US Army Corps of Engineers ®

JACOBS® / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CAMP BUCKNER SITE MAP - NTS

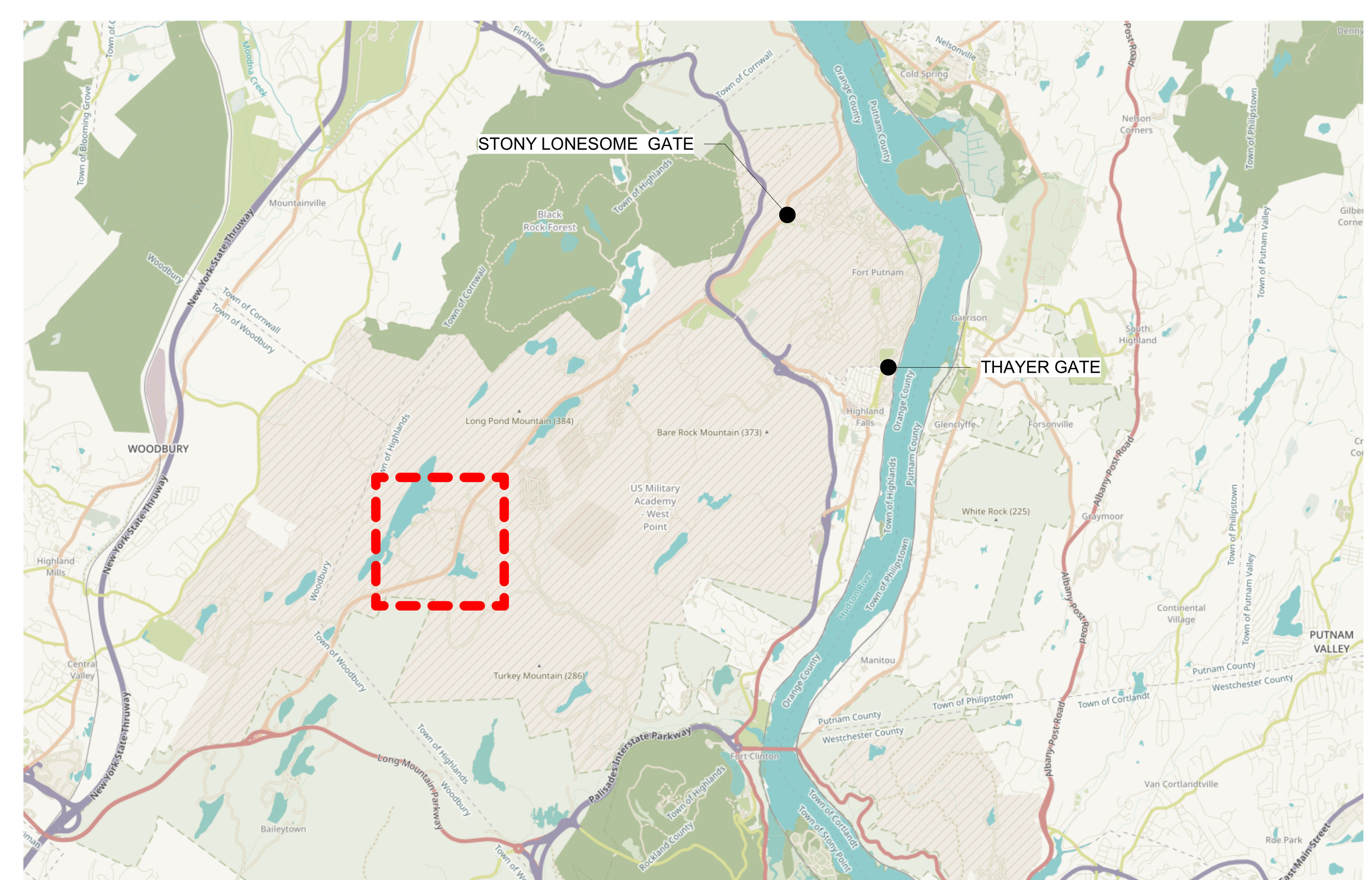
PHASE 1 BUILDINGS

SOLICITATION NO.:

CONTRACT NO.: W912DS-19-D-0010

ISSUE DATE.: DECEMBER 15, 2020

VOLUME: 1 OF 1



WEST POINT SITE MAP - NTS

CAMP BUCKNER

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MARK	DESCRIPTION	DATE

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DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: BK
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

COVER SHEET

SHEET ID
BLDG ID
G-001

RTA SUBMISSION

SHEET NUMBER	SHEET NAME
GENERAL	
G-001	COVER SHEET
G-002	DRAWING LIST
G-003	EXISTING SITE PHOTOS
G-101	LIFE SAFETY CODE SUMMARY
G-102	CODE COMPLIANCE SITE PLAN
LIFE SAFETY	
LP-101	FIRST FLOOR - LIFE SAFETY PLAN
CIVIL	
C-001	GENERAL NOTES
C-002	GENERAL NOTES, LEGEND AND ABBREVIATIONS
C-101	EXISTING CONDITIONS PLAN
CD101	DEMOLITION PLAN
CS101	SITE PLAN
CS102	TRUCK ACCESS PLAN
CG101	GRADING PLAN
CG102	SOIL EROSION PLAN
CU101	UTILITY PLAN
C-501	CONSTRUCTION DETAILS
C-502	CONSTRUCTION DETAILS
C-503	CONSTRUCTION DETAILS
STRUCTURAL	
S-001	STRUCTURAL GENERAL NOTES AND INDEX SHEET
S-501	TYPICAL DETAILS
ARCHITECTURAL	
A-001	ABBREVIATIONS
A-002	GENERAL SYMBOLS AND NOTES
A-003	STANDARD MOUNTING HEIGHTS AND CLEARANCES
AD101	TYPICAL EXISTING BARRACK DEMOLITION PLAN
AD201A	TYPICAL EXISTING BARRACK DEMOLITION ELEVATIONS
AD201B	TYPICAL EXISTING BARRACK DEMOLITION ELEVATIONS
AS100	ARCHITECTURAL SITE PLAN AND DETAILS
A-101A	FIRST FLOOR PLAN - TYPICAL SLEEPING QUARTERS
A-101B	FIRST FLOOR PLAN - TYPICAL LATRINE
A-101C	EXISTING BARRACK ARMS ROOMS AND BOILER BUILDINGS
A-102	ROOF PLAN - TYPICAL SLEEPING QUARTERS
A-103	ROOF PLAN - TYPICAL LATRINE
A-111A	TYPICAL SLEEPING QUARTERS REFLECTED CEILING PLAN
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A-201A	TYPICAL SLEEPING QUARTERS EXTERIOR ELEVATIONS
A-201B	TYPICAL LATRINE EXTERIOR ELEVATIONS
A-301	TYPICAL BUILDING SECTIONS, WALL SECTIONS, AND WALL DETAILS
A-302	TYPICAL EXTERIOR WALL SECTIONS AND DETAILS
A-303	TYPICAL LATRINE EXTERIOR WALL DUCTWORK PENETRATION
A-304	TYPICAL LATRINE EXTERIOR WALL SECTIONS AND DETAILS
A-305	DUCTWORK ROUTING AND CEILING AXONOMETRIC AND SECTION VIEWS
A-330	TYPICAL COLUMNS AND MISC DETAILS
A-401	SLEEPING QUARTERS OFFICE - PLAN AND ELEVATIONS
A-520	TYPICAL CEILING DETAILS
A-601	PARTITION TYPES/DETAILS
A-602	PARTITION TYPES/DETAILS
A-603	DOOR AND WINDOW TYPES, SCHEDULES, AND FRAME DETAILS
A-701A	TYPICAL SLEEPING QUARTERS INTERIOR ELEVATIONS
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INTERIORS	
I-001	INTERIOR FINISH SCHEDULE, GENERAL NOTES & MISCELANEOUS DETAILS
I-101A	INTERIOR FINISH PLAN - TYP. SLEEPING QUARTERS
I-101B	INTERIOR FINISH PLAN - TYP. LATRINES
I-131A	INTERIOR FURNITURE PLAN - TYP. SLEEPING QUARTERS
FIRE PROTECTION	
FP-001	FIRE PROTECTION GENERAL NOTES
FP-101	FIRST FLOOR PLAN - FIRE PROTECTION
FP-701	FIRE PROTECTION DETAILS
FIRE ALARM	
FA-001	FIRE ALARM GENERAL NOTES
FA-101	FIRST FLOOR PLAN - FIRE ALARM
FA-701	FIRE ALARM DETAILS

SHEET NUMBER	SHEET NAME
PLUMBING	
P-001	PLUMBING GENERAL NOTES
PD100	TYPICAL EXISTING BARRACK DEMOLITION PLANS
P-100	TYPICAL LATRINE PLAN
P-101	TYPICAL LATRINE PLAN
P-102	BOILER BUILDING PLAN
P-500	PLUMBING DETAILS
P-601	PLUMBING SCHEDULE
P-701	DOMESTIC WATER RISER DIAGRAM
P-702	SANITARY AND VENT RISER DIAGRAM
MECHANICAL	
M-001	MECHANICAL LEGEND AND GENERAL NOTES
MD101A	TYPICAL BARRACK DEMOLITION PLAN - DUCTWORK
M-101A	TYPICAL SLEEPING BARRACK PLAN - DUCTWORK
M-101B	TYPICAL LATRINE PLAN - DUCTWORK
M-101C	TYPICAL AHU-3 SLEEPING BARRACK PLAN - DUCTWORK
M-101D	DUCTWORK PRESSURIZATION PLAN
M-501	HVAC DETAILS
M-502	HVAC DETAILS
M-503	HVAC DETAILS
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M-704	HVAC CONTROL DIAGRAM
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E-001	ELECTRICAL LEGEND AND GENERAL NOTES
ED101	FIRST FLOOR DEMOLITION PLAN - POWER AND LIGHTING
EP101	FIRST FLOOR PLAN - POWER
EP102	ARMS ROOMS & BOILER BLDG FLOOR PLAN - POWER
EL101	FIRST FLOOR PLAN - LIGHTING
E-501	DETAILS
E-601	ONE-LINE DIAGRAMS
E-611	PANELBOARD SCHEDULES - SLEEPING QUARTERS BARRACKS
E-612	PANELBOARD SCHEDULES - BOILER AND LATRINE BUILDINGS
EL601	LUMINAIRE SCHEDULE
TELECOMMUNICATIONS	
T-001	COMMUNICATIONS SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
TS101	TELECOMMUNICATIONS SITE PLAN
T-101	COMMUNICATIONS FLOOR PLANS AND ELEVATION
T-501	PBB BONDING DETAIL
T-601	COMMUNICATIONS ONE-LINE DIAGRAM

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DRAWING LIST

SHEET ID

G-002

RTA SUBMISSION

EXISTING BUILDING 1624 (LEFT) - VIEW FROM EAST

EXISTING BUILDING 1616 (CENTER) - VIEW FROM NORTH

TYPICAL EXISTING MEN'S SLEEPING QUARTERS - INTERIOR VIEW TOWARDS EXISTING LATRINE

EXISTING WALL GIRTS ABOVE AND BELOW EXISTING METAL PANEL MOUNTED WINDOWS - VIEW FROM CORRIDOR ADJACENT TO MEN'S LATRINE

TYPICAL EXISTING TAPERED ROOF BEAM, ROOF PURLINS, AND CENTRAL CEILING JOIST

TYPICAL EXISTING COLUMN CONNECTION TO SLAB AND SLAB MOUNTED ANGLE SUPPORTING EXTERIOR METAL PANELS

TYPICAL EXISTING ABOVE GROUND PIPING BETWEEN BUILDINGS

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

EXISTING SITE PHOTOS

SHEET ID

G-003

RTA SUBMISSION

CODE ANALYSIS - GENERAL

BASIC BUILDING DESCRIPTION

APPROXIMATE GROSS BUILDING AREAS (SF) AND HEIGHTS
(FEET ABOVE GRADE)

1. BARRACKS (TYPICAL): BUILDING HEIGHT: 11'-9"
TOTAL AREA: 2,168 SF

2. LATRINE (TYPICAL): BUILDING HEIGHT: 11'-9"
TOTAL AREA: 2,168 SF

APPLICABLE CODES

A. THE INTERNATIONAL BUILDING CODE (IBC), 2018
B. THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 1, FIRE CODE, 2018
C. NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, 2018
D. NFPA 13, STANDARD FIRE SPRINKLER SYSTEMS, 2016
E. NFPA 13R, STANDARD FOR FIRE SPRINKLER SYSTEMS IN LOW-RISE RESIDENTIAL OCCUPANCIES, 2016
F. NFPA 24, STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES, 2016
G. NFPA 25, INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS, 2014
H. NFPA 70, NATIONAL ELECTRIC CODE, 2017
I. NFPA 72, NATIONAL FIRE ALARM CODE, 2016
J. NFPA 80, STANDARD FOR FIRE DOORS AND FIRE WINDOWS, 2016
K. NFPA 90A, INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS, 2018
L. NFPA 101, LIFE SAFETY CODE, 2018
M. UNITED FACILITIES CRITERIA (UFC) 1-200-01, GENERAL BUILDING REQUIREMENTS, 08 OCTOBER 2019
N. UFC 3-600-01, FIRE PROTECTION ENGINEERING FOR FACILITIES, 8 AUGUST 2016 WITH CHANGE 3 DATED 10 MAY 2019
O. UFC 4-021-01, MASS NOTIFICATION SYSTEMS, 9 APRIL 2008 WITH CHANGE 1 DATED 1 JANUARY 2010
P. UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS), JULY 2010
Q. ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS FOR THE DEPARTMENT OF DEFENSE FACILITIES, DATED OCTOBER 31, 2008

FIRE SUPPRESSION SYSTEMS

1. FIRE SUPPRESSION SYSTEMS GENERAL:
1.1 BARRACKS TO BE PROVIDED WITH AUTOMATIC RESIDENTIAL WET-PIPE FIRE SPRINKLER PROTECTION THROUGHOUT.
1.2 LATRINES WILL NOT BE PROVIDED WITH FIRE SPRINKLER PROTECTION.
1.3 FIRE WATER SUPPLY WILL BE TAPPED FROM NEW SERVICE LATERALS FED FROM EXISTING SITE LOOP
1.4 FIRE SPRINKLER SYSTEM SHALL BE DESIGNED AS SUCH TO ALLOW FULL DRAIN DOWN OF SYSTEM AND SITE LOOP DURING WINTER MONTHS. SITE TO BE UNOCCUPIED DURING WINTERIZATION PERIOD.
1.5 THE FIRE SUPPRESSION SYSTEMS SHALL BE MONITORED BY THE FIRE ALARM SYSTEM.

2. FIRE SPRINKLER DESIGN CRITERIA:
2.1 HAZARD CLASSIFICATION:
2.1.1 DWELLING UNIT - BARRACKS SLEEPING ROOMS
2.2.2 ORDINARY HAZARD - UTILITY ROOMS.

2.2 SPRINKLER COVERAGE:
2.2.1 DWELLING UNIT - PER SPRINKLER HEAD LISTING
2.2.2 ORDINARY HAZARD - 130 SF

2.3 SPRINKLER DESIGN DENSITY:
2.3.1 LIGHT HAZARD - 0.05 GPM
2.3.2 ORDINARY HAZARD - 0.2 GPM/SF

2.4 HYDRAULIC REMOTE AREA:
2.4.1 4 MOST REMOTE HEADS

2.5 SEISMIC BRACING:
2.5.1 SEISMIC BRACING IS NOT REQUIRED.

3. STANDPIPE GENERAL:
3.1 FIRE PROTECTION STANDPIPES ARE NOT REQUIRED.

4. PORTABLE FIRE EXTINGUISHERS:
4.1 GENERAL TYPE: 2A:10B:C MINIMUM
4.2 PROVIDED THROUGHOUT EACH BUILDING, AND INSTALLED PER NFPA 10.
4.3 SPACING: 75 FEET MAXIMUM TRAVEL DISTANCE

5. WATER SUPPLY:
5.1 HYDRANT FLOW TEST DATE: 05/20/2020
5.2 TEST CONDUCTED BY: JACOBS ENGINEERING
5.3 LOCATION OF TEST: 1623 MACADAM RD
5.4 HYDRANT DISCHARGE: 40 PSI AT STATIC; 28 PSI AT 611 GPM

FIRE SUPPRESSION SYSTEMS (CONTINUED)

FIRE ALARM/MASS NOTIFICATION SYSTEMS

1. FIRE ALARM/MASS NOTIFICATION SYSTEMS GENERAL:
1.1 BARRACKS AND LATRINES SHALL BE PROVIDED WITH A COMBINATION FIRE ALARM/MASS NOTIFICATION SYSTEM THROUGHOUT EACH BUILDING.
1.2 BARRACKS SHALL BE PROVIDED WITH SMOKE DETECTION PER UFC 3-600 SECTION 4-34.3.1.
1.3 BOILER BUILDINGS SHALL NOT BE PROVIDED WITH CARBON MONOXIDE DETECTION PER DISCUSSION WITH AHJ.
1.4 ALL INITIATION DEVICES SHALL BE ADDRESSABLE.
1.5 A NEW COMBINATION FIRE ALARM CONTROL PANEL/MASS NOTIFICATION AUTONOMOUS CONTROL PANEL SHALL BE PROVIDED FOR EACH BARRACKS AND LATRINE BUILDING IN THE PROJECT AREA. PANEL TO BE INSTALLED IN SPACE THAT WILL BE UNCONDITIONED DURING WINTERIZATION PERIOD PER EQUIVALENT ALTERNATIVE ACCEPTANCE BY AHJ. PANEL WILL BE POWERED DOWN AND HAVE IT'S BATTERIES REMOVED DURING THIS WINTERIZATION PERIOD.

2. NOTIFICATION:
2.1 VISIBLE ALARM INDICATING STROBES FOR THE COMBINATION FIRE ALARM/MASS NOTIFICATION SYSTEM ARE SHARED. VISIBLE NOTIFICATION DEVICES SHALL INCLUDE CLEAR STROBE TO INDICATE FIRE AND AMBER STROBES TO INDICATE ALERT. ALL VISUAL DEVICES SHALL BE MARKED WITH THE WORD "ALERT".
2.2 AUDIBLE ALARM INDICATING SPEAKERS FOR THE COMBINATION FIRE ALARM/MASS NOTIFICATION SYSTEM ARE SHARED.
2.2.1 SPEAKERS SHALL HAVE A MINIMUM SOUND PRESSURE LEVEL OF 75dBA IN SLEEPING AREAS, 90dBA IN MECHANICAL OR EQUIPMENT ROOMS, AND 60 dBA IN ALL OTHER AREAS CONTRACTOR SHALL DETERMINE IF HIGHER dBA LEVELS ARE REQUIRED.
2.2.2 DEVICES IN ALL AREAS SHALL PROVIDE A SOUND LEVEL OF AT LEAST 15 dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL, AND AT LEAST 5 dBA ABOVE THE MAXIMUM. DEVICES SHALL PROVIDE A CIS SCORE OF AT LEAST 0.8.
2.2.3 THE MAXIMUM SOUND PRESSURE LEVEL SHALL NOT EXCEED 110 dBA AT THE MINIMUM HEARING DISTANCE FROM THE APPLIANCE.
2.3 WEATHERPROOF EXTERIOR MASS NOTIFICATION SPEAKERS SHALL BE PROVIDED IN THE VICINITY OF EACH DOOR ENTERING OR EXITING THE FACILITY.
2.4 ALL NOTIFICATION APPLIANCES SHALL BE LABELED WITH THE DEVICE ADDRESS USING A WHITE LABEL WITH TYPED BLACK LETTERS.

3. DETECTION:
3.1 SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE.
3.2 AUTOMATIC SMOKE DETECTION SHALL BE PROVIDED ABOVE EACH FIRE ALARM CONTROL PANEL.
3.4 DUCT SMOKE DETECTION SHALL BE PROVIDED ON SUPPLY DUCTS OF AIR HANDLING UNITS 2,000 CFM OR LARGER
3.5 ALL INITIATION DEVICES SHALL BE LABELED WITH THE DEVICE ADDRESS USING A WHITE LABEL WITH TYPED BLACK LETTERS.

4. MANUAL FIRE ALARM ACTIVATION:
4.1 MANUAL PULL STATIONS SHALL BE PROVIDED AT ALL EXTERIOR DOORS AND EGRESS POINTS FROM BUILDING.
4.1.1 SHALL BE DUAL ACTION TYPE.
4.1.2 IN AREAS SUBJECT TO MOISTURE, MECHANICAL IMPACT, DUST/DIRT, OR MECHANICAL DAMAGE PROVIDE A SINGLE ACTION TYPE WITH A CLEAR PLASTIC LIFT TYPE COVER (STI-1200, STI-1230 OR EQUIVALENT).
4.2 ALL INITIATION DEVICES SHALL BE LABELED USING A WHITE LABEL WITH TYPED BLACK LETTERS.

HEIGHT AND AREA LIMITATIONS

1.GENERAL:
1.1 EXISTING CONSTRUCTION TYPES OF ALL BUILDINGS MOST RESEMBLES THE CURRENT CONSTRUCTION TYPE DESCRIBED PER THE IBC AS A TYPE IIB.

2. TYPE OF CONSTRUCTION:
2.1 TYPE IIB

3. OCCUPANCY CLASSIFICATION:
3.1 PRIMARY USE GROUPS
3.1.1 DORMITORY (R-2)
3.1.2 BUSINESS (B)
3.2 ACCESSORY SPACES
3.2.1 STORAGE (S-2)

4. OCCUPANCY SEPARATION:
4.1 NON-SEPARATED: EACH PORTION OF THE BUILDING SHALL BE CLASSIFIED INDIVIDUALLY PER ITS USE. THE REQUIRED TYPE OF CONSTRUCTION SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATIONS FOR EACH PRIMARY OCCUPANCY TO THE ENTIRE BUILDING.

5. BUILDING HEIGHT
5.1 ALLOWABLE HEIGHT CALCULATION (DORMITORY R-2, SPRINKLERED NFPA 13R)
5.1.1 ALLOWABLE TABULAR HEIGHT (TYPE IIB): 4 STORIES / 60'-0" ABOVE GRADE PLANE (IBC, TABLES 504.3 & 504.4).
5.1.2 ACTUAL HEIGHT (BARRACKS): 1 STORY / 11'-9"

5.2 ALLOWABLE HEIGHT CALCULATION (BUSINESS, NON-SPRINKLERED)
5.2.1 ALLOWABLE TABULAR HEIGHT (TYPE IIB): 3 STORIES / 55'-0" ABOVE GRADE PLANE (IBC, TABLES 504.3 & 504.4).
5.1.2 ACTUAL HEIGHT (LATRINE): 1 STORY / 11'-9"

6. BUILDING AREA
6.1 ALLOWABLE AREA CALCULATION (DORMITORY R-2, SPRINKLERED NFPA 13R)
6.1.1 ALLOWABLE TABULAR AREA (TYPE IIB): 16,000 SQ. FT (IBC, TABLE 506.2).
6.1.2 ACTUAL AREA (BARRACKS): 2,168 SQ. FT

6.2 ALLOWABLE AREA CALCULATION (BUSINESS B, NON-SPRINKLERED)
6.2.1 ALLOWABLE TABULAR AREA (TYPE IIB): 23,000 SQ. FT (IBC, TABLE 506.2).
6.2.2 ACTUAL AREA (LATRINES): 2,168 SQ. FT

STRUCTURAL FIRE RESISTIVE RATINGS:

1. GENERAL: FIRE RESISTANCE RATINGS ARE SHOWN ON LIFE SAFETY SHEETS

2. PRIMARY STRUCTURAL FRAME: NO RATING (IBC TABLE 601)

3. FLOOR CONSTRUCTION AND SECONDARY STRUCTURAL MEMBERS: NO RATING (IBC TABLE 601)

4. ROOF CONSTRUCTION AND SECONDARY MEMBERS: NO RATING (IBC TABLE 601)

OTHER FIRE RESISTANCE RATED SEPARATIONS:

1. EXIT STAIR ENCLOSURES:
1.1 SINGLE STORY; NO STAIRS

2. SHAFT ENCLOSURES:
2.1 SINGLE STORY; NO SHAFTS

INTERIOR FINISH:

1. GENERAL: MINIMUM CLASS OF INTERIOR FINISH ON WALLS AND CEILINGS, IN ACCORDANCE WITH ASTM E 84, TEST METHOD AND IBC TABLE 803.9 - SEE BELOW FOR CLASSIFICATION DESCRIPTION.

2. EXIT ACCESS CORRIDORS AND OTHER EXIT WAYS (SPRINKLERED)
2.1 RESIDENTIAL OCCUPANCY: CLASS C
2.1.1 PER IBC TABLE 803.9 (APPLIES TO WHOLE BUILDING)
2.2 STORAGE OCCUPANCY: CLASS C
2.2.1 PER IBC TABLE 803.9

3. EXIT ACCESS CORRIDORS AND OTHER EXIT WAYS (NON-SPRINKLERED)
3.1 BUSINESS OCCUPANCY: CLASS B
3.1.1 PER IBC TABLE 803.9
3.2 STORAGE OCCUPANCY: CLASS B
3.2.1 PER IBC TABLE 803.9

4. ROOMS AND ENCLOSED SPACES (SPRINKLERED)
4.1 RESIDENTIAL OCCUPANCY:CLASS C
4.1.1 PER IBC TABLE 803.9
4.2 STORAGE OCCUPANCY:CLASS C
4.2.1 PER IBC TABLE 803.9

5. ROOMS AND ENCLOSED SPACES (NON-SPRINKLERED)
5.1 BUSINESS OCCUPANCY:CLASS C
5.1.1 PER IBC TABLE 803.9
5.2 STORAGE OCCUPANCY:CLASS C
5.2.1 PER IBC TABLE 803.9

6. FLOOR FINISHES:
6.1 BUSINESS/RESIDENTIAL/STORAGE OCCUPANCIES: NO CRITICAL RADIANT FLUX RATING
6.2 PER NFPA 101, SECTION 10.2.8.2, 12.3.3.5.1, & 38.3.3.3.2

7.CLASSIFICATIONS (NFPA 101, SECTION 10.2.3.4):
7.1 INTERIOR WALL FINISH - FLAME SPREAD INDEX
7.1.1 CLASS A: 0-25
7.1.2 CLASS B: 26-75
7.1.3 CLASS C: 76-200
7.2 INTERIOR WALL FINISH - SMOKE DEVELOPED INDEX
7.2.1 CLASS A: 0-450
7.2.2 CLASS B: 0-450
7.2.3 CLASS C: 0-450

EGRESS

MEANS OF EGRESS
1. EGRESS COMPONENTS:
1.1 DOORS
1.1.1 MINIMUM CLEAR WIDTH: 32" (NFPA 101, SECTION 7.2.1.2.3.2)
1.1.2 DOORS SHALL BE ARRANGED TO BE OPENED READILY FROM EGRESS SIDE WHENEVER THE BUILDING IS OCCUPIED. IF LOCKS ARE PROVIDED THEY ARE NOT TO REQUIRE THE USE OF A KEY, TOOL OR SPECIAL KNOWLEDGE OR EFFORT FOR OPERATION FROM THE EGRESS SIDE (NFPA 101, 7.2.1.5.1/7.2.1.5.2).
1.1.3 THE PANIC HARDWARE OR FIRE EXIT HARDWARE IS TO CONSIST OF A CROSSBAR OR PUSH PAD LOCATED NOT LESS THAN 34" OR MORE THAN 48" ABOVE THE FINISHED FLOOR. THE ACTUATING PORTION OF THE CROSSBAR OR PUSH PAD SHALL NOT BE EXTENDED ACROSS LESS THAN 1/2 THE WIDTH OF THE DOOR (NFPA 101, SECTION 7.2.1.7).

1.2 STAIRS (APPROVED EXISTING)
1.2.1 MINIMUM CLEAR WIDTH: 36" (NFPA 101, TABLE 7.2.2.2.1.1.(b))
1.2.2 MAXIMUM RISER: 8" (NFPA 101, TABLE 7.2.2.2.1.1.(b))
1.2.3 MINIMUM TREAD: 9" (NFPA 101, TABLE 7.2.2.2.1.1.(b))
1.2.4 MAXIMUM RISE FOR A SINGLE FLIGHT OF STAIR: 12' (NFPA 101, TABLE 7.2.2.2.1.1.(b))
1.2.5 STAIRWAYS SHALL BE CLEAR OF OBSTRUCTIONS EXCEPT PROJECTIONS NOT EXCEEDING 4 1/2" AT OR BELOW HANDRAIL HEIGHT ON EACH SIDE (NFPA 101, SECTION 7.2.2.2.1.2.(b))
1.2.6 MINIMUM CLEAR HEIGHT: 80" (NFPA 101, TABLE 7.2.2.2.1.1.(b))

1.3 GUARDS AND HANDRAILS (APPROVED EXISTING)
1.3.1 HANDRAILS SHALL BE LOCATED EACH SIDE OF THE STAIRWAY (NFPA 101, SECTION 7.2.2.4.1.1).
1.3.2 HANDRAILS SHALL BE MOUNTED BETWEEN 30"-38", AS MEASURED ABOVE THE NOSE OF THE STAIR (NFPA 101, SECTION 7.2.2.4.5.2).
1.3.3 HANDRAILS SHALL BE LOCATED WITHIN 44" OF ALL PORTIONS OF THE REQUIRED EGRESS WIDTH OF THE STAIRWAY (NFPA 101, SECTION 7.2.2.4.1.2.2).
1.3.4 HANDRAILS SHALL NOT EXTEND LESS THAN 12" BEYOND THE TOP OF THE RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF THE ONE TREAD BEYOND THE BOTTOM OF THE RISER (NFPA 101, SECTION 7.2.2.4.5.10)
1.3.5 GUARDRAILS SHALL BE LOCATED ALONG THE WALKING SURFACE THAT ARE MORE THAN 30" ABOVE THE FINISHED FLOOR (NFPA 101, SECTION 7.1.8)
1.3.6 GUARDRAIL HEIGHTS SHALL BE AT MINIMUM 36" ABOVE THE WALKING SURFACE (NFPA 101, SECTION 7.2.2.4.6.2)
1.3.7 GUARD OPENINGS SHALL HAVE BALUSTERS SUCH THAT A 4" DIAMETER SPHERE CANNOT PASS THROUGH THE OPENINGS UP TO A HEIGHT OF 34". FROM ABOVE 34" TO 42" IN HEIGHT A SPHERE OF 8" IN DIAMETER SHALL NOT BE ABLE TO PASS (NFPA 101, SECTION 7.2.2.4.6.3)
1.3.8 THE TRIANGLE OPENING FORMED BY THE RISER TREAD AND BOTTOM RAIL AT THE OPEN SIDE A STAIRWAY IS TO BE OF A MAXIMUM SIZE SUCH THAT A SPHERE OF 6" IN DIAMETER CANNOT PASS THROUGH THE OPENING (NFPA 101, SECTION 7.2.2.4.6.3.(1)).

2. MARKING OF MEANS OF EGRESS:
2.1 SIGNAGE
2.1.1 EXITS SHALL BE MARKED BY AN APPROVED SIGN READILY VISIBLE FROM ANY DIRECTION OF EXIT ACCESS (NFPA 101, SECTION 7.10.1.5.1)
2.1.2 SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN THE EXIT ACCESS CORRIDOR IS MORE THAN 100 FEET FROM THE NEAREST EXTERNALLY ILLUMINATED SIGN AND IS NOT IN EXCESS OF THE MARKED RATING FOR INTERNALLY ILLUMINATED SIGNS (NFPA 101, SECTION 7.10.1.6).
2.1.3 A DIRECTIONAL SIGN READING "EXIT" WITH A DIRECTIONAL INDICATOR SHOWING THE DIRECTION OF TRAVEL SHALL BE PLACED IN EVERY LOCATION WHERE THE DIRECTION OF TRAVEL T REACH THE NEAREST EXIT IS NOT APPARENT (NFPA 101, SECTION 7.10.2.1).
2.1.4 AT EACH DOOR INTO AN EXIT STAIR ENCLOSURE OR EXIT, TACTILE SIGNAGE STATING "EXIT" SHALL BE INSTALLED (NFPA 101, SECTION 7.10.2).
2.2 ILLUMINATION
2.2.1 EVERY EXIT SIGN SHALL BE ILLUMINATED AT ALL TIMES. THE ILLUMINATION SHALL BE FOR 90 MINUTES IN THE CASE OF PRIMARY POWER LOSS (NFPA 101, SECTION 7.9.2.1).
2.2.2 EXIT SIGNS THAT ARE EXTERNALLY ILLUMINATED SHALL HAVE AN INTENSITY OF NOT LESS THAN 5FT-CANDLES (NFPA 101, SECTION 7.10.6).

3. EMERGENCY LIGHTING:
3.1 EMERGENCY LIGHTING
3.1.1 EMERGENCY LIGHTING IS REQUIRED FOR ALL EXIT ACCESS. EXITS, AND EXIT DISCHARGE AT ALL TIMES THAT THE BUILDING IS OCCUPIED (NFPA 101, SECTION 7.9.1.1).
3.1.2 EMERGENCY ILLUMINATION IS REQUIRED AS FOLLOWS:
3.1.2.1 ILLUMINATION OF MEANS OF EGRESS SHALL BE FOR A DURATION OF 90 MINUTES AND THE EMERGENCY POWER SHALL BE AUTOMATIC (NFPA 101, SECTION 7.9.2.1).
3.1.2.2 REQUIRED ILLUMINATION SHALL BE ARRANGED SO THAT INITIAL ILLUMINATION IS AT LEAST AN AVERAGE OF 1 FT-CANDLE AND A MINIMUM AT ANY POINT OF 0.1 FT-CANDLE (NFPA 101, SECTION 7.9.2.1).
3.1.2.3 A DECLINE TO 0.6 FT-CANDLE AVERAGE ILLUMINATION AT THE FLOOR WITH A MINIMUM 0.06 FT-CANDLE AT ANY POINT IS PERMITTED AT THE END OF THE EMERGENCY LIGHTING TIME DURATION (NFPA 101, SECTION 7.9.2.1).
3.1.2.4 A MAXIMUM TO MINIMUM ILLUMINATION UNIFORMITY RATION OF 40:1 SHALL NOT BE EXCEEDED (NFPA 101, SECTION 7.9.2.1).

BUCKNER OCCUPANT LOADS

1. GENERAL:
1.1 OCCUPANT LOADS WILL BE TABULATED ON INDIVIDUAL SHEETS
1.2 REQUIRED NUMBER OF EGRESS COMPONENTS FOR COMPUTED TOTAL NUMBER OF OCCUPANTS HAVE BEEN PROVIDED.

2. OCCUPANT LOAD FACTORS:
2.1 DORMITORIES: 50 SQ. FT. PER OCCUPANT (UFC 3-600-01, TABLE 10-1)
2.2 OFFICES: 150 SQ. FT. PER OCCUPANT (NFPA 101, TABLE 7.3.1.2)
2.3 STORAGE AND MECHANICAL SPACES: 300 SQ. FT. PER OCCUPANT (NFPA 101, TABLE 7.3.1.2)

NUMBER AND ARRANGEMENTS OF MEANS OF EGRESS, INCLUDING EXIT DISCHARGE

1. CAPACITY OF MEANS OF EGRESS (NFPA 101, TABLE 7.3.3.1):
1.1 HORIZONTAL EGRESS TRAVEL (WIDTH REQUIRED): 0.2 INCHES/PERSON
1.2 VERTICAL EGRESS TRAVEL (WIDTH REQUIRED): 0.3 INCHES/PERSON

2. MINIMUM EGRESS WIDTH REQUIRED:
2.1 CORRIDORS WITH OCCUPANT LOADS GREATER THAN 50 SHALL BE 44" (NFPA 101, SECTION 7.3.4).
2.2 CORRIDORS WITH OCCUPANT LOADS LESS THAN 50 SHALL BE 36" (NFPA 101, SECTION 7.3.4).
2.3 CLEAR EXIT DOOR OPENINGS SHALL NOT BE LESS THAN 32" (NFPA 101, SECTION 7.3.4).

3. NUMBER OF EXITS REQUIRED:
3.1 SINGLE EXITS FROM ROOMS AND AREAS WITH LIMITED OCCUPANT LOADS AND HAVING A COMMON PATH OF TRAVEL WITHIN THE ALLOWABLE LIMITS (NFPA 101, SECTION 7.4.1.1).
3.2 MINIMUM FROM ROOMS AND AREAS NOT COMPLETING WITH THE ABOVE SHALL NOT BE LESS THAN TWO EXITS (NFPA 101, SECTION 7.4.1.1).

4. ARRANGEMENT OF EXITS:
4.1 WHERE TWO OR MORE EXITS ARE REQUIRED THEY SHALL BE SPACED APART AT A MINIMUM 1/3 THE MAXIMUM DIAGONAL OF THE AREA BEING SERVED NFPA 101, SECTION 7.4.1.2).
4.2 WHERE MORE THAN TWO EXITS OR EXIT ACCESS DOORS ARE REQUIRED, AT LEAST TWO OF THE REQUIRED EXITS OR EXIT ACCESS DOORS ARE TO BE ARRANGED TO COMPLY WITH THE MINIMUM SEPARATION DISTANCE REQUIREMENTS DEFINED ABOVE. THE OTHER EXITS OR EXIT ACCESS DOORS ARE TO BE LOCATED SO THAT IF ONE BECOMES BLOCKED, THE OTHER REMAIN AVAILABLE (NFPA 101, SECTION 7.5.1.3.7).

5. EXIT DISCHARGE:
5.1 THE INTERIOR EXIT DISCHARGES SHALL PROVIDE DIRECT AND UNOBSTRUCTED ACCESS TO THE EXTERIOR OF THE BUILDING (NFPA 101, SECTION 7.7.2).

6. EGRESS THROUGH INTERVENING SPACES:
6.1 EGRESS FROM A ROOM OR SPACE IS NOT TO PASS THROUGH ADJOINING OR INTERVENING ROOMS, EXCEPT WHERE SUCH ROOMS OR AREAS ARE ACCESSORY TO THE AREA SERVED; ARE NOT HIGH HAZARD OCCUPANCIES; AND PROVIDE A DISCERNABLE PATH OF EGRESS TRAVEL TO AN EXIT (NFPA 101, SECTION 7.5.1.6).
6.2 ACCESS TO AN EXIT IS NOT TO BE THROUGH KITCHENS, STORAGE ROOMS, WORKROOMS, CLOSETS OR OTHER ROOMS OR SPACES SUBJECT TO LOCKING (NFPA 101, SECTION 7.5.1.2).

TRAVEL DISTANCES:

1. MAXIMUM TRAVEL DISTANCE (SPRINKLERED):
1.1 DORMITORIES: 325 FEET (NFPA 101, SECTION 28.2.6.2 & 28.2.6.3.2)
1.2 STORAGE OCCUPANCY: 400 FEET (NFPA 101, SECTION 42.2.6)

2. MAXIMUM TRAVEL DISTANCE (NON-SPRINKLERED):
2.1 BUSINESS OCCUPANCY: 200 FEET (NFPA 101, SECTION 38.2.6.2)
2.2 STORAGE OCCUPANCY: 200 FEET (NFPA 101, SECTION 42.2.6).

3. MAXIMUM COMMON PATH OF TRAVEL (SPRINKLERED):
3.1 DORMITORIES: 50 FEET (NFPA 101, SECTION 28.2.5.4)
3.2 STORAGE OCCUPANCY:100 FEET (NFPA 101, SECTION 42.2.5)

4. MAXIMUM COMMON PATH OF TRAVEL (NON-SPRINKLERED):
4.1 BUSINESS OCCUPANCY: 100 FEET (NFPA 101, SECTION 38.2.5.3.2)
4.2 BUSINESS OCCUPANCY (>30 OCCUPANTS): 75 FEET (NFPA 101, SECTION 38.2.5.3.3)
4.3 STORAGE OCCUPANCY: 50 FEET (NFPA 101, SECTION 42.2.5)

5. MAXIMUM DEAD-END CORRIDOR (SPRINKLERED):
5.1 DORMITORIES: 50 FEET (NFPA 101, SECTION 28.2.5.6)
5.2 STORAGE OCCUPANCY:100 FEET (NFPA 101, SECTION 42.2.5)

6. MAXIMUM DEAD-END CORRIDOR (NON-SPRINKLERED):
6.1 BUSINESS OCCUPANCY: 20 FEET (NFPA 101, SECTION 38.2.5.2.2)
6.2 STORAGE OCCUPANCY: 50 FEET (NFPA 101, SECTION 42.2.5)

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: JIW
DRAWN BY: JIW
CHECKED BY: JB
SUBMITTED BY:
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-19-D-0010
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

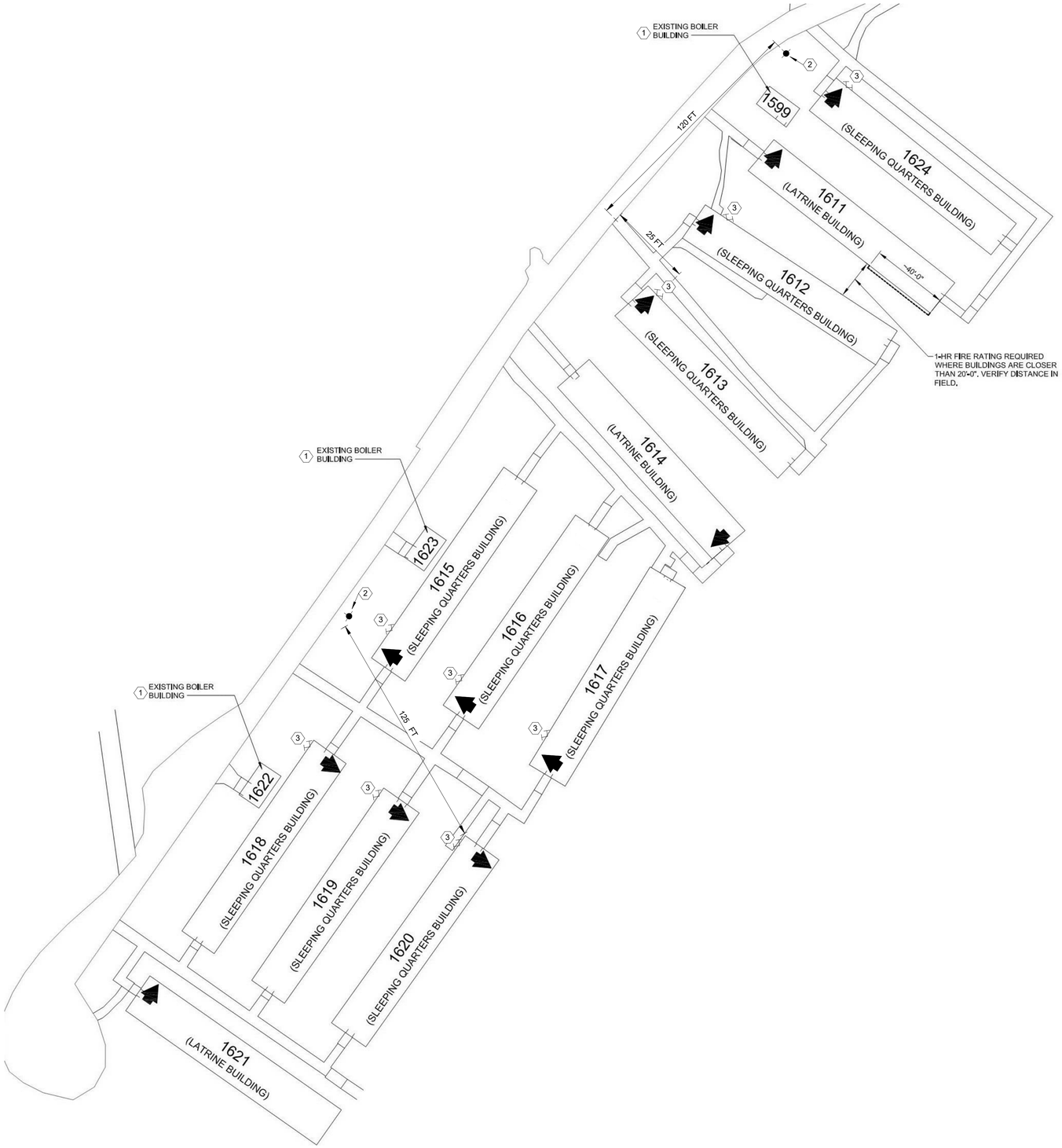
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

LIFE SAFETY CODE SUMMARY

SHEET ID

G-101

RTA SUBMISSION



SITE PLAN GENERAL NOTES

1. REFER TO SHEET CG101 FOR LOCATIONS OF NEW ABOVE-GROUND SERVICE LATERALS TO TIE-IN NEW SPRINKLER SYSTEMS TO FIRE SERVICE MAIN.
2. REFER TO SHEET AS100 FOR EXTERIOR BUILDING WALL RATINGS AS IT PERTAINS TO FIRE SEPARATION DISTANCE BETWEEN BUILDINGS.
3. ALL FIRE DEPARTMENT CONNECTIONS SHALL BE INSTALLED WITHIN 150 FT TRAVEL DISTANCE TO A FIRE HYDRANT.

SITE PLAN KEYNOTES (#)

1. BOILER BUILDINGS ARE NOT REQUIRED TO INCLUDE CARBON MONOXIDE DETECTION PER AHJ, AS THEY ARE NORMALLY UNOCCUPIED AND NOT CONNECTED TO OCCUPIED AREAS.
2. LOCATION OF EXISTING FIRE HYDRANT (2 TOTAL ON SITE).
3. PROPOSED LOCATION FOR BARRACKS BUILDING SPRINKLER SYSTEM FIRE DEPARTMENT CONNECTION.

SITE PLAN SYMBOLS LEGEND

- FIRE HYDRANT
- FIRE DEPARMENT CONNECTION
- MAIN ENTRANCE; ARROW POINTS TO BUILDING PLAN NORTH

US Army Corps of Engineers ®

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ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

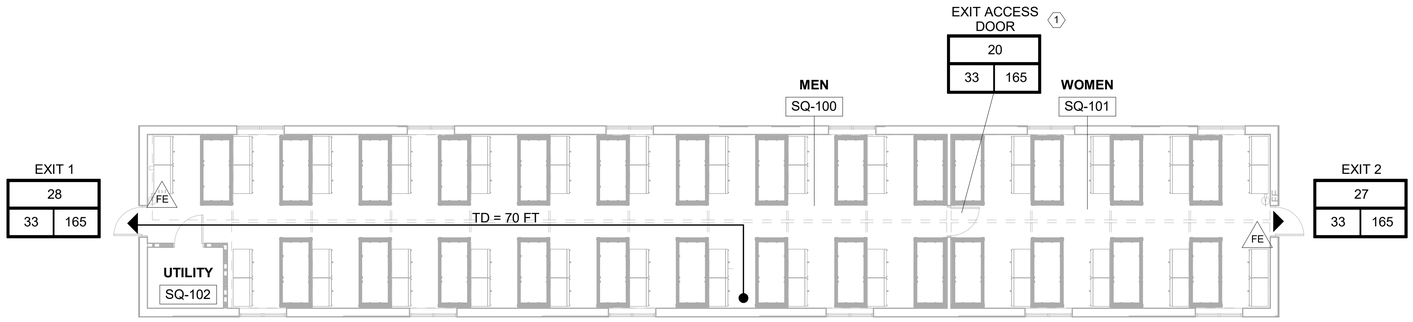
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CODE COMPLIANCE SITE PLAN

SHEET ID

G-102

RTA SUBMISSION

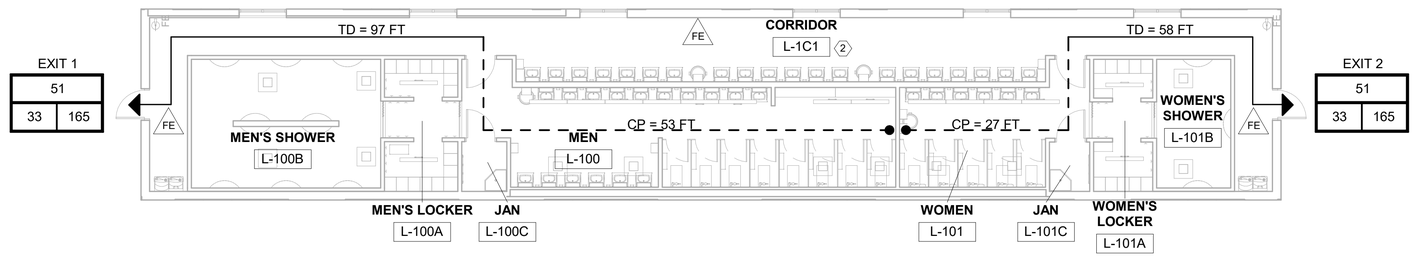


1 LIFE SAFETY PLAN_BARRACKS

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

BARRACKS OCCUPANT LOAD TABLE

ROOM	OCCUPANCY	AREA	LOAD FACTOR	FURNITURE	LOAD
MEN	R-2	1492	50	38	38
WOMEN	R-2	619	50	16	16
UTILITY	S-2	52	300	0	1
				TOTAL OCCUPANTS: 55	



2 LIFE SAFETY PLAN_LATRINE

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

LATRINE OCCUPANT LOAD TABLE

ROOM	OCCUPANCY	AREA	LOAD FACTOR	FURNITURE	LOAD
MEN	B	472	50	24	24
M. LOCKER	B	107	50	0	3
M. SHOWER	B	262	50	30	30
WOMEN	B	201	50	11	11
W. LOCKER	B	88	50	0	2
W. SHOWER	B	107	50	9	9
CORRIDOR	B	745	50	20	20
JAN	S-2	25	500	0	1
JAN	S-2	22	500	0	1
				TOTAL OCCUPANTS: 101	

LEGEND

- TD = XX FT — TRAVEL DISTANCE, FT
- CP = XX FT — COMMON PATH OF TRAVEL, FT
- STARTING POINT AND TRAVEL PATH TO EXIT
- 1 HOUR FIRE BARRIER
- FE — PORTABLE FIRE EXTINGUISHER
- EXIT # (A / B | C) — A = NO. OF OCCUPANTS USING EXIT; B = ACTUAL DOOR CLEAR WIDTH, IN; C = DOOR CAPACITY
- EXIT LOCATION

LIFE SAFETY KEYNOTES (#)

1. DOOR BETWEEN BARRACKS SHALL BE UNLOCKED AT ALL TIMES TO ACT AS A SECONDARY MEANS OF EGRESS.
2. CORRIDOR SINKS ARE PART OF ADD ALTERNATE #01. SEE ARCHITECTURAL SHEET A-101B FOR DETAILS.

8 6 4 2 0 8 16

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

PLAN NORTH

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

DESIGNED BY: JW
DRAWN BY: JW
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SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRST FLOOR - LIFE SAFETY PLAN

SHEET ID

LP-101

RTA SUBMISSION

CIVIL/SITE CONSTRUCTION GENERAL NOTES:

1. THESE PLANS REFERENCE LOCATION AND TOPOGRAPHIC SURVEY PREPARED BY:
   NAME: MJ ENGINEERING AND LAND SURVEYING, P.C.
   1533 CRESCENT ROAD
   CLIFTON PARK, NY 12065
   PHONE: (518) 371-0799
   DATED: 11/14/2019

   HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE)
   VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88)
   REFERENCE CONTROL POINT IS CONTINUOUSLY OPERATING REFERENCE STATION (CORS) NEWBURGH CORS ARP (NYNB)

2. PROVIDE IMPROVEMENTS IN ACCORDANCE WITH UNIFIED FACILITIES GUIDE SPECIFICATIONS LATEST EDITION, WITH AMENDMENTS THERETO AND AS SPECIFIED IN THESE CONTRACT DRAWINGS AND APPENDICES TO AUGMENT THE CONTRACT SPECIFICATIONS.

3. PRIOR TO ANY CONSTRUCTION, PROVIDE A PHASING PLAN INCLUSIVE OF A WRITTEN SEQUENCE OF CONSTRUCTION AND PLANS SHOWING PHASED WORK AREAS, STOCKPILE AREAS, WORKER PARKING AREAS, TRAILER LOCATION, MATERIAL STORAGE AREAS, MAINTAINED SITE ENTRANCE LOCATION, PORTABLE SANITARY STATIONS, HAUL ROUTES AND ALL OTHER NECESSARY CONTRACTOR CONSTRUCTION AREAS. ALL MATERIAL STORAGE AND CONTRACTOR OPERATIONS SHALL BE LOCATED WITHIN THE LIMIT OF DISTURBANCE IDENTIFIED ON THE PLANS. SUBMIT PHASING PLAN TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL..

4. PROVIDE PROPER AND SUFFICIENT CONSTRUCTION PROTECTION TO THE WORKERS AND ALL PERSONNEL ONSITE. OSHA EM 385-1-1, AND OTHER LOCAL, STATE, AND FEDERAL CODES SHALL BE FOLLOWED.

5. WORK AND MATERIAL SHALL MEET THE REQUIREMENTS OF THE UFC, ENGINEERING WEST POINT PLANNING STANDARDS, LOCAL, AND STATE CONSTRUCTION CODES, LATEST EDITION.

6. QUANTITIES SHOWN HEREIN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY. VERIFY ALL QUANTITIES AND PROVIDE SUPERINTENDENCE, MATERIAL, LABOR, SURVEYING, AND COORDINATION WITH UTILITY COMPANIES AND CONTRACTING OFFICER NECESSARY TO CONSTRUCT THE PROJECT COMPLETE AND AS GENERALLY INTENDED IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL PROVIDE COORDINATION WITH CONTRACTING OFFICER, USMA AUTHORITIES, AND PERSONNEL AND UTILITIES FOR ALL INTERFACING REQUIRED BY THE PROJECT.

7. DISTURBED AREAS SHALL BE RESTORED AS INDICATED ON THE CONTRACT DOCUMENTS, AT NO COST TO THE GOVERNMENT.

8. IMPLEMENT AND MAINTAIN ALL SOIL EROSION CONTROL STRUCTURES AND MEASURES THROUGHOUT CONSTRUCTION. FOLLOW NYS SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS, THE PROJECT SPECIFICATIONS, AND THE SOIL EROSION AND SEDIMENT CONTROL PLAN. MODIFICATIONS TO THE SEQUENCE OF CONSTRUCTION SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND PROCESSING FOR APPROVAL. MODIFICATIONS WILL INCUR ADDITIONAL REVIEW PERIODS AS REQUIRED TO PROCESS APPROVALS.

9. EXISTING INLETS, STORMWATER PIPING AND/OR SWALES IMMEDIATELY BELOW THE DISTURBED AREAS SHALL HAVE EROSION CONTROL WORKS INSTALLED TO PREVENT ENTRY OF SEDIMENT DURING CONSTRUCTION. DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE SOIL EROSION CONTROL PLAN. AN UPDATED SEQUENCE OF CONSTRUCTION SCHEDULE SHALL BE SUBMITTED TO AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO START OF WORK.

10. IN CASE OF DISCREPANCIES BETWEEN THESE PLANS AND THE PROJECT SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

11. SUBMISSIONS REQUIRED FOR DOCUMENTATION OF CONFORMANCE TO THE CONTRACT PLANS, DOCUMENTS, AND SPECIFICATIONS SHALL BE PROVIDED TO THE CONTRACTING OFFICER FOR DISTRIBUTION TO THE APPROPRIATE REVIEWER.

12. DESIGN TEMPORARY CONSTRUCTION STRUCTURES SUCH AS SHEETING & SHORING FOR EXCAVATIONS. PROVIDE DESIGN CALCULATIONS AND DRAWINGS SHOWING LOCATION, EXTENT , AND CONSTRUCTION DETAILS OF SAID TEMPORARY STRUCTURES AND SUPPORTS PROPOSED. DOCUMENTS SHALL BE PREPARED AND SEALED BY A NYS LICENSED PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL SUBMIT EXCAVATION AND SHORING PLANS FOR TEMPORARY CONSTRUCTION STRUCTURES, PRIOR TO ANY SITE EXCAVATION, TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL.

13. DESIGN TEMPORARY CLOSURES, BARRICADES, RAILINGS, AND TEMPORARY PROTECTION USED TO PROTECT THE WORK, AND PERSONNEL IN ACCORDANCE WITH EM 385, CHAPTER 23. IF REQUESTED, PROVIDE DRAWINGS INDICATING THE LOCATIONS, EXTENT, AND CONSTRUCTION DETAILS OF SAME. ALL TEMPORARY CONSTRUCTION STRUCTURES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

14. INGRESS AND EGRESS TO AND FROM THE CONSTRUCTION SITE SHALL BE KEPT READILY ACCESSIBLE AND UNOBSTRUCTED AT ALL TIMES. CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT ROADWAYS AND/OR PASSAGEWAYS UNLESS 14-DAY APPROVAL IS REQUESTED TO THE COR. NO PARKING OR STOPPING ALONG INGRESS-EGRESS ROUTE SHALL BE PERMITTED.

15. MAINTAIN THE CONSTRUCTION SITE AND THE AREAS OF WORK DAILY WHILE PERFORMING THIS CONTRACT. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION SITE ON A DAILY BASIS. NO BURNING OF DEBRIS OR USE OF EXPLOSIVES SHALL BE PERMITTED.

16. PREPARE, LAYOUT, AND INSTALL WORK IN SUCH A MANNER AS NOT TO DELAY OR INTERFERE WITH THE PROGRESS OF OTHER INSTALLATION CONTRACT WORK AND/OR ANY WORK DESIGNATED TO BE PERFORMED UNDER ANY OTHER CONTRACT ON THE INSTALLATION AND/OR ANY OTHER WORK IN PROGRESS ON THE INSTALLATION.

17. THE PERFORMANCE OF ALL WORK IN THE CONTRACT DOCUMENTS INCLUDING DEMOLITION AND REMOVALS AND INSTALLATION OF ALL MATERIALS SHALL BE IN FULL COMPLIANCE WITH CODES, RULES, AND REGULATIONS GOVERNING SAID WORK.

18. BEFORE THE EXECUTION OF WORK, REVIEW AND FOLLOW THE USMA DPW DIG SAFE GUIDELINES WITHIN THE PROJECT DIG SAFE PERMIT CONCERNING UTILITIES ON/ADJACENT TO THE SITE AND ARRANGE FOR MARK-OUT, REMOVAL OR RELOCATION OF THE ITEMS AS REQUIRED TO COMPLETE THE WORK. CONTRACTOR SHALL CONTACT " DIG SAFELY NY" AT 811 PRIOR TO CONSTRUCTION. NOTIFY NYS ONE-CALL AND ALL LOCAL UTILITY COMPANIES/PURVEYORS OWNING OR HAVING JURISDICTION CONCERNING UTILITIES.

19. THE CONTRACTOR SHALL PROVIDE ALL TESTING SERVICES AND SUBMIT, TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL, A LIST OF ALL TESTS TO BE PERFORMED BY EACH TESTING SERVICE.

20. QUALITY CONTROL INSPECTION AND TESTING SHALL BE MADE BY A USACE-APPROVED LABORATORY UNDER CONTRACT TO THE CONTRACTOR. COPIES OF REPORTS AND TESTING RESULTS ASSOCIATED WITH THE CONTRACTOR'S QUALITY CONTROL PROGRAM SHALL BE SUBMITTED TO THE CONTRACTING OFFICER.

21. ILLUMINATE AND PROTECT ALL ELEMENTS COMPLETED OR PARTIALLY COMPLETED AND ALSO APPLY THE SAME TO EXCAVATED TRENCHES AND OPENINGS AT ALL TIMES TO PROTECT AGAINST INJURY TO WORKERS, PEDESTRIANS, WILDLIFE, ETC.

22. BY SUBMITTING A PROPOSAL OR AGREEMENT TO PERFORM WORK, THE CONTRACTOR AGREES THAT THEY ARE SKILLED AND EXPERIENCED IN THE USE AND INTERPRETATION OF PLANS AND SPECIFICATIONS, THEY HAVE CAREFULLY REVIEWED THE PLANS AND SPECIFICATIONS FOR THIS PROJECT AND HAVE FOUND THEM TO BE FREE OF AMBIGUITIES AND SUFFICIENT FOR BID AND CONSTRUCTION PURPOSES. FURTHER, THEY HAVE CAREFULLY EXAMINED THE SITE OF THE WORK AND FROM THEIR OWN OBSERVATIONS ARE SATISFIED AS TO THE NATURE AND LOCATION OF THE WORK; THE CHARACTER, QUALITY, AND QUANTITY OF MATERIALS; THE DIFFICULTIES LIKELY TO BE ENCOUNTERED, AND OTHER ITEMS WHICH MAY AFFECT THE PERFORMANCE OF WORK.

23. WORK SHALL BE SCHEDULED AND FULLY COORDINATED IN ADVANCE OF PERFORMANCE WITH THE CONTRACTING OFFICER.

24. ALL CURB/EDGE OF PAVEMENT RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.

25. PROVIDE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS. COORDINATE WITH THE CONTRACTING OFFICER.

26. THE CONTRACTOR SHALL UTILIZE THE AREA DESIGNATED ON THE CONTRACT DRAWINGS FOR A VEHICLE TIRE WASH AREA. ALL CONSTRUCTION VEHICLES SHALL BE WASHED PRIOR TO LEAVING THE PROJECT SITE. THE WASH AREA SHALL BE SWEPT CLEAN DAILY AND ACCEPTED BY THE CONTRACTING OFFICER.

27. SITE SOIL AND SUBGRADE DISTURBANCE AREA BELOW THE PAVEMENT DGA SHALL NOT EXCEED 0.99 AC. WITHIN THE PROJECT LIMIT OF DISTURBANCE. CONTRACTOR SHALL NOTIFY CONTRACTING OFFICER IF THE DISTURBANCE THRESHOLD WILL BE EXCEEDED PRIOR TO ANY EXCAVATION. OTHERWISE, COMPLY WITH NYSDEC AND NYSDOT REQUIREMENTS.

28. CLEANING/WASHOUT OF CONCRETE DELIVERY VEHICLES SHALL BE LIMITED TO CLEANING THE CHUTES WITH AS LITTLE WATER AS POSSIBLE. THE WATER SHALL BE DISCHARGED INTO CONTAINERS AS APPROVED BY THE CONTRACTING OFFICER. THE CONTRACTOR SHALL HIRE AN APPROVED LOCAL SERVICE TO PERFORM CLEANING AND DISPOSAL OF EXCESS CONCRETE. SUBMIT SHOP DRAWINGS OF THE PROPOSED WASHOUT CONTAINER AND LOCATION, TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL, PRIOR TO ANY CONCRETE DELIVERY.

CIVIL CONCRETE AND REINFORCEMENT NOTES:

1. DESIGN IS BASED ON THE FOLLOWING MATERIAL STRENGTHS USING NORMAL WEIGHT CONCRETE:
   A. 28-DAY CONCRETE CYLINDER STRENGTH:
      SLABS ON GROUND ____ 4,500 PSI
   B. DEFORMED BAR REINFORCEMENT ____ 60,000 PSI
   C. WELDED WIRE REINFORCEMENT ____ 65,000 PSI

2. PROVIDE THE FOLLOWING MINIMUM COVER FOR REINFORCEMENT:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH. ____ 3 IN.
   B. CONCRETE EXPOSED TO WEATHER.
      NO. 6 THROUGH NO. 18 BARS ____ 2 IN.
      NO. 5 BARS AND SMALLER ____ 1 1/2 IN.

3. PROVIDE ½" PRE-FORMED EXPANSION JOINTS AGAINST ALL HARD SURFACES INCLUDING BUT NOT LIMITED TO OTHER CONCRETE STRUCTURES, MASONRY OF ANY KIND, METALS OF ANY KIND, ETC.

4. WELDED WIRE FABRIC INSTALLATION SHALL OVERLAP 2 FULL SQUARES WHEN CONNECTION TO THE NEXT SECTION.

GRADING NOTES:

1. GRADE: MAXIMUM SLOPE OF DISTURBED AND LANDSCAPE RESTORED AREAS SHALL BE 3:1.

2. ALL SUB-GRADE MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. PROVIDE CERTIFICATION BY A PROFESSIONAL GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF NEW YORK THAT ALL SUBGRADES BELOW AND AGAINST STRUCTURAL IMPROVEMENTS INCLUDING FOUNDATIONS, PAVEMENT, BELOW GRADE STRUCTURES, SIDEWALKS, WALLS, AND OTHER PROJECT COMPONENTS HAVE BEEN COMPACTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

3. PROPOSED SPOT ELEVATIONS AND CONTOURS SHOWN ARE FINISHED GRADE UNLESS OTHERWISE NOTED.

4. NOTIFY THE CONTRACTING OFFICER OF ANY SUBGRADES NOT MEETING THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS. PROVIDE THE CONTRACTING OFFICER WITH RECOMMENDATIONS FOR REMOVAL LIMITS.

5. ALL EXISTING GRADES SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

6. PROVIDE GRADE SHEETS TO THE CONTRACTING OFFICER FOR REVIEW PRIOR TO PAVEMENT/CURBING INSTALLATION.

7. REFER TO GEOTECHNICAL REPORT IN THE PROJECT SPECIFICATIONS FOR CLASSIFICATION OF SUBGRADE MATERIALS.

8. BORROW OR SELECT FILL USED ON-SITE SHALL BE HAULED IN FROM OFF-INSTALLATION SOURCES. CONTRACTOR SHALL SUBMIT DOCUMENTATION THAT BORROW/SELECT FILL COMPLY WITH THE CONTRACT DOCUMENTS, FEDERAL, STATE AND LOCAL REQUIREMENTS. CONTRACTOR SHALL SUBMIT BORROW SITE AND TESTING DATA PER THE PROJECT SPECIFICATIONS.

9. THE BOTTOM OF ALL EXCAVATIONS OR FOUNDATIONS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6" AND COMPACT AS INDICATED WITHIN THE CONTRACT DOCUMENTS.

10. EXCAVATED SOIL MAY BE USED FOR BACKFILLING AND FILL PROVIDED IT MEETS THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

11. ALL DISTURBED AREAS SHALL BE ROUGH GRADED AND STABILIZED WITH HYDROSEED. ALL ROCKS/BOULDERS LARGER THAN 6-INCHES IN DIAMETER SHALL BE REMOVED FROM THE GRADED AREA PRIOR TO APPLYING HYDROSEED.

12. THE FINAL GRADE AROUND THE (10) TEN TYPICAL CONCRETE HVAC PADS WILL VARY BASED ON THE SURROUNDING GROUND ELEVATIONS AND GROUND CONDITIONS. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AT EACH LOCATION PRIOR TO COMMENCEMENT OF WORK. IF THE CONCRETE PAD CANNOT BE CONSTRUCTED AT A PARTICULAR LOCATION IN ACCORDANCE WITH THE CONCRETE PAD DETAIL, AS SHOWN ON SHEET C-501, THE CONTRACTOR MUST NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES BEFORE PROCEEDING.

DEMOLITION NOTES:

1. PIPES, CULVERTS, ETC. WITHIN AND NEAR THE AREA OF WORK SHALL BE KEPT FREE FROM MATERIAL ENTERING THE DRAINAGE SYSTEMS DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION, REMOVE ALL ACCUMULATED SEDIMENT. DISPOSE OF ALL UNSUITABLE OR EXCESS EXCAVATED MATERIALS OFF GOVERNMENT PROPERTY.

2. UPON COMPLETION OF THE WORK, REMOVE ALL DEBRIS, EQUIPMENT, AND UNUSED MATERIALS FROM GOVERNMENT PROPERTY.

3. EXCAVATED ASPHALT AND CONCRETE SHALL BE REMOVED FROM GOVERNMENT PROPERTY AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

4. EXCAVATED SOIL MAY BE USED FOR BACKFILLING AND FILL PROVIDED IT MEETS THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

5. EXERCISE CARE TO PREVENT DAMAGE TO AND PROTECT ANY MATERIALS OR STRUCTURES THAT ARE TO REMAIN IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN EXCAVATING AND SHALL HAND EXCAVATE AS DEEMED NECESSARY TO PROTECT SUBSURFACE UTILITIES. DAMAGE TO ANY EXISTING UTILITY RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY REPAIRED IN A MANNER AS APPROVED BY THE CONTRACTING OFFICER AT NO ADDITIONAL COST TO THE GOVERNMENT.

6. PROTECT ALL AREAS OUTSIDE THE LIMIT OF DISTURBANCE WHICH ARE ADJACENT TO CONSTRUCTION ACTIVITY. ALL AREAS OUTSIDE THE LIMIT OF DISTURBANCE WHICH ARE DAMAGED BY THE CONTRACTOR, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND THAT OF THE SURROUNDING AREA. THE RESTORATION SHALL BE DONE AT NO ADDITIONAL COST TO THE GOVERNMENT AND SHALL BE APPROVED BY CONTRACTING OFFICER.

7. HAUL DEMOLISHED MATERIAL, RUBBISH AND DEBRIS OFF-SITE AND OFF INSTALLATION EXCEPT ITEMS DIRECTED BY THE CONTRACTING OFFICER TO BE SALVAGED. DEMOLISHED MATERIAL TO BE MANAGED ACCORDING TO THE PROJECT ENVIRONMENTAL CONTROLS SPECIFICATIONS. ITEMS FROM THE SITE SHALL BE LEGALLY DISPOSED OF WITHOUT DISRUPTING VEHICULAR OR PEDESTRIAN FLOW.

8. PREVENT CONTAMINATED WATER, GASOLINE, OR ANY OTHER CONTAMINANTS FROM ENTERING THE PROJECT AREAS. FOLLOW REQUIREMENTS FOR SPILL RESPONSE.

9. MANAGEMENT OF WASTES GENERATED FROM THIS PROJECT AS WELL AS UNKNOWN CONTAMINATION IS ADDRESSED IN THE CONTRACT DOCUMENTS.

10. AS IDENTIFIED FOR DEMOLITION, REMOVE SIGNS, STRUCTURES, FENCES, AND EXISTING IMPROVEMENTS FROM THE CONSTRUCTION SITE. THE SITE SHALL BE LEFT IN AN ORDERLY AND NEAT CONDITION. COMPLETED CONDITIONS SHALL BE APPROVED BY THE CONTRACTING OFFICER AND AT NO ADDITIONAL COST TO THE GOVERNMENT.

11. PROTECT STREETS, ROADS, AND ADJACENT IMPROVEMENTS.

12. STRICTLY OBSERVE POLICE AND FIRE PREVENTION CODE REGULATIONS AT ALL TIMES.

13. CONTROL DUST BY PERIODICALLY SPRAYING WORK AREA WITH WATER, PER NYS SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

14. THE INTENT OF THE DEMOLITION SHOWN ON THE DRAWINGS IS TO GENERALLY OUTLINE THE TYPES OF MATERIALS TO BE REMOVED AND THE LIMITS OF THE REMOVALS. THE QUANTITY OF ITEMS TO BE REMOVED WITHIN THE LIMIT OF DEMOLITION MAY VARY FROM THOSE DEPICTED ON THE PLANS. THE INTENT AND REQUIREMENT IS FOR THE CONTRACTOR TO REMOVE THE EXISTING VEGETATION AND IMPROVEMENTS AND RE-GRADE AS REQUIRED TO CONSTRUCT THE PROPOSED DEVELOPMENT. ALL MEANS AND METHODS INCLUDING SAFETY REQUIREMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

15. ALL REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN-PLACE AND PROPERLY INSTALLED, IN ACCORDANCE WITH NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (BLUE BOOK), LATEST EDITION, PRIOR TO THE COMMENCEMENT OF PROJECT CONSTRUCTION AND SOIL MOVEMENT.

16. THE ABATEMENT OF ALL HAZARDOUS MATERIALS SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF DEMOLITION WORK.

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CONTRACT NO.: W912DS-19-D-0010

DESIGNED BY: JK
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CHECKED BY: KM
SUBMITTED BY:
SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT
NEW YORK, NY

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
GENERAL NOTES

SHEET IDENTIFICATION

C-001

RTA SUBMISSION

DRAINAGE & UTILITY NOTES:

1. NOTIFY AND COORDINATE WITH UTILITY COMPANIES AND CONNECTIONS TO INTERIOR UTILITY SERVICES.
2. SIZE AND LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED PRIOR TO THE INSTALLATION OF IMPROVEMENTS.
3. LOCATION OF SERVICES ARE APPROXIMATE. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE USMA DPW DIG SAFE GUIDELINES WITHIN THE PROJECT DIG SAFE PERMIT AND CONFIRM THE UTILITY LOCATIONS INDEPENDENTLY WITH THE WEST POINT DPW/CONTRACTING OFFICER PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE CONTRACTING OFFICER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT(S) PRIOR TO COMMENCEMENT OF CONSTRUCTION AND/OR THE PURCHASE OF ANY STRUCTURES.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN EXCAVATING AND SHALL HAND EXCAVATE AS DEEMED NECESSARY TO PROTECT SUBSURFACE UTILITIES. DAMAGE TO ANY EXISTING UTILITY RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY REPAIRED IN A MANNER AS APPROVED BY THE CONTRACTING OFFICER AT NO ADDITIONAL COST TO THE GOVERNMENT.
5. REFER TO ALL DRAWINGS FOR EXACT LOCATION AND SIZES OF UTILITY, ELECTRICAL,TELECOMMUNICATIONS, STORM, WATER, AND SANITARY CONNECTIONS TO THE BUILDING.
6. UTILITY MH/VALVE COVERS, RIMS, GRATES, VENTS, AND OTHER COMPONENTS WHICH ARE NOT BEING REMOVED AND ARE WITHIN AREAS OF DISTURBANCE SHALL BE RESET TO GRADE.
7. EXTREME CAUTION SHALL BE USED DURING DISTURBANCE ACTIVITIES ADJACENT TO EXISTING ON-SITE UTILITY SERVICES. PROTECT UTILITIES DURING CONSTRUCTION TO AVOID DAMAGE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IN ACCORDANCE WITH THE RESPECTIVE UTILITY PURVEYORS REQUIREMENTS AT THE SOLE EXPENSE OF THE CONTRACTOR AND APPROVED BY THE CONTRACTING OFFICER.
8. CONCRETE THRUST BLOCKS SHALL BE INSTALLED ON ALL WATER LINE BENDS, TEES, CROSSES, ELBOWS, VALVES, CAPS, ETC. IN ACCORDANCE WITH THE THRUST BLOCK DETAIL. IN LIEU OF THRUST BLOCK, MECHANICAL RESTRAINED JOINTS SHALL BE USED. SUBMIT DETAILS OF THE MECHANICAL JOINTS TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
9. NEW WATER MAIN SERVICE CONNECTIONS SHALL BE DIP AND SHALL BE INSTALLED AS INDICATED ON THE CONTRACT DRAWING. DISINFECTION, HYDROSTATIC TESTING, AND BACTERIOLOGICAL TESTING SHALL BE PERFORMED IN ACCORDANCE WITH UFC / AWWA / WATER COMPANY SPECIFICATIONS.
10. ALL STORMWATER INLETS SHALL BE EQUIPPED WITH A BICYCLE SAFE ECO GRATE. STORMWATER INLETS SHALL HAVE A 6" FACE AND TYPE N CURB BOX.
11. THE GEOTECHNICAL INVESTIGATION REPORT PREPARED FOR THIS PROJECT SHALL BE REVIEWED THOROUGHLY PRIOR TO BID SUBMISSION.
12. THE LOCATION, ELEVATION, AND SIZE OF EXISTING UTILITIES SHOWN ON THE CONTRACT DRAWINGS ARE APPROXIMATE. THE FOLLOWING SHALL BE PERFORMED:
    A. VERIFY THE LOCATION OF EXISTING AT GRADE AND UNDERGROUND UTILITIES WITHIN THE WORK AREA PRIOR TO CONSTRUCTION. EXCAVATE TEST PITS AS REQUIRED;
    B. EXERCISE EXTREME CAUTION WHEN WORKING ADJACENT TO EXISTING STORM, SANITARY, POWER, COMMUNICATIONS OR WATER LINES TO PREVENT DAMAGE;
    C. IMMEDIATELY REPAIR ANY DAMAGE TO THE EXISTING UTILITIES RESULTING FROM CONSTRUCTION AT NO ADDITIONAL COST TO THE GOVERNMENT.
    D. MAINTAIN UTILITIES IN ACTIVE OPERATION AT ALL TIMES UNLESS THEY ARE TO BE ABANDONED OR REMOVED;
    E. THOROUGHLY REVIEW ALL ARCHITECTURAL/UTILITY-RELATED PLANS ASSOCIATED WITH THIS PROJECT FOR CONFLICTS OR DISCREPANCIES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
    F. NOTIFY AND OBTAIN APPROVALS FROM UTILITY COMPANY/WEST POINT DPW/CONTRACTING OFFICER, PRIOR TO PERFORMING WORK WITHIN AN EASEMENT.
    G. UTILITIES THAT ARE TO BE ABANDONED/REMOVED SHALL REQUIRE REVIEW AND APPROVAL BY THE CONTRACTING OFFICER FOR THE CONTINUED SERVICES ADJACENT TO THE CONTRACT WORK.
13. REMOVE EXISTING UTILITY SERVICES WHERE SHOWN ON PLANS AND UNCOVERED BY DEMOLITION CONSISTENT WITH THE DRAWINGS AND TO THE EXTENT AND MANNER SATISFACTORY TO THE CONTRACTING OFFICER AND UTILITY COMPANIES INVOLVED.
14. PERFORM WORK IN A SAFE AND CAUTIOUS MANNER IN ACCORDANCE WITH EM 385-1-1.
15. REINFORCING STEEL WITHIN PRE-CAST STRUCTURES SHALL BE DESIGNED BY THE STRUCTURE MANUFACTURER. REINFORCING STEEL WITHIN POURED-IN-PLACE DRAINAGE STRUCTURES SHALL BE DESIGNED BY A NYS LICENSED ENGINEER AND SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A NYS LICENSED ENGINEER AND SUBMITTED FOR REVIEW AND APPROVAL.
16. SANITARY SEWER PIPE SHALL BE DIP ABOVE OR BELOW GRADE AND SHALL BE TESTED FOR COMPLIANCE WITH ASTM STANDARDS FOR INFILTRATION/EXFILTRATION.
17. CONFIRM ALL PIPE SIZES AND QUANTITIES PRIOR TO PURCHASE OF ANY MATERIALS.
18. DEWATER TRENCHES AS REQUIRED FOR INSTALLATION OF THE IMPROVEMENTS. THE CONTRACTOR MUST MAINTAIN THE WATER TABLE 2-FEET BELOW THE BOTTOM OF TRENCH.
19. EXISTING STORM PIPING TO REMAIN, SHALL BE CLEANED TO THE NEAREST INLET / MANHOLE AND/OR DISCHARGE POINT, AS APPLICABLE.
20. ALL UTILITY PIPING TO BE DEMOLISHED SHALL BE REMOVED FROM GOVERNMENT PROPERTY.
21. PRE-CAST CONCRETE STRUCTURES SHALL BE DESIGNED BY THE MANUFACTURER FOR HS-25 LOADING. CERTIFIED SHOP DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK, SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
22. ALL UTILITY POLES AND OVERHEAD SERVICE SHALL BE SUPPLIED AND INSTALLED BY CITY LIGHT AND POWER (CLP) UNDER A SEPARATE CONTRACT.
23. DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTING OFFICER OF ANY UNEXPECTED UTILITY OR STRUCTURE INTERFERENCE.
24. ALL ABOVE GRADE AND BELOW GRADE DIP SHALL BE RESTRAIN TYPE, MECHANICAL JOINT PIPE, WITH RESTRAINING GASKETS.
25. REFER TO ELECTRICAL DRAWINGS FOR LOCATION OF THE ELECTRIC SERVICE TO EACH HVAC UNIT. ELECTRIC SERVICE TO BE MOUNTED TO UNDERSIDE OF BARRACKS FROM BUILDING TO CONCRETE PAD.
26. ALL PROPOSED UTILITIES SHALL REPLACE THE EXISTING UTILITIES IN-KIND. ALL PROPOSED BELOW GRADE UTILITIES SHALL BE INSTALLED WITHIN THE SAME TRENCH AS THE REMOVED EXISTING UTILITY AND TO THE SAME DEPTH AS THE EXISTING UTILITY.
27. ALL ABOVE GRADE UTILITIES SHALL BE INSTALLED ON PIPE SUPPORTS, MINIMUM TWO SUPPORTS PER PIPE. THE SUPPORTS SHALL BE PLACED AT A LOCATION TO ALLOW FOR SUPPORT OF THE ENTIRE LENGTH OF PIPE IF DISCONNECTED FROM THE SYSTEM.
28. PROPOSED PIPE IN NEW TRENCH SHALL BE INSTALLED TO A DEPTH OF 2.5' FROM PROPOSED GRADE TO TOP OF PIPE.
29. AN OPENING SHALL BE CUT THROUGH THE CHAIN LINK FENCE FABRIC THAT SURROUNDS THE HVAC PADS TO ACCOMMODATE THE DUCTWORK INTO THE BUILDING. THE FENCING SHALL BE NEATLY CUT WITH NO GAP BETWEEN THE FENCE FABRIC AND DUCTWORK.
30. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW YORK, TO DESIGN THE PIPE SUPPORT FOUNDATION AND STRUT SUPPORT SYSTEM. THE SUPPORT SHALL BE DESIGNED TO ACCOMMODATE THE WEIGHT OF ALL MATERIAL BEING SUPPORTED. PIPES THAT ARE SUPPORTED SHALL BE ASSUMED FLOWING FULL. SHOP DRAWINGS OF THE SUPPORTS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

LEGEND

ITEM	EXISTING	PROPOSED
ADD ALT DESIGNATION AREA		
CURB		
EDGE OF PAVEMENT		
UNDERGROUND ELECTRIC LINE	E	E
UNDERGROUND COMMUNICATION LINE	COMM	COMM
OVERHEAD COMMUNICATION & ELECTRIC LINE	OH-E-C	OH-E-C
CENTER LINE		
OVERHEAD WIRES	OHW	OHW
GAS MAIN	G	G
FENCE	x	x
LIMIT OF DISTURBANCE		
SILT SOCK		SF
MAJOR CONTOURS	160	160
MINOR CONTOURS	161	161
SANITARY SEWER LINE	SAN	SAN
STORM SEWER LINE	SD	
WATER LINE	W	W
FIRE ALARM		FA
BENCHMARK		
WATER STRUCTURE		
STOCKPILE		
CONCRETE (POURED IN PLACE)		
UTILITY POLE		
SANITARY MANHOLE		
STORM INLET		
INLET PROTECTION		

LIST OF ABBREVIATIONS

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BIT.	BITUMINOUS
BLDG	BUILDING
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CO	CLEAN OUT
COMM	COMMUNICATION
CONC	CONCRETE
DC	DEPRESSED CURB
DGA	DENSE GRADED AGGREGATE
DIA.	DIAMETER
DIP	DUCTILE IRON PIPE
DIM.	DIMENSION
DMH	DRAINAGE MANHOLE
DPW	DIRECTORATE OF PUBLIC WORKS
DWG	DRAWING
EA	EACH
ELEC.	ELECTRIC
EL./ELEV.	ELEVATION
EOP	EDGE OF PAVEMENT
EX./EXIST.	EXISTING
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
GR	GRATE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
HW	HOT WATER
INV.	INVERT
LF	LINEAR FEET
LOD	LIMIT OF DISTURBANCE
MAX.	MAXIMUM
MH	MANHOLE
MIN.	MINIMUM
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
O.C.	ON CENTER
OH	OVERHEAD
OD	OUTSIDE DIAMETER
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
SAN	SANITARY
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SANITARY MANHOLE
STA.	STATION
TBR	TO BE REMOVED
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UFC	UNIFIED FACILITIES CRITERIA
USMA	UNITED STATES MILITARY ACADEMY
W/	WITH
WWF	WELDED WIRE FABRIC

US Army Corps of Engineers®

DATE | DESCRIPTION | MARK

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SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT
NEW YORK, NY

JACOBS / EWING COLE A Joint Venture

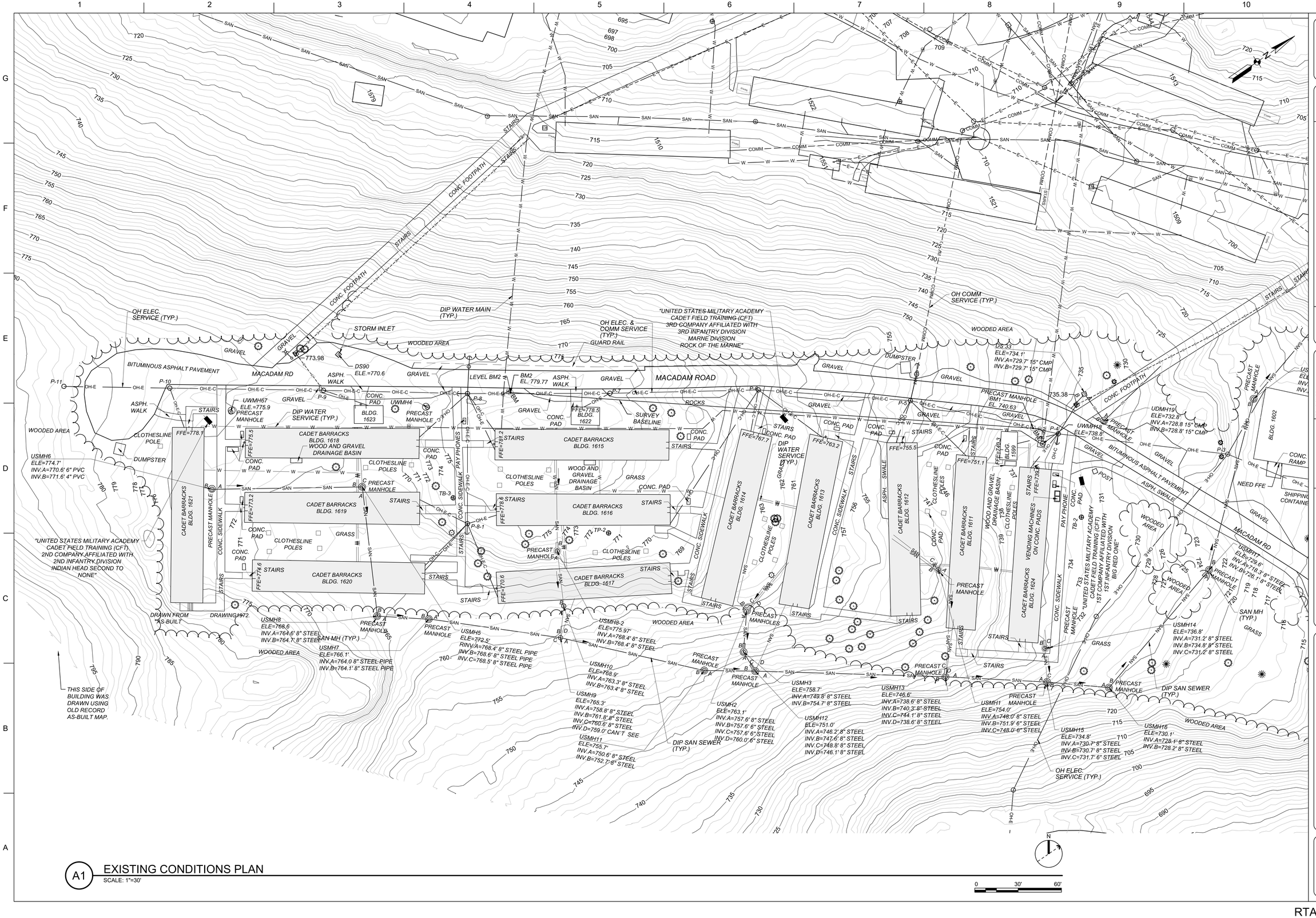
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
GENERAL NOTES, LEGEND AND ABBREVIATIONS

SHEET IDENTIFICATION

C-002

RTA SUBMISSION



A1 EXISTING CONDITIONS PLAN

SCALE: 1"=30'

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NEW YORK DISTRICT
NEW YORK, NY

JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
EXISTING CONDITIONS PLAN

SHEET IDENTIFICATION
C-101

RTA SUBMISSION

GENERAL SHEET NOTES

1. THE DEMOLITION OF UTILITY POLES AND ELEC/COMM SERVICE IS TO BE COMPLETED BY CITY LIGHT AND POWER (CLP) UNDER A SEPARATE CONTRACT.
2. THE MAJORITY OF THE WATER AND SANITARY PIPES ARE ON OR ABOVE GRADE. THE CONTRACTOR SHALL REMOVE ALL PIPE AS INDICATED ON THE CONTRACT DRAWINGS, INCLUSIVE OF PIPE, PIPE SUPPORTS, FOUNDATIONS, VALVES, FITTINGS, ETC.
3. BELOW GRADE PIPE SHALL BE REMOVED IN ITS ENTIRETY, UNLESS INDICATED OTHERWISE.
4. HW SERVICE FROM THE BOILER BUILDINGS SHALL BE REMOVED/ABANDONED AS INDICATED ON THE CONTRACT DRAWINGS. ANY PENETRATIONS NO LONGER USED SHALL BE PROPERLY SEALED. THE CONTRACTOR SHALL RE-USE PENETRATIONS FOR THE PROPOSED HW SERVICE IF DEEMED FEASIBLE AND AS APPROVED BY THE CONTRACTING OFFICER.
5. ALL SANITARY OPENINGS THAT ARE TO BE ABANDONED SHALL BE PLUGGED AT THE MANHOLE.
6. THE CONTRACTOR SHALL PROTECT ALL BENCHMARKS FROM DAMAGE DURING CONSTRUCTION.

