US Army Corps of Engineers®

OMAHA DISTRICT

REPAIR B-52 MAINTENANCE DOCK 5 (BUILDING 837)
MINOT AFB, NORTH DAKOTA

VOLUME 1 OF 2

SOLICITATION NO.: W9128F-20-R-0026

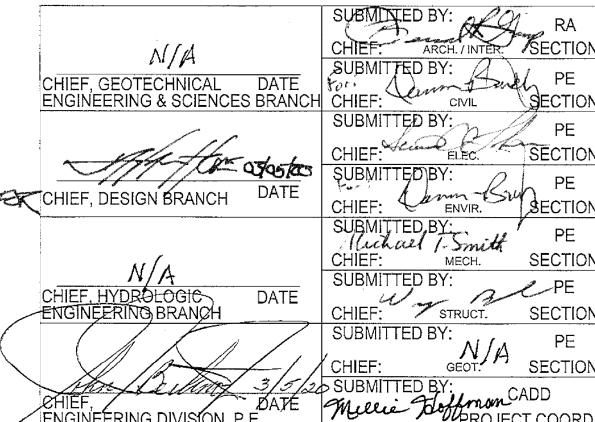
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CONTRACT NO.:

ISSUE DATE: 02/19/2020

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SIGNATURES AFFIXED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF DRAWINGS IN THIS SET.





US Army Corps of Engineers
Omaha District

US Army Corps of Engineers®

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 ISSUE DATE:

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(BUILDING 837)
MINOT AFB, NORTH DAKOTA
VOLUME 1
COVER SHEET

SHEET ID **G-001**

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TELECOMMUNICA		
TELECOMMUN		DECODIDATION
FILE NAME	SHEET ID NO.	DESCRIPTION TELECOMMUNICATIONS SUPPLEMENTAL LEGEND AND NOTES

TELECOMMUNICATIONS SUPPLEMENTAL LEGEND AND NOTES

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SHEET ID NO. DESCRIPTION

FILE NAME

1. SHEET IDENTIFICATION NUMBERS:
DISCIPLINE DESIGNATOR w/ Level 2 Designator (see A/E/C CADD STANDARD RELEASE 6.0 for Level 2 Designator)
SHEET TYPE DESIGNATOR
ДДД М - 2 0 1
SHEET SEQUENCE NUMBER

DISCIPL	INE DESIGNATORS:
G	GENERAL
H	HAZARDOUS MATERIALS
V	SURVEY / MAPPING
В	GEOTECHNICAL
С	CIVIL
L	LANDSCAPE
S	STRUCTURAL
Α	ARCHITECTURAL
]	INTERIORS
Q	EQUIPMENT
F	FIRE PROTECTION
Р	PLUMBING
D	PROCESS
M	MECHANICAL

ELECTRICAL

RESOURCE

TELECOMMUNICATIONS

3. SHEET TYPE DESIGNATORS: **GENERAL PLANS ELEVATIONS** SECTIONS LARGE-SCALE VIEWS DETAILS SCHEDULES & DIAGRAMS USER DEFINED

USER DEFINED

3D REPRESENTATIONS

SHEET ID G-002

US Army Corps

of Engineers®

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SITE/CIVIL FILE NAME

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COVER

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TERM T&G

TGL TH TERRAZZO

TONGUE AND GROOVE

TERMINAL

TOGGLE

TRUSS HEAD

THICK(NESS)

POUNDS PER SQUARE FOOT

THRESHOLD

THRES

LTNG LIGHTNING

PROJ PROJECT

PS PIPE SPACE

P.S. PRESSED STEEL

PRV PRESSURE-REGULATING VALVE

PS CONC PRESTRESSED CONCRETE

REPAIR B-52 MAINTENANCE DOCK 5
(BUILDING 837)
MINOT AFB, NORTH DAKOTA
ABBREVIATIONS

G-003

SHEET ID

CRCMF CIRCUMFERENCE

CRES CORROSIVE RESISTANT STEEL

CPT CARPET

CRG CROSS GRAIN

CRS COURSE(S)

FR

FR

FRMG

FEET PER MINUTE

FIRE RESISTANT

FRAME

FORGED

FRAMING

LR LIVING ROOM

LT LIGHT

LTG LIGHTING

LAWN SPRINKLER

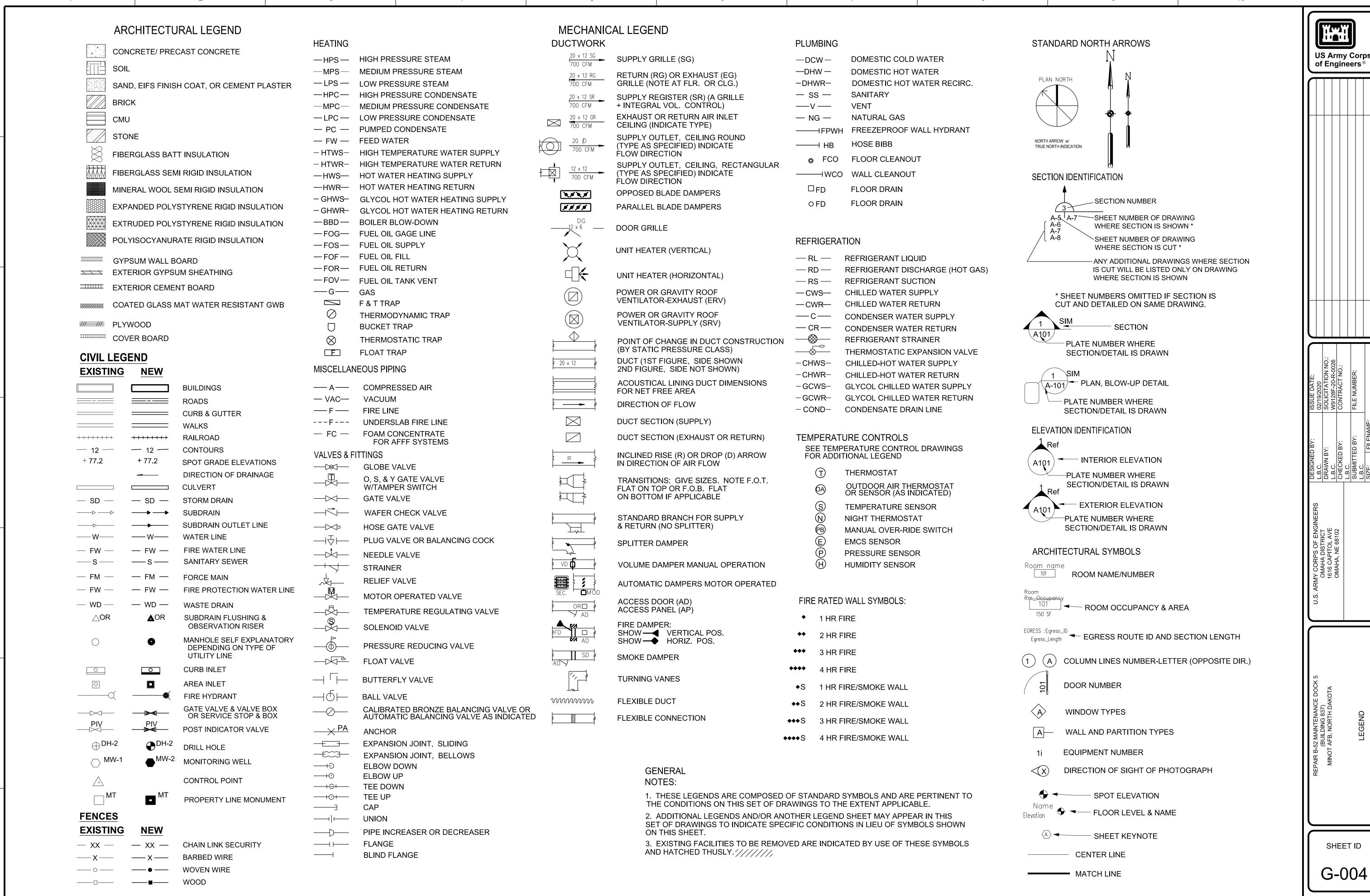
LT WT LIGHTWEIGHT

CS

L ANGLE

CAST STONE

FRT FIRE-RETARDANT



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1 1 1 **US Army Corps** of Engineers®

FEEDER TYPE BUS DUCT (FB) OR METAL-ENCLOSED BUS 1600A IFBI IFBI ASSEMBLIES (HIGH OR MEDIUM VOLTAGE). (CU BUS IF NOT IDENTIFIED). AMPACITY AS INDICATED SEPARABLE CONNECTOR IN PRIMARY DISTRIBUTION LINE (ELBOW TERMINATOR AND BUSHING COMBINATION)-LOADBREAK AND NON-LOADBREAK STYLES RESPECTIVELY (KWH) KILOWATT-HOUR METER (WH IS WATT-HOUR METER) 1200:5 CURRENT TRANSFORMER (CT). SECOND NUMERAL OF $\widehat{\mathbf{M}}$ TRANSFORMATION RATIO IDENTIFIES NOMINAL CURRENT OF METERING/ACCESSORY CIRCUIT. NUMERAL IN PARENTHESIS INDICATES QUANTITY OF CT'S VOLTAGE (POTENTIAL) TRANSFORMER (VT/PT), DRAWOUT AND NON-DRAWOUT. QUANTITY AND VOLTAGE RATING AS \bigcirc INDICATED POWER & DISTRIBUTION TRANSFORMER, RATED kVA, VOLTAGE, CONNECTIONS, COOLING CLASS AND TYPE AS \sim INDICATED. TRANSFORMER DELTA CONNECTION DESIGNATION WHEN USED BY A TRANSFORMER SYMBOL. TRANSFORMER GROUNDED-WYE CONNECTION DESIGNATION WHEN USED BY A TRANSFORMER SYMBOL DIRECT GROUNDED AND RESISTOR GROUNDED RESPECTIVELY. IF THE GROUND SYMBOL IS MISSING, THEN IT IS AN UNGROUNDED OR FLOATING WYE CONNECTION. AS-A VS-V AMMETER AND VOLTMETER WITH PHASE SELECTOR SWITCH GROUND FAULT INTERRUPTING EQUIPMENT (SEE SPECS) WITH TRIP SETTING AT DESIGNATED TIME DELAY **GFII** 400 AT INTERLOCKING CONTROL AS INDICATED $-|#2| \overline{0.3 s}$ SENSOR, DEVICE OR APPARATUS (ELECTRICAL OR ELECTROMECHANICAL); NUMERAL IDENTIFIES TYPE OR -(27B3) FUNCTION PER ANSI/IEEE C37.2 INTERIOR ELECTRICAL LEGEND EXISTING AND NEW, RESPECTIVELY INCANDESCENT OR H.I.D. LUMINAIRE LESS THEN 2' X 2' IN SIZE - LETTER IDENTIFIES CORRESPONDING SWITCH WALL FIXTURE - MOUNTING HEIGHT INDICATED (TO FIXTURE G) FLUORESCENT OR HID LUMINAIRE 2' imes 2' OR LARGER IN $\, \check{}\,$ SIZE (THE OUTLET SYMBOL WILL NORMALLY BE OMITTED IN CONTINUOUS ROW CONFIGURATIONS) CEILING EXIT LIGHT. ARROWS IDENTIFY DIRECTION OF EGRESS WALL EXIT LIGHT - MOUNTING HEIGHT INDICATED (TO φ), ARROWS IDENTIFY DIRECTION OF EGRESS LIGHTING CONTACTOR - NO. OF POLES, CURRENT AND **VOLTAGE RATINGS AS INDICATED** EMERGENCY POWER SYSTEM FOR EGRESS LIGHTING BATTERY INVERTER SET (OR FORWARD TRANSFER UPS), RATINGS AND PHYSICAL SIZE AS INDICATED BATTERY OPERATED EMERGENCY LIGHT SET, NO. OF LUMINAIRE HEADS AS INDICATED FEEDER, DEVICE OR FIXTURE, AND FLUORESCENT TYPE -E- HO FIXTURE, RESP. SUPPLIED FROM AN EMERGENCY CIRCUIT. THE SHADED PORTION OF THE FLUORESCENT SYMBOL 0 INDICATES 2 LAMPS OF A 3 OR 4 LAMP FIXTURE ARE OR SUPPLIED FROM EMERGENCY POWER. A 1-LAMP OR \circ 2-LAMP FIXTURE WILL BE SHOWN SHADED OR UNSHADED WITH THE 'E' ANNOTATION JUNCTION BOX, 4" SQUARE UNLESS NOTED OTHERWISE. CEILING AND WALL MOUNT TYPES INDICATED. DIMMING CONTROL FOR LIGHTING MANUAL STARTER WITH THERMAL OVERLOADS (MOTOR RATED SWITCH) SINGLE POLE SWITCH DOUBLE POLE SINGLE THROW SWITCH 4'-0" UP LETTERS A, B THREE WAY SWITCH C, ETC. FOUR WAY SWITCH WHERE USED, IDENTIFY SINGLE POLE SWITCH WITH PILOT LIGHT **SWITCHED** FIXTURES TIMER OPERATED SWITCH KEY OPERATED SWITCH MOMENTARY CONTACT SWITCH 2P,3W GROUNDING TYPE RECEPTACLE - 125V, CONVENTIONAL DUPLEX & SIMPLEX "SW" INDICATES SPLIT WIRED, CO= CLOCKOUTLET, FO= FAN OUTLET, IG= ISOLATED GROUND TYPE OUTLETS, NEMA 5-XX SERIES. DEFAULT SIZE IS 15A. SEE NOTE RECEPTACLE STRIP ASSEMBLY - DUPLEX NEMA 5-15 RECEPTACLES SPACED AT INTERVAL INDICATED (SEE FLOOR PLANS) IN SURFACE MOUNTED RACEWAY. WALL MOUNTED AT 4 FT. AFF, CONSECUTIVE PHASE CONNECTIONS (IN 3Ø APPLICATIONS) UNLESS NOTED OTHERWISE

S_{HOA 2P}SS MCC-2 LP-2,4,6

ELECTRIC WATER COOLER (DRINKING WATER DISPENSER) SIZE AS INDIVIDUAL FLOOR OUTLET ASSEMBLY.'SM' DENOTES SURFACE MOUNTED TYPE (ABOVE FLOOR SERVICE FITTING), 'R' DENOTES RECESSED (FLUSH MOUNTED) TYPE, SEE SPECS RELOCATIBLE SERVICE POST ASSEMBLY - LENGTH AS REQUIRED TO EXTEND ABOVE SUSPENDED CEILING. SEE NOTE 8. TELEPHONE OUTLET, SINGLE AND DUPLEX JACK CONFIGURATIONS (8 PIN JACKS). SEE SPECS. SYMBOL SYMBOL WITHOUT LEG(S) REQUIRES DUPLEX JACKS. A SQUARE AROUND THE DEVICE INDICATE IT IS FLOOR MOUNTED. HL=HOTLINE TELEPHONE, P= PUBLIC TELEPHONE, SEE NOTE 8. CABLE TRAY FOR COMMUNICATIONS AND DATA PROCESSING, DIMENSIONS AS INDICATED (W X D) TELEPHONE TERMINAL BOARD (PLYWOOD BACKBOARD); TELEPHONE TERMINAL CABINET, SIZE AS INDICATED MULTIOUTLET CONFIGURATION IN UNDERFLOOR DUCT SYSTEM ✓UFI→P-O-→ 3" (SEE SPECS.). OPEN CIRCLE DENOTES BLANK INSERT LOCATION, UF → OCO TO 7" SOLID DENOTES A DEVICE INSTALLATION; 'P' INDICATES A POWER DUCT WITH DUPLEX RECEPTACLES (NEMA 5-15), 'C' DENOTES COMMUNICATIONS DUCT W/BUSHED FITTING; FIGURES IDENTIFY NOMINAL WIDTH; UFD IDENTIFIES A SECTION OF FEEDER DUCT (NO INSERTS). MOTOR - USE AND SIZE AS INDICATED MOTOR CONTROLLER - MAGNETIC OR AS INDICATED, UPPER NUMERAL DESIGNATES NEMA SIZE; LOWER LETTER, IF USED, INDICATES: 'R' - REVERSING TYPE, '2S' - TWO SPEED TYPE, 'FV'-FULL VOLTAGE TYPE (DEFAULT IF NOT INDICATED), 'RV' -REDUCED VOLTAGE TYPE, 'AT' - AUTO TRANSFORMER TYPE, 'PW" - PART WINDING TYPE. COMBINATION STARTER W/EXTERNALLY OPERATED DISCONNECT DISCONNECT SWITCH, SIZE AND TYPE AS INDICATED (OR 3P. 240V, 30A MIN) PUSHBUTTON CONTROL STATION - 1, 2, OR 3 BUTTONS "EPO" = EMERGENCY POWER OFF. SELECTOR SWITCH (SEPARATE FROM STARTER)- 2 POSITION OR 3 POSITION AS INDICATED. IF NOT SPECIFIED ELSEWHERE LEGEND PLATE DESIGNATIONS WILL BE 'ON-OFF' AND 'MAN-OFF-AUTO' (OR 'H.O.A.) THERMOSTAT - SEE MECH. SPECS, 5'-0" UP MOTOR CONTROL CENTER, FREE STANDING W/NO. OF 20" WIDE

DISTRIBUTION TYPE PANEL

DEVICE.

