1.6 ENVIRONMENTAL REQUIREMENTS

Perform construction when the atmospheric temperature is above 35 degrees F. When the temperature falls below 35 degrees F, protect all completed areas by approved methods against detrimental effects of freezing. Correct completed areas damaged by freezing, rainfall, or other weather conditions to meet specified requirements.

PART 2 PRODUCTS

2.1 AGGREGATES

Provide ABC per CDOT Section 703.04 for Class [*Am-2] 5 [**Am-2].

2.1.1 Gradation Requirements

Provide ABC gradation per CDOT Standards Section 703, table 703-2 Class 4 except that the max percentage retained on the #200 sieve shall be 8 percent.

2.2 LIQUID LIMIT AND PLASTICITY INDEX

Apply liquid limit and plasticity index requirements to the completed course and to any component that is blended to meet the required gradation. The portion of any component or of the completed course passing the No. 40 sieve must be either nonplastic or have a liquid limit not greater than 25 and a plasticity index not greater than 5.

2.3 TESTS, INSPECTIONS, AND VERIFICATIONS

2.3.1 Initial Tests

Perform one of each of the following tests, on the proposed material prior to commencing construction, to demonstrate that the proposed material meets all specified requirements when furnished. Complete this testing for each source if materials from more than one source are proposed.

a. Sieve Analysis.

b. Liquid limit and plasticity index.

c. Moisture-density relationship.

d. Wear.

Submit certified copies of test results for approval not less than 30 days before material is required for the work.

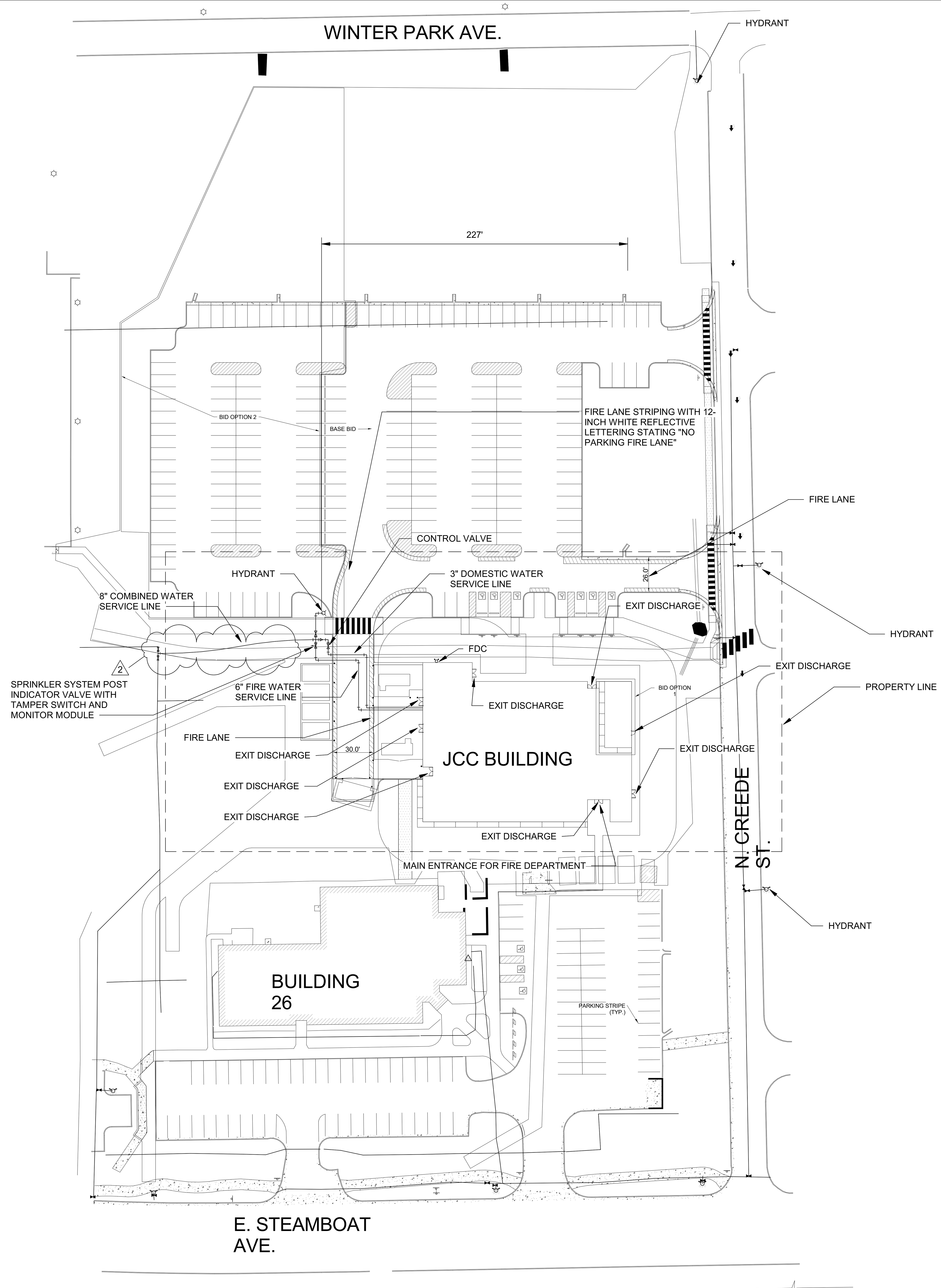
2.3.2 Approval of Material

Tentative approval of material will be based on initial test results.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

When the ABC is constructed in more than one layer, clean the previously constructed layer of loose and foreign matter by sweeping with power sweepers or power brooms, except that hand brooms may be used in areas



A1 LIFE SAFETY - CODE COMPLIANCE SITE PLAN
1" = 50'-0"

GRAPHIC SCALE(S)

50 25 0 50 100

SCALE: 1"=50'-0"

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

DESIGNED BY: J. BEALS
DRAWN BY: S. FLERI
CHECKED BY: M. CONNOLLY
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

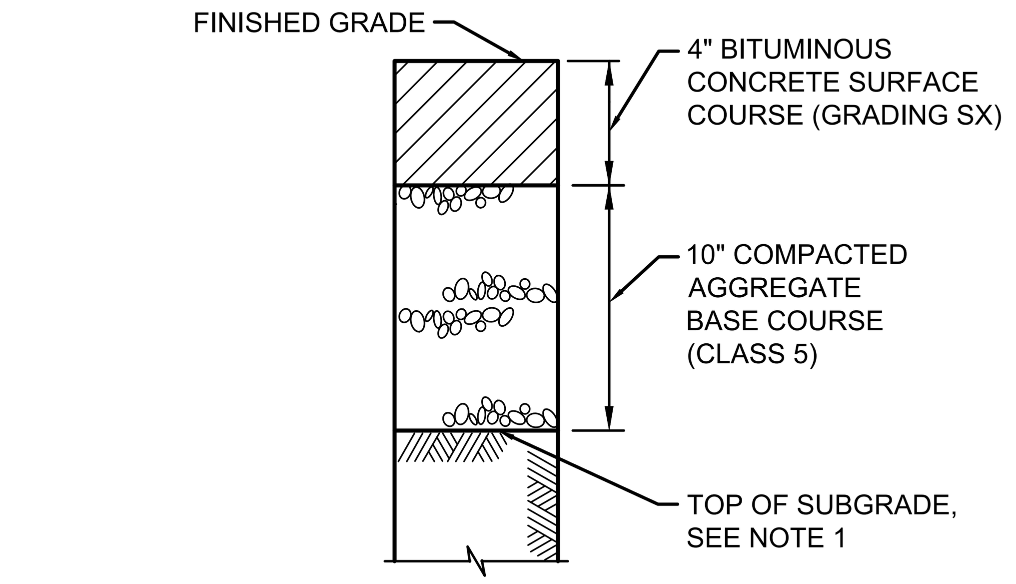
LIFE SAFETY - CODE COMPLIANCE SITE PLAN

SHEET ID
LS002

COMMONWEALTH OF VIRGINIA
JAMES ALBERT BEALS
Lic. No. 0402 26777
12/14/2022
PROFESSIONAL ENGINEER

AMENDMENT 0002

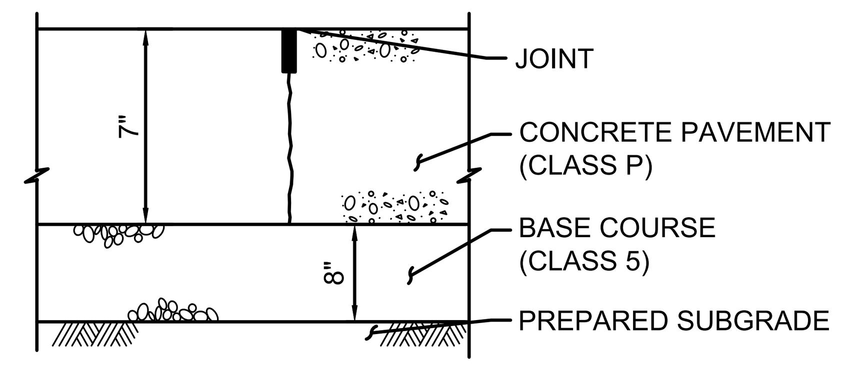
1 2 3 4 5



NOTES:
1. REMOVE TOP 6" OF SOIL/ORGANIC MATERIAL. SCARIFY 12" OF REMAINING SUBGRADE AND COMPACT PER PROJECT SPECIFICATIONS. PLACE AND COMPACT REQUIRED FILL PER PROJECT SPECIFICATIONS.
2. IF RACS ARE ENCOUNTERED DURING SUBGRADE PREPARATION, FOLLOW THE INSTRUCTIONS OF THE CABI FOR THE CONTAMINATED MATERIAL

D1 ASPHALT CONCRETE PAVEMENT
NTS

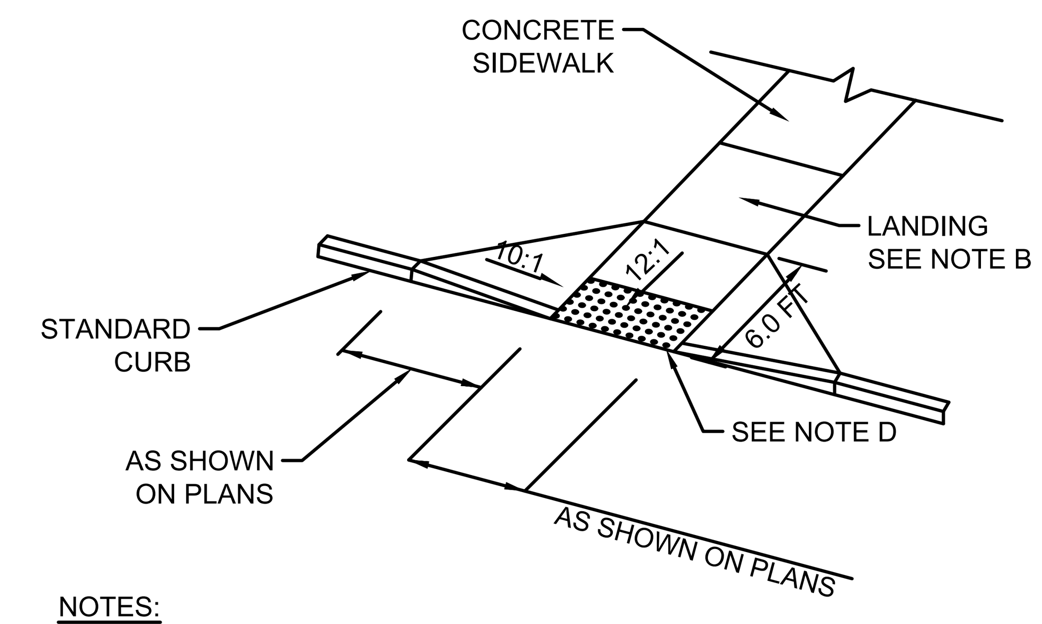
CS101
CS101A
CS102



NOTES:
A. TYP. CONCRETE JOINT SPACING: 15 FT x 15 FT MAX.
B. PROVIDE PORTLAND CEMENT CONCRETE PAVEMENT TYPE AS SPECIFIED.
C. MANHOLE & INLETS: ISOLATE USING EXPANSION JOINT MATERIAL. PLACE JOINTS TO MEET STRUCTURES, IF POSSIBLE. OTHERWISE ISOLATE STRUCTURE WITH DIAMOND SHAPED JOINT PATTERN.

D2 CONCRETE PAVEMENT
NTS

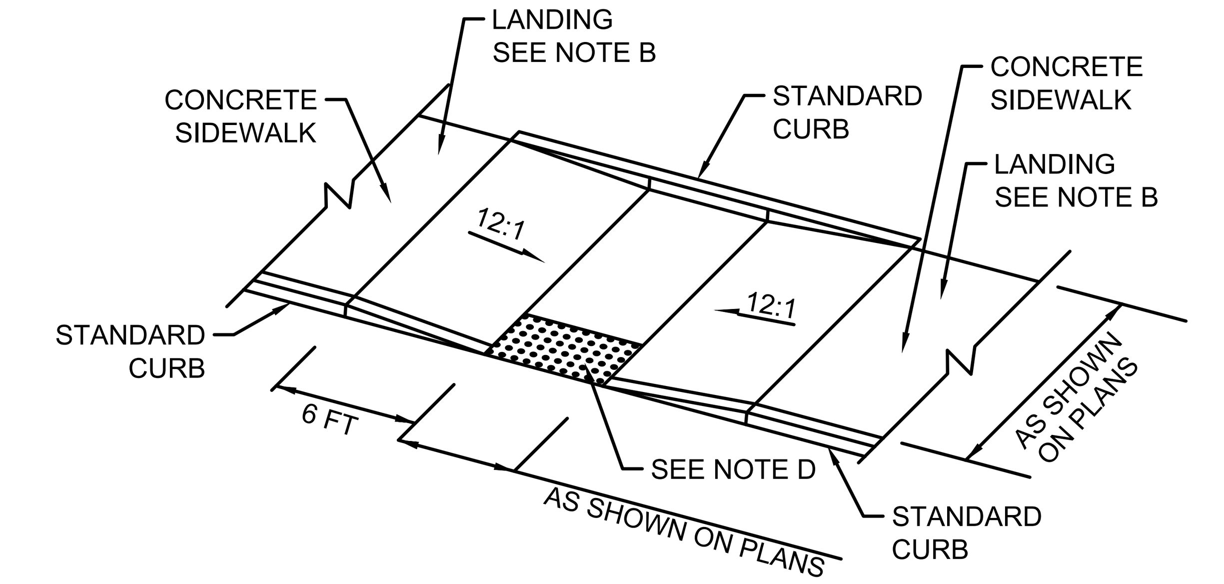
CS102



NOTES:
A. EXCEPTIONS TO THE REQUIREMENTS IN THIS DRAWING MUST BE APPROVED BY THE ENGINEER AND MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT" (ADA).
B. LANDINGS MUST BE PLACED AT THE TOP OF EACH RAMP. LANDING SLOPES MUST NOT EXCEED 50:1 IN ANY DIRECTION. THE SLOPE OF THE SURFACING AT THE BOTTOM OF THE RAMP MUST NOT EXCEED 20:1 FOR A DISTANCE OF 2 FT.
C. MINIMUM LANDING DIMENSIONS MUST BE 5 FT x 5 FT
D. PLACE TRUNCATED DOME DETECTABLE WARNING SURFACE IN THE LOWER 2 FT ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY UNLESS OTHERWISE SHOWN. SEE DETAIL A2/CS501

C3 ADA SIDEWALK ACCESS RAMP AT ROADWAY
NTS

CS101
CS101A



NOTES:
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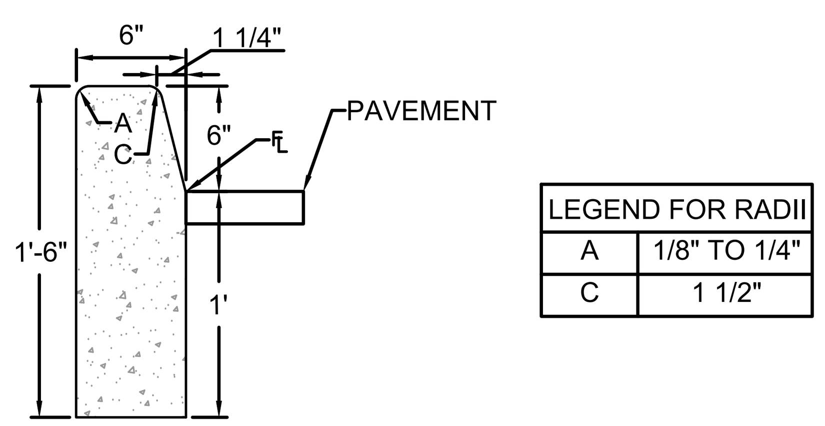
B. LANDINGS MUST BE PLACED AT THE TOP OF EACH RAMP. LANDING SLOPES MUST NOT EXCEED 50:1 IN ANY DIRECTION. THE SLOPE OF THE SURFACING AT THE BOTTOM OF THE RAMP MUST NOT EXCEED 20:1 FOR A DISTANCE OF 2 FT.
C. MINIMUM LANDING DIMENSIONS MUST BE 5 FT x 5 FT
D. PLACE TRUNCATED DOME DETECTABLE WARNING SURFACE IN THE LOWER 2 FT ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY UNLESS OTHERWISE SHOWN. SEE DETAIL A2/CS501

C4 ADA SIDEWALK ACCESS RAMP AT PARKING
NTS

CS101
CS101A
CS102



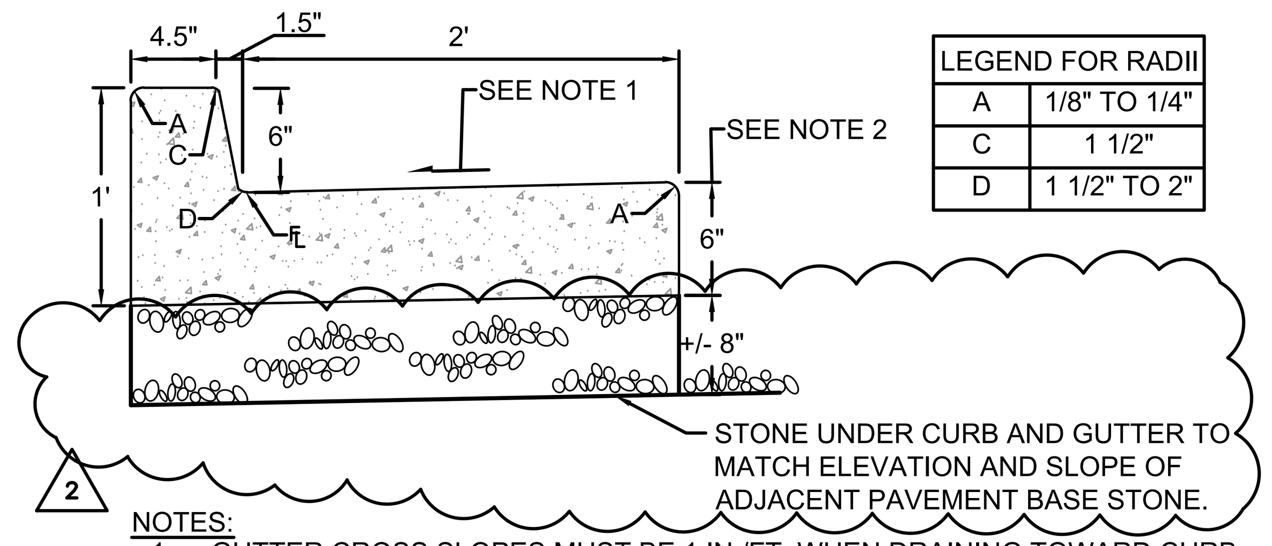
LEGEND FOR RADII	
A	1/8" TO 1/4"
C	1 1/2"

CDOT GENERAL NOTES:
1. CONCRETE MUST BE CLASS B.
2. PROFILE GRADE OF CURBS MUST BE LOCATED AT THE FLOW LINE.
3. THICKNESS OF CURB MUST MATCH PAVEMENT THICKNESS AS SHOWN ON PLANS. CURB MUST BE CLASS P CONCRETE IF PLACED MONOLITHICALLY WITH CONCRETE PAVEMENT.

GENERAL NOTES:
1. COMPRESSIVE STRENGTH OF CONCRETE MUST BE A MINIMUM OF 3,500 PSI.
2. EXPANSION JOINTS TO BE PLACED AT A MAXIMUM OF 20' BETWEEN JOINTS.

B1 CDOT CURB TYPE 2 (SECTION B)
NTS

CS101
CS101A
CS102



LEGEND FOR RADII	
A	1/8" TO 1/4"
C	1 1/2"
D	1 1/2" TO 2"

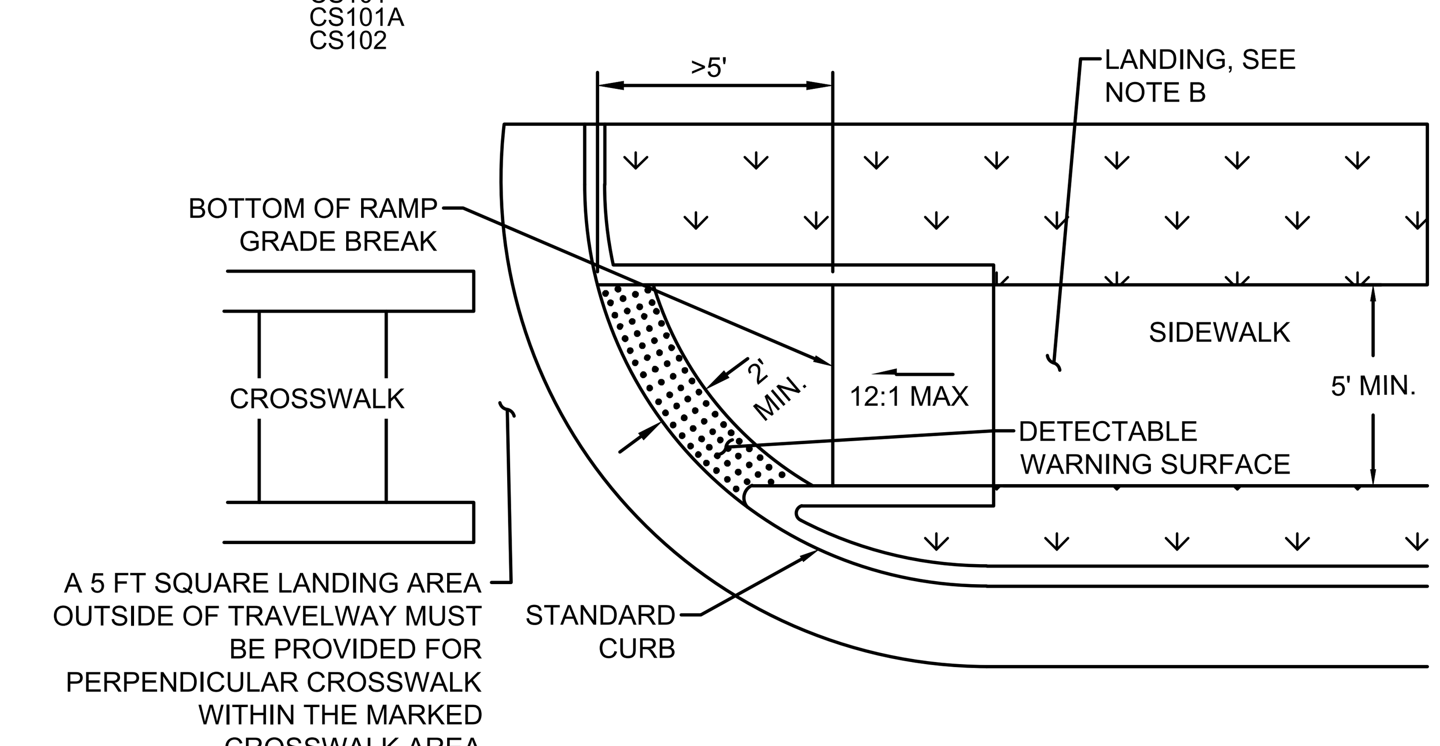
NOTES:
1. GUTTER CROSS SLOPES MUST BE 1 IN./FT. WHEN DRAINING TOWARD CURB (WITH EXCEPTION TO IMMEDIATELY ADJACENT CURB RAMPS).
2. WHEN TIE BARS ARE REQUIRED, THE GUTTER THICKNESS MUST BE INCREASED TO THE PAVEMENT THICKNESS (T). BARS MUST BE EPOXY-COATED #4 CONFORMING TO AASHTO M 284 AND SPACED AT 3 FT. INTERVALS. THEY MUST BE INSERTED T/2 AND 1#2 LENGTH INTO THE GUTTER.

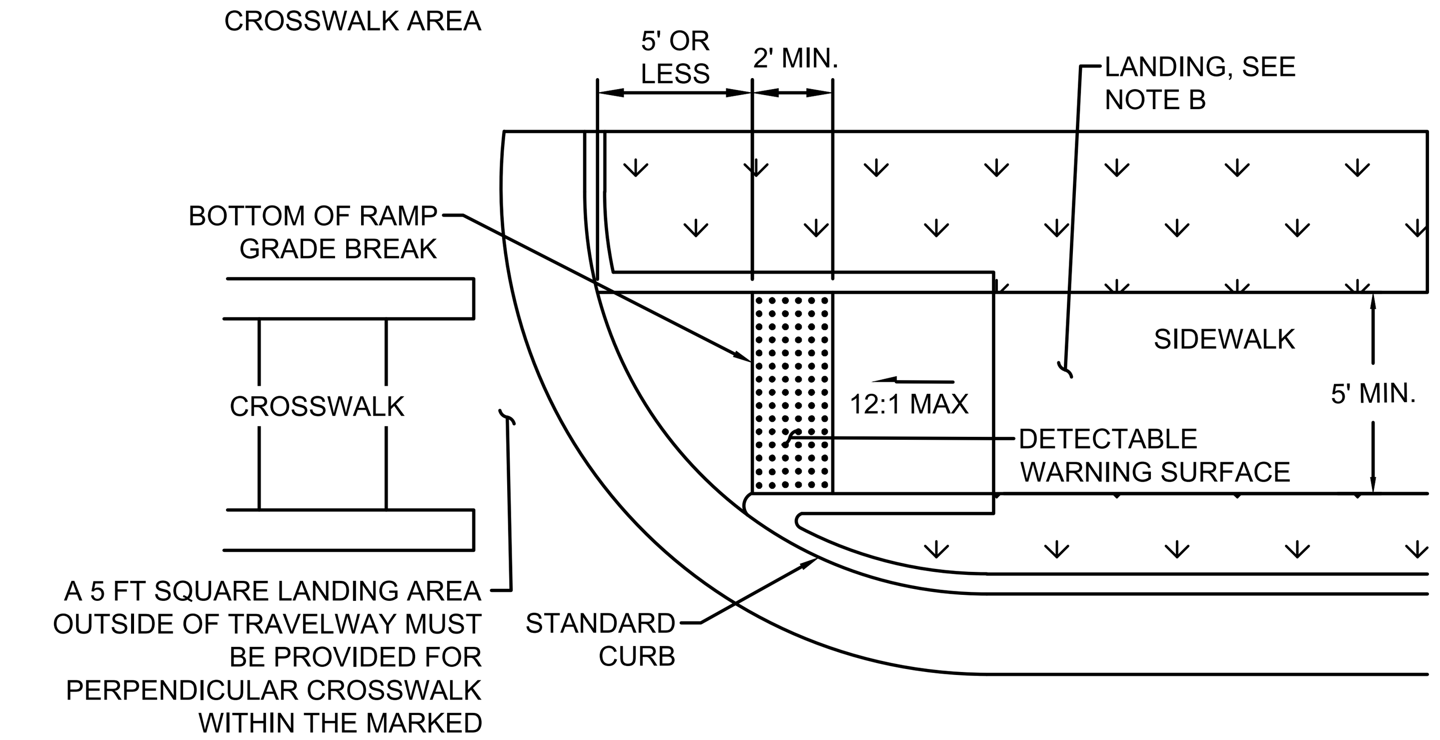
CDOT GENERAL NOTES:
1. CONCRETE MUST BE CLASS B.
2. PROFILE GRADE OF CURBS AND GUTTERS MUST BE LOCATED AT THE FLOW LINE.
3. GUTTER CROSS SLOPES MAY BE ADJUSTED TO FACILITATE DRAINAGE FOR PROFILE GRADGES AS SHOWN ON THE PLANS.
4. THICKNESS OF CURB AND GUTTER MUST MATCH PAVEMENT THICKNESS AS SHOWN ON PLANS. CURB AND GUTTER MUST BE CLASS P CONCRETE IF PLACED MONOLITHICALLY WITH CONCRETE PAVEMENT.

GENERAL NOTES:
1. COMPRESSIVE STRENGTH OF CONCRETE MUST BE A MINIMUM OF 3,500 PSI.
2. EXPANSION JOINTS TO BE PLACED AT A MAXIMUM OF 20' BETWEEN JOINTS.

B2 CDOT CURB AND GUTTER TYPE 2 (IIB)
NTS

CS101
CS101A
CS102

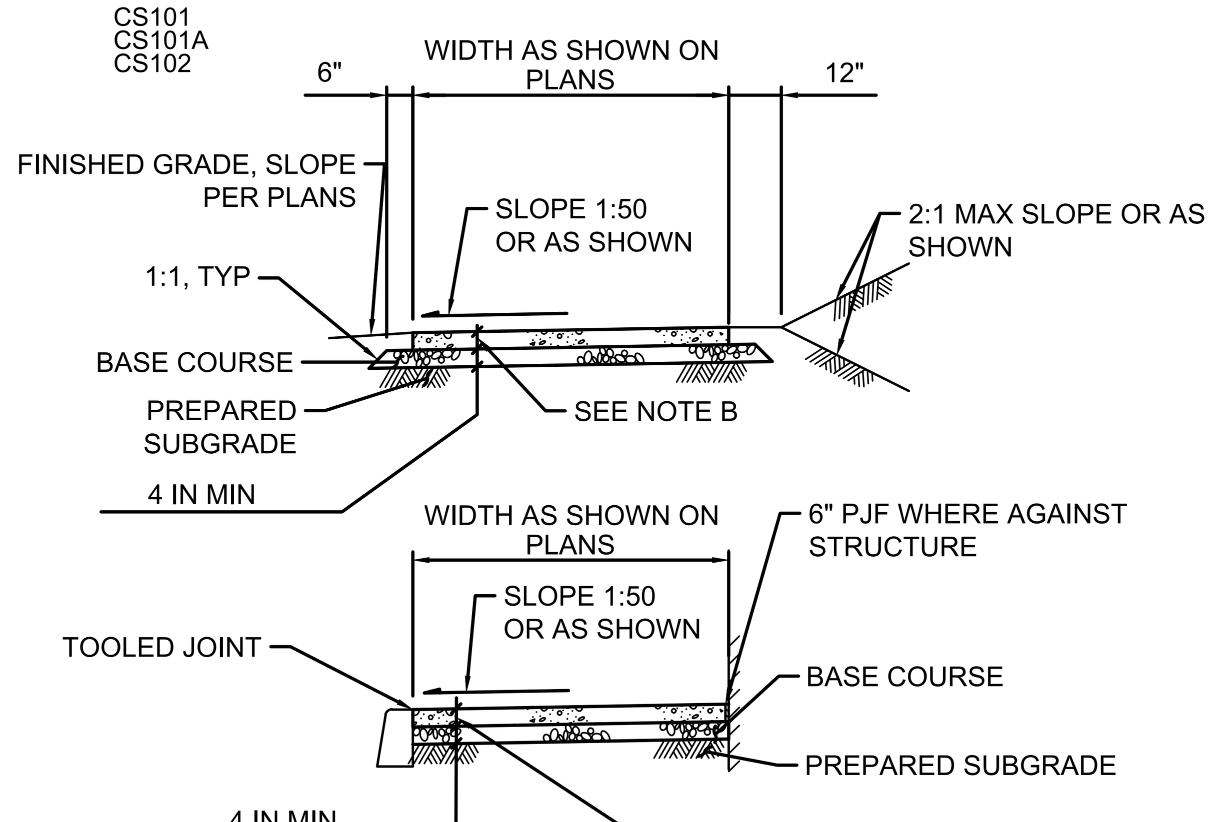




NOTES:
A. EXCEPTIONS TO THE REQUIREMENTS IN THIS DRAWING MUST BE APPROVED BY THE ENGINEER AND MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT" (ADA).
B. LANDINGS MUST BE PLACED AT THE TOP OF EACH RAMP. LANDING SLOPES MUST NOT EXCEED 50:1 IN ANY DIRECTION. THE SLOPE OF THE SURFACING AT THE BOTTOM OF THE RAMP MUST NOT EXCEED 20:1 FOR A DISTANCE OF 2 FT.
C. MINIMUM LANDING DIMENSIONS MUST BE 5 FT x 5 FT
D. PLACE TRUNCATED DOME DETECTABLE WARNING SURFACE IN THE LOWER 2 FT ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY UNLESS OTHERWISE SHOWN. SEE DETAIL A2/CS501

A4 ADA SIDEWALK DIRECTIONAL ACCESS RAMP
NTS

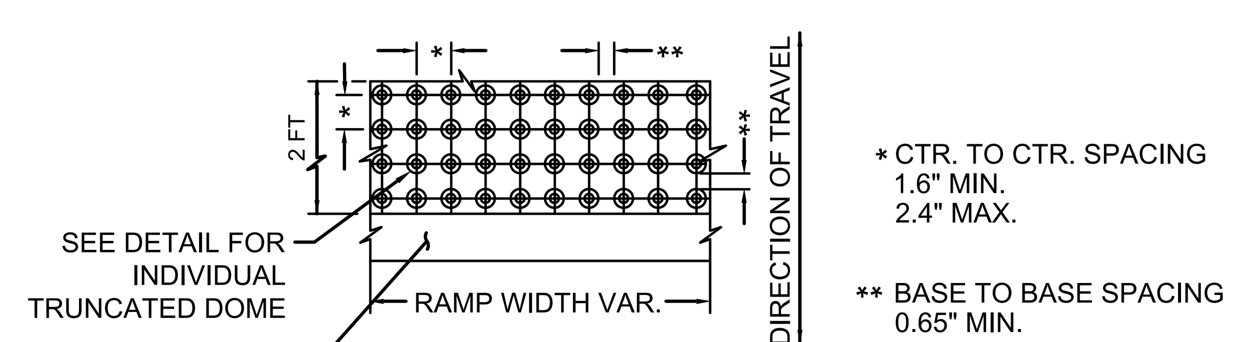
CS101
CS101A
CS102



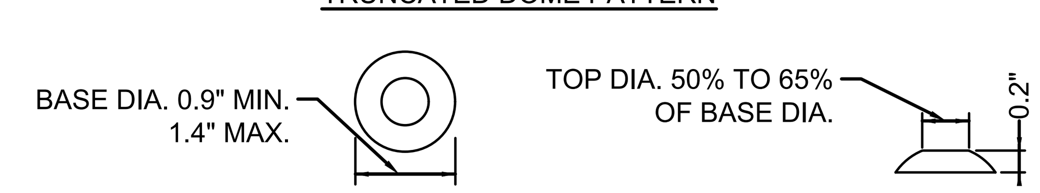
NOTES:
A. SIDEWALKS 8 FT AND WIDER MUST HAVE A LONGITUDINAL CONTRACTION JOINT AT THE MIDPOINT.
B. CONCRETE DEPTH FOR STANDARD SIDEWALKS MUST BE NOMINAL 4 IN MINIMUM.

A1 CONCRETE SIDEWALK
NTS

CS101
CS101A
CS102



TRUNCATED DOME PATTERN



TRUNCATED DOME DETAIL

NOTES:
1. TRUNCATED DOME DETECTABLE WARNING SURFACE DETAILS & LOCATIONS ARE BASED ON UNITED STATES ACCESS BOARD STANDARDS.
2. PLACE TRUNCATED DOME DETECTABLE WARNING SURFACE IN THE LOWER 2 FT ADJACENT TO TRAFFIC OF THROAT OF RAMP ONLY, UNLESS OTHERWISE SHOWN. ARRANGE DOMES USING SQUARE IN-LINE PATTERN ONLY. COLOR TO BE SAFETY YELLOW. ALL PRODUCTS ON AN INSTALLATION TO BE IDENTICAL.

A2 TRUNCATED DOME DETECTABLE WARNING SURFACE
NTS

CS101
CS101A
CS501

US Army Corps of Engineers ®

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FILE NUMBER:

DESIGNED BY: S. DAVIS
DRAWN BY: K. MAU
CHECKED BY: J. CARDENAS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

CIVIL - SITE DETAILS

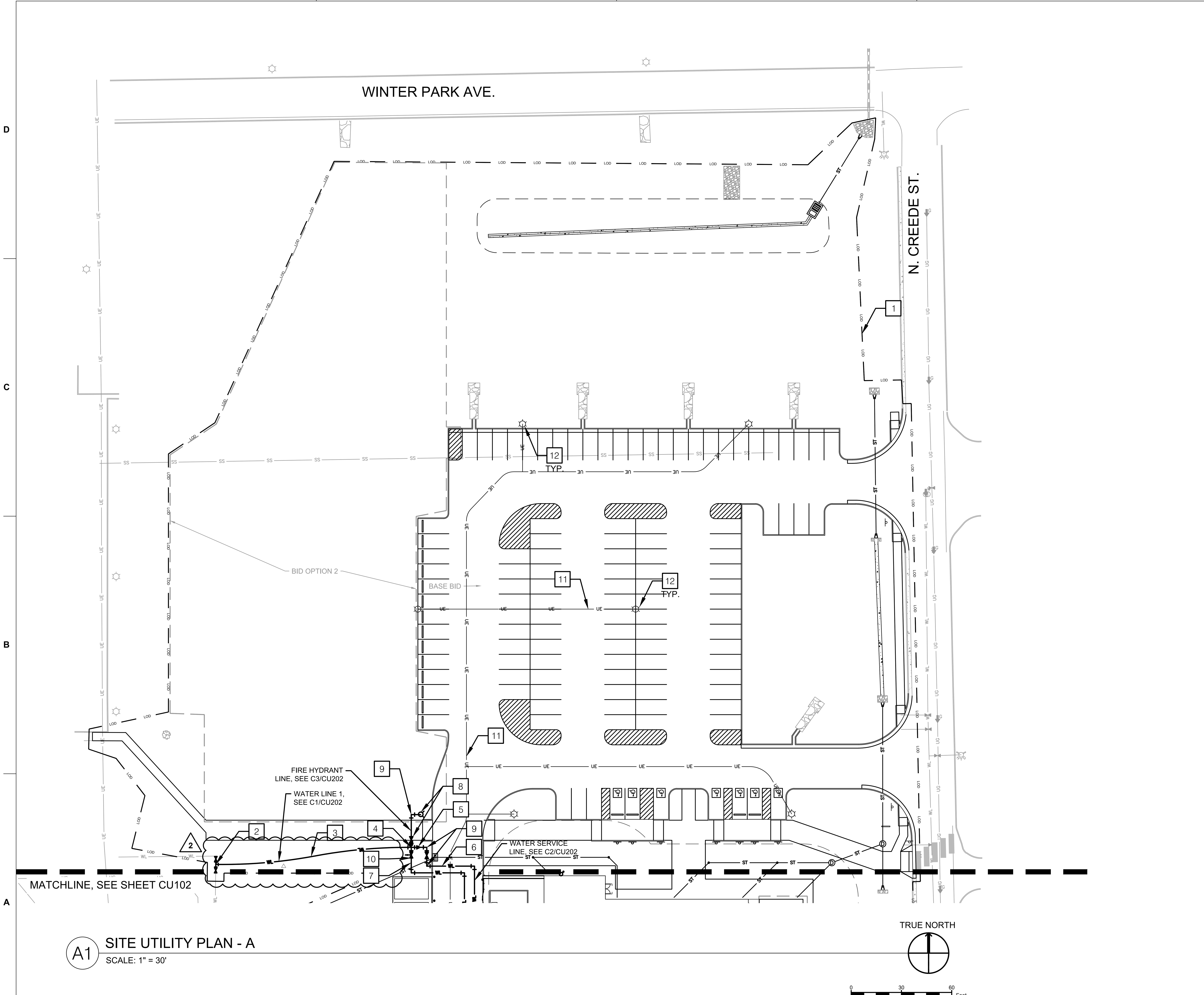
SHEET ID
CS501

A B C D

AMENDMENT 0002

1 2 3 4 5

D C B A



A1 SITE UTILITY PLAN - A

SCALE: 1" = 30'

GENERAL SHEET NOTES

A. SEE SHEET C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.

B. ALL EXISTING STRUCTURES TO BE ADJUSTED TO MEET FINISHED GRADE.

C. PIPE DIAMETERS SHOWN ARE INTERNAL DIAMETER.

D. SEE SHEETS CG101 AND CG102 FOR STORM PIPE SIZES.

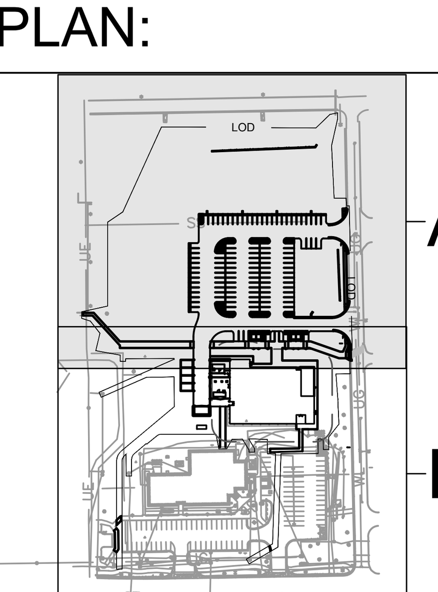
E. WATER LINEWORK WEST OF 90° BEND SHOWN IS DRAWN BASED ON AS-BUILT DOCUMENTS PROVIDED BY BUCKLEY SFB. NOTIFY COR IF SIZE OR LOCATION OF LINE VARIES FROM WHAT IS SHOWN.