OH ELEC. & COMM. TBR, NIC (TYP.)
UP TBR, NIC (TYP.)
PORTION OF CONC SIDEWALK TBR (TYP.)
BELOW GRADE 3" DIP WATER SERVICE TBR (TYP.)
BELOW GRADE WATER SERVICES TBR
AT GRADE 6" DIP SAN SEWER TBR
PLUG MH OPENING INV. C FROM BLDG 1618
ABOVE GRADE WATER SERVICES TBR (TYP.)
CLOTHELINE POLES/FOUNDATIONS TBR (TYP.)
AT GRADE HW SERVICES TBR, PROPERLY SEAL PIPE OPENING AT BOILER BUILDING
UP TBR, NIC (TYP.)
6" DIP SAN SEWER TBR
UP TBR, NIC (TYP.)
SAN MH TBR
6" DIP SAN SEWER TBR
CLOTHELINE POLES/ FOUNDATIONS TBR (TYP.)
SAN MH TBR
AT GRADE 6" DIP SAN SEWER TBR
ABOVE GRADE WATER SERVICES TBR
PLUG MH OPENING INV. B & D FROM USMH10 & BLDG 1617
OH ELEC. & COMM. TBR, NIC (TYP.)
ABOVE GRADE WATER SERVICES TBR
BELOW GRADE WATER SERVICES TBR
6" DIP SAN SEWER TBR
OH COMM. TBR, NIC (TYP.)
ABOVE GRADE WATER SERVICES TBR
CLOTHELINE POLES/FOUNDATIONS TBR (TYP.)
TREES TBR
AT GRADE 6" DIP SAN SEWER TBR
PLUG MANHOLE OPENING FOR SANITARY LATERAL REMOVED FROM BLDG 1613
PLUG MH OPENING INV. C & D FROM BLDG 1613
SAN SEWER TBR
BELOW GRADE HW SERVICES TBR, UTILIZE OPENING AT AT BOILER BUILDING FOR PROPOSED HW SERVICE
CLOTHELINE POLES/FOUNDATIONS TBR (TYP.)
AT GRADE 6" DIP SAN SEWER TBR
PLUG MH OPENING INV. C & D FROM BLDGS 1612 & 1611
OH ELEC. TBR, NIC (TYP.)
BELOW GRADE HW SERVICES TBR, PROPERLY SEAL PIPE OPENING AT BOILER BUILDING
CLOTHELINE POLES/FOUNDATIONS TBR (TYP.)
ABOVE GRADE WATER SERVICES TBR
SAN MH TBR
AT GRADE 6" DIP SAN SEWER TBR
SAN MH TBR
BELOW GRADE 6" DIP SAN SEWER TBR
PLUG MH OPENING INV. C FROM BLDG 1624
"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 3RD COMPANY AFFILIATED WITH 3RD INFANTRY DIVISION MARNE DIVISION "ROCK OF THE MARNE"
"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 2ND COMPANY AFFILIATED WITH 2ND INFANTRY DIVISION INDIAN HEAD SECOND TO NONE"
THIS SIDE OF BUILDING WAS DRAWN USING OLD RECORD AS-BUILT MAP.
DRAWN FROM AS-BUILT DRAWING 1972

N

0 30' 60'

A1 DEMOLITION PLAN
SCALE: 1"=30'

US Army Corps of Engineers®

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JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
DEMOLITION PLAN

SHEET IDENTIFICATION
CD101

RTA SUBMISSION

A1 SITE PLAN
SCALE: 1"=30'

RTA SUBMISSION

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
SITE PLAN

SHEET IDENTIFICATION
CS101

A1 TRUCK ACCESS PLAN
SCALE: 1"=100'

N

0 100' 200'

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JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
TRUCK ACCESS PLAN

SHEET IDENTIFICATION
CS102

RTA SUBMISSION

NOTE:

1. THE FINAL GRADE AROUND THE (10) TEN TYPICAL CONCRETE HVAC PADS WILL VARY BASED ON THE SURROUNDING GROUND ELEVATIONS AND GROUND CONDITIONS. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AT EACH LOCATION PRIOR TO COMMENCEMENT OF WORK. IF THE CONCRETE PAD CANNOT BE CONSTRUCTED AT A PARTICULAR LOCATION IN ACCORDANCE WITH THE CONCRETE PAD DETAIL, AS SHOWN ON SHEET C-501, THE CONTRACTOR MUST NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES BEFORE PROCEEDING.

A1 GRADING PLAN
SCALE: 1"=30'

0 30' 60'

US Army Corps of Engineers®

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
GRADING PLAN

SHEET IDENTIFICATION
CG101

RTA SUBMISSION

GENERAL SHEET NOTES

1. ALL INDIVIDUAL TREES LOCATED WITHIN THE TEMPORARY CONSTRUCTION FENCE SHALL BE PROTECTED WITH TREE PROTECTION MEASURES

ROUGH GRADE AND SEED DISTURBED AREA (TYP.)

INLET PROTECTION (TYP.)

TEMPORARY CONSTRUCTION FENCE (TYP.)

ROUGH GRADE AND SEED DISTURBED AREA (TYP.)

INLET PROTECTION (TYP.)

20'x50' CONSTRUCTION VEHICLE TIRE WASH AREA

FILTER SOCK

ROUGH GRADE AND SEED DISTURBED AREA (TYP.)

ROUGH GRADE AND SEED DISTURBED AREA (TYP.)

20' WIDE DOUBLE SWING GATE WITH LOCK

TEMPORARY STOCKPILE W/ FILTER SOCK AROUND PERIMETER

FILTER SOCK (TYP.)

ROUGH GRADE AND SEED DISTURBED AREA (TYP.)

"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 3RD COMPANY AFFILIATED WITH 3RD INFANTRY DIVISION MARNE DIVISION "ROCK OF THE MARNE"

"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 2ND COMPANY AFFILIATED WITH 2ND INFANTRY DIVISION INDIAN HEAD SECOND TO NONE"

MACADAM ROAD

CADET BARRACKS BLDG. 1618

CADET BARRACKS BLDG. 1615

CADET BARRACKS BLDG. 1619

CADET BARRACKS BLDG. 1616

CADET BARRACKS BLDG. 1620

CADET BARRACKS BLDG. 1617

LATRINE BARRACKS BLDG. 1621

LATRINE BARRACKS BLDG. 1614

CADET BARRACKS BLDG. 1613

CADET BARRACKS BLDG. 1612

LATRINE BARRACKS BLDG. 1611

CADET BARRACKS BLDG. 1624

BLDG. 1623

BLDG. 1622

BLDG. 1602

THIS SIDE OF BUILDING WAS DRAWN USING OLD RECORD AS-BUILT MAP.

DRAWN FROM AS-BUILT DRAWING 972

N

0 30' 60'

A1 SOIL EROSION PLAN
SCALE: 1"=30'

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
SOIL EROSION PLAN

SHEET IDENTIFICATION
CG102

RTA SUBMISSION

GENERAL SHEET NOTES

1. REFER TO PLUMBING DRAWINGS FOR LOCATION OF THE SANITARY SERVICE AND DOMESTIC WATER & FIRE WATER SERVICE CONNECTIONS TO CADET BARRACKS AND LATRINE BARRACKS. ALL PLUMBING SERVICES TO BE MOUNTED TO UNDERSIDE OF BUILDINGS.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATION OF THE ELECTRIC SERVICE TO EACH HVAC UNIT. SERVICE TO BE MOUNTED TO UNDERSIDE OF BUILDINGS.
3. ALL PROPOSED UTILITIES SHALL REPLACE THE EXISTING UTILITIES IN-KIND. ALL PROPOSED BELOW GRADE UTILITIES SHALL BE INSTALLED WITHIN THE SAME TRENCH AS THE REMOVED EXISTING UTILITY AND TO THE SAME DEPTH AS THE EXISTING UTILITY.
4. ALL ABOVE GRADE UTILITIES SHALL BE INSTALLED ON PIPE SUPPORTS, MINIMUM TWO SUPPORTS PER PIPE. THE SUPPORTS SHALL BE PLACED AT A LOCATION TO ALLOW FOR SUPPORT OF THE ENTIRE LENGTH OF PIPE IF DISCONNECTED FROM THE SYSTEM.
5. PROPOSED PIPE IN NEW TRENCH SHALL BE INSTALLED TO A MINIMUM DEPTH OF 2.5' FROM PROPOSED GRADE TO TOP OF PIPE.

WATER VALVE
4" DIP FIRE WATER SERVICE TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS. SEE PLUMBING PLANS FOR CONNECTION TO EACH CADET BARRACKS.
WATER VALVE
3" DIP WATER SERVICE TO BE INSTALLED BELOW GRADE TO LATRINE BARRACKS BLDG. 1621
2.5" COPPER HW SERVICE TO BE INSTALLED BELOW GRADE TO LATRINE BARRACKS BLDG 1621
PROTECT UWMH67 FROM DAMAGE OR UNDERMINING DURING CONSTRUCTION
1.5" COPPER HWR TO BE INSTALLED BELOW GRADE TO LATRINE BARRACKS 1621
FOR CONTINUATION SEE PLUMBING PLANS
CONNECT NEW SANITARY SERVICE INTO EX. SANITARY MH MATCH EX. SANITARY INVERT 771.60
5 LF 6" DIP SAN. SEWER SERVICE, TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS, MATCH EXISTING SLOPE
UNDERGROUND ELECTRICAL CONDUITS TO HVAC UNIT, TYP. (SEE ELECTRICAL DRAWINGS FOR CONTINUATION) INTO EACH BLDG
FOR CONTINUATION SEE PLUMBING PLANS
6" DIP SANITARY SEWER INV. 774.00
4" DIP FIRE WATER SERVICE TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS. SEE PLUMBING PLANS FOR CONNECTION TO EACH CADET BARRACKS.
4" DIP TO BE INSTALLED BELOW GRADE TO BLDG 1615. SEE PLUMBING DRAWINGS FOR CONTINUATION BELOW BUILDINGS.
OH ELEC. SERVICE, NIC (TYP.)
UP #P-8 W/ TRANSFORMER
3" DIP WATER SERVICE
1.5" COPPER HWR SERVICE TO BE INSTALLED BELOW GRADE TO LATRINE BARRACKS BLDG 1614
2.5" COPPER HW SERVICE TO BE INSTALLED BELOW GRADE TO LATRINE BARRACKS BLDG 1614
3" DIP WATER SERVICE
WATER VALVE
3" DIP DOMESTIC WATER SERVICE TO BE INSTALLED BELOW GRADE INTO LATRINE BARRACKS
FOR CONTINUATION SEE PLUMBING PLANS
OH ELEC. SERVICE, NIC (TYP.)
UTILITY POLE, NIC (TYP.)
WATER VALVE
UP #P-5 W/ TRANSFORMER
PIV
4" DIP FIRE WATER SERVICE TO BE INSTALLED BELOW GRADE. SEE PLUMBING PLANS FOR CONNECTION TO CADET BARRACKS
4" DIP FIRE WATER SERVICE INSTALLED BELOW GRADE TO CADET BARRACKS.
WATER VALVE
3" DIP DOMESTIC WATER SERVICE TO BE INSTALLED BELOW GRADE INTO LATRINE BARRACKS
WATER VALVE
FOR CONTINUATION SEE PLUMBING PLANS
3" DIP WATER SERVICE
2.5" COPPER HW SERVICE INSTALLED BELOW GRADE TO LATRINE BARRACKS 1611
1.5" COPPER HWR SERVICE INSTALLED BELOW GRADE TO LATRINE BARRACKS 1611
PIV
4" DIP FIRE WATER SERVICE INSTALLED BELOW GRADE TO CADET BARRACKS
UNDERGROUND ELECTRICAL CONDUITS TO HVAC UNIT, TYP. (SEE ELECTRICAL DRAWINGS FOR CONTINUATION) INTO EACH BLDG
FOR CONTINUATION SEE PLUMBING PLANS
6" DIP SANITARY SEWER INV. 762.00
FOR CONTINUATION SEE PLUMBING PLANS
6" DIP SANITARY SEWER INV. 746.00
33 LF 6" DIP SAN. SEWER SERVICE TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS, MATCH EXISTING SLOPE
CONNECT NEW SANITARY SERVICE INTO EX. SANITARY MH MATCH EX. MH INVERT 744.10
4" DIP FIRE WATER SERVICE TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS. SEE PLUMBING DRAWINGS FOR CONNECTION TO EACH CADET BARRACKS.
4" DIP TO BE INSTALLED BELOW GRADE TO BLDG 1618. SEE PLUMBING DRAWINGS FOR CONTINUATION BELOW BUILDINGS.
4" DIP FIRE WATER SERVICE TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS. SEE PLUMBING PLANS FOR CONNECTION TO EACH CADET BARRACKS.
11 LF 6" DIP SAN. SEWER SERVICE TO BE INSTALLED AT GRADE ON CONCRETE PIPE SUPPORTS, MATCH EXISTING SLOPE
CONNECT NEW SANITARY SERVICE INTO EX. SANITARY MH MATCH EX. MH INVERT 757.60
UNDERGROUND ELECTRICAL CONDUITS TO HVAC UNIT, TYP. (SEE ELECTRICAL DRAWINGS FOR CONTINUATION) INTO EACH BLDG
CADET BARRACKS BLDG. 1618
CADET BARRACKS BLDG. 1615
CADET BARRACKS BLDG. 1619
CADET BARRACKS BLDG. 1616
CADET BARRACKS BLDG. 1620
CADET BARRACKS BLDG. 1617
LATRINE BARRACKS BLDG. 1621
LATRINE BARRACKS BLDG. 1614
CADET BARRACKS BLDG. 1613
CADET BARRACKS BLDG. 1612
LATRINE BARRACKS BLDG. 1611
CADET BARRACKS BLDG. 1624
AHU-1
AHU-2
AHU-3
MACADAM ROAD
"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 3RD COMPANY AFFILIATED WITH 3RD INFANTRY DIVISION MARINE DIVISION OF THE MARNE"
"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 1ST COMPANY AFFILIATED WITH 1ST INFANTRY DIVISION "BIG RED ONE""
"UNITED STATES MILITARY ACADEMY CADET FIELD TRAINING (CFT) 2ND COMPANY AFFILIATED WITH 2ND INFANTRY DIVISION "INDIAN HEAD SECOND TO NONE""
THIS SIDE OF BUILDING WAS DRAWN USING OLD RECORD AS-BUILT MAP.
(PLUG)

A1 UTILITY PLAN
SCALE: 1"=30'

0 30' 60'

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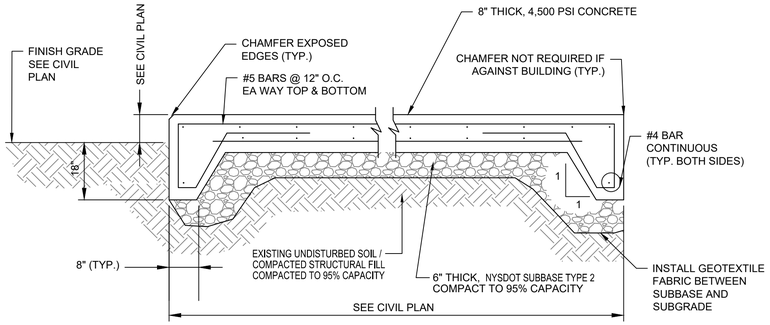
JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CIVIL
UTILITY PLAN

SHEET IDENTIFICATION
CU101

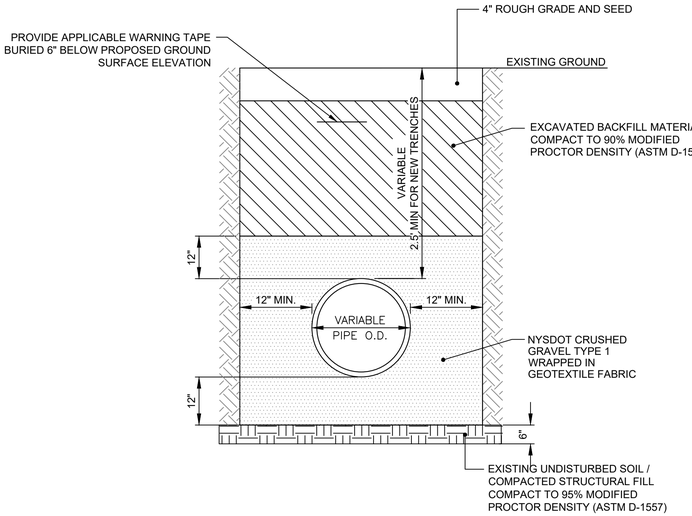
RTA SUBMISSION



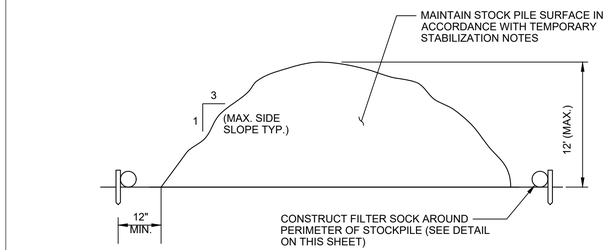
NOTES:

1. PROVIDE EXPANSION JOINTS, 1/2" WIDE PREMOLDED BITUMINOUS MATERIAL AGAINST ALL HARD SURFACES AND AT LOCATIONS SO THE LENGTH TO WIDTH RATIO DOES NOT EXCEED 2 TIMES.
2. PROVIDE PIPE SLEEVES OR OPENINGS IN CONC PAD FOR ANY UTILITIES AS PER EACH DISCIPLINES DRAWINGS.
3. REFER TO DWG C-001 FOR CONCRETE NOTES.
4. THE OPERATING WEIGHT FOR AHU-1 AND AHU-3 CONCRETE PADS SHALL BE 3,500 LBS.
5. THE OPERATING WEIGHT FOR AHU-2 CONCRETE PAD SHALL BE 6,000 LBS.
6. AS PER THE GRADING PLAN, THE FINAL GRADE AROUND THE (10) TEN TYPICAL CONCRETE HVAC PADS WILL VARY BASED ON THE SURROUNDING GROUND ELEVATIONS AND GROUND CONDITIONS. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AT EACH LOCATION PRIOR TO COMMENCEMENT OF WORK. IF THE CONCRETE PAD CANNOT BE CONSTRUCTED AT A PARTICULAR LOCATION IN ACCORDANCE WITH THE CONCRETE PAD DETAIL, THE CONTRACTOR MUST NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES BEFORE PROCEEDING.

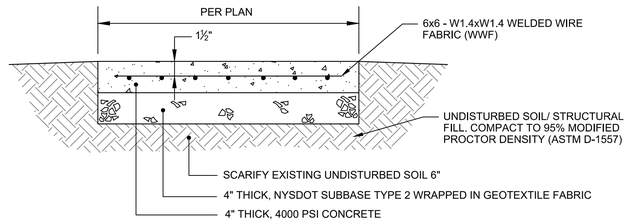
D2 CONCRETE PAD DETAIL
NOT TO SCALE



D6 UTILITY TRENCH AND BEDDING DETAIL
NOT TO SCALE
(WATER SYSTEM, SANITARY SEWER SYSTEM)



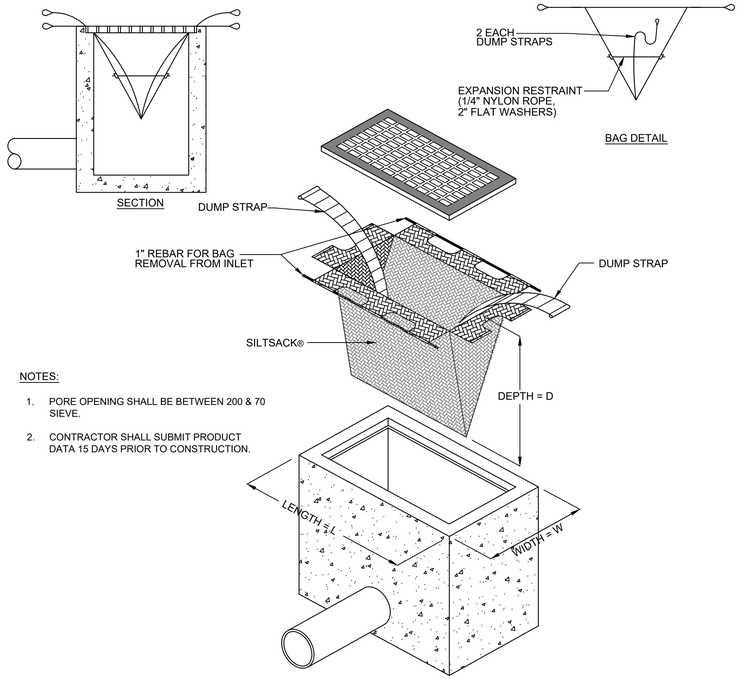
F8 TEMPORARY STOCKPILE DETAIL
NOT TO SCALE



NOTE:

1. EXPANSION JOINTS 1/2" WIDE PREMOLDED BITUMINOUS MATERIAL SHALL BE INSTALLED AT 10' INTERVALS, AND AGAINST ALL HARD SURFACES, CONTRACTION JOINTS SPACED AT EQUAL INTERVALS, 5' MAXIMUM LENGTH, LENGTH TO WIDTH RATIO SHALL NOT EXCEED 2:1

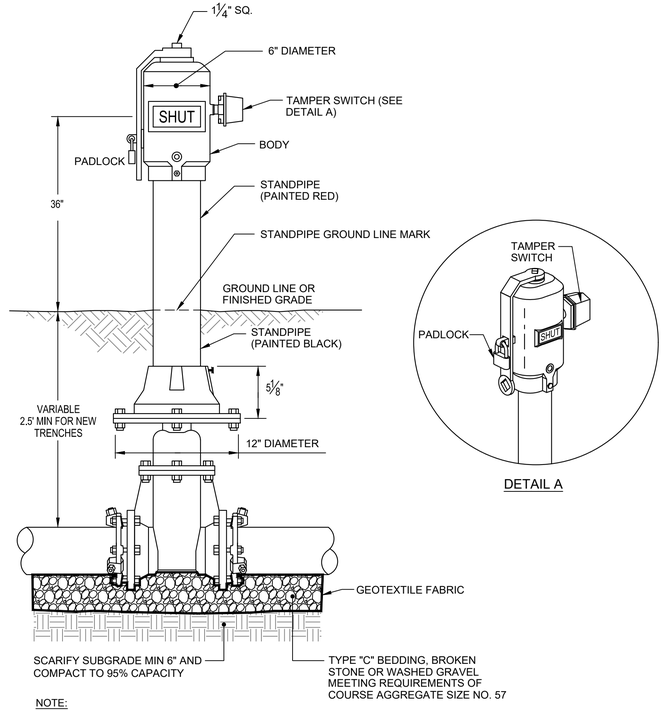
C8 CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:

1. PORE OPENING SHALL BE BETWEEN 200 & 70 SIEVE.
2. CONTRACTOR SHALL SUBMIT PRODUCT DATA 15 DAYS PRIOR TO CONSTRUCTION.

A2 INLET FILTER DETAIL
NOT TO SCALE

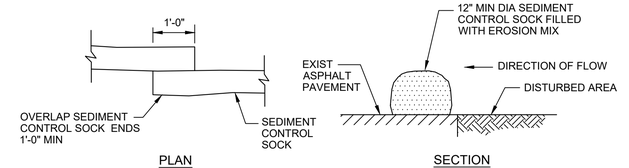


DETAIL A

NOTE:

1. SEE "FIRE HYDRANT/POST INDICATOR VALVE BOLLARD DETAIL" (504/5) FOR BOLLARD PLACEMENT.

A6 POST INDICATOR VALVE
NOT TO SCALE



NOTES:

1. SEDIMENT CONTROL SOCKS SHALL BE MANUFACTURED FOR THE PURPOSE OF TEMPORARY SEDIMENT CONTROL AND INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
2. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF THE SOCK HEIGHT.
3. SECURE SEDIMENT CONTROL SOCKS WITH CONCRETE BLOCKS IN LOCATIONS WHERE SOCK FAILS TO REMAIN IN PLACE DUE TO HYDRAULIC FORCE.
4. EROSION CONTROL MIX SHALL CONSIST PRIMARILY OF WELL GRADED ORGANIC MATERIAL AND SHALL INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR OTHER PRODUCTS BASED ON A SIMILAR RAW SOURCE. SILT, CLAY, OR FINE SAND ARE NOT ACCEPTABLE IN THE MIX.

A8 SEDIMENT CONTROL SOCK DETAIL
NOT TO SCALE

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WEST POINT, NY
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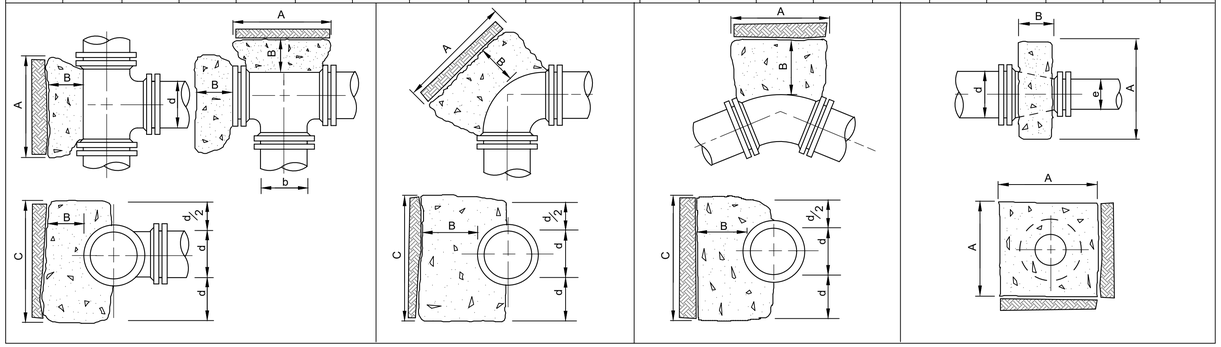
CIVIL
CONSTRUCTION DETAILS

SHEET IDENTIFICATION
C-501

RTA SUBMISSION

MINIMUM SIZE OF CONCRETE THRUST BLOCKS FOR WATER MAINS

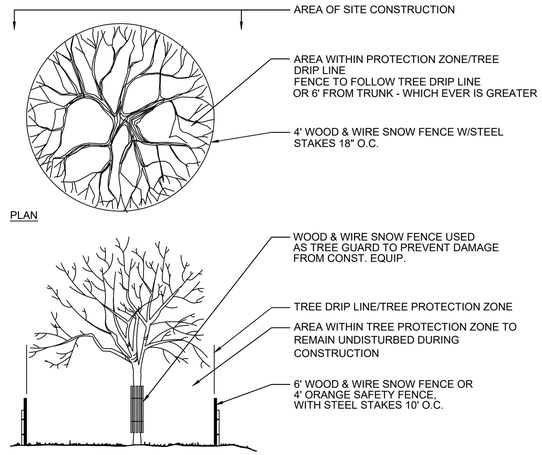
d	TEES, CROSSES, & END CAPS				90° BENDS				45° BENDS				22-1/2° & 11-1/4° BENDS				REDUCERS			
		A	B	C		A	B	C		A	B	C		A	B	C		dxe	A	B
6"		2'-0"	8"	1'-3"		2'-6"	8"	1'-3"		1'-6"	6"	1'-3"		1'-6"	8"	1'-3"		6"x4"	1'-6"	1'-0"
8"		2'-6"	8"	1'-6"		3'-0"	8"	1'-6"		1'-6"	8"	1'-9"		1'-6"	8"	1'-9"		8"x4"	2'-0"	1'-0"
10"		3'-0"	10"	2'-0"		3'-6"	10"	2'-0"		2'-3"	10"	2'-0"		1'-6"	10"	2'-0"		10"x6"	2'-4"	1'-3"
12"		3'-6"	10"	2'-6"		3'-9"	10"	2'-9"		2'-6"	10"	2'-6"		1'-6"	10"	2'-6"		10"x8"	2'-6"	1'-6"



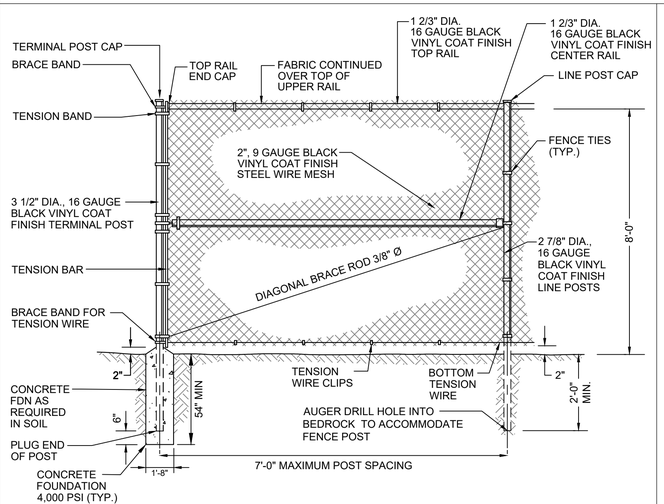
NOTES:

1. IN LIEU OF THRUST BLOCKS, MECHANICAL RESTRAINED JOINTS SHALL BE USED. RESTRAINT DETAILS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. THRUST BLOCKS SHALL BE CREATED BY MIXING CONCRETE AND PLACING INTO THE EXCAVATION. PLACEMENT OF DRY MATERIALS OR BAGS FOR CONSTRUCTING THE THRUST BLOCKS SHALL NOT BE PERMITTED.

D4 THRUST BLOCKING
NOT TO SCALE



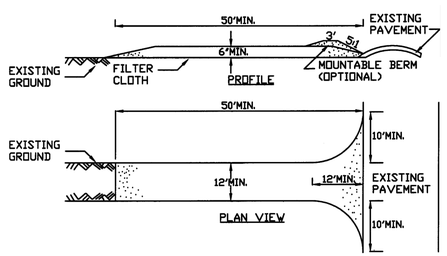
D9 TREE PROTECTION DURING SITE CONSTRUCTION
NOT TO SCALE



NOTES:

1. ALL FENCE AND GATE MATERIALS AND ACCESSORIES SHALL BE BLACK VINYL COATED.
2. CONFORM TO THE REQUIREMENTS OF ASTM A-392 UNLESS OTHERWISE SPECIFIED.
3. CONTRACTOR SHALL PROVIDE FENCE AND FENCE MATERIAL SHOP DRAWINGS AND WIND/SNOW LOAD CALCULATIONS PRIOR TO CONSTRUCTION.
4. ALL FENCE POST AND SYSTEM SUPPORT SIZES/SPACING TO BE FINALIZED BY THE FENCE MANUFACTURER AND SUBMITTED FOR REVIEW AND APPROVAL.
5. ADVERTISING SHALL NOT BE PERMITTED ON TEMPORARY CONSTRUCTION FENCE FABRIC.

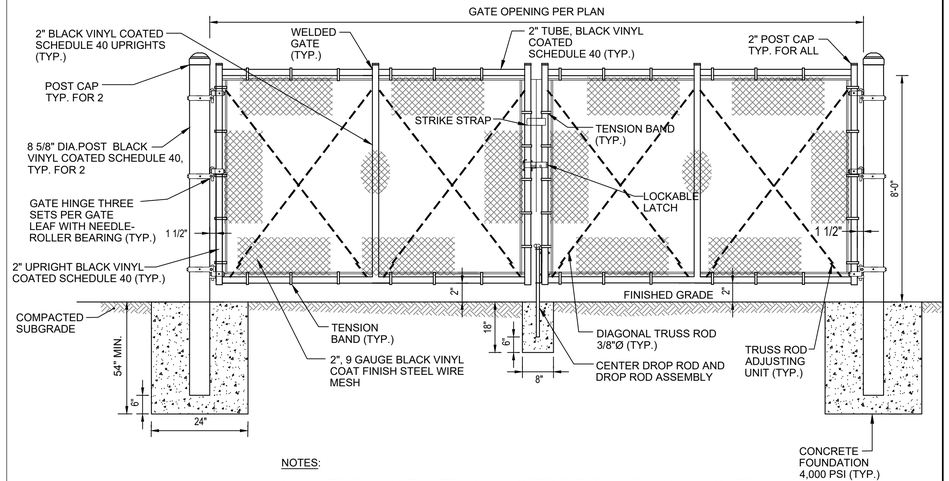
A2 8' HIGH CHAIN LINK FENCE DETAIL
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

A5 CONSTRUCTION VEHICLE TIRE WASH AREA DETAIL
NOT TO SCALE



NOTES:

1. ALL FENCE AND GATE MATERIALS AND ACCESSORIES SHALL BE BLACK VINYL COATED.
2. CONFORM TO THE REQUIREMENTS OF ASTM A-392 UNLESS OTHERWISE SPECIFIED.
3. CONTRACTOR SHALL PROVIDE FENCE AND FENCE MATERIAL SHOP DRAWINGS AND WIND/SNOW LOAD CALCULATIONS PRIOR TO CONSTRUCTION.
4. ALL FENCE POST AND SYSTEM SUPPORT SIZES/SPACING TO BE FINALIZED BY THE FENCE MANUFACTURER AND SUBMITTED FOR REVIEW AND APPROVAL.
5. ADVERTISING SHALL NOT BE PERMITTED ON TEMPORARY CONSTRUCTION FENCE FABRIC.

A8 WIDE DOUBLE SWING DETAIL
NOT TO SCALE

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CIVIL
CONSTRUCTION DETAILS

SHEET IDENTIFICATION
C-502

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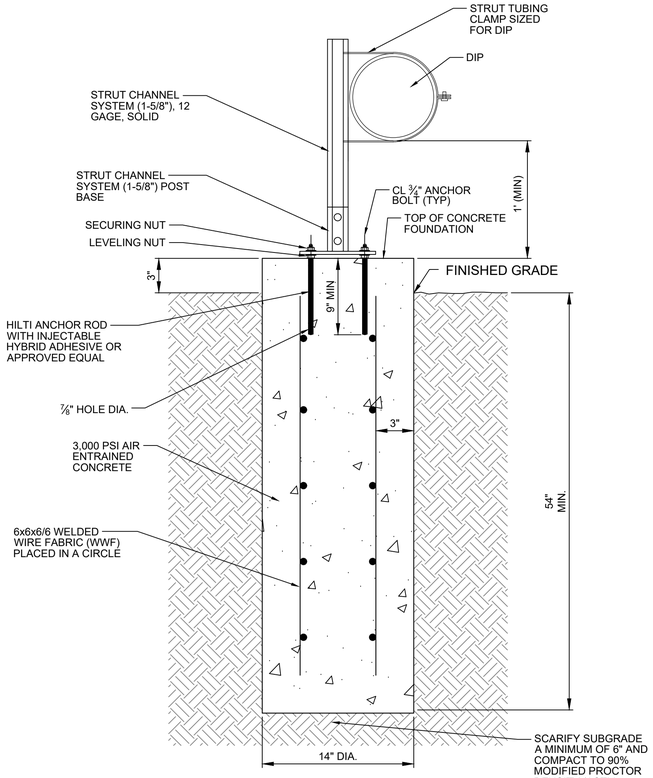
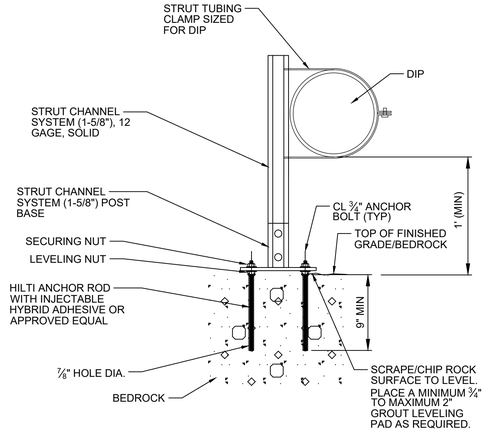


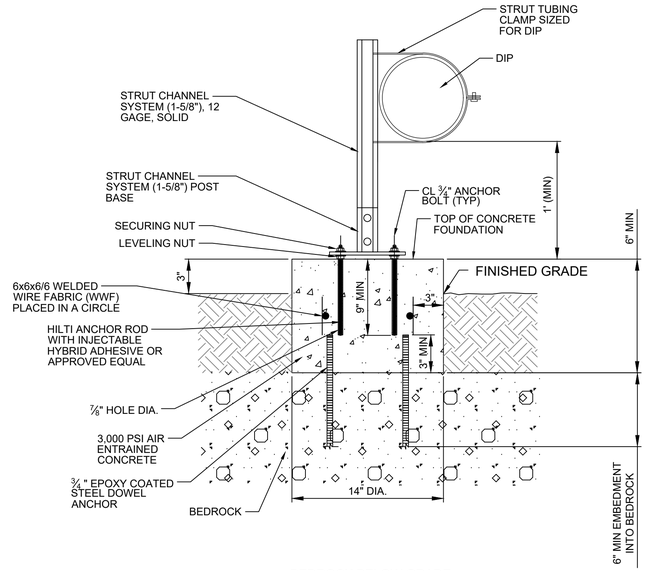
NO BEDROCK

NOTES:

1. TWO PIPE SUPPORTS SHALL BE INSTALLED FOR EVERY LENGTH OF PIPE AND SPACED AT A DISTANCE TO PROPERLY SUPPORT THE PIPE IF DISCONNECTED FROM THE WATER SYSTEM.
2. ONE OF THE TWO SUPPORTS SHALL BE INSTALLED WITHIN 12" OF THE MECHANICAL JOINT ON THE BELL SIDE OF THE PIPE.
3. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW YORK, TO DESIGN THE PIPE SUPPORT FOUNDATION AND STRUT SUPPORT SYSTEM. THE SUPPORT SHALL BE DESIGNED TO ACCOMMODATE THE WEIGHT OF ALL MATERIAL BEING SUPPORTED. PIPES THAT ARE SUPPORTED SHALL BE ASSUMED FLOWING FULL. SHOP DRAWINGS OF THE SUPPORTS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

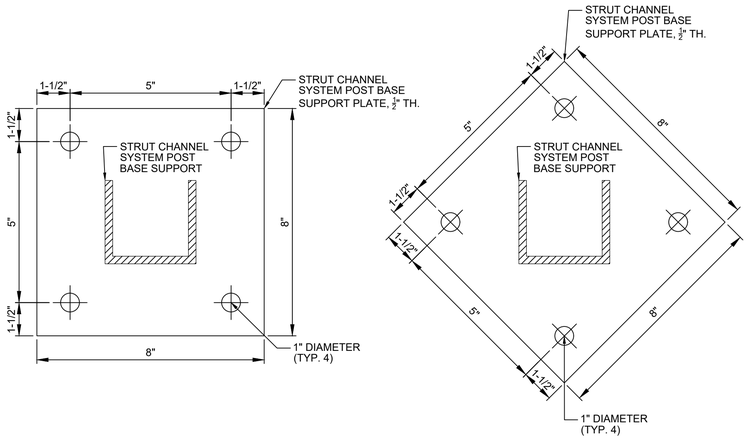


BEDROCK AT GRADE



BEDROCK BELOW GRADE

D6 DIP SUPPORT
NOT TO SCALE

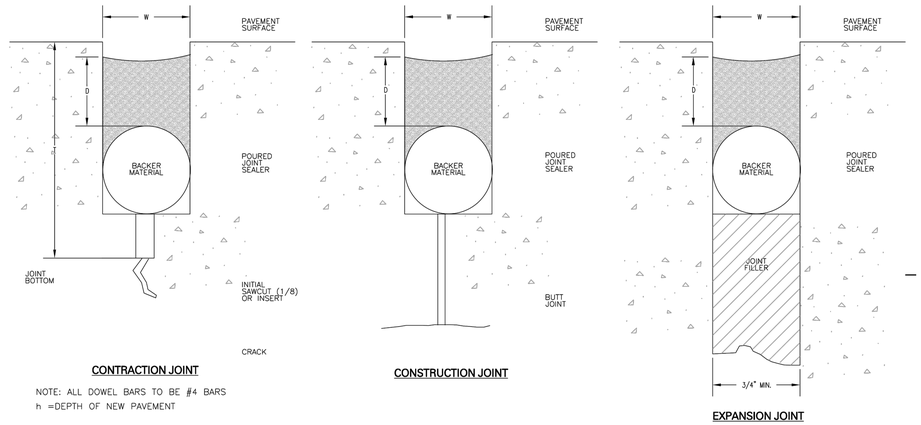


A2 DIP SUPPORT - STRUT POST BASE BOLT PATTERN
NOT TO SCALE

TABLE

JOINT SPACING FT.	WIDTH, IN.	
	MIN.	MAX.
<25	1/2	5/8
24 - 50	3/4	7/8
>50	1.0	1-1/8

W = WIDTH OF SEALANT RESERVIOR (SEE TABLE)
D = DEPTH OF SEALANT (1.0 TO 1.5 X W)
T = DEPTH OF INITIAL SAWCUT OR INSERT TYPE JOINT FORMER (CONSTRUCTION JOINT)
a). ¼" SLAB THICKNESS FOR PAVEMENT LESS THAN 12 INCHES
b). 3 INCHES FOR PAVEMENT 12-18 INCHES
c). ⅛" SLAB THICKNESS FOR PAVEMENT MORE THAN 18 INCHES



CONTRACTION JOINT

NOTE: ALL DOWEL BARS TO BE #4 BARS
h =DEPTH OF NEW PAVEMENT

CONSTRUCTION JOINT

EXPANSION JOINT

A7 JOINT SEALANT DETAIL
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CIVIL
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SHEET IDENTIFICATION
C-503

RTA SUBMISSION

GENERAL NOTES

GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE BEFORE ORDERING ANY MATERIALS AND BEGINNING ANY WORK, THE GENERAL CONTRACTOR SHALL FIELD SURVEY AND ESTABLISH THE EXISTING BUILDING DIMENSIONS WHERE NEW CONSTRUCTION ABUTS EXISTING BUILDINGS. THIS FIELD SURVEY SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THE FOLLOWING: DIMENSIONS OF EXISTING BUILDING FACE INCLUDING ALL FENESTRATIONS, PROJECTIONS, ETC, PLUMBNESS OF WALLS, FLOOR AND ROOF ELEVATIONS, AND ALL OTHER PERTINENT DIMENSIONS. THIS FIELD SURVEY SHALL BE FOR THE USE BY ALL CONTRACTORS AND SHALL BE SUBMITTED TO THE OWNER AND ENGINEER FOR RECORD ONLY.
2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND COORDINATION INVOLVED TO PROVIDE ALL OPENINGS SHOWN ON THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. GENERAL CONTRACTOR SHALL PROVIDE FRAMING AND ALL CONNECTIONS AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS. (NOTE - NOT ALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS.)
3. ALL CONTRACTORS SHALL BE RESPONSIBLE TO ENSURE PROPER STORAGE OF MATERIAL IS MAINTAINED SO AS NOT TO CAUSE OVERLOADING OF THE EXISTING OR NEW STRUCTURE DURING PERFORMANCE OF THIS WORK. GENERAL CONTRACTOR TO COORDINATE.
4. ALL CONTRACTORS SHALL VERIFY AND/OR ESTABLISH ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE BEFORE ORDERING ANY MATERIAL AND COMMENCEMENT OF ANY WORK.
5. IF THE EXISTING CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH HIS PROPOSED MODIFICATION TO THE DETAILS GIVEN ON THE CONTRACT DOCUMENTS. THE FINAL INSTALLATION SHALL BE DONE AS REQUIRED BY THE CONTRACTING OFFICER, AT NO ADDITIONAL COST TO THE OWNER.
6. WHERE ALTERATIONS INVOLVE THE EXISTING SUPPORTING STRUCTURE, THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, GUYS AND PROTECTION REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING.
7. ALL NEW OPENINGS IN EXISTING CONCRETE FLOOR SLABS SHALL BE MADE USING A CORE DRILL OR CONCRETE SAW. WHERE CUTS BECOME ROUGH THEY SHALL BE MADE CLEAN WITH EPOXY CONCRETE TO THE REQUIRED OPENING SIZE.
8. THE CONTRACTOR TO COORDINATE ALL RELATED TRADE ACTIVITY REGARDING SHUT DOWNS, RE-ROUTING, TEMPORARY INSTALLATION, ETC. NECESSARY FOR THIS INSTALLATION WITH CONTRACTING OFFICER.
9. THE GENERAL CONTRACTOR SHALL ESTABLISH SPECIFIC MEANS AND METHODS FOR INSTALLATION AND SHALL COORDINATE THE WORK FOR ALL CONTRACTORS AND COMPLY WITH CONTRACTING OFFICER'S REQUIREMENTS.
10. COORDINATE WITH EQUIPMENT MANUFACTURERS FOR EXACT SIZE, LOCATION, ETC. OF CAST-IN ITEMS, WALLS, ETC. BEFORE LAYOUT, ORDERING ANY MATERIAL OR COMMENCEMENT OF ANY WORK.

EXISTING BUILDINGS NOTES

1. THE FLOOR OF EACH OF THE EXISTING BARRACK BUILDINGS WITHIN THE PHASE ONE SCOPE, INCLUDED IN THESE DRAWINGS, IS AN APPROXIMATELY 5-1/2" THICK TWO-WAY CAST-IN-PLACE CONCRETE SLAB, ELEVATED ABOVE GRADE, AND SUPPORTED ON 12" DIAMETER CAST-IN-PLACE CONCRETE PIERS WHICH BEAR ON SPREAD FOOTINGS OR DIRECTLY ON SHALLOW ROCK. THE ELEVATED SLABS SUPPORT A PREFABRICATED METAL BUILDING.
2. THREE DIFFERENT TYPES OF PREFABRICATED METAL BUILDINGS EXIST AROUND THE CAMP BUCKNER FACILITY. ALL THE BARRACK BUILDINGS WITHIN THE PHASE ONE SCOPE, INCLUDED IN THESE DRAWING, ARE OF THE SAME TYPE. THESE BUILDINGS CONSIST OF STRUCTURAL STEEL FRAMES SPACED AT 20' ALONG THE LENGTH OF THE BUILDING. GAGE METAL GIRTS, PURLINS, AND JOISTS SPAN BETWEEN THE STEEL FRAMES AND SUPPORT CORRUGATED METAL WALLS, ROOFS, AND CEILINGS.
3. TESTING OF CONCRETE CORES FROM BUILDINGS AROUND THE FACILITY HAVE SHOWN WIDELY VARYING CONCRETE STRENGTHS. THE SAMPLES TAKEN FROM BUILDINGS WITHIN THE PHASE ONE SCOPE WERE SHOWN TO HAVE A MINIMUM STRENGTH OF 2727 PSI AND A MAXIMUM STRENGTH OF 6273 PSI.

   THE CONCRETE CORES AND TESTING FOR THIS PROJECT WERE PERFORMED BY:

   GEOCONCEPTS ENGINEERING, INC.
   9955 HIGHLAND VISTA DRIVE, SUITE 170
   ASHBURN, VIRGINIA 20147
   703-726-8030

   THE RESULTS OF THIS TESTING ARE INCLUDED IN AN APPENDIX OF THE GEOTECHNICAL ENGINEERING REPORT WHICH IS INCLUDED IN THE SPECIFICATION FOR INFORMATION ONLY.

CONCRETE NOTES

1. ALL CONCRETE USED TO PATCH EXISTING FLOOR SLABS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS. THE CONCRETE TYPE (NORMAL WEIGHT OR LIGHTWEIGHT) SHALL BE THE SAME AS THE EXISTING ADJACENT CONCRETE.
2. CONTRACTOR SHALL VERIFY THE DIMENSIONS OF AND INSTALL IN THE FORMS ALL SLOTS, SLEEVES, ANCHOR BOLTS, MASONRY ANCHORS, POCKETS, ETC. AS REQUIRED FOR OTHER TRADES.
3. SEE MECHANICAL AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE EQUIPMENT PADS AND FOUNDATIONS REQUIRED.
4. ALL SHORING AND/OR RESHORING FOR SUPPORTED CONCRETE SLABS SHALL BE LEFT IN PLACE UNTIL THE CONCRETE HAS REACHED ITS 28 DAY STRENGTH AND A MINIMUM OF 14 DAYS.
5. SEE SECTIONS AND DETAILS FOR ALL EQUIPMENT OPENINGS, DEPRESSIONS, ETC. CONTRACTOR SHALL COORDINATE EQUIPMENT REQUIREMENTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS.
6. FOR ADDITIONAL REQUIREMENTS, SEE TYPICAL DETAILS AND THE SPECIFICATIONS.

SITE AND FOUNDATION NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING AS REQUIRED DURING THE EXCAVATION AND CONSTRUCTION OF THE SITE AND FOUNDATION WORK INCLUDING PREVENTIVE MEASURES RELATED TO EXCAVATION STABILITY, SEE SPECIFICATIONS.
2. ALL EXISTING UNDERGROUND UTILITIES IN THE AREA OF THE NEW CONSTRUCTION SHALL BE RELOCATED UNLESS OTHERWISE NOTED ON THE DRAWINGS BEFORE ANY NEW FOUNDATION WORK IS STARTED. ALL NEW AND EXISTING SITE ELEMENTS AND UTILITIES, MANHOLES, CATCH BASINS, ETC. ADJACENT TO NEW CONSTRUCTION EXCAVATIONS SHALL BE PROTECTED BY SHEETING AND/OR SHORING. THIS PROTECTION SHALL BE PROVIDED AND DESIGNED BY THE GENERAL CONTRACTOR AND HIS REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW YORK WHO SHALL BE TOTALLY RESPONSIBLE FOR ITS DESIGN AND INSTALLATION.
3. THE CONTRACTOR SHALL COORDINATE ALL SITE AND FOUNDATION WORK WITH ALL UNDERGROUND UTILITIES. ALL NEW UTILITIES OR PIPES SHALL NOT BE PLACED BELOW NEW FOUNDATIONS. IF ANY SUCH CONDITION OCCURS, THE CONTRACTOR SHALL NOTIFY THE COR AND CORRECT THE CONFLICT AS APPORVED BY THE COR AT NO ADDITIONAL COST TO THE OWNER. EXTREME CARE SHALL BE TAKEN DURING EXCAVATION AND CONSTRUCTION OF NEW FOUNDATION WORK SO AS NOT TO DISTURB THE EXISTING CONSTRUCTION AND UTILITIES.
4. PROVIDE NEATLY CORED HOLES A MINIMUM OF ONE PIPE SIZE LARGER THAN NEW PIPE THROUGH EXISTING CONCRETE ELEMENTS WHERE SHOWN ON THE DRAWINGS. COORDINATE CORED HOLES WITH SEALANT, ETC., REQUIREMENTS WITH RELATED SPECIFICATIONS. SEE TYPICAL DETAIL ON DRAWING S-501.
5. WHERE THE EXCAVATION FOR SERVICE LINE TRENCHES IS LOWER THAN AND CLOSER THAN A 1H:1V SLOPE TO THE BOTTOM OF A NEW OR EXISTING COLUMN OR WALL FOOTING, BACKFILL THE EXCAVATION WITH LEAN MIX CONCRETE. TOP OF FILL TO BE ON A 1H:1V SLOPE FROM BOTTOM OF ADJACENT FOUNDATIONS.
6. THE TEST BORINGS FOR THIS PROJECT WERE PERFORMED BY:

   GEOCONCEPTS ENGINEERING, INC.
   9955 HIGHLAND VISTA DRIVE, SUITE 170
   ASHBURN, VIRGINIA 20147
   703-726-8030

   A COPY OF THE SOILS AND FOUNDATION INVESTIGATION ANALYSIS REPORT IS INCLUDED IN THE SPECIFICATION FOR INFORMATION ONLY.
7. FOR ADDITIONAL REQUIREMENTS SEE TYPICAL DETAILS AND THE SPECIFICATIONS.

POST-INSTALLED ANCHORS

1. WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF ONE OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INCORPORATED. CONTACT HILTI AT (800) 879-8000 FOR PRODUCT RELATED QUESTIONS. ANY PROPOSED SUBSTITUTIONS SHALL BE EQUAL IN CAPACITY TO THE NOTED ANCHORS (CONSIDERING ALL MODES OF FAILURE), SHALL MEET THE TESTING APPROVAL CRITERIA STIPULATED IN ICC-ES AC308/ICC-ES AC58, AND SHALL BE APPROVED, IN WRITING, BY THE ENGINEER OF RECORD PRIOR TO USE.
2. WHERE DRAWINGS INDICATE "ADHESIVE ANCHOR" (ADH. ANC.) FOR ANCHORAGE TO EXISTING CONCRETE (CRACKED OR UNCRACKED):
   a. USE HILTI HIT-HY 200 SAFE SET SYSTEM PER ICC-ESR-3187.
   b. ANCHORS: USE HILTI HIT-Z ROD, CARBON STEEL UNLESS NOTED OTHERWISE.
   c. PROVIDE ANCHOR DIAMETER AND EMBEDMENT AS INDICATED ON RELATED SECTIONS/DETAILS.
   d. PROVIDE ANCHOR SPACING AND EDGE DISTANCE AS INDICATED ON RELATED SECTIONS/DETAILS. NOTE: NO ADHESIVE ANCHOR SHALL BE PLACED CLOSER THAN 3 INCHES FROM AN EDGE OF CONCRETE.
   e. PERMISSIBLE DRILLING METHOD
      - HAMMER DRILLED WITH CARBIDE TIPPED DRILL BIT (SELF CLEANING HOLE), WHERE TEMPERATURE IS 41° F OR HIGHER.
      - HILTI TE-CD OR TE-YD HOLLOW DRILL BIT WITH HITI VACUUM CLEANER, WHERE TEMPERATURE IS BELOW 41° F.
   f. REFER TO MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MP11) FOR ADDITIONAL INSTALLATION REQUIREMENTS.
3. WHERE DRAWINGS INDICATE "EXPANSION ANCHOR" (EXP. ANC.) FOR ANCHORAGE TO EXISTING CONCRETE (CRACKED OR UNCRACKED):
   a. USE HILTI TORQUE CONTROLLED EXPANSION ANCHOR SYSTEM SUITED FOR SEISMIC AND CRACKED CONCRETE APPLICATIONS.
   b. ANCHORS: USE HILTI KWIK BOLT TZ PER ICC-ESR-1917, CARBON STEEL UNLESS NOTED OTHERWISE.
   c. PROVIDE ANCHOR DIAMETER AND EMBEDMENT AS INDICATED ON RELATED SECTIONS/DETAILS.
   d. PROVIDE ANCHOR SPACING AND EDGE DISTANCE AS INDICATED ON RELATED SECTIONS/DETAILS. NOTE: NO EXPANSION ANCHOR SHALL BE PLACED CLOSER THAN 4 INCHES FROM AN EDGE OF CONCRETE UNLESS SPECIFICALLY DETAILED.
   e. REFER TO MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MP11) FOR ADDITIONAL INSTALLATION REQUIREMENTS.
4. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATIVE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE TESTING CRITERIA, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE RELEVANT BUILDING CODES FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATIONS WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
5. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
6. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
7. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

COLD FORMED METAL FRAMING NOTES

1. ALL COLD FORMED METAL FRAMING (CFMF) IS TO CONFORM TO ASTM A653, CQ, GRADE 33 AND HAVE A MINIMUM YIELD POINT OF 33,000 PSI. ALL CFMF TO BE HOT-DIP GALVANIZED FOR A MINIMUM G60 COATING.
2. REFER TO ARCHITECTURAL DRAWINGS FOR SCOPE OF CFMF WORK.
3. PREPARE CALCULATIONS AND SUBMITTALS FOR DELEGATED DESIGN OF CFMF AS INDICATED IN SPECIFCATION SECTION 05 40 00.
4. ALL CFMF, UTILIZED AS THE STRUCTURAL BACKUP FOR THE BUILDING WALLS, WILL CONFORM TO THE FOLLOWING CRITERIA:
   (A) WALL STUDS TO BE SPACED NO FURTHER APART THAN 16 INCHES ON CENTER.
   (B) WALL STUDS TO HAVE THE FOLLOWING MINIMUM SECTION PROPERTIES:
   DEPTH = 6 INCHES
   FLANGE WIDTH = 2 INCHES
   GAGE = 16 MINIMUM
   Ix = 3.340 IN^4 MINIMUM
   Sx = 1.108 IN^3
   (C) WALL STUDS SHALL BE BRACED BY CONTINUOUS MECHANICAL BRIDGING TO FULLY DEVELOP BENDING CAPACITY OF THE STUDS.
   (D) WALL STUDS TO BE ATTACHED TO THE STEEL STRUCTURE AND/OR CONCRETE FLOOR SLABS TO TRANSFER THE SPECIFIED HORIZONTAL LOADS AND TO ACCOMMODATE VERTICAL MOVEMENT OF THE STEEL BEAMS AND SUPPORTED FLOOR SLABS.
   (E) WALL STUD ENDS TO BE ATTACHED TO TRACK COMPONENTS AT THE TOP AND BOTTOM OF THE WALL ASSEMBLY.
5. INSTALLATION OF CFMF IS TO BE IN ACCORDANCE WITH AISI AND MANUFACTURER'S RECOMMENDATIONS.
6. A MINIMUM OF TWO STUDS ARE TO BE PROVIDED AT THE EDGES OF ALL WALL OPENINGS.
7. CONNECTION OF ALL CFMF MEMBERS IS TO BE MADE PRIOR TO INSTALLATION OF GYPSUM WALLBOARD.
8. TRACK RUNNER MATERIAL THICKNESS SHALL BE AT LEAST EQUAL TO THE TYPICAL WALL STUD MEMBER THICKNESS.
9. NO DEAD LOAD OR LIVE LOAD SHALL BE DIRECTLY IMPOSED ON WALL TRACK OR RUNNER UNLESS SPECIFICALLY DESIGNED.
10. ALL LIGHT GAUGE STEEL MULTIPLE STUD MEMBERS SHALL BE CONNECTED AT 16" O.C. AT EACH FACE OF THE STUD FLANGE.
11. FRAMING MEMBERS SHALL BE INSTALLED ALIGN AND PLUMB.
12. SPLICES IN FRAMING MEMBERS SHALL NOT BE PERMITTED UNLESS SPECIFIED.
13. BOTH FLANGES OF STUDS SHALL BE CONNECTED TO THE TOP AND BOTTOM TRACK.
14. TYPICAL SCREW PATTERN FOR ATTACHMENT OF EXTERIOR GRADE GYPSUM SHEATHING TO LIGHT GAGE FRAMING TO BE 6" O.C. AT THE EDGE AND 8" O.C. WITHIN THE FIELD OF EACH SHEET. SCREWS TO BE GALVANIZED.
15. ALL WELDS AND OTHER CONNECTIONS ARE TO BE TOUCHED UP USING GALVANIZING PAINT (SEE SPECIFICATIONS).
16. FOR ADDITIONAL REQUIREMENTS SEE THE PROJECT'S PLANS AND THE SPECIFICATIONS.

ABBREVIATIONS

AB	ANCHOR BOLT	I.F.	INSIDE FACE
ACI	AMERICAN CONCRETE INSTITUTE	INFO	INFORMATION
		JST	JOIST
ADJMT	ADJUSTMENT	JT	JOINT
ADDTL	ADDITIONAL	K	KIPS (1000 LB)
ANCH	ANCHOR	KSF	KIPS PER SQUARE FOOT
ARCH	ARCHITECTURAL	KSI	KIPS PER SQUARE INCH
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LB	POUND(S)
		L.L.	LIVE LOAD
BM	BEAM	LLH	LONG LEG HORIZONTAL
BOT	BOTTOM	LLV	LONG LEG VERTICAL
BPL	BASEPLATE	LPT	LOW POINT
BRCG	BRACING	MAS	MASONRY
BRG	BEARING	MAX	MAXIMUM
BRKT	BRACKET	MECH	MECHANICAL
B.S.	BOTH SIDE (USED W/ REINF)	MEP	MECHANICAL, ELECTRICAL. PLUMBING
BTWN	BETWEEN		
B.W.	BOTH WAYS	MTL	METAL
CANT	CANTILEVER	MFR	MANUFACTURER
CFMF	COLD FORMED METAL FRAMING	N.A.	NEUTRAL AXIS
CJ	CONTROL JOINT	NO	NUMBER
CL	CENTERLINE	N.S.	NEAR SIDE
CLR	CLEAR	N-S	NORTH-SOUTH
CMU	CONCRETE MASONRY UNIT	NW	NORMAL WEIGHT
COL	COLUMN	O.C.	ON CENTER
COMP	COMPRESSIBLE	O.F.	OUTSIDE FACE
CONC	CONCRETE	OPNG	OPENING
CONN	CONNECTION	OPH	OPPOSITE HAND
CONST	CONSTRUCTION	ORIENT	ORIENTATION
CONT	CONTINUOUS	PCF	POUNDS PER CUBIC FOOT
CONTR	CONTRACTOR	PED	PEDESTAL
COORD	COORDINATE	PENET	PENETRATION
DBL	DOUBLE	PL	PLATE
DET	DETAIL	PLBG	PLUMBING
DEV	DEVELOP, DEVELOPMENT	PNL	PANEL
DIAG	DIAGONAL	PREM	PREMOLDED
DIST	DISTANCE	PSF	POUNDS PER SQUARE FOOT
DK	DECK	PSI	POUNDS PER SQUARE INCH
D.L.	DEAD LOAD	REINF	REINFORCING
DN	DOWN	REQD	REQUIRED
DWG	DRAWING	RET	RETAINING
DWL	DOWEL	REV	REVISION
EA	EACH	RF.	ROOF
EF	EACH FACE	R.O.	ROUGH OPENING
EL	ELEVATION	SCHED	SCHEDULE
ELEC	ELECTRICAL	SECT	SECTION
EMB	EMBED	SIM	SIMILAR
EQ	EQUAL	SL.	SLOTTED
ETC	ETCETERA	SPAN	SPANDREL
E.W.	EACH WAY	STD	STANDARD
EXST., (E)	EXISTING	STIF	STIFFENER
EXP	EXPANSION	STL	STEEL
FDN	FOUNDATION	SUPP	SUPPORT
FIN	FINISH	T&B	TOP AND BOTTOM
FLG	FLANGE	TEMP	TEMPORARY
FLR	FLOOR	THK	THICK, THICKNESS
FRMG	FRAMING	TOC	TOP OF CONCRETE
F.S.	FAR SIDE	TOL.	TOLERANCE
FTG	FOOTING	TOS	TOP OF STEEL
GA	GAGE	TOW	TOP OF WALL
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE
GB.	GRADE BEAM	V	VERTICAL (USED W/ REINF.)
H	HORIZONTAL (USED W/ REINF.)	VERT	VERTICAL
HK	HOOK	VIF	VERIFY IN FIELD
HORIZ	HORIZONTAL	W.P.	WORK POINT
H.P.	HIGH POINT	W.S.	WATER STOP
I.E.	INVERT ELEVATION	WWF	WELDED WIRE FABRIC

STRUCTURAL DRAWING INDEX

S-001 STRUCTURAL GENERAL NOTES AND INDEX SHEET
S-501 TYPICAL DETAILS

DESIGN CRITERIA

UFC 3-301-01 / IBC 2018 / ASCE 7-16
www.wbdg.org/additional-resources/tools/ufcsldt

FLOOR DESIGN LIVE LOADS

SLEEPING QUARTERS	40 PSF
LATRINE	75 PSF

ROOF DESIGN LIVE LOADS

TYPICAL ROOF	20 PSF

SNOW LOADS

GROUND SNOW LOAD,	Pg=30 PSF
FLAT ROOF SNOW LOAD (USED FOR DESIGN)	Pf=30 PSF
SLOPED ROOF SNOW LOAD	Ps=26 PSF
MAXIMUM DRIFT LOAD (FOR AREAS OF SNOW BUILD UP)	36 PSF
SNOW EXPOSURE FACTOR,	Ce=1.0
SNOW LOAD IMPORTANCE FACTOR	I=1.0
THERMAL FACTOR,	Ct=1.2
DEPTH TO FROST	54 INCHES

LATERAL LOADS - WIND

WIND LOAD DESIGN PARAMETERS:

RISK CATEGORY	II
ULTIMATE DESIGN WIND SPEED,	V_{ult}=113 MPH
NOMINAL DESIGN WIND SPEED,	V_{asd}=88 MPH
WIND EXPOSURE	B
INTERNAL PRESSURE COEFFICIENT,	GCpi=±0.18

WIND LOADS ON COMPONENTS AND CLADDING:

COMPONENT LOCATION **		
ZONE 1'	TYPICAL ROOF	- 22 PSF
ZONE 1	TYPICAL ROOF	- 37 PSF
ZONE 2	ROOF PERIMETER	- 49 PSF
ZONE 3	ROOF CORNER	- 66 PSF
ZONE 4	TYPICAL WALL	25 PSF ***
ZONE 5	WALL CORNERS	31 PSF ***

NOTES:** ZONES ARE AS DEFINED IN ASCE 7-16 FIGURES 30.3-1 & 30.3-2A. COMPONENT WIND LOADS ARE BASED ON A EFFECTIVE WIND AREA OF 10 SQ. FT. VALUES MAY BE ADJUSTED PROVIDED WIND LOAD CALCULATIONS ARE SUBMITTED FOR REVIEW. LOADS INDICATED WITH NEGATIVE NUMBERS ACT AWAY FROM THE BUILDING SURFACE.
*** WALL LOADS ARE WORST CASE FROM WINDWARD AND LEEWARD PRESSUES AND SHOULD BE ASSUMED TO ACT BOTH TOWARDS AND AWAY FROM THE BUILDING WALLS

LATERAL LOADS - SEISMIC

SEISMIC LOAD INFORMATION FOR STRUCTURAL FRAME:

RISK CATEGORY	II
SEISMIC IMPORTANCE FACTOR,	I=1.0
SHORT PERIOD MAPPED SPECTRAL RESPONSE ACCELERATION	S_S=0.261
1-SECOND MAPPED SPECTRAL RESPONSE ACCELERATION	S_1=0.059
LONG PERIOD TRANSITION PERIOD	TL=6
SITE CLASS	C
SHORT PERIOD SPECTRAL RESPONSE COEFFICIENT	S_{DS}=0.226
1-SECOND PERIOD SPECTRAL RESPONSE COEFFICIENT	S_{D1}=0.059
SEISMIC DESIGN CATEGORY,	B

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: CDH GMT
DRAWN BY: CDH
CHECKED BY: EM
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-19-D-0010
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

STRUCTURAL GENERAL NOTES AND INDEX SHEET

SHEET ID

S-001

RTA SUBMISSION

CONCRETE REPAIR NOTES

A. EXISTING CONCRETE
   1. EXISTING CONCRETE HAS BEEN FIELD VERIFIED TO BE A MINIMUM OF 2700 PSI COMPRESSIVE STRENGTH FOR ALL CONCRETE.
   2. ALL NEW CONCRETE AND CONCRETE REPAIR PRODUCTS SHOULD MEET THE CRITERIA FOUND IN CONCRETE NOTES ON SHEET S-001 AND SPECIFICATION SECTION 03 01 00 AS MODIFIED BELOW.
   3. PHASE WORK AS REQUIRED TO MEET CONTRACT REQUIREMENTS AND ENSURE STABILITY OF THE BUILDING.
   4. ANTICIPATED DESIGN SERVICE LIFE OF THE REPAIRED STRUCTURE IS APPROXIMATELY 50 YEARS AND THIS SHOULD BE CONSIDERED IN REPAIR MATERIAL SELECTION.

B. REPAIR OF SPALLED SURFACES:
   1. CONTRACTOR SHALL INCLUDE COSTS FOR **900** SF OF CONCRETE SURFACE REPAIR DUE TO SPALLS IN EXISTING CONCRETE COLUMNS, WALLS, AND SLABS. REFER TO SPECIFICATION 03 01 00, CONCRETE REHABILITATION. CONTRACTOR SHALL MAINTAIN A RECORD OF THE REPAIR LOCATIONS AND EACH REPAIR'S SURFACE AREA. LOCATIONS REQUIRING REPAIR AND THE MEASUREMENT OF SURFACE AREAS SHALL BE APPROVED BY THE CONTRACTING OFFICER AND THIRD PARTY ENGINEER.
   2. A SPALL IS DEFINED BY THE DELAMINATION OF THE CONCRETE MATRIX FROM THE STEEL REINFORCEMENT DUE TO RUSTING AND EXPANSION OF THE STEEL REINFORCEMENT.
   3. FOR PURPOSES OF BIDDING, ASSUME EVERY SQUARE FOOT OF REPAIR IS BASED ON A DEPTH OF 4" ALTHOUGH ACTUAL DEPTH WILL VARY BASED ON APPROPRIATENESS OF REPAIR.
   4. SPALL REPAIRS SHALL INCLUDE ALL OF THE FOLLOWING TYPES OF REPAIR:
      a. COLUMN REPAIR - REPAIRS TO COLUMNS NOT TO EXCEED 25% OF THE CROSS-SECTION OF THE COLUMN WITHOUT APPROVAL BY THE CONTRACTING OFFICER.
      b. OVERHEAD REPAIRS - TYPICAL DEPTH OF REPAIR: 4", SEE S-501 FOR DETAILS
      c. VERTICAL REPAIRS - TYPICAL DEPTH OF REPAIR: 4", SEE S-501 FOR DETAILS

C. REPAIR OF LARGE CRACKS:
   1. CONTRACTOR SHALL INCLUDE COSTS FOR **800** LF OF ROUTING EXISTING SLAB CRACKS AND FILLING WITH EPOXY. REFER TO SPECIFICATION 03 01 00, CONCRETE REHABILITATION. CONTRACTOR SHALL MAINTAIN A RECORD OF THE REPAIR LOCATIONS AND EACH REPAIR'S LENGTH. LOCATIONS REQUIRING REPAIR AND THE MEASUREMENT OF REPAIR LENGTHS SHALL BE APPROVED BY THE CONTRACTING OFFICER. MINIMUM CRACK REPAIR WIDTH SHOULD BE .012" OR LARGER.
   2. CRACK REPAIR SHALL INCLUDE BOTH OF THE FOLLOWING TO BE USED AS APPROPRIATE TO THE CRACK TYPE.
      a. GRAVITY FED EPOXY REPAIR
      b. INJECTIONS EPOXY REPAIR
   3. FOR THE PURPOSES OF BIDDING, 50% OF THE CRACK REPAIR QUANTITY SHOULD BE ASSUMED AS GRAVITY-FED, AND THE REMAINING 50% ASSUMED AS INJECTED.

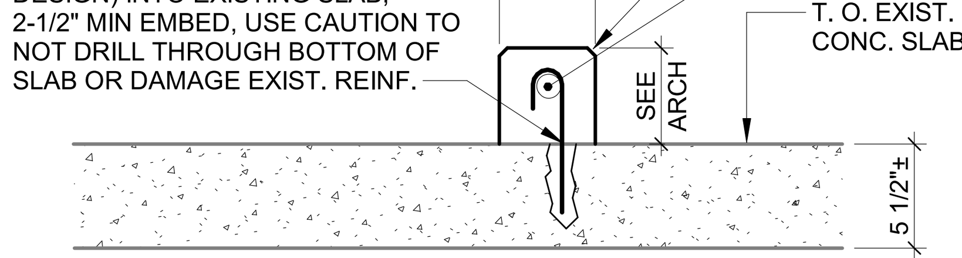
D. SURFACE APPLIED CRACK HEALER:
   1. CONTRACTOR SHALL INCLUDE COSTS FOR **14400** SF PLUS AN OWNER OPTIONS OF **14400** SF FOR A TOTAL OF **28800** SF OF CONCRETE SURFACE REPAIR DUE TO MULTIPLE CRACKS IN LOCAL AREAS OF EXISTING CONCRETE SLABS. REFER TO SPECIFICATION 03 01 00, CONCRETE REHABILITATION. CONTRACTOR SHALL MAINTAIN A RECORD OF THE REPAIR LOCATIONS AND EACH REPAIR'S SURFACE AREA. LOCATIONS REQUIRING REPAIR AND THE MEASUREMENT OF SURFACE AREAS SHALL BE APPROVED BY THE CONTRACTING OFFICER AND THIRD PARTY ENGINEER.
   2. MULTIPLE CRACKS IN LOCAL AREAS IS DEFINED AS A WEB OF MORE THAN (6) CRACKS LESS THAN 0.012" WIDE WITHIN A 4 SQUARE FOOR AREA
   3. GRAVITY REPAIRS SHALL INCLUDE HORIZONTAL REPAIRS - TYPICAL DEPTH OF REPAIR: ASSUME 4" FOR BIDDING, SEE S-501 FOR DETAILS

E. ABANDONED EXISTING PENETRATION INFILL:
   1. CONTRACTOR SHALL INCLUDE COSTS FOR **240** INFILLS PLUS AN OWNER OPTIONS OF **160** INFILLS FOR A TOTAL OF **400** INFILLS AT ABANDONED SLAB PENETRATIONS.
   2. FOR PURPOSES OF BIDDING, ASSUME A SLAB THICKNESS OF 5-1/2" ALTHOUGH ACTUAL DEPTH WILL VARY BASED ON ACTUAL SLAB THICKNESS.

F. GENERAL REPAIR TECHNIQUE
   1. MECHANICALLY REMOVE SPALLED AND LOOSENED CONCRETE EXPOSING THE EXISTING REINFORCING STEEL. WHERE REQUIRED DUE TO DAMAGE OR SEVERE CORROSION OF EXISTING REINFORCING, THE CONCRETE SHALL BE REMOVED ALONG THE LENGTH OF THE EXSITING REINFORCING A MINIMUM OF 40 BAR DIAMETERS BEYOND THE DETERIORATION INTO SOUND CONCRETE TO PERMIT LAPPING OF NEW REINFORCING STEEL WITH EXISTING.
   2. CONCRETE SHALL BE REMOVED COMPLETELY AROUND THE REINFORCING STEEL PROVIDING A MINIMUM CLEARANCE OF 1" BETWEEN REINFORCING AND REMAINING CONCRETE.
   3. WHERE DAMAGED AREA IS GREATER THAN 6" IN ANY DIMENSION, SAW CUT THE PERIMETER 1/2" DEPTH AND SQUARE ALL EDGES OF REPAIR AREAS WITH A CONCRETE SAW AND MAKE DEPTH OF REPAIR UNIFORM. VERIFY EXISTING SURFACE HAS A ROUGHNESS OF CSP-7 MINIMUM.
   4. MECHANICALLY ABRADE RUSTED REBAR VIA SANDBLASTING DOWN TO CLEAN STEEL. ALL REINFORCING WITH DETERIORATION OF MORE THAN 20% OF THE ORIGINAL BAR SECTION SHALL HAVE NEW BAR OF THE SAME SIZE SPLICED NEXT TO IT LAPPED IN EACH DIRECTION.
   5. INSTALL CONCRETE PATCH MATERIAL OR BATCHED CONCRETE PER MANUFACTURER'S RECOMMENDATIONS AND ACI REQUIREMENTS.
   6. CURE CONCRETE UNDER MOIST CONDITIONS AND MANUFACTURERS RECOMMENDATIONS. DO NOT REMOVE SHORING UNTIL CONCRETE HAS CURED A MINIMUM OF 21 DAYS WITHOUT CONTRACTING OFFICER'S APPROVAL.

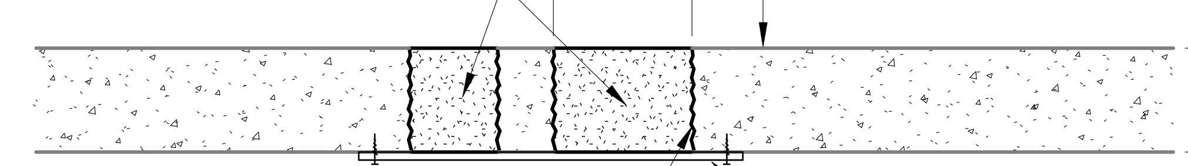
G. UNIT COST AND MEASUREMENTS OF COMPLETED WORK.
   1. CONTRACTOR SHALL PROVIDE A UNIT PRICE FOR THE COST OF REPAIRS ABOVE THE BASE AND OPTION QUANTITIES. THIS UNIT PRICE CAN BE USED TO CALCULATE A CREDIT FOR QUANTITIES BELOW THE BASE AND OPTIONS.
   2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TRACK AND MAINTAIN REPAIR QUANTITIES. QUANTITIES SHALL BE REPORTED TO THE CONTRACTING OFFICER EVERY TWO WEEKS AT MINIMUM.
   3. THE QUANTITIES AND SCOPE OF REPAIR, ARE ONLY ESTIMATES AND ACTUAL QUANTITIES WILL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO WORK.

CONCRETE REPAIR DETAILS 1 & 3 APPLY TO ALL DAMAGED EXISTING CONCRETE MEMBERS INCLUDING SLABS, STAIRS, PIERS, AND WALLS



NOTE:
COORDINATE LOCATION AND EXTENT OF CONCRETE CURB WITH ARCH DRAWINGS

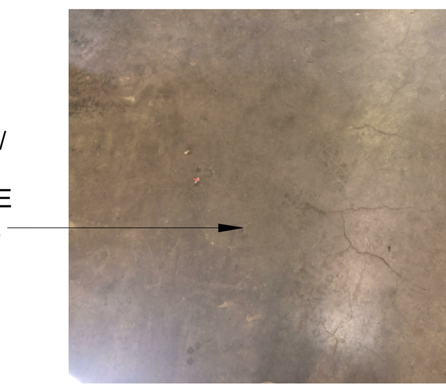
5 TYPICAL DETAIL - CONCRETE CURB

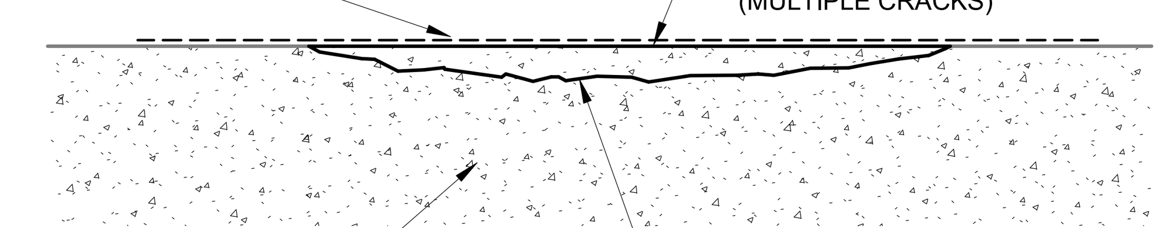


NOTE:
MAXIMUM SIZE OF ANY INDIVIDUAL EXIST. OPNG. SHALL BE NO LARGER THAN 8"∅ OR 50 SQ-IN.

4 TYPICAL DETAIL - INFILL OF UNUSED EXISTING SLAB PENETRATION
SCALE: NTS

NOTE:
REPAIR DETAIL FOR USE AT HORIZONTAL SURFACE CRACKS. FOR CRACKS UP TO 0.012" WIDE.

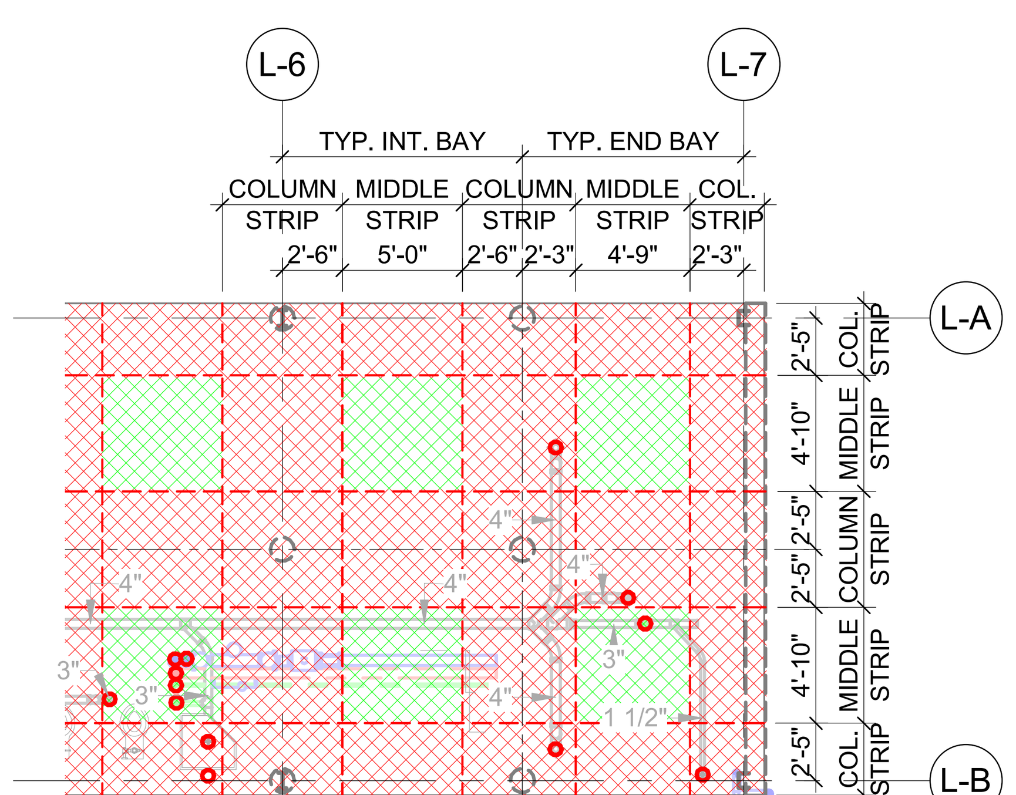




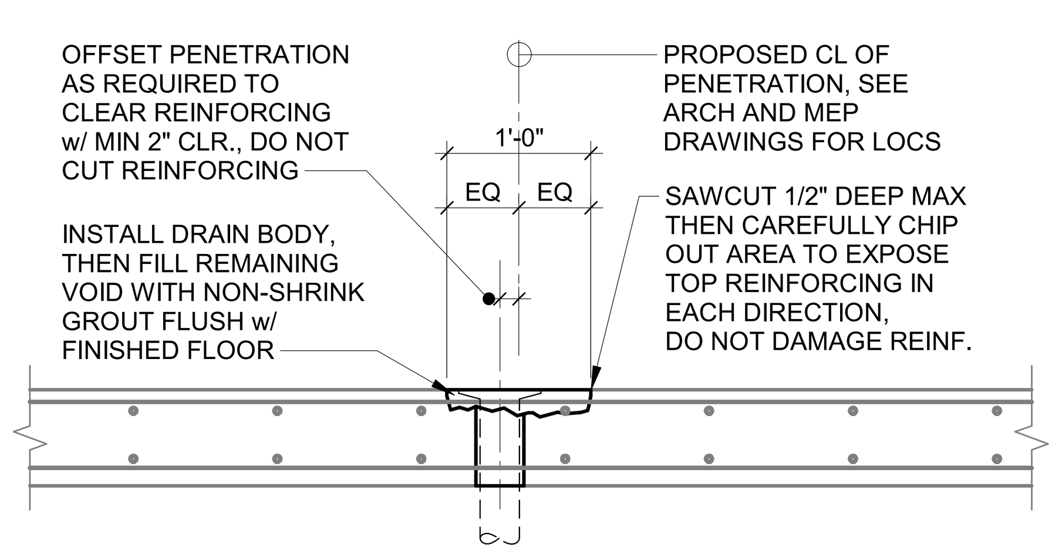
PROCEDURE NOTES:

1. THE WIDTH OF THE CRACKS SHALL BE MEASURED BY THE CONTRACTOR USING A CRACK COMPARATOR. ALL CRACKS THAT ARE 0.012 INCHES OR WIDER SHALL BE REPAIRED USING RELATED DETAILS BEFORE THIS WORK. ALL EVALUATIONS AND PROCEDURES MUST CONFORM TO THE LATEST VERSIONS OF ACI 224R AND ACI 224.1R.
2. SLABS THAT ARE TO BE REPAIRED MUST HAVE ALL LOOSE MATERIAL REMOVED AND CONCRETE AND STEEL SURFACES MUST BE CLEANED BY MECHANICAL MEANS CONSISTENT WITH MANUFACTURER (BASIS OF DESIGN SIKA) RECOMMENDATIONS.
3. APPLY SIKADUR 55 SLV (BASIS OF DESIGN) TO FULL SURFACE OF CRACKED SLABS. INSTALL AND CURE PER MANUFACTURER (BASIS OF DESIGN SIKA) RECOMMENDATIONS.

2 TYPICAL DETAIL - SURFACE APPLIED CRACK HEALER
SCALE: NTS



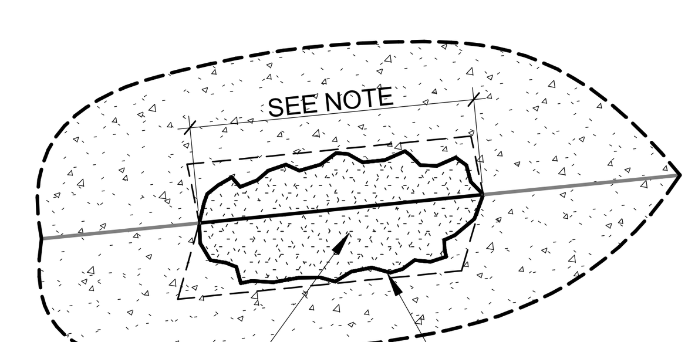
PARTIAL LATRINE FLOOR PLAN



NOTES:
1. SEE ARCH AND MEP DRAWINGS FOR ALL REQUIRED PENETRATIONS, NOT ALL PENERTATIONS ARE INDICATED ON STRUCTURAL DRAWINGS.
2. SCAN THE AREA OF THE PROPOSED PENETRATIONS WITH RADAR TO LOCATE EXISTING SLAB REINFORCING.
3. ADJUST THE CENTER OF THE PROPOSED PENETRATION TO AVOID POTENTIAL REINFORCING CONFLICTS.
4. IF A LOCATION CLEAR OF REINFORCING CANNOT BE LOCATED WITHIN 6 INCHES OF THE LOCATIONS SHOW ON ARCH OR MEP DRAWINGS CONTACT COR PRIOR TO PROCEEDING WITH SAWCUTTING SHOWN IN THIS DETAIL.
5. WHERE POSSIBLE LOCATE NEW PENETRATIONS WITHIN THE INTERSECTION OF MIDDLE STRIPS

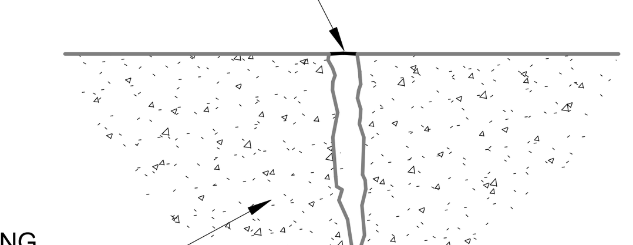
6 TYPICAL DETAIL - NEW PENETRATION THROUGH EXISTING SLAB

NOTE: WHERE SPALL IS GREATER THAN 6" ACROSS, SAWCUT AROUND REPAIR TO CREATE CLEAN SQUARE EDGES, SEE REPAIR NOTE F



3 TYPICAL DETAIL - REPAIR OF SPALLED CONCRETE
SCALE: NTS

NOTE:
REPAIR DETAIL FOR USE AT VERTICAL AND OVERHEAD SURFACE CRACKS THAT ARE EXPOSED TO THE EXTERIOR. FOR CRACKS UP TO 1/4" WIDE.



PROCEDURE NOTES:

1. THE WIDTH OF THE CRACKS SHALL BE MEASURED BY THE CONTRACTOR USING A CRACK COMPARATOR. ALL CRACKS THAT ARE 0.012 INCHES OR WIDER SHALL BE REPAIRED. ALL EVALUATIONS AND PROCEDURES MUST CONFORM TO THE LATEST VERSIONS OF ACI 224R AND ACI 224.1R.
2. ALL CRACKS IN THE CONCRETE MEMBERS THAT ARE TO BE REPAIRED MUST HAVE ALL LOOSE MATERIAL REMOVED AND CONCRETE AND STEEL SURFACES MUST BE CLEANED BY MECHANICAL MEANS CONSISTENT WITH MANUFACTURER (BASIS OF DESIGN SIKA) RECOMMENDATIONS.
3. LOCATE AND INSTALL PRESSURE INJECTION PORTS PER MANUFACTURER (BASIS OF DESIGN SIKA) RECOMMENDATIONS.
4. SEAL ALL CRACKS ADJACENT TO AND AROUND EACH INJECTION PORT USING SIKADUR 33 (BASIS OF DESIGN). INSTALL AND CURE PER MANUFACTURER (BASIS OF DESIGN SIKA) RECOMMENDATIONS.
5. PRESSURE INJECT ALL CRACKS THAT ARE 1/4 INCH OR LESS IN WIDTH WITH SIKADUR 35, HI-MOD LV (BASIS OF DESIGN). INSTALL AND CURE PER MANUFACTURER (BASIS OF DESIGN SIKA) RECOMMENDATIONS. IF CRACKS ARE GREATER THAN 1/4 INCH IN WIDTH, NOTIFY THE CONTRACTING OFFICER.

