G	BOBRICK	NAPKIN DISPOSAL	2
H	BOBRICK	TOILET PAPER DISPENSER	4
I	HINY HIDERS	TOILET PARTITIONS, COLOR: BEIGE	4
J	AP	FOLDING SHOWER BENCH	3
SP-1	MERIDIAN, #MSB61536SACC	SHOWER PAN	2
SP-2	MERIDIAN, #MSB4230S	SHOWER PAN	1
		OWNER SUPPLIED*	
OS1		SOAP	4
OS2		PAPER TOWELS	2
OS3		TRASH RECEPTICAL	2
OS4		S.S. SHOWER CURTAIN HOOK	3
OS5		VINYL SHOWER CURTAIN	3

1. OWNER SUPPLIED ITEMS SHOWN FOR COORDINATION ONLY.
2. MANUFACTURERS SHOWN ARE FOR BASIS OF DESIGN ONLY. SEE THE SPECIFICATIONS FOR ACCEPTABLE EQUIVALENT MANUFACTURERS, UNLESS NOTED OTHERWISE
3. PROVIDE FIRE-TREATED WOOD BLOCKING FOR ALL GRAB BARS.
4. SHOWER PAN APPROVED EQUIVALENTS: BESTCARE (WHITEHALL MANUFACTURING), FREEDOM SHOWERS, OR AS APPROVED BY ARCHITECT.



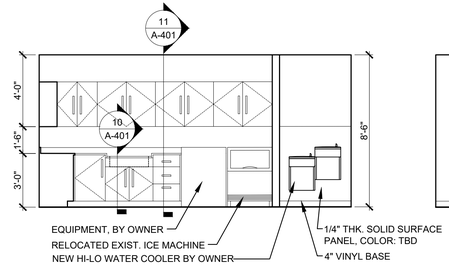
2 A-401 — TYP. SHOWER STALL ELEV.

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



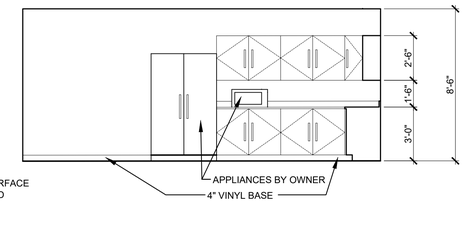
3 A-401 — LAVATORY ELEVATIONS

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



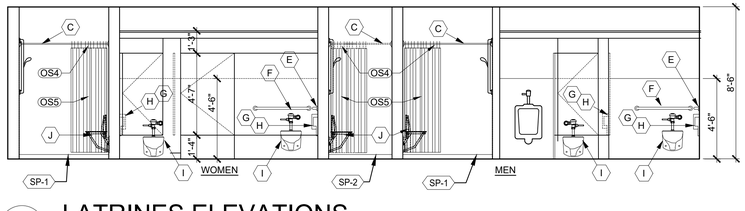
6 A-401 — BREAKROOM ELEVATION

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



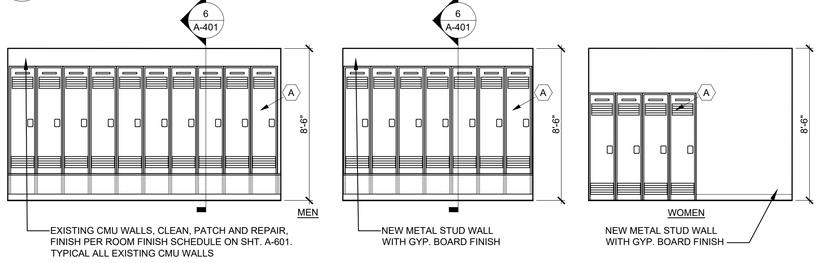
7 A-401 — BREAKROOM ELEVATION

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



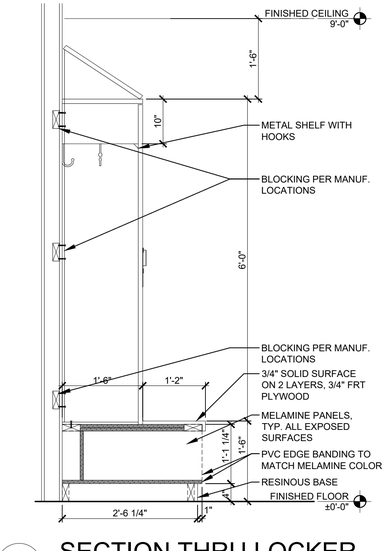
4 A-401 — LATRINES ELEVATIONS

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



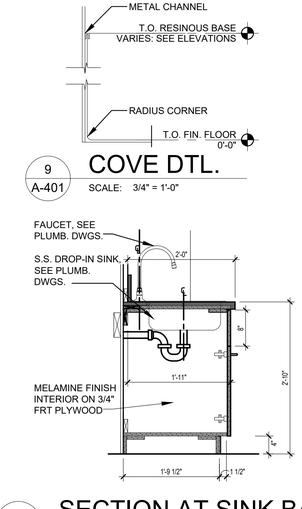
5 A-401 — LOCKER ELEVATIONS

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



8 A-401 — SECTION THRU LOCKER

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

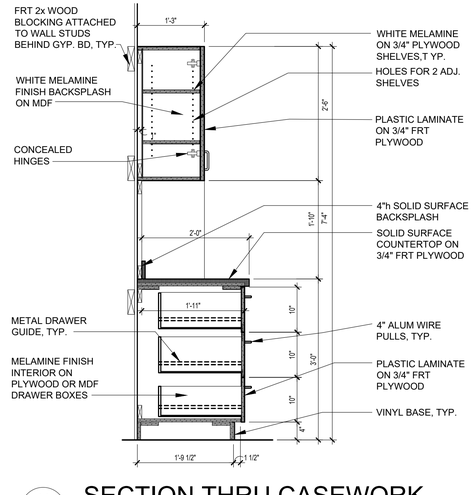


9 A-401 — COVE DTL.

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

10 A-401 — SECTION AT SINK BASE

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



11 A-401 — SECTION THRU CASEWORK

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

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — MICHAEL S. SUNDERMEYER — NUMBER A-2014026855 — ARCHITECT

8/1/2023

MICHAEL S. SUNDERMEYER
License Number:2014026855
Expiration Date: 12/31/24

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JEFFERSON CITY, MISSOURI 65101

PROJECT # T2122-01
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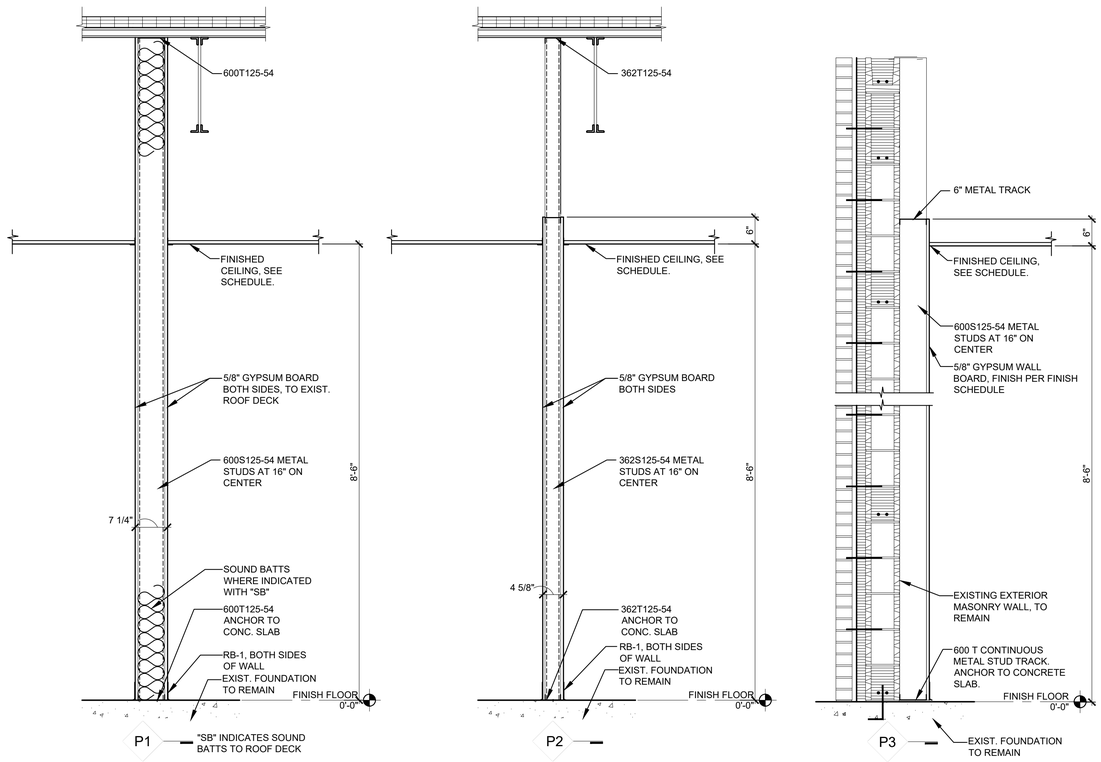
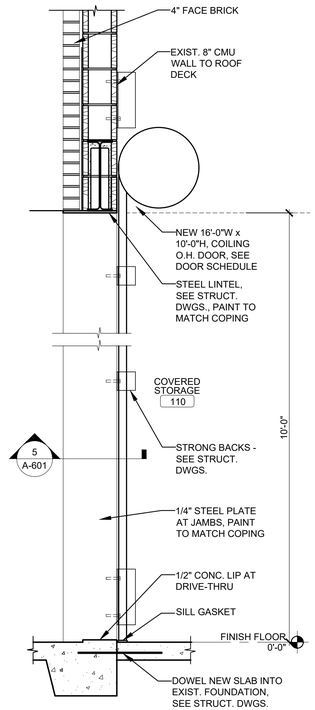
ENLARGED PLANS AND INTERIOR ELEVATIONS

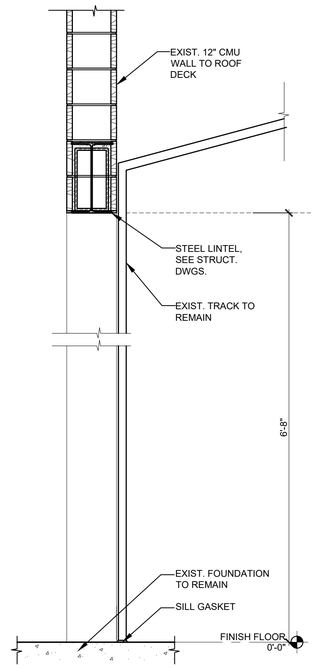
SHEET NUMBER:
A-401
08/01/2023
SHEET 15 OF 29



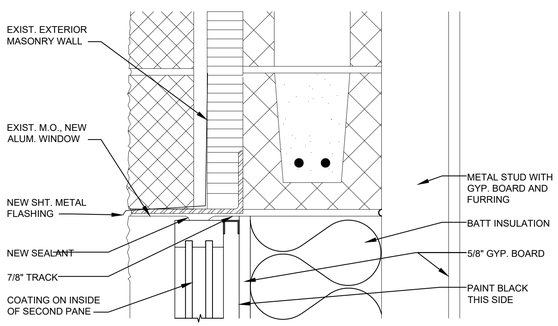
1 A501 **PARTITION TYPES**
SCALE: 3/4" = 1'-0"



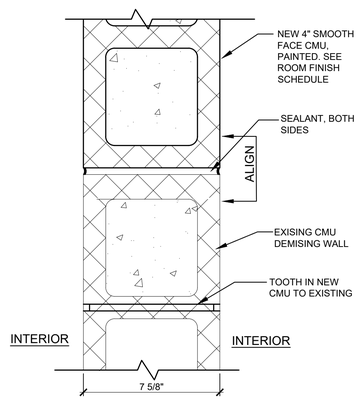
2 A-501 **SECTION THROUGH NEW DRIVE IN DOOR**
SCALE: 3/4" = 1'-0"



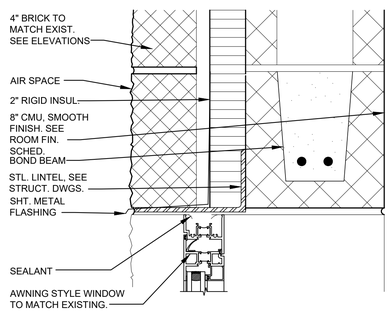
3 A-501 **SECTION THROUGH OVERHEAD DOOR EXIST. OPNG.**
SCALE: 3/4" = 1'-0"



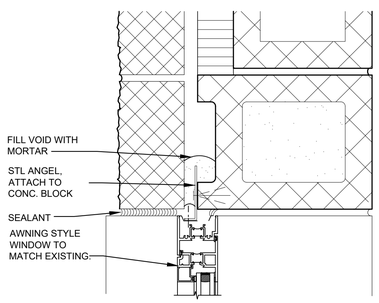
7 A-501 **WINDOW A2 HEAD DETAIL**
SCALE: 3" = 1'-0"



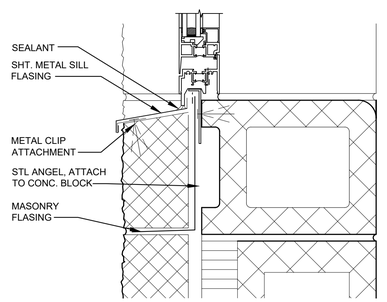
5 A-501 **INFILL AT EXIST. CMU OPN'G**
SCALE: 3" = 1'-0"



6 A-501 **WINDOW HEAD DETAIL**
SCALE: 3" = 1'-0"



7 A-501 **WINDOW JAMB DETAIL**
SCALE: 3" = 1'-0"



8 A-501 **WINDOW SILL DETAIL**
SCALE: 3" = 1'-0"

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DESIGNED BY:

SHEET TITLE:
PARTITION TYPES AND DETAILS

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A-501
08/01/2023
SHEET 15 OF 29

ROOM FINISH SCHEDULE

SYM.	ROOM	WALLS				FLOOR		CEILING		COMMENTS
		NORTH	WEST	SOUTH	EAST	FLOOR BASE	FLOOR	MATERIAL	FINISH	
100	VESTIBULE	PT-1	PT-1	PT-1	PT-1	RB-1	VCT	EXIST	EXIST	RF-1 SEE INTERIOR ELEVATIONS FOR EXTENT OF FINISH
101	CORRIDOR	PT-1	PT-1	PT-1	PT-1	RB-1	VCT	ACT	-	
102	MEN'S LATRINE	PT-2	PT-2	PT-2	PT-2	RF-1	RF-1	GBC	PT-3	RF-1 SEE INTERIOR ELEVATIONS FOR EXTENT OF FINISH
103	WOMEN'S LATRINE	PT-2	PT-2	PT-2	PT-2	RF-1	RF-1	GBC	PT-3	RF-1 SEE INTERIOR ELEVATIONS FOR EXTENT OF FINISH
104	MECH. ROOM									NO WORK
105	BREAKROOM	PT-1	PT-1	PT-1	PT-1	RB-1	VCT	ACT	N/A	
106	SUPPLY OFFICE	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	EXP	PT-4	
107	OFFICE	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT	N/A	
108	NOT USED									
109	BULK STORAGE	PT-1	PT-1	PT-1	PT-1	N/A	CONC1	EXP	N/A	
110	COVERED STORAGE	PT-1	PT-1	PT-1	PT-1	N/A	CONC1	EXP	N/A	
111	FMS	N/A	N/A	N/A	N/A					NO FINISH WORK
112	CUSTODIAL ROOM	N/A	N/A	N/A	N/A					NO FINISH WORK
113	BATTERY ROOM	N/A	N/A	N/A	N/A					NO FINISH WORK
114-120	WORK BAY	N/A	N/A	N/A	N/A					NO FINISH WORK

NOTES: PAINT ALL EXISTING AND NEW, HOLLOW METAL DOORS AND FRAMES, AND EXISTING OVERHEAD DOOR TO BULK STORAGE PT-5.

FINISH LEGEND:

ALL PRODUCTS LISTED ARE USED AS BASIS OF DESIGN, SEE SPECIFICATIONS FOR EQUIVALENT MATERIALS

FLOORING / COVE BASE MATERIALS:

- CONC1 — GEMITE GEM-COTE EP 100 (CLEAR) CONCRETE EPOXY COATING.
- RF-1 — RESINOUS FINISH COATING "STONE SHIELD SLT, "DRIFTWOOD" - LOCKER / LATRINE FLOORS & WALLS TO 4'-6" A.F.F. (AT WET WALLS AND TO CEILING IN SHOWER STALLS, SEE INTERIOR ELEVATIONS),
- RB-1 — 4" RUBBER WALL BASE - JOHNSONITE, COLOR: TA6, BEDROCK CG.
- SS-1 — SOLID SURFACE FOR COUNTERTOPS AND BENCH SEATING SURFACE. FORMICA, COLOR: 408 LUNA BRITE WHITE.
- VCT — VINYL COMPOSITE TILE - TARKETT, COLOR: 1314 WHITE / GREY

WALL MATERIALS / FINISHES:

- PT-1 — WATER BORNE EPOXY PAINT - SEMI-GLOSS, MATCH EXISTING COLOR
- PT-2 — SHERWIN-WILLIAMS, SW PRO INDUSTRIAL PRE-CATALYZED, WATER BASED EPOXY, MATCH SW 7008 ALABASTER, SEMI-GLOSS SHEEN
- PT-3 — SHERWIN-WILLIAMS, SW PRO INDUSTRIAL PRE-CATALYZED, WATER BASED EPOXY, MATCH SW 7007 CEILING BRIGHT WHITE, SEMI-GLOSS SHEEN
- PT-4 — SHERWIN-WILLIAMS, PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL, WHITE
- PT-5 — SHERWIN-WILLIAMS - FOR HOLLOW METAL DOORS & FRAMES, COLOR: MATCH RUBBER BASE COLOR

CEILINGS:

- GBC — 5/8" MOISTURE RESISTANT GYPSUM BOARD
- EXP — EXPOSED STRUCTURE
- ACT — ARMSTRONG, 2'x2' ACOUSTIC CEILING TILES, CORTEGA

MISC:

- PL-1 — PLASTIC LAMINATE PANELS - EXTERIOR FACE OF CABINETS, OCTOLAM, COLOR: 1057 ASH GREY (WHITE MELAMINE PANELS - INTERIOR FACE OF CABINETS & DRAWINGS, AND EXPOSED SURFACES OF LOCKER ROOM BENCHES)

DOOR SCHEDULE

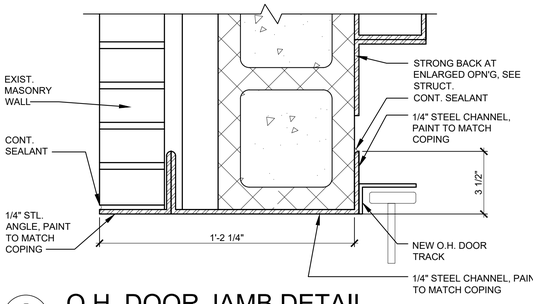
SYM.	ROOM	SIZE		DOOR		FRAME		HEAD DETAIL	JAMB DETAIL	HWR. GROUP	COMMENTS
		WIDTH	HEIGHT	MATERIAL	TYPE	MATERIAL	TYPE				
102	CORRIDOR TO MEN'S LATRINE	3'-0"	7'-0"	H.M.	A	H.M.	1	3/A601	4/A601	2	
103	CORR. TO WOMEN'S LATRINE	3'-0"	7'-0"	H.M.	A	H.M.	1	3/A601	4/A601	2	
105	BREAK ROOM TO EXTERIOR	3'-0"	7'-0"	H.M.	B	H.M.	1	-	-	1	
107	SUPPLY OFFICE TO OFFICE	3'-0"	7'-0"	H.M.	B	H.M.	1	3/A601	4/A601	3	
109	BULK STORAGE TO WORK BAY 14	6'-0"	7'-4"	METAL	C	-	-	-	-	-	MOUNT TRACKS AND DOOR HOUSING ON WORK BAY SIDE
110	COVERED STORAGE	16'-0"	10'-0"	METAL	C	-	2	2/A-501	5/A-601	-	HARDWARE PER MANUFACTURER STANDARD
114-120	WORK BAY	16'-0"	14'-0"	METAL	D	-	2	-	-	-	HARDWARE PER MANUFACTURER STANDARD REUSE EXISTING TRACKS