F. BID OPTION 2 INDICATED BY THE GREY DASHED LINE.

SHEET KEYED NOTES:

1. LIMITS OF DISTURBANCE
2. CONNECT TO EXISTING 8 IN WATER LINE WITH CUT IN TEE AND TWO VALVES, SEE NOTE E
3. 8 IN COMBINED WATER SERVICE LINE, SEE A1/CU501
4. 8 IN X 6 IN CROSS
5. 8 IN X 3 IN REDUCER WITH 3 IN GATE VALVE
6. 3 IN DOMESTIC WATER SERVICE LINE, SEE A1/CU501 AND C4/CU501
7. 6 IN WATER FIRE SERVICE LINE, SEE A1/CU501 AND C4/CU501
8. FIRE HYDRANT WITH 6 IN SERVICE LINE AND 6 IN GATE VALVE, SEE A4/CU501
9. 90 DEGREE HORIZONTAL BEND
10. POST INDICATOR VALVE, SEE C2/CU501
11. ELECTRICAL CONDUIT, SEE ELECTRICAL PLANS FOR DETAILS
12. LIGHT POLE WITH BASE, SEE ELECTRICAL PLANS FOR DETAILS

KEYPLAN:



US Army Corps of Engineers ®

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SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

CIVIL - SITE UTILITY PLAN - A

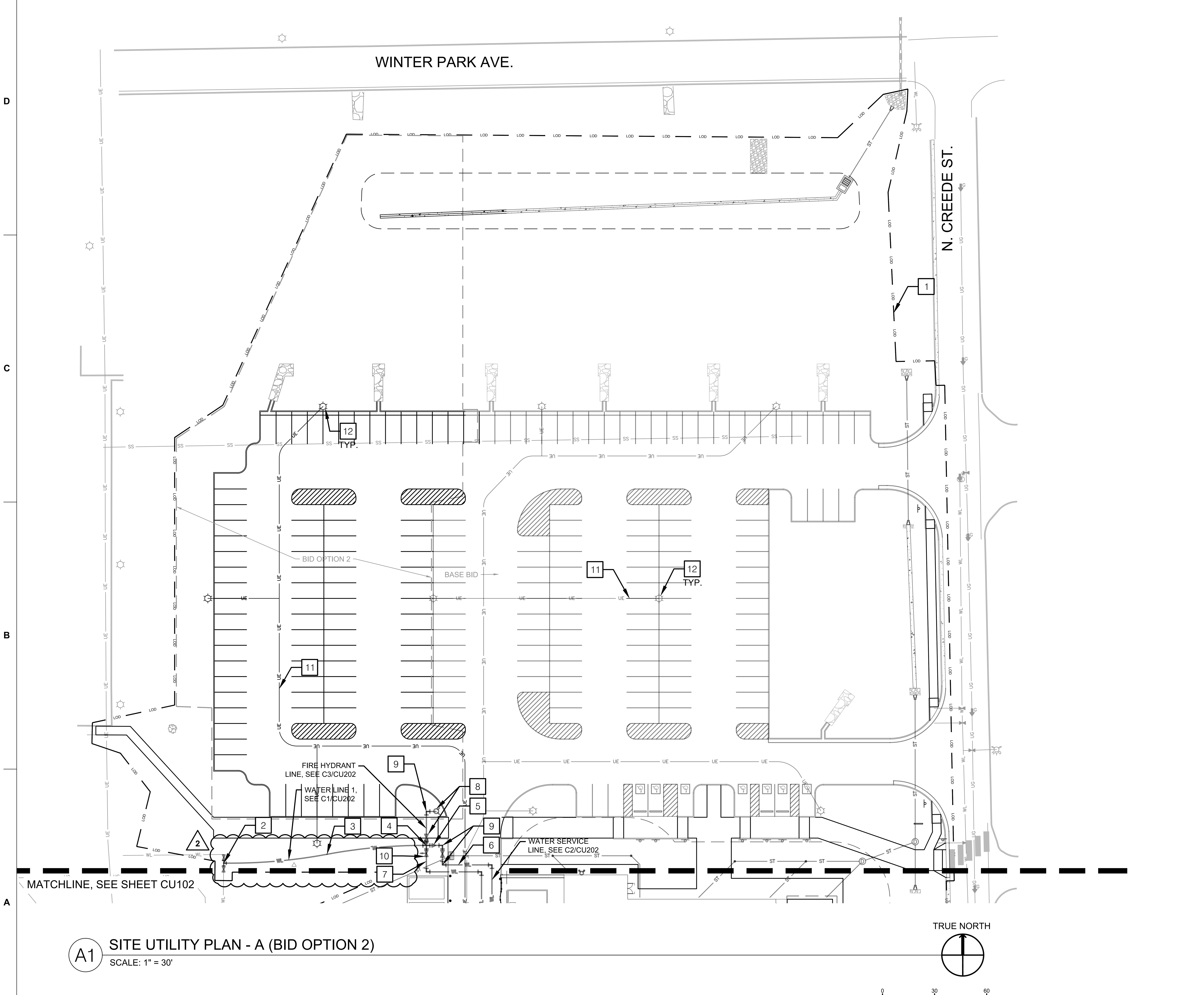
SHEET ID

CU101

AMENDMENT 0002

1 2 3 4 5

D C B A



A1 SITE UTILITY PLAN - A (BID OPTION 2)

SCALE: 1" = 30'

GENERAL SHEET NOTES

A. SEE SHEET C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.

B. ALL EXISTING STRUCTURES TO BE ADJUSTED TO MEET FINISHED GRADE.

C. PIPE DIAMETERS SHOWN ARE INTERNAL DIAMETER.

D. SEE SHEETS CG101A AND CG102 FOR STORM PIPE SIZES.

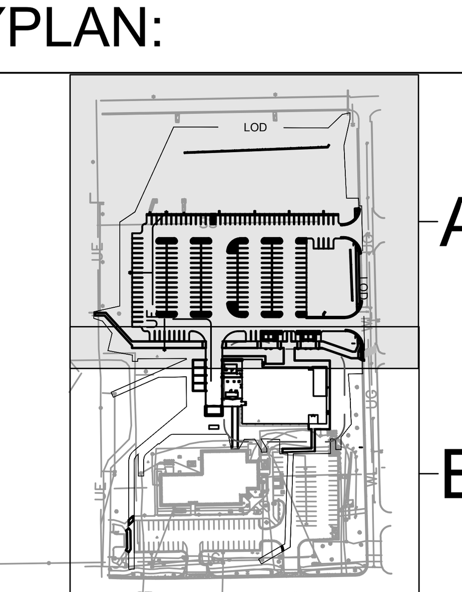
E. WATER LINEWORK WEST OF 90° BEND SHOWN IS DRAWN BASED ON AS-BUILT DOCUMENTS PROVIDED BY BUCKLEY SFB. NOTIFY COR IF SIZE OR LOCATION OF LINE VARIES FROM WHAT IS SHOWN.

F. BID OPTION 2 INDICATED BY THE GREY DASHED LINE.

SHEET KEYED NOTES:

1. LIMITS OF DISTURBANCE
2. CONNECT TO EXISTING 8 IN WATER LINE WITH CUT IN TEE AND TWO VALVES, SEE NOTE E
3. 8 IN COMBINED WATER SERVICE LINE, SEE A1/CU501
4. 8 IN X 6 IN CROSS
5. 8 IN X 3 IN REDUCER WITH 3 IN GATE VALVE
6. 3 IN DOMESTIC WATER SERVICE LINE, SEE A1/CU501 AND C4/CU501
7. 6 IN WATER FIRE SERVICE LINE, SEE A1/CU501 AND C4/CU501
8. FIRE HYDRANT WITH 6 IN SERVICE LINE AND 6 IN GATE VALVE, SEE A4/CU501
9. 90 DEGREE HORIZONTAL BEND
10. POST INDICATOR VALVE, SEE C2/CU501
11. ELECTRICAL CONDUIT, SEE ELECTRICAL PLANS FOR DETAILS
12. LIGHT POLE WITH BASE, SEE ELECTRICAL PLANS FOR DETAILS

KEYPLAN:



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US ARMY CORPS OF ENGINEERS
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Omaha, NE

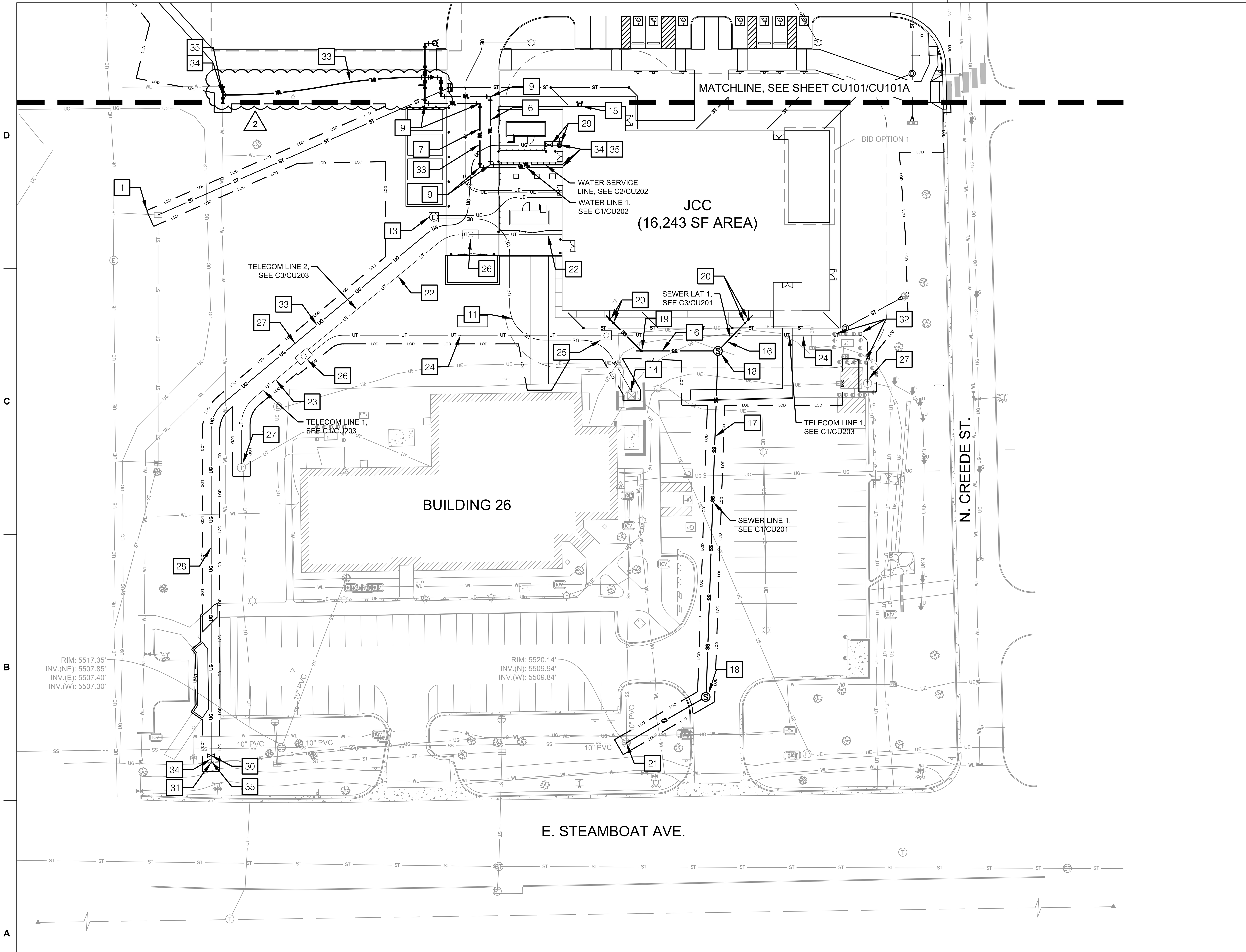
JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

CIVIL - SITE UTILITY PLAN - A (BID OPTION 2)

SHEET ID

CU101A



A1 SITE UTILITY PLAN - B

SCALE: 1" = 30'

GENERAL SHEET NOTES

A. SEE SHEET C-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.

B. ALL EXISTING STRUCTURES TO BE ADJUSTED TO MEET FINISHED GRADE.

C. PIPE DIAMETERS SHOWN ARE INTERNAL DIAMETER.

D. SEE SHEETS CG101 AND CG102 FOR STORM PIPE SIZES.

E. SEE PLUMBING PLANS FOR WATER SERVICE AND SEWER CONNECTIONS TO BUILDING.

F. SEE FIRE PROTECTION PLANS FOR WATER FIRE SERVICE LINE CONNECTION TO BUILDING.

G. BACKFLOW PREVENTOR AND WATER METER LOCATED INSIDE BUILDING, SEE PLUMBING PLANS FOR DETAILS.

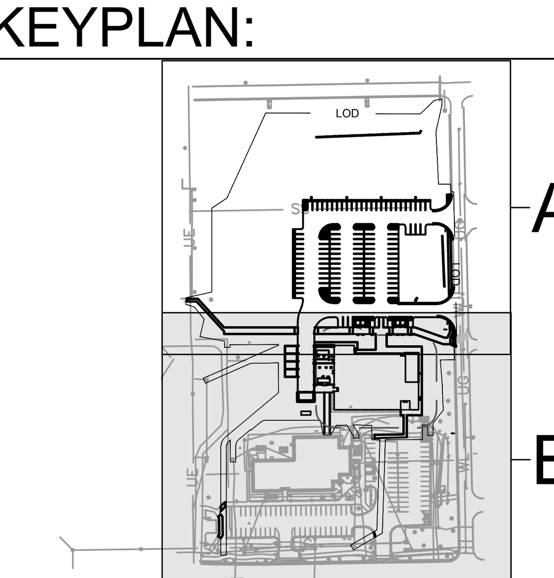
H. BID OPTION 1 INDICATED BY THE GREY DASHED LINE. SEE ARCHITECTURAL PLANS FOR DETAILS.

I. WATER FIRE SERVICE LINE MUST BE RESTRAINED FOR ENTIRE LENGTH.

SHEET KEYED NOTES:

1. LIMITS OF DISTURBANCE
2. NOT USED
3. NOT USED
4. NOT USED
5. NOT USED
6. 3 IN DOMESTIC WATER SERVICE LINE, SEE A1/CU501 AND C4/CU501
7. 6 IN WATER FIRE SERVICE LINE, SEE A1/CU501 AND C4/CU501
8. NOT USED
9. 90 DEGREE HORIZONTAL BEND
10. NOT USED
11. ELECTRICAL CONDUIT, SEE ELECTRICAL PLANS FOR DETAILS
12. NOT USED
13. ELECTRICAL TRANSFORMER, SEE ELECTRICAL PLANS
14. CONNECT TO EXISTING TRANSFORMER, SEE ELECTRICAL PLANS FOR DETAILS
15. FIRE DEPARTMENT CONNECTION, SEE FIRE PROTECTION PLANS
16. 4 IN PVC SANITARY SEWER LINE, SEE A1/CU501 AND C4/CU501
17. 8 IN PVC SANITARY SEWER LINE, SEE A1/CU501 AND C4/CU501
18. SANITARY SEWER MANHOLE, SEE C1/CU501
19. SANITARY SEWER CLEANOUT, SEE A2/CU501
20. DOUBLE SANITARY SEWER CLEANOUT, SEE C1/CU502
21. CONNECT TO EXISTING SANITARY SEWER MANHOLE, SEE B1/CU501
22. 6 - 4" TELECOM CONDUITS, SEE TELECOM PLANS FOR DETAILS
23. 4 - 4" TELECOM CONDUITS, SEE TELECOM PLANS FOR DETAILS
24. 2 - 4" TELECOM CONDUITS, SEE TELECOM PLANS FOR DETAILS
25. TELECOM HANDHOLE, SEE TELECOM PLANS FOR DETAILS
26. TELECOM MANHOLE, SEE TELECOM PLANS FOR DETAILS
27. CONNECT TO EXISTING TELECOM HANDHOLE, SEE TELECOM PLANS FOR ADDITIONAL INFORMATION AND DETAILS
28. 2.5" GAS LINE, SEE PLUMBING PLANS A1/P-110
29. GAS METER AND VALVE, SEE PLUMBING PLANS A1/P-110
30. GAS SHUTOFF VALVE
31. CONNECT TO EXISTING GAS LINE
32. REMOVE AND REPLACE BOLLARDS, TYP.
33. CATHODIC PROTECTION ZINC ANODE TEST STATION INSTALLATION, SEE B1/CU502
34. INSTALL DIELECTRIC INSULATING FLANGE, SEE C3/CU502
35. INSTALL ISOLATION TEST STATION, SEE A1/CU502

KEYPLAN:



US Army Corps of Engineers ®

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JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

CIVIL - SITE UTILITY PLAN - B

SHEET ID

CU102

AMENDMENT 0002

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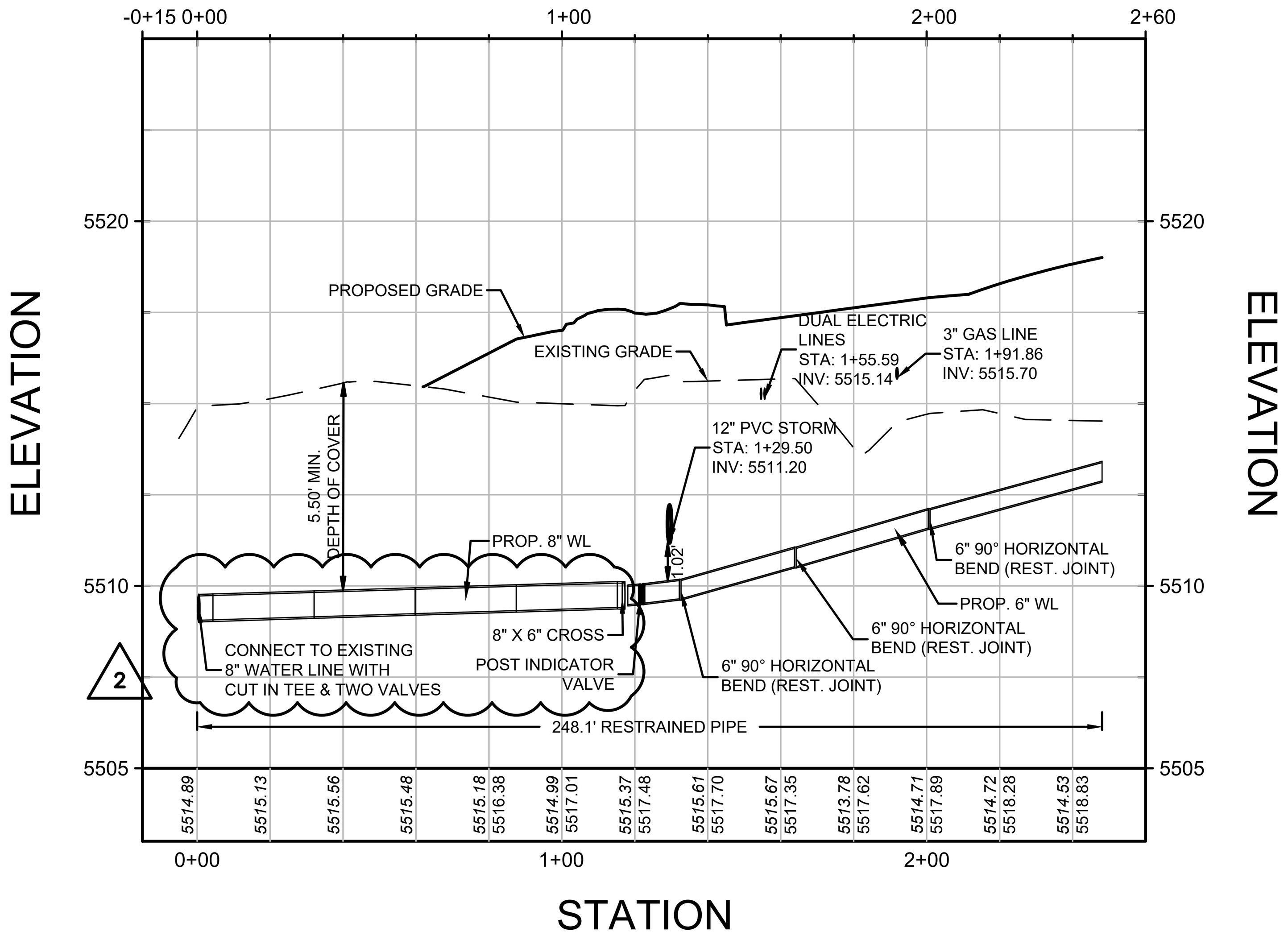
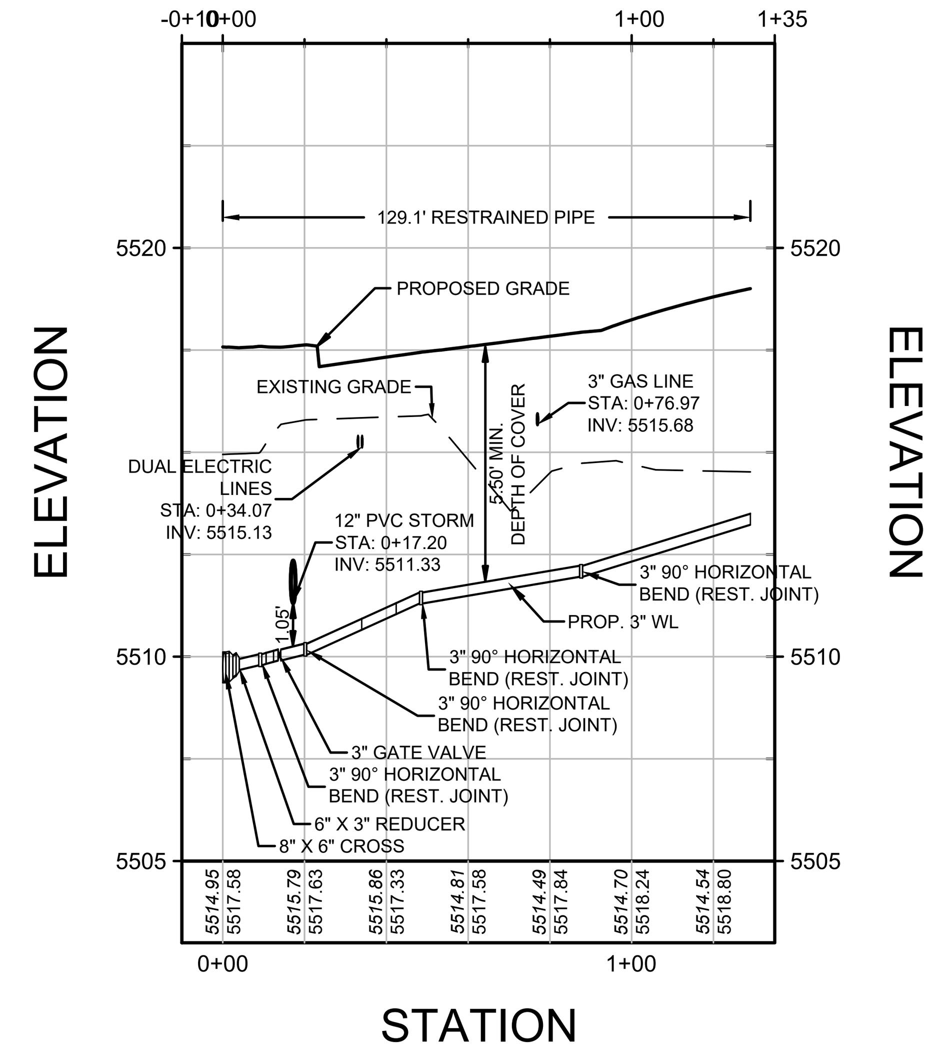


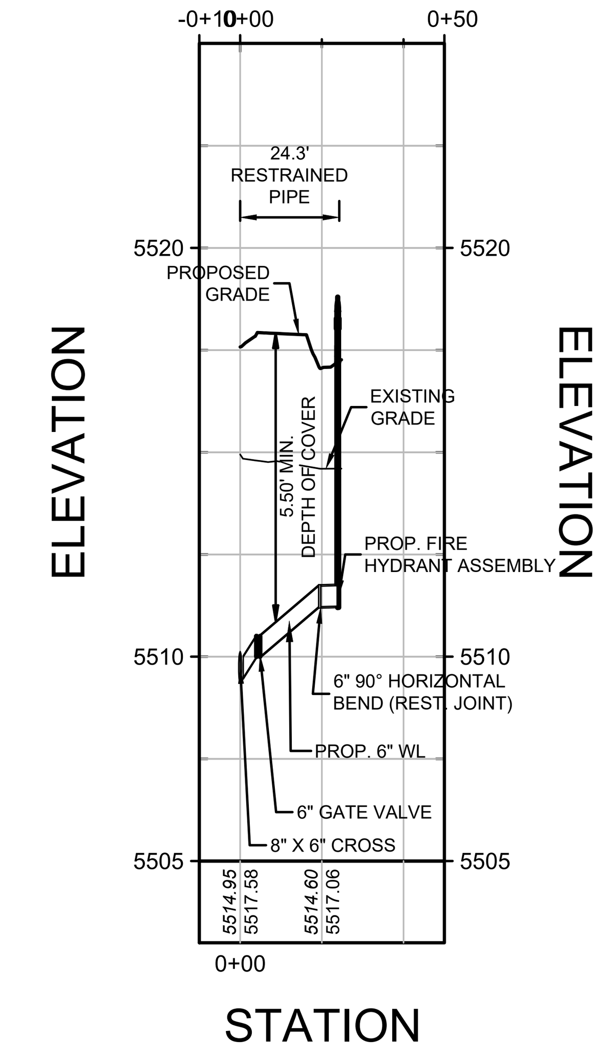
NOTE: FULLY RESTRAIN ALL WATERLINE PIPING

C1 WATER LINE 1 PROFILE
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



NOTE: FULLY RESTRAIN ALL WATERLINE PIPING

C2 WATER SERVICE LINE PROFILE
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



NOTE: FULLY RESTRAIN ALL WATERLINE PIPING

C3 FIRE HYDRANT LINE PROFILE
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'

D C B A

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SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

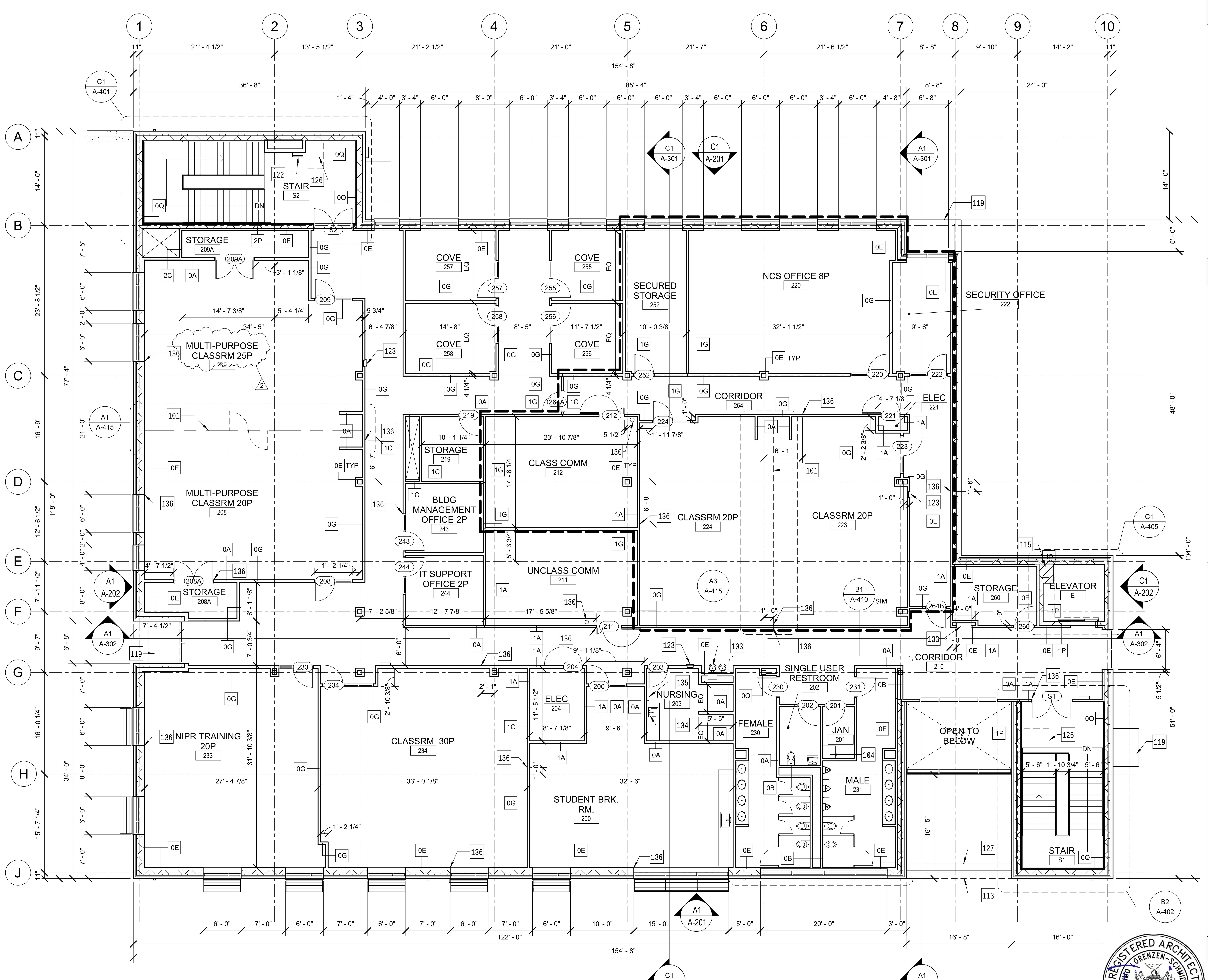
CIVIL - WATER PROFILES

0 40 80 Feet
H: 1" = 40'

0 4 8 Feet
V: 1" = 4'

SHEET ID
CU202

AMENDMENT 0002



A1 SECOND FLOOR PLAN
1/8" = 1'-0"

GENERAL SHEET NOTES

1. INTERIOR'S PARTITIONS ARE TYPE 0A PARTITIONS UON
2. PROVIDE BLOCKING FOR WALL MOUNTED ITEMS
3. EXTERIOR WALL ASSEMBLIES ARE WS-1 UON. REFER TO SHEET A-320 FOR EXTERIOR WALL ASSEMBLY TYPES

KEYNOTES

#	
101	FOLDABLE PANEL PARTITION. OPF-1
103	DRINKING FOUNTAIN WITH BOTTLE FILLER, REFER TO PLUMBING
104	MOP SINK, REFER TO PLUMBING
113	CANOPY ABOVE
115	HOIST WAY ENTRAPMENT PROTECTION SPACE
119	CANOPY BELOW
122	OSHA COMPLIANT ROOF ACCESS WALL MOUNTED LADDER
123	SEMI-RECESSED FIRE EXTINGUISHER CABINET WITH DRY CHEMICAL EXTINGUISHER, REFER TO FIRE PROTECTION DRAWINGS
126	AREA OF REFUGE, REFER TO LIFE SAFETY AND FIRE PROTECTION
127	AIRFOIL BLADE SUN SHADING SYSTEM
130	WALL MOUNTED CO2 FE
133	CELL PHONE STORAGE LOCKER, RECESSED
134	AT-8, REFER TO TOILET ACCESSORY SCHEDULE ON A-410
135	AT-10, REFER TO TOILET ACCESSORY SCHEDULE ON A-410
136	GWB CONTROL JOINT

LEGEND

SECURE AREA

GRAPHIC SCALE(S)

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

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

DESIGNED BY: G. GAN
DRAWN BY: T. LORENZEN-SCHMIDT
CHECKED BY: W. STEVENS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:
ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ARCHITECTURAL - SECOND FLOOR PLAN

SHEET ID
A-120

REGISTERED ARCHITECT
TINO LORENZEN-SCHMIDT
037414
STATE OF NEW YORK

AMENDMENT 0002

A1 SECOND FLOOR REFLECTED CEILING PLAN

1/8" = 1'-0"

GENERAL SHEET NOTES

1. CEILING HEIGHTS TO BE 10'-0" TYPICAL UON
2. ALL CEILING GRIDS SHALL BE CENTERED ON ROOM/ SPACE UON
3. ALL FIXTURES, DIFFUSER, GRILLS, SPRINKLER HEADS, SPEAKERS OR OTHER DEVICES SHALL BE LOCATED IN THE CENTER OF A CEILING TILE OR CENTER OF A PANEL INSCRIBED ON A TILE, UON
4. ACCESS PANELS ARE TO BE PROVIDED AS NEEDED IN ALL INACCESSIBLE CEILINGS.
5. PROVIDE SUPPLEMENTAL STEEL TO SUPPORT CEILINGS AND CEILING MOUNTED DEVICES. DO NOT SUPPORT FROM ROOF METAL DECK.

KEYNOTES

#	
101	FOLDABLE PANEL PARTITION. OPF-1
117	30"X37" MIN. OSHA COMPLIANT ROOF HATCH W/ GUARDRAIL AND SWING GATE
136	GWB CONTROL JOINT

LEGEND

- 2' x 2' ACOUSTICAL CEILING PANELS
- GWB CEILING
- SMOKE DETECTOR (REFER TO FA DWGS)
- EXIT SIGN LOCATION (REFER TO FA DWGS)
- RECESSED CAN LIGHTING FIXTURE
- PENDANT
- 2' x 2' DOWNLIGHT
- 2' x 4' DOWNLIGHT
- 2' x 4' DOWNLIGHT
- EMERGENCY LIGHTING FIXTURE, REFER TO ELECTRICAL
- 6'-0" PROJECTION SCREEN
- DIFFUSER
- RETURN
- CEILING ACCESS HATCH
- LINEAR/STRIP LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- 1'-0" A.F.F. CEILING HEIGHT, ABOVE FINISH FLOOR

GRAPHIC SCALE(S)

8 4 0 8 16

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

PLAN NORTH

US Army Corps of Engineers ®

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2	REVISED I.A.W. AMENDMENT 0002	JAN 23

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DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ARCHITECTURAL - SECOND FLOOR REFLECTED CEILING PLAN

SHEET ID

A-151

REGISTERED ARCHITECT
TIMO LORENZEN-SCHMIDT
STATE OF NEW YORK

AMENDMENT 0002

1 2 3 4 5

SECOND FLOOR DOOR SCHEDULE

DOOR NO.	ROOM	TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR FINISH	FIRE RATING	STC RATING	FRAMES TYPE	FRAMES MATERIAL	FRAMES FINISH	FRAMES DETAILS HEAD	FRAMES DETAILS JAMB	FRAMES DETAILS SILL	HARDWARE SET	COMMENTS:
101		F	3' - 1"	3' - 1"													
SECOND FLOOR																	
200	STUDENT BRK. RM.	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1			F2	AL	PT-14	H3	J3	T1	413	
201	JAN	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	812	
202	SINGLE USER RESTROOM	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	113	SOUND SEALS
203	NURSING	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	814	SOUND SEALS, CARD READER, MAGNETIC SWITCH
204	ELEC	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1	45 MINUTES		F1	HM	PT-15	H1	J1	T1	316	180 DEG SWING, SOUND SEALS, CARD READER, MAGNETIC SWITCH
208	MULTI-PURPOSE CLASSRM 20P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	431	EXIT DEVICE
208A	STORAGE	FF	6' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	820	
209	MULTI-PURPOSE CLASSRM 25P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	431	EXIT DEVICE
209A	STORAGE	FF	6' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	820	
211	UNCLASS COMM	U	4' - 0"	7' - 0"	1 3/4"	HM	WD-1	45 MINUTES		F1	HM	PT-15	H1	J1	T1	825	180 DEG SWING, SOUND SEALS, CARD READER, MAGNETIC SWITCH
212	CLASS COMM	U	4' - 0"	7' - 0"	1 3/4"	HM	WD-1	45 MINUTES		F1	HM	PT-15	H1	J1	T1	825	180 DEG SWING, SOUND DEALS, CARD READER, MAGNETIC SWITCH
219	STORAGE	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	810	
220	NCS OFFICE 8P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	414	SOUND SEALS, CARD READER, MAGNETIC SWITCH
221	ELEC	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1	45 MINUTES		F1	HM	PT-15	H1	J1	T1	811	180 DEG SWING
222	SECURITY OFFICE	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	410	SOUND SEALS
223	CLASSRM 20P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	431	180 DEG SWING, SOUND SEALS, DOOR, EXIT DEVICE
224	CLASSRM 20P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	431	180 DEG SWING, SOUND SEALS, DOOR, EXIT DEVICE
230	FEMALE	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	210	
231	MALE	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1			F1	HM	PT-15	H1	J1	T1	210	
233	NIPR TRAINING 20P	FG	3' - 0 3/4"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F4	AL	PT-14	H3	J3	T1	416	SOUND SEALS
234	CLASSRM 30P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F3	AL	PT-14	H3	J3	T1	416	SOUND SEALS
243	BLDG MANAGEMENT OFFICE 2P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1			F2	AL	PT-14	H3	J3	T1	412	
244	IT SUPPORT OFFICE 2P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1			F2	AL	PT-14	H3	J3	T1	412	
252	SECURED STORAGE	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1	45 MINUTES	STC 30	F1	HM	PT-15	H1	J1	T1	815	CARD READER, MAGNETIC SWITCH
255	COVE	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	411	SOUND SEALS
256	COVE	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	411	SOUND SEALS
257	COVE	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	411	SOUND SEALS
258	COVE	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	411	SOUND SEALS
260	STORAGE	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1	45 MINUTES		F1	HM	PT-15	H1	J1	T1	811	
264A	CORRIDOR	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1		STC 50	F1	HM	PT-15	H1	J1	T1	910	SPIN DIAL LOCK, CARD READER, MAGNETIC SWITCH
264B	CORRIDOR	F	3' - 0"	7' - 0"	1 3/4"	HM	WD-1		STC 50	F1	HM	PT-15	H1	J1	T1	910	SPIN DIAL LOCK, CARD READER, MAGNETIC SWITCH
S1	STAIR	FF	6' - 0"	7' - 0"	1 3/4"	HM	WD-1	60 MINUTES		F1	HM	PT-15	H1	J1	T1	320	EGRESS
S2	STAIR	FF	6' - 0"	7' - 0"	1 3/4"	HM	WD-1	60 MINUTES		F1	HM	PT-15	H1	J1	T1	320	EGRESS

2

SECOND FLOOR DOOR SCHEDULE - BID OPTION 1

DOOR NO.	ROOM	TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR FINISH	FIRE RATING	STC RATING	FRAMES TYPE	FRAMES MATERIAL	FRAMES FINISH	FRAMES DETAILS HEAD	FRAMES DETAILS JAMB	FRAMES DETAILS SILL	HARDWARE SET	COMMENTS:
216	NSAC IIA OFFICE 20P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	414	SOUND SEALS, CARD READER, MAGNETIC SWITCH
225	IDC-W AREA 23P	FG	3' - 0"	7' - 0"	1 3/4"	AL/GL	WD-1		STC 30	F2	AL	PT-14	H3	J3	T1	414	SOUND SEALS, CARD READER, MAGNETIC SWITCH

GENERAL SHEET NOTES

1. EXTERIOR HOLLOW METAL DOORS MUST BE INSULATED AND PAINTED

REGISTERED ARCHITECT
TIMO LORENZEN-SCHMIDT
037414
STATE OF NEW YORK

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

ISSUE DATE: 14 DECEMBER 2022
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FILE NUMBER:

DESIGNED BY: G. GAN
DRAWN BY: T. LORENZEN-SCHMIDT
CHECKED BY: W. STEVENS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