1 TYPICAL DETAIL - INJECTION REPAIR OF LARGE CRACKS
SCALE: NTS

US Army Corps of Engineers ®

MARK | DESCRIPTION | DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-19-D-0010
DESIGNED BY: CDH GAM
DRAWN BY: CDH
CHECKED BY: EM
SUBMITTED BY: BK
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL DETAILS

SHEET ID
S-501

RTA SUBMISSION

DRAWING ABBREVIATIONS

A	----------
A LABEL	CLASS A DOOR
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT
ABR	ABRASIVE
ABV	ABOVE
AC	AIR CONDITIONING
ACC	ACCESSIBLE
ACIP	ARCHITECTURAL CAST IN PLACE CONCRETE
ACOUS	ACOUSTIC(AL)
ACS	AUTOMATIC CONTROL SYSTEM
ACS DR	ACCESS DOOR
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADH	ADHESIVE
ADJ	ADJACENT
ADJU	ADJUSTABLE
ADMIN	ADMINISTRATION
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
AIB	AIR INFILTRATION BARRIER
ALT	ALTERNATE
ALUM	ALUMINUM
AP	ACCESS PANEL
ANOD	ANODIZE
APC	ACOUSTICAL PANEL CEILING
APCONC	ARCHITECTURAL PRECAST CONCRETE
APPROX	APPROXIMATE
AR	AS REQUIRED
ARCH	ARCHITECT(URAL)
ASC	ABOVE SUSPENDED CEILING
ASSY	ASSEMBLY
ATC	ACOUSTICAL TILE CEILING
AVB	AIR & VAPOR BARRIER
AVG	AVERAGE
AW	ARCHITECTURAL WOODWORK
AWT	ACOUSTICAL WALL TREATMENT
B	----------
B LABEL	CLASS B DOOR
BALC	BALCONY
BB	BASEBOARD
BC	BOOKCASE
BD	BOARD
BDRY	BOUNDARY
BFF	BELOW FINISH FLOOR
BG	BUMPER GUARD
BHMA	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION
BITUM	BITUMINOUS
BKR	BACKER
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLT IN	BUILT-IN
BLW	BELOW
BM	BEAM
BMK	BENCHMARK
BN	BULLNOSE
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BP	BUILDING PAPER
BR	BEDROOM
BRCG	BRACING
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BS	BOTH SIDES
BSMT	BASEMENT
BSPL	BACKSPLASH
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
C	----------
C CONC	CAST CONCRETE
C LABEL	CLASS C DOOR
C/C	CENTER TO CENTER
CAB	CABINET
CATW	CATWALK
CAV	CAVITY
CB	CATCH BASIN
CBB	CEMENTITIOUS (BACKER) BOARD
CBO	CONTROL BOX
CBP	COMPOSITE BUILDING PANEL
CD	CONSTRUCTION DOCUMENTS
CDW	CHILLED DRINKING WATER
CEM	CEMENT
CEM PLAS	CEMENT PLASTER
CER	CERAMIC
CF	CONTRACTOR FURNISHED
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFE	CONTRACTOR FURNISHED EQUIPMENT
CFLG	COUNTERFLASHING
CFM	CUBIC FEET PER MINUTE
CFMF	COLD-FORMED METAL FRAMING
CFS	CUBIC FEET PER SECOND
CG	CORNER GUARD
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLG DIFF	CEILING DIFFUSER
CLG HT	CEILING HEIGHT
CLL	COLUMN LINE
CLO	CLOSET
CLR	CLEAR
CLRM	CLASSROOM
CMPTR	COMPUTER
CMU	CONCRETE MASONRY UNIT
CNDS	CONDENSATE
CDR	CARD READER
CO	CLEANOUT
COL	COLUMN
COMM	COMMUNICATION
COMP	COMPRESSIBLE
CONC	CONCRETE
CONF	CONFERENCE
CONST	CONSTRUCTION
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CP	CONCRETE PIPE
CPT	CARPET
CR	CONTROL ROOM
CRA	CRASH RAIL
CRS	COURSE
CS	CAST STONE
CSK	COUNTER SUNK
CSWK	CASEWORK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTR	CENTER
CU FT	CUBIC FEET
CUB	CUBICLE
CUH	CABINET UNIT HEATER
CW	CASEMENT WINDOW
D	----------
D	DEPTH
D LABEL	CLASS D DOOR
DBL	DOUBLE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DIST	DISTANCE
DMPF	DAMPROOFING
DN	DOWN
DO	DITTO
DOC	DOCUMENT
DR	DOOR
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
DWL	DOWEL
DWR	DRAWER
DWTR	DUMBWAITER
E	----------
E LABEL	CLASS E DOOR
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ES	EACH SIDE
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EMBMT	EMBEDMENT
EMER	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER(ING)
ENTR	ENTRANCE
EP	ELECTRICAL PANEL(BOARD)
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWS	EYE WASH STATION
EXH	EXHAUST
EXP	EXPANSION
EXST	EXISTING
EXT	EXTERIOR
EXT GR	EXTERIOR GRADE
EXTR	EXTRUDED
F	----------
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAS BD	FASCIA BOARD
FC BRK	FACE BRICK
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FED	FEDERAL
FF	FINISH FLOOR
FF EL	FINISH FLOOR ELEVATION
FF INSUL	FOIL BACKED INSULATION
FGB	FIBERGLASS FACED SILICONE TREATED GYPSUM CORE SHEATHING BOARD
FGL	FIBERGLASS
FH	FLAT HEAD
FHP	FULL HEIGHT PARTITION
FIN	FINISH
FIN BS	FINISH BOTH SIDES
FIN GR	FINISH GRADE
FIXT	FIXTURE
FL	FLASHING
FLDG	FOLDING
FLEX	FLEXIBLE
FLG	FLOORING
FLMT	FLUSH MOUNT
FLR	FLOOR
FLUOR	FLUORESCENT
FM	FLOOR MAT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOW	FACE OF WALL
FP	FIRE PROTECTION
FPRF	FIREPROOF(ED)(ING)
FR	FRAME
FRG	FIBER REINFORCED GYPSUM
FRMG	FRAMING
FRP	FIBERGLASS REINFORCED PLASTIC
FRT	FIRE RETARDANT TREATED
FRTW	FIRE RETARDANT TREATED WOOD
FS	FULL SIZE
FSFG	FIRE SAFING
FSP	FIRE STANDPIPE
FSTNR	FASTENER
FT	FEET(FOOT)
FTG	FOOTING
FTR	FINNED TUBE RADIATION
FURG	FURRING
FURN	FURNITURE
FURR	FURRING
FUT	FUTURE
FWC	FABRIC WALLCOVERING
G	----------
G	NATURAL GAS
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFCI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GL	GLASS
GLZ	GLAZING
GR	GRADE
GR FL	GROUND FLOOR
GRL	GRILLE
GRTG	GRATING
GSF	GROSS SQUARE FEET
GSKT	GASKET
GUT	GUTTER
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
GYP PLAS	GYPSUM PLASTER
H	----------
H	HIGH
HB	HOSE BIBB
HC	HANDICAPPED
HCT	HANDICAPPED ACCESSIBLE TOILET
HD	HEAD
HDBD	HARDBOARD
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HARDWARE
HDWD	HARDWOOD
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
HFS	HALF FULL SIZE
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HP	HORSE POWER
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HYDR	HYDRAULIC
I	----------
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INCL	INCLUDING
INS	INSULATION
INT	INTERIOR
ILO	IN LIEU OF
INV	INVERT
J	----------
JAN	JANITOR
JB	JUNCTION BOX
JCT	JUNCTION
JST	JOIST
JT	JOINT
K	----------
K	KIP
KPD	KEYPAD
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	----------
L	LONG
LAB	LABORATORY
LAM	LAMINATE(D)(ION)
LAT TIE	LATERAL TIEBACK FOR APC PANEL
LAV	LAVATORY
LBR	LUMBER
LB	POUND
LDG	LANDING
LF	LINEAR FEET (FOOT)
LG	LAMINATED GLASS
LIB	LIBRARY
LIN	LINEAR
LKR	LOCKER
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LP	LIGHTPROOF
LPT	LOW POINT
LT	LIGHT
LTG	LIGHTING
LVDR	LOUVER DOOR
LVR	LOUVER
M	----------
M	METER
MACH	MACHINE
MACH RM	MACHINE ROOM
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MBAR	MOISTURE BARRIER
MBR	MEMBER
MC	MOISTURE CONTENT
MD	METAL DECK
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MF	MILL FINISH
MFR	MANUFACTURER
MH	MANHOLE
MID	MIDDLE
MIFRC	MASTIC INTUMESCENT FIRE RESISTIVE COATING
MIL STD	MILITARY STANDARD
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MJ	MOVEMENT JOINT (IN MASONRY)
MLDG	MOLDING (MOULDING)
MLWK	MILLWORK
MM	MILLIMETER
MO	MASONRY OPENING
MOD	MODIFY
MSCW	METAL STUD CURTAIN WALL
MTD	MOUNTED
MTG	MOUNTING
MULL	MULLION
MVBL	MOVABLE
MW	MINERAL WOOL
MWF	MEMBRANE WALL FLASHING
MWP	MEMBRANE WATERPROOFING
N	----------
N	NORTH
NA	NOT APPLICABLE
NF	NEAR FACE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NP	NO PAINT
NRC	NOISE REDUCTION COEFFICIENT
NS	NEAR SIDE
NSF	NET SQUARE FEET
NTS	NOT TO SCALE
O	----------
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFD	OVERFLOW DRAIN
OFF	OFFICE
OGL	OBSCURE GLASS
OH	OVERHEAD
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPQ	OPAQUE
OWSJ	OPEN WEB STEEL JOIST
OPR	OPERABLE
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
P	----------
PA	PUBLIC ADDRESS
PAR	PARALLEL
PASS	PASSENGER
PAT	PATTERN
PB	PUSHBUTTON
PBD	PARTICLEBOARD
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT
PED	PEDESTAL
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PGBD	PEGBOARD
PH	PHASE
PIL	PILASTER
PL	PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLAT	PLATFORM
PLBG	PLUMBING
PLG	PILING
PLK	PLANK
PLWD	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL
PNT	PAINT
PP PL	PUSH/PULL PLATE
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PRKG	PARKING
PS CONC	PRESTRESSED CONCRETE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTD	PAINTED
PTN	PARTITION
PWR	POWER
Q	----------
QT	QUARRY TILE
QTY	QUANTITY
R	----------
R	RISER
RAD	RADIUS
RAF	RAISED ACCESS FLOOR
RB	RESILIENT BASE
RBM	REINFORCED BRICK MASONRY
RBR	RUBBER
RC	REINFORCED CONCRETE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RDG INS	RIGID INSULATION, SOLID
REC	RECESSED
REC ROOM	RECREATION ROOM
RECPT	RECEPTACLE
RECT	RECTANGULAR
REF	REFERENCE
REFR	REFRIGERATION
REG	REGISTER
REINF	REINFORCE(D)(ING)(MENT)
REM	REMOVABLE
REP	REPAIR
REPL	REPLACE
REQ	REQUIRE
REQD	REQUIRED
RESIL	RESILIENT
RESTR	RESTROOM
RET	RETURN
REV	REVISION
RF	RESILIENT FLOORING
RFG	ROOFING
RH	ROOF HATCH
RHR	RIGHT HAND REVERSE
RJ	RUSTICATION JOINT
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RO	ROUGH OPENING
RSD	ROLLING STEEL DOOR
RV	ROOF VENT
RVL	REVEAL
RWC	RAIN WATER CONDUCTOR
S	----------
SAFB	SOUND ATTENUATION FIRE BLANKET
SAN	SANITARY
SB	SPLASH BLOCK
SCHED	SCHEDULE
SD	SMOKE DETECTOR
SECT	SECTION
SF	SQUARE FOOT (FEET)
SFRM	SPRAYED FIRE-RESISTANT MATERIAL
SFTWD	SOFTWOOD
SGL	SINGLE
SH	SHELF
SHR	SHOWER
SHT	SHEET(ING)
SHTHG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SJ	SCORED JOINT
SK	SINK
SKLT	SKYLIGHT
SL	SEALANT
SMK	SMOKE
SMLS	SEAMLESS
SP	SPACE(ING)
SP EL	SPOT ELEVATION
SPEC	SPECIFICATION
SPF	SPRAY FOAM
SPFI	SPRAY POLYURETHANE FOAM INSULATION
SPKR	SPEAKER
SPR	SPRINKLER
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SR	SERVICE RECEPTOR
SS	SERVICE SINK
SST	STAINLESS STEEL
SSUR	SOLID SURFACING
ST	STAIRS
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIF	STIFFENER
STL	STEEL
STL JST	STEEL JOIST
STL RF DK	STEEL ROOF DECK
STOR	STORAGE
STR	STRINGERS
STRUCT	STRUCTURAL
STRB/HRN	STROBE/HORN
SUB FL	SUBFLOOR
SUPP	SUPPORT
SURF	SURFACE
SUSP	SUSPEND
SV	SHEET VINYL
SW	SIDEWALK
SYM	SYMBOL
SYS	SYSTEM
T	----------
T	TREAD
T&G	TONGUE AND GROOVE
T/S	TUB/SHOWER
TA	TOILET ACCESSORIES
TB	TOWEL BAR
TC	TERRA COTTA
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
TER	TERRAZZO
TFF	TOP OF FINISH FLOOR
THK	THICKNESS
TK BD	TACKBOARD
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOPO	TOPOGRAPHY
TOS	TOP OF STEEL
TOSL	TOP OF SLAB
TOW	TOP OF WALL
TRANS	TRANSOM
TRTD	TREATED
TS	TUBE STEEL
TV	TELEVISION
TYP	TYPICAL
U	----------
UC	UNDERCOUNTER
UH	UNIT HEATER
UNEX	UNEXCAVATED
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UTIL	UTILITY
V	----------
VAR	VARIES
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VIN	VINYL
VNR	VENEER
VOL	VOLUME
VP	VENEER PLASTER
VT	VINYL TILE
VWC	VINYL WALL COVERING
W	----------
W	WIDE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WP	WATERPROOF(ING)
WR	WATER RESISTANT
WSCT	WAINSCOT
WT	WEIGHT

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010
SUBMITTED BY: SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

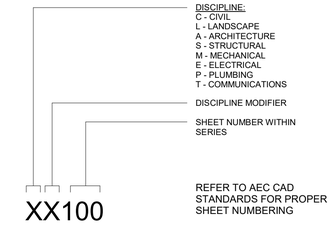
ABBREVIATIONS

SHEET ID
A-001

RTA SUBMISSION

SYMBOLS

NUMBERING SYSTEM:



STANDARD MATERIALS

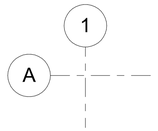
- BRICK
- CONCRETE
- CONCRETE MASONRY UNIT
- CRUSHED STONE
- EARTH
- GYPSUM WALL BOARD
- INSULATION (BATT)
- INSULATION (RIGID)
- METAL (ALUMINUM)
- METAL (STEEL, IRON)
- PLYWOOD
- WOOD FINISH
- WOOD FRAMING & BLOCKING

SYMBOLS/LINETYPES

PROJECT AREA LINE

THIS LINE GENERALLY INDICATES THE AREA WHERE THE WORK OF THIS PROJECT OCCURS; SOME INCIDENTAL WORK MAY OCCUR OUTSIDE THIS LINE.

PROPERTY LINE

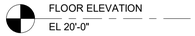


COLUMN REFERENCE GRID

SLOPE UP

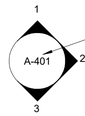
SLOPE DOWN

NORTH ARROW w/ TRUE NORTH INDICATION

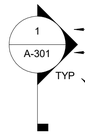


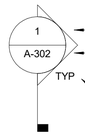
MAIN ENTRANCE LOCATION; ARROW POINTS TOWARDS BUILDING PLAN NORTH

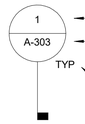
ELEVATION REFERENCES (ARROW INDICATES DIRECTION OF VIEW)



SECTION/DETAIL REFERENCES (ARROW INDICATES DIRECTION OF VIEW)





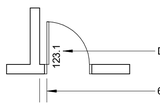


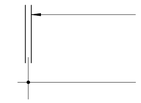
DETAIL PLAN/ELEVATION (BOX INDICATES AREA OF VIEW)

EXIST WALLS, DOORS (SCREENED)

DEMOLITION WALLS, DOORS (DASHED)

NEW WALLS, DOORS (SOLID)





DIMENSION TO FACE

DIMENSION TO CENTERLINE

(TYP DIM. TO CENTERLINE OF PTN)

DIMENSION CONTINUES

LIMIT OF WORK

AREA OF REVISION

REVISION

DEMOLITION AND/OR ALTERATION NOTE

WORK POINT, CONTROL POINT, OR DATUM POINT

CASEWORK UTILITY (INDIVIDUAL)

CASEWORK UTILITY (GROUP)

LOUVER TYPE

WINDOW TYPE

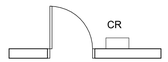
AP

ACCESS PANEL

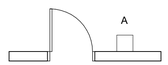
EP

ELECTRIC PANEL

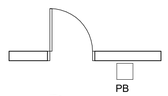
FIRE EXTINGUISHER



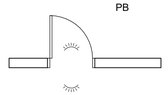
CARD READER



ACTUATOR (POWER OPERATOR)



PUSH BUTTON (RELEASE)



SENSORS (DOOR CONTROL)

GENERAL NOTES

GENERAL NOTES

1. THE DRAWINGS INDICATE ONE TYPICAL PLAN FOR A SLEEPING QUARTERS BUILDING AND ONE TYPICAL PLAN FOR A LATRINE BUILDING. THE CONTRACTOR IS REQUIRED TO EVALUATE ALL EXISTING BUILDINGS AND ADAPT THE TYPICAL DESIGNS TO THE PARTICULAR SITE AND BUILDING CONDITIONS AT EACH STRUCTURE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND POSTING ALL REQUIRED LOCAL AND STATE CONSTRUCTION PERMITS.
3. VERIFY ALL EXISTING FIELD CONDITIONS ARE CONSISTENT WITH THE DOCUMENTS BEFORE PROCEEDING. REPORT INCONSISTENCIES TO THE CONTRACTING OFFICER.
4. ACCESS TO AREAS OUTSIDE THE PROJECT AREA LINE SHALL BE COORDINATED IN ADVANCE WITH THE OWNER.
5. ALL UTILITY SHUT DOWNS OR SUSPENSION OF MECHANICAL OR ELECTRICAL SERVICES SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER.
6. BUILDING MECHANICAL, ELECTRICAL, PLUMBING, TELECOMMUNICATIONS, FIRE SAFETY, AND AUDIO-VISUAL DEVICES, FIXTURES, PANELS, JUNCTION BOXES, RECEPTACLE BOXES AND EQUIPMENT, SHALL BE INSTALLED IN WALLS SO ONLY THE DEVICE, FACE PLATE, RECEPTACLES, FIXTURE OR EQUIPMENT REQUIRING REGULAR USER INTERFACE IS EXPOSED. NO PIPE, DUCT, CONDUIT, WIRE, JUNCTION BOXES, RECEPTACLE BOXES OR OTHER SUCH ELEMENT SHALL BE EXPOSED.
7. BUILDING MECHANICAL, ELECTRICAL, PLUMBING, TELECOMMUNICATIONS, FIRE SAFETY, AND AUDIO-VISUAL DEVICES, FIXTURES, PANELS AND EQUIPMENT, SHALL BE INSTALLED IN FINISHED CEILINGS (DRYWALL, ACT, WOOD PANEL, ETC) UNLESS NOTED OTHERWISE, SUCH THAT ONLY THE USER INTERFACE DEVICE, FIXTURE OR EQUIPMENT IS EXPOSED. NO PIPE, DUCT, CONDUIT, WIRE, CONNECTION BOXES, DRIVERS, OR OTHER SUCH ELEMENT SHALL BE EXPOSED ON FINISHED FACE OF CEILING UNLESS NOTED OTHERWISE.
8. REFER TO INTERIOR "I" SERIES DRAWINGS FOR FINISH MATERIAL REQUIREMENTS. ANY DISCREPANCY IN CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTING OFFICER.
9. NOT EVERY DEVICE IS INDICATED ON THE A-400 SERIES ELEVATIONS. SEE M, E, P, & FP DRAWINGS. COORDINATE FINAL DEVICE LOCATIONS WITH THE CONTRACTING OFFICER.
10. ADD ALTERNATIVES:

    ADD ALT #01: ADD SINKS IN THE LATRINE CORRIDOR
    ADD ALT #02: GRAVITY REPAIR CRACKS
    ADD ALT #03: SLAB INFILL

    NOTE: ADD ALTERNATES ARE IDENTIFIED IN THE SET WITH THE FOLLOWING LINE TYPE: — — — —

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
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SUBMITTED BY: SK
SIZE: ANSI D

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

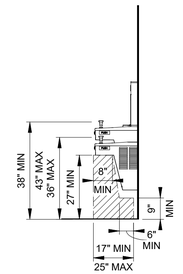
GENERAL SYMBOLS AND NOTES

SHEET ID

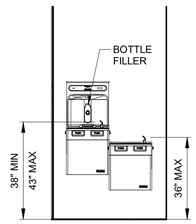
A-002

RTA SUBMISSION

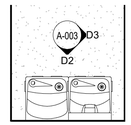
TOILET ACCESSORIES			
Type Mark	Description	Manufacturer	Model
TA-01	Jumbo Dual Roll Toilet Paper Dispenser	Bradley Corporation	5425
TA-06	Paper Towel Dispenser - Centerpull	Pro-Link, Aspire	DCP100
TA-10	Sanitary Product Disposal Unit - Surface Mounted	Bradley Corporation	4A10
TA-13	Surface Mounted Soap Dispenser	Pro-Link	
TA-18	Robe Hook - Double | Projects 2 1/4"	Bradley Corporation	9124 BradEX
TA-19	Mop-Broom Holder w/4 Holders 36" W	Bradley Corporation	9954 BradEX
TA-20	Framed Mirror (18" x 36") with SST Shelf	Bradley Corporation	7805-1836
TA-27	Exposed Mtd. SST Shower Curtain Rod (48" W) w/ Anti-Microbrial Vinyl Shower Curtain & Hooks	Bradley Corporation	9531, 9533, 9540
TA-32A	Lenox Pedestal Bench (12" x 48")	Bradley Corporation	LENOXPEDESTAL
TA-34	Four-Tier Solid Plastic Cubby Locker (72" x 15")	Bradley Corporation	LENOXCUBBY
TA-35	Brute Rubber Trash Can (20 Gal)	RubberMaid Commercial	1779734



D3 SECTION

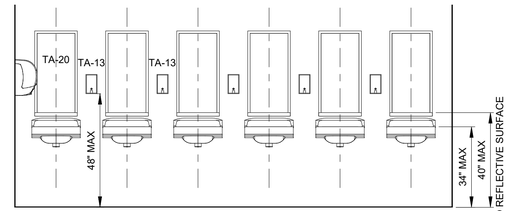


D2 ELEVATION

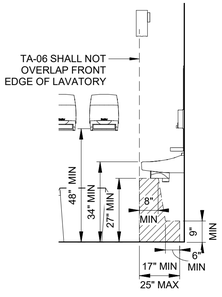


D1 PLAN

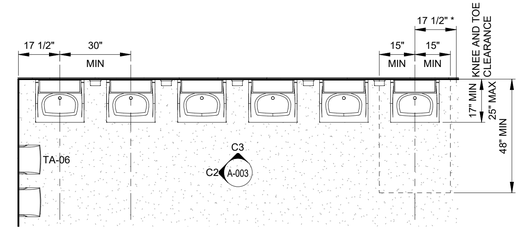
D ACCESSIBLE AND NON-ACCESSIBLE RECESSED DRINKING FOUNTAIN
SCALE: 3/8" = 1'-0"



C3 ELEVATION AT BACK WALL



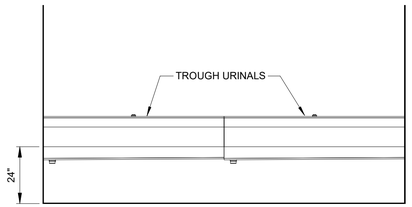
C2 ELEVATION AT SIDE WALL



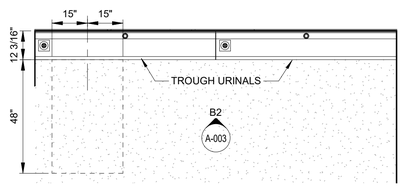
* 25" IS REQUIRED IF THE PAPER TOWEL DISPENSER IS LOCATED ON THE SIDE WALL NEXT TO THE LAVATORY. 15" IS THE CODE MIN IF THE PAPER TOWEL DISPENSER IS RECESSED OR LOCATED SOMEWHERE ELSE IN THE ROOM

C1 PLAN

C NON-ACCESSIBLE LAVATORIES
SCALE: 3/8" = 1'-0"

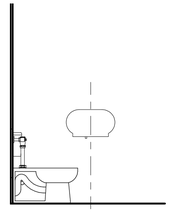


B2 ELEVATION

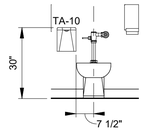


B1 PLAN

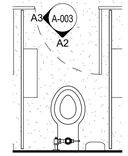
B NON-ACCESSIBLE URINALS
SCALE: 3/8" = 1'-0"



A3 ELEVATION @ SIDE WALL



A2 ELEVATION @ REAR WALL



A1 PLAN

A NON-ACCESSIBLE TOILET COMPARTMENTS
SCALE: 3/8" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE:
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SOLICITATION NO.:
CONTRACT NO.:
W912DS-18-D-0010

DESIGNED BY:
ECC
DRAWN BY:
ECC
CHECKED BY:
TK
SUBMITTED BY:
SIZE:
ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

STANDARD MOUNTING HEIGHTS AND CLEARANCES

SHEET ID

A-003

RTA SUBMISSION

DEMOLITION NOTES

1. CONTRACTOR SHALL NOT CONSIDER DEMOLITION AND ALTERATION NOTES TO BE ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA AND TO FULFILL THE INTENT OF THE WORK INDICATED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS WITHIN THE CONTRACT LIMITS. DEVIATIONS FROM THE CONTRACT DOCUMENTS NECESSITATED BY FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO PROCEEDING WITH THE WORK.
2. CONTRACTOR SHALL CONSULT WITH THE OWNER IN ADVANCE OF DOING WORK TO DETERMINE DISPOSITION OF ALL FIXTURES, CABINETS, SERVICES, EQUIPMENT AND ITEMS REMOVED DURING THE DEMOLITION. REMOVE AND DISCARD ALL EXISTING FURNITURE & EQUIPMENT, LOOSE ITEMS & DEBRIS ETC. LEFT BEHIND BY OWNER. A TYPICAL BARRACK HAS 20 BUNKS AND 42 WALL LOCKERS FOR A TOTAL OF 240 BUNKS AND 504 WALL LOCKERS TO BE REMOVED BY CONTRACTOR.
3. IT IS THE INTENT OF THE DEMOLITION TO REMOVE EXISTING CONSTRUCTION WHICH CONFLICTS WITH THE INTENT OF NEW CONSTRUCTION. EVERY DEMOLITION CONDITION MAY NOT BE COVERED IN THESE DOCUMENTS. CONTRACTOR SHALL DEMOLISH AND REMOVE EXISTING CONSTRUCTION FOR THE INSTALLATION OF NEW WORK. THE DESIGN INTENT IS FOR THE FOLLOWING ITEMS TO BE REMOVED FROM THE BUILDING UNLESS SPECIFICALLY NOTED OTHERWISE: WINDOWS, PLASTER AND GYPSUM BOARD WALLS AND RELATED STUDS, MASONRY AND FURRING, PLUMBING FIXTURES, LIGHTING FIXTURES, LOUVERS, AND FIRE EXTINGUISHERS.
4. SEE DEMOLITION SPECIFICATION 02 41 00.
5. SEE HAZARDOUS MATERIALS REPORT IN SPECIFICATION APPENDIX
6. IF HAZARDOUS MATERIALS I.E. LEAD AND ASBESTOS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR IS TO STOP WORK IN THE AREA IMMEDIATELY AND INFORM THE CONTRACTING OFFICER FOR FUTURE DIRECTION.
7. UNLESS NOTED OTHERWISE, REMOVE EXISTING PROJECTIONS, HANGERS, BOLTS, NAILS, BRACKETS, CURTAIN RODS, VALANCES, ETC. FROM EXISTING WALLS AND COLUMNS. PATCH ALL HOLES TO MATCH ADJACENT SURFACES FOR THE INSTALLATION OF NEW FINISHES.
8. ALL MECHANICAL AND ELECTRICAL WORK NOTED ON THE DEMOLITION DRAWINGS SHALL BE REMOVED BY THE APPROPRIATE DIVISION 21, 22, 23, 25, 26, 27 AND 28 SUBCONTRACTORS.
9. DAMAGED METAL PANELS: CONTRACTOR TO SUBMIT A FULL ASSESMENT OF THE EXISTING METAL WALL AND ROOF PANELS FOR ALL BARRACKS BUILDINGS, DOCUMENTING EXISTING HOLES (LARGER THAN 1/4" IN DIAMETER) AND DAMAGED PANELS (INCLUDING MAJOR RUSTING, DENTS, AND TEARS) TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL FOR REPAIR/REPLACEMENT. ASSESMENT TO INCLUDE KEYED PHOTOS IDENTIFYING LOCATIONS OF ALL COMPROMISED LOCATIONS, PROPOSED REPAIR METHOD, AND A TABULATED QUANTITY OF REPAIRS.
10. HOLES IN EXISTING FLOORS AND WALLS RESULTING FROM DEMOLITION OR REMOVALS SHALL BE REPAIRED IN A MANNER CONSISTENT WITH THE ADJACENT UL RATED CONSTRUCTION AND BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
11. REFERENCE APPROPRIATE DESIGN DISCIPLINES FOR RELATED DEMOLITION PLANS.
12. PERFORM DEMOLITION WORK TO PROVIDE SQUARE, LEVEL, AND SMOOTH JUNCTURES AND INTERSECTIONS BETWEEN EXISTING AND NEW CONSTRUCTION.
13. DEMOLITION WORK IS TO BE DONE IN COMPLIANCE WITH APPLICABLE CODES, LAWS AND REGULATIONS.

KEYED DEMOLITION NOTES

1. **GWB PARTITION:** REMOVE ITEMS ATTACHED TO WALL SURFACE, SUCH AS BASE. REMOVE EXISTING DRYWALL. DISCONNECT AND REMOVE ALL MECHANICAL AND ELECTRICAL DEVICES AND EQUIPMENT. REMOVE METAL FRAMING, TRACKS AND BRACING IN THEIR ENTIRETY.
2. **CMU PARTITION:** REMOVE ITEMS ATTACHED TO WALL SURFACE, SUCH AS BASE. REMOVE EXISTING DRYWALL, IF ANY. DISCONNECT AND REMOVE ALL MECHANICAL AND ELECTRICAL DEVICES AND EQUIPMENT. REMOVE CMU AND BRACING IN THEIR ENTIRETY.
3. **METAL CEILING:** DISCONNECT AND REMOVE ALL MECHANICAL AND ELECTRICAL DEVICES AND EQUIPMENT SUPPORTED ON FRAMING GRID. REMOVE ALL ABOVE CEILING INSULATION. REMOVE ALL METAL CEILING PANELS AND FASTENERS IN THEIR ENTIRETY.
4. **CERAMIC TILE FLOORS:** REMOVE EXISTING CERAMIC TILE, MATS AND SETTING BED TO STRUCTURAL SLAB.
5. **DOOR/FRAME/HARDWARE:** REMOVE EXISTING DOOR, FRAME AND HARDWARE.
6. **ALUMINUM WINDOWS:** REMOVE EXISTING WINDOW IN ITS ENTIRETY.
7. **FIXTURES AND ACCESSORIES:** REMOVE ALL EXISTING TOILETS, ASSOCIATED ACCESSORIES, AND STALL PARTITIONS. REMOVE ALL EXISTING URINALS. REMOVE ALL EXISTING SINKS AND ASSOCIATED FIXTURES AND ACCESSORIES. REMOVE ALL SHOWER FIXTURES AND ACCESSORIES.
8. **EXHAUST FANS:** REMOVE EXISTING CEILING EXHAUST FANS, LOUVERS, AND ASSOCIATED WIRING AND SWITCHES.

NOTE:

A HAZARDOUS MATERIALS SURVEY WAS CONDUCTED BY GLOBAL CONSULTING INC ON 11/13/19 AND 11/14/19. LICENSED, CERTIFIED, AND EXPERIENCED INSPECTORS EXAMINED TWO RANDOM BUILDINGS FROM EACH PHASE OF THE PROJECT, INCLUDING BUILDINGS 1611 AND 1612 FROM PHASE 1. ROOFING COMPONENTS WERE EXCLUDED FROM THE SURVEY. THE FULL HAZARDOUS MATERIAL REPORT CAN BE FOUND IN SPECIFICATIONS APPENDIX 2.2.

SOME OF THE FOLLOWING HAZARDOUS MATERIALS FOR THE PHASE 1 BUILDINGS WERE REPORTED DURING THE SURVEY. SEE THE HAZARDOUS MATERIAL REPORT FOR A COMPREHENSIVE LIST OF POSSIBLE HAZARDOUS MATERIALS AT CAMP BUCKNER :

ASBESTOS:

• NO ASBESTOS-CONTAINING MATERIALS (ACM) WERE IDENTIFIED IN THE PHASE 1 BUILDINGS, THOUGH MATERIALS POSITIVELY-IDENTIFIED AS ACM WERE DISCOVERED IN PHASE 2-4 BUILDINGS.
• ROOFING MATERIALS (EXCLUDED FROM THE SURVEY), POSSIBLE MASTIC PATTIES BEHIND THE MIRRORS IN THE RESTROOMS, AND POSSIBLE PIPE INSULATION INSIDE PIPE CHASES OF RESTROOMS ARE PRESUMED ASBESTOS-CONTAINING MATERIALS (PACM).

LEAD BASED PAINT:

• MEN'S LATRINE SLOP SINK.
• YELLOW TOILET DOOR/PARTITION IN WOMEN'S LATRINE.
• YELLOW PAINT ON EXTERIOR STEPS.
• GREY PAINT ON GATE DOOR IN ARMS ROOM OF BUILDING 1612.

MOLD:

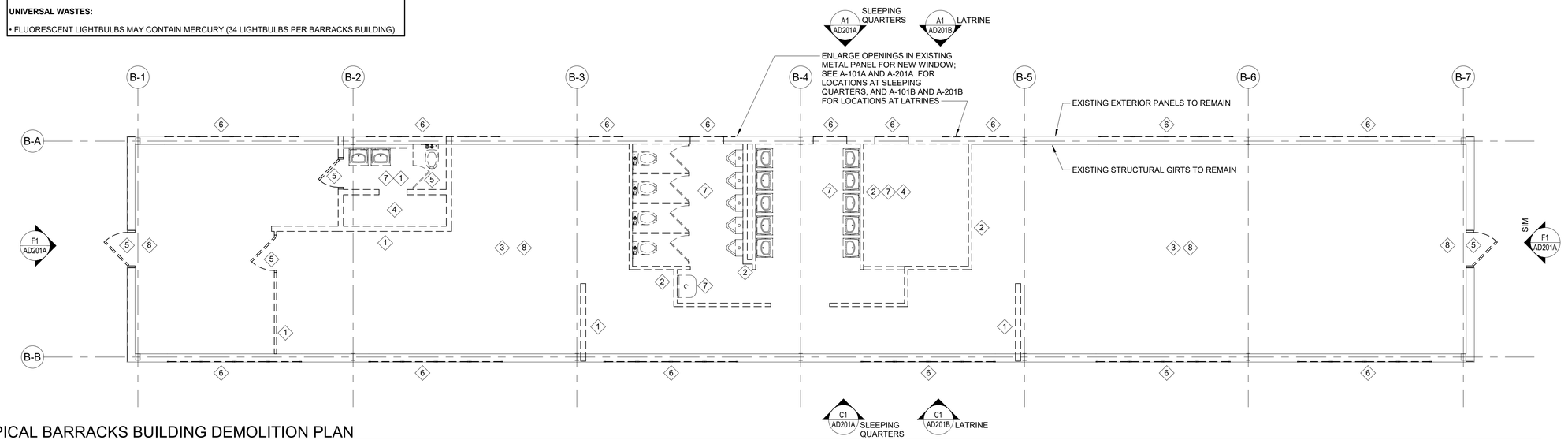
• APPARANT MICROBIAL GROWTH WAS IDENTIFIED

POLYCHLORINATED BIPHENYLS (PCBs):

• THERE IS AN ELEVATED POTENTIAL FOR THE PRESENCE OF PCB-CONTAINING LIGHT BALLASTS BASED ON THE AGE AND TYPE OF THE CEILING LIGHT FIXTURES (17 FIXTURES PER BARRACKS BUILDING).

UNIVERSAL WASTES:

• FLUORESCENT LIGHTBULBS MAY CONTAIN MERCURY (34 LIGHTBULBS PER BARRACKS BUILDING).



A1 TYPICAL BARRACKS BUILDING DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

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

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: SK
SIZE: ANSI D

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

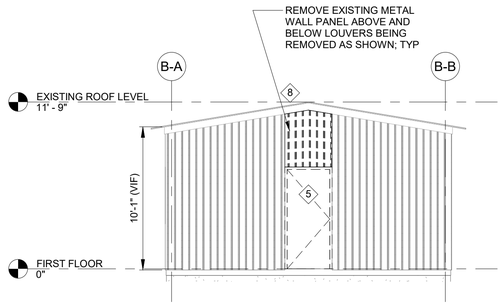
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL EXISTING BARRACK DEMOLITION PLAN

SHEET ID

AD101

RTA SUBMISSION



F1 / AD201A

TYPICAL EXISTING EXTERIOR ELEVATION - EAST/WEST

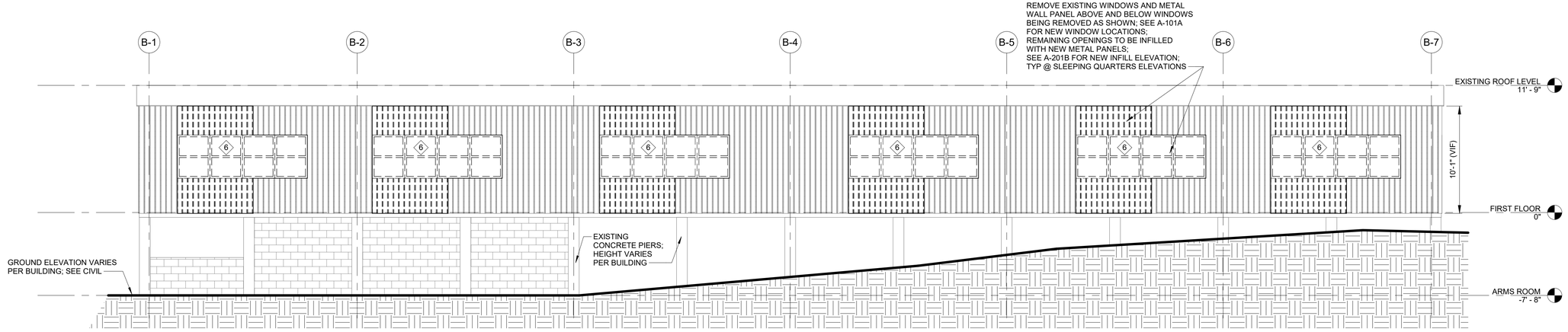
SCALE: 3/16" = 1'-0"
REF SHEET: AD101

DEMOLITION NOTES

1. CONTRACTOR SHALL NOT CONSIDER DEMOLITION AND ALTERATION NOTES TO BE ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA AND TO FULFILL THE INTENT OF THE WORK INDICATED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS WITHIN THE CONTRACT LIMITS. DEVIATIONS FROM THE CONTRACT DOCUMENTS NECESSITATED BY FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO PROCEEDING WITH THE WORK.
2. CONTRACTOR SHALL CONSULT WITH THE OWNER IN ADVANCE OF DOING WORK TO DETERMINE DISPOSITION OF ALL FIXTURES, CABINETS, SERVICES, EQUIPMENT AND ITEMS REMOVED DURING THE DEMOLITION. REMOVE AND DISCARD ALL EXISTING FURNITURE & EQUIPMENT, LOOSE ITEMS & DEBRIS ETC. LEFT BEHIND BY OWNER. A TYPICAL BARRACK HAS 20 BUNKS AND 42 WALL LOCKERS FOR A TOTAL OF 240 BUNKS AND 504 WALL LOCKERS TO BE REMOVED BY CONTRACTOR.
3. IT IS THE INTENT OF THE DEMOLITION TO REMOVE EXISTING CONSTRUCTION WHICH CONFLICTS WITH THE INTENT OF NEW CONSTRUCTION. EVERY DEMOLITION CONDITION MAY NOT BE COVERED IN THESE DOCUMENTS. CONTRACTOR SHALL DEMOLISH AND REMOVE EXISTING CONSTRUCTION FOR THE INSTALLATION OF NEW WORK. THE DESIGN INTENT IS FOR THE FOLLOWING ITEMS TO BE REMOVED FROM THE BUILDING UNLESS SPECIFICALLY NOTED OTHERWISE: WINDOWS, PLASTER AND GYPSUM BOARD WALLS AND RELATED STUDS, MASONRY AND FURRING, PLUMBING FIXTURES, LIGHTING FIXTURES, LOUVERS, AND FIRE EXTINGUISHERS.
4. SEE DEMOLITION SPECIFICATION 02 41 00.
5. SEE HAZARDOUS MATERIALS REPORT IN SPECIFICATION APPENDIX
6. IF HAZARDOUS MATERIALS I.E. LEAD AND ASBESTOS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR IS TO STOP WORK IN THE AREA IMMEDIATELY AND INFORM THE CONTRACTING OFFICER FOR FUTURE DIRECTION.
7. UNLESS NOTED OTHERWISE, REMOVE EXISTING PROJECTIONS, HANGERS, BOLTS, NAILS, BRACKETS, CURTAIN RODS, VALANCES, ETC. FROM EXISTING WALLS AND COLUMNS. PATCH ALL HOLES TO MATCH ADJACENT SURFACES FOR THE INSTALLATION OF NEW FINISHES.
8. ALL MECHANICAL AND ELECTRICAL WORK NOTED ON THE DEMOLITION DRAWINGS SHALL BE REMOVED BY THE APPROPRIATE DIVISION 21, 22, 23, 25, 26, 27 AND 28 SUBCONTRACTORS.
9. DAMAGED METAL PANELS: CONTRACTOR TO SUBMIT A FULL ASSESMENT OF THE EXISTING METAL WALL AND ROOF PANELS FOR ALL BARRACKS BUILDINGS, DOCUMENTING EXISTING HOLES (LARGER THAN 1/4" IN DIAMETER) AND DAMAGED PANELS (INCLUDING MAJOR RUSTING, DENTS, AND TEARS) TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL FOR REPAIR/REPLACEMENT. ASSESMENT TO INCLUDE KEYED PHOTOS IDENTIFYING LOCATIONS OF ALL COMPROMISED LOCATIONS, PROPOSED REPAIR METHOD, AND A TABULATED QUANTITY OF REPAIRS.
10. HOLES IN EXISTING FLOORS AND WALLS RESULTING FROM DEMOLITION OR REMOVALS SHALL BE REPAIRED IN A MANNER CONSISTENT WITH THE ADJACENT UL RATED CONSTRUCTION AND BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
11. REFERENCE APPROPRIATE DESIGN DISCIPLINES FOR RELATED DEMOLITION PLANS.
12. PERFORM DEMOLITION WORK TO PROVIDE SQUARE, LEVEL, AND SMOOTH JUNCTURES AND INTERSECTIONS BETWEEN EXISTING AND NEW CONSTRUCTION.
13. DEMOLITION WORK IS TO BE DONE IN COMPLIANCE WITH APPLICABLE CODES, LAWS AND REGULATIONS.

KEYED DEMOLITION NOTES

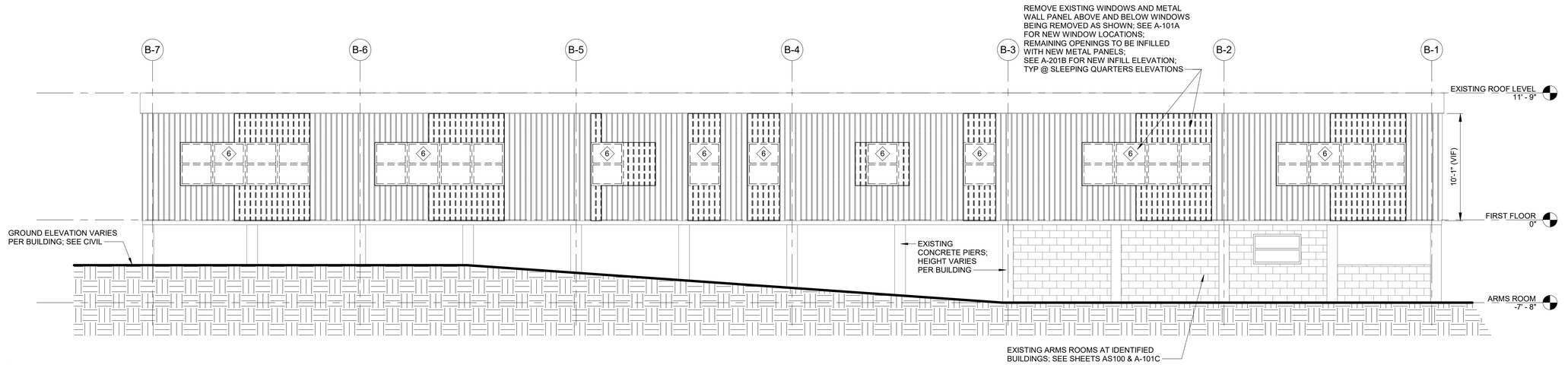
5. **DOOR/FRAME/HARDWARE:** REMOVE EXISTING DOOR, FRAME AND HARDWARE.
6. **ALUMINUM WINDOWS:** REMOVE EXISTING WINDOW IN ITS ENTIRETY.
8. **EXHAUST FANS:** REMOVE EXISTING CEILING EXHAUST FANS, LOUVERS, AND ASSOCIATED WIRING AND SWITCHES.



C1 / AD201A

PROPOSED SLEEPING QUARTERS - EXISTING SOUTH EXTERIOR DEMOLITION ELEVATION

SCALE: 3/16" = 1'-0"
REF SHEET: AD101



A1 / AD201A

PROPOSED SLEEPING QUARTERS - EXISTING NORTH EXTERIOR DEMOLITION ELEVATION

SCALE: 3/16" = 1'-0"
REF SHEET: AD101

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: SY
SIZE: ANSI D

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL EXISTING BARRACK DEMOLITION ELEVATIONS

SHEET ID

AD201A

RTA SUBMISSION

DEMOLITION NOTES

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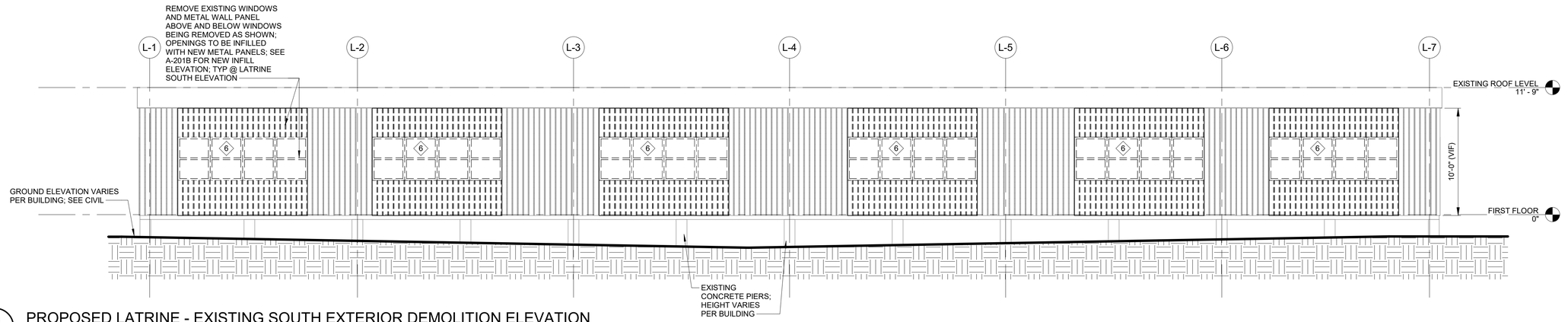
KEYED DEMOLITION NOTES

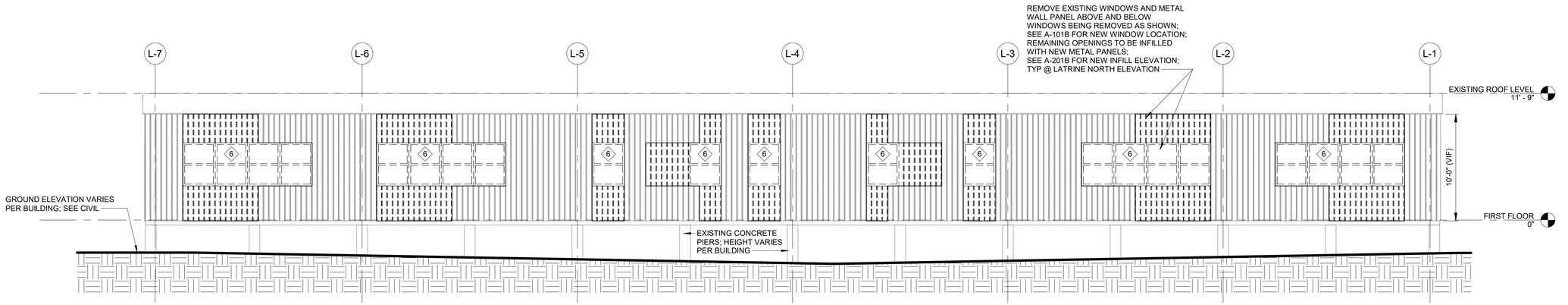
6. **ALUMINUM WINDOWS:** REMOVE EXISTING WINDOW IN ITS ENTIRETY.



C1 / AD201B

PROPOSED LATRINE - EXISTING SOUTH EXTERIOR DEMOLITION ELEVATION

SCALE: 3/16" = 1'-0"
REF SHEET: AD101



A1 / AD201B

PROPOSED LATRINE - EXISTING NORTH EXTERIOR DEMOLITION ELEVATION

SCALE: 3/16" = 1'-0"
REF SHEET: AD101

8 6 4 2 0 8

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

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: SK
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-19-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

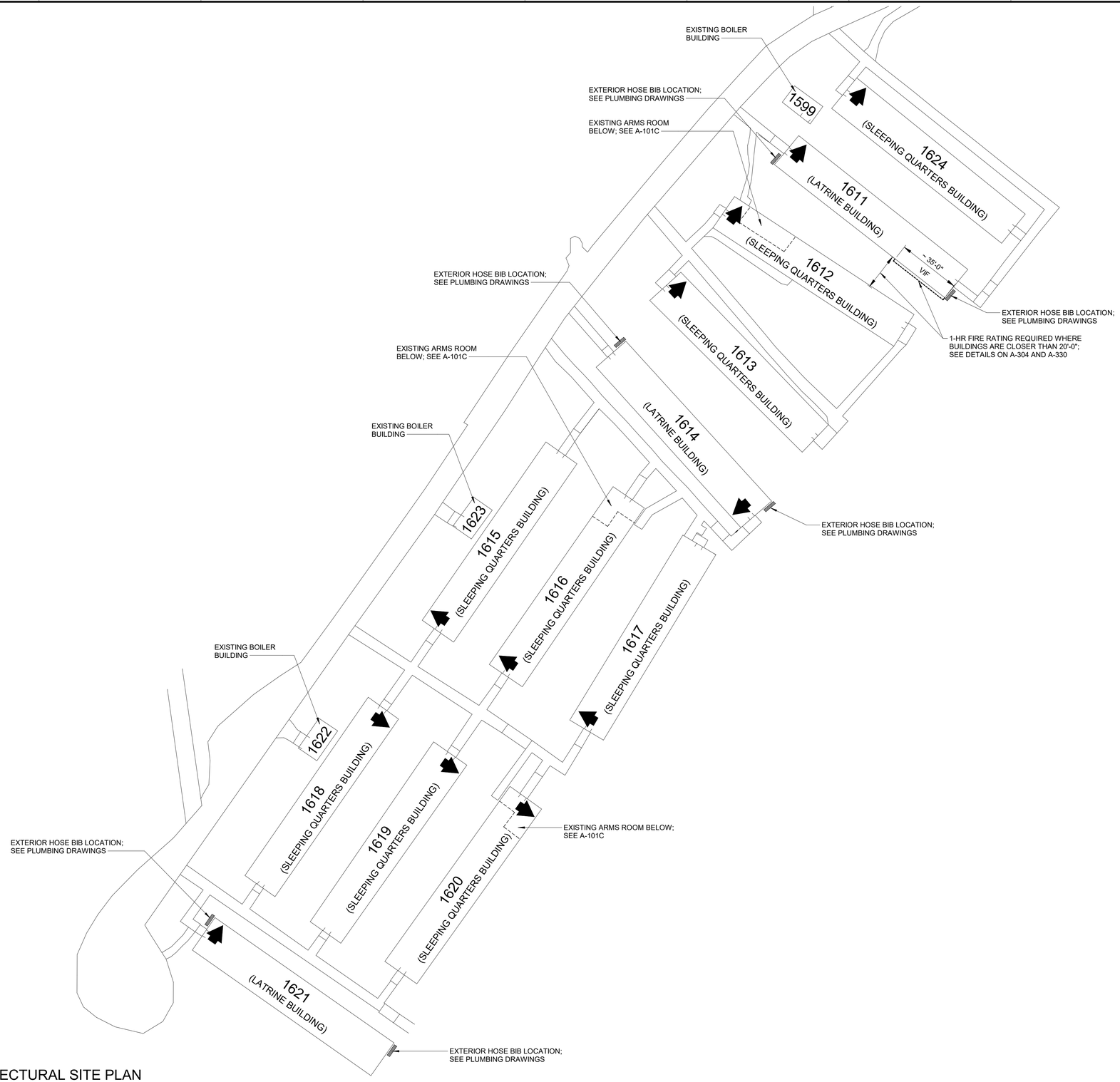
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL EXISTING BARRACK DEMOLITION ELEVATIONS

SHEET ID

AD201B

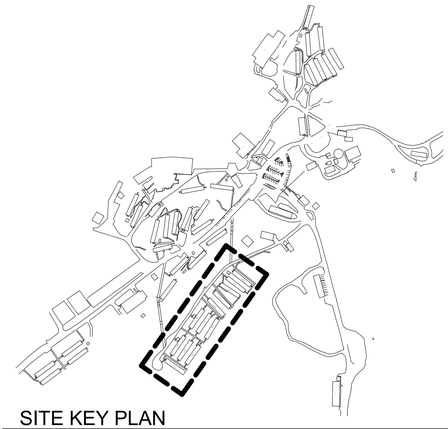
RTA SUBMISSION



A1 ARCHITECTURAL SITE PLAN
SCALE: 1" = 30'-0"

SITE KEY

- MAIN ENTRANCE; ARROW POINTS TOWARDS BUILDING PLAN NORTH
- EXTENT OF 1-HOUR RATED EXTERIOR WALL CONSTRUCTION
- OUTLINE OF EXISTING ARMS ROOMS LOCATED BELOW BARRACK SLABS; BUILDINGS 1612, 1616, 1620
- EXTERIOR HOSE BIB LOCATIONS; SEE PLUMBING DRAWINGS



SITE KEY PLAN
SCALE: 1" = 400'-0"

30 15 0 15 60
SCALE: 1" = 30'-0"

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: SM
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

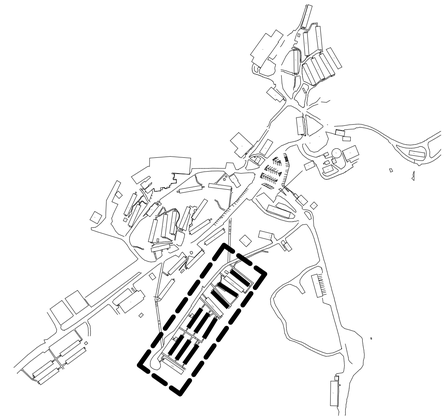
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

ARCHITECTURAL SITE PLAN AND DETAILS

SHEET ID
AS100

RTA SUBMISSION

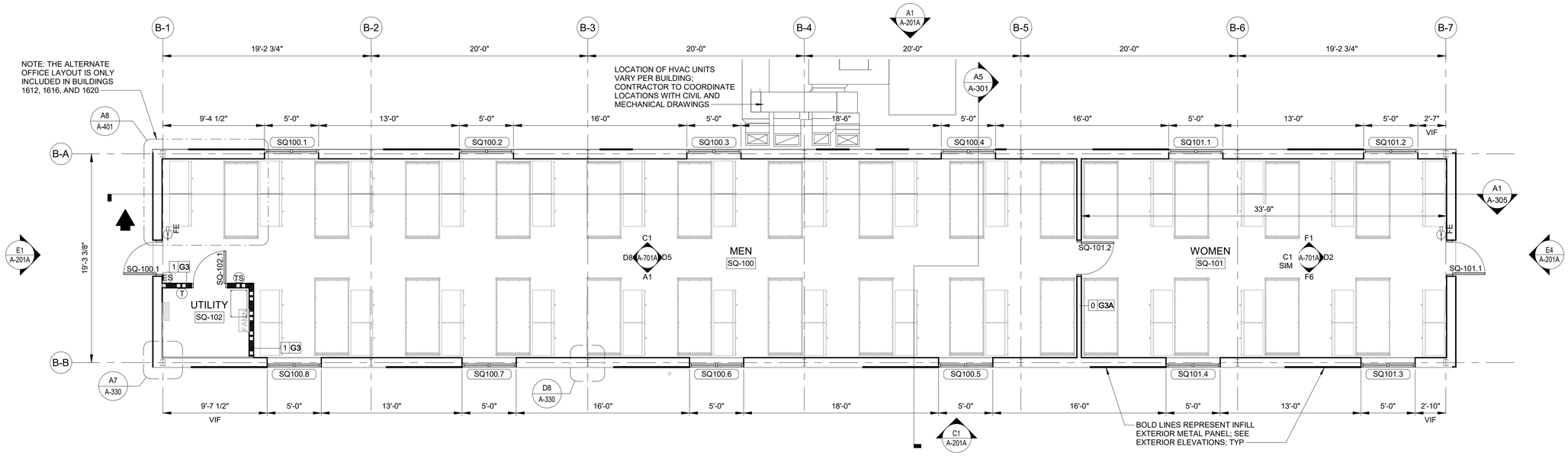


SITE KEY PLAN

SCALE: 1" = 400'-0"

GENERAL NOTES:

1. THE DRAWINGS INDICATE ONE TYPICAL PLAN FOR A SLEEPING QUARTERS BUILDING AND ONE TYPICAL PLAN FOR A LATRINE BUILDING. THE CONTRACTOR IS REQUIRED TO EVALUATE ALL EXISTING BUILDINGS AND ADAPT THE TYPICAL DESIGNS TO THE PARTICULAR SITE AND BUILDING CONDITIONS AT EACH STRUCTURE.
2. REF A-601 FOR PARTITION TYPES.
3. VERIFY ALL DIMENSIONS IN THE FIELD.



A1 TYPICAL SLEEPING QUARTERS FLOOR PLAN

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

MAIN ENTRANCE; SEE CORRESPONDING ARROWS ON AS100 FOR BARRACK BUILDING ORIENTATION ON SITE

8 6 4 2 0 8

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

PLAN NORTH

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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DESIGNED BY: ECC
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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

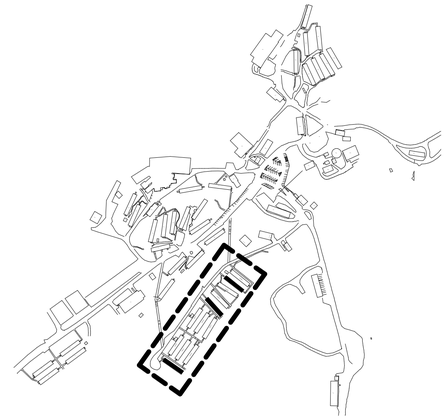
FIRST FLOOR PLAN - TYPICAL SLEEPING QUARTERS

SHEET ID

A-101A

RTA SUBMISSION

TOILET ACCESSORIES			
Type Mark	Description	Manufacturer	Model
TA-01	Jumbo Dual Roll Toilet Paper Dispenser	Bradley Corporation	5425
TA-06	Paper Towel Dispenser - Centerpull	Pro-Link, Aspire	DCP100
TA-10	Sanitary Product Disposal Unit - Surface Mounted	Bradley Corporation	4A10
TA-13	Surface Mounted Soap Dispenser	Pro-Link	
TA-18	Robe Hook - Double | Projects 2 1/4"	Bradley Corporation	9124 BradEX
TA-19	Mop-Broom Holder w/4 Holders 36" W	Bradley Corporation	9954 BradEX
TA-20	Framed Mirror (18" x 36") with SST Shelf	Bradley Corporation	7805-1836
TA-27	Exposed Mtd. SST Shower Curtain Rod (48" W) w/ Anti-Microbrial Vinyl Shower Curtain & Hooks	Bradley Corporation	9531, 9533, 9540
TA-32A	Lenox Pedestal Bench (12" x 48")	Bradley Corporation	LENOXPEDESTAL
TA-34	Four-Tier Solid Plastic Cubby Locker (72" x 15")	Bradley Corporation	LENOXCUBBY
TA-35	Brute Rubber Trash Can (20 Gal)	RubberMaid Commercial	1779734

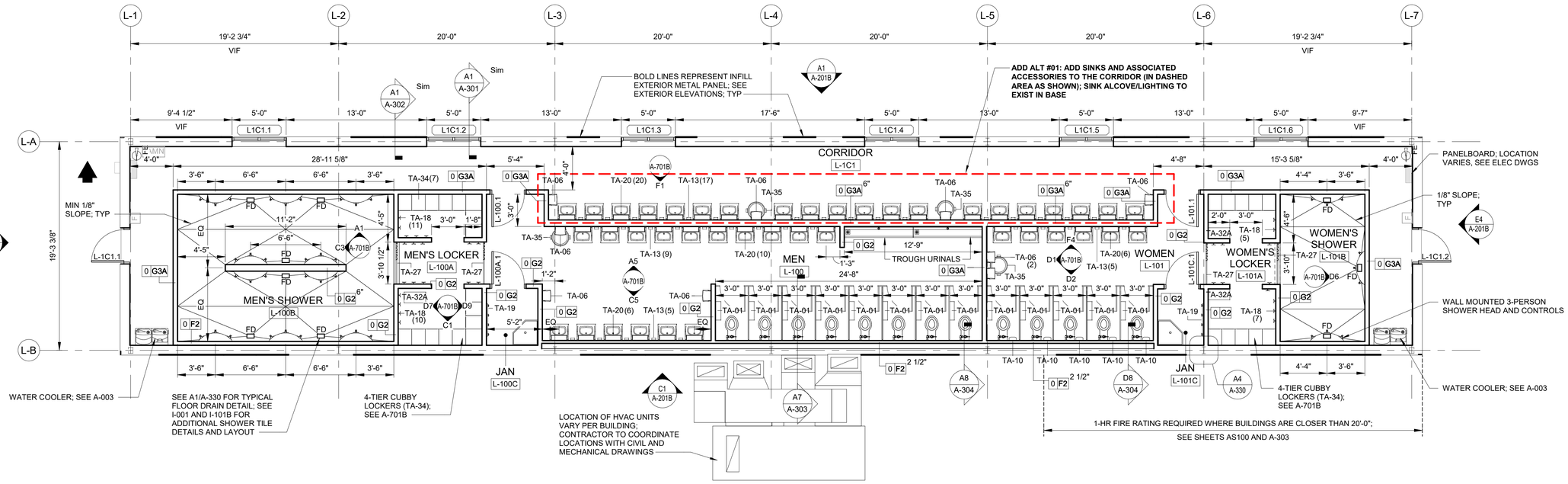


SITE KEY PLAN

SCALE: 1" = 400'-0"

GENERAL NOTES:

1. THE DRAWINGS INDICATE ONE TYPICAL PLAN FOR A SLEEPING QUARTERS BUILDING AND ONE TYPICAL PLAN FOR A LATRINE BUILDING. THE CONTRACTOR IS REQUIRED TO EVALUATE ALL EXISTING BUILDINGS AND ADAPT THE TYPICAL DESIGNS TO THE PARTICULAR SITE AND BUILDING CONDITIONS AT EACH STRUCTURE.
2. REF A-601 FOR PARTITION TYPES.
3. VERIFY ALL DIMENSIONS IN THE FIELD.



A1 TYPICAL LATRINE FLOOR PLAN

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

MAIN ENTRANCE; SEE CORRESPONDING ARROWS ON AS100 FOR BARRACK BUILDING ORIENTATION ON SITE

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

PLAN NORTH

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRST FLOOR PLAN - TYPICAL LATRINE

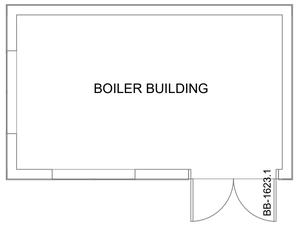
SHEET ID

A-101B

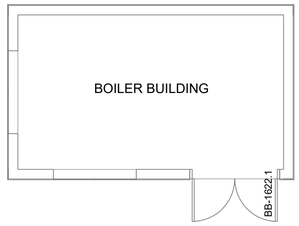
RTA SUBMISSION

BOILER BUILDING GENERAL NOTES

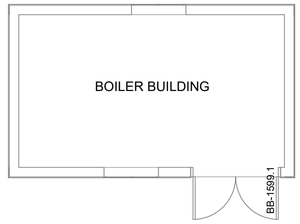
1. BOILER BUILDINGS ARE SHOWN FOR INFORMATION ONLY - NO NEW ARCHITECTURAL WORK IS SCHEDULED FOR THESE SPACES. ALL EXISTING WALLS, DOORS, AND CEILINGS TO REMAIN AS IS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXTENT OF NEW WORK IN THE BOILER BUILDINGS.
2. PATCH AND REPAIR PANEL PENETRATIONS DUE TO REMOVAL OF EXISTING PIPING AS NECESSARY.



E1 BUILDING 1623 - EXISTING BOILER BUILDING
SCALE: 3/16" = 1'-0"



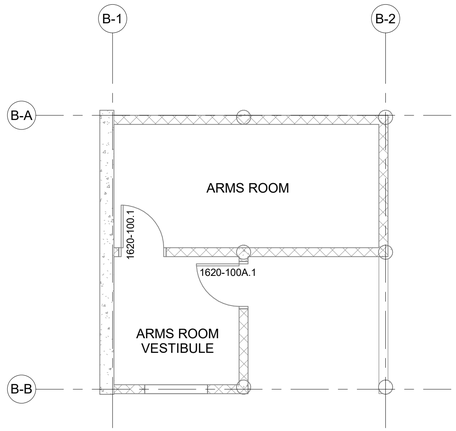
E4 BUILDING 1622 - EXISTING BOILER BUILDING
SCALE: 3/16" = 1'-0"



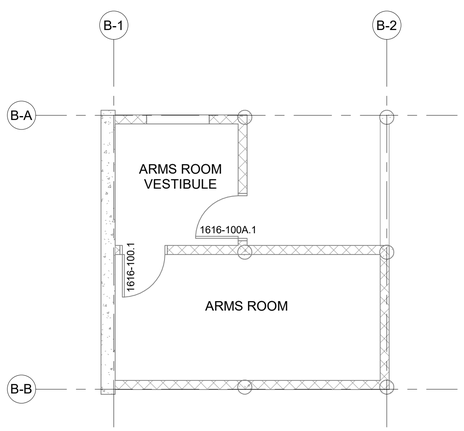
E8 BUILDING 1599 - EXISTING BOILER BUILDING
SCALE: 3/16" = 1'-0"

ARMS ROOMS GENERAL NOTES

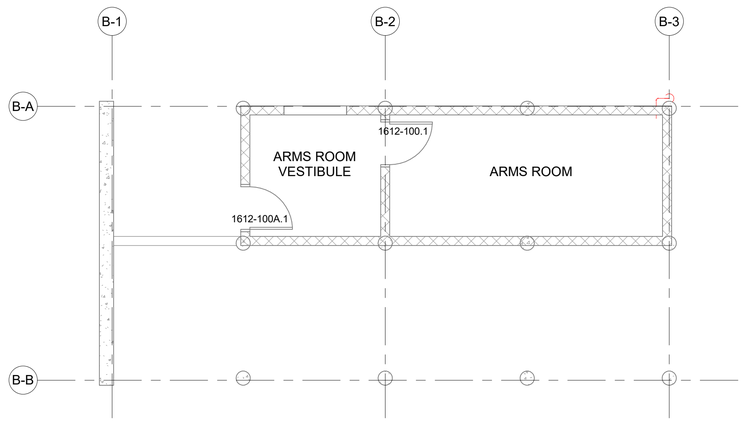
1. ARMS ROOMS ARE SHOWN FOR INFORMATION ONLY - NO NEW WORK IS SCHEDULED FOR THESE SPACES.
2. COORDINATE DEMOLITION OF EXISTING PIPING WITH EXISTING ARMS ROOMS. PATCH AND REPAIR PENETRATIONS DUE TO REMOVAL OF EXISTING PIPING AS NECESSARY.



A1 BUILDING 1620 - EXISTING ARMS ROOM
SCALE: 3/16" = 1'-0"



A4 BUILDING 1616 - EXISTING ARMS ROOM
SCALE: 3/16" = 1'-0"



A7 BUILDING 1612 - EXISTING ARMS ROOM
SCALE: 3/16" = 1'-0"

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: SK
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-19-D-0010

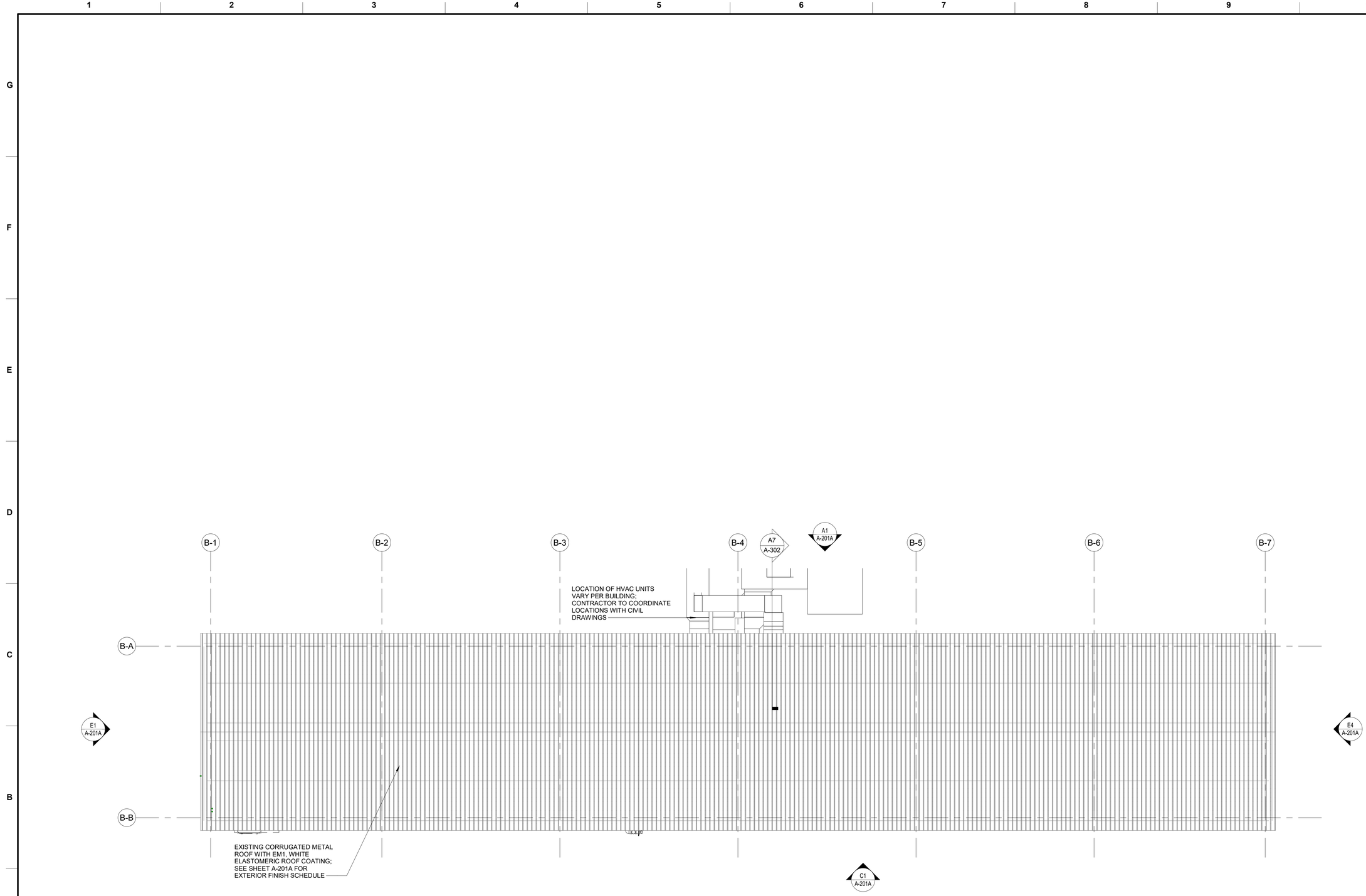
US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

EXISTING BARRACK ARMS ROOMS AND BOILER BUILDINGS

SHEET ID
A-101C

RTA SUBMISSION



A1 TYPICAL SLEEPING QUARTERS ROOF PLAN

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

PLAN NORTH

*TRUE NORTH VARIES

8 6 4 2 0 8

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

US Army Corps of Engineers ®

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DRAWN BY:
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CHECKED BY:
TK
SUBMITTED BY:
SIZE:
ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

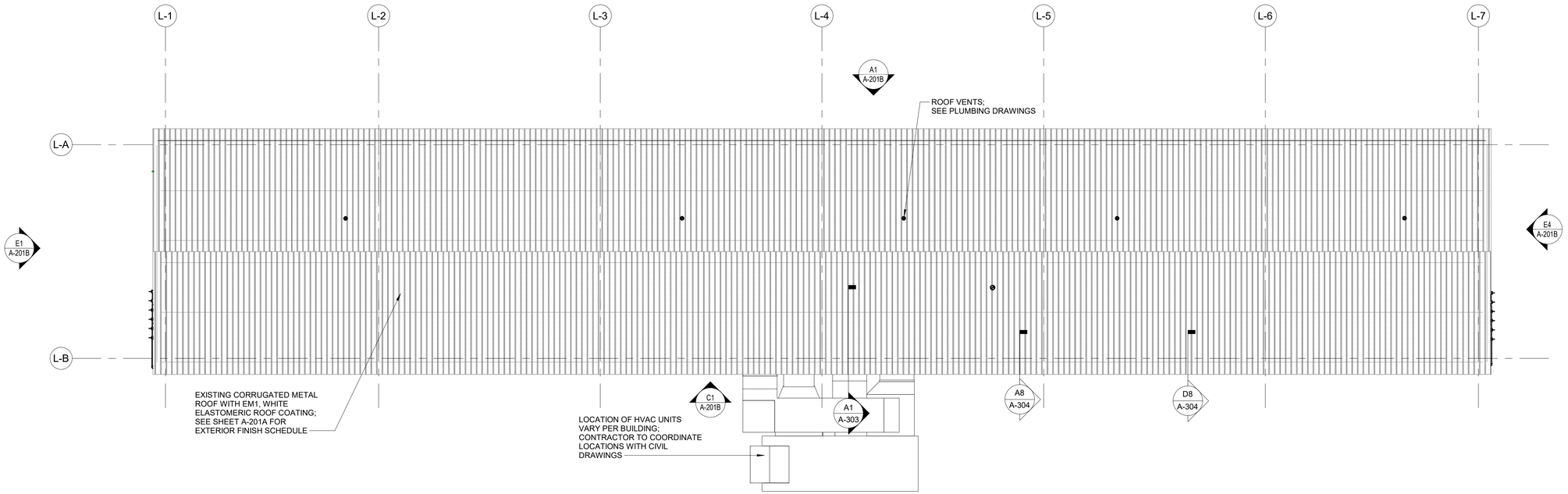
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

ROOF PLAN - TYPICAL SLEEPING QUARTERS

SHEET ID

A-102

RTA SUBMISSION



A1 TYPICAL LATRINE BUILDING ROOF PLAN

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

PLAN NORTH

8 6 4 2 0 8

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

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: Designer
DRAWN BY: Author
CHECKED BY: Checker
SUBMITTED BY: SWK
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SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

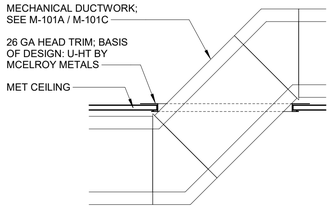
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

ROOF PLAN - TYPICAL LATRINE

SHEET ID

A-103

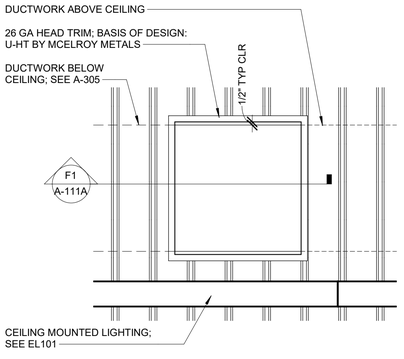
RTA SUBMISSION



F1 / A-111A

TYPICAL DUCT OPENING IN CORRUGATED METAL CEILING - SECTION

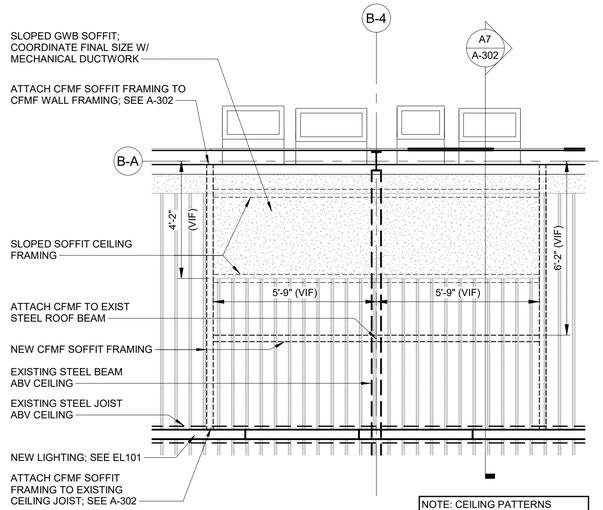
SCALE: 1" = 1'-0"
REF SHEET: A-111A



D1 / A-111A

TYPICAL DUCT OPENING IN CORRUGATED METAL CEILING - PLAN

SCALE: 1" = 1'-0"
REF SHEET: A-111A



E3 / A-111A

ENLARGED SOFFIT FRAMING

SCALE: 3/8" = 1'-0"
REF SHEET: A-111A

CEILING TYPE LEGEND

1. ALL CEILINGS LABELED AS FOLLOWS:

A | 8'-5"
CEILING TYPE — CEILING HEIGHT

A	ACOUSTICAL CEILING TILE
G	GWB, PAINTED
NC	NO CEILING
XC	CORRUGATED METAL CEILING

2. ALL CEILING GRIDS SHALL BE CENTERED ON ROOM/SPACE UNO.

3. ALL FIXTR'S, DIFFUSERS, GRILLS, SPRINKLER HEADS, SPEAKERS OR OTHER DEVICES SHALL BE LOCATED IN THE CENTER OF A CEILING TILE OR THE CENTER OF A PANEL INSCRIBED ON A TILE, UNO.

5. ALL SPRINKLERS, SPEAKERS, AND STROBES ARE WALL MOUNTED. SEE FIRE PROTECTION DRAWINGS.

GWB CEILING or SOFFIT

2'-0" x 2'-0" ACT CLG, TYPE A (LATRINE BUILDINGS ONLY)

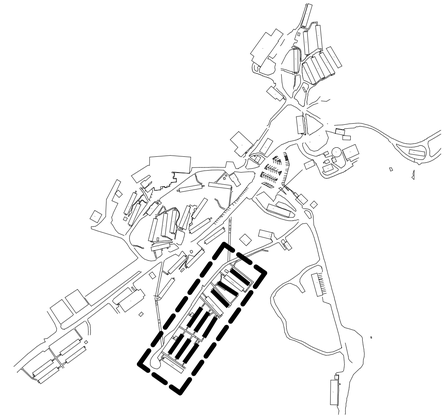
CORRUGATED METAL CEILING (SLEEPING QUARTERS ONLY)

SEE ELEC DWGS FOR FIXTURE SPECIFICS

- EM — EMERGENCY LIGHTING
- 4'-0" x 4" SURFACE MTD CEILING LIGHT
- 4'-0" x 4" RECESSED MTD CEILING LIGHT
- 4'-0" x 4" PENDANT CEILING LIGHT
- 2'-0" x 2'-0" RECESSED ACT CEILING LIGHT
- SMOKE DETECTOR
- WALL MTD SPEAKER / STROBE
- WALL MTD SPEAKER
- OS — OCCUPANCY SENSOR
- CEILING ACCESS PANEL

SEE HVAC DWGS FOR EQUIPMENT SPECIFICS

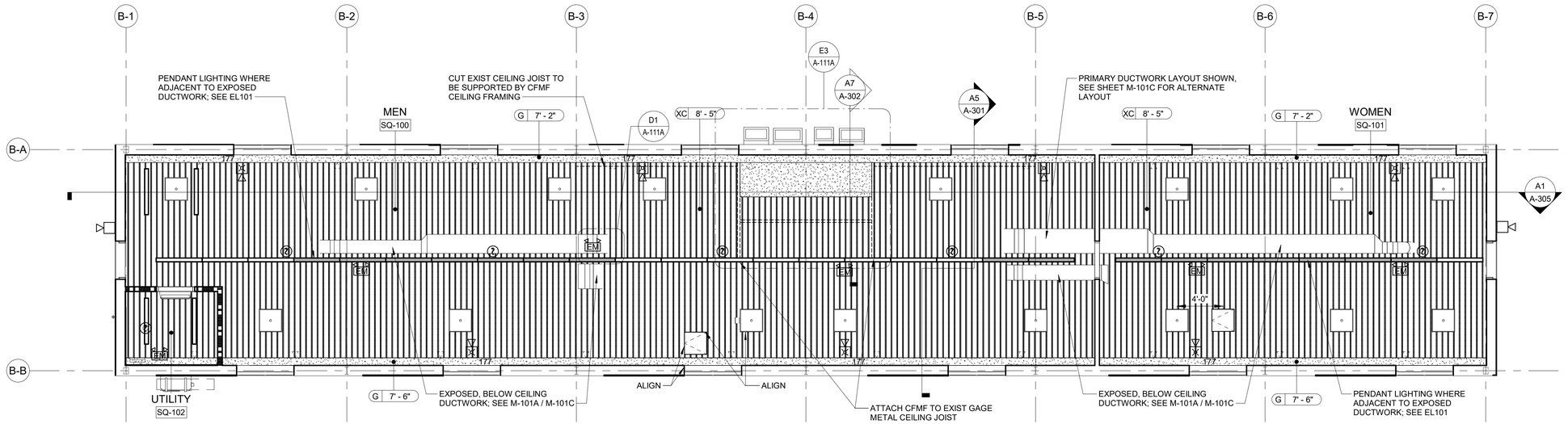
- METAL CEILING DIFFUSER
- ACT SUPPLY DIFFUSER
- RETURN/EXHAUST GRILLE
- LINEAR SLOT DIFFUSER



SITE KEY PLAN

SCALE: 1" = 400'-0"

NOTE:
CEILING AND SUPPLEMENTAL CEILING SUPPORT FRAMING TO BE HUNG FROM EXISTING CEILING JOISTS. DO NOT HANG CEILING OR SUPPLEMENTAL CEILING SUPPORT FRAMING FROM ROOF PURLINS OR ROOF DECK.



A1 / A-111A

FIRST FLOOR REFLECTED CEILING PLAN - SLEEPING QUARTERS

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

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

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

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL SLEEPING QUARTERS REFLECTED CEILING PLAN

SHEET ID

A-111A

RTA SUBMISSION

CEILING TYPE LEGEND

1. ALL CEILINGS LABELED AS FOLLOWS:

A	ACOUSTICAL CEILING TILE
G	GWB, PAINTED
NC	NO CEILING
XC	CORRUGATED METAL CEILING

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3. ALL FIXTR'S, DIFFUSERS, GRILLS, SPRINKLER HEADS, SPEAKERS OR OTHER DEVICES SHALL BE LOCATED IN THE CENTER OF A CEILING TILE OR THE CENTER OF A PANEL INSCRIBED ON A TILE, UNO.

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GWB CEILING or SOFFIT

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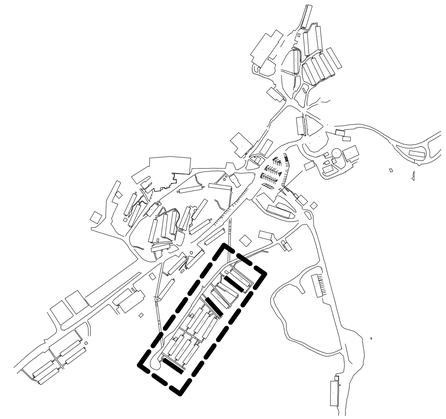
- 4'-0" x 4" PENDANT CEILING LIGHT
- 2'-0" x 2'-0" RECESSED ACT CEILING LIGHT
- SMOKE DETECTOR
- WALL MTD SPEAKER / STROBE
- WALL MTD SPEAKER
- OS — OCCUPANCY SENSOR
- CEILING ACCESS PANEL

SEE HVAC DWGS FOR EQUIPMENT SPECIFICS

- METAL CEILING DIFFUSER
- ACT SUPPLY DIFFUSER
- RETURN/EXHAUST GRILLE
- LINEAR SLOT DIFFUSER



SITE KEY PLAN

SCALE: 1" = 400'-0"

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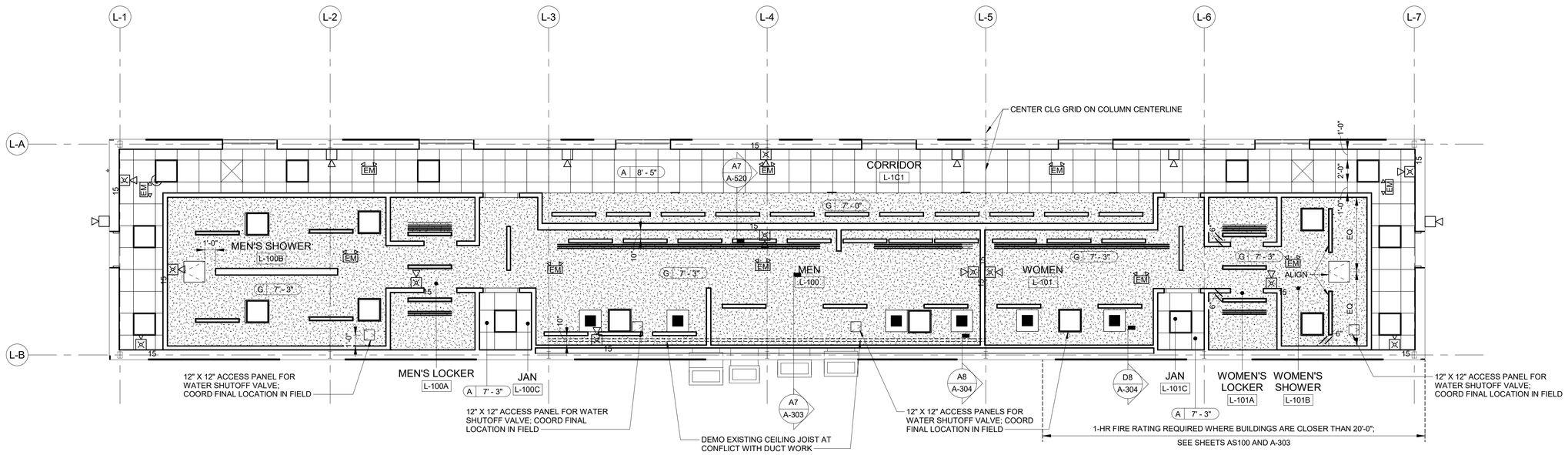

A1 FIRST FLOOR REFLECTED CEILING PLAN - LATRINE

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

PLAN NORTH

8 6 4 2 0 8

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

*TRUE NORTH VARIES

RTA SUBMISSION

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

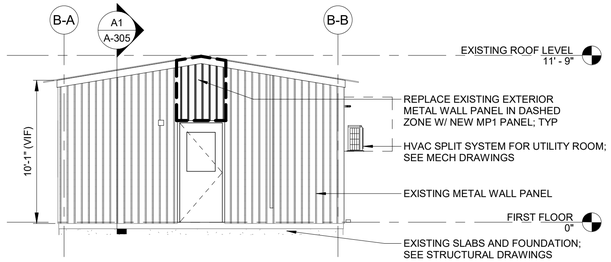
TYPICAL LATRINE REFLECTED CEILING PLAN

SHEET ID

A-111B

EXTERIOR FINISH SCHEDULE

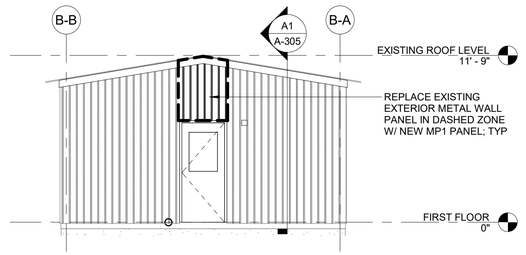
	CODE	LOCATION	TYPE	MANUFACTURER	STYLE/COLOR	FINISH	NOTES	SPEC SECTION
METAL PANELS	MP1	NEW EXTERIOR WALL INFILL PANELS	CORRUGATED METAL WALL PANELS	MCELROY	STYLE: METAL U-PANEL; COLOR: TO MATCH EXISTING EXTERIOR PANELS AS CLOSE AS POSSIBLE. COLOR TO BE SELECTED BY CONTRACTING OFFICER FROM MANUFACTURERS STANDARD COLOR CHOICES; THICKNESS: 3/4"; GAUGE: 24	KYNAR 500	FULL HEIGHT | PANEL TO BE FASTENED DIRECTLY TO EXISTING GIRT STRUCTURE.	07 42 13
	MP2	NEW EXTERIOR ROOF REPLACEMENT PANELS	CORRUGATED METAL ROOF PANELS	MCELROY	STYLE: METAL R-PANEL; COLOR: TO BE SELECTED BY CONTRACTING OFFICER FROM MANUFACTURERS STANDARD COLOR CHOICES; THICKNESS: 3/4"; GAUGE: 24	KYNAR 500	FULL HEIGHT | PANEL TO BE FASTENED DIRECTLY TO EXISTING PURLIN STRUCTURE. ONLY IF ROOF REQUIRES REPAIRS	07 41 13
ROOF	EM1	EXISTING EXTERIOR ROOF	ELASTOMERIC ROOF COATING	SHERWIN-WILLIAMS	STYLE: KOOL SEAL PREMIUM 10 YEAR ELASTOMERIC ROOF COATING; COLOR: WHITE	--	PROVIDE KOOL SEAL ELASTOMERIC BASE COAT FOLLOWED BY TWO COATS OF KOOL SEAL ELASTOMERIC FINISH COAT.	09 90 00



E1 / A-201A

SLEEPING QUARTERS EXTERIOR ELEVATION - WEST

SCALE: 3/16" = 1'-0"
REF SHEET: A-101A

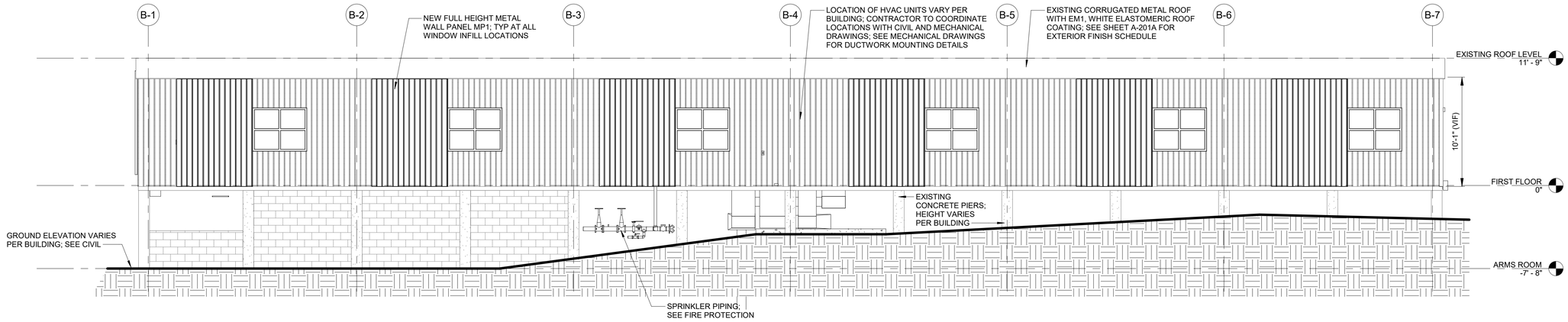


E4 / A-201A

SLEEPING QUARTERS EXTERIOR ELEVATION - EAST

SCALE: 3/16" = 1'-0"
REF SHEET: A-101A

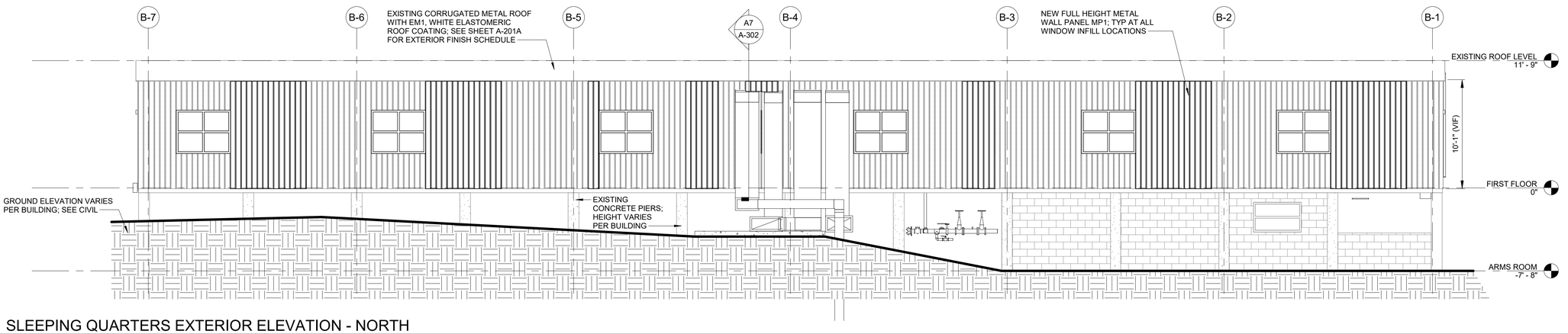
NOTE:
DAMAGED METAL PANELS: CONTRACTOR TO SUBMIT A FULL ASSESMENT OF THE EXISTING METAL WALL AND ROOF PANELS FOR ALL BARRACKS BUILDINGS, DOCUMENTING EXISTING HOLES (LARGER THAN 1/4" IN DIAMETER) AND DAMAGED PANELS (INCLUDING MAJOR RUSTING, DENTS, AND TEARS) TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL FOR REPAIR/REPLACEMENT. ASSESMENT TO INCLUDE KEYED PHOTOS IDENTIFYING LOCATIONS OF ALL COMPROMISED LOCATIONS, PROPOSED REPAIR METHOD, AND A TABULATED QUANTITY OF REPAIRS.



