

**US Army Corps  
of Engineers®**

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MOBILE DISTRICT  
109 SAINT JOSEPH STREET  
MOBILE AL 36602

# **UNACCOMPANIED ENLISTED PERSONNEL HOUSING**

**SOTO CANO AIR BASE, HONDURAS**

MOBILE DISTRICT PROJECT CODE : M017EU44

SOLICITATION NUMBER : W9127819R0028

MARCH 2019













Table with columns A, B, C, D, E, F, G and rows 1-10. Contains abbreviations such as @/A/C, AB, AC, ACST, AD, AFF, AFFF, AFG, AGG, AHU, AI, AIC, AL, ALT, AMP, AP, APPD, APPROX, ARCH, ASPH, ASWG, ATC, AUTO, AVE, AVG, B & B, BM, BATT, BCE, BDY, BIT, BL, BLDG, BLDG DIR, BLK, BLKG, BM, BOC, BOF, BOS, BOT, BRCG, BRDG, BRG, BRKT, BT, BTU, BTUH, BVCE, BVCS, { or CL, C to C, C&G, C. or CND, C.I., C.O.E, C.O.R, CAB, CAP, CB, cc:SPF, CE, CEM, CFM, CG, CI, CIR, CJ, CKD, CKT, CL, CLG, CLKG, CLR, CLOS, CMP, CMT, CMU, CNTR, CO, COL, COM, COMB, COMB, COMM.

Table with columns COMP, CONC, CONN, CONSTR, CONT, COR, CORR, COV, CP, CPL, CPS or CRES, CRG, CRS, CSK, CSO, CTB, CTR, CTRL, CTU, CU, CU YD, CUH, CV, CW, CWR, CWRR, CWS, CYL, d, D, D&M, D or DBL, D.C.J., D.I., DA, DB, DC, DCJT, DCL, DDESB, DEG, DEPR, DEPT, DF, DH, DHWR, DHWS, DIA or -, DIAG, DIAPH, DIM, DIST, DN STR, DO, DOIM, DOM, DP, DPST, DR, DS, DTL, DWD, DWG, DWLS, E, EA, EF, EOC, EOP, EL/ELV, ELEC, EM, ENCL, ENG, ENT, EOC, EOD, EP / EOP, EQ.

Table with columns EQUIP, ERP, EST, EW, E.W.C., EXC, EXIST, EXP, EXPN, EXT, EVCE, EVCS, F, F.P.M., F.S., FA, FCU, FC, FCG, FDN, FEC, FF, FG, FH, FHC, FIG, FIN, FIX, FL, FLASH, FLG, FLUOR, FOC, FP, FPRF, FR, FT, FTG, FURR'G, G, G.C.O., G.V., GA, GAL, GALV, GCAB, GEN, GI, GL, GOVT., GPM, GRADE, GRND, GRNG, GRVL, GTD, GWB, GWT, GYP, H.P.T., H.S., HB, HBD, HDW, HDR, HTR, HEP, HMA, HOA, HP, HPW, HSB, HSGYP, H.T., H.S., HB, HBD, HDW, HDR, HTR, HEP, HMA, HOA, HP, HPW, HSB, HSGYP, H.T., HTG, HTR.

Table with columns HW, HWH, HWR, HWRR, HWS, HYD, I OR FE, I.D., I.P., IAW, IBC, IC, IE, IES, IESCR, IN, INSUL., INT, INV, IRH, IS, JB, JC, JCT, JST, JT, K, KIT, KL, KP, KSF, KSI, KV, KVA, KVAR, KW, KWH, L, LAU, LAV, LBR, LBS, LD, LDG, LG, LIN, LIS, LLH, LLV, LNDG, LNLT, LONG, LP, LPS, LT, LT.WT., LVC, M, M & B, MACH, MAS, MAT, MAX, MC, MCM, ME, MECH, MES, MET., MFG, MFR, MG, MH, MHGY, MIN, ML, MLDG, MO.

Table with columns MON, MONO, MOT, MSTC, MT, MTD, MTN, MUTCD, MW, N, NEC, NEMA, NIC, NOI, NTP, OA, OB WG, OBLG, OBSC, OC, OD, OFF., OH, OPNG, OPP, OPP. HD, OPS, OPV, OSVSCP, OWS, P, P. LAM., P/S, PA, PAN. B, PBS, PCC, PD, PERF, PH or O, PI, PIV, PL, PLAS, PLATF, PLBG, PLG, PLY WD, PNL, PNL BD, POL, PORC, POB, PP, PR, PREFAB, PROJ, PROP, PRPT, PRV, PSF, PSI, PT, PTD, PVMT.

Table with columns QD, 1/4 RD, Q.T., QT, QTERS, Q, QUANTITY DISTANCE, QUARTER ROUND, QUARRY TILE, QUART, QUARTERS, R, R.D., R.S., RA, RAD or R, RB, RC, RC, RCB, RCP, RCVR, RD, RD OR -, RECP, RECR, REF or RE, REFR, REG, REINF, REM, REQD, REQMS, REV, RGE, RGH, RM, ROW, RUB, S, S.D., S.ST., S/W, SA, SAF, SB, SCHD, SCP, SCR, SCUT, SD, SDMH, SEC, SECY, SEQ, SFU, SHT, SHTHG, SIM, SM, SPA, SPOT, SPEC, SPF, SPH, SPKR, SPL, SQ, SQUAD, SR, SS, SSMH, SSMR, ST, STA, STD, STF, STGR, STL, STN, STOR, STR, STWY, SU, SUB FL, SUSP, SW, SWPPP, SYMM.

Table with columns T, T.O., TA, TAB, TAN., TAP, TBD, TBR&R, TCP, TEL, TEMP, TER, TERM, TGL, TH, THERMO, THK, TOC, TOIL., TOPO, TOS, TP, TTB, TV, TYP, U, U.S., UC, UG, UGE, UH, UIP, UL, UNEX, UNFIN, UNO, UPSTR, UT, UV, V, VB, VC, VCP, VCT, VENT, VERT, VFDU, VOL, VS, VTR, W, W, W.E., W.I., W/, W/O, WB, WC, WD, WF, WH, WHM, WKS, WL, WP, WPF, WPPG, WRB, WS, WSA, WT, WV, WWF, X, XFMR, Y, Y.D., YD.

US Army Corps of Engineers logo. SHEET ID: C-002. Project information: DESIGNED BY: MOBILE DISTRICT, MOBILE, ALABAMA. CHECKED BY: KES. PROJECT NUMBER: M017EU44. FILE NAME: M017EU44C-002.dwg.



GENERAL NOTES

- 1. NORMAL WORKING HOURS ARE DEFINED AS 0800 - 1700, MONDAY THRU FRIDAY. WORK SCHEDULED AFTER NORMAL WORKING HOURS SHALL BE SUBMITTED IN WRITING TO THE COR 30 DAYS IN ADVANCE OF THE WORK TO BE PERFORMED SO THAT BASE OPERATIONS CAN COORDINATE. SUBMITTAL DOES NOT GUARANTEE APPROVAL.
2. ALL CONTRACTOR VEHICLES AND PERSONNEL SHALL BE RESPONSIBLE FOR COORDINATING WITH THE BASE SECURITY OFFICE IN OBTAINING PROPER SECURITY CLEARANCE AND BADGING PRIOR TO ENTERING SECURE AREAS.
3. ALL CONTRACTOR VEHICLES AND PERSONNEL MAY BE SEARCHED BY SOTO CANO SECURITY POLICE WHEN ENTERING THE BASE AND MAY EXPERIENCE DELAYS. ALL VEHICLES ENTERING THE BASE MUST HAVE CURRENT/VALID REGISTRATION, CURRENT/VALID INSURANCE, AND CURRENT/VALID DRIVERS LICENSE FOR THE OPERATOR.
4. CONTRACTOR SHALL PROVIDE AND INSTALL A PROFESSIONALLY PAINTED SIGN, MEETING CONTRACTING OFFICER APPROVAL, AT THE CONSTRUCTION ENTRANCE TO DIRECT MATERIAL SUPPLIERS AND EMPLOYEES TO THE CONSTRUCTION SITE.
5. ALL PERSONNEL ENTERING SOTO CANO AIR BASE MUST HAVE A VALID PHOTO ID PER BASE SECURITY REQUIREMENTS.
6. NON-CONSTRUCTION PEDESTRIAN TRAFFIC SHALL NOT BE ALLOWED INSIDE THE CONSTRUCTION LIMITS.
7. ALL CONSTRUCTION EQUIPMENT AND CONTRACTOR CONSTRUCTION VEHICLES SHALL BE MARKED WITH COMPANY PAINTED DESIGNS, INSIGNIAS OR OTHER COMPANY MARKINGS, WHICH ARE CLEARLY VISIBLE.
8. CONTRACTOR CONSTRUCTION EQUIPMENT SHALL HAVE AUTOMATIC SIGNALING DEVICES TO SOUND IN ALARM WHEN MOVING IN REVERSE. VEHICLES ACCESSING THE AIRFIELD MUST BE EQUIPPED WITH A FLASHING/ROTATING AMBER LIGHT, AND BE OPERATING WHEN ON THE AIRFIELD.
9. ONLY RUBBER TIRED VEHICLES SHALL BE ALLOWED ON EXISTING PAVEMENT THAT IS TO REMAIN.
10. CONTRACTOR SHALL COORDINATE ACTIVITIES THROUGHOUT THE PROJECT IN A MANNER THAT ALLOWS EMERGENCY ACCESS TO ALL EXISTING ROADWAYS AT ALL TIME WITHOUT DELAY TO EMERGENCY VEHICLE RESPONSE TIME.
11. CONTRACTOR'S DRIVERS SHALL BE REQUIRED TO HAVE THE NECESSARY AIRFIELD DRIVING COURSE VIA BASE OPERATIONS.
12. LOCATION OF CONTRACTOR'S STAGING AREA SHALL BE WITHIN THE SOTO CANO AB LAY DOWN AREA. CONTRACTOR'S STAGING AREA SHALL BE SUBJECT TO APPROVAL OF CONTRACTING OFFICER'S REPRESENTATIVE. AVAILABILITY OF CONTRACTOR'S STAGING AREA SHALL BE DEPENDENT ON TIMING OF OTHER GOVERNMENT PROJECTS. WHEN NOT ENGAGED IN CONSTRUCTION ACTIVITY, THE CONTRACTOR'S CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE PARKED IN THE CONTRACTOR'S STAGING AREA.
13. STAGING AREA AND ANY OTHER AREA DISTURBED BY CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION OF EXISTING SITE, SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICERS REPRESENTATIVE.
14. CONTRACTOR SHALL COORDINATE WITH CONTRACTING OFFICER'S REPRESENTATIVE ANY GOVERNMENT-OWNED EQUIPMENT REQUIRING RELOCATION TO COMPLETE WORK.
15. THE CONTRACTOR SHALL TAKE THE STEPS TO ENSURE THAT PROJECT CONSTRUCTION ACTIVITY DOES NOT INTERFERE WITH REGULAR BASE OPERATIONS. REGULAR BRIEFINGS SHALL BE CONDUCTED BY THE CONTRACTOR WITH THE RESPONSIBLE BASE OFFICIALS FOR THE PURPOSE OF COORDINATING CONSTRUCTION ACTIVITIES AND SCHEDULED BASE OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INTERVAL (WEEKLY, BIWEEKLY, ETC.) FOR THE REQUIRED BRIEFINGS PRIOR TO COMMENCEMENT OF SITE CONSTRUCTION ACTIVITY. THE BASE COMMANDER AND/OR THE CONTRACTING OFFICER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO IMMEDIATELY SUSPEND AUTHORIZATION TO WORK IN A PARTICULAR AREA OF THE SITE DURING MILITARY EMERGENCIES OR FOR BASE SECURITY REASONS.
16. CONTRACTOR IS REQUIRED TO SURVEY (USING PROJECT CONTROL AND DATUMS) ALL UTILITY LINES AND APPURTENANCES IMMEDIATELY AFTER INSTALLATION FOR UPDATING RED-LINE AS-BUILT DRAWINGS MAINTAINED ON-SITE BY THE CONTRACTOR.
17. ALL CRANES COMING ON BASE MUST BE FIRST COORDINATED WITH COE/BASE TO GET FULL EXTENSION AND EXPECTED DURATION. THIS MUST BE SUPPLIED TO THE AIRFIELD PRIOR TO CRANE'S ARRIVAL. CONTRACTOR MUST HAVE A TEMPORARY CRANE PERMIT IN HAND PRIOR TO ANY CRANE ACTIVITY.
18. UNLESS OTHERWISE DIRECTED, THE CONTRACTOR SHALL DISPOSE OF ALL WASTE AND UNSUITABLE MATERIAL OFF BASE AT AN APPROVED DISPOSAL AREA.

COORDINATION NOTES

- 1. CONTRACTOR SHALL APPOINT A CONSTRUCTION SUPERINTENDENT, SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER, WHO SHALL BE PRESENT ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS WHILE JOB IS IN PROGRESS. THE SUPERINTENDENT SHALL BE DESIGNATED THE RESPONSIBLE CONTRACTOR'S REPRESENTATIVE WHO SHALL BE AVAILABLE ON A 24-HOUR BASIS. WHEN THE CONTRACTOR'S REPRESENTATIVE IS NOT AVAILABLE ON THE CONSTRUCTION SITE, AN ALTERNATE REPRESENTATIVE SHALL BE PROVIDED.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CORDON OFF THE WORK AREAS AND STREET CROSSINGS BY USING BARRICADES APPROVED BY THE CONTRACTING OFFICER, AS NEEDED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF THE PROJECT AND THE EXPENSE THEREOF. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT NO IMPROVEMENTS ARE CONSTRUCTED ON OFF-SITE PARCELS.
4. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF THE REQUIRED CONSTRUCTION CAN BE PERFORMED WITHIN THE AREA PROVIDED AND COMPLY WITH REQUIREMENTS OF THE SAFETY AND HEALTH REGULATIONS (OSHA) FOR CONSTRUCTION PROJECTS OF THIS TYPE. ANY SAFETY MEASURES OR METHOD OF CONSTRUCTION THAT IS NECESSARY IN THE CONSTRUCTION OF THIS PROJECT TO COMPLY WITH THESE REGULATIONS IS THE CONTRACTOR'S RESPONSIBILITY.

SURVEY NOTES:

- 1. ALL DIMENSIONS ARE IN METERS (m), OTHERWISE AS INDICATED.
2. TOPOGRAPHIC SURVEY WAS PERFORMED BETWEEN OCTOBER 19, 2017 AND NOVEMBER 13, 2017 BY CIVIL ENGINEER DOUGLAS ESCOBAR, PROFESSIONAL LICENSE: 12728 (COLEGIO DE ING. DE GUATEMALA). ADDRESS: 30 CALLE 12-79 ZONA 12, CIUDAD DE GUATEMALA, GUATEMALA.
3. USACE PROVIDED THE COORDINATES AND ELEVATION OF BM-BAR-1, BM-BAR-2, BM-BAR-3 AND TBM2 TO TIE IN THE PROJECT SURVEY. TOTAL STATION WAS SET UP OVER BM94 AND ORIENTATION WAS SET WITH BM95.
4. HORIZONTAL COORDINATES ARE UTM SYSTEM ASSOCIATED TO 16 N ZONE.
5. UTILITY LINES DATA WAS COLLECTED BY SURVEYOR AND COMPLEMENTED WITH UTILITY BASE DRAWINGS (LAST UPDATED VERSION FROM JUNE 05, 2013).

HAUL ROUTE NOTES

- 1. SITE ACCESS AND HAUL ROUTES SHALL BE COORDINATED AND APPROVED BY THE CONTRACTING OFFICER.

HAUL ROUTE NOTES (CONT'D)

- 2. THE CONTRACTOR AND COR SHALL DOCUMENT THE EXISTING CONDITION OF THE HAUL ROUTE THROUGH THE BASE, BY VIDEO OR PHOTOGRAPHY, PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DAMAGES TO THE
3. HAUL ROUTE ROAD(S) SHALL BE REPAIRED TO THE SATISFACTION OF THE COR AT THE CONTRACTORS EXPENSE.
4. THE CONTRACTOR SHALL MAINTAIN UNOBSTRUCTED ACCESS FROM THE HAUL ROAD TO THE WORK SITE AND FACILITATE GOVERNMENT ACCESS TO THE BASE AT ALL TIMES. THE MAINTENANCE OF HAUL ROADS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE GOVERNMENT.
5. CONTRACTOR SHALL MAINTAIN THE ACCESS/HAUL ROUTE TO BE FREE OF DEBRIS CAUSED FROM CONSTRUCTION ACTIVITIES, ON A DAILY BASIS, PRIOR TO RUNWAY OPENING. CONTRACTOR SHALL SWEEP AND CLEAN AFFECTED ROADWAYS. CONTRACTOR TO PROVIDE ALL EQUIPMENT NECESSARY TO PERFORM THE TASK.
6. CONTRACTOR IS TO MAINTAIN PAVEMENT AND MARKINGS FOR AIRFIELD ROADS, OVERRUN, AND TAXIWAY ALONG THE HAUL ROUTE. MAINTENANCE OF PAVEMENT AND MARKINGS WILL BE AT THE EXPENSE OF THE CONTRACTOR.

TRAFFIC CONTROL/PHASING

- 1. CONTRACTOR SHALL COORDINATE WITH CONTRACTING OFFICER'S REPRESENTATIVE 10 DAYS IN ADVANCE OF ANY LANE OR ROADWAY CLOSURES.
2. SEE SHEET CP504 FOR SINGLE LANE CLOSURE PLAN AND CONSTRUCTION MINOR ENCROACHMENT DETAIL.

BEST MANAGEMENT PRACTICES (BMP) NOTES

- 1. CONTRACTOR IS FULLY RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR SEDIMENT AND EROSION CONTROL FOR DISCHARGES FROM LARGE AND SMALL CONSTRUCTION SITES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION/APPLICATION OF ALL BMP'S. THE SEDIMENT AND EROSION CONTROL BEST MANAGEMENT PRACTICES INDICATED HEREIN ARE INTENDED AS A MINIMUM BMP PLAN. THE BMP PLAN SHALL BE AMENDED AS NECESSARY FOR THE SPECIFIC PROJECT REQUIREMENTS AS DIRECTED BY THE CONTRACTING OFFICERS REPRESENTATIVE.
3. EROSION AND SEDIMENT CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL DEVELOP HIS OWN BMP PLAN DESIGNED FOR THE SPECIFIC SITE WITH METHOD(S) OF CONSTRUCTION PREFERRED BY THE CONTRACTOR FOR EACH PHASE OF CONSTRUCTION. THE CONTRACTOR'S BMP PLAN SHALL MEET THE PROJECT SPECIFICATIONS, LOCAL REQUIREMENTS, AND THE MINIMUM BMP REQUIREMENTS SHOWN IN THIS PLAN SET. THE CONTRACTOR'S BMP PLAN SHALL BE DESIGNED TO MINIMIZE EROSION OF THE NEWLY GRADED AREAS OF THE SITE, AND SHALL PREVENT SEDIMENTS FROM EXITING THE PROJECT SITE.
4. EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY DISTURBANCE. THE CONTRACTOR SHALL IN STALL APPROVED BMP MEASURES PRIOR TO BEGINNING ANY CLEARING, GRADING, EXCAVATION, FILLING OR OTHER LAND DISTURBING ACTIVITIES, EXCEPT THOSE OPERATIONS NEEDED TO INSTALL SUCH MEASURES.
5. THE CONTRACTOR SHALL INSPECT EROSION AND SEDIMENT CONTROL MEASURES DAILY AND MAKE NEEDED REPAIRS OR MAINTENANCE BEFORE WORK STOPS FOR THE DAY.
6. THE CONTRACTOR SHALL MAINTAIN THE APPROVED EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED BMP PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL BMP'S SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE. ALL ADDED BMP'S SHALL BE APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVE PRIOR TO IMPLEMENTATION, AND INSTALLED PER DETAILS OR MANUFACTURES RECOMMENDATIONS. THE CONTRACTOR IS REQUIRED TO IMPLEMENT ANY BMP'S REQUIRED OR AS DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
7. EROSION CONTROL DEVICES SHALL BE USED FOR THE STAGING AREA AND ANY MATERIAL STOCK PILES WHEN NECESSARY TO CONTROL EROSION AND STORM WATER RUNOFF. THE CONTRACTOR SHALL PROTECT STOCKPILES WITH SILT FENCE, COVER WITH PLASTIC OR OTHER MEANS NECESSARY TO PREVENT STOCKPILE EROSION.
8. STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT ITS MOVEMENT BY WIND FORCES.
9. THE CONTRACTOR SHALL INSTALL BMP 3, SEDIMENT TRACKING CONTROL, AT THE LOCATION OF THE PROPOSED NEW ROAD. THE TRACKING CONTROL SHALL EXTEND FROM DE JULIO AVENUE THROUGH TO THE EXISTING DIRT/AGGREGATE ROAD TO THE NORTH. THE BMP 3 SHALL BE INCORPORATED INTO THE PAVEMENT STRUCTURE FOR THE NEW ROAD. TYPE 3 BMP SHALL BE REQUIRED AT ALL EXIT POINTS FROM CONTRACTOR STAGING AREAS AND OTHER LOCATIONS AS REQUIRED OR DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
10. ALL SEEDING FOR TEMPORARY AND PERMANENT STABILIZATION SHALL BE DONE AS EACH AREA IS MADE READY. ALL AREAS THAT RECEIVE TEMPORARY SEEDING SHALL BE MULCHED WITH HAY STRAW.
12. CONTRACTOR SHALL SPRIG AND FERTILIZE ALL AREAS DISTURBED DURING CONSTRUCTION OUTSIDE THE LIMITS OF PAVED AREAS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AFTER COMPLETION OF ALL PAVING AND TOPSOIL FINISH GRADING WORK FOR EACH PHASE OF THE PROJECT.
13. LIMITS OF CONSTRUCTION IS DEFINED AS THOSE AREAS AFFECTED BY THE CONTRACTOR'S OPERATIONS INVOLVING EXCAVATION, EMBANKMENT AND FINAL GRADING REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE ELEVATIONS, GRADES AND SECTIONS SHOWN IN THESE DRAWINGS.
14. THE CONTRACTOR SHALL SPRIG ALL DISTURBED AREAS WITHIN THE SITE LIMITS, INCLUDING ALL CUT AND FILL SECTIONS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. SPRIGS SHALL BE AS SPECIFIED. CONTRACTOR SHALL MAINTAIN GRASS UNTIL A PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER SHALL INCLUDE: PLACEMENT OF TOPSOIL, APPLICATION OF FERTILIZER, PLANTING OF GRASS SPECIES SELECTED, IRRIGATIONS AS REQUIRED, AND RAKING OR HAND FINISHING.

EXCAVATION AND TRENCHES NOTES

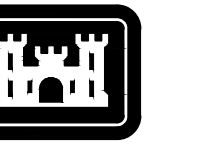
- 1. OPEN TRENCHES AND EXCAVATIONS WITHIN THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH ORANGE FENCING OR OTHER MEANS ACCEPTABLE TO THE COR.
2. ALL TOPSOIL SHALL BE STRIPPED FROM ALL AREAS WITHIN THE LIMITS OF CONSTRUCTION AND STOCKPILED FOR LATER USE IN THE UPPER 100MM OF FINISHED GRADE TO PROVIDE A SUITABLE GRASS BED. THE CONTRACTOR SHALL RECEIVE APPROVAL FROM THE CONTRACTING OFFICERS REPRESENTATIVE FOR TOPSOIL STOCKPILE LOCATIONS.
3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL LOCATE ALL UTILITIES. ANY UTILITY ADJUSTMENTS, EXISTING OR PROPOSED, REQUIRED TO COMPLETE CONSTRUCTION UNDER THIS CONTRACT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS ITEM INCLUDES, BUT IS NOT LIMITED TO; THE TEMPORARY RELOCATION OF EXISTING OVERHEAD POWER LINES. ALL WORK IN THE VICINITY OF OVERHEAD POWER LINES SHALL CONFORM TO OSHA REQUIREMENTS AND ANY OTHER APPLICABLE (LOCAL) SAFETY REQUIREMENTS. THE CONTRACTOR IS TO REPAIR ALL DAMAGES TO EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE IMMEDIATELY AT NO ADDITIONAL COSTS OR EXPENSE TO THE GOVERNMENT.
4. ALL WORK IN AND ADJACENT TO STREETS OR ROADS SHALL BE COORDINATED WITH CONTRACTING OFFICER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE THE CONTRACTING OFFICERS REPRESENTATIVE WITH A ONE-WEEK ADVANCE NOTICE PRIOR TO BEGINNING OF WORK ADJACENT TO BASE ROADWAYS. NO WORK ADJACENT TO OR ON EXISTING ROADS SHALL BE INITIATED WITHOUT PRIOR APPROVAL FROM THE CONTRACTING OFFICER'S REPRESENTATIVE.

SAFETY AND SECURITY REQUIREMENT NOTES

- 1. CONTRACTOR SHALL MAINTAIN SAFETY PRACTICES THAT CONFORM TO LOCAL REGULATIONS AND USACE SAFETY MANUAL EM385-1-1.
2. OPEN FLAME WELDING OR TORCH CUTTING OPERATIONS IS PERMITTED; CONTRACTOR MUST OBTAIN A HOT WORK PERMIT FROM THE SOTO CANO AIR BASE FIRE DEPARTMENT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY FENCING OR OTHER SECURITY MEASURES REQUIRED TO PROTECT WORK OR EQUIPMENT DURING CONSTRUCTION.

LANDSCAPING NOTES

- 1. CONTRACTOR SHALL SEED OR SOD ALL PROPOSED TIE SLOPES, AREAS SHOWN IN PLANS, AND DISTURBED AREAS IN THE PLANS AND PER SPECIFICATIONS.



US Army Corps of Engineers

Table with 2 columns: MARK, DESCRIPTION

Table with 2 columns: DESIGNED BY, ISSUE DATE

SOTO CANO AIR BASE, HONDURAS UNACCOMPANIED ENLISTED PERSONNEL HOUSING

SHEET ID C-004

G F E D C B A













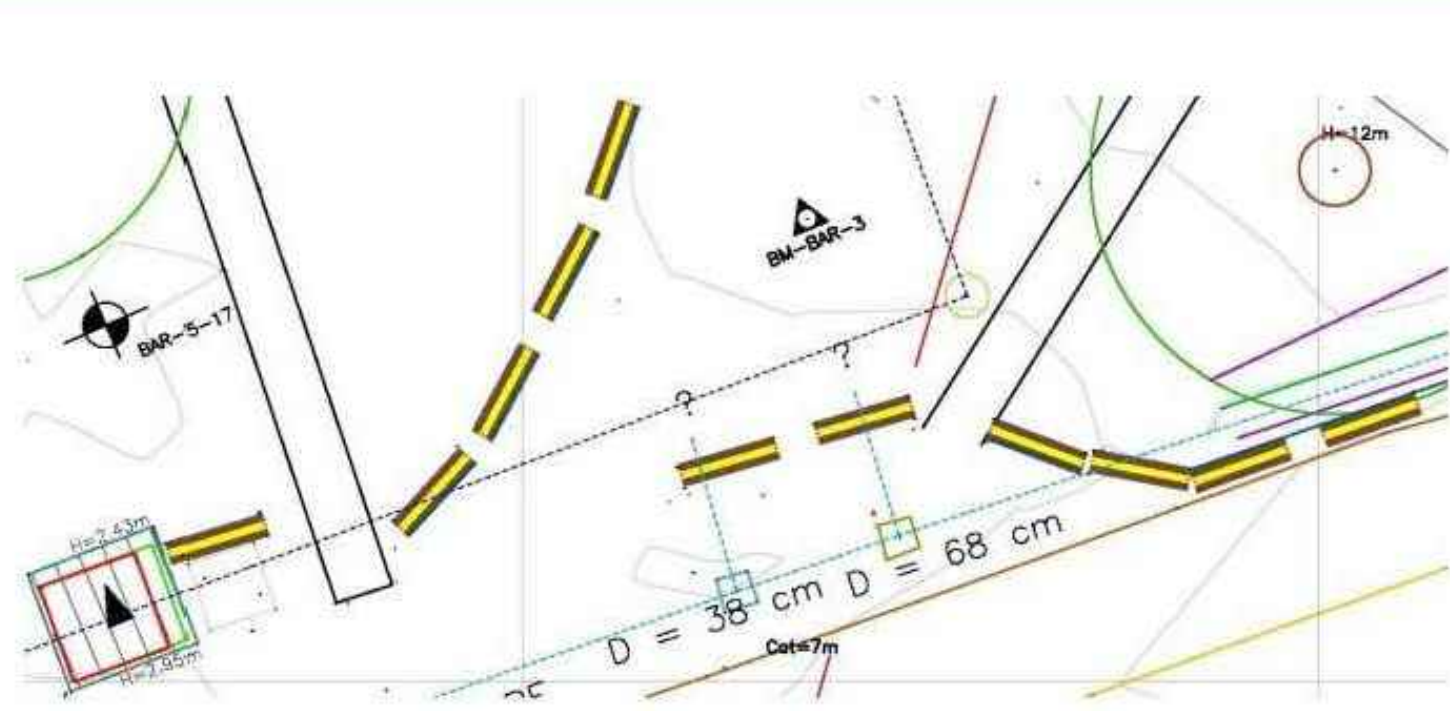




USACE Survey Monument Archival & Retrieval Tool Datasheet

FIUO:  Type:

**Designation:** BM-BAR-3  
**Project:** BARRACKS  
**Stamping:** BM-BAR-3  
**PID NGS:**  PPCP  LPCP  
**COE:** \_\_\_\_\_  
**State:** \_\_\_\_\_  
**County:** \_\_\_\_\_  
**District:** Army  
**Installations:** \_\_\_\_\_  
**Nearest Town:** \_\_\_\_\_  
**USGS Quad:** \_\_\_\_\_  
**T.R.S.:** \_\_\_\_\_  
**Nearest Hwy/Mi:** \_\_\_\_\_  
**Date Recovered:** \_\_\_\_\_  
**By:** \_\_\_\_\_  
**Condition/Stability:** \_\_\_\_\_  
**Setting/Monument Type:** \_\_\_\_\_  
**Owner:** \_\_\_\_\_  
**Boundary Monument:**  Yes  No  
**GPS Suitable:**  Yes  No  
**Obstructions:**  N  E  S  W  
**Magnetic:**  Yes  No  
**Access:** \_\_\_\_\_



- Horizontal -		- Vertical -	
Datum: WGS84	( )	Datum: LMSL	( )
Lat: 14°23'07.19685"	N	Elevation Ht: 637.108	
Lon: 87°36'55.65225"	W	Ellip Ht: 637.108	UOM: _____
Local Accuracy: 2-mm		Local Accuracy: 2-mm	
NSRS Accuracy: _____		NSRS Accuracy: _____	
Survey/Computation Method: Static GPS Network		Survey/Computation Method: Static GPS Network	
Date Observed: 12/11/17		Date Observed: 12/11/17	

- Tidal/Hydraulic Gage Relationships -				
Owner:	Gage ID:	- Elevation -	- Datum -	Epoch:
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LX\_LY\_LZ: \_\_\_\_\_

**Description/Comments:**  
BENCHMARK BM-BAR-3, BENCHMARK IN AIR BASE, SOTO CANO, HONDURAS.

Zn1: \_\_\_\_\_ N1: \_\_\_\_\_ USFT E1: \_\_\_\_\_ USFT UTM Zn1: \_\_\_\_\_ N1: \_\_\_\_\_ USFT E1: \_\_\_\_\_ USFT  
 Zn2: \_\_\_\_\_ N2: \_\_\_\_\_ USFT E2: \_\_\_\_\_ USFT UTM Zn2: \_\_\_\_\_ N2: \_\_\_\_\_ USFT E2: \_\_\_\_\_ USFT

- Horizon/Setup View -



Limit

- Close-Up View -



Limit picture size to 1024 by 768

Required Fields In Red

Reset Form

Submit

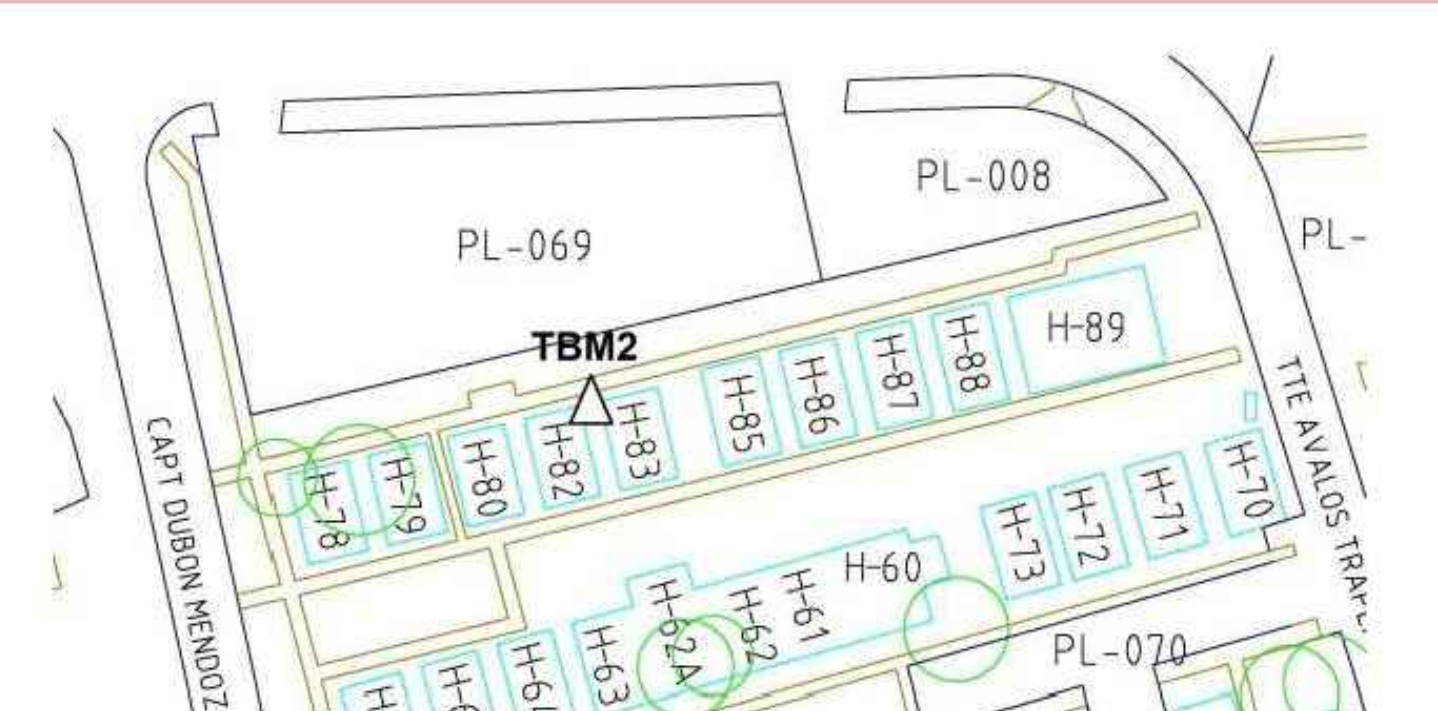
System Fields in Green

U-SMART ver 5.6  
April 2017

USACE Survey Monument Archival & Retrieval Tool Datasheet

FIUO:  Type:

**Designation:** TBM2  
**Project:** PV FARM AREA  
**Stamping:** TBM2  
**PID NGS:**  PPCP  LPCP  
**COE:** \_\_\_\_\_  
**State:** \_\_\_\_\_  
**County:** \_\_\_\_\_  
**District:** Army  
**Installations:** \_\_\_\_\_  
**Nearest Town:** \_\_\_\_\_  
**USGS Quad:** \_\_\_\_\_  
**T.R.S.:** \_\_\_\_\_  
**Nearest Hwy/Mi:** \_\_\_\_\_  
**Date Recovered:** \_\_\_\_\_  
**By:** \_\_\_\_\_  
**Condition/Stability:** \_\_\_\_\_  
**Setting/Monument Type:** \_\_\_\_\_  
**Owner:** \_\_\_\_\_  
**Boundary Monument:**  Yes  No  
**GPS Suitable:**  Yes  No  
**Obstructions:**  N  E  S  W  
**Magnetic:**  Yes  No  
**Access:** \_\_\_\_\_



- Horizontal -		- Vertical -	
Datum: WGS84	( )	Datum: LMSL	( )
Lat: 14°22'58.86872"	N	Elevation Ht: 636.147	
Lon: 87°36'54.99968"	W	Ellip Ht: 636.147	UOM: _____
Local Accuracy: 2-mm		Local Accuracy: 2-mm	
NSRS Accuracy: _____		NSRS Accuracy: _____	
Survey/Computation Method: Static GPS Network		Survey/Computation Method: Static GPS Network	
Date Observed: 12/11/17		Date Observed: 12/11/17	

- Tidal/Hydraulic Gage Relationships -				
Owner:	Gage ID:	- Elevation -	- Datum -	Epoch:
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LX\_LY\_LZ: \_\_\_\_\_

**Description/Comments:**  
BENCHMARK TBM2, EXISTING BENCHMARK IN AIR BASE, SOTO CANO, HONDURAS.

Zn1: \_\_\_\_\_ N1: \_\_\_\_\_ USFT E1: \_\_\_\_\_ USFT UTM Zn1: \_\_\_\_\_ N1: \_\_\_\_\_ USFT E1: \_\_\_\_\_ USFT  
 Zn2: \_\_\_\_\_ N2: \_\_\_\_\_ USFT E2: \_\_\_\_\_ USFT UTM Zn2: \_\_\_\_\_ N2: \_\_\_\_\_ USFT E2: \_\_\_\_\_ USFT

- Horizon/Setup View -



Limit picture size to 1024 by 768

- Close-Up View -



Limit picture size to 1024 by 768

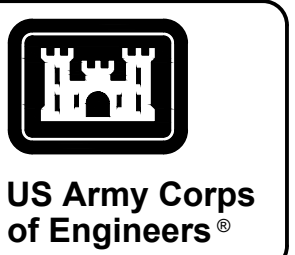
Required Fields In Red

Reset Form

Submit

System Fields in Green

U-SMART ver 5.6  
April 2017



ISSUE DATE:	DESIGNED BY:	U.S. ARMY CORPS OF ENGINEERS	MOBILE DISTRICT	MOBILE, ALABAMA
ISSUE DATE: 12/11/17	DESIGNED BY: KES	U.S. ARMY CORPS OF ENGINEERS	MOBILE DISTRICT	MOBILE, ALABAMA
SO/LOCATION NO.: W81218R0028	DRAWN BY: KES			
CONTRACT NO.:	CHECKED BY: CPE			
PROJECT NUMBER: M017EU44	SUBMITTED BY: PWO			
FILE NAME: M017EU44V-202.dwg	ANSI D:			
MARK	DESCRIPTION			

ISSUE DATE:	DESIGNED BY:	U.S. ARMY CORPS OF ENGINEERS	MOBILE DISTRICT	MOBILE, ALABAMA
ISSUE DATE: 12/11/17	DESIGNED BY: KES	U.S. ARMY CORPS OF ENGINEERS	MOBILE DISTRICT	MOBILE, ALABAMA
SO/LOCATION NO.: W81218R0028	DRAWN BY: KES			
CONTRACT NO.:	CHECKED BY: CPE			
PROJECT NUMBER: M017EU44	SUBMITTED BY: PWO			
FILE NAME: M017EU44V-202.dwg	ANSI D:			
MARK	DESCRIPTION			

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

SURVEY MONUMENTATION

SHEET ID  
V-702

















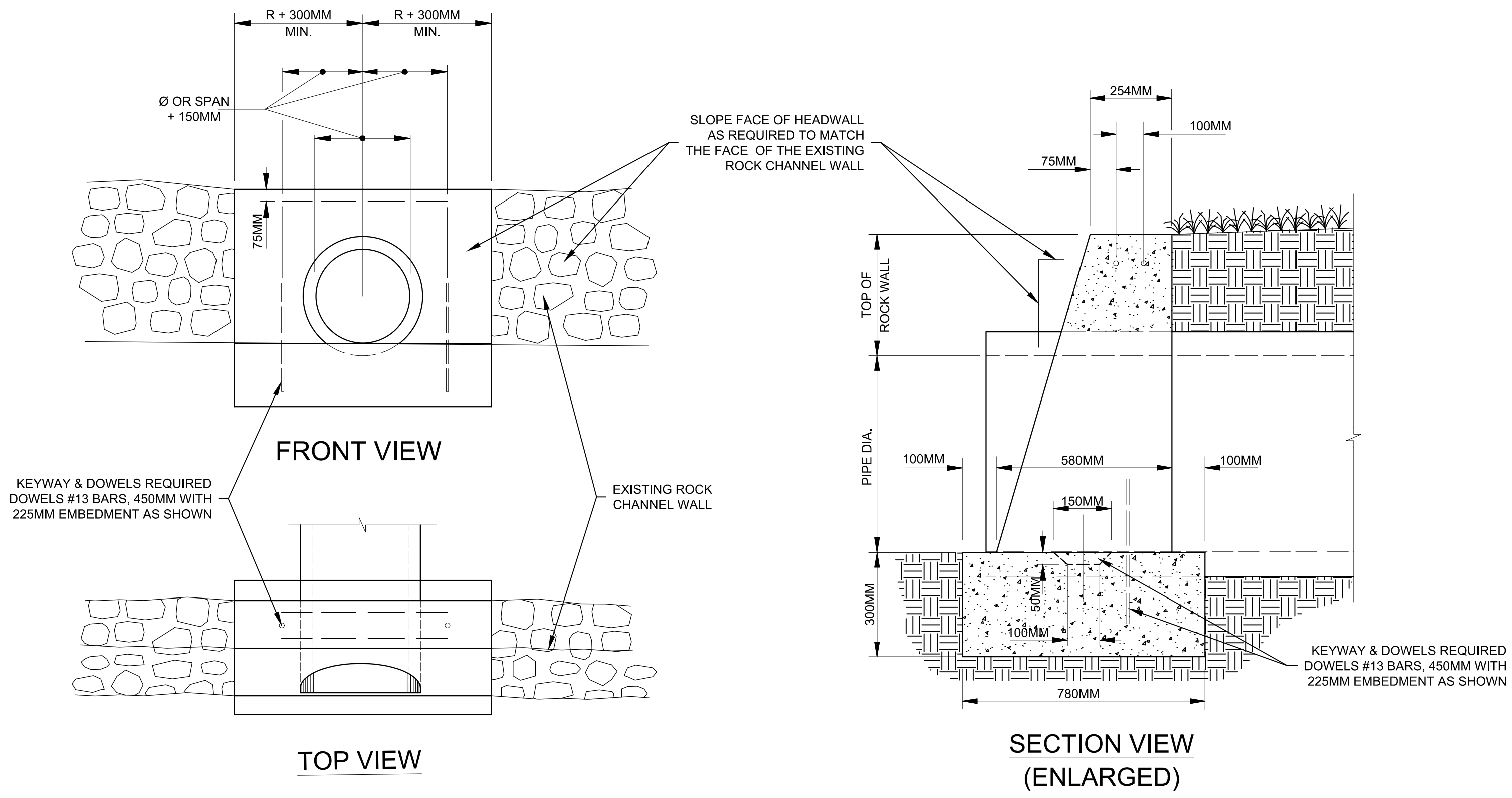




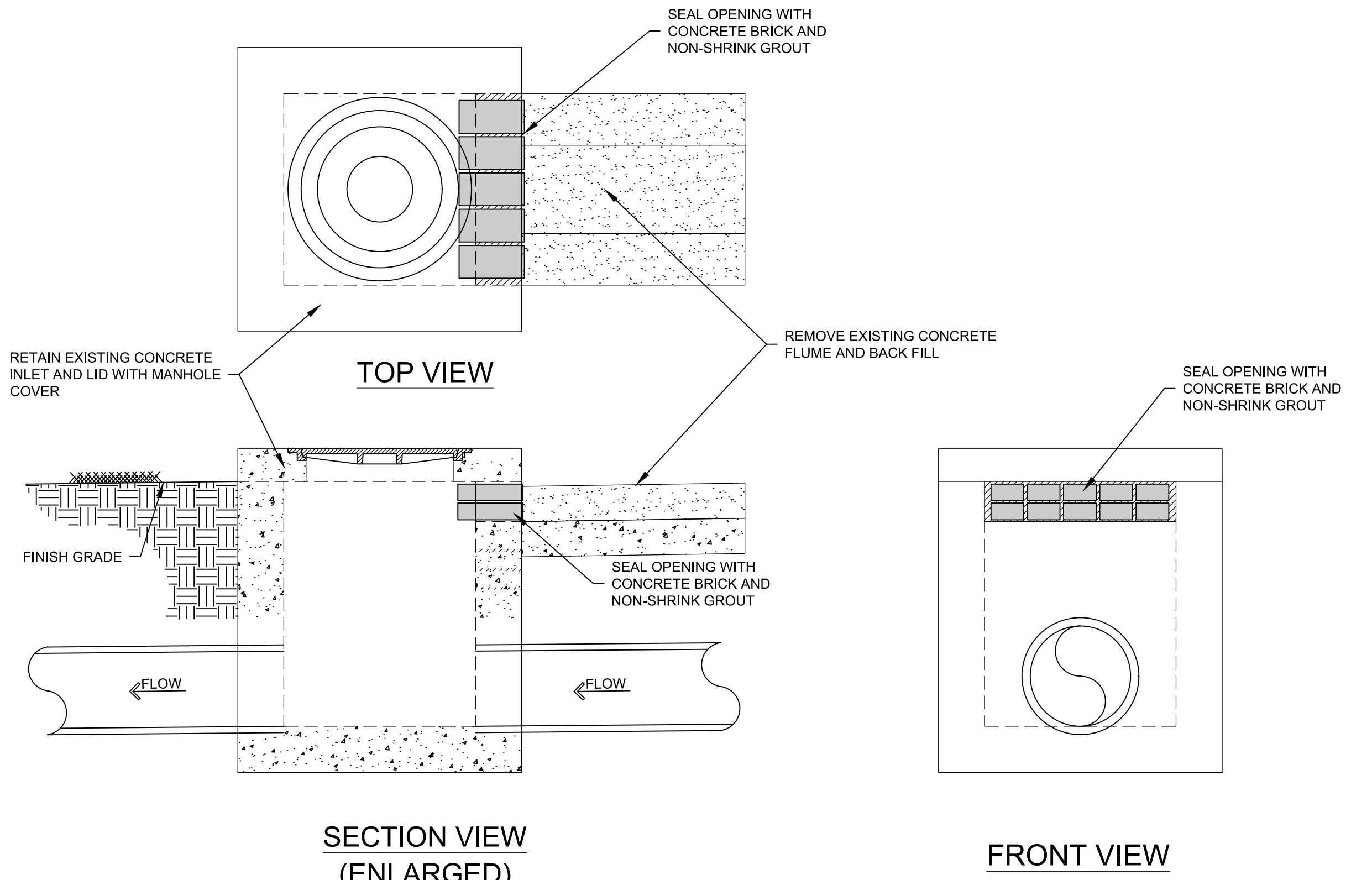




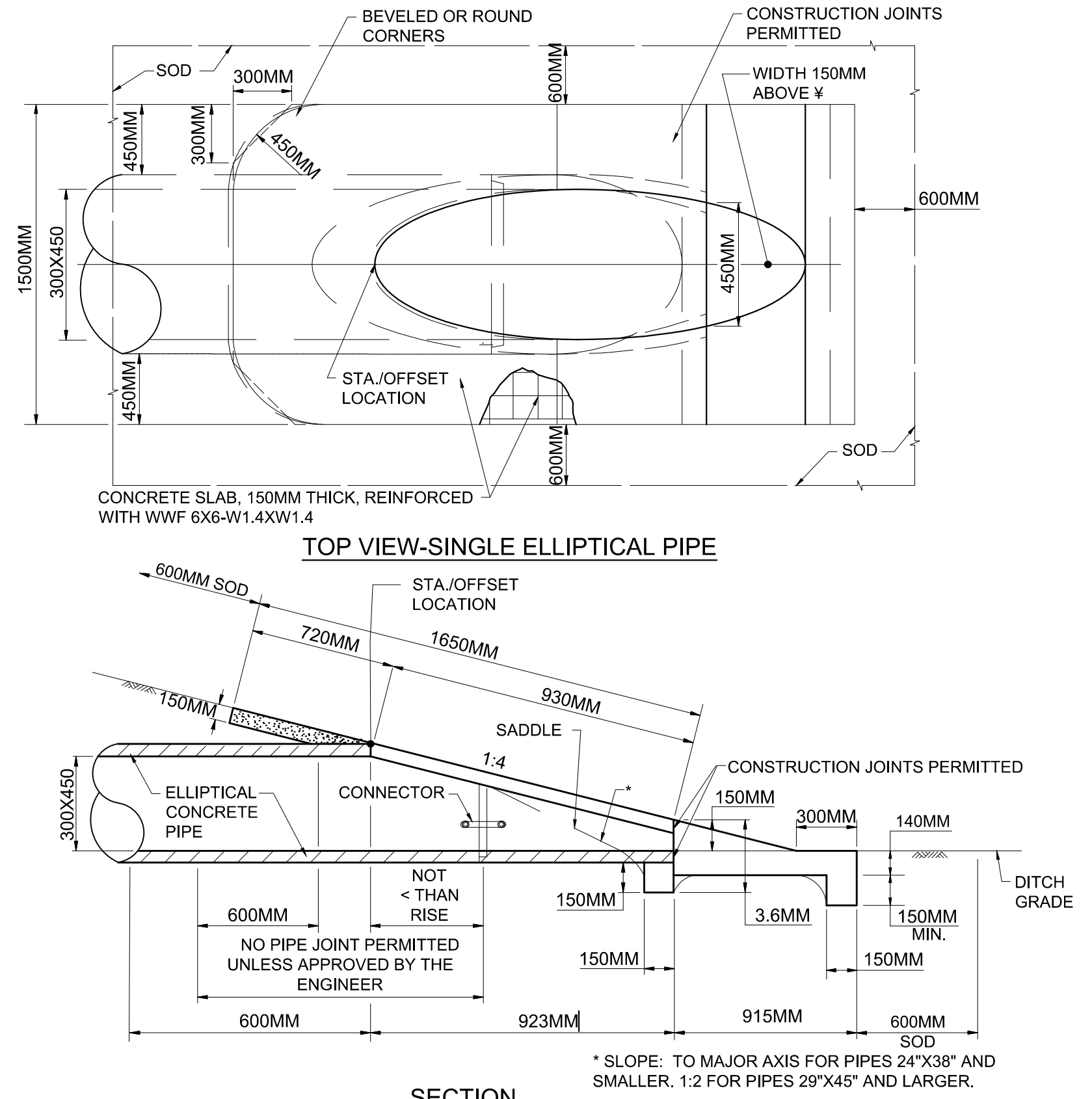
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**D1** CONCRETE PIPE END TREATMENT  
N. T. S.

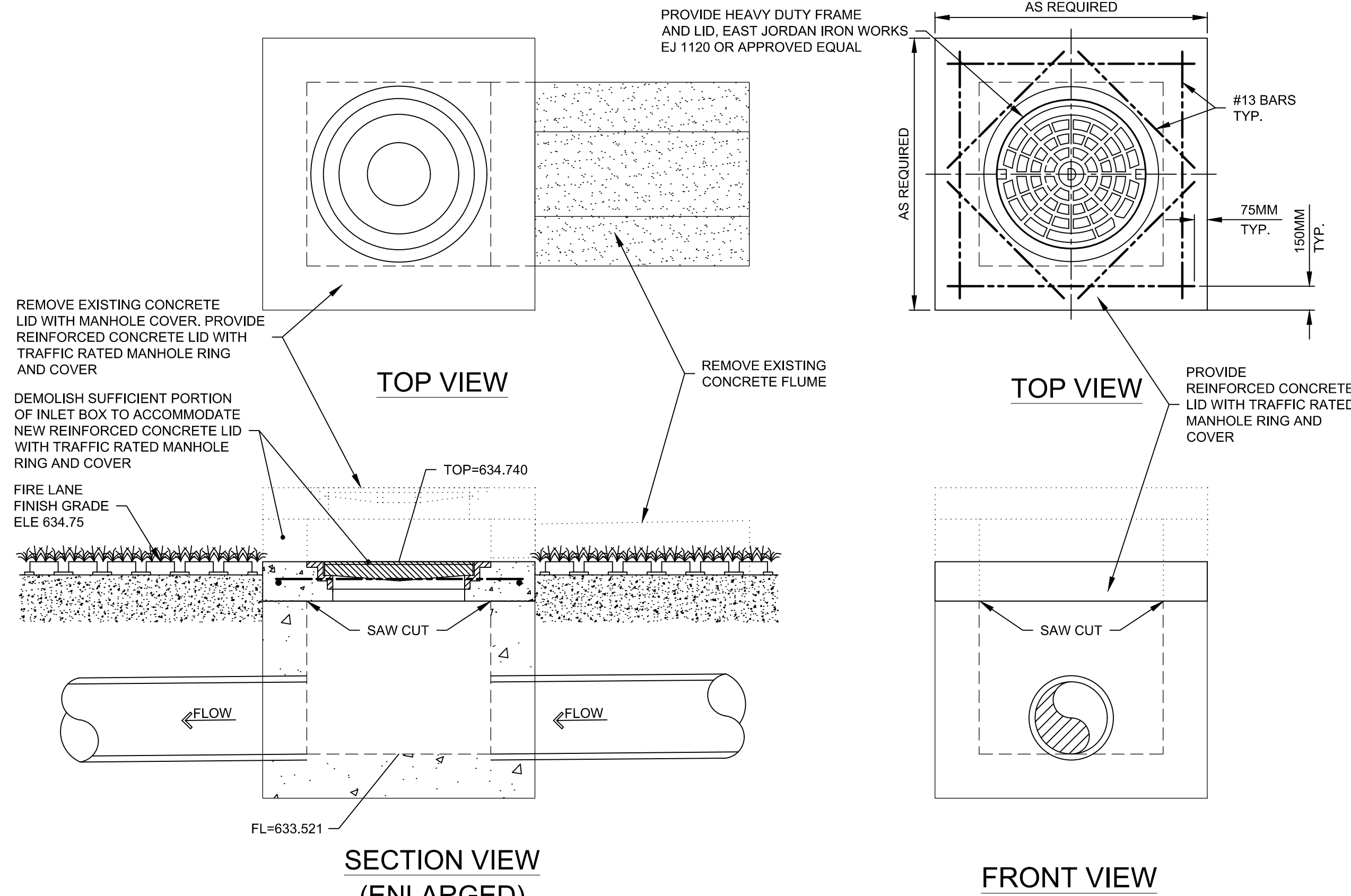


**D6** INLET TO MANHOLE CONVERSION  
N. T. S.

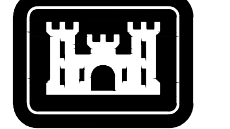


**A1** TAPERED END SECTION FOR ELLIPTICAL SIDEDRAIN  
N. T. S.

- GENERAL NOTES:
1. UNLESS OTHERWISE DESIGNATED IN THE PLANS, CONCRETE PIPE MITERED END SECTIONS MAY BE USED WITH ANY TYPE OF SIDE DRAIN PIPE. WHEN THE MITERED END SECTION PIPE IS DISSIMILAR TO THE SIDE DRAIN PIPE, CONSTRUCT A CONCRETE JACKET TO JOIN THEM.
  2. WHEN USED IN CONJUNCTION WITH A CONCRETE MITERED END SECTIONS, CONSTRUCT A CONCRETE JACKET TO JOIN THEM.
  3. CLASS NS CONCRETE CAST-IN-PLACE REINFORCED SLABS ARE REQUIRED FOR ALL SIZES OF SIDE DRAIN PIPES.



**A6** INLET TO MANHOLE MODIFICATION  
N. T. S.



**US Army Corps of Engineers**

	DATE
	MARK
	DESCRIPTION

ISSUE DATE: FEBRUARY 2019	SOLICITATION NO.: M017ELU44	PROJECT NUMBER: M017ELU44	FILE NAME: M017ELU44CG502.dwg
DESIGNED BY: JILL	DRAWN BY: JILL	CHECKED BY: JILL	SIZE: ANSI D

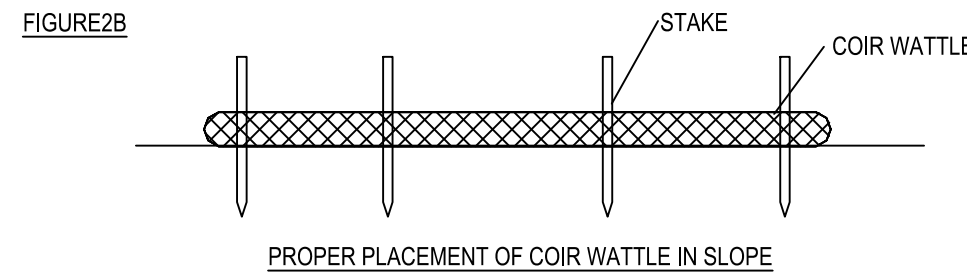
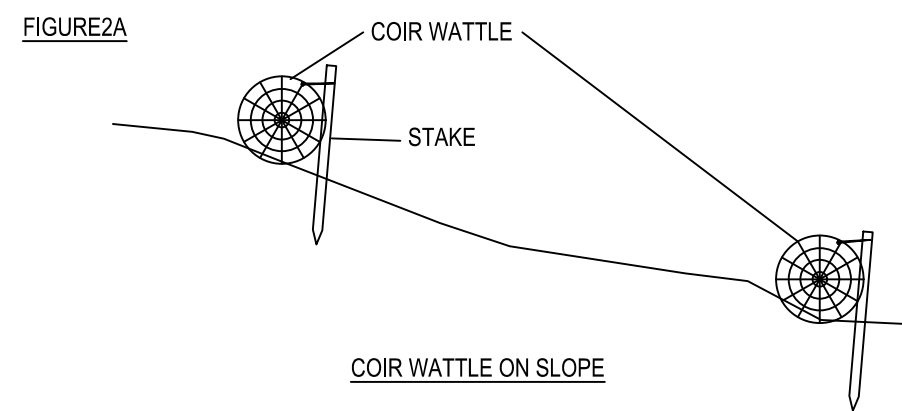
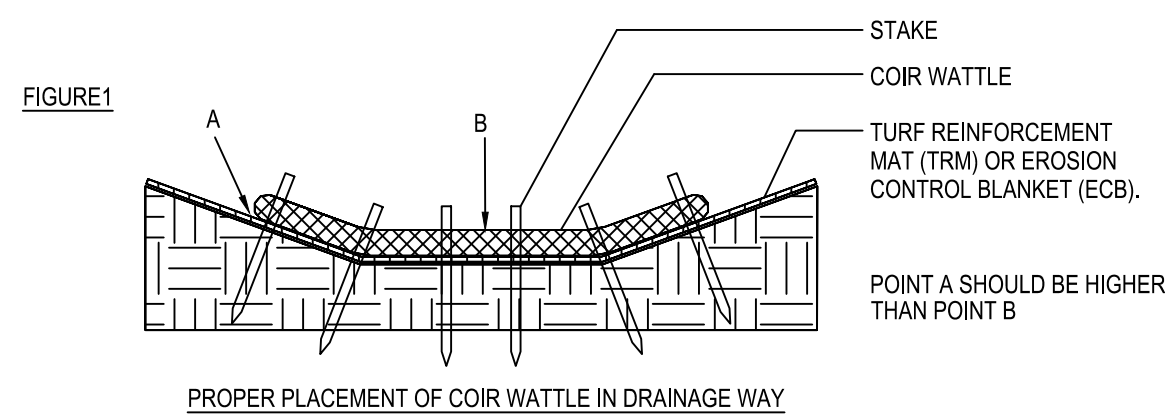
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

DRAINAGE DETAILS

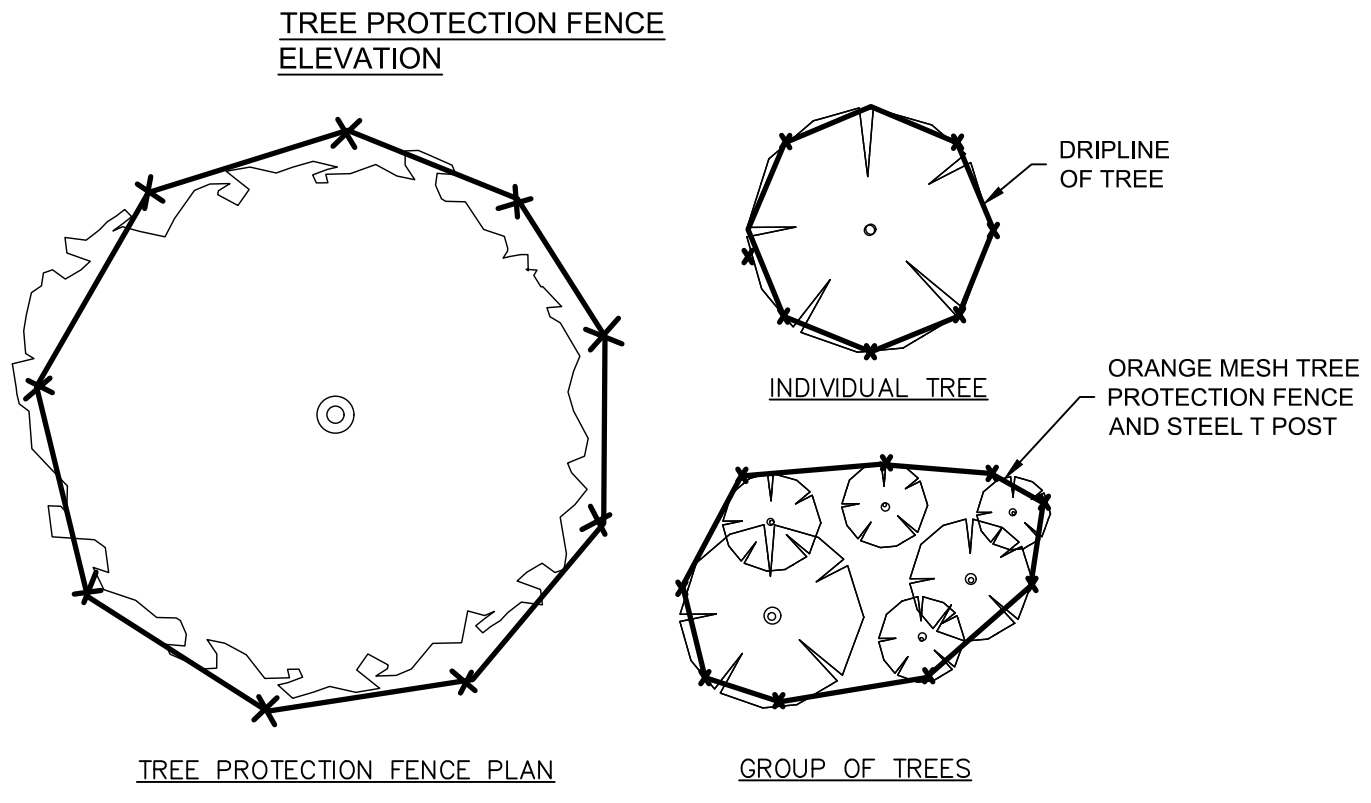
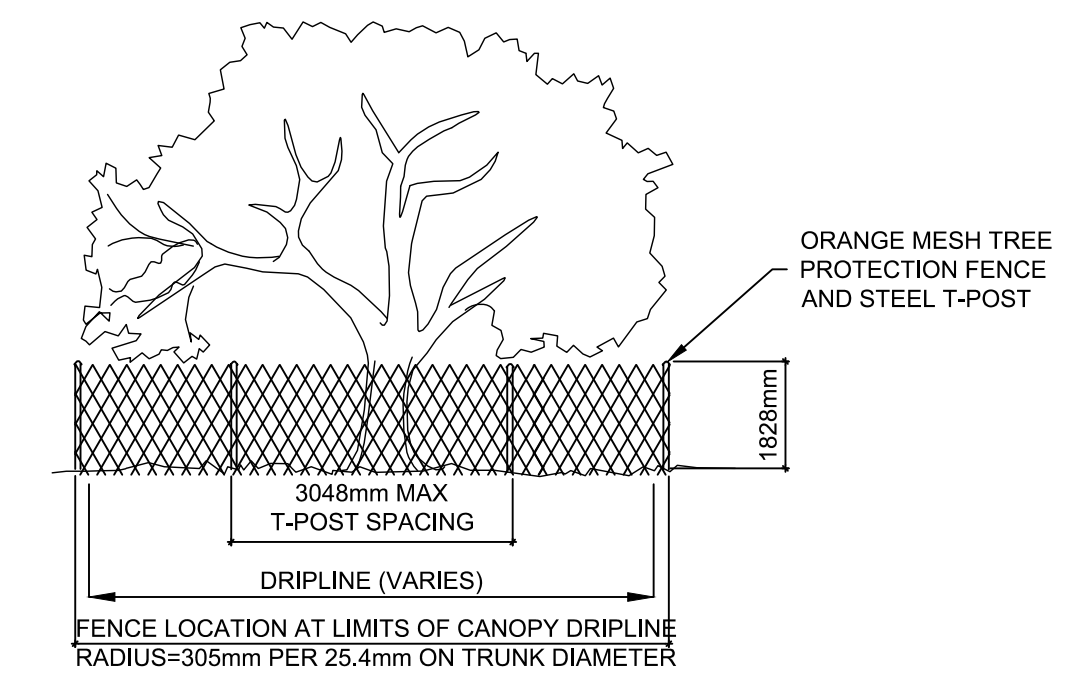
SHEET ID  
**CG502**

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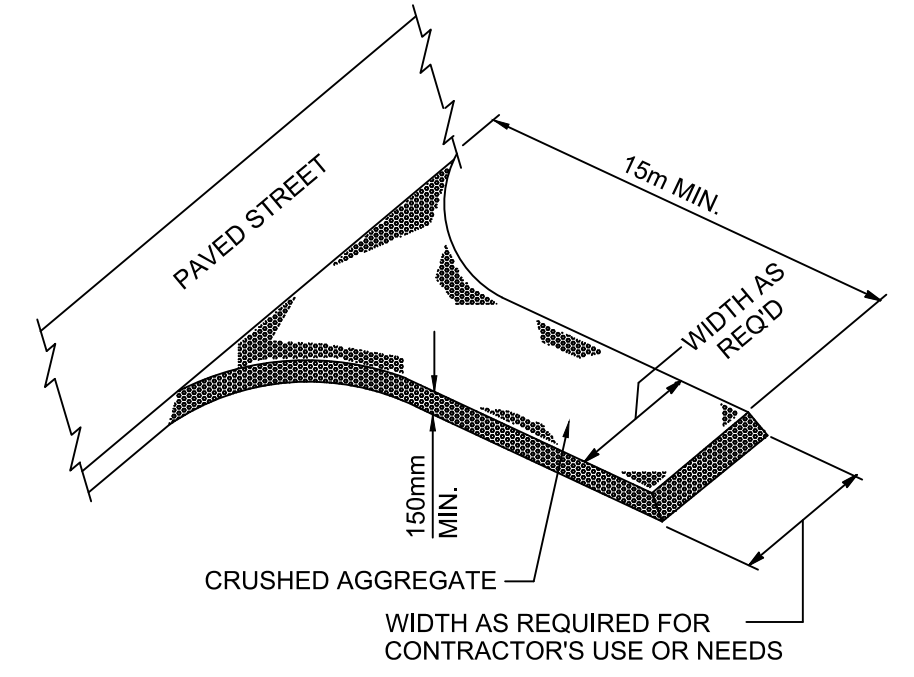


- NOTES:**
- ON DRAINAGE WAY LINED WITH TURF REINFORCEMENT MAT (TRM) OR EROSION CONTROL BLANKET (ECB), COIR WATTLE SHALL BE INSTALLED AS CHECK DAMS (FIG 1).
  - INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - DO NOT SCALE DRAWING.
  - THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
  - ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
  - STAKES SHALL BE SIZED, SPACED AND OF A MATERIAL THAT WILL EFFECTIVELY SECURE THE WATTLE.
  - REFER TO MANUFACTURER SPECIFICATIONS ON OVERLAPPING ENDS (.3M TO 1M MAX).

**D1 WATTLE DITCH CHECK (BMP-2)**  
N. T. S.



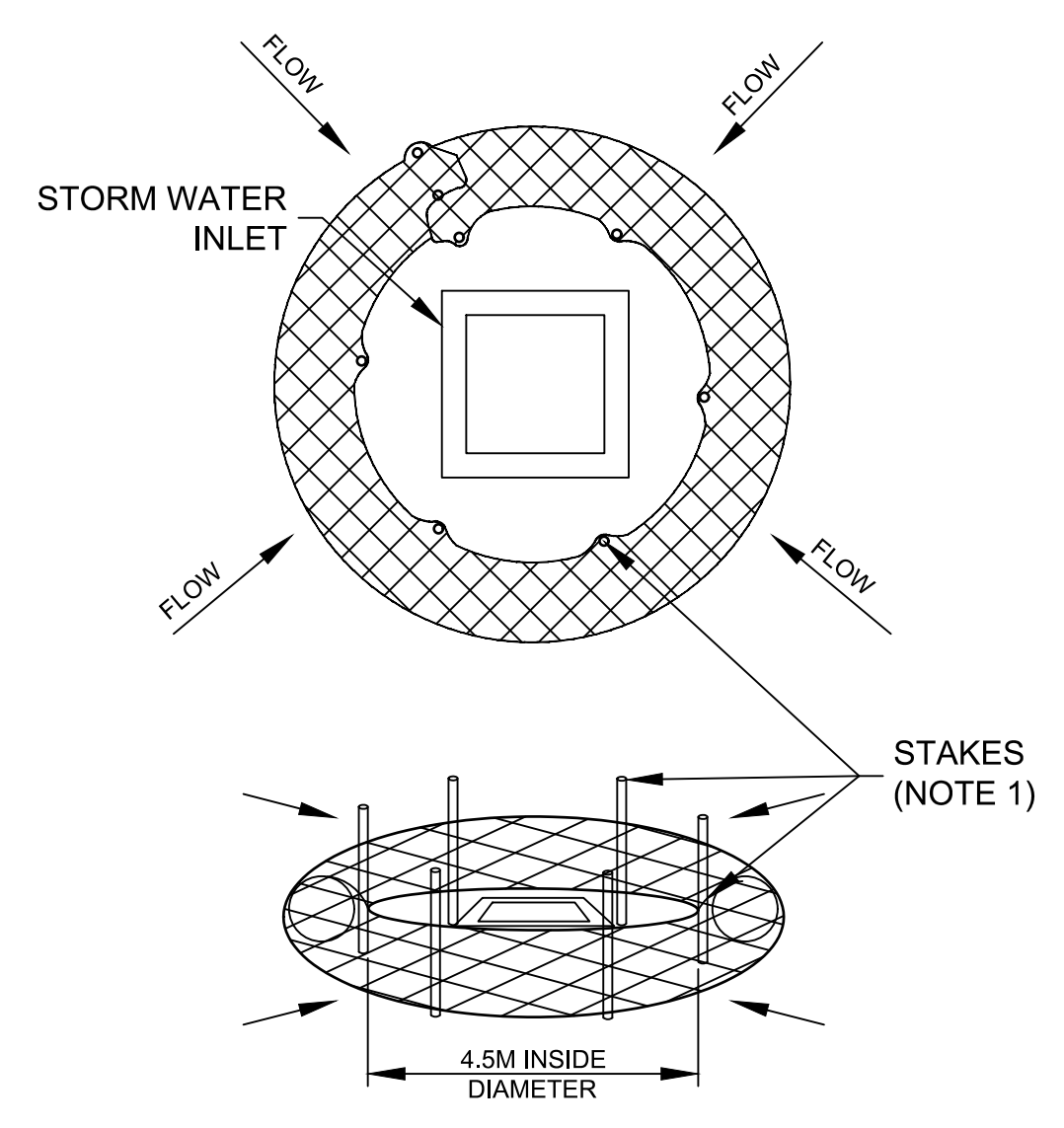
**D4 TREE PROTECTION (BMP-4)**  
N. T. S.