HARDWARE GROUPS:

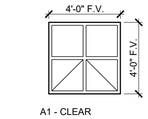
GROUP #1
1 1/2 PAIR - HAGER (BOD) NRP HINGES, 4-1/2" X 4-1/2" 626 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
1 LOCKSET - FALCON 626 (BEST REMOVABLE 7 PIN CORE, BY OWNER)
3 DOOR SILENCERS - BALDWIN (BOD) #4036 (IVES, ROCKWOOD)
2 KICKPLATES - 10" HIGH X FULL WIDTH OF DOOR MOUNTED ON BOTH SIDES, 1" ABOVE BOTTOM OF DOOR
1 CLOSER - LCN (BOD) 4011T WITH METAL COVER (NORTON, DORMAKABA)
1 EXTERIOR LEVER - SCHLAGE LEVER (BOD) (626) (FALCON, VON DUPRIN)
1 EXIT DEVICE - VON DUPRIN (BOD) 98 / 99 SERIES (FALCON, HAGER)
THRESHOLD

GROUP #2
1 1/2 PAIR - HAGER (BOD) HINGES, 4-1/2" X 4-1/2" 626 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
1 PUSH PLATE - IVES (BOD) US32D, 8200 X 8 X 16
1 PULL PLATE - IVES (BOD) US32D, 8302 -8 X 6 X 16
3 DOOR SILENCERS - BALDWIN (BOD) #4036 (IVES, ROCKWOOD)
1 WALL BUMPER - IVES (BOD) US32D, WS406 / 407-CCV
2 KICKPLATES - 10" HIGH X FULL WIDTH OF DOOR MOUNTED ON BOTH SIDES, 1" ABOVE BOTTOM OF DOOR
1 CLOSER - LCN (BOD) 4021T WITH METAL COVER (NORTON, DORMAKABA)

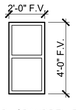
GROUP #3
1 1/2 PAIR - HAGER (BOD) HINGES, 4-1/2" X 4-1/2" 626 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
1 CLASSROOM LOCKSET - FALCON 626 (BEST REMOVABLE 7 PIN CORE, BY OWNER)
3 DOOR SILENCERS - BALDWIN (BOD) #4036 (IVES, ROCKWOOD)
1 WALL BUMPER - IVES (BOD) US32D, WS406 / 407-CCV
2 KICKPLATES - 10" HIGH X FULL WIDTH OF DOOR MOUNTED ON BOTH SIDES, 1" ABOVE BOTTOM OF DOOR
1 CLOSER - LCN (BOD) 4021T WITH METAL COVER (NORTON, DORMAKABA)



5 A-601 O.H. DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



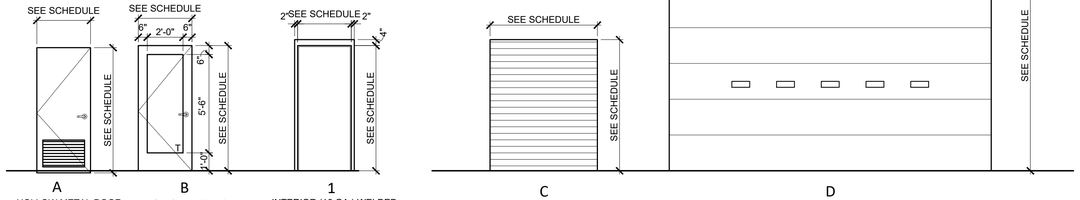
A1 - CLEAR
A2 - SPANDREL, FIXED



B - SPANDREL, FIXED

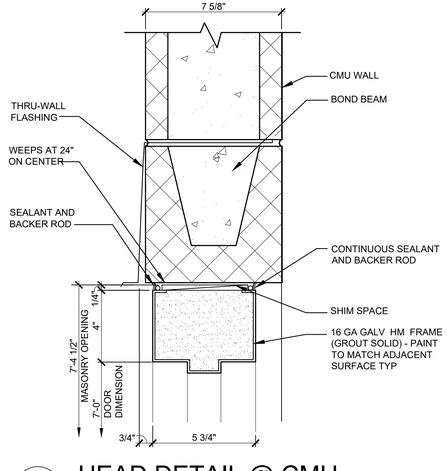
1 A-601 ALUM. WINDOW ELEVATIONS
SCALE: 1/4" = 1'-0"

HOLLOW METAL DOORS AND FRAMES TO BE FACTORY PRIMED AND RECEIVE 2 COATS OF PT-5

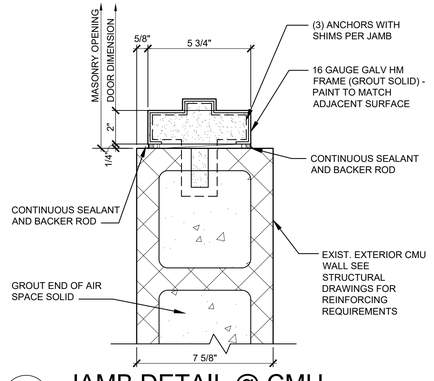


A — HOLLOW METAL DOOR WITH LOUVERED PANEL
B — HOLLOW METAL / GLASS
1 — INTERIOR (16 GA.) WELDED HOLLOW METALFRAME
C — COILING OVERHEAD DOOR
D — SECTIONAL OVERHEAD DOOR WITH GASKETS AND WEATHERSTRIPPING

2 A-601 DOOR AND FRAME ELEVATIONS
SCALE: 1/4" = 1'-0"



3 A-601 HEAD DETAIL @ CMU
SCALE: 3" = 1'-0"



4 A-601 JAMB DETAIL @ CMU
SCALE: 3" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL S. SUNDERMEYER
NUMBER A-2014026855
ARCHITECT
8/1/2023

MICHAEL S. SUNDERMEYER
License Number:2014026855
Expiration Date: 12/31/24
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CASCO Diversified Corporation
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

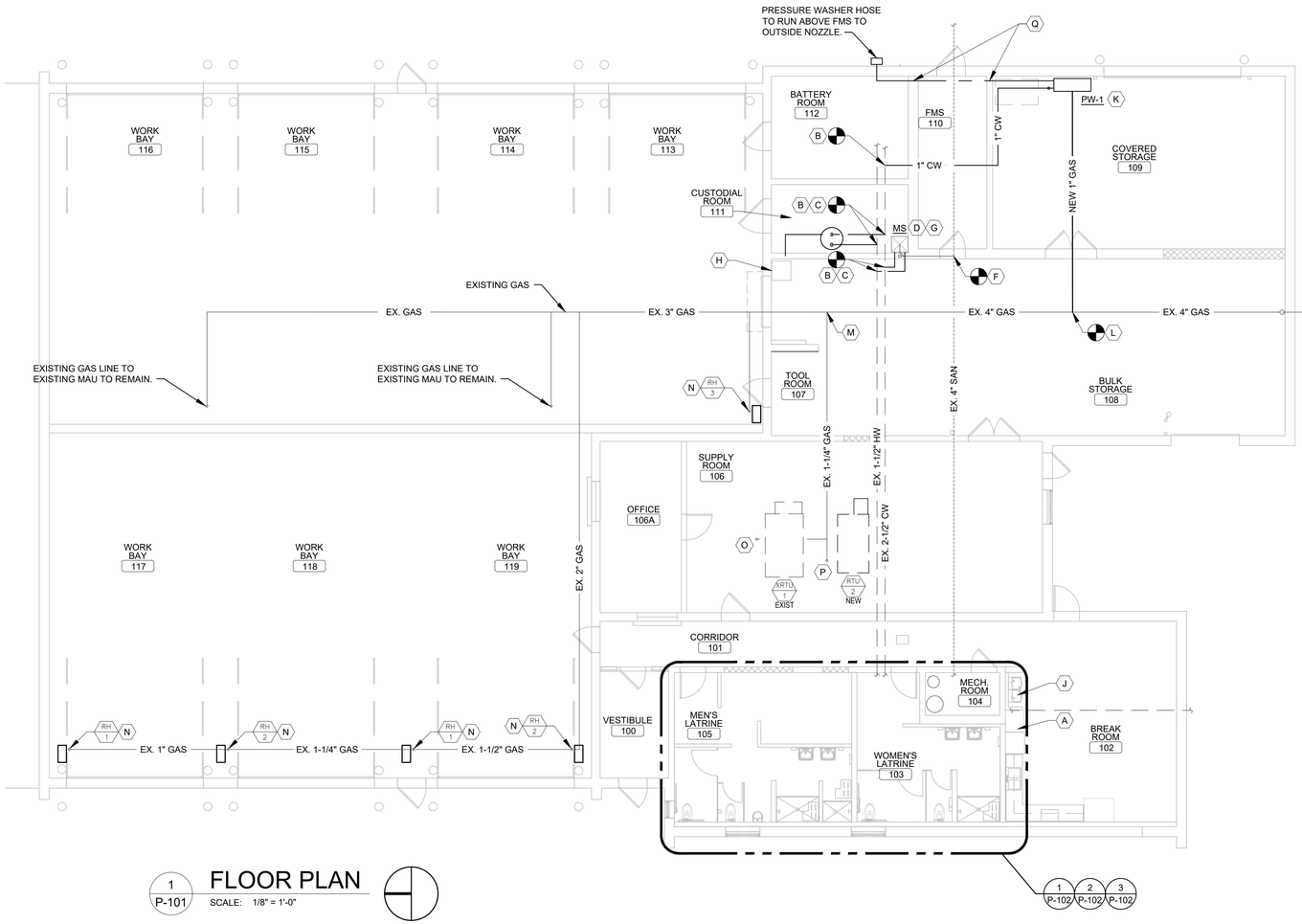
PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY:
CHECKED BY:
DESIGNED BY:

SHEET TITLE:
SCHEDULES AND LEGENDS

SHEET NUMBER:
A-601
08/01/2023
SHEET 16 OF 29



1 P-101 FLOOR PLAN

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

NORTH

KEYED NOTES:

- A REUSE EXISTING ICE MACHINE SALVAGED FROM DEMO. COORDINATE WITH OWNER EQUIPMENT LOCATIONS. CONNECT TO NEW 1/2" CW AND DRAIN INTO FLOOR SINK BELOW.
- B CONNECT NEW COLD WATER LINE TO EXISTING COLD WATER LINE. CONTRACTOR SHALL INSTALL SHUTOFF VALVE IN AN EASILY ACCESSIBLE LOCATION ON LINE.
- C CONNECT NEW HOT WATER LINE TO EXISTING HOT WATER LINE. CONTRACTOR SHALL INSTALL SHUTOFF VALVE IN AN EASILY ACCESSIBLE LOCATION ON LINE.
- D CONNECT NEW FIXTURE TO NEW WATER SUPPLY, WASTE, AND VENT PIPING. CONTRACTOR SHALL INSTALL NEW SHUTOFF VALVES ON BOTH CW AND HW LINES.
- E NOT USED.
- F CONNECT NEW SANITARY PIPING TO EXISTING SANITARY PIPING. CONTRACTOR SHALL INSTALL WALL CLEAN OUT.
- G INSTALL CHECK VALVES ON BOTH HOT AND COLD WATER LINES TO MOP SINK.
- H EXISTING WASHER / DRYER.
- J NEW HI-LO WATER COOLER.
- K CONNECT NEW GAS AND WATER SUPPLY TO NEW PRESSURE WASHER IN STORAGE.
- L CONNECT NEW 1" GAS LINE TO PRESSURE WASHER FROM NEW 5" GAS LINE.
- M EXISTING 1-1/4" GAS LINE TO RTU'S, TO REMAIN.
- N RECONNECT NEW BURNER HEADS TO EXISTING GAS PIPING.
- O EXISTING GAS LINE THRU ROOF TO RTU-1 TO REMAIN.
- P EXISTING GAS LINE THRU ROOF TO REMAIN. NEW GAS TRAIN CONNECTION TO RTU-2.
- Q PROVIDE MINIMUM PENETRATION EQUAL TO PIPE DIAMETER. CLEAN AND REPAIR BLOCK, FINISH SMOOTH.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	BASIS OF DESIGN MANUFACTURER & MODEL #	FIXTURE CONNECTIONS CW	HW	W	V	REMARKS
TMV	THERMAL MIXING VALVE	WATTS LFMMV: 1/2 INCH	1/2"	1/2"	--	--	SHALL CONFORM TO STDS: ASSE 1017, ASSE 1069, ASSE 1070. SET AT 110° F MAX.
WC	WATER CLOSET	AMERICAN STANDARD (ADA), #2257.103	3/4"	--	4"	2"	WALL HUNG 18" HIGH, VITREOUS CHINA, ELONGATED SIPHON JET, FLUSH VALVE: SLOAN # 111 (LOW CONSUMPTION 1.6 GALLON PER FLUSH) SEAT: CHURCH #255SSC WITH OPEN FRONT. CARRIER: J.R. SMITH #0542F (FLOOR MOUNTED) CARRIER MUST BE COMPACT TYPE.
UR	URINAL (ADA)	AMERICAN STANDARD WASHBROOK #6590.001	1"	--	2"	1-1/2"	WALL-MOUNT ELONGATED 14" RIM URINAL WITH STRAINER, WHITE VITREOUS CHINA, WASHOUT FLLUCH ACTION, 1" TOP SPUD. PROVIDE WITH SLOAN LEVER OPERATED DIAPHRAM FLUSH VALVE. PROVIDE WITH J.R. SMITH 0636 URINAL SUPORT, MOUNT AS REQUIRED PER ADA.
LAV	LAVATORY	AMERICAN STANDARD "LUCERNE" #0355.012	1/2"	1/2"	1-1/2"	1-1/2"	WALL HUNG LAVATORY #0355.012 WHITE; FAUCET: AMERICAN STANDARD #2275.500 POLISHED CHROME, COLONY SOFT 2-HANDLE, 4 INCH.
MS	SERVICE SINK	FIAT, MODEL: MCB2424	1/2"	1/2"	3"	2"	24" x 24", 10" DEEP, MOLDED STONE MOP SERVICE BASIN WITH STAINLESS STEEL DRAIN. PROVIDE WITH FIAT 830-AA SERVICE FAUCET - CHROME PLATED, 8" CENTERS, WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON STOUT. PROVIDE WITH FIAT 832-AA HOSE AND HOSE BRACKET - 5/8" HEAVY DUTY RUBBER HOSE WITH BRASS COUPLING AT ONE END. 5" X 3" STAINLESS STEEL HOSE BRACKET WITH RUBBER GRIP. PROVIDE WITH FIAT 889-CC MOP HANGER - 24" X 3" STAINLESS STEEL BRACKET WITH THREE (3) RUBBER TOOL GRIPS. PROVIDE WITH FIAT 1239-BB 24" ALUMINUM BUMPER GUARD ON EXPOSED EDGES.
EWC	ELECTRIC WATER COOLER	OASIS, MODEL: PG8ACSL	1/2"	--	1-1/2"	1-1/2"	BARRIER-FREE UNIVERSAL SPLIT LEVEL ELECTRIC WATER COOLER - SANDSTONE ON GALVANIZED STEEL, WITH STAINLESS STEEL TOP. COOLER SHALL BE RATED FOR 115VAC/1PH. COOLER SHALL DELIVER 8.0 GPH OF 50F WATER, AT 90F AMBIENT TEMPERATURE AND 80F INLET WATER TEMP. BUBBLERS SHALL BE ACTIVATED BY FRONT PADS. COOLER SHALL BE UL LISTED, AND ARI, ANSI A117.1, ADA COMPLIANT. MOUNT AS REQUIRED PER ADA. SEE ALSO ARCHITECTURAL DRAWINGS FOR MOUNTING CONFIGURATION. PROVIDE WITH CANE APRON FOR UPPER UNIT. PROVIDE WITH P-TRAP AND SHUT OFF VALVE.
WHA	WATER HAMMER ARRESTOR	ZURN Z1700 SERIES 300	1"	--	--	--	REFER TO DETAIL 5/P-501 FOR WATER HAMMER SCHEDULE.
FD	FLOOR DRAIN	ZURN Z415B	--	--	3"	2"	1/2" TRAP PRIMER CONNECTION, COMBINATION WASTE VENT
TP	TRAP PRIMER	MIFAB M2-500-NPB	1/2"	--	--	--	WATER SAVER TRAP PRIMER W/ CLEANOUT
SF	SHOWER FAUCET	TEMPTROL SHOWER M# C-96-1-X TMV M# 46-2X-BODY	1/2"	1/2"	--	--	FLOW RATE 2.5 GPM, ADJUSTABLE SPRAY, THERMAL MIXING VALVE SET FOR 110°F MAX. SEE DETAIL 7/P-501
SD	SHOWER DRAIN	ZURN Z415B FLOOR AND SHOWER DRAIN	--	--	3"	2"	CONTRACTOR IS TO INSTALL WITH P-TRAP AND VENT PER CODE. 5" STRAINER DIAMETER.
DF	BARRIER-FREE DRINKING FOUNTAIN	ELKAY MANUFACTURING CO. MODEL NO. (EZTLRDDC)	1/2"	--	2"	1-1/2"	TWO-STATION, WALL MOUNTED, ELECTRIC DRINKING FOUNTAIN, BARRIER-FREE ACCESS (ADA), FRONT ONLY EASY TOUCH CONTROL, HIGH UNIT ON RIGHT. ELKAY #EZTLRDDC OR EQUAL. PROVIDE SUPPLY LINE, STOP VALVE & P-TRAP. PROVIDE CANE APRON AS REQUIRED.
FS	FLOOR SINK	ZURN Z1930	--	--	3"	1-1/2"	SANI-FLOR RECEPTOR 8" X 4" X 4" WITH 4" DEEP SUMP DEPTH
WCO	WALL CLEANOUT	JOSAM SERIES 58910 (OR APPROVED EQUIVALENT) TEE CLEANOUT FOR USE IN WALLS. PROVIDE WITH JOSAM SERIES 58600 WALL ACCESS COVER. SEE PLUMBING PLAN AND ISOMETRICS FOR SIZE.					
FCO	FLOOR CLEANOUT	JOSAM SERIES 55000 CLEANOUT FOR USE IN FLOOR. PROVIDE WITH JOSAM STAINLESS STEEL COVER. SEE PLUMBING PLAN AND ISOMETRICS FOR SIZE.					

NOTES:
1. FIXTURES MAY BE SUBSTITUTED BY AN EQUIVALENT FIXTURE. SEE PLUMBING SPECIFICATIONS FOR EQUIVALENT FIXTURE LIST.
2. ALL FIXTURES SHALL HAVE AN INDIVIDUAL SHUTOFF VALVE.
3. NEW WATER CLOSET TO HAVE TRIP LEVER ON SIDE OF FIXTURE AWAY FROM WALL PER ADA REQUIREMENTS.