C1 / A-201A

SLEEPING QUARTERS EXTERIOR ELEVATION - SOUTH

SCALE: 3/16" = 1'-0"
REF SHEET: A-101A



A1 / A-201A

SLEEPING QUARTERS EXTERIOR ELEVATION - NORTH

SCALE: 3/16" = 1'-0"
REF SHEET: A-101A

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
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SUBMITTED BY: SK
DATE: 27-DEC-2020
ANSI D

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL SLEEPING QUARTERS EXTERIOR ELEVATIONS

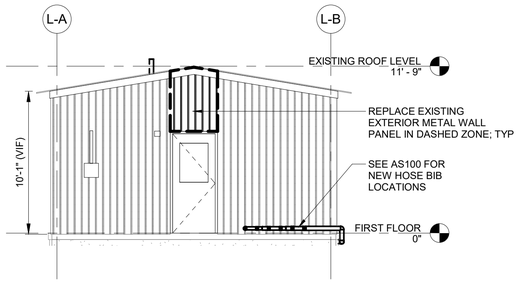
SHEET ID

A-201A

RTA SUBMISSION

EXTERIOR FINISH SCHEDULE

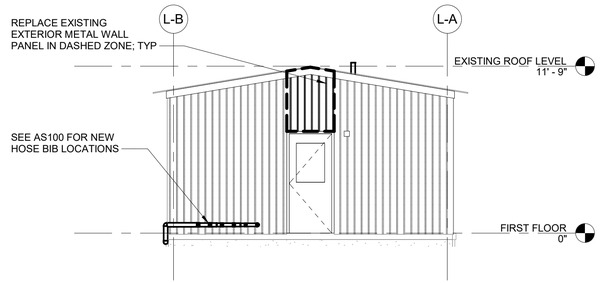
	CODE	LOCATION	TYPE	MANUFACTURER	STYLE/COLOR	FINISH	NOTES	SPEC SECTION
METAL PANELS	MP1	NEW EXTERIOR WALL INFILL PANELS	CORRUGATED METAL WALL PANELS	MCELROY	STYLE: METAL U-PANEL; COLOR: TO MATCH EXISTING EXTERIOR PANELS AS CLOSE AS POSSIBLE. COLOR TO BE SELECTED BY CONTRACTING OFFICER FROM MANUFACTURERS STANDARD COLOR CHOICES; THICKNESS: 3/4"; GAUGE: 24	KYNAR 500	FULL HEIGHT | PANEL TO BE FASTENED DIRECTLY TO EXISTING GIRT STRUCTURE.	07 42 13
	MP2	NEW EXTERIOR ROOF REPLACEMENT PANELS	CORRUGATED METAL ROOF PANELS	MCELROY	STYLE: METAL R-PANEL; COLOR: TO BE SELECTED BY CONTRACTING OFFICER FROM MANUFACTURERS STANDARD COLOR CHOICES; THICKNESS: 3/4"; GAUGE: 24	KYNAR 500	FULL HEIGHT | PANEL TO BE FASTENED DIRECTLY TO EXISTING PURLIN STRUCTURE. ONLY IF ROOF REQUIRES REPAIRS	07 41 13
ROOF	EM1	EXISTING EXTERIOR ROOF	ELASTOMERIC ROOF COATING	SHERWIN-WILLIAMS	STYLE: KOOL SEAL PREMIUM 10 YEAR ELASTOMERIC ROOF COATING; COLOR: WHITE	--	PROVIDE KOOL SEAL ELASTOMERIC BASE COAT FOLLOWED BY TWO COATS OF KOOL SEAL ELASTOMERIC FINISH COAT.	09 90 00



E1 / A-201B

LATRINE EXTERIOR ELEVATION - WEST

SCALE: 3/16" = 1'-0"
REF SHEET: A-101B

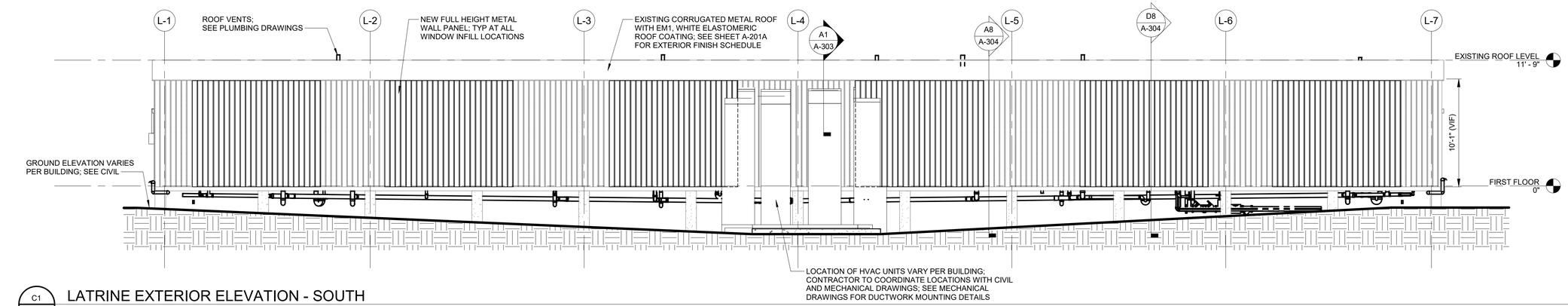


E4 / A-201B

LATRINE EXTERIOR ELEVATION - EAST

SCALE: 3/16" = 1'-0"
REF SHEET: A-101B

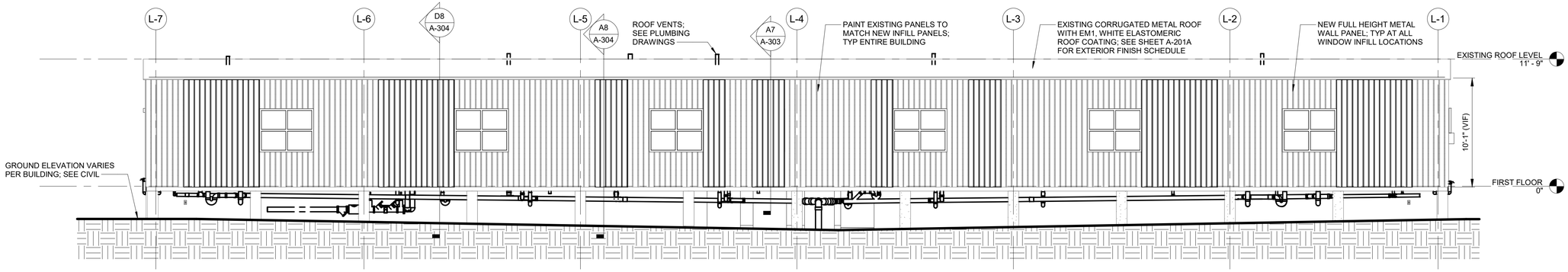
NOTE:
DAMAGED METAL PANELS: CONTRACTOR TO SUBMIT A FULL ASSESMENT OF THE EXISTING METAL WALL AND ROOF PANELS FOR ALL BARRACKS BUILDINGS, DOCUMENTING EXISTING HOLES (LARGER THAN 1/4" IN DIAMETER) AND DAMAGED PANELS (INCLUDING MAJOR RUSTING, DENTS, AND TEARS) TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL FOR REPAIR/REPLACEMENT. ASSESMENT TO INCLUDE KEYED PHOTOS IDENTIFYING LOCATIONS OF ALL COMPROMISED LOCATIONS, PROPOSED REPAIR METHOD, AND A TABULATED QUANTITY OF REPAIRS.



C1 / A-201B

LATRINE EXTERIOR ELEVATION - SOUTH

SCALE: 3/16" = 1'-0"
REF SHEET: A-101B



A1 / A-201B

LATRINE EXTERIOR ELEVATION - NORTH

SCALE: 3/16" = 1'-0"
REF SHEET: A-101B

8 6 4 2 0 8

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

US Army Corps of Engineers ®

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JACOBS / EWING COLE *A Joint Venture*

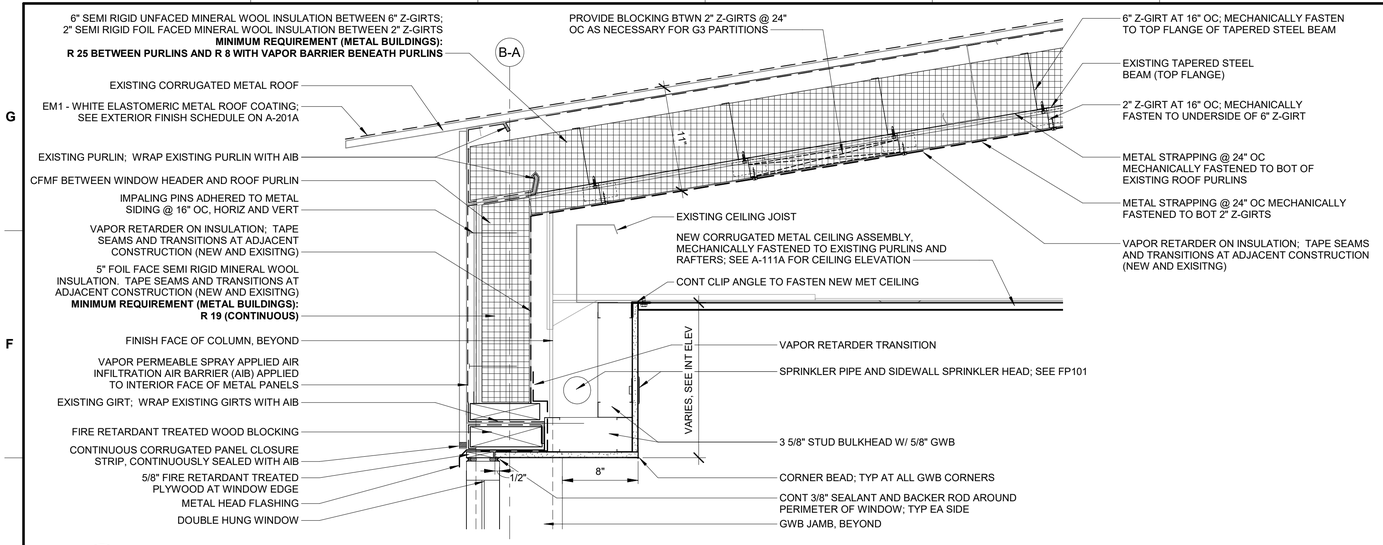
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE EXTERIOR ELEVATIONS

SHEET ID

A-201B

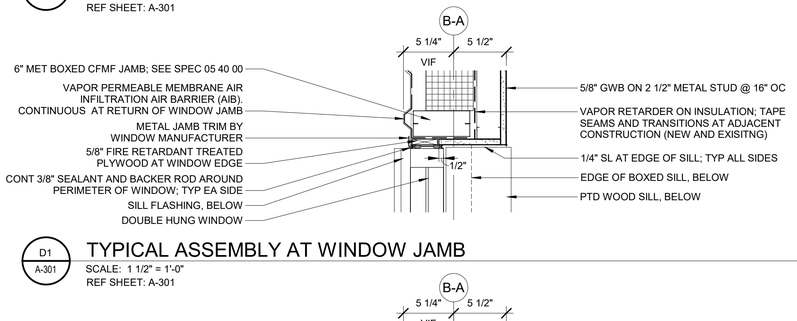
RTA SUBMISSION



E1 / A-301

TYPICAL ASSEMBLY AT SLEEPING QUARTERS EAVE

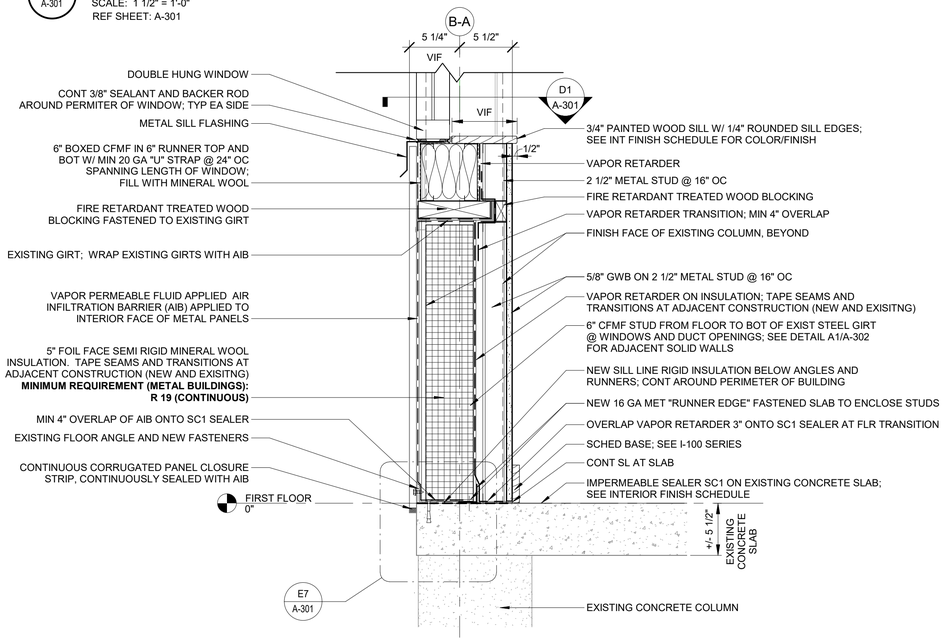
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-301



D1 / A-301

TYPICAL ASSEMBLY AT WINDOW JAMB

SCALE: 1 1/2" = 1'-0"
REF SHEET: A-301



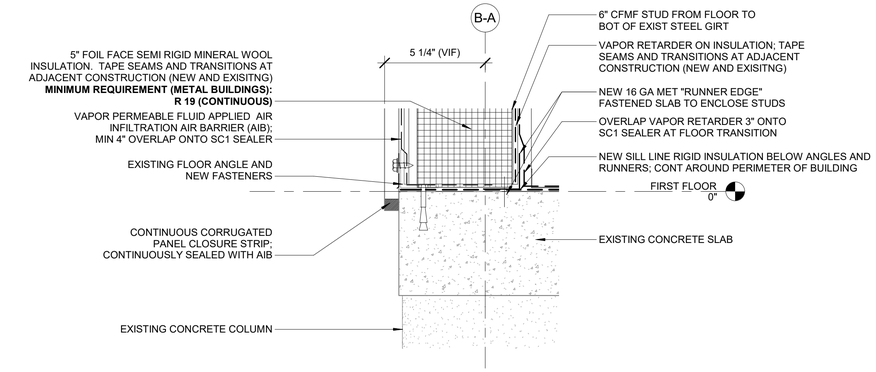
A1 / A-301

TYPICAL ASSEMBLY AT WINDOW SILL/SLAB

SCALE: 1 1/2" = 1'-0"
REF SHEET: A-101B

WALL SECTION GENERAL NOTES

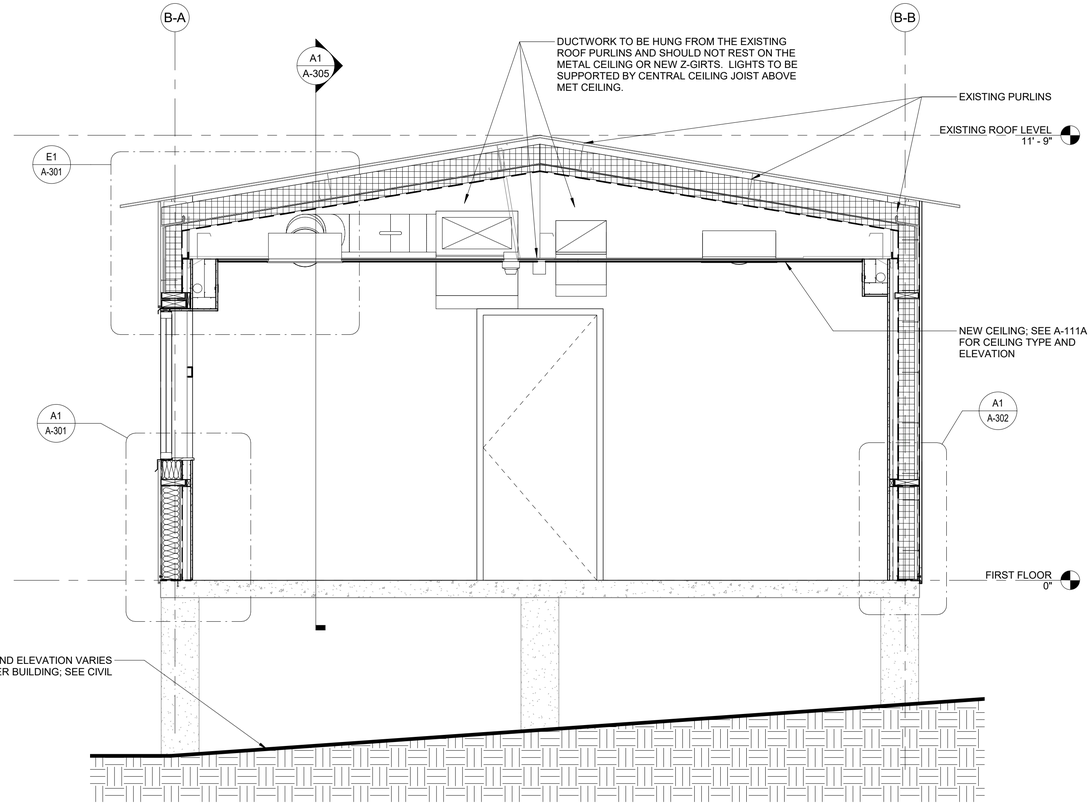
1. BUILDINGS ARE OCCUPIED FOR +/- 6 WEEKS DURING THE SUMMER.
2. BUILDINGS ARE NOT OCCUPIED DURING WINTER.
3. THE DEW POINT ANALYSIS INDICATES NO CONDENSATION WITHIN THE WALL CAVITY.



E7 / A-301

EXTERIOR WALL AT FLOOR SLAB DETAIL

SCALE: 3" = 1'-0"
REF SHEET: A-301



A5 / A-301

BUILDING SECTION

SCALE: 1/2" = 1'-0"
REF SHEET: A-101A

2 1 0 2 4
SCALE: 1/2" = 1'-0"

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

0 1/4 1/2 1
SCALE: 3" = 1'-0"

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

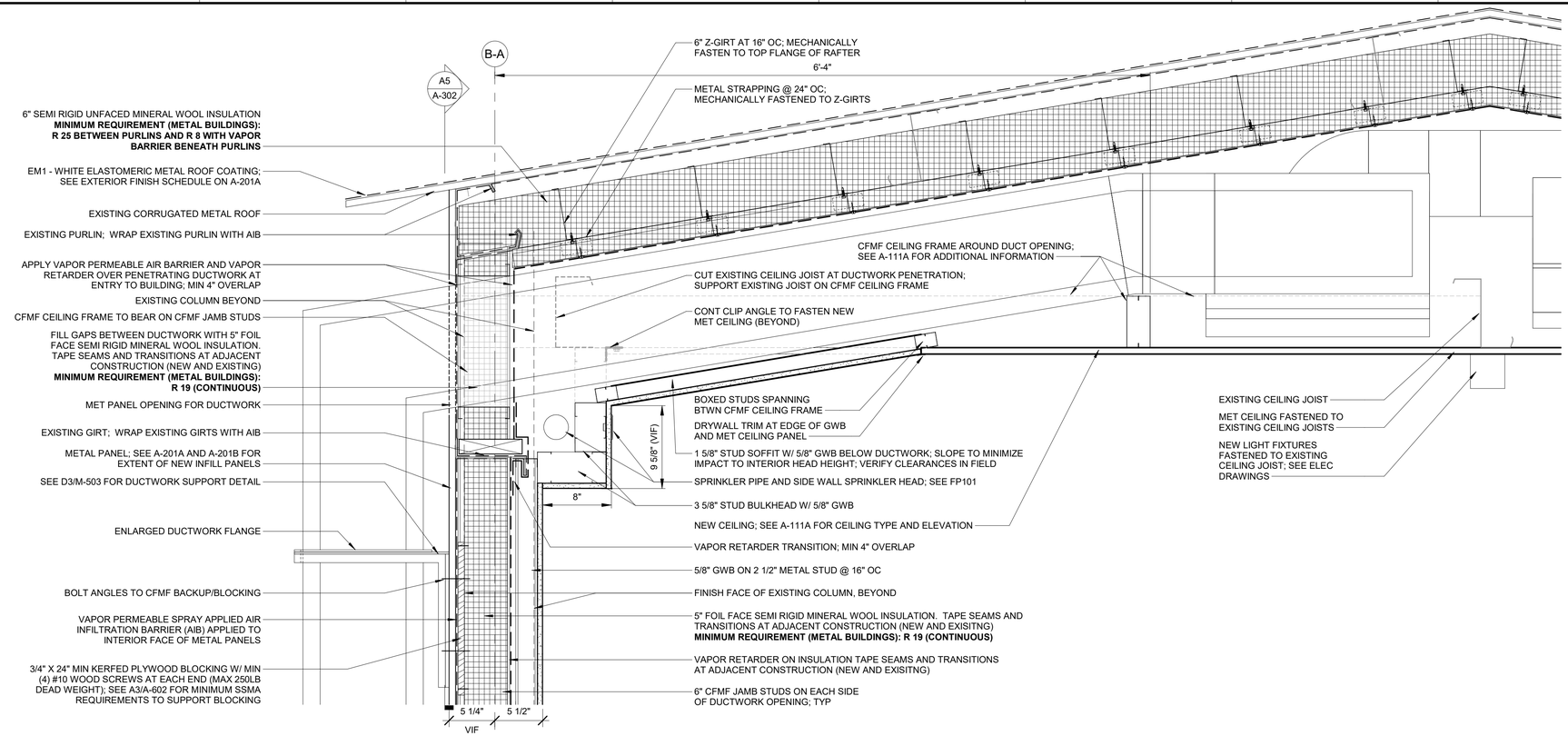
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL BUILDING SECTIONS, WALL SECTIONS, AND WALL DETAILS

SHEET ID

A-301

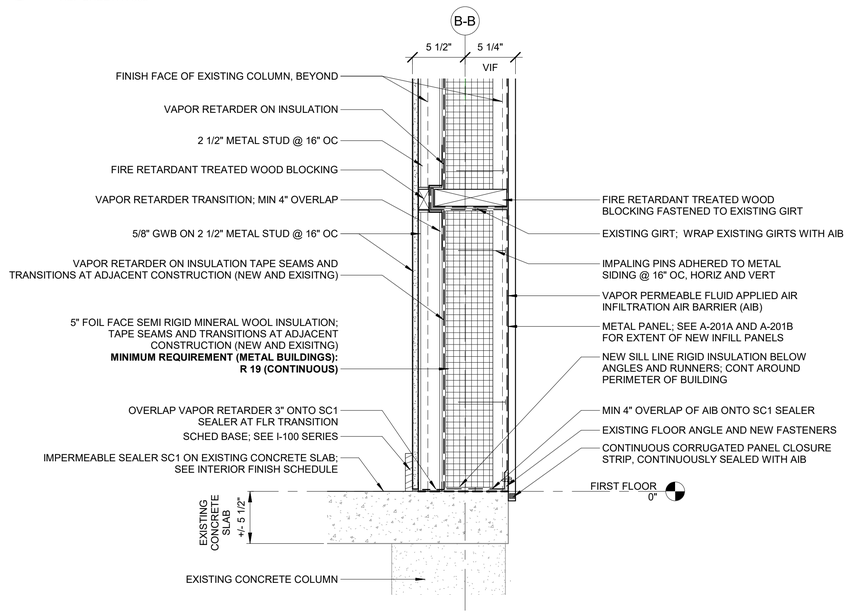
RTA SUBMISSION



D1 / A-302

EXTERIOR WALL AT SLEEPING QUARTERS DUCTWORK PENETRATION

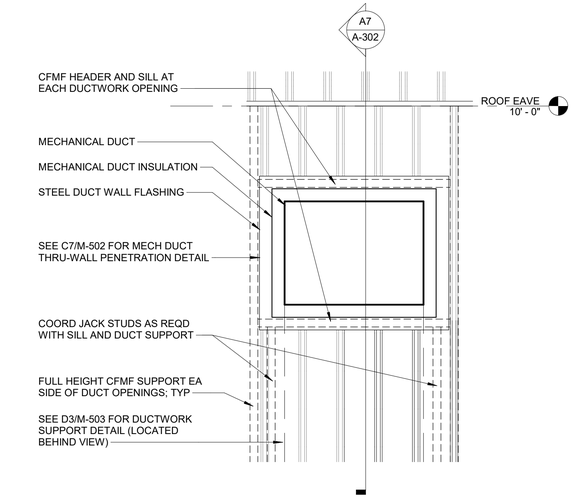
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-302



A1 / A-302

TYPICAL ASSEMBLY FOR NEW PANEL INFILL AT SLAB

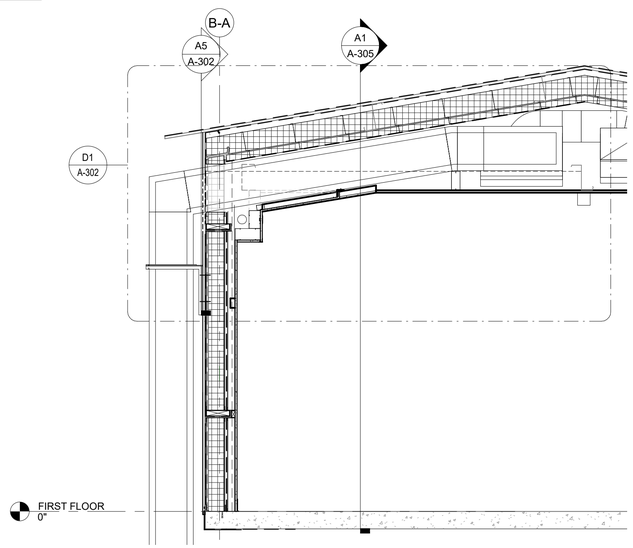
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-101B



A5 / A-302

DUCTWORK PENETRATION AND SUPPORT ELEVATION

SCALE: 1" = 1'-0"
REF SHEET: A-302



A7 / A-302

WALL SECTION AT SLEEPING QUARTERS DUCTWORK PENETRATION

SCALE: 1/2" = 1'-0"
REF SHEET: A-102

2 1 0 2 4
SCALE: 1/2" = 1'-0"

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

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

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CONTRACT NO. W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE *A Joint Venture*

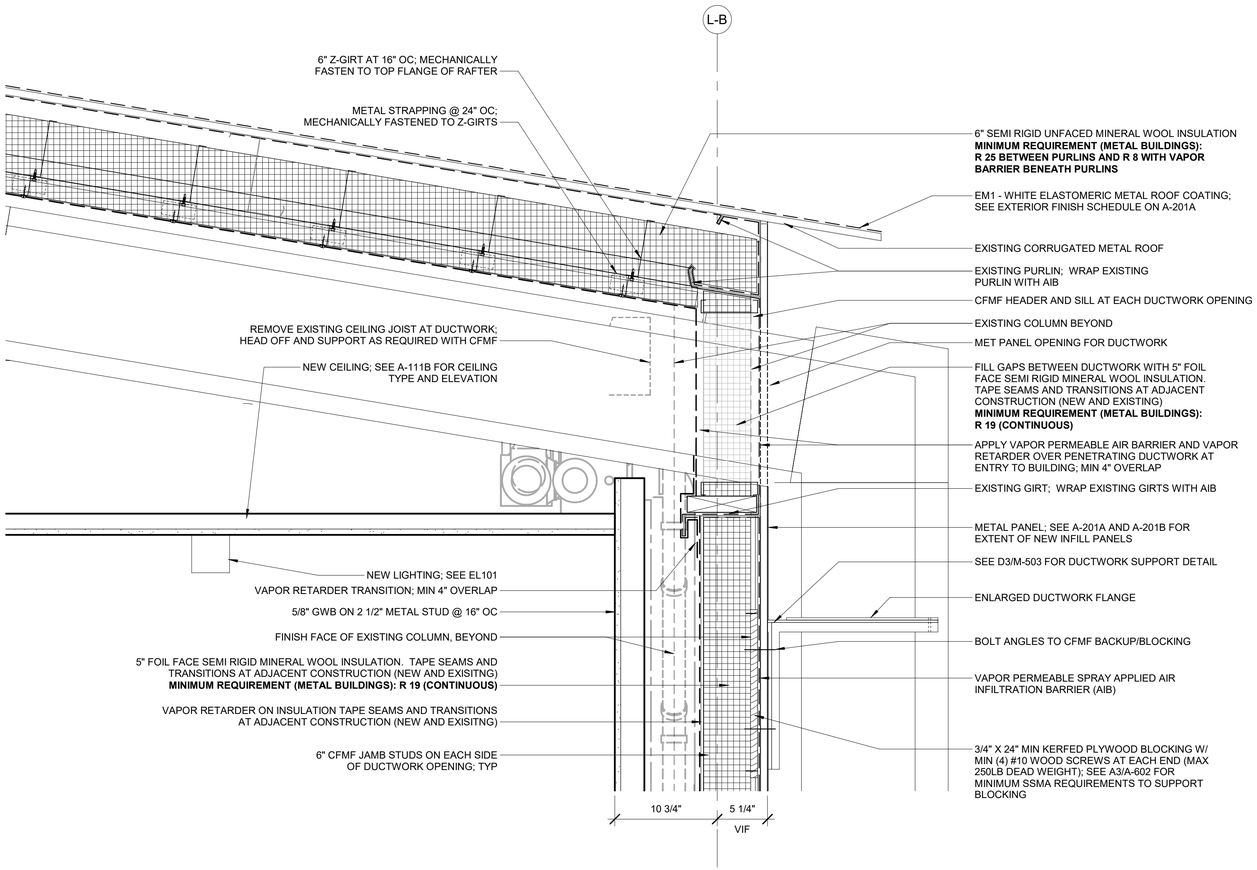
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL EXTERIOR WALL SECTIONS AND DETAILS

SHEET ID

A-302

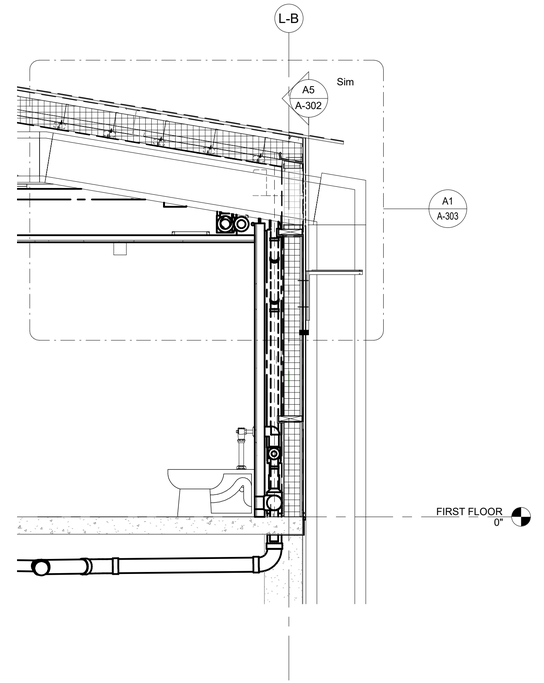
RTA SUBMISSION



A1 / A-303 EXTERIOR WALL AT LATRINE DUCTWORK PENETRATION

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

REF SHEET: A-103



A7 / A-303 WALL SECTION AT LATRINE DUCTWORK PENETRATION

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

REF SHEET: A-101B

2 1 0 2 4

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

1 0 1

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

PLAN NORTH

*TRUE NORTH VARIES

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US ARMY CORPS OF ENGINEERS

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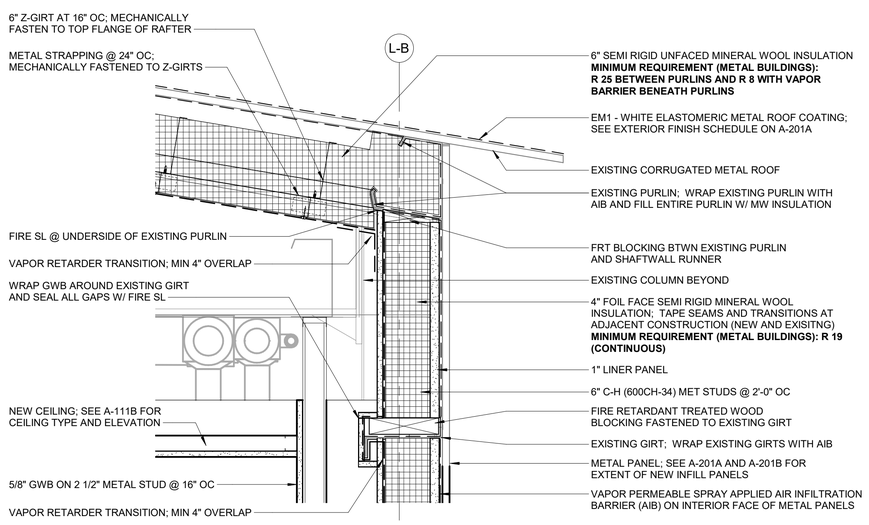
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE EXTERIOR WALL DUCTWORK PENETRATION

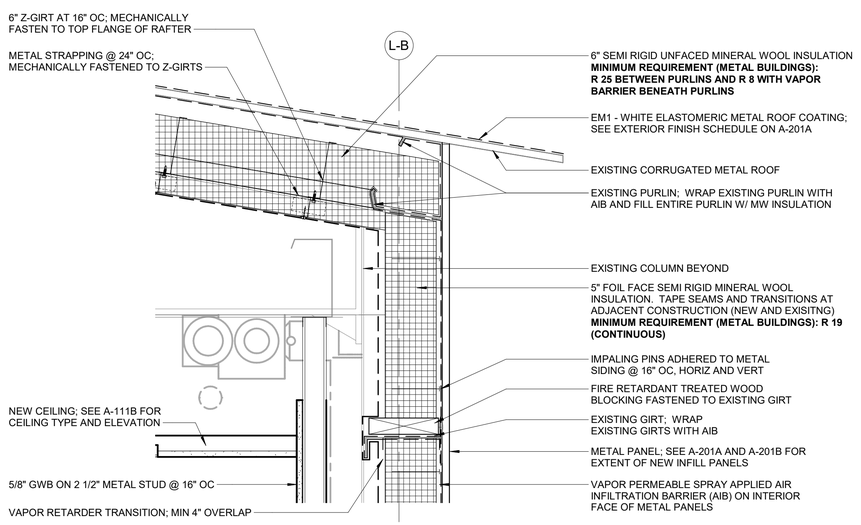
SHEET ID

A-303

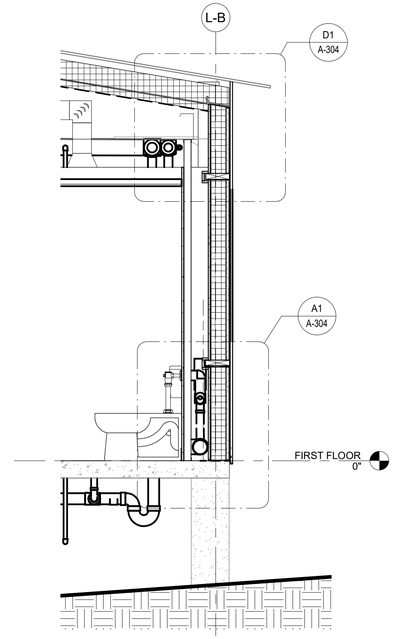
RTA SUBMISSION



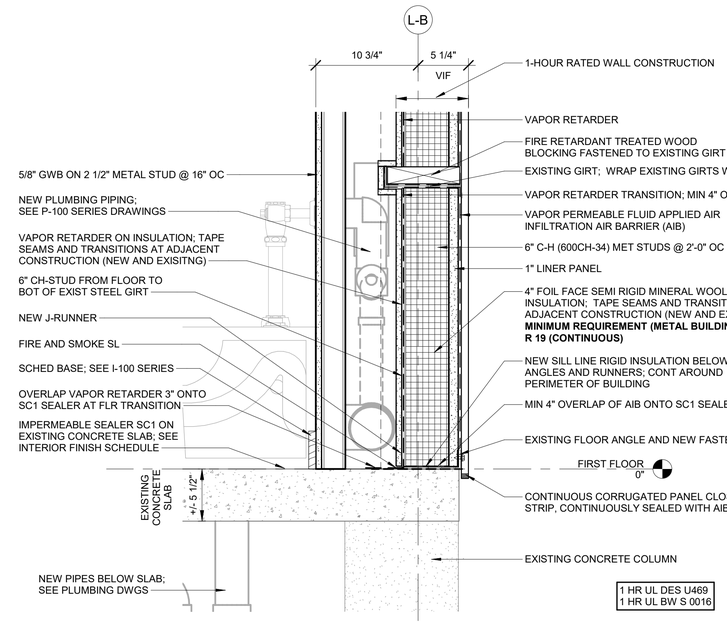
D1 / A-304 — HEAD DETAIL AT 1-HR RATED LATRINE EXTERIOR WALL
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-304



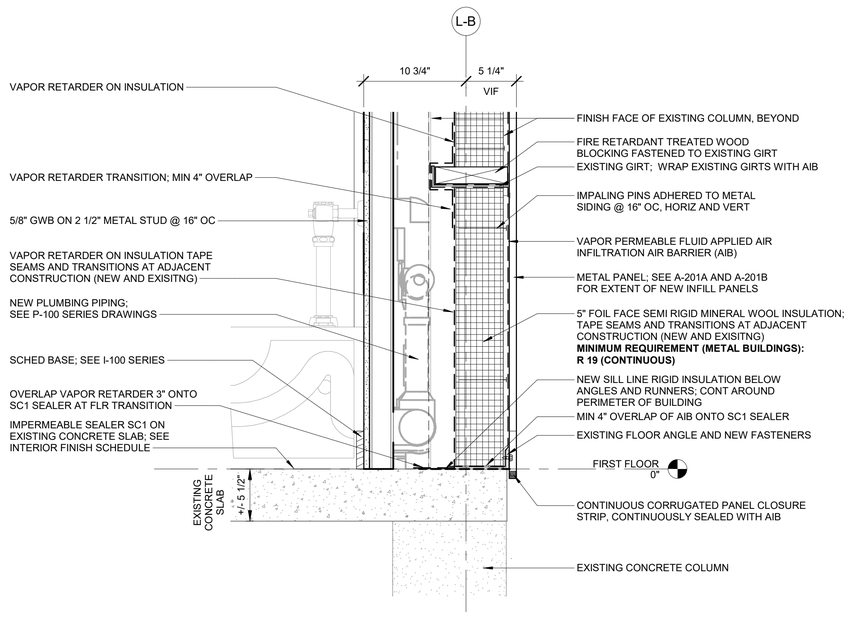
D5 / A-304 — HEAD DETAIL AT NON-RATED LATRINE EXTERIOR WALL
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-304



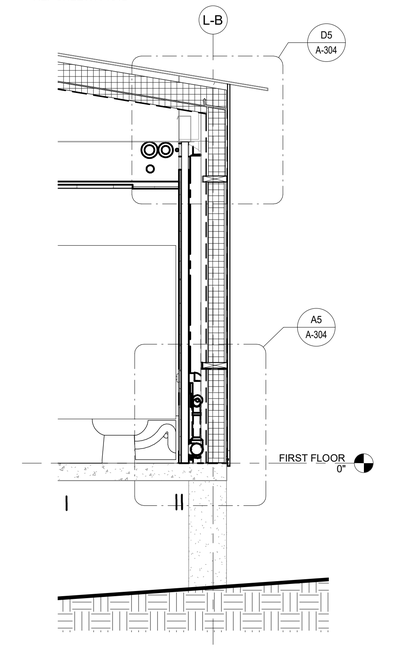
D8 / A-304 — LATRINE SOUTH WALL SECTION AT 1-HR RATED EXTERIOR WALL
SCALE: 1/2" = 1'-0"
REF SHEET: A-101B



A1 / A-304 — BASE DETAIL AT 1-HR RATED LATRINE EXTERIOR WALL
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-304



A5 / A-304 — BASE DETAIL AT NON-RATED LATRINE EXTERIOR WALL
SCALE: 1 1/2" = 1'-0"
REF SHEET: A-304



A8 / A-304 — LATRINE SOUTH WALL SECTION AT NON-RATED EXTERIOR WALL
SCALE: 1/2" = 1'-0"
REF SHEET: A-101B

2 1 0 2 4
SCALE: 1/2" = 1'-0"

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

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US ARMY CORPS OF ENGINEERS

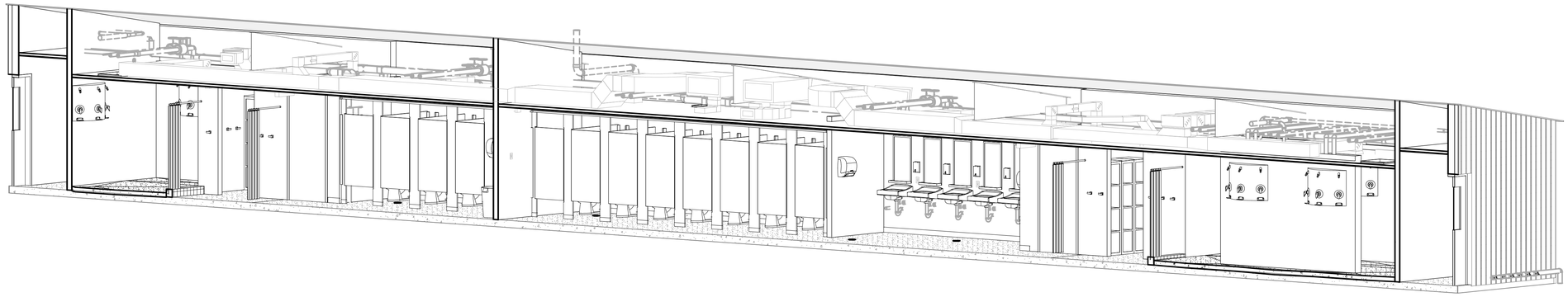
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE EXTERIOR WALL SECTIONS AND DETAILS

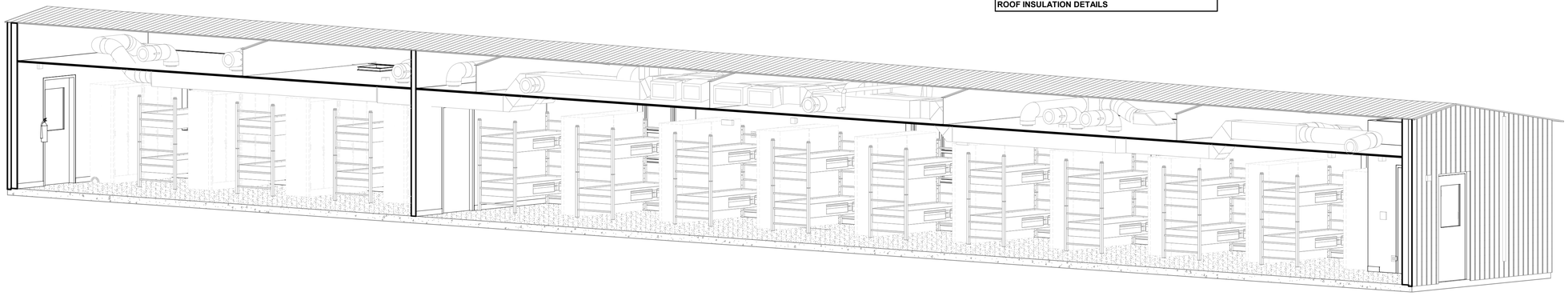
SHEET ID
A-304

RTA SUBMISSION



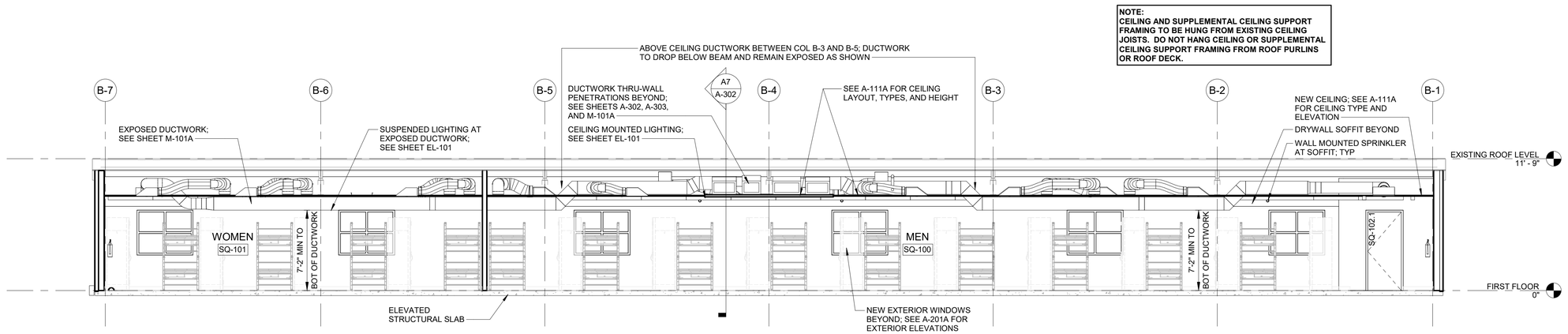
E1 / A-305 LATRINE AXONOMETRIC LONGITUDINAL SECTION
NTS

AXONOMETRIC VIEWS SHOWN FOR CLARITY OF SYSTEM DESIGN; SEE A-301 THROUGH A-304 FOR ROOF INSULATION DETAILS



C1 / A-305 SLEEPING QUARTERS AXONOMETRIC LONGITUDINAL SECTION
NTS

NOTE:
CEILING AND SUPPLEMENTAL CEILING SUPPORT FRAMING TO BE HUNG FROM EXISTING CEILING JOISTS. DO NOT HANG CEILING OR SUPPLEMENTAL CEILING SUPPORT FRAMING FROM ROOF PURLINS OR ROOF DECK.



A1 / A-305 SLEEPING QUARTERS LONGITUDINAL SECTION
SCALE: 3/16" = 1'-0"
REF SHEET: A-101A

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

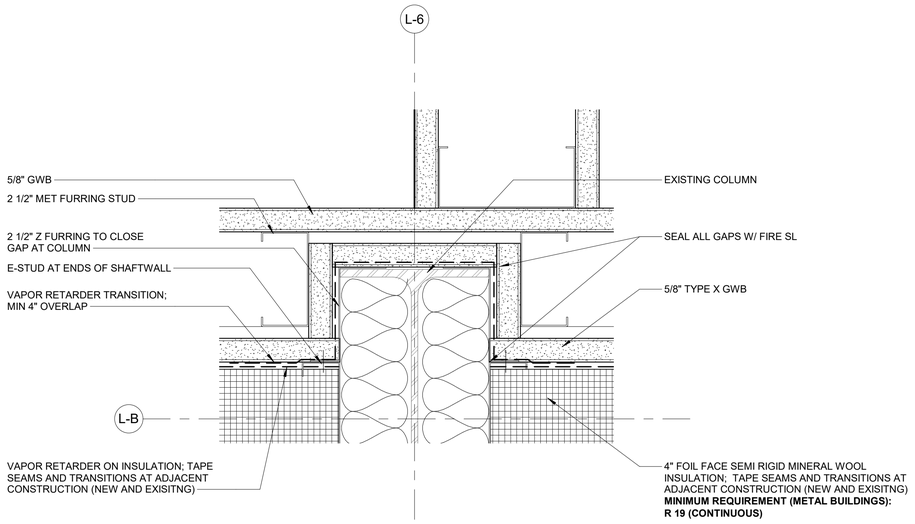
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

DUCTWORK ROUTING AND CEILING AXONOMETRIC AND SECTION VIEWS

SHEET ID

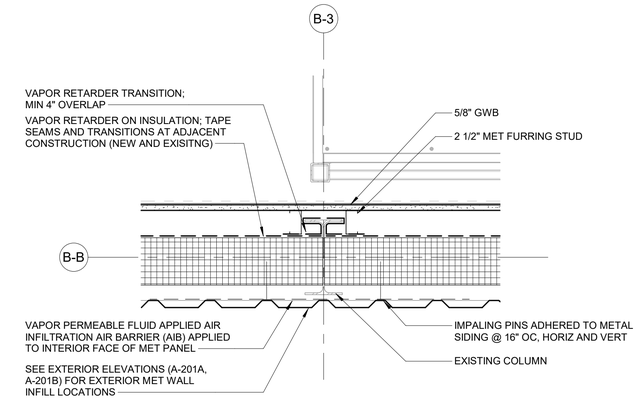
A-305

RTA SUBMISSION



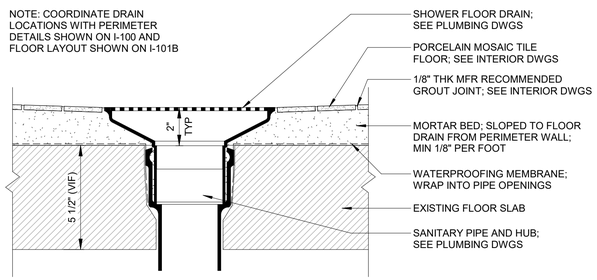
D3 / A-330 — ENLARGED PLAN OF RATED COLUMN WRAP AT EXTERIOR WALL

SCALE: 6" = 1'-0"
REF SHEET: A-330



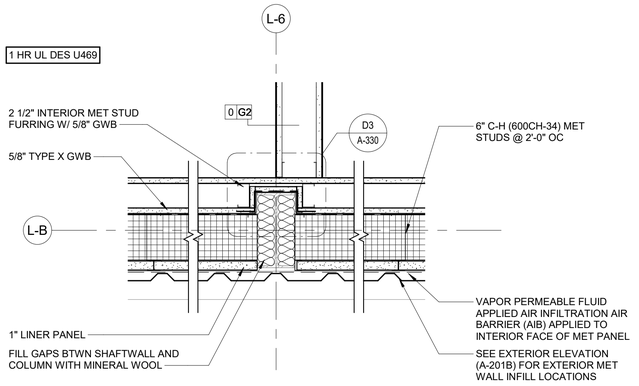
D8 / A-330 — COLUMN DETAIL B-3/B-B

SCALE: 1 1/2" = 1'-0"
REF SHEET: A-101A



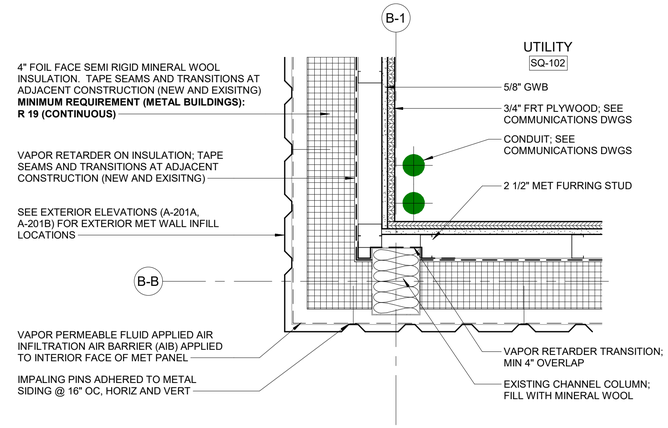
A1 / A-330 — FLOOR DRAIN BUILD-UP

SCALE: 3" = 1'-0"



A4 / A-330 — RATED SHAFTWALL ASSEMBLY AT COLUMN DETAIL L-6/L-B

SCALE: 1 1/2" = 1'-0"
REF SHEET: A-101B



A7 / A-330 — COLUMN DETAIL B-1/B-B

SCALE: 1 1/2" = 1'-0"
REF SHEET: A-101A

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

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

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JACOBS / EWING COLE *A Joint Venture*

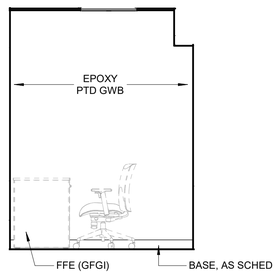
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL COLUMNS AND MISC DETAILS

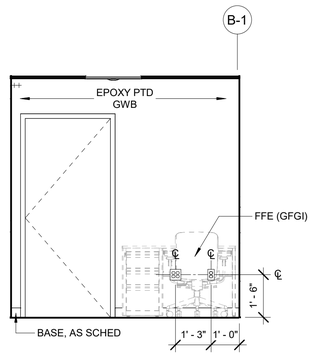
SHEET ID

A-330

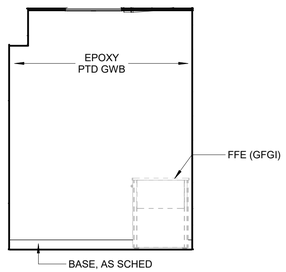
RTA SUBMISSION



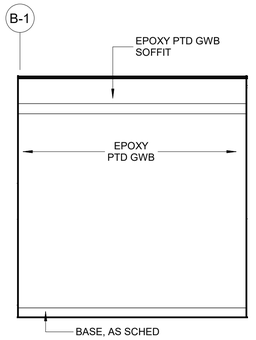
A1 / A-401 — PLAN WEST ELEVATION
SCALE: 3/8" = 1'-0"
REF SHEET: A-401



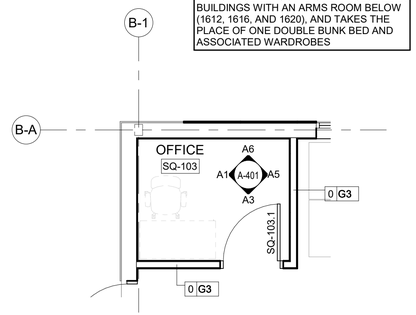
A3 / A-401 — PLAN SOUTH ELEVATION
SCALE: 3/8" = 1'-0"
REF SHEET: A-401



A5 / A-401 — PLAN EAST ELEVATION
SCALE: 3/8" = 1'-0"
REF SHEET: A-401



A6 / A-401 — PLAN NORTH ELEVATION
SCALE: 3/8" = 1'-0"
REF SHEET: A-401



NOTE:
THE OFFICE LAYOUT IS ONLY INCLUDED IN BUILDINGS WITH AN ARMS ROOM BELOW (1612, 1616, AND 1620), AND TAKES THE PLACE OF ONE DOUBLE BUNK BED AND ASSOCIATED WARDROBES

A8 / A-401 — SLEEPING QUARTERS OFFICE PLAN
SCALE: 1/4" = 1'-0"
REF SHEET: A-101A

4 3 2 1 0 4
SCALE: 3/8" = 1'-0"

4 3 2 1 0 4 8
SCALE: 1/4" = 1'-0"

PLAN NORTH
*TRUE NORTH VARIES

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

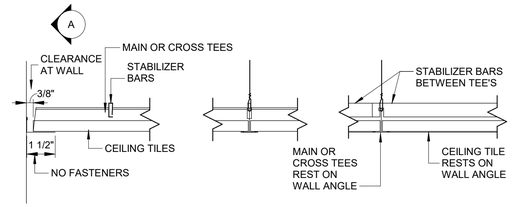
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

SLEEPING QUARTERS OFFICE - PLAN AND ELEVATIONS

SHEET ID

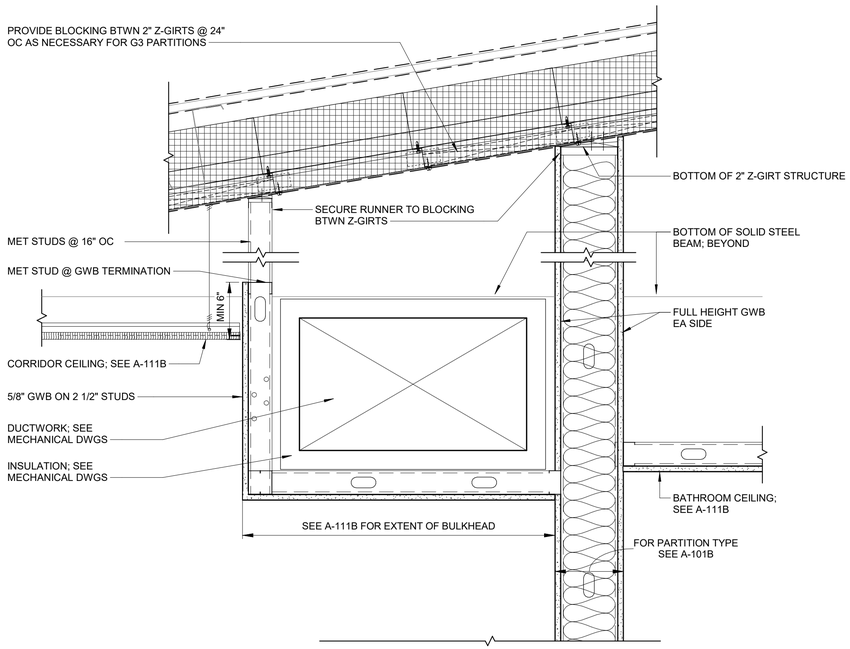
A-401

RTA SUBMISSION



E8 / A-520 UNRESTRAINED SUSPENDED CEILING SYSTEM

SCALE: 3" = 1'-0"



A7 / A-520 GWB FASCIA @ SUPPLY DUCTWORK BULKHEAD

SCALE: 1 1/2" = 1'-0"
REF SHEET: A-111B

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

0 1/4 1/2 1
SCALE: 3" = 1'-0"

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

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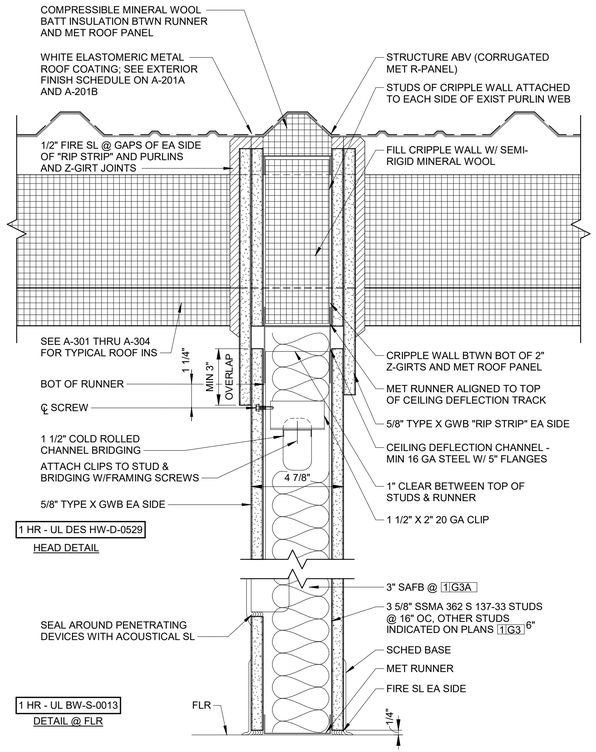
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL CEILING DETAILS

SHEET ID

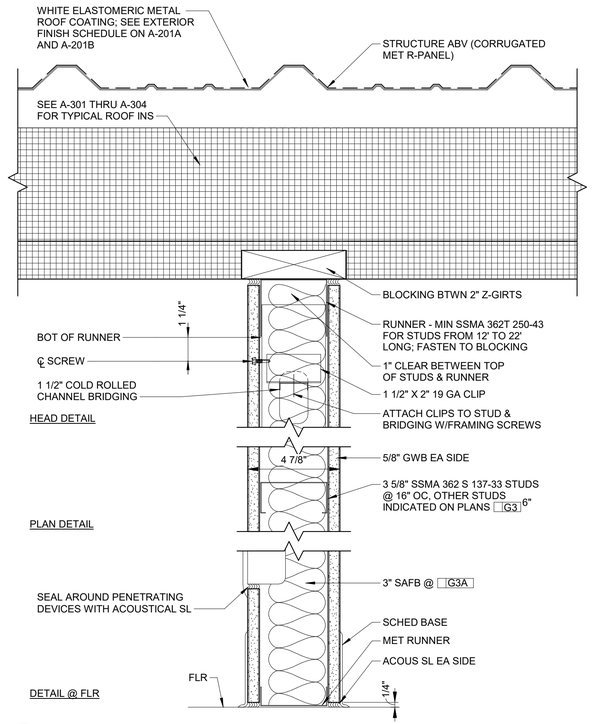
A-520

RTA SUBMISSION



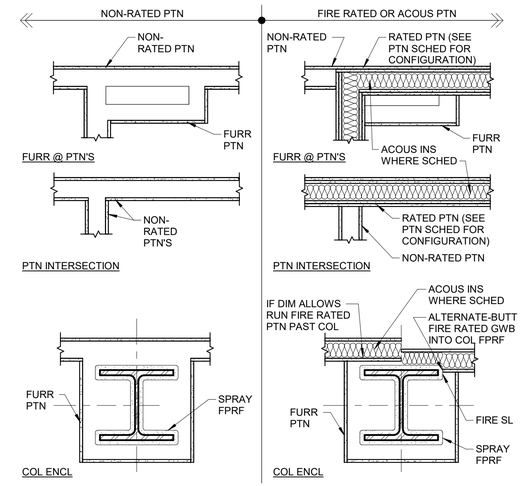
D2 PARTITION TYPE 1G3 - 1 HOUR RATED

SCALE: 3" = 1'-0"



D5 PARTITION TYPE G3 - NON-RATED

SCALE: 3" = 1'-0"



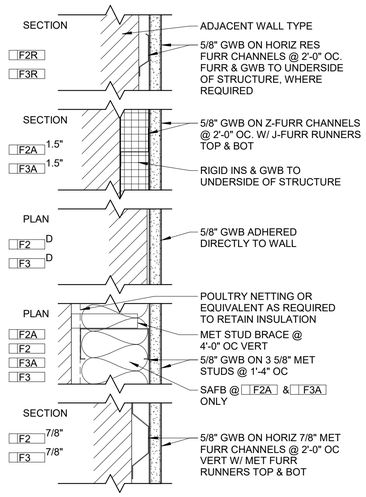
E8 PARTITION CONTINUITY PLAN DIAGRAMS

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

NOTES:
1. FOR ALL FURRING TYPES F2 TERMINATE GWB 6" ABV FIN CLG UNO
FOR ALL FURRING TYPES F3 GWB TO EXTEND TO STRUCTURE ABV

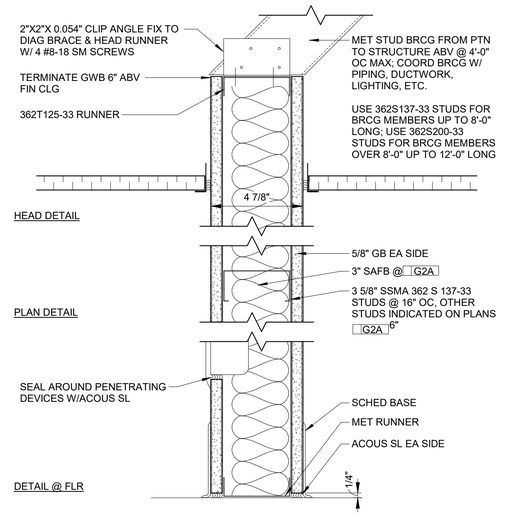
2. FOR EXT WALLS ISOLATE MET FURR FROM CONC OR MAS W/15 LB BLDG PAPER

3. FOR STUD NOT FIXED DIRECTLY BACK TO ADJ MAS/CONC WALL BRACE BACK TO WALL @ 4'-0" OC OR EXTEND STUD TO STRUCTURE ABV



A3 FURRING PARTITION TYPES F

SCALE: 3" = 1'-0"



A6 PARTITION TYPE G2 - NON-RATED INCOMBUSTIBLE

SCALE: 3" = 1'-0"

C8 PARTITION KEY

SCALE: 3" = 1'-0"

1. SEE FIN SCHED FOR APPLIED FIN SUCH AS TILE, VINYL FABRIC, PANELING, ETC.
2. WHERE MFR'S HGT LIMITATIONS ARE EXCEEDED DUE TO FIELD CONDITIONS, USE HEAVIER GAUGE STUDS IN ACCORDANCE W/ MFR'S RECOMMENDATIONS.
3. FIRE RATED PTN'S ARE IDENTIFIED BY KEY & POCHE AS FOLLOWS:

NEW PARTITONS	EXISTING PARTITONS
NONRATED	NONRATED
1 HR FIRE RATED	

A8 PARTITIONS - GENERAL NOTES

SCALE: 3" = 1'-0"

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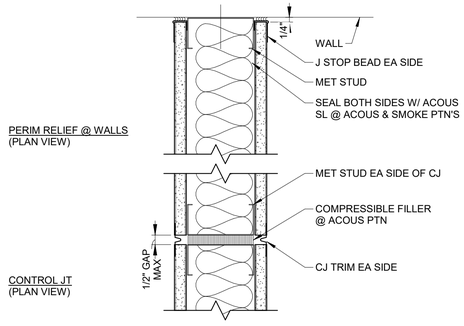
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

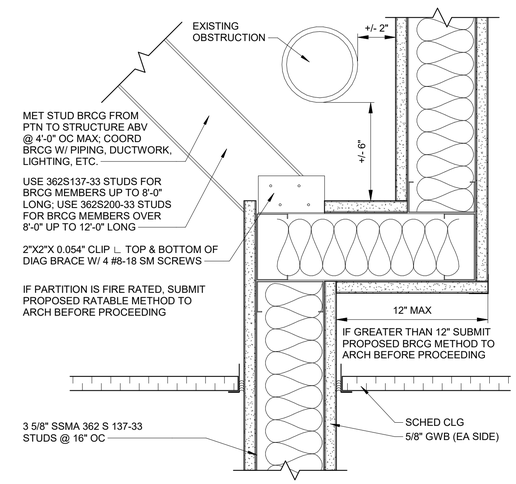
PARTITION TYPES/DETAILS

SHEET ID
A-601

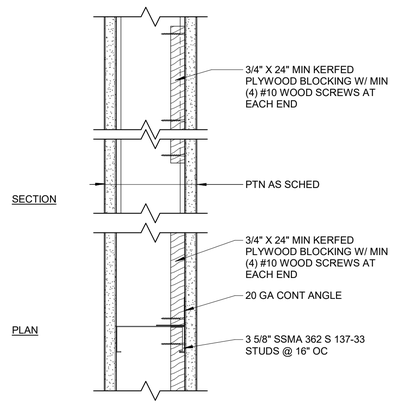
RTA SUBMISSION



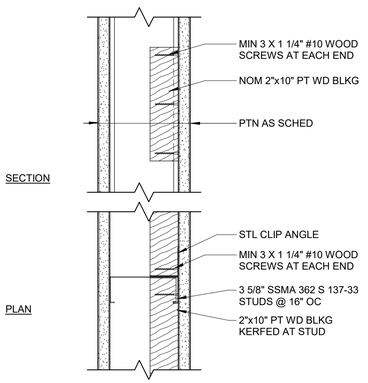
C6 TYP GWB CONTROL JOINT - NON-RATED
SCALE: 3" = 1'-0"



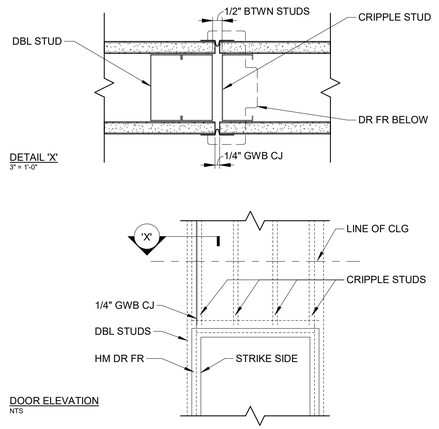
C8 PARTITION FRAMING FOR ABOVE CEILING OBSTRUCTION - NON RATED
SCALE: 3" = 1'-0"



A3 PLYWOOD BLOCKING FOR LOADS UP TO 250LB
SCALE: 3" = 1'-0"



A6 WOOD BLOCKING FOR LOADS UP TO 250LB
SCALE: 3" = 1'-0"



A8 TYP DETAIL OF GWB CJ @ DOOR FRAME
SCALE: 3" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: SK
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

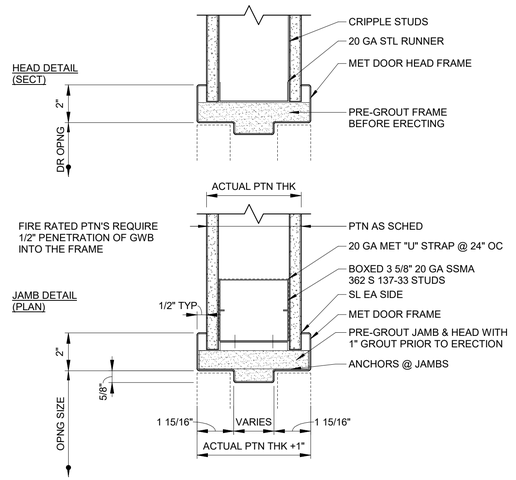
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

PARTITION TYPES/DETAILS

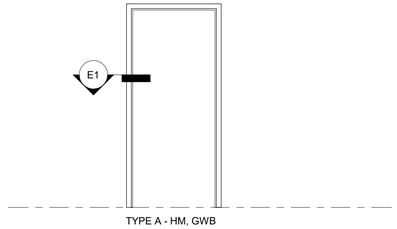
SHEET ID
A-602

RTA SUBMISSION



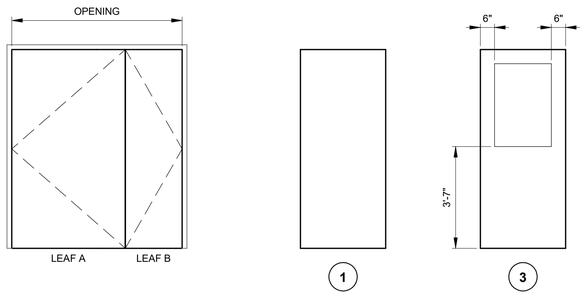
E1 HM DOOR FRAME IN GWB PARTITION

SCALE: 3" = 1'-0"



TYPE A - HM, GWB

FRAME TYPES



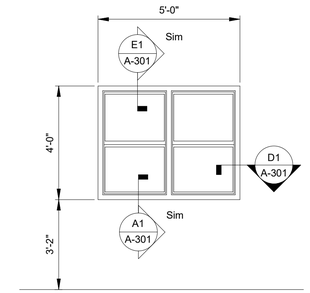
DOOR TYPES - ALL GLAZING LAMINATED AT/FP (LG) UNO

DOOR MATERIAL HM (HOLLOW METAL)

FACE PTD (PAINTED); PF (PRE-FINISHED)

NUMBER	ROOM NAME	ROOM NUMBER	SILL HEIGHT	HEAD HGHT	RO HEIGHT	RO WIDTH	WINDOW TYPE	FRAME MAT'L	GLAZ	COMMENTS
LATRINE										
L1C1.1	CORRIDOR	L-1C1	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
L1C1.2	CORRIDOR	L-1C1	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
L1C1.3	CORRIDOR	L-1C1	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
L1C1.4	CORRIDOR	L-1C1	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
L1C1.5	CORRIDOR	L-1C1	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
L1C1.6	CORRIDOR	L-1C1	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SLEEPING QUARTERS										
SQ100.1	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.2	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.3	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.4	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.5	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.6	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.7	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ100.8	MEN	SQ-100	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ101.1	WOMEN	SQ-101	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ101.2	WOMEN	SQ-101	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ101.3	WOMEN	SQ-101	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	
SQ101.4	WOMEN	SQ-101	3' - 2"	7' - 2"	4' - 0"	5' - 0"	1		LG	

WINDOW SCHEDULE

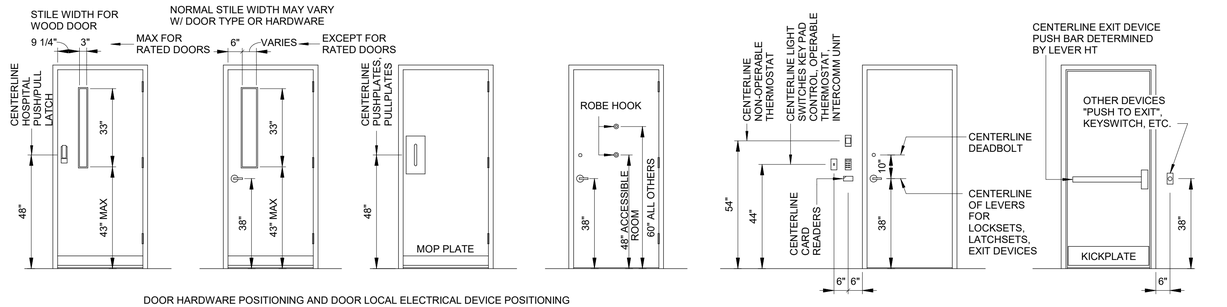


1

WINDOW TYPES

DOOR SIZE							DOOR						FRAME					ELEC			
NUMBER	ROOM NAME	ROOM NUMBER	OPENING	LEAF A	LEAF B	HEIGHT	TYPE	MATL	FACE	UNDER CUT	GLAZ	SPEC SECTION	TYPE	MATL	GLAZ	FIRE RATING	HW	P	S	F	REMARKS
TYPICAL LATRINE																					
L-1C1.1	CORRIDOR	L-1C1	3' - 0"	3' - 0"		7' - 0"	03	HM			LG	081113	A	HM	--	0	01	--	--	--	--
L-1C1.2	CORRIDOR	L-1C1	3' - 0"	3' - 0"		7' - 0"	03	HM			LG	081113	A	HM	--	0	01	--	--	--	--
L-100.1	CORRIDOR	L-1C1	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	A	HM	--	0	04	--	--	--	--
L-100A.1	MEN	L-100	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	A	HM	--	0	05	--	--	--	--
L-101.1	CORRIDOR	L-1C1	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	A	HM	--	0	04	--	--	--	--
L-101C.1	JAN	L-101C	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	A	HM	--	0	05	--	--	--	--
TYPICAL SLEEPING QUARTERS																					
SQ-100.1	MEN	SQ-100	3' - 0"	3' - 0"		7' - 0"	03	HM			LG	081113	A	HM	--	0	01	--	--	--	--
SQ-101.1	WOMEN	SQ-101	3' - 0"	3' - 0"		7' - 0"	03	HM			LG	081113	A	HM	--	0	01	--	--	--	--
SQ-101.2	MEN	SQ-100	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	A	HM	--	0	03	--	--	--	--
SQ-102.1	UTILITY	SQ-102	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	A	HM	--	45	02	--	--	--	--
SQ-103.1	OFFICE	SQ-103	3' - 0"	3' - 0"		7' - 0"	01	HM				081113	--	--	--	0	06	--	--	--	--
BOILER BUILDINGS																					
BB-1599.1	BOILER BUILDING	1599	6' - 0"	3' - 0"	3' - 0"	7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
BB-1622.1	BOILER BUILDING	1622	6' - 0"	3' - 0"	3' - 0"	7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
BB-1623.1	BOILER BUILDING	1623	6' - 0"	3' - 0"	3' - 0"	7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
ARMS ROOMS																					
1612-100.1	ARMS ROOM	1612-100	3' - 0"	3' - 0"		7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
1612-100A.1	ARMS ROOM VESTIBULE	1612-100A	3' - 0"	3' - 0"		7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
1616-100.1	ARMS ROOM	1616-100	3' - 0"	3' - 0"		7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
1616-100A.1	ARMS ROOM VESTIBULE	1616-100A	3' - 0"	3' - 0"		7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
1620-100.1	ARMS ROOM	1620-100	3' - 0"	3' - 0"		7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION
1620-100A.1	ARMS ROOM VESTIBULE	1620-100A	3' - 0"	3' - 0"		7' - 0"	EXIST	EXIST				081113	--	--	--	0	NA	--	--	--	EXISTING DOOR TO REMAIN - SHOWN FOR INFORMATION

DOOR SCHEDULE



DOOR HARDWARE POSITIONING AND DOOR LOCAL ELECTRICAL DEVICE POSITIONING

DOOR HARDWARE POSITIONING

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-19-D-0010

DESIGNED BY: ECC
DRAWN BY: ECC
CHECKED BY: TK
SUBMITTED BY: BK
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE A Joint Venture

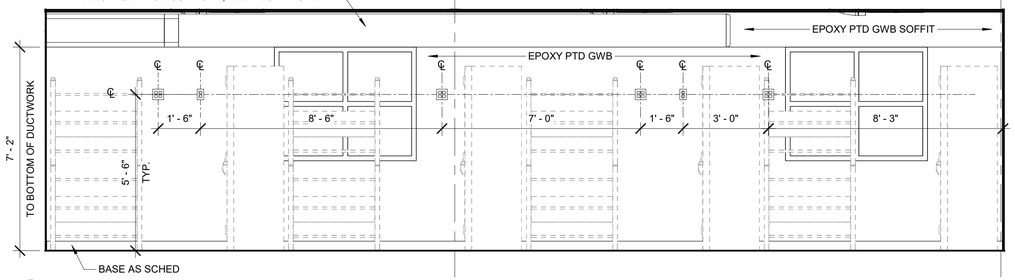
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

DOOR AND WINDOW TYPES, SCHEDULES, AND FRAME DETAILS

SHEET ID

A-603

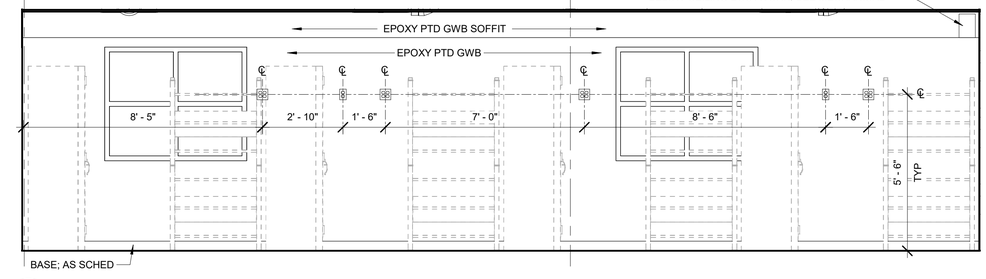
RTA SUBMISSION



F1 / A-701A

WOMEN'S SLEEPING QUARTERS - TYP NORTH ELEVATION

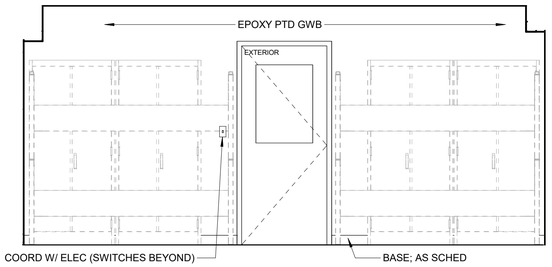
SCALE: 3/8" = 1'-0"
REF SHEET: A-101A



F6 / A-701A

WOMEN'S SLEEPING QUARTERS - TYP SOUTH ELEVATION

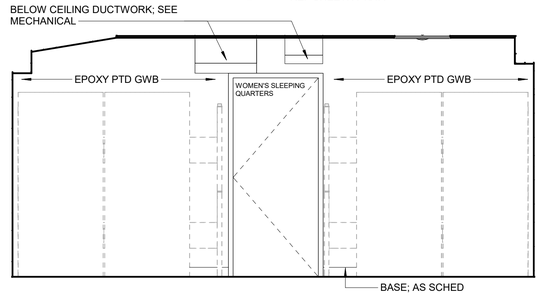
SCALE: 3/8" = 1'-0"
REF SHEET: A-101A



D2 / A-701A

WOMEN'S SLEEPING QUARTERS - TYP EAST & WEST ELEVATION

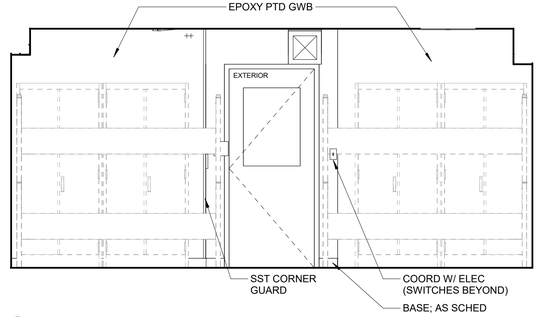
SCALE: 3/8" = 1'-0"
REF SHEET: A-101A



D5 / A-701A

MEN'S SLEEPING QUARTERS - TYP EAST ELEVATION

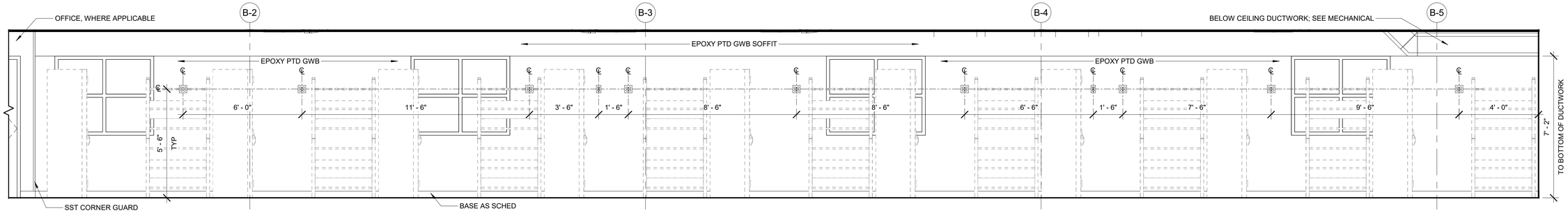
SCALE: 3/8" = 1'-0"
REF SHEET: A-101A



D8 / A-701A

MEN'S SLEEP QUARTERS - TYP WEST ELEVATION

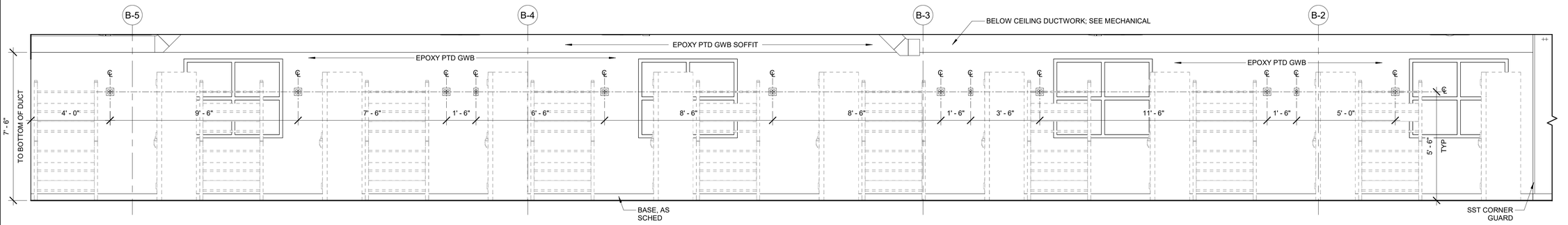
SCALE: 3/8" = 1'-0"
REF SHEET: A-101A



C1 / A-701A

MEN'S SLEEPING QUARTERS - NORTH ELEVATION w/ OFFICE

SCALE: 3/8" = 1'-0"
REF SHEET: A-101A



A1 / A-701A

MEN'S SLEEPING QUARTERS - TYP SOUTH ELEVATION

SCALE: 3/8" = 1'-0"
REF SHEET: A-101A

4 3 2 1 0 4

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

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-18-D-0010

DESIGNED BY: ECC
DRAWN BY: RO / SH
CHECKED BY: TK
SUBMITTED BY:
SCALE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE A Joint Venture

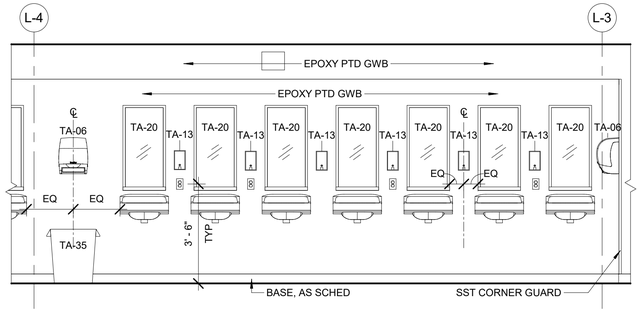
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL SLEEPING QUARTERS INTERIOR ELEVATIONS

SHEET ID

A-701A

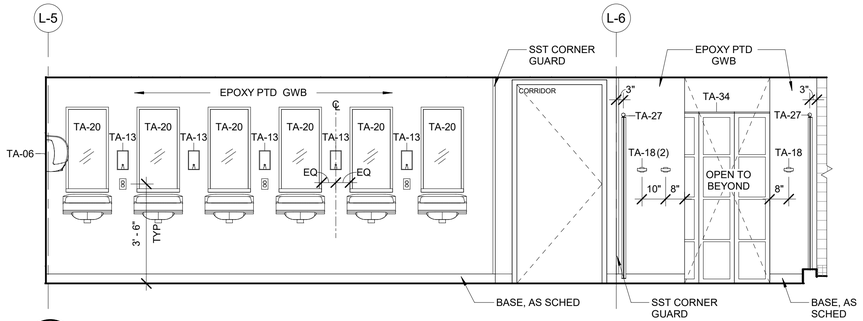
RTA SUBMISSION



F1 A-701B

LATRINE CORRIDOR - SOUTH ELEVATION

SCALE: 3/8" = 1'-0"
REF SHEET: A-101B

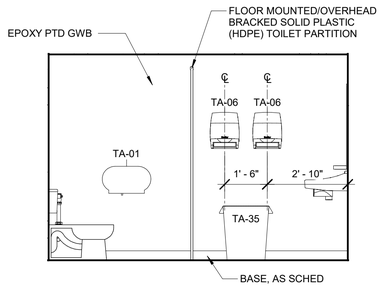


F4 A-701B

WOMEN'S LATRINE - NORTH ELEVATION

SCALE: 3/8" = 1'-0"
REF SHEET: A-101B

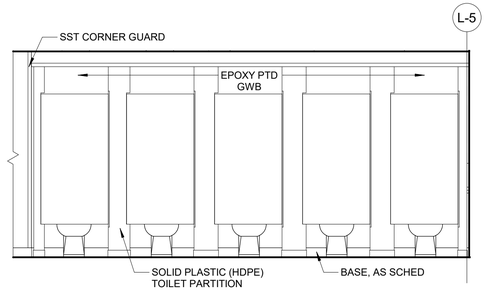
TOILET ACCESSORIES			
Type Mark	Description	Manufacturer	Model
TA-01	Jumbo Dual Roll Toilet Paper Dispenser	Bradley Corporation	5425
TA-06	Paper Towel Dispenser - Centerpull	Pro-Link, Aspire	DCP100
TA-10	Sanitary Product Disposal Unit - Surface Mounted	Bradley Corporation	4A10
TA-13	Surface Mounted Soap Dispenser	Pro-Link	
TA-18	Robe Hook - Double | Projects 2 1/4"	Bradley Corporation	9124 BradEX
TA-19	Mop-Broom Holder w/4 Holders 36" W	Bradley Corporation	9954 BradEX
TA-20	Framed Mirror (18" x 36") with SST Shelf	Bradley Corporation	7805-1836
TA-27	Exposed Mtd. SST Shower Curtain Rod (48" W) w/ Anti-Microbrial Vinyl Shower Curtain & Hooks	Bradley Corporation	9531, 9533, 9540
TA-32A	Lenox Pedestal Bench (12" x 48")	Bradley Corporation	LENOXPEDESTAL
TA-34	Four-Tier Solid Plastic Cubby Locker (72" x 15")	Bradley Corporation	LENOXCUBBY
TA-35	Brute Rubber Trash Can (20 Gal)	RubberMaid Commercial	1779734



D1 A-701B

WOMEN'S LATRINE - WEST ELEV.

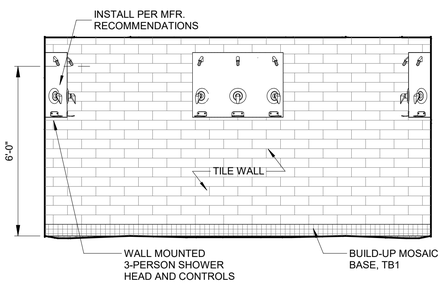
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



D2 A-701B

WOMEN'S LATRINE - SOUTH ELEVATION

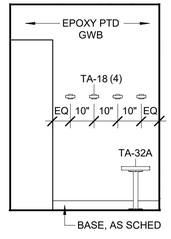
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



D6 A-701B

WOMEN'S SHOWER - EAST ELEVATION

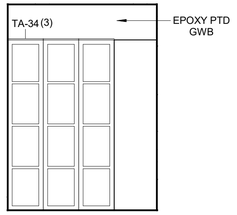
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



D7 A-701B

MEN'S LOCKER - TYP WEST ELEV.

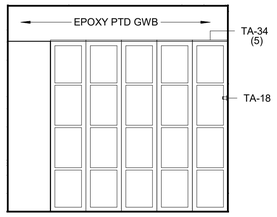
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



D9 A-701B

MEN'S LOCKER - TYP EAST ELEV.