(FIGURES INDICATE RATING OF RECEPT AND OVERCURRENT

DOT AND DOUBLE DOT HASH MARKS REPRESENT PHASE

EQUIPMENT GROUND RESPECTIVELY (AS APPLICABLE).

UNDERSTOOD TO APPLY TO ALL UNMARKED INTERVENING SEGMENTS. A CIRCUIT WITHOUT ANY DESIGNATION INDICATES

CONDUIT ONLY - NO CONDUCTORS, PULL WIRE IF OVER 50'

COATED R.S. CONDUIT UNLESS INDICATED OTHERWISE

COMM OR POWER FEEDER INSTALLED UNDER FLOOR SLAB IN

FUTURE WORK OR ELECTRICAL ITEM REPEATED FOR CLARITY

(TO LIGHTING SHEET FROM POWER OR COMM DWG., ACROSS

EXISTING EQUIPMENT; EXISTING EQUIPMENT AS RELOCATED

THE CIRCUIT IS TWO-WIRE (MIN #12 IN 1/2"C).

LIGHT LINE - EXISTING, OR BY OTHER TRADES

GENERATOR OR GENERATOR CONNECTION.

HEAVY LINE - NEW ELECTRICAL WORK

MATCH LINES, ETC.)

STATIC GROUND ROD

(NEW LOCATION)

BRANCH CIRCUIT AND FEEDER WIRING. LONG, SHORT, SINGLE

CONDUCTOR, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED

ARROWS AND LETTER/NUMERALS IDENTIFY HOME-RUN CIRCUITS.

(MIN) VERTICAL SECTIONS INDICATED, SEE DIAGRAM AND/OR SCHEDULE FOR SIZES, RATINGS, AND LOADS LIGHTING AND APPLIANCE TYPE PANELBOARD - FLUSH MOUNTED NOTES AND SURFACE MOUNTED TYPES, SEE CORRESPONDING PANEL SCHEDULE. OPEN SYMBOL INDICATES EXISTING MAIN SWITCH BOARD OR MAIN SWITCH GEAR (ABBREVIATED OR SPELLED OUT), SEE FLOOR PLANS AND DIAGRAMS FOR DIMENSIONS, CLEARANCES, AND ELECTRICAL RATINGS BUS DUCT ASSEMBLY WITH PLUG-IN POWER BOX CAPABILITY AT 2' INTERVALS, CURRENT RATING AS INDICATED. OPEN CIRCLE REPRESENTS A POSITION WITH BLANK COVER ONLY, SOLID CIRCLE A PLUG IN BOX WITH BREAKER OR SWITCH (SEE SPECS). RECEPT. SYMBOL IDENTIFIES A BOX WITH RECEPTACLE ATTACHED

FCP | FCP | FIRE ALARM CONTROL PANEL, (SEE SPECS) FIRE ALARM ANNUNCIATION PROVISIONS. FAA | FAA | W/OR W/O GRAPHIC REPRESENTATION, SEE FIRE ALARM SIGNAL TRANSMITTING (WITH O FST O FST ANTENNA FOR FM RADIO TYPE), SEE SPECS MANUAL FIRE ALARM STATION - 4'-0" A.F.F. ABORT STATION. "F"= FIRE: "H"=HALON: "CO"=CARBON DIOXIDE FIRE ALARM WARNING DEVICE - BELL, CHIME, FOFOF HORN AND MASS NOTIFICATION, 6'-8" A.F.F. FIRE ALARM WARNING DEVICE, VISIBLE ONLY - FLASHING LIGHT, CEILING MOUNTED AND WALL MOUNTED (6'-8" A.F.F.) RESPECTIVELY F.A. WARNING DEVICE, COMBINED AUDIBLE AND VISIBLE - FLASHING LIGHT WITH A MASS NOTIFICATION, HORN, BELL, OR CHIME - 6'-8" HEAT DETECTOR - UNDIFFERENTIATED SYMBOL INDICATES FIXED TEMPERATURE OR COMBINATION F.T. AND RATE OF RISE TYPE, SEE SPECS; 'CR' INDICATES COMPENSATED RATE ("RATE ANTICIPATION") TYPE WITH TUBULAR SENSING ELEMENT REQUIRED SMOKE DETECTOR. THE LETTER 'I' OR 'P', IF PRESENT, STIPULATES IONIZATION OR PHOTOELECTRIC TYPE. 'D' STIPULATES A DUCT TYPE SMOKE DETECTOR. WHERE DUCT DETECTORS ARE SHOWN IN PAIRS LOCATIONS ARE IN SUPPLY AND RETURN DUCTS, A SINGLE DETECTOR WOULD BE INSTALLED IN THE SUPPLY DUCT IF THE LOCATION IS NOT OTHERWISE INDICATED. FIRE ALARM CONTACTS AT SOLENOID (OS & Y) VALVE, TAMPER SWITCH, ALARM CHECK | OSY || SV || TS | | W VALVES, WATER FLOW INDICATOR AND FLOW

1. WHERE MORE THAN ONE SYMBOL FORMAT IS SHOWN, THE PREFERRED FORM IS SHOWN FIRST

SWITCH, SEE MECH. SPECS

24-INCH LIGHTNING AIR TERMINAL.

60-INCH LIGHTNING AIR TERMINAL.

LIGHTNING PROTECTION MAIN CONDUCTOR

2. SUPPLEMENTAL ELECTRICAL LEGENDS MAY APPEAR IN THIS SET OF DRAWINGS TO ESTABLISH SYMBOLS FOR ITEMS NOT COVERED BY THIS SHEET OR TO INDICATE SPECIFIC CONDITIONS IN LIEU OF SYMBOLS SHOWN ON THIS SHEET.

3. NOT USED.

4. EXISTING ITEMS ARE DESIGNATED BY A THIN LINE OR AN OPEN SYMBOL: NEW ITEMS WITH A THICK LINE OR CLOSED (FILLED-IN) SYMBOL.

5. ELECTRIC LIGHT FIXTURES ARE IDENTIFIED BY EITHER OR **BOTH OF THE FOLLOWING METHODS:**

(A) INDICATES FIXTURE TYPE, PER FIXTURE SCHEDULE, IF HASH MARKS ARE OMITTED BETWEEN HOME-RUNS, TRANSITION

1234B1 NAME OR NUMBER DESIGNATION OR FOR SINGLE FIXTURE FOR ENTIRE ROOM OR AREA WHEN ADJACENT TO THE ROOM WHEN ADJACENT TO THE FIXTURE SYMBOL.

> (B) CAPITAL LETTER OR FIXTURE DESIGNATION INSIDE OR ADJACENT TO SYMBOL INDICATES FIXTURE TYPE FOR EACH FIXTURE PER FIXTURE SCHEDULE.

6. SIZES OF WIRE AND CABLE ARE BASED ON COPPER CONDUCTORS UNLESS INDICATED OTHERWISE.

7. LETTERS SUCH AS "WP", "EP" ADJACENT TO ANY SYMBOL INDICATE SPECIAL CONSTRUCTION IS REQUIRED. SEE ABBREVIATIONS SHEET FOR DEFINITIONS.

8. ALL RECEPTACLE AND COMMUNICATION OUTLETS SHALL BE MOUNTED 15 - INCHES A.F.F. AS MEASURED TO THE BOTTOM OF THE OUTLET BOX, UNLESS INDICATED OTHERWISE.