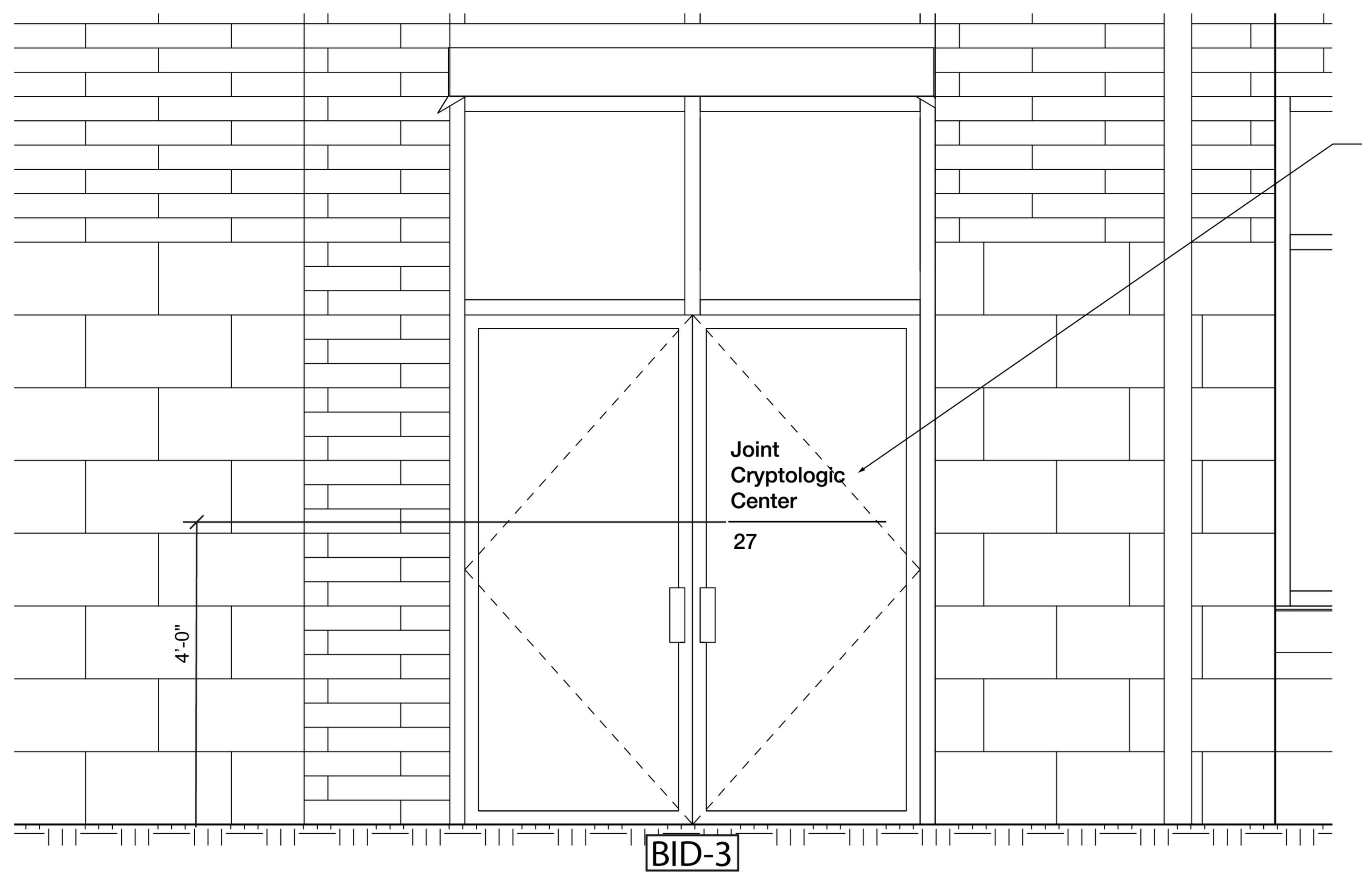
ARCHITECTURAL - DOOR SCHEDULE

SHEET ID

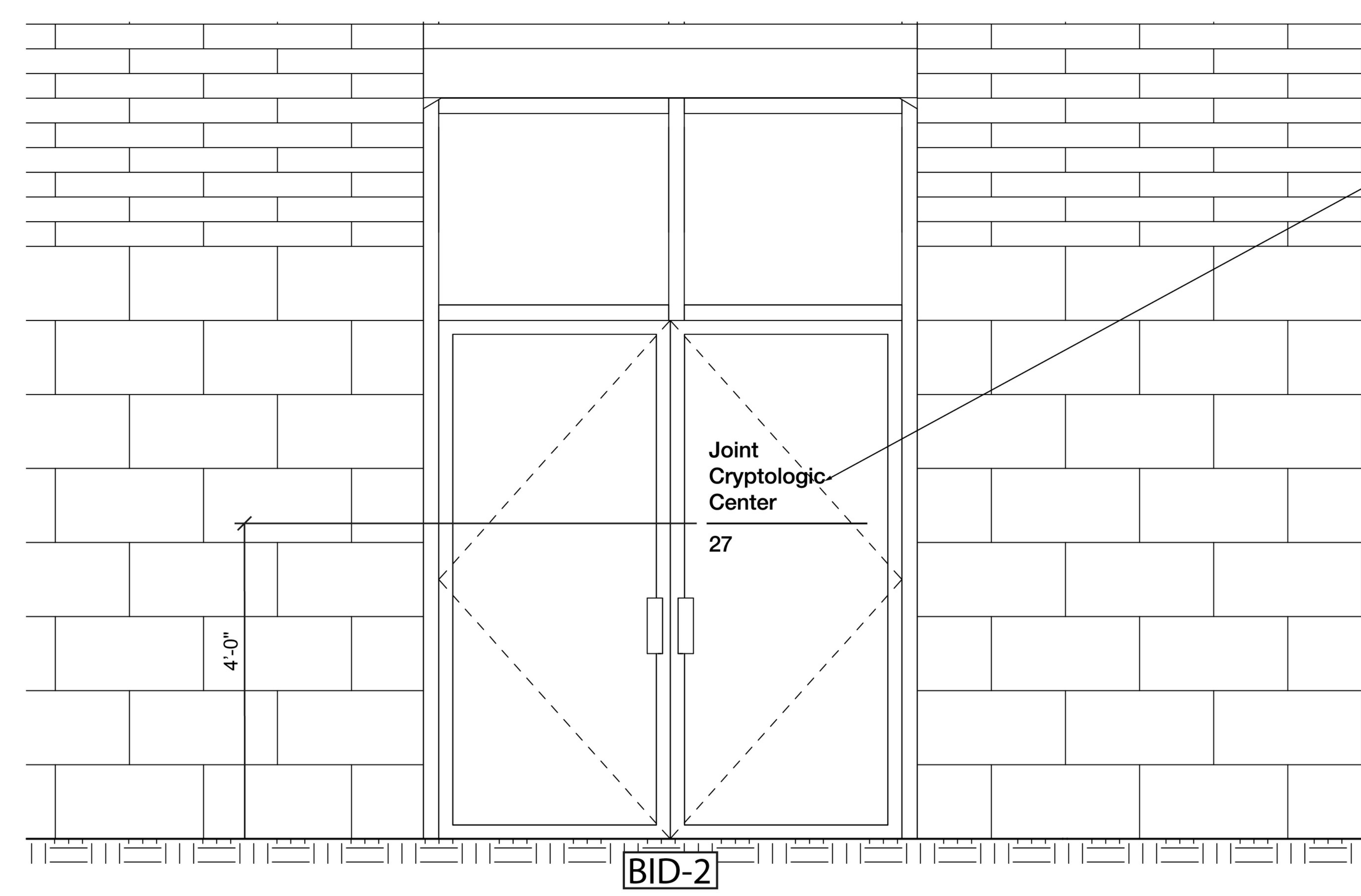
A-606

AMENDMENT 0002

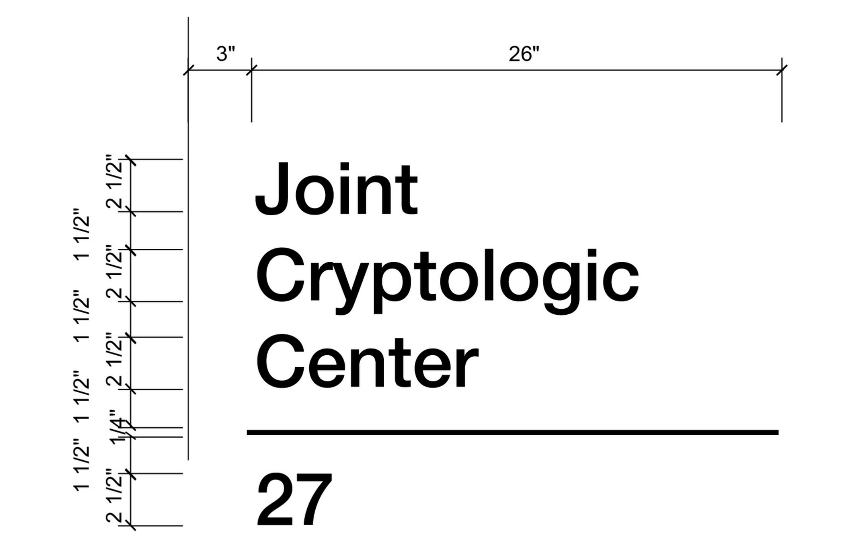
1 2 3 4 5



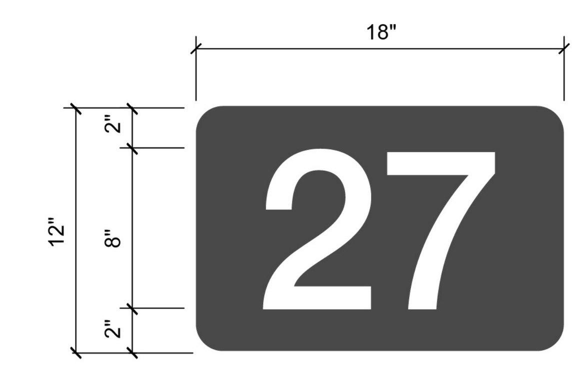
C1 SIGN TYPE BID - NORTH ENTRANCE
1/2" = 1'-0"



C3 SIGN TYPE BID - WEST ENTRANCE
1/2" = 1'-0"



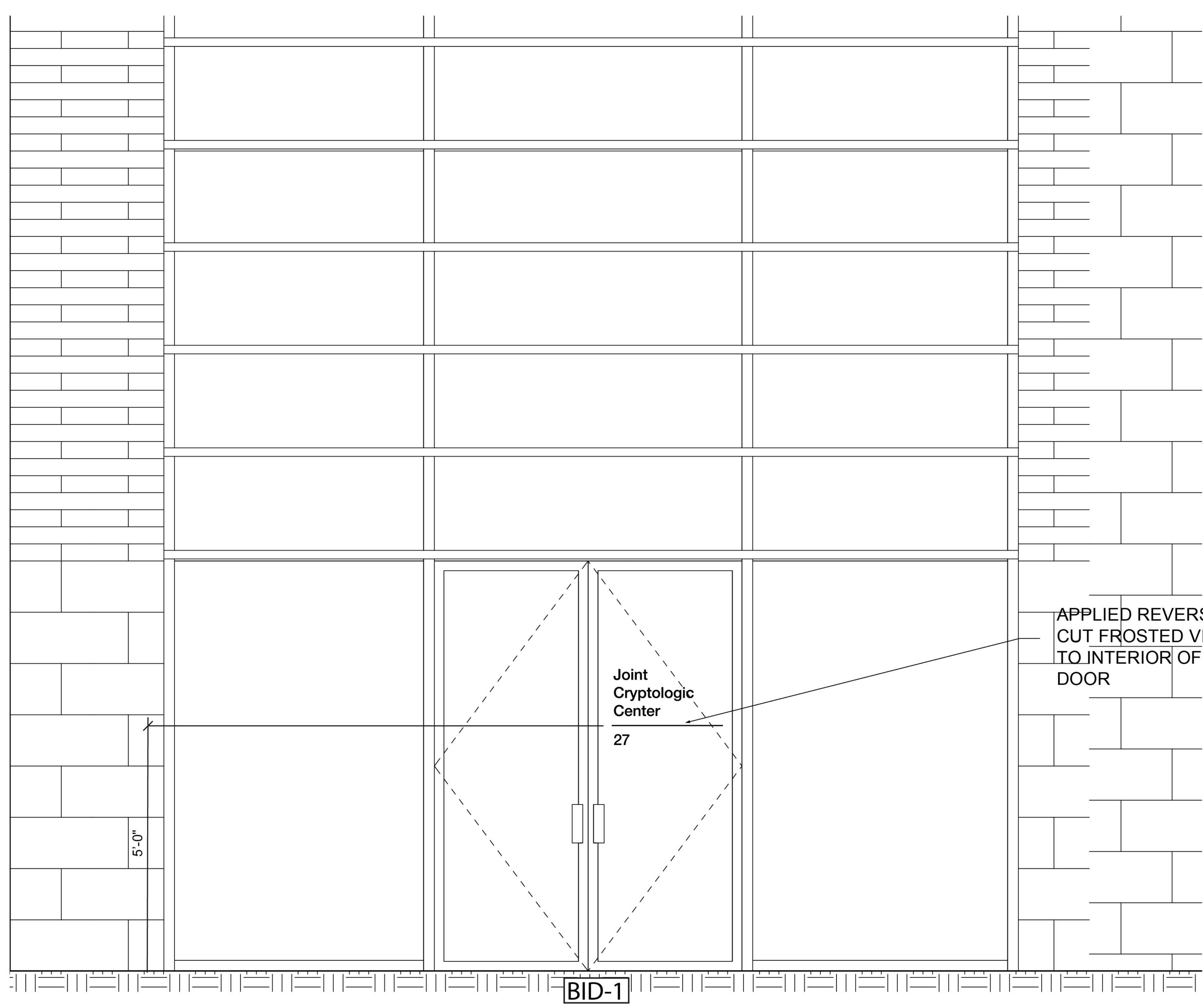
C5 SIGN TYPE BID - BUILDING ID
1 1/2" = 1'-0"



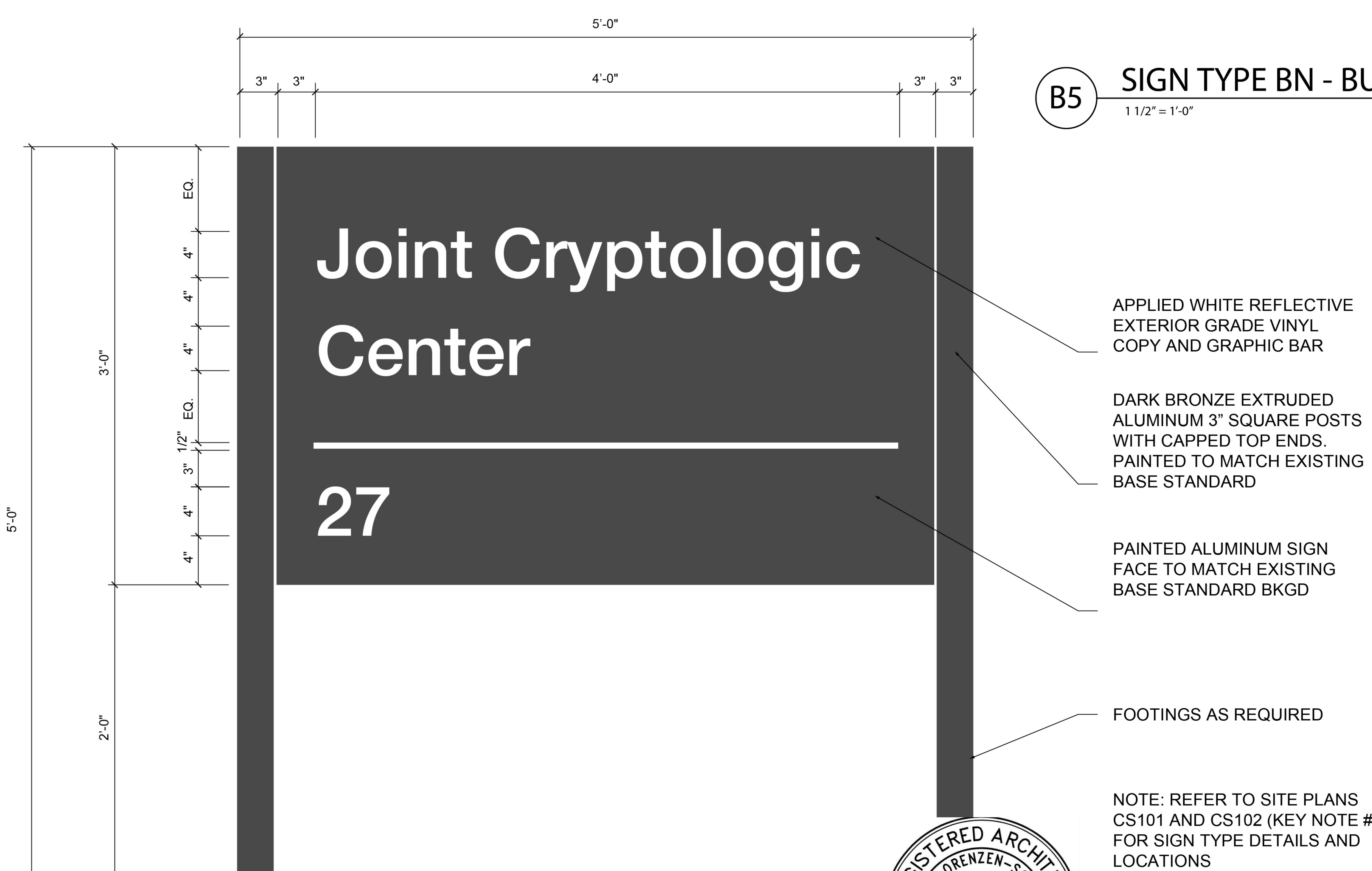
1/4" ALUMINUM PANEL WITH .75" RADIUS CORNERS PAINTED TO MATCH MATTHEWS DARK BRONZE METALLIC WITH APPLIED 3M WHITE REFLECTIVE BUILDING NUMBERS. STUD MOUNTED TO EXTERIOR WALL.

NOTE: REFER TO A201 FOR SIGN TYPE ELEVATIONS (KEY NOTE #225)

B5 SIGN TYPE BN - BUILDING NUMBER
1 1/2" = 1'-0"



A2 SIGN TYPE BID - MAIN SOUTH ENTRANCE
1/2" = 1'-0"



NOTE: REFER TO SITE PLANS CS101 AND CS102 (KEY NOTE #19) FOR SIGN TYPE DETAILS AND LOCATIONS

REGISTERED ARCHITECT
TIMO LORENZEN-SCHMIDT
037114
STATE OF NEW YORK

A3 SIGN TYPE MID - MAIN IDENTITY SIGNAGE
1 1/2" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

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SOLICITATION NO.: W9128F23R0006
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DESIGNED BY: S. POON
DRAWN BY: T. TRAN
CHECKED BY: W. STEVENS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ARCHITECTURAL - SIGNAGE ELEVATION

SHEET ID
AS504

1 2 3 4 5

D C B A

JCC SIGNAGE SCHEDULE

SIGN / NEW ROOM #	SIGN TYPE	MESSAGES	REMARKS
EXTERIOR			
MID-1	MID	Joint Cryptologic Center / 27	DOUBLE FACED SIGN - NORTH PARKING ENTRANCE
MID-2	MID	Joint Cryptologic Center / 27	DOUBLE FACED SIGN - SOUTH MAIN ENTRANCE
BID-1	BID	Joint Cryptologic Center / 27	
BID-2	BID	Joint Cryptologic Center / 27	
BID-3	BID	Joint Cryptologic Center / 27	
BN	BN	27	QTY: 2
STX-1	STX	STAIR 1 / No Smoking Within 50 Feet of Building	
STX-2	STX	STAIR 2 / No Smoking Within 50 Feet of Building	
SRX-1	SRX	MECHANICAL ROOM / No Smoking Within 50 Feet of Building	
SRX-2	SRX	ELECTRICAL ROOM / No Smoking Within 50 Feet of Building	
LEVEL 1			
100	CR	(WAITING AREA FOR TRANSIENT PERSONNEL)	
101	SR	ELEVATOR MECH ROOM	
110	US-2	MARINES OFFICE	
111	US-1	(OFFICER'S NAME TBD)	
112	US-1	(OFFICER'S NAME TBD)	
130	MR	(MEN SYM.) MEN	
131	SR	JANITOR'S CLOSET	
132	RR	(UNISEX SYM.) RESTROOM	
133	WR	(WOMEN SYM.) WOMEN	
134	US-2	BREAK ROOM	
135	SR	ELECTRICAL CLOSET	
140	US-2	ARMY OFFICE	
141	US-1	(OFFICER'S NAME TBD)	
142	US-1	(OFFICER'S NAME TBD)	
150	US-2	NAVY OFFICE	
151	US-1	(OFFICER'S NAME TBD)	
152	US-1	(OFFICER'S NAME TBD)	
160	US-2	AIR FORCE & SPACE FORCE OFFICE	
161	US-1	(OFFICER'S NAME TBD)	
162	US-1	(OFFICER'S NAME TBD)	
163	US-1	(OFFICER'S NAME TBD)	
164	US-1	(OFFICER'S NAME TBD)	
170	SR	COMMUNICATION ROOM	
171	SR	ELECTRICAL ROOM	
172	SR	MECHANICAL ROOM	
180	US-2	COAST GUARD OFFICE	
181	US-1	(OFFICER'S NAME TBD)	
182	US-1	(OFFICER'S NAME TBD)	
FB	FB	(FIRE EXTINGUISHER SYM.)	QTY: 3
IDS-1-1	IDS	(RIGHT ARROW) ROOMS 100-120 , WAITING AREA 100, MARINES 110, (UP ARROW) ROOMS 130-182, ARMY 140, NAVY 150 AIR FORCE & SPACE FORCE 160, COAST GUARD 180	
IDS-1-2	IDS	(RIGHT ARROW) ROOMS 160-100, AIR FORCE & SPACE FORCE 160, NAVY 150, ARMY 140, MARINES 110, WAITING AREA 100, ELEVATOR, RESTROOMS (UP ARROW) ROOMS 170 - 182, COAST GUARD 180	
DR	DR	DIRECTORY	
EX	EX	EXIT	QTY: 5
RB	RB	(RESTROOM SYM.)	
ST-1-1	ST	FLOOR 1 (STAIR SYM.) STAIR 1	
ST-1-2	ST	FLOOR 1 (STAIR SYM.) STAIR 2	

SIGN / NEW ROOM #	SIGN TYPE	MESSAGES	REMARKS
LEVEL 2			
206	US-2	SECURITY OFFICE	
205	US-2	NCS OFFICE	
204	SR	SECURED STORAGE	
203	SR	CLASSIFIED COMM ROOM	
200	CR	CLASSROOM A	
202	CR	CLASSROOM B	
201	SR	ELECTRICAL CLOSET	
220	SR	STORAGE	
230	MR	(MEN SYM.) MEN	
231	SR	JANITOR'S CLOSET	
232	RR	(UNISEX SYM.) RESTROOM	
233	WR	(WOMEN SYM.) WOMEN	
234	NM	MOTHER'S ROOM	
235	US-2	BREAK ROOM	
236	SR	ELECTRICAL CLOSET	
240	SR	UNCLASSIFIED COM	
284	US-2	STORAGE	
250	CR	CLASSROOM C	
251	CR	NIPR TRAINING CLASSROOM D	
260	CR	MULTI PURPOSE CLASSROOM E	
261	SR	STORAGE	
262	US-2	IT SUPPORT OFFICE	
262	US-2	MANAGEMENT OFFICE	
270	CR	MULTI PURPOSE CLASSROOM F	
271	SR	STORAGE	
280	CR	COVE ROOM	
281	CR	COVE ROOM	
282	CR	COVE ROOM	
283	CR	COVE ROOM	
AR-1	AR	FLOOR 2 / STAIR 1 (HC SYM.) AREA OF REFUGE	
AR-2	AR	FLOOR 2 / STAIR 2 (HC SYM.) AREA OF REFUGE	
FB	FB	(FIRE EXTINGUISHER SYM.)	QTY: 3
IDS-2-1	IDS	(LEFT ARROW) ROOMS 230-284, CLASSROOMS C-F, COVE ROOMS 280-283 (UP ARROW) ROOMS 200-210, CLASSROOMS A & B (RIGHT ARROW) ELEVATOR	
IDS-2-2	IDS	(UP ARROW) ROOMS 260-284, CLASSROOM E & F, COVE ROOMS 280-283 (RIGHT ARROW) ROOMS 240-200, CLASSROOM A & B, RESTROOMS, ELEVATOR	
IDS-2-3	IDS	(LEFT ARROW) CLASSROOM F (UP ARROW) COVE ROOMS 280-283, ROOMS 200-220, CLASSROOM A & B (RIGHT ARROW) ROOMS 263 - 220, CLASSROOM C-E, RESTROOMS, ELEVATOR	
IDS-2-4	IDS	(UP ARROW) ROOMS 200-206, CLASSROOM A & B,	
ST-2-1	ST	FLOOR 2 (STAIR SYM.) STAIR 1	
ST-2-2	ST	FLOOR 2 (STAIR SYM.) STAIR 2	

2

SIGN / NEW ROOM #	SIGN TYPE	MESSAGES	REMARKS
LEVEL 1 OPTION			
120	CR	(CLASSROOM TBD)	
121	CR	COVE ROOM	
122	CR	COVE ROOM	
IDS-1-1	IDS	(RIGHT ARROW) ROOMS 100-120 , WAITING AREA 100, MARINES 110, CLASSROOM 120, COVE ROOMS 121-122 (UP ARROW) ROOMS 130-182, ARMY 140, NAVY 150 AIR FORCE & SPACE FORCE 160, COAST GUARD 180	New sign message for directional
IDS-1-2	IDS	(RIGHT ARROW) ROOMS 160-100, AIR FORCE & SPACE FORCE 160, NAVY 150, ARMY 140, COVE ROOMS 121-122, CLASSROOM 120, MARINES 110, WAITING AREA 100 ELEVATOR, RESTROOMS (UP ARROW) ROOMS 170 - 182, COAST GUARD 180	New sign message for directional
LEVEL 2 OPTION			
220	US-2	IDC-W OFFICE	
221	US-2	NSAC IIA OFFICE	
IDS-2-1	IDS	(LEFT ARROW) ROOMS 230-284, CLASSROOMS C-F, COVE ROOMS 280-283 (UP ARROW) ROOMS 200-221, CLASSROOMS A & B (RIGHT ARROW) IDC-W OFFICE 220, ELEVATOR	New sign message for directional
IDS-2-2	IDS	(UP ARROW) ROOMS 260-284, CLASSROOMS E & F, COVE ROOMS 280-283 (RIGHT ARROW) ROOMS 240-200, CLASSROOMS A & B, IDC-W OFFICE 220, RESTROOMS, ELEVATOR	New sign message for directional
IDS-2-3	IDS	(LEFT ARROW) CLASSROOM F (UP ARROW) COVE ROOMS 280-283, ROOMS 200-221, CLASSROOMS A & B (RIGHT ARROW) ROOMS 263 - 220, CLASSROOMS C-E, IDC-W OFFICE 220, RESTROOMS, ELEVATOR	New sign message for directional
IDS-2-4	IDS	(UP ARROW) ROOMS 200-221, CLASSROOMS A & B	New sign message for directional

REGISTERED ARCHITECT
037114
STATE OF NEW YORK

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

DESIGNED BY: S. POON
DRAWN BY: T. TRAN
CHECKED BY: W. STEVENS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:
ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

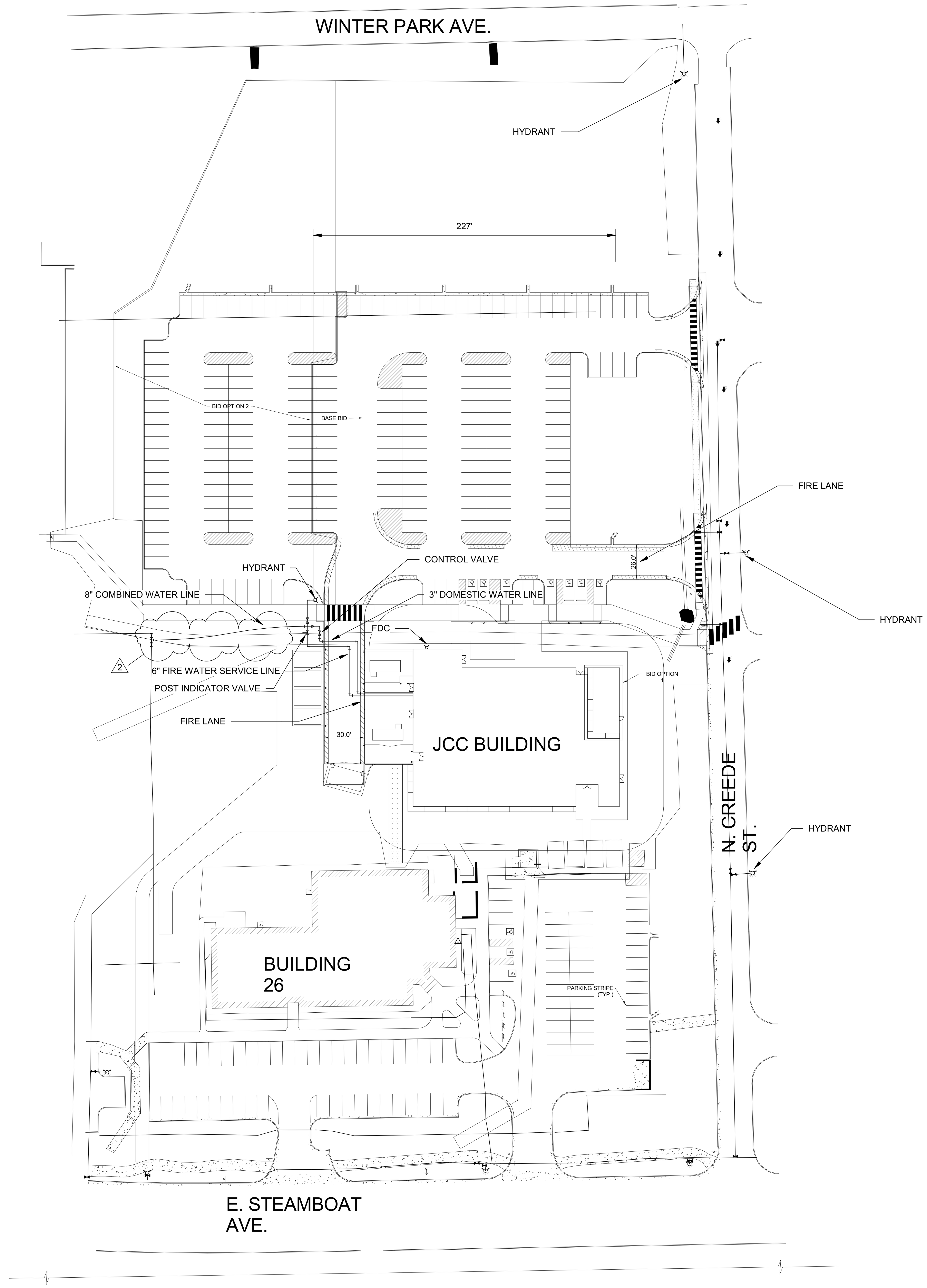
DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ARCHITECTURAL - SIGNAGE SCHEDULE

SHEET ID
AS601

AMENDMENT 0002

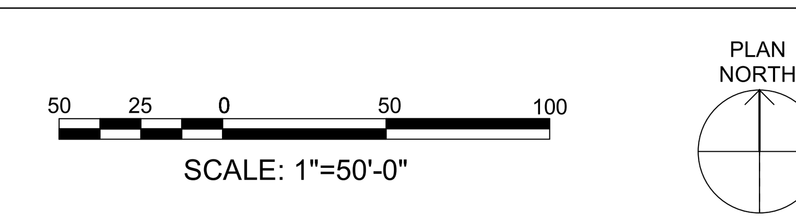
1 2 3 4 5



A1 FIRE SUPPRESSION - SITE PLAN
1" = 50'-0"

COMMONWEALTH OF VIRGINIA
JAMES ALBERT BEALS
Lic. No. 0402 26777
12/14/2022
PROFESSIONAL ENGINEER

GRAPHIC SCALE(S)



US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

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SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

DESIGNED BY: J. BEALS
DRAWN BY: S. FLERI
CHECKED BY: M. CONNOLLY
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

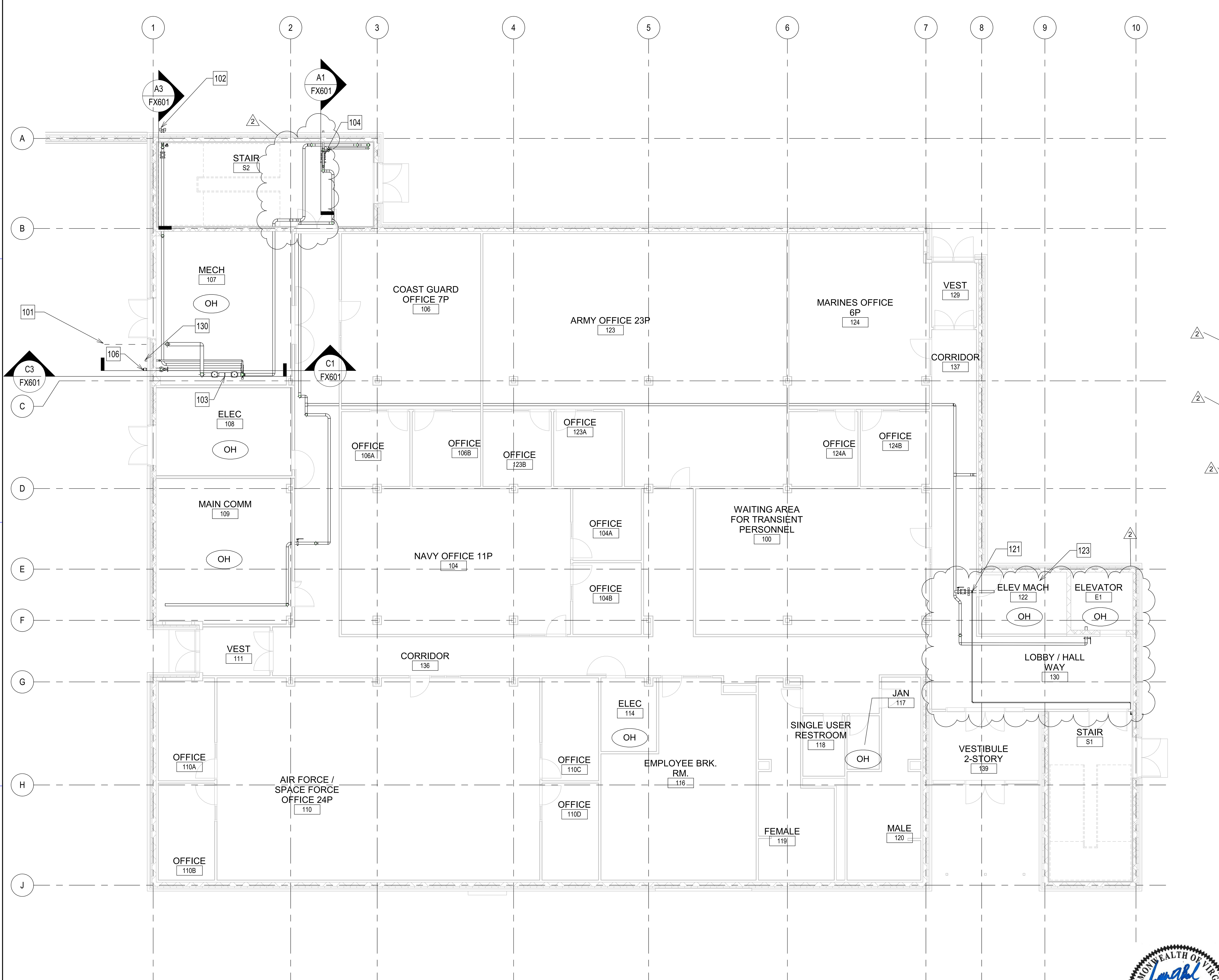
JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

FIRE SUPPRESSION - SITE PLAN

SHEET ID
FX010

AMENDMENT 0002



A1 FIRE SUPPRESSION - FIRST FLOOR PLAN

1/8" = 1'-0"

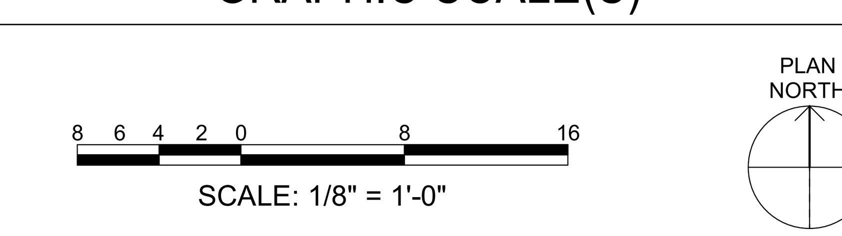
GENERAL SHEET NOTES

1. SEE SHEET FX001 FOR GENERAL NOTES.
2. ALL AREAS ARE CLASSIFIED AS LIGHT HAZARD, UNLESS OTHERWISE NOTED.

KEYNOTES

#	
101	6" INCOMING FIRE WATER SERVICE.
102	FIRE DEPARTMENT CONNECTION.
103	DOUBLE CHECK VALVE BACKFLOW PREVENTER.
104	PROVIDE FLOOR CONTROL VALVE ASSEMBLY. ASSEMBLY MUST CONSIST OF CONTROL VALVE WITH TAMPER SWITCH, CHECK VALVE, WATERFLOW SWITCH, INSPECTORS TEST/DRAIN, AND RELIEF VALVE. DRAIN MUST DISCHARGE TO THE EXTERIOR.
106	PROVIDE BACKFLOW PREVENTER TEST HEADER WITH 3 2-1/2" VALVE OUTLETS AND APPROPRIATE SIGNAGE. MOUNT ABOVE TEST HEADER.
121	PROVIDE A TEST/DRAIN ASSEMBLY TO TEST ELEVATOR MACHINE ROOM FLOW SWITCH. DRAIN PIPE TO EXTERIOR.
122	WATERFLOW SWITCH SHALL NOT HAVE A RETARD TIMING FUNCTION.
123	PROVIDE SIDEWALL SPRINKLER IN ELEVATOR PIT.
124	PROVIDE MONITOR MODULES FOR ELEVATOR MACHINE ROOM WATER FLOW SWITCH AND TAMPER SWITCH.
130	SYSTEM DRAIN TO THE EXTERIOR.

GRAPHIC SCALE(S)



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

COMMONWEALTH OF VIRGINIA
JAMES ALBERT BEALS
Lic. No. 0402 26777
12/14/2022
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

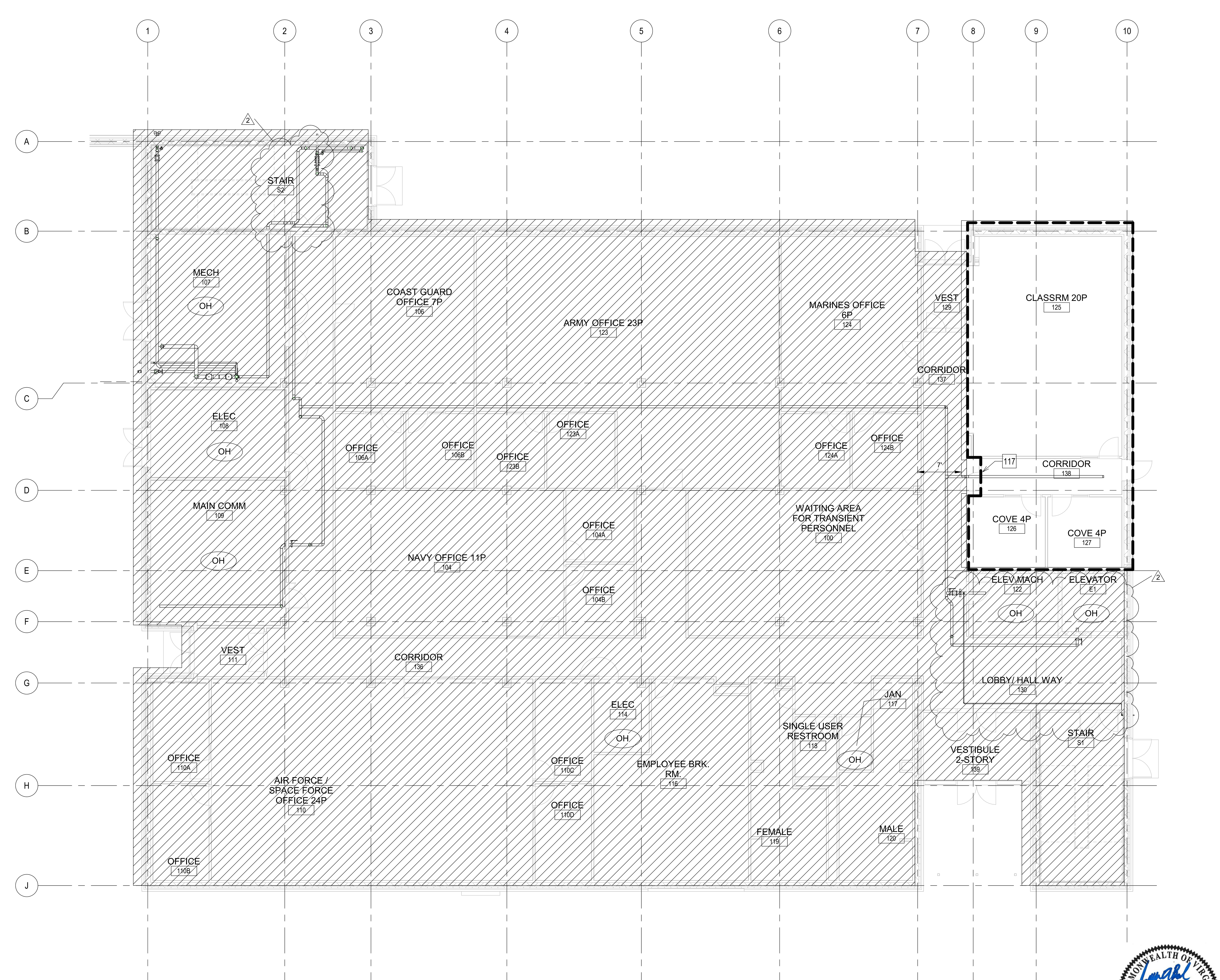
JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

FIRE SUPPRESSION - FIRST FLOOR PLAN

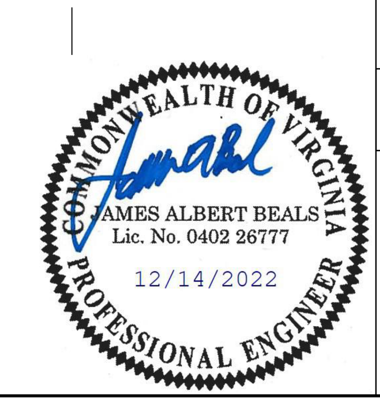
SHEET ID
FX110

AMENDMENT 0002



A1 FIRE SUPPRESSION - FIRST FLOOR PLAN (BID OPTION 1)

1/8" = 1'-0"



GENERAL SHEET NOTES

1. SEE SHEET FX001 FOR GENERAL NOTES.
2. ALL AREAS ARE CLASSIFIED AS LIGHT HAZARD, UNLESS OTHERWISE NOTED.

KEYNOTES

#	
117	ONLY A SINGLE PENETRATION OF SECURE BOUNDARY ALLOWED. SEE DETAIL A1 ON SHEET FX501.

LEGEND

- AREA OF BID OPTION 1
- SECURE AREA
- AREA OF BASE BID

GRAPHIC SCALE(S)

8 6 4 2 0 8 16

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

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

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CHECKED BY: M. CONNOLLY
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Omaha District
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1100 N. GLEBE ROAD, SUITE 500
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DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

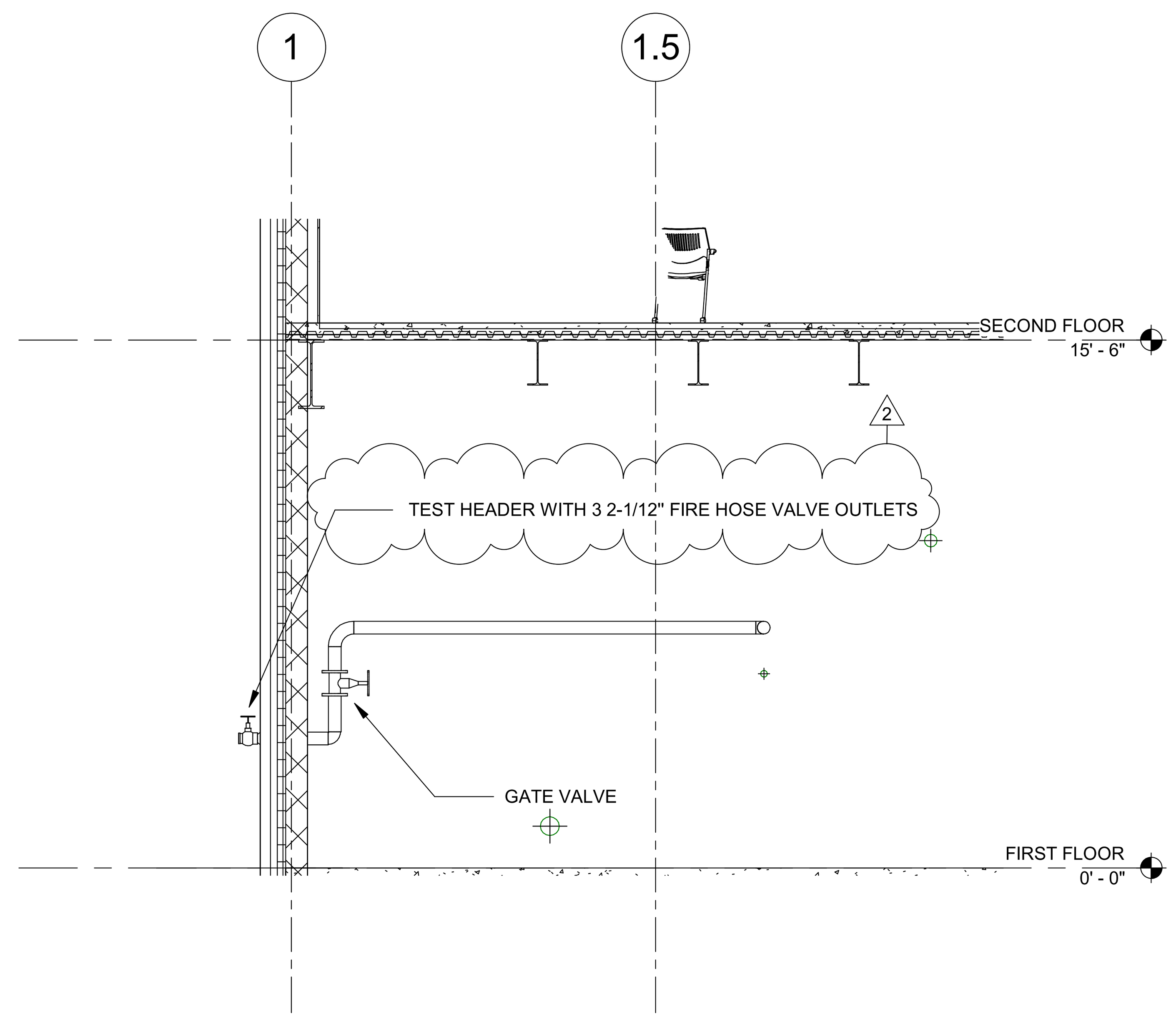
FIRE SUPPRESSION - FIRST FLOOR PLAN (BID OPTION 1)