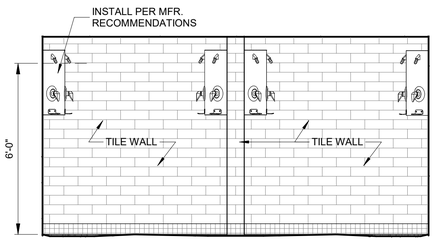
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



C1 A-701B

MEN'S LOCKER - TYP SOUTH ELEVATION

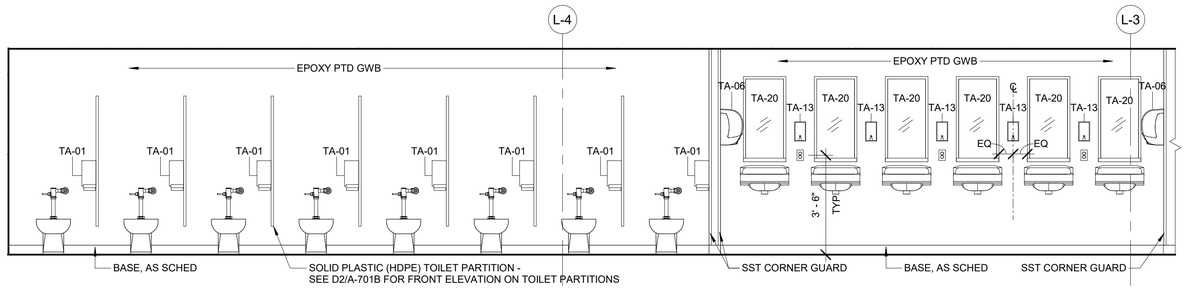
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



C3 A-701B

MEN'S SHOWER - WEST ELEVATION

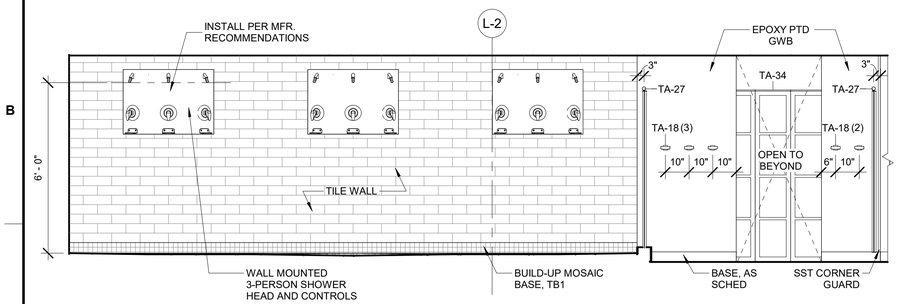
SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



C5 A-701B

MEN'S LATRINE - SOUTH ELEVATION

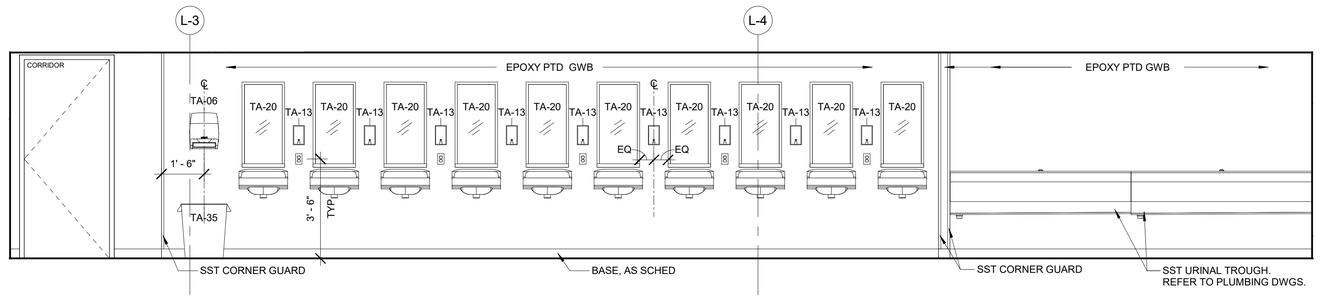
SCALE: 3/8" = 1'-0"
REF SHEET: A-003



A1 A-701B

MEN'S SHOWER/LOCKER - SOUTH ELEVATION

SCALE: 3/8" = 1'-0"
REF SHEET: A-101B



A5 A-701B

MEN'S LATRINE - NORTH ELEVATION

SCALE: 3/8" = 1'-0"
REF SHEET: A-003

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

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: RO / SH
CHECKED BY: TK
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE A Joint Venture

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-18-D-0010

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE INTERIOR ELEVATIONS

SHEET ID

A-701B

RTA SUBMISSION

INTERIOR FINISH SCHEDULE

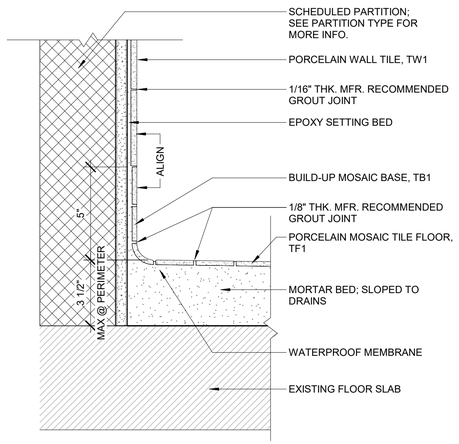
	CODE	LOCATION	TYPE	MANUFACTURER	STYLE/COLOR	FINISH	NOTES	SPEC SECTION	CONTACT
FLOOR	SC1	GENERAL	SEALED CONCRETE	SIKA	STYLE: SIKAGARD-616 IMPERMEABLE EPOXY PRIMER/SEALER; COLOR: CLEAR	HIGH GLOSS	CLEAN & PREPARE EXISTING CONCRETE PER MANUFACTURERS RECOMMENDATIONS	03 30 00	THOMAS DONNELLY, 610.217.0663, DONNELLY.THOMAS@US.SIKA.COM
	RF1	UTILITY	STATIC DISSIPATIVE TILE FLOORING	ARMSTRONG FLOORS	STYLE: EXCELON SDT; COLOR: RIDGE (51957); THICKNESS: 1/8"	--	SIZE: 12" x 12" TILE; REQUIRES GROUNDING. REFER TO ELEC DRAWINGS.	09 62 38	ELLEN FULTON, 610.207.4022, EMFULTON@ARMSTRONGFLOORING.COM
	TF1	SHOWER ROOMS	PORCELAIN FLOOR TILE	DALTILE	STYLE: KEYSTONE; COLOR: SUEDE GRAY SPECKLE (D208); THICKNESS: 1/4"	ABRASIVE	SIZE: 2" x "2 MOSAIC ON 12" x 24" SHEET; EPOXY GROUT COLOR: TBD; JOINT: 1/8"	09 30 10	SUSAN METKA, 484.576.9387, SUSAN.METKA@DALTILE.COM
BASE	B1	GENERAL	FIBER CEMENT BOARD	JAMES HARDIE	STYLE: HARDIETRIM BOARD 4/4 HZ5, DREAM COLLECTION; COLOR: STEEL GRAY, THICKNESS: 3/4"	SMOOTH	SIZE: 4"H; REFER TO SPECIFICATION SECTION FOR INSTALLTION.	09 62 38	JAMES PEZZANITE, 862.284.8416, JAMES.PEZZANITE@JAMESHARDIE.COM
	TB1	SHOWER ROOMS	PORCELAIN WALL BASE	DALTILE	STYLE: KEYSTONES BUILD-UP MOSAIC BASE MB-5A; COLOR: SUEDE GRAY SPECKLE (D208); THICKNESS: 1/4"	MATTE	SIZE: 5" x 12" BASE; EPOXY GROUT COLOR: TBD; JOINT: 1/8"	09 30 10	SUSAN METKA, 484.576.9387, SUSAN.METKA@DALTILE.COM
WALLS	EP1	GENERAL	WALL PAINT - EPOXY	BENJAMIN MOORE	COLOR: FLORAL WHITE OC-29	EGGSHELL	--	09 96 00	LINDA CIPRIANO, 267.406.3494, LINDA.CIPRIANO@BENJAMINMOORE.COM
	EP2	TRIM PAINT (DOORS & FRAMES)	TRIM PAINT - EPOXY	BENJAMIN MOORE	COLOR: CHELSEA GRAY HC-168	SEMI-GLOSS	--	09 96 00	LINDA CIPRIANO, 267.406.3494, LINDA.CIPRIANO@BENJAMINMOORE.COM
	TW1	SHOWER ROOMS	PORCELAIN WALL TILE	DALTILE	STYLE: COLOR WHEEL (LINEAR COLLECTION); COLOR: DESERT GRAY (X114); THICKNESS: 5/16"	SEMI-GLOSS	SIZE: 4" x 12"; EPOXY GROUT COLOR: TBD; JOINT: 1/16"; INSTALLATION: STAGGERED BRICK JOINT - INSTALL WALL BULLNOSE TRIM PIECES AT ALL OUTSIDE EDGES, UNO.	09 30 10	SUSAN METKA, 484.576.9387, SUSAN.METKA@DALTILE.COM
CEILINGS	A1	LATRINE CORRIDOR, JANITOR CLOSETS	ACOUSTICAL CEILING TILE	ARMSTRONG CEILINGS	ULTIMA HEALTH ZONE #1935, COLOR: WHITE, EXPOSED GRID: PRELUDE XL FOR EXTERIOR APPLICATIONS 15/16", GRID COLOR: WHITE	--	SIZE: 24" x 24"; SQUARE LAY-IN	09 51 00	MIKE MCDOWELL, 609.455.9759, MJMCDOWELL@ARMSTRONGCEILINGS.COM
	EP0	THROUGHOUT	CEILING PAINT - EPOXY	BENJAMIN MOORE	COLOR: GLACIER WHITE OC-37	FLAT	--	09 96 00	LINDA CIPRIANO, 267.406.3494, LINDA.CIPRIANO@BENJAMINMOORE.COM
	XC1	SLEEPING QUARTERS, UTILITY, OFFICE	CORRUGATED METAL CEILING PANELS	MCELROY	STYLE: METAL U-PANEL; COLOR: TO MATCH EXISTING EXTERIOR PANELS AS CLOSE AS POSSIBLE. COLOR TO BE SELECTED BY CONTRACTING OFFICER FROM MANUFACTURERS STANDARD COLOR CHOICES; THICKNESS: 3/4"; GAUGE: 24	KYNAR 500	FULL HEIGHT; PANEL TO BE FASTENED DIRECTLY TO STRUCTURE ABOVE.	07 42 13	BILL DANZ, WILLIAMDANZ@HOTMAIL.COM
WALL PROTECTION	CG1	GENERAL	CORNER GUARD	CONSTRUCTION SPECIALTIES (CS GROUP)	STYLE: CO-8, 90 DEGREE STAINLESS STEEL; WING SIZE: 1"	#4 BRUSHED	FULL-HEIGHT, INSTALLED ABOVE BASE	10 26 00	JOAN GRANDE, 610.308.2063, JOANJOPSON@AOL.COM
MISC	TP1	TOILET ROOMS	TOILET PARTITIONS	BRADLEY CORPORATION	STYLE: BRADMAR SOLID PLASTIC PARTITIONS (HDPE) NO SITE SERIES 400 SENTINEL, COLOR: S225 STARRY NIGHT	--	FLOOR MOUNTED WITH OVERHEAD-BRACE	10 21 13	WALT TODOROW, 302.750.9939, WALT@CONTRACTFINISHES.COM
	XS1	MENS & WOMENS LOCKERS	LOCKERS	BRADLEY CORPORATION	STYLE: LENOX 4-TIER SOLID PLASTIC (HDPE) CUBBIES, COLOR: S225 STARRY NIGHT	--	SIZE: 15"W x 18"D x 72"H	10 21 13	WALT TODOROW, 302.750.9939, WALT@CONTRACTFINISHES.COM

GENERAL FINISH NOTES

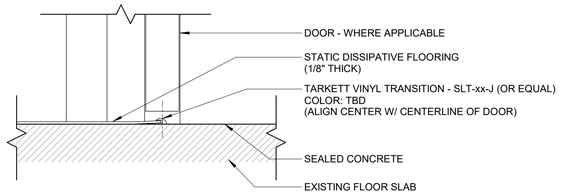
1. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL FINISH MATERIAL REQUIREMENTS. ANY DISCREPANCY BETWEEN THIS SCHEDULE AND OTHER CONTRACT DOCUMENTS OR FIELD CONDITIONS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTING OFFICER FOR RESOLUTION AS OUTLINED IN THE GENERAL CONDITIONS AND DIVISION 01 SECTION – 'QUALITY REQUIREMENTS'.
2. IT IS THE INTENT OF THESE DRAWINGS THAT ALL EXPOSED SURFACES RECEIVE NEW FINISHES AS INDICATED ON THE DRAWINGS OR WRITTEN SPECIFICATIONS UNLESS SPECIFICALLY NOTED OTHERWISE. ANY SURFACE WHICH DOES NOT HAVE A FINISH NOTED SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER AND FINISHED PER THE CONTRACTING OFFICER'S INSTRUCTIONS.
3. MANUFACTURERS, PRODUCTS, AND COLORS LISTED AS BASIS OF DESIGN HEREIN AND ON THE FINISH SCHEDULE HAVE BEEN COORDINATED WITH OTHER FINISHES THROUGHOUT THE FACILITY. SUBSTITUTIONS FOR THESE FINISHES MUST MEET SPECIFICATIONS FOR ALL SALIENT CHARACTERISTICS, INCLUDING PERFORMANCE, QUALITY, COLOR, AND TEXTURE.
4. THE CONTRACTOR SHALL IDENTIFY AND PRIORITIZE ALL LEAD TIMES FOR MATERIALS SPECIFIED TO AVOID SCHEDULE CONFLICTS. THIS INCLUDES MATERIALS REQUIRING MOCKUPS. NEITHER THE OWNER NOR CONTRACTING OFFICER WILL BE HELD RESPONSIBLE FOR INACTION ON THE PART OF THE CONTRACTOR RESULTING IN ADDITIONAL EXPEDITED SHIPPING COSTS OR DELAYS TO THE CONSTRUCTION SCHEDULE.
5. CONTRACTOR TO CONFIRM ALL TRANSITIONS TO EXISTING FLOORING MATERIALS WITH THE CONTRACTING OFFICER BEFORE PROCEEDING.
6. PROVIDE SUBFLOOR LEVELERS WHERE NECESSARY FOR SMOOTH TRANSITIONS OF ALL FLOOR FINISH MATERIALS. REFER TO FLOOR TRANSITION DETAILS ON SHEET (I-001) FOR ALL CONDITIONS.
7. ALL WALL FINISHES TO BE APPLIED FROM BREAK-IN-PLANE TO BREAK-IN-PLANE EVEN IF EXTENDS BEYOND AREA DISTURBED BY RENOVATION WORK.
8. CLOSETS OF ROOMS WITHOUT SPECIFIC FINISHES SHALL BE FINISHED WITH SAME FINISHES AS THE ADJOINING ROOM.
9. HM DOORS & DOOR FRAMES SHALL BE PAINTED FINISH (EP2) UNO. REFER TO DOOR SCHEDULES ON SHEET (A-603) FOR FURTHER DETAILS.
10. HM FRAMES OF GLAZED OPENINGS SHALL BE PAINTED FINISH (EP2) UNO.
11. ALL DRYWALL SOFFITS, FASCIAS, AND CEILINGS TO BE PAINTED FINISH (EP0) UNO. REFER TO REFLECTED CEILING PLAN FOR LOCATIONS.
12. HANDRAILS AND GUARD RAILS OF STAIRS SHALL BE PAINTED FINISH (EP2) UNO. STAIR STRINGERS SHALL BE PAINTED FINISH (EP2).
13. CONTRACTOR TO PROVIDE MAINTENANCE INSTRUCTIONS FOR ALL FINISHES TO OWNER AT SUBSTANTIAL COMPLETION.
14. CORNER GUARD CG1 SHALL BE INSTALLED FULL-HEIGHT, FROM TOP OF BASE TO BOTTOM OF CEILING.
15. FOR 'ADD ALT' LIST, REFER TO SHEET (A-002).
16. ALL SILLS TO BE PAINTED WOOD, EP2 UNO.

MATERIAL CODES

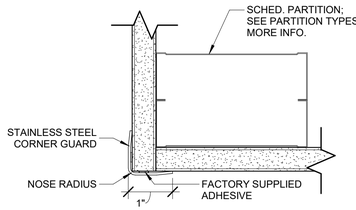
A	ACOUSTICAL TILE	SC	SEALED CONCRETE
B	BASE	SST	STAINLESS STEEL
CG	CORNER GUARD	TB	TILE BASE
EP	EPOXY PAINT	TF	TILE FLOOR
EX	EXISTING TO REMAIN	TP	TOILET PARTITION
P	PAINT	TW	TILE WALL
QS	QUARTZ SURFACE	WP	WALL PROTECTION
RF	RESILIENT FLOOR	XC	SPECIALTY CEILING
		XS	SPECIALTY SURFACE



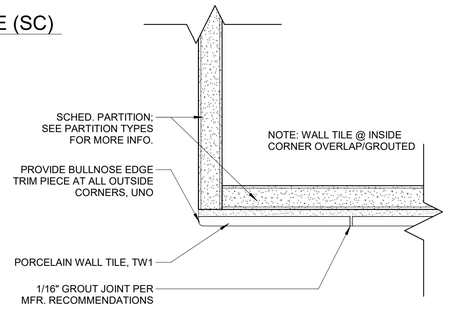
A1 BUILD-UP TILE BASE DETAIL
SCALE: 3" = 1'-0"



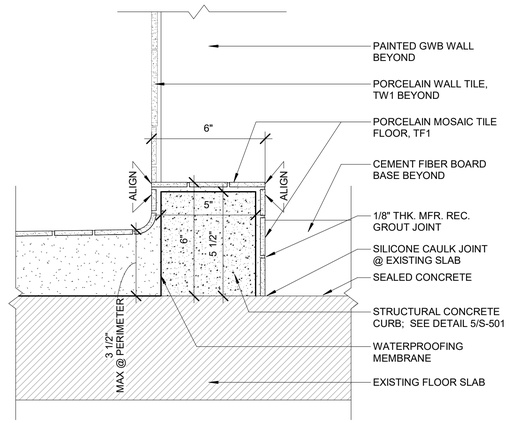
C3 RESILIENT FLOOR (RF) TO SEALED CONCRETE (SC)
SCALE: 3" = 1'-0"



A3 CORNER GUARD DETAIL
SCALE: 6" = 1'-0"



A5 TILE OUTSIDE CORNER DETAIL
SCALE: 6" = 1'-0"



A8 TILE FLOOR (TF) TO SEALED CONCRETE (SC)
SCALE: 3" = 1'-0"

0 1/4 1/2 1

SCALE: 3" = 1'-0"

RTA SUBMISSION

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: ECC
DRAWN BY: SH
CHECKED BY: RO
SUBMITTED BY: SH
DATE: 12/15/2020
ANSI D

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-19-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

INTERIOR FINISH SCHEDULE, GENERAL NOTES & MISCELANEOUS DETAILS

SHEET ID
I-001

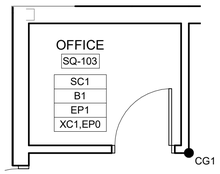
FINISH LEGEND

LEGEND KEY

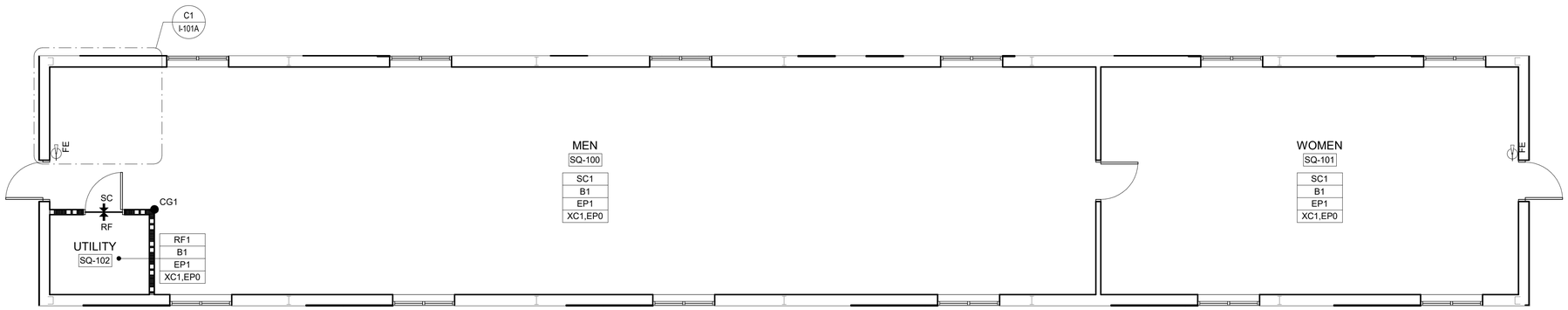
- XXX / XXX / XXX / XXX — INDICATES OVERALL FLOOR / BASE / WALL / CEILING TREATMENT
- XX — INDICATES ACCENT TREATMENT
- XX XX — INDICATES TWO WALL FINISHES, REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION
- XX — INDICATES MILLWORK TREATMENT
- INDICATES COUNTERTOP TREATMENT
- XX/XX — INDICATES CASEWORK TREATMENT
- INDICATES CHANGE OF MATERIALS, SEE TRANSITION DETAILS
- CG — INDICATES CORNERGUARD
- INDICATES DIRECTION OF GRAIN

MATERIAL CODES

A	ACOUSTICAL TILE	SC	SEALED CONCRETE
B	BASE	SST	STAINLESS STEEL
CG	CORNER GUARD	TB	TILE BASE
EP	EPOXY PAINT	TF	TILE FLOOR
EX	EXISTING TO REMAIN	TP	TOILET PARTITION
P	PAINT	TW	TILE WALL
QS	QUARTZ SURFACE	WP	WALL PROTECTION
RF	RESILIENT FLOOR	XC	SPECIALTY CEILING
		XS	SPECIALTY SURFACE



C1 INTERIOR FINISH PLAN - TYP. OFFICE (ALT.)
SCALE: 1/4" = 1'-0"



A1 INTERIOR FINISH PLAN - SLEEPING QUARTERS LAYOUT - NON-INTEGRATED W/ NO OFFICE (TYP)
SCALE: 3/16" = 1'-0"

4 3 2 1 0 4 8
SCALE: 1/4" = 1'-0"

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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CONTRACT NO.: W912DS-18-D-0010

DESIGNED BY: ECC
DRAWN BY: SH
CHECKED BY: RO
SUBMITTED BY: SH
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE A Joint Venture

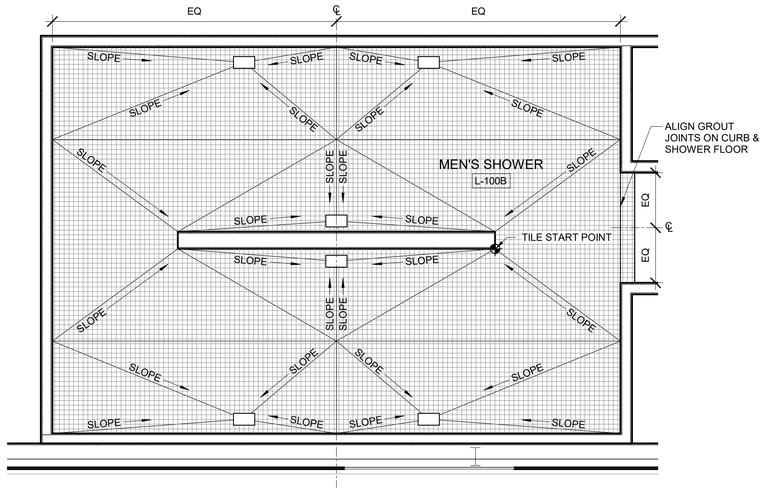
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

INTERIOR FINISH PLAN - TYP. SLEEPING QUARTERS

SHEET ID

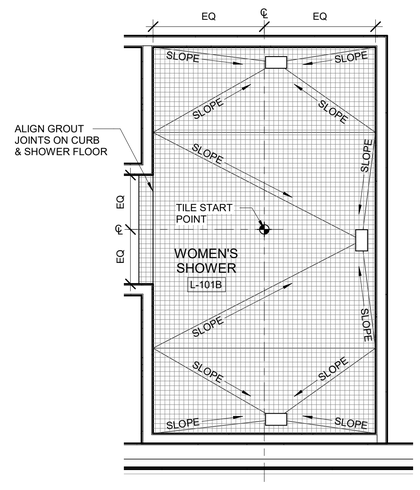
I-101A

RTA SUBMISSION



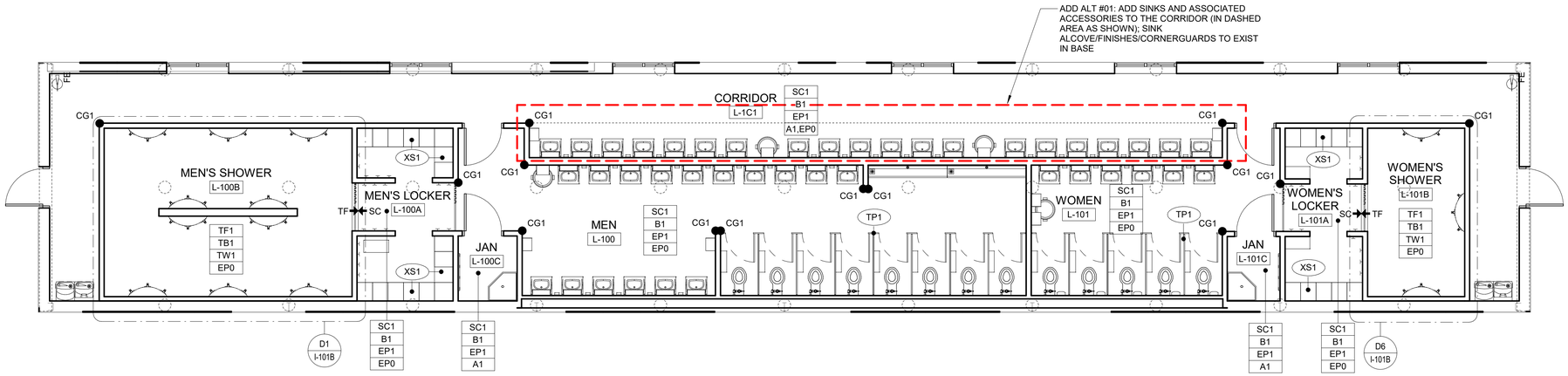
D1 FLOOR PATTERN PLAN - MENS SHOWER

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



D6 FLOOR PATTERN PLAN - WOMENS SHOWER

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



A1 FINISH FLOOR PLAN - LATRINES

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

FINISH LEGEND

LEGEND KEY

- XXX — INDICATES OVERALL FLOOR TREATMENT
- XXX — INDICATES OVERALL BASE TREATMENT
- XXX — INDICATES OVERALL WALL TREATMENT
- XXX — INDICATES OVERALL CEILING TREATMENT
- XX — INDICATES ACCENT TREATMENT
- XX XX — INDICATES TWO WALL FINISHES, REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION
- XX — INDICATES MILLWORK TREATMENT
- INDICATES COUNTERTOP TREATMENT
- XX/XX — INDICATES CASEWORK TREATMENT
- INDICATES CHANGE OF MATERIALS, SEE TRANSITION DETAILS
- CG — INDICATES CORNERGUARD
- INDICATES DIRECTION OF GRAIN

MATERIAL CODES

A	ACOUSTICAL TILE	SC	SEALED CONCRETE
B	BASE	SST	STAINLESS STEEL
CG	CORNER GUARD	TB	TILE BASE
EP	EPOXY PAINT	TF	TILE FLOOR
EX	EXISTING TO REMAIN	TP	TOILET PARTITION
P	PAINT	TW	TILE WALL
QS	QUARTZ SURFACE	WP	WALL PROTECTION
RF	RESILIENT FLOOR	XC	SPECIALTY CEILING
		XS	SPECIALTY SURFACE

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

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

PLAN NORTH

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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DRAWN BY: SH
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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

INTERIOR FINISH PLAN - TYP. LATRINES

SHEET ID

I-101B

RTA SUBMISSION

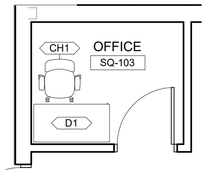
FOR REFERENCE ONLY

FURNITURE LEGEND:

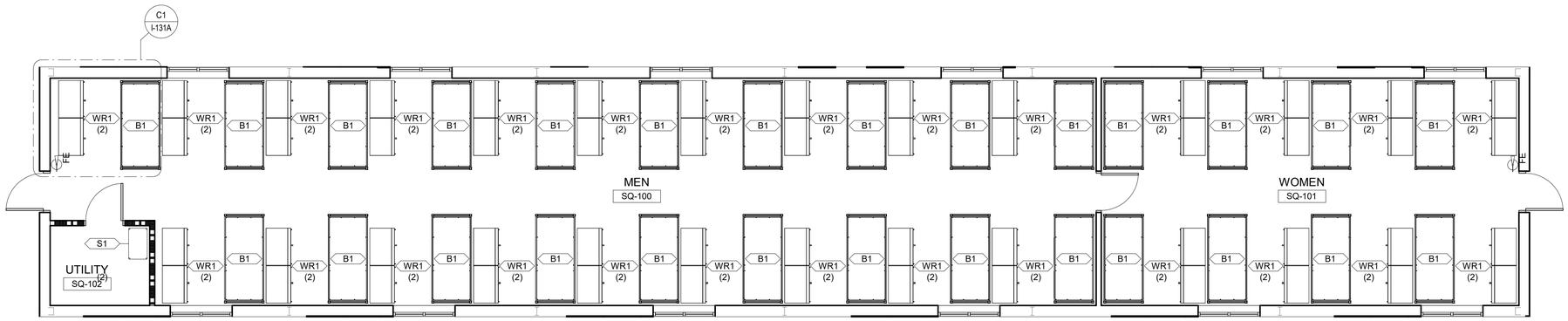
SLEEPING QUARTER & OFFICE	
SYMBOL	FURNITURE DESCRIPTION
	ERGONOMIC DESK CHAIR DIMENSIONS: 27-3/4"D x 27-3/4"L x 35"-43"H FURNITURE TAG: CH1
	DOUBLE DOOR WARDROBE DIMENSIONS: 24"D x 36"L x 78"H FURNITURE TAG: WR1
	BUNKBED WITH MATTRESSES - TWIN DIMENSIONS: 38-1/2"D x 82"L x 72"H FURNITURE TAG: B1
	DESK WITH BOX/FILE PEDESTAL DRAWER DIMENSIONS: 24"D x 48"L x 30"H FURNITURE TAG: D1
	INDUSTRIAL WIRE SHELVING DIMENSIONS: 18"D x 30"L x 63"H FURNITURE TAG: S1

GENERAL FURNITURE NOTES

1. FURNITURE IS GFGI.
2. FURNITURE IS NOT IN CONSTRUCTION CONTRACT AND IS FOR REFERENCE ONLY.
3. COORDINATE FURNITURE DIMENSIONS AND VERIFY PROPER CLEARANCE NECESSARY FOR PROCURED FURNITURE.



C1 INTERIOR FURNITURE PLAN - TYP. OFFICE (ALT.)
SCALE: 1/4" = 1'-0"



A1 INTERIOR FURNITURE PLAN - TYP. SLEEPING QUARTERS
SCALE: 3/16" = 1'-0"

4 3 2 1 0 4 8
SCALE: 1/4" = 1'-0"

8 6 4 2 0 8
SCALE: 3/16" = 1'-0"

PLAN NORTH
*TRUE NORTH VARIES

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

INTERIOR FURNITURE PLAN - TYP. SLEEPING QUARTERS

SHEET ID

I-131A

RTA SUBMISSION

GENERAL ABBREVIATIONS

A	----------
A.F.C.	ABOVE FINISHED CEILING
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ARCH.	ARCHITECT
B	----------
BFP	BACK FLOW PREVENTER
BLK	BLACK
C	----------
CL	CENTERLINE
CLG.	CEILING
CO	CLEANOUT
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONTR.	CONTRACTOR
D	----------
DEMO.	DEMOLITION
DIA.	DIAMETER
DN	DOWN
DW	DOMESTIC WATER
DWG.	DRAWING
DSP	DRY STANDPIPE
E	----------
(E)	EXISTING
E.C.	ELECTRICAL CONTRACTOR
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
(R)	EXISTING RELOCATED
EQUIP.	EQUIPMENT
EXP	EXPOSED
F	----------
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDV	FIRE DEPARTMENT VALVE
FDVC	FIRE DEPARTMENT VALVE CABINET
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FL.	FLOOR
FP	FIRE PUMP
FS	FLOW SWITCH
FUT.	FUTURE
G	----------
GA.	GAUGE
G.C.	GENERAL CONTRACTOR
GPM	GALLON PER MINUTE
GWB	GYPSUM WALL BOARD
H	----------
HP	HORSEPOWER
HT.	HEIGHT
HVAC	HEATING, VENTILATING, AIR CONDITIONING
I	----------
I.D.	INSIDE DIMENSION
ITC	INSPECTORS TEST CONNECTION
K	----------
KW	KILOWATT
L	----------
LT.	LIGHT
M	----------
MAX.	MAXIMUM
MFR.	MANUFACTURER
MIN.	MINIMUM
MTD.	MOUNTED
N	----------
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
N.T.S.	NOT TO SCALE
O	----------
O.D.	OUTSIDE DIMENSION
OS&Y	OUTSIDE SCREW & YOKE
P	----------
P.C.	PLUMBING CONTRACTOR
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PT	PAINT
R	----------
REQ.	REQUIRED
RPZ	REDUCED PRESSURE ZONE
S	----------
SF	SQUARE FEET
SLV.	SLEEVE
SP.	STANDPIPE
SPEC.	SPECIFICATION
SPR	SPRINKLER
STD.	STANDARD
SYS.	SYSTEM
T	----------
TEMP.	TEMPERATURE
TS	TAMPER SWITCH
TYP.	TYPICAL
U	----------
U.O.N.	UNLESS OTHERWISE NOTED
V	----------
V	VOLT
W	----------
WHT	WHITE
WP	WEATHERPROOF
WSP	WET STANDPIPE
SYMBOLS	----------
*	DISTANCE DOWN FROM CEILING
+	DISTANCE ABOVE FINISHED FLOOR

DELEGATED DESIGN RESPONSIBILITY

THIS FIRE PROTECTION DRAWING INDICATES THE GENERAL LOCATION OF THE SPRINKLERS. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR LAYING OUT ALL BRANCH LINE & ARM OVER PIPING IN CONFORMANCE WITH NFPA 13R STANDARDS. CONTRACTOR SHALL PERFORM HYDRAULIC CALCULATIONS FOR PIPE SIZING AND CONFIRM DESIGN DENSITIES AND SPRINKLER DISCHARGE CHARACTERISTICS WITH THE INSURANCE UNDERWRITER AND ANY OTHER AUTHORITY HAVING JURISDICTION. WORKING PLANS AND HYDRAULIC CALCULATIONS ARE TO BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO CONSTRUCTION.

FIRE PROTECTION SYMBOLS

- WET SPRINKLER PIPING
- SERVICE RISER UP/DOWN
- ELBOW DOWN
- NEW SIDEWALL SPRINKLER HEAD
- (M) MONITORED FIRE VALVE
- (FS) FLOW SWITCH
- FIRE DEPARTMENT CONNECTION

SYSTEM SUMMARY

1. OWNER: USMA WEST POINT

2. LOCATION: WEST POINT

3. SYSTEM DESCRIPTION: AUTOMATIC RESIDENTIAL WET-PIPE SPRINKLER SYSTEM THROUGHOUT BARRACKS BUILDINGS.

4. FIRE PROTECTION ENGINEER OF RECORD: JACOBS, ARLINGTON, VA

5. DESCRIPTION OF HAZARDS:
   DWELLING UNIT: BARRACKS SLEEPING ROOMS.
   ORDINARY HAZARD: UTILITY CLOSETS.

6. FIRE SPRINKLER SYSTEMS - MINIMUM RATE WATER APPLICATION (DENSITY):
   DWELLING UNIT : 0.05 GPM/ 4 MOST HYDRAULICALLY DEMANDING HEADS
   ORDINARY HAZARD : 0.2 GPM/ ENTIRE COMPARTMENT

7. MAX. AREA OF SPRINKLER COVERAGE:
   DWELLING UNIT: PER SPRINKLER HEAD LISTING
   ORDINARY HAZARD: 130 SF

8. FIRE SPRINKLER SYSTEM BACKFLOW PREVENTER - A PRESSURE LOSS SHALL BE APPLIED TO THE HYDRAULIC CALCULATIONS MAXIMUM OF MANUFACTURER'S DATA SHEET OR 12 PSI, WHICHEVER IS GREATER.

9. WATER SUPPLY:
   9.1 HYDRANT FLOW TEST DATE: 05/20/2020
   9.2 TEST CONDUCTED BY: JACOBS ENGINEERING
   9.3 LOCATION OF TEST: 1623 MACADAM RD (READ @ HYDRANT CB-006)
   9.4 HYDRANT DISCHARGE: 40 PSI AT STATIC; 28 PSI AT 611 GPM (FLOW @ HYDRANT CB-007)

10. DEMAND CALCULATIONS:
   10.1 PROJECTED SPRINKLER DEMAND: 25 PSI @ 62GPM
   10.2 EXPECTED DOMESTIC DEMAND: 127 GPM
   10.3 WATER SUPPLY: 36 PSI @ 189 GPM
   10.4 SAFETY FACTOR: 11 PSI

11. HYDRAULIC CALCULATIONS SHALL BE BASED ON FLOW DATA FROM A TEST CONDUCTED WITHIN 12 MONTHS OF DESIGN. CONTRACTOR SHALL PERFORM A NEW FIRE HYDRANT FLOW TEST PRIOR TO SHOP DRAWING SUBMITTALS IF REQUIRED FOR CURRENT FLOW DATA.

12. NOT ALL EQUIPMENT THAT SHALL BE PART OF THE FIRE SPRINKLER SYSTEM IS SHOWN (I.E., PIPE HANGERS, ETC.). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY EQUIPMENT AND MATERIALS PER NFPA 13R AND SHOW ON THE SHOP DRAWINGS.

13. FIRE SPRINKLER SYSTEMS - FOR CONTROL VALVES AND FLOW SWITCHES ABOVE HARD CEILING, PROVIDE AN APPROVED ACCESS HATCH WITH PROPER LABELING.

BUILDING CONSTRUCTION CODE DATA

BUILDING CODE: INTERNATIONAL BUILDING CODE (2018 EDITION)

FIRE CODE: NFPA 1 (2018 EDITION)

SITE LOCATION: CAMP BUCKNER, WEST POINT

FIRE SUPPRESSION SYSTEM: [FULLY SPRINKLERED]

PROPOSED WORK SHALL COMPLY WITH:
NFPA 13R - 2016 EDITION

GENERAL NOTES

1. DESIGN AND INSTALLATION SHALL BE SUPERVISED BY A CERTIFIED FIRE PROTECTION SPECIALIST WHO IS A PROFESSIONAL REGISTERED FIRE PROTECTION ENGINEER OR WHO IS NICET IV CERTIFIED IN AUTOMATIC SPRINKLER SYSTEM LAYOUT AND SHALL HAVE SERVED IN A SIMILAR CAPACITY FOR AT LEAST THREE SYSTEMS THAT HAVE PERFORMED IN THE MANNER INTENDED FOR A PERIOD OF NOT LESS THAN 6 MONTHS.

2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES (INCLUDING BUT NOT LIMITED TO THOSE SHOWN BELOW), STANDARDS AND LOCAL ORDINANCES HAVING JURISDICTION.

3. APPLICABLE CODES:
NFPA 13 (2016 EDITION)
NFPA 13R (2016 EDITION)
NFPA 72 (2016 EDITION)
NFPA 101 (2018 EDITION)
UNIFORM FACILITIES CRITERIA 3-600-01 (UFC, CHANGE 3 2019 EDITION)

4. CONTRACTOR SHALL PROVIDE A WET PIPE SYSTEM THROUGHOUT WORK AREA, UNLESS STATED OTHERWISE, IN ACCORDANCE WITH THE PROPER OCCUPANCY CLASSIFICATION AND HAZARD RATING PER NFPA 13R. THESE PROVISIONS SHALL INCLUDE COORDINATION OF FIRE SPRINKLER SYSTEM WITH OTHER TRADES.

5. CONTRACTOR IS EXPECTED, AS A REQUIREMENT OF THEIR QUALIFICATIONS, TO UTILIZE THEIR KNOWLEDGE AND EXPERIENCE TO INCLUDE IN THE COST OF ANY WORK OR MATERIALS THAT ARE REQUIRED, BUT NOT SPECIFICALLY EXPRESSED IN THE BID DOCUMENTS.

6. THESE DESIGN DOCUMENTS REPRESENT A DIAGRAMMATIC LAYOUT OF THE SYSTEM AND DO NOT INCLUDE ALL REQUIRED SYSTEM COMPONENTS. PIPE SIZES LISTED ARE A MINIMUM. AT THEIR OWN RISK, THE CONTRACTOR MAY REDUCE THE PIPE SIZES LISTED IF THE PROPOSED SIZES ARE JUSTIFIED BY HYDRAULIC CALCULATIONS AND APPROVED. UNDERGROUND PIPING AND INCOMING MAINS ARE EXISTING TO REMAIN AND MAY NOT BE MODIFIED.

7. CONTRACTOR SHALL PROVIDE TESTING OF THE FIRE SUPPRESSION SYSTEMS IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, LOCAL ORDINANCES HAVING JURISDICTION, ENGINEER AND OWNER. PROVIDE ALL APPROVED EQUIPMENT FOR TESTING.

8. WHERE OBSTRUCTIONS TO FIRE SPRINKLER DISCHARGE EXIST, SPRINKLERS SHALL BE LOCATED WITH RESPECT TO THIS OBSTRUCTION IN ACCORDANCE WITH NFPA 13R. THIS INCLUDES FIRE SPRINKLERS BENEATH DUCT WORK AND OTHER OBSTRUCTIONS WIDER THAN 48".

9. CONTRACTOR SHALL COORDINATE FIRE SPRINKLER LOCATIONS WITH ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS.

10. COORDINATE LOCATIONS OF ALL FIRE PROTECTION PIPING WITH BUILDING STRUCTURAL, MECHANICAL, AND ELECTRICAL ELEMENTS INCLUDING, BUT NOT LIMITED TO, STRUCTURAL MEMBERS AND SYSTEMS, AIR DUCTS AND OUTLETS, LIGHT FIXTURES AND SIMILAR EQUIPMENT AND MATERIAL THAT MAY INTERFERE WITH THE PROPER INSTALLATION AND OPERATION OF THESE SYSTEMS. INSTALLATION DRAWINGS SUBMITTED FOR APPROVAL SHALL BE COORDINATED WITH ALL TRADES AND CONTRACTING OFFICER.

11. PROVIDE ALL NECESSARY PARTS, ACCESSORIES AND LABOR TO INSTALL THE NEW SPRINKLER PIPING.

12. REPAIR OR REPLACE ANY COMPONENT/WORK DAMAGED BY THE CONTRACTOR INSTALLING THE FIRE SPRINKLER SYSTEM.

13. PROVIDE SLEEVES FOR ALL PIPING PENETRATING WALLS, FLOORS, AND CEILINGS.

14. SEAL, CAULK AND PROVIDE UL LISTED FIRE STOP SYSTEM AROUND ALL OPENINGS, PENETRATIONS AND SLEEVES THROUGH FIRE RATED WALLS, FLOORS, PARTITIONS, CEILINGS, ETC. UL LABELED AND LISTED FIRE RATED MATERIALS, FIRE STOPS, ETC. SHALL BE USED IN ACCORDANCE WITH THIS REQUIREMENT AND OTHER SPECIFICATIONS SECTIONS.

15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL NEW BUILDING COMPONENTS AND FINISHES FROM DAMAGE. THE CONTRACTOR SHALL, AT HIS EXPENSE, RESTORE TO ORIGINAL CONDITION AREAS OR FINISHES DAMAGED BY THIS WORK.

16. CONTRACTOR SHALL PROVIDE SPRINKLER SYSTEM SHOP DRAWINGS IN ACCORDANCE WITH NFPA 13 AND HYDRAULIC CALCULATIONS SIGNED AND SEALED BY A NICET III OR IV OR PROFESSIONAL ENGINEER. PROVIDE INSTALLATION DETAILS OF SPECIAL CONDITIONS, AND SUBMIT TO THE GOVERNMENT FOR REVIEW. NO WORK SHALL BEGIN WITHOUT APPROVED SHOP DRAWINGS.

17. LOCATION OF FIRE SPRINKLER HEADS: THE SPACING OF SPRINKLER HEADS SHALL NOT EXCEED THAT PERMITTED BY NFPA 13R FOR THE HAZARD OCCUPANCY CLASSIFIED.

18. FOR WET PIPE 2" AND SMALLER, BLACK STEEL PIPING SHALL BE SCHEDULE 40 PIPE. SCHEDULE 40 PIPING SHALL UTILIZE THREADED, WELDED, OR GROOVED CONNECTIONS. THREADING SHALL BE NATIONAL PIPE THREAD (NPT) THREADING. PRESS-FIT FITTINGS SHALL NOT BE UTILIZED.

19. FOR WET PIPE LARGER THAN 2", BLACK STEEL PIPING MAY BE SCHEDULE 10 OR SCHEDULE 40 PIPE. SCHEDULE 10 PIPING SHALL UTILIZE WELDED OR GROOVED CONNECTIONS. THREADING SHALL NOT BE PERMITTED ON SCHEDULE 10 PIPING. PRESS-FIT FITTINGS SHALL NOT BE UTILIZED.

20. ALL SECTIONS OF ALL PIPING SHALL BE PITCHED TO DRAIN. PROVIDE AUXILLIARY DRAINS AT END OF LINE WHERE PIPING WILL TRAP WATER. AUXILLIARY DRAINS SHALL CONSIST OF A BALL VALVE WITH MALE HOSE THREAD AND CAP. DRAIN LOCATIONS SHALL HAVE A SIGN ATTACHED TO THE FINISHED CEILING STATING "AUXILIARY DRAIN".

21. PIPE AND HANGERS SUPPORTS: PROVIDE PIPE SUPPORTS, HANGERS, AND CLAMPS IN ACCORDANCE WITH NFPA 13R AND UFC 3-600-01.

22. FIRE SPRINKLER HEADS SHALL BE IN CONFORMANCE WITH NFPA 13R. RELEASE ELEMENTS SHALL BE SUITABLE FOR SPECIFIC APPLICATION. PROVIDE QUICK RESPONSE HEADS IN ALL LIGHT HAZARD OFFICE AND ALL OTHER OCCUPANCIES IN WHICH THEIR USE IS LISTED OR APPROVED.

23. PRELIMINARY TESTING: CONTRACTOR SHALL HYDROSTATICALLY TEST ALL WET-PIPE SPRINKLER SYSTEMS, AS REQUIRED BY NFPA 13R, IN THE PRESENCE OF THE CONTRACTING OFFICER OR HIS APPOINTED REPRESENTATIVE.

24. PIPING IDENTIFICATION: EXPOSED SPRINKLER PIPING SHALL BE PAINTED RED. MAIN AND BRANCH SPRINKLER PIPING SHALL BE MARKED WITH SIGNS THAT WRAP AROUND THE PIPE AT INTERVALS OF NOT LESS THAN 20 FEET. SPRINKLER PIPING SIGNS FOR STANDARD PIPING SHALL READ, "FIRE SPRINKLER WATER" AND SPRINKLER DRAINS SHALL READ "FIRE SPRINKLER DRAIN".

25. CLEANING AND PROTECTION: CONTRACTOR SHALL CLEAN DIRT AND DEBRIS FROM FIRE SPRINKLERS AND PIPING.

26. FIRE SPRINKLER PIPE SHALL BE INSTALLED AS HIGH AS POSSIBLE USING NECESSARY FITTINGS TO MAINTAIN MAXIMUM HEADROOM. USE OF AUXILIARY DRAINS AND THEIR LOCATIONS SHALL BE APPROVED BY AHJ AND ENGINEER DURING SHOP DRAWING SUBMITTAL PHASE AND SHALL BE COORDINATED WITH OTHER TRADES.

27. CONTRACTOR SHALL PROVIDE FIRE SPRINKLER SYSTEM SHOP DRAWINGS THAT INCLUDE ALL INFORMATION AS OUTLINED IN SECTION 8.1.7 OF NFPA 13R (2016 EDITION), AS WELL AS WATER SUPPLY INFORMATION AND WATER SUPPLY TREATMENT INFORMATION. THE FIRE SPRINKLER HYDRAULIC CALCULATIONS SHALL INCLUDE A SUMMARY SHEET, GRAPH SHEET AND HYDRAULIC REPORT IN ACCORDANCE WITH SECTIONS 23.3.2, 23.3.3, 23.3.4, 23.3.5 OF NFPA 13 (2016 EDITION).

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: JIW
DRAWN BY: JIW
CHECKED BY: JB
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO. W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

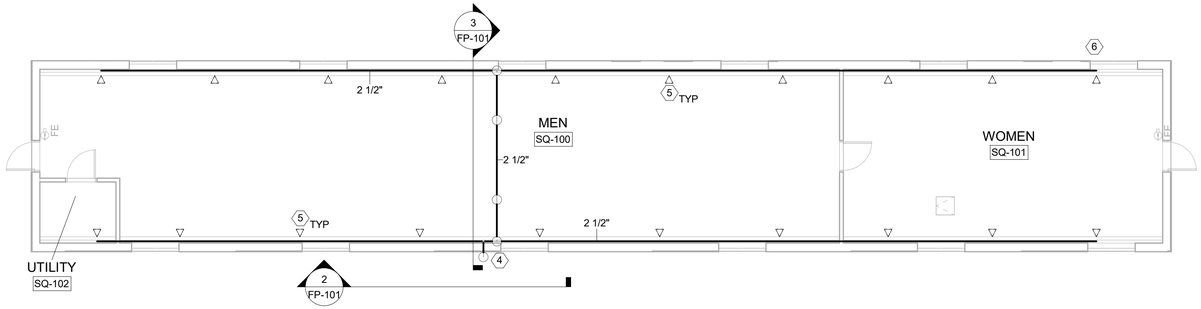
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRE PROTECTION GENERAL NOTES

SHEET ID

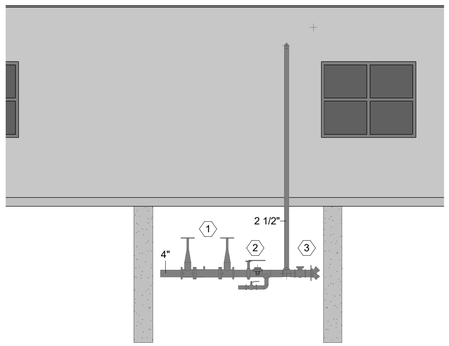
FP-001

RTA SUBMISSION



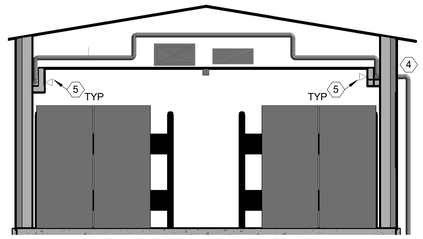
1 FIRE PROTECTION PLAN_BARRACKS

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



2 FIRE PROTECTION_INCOMING SERVICE

NTS



3 FIRE PROTECTION_INTERIOR PIPING

NTS

FIRE PROTECTION GENERAL NOTES

1. REFER TO SHEET FP-001 FOR GENERAL FIRE ALARM NOTES, LEGEND, AND ABBREVIATIONS.
2. REFER TO SHEET G-102 FOR OVERALL SITE LAYOUT AND DETAILS ON SPECIFIC BUILDINGS.
3. REFER TO ARCHITECTURAL CEILING PLANS FOR COORDINATION WITH LIGHTS, DIFFUSERS, AND CEILING GRID.
4. THIS DESIGN IS BASED ON THE SPRINKLER SYSTEMS, SYSTEM RISERS, AND SITE LOOP BEING COMPLETELY DRAINED DOWN EVERY YEAR BEFORE WINTER TO ELIMINATE THE POSSIBLITY OF THE WET PIPE FREEZING. BUILDINGS ARE TO BE UN-OCCUPIED DURING THIS WINTERIZATION PERIOD.
5. CONTRACTOR IS RESPONSIBLE TO VERIFY LISTED SPACING REQUIREMENTS OF SELECTED SPRINKLER HEADS. EXTENDED COVERAGE HEADS ARE NOT PERMITTED PER UFC 3-600-01.

FIRE PROTECTION KEYNOTES (#)

1. STAINLESS-STEEL BACKFLOW PREVENTER TO BE INSTALLED OUTSIDE, BENEATH BUILDING. EXACT LOCATION WILL VARY DEPENDING ON BUILDING ORIENTATION AND PROXIMITY TO UNDERGROUND MAIN, AND COORDINATED PER BUILDING WITH CONTRACTING OFFICER. SEE DETAIL D1 ON SHEET FP-701.
2. SPRINKLER RISER ASSEMBLY TO BE INSTALLED ADJACENT TO BACKFLOW PREVENTER. SEE DETAIL D4 ON SHEET FP-701.
3. 4" STORZ FIRE DEPARTMENT CONNECTION. EXACT LOCATION WILL VARY DEPENDING ON BUILDING ORIENTATION AND PROXIMITY TO EXISTING FIRE HYDRANT. SEE DETAIL D8 ON SHEET FP-701.
4. SPRINKLER RISER TO ATTACH TO EXTERIOR BUILDING STRUCTURE AND ENTER INTO SOFFIT RUNNING THE LENGTH OF THE BUILDING.
5. SIDEWALL SPRINKLER HEADS TO BE MOUNTED IN ARCHITECTURAL SOFFITS ON EACH SIDE OF THE BARRACKS. CONNECTIONS PROTRUDE FROM THE SIDE OF THE SPRINKLER MAIN TO FACILITATE DRAIN DOWN DURING WINTERIZATION. SEE DETAIL F1 ON SHEET FP-701.
6. PROVIDE DRAIN LINE (PIPED FROM BOTTOM OF MAIN TO BUILDING EXTERIOR) FOR DRAINAGE OF TRAPPED PIPING, AND FOR USE AS INSPECTOR'S TEST CONNECTION. SEE DETAIL A1 ON SHEET FP-701.

8 6 4 2 0 8 16

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

PLAN NORTH

*TRUE NORTH VARIES

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

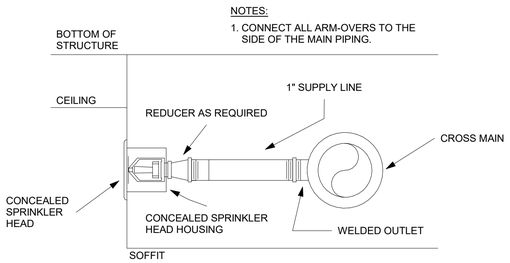
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRST FLOOR PLAN - FIRE PROTECTION

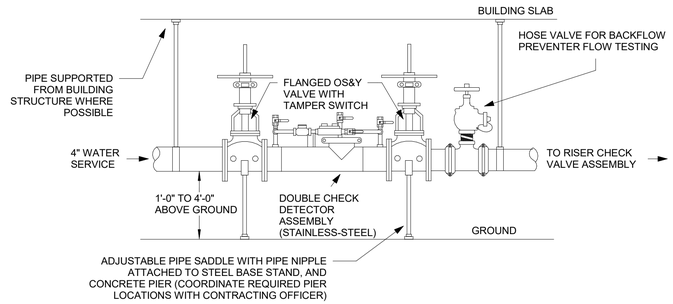
SHEET ID

FP-101

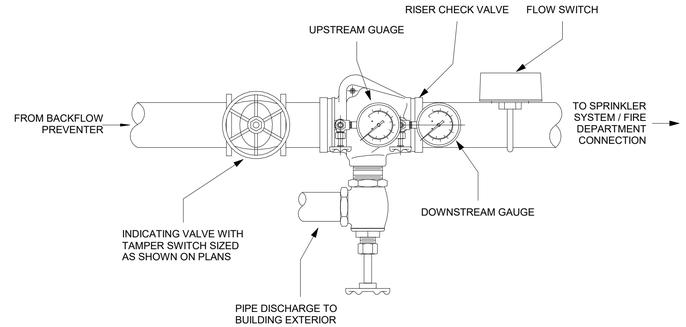
RTA SUBMISSION



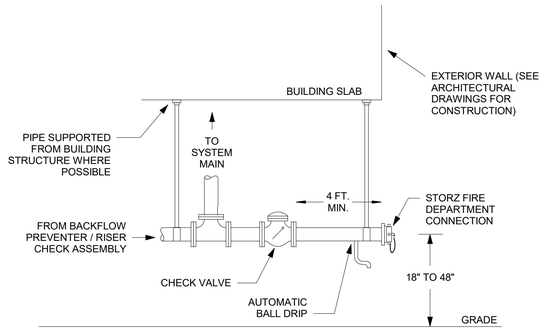
F1 CONCEALED SIDEWALL SPRINKLER
NTS



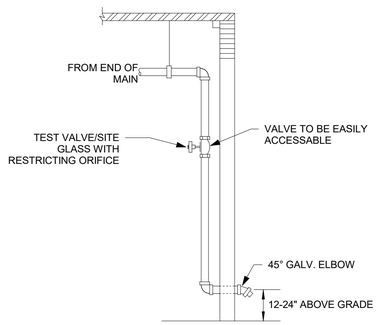
D1 DOUBLE CHECK DETECTOR ASSEMBLY
NTS



D4 FP RISER CHECK VALVE ASSEMBLY
SCALE: 12" = 1'-0"



D8 FIRE DEPARTMENT CONNNECTION
NTS



A1 FP INSPECTOR'S TEST AND DRAIN CONNECTION
NTS

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRE PROTECTION DETAILS

SHEET ID
FP-701

RTA SUBMISSION

GENERAL ABBREVIATIONS

A	----------
A OR AMP	AMPERE
ACU	AUTONOMOUS CONTROL UNIT
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINIHSED GRADE
AHU	AIR HANDLING UNIT
ANN	ANNUNCIATOR
ARCH	ARCHITECT
ARA	AREA OF RESCUE ASSISTANCE
B	----------
BKR	BREAKER
BFP	BACK FLOW PREVENTER
C	----------
C OR CDT	CONDUIT
C/B	CIRCUIT BREAKER
CBL	CABLE
CKT	CIRCUIT
CL	CENTERLINE
CLG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONTR	CONTRACTOR
D	----------
DEMO	DEMOLITION
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTANCE
DW	DOMESTIC WATER
DWG	DRAWING
DP	DISTRIBUTION PANEL
DSP	DRY STANDPIPE
E	----------
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
ELEV	ELEVATOR
EO	ELECTRICALLY OPERATED
EQUIP	EQUIPMENT
EX	EXISTING
F	----------
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
F.B.O.	FURNISHED BY OWNER
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FDVC	FIRE DEPARTMENT VALVE CABINET
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FL.	FLOOR
FP	FIRE PUMP
FS	FLOW SWITCH
FTR	FIRE ALARM TRANSPONDER PANEL
FUT	FUTURE
G	----------
GA	GAUGE
GC	GENERAL CONTRACTOR
GPM	GALLON PER MINUTE
H	----------
HP	HORSEPOWER
HT	HEIGHT
HVAC	HEATING, VENTILATING, AIR CONDITIONING
I	----------
ID	INSIDE DIMENSION
J	----------
JB	JUNCTION BOX
JUNC	JUNCTION
K	----------
KW	KILOWATT
L	----------
LOC	LOCAL OPERATING CONSOLE
LT	LIGHT
LV	LOW VOLTAGE
M	----------
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MFR	MANUFACTURER
MIN	MINIMUM
MNS	MASS NOTIFICATION SYSTEM
MTD	MOUNTED
N	----------
(N)	NEW
NAC	NOTIFICATION APPLIANCE CIRCUIT
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	----------
OD	OUTSIDE DIAMETER
P	----------
PC	PLUMBING CONTRACTOR
PIV	POST INDICATOR VALVE
PNL	PANEL
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PWR	POWER
R	----------
RE	REMOVE EXISTING
RAP	REMOTE ANNUNCIATOR PANEL
REQ	REQUIRED

S	----------
SIAM	SIAMESE
SLC	SIGNALING LINE CIRCUIT
SLV	SLEEVE
SP	STANDPIPE
SPEC	SPECIFICATION
SPR	SPRINKLER
ST	SHUNT TRIP
SPEP	STROBE POWER EXTENDER PANEL
STD	STANDARD
SW	SWITCH
SYS.	SYSTEM
T	----------
TEL	TELEPHONE
TEMP	TEMPERATURE
TYP	TYPICAL
U	----------
U.L.	UNDERWRITER'S LABORATORY
U.O.N.	UNLESS OTHERWISE NOTED
V	----------
V	VOLT
VCC	VOICE COMMAND CENTER
W	----------
W	WIRE
WP	WEATHERPROOF
WSP	WET STANDPIPE
X	----------
XDR	TRANSDUCER
XMTR	TRANSMITTER
XPDR	TRANSPONDER
SYMBOLS	----------
*	DISTANCE DOWN FROM CEILING
+	DISTANCE ABOVE FINISHED FLOOR

FIRE ALARM SYMBOLS

FAMN	FIRE ALARM/MASS NOTIFICATION CONTROL PANEL
F	MANUAL PULL STATION
MM	MONITOR MODULE
CM	CONTROL MODULE
?P	SMOKE DETECTOR P - PHOTOELECTRIC TYPE
?S	DUCT SMOKE DETECTOR S - SUPPLY SIDE
WP (XX)	COMBINATION FIRE ALARM AND MNS SPEAKER WITH SEPARATE CLEAR FIRE ALARM STROBE AND AMBER MNS STROBE - WALL MOUNTED XX - CANDELA RATING 15cd U.O.N. (ACCOUNT FOR DE-RATING THROUGH AMBER LENS) WP - WEATHER-PROOF
WP	SPEAKER- WALL MOUNTED WP - WEATHER-PROOF

BUILDING CONSTRUCTION CODE DATA

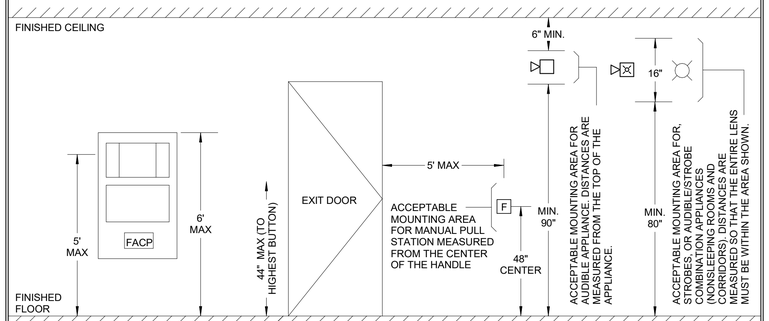
BUILDING CODE:	INTERNATIONAL BUILDING CODE (2018 EDITION)
FIRE CODE:	NFPA 1 (2018 EDITION)
SITE LOCATION:	CAMP BUCKNER, WEST POINT
FIRE ALARM SYSTEM:	ADDRESSABLE FIRE ALARM/MASS NOTIFICATION SYSTEM

PROPOSED WORK SHALL COMPLY WITH:
NFPA 72 - 2016 EDITION
UFC 4-021-01

GENERAL NOTES

1. DRAWING KEYNOTES ARE INDICATED ON PLANS BY SYMBOL (1)
2. REFER TO SPRINKLER DRAWINGS FOR EXACT LOCATION AND QUANTITY OF SUPERVISED VALVES AND FLOW SWITCHES.
3. SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 72-2016, UFC-3-600-01, AND UFC 4-021-01.
4. LOCATE SMOKE DETECTORS MINIMUM 36 INCHES FROM HVAC DIFFUSERS.
5. LOCATE VISUAL DEVICES A MINIMUM OF 80" ABOVE FINISHED FLOOR OR 6" BELOW THE FINISHED CEILING, WHICHEVER IS LOWER. THE MAXIMUM MOUNTING HEIGHT IS 96" ABOVE FINISHED FLOOR.
6. VISUAL DEVICE CANDELA RATING SHALL BE AS INDICATED ON DRAWING. WHERE TWO OR MORE VISUAL DEVICES ARE IN ANY FIELD OF VIEW, THEY SHALL FLASH IN SYNCHRONIZATION.
7. INSTALL ALL WIRING IN MINIMUM 3/4-INCH CONDUIT.
8. ALL DEVICES ARE TO BE PROTECTED DURING CONSTRUCTION.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING MOUNTED DEVICES/APPLIANCES.
10. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
11. SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN.
12. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
13. A STAMPED SET OF APPROVED FIRE ALARM DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE USED FOR INSTALLATION.
14. THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
15. THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMAN LIKE MANNER.
16. DO NOT APPLY POWER EXCEPT IN THE PRESENCE OF A FACTORY TRAINED MONACO TECHNICAL REPRESENTATIVE.
17. ANY SMOKE DETECTOR HEAD INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST. ANY FALSE ALARMS DUE TO DIRT CONTAMINATED HEADS SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM INSTALLER.
18. THE FIRE ALARM INSTALLER WILL MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.
19. INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. POWER LIMITED AND NON-POWER LIMITED FIELD WIRING MUST BE INSTALLED WITHIN THE FACP ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NEC.
20. ALL WIRING SHALL BE INSTALLED ACCORDING TO NFPA 70 (NEC).
21. FIRE ALARM CIRCUITS SHALL BE IDENTIFIED IN ACCORDANCE WITH APPROPRIATE SECTION OF NEC 760. MARK ALL FIRE ALARM WIRES IN ACCORDANCE WITH NEC 760 SECTIONS FOR POWER LIMITED AND NON-POWER LIMITED WIRE.
22. FIRE ALARM CABLE INSTALLED IN DUCTS. PLENUM, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR SHALL BE TYPE FPLP.
23. FIRE ALARM CABLE INSTALLED IN THE VERTICAL RUNS AND PENETRATE MORE THAN ONE FLOOR OR CABLES INSTALLED IN VERTICAL RUNS IN SHAFTS SHALL BE TYPE FPLR.
24. ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
26. ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
27. 120VAC IS NOT PERMITTED IN THE SAME CONDUIT WITH LOW VOLTAGE WIRING.
28. MAINTAIN 40 PERCENT (MAXIMUM) CONDUIT FILL RATIO AS PER NEC REQUIREMENTS.

STANDARD MOUNTING HEIGHTS



NOTES:
1. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS. SEE INTERIOR ELEVATIONS FOR SPECIFIC MOUNTING HEIGHTS.
2. DO NOT INSTALL ANY EQUIPMENT OUTSIDE UNLESS IT IS LISTED FOR OUTDOOR USE.
3. FOR LOW CEILINGS WHERE THE MOUNTING HEIGHTS CAN NOT BE MET, MOUNT THE INDICATING APPLIANCE (EX: SPEAKERS, STROBE) 6" FROM THE CEILING.
4. MOUNT ALL INDICATING APPLIANCES ON THE WALL, UNLESS INDICATED OTHERWISE.
5. ALL DEVICE & APPLIANCE HEIGHTS SHOULD BE CONSISTENT FOR THE ENTIRE PROJECT. THE FIRE PANEL SHALL HAVE A MINIMUM 3 FT CLEARANCE FROM THE FRONT OF THE CONTROL EQUIPMENT.

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

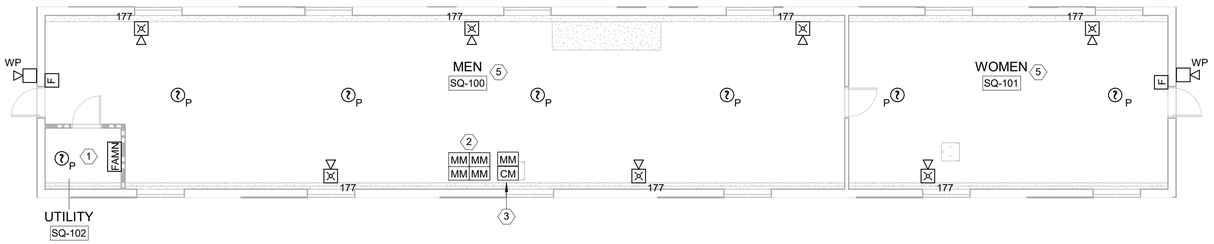
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRE ALARM GENERAL NOTES

SHEET ID

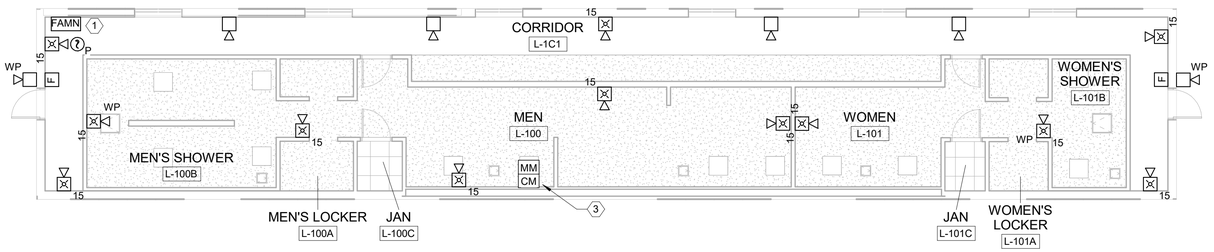
FA-001

RTA SUBMISSION



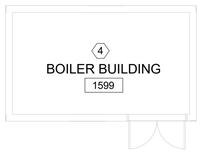
1 FIRE ALFARM PLAN_BARRACKS

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



2 FIRE ALARM PLAN_LATRINE

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



3 FIRE ALARM PLAN_BOILER BUILDING

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

FIRE ALARM GENERAL NOTES

1. REFER TO SHEET FA-001 FOR GENERAL FIRE ALARM NOTES, LEGEND, AND ABBREVIATIONS.
2. REFER TO SHEET FA-701 FOR FIRE ALARM MATRIX AND RISER DIAGRAM.
3. REFER TO SHEET G-101 FOR NOTIFICATION DEVICE PERFORMANCE CRITERIA.
4. REFER TO SHEET G-102 FOR OVERALL SITE LAYOUT AND DETAILS ON SPECIFIC BUILDINGS.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR COORDINATION WITH LIGHTS, DIFFUSERS, AND CEILING GRID.
6. ALL EXISTING FIRE ALARM DEVICES, WIRING, AND CONDUIT TO BE DEMOLISHED.

FIRE ALARM KEYNOTES (#)

1. NEW COMBINATION FIRE ALARM AND MASS NOTIFICATION CONTROL PANEL (MONACO MAAP-X). PANEL TO INCLUDE INTEGRATED RADIO TRANSCEIVER FOR COMMUNICATION WITH WEST POINT WIDE-AREA MASS NOTIFICATION NETWORK. PROVIDE SMOKE DETECTION ABOVE PANEL AND SURGE SUPPRESSION ON POWER SUPPLY. PANEL MAY BE INSTALLED IN UNCONDITIONED SPACE DURING WINTERIZATION PERIOD PER EQUIVALENT ALTERNATIVE ACCEPTED BY AHJ.
2. MONITOR MODULES FOR SPRINKLER TAMPER (x3) AND FLOW (x1) SWITCHES LOCATED BENEATH BUILDING (REFER TO SHEET FP-101). INSTALL MODULES INSIDE BUILDING. SEE DETAILS D5 AND D8 ON SHEET FA-701.
3. PROVIDE MONITOR MODULES FOR DUCT DETECTORS INTRINSIC TO EXTERIOR AIR HANDLER UNITS. PROVIDE CONTROL MODULE FOR UNIT SHUTDOWN UPON SMOKE DETECTION. INSTALL MODULES INSIDE BUILDING. SEE DETAIL F8 ON SHEET FA-701. SEE CIVIL DRAWINGS FOR EXACT UNIT LOCATIONS.
4. BOILER BUILDINGS ARE NOT REQUIRED TO INCLUDE CARBON MONOXIDE DETECTION PER AHJ, AS THEY ARE NORMALLY UNOCCUPIED AND NOT CONNECTED TO OCCUPIED AREAS.
5. NOTIFICATION DEVICES IN SLEEPING AREAS SHALL MEET CORRESPONDING UFC AND NFPA AUDIBLE AND VISUAL REQUIREMENTS FOR SLEEPING AREAS.

PLAN NORTH

8 6 4 2 0 8 16

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

*TRUE NORTH VARIES

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRST FLOOR PLAN - FIRE ALARM

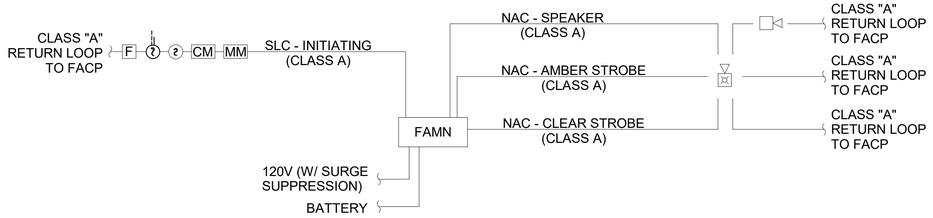
SHEET ID

FA-101

RTA SUBMISSION

SYSTEM INPUT		SYSTEM OUTPUTS																
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
		ACTUATE COMMON ALARM SIGNAL INDICATOR AND AUDIBLE	DISPLAY ALARM DEVICE	TRANSMIT ALARM SIGNAL TO FIRE DEPARTMENT	ACTUATE COMMON SUPERVISORY INDICATOR AND AUDIBLE	ACTUATE SUPERVISORY INDICATOR AND AUDIBLE FOR M.N. ACTIVATION	DISPLAY SUPERVISORY DEVICE	TRANSMIT SUPERVISORY SIGNAL TO FIRE DEPARTMENT	ACTUATE COMMON TROUBLE SIGNAL INDICATOR AND AUDIBLE	DISPLAY TROUBLE DEVICE	TRANSMIT TROUBLE SIGNAL TO FIRE DEPARTMENT	INITIATE AUDIBLE/VISUAL (CLEAR) GENERAL EVACUATION SIGNALS IN ALARMED BUILDING	INITIATE AUDIBLE/VISUAL (AMBER) MASS NOTIFICATION ALARMS	DISABLE FIRE ALARM AUDIBLE/VISUAL (CLEAR) NOTIFICATION APPLIANCES	SHUTDOWN ASSOCIATED AIR HANDLER UNIT	SILENCE PANEL AND FACILITY AUDIBLES (VISUALS CONTINUE)	CONTROL PANEL RETURNS TO NORMAL (AUDIBLES AND VISUALS STOP)
1	AREA SMOKE DETECTORS	●	●									●					
2	MANUAL FIRE ALARM PULL STATION	●	●	●								●					
3	SPRINKLER WATER FLOW SWITCH	●	●	●								●					
4	VALVE TAMPER SWITCH				●		●	●									
5	MASS NOTIFICATION ACTIVATION					●	●	●					●	●			
6	AHU DUCT DETECTOR					●	●	●							●		
7	FIRE ALARM AC POWER FAILURE								●	●	●						
8	FIRE ALARM SYSTEM LOW BATTERY								●	●	●						
9	OPEN CIRCUIT								●	●	●						
10	GROUND FAULT								●	●	●						
11	NOTIFICATION APPLIANCE CIRCUIT TROUBLE								●	●	●						
12	SYSTEM SILENCE															●	
13	SYSTEM RESET																●

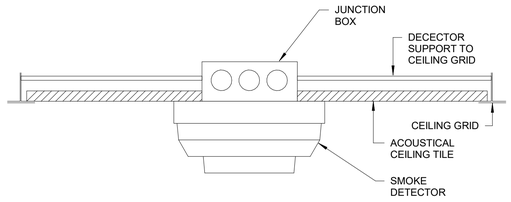
D1 FA MATRIX
NTS



FIRST FLOOR/GROUND LEVEL

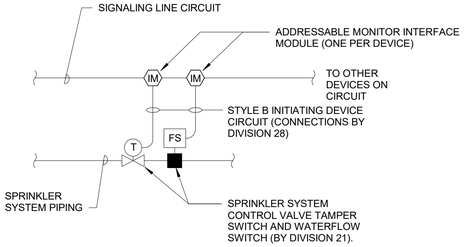
NOTE: RISER DIAGRAM IS A SCHEMATIC REPRESENTATION OF THE FIRE ALARM SYSTEM PER BUILDING. REFER TO THE FIRE ALARM PLANS FOR LOCATIONS AND QUANTITIES OF DEVICES AND APPLIANCES.

A1 FA RISER DIAGRAM
SCALE: 12" = 1'-0"

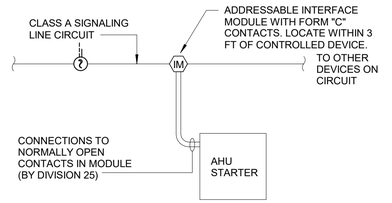


NOTE: ALL SMOKE DETECTORS INSTALLED ON AN ACOUSTICAL CEILING ARE TO BE SUPPORTED FROM THE CEILING GRID STRUCTURE, NOT THE CEILING TILE.

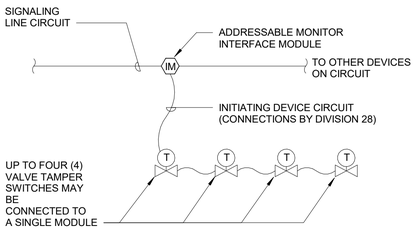
F5 SMOKE DETECTOR INSTALLATION ON ACOUSTICAL CEILING
NTS



D5 SPRINKLER SYSTEM INTERFACE
NTS



F8 AHU SHUTDOWN INTERFACE
NTS



D8 TAMPER SWITCH INTERFACE
NTS

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US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

FIRE ALARM DETAILS

SHEET ID
FA-701

RTA SUBMISSION

GENERAL ABBREVIATIONS

A	----------
ABV	ABOVE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
B	----------
BFP	BACK FLOW PREVENTER
BSMT	BASEMENT
BWV	BACKWATER VALVE
C	----------
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CLG	CEILING
CO	CLEANOUT
COG	CLEANOUT TO GRADE
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUATION
CP	CONCRETE PIPE
CTL	COUNTERTOP LAVATORY
CTS	COUNTERTOP SINK
CW	DOMESTIC COLD WATER
CWW	CLEAR WATER WASTE
D	----------
D	DRY SPRINKLER PIPE
DB	DIALYSIS BOX
DF	DRINKING FOUNTAIN
DN	DOWN
DOM	DOMESTIC
DP	DEEP
DR	DRAIN
DSP	DRY STANDPIPE
DSN	DOWNSPOUT NOZZLE
DT	DRUM TRAP
DV	DRAIN VALVE
DWG	DRAWING
DWP	DOMESTIC WATER PUMP
E	----------
(E)	EXISTING TO REMAIN
EL	ELEVATION
ES	ELECTRICAL SECTION
EWC	ELECTRIC WATER COOLER
EXP COMP	EXPANSION COMPENSATOR
F	----------
FA	FIRST AID
FAI	FRESH AIR INLET
FC	FLOW CONTROL
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FDVC	FIRE DEPARTMENT VALVE CABINET
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FIN FL	FINISHED FLOOR
FL	FLOOR
FP	FIRE PUMP
FS	FLOW SWITCH
FU	FIXTURE UNIT(S)
FV	FLUSH VALVE
G	----------
GH	GROUND HYDRANT
GPM	GALLON PER MINUTE
GRWC	GREEN ROOF RAINWATER CONDUCTOR
GS	GENERAL SECTION
H	----------
HD	HUB DRAIN
HDR	HEADER
HP	HORSEPOWER
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HW	DOMESTIC HOT WATER
HWG	HOT WATER GENERATOR
HWR	HOT WATER RETURN

I	----------
ID	INSIDE DIAMETER
IE	INSIDE ELEVATION
IND	INDIRECT WASTE
INV	INVERT
IV	INDUSTRIAL WASTE VENT
IW	INDUSTRIAL WASTE
J	----------
JP	JOCKEY PUMP
L	----------
LAV	LAVATORY
M	----------
MH	MANHOLE
MR	MOP RECEPTOR
MV	MIXING VALVE
N	----------
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O	----------
ORWC	OVERFLOW RAINWATER CONDUCTOR
P	----------
PD	PUMP DISCHARGE
PH	PENTHOUSE
PIV	POST INDICATOR VALVE
PO	PLUGGED OUTLET
PRV	PRESSUE REDUCING VALVE
PS	PLUMBING SECTION
R	----------
(R)	REMOVE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RWC	RAIN WATER CONDUCTOR
S	----------
S	SOIL
SAN	SANITARY
SF	SQUARE FEET
SHR	SHOWER
SIAM	SIAMESE
SK	SINK
SP	STANDPIPE
SPR	SPRINKLER
SS	SERVICE SINK
SWDR	SAFE WASTE DRAIN
T	----------
TAP	TRIPLE ALARM PANEL
TB	THRUST BLOCK
TE	TOP ELEVATION
TP	TRAP PRIMER
TW	TEMPERED WATER
TZV	TRIPLE ZONE VALVE BOX
U	----------
UR	URINAL
V	----------
V	VENT
VB	VACUUM BREAKER
VI	VIBRATION ISOLATOR
VO	VALVED OUTLET
VTR	VENT THROUGH ROOF
W	----------
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WSP	WET STANDPIPE
WW	WELL WATER

SYMBOL LEGEND

- S — SANITARY DRAIN
- (SANITARY) VENT PIPE
- RWC — STORM DRAIN
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RETURN
- CO2 — CARBON DIOXIDE
- N2O — NITROUS OXIDE
- N2 — NITROGEN
- WAGD — WASTE ANESTHETIC GAS DISPOSAL
- NG — GAS (NATURAL)
- PD — PUMP DISCHARGE PIPING
- F — FIRE MAIN
- A — MEDICAL AIR
- VAC — VACUUM
- O2 — OXYGEN
- SP — SPRINKLER MAIN/BRANCH
- PA — PRE-ACTION PIPE
- D — DRY PIPE
- TP — TRAP PRIMER PIPING
- T — TEMPERED WATER PIPING

- S / X — PLUMBING RISER SOIL STACK DESIGNATION
- V / X — PLUMBING RISER VENT STACK DESIGNATION
- RWC / X — PLUMBING RISER RAINWATER CONDUCTOR STACK DESIGNATION

- HWR BALANCING SYSTEM
- BALANCING VALVE
- CHECK VALVE
- VALVE IN DROP
- GAS COCK
- SHUT-OFF VALVE (BALL VALVE)
- SHUT-OFF VALVE
- MONITORED FIRE VALVE
- THROTTLING VALVE
- PIPE GUIDE
- OUTSIDE WALL HYDRANT
- POST INDICATOR VALVE
- PRESSURE REGULATING VALVE
- PRESSURE GAUGE & COCK
- PRESSURE TEMPERATURE RELIEF (SAFETY) VALVE
- THREE-WAY VALVE
- TWO-WAY VALVE
- DIRECTION OF FLOW
- E.J. EXPANSION JOINT
- PIPE ANCHOR
- PITCH OF PIPE DOWN
- SERVICE RISER-DOWN
- SERVICE RISER-UP
- STRAINER W/GATE VALVE W/NIPPLE & CAP
- STRAINER
- UNION OR FLANGED CONNECTION
- POINT OF CONNECTION NEW TO EXISTING
- HOT WATER RECIRC. PUMP
- CLEANOUT

PLUMBING GENERAL NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL EQUIPMENT, ROOF DRAINS AND FIXTURES.
2. PROVIDE ACCESSIBLE CLEANOUTS AT THE BASE OF ALL SANITARY STACKS AND AT THE BASE OF ALL VERTICAL RAINWATER CONDUCTORS.
3. ALL EXCAVATION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE REGULATIONS OF [OSHA] THE OCCUPATIONAL SAFETY AND HEALTH ASSOCIATION.
4. PLUMBING PIPING SHALL NOT BE RUN THROUGH ELECTRICAL ROOMS, TELECOMMUNICATIONS ROOMS, OR ELEVATOR MACHINE ROOMS. EXCEPT FOR BRANCH PIPING SERVING EQUIPMENT IN THESE ROOMS.
5. ALL PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE STOPPED IN ACCORDANCE WITH SPECIFICATION.
6. UNLESS NOTED OTHERWISE ALL DRAINAGE PIPING SHALL HAVE A MINIMUM 0.01 SLOPE EXCEPT PIPING 3" AND SMALLER WHICH SHALL HAVE A 0.02 SLOPE.
7. ALL FLOOR DRAINS SHALL BE PROVIDED WITH A TRAP PRIMER CONNECTION. PROVIDE A 1/2" COPPER LINE EXTENDED FROM TRAP PRIMER AS SPECIFIED TO THE PRIMER CONNECTION.
8. ALL DOMESTIC HOT WATER RETURN BRANCH CONNECTIONS SHALL BE EQUIPPED WITH A BALL VALVE, CHECK VALVE, AND BALANCING VALVE.
9. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS PRIOR TO START OF PLUMBING SYSTEM INSTALLATION.
10. ALL DRAIN GRATES, CLEANOUT COVERS, AND OTHER FINISH-EXPOSED COMPONENTS SHALL BE PROTECTED FROM DAMAGE. DAMAGED COMPONENTS SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO CONTRACT.
11. DRAINAGE PIPING CLEANOUTS SHALL BE LOCATED IN UNFINISHED ROOMS, STORAGE ROOMS, CLOSETS, AND JANITOR'S CLOSETS WHERE POSSIBLE. EXTEND FLOOR CLEANOUTS FROM MAIN DRAIN TO THESE ROOMS. CLEANOUT LOCATIONS IN FINISHED ROOMS ARE TO BE SUBMITTED TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
12. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS PRIOR TO START OF PLUMBING SYSTEM INSTALLATION.
13. ALL EXPOSED STORM PIPING TO BE INSULATED SHALL HAVE A WHITE FINISH.
14. ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH ANY WORK.
15. MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATIONS OF FLOOR DRAINS IN MECHANICAL ROOMS WITH HVAC EQUIPMENT.
16. THE PLUMBING CONTRACTOR SHALL ROUGH-IN AND MAKE FINAL CONNECTIONS TO ALL OWNER FURNISHED EQUIPMENT. FINAL CONNECTIONS SHALL INCLUDE DOMESTIC HOT AND COLD WATER, FUEL GAS, DIRECT SANITARY WASTE CONNECTIONS, AND INDIRECT SANITARY WASTE CONNECTIONS FROM EQUIPMENT TO RECEPTOR. THE PLUMBING CONTRACTOR SHALL MAKE ALL CONNECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE CODES.
17. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
18. PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH, AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY DESIGN PROFESSIONAL OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. WORK BACK TOWARD BUILDING FROM UTILITY CONNECTION FOR ALL PIPING SYSTEMS.
19. MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATIONS OF FLOOR DRAINS IN MECHANICAL ROOMS WITH HVAC EQUIPMENT.
20. PIPING RISING WITHIN A STORY DESIGNATED AS "RISE". PIPING RISING TO ANOTHER STORY IS NOTED AS "UP". PIPING DROPPING WITHIN A STORY IS NOTED AS "DROP" PIPING DROPPING TO ANOTHER STORY IS NOTED AS "DOWN".
21. PRESSURE PIPING, STORM PIPING, AND VENT PIPING SHOWN ON RESPECTIVE FLOOR PLANS OCCUR ABOVE THAT FLOOR OR @ THE CEILING UNLESS OTHERWISE NOTED.
22. WASTE PIPING SHOWN ON RESPECTIVE FLOOR PLANS OCCUR BELOW FLOOR OR ABOVE CEILING BELOW UNLESS OTHERWISE NOTED.
23. BRANCH TAKE OFF'S SHALL CONNECT TO THE TOP OF MAIN PIPE WHENEVER POSSIBLE.
24. HOSE BIBBS AND WALL HYDRANTS SHALL BE MOUNTED 3'-0" ABOVE FINISHED / GRADE FLOOR EXCEPT WHERE INSTALLED UNDER COUNTERS / LAVS OR UNLESS NOTED OTHERWISE.
25. PROVIDE WATER HAMMER ARRESTORS SIZED PER PLUMBING DRAINAGE INSTITUTE REQUIREMENTS FOR ALL FLUSH VALVE FIXTURES AND ELECTRONIC FAUCETS.
26. LOCATION OF NEW PLUMBING PIPING PENETRATIONS IN THE EXISTING BUILDING SHALL BE CAREFULLY COORDINATED. NEW PENETRATIONS SHALL NOT DROP THRU SLAB RIBS OR CONCRETE BEAMS.
27. INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OR ASHRAE STANDARD 90.1 - 2019, SERVICE WATER HEATING.

DRAWING INDEX

P-001	PLUMBING GENERAL NOTES
PD100	TYPICAL EXISTING BARRACK DEMOLITION PLANS
P-100	TYPICAL LATRINE PLAN
P-101	TYPICAL LATRINE PLAN
P-102	BOILER BUILDING PLAN
P-500	PLUMBING DETAILS
P-601	PLUMBING SCHEDULE
P-701	DOMESTIC WATER RISER DIAGRAM
P-702	SANITARY AND VENT RISER DIAGRAM

NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS SHOWN ARE UTILIZED

US Army Corps of Engineers ®

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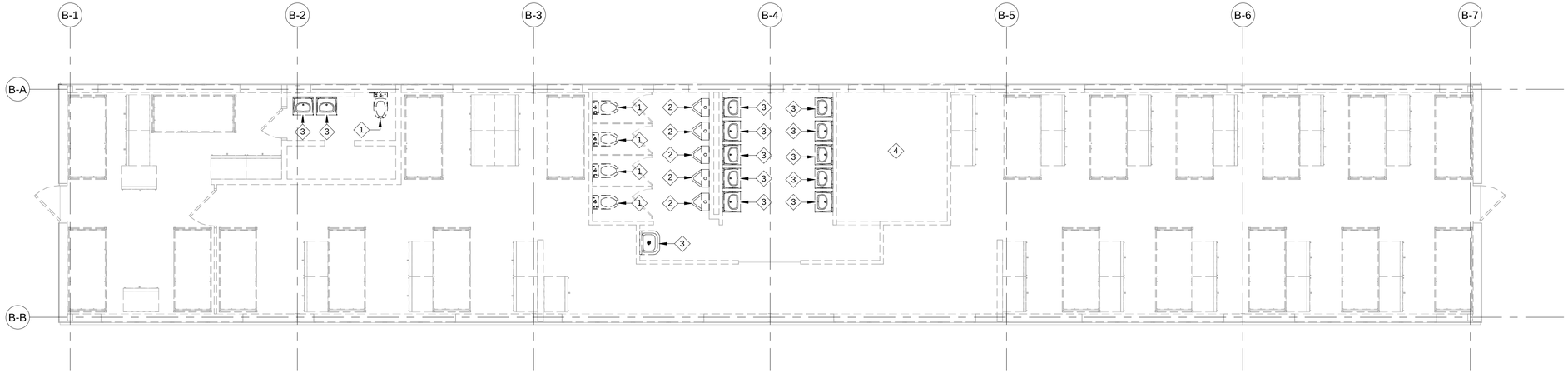
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

PLUMBING GENERAL NOTES

SHEET ID

P-001

RTA SUBMISSION



GENERAL NOTES:

REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

SEE ARCHETECTURAL PLANS FOR ROOM NAMES.

ALL PLUMBING FIXTURES AND ASSOCIATED VALVES AND PIPING SHALL BE REMOVED.

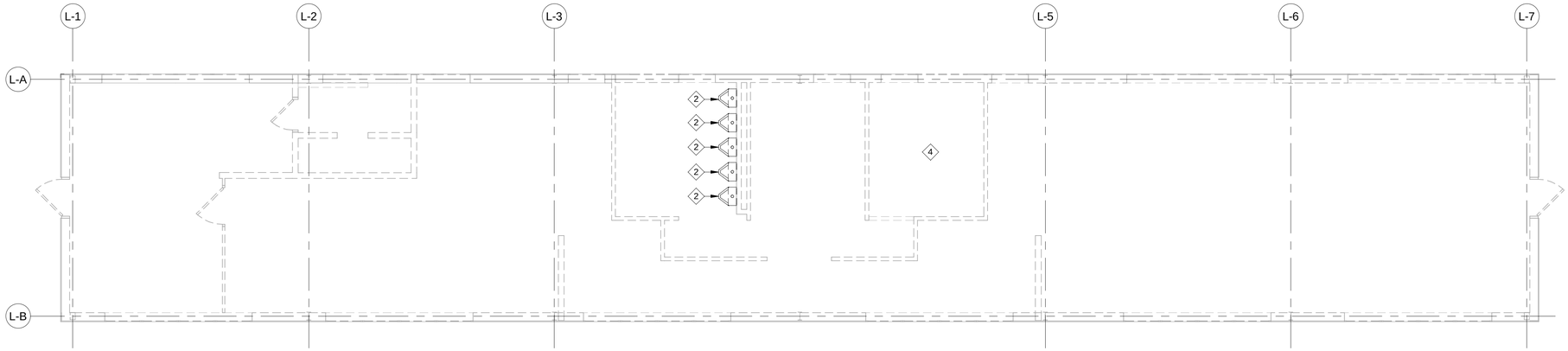
SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR WALLS AND FLOOR SLAB PENETRATION REPAIRS LEFT AFTER FIXTURES AND PIPES ARE REMOVED.