PRESSURE WASHER SYSTEM SCHEDULE

ID	MANUFACTURER (BASIS OF DESIGN)	MODEL #	TYPE	WATER HOT	WATER COLD	WATER GPM	WATER PSI	STEAM TEMP	STEAM LBS/HR	STEAM PSI	ELECTRIC HP	ELECTRIC VOLTS	ELECTRIC PHASE	ELECTRIC HZ	NATURAL GAS - INPUT CFH	NATURAL GAS - INPUT IN.W.C.	WEIGHT (LBS)	EQUIVALENT MANUF MODEL #	EQUIVALENT MANUF MODEL #
PW-1	DAIMER INDUSTRIES	SM-15900-236DH	FIXED MOUNTED FREE STANDING PRESSURE WASHER SYSTEM	180 - 210 F	AMBIENT	5	3000	330 F	AMBIENT	3000	10	208	3	60	446	7-14	1025	DELCO MODEL: 65044	EASY-KLEEN MODEL: EZN3004-3

ACCESSORIES:

1. DIRECT DRIVE, CAPACITOR START CONTINUOUS DUTY MOTOR -- NEMA DESIGN B.
2. NEMA 1 DISCONNECT
3. CHEMICAL INFUSION PORT -- HIGH DISCHARGE PRESSURE
4. 3 FOOT TRIGGER WAND WITH 0, 15, 25, 40 DEGREE STEAM NOZZLES
5. 100 FEET OF HIGH PRESSURE STEAM HOSE -- DISCHARGE
6. DIMENSIONS (W x D x H): 52" x 23" x 50"
7. AUTOMATIC SHUTOFF TECHNOLOGY: TRIGGER CONTROL TO MOTOR TO REDUCE EQUIPMENT WEAR
8. ELECTRONIC SPARK IGNITION NATURAL GAS HEAT EXCHANGER

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL CHARLES GRAPPERHAUS
NUMBER PE-2008019543
PROFESSIONAL ENGINEER
8/1/23

MICHAEL C. GRAPPERHAUS
License Number: PE-2008019543
Expiration Date: 12/31/24

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RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY: MEA
CHECKED BY: JST
DESIGNED BY: JST

SHEET TITLE:

PLUMBING FLOOR PLAN AND SCHEDULES

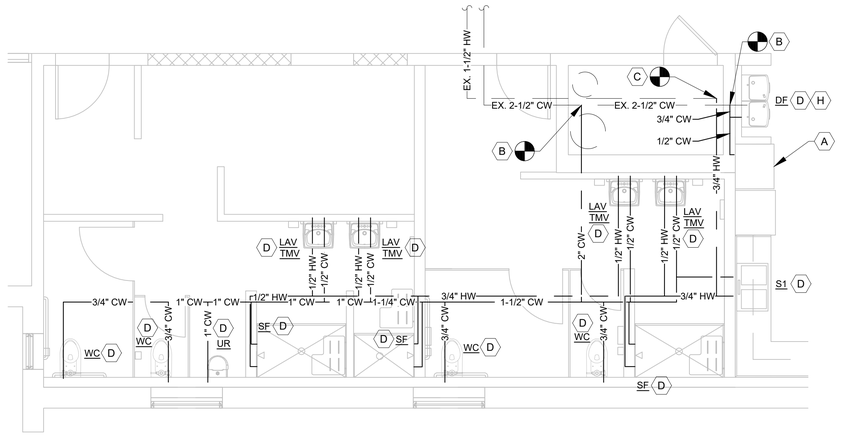
SHEET NUMBER:

P-101

08/01/2023
SHEET 18 OF 29

PLUMBING SYMBOLS LEGEND	
SAN	NEW SANITARY SEWER (BELOW SLAB)
EX SAN	EXISTING SANITARY PIPING
V	NEW SANITARY VENT
EX V	EXISTING SANITARY VENT
EX HW	EXISTING HOT WATER PIPING
HW	NEW HOT WATER PIPING
CW	NEW DOMESTIC COLD WATER
CW	NEW WATER (WITH SHUT OFF VALVE)
EX CW	EXISTING DOMESTIC COLD WATER
XXX	EQUIPMENT/FIXTURE DESIGNATION
(#)	KEYED NOTE
△	REVISION NUMBER
	POINT OF CONNECTION (NEW TO EXISTING)
TYP.	TYPICAL
V.I.F.	VERIFY IN FIELD
▷	FLOW DIRECTION

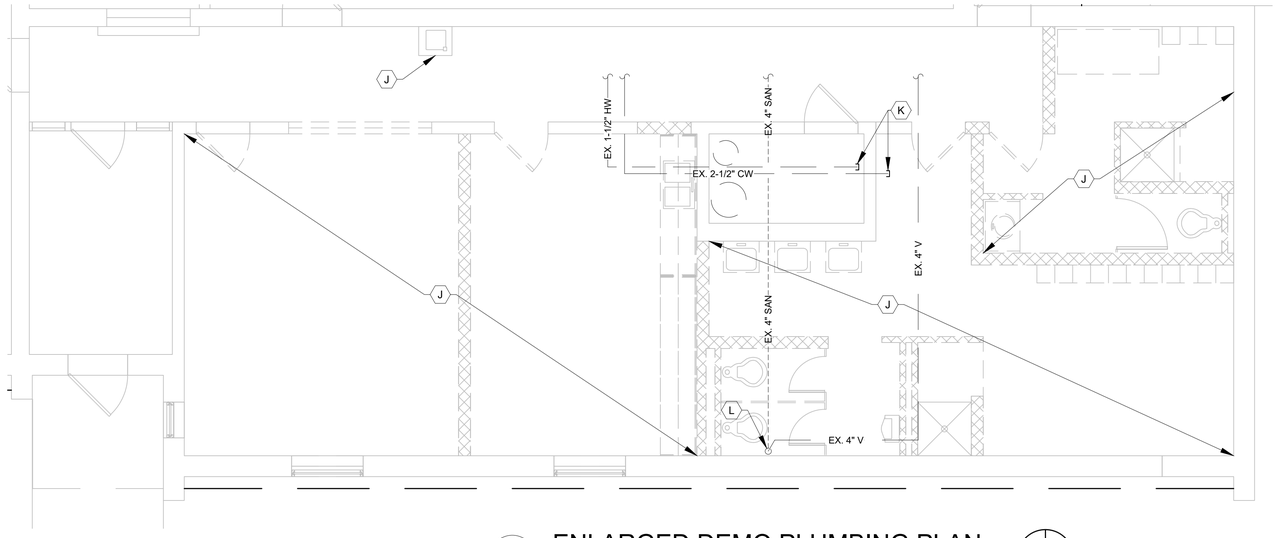
#	KEYED NOTES:
A	REUSE EXISTING ICE MACHINE SALVAGED FROM DEMO. COORDINATE WITH OWNER EQUIPMENT LOCATIONS. CONNECT TO NEW 1/2" CW LINE AND DRAIN TO FS.
B	CONNECT NEW COLD WATER LINE TO EXISTING COLD WATER LINE. CONTRACTOR SHALL INSTALL SHUTOFF VALVE IN AN EASILY ACCESSIBLE LOCATION ON LINE.
C	CONNECT NEW HOT WATER LINE TO EXISTING HOT WATER LINE. CONTRACTOR SHALL INSTALL SHUTOFF VALVE IN AN EASILY ACCESSIBLE LOCATION ON LINE.
D	CONNECT NEW FIXTURE TO NEW WATER SUPPLY, WASTE, AND VENT PIPING. CONTRACTOR SHALL INSTALL NEW SHUTOFF VALVES ON BOTH CW AND HW LINES.
E	CONNECT NEW 4" VENT PIPING TO EXISTING 4" VENT PIPING.
F	CONNECT NEW SANITARY PIPING TO EXISTING SANITARY PIPING. CONTRACTOR SHALL INSTALL WALL CLEAN OUT. CONNECT NEW 4" VENT TO EXISTING 4" VENT.
G	CONNECT NEW SANITARY PIPING TO EXISTING SANITARY PIPING.
H	NEW HI-LO WATER COOLER.
J	REMOVE AND PROPERLY DISPOSE OF EXISTING PLUMBING FIXTURES AND ASSOCIATED PIPING, UNLESS OTHERWISE INDICATED. REMOVE AND PROPERLY DISPOSE OF ALL SANITARY PIPING ABOVE SLAB. CAP SANITARY LINES FLUSH WITH SLAB ELEVATION.
K	REMOVE AND PROPERLY DISPOSE OF ALL HOT AND COLD WATER PIPING BACK TO LOCATION SHOWN ON PLAN. PROVIDE SHUTOFF VALVE AND CAP FOR RECONNECTION WHERE INDICATED ON PLAN.
L	REMOVE AND PROPERLY DISPOSE OF ALL VENT PIPING TO LOCATION SHOWN ON PLAN.



2 P-102 ENLARGED WATER PLAN

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

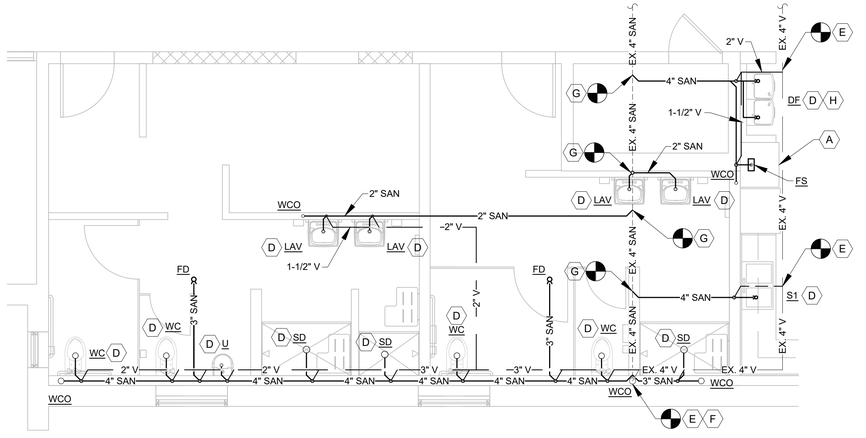
NORTH



1 P-102 ENLARGED DEMO PLUMBING PLAN

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

NORTH



3 P-102 ENLARGED SANITARY & VENT PLAN

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

NORTH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL CHARLES GRAPPERHAUS
NUMBER PE-2008019543
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JEFFERSON CITY, MISSOURI
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PROJECT #	T2122-01
SITE #	6300
ASSET#	8136300017

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CAD DWG FILE:
DRAWN BY: MEA
CHECKED BY: JST
DESIGNED BY: JST

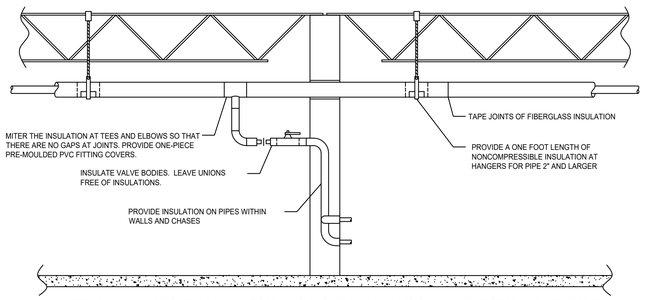
SHEET TITLE:

ENLARGED PLUMBING FLOOR PLANS

SHEET NUMBER:

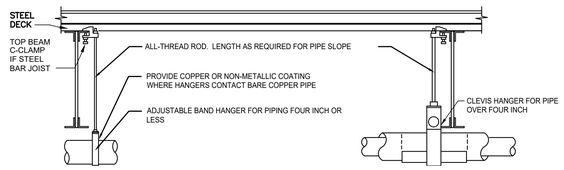
P-102

08/01/2023
SHEET 19 OF 29



1 P-501 PIPE INSULATION DETAIL

SCALE: N.T.S



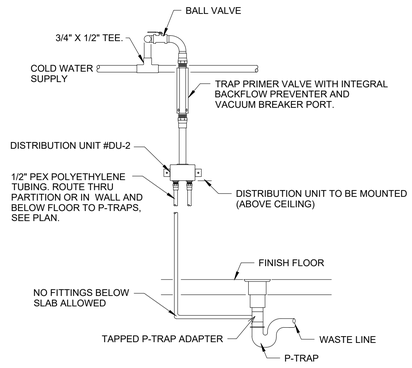
NOTE:
PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES.

HANGER SPACING FOR PIPE SIZE:
COPPER: 4"=12'; 3"=11'; 2½"=10'; 2"=9'; 1½"=8'; 1¼"=7'; 1"=6'; ¾"=6'; ½"=5'.
STEEL: 4"=14'; 3"=12'; 2½"=11'; 2"=10'; 1½"=9'; 1"=7'; ¾"=6'; ½"=5'.

VERIFY HANGER SPACING WITH LOCAL AUTHORITY HAVING JURISDICTION AND LOCAL CODE AMENDMENTS. LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED. LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

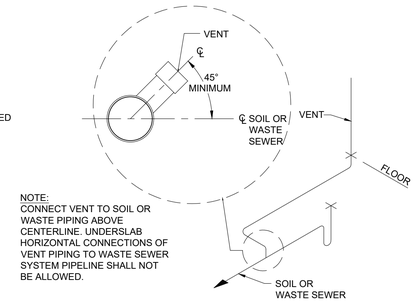
2 P-501 PIPE HANGER DETAIL

SCALE: N.T.S



3 P-501 TRAP PRIMER (TP)

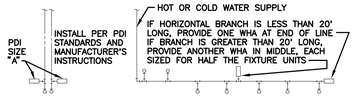
SCALE: N.T.S



NOTE:
CONNECT VENT TO SOIL OR WASTE PIPING ABOVE CENTERLINE. UNDERSLAB HORIZONTAL CONNECTIONS OF VENT PIPING TO WASTE SEWER SYSTEM PIPELINE SHALL NOT BE ALLOWED.

4 P-501 VENT PIPING INSTALLATION

SCALE: N.T.S



SINGLE FIXTURE

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	½"	1–11
B	¾"	12–32
C	1"	33–60
D	1¼"	61–113
E	1½"	114–154
F	2"	154–330

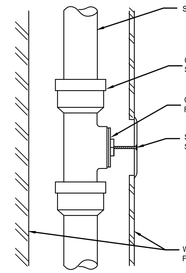
MULTIPLE FIXTURES

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	5	--
TANK WATER CLOSET	2.5	--
URINAL	4	--
LAVATORY	.75	.75
SINK	1.5	1.5
JANITOR'S SINK	2.5	2.5
SHOWER/BATHTUB	1.5	1.5

PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

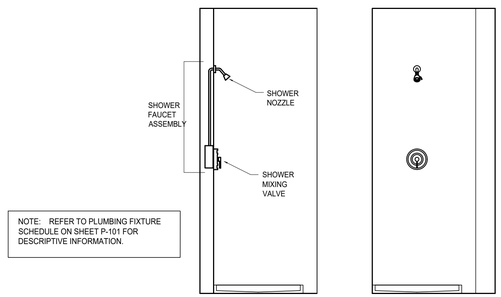
5 P-501 WATER HAMER ARRESTERS

SCALE: N.T.S



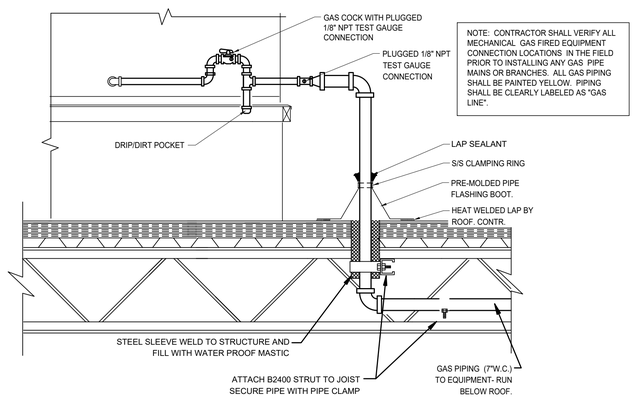
6 P-501 WALL CLEANOUT DETAIL

SCALE: N.T.S



7 P-501 SHOWER FAUCET ASSEMBLY DETAIL

SCALE: N.T.S



8 P-501 ROOFTOP UNIT GAS PIPING DETAIL

SCALE: N.T.S

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL CHARLES GRAPPERHAUS
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PROFESSIONAL ENGINEER
8/1/23

MICHAEL C. GRAPPERHAUS
License Number: PE-2008019543
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OFFICE OF ADMINISTRATION
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MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY: MEA
CHECKED BY: JST
DESIGNED BY: JST

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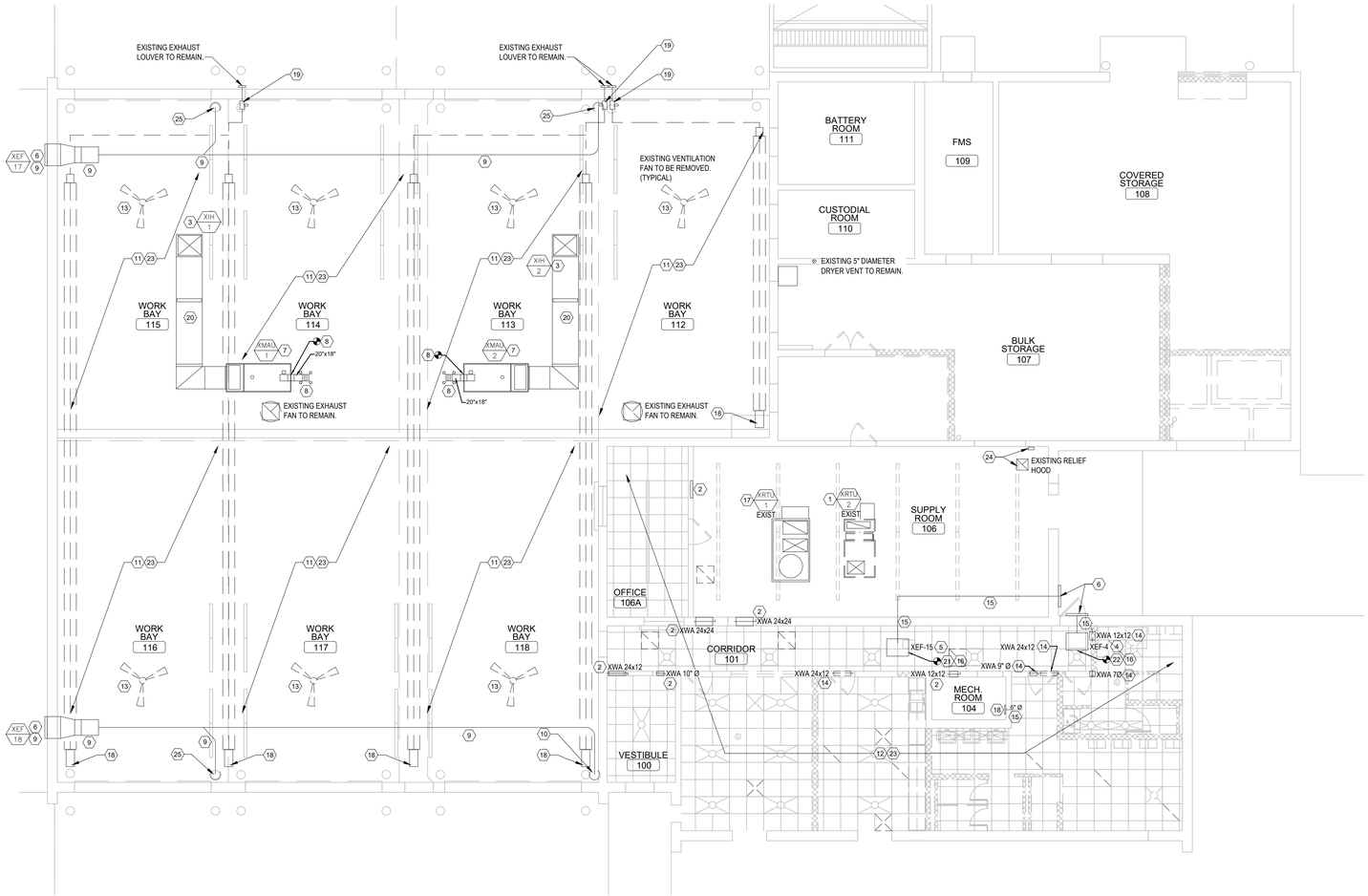
PLUMBING DETAILS

SHEET NUMBER:

P-501

08/01/2023
20 OF 29 SHEETS



1 M-101

MECHANICAL FLOOR PLAN

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

NORTH

DEMOLITION GENERAL NOTES:

1. DEMOLITION PLAN SHOWS APPROXIMATE LAYOUT OF EXISTING MECHANICAL & PIPING SYSTEMS AND IS NOT INTENDED TO PRESENT "AS-BUILT" CONDITIONS. GC TO VISIT SITE AND OTHERWISE BECOME FAMILIAR WITH ACTUAL CONDITIONS WHEN BIDDING THE WORK.
2. PROVIDE ALL NECESSARY SHORING, BRACING, AND SUPPORT TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF STRUCTURE OF ELEMENT TO BE DEMOLISHED, AND ADJACENT STRUCTURE OR ELEMENT SHOWN TO REMAIN. SHORING AND BRACING SHALL BE DESIGNED BY CONTRACTOR'S PROFESSIONAL ENGINEER LICENSED IN THE APPLICABLE JURISDICTION.
3. G.C. TO PROVIDE DUMPSTER & CONTINUOUS CLEAN-UP DURING DEMOLITION TO PROVIDE SAFE AND CLEAN WORK SITE.
4. ALL DIMENSIONS TO BE FIELD VERIFIED AFTER DEMOLITION HAS BEEN COMPLETED. NOTIFY ARCHITECT OF RECORD IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
5. EXISTING PARTITIONS, FINISHES, EQUIPMENT AND FIXTURES THAT ARE TO REMAIN ARE TO BE PROTECTED BY THE G.C. THROUGHOUT THE DEMOLITION PROCESS UNLESS NOTED OTHERWISE (U.N.O.)
6. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT ASSOCIATED TO REMOVED HVAC UNITS & PIPING, INCLUDING ELECTRICAL CONDUIT, JUNCTION BOXES, WIRING, ETC. AND ALL RELATED EQUIPMENT THAT WILL NOT BE RE-USED. TYPICAL THROUGHOUT AREA OF WORK. COORDINATE ALL ELECTRICAL WORK WITH ENGINEERING DRAWINGS AND NEW PLANS.
7. VERIFY WITH THE OWNER, PRIOR TO DEMOLITION, ALL REMOVED ITEMS TO BE SALVAGED, STORED, OR THROWN AWAY. REMOVE DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS FROM BUILDING SITE. COORDINATE WITH THE OWNER ANY AND ALL NECESSARY SHUTOFF, CAPPING AND CONTINUATION OF UTILITY SERVICES PRIOR TO COMMENCEMENT. THE OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF ITEMS OR STRUCTURES TO BE DEMOLISHED.
8. PROMPTLY REPAIR DAMAGES CAUSED BY DEMOLITION TO ANY ADJACENT FACILITIES AT NO COST TO OWNER.
9. DO NOT INTERRUPT EXISTING UTILITIES SERVING ADJACENT FACILITIES. COORDINATE ANY SHUT OFF OR TEMPORARY DISRUPTION WITH CSMS PROJECT MANAGER.
10. DO NOT CLOSE, BLOCK OR OTHERWISE OBSTRUCT STREETS, WALKS OR OTHER FACILITIES OCCUPIED OR USED BY THE GENERAL PUBLIC.
11. COMPLY WITH LOCAL, SATE AND FEDERAL APPLICABLE REGULATIONS.
12. REFER TO ARCHITECTURAL INSTRUCTION FOR ROOF PATCH & REPAIR RELATED TO REMOVAL OF MECHANICAL & PIPING SYSTEMS.