SHEET ID

G-005

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BUS NUMBER FOR ANALYSIS AND REFERENCE ONLY

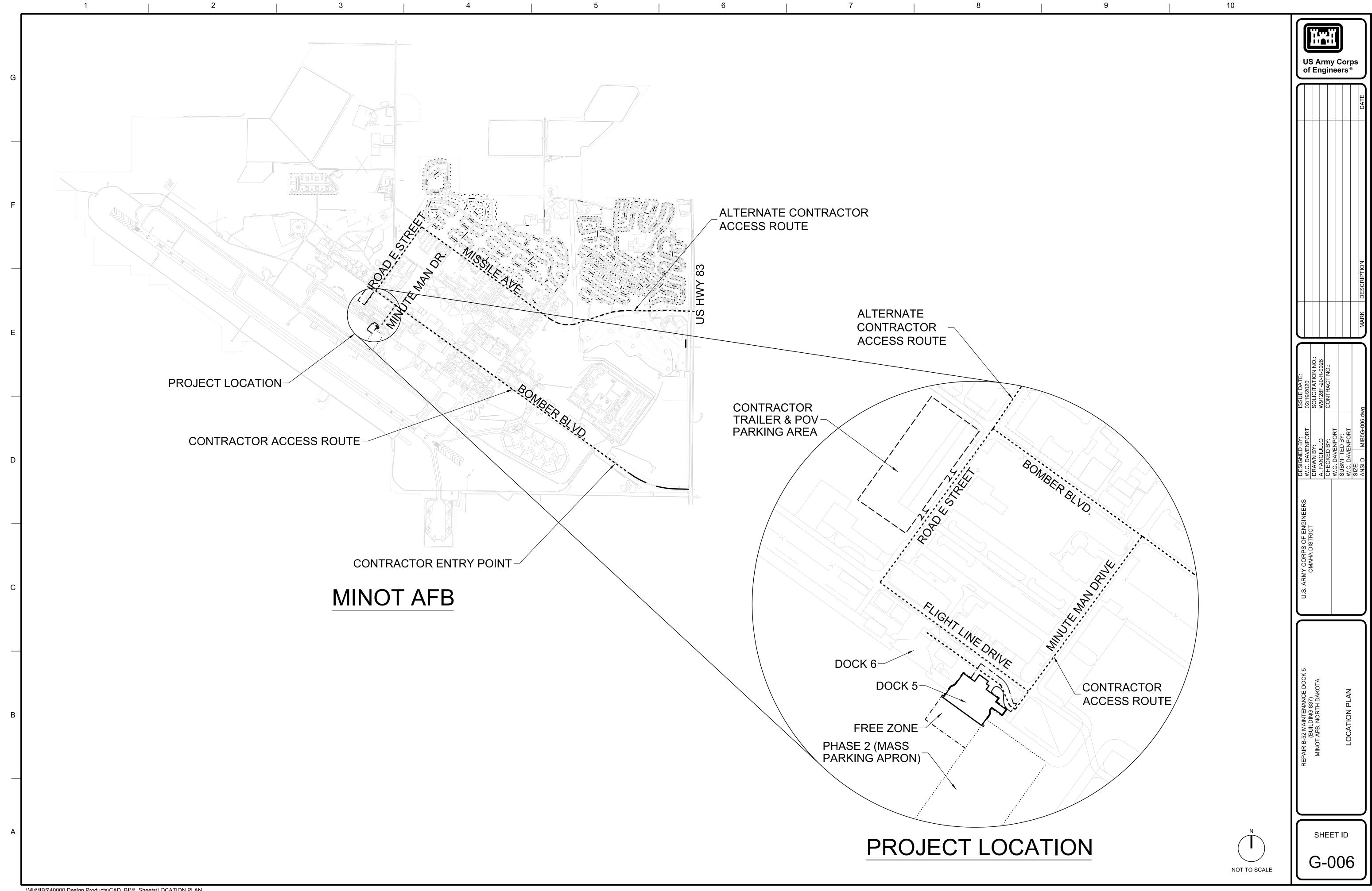
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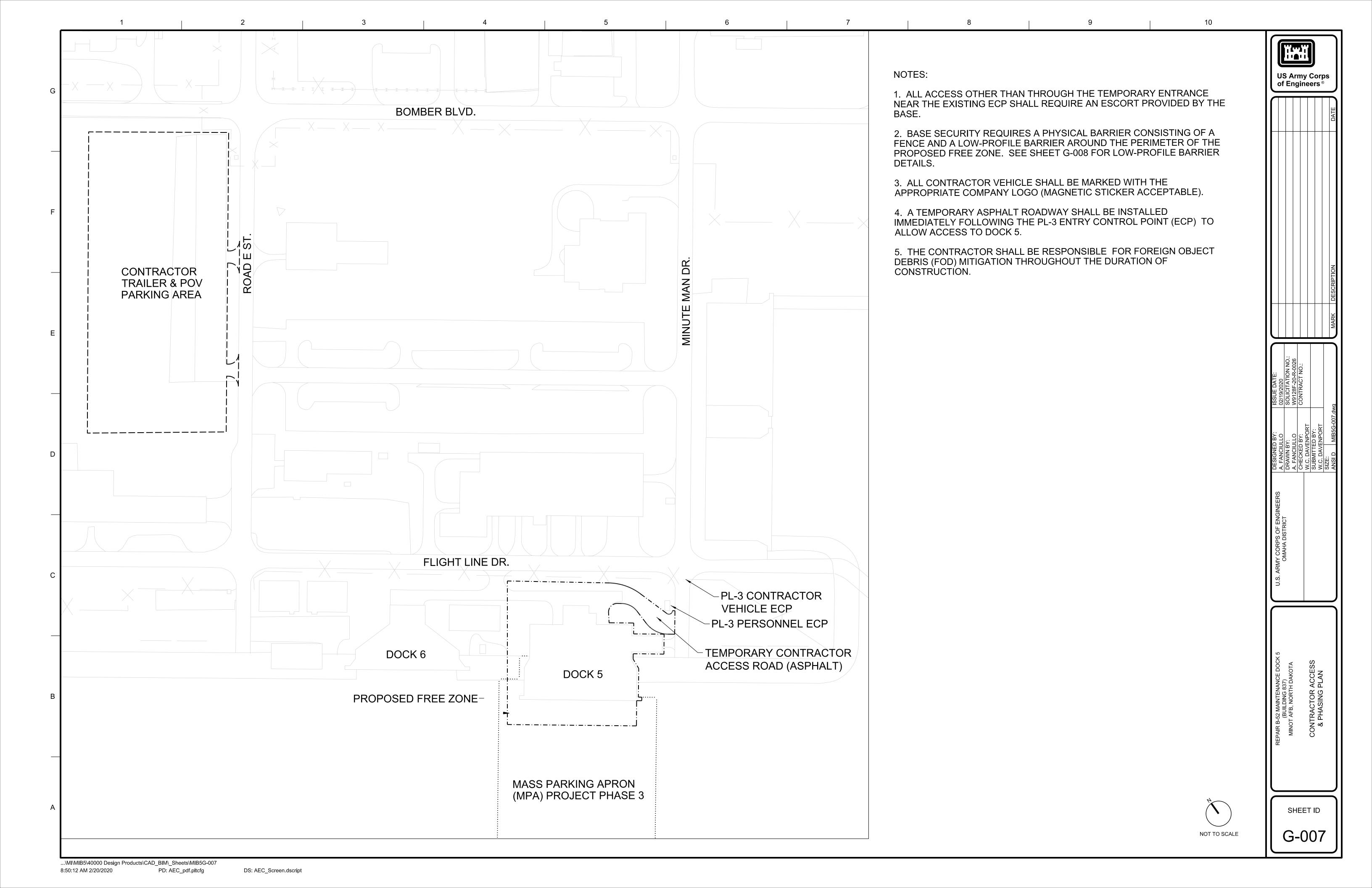
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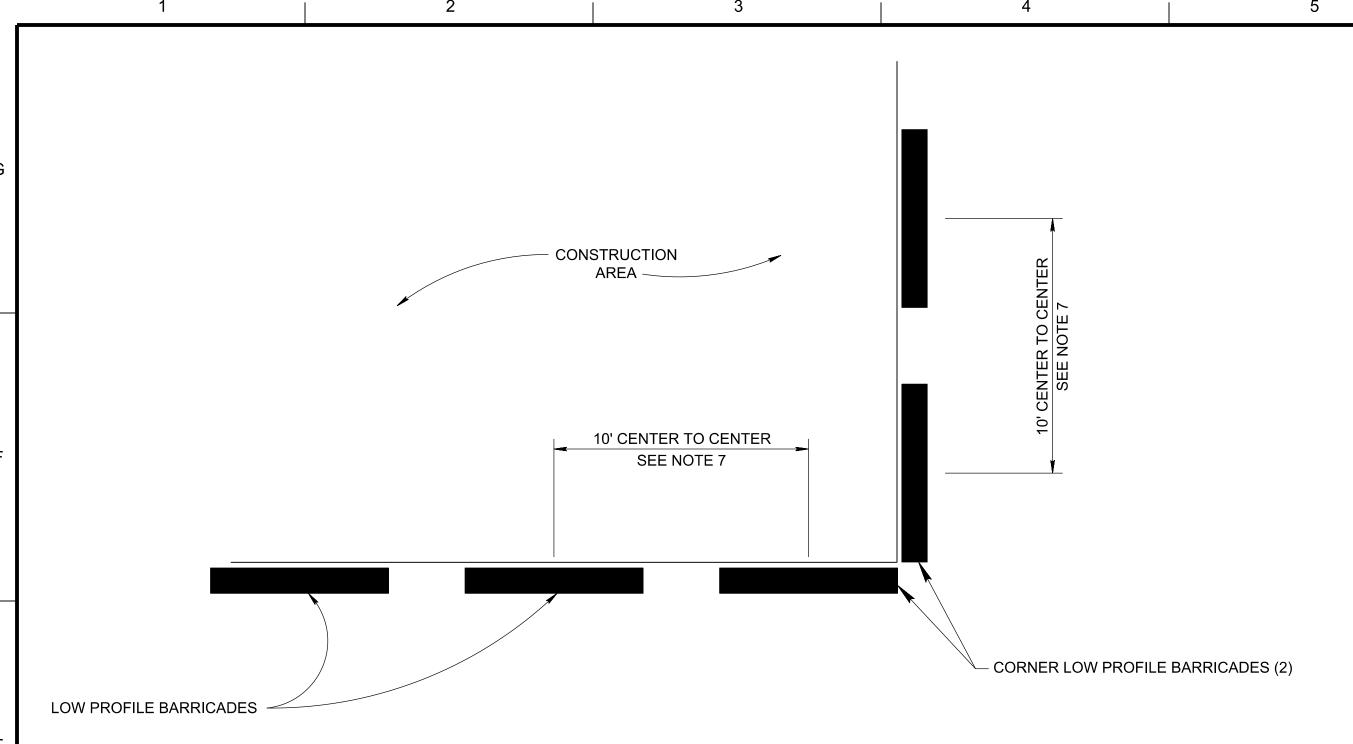
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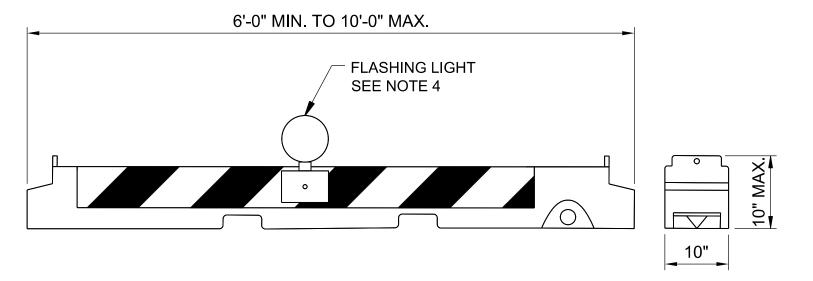






TYPICAL LOW PROFILE BARRICADE LAYOUT DETAIL

NO SCALE



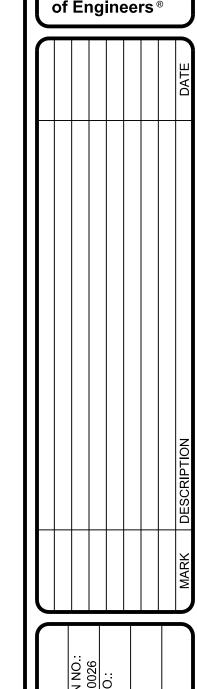
TYPICAL LOW PROFILE BARRICADE DETAIL

NO SCALE

NOTES:

- 1. LOW PROFILE BARRICADES SHALL BE ANCHORED OR OF SUFFICIENT WEIGHT TO PREVENT OVERTURNING DUE TO HIGH WINDS AND JET ENGINE BLAST.
- 2. BARRICADES SHALL COMPLY WITH THE REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5370-2F OR AIR FORCE ETL 04-02.
- 3. LOW PROFILE BARRICADES SHALL BE SPACED AT A MAXIMUM OF 10 FOOT INTERVALS AT LOCATIONS INDICATED.
- 4. FLASHING LIGHTS SHALL BE RED OR AMBER AND SHALL HAVE AT LEAST 5 CANDELAS EFFECTIVE INTENSITY AND FLASH AT A RATE OF 55 TO 160 FLASHES PER MINUTE.
- 5. THE CONTRACTOR SHALL HAVE A PERSON AVAILABLE 24 HOURS A DAY FOR EMERGENCY MAINTENANCE OF LOW PROFILE BARRICADES AND HAZARD LIGHTS. THE CONTRACTOR SHALL INITIATE AND COMPLETE REPAIRS OF LOW PROFILE BARRICADES AND HAZARD LIGHTS WITHIN ONE HOUR OF BEING NOTIFIED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
- 6. REFLECTIVE STRIPES SHALL BE ON ALL LONGITUDINAL SIDES EXCEPT BOTTOM. TOP STRIPES NOT SHOWN FOR CLARITY.
- 7. PROVIDE ONE 12-FOOT GAP BETWEEN LOW PROFILE BARRICADES AT EACH LOCATION FOR FIRE DEPARTMENT AND SECURITY POLICE ACCESS.

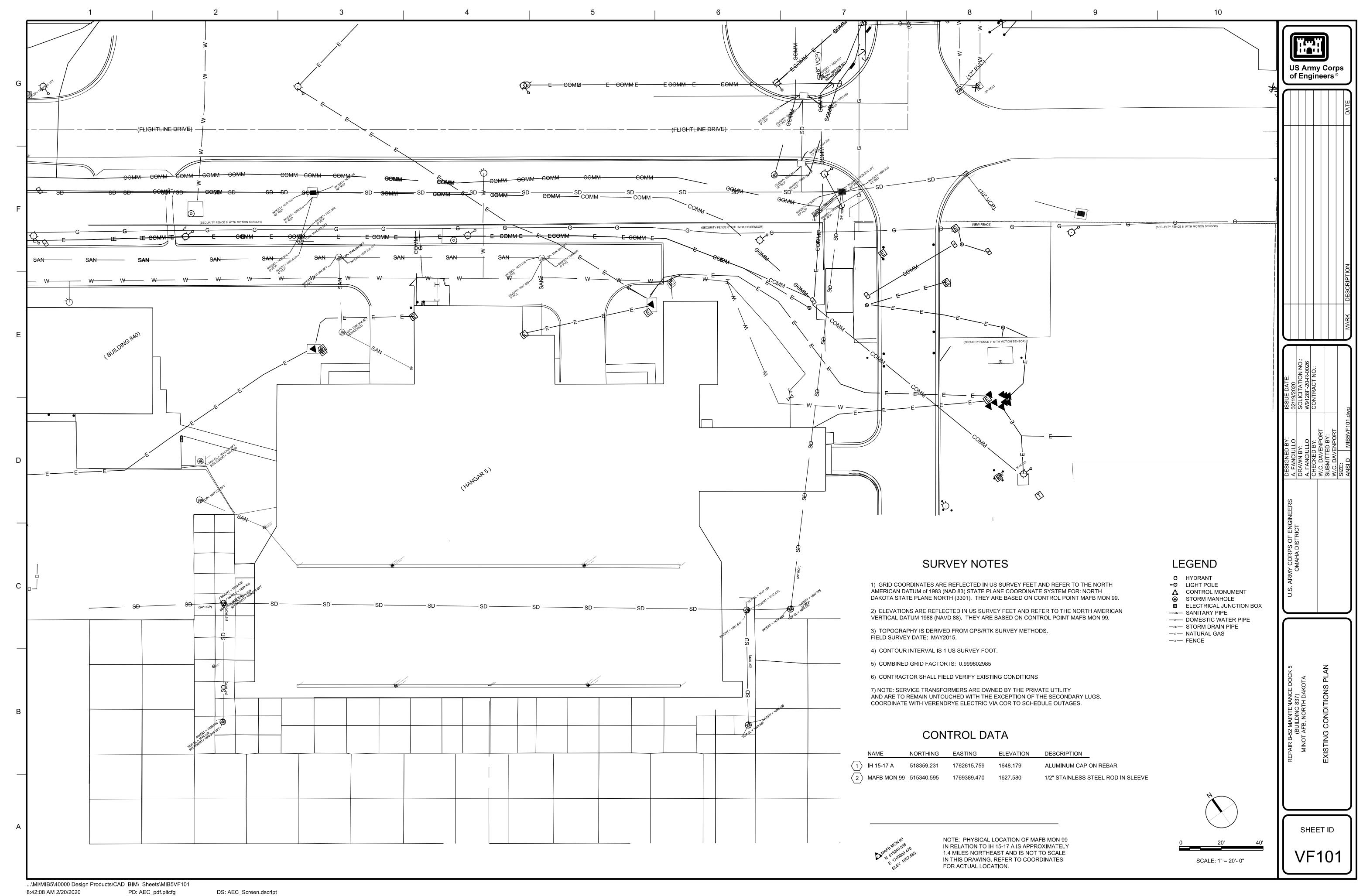
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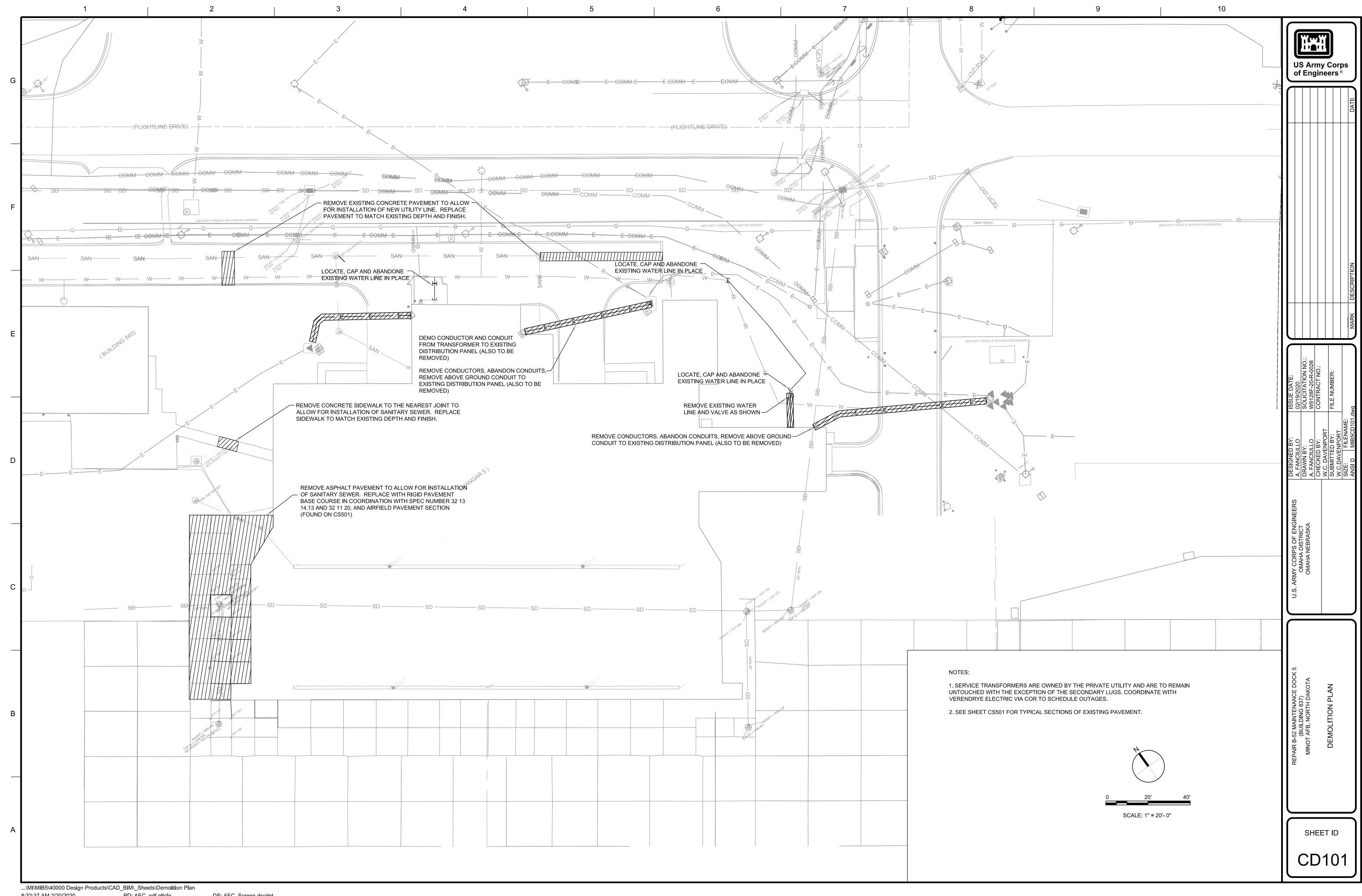