SHEET ID

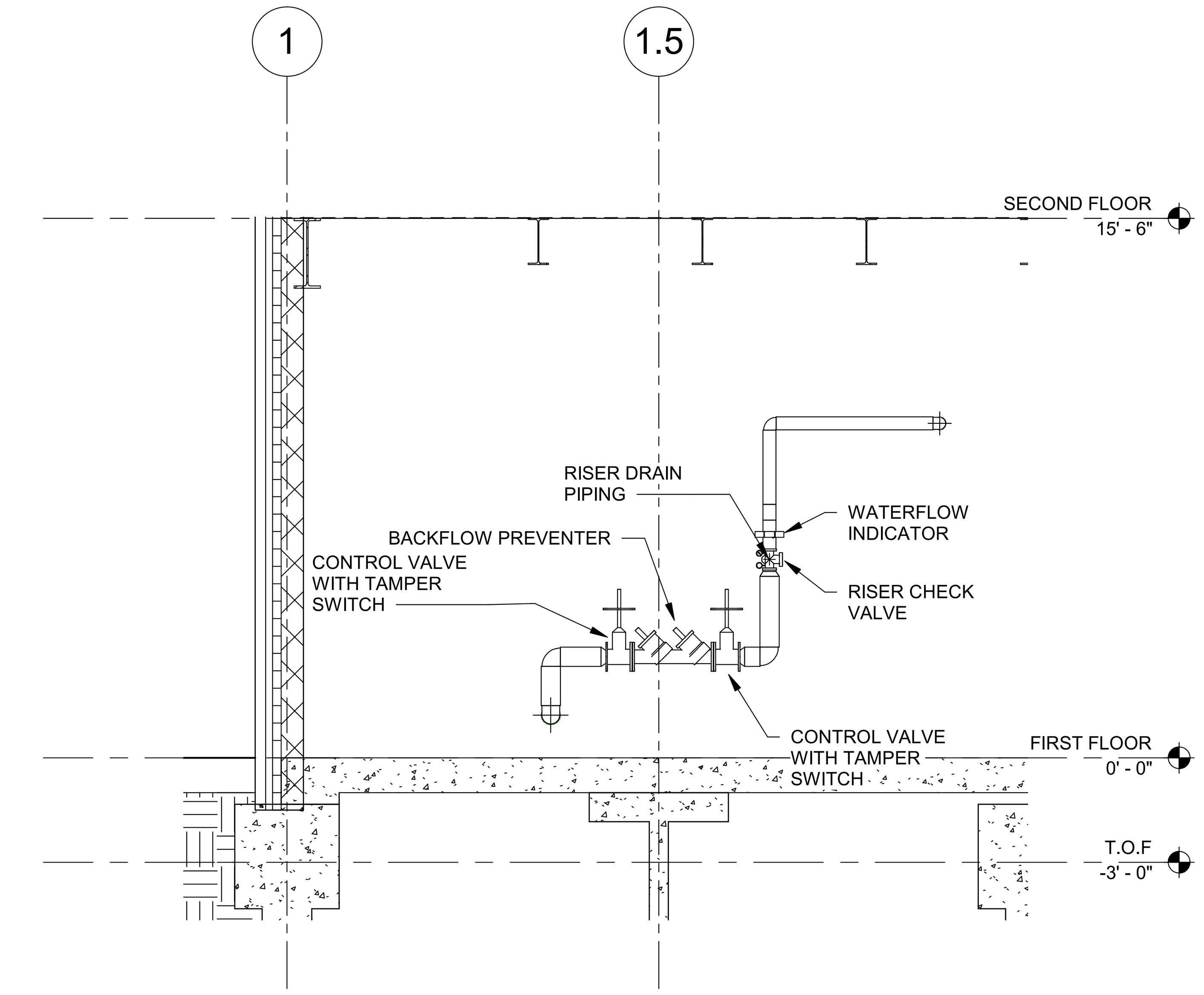
FX110A

AMENDMENT 0002

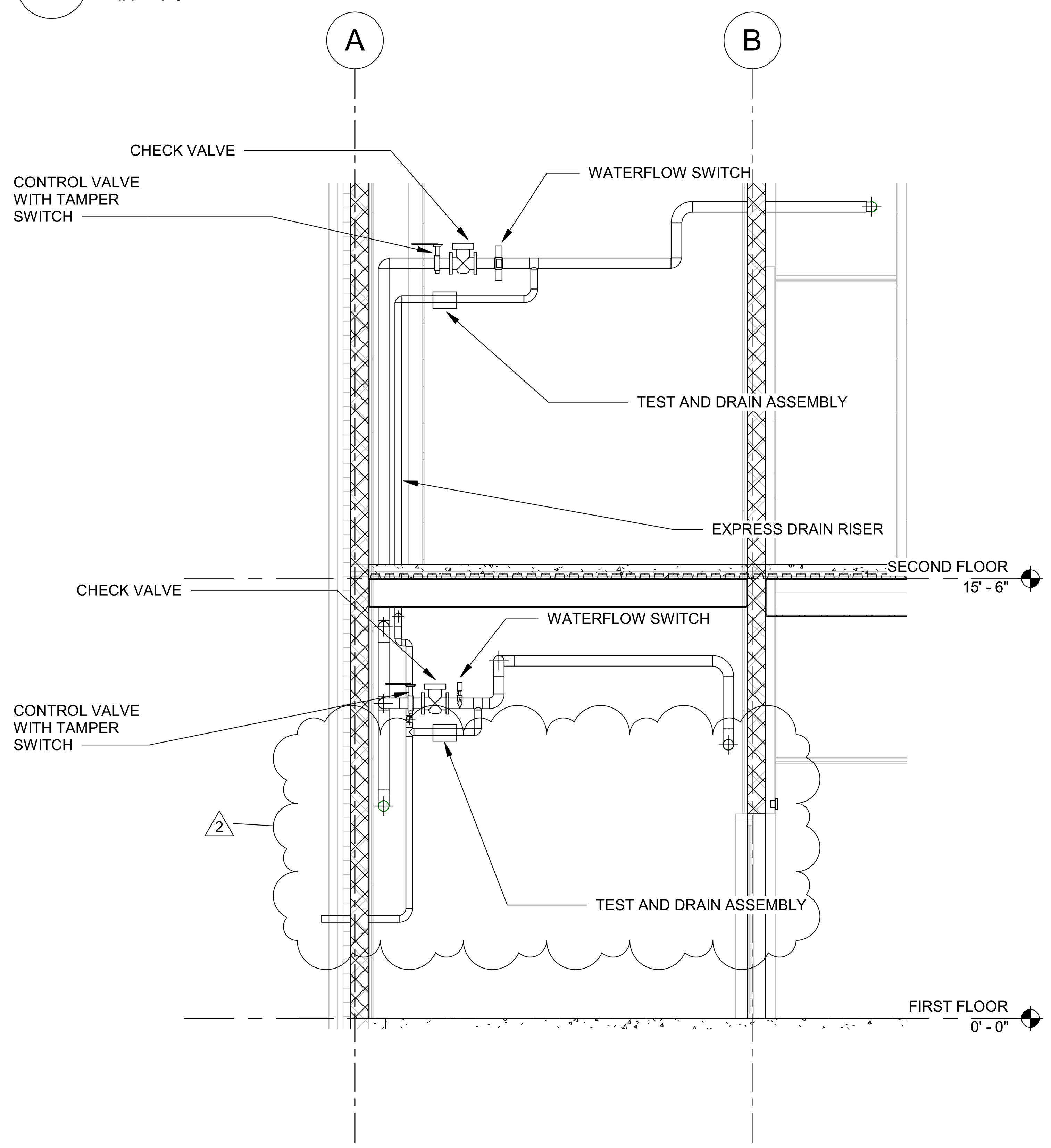
1 2 3 4 5



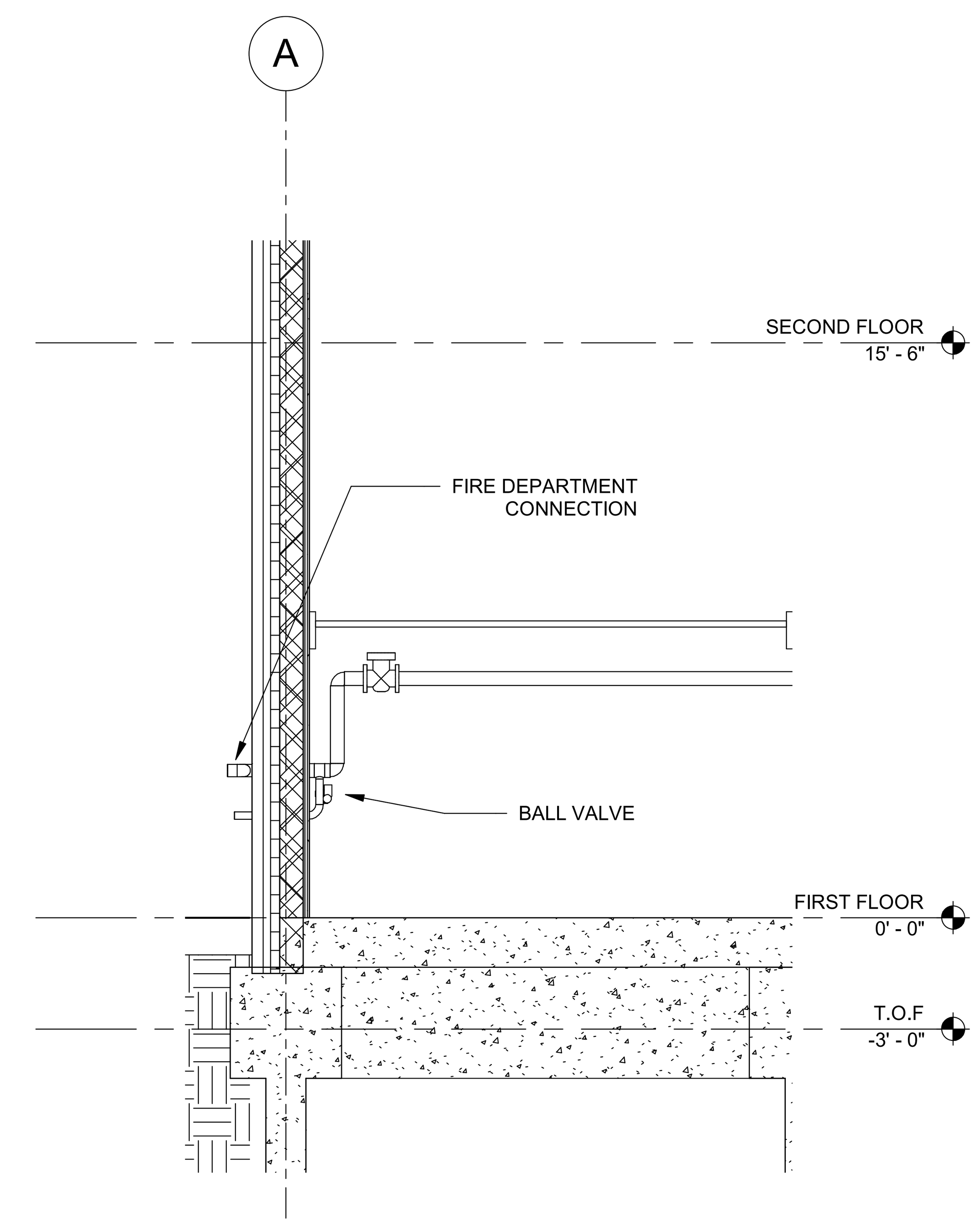
C1 BACKFLOW PREVENTER TEST HEADER
1/4" = 1'-0"



C3 FIRE SUPPRESSION SYSTEM RISER
1/4" = 1'-0"



A1 FIRST AND SECOND FLOOR ZONE CONTROL ASSEMBLIES
1/4" = 1'-0"



A3 FIRE DEPARTMENT CONNECTION
1/4" = 1'-0"

COMMONWEALTH OF VIRGINIA
JAMES ALBERT BEALS
Lic. No. 0402 26777
12/14/2022
PROFESSIONAL ENGINEER

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

US Army Corps
of Engineers ®

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14 DECEMBER 2022
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CONTRACT NO.:
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M. CONNOLLY
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SIZE:
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FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

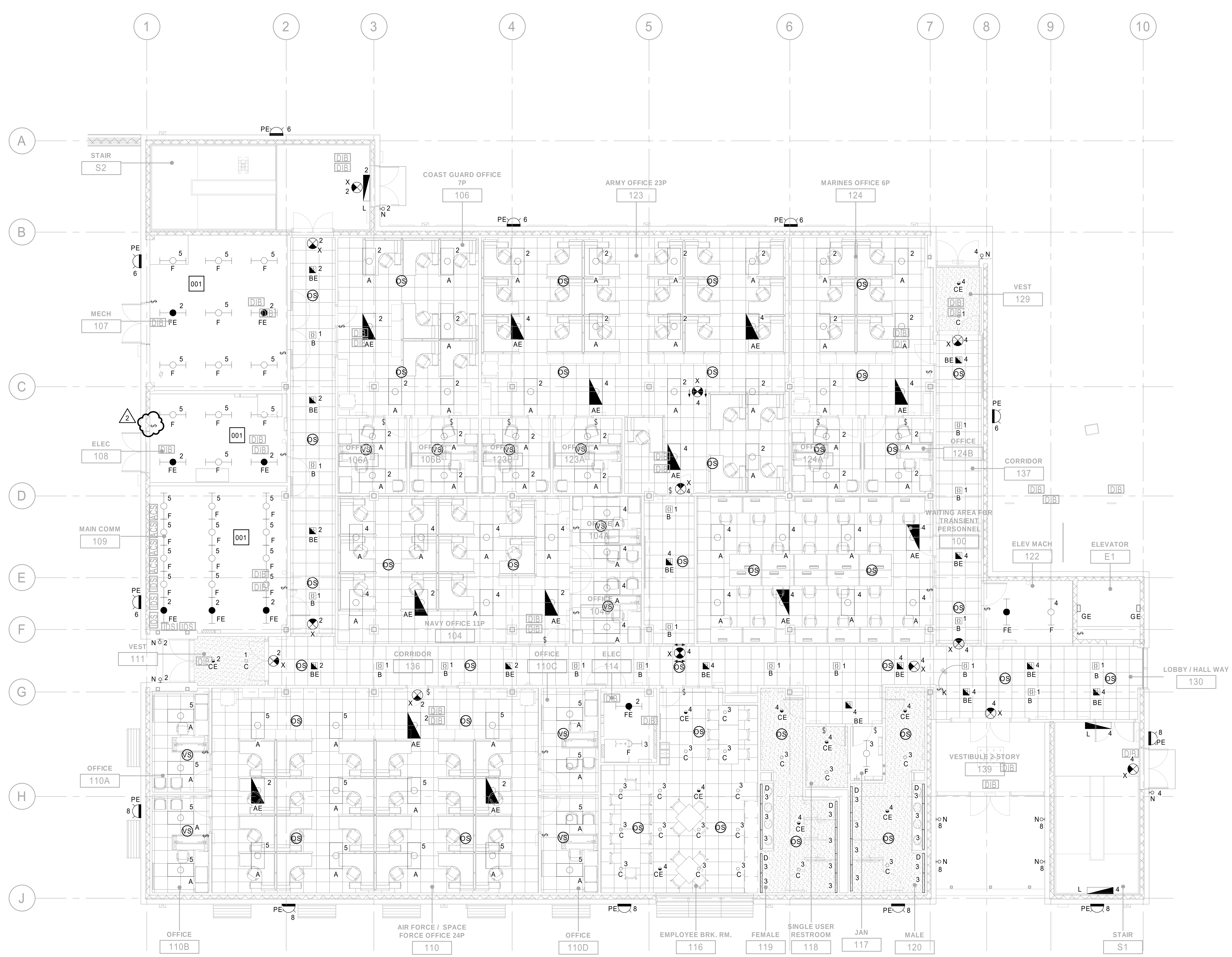
JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

FIRE SUPPRESSION - SECTIONS

SHEET ID
FX601

AMENDMENT 0002



A1 FIRST FLOOR - LIGHTING

1/8" = 1'-0"

GENERAL SHEET NOTES

1. NORMAL LIGHT FIXTURES ARE FED FROM PANEL P1-H2, UNLESS OTHERWISE NOTED.
2. EMERGENCY LIGHT FIXTURES ARE FED FROM PANEL P1-HE, UNLESS OTHERWISE NOTED.
3. REFER TO E-001 AND E-002 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGENDS.
4. REFER TO EL701 FOR LIGHT FIXTURE SCHEDULE.
5. REFER TO EL702 FOR LIGHTING CONTROL ROOM SCHEDULE.
6. REFER TO EL703 FOR LIGHTING CONTROL SEQUENCE OF OPERATION.
7. REFER TO E-701 TO E-705 FOR PANEL SCHEDULES.

KEYNOTES

#	
001.	NORMAL LIGHT FIXTURES IN ROOM ARE FED FROM PANEL P1-H1.

GRAPHIC SCALE(S)

8 6 4 2 0 8 16

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

PLAN NORTH

COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

DESIGNED BY: Y. SOLOMON
DRAWN BY: D. PAXTON
CHECKED BY: Y. SOLOMON
SUBMITTED BY: RK
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - FIRST FLOOR - LIGHTING

SHEET ID

EL110

LUMINAIRE SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN: MANUFACTURER	BASIS OF DESIGN: MODEL	BASIS OF DESIGN: ADDITIONAL APPROVED MANUFACTURERS	LAMP TYPE	WATTS	LUMENS	LAMP COLOR TEMPERATURE	LUMINAIRE MOUNTING METHOD	NOTES
A	RECESSED 2X4 FIXTURE WITH PREFROATED CENTER BACKET	FOCAL POINT	FLUL24	COLUMBIA LCAT	LED	48 W	4500 lm	3500 K	RECESSED	
B	RECESSED 1X1 FIXTURE WITH CENTER BASKET	FOCAL POINT	FEQ211	AXIS LIGHTING DIA	LED	21 W	1500 lm	3500 K	RECESSED	
C	6" DOWNLIGHT WITH TWO STAGE REFLECTOR SYSTEM	PORTFOLIO	LD6	GOTHAM EVO	LED	10 W	1000 lm	3500 K	RECESSED	
D	LINEAR RECESSED LED	LITE CONTROL	MOD6LRD	FOCAL POINT SEEM 6	LED	11 W	1100 lm	3500 K	RECESSED	
F	4' X 3" INDUSTRIAL PENDANT	METALUX	4SNLED	LITHONIA ZL1N	LED	25 W	3185 lm	3500 K	PENDANT 8'-0" AFF	
G	SURFACE MOUNTED 1'X4' EMERGENCY EGRESS FIXTURE	LITHONIA	FEML48	COLUMBIA LXEM	LED	22 W	3000 lm	3500 K	SURFACE 6'-0" AFF	
H	ORNAMENTAL PENDANT(3-14", 3-18", 4-24", 4-30" & 4-36" LENGTHS TOTAL 18)	OCL	GLOWSTICK CLUSTER GS1	SPI LIGHTING	LED	11 W	825 lm	3500 K	PENDANT	PENDANT LENGHTS:(3-14", 3-18", 4-24", 4-30" & 4-36")
K	4' X 6" LINEAR DIRECT / INDIRECT PENDANT	FOCAL POINT	FNRS	LITE CONTROL SAE101	LED	32 W	3500 lm	3500 K	PENDANT 8'-0" AFF	
L	WALL BRACKET & SURFACE MOUNTED VERTICAL OR HORIZONTAL LED	LITHONIA	WL4	COLUMBIA ESL	LED	39 W	4000 lm	3500 K	WALL 8'-0" AFF	INTEGRAL OCCUPANCY SENSOR
N	8" DIA. EXTERIOR WALL SCONCE UP AND DOWN	LUMINIS	SY802 L2L20R40BKT	COOPER LTG EONW2	LED	31 W	4315 lm	4000 K	WALL 10'-0" AFF	
P	EXTERIOR WALL PACK	STONCO	LYTEPRO LPW3250NWG34EBPUNVBK	HUBBELL RWL2	LED	45 W	5064 lm	4000 K	WALL 14'-0"AFF	
R	EXTERIOR PARKING LOT POLE LIGHT 1 HEAD	HUBBELL OUTDOOR	RAR1 80L403K75QWUNVASQBLT	AEL ATB MICRO	LED	37 W	4976 lm	3500 K	POLE	POLE 30'-ASQ-MAF-BLT
X	EXIT LIGHT WITH DIE-CAST ALUMINUM HOUSING	LITHONIA	SIGNATURE LE	SURE LITE TPX	LED	2 W	270 lm	0 K	SURFACE	SURFACE MOUNTED AT CEILING

2

COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

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DESIGNED BY: Y. SOLOMON
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US ARMY CORPS OF ENGINEERS
Omaha District
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JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - LIGHTING FIXTURE SCHEDULE

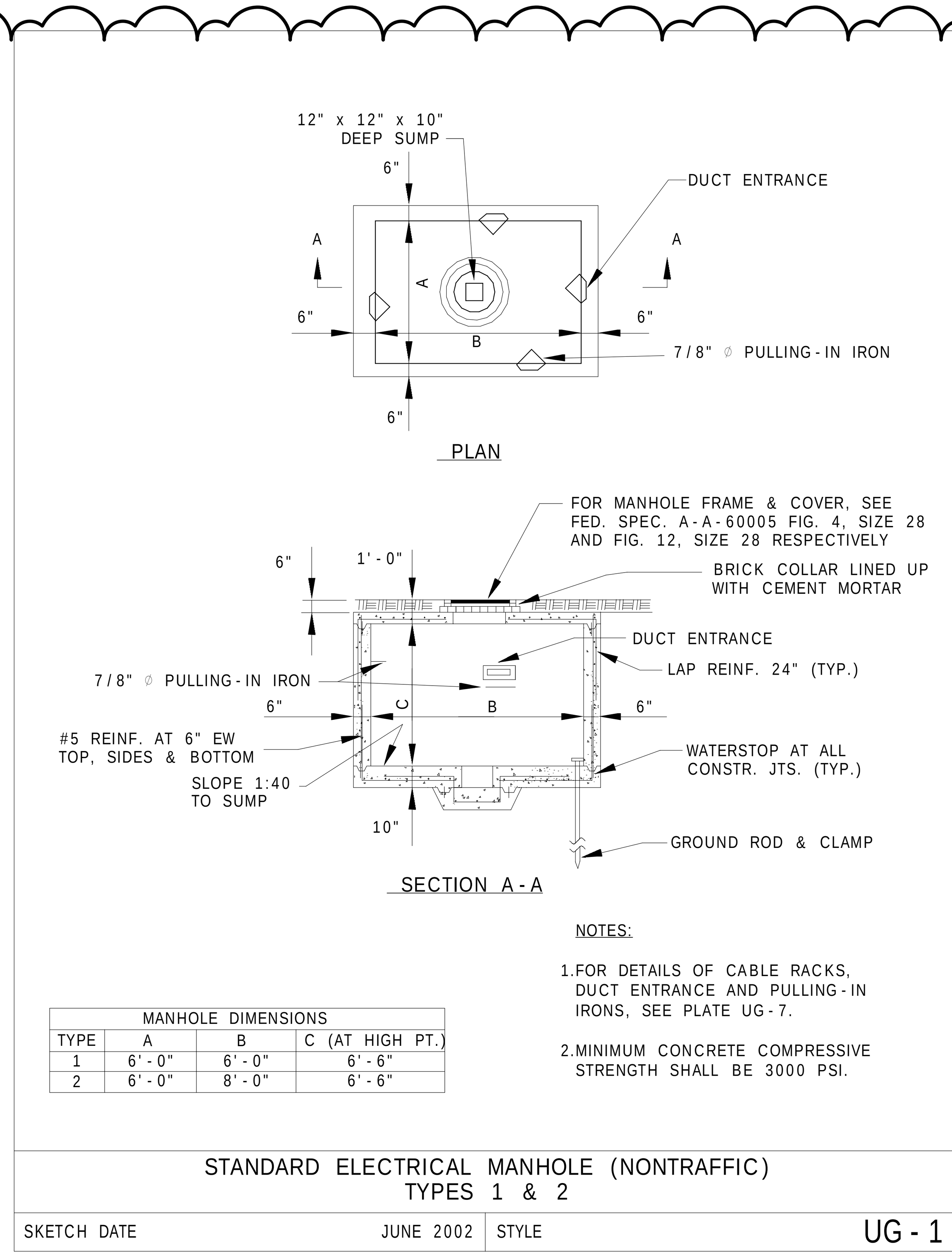
SHEET ID

EL701

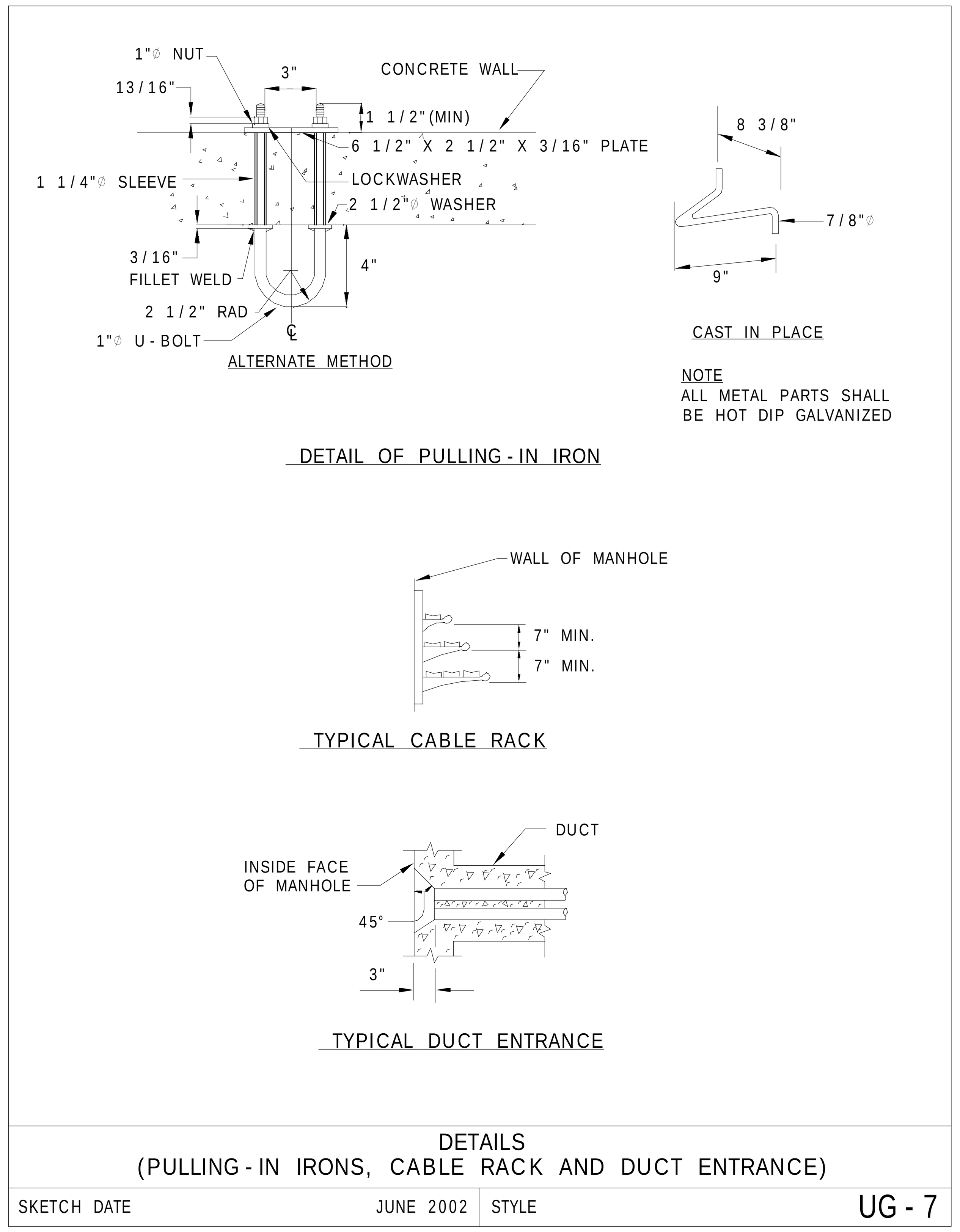
AMENDMENT 0002

1 2 3 4 5

D C B A

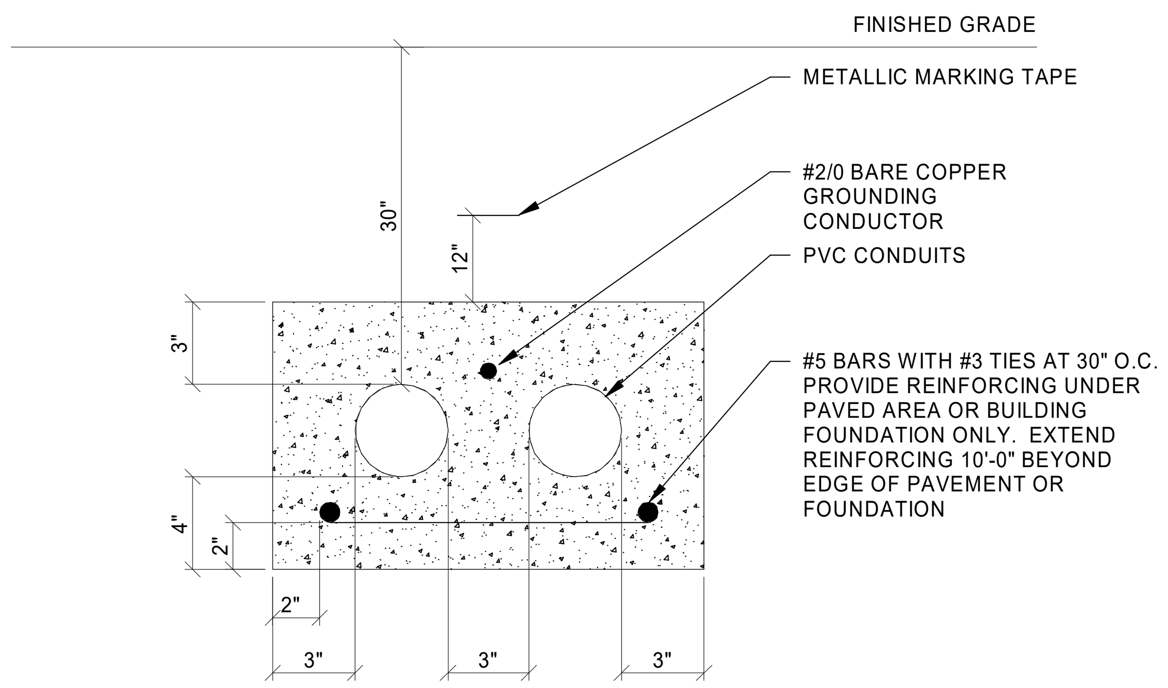


B1 MANHOLE DETAIL
NOT TO SCALE

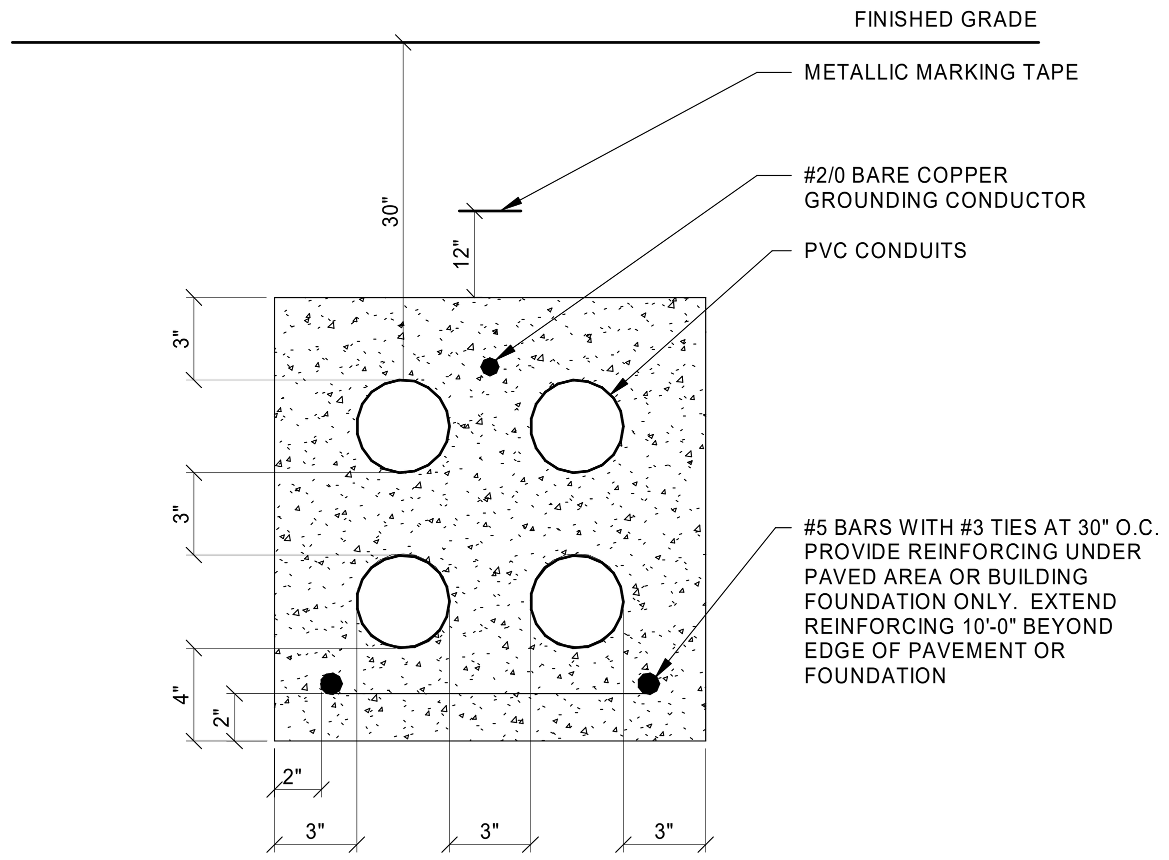


B3 PULLING-IN IRONS, CABLE RACK AND DUCT ENTRANCE DETAILS
NOT TO SCALE

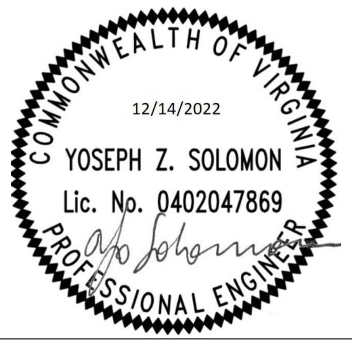
2



A1 2-WAY CONCRETE ENCASED DUCT BANK
NOT TO SCALE



A4 4-WAY CONCRETE ENCASED DUCT BANK
NOT TO SCALE


COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

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Omaha, NE

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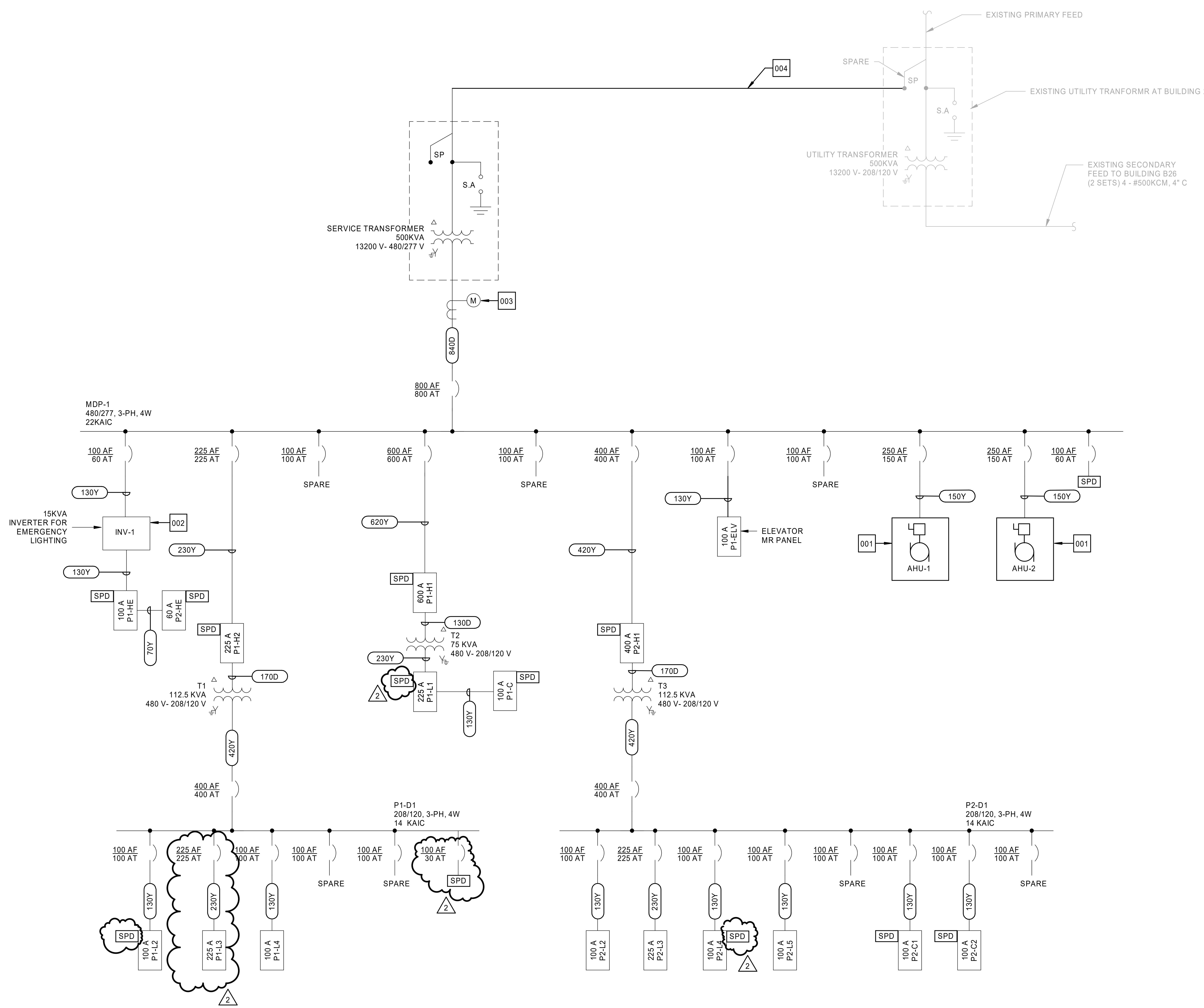
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - DETAILS

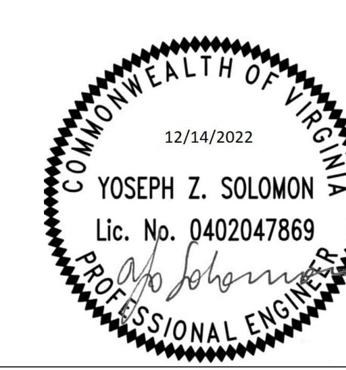
SHEET ID
E-503

AMENDMENT 0002



A1 ELECTRICAL - SINGLE-LINE DIAGRAM

NOT TO SCALE



GENERAL SHEET NOTES

1. REFER TO E-001 AND E-002 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGENDS.

KEYNOTES

001. PACKAGED HVAC UNIT WITH SINGLE POINT POWER CONNECTION, AND FACTORY INSTALLED INTEGRAL DISCONNECT.

002. INVERTER TO BE EQUIPED WITH MAINTENANCE BYPASS.

003. PROVIDE ADVANCED POWER METER. POWER METER MODEL NUMBER: SCHNEIDER PM5560. CONNECT POWER METER TO BUILDING AUTOMATION SYSTEM (BAS). REFER TO BAS CONTROL DRAWINGS FOR CONNECTION REQUIRMENTS AND MONITORING POINTS LIST.

004. (3)#1, 15KV AND #1 600V IN 4" PVC CONDUIT. MEDIUM VOLTAGE CABLES MUST OMPLY WITH NEMA WC 74, TYPE MV, COPPER, EPR INSULATION, AND COPPER TAPE SHIELDED.

PANELBOARD SUMMARY

PANEL NAME	MCB/MLO	BUS RATING	MCB SIZE	SHORT CIRCUIT	FEEDER SIZE ID	MAIN METER
MDP-1	MCB	600 A	600 A	22KA	840D	Yes
P1-C	MCB	100 A	100 A	14KA	130Y	Yes
P1-D1	MCB	400 A	400 A	14KA	420Y	Yes
P1-ELV	MCB	100 A	100 A	14KA	130Y	Yes
P1-H1	MCB	600 A	600 A	22KA	620Y	Yes
P1-H2	MCB	250 A	225 A	22KA	230Y	Yes
P1-HE	MCB	100 A	100 A	14KA	130Y	Yes
P1-L1	MCB	250 A	225 A	14KA	230Y	Yes
P1-L2	MCB	100 A	100 A	14KA	130Y	Yes
P1-L3	MCB	100 A	225 A	14KA	230Y	Yes
P1-L4	MCB	100 A	100 A	14KA	130Y	Yes
P2-C1	MCB	100 A	100 A	14KA	130Y	Yes
P2-C2	MCB	100 A	100 A	14KA	130Y	Yes
P2-D1	MCB	400 A	400 A	14KA	420Y	Yes
P2-H1	MCB	400 A	400 A	22KA	420Y	Yes
P2-HE	MCB	100 A	60 A	14KA	70Y	Yes
P2-L2	MCB	100 A	100 A	14KA	130Y	Yes
P2-L3	MCB	100 A	225 A	14KA	230Y	Yes
P2-L4	MCB	100 A	100 A	14KA	130Y	Yes
P2-L5	MCB	100 A	100 A	14KA	130Y	Yes

NOTES:

1. PANELS INDICATED AS "YES" FOR MAIN METER, PROVIDE POWER METER TO MEASURE TOTAL POWER CONSUMPTION OF PANEL. CONNECT METER TO THE BUILDING AUTOMATION SYTEM.