(#) KEYED NOTES:

1. REMOVE MAU AND ALL ASSOCIATED COMPONENTS & CONNECTING DUCTWORK. DISCONNECT ELECTRIC SERVICE AND PRESERVE CONDUCTORS FOR RECONNECTION TO NEW EQUIPMENT. DISCONNECT AND REMOVE CONNECTING GAS PIPING. REMOVE CONDENSATE DRAINAGE. ROOF CURB IS TO REMAIN FOR CONTINUED USE.
2. RETURN WALL ASSEMBLY TO REMAIN.
3. EXISTING INTAKE AIR HOODS TO REMAIN IN PLACE FOR CONTINUED USE.
4. EXISTING LOCKER ROOM IN-LINE EXHAUST FAN TO REMAIN FOR REUSE.
5. EXISTING BREAK ROOM IN-LINE EXHAUST FAN TO REMAIN FOR REUSE.
6. EXISTING EXHAUST WALL LOUVERS TO REMAIN FOR CONTINUED USE.
7. EXISTING MAKE-UP AIR UNITS SERVING THE SERVICE BAYS TO REMAIN IN PLACE FOR CONTINUED USE.
8. REMOVE MAU SUPPLY DUCTWORK. STORE EXISTING DUCT-MOUNTED SUPPLY AIR DIFFUSER FOR REUSE, PROTECT FROM DAMAGE.
9. EXISTING VEHICLE EXHAUST SYSTEM (IN-LINE FAN, WALL LOUVER, DUCTWORK), TO REMAIN IN PLACE FOR CONTINUED USE.
10. REMOVE 8" VEHICLE EXHAUST DUCT DROPS & ASSOCIATED COMPONENTS.
11. REMOVE GAS FIRED INFRARED HEATING SYSTEMS AND ALL ASSOCIATED COMPONENTS, TUBING, BURNER HEADS, HANGERS, SUPPORTS. DISCONNECT ELECTRIC SERVICE AND PRESERVE CONDUCTORS FOR RECONNECTION TO NEW EQUIPMENT. DISCONNECT GAS PIPING & PRESERVE FOR RECONNECTION TO NEW EQUIPMENT.
12. REMOVE ALL DUCTWORK, DIFFUSERS, GRILLS, ACCESSORIES.
13. REMOVE AND DISPOSE OF EXISTING CEILING FAN. SEE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
14. REMOVE RETURN WALL ASSEMBLY.
15. EXISTING EXHAUST DUCTWORK TO REMAIN FOR CONTINUED USE.
16. REMOVE DUCTWORK FROM FAN INLET. PRESERVE FLANGES AND CONNECTION POINTS FOR RECONNECTION.
17. EXISTING RTU-1 SHALL REMAIN FOR CONTINUED USE, PROTECT FROM DAMAGE.
18. GAS PIPING CONNECTON TO INFRARED HEATING UNIT TO REMAIN FOR RECONNECTION TO NEW EQUIPMENT. SEE PIPING DRAWINGS.
19. REMOVE RADIANT HEATING SYSTEM VACUUM BLOWERS. DISCONNECT ELECTRIC SERVICE ADN PRESERVE CONDUCTORS FOR RECONNECTION.
20. DUCTWORK TO REMAIN FOR CONTINUED USE.
21. REMOVE KITCHEN EXHAUST DUCTWORK INCLUDING EXHAUST GRILLS TO EXHAUST FAN INLET. KITCHEN EXHAUST FAN TO AND DISCHARGE DUCTWORK TO REMAIN IN PLACE FOR CONTINUED USE.
22. REMOVE LOCKER ROOM EXHAUST DUCTWORK INCLUDING EXHAUST GRILLS TO EXHAUST FAN INLET. LOCKER ROOM EXHAUST FAN AND DISCHARGE DUCTWORK TO REMAIN IN PLACE FOR CONTINUED USE.
23. REMOVE THERMOSTATS AND ASSOCIATED CONTROLS.
24. REMOVE RELIEF HOOD (RH-20) AND WALL-MOUNTED STATIC PRESSURE CONTROLLER.
25. REMOVE 12" VEHICLE EXHAUST DUCT DROPS & ASSOCIATED COMPONENTS.

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SITE # 6300
ASSET# 8136300017

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DRAWN BY: MEA
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DESIGNED BY: JST

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MECHANICAL DEMOLITION PLAN

SHEET NUMBER:

M-101

08/01/2023
SHEET 21 OF 29

GAS FIRED RADIANT HEATER SCHEDULE (NEGATIVE PR)

RH #

MARK	MANUFACTURER & MODEL	MBH INPUT	THERM EFF	GAS CONN	TUBE SIZE	BURNER TUBE LENGTH	COMBUST CHAMBER LENGTH	RADIANT EMITTER LENGTH	POWER REQUIREMENTS	VACUUM BLOWER DATA	UNIT DIMENSIONS	MOUNTING HEIGHT
RH-1	DETROIT RADIANT PRODUCTS, MODEL: HLV-180	180 / 144	92%	7/8"	4" RND.	66 FT	10 FT.	66 FT.	120 / 1PH / 2 AMP	REFER TO VACUUM BLOWER SCHEDULE	WIDTH = 18" HEIGHT = 18"	14'-0"
RH-2	DETROIT RADIANT PRODUCTS, MODEL: HLV-120	120 / 96	92%	7/8"	4" RND.	66 FT	10 FT.	66 FT.	120 / 1PH / 2 AMP		WIDTH = 18" HEIGHT = 18"	14'-0"
RH-2	DETROIT RADIANT PRODUCTS, MODEL: HLV-60	60 / 50	92%	7/8"	4" RND.	33 FT	10 FT.	66 FT.	120 / 1PH / 2 AMP		WIDTH = 18" HEIGHT = 18"	14'-0"

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT:
* REFLECT O-RAY (COMBUSTION RESEARCH CORP), SPACE-RAY (GAS-FIRED PRODUCTS, INC), ROBERTS / GORDON, INC.

NOTES:
1. HEATERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. HEATERS SHALL BE CONTROLLED BY A SINGLE OR TWO-STAGE 24-7 PROGRAMMABLE DIGITAL THERMOSTAT, MOUNTED 4'-0" ABOVE THE FINISHED FLOOR. SEE MECHANICAL PLAN FOR LOCATIONS.
3. VACUUM BLOWERS SHALL MAINTAIN A CONTINUOUS NEGATIVE PRESSURE DURING OPERATION, THROUGH CONNECTED BURNERS, BURNER TUBES, EMITTERS, BALANCING DAMPERS, AND TAIL PIPE.
4. COMBUSTION TUBES: 4" DIA 16 GAUGE TITANIUM ALLOY STEEL TUBES.
5. EMITTER TUBES: 4" DIA 16 GAUGE ALUMINIZED STEEL TUBES WITH EMISSIVE BLACK COATING (EMISSIVITY = 0.95) .
6. LINEAR PARABOLIC REFLECTORS ALONG ENTIRE LENGTH OF COMBUSTION CHAMBER & EMITTERS: HIGHLY POLISHED REFLECTIVE SURFACE TO DIVERT RADIANT ENERGY TO THE SPACE & FLOOR
7. HOT ROLLED TUBING NOT ALLOWED.
8. SINGLE OR TWO-STAGE GAS VALVE, HOT SURFACE IGNITION, DIGITAL BURNER CONTROLS
9. FLUE PIPE MATERIAL SHALL BE WELDED SEAM ALUMINIZED STEEL TUBING WITH LONG RADIUS SINGLE PIECE WELDED FITTINGS (ELBOWS & TEES.
10. TUBING JOINTS SHALL BE SECURED & SEALED WITH SCREWS AND HIGH TEMPERATURE MASTIC SEALANT.
11. WARRANTY: 3-YEAR BURNER CONTROL BOX, 1 YEAR VACUUM PUMP, 5 YEARS COMBUSTION & RADIANT TUBES, 10 YEARS BURNER.

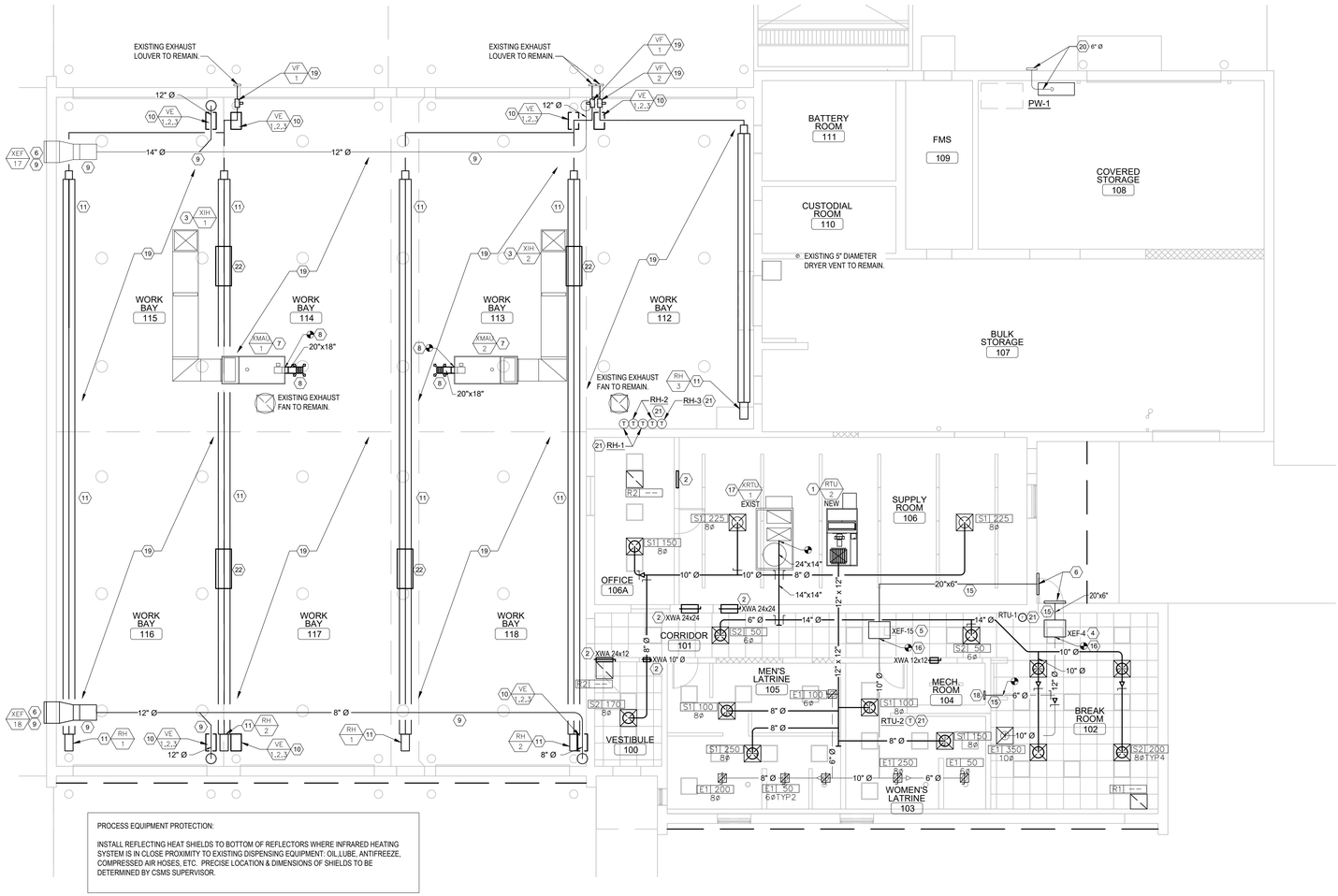
VACUUM BLOWER SCHEDULE (FOR RADIANT HEATERS)

VF #

MARK	MANUFACTURER & MODEL	SYSTEM MBH	INLET/OUTLET CONNECTION SIZE	RPM	VOLTS	HP	RLA	UNIT DIMENSIONS	MOUNTING HEIGHT
VF-1	DETROIT RADIANT PRODUCTS, MODEL: PB9B-1PH	280 - 545	4" RND.	3450	208 / 1	3/4	5.0	LENGTH = 19.8" WIDTH = 14.5" HEIGHT = 16.5"	14'-0"
VF-2	DETROIT RADIANT PRODUCTS, MODEL: PB8B-1PH	50 - 275	4" RND.	3450	208 / 1	1/2	3.9	LENGTH = 19.8" WIDTH = 11.0" HEIGHT = 16.5"	14'-0"

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT:
* REFLECT O-RAY (COMBUSTION RESEARCH CORP), SPACE-RAY (GAS-FIRED PRODUCTS, INC), ROBERTS / GORDON, INC.

NOTES:
1. VACUUM BLOWERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. ELECTRICAL CONTRACTOR TO PROVIDE LINE VOLTAGE WIRING TO THE CONTROL RELAY OF THE VACUUM BLOWERS.
3. SEE PLAN VIEW FOR VACUUM BLOWER LOCATIONS.
4. VACUUM BLOWERS SHALL MAINTAIN A CONTINUOUS NEGATIVE PRESSURE DURING OPERATION, THROUGH CONNECTED BURNERS, BURNER TUBES, EMITTERS, BALANCING DAMPERS, AND TAIL PIPE.
5. FLUE PIPE MATERIAL SHALL BE WELDED SEAM ALUMINIZED STEEL TUBING WITH LONG RADIUS SINGLE PIECE WELDED FITTINGS (ELBOWS & TEES.
6. TUBING JOINTS SHALL BE SECURED & SEALED WITH SCREWS AND HIGH TEMPERATURE MASTIC SEALANT.
7. TEFC MOTOR WITH HEAT SLINGER.
8. PRIMARY AIR DAMPER AT INLET TO VACUUM BLOWER
9. WARRANTY: 1 YEAR VACUUM BLOWER.



PROCESS EQUIPMENT PROTECTION:

INSTALL REFLECTING HEAT SHIELDS TO BOTTOM OF REFLECTORS WHERE INFRARED HEATING SYSTEM IS IN CLOSE PROXIMITY TO EXISTING DISPENSING EQUIPMENT: OIL,LUBE, ANTIFREEZE, COMPRESSED AIR HOSES, ETC. PRECISE LOCATION & DIMENSIONS OF SHIELDS TO BE DETERMINED BY CSMS SUPERVISOR.

1 M-101 MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE CONTRACT DOCUMENTS. THE ENGINEER AND OWNER SHALL BE NOTIFIED OF ANY UNFORESEEN CONDITIONS WHICH MAY AFFECT PROGRESS OR COST OF WORK PERFORMED.
3. THE CONTRACT WORK SHALL INCLUDE FURNISHING ALL MATERIAL, EQUIPMENT, TOOLS, LABOR, AND SERVICES NECESSARY FOR COMPLETION OF THE PROJECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY OF WORKMANSHIP AND FOR COMPLIANCE WITH THE DESIGN.
5. THE CONTRACTOR SHALL CORRECT ALL ERRORS AND DEVIATIONS AS REQUESTED BY THE OWNER.
6. THE CONTRACTOR SHALL CONTACT THE OWNER/ENGINEER IMMEDIATELY IF ANY WORKER ENCOUNTERS HAZARDOUS MATERIALS.
7. THE CONTRACTOR SHALL COORDINATE MECHANICAL DRAWINGS WITH THE ELECTRICAL DRAWINGS AND SPECIFICATIONS BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS IMMEDIATELY. ALL DISCREPANCIES SHALL BE RESOLVED PRIOR TO THE CONTRACTOR PROCEEDING WITH WORK.
8. ALL PRECAUTIONS SHALL BE TAKEN NOT TO DISTURB EXISTING SERVICES AND UTILITIES.
9. THERMOSTATS, & REMOTE TEMPERATURE SENSORS SHALL BE MOUNTED AT 60" A.F.F.
10. ALL COMPONENTS OF HVAC SYSTEM INCLUDING ROOFTOP UNIT, DUCTWORK, DUCTWORK INSULATION, DIFFUSERS, AND GRILLS SHALL BE INSTALLED BY CONTRACTOR.
11. INTERNAL DUCT LINER SHALL NOT BE ALLOWED. EXTERIOR WRAP FOR SUPPLY & RETURN DUCT SHALL BE R-8 TWO (2) INCH +/- THICK, 3/4 LB. DENSITY. ALL DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH THE LATEST ISSUE OF SMACNA'S AND NESCA'S MINIMUM INSTALLATION STANDARDS.
12. ALL COMPONENTS OF THE NEW GAS FIRED INFRARED HEATING SYSTEMS (SEVEN) SHALL BE INSTALLED BY A FACTORY-TRAINED CONTRACTOR IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
13. BID ALTERNATE #1: ALL COMPONENTS OF THE NEW VEHICLE EXHAUST HOSE REELS & ACCESSORIES (SEVEN) SHALL BE INSTALLED BY A FACTORY-TRAINED CONTRACTOR IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
14. DATUM SYMBOL INDICATES POINT OF NEW TO EXISTING CONNECTION. PROVIDE TRANSITION AS REQUIRED FOR NEW DUCT CONNECTION.