DEMOLITION NOTES:

1. REMOVE WATER CLOSET AND ALL ASSOCIATED VALVES AND PIPING.
2. REMOVE URINAL AND ALL ASSOCIATED VALVES AND PIPING.
3. REMOVE LAVATORY AND ALL ASSOCIATED VALVES AND PIPING.
4. REMOVE SHOWER, MIXING VALVES AND ALL ASSOCIATED VALVES AND PIPING. REMOVE SHOWER DRAINS AND ASSOCIATED PIPING.

1 / PD100 TYPICAL EXISTING BARRACK DEMOLITION PLAN - FUTURE SLEEPING QUARTERS

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



2 / PD100 TYPICAL EXISTING BARRACK DEMOLITION PLAN - FUTURE LATRINE

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

8 6 4 2 0 8

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

RTA SUBMISSION

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: BLH
DRAWN BY: BLH
CHECKED BY: TK
SUBMITTED BY: SK
SIZE: ANSI D

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-19-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL EXISTING BARRACK DEMOLITION PLANS

SHEET ID

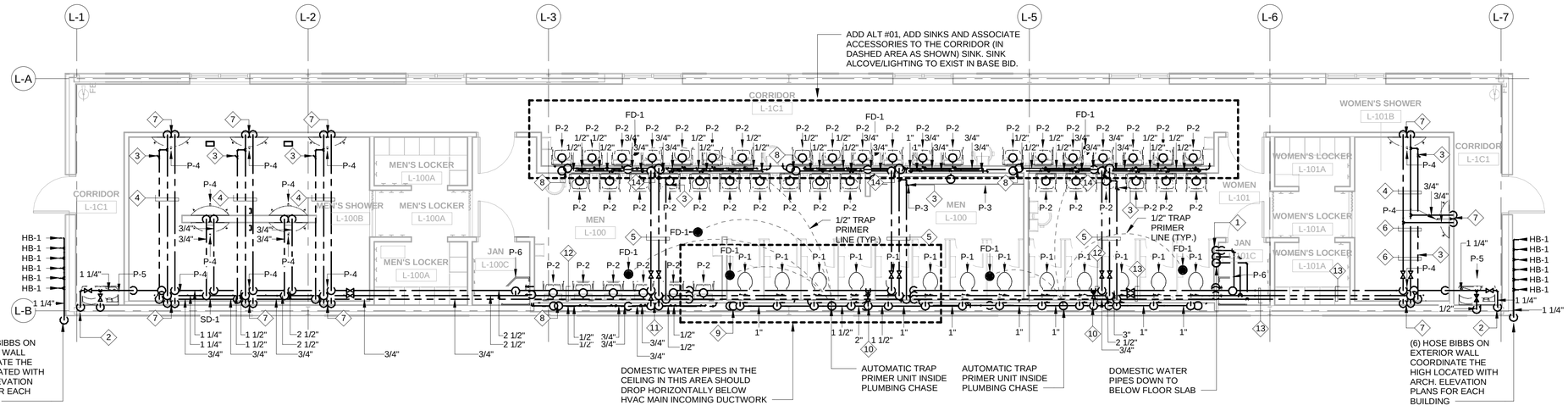
PD100

GENERAL NOTES:

REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

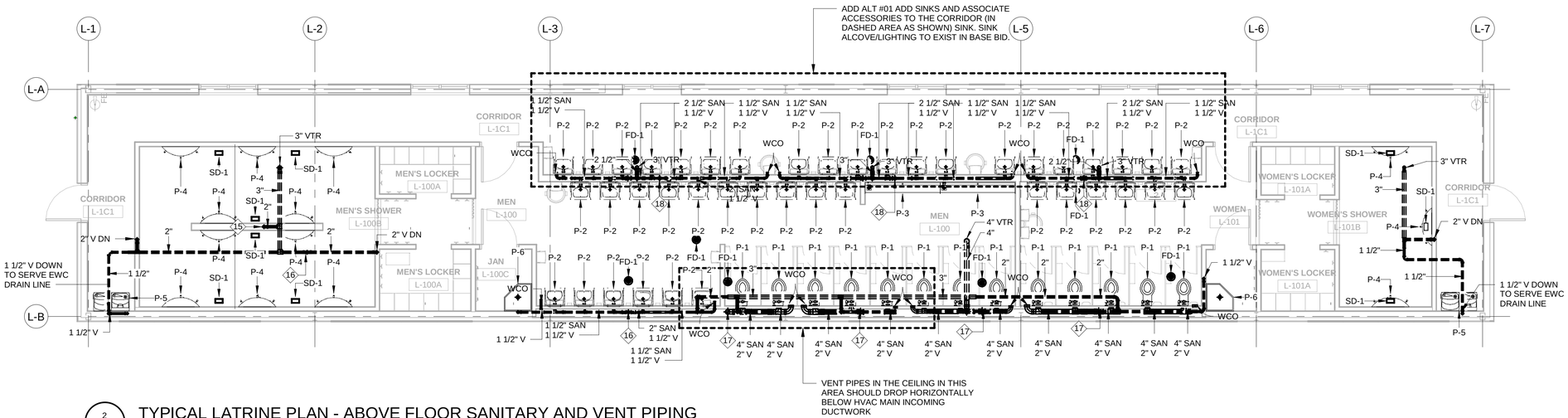
KEYED NOTES:

1. 3" CW, 2 1/2" HW AND 1" HWR PIPES DOWN TO A WATER METER AND BACKFLOW LOCATED BELOW FLOOR SLAB.
2. 1 1/4" CW DOWN TO BELOW FLOOR SLAB SERVING EXTERIOR HOSE BIBS.
3. HOT WATER BALANCING VALVE (BV-1) SET AT .5 GPM.
4. 3/4" CW, 3/4" HW AND 3/4" HWR.
5. 1 1/4" CW, 1 1/4" HW AND 3/4" HWR.
6. 1" CW, 1" HW AND 3/4" HWR.
7. 3/4" CW, 3/4" HW DOWN INSIDE WALL CAVITY.
8. WATER HAMMER ARRESTOR ON CW & HW.
9. WATER HAMMER ARRESTOR ON CW.
10. 2" CW DOWN INSIDE WALL CAVITY. PROVIDE SHUT-OFF VALVE IN VERTICAL PIPE WITH ACCESS PANEL.
11. 1" CW AND 1" HW DOWN INSIDE WALL CAVITY.
12. 3" CW, 2" HW AND 3/4" HWR.
13. 1 1/2" CW, 1 1/2" HW AND 3/4" HWR.
14. 1 1/4" CW, 1 1/4" HW DOWN INSIDE WALL CAVITY.
15. 2" V DOWN TO SERVE SHOWER DRAIN.
16. 2 1/2" SAN DOWN TO BELOW FLOOR SLAB.
17. 4" SAN DOWN TO BELOW FLOOR SLAB.
18. 3" SAN DOWN TO BELOW FLOOR SLAB.
19. VENT PIPE DROP BELOW BEAM IN CEILING SPACE.



1 / P-100 TYPICAL LATRINE PLAN - ABOVE FLOOR DOMESTIC WATER PIPING

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



2 / P-100 TYPICAL LATRINE PLAN - ABOVE FLOOR SANITARY AND VENT PIPING

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

PLAN NORTH

*TRUE NORTH VARIES

8 6 4 2 0 8

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

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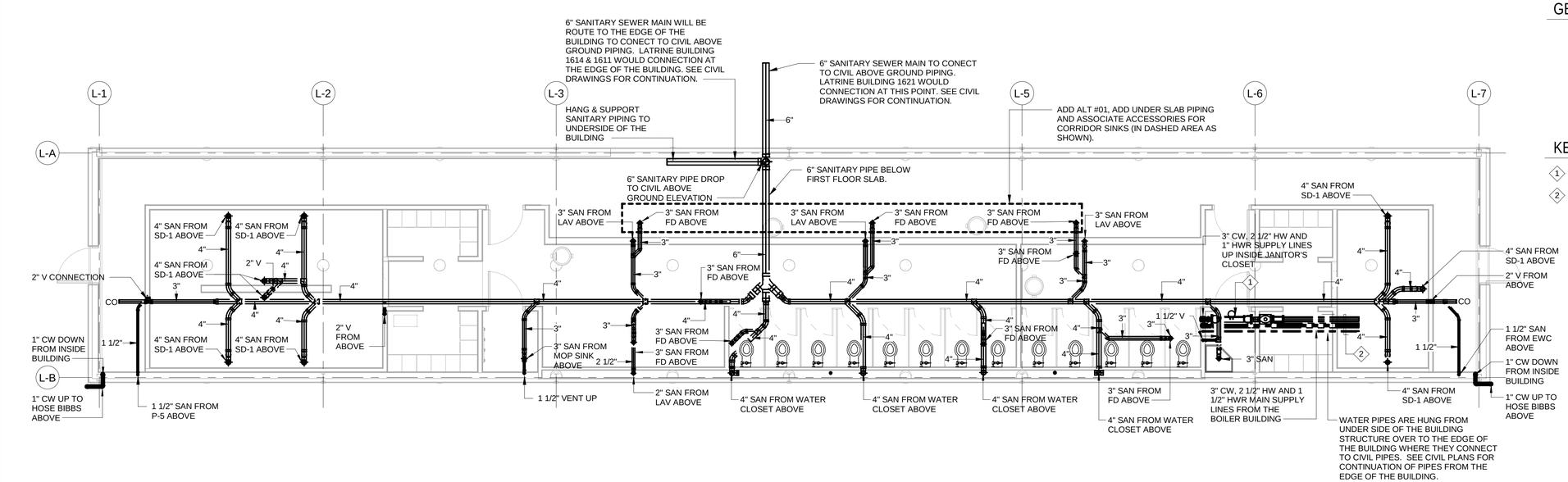
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE PLAN

SHEET ID

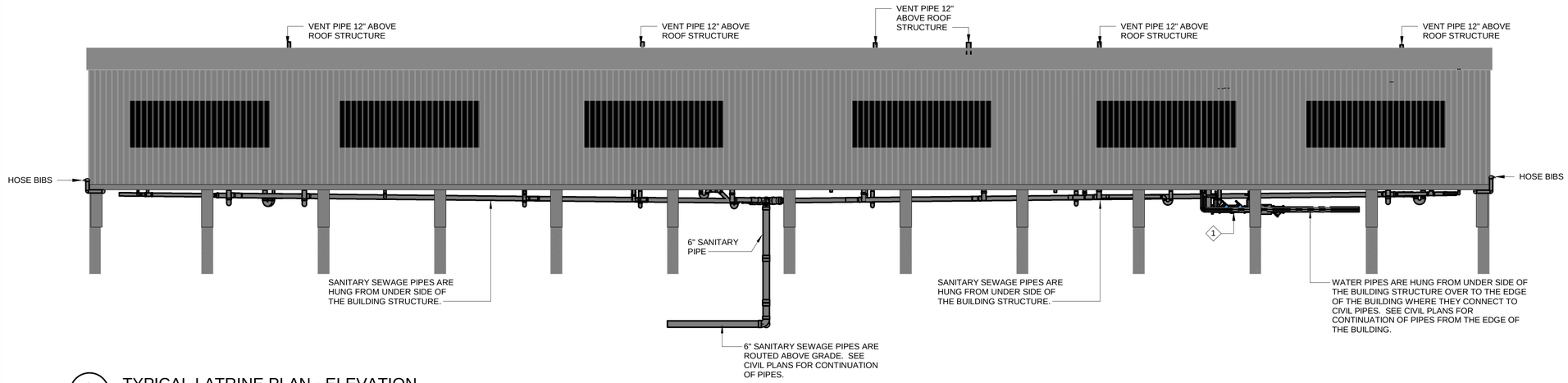
P-100



1 P-101

TYPICAL LATRINE PLAN - BELOW FLOOR DOMESTIC WATER & SANITARY PIPING

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



2 P-101

TYPICAL LATRINE PLAN - ELEVATION

SCALE:

GENERAL NOTES:

1. REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.
2. CONNECT CIVIL PIPING TO THE BUILDING PIPES WITH A FLEX FITTING CONNECTION TO ACCOMMODATE FOR ANY EXPANSION AND CONTRACTION OF PIPING.
3. ALLOW SPACE AROUND PIPES THAT PENETRATION THROUGH FLOOR SLAB TO ACCOMMODATE FOR ANY MOVEMENT PERTAINING TO EXPANSION AND CONTRACTION.

KEYED NOTES:

1. WATER METER WITH BACKFLOW PREVENTER (BFP-1) WITH FULL SIZE BY-PASS LOCATED BELOW FLOOR SLAB.
2. ALL WATER SUPPLY AND RETURN LINES SHOULD BE INSULATED WITH ALUMINUM OR PVC JACKETING.

8 6 4 2 0 8

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

PLAN NORTH

*TRUE NORTH VARIES

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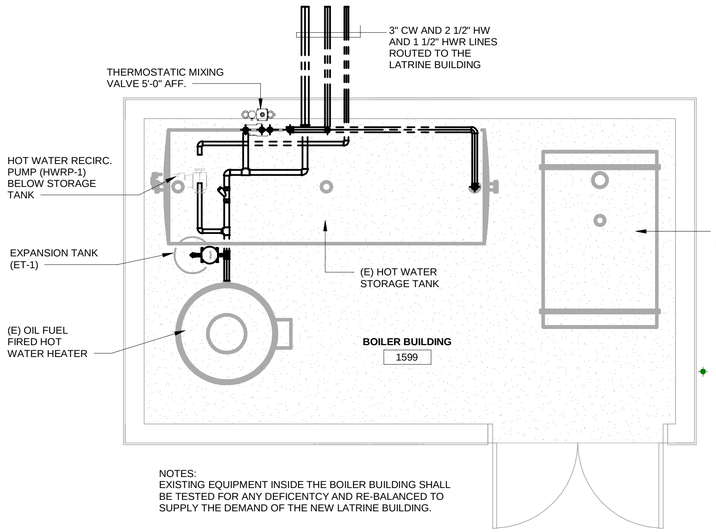
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE PLAN

SHEET ID

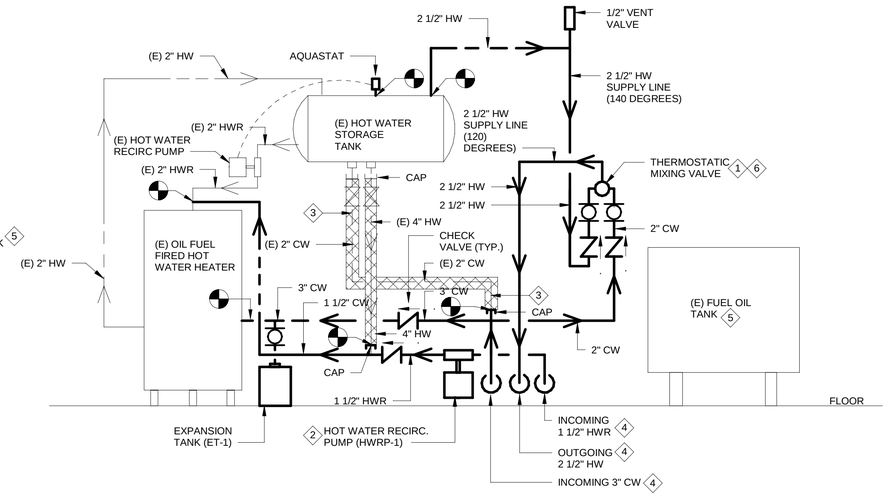
P-101



NOTES:
EXISTING EQUIPMENT INSIDE THE BOILER BUILDING SHALL BE TESTED FOR ANY DEFICENTCY AND RE-BALANCED TO SUPPLY THE DEMAND OF THE NEW LATRINE BUILDING.

1 / P-102 BOILER BUILDING - TYPICAL

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



NOTE: 1. HEAVY DARK LINE WEIGHT INDICATE NEW WORK.

2. CROSS HATCHING IS EXISTING PIPES TO BE REMOVED.

2 BOILER BUILDING RISER DIAGRAM

NTS

GENERAL NOTES:

REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

HEAVY LINE WEIGHT INDICATE NEW WORK AND LIGHT WEIGHT INDICATE EXISTING TO REMAIN.

KEYED NOTES:

1. THE THERMOSTATIC MIXING VALVE SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION AND OPERATION REQUIREMENTS. SUBMIT WITH THE SHOPS, DRAWINGS THE PROPOSED MIXING VALVE ALONG WITH THE INSTALLATION AND PIPE CONFIGURATION DIAGRAM.
2. THE AQUASTAT SHOULD CONNECT TO THE RECIRCULATION PUMP TO ENERGIZE PUMP TO MAINTAIN SET WATER TEMPERATURE TO THE HOT WATER SYSTEM. SEE DETAIL 2/P-500 FOR MORE INFORMATION.
3. REMOVE AND CAP EXISTING 2" CW LINE THAT CONNECT TO THE STORAGE TANK.
4. ALL WATER PIPES ARE ROUTED OUT OF THE BOILER BUILDING TO THE LATRINE BUILDINGS.
5. EXISTING FUEL OIL TANK SERVING HOT WATER HEATER. NO MODIFICATIONS TO THE EXISTING SYSTEM IS DONE IN THIS CONTRACT. CONTRACTOR SHALL TEST THE EXISTING HOT WATER SYSTEM TO MAKE SURE THE EQUIPMENT ARE IN WORKING ORDER.
6. PROVIDE A THERMOMETER ON THE INLET AND OUTLET TO THE MIXING VALVE.

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

US Army Corps of Engineers ®

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CERTIFIED BY:
ANSI D

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

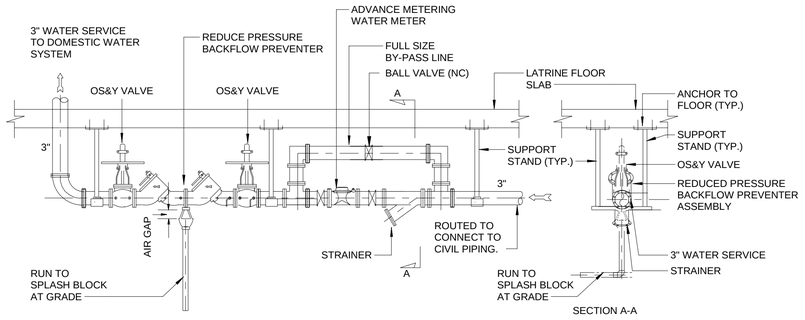
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

BOILER BUILDING PLAN

SHEET ID

P-102

RTA SUBMISSION

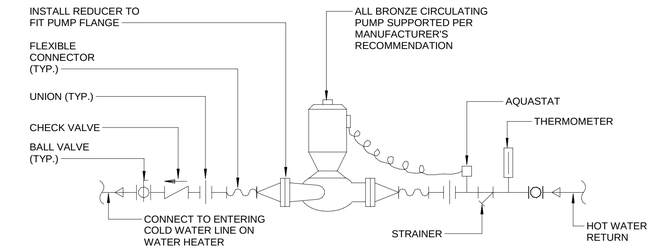


NOTE:
2. BETWEEN POINT OF ENTRY AND DOUBLE CHECK VALVE ASSEMBLY, THE PIPES MUST BE STENCILED "FEED TO BACKFLOW PREVENTER, DO NOT TAP OR CONNECT TO THIS LINE" AT WALL PENTRATIONS. THE LETTERING SHALL BE 5cm, GREEN ON WHITE BACKGROUND.

3. THE OS&Y VALVES CAN BE ROTATED TO FIT EQUIPMENT CLOSE AS POSSIBLE TO FLOOR SLAB.

1 / P-500 RPZ AND WATER METER DETAIL

SCALE: 1 : 14



2 / P-500 HOT WAT RECIRCULATION PUMP DETAIL

SCALE: 1 : 9

GENERAL NOTES:

1. REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

2. CONNECT CIVIL PIPING TO THE BUILDING PIPES WITH A FLEX FITTING CONNECTION TO ACCOMMODATE FOR ANY EXPANSION AND CONTRACTION OF PIPING.

3. ALLOW SPACE AROUND PIPES THAT PENETRATION THROUGH FLOOR SLAB TO ACCOMMODATE FOR ANY MOVEMENT PERTAINING TO EXPANSION AND CONTRACTION.

3 / P-500 AUTOMATIC TRAP PRIMER DETAIL

SCALE: 1 : 10

4 / P-500 VENT DETAIL

SCALE: 1 : 5

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

PLUMBING DETAILS

SHEET ID

P-500

RTA SUBMISSION

PLUMBING FIXTURE SCHEDULE

Type Mark	FIXTURE	MOUNTING	MANUFACTURER NAME & MODEL	MINIMUM CONNECTION SIZE					DESCRIPTION
				SS	V	CW	HW	TW	
				0"	0"	0"	0"	0"	
P-1	WATER CLOSET	FLOOR MOUNTED	TOILET: AMERICAN STANDARD, MODEL 3690.001, FLUSH VALVE: ROYAL 115-1.28	4"	2"	1"	0"	0"	VITREOUS CHINA, FLOOR MOUNTED WALL OUTLET, 1.28 GPF, ELONGATED BOWL
P-2	LAVATORY	WALL HUNG	SINK: KOHLER, MODEL K-2035-4, FAUCET MODEL LK423L4	1 1/2"	1 1/2"	1/2"	1/2"	0"	VITREOUS CHINA, 4" CENTER, OVAL BASIN WITH OVERFLOW DRAIN
P-3	WASHOUT URINAL	WALL MOUNTED	URINAL: ACORN, MODEL 1713, FLUSH VALVE: MODEL FVL1.0 GPF	1 1/2"	1 1/2"	3/4"	3/4"	0"	14 GAGE, TYPE 304 STAINLESS STEEL, EXTERIOR SATIN FINISH, DOME STRAINER AND P-TRAP.
P-4	3 SHOWER HEAD UNIT	WALL MOUNTED	BRADLEY, MODEL WS-3W	0"	0"	3/4"	3/4"	0"	18 GAGE, TYPE 304 STAINLESS STEEL, SOAP DISH, 2.0 GPM.
P-5	ELECTRIC WATER COOLER	WALL MOUNTED	HAWSEY TAYLOR, MODEL HTHB-HAC8BLSS-WF	1 1/2"	1 1/2"	1/2"	0"	0"	BI-LEVEL WITH BOTTLE FILLER, SENSOR ACTIVATED
P-6	MOP SINK	FLOOR MOUNTED	FIAT, MODEL TSBCR100					0"	TERRAZZO, 12" HIGH CURBS, STAILESS STEEL DRAIN BODY
FD-1	FLOOR DRAIN	FLOOR	JOSAM, MODEL 3000-A	3"	1 1/2"	0"	0"	0"	ADJUSTABLE FLOOR DRAIN, ROUND STRAINER
HB-1	HOSE BIBB	WALL MOUNTED	J.R. SMITH, 5670	0"	0"	1/2"	0"	0"	PROVIDE VACUUM BREAKER WITH THE HOSE BIBS.
SD-1	SHOWER DRAIN	FLOOR	JOSAM, MODEL R SERIES	4"	0"	0"	0"	0"	RECTANGULAR DRAIN, SECURED GRATE, VANDAL PROOF SCREWS

HOT WATER CIRCULATING PUMP SCHEDULE

Type Mark	LOCATION	BASIS OF DESIGN		SYSTEM	GPM	PUMP HEAD (FT H2O)	RPM	ELECTRICAL DATA			NOTES
		MANUFACTURER	MODEL					HP	PH	Hz	
HWRP-1	BOILER BUILDING	BELL & GOSSETT	E-60 SERIES	DOMESTIC HOT WATER SYSTEM	15	28	1750	0.500	3	60	BRONZEL BODY, INLINE PUMP

PLUMBING EXPANSION TANK SCHEDULE

TYPE MARK	LOCATION	BASIS OF DESIGN		SYSTEM	TYPE	TANK VOLUME (gal)	ACCEPTANCE VOLUME (gal)	DIAMETER	HEIGHT	PRESSURE (psi)		NOTES
		MANUFACTURER	MODEL							PRE-CHARGE	MAX OPERATING	
ET-1	BOILER BUILDING	A.O. SMITH	PMET-14	DOMESTIC HOT WATER SYSTEM	PRE-CHARGED	14.00	10.50	16"	16"	38	150	IAPMO APPROVED

MIXING VALVE SCHEDULE

TYPE MARK	LOCATION	BASIS OF DESIGN	SYSTEM	GPM	WATER TEMPERATURE		PIPE SIZE			NOTES
		MANUFACTURER			IN	OUT	CW IN	HW IN	TW OUT	
MV-1	BOILER BUILDING	HOLBY	HOT WATER SYSTEM	126	140 °F	120 °F	2"	2"	2"	CONSTRUCTED ENTIRELY OF BRONZE AND COPPER.

BACKFLOW PREVENTER SCHEDULE

Type Mark	FLOW	CW CONNECTION	MANUFACTURER	MODEL	DESCRIPTION
BFP-1	127 GPM	3"	ZURN	MODEL 375	REDUCED PRESSURE TYPE BACKFLOW PREVENTER, DUCTILE IRON, LEAD FREE CONSTRUCTION

WATER HAMMER ARRESTER SCHEDULE

MARK	FIXTURE UNITS	PIPE SIZE	HEIGHT	DIAMETER	NOTES
WHA-A	1-11	1/2"	2.62"	3.25"	COPPER LEAD FREE, PISTON TYPE
WHA-B	12-32	3/4"	2.97"	3.25"	COPPER LEAD FREE, PISTON TYPE
WHA-C	33-60	1"	3.59"	3.25"	COPPER LEAD FREE, PISTON TYPE
WHA-D	61-113	1"	5.14"	3.25"	COPPER LEAD FREE, PISTON TYPE
WHA-E	114-154	1"	5.52"	3.25"	COPPER LEAD FREE, PISTON TYPE
WHA-F	155-330	1"	6.67"	3.25"	COPPER LEAD FREE, PISTON TYPE

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

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WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

PLUMBING SCHEDULE

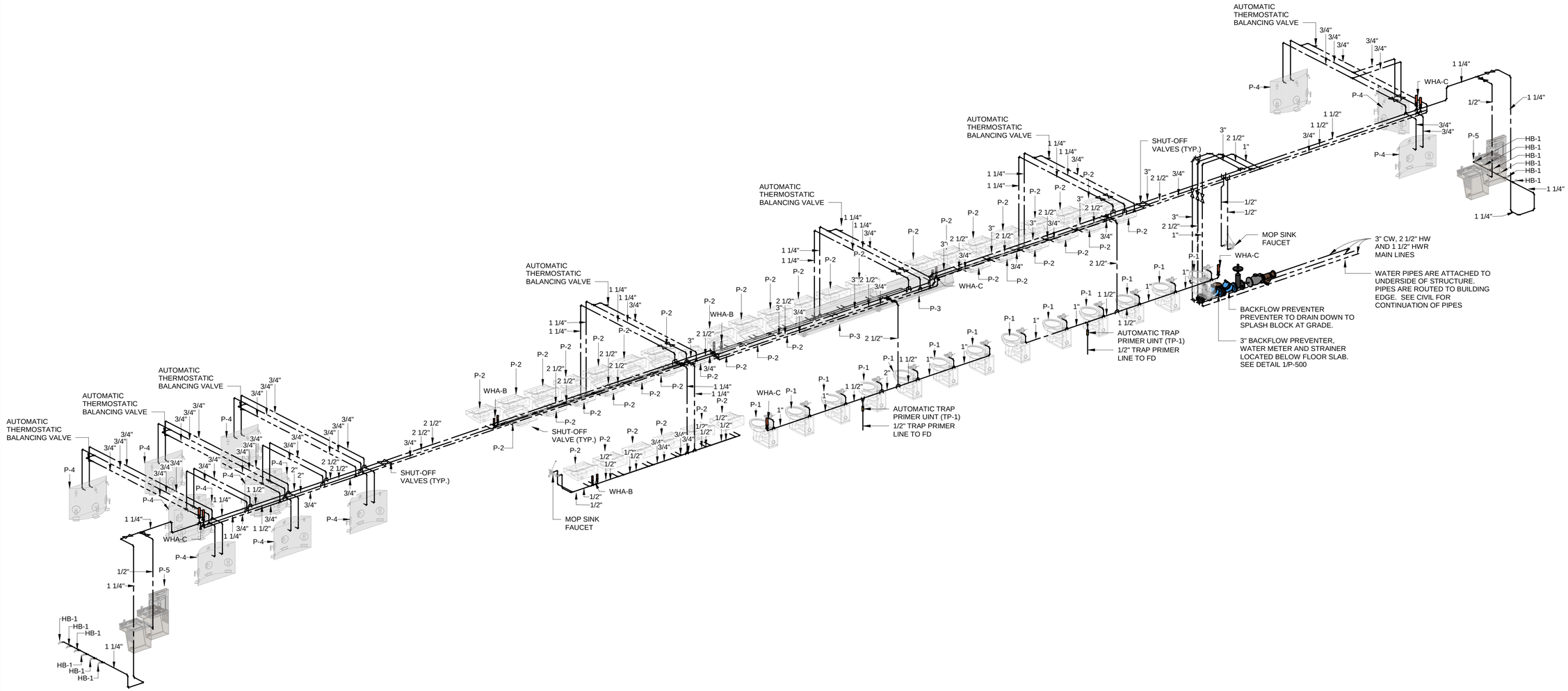
SHEET ID

P-601

RTA SUBMISSION

GENERAL NOTES:

REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.



1 / P-701 DOMESTIC WATER RISER DIAGRAM

SCALE:

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DESIGNED BY: BLH
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US ARMY CORPS OF ENGINEERS

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WEST POINT, NY
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DOMESTIC WATER RISER DIAGRAM

SHEET ID

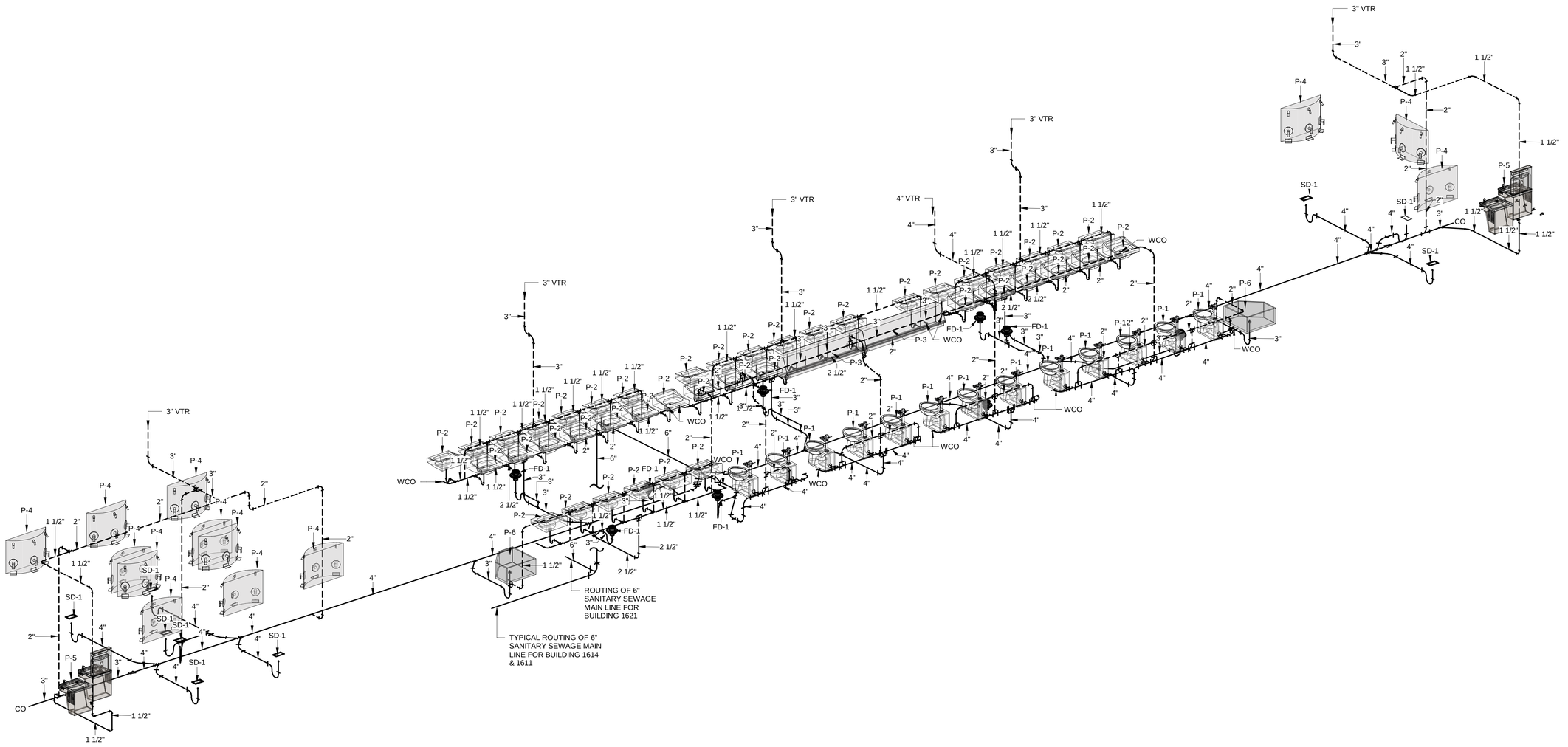
P-701

RTA SUBMISSION

GENERAL NOTES:

1. REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

2. PROVIDE VENT THRU ROOF (VTR) WITH A VENT CAP AND MESH SCREEN TO PROVENT ANIMALS AND VERMIN FROM ENTERING AND AND NESTING IN THE SYSTEM.



1 / P-702 SANITARY AND VENT RISER DIAGRAM

SCALE:

RTA SUBMISSION

US Army Corps of Engineers ®

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DESIGNED BY: BLH
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SANITARY AND VENT RISER DIAGRAM

SHEET ID

P-702

AIR DISTRIBUTION, GENERAL SYMBOLS & NOMENCLATURE

- TRANSFER DUCT, SEE DETAIL
- TRANSFER DUCT, SEE DETAIL W/RETURN/TRANSFER GRILLE
- TRANSFER DUCT, SEE DETAIL W/RETURN/TRANSFER GRILLE
- AIR CUSHION, 12" LONG MIN.
- AIR CUSHION, 12" LONG MIN.
- VOLUME DAMPER
- DAMPER (TYPE AS INDICATED; BD, BDD, MOD, FD, SD/FD, VD, ETC.)
- Ø DIAMETER
- DOOR LOUVER (FREE AREA IN SQ. FEET)
- U DOOR UNDERCUT
- D DUCT DROP (SLOPING)
- DUCT DROP (90°)
- R DUCT RISE (SLOPING)
- DUCT RISE (90°) (RISE AND DROP IN DIRECTION OF AIR FLOW)
- TRANSFER AIR
- D DUCT MOUNTED SMOKE DETECTOR
- FLEXIBLE CONNECTION
- FLEXIBLE DUCTWORK
- FLEXIBLE DUCTWORK
- HUMIDIFIER (DUCT MOUNTED)
- HUMIDIFIER (DUCT MOUNTED)
- ES EMERGENCY SWITCH
- H HUMIDISTAT
- OS OCCUPANCY SENSOR
- T THERMOSTAT
- TS TEMPERATURE SENSOR
- DUCT TRASITION (RECTANGULAR TO RECTANGULAR)
- DUCT TRASITION (RECTANGULAR TO ROUND)
- AFS AIRFLOW MEASURING STATION
- AFS AIRFLOW MEASURING STATION
- SUPPLY DIFFUSER
- SUPPLY SWIRL DIFFUSER
- REGISTER OR GRILLE (EXHAUST, RETURN, TRANSFER)

- 22 x 10 RECTANGULAR DUCT (FIRST NUMBER INDICATES PLAN DIMENSION, SECOND NUMBER INDICATES DEPTH)
- 22 x 10 FLAT OVAL DUCT
- 12" Ø ROUND DUCT (12" Ø DIAMETER)
- RADIUS ELBOW (NO TURNING VANES)
- HARD ELBOW (WITH TURNING VANES)
- DUCT TRANSITION (RECTANGULAR TO RECTANGULAR)
- DUCT TRANSITION (RECTANGULAR TO ROUND)
- RECTANGULAR SUPPLY DUCT UP
- RECTANGULAR SUPPLY DUCT DOWN
- 22x10 B / 14x10 T DUCT INDICATION FOR STACKING T= TOP; B= BOTTOM
- 22x10 T / 14x10 B DUCT INDICATION FOR STACKING T= TOP; B= BOTTOM
- VOLUME DAMPER
- DAMPER (TYPE AS INDICATED; BD, BDD, MOD, FD, SD/FD, ETC.)
- SPLITTER DAMPER
- T/H TEMP / HUMID SENSOR (DUCT MOUNTED)
- AV AUDIO VISUAL ALARM
- 8X14 / LFD-1 300 FLEXIBLE BRANCH DUCT CONNECTION TO DIFFUSER. CONICAL BELL MOUTH OR SQUARE/ROUND BOOT FITTING WITH VOLUME DAMPER. ROUND INLET CONNECTION TO LAMINAR FLOW DIFFUSER (CFM INDICATED)
- 14X10 BRANCH DUCT CONNECTION TO DIFFUSER WITH VOLUME DAMPER.
- SQUARE INLET CONNECTION TO DIFFUSER
- M MOTOR OPERATED DAMPER

ALTERATION/DEMOLITION SYMBOLS

- POINT OF CONNECTION, NEW TO EXISTING
- TERMINATION OF DEMOLITION, REMOVAL
- EXISTING TO BE REMOVED
- EXISTING TO BE REMOVED

BRANCH CONNECTIONS IN DOUBLE-LINE DUCTWORK

- RECTANGULAR PROPORTIONAL SPLIT
- BRANCH OFF BOTTOM 45° BOOT CONNECTION
- BRANCH OFF TOP 45° BOOT CONNECTION
- BRANCH OFF SIDE 45° BOOT CONNECTION
- BRANCH OFF SIDE CONICAL BELL MOUTH

BRANCH CONNECTIONS IN SINGLE-LINE DUCTWORK

- BRANCH OFF SIDE
- BRANCH OFF TOP
- BRANCH OFF BOTTOM
- RECTANGULAR PROPORTIONAL SPLIT

EQUIPMENT IDENTIFICATION

XX / X — XX: TYPE (SEE SCHEDULE); X: MARK NUMBER (SEE SCHEDULE)

AIR TERMINAL IDENTIFICATION

XX-X XXX / X Ø — XX-X: TYPE (SEE SCHEDULE); XXX: CFM; X Ø: NECK SIZE (IN)

GENERAL ABBREVIATIONS

A	----------	E	----------	I	----------	S	----------
AD	ACCESS DOOR	EA	EXHAUST AIR	INF	INFILTRATION	SA	SUPPLY AIR
AFF	ABOVE FINISHED FLOOR	EAC	EXHAUST AIR CONTROLLER			SAC	SUPPLY AIR CONTROLLER
AFS	AIR FLOW MEASURING STATION	EAT	ENTERING AIR TEMPERATURE	L	----------	SAT	SOUND ATTENUATOR
AHU	AIR HANDLING UNIT	EF	EXHAUST FAN	LAT	LEAVING AIR TEMPERATURE	SD	SMOKE DAMPER WITH ACCESS DOOR
AL	ACOUSTIC LINING	EG	EXHAUST GRILLE	LB	POUND	SD/FD	COMBINATION SMOKE/FIRE DAMPER
AP	ACCESS PANEL	EJ	EXPANSION JOINT	LF	LINEAR FEET		WITH ACCESS DOOR
ATC	AUTOMATIC TEMPERATURE CONTROL	EJB	EXPANSION JOINT, BELLOWS TYPE	LFD	LAMINAR AIRFLOW DIFFUSER	SG	SUPPLY GRILLE
AVB	AIR VOLUME CONTROL BOX	EJO	EXPANSION JOINT, OFFSET TYPE	LWT	LEAVING WATER TEMPERATURE	SP	STATIC PRESSURE
AWT	AVERAGE WATER TEMPERATURE	EL	ELEVATION			SR	STATIC REGISTER
		ER	EXHAUST REGISTER	M	----------	SS	STAINLESS STEEL
B	----------	ERV	EXHAUST ROOF VENTILATOR	MBH	THOUSAND BTU'S PER HOUR	SV	STEAM VENT
BD	BAROMETRIC DAMPER	ESP	EXTERNAL STATIC PRESSURE	M	MOTOR OPERATED DAMPER		
BDD	BACKDRAFT DAMPER	EWT	ENTERING WATER TEMPERATURE			T	----------
BFP	BACKFLOW PREVENTER	EXF	EXFILTRATION	N	----------	TG	TRANSFER GRILLE
BHP	BRAKE HORSEPOWER	EXH	EXHAUST	(N)	NEW	TOD	TOP OF DUCT
BOD	BOTTOM OF DUCT			NC	NORMALLY CLOSED	TOP	TOP OF PIPE
BTU	BRITISH THERMAL UNITS	F	----------	NIC	NOT IN CONTRACT	TSP	TOTAL STATIC PRESSURE
BTUH	BTU'S PER HOUR	°F	DEGREE FAHRENHEIT	NO	NORMALLY OPEN	TT	THERMOSTATIC TRAP
		FC	FLEXIBILE CONNECTION	NTS	NOT TO SCALE	TYP	TYPICAL
C	----------	FCU	FAN COIL UNIT				
CC	COOLING COIL	F.D.	FLOOR DRAIN	O	----------	U	----------
CD	CEILING DIFFUSER	FD	FIRE DAMPER WITH ACCESS DOOR	OA	OUTSIDE AIR	UH	UNIT HEATER
CDR	CEILING DIFFUSER, ROUND	FOB	FLAT ON BOTTOM	OAI	OUTSIDE AIR INTAKE	UTR	UP THRU ROOF
CFM	CUBIC FEET PER MINUTE	FOT	FLAT ON TOP	OBD	OPPOSED BLADE DAMPER		
CL	CENTERLINE	FPM	FEET PER MINUTE			V	----------
CUH	CABINET UNIT HEATER	FTR	FINNED TUBE RADIATION	P	----------	V	VENT
CVE	CONSTANT VOLUME EXHAUST	FZP	FREEZE PROTECTION PUMP	PD	PANEL DIFFUSER	VAV	VARIABLE AIR VOLUME
CVR	CONSTANT VOLUME RETURN			PFD	PERFORATED FACE DIFFUSER	VD	VOLUME DAMPER
CVS	CONSTANT VOLUME SUPPLY	G	----------	PFG	PERFORATED FACE GRILLE	VI	VIBRATION ISOLATOR
		GAL	GALLONS	PHC	PREHEAT COIL	VVE	VARIABLE VOLUME EXHAUST
D	----------	GPH	GALLONS PER HOUR	PRV	PRESSURE REDUCING VALVE	VVF	VARIABLE VOLUME FAN POWERED
D	DEAERATOR	GPM	GALLONS PER MINUTE	PSI	POUNDS PER SQUARE INCH	VVR	VARIABLE VOLUME RETURN
DB	DRY BULB	GR	GRILLE			VVS	VARIABLE VOLUME SUPPLY
DIA	DIAMETER	GRV	GRAVITY ROOF VENT	R	----------		
DFD	DYNAMIC FIRE DAMPER WITH ACCESS DOOR	H	----------	RA	RETURN AIR	W	----------
DN	DOWN	HC	HEATING COIL	RG	RETURN GRILLE	WB	WET BULB
DPT	DIFFERENTIAL PRESSURE TRANSMITTER	HP	HORSEPOWER	RFG	RECTANGULAR FILTER GRILLE	WG	WATER GAUGE
		HX	HEAT EXCHANGER	RH	RELATIVE HUMIDITY		
				RHC	REHEAT COIL		
				RPM	REVOLUTIONS PER MINUTE		
				RR	RETURN REGISTER		

GENERAL NOTES - MECHANICAL

1. DUE TO THE SMALL SCALE OF THE DRAWINGS, CERTAIN REQUIRED WORK IS NOT SHOWN ON THE FLOOR PLANS AND IS SHOWN ON RISER DIAGRAMS AND DETAILS. INCLUDE REQUIRED WORK SHOWN ON PLANS, RISER DIAGRAMS, AND DETAILS.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES, AND FOR EXACT LOCATIONS OF CEILING DIFFUSERS, GRILLES, REGISTERS, AND OTHER DEVICES. PROVIDE BORDER STYLES SUITABLE FOR CEILING TYPE IN WHICH DEVICE IS INSTALLED.
3. DUCTWORK, PIPING, AND EQUIPMENT SHALL ONLY PENETRATE ELECTRICAL, TELEPHONE, DATA, AND ELEVATOR MACHINE ROOMS TO SERVE THOSE SPACES. SERVICES NOT SERVING THOSE SPACES SHALL NOT TRANSIT THROUGH THE SPACES.
4. PROVIDE CABLE OPERATED VOLUME DAMPERS IN BRANCH RUNOUTS TO EACH AIR DEVICE ABOVE INACCESSIBLE CEILING. LOCATE VOLUME DAMPER AS CLOSE TO MAIN AS POSSIBLE.
5. DUCTWORK DRAWINGS ARE DIAGRAMMATIC AND MAY NOT ENTIRELY INDICATE REQUIRED OFFSETS, TRANSITIONS, AND FITTINGS. PROVIDE ADDITIONAL OFFSETS, TRANSITIONS, AND FITTINGS AS REQUIRED TO COORDINATE WITH OTHER TRADES.
6. FOR DUCT PENETRATIONS THROUGH INTERIOR NON-RATED FULL HEIGHT PARTITIONS (PARTITIONS EXTENDING TO STRUCTURE), EXTEND INSULATION THROUGH PENETRATION. MAINTAIN COMPLETE VAPOR SEAL.
7. EQUIPMENT LAYOUTS ARE BASED ON EQUIPMENT BASIS OF DESIGN MANUFACTURER. OTHER ACCEPTABLE MANUFACTURERS LISTED IN THE SPECIFICATIONS MAYBE PROVIDED AS LONG AS THEIR PHYSICAL DIMENSIONS DO NOT IMPACT THE EQUIPMENT LAYOUT AS SHOWN. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE LAYOUT TO ENSURE THAT PROPER ACCESS FOR MAINTENANCE AND EQUIPMENT REMOVAL CAN BE MAINTAINED. MAKE NECESSARY DUCTWORK MODIFICATIONS AS REQUIRED AT NO COST TO OWNER.
8. PROVIDE DUCT ACCESS DOORS UPSTREAM OF DUCT MOUNTED EQUIPMENT SUCH AS AIRFLOW STATIONS, HUMIDIFIERS, REHEAT COILS, FILTERS, ETC.
9. PROVIDE DUCT SUPPORTS IN ACCORDANCE WITH SMACNA UNLESS OTHERWISE MODIFIED HEREIN.
10. PROVIDE PIPE SUPPORTS IN ACCORDANCE WITH ANSI/MSS SP-58 UNLESS OTHERWISE MODIFIED HEREIN.

GENERAL NOTES - DEMOLITION

1. FIELD VERIFY EXACT LOCATION AND SIZES OF ELEMENTS RELATED TO THE WORK. ASCERTAIN THAT INTERFERENCES WILL NOT BE ENCOUNTERED, PREVENTING THE DISASSEMBLY OF PARTIALLY OR COMPLETELY ERECTED SYSTEMS FOR RE-ROUTING TO CLEAR OBSTRUCTIONS WHICH MAY EXIST.
2. REMOVE HANGERS, SUPPORTS, MISCELLANEOUS STRUCTURAL STEEL, CONTROLS AND INSTRUMENTATION, CONTROL WIRES AND TUBING, SPECIALTIES, VENTS AND DRAINS, ELECTRICAL POWER, AND OTHER ASSOCIATED ACCESSORIES IN THE PROCESS OF DUCTWORK AND EQUIPMENT DEMOLITION. SUPPORTS FOR DUCTWORK SHOWN TO BE DEMOLISHED THAT PENETRATE THROUGH THE INTERIOR ROOF INSULATION SHALL BE CUT 3" ABOVE INSULATION AND COVERED WITH A PROTECTIVE PLASTIC CAP (BRIGHT ORANGE). EXISTING DUCTWORK SHOWN TO BE DEMOLISHED SHALL BE DISCONNECTED AND REMOVED BACK TO SERVICE MAINS, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. CONTROL WIRING SHALL BE REMOVED BACK TO TERMINATION POINT AT SOURCE PANEL. POWER WIRING SHALL BE REMOVED BACK TO BREAKER AT SOURCE POWER PANEL.
3. PATCH, SEAL, AND FINISH HOLES WHERE DUCTS, LOUVERS, OR OTHER MECHANICAL EQUIPMENT HAS BEEN REMOVED TO MATCH EXISTING WALL MATERIALS AND COLOR.

US Army Corps of Engineers ®

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SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

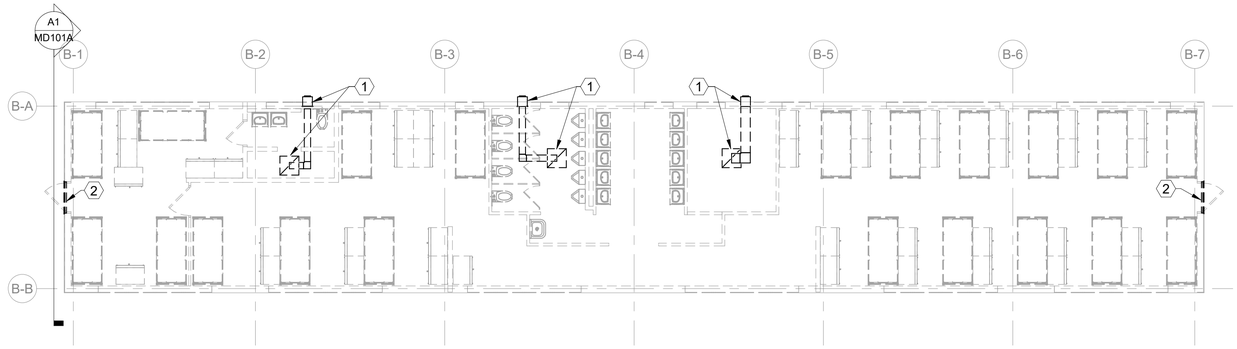
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

MECHANICAL LEGEND AND GENERAL NOTES

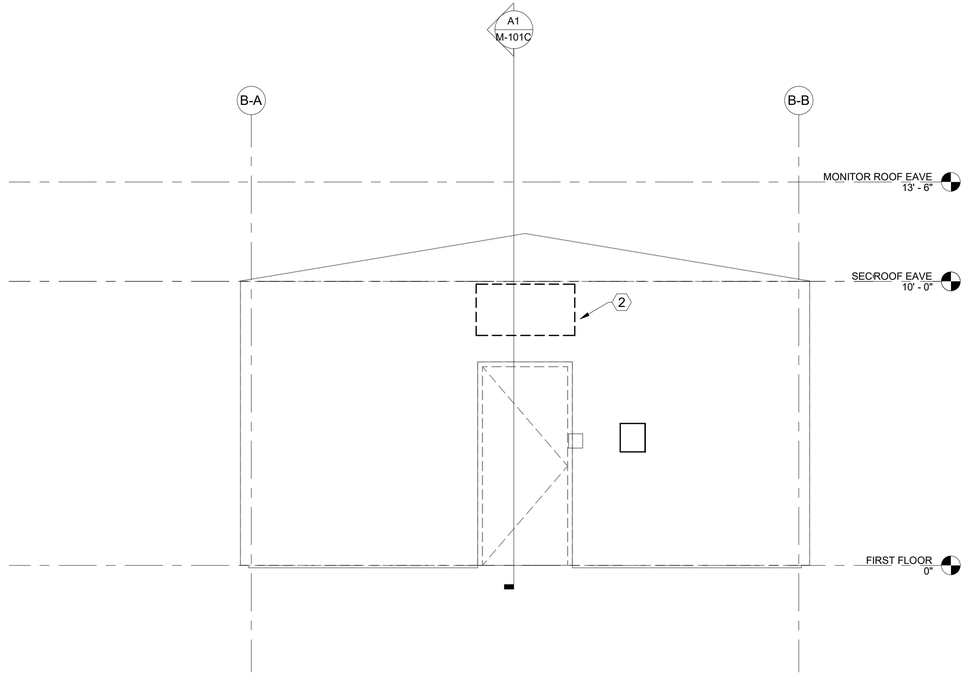
SHEET ID

M-001

RTA SUBMISSION



E1 TYPICAL BARRACK DEMOLITION PLAN - DUCTWORK
SCALE: 1/8" = 1'-0"



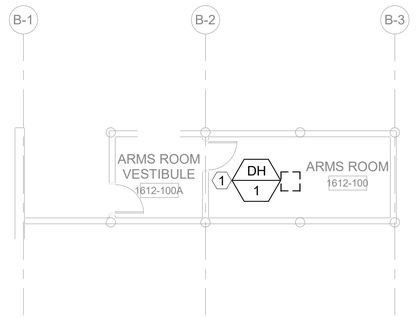
A1 ENLARGED SECTION - TYPICAL BARRACK DEMOLITION PLAN
SCALE: 3/8" = 1'-0"

DEMOLITION NOTES

1. INFORMATION SHOWN ON THE CONTRACT DOCUMENTS ARE BASED ON EXISTING AS-BUILT DOCUMENTATION AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY INFORMATION SHOWN. DISCREPANCIES AFFECTING WORK UNDER THIS CONTRACT SHALL BE BROUGHT TO THE ATTENTION OF THE COR (CONTRACTING OFFICER'S REPRESENTATIVE) BEFORE PROCEEDING.
2. THIS PROJECT IS A RENOVATION OF AN EXISTING FACILITY. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF NEW EQUIPMENT TO BE INSTALLED WITH ITEMS TO REMAIN IN PLACE BEFORE BEGINNING WORK OR PURCHASING OF DIMENSIONAL CRITICAL EQUIPMENT, MATERIALS, OR ASSEMBLIES. THERE MAY BE EXISTING CONDITIONS NOT ACCESSIBLE DURING DESIGN WHICH DIFFER FROM THOSE SHOWN ON THE CONTRACT DRAWINGS. SUCH DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE COR FOR RESOLUTION BEFORE PROCEEDING.
3. SCHEDULE, ARRANGE AND COORDINATE UTILITY SHUTDOWNS, OUTAGES AND/OR INTERRUPTIONS WITH THE OWNER, OR COR, PRIOR TO THE START OF WORK.
4. WALL PENETRATIONS THAT WILL NOT BE REUSED FOR NEW WORK SHALL BE PATCHED & SEALED TO MATCH EXISTING WALL.

KEYED DEMOLITION NOTES

1. DEMO TOILET EXHAUST FANS, CEILING GRILLES, DUCTWORK, DEHUMIDIFIERS, AND ASSOCIATED CONTROL DEVICES (LOCATION VARIES).
2. ARCHITECTURE TO REMOVE LOUVER AND REPAIR BUILDING ENVELOPE.



A8 TYPICAL ARMORY DEMOLITION PLAN - DUCTWORK
SCALE: 1/8" = 1'-0"

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US ARMY CORPS OF ENGINEERS

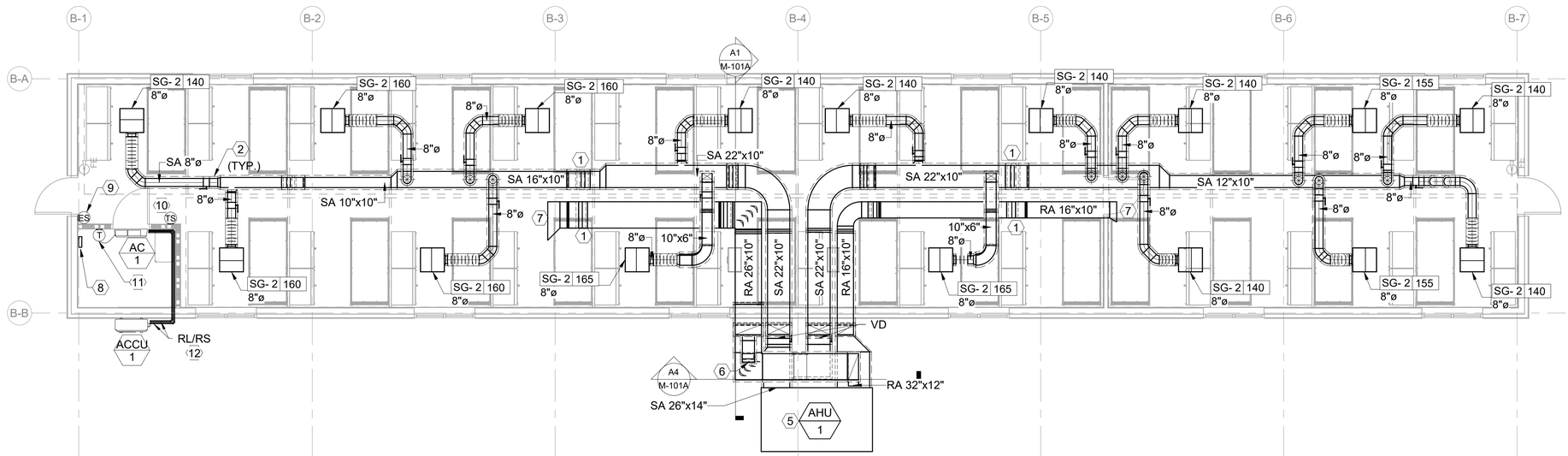
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL BARRACK DEMOLITION PLAN - DUCTWORK

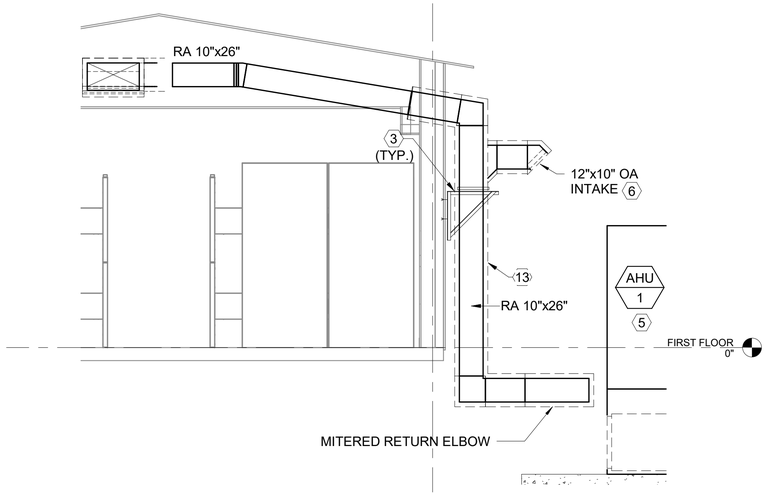
SHEET ID
MD101A

RTA SUBMISSION



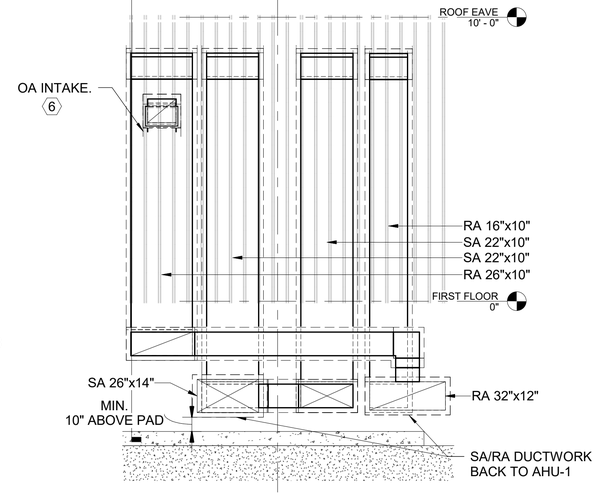
E1 TYPICAL SLEEPING BARRACK PLAN - DUCTWORK

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



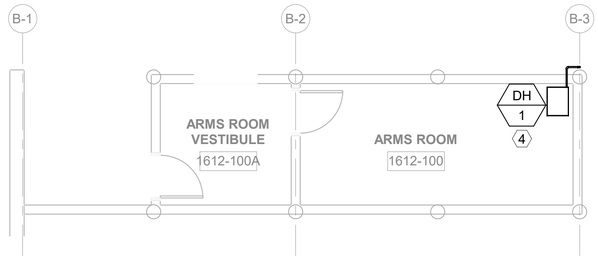
A1 ENLARGED TYPICAL SLEEPING BARRACK

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



A4 ENLARGED SLEEPING BARRACK

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



A7 TYPICAL ARMORY PLAN - DUCTWORK

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

KEYED NOTES

1. DUCTWORK SHALL DROP BELOW CEILING AND CONTINUE EXPOSED UNTIL TRANSITIONING ABOVE CEILING TO CONNECT TO LAST RADIAL DIFFUSER.
2. INSTALL CABLE OPERATED DAMPERS AT EACH BRANCH DUCT. ALL DAMPER CABLES TERMINATE IN ASSOCIATED AIR TERMINAL. REFER TO E8/M-501.
3. PROVIDE DUCTWORK SUPPORT. REFER TO D3/M-503.
4. FIELD COORDINATE DEHUMIDIFIER LOCATION. ROUTE CONDENSATE FROM DEHUMIDIFIER OUTSIDE TO GRADE. PROVIDE RODENT SCREEN ON CONDENSATE PIPE. REFER TO A2/M-502.
5. AHU-1 SERVICES ONE SLEEPING BARRACK, AHU-3 SERVICES TWO SLEEPING BARRACKS. REFER TO CIVIL PLANS FOR UNIT LOCATIONS. TERRAIN DOES NOT PERMIT THE AHU TO BE LOCATED ADJACENT TO THE ENTRY POINT OF BUILDING IN SEVERAL LOCATIONS. ROUTE THE REQUIRED HORIZONTAL DUCTWORK OFFSET BENEATH THE BUILDING AND SUPPORT FROM THE ELEVATED FLOOR SLAB WHERE POSSIBLE. WHERE CLEARANCE DOES NOT PERMIT, SUPPORT THE DUCTWORK A MINIMUM OF 6' ABOVE GRADE AND SUPPORT FROM GRADE. REFER TO D1/M-503 & D3/M-503.
6. 12"x12" OA INTAKE WITH LOUVER. BOTTOM OF OPENING A MIN. OF 10' ABOVE GRADE. REFER TO A6/M-502 & C1/M-501.
7. OPEN BELLMOUTH RETURN OPENING WITH WIRE MESH SCREEN. 38x10 OPENING LOCATED IN SQ-100 MEN & 20x10 OPENING LOCATED IN SQ-101 WOMEN.
8. PROVIDE REMOTE LCD DISPLAY PANEL FOR AHU-1.
9. HVAC EMERGENCY AIR DISTRIBUTION SHUTOFF.
10. SPACE TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE BUTTON.
11. AC UNIT ROOM THERMOSTAT.
12. REFRIGERANT PIPING FOR ACCU-1 AND AC-1. REFER TO C2/M-502 & E4/M-502. DRAIN CONDENSATE FROM AC-1 TO GRADE. PROVIDE RODENT SCREEN ON CONDENSATE PIPE.
13. PROVIDE MIN. 0.03" THICK WHITE PVC WITH LAMINATED SELF-ADHESIVE WEATHER PROOFING JACKET & FLEXIBLE ELASTOMERIC CELLULAR INSULATION.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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DRAWN BY: AH
CHECKED BY: DG
SUBMITTED BY:
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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

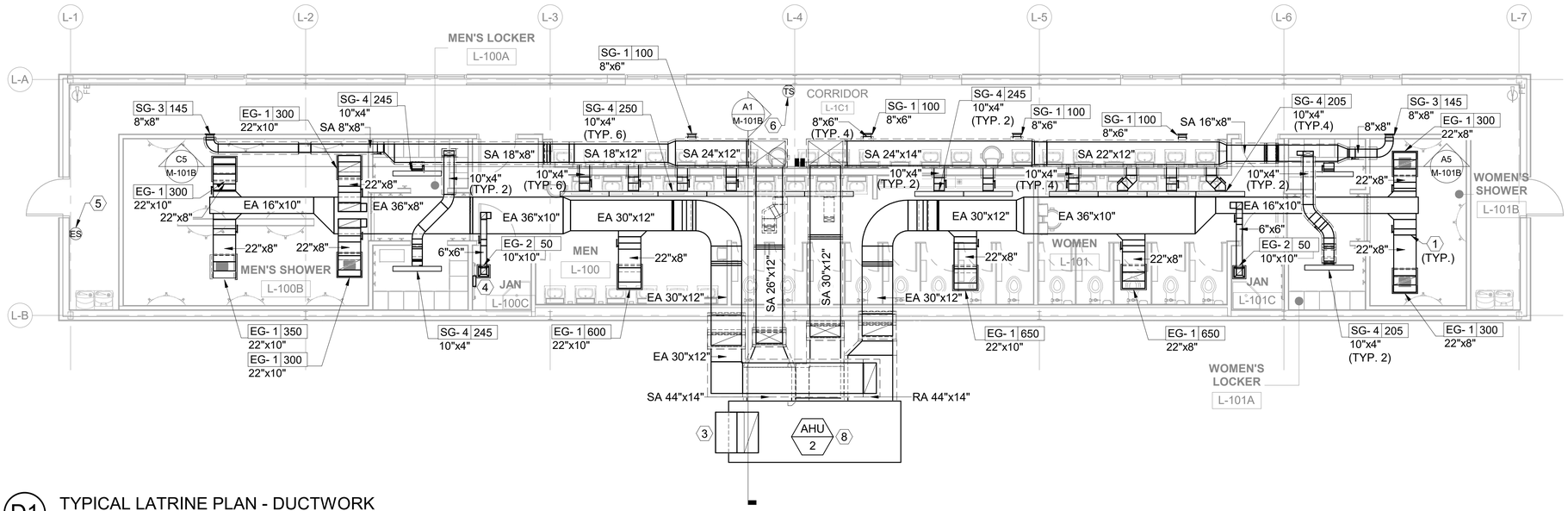
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL SLEEPING BARRACK PLAN - DUCTWORK

SHEET ID

M-101A

RTA SUBMISSION

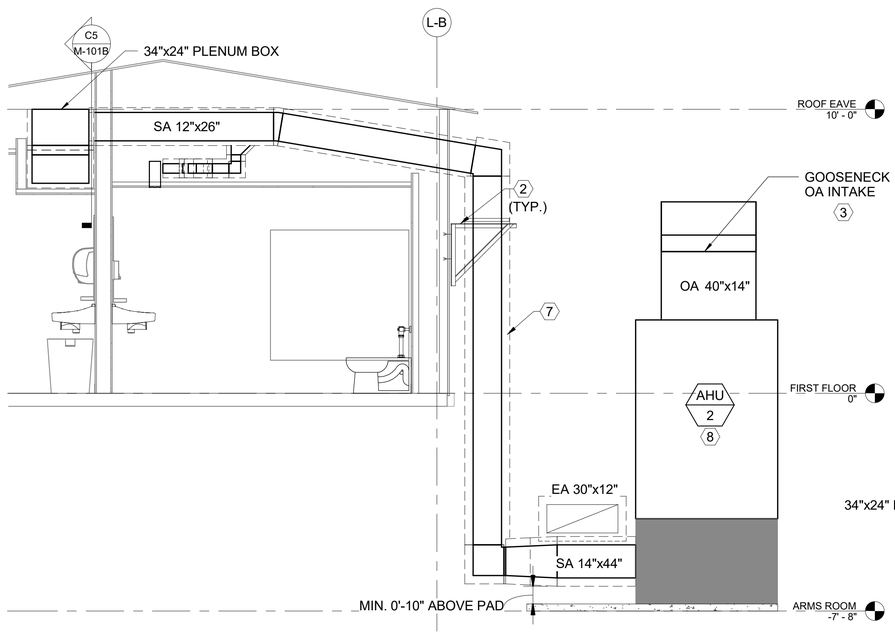


D1 TYPICAL LATRINE PLAN - DUCTWORK

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

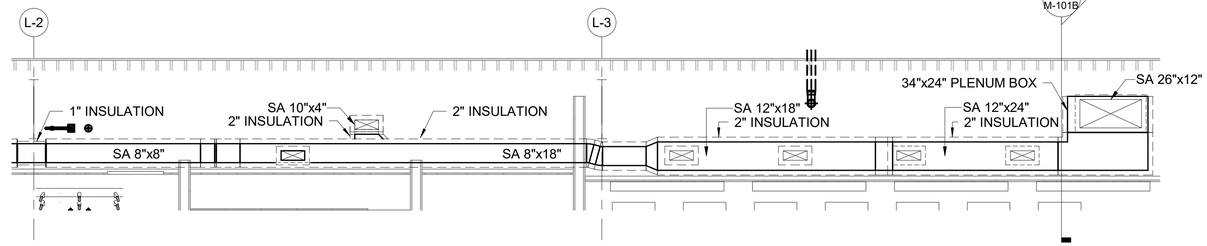
KEYED NOTES

1. INSTALL CABLE OPERATED DAMPERS AT EACH BRANCH DUCT. DAMPER CABLE TERMINATES IN ASSOCIATED AIR TERMINAL DEVICE. REFER TO E8/M-501.
2. PROVIDE DUCTWORK SUPPORT. REFER TO D3/M-503.
3. GOOSENECK OA INTAKE DUCTWORK. REFER TO C1/M-501.
4. PROVIDE REMOTE LCD DISPLAY PANEL FOR AHU-2.
5. HVAC EMERGENCY AIR DISTRIBUTION SHUTOFF.
6. SPACE TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE BUTTON.
7. PROVIDE MIN. 0.03" THICK WHITE PVC WITH LAMINATED SELF-ADHESIVE WEATHER PROOFING JACKET & FLEXIBLE ELASTOMERIC CELLULAR INSULATION.
8. REFER TO CIVIL PLANS FOR UNIT LOCATIONS. TERRAIN DOES NOT PERMIT THE AHU TO BE LOCATED ADJACENT TO THE ENTRY POINT OF BUILDING IN SEVERAL LOCATIONS. ROUTE THE REQUIRED HORIZONTAL DUCTWORK OFFSET BENEATH THE BUILDING AND SUPPORT FROM THE ELEVATED FLOOR SLAB WHERE POSSIBLE. WHERE CLEARANCE DOES NOT PERMIT, SUPPORT THE DUCTWORK A MINIMUM OF 6' ABOVE GRADE AND SUPPORT FROM GRADE. REFER TO D1/M-503 AND D3/M-503.



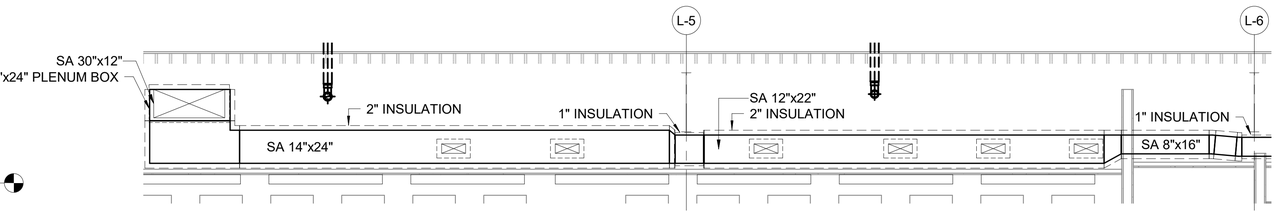
A1 ENLARGED SECTION - TYPICAL LATRINE PLAN

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



C5 ENLARGED SECTION - LATRINE SUPPLY - PLAN WEST

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



A5 ENLARGED SECTION - LATRINE SUPPLY - PLAN EAST

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

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

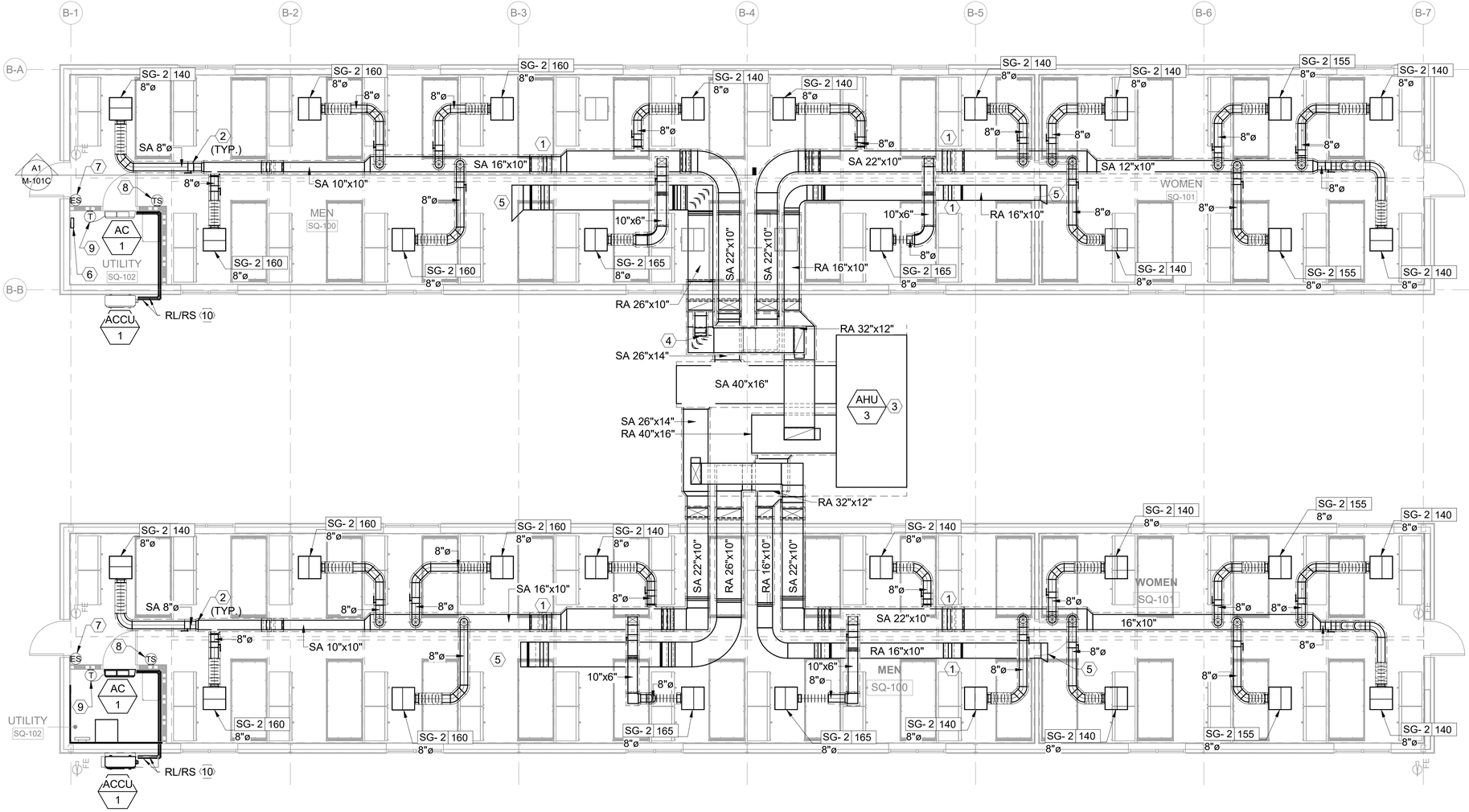
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL LATRINE PLAN - DUCTWORK

SHEET ID

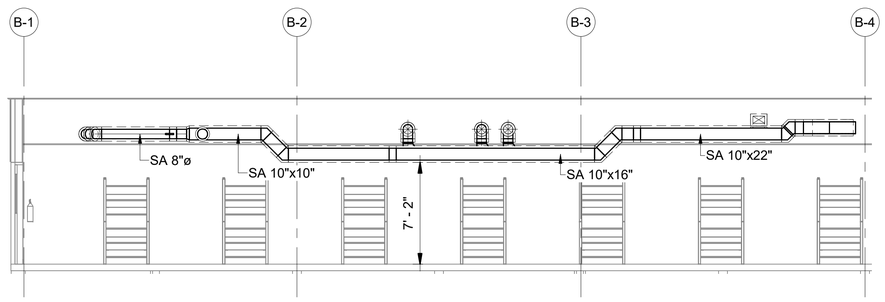
M-101B

RTA SUBMISSION



C1 TYPICAL AHU-3 SLEEPING BARRACK PLAN - DUCTWORK

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



A1 TYPICAL BARRACK - DUCTWORK BELOW CEILING

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

KEYED NOTES

1. DUCTWORK SHALL DROP BELOW CEILING AND CONTINUE EXPOSED UNTIL TRANSITIONING ABOVE CEILNG TO CONNECT TO LAST RADIAL DIFFUSER.
2. INSTALL CABLE OPERATED DAMPERS AT EACH BRANCH DUCT. ALL DAMPER CABLES TERMINATE IN ASSOCIATED AIR TERMINAL. REFER TO E8/M-501.
3. AHU-1 SERVICES ONE SLEEPING BARRACK (SHOWN ON M-101A), AHU-3 SERVICES TWO SLEEPING BARRACKS. REFER TO CIVIL PLANS FOR UNIT LOCATIONS. TERRAIN DOES NOT PERMIT THE AHU TO BE LOCATED ADJACENT TO THE ENTRY POINT OF BUILDING IN SEVERAL LOCATIONS. ROUTE THE REQUIRED HORIZONTAL DUCTWORK OFFSET BENEATH THE BUILDING AND SUPPORT FROM THE ELEVATED FLOOR SLAB WHERE POSSIBLE. WHERE CLEARANCE DOES NOT PERMIT, SUPPORT THE DUCTWORK A MINIMUM OF 6' ABOVE GRADE AND SUPPORT FROM GRADE. REFER TO D1/M-503 AND D3/M-503.
4. 20"x12" OA INTAKE WITH LOUVER. BOTTOM OF OPENING A MIN. OF 10' ABOVE GRADE. REFER TO C1/M-501 & A6/M-502.
5. OPEN BELLMOUTH RETURN OPENING WITH WIRE MESH SCREEN. 38x10 OPENING LOCATED IN SQ-100 MEN & 20x10 OPENING LOCATED IN SQ-101 WOMEN.
6. PROVIDE REMOTE LCD DISPLAY PANEL FOR AHU-3.
7. HVAC EMERGENCY AIR DISTRIBUTION SHUTOFF.
8. SPACE TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE BUTTON.
9. AC UNIT ROOM THERMOSTAT.
10. REFRIGERANT PIPING FOR ACCU-1 AND AC-1. REFER TO C2/M-502 & E4/M-502. DRAIN CONDENSATE FROM AC-1 TO GRADE. PROVIDE RODENT SCREEN ON CONDENSATE PIPE.

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JACOBS / EWING COLE *A Joint Venture*

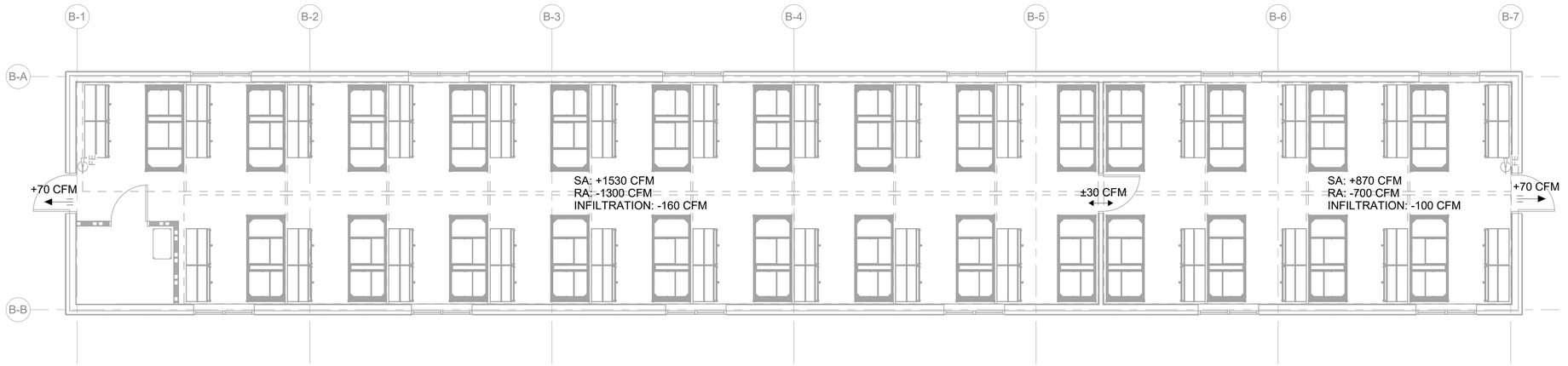
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

TYPICAL AHU-3 SLEEPING BARRACK PLAN - DUCTWORK

SHEET ID

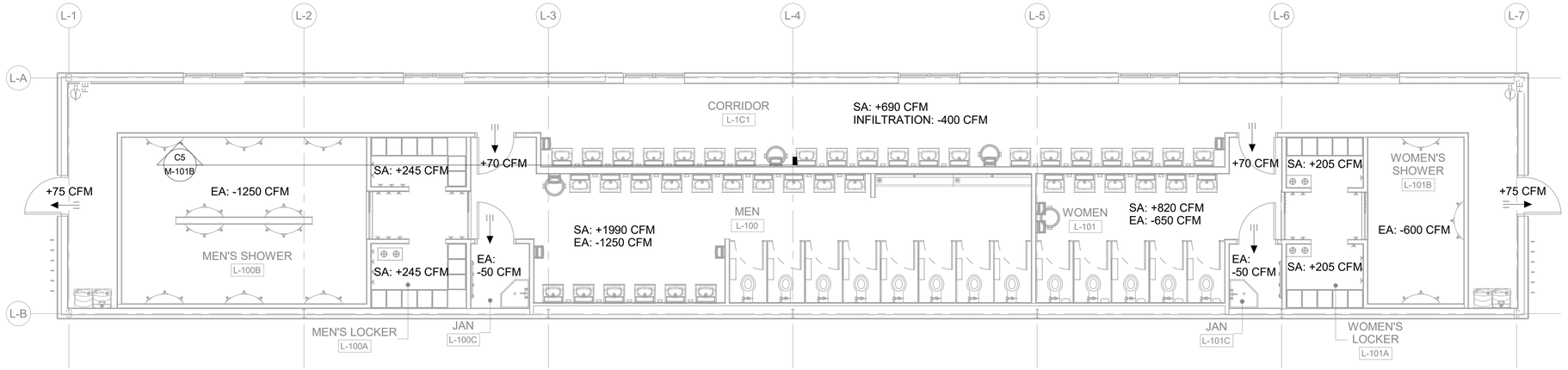
M-101C

RTA SUBMISSION



E1 TYPICAL SLEEPING BARRACK PLAN - PRESSURIZATION

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



A1 TYPICAL LATRINE PLAN - PRESSURIZATION

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

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JACOBS / EWING COLE *A Joint Venture*

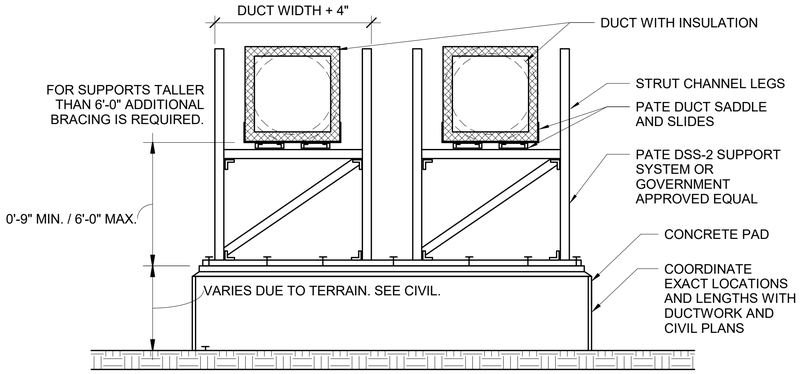
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

DUCTWORK PRESSURIZATION PLAN

SHEET ID

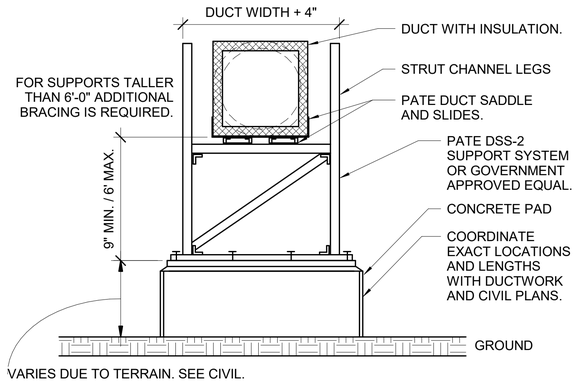
M-101D

RTA SUBMISSION



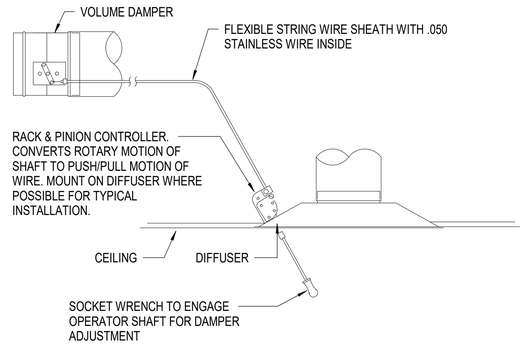
NOTE:
1. COORDINATE HEIGHTS WITH SHEET METAL SHOP DRAWINGS.

E1 MULTIPLE DUCT - CONCRETE PAD SUPPORT DETAIL
NTS



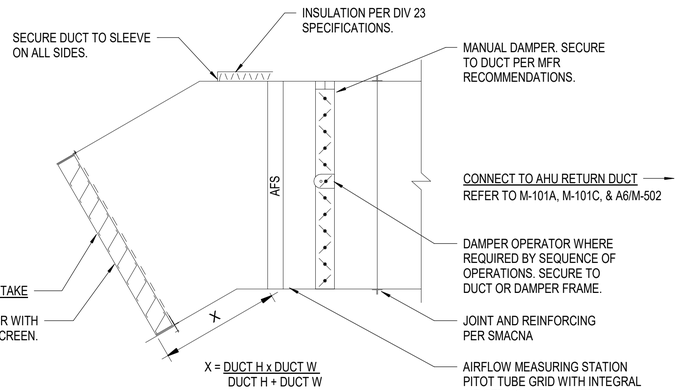
NOTE:
1. COORDINATE HEIGHTS WITH SHEET METAL SHOP DRAWINGS.

E5 SINGLE DUCT - CONCRETE PAD SUPPORT DETAIL
NTS

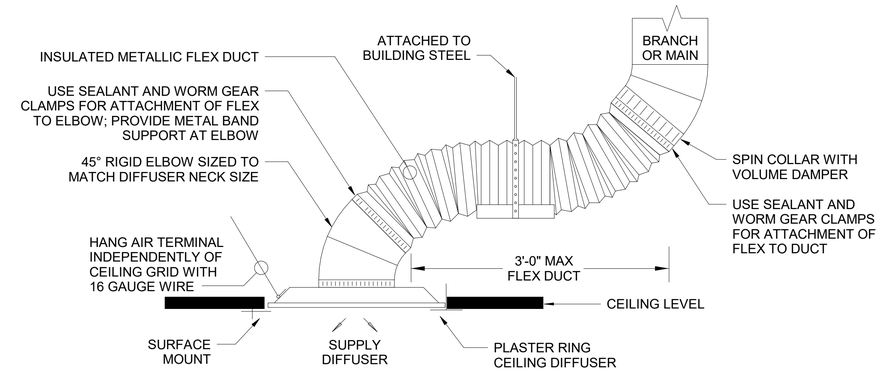


NOTE :
PROVIDE CABLE CONTROL WHEN VOLUME DAMPER IS NOT ACCESSIBLE THROUGH EITHER A T-BAR CEILING OR AN ACCESS PANEL.

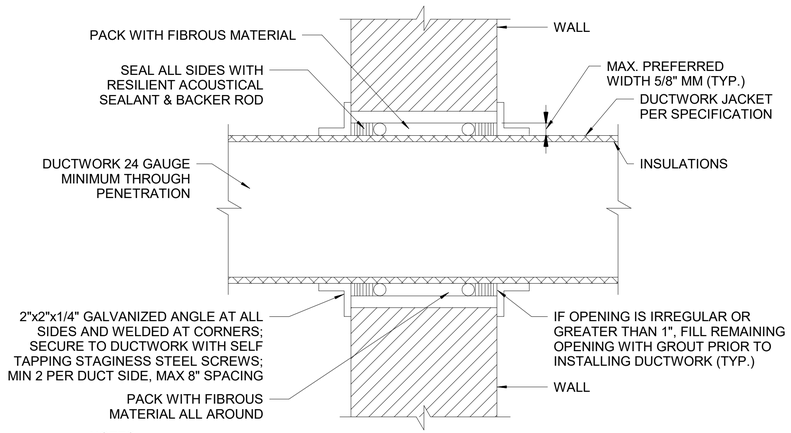
E8 DAMPER REMOTE CABLE CONTROL DETAIL
NTS



C1 AHU-1 & AHU-3 OA LOUVER DETAIL
NTS

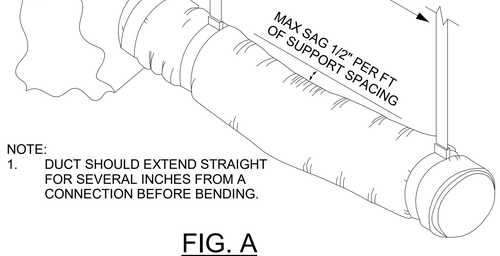


C4 TYPICAL SUPPLY DIFFUSER INSTALLATION DETAIL
NTS



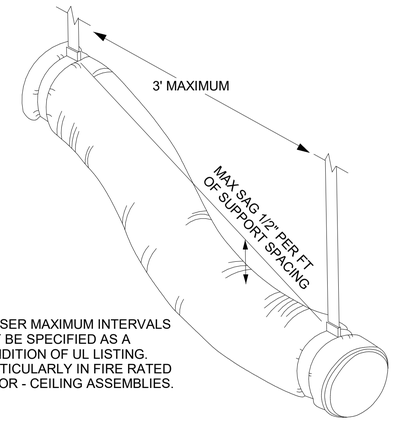
NOTES:
1. FOR PENETRATIONS THROUGH PRE-ENGINEERED METAL BUILDING WALLS, COORDINATE WITH CFMF CONTRACTOR TO PROVIDE APPROPRIATE BRACING AND SUPPORT.

A4 DUCT PENETRATION THROUGH EXTERIOR WALL
NTS



NOTE:
1. DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM A CONNECTION BEFORE BENDING.

FIG. A



NOTE:
1. CLOSER MAXIMUM INTERVALS MAY BE SPECIFIED AS A CONDITION OF UL LISTING. PARTICULARLY IN FIRE RATED FLOOR - CEILING ASSEMBLIES.