FEEDER SCHEDULE

FEEDER TAG	SETS	WIRE AND CONDUIT
130D	1	3 - #1 + #6G IN 1 1/2"C
170D	1	3 - #2/0 + #6G IN 2"C
840D	2	3 - #600 KCMIL + #1/0G IN 3"C
20Y	1	3 - #12 + #12N + #12G IN 3/4"C
30Y	1	3 - #10 + #10N + #10G IN 3/4"C
40Y	1	3 - #8 + #8N + #10G IN 3/4"C
50Y	1	3 - #6 + #6N + #10G IN 1"C
70Y	1	3 - #4 + #4N + #8G IN 1 1/4"C
90Y	1	3 - #2 + #2N + #8G IN 1 1/4"C
130Y	1	3 - #1 + #1N + #6G IN 1 1/2"C
150Y	1	3 - #1/0 + #1/0N + #6G IN 2"C
170Y	1	3 - #2/0 + #2/0N + #6G IN 2"C
200Y	1	3 - #3/0 + #3/0N + #6G IN 2"C
230Y	1	3 - #4/0 + #4/0N + #4G IN 2 1/2"C
250Y	1	3 - #250 KCMIL + #250 KCMIL N + #4G IN 2 1/2"C
280Y	1	3 - #300 KCMIL + #300 KCMIL N + #4G IN 2 1/2"C
310Y	1	3 - #350 KCMIL + #350 KCMIL N + #1G IN 3"C
330Y	1	3 - #400 KCMIL + #400 KCMIL N + #1G IN 3"C
380Y	1	3 - #500 KCMIL + #500 KCMIL N + #1G IN 3"C
420Y	1	3 - #600 KCMIL + #600 KCMIL N + #1G IN 4"C
460Y	2	3 - #4/0 + #4/0N + #2G IN 2 1/2"C
510Y	2	3 - #250 KCMIL + #250 KCMIL N + #2G IN 2 1/2"C
620Y	2	3 - #350 KCMIL + #350 KCMIL N + #1G IN 3"C
760Y	2	3 - #500 KCMIL + #500 KCMIL N + #1/0G IN 4"C
840Y	2	3 - #600 KCMIL + #600 KCMIL N + #1/0G IN 4"C
1000Y	3	3 - #400 KCMIL + #400 KCMIL N + #2/0G IN 3"C
1200Y	3	3 - #600 KCMIL + #600 KCMIL N + #3/0G IN 4"C
1600Y	4	3 - #600 KCMIL + #600 KCMIL N + #4/0G IN 4"C
2100Y	5	3 - #600 KCMIL + #600 KCMIL N + #250 KCMIL G IN 4"C
2500Y	6	3 - #600 KCMIL + #600 KCMIL N + #250 KCMIL G IN 4"C

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:
DESIGNED BY: Y. SOLOMON
DRAWN BY: D. PAXTON
CHECKED BY: Y. SOLOMON
SUBMITTED BY: RK
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - SINGLE-LINE DIAGRAM

SHEET ID

E-601

AMENDMENT 0002

1 2 3 4 5

Switchboard: MDP-1

Location: Elec 108
Supply From: Service Transformer
Mounting: Floor
Enclosure: TYPE 1

Volts: 480/277V
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type: MCB
Mains Rating: 800 A
MCB Rating: 800 A

Notes:
SERVICE RATED

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	P1-HE	3	100 A	60 A	12.064 kVA	
2	P1-H1	3	600 A	600 A	247.577 kVA	
3	P1-H2	3	225 A	225 A	105.09 kVA	
4	P1-ELV	3	100 A	100 A	33.216 kVA	
5	P2-H1	3	400 A	400 A	286.257 kVA	
6	AHU-2	3	250 A	150 A	83 kVA	
7	AHU-1	3	250 A	150 A	83 kVA	
8	SPARE	3	100 A	100 A	0 kVA	
9	SPARE	3	100 A	100 A	0 kVA	
10	SPARE	3	100 A	100 A	0 kVA	
11	SPACE	3	--	--	--	
12	SPACE	3	--	--	--	
13	SPD	3	100 A	60 A	0 kVA	
14						
15						
16						
17						
18						
19						
20						
				Total Conn. Load:	850.204 kVA	
				Total Amps:	1023 A	

Legend:

Panel Totals

Total Conn. Load:	850.204 kVA
Total Est. Demand:	778.366 kVA
Total Conn. Current:	1023 A
Total Est. Demand Current:	936 A
Diversity Factor:	65%
Estimated Actual Demand...	609 A
Estimated Actual Load kVA:	505.938 kVA

Notes:
1. COORDINATE BREAKER SIZE REQUIRMENTS FOR SPD WITH SPD MANUFACTURER.

PANELBOARD: P1-H1

LOCATION: ELEC 108
SUPPY FROM: MDP-1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 480/277V,3P,4W,60Hz
BUS AMPS: 600 A
MCB SIZE: 600 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	PARKING LOT LIGHTS	20 A	1	1	0.3			2.104			2				
	SPARE	20 A	1	3		0			2.104		4	3	20 A	HVAC HHWP-1 MECH 107	
	LTG MECH 107	20 A	1	5			1.196			2.104	6				
				7	2.104			12.499			8				
	HVAC MECH 107 HHWP-2	20 A	3	9		2.104			14.32		10	3	125 A	T2 and P1-L1 ELEC 108	
				11			2.104			12.428	12				
				13	8.924			8.924			14				
	EQN COMM 109 CRACU-109A	80 A	3	15		8.924			8.924		16	3	80 A	EQN COMM109 CRACU-109B	
				17			8.924			8.924	18				
				19	0.969			0.969			20				
	HVAC CU-109A EXTERIOR	20 A	3	21		0.969			0.969		22	3	20 A	HVAC CU-109B EXTERIOR	
				23			0.969			0.969	24				
				25	22.476			22.476			26				
	HVAC H-1 EXTERIOR	125 A	3	27		22.476			22.476		28	3	125 A	HVAC H-2 EXTERIOR	
				29			22.476			22.476	30				
	SPARE	20 A	1	31	0			0			32	1	20 A	SPARE	
	SPARE	20 A	1	33		0			0		34	1	20 A	SPARE	
	SPARE	20 A	1	35			0			0	36	1	20 A	SPARE	
	SPACE	--	1	37	--			0			38				
	SPACE	--	1	39		--			0		40	3	30 A	SPD	
	SPACE	--	1	41			--			0	42				
	TOTAL CONNECTED LOAD / PHASE:				81.743 kVA		83.265 kVA		82.569 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	247.577 kVA	CONNECTED CURRENT:	297.8 A
ESTIMATED DEMAND LOAD:	238.057 kVA	ESTIMATED DEMAND CURRENT:	286.3 A
ESTIMATED DEMAND FACTOR:	96.15%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	238.057 kVA	ESTIMATED CURRENT WITH SPARE:	286 A

PANELBOARD NOTES:

PANELBOARD: P1-H2

LOCATION: ELEC 114
SUPPY FROM: MDP-1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 480/277V,3P,4W,60Hz
BUS AMPS: 250 A
MCB SIZE: 225 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	LTG LOBBY / HALL WAY 130	20 A	1	1	2			3.2			2	1	20 A	LTG COAST GUARD OFFICE 7P 106	
	LTG EMPLOYEE BREAK ROOM 116	20 A	1	3		2.84			1.652		4	1	20 A	LTG MARINES OFFICE 11P 104	
	LTG OFFICE 110A	20 A	1	5			1.7				6				
	LTG CLASS ROOM 20P 125	20 A	1	7	1			27.797			8				
				9		4			28.344		10	3	175 A	T1 and P1-D1 ELEC 114	
	HVAC JAN 117 EWH-1	20 A	3	11			4			24.556	12				
				13	4			0			14	1	20 A	SPARE	
	SPARE	20 A	1	15		0			0		16	1	20 A	SPARE	
	SPARE	20 A	1	17			0			0	18	1	20 A	SPARE	
	SPARE	20 A	1	19	0			0			20	1	20 A	SPARE	
	SPACE	--	1	21		--			--		22	1	--	SPACE	
	SPACE	--	1	23			--			--	24	1	--	SPACE	
	SPACE	--	1	25	--			--			26	1	--	SPACE	
	SPACE	--	1	27		--			--		28	1	--	SPACE	
	SPACE	--	1	29			--			--	30	1	--	SPACE	
	SPACE	--	1	31	--			--			32	1	--	SPACE	
	SPACE	--	1	33		--			--		34	1	--	SPACE	
	SPACE	--	1	35			--			--	36	1	--	SPACE	
	SPACE	--	1	37	--			0			38				
	SPACE	--	1	39		--			0		40	3	30 A	SPD	
	SPACE	--	1	41			--			0	42				
	TOTAL CONNECTED LOAD / PHASE:				37.997 kVA		36.836 kVA		30.256 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	105.090 kVA	CONNECTED CURRENT:	126.4 A
ESTIMATED DEMAND LOAD:	89.655 kVA	ESTIMATED DEMAND CURRENT:	107.8 A
ESTIMATED DEMAND FACTOR:	85.31%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	89.655 kVA	ESTIMATED CURRENT WITH SPARE:	108 A

PANELBOARD NOTES:

PANELBOARD: P1-HE

LOCATION: ELEC 114
SUPPY FROM: MDP-1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 480/277V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
				1	6.328			1.795			2	1	20 A	LTG CORRIDOR 136	
	P2-HE ELEC 204	60 A	3	3		0			3.233		4	1	20 A	LTG CORRIDOR 137	
				5			0			0.363	6	1	20 A	LTG EXTERIOR BUILDING	
	SPARE	20 A	1	7	0			0.344			8	1	20 A	LTG EXTERIOR BUILDING	
	SPARE	20 A	1	9		0			0		10	1	20 A	SPARE	
	SPACE	--	1	11			--			--	12	1	--	SPACE	
	SPACE	--	1	13	--			--			14	1	--	SPACE	
	SPACE	--	1	15		--			--		16	1	--	SPACE	
	SPACE	--	1	17			--			--	18	1	--	SPACE	
	SPACE	--	1	19	--			0			20				
	SPACE	--	1	21		--			0		22	3	30 A	SPD	
	SPACE	--	1	23			--			0	24				
	TOTAL CONNECTED LOAD / PHASE:				8.467 kVA		3.233 kVA		0.363 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	12.064 kVA	CONNECTED CURRENT:	14.5 A
ESTIMATED DEMAND LOAD:	12.064 kVA	ESTIMATED DEMAND CURRENT:	14.5 A
ESTIMATED DEMAND FACTOR:	100.00%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	12.064 kVA	ESTIMATED CURRENT WITH SPARE:	15 A

PANELBOARD NOTES:

COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

DESIGNED BY: Y. SOLOMON
DRAWN BY: D. PAXTON
CHECKED BY: Y. SOLOMON
SUBMITTED BY: RK
SIZE: ANSI 'D'
FILE NAME:

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - PANEL SCHEDULES

SHEET ID

E-701

AMENDMENT 0002

1 2 3 4 5

PANELBOARD: P1-ELV

LOCATION: ELEV MACH 122
SUPPY FROM: MDP-1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 480/277V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
				1	11.072			0			2	1	20 A	SPARE	
	HVAC ELEV MACH 122 ELEVATOR 1	80 A	3	3		11.072			0		4	1	20 A	SPARE	
				5			11.072			0	6	1	20 A	SPARE	
	SPARE	20 A	1	7	0			0			8	1	20 A	SPARE	
	SPACE	--	1	9		--			--		10	1	--	SPACE	
	SPACE	--	1	11			--			--	12	1	--	SPACE	
	SPACE	--	1	13	--			--			14	1	--	SPACE	
	SPACE	--	1	15		--			--		16	1	--	SPACE	
	SPACE	--	1	17			--			--	18	1	--	SPACE	
	SPACE	--	1	19	--			--			20	1	--	SPACE	
	SPACE	--	1	21		--			--		22	1	--	SPACE	
	SPACE	--	1	23			--			--	24	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				11.072 kVA		11.072 kVA		11.072 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	33.216 kVA	CONNECTED CURRENT:	40.0 A
ESTIMATED DEMAND LOAD:	33.216 kVA	ESTIMATED DEMAND CURRENT:	40.0 A
ESTIMATED DEMAND FACTOR:	100.00%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	33.216 kVA	ESTIMATED CURRENT WITH SPARE:	40 A

PANELBOARD NOTES:

PANELBOARD: P2-H1

LOCATION: ELEC 204
SUPPY FROM: MDP-1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 480/277V,3P,4W,60Hz
BUS AMPS: 400 A
MCB SIZE: 400 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	LTG NIPR TRAINING 20P 233	20 A	1	1	1.8			3.15			2	1	20 A	LTG WAITING AREA FOR TRANSIENT PERSONNE...	
	LTG STUDENT BREAK ROOM 200	20 A	1	3		3.34			2.6		4	1	20 A	LTG MULTI-PURPOSE CLASSRM 20P 209	
	LTG NCS OFFICE 8P 220	20 A	1	5			2			2.888	6	1	20 A	LTG STORAGE 219	
				7	41.371			1.2			8	1	20 A	LTG IDC-W AREA 23P 225	
	T3 P2-D1 ELEC 204	175 A	3	9		39.97			8.924		10				
				11			39.543			8.924	12	3	80 A	EQN UNCLASS COMM 211 CRACU-211A	
				13	8.924			8.924			14				
	EQN UNCLASS COMM 211 CRACU-211B	80 A	3	15		8.924			8.924		16				
				17			8.924			8.924	18	3	80 A	EQN UNCLASS COMM 211 CRACU-211C	
				19	8.924			8.924			20				
	EQN CLASS COMM 212 CRACU-212A	80 A	3	21		8.924			8.924		22				
				23			8.924			8.924	24	3	20 A	EQN CLASS COMM 212 CRACU-212B	
				25	0.969			8.924			26				
	HVAC CU-212A ROOF MOUNTED	20 A	3	27		0.969			0.969		28				
				29			0.969			0.969	30	3	20 A	HVAC CU-212B ROOF MOUNTED	
				31	0.969			0.969			32				
	HVAC CU-211B ROOF MOUNTED	20 A	3	33		0.969			0.969		34				
				35			0.969			0.969	36	3	20 A	HVAC CU-211A ROOF MOUNTED	
				37	0.969			0.969			38				
	HVAC CU-211C ROOF MOUNTED	20 A	3	39		0.969			0		40	1	20 A	SPARE	
				41			0.969			0	42	1	20 A	SPARE	
	SPARE	20 A	1	43	0			0			44	1	20 A	SPARE	
	SPARE	20 A	1	45		0			0		46	1	20 A	SPARE	
	SPARE	20 A	1	47			0			0	48	1	20 A	SPARE	
	SPACE	--	1	49	--			0			50				
	SPACE	--	1	51		--			0		52	3	30 A	SPD	
	SPACE	--	1	53			--			0	54				
	TOTAL CONNECTED LOAD / PHASE:				96.986 kVA		95.375 kVA		93.896 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	286.257 kVA	CONNECTED CURRENT:	344.3 A
ESTIMATED DEMAND LOAD:	249.375 kVA	ESTIMATED DEMAND CURRENT:	300.0 A
ESTIMATED DEMAND FACTOR:	87.12%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	249.375 kVA	ESTIMATED CURRENT WITH SPARE:	300 A

PANELBOARD NOTES:

PANELBOARD: P2-HE

LOCATION: ELEC 204
SUPPY FROM: P1-HE
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 480/277V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 60 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	LTG WAITING AREA TRANSIENT PERSONNEL 22P...	20 A	1	1	2.898			3.43			2	1	20 A	LTG WAITING AREA TRANSIENT PERSONNEL 22P...	
	SPARE	20 A	1	3		0			0		4	1	20 A	SPARE	
	SPARE	20 A	1	5			0			0	6	1	20 A	SPARE	
	SPACE	--	1	7	--			--			8	1	--	SPACE	
	SPACE	--	1	9		--			--		10	1	--	SPACE	
	SPACE	--	1	11			--			--	12	1	--	SPACE	
	SPACE	--	1	13	--			--			14	1	--	SPACE	
	SPACE	--	1	15		--			--		16	1	--	SPACE	
	SPACE	--	1	17			--			--	18	1	--	SPACE	
	SPACE	--	1	19	--			0			20				
	SPACE	--	1	21		--			0		22	3	30 A	SPD	
	SPACE	--	1	23			--			0	24				
	TOTAL CONNECTED LOAD / PHASE:				6.328 kVA		0 kVA		0 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	6.328 kVA	CONNECTED CURRENT:	7.6 A
ESTIMATED DEMAND LOAD:	6.328 kVA	ESTIMATED DEMAND CURRENT:	7.6 A
ESTIMATED DEMAND FACTOR:	100.00%		
SPARE CAPACITY:	15%		
ESTIMATED LOAD WITH SPARE:	7.277 kVA	ESTIMATED CURRENT WITH SPARE:	9 A

PANELBOARD NOTES:

PANELBOARD: P1-D1

LOCATION: ELEC 114
SUPPY FROM: P1-H2
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 400 A
MCB SIZE: 400 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
				1	11.645			12.92			2				
	P1-L2 ELEC 114	100 A	3	3		11.965			13.57		4	3	100 A	P1-L3 ELEC 114	
				5			11.12			12.81	6				
				7	3.202			0.03			8	1	20 A	EQN ELEC 108 FIRE ALARM CONTROL PANEL...	
	P1-L4 ELEC 114	100 A	3	9		2.809			0		10	1	20 A	SPARE	
				11			0.626			0	12	1	20 A	SPARE	
	SPARE	20 A	1	13	0			0			14	1	20 A	SPARE	
	SPARE	20 A	1	15		0			0		16	1	20 A	SPARE	
	SPARE	20 A	1	17			0			0	18	1	20 A	SPARE	
	SPACE	--	1	19	--			--			20	1	--	SPACE	
	SPACE	--	1	21		--			--		22	1	--	SPACE	
	SPACE	--	1	23			--			--	24	1	--	SPACE	
	SPACE	--	1	25	--			--			26	1	--	SPACE	
	SPACE	--	1	27		--			--		28	1	--	SPACE	
	SPACE	--	1	29			--			--	30	1	--	SPACE	
	SPACE	--	1	31	--			--			32	1	--	SPACE	
	SPACE	--	1	33		--			--		34	1	--	SPACE	
	SPACE	--	1	35			--			--	36	1	--	SPACE	
				37	0			--			38	1	--	SPACE	
2	SPD	30 A	3	39		0			--		40	1	--	SPACE	
				41			0			--	42	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				27.797 kVA		28.344 kVA		24.556 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	80.697 kVA	CONNECTED CURRENT:	224.0 A
ESTIMATED DEMAND LOAD:	65.262 kVA	ESTIMATED DEMAND CURRENT:	181.1 A
ESTIMATED DEMAND FACTOR:	80.87%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	65.262 kVA	ESTIMATED CURRENT WITH SPARE:	181 A

PANELBOARD NOTES: 1. PROVIDE LOCK-ON BREAKER.

COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

DESIGNED BY: Y. SOLOMON
DRAWN BY: D. PAXTON
CHECKED BY: Y. SOLOMON
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - PANEL SCHEDULES

SHEET ID

E-702

AMENDMENT 0002

1 2 3 4 5

D C B A

PANELBOARD: P1-L1

LOCATION: ELEC 108
SUPPY FROM: P1-H1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 250 A
MCB SIZE: 225 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	REC EXTERIOR GFI WP	20 A	1	1	0.9			0.72			2	1	20 A	REC EXTERIOR GFI WP	
	HVAC MECH 107 B-1	20 A	1	3		1.2			1.2		4	1	20 A	HVAC MECH 107 B-2	
	HVAC MECH 107	20 A	2	5			0.1			0.208	6	2	15 A	EQN STAIR S2 CUH-S2	
				7	0.1			0.208			8				
	EQN VEST 111 CUH-111	15 A	2	9		0.104			1.976		10	2	30 A	HVAC EXTERIOR CU-108	
				11			0.104			1.976	12				
	HVAC MECH 107 UH-1	20 A	1	13	1.501			0.03			14	1	20 A	EQN MECH 107 TRAP PRIMER PANEL	
	EQN ELEC 108 FIRE ALARM NAC PANEL (NOTE 1)	20 A	1	15		0.3			0.1		16	1	20 A	EQN H-1 HEATER EXTERIOR	
	EQN BAS CONTROL PANEL MECH 107	20 A	1	17			0.5			0.1	18	1	20 A	EQN H-2 HEATER EXTERIOR	
	EQN BAS CONTROL PANEL MECH 107	20 A	1	19	0.5			0			20	1	20 A	SPARE	
	SPARE	20 A	1	21		0			0		22	1	20 A	SPARE	
	SPARE	20 A	1	23			0			0	24	1	20 A	SPARE	
	SPARE	20 A	1	25	0			0			26	1	20 A	SPARE	
	SPARE	20 A	1	27		0			--		28	1	--	SPACE	
	SPARE	20 A	1	29			0			--	30	1	--	SPACE	
	SPACE	--	1	31	--			--			32	1	--	SPACE	
	SPACE	--	1	33		--			--		34	1	--	SPACE	
	SPACE	--	1	35			--			--	36	1	--	SPACE	
2	SPD	30 A	3	37	0			8.54			38	3	100 A	P1-C MAIN COMM 109	
				39		0			9.44		40				
				41			0			9.44	42				
	TOTAL CONNECTED LOAD / PHASE:				12.499 kVA		14.32 kVA		12.428 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	39.247 kVA	CONNECTED CURRENT:	108.9 A
ESTIMATED DEMAND LOAD:	29.727 kVA	ESTIMATED DEMAND CURRENT:	82.5 A
ESTIMATED DEMAND FACTOR:	75.74%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	29.727 kVA	ESTIMATED CURRENT WITH SPARE:	83 A

PANELBOARD NOTES: 1. PROVIDE LOCK-ON BREAKER.

PANELBOARD: P1-L2

LOCATION: ELEC 114
SUPPY FROM: P1-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	REC CORRIDOR 136	20 A	1	1	1.62			1.26			2	1	20 A	REC MECH 107	
	REC CORRIDOR 136	20 A	1	3		1.8			1.26		4	1	20 A	REC LOBBY / HALL WAY 130	
	REC FEMALE 119	20 A	1	5			1.44			1.44	6	1	20 A	REC EMPLOYEE BRK. RM. 116	
	REC AIR FORCE/SPACE FORCE OFFICE 110...	20 A	1	7	0.5			1.08			8	1	20 A	REC OFFICE 110A	
	REC OFFICE 110C	20 A	1	9		0.9			1.08		10	1	20 A	REC AIR FORCE / SPACE FORCE OFFICE 24P 110	
	REC EMPLOYEE BRK. RM. 116 REF.	20 A	1	11			0.725			1.44	12	1	20 A	REC OFFICE 110A	
	REC EMPLOYEE BRK. RM. 116 MICROWAVE	20 A	1	13	1.2			0.36			14	1	20 A	REC EMPLOYEE BRK. RM. 116	
	REC AIR FORCE/SPACE FORCE OFFICE 110...	20 A	1	15		0.5			1.2		16	1	20 A	REC EMPLOYEE BRK. RM. 116 MICROWAVE	
	REC OFFICE 104B	20 A	1	17			1.08			0.933	18	3	20 A	EQN AIR FORCE / SPACE FORCE OFFICE 24P 110 FURNITURE SYSTEMS	
	EQN AIR FORCE / SPACE FORCE OFFICE 24P 110 FURNITURE SYSTEMS	20 A	3	19	0.933			0.933			20				
				21		0.933			0.933		22				
				23			0.933			0.933	24	3	20 A	EQN AIR FORCE / SPACE FORCE OFFICE 24P 110 FURNITURE SYSTEMS	
	EQN MARINES OFFICE 104 FURNITURE SYSTEMS	20 A	2	25	1.05			0.933			26				
				27		1.05			0.933		28				
	REC ELEV MACH 122	20 A	1	29			0.36			1.08	30	1	20 A	REC OFFICE 106A	
	REC COAST GUARD OFFICE 7P 106	20 A	1	31	0.72			0.18			32	1	20 A	REC ELEVATOR E1	
	SPARE	20 A	1	33		0			0.5		34	1	20 A	REC COAST GUARD OFFICE 7P 106 COPIER	
	EQN LOBBY/HALL WAY 130 FIRE ALARM...	20 A	1	35			0.03			0	36	1	20 A	SPARE	
	EQN MARINES OFFICE 11P 104 FURNITURE SYSTEMS	20 A	2	37	0.35			0.525			38	2	20 A	EQN MARINES OFFICE 11P 104 FURNITUTRE SYSTEMS	
				39		0.35			0.525		40				
	REC EMPLOYEE BRK. RM. 116	20 A	1	41			0.725			0	42	1	20 A	SPARE	
	SPARE	20 A	1	43	0			0			44	1	20 A	SPARE	
	SPARE	20 A	1	45		0			0		46	1	20 A	SPARE	
	SPARE	20 A	1	47			0			0	48	1	20 A	SPARE	
	SPACE	--	1	49	--			0			50	3	30 A	SPD	2
	SPACE	--	1	51		--			0		52				
	SPACE	--	1	53			--			0	54				
	TOTAL CONNECTED LOAD / PHASE:				11.645 kVA		11.965 kVA		11.12 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	34.730 kVA	CONNECTED CURRENT:	96.4 A
ESTIMATED DEMAND LOAD:	28.505 kVA	ESTIMATED DEMAND CURRENT:	79.1 A
ESTIMATED DEMAND FACTOR:	82.08%		
SPARE CAPACITY:	15%		
ESTIMATED LOAD WITH SPARE:	32.781 kVA	ESTIMATED CURRENT WITH SPARE:	91 A

PANELBOARD NOTES:

PANELBOARD: P1-L3

LOCATION: ELEC 114
SUPPY FROM: P1-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 250 A
MCB SIZE: 225 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	EQN ARMY OFFICE 23P 123 FURNITURE SYSTEMS	20 A	2	1	0.875			0.525			2	2	20 A	EQN ARMY OFFICE 23P 123 FURNITURE SYSTEMS	
				3		0.875			0.525		4				
	EQN ARMY OFFICE 23P 123 FURNITURE SYSTEMS	20 A	2	5			1.05			1.05	6	2	20 A	EQN ARMY OFFICE 23P 123 FURNITUTE SYSTEMS	
				7	1.05			1.05			8				
	REC MARINES OFFICE 11P 104	20 A	1	9		0.9			0.5		10	1	20 A	REC MARINES OFFICE 11P 104 COPIER	
	EQN NAVY OFFICE 6P 124	20 A	2	11			1.05			0.7	12	2	20 A	EQN COAST GUARD OFFICE 106 FURNITURE SYSTEMS	
				13	1.05			0.7			14				
	REC OFFICE 106A	20 A	1	15		1.62			1.62		16	1	20 A	REC OFFICE 104B	
	REC ARMY OFFICE 23P 123	20 A	1	17			1.26			0.5	18	1	20 A	REC ARMY OFFICE 23P 123 COPIER	
	REC NAVY OFFICE 6P 124 COPIER	20 A	1	19	0.5			1.08			20	1	20 A	REC NAVY OFFICE 6P 124	
	REC OFFICE 124A	20 A	1	21		1.08			0.72		22	1	20 A	REC OFFICE 124A	
	REC WAITING AREA FOR TRANSIENT PERSONNE...	20 A	1	23			1.08			1.08	24	1	20 A	REC WAITING AREA FOR TRANSIENT PERSONNE...	
	EQN WAITING AREA FOR TRANSIENT PERSONNE...	20 A	1	25	1.08			1.08			26	1	20 A	REC WAITING AREA FOR TRANSIENT PERSONNE...	
	EQN WAITING AREA FOR TRANSIENT PERSONNE...	20 A	1	27		1.44			1.08		28	1	20 A	EQN WAITING AREA FOR TRANSIENT PERSONNE...	
	REC WAITING ARE AFOR TRANSIENT PERSONNE...	20 A	1	29			0.36			0.9	30	1	20 A	REC WAITING AREA FOR TRANSIENT PERSONNE...	
	REC COVE 4P 126	20 A	1	31	1.08			1.44			32	1	20 A	REC COVE 4P 126	
	EQN CLASSROOM 125	20 A	1	33		1.08			1.08		34	1	20 A	EQN CLASSROOM 20P 125	
	EQN CLASSROOM 125	20 A	1	35			1.08			1.08	36	1	20 A	EQN CLASSROOM 20P 125	
	EQN ARMY OFFICE 23P 123 FURNITURE SYSTEMS	20 A	2	37	0.525			0.525			38	2	20 A	EQN COAST GUARD OFFICE 7P 106 FURNITURE SYSTEMS	
				39		0.525			0.525		40				
	REC CLASSROOM 20P 125	20 A	1	41			1.62			0	42	1	20 A	SPARE	
	REC CLASSROOM 20P 125	20 A	1	43	0.36			0			44	1	20 A	SPARE	
	SPARE	20 A	1	45		0			0		46	1	20 A	SPARE	
	SPARE	20 A	1	47			0			0	48	1	20 A	SPARE	
	SPACE	--	1	49	--			--			50	1	--	SPACE	
	SPACE	--	1	51		--			--		52	1	--	SPACE	
	SPACE	--	1	53			--			--	54	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				12.92 kVA		13.57 kVA		12.81 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	39.300 kVA	CONNECTED CURRENT:	109.1 A
ESTIMATED DEMAND LOAD:	35.090 kVA	ESTIMATED DEMAND CURRENT:	97.4 A
ESTIMATED DEMAND FACTOR:	89.29%		
SPARE CAPACITY:	15%		
ESTIMATED LOAD WITH SPARE:	40.354 kVA	ESTIMATED CURRENT WITH SPARE:	112 A

PANELBOARD NOTES:

PANELBOARD: P1-L4

LOCATION: ELEC 114
SUPPY FROM: P1-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	EQN VEST 129 CUH-129	15 A	2	1	0.104			0.208			2	2	15 A	EQN STAIR S1 CUH-S1	
				3		0.104			0.208		4				
	EQN VESTIBULE 2-STORY 139 CUH-139A	15 A	2	5			0.208			0.208	6	2	15 A	EQN VESTIBULE 2-STORY 139 CUH-139B	
				7	0.208			0.208			8				
	EQN OFFICE 110 VAV-(110A,110B,110E,110-F)	20 A	1	9		0.06			0.06		10	1	20 A	EQN BRK. RM. 116 VAV-(110C,110D,116)	
	EQN OFFICE 104 VAV -(104A,104B,104,136)	20 A	1	11			0.06			0.03	12	1	20 A	EQN CORRIDOR 136 VAV-108, VAV-109	
	EQN CORR. 136 VAV-100,VAV-119,VAV-120	20 A	1	13	0.06			0.06			14	1	20 A	EQN CORRIDOR 137 VAV-130, VAV-137	
	EQN OFFICE 106 VAV - (106,106A,123A,123C)	20 A	1	15		0.06			0.06		16	1	20 A	EQN ARMY OFFICE 123 VAV-123B, VAV-124	
	EQN VAV-125A, VAV-125B, VAV-245	20 A	1	17			0.06			0.06	18	1	20 A	EQN VAV-240, VAV-246, VAV-247	
	HVAC JAN 117 HWRP-1	20 A	1	19	1.177			1.177			20	1	20 A	HVAC ELEVATOR E1 SP-1	
	HVAC ELEV MACH 122 ELEVATOR LIGHTING	20 A	1	21		1.5			0.757		22	1	20 A	HVAC EMPLOYEE BRK. RM. 116 GARBAGE...	
	SPARE	20 A	1	23			0			0	24	1	20 A	SPARE	
	SPARE	20 A	1	25	0			0			26	1	20 A	SPARE	
	SPARE	20 A	1	27		0			0		28	1	20 A	SPARE	
	SPARE	20 A	1	29			0			0	30	1	20 A	SPARE	
	SPACE	--	1	31	--			--			32	1	--	SPACE	
	SPACE	--	1	33		--			--		34	1	--	SPACE	
	SPACE	--	1	35			--			--	36	1	--	SPACE	
	SPACE	--	1	37	--			--			38	1	--	SPACE	
	SPACE	--	1	39		--			--		40	1	--	SPACE	
	SPACE	--	1	41			--			--	42	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				3.202 kVA		2.809 kVA		0.626 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	6.637 kVA	CONNECTED CURRENT:	18.4 A
ESTIMATED DEMAND LOAD:	6.637 kVA	ESTIMATED DEMAND CURRENT:	18.4 A
ESTIMATED DEMAND FACTOR:	100.00%		
SPARE CAPACITY:	15%		
ESTIMATED LOAD WITH SPARE:	7.633 kVA	ESTIMATED CURRENT WITH SPARE:	21 A

PANELBOARD NOTES:

COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

DESIGNED BY: Y. SOLOMON
DRAWN BY: D. PAXTON
CHECKED BY: Y. SOLOMON
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - PANEL SCHEDULES

SHEET ID

E-703

AMENDMENT 0002

PANELBOARD: P2-L4

LOCATION: ELEC 204
SUPPY FROM: P2-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	SPACE	--	1	1	--			0.06			2	1	20 A	EQN TRAINING 233 VAV-(233A,233B,234A,234B)	
	SPACE	--	1	3		--			0.06		4	1	20 A	EQN BRK. RM. 200 VAV - (200A, 200B,203)	
	EQN CORRIDOR 210 VAV - (210B,230,231)	20 A	1	5			0.06			0.06	6	1	20 A	EQN CORIDOR 210 VAV - (210A, 243)	
	EQN CLASSRM 208 VAV - (208, 209)	20 A	1	7	0.06			0.03			8	1	20 A	EQN CORRIDOR 210 VAV - (255,256)	
	EQN OFFICE 220 VAV - (220, 252)	20 A	1	9		0.03			0.06		10	1	20 A	EQN CLASSRM 224 VAV - (212,223,224)	
	EQN CORRIDOR 264 VAV - (213, 222)	20 A	1	11			0.06			0.06	12	1	20 A	EQN RM 216 & RM 225 VAV - 216A, 216B, 251)	
	HVAC EF-1 ROOF MOUNTED	20 A	2	13	0.416			1.144			14	2	30 A	HVAC CU-114 ROOF MOUNTED	
				15		0.416			1.144		16				
	HVAC CU-204 ROOF MOUNTED	30 A	2	17			1.144			2.496	18	2	40 A	HVAC CU-122 ROOF MOUNTED	
				19	1.144			2.496			20				
	REC GFI WP ROOF MOUNTED	20 A	1	21		0.54			0.3		22	1	20 A	EQN ELEC 204 FIRE ALARM NAC PANEL (NOTE 1)	
	HVAC STUDENT BRK. RM. 200 GARBAGE...	20 A	1	23			0.757			0	24	1	20 A	SPARE	
	SPARE	20 A	1	25	0			0			26	1	20 A	SPARE	
	SPARE	20 A	1	27		0			0		28	1	20 A	SPARE	
	SPARE	20 A	1	29			0			--	30	1	--	SPACE	
	SPACE	--	1	31	--			--			32	1	--	SPACE	
	SPACE	--	1	33		--			--		34	1	--	SPACE	
	SPACE	--	1	35			--			--	36	1	--	SPACE	
2	SPD	30 A	3	37	0			--			38	1	--	SPACE	
				39		0			--		40	1	--	SPACE	
				41			0			--	42	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				5.351 kVA		2.55 kVA		4.638 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	12.539 kVA	CONNECTED CURRENT:	34.8 A
ESTIMATED DEMAND LOAD:	12.539 kVA	ESTIMATED DEMAND CURRENT:	34.8 A
ESTIMATED DEMAND FACTOR:	100.00%		
SPARE CAPACITY:	15%		
ESTIMATED LOAD WITH SPARE:	14.42 kVA	ESTIMATED CURRENT WITH SPARE:	40 A

PANELBOARD NOTES: 1. PROVIDE LOCK-ON BREAKER.

PANELBOARD: P2-L5

LOCATION: ELEC 221
SUPPY FROM: P2-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	REC SECURED STORAGE 252	20 A	1	1	0.54			0.72			2	1	20 A	REC CORRIDOR 264	
	REC SECURED STORAGE 252	20 A	1	3		0.72			0.72		4	1	20 A	REC SECURED STORAGE 252	
	REC SOCC SECURITY OFFICE 222	20 A	1	5			0.54			0.72	6	1	20 A	REC NCS OFFICE 8P 220	
	REC NCS OFFICE 8P 220	20 A	1	7	0.9			0.5			8	1	20 A	REC NCS OFFICE 8P 220 COPIER	
	REC NCS OFFICE 8P 220	20 A	1	9		0.72			0.72		10	1	20 A	EQN NCS OFFICE 8P 220	
	EQN NCS OFFICE 8P 220	20 A	1	11			0.72			0.72	12	1	20 A	REC CLASSRM 20P 224	
	REC CLASSRM 20P 223 MONITORS	20 A	1	13	0.54			0.54			14	1	20 A	REC CLASSRM 20P 223 MONITORS	
	REC CLASSRM 20P 223	20 A	1	15		0.9			0.72		16	1	20 A	EQN CLASSRM 20P 224	
	EQN CLASSRM 20P 223	20 A	1	17			0.72			0.72	18	1	20 A	EQN CLASSRM 20P 224	
	EQN CLASSRM 20P 223	20 A	1	19	0.72			0.72			20	1	20 A	EQN CLASSRM 20P 224	
	EQN CLASSRM 20P 223	20 A	1	21		0.72			0.72		22	1	20 A	EQN CLASSRM 20P 224	
	EQN CLASSRM 20P 223	20 A	1	23			0.72			0.72	24	1	20 A	EQN CLASSRM 20P 223	
	REC NSAC IIA OFFICE 20P 216 COPIER	20 A	1	25	0.18			0.36			26	1	20 A	REC NSAC IIA OFFICE 20P 216	
	REC NSAC IIA OFFICE 20P 216	20 A	1	27		0.36			0.36		28	1	20 A	REC NSAC IIA OFFICE 20P 216	
	REC NSAC IIA OFFICE 20P 216	20 A	1	29			0.36			0.36	30	1	20 A	REC NSAC IIA OFFICE 20P 216	
	EQN NSAC IIA OFFICE 20P 216	20 A	1	31	0.72			0.72			32	1	20 A	EQN NSAC IIA OFFICE 20P 216	
	EQN NSAC IIA OFFICE 20P 216	20 A	1	33		0.72			0.72		34	1	20 A	EQN NSAC IIA OFFICE 20P 216	
	EQN NSAC IIA OFFICE 20P 216	20 A	1	35			0.72			0.54	36	1	20 A	REC NSAC IIA OFFICE 20P 216	
	SPARE	20 A	1	37	0			0			38	1	20 A	SPARE	
	SPARE	20 A	1	39		0			0		40	1	20 A	SPARE	
	SPARE	20 A	1	41			0			0	42	1	20 A	SPARE	
	SPARE	20 A	1	43	0			0			44	1	20 A	SPARE	
	SPACE	--	1	45		--			--		46	1	--	SPACE	
	SPACE	--	1	47			--			--	48	1	--	SPACE	
	SPACE	--	1	49	--			--			50	1	--	SPACE	
	SPACE	--	1	51		--			--		52	1	--	SPACE	
	SPACE	--	1	53			--			--	54	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				7.16 kVA		8.1 kVA		7.56 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	22.820 kVA	CONNECTED CURRENT:	63.3 A
ESTIMATED DEMAND LOAD:	22.170 kVA	ESTIMATED DEMAND CURRENT:	61.5 A
ESTIMATED DEMAND FACTOR:	97.15%		
SPARE CAPACITY:	15%		
ESTIMATED LOAD WITH SPARE:	25.496 kVA	ESTIMATED CURRENT WITH SPARE:	71 A

PANELBOARD NOTES:

PANELBOARD: P2-C1

LOCATION: UNCLASS COMM 211
SUPPY FROM: P2-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	REC UNCLASS COMM 211	20 A	1	1	0.5			0.5			2	1	20 A	REC UNCLASS COMM 211	
	REC UNCLASS COMM 211	20 A	1	3		0.5			0.5		4	1	20 A	REC UNCLASS COMM 211	
	REC UNCLASS COMM 211	20 A	1	5			0.5			0.5	6	1	20 A	REC UNCLASS COMM 211	
	REC UNCLASS COMM 211	20 A	1	7	0.5			0.5			8	1	20 A	REC UNCLASS COMM 211	
	REC UNCLASS COMM 211	20 A	2	9		0.75			0.75		10	2	20 A	REC UNCLASS COMM 211	
				11			0.75			0.75	12				
	REC UNCLASS COMM 211	20 A	2	13	0.75			0.75			14	2	20 A	REC UNCLASS COMM 211	
				15		0.75			0.75		16				
	REC UNCLASS COMM 211	20 A	2	17			0.75			0.75	18	2	20 A	REC UNCLASS COMM 211	
				19	0.75			0.75			20				
	REC UNCLASS COMM 211	20 A	2	21		0.75			0.75		22	2	20 A	REC UNCLASS COMM 211	
				23			0.75			0.75	24				
	REC UNCLASS COMM 211	20 A	1	25	0.72			0.18			26	1	20 A	REC UNCLASS COMM 211	
	REC UNCLASS COMM 211	20 A	1	27		0.72			--		28	1	--	SPACE	
	SPARE	20 A	1	29			0			0	30	1	20 A	SPARE	
	SPARE	20 A	1	31	0			0			32	1	20 A	SPARE	
	SPARE	20 A	1	33		0			0		34	1	20 A	SPARE	
	SPACE	--	1	35			--			--	36	1	--	SPACE	
	SPD	30 A	3	37	0			--			38	1	--	SPACE	
				39		0			--		40	1	--	SPACE	
				41			0			--	42	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				5.9 kVA		6.22 kVA		5.5 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	17.620 kVA	CONNECTED CURRENT:	48.9 A
ESTIMATED DEMAND LOAD:	13.810 kVA	ESTIMATED DEMAND CURRENT:	38.3 A
ESTIMATED DEMAND FACTOR:	78.38%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	13.81 kVA	ESTIMATED CURRENT WITH SPARE:	38 A

PANELBOARD NOTES:

PANELBOARD: P2-C2

LOCATION: CLASS COMM 212
SUPPY FROM: P2-D1
MOUNTING: Surface
ENCLOSURE: Type 1

VOLTAGE: 208/120V,3P,4W,60Hz
BUS AMPS: 100 A
MCB SIZE: 100 A

NOTES	DESCRIPTIONS	TRIP AMPS	POLES	CKT NO.	A	B	C	A	B	C	CKT NO.	POLES	TRIP AMPS	DESCRIPTIONS	NOTES
	REC CLASS COMM 212	20 A	1	1	0.5			0.5			2	1	20 A	REC CLASS COMM 212	
	REC CLASS COMM 212	20 A	1	3		0.5			0.5		4	1	20 A	REC CLASS COMM 212	
	REC CLASS COMM 212	20 A	1	5			0.5			0.5	6	1	20 A	REC CLASS COMM 212	
	REC CLASS COMM 212	20 A	1	7	0.5			0.5			8	1	20 A	REC CLASS COMM 212	
	REC CLASS COMM 212	20 A	1	9		0.5			0.5		10	1	20 A	REC CLASS COMM 212	
	REC CLASS COMM 212	20 A	1	11			0.5			0.5	12	1	20 A	REC CLASS COMM 212	
	REC CLASS COMM 212	20 A	2	13	0.75			0.75			14	2	20 A	REC CLASS COMM 212	
				15		0.75			0.75		16				
	REC CLASS COMM 212	20 A	2	17			0.75			0.75	18	2	20 A	REC CLASS COMM 212	
				19	0.75			0.75			20				
	REC CLASS COMM 212	20 A	2	21		0.75			0.75		22	2	20 A	REC CLASS COMM 212	
				23			0.75			0.75	24				
	REC CLASS COMM 212	20 A	2	25	0.75			0.75			26	2	20 A	REC CLASS COMM 212	
				27		0.75			0.75		28				
	REC CLASS COMM 212	20 A	2	29			0.75			0.75	30	2	20 A	REC CLASS COMM 212	
				31	0.75			0.75			32				
	REC CLASS COMM 212	20 A	2	33		0.75			0.75		34	2	20 A	REC CLASS COMM 212	
				35			0.75			0.75	36				
	REC CLASS COMM 212	20 A	1	37	0.18			0.9			38	1	20 A	REC CLASS COMM 212	
	SPARE	20 A	1	39		0			0.72		40	1	20 A	REC CLASS COMM 212	
	SPARE	20 A	1	41			0			0	42	1	20 A	SPARE	
	SPARE	20 A	1	43	0			0			44	1	20 A	SPARE	
	SPARE	20 A	1	45		0			0		46	1	20 A	SPARE	
	SPARE	20 A	1	47			0			0	48	1	20 A	SPARE	
	SPD	30 A	3	49	0			--			50	1	--	SPACE	
				51		0			--		52	1	--	SPACE	
				53			0			--	54	1	--	SPACE	
	TOTAL CONNECTED LOAD / PHASE:				9.08 kVA		8.72 kVA		8 kVA						

TOTAL LOAD SUMMARY

LOAD (kVA)		CURRENT (AMPS)	
CONNECTED LOAD:	25.800 kVA	CONNECTED CURRENT:	71.6 A
ESTIMATED DEMAND LOAD:	17.900 kVA	ESTIMATED DEMAND CURRENT:	49.7 A
ESTIMATED DEMAND FACTOR:	69.38%		
SPARE CAPACITY:			
ESTIMATED LOAD WITH SPARE:	17.9 kVA	ESTIMATED CURRENT WITH SPARE:	50 A

PANELBOARD NOTES:

COMMONWEALTH OF VIRGINIA
12/14/2022
YOSEPH Z. SOLOMON
Lic. No. 0402047869
PROFESSIONAL ENGINEER

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 23

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:

DESIGNED BY: Y. SOLOMON
DRAWN BY: D. PAXTON
CHECKED BY: Y. SOLOMON
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

ELECTRICAL - PANEL SCHEDULES

SHEET ID
E-705

1 2 3 4 5

TELECOMMUNICATIONS SYMBOLS

TELEPHONE AND DATA COMMUNICATIONS

PLYWOOD BACKBOARD

EQUIPMENT CABINET

TELEPHONE WALL OUTLET. WP = WEATHER PROOF,
FACP= RESERVED FOR FIRE ALARM CONTROL PANEL

WAP DATA WALL OUTLET
WAP = WIRELESS ACCESS POINT
AV = AUDIO VISUAL
S = SIPR
N = NIPR

M COMBINATION TELEPHONE AND DATA WALL OUTLET
M= MODULAR OR SYSTEM FURNITURE OUTLET
S = SIPR
N = NIPR

TELEPHONE OUTLET IN COMMON FLOOR BOX WITH ELECTRICAL OUTLET

DATA OUTLET IN COMMON FLOOR BOX WITH ELECTRICAL OUTLET, S = SIPR, N = NIPR, AV = AUDIO/VISUAL

COMBINATION TELEPHONE AND DATA OUTLET IN COMMON FLOOR BOX WITH ELECTRICAL OUTLET

UNDERFLOOR WALL PENETRATION. REFER TO ARCHITECTURAL FOR PARTITION TYPES.