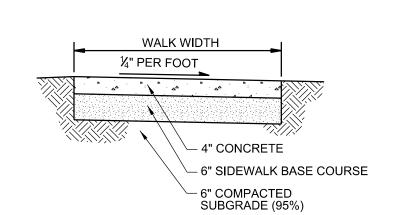
ISSUE DATE:	02/19/2020	SOLICITATION NO.:	W9128F-20-R-0026	CONTRACT NO.:				
DESIGNED BY:	A. FANCIULLO	DRAWN BY:	A. FANCIULLO	CHECKED BY:	W.C. DAVENPORT	SUBMITTED BY:	W.C. DAVENPORT	S17E:
	ARMIT CORPU OF ENGINEERS							

REPAIR B-52 MAINTENANCE DOCK 5
(BUILDING 837)
MINOT AFB, NORTH DAKOTA

SHEET ID **G-008**





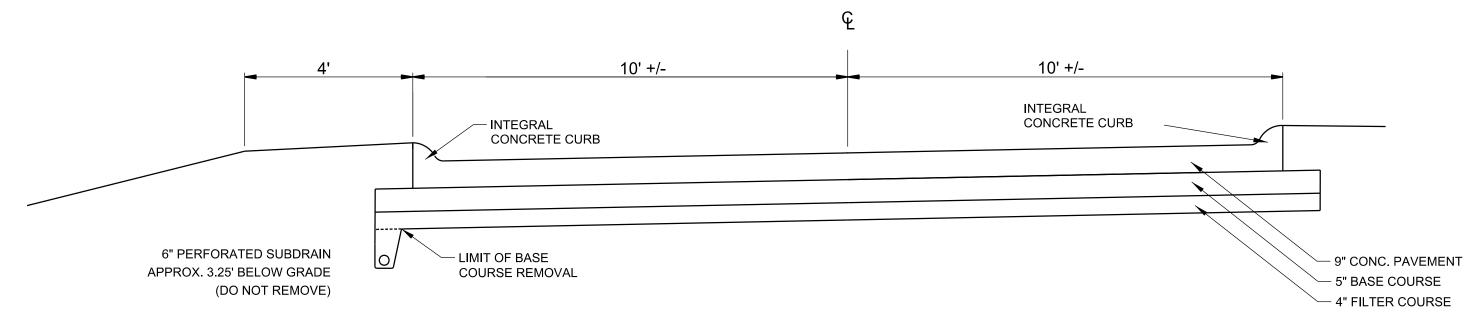


SINGLE-PURPOSE WALK TYPICAL SECTION

NO SCALE

NOTES:

1. SIDEWALK BASE COURSE MATERIAL SHALL INCLUDE MATERIALS CLASSIFIED AS EITHER GW, GW-GM, SW, SM OR SW-SM ACCORDING TO ASTM D 2487. THE AMOUNT OF MATERIAL PASSING THE NO. 200 SIEVE SHALL NOT EXCEED 12 PERCENT BY WEIGHT. SIDEWALK BASE COURSE MATERIAL SHALL BE COMPACTED TO AT LEAST 96 PERCENT OF LABORATORY MAXIMUM DENSITY.



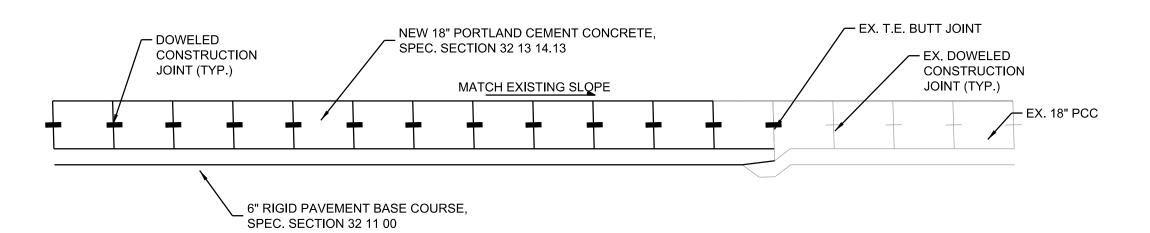
EXISTING TUG LANE PAVEMENT SECTION

NOT TO SCALE (FOR INFORMATION ONLY)

NOTES:

1. ALL CONCRETE PAVEMENT REMOVAL SHALL INCLUDE EXISTING BASE COURSES AND INTEGRAL CURBS.

2. MAINTAIN EXISTING SUBDRAIN AND SURROUNDING BACKFILL MATERIAL.



NEW AIRFIELD PAVING SECTION

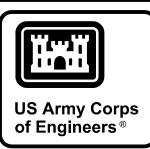
NOT TO SCALE, PLAN WEST OF DOCK 5

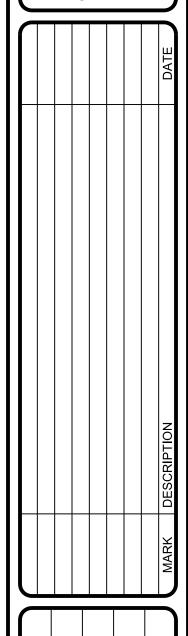
NOTES:

1. IN AREAS WHERE THE NEW PCC PAVEMENT THICKNESS IS GREATER THAN THE EXISTING PAVEMENT REMOVED, REMOVE EXISTING AGGREGATE BASE COURSE AND SUBGRADE AS NECESSARY TO CONSTRUCT THE THICKER NEW PCC PAVEMENT. ANY UNFORSEEN HAZARDOUS MATERIALS SHALL BE ADDRESSED IN ACCORDANCE WITH SPECIFICATION SECTION 01 35 26.

2. SCARIFY AND RECOMPACT TOP 4" OF EXISTING SUBGRADE IN ACCORDANCE WITH SPECIFICATION SECTION 31 00 00 EARTHWORK.

3. ALL NON-CONTAMINATED EXISTING MATERIAL REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR OFF BASE. ALL NON-CONTAMINATED EXISTING AGGREGATE BASE COURSE, SUBBASE COURSE, GRANULAR FILTER COURSE AND SUBGRADE REMOVED TO CONSTRUCT THE NEW ACC PAVEMENT SECTION SHALL BE DISPOSED OF BY THE CONTRACTOR OFF

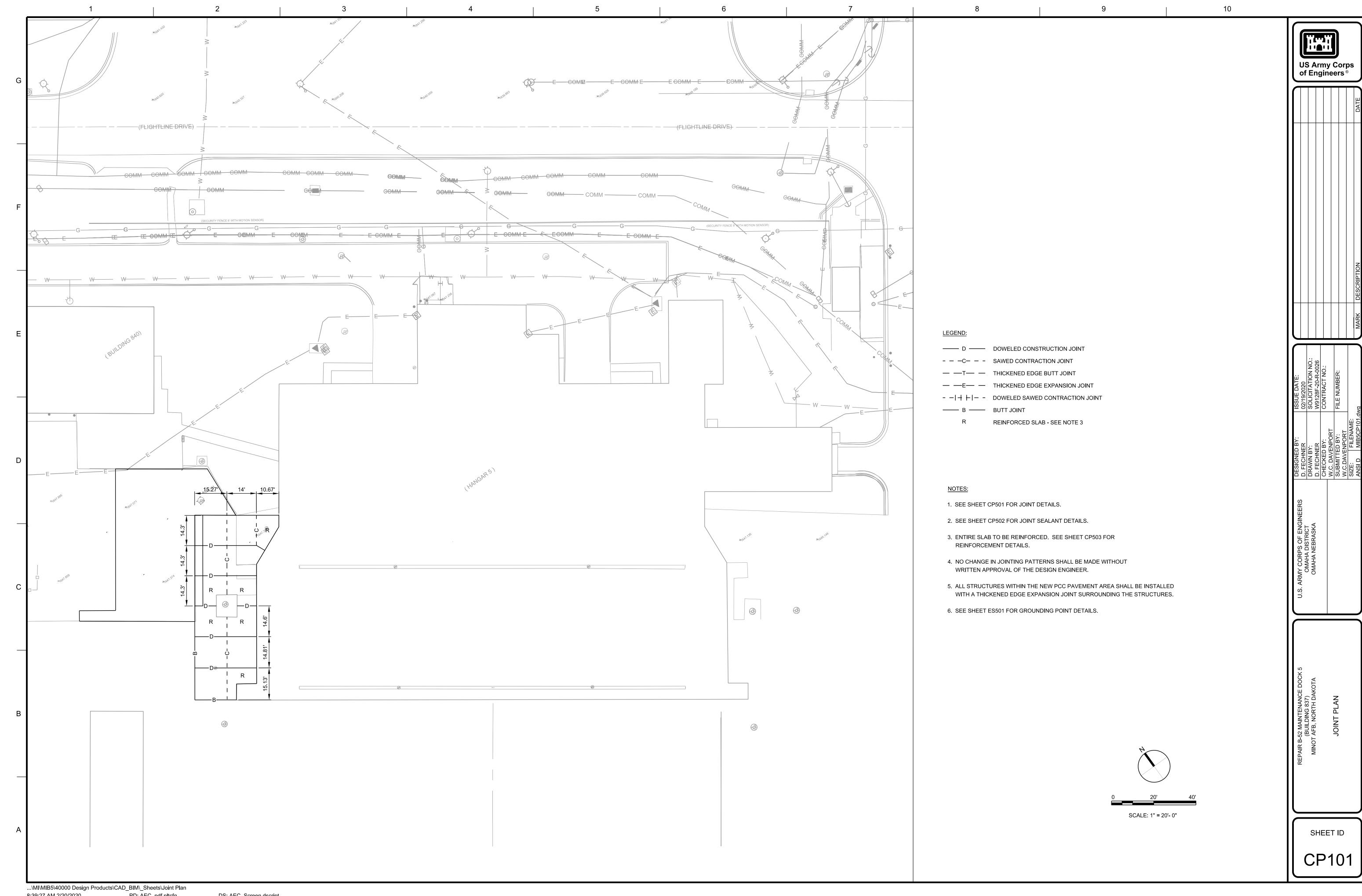




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	A. FANCIULLO	.LO	W9128F-20-R-0
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TYPICAL PAVEMENT SECTIONS

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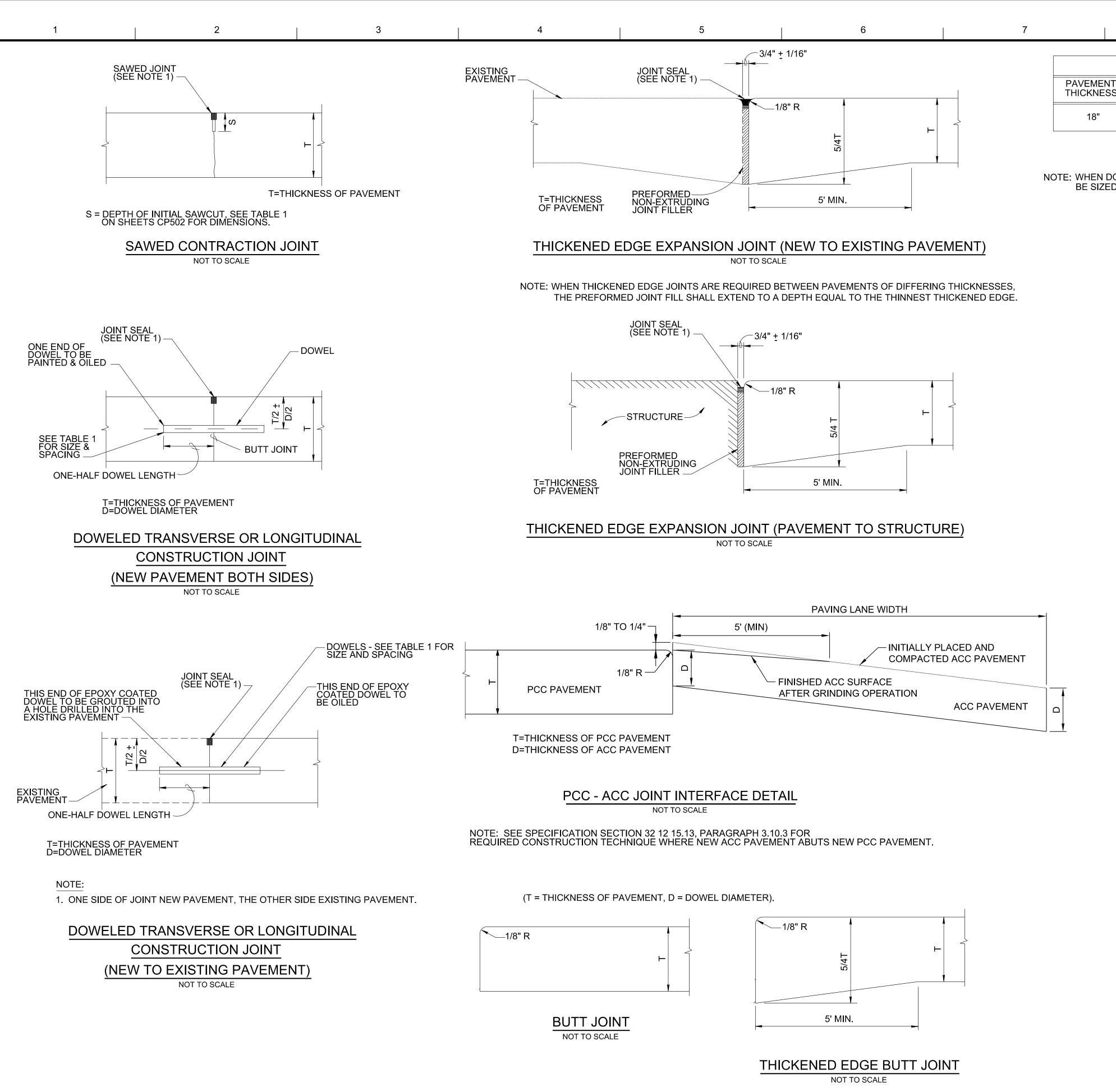
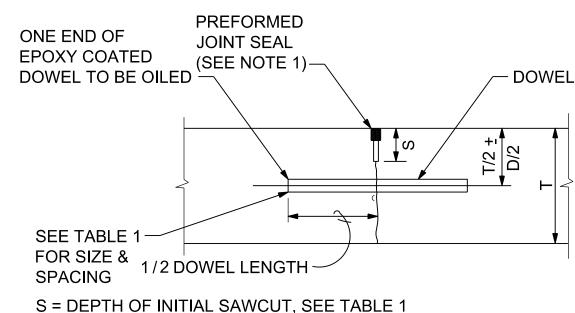


TABLE 1 MINIMUM DOWEL LENGTH MAXIMUM DOWEL TYPE OF DOWEL **THICKNESS SPACING** 18" 20" 1-1/4 INCH BAR

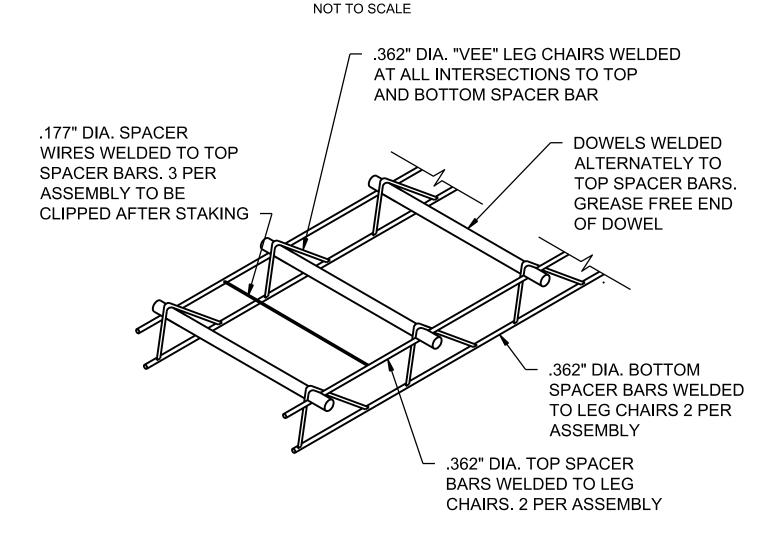
NOTE: WHEN DOWELS ARE REQUIRED BETWEEN PAVEMENTS OF DIFFERING THICKNESS, DOWELS SHALL BE SIZED FOR THE THINNER PAVEMENT, AND PLACED AT T/2 ± D/2 OF THE THINNER PAVEMENT.