FIG. B

A8 ALLOWABLE FLEXIBLE DUCTWORK SAG
NTS

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: DL
DRAWN BY: AH
CHECKED BY: DG
SUBMITTED BY:
SIZE: ANSI D
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SOLICITATION NO.
CONTRACT NO. W912DS-19-D-0010

US ARMY CORPS OF ENGINEERS

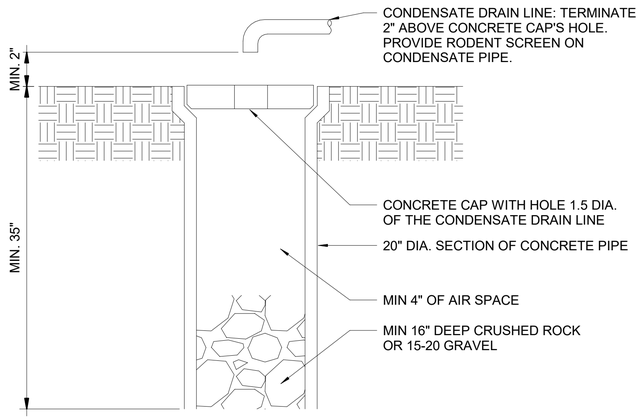
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

HVAC DETAILS

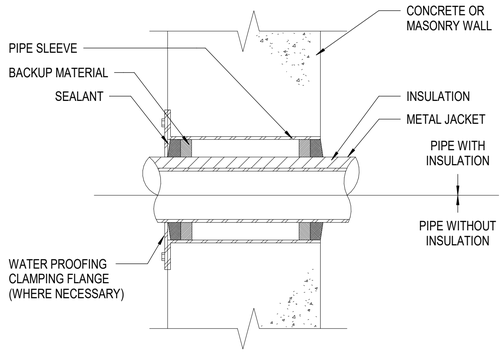
SHEET ID
M-501

RTA SUBMISSION

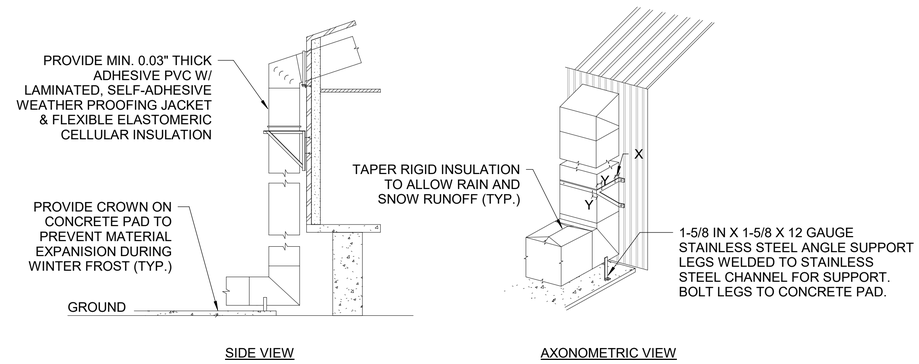


NOTE:
1. PROVIDE DRYWELL WHEREVER AN AIR HANDLING UNIT COOLING COIL CONDENSATE DRAIN PIPE ROUTES TO GRADE.

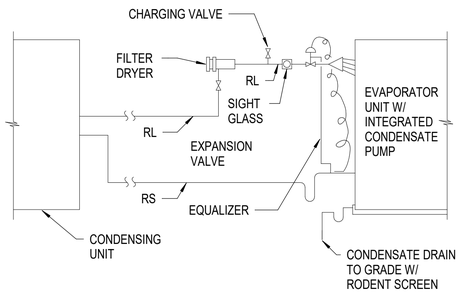
E1 CONDENSATE DRAINAGE WELL
NTS



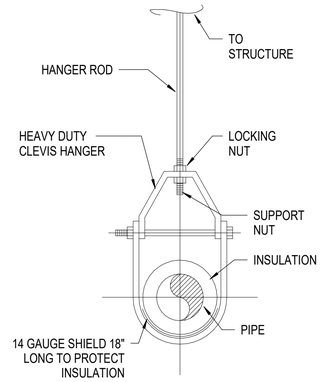
E4 PIPE SLEEVE THRU WALL DETAIL
NTS



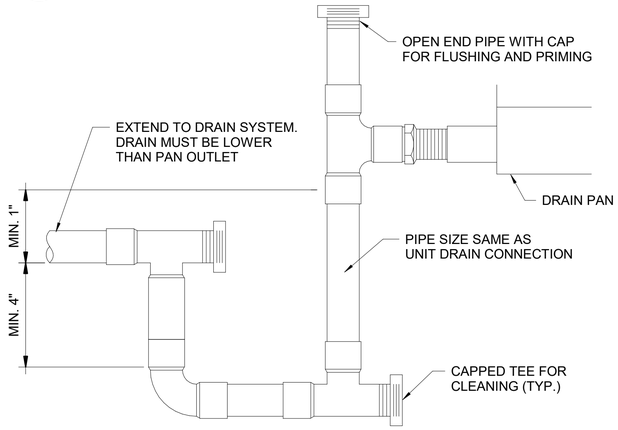
E6 EXTERIOR DUCTWORK INSTALLATION DETAIL
NTS



C2 REFRIGERANT PIPING DETAIL
NTS

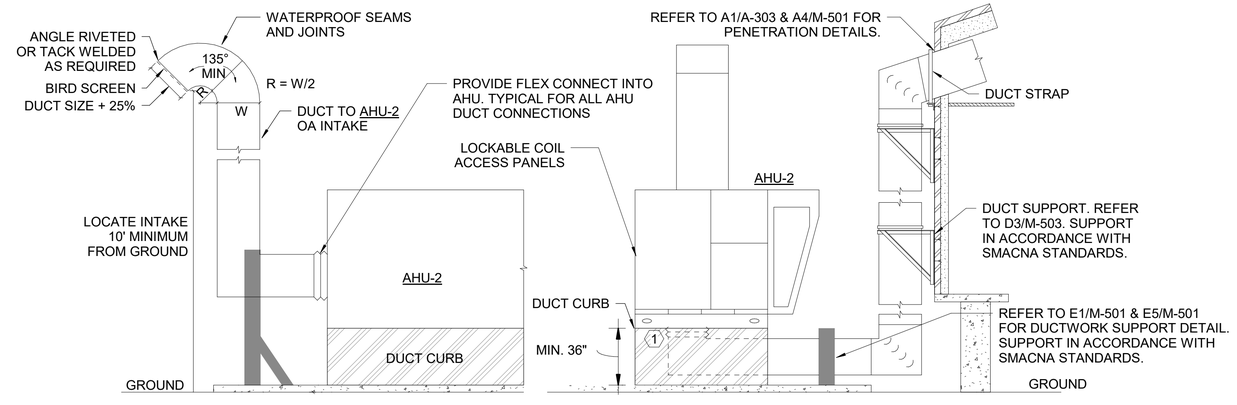


A1 CLEVIS HANGER DETAIL
NTS



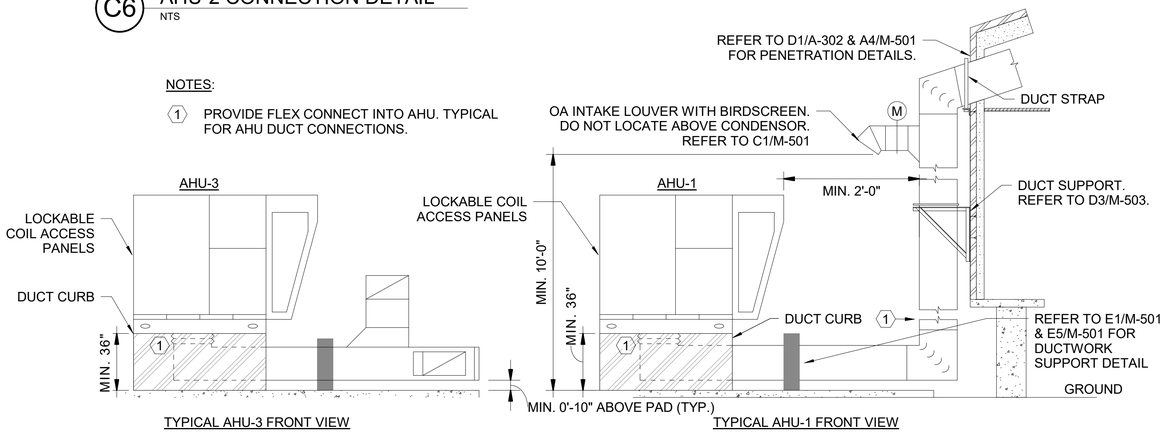
NOTES:
1. ALLOW SUFFICIENT SPACE BELOW DRAIN PAN FOR TRAP.
2. PITCH DRAIN FOR PROPER RUNOFF.
3. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM DRAIN SEAL.
4. SUPPORT LENGTHY DRAIN LINES TO PREVENT SAG AND CONDENSATE OVERFLOW.

A2 CONDENSATE DRAIN PIPE DETAIL
NTS



C6 AHU-2 CONNECTION DETAIL
NTS

NOTES:
1. PROVIDE FLEX CONNECT INTO AHU. TYPICAL FOR AHU DUCT CONNECTIONS.



A6 AHU-1,3 CONNECTION DETAIL
NTS

US Army Corps of Engineers ®

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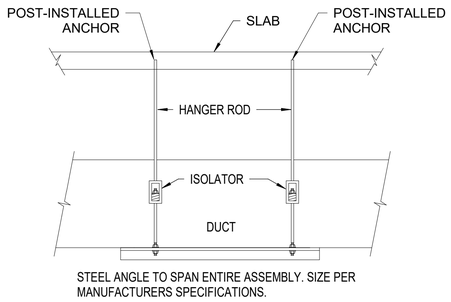
US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

HVAC DETAILS

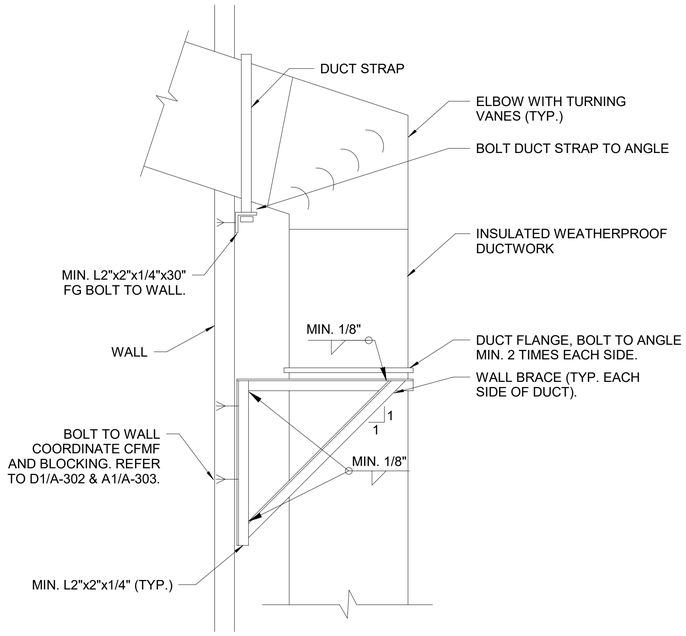
SHEET ID
M-502

RTA SUBMISSION

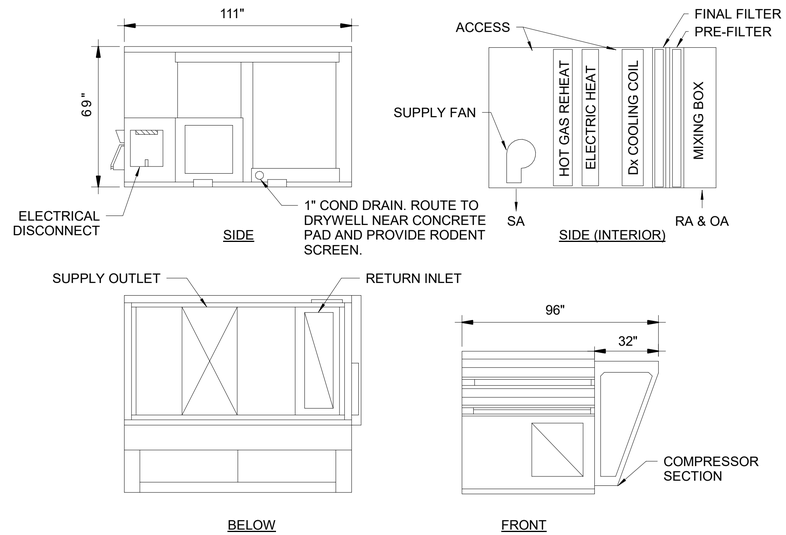


STEEL ANGLE TO SPAN ENTIRE ASSEMBLY. SIZE PER MANUFACTURERS SPECIFICATIONS.

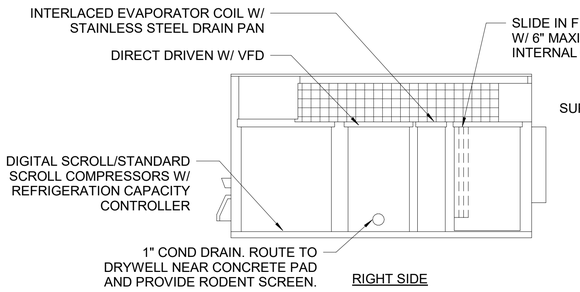
D1 DUCT SUPPORT DETAIL - UNDER SLAB
NTS

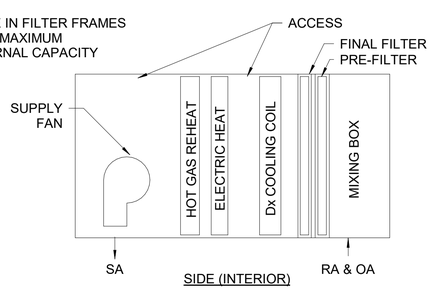


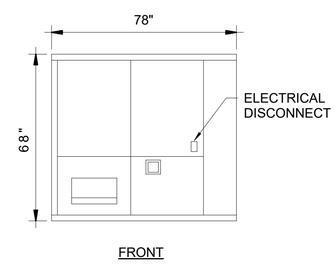
D3 WALL DUCT SUPPORTS
NTS

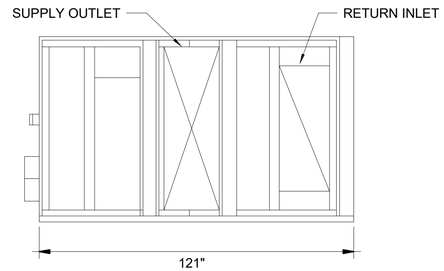


D7 AHU-1 DIAGRAM
NTS

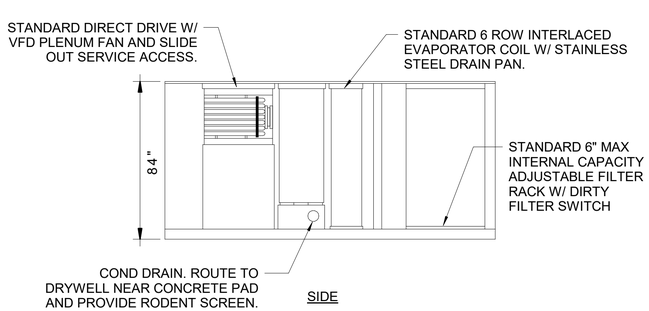


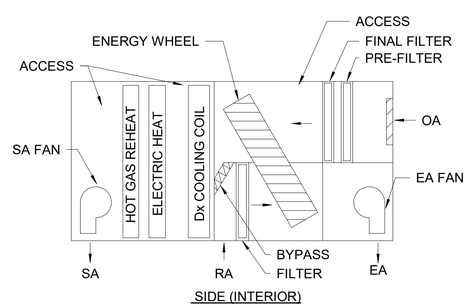


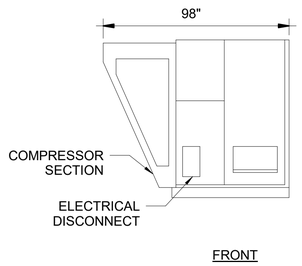


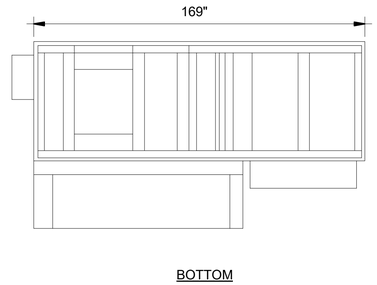


A1 AHU-3 DIAGRAM
NTS









A5 AHU-2 DIAGRAM
NTS

US Army Corps of Engineers ®

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CHECKED BY: DG
SUBMITTED BY:
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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

HVAC DETAILS

SHEET ID

M-503

RTA SUBMISSION

AIR HANDLING UNIT SCHEDULE

TAG	LOCATION	SERVICE	BASIS OF DESIGN		SUPPLY FAN				RETURN FAN		ENERGY RECOVERY		DX COOLING COIL							ELECTRIC HEATING COIL			REHEAT COIL		
			MANUFACTURER	MODEL	SA (CFM)	HP (EA)	OA (CFM)	ESP (IN WG)	RA (CFM)	ESP (IN WG)	TYPE	SUMMER LAT DB/WB	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT DB/WB	LAT DB/WB	EER	CONDENSER ROWS	FPI	TOTAL CAPACITY (MBH)	EAT DB	LAT	TYPE	MRC (LB/HR)	LAT DB/WB
AHU - 1	ON GRADE	CADET BARRACK	TRANE	NOTE 15	2400	1.5	400	2.00	2000	1.50	-	-	133.1	87.7	77.8/64.8	44.7/44.7	11.1	2	14	51.0	71	91	HOT GAS	41.38	77/58.6
AHU - 2	ON GRADE	LATRINE	TRANE	NOTE 15	4400	5.0	4400	2.00	3850	1.50	TOTAL ENTHALPY	79.3/66.3	264.4	161.6	79.3/66.3	44.4/44.2	15.3	3	12	82.0	65	82	HOT GAS	185.61	64.4/53.31
AHU - 3	ON GRADE	CADET BARRACK	TRANE	NOTE 15	4800	4.0	800	2.00	4000	1.50	-	-	261.6	172.8	77.8/64.8	45.2/45.2	9.1	2	14	82.0	71	87	HOT GAS	80.17	62.8/53.2

AIR HANDLING UNIT SCHEDULE (CONT.)

TAG	AIR COOLED CONDENSER					ELECTRICAL DATA			NOTES
	FANS			COMPRESSORS					
	QTY.	HP (EA)	FLA (EA)	QTY.	RLA (EA)	RPM	BHP	V/PH/Hz	
AHU - 1	2	1.00	4.20	2	20	1757	1.25	208/3/60	1, 2, 3, 4, 5, 6, 7, 8, 11, 12,13, 15, 16
AHU - 2	3	1.00	4.20	2	48	1231	1.39	208/3/60	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12,14, 15, 16
AHU - 3	3	1.00	4.20	2	48	1718	4.4	208/3/60	1, 2, 3, 4, 5, 6, 7, 8, 11, 12,13, 15, 16

NOTES:
1. COORDINATE DUCT ROUTING AND CONNECTIONS WITH FIELD CONDITIONS.
2. PROVIDE AMCA CLASS 1 LOW LEAKAGE DAMPERS, EACH WITH A DEDICATED/INDEPENDENT MOTORIZED DAMPER ACTUATOR(S).
3. PROVIDE MANUFACTURER'S FACTORY APPLIED COATING ON EQUIPMENT CASING AND COILS.
4. PROVIDE DEDICATED EQUIPMENT CONTROLLER, SOURCE CODE PROGRAMMING, GRAPHICS, AND INTEGRATION AS NECESSARY FOR EACH UNIT.
5. COORDINATE INPUT/OUTPUT SIGNALS BETWEEN EQUIPMENT AND FIELD CONTROL DEVICES.
6. PROVIDE ACCESSORIES AND APPURTENANCES FOR INSTALLING UNITS.
7. PROVIDE SINGLE POINT POWER CONNECTION WITH FACTORY MOUNTED AND WIRED NON-FUSED DISCONNECT SWITCH NEMA 4X RATED SUITABLE FOR OUTSIDE USE.
8. PROVIDE PACKAGED, VARIABLE VOLUME AIR HANDLING UNIT, WITH DIRECT EXPANSION COOLING, ELECTRIC HEATING, MIXING BOX, AND ECONOMIZER CONTROL.
9. PROVIDE PACKAGED, VARIABLE VOLUME DEDICATED OUTSIDE AIR HANDLING UNIT, WITH DIRECT EXPANSION COOLING, ELECTRIC PREHEAT, HOT GAS REHEAT, ELECTRIC BACK-UP HEAT, AND TOTAL ENTHALPY RECOVERY WHEEL.
10. PROVIDE TOTAL ENTHALPY ENERGY RECOVERY WHEEL WITH ALUMINUM FRAME CONSTRUCTION AND VARIABLE SPEED ROTATION CONTROL.
11. PROVIDE MERV 8 PRE-FILTER, MERV 13 FINAL FILTER.
12. PROVIDE 36" CURB WITH SUPPLY AND RETURN DUCT PENETRATIONS.
13. COIL ENTERING AIR TEMPERATURES ARE MIXED AIR TEMPERATURES. OUTSIDE AIR COOLING DESIGN TEMPERATURE OF 92°F DB/75°F WB AND HEATING DESIGN OF 50°F.
14. COIL ENTERING AIR TEMPERATURES ARE AFTER ENERGY RECOVERY WHEEL. OUTSIDE AIR COOLING DESIGN TEMPERATURE OF 92°F DB/75°F WB AND HEATING DESIGN OF 50°F.
15. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN. ALTERNATIVE UNITS SHALL BE APPROVED BY THE GOVERNMENT, HOWEVER, MODIFICATIONS OF THE DESIGN DOCUMENTS TO FIT AN ALTERNATIVE UNIT AND COORDINATION OF DUCTWORK AND ASSOCIATED ELECTRICAL AND CIVIL UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE BASIS OF DESIGN MODEL NUMBERS ARE AS FOLLOWS: AHU-1 IS MODEL OADG012C1-DAB10JC00-C1AE00000-11D00002C-A00C03AA0-AA1B010AA-00AE00000; AHU-2 IS MODEL OAKD300A3-D1B400JN-D3C00AG6JL1B52E3B0C0; AHU-3 IS MODEL OAGD300A3-C1B400CC-D3E00AG9002001E3C1A0.
16. LAT OFF THE COOLING COIL SHALL NOT EXCEED 50°F.

DUCTWORK INSULATION SCHEDULE

SERVICE	INSULATION TYPE	INSULATION THICKNESS (IN)	LOCATION	JACKET	NOTES
SUPPLY AIR - INDOOR	FLEXIBLE ELASTOMERIC	2"	CONCEALED	ALL SERVICE JACKET	
SUPPLY AIR - INDOOR	FLEXIBLE ELASTOMERIC	2"	CONCEALED	PVC JACKET	
SUPPLY AIR - OUTDOOR	FLEXIBLE ELASTOMERIC	2.5"	EXPOSED	PVC OR ALUMINUM JACKET	
RETURN AIR - OUTDOOR	FLEXIBLE ELASTOMERIC	1"	ALL	PVC OR ALUMINUM JACKET	
EXHAUST AIR - OUTDOOR	FLEXIBLE ELASTOMERIC	1"	ALL	PVC OR ALUMINUM JACKET	

AIR DEVICE SCHEDULE

TAG	SERVICE	BASIS OF DESIGN		MAX AIRFLOW (CFM)	MODULE SIZE (IN)	NECK SIZE (IN)	NO. OF SLOTS	SLOT WIDTH (IN)	BORDER TYPE	PATTERN	NOTES
		MANUFACTURER	MODEL								
EG - 1	EXHAUST	PRICE	PDR	700 CFM	24 x 24	22 x 10	-	-	CEILING MOUNTED PLASTER RING	PERFORATED	1, 2, 3, 4, 5
EG - 2	EXHAUST	PRICE	PDR	300 CFM	12 x 12	10 x 10	-	-	CEILING MOUNTED PLASTER RING	PERFORATED	1, 2, 3, 4, 5
RG - 1	OUTDOOR AIR	GREENHECK	ECD-401	900 CFM	VARIES	-	-	-	DUCT MOUNTED	45 DEFLECTION	2, 5, 7
SG - 1	SUPPLY	PRICE	540S	130 CFM	8 x 6	8 x 6	-	-	SIDEWALL	45 DEFLECTION	1, 2, 3, 4, 5, 6
SG - 2	SUPPLY	PRICE	RSD	175 CFM	24 x 24	8"	-	-	CEILING MOUNTED PLASTER RING	SWIRL	1, 2, 3, 4, 5
SG - 3	SUPPLY	PRICE	540S	155 CFM	8 x 8	8 x 8	-	-	SIDEWALL	45 DEFLECTION	1, 2, 3, 4, 5
SG - 4	SUPPLY	PRICE	TBD2	250 CFM	48x6	8"	2	1-1/2	CEILING MOUNTED PLASTER RING	1-WAY	1, 2, 3, 4, 5

NOTES:
1. COORDINATE FRAME STYLE AND TYPE WITH CEILING TYPE.
2. PROVIDE MANUFACTURER'S MOUNTING HARDWARE AND FRAME.
3. PROVIDE ALUMINUM AIR DEVICE.
4. MOUNT RACK & PINION CONTROLLER ON DIFFUSER FOR CABLE OPERATED DAMPER.
5. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN. ALTERNATIVE AIR DEVICES SHALL BE APPROVED BY THE GOVERNMENT.
6. PROVIDE INTEGRAL FACE DAMPER.
7. PROVIDE LOUVER WITH OPERABLE BLADES.

DUCTWORK CONSTRUCTION AND LEAKAGE TESTING SCHEDULE

SYSTEM	DUCT PRESSURE CLASS IN WG.			SUPPLY				RETURN		DUCT TEST PRESSURE (IN WG)	NOTES
				ROUND/OVAL		RECTANGULAR					
	SUPPLY DUCT	RETURN DUCT	EXHAUST DUCT	DUCT SEAL CLASS	DUCT LEAK CLASS	DUCT SEAL CLASS	DUCT LEAK CLASS	DUCT SEAL CLASS	DUCT LEAK CLASS		
DOAS UNITS AND AHUs - DUCTS LOCATED OUTDOORS	+3	-3	-3	A	3	A	6	A	12	3	1
DOAS UNITS AND AHUs - DUCTS LOCATED INDOORS	+2	-2	-2	A	6	A	12	A	12	2	1

NOTES:
1. TEST IN ACCORDANCE WITH UFGS 23 0593 "TESTING, ADJUSTING, AND BALANCING FOR HVAC" AND THE PROCEDURES IN SMACNA HVAC AIR DUCT LEAKAGE TESTING MANUAL.

AIR-COOLED CONDENSING UNIT SCHEDULE

MARK	SERVING	BASIS OF DESIGN		AIRFLOW RATE (CFM)	COOLING CAPACITY (BTUH)	HEATING CAPACITY (BTUH)	CONDENSER						NOTES
		MANUFACTURER	MODEL				AMB TEMP °F	REFRIGERANT	COMPRESSORS			CONDENSER FANS	
									QTY	RLA (EA)	MCA	QTY	FLA (EA)	
ACCU-1	UTILITY ROOM	DAIKIN	RXL09QMVJU	1105	9000	10900.0	95.0	R-410A	1	8.5	9.5	1	0.2	1, 2, 3

NOTES:
1. PROVIDE UNIT DISCONNECT.
2. PROVIDE WITH PRE-CHARGED REFRIGERANT LINE SET AND THERMOSTAT.
3. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN. ALTERNATIVE UNITS SHALL BE APPROVED BY THE GOVERNMENT, HOWEVER, MODIFICATIONS OF THE DESIGN DOCUMENTS TO FIT AN ALTERNATIVE UNIT AND COORDINATION OF ASSOCIATED ELECTRICAL, TELECOM, AND FIRE PROTECTION UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

DEHUMIDIFIER SCHEDULE

MARK	SERVING	BASIS OF DESIGN			ELECTRICAL DATA			DIMENSIONS (L x W x H)	WEIGHT (LBS)	NOTES
		MANUFACTURER	MODEL	LBS/HR	V	Ph	Hz			
DH-1	ARMORY	FRIGIDAIRE	FFAP7033T1	3	115	1	60	12 x 15 x 24	54	1, 2, 3

NOTES:
1. PROVIDE DRAINAGE PIPE FROM INTEGRATED CONDENSATE PUMP TO GRADE.
2. PROVIDE INTEGRATED HUMIDITY CONTROLS WITH RELATIVE HUMIDITY SETPOINT AND AUTOMATIC SHUTOFF.
3. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN. ALTERNATIVE UNITS SHALL BE APPROVED BY THE GOVERNMENT.

AIR-CONDITIONER SCHEDULE

MARK	SERVING	BASIS OF DESIGN		COOLING CAPACITY						HEATING CAPACITY				ELECTRICAL DATA				WEIGHT (LBS)	NOTES
		MANUFACTURER	MODEL	REFRIGERANT	CFM	TOTAL CAPACITY (BTU/HR)	SENSIBLE CAPACITY (BTU/H)	EAT DB/WB	LAT DB/WB	TYPE	TOTAL CAPACITY (BTU/H)	EAT DB	LAT DB	V	PH	Hz	FLA		
AC-1	UTILITY ROOM	DAIKIN	FTX09NMVJU	R-410A	417	9000.0	8170	95/75	80/67	HEAT PUMP	10900.0	47	70	208	1	60	0.20	18.00	1, 2

NOTES:
1. PROVIDE UNIT DISCONNECT.
2. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN. ALTERNATIVE UNITS SHALL BE APPROVED BY THE GOVERNMENT, HOWEVER, MODIFICATIONS OF THE DESIGN DOCUMENTS TO FIT AN ALTERNATIVE UNIT AND COORDINATION OF ASSOCIATED ELECTRICAL, TELECOM, AND FIRE PROTECTION UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

US Army Corps of Engineers ®

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HVAC SCHEDULE

SHEET ID
M-601

RTA SUBMISSION

CONTROL SCHEMATIC SYSMBOLS

W-X-Y-Z ##
DEVICE SYMBOL, GENERIC
USED TO REPRESENT SENSORS, INSTRUMENTS SAFETIES, AND OTHER CONTROL DEVICES
W-X-Y-Z (SEE ABBREVIATIONS AND ACRONYMS)
GENERIC USAGE TO SHOW LOCATION OF DEVICE, PROCESS OR DEVICE BEING MEASURED OR CONTROLLED, MODIFIERS AND OTHER APPLICATION INFORMATION

W-X-Y-Z ## / W-X-Y-Z
DEVICE SYMBOL, GENERIC
MULTIPLE OUTPUT DEVICE WHERE AT LEAST 1 OUTPUT IS ALWAYS SAFETY INTERLOCK

DDC ## / DIR / REV
DEVICE SYMBOL, CONTROLLER
DDC : DIRECT DIGITAL CONTROL
: DEVICE NUMBER
DIR : DIRECT CONTROL ACTION, OR
REV : REVERSE CONTROL ACTION
W-X-Y-Z : (SEE ABBREVIATIONS AND ACRONYMS)
GENERIC USAGE TO SHOW LOCATION OF DEVICE, PROCESS OR DEVICE BEING MEASURED OR CONTROLLED, SIGNAL TYPE, MODIFIERS AND OTHER APPLICATION INFORMATION

ACTUATOR, ELECTRIC

AFMA
AIR FLOW MEASUREMENT ARRAY, WITH FLOW TRANSMITTER
SEE "DEVICE SYMBOL, GENERIC"

BOILER

CHILLER

C
COIL, COOLING

DX
COIL, COOLING, DIRECT-EXPANSION

EH
COIL, ELECTRIC HEATING

HG
COIL, HOT GAS

H
COIL, HEATING

PC
COIL, PRECOOL

PH
COIL, PREHEAT

ST
COIL, STEAM

CONTACT, PRESSURE, HIGH LIMIT (HL)
SHOWN IN ACTIVATED POSITION
CLOSED WHEN PRESSURE IS ABOVE SETPOINT
OPEN WHEN PRESSURE IS BELOW SETPOINT

CONTACT, PRESSURE, HIGH LIMIT (HL)
SHOWN IN ACTIVATED POSITION
OPEN WHEN PRESSURE IS ABOVE SETPOINT
CLOSED WHEN PRESSURE IS BELOW SETPOINT

CONTACT, PRESSURE, LOW LIMIT (LL)
SHOWN IN ACTIVATED POSITION
CLOSED WHEN PRESSURE IS BELOW SETPOINT
OPEN WHEN PRESSURE IS ABOVE SETPOINT

CONTACT, PRESSURE, LOW LIMIT (LL)
SHOWN IN INACTIVATED POSITION
OPEN WHEN PRESSURE IS ABOVE SETPOINT
CLOSED WHEN PRESSURE IS BELOW SETPOINT

CONTACT, TEMPERATURE, HIGH LIMIT (HL)
SHOWN IN ACTIVATED POSITION
CLOSED WHEN TEMPERATURE IS ABOVE SETPOINT
OPEN WHEN TEMPERATURE IS BELOW SETPOINT

CONTACT, TEMPERATURE, LOW LIMIT (HL)
SHOWN IN INACTIVATED POSITION
OPEN WHEN TEMPERATURE IS BELOW SETPOINT
CLOSED WHEN TEMPERATURE IS ABOVE SETPOINT

CONTACT, TEMPERATURE, LOW LIMIT (LL)
SHOWN IN ACTIVATED POSITION
CLOSED WHEN TEMPERATURE IS BELOW SETPOINT
OPEN WHEN TEMPERATURE IS ABOVE SETPOINT

CONTACT, TEMPERATURE, LOW LIMIT (LL)
SHOWN IN INACTIVATED POSITION
OPEN WHEN TEMPERATURE IS ABOVE SETPOINT
CLOSED WHEN TEMPERATURE IS BELOW SETPOINT

CONTROL SIGNAL LINE, LOW VOLTAGE

CURRENT TRANSFORMER/SWITCH

DAMPER, BALANCING

D-# #
DAMPER, PARALLEL BLADE
NORMALLY OPEN OR CLOSED AS SHOWN
= DAMPER NUMBER AS SHOWN IN DAMPER SCHEDULE

D-# #
DAMPER, OPPOSED BLADE
NORMALLY OPEN OR CLOSED AS SHOWN
= DAMPER NUMBER AS SHOWN IN DAMPER SCHEDULE

MAIN AIR
MAIN AIR

M #
MOTOR

MS-#
MOTOR STARTER

Rxx
RELAY COIL
XX = SEQUENTIAL RELAY (SOLENOID) NUMBER

Rxx-YY
REAL COIL CONTACT
NORMALLY OPEN
XX = RELAY COIL NUMBER
YY = CONTACT NUMBER

Rxx-YY
REAL COIL CONTACT
NORMALLY OPEN
XX = RELAY COIL NUMBER
YY = CONTACT NUMBER

FAN

FILTER

LDP ##
LOCAL DISPLAY PANEL
= SEQUENTIAL NUMBER (WHEN MORE THAN 1 LDP)

P
PRESSURE GAGE

FLOW METER

P
PRESSURE WITCH, DIFFERENTIAL, WITH GAGE
H = HIGH PRESSURE TAP
L = LOW PRESSURE TAP
SEE "DEVICE SYMBOL, GENERIC"

PUMP

RADIATOR

RST-BUT
RESET BUTTON FOR SAFETY RESET

SMOKE DETECTOR, DUCT-MOUNTED
SEE "DEVICE SYMBOL, GENERIC"

SWITCH, MANUAL

T
TEMPERATURE GAGE

TEMPERATURE SENSOR, AVERAGE
or TEMPERATURE LOW LIMIT / FREEZESTAT
SEE "DEVICE SYMBOL, GENERIC"

TEMPERATURE SENSOR, POINT
SEE "DEVICE SYMBOL, GENERIC"

STAT
THERMOSTAT WITH SPECIFIED I/O FUNCTIONS

THERMOWELL IN PIPE

VALVE, BALANCING

V- # #
NC
VALVE, NORMALLY CLOSED
WITH SPRING RETURN FAILSAFE
= VALVE NUMBER A SHOWN IN VALVE SCHEDULE

V- # #
NO
VALVE, NORMALLY OPEN
WITH SPRING RETURN FAILSAFE
= VALVE NUMBER A SHOWN IN VALVE SCHEDULE

COM V- # # NO
VALVE, 3-WAY DIVERTING WITH
SPRING RETURN FAILSAFE
NO = NORMALLY OPEN
NC = NORMALLY CLOSED
COM = COMMON PORT
# # = VALVE NUMBER AS SHOWN IN VALVE SCHEDULE

NO V- # # COM
VALVE, 3-WAY MIXING WITH
SPRING RETURN FAILSAFE
NO = NORMALLY OPEN
NC = NORMALLY CLOSED
COM = COMMON PORT
# # = VALVE NUMBER AS SHOWN IN VALVE SCHEDULE

VFD
XX-C XX-SS XX-S
VARIABLE FREQUENCY DRIVE
XX = PROCESS/DEVICE BEING CONTROLLED

SS = START/STOP COMMAND
S = STATUS FEEDBACK (ON/OFF)
C = 4 - 20 mA, VDC

ABBREVIATIONS AND ACRONYMS

2P	TWO - POSITION (CONTROL)
ADJ	ADJUSTABLE
AFMA	AIR FLOW MEASUREMENT ARRAY
AI	ANALOG INPUT
ALM	ALARM
AO	ANALOG OUTPUT
BI	BINARY INPUT
BLDG	BUILDING
BLR	BOILER
BO	BINARY OUTPUT
BYP	BYPASS
C	COMMAND (MODULATING CONTROL SIGNAL)
CDO	CONDENSATE OVERFLOW
CF	CONDENSER FAN
CHLR	CHILLER
CLG	COOLING
CO2	CARBON DIOXIDE
COM	COMMON
COMP	COMPRESSOR
CR	CONDENSER/CONDENSATE WATER RETURN
CS	CONDENSER/CONDENSATE WATER SUPPLY
CSR	CURRENT SENSING RELAY
CT	CURRENT TRANSFORMER /SWITCH
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHW	CHILLED WATER
D	DAMPER
DA	DISCHARGE AIR
DDC	DIRECT DIGITAL CONTROL(LER)
DIFF	DIFFERENCE
DIS	DISABLE
DISP	DISPLAY
DX	DIRECT EXPANSION (UNIT)
EA	EXHAUST AIR
ECM	ELECTRONICALLY COMMUTATED MOTOR
ECO	ECONOMIZER
EF	EXHAUST FAN
EH	ELECTRIC HEAT
EMCS	ENERGY MONITORING AND CONTROL SYSTEM
ENA	ENABLE
ERW	ENERGY RECOVERY WHEEL
ES	END SWITCH
F	FLOW
FAP	FIRE ALARM PANEL
FLT	FILTER
FM	FLOW METER
FZ	FREEZE STAT
FS	FLOW SWITCH
H	HIGH
HG	HOT GAS
HL	HIGH LIMIT
HTG	HEATING
HUM	HUMIDIFIER
HW	HOT WATER
HHWR	HOT WATER RETURN
HHWS	HOT WATER SUPPLY
L	LOW
LDR	LOCAL DISPLAY PANEL
LL	LOW LIMIT
M	MOTOR or MAIN
M&C	MONITORING & CONTROL (SOFTWARE)
MA	MIXED AIR
MINOA	MINIMUM OUTSIDE AIR
MS	MOTOR STARTER
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NVI	NETWORK VIRTUAL INPUT
NVO	NETWORK VIRTUAL OUTPUT
OA	OUTSIDE AIR
OCC	OCCUPIED
ODT	ON DELAY TIMER
OWS	OPERATOR WORKSTATION
P	POSITION
PC	PRE-COOLING
PCW	PRIMARY CHILLER WATER
PCWR	PRIMARY CHILLER WATER RETURN
PCWS	PRIMARY CHILLER WATER SUPPLY
PH	PREHEAT
PMP	PUMP
RA	RETURN AIR
REV	REVERSE (CONTROL ACTION)
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RLA	RELIEF AIR
RM	ROOM
RTN	RETURN
S	STATUS
SA	SUPPLY AIR
SF	SUPPLY FAN
SMK	SMOKE
SP	SETPOINT
SS	START/STOP COMMAND
STAT	THERMOSTAT
STM	STEAM
SW	SWITCH
SYS	SYSTEM
T	TEMPERATURE
TAP	TAP PRESSURE
TS	TEMPERATURE SENSOR
VFD	VARIABLE FREQUENCY DRIVE

US Army Corps of Engineers ®

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SIZE ANSI D

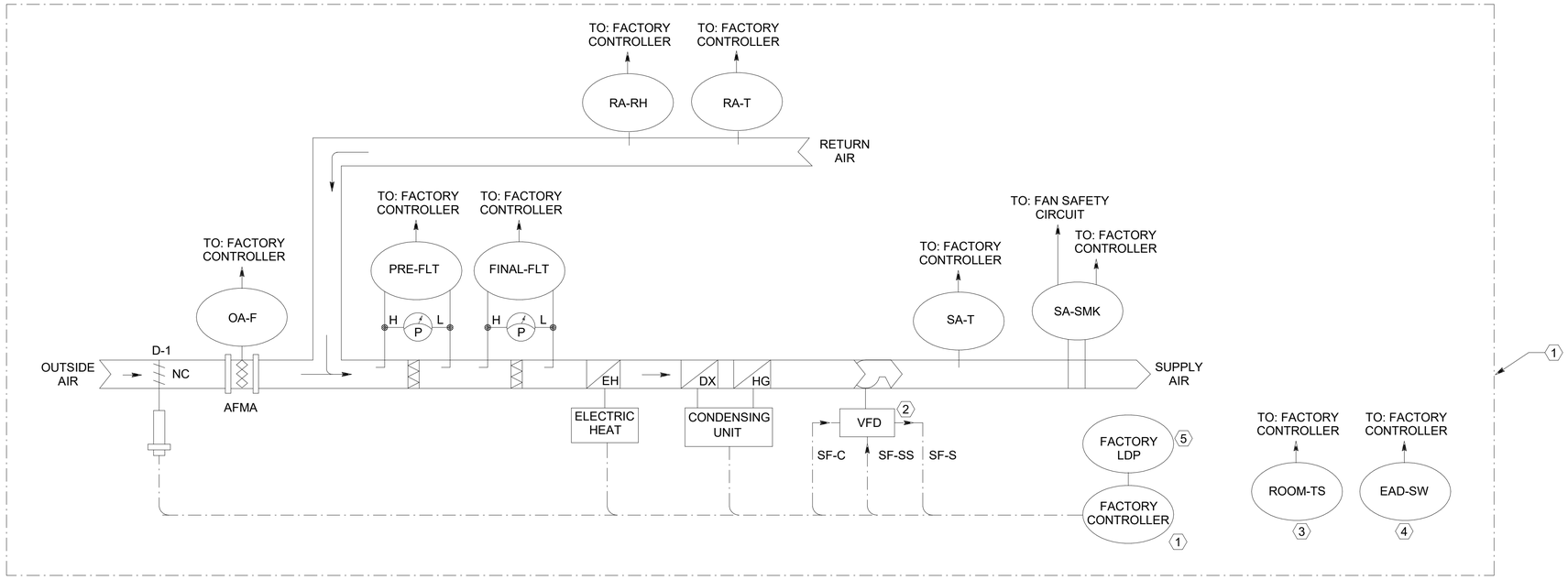
US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

CONTROLS LEGEND

SHEET ID
M-701

RTA SUBMISSION



AHU-1 SEQUENCE OF OPERATION:

GENERAL: THE UNIT MUST BE CONTROLLED BY SELF-CONTAINED, PACKAGED CONTROLS PROVIDED BY UNIT MANUFACTURER/SUPPLIER INCLUDING ALL NECESSARY CONTROLLER, DISPLAY, FIELD/CONTROL DEVICES, WIRING AND OTHER NECESSARY COMPONENTS.

UNIT OPERATION: THE UNIT CONTROLLER MUST HAVE ABILITY TO PLACE THE UNIT IN OCCUPIED AND UNOCCUPIED MODES BASED ON TIME SCHEDULE THAT IS USER RE-PROGRAMMABLE. PROVIDE A TIME SCHEDULE FOR FOUR SEPARATE TEMPERATURES PER DAY, EVERY DAY OF WEEK, FOR BOTH HEATING AND COOLING SET POINTS. SPACE TEMPERATURE SENSOR MUST HAVE ABILITY TO OVERRIDE AND PLACE THE UNIT IN THE OCCUPIED MODE FOR A CERTAIN TIME PERIOD, INITIALLY SET FOR 2 HOURS, ADJUSTABLE.

TEMPERATURE CONTROL: THE UNIT CONTROLLER SHALL OPERATE THE UNIT SUPPLY FAN, DX COOLING AND ELECTRIC HEATING COILS, AND OUTDOOR AIR DAMPER TO MAINTAIN THE SPACE TEMPERATURE AS REQUIRED. PROVIDE OCCUPIED/UNOCCUPIED COOLING AND HEATING SET POINTS AS SHOWN BELOW AND ALL SET POINTS MUST BE ADJUSTABLE. OUTDOOR AIR DAMPER MUST BE CLOSED DURING THE UNOCCUPIED MODE OF OPERATION:

- OCCUPIED COOLING: 78°F
- OCCUPIED HEATING: 70°F
- UNOCCUPIED COOLING: 82°F
- UNOCCUPIED HEATING: 62°F

DEHUMIDIFICATION CONTROL: WHEN THE SPACE HUMIDITY RISES ABOVE THE SET POINT, INITIALLY SET AT 60% (ADJUSTABLE), THE UNIT CONTROLLER SHALL OVERRIDE AND OPERATE THE DX COOLING COIL TO MAINTAIN THE SPACE HUMIDITY AT OR BELOW THE SET POINT, AND MODULATE THE HOT GAS REHEAT AS REQUIRED TO AVOID OVER COOLING.

ALARMS: IF ANY OF THE FOLLOWING CONDITIONS OCCUR, AN ALARM MUST BE GENERATED AND DISPLAYED AT THE UNIT CONTROLLER: UNIT GENERAL ALARM/FAULT, UNIT FAILURE; FAN FAILURE; FILTER ALARM, LOW/HIGH SPACE TEMPERATURE ALARM; AND HIGH SPACE HUMIDITY ALARM.

SAFETY/EMERGENCY SHUTDOWN: WHEN PARTICLES OF COMBUSTION ARE SENSED BY THE SUPPLY SMOKE DETECTOR OR EMERGENCY UNIT SHUTDOWN SWITCH IS ACTIVATED, THE UNIT MUST BE SHUT DOWN VIA HARDWIRE INTERLOCK TO SUPPLY FAN SAFETY CIRCUIT. ONCE THE SMOKE/ALARM CONDITION IS CLEARED AND RESET, THE UNIT MUST RETURN TO NORMAL OPERATION.

1 AHU-1 UNIT - CONTROL DIAGRAM1
NTS

GENERAL NOTES

1. REFER TO SHEET M-001 AND M-701 FOR ABBREVIATION, SYMBOLS, AND GENERAL NOTES.

KEYED NOTES

1. SELF-CONTAINED, PACKAGED CONTROLS INCLUDING CONTROLLER, FIELD/CONTROL DEVICES, WIRING AND OTHER COMPONENTS PROVIDED BY UNIT MANUFACTURER/SUPPLIER.
2. VARIABLE FREQUENCY DRIVE (VFD).
3. SPACE TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE BUTTON. SEE MECHANICAL FLOOR PLAN M-101A FOR LOCATION.
4. PROVIDE EMERGENCY SHUTDOWN SWITCH WITH HINGED COVER AND WARNING SIGN. WHEN ACTIVATED, THE AHU MUST BE SHUT DOWN AND OUTDOOR AIR DAMPER MUST BE CLOSED. SEE MECHANICAL FLOOR PLAN M-101A FOR LOCATION.
5. LOCAL DISPLAY PANEL (LDP) PROVIDED BY UNIT MANUFACTURER. THE MAINTENANCE PERSONNEL MUST BE ABLE TO VIEW OPERATING STATUS, MANAGE ALARM NOTIFICATIONS, CONFIGURE TIME SCHEDULE AND ADJUST SET POINTS VIA LDP.

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

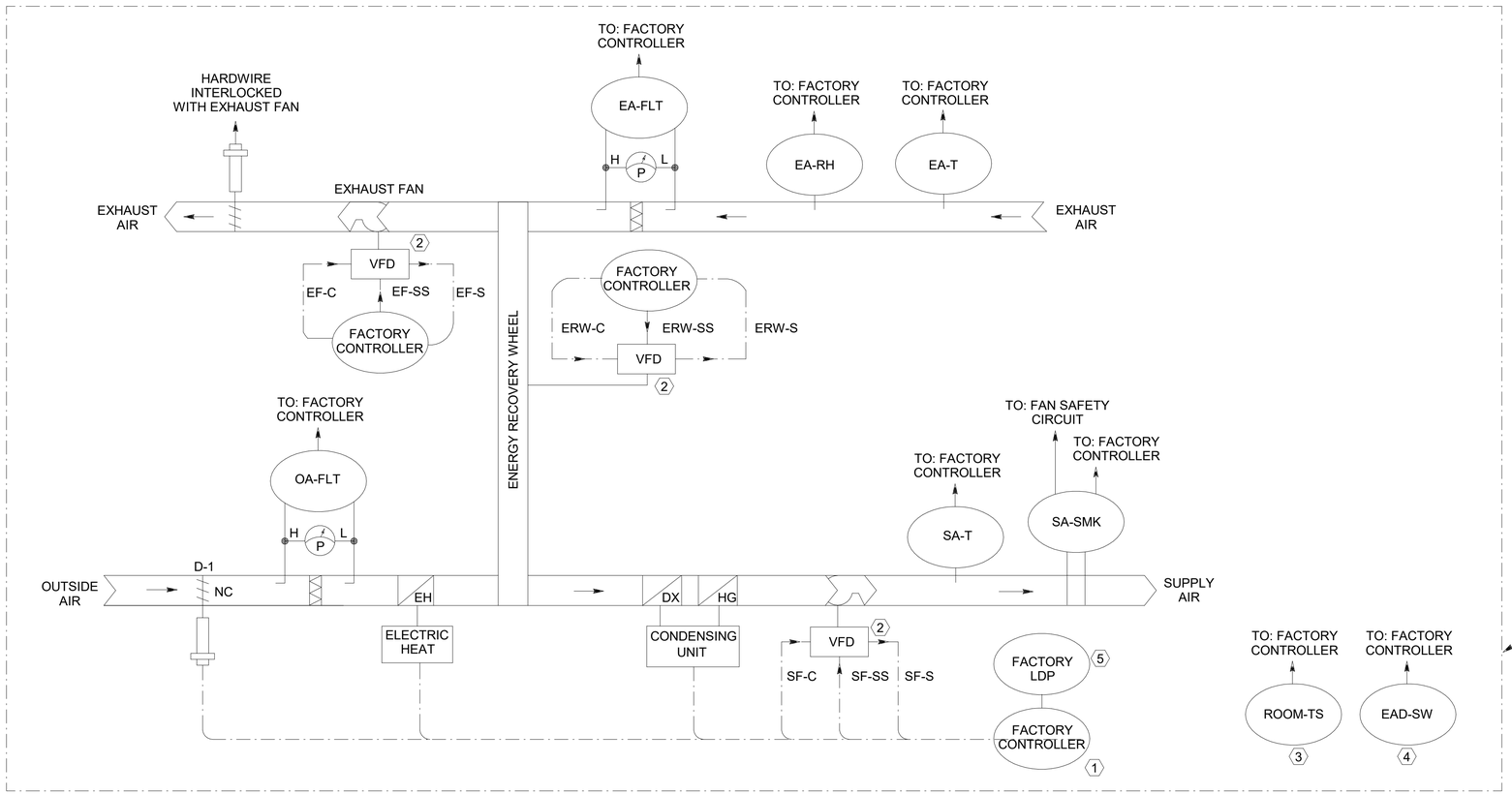
JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

HVAC CONTROL DIAGRAM

SHEET ID
M-702

RTA SUBMISSION



AHU-2 SEQUENCE OF OPERATION:

GENERAL: THE UNIT MUST BE CONTROLLED BY SELF-CONTAINED, PACKAGED CONTROLS PROVIDED BY UNIT MANUFACTURER/SUPPLIER INCLUDING ALL NECESSARY CONTROLLER, DISPLAY, FIELD/CONTROL DEVICES, WIRING AND OTHER NECESSARY COMPONENTS.

UNIT OPERATION: THE UNIT CONTROLLER MUST HAVE ABILITY TO PLACE THE UNIT IN OCCUPIED AND UNOCCUPIED MODES BASED ON TIME SCHEDULE THAT IS USER RE-PROGRAMMABLE. PROVIDE A TIME SCHEDULE FOR FOUR SEPARATE TEMPERATURES PER DAY, EVERY DAY OF WEEK, FOR BOTH HEATING AND COOLING SET POINTS. SPACE TEMPERATURE SENSOR MUST HAVE ABILITY TO OVERRIDE AND PLACE THE UNIT IN THE OCCUPIED MODE FOR A CERTAIN TIME PERIOD, INITIALLY SET FOR 2 HOURS, ADJUSTABLE.

TEMPERATURE CONTROL: THE UNIT CONTROLLER SHALL OPERATE THE UNIT SUPPLY FAN, ENERGY RECOVERY WHEEL, DX COOLING AND ELECTRIC HEATING COILS, AND OUTDOOR AIR DAMPER TO MAINTAIN THE SPACE TEMPERATURE AS REQUIRED. PROVIDE OCCUPIED/UNOCCUPIED COOLING AND HEATING SET POINTS AS SHOWN BELOW AND ALL SET POINTS MUST BE ADJUSTABLE:

- OCCUPIED COOLING: 78°F
- OCCUPIED HEATING: 70°F
- UNOCCUPIED COOLING: 82°F
- UNOCCUPIED HEATING: 62°F

DEHUMIDIFICATION CONTROL: WHEN THE SPACE HUMIDITY RISES ABOVE THE SET POINT, INITIALLY SET AT 60% (ADJUSTABLE), THE UNIT CONTROLLER SHALL OVERRIDE AND OPERATE THE DX COOLING COIL TO MAINTAIN THE SPACE HUMIDITY AT OR BELOW THE SET POINT, AND MODULATE THE HOT GAS REHEAT AS REQUIRED TO AVOID OVER COOLING.

ALARMS: IF ANY OF THE FOLLOWING CONDITIONS OCCUR, AN ALARM MUST BE GENERATED AND DISPLAYED AT THE UNIT CONTROLLER: UNIT GENERAL ALARM/FAULT, UNIT FAILURE; FAN FAILURE; FILTER ALARM, LOW/HIGH SPACE TEMPERATURE ALARM; AND HIGH SPACE HUMIDITY ALARM.

SAFETY/EMERGENCY SHUTDOWN: WHEN PARTICLES OF COMBUSTION ARE SENSED BY THE SUPPLY SMOKE DETECTOR OR EMERGENCY UNIT SHUTDOWN SWITCH IS ACTIVATED, THE UNIT MUST BE SHUT DOWN VIA HARDWIRE INTERLOCK TO SUPPLY FAN SAFETY CIRCUIT. ONCE THE SMOKE/ALARM CONDITION IS CLEARED AND RESET, THE UNIT MUST RETURN TO NORMAL OPERATION.

1 AHU-2 UNIT - CONTROL DIAGRAM1
NTS

GENERAL NOTES

1. REFER TO SHEET M-001 AND M-701 FOR ABBREVIATION, SYMBOLS, AND GENERAL NOTES.

KEYED NOTES

1. SELF-CONTAINED, PACKAGED CONTROLS INCLUDING CONTROLLER, FIELD/CONTROL DEVICES, WIRING AND OTHER COMPONENTS PROVIDED BY UNIT MANUFACTURER/SUPPLIER.
2. VARIABLE FREQUENCY DRIVE (VFD).
3. SPACE TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE BUTTON. SEE MECHANICAL FLOOR PLAN M-101B FOR LOCATION.
4. PROVIDE EMERGENCY SHUTDOWN SWITCH WITH HINGED COVER AND WARNING SIGN. WHEN ACTIVATED, THE AHU MUST BE SHUT DOWN AND OUTDOOR AIR DAMPER MUST BE CLOSED. SEE MECHANICAL FLOOR PLAN M-101B FOR LOCATION.
5. LOCAL DISPLAY PANEL (LDP) PROVIDED BY UNIT MANUFACTURER. THE MAINTENANCE PERSONNEL MUST BE ABLE TO VIEW OPERATING STATUS, MANAGE ALARM NOTIFICATIONS, CONFIGURE TIME SCHEDULE AND ADJUST SET POINTS VIA LDP.

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JACOBS / EWING COLE *A Joint Venture*

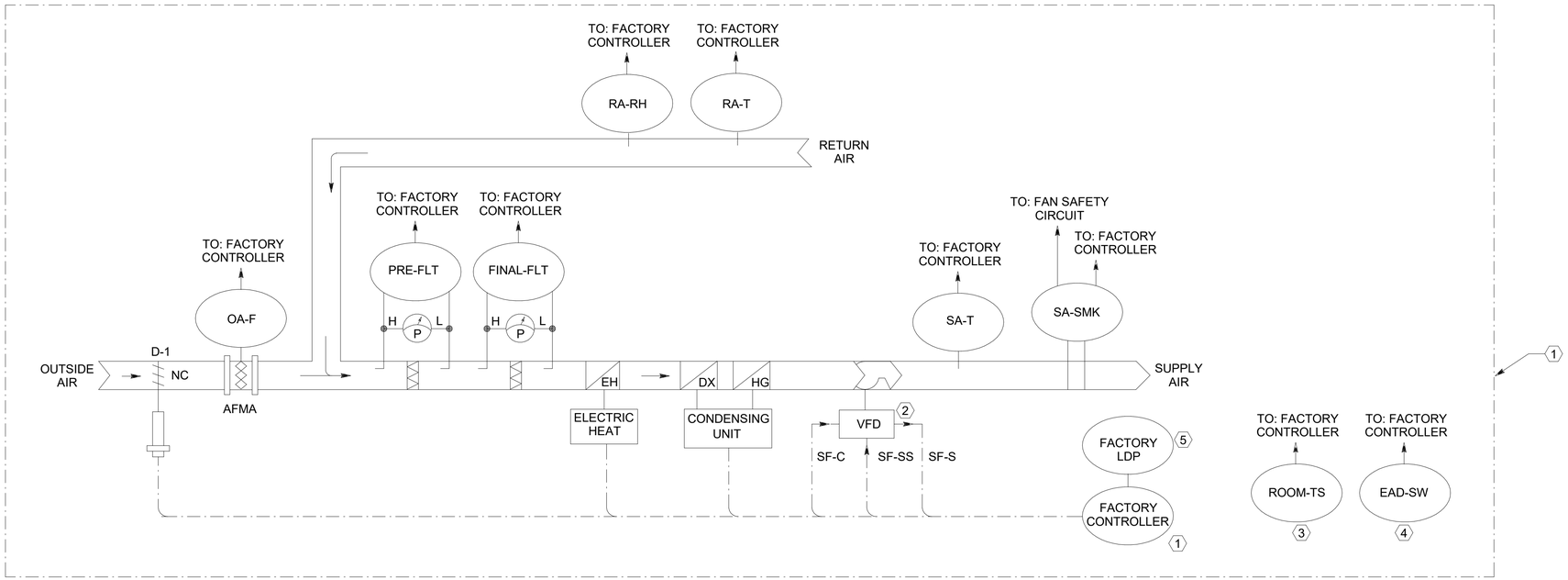
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

HVAC CONTROL DIAGRAM

SHEET ID

M-703

RTA SUBMISSION



AHU-3 SEQUENCE OF OPERATION:

GENERAL: THE UNIT MUST BE CONTROLLED BY SELF-CONTAINED, PACKAGED CONTROLS PROVIDED BY UNIT MANUFACTURER/SUPPLIER INCLUDING ALL NECESSARY CONTROLLER, DISPLAY, FIELD/CONTROL DEVICES, WIRING AND OTHER NECESSARY COMPONENTS.

UNIT OPERATION: THE UNIT CONTROLLER MUST HAVE ABILITY TO PLACE THE UNIT IN OCCUPIED AND UNOCCUPIED MODES BASED ON TIME SCHEDULE THAT IS USER RE-PROGRAMMABLE. PROVIDE A TIME SCHEDULE FOR FOUR SEPARATE TEMPERATURES PER DAY, EVERY DAY OF WEEK, FOR BOTH HEATING AND COOLING SET POINTS. SPACE TEMPERATURE SENSOR MUST HAVE ABILITY TO OVERRIDE AND PLACE THE UNIT IN THE OCCUPIED MODE FOR A CERTAIN TIME PERIOD, INITIALLY SET FOR 2 HOURS, ADJUSTABLE.

TEMPERATURE CONTROL: THE UNIT CONTROLLER SHALL OPERATE THE UNIT SUPPLY FAN, DX COOLING AND ELECTRIC HEATING COILS, AND OUTDOOR AIR DAMPER TO MAINTAIN THE AVERAGE SPACE TEMPERATURE AS REQUIRED. PROVIDE OCCUPIED/UNOCCUPIED COOLING AND HEATING SET POINTS AS SHOWN BELOW AND ALL SET POINTS MUST BE ADJUSTABLE. OUTDOOR AIR DAMPER MUST BE CLOSED DURING THE UNOCCUPIED MODE OF OPERATION:

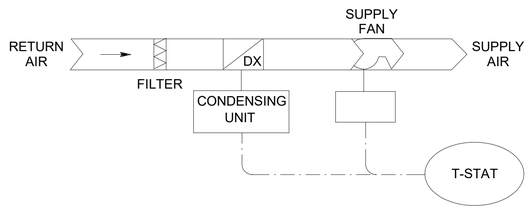
- OCCUPIED COOLING: 78°F
- OCCUPIED HEATING: 70°F
- UNOCCUPIED COOLING: 82°F
- UNOCCUPIED HEATING: 62°F

DEHUMIDIFICATION CONTROL: WHEN THE SPACE HUMIDITY RISES ABOVE THE SET POINT, INITIALLY SET AT 60% (ADJUSTABLE), THE UNIT CONTROLLER SHALL OVERRIDE AND OPERATE THE DX COOLING COIL TO MAINTAIN THE SPACE HUMIDITY AT OR BELOW THE SET POINT, AND MODULATE THE HOT GAS REHEAT AS REQUIRED TO AVOID OVER COOLING.

ALARMS: IF ANY OF THE FOLLOWING CONDITIONS OCCUR, AN ALARM MUST BE GENERATED AND DISPLAYED AT THE UNIT CONTROLLER: UNIT GENERAL ALARM/FAULT, UNIT FAILURE; FAN FAILURE; FILTER ALARM, LOW/HIGH SPACE TEMPERATURE ALARM; AND HIGH SPACE HUMIDITY ALARM.

SAFETY/EMERGENCY SHUTDOWN: WHEN PARTICLES OF COMBUSTION ARE SENSED BY THE SUPPLY SMOKE DETECTOR OR EMERGENCY UNIT SHUTDOWN SWITCH IS ACTIVATED, THE UNIT MUST BE SHUT DOWN VIA HARDWIRE INTERLOCK TO SUPPLY FAN SAFETY CIRCUIT. ONCE THE SMOKE/ALARM CONDITION IS CLEARED AND RESET, THE UNIT MUST RETURN TO NORMAL OPERATION.

1 AHU-3 UNIT - CONTROL DIAGRAM1
NTS



SPLIT SYSTEM HP UNIT SEQUENCE OF OPERATION (TYPICAL):

GENERAL: THE UNIT MUST BE CONTROLLED BY WALL MOUNTED THERMOSTAT PROVIDED BY UNIT MANUFACTURER/SUPPLIER INCLUDING ALL NECESSARY FIELD/CONTROL DEVICES, WIRING AND OTHER NECESSARY COMPONENTS.

UNIT OPERATION: THE THERMOSTAT MUST CYCLE ON AND OFF THE FAN AND DX COOLING/REVERSING VALVE AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE AT COOLING AND HEATING SET POINTS AS SHOWN BELOW. ALL SET POINTS MUST BE AJUSTABLE:

- COOLING: 74°F
- HEATING: 65°F

2 SPLIT SYSTEM HP UNIT - CONTROL DIAGRAM
NTS

GENERAL NOTES

1. REFER TO SHEET M-001 AND M-701 FOR ABBREVIATION, SYMBOLS, AND GENERAL NOTES.

KEYED NOTES

1. SELF-CONTAINED, PACKAGED CONTROLS INCLUDING CONTROLLER, FIELD/CONTROL DEVICES, WIRING AND OTHER COMPONENTS PROVIDED BY UNIT MANUFACTURER/SUPPLIER.
2. VARIABLE FREQUENCY DRIVE (VFD).
3. TYPICAL FOR TWO (2) SPACE TEMPERATURE SENSORS, ONE (1) IN EACH BARRACK, WITH OCCUPANCY OVERRIDE BUTTON. THE UNIT MUST MAINTAIN THE AVERAGE SPACE TEMPERATURE IN THE BARRACKS. SEE MECHANICAL FLOOR PLAN M-101C FOR LOCATIONS.
4. PROVIDE TWO (2) EMERGENCY SHUTDOWN SWITCHES, ONE (1) IN EACH BARRACK, WITH HINGED COVER AND WARNING SIGN. WHEN EITHER SWITCH IS ACTIVATED, THE AHU MUST BE SHUT DOWN AND OUTDOOR AIR DAMPER MUST BE CLOSED. SEE MECHANICAL FLOOR PLAN M-101C FOR LOCATIONS.
5. LOCAL DISPLAY PANEL (LDP) PROVIDED BY UNIT MANUFACTURER. THE MAINTENANCE PERSONNEL MUST BE ABLE TO VIEW OPERATING STATUS, MANAGE ALARM NOTIFICATIONS, CONFIGURE TIME SCHEDULE AND ADJUST SET POINTS VIA LDP.

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JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

HVAC CONTROL DIAGRAM

SHEET ID
M-704

RTA SUBMISSION

ELECTRICAL SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON PLANS)

SITE PLAN

NEW UNDERGROUND SECONDARY

T — EXISTING PADMOUNTED TRANSFORMER

CIRCUITING AND WIRING

JB-12X12X4 — 12 INCH X 12 INCH X 4 INCH NEMA 1 JUNCTION BOX WITH SCREW COVER.

CIRCUIT BELOW SLAB OR GRADE OR CAST IN SLAB ABOVE GRADE UNLESS OTHERWISE NOTED

LA-2,4,6 — WHERE SHOWN, INDICATES HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED.

CONDUIT STUB UP

CONDUIT STUB DOWN

DIRECT ELECTRICAL CONNECTION TO EQUIPMENT

ABBREVIATIONS

AIC	AMPS INTERRUPTING CAPACITY
SPD	SURGE PROTECTION DEVICE
SCCR	SHORT CIRCUIT CURRENT RATING
VFD	VARIABLE FREQUENCY DRIVE
COR	CONTRACTING OFFICER'S REPRESENTATIVE
GEC	GROUNDING ELECTRODE CONDUCTOR
CLP	CITY LIGHT & POWER
MGB	MAIN GROUNDING BUSBAR
FAMN	FIRE ALARM/MASS NOTIFICATION CONTROL PANEL
RGS	RIGID GALVANIZED STEEL

GROUNDING LEGEND

SYMBOLS	DESCRIPTION
—— GEC ——	GROUNDING ELECTRODE CONDUCTOR #1/0 AWG UNLESS SPECIFIED OR INDICATED OTHERWISE; BARE COPPER CONDUCTOR 30" BELOW GRADE WHERE SHOWN EXTERIOR TO BUILDING; INSULATED IN 1" CONCEALED CONDUIT WHERE SHOWN INTERIOR TO BUILDING
—— TBC ——	TELECOMMUNICATIONS BONDING BACKBONE CONDUCTOR, #2 AWG IN 1" CONDUIT; EXPOSED IN TELECOMMUNICATIONS SPACES AND CONCEALED ALL OTHER.
—— EGC ——	EQUIPMENT GROUNDING CONDUCTOR #4/0 AWG UNLESS SPECIFIED OR INDICATED OTHERWISE BLACK INSULATED COPPER.
—— GBJ ——	GROUNDING BONDING CONDUCTOR #4/0 AWG UNLESS SPECIFIED OR INDICATED OTHERWISE BARE COPPER.
- - - - - -	GROUNDING BONDING CONDUCTOR #2 AWG UNLESS SPECIFIED OR INDICATED OTHERWISE BARE SOLID TINNED COPPER.
■	GROUND ROD WITH GROUND CONDUCTOR EXOTHERMICALLY CONNECTED UNLESS NOTED OR SPECIFIED OTHERWISE. SEE DETAIL B1/E501; MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 20 FEET. COORDINATE LOCATIONS WITH FIELD CONDITIONS.
●	MECHANICAL GROUND CONDUCTOR CONNECTION
■	EXOTHERMIC WELD GROUND CONDUCTOR CONNECTION
PBB	TELECOMMUNICATIONS PRIMARY BONDING BUS; REFER TO TELECOMMUNICATIONS DRAWINGS AND SPECIFICATIONS FOR GROUND CONDUCTORS/CONNECTIONS, REQUIREMENTS AND LOCATION/MOUNTING.
RBB	TELECOMMUNICATIONS RACK BONDING BUS; REFER TO TELECOMMUNICATIONS DRAWINGS AND SPECIFICATIONS FOR GROUND CONDUCTORS/CONNECTIONS, REQUIREMENTS AND LOCATION/MOUNTING.
■ T	GROUND ROD WITH GROUND CONDUCTORS EXOTHERMICALLY CONNECTED WITHIN A TEST WELL ASSEMBLY. SEE DETAIL B4/E501; MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 20 FEET. COORDINATE LOCATIONS WITH FIELD CONDITIONS.

LIGHTING

A — 2'X4' FLUORESCENT TROFFER, FIXTURE TYPE AS NOTED

A — 1'X4' SURFACE, PENDANT, OR WALL MOUNTED FLUORESCENT, FIXTURE TYPE AS NOTED

A — 2'X2' FLUORESCENT, FIXTURE TYPE AS NOTED

A — SHADING DENOTES FIXTURE EMERGENCY BATTERY BACKUP. NL DENOTES NIGHT LIGHT, FIXTURE TYPE AS NOTED

A — WALL MOUNTED FIXTURE, FIXTURE TYPE AS NOTED

A — WALLWASH FIXTURE, FIXTURE TYPE AS NOTED

A — DOWNLIGHT OR GLOBE FIXTURE, FIXTURE TYPE AS NOTED

A — SHADING DENOTES FIXTURE ON EMERGENCY POWER CIRCUIT, FIXTURE TYPE AS NOTED

EXIT SIGN, ARROWS AS INDICATED. DARKENED AREA DENOTES LIGHTED FACE

EM / EM1 — EMERGENCY LIGHTING UNIT, FIXTURE TYPE AS NOTED

$ — SWITCH, SPST, 20A, 120/277V

$3X — SWITCH, 20A, 120/277V, "2" DENOTES DPST, "3" DENOTES THREE-WAY, "4" DENOTES FOUR-WAY, "X" DENOTES LIGHT FIXTURES CONTROLLED

$K — SWITCH, SPST, 20A, 120/277V, "K" DENOTES KEY, "P" DENOTES PILOT LIGHT, "D" DENOTES DIMMING, "T" DENOTES TIMER, "LV" DENOTES LOW VOLTAGE SWITCH.

OC — OCCUPANCY SENSOR CONTROL, CEILING MOUNTED, HARSH ENVIRONMENT TYPE AS SPECIFIED.

RC — ROOM CONTROLLER CEILING MOUNT FOR LIGHTING AND RECEPTACLE CONTROL.

PC — PHOTOCELL CONTROL

TC — TIMECLOCK

HOA / N-3R — HAND-OFF-AUTO (HOA) CONTROL SWITCH IN ENCLOSURE. N-3R INDICATES NEMA 3R WEATHERPROOF ENCLOSURE.

ONE LINE AND RISER DIAGRAMS

T1 / 45KVA — TRANSFORMER, DESIGNATION AND RATINGS AS NOTED (DELTA-CONNECTED PRIMARY AND WYE - CONNECTED SECONDARY) UNLESS OTHERWISE NOTED.

800A — SWITCH, RATINGS AS SHOWN, 3 POLE UNLESS OTHERWISE NOTED

100A — CIRCUIT BREAKER, TRIP RATING AS SHOWN, 3 POLE UNLESS OTHERWISE NOTED

(L,S,I,G) — DENOTES CIRCUIT BREAKER WITH ADJUSTABLE TRIP SETTINGS AS NOTED BELOW: L=LONG, S=SHORT, I=INSTANTANEOUS, G=GROUND FAULT PROTECTION, GI = GROUND FAULT, INDICATION ONLY

1200:5 — CURRENT TRANSFORMER(CT), RATED AS SHOWN

120V / 12.47KV — POTENTIAL TRANSFORMER(PT), RATING AS SHOWN

GROUND CONNECTION

LIGHTNING ARRESTOR

EPM — ELECTRONIC POWER METER

SPD — SURGE PROTECTION DEVICE

0 — MOTOR STARTER WITH NEMA RATING INDICATED; NEMA 0 IN THIS EXAMPLE

FUSED DISCONNECT SWITCH. SEE DESCRIPTIONS ABOVE FOR DISCONNECT SWITCH AND FUSE CHARACTERISTICS.

FUSE, EACH PHASE. SEE DISCONNECT SWITCH DESCRIPTIONS ABOVE FOR 600V OR LESS FUSE CHARACTERISTICS. FUSES WITH RATINGS GREATER THAN 600 VOLTS SHALL BE CURRENT LIMITING MEDIUM VOLTAGE PRIMARY TYPE, UNLESS INDICATED OR SPECIFIED OTHERWISE.

OVERLOAD RELAYS, 1 EACH PER PHASE

100/3 — IN THIS EXAMPLE, DENOTES 100 AMPERE, 3 POLE DEVICE.

ONE LINE AND RISER DIAGRAMS (CONT'D)

F-100 — IN THIS EXAMPLE, DENOTES DEVICE FUSED AT 100 AMPERES. SEE DESCRIPTIONS ABOVE FOR DISCONNECT SWITCH AND FUSE CHARACTERISTICS.

F-MFR — DENOTES DEVICE FUSED IN ACCORDANCE WITH UTILIZATION EQUIPMENT MANUFACTURER'S INSTRUCTIONS. SEE DESCRIPTIONS ABOVE FOR DISCONNECT SWITCH AND FUSE CHARACTERISTICS.

TC — TIME CLOCK. SEE WIRING DIAGRAMS FOR ACCESSORIES AND CONFIGURATION.

1-3PH — MOTOR WITH HORSEPOWER INDICATED; 1HP 3 PHASE IN THIS EXAMPLE

MOTORS AND CONTROLS

1-3PH — SINGLE OR THREE PHASE MOTOR WITH HORSEPOWER AND PHASE AS INDICATED. IN THIS EXAMPLE, "1-3PH" DENOTES 1 HORSEPOWER 3 PHASE

N-3R / 200/3/150 — DISCONNECT (SAFETY) SWITCH IN THIS EXAMPLE, "200/3/150" DENOTES 200 AMPERES / 3 POLE / 150 AMP FUSE. "NF" DENOTES NON-FUSED. PROVIDE 30/3/NF UNLESS OTHERWISE NOTED. FUSES SHALL BE DUAL-ELEMENT RK5 TYPE UNLESS NOTED OTHERWISE. "N-3R" DENOTES NEMA 3R WEATHERPROOF ENCLOSURE.

10FS/3P/N-0 — COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER, IN THIS EXAMPLE, "15CB/3/0" DENOTES 15A CIRCUIT BREAKER, 3 POLES, NEMA 0 STARTER SIZE. "NF" DENOTES NON-FUSED SWITCH. "FS" INDICATES FUSED SWITCH WITH THE FUSE RATING INDICATED; FOR EXAMPLE "10FS/3P/N-0" DENOTES 10A FUSES IN SWITCH, 3 POLES, NEMA 0 STARTER SIZE.

$M — FUSES SHALL BE DUAL-ELEMENT RK5 TYPE UNLESS NOTED OTHERWISE. "N-3R" DENOTES NEMA 3R WEATHERPROOF ENCLOSURE. SINGLE PHASE, FRACTIONAL HORSE POWER. MANUAL MOTOR STARTER, AND DISCONNECT SWITCH WITH THERMAL OVERLOAD

RECEPTACLES AND OUTLETS

RECESSED WALL MOUNTED DUPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V, 18" ABOVE FINISHED FLOOR UNO. REFER TO RECEPTACLE TYPE DESIGNATIONS BELOW.

RECESSED WALL MOUNTED QUAD WALL RECEPTACLE CONSISTING OF TWO DUPLEX RECEPTACLE. REFER TO RECEPTACLE TYPE DESIGNATIONS BELOW.

GFI / WP — RECEPTACLE TYPE DESIGNATIONS:

WP DENOTES WEATHERPROOF COVER RATED FOR "IN USE" OPERATION

USB DENOTES DUPLEX RECEPTACLE WITH ONE USB-A PORT AND ONE USB-C PORT IN ADDITION TO THE TWO 120VAC PORTS

A ARC FAULT INTERRUPTER TYPE, WIRED FOR ARC FAULT TRIP FOR DESIGNATED RCPT ONLY; NON-FEED-THRU INSTALLATION

AF ARC FAULT INTERRUPTER TYPE, WIRED FOR ARC FAULT PROTECTION OF RCPT AND ALL RCPT'S DOWNSTREAM ON SAME CIRCUIT; FEED-THRU INSTALLATION

G GROUND FAULT INTERRUPTER TYPE, WIRED FOR GFCI TRIP FOR DESIGNATED RCPT ONLY (NON-FEED-THRU INSTALLATION)

GF GROUND FAULT INTERRUPTER TYPE, WIRED FOR GFCI PROTECTION OF RCPT AND ALL RCPT'S DOWNSTREAM ON SAME CIRCUIT - FEED-THRU INSTALLATION

AF GF COMBINATION ARC FAULT INTERRUPTER & GROUND FAULT INTERRUPTER TYPE RECEPTACLE, WIRED FOR ARC FAULT PROTECTION AND GROUND FAULT PROTECTION OF RCPT AND ALL RCPT'S DOWNSTREAM ON SAME CIRCUIT; FEED-THRU INSTALLATION

H66 DENOTES MOUNTING HEIGHT IN INCHES ABOVE FINISHED FLOOR TO BOTTOM OF RECEPTACLE BOX; 66" AFF IN THIS EXAMPLE

C6 DENOTES MOUNTING HEIGHT TO BOTTOM OF RECEPTACLE BOX IN INCHES ABOVE LAVATORY, COUNTER, SINK, OR DESK; 6" ABOVE COUNTER/SINK/DESK IN THIS EXAMPLE

SM DENOTES SURFACE MOUNTED RECEPTACLE ON EXST WALL/PARTITION TO REMAIN.

N14-30R SPECIAL PURPOSE RCPT TYPE; TYPE N14-30R IN THIS EXAMPLE. SEE SPECIAL PURPOSE RECEPTACLE SCHEDULE.

EWC RECEPTACLE FOR ELECTRICAL WATER COOLER UNIT. REFER TO PLUMBING DRAWINGS FOR REQUIREMENTS AND COORDINATE RECEPTACLE MOUNTING / LOCATION WITH EQUIPMENT AND FIELD CONDITIONS.

WALL MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED

F — FLUSH FLOOR MOUNTED RECEPTACLE, NEMA 5-20R

FLUSH CEILING/SOFFIT MOUNTED 120V RECEPTACLE. NEMA 5-20R UNLESS NOTED OTHERWISE.

J — JUNCTION BOX

S — DUPLEX RECEPTACLE, SWITCHED OUTLET, NEMA 5-20R.

ELECTRICAL EQUIPMENT

SWITCHBOARD

DISTRIBUTION PANEL OR PANELBOARD. (FLUSH OR SURFACE MOUNT) AS INDICATED ON PANEL SCHEDULE. HATCH REPRESENTS CLEARANCE

T — DRY-TYPE TRANSFORMER

MISCELLANEOUS

X — KEYED NOTE REFERENCE

(X) — SCHEDULE DEFINED QUANTITIES

GENERAL NOTES

A. PROVIDE BRANCH CIRCUITS WITH CONDUCTOR AND CONDUIT SIZES AS INDICATED ON PANELBOARD SCHEDULES. UP TO THREE CIRCUITS MAY BE COMBINED IN ONE 3/4 INCH CONDUIT IF ALL CONDUCTORS ARE #12 AWG. UP TO THREE CIRCUITS MAY BE COMBINED IN ONE 1 INCH CONDUIT IF ALL CONDUCTORS ARE #10 AWG OR SMALLER. PROVIDE SEPARATE NEUTRALS FOR EACH CIRCUIT IN A RACEWAY AND ONE GROUNDING CONDUCTOR FOR EACH RACEWAY. FOR SHARED RACEWAYS, INCREASE CONDUIT SIZE IF REQUIRED TO COMPLY WITH NFPA 70 OR TO ACCOMMODATE FIELD CONDITIONS.

B. UNLESS OTHERWISE NOTED, ALL CONDUCTORS ARE SIZED FOR TYPE THWN, THHN, RATED FOR 75°C (MINIMUM).

C. PROVIDE FEEDERS WITH CONDUCTOR AND CONDUIT SIZES AS INDICATED ON PANELBOARD SCHEDULES AND SINGLE LINE DIAGRAMS. FEEDERS SHALL BE IN SEPARATE CONDUITS AND SHALL NOT BE PERMITTED TO SHARE CONDUITS WITH OTHER FEEDERS OR CIRCUITS. INCREASE CONDUIT SIZE IF REQUIRED TO COMPLY WITH NFPA 70 OR TO ACCOMMODATE FIELD CONDITIONS.

D. CIRCUITS ARE SIZED ASSUMING NO MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT. FOR CONDUITS CONTAINING MORE THAN THREE, PROVIDE APPROPRIATE DERATING OF CONDUCTORS PER NEC.

E. FOR ALL LOCATIONS WHERE MOTORS AND MOTOR STARTERS ARE SHOWN, PROVIDE CONTROL CIRCUITS FROM MECHANICAL CONTROL PANELS, THERMOSTATS, REMOTE SENSORS, TIME CLOCKS, ETC. AS SPECIFIED.

F. ELECTRICAL WORK INDICATED IS NEW UNLESS NOTED OTHERWISE.

G. TRACE EXISTING POWER AND LIGHTING LOADS AFFECTED DURING CONSTRUCTION. IDENTIFY EXISTING CIRCUITS TO REMAIN ON PANEL SCHEDULES.

H. FIELD VERIFY EXISTING CONDITIONS. CONTACT CONTRACTING OFFICER WHERE FIELD CONDITIONS ARE DIFFERENT FROM DRAWINGS.

I. PERFORM ALL ELECTRICAL WORK IN ACCORDANCE WITH NFPA 70 AND APPLICABLE UFC. IN THE EVENT OF A CONFLICT BETWEEN NFPA 70 AND UFC, THE MOST STRINGENT WILL APPLY.

J. THE ELECTRICAL DISTRIBUTION SYSTEM HAS BEEN PRIVATIZED UNDER THE U.S. ARMY'S UTILITIES PRIVATIZATION (UP) INITIATIVE. THE SYSTEM OWNER IS CITY LIGHT & POWER AWP, LLC (CLP). COORDINATE ELECTRICAL WORK WITH CLP. POINT OF CONTACT IS TODD HUGHES (845) 322-8225.

DRAWING/DETAIL REFERENCE KEY

2/E201 — DRAWING/DETAIL NUMBER; SHEET NUMBER ON WHICH CONDITION IS SHOWN; SHEET NUMBER ON WHICH DETAIL IS DRAWN

MOUNTING HEIGHTS

(UNLESS OTHERWISE NOTED)

WALL SWITCHES:
48" A.F.F. TO CENTER OF SWITCH

WALL RECEPTACLES:
UNFINISHED AREAS: 42" A.F.F. TO CENTER OF RECEPTACLE
FINISHED AREAS: AS INDICATED

WALL DIMMER SWITCHES:
48" A.F.F. TO CENTER OF SWITCH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS19D0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

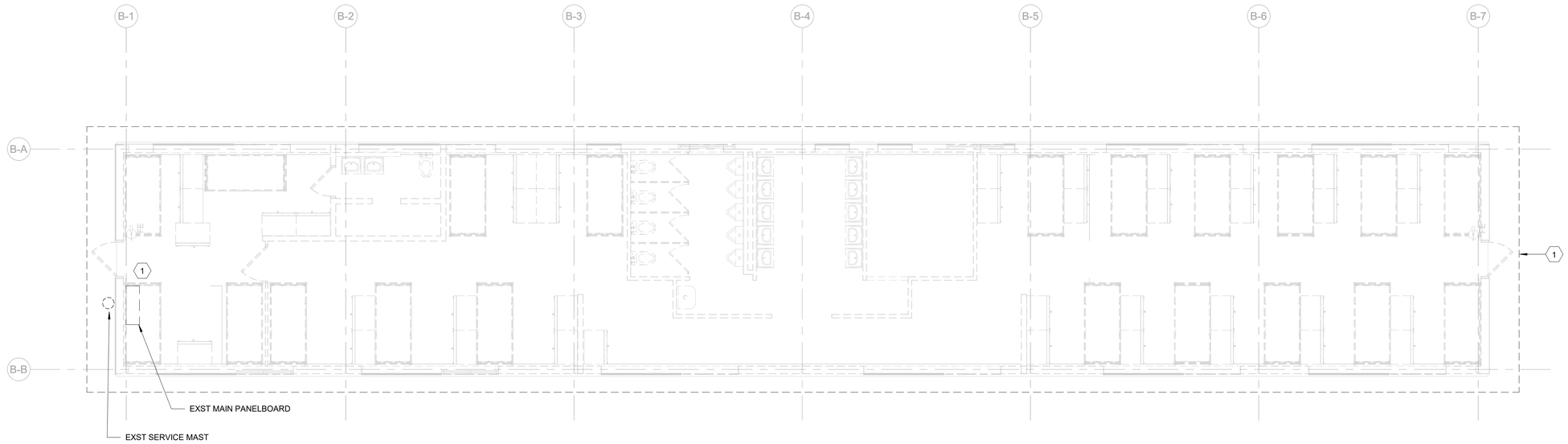
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

ELECTRICAL LEGEND AND GENERAL NOTES

SHEET ID

E-001

RTA SUBMISSION



GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

B. INFORMATION INDICATED ON THE DRAWINGS IS BASED ON EXISTING RECORD DOCUMENTATION AND FIELD OBSERVATIONS. FIELD VERIFY EXISTNG CONSTRUCTION AND CONDITIONS PRIOR TO PREPARATION OF PROJECT SUBMITTALS, ORDERING OF MATERIALS AND EQUIPMENT, AND NEW WORK CONSTRUCTION. FIELD ISSUES OR EXISTING CONDITIONS AFFECTING WORK UNDER THIS CONTRACT SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER'S REPRESENTATIVE FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

C. ARRANGE AND COORDINATE UTILITY SHUTDOWNS, OUTAGES AND SYSTEM INTERRUPTIONS WITH THE CONTRACTING OFFICER'S REPRESENTATIVE. REQUEST SCHEDULING OF SHUTDOWNS AND OUTAGES AT LEAST 10 WORKNG DAYS PRIOR TO DESIRED DATE OF SHUTDOWN/OUTAGE.

D. WALL AND FLOOR OPENINGS REMAINING FROM REMOVAL OF EXISTING WIRING AND UTILITY SYSTEMS SHALL BE PATCHED AND SEALED IN A MANNER APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVE TO MAINTAIN THE INTEGRITY OF THE EXISTING CONSTRUCTION.

E. REFER TO CIVIL UTILITY PLAN CU101 FOR THE FOLLOWING INFORMATION:
1. LOCATIONS AND ORIENTATION OF ALL BUILDINGS IN PROJECT.
2. LOCATIONS AND DESIGNATIONS OF AIR HANDLER UNITS.
3. LOCATIONS OF OVERHEAD UTILITY LINES AND POLES.
NOTE: ELECTRICAL PLAN DRAWINGS REPRESENT THE ELECTRICAL WORK TO BE PROVIDED IN EACH FACILITY, BUT THE FACILITY ORIENTATION AND LAYOUT WILL VARY FROM BUILDING TO BUILDING. COORDINATE ELECTRICAL WORK WITH CIVIL UTILITY PLAN CU101, EXISTING FIELD CONDITIONS, AND BUILDING PLANS ON ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS.

KEYED NOTES

1. FOR THE RENOVATED AREA INDICATED, REMOVE THE FOLLOWING EQUIPMENT:

   A. ALL RECEPTACLES AND RELATED CONDUITS AND CONDUCTORS BACK TO THE PANELBOARD. ESTIMATED QUANTITY: 30.

   B. ALL LIGHTING FIXTURES AND RELATED CONDUITS AND CONDUCTORS BACK TO THE PANELBOAD. ESTIMATED QUANTITY: 40.

   C. MAIN PANELBOARD, RELATED CONDUITS AND CONDUCTORS, SERVICE MAST AND WEATHERHEAD.

   NOTE: EXISTING OVERHEAD SERVICE CONDUCTORS WILL BE REMOVED BY CITY LIGHT & POWER (ELECTRICAL UTILITY SERVICE PROVIDER).

2. FOR THE EXISTING ARMS ROOMS IN THE LOWER LEVEL OF BUILDINGS 1612, 1616, AND 1620:
   A. REMOVE EXISTING WIRING FROM PANELBOARD BACK TO EXISTING SECURITY PANEL TO REMAIN.

   B. REMOVE EXISTING WIRING FROM PANELBOARD BACK TO ARMS ROOM CONNECTION TO EXISTING LIGHTING AND SWITCHING WIRING TO REMAIN.

   C. REMOVE EXISTING WIRING FROM PANELBOARD BACK TO EXISTING RECEPTACLES TO BE REMOVED.

   D. COORDINATE PENETRATIONS OF SLAB TO AVOID EXISTING REINFORCING AND VERIFY PENETRATIONS WITH CONTRACTING OFFICER'S REPRESENTATIVE.