WAP CEILING MOUNTED WIRELESS ACCESS POINT

T WALL MOUNTED JUNCTION BOX WITH FLEXIBLE WHIP TO FURNITURE BASE POWER FEED, MOUNT AT 18-INCHES ABOVE FINISHED FLOOR. S = SIPR, N = NIPR

T FLOOR BOX FEED WITH FLEXIBLE WHIP TO FURNITURE BASE POWER FEED

TP POWER POLE FEED WITH FLEXIBLE WHIP TO FURNITURE BASE POWER FEED

PRIMARY BONDING BUSBAR (PBB); SECONDARY BONDING BUSBAR (SBB)

BUILDING ENTRANCE TERMINAL

110 110 BLOCKS

CP CONSOLIDATION POINT

BASKET CABLE TRAY

LADDER RACK

MISCELLANEOUS SYSTEMS

MIC MICROPHONE OUTLET CEILING

MIC MICROPHONE OUTLET FLOOR

MIC MICROPHONE OUTLET WALL

PA PUBLIC ADDRESS PUSHBUTTON

V VOLUME CONTROL AND CHANNEL SELECTOR

CEILING MOUNTED SPEAKER
S=SOUND MASKING

WALL MOUNTED SPEAKER

SINGLE FACE CLOCK, A = ANALOG, D = DIGITAL

PROGRAM BELL

PROGRAM BUZZER

BUZZER SWITCH

TV TELEVISION OUTLET

2WIC 2-WAY INTERCOM

CH CHIME

AV 1 A/V INPUT PLATE

AV 2 A/V INPUT PLATE

ACCESS CONTROL & INTRUSION DETECTION

CCTV CAMERA, FIXED
W = WALL
C = CEILING
R = ROOF/PARAPET
P = POLE

CCTV CAMERA, PAN-TILT-ZOOM
W = WALL
C = CEILING
R = ROOF/PARAPET
P = POLE

CARD READER

CARD READER WITH KEYPAD

KEYPAD

ML ELECTROMAGNETIC LOCKING DEVICE

EL ELECTRIFIED LOCK SET

DS DOOR STRIKE

BREAK GLASS SENSOR

360° PASSIVE INFRARED/MICROWAVE SENSOR
AC = ABOVE CEILING

PASSIVE INFRARED/MICROWAVE SENSOR

BALANCED MAGNETIC SWITCH

REQUEST TO EXIT PUSH BUTTON

REQUEST TO EXIT PASSIVE INFRARED SENSOR

SEISMIC SENSOR

AUDIO SENSOR DEVICE

P DURESS PANIC SWITCH

INTERCOM:
M = MASTER STATION
R = REMOTE STATION

VIDEO INTERCOM (MASTER)

VIDEO INTERCOM (REMOTE)

CCTV MONITOR

SIREN

AREA NOTIFICATION EQUIPMENT

CELLULAR TRANSMITTER

POWER SUPPLY

SP SECURITY PANEL

CBE CELL BOOSTER ENCLOSURE

ENC SECURITY ENCLOSURE

BWS BADGING WORKSTATION

AWS ALARM MONITORING WORKSTATION

ACS ACCESS CONTROL SYSTEM PANEL

IDS INTRUSION DETECTION SYSTEM PANEL

SITE

(N) CMH XXX NEW MAINTENANCE HOLE (MH NUMBER IDENTIFIED)

(E) CMH XXX EXISTING MAINTENANCE HOLE

(N) CHH XXX NEW COMMUNICATIONS HANDHOLE

(E) CHH XXX EXISTING COMMUNICATIONS HANDHOLE

UT COMMUNICATIONS DUCTBANK

TELECOMMUNICATIONS ABBREVIATIONS

ACS	ACCESS CONTROL SYSTEM
ACEG	ALTERNATING CURRENT EQUIPMENT GROUND
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANN	ANNUNCIATOR
ARCH	ARCHITECTURAL
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAGE
BAS	BUILDING AUTOMATION SYSTEM
BATT	BATTERY
BB	BACKBONE
BFPP	BACKBONE FIBER PATCH PANEL
BBV	BACKBONE VOICE
BEPB	BUILDING ENTRANCE PROTECTION BLOCKS
BLDG	BUILDING
BMS	BALANCED MAGNETIC SWITCH
BVPP	BACKBONE VOICE PATCH PANEL
C	CONDUIT
CAB	CABINET
CAT	CATEGORY
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
CMH	COMMUNICATIONS MANHOLE
COB	CENTER OF BOX
COMM	COMMUNICATIONS
CONST	CONSTRUCTION
CONT	CONTINUATION
DIA	DIAMETER
DIST	DISTRIBUTION
DWG	DRAWING
EF	ENTRANCE FACILITY
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EQPT	EQUIPMENT
EX	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FIXT	FIXTURE
FLR	FLOOR
FO	FIBER OPTIC
FOC	FIBER OPTIC CABLE
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
HCPP	HORIZONTAL COPPER PATCH PANEL
HFPP	HORIZONTAL FIBER PATCH PANEL
HOV	HORIZONTAL VOICE
HVPP	HORIZONTAL VOICE PATCH PANEL
IDS	INTRUSION DETECTION SYSTEM
JB	JUNCTION BOX
MFR	MANUFACTURER
MH	MOUNTING HEIGHT
MMF	MULTIMODE FIBER
MTD	MOUNTED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OH	OVERHEAD
OSP	OUTSIDE PLANT
PA	PUBLIC ADDRESS
PBB	PRIMARY BONDING BUSBAR
PB	PULL BOX
PBX	PRIVATE BRANCH EXCHANGE
PC	PERSONAL COMPUTER
PLAS	PLASTIC
PP	PATCH PANEL
PR	PAIR
PWR	POWER
QTY	QUANTITY
RAF	RAISED ACCESS FLOOR
RBB	RACK BONDING BUSBAR
RBC	RACK BONDING CONDUCTOR
RECP	RECEPTACLE
REQD	REQUIRED
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RSC	RIGID STEEL CONDUIT
SBB	SECONDARY BONDING BUSBAR
SCRT	SECURITY
SECT	SECTION
SPEC	SPECIFICATION
SM	SINGLEMODE
SMF	SINGLEMODE FIBER
SP	SERVICE PROVIDER
STR	STRAND
SURF	SURFACE
SW	SWITCH
SYM	SYMMETRICAL
SYS	SYSTEMS
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
TEL	TELEPHONE
TELECOM	TELECOMMUNICATIONS
TER	TELECOMMUNICATIONS EQUIPMENT ROOM
TR	TELECOMMUNICATIONS ROOM
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
WP	WEATHERPROOF
XFR	TRANSFER
XP	EXPLOSION PROOF

TELECOMMUNICATIONS GENERAL NOTES

1. ALL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES SHOWN ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SEE ONE-LINE DIAGRAM FOR CABLE SIZES, CONDUIT SIZES, AND DEVICES NOT SHOWN ON PLANS.
3. MOUNTING HEIGHTS FOR CEILING MOUNTED DEVICES ARE TO THE BOTTOM OF THE DEVICE, UNLESS OTHERWISE NOTED.
4. MOUNTING HEIGHTS ABOVE FINISHED FLOOR, TO CENTERLINE OF DEVICE, ARE AS FOLLOWS, UNLESS OTHERWISE NOTED:

DATA OUTLETS	18-INCHES
TELEPHONE OUTLETS	48-INCHES
COUNTER TOP OUTLETS (CT)	8 INCHES ABOVE COUNTER
WIRELESS ACCESS POINT	12-INCHES ABOVE FINISHED CEILING
HORN SPEAKERS	AS INDICATED
TELEVISION OUTLET (COAX)	AS INDICATED
CARD READER BACK BOX	48-INCHES
SPEAKER VOLUME CONTROL	48-INCHES
CCTV CAMERAS	AS INDICATED

2

5. CONTRACTOR RESPONSIBLE FOR ALL OSP CABLING/PATHWAYS, ISP BACKBONE CABLING/PATHWAYS, AND ISP HORIZONTAL PATHWAYS. HORIZONTAL ISP CABLING TO BE PROVIDED BY GOVERNMENT. END-USER TERMINATIONS SHOWN ON PLANS MUST BE ROUGH-INS WITH BACKBOXES AND JACKS ONLY. ALL ROUGH-IN END-USER LOCATIONS MUST BE PROVIDED WITH PULL STRING BACK TO THE SERVING CABLE TRAY OR COMMUNICATIONS ROOM.
6. ALL FLOOR BOX LOCATIONS MUST BE CAREFULLY COORDINATED WITH STRUCTURAL AND FOLLOW GENERAL NOTES UNDER STRUCTURAL S-001. SUBMIT ROUTING PLANS TO STRUCTURAL PRIOR TO THE CONCRETE POUR AND PROVIDING PATHWAYS FOR ALL FLOOR BOX LOCATIONS ON THE FIRST AND SECOND FLOOR. ELECTRICAL WILL REQUIRE CONDUITS IN THESE LOCATIONS. COORDINATE WITH ELECTRICAL TO PREVENT OVERLAP AND CLEARANCE ISSUES THAT VIOLATE S-001 STRUCTURAL REQUIREMENTS.
7. THE GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER REQUIREMENTS OF DIVISION 1. THE ELECTRICAL, AUDIO VISUAL, AND SECURITY PLANS AND SPECIFICATIONS, MAY APPLY TO THE WORK SPECIFIED.

2

8. COMMUNICATIONS CABLING INTEGRATOR HEREAFTER REFERRED TO AS "CONTRACTOR" MUST PROVIDE TELECOM PASSIVE EQUIPMENT, ISP BACKBONE/OSP CABLING, ALL ISP AND OSP PATHWAYS, AND ASSOCIATED MATERIALS, COMPONENTS, TOOLS, AND LABOR TO COMPLETE TELECOMMUNICATIONS STRUCTURED CABLING SYSTEM AND PATHWAYS.
9. CONTRACTOR MUST CAREFULLY EXAMINE THE SITE TO DETERMINE THE EXTENT OF WORK AND CONDITION UNDER WHICH IT WILL BE DONE. REVIEW AND VERIFY CONTRACT DOCUMENTS IN RELATION TO FIELD CONDITIONS TO VERIFY ACCURACY. THE OWNER, OR THEIR DESIGNATED REPRESENTATIVE, SHOULD BE CONSULTED AS NEEDED FOR CLARIFICATION OR DIRECTION REGARDING ANY PROJECT RELATED QUESTIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE OWNER, OR THEIR DESIGNATED REPRESENTATIVE, PRIOR TO PROCEEDING WITH THE WORK OR RELATED WORK IN QUESTION.
10. DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GOVERNMENT, OR DESIGNATED REPRESENTATIVE, FOR CLARIFICATION.
11. REFER TO TECHNOLOGY CONTRACT DOCUMENTS, T, TY, TA DRAWINGS AND DIVISION 27/28 SPECIFICATIONS WHEN BIDDING AND INSTALLING THIS PROJECT.
12. CONTRACTOR MUST READ IN THEIR ENTIRETY ALL SECTIONS OF THE COMMUNICATIONS CABLING SYSTEM DOCUMENTS AND APPLY THEM AS APPROPRIATE FOR WORK IN THIS SECTION.
13. CONTRACTOR MUST TAKE NECESSARY MEANS TO PROTECT COMMUNICATION SYSTEM COMPONENTS FROM MECHANICAL DAMAGE BEFORE, DURING AND AFTER CONSTRUCTION.
14. FOR EXTERIOR CAMERAS PROVIDE JUNCTION BOXES AND CONDUITS SIZED FOR THE AMOUNT OF CABLE TO CAMERA. REFER TO SHEET T-601 FOR ADDITIONAL INFORMATION. PROVIDE JUNCTION BOXES TO PREVENT CUMULATIVE BENDS OF 180-DEGREES BETWEEN PULL POINTS.
15. WHERE COMMUNICATION PATHWAYS ARE EMBEDDED IN A CONCRETE FLOOR (FOR FLOOR BOX OUTLETS) USE SCHEDULE 40 PVC.

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Robert W Fauvelle
BICSI ID #128496
EXPIRES 12-31-23
RCDD
01/13/2022

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

DESIGNED BY: R. FAUVELLE
DRAWN BY: B. ARTERBURN
CHECKED BY: H. FERNS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER: FILE NUMBER

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - SYMBOLS, ABBREVIATIONS AND GENERAL NOTES

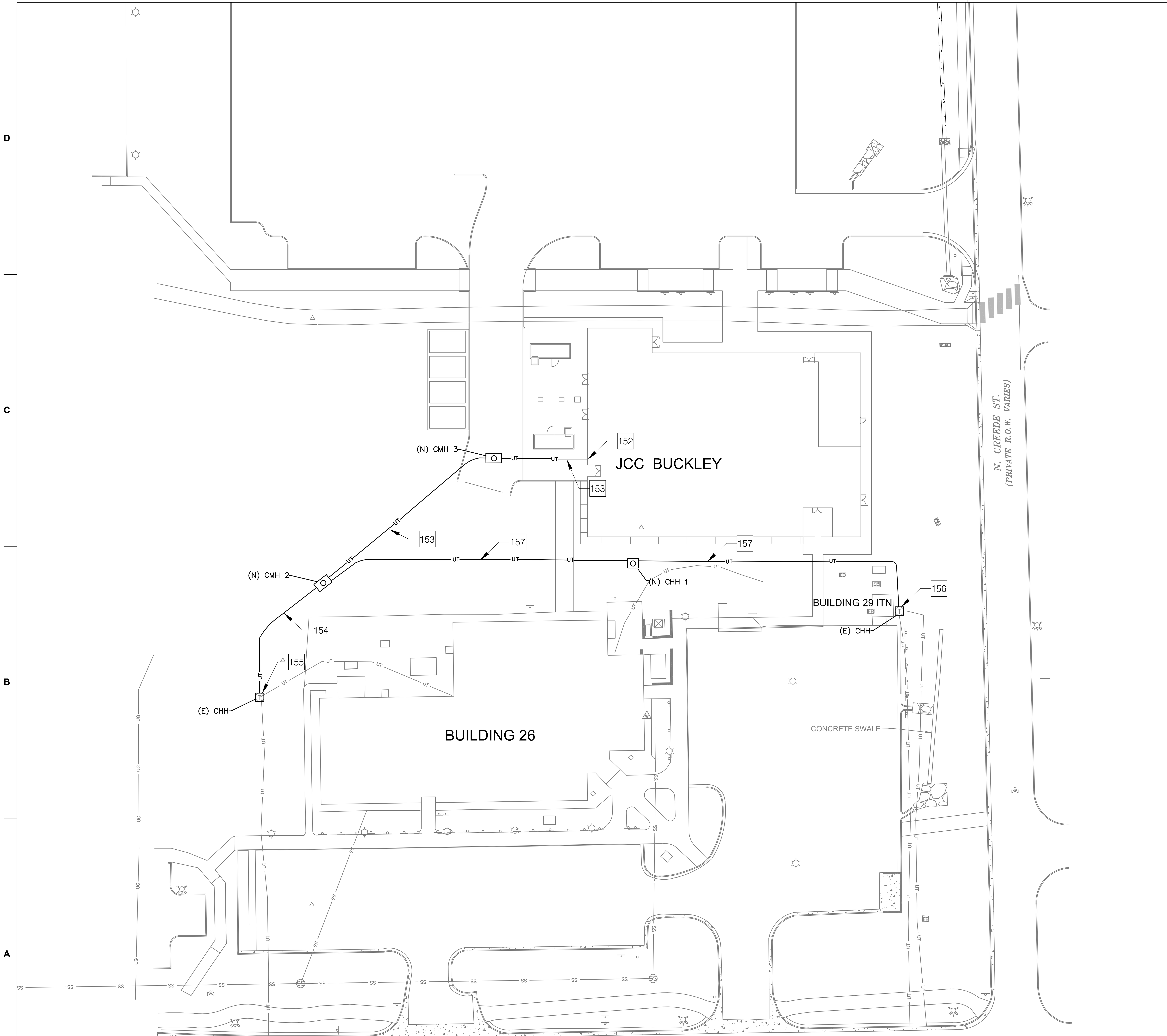
SHEET ID

T-001

AMENDMENT 0002

1 2 3 4 5

D C B A



A1 SITE COMMUNICATIONS PLAN

SCALE: 1" = 30'

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Robert W Fauvelle
BICSI ID #128496
Expires 12-31-23
RCDD
01/13/2022

GENERAL SHEET NOTES

1. SEE SHEET T-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
2. FOR OSP (OUTSIDE PLANT) PROVIDE PATHWAYS AND CABLE TO INCLUDE COPPER, OPTICAL CABLE, SPLICE ENCLOSURES, HAND HOLES, MAINTENANCE HOLES, AND RACK HARDWARE. 2

KEYNOTES

152 PROVIDE (6) 4-INCH ID CONDUITS AT THIS LOCATION. PROVIDE SWEEPING 90-DEGREE BEND OUTSIDE OF FOUNDATION FOOTING, AND PROVIDE TERMINATION WITH BUSHINGS 4-INCHES AFF. PROVIDE PULL STRINGS WITH FOOTAGE MARKS FOR ALL CONDUIT. CONDUIT WILL STUB UP IN THE MAIN COMMUNICATIONS ROOM 109.

153 PROVIDE (6) 4-INCH CONDUITS WITH 3-CELL FABRIC INNERDUCT AND PULL TAPE WITH FOOTAGE MARKS.

154 PROVIDE (4) 4-INCH CONDUITS WITH 3-CELL FABRIC INNERDUCT AND PULL TAPE WITH FOOTAGE MARKS.

155 PROVIDE CONTINUOUS RUN OF 144-STRAND OS2 SINGLEMODE OPTICAL CABLE FROM COMM ROOM 109 IN JCC BUCKLEY TO THE BUILDING 26 COMMUNICATIONS ROOM. TERMINATE BOTH SIDES WITH DUPLEX LC.

156 PROVIDE CONTINUOUS RUN OF 100-PAIR PE89 COPPER CABLE FROM COMM ROOM 109 IN JCC BUCKLEY TO THE BUILDING 29 ITN. TERMINATE COPPER INSIDE BUILDING 29 ITN.

157 PROVIDE (2) 4-INCH ID CONDUITS WITH 3-CELL FABRIC INNERDUCT AND PULL TAPE WITH FOOTAGE MARKS.

GRAPHIC SCALE(S)

0 30 60 Feet

PLAN NORTH

US Army Corps of Engineers ®

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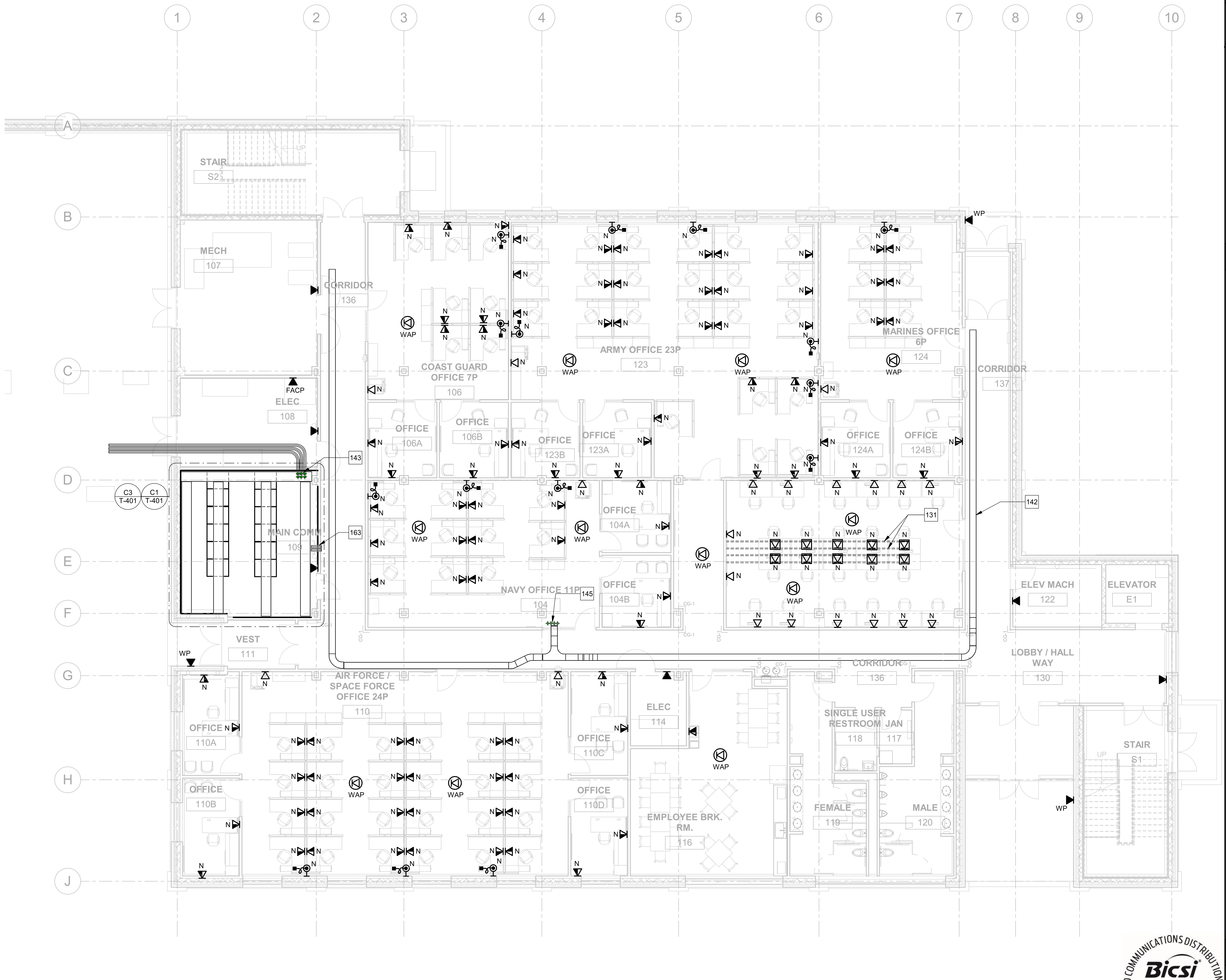
DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - SITE COMMUNICATIONS PLAN

SHEET ID

TS010

AMENDMENT 0002



A1 TELECOM - FIRST FLOOR PLAN - DATA

1/8" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION.
2. UNDERFLOOR PATHWAYS MUST BE COORDINATED WITH STRUCTURAL, INTERIOR, AND ELECTRICAL DISCIPLINES PRIOR TO INSTALLATION. FOR FLOOR BOX OUTLET LOCATIONS A SECOND PATHWAY (DASHED LINE) IS DRAWN TO ILLUSTRATE THE POWER PATHWAY WHICH IS SEPARATE.
3. FOR SATELLITE TV, PROVIDE PATHWAYS AND CABLE ONLY.

KEYNOTES

131 CABLE WILL ROUTE FROM TRAY, THROUGH WALL, UNDER FLOOR TO FLOOR BOX FOR THESE LOCATIONS. PROVIDE (1) 1-INCH SCHEDULE 40 PVC (NO ALUMINUM) CONDUIT PER DROP LOCATION AT EACH FLOOR BOX. THIS WILL BE EMBEDDED CONDUIT WITH NO MORE THAN 180-DEGREES CUMULATIVE BENDS BETWEEN ACCESSABLE PULL POINTS. FOLLOW STRUCTURAL DRAWING S-001 NOTES FOR CONDUIT SPACING.

142 PROVIDE 12-INCH X 4-INCH BASKET TRAY, RESERVED FOR UNCLASSIFIED CABLE (CABLE BY GOVERNMENT).

143 PROVIDE (6) 4-INCH ID CONDUITS RESERVED FOR TELECOM SERVICES. REFER TO SITE PLAN. SEE TS010 FOR CONTINUATION.

145 PROVIDE (4) 4-INCH SLEEVED CONDUITS WITH BUSHINGS BETWEEN THE FIRST AND SECOND FLOOR. CONDUITS WILL STUB UP INTO COMMUNICATIONS ROOM ABOVE ON THE SECOND FLOOR.

163 PROVIDE (6) 4-INCH SLEEVED CONDUITS WITH BUSHINGS 4-INCHES ABOVE TRAY.

GRAPHIC SCALE(S)

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

PLAN NORTH

BICSI Registered Communications Distribution Designer — Robert W Fauvelle, BICSI ID # 128496, Expires 12-31-23, RCDD 01/13/2022

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - FIRST FLOOR PLAN - DATA

SHEET ID
T-110

AMENDMENT 0002

A1 TELECOM - FIRST FLOOR PLAN - DATA (BID OPTION 1)

1/8" = 1'-0"

GENERAL SHEET NOTES

1. SECURE AREA TO BE FED FROM CLASSIFIED DR ON SECOND FLOOR.
2. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYTS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION. 2
3. UNDERFLOOR PATHWAYS MUST BE COORDINATED WITH STRUCTRUAL, INTERIOR, AND ELECTRICAL DISCIPLINES PRIOR TO INSTALLATION. FOR FLOOR BOX OUTLET LOCATIONS A SECOND PATHWAY IS DRAWN TO ILLUSTRATE THE POWER PATHWAY WHICH IS SEPARATE.

KEYNOTES

\#

131 CABLE WILL ROUTE FROM TRAY, THROUGH WALL, UNDER FLOOR TO FLOOR BOX FOR THESE LOCATIONS. PROVIDE (1) 1-INCH SCHEDULE 40 PVC CONDUIT PER DROP LOCATION AT EACH FLOOR BOX. THIS WILL BE EMBEDDED CONDUIT WITH NO MORE THAN 180-DEGREES CUMULATIVE BENDS BETWEEN ACCESSABLE PULL POINTS. FOLLOW STRUCTURAL DRAWING S-001 NOTES FOR CONDUIT SPACING.

162 SURFACE RACEWAY. TYPICAL IN SECURE AREA.

168 REFER TO DETAIL A1 ON SHEET T-510 FOR UNCLASSIFIED TO CLASSIFIED PENETRATION DETAIL.

LEGEND

AREA OF BID OPTION 1

SECURE AREA

AREA OF BASE BID

GRAPHIC SCALE(S)

8 6 4 2 0 8 16

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

PLAN NORTH

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Robert W Fauvelle
BICSI ID # 128496
EXPIRES 12-31-23
RCDD
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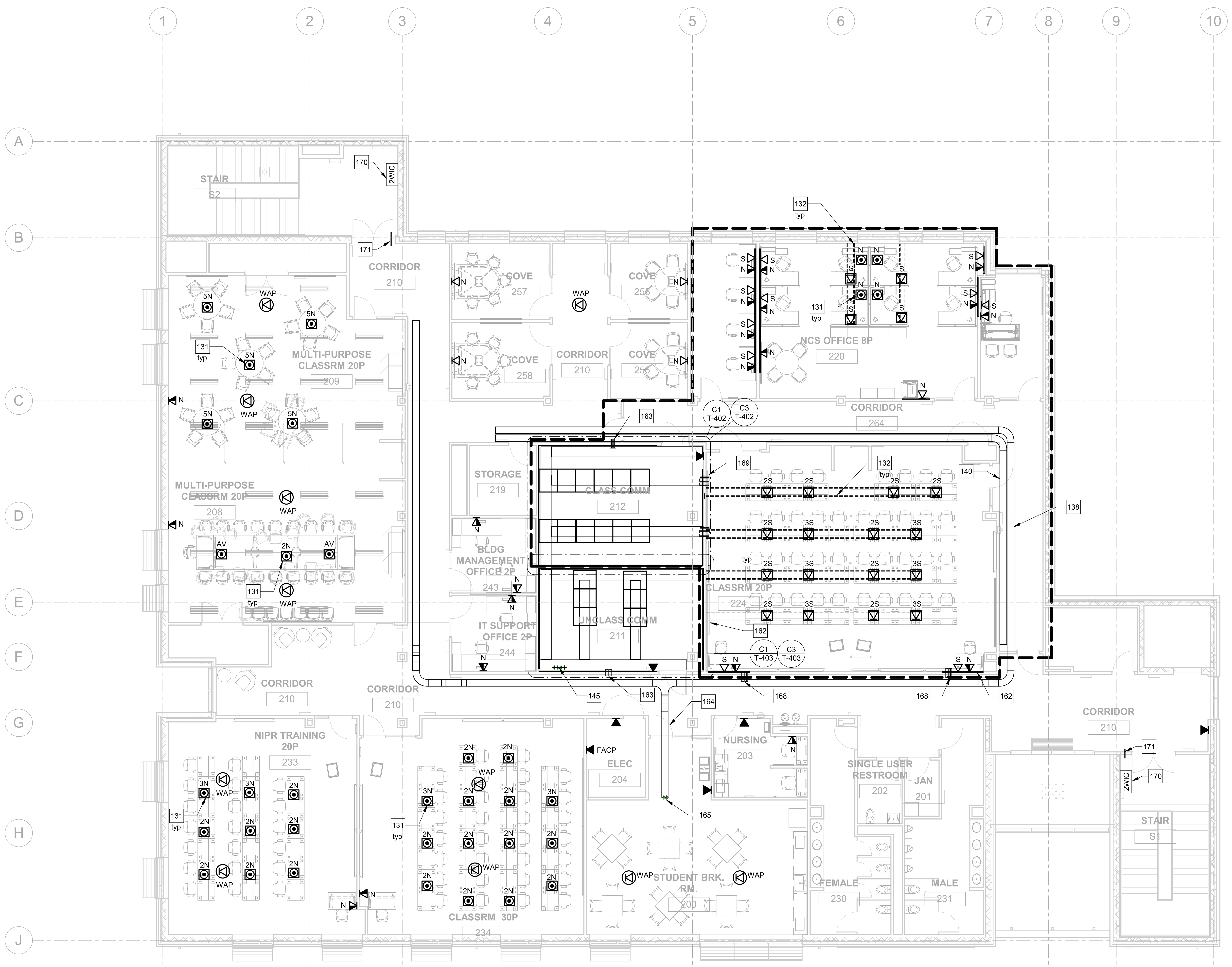
DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - FIRST FLOOR PLAN - DATA (BID OPTION 1)

SHEET ID

T-110A

AMENDMENT 0002



A1 TELECOM - SECOND FLOOR PLAN - DATA

1/8" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION.
2. ~~FOR SATELLITE TV, PROVIDE CABLE AND PATHWAYS ONLY.~~ 2
3. UNDERFLOOR PATHWAYS MUST BE COORDINATED WITH STRUCTURAL, INTERIOR, AND ELECTRICAL DISCIPLINES PRIOR TO INSTALLATION. FOR FLOOR BOX OUTLET LOCATIONS A SECOND PATHWAY IS DRAWN TO ILLUSTRATE THE POWER PATHWAY WHICH IS SEPARATE.

KEYNOTES

#	
131	FOR NIPR FLOOR BOXES ON 2ND FLOOR, CABLE (PROVIDED BY GOVERNMENT) WILL ROUTE FROM THE UNCLASSIFIED COMM ROOM 211, DOWN TO THE FALSE CEILING AREA OF THE FIRST FLOOR. FROM THERE, IT WILL TAKE THE CABLE TRAY TO THE AREA CLOSEST TO THE 2ND FLOOR BOX. PROVIDE SLEEVED 1-INCH CORES DIRECTLY BELOW THE FLOOR BOX AND SECURE TO FLOOR BOX ON 2ND FLOOR AT EACH NIPR FLOOR BOX LOCATION. COORDINATE WITH STRUCTURAL AND FOLLOW STRUCTURAL DRAWING S-001 NOTES FOR ANY POSSIBLE STRUCTURAL CONSIDERATIONS THAT APPLY TO EACH FLOOR BOX LOCATION AND PENETRATION.
132	FOR SIPR FLOOR BOXES ON 2ND FLOOR, CABLE (PROVIDED BY GOVERNMENT) WILL ROUTE FROM CLASSIFIED COMM ROOM 212, THROUGH THE TRAY ON THE SECOND FLOOR OR THE WALL (DEPENDING ON I-BEAM LAYOUT) TO THE CLASSROOM WALL. WHEN TRAVERSING THE WALL, PROVIDE SLEEVED 1-INCH CONDUIT DOWN THE WALL, TRANSITIONING TO A SWEEPING 90-DEGREE BEND RUNNING PARALLEL TO WALL. PROVIDE A SECOND SWEEPING HORIZONTAL BEND PARALLEL TO FLOOR LEADING TO PULL-BOX FLUSH WITH FINISHED FLOOR. PULL-BOXES AND CONDUIT MUST TRANSITION TO PLASTIC IF ENCASED IN CONCRETE. FROM PULL-BOX, PROVIDE 1-INCH PLASTIC (NO ALUMINUM OR METAL) CONDUIT TO EACH FLOOR BOX OUTLET LOCATION UNDER A DESK. COORDINATE WITH STRUCTURAL AND FOLLOW STRUCTURAL DRAWING S-001 NOTES FOR ANY POSSIBLE STRUCTRUAL CONSIDERATIONS THAT APPLY TO EACH FLOOR BOX LOCATION AND PENETRATION. NOTE: SPACING AND I-BEAM LOCATIONS MAY REQUIRE CONDUITS TO ENTER SEPARATE FLOOR BOX OUTLET LOCATIONS FROM OPPOSITE SIDES OF ROOM. NIPR AND SIPR WILL FOLLOW SEPARATE PATHWAYS IN THE NCS OFFICE (ROOM 220) REFER TO KEY NOTE 131.
138	PROVIDE 12-INCH X 4-INCH CABLE TRAY. RESERVED FOR UNCLASSIFIED CABLE (CABLE BY GOVERNMENT).
140	PROVIDE 12-INCH X 4-INCH CABLE TRAY. RESERVED FOR CLASSIFIED CABLE (CABLE BY GOVERNMENT).
145	PROVIDE (4) 4-INCH ID CONDUITS WITH SLEEVES AND BUSHINGS BETWEEN THE FIRST AND SECOND FLOOR. CONDUITS WILL STUB UP FROM THE CEILING AREA BELOW ON THE FIRST FLOOR.
162	SURFACE RACEWAY. TYPICAL IN SECURE AREA.
163	PROVIDE (4) 4-INCH SLEEVED CONDUITS WITH BUSHINGS 4-INCHES ABOVE TRAY.
164	PROVIDE 12-INCH X 4-INCH CABLE TRAY EXTENSION FOR SATELLITE CABLE TO ROOF.
165	PROVIDE (2) 4-INCH SLEEVED CORES WITH WEATHER-HEADS. COORDINATE WITH STRUCTURAL AND ARCHITECTURAL. PENETRATIONS MUST BE WEATHER PROOF AND SEALED OVER ALL CABLE WITH WEATHER-TIGHT GROMMETS.
168	REFER TO DETAIL A1 ON SHEET T-510 FOR UNCLASSIFIED PENETRATION DETAIL.
169	REFER TO DETAIL C1 ON SHEET T-510 FOR CLASSIFIED PENETRATION DETAIL.
170	PROVIDE 2-WAY INTERCOM FOR AREA OF REFUGE.
171	PROVIDE (1) 1-INCH FIRESTOP SLEEVE.

LEGEND

- AREA OF BID OPTION 1
- SECURE AREA
- AREA OF BASE BID

GRAPHIC SCALE(S)

8 6 4 2 0 8 16

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

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER: FILE NUMBER
DESIGNED BY: R. FAUVELLE
DRAWN BY: B. ARTERBURN
CHECKED BY: H. FERRIS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - SECOND FLOOR PLAN - DATA

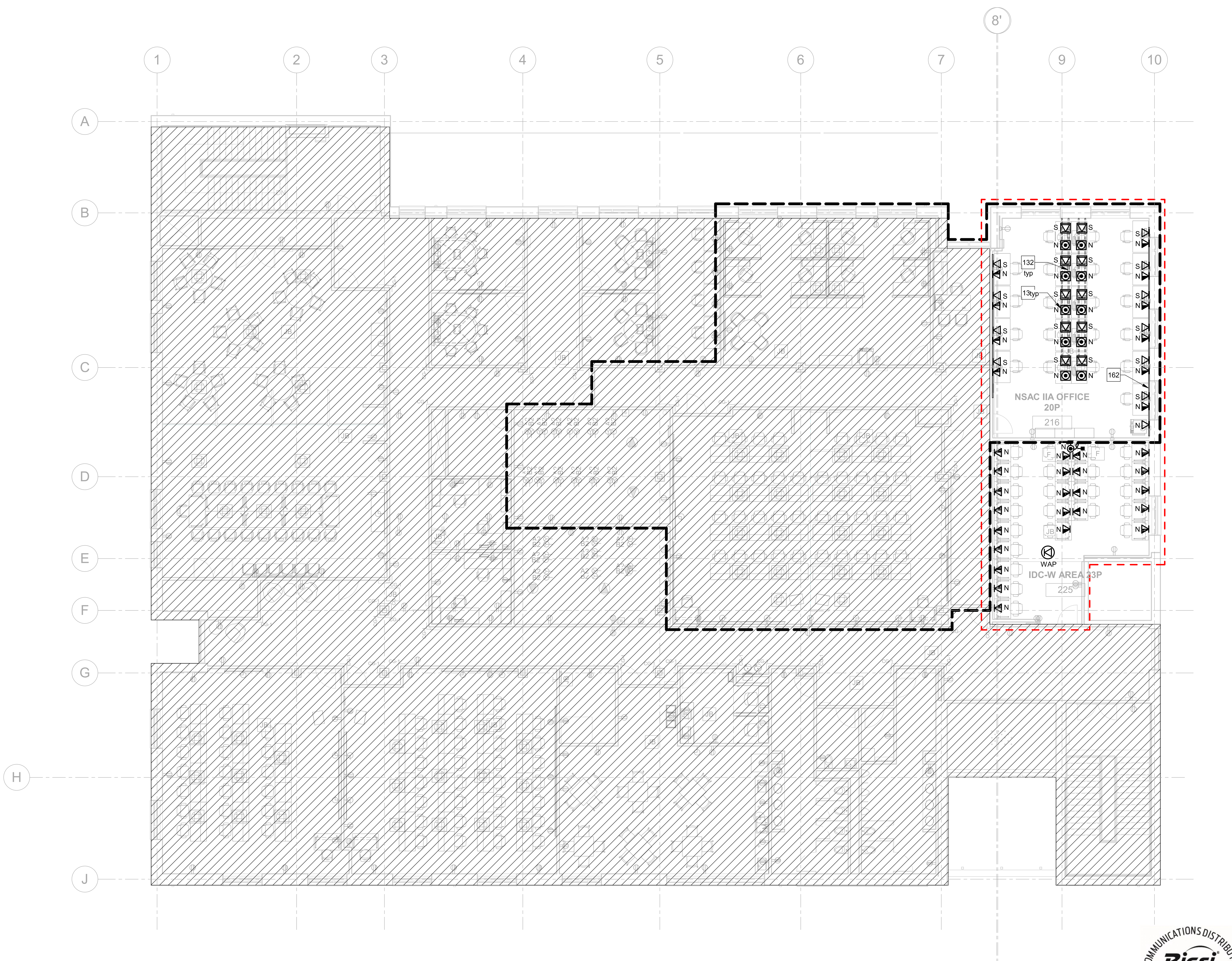
SHEET ID

T-120

AMENDMENT 0002

1 2 3 4 5

D C B A



A1 TELECOM - SECOND FLOOR PLAN - DATA (BID OPTION 1)
1/8" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION.
2. ~~SECURE AREA TO BE FED FROM CLASSIFIED DR ON SECOND FLOOR.~~ 2
3. UNDERFLOOR PATHWAYS MUST BE COORDINATED WITH STRUCTURAL, INTERIOR, AND ELECTRICAL DISCIPLINES PRIOR TO INSTALLATION. FOR FLOOR BOX OUTLET LOCATIONS A SECOND PATHWAY IS DRAWN TO ILLUSTRATE THE POWER PATHWAY WHICH IS SEPARATE.