ON SHEET CP502 FOR DIMENSIONS.

T=THICKNESS OF PAVEMENT

D=DOWEL DIAMETER DOWELED SAWED CONTRACTION JOINT



DOWEL BASKET ASSEMBLY DETAIL

NOTE: 1. SECURELY HOLD THE BASKET ASSEMBLIES IN THE PROPER LOCATION BY MEANS OF SUITABLE PINS OR ANCHORS. DO NOT CUT OR CRIMP THE DOWEL BASKET TIRE WIRES.

NOTE:

- 1. ALL NEW PCC PAVEMENT SHALL BE SEALED WITH COMPRESSION JOINT SEALANTS WITH THE FOLLOWING EXCEPTION: NEW PCC TO NEW OR EXISTING STRUCTURES SHALL BE SEALED WITH FIELD MOLDED JOINT SEALANT. SEE SHEET CP502 FOR PAVEMENT JOINT SEALANT DETAILS.
- 2. SEE SHEET CP503 FOR PAVEMENT REINFORCEMENT DETAILS.

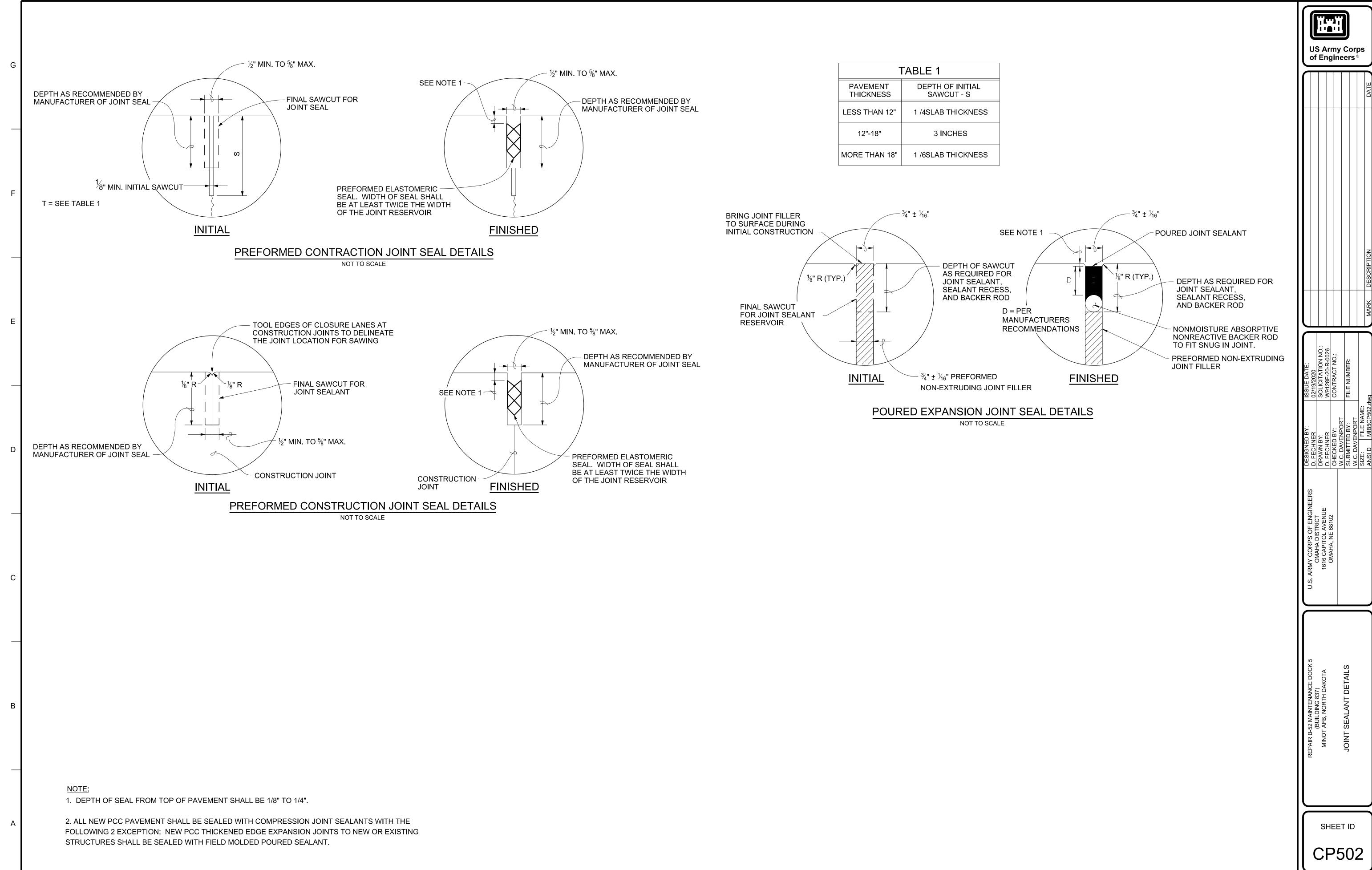


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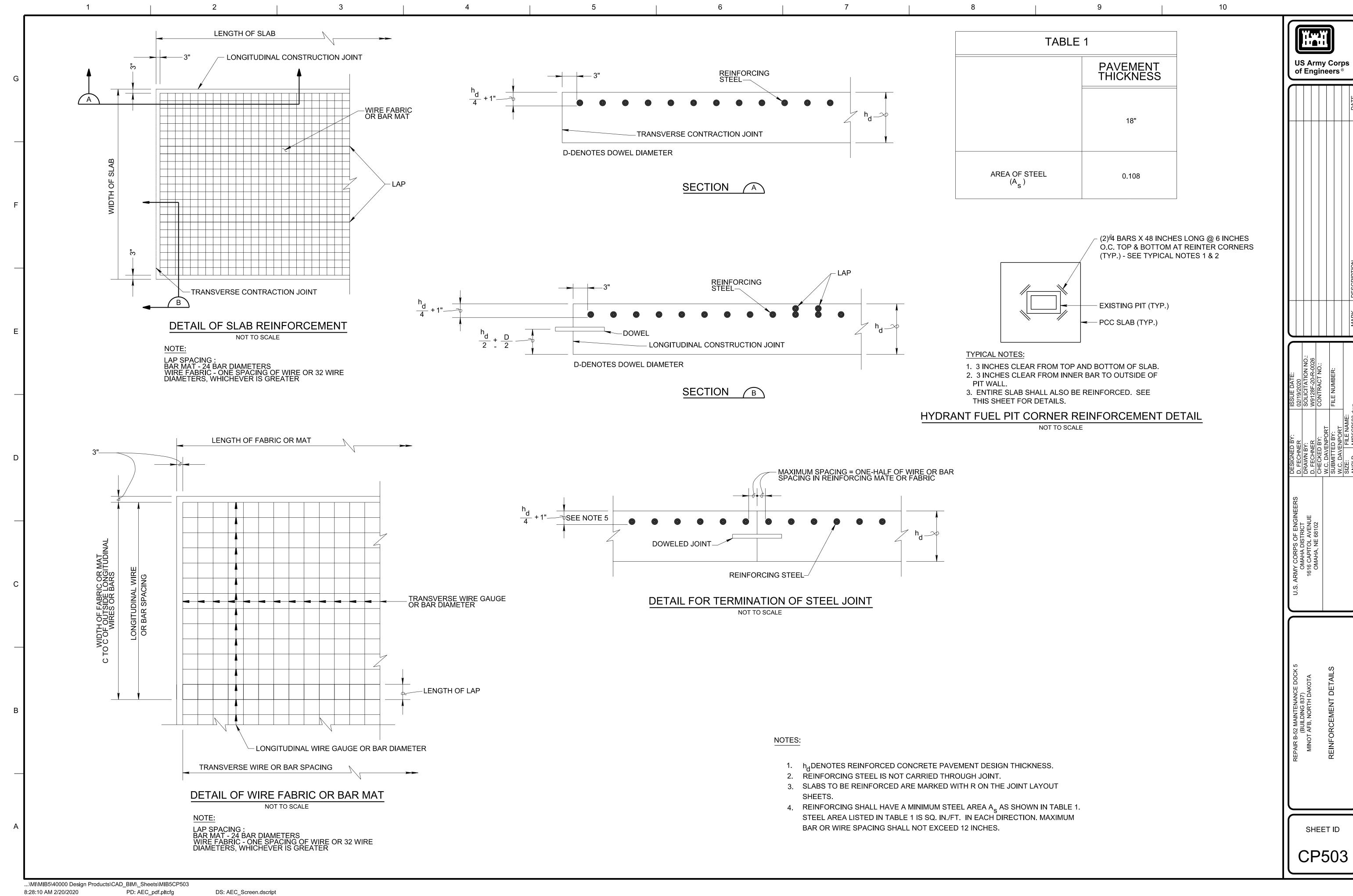
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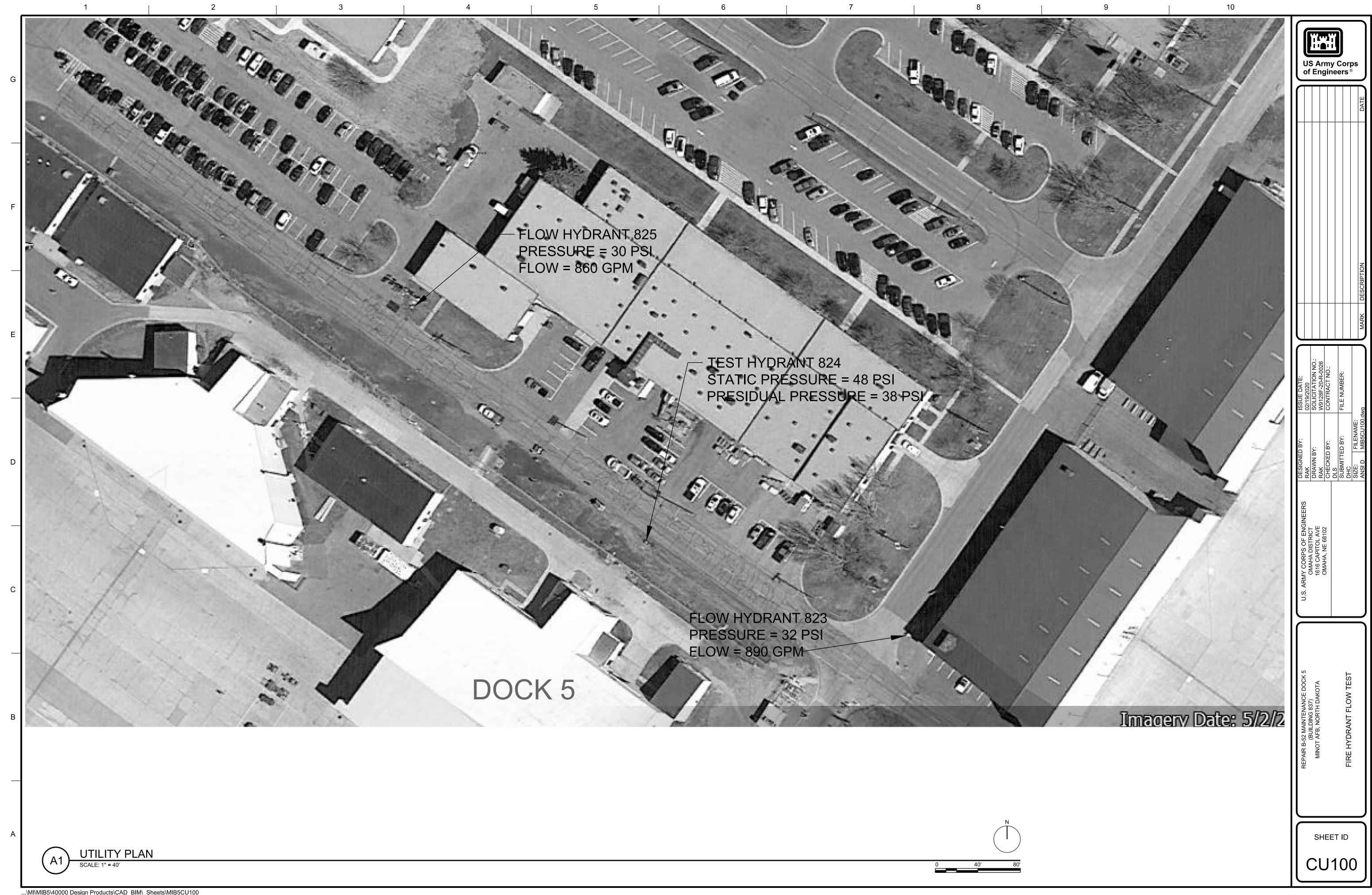
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CP502