KEYED NOTES:

1. INSTALL NEW ROOFTOP UNIT (RTU-2) AT OR NEAR LOCATION WHERE HEATING & VENTILATING UNIT HAD BEEN REMOVED. RE-USE EXISTING CURB, INSTALL NEW CURB ADAPTER. INSTALL FULL SIZE SUPPLY AND RETURN DUCT DROPS. MAKE CONNECTIONS OF GAS PIPING AS SHOWN ON PLUMBING DRAWINGS. PROVIDE A MINIMUM SERVICE CLEARANCE OF 4 FEET BETWEEN RTU-1 (EXISTING) AND RTU-2 (NEW).
2. RETURN WALL ASSEMBLY TO REMAIN.
3. EXISTING INTAKE AIR HOODS TO REMAIN IN PLACE FOR CONTINUED USE.
4. EXISTING IN-LINE EXHAUST FAN. SERVICE FAN FOR CONTINUED USE. BALANCE AIR FLOW TO VALUE INDICATED IN EQUIPMENT SCHEDULE. FAN SHALL BE ELECTRICALLY INTERLOCKED WITH DOAS-2. SEE SEQUENCE OF OPERATION.
5. EXISTING IN-LINE EXHAUST FAN. SERVICE FAN FOR CONTINUED USE. REDUCE AIR FLOW TO VALUE INDICATED IN EQUIPMENT SCHEDULE.
6. EXISTING EXHAUST FAN LOUVERS TO REMAIN FOR CONTINUED USE.
7. EXISTING MAKE-UP AIR UNITS SERVING THE SERVICE BAYS TO REMAIN IN PLACE FOR CONTINUED USE.
8. REMOVE EXISTING SUPPLY DUCTWORK, REPLACE WITH NEW DUCTWORK FOR STRUCTURAL CLEARANCE. REUSE EXISTING SUPPLY LOUVER.
9. EXISTING VEHICLE EXHAUST SYSTEM (IN-LINE FAN, WALL LOUVER, DUCTWORK). SERVICE FOR CONTINUED USE.
10. BID ALTERNATE #1: REMOVE VERTICAL DUCT DROP. INSTALL NEW HOSE REEL ASSEMBLY CONSISTING OF THREE COMPOINENTS (VE-1, VE-2, VE-3). REEFER TO VEHICLE EXHAUST EQUIPMENT SCHEDULE ON SHEET M-601.
11. INSTALL NEW GAS FIRED INFRARED HEATING SYSTEM TO REPLACE EXISTING, CONSISTING OF: BURNER HEAD, INFRARED TUBULAR ASSEMBLY, VACUUM PRODUCER, WALL EXHAUST TERMINATION. SEE SCHEDULE ON THIS SHEET.
12. NOT USED
13. NOT USED
14. REMOVE RETURN WALL ASSEMBLY.
15. EXISTING EXHAUST DUCTWORK TO REMAIN FOR CONTINUED USE.
16. INSTALL NEW DUCTWORK FROM EXISTING FAN INLET.
17. EXISTING RTU-1 SHALL BE SERVICED AS NECESSARY TO RESTORE PERFORMANCE & CONDITION TO LIKE-NEW STATUS.
18. BALANCE EXISTING EXHAUST THROUGH GRILLE TO 100 CFM
19. REPLACE RADIANT HEATING SYSTEM VACUUM FANS WITH NEW VACUUM FANS AT ELEVATION OF THE EXISTING FANS.
20. INSTALL PRESSURE WASHER FLUE EXHAUST, 6" DIAMETER, AGA/CSA TYPE B GAS FLUE PIPE WITH ACCESSORIES AND WALL CAP. WALL CAP ELEVATION TO BE 8 FEET ABOVE PAVEMENT.
21. INSTALL THERMOSTATS AT 4 FT, AFF. ATTACH TO WALL.
22. INSTALL SHEETMETAL SHIELDS TO BOTTOM OF INFRARED REFLECTOR TO PROTECT PROCESS EQUIPMENT, 4 LOCATIONS. SHIELDS SHALL BE OF PROPER LENGTH THE PREVENT HEAT DAMAGE TO DISPENSING SYSTEMS.

IF REQUIRED, RELOCATION OF EXISTING SERVICE BAY EQUIPMENT TO BE ACCOMPLISHED BY NATIONAL GUARD STAFF, FINAL SERVICE CONNECTIONS SHALL BE DONE BY G.C. SEE ELECTRICAL DWGS.

KEYED NOTES:

A. PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY OWNER'S REPRESENTATIVE OF DISCREPANCIES BEFORE STARTING WORK.

B. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

C. ALL WORK SHALL COMPLY WITH STATE CODE REQUIREMENTS.

D. USE OF COMBUSTIBLE MATERIALS IS NOT ALLOWED IN THE CEILING SPACE. MATERIALS USED IN THE CEILING SPACE SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25, AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL EXPOSED WIRING IN THE CEILING SPACE PLENUM SHALL BE CEILING PLENUM RATED.

E. INSULATE NEW SUPPLY DUCTWORK WITH MINIMUM 1-1/2" THICK FOIL-BACKED DUCT WRAP.

F. WITHIN THE OFFICE AND LOCKER ROOM (LATRINE) AREAS, EQUIVALENTLY SIZED RECTANGLE DUCTWORK IS ALLOWED IN LIEU OF ROUND DUCTWORK. DUCTWORK SHALL BE SIZED FOR MAXIMUM PRESSURE DROP OF 0.08"WC/100 FT OF DUCT, AND MAXIMUM VELOCITY NOT TO EXCEED 1500 FPM.

G. ALL NEW DUCTWORK AND DUCTWORK FITTINGS & TRANSITIONS SHALL BE IN ACCORDANCE TO THE REQUIREMENTS OF SMACNA DUCT CONSTRUCTION STANDARDS.

H. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING CONDITIONS AND HVAC EQUIPMENT, IN ENTIRETY, PRIOR TO COMMENCING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE OF ALL POSSIBLE CONFLICTS UPON VERIFICATION OF FIELD CONDITIONS.

I. CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT OF THE ASSOCIATED HVAC SYSTEMS UPON COMPLETION OF THE PROJECT. ANY DIFFUSER AIR FLOW DISCREPANCIES FROM THE REPORT SHALL BE FIXED BY THE CONTRACTOR.

J. FLEXIBLE INSULATED DUCT PERMITTED ONLY ABOVE LAY-IN CEILINGS, AND SHALL NOT BE A SUBSTITUTE FOR HARD-DUCT 90 DEG ELBOWS. MAXIMUM LENGTH OF INSULATED FLEX DUCT SHALL NOT EXCEED 5 FEET.

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DESIGNED BY: JST

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MECHANICAL FLOOR PLAN

SHEET NUMBER:

M-102

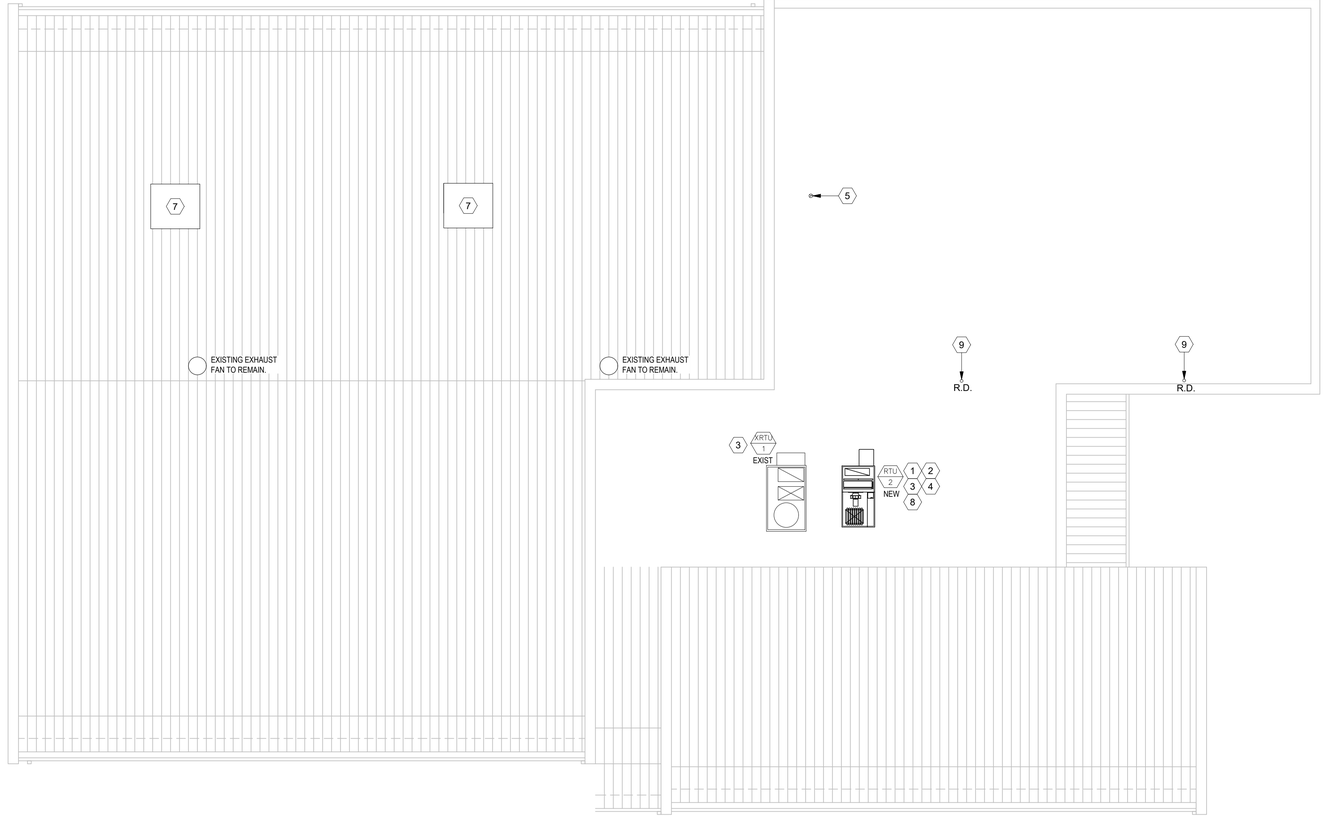
08/01/2023
SHEET 22 OF 29

KEYED NOTES:

1. NEW RTUS ARE TO BE MOUNTED ON CURB ADAPTER. SUPPLY AND RETURN DUCTWORK UP TO RTU SHALL BE FULL SIZE OF RTU CURB DUCT OPENING. TRANSITIONS SHALL BE MADE IN VERTICAL DROP TO MATCH DIMENSIONS OF DUCTWORK SHOWN ON MECHANICAL DRAWINGS IN ACCORDANCE WITH SMACNA STANDARDS. BOTTOM AND SIDES OF ROOF CURBS TO BE INSULATED WITH R-19 BATT INSULATION. SEE DETAILS ON SHEET M-501 FOR ADDITIONAL INFORMATION.
2. SMOKE DETECTORS FOR ROOFTOP UNITS SHALL BE LOCATED WITHIN SUPPLY AIR PLENUM AND SHALL DE-ACTIVATE RTU UPON SENSING SMOKE AND SHALL BE TIED INTO BUILDING'S FIRE ALARM CONTROL PANEL WITH SUPERVISORY SIGNAL. WIRING BY CONTRACTOR. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. EXISTING ROOFTOP UNIT (XRTU-1) AND ROOFTOP UNIT (RTU-2)ARE ENABLED/DISABLED VIA EXISTING TIMECLOCK. CONTRACTOR SHALL MAKE FINAL CONTROLS CONNECTIONS AND PROVIDE UNIT OPERATIONAL CHECK-OUT.
4. CONTRACTOR TO PROVIDE 12" HIGH REFLECTIVE UNIT NUMBERS WITH THE SPECIFIC RTU # TO BE POSTED ON EACH UNIT ON THE CONTROL PANEL DOOR AND SIDE WITH THE DISCONNECT SWITCH IN A LOCATION VISIBLE FROM THE ROOF HATCH.
5. EXISTING 5"Ø DRYER VENT THROUGH THE ROOF TO REMAIN.
6. FOR EXISTING ROOFTOP UNIT (XRTU-1). APPLY NEW EQUIPMENT LABEL FROM EQUIPMENT MANUFACTURER, PER INSTRUCTIONS FROM THE EQUIPMENT SCHEDULE ON SHEET M601.
7. EXISTING OUTSIDE AIR INTAKE TO REMAIN.
8. CONTRACTOR IS RESPONSIBLE FOR PROCUREMENT AND INSTALLATION OF THIS UNIT, ASSOCIATED COMPONENTS, ALL DUCTWORK & ROOF FRAMING, AND ALL ROOF STRUCTURAL MODIFICATIONS AS NEEDED TO SUPPORT NEW UNIT. REFER TO ALL EQUIPMENT SCHEDULES & DETAILS PERTAINING TO THIS PIECE OF EQUIPMENT.
9. EXISTING ROOF DRAIN TO REMAIN.

GENERAL NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE CONTRACT DOCUMENTS. THE ENGINEER AND OWNER SHALL BE NOTIFIED OF ANY UNFORESEEN CONDITIONS WHICH MAY AFFECT PROGRESS OR COST OF WORK PERFORMED.
3. THE CONTRACT WORK SHALL INCLUDE FURNISHING ALL MATERIAL, EQUIPMENT, TOOLS, LABOR, AND SERVICES NECESSARY FOR COMPLETION OF THE PROJECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY OF WORKMANSHIP AND FOR COMPLIANCE WITH THE DESIGN.
5. THE CONTRACTOR SHALL CORRECT ALL ERRORS AND DEVIATIONS AS REQUESTED BY THE OWNER.
6. THE CONTRACTOR SHALL CONTACT THE OWNER/ENGINEER IMMEDIATELY IF ANY WORKER ENCOUNTERS HAZARDOUS MATERIALS.
7. THE CONTRACTOR SHALL COORDINATE MECHANICAL DRAWINGS WITH THE ELECTRICAL DRAWINGS AND SPECIFICATIONS BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS IMMEDIATELY. ALL DISCREPANCIES SHALL BE RESOLVED PRIOR TO THE CONTRACTOR PROCEEDING WITH WORK.
8. ALL PRECAUTIONS SHALL BE TAKEN NOT TO DISTURB EXISTING SERVICES AND UTILITIES.



1 M-102 ROOF PLAN
SCALE: 1/8" = 1'-0"

NORTH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL CHARLES GRAPPERHAUS
NUMBER PE-2008019543
PROFESSIONAL ENGINEER
8/1/23

MICHAEL C. GRAPPERHAUS
License Number: PE-2008019543
Expiration Date: 12/31/24

PROFESSIONAL SEAL

CASCO Diversified Corporation
MO Certificate of Authority #000329 Arch.
MO Certificate of Authority #000613 Eng.

CASCO
12 Sunnen Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX

COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY: MEA
CHECKED BY: JST
DESIGNED BY: JST

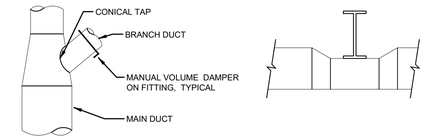
SHEET TITLE:

MECHANICAL ROOF PLAN

SHEET NUMBER:

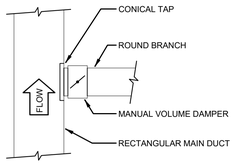
M-103

08/01/2023
SHEET 23 OF 29

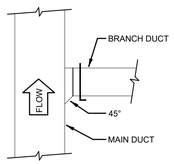


ROUND BRANCH DUCT

DUCT UNDER BEAM OR CROSSOVER SECTION



RECTANGULAR MAIN / ROUND BRANCH DUCT



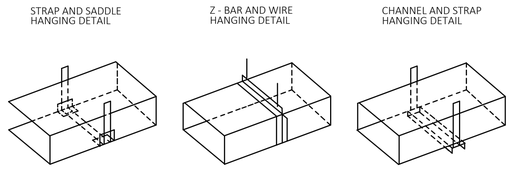
RECTANGULAR BRANCH DUCT

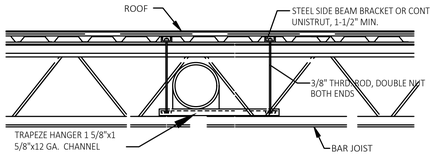
5 DUCT CONSTRUCTION DETAILS

M-501 SCALE: 1/4" = 1'-0"

NOTES FOR THIS DRAWING

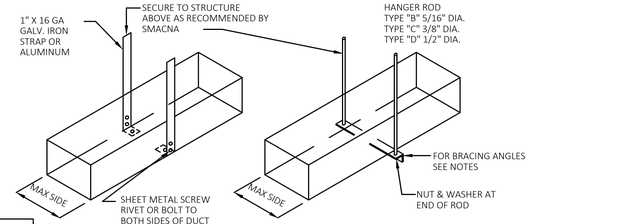
1. FLEXIBLE DUCTS SHALL BE INSTALLED TO PROVIDE SWEEPING CONFIGURATION WITH NOT LESS THAN MANUFACTURER'S RECOMMENDED BEND RADIUS WITHOUT UNDUE RESTRICTIONS, BUT NOT CREATING UNNECESSARY SAGS OR CURVES. FLAT BANDING MATERIAL NOT LESS THAN 1-1/2" WIDE SHALL BE USED TO SUSPEND FLEXIBLE DUCTS. DUCTING FURNISHED WITH FACTORY INSTALLED GROMMETS SHALL BE SUSPENDED BY WIRES ATTACHED TO GROMMETS. REFER TO PROJECT MANUAL.
2. CONTRACTOR SHALL SUBMIT A CERTIFIED TESTING AND AIR BALANCE REPORT BASED ON THE EQUIPMENT DESIGNATIONS. SEE PROJECT MANUAL SECTION 15500.
3. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO ORDERING ANY MATERIALS OR FABRICATING ANY DUCTWORK. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO BEGINNING WORK IF FIELD CONDITIONS PROHIBIT INSTALLATION OF EQUIPMENT AND DUCTWORK PER THE DRAWINGS AND SPECIFICATIONS.
4. FAILURE TO INSTALL THE EQUIPMENT AND DUCTWORK PER THE DRAWINGS AND SPECIFICATIONS MAY RESULT IN EXCESSIVE DUCT PRESSURE LOSS AND INSUFFICIENT AIR FLOW.
5. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR DEVIATIONS FROM THE DRAWINGS AND SPECIFICATIONS NOT APPROVED BY THE ENGINEER. THIS SHALL INCLUDE ALL COSTS ASSOCIATED WITH BRINGING THE EQUIPMENT AND DUCTWORK INTO COMPLIANCE WITH THE DESIGN STANDARDS.





DUCTWORK SUPPORTED ABOVE LOWER CHORD OF BAR JOISTS AND GIRDERS

DUCT SCHEDULE	
DUCT DIMENSIONS (INCHES)	TYPE HANGER
UP THRU 12	A
13 " 18	A
19 " 30	A/B
31 " 42	B
43 " 54	B
55 " 60	B
61 " 84	C
85 " 96	C
OVER 96	D



TYPE "A"

(8 FT. MAX HANGER SPACING. ALSO PROVIDE 3 HANGERS AT EACH TAKE-OFF OR BRANCH.)

TYPE "B", "C", "D"

(8 FT. MAX HANGER SPACING)

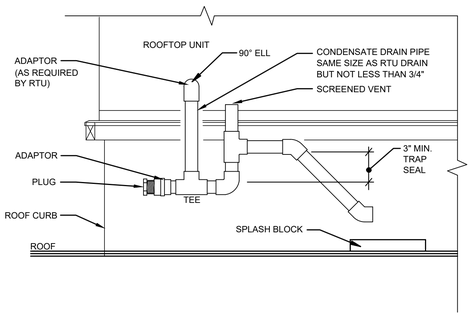
NOTES:

1.) FOR SEVERAL DUCTS ON ONE HANGER, TYPE "B", "C", OR "D" MAY BE USED. SIZE OF HANGER WILL BE SELECTED ON SUM OF DUCT WIDTHS EQUAL TO MAXIMUM WIDTH OF DUCT SCHEDULE.

2.) SCHEDULE FOR ANGLES FOR BRACING: TYPE "B" -1-1/2 X 1-1/2 X 1/8 ANGLE, MAX. SPACING 8'-0" CENTERS;
TYPE "C" - 1-1/2 X 1-1/2 X 3/16 ANGLE, MAX. SPACING 8'-0" CENTERS;
TYPE "D" - 2 X 2 X 1/4 ANGLE, MAX SPACING 4'-0" CENTERS.