**NOTE:**  
GRAVEL PAD IS REQUIRED TO PROVIDE BUFFER AREA WHERE VEHICLES CAN DROP THEIR MUD AND SEDIMENT TO AVOID TRANSPORTING IT ONTO PAVED STREETS, TO CONTROL EROSION FROM SURFACE RUNOFF, AND TO HELP CONTROL DUST.

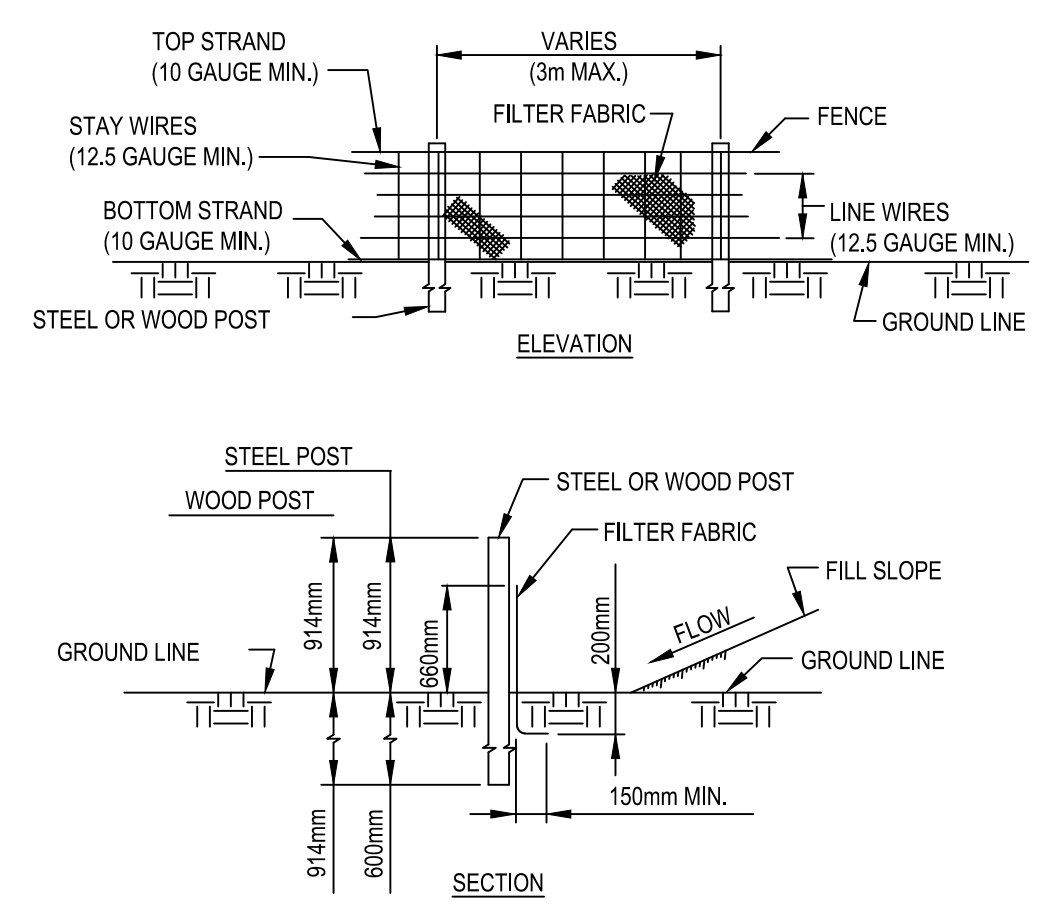
CRUSHED AGGREGATE ENTRANCE/EXIT PAD

**D7 CONSTRUCTION TRACKING CONTROL (BMP-6)**  
N. T. S.



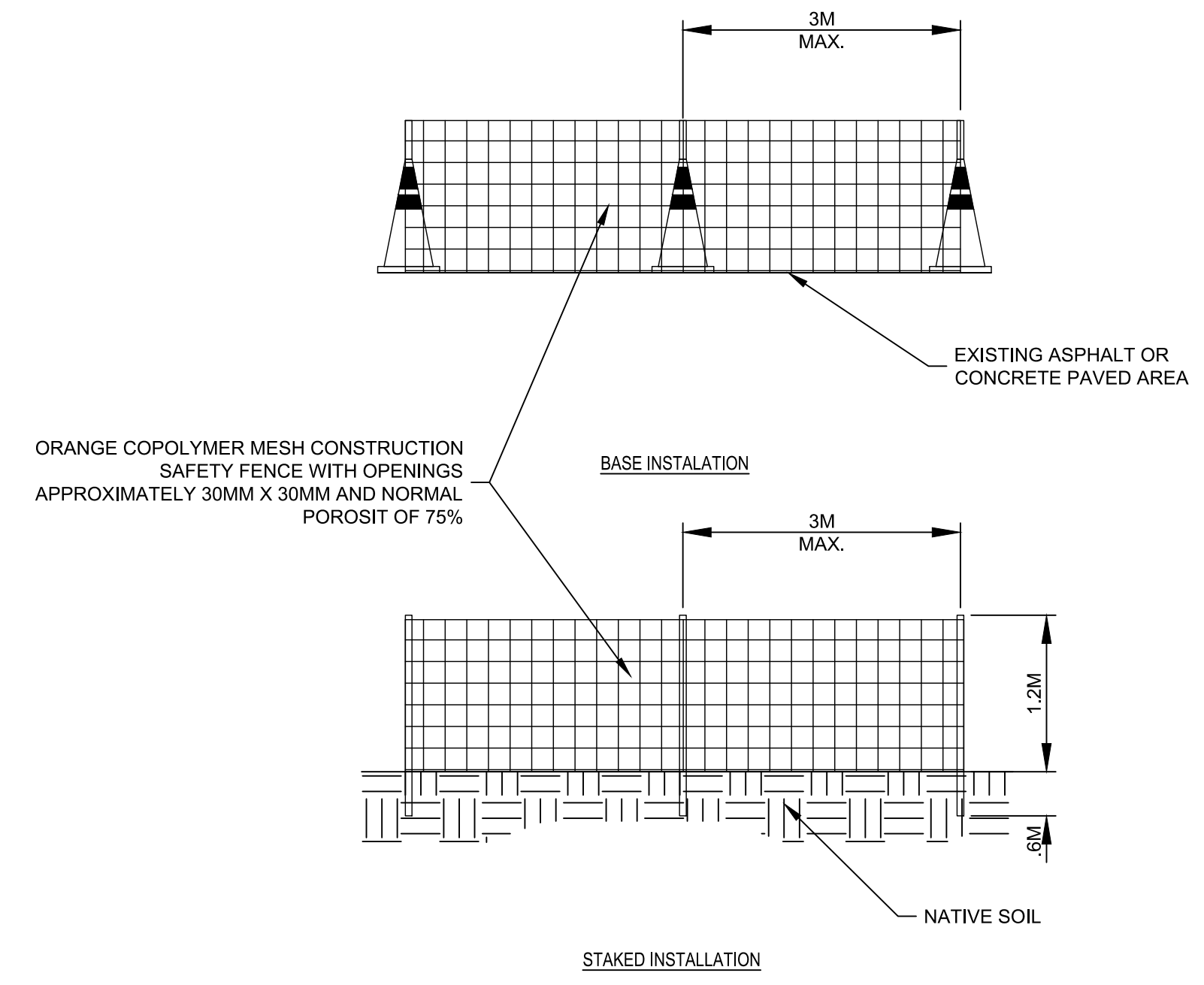
- NOTES:**
- STAKES SHALL BE SIZED, SPACED AND OF A MATERIAL THAT WILL EFFECTIVELY SECURE THE WATTLE.
  - REFER TO MANUFACTURER SPECIFICATIONS ON OVERLAPPING ENDS (.3M TO 1M MAX).

**A1 WATTLE INLET PROTECTION (BMP-1)**  
N. T. S.



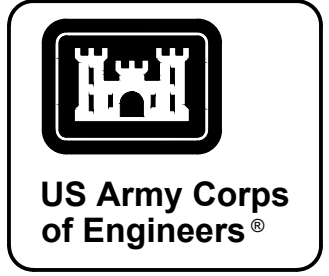
- NOTES:**
- SILT FENCE MAY BE INSTALLED ALONG TOE OF EMBANKMENTS, ALONG AREAS OF DISTURBED GROUND, AND AROUND STORM DRAIN INLETS AND MANHOLES.
  - WIRE SHALL BE A MIN. WIDTH OF 32 WITH A MIN. OF 6 LINE WIRES WITH 300mm STAY SPACING.
  - FILTER FABRIC MIN. WIDTH IS 1.0m.
  - FILTER FABRIC TO BE SECURELY FASTENED TO THE WIRE.
  - STEEL POSTS TO BE 1.6m IN LENGTH AND SELF-FASTENER ANGLE STEEL TYPE.
  - WOOD POSTS TO BE A MIN. OF 1.8m IN LENGTH AND 75mm OR MORE IN DIAMETER.
  - WIRE FABRIC TO BE FASTENED TO WOOD POST WITH NOT LESS THAN NO. 9 WIRE STAPLES, 37.5mm LONG.
  - ACCUMULATED SEDIMENTS SHALL BE REMOVED PERIODICALLY AS NECESSARY OR DIRECTED.
  - THE FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:  
A. EOS IS NOT LARGER THAN U.S. STANDARD SIEVE NO.70  
A. GRAB STRENGTH 40.8-54.4 kg  
B. CONFORM TO ASTM D-1682 OR ASTM D-177

**A4 SILT FENCE (BMP-4)**  
N. T. S.



- NOTES:**
- CONTRACTOR SHALL INSERT 1.2M LONG WOODEN SUPPORT POST INTO CONE TO SERVE AS A BASE WHEN INSTALLING CONSTRUCTION SAFETY FENCE ON PAVED SURFACES.
  - CONTRACTOR MAY USE OTHER METHOD IN PAVED AREAS IF APPROVED BY THE COR.
  - CONTRACTOR IS RESPONSIBLE FOR SECURING THE CONSTRUCTION FENCING TO THE SUPPORTS TO LIMIT THE POTENTIAL FOR PEDESTRIANS ACCESS TO THE CONSTRUCTION SITE.

**A7 CONSTRUCTION SAFETY FENCE (BMP-5)**  
N. T. S.



DATE	DESCRIPTION	MARK

DESIGNED BY: DPO	ISSUE DATE: 01/19/2019
DRAWN BY: KPK	SOLUTION NO.: W812713R028
CHECKED BY: CPE	CONTRACT NO.:
SUBMITTED BY: PWO	PROJECT NUMBER: M017ELJ44
FILE NAME: ANSI D	SIZE: M017ELJ44CG503.dwg

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**BMP DETAILS**

















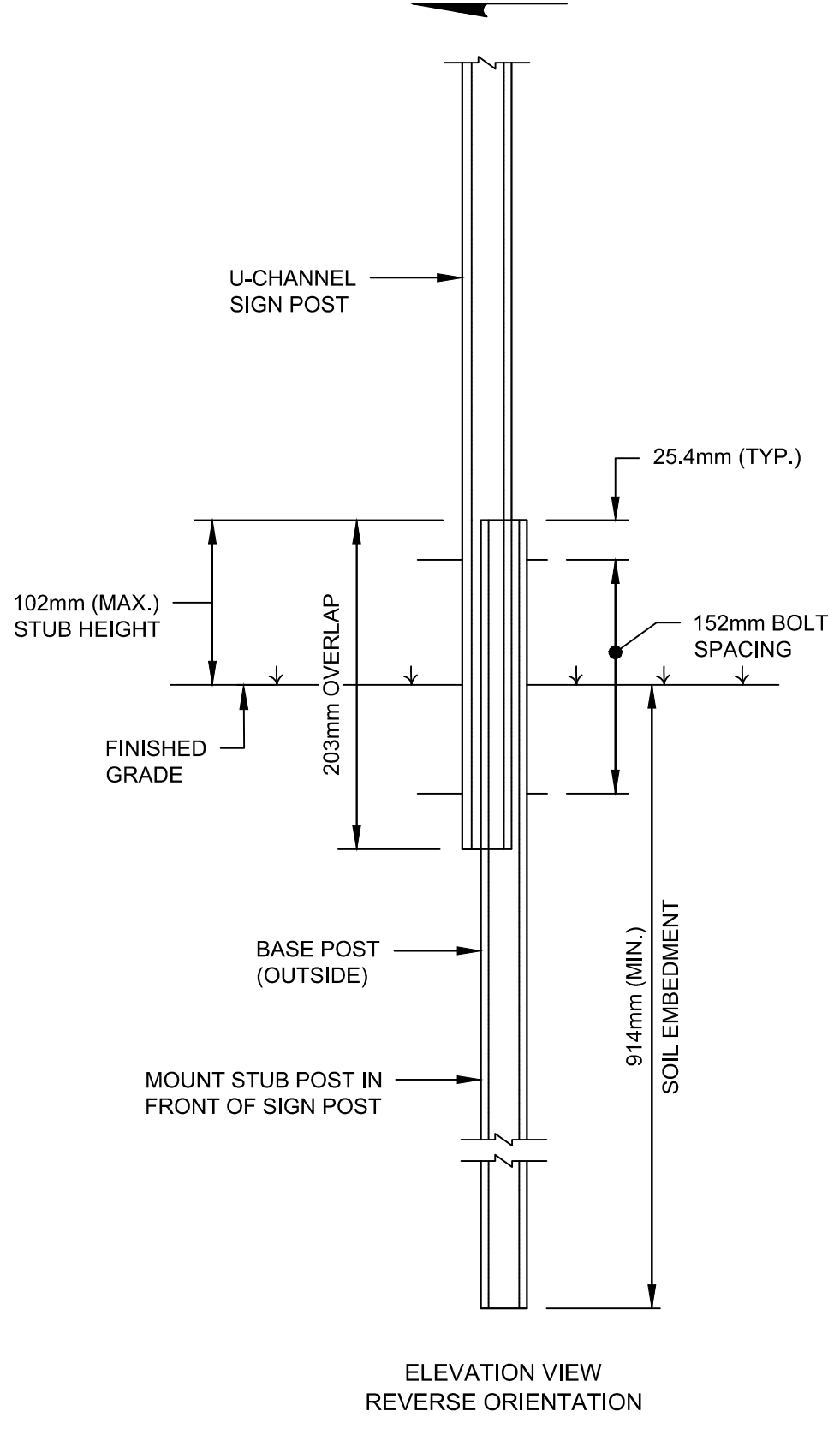




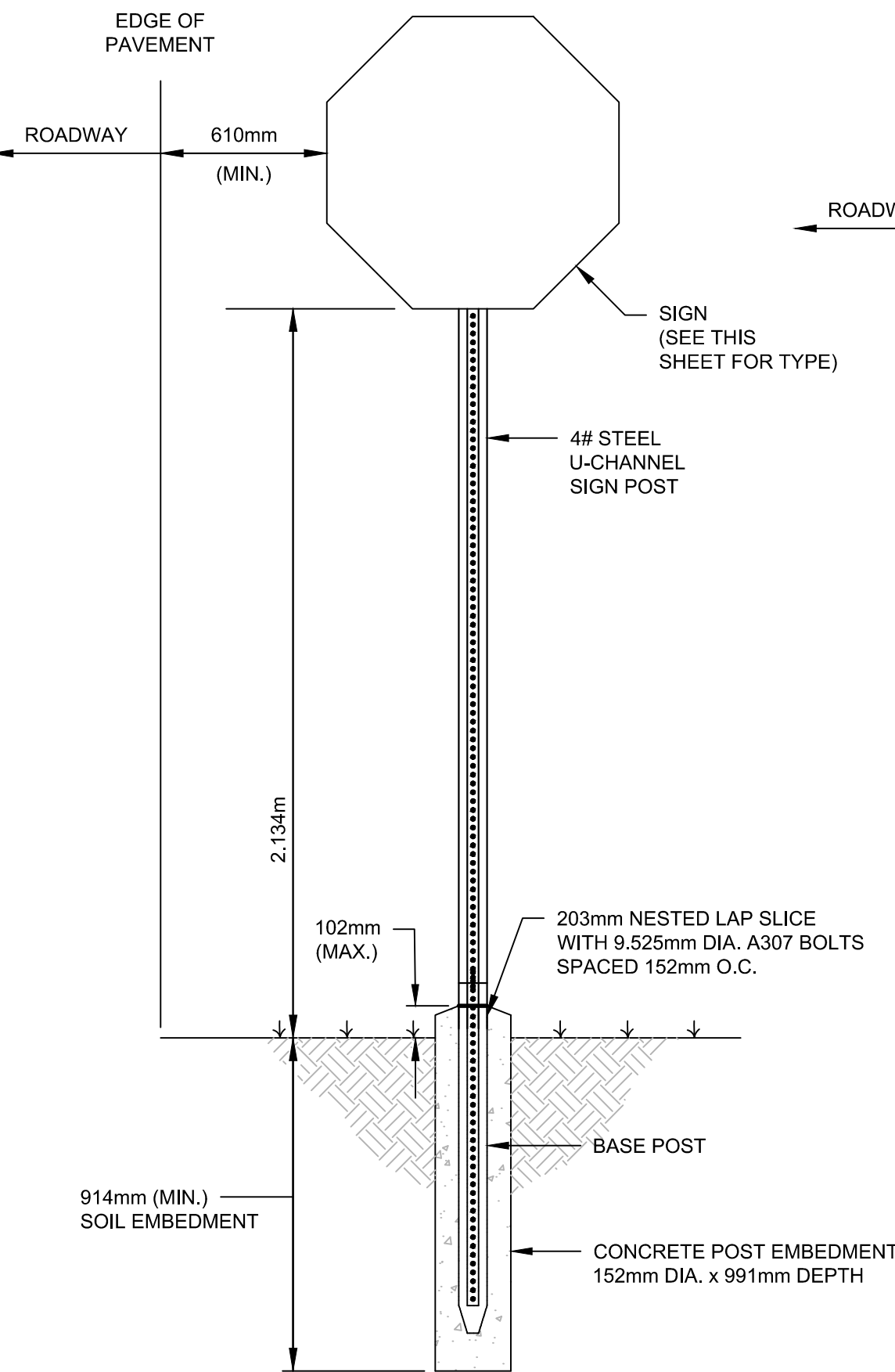




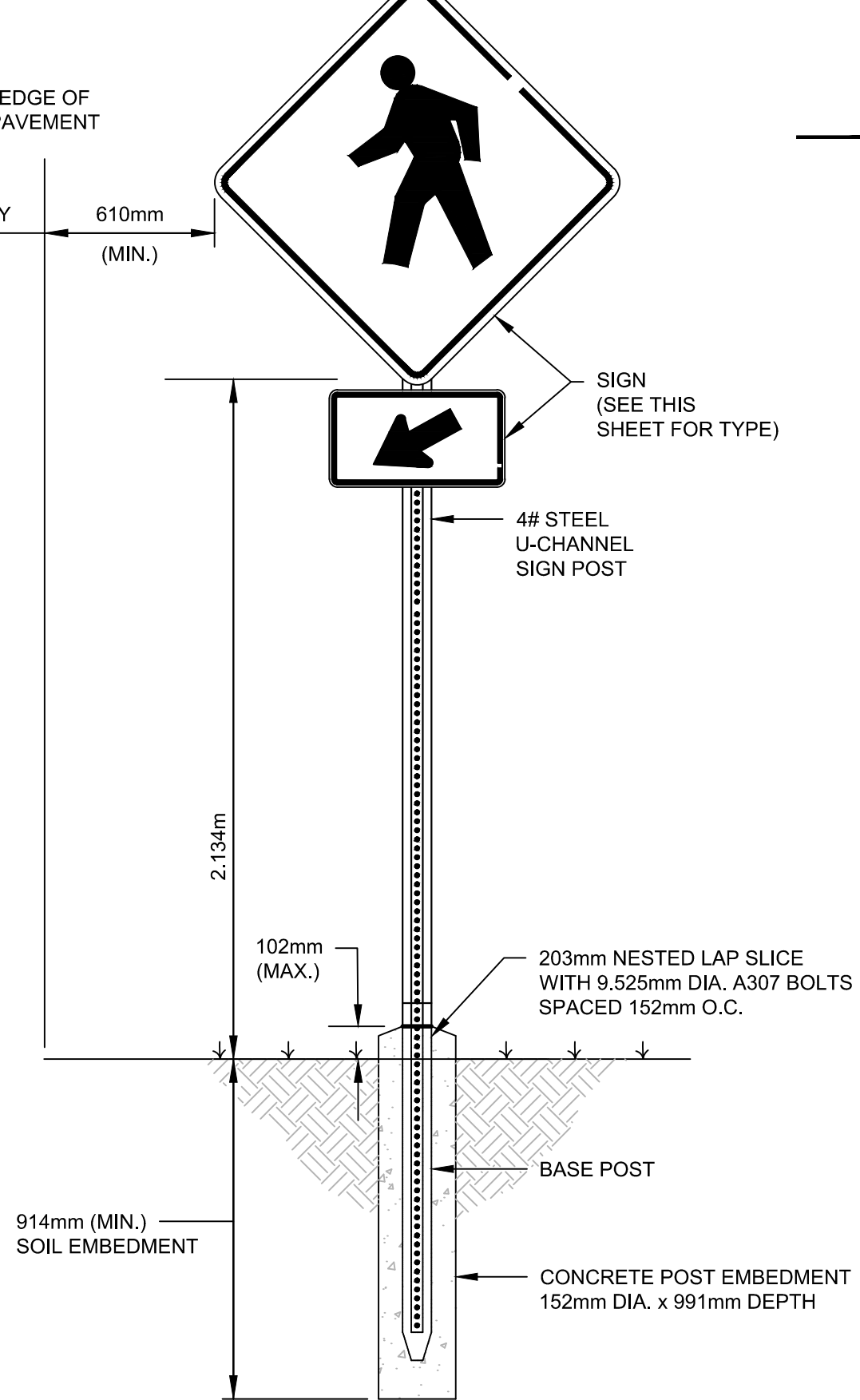
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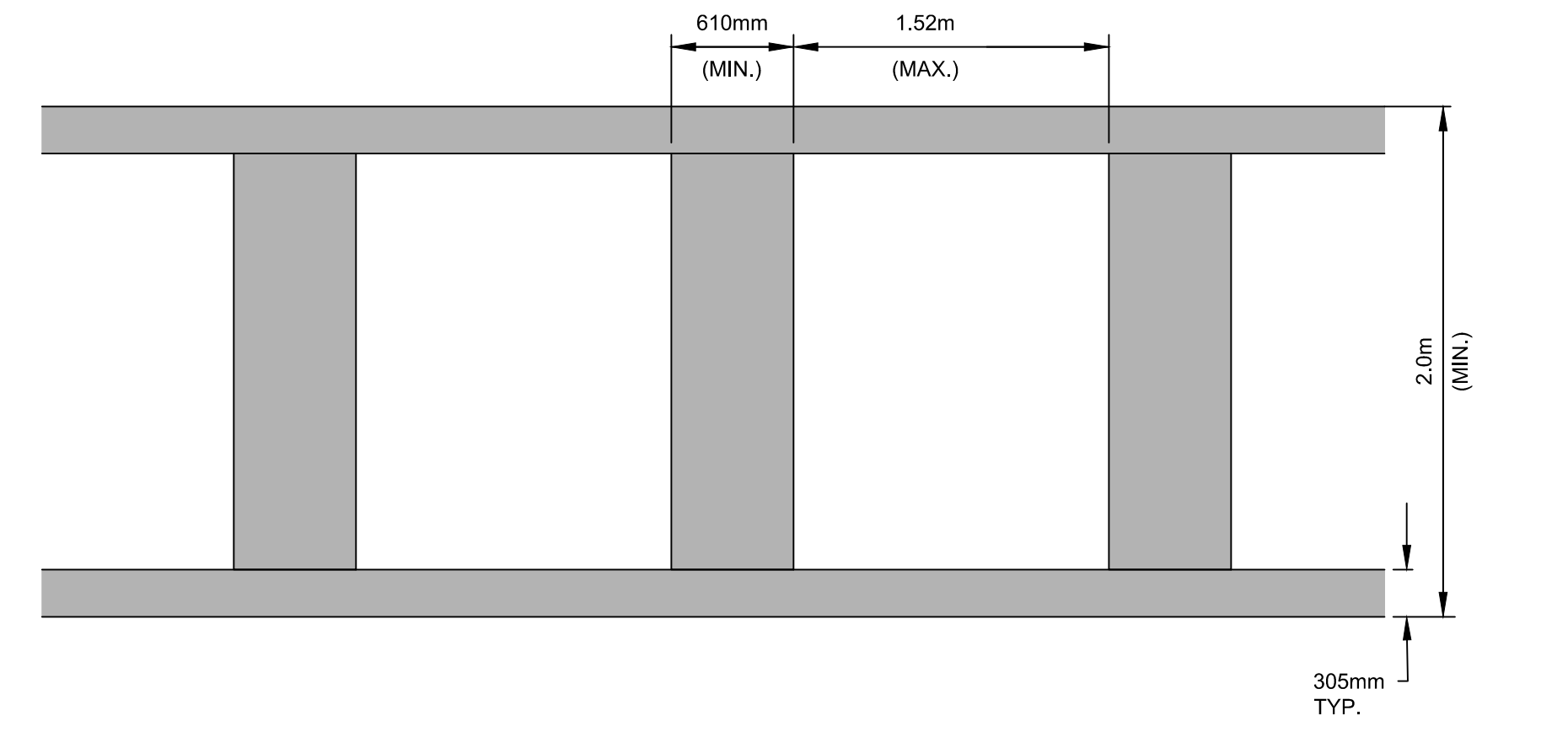
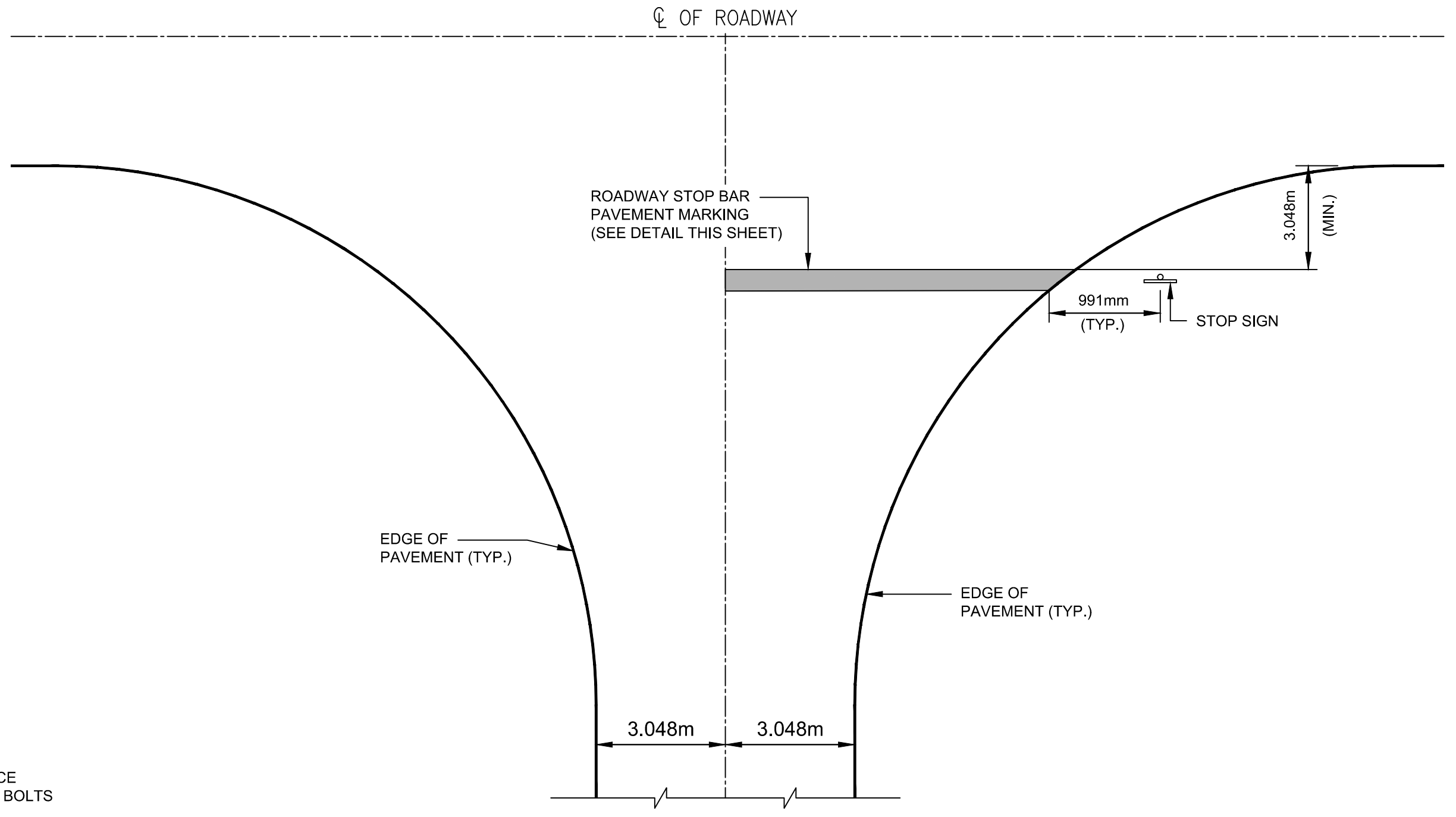
**D1** SPLICE DETAIL  
N. T. S.



**D3** TYPICAL SIGN INSTALLATION DETAIL  
N. T. S.



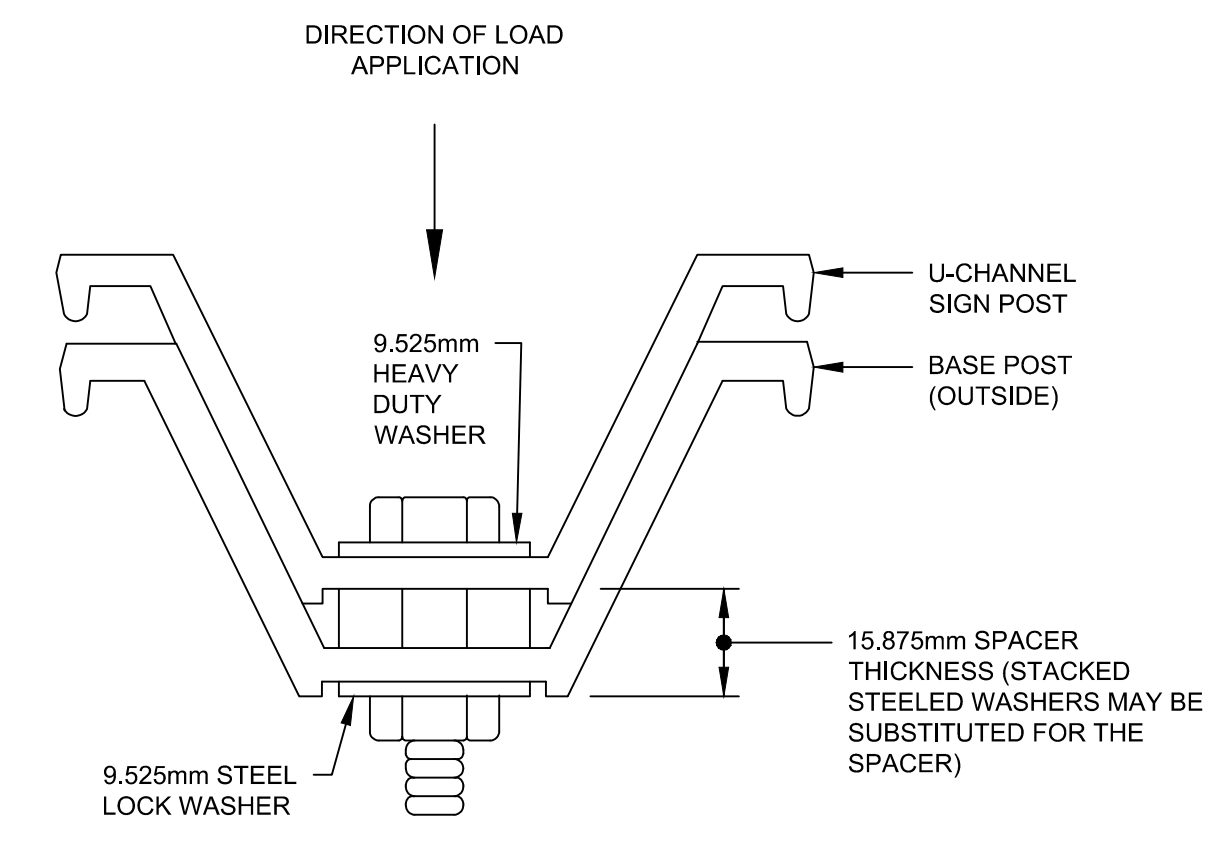
**E7** ROADWAY STOP BAR PAVEMENT MARKING PLACEMENT DETAIL  
N. T. S.



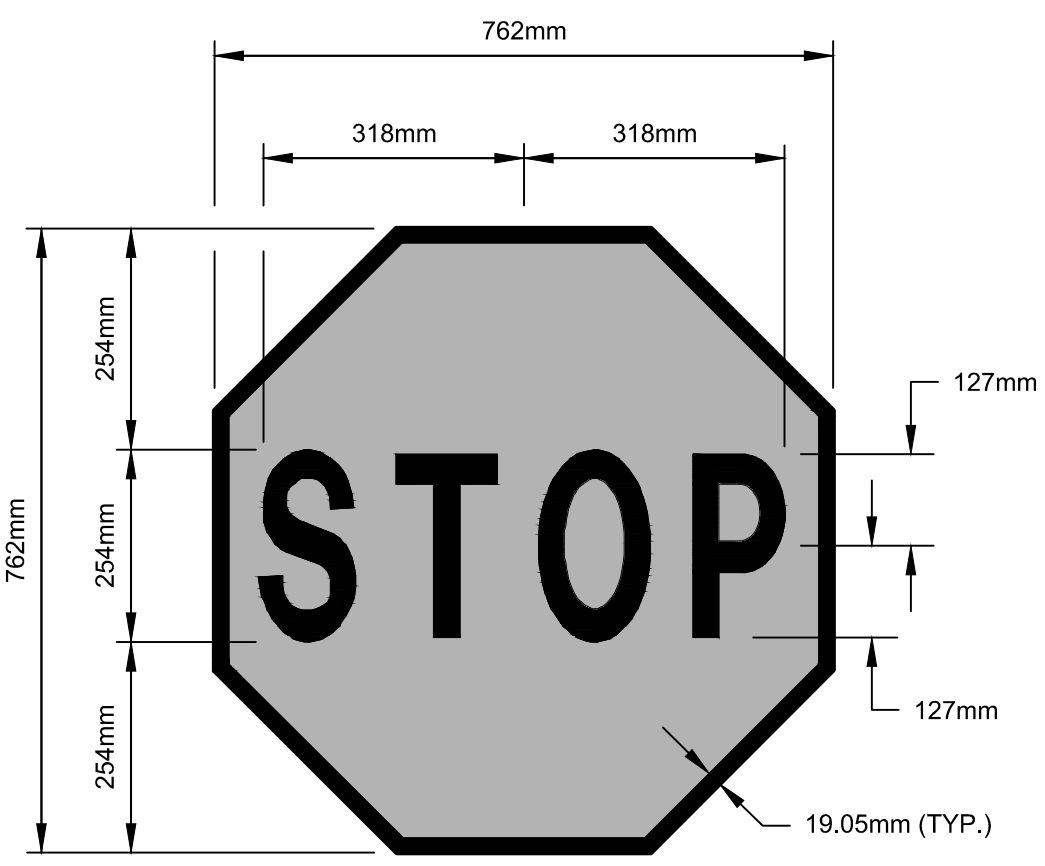
**C7** ROADWAY CROSSWALK  
N. T. S.

**SIGN INSTALLATION DETAILS**

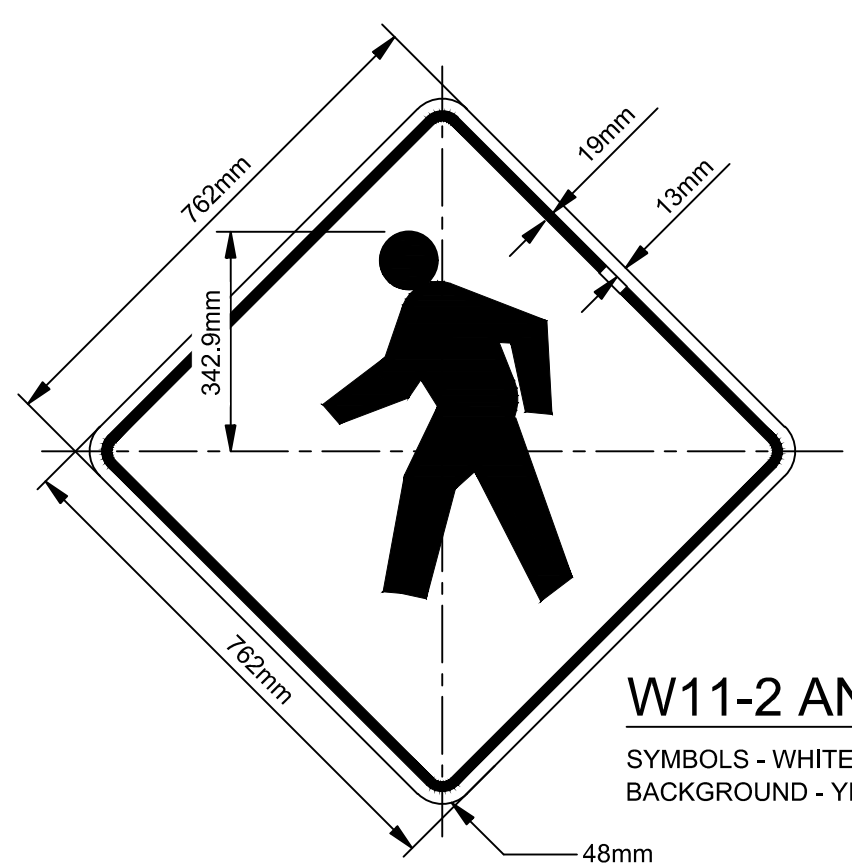
**NOTE:**  
REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION.



**A1** SPLICE SECTION  
N. T. S.



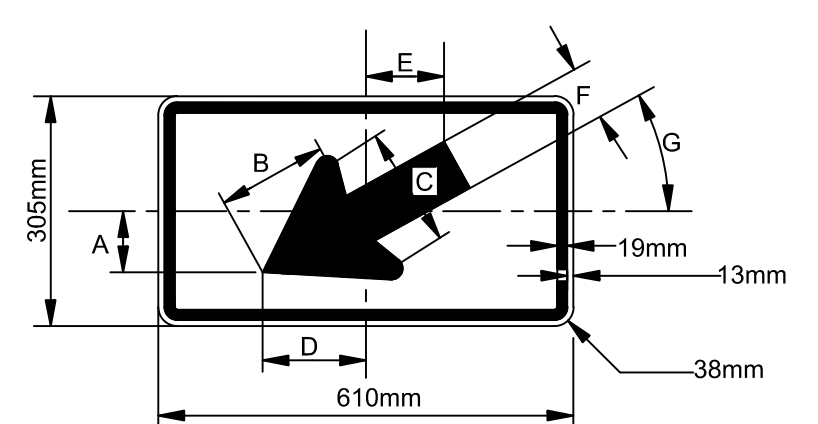
**A3** STOP SIGN DETAIL (R1-1)  
N. T. S.



**C5** LOCATION DESIGNATION (W16-7p)  
N. T. S.

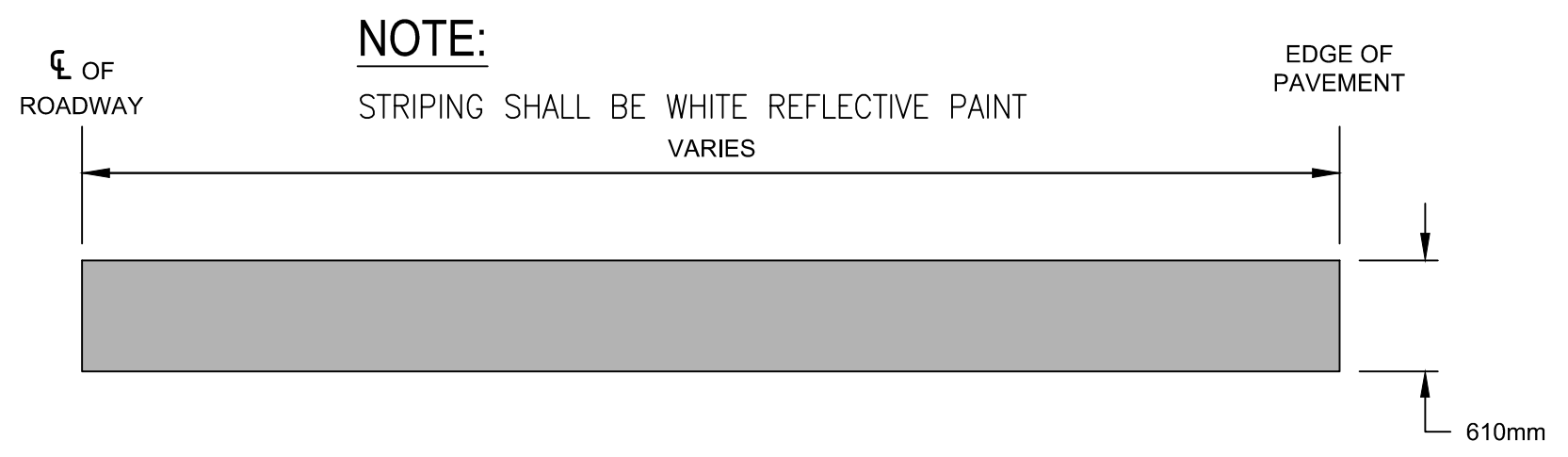
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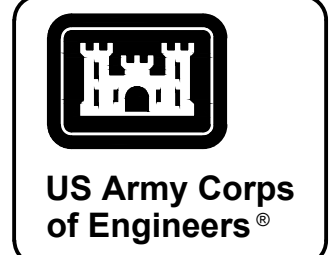


**A5** PEDESTRIAN CROSSING (W11-2)  
N. T. S.

**W11-2 AND W16-7 COLORS:**  
SYMBOLS - WHITE (RETROREFLECTIVE)  
BACKGROUND - YELLOW (RETROREFLECTIVE)



**A7** ROADWAY STOP BAR  
N. T. S.



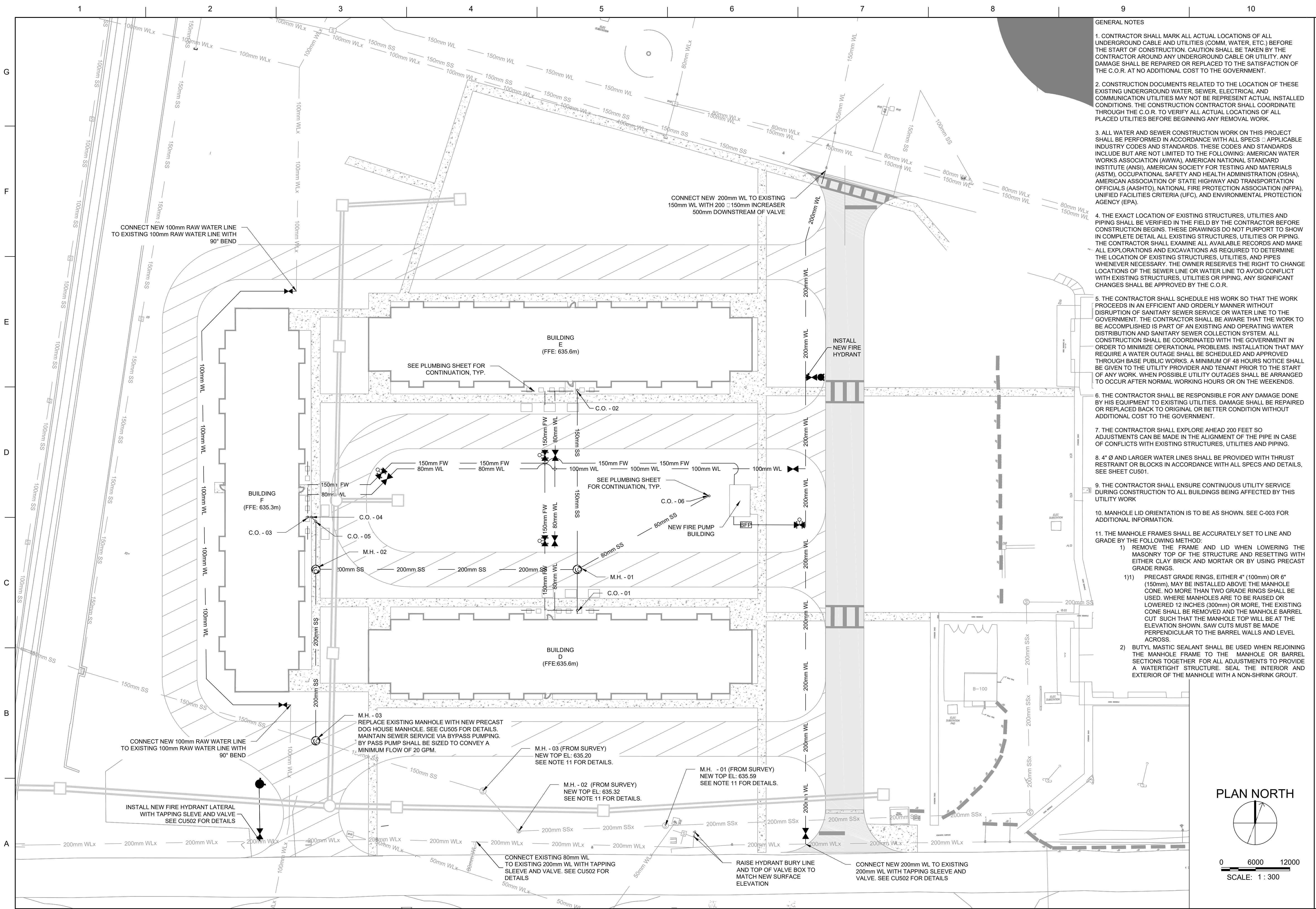
DATE	DESCRIPTION	MARK

ISSUE DATE: FEBRUARY 2019	DESIGNED BY: JBO	U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA
SOLICITATION NO.: CP505	DRAWN BY: CPE	UNACCOMPANIED ENLISTED PERSONNEL HOUSING
CONTRACT NO.: M017ELU44	CHECKED BY: PWO	PAVEMENT MARKING AND SIGN DETAILS
PROJECT NUMBER: M017ELU44	SUBMITTED BY: ANS/D	
FILE NAME: M017ELU44CP505.dwg	SIZE: 	

SHEET ID <b>CP505</b>
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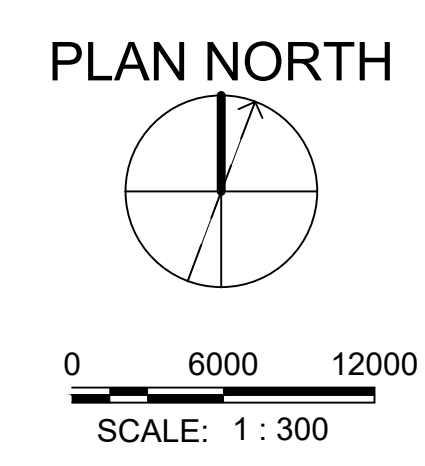






**GENERAL NOTES**

- CONTRACTOR SHALL MARK ALL ACTUAL LOCATIONS OF ALL UNDERGROUND CABLE AND UTILITIES (COMM, WATER, ETC.) BEFORE THE START OF CONSTRUCTION. CAUTION SHALL BE TAKEN BY THE CONTRACTOR AROUND ANY UNDERGROUND CABLE OR UTILITY. ANY DAMAGE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE C.O.R. AT NO ADDITIONAL COST TO THE GOVERNMENT.
- CONSTRUCTION DOCUMENTS RELATED TO THE LOCATION OF THESE EXISTING UNDERGROUND WATER, SEWER, ELECTRICAL AND COMMUNICATION UTILITIES MAY NOT BE REPRESENT ACTUAL INSTALLED CONDITIONS. THE CONSTRUCTION CONTRACTOR SHALL COORDINATE THROUGH THE C.O.R. TO VERIFY ALL ACTUAL LOCATIONS OF ALL PLACED UTILITIES BEFORE BEGINNING ANY REMOVAL WORK.
- ALL WATER AND SEWER CONSTRUCTION WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL SPECS & APPLICABLE INDUSTRY CODES AND STANDARDS. THESE CODES AND STANDARDS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: AMERICAN WATER WORKS ASSOCIATION (AWWA), AMERICAN NATIONAL STANDARD INSTITUTE (ANSI), AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), UNIFIED FACILITIES CRITERIA (UFC), AND ENVIRONMENTAL PROTECTION AGENCY (EPA).
- THE EXACT LOCATION OF EXISTING STRUCTURES, UTILITIES AND PIPING SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE CONSTRUCTION BEGINS. THESE DRAWINGS DO NOT PURPORT TO SHOW IN COMPLETE DETAIL ALL EXISTING STRUCTURES, UTILITIES OR PIPING. THE CONTRACTOR SHALL EXAMINE ALL AVAILABLE RECORDS AND MAKE ALL EXPLORATIONS AND EXCAVATIONS AS REQUIRED TO DETERMINE THE LOCATION OF EXISTING STRUCTURES, UTILITIES, AND PIPES WHENEVER NECESSARY. THE OWNER RESERVES THE RIGHT TO CHANGE LOCATIONS OF THE SEWER LINE OR WATER LINE TO AVOID CONFLICT WITH EXISTING STRUCTURES, UTILITIES OR PIPING, ANY SIGNIFICANT CHANGES SHALL BE APPROVED BY THE C.O.R.
- THE CONTRACTOR SHALL SCHEDULE HIS WORK SO THAT THE WORK PROCEEDS IN AN EFFICIENT AND ORDERLY MANNER WITHOUT DISRUPTION OF SANITARY SEWER SERVICE OR WATER LINE TO THE GOVERNMENT. THE CONTRACTOR SHALL BE AWARE THAT THE WORK TO BE ACCOMPLISHED IS PART OF AN EXISTING AND OPERATING WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEM. ALL CONSTRUCTION SHALL BE COORDINATED WITH THE GOVERNMENT IN ORDER TO MINIMIZE OPERATIONAL PROBLEMS. INSTALLATION THAT MAY REQUIRE A WATER OUTAGE SHALL BE SCHEDULED AND APPROVED THROUGH BASE PUBLIC WORKS. A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN TO THE UTILITY PROVIDER AND TENANT PRIOR TO THE START OF ANY WORK. WHEN POSSIBLE UTILITY OUTAGES SHALL BE ARRANGED TO OCCUR AFTER NORMAL WORKING HOURS OR ON THE WEEKENDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE BY HIS EQUIPMENT TO EXISTING UTILITIES. DAMAGE SHALL BE REPAIRED OR REPLACED BACK TO ORIGINAL OR BETTER CONDITION WITHOUT ADDITIONAL COST TO THE GOVERNMENT.
- THE CONTRACTOR SHALL EXPLORE AHEAD 200 FEET SO ADJUSTMENTS CAN BE MADE IN THE ALIGNMENT OF THE PIPE IN CASE OF CONFLICTS WITH EXISTING STRUCTURES, UTILITIES AND PIPING.
- 4" Ø AND LARGER WATER LINES SHALL BE PROVIDED WITH THRUST RESTRAINT OR BLOCKS IN ACCORDANCE WITH ALL SPECS AND DETAILS. SEE SHEET CU501.
- THE CONTRACTOR SHALL ENSURE CONTINUOUS UTILITY SERVICE DURING CONSTRUCTION TO ALL BUILDINGS BEING AFFECTED BY THIS UTILITY WORK
- MANHOLE LID ORIENTATION IS TO BE AS SHOWN. SEE C-003 FOR ADDITIONAL INFORMATION.
- THE MANHOLE FRAMES SHALL BE ACCURATELY SET TO LINE AND GRADE BY THE FOLLOWING METHOD:
  - REMOVE THE FRAME AND LID WHEN LOWERING THE MASONRY TOP OF THE STRUCTURE AND RESETTING WITH EITHER CLAY BRICK AND MORTAR OR BY USING PRECAST GRADE RINGS.
  - PRECAST GRADE RINGS, EITHER 4" (100mm) OR 6" (150mm), MAY BE INSTALLED ABOVE THE MANHOLE CONE. NO MORE THAN TWO GRADE RINGS SHALL BE USED. WHERE MANHOLES ARE TO BE RAISED OR LOWERED 12 INCHES (300mm) OR MORE, THE EXISTING CONE SHALL BE REMOVED AND THE MANHOLE BARREL CUT SUCH THAT THE MANHOLE TOP WILL BE AT THE ELEVATION SHOWN. SAW CUTS MUST BE MADE PERPENDICULAR TO THE BARREL WALLS AND LEVEL ACROSS.
  - BUTYL MASTIC SEALANT SHALL BE USED WHEN REJOINING THE MANHOLE FRAME TO THE MANHOLE OR BARREL SECTIONS TOGETHER FOR ALL ADJUSTMENTS TO PROVIDE A WATERTIGHT STRUCTURE. SEAL THE INTERIOR AND EXTERIOR OF THE MANHOLE WITH A NON-SHRINK GROUT.



US Army Corps of Engineers

DATE	DESCRIPTION	MARK

ISSUE DATE: FEBRUARY 2019	SOLICITATION NO.:	PROJECT NUMBER:
DESIGNED BY: JMEC	DRAWN BY: SUT/BERGUS	FILE NAME: M017ELU44
CHECKED BY: PWO	SUBMITTED BY: JWF	SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

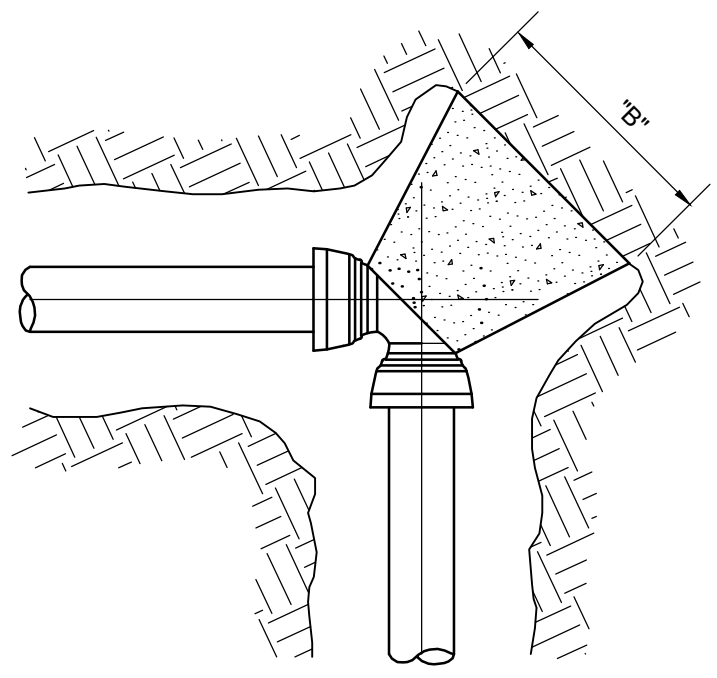
OVERALL WATER & WASTEWATER PLAN

SHEET ID  
**CU101**

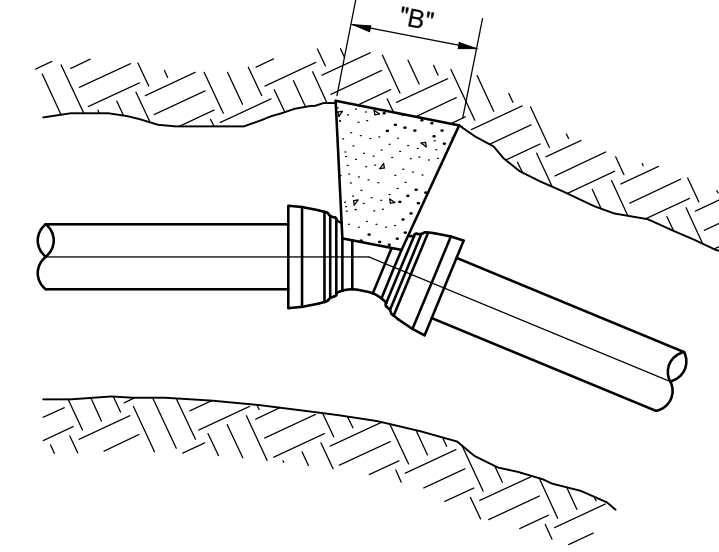




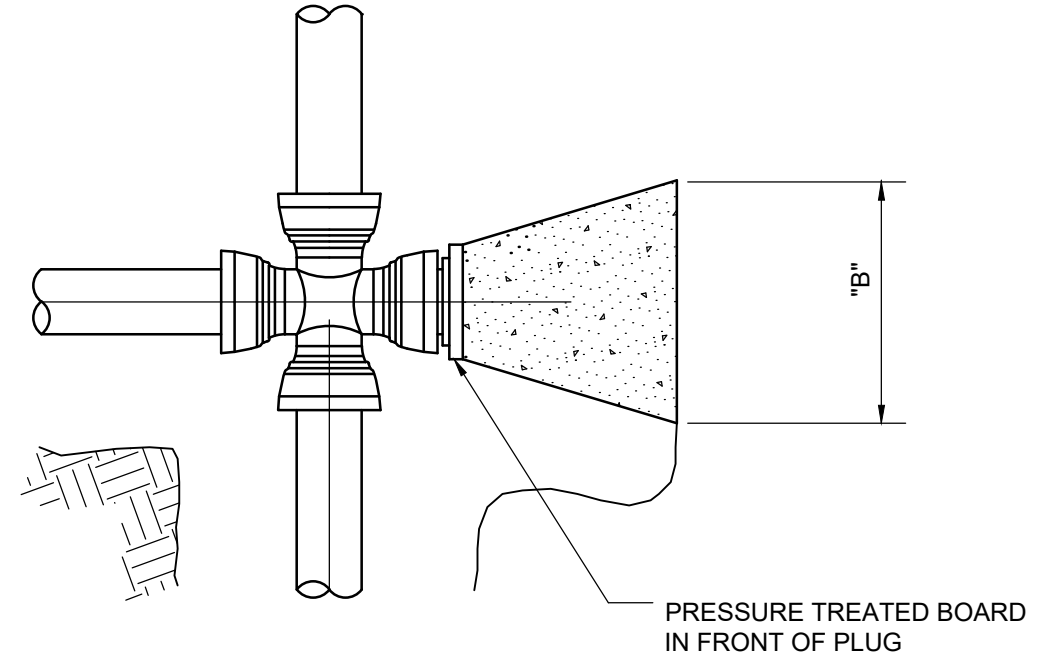
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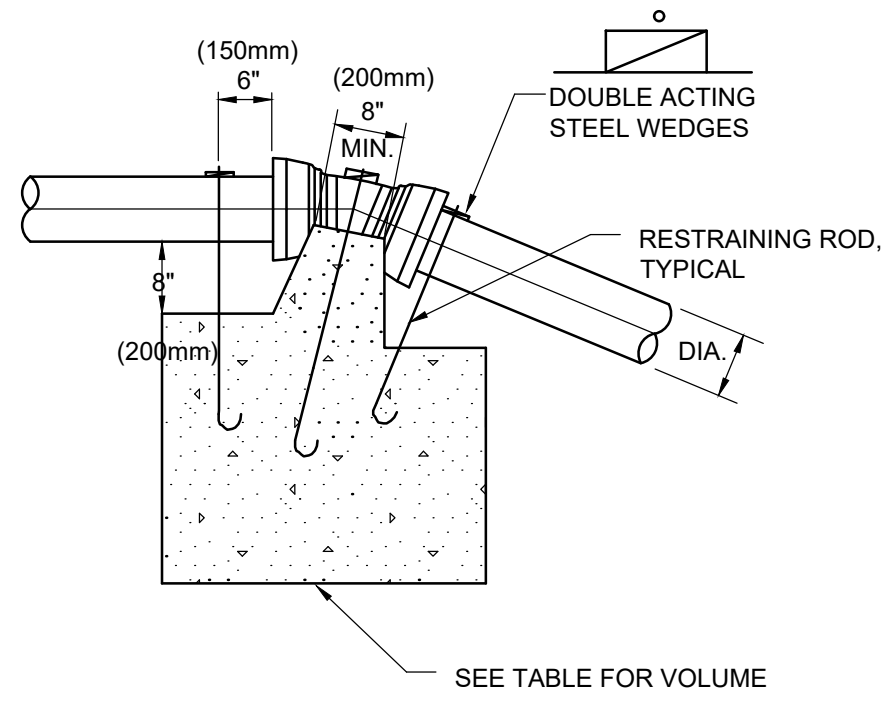
**F1** 90 DEG. BEND  
N.T.S.



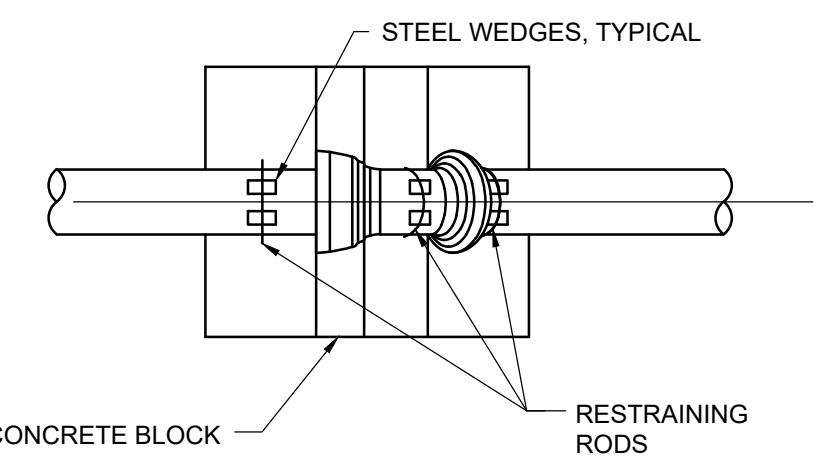
**F3** 45 DEG., 22.5 DEG., 11.25 DEG. BENDS  
N.T.S.



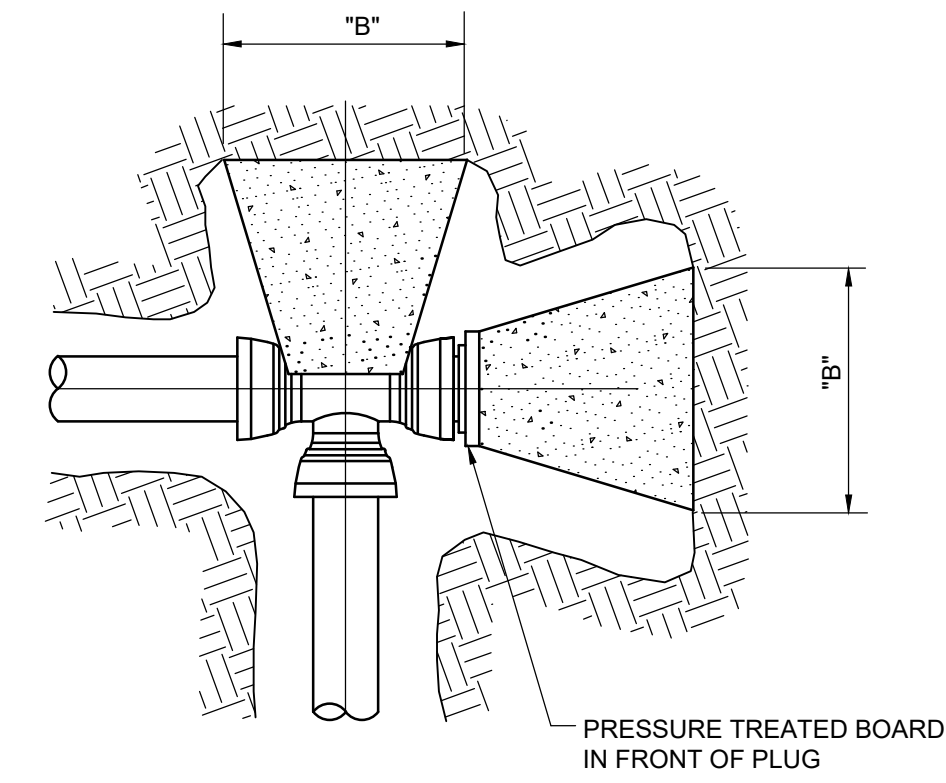
**F5** CROSS WITH PLUG  
N.T.S.



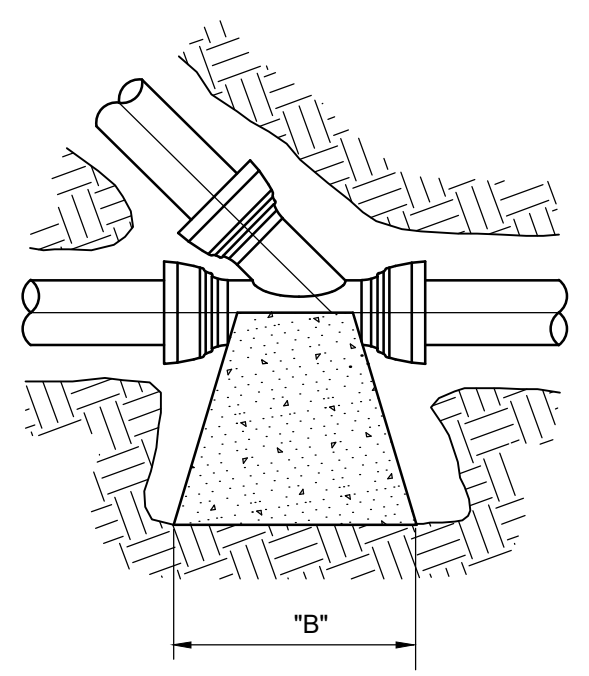
**F7** ELEVATION  
N.T.S.



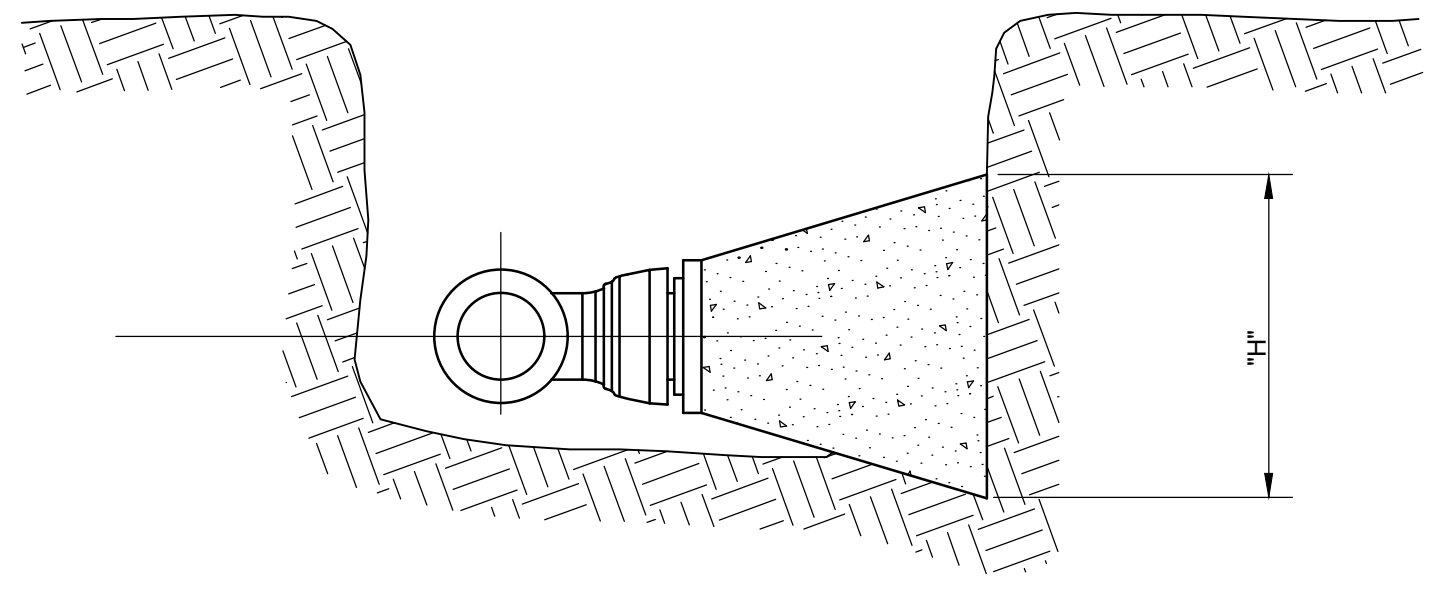
**F9** PLAN  
N.T.S.