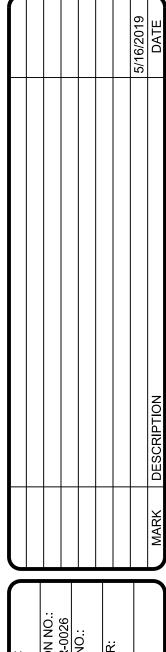


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EXISTING MANHOLE - RIM = 1646.81 INV IN = 1637.93 INV OUT = 1637.76 SSMH #1 N 518 038 19 E 1,763,275.51 -RIM = 1645.50INV IN = 1638.66 INV OUT = 1638,49 TIE INTO EXISTING MANHOLE 1+85.94 1+80 -1+00 CONSTRUCT NEW SSMH #2 OVER EXISTING SÄNITARY SEWER LINE — RIM = 1643.25 — SANITARY SEWER #1 INV. IN (E) = 1637.06 INV. IN (S) = 1637.23 INV. OUT = 1636.89 1+60 -1+20 - SANITARY SEWER #2 EXISTING 16T24 — HOT TAP EXISTING 10" PVC INSULATE EXISTING 4"S FROM THE BUILDING WATER LINE WITH 10"X4" 1+40-TRANSFORMER FOOTPRINT TO EXISTING SANITARY SEWER TAPPING TEE AND 4" GATE MANHOLE. SEE SHEET CU-501 FOR DETAILS. — VALVE AND VALVE BOX 1+20 | N 517,912.25 E 1,763,330.84 REPLACE THE EXISTING FIRE WATER SERVICE LINE WITH 6" PVC AND 6" POST INDICATOR VALVE 1+20 SEE SHEETS P-101 FOR CONTINUATION SEE SHEET FX101 FOR CONTINUATION 1+00 \rightarrow \sigma SSMH #2 BOLLARD (TYP) RIM = 1646.95 SEE SHEET CU501 INV IN = 1639.18 FOR DETAILS N 517.934.19 E 1,763,299.59 INV OUT = 1639.01 SEE SHEETS P-101 FOR CONTINUATION DOUBLE CLEANOUT INV. = 1639.28 · VALVE PIT SEE SHEET CU502 0+60 0+52.59 TIE INTO EXISTING 8" CLEANOUT - SEE SHEETS P-101 FOR CONTINUATION 0+40 N 518,020,43 E 1,763,080.41 SSMH #1 RIM = 1647.50INV IN (E) = 1638.67 INV IN (S) = 1638.67 0+20 INV OUT = 1638.51 N 517,973.52 E 1,763,046.56 SEE SHEETS P-101 FOR CONTINUATION — TIE INTO EXISTING 8" WD WITH DOUBLE CLEANOUT INV. = 1639.25





ISSUE DATE:	02/19/2020	SOLICITATION NO.:	W9128F-20-R-0026	CONTRACT NO.:		FILE NUMBER:			Č.
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	U.S. ARMY CORPS OF ENGINEERS	OWAHA DISTRICT	OMALIA NIT 69402	OIMATA, INE 60 I UZ					

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSBILE FOR VERIFYING THE LOCATION AND INVERT

THE BUILDING. THESE WILL BE PRIVATIZED UTILITIES AND REQUIRED THE CONTRACTOR TO CONTACT MR. RUSS GOLH'S THE OWNER OF THE PRIVATIZED BASED UTILITIES INC. AT (701) 727-5050 FOR THE INSTALLATION. THE CONTRACT SHALL PAY THE PRIVATIZED BASED UTILITIES INC. TO COMPLETE THE CONSTRUCTION OF ALL NEW WATER & SEWER

3. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY WORK SHOWN ON THIS PLAN INCLUDING REMOVAL AND REPLACEMENT OF THE EXISTING PAVEMENT IN ORDER TO COMPLETE THE NEW WORK. BOLLARDS ARE PLACING AT 5FT APART FROM

ELEVATION OF EXISTING UTILITIES AND BRING ANY DEVIATION TO THE DESIGNER

2. WATER AND SANITARY SEWER ON THIS PLAN ARE AT THE 5 FEET AWAY FROM

CENTER TO CENTER SURROUNDING THE VALVE PIT AS SHOWN ON THE PLAN.

ATTENTION PRIOR TO PERFORMING THE CONSTRUCTION.

DEFINED ON THE PLANS/SPECIFICATIONS.

SHEET ID

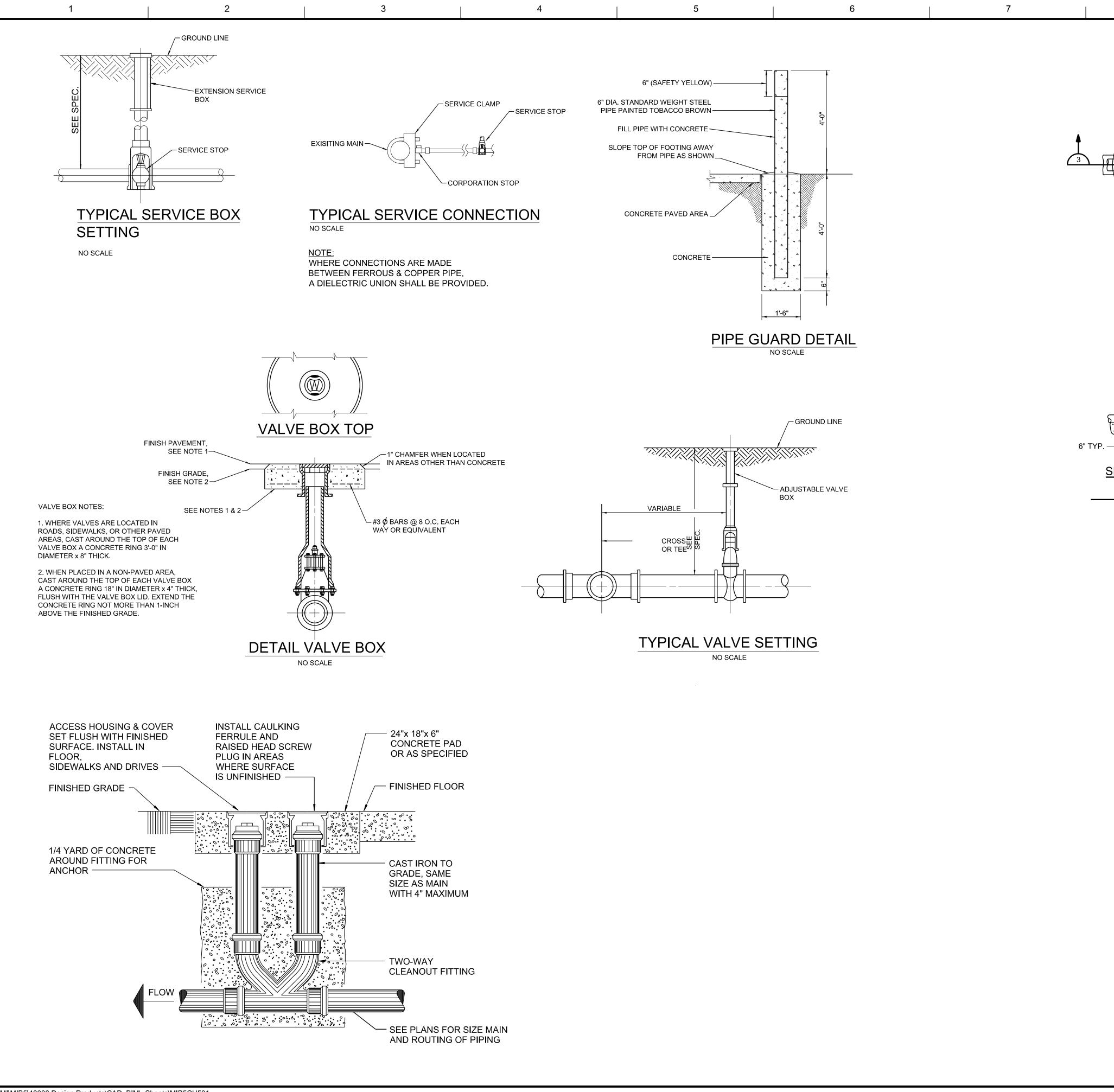
UTILITY PLAN

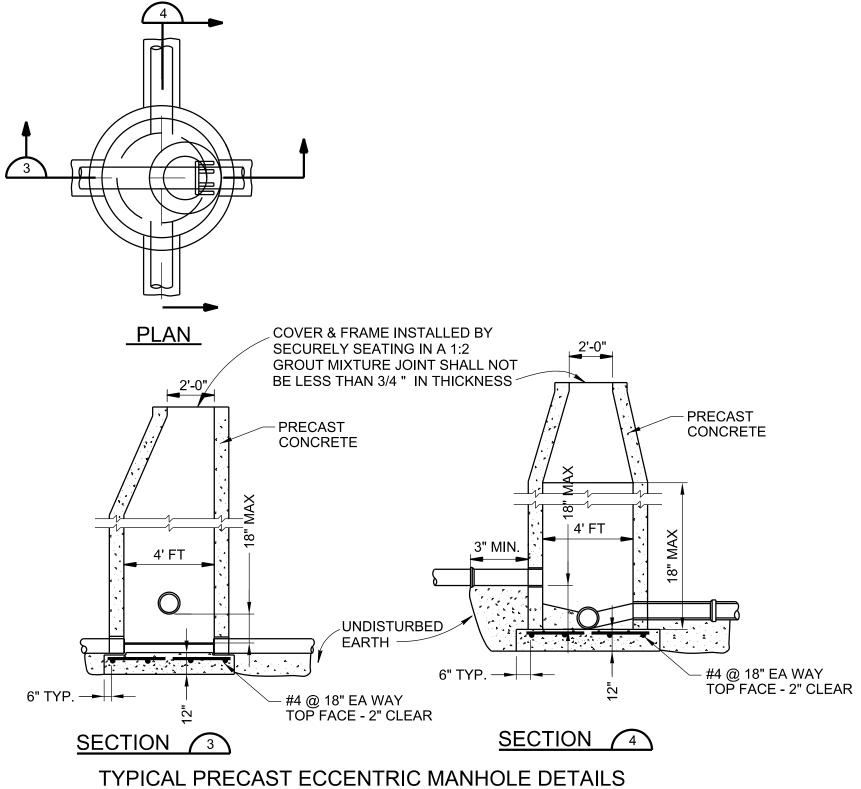
1660 1660 STA 1+85.94 SSMH #2 RIM = 1643.25 INV. IN (E) = 1637.06 INV. IN (S) = 1637.23 INV. OUT = 1636.89 1655 1655 1655 1650 ABOVE 1650 Ш О 1645 H -EXISTING GRADE —EXISTING GRADE 1640 PEVATION 1640 ELEVATION I EXIST. UP EXIST UC EXIST. UC 8"SS @ 0.6% SLOPE 8" SS @ 1.00% SLOPE — 8"SS @ 0.6% SLOPE _____ 8" SS @ 1.00% SLOPE — (SEE NOTE 4) 1635 1635 1635 1635 EXIST. 10" W (SEE NOTE 5) 6"SS @ 0.6% SLOPE — 1630 1+40 1+60 1+80 2+00 0+00 1+00 -0+20 1+80 1+60 1+20 1+40 -0+20 0+20 STATION STATION SANITARY SEWER #2 **SANITARY SEWER #1** NOTES: 1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS REPRESENTED BASED ON SURVEY DATA. 2. EXISTING UTILITIES ARE SHOWN AT ASSUMED DEPTHS, WHICH MAY VARY FROM ACTUAL CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IF CONDTIONS VARY CONSIDERABLY FROM THE LOCATIONS OR DEPTHS SHOWN AND THE INTENDED WORK CANNOT BE CONSTRUCTED AS INDICATED. 3. INSTALLATION OF SANITARY PIPING CROSSING A WATER LINE SHALL MEET THE REQUIREMENTS IN SPECIFICATION 33 30 00, PARAGRAPH 3.1.1.1.1.2 AND 3.1.1.1.2.2 WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET AND A VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE SANITARY PIPING AND WATER LINE. 4. SANITARY SEWER #1: FOR BIDDING PURPOSES THE CONTRACTOR SHALL ASSUME THE NEW 8"SANITARY SEWER, FROM SSMH #1 TO SSMH #2, SHALL BE CONSTRUCTED OF AWWA C900 PVC PIPE WITH A MINIMUM PRESSURE CLASS OF 150. SEE SPECIFICATION 33 30 00 FOR FURTHER REQUIREMENTS. 5. SANITARY SEWER #2: FOR BIDDING PURPOSES THE CONTRACTOR SHALL ASSUME THE NEW 8"SANITARY SEWER, FROM SSMH #2 UPSTREAM A MINIMUM DISTANCE OF 40 LF, SHALL BE CONSTRUCTED OF AWWA C900 PVC PIPE WITH A MINIMUM PRESSURE CLASS OF 150. SEE SPECIFICATION 33 30 00 FOR FURTHER REQUIREMENTS. JOIN AWWA C900 PVC PIPE TO GRAVITY SEWER PIPE USING AWWA C219 BOLTED, SLEEVE-TYPE COUPLING; OR OTHER APPROVED MEANS. MANUFACTURED COUPLING SHALL HAVE CORROSION RESISTANT COATING SUITABLE FOR PERMANENT UG INSTALLATION.

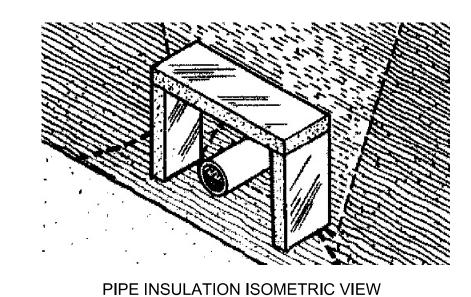
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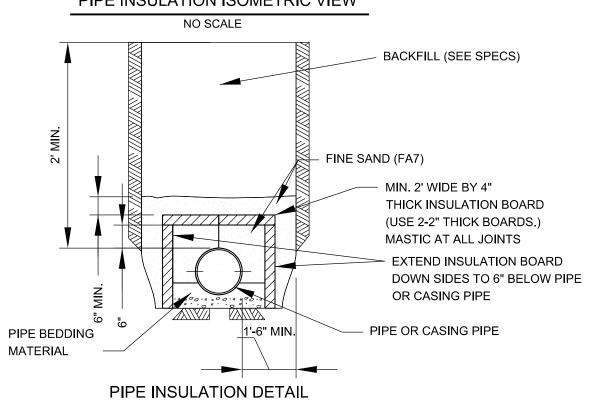
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NO SCALE