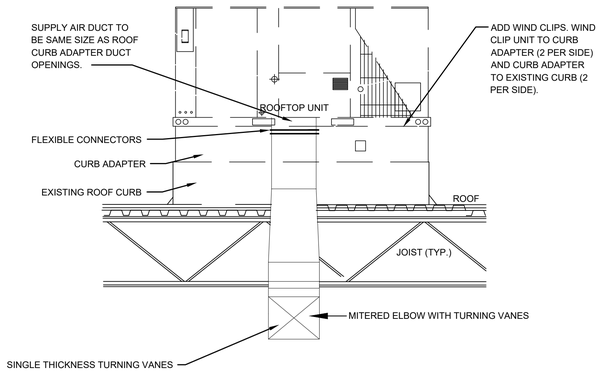
4 DUCTWORK SUPPORT DETAILS

M-501 SCALE: 1/4" = 1'-0"



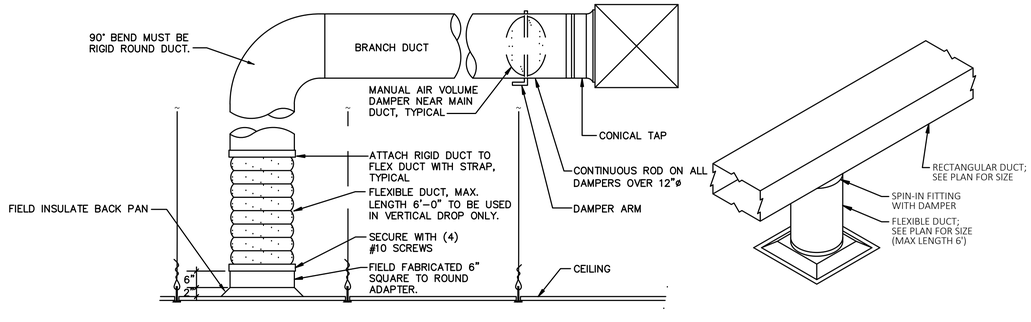
3 ROOFTOP CONDENSATE PIPING DETAIL

M-501 SCALE: 1/4" = 1'-0"



2 ROOFTOP SECTION DETAIL

M-501 SCALE: 1/4" = 1'-0"



1 DIFFUSER CONNECTION DETAIL

M-501 SCALE: 1/4" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MICHAEL CHARLES GRAPPERHAUS
NUMBER PE-2008019543
PROFESSIONAL ENGINEER
8/1/23

MICHAEL C. GRAPPERHAUS
License Number: PE-2008019543
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MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI 65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY: MEA
CHECKED BY: JST
DESIGNED BY: JST

SHEET TITLE:

MECHANICAL DETAILS

SHEET NUMBER:

M-501

08/01/2023
SHEET 24 OF 29

NEW DOAS ROOFTOP UNIT SCHEDULE (RTU): GAS FIRED HEATING (BASIS OF DESIGN)

RTU #

ID	MANUFACTURER (BASIS OF DESIGN)	MODEL NO.	AREA SERVED	VENTILATION	SUPPLY FAN			GAS HEAT				COOLING COIL						HOT GAS REHEAT		COMPRESSORS		ELECTRICAL					EER/IEER /SEER @ ASHRAE 90.1 MIN	WEIGHT / LBS	ACCESSORIES	NOTES
				MAX OA	TOTAL	ESP	MOTOR	INPUT	OUTPUT	EAT	LAV	NOMINAL	TOTAL	SENS	LAT	EAT	LAT	SENS	MAX LAT	NO	RLA (EA)									
				CFM	CFM	IN W.G.	HP	MBH	MBH	F	F	TONS	MBH	MBH	MBH	DB°/WB°	DB°/WB°	MBH	DB°/WB°			VOLTS	PHASE	HERTZ	MOCP	MCA				
RTU-2	GREENHECK	RV-10-4I-B-E1	LOCKER ROOMS	600	600	0.75	0.5	75.0	60.0	4.1	96.7	5	54.2	26.3	27.9	95.6 / 79.4	54.9 / 54.7	26.0	94.2 / 59.8	1	NA	208	3	60	30.0	20.2	-- / -- / 14.0	1363	1 THRU 21	1 THRU 12

NOTES:

1. CONSTANT VOLUME DOAS ROOFTOP UNIT WITH MODULATING COMPRESSOR, MODULATING CONDENSER REHEAT, MODULATING GAS HEATING.
2. STATIC PRESSURE IS THE EXTERNAL STATIC PRESSURE WHICH EXCLUDES ANY PRESSURE DROPS WITHIN THE UNIT.
2. PERFORM TESTING AND BALANCING AND SUBMIT CERTIFIED REPORTS TO THE ENGINEER.
3. CONTRACTOR TO ENSURE THAT OUTDOOR AIR INTAKES ARE A MINIMUM OF 10'-0" AWAY FROM ANY EXHAUST FAN DISCHARGE, PLUMBING VENT OR OTHER CONTAMINANT SOURCE.
4. INSTALL NEW PACKAGED ROOFTOP UNIT AND CURB ADAPTER ON EXISTING ROOF CURB.
5. ELECTRICAL CONNECTION TO BE SINGLE POINT AND TO BE THROUGH THE BOTTOM OF THE UNIT.
6. GAS CONNECTION REQUIREMENT: 1 PSI (11 TO 14)" WC GAS PRESSURE.
7. REFER TO ROOF FRAMING PLAN FOR EXACT LOCATION OF ROOFTOP UNITS.
8. ADDRESSABLE SMOKE DETECTOR SHALL BE PROVIDED & WIRED BY FIRE ALARM CONTRACTOR AND INSTALLED IN THE UNIT CABINET WITH PROBE EXTENDING INTO THE SUPPLY AIR DISCHARGE PLENUM BY THE MECHANICAL CONTRACTOR.
9. MAXIMUM AIR VELOCITY THROUGH COOLING COIL SHALL NOT EXCEED 500 FEET PER MIN.
10. UNIT WEIGHT INCLUDES 300 LBS FOR CURB ADAPTER
11. CONTRACTOR TO PROVIDE ROOF CURB ADAPTER.
12. DOAS RTU TO BE ELECTRICALLY INTERLOCKED TO EXISTING FAN XEF-15.
13. EXISTING TIME CLOCK TO ENABLE/DISABLE OPERATION OF DOAS RTU & XEF-15.

ACCESSORIES:

1. INDIRECT FIRED HEAT EXCHANGER
2. DOUBLE WALL CONSTRUCTION, 2" R13 FOAM INSULATION
3. HINGED ACCESS DOORS
4. 2" INCH PANEL FILTERS, MERV 8
3. DIRECT DRIVE PLENUM BLOWER & MOTOR ASSEMBLY WITH VFD & VFD BYPASS (ADJ SETPOINT)
4. BOTTOM POWER ENTRY KIT
5. DISCONNECT SWITCH (NON FUSED), FACTORY INSTALLED
6. SERVICE OUTLETS (GFCI TYPE, NEMA 4, FACTORY MOUNTED & WIRED)
7. WEATHER HOOD
8. TEMP/ENTHALPY 100% ECONOMIZER, MOTORIZED OUTDOOR AIR DAMPER
9. PAINTED EXTERIOR -- PERMATECTOR GRAY
10. DDC UNIT MOUNTED MICROPROCESSOR CONTROLLER. SINGLE ZONE VAV FUNCTION WITH DIGITAL INPUT TO SET FAN SPEED. 7-DAY PROGRAMMABLE FUNCTION, LEAVING AIR TEMP SENSOR.
11. OUTDOOR AIR WEATHER HOOD
12. DIRTY FILTER SENSOR
13. CONDENSER HAIL GUARDS
14. EQUIPMENT OPERATIONAL CHECK (EOC)
15. 3-ROW EVAPORATOR COIL WITH TXV (W/ EXT EQUALIZER)
16. REFRIGERANT: R410-A
17. STAINLESS STEEL HEAT EXCHANGERS
18. 12:1 MODULATING GAS INPUT, DIRECT SPARK IGNITION
19 VARIABLE CAPACITY COMPRESSOR
20. MODULATING HOT GAS REHEAT, 2 ROW COIL WITH TXV

	EQUIVALENT MANUFACTURER MODEL #	EQUIVALENT MANUFACTURER MODEL #
RTU-2	CAPTIVEAIRE CASRTU1-1	RUPPAIR PARTU-1

EXISTING ROOFTOP UNIT SCHEDULE (RTU): GAS FIRED HEATING

XRTU #

ID	MANUFACTURER	MODEL NO.	AREA SERVED	VENTILATION		SUPPLY FAN			GAS HEAT				COOLING COIL						HOT GAS REHEAT		COMPRESSORS		ELECTRICAL					EER/IEER /SEER	WEIGHT / LBS	ACCESSORIES	NOTES
				MIN OA	MAX OA	TOTAL	ESP	MOTOR	INPUT	OUTPUT	EAT	LAV	NOMINAL	TOTAL	SENS	LAT	EAT	LAT	SENS	MAX LAT	NO	RLA (EA)									
				CFM	CFM	CFM	IN W.G.	HP	MBH	MBH	F	F	TONS	MBH	MBH	MBH	DB°/WB°	DB°	MBH	DB°			VOLTS	PHASE	HERTZ	MOCP	MCA	@ ARI 340			
XRTU-1	TRANE	YHC060E3RYA18H0C0A1B	OFFICE, PARTS STORAGE, BREAK RM	82	350	2000	0.75	1.0	80	64	4.1	100.7	5	63.5	47.3	16.2	80/67	58	25.3	69.5	1	NA	208	3	60	45	32.1	12.85/---/15.0	1013	1 THRU 21	1 THRU 4

NOTES:

1. EXISTING TIME CLOCK TO ENABLE/DISABLE OPERATION OF EXISTING RTU-1.
2. ADDRESSABLE SMOKE DETECTOR SHALL BE PROVIDED & WIRED BY FIRE ALARM CONTRACTOR AND INSTALLED IN THE UNIT CABINET WITH PROBE EXTENDING INTO THE SUPPLY AIR DISCHARGE PLENUM BY THE MECHANICAL CONTRACTOR, IF FUNCTIONING SMOKE DETECTOR IS DAMAGED OR MISSING.
3. YEAR OF MANUFACTURER: 2012
4. HIGH EFFICIENCY UNIT WITH STAINLESS STEEL HEAT EXCHANGER
5. CONTRACTOR SHALL ATTACH NEW NAMEPLATE DECALS FROM TRANE COMPANY TO REPLACE THE EXISTING THAT ARE WEATHERED.
6. CONTRACTOR SHALL OBTAIN FROM EQUIPMENT MANUFACTURER A REPLACEMENT EQUIPMENT LABEL BASED ON THE LEGIBLE/EXISTING SERIAL NUMBER. THIS NEW LABEL SHALL REPLACE THE WEATHERED LABEL AND SHALL BE APPLIED AT THE SAME LOCATION AS THE EXISTING LABEL. EXISTING LABEL SHALL BE SCRAPED OFF TO PROVIDE A PROPER ADHESIVE METAL SURFACE FOR THIS NEW LABEL.

EXISTING ACCESSORIES:

1. INDIRECT FIRED HEAT EXCHANGER
2. 2 INCH PANEL FILTERS, MERV 7
3. ROOF CURB - 14" HIGH
4. BOTTOM POWER ENTRY KIT
5. DISCONNECT SWITCH (NON FUSED), FACTORY INSTALLED
6. SERVICE OUTLETS (GFCI TYPE, NEMA 3R, FACTORY MOUNTED/POWERED.
7. WEATHER HOOD
8. COMPARATIVE ENTHALPY 100% ECONOMIZER, MOTORIZED OUTDOOR AIR & MOTORIZED RE-CIRCULATION DAMPERS, BAROMETRIC RELIEF.
9. STAINLESS STEEL HEAT EXCHANGER, MEDIUM HEAT CAPACITY, SINGLE STAGE
10. DIRTY FILTER SENSOR
11. CONDENSER HAIL GUARDS
12. 4-ROW EVAPORATOR COIL WITH TXV
13. REFRIGERANT: R410-A
14. SINGLE ZONE VAV FUNCTION, MULTI-SPEED DIRECT DRIVE EVAP MOTOR.
15. DEHUMIDIFICATION HOT GAS REHEAT, 2-ROW COIL, ZONE HUMIDISTAT

DIFFUSER, REGISTER AND GRILLE SCHEDULE

CFM

ID	TYPE	ROUND NECK SIZE	FACE SIZE	FILTER SIZE	MOUNTING	CFM RANGE	MANUFACTURERS MODEL # (BASIS OF DESIGN)	REMARKS/OPTIONS	EQUIVALENT MANUF / MODEL #	EQUIVALENT MANUF / MODEL #
S-1	SUPPLY DIFFUSER	PLAN	24" x 24"	N/A	SURFACE MOUNT	100-250	TITUS OMNI, TYPE 1	1 THRU 3	PRICE SPD	KRUEGER PLQ
S-2	SUPPLY DIFFUSER	PLAN	24" x 24"	N/A	LAY-IN MOUNT	100-250	TITUS OMNI, TYPE 2	1 THRU 3	PRICE SPD	KRUEGER PLQ
R-1	RETURN GRILLE	PLAN	20" x 24"	N/A	LAY-IN/SURFACE	200-350	TITUS 50F	1, 3	NAILOR 51EC-OA	KRUEGER EGC15
R-2	RETURN GRILLE	PLAN	24" x 24"	N/A	LAY-IN/SURFACE	200-350	TITUS 50F	1, 3	NAILOR 51EC-OA	KRUEGER EGC15
E-1	EXHAUST GRILLE	PLAN	12" x 12"	N/A	SURFACE	50-350	TITUS 50F	1, 35	NAILOR 51EC-OA	KRUEGER EGC15

NOTES:

1. INSTALLED OPPOSED BLADE DAMPER.
2. BAKED ENAMEL FINISH, COLOR TO BE WHITE.
3. INSULATED BACKPAN

VEHICLE EXHAUST SYSTEM SCHEDULE (ALTERNATE #1)

VE #

ID	NEW / EXISTING	MANUFACTURER (BASIS OF DESIGN)	MODEL #	SERIAL #	TYPE	DRIVE	CFM	FAN RPM	S.P. (IN. W.G.)	MOTOR HP	MOTOR VOLTS	MOTOR PHASE	MOTOR HZ	SERVICE	WEIGHT (LBS)	ACCESSORIES	INSTALLATION NOTES	EQUIVALENT MANUF MODEL #	EQUIVALENT MANUF MODEL #
XEF-17	EXISTING	ACME INDUSTRIAL	215 A/9H	92030403	CLASS I, INLINE TUBULAR CENTRIFUGAL	BELT	2600	3200	5.0	5	208	3	60	EAST WALL SERVICE BAY	180	1 - 3, 5, 12	1	GREENHECK G - 099 HP - VG/4/A	SOLER & PALAU SDBDe-12-3/4-1750
XEF-18	EXISTING	ACME INDUSTRIAL	215 A/9H	92030403	CLASS I, INLINE TUBULAR CENTRIFUGAL	BELT	1950	3689	5.0	3	208	3	60	WEST WALL SERVICE BAY	180	1 - 3, 5, 12	1	GREENHECK G-098 HP- VG/4/A	SOLER & PALAU SDBDe-10-1/3-1450
VE-1	NEW	CAR-MON	TSR-S32, 6 INCH TUBING		TUBING STORAGE REEL, RETRACTABLE		650	4-POINT ATTACHMENT TO STRUCTURE		--				EAST & WEST WALL SERVICE BAY	--	6, 7, 8, 10, 11	--	PLYMOVENT CORP SER, FEB, HRR	FUME-A-VENT CO HRS, BA, BAA
VE-2	NEW	CAR-MON	RDS-6, 6 INCH EXH CONN		DIESEL STACK ADAPTER, HEAT RESIST EPDM WITH LIFTING RING		650	9 INCH INLET TO ACCOMMODATE EXH STACK RAIN DAMPER		--				EAST & WEST WALL SERVICE BAY	--	4, 9, 11	--	PLYMOVENT CORP SER, FEB, HRR	FUME-A-VENT CO HRS, BA, BAA
VE-3	NEW	CAR-MON	TYPE NTC 6 INCH HOSE		25 FT: 600 DEG F TEMP LIMIT, OIL RESISTANT		650	FACTORY INSTALLED ADAPTERS AND CONNECTORS AT HOSE ENDS		--				EAST & WEST WALL SERVICE BAY	--	11	--	PLYMOVENT CORP SER, FEB, HRR	FUME-A-VENT CO HRS, BA, BAA

ACCESSORIES:

1. BACKWARD INCLINED STEEL WHEEL, BELT DRIVE, CAPACITOR START CONTINUOUS DUTY MOTOR.
2. NEMA 1 DISCONNECT
3. DISCHARGE WALL LOUVER WITH ACCESS.
4. MOLDED EPDM WITH CURVED CONTOUR SHAPE, STEEL COLLAR WITH DEBRIS SCREEN
5. BACKDRAFT DAMPER
6. STRUCTURAL MOUNTING DIMENSIONS, BOLT PATTERN (L x W): 9.75" x 34.75". RIGIDLY ATTACH TO STRUCTURE.
7. TOP FRAME DIMENSIONS (L X W): 12" X 44.75". DRUM DIAMETER: 32"
8. RETRACTABLE SPRING MECHANISM FOR HOSE RETRACTION ONTO HOSE REEL FOR STORAGE.
9. VARIOUS TAIL PIPE ADAPTERS AVAILABLE FOR CONNECTION TO THE HOSE.
10. TUBULAR STEEL WELDED CONSTRUCTION.
11. TOTAL OF SEVEN ASSEMBLIES.

INSTALLATION NOTES:

1. CONTRACTOR TO INSTALL VEHICLE EXHAUST COMPONENTS (VE-1, VE-2, VE-3) AS DETAILED IN MANUFACTURERS INSTALLATION INSTRUCTIONS, AT LOCATIONS SHOWN ON SHEET M-102.
2. CONTRACTOR SHALL RESTORE THE FAN STRUCTURE, ROTATIONAL COMPONENTS, AND FUNCTIONS TO "AS NEW" CONDITION AND PERFORMANCE

EXISTING EXHAUST FAN SCHEDULE

ID	NEW / EXISTING	MANUFACTURER	MODEL #	TYPE	DRIVE	CFM	FAN RPM	S.P. (IN. W.G.)	MOTOR HP	MOTOR VOLTS	MOTOR PHASE	MOTOR HZ		WEIGHT (LBS)	INSTALLATION NOTES
XEF-4	EXISTING	---	---	IN-LINE	--	450	1075	0.5	1/2	208	3	60	BREAK ROOM	67	1, 3, 5, 6
XEF-15	EXISTING	---	---	IN-LINE	--	700	1075	0.5	1/3	115	1	60	LOCKER ROOMS	56	1, 2, 3, 4, 6

INSTALLATION NOTES:

1. RESTORE THE FAN STRUCTURE, ROTATIONAL COMPONENTS, MOTORS, CONTROLLERS, AND FUNCTIONS TO "AS NEW" CONDITION AND PERFORMANCE
2. EXISTING WALL-MOUNT SPEED CONTROL & ON/OFF SWITCH SHALL BE RELOCATED TO LOCATION SHOWN ON PLAN M-102.
3. ADJUST FAN PERFORMANCE TO MATCH CFM OF SCHEDULE.
4. XEF-15 SHALL BE INTERLOCKED TO RTU-2, AND ENABLED/DISABLED THROUGH THE EXISTING TIME CLOCK.
5. XEF-4 IS TO BE ENABLED/DISABLED THROUGH THE EXISTING TIME CLOCK, AND OPERATED BY WALL TOGGLE SWITCH IN BREAKROOM.
6. IF SPEED CONTROL DEVICE IS MISSING OR NON-FUNCTIONAL, THEN CONTRACTOR SHALL ADD /REPLACE ELECTRIC SPEED CONTROL DEVICE. SPEED CONTROL DEVICE SHALL BE ACCESSIBLE FOR ADJUSTMENT.

SEQUENCE OF OPERATION: (NEW RTU-2)

A. GENERAL: THE FOLLOWING DESCRIBES THE SEQUENCE OF OPERATION FOR INDIRECT-FIRED CONSTANT VOLUME DOAS ROOFTOP UNIT WITH FAN VFD SETPOINT, MODULATED HOT GAS REHEAT, SERVING THE LOCKER ROOMS.

THIS DOAS UNIT SHALL BE ENABLED/DISABLED AND INTERLOCKED TO LOCKER ROOM EXHAUST FAN XEF-15 VIA CONNECTION TO THE EXISTING TIME CLOCK.