KEYNOTES

#	
131	FOR NIPR FLOOR BOXES ON 2ND FLOOR, CABLE (PROVIDED BY GOVERNMENT) WILL ROUTE FROM THE UNCLASSIFIED COMM ROOM 211, DOWN TO THE FALSE CEILING AREA OF THE FIRST FLOOR. FROM THERE, IT WILL TAKE THE CABLE TRAY TO THE AREA CLOSEST TO THE 2ND FLOOR BOX. PROVIDE SLEEVED 1-INCH CORES DIRECTLY BELOW THE FLOOR BOX AND SECURE TO FLOOR BOX ON 2ND FLOOR AT EACH NIPR FLOOR BOX LOCATION. COORDINATE WITH STRUCTURAL AND FOLLOW STRUCTURAL DRAWING S-001 NOTES FOR ANY POSSIBLE STRUCTURAL CONSIDERATIONS THAT APPLY TO EACH FLOOR BOX LOCATION AND PENETRATION.
132	FOR SIPR FLOOR BOXES ON 2ND FLOOR, CABLE (PROVIDED BY GOVERNMENT) WILL ROUTE FROM CLASSIFIED COMM ROOM 212, THROUGH THE TRAY ON THE SECOND FLOOR OR THE WALL (DEPENDING ON I-BEAM LAYOUT) TO THE CLASSROOM WALL. WHEN TRAVERSING THE WALL, PROVIDE SLEEVED 1-INCH CONDUIT DOWN THE WALL, TRANSITIONING TO A SWEEPING 90-DEGREE BEND RUNNING PARALLEL TO WALL. PROVIDE A SECOND SWEEPING HORIZONTAL BEND PARALLEL TO FLOOR LEADING TO PULL-BOX FLUSH WITH FINISHED FLOOR. PULL-BOXES AND CONDUIT MUST TRANSITION TO PLASTIC IF ENCASED IN CONCRETE. FROM PULL-BOX, PROVIDE 1-INCH PLASTIC (NO ALUMINUM OR METAL) CONDUIT TO EACH FLOOR BOX OUTLET LOCATION UNDER A DESK. COORDINATE WITH STRUCTURAL AND FOLLOW STRUCTURAL DRAWING S-001 NOTES FOR ANY POSSIBLE STRUCTURAL CONSIDERATIONS THAT APPLY TO EACH FLOOR BOX LOCATION AND PENETRATION. NOTE: SPACING AND I-BEAM LOCATIONS MAY REQUIRE CONDUITS TO ENTER SEPARATE FLOOR BOX OUTLET LOCATIONS FROM OPPOSITE SIDES OF ROOM. NIPR AND SIPR WILL FOLLOW SEPARATE PATHWAYS IN THE NCS OFFICE (ROOM 220) REFER TO KEY NOTE 131.
162	SURFACE RACEWAY. TYPICAL IN SECURE AREA.

LEGEND

- AREA OF BID OPTION 1
- SECURE AREA
- AREA OF BASE BID

GRAPHIC SCALE(S)

8 6 4 2 0 8 16

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

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

DESIGNED BY: R. FAUVELLE
DRAWN BY: B. ARTERBURN
CHECKED BY: H. FERRIS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER:
FILE NUMBER

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

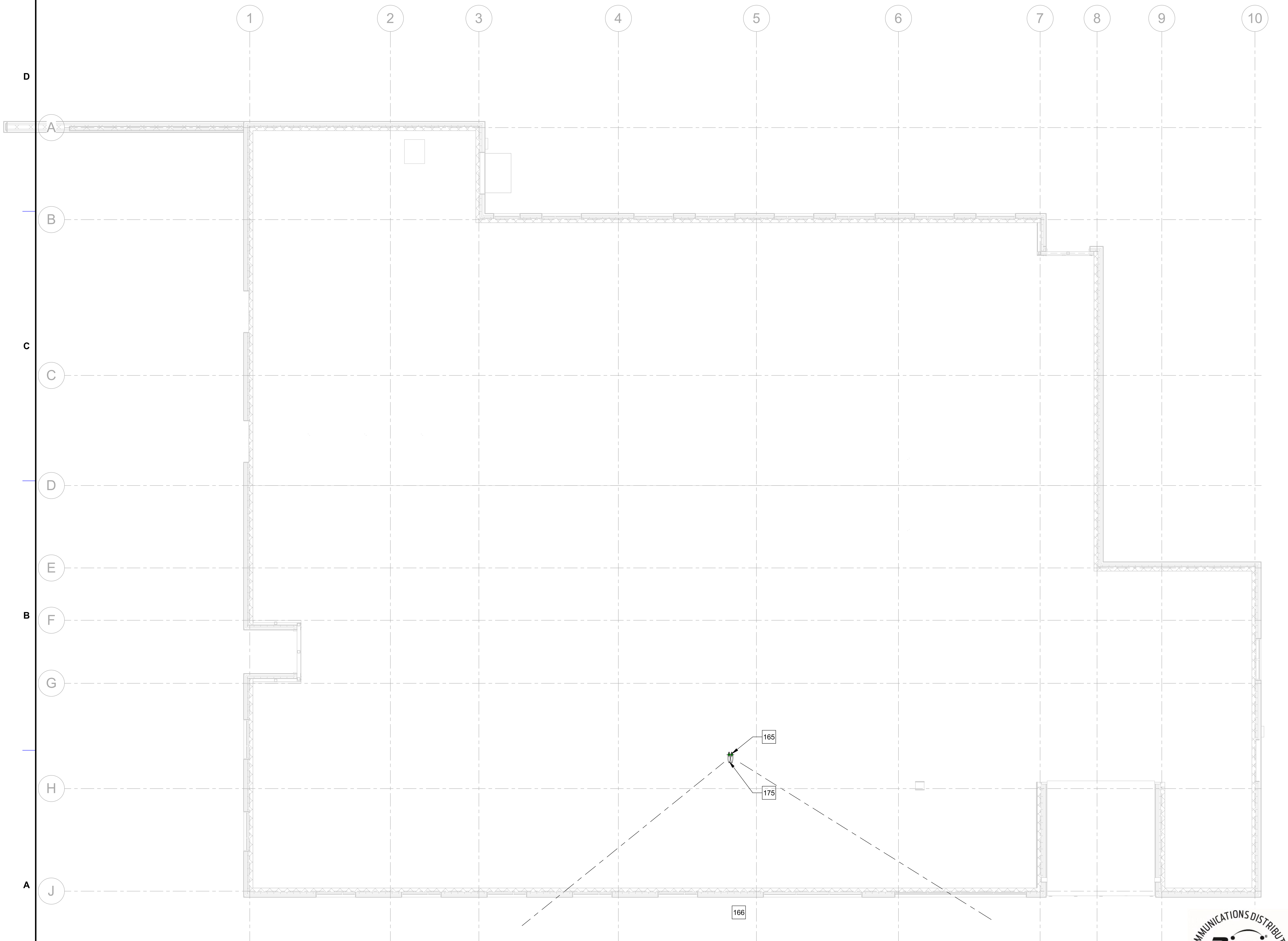
TELECOM - SECOND FLOOR PLAN - DATA
(BID OPTION 1)

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Robert W Fauvelle
BICSI ID # 128496
EXPIRES 12-31-23
RCDD
01/13/2022

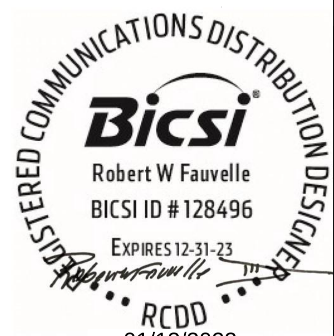
SHEET ID

T-120A

AMENDMENT 0002



A1 TELECOM - ROOF PLAN - DATA
1/8" = 1'-0"



GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYTS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION. 2
2. ~~FOR SATELLITE TV, PROVIDE PATHWAYS AND CABLE ONLY.~~

KEYNOTES

165 PROVIDE (2) 4-INCH SLEEVED CORES WITH WEATHER-HEADS. COORDINATE WITH STRUCTURAL AND ARCHITECTURAL. PENETRATIONS MUST BE WEATHER PROOF AND SEALED OVER ALL CABLE WITH WEATHER-TIGHT GROMMETS.

166 THE BUILDING CABLE TELEVISION SERVICE WILL REQUIRE A NON-PENETRATING ROOF MOUNT SATELLITE DISH (BY GOVERNMENT) FACING SOUTH AND ACQUIRING 3 DIFFERENT SATELLITES AT AN ANGLE OF 30 TO 40 DEGREES. PROVIDE PATHWAYS FOR THIS CONNECTION ONLY.

175 PROVIDE TWO SETS OF (3) RG-11 CABLES FROM SATELLITE TV HEAD-END LOCATIONS IN COMMUNICATIONS ROOMS 109 AND 211. THESE BACKBONE CABLES WILL BE DEDICATED RUNS WITH NO SPLITTERS AND PROVIDE SERVICE FROM BOTH ORBITS (3 CABLES EACH ORBIT). WEATHERIZE COAX CONNECTIONS ON THE ROOFTOP AND BOND ALL CABLE AND HARDWARE FOR THESE SIX COAX CABLES. BOTH SIDES OF THE (6) RG-11 COAX CABLES MUST BE TERMINATED INTO BONDED LIGHTNING ARRESTOR BANKS RATED FOR THE SIGNAL OF THE RG-11. THESE MUST BE BOTH BONDED AND WEATHERIZED ON TOP OF THE BUILDING.

GRAPHIC SCALE(S)

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

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

ISSUE DATE: 14 DECEMBER 2022
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DESIGNED BY: R. FAUVELLE
DRAWN BY: B. ARTERBURN
CHECKED BY: H. FERRIS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - ROOF PLAN - DATA

SHEET ID
T-130

AMENDMENT 0002

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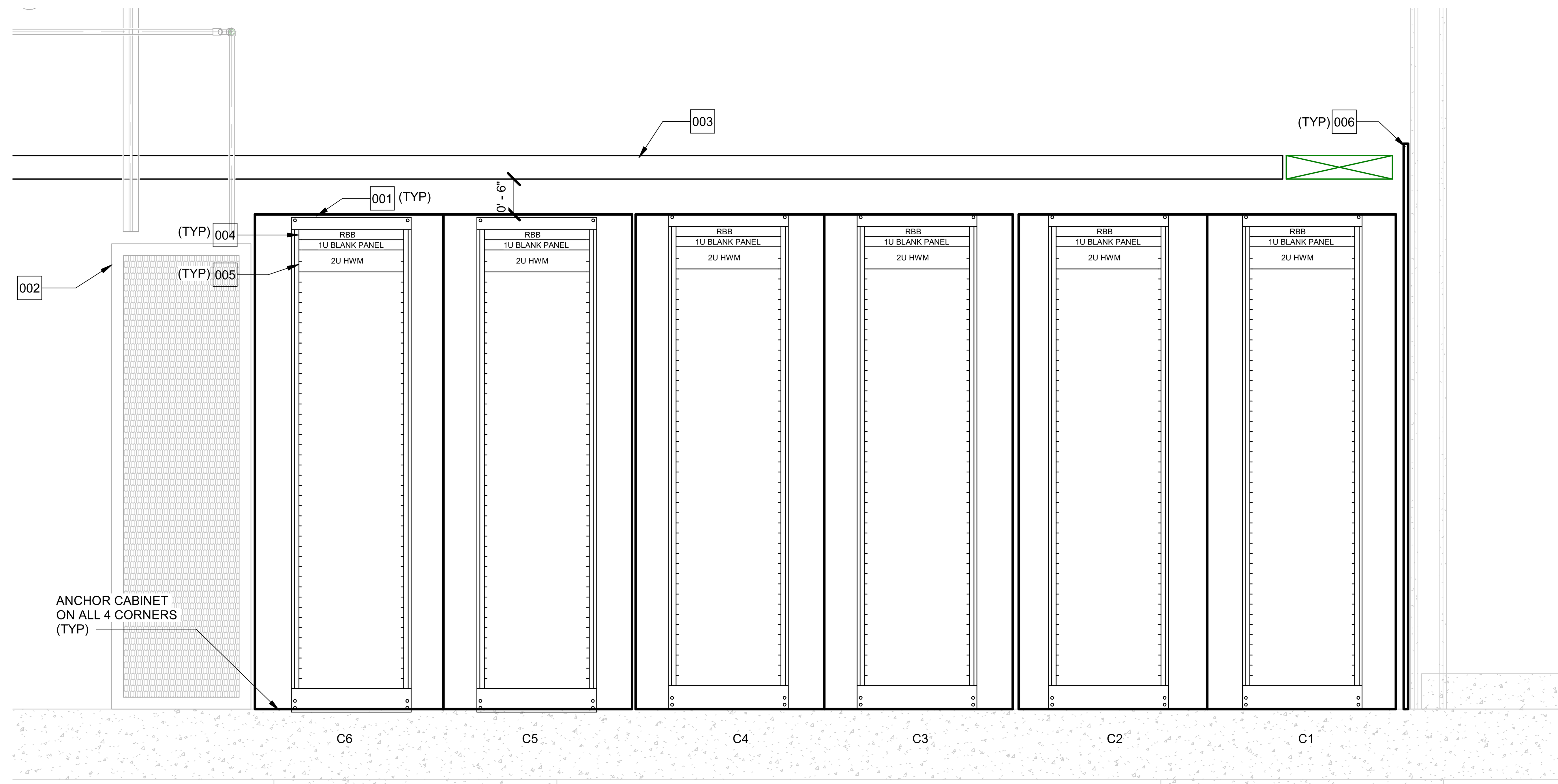
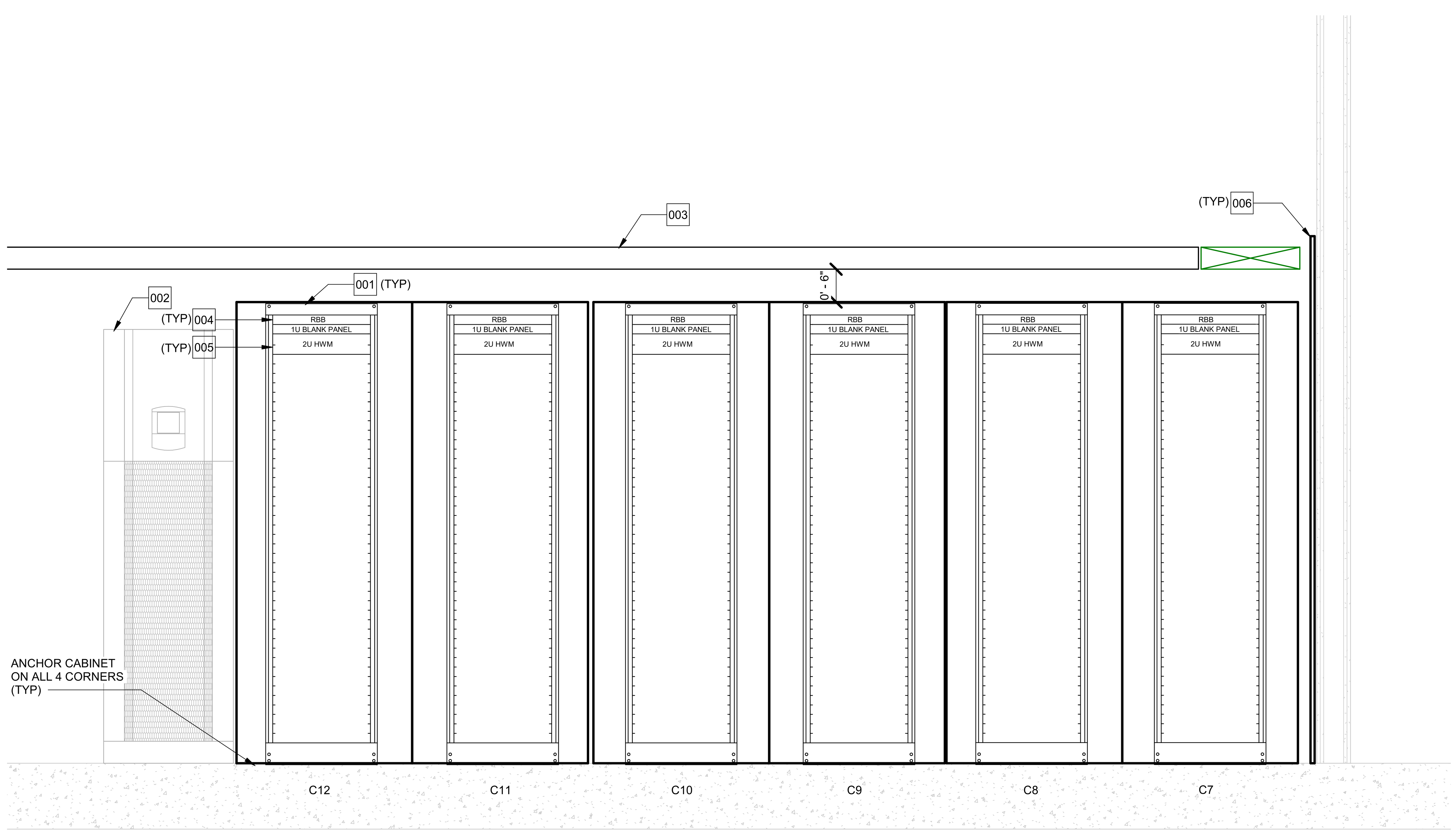


C1 MAIN COMM ROOM 109 - RACK ELEVATIONS
NTS



A1 MAIN COMM ROOM 109 - RACK ELEVATIONS
3/4" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION. 2

KEYNOTES

001 PROVIDE FREESTANDING ENCLOSED 48RU 4-POST SERVER CABINET WITH REMOVABLE, LOCKABLE SHEET METAL SIDE PANEL, TWO HINGED ACCESS DOORS, METAL TOP PANEL AND VERTICAL CABLE MANAGER, 32-INCHES WIDE X 90-INCHES HIGH X 40-INCHES DEEP, BLACK PERFORATED DOORS, TAPPED RAILS, 751 KEYED LOCKS. PROVIDE CABINET WITH COOLING FAN KIT, BLACK, 115V, 60Hz.

002 IN-ROW COOLING

003 PROVIDE 18-INCHES WIDE X 4-INCHES HIGH BASKET TRAY

004 PROVIDE A 1U RACK BONDING BUSBAR (RBB), REFER TO DETAIL A5 ON SHEET T-504 (TYP)

005 PROVIDE 2RU, 19-INCH EIA UNIVERSAL HORIZONTAL CABLE MANAGER, SINGLE SIDED WITH SNAP-ON COVER THAT OPENS 180-DEGREES UP OR DOWN, 3.5-INCHES HIGH X 19-INCHES WIDE X 5.14-INCHES DEEP, CHATSWORTH CATALOG NO. 30130-719 (TYP)

006 PROVIDE 48-INCH WIDE X 78-INCH HIGH X 3/4-INCH DEEP FIRE RATED PLYWOOD BACKBOARDS ON THE ENTIRE LENGTH OF THE WALL, MOUNTED 6-INCHES A.F.F. TO BOTTOM OF PLYWOOD BACKBOARD.

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Robert W Fauvelle
BICSI ID # 128496
EXPIRES 12-31-23
RCDD
01/13/2022

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

ISSUE DATE: 14 DECEMBER 2022
SOLICITATION NO.: W9128F23R0006
CONTRACT NO.:
FILE NUMBER: FILE NUMBER

DESIGNED BY: J. HEITZ
DRAWN BY: B. ARTERBURN
CHECKED BY: H. FERRIS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

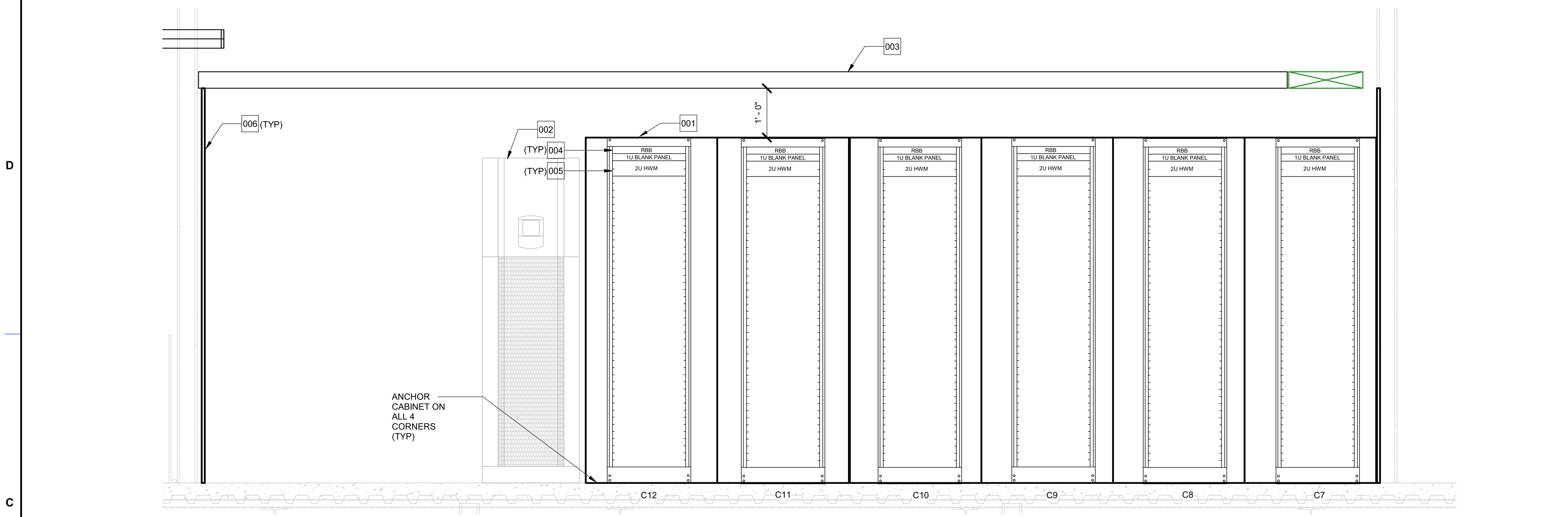
JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

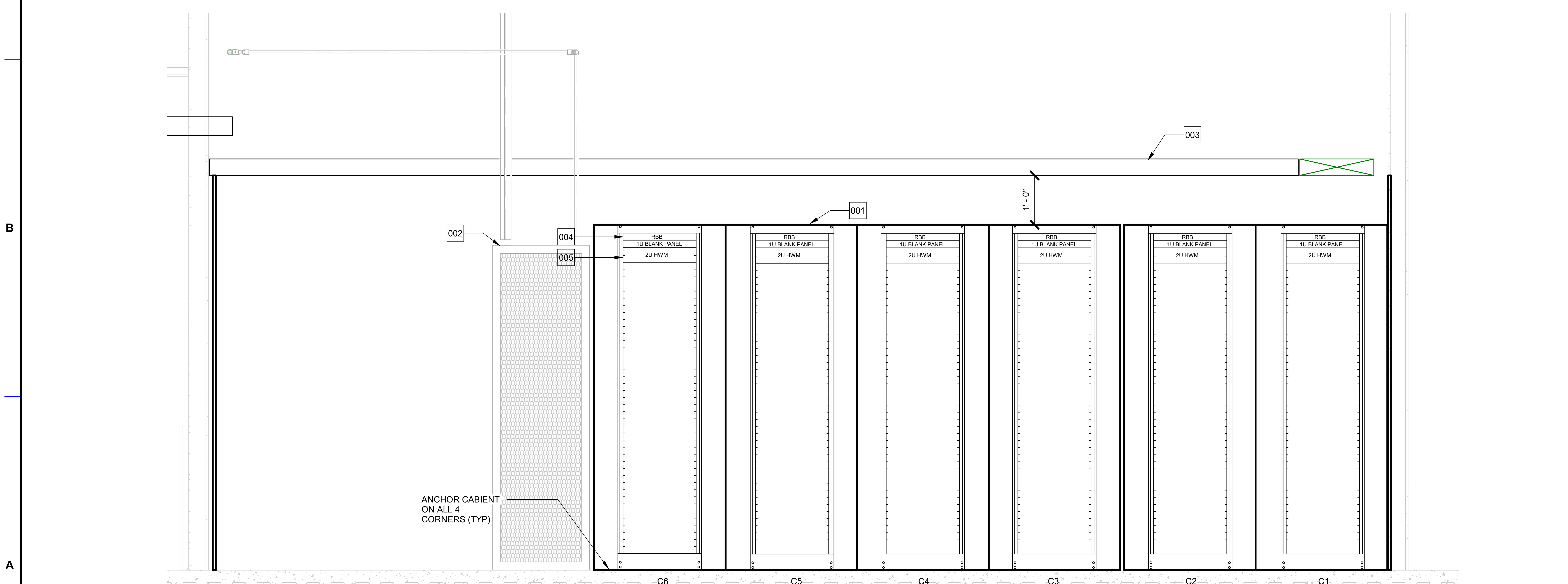
TELECOM - RACK ELEVATIONS

SHEET ID
T-201

AMENDMENT 0002



C1 CLASSIFIED COMM ROOM 212 - RACK ELEVATIONS
3/4" = 1'-0"



A1 CLASSIFIED COMM ROOM 212 - RACK ELEVATIONS
3/4" = 1'-0"

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Robert W Fauvelle
BICSI ID # 128496
Expires 12-31-23
RCDD
01/13/2022

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYTS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION.

2

KEYNOTES

#	
001	PROVIDE FREESTANDING ENCLOSED 48RU 4-POST SERVER CABINET WITH REMOVABLE, LOCKABLE SHEET METAL SIDE PANEL, TWO HINGED ACCESS DOORS, METAL TOP PANEL AND VERTICAL CABLE MANAGER, 32-INCHES WIDE X 90-INCHES HIGH X 40-INCHES DEEP, BLACK PERFORATED DOORS, TAPPED RAILS, 751 KEYED LOCKS. PROVIDE CABINET WITH COOLING FAN KIT, BLACK, 115V, 60Hz.
002	IN-ROW COOLING
003	PROVIDE 18-INCHES WIDE X 4-INCHES HIGH BASKET TRAY
004	PROVIDE A 1U RACK BONDING BUSBAR (RBB), REFER TO DETAIL A5 ON SHEET T-504 (TYP)
005	PROVIDE 2RU, 19-INCH EIA UNIVERSAL HORIZONTAL CABLE MANAGER, SINGLE SIDED WITH SNAP-ON COVER THAT OPENS 180-DEGREES UP OR DOWN, 3.5-INCHES HIGH X 19-INCHES WIDE X 5.14-INCHES DEEP, CHATSWORTH CATALOG NO. 30130-719 (TYP)
006	PROVIDE 48-INCH WIDE X 78-INCH HIGH X 3/4-INCH DEEP FIRE RATED PLYWOOD BACKBOARDS ON THE ENTIRE LENGTH OF THE WALL, MOUNTED 6-INCHES A.F.F. TO BOTTOM OF PLYWOOD BACKBOARD.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

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CHECKED BY: H. FERRIS	
SUBMITTED BY:	
SIZE: ANSI 'D'	FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - RACK ELEVATIONS

SHEET ID
T-202

AMENDMENT 0002

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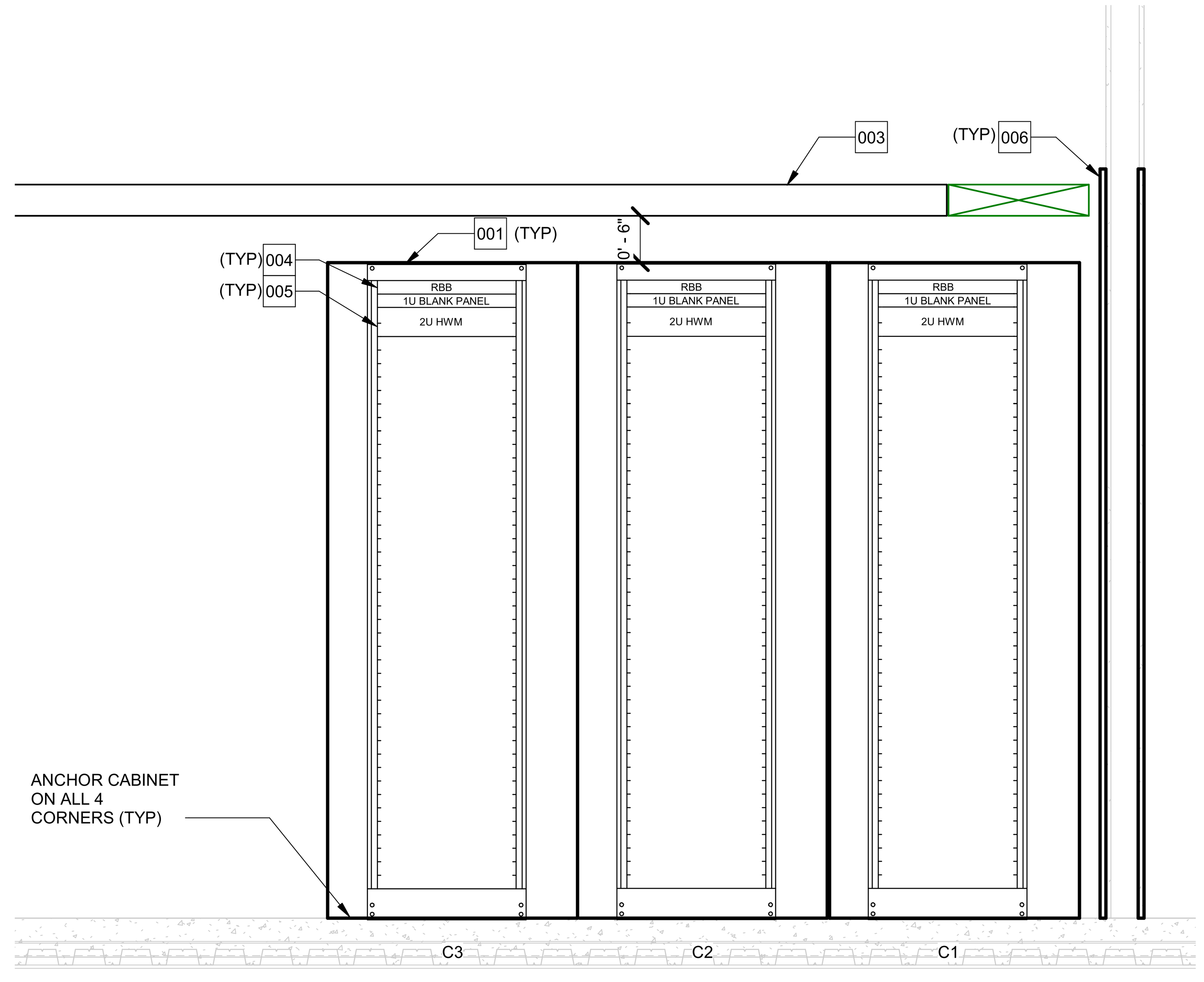
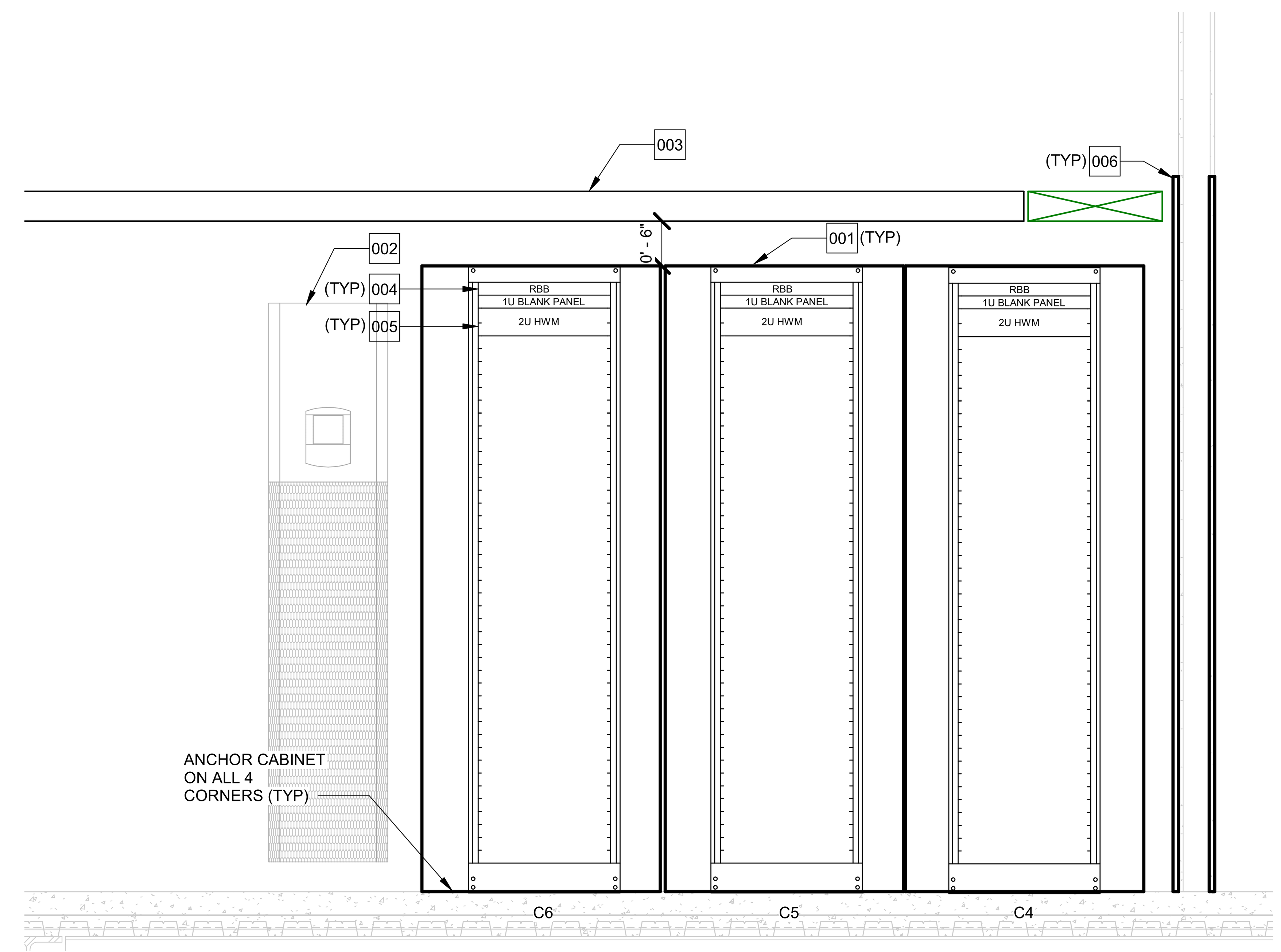


C1 UNCLASSIFIED COMM ROOM 211 - RACK ELEVATIONS

3/4" = 1'-0"



C3 UNCLASSIFIED COMM ROOM 211 - RACK ELEVATIONS

3/4" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYTS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION. 2

KEYNOTES

001	PROVIDE FREESTANDING ENCLOSED 48RU 4-POST SERVER CABINET WITH REMOVABLE, LOCKABLE SHEET METAL SIDE PANEL, TWO HINGED ACCESS DOORS, METAL TOP PANEL AND VERTICAL CABLE MANAGER. 32-INCHES WIDE X 90-INCHES HIGH X 40-INCHES DEEP, BLACK PERFORATED DOORS, TAPPED RAILS, 751 KEYED LOCKS. PROVIDE CABINET WITH COOLING FAN KIT, BLACK, 115V, 60Hz.
002	IN-ROW COOLING
003	PROVIDE 18-INCHES WIDE X 4-INCHES HIGH BASKET TRAY
004	PROVIDE A 1U RACK BONDING BUSBAR (RBB), REFER TO DETAIL A5 ON SHEET T-504 (TYP)
005	PROVIDE 2RU, 19-INCH EIA UNIVERSAL HORIZONTAL CABLE MANAGER, SINGLE SIDED WITH SNAP-ON COVER THAT OPENS 180-DEGREES UP OR DOWN, 3.5-INCHES HIGH X 19-INCHES WIDE X 5.14-INCHES DEEP, CHATSWORTH CATALOG NO. 30130-719 (TYP)
006	PROVIDE 48-INCH WIDE X 78-INCH HIGH X 3/4-INCH DEEP FIRE RATED PLYWOOD BACKBOARDS ON THE ENTIRE LENGTH OF THE WALL, MOUNTED 6-INCHES A.F.F. TO BOTTOM OF PLYWOOD BACKBOARD.

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Robert W Fauvelle
BICSI ID # 128496
EXPIRES 12-31-23
RCDD
01/13/2022

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

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FILE NUMBER:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

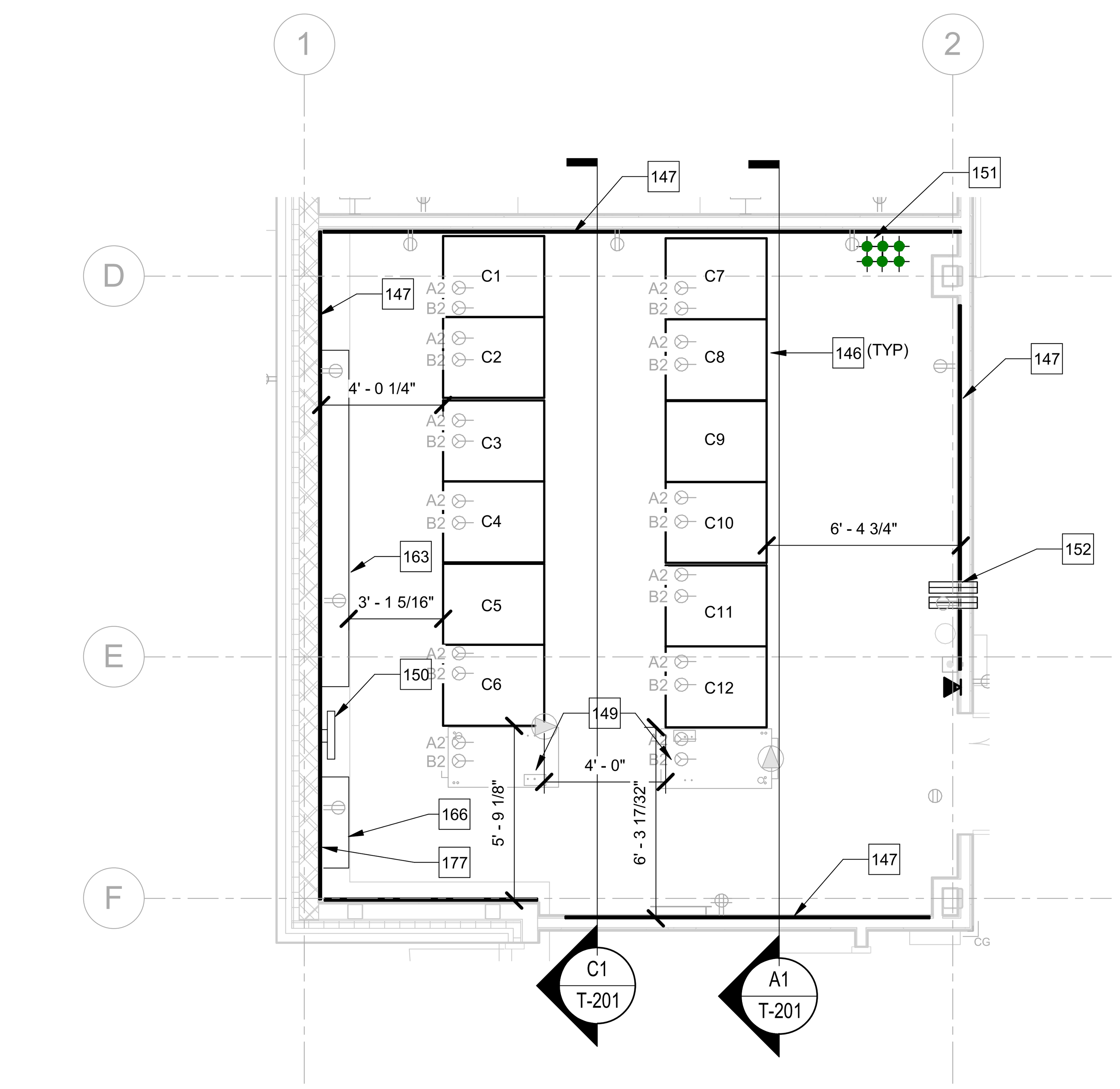
DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - RACK ELEVATIONS

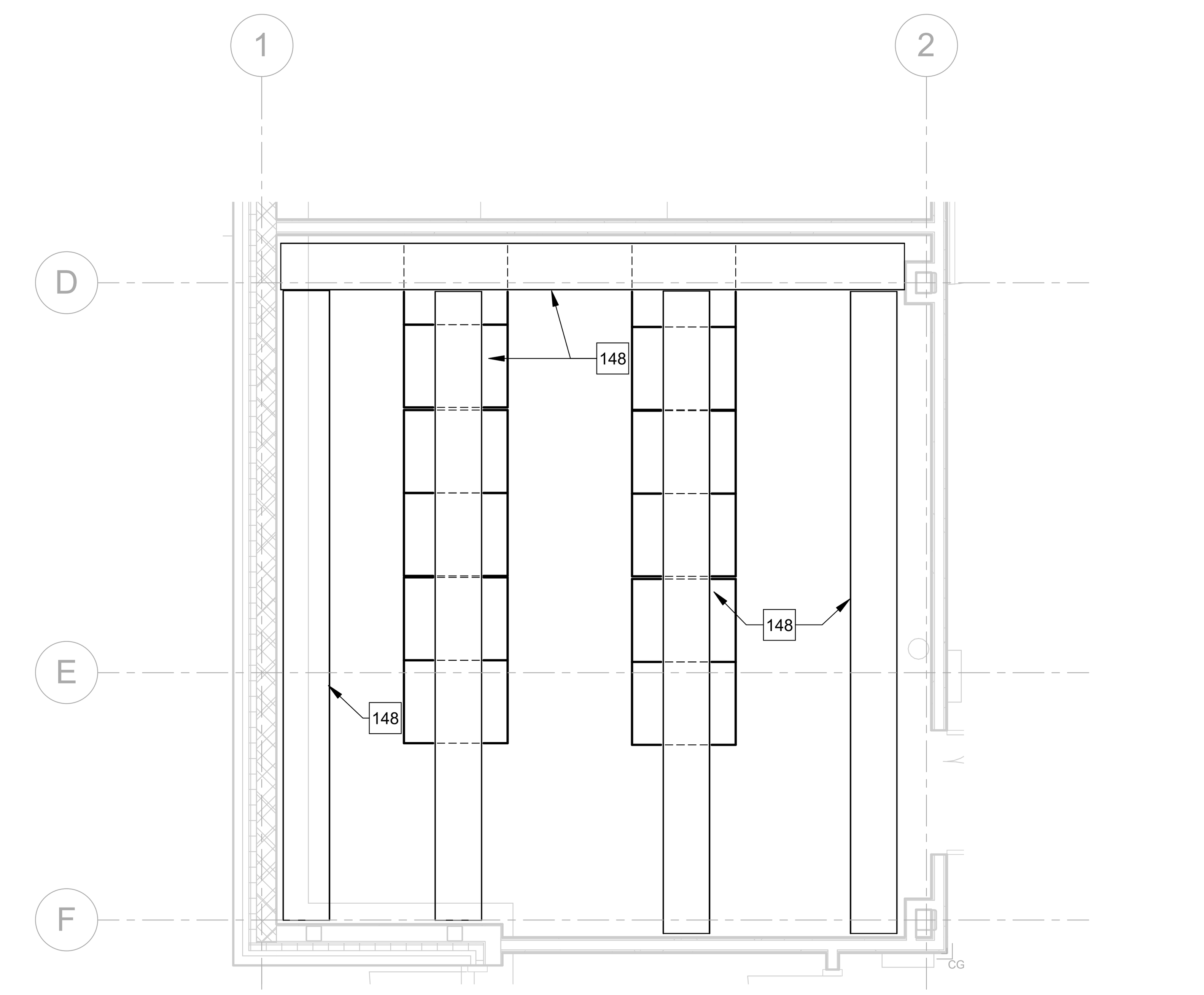
SHEET ID

T-203

AMENDMENT 0002



C1 MAIN COMM ROOM 109 - EQUIPMENT PLAN
1/4" = 1'-0"



C3 MAIN COMM ROOM 109 - CABLE TRAY PLAN
1/4" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYTS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION. 2

KEYNOTES

#	
146	PROVIDE FREESTANDING ENCLOSED 48RU 4-POST SERVER CABINET WITH REMOVABLE, LOCKABLE SHEET METAL SIDE PANEL, TWO HINGED ACCESS DOORS, METAL TOP PANEL AND VERTICAL CABLE MANAGER. 32-INCHES WIDE X 90-INCHES HIGH X 40-INCHES DEEP, BLACK PERFORATED DOORS, TAPPED RAILS, 751 KEYED LOCKS. PROVIDE CABINET WITH COOLING FAN KIT, BLACK, 115V, 60Hz.
147	PROVIDE 48-INCH WIDE X 78-INCH HIGH X 3/4-INCH DEEP FIRE RATED PLYWOOD BACKBOARDS ON THE ENTIRE LENGTH OF THE WALL, MOUNTED 6-INCHES A.F.F. TO BOTTOM OF PLYWOOD BACKBOARD.
148	PROVIDE 18-INCHES WIDE X 4-INCHES HIGH BASKET TRAY
149	IN-ROW COOLING
150	PROVIDE PBB 4-INCHES ABOVE BASKET TRAY
151	PROVIDE (6) 4-INCH ID CONDUITS TO SITE. PROVIDE BUSHINGS AND PULL-TAPE. STUB UP 4-INCHES AFF ALONG EXTERIOR WALL.
152	PROVIDE E-Z PATH GANGABLE WALL PENETRATIONS
163	WALL SPACE RESERVED FOR ESS EQUIPMENT
166	RESERVE WALL SPACE FOR SATELLITE DISH CABLE TV HEAD END EQUIPMENT (BY GOVERNMENT). EQUIPMENT WILL REQUIRE 3 FEET BY 3 FEET OF SPACE.
177	PROVIDE A WALL-MOUNT RG-11 TERMINATION FIELD, LOADED WITH MODULES RATED TO PASS THE SPECIFIC FREQUENCY BAND USED BY DON-LORS AT EACH 3-FEET BY 3-FEET RESERVED AREA. OBTAIN PRIOR TO ORDERING MODULES. THESE RG-11 COAX TERMINATION FIELDS WILL TERMINATE ALL HORIZONTAL RG-11 CABLES LEADING TO INDIVIDUAL TV SERVICE PORTS IN THE BUILDING. PROVIDE HORIZONTAL RG-11 COAX FROM THE HEAD-END TERMINATION FIELD TO EACH F-CONNECTOR FACEPLATE. CABLES WILL BE DEDICATED, LESS THAN 200 FEET, AND WITHOUT SPLITTERS. IN THE EVENT ANY CABLE EXCEEDS 200 FEET, THE CONTRACTOR WILL NOTIFY DON-LORS. FOR THESE EXCEPTIONS (NOT ANTICIPATED) DON-LORS MUST PROVIDE A SMARTBOX LOCATION AT THE HEAD-END EQUIPMENT AREA TO BOOST SIGNAL. TERMINATE ALL RG-11 WITH F-CONNECTORS RATED FOR 3GHz OR BETTER. FROM THE HEAD-END LOCATION IN EACH DR TO INDIVIDUAL WORKSTATIONS, THE CONTRACTOR MUST PROVIDE RG-11 CABLE.