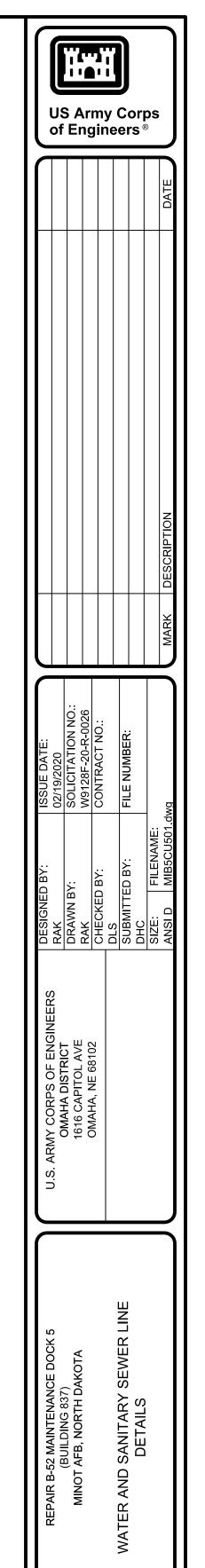


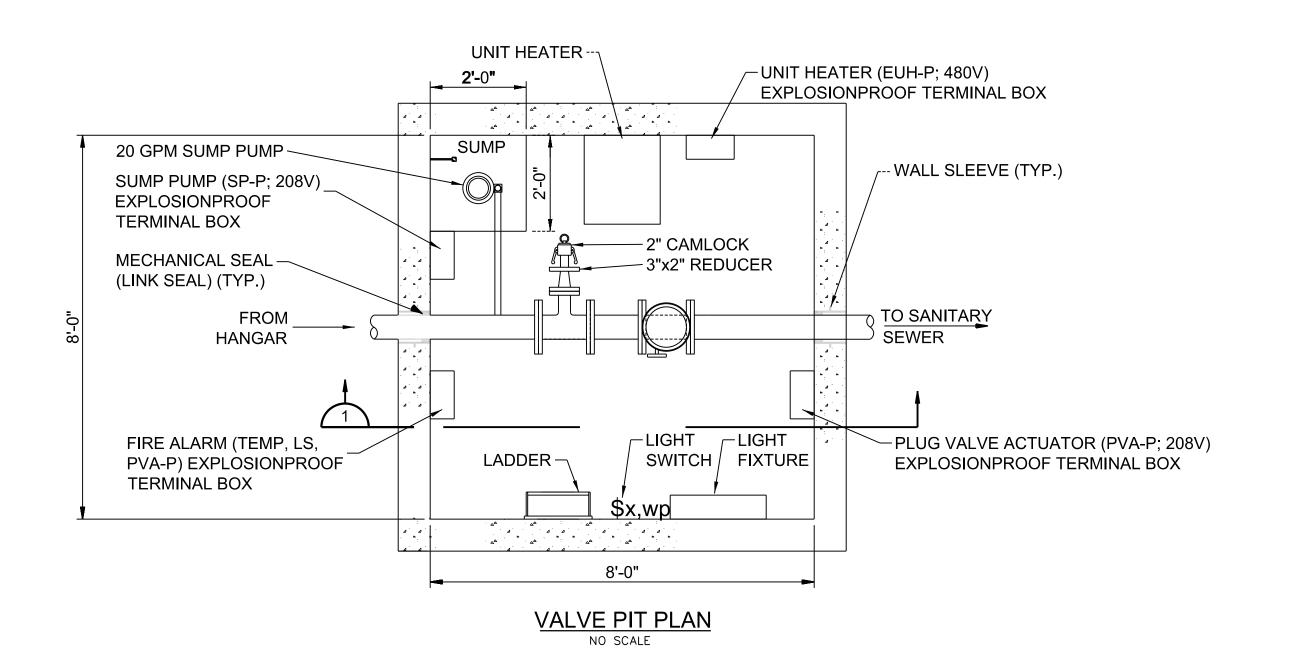
NOTES:

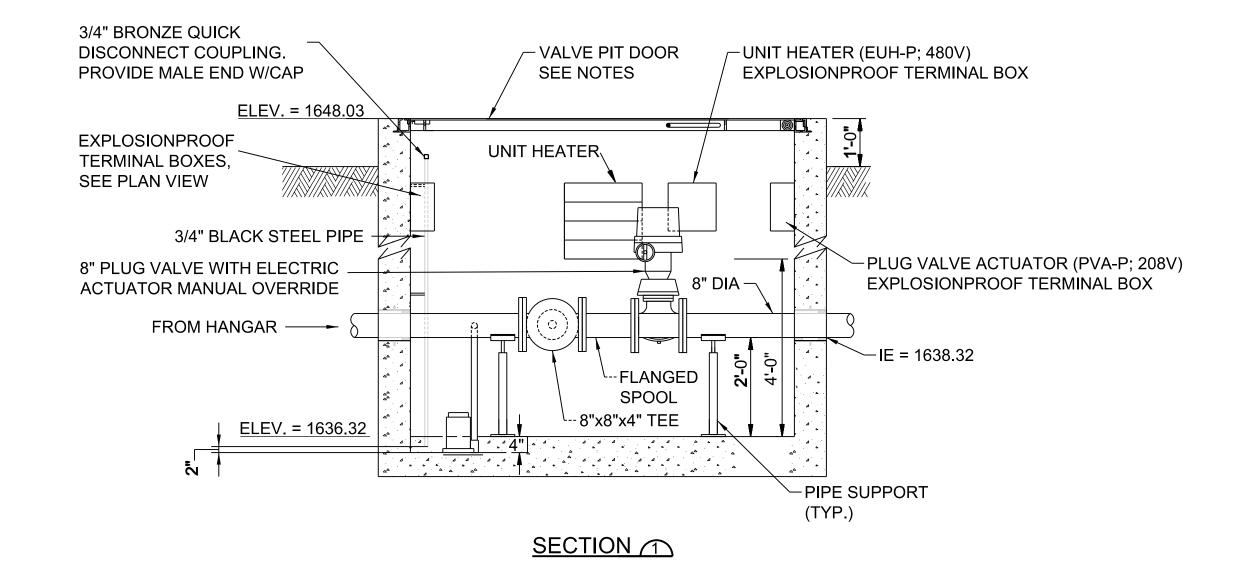
1. INSULATION BOARD SHALL 2" THICK, AND MEET AASHTO M 230 REQUIREMENTS AND SHALL BE OF CLASS VI TYPE (ASTM C 578).

NO SCALE

- 2. BACKFILL MATERIAL AROUND INSULATION MUST BE FINE SAND FREE FROM ROOTS, ORGANIC MATTER, OR OTHER INJURIOUS MATERIALS.
- 3. OVERLAP ALL INSULATION BOARD JOINTS.
- 4. EXTEND INSULATION 2' EITHER SIDE OF CROSSING







VALVE PIT NOTES

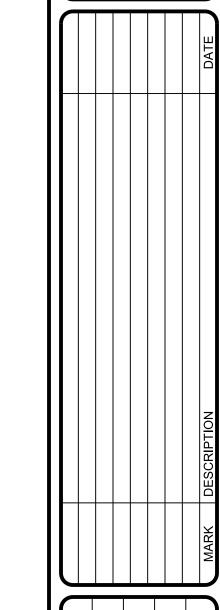
VALVE PIT DOORS SHALL BE THE PRODUCT OF A COMPANY
REGULARLY ENGAGED IN THE MANUFACTURE OF SUCH DOORS.
SEE SPECIFICATION SECTION 05 50 13 "MISCELLANEOUS METAL FABRICATIONS".

VALVE PIT

NO SCALE

- 2. PIT DOORS SHALL BE DESIGNED TO WITHSTAND A LIVE LOAD OF 150 POUNDS PER SQUARE FOOT.
- 3. DOORS AND FRAMES SHALL BE OF EITHER ALUMINUM OR STEEL CONSTRUCTION AT THE OPTION OF THE CONTRACTOR UNLESS SPECIFICALLY CALLED OUT AS ALUMINUM. STEEL DOORS AND FRAMES SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123
- 4. SEE SPECIFICATION SECTION 03 42 13.00 10 "PLANT-PRECAST CONCRETE PRODUCTS FOR BELOW GRADE CONSTRUCTION".
- 5. DUE TO THE POTENTIAL FOR SHALLOW GROUND WATER AT THE SITE, THE CONTRACTOR SHALL SUBMIT A DETAILED DEWATERING AND EXCAVATION SUPPORT PLAN FOR APPROVAL PRIOR TO THE START OF WORK. THE PLAN IS TO BE BASED ON AN ASSUMED GROUNDWATER DEPTH AT THE MID-POINT BETWEEN THE GROUND SURFACE AND BOTTOM OF EXCAVATION.
- 6. VALVE PIT SHALL HAVE A SAFETY FACTOR OF 1.5 FOR BUOYANCY WHEN COMPLETELY SUBMERGED.
- 7. ALL JOINTS SHALL BE WATERTIGHT.
- 8. SEE SHEET EP111 AND FA111 FOR ELECTRICAL DETAILS.
- 9. ALL PIPING INSIDE VALVE PIT SHALL BE FLANGED DUCTILE IRON.
- 10. PROVIDE STEEL LADDER, WITH NONSLIP SURFACES, AND CONSISTING OF UPRIGHTS WITH STEPS OR RUNGS. FABRICATE LADDERS WITH TWO STRINGERS A MINIMUM 3/8 INCH THICK AND 2-1/2 INCHES WIDE, AND RUNGS NOT BE LESS THAN 16 INCHES IN WIDTH, 3/4 INCH DIAMETER, SPACED 12 INCHES APART. ANCHOR THE LADDERS TO THE WALL BY MEANS OF STEEL INSERTS SPACED NOT MORE THAN 6 FEET APART VERTICALLY, AND INSTALL TO PROVIDE AT LEAST 6 INCHES OF SPACE BETWEEN THE WALL AND RUNGS. GALVANIZE LADDERS AND INSERTS AFTER FABRICATION IN CONFORMANCE WITH ASTM A123/A123M.
- 11. PROVIDE SUMP PUMP IN ACCORDANCE WITH SPECIFICATION SECTION 22 14 29.00 40 "SUMP PUMP".
- 12. SEE SPECIFICATION SECTION 28 31 76 FOR PLUG VALVE ACTUATOR REQUIREMENTS.
- 13. SOME HEATING, POWER, LIGHTING, CONTROL, AND MONITORING DEVICES, CONNECTIONS, AND PENETRATIONS ARE OMITTED FROM THIS DETAIL. COORDINATE WITH THE M-, EL, EP, AND FA SHEETS.

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MINOT AFB, NORTH DAKOTA

VALVE PIT DETAILS

SHEET ID

CU502

2. DESIGN FLOOR LIVE LOADS

A. SLAB-ON-GRADE: 150 PSF SECOND-FLOOR SLAB: 50 PSF

STAIRS: 100 PSF OR 300 LB POINT LOAD OVER 4 SQUARE INCHES ON TREAD.

3. WIND LOADS (ASCE 7-10)

A. BASIC WIND SPEED: V = 115 MPH B. WIND LOAD ON NEW PPE/HANGAR OFFICE WALLS: 15 PSF

B. WIND LOAD IMPORTANCE FACTOR: Iw = 1.0 C. EXPOSURE CATEGORY: "C"

D. INTERNAL PRESSURE COEFFICIENT: GCpi = +/- 0.18 (ENCLOSED)

4. SEISMIC LOADS (ASCE 7-10)

A. SEISMIC LOAD IMPORTANCE FACTOR: le = 1.0 B. MAPPED SHORT PERIOD SPECTRAL RESPONSE ACCELERATION: Ss = 0.049 MAPPED ONE-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION: S1 =0.02

C. SITE CLASSIFICATION: D

D. DESIGN SHORT PERIOD SPECTRAL RESPONSE ACCELERATION: Sds = 0.052g DESIGN ONE-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION: Sd1 =0.032g

E. SEISMIC DESIGN CATEGORY: A

5. FOUNDATION REQUIREMENTS

A. STRUCTURAL FILL BELOW SLABS AND FOOTINGS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS TO A DENSITY OF AT LEAST 95% OF MAXIMUM

TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE SUBGRADE, FILL, AND BACKFILL MATERIALS ARE PROPERLY COMPACTED.

BACKFILL AROUND FOUNDATION WALLS SHALL BE PLACED ON EACH SIDE OF THE WALL IN

THE EXISTING FOUNDATION SYSTEM CONSISTS OF CONTINUOUS WALL FOOTINGS, AND SPREAD FOOTINGS. THE MINIMUM DEPTH TO THE BOTTOM OF THE FOOTINGS IS 163" BELOW ADJACENT FINISH GRADE FOR EXTERIOR FOOTINGS, UNLESS NOTED OTHERWISE. THE NET ALLOWABLE BEARING CAPACITY IS 2500 PSF FOR SLABS.

E. A 6" THICK CAPILLARY WATER BREAK CONSISTING OF GRANULAR MATERIAL SHALL BE PLACED UNDER ALL INTERIOR CONCRETE SLABS-ON-GRADE. A 10 MIL VAPOR BARRIER SHALL BE PLACED DIRECTLY UNDER ALL INTERIOR CONCRETE SLABS-ON-GRADE WITH THE EXCEPTION OF THE HANGAR BAYS. 1" THICK HIGH DENSITY RIGID UNDER SLAB INSULATION SHALL BE PLACED DIRECTLY UNDER THE HANGAR BAY SLABS-ON-GRADE AND OVER THE 10 MIL VAPOR

ALL COMPACTED FILL INSTALLATION SHALL BE INSPECTED AND APPROVED BY A REGISTERED GEOTECHNICAL ENGINEER. A REGISTERED GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE BEARING MATERIALS PRIOR TO THE PLACEMENT OF CONCRETE.

MODULUS OF SUBGRADE REACTION: 100 PCI

ALLOWABLE BEARING PRESSURE: 2500 PSF

DESIGN FROST DEPTH: 163" MOISTURE CONTENT FOR SOIL COMPACTION: +/- 2% OF OPTIMUM

B. MATERIAL NOTES

1. CAST-IN-PLACE CONCRETE

A. COMPRESSIVE STRENGTH AT 28 DAYS: f'c = 4,500 psi

REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60.

CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT: CONCRETE CAST AGAINST EARTH = 3"

CONCRETE EXPOSED TO EARTH OR WEATHER: #5 BARS AND SMALLER = 1 1/2"

#6 BARS AND LARGER = 2"

SLABS-ON-GRADE = 1 1/2" BELOW TOP OF SLAB

LOCATION AND SIZES OF OPENINGS, SLEEVES, ETC. REQUIRED FOR OTHER TRADES MUST BE VERIFIED BY THOSE TRADES BEFORE PLACING CONCRETE.

EXPOSED EDGES AND CORNERS SHALL BE CHAMFERED 3/4 INCH

PROVIDE DEVELOPMENT LENGTHS AND LAP SPLICES AS INDICATED ON THIS SHEET (S-001).

2. COLD-FORMED METAL FRAMING (CFMF)

A. COLD FORMED STRUCTURAL STEEL FRAMING SHALL CONFORM TO THE MOST CURRENT ADOPTED EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS".