B. OCCUPIED HOURS:

1. UNIT OUTDOOR AIR DAMPER SHALL OPEN TO THE MAXIMUM POSITION AND UNIT SUPPLY FAN SHALL OPERATE CONTINUOUSLY BY UNIT CONTROLLER .
2. INTERLOCKED RESTROOM EXHAUST FAN SHALL OPERATE.
3. UNIT CONTROLLER SHALL MAINTAIN THE EVAPORATOR LEAVING AIR TEMP OF 55 DEG F DB BY MODULATING MECHANICAL REFRIGERATION BASED ON THE COMPARATIVE OA & RETURN AIR ENTHALPY DIFFERENCE VIA SENSOR INPUT.
4. HOT GAS REHEAT SHALL BE ENABLED AND MODULATE BY THE UNIT CONTROLLER TO MAINTAIN THE SETPOINT DISCHARGE AIR TEMPERATURE.
5. UNIT CONTROLLER SHALL DETERMINE BY INPUT FROM SPACE TEMPERATURE SENSOR WHEN TO ENABLE THE MODULATING GAS BURNER TO MAINTAIN THE DISCHARGE TEMPERATURE SETPOINT.

C. UNOCCUPIED HOURS:

1. UNOCCUPIED HOURS DETERMINED FROM SETTINGS OF THE TIME CLOCK.
2. LOCKER ROOM EXHAUST FAN (XEF-15) SHALL NOT OPERATE.
3. UNIT OUTDOOR AIR DAMPER SHALL REMAIN CLOSED AND UNIT SUPPLY FAN SHALL CYCLE OFF BY UNIT CONTROLLER.
4. HEATING AND COOLING FUNCTIONS ARE NOT OPERATING.
5. ROOM TEMPERATURE SENSOR SHALL INITIATE COOLING OR HEATING AT THE SELECTED UNOCCUPIED ROOM TEMPERATURES, IF ENABLED BY THE TIME CLOCK.
6. UNIT REFRIGERATION SYSTEM SHALL CYCLE WITH MODULATED HOT GAS REHEAT FOR SPACE TEMP AND HUMIDITY CONTROL, OR THE STAGES OF GAS HEATING SHALL CYCLE IN RESPONSE TO THE ROOM TEMPERATURE SENSOR TO PROVIDE COOLING OR HEATING OF THE UNOCCUPIED INTERIOR SPACES, IF ENABLED BY THE TIME CLOCK.

D. SMOKE ALARM FUNCTION.

1. UNIT OUTDOOR AIR DAMPER SHALL CLOSE AND UNIT SUPPLY FAN SHALL STOP ON A SIGNAL FROM DUCT SMOKE DETECTOR. DUCT SMOKE DETECTOR SHALL SEND A SIGNAL TO REMOTE FIRE PROTECTION ALARM DEVICE.

SEQUENCE OF OPERATION: (EXISTING RTU-1)

A. GENERAL: THE FOLLOWING DESCRIBES THE SEQUENCE OF OPERATION FOR EXISTING CONSTANT VOLUME ROOFTOP UNIT WITH SINGLE ZONE VAV FUNCTION, SERVING OFFICE, PART STORAGE, AND BREAKROOM.

THIS ROOFTOP UNIT SHALL BE ENABLED/DISABLED BY CONNECTION TO THE EXISTING TIME CLOCK. TIME CLOCK TO INITIATE OPERATIONS.

B. OCCUPIED HOURS:

1. UNIT OUTDOOR AIR DAMPER SHALL OPEN TO ITS MINIMUM POSITION AND UNIT SUPPLY FAN SHALL OPERATE CONTINUOUSLY.
2. COOLING: UNIT CONTROLLER SHALL CYCLE STAGES OF COOLING BY SELECTING COMPRESSOR STAGE AND CORRESPONDING LOW OR HIGH SPEED SUPPLY FAN OPERATION TO MAINTAIN ROOM TEMPERATURE SETPOINT VIA UNIT CONTROLLER AND SENSORS.
   HEATING: UNIT CONTROLLER SHALL CYCLE STAGES OF GAS HEATING AND CORRESPONDING LOW OR HIGH SPEED SUPPLY FAN OPERATION TO MAINTAIN ROOM TEMPERATURE SETPOINT VIA UNIT CONTROLLER AND SENSORS.
2. UNIT ECONOMIZER CYCLE SHALL BE INITIATED UPON A SIGNAL FROM OUTDOOR AND RETURN AIR TEMPERATURE AND ENTHALPY SENSORS. OUTDOOR AIR DAMPER, RETURN AIR DAMPER, AND UNIT COMPRESSOR(S) SHALL CYCLE TO MAINTAIN SPACE SETPOINT.

C. UNOCCUPIED HOURS:

1. UNIT OUTDOOR AIR DAMPER SHALL REMAIN CLOSED AND UNIT SUPPLY FAN SHALL REMAIN OFF.
3. HEATING AND COOLING FUNCTIONS ARE NOT OPERATING.
4. IF ENABLED BY TIME CLOCK
5. UNIT CONTROLLER SHALL INITIATE LOW SPEED FAN OPERATION, OPEN OUTDOOR AIR DAMPER TO MINIMUM POSITION, INITIATE COOLING OR HEATING.
6. COOLING: UNIT CONTROLLER SHALL CYCLE STAGES OF COOLING BY SELECTING COMPRESSOR STAGE AND CORRESPONDING LOW OR HIGH SPEED SUPPLY FAN OPERATION TO MAINTAIN ROOM TEMPERATURE SETPOINT VIA UNIT CONTROLLER AND SENSORS.
7. HEATING: UNIT CONTROLLER SHALL CYCLE STAGES OF GAS HEATING AND CORRESPONDING LOW OR HIGH SPEED SUPPLY FAN OPERATION TO MAINTAIN ROOM TEMPERATURE SETPOINT VIA UNIT CONTROLLER AND SENSORS.
8. ECONOMIZER FUNCTION SHALL BE INITIATED UPON A SIGNAL FROM OUTDOOR AND RETURN AIR TEMPERATURE AND ENTHALPY SENSORS. OUTDOOR AIR DAMPER, RETURN AIR DAMPER, AND UNIT COMPRESSOR(S) SHALL CYCLE TO MAINTAIN SPACE SETPOINT.

D. WARM-UP MODE:

1. IF ENABLED BY TIME CLOCK.
2. UNIT CONTROLLER SHALL MAINTAIN OUTDOOR AIR DAMPER CLOSED AND UNIT SUPPLY FAN SHALL CYCLE ON A SIGNAL FROM SPACE SENSOR.
3. UNIT CONTROLLER SHALL INITIATE COOLING OR HEATING.
4. COOLING: UNIT CONTROLLER SHALL CYCLE STAGES OF COOLING BY SELECTING COMPRESSOR STAGE AND CORRESPONDING LOW OR HIGH SPEED SUPPLY FAN OPERATION TO MAINTAIN ROOM TEMPERATURE SETPOINT VIA UNIT CONTROLLER AND SENSORS.
5. HEATING: UNIT CONTROLLER SHALL CYCLE STAGES OF GAS HEATING AND CORRESPONDING LOW OR HIGH SPEED SUPPLY FAN OPERATION TO MAINTAIN ROOM TEMPERATURE SETPOINT VIA UNIT CONTROLLER AND SENSORS.

E. SMOKE ALARM FUNCTION.

1. UNIT OUTDOOR AIR DAMPER SHALL CLOSE AND UNIT SUPPLY FAN SHALL STOP ON A SIGNAL FROM DUCT SMOKE DETECTOR. DUCT SMOKE DETECTOR SHALL SEND A SIGNAL TO REMOTE FIRE PROTECTION ALARM DEVICE.

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65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

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MECHANICAL SCHEDULES

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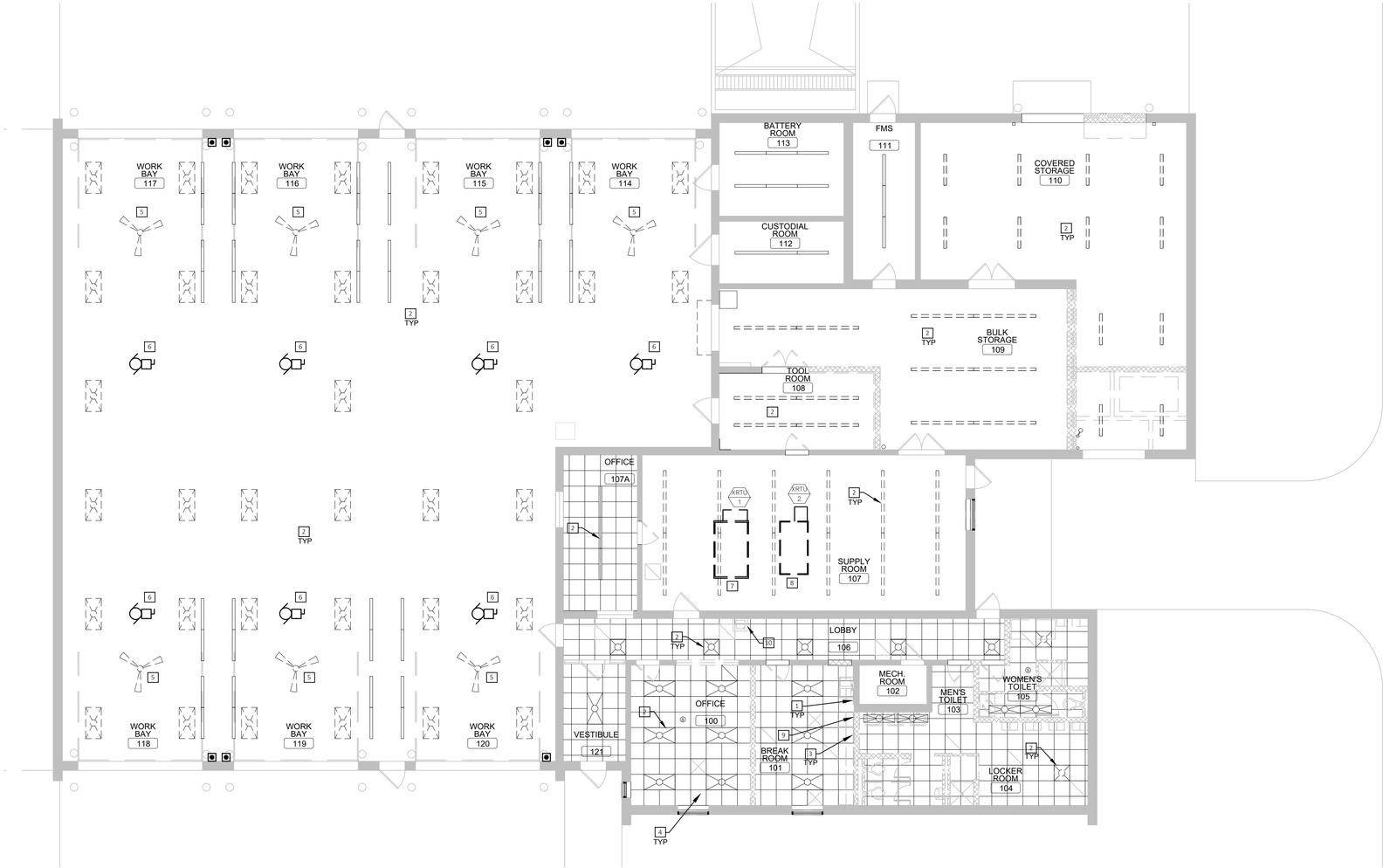
SHEET 25 OF 29



1 E-101 ELECTRICAL DEMO FLOOR PLAN

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

DEMOLITION GENERAL NOTES:

A. COORDINATE DEMOLITION AND NEW WORK WITH ALL DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

B. PERFORM ALL WORK IN ACCORDANCE WITH THE ELECTRICAL CODE, O.S.H.A., PERTINENT NFPA CODES, THE RULES AND REGULATIONS OF ALL LOCAL, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTIONS, AND ALL STANDARDS APPLIED BY THE BUILDING MANAGEMENT. PROVIDE OWNER WITH CERTIFICATES OF INSPECTION.

C. REFER TO ARCHITECTURAL DRAWINGS FOR AREAS OF DEMOLITION. EXISTING LIGHTING FIXTURES, EXIT SIGNS AND OTHER CEILING MOUNTED DEVICES TO BE REMOVED IN THESE AREAS SHALL BE DISCONNECTED FROM THEIR EXISTING SOURCES TO ALLOW FOR REMOVAL UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS. WIRING AND CONDUIT SHALL BE REMOVED BACK TO SOURCE/PANEL.

D. MISCELLANEOUS WIRING DEVICES, TELE/COMMUNICATION DEVICES, LIGHTING FIXTURES, EXIT LIGHTS, ETC. MOUNTED ON PARTITIONS TO BE REMOVED OR CONCEALED BY NEW CONSTRUCTION SHALL BE DISCONNECTED FROM THEIR SERVICE SOURCE TO ALLOW FOR REMOVAL.

E. MAINTAIN CONTINUITY OF ALL ACTIVE LIGHTING & POWER CIRCUITS. INTERRUPT WIRING AND REROUTE WHERE REQUIRED TO POWER EXISTING DEVICES TO REMAIN. PROVIDE AS-BUILT DRAWINGS INDICATING ALL RELOCATIONS AND CIRCUIT ADJUSTMENTS IN PANELBOARDS. UPDATE PANELBOARD CIRCUIT DIRECTORIES FOR ALL PANELBOARDS AFFECTED BY THE WORK.

F. OWNER RETAINS RIGHTS OF SALVAGE FOR ELECTRICAL EQUIPMENT AND LIGHT FIXTURES TO BE REMOVED. COORDINATE WITH OWNER THE EQUIPMENT AND FIXTURES TO BE SALVAGED AND THE LOCATION FOR STORAGE. AVOID DAMAGE TO SALVAGED EQUIPMENT, FIXTURES AND DEVICES DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.

G. ALL PREVIOUSLY ABANDONED OR OBSOLETE CONDUIT AND WIRING SHALL BE REMOVED IN ITS ENTIRETY.

H. REVIEW EXISTING CONDITIONS PRIOR TO START OF DEMOLITION AND COORDINATE ANY POWER INTERRUPTIONS WITH OWNER'S REPRESENTATIVE.

I. SEAL ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS, AND ROOF WHERE ELECTRICAL COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS.

J. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT, FIXTURES, SYSTEMS, CONDUIT AND WIRING NO LONGER REQUIRED AFTER PROJECT COMPLETION.

DEMOLITION KEYED NOTES:

1. EXISTING WALL OUTLETS: DISCONNECT WALL OUTLETS/DEVICES AND WIRING REMOVED BACK TO PANEL. PATCHING OF WALLS BY OTHERS. FOR ADDITIONAL DEMO WORK, SEE ARCHITECTURAL DRAWINGS
2. EXISTING LIGHT FIXTURES: DISCONNECT LIGHT FIXTURES, WALL FIXTURES, AND WIRING BACK TO SOURCE. CEILING AND WALL FIXTURES TO BE DISCARDED.
3. DEMOLISHED WALLS: PRIOR TO WALL DEMOLITION, DISCONNECT WALL OUTLETS/DEVICES AND WIRING REMOVED BACK TO SOURCE. OUTLETS TO BE REMOVED WITH DEMOLISHED WALLS, UNO. FOR ADDITIONAL DEMO WORK, SEE ARCHITECTURAL DRAWINGS.
4. EXISTING SECURITY/FIRE ALARM SYSTEMS: FIRE ALARM CONTRACTOR TO DETERMINE IF EXISTING FIRE ALARM SYSTEM MAY BE REUSED IN WHOLE OR PART. DEMO ANY EXISTING SECURITY/FIRE ALARM DEVICES NOT TO BE REUSED. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR OPERABLE AND FULLY CODE COMPLIANT SYSTEMS. UNUSED WIRING TO BE REMOVED AND DISCARDED.
5. PRIOR TO REMOVAL OF PADDLE FAN, DISCONNECT POWER AND REMOVE FEEDER BACK TO SOURCE.
6. PRIOR TO REMOVAL OF OH DOOR AND MOTOR, DISCONNECT FEEDER, TIE-UP AND MAKE SAFE FOR REUSE. SALVAGE DISCONNECT AND REUSE IF COMPATIBLE WITH NEW DOOR MOTOR. SEE SHEET E103 FOR NEW WORK.
7. EXISTING ROOF TOP UNIT TO REMAIN IN-PLACE AND CONNECTED.
8. DISCONNECT FEEDERS AND REMOVE BACK TO SOURCE PRIOR TO REMOVAL OF ROOF TOP UNIT. SEE SHEET E103 FOR NEW WORK.
9. OVEN CIRCUITRY: PRIOR TO REMOVAL OF WALL, DISCONNECT WIRING FOR OVEN, TIE-UP AND MAKE SAFE FOR REUSE. SEE SHEET E103 FOR NEW WORK.
10. EXISTING WATER COOLER: AFTER WATER COOLER HAS BEEN REMOVED, DISCONNECT AND REMOVE CIRCUITRY BACK TO SOURCE. WALL PATCH WORK BY OTHERS.

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ELECTRICAL DEMO FLOOR PLAN

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SHEET 26 OF 29

1 E-102 ELECTRICAL LIGHTING FLOOR PLAN

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

LIGHTING GENERAL NOTES

A. FOR LIGHT FIXTURE SCHEDULE, SEE SHEET E601.

B. LOCATIONS SHOWN ARE APPROXIMATE, CONTRACTOR SHALL COORDINATE ACTUAL LOCATIONS WITH OTHER TRADES AND THE OWNER OR THE OWNERS AUTHORIZED REPRESENTATIVE.

C. CONDUIT RUNS SHALL BE INSTALLED PER STATE AND LOCAL CODES.

D. ALL MATERIALS SHALL BE NEW, WITH "UL" APPROVED LABELS.

E. DEVICE LOCATIONS SHOWN ON THE PLAN SHALL BE PLACED EXACTLY AS SHOWN. REFER ANY QUESTIONS TO THE ARCHITECT.

F. ALL FIXTURES, WIRE, AND ELECTRIC DEVICES SHALL BE U.L. APPROVED TYPE.

G. ALL BRANCH LIGHTING AND RECEPTACLE CIRCUITS IN EXCESS OF 100 FT FROM PANEL SHALL BE #10 AWG.

H. NEW LIGHTING SHALL BE RECONNECTED TO CURRENT LIGHTING CIRCUITS AND CONTROLS, UNO.

I. ALL LED LIGHTS SHALL HAVE DEDICATED NEUTRAL.

J. CONTRACTOR SHALL FURNISH ALL LABOR MATERIALS AND EQUIPMENT FOR THE COMPLETE INSTALLATION .

K. ALL LUMINAIRES ARE FED FROM PANEL LP2, U.N.O.

LIGHTING KEYED NOTES:

1. WALL OCCUPANCY SENSOR: PROVIDE DUAL TECHNOLOGY (PIR & ULTRA-SONIC) OCCUPANCY SENSOR WITH MANUAL ON-OFF, LEGRAND 'WATTSTOPPER' #DW-100 OR APPROVED EQUAL.
2. PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING SPACE FOR LIGHTING CIRCUIT(S).
3. EXISTING LIGHTING AND SWITCHING IN THIS AREA TO REMAIN IN-PLACE AND CONNECTED.
4. CEILING FIXTURE SHALL BE SURFACE MOUNTED TO SUB-CEILING WITH SURFACE CEILING KIT. SEE LIGHT FIXTURE SCHEDULE.
5. NEW LIGHT FIXTURES IN THIS ROOM/AREA TO BE RECONNECTED TO EXISTING LIGHTING CIRCUIT(S) AND CONTROLS IN THIS ROOM/AREA, UNO.
6. DISCONNECT, REMOVE EXISTING SITE LIGHT POLE AND SALVAGE FOR REUSE. SEE SHEET A-001 FOR NEW LOCATION. AFTER LIGHT POLE IS IN-PLACE, EXTEND FEEDER AS REQUIRED AND RECONNECT TO EXISTING LIGHTING CIRCUIT(S) AND CONTROLS.
7. PROVIDE NEW 3-WAY WALL SWITCH AND CONNECT TO LIGHTING FIXTURES IN CORRIDOR.
8. EXISTING ROOM EMERGENCY BATTERY FIXTURES TO REMAIN.
9. INSTALL NEW LIGHT FIXTURES AT SAME MOUNTING HEIGHT AS PREVIOUS FIXTURES.
10. PENDANT MOUNT LIGHT FIXTURES AT 15'-0"AFF TO BOTTOM OF FIXTURE.