3. MAINTAIN AND PROTECT THE FOLLOWING DURING DEMOLITION AND NEW CONSTRUCTION:

   A. EXISTING SECURITY PANEL AND RELATED TELEPHONE/ COMMUNICATIONS CABLING TO REMAIN IN SERVICE.

   B. EXISTING WIRING WITHIN ARMS ROOM FOR EXISTING LIGHTING AND SWITCHING TO REMAIN.

A1
ED101

LEVEL 1 DEMOLITION PLAN - POWER AND LIGHTING (ALL EXISTING BARRACKS BUILDINGS)

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

8 6 4 2 0 8

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

PLAN NORTH

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO.: W912DS19D0010
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

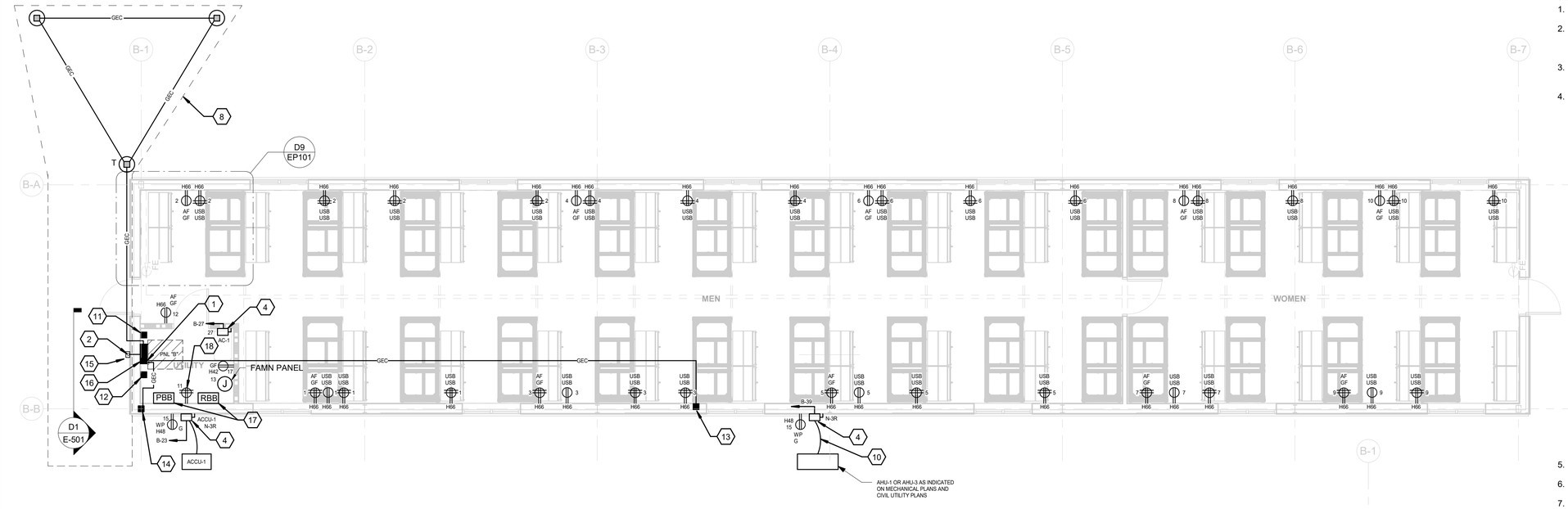
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

FIRST FLOOR DEMOLITION PLAN - POWER AND LIGHTING

SHEET ID

ED101

RTA SUBMISSION



SLEEPING QUARTERS BARRACKS LEVEL 1 FLOOR PLAN - POWER (TYPICAL FOR BUILDINGS 1612, 1613, 1615, 1616, 1617, 1618, 1619, 1620 & 1624), UNLESS NOTED OTHERWISE

D1 / EP101

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

GENERAL NOTES

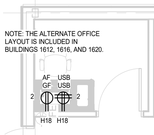
A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

REFER TO CIVIL UTILITY PLAN CU101 FOR THE FOLLOWING INFORMATION:
1. LOCATIONS AND ORIENTATION OF ALL BUILDINGS IN PROJECT.
2. LOCATIONS AND DESIGNATIONS OF AIR HANDLER UNITS.
3. LOCATIONS OF OVERHEAD UTILITY LINES AND POLES.

NOTE: ELECTRICAL PLAN DRAWINGS REPRESENT THE ELECTRICAL WORK TO BE PROVIDED IN EACH FACILITY, BUT THE FACILITY ORIENTATION AND LAYOUT WILL VARY FROM BUILDING TO BUILDING. COORDINATE ELECTRICAL WORK WITH CIVIL UTILITY PLAN CU101, EXISTING FIELD CONDITIONS, AND BUILDING PLANS ON ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS.

C. NEW WIRING SHALL BE RUN CONCEALED WITHIN WALLS AND ABOVE CEILING, EXCEPT IN UTILITY ROOM. DO NOT RUN NEW WIRING BELOW EXISTING SLAB EXCEPT FOR CONNECTIONS REQUIRED TO ARMS ROOM EQUIPMENT.

D. PROVIDE PERMANENT MACHINE-PRINTED PERMANENT ADHESIVE LABELS FOR ALL RECEPTACLES DENOTING PANEL AND CIRCUIT NUMBER.



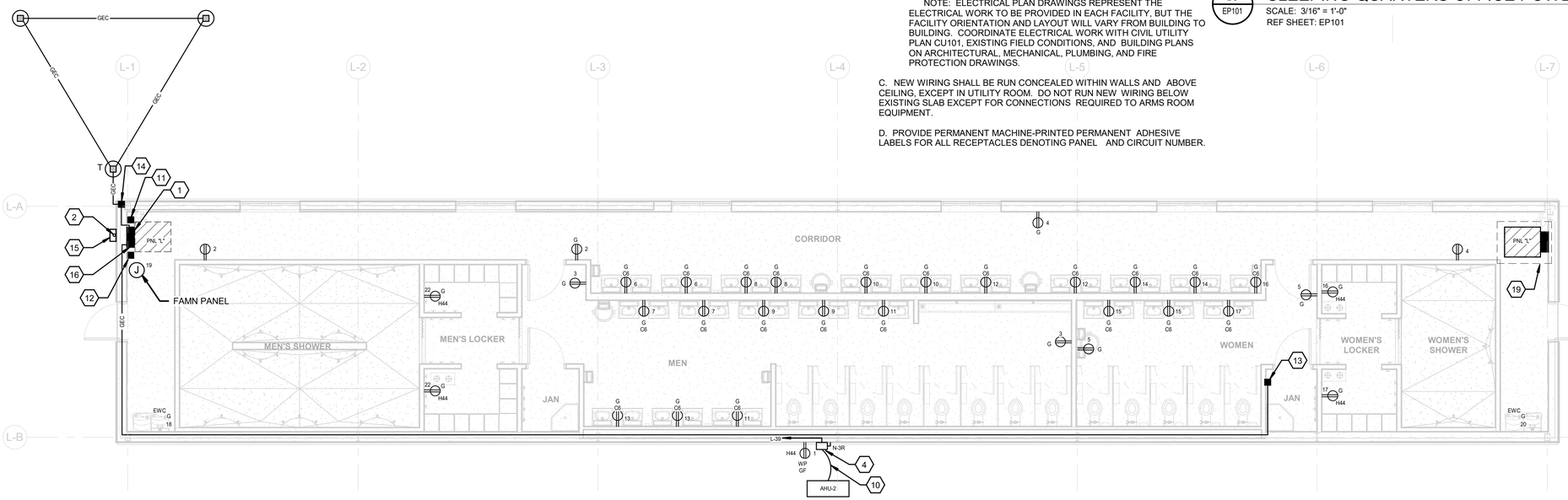
D9 / EP101

SLEEPING QUARTERS OFFICE POWER

SCALE: 3/16" = 1'-0"
REF SHEET: EP101

KEYED NOTES

1. PANELBOARD "B" MOUNTED 6'-0" TO TOP AFF.
2. 2.5 INCH RIGID GALVANIZED STEEL CONDUIT MAST WITH WEATHERHEAD AND CONDUCTORS INDICATED ON SINGLE LINE DIAGRAM.
3. 2.5 INCH RIGID GALVANIZED STEEL CONDUIT LB FITTING FOR SERVICE CONDUCTORS.
4. THE DISCONNECT SWITCH RATINGS AND OVERCURRENT PROTECTION RATINGS SHOWN BELOW FOR THE MECHANICAL HVAC EQUIPMENT ARE BASED ON THE BASIS OF DESIGN EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND NEC ARTICLE 430. CONTRACTOR SHALL VERIFY THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE SPECIFIC UNITS PROVIDED, AND SHALL BE RESPONSIBLE FOR PROVIDING THE REQUIRED OVERCURRENT DEVICE RATINGS, SWITCH RATINGS, AND FEEDER RATINGS WITH ALL REQUIRED CHANGES PROVIDED AT NO ADDITIONAL COST TO THE GOVERNMENT. ALL WORK SHALL COMPLY WITH THE MANUFACTURER'S INSTRUCTIONS AND NEC ARTICLE 430. INCLUDE PROPOSED RATINGS OF ALL RELATED ELECTRICAL SERVICES FOR MECHANICAL EQUIPMENT IN SUBMITTALS FOR APPROVAL.
   A. SLEEPING QUARTERS 1612, 1613, 1615, 1618, & 1624: AHU-1; 100A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 80A RK5 FUSES
   B. SLEEPING QUARTERS 1616 & 1620: AHU-3; 200A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 175A RK5 FUSES
   C. SLEEPING QUARTERS 1617, & 1619: NO CENTRAL AIR CONDITIONING AHU
   D. SLEEPING QUARTERS 1612, 1613, 1615, 1616, 1617, 1618, 1619, 1620 & 1624: ACCU-1; 30A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 25A RK5 FUSES
   E. SLEEPING QUARTERS 1612, 1613, 1615, 1616, 1617, 1618, 1619, 1620 & 1624: AC-1; 30A 2P FUSED DISCONNECT SWITCH IN NEMA 1 ENCLOSURE; 15A RK5 FUSES
   F. LATRINES 1611, 1614 & 1621; AHU-2: 200A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 175A RK5 FUSES
5. NOT USED.
6. NOT USED.
7. NOT USED.
8. DENOTES OVERHEAD SERVICE LOCATION AND RELATED GROUNDING WORK FOR BUILDINGS 1611, 1612, 1613, 1614, 1618, 1619, 1620, 1621, AND 1624. REFER TO CIVIL SITE PLAN FOR UTILITY COMPANY POLE LOCATIONS.
9. DENOTES OVERHEAD SERVICE LOCATION AND RELATED GROUNDING WORK FOR BUILDINGS 1615, 1616, AND 1617. REFER TO CIVIL SITE PLAN FOR UTILITY COMPANY POLE LOCATIONS.
10. CONDUCTORS FOR AHU INDICATED ON PANEL SCHEDULE SHALL BE EXTENDED TO AHU VIA RGS CONDUIT AT LEAST 24 INCHES BELOW GRADE. STUB UP CONDUIT IN POWER ENTRANCE COMPARTMENT OF AHU. COORDINATE LOCATION WITH EQUIPMENT REQUIREMENTS.
11. SURGE PROTECTIVE DEVICE (SPD) IN NEMA 1 ENCLOSURE ADJACENT TO PANELBOARD. REFER TO SPECIFICATIONS.
12. ELECTRONIC POWER METERING IN NEMA 1 ENCLOSURE ADJACENT TO PANELBOARD. PROVIDE ELECTRO INDUSTRIES SHARK 200 METER OR APPROVED EQUAL IN ACCORDANCE WITH SPECIFICATIONS.
13. BOND TO WATER LINE WITHIN 5 FEET OF BUILDING ENTRANCE.
14. BOND TO BUILDING STEEL
15. 2.5-INCH RGS CONDUIT LB FITTING FOR SERVICE CONDUCTORS.
16. SLEEPING QUARTERS BUILDINGS: PANEL "B" MOUNTED 6'-0" TO TOP LATRINE BUILDINGS: PANEL "L" MOUNTED 6'-0" TO TOP.
17. DENOTES TELECOMMUNICATIONS BONDING BUS; REFER TO TELECOMMUNICATIONS DRAWINGS AND SPECIFICATIONS FOR GROUND CONDUCTORS/CONNECTIONS, REQUIREMENTS AND LOCATION/MOUNTING.
18. COORDINATE RECEPTACLE MOUNTING AND LOCATION INSIDE SITE RELATIVE TO THE OVERHEAD ELECTRICAL SERVICE LINES. PROVIDE ALL WORK RELATED TO THE PANEL AS INDICATED ON THE WEST END OF THE BUILDING, BUT OPPOSITE HAND ORIENTATION. GROUND RODS AND RELATED WORK SHALL BE ON PLAN NORTH SIDE OF THE BUILDING.
19. DENOTES LOCATION OF PANELBOARD "L" FOR BUILDING 1614 ONLY,AS REQUIRED FOR THE BUILDING ORIENTATION ON THE SITE RELATIVE TO THE OVERHEAD ELECTRICAL SERVICE LINES. PROVIDE ALL WORK RELATED TO THE PANEL AS INDICATED ON THE WEST END OF THE BUILDING, BUT OPPOSITE HAND ORIENTATION. GROUND RODS AND RELATED WORK SHALL BE ON PLAN NORTH SIDE OF THE BUILDING.



A1 / EP101

LATRINE LEVEL 1 FLOOR PLAN - POWER (TYPICAL FOR BUILDINGS 1611, 1614, & 1621), UNLESS NOTED OTHERWISE

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

PLAN NORTH

8 6 4 2 0 8

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

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS19D0010

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. ROLOWITZ
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE A Joint Venture

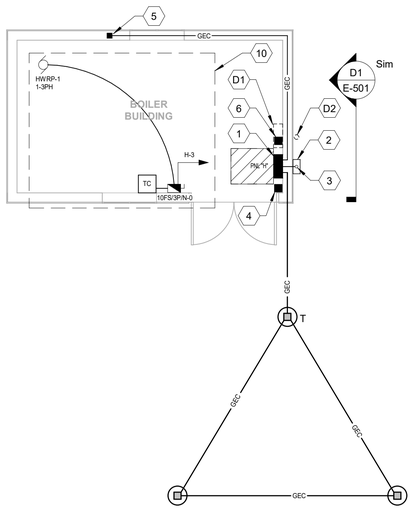
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

FIRST FLOOR PLAN - POWER

SHEET ID

EP101

RTA SUBMISSION



E2 / EP102 BOILER BUILDING FLOOR PLAN (TYPICAL FOR BUILDINGS 1599, 1622, & 1623, UNLESS NOTED OTHERWISE)

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

GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

REFER TO CIVIL UTILITY PLAN CU101 FOR THE FOLLOWING INFORMATION:

1. LOCATIONS AND ORIENTATION OF ALL BUILDINGS IN PROJECT.
2. LOCATIONS AND DESIGNATIONS OF AIR HANDLER UNITS.
3. LOCATIONS OF OVERHEAD UTILITY LINES AND POLES.

NOTE: ELECTRICAL PLAN DRAWINGS REPRESENT THE ELECTRICAL WORK TO BE PROVIDED IN EACH FACILITY, BUT THE FACILITY ORIENTATION AND LAYOUT WILL VARY FROM BUILDING TO BUILDING. COORDINATE ELECTRICAL WORK WITH CIVIL UTILITY PLAN CU101, EXISTING FIELD CONDITIONS, AND BUILDING PLANS ON ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS.

C. NEW WIRING SHALL BE RUN CONCEALED WITHIN WALLS AND ABOVE CEILING, EXCEPT IN UTILITY ROOM. DO NOT RUN NEW WIRING BELOW EXISTING SLAB EXCEPT FOR CONNECTIONS REQUIRED TO ARMS ROOM EQUIPMENT.

D. EMERGENCY LIGHTING UNITS AND EQUIPMENT SHALL BE WIRED AHEAD OF LOCAL SWITCHES OR OCCUPANCY SENSORS ON AN UNSWITCHED LEG OF THE BRANCH CIRCUITS INDICATED.

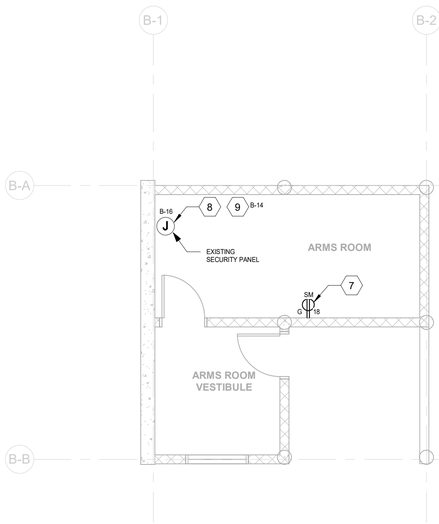
DEMOLITION NOTES

D1. REMOVE EXISTING PANELBOARD AND REPLACE WITH PANELBOARD INDICATED. RECONNECT EXISTING LIGHTING AND POWER CIRCUITES TO NEW PANELBOARD AS INDICATED ON PANELBOARD SCHEDULE SHEET E-611.

D2. REMOVE EXISTING SERVICE MAST AND REPLACE WITH SERVICE MAST INDICATED. RECONNECT NEW ELECTRICAL SERVICE TO NEW PANELBOARD AS INDICATED ON DETAIL D1/E-501.

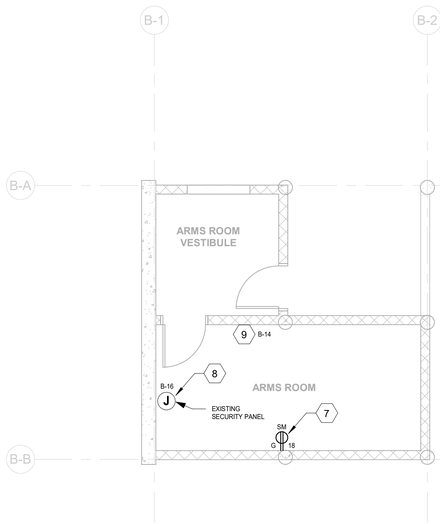
KEYED NOTES

1. PANELBOARD "H" MOUNTED 6'-0" TO TOP AFF. RECONNECT EXISTING CIRCUITS TO REMAIN.
2. 2.5 INCH RIGID GALVANIZER STEEL CONDUIT MAST WITH WEATHERHEAD FOR SERVICE CONDUCTORS. VERIFY HEIGHT REQUIRED FOR NEW MAST WITH UTILITY COMPANY CITY LIGHT AND POWER.
3. 2.5 INCH RIGID GALVANIZER STEEL CONDUIT LB FITTING FOR SERVICE CONDUCTORS.
4. SURGE PROTECTIVE DEVICE (SPD) IN NEMA 1 ENCLOSURE ADJACENT TO PANELBOARD. REFER TO SPECIFICATIONS.
5. BOND TO BUILDING STEEL AND 3-INCH COLD WATER LINE.
6. ELECTRONIC METERING IN NEMA 1 ENCLOSURE ADJACENT TO PANELBOARD. REFER TO SPECIFICATIONS. PROVIDE ELECTRO INDUSTRIES SHARK 200 METER OR APPROVED EQUAL IN ACCORDANCE WITH SPECIFICATIONS.
7. REMOVE EXISTING RECEPTACLES AND WIRING IN ARMS ROOM AND VESTIBULE AND PROVIDE NEW RECEPTACLE AND NEW CIRCUIT WIRING FOR HUMIDIFIER AS INDICATED ON PLAN AND PANEL SCHEDULES.
8. REMOVE EXISTING WIRING IN ARMS ROOM AND VESTIBULE FOR SECURITY PANEL AND PROVIDE NEW CIRCUIT WIRING FOR SECURITY PANEL TO REMAIN AS INDICATED ON PLAN AND PANEL SCHEDULES.
9. REMOVE EXISTING WIRING IN ARMS ROOM AND VESTIBULE FOR EXISTING LIGHTING FIXTURES AND SWITCHES, AND PROVIDE NEW CIRCUIT WIRING FOR EXISTING LIGHTING FIXTURES AND SWITCHES AS INDICATED ON PLAN AND PANEL SCHEDULES.
10. WIRING AND RELATED WORK FOR PUMP HWRP-1 SHALL BE PROVIDED FOR BOILER BUILDING 1599 ONLY.



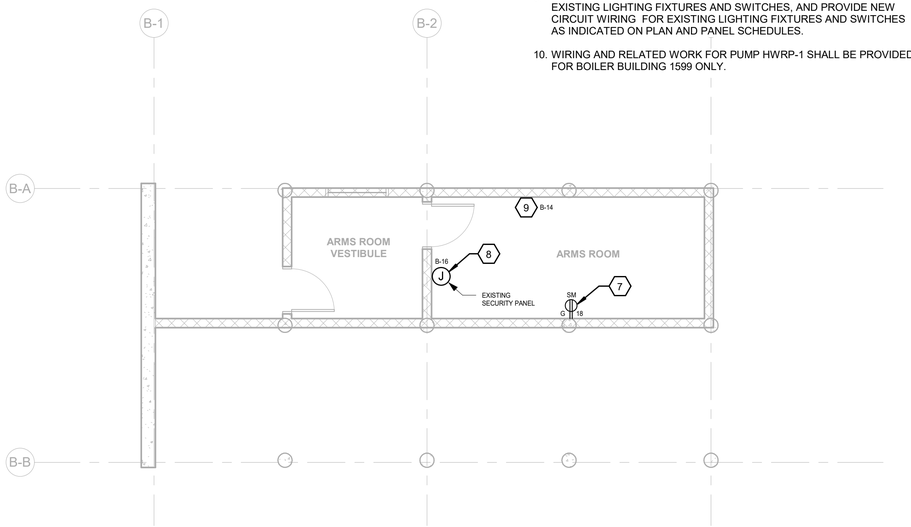
A1 / EP102 B 1620 - EXISTING ARMS ROOMS

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



A4 / EP102 B 1616 - EXISTING ARMS ROOMS

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



A7 / EP102 B 1612 - EXISTING ARMS ROOM

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

8 6 4 2 0 8

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

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
CONTRACT NO.: W912DS19D0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

ARMS ROOMS & BOILER BLDG FLOOR PLAN - POWER

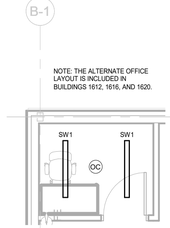
SHEET ID

EP102

RTA SUBMISSION

D1 / EL101 — SLEEPING QUARTERS LEVEL 1 FLOOR PLAN - LIGHTING (TYPICAL FOR BUILDINGS 1612, 1613, 1615, 1616, 1617, 1618, 1619, 1620 & 1624)

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

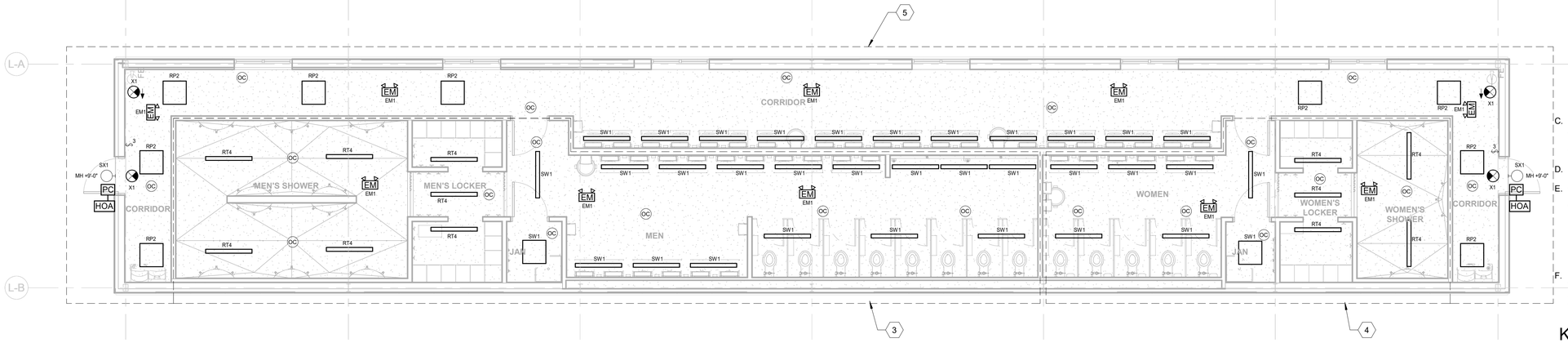


NOTE: THE ALTERNATE OFFICE LAYOUT IS INCLUDED IN BUILDINGS 1612, 1616, AND 1620.

D9 / EL101 — SLEEPING QUARTERS OFFICE LIGHTING

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

REF SHEET: EL101



A1 / EL101 — LATRINE LEVEL 1 FLOOR PLAN - LIGHTING (TYPICAL FOR BUILDINGS 1611, 1614, & 1621)

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

GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

REFER TO CIVIL UTILITY PLAN CU101 FOR THE FOLLOWING INFORMATION:

1. LOCATIONS AND ORIENTATION OF ALL BUILDINGS IN PROJECT.
2. LOCATIONS AND DESIGNATIONS OF AIR HANDLER UNITS.
3. LOCATIONS OF OVERHEAD UTILITY LINES AND POLES.

NOTE: ELECTRICAL PLAN DRAWINGS REPRESENT THE ELECTRICAL WORK TO BE PROVIDED IN EACH FACILITY, BUT THE FACILITY ORIENTATION AND LAYOUT WILL VARY FROM BUILDING TO BUILDING. COORDINATE ELECTRICAL WORK WITH CIVIL UTILITY PLAN CU101, EXISTING FIELD CONDITIONS, AND BUILDING PLANS ON ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS.

C. NEW WIRING SHALL BE RUN CONCEALED WITHIN WALLS AND ABOVE CEILING, EXCEPT IN UTILITY ROOM. DO NOT RUN NEW WIRING BELOW EXISTING SLAB EXCEPT FOR CONNECTIONS REQUIRED TO ARMS ROOM EQUIPMENT.

D. REFER TO DRAWING EL-601 FOR LUMINARIRE SCHEDULE

E. COORDINATE LIGHTING FIXTURE LOCATIONS AND MOUNTING WITH CEILING/WALL CONSTRUCTION AND WORK BY OTHER TRADES. FOR PENDANT MOUNTED FIXTURES, ADJUST PENDANT CABLE LENGTH TO SET FIXTURE DIFFUSER LENS JUST BELOW ADJACENT DUCTWORK. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

F. EMERGENCY LIGHTING UNITS AND EQUIPMENT SHALL BE WIRED AHEAD OF LOCAL SWITCHES OR OCCUPANCY SENSORS ON AN UNSWITCHED LEG OF THE BRANCH CIRCUITS INDICATED.

KEYED NOTES

1. ALL LIGHTING FIXTURES IN THIS AREA ARE FED FROM B-28.
2. ALL LIGHTING FIXTURES IN THIS AREA ARE FED FROM B-30.
3. ALL LIGHTING FIXTURES IN THIS AREA ARE FED FROM L-26.
4. ALL LIGHTING FIXTURES IN THIS AREA ARE FED FROM L-28.
5. ALL LIGHTING FIXTURES IN THIS AREA ARE FED FROM L-30.

PLAN NORTH

8 6 4 2 0 8

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

*TRUE NORTH VARIES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
SIZE: ANSI D
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CONTRACT NO.: W912DS19D0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

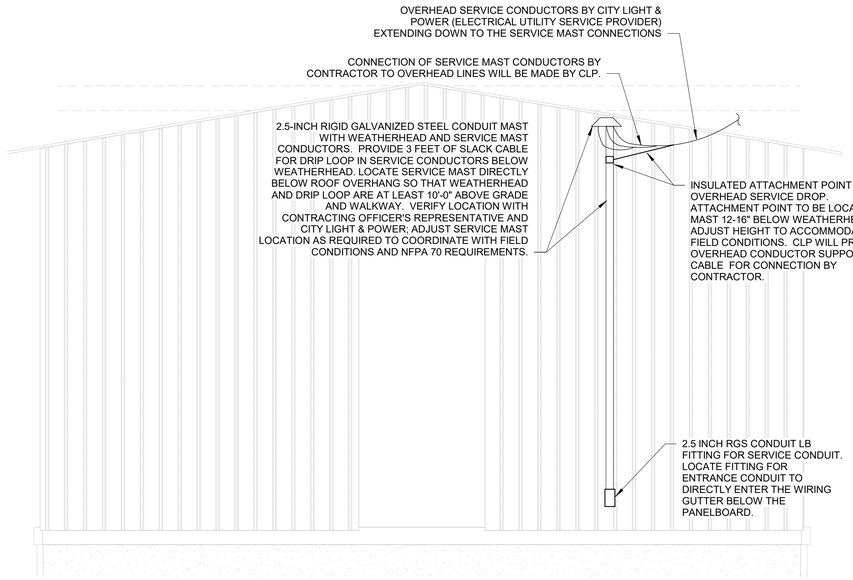
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

FIRST FLOOR PLAN - LIGHTING

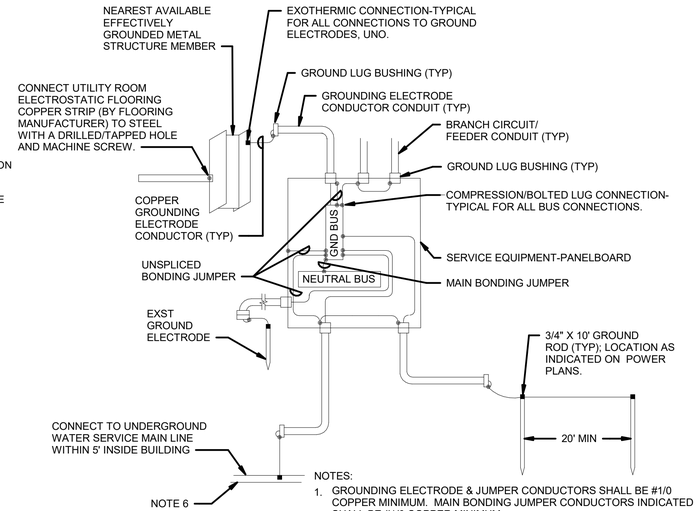
SHEET ID

EL101

RTA SUBMISSION



D1 / E-501 OVERHEAD ELECTRICAL SERVICE DETAIL (BUILDINGS VARY)
SCALE: NONE



D6 / E-501 SERVICE EQUIPMENT GROUNDING DETAIL
SCALE: NONE

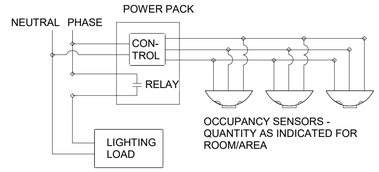
GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

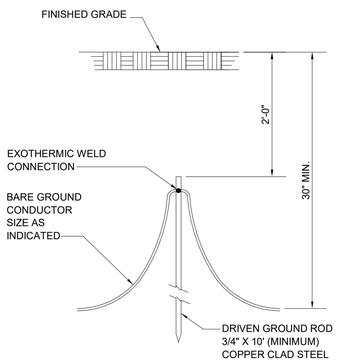
B. WORK RELATED TO ELECTRICAL SERVICES SHALL BE COORDINATED WITH LOCAL UTILITY CLP AND SHALL COMPLY WITH CLP REQUIREMENTS AND ELECTRICAL SERVICE CONNECTIONS STANDARD MANUAL.

KEYED NOTES - BOILER BUILDINGS

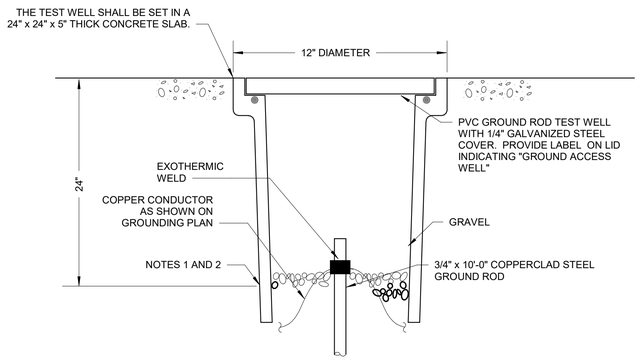
1. PANELBOARD "H" FOR BOILER BUILDINGS.
2. 2.5-INCH RIGID GALVANIZED STEEL CONDUIT MAST WITH WEATHERHEAD AND 3#3/0, #3/0N SERVICE CONDUCTORS . REFER TO DETAIL D1/E-501 FOR ADDITIONAL REQUIREMENTS PERTAINING TO CONDUIT MAST AND WEATHERHEAD.
3. 2.5 INCH RIGID GALVANIZED STEEL CONDUIT LB FITTING FOR SERVICE CONDUIT
4. 3#3/0, #3/0N, IN 2.5 INCH RIGID GALVANIZED STEEL CONDUIT.
5. OVERHEAD SERVICE CONDUCTORS BY CITY LIGHT & POWER (CLP) EXTENDING TO THE STEEL CONDUIT MAST/WEATHERHEAD. REFER TO DETAIL D1/E-501 FOR ADDITIONAL REQUIREMENTS PERTAINING TO SUPPORT CABLE AND SERVICE MAST CONNECTION BRACKET.
6. CONNECTION OF SERVICE MAST CONDUCTORS BY CONTRACTOR TO OVERHEAD LINES WILL BE MADE BY CLP. VERIFY REQUIREMENTS WITH COR & CLP AND COORDINATE WORK WITH CLP.



D9 / E-501 OCCUPANCY SENSOR WIRING DIAGRAM
SCALE: NONE



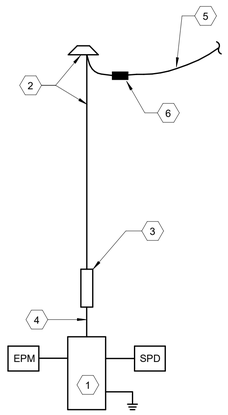
B1 / E-501 TYPICAL EXOTHERMIC GROUND ROD DETAIL
SCALE: NONE



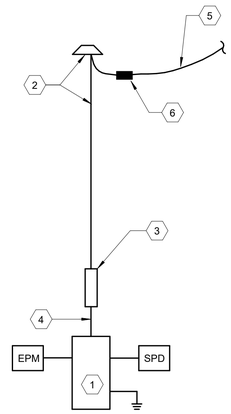
NOTES:

1. COORDINATE INSTALLATION WITH SITE CONDITIONS.
2. TEST WELL SHALL BE LOCATED IN AREAS NOT SUBJECT TO VEHICULAR TRAFFIC; VERIFY LOCATION WITH CONTRACTING OFFICER'S REPRESENTATIVE.

B3 / E-501 GROUND ROD TEST WELL
SCALE: NONE



B6 / E-501 ELECTRICAL RISER DIAGRAM SLEEPING QUARTERS BARRACKS AND LATRINE BUILDINGS
SCALE: NONE



B8 / E-501 ELECTRICAL RISER DIAGRAM BOILER BUILDINGS
SCALE: NONE

KEYED NOTES - SLEEPING QUARTERS BARRACKS AND LATRINE BUILDINGS

1. PANELBOARD "L" FOR LATRINE FACILITY; PANELBOARD "B" FOR BARRACKS SLEEPING QUARTERS.
2. 2.5-INCH RIGID GALVANIZED STEEL CONDUIT MAST WITH WEATHERHEAD AND 3#4/0, #4/0N SERVICE CONDUCTORS , PROVIDE DRIP LOOP IN SERVICE CONDUCTORS BELOW WEATHERHEAD. REFER TO DETAIL D1/E-501 FOR ADDITIONAL REQUIREMENTS PERTAINING TO CONDUIT MAST AND WEATHERHEAD.
3. 2.5 INCH RIGID GALVANIZED STEEL CONDUIT LB FITTING FOR SERVICE CONDUIT
4. 3#4/0, #4/0N, IN 2.5 INCH RIGID GALVANIZED STEEL CONDUIT.
5. OVERHEAD SERVICE CONDUCTORS BY CITY LIGHT & POWER (CLP) EXTENDING TO THE STEEL CONDUIT MAST/WEATHERHEAD. REFER TO DETAIL D1/E-501 FOR ADDITIONAL REQUIREMENTS PERTAINING TO SUPPORT CABLE AND SERVICE MAST CONNECTION BRACKET.
6. CONNECTION OF SERVICE MAST CONDUCTORS BY CONTRACTOR TO OVERHEAD LINES WILL BE MADE BY CLP. VERIFY REQUIREMENTS WITH COR & CLP AND COORDINATE WORK WITH CLP.
7. 2.5-INCH RIGID GALVANIZED STEEL CONDUIT MAST WITH WEATHERHEAD AND 3#3/0, #3/0N SERVICE CONDUCTORS. PROVIDE DRIP LOOP IN SERVICE CONDUCTORS BELOW WEATHERHEAD. REFER TO DETAIL D1/E-501 FOR ADDITIONAL REQUIREMENTS PERTAINING TO CONDUIT MAST AND WEATHERHEAD.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

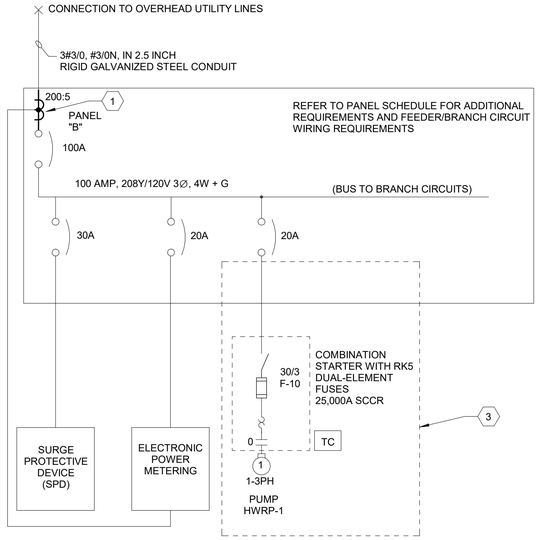
DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS19D0010
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584
DETAILS

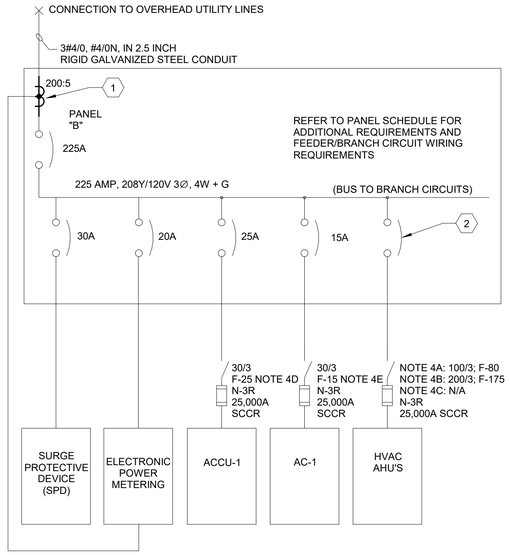
SHEET ID
E-501

RTA SUBMISSION



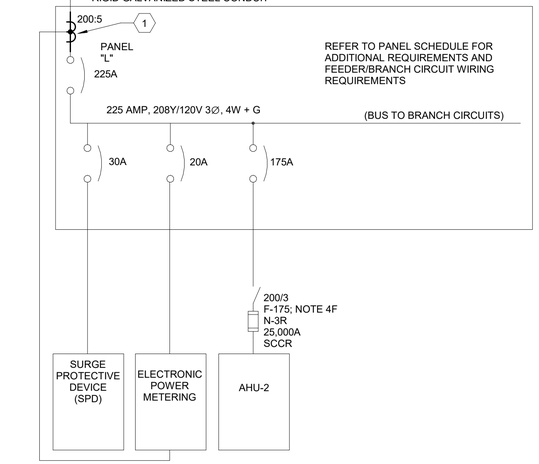
E4 / E-601 ELECTRICAL RISER DIAGRAM - BOILER BUILDINGS

SCALE: NONE



E7 / E-601 ELECTRICAL RISER DIAGRAM - SLEEPING QUARTERS BARRACKS

SCALE: NONE



B7 / E-601 ELECTRICAL RISER DIAGRAM - LATRINE BUILDINGS

SCALE: NONE

GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

B. PROVIDE ARC FLASH LABELS INSIDE PANELBOARDS, DISCONNECT SWITCHES, AND MOTOR STARTERS IN ACCORDANCE WITH NFPA 70 AND SPECIFICATIONS.

C. WHERE REQUIRED TO ACCOMMODATE CIRCUIT BREAKER LUG RATINGS FOR CONDUCTOR SIZES INDICATED, PROVIDE UL-LISTED COMPRESSION CRIMP COPPER PIGTAIL ADAPTERS.

KEYED NOTES

1. METERING CURRENT TRANSFORMERS (CT'S) SHALL BE PROVIDED AS A PART OF THE METERING EQUIPMENT PACKAGE.

2. CIRCUIT BREAKERS SERVING HVAC AHU'S SHALL BE RATED AS FOLLOWS:
   A. AHU-1 FOR BUILDINGS 1612, 1613, 1615, 1618, & 1624: 80A BREAKER
   B. AHU-3 FOR BUILDINGS 1616 & 1620: 175A BREAKER
   C. BUILDINGS 1617 & 1619: SPARE 80A BREAKER ONLY (NO WIRING)
3. WIRING AND RELATED WORK FOR PUMP HWRP-1 SHALL BE PROVIDED FOR BOILER BUILDING 1599 ONLY.

4. THE DISCONNECT SWITCH RATINGS AND OVERCURRENT PROTECTION RATINGS SHOWN BELOW FOR THE MECHANICAL HVAC EQUIPMENT ARE BASED ON THE BASIS OF DESIGN EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND NEC ARTICLE 430. CONTRACTOR SHALL VERIFY THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE SPECIFIC UNITS PROVIDED, AND SHALL BE RESPONSIBLE FOR PROVIDING THE REQUIRED OVERCURRENT DEVICE RATINGS, SWITCH RATINGS, AND FEEDER RATINGS WITH ALL REQUIRED CHANGES PROVIDED AT NO ADDITIONAL COST TO THE GOVERNMENT. ALL WORK SHALL COMPLY WITH THE MANUFACTURER'S INSTRUCTIONS AND NEC ARTICLE 430. INCLUDE PROPOSED RATINGS OF ALL RELATED ELECTRICAL SERVICES FOR MECHANICAL EQUIPMENT IN SUBMITTALS FOR APPROVAL.
   A. SLEEPING QUARTERS 1612, 1613, 1615, 1618, & 1624: AHU-1; 100A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 80A RK5 FUSES
   B. SLEEPING QUARTERS 1616 & 1620: AHU-3; 200A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 175A RK5 FUSES
   C. SLEEPING QUARTERS 1617, & 1619: NO CENTRAL AIR CONDITIONING AHU
   D. SLEEPING QUARTERS 1612, 1613, 1615, 1616, 1617, 1618, 1619, 1620 & 1624: ACCU-1; 30A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 25A RK5 FUSES
   E. SLEEPING QUARTERS 1612, 1613, 1615, 1616, 1617, 1618, 1619, 1620 & 1624: AC-1; 30A 2P FUSED DISCONNECT SWITCH IN NEMA 1 ENCLOSURE; 15A RK5 FUSES
   F. LATRINES 1611, 1614 & 1621; AHU-2; 200A 3P FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE; 175A RK5 FUSES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.
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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

ONE-LINE DIAGRAMS

SHEET ID

E-601

RTA SUBMISSION

GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

PANELBOARD:	B					MOUNTING:	SURFACE					MAIN LUGS RATING:	225				
BUILDINGS:	1612, 1613, 1615, 1618, & 1624	(SLEEPING QTRS)				NEUTRAL:	100%					MAIN BKR RATING:	225				
VOLTAGE:	208Y/120					DOOR LOCK:	YES					TOP OR BOTTOM MAIN:	BOTTOM				
PHASE,WIRE:	3,4					GENERAL NOTES:	1,2, 3, 4, 5 & 6					AIC RATING:	25,000 AMPS				
FED FROM:	UTILITY SERVICE											SERVICE ENTRANCE:	YES				
DESCRIPTION		OPT	LOAD	TRIP	NO.	A B C	NO.	TRIP	LOAD	OPT	DESCRIPTION						
	RECEPTACLES		1260	20	1	--A----------	2	20	1260		RECEPTACLES						
	RECEPTACLES		1260	20	3	------B------	4	20	1260		RECEPTACLES						
	RECEPTACLES		1260	20	5	----------C--	6	20	1260		RECEPTACLES						
	RECEPTACLES		900	20	7	--A----------	8	20	900		RECEPTACLES						
	RECEPTACLES		900	20	9	------B------	10	20	900		RECEPTACLES						
	RECEPTACLES		360	20	11	----------C--	12	20			SPARE						
	FIRE ALARM PANEL FAMN	L	200	20	13	--A----------	14	20	100	L	ARMS ROOM EXST LIGHTING CIRCUIT (NOTE 5)						
	RECEPTACLES		360	20	15	------B------	16	20	100	L	ARMS ROOM EXST SECURITY PANEL (NOTE 5)						
	RECEPTACLES		180	20	17	----------C--	18	20	880	L	ARMS ROOM DEHUMIDIFIER RCPT (NOTE 5)						
	SPARE			20	19	--A----------	20	20			SPARE						
	SPARE			20	21	------B------	22	20			SPARE						
2#10,#10GND, 3/4"C	ACCU-1	2	1300	25	23	----------C--	24	20			SPARE						
			1300	25	25	--A----------	26	20			SPARE						
2#12, #12GND, 3/4"C	AC-1	2	100	15	27	------B------	28	20	900		LIGHTING						
			100	15	29	----------C--	30	20	390		LIGHTING						
			10	20	31	--A----------	32	20			SPARE						
3#12,#12N, #12G, 3/4"C	METERING	3	10	20	33	------B------	34	20			SPARE						
			10	20	35	----------C--	36	20			SPARE						
			6600	80	37	--A----------	38	30	0								
3#4, #8GND, 1"C	AHU-1	3	6600	80	39	------B------	40	30	0	3	SPD	3#10, #10N, #10G, 1"C					
			6600	80	41	----------C--	42	30	0								
											OPTIONS:						
	TOTAL LOAD PHASE A =		12530	VA	=	104	AMPS				S - SHUNT TRIP	SF-SUBFEED MOUNTING					
	TOTAL LOAD PHASE B =		12390	VA	=	103	AMPS				G - GND FAULT INTERRUPTER						
	TOTAL LOAD PHASE C =		12340	VA	=	103	AMPS				L - LOCK-ON DEVICE						
	TOTAL LOAD =		37260	VA		103	AMPS	AVG			2 - TWO-POLE BREAKER						
											3 - THREE-POLE BREAKER						
DATE:	8/3/2020					PANELBOARD ACCESSORIES:											
TIME:	12:54:23 PM					A. 6 INCH FACTORY WIRE GUTTER AT BOTTOM											
VERSION:	1.0																

PANEL BOARD NOTES:
1. BRANCH CIRCUIT WIRING SHALL BE 2#12, #12 GND IN 3/4 INCH CONDUIT MINIMUM, UNLESS NOTED OTHERWISE.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS PER CONDUIT; SHARED NEUTRALS SHALL NOT BE PERMITTED; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. NEC CIRCUIT GROUND CONDUCTOR SHALL BE PROVIDED IN EACH RACEWAY; 3/4 INCH CONDUIT MINIMUM SIZE; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
4. REFER TO SPECIFICATIONS FOR METERING AND SURGE PROTECTIVE DEVICE (SPD) EQUIPMENT.
5. ARMS ROOMS ARE BELOW MAIN LEVELS OF BLDGS 1612, (1616, & 1620). FOR OTHER BLDGS, PROVIDE ONLY SPARE CIRCUIT BREAKER AND NO WIRING.
   CONNECT CIRCUITS INDICATED TO THE EXISTING SECURITY PANEL AND THE EXISTING LIGHTING CIRCUIT WITHIN THE ARMS ROOM.
6. PANELBOARD BUSES SHALL BE COPPER.

PANELBOARD:	B					MOUNTING:	SURFACE					MAIN LUGS RATING:	225				
BUILDINGS:	1617 & 1619	(SLEEPING QTRS)				NEUTRAL:	100%					MAIN BKR RATING:	225				
VOLTAGE:	208Y/120					DOOR LOCK:	YES					TOP OR BOTTOM MAIN:	BOTTOM				
PHASE,WIRE:	3,4					GENERAL NOTES:	1,2, 3, 4 & 5					AIC RATING:	25,000 AMPS				
FED FROM:	UTILITY SERVICE											SERVICE ENTRANCE:	YES				
DESCRIPTION		OPT	LOAD	TRIP	NO.	A B C	NO.	TRIP	LOAD	OPT	DESCRIPTION						
	RECEPTACLES		1260	20	1	--A----------	2	20	1260		RECEPTACLES						
	RECEPTACLES		1260	20	3	------B------	4	20	1260		RECEPTACLES						
	RECEPTACLES		1260	20	5	----------C--	6	20	1260		RECEPTACLES						
	RECEPTACLES		900	20	7	--A----------	8	20	900		RECEPTACLES						
	RECEPTACLES		900	20	9	------B------	10	20	900		RECEPTACLES						
	RECEPTACLES		360	20	11	----------C--	12	20			SPARE						
	FIRE ALARM PANEL FAMN	L	200	20	13	--A----------	14	20			SPARE						
	RECEPTACLES		360	20	15	------B------	16	20			SPARE						
	RECEPTACLES		180	20	17	----------C--	18	20			SPARE						
	SPARE			20	19	--A----------	20	20			SPARE						
	SPARE			20	21	------B------	22	20			SPARE						
2#10,#10GND, 3/4"C	ACCU-1	2	1300	25	23	----------C--	24	20			SPARE						
			1300	25	25	--A----------	26	20			SPARE						
2#12, #12GND, 3/4"C	AC-1	2	100	15	27	------B------	28	20	900		LIGHTING						
			100	15	29	----------C--	30	20	390		LIGHTING						
			10	20	31	--A----------	32	20			SPARE						
3#12,#12N, #12G, 3/4"C	METERING	3	10	20	33	------B------	34	20			SPARE						
			10	20	35	----------C--	36	20			SPARE						
				80	37	--A----------	38	30	0								
	SPARE	3		80	39	------B------	40	30	0	3	SPD	3#10, #10N, #10G, 1"C					
				80	41	----------C--	42	30	0								
											OPTIONS:						
	TOTAL LOAD PHASE A =		5830	VA	=	49	AMPS				S - SHUNT TRIP	SF-SUBFEED MOUNTING					
	TOTAL LOAD PHASE B =		5690	VA	=	47	AMPS				G - GND FAULT INTERRUPTER						
	TOTAL LOAD PHASE C =		4860	VA	=	41	AMPS				L - LOCK-ON DEVICE						
	TOTAL LOAD =		16380	VA		45	AMPS	AVG			2 - TWO-POLE BREAKER						
											3 - THREE-POLE BREAKER						
DATE:	8/3/2020					PANELBOARD ACCESSORIES:											
TIME:	12:54:25 PM					A. 6 INCH FACTORY WIRE GUTTER AT BOTTOM											
VERSION:	1.0																

PANEL BOARD NOTES:
1. BRANCH CIRCUIT WIRING SHALL BE 2#12, #12 GND IN 3/4 INCH CONDUIT, UNLESS NOTED OTHERWISE.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS PER CONDUIT; SHARED NEUTRALS SHALL NOT BE PERMITTED; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. NEC CIRCUIT GROUND CONDUCTOR SHALL BE PROVIDED IN EACH RACEWAY; 3/4 INCH CONDUIT MINIMUM SIZE; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
4. REFER TO SPECIFICATIONS FOR METERING AND SURGE PROTECTIVE DEVICE (SPD) EQUIPMENT.
5. PANELBOARD BUSES SHALL BE COPPER.

PANELBOARD:	B					MOUNTING:	SURFACE					MAIN LUGS RATING:	225				
BUILDINGS:	1616 & 1620	(SLEEPING QTRS)				NEUTRAL:	100%					MAIN BKR RATING:	225				
VOLTAGE:	208Y/120					DOOR LOCK:	YES					TOP OR BOTTOM MAIN:	BOTTOM				
PHASE/WIRE:	3 PHASE-4 WIRE					GENERAL NOTES:	1,2, 3, 4, 5 & 6					AIC RATING:	25,000 AMPS				
FED FROM:	UTILITY SERVICE											SERVICE ENTRANCE:	YES				
DESCRIPTION		OPT	LOAD	TRIP	NO.	A B C	NO.	TRIP	LOAD	OPT	DESCRIPTION						
	RECEPTACLES		1260	20	1	--A----------	2	20	1260		RECEPTACLES						
	RECEPTACLES		1260	20	3	------B------	4	20	1260		RECEPTACLES						
	RECEPTACLES		1260	20	5	----------C--	6	20	1260		RECEPTACLES						
	RECEPTACLES		900	20	7	--A----------	8	20	900		RECEPTACLES						
	RECEPTACLES		900	20	9	------B------	10	20	900		RECEPTACLES						
	RECEPTACLES		360	20	11	----------C--	12	20			SPARE						
	FIRE ALARM PANEL FAMN	L	200	20	13	--A----------	14	20	100	L	ARMS ROOM EXST LIGHTING CIRCUIT (NOTE 5)						
	RECEPTACLES		360	20	15	------B------	16	20	100	L	ARMS ROOM EXST SECURITY PANEL (NOTE 5)						
	RECEPTACLES		180	20	17	----------C--	18	20	880	L	ARMS ROOM DEHUMIDIFIER RCPT (NOTE 5)						
	SPARE			20	19	--A----------	20	20			SPARE						
	SPARE			20	21	------B------	22	20			SPARE						
2#10,#10GND, 3/4"C	ACCU-1	2	1300	25	23	----------C--	24	20			SPARE						
			1300	25	25	--A----------	26	20			SPARE						
2#12, #12GND, 3/4"C	AC-1	2	100	15	27	------B------	28	20	900		LIGHTING						
			100	15	29	----------C--	30	20	390		LIGHTING						
			10	20	31	--A----------	32	20			SPARE						
3#12,#12N, #12G, 3/4"C	METERING	3	10	20	33	------B------	34	20			SPARE						
			10	20	35	----------C--	36	20			SPARE						
			15200	175	37	--A----------	38	30	0								
3#2/0,#6GND, 2"C	AHU-3	3, SF	15200	175	39	------B------	40	30	0	3	SPD	3#10, #10N,#10G, 1"C					
			15200	175	41	----------C--	42	30	0								
											OPTIONS:						
	TOTAL LOAD PHASE A =		21130	VA	=	176	AMPS				S - SHUNT TRIP	SF-SUBFEED MOUNTING					
	TOTAL LOAD PHASE B =		20990	VA	=	175	AMPS				G - GND FAULT INTERRUPTER						
	TOTAL LOAD PHASE C =		20940	VA	=	175	AMPS				L - LOCK-ON DEVICE						
	TOTAL LOAD =		63060	VA		175	AMPS	AVG			2 - TWO-POLE BREAKER						
											3 - THREE-POLE BREAKER						
DATE:	8/3/2020					PANELBOARD ACCESSORIES:											
TIME:	12:54:27 PM					A. 6 INCH FACTORY WIRE GUTTER AT BOTTOM											
VERSION:	1.0																

PANEL BOARD NOTES:
1. BRANCH CIRCUIT WIRING SHALL BE 2#12, #12 GND IN 3/4 INCH CONDUIT, UNLESS NOTED OTHERWISE.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS PER CONDUIT; SHARED NEUTRALS SHALL NOT BE PERMITTED; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. NEC CIRCUIT GROUND CONDUCTOR SHALL BE PROVIDED IN EACH RACEWAY; 3/4 INCH CONDUIT MINIMUM SIZE; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
4. REFER TO SPECIFICATIONS FOR METERING AND SURGE PROTECTIVE DEVICE (SPD) EQUIPMENT.
5. ARMS ROOMS ARE BELOW MAIN LEVELS OF BLDGS (1612), 1616, & 1620. FOR OTHER BLDGS, PROVIDE ONLY SPARE CIRCUIT BREAKER AND NO WIRING.
   CONNECT CIRCUITS INDICATED TO THE EXISTING SECURITY PANEL AND THE EXISTING LIGHTING CIRCUIT WITHIN THE ARMS ROOM.
6. PANELBOARD BUSES SHALL BE COPPER.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS19D0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

PANELBOARD SCHEDULES - SLEEPING QUARTERS BARRACKS

SHEET ID

E-611

RTA SUBMISSION

GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

PANELBOARD:	H		MOUNTING:	SURFACE	MAIN LUGS RATING:	100	
BUILDINGS:	1599, 1622, & 1623	(BOILER BLDG)	NEUTRAL:	100%	MAIN BKR RATING:	100	
VOLTAGE:	208Y/120		DOOR LOCK:	YES	TOP OR BOTTOM MAIN:	BOTTOM	
PHASE,WIRE:	3,4		GENERAL NOTES:	1,2, 3, 4, 5 & 6	AIC RATING:	25,000 AMPS	
FED FROM:	UTILITY SERVICE				SERVICE ENTRANCE:	YES	

DESCRIPTION		OPT	LOAD	TRIP	NO.	A B C	NO.	TRIP	LOAD	OPT	DESCRIPTION
			580	20	1	--A----------	2	30	0		
3#12, #12G, 1"C	PUMP HWRP-1 (B. 1599 ONLY)	3	580	20	3	------B------	4	30	0	3	SPD
	(SPARE FOR B. 1622, 1623)		580	20	5	----------C--	6	30	0		
			10	20	7	--A----------	8	20	720		EXST RECEPTACLES
3#12,#12N, #12G, 3/4"C	METERING	3	10	20	9	------B------	10	20	500		EXST LIGHTING
			10	20	11	----------C--	12	20			SPARE
	SPARE			20	13	--A----------	14	20			SPARE
	SPARE			20	15	------B------	16	20			SPARE
	SPARE			20	17	----------C--	18	20			SPARE
	SPACE				19	--A----------	20				SPACE
	SPACE				21	------B------	22				SPACE
	SPACE				23	----------C--	24				SPACE
	SPACE				25	--A----------	26				SPACE
	SPACE				27	------B------	28				SPACE
	SPACE				29	----------C--	30				SPACE
	N/A - 30 SPACE PANELBOARD				31	--A----------	32				N/A - 30 SPACE PANELBOARD
	N/A - 30 SPACE PANELBOARD				33	------B------	34				N/A - 30 SPACE PANELBOARD
	N/A - 30 SPACE PANELBOARD				35	----------C--	36				N/A - 30 SPACE PANELBOARD
	N/A - 30 SPACE PANELBOARD				37	--A----------	38				N/A - 30 SPACE PANELBOARD
	N/A - 30 SPACE PANELBOARD				39	------B------	40				N/A - 30 SPACE PANELBOARD
	N/A - 30 SPACE PANELBOARD				41	----------C--	42				N/A - 30 SPACE PANELBOARD

OPTIONS:

TOTAL LOAD PHASE A =	1310	VA	=	11	AMPS	S - SHUNT TRIP
TOTAL LOAD PHASE B =	1090	VA	=	9	AMPS	G - GND FAULT INTERRUPTER
TOTAL LOAD PHASE C =	590	VA	=	5	AMPS	L - LOCK-ON DEVICE
TOTAL LOAD =	2990	VA		8	AMPS	AVG 2 - TWO-POLE BREAKER
						3 - THREE-POLE BREAKER

SF-SUBFEED MOUNTING

DATE: 8/13/2020
TIME: 05:18:23 PM
VERSION: 1.0

PANELBOARD ACCESSORIES:
A. 6 INCH FACTORY WIRE GUTTER AT BOTTOM

PANEL BOARD NOTES:
1. BRANCH CIRCUIT WIRING SHALL BE 2#12, #12 GND IN 3/4 INCH CONDUIT, UNLESS NOTED OTHERWISE.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS PER CONDUIT; SHARED NEUTRALS SHALL NOT BE PERMITTED; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. NEC CIRCUIT GROUND CONDUCTOR SHALL BE PROVIDED IN EACH RACEWAY; 3/4 INCH CONDUIT MINIMUM SIZE; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
4. REFER TO SPECIFICATIONS FOR METERING AND SURGE PROTECTIVE DEVICE (SPD) EQUIPMENT.
5. PANELBOARD BRANCH CIRCUIT QUANTITY CAPACITY IS 30 MINIMUM.
6. PANELBOARD BUSES SHALL BE COPPER.

PANELBOARD:	L		MOUNTING:	SURFACE	MAIN LUGS RATING:	225	
BUILDINGS:	1611, 1614 & 1621	(LATRINE)	NEUTRAL:	100%	MAIN BKR RATING:	225	
VOLTAGE:	208Y/120		DOOR LOCK:	YES	TOP OR BOTTOM MAIN:	BOTTOM	
PHASE,WIRE:	3,4		GENERAL NOTES:	1,2, 3, 4 & 5	AIC RATING:	25,000 AMPS	
FED FROM:	UTILITY SERVICE				SERVICE ENTRANCE:	YES	

DESCRIPTION		OPT	LOAD	TRIP	NO.	A B C	NO.	TRIP	LOAD	OPT	DESCRIPTION	
2#10,#10G, 3/4"C	RECEPTACLES		180	20	1	--A----------	2	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	3	------B------	4	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	5	----------C--	6	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	7	--A----------	8	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	9	------B------	10	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	11	----------C--	12	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	13	--A----------	14	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	15	------B------	16	20	360		RECEPTACLES	2#10,#10G, 3/4"C
2#10,#10G, 3/4"C	RECEPTACLES		360	20	17	----------C--	18	20	720		RECEPTACLES-EWC	2#10,#10G, 3/4"C
	FIRE ALARM PANEL FAMN	L	200	20	19	--A----------	20	20	720		RECEPTACLES-EWC	2#10,#10G, 3/4"C
	SPARE			20	21	------B------	22	20	360		RECEPTACLES	2#10,#10G, 3/4"C
	SPARE			20	23	----------C--	24	20			SPARE	
	SPARE			20	25	--A----------	26	20	690		LIGHTING	
	SPARE			20	27	------B------	28	20	660		LIGHTING	
	SPARE			20	29	----------C--	30	20	450		LIGHTING	
3#12,#12N, #12G, 3/4"C	METERING	3	10	20	31	--A----------	32	20			SPARE	
			10	20	33	------B------	34	20			SPARE	
			10	20	35	----------C--	36	20			SPARE	
			16000	175	37	--A----------	38	30	0			
3#2/0,#6GND, 2"C	AHU-2	3, SF	16000	175	39	------B------	40	30	0	3	SPD	3#10, #10N,#10G, 1"C
			16000	175	41	----------C--	42	30	0			

OPTIONS:

TOTAL LOAD PHASE A =	19600	VA	=	163	AMPS	S - SHUNT TRIP
TOTAL LOAD PHASE B =	19190	VA	=	160	AMPS	G - GROUND FAULT INTERRUPTER
TOTAL LOAD PHASE C =	18980	VA	=	158	AMPS	L - LOCK-ON DEVICE
TOTAL LOAD =	57770	VA		160	AMPS	AVG 2 - TWO-POLE BREAKER
						3 - THREE-POLE BREAKER

SF-SUBFEED MOUNTING

DATE: 8/3/2020
TIME: 12:54:31 PM
VERSION: 1.0

PANELBOARD ACCESSORIES:
A. 6 INCH FACTORY WIRE GUTTER AT BOTTOM

PANEL BOARD NOTES:
1. BRANCH CIRCUIT WIRING SHALL BE 2#12, #12 GND IN 3/4 INCH CONDUIT, UNLESS NOTED OTHERWISE.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS PER CONDUIT; SHARED NEUTRALS SHALL NOT BE PERMITTED; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. NEC CIRCUIT GROUND CONDUCTOR SHALL BE PROVIDED IN EACH RACEWAY; 3/4 INCH CONDUIT MINIMUM SIZE; REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
4. REFER TO SPECIFICATIONS FOR METERING AND SURGE PROTECTIVE DEVICE (SPD) EQUIPMENT.
5. PANELBOARD BUSES SHALL BE COPPER.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS19D0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

PANELBOARD SCHEDULES - BOILER AND LATRINE BUILDINGS

SHEET ID

E-612

RTA SUBMISSION

GENERAL NOTES

A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER/MODEL	LAMP	DRIVER	VOLTAGE	REMARKS
EM1	EMERGENCY LIGHTING UNIT WITH NEOPRENE GASKETING AND WET LOCATION LISTING, WHITE POLYCARBONATE HOUSING, CLEAR LEXAN LENSES, SELF-TESTING FEATURE, AND NICKEL-CADMIUM BATTERY FOR 90 MINUTES MINIMUM EMERGENCY ILLUMINATION, AND THERMOSTATICALLY CONTROLLED BATTERY HEATER TO PROVIDE OPERATION DOWN TO (-)20 DEGREES F.	CHLORIDE 65X6N24W12CW	TWO 12W LED MR16 LAMPS	FIXED OUTPUT	120/277	SURFACE MOUNTED ON CEILING; PROVIDE MOUNTING ACCESSORIES.
PW1	4 FOOT ADJUSTABLE CABLE PENDANT MOUNT MOUNT DAMP LOCATION LISTED FIXTURE WITH DIE EMBOSSED STEEL HOUSING, MOLDED ABS END CAPS, FROSTED ACRYLIC DIFFUSER WITH MEDIUM DISTRIBUTION, POST-FABRICATION BAKED ENAMEL WHITE FINISH. REFER TO ARCHITECTURAL DETAIL DRAWINGS FOR MOUNTING REQUIREMENTS, COORDINATION WITH CEILING DUCTWORK, AND MOUNTING HEIGHT ABOVE FINISHED FLOOR.	COLUMBIA MPS4-35-VWHE-CPW-EDU-PAF-CM24SCF3-KIT	LED 3136 LUMENS 3500K	0-10V 10% DIMMING DRIVER	120/277	SURFACE MOUNTED ON CEILING; PROVIDE MOUNTING ACCESSORIES AND END CAPS FOR INTERMEDIATE AND END-OR-ROW FIXTURES WHERE CONTINUOUS STRIP INSTALLATION IS INDICATED
RP2	2 FOOT X 2 FOOT RECESSED CEILING GRID MOUNT DAMP LOCATION LISTED FIXTURE WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC BLEND LIGHT GUIDE WITH EDGE-LIT FROSTED ACRYLIC OUTER LENS WITH EVEN EDGE-TO-EDGE ILLUMINATION. PROVIDE INTEGRAL SELECTOR SWITCH TO ALLOW SELECTION OF 4200/3300/2800 LUMEN OUTPUT, FIELD SET FOR 2800 LUMENS.	COLUMBIA CFP22-40/33/2835	LED 2875 LUMENS 3500K	0-10V 10% DIMMING DRIVER	120/277	RECESS MOUNTED IN CEILING; PROVIDE MOUNTING ACCESSORIES.
RT4	4 INCH X 4 FOOT RECESSED HARD CEILING MOUNT IP65 WET LOCATION LISTED FIXTURE WITH WELDED SEAM ALUMINUM HOUSING, GASKETED ACRYLIC FROSTED LENS, CEILING FLANGE TRIM KIT	NULITE RXT-F-FF-09L35-1C-U-D-W-4	LED 3711 TOT LUMENS 3500K	FIXED OUTPUT	120/277	RECESS MOUNTED IN CEILING; PROVIDE MOUNTING ACCESSORIES.
SW1	4 FOOT SURFACE MOUNT DAMP LOCATION LISTED FIXTURE WITH DIE EMBOSSED STEEL HOUSING, MOLDED ABS END CAPS, FROSTED CURVED POLYCARBONATE DIFFUSER WITH WIDE DISTRIBUTION, POST-FABRICATION BAKED ENAMEL WHITE FINISH	COLUMBIA MPS4-35-VWHE-CPW-EDU-PAF	LED 3136 LUMENS 3500K	0-10V 10% DIMMING DRIVER	120/277	SURFACE MOUNTED ON CEILING; PROVIDE MOUNTING ACCESSORIES AND END CAPS FOR INTERMEDIATE AND END-OR-ROW FIXTURES WHERE CONTINUOUS STRIP INSTALLATION IS INDICATED. PROVIDE WIRE GUARDS FOR FIXTURES IN UTILITY ROOMS.
SX1	EXTERIOR WALL-PACK LIGHTING FIXTURE WITH EMERGENCY BATTERY AND HEATER, WET LOCATION UL LISTING, TRAPEZOIDAL DIE-CAST ALUMINUM HOUSING, CLEAR LENS, AND WHITE FINISH PAINTED AFTER FABRICATION	DUALLITE TRP1-3K-U-WH-EH	LED 3100 LUMENS 3000K	FIXED OUTPUT	120/277	SURFACE MOUNTED ON WALL; PROVIDE MOUNTING ACCESSORIES. EMERGENCY MODE LUMEN OUTPUT: 1000 LUMENS
X1	EXIT SIGN WITH DIE-CAST WHITE ALUMINUM HOUSING, WET LOCATION LISTING, BATTERY HEATER, POLYCARBINATE FACE-PLATE WITH CLOSED CELL NEOPRENE GASKETING, UNIVERSAL END/CEILING/WALL MOUNTING PROVISIONS, REMOVABLE CHEVRON ARROW BLANKS, 6 INCH RED LETTERS WITH 3/4 INCH STROKES. PROVIDE THERMOSTATICALLY CONTROLLED BATTERY HEATER TO PROVIDE OPERATION DOWN TO (-)20 DEGREES F.	DUALLITE SEWL-S-R-W-E-HTR	LED	FIXED OUTPUT	120/277	(-)22 DEGREES F MINIMUM OPERATING TEMPERATURE RATING.

LIGHTING FIXTURE SCHEDULE - GENERAL NOTES:

1. MANUFACTURER'S MODEL NUMBERS AND CATALOG NUMBERS INDICATED ABOVE ARE FOR DEFINING THE REQUIRED LIGHTING FIXTURE CONSTRUCTION, FEATURES, AND PERFORMANCE AS A 'BASIS OF DESIGN', AND ARE NOT INTENDED TO REPRESENT A PROPRIETARY SPECIFICATION.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: W. MCCALL
DRAWN BY: J. HURSON
CHECKED BY: D. KOLOWITZ
SUBMITTED BY:
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS19D0010
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER
20190584

LUMINAIRE SCHEDULE

SHEET ID

EL601

RTA SUBMISSION

COMMUNICATIONS SYMBOLS

☐	WALL MOUNTED DATA CABINET
—C—	EXISTING OVERHEAD COMMUNICATIONS
–CU–	EXISTING UNDERGROUND COMMUNICATIONS DUCTBANK
	EXISTING YAGI ANTENNA
TB	EXISTING TELEPHONE BOOTH

COMMUNICATIONS ABBREVIATIONS

BBVPP	BACKBONE FIBER PATCH PANEL
BET	BUILDING ENTRANCE TERMINAL
DR	DISTRIBUTION ROOM
HCPP	HORIZONTAL COPPER PATCH PANEL
HWM	HORIZONTAL WIRE MANAGER
HWPP	HORIZONTAL WIRELESS PATCH PANEL
OLI	OPTIONAL LINE ITEM
OCC	OVERHEAD COPPER CABLE
PBB	PRIMARY BONDING BUSBAR
RBB	RACK BONDING BUSBAR
TBC	TELECOM BONDING CONDUCTOR
TEBC	TELECOMMUNICATIONS BONDING CONDUCTOR
UTP	UNSHIELDED TWISTED PAIR

COMMUNICATIONS GENERAL NOTES

1. REFER TO ONE-LINE DIAGRAMS FOR CABLE SIZES, CONDUIT SIZES, AND DEVICES NOT SHOWN ON PLANS.
2. MINIMUM CONDUIT SIZE SHALL BE 1-INCH.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: JDH
DRAWN BY: TBM
CHECKED BY: SLH
SUBMITTED BY: SLH
SIZE: ANSI D
ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.:
CONTRACT NO.: W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

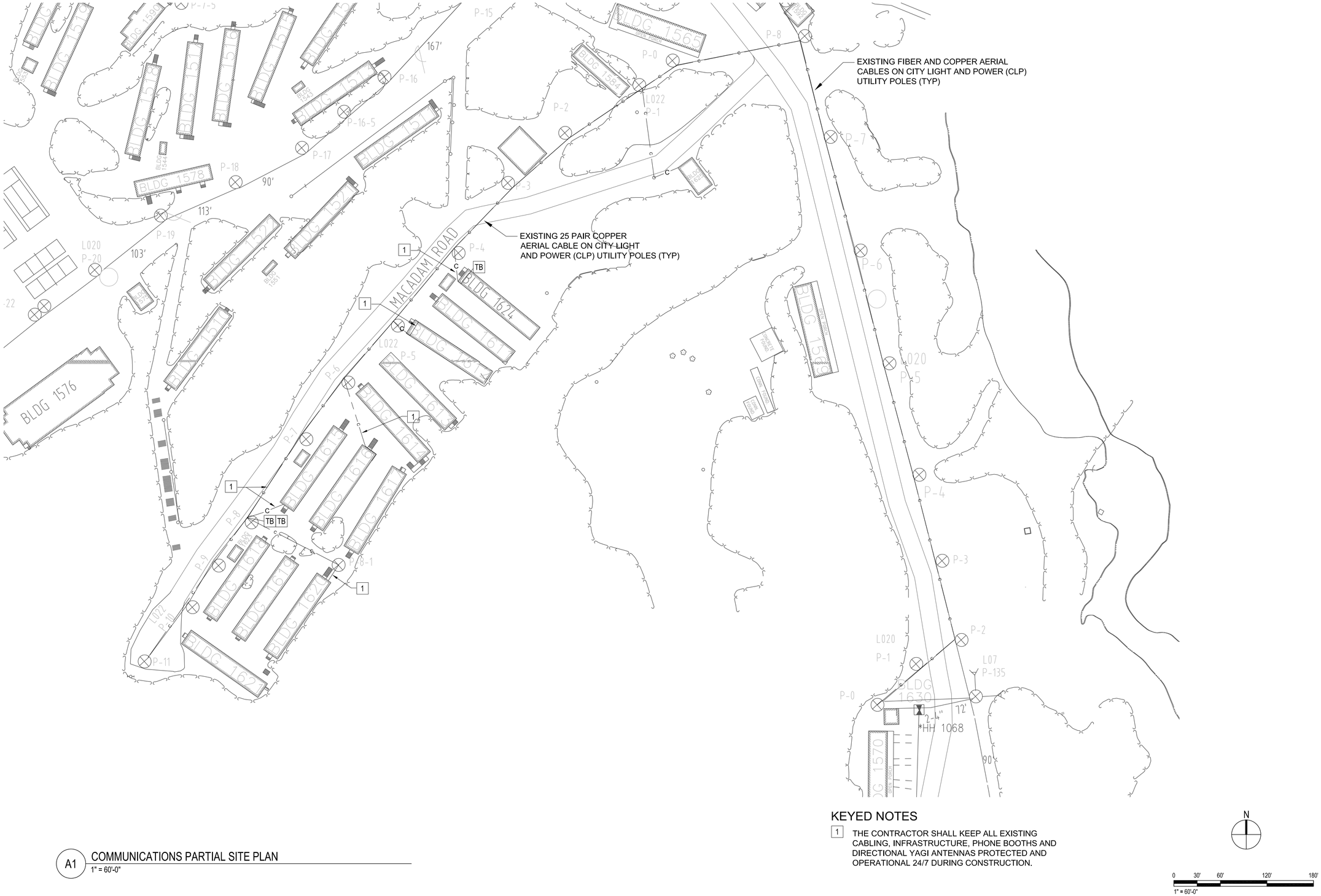
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

COMMUNICATIONS SYMBOLS, ABBREVIATIONS AND GENERAL NOTES

SHEET ID

T-001

RTA SUBMISSION



KEYED NOTES

1 THE CONTRACTOR SHALL KEEP ALL EXISTING CABLING, INFRASTRUCTURE, PHONE BOOTHS AND DIRECTIONAL YAGI ANTENNAS PROTECTED AND OPERATIONAL 24/7 DURING CONSTRUCTION.

A1 COMMUNICATIONS PARTIAL SITE PLAN
1" = 60'-0"

0 30' 60' 120' 180'
1" = 60'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: DECEMBER 15, 2020
SOLICITATION NO.: -
CONTRACT NO.: W912DS-19-0010

DESIGNED BY: JDH
DRAWN BY: CAT
CHECKED BY: SLH
SUBMITTED BY: BK
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS

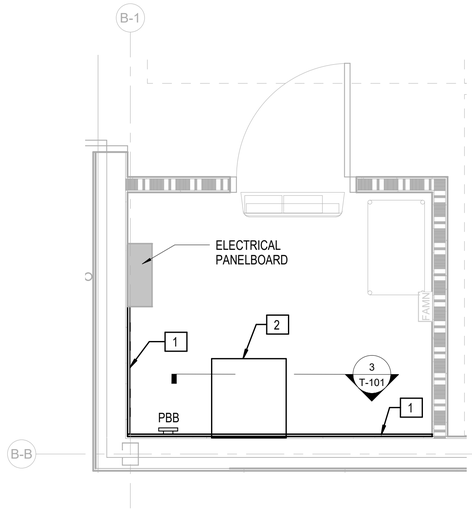
JACOBS / EWING COLE *A Joint Venture*

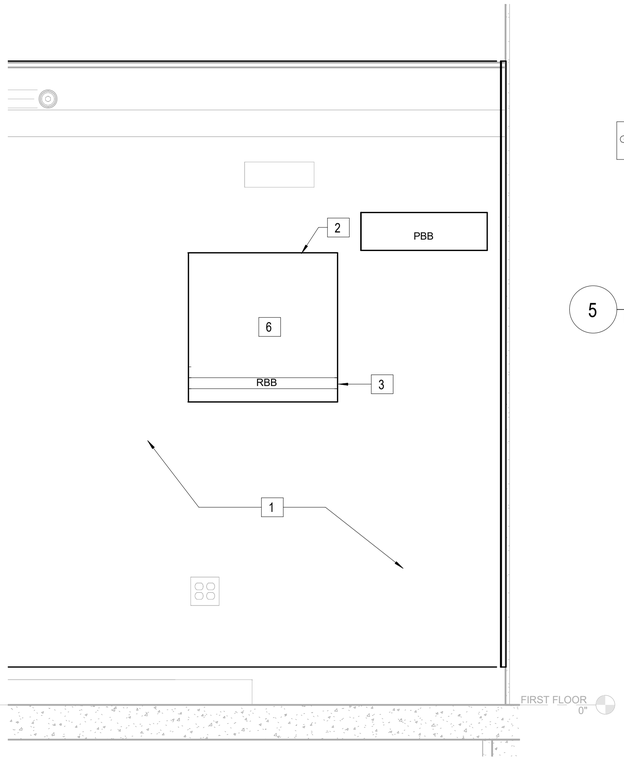
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

COMMUNICATIONS PARTIAL SITE PLAN

SHEET ID
TS101

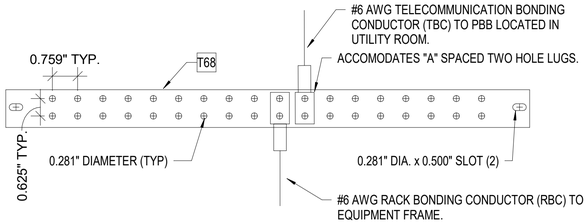
RTA SUBMISSION



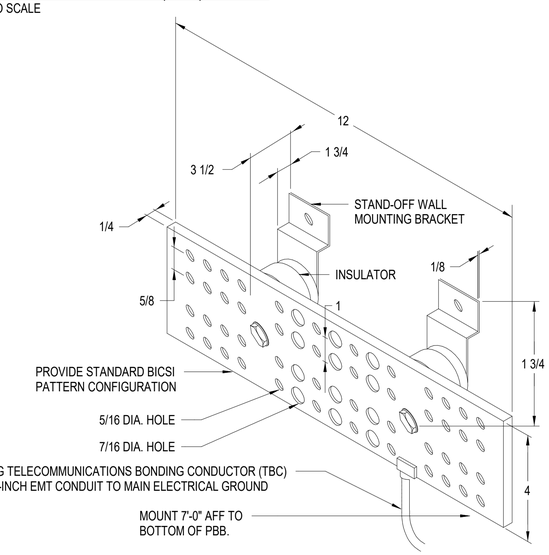


2 T-101 ENLARGED UTILITY ROOM PLAN
SCALE: 1/2" = 1'-0"
REF SHEET: T-101

3 T-101 WALL MOUNTED RACK ELEVATION
SCALE: 1" = 1'-0"
REF SHEET: T-101



5 RACK BONDING BUSBAR (RBB) DETAIL
NOT TO SCALE



4 PRIMARY BONDING BUSBAR (PBB) DETAIL
NOT TO SCALE

1 T-101 COMMUNICATIONS FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"

KEYED NOTES

1. PROVIDE MULTIPLE 48-INCH WIDE X 96-INCH HIGH X 3/4-INCH DEEP FIRE RATED PLYWOOD BACKBOARDS ON ENTIRE LENGTH OF THE WALL, MOUNTED 6-INCHES AFF TO BOTTOM OF PLYWOOD BACKBOARD (TYPICAL).
2. PROVIDE WALL MOUNT CABINET, 12 RU (23.62-IN H BY 23.62-IN W BY 25.09-IN DP), DOUBLE HINGE, LOCKABLE WINDOW DOOR, VERTICAL CABLE MANAGER, RU MARKED FROM BOTTOM TO TOP, VENTILATED SIDE PANELS, FAN KIT (4-IN WITH PLUG AND BLOCKING PLATES, 115 VAC, 100 CFM, LARGE). MOUNT 78-INCHES AFF TO TOP OF CABINET
3. (HOFFMAN CABINET #EWMW242425 OR APPROVED EQUAL).
4. PROVIDE RACK BONDING BUSBAR (RBB), HORIZONTAL, COPPER, 1/4"TH X 1 1/2"H X 19 1/4" LONG (38) 0.281" DIA HOLES, 0.75" IN-BETWEEN COLUMNS AND 0.625" IN-BETWEEN ROWS. ACCOMMODATES "A" SPACED TWO HOLE LUGS.
5. PROVIDE A PRIMARY BONDING BUSBAR (PBB). REFER TO GROUNDING AND BONDING DETAIL.
6. COMMUNICATIONS CONTRACTOR IS TO COORDINATE WITH THE ELECTRICAL CONTRACTOR IN REGARDS TO THE LOCATION OF THE ELECTRICAL QUAD RECEPTACLE INSIDE THE WALL MOUNT RACK.

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DESIGNED BY: JDH
DRAWN BY: TBM
CHECKED BY: SLH
SUBMITTED BY: SK
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ISSUE DATE: DECEMBER 15, 2020
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CONTRACT NO. W912DS-18-D-0010

US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

COMMUNICATIONS FLOOR PLANS AND ELEVATION

SHEET ID
T-101

RTA SUBMISSION

GENERAL NOTES

1. PBB'S SHALL MEET ANSI / TIA-607-D 6.2.1.
2. SBB'S SHALL MEET ANSI / TIA-607-D 6.2.2.
3. RBB'S SHALL MEET ANSI / TIA-607-D 6.2.3.
4. UNLESS NOTED OTHERWISE, SIZE TBB / BBC CONDUCTORS TO ANSI / TIA-607-D TABLE 1 THESE CONDUCTORS MUST BE THE SAME SIZE WHEN CONNECTED.
5. BONDING CONNECTIONS ARE EITHER LISTED EXOTHERMIC WELDS, LISTED IRREVERSIBLE COMPRESSION CONNECTORS, OR LISTED MECHANICAL CONNECTORS. CONNECTORS, LUGS, AND COMPONENTS SHALL BE LISTED FOR THE PURPOSE.

KEYED NOTES

A. IF PANELBOARD IS LOCATED IN SAME SPACE, BOND PBB TO ACEG BUS. MAINTAIN 12-INCHES SEPARATION.

B. THIS CONDUCTOR MUST BE CONTINUOUS AND AS SHORT AS POSSIBLE IN A STRAIGHT-LINE PATH.

C. CONNECTIONS TO THE PBB / SBB SHALL UTILIZE EXOTHERMIC WELDING OR LISTED TWO-HOLE COMPRESSION LUGS.

D. PBB OR SBB SHALL MEET REQUIREMENTS OF ANSI / TIA-607-D 6.2.1.

E. BUILDING STEEL (STRUCTURAL METAL) VERIFIED ELECTRONICALLY CONTINUOUS VIA TWO-POINT TEST OR EQUIPMENT.

F. LISTED BONDING CONNECTOR. LISTED EXOTHERMIC, COMPRESSION, OR MECHANICAL CONNECTION.

G. SIZE THIS BONDING CONDUCTOR TO TIA 607-D TABLE 1. THIS CONDUCTOR SHALL BE NO SMALLER THAN ANY OTHER CONDUCTOR IN THE TELECOM BONDING BACKBONE SYSTEM. USE #2/0 AWG UON.

H. MINIMUM GROUND ELECTRODE IS 3/4-INCH DIAMETER BY 8'-0" LONG BURIED 24-INCHES FOR A SUM OF 10'-0" DRIVEN DEPTH. ROD / ELECTRODE SHOULD HAVE A 1/2-INCH COPPER PLATING THICKNESS OR MWE.

I. TEBC SHALL BE SIZED TO LARGEST-SIZE GROUNDING CONDUCTOR. USE #2/0 AWG, UNLESS OTHERWISE NOTED.

J. USE IRREVERSIBLE COMPRESSION CONNECTORS TO BOND TEBC TO RBC'S OR OTHER GROUNDING CONDUCTORS.

K. USE #6 AWG AS A MINIMUM RBC SIZE, UNLESS OTHERWISE NOTED.

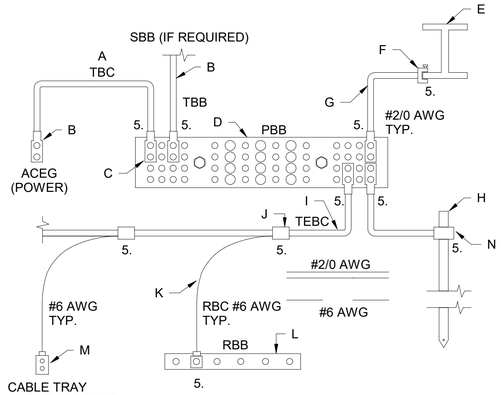
L. WHEN USING RBBS, USE LISTED RBBS SIZED TO ANSI / TIA-607-D 6.2.3.

M. BOND EQUIPMENT TO TEBC VIA IRREVERSIBLE COMPRESSION CONNECTORS AND #6 AWG.

N. BOND GROUND CABLE TO GROUND ELECTRODE.

O. STAND-OFF BRACKET TO MAINTAIN SEPARATION (MINIMUM 2-INCHES) FROM OTHER CABLE SPACE BRACKETS NO GREATER THAN 36-INCHES CENTER TO CENTER.

ANSI / TIA-607-D
BONDING AND GROUNDING ONE-LINE



B1 PBB BONDING DETAIL
SCALE: NOT TO SCALE

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

JACOBS / EWING COLE *A Joint Venture*

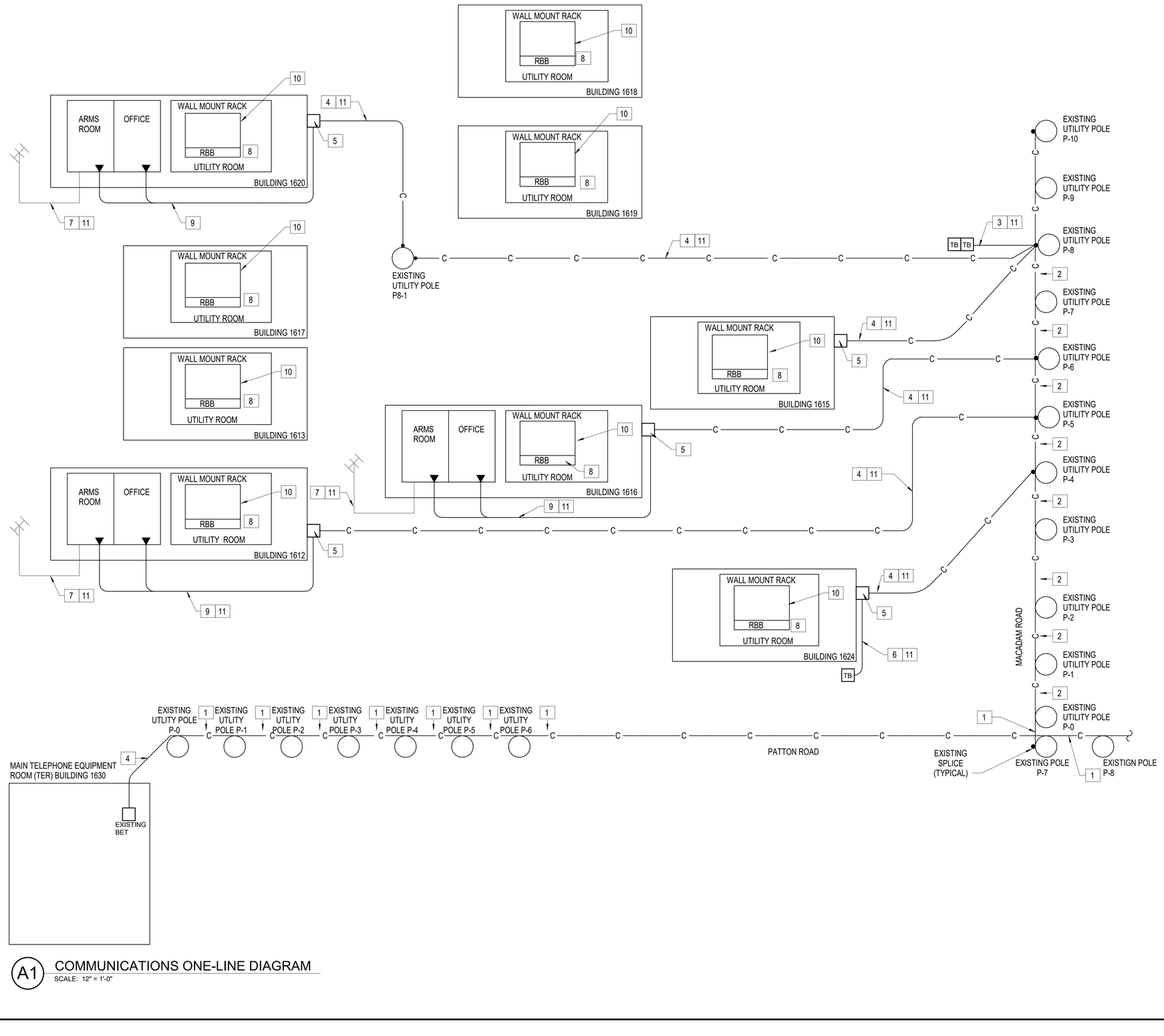
WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

PBB BONDING DETAIL

SHEET ID

T-501

RTA SUBMISSION



KEYED NOTES

1. EXISTING COPPER, FIBER AND WIRELESS COMPONENTS ARE EXISTING TO REMAIN.
2. EXISTING COPPER AND WIRELESS COMPONENTS ARE TO REMAIN.
3. EXISTING UNDERGROUND COPPER CABLE AND CONDUIT FROM THE TELEPHONE BOOTH, BACK TO SPLICE CASE ON THE UTILITY POLE TO REMAIN.
4. EXISTING OVERHEAD COPPER CABLE AND CONDUIT TO REMAIN.
5. EXISTING OUTDOOR/INDOOR WALL BOX TO REMAIN.
6. EXISTING COPPER CABLE FROM THE TELEPHONE BOOTH BACK TO SPLICE CASE ON UTILITY POLE TO REMAIN.
7. EXISTING COAX CABLE, CONDUIT AND ANTENNA, TO THE WEAPONS ROOM ARE TO REMAIN.
8. PROVIDE A 1U RACK BONDING BUSBAR (RBB).
9. EXISTING CABLING, CONDUIT AND OUTLETS TO REMAIN.
10. PROVIDE A 12U SWING OUT WALL MOUNT RACK, REFER TO DRAWING T-101 FOR DETAILED DESCRIPTION.
11. THE CONTRACTOR SHALL KEEP ALL EXISTING CABLING, INFRASTRUCTURE, TELEPHONE BOOTHS AND DIRECTIONAL YAGI ANTENNAS PROTECTED AND OPERATIONAL 24/7 DURING CONSTRUCTION.

A1 COMMUNICATIONS ONE-LINE DIAGRAM
SCALE: 12" = 1'-0"

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
JACOBS / EWING COLE A Joint Venture

WEST POINT, NY
REVITALIZATION OF CAMP BUCKNER

COMMUNICATIONS ONE-LINE DIAGRAM

SHEET ID
T-601

RTA SUBMISSION