STUD AND TRACK PROFILES SHALL BE STANDARD SECTIONS USED BY MEMBERS OF THE

STEEL STUD MANUFACTURES ASSOCIATION (SSMA). UNLESS NOTED OTHERWISE ON THE DRAWINGS, MEMBERS SHALL HAVE THE FOLLOWING

YIELD STRENGTHS: STUDS: 33, 43 MIL THICKNESS Fy = 33 KSISTUDS: 54, 68, 97 MIL THICKNESS

Fy = 50 KSI TRACK: 33, 43, 54, 68, 97 MIL THICKNESS D. ALL COLD-FORMED STEEL FRAMING MATERIALS SHALL HAVE A MINIMUM G60 GALVANIZED

POWDER ACTUATED FASTENERS (P.A.F.) SHALL BE INSTALLED WITH A MINIMUM EDGE

DISTANCE OF 2 1/4", OR AS RECOMMENDED BY THE MANUFACTURER. SCREWED COLD FOLRMED TO COLD FORMED CONNECTIONS SHALL BE HEX HEAD HILTI

"KWIK- PRO" SELF DRILLING TAPPING SCREWS PER ICC ESR-2196, OR ICC APPROVED EQUIVALENT. SCREW SIZE SHALL BE #10 x 3/4" MINIMUM AND MUST PROTRUDE THROUGH AND BEYOND THE CONNECTED STEEL MEMBERS A MINIMUM OF THREE FULL THREADS. SCREWS SHALL BE INSTALLED WITH A MINIMUM EDGE AND END DISTANCE OF THREE SCREW DIAMETERS

G. ALL BUILT-UP HEADERS REQUIRE WEB STIFFENERS AT EACH SUPPORT. FOR AXIAL LOAD BEARING WALLS, INSTALL BRIDGING PER TYPICAL DETAILS. FOR WALLS WITH NO AXIAL LOAD, INSTALL BRIDGING AT MID-HEIGHT FOR WALLS LESS THAN OR EQUAL TO 10'-0" HIGH, AND 5'-0" O.C. MAXIMUM FOR WALLS GREATER THAN 10'-0" HIGH. IN ADDITION, BRIDGING SHALL BE INSTALLED AT ROOF LINES AND ELSEWHERE AS NOTED ON THE DRAWINGS. FOR NON-BEARING PARTITIONS AND SOFFITS, SEE ARCHITECTURAL

DRAWINGS. REFER TO SPECIFICATION SECTION 05 40 00 FOR ADDITIONAL REQUIREMENTS.

3. STEEL ROOF DECK AND FLOOR DECK

DESIGN CODE: STEEL DECK INSTITUTE (SDI) DESIGN MANUAL FOR ROOF DECKS AND FLOOR

MATERIAL STRENGTHS: PER SDI SPECIFICATIONS

1) STEEL FLOOR DECK SHALL BE FABRICATED AND ERECTED ACCORDING TO SPECIFICATIONS OF THE STEEL DECK INSTITUTE (SDI). 2) PROVIDE ALL RIDGE AND VALLEY PLATES, SUMP PANS, CLOSURE PLATES, POUR STOPS AND ALL OTHER ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.

4) MAXIMUM DEFLECTION DUE TO SUPERIMPOSED LOADS SHALL BE LIMITED TO L/240. 5) NONCOMPOSITE FLOOR DECK SHALL BE FINISHED PER DECK SCHEDULE ON THIS SHEET 6) ALL METAL DECK SHALL BE FABRICATED AND INSTALLED FOR A MINIMUM TWO SPAN

CONDITION, UNO. TEMPORARY SHORING OF METAL DECK SHALL NOT BE USED UNLESS APPROVED BY THE CONTRACTING OFFICER. 7) DECKING CONTRACTOR SHALL COORDINATE DECK OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SHALL PROVIDE HEADER MEMBERS AND REINFORCEMENT AS REQUIRED PER TYPICAL DETAILS.

8) REFERENCE THE CONTRACT DRAWINGS FOR DECK TYPE, GAUGE, AND FASTENER

9) HANGING LOADS FROM ROOF DECK IS PROHIBITED.

3) ALLOWABLE STRESS BASED ON SDI AND AISI.

4. STRUCTURAL WALL SHEATHING

EXTERIOR WALL SHEATHING SHALL BE 1/2" THICK, MINIMUM PANEL SPAN RATING: 32/16

WALL SHEATHING SHALL BE FASTENED AS FOLLOWS:

6d NAILS (1 7/8") @ 6" O.C. AT EDGES & @ 12" O.C. IN THE FIELD WALL SHEATHING PANELS SHALL BE 4'x8' AND INSTALLED WITH LONG SIDE VERTICAL.

C. GENERAL NOTES

REFERENCE ELEVATION 100'-0" = TOP OF HANGAR SLAB AT FRONT OF NOSE DOCK. HANGAR SLAB SLOPES IN THE DIRECTION OF THE HORIZONTAL SLIDING HANGAR DOORS. FIELD VERIFY ALL SLAB SLOPES AND CONDITIONS.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE LOCATIONS OF ALL EMBEDDED ITEMS, CONDUITS, PIPES AND OPENINGS. REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ITEMS NOT INDICATED ON STRUCTURAL DRAWINGS. THE CONTRACTING OFFICER SHALL BE NOTIFIED IMMEDIATELY OF

3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE BRACING AND SHORING FOR STEEL AND CONCRETE WORK AT ALL TIMES DURING CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIRESTOPPING ALL GAPS BETWEEN WALLS AND OVERLYING FLOORS, DECKING, AND STRUCTURE AS WELL AS OTHER PENETRATIONS AS REQUIRED BY ARCHITECTURAL, MECHANICAL, AND ELECTRICAL SHEETS, AND BY THE CONTRACT SPECIFICATIONS.

D. SPECIAL INSPECTIONS (IBC 2015)

1. PROVIDE SPECIAL INSPECTIONS OF THE FOLLOWING ITEMS:

A. CONCRETE CONSTRUCTION - PER IBC SECTION 1705.3 B. COLD-FORMED STEEL FRAMING

2. INCLUDE SPECIAL INSPECTIONS REQUIREMENTS IN CONTRACTOR'S QUALITY CONTROL (QCP) PLAN.

3. A SPECIAL INSPECTOR IS A QUALIFIED PERSON, EXCLUSIVE OF PERSONNEL INCLUDED UNDER THE CQC STAFF, WHO HAS DEMONSTRATED COMPETENCE TO THE CONTRACTING OFFICER'S SATISFACTION.

ED METAL FRAMING CO	NNECTION SCHEDU	JLE			
MINIMUM SCREW SIZE	SCREW SPACING	NUMBER OF SCREWS			
#10	-	2			
#10	-	12			
#10	12"	4			
#10	8"	-			
0.177" DIAM. x 1 1/4" I	/4" P.A.F. @ 12" O.C.				
#10	#10 - SEE TYPICAL TRACK SPLIC DETAIL ON SHEET S-306				
	#10 #10 #10 #10 #10 #10 0.177" DIAM. x 1 1/4" F	#10 - #10 - #10 12" #10 8" 0.177" DIAM. x 1 1/4" P.A.F. @ 12" O.C.			

STEEL DECK AND DECK ATTACHMENT SCHEDULE MINIMUM DECK SECTION PROPERTIES

				IVIII VIIVIOIVI	DEONOLO	1101111101	LIVIILO	DEORATIAOTIMENT		
LOCATION	STEEL DECK	TOTAL SLAB DEPTH	SLAB REINFORCEMENT	+I 4 IN./FT.	-I 4 IN./FT.	+S IN. /FT.	-S IN. /FT.	END, EDGE, AND INTERMEDIATE SUPPORTS	SIDE LAPS BETWEEN ALL SUPPORTS	AS-SUPPLIED DECK FINISH
HANGAR OFFICE 2ND FLOOR EL. 112'-0"	1.0C26 NON-COMPOSITE STEEL DECK	3.5 INCHES (t = 2.50 INCHES)	WWF 6x6 - W2.9xW2.9	0.040	0.042	0.067	0.071	#12 TEK SCREWS IN 33/4 PATTERN	#10 TEK SCREWS, 4 FASTENERS PER LAP	GALVANIZED
HANGAR OFFICE ROOF EL. 123'-0"	1.0C26 NON-COMPOSITE STEEL DECK	/	WWF 6x6 - W2.9xW2.9	0.040	0.042	0.067	0.071	#12 TEK SCREWS IN 33/4 PATTERN	#10 TEK SCREWS, 4 FASTENERS PER LAP	GALVANIZED

DECK SCHEDULE NOTES:

1. TEMPORARY SHORING OF STEEL DECK DURING CONCRETE PLACEMENT IS NOT REQUIRED.

2. STEEL DECK MINIMUM YIELD STRENGTH: Fy = 33 KSI FOR NON-COMPOSITE DECK.

REIN	IFORCING DEV	ELOPMENT A 4,500 PSI	ND LAP SPLI	CES	DEVELOPMENT HOOKED B			
DAD CIZE	DEVELOPME	ENT LENGTH	SPLICE L	ENGTH	BAR SIZE	LENG MIN. EM		
BAR SIZE	OTHER	TOP	OTHER	ТОР	#3	7'		
#3	1'-2"	1'-6"	1'-6"	1'-11"	#4	9'		
#4	1'-6"	2'-0"	2'-0"	2'-6"	#5	1		
#5	1'-11"	2'-6"	2'-6"	3'-2"	#6	1'		
#6	2'-3"	2'-11"	2'-11"	3'-10"	#7	1'		
#7	3'-4"	4'-3"	4'-3"	5'-6"	#8	1'		
#8	3'-9"	4'-10"	4'-10"	6'-4"	#9	1'		
#9	4'-3"	5'-6"	5'-6"	7'-2"	#10	1'		
#10	4'-9"	6'-2"	6'-2"	8'-0"	#11	2'		
#11	5'-3"	6'-10"	6'-10"	8'-11"				

1. RI AS	PMENT LENGTHS DKED BARS	
2. TH C0	LENGTH OR MIN. EMBEDMENT	BAR SIZE
	7"	#3
	9"	#4
	11"	#5
3. TO	1'-1"	#6
TH DI	1'-3"	#7
4. DI	1'-5"	#8
TH	1'-7"	#9
A) B)	1'-10"	#10
C)	2'-0"	#11

EINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SHALL BE S SHOWN IN THESE TABLES UNLESS OTHERWISE NOTED ON THE DRAWINGS.

HE LENGTHS SHOWN IN THE TABLES ARE BASED ON THE FOLLOWING ONCRETE COVERAGE AND REINFORCING C-C SPACING:

BEAMS OR COLUMNS: COVER (EQUAL OR MORE) 1.0bd (BAR DIAMETER) CENTER TO CENTER (C-C) SPACING (EQUAL OR MORE) 2.0bd.

COVER (EQUAL OR MORE) 1.0bd

E) LIGHT WEIGHT CONCRETE IS USED

CENTER TO CENTER SPACING (EQUAL OR MORE) 3.0bd. OP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT SUCH THAT MORE HAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE

EVELOPMENT LENGTH OR SPLICE. DEVELOPMENT AND SPLICE LENGTH SHOWN SHALL NOT APPLY IF ANY OF HE FOLLOWING CONDITIONS OCCUR:

f'c < 4500 PSI fy > 60,000 PSITHE COVER OR C-C BAR SPACING IS NOT AS LISTED ABOVE D) THE REINFORCING STEEL IS EPOXY COATED

- REINFORCING STEEL CUT EACH SIDE OF CONTROL SAW CUT JOINT LOCATION - T/4 MIN. JOINT DEPTH (MUST BE 1'-0" 1'-0" T/4 + 1 (UNO)AT LEAST EQUAL TO NOMINAL AGGREGATE SIZE x 1.33) 3" MAX. 3/4" DIA. SMOOTH DOWEL (FOR T<8") OR 1" DIA. SMOOTH DOWEL (FOR 8"<T<12") @ 12" O.C. GREASE ONE END. **CONTROL JOINT**

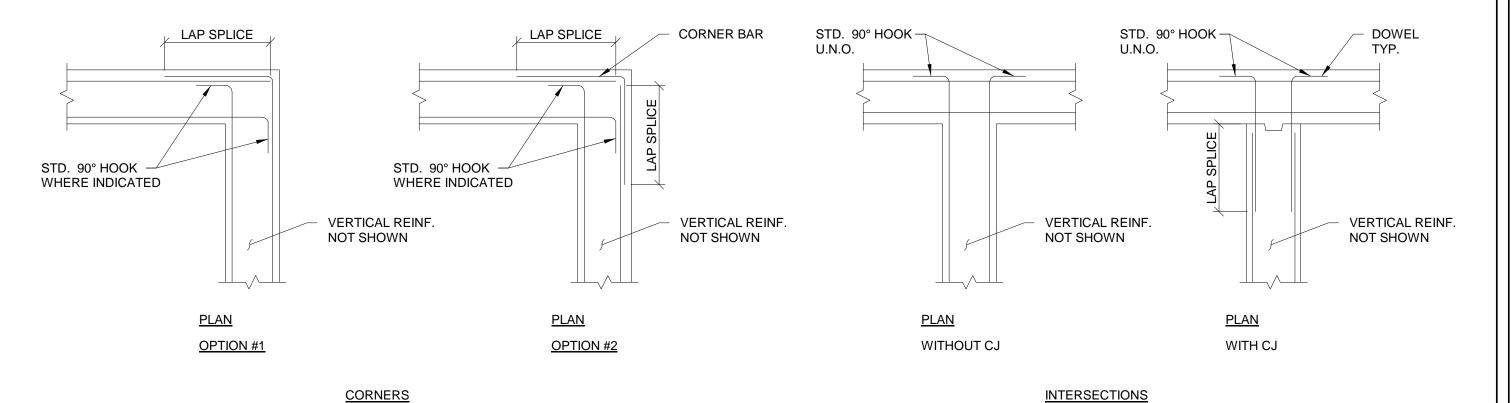
FORM & SEAL GROOVE T/4 + 1 (UNO) SPECIFICATIONS 1'-0" - REINFORCING STEEL 1'-0" CUT EACH SIDE OF CONTRACTION JOINT LOCATION ─ 3/4" DIA. SMOOTH DOWEL (FOR T<8") OR 1" DIA. SMOOTH DOWEL (FOR 8"<T<12") @ 12" O.C. GREASE ONE END. CONSTRUCTION JOINT

1. SAW CUT: 1/4" WIDE SAW CUT W/ EPOXY JOINT FILLER.

2. SAW JOINT AS SOON AS SURFACE IS FIRM ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE (USUALLY 4 TO 12 HOURS AFTER CONCRETE HARDENS).

3. EPOXY JOINT FILLER TO BE SIKADUR 51 BY SIKA CORPORATION OR APPROVED EQUAL. MINIMUM AGE OF CONCRETE TO BE 28 DAYS WHEN FILLED.

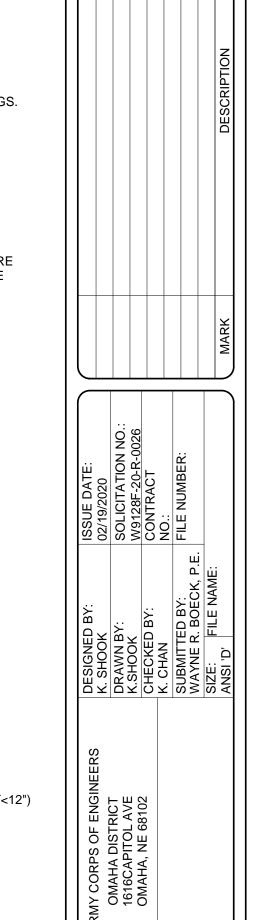
CONCRETE SLAB JOINT DETAILS



UNLESS OTHERWISE INDICATED, THE CONTRACTOR HAS THE OPTION OF REINFORCING CORNERS IN ACCORDANCE WITH OPTION #1 OR OPTION #2.

UNLESS OTHERWISE INDICATED, THE CONTRACTOR HAS THE OPTION OF CONSTRUCTING INTERSECTIONS WITH OR WITHOUT CONSTRUCTION JOINTS. REINFORCE PER APPLICABLE DETAIL.

HORIZ. CONC. REINF. DETAILS



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Omaha District

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