GRAPHIC SCALE(S)

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

PLAN NORTH

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
Bicsi
Robert W Fauvelle
BICSI ID # 128496
EXPIRES 12-31-23
RCDD
01/13/2022

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

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DRAWN BY: B. ARTERBURN
CHECKED BY: H. FERRIS
SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - ENLARGED PLANS

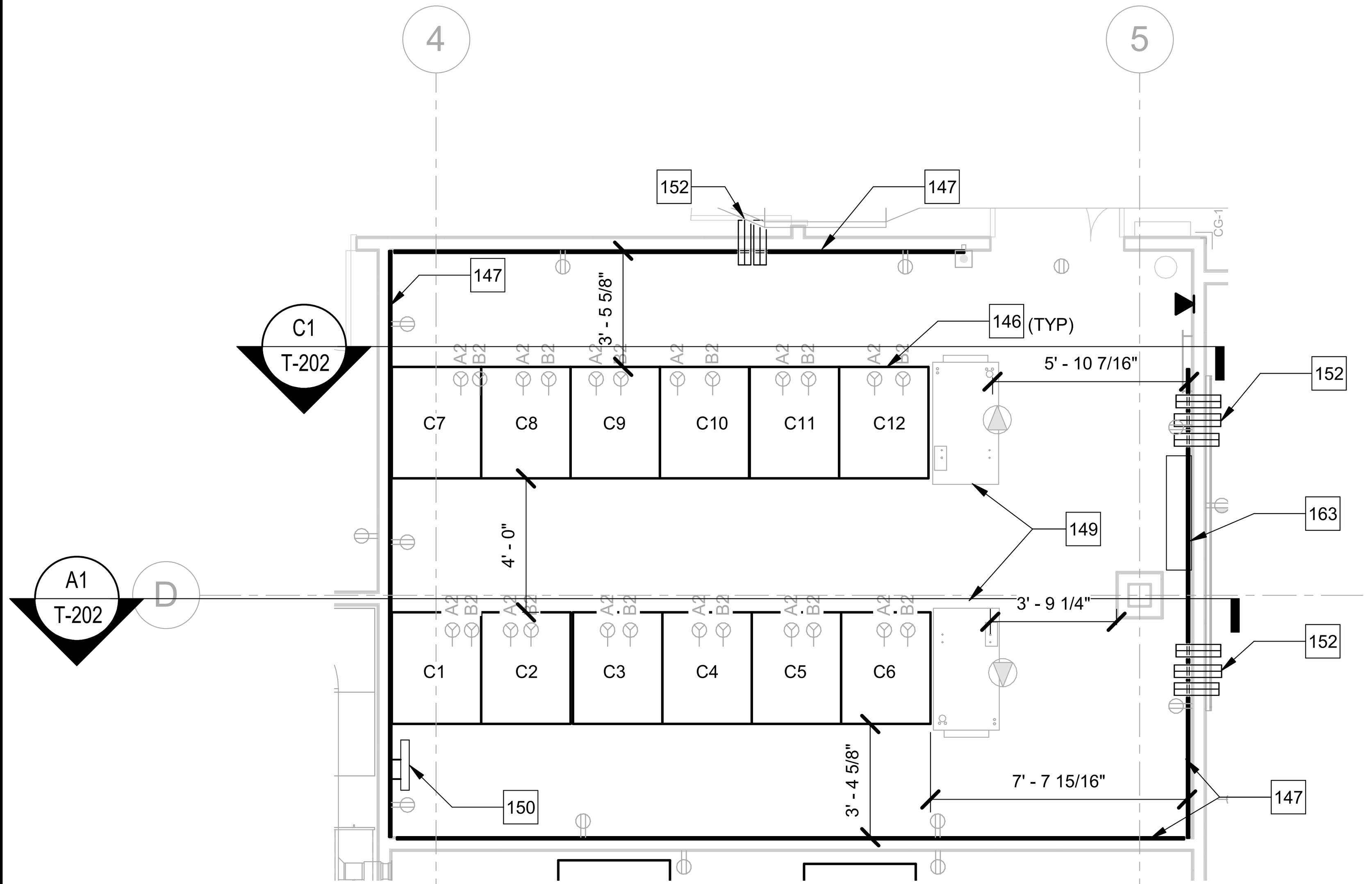
SHEET ID
T-401

AMENDMENT 0002

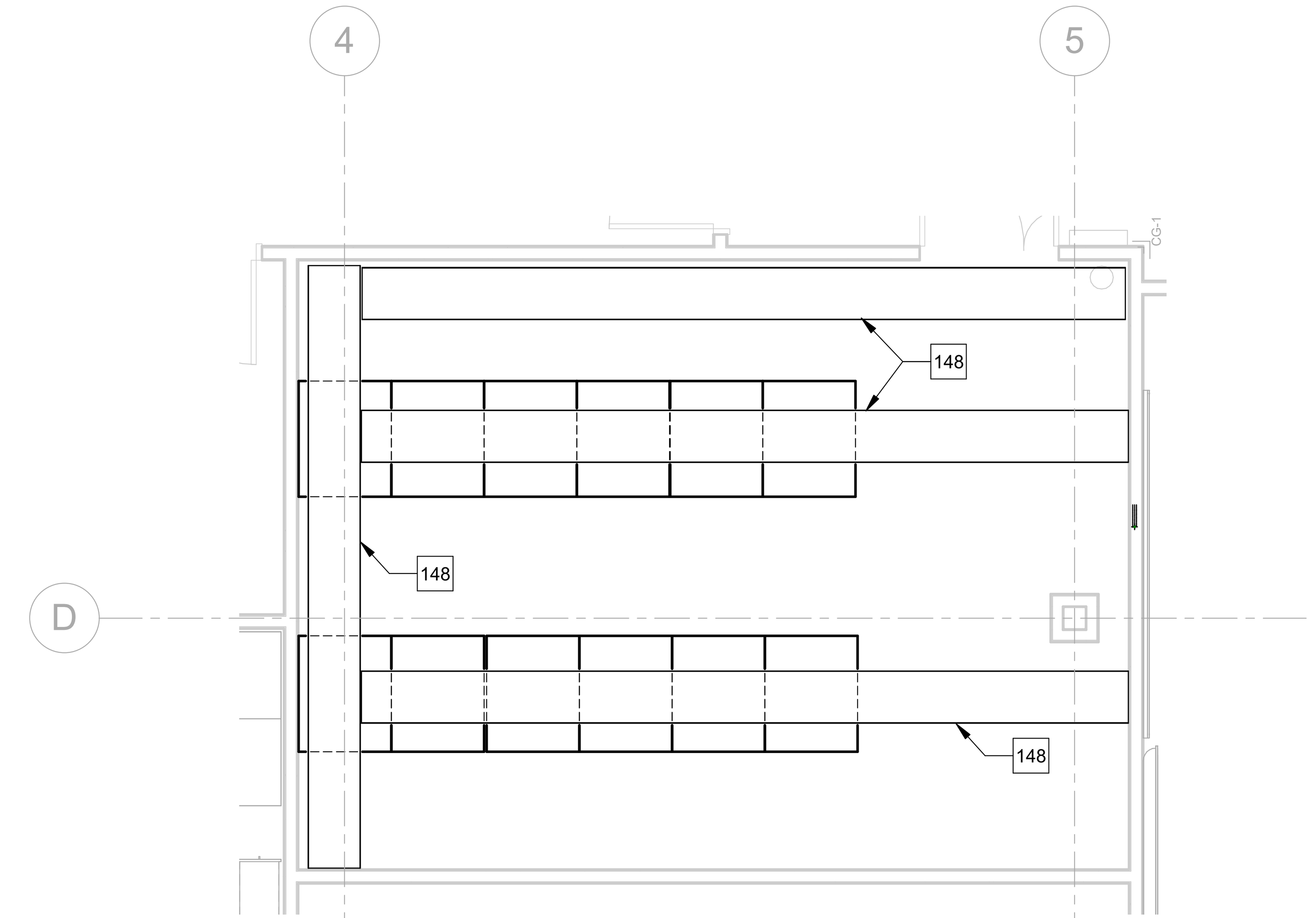
GENERAL SHEET NOTES

1. CONTRACTOR RESPONSIBLE FOR BACKBONE CABLING AND PATHWAYS. HORIZONTAL CABLING TO BE PROVIDED BY GOVERNMENT; CONTRACTOR TO PROVIDE HORIZONTAL PATHWAYS ONLY. HORIZONTAL PATHWAYTS INCLUDE CABINETS/RACKS, BASKET TRAY, CONDUIT/TUBING, AND BACKBOXES. REFER TO T-601 FOR FURTHER INFORMATION.

2



C1 CLASSIFIED COMM ROOM 212 - EQUIPMENT PLAN
1/4" = 1'-0"



C3 CLASSIFIED COMM ROOM 212 - CABLE TRAY PLAN
1/4" = 1'-0"

KEYNOTES

#	
146	PROVIDE FREESTANDING ENCLOSED 48RU 4-POST SERVER CABINET WITH REMOVABLE, LOCKABLE SHEET METAL SIDE PANEL, TWO HINGED ACCESS DOORS, METAL TOP PANEL AND VERTICAL CABLE MANAGER, 32-INCHES WIDE X 90-INCHES HIGH X 40-INCHES DEEP, BLACK PERFORATED DOORS, TAPPED RAILS, 751 KEYED LOCKS. PROVIDE CABINET WITH COOLING FAN KIT, BLACK, 115V, 60Hz.
147	PROVIDE 48-INCH WIDE X 78-INCH HIGH X 3/4-INCH DEEP FIRE RATED PLYWOOD BACKBOARDS ON THE ENTIRE LENGTH OF THE WALL, MOUNTED 6-INCHES A.F.F. TO BOTTOM OF PLYWOOD BACKBOARD.
148	PROVIDE 18-INCHES WIDE X 4-INCHES HIGH BASKET TRAY
149	IN-ROW COOLING
150	PROVIDE SBB. MOUNT 78-INCHES ABOVE FINISHED FLOOR (A.F.F.)
152	PROVIDE E-Z PATH GANGABLE WALL PENETRATIONS
163	WALL SPACE RESERVED FOR ESS EQUIPMENT

GRAPHIC SCALE(S)

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

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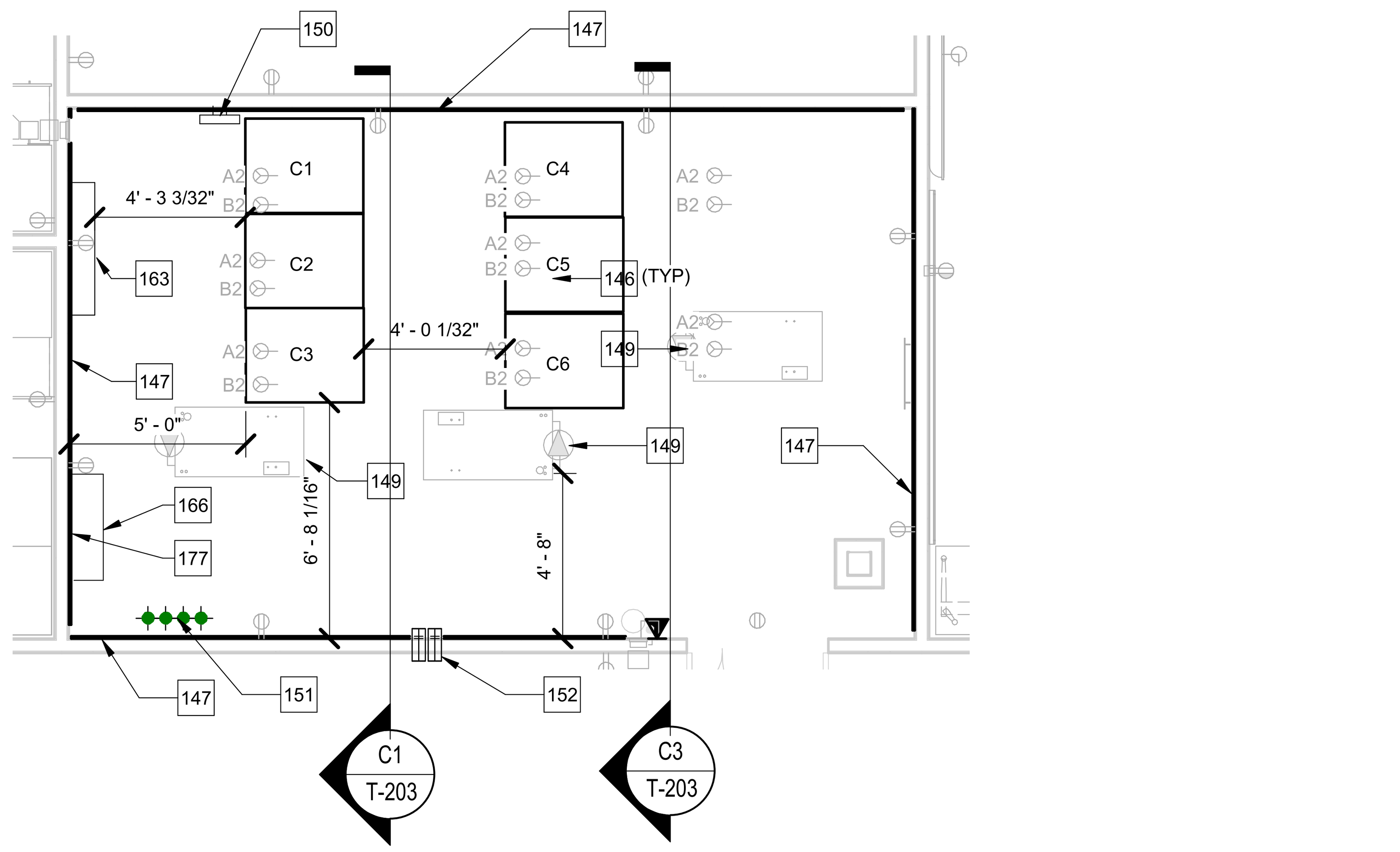
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

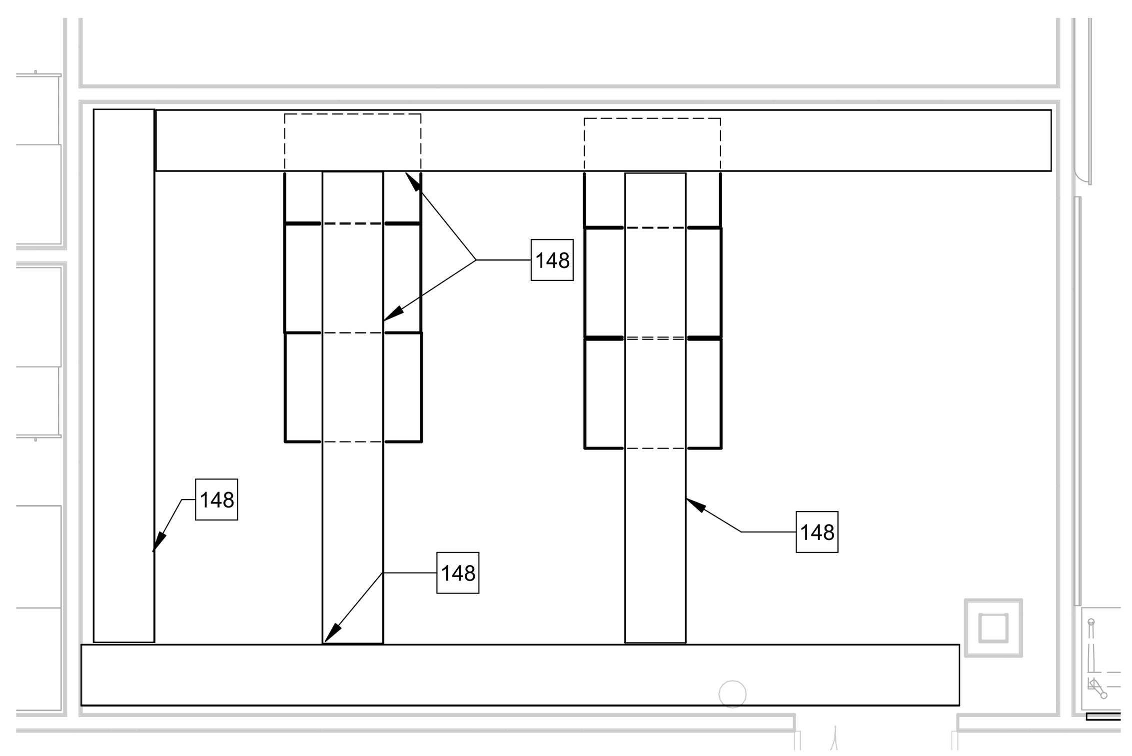
TELECOM - ENLARGED PLANS

SHEET ID
T-402

AMENDMENT 0002



C1 UNCLASSIFIED COMM ROOM 211 - EQUIPMENT PLAN
1/4" = 1'-0"



C3 UNCLASSIFIED COMM ROOM 211 - CABLE TRAY PLAN
1/4" = 1'-0"

GENERAL SHEET NOTES

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KEYNOTES

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148	PROVIDE 18-INCHES WIDE X 4-INCHES HIGH BASKET TRAY
149	IN-ROW COOLING
150	PROVIDE SBB. MOUNT 78-INCHES ABOVE FINISHED FLOOR (A.F.F.)
151	PROVIDE (4) FOUR-INCH SLEEVED CONDUITS WITH BUSHINGS FROM FIRST FLOOR
152	PROVIDE E-Z PATH GANGABLE WALL PENETRATIONS
163	WALL SPACE RESERVED FOR ESS EQUIPMENT
166	RESERVE WALL SPACE FOR SATELLITE DISH CABLE TV HEAD END EQUIPMENT (BY GOVERNMENT). EQUIPMENT WILL REQUIRE 3 FEET BY 3 FEET OF SPACE.
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GRAPHIC SCALE(S)

4 3 2 1 0 4 8

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

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE
2	REVISED I.A.W. AMENDMENT 0002	JAN 2023

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CHECKED BY: H. FERRIS
SUBMITTED BY:
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US ARMY CORPS OF ENGINEERS
Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - ENLARGED PLANS

SHEET ID

T-403

AMENDMENT 0002

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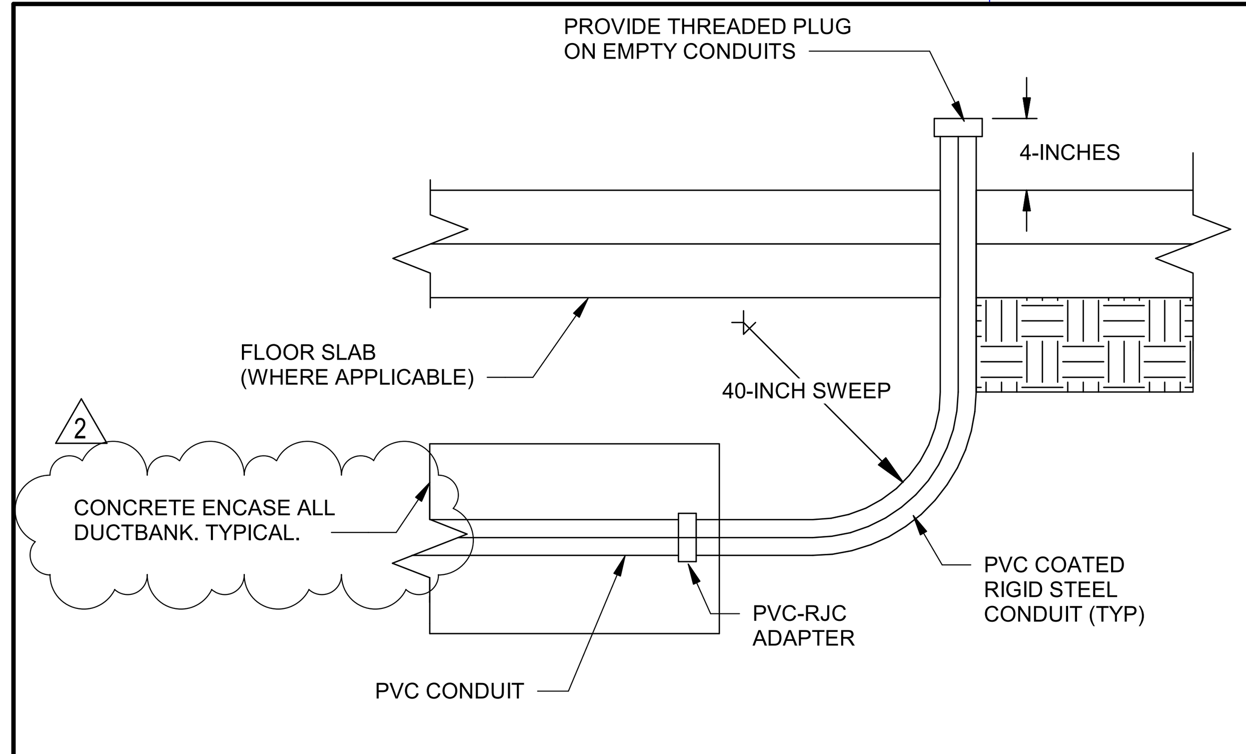
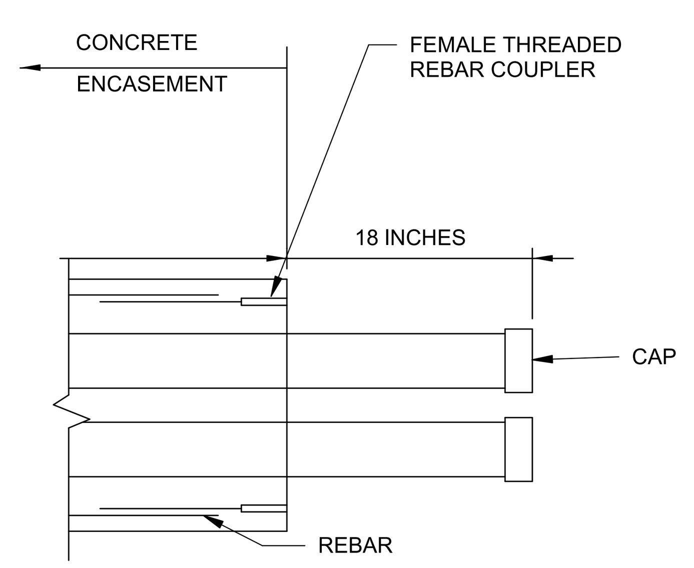
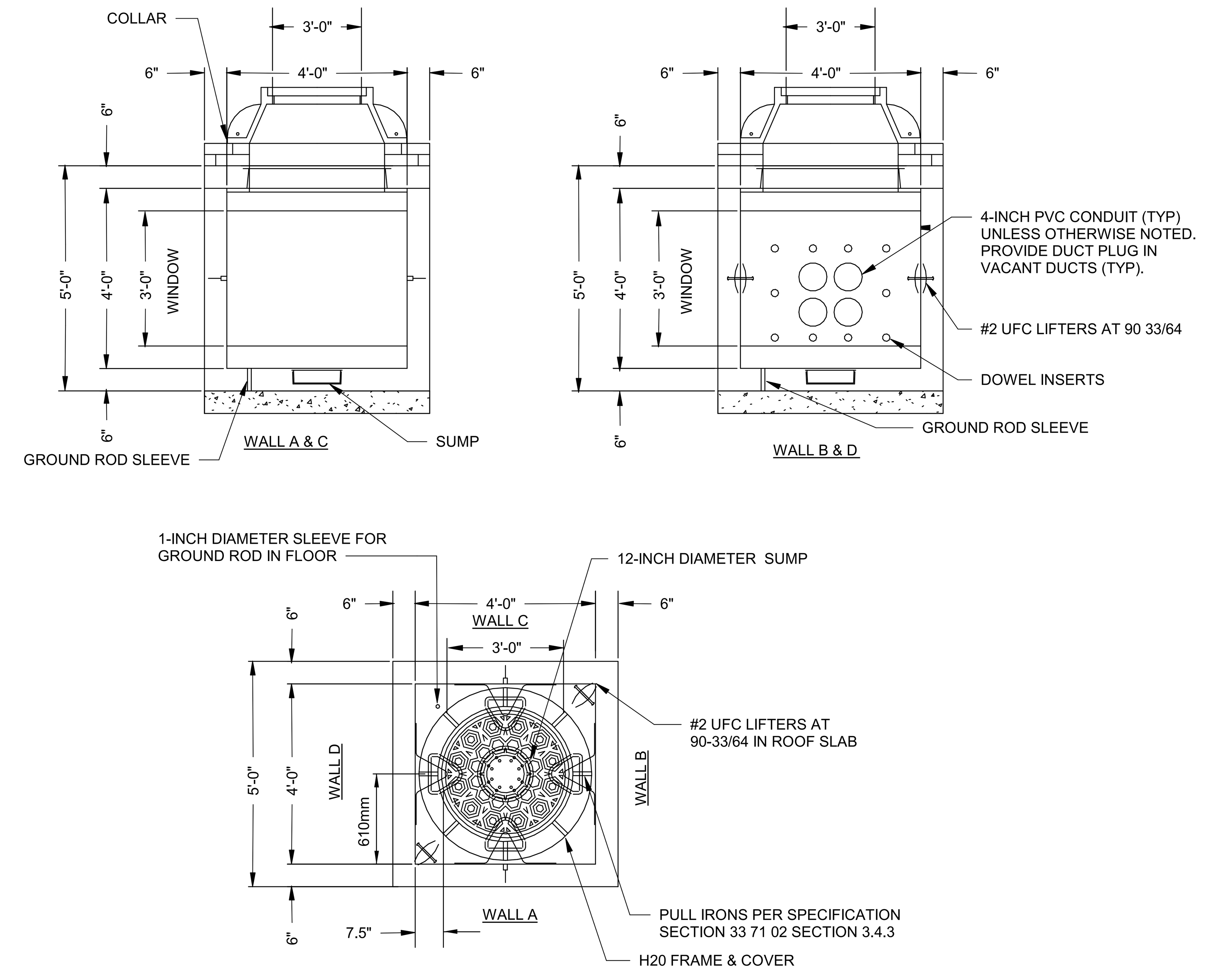


D1 DUCT BANK STUB-UP DETAIL
NOT TO SCALE



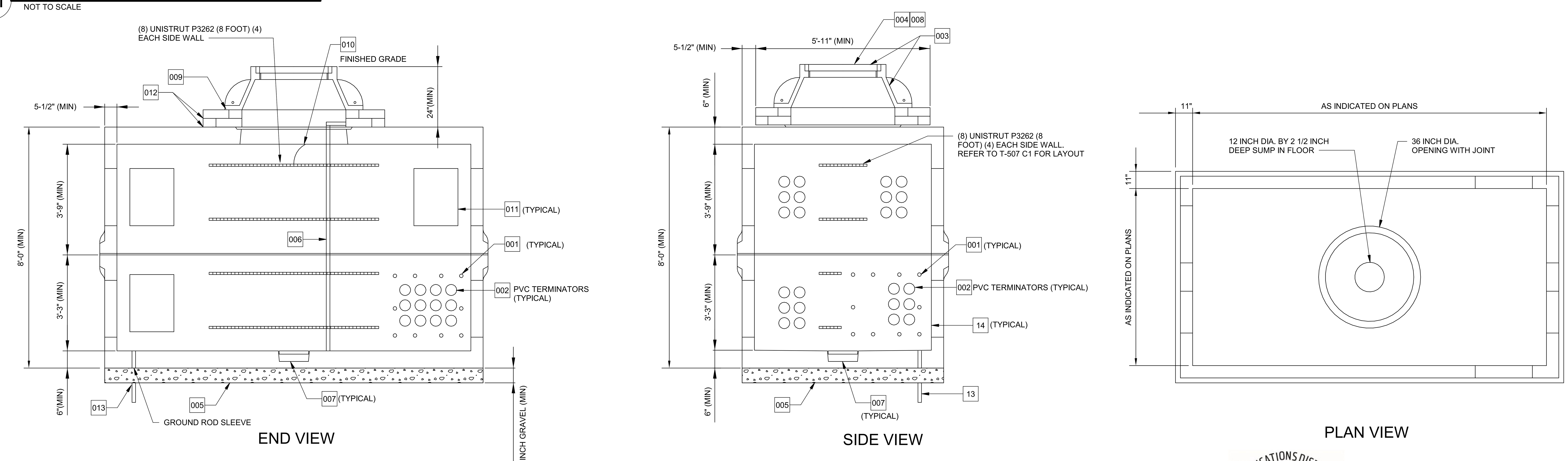
C1 TYPICAL DUCT BANK STUB-OUT DETAIL
NOT TO SCALE



A3 HANDHOLE DETAILS
PLAN VIEW
NOT TO SCALE

KEYNOTES

#	
001	PROVIDE THREADED DOWEL INSERTS AND CAST INTO THE WALL OF THE MAINTENANCE HOLE OR HANDHOLE IN ALL DUCT TERMINATOR LOCATIONS THE DOWEL INSERTS ARE TO MATCH THE REBAR IN THE REINFORCED DUCT BANK DETAILS FOR APPROPRIATE SIZE DUCT. SECURE THE DUCT BANK TO THE MAINTENANCE HOLE OR HANDHOLE WITH THREADED DOWEL RODS SCREWED INTO THREADED INSERTS.
002	PROVIDE NUMBER AND LOCATION OF PVC DUCT TERMINATORS PER TELECOM DETAILS.
003	VERIFY WITH THE CONTRACTING OFFICER THAT MAINTENANCE HOLE OR HANDHOLE NUMBERS SHOWN ON THE DRAWINGS ARE THE ACTUAL NUMBER FOR EACH MAINTENANCE HOLE OR HANDHOLE. STENCIL THIS NUMBER ON COLLAR AND LID.
004	MAINTENANCE HOLE OR HANDHOLE MUST HAVE AN AASTO H-20 LOAD RATING. COVERS MUST NOT VIOLATE THE RATING.
005	PROVIDE MAINTENANCE HOLE OR HANDHOLE ON A LEVELED, CRUSHED, WASHED GRAVEL BASE UNDER THE ENTIRE STRUCTURE. THIS GRAVEL BASE MUST BE A MINIMUM DEPTH OF 6 INCHES FOR DRAINAGE AND STABILITY. EXTEND GRAVEL BASE TO 12 INCHES BEYOND STRUCTURE ON EACH SIDE. THE MAINTENANCE HOLE OR HANDHOLE MUST HAVE 24 INCHES MINIMUM OF COVER.
006	CAST A SUMP (12" DIAMETER MINIMUM) INTO THE FLOOR. THE FLOOR IS TO SLOPE TO THE SUMP HOLE FOR DRAINAGE. PROVIDE A COVER FOR THE SUMP.
007	EQUIP EACH MAINTENANCE HOLE WITH A DETACHABLE HOOK AND GALVANIZED LADDER.
008	GROUT MAINTENANCE HOLE OR HANDHOLE FRAME TO MAINTENANCE HOLE OR FLAT TOP LID.
009	BONDING RIBBON. BOND INSULATED 6 AWG WIRE WITH ROUND CLAMP. EQUIP MAINTENANCE HOLE WITH AN INTEGRATED BONDING SYSTEM CAST INTO MAINTENANCE HOLE FROM THE MANUFACTURER. BOND ALL RACKS TO THE GROUND ROD IN THE MAINTENANCE HOLE, BOND CABLES AND SPLICE CASES TO THE GROUND ROD USING COMPRESSION OR EXOTHERMIC CONNECTORS.
010	PROVIDE SMOOTH SURFACE WINDOWS WHERE PVC DUCT TERMINATORS ARE NOT PROVIDED. THESE WINDOWS ARE FOR CORE DRILLING FUTURE DUCT ADDITIONS.
011	PLACE A WATER RESISTANT SEAL OR GASKET BETWEEN THE SECTIONS OF THE MAINTENANCE HOLE OR HANDHOLE AND BETWEEN THE COVER FRAMES, COLLARS, AND MAINTENANCE HOLE OR HANDHOLE TOPS.
012	THE MAINTENANCE HOLE OR HANDHOLE COVERS MUST BE 36-INCHES MINIMUM IN DIAMETER EXCEPT WHERE ANOTHER DIAMETER IS SPECIFIED.
013	PROVIDE 3/4-INCH BY 10-FOOT COPPER CLAD IRON GROUND ROD FOR EACH MAINTENANCE HOLE. ABOVE THE FINISHED FLOOR BETWEEN 3 1/2-INCH AND 4 1/2-INCHES, AND LOCATE NOT MORE THAN 3-INCHES OR LESS THAN 2-INCHES FROM THE VERTICAL SURFACE OF THE ADJACENT WALL.
014	PROVIDE PHOTOS OF EACH WALL OF COMMUNICATION MAINTENANCE HOLE SHOWING THE CONDUITS AND CABLING ENTERING AND LEAVING THE MAINTENANCE HOLE AS PART OF THE AS BUILT DOCUMENTATION.



A1 COMMUNICATION MAINTENANCE HOLE (CMH) DETAIL
NOT TO SCALE

US Army Corps of Engineers ®

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SUBMITTED BY:
SIZE: ANSI 'D'
FILE NAME:

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Omaha District
Omaha, NE

JACOBS
1100 N. GLEBE ROAD, SUITE 500
ARLINGTON, VA 22201

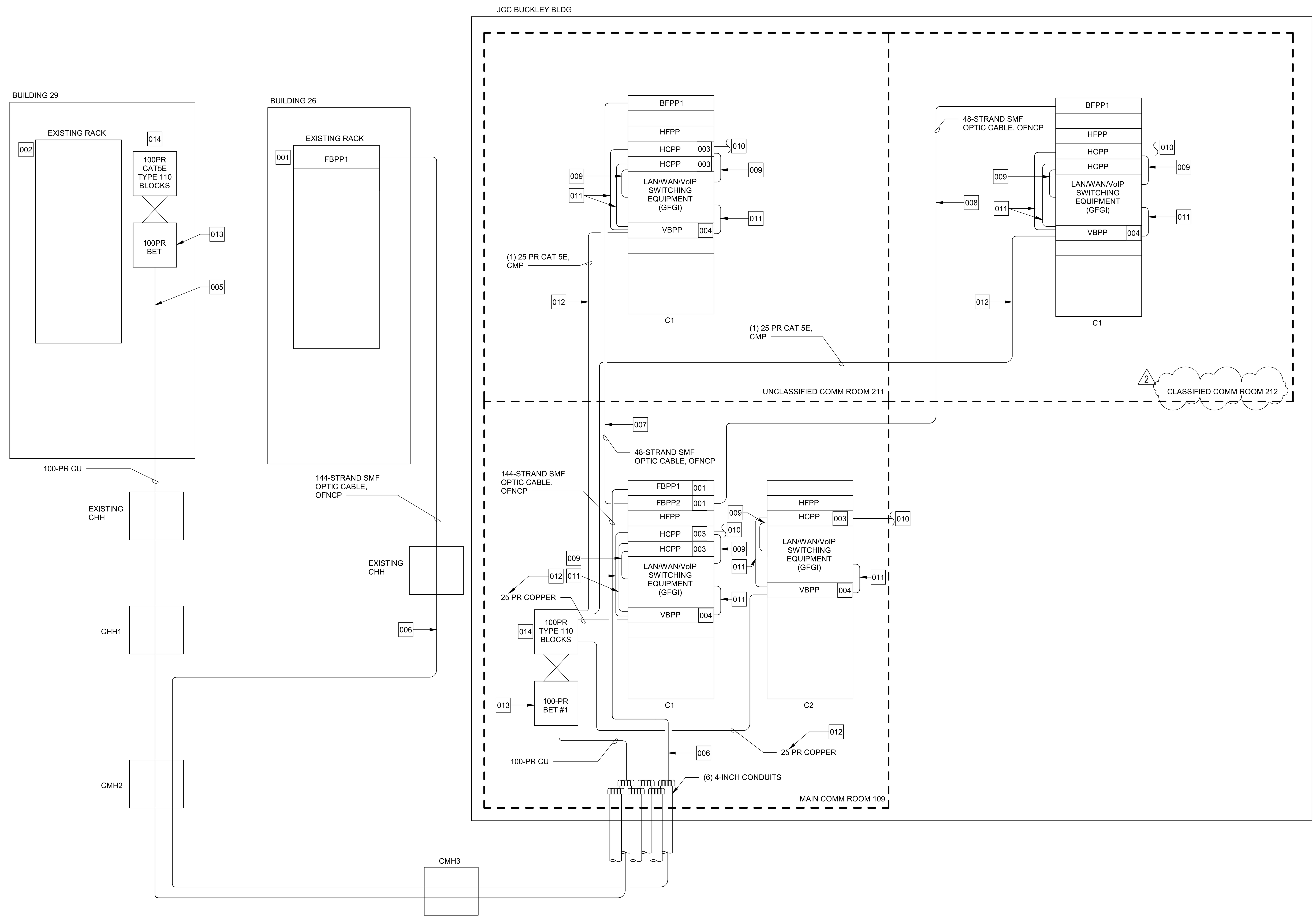
DESIGN OF JOINT CRYPTOLOGIC CENTER (JCC) BUILDING
BUCKLEY SFB, CO

TELECOM - DETAILS - DATA

SHEET ID
T-505

AMENDMENT 0002

1 2 3 4 5



A1 VOICE AND DATA ONE-LINE DIAGRAM
NOT TO SCALE

KEYNOTES

001 PROVIDE 4 RU FIBER SPLICE ENCLOSURE WITH 6-DUPLEX (12-FIBER) LC, SINGLEMODE FIBER, OS1 ADAPTER PANELS, BLUE CERAMIC ALIGNMENT SLEEVES 12-FIBER SPLICE TRAYS, LOOSE TUBE BREAKOUT KIT, HEAT SHRINK TUBES, 12-FIBER PIGTAILS 2M, LC-IPC, SMF, OS1.

002 PROVIDE 6-PORT DUPLEX (12-FIBER) SMF, LC, APC (GREEN) FIBER ADAPTER PANEL, GREEN ADAPTER CERAMIC ALIGNMENT SLEEVES WITH 12-FIBER PIGTAILS, 2M, LC, APC (GREEN)-IPC, SMF, OS1.

003 RACK MOUNTED CAT 6 HORIZONTAL CABLE TERMINATION PANEL SERVING CABLING FOR VOICE OR DATA JACKS, TYPICAL OF MULTIPLE PANELS.

004 PROVIDE PAN-PUNCH, CAT 5e, 19-INCH RACK MOUNT PANEL WITH TWO 100-PAIR BASES PREMOUNTED TO PANEL WITH C4 AND C5 CLIPS, LABEL HOLDERS AND LABELS.

005 PROVIDE A 100-PAIR, CAT 3, OSP RATED, PE89 COPPER BACKBONE CABLE.

006 PROVIDE 144-STRAND SMF, OSP RATED, NON-CONDUCTIVE FIBER OPTIC CABLE FROM MAIN COMM ROOM 109/CABINET 1/BFPP1/SLOTS 1-12 TO BUILDING 26/TER/CAB X/BFPP1/SLOTS 1-12.

007 PROVIDE 48-STRAND SMF, OFNP FROM MAIN COMM ROOM 109/CABINET 1/BFPP2/SLOTS 1-4 TO UNCLASSIFIED COMM ROOM 211/C1/BFPP1/SLOTS 1-4.

008 PROVIDE 48-STRAND SMF, OFNP FROM MAIN COMM ROOM 109/CABINET 1/BFPP2/SLOTS 5-8 TO CLASSIFIED COMM ROOM 212/C1/BFPP1/SLOTS 1-4.

009 HORIZONTAL CABLE PATCH CABLES ARE PROVIDED AND INSTALLED BY GOVERNMENT (TYPICAL).

010 CAT 6 HORIZONTAL DATA CABLES TO DATA OUTLETS FOR WORKSTATIONS AND VoIP PHONES (TYP. FOR MULTIPLE PANELS TO BE PROVIDED AND INSTALLED BY GOVERNMENT) AS INDICATED ON TELECOM FLOOR PLAN DRAWINGS.

011 MISCELLANEOUS ANALOG VOICE LINES PATCHED TO HORIZONTAL CABLING TERMINATION PATCH PANEL (TYP).

012 PROVIDE A 25-PAIR CAT 5e CMR CABLE FROM BET TO CAT 5e 19-INCH RACK MOUNT PANEL KIT.

013 PROVIDE 100-PAIR, BUILDING ENTRANCE TERMINAL (BET) WITH 110 INPUT AND OUTPUT TERMINALS AND (100) 5-PIN GAS TUBES.

014 PROVIDE 100-PAIR, CAT 5E 110 BLOCK WITH LEGS AND C4 AND C5 CLIPS.

US Army Corps of Engineers ®

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