**D1** TEE WITH PLUG  
N.T.S.



**D3** LATERAL  
N.T.S.



**D5** TYPICAL SECTION  
N.T.S.

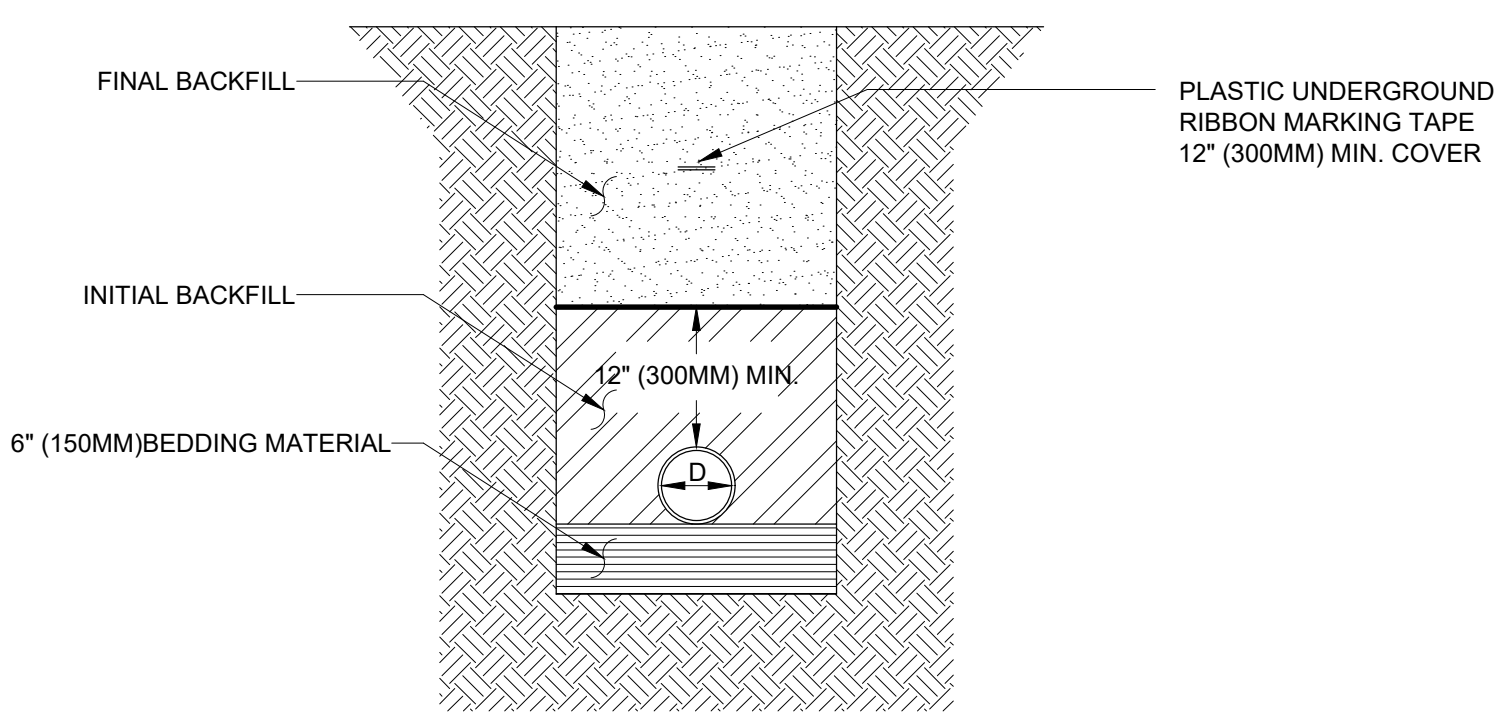
DOWN BEND THRUST BLOCKS

PIPE SIZE (DIA.)	DOWN BEND THRUST BLOCKS			
	90 DEG. BEND	45 DEG. BEND WYE	22 1/2 DEG. BEND	11 1/4 DEG. BEND
4" (100mm)	14 (0.40)	10 (0.28)	5.5 (0.15)	3 (0.08)
6" (150mm)	56 (1.58)	40 (1.13)	22 (0.62)	11 (0.31)
8" (200mm)	100 (2.83)	71 (2.01)	38 (1.07)	20 (0.56)
10" (250mm)	160 (4.52)	112 (3.17)	60 (1.70)	31 (0.88)
12" (300mm)	226 (6.39)	160 (4.52)	86 (2.43)	44 (1.24)
14" (350mm)	308 (8.71)	218 (6.16)	118 (3.34)	60 (1.70)

REQUIRED THRUST BLOCK BEARING AREA						
SOIL BEARING 2000 P.S.F. (96 KP) - TEST PRESSURE 200 P.S.I. (1379 KP)						
PIPE SIZE	90 DEG. BEND	45 DEG. BEND WYE	22 1/2 DEG. BEND	11 1/4 DEG. BEND	TEE	PLUG FOR FUTURE CONNECTION
	"H" X "B"	"H" X "B"	"H" X "B"	"H" X "B"	"H" X "B"	"H" X "B"
4" (100mm)	2.9 FT. <sup>2</sup> (0.27 M) <sup>2</sup>	1.7 FT. <sup>2</sup> (0.15 M) <sup>2</sup>	0.8 FT. <sup>2</sup> (0.08 M) <sup>2</sup>	0.6 FT. <sup>2</sup> (0.05 M) <sup>2</sup>	2.1 FT. <sup>2</sup> (0.11 M) <sup>2</sup>	1.8 FT. <sup>2</sup> (0.17 M) <sup>2</sup>
6" (150mm)	6.0 FT. <sup>2</sup> (0.56 M) <sup>2</sup>	3.3 FT. <sup>2</sup> (0.31 M) <sup>2</sup>	1.7 FT. <sup>2</sup> (0.15 M) <sup>2</sup>	0.8 FT. <sup>2</sup> (0.08 M) <sup>2</sup>	4.3 FT. <sup>2</sup> (0.40 M) <sup>2</sup>	3.3 FT. <sup>2</sup> (0.31 M) <sup>2</sup>
8" (200mm)	10.6 FT. <sup>2</sup> (0.99 M) <sup>2</sup>	5.8 FT. <sup>2</sup> (0.54 M) <sup>2</sup>	3.0 FT. <sup>2</sup> (0.28 M) <sup>2</sup>	1.5 FT. <sup>2</sup> (0.14 M) <sup>2</sup>	7.5 FT. <sup>2</sup> (0.70 M) <sup>2</sup>	5.8 FT. <sup>2</sup> (0.54 M) <sup>2</sup>
10" (250mm)	16.7 FT. <sup>2</sup> (1.55 M) <sup>2</sup>	9.0 FT. <sup>2</sup> (0.84 M) <sup>2</sup>	4.6 FT. <sup>2</sup> (0.43 M) <sup>2</sup>	2.3 FT. <sup>2</sup> (0.22 M) <sup>2</sup>	11.8 FT. <sup>2</sup> (1.10 M) <sup>2</sup>	8.9 FT. <sup>2</sup> (0.83 M) <sup>2</sup>
12" (300mm)	24.0 FT. <sup>2</sup> (2.23 M) <sup>2</sup>	13.0 FT. <sup>2</sup> (1.20 M) <sup>2</sup>	6.7 FT. <sup>2</sup> (0.62 M) <sup>2</sup>	3.3 FT. <sup>2</sup> (0.31 M) <sup>2</sup>	17.0 FT. <sup>2</sup> (1.58 M) <sup>2</sup>	12.0 FT. <sup>2</sup> (1.12 M) <sup>2</sup>
14" (350mm)	32.7 FT. <sup>2</sup> (3.04 M) <sup>2</sup>	17.7 FT. <sup>2</sup> (1.64 M) <sup>2</sup>	9.0 FT. <sup>2</sup> (0.84 M) <sup>2</sup>	4.5 FT. <sup>2</sup> (0.42 M) <sup>2</sup>	23.0 FT. <sup>2</sup> (2.14 M) <sup>2</sup>	15.6 FT. <sup>2</sup> (1.5 M) <sup>2</sup>

NOTES

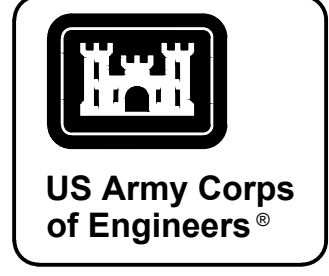
1. TABLES ARE BASED ON 2000 LBS./SQ. FT. ( 97.9 KN/m<sup>2</sup>) SOIL BEARING PRESSURE. CORRECTION FACTORS FOR OTHER SOILS ARE AS FOLLOWS: SOFT CLAY 4; SAND 2; SAND AND GRAVEL 1.33; SHALE 0.4.
2. PRESSURE USED IS 150 PSI (10.55 KN/m<sup>2</sup>) WORKING PRESSURE PLUS 100 PSI (7.03 KN/m<sup>2</sup>) ALLOWANCE FOR WATER HAMMER.
3. THRUST PRESSURE WAS COMPUTED USING THE FOLLOWING FORMULA:  
P = 125 H A SIN 0.2.



**A8** SINGLE PIPE TRENCH BEDDING DETAIL  
N.T.S.

NOTES:

1. EXCAVATE FOR PIPE BELLS. BACKFILL AND COMPACT IN ACCORDANCE WITH SPEC SECTION 31 00 00.
2. MINIMUM COVER SHALL BE 36" (900MM) OVER TOP OF PIPE FOR WATER AND 24" (600MM) FOR SEWER.



DATE	DESCRIPTION	MARK

ISSUE DATE: FEBRUARY 2019	DESIGNED BY: JMEC	U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA
SOLICITATION NO.: W19BTR08	DRAWN BY: JMEC	FILE NAME: M017ELU44
CONTRACT NO.:	CHECKED BY: ACR	SIZE: ANSI D
PROJECT NUMBER: M017ELU44	SUBMITTED BY: CWB	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

WATER UTILITY DETAILS

SHEET ID  
**CU501**













ABBREVIATIONS:

Table of abbreviations and their corresponding full names, organized in columns A through G.

GENERAL NOTES:

- 1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK AT JOBSITE. COORDINATE THE LOCATION AND DIMENSIONS OF GROOVES, REGLETS, SLEEVES, OPENINGS, AND EMBEDDED OR ATTACHED ITEMS, REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PIPING DRAWINGS.

- 2. ALL STRUCTURAL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

- 3. PROVIDE TEMPORARY BRACING AND SHORING OF THE STRUCTURE AND COMPONENTS UNTIL ALL COMPONENTS ARE ERECTED AND ALL CONNECTIONS ARE FULLY MADE, AS NECESSARY, TO INSURE STABILITY DURING CONSTRUCTION. BRACE ALL WALLS DURING CONSTRUCTION AGAINST WIND AND/OR CONSTRUCTION LOADS.

- 4. ELEVATIONS ON THE STRUCTURAL DRAWINGS ARE DENOTED AS [XX.XXXmm] REFERENCED TO THE FINISHED FIRST FLOOR ELEVATION DATUM AS FOLLOWS:

Table listing elevations: BUILDING D - 635.6 M, BUILDING E - 635.6 M, BUILDING F - 635.3 M, FIRE PUMP BUILDING - 635.1 M

- 5. REPRODUCTION OF CONTRACT DRAWINGS SHALL NOT BE USED AS SHOP DRAWINGS UNDER ANY CIRCUMSTANCES.

- 6. REPORT DISCREPANCIES IN DIMENSIONS BETWEEN DIFFERENT DRAWINGS TO THE CONTRACTING OFFICER'S REPRESENTATIVE PRIOR TO BEGINNING WORK IN AREAS THAT WILL BE AFFECTED.

- 7. ELECTRICAL CONDUIT AND PLUMBING SHALL NOT PENETRATE FOOTINGS AND GRADE BEAMS.

STRUCTURAL DESIGN CRITERIA:

- 1. BUILDING CODES, STANDARDS, AND SPECIFICATIONS:
UFC 1-200-01 (JUNE 2016) GENERAL BUILDING REQUIREMENTS
UFC 3-301-01 (JUNE 2013) STRUCTURAL ENGINEERING, w/ CHANGE 3
UFC 3-310-04 (JUNE 2013) SEISMIC DESIGN FOR BUILDINGS, w/ CHANGE 1
UFC 4-010-01 (FEBRUARY 2012) DoD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS w/ CHANGE 3

2. STRUCTURAL DESIGN LOADS:

- A. DEAD LOADS
ACTUAL WEIGHTS OF MATERIALS USED

- B. LIVE LOADS: REDUCIBLE PER BUILDING CODE
ROOF LIVE LOADS.....0.958 kPa
CORRIDORS.....3.83 kPa
STAIRS AND EXITWAYS.....4.788 kPa
DAY ROOM.....4.788 kPa
MECHANICAL AND STORAGE ROOMS.....5.96 kPa
PRIVATE ROOMS.....(0.718 kPa ADDED FOR PARTITIONS) 2.63 kPa

- C. SNOW LOADS
GROUND SNOW LOAD.....Pg = 0 kg/m2

- C. WIND LOADS
BASIC WIND SPEED, V.....193 KM/H
EXPOSURE CATEGORY.....C
INTERNAL PRESSURE COEFFICIENTS:
BUILDING.....Gcpl = +/- 0.18 (ENCLOSED)

- D. SEISMIC LOADS
RISK CATEGORY.....II
RISK CATEGORY.....IV (FIRE PUMP BLDG)
IMPORTANCE FACTOR, I.....1.0
IMPORTANCE FACTOR, I.....1.5 (FIRE PUMP BLDG)
SITE (SOIL) CLASS.....D
Ss.....1.05g
S1.....0.05g
Fa.....1.08
Fv.....1.50
Sds.....0.756g
Sd1.....0.5g
SEISMIC DESIGN CATEGORY.....D

- SEISMIC FORCE RESISTING SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALLS
SEISMIC RESPONSE MODIFICATION FACTOR.....R = 5
SEISMIC RESPONSE COEFFICIENT.....Cs = 0.151 W

SEISMIC ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

FOUNDATION DESIGN

A. SITE PREPARATION:

- 1. EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

- 2. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICERS REPRESENTATIVE WHEN LOOSE OR SOFT SOILS ARE EXPOSED WHERE SLABS OR FOOTINGS ARE TO BE PLACED.

- 3. CAPILLARY WATER BARRIER SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATION SECTION 31 00 00.

- 4. OVEREXCAVATION AT COLUMN FOOTINGS:
SEE SITE DRAWINGS FOR EXCAVATION/FILL REQUIREMENTS. BACKFILL ALL OVEREXCAVATIONS WITH COMPACTED, SATISFACTORY FILL PER SPECIFICATION SECTION 31 00 00.

- 5. BACKFILL AROUND FOUNDATION WALLS SHALL BE PLACED ON EACH SIDE OF THE WALL IN EQUAL LIFTS.

- B. FOUNDATION DESIGN CRITERIA BASED ON GEOTECHNICAL REPORT PREPARED BY MOBILE DISTRICT CORPS OF ENGINEERS. ALLOWED BEARING CAPACITY = 143 kPa

COLD-FORMED STEEL FRAMING

- 1. ALL COLD FORMED FRAMING SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISI "COLD FORMED STEEL DESIGN MANUAL."

- 2. ALL COLD-FORMED STEEL FRAMING SHALL BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A-653.

- 3. ALL COLD-FORMED STEEL FRAMING, CONNECTORS, ETC. SHALL RECEIVE A G-60 GALVANIZED COATING.

- 4. CONTRACTOR SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS FOR DETAILING, FABRICATION AND ERECTION OF LIGHT GAUGE STEEL MEMBERS. CALCULATIONS AND DRAWINGS SHALL CLEARLY INDICATE SPACING, TYPE, MATERIAL, MEMBER PROPERTIES, BRACING AND CONNECTIONS FOR LIGHT GAUGE STEEL AND BRACING SYSTEMS.

STRUCTURAL STEEL

- 1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISI SPECIFICATIONS AND CODE OF STANDARD PRACTICE.

- 2. STEEL FABRICATION SHALL CONFORM TO FOLLOWING REQUIREMENTS UNLESS NOTED OTHERWISE. NO STRUCTURAL STEEL SHALL BE FABRICATED OR ERECTED UNTIL SHOP DRAWINGS HAVE BEEN APPROVED.

MISCELLANEOUS PLATES AND ANGLES - ASTM A36 (Fy=249 MPa)
RECTANGULAR HSS - ASTM 500, GRADE B (Fy= 318 MPa)
"W" SHAPES - ASTM A992 GRADE 50

- 3. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. CUTTING OF STEEL SHALL NOT BE PERMITTED WITHOUT APPROVAL OF THE CONTRACTING OFFICER'S REPRESENTATIVE.

- 4. NO STRUCTURAL STEEL SHALL BE FABRICATED OR ERECTED UNTIL SHOP DRAWINGS HAVE BEEN APPROVED.

- 5. THE CONTRACTOR SHALL VERIFY ALL SHOP DRAWING DIMENSIONS WITH THE STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS, AND WITH FIELD DIMENSIONS OF COLUMN LAYOUT.

- 6. BOLTED CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325, 19 DIAMETER MINIMUM UNLESS NOTED OTHERWISE.

- 7. ALL WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE AS REQUIRED BY CONNECTION DESIGN, BUT IN NO CASE LESS THAN 5.

- 8. STANDARD SHEAR CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE FABRICATOR. CONNECTIONS SHALL BE SELECTED TO SUPPORT ONE HALF OF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE LRFD LOAD TABLES OF THE LATEST AISI MANUAL FOR THE GIVEN BEAM, SPAN, AND GRADE OF STEEL SPECIFIED. WHERE POSSIBLE, DOUBLE ANGLE CONNECTIONS SHALL BE USED.

- 9. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE A36.

- 10. ALL SHOP AND FIELD WELDING SHALL CONFORM TO THE STRUCTURAL WELDING CODE AWS D1.1, LATEST EDITION, PUBLISHED BY THE AMERICAN WELDING SOCIETY (AWS). SHOW ALL SHOP WELDS ON THE FABRICATION DRAWINGS AND ALL FIELD WELDS ON THE ERECTION DRAWING.

CONCRETE

- 1. STRUCTURAL CONCRETE FOR THE BUILDING STRUCTURE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:

FOOTINGS, GRADE BEAMS.....fc = 28 MPa
CONCRETE STEM WALLS AND CAST-IN-PLACE CONCRETE WALLS.....fc = 28 MPa
SLABS ON GRADE AND METAL DECK.....fc = 28 MPa

- 2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.

- 3. LOCATION OF ALL CONCRETE JOINTS, OTHER THAN THOSE SPECIFIED, SHALL BE APPROVED BY THE CONTRACTING OFFICER BEFORE CONCRETE PLACEMENT.

- 4. MINIMUM PROTECTIVE COVER OF REINFORCEMENT (SEE DETAILS) SHALL BE AS FOLLOWS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH......75
EXPOSED TO EARTH OR WEATHER......50
#6 OR LARGER......40
#5 OR SMALLER......40

- 5. MINIMUM CONCRETE SPLICES AND HOOKS FOR REINFORCING STEEL SHALL CONFORM TO ACI 318, CURRENT EDITION.

- 6. CONCRETE WORK SHALL BE COORDINATED WITH DRAINS, UNDERGROUND UTILITIES, MECHANICAL, ELECTRICAL, AND ARCHITECTURAL PLANS. CONCRETE SHALL NOT BE CAST UNTIL THESE ITEMS HAVE BEEN INSTALLED AND ACCEPTED.

- 7. CONCRETE FINISHES SHALL BE PROVIDED AS DESCRIBED IN THE SPECIFICATIONS.

- 8. CORNER BARS SHALL BE PROVIDED AT ALL INTERSECTIONS; BAR SIZE AND SPACING TO MATCH LARGER BAR.

- 9. SLABS ON GRADE SHALL BE REINFORCED AT ALL PENETRATIONS AND RE-ENTRANT CORNERS. PLACE 3, #13 x 915 AROUND FLOOR DRAINS. PLACE 2-#13 x 1220 (MINIMUM) AT RE-ENTRANT CORNERS.

LIGHT GAUGE METAL TRUSSES FOR HIGH ROOF

- 1. FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL LIGHT GAUGE TRUSSES AS SHOWN ON DRAWINGS. ALL COMPONENTS AND CONNECTIONS SHALL BE DESIGNED BY QUALIFIED ENGINEER REGISTERED PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE UNITED STATES. ALL LIGHT GAUGE FRAMING SHALL BE DESIGNED FOR THE FOLLOWING SUPERIMPOSED LOADS:

TOP CHORD LIVE LOAD.....1.0 kPa
TOP CHORD DEAD LOAD.....0.25 kPa
BOTTOM CHORD DEAD LOAD.....0.5 kPa

- WIND DESIGN LOADS SHALL BE CALCULATED IN ACCORDANCE WITH ASCE 7-10.

- 4. ALL TRUSS TOP AND BOTTOM CHORDS SHALL BE MINIMUM 155 IN DEPTH.

- 5. MAXIMUM TRUSS TO TRUSS CENTER SPACING SHALL BE 1220.

- 6. ALL TRUSS COMPONENTS AND CONNECTIONS SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE UNITED STATES. ALL TRUSS TO TRUSS CONNECTIONS AND TRUSS TO SUPPORT CONNECTIONS INDICATED ON THE DRAWINGS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER'S QUALIFIED DESIGN ENGINEER.

- 7. THE STEEL TRUSS SUB-CONTRACTOR IS RESPONSIBLE FOR TEMPORARY BRACING OF STEEL ROOF TRUSSES DURING CONSTRUCTION.

- 8. THE STEEL TRUSS SUB-CONTRACTOR IS RESPONSIBLE FOR OBTAINING QUALIFIED PROFESSIONAL GUIDANCE AS REQUIRED FOR DESIGN AND INSTALLATION OF THE TEMPORARY ROOF TRUSS BRACING SYSTEMS.

- 9. STEEL TRUSS MANUFACTURER SHALL PROVIDE PERMANENT ROOF TRUSS BRACING SYSTEM DESIGNED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER CURRENTLY LICENSED IN THE UNITED STATES. PERMANENT TRUSS BRACING SYSTEM SHALL BE INDICATED ON THE STEEL TRUSS ERECTION DRAWINGS AND SHALL INCLUDE DETAILS, INFORMATION ON MEMBERS, FASTENERS AND CONNECTIONS.

- 10. CONTRACTOR SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS FOR DETAILING, FABRICATION AND ERECTION OF LIGHT GAUGE STEEL TRUSSES. CALCULATIONS AND DRAWINGS SHALL CLEARLY INDICATE SPACING, TYPE, MATERIAL, MEMBER PROPERTIES, BRACING AND CONNECTIONS FOR LIGHT GAUGE STEEL TRUSSES AND BRACING SYSTEMS. TRUSS FABRICATION SHALL NOT BEGIN UNTIL THE CONTRACTOR RECEIVES STAMPED REVIEWED CALCULATIONS AND SHOP DRAWINGS FROM THE CONTRACTING OFFICER, ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL NOT BE COPIED OR REPRODUCED FOR USE AS SHOP DRAWINGS.

METAL DECKING

- 1. STEEL DECK SHALL BE ERECTED IN ACCORDANCE WITH MANUFACTURER'S AND STEEL DECK INSTITUTE RECOMMENDATIONS AND SPECIFICATIONS.

- 2. STEEL DECK PROPERTIES AND ATTACHMENTS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.

- 3. GALVANIZING SHALL CONFORM TO ASTM A924-94 WITH A MINIMUM COATING CLASS OF G-60.

- 4. DECK TO BE INSTALLED CONTINUOUS OVER A MINIMUM OF (3) SUPPORTS.

- 5. LIGHT GAGE METAL FRAMING, SUSPENDED CEILING, LIGHT FIXTURES, DUCTS AND OTHER UTILITIES SHALL NOT BE SUPPORTED BY METAL ROOF DECKING.

- 6. PROVIDE MINIMUM 1.02x102x6.4 FRAMING AROUND ALL OPENINGS LARGER THAN 150 FOR ROOF TOP MECHANICAL UNITS.

- 7. FOR DECK UNITS WITH METAL THICKNESS LESS THAN 0.711 (22 GAGE) WELD DECK THROUGH MANUFACTURER'S STANDARD WELDING WASHERS WITH SPECIFIED WELD PATTERN OR AS SHOWN ON DRAWINGS.

MASONRY CONSTRUCTION NOTES:

- 1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" ACI 530 AND "SPECIFICATION FOR MASONRY STRUCTURES" ACI 530.1.

- 2. DESIGN MASONRY ASSEMBLAGE STRENGTH, fm = 10 MPa. NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE A MINIMUM OF 13 MPa.

- 3. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND BE MANUFACTURED WITH NORMAL WEIGHT AGGREGATE.

- 4. GROUT SHALL CONFORM TO ASTM C476 AND SHALL NOT CONTAIN ADMIXTURES. GROUT SHALL ATTAIN A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 14 MPa.

- 5. REINFORCEMENT SHALL BE DEFORMED BARS CONFORMING TO ASTM A615/A615M, GRADE 60 AND SHALL HAVE FABRICATION TOLERANCES IN ACCORDANCE WITH ACI SP-66. SHOP FABRICATE REINFORCING BARS WHICH ARE INDICATED TO BE BENT OR HOOKED.

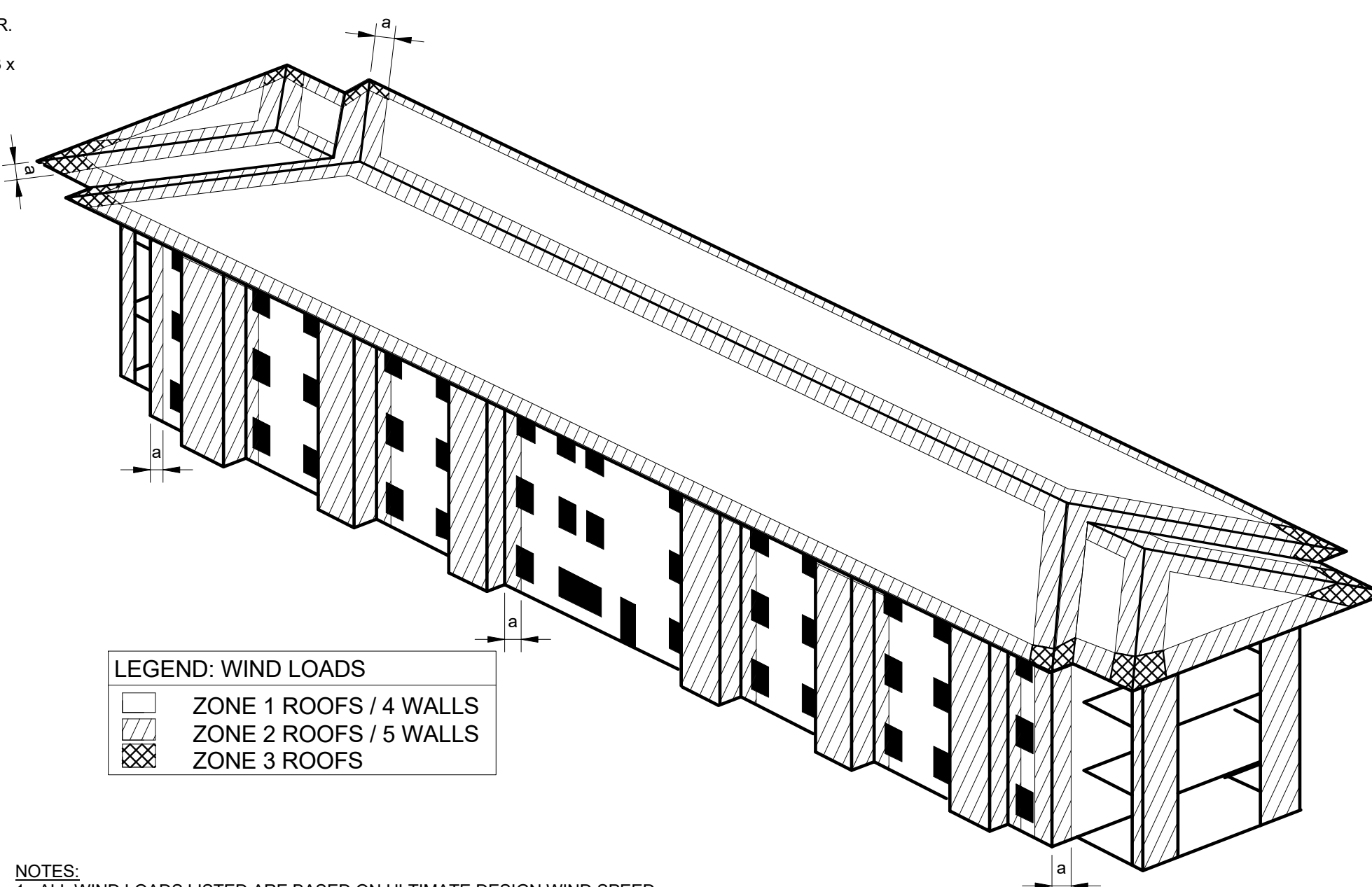
- 6. PROVIDE MINIMUM HORIZONTAL REINFORCEMENT WITH JOINT REINFORCEMENT OR BOND BEAM REINFORCEMENT. MINIMUM BOND BEAM REINFORCEMENT IS INDICATED IN TYPICAL DETAILS PROVIDED HEREIN. FOR JOINT REINFORCEMENT, LOCATE REINFORCEMENT 400 ON CENTER VERTICALLY AND ADDITIONALLY AT THE TOP OF ALL FOUNDATIONS AND IN THE TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 600 BEYOND THE JAMB ON EACH SIDE.

- 7. PLACE PIPES AND CONDUITS PASSING HORIZONTALLY THROUGH MASONRY IN STEEL OR PVC SLEEVES OR CORED HOLES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

- 8. ALUMINUM CONDUITS, PIPES, AND ACCESSORIES SHALL NOT BE EMBEDDED IN MASONRY GROUT, OR MORTAR, UNLESS EFFECTIVELY COATED OR COVERED TO PREVENT ALUMINUM-CEMENT CHEMICAL REACTION OR ELECTROLYTIC REACTION BETWEEN ALUMINUM AND STEEL.

- 9. UNLESS OTHERWISE NOTED OR DETAILED, CENTER WALL REINFORCEMENT IN BLOCK CELLS. USE NONMETALLIC BAR POSITIONERS.

- 10. PROVIDE DOWEL REINFORCEMENT FROM WALLS INTO FOUNDATION OF SAME SIZE AND SPACING AS VERTICAL WALL REINFORCEMENT. LAP WALL REINFORCEMENT A MINIMUM OF 48 BAR DIAMETERS.



LEGEND: WIND LOADS
Zone 1: Roofs / 4 Walls (diagonal lines)
Zone 2: Roofs / 5 Walls (cross-hatch)
Zone 3: Roofs (dotted)

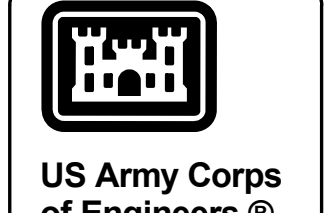
- NOTES:
1. ALL WIND LOADS LISTED ARE BASED ON ULTIMATE DESIGN WIND SPEED PER ASCE 7-10, FOR BUILDINGS WITH h ≤ 160 FT (TABLE 30.7-2).

COMPONENTS AND CLADDING SCHEDULE
Table with columns: LOCATION, 0.93 M², 1.86 M², 4.65 M², 9.29 M², and wind load values for each zone.

- NOTES:
1. BASIC WIND SPEED = 193 KM/H
2. WIND EXPOSURE = "C"
3. OCCUPANCY CATEGORY II
4. "ENCLOSED STRUCTURE" PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
5. THE INDICATED SIMPLIFIED BUILDING DIAGRAMS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT INTENDED TO EXACTLY MATCH ACTUAL BUILDING SHAPE.
6. TOTAL COMPONENTS AND CLADDING PRESSURE IS EQUAL TO THE COMBINATION OF THE EXTERNAL AND INTERNAL PRESSURE (qh(Gcp-GCpi)).
7. WIND LOADS ARE CALCULATED AND BUILDINGS ZONES ARE DEFINED IN ACCORDANCE WITH ASCE 7-10.
8. ROOF OVERHANG NOT SHOWN FOR CLARITY BUT VALUES ARE SPECIFIED WITH OH IN WIND LOAD TABLES.
9. a = 1380 MM

WIND LOAD DIAGRAM

NOT TO SCALE



US Army Corps of Engineers

Table with columns: DATE, DESCRIPTION, MARK

Table with columns: ISSUE DATE: FEBRUARY 2019, DRAWN BY: WJZ/BAW, CHECKED BY: WJZ/BAW, PROJECT NUMBER: M077ELU4, CONTRACT NO.:

Table with columns: DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, ALABAMA, FILE NAME: M077ELU4, ANS/D

GENERAL STRUCTURAL NOTES, DESIGN LOADS & ABBREVIATIONS

SOTO CANO AIR BASE, HONDURAS UNACCOMPANIED ENLISTED PERSONNEL HOUSING

SHEET ID S-001































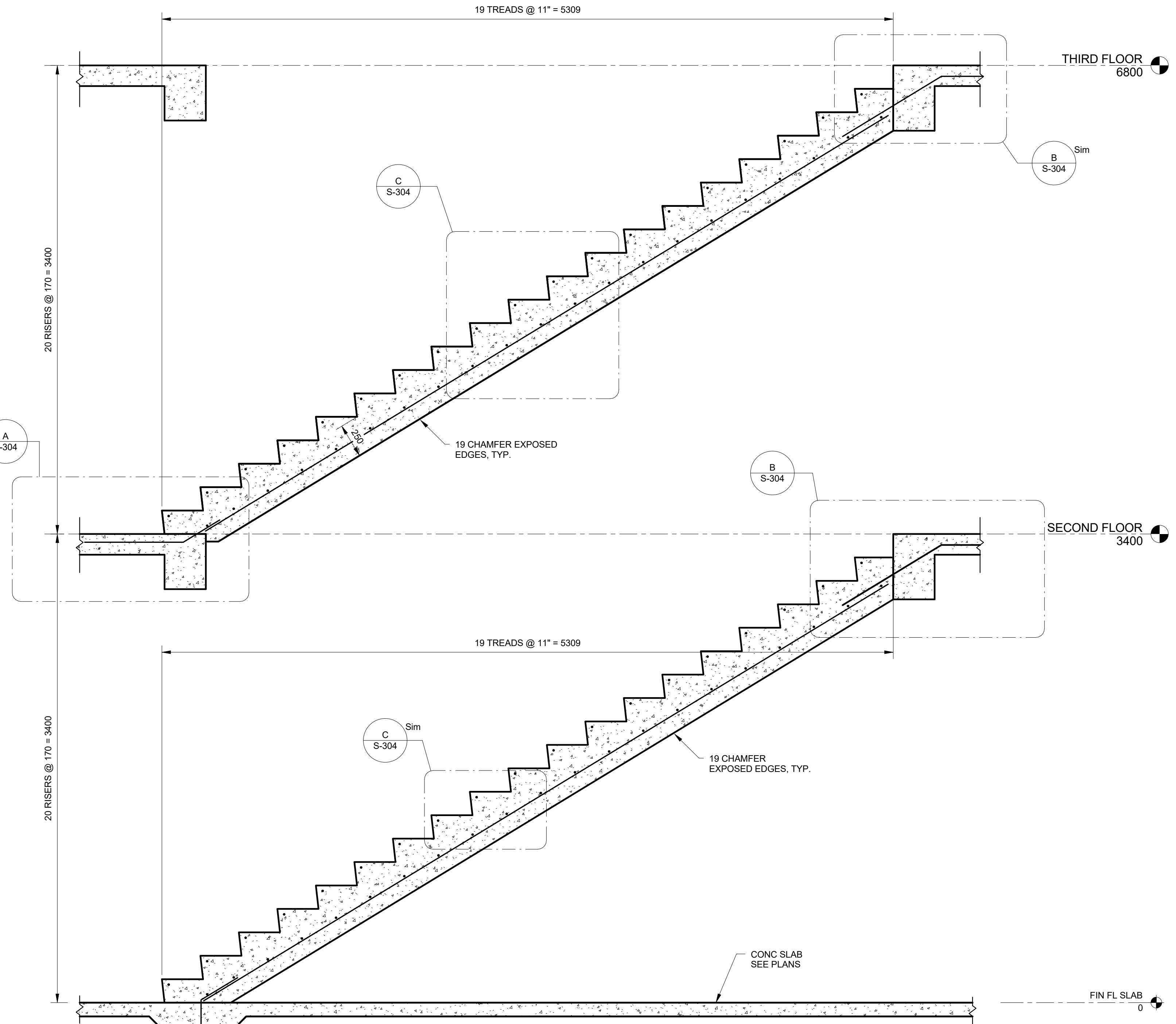
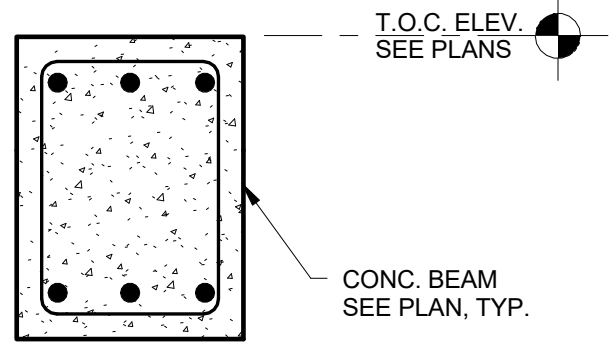
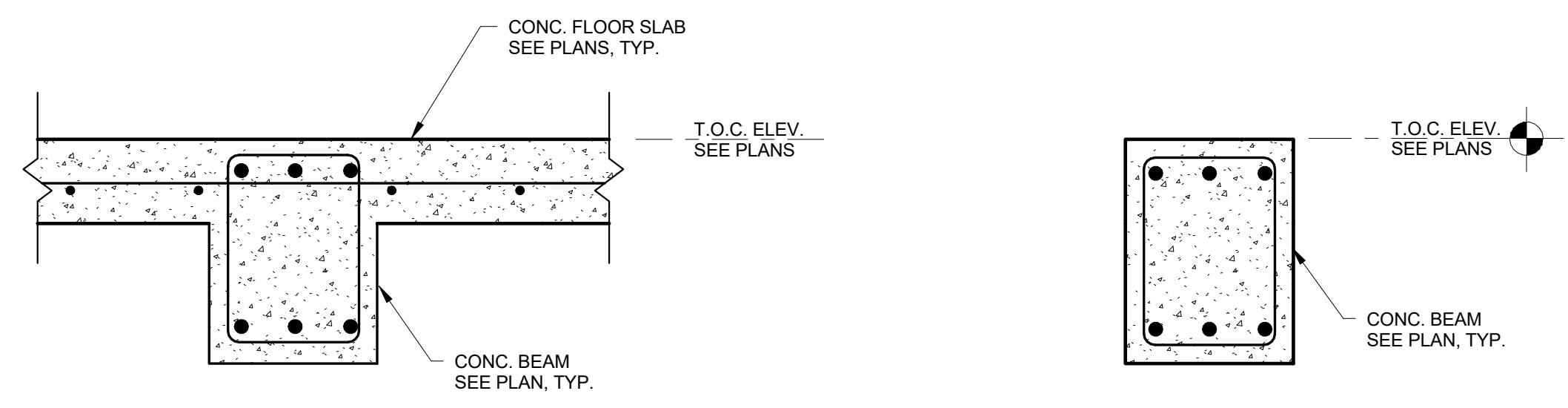
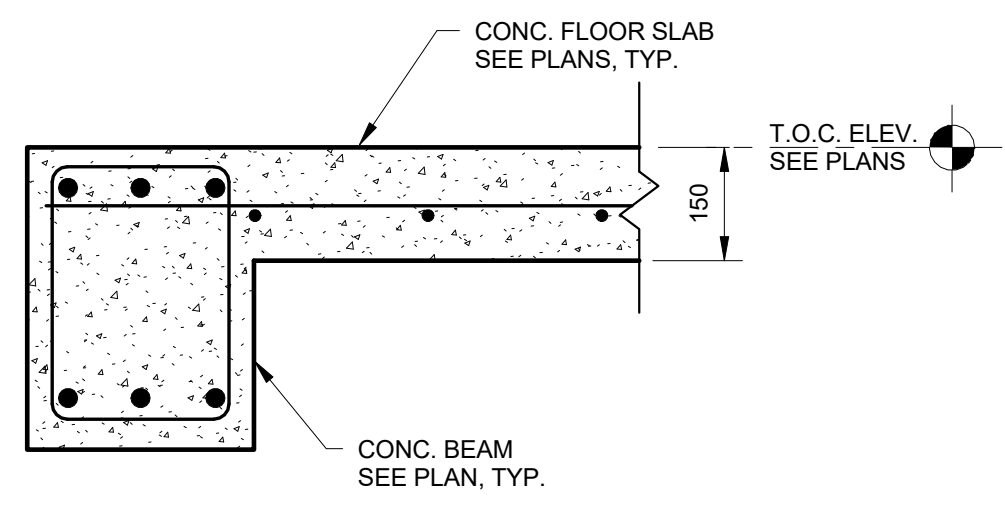
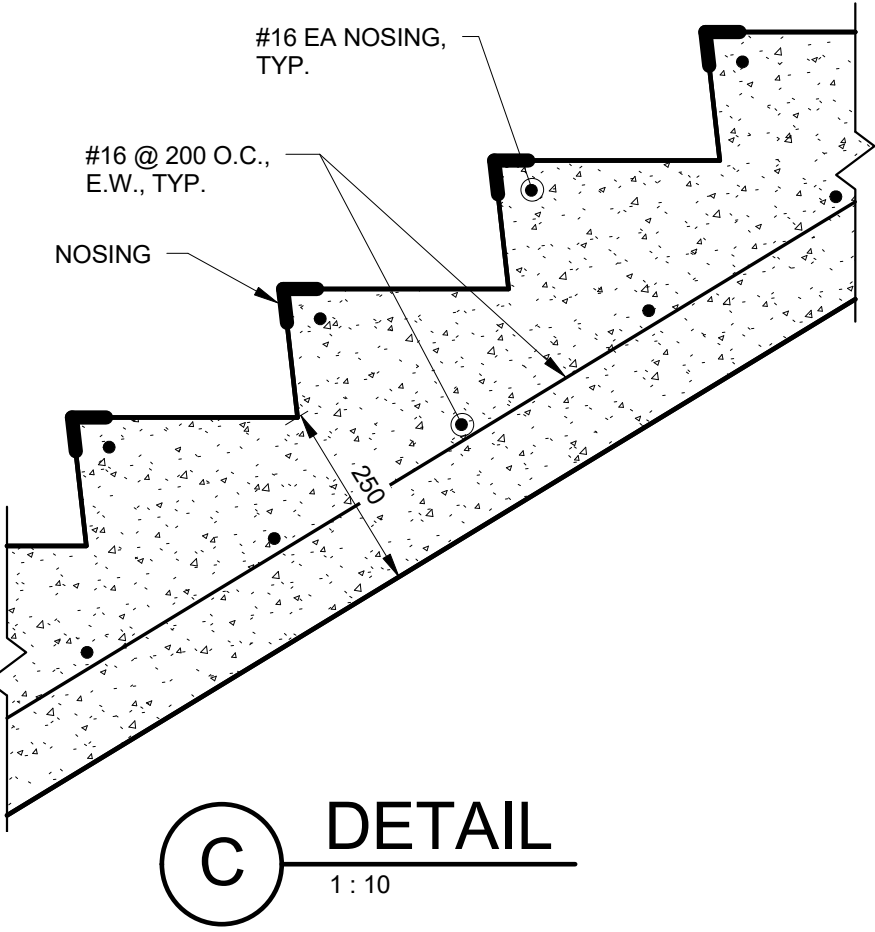
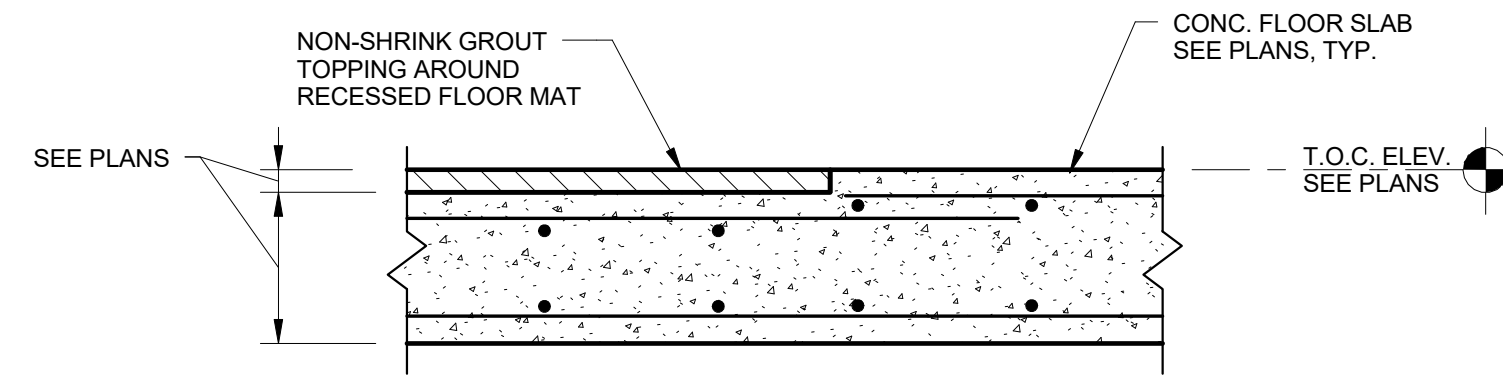
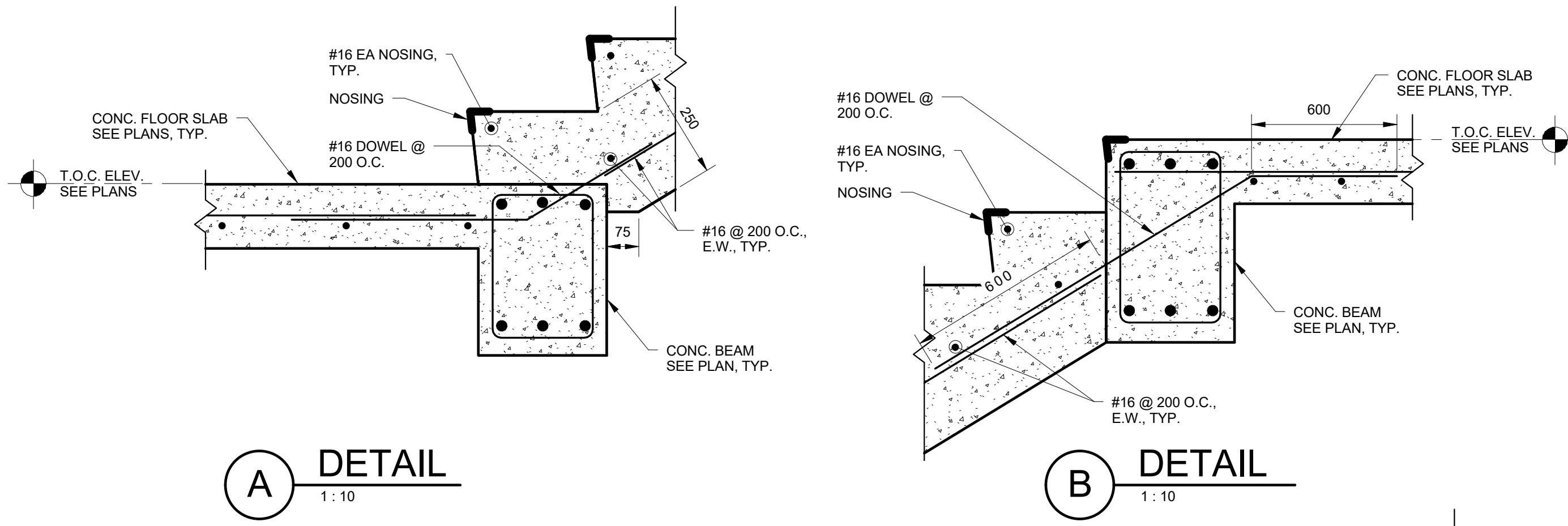




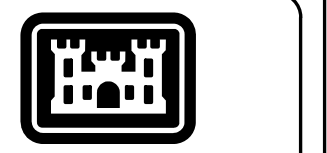








NOTES:  
1. SECTIONS SHOWN ARE CUT AT THE SECOND FLOOR.  
2. THIRD FLOOR REFERENCE ELEVATION = 6800mm



US Army Corps of Engineers®

DATE	DESCRIPTION	MARK

DESIGNED BY: JLL	ISSUE DATE: FEBRUARY 2019
CHECKED BY: JCS	PROJECT NO.: W17783003
SUBMITTED BY: JCO	CONTRACT NO.:
FILE NAME: M07EJ04	PROJECT NUMBER: M07EJ04
SIZE: ANSI D	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

FLOOR FRAMING SECTIONS

SHEET ID  
**S-304**























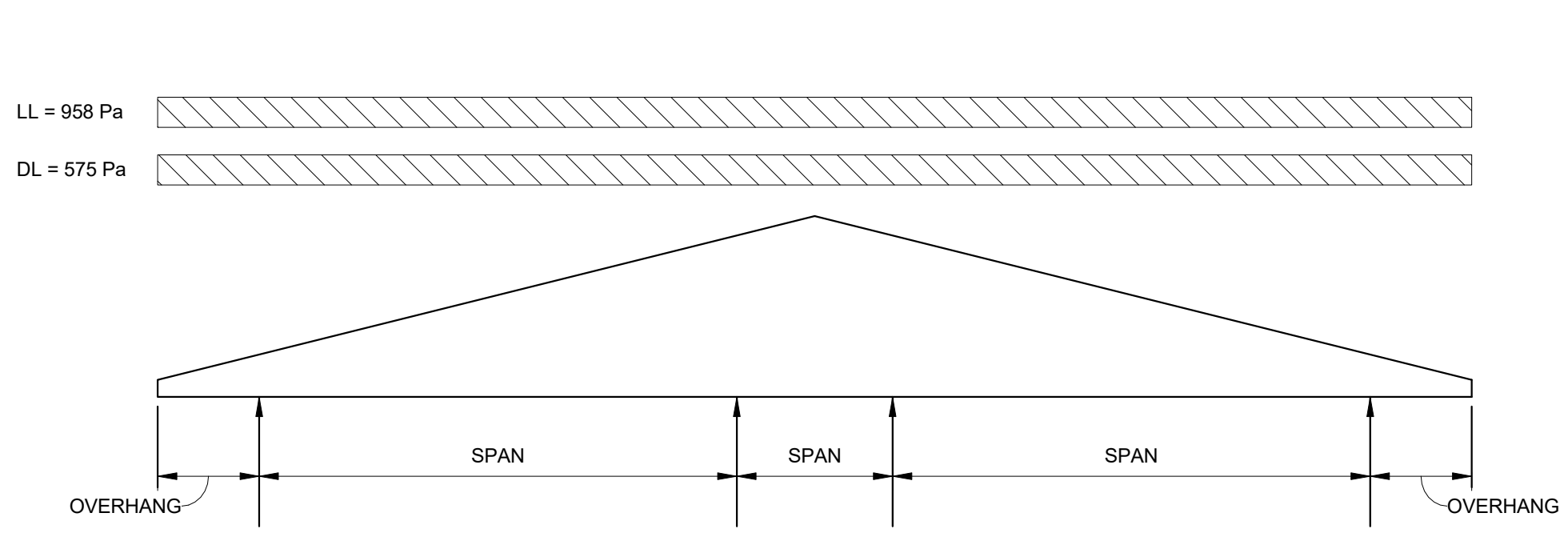






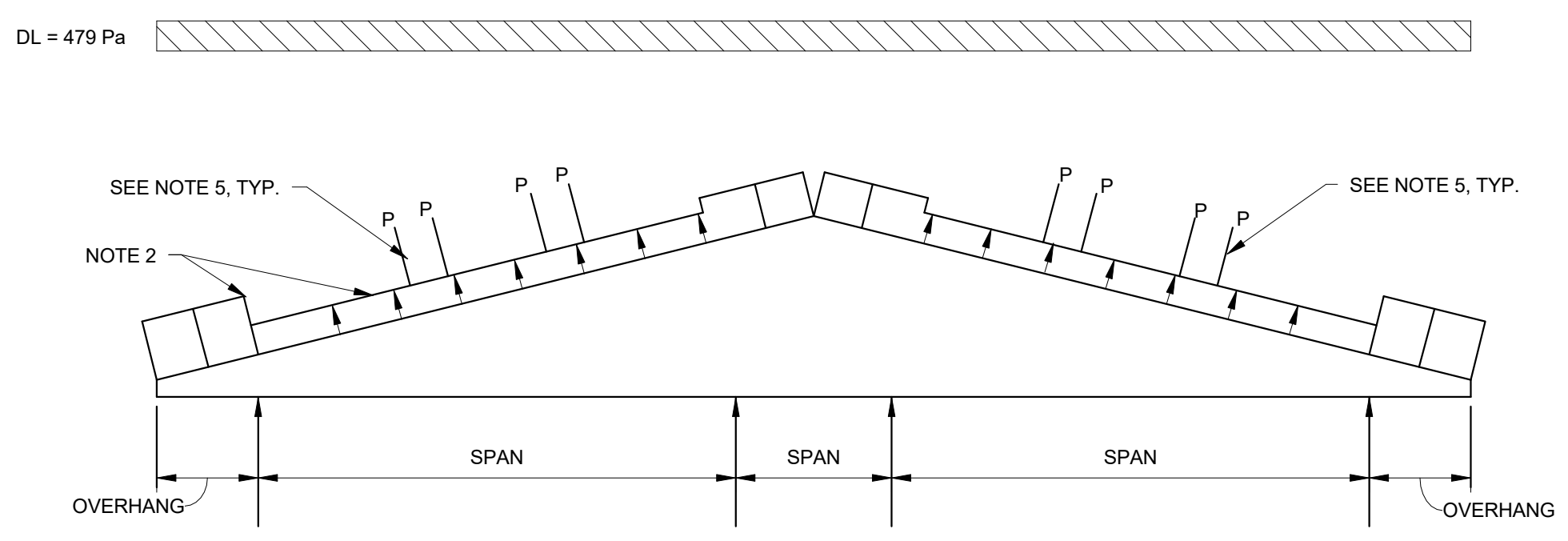


G  
F  
E  
D  
C  
B  
A



**NOTES:**  
 1. DESIGN BOTTOM CHORD:  
 DL = 622 Pa  
 DL (SOFFIT) = 479 Pa  
 LL = 958 Pa  
 2. MINIMUM LIVE LOAD DEFLECTION = L/360, TOTAL DEFLECTION = L/240.  
 3. AT JACK & HIP TRUSSES, USE LOADS SHOWN.  
 4. JACK GIRDER OR JACK TRUSS POINT LOADS NOT SHOWN.  
 5. IN ADDITION TO THE DEAD AND LIVE LOADS SHOWN, THE BOTTOM CHORD SHALL BE DESIGNED FOR AN ADDITIONAL SINGLE CONCENTRATED LOAD OF 1.33 KN AT EACH PANEL POINT (APPLY ONE CONCENTRATED LOAD AT A TIME)  
 6. TOP CHORD SHALL BE DESIGNED FOR ADDITIONAL 3.78 KN AXIAL LOAD, (TENSION & COMPRESSION).

**TRUSS PROFILE #1**

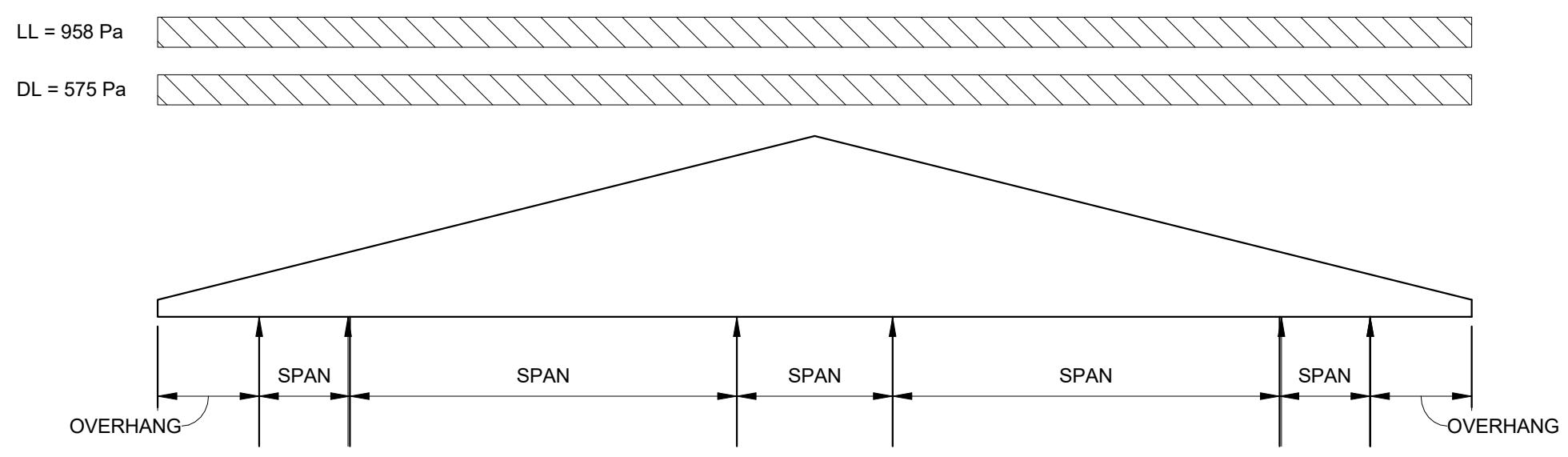


**NOTES:**  
 1. MINIMUM LIVE LOAD DEFLECTION = L/360, TOTAL DEFLECTION = L/240.  
 2. SEE PRE-ENGINEERED COLD FORM TRUSS WIND UPLIFT DIAGRAM FOR TRUSS WIND UPLIFT PRESSURES.  
 3. AT JACK & HIP TRUSSES, USE LOADS SHOWN.  
 4. JACK GIRDER OR JACK TRUSS POINT LOADS NOT SHOWN.  
 5. WIND UPLIFT LOADS AND GRAVITY, DEAD LOADS FROM SOLAR PANEL ATTACHMENT SEE DETAIL 47/S-307. COORDINATE EXACT SOLAR PANEL LOCATIONS AND LOAD SPACINGS WITH CONTRACTOR. DESIGN FOR MINIMUM LOADS AS FOLLOWS:  
 Pmin UPLIFT = 3.15 KN/M  
 Pmin GRAVITY (DL) = 0.70 KN/M  
 479 Pa DOES NOT INCLUDE PANEL WEIGHTS.

**TRUSS PROFILE #2**

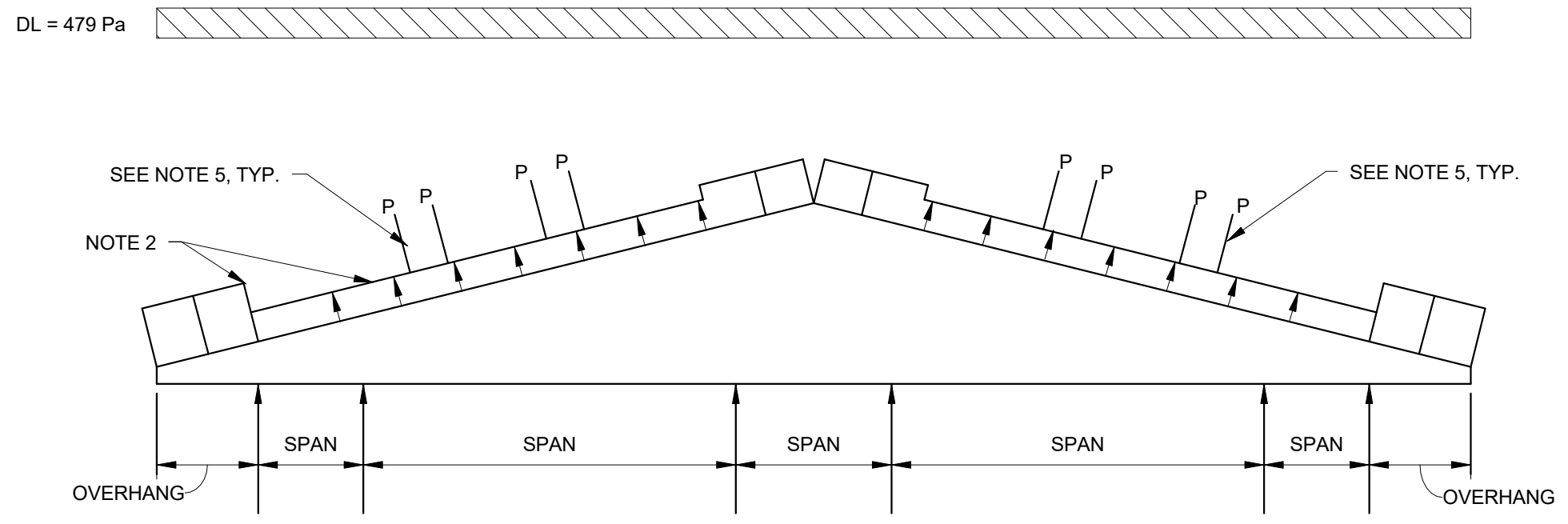
**GENERAL NOTES:**  
 1. TRUSS LOADING DIAGRAM TYPICAL EXCEPT AT DETAIL 2/S-523.

**1 PREMANUFACTURED COLD-FORM TRUSS LOAD DIAGRAMS**  
 NOT TO SCALE



**NOTES:**  
 1. DESIGN BOTTOM CHORD:  
 DL = 622 Pa  
 DL (SOFFIT) = 479 Pa  
 LL = 958 Pa  
 2. MINIMUM LIVE LOAD DEFLECTION = L/360, TOTAL DEFLECTION = L/240.  
 3. AT JACK & HIP TRUSSES, USE LOADS SHOWN.  
 4. JACK GIRDER OR JACK TRUSS POINT LOADS NOT SHOWN.  
 5. IN ADDITION TO THE DEAD AND LIVE LOADS SHOWN, THE BOTTOM CHORD SHALL BE DESIGNED FOR AN ADDITIONAL SINGLE CONCENTRATED LOAD OF 1.33 KN AT EACH PANEL POINT (APPLY ONE CONCENTRATED LOAD AT A TIME)  
 6. TOP CHORD SHALL BE DESIGNED FOR ADDITIONAL 3.78 KN AXIAL LOAD, (TENSION & COMPRESSION).

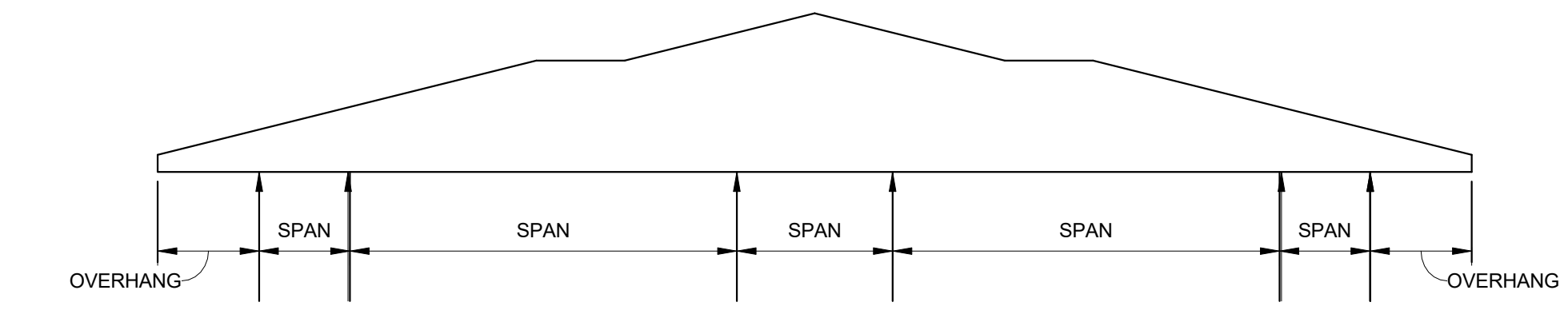
**TRUSS PROFILE #3**



**NOTES:**  
 1. MINIMUM LIVE LOAD DEFLECTION = L/360, TOTAL DEFLECTION = L/240.  
 2. SEE PRE-ENGINEERED COLD FORM TRUSS WIND UPLIFT DIAGRAM FOR TRUSS WIND UPLIFT PRESSURES.  
 3. AT JACK & HIP TRUSSES, USE LOADS SHOWN.  
 4. JACK GIRDER OR JACK TRUSS POINT LOADS NOT SHOWN.  
 5. SOLAR PANEL LOADS NOT SHOWN. SEE DETAIL 1/S-506.

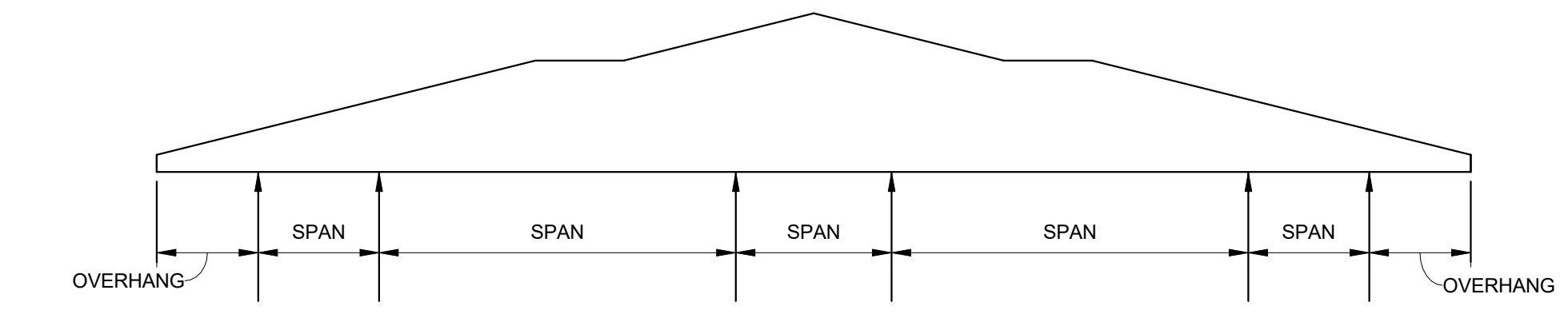
**TRUSS PROFILE #4**

**2 PREMANUFACTURED COLD-FORM TRUSS LOAD DIAGRAMS**  
 NOT TO SCALE



**NOTES:**  
 1. STEP-DOWN TRUSS W/ RIDGE.  
 2. SEE TRUSS LOAD DIAGRAM 1/S-506 FOR LOADS AND ADDITIONAL INFORMATION.

**TRUSS PROFILE #5**

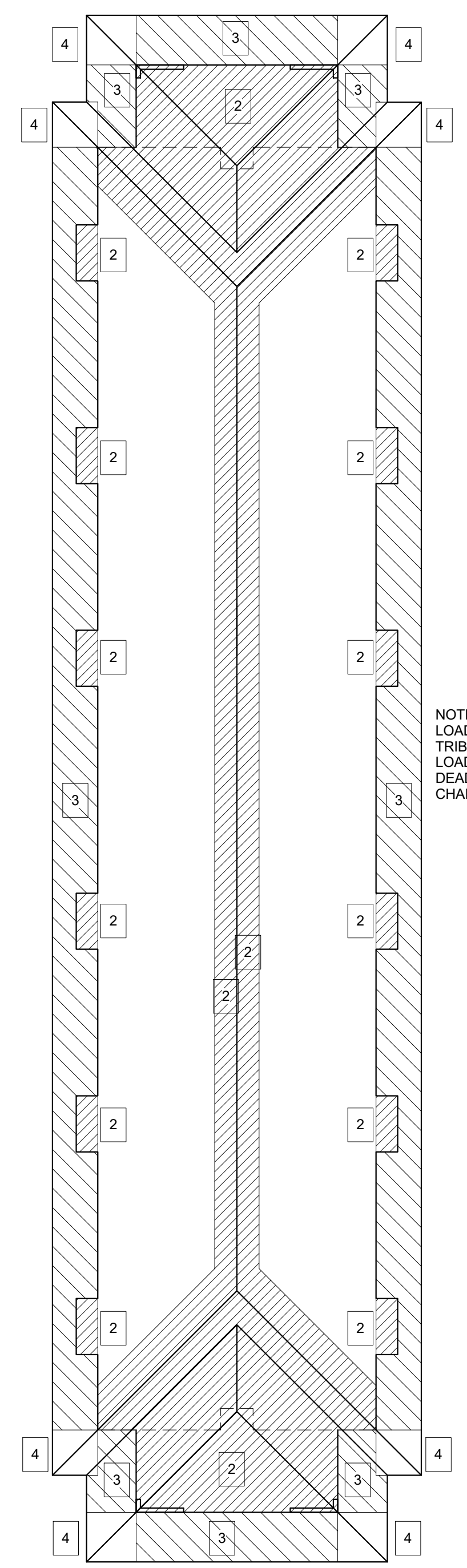


**NOTES:**  
 1. STEP-DOWN TRUSS W/ RIDGE.  
 2. SEE TRUSS LOAD DIAGRAM 1/S-506 FOR LOADS AND ADDITIONAL INFORMATION.

**TRUSS PROFILE #6**

**4 PREMANUFACTURED COLD-FORM TRUSS LOAD DIAGRAMS**  
 NOT TO SCALE

**5 PREMANUFACTURED COLD-FORM TRUSS LOAD DIAGRAMS**  
 NOT TO SCALE



**NET UPLIFT**

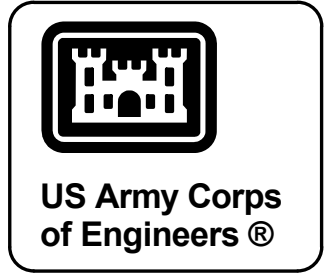
1	-1.9 kPa
2	-2.75 kPa
3	-3.31 kPa
4	-4.40 kPa

**NOTE:**  
 LOADS ARE PROVIDED USING A TRIBUTARY AREA OF 4.65 m<sup>2</sup> FOR LOADS USING DIFFERENT m<sup>2</sup> ADD .24 kPa DEAD LOAD TO THE NUMBER FROM THE CHART TO OBTAIN THE NET UPLIFT.

1	2.1 kPa
2	2.92 kPa
3	5.21 kPa
4	6.03 kPa

**NOTES:**  
 1. LOADS SHOWN ARE NORMAL TO ROOF.  
 2. SOLAR PANELS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.  
 3. THIS DIAGRAM IS ONLY TO BE USED FOR TRUSS DESIGN.

**PP PRE-ENGINEERED COLD FORM TRUSS WIND UPLIFT DIAGRAM**  
 1:1



DATE	DESCRIPTION	MARK

<b>DESIGNED BY:</b> Designer	<b>ISSUE DATE:</b> FEBRUARY 2019
<b>DRAWN BY:</b> A	<b>PROJECT NO.:</b> W017818003
<b>CHECKED BY:</b> Checker	<b>CONTRACT NO.:</b> M07ELU4
<b>SUBMITTED BY:</b> S	<b>PROJECT NUMBER:</b> M07ELU4
<b>SIZE:</b> ANSI D	<b>FILE NAME:</b> M07ELU4

U.S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
 UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ROOF FRAMING DETAILS





G

F

C

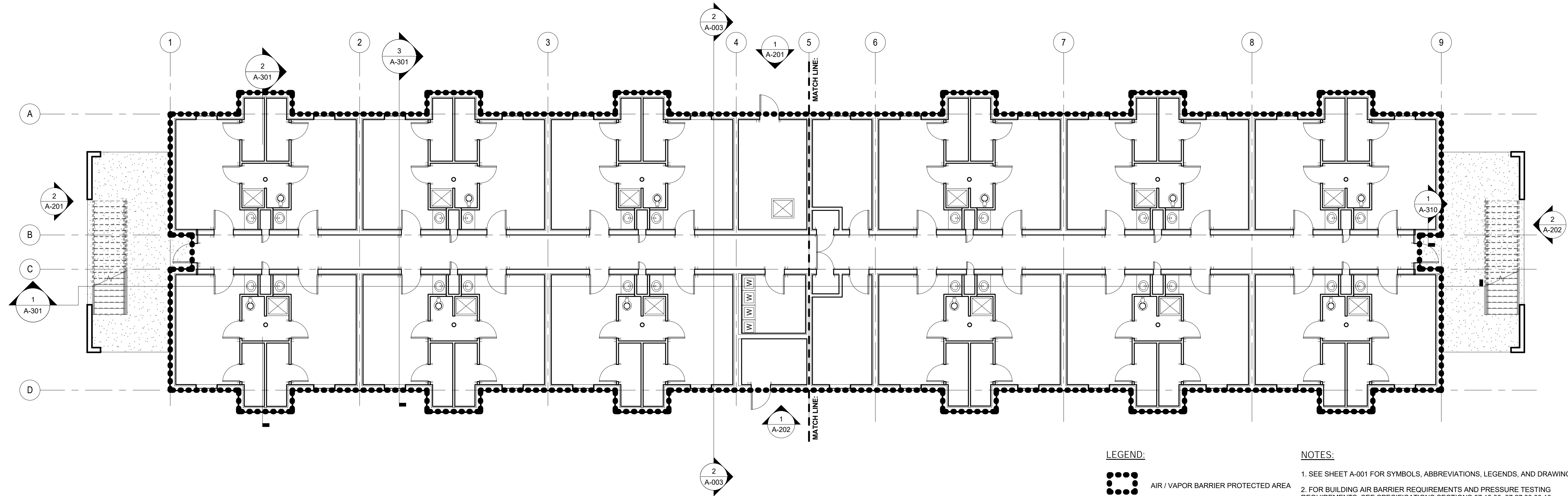
E

D

C

B

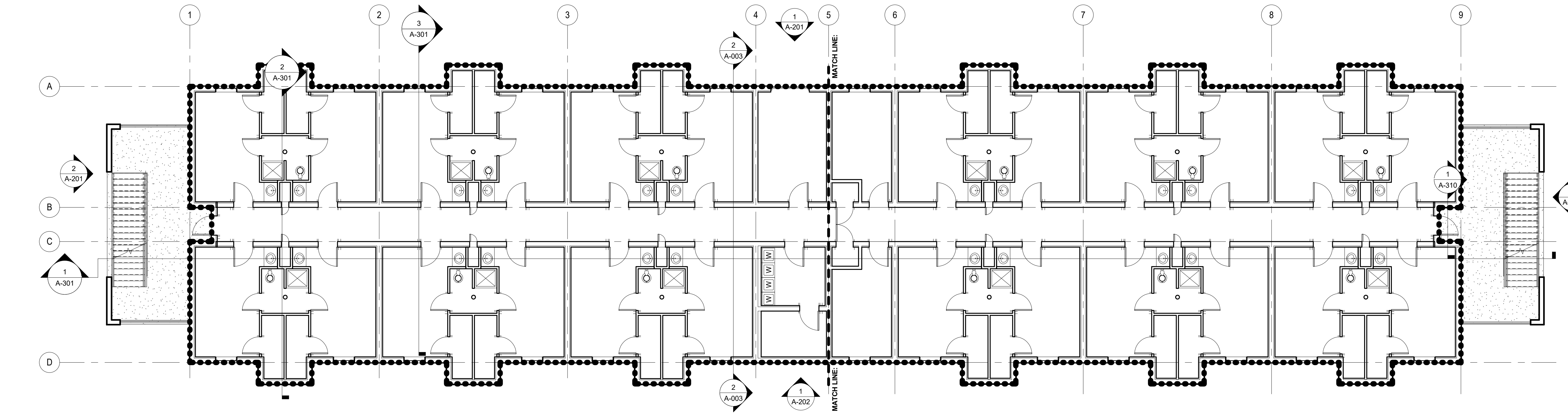
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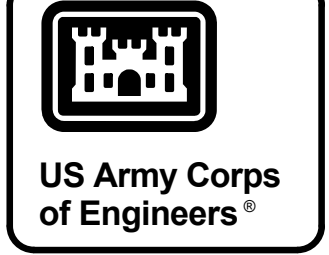
**1** FIRST FLOOR PLAN - AIR BARRIER  
1:100

- LEGEND:**
- AIR / VAPOR BARRIER PROTECTED AREA
  - AIR / VAPOR BARRIER LOCATION

- NOTES:**
1. SEE SHEET A-001 FOR SYMBOLS, ABBREVIATIONS, LEGENDS, AND DRAWINGS.
  2. FOR BUILDING AIR BARRIER REQUIREMENTS AND PRESSURE TESTING REQUIREMENTS, SEE SPECIFICATIONS SECTIONS 07 15 00, 07 27 00.00 10.
  3. SEAL ALL PENETRATIONS OF THE AIR BARRIER AND VERIFY INTEGRITY PRIOR TO COVERING WITH OTHER MATERIALS.
  4. SECTIONS ON SHEET A003 ARE SCHEMATIC, SEE DETAILED BUILDING SECTIONS AND SPECIFICATIONS FOR SPECIFIC'S ON AIR BARRIER LOCATION AND INSTALLATION.



**2** SECOND FLOOR PLAN - AIR BARRIER  
1:100



MARK	DESCRIPTION	DATE

DESIGNED BY: Designer	ISSUE DATE: FEBRUARY 2019
DRAWN BY: A-002	SCALE: AS SHOWN
CHECKED BY: A-002	PROJECT NO.:
SUBMITTED BY:	CONTRACT NO.:
SIZE: ANSI D	PROJECT NUMBER: M07ECC4
FILE NAME: M07ECC4	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

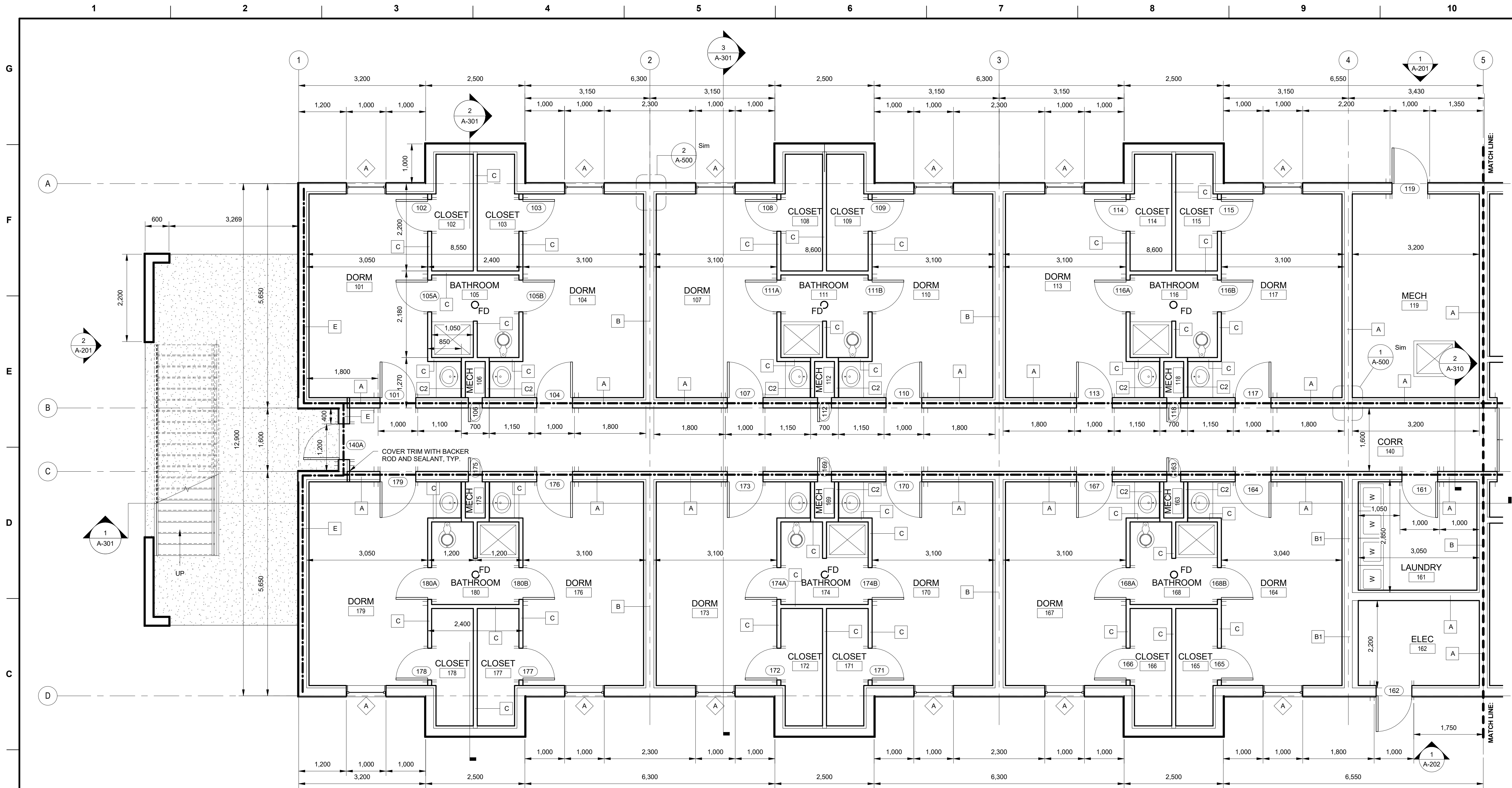
FIRST AND SECOND AIR BARRIER PLAN

SHEET ID  
**A-002**









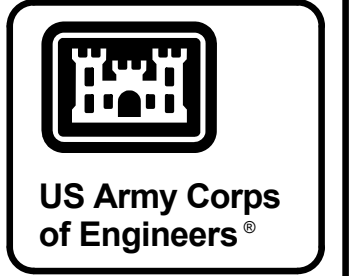
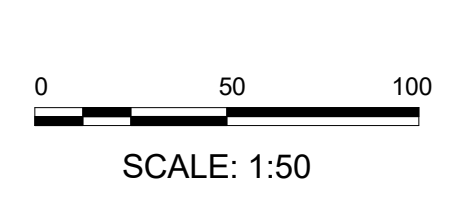
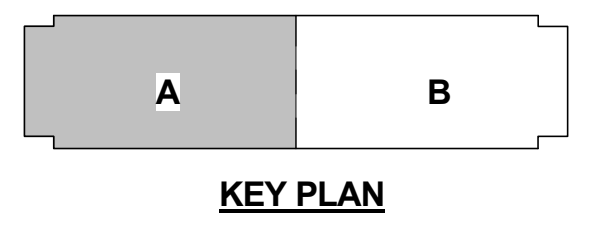
**GENERAL NOTES:**

1. PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
2. VERIFY STRUCTURAL FOR COLUMN SPACING.
3. SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
4. COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL. FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
5. SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
6. SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
7. ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
8. AVERAGE EXTERIOR WALL "R" VALUE = R19.
9. DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
10. SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ)
11. DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
12. ALL WALLS SHALL HAVE A STC 50 RATING.
13. FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
14. PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
15. RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
16. SEE SHEET A601 FOR WALL TYPES.
17. PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**1 FIRST FLOOR PLAN - AREA "A"**  
1:50

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARDWARE. LENGTH 72"

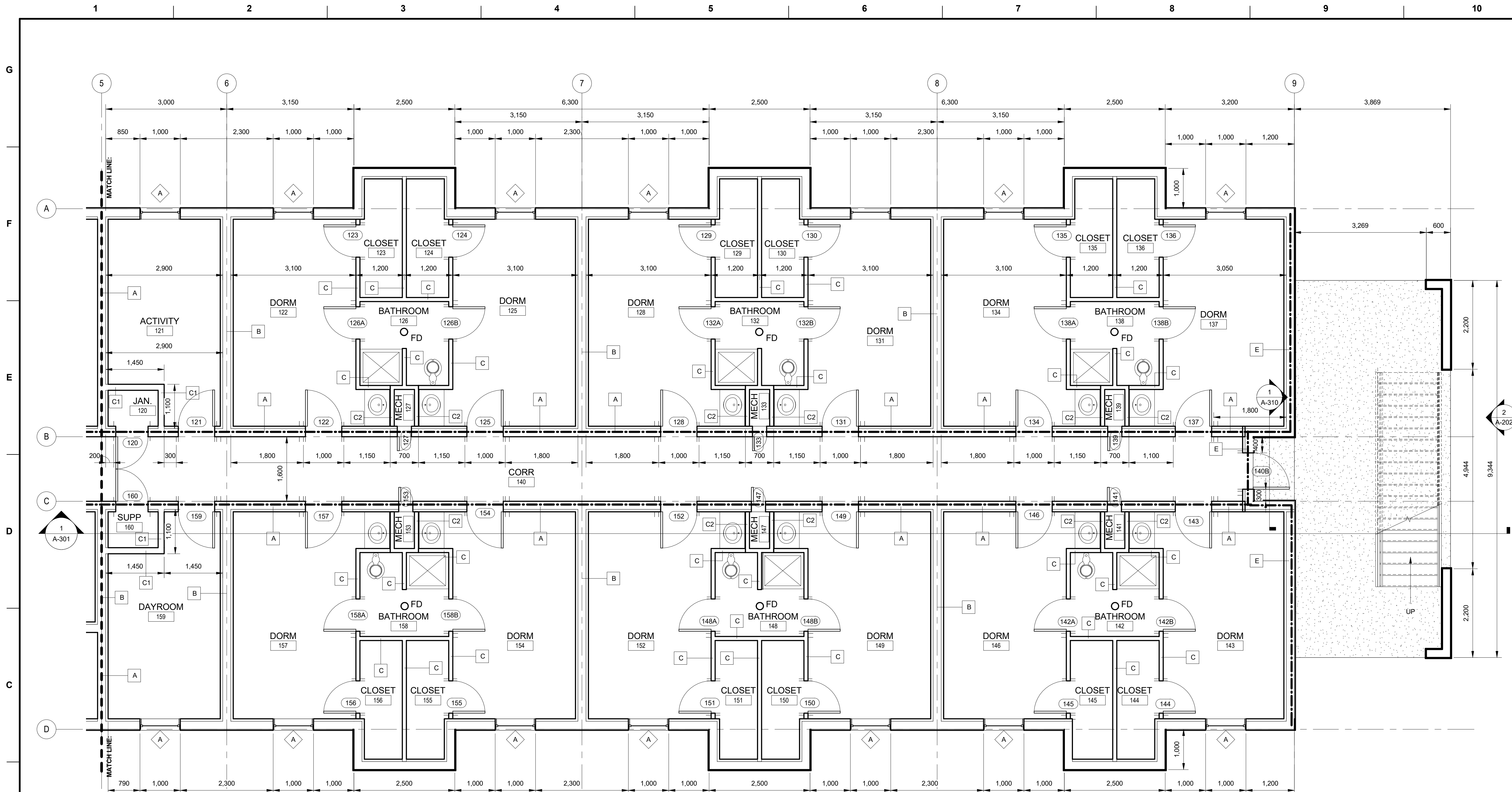


MARK	DESCRIPTION	DATE

DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M07E44
FILE NAME: M07E44	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
ENLARGED FIRST FLOOR PLAN - AREA "A"

SHEET ID  
**A-102**



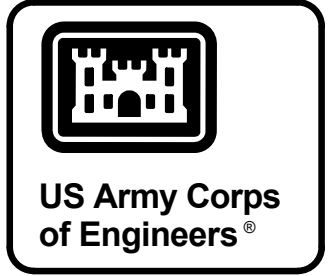
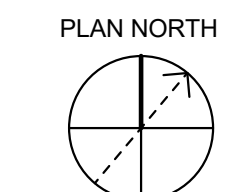
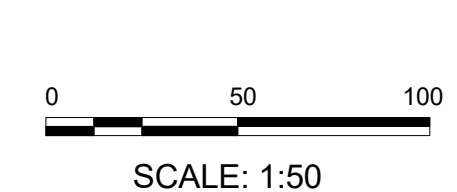
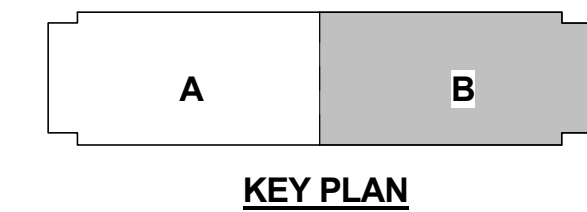
**GENERAL NOTES:**

1. PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
2. VERIFY STRUCTURAL FOR COLUMN SPACING.
3. SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
4. COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
5. SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
6. SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
7. ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
8. AVERAGE EXTERIOR WALL "R" VALUE = R19.
9. DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
10. SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ)
11. DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
12. ALL WALLS SHALL HAVE A STC 50 RATING.
13. FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
14. PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
15. RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
16. SEE SHEET A601 FOR WALL TYPES.
17. PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**1 FIRST FLOOR PLAN - AREA "B"**  
1:50

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARDWARE LENGTH 72"



MARK	DESCRIPTION	DATE

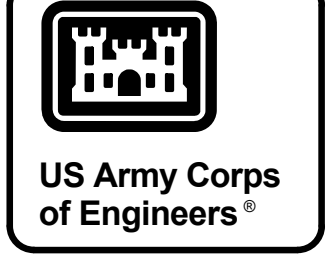
DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M07ECC4
FILE NAME: M07ECC4	ANSI D:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ENLARGED FIRST FLOOR PLAN - AREA "B"

SHEET ID  
**A-103**



DATE	DESCRIPTION	MARK

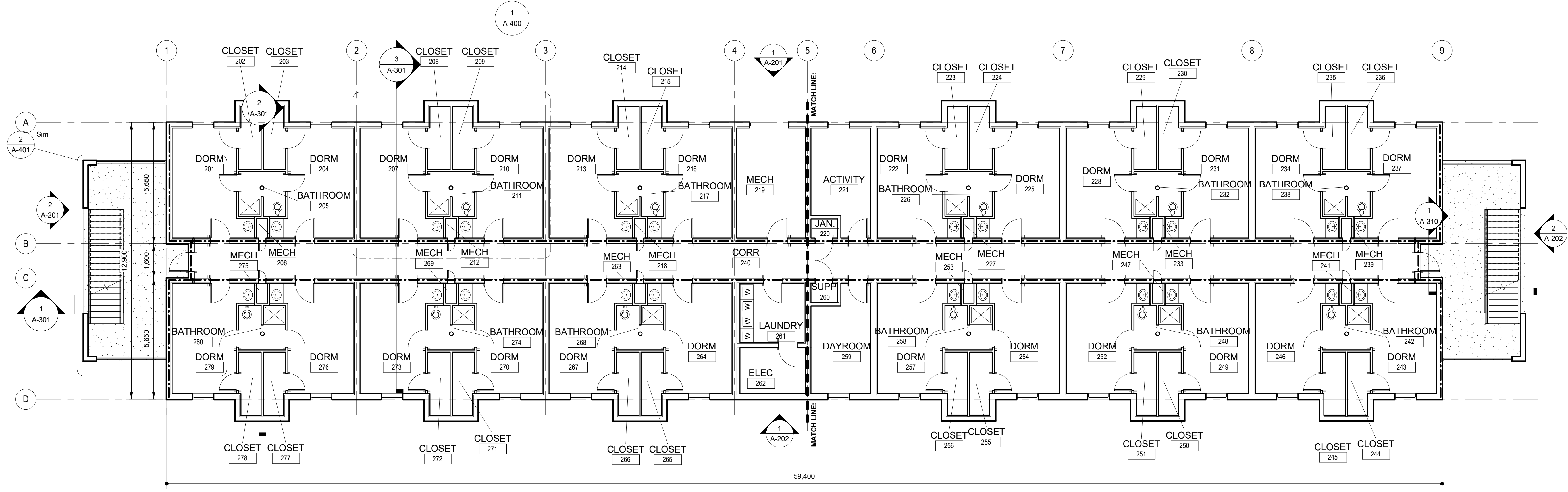
DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	PROJECT NO.:
SUBMITTED BY: C.A.	CONTRACT NO.:
FILE NAME: MD17EJ44	PROJECT NUMBER: M017E44
ANSI D:	SIZE:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

SECOND FLOOR PLAN  
COMPOSITE

SHEET ID  
**A-104**



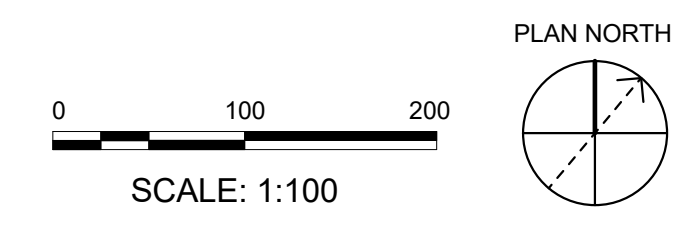
**1 SECOND FLOOR PLAN - COMPOSITE**  
1:100

**GENERAL NOTES:**

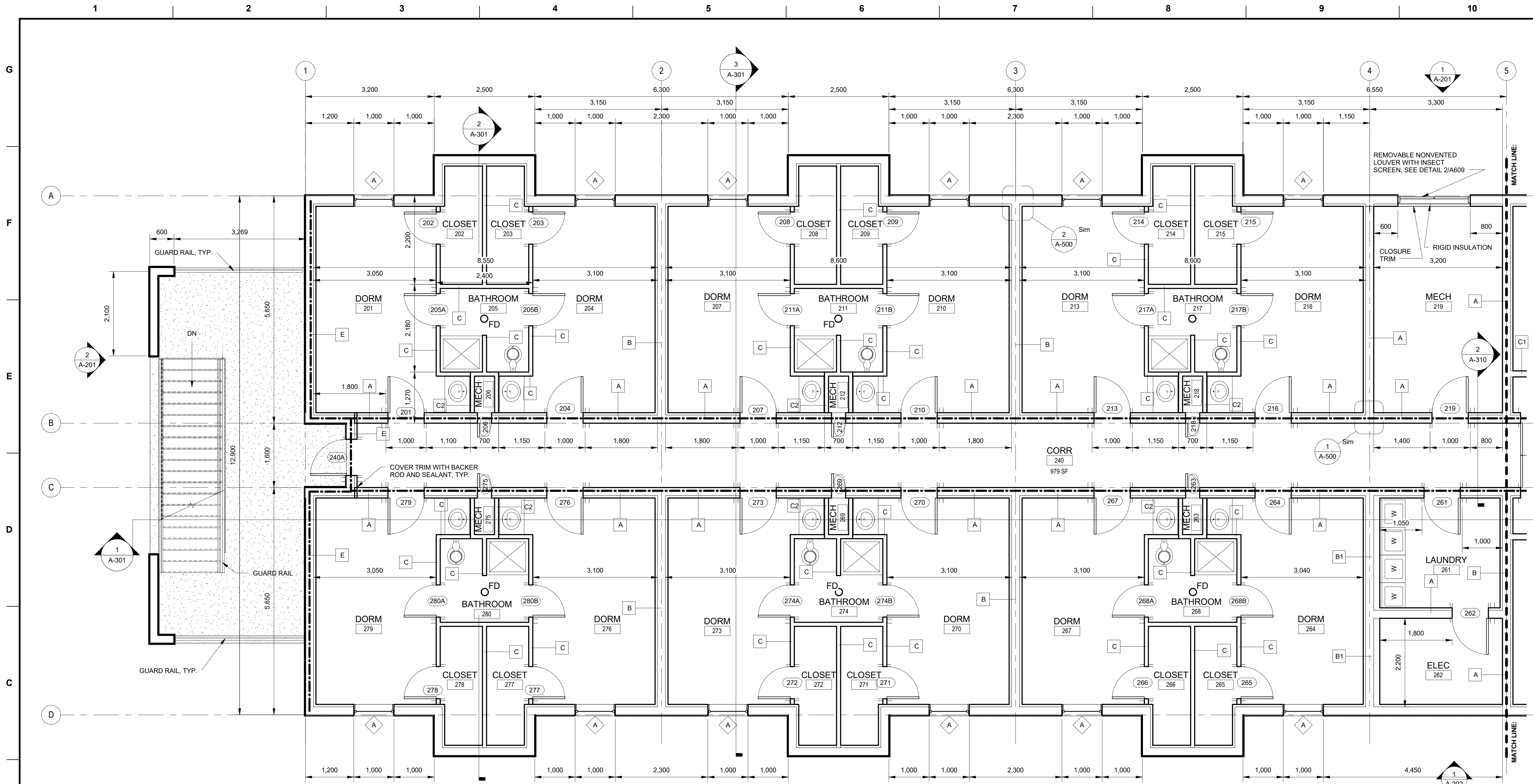
- PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
- VERIFY STRUCTURAL FOR COLUMN SPACING.
- SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
- COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
- SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
- SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
- ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
- AVERAGE EXTERIOR WALL "R" VALUE = R19.
- DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
- SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ)
- DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
- ALL WALLS SHALL HAVE A STC 50 RATING.
- FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
- PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
- RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
- SEE SHEET A601 FOR WALL TYPES.
- PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"







**GENERAL NOTES:**

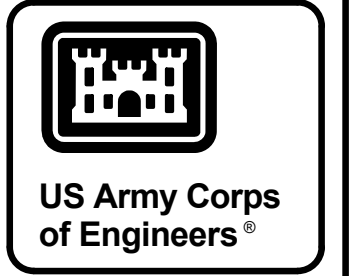
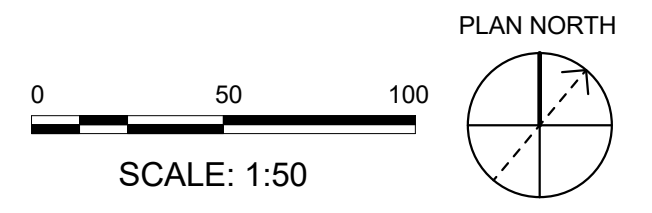
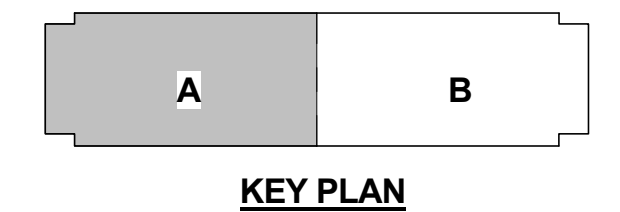
- PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
- VERIFY STRUCTURAL FOR COLUMN SPACING.
- SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
- COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
- SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
- SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
- ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
- AVERAGE EXTERIOR WALL "R" VALUE = R19.
- DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
- SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ)
- DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
- ALL WALLS SHALL HAVE A STC 50 RATING.
- FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
- PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
- RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
- SEE SHEET A601 FOR WALL TYPES.
- PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**1 SECOND FLOOR PLAN - AREA "A"**

1:50

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL □1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"



DATE	DESCRIPTION	MARK

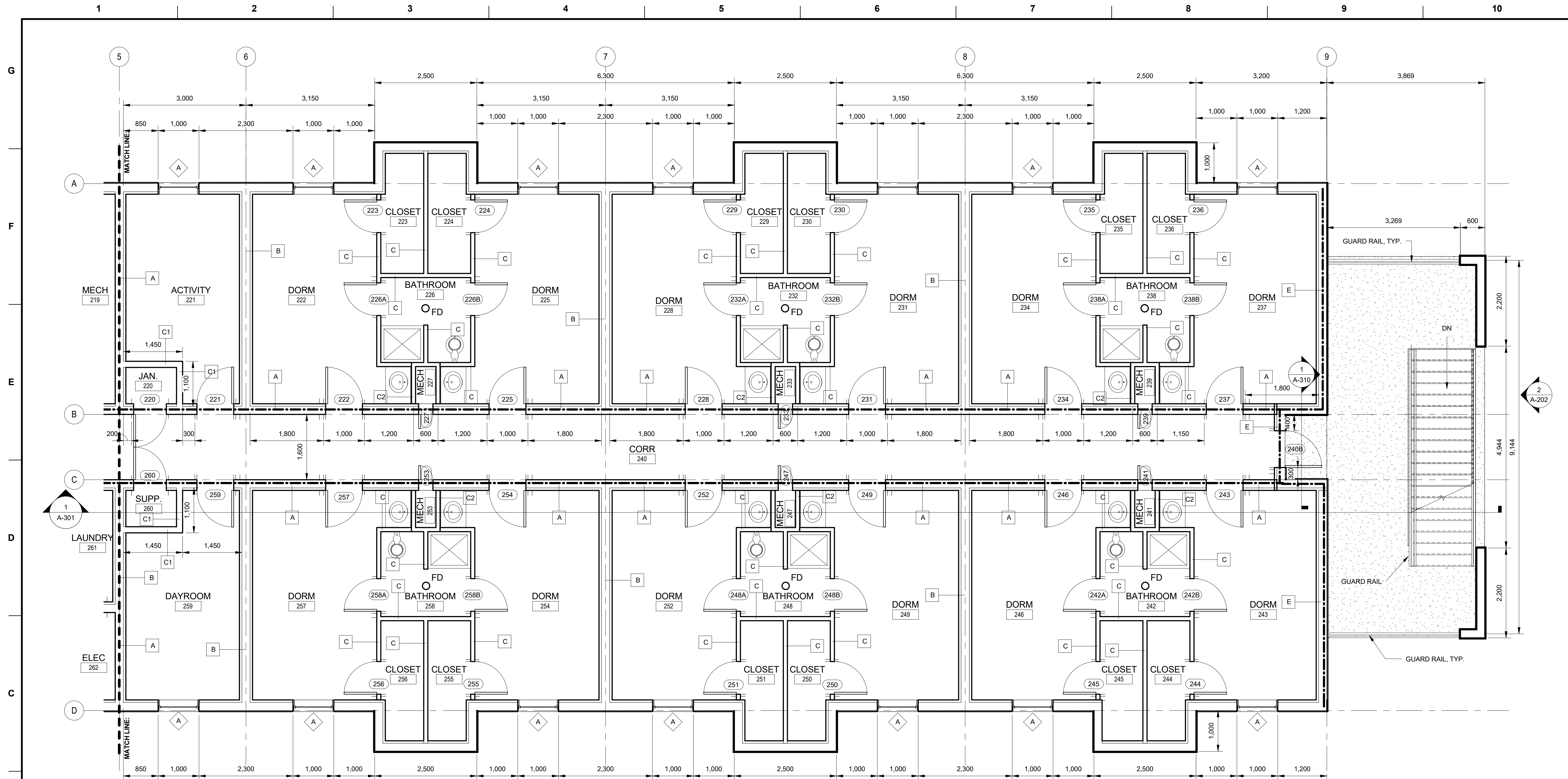
DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.: W017818028
SUBMITTED BY: J.M.C.	PROJECT NUMBER: M07ECC4
FILE NAME: MD17EJ44	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ENLARGED SECOND FLOOR PLAN - AREA "A"

SHEET ID  
**A-105**



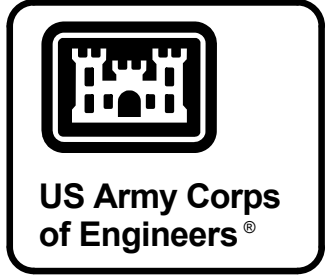
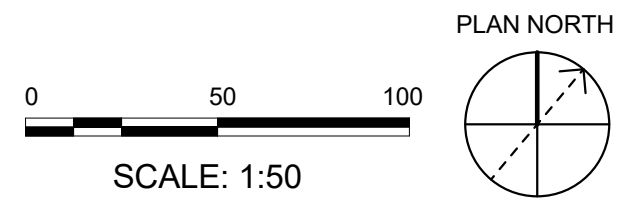
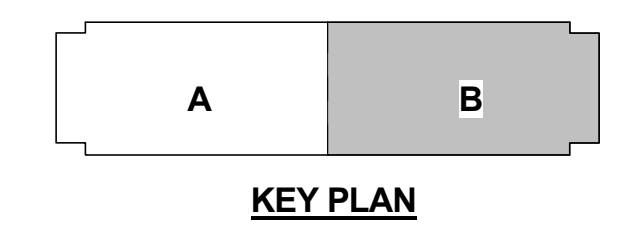
**GENERAL NOTES:**

1. PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
2. VERIFY STRUCTURAL FOR COLUMN SPACING.
3. SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
4. COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
5. SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
6. SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
7. ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
8. AVERAGE EXTERIOR WALL "R" VALUE = R19.
9. DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
10. SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ)
11. DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
12. ALL WALLS SHALL HAVE A STC 50 RATING.
13. FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
14. PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
15. RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
16. SEE SHEET A601 FOR WALL TYPES.
17. PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**1 SECOND FLOOR PLAN - AREA "B"**  
1:50

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- WOODEN SHELVES (30.48cm WIDE)
- CLOSET ROD TYPE 304 STAINLESS STEEL □ 1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"



DATE	DESCRIPTION	MARK

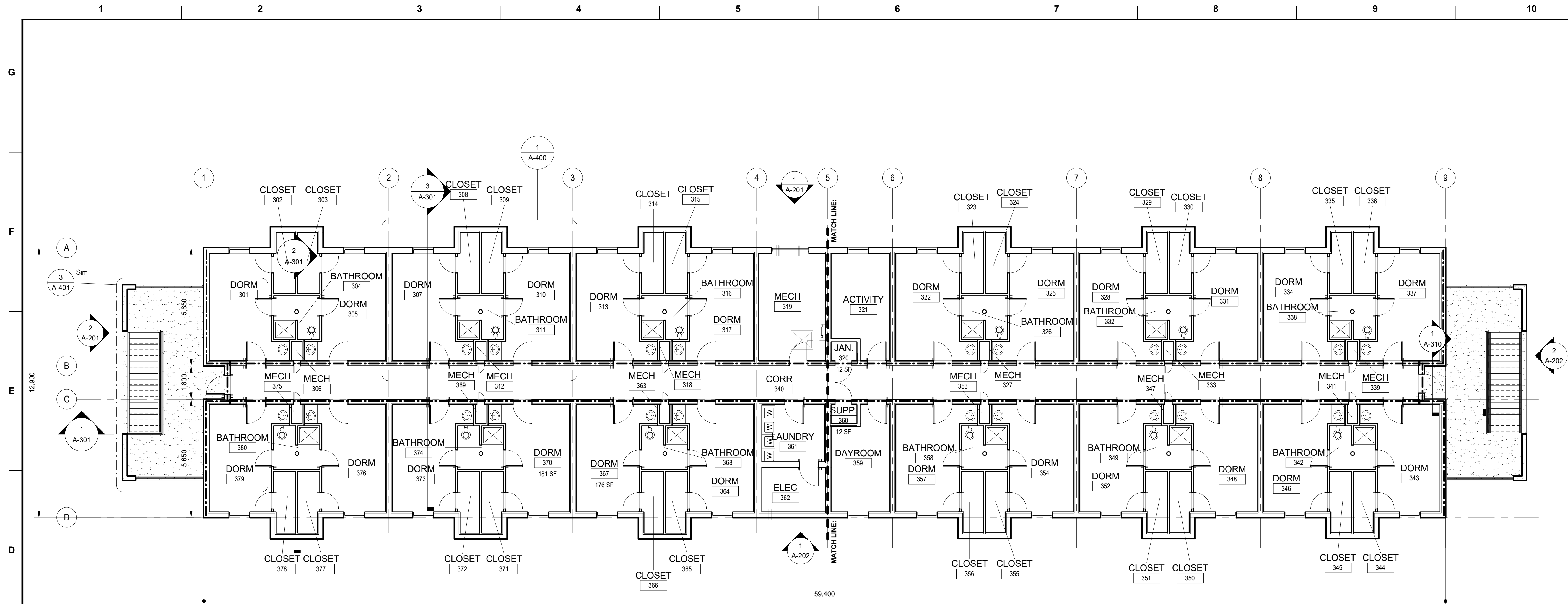
DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M017EC44
FILE NAME: M017EJ44	ANSI D:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ENLARGED SECOND FLOOR PLAN - AREA "B"

SHEET ID  
**A-106**



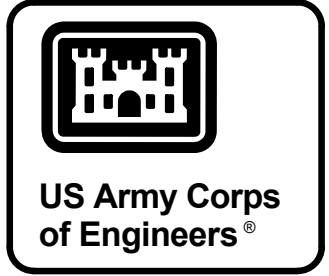
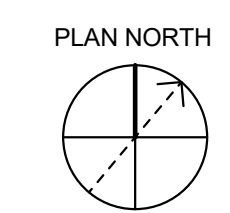
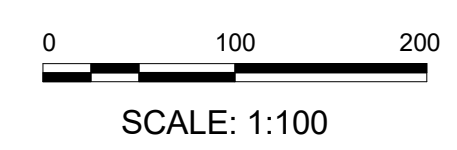
**1 THIRD FLOOR PLAN - COMPOSITE**  
1:100

**GENERAL NOTES:**

1. PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
2. VERIFY STRUCTURAL FOR COLUMN SPACING.
3. SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
4. COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
5. SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
6. SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
7. ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
8. AVERAGE EXTERIOR WALL "R" VALUE = R19.
9. DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
10. SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ)
11. DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
12. ALL WALLS SHALL HAVE A STC 50 RATING.
13. FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
14. PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
15. RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
16. SEE SHEET A601 FOR WALL TYPES.
17. PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"



DATE	DESCRIPTION	MARK

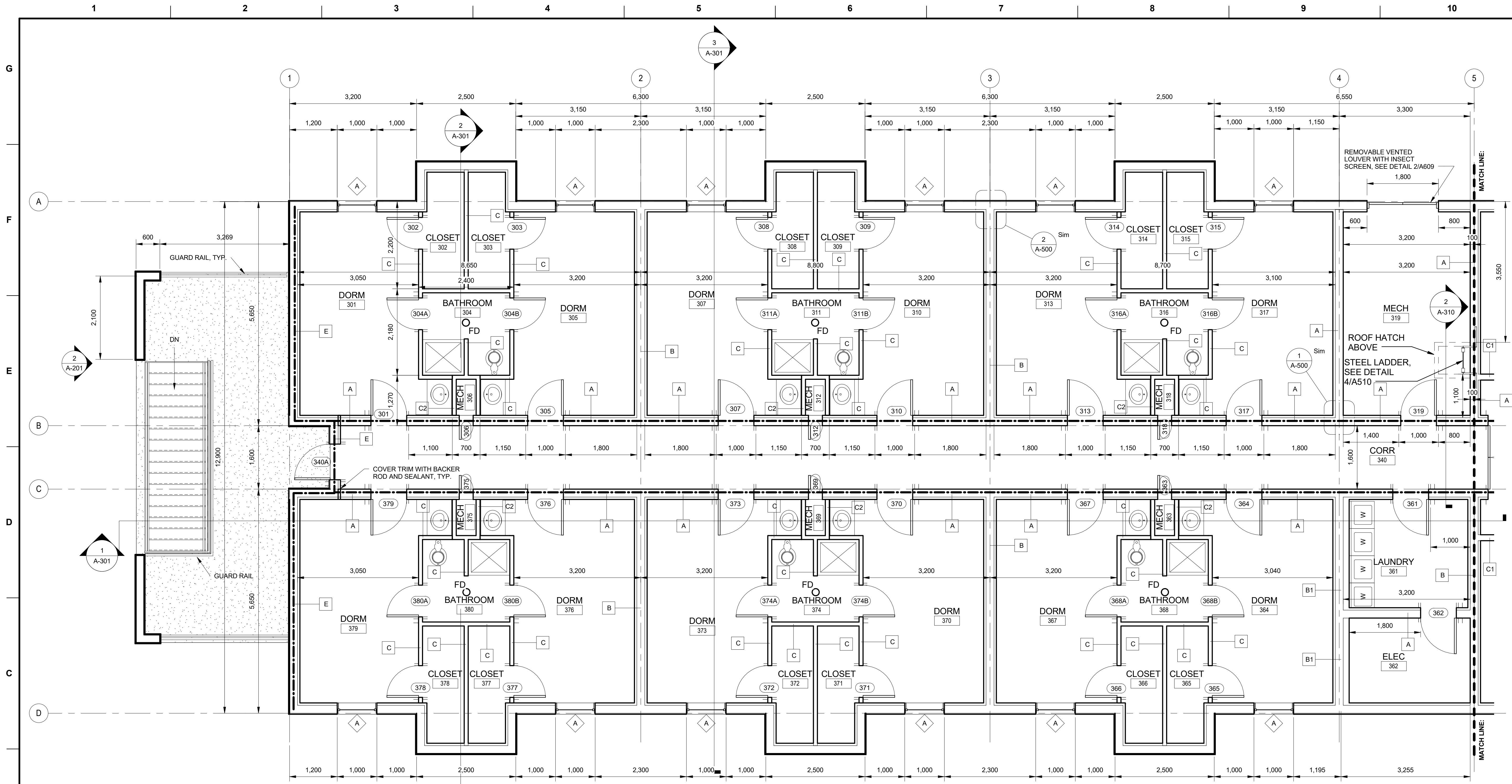
DESIGNED BY: J.D.V.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	PROJECT NO.:M017E044
SUBMITTED BY: C.A.	FILE NAME: M017E044
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

THIRD FLOOR PLAN  
COMPOSITE

SHEET ID  
**A-107**





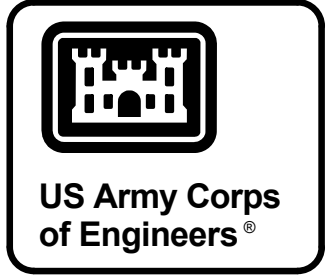
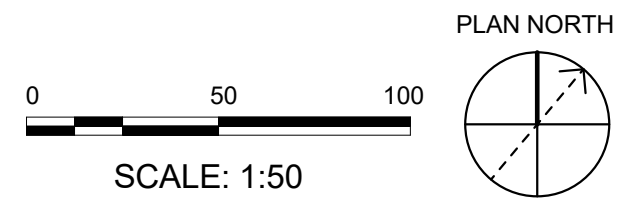
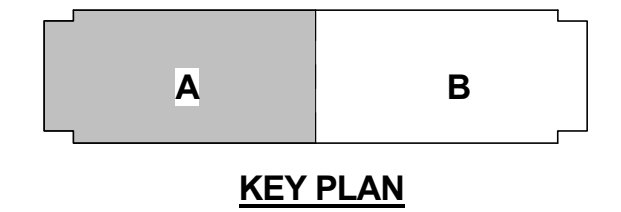
**GENERAL NOTES:**

1. PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
2. VERIFY STRUCTURAL FOR COLUMN SPACING.
3. SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
4. COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
5. SEE SHEET A-603, 604, and 605 FOR DOOR & WINDOW SCHEDULES AND EXIT SIGNS.
6. SEE SHEETS A-602 & A-603 FOR DOOR AND WINDOW DETAILS.
7. ALL DOOR OPENINGS SHALL BE 4" OFF ADJACENT STUD WALLS ON THE HINGE SIDE OF DOOR UNLESS NOTED OTHERWISE.
8. AVERAGE EXTERIOR WALL "R" VALUE = R19.
9. DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
10. SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ).
11. DOOR AND WINDOW DIMENSIONS SHOWN ARE ROUGH OPENING MASONRY DIMENSIONS.
12. ALL WALLS SHALL HAVE A STC 50 RATING.
13. FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
14. PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
15. RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
16. SEE SHEET A601 FOR WALL TYPES.
17. PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**1 THIRD FLOOR PLAN - AREA "A"**  
1:50

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB, BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE, LENGTH 72"



DATE	DESCRIPTION	MARK

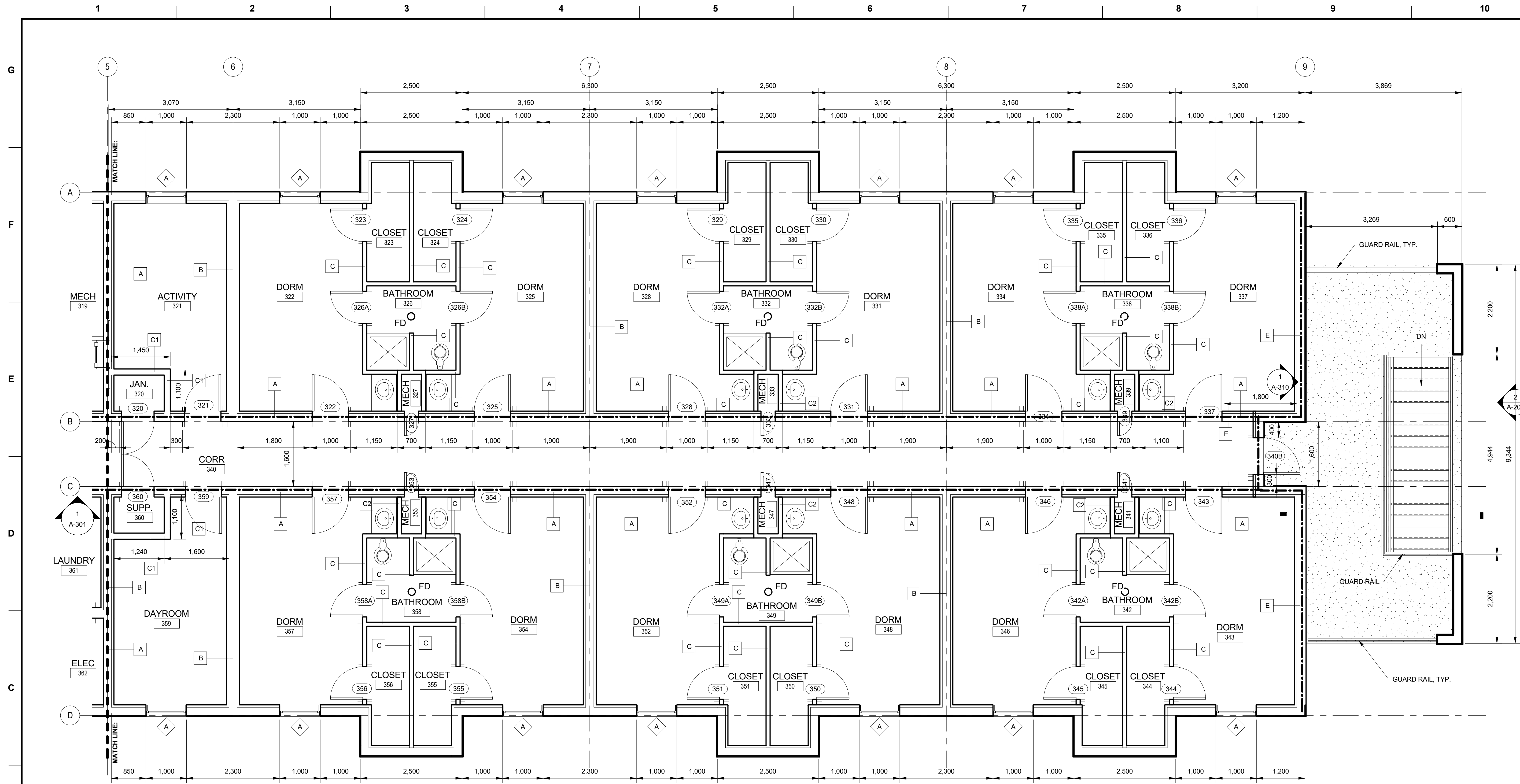
DESIGNED BY: J.D.V.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M07E44
FILE NAME: M07E44	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ENLARGED THIRD FLOOR PLAN - AREA "A"

SHEET ID  
**A-108**



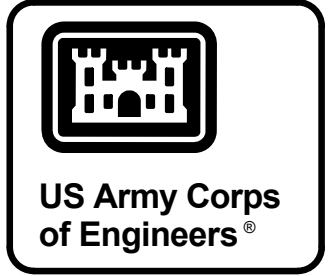
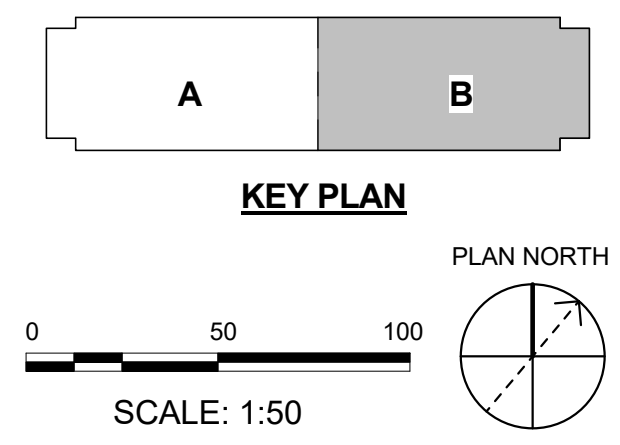
**GENERAL NOTES:**

1. PROVIDE BLOCKING IN GALVANIZED METAL STUD WALLS WITH GALVANIZED METAL STUD BLOCKING TO SUPPORT WALL MOUNTED EQUIPMENT.
2. VERIFY STRUCTURAL FOR COLUMN SPACING.
3. SEAL ALL WALL PENETRATIONS. PENETRATIONS SEAL SHALL MATCH FIRE RATING OF WALL.
4. COORDINATE WITH STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ASSOCIATED WORK UNLESS NOTED OTHERWISE.
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9. DIMENSIONS ARE OUTSIDE FACE OF MASONRY. DOES NOT INCLUDE STUCCO FINISH ON OUTSIDE FACE OF MASONRY.
10. SEE STRUCTURAL DRAWINGS FOR MASONRY CONTROL JOINTS (MCJ).
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12. ALL WALLS SHALL HAVE A STC 50 RATING.
13. FURNISHING ( DESKS, CHAIRS, STORAGE CABINETS, ETC) NOT IN CONTRACT. FURNITURE SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED (GFCI).
14. PORCELAIN TILE SHALL BE 200MM X 200MM. SEE COLOR SCHEDULE 09 06 90.
15. RESTROOMS SHALL HAVE CEMENTIOUS BACKER BOARD BEHIND WALL TILE FINISHES.
16. SEE SHEET A601 FOR WALL TYPES.
17. PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.

**1 THIRD FLOOR PLAN - AREA "B"**  
1:50

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB, BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- WOODEN SHELVES (30.48cm WIDE)
- CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE, LENGTH 72"



DATE	DESCRIPTION	MARK

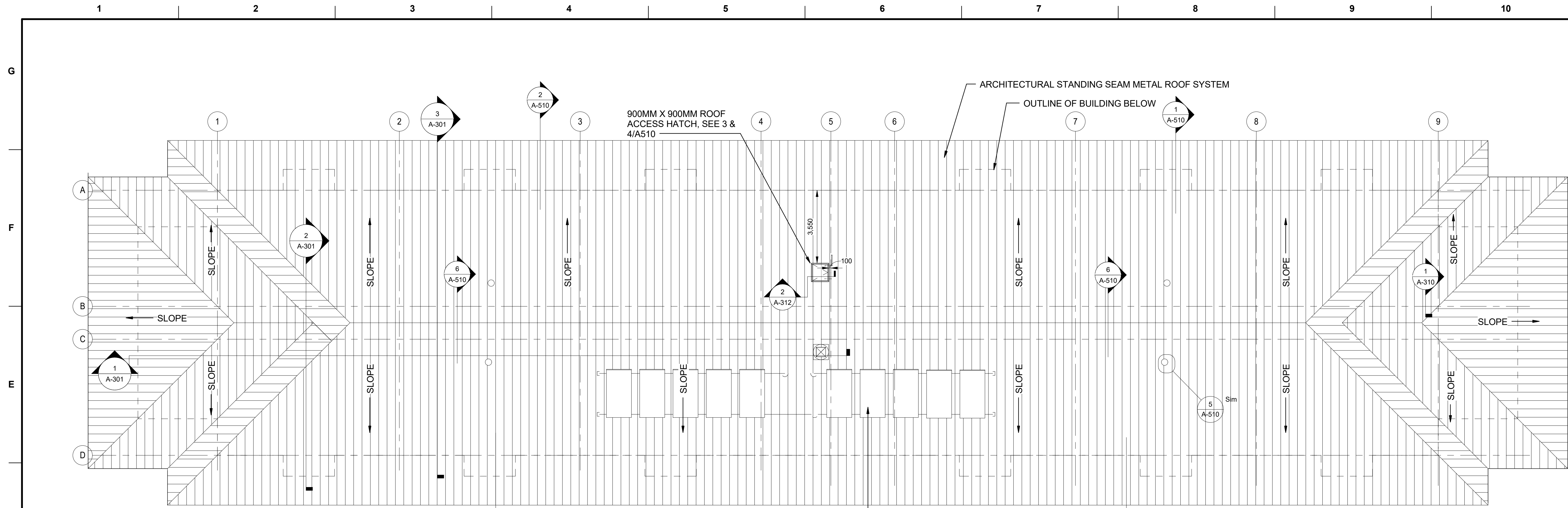
DESIGNED BY: J.W.V.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M017E44
FILE NAME: M017E44	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

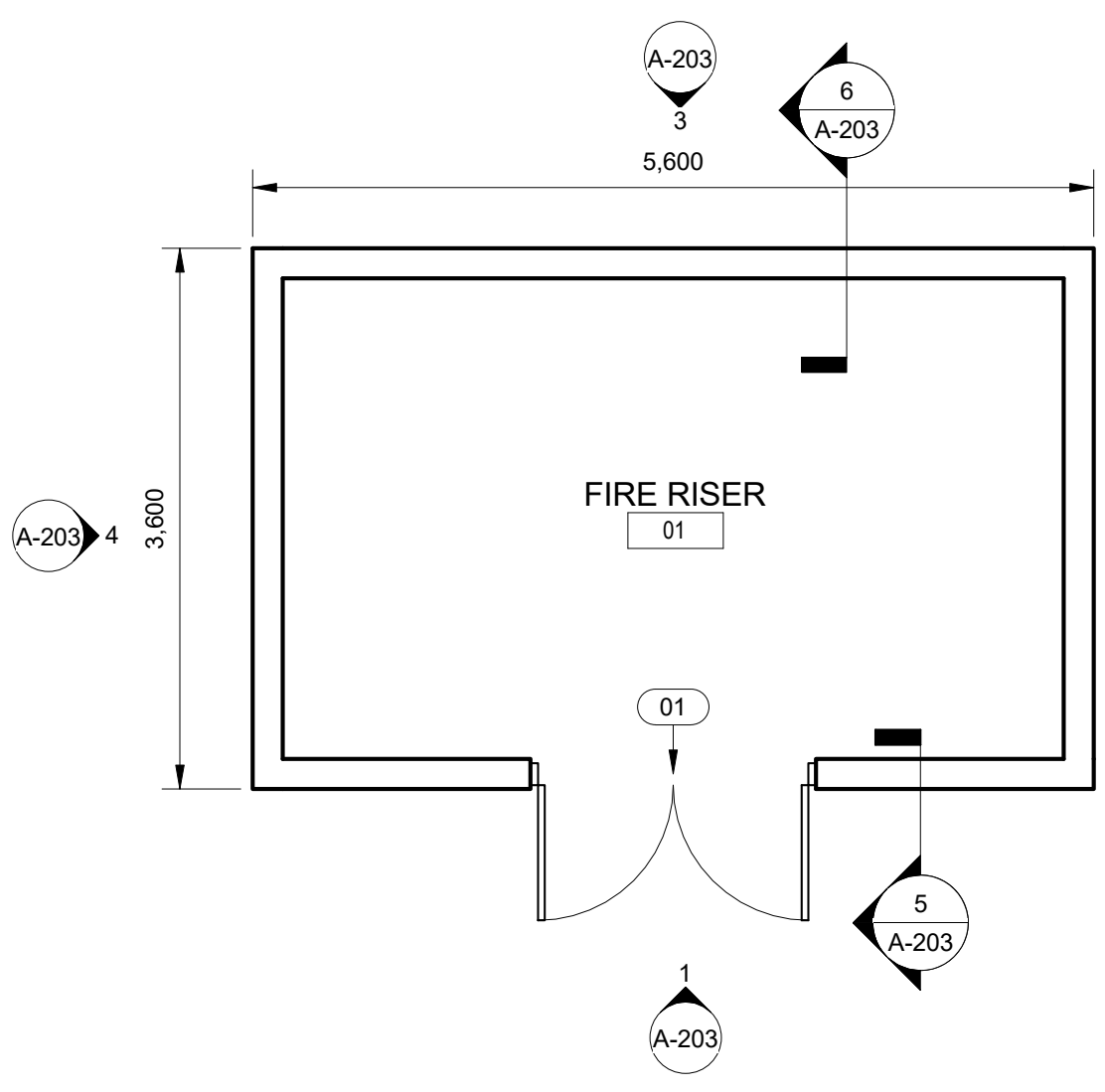
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ENLARGED THIRD FLOOR PLAN - AREA "B"

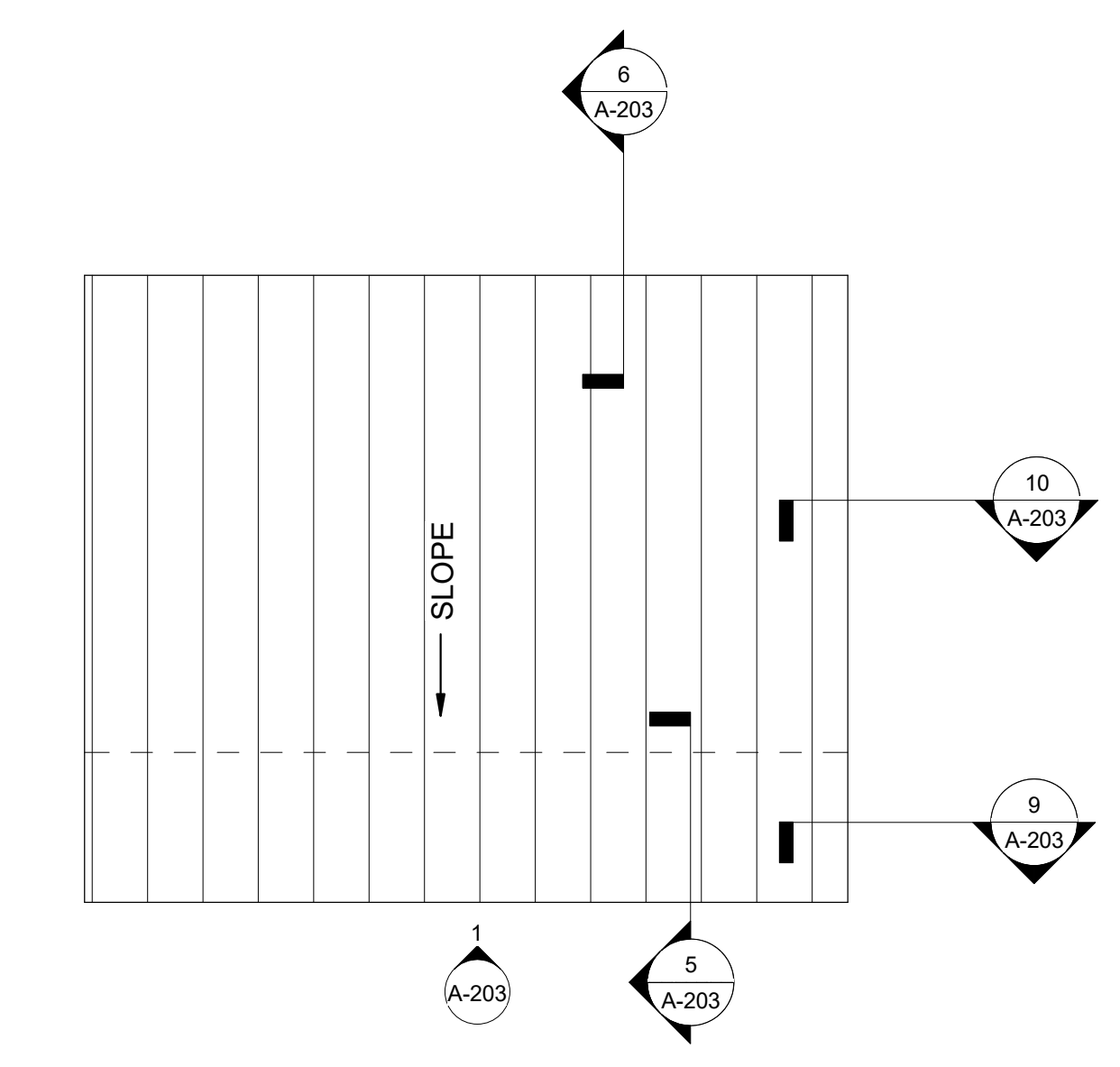
SHEET ID  
**A-109**



**1 ROOF PLAN**  
1:100



**2 FIRE PUMP BUILDING PLAN**  
1:50



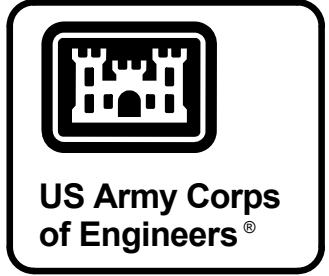
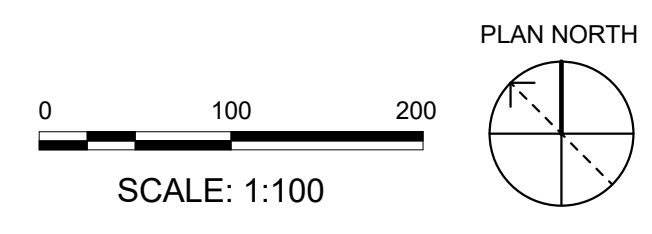
**3 FIRE PUMP BUILDING ROOF PLAN**  
1:50

**GENERAL NOTES:**

1. ALL DIMENSIONS ARE FROM EDGE OF ROOF TO EDGE OF ROOF, OR WHERE APPLICABLE, COLUMN GRIDLINE.
2. ALL ROOF SLOPES ARE 2.01/12, UNLESS NOTED OTHERWISE.
3. SEE STRUCTURAL FOR COLUMN GRID SPACING.
4. SEAL ALL ROOF PENETRATIONS.
5. DIMENSIONS FOR LOCATIONS OF ROOF LIGHTS SHALL BE FROM CENTERLINE OF COLUMN TO CENTERLINE OF UNIT, OR FROM CENTERLINE TO CENTERLINE OF EACH UNIT, VERT. & HORIZ. AS SHOWN IN PLAN, UNLESS NOTED OTHERWISE.
6. AVERAGE ROOF "R" VALUE = R30.
7. PROVIDE MANUFACTURERS STANDARD PREFINISHED TRIM, RIDGE CAPS AND PREFINISHED FLASHING. COLOR SHALL MATCH ROOF.

**LEGEND**

- PROPOSED CONCRETE SIDEWALK
- 16 GWB. BOTH SIDES ON 92 METAL STUD @ 600 O.C.
- WINDOW OR LOUVER
- DOOR
- PLUMBING FIXTURES
- WATER HEATER
- PLUMBING VENT
- MISCELLANEOUS FURNITURE ITEMS (NIC)
- ROOF SLOPE INDICATOR
- 1 HOUR FIRE RATED WALL
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARDWARE. LENGTH 72"



MARK	DESCRIPTION	DATE

DESIGNED BY: J.D.V.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M017EC44
FILE NAME: MD17EJ44	
ANSID:	

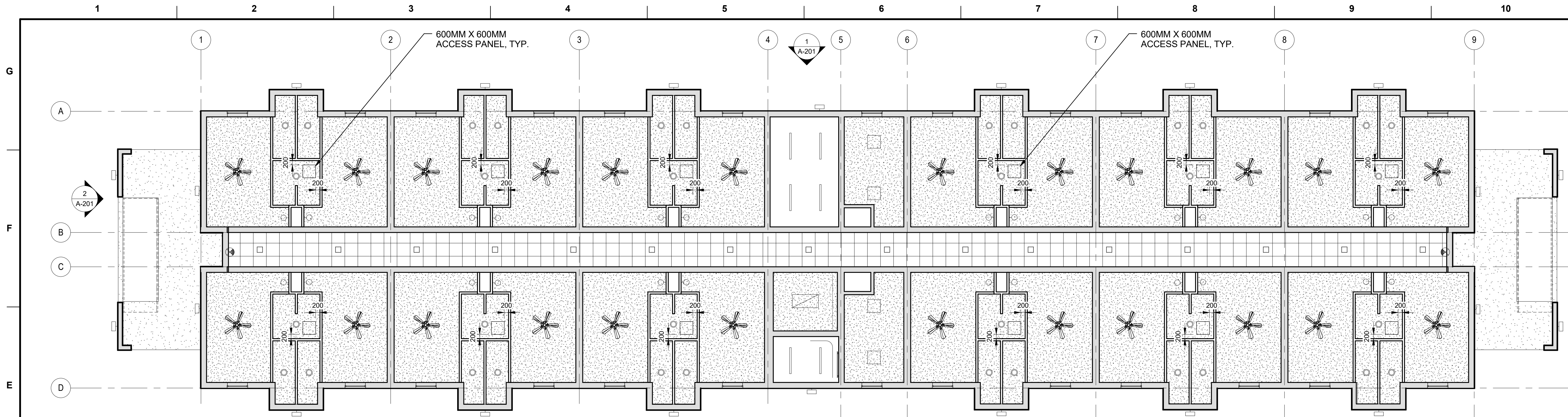
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**ROOF PLAN, RISER AND ROOF PLAN**

SHEET ID  
**A-111**





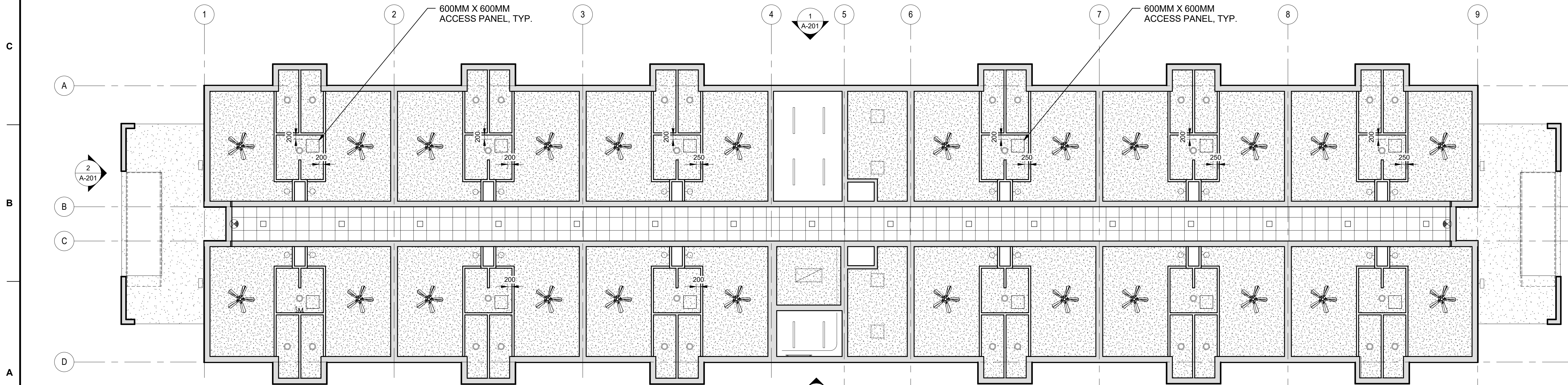
**1** FIRST FLOOR REFLECTED CEILING PLAN  
1:96

**GENERAL NOTES:**

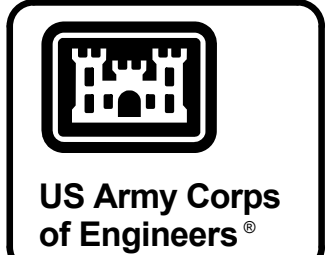
1. PROVIDE BLOCKING IN CEILING AS REQUIRED TO SUPPORT CEILING MOUNTED EQUIPMENT.
2. SEE STRUCTURAL FOR COLUMN GRID SPACING.
3. SEAL ALL PENETRATIONS PER SPECIFICATIONS.
4. ALL CEILING HEIGHTS ARE 2700MM A.F.F. IN ROOMS, COORIDOR CEILINGS 2700MM A.F.F UNLESS NOTED OTHERWISE.
5. ROOM NAMES OMITTED FOR CLARITY.
6. CONTRACTOR SHALL COORDINATE LIGHT FIXTURES WITH DIFFUSER LOCATIONS.
7. CEILING SHALL HAVE STC 50 RATING. ACCUSTICAL CEILING TILES SHALL BE INSTALLED.

**REFLECTED CEILING PLAN:**

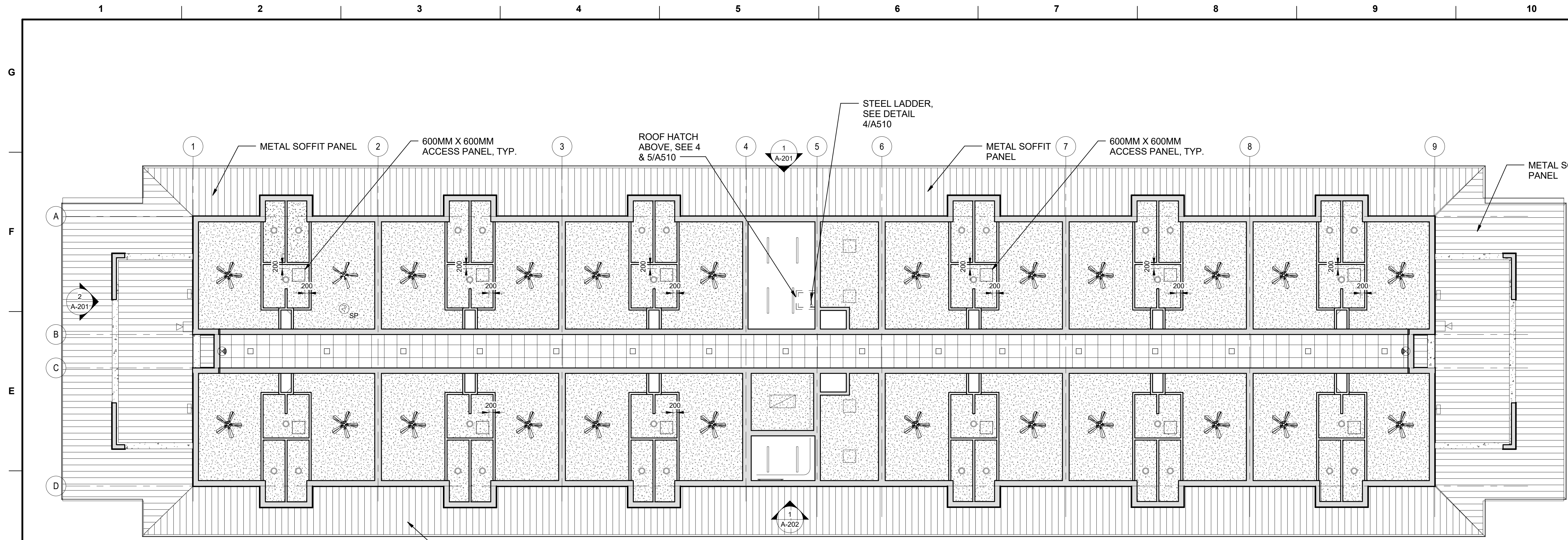
- |  |                             |  |  |
|--|-----------------------------|--|--|
|  | 2'-0" x 2'-0" ACT           |  | 1' X 1' DOWNLIGHT                            |
|  | GWB CEILING                 |  | EXTERIOR LIGHT FIXTURE                       |
|  | EXPOSED STRUCTURE (PAINTED) |  | RECESSED CAN FIXTURE                         |
|  | 1' x 4' DOWNLIGHT           |  | SMOKE DETECTOR (SEE FA DWGS)                 |
|  | 2' x 4' DOWNLIGHT           |  | EXIT SIGN LOCATION (SEE FA DWGS)             |
|  | 1' X 8' PENDANT             |  | DIFFUSER                                     |
|  |                             |  | RETURN                                       |
|  |                             |  | 1'-0" A.F.F. CEILING HEIGHT, ABOVE FIN. FLR. |



**2** SECOND FLOOR REFLECTED CEILING PLAN  
1:96



DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019	DATE
DRAWN BY: T.D.W.	SCALE: AS SHOWN	
CHECKED BY: J.M.C.	CONTRACT NO.:	
SUBMITTED BY: C.A.	PROJECT NUMBER: M07E044	
FILE NAME: M07E044		
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA		
SOTO CANO AIR BASE, HONDURAS UNACCOMPANIED ENLISTED PERSONNEL HOUSING		
FIRST AND SECOND FLOOR REFLECTED CEILING PLAN		
SHEET ID <b>A-112</b>		



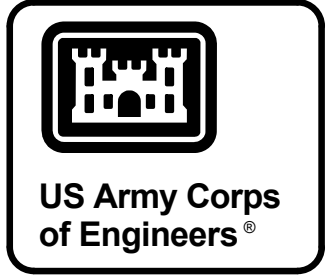
**1** THIRD FLOOR REFLECTED CEILING PLAN  
1:100

**GENERAL NOTES:**

1. PROVIDE BLOCKING IN CEILING AS REQUIRED TO SUPPORT CEILING MOUNTED EQUIPMENT.
2. SEE STRUCTURAL FOR COLUMN GRID SPACING.
3. SEAL ALL PENETRATIONS PER SPECIFICATIONS.
4. ALL CEILING HEIGHTS ARE 2700MM A.F.F. IN ROOMS, COORIDOR CEILINGS 2700MM A.F.F UNLESS NOTED OTHERWISE.
5. ROOM NAMES OMITTED FOR CLARITY.
6. CONTRACTOR SHALL COORDINATE LIGHT FIXTURES WITH DIFFUSER LOCATIONS.
7. CEILING SHALL HAVE STC 50 RATING. ACCUSTICAL CEILING TILES SHALL BE INSTALLED

**REFLECTED CEILING PLAN:**

- |  |                             |  |                                  |
|--|-----------------------------|--|----------------------------------|
|  | 2'-0" x 2'-0" ACT           |  | 1' X 1' DOWNLIGHT                |
|  | GWB CEILING                 |  | EXTERIOR LIGHT FIXTURE           |
|  | EXPOSED STRUCTURE (PAINTED) |  | RECESSED CAN FIXTURE             |
|  | 1' x 4' DOWNLIGHT           |  | SMOKE DETECTOR (SEE FA DWGS)     |
|  | 2' x 4' DOWNLIGHT           |  | EXIT SIGN LOCATION (SEE FA DWGS) |
|  | 1' X 8' PENDANT             |  | DIFFUSER                         |
|  |                             |  | RETURN                           |
|  |                             |  | CEILING HEIGHT, ABOVE FIN. FLR.  |



MARK	DESCRIPTION	DATE

DESIGNED BY: J.D.V.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	PROJECT NO.:M017EC44
SUBMITTED BY: C.A.	FILE NAME: M017E144
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
THIRD FLOOR REFLECTED CEILING PLAN





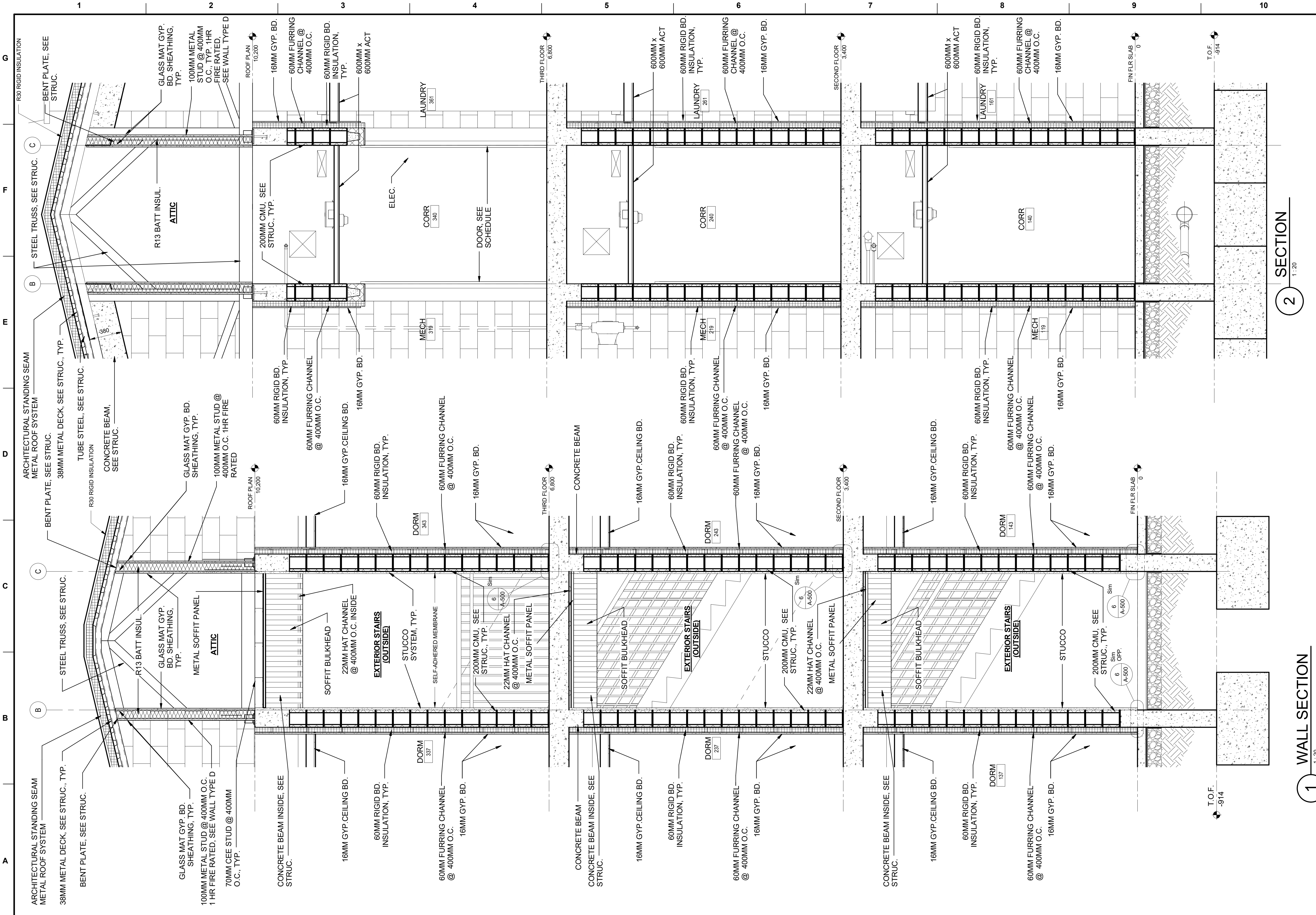














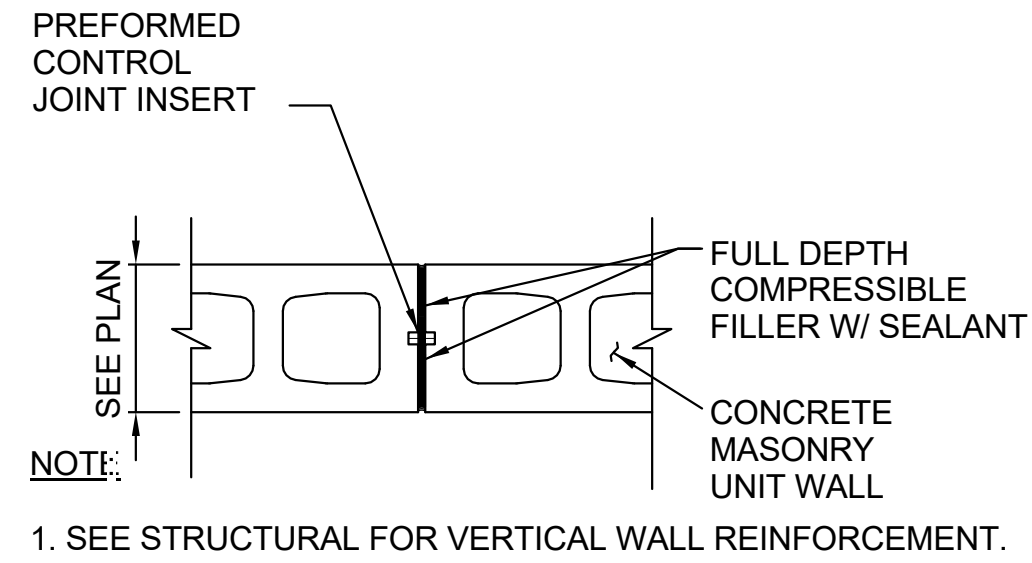




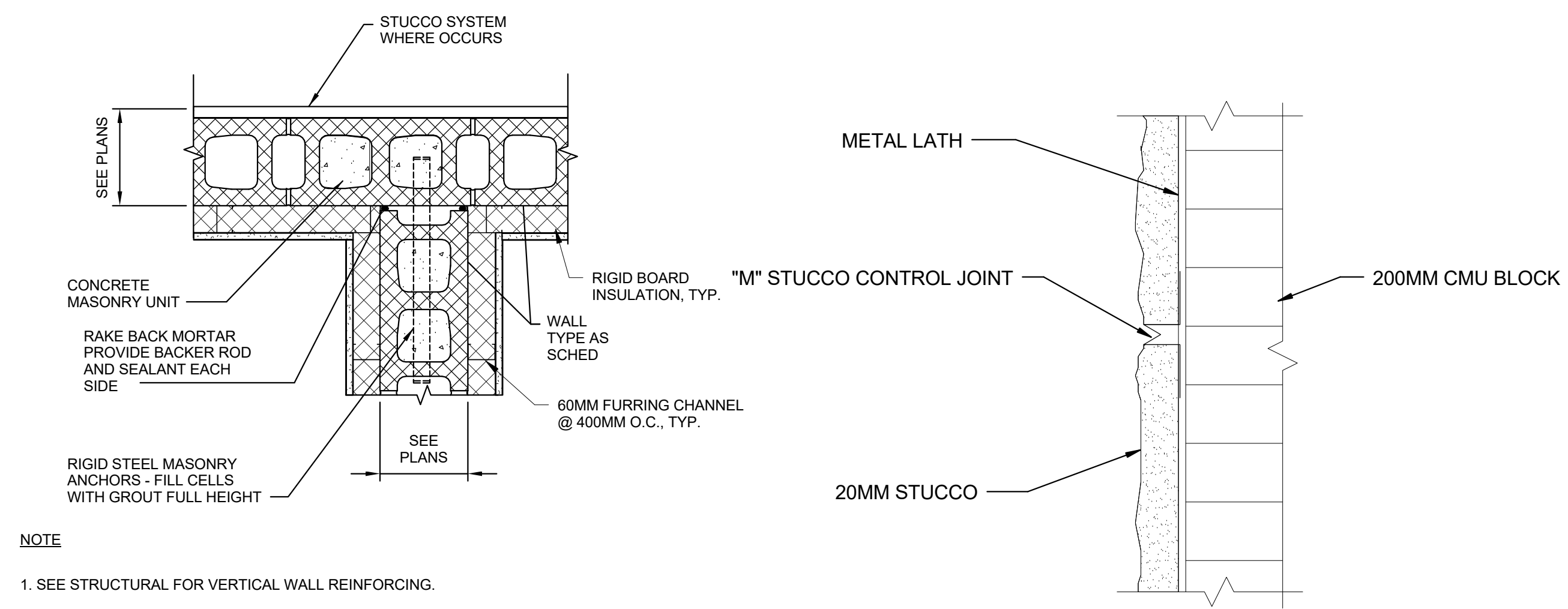






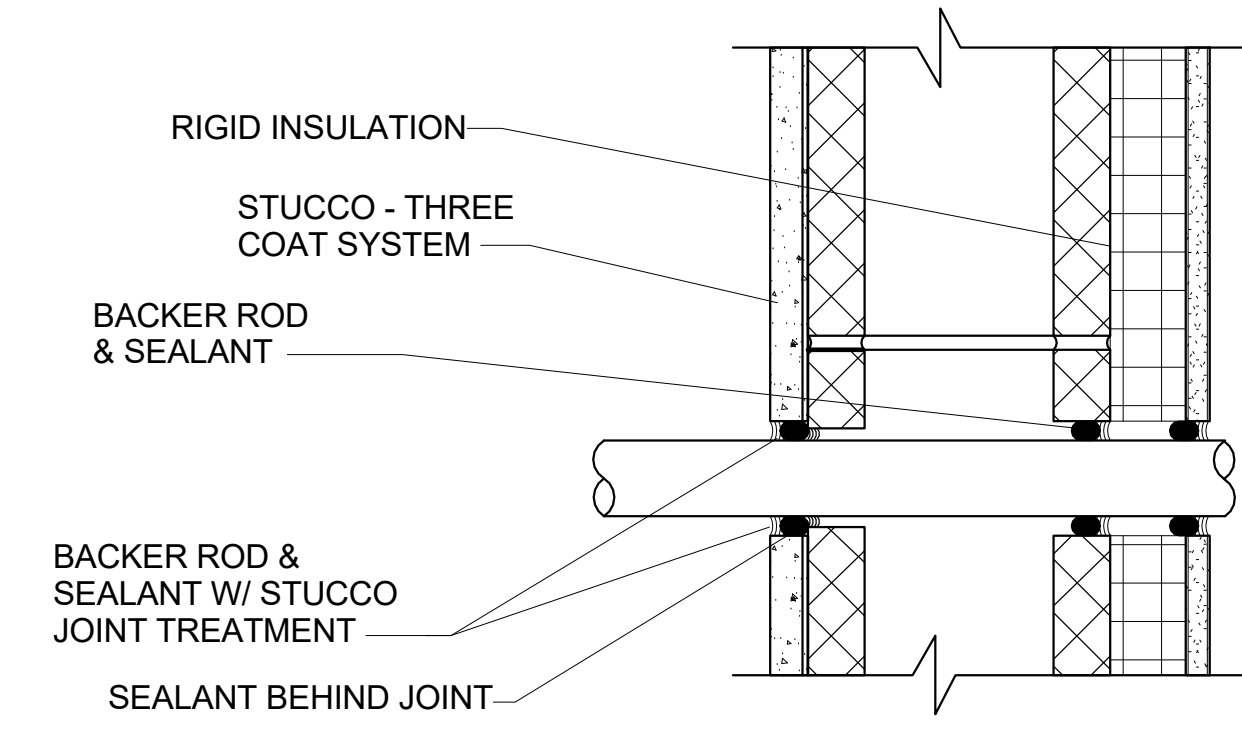


**1 MASONRY CONTROL JOINT DETAIL**  
1:10

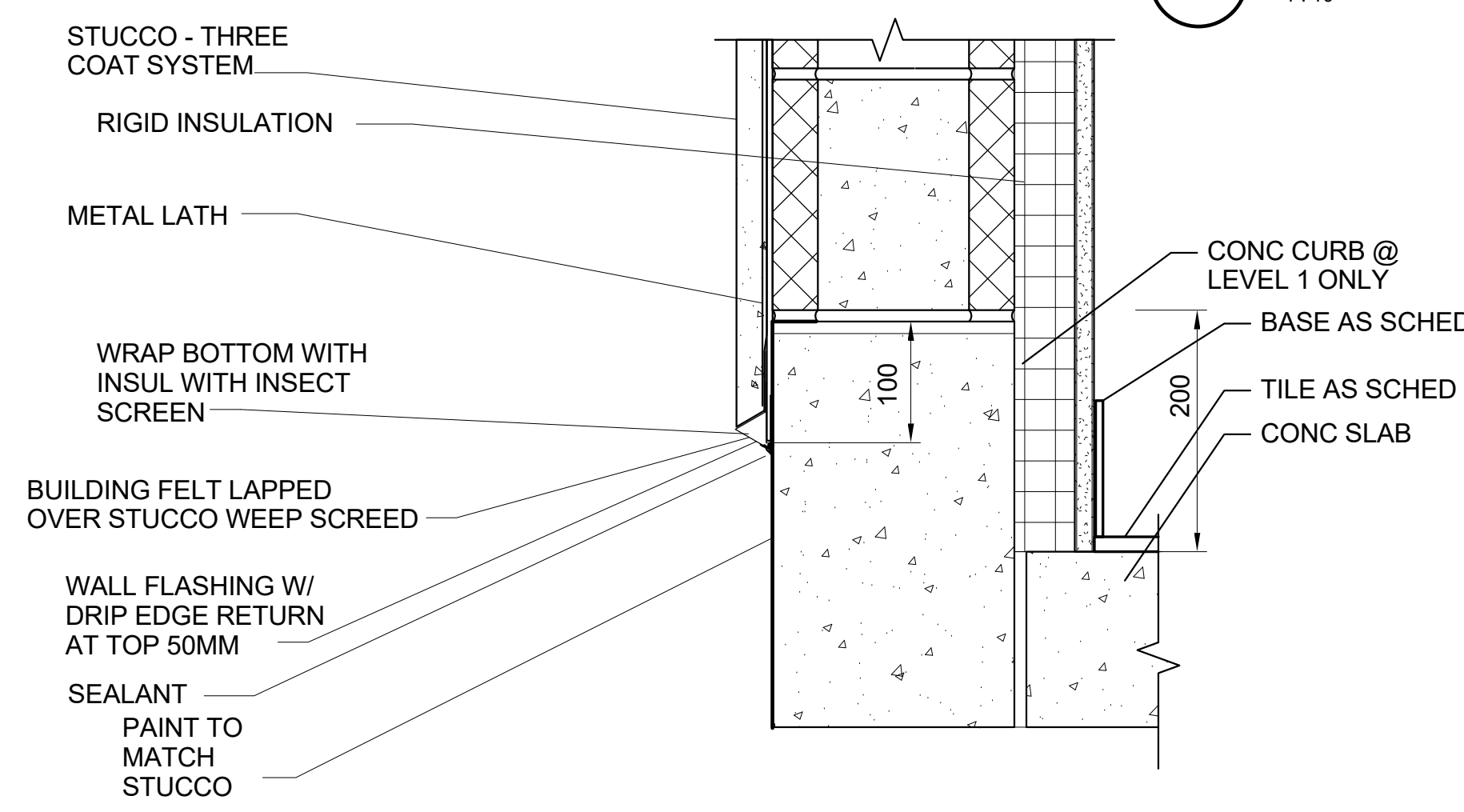


**2 LOAD BEARING CONTROL JOINT**  
1:10

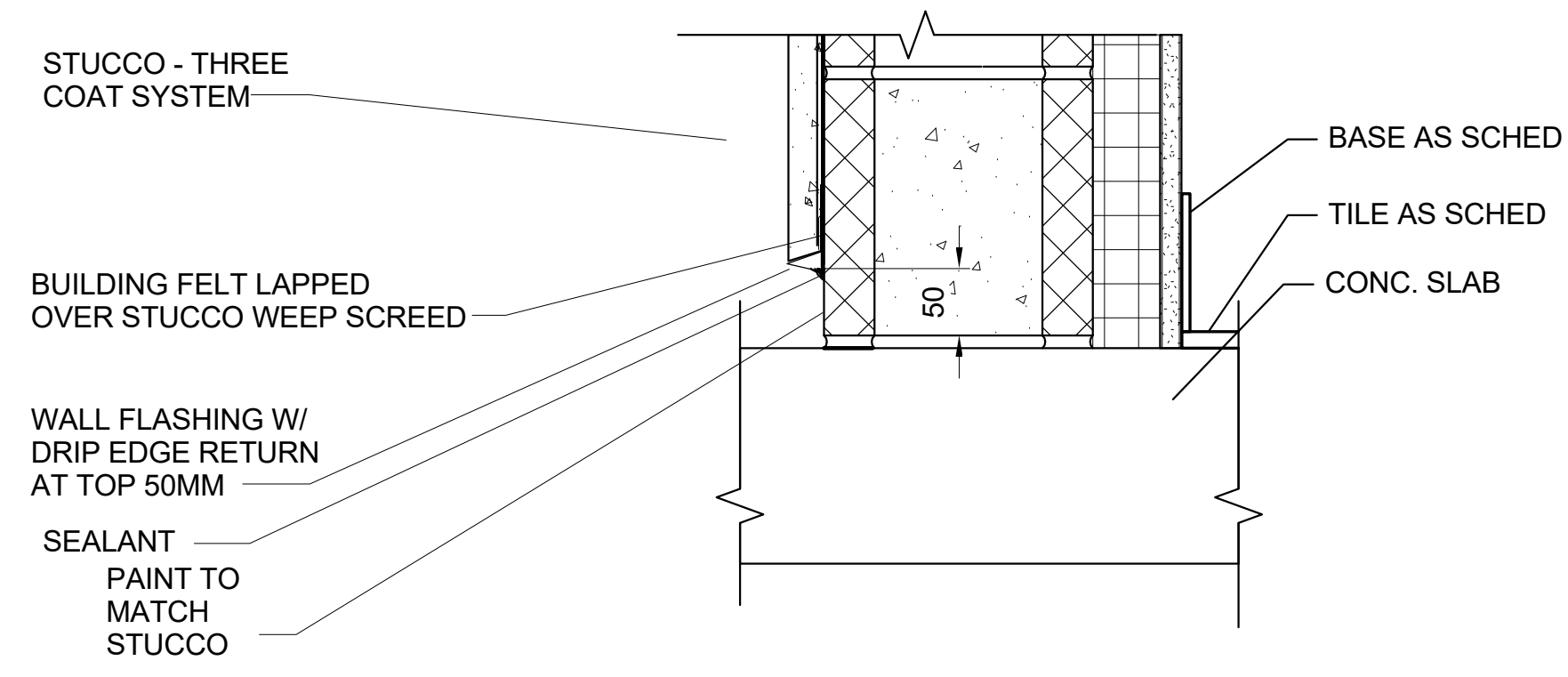
**3 CONTROL JOINT DETAIL - STUCCO**  
1:25



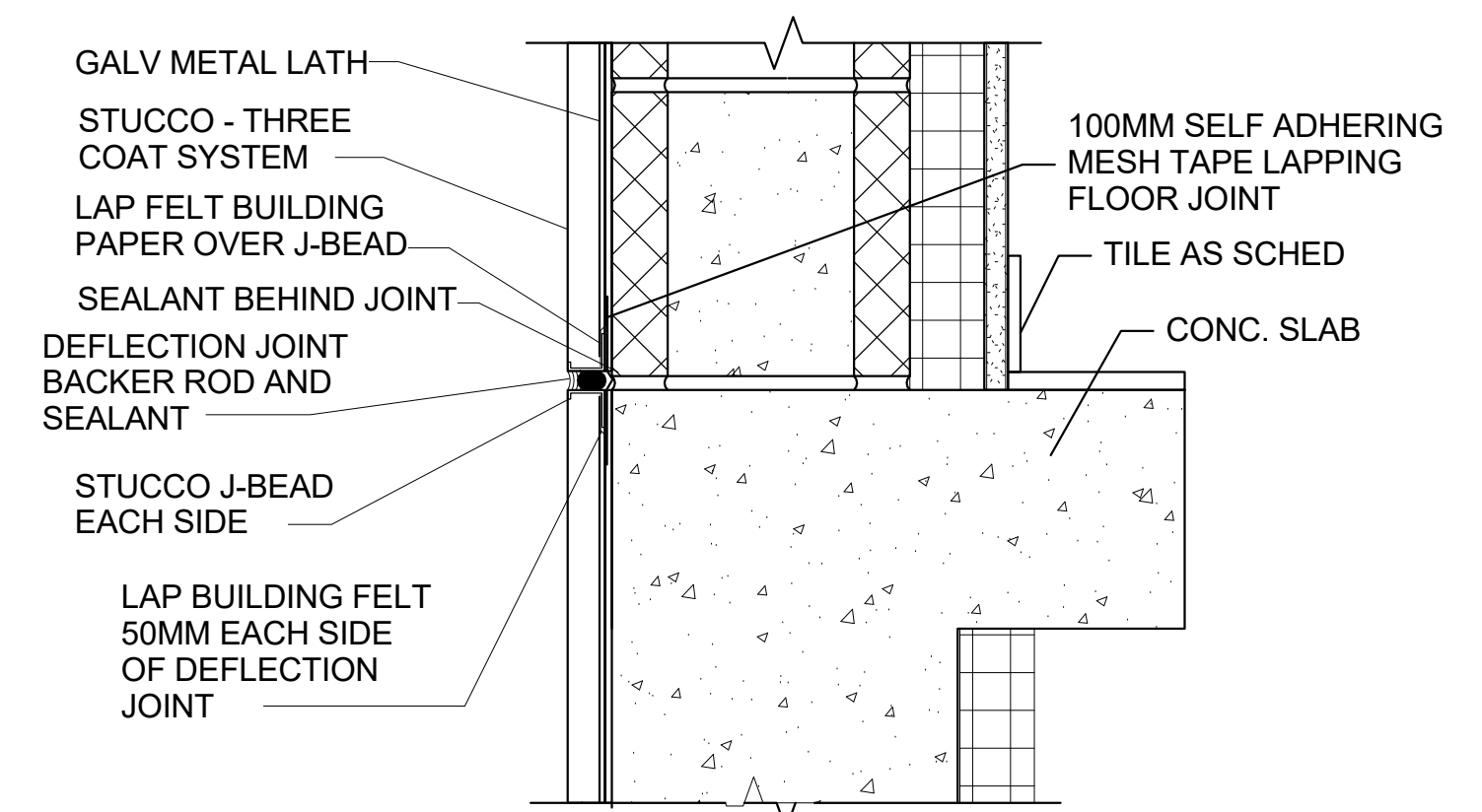
**4 PENETRATION DETAIL**  
1:5



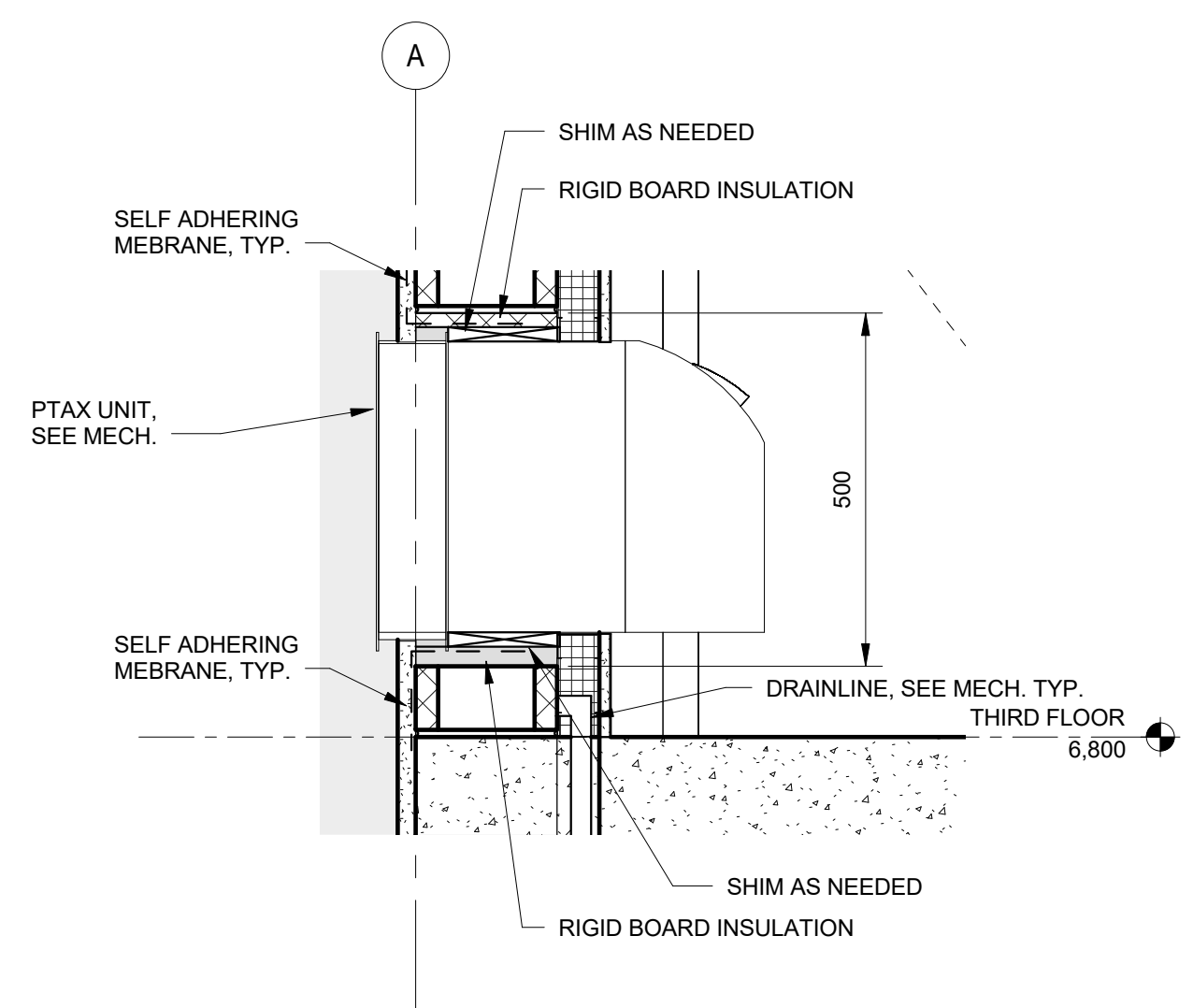
**5 WALL DETAIL - @ FOUNDATION**  
1:5



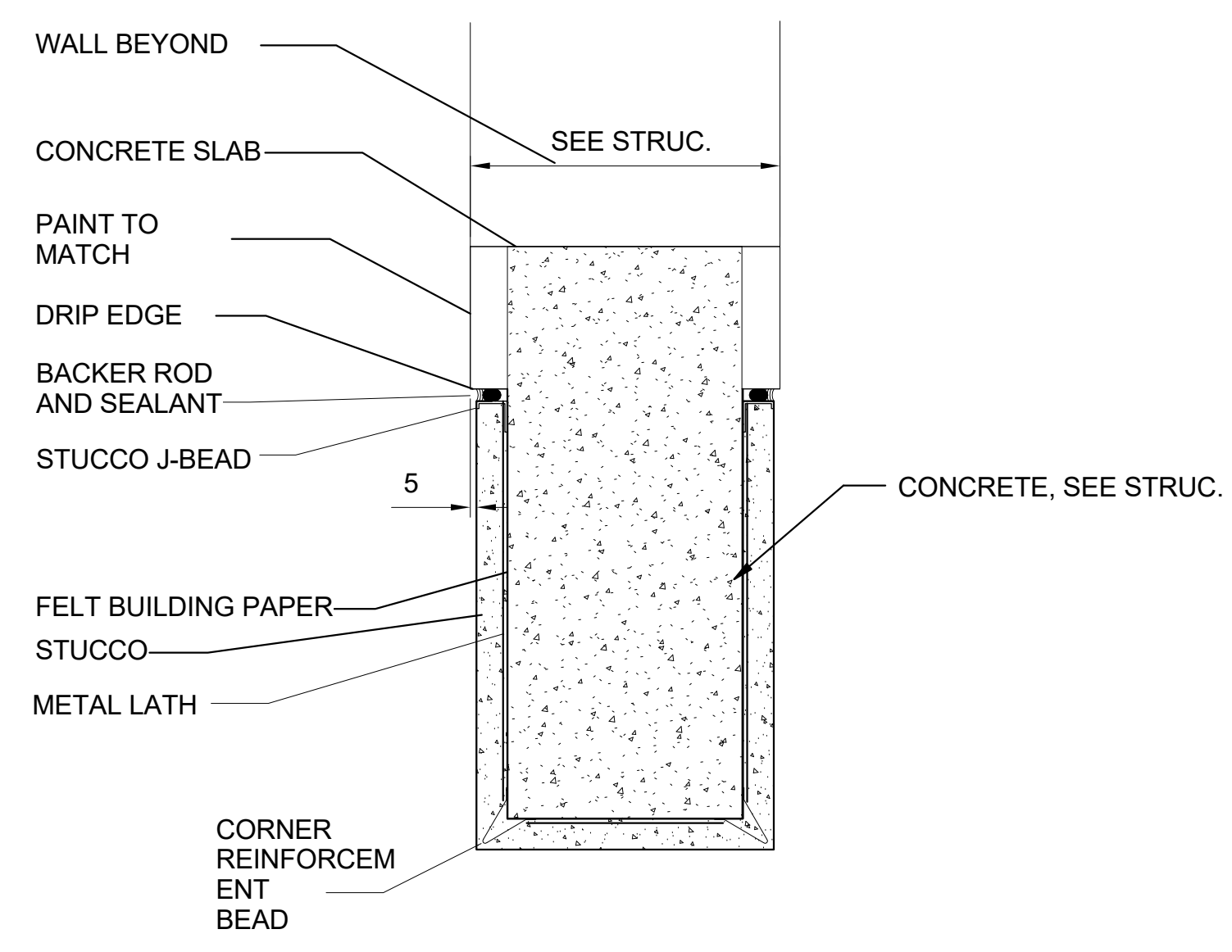
**6 WALL DETAIL - @ SLAB**  
1:5



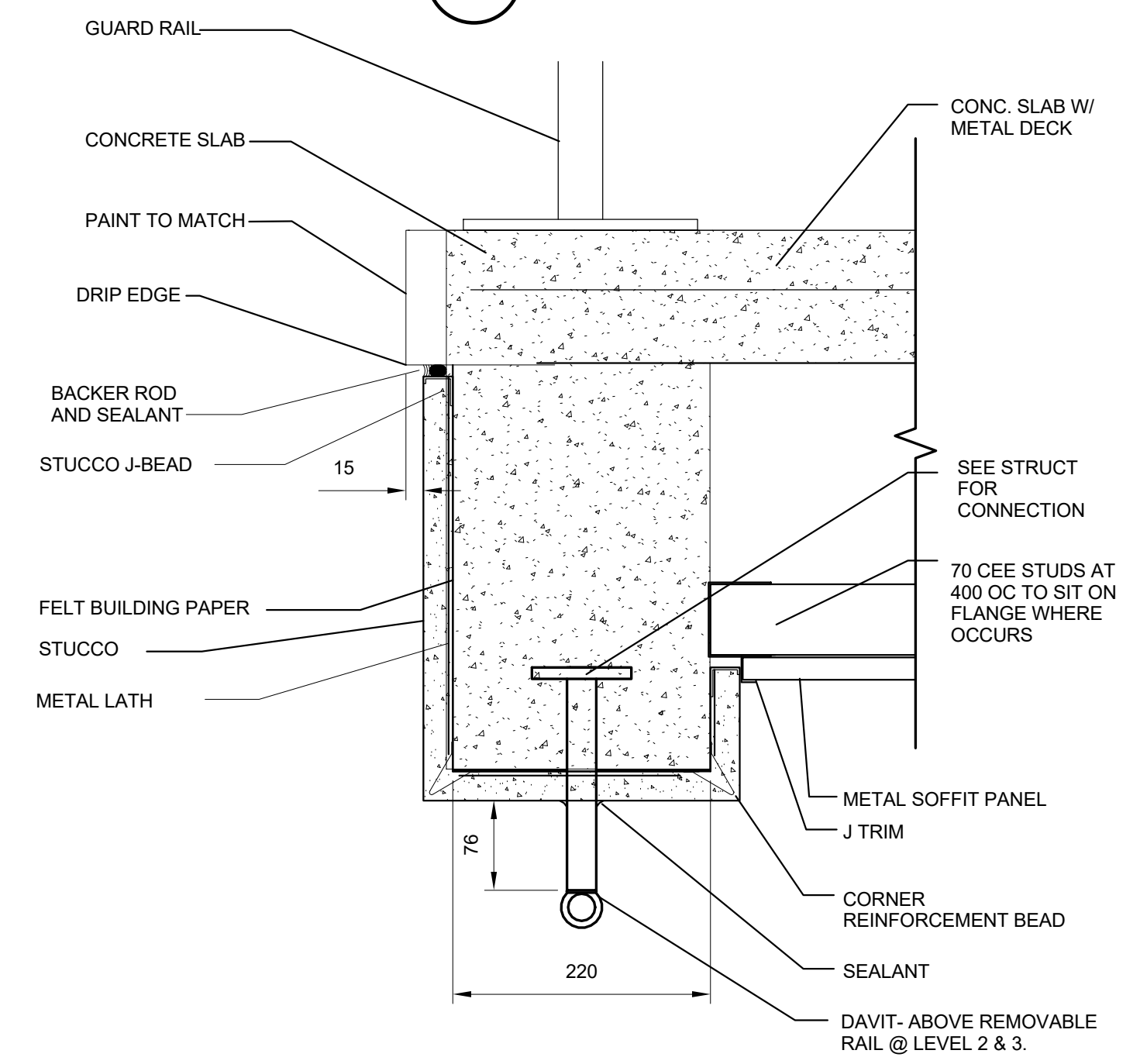
**7 WALL DETAIL - @ EXP. JOINT**  
1:5



**8 WALL DETAIL - PTAC UNIT**  
1:10



**9 BULKHEAD DETAIL**  
1:5



**10 BULKHEAD DETAIL - STAIR**  
1:5

**US Army Corps of Engineers**

ISSUE DATE: FEBRUARY 2019  
 DESIGNED BY: J.D.W.  
 DRAWN BY: T.D.W.  
 CHECKED BY: J.M.C.  
 SUBMITTED BY: C.A.  
 FILE NAME: MD17EJ44  
 ANSLD

U.S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
 UNACCOMPANIED ENLISTED PERSONNEL HOUSING

MISCELLANEOUS DETAILS

SHEET ID  
**A-500**















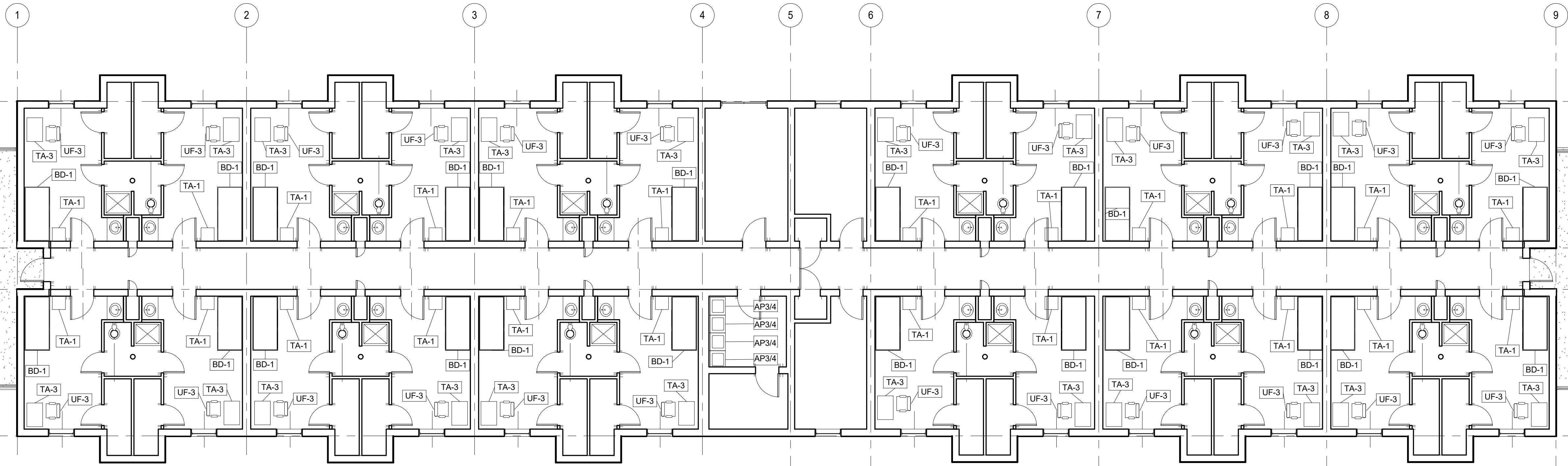












**SECOND FLOOR PLAN**

1:96

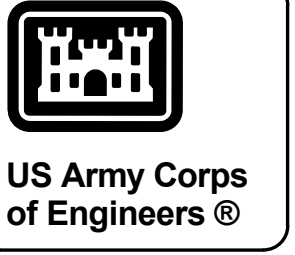
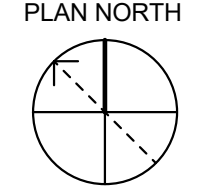
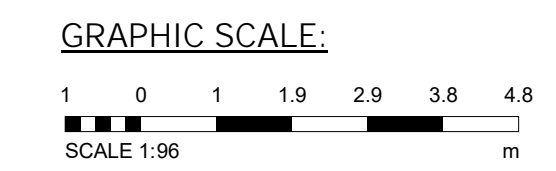
FF & E LEGEND:	
ACCESSOIRES	
AC1	WASTE BASKET
AC2	TRASH CAN
AC3	SHOWER CURTAIN
AC4	RECYCLE CONTAINER
APPLIANCES	
AP3/4	STACKABLE WASHER AND DRYER
FURNITURE	
TA1	END TABLE
TA3	DESK
BD1	BED WITH MATTRESS

**GENERAL NOTES:**

- ARTWORK PLACEMENT SHOULD BE CENTERED ON WALL. MOUNT 1168MM ABOVE THE FINISHED FLOOR TO THE BOTTOM OF FRAME. DIMENSIONS SHOULD BE CONFIRMED WITH THE GOVERNMENT IF SPECIFIED PRODUCTS ARE SUBSTITUTED.
- SEE SHEET A400 FOR ENLARGED CORE PLAN, INTERIOR ELEVATIONS, AND MOUNTING HEIGHTS.
- SEE SHEET I-001,002, AND 003 FOR ROOM FINISH SCHEDULES.

**LEGEND**

- MISCELLANEOUS FURNITURE ITEMS (NIC)
- SH WOODEN SHELVES (30.48cm WIDE)
- SD CLOSET ROD TYPE 304 STAINLESS STEEL 1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"



DATE	DESCRIPTION	MARK

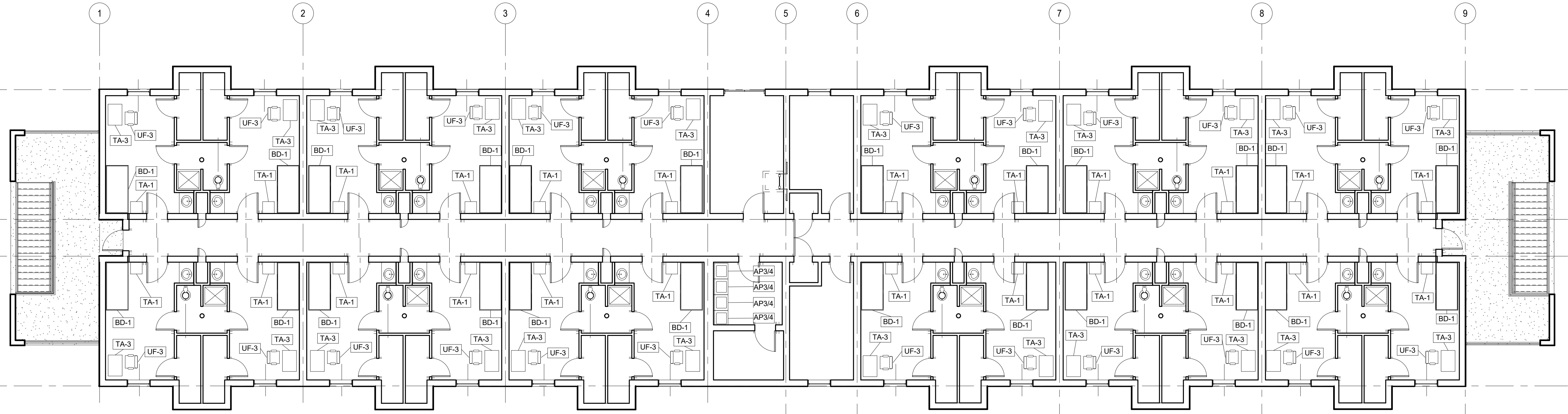
DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
CHECKED BY: J.M.C.	SCALE NO. / DRAWING NO. / CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M017EU44
FILE NAME: M017EU44	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
109 SAINT JOSEPH STREET  
MOBILE AL 36602

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**SECOND FLOOR  
OVERALL FURNITURE PLAN**

**SHEET ID**  
**I-102**



**THIRD FLOOR PLAN**

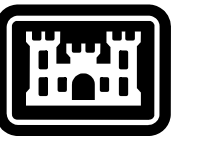
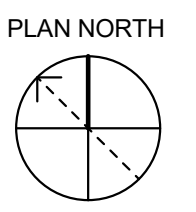
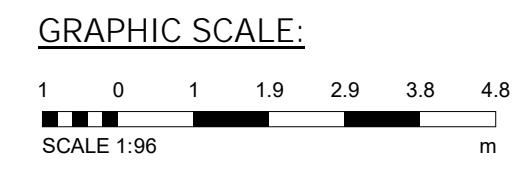
1:96

- GENERAL NOTES:**
- ARTWORK PLACEMENT SHOULD BE CENTERED ON WALL. MOUNT 1168MM ABOVE THE FINISHED FLOOR TO THE BOTTOM OF FRAME. DIMENSIONS SHOULD BE CONFIRMED WITH THE GOVERNMENT IF SPECIFIED PRODUCTS ARE SUBSTITUTED.
  - SEE SHEET A400 FOR ENLARGED CORE PLAN, INTERIOR ELEVATIONS, AND MOUNTING HEIGHTS.
  - SEE SHEET I-001,002, AND 003 FOR ROOM FINISH SCHEDULES.

**LEGEND**

- MISCELLANEOUS FURNITURE ITEMS (NIC)
- SH WOODEN SHELVES (30.48cm WIDE)
- ROD CLOSET ROD TYPE 304 STAINLESS STEEL 11-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"

FF & E LEGEND	
ACCESSOIRES	
AC1	WASTE BASKET
AC2	TRASH CAN
AC3	SHOWER CURTAIN
AC4	RECYCLE CONTAINER
APPLIANCES	
AP3/4	STACKABLE WASHER AND DRYER
FURNITURE	
TA1	END TABLE
TA3	DESK
BD1	BED WITH MATTRESS



US Army Corps of Engineers ©

DATE	DESCRIPTION	MARK

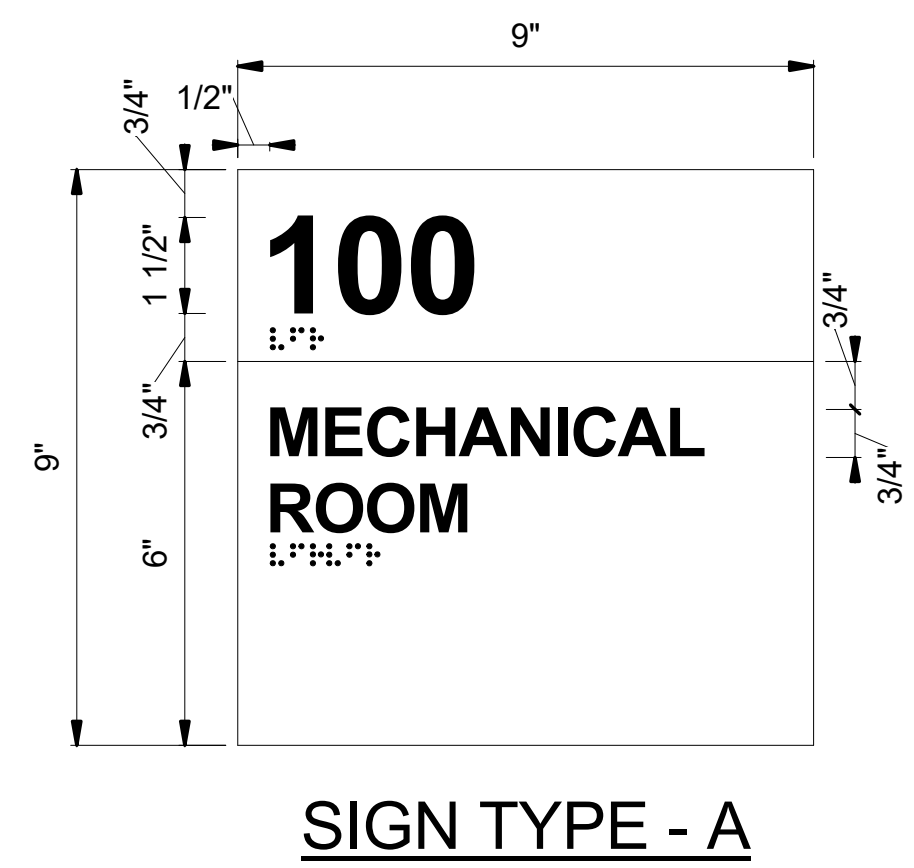
DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
CHECKED BY: J.M.C.	PROJECT NO.:W01764003
SUBMITTED BY: C.A.	CONTRACT NO.:M017ELU4
FILE NAME: I017ELU4	PROJECT NUMBER: M017ELU4
ANSI D	SIZE:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
109 SAINT JOSEPH STREET  
MOBILE AL 36602

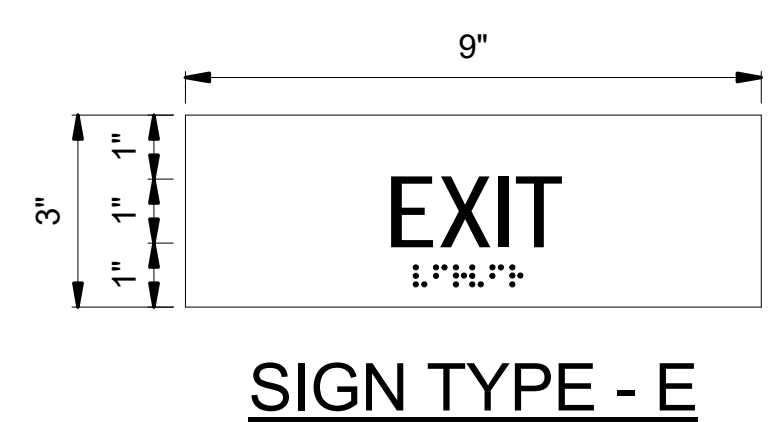
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**THIRD FLOOR  
OVERALL FURNITURE PLAN**

**SHEET ID**  
**I-103**

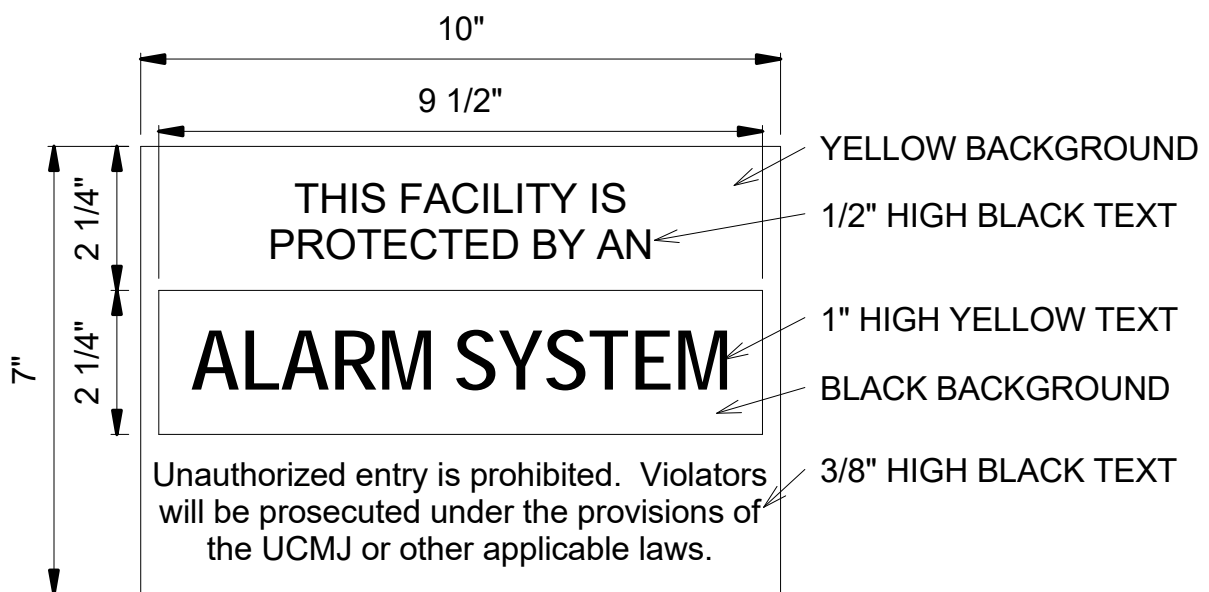




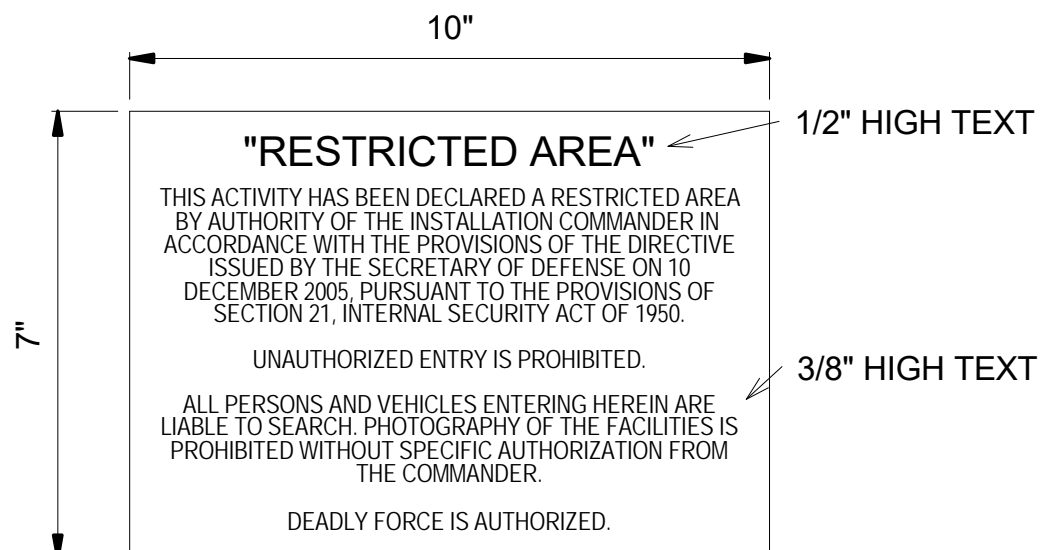
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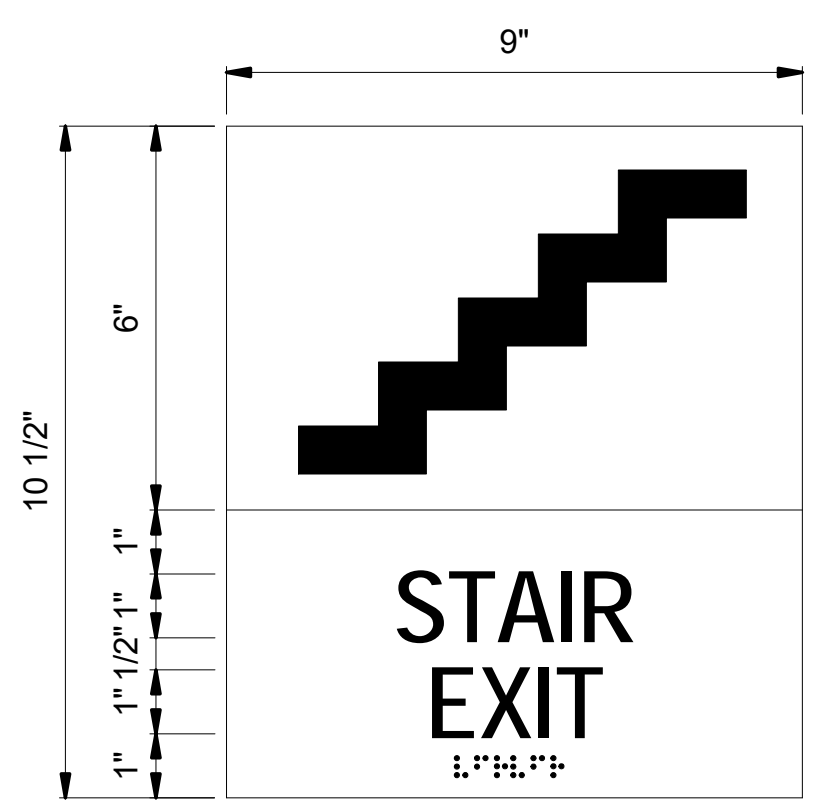
**SIGN TYPE - E**



**SIGN TYPE - H**



**SIGN TYPE - G**

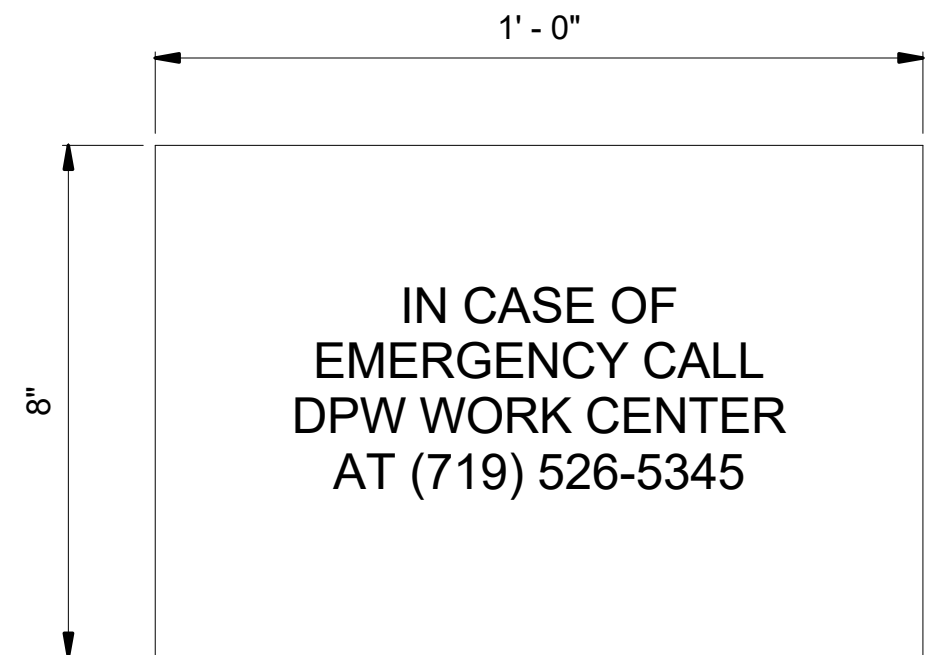


**SIGN TYPE - J**

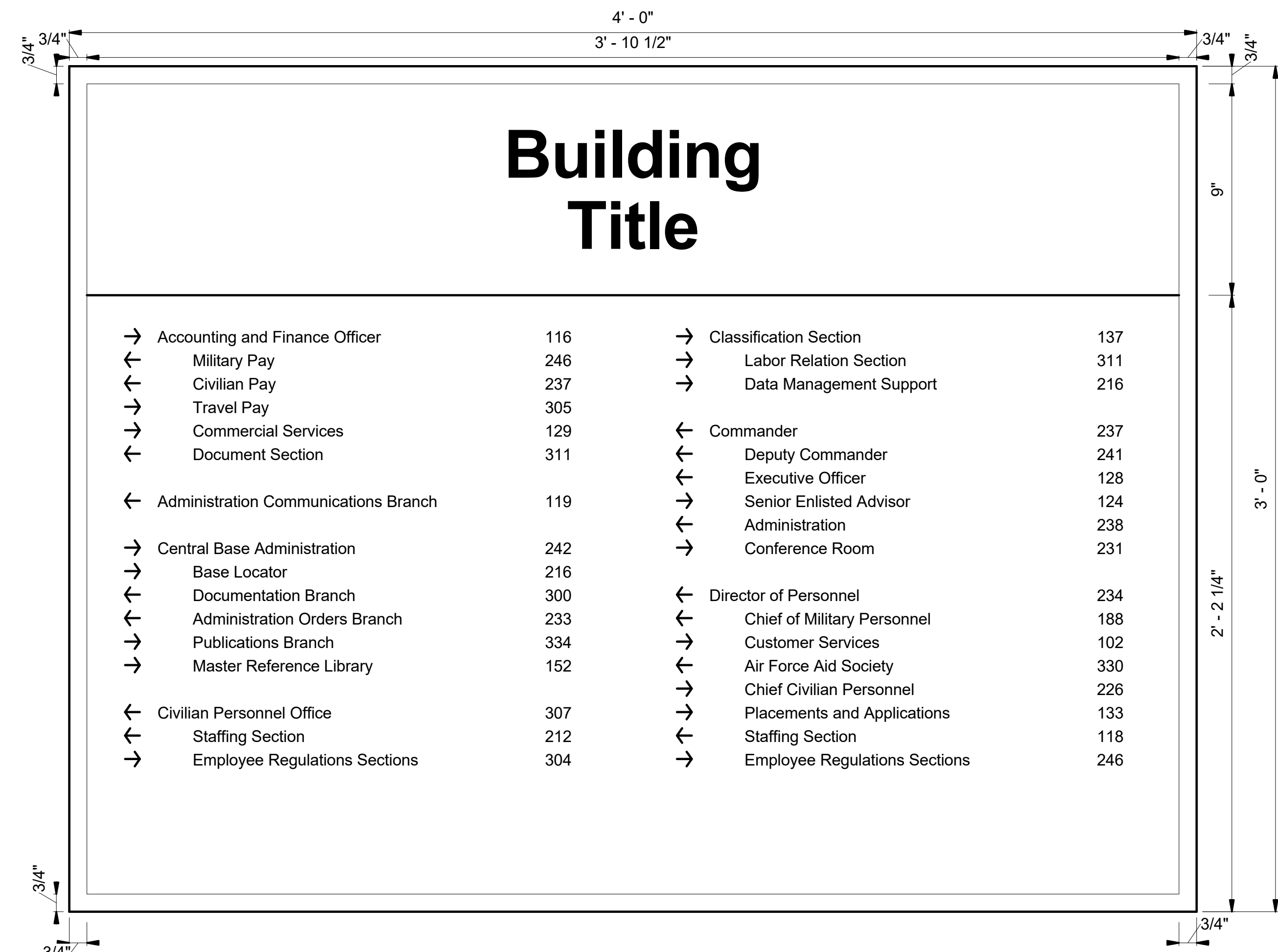


**SIGN TYPE - M**

NOTE: SIGN SHALL BE POSTED PER AR 600-63.



**SIGN TYPE - N**

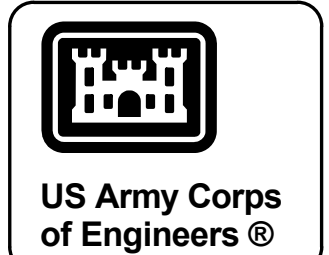


**SIGN TYPE - F**

→ Accounting and Finance Officer	116	→ Classification Section	137
← Military Pay	246	→ Labor Relation Section	311
← Civilian Pay	237	→ Data Management Support	216
→ Travel Pay	305	← Commander	237
→ Commercial Services	129	← Deputy Commander	241
← Document Section	311	← Executive Officer	128
← Administration Communications Branch	119	→ Senior Enlisted Advisor	124
→ Central Base Administration	242	← Administration	238
→ Base Locator	216	→ Conference Room	231
← Documentation Branch	300	← Director of Personnel	234
← Administration Orders Branch	233	← Chief of Military Personnel	188
→ Publications Branch	334	→ Customer Services	102
→ Master Reference Library	152	← Air Force Aid Society	330
← Civilian Personnel Office	307	→ Chief Civilian Personnel	226
← Staffing Section	212	→ Placements and Applications	133
→ Employee Regulations Sections	304	← Staffing Section	118
		→ Employee Regulations Sections	246

**GENERAL NOTES:**

- OVERALL SIGN SIZE VARIES DEPENDENT ON NUMBER OF LINES OF TEXT.
- SEE SPEC SECTIONS 10-14-00.20 FOR SIGNAGE SCHEDULE.



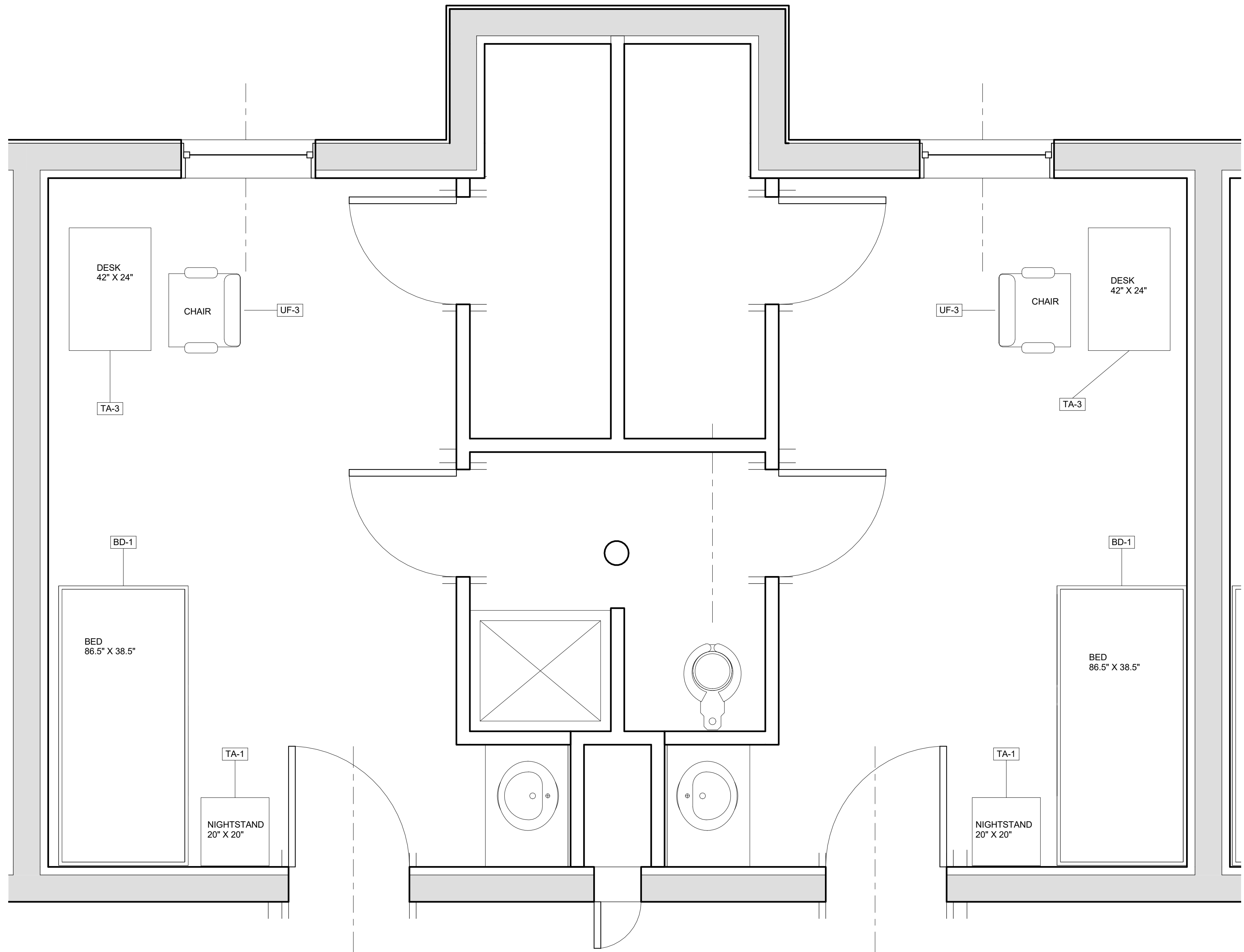
MARK	DESCRIPTION	DATE

DESIGNED BY:	ISSUE DATE:
D.W. ...	FEBRUARY 2019
DRW. BY:	SCALE:
T.W. ...	AS SHOWN
CHECKED BY:	PROJECT NO.:
J.M.C.	M077ELU4
SUBMITTED BY:	PROJECT NUMBER:
C.A.	M077ELU4
FILE NAME:	
ANSI D	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**TYPICAL SIGNAGE**

1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A



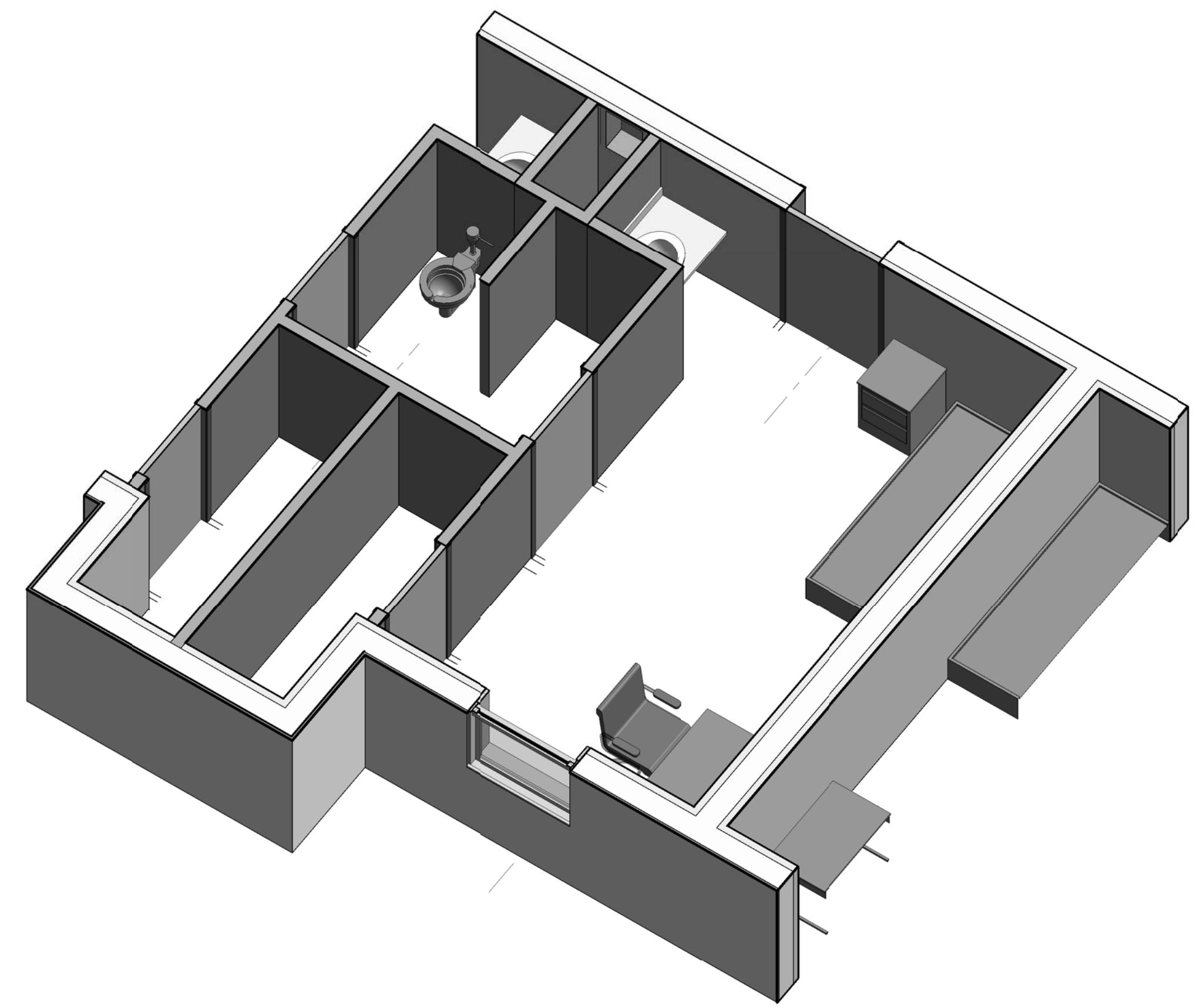
**1 ENLARGED FURNITURE PLAN**  
1:20

- LEGEND**
- MISCELLANEOUS FURNITURE ITEMS (NIC)
  - WOODEN SHELVES (30.48cm WIDE)
  - CLOSET ROD TYPE 304 STAINLESS STEEL □ 1-1/4" WITH STAINLESS STEEL MOUNTING HARD WARE. LENGTH 72"

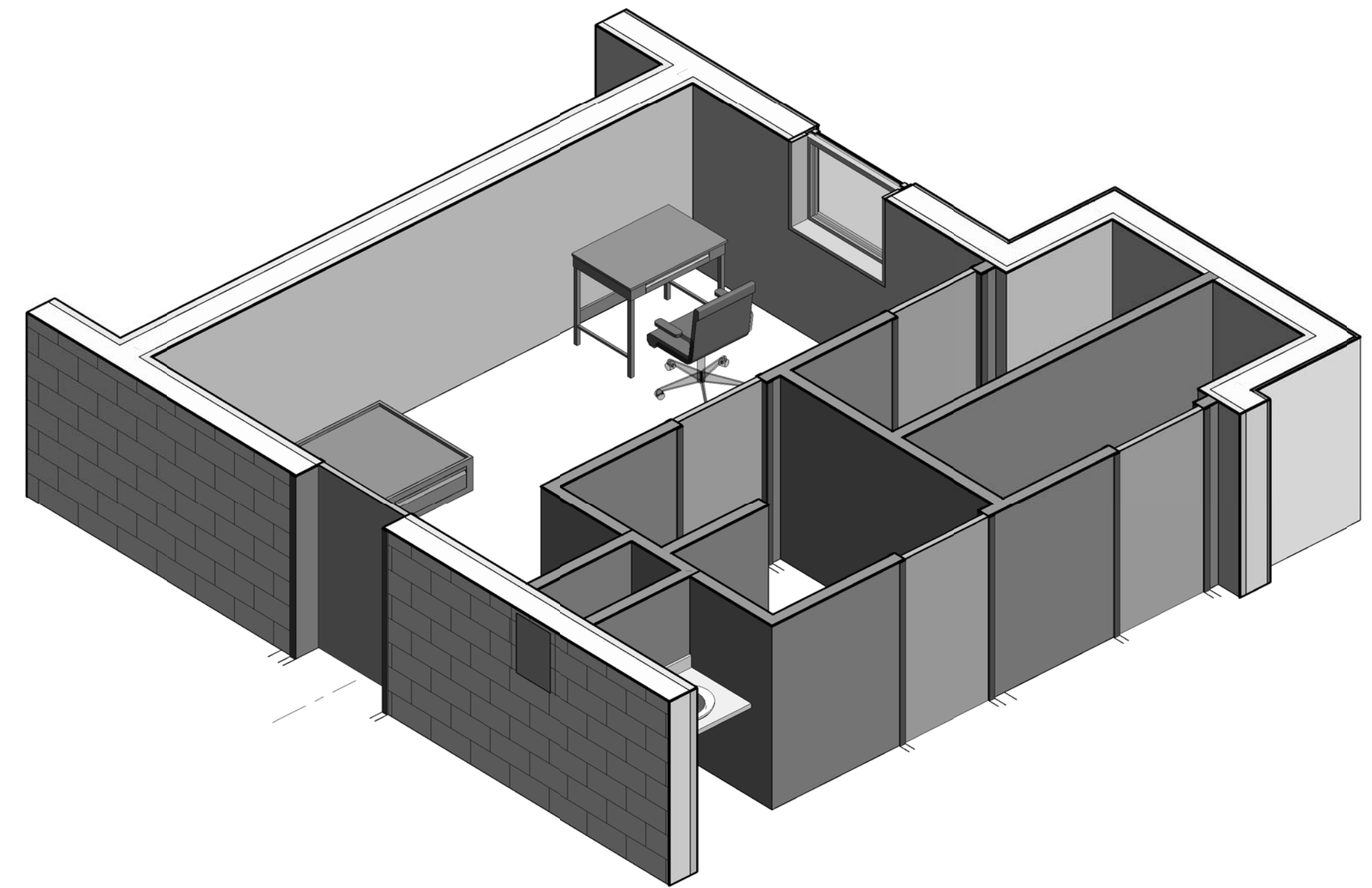
**GENERAL NOTES:**

1. ARTWORK PLACEMENT SHOULD BE CENTERED ON WALL. MOUNT 1168MM ABOVE THE FINISHED FLOOR TO THE BOTTOM OF FRAME. DIMENSIONS SHOULD BE CONFIRMED WITH THE GOVERNMENT IF SPECIFIED PRODUCTS ARE SUBSTITUTED.
2. SEE SHEET A400 FOR ENLARGED CORE PLAN, INTERIOR ELEVATIONS, AND MOUNTING HEIGHTS.
3. SEE SHEET I-001,002, AND 003 FOR ROOM FINISH SCHEDULES.

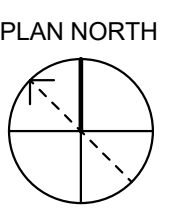
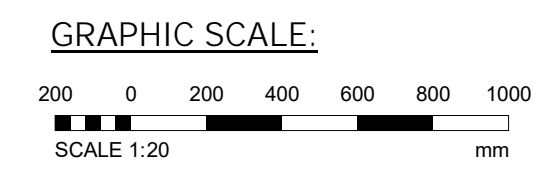
FF & E LEGEND	
ACCESSOIRES	
AC1	WASTE BASKET
AC2	TRASH CAN
AC3	SHOWER CURTAIN
AC4	RECYCLE CONTAINER
APPLIANCES	
AP3/4	STACKABLE WASHER AND DRYER
FURNITURE	
TA1	END TABLE
TA3	DESK
BD1	BED WITH MATTRESS



**2 3D VIEW 1**



**3 3D VIEW 2**



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MARK	DESCRIPTION	DATE

DESIGNED BY: J.D.W.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE NO.:W017818028
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M017ELU44
SIZE: ANSI D	FILE NAME: M017ELU44

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
109 SAINT JOSEPH STREET  
MOBILE AL 36602

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**ENLARGED DORM FURNITURE LAYOUT PLAN**

**SHEET ID**  
**I-501**













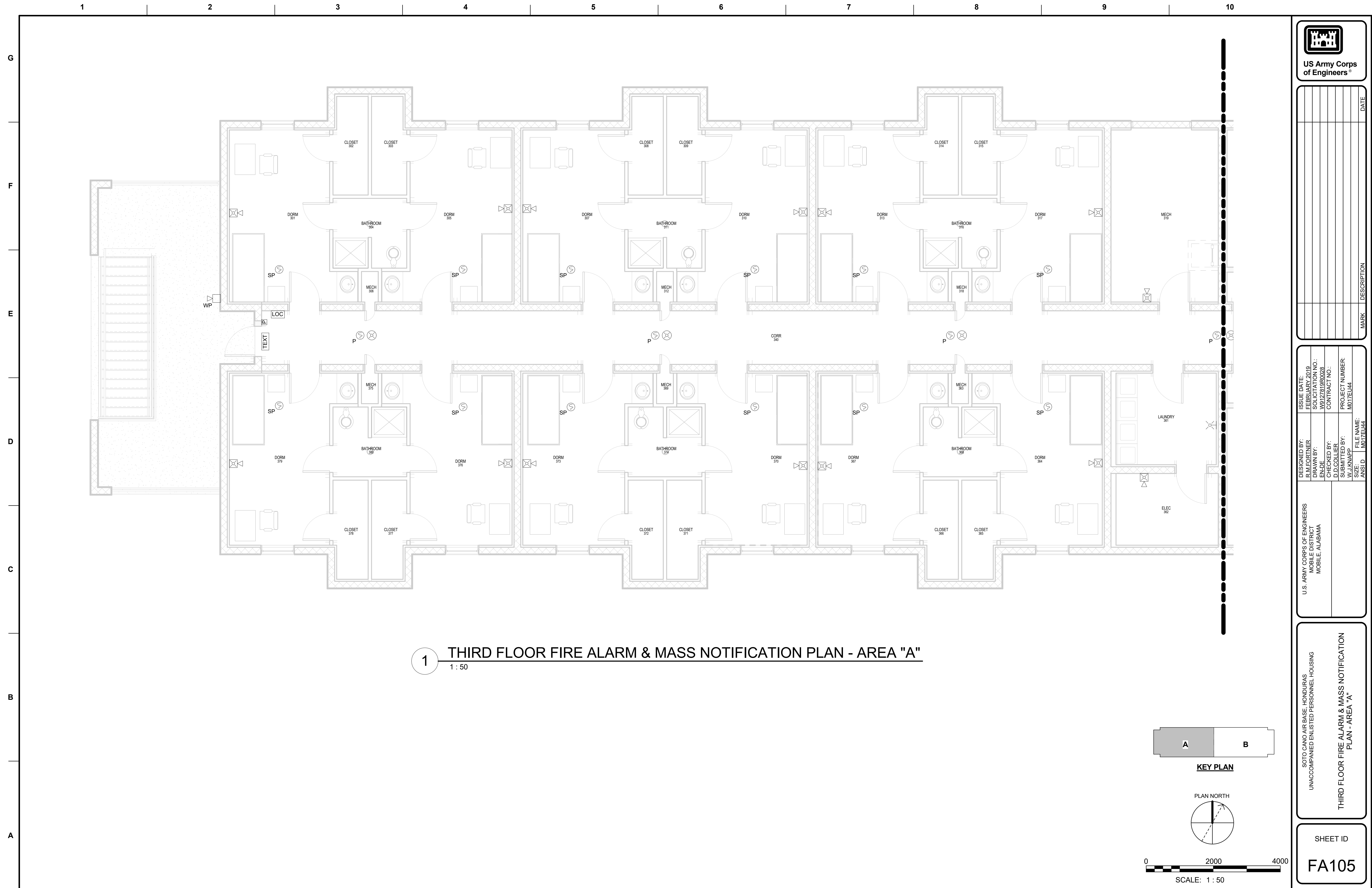










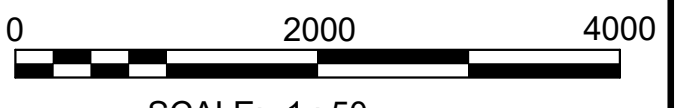
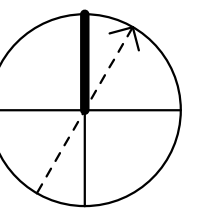


**1** THIRD FLOOR FIRE ALARM & MASS NOTIFICATION PLAN - AREA "A"  
1 : 50

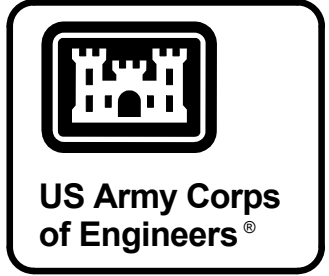


**KEY PLAN**

PLAN NORTH



SCALE: 1 : 50



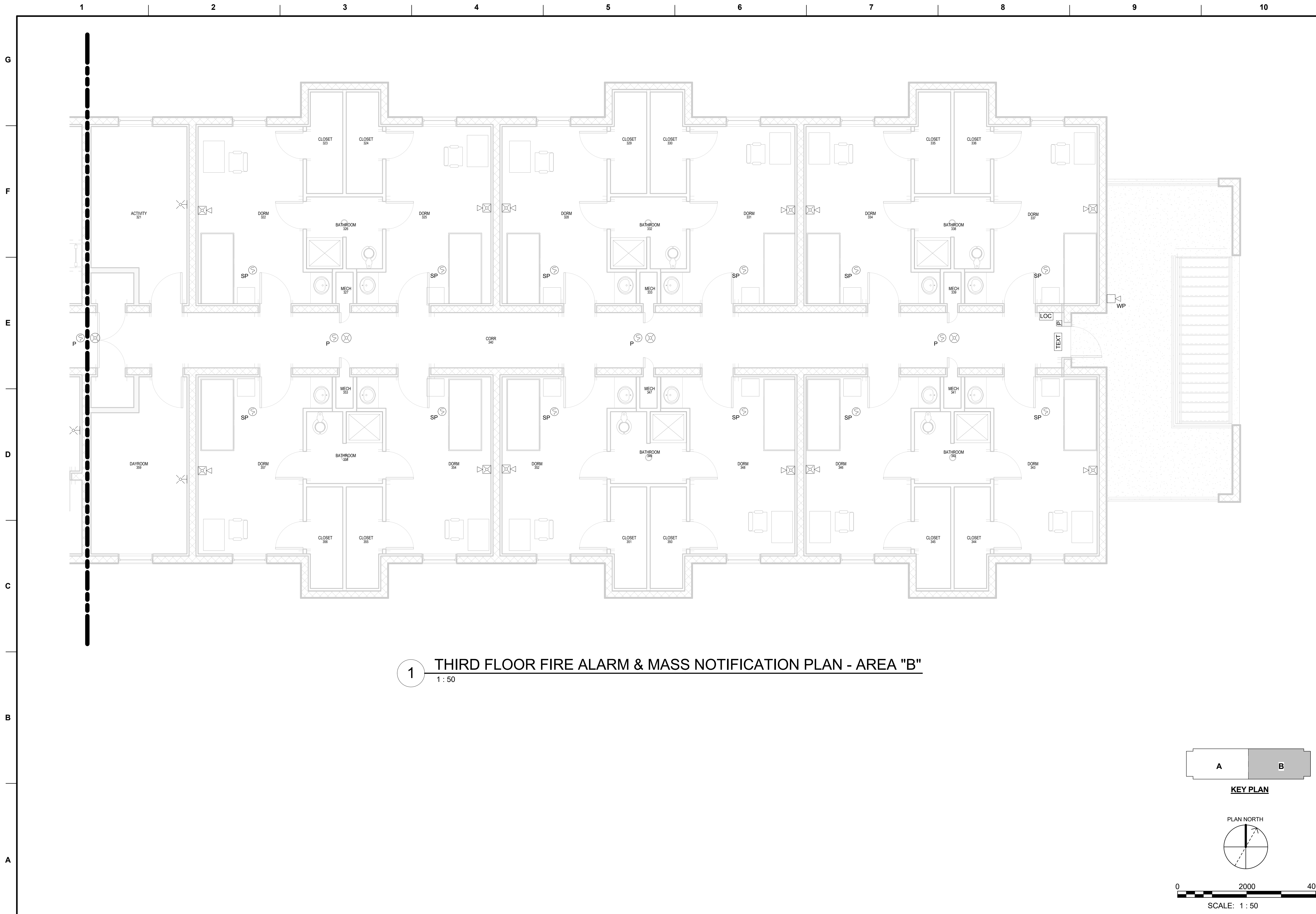
DATE	DESCRIPTION	MARK

DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.E. BROWN	SOLICITATION NO.:
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M07FEU44
FILE NAME: M07FEU44	SIZE: ANSI D

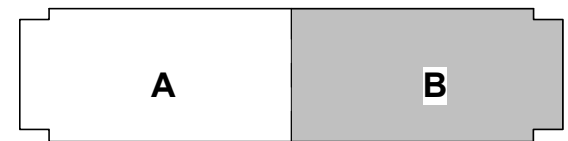
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
THIRD FLOOR FIRE ALARM & MASS NOTIFICATION  
PLAN - AREA "A"

SHEET ID  
**FA105**

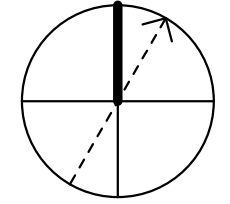


**1** THIRD FLOOR FIRE ALARM & MASS NOTIFICATION PLAN - AREA "B"  
1 : 50

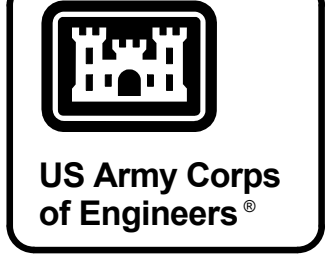


KEY PLAN

PLAN NORTH



SCALE: 1 : 50



MARK	DESCRIPTION	DATE

DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. HENNING	SOLICITATION NO.: W313R08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M07FE144
SIZE: ANSI D	FILE NAME: M07FE144

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

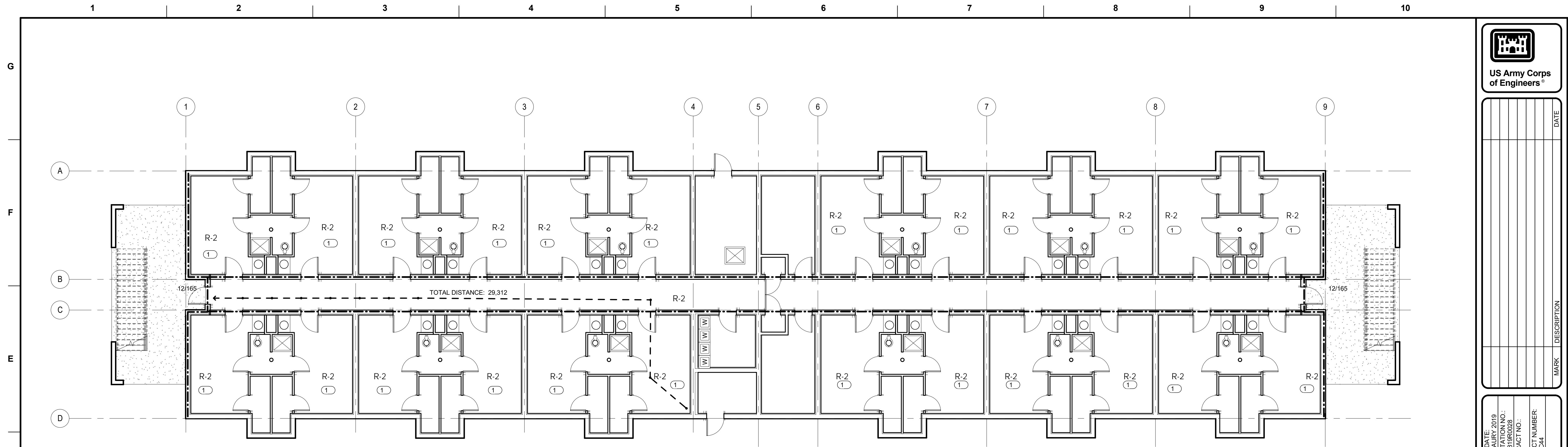
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
THIRD FLOOR FIRE ALARM & MASS NOTIFICATION  
PLAN - AREA "B"

SHEET ID  
**FA106**







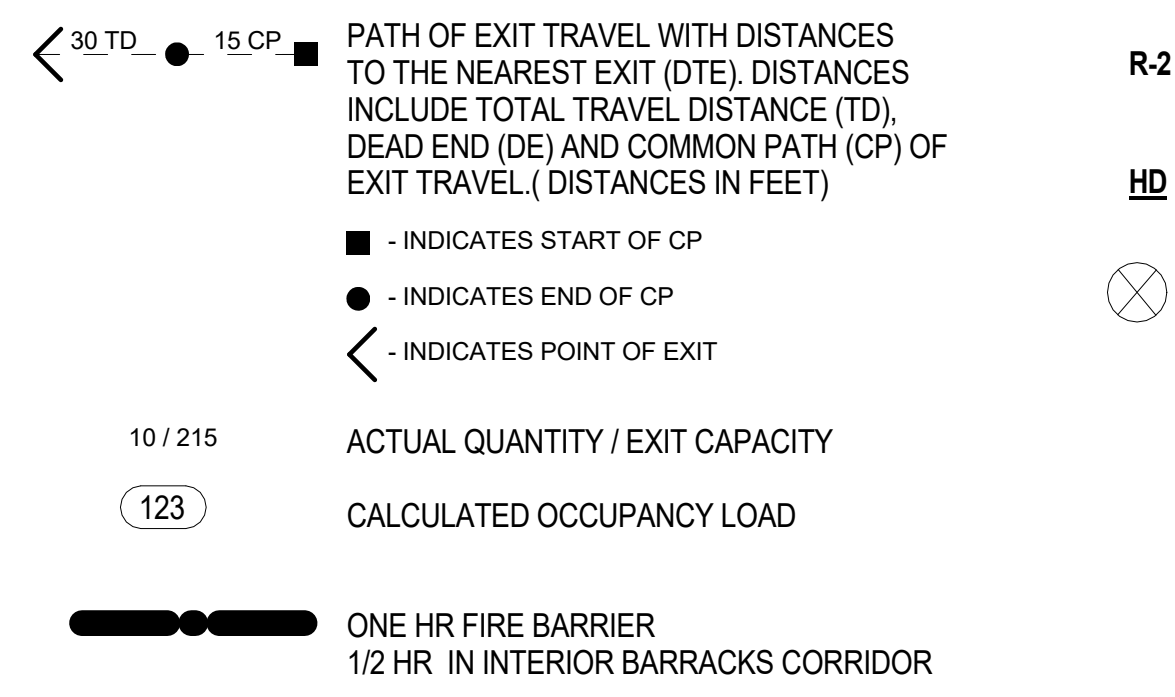


1  
FL-100 1:100  
**FIRST FLOOR LIFE SAFETY PLAN**

**CODE ANALYSIS**

1. NFPA 101 LIFE SAFETY
- A. NEW HOTEL AND DORMITORIES OCCUPANCY - CHAPTER 28:  
AUTOMATIC SPRINKLER SYSTEM THROUGHOUT THE BUILDING,  
FIRE EXTINGUISHERS WILL NOT BE PROVIDED.
- B. MEANS OF EGRESS - 28.2.5:  
COMMON PATH SHALL NOT EXCEED 50FT  
DEAD-END CORRIDORS SHALL NOT EXCEED 50FT  
MAXIMUM TRAVEL NOT TO EXCEED 200FT.
2. IBC:
- A. TYPE OF CONSTRUCTION - TYPE IIB (NON-COMBUSTIBLE  
CONSTRUCTION).
- B. OCCUPANCY CLASSIFICATION - GROUP R-2
- C. FIRE SEPARATION - 1/2 HOUR FIRE SEPARATION REQUIRED.

**LIFE SAFETY LEGEND**

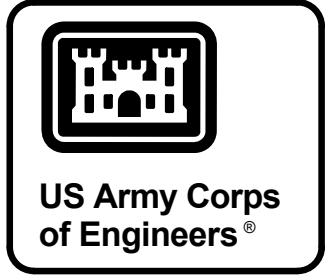


**MEANS OF EGRESS**

- 50 FEET MAXIMUM DEAD-END CORRIDOR IN FULLY SPRINKLED BUILDING. NEW HOTEL AND DORMITORIES (NFPA 101 28.2.5.6)
- 50 FEET MAXIMUM COMMON PATH OF EXIT TRAVEL IN FULLY SPRINKLED BUILDING. NEW HOTEL AND DORMITORIES (NFPA 101 28.2.5.4)
- 200 FEET MAXIMUM TRAVEL DISTANCE TO EXIT IN BUILDING WITH AUTOMATIC SPRINKLER SYSTEM. NEW HOTEL AND DORMITORIES (NFPA 101 28.2.6.3.1)

**DESIGN CRITERIA**

- NFPA LIFE SAFETY CODE 101, 2015; EGRESS REQUIREMENTS.
- INTERNATIONAL BUILDING CODE 2015; OCCUPANCY CLASSIFICATION, CONSTRUCTION TYPE, AND CONSTRUCTION REQUIREMENTS.
- UFC 3 600 01 FIRE PROTECTION ENGINEERING FOR FACILITIES 2016



MARK	DESCRIPTION	DATE

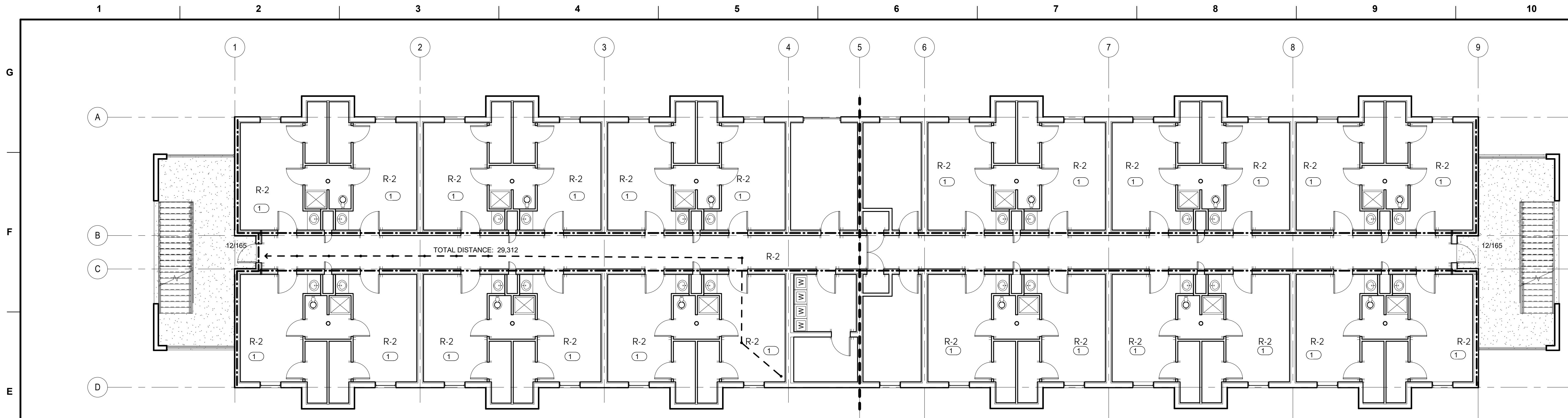
DESIGNED BY: J.D.V.	ISSUE DATE: FEBRUARY 2019
DRAWN BY: T.D.W.	SCALE: AS SHOWN
CHECKED BY: J.M.C.	CONTRACT NO.:
SUBMITTED BY: C.A.	PROJECT NUMBER: M017EC44
FILE NAME: M017EJ44	ANSI D:
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

FIRST FLOOR - LIFE SAFETY PLAN

SHEET ID  
**FL-100**



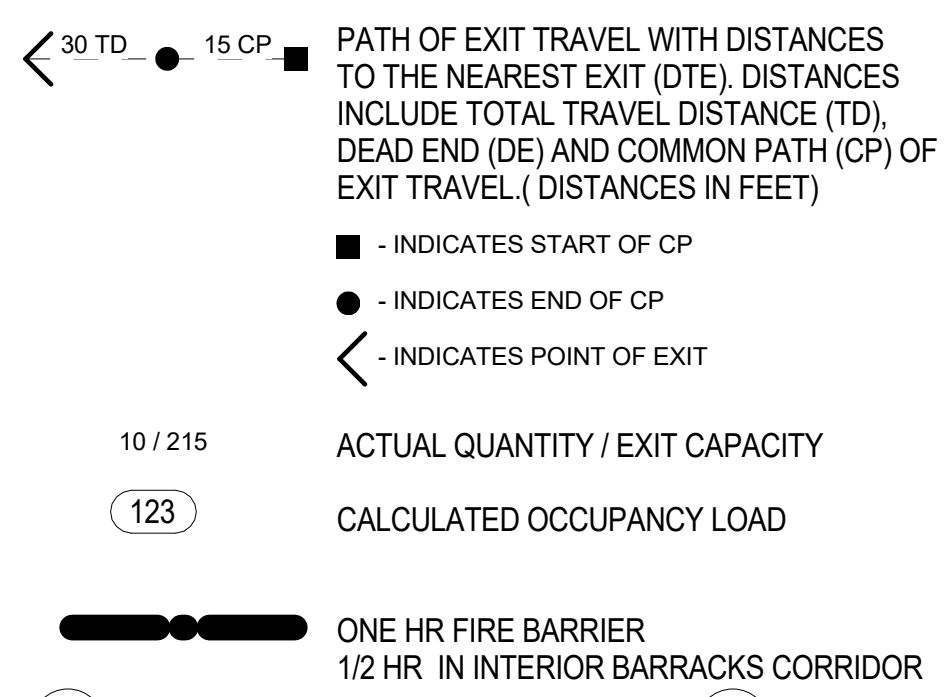


**1 SECOND FLOOR LIFE SAFETY PLAN**  
FL-101 1:100

**CODE ANALYSIS**

1. NFPA 101 LIFE SAFETY
- A. NEW HOTEL AND DORMITORIES OCCUPANCY - CHAPTER 28:  
AUTOMATIC SPRINKLER SYSTEM THROUGHOUT THE BUILDING.  
FIRE EXTINGUISHERS WILL NOT BE PROVIDED.
- B. MEANS OF EGRESS - 28.2.5:  
COMMON PATH SHALL NOT EXCEED 50FT  
DEAD-END CORRIDORS SHALL NOT EXCEED 50FT  
MAXIMUM TRAVEL NOT TO EXCEED 200FT.
2. IBC:
- A. TYPE OF CONSTRUCTION - TYPE IIB (NON-COMBUSTIBLE  
CONSTRUCTION).
- B. OCCUPANCY CLASSIFICATION - GROUP R-2
- C. FIRE SEPARATION - 1/2 HOUR FIRE SEPARATION REQUIRED.

**LIFE SAFETY LEGEND**



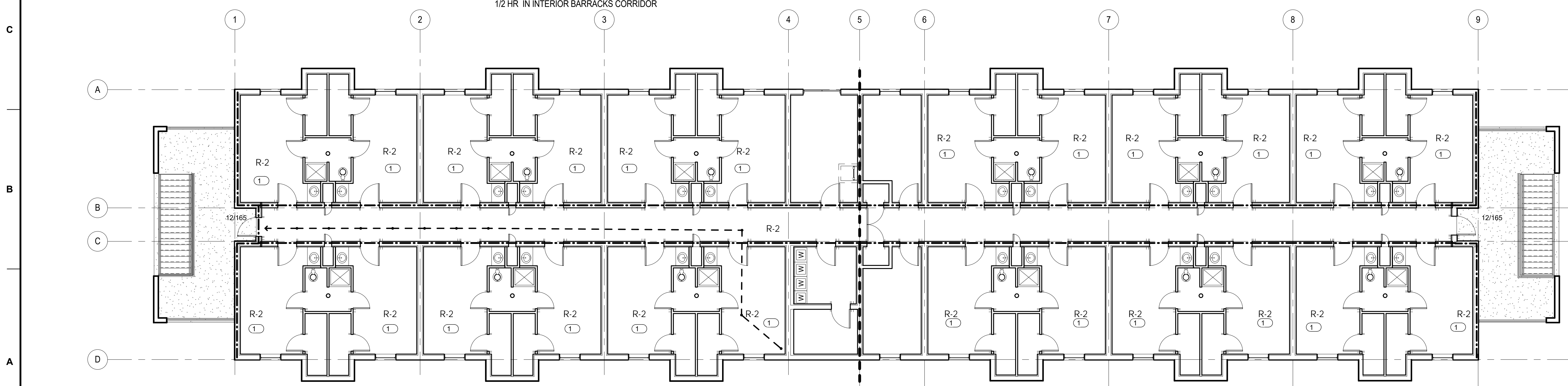
- R-2 IBC GROUP R-2 OCCUPANCY CLASSIFICATION
- HD NFPA NEW HOTEL AND DORMITORIES OCCUPANCY CLASSIFICATION
- ⊗ EXIT SIGN

**MEANS OF EGRESS**

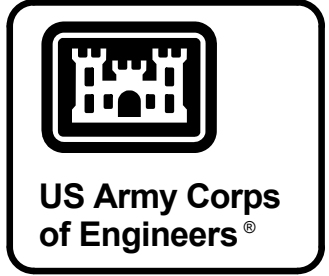
- 50 FEET MAXIMUM DEAD-END CORRIDOR IN FULLY SPRINKLED BUILDING. NEW HOTEL AND DORMITORIES (NFPA 101 28.2.5.6)
- 50 FEET MAXIMUM COMMON PATH OF EXIT TRAVEL IN FULLY SPRINKLED BUILDING. NEW HOTEL AND DORMITORIES (NFPA 101 28.2.5.4)
- 200 FEET MAXIMUM TRAVEL DISTANCE TO EXIT IN BUILDING WITH AUTOMATIC SPRINKLER SYSTEM. NEW HOTEL AND DORMITORIES (NFPA 101 28.2.6.3.1)

**DESIGN CRITERIA**

- NFPA LIFE SAFETY CODE 101, 2015; EGRESS REQUIREMENTS.
- INTERNATIONAL BUILDING CODE 2015; OCCUPANCY CLASSIFICATION, CONSTRUCTION TYPE, AND CONSTRUCTION REQUIREMENTS.
- UFC 3 600.01 FIRE PROTECTION ENGINEERING FOR FACILITIES 2016



**2 THIRD FLOOR LIFE SAFETY PLAN**  
FL-101 1:100



MARK	DESCRIPTION	DATE

DESIGNED BY: XXX YY DRAWN BY: XXX YY	ISSUE DATE: FEBRUARY 2019	PROJECT NUMBER: M07E44
CHECKED BY: XXX YY	CONTRACT NO.:	FILE NAME: M07E44
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	SIZE: ANSI D	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
SECOND AND THIRD FLOOR - LIFE SAFETY PLAN

SHEET ID  
**FL-101**



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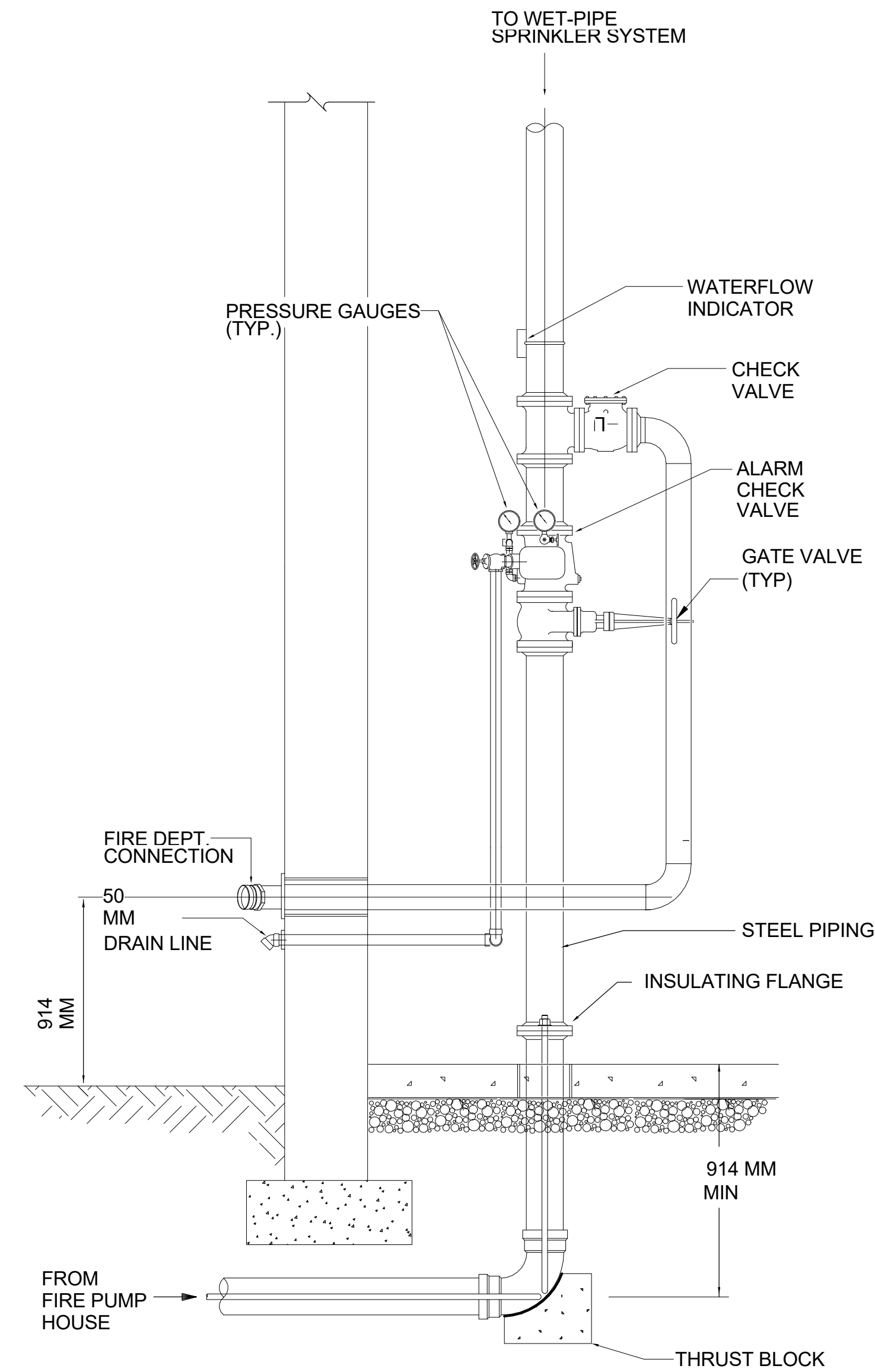
### FIRE SUPPRESSION NOTES

1. THE ENTIRE BUILDINGS SHALL BE FULLY PROTECTED BY AUTOMATIC FIRE SUPPRESSION SYSTEMS INSTALLED IN ACCORDANCE WITH NFPA 13R, NFPA 13, UFC-3-600-01, AND BASE SPECIFIC CRITERIA. THE SYSTEM TYPES SHALL BE WET, DRY, AGENT AS INDICATED, UNLESS REQUIRED OTHERWISE BY CODE OR BASE CRITERIA.
2. THE FIRE SUPPRESSION SYSTEMS SHALL BE DESIGNED, INSTALLED AND TESTED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
  - A. UFC-3-600-01 FIRE PROTECTION ENGINEERING FOR FACILITIES.
  - B. NFPA-13R STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
3. THE SPRINKLER SYSTEMS SHALL BE HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA-13. DESIGN DENSITIES AND HOSE STREAM ALLOWANCE SHALL BE AS IDENTIFIED IN THE TABLE ON THIS SHEET:
4. MAXIMUM AREA OF COVERAGE PER SPRINKLER SHALL BE IN ACCORDANCE WITH UFC-3-600-01 FOR THE APPLICABLE HAZARD AND TYPE OF SPRINKLER, OR IN ACCORDANCE WITH MANUFACTURER'S LISTINGS.
5. QUICK RESPONSE SPRINKLERS SHALL BE USED THROUGHOUT, EXCEPT IN ROOMS OR AREAS FOR WHICH QUICK RESPONSE SPRINKLERS ARE NOT LISTED, OR WHERE THEIR USE HAS BEEN SPECIFICALLY PROHIBITED BY THE UFC
6. ALL FIRE PROTECTION SYSTEM CONTROL VALVES SHALL BE PROVIDED WITH SUPERVISORY SWITCHES BY THE SPRINKLER CONTRACTOR. ALL ELECTRICAL DEVICES FOR THE FIRE PROTECTION SYSTEM SHALL BE COMPATABLE WITH THE FIRE ALARM SYSTEM.
7. PIPING SHALL BE INSTALLED SO THAT ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH VALVES IN ACCORDANCE WITH THE REFERENCED NFPA STANDARDS.
8. ALL FIRE WALL PENETRATIONS SHALL BE MADE WITH UL APPROVED FIRESTOPPING SYSTEMS LISTED TO MAINTAIN THE FIRE RATING OF THE WALLS IN WHICH THEY ARE INSTALLED.
9. INSPECTOR'S TEST VALVE TO BE PIPED FROM END OF LAST BRANCH LINE WITH NO EXPOSED PIPE IN FINISHED SPACES.
10. FULLY COORDINATE INSTALLATION OF PIPE WITH ALL OTHER TRADES, WITH PARTICULAR EMPHASIS ON COORDINATION WITH HVAC DUCTWORK. SPRINKLER PIPE SHALL NOT BE SUSPENDED FROM DUCT HANGERS UNLESS THESE SUPPORTS ARE SPECIFICALLY DESIGNED TO ACCOMMODATE SPRINKLER PIPE. HANGERS SHALL BE IN ACCORDANCE WITH NFPA 13. NO OTHER SYSTEM SHALL BE SUPPORTED FROM SPRINKLER PIPING.
11. FIRE DEPARTMENT CONNECTION FOR THE SPRINKLER SYSTEM SHALL BE PROVIDED WITH NAME PLATES PERMANENTLY ATTACHED TO IDENTIFY THE SYSTEM TYPE AND BUILDING SERVED, IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF NFPA 13.
12. ALL SPRINKLER PIPING SHALL BE SCHEDULE 40 BLACK STEEL.
13. FIRE FLOW TEST DATA:
 

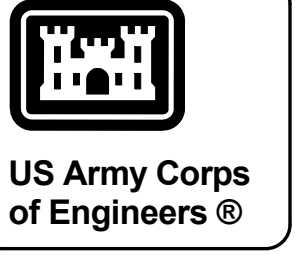
STATIC PRESSURE:	303 kPa (44 PSI)
RESIDUAL PRESSURE:	207 kPa (30 PSI)
FLOW:	102 lps (1619 GPM)
DATE:	14 MAR 2018

PERFORM A CONFIRMING FLOW TEST IN ACCORDANCE WITH NFPA 291 AND USE DATA OBTAINED FOR FINAL DESIGN.

FIRE SUPPRESSION HAZARD SCHEDULE						
AREA	HAZARD RATING	AREA OF OPERATION	DENSITY	TYPE OF SYSTEM	HOSE STREAM ALLOWANCE	SYMBOL
MECH RM, JANITORS CLOSET	ORDINARY HAZARD	232.3 SQ M	8.0 LPM/SQ M	WET PIPE	15.8 LPS	OH
DORMS	RESIDENTIAL	4 SPRINKLES	2.0 LPM/SQ M	WET PIPE	15.8 LPS	RH
ALL OTHER AREAS	LIGHT HAZARD	139.4 SQ M	4.0 LPM/SQ M	WET PIPE	15.8 LPS	LH



**1 WET PIPE RISER**  
N.T.S.



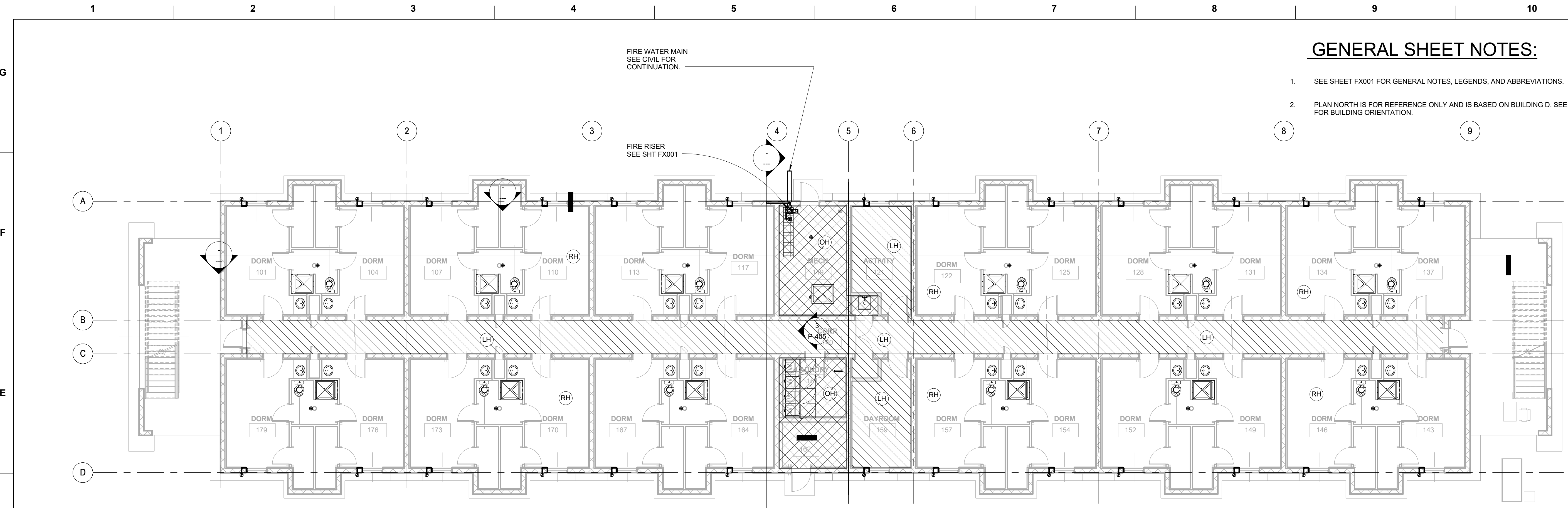
MARK	DESCRIPTION	DATE

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019	DRAWN BY: E. BERG	SOLICITATION NO.: 13181818
CHECKED BY: B. DURHAM	CONTRACT NO.:	SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M07EJ44
FILE NAME: M07EJ44	ANSI D	SIZE:	

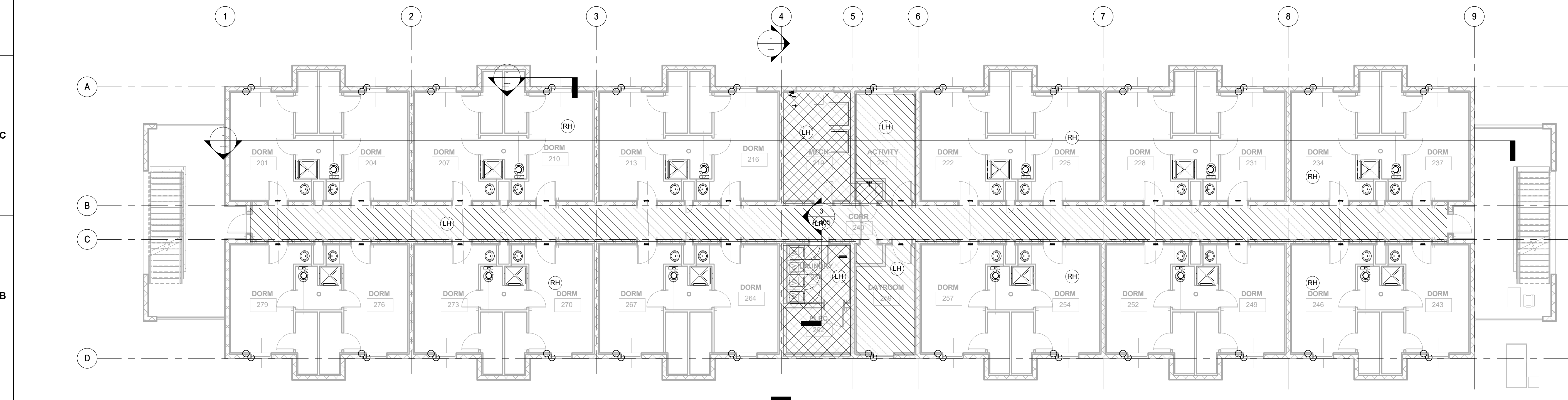
SOTO CANO AIR BASE, HONDURAS  
 UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**FIRE SUPPRESSION**

SHEET ID  
**FX001**

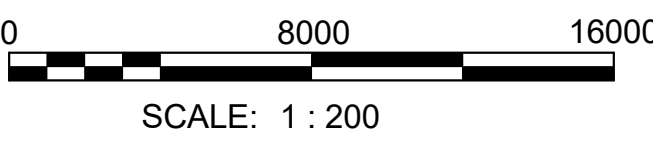




**1 FIRE SUPPRESSION PLAN - 1ST FLR**  
1:100

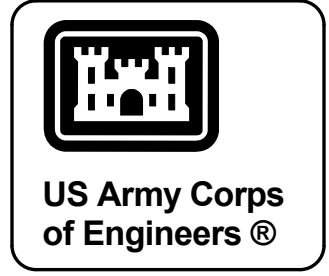


**2 FIRE SUPPRESSION PLAN - 2ND FLR**  
1:100



**GENERAL SHEET NOTES:**

- SEE SHEET FX001 FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS.
- PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.



MARK	DESCRIPTION	DATE

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. BERG	SOLICITATION NO.:
CHECKED BY: E. BERG	CONTRACT NO.:
SUBMITTED BY:	PROJECT NUMBER: M07ELU44
SIZE: ANSI D	FILE NAME: M07ELU44

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**FIRE SUPPRESSION 1ST & 2ND FLOOR PLAN**

SHEET ID  
**FX101**







1 2 3 4 5 6 7 8 9 10

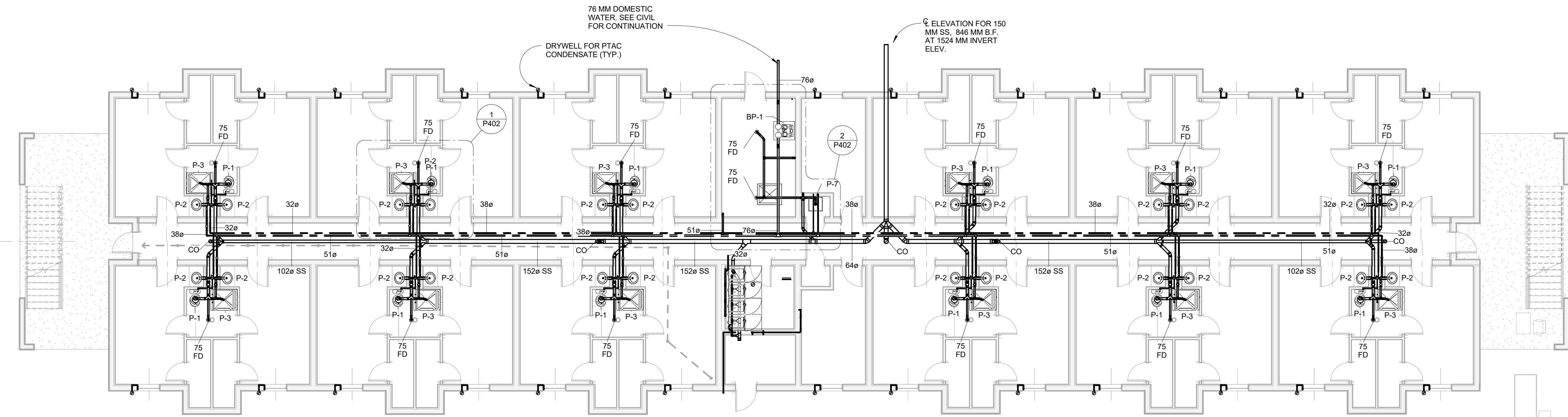
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**GENERAL SHEET NOTES:**

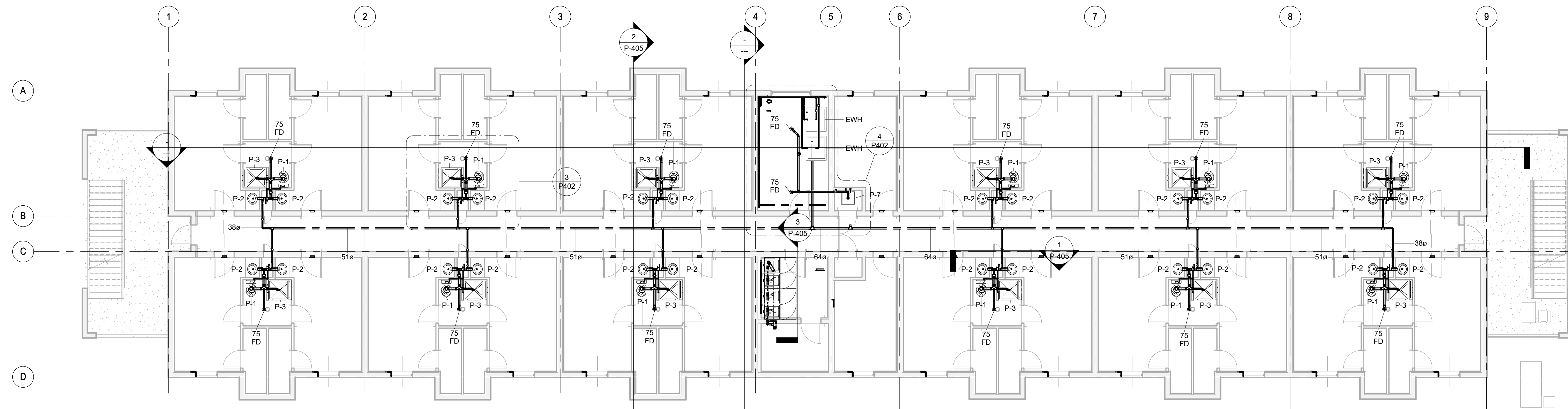
- SEE SHEET P-001 FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS.
- PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.



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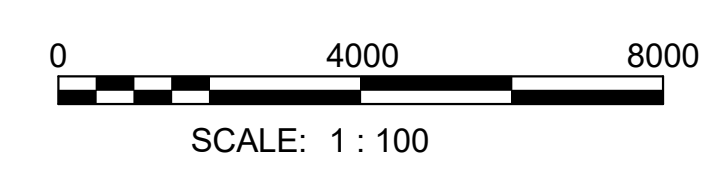


**1 PLUMBING PLAN 1ST FLOOR**  
1:100



**2 PLUMBING PLAN 2ND FLOOR**  
1:100

NOTE: ALL UNITS ARE IN MILLIMETERS UNLESS INDICATED OTHERWISE.



MARK	DESCRIPTION	DATE

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. BERG	SOLICITATION NO.: 1313BEN08
CHECKED BY: B. DURHAM	CONTRACT NO.:
SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M077ELU4
FILE NAME: M077ELU4	SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**PLUMBING FLOOR PLAN**

SHEET ID  
**P101**

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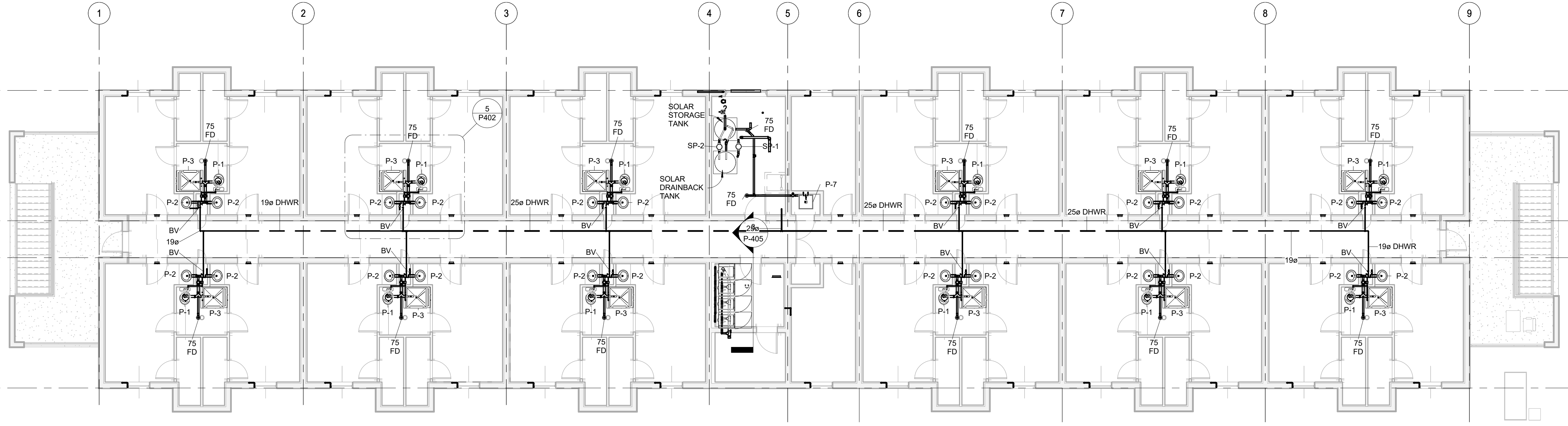
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**GENERAL SHEET NOTES:**

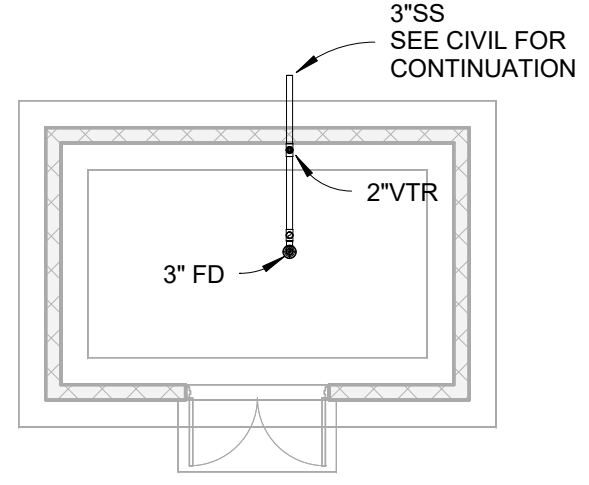
1. SEE SHEET P-001 FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS.



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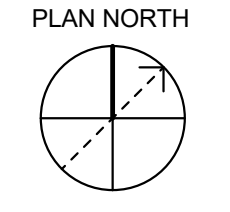
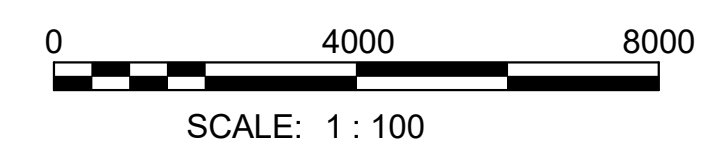


**1 PLUMBING PLAN 3RD FLOOR**  
1:100



**2 PLUMBING PLAN PUMP HOUSE**  
N.T.S.

NOTE: ALL UNITS ARE IN MILLIMETERS UNLESS INDICATED OTHERWISE.



MARK	DESCRIPTION	DATE

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. BERG	SOLICITATION NO.: M077ELU44
CHECKED BY: B. DURHAM	CONTRACT NO.:
SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M077ELU44
FILE NAME: M077ELU44	SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**PLUMBING FLOOR PLAN**

SHEET ID  
**P102**

**GENERAL SHEET NOTES:**

1. SEE SHEET P-001 FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS.



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MARK	DESCRIPTION	DATE

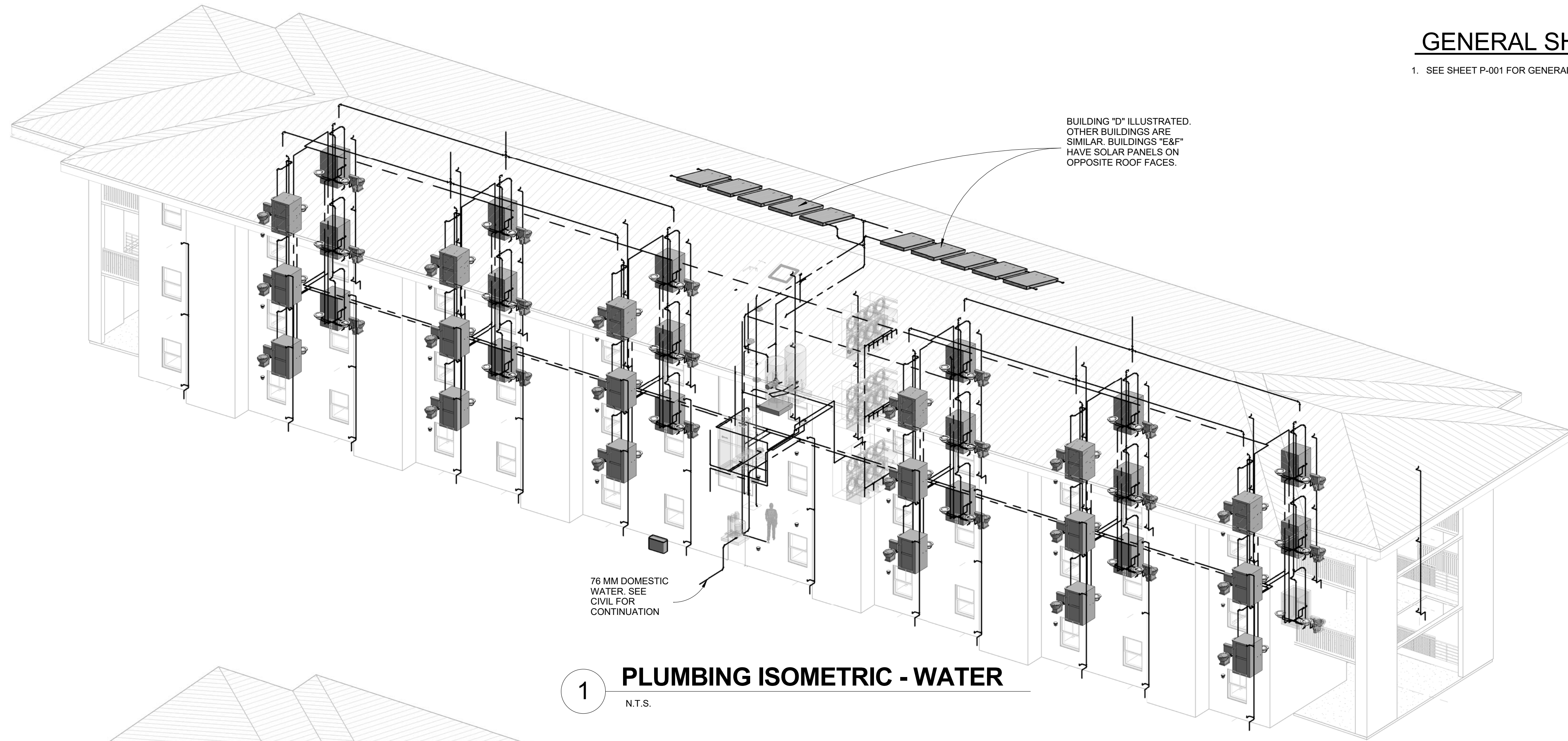
DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. PERSON	SOLICITATION NO.: M07ELU44
CHECKED BY: B. DURHAM	CONTRACT NO.:
SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M07ELU44
FILE NAME:	
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U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

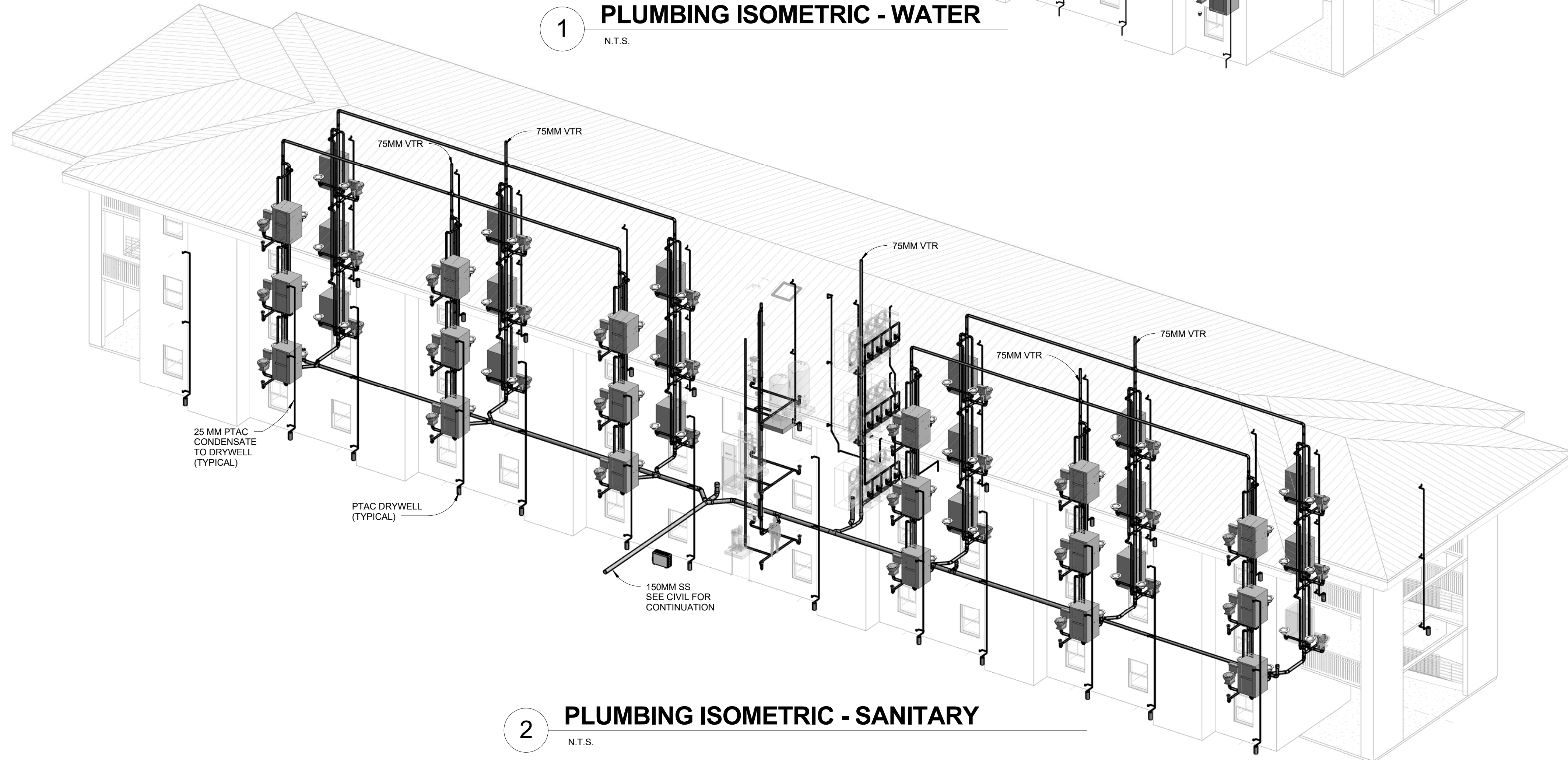
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**PLUMBING RISERS**

SHEET ID  
**P401**

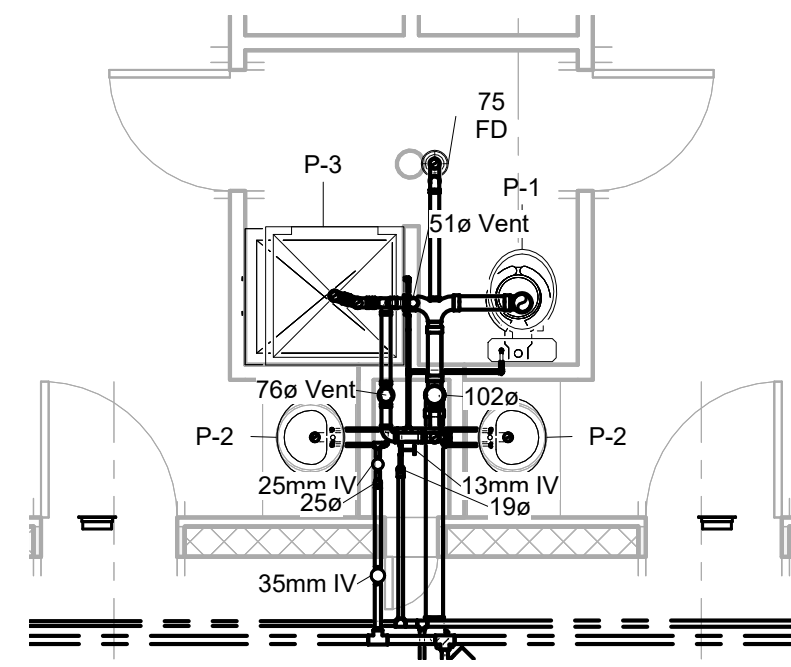


**1 PLUMBING ISOMETRIC - WATER**  
N.T.S.



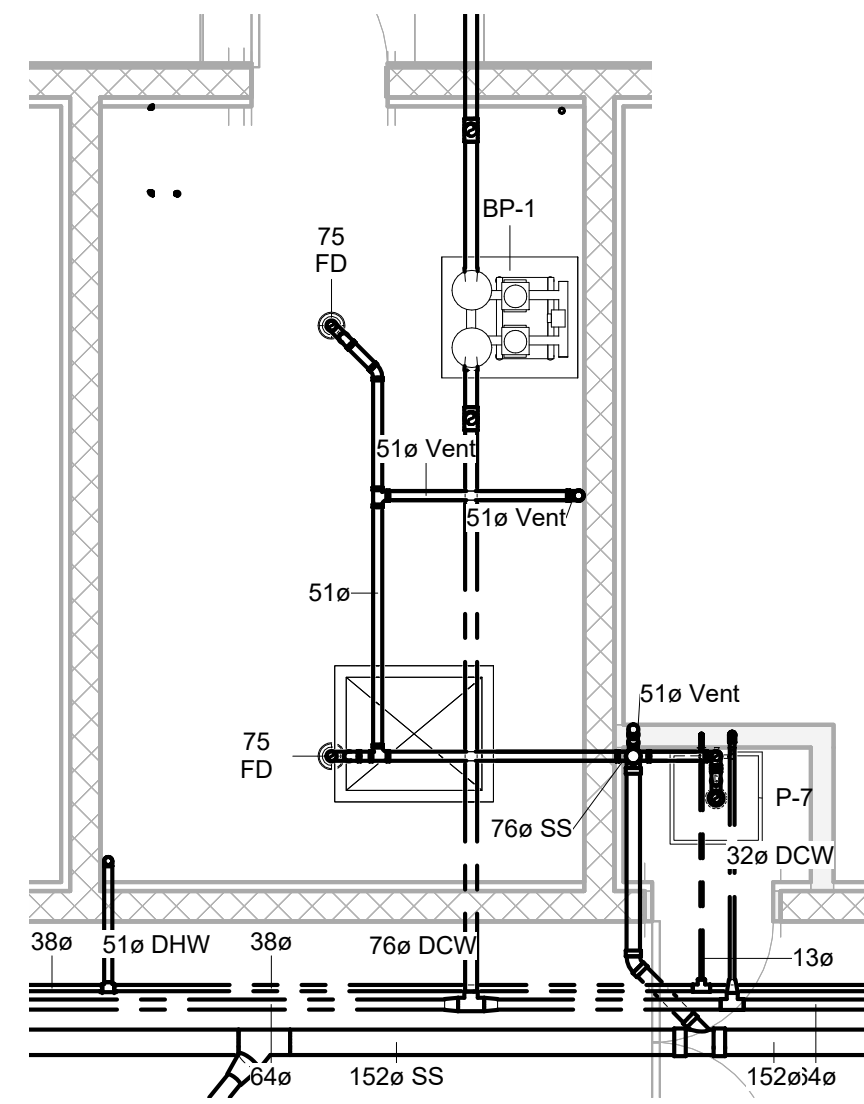
**2 PLUMBING ISOMETRIC - SANITARY**  
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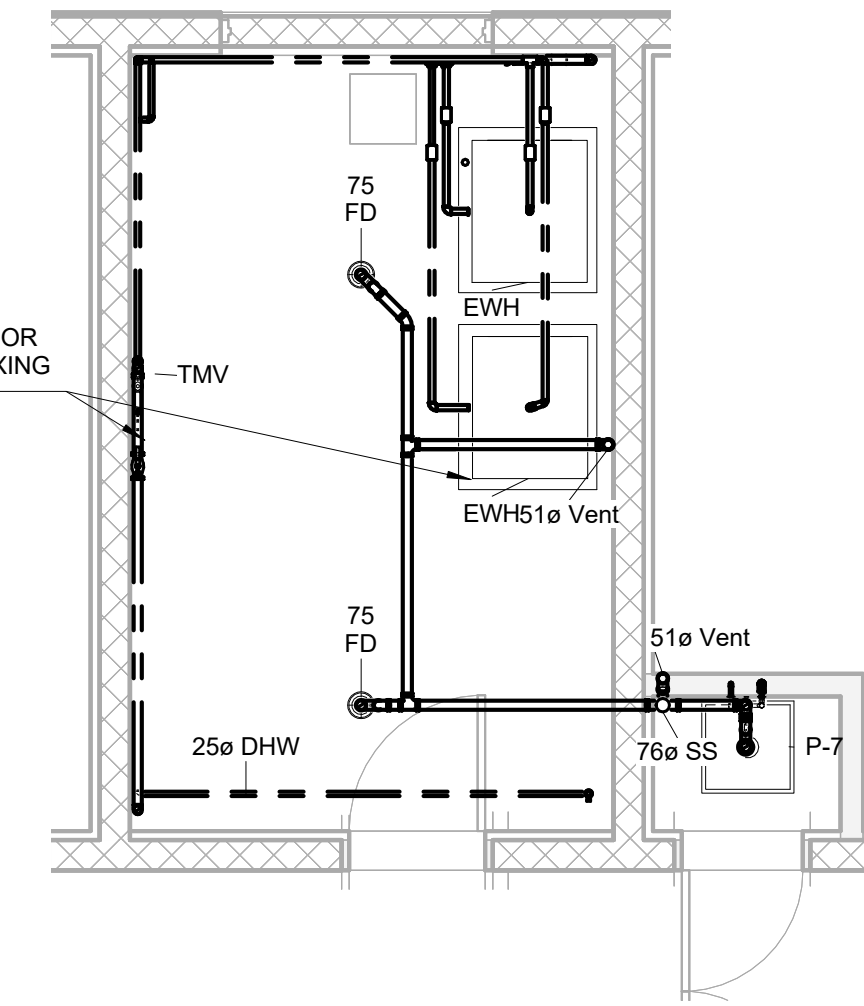
**PLUMBING ENLARGED PLAN 1ST FLOOR - UNIT RESTROOM**

1  
P402  
1:50



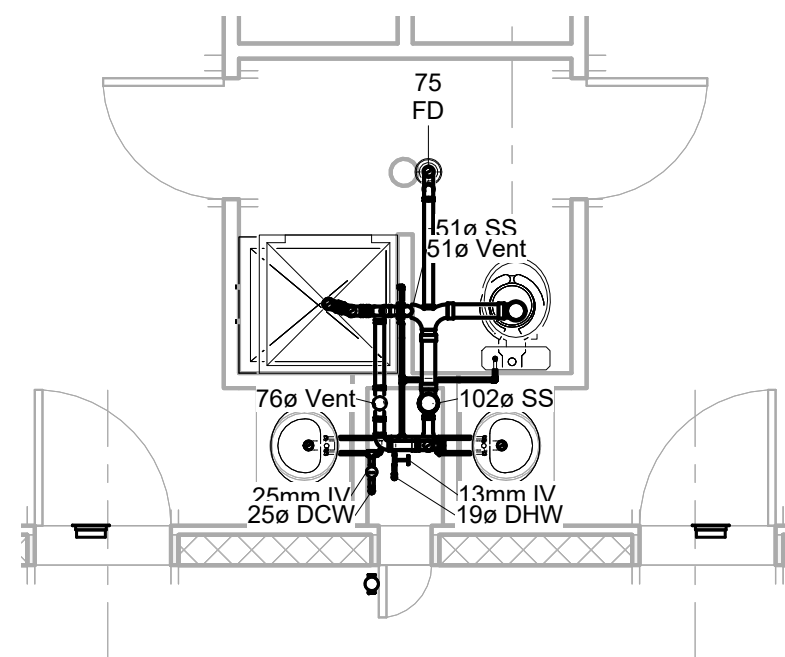
**PLUMBING ENLARGED PLAN 1ST FLOOR - MECH RM & JAN CLOSET**

2  
P402  
1:50



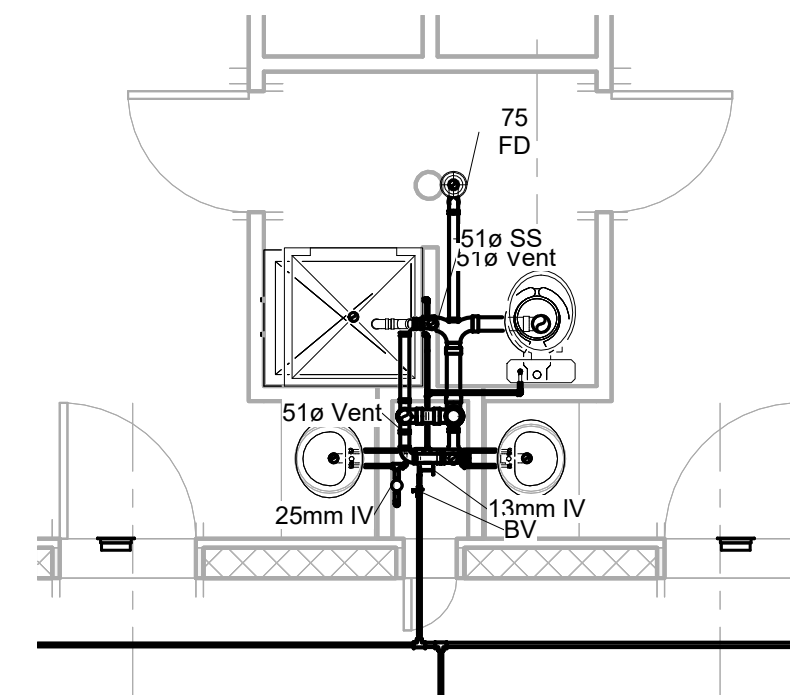
**PLUMBING ENLARGED PLAN 2ND FLOOR - MECH RM & JAN CLOSET**

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P402  
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**PLUMBING ENLARGED PLAN 2ND FLOOR - UNIT RESTROOM**

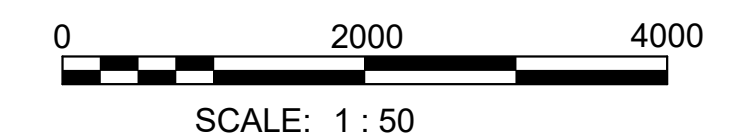
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P402  
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**PLUMBING ENLARGED PLAN 3RD FLOOR - UNIT RESTROOM**

5  
P402  
1:50

SEE DETAIL SHEET P-501 FOR EWH & THERMOSTATIC MIXING VALVE INFORMATION



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MARK	DESCRIPTION	DATE

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. PERSON	SOLICITATION NO.: M077ELU4
CHECKED BY: B. DURHAM	CONTRACT NO.:
SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M077ELU4
FILE NAME:	
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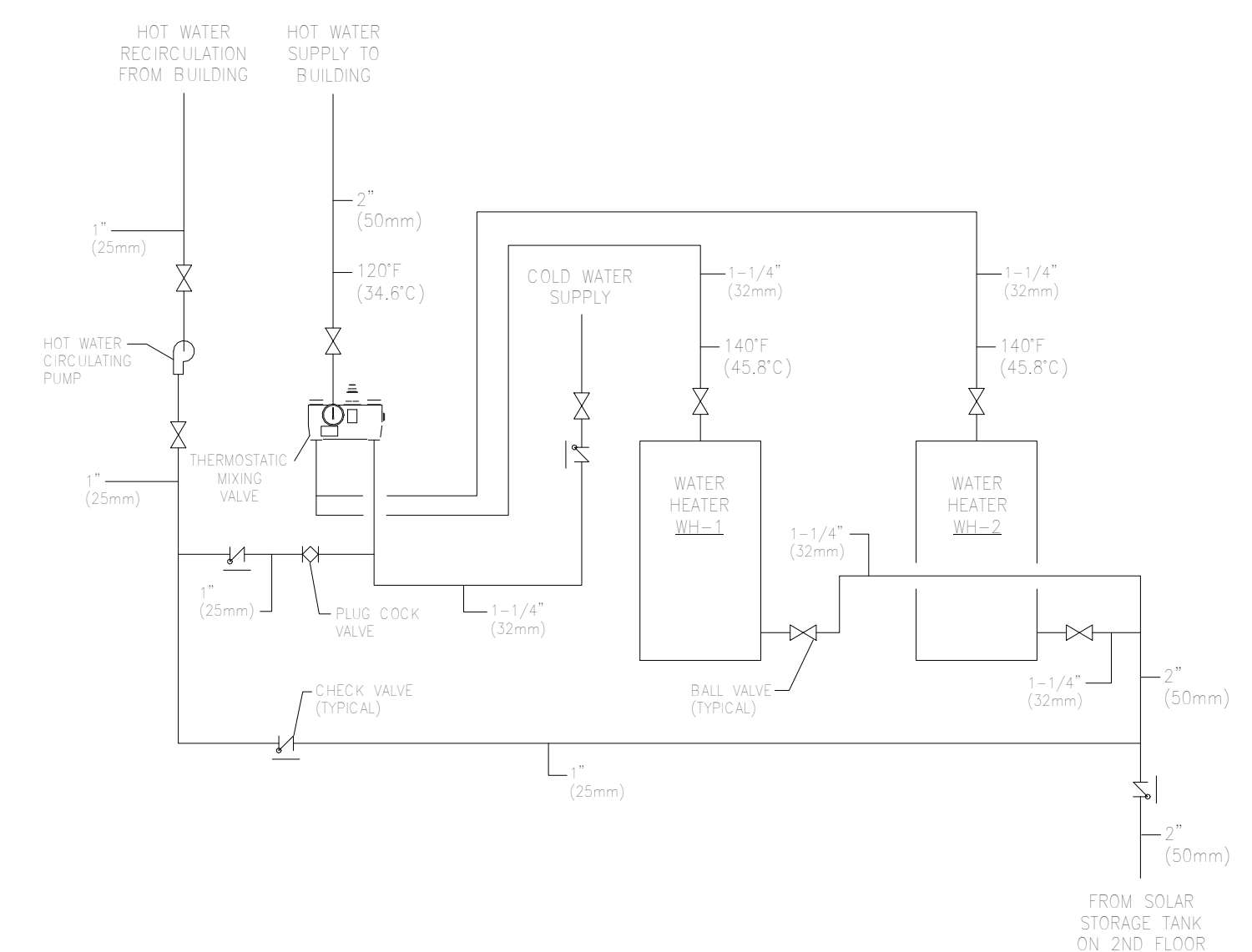
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**PLUMBING ENLARGED PLANS**

SHEET ID  
**P402**

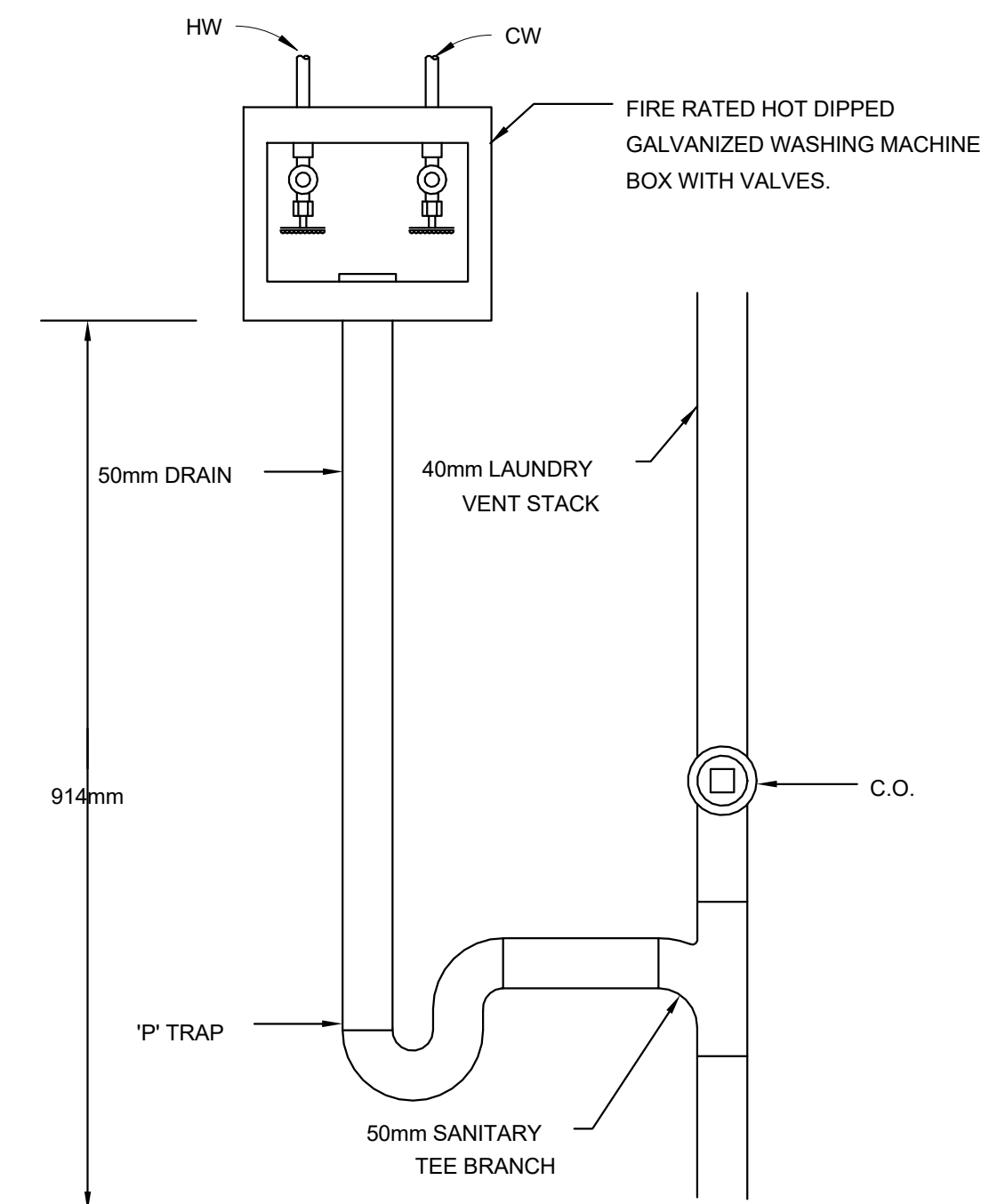
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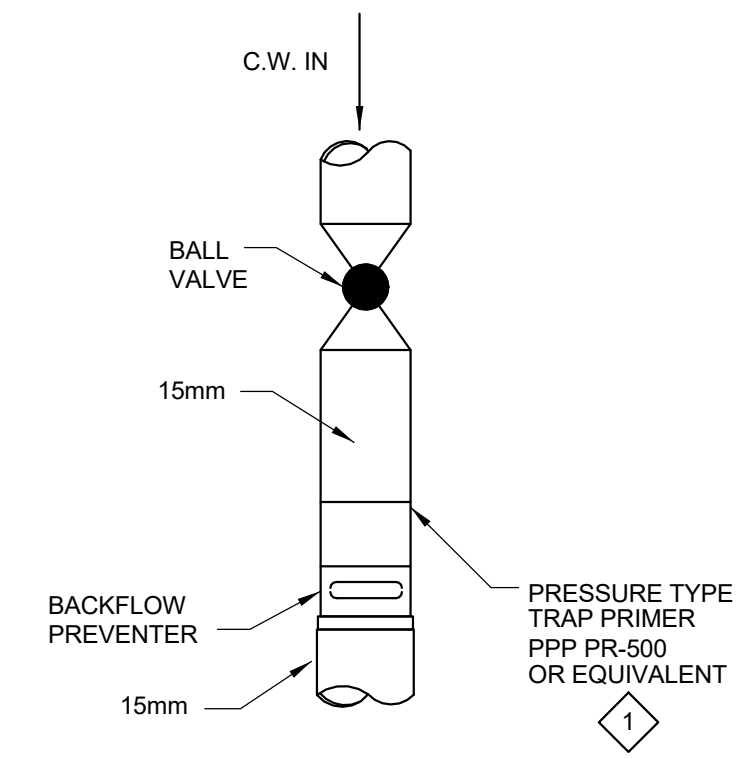
**1 HOT WATER SYSTEM PIPING SCHEMATIC**  
N.T.S.

ELECTRIC WATER HEATER SCHEDULE	
MARK	**EWH
LOCATION	3RD FLOOR MECH ROOM
STORAGE CAPACITY - L EACH	946.4
INPUT - W	2 @ 12kW EACH
L/H RECOVERY @ 44.5°C RISE EACH	378
REMARKS:	1. **2 WATER HEATERS REQUIRED. 2. WATER TEMPERATURE 60°C.

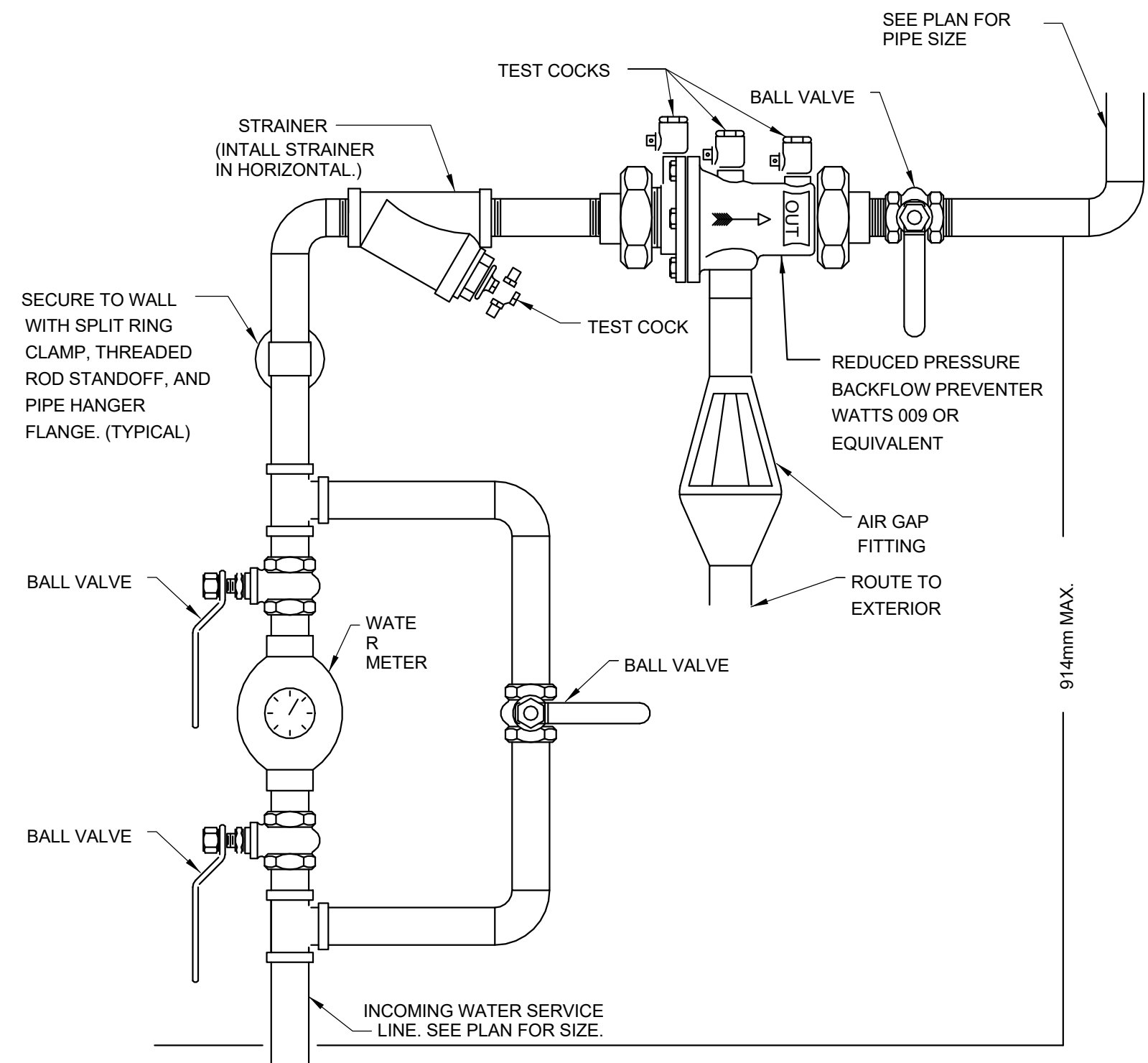
CIRCULATING PUMP SCHEDULE				
MARK	FLOW L/s	HEAD IN kPa	W	VOLTAGE
CP-1	3.5	44.9	373	120V
REMARKS:				



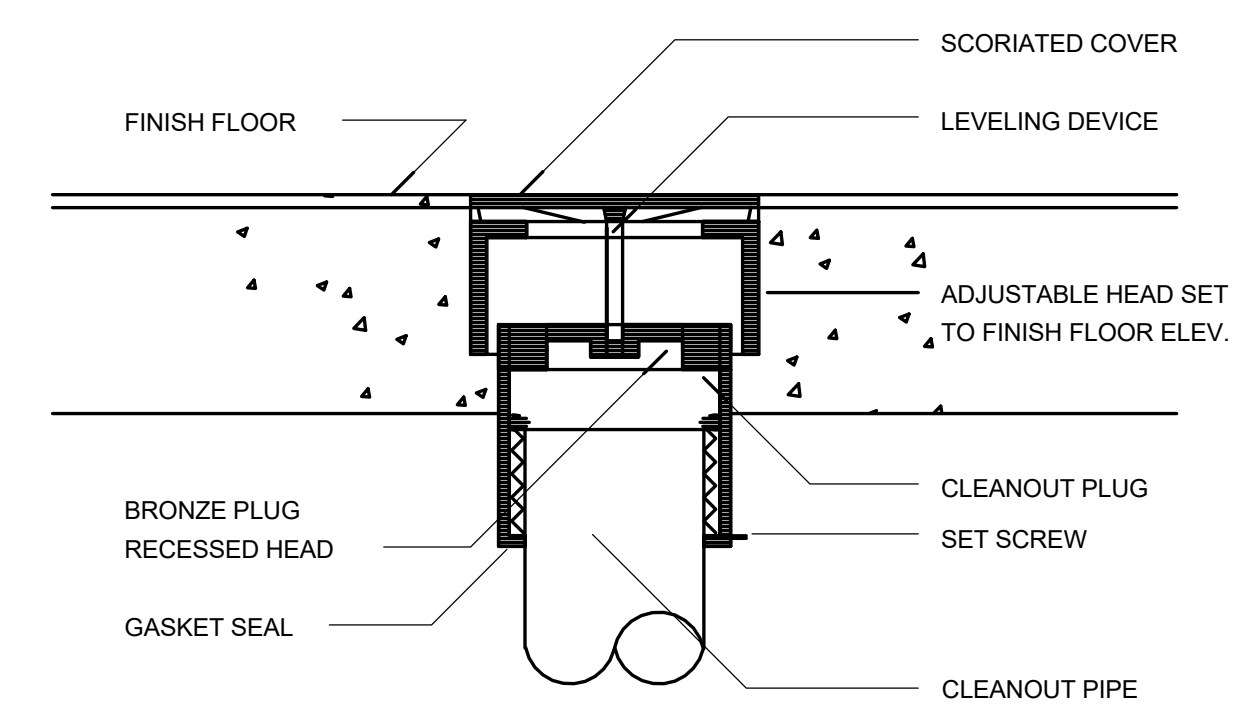
**2 WASHING MACHINE BOX**  
N.T.S.



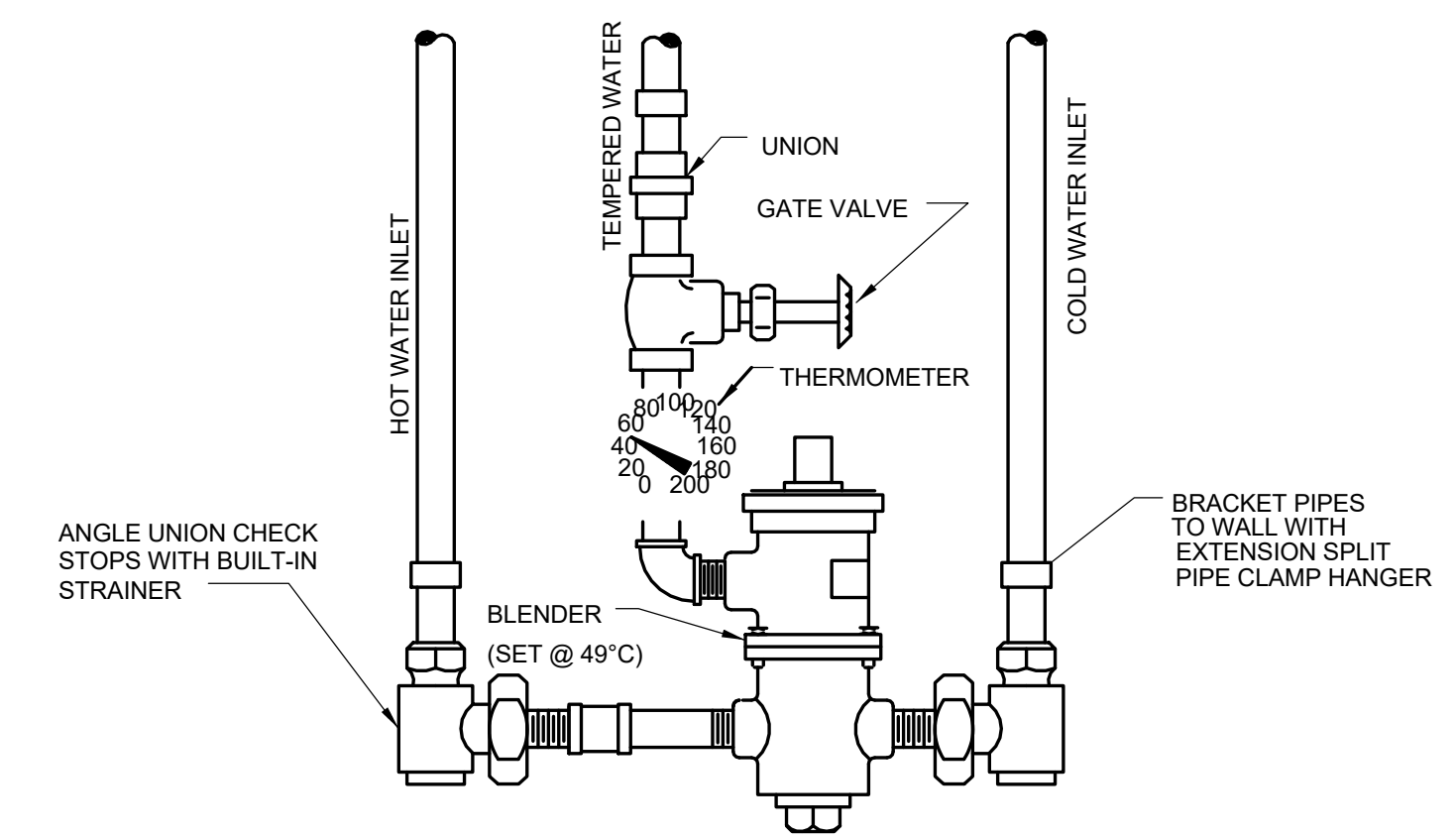
**3 TRAP PRIMER**  
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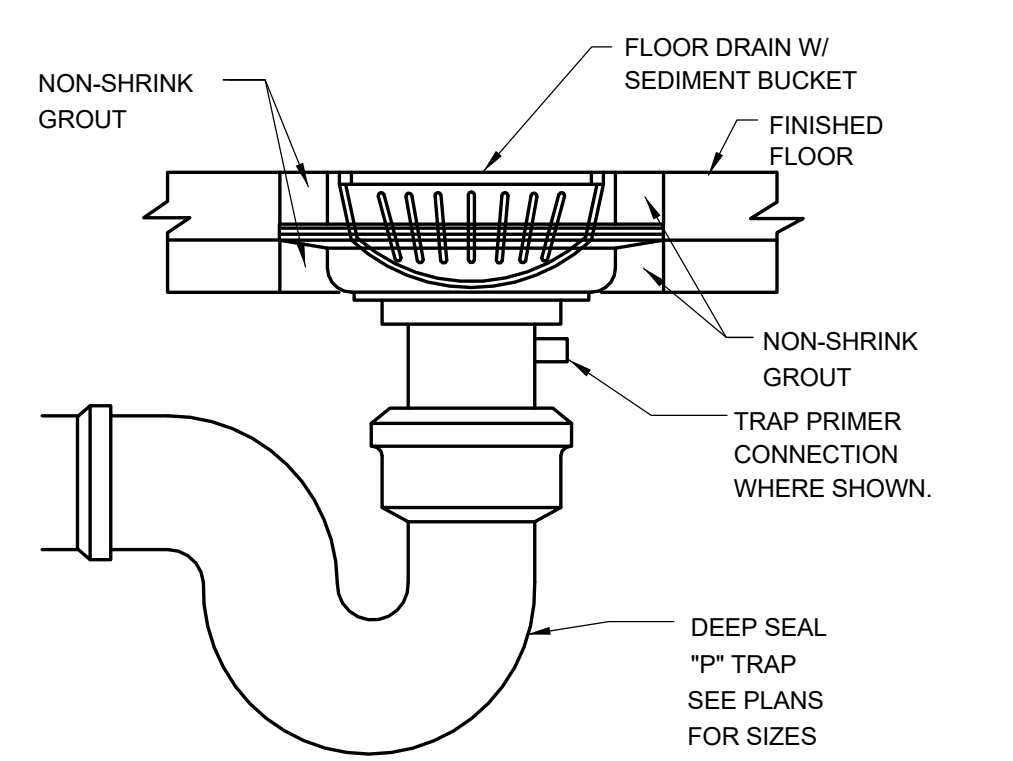
**4 WATER SERVICE ENTRANCE INSTALLATION DETAIL**  
N.T.S.



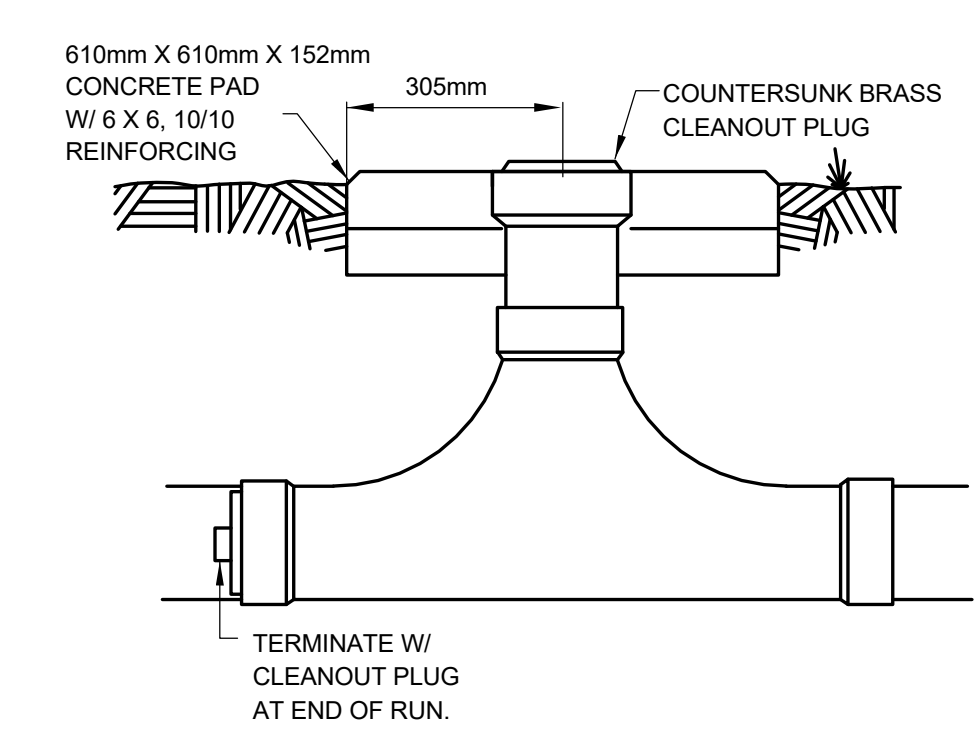
**5 FINISHED FLOOR CLEANOUT**  
N.T.S.



**6 THERMOSTATIC MIXING VALVE DETAIL**  
N.T.S.

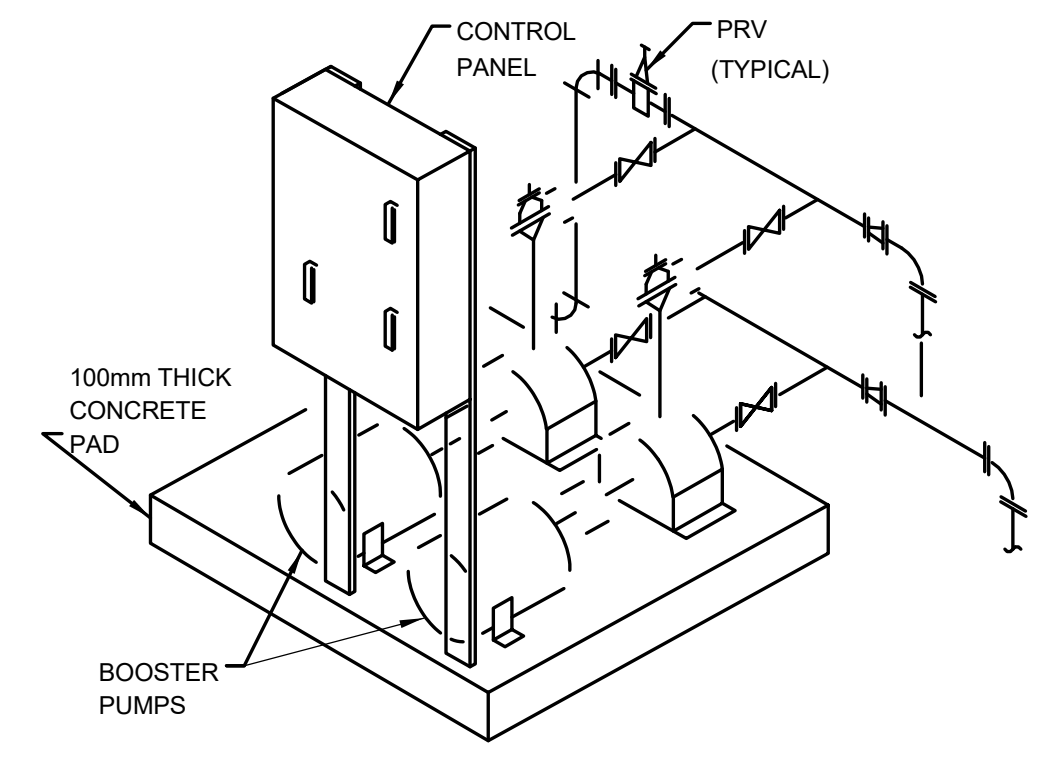


**7 FLOOR DRAIN (FLOOR SINK SIMILAR)**  
N.T.S.  
SLOPE 610mm X 610mm FLOOR AREA TO FLOOR DRAIN AT 6mm PER 300MM.  
REFER TO STRUCTURAL.



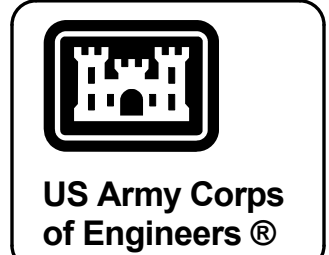
**8 TWO-WAY EXTERIOR CLEANOUT**  
N.T.S.

DOMESTIC BOOSTER PACKAGE SCHEDULE		
CAPACITY - L/s	7.38	
OPERATING PRESSURE - kPa	248.2	
MIN SUCTION PRESSURE - kPa	137.9	
MOTOR - kW (EACH MOTOR)	3.73	
ELECTRICAL DATA	VOLTS	208
	PHASE	3
	HERTZ	60
• SELECT DUPLEX ASSEMBLY AT 100%/100% CAPACITY. • PROVIDE WITH VFD FOR EACH MOTOR.		



**9 DOMESTIC BOOSTER PUMP**  
N.T.S.

- REFER TO FLOOR PLAN FOR UNIT CONFIGURATION
- PROVIDE RUBBER-IN-SHEAR VIBRATION ISOLATORS FOR PUMPS.
- PROVIDE 305mm MINIMUM FLEXIBLE SPOOL PIECE ON PIPING CONNECTIONS TO AND FROM BOOSTER PUMP.



MARK	DESCRIPTION	DATE

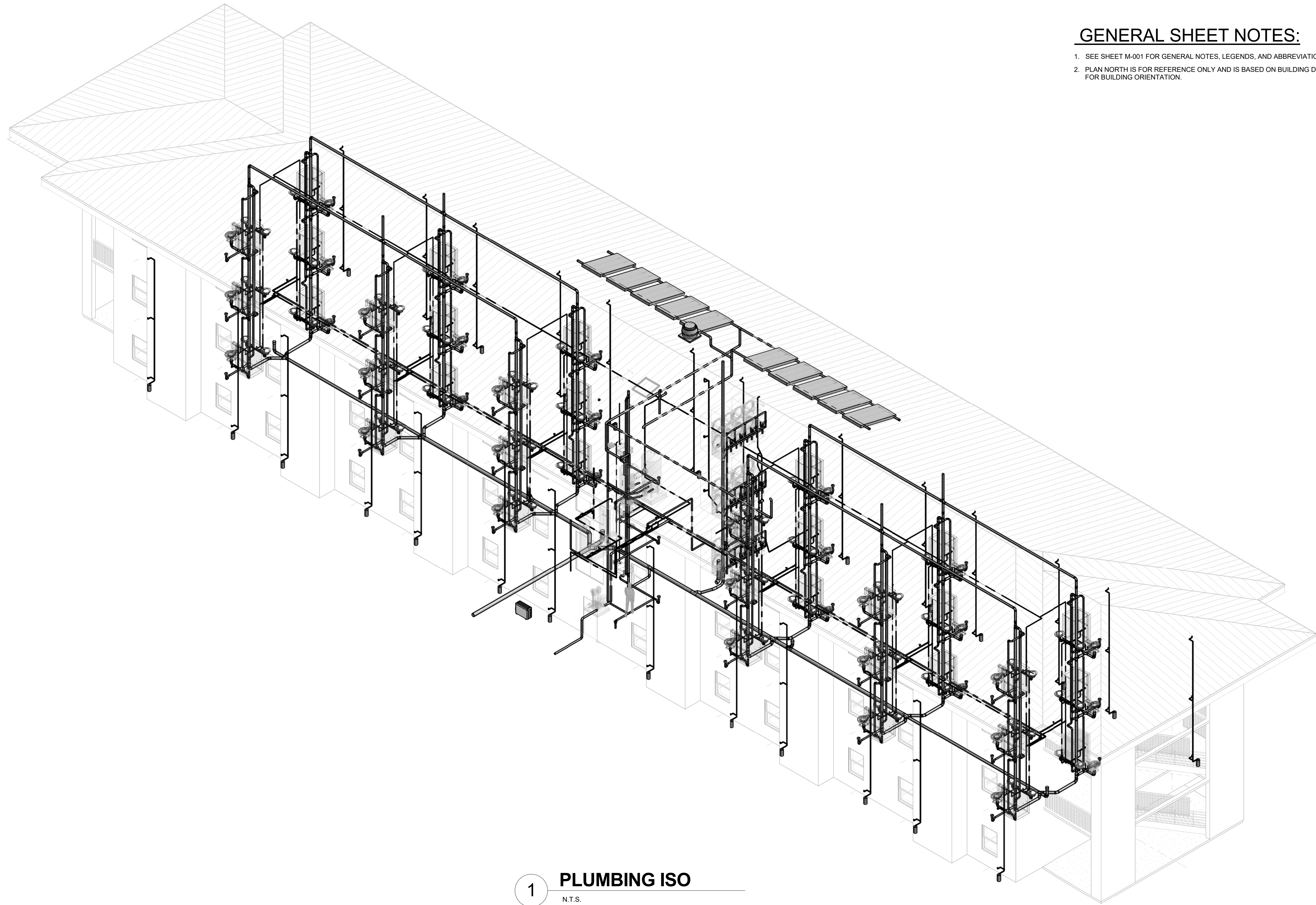
DESIGNED BY:	ISSUE DATE:
DRAWN BY:	FEBRUARY 2019
CHECKED BY:	SOLICITATION NO.:
SUBMITTED BY:	13038808
FILE NAME:	CONTRACT NO.:
ANSI D	PROJECT NUMBER:
	M07ELU44

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
PLUMBING DETAILS

SHEET ID  
**P501**



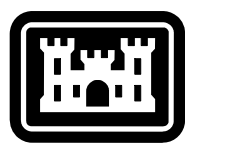




1 PLUMBING ISO  
N.T.S.

**GENERAL SHEET NOTES:**

- SEE SHEET M-001 FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS.
- PLAN NORTH IS FOR REFERENCE ONLY AND IS BASED ON BUILDING D. SEE CIVIL FOR BUILDING ORIENTATION.



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MARK	DESCRIPTION	DATE

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. BROWN	SOLICITATION NO.: 13388383
CHECKED BY: B. DURHAM	CONTRACT NO.:
SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M07ELU44
SIZE: ANSI D	FILE NAME:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

PLUMBING ISO

SHEET ID  
**P901**











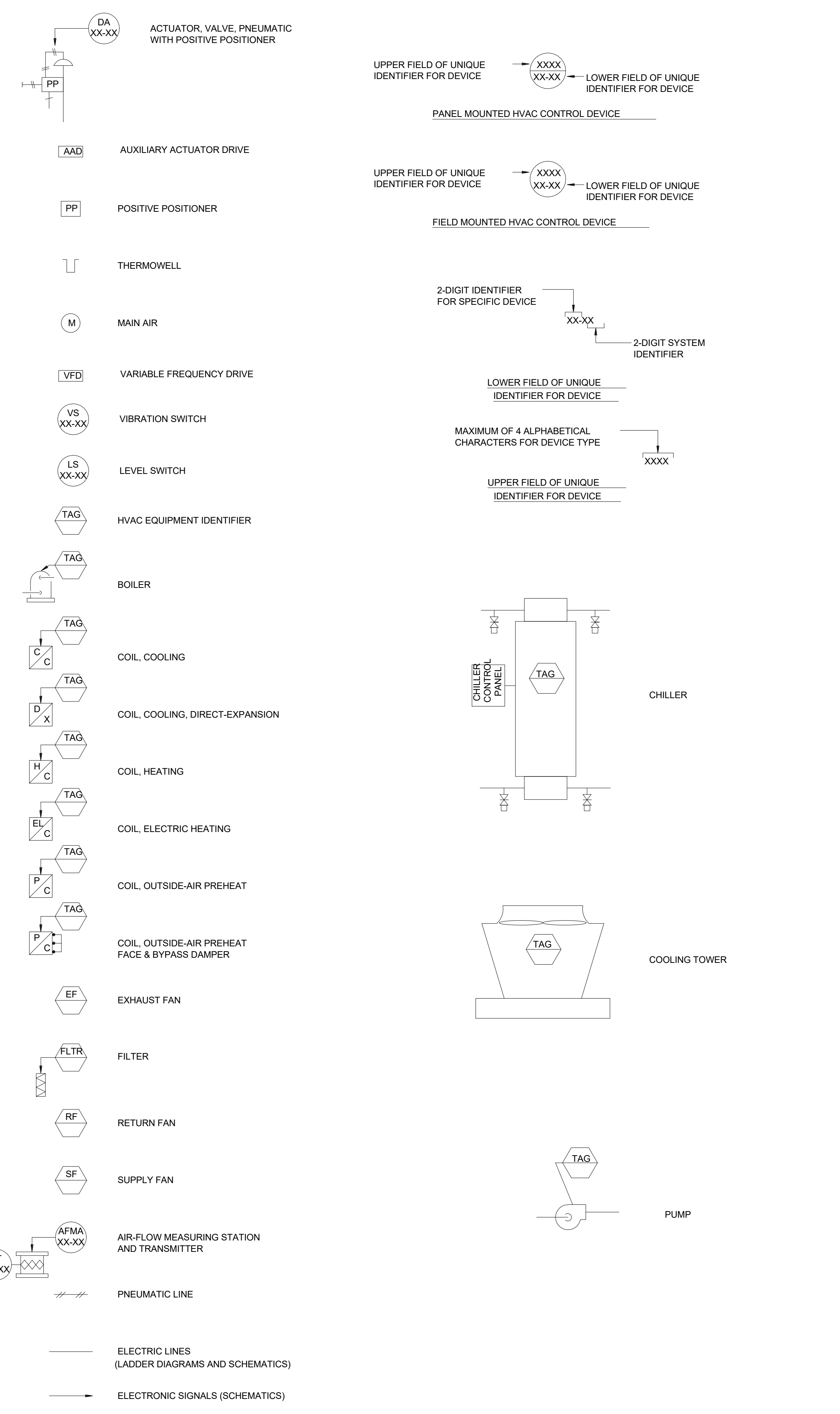
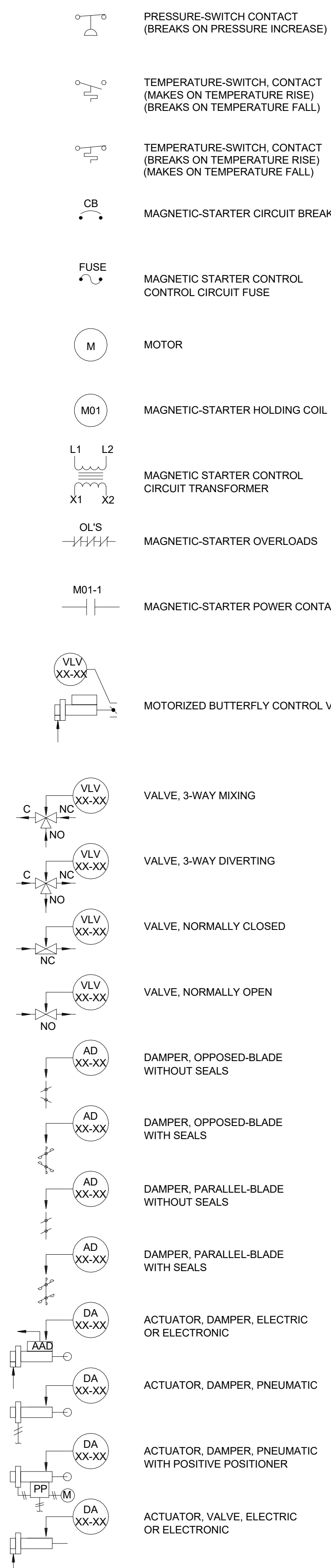




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### CONTROL LEGEND

CLK XX-XX	TIME CLOCK	TI XX-XX	THERMOMETER, AVERAGING
DPS XX-XX	DIFFERENTIAL-PRESSURE SWITCH	TI XX-XX	THERMOMETER, NON-AVERAGING
DPT XX-XX	DIFFERENTIAL-PRESSURE TRANSMITTER	TS XX-XX	NON-MODULATING SPACE THERMOSTAT, (MAKES/BREAKS CONTACTS ON TEMPERATURE RISE)
EC XX-XX	ECONOMIZER CONTROLLER	TSH XX-XX	NON-MODULATING SPACE THERMOSTAT, (MAKES CONTACT ON TEMPERATURE RISE)
EP XX-XX	ELECTRIC SOLENOID ACTUATED PNEUMATIC VALVE	TSL XX-XX	NIGHT THERMOSTAT, NON-MODULATING SPACE THERMOSTAT, (BREAKS CONTACT ON TEMPERATURE RISE)
FC XX-XX	FLOW CONTROLLER	TSL XX-XX	THERMOSTAT, LOW TEMPERATURE PROTECTION
FT XX-XX	FLOW TRANSMITTER	TSP XX-XX	MANUAL TEMPERATURE SETPOINT DEVICE
IP XX-XX	CURRENT-TO-PNEUMATIC TRANSDUCER	TT XX-XX	SPACE-TEMPERATURE TRANSMITTER
LD XX-XX	LOOP DRIVER	TT XX-XX	TEMPERATURE TRANSMITTER, AVERAGING
MPS XX-XX	MINIMUM-POSITION SWITCH	TT XX-XX	TEMPERATURE TRANSMITTER
PC XX-XX	PRESSURE CONTROLLER	TUP XX-XX	MICROPROCESSOR-BASED SPACE THERMOSTAT
PI XX-XX	PRESSURE GAUGE	TY XX-XX	SIGNAL SELECTOR, TEMPERATURE CONTROL LOOP
PT XX-XX	PRESSURE TRANSMITTER	R XX-XX	RELAY COIL
RHC XX-XX	RELATIVE-HUMIDITY CONTROLLER	XXX XX-XX	RELAY COIL OR DEVICE OPERATING CIRCUIT
RHSH XX-XX	HI-LIMIT HUMIDISTAT, NON-MODULATING	XXXX XX-XX	PANEL-DEVICE CONTACT
RHT XX-XX	RELATIVE-HUMIDITY TRANSMITTER, DUCT-MOUNTED	XXX XX-XX	FIELD-DEVICE CONTACT
RHT XX-XX	RELATIVE-HUMIDITY TRANSMITTER, SPACE-MOUNTED	R XX-XX	RELAY CONTACT
RHY XX-XX	SIGNAL SELECTOR, HUMIDITY CONTROL LOOP	HS XX-XX	MAINTAINED CONTACT INTERLOCKED SWITCH
SMK XX-XX	SMOKE DETECTOR, DUCT-MOUNTED	HS XX-XX	MOMENTARY SWITCH
T XX-XX	MODULATING SPACE THERMOSTAT	HAND OFF AUTO	MAGNETIC STARTER LOCAL CONTROL SWITCH
T XX-XX	MODULATING DUCT THERMOSTAT, NON-AVERAGING	H	HUMIDITY-SWITCH CONTACT (MAKES ON HUMIDITY INCREASE)
T XX-XX	MODULATING THERMOSTAT, AVERAGING	H	HUMIDITY-SWITCH CONTACT (BREAKS ON HUMIDITY INCREASE)
TC XX-XX	TEMPERATURE CONTROLLER	P	PRESSURE-SWITCH CONTACT (MAKES ON PRESSURE INCREASE)



**US Army Corps of Engineers®**

DESIGNED BY: R. PERSON	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E. BERG	SOLICITATION NO.: SOL13BEN03
CHECKED BY: B. DURHAM	CONTRACT NO.:
SUBMITTED BY: W. KNAPP	PROJECT NUMBER: M07ELU44
FILE NAME: ANSI.D	SIZE:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, AL

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**HVAC CONTROLS**

SHEET ID  
**M701**

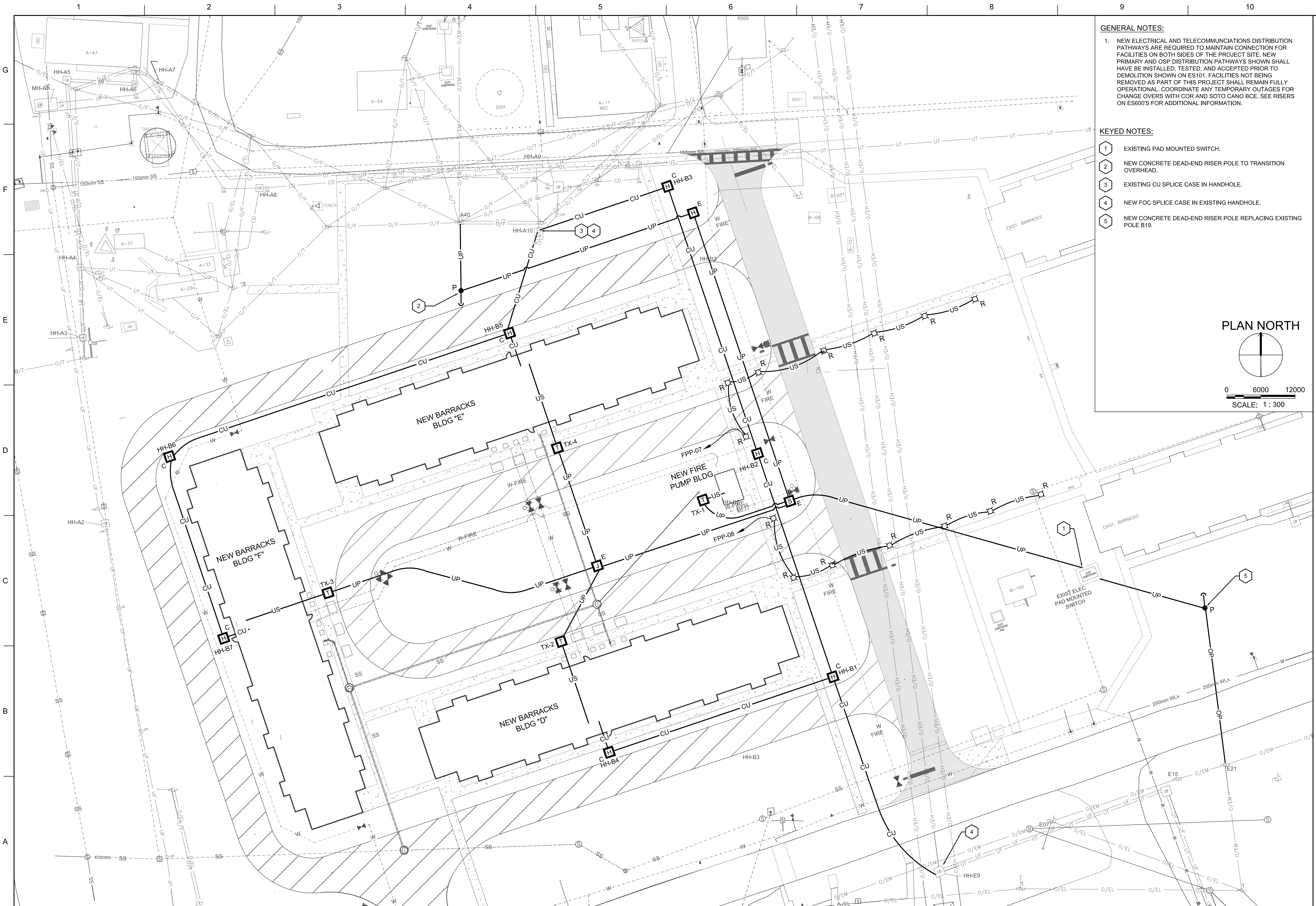










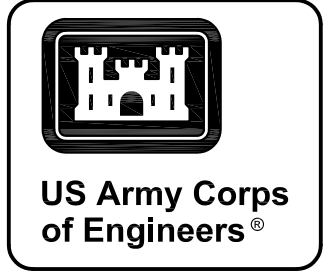
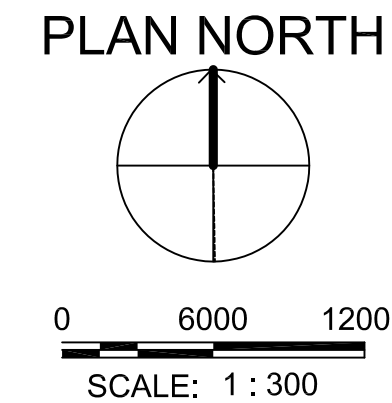


**GENERAL NOTES:**

- NEW ELECTRICAL AND TELECOMMUNICATIONS DISTRIBUTION PATHWAYS ARE REQUIRED TO MAINTAIN CONNECTION FOR FACILITIES ON BOTH SIDES OF THE PROJECT SITE. NEW PRIMARY AND OSP DISTRIBUTION PATHWAYS SHOWN SHALL HAVE BEEN INSTALLED, TESTED, AND ACCEPTED PRIOR TO DEMOLITION SHOWN ON ES101. FACILITIES NOT BEING REMOVED AS PART OF THIS PROJECT SHALL REMAIN FULLY OPERATIONAL. COORDINATE ANY TEMPORARY OUTAGES FOR CHANGE OVERS WITH COR AND SOTO CANO BCE. SEE RISERS ON ES600'S FOR ADDITIONAL INFORMATION.

**KEYED NOTES:**

- EXISTING PAD MOUNTED SWITCH.
- NEW CONCRETE DEAD-END RISER POLE TO TRANSITION OVERHEAD.
- EXISTING CU SPLICE CASE IN HANDHOLE.
- NEW FOC SPLICE CASE IN EXISTING HANDHOLE.
- NEW CONCRETE DEAD-END RISER POLE REPLACING EXISTING POLE B19.



MARK	DESCRIPTION	DATE

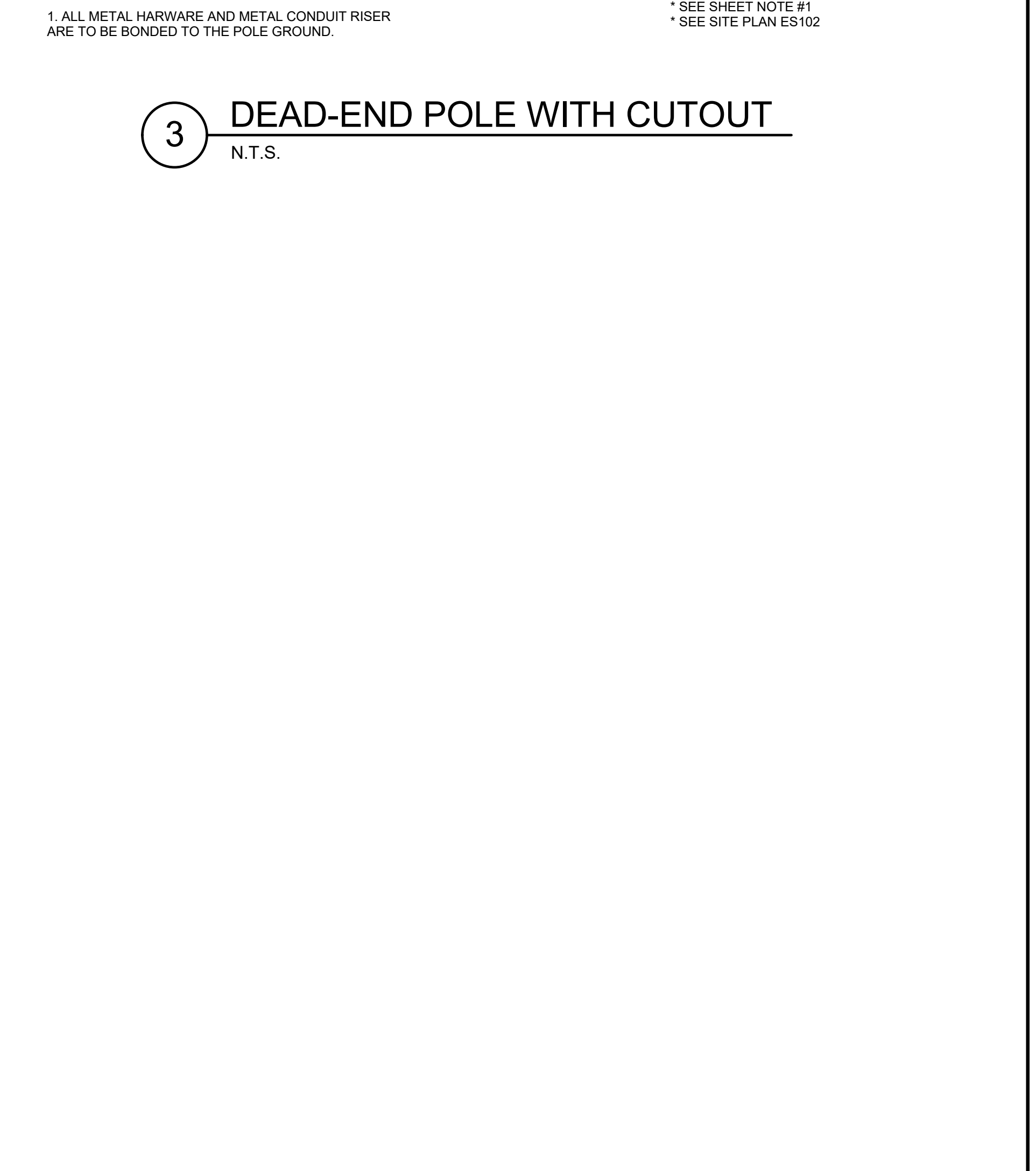
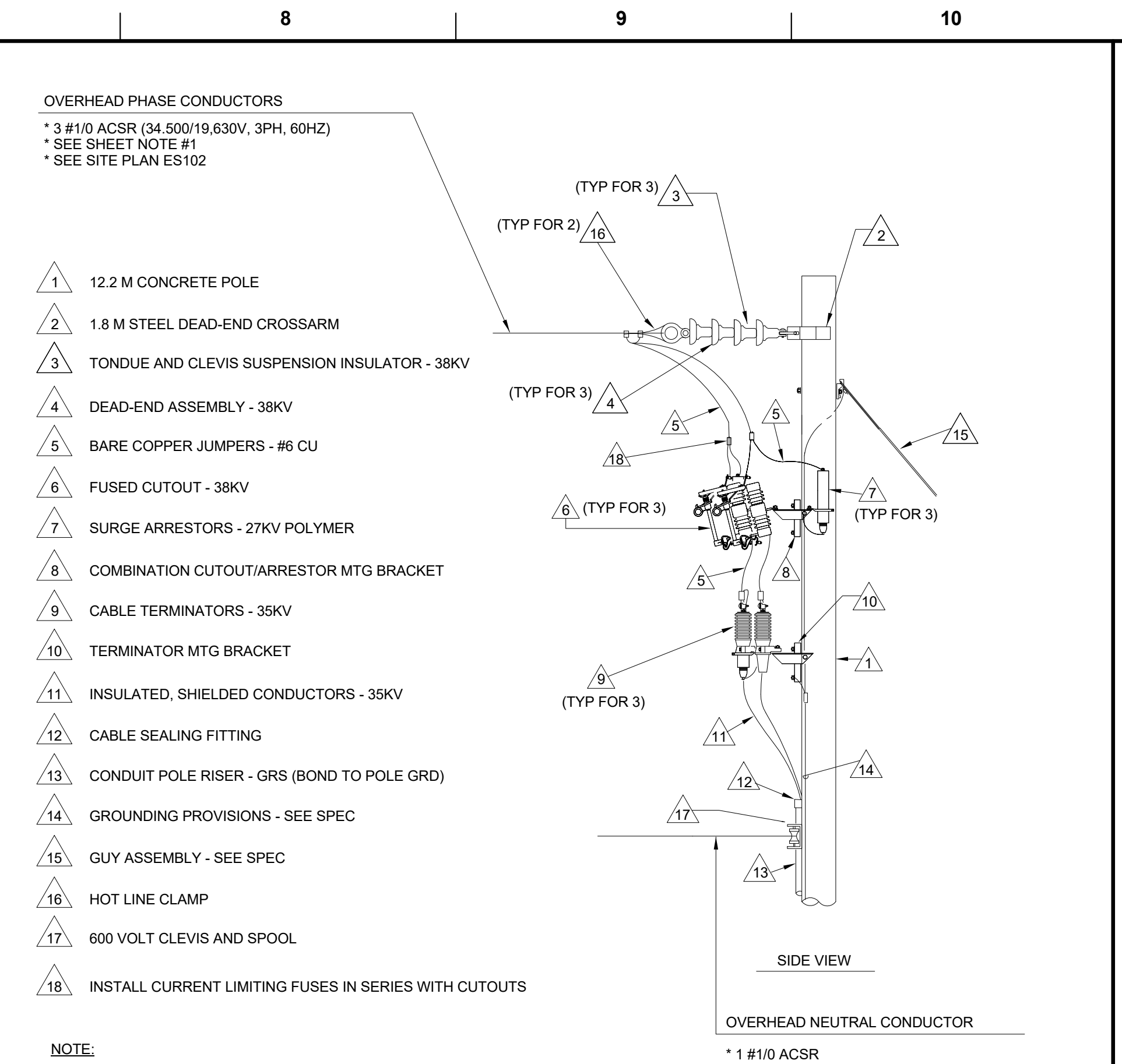
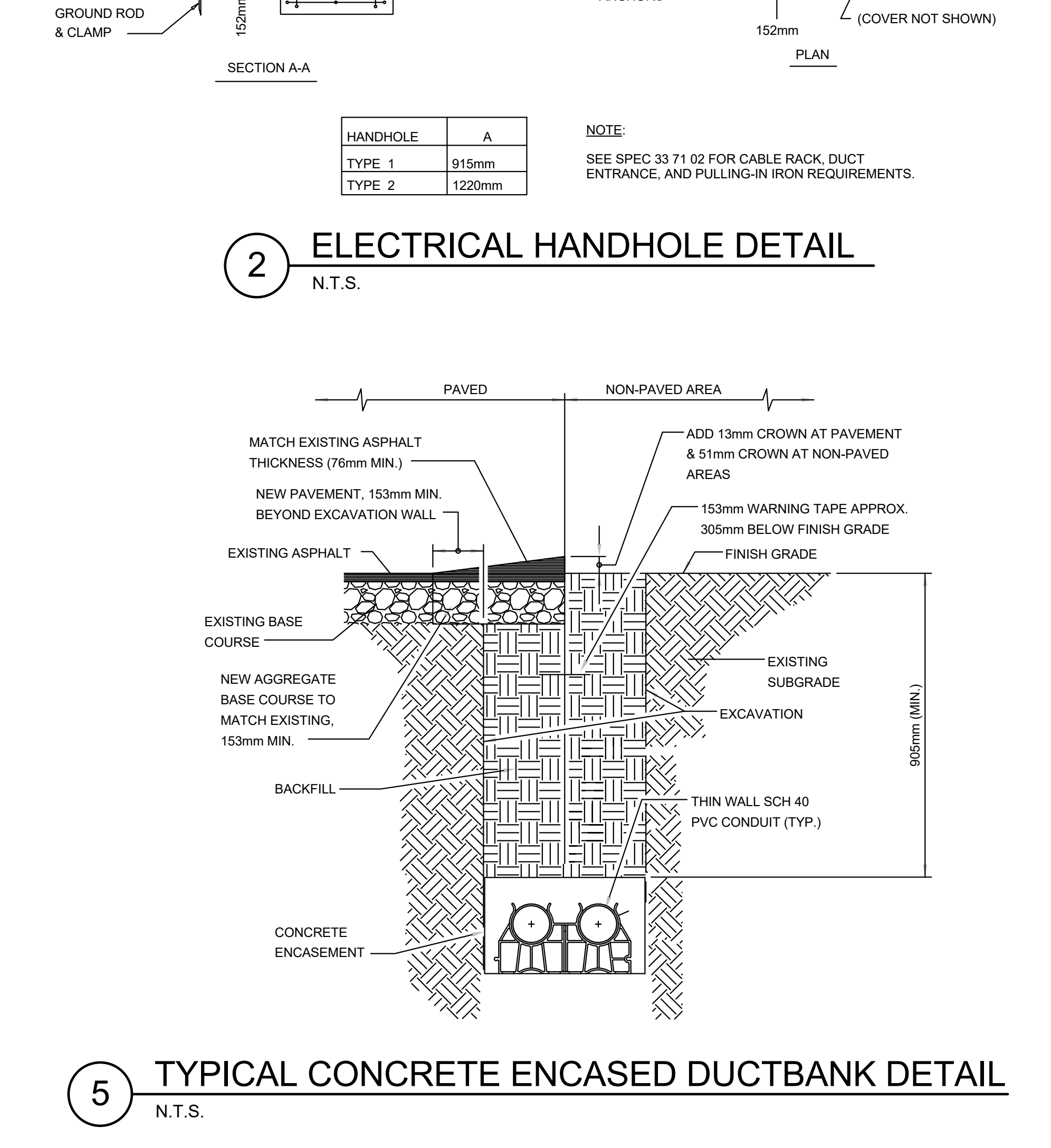
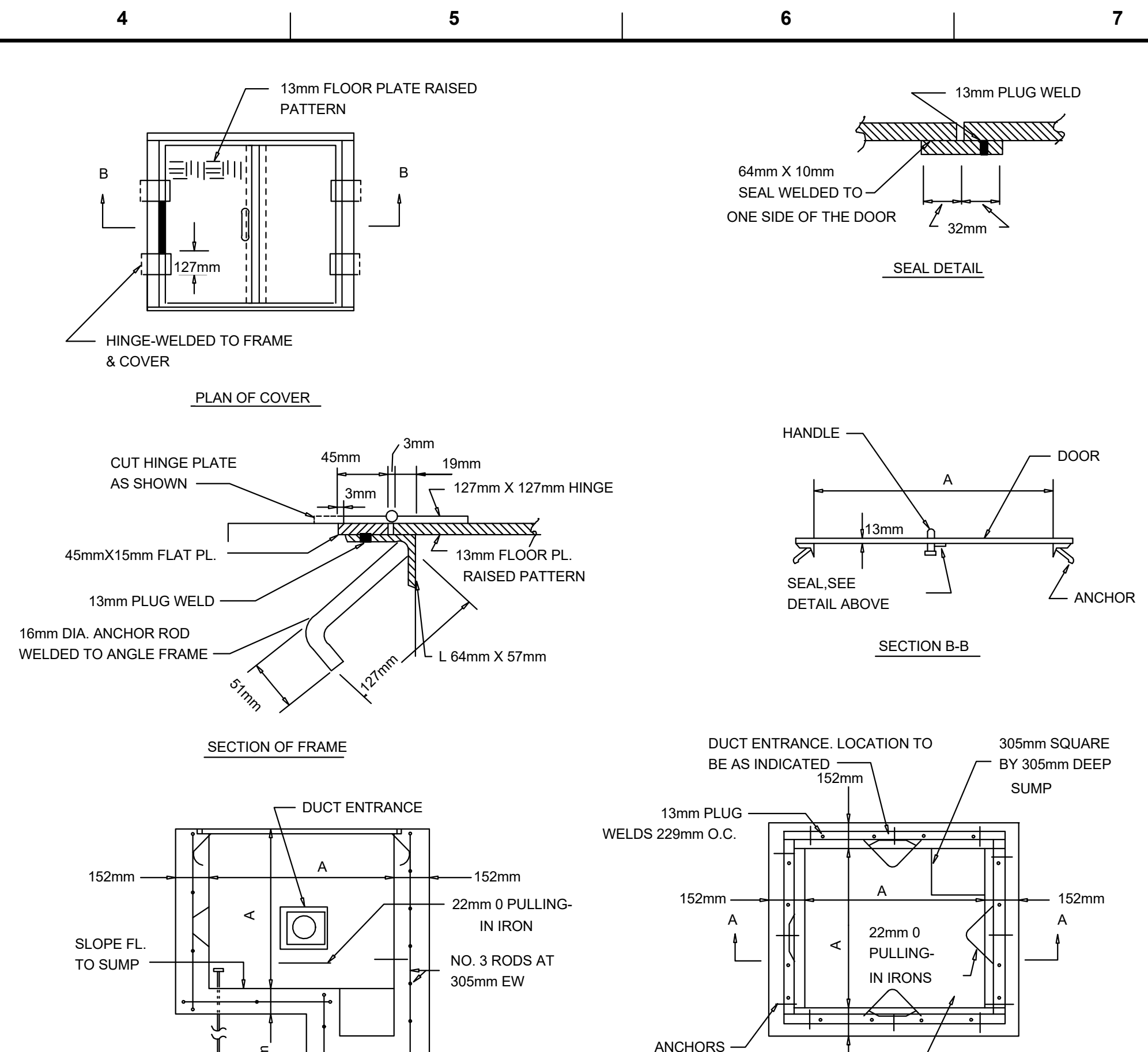
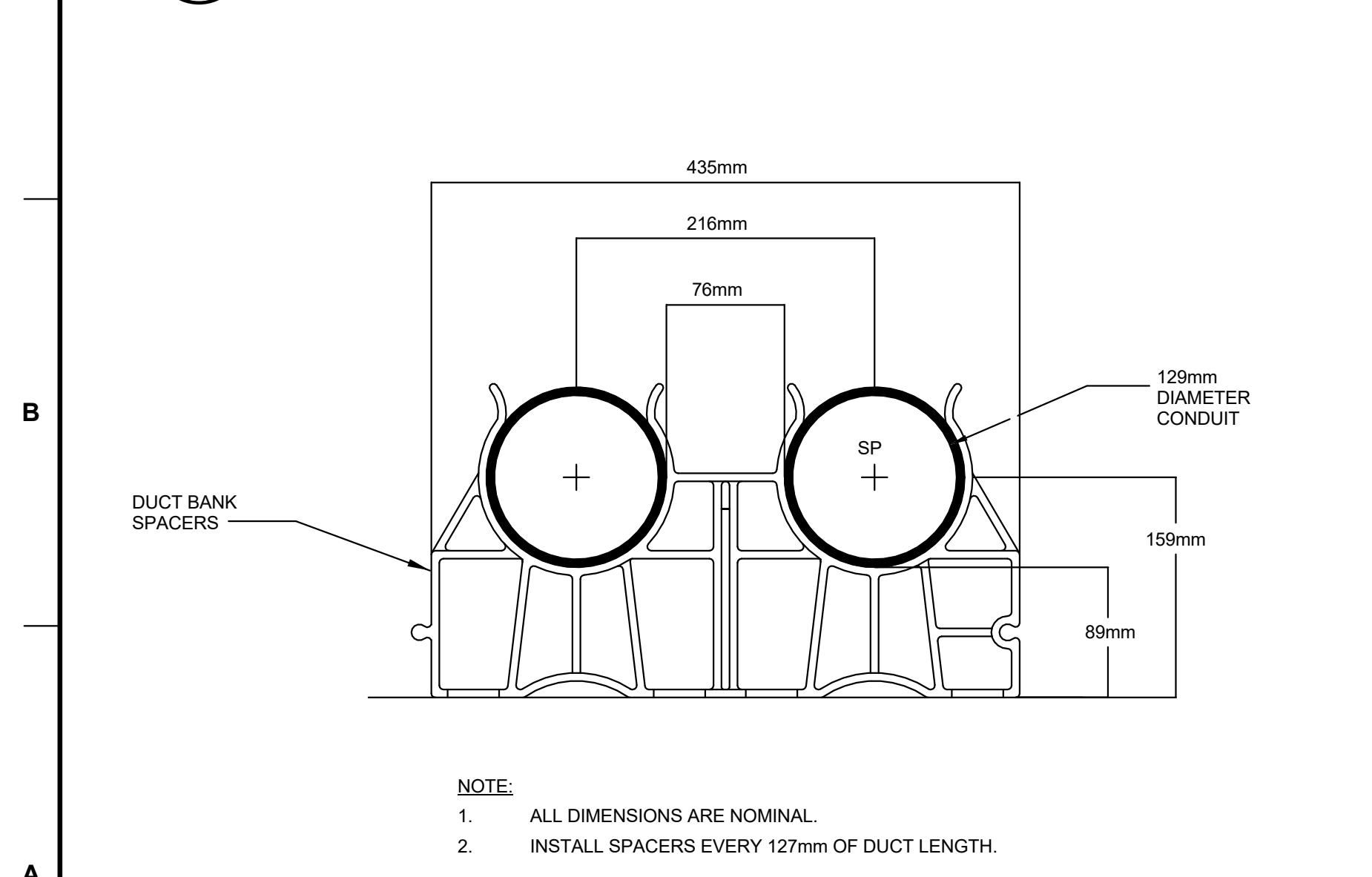
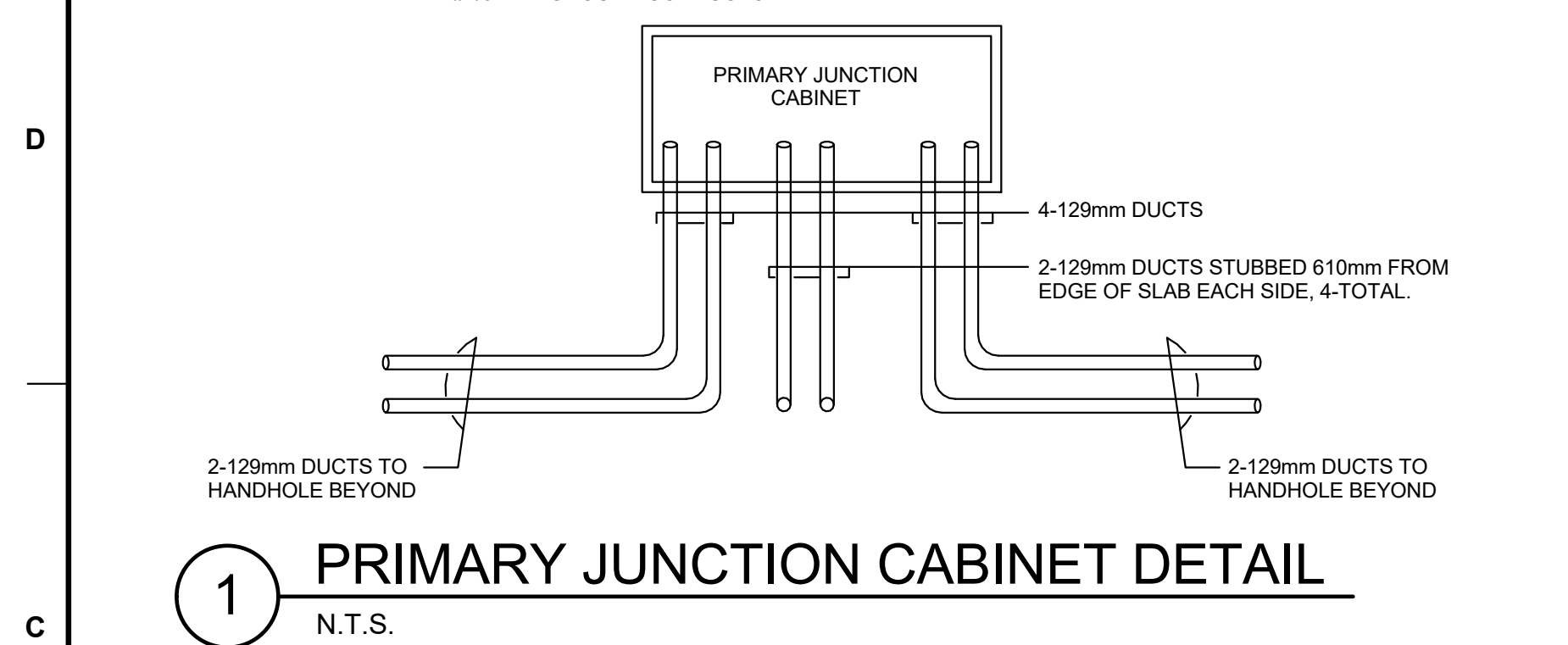
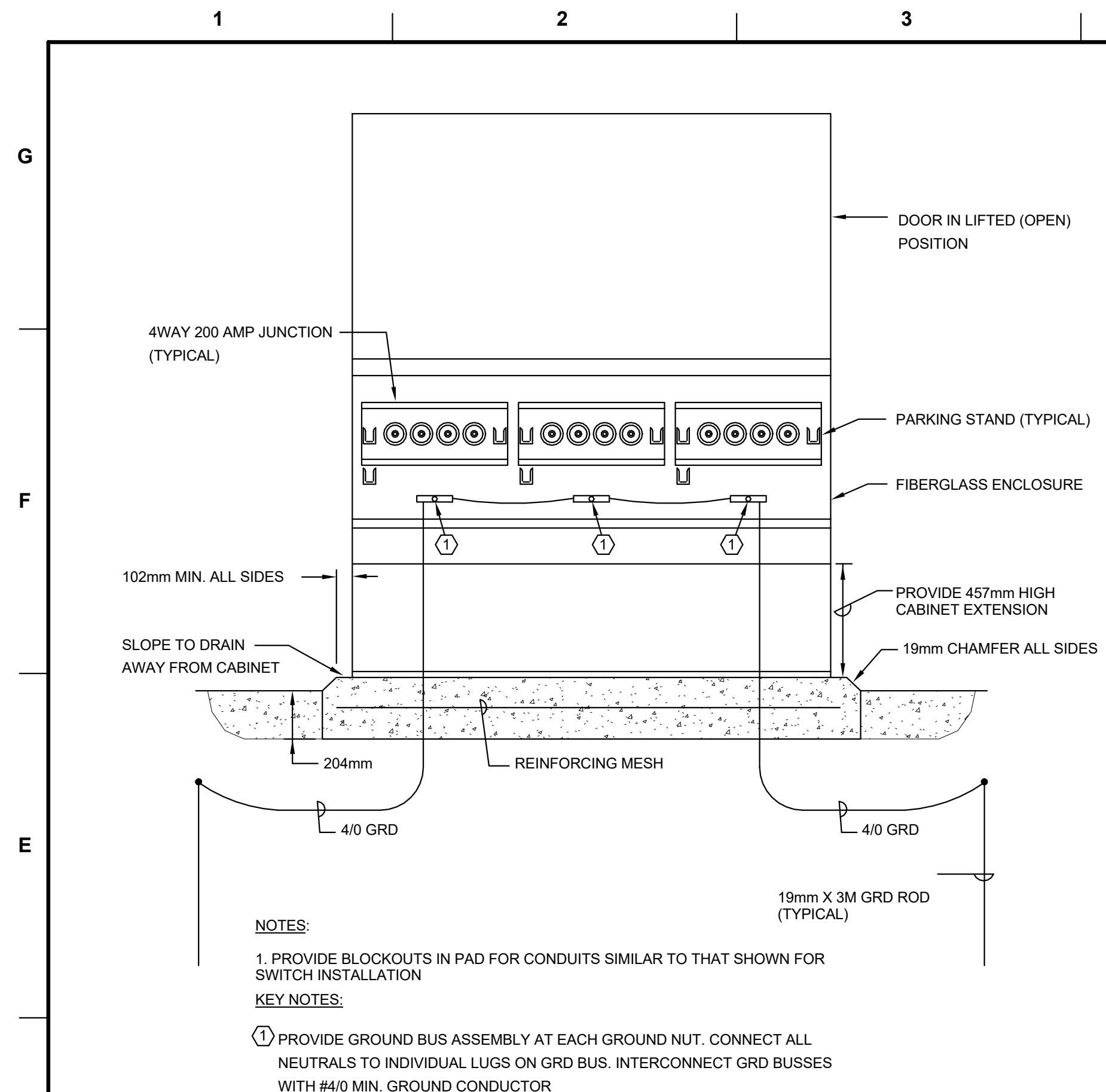
DESIGNED BY: R. J. KUTNER	ISSUE DATE: 01/14/2019
DRAWN BY: E. J. ENDE	SO/CITATION NO.: W912718R0028
CHECKED BY: W. J. KNAPP	CONTRACT NO.:
SUBMITTED BY: D. D. COLLIER	PROJECT NUMBER: M017EU44
SIZE: ANSI D	FILE NAME: M017EU44-ES102.dwg

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**ELECTRICAL & TELECOMMUNICATION  
SITE PLAN**

SHEET ID  
**ES102**





**US Army Corps of Engineers**

DESIGNED BY: S.M.FORTNER  
 DRAWN BY: S.M.FORTNER  
 CHECKED BY: D.D.COLLIER  
 SUBMITTED BY: W.J.KNAPP  
 SIZE: ANS/D

ISSUE DATE: FEBRUARY 2010  
 SHEET NO.: W01274R0208  
 CONTRACT NO.:  
 PROJECT NUMBER: M07EL44  
 FILE NAME: M07EL44

U.S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 MOBILE, ALABAMA

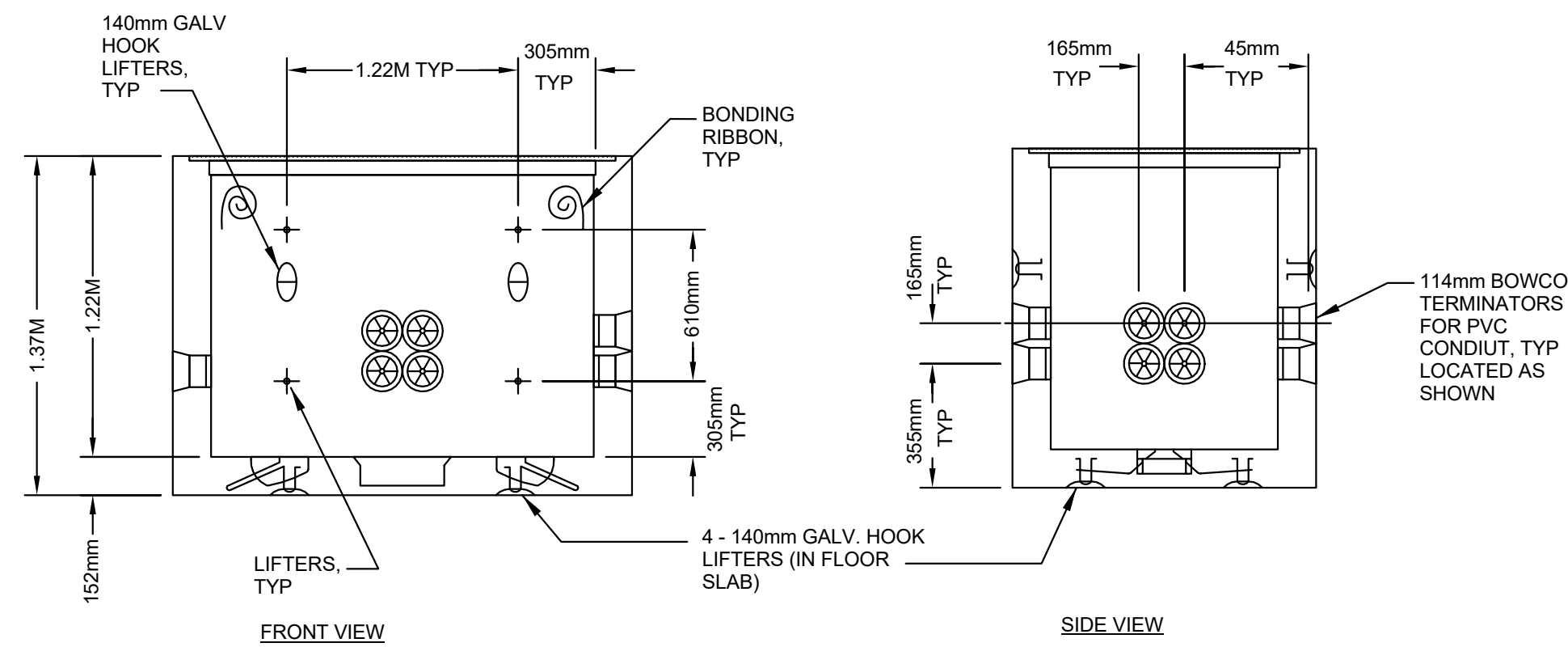
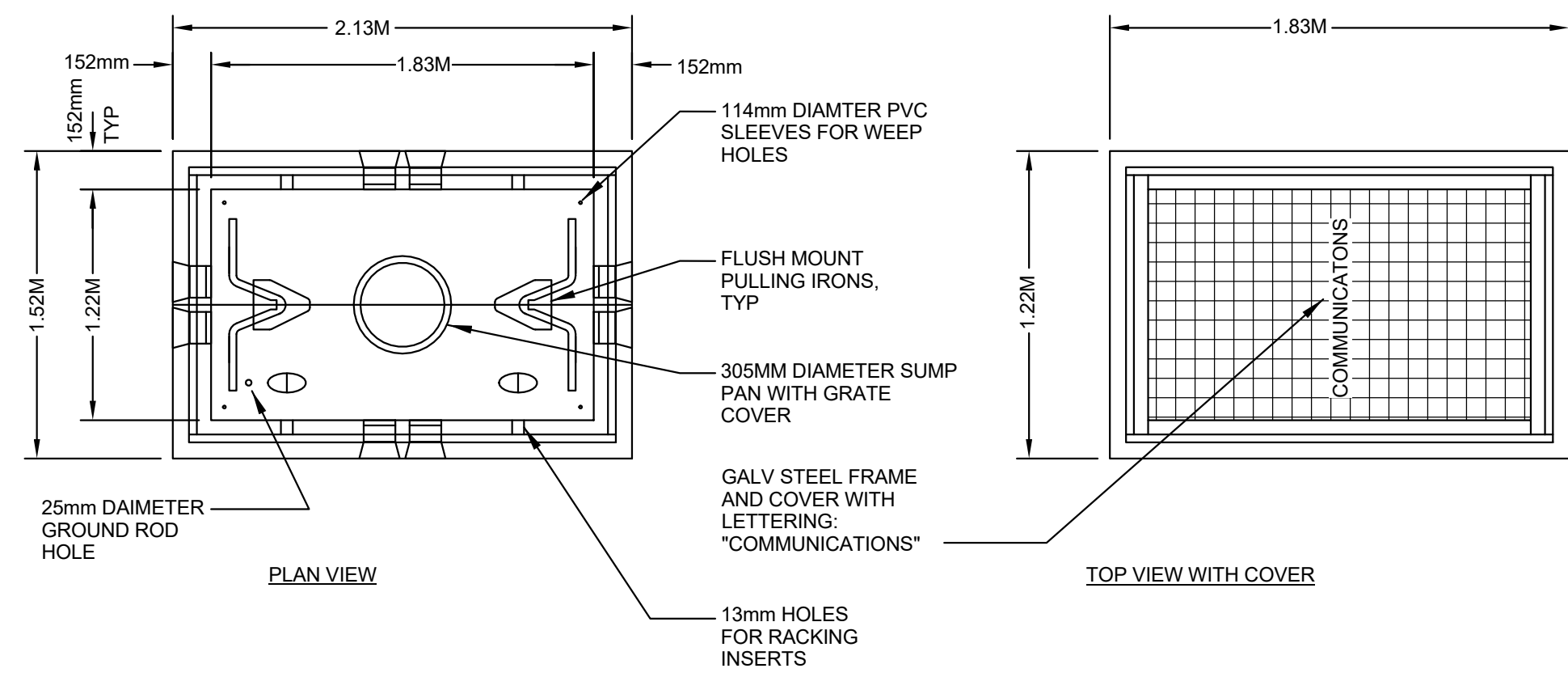
SOTO CANO AIR BASE, HONDURAS  
 UNACCOMPANIED ENLISTED PERSONNEL HOUSING

ELECTRICAL DISTRIBUTION DETAILS

SHEET ID  
**ES501**

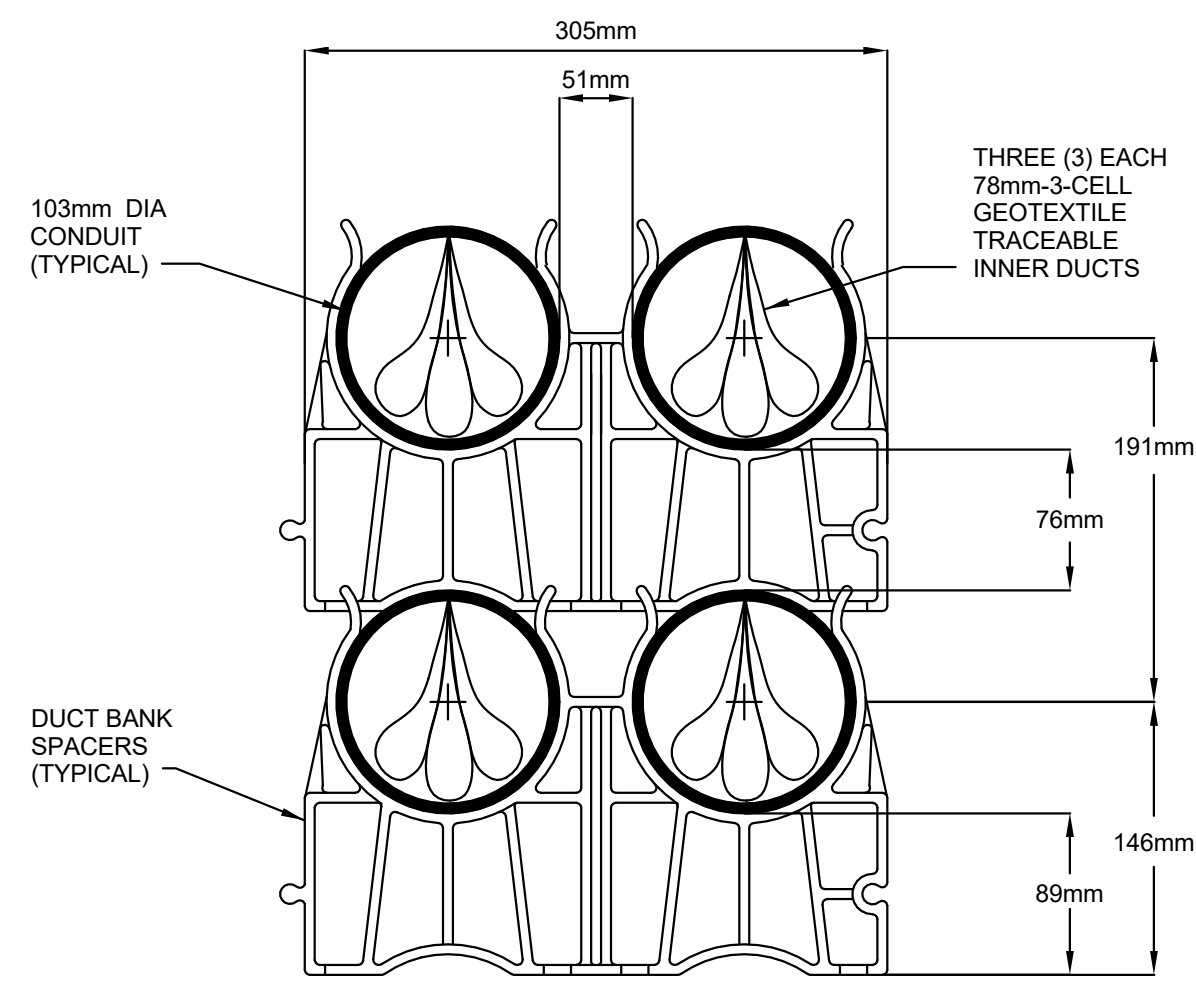






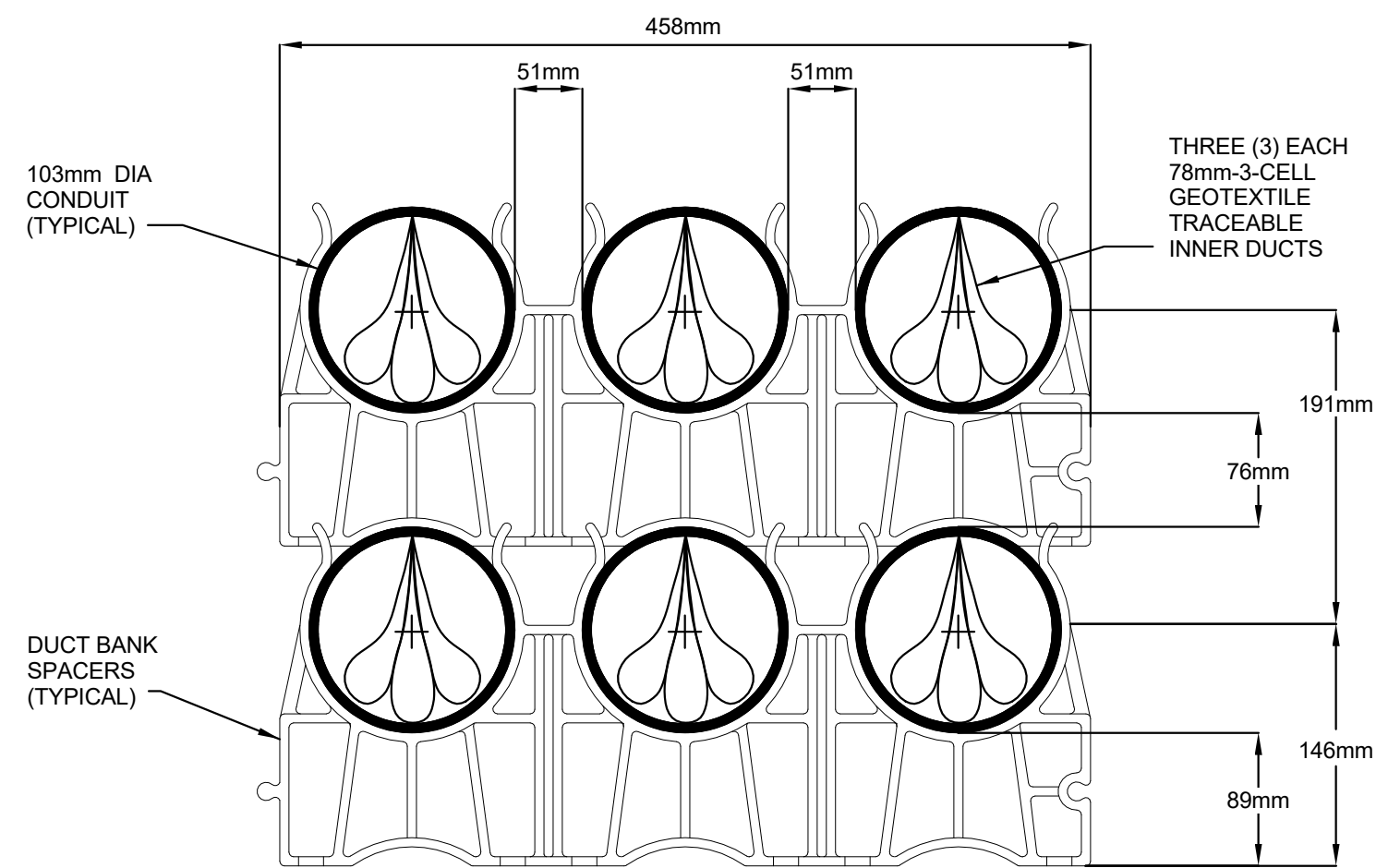
**1 TELECOMMUNICATIONS HANDHOLE DETAIL**  
N.T.S.

- NOTES:**
1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH  $f_c=5,000$  PSI.
  2. GRADE 60 STEEL REINFORCING.
  3. PRECAST STRUCTURE ARE PRODUCED TO MEET OR EXCEED ASTM SPECIFICATIONS.
  4. SUPPORTS H20 LOADING AS INDICATED BY AASHTO.
  5. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL OPENINGS.
  6. SEE SPEC 33 71 02 FOR PULLING IRONS AND CABLE RACK REQUIREMENTS.



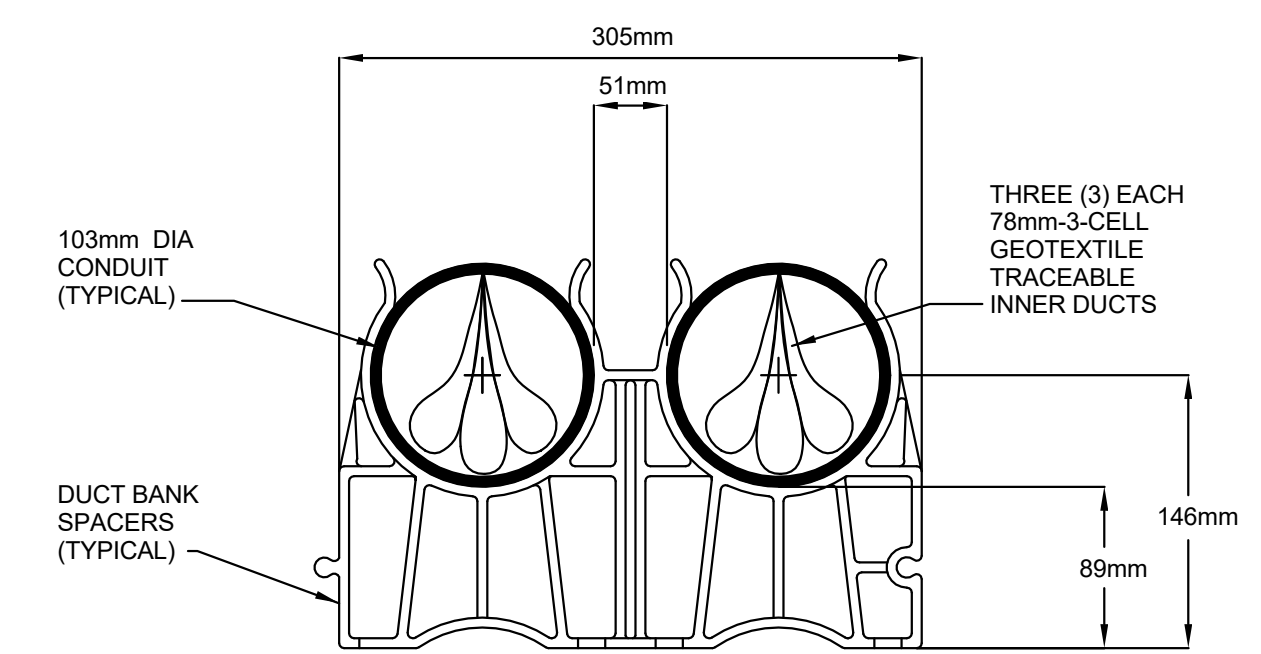
**2 4-WAY DUCTBANK SECTION DETAIL**  
N.T.S.

- NOTES:**
1. ALL DIMENSIONS ARE NOMINAL.
  2. INSTALL SPACERS EVERY 1.5M OF DUCT LENGTH.



**4 6-WAY DUCTBANK SECTION DETAIL**  
N.T.S.

- NOTES:**
1. ALL DIMENSIONS ARE NOMINAL.
  2. INSTALL SPACERS EVERY 1.5M OF DUCT LENGTH.



**3 2-WAY DUCTBANK SECTION DETAIL**  
N.T.S.

- NOTES:**
1. ALL DIMENSIONS ARE NOMINAL.
  2. INSTALL SPACERS EVERY 1.5M FEET OF DUCT LENGTH.

FIBER OPTIC ID	FO 07-07
# FIBER STRANDS	12 FO SM
CABLE COUNT	1-12 STRANDS

- NOTES:**
1. UNDER "# FIBER STRANDS", APPEND WITH "SM" FOR SINGLE-MODE FIBER OPTIC CABLE AND "MM" FOR MULTI-MODE FIBER OPTIC CABLE.
  2. BUILDING ENTRANCE PROTECTOR TERMINALS AND FIBER OPTIC DISTRIBUTION PANELS SHALL BE LABELED USING YELLOW 26mm x 26mm SIZED LABEL.

**5 FIBER OPTIC CABLE LABELING DETAIL**  
N.T.S.

BUILDING #	B####
SIZE-TYPE	P3-24PF
CABLE ID #	CA-07-05
CABLE COUNT	PAIR-601-800+100XD

- NOTES:**
1. SIZE-TYPE IN THIS EXAMPLE IS 300-PAIR (P3), 24 AWG (24PF), OMIT BUILDING # OUTSIDE OF MAIN TELECOM ROOM.
  3. BUILDING ENTRANCE PROTECTOR TERMINALS AND FIBER OPTIC DISTRIBUTION PANELS SHALL BE LABELED USING YELLOW 26mm x 26mm SIZED LABEL.

**6 COPPER CABLE LABELING DETAIL**  
N.T.S.

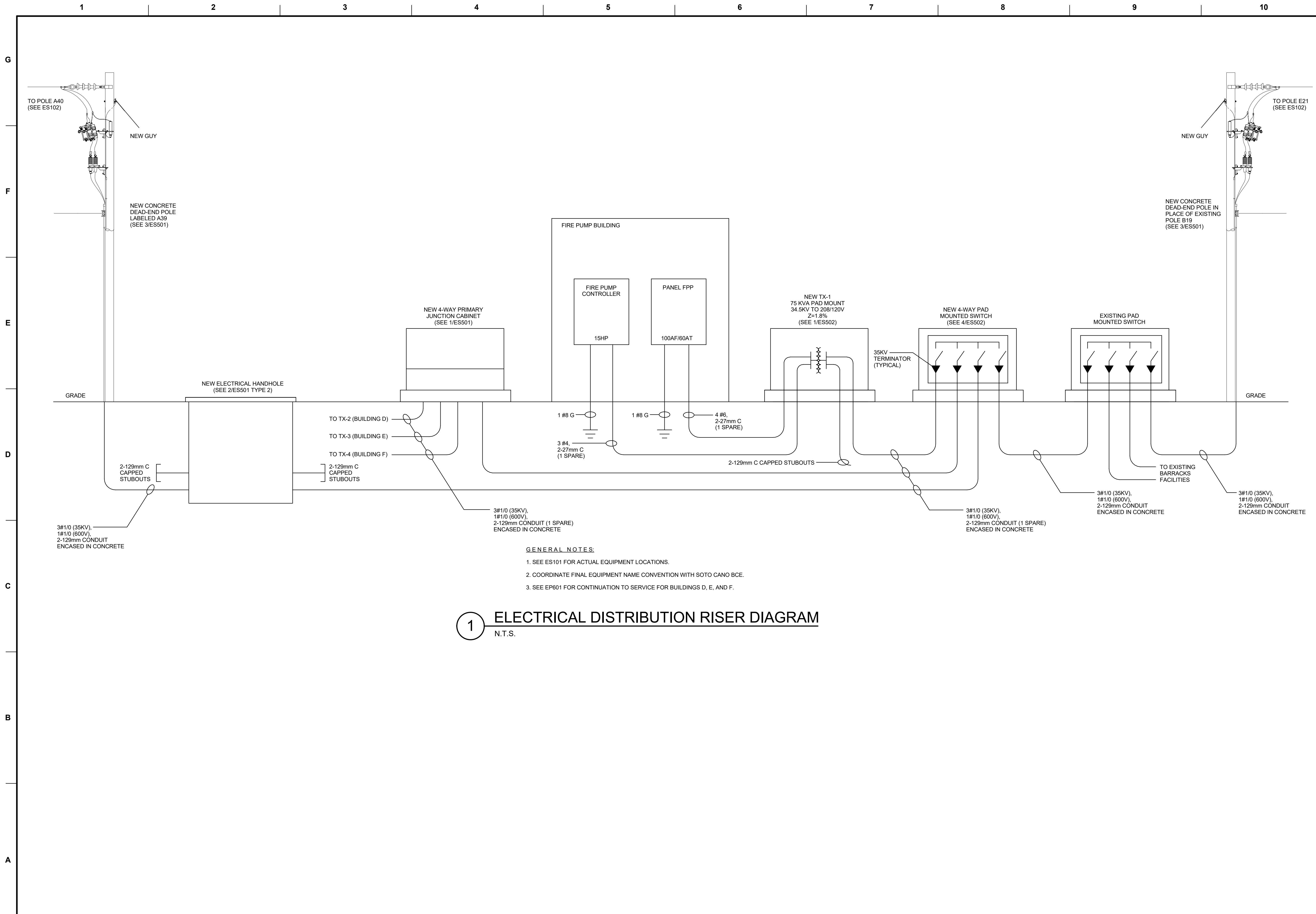


US Army Corps of Engineers

DATE	
DESCRIPTION	
MARK	

DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: WJL	SCALE: AS SHOWN
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M07ELJ44
FILE NAME: M07ELJ44	ANSI D:

U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	TELECOMMUNICATION OSP DETAILS
--	-------------------------------



**GENERAL NOTES:**

1. SEE ES101 FOR ACTUAL EQUIPMENT LOCATIONS.
2. COORDINATE FINAL EQUIPMENT NAME CONVENTION WITH SOTO CANO BCE.
3. SEE EP601 FOR CONTINUATION TO SERVICE FOR BUILDINGS D, E, AND F.

**1 ELECTRICAL DISTRIBUTION RISER DIAGRAM**  
N.T.S.



US Army Corps of Engineers

MARK	DESCRIPTION	DATE

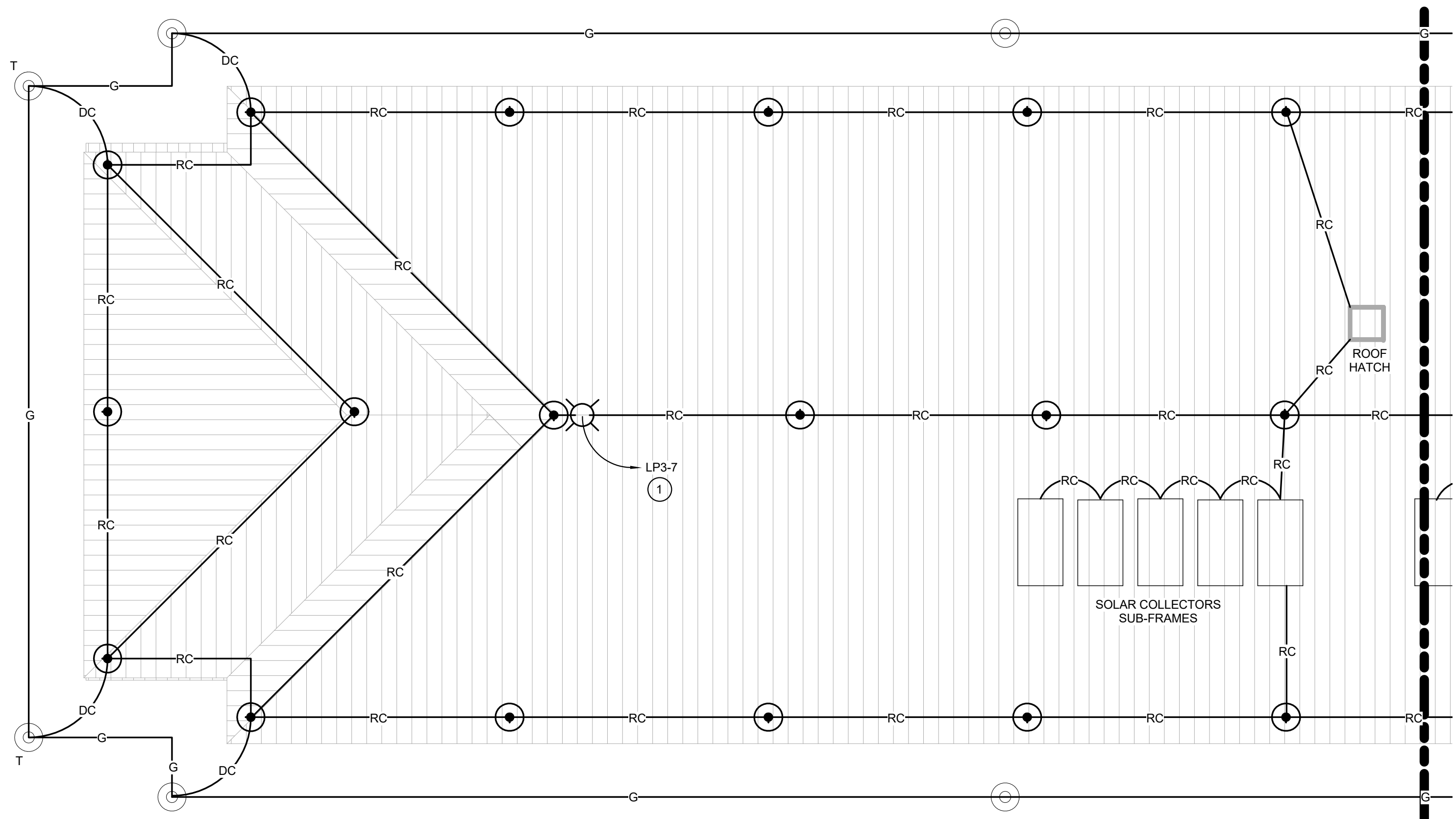
DESIGNED BY: S.M.FORNER	ISSUE DATE: FEBRUARY 2019
CHECKED BY: D.D.COLLIER	SCALE: AS SHOWN
SUBMITTED BY: W.J.KNAPP	PROJECT NUMBER: M07ELU44
FILE NAME: M07ELU44	CONTRACT NO.:
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	MOBILE DISTRICT MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
ELECTRICAL DISTRIBUTION RISER DIAGRAM

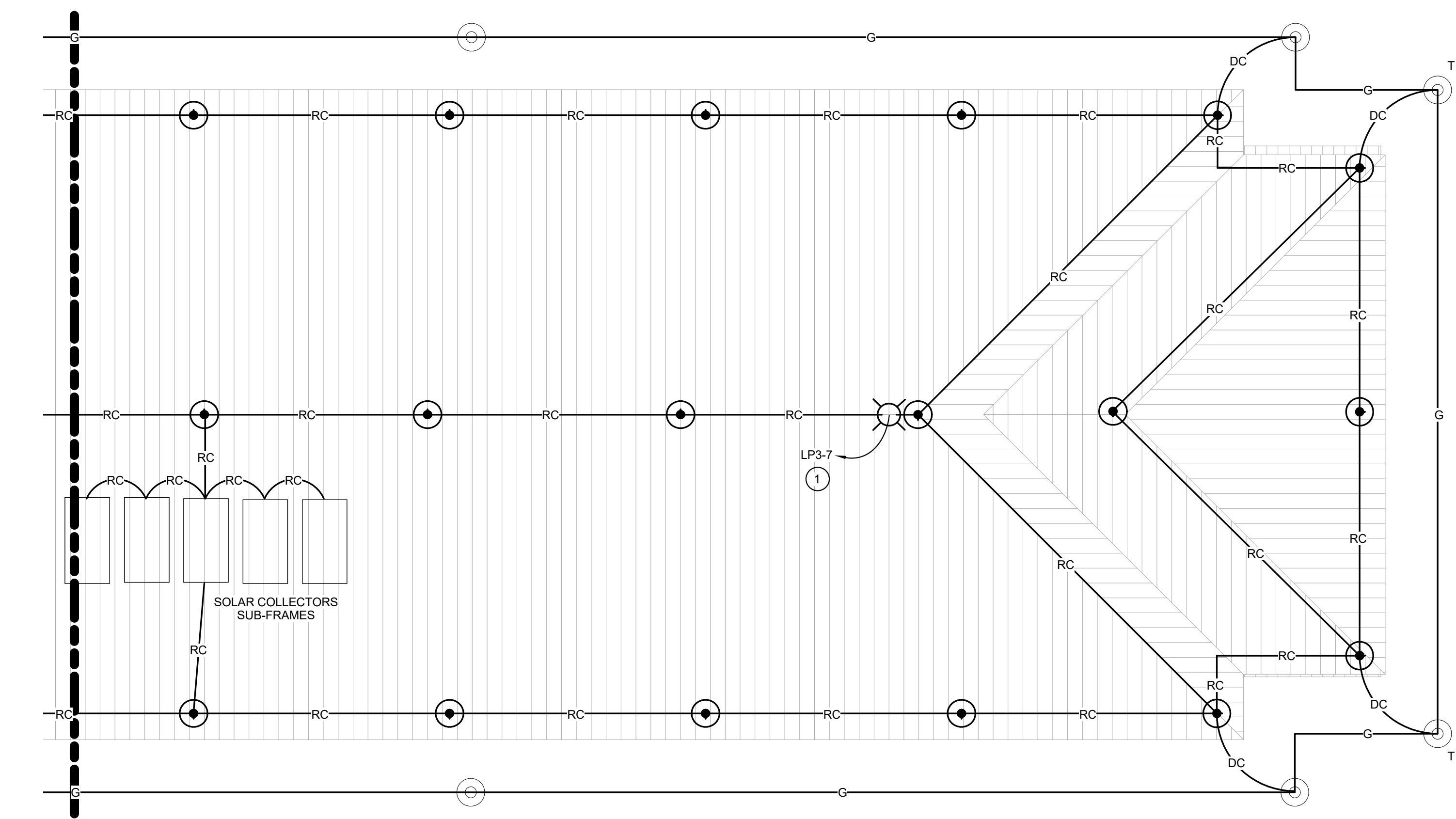
SHEET ID  
**ES601**







**1 LIGHTNING PROTECTION PLAN - AREA "A"**  
1 : 100



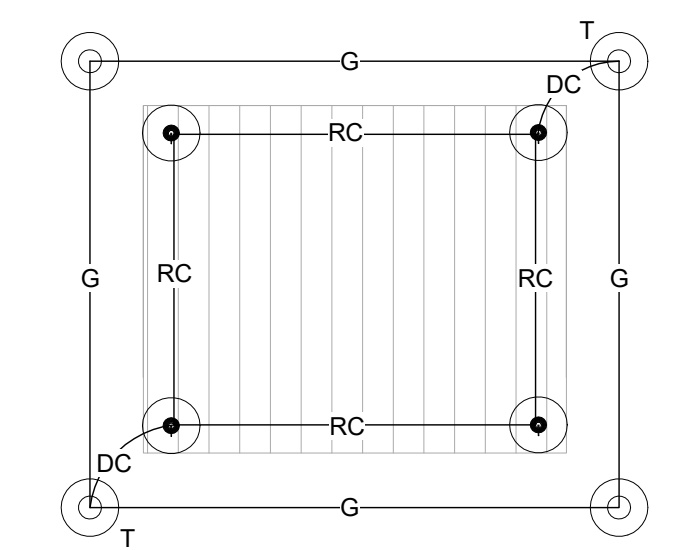
**2 LIGHTNING PROTECTION PLAN - AREA "B"**  
1 : 100

### LIGHTNING PROTECTION LEGEND

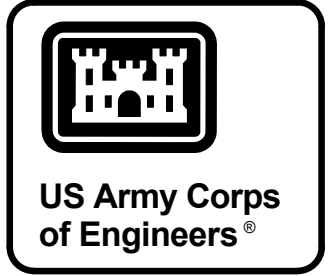
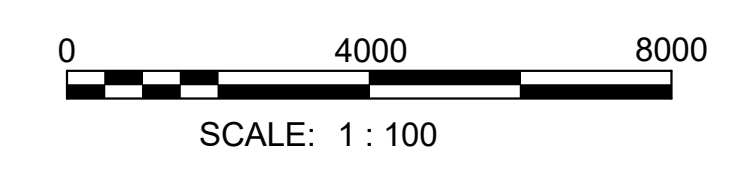
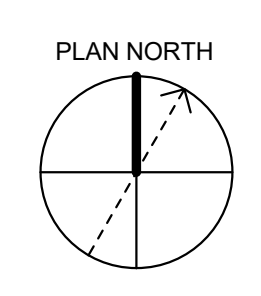
- AIR TERMINAL
- GROUNDING ROD ("T" DENOTES TEST WELL)
- GRID COUNTERPOISE CONDUCTOR
- LIGHTNING PROTECTION ROOF CONDUCTOR
- LIGHTNING PROTECTION DOWN CONDUCTOR

- GENERAL NOTES:**
- PLAN DRAWINGS ARE APPLICABLE TO BUILDINGS D, E, & F.
  - ALL FLOOR PLANS SHOWN ARE BASED ON BUILDING D ORIENTATION.
  - THE LIGHTNING PROTECTION SHALL UTILIZE ROOF CONDUCTORS AND DOWN CONDUCTORS TO CONNECT TO THE COUNTERPOISE SYSTEM. PROVIDE ADDITIONAL ROOF CONDUCTORS TO BOND ALL ROOF MOUNTED EQUIPMENT; SOLAR COLLECTORS SUB-FRAME, ROOF HATCH, ETC.
  - AIR TERMINALS SHALL BE 610mm X 10mm AND SPACED EVERY 7.5M MAX.
  - GROUND RODS SHALL BE 3M X 19mm AND SPACED EVERY 30M MAX.
  - COUNTERPOISE SHALL BE 3/0 AWG BARE COPPER BURIED 610mm BELOW GRADE MINIMUM, BETWEEN 1M AND 2.5M AWAY FROM THE BUILDING, AND HAVE NO BENDS LESS THAN 90 DEGREES.
  - ALL PERIMETER COLUMNS SHALL BE BONDED TO THE COUNTERPOISE SYSTEM.
  - SEE EG500'S FOR RISERS, DETAILS, AND ADDITIONAL CONDUCTOR SIZES.
  - SEE EP601 FOR GROUNDING SYSTEM TIE IN POINT TO SERVICE ENTRANCE ELECTRICAL EQUIPMENT.

- KEYED NOTES:**
- TWIN FIXTURE HEAD OBSTRUCTION LIGHT. CONNECT VIA OBSTRUCTION LIGHT TEST PANEL SHOWN ON EL101. SEE FIXTURE DETAIL TYPE "OB" ON EL502 AND OBSTRUCTION LIGHTING CONTROL DIAGRAM 4/EL503.



**3 LIGHTNING PROTECTION PLAN - FIRE PUMP BUILDING**  
1 : 100



DATE	DESCRIPTION	MARK

DESIGNED BY: J.M.FORTNER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: ENJ	SCALE: AS SHOWN
CHECKED BY: D.D.COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J.KNAPP	PROJECT NUMBER: M07ELJ44
FILE NAME: M07ELJ44	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

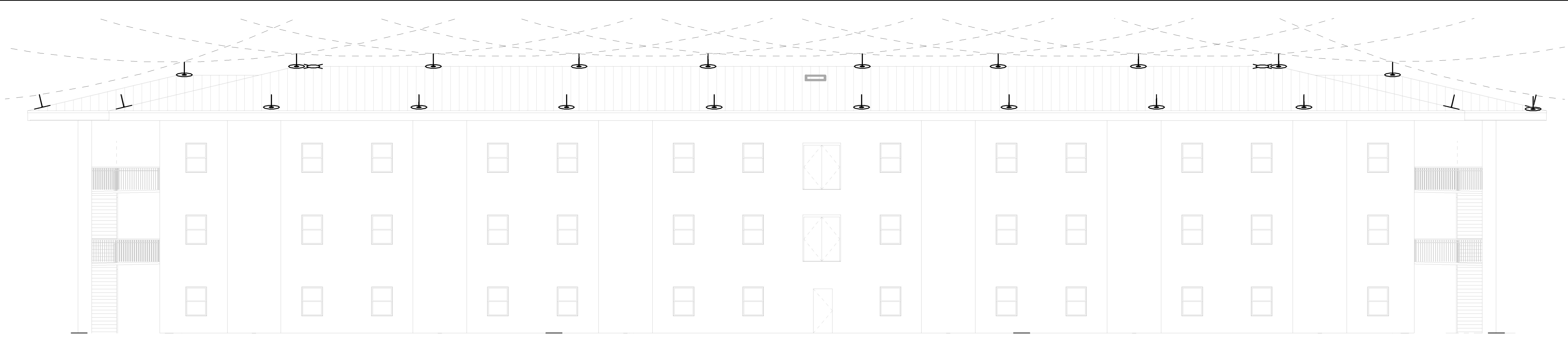
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

LIGHTNING PROTECTION PLAN

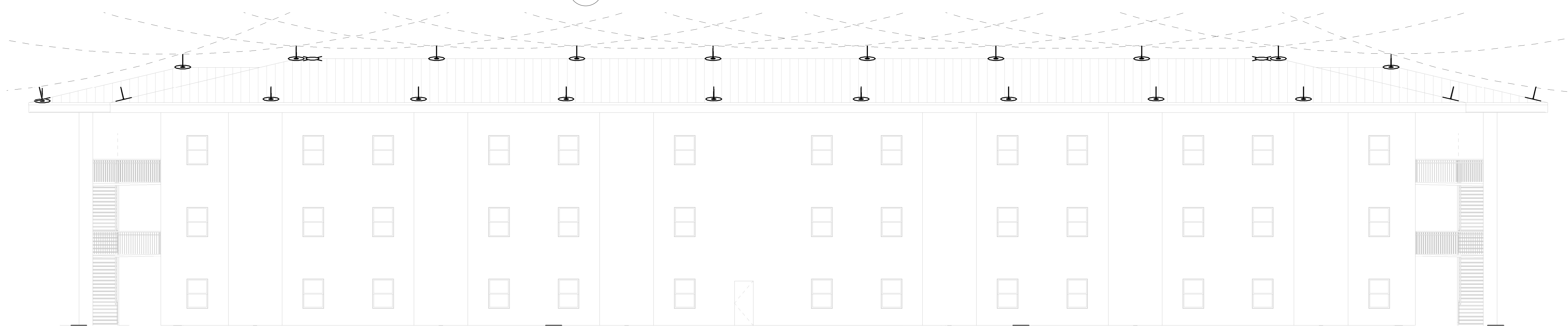
SHEET ID  
**EG101**

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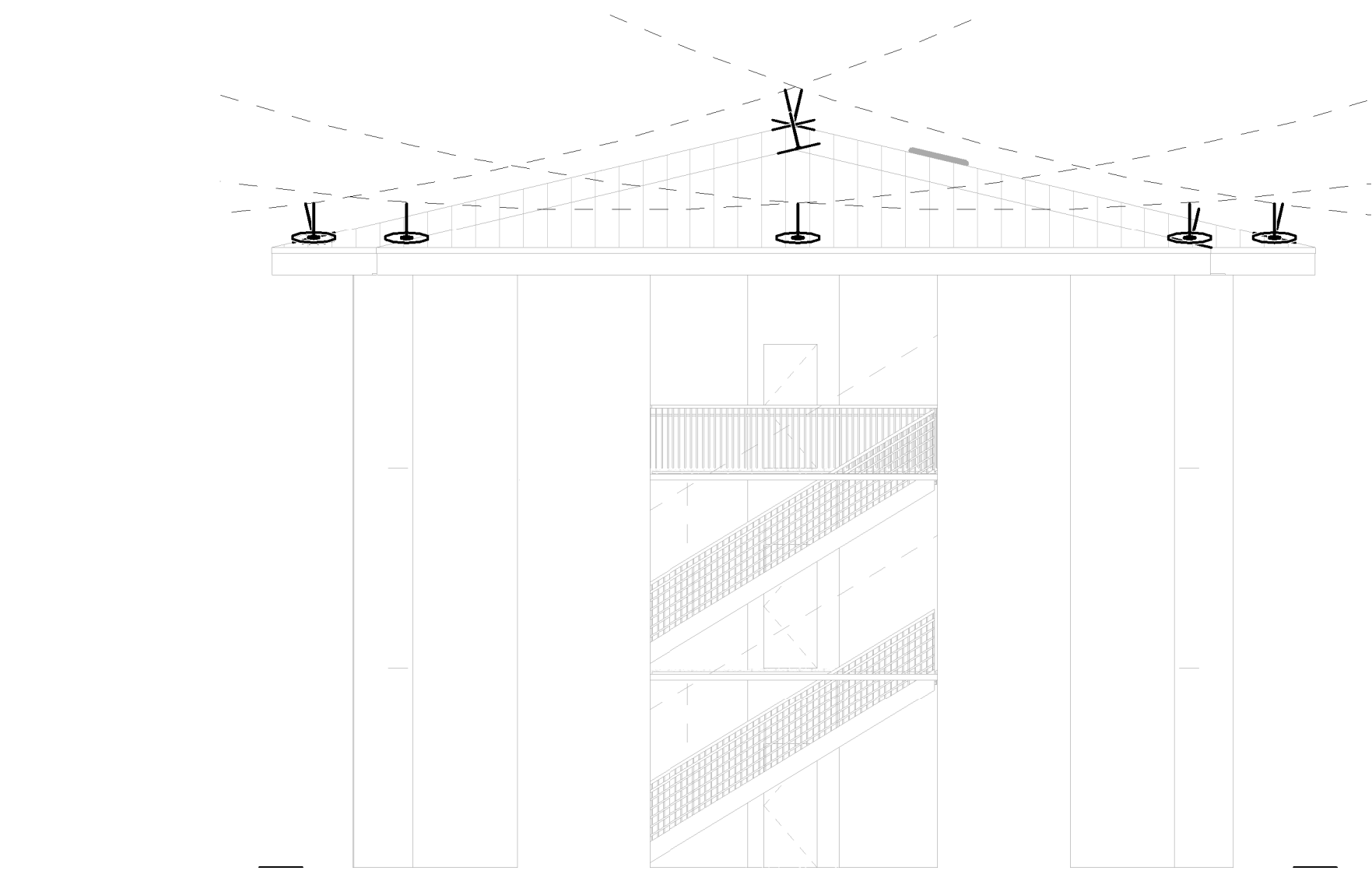
G  
F  
E  
D  
C  
B  
A



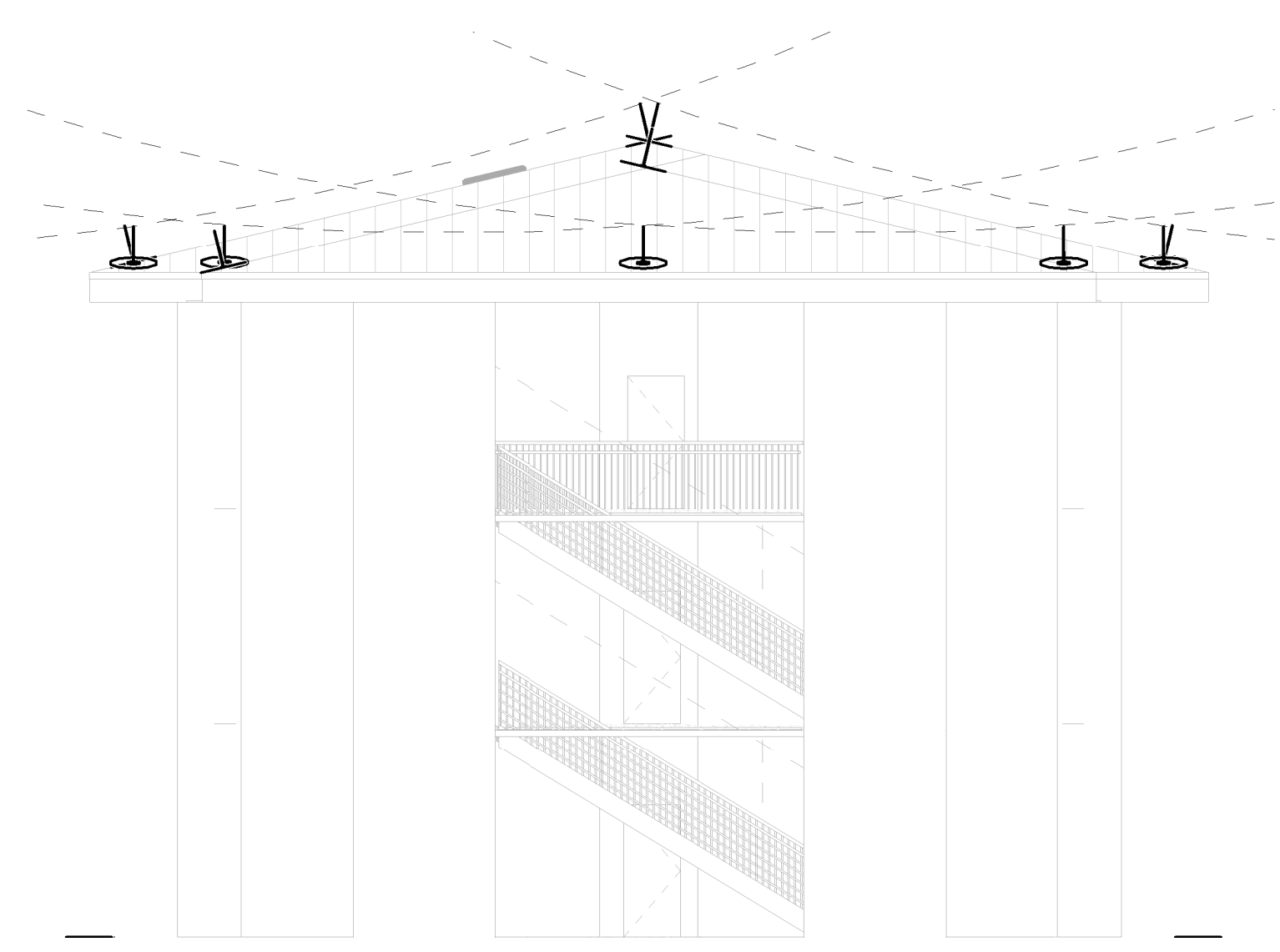
**1 LIGHTNING PROTECTION ELEV - NORTH**  
1: 100



**2 LIGHTNING PROTECTION ELEV - SOUTH**  
1: 100

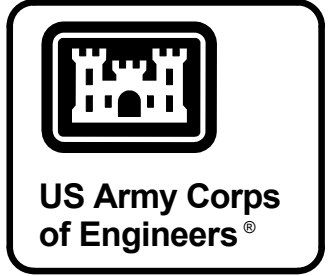
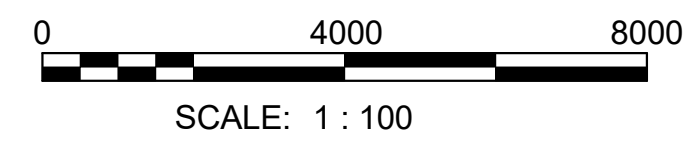


**3 LIGHTNING PROTECTION ELEV - EAST**  
1: 100



**4 LIGHTNING PROTECTION ELEV - WEST**  
1: 100

- GENERAL NOTES:**
1. THESE DRAWINGS INDICATE AREAS PROTECTED BY THE LIGHTNING PROTECTION SYSTEM USING THE ROLLING SPHERE METHOD (45.7M RADIUS). DASHED LINES INDICATE THE LIMITS OF THE ROLLING SPHERE PATH.
  2. PROVIDE LIGHTNING PROTECTION IN ACCORDANCE WITH NFPA 780, UL 96, AND UFC 3-575-01. SYSTEM IS A PERFORMANCE BASED DESIGN PER SPECIFICATION SECTION 26 41 00. THE CONTRACT DOCUMENTS ARE MEANT TO CONVEY AREAS OF COVERAGE AND ARE NOT INTENDED TO SERVE AS THE CONTRACTOR'S LPS DESIGN AND AS SUCH SHALL NOT BE DUPLICATED AS 'SHOP DRAWINGS'.
  3. SEE EG503 FOR LIGHTNING PROTECTION DETAILS.



DATE	DESCRIPTION	MARK

DESIGNED BY: J.M.FORTNER	ISSUE DATE: FEBRUARY 2019
CHECKED BY: D.D.COLLIER	SCALE: AS SHD
PROJECT NUMBER: M07ELJ44	FILE NAME: M07ELJ44
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	CONTRACT NO.: W01781AR028

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
LIGHTNING PROTECTION ELEVATIONS

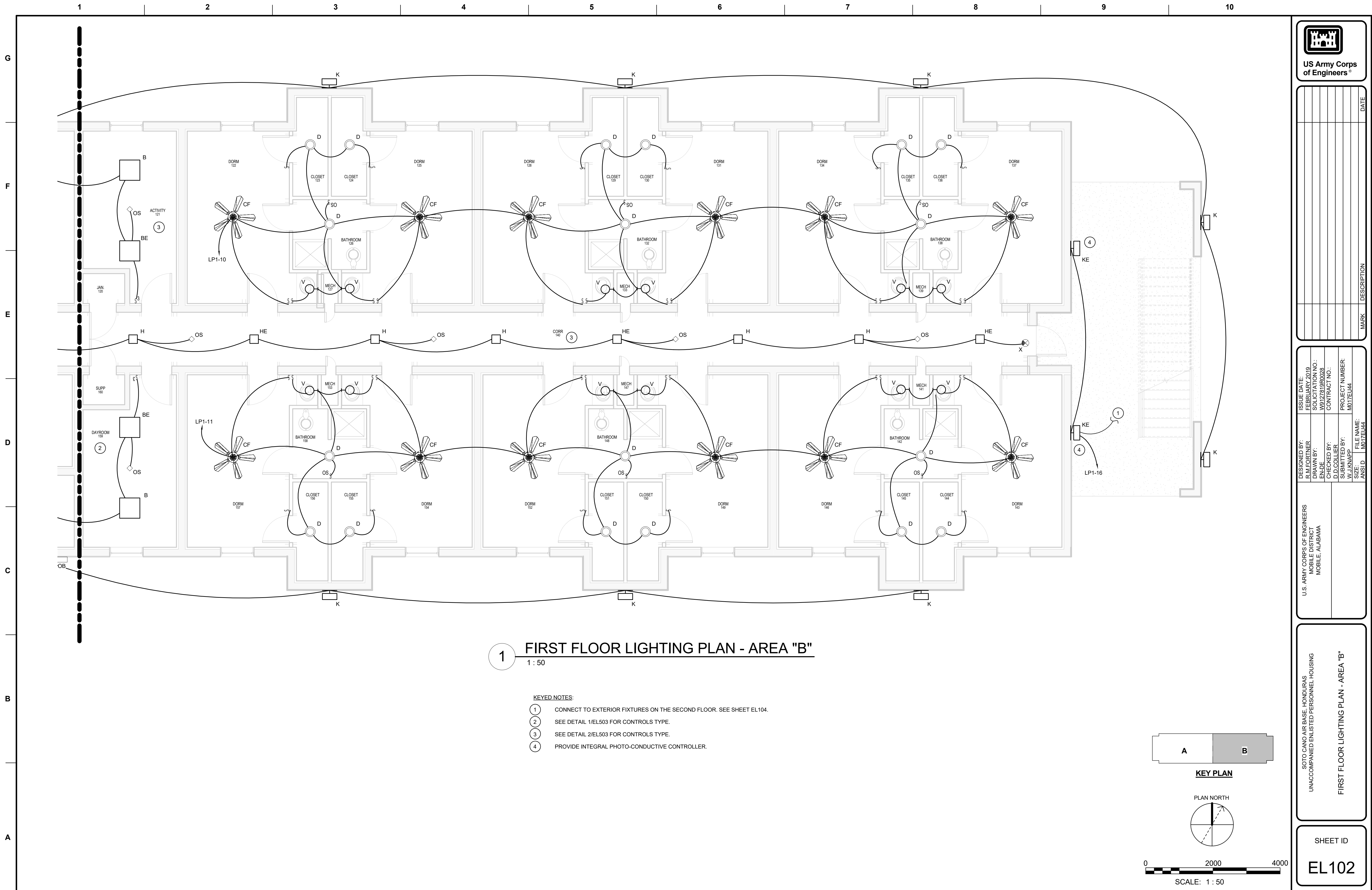
SHEET ID  
**EG401**





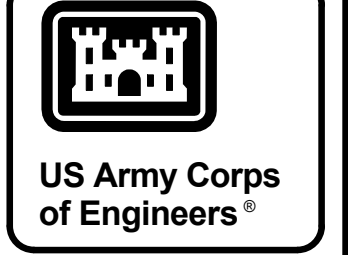
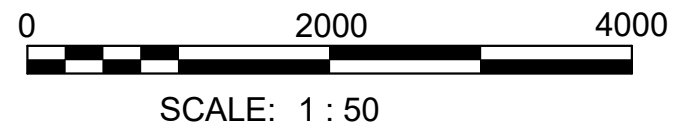
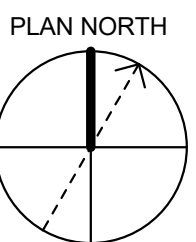
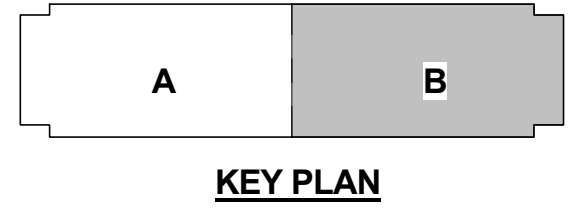






**1** FIRST FLOOR LIGHTING PLAN - AREA "B"  
1 : 50

- KEYED NOTES:**
- ① CONNECT TO EXTERIOR FIXTURES ON THE SECOND FLOOR. SEE SHEET EL104.
  - ② SEE DETAIL 1/EL503 FOR CONTROLS TYPE.
  - ③ SEE DETAIL 2/EL503 FOR CONTROLS TYPE.
  - ④ PROVIDE INTEGRAL PHOTO-CONDUCTIVE CONTROLLER.



DATE	DESCRIPTION	MARK

DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. HENNING	SOLICITATION NO.: W19AB08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017EL144
FILE NAME: ANS1D_M017EL144	SIZE:

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

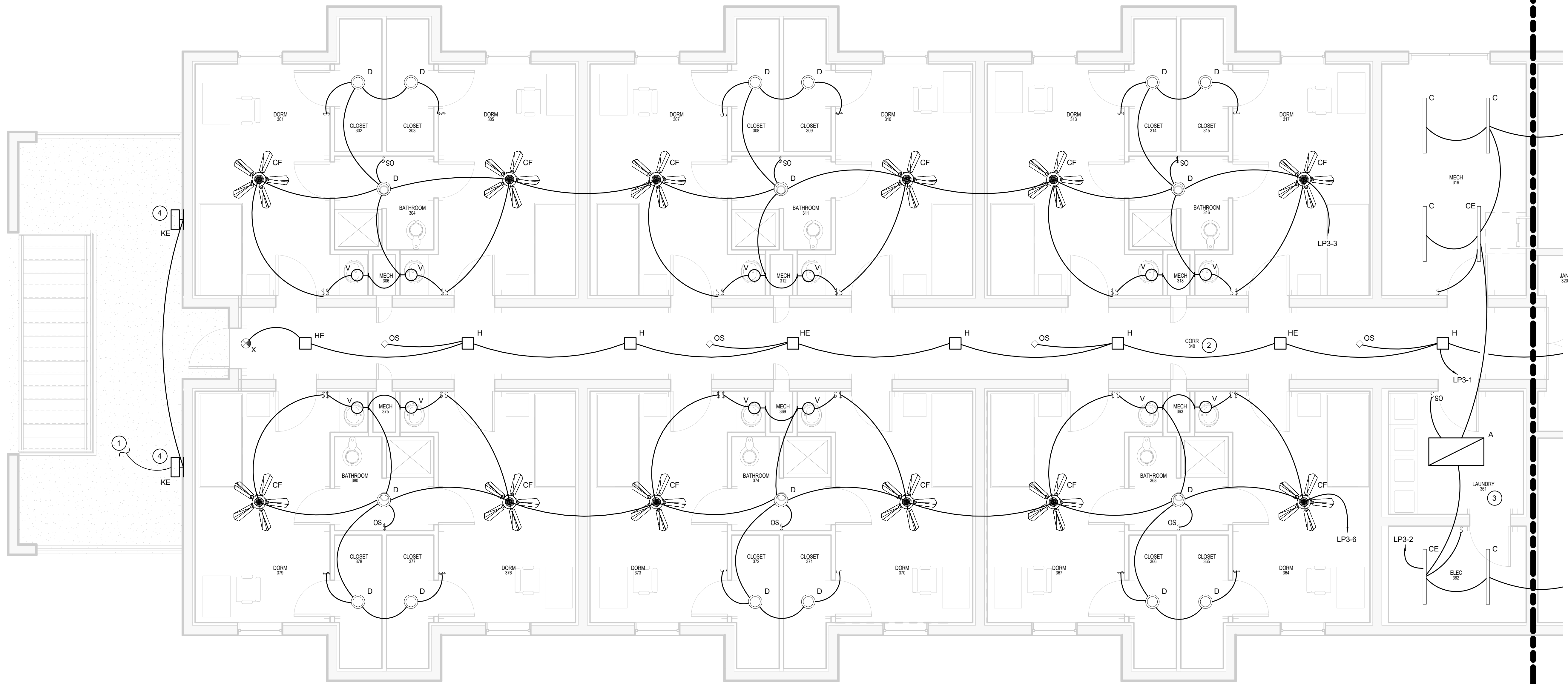
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
FIRST FLOOR LIGHTING PLAN - AREA "B"

SHEET ID  
**EL102**



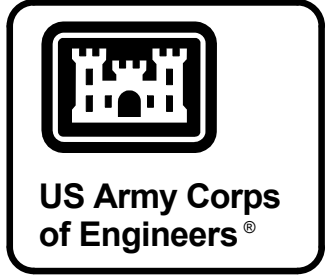
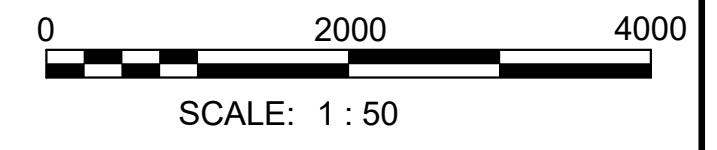
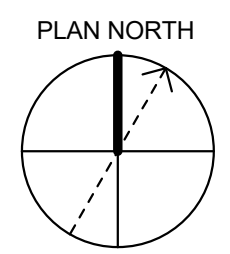
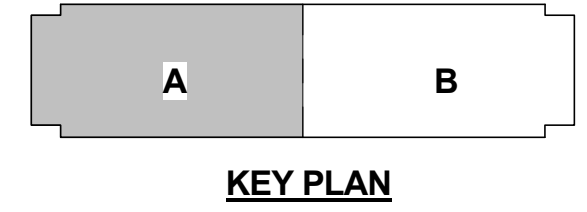






**1** THIRD FLOOR LIGHTING PLAN - AREA "A"  
1:50

- KEYED NOTES:**
- ① CONNECT TO EXTERIOR FIXTURES ON THE SECOND FLOOR. SEE SHEET EL103.
  - ② SEE 2/EL503 FOR CONTROLS TYPE.
  - ③ SEE 3/EL503 FOR CONTROLS TYPE.
  - ④ PROVIDE INTEGRAL PHOTO-CONDUCTIVE CONTROLLER.



MARK	DESCRIPTION	DATE

DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. HENNING	SOLICITATION NO.: W19R08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017EL144
SIZE: ANSI D	FILE NAME: M017EL144

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

THIRD FLOOR LIGHTING PLAN - AREA "A"

SHEET ID  
**EL105**





DATE	DESCRIPTION	MARK

DESIGNED BY: R.M.FORTNER	ISSUE DATE: FEBRUARY 2016
DRAWN BY: L.S.JE	CHECKED BY: W.J.KNAPP
CONTRACT NO.:	PROJECT NUMBER: M07EJL44
SUBMITTED BY: W.J.KNAPP	FILE NAME: M07EJL44
SIZE: ANSI D	

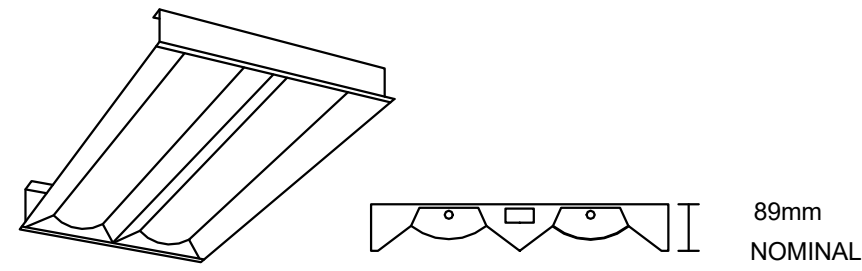
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

LIGHTING FIXTURE SCHEDULE & DETAILS

**LIGHTING FIXTURES SCHEDULE**

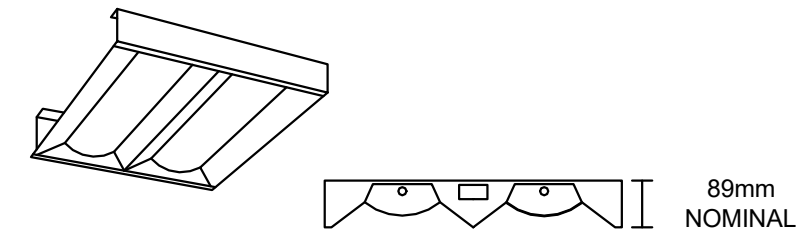
Type Mark	Lamp	Initial Color Temperature	Wattage	Count	Mounting
A	LED	3500 K	51 W	3	Recessed Ceiling
B	LED	3500 K	37 W	6	Recessed Ceiling
BE	LED	3500 K	37 W	6	Recessed Ceiling
C	LED	3500 K	33 W	13	Pendant 2700mm AFF
CE	LED	3500 K	33 W	7	Pendant 2700mm AFF
CF	LED	3500 K	18 W	72	Surface Ceiling
D	LED A-19	3500 K	13 W	108	Recessed Ceiling
H	LED	3500 K	23 W	30	Recessed Ceiling
HE	LED	3500 K	23 W	18	Recessed Ceiling
K	LED	3500 K	48 W	16	Wall 2400mm AFF
KE	LED	3500 K	48 W	15	Wall 2400mm AFF
R	LED	2800 K	41 W	14	Finished Grade
V	LED	3500 K	18 W	72	Wall 2100mm AFF
X	LED		5 W	6	Surface Ceiling



- LUMINAIRE REQUIREMENTS:**
- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, OR SIMILAR; ENCLOSED LED CHAMBER WITH REMOVABLE LENS; HIGHLY REFLECTIVE WHITE FINISH ON PRETREATED METAL.
  - FINISH - HIGHLY REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
  - REFLECTORS - HIGH REFLECTANCE WHITE PAINT.
  - LIGHT BASKET - TEXTURED OPAL SURFACE DESIGNED FOR LIGHTING LENSES.
  - LAMPS - LED, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE; CONSISTENT FIXTURE TO FIXTURE COLOR TEMPERATURE; EASILY REPLACEABLE ARRAY BOARDS.
  - LED DRIVER - NEMA 410 COMPLIANT. ACCOMMODATES 120-277 V INPUT VOLTS. DIMMING STANDARD TO 10% WITH 0-10V DC CONTROL PROTOCOL. EASY ACCESS TO DRIVER FOR