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ELECTRICAL LIGHTING FLOOR PLAN

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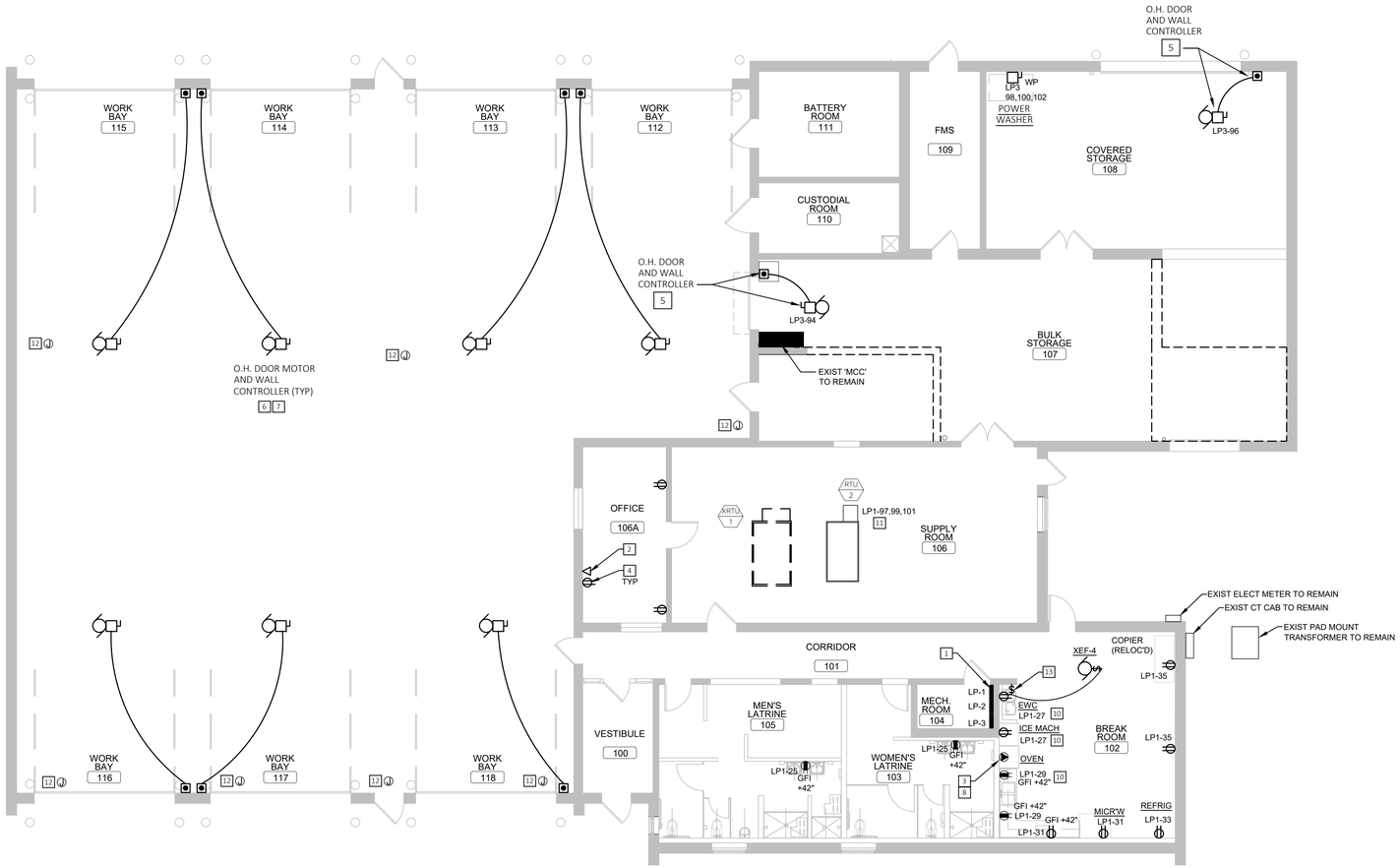

1 E-103 ELECTRICAL POWER FLOOR PLAN

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

POWER GENERAL NOTES:

A. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE, AND ANY OTHER LOCAL CODES AND ORDINANCES.

B. WORKMANSHIP SHALL BE FIRST QUALITY AND IN ACCORDANCE WITH BEST PRACTICES FOR THE TRADE BY SKILLED WORKERS.

C. ALL MATERIALS SHALL BE NEW, WITH "UL" APPROVED LABELS.

D. ALL ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE TESTED AND ADJUSTED FOR PROPER OPERATION. COMPLETE WIRING SYSTEM SHALL BE FREE OF SHORT AND OPEN CIRCUITS.

E. CONTRACTOR SHALL OBTAIN AND PAY ALL FEES AND PERMITS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT.

F. ALL ELECTRICAL EQUIPMENT SHOWN SHALL BE ELECTRICALLY PROTECTED AND PROPERLY WIRED IN ACCORDANCE WITH LOCAL BUILDING CODES. COORDINATE LOCATIONS AND ELECTRICAL DATA WITH THE OWNER.

G. SUPPLY AND INSTALL NEW ELECTRICAL DEVICES AS SHOWN.

H. DEVICE LOCATIONS SHOWN ON THE PLAN SHALL BE PLACED EXACTLY AS SHOWN. COORDINATE WITH INTERIOR ELEVATIONS.

I. ALL WALL OUTLETS SHALL BE INSTALLED 18" AFF TO CENTER OF OUTLET, UNLESS NOTED OTHERWISE.

J. ALL FIXTURES, WIRE, AND ELECTRIC DEVICES SHALL BE UL APPROVED.

K. ALL WIRING SHALL BE AS SPECIFIED UNDER ELECTRICAL SPEC SECTION.

L. ALL REINSTALLED EMERGENCY ALARMS SHALL BE IN COMPLIANCE - NFPA 72 - CURRENT EDITION

M. ALL BRANCH LIGHTING AND RECEPTACLE CIRCUITS IN EXCESS OF 100 FT. TO LOAD CENTER FROM PANEL SHALL BE #10 AWG.

POWER KEY NOTES:

1. MECHANICAL ROOM: ALL EXISTING ELECTRICAL PANELS, LIGHTING CONTACTOR IN THIS ROOM TO REMAIN - NO CHANGE.
2. TELE/DATA: EC SHALL PROVIDE BACKBOX AT 18"AFF WITH 3/4"C AND PULLCORD TO ACCESSIBLE CEILING SPACE FOR COMMUNICATION CABLING BY OWNER'S VENDOR.
3. OVEN: PROVIDE NEMA 5-30 OUTLET FOR OVEN. VERIFY CORD/PLUG CONFIGURATION WITH OUTLET.
4. PROVIDE NEW WALL OUTLETS AND CONNECT TO EXISTING RECEPTACLE CIRCUIT IN AREA/ROOM. FIELD VERIFY.
5. PROVIDE 30A-1P NF DISC SWITCH FOR MOTORIZED OVERHEAD DOOR. CONNECT PER MANUFACTURER'S INSTRUCTIONS.
6. AFTER NEW O.H. DOOR IS IN-PLACE, COORDINATE THE INSTALLATION OF THE DOOR MOTOR AND WALL OPERATOR. EXTEND FEEDER, TIED-UP DURING DEMOLITION WORK AND CONNECT DOOR MOTOR AND WALL OPERATOR AS REQUIRED. COORDINATE ALL ELECTRICAL WORK WITH O.H. DOOR REPRESENTATIVE.
7. VERIFY THAT THE LOAD OF THE NEW O.H. DOOR MOTOR IS EQUAL OR LESS THE REMOVED O.H. DOOR MOTOR AND NOT REQUIRING LARGER DISCONNECT AND CIRCUIT BREAKER SIZE. IF LARGER THAN CURRENT BREAKER SIZE, REPLACE CIRCUIT BREAKER IN PANEL AND INCREASE FEEDER SIZE.
8. REROUTE WIRING PREVIOUSLY TIED-UP DURING DEMO WORK TO NEW OVEN OUTLET AND RECONNECT AS REQUIRED. VERIFY CIRCUIT BREAKER & WIRE SIZE IS COMPATABLE WITH NEW OUTLET.
9. PROVIDE JUNCTION BOX HIGH IN CEILING SPACE FOR DATA/COMMUNICATION CABLES BY OTHERS. ROUTE 1"C WITH PULLCORD BETWEEN JUNCTION BOX AND MAIN COMMUNICATION EQUIPMENT.
10. REPLACE PANEL CIRCUIT BREAKER WITH GFCI TYPE.
11. DISCONNECT FURNISHED WITH UNIT, FED WITH 3#8, #10G, 3/4"C. EXTEND NEAREST RTU RECEPTACLE CIRCUIT TO THIS UNIT'S RECEPTACLE.
12. PRIOR TO REMOVAL OF GAS FIRED HEATER, DISCONNECT CIRCUIT AND TIE-UP FOR REUSE. AFTER NEW GAS FIRED HEATER IS IN-PLACE, RECONNECT TO EXISTING CIRCUIT.
13. PROVIDE 20A-1P HP RATED WALL TOGGLE SWITCH AND CONNECT TO EXISTING EXHAUST FAN. COORDINATE WORK WITH MC.

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E-103

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SHEET 28 OF 29

ABBREVIATIONS

(NOTE: NOT ALL ABBREVIATIONS ARE USED)

AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY
AL	ALUMINUM	EWC	ELECTRIC WATER COOLER
AMP	AMPERE	EXIST'G	EXISTING
ATS	AUTO-TRANSFER-SWITCH	GFCI	GROUND FAULT CURRENT INTERUPTER
BFG	BELOW FINISHED GRADE	FL	FLOOR
BLDG	BUILDING	FLUOR	FLUORESCENT
CB	CIRCUIT BREAKER	GND OR (G)	GROUND
CKT	CIRCUIT	IG	ISOLATED GROUND
CLG	CEILING	JB	JUNCTION BOX
COND OR "C"	CONDUIT	MCB	MAIN CIRCUIT BREAKER
CONN	CONNECT	MDP	MAIN DISTRIBUTION PANEL
CONT	CONTRACTOR	MLO	MAIN LUG ONLY
CU	COPPER	MTD HT	MOUNTING HEIGHT
C/T	CURRENT TRANSFORMER	NF	NON FUSED
DIM	DIMMER	NIC	NOT IN CONTRACT
DMC	DESTINATION MATERNITY	OFOI	OWNER FURNISH, OWNER INSTALL
DISC SW	DISCONNEC SWITCH	RT	RAIN TIGHT, NEMA 3R
DP	DOUBLE POLE	RTU	ROOF TOP UNIT
DT	DOUBLE THROW	SW	SWITCH
DPP	DISTRIBUTION POWER PANEL	UG	UNDER GROUND
EC	EMPTY CONDUIT	UNO	UNLESS NOTED OTHERWISE
EF	EXHAUST FAN	WP	WEATHER-PROOF
V.I.F.	VERIFY IN FIELD	XFMR	TRANSFORMER

LIGHTING FIXTURE SCHEDULE

TYPE	MANF	CATALOG NO.	LAMP DATA **	NO.	LAMPS	REMARKS	WATTS
A	METALUX	22CZ2-44-UNV-L840-CD1-U	L	1	4400 LUMENS 4000K LED	2' X 2' LED TROFFER, RECESSED MTD, 0-10V DIMMABLE FIXTURE	33W
A1	METALUX	22CZ2-44-UNV-L840-CD1-U WITH DF-22W-U KIT	L	1	4400 LUMENS 4000K LED	2' X 2' LED TROFFER, RECESSED MTD WITH DRYWALL FRAME KIT, 0-10V DIMMABLE FIXTURE	33W
B	LEOTEK	ES2-88H-MV-NW-FT-DB-450	L	1	14254 LUMENS 4000K LED	23"WD X 12"DP LED WALL MOUNT FIXTURE, DIFFUSED LENSE, 0-10V DIMMABLE FIXTURE, DARK BRONZE FINISH	126W
C	METALUX	4SNLED-LD5-41SL-LW-UNV-L840-CD1-U	L	1	4214 LUMENS 3500K LED	4-FT LED STRIP LIGHT FIXTURE, 0-10V DIMMABLE FIXTURE	35W
D	PORTFOLIO	LDRT6B-15-D010 (HOUSING) EU6B-1020-80-35 (POWER MODULE) 6LB-M-1-H (TRIM)	L	1	1500 LUMENS 4000K LED	6" DIAMETER, RECESSED DOWNLIGHT, 0-10V DIMMABLE FIXTURE, WHITE FINISH	16W
E	SURE-LITE	APEL	L	2		WALL MOUNT 2-HEAD EMERGENCY BATTERY FIXTURE, WHITE FINISH	2W

** LAMPS L - LED; F - FLUORESCENT; CF - COMPACT FLUORESCENT; MH - METAL HALIDE;

NOTES:
A. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND QUANTITY OF FIXTURES.
B. PROVIDE ALL NECESSARY ACCESSORIES, CONNECTORS, HANGERS, END CAPS, ETC FOR A COMPLETE OPERABLE INSTALLATION.
C. ALL LUMINAIRES ARE 120V, UNLESS NOTED OTHERWISE.

MOUNT: SURFACE | 120/208 | 3-PHASE, 4W | EX PANEL LP3 | CAPACITY: 225A | INT CAP: EXISTING

LOCATION: ELECTRICAL ROOM | LUGS: MLO | DEMAND LOAD: 37A | AV. FAULT: EXISTING

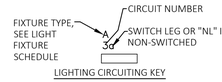
NOTES	CKT	LTG	REC	HVAC	MISC	NP	DESCRIPTION	AMP	POLE	Φ	AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	NP	CKT	NOTES
	85						PROVISIONS	20	1	A	40	2							86	
	87						EXISTING	20	2	B									88	
	89									C	40	2	EXISTING						90	
	91						EXISTING	70	3	A									92	
	93									B	**20**	**1**	**O.H DOOR**				**1.9**		94	**C,D**
	95									C	**20**	**1**	**O.H DOOR**				**1.9**		96	**C,D**
	97			**2.4**						A							**1.3**		98	
C,D	99			**2.4**			**RTU-2**	**30**	**3**	B	**20**	**3**	**POWER WASHER**				**1.3**		100	**C,D**
	101			**2.4**						C							**1.3**		102	
	103						PROVISIONS			A									104	
	105						PROVISIONS			B	20	3	EXISTING						106	
	107						PROVISIONS			C									108	
	109						EXISTING	20	1	A									110	
	111						EXISTING	20	1	B	20	3	EXISTING						112	
	113						EXISTING	20	1	C									114	
	115						EXISTING	20	1	A	20	1	EXISTING						116	
	117						EXISTING	20	1	B	20	1	EXISTING						118	
	119						EXISTING	20	1	C	20	1	EXISTING						120	
	121									A	20	1	EXISTING						122	
	123						EXISTING	20	3	B									124	
	125									C	20	3	EXISTING						126	
	127						EXISTING	20	1	A									128	
	129						EXISTING	20	1	B	50	2	EXISTING						130	
	131						EXISTING	50	2	C									132	
	133									A	20	1	SPARE						134	
	135						EXISTING	20	2	B	20	1	SPARE						136	
	137									C			PROVISIONS						138	
	139						EXISTING	30	2	A	20	1	EXISTING						140	
	141									B	20	2	EXISTING						142	
	143						PROVISIONS			C									144	

PHASE BALANCE			LOAD TYPE	CONNECTED	DEMAND	DEMAND FORMULA	TOTAL LOAD	
Φ	LOAD	%	LIGHTING	0.0 KVA	0.0 KVA	LOAD X 125% NEC 210.19 CONTINUOUS	CONNECTED	DEMAND
A	3.2 KVA	24%	RECEPTACLE	0.0 KVA	0.0 KVA	10KVA + 50% REMAINDER NEC 220.44	14.9 KVA	13.5KVA
B	5.1 KVA	38%	HVAC	7.2 KVA	5.8 KVA	LOAD X 80% (USED MCA IN CALCULATION)	41.4A	37.4A
C	5.1 KVA	38%	MISC	7.7 KVA	7.7 KVA	LOAD X 100% NEC 210.19 NON-CONT.	FILENAME:	
			NP	0.0 KVA	0.0 KVA	0 NONCOINCIDENTAL LOADS NEC 220.60	Copy of 2202009 LOAD.xlsm	

NOTES:
A. EXISTING 3-SECTION PANEL. (SECTION #3)
B. "LO" PROVIDE LOCKABLE CIRCUIT BREAKER WITH ABILITY TO BE "LOCKED ON". "GFI" PROVIDE GFI CIRCUIT BREAKER.
C. NEW WORK IN "**BOLD**".
D. PROVIDE NEW C/B WITH SAME INTERRUPTING RATING, SAME MANUFACTURER.

ELECTRICAL SYMBOLS

(NOT ALL SYMBOLS ARE USED)



LIGHTING CIRCUITING KEY

- 2' X 2' LED LIGHT FIXTURE, RECESSED
- RECESSED DOWNLIGHT
- $ SINGLE POLE SW-20A-120/277V-LEVITON CSB1-20 IVORY OR EQ, MOUNT 48" AFF
- $3 SINGLE POLE SW-20A-120V/277V-3-WAY LEVITON CSB3-20 IVORY OR EQ, MOUNT 48" AFF
- $M SINGLE POLE SWITCH, MOTOR RATED, MOUNT 48" AFF
- $OS SINGLE POLE WALL MOUNTED OCCUPANCY SENSOR, LEVITON OSSMT-GD WITH OVER-RIDE OR APPROVED EQUAL, MOUNT 48" AFF
- (OS) CEILING MOUNTED OCCUPANCY SENSOR, 1,000 SF COVERAGE, LEVITON ODC10-MDW
- (OS) LV CEILING MOUNTED OCCUPANCY SENSOR, 1,000 SF COVERAGE, LOW VOLTAGE, LEVITON OSC10-RMW
- (PP) POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSOR, LEVITON OSP20-NDO
- CR CARD READER
- DUPLEX RECEPTACLE, LEVITON 5320 IVORY, 18" AFF UNO
- GROUND FAULT RECEPTACLE, LEVITON T-7599 IVORY, 18" AFF UNO
- EQUIP OUTLET, WITH FLEX TO EQUIP, MOUNT 18" AFF UNO, PROVIDE APPROPRIATE RECEPTACLE, GROUNDED
- TELEPHONE OUTLET, 18" AFF UNO
- COMPUTER OUTLET, 18" AFF UNO
- WALL MOUNTED TWIN HEAD BATTERY OPERATED EMERGENCY LIGHT FIXTURE, MOUNT 84" AFF
- BATTERY POWERED EMERGENCY EXIT LIGHT W/EMERGENCY LIGHT HEADS
- ELECTRIC MOTOR
- JUNCTION BOX, SIZE AS REQUIRED
- DISTRIBUTION PANELBOARD
- BRANCH PANELBOARD
- DISCONNECT SWITCH, SIZE AS NOTED
- F FA MANUAL PULL STATION, MOUNT 48" AFF
- SD FA SMOKE DETECTOR
- TM TV MONITOR
- INT INTERCOM STATION, MOUNT 48" AFF
- LP1-2 BRANCH CIRCUIT HOMERUN TO PANELBOARD; ALPHA-NUMERIC NOTATION INDICATES PANEL DESIGNATION AND CIRCUIT NUMBER

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI DAVID ANTHONY TRETTER NUMBER E-21293 REGISTERED PROFESSIONAL ENGINEER
8/1/23
DAVID A. TRETTER
License Number: 021293
Expiration Date: 12/31/23

PROFESSIONAL SEAL

CASCO Diversified Corporation
MO Certificate of Authority #000329 Arch.
MO Certificate of Authority #000613 Eng.

CASCO
12 Sunnen Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

MISSOURI NATIONAL GUARD

RENOVATE COMBINED SUPPORT MAINTENANCE SHOP (CSMS) ANNEX
COMBINED SUPPORT MAINTENANCE SHOP (CSMS)
2302 MILITIA DRIVE
JEFFERSON CITY, MISSOURI
65101

PROJECT # T2122-01
SITE # 6300
ASSET# 8136300017

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2023

CAD DWG FILE:
DRAWN BY: RA
CHECKED BY: DAT
DESIGNED BY:

SHEET TITLE:

ELECTRICAL LEGEND AND SCHEDULES

SHEET NUMBER:

E-601

08/01/2023
SHEET 29 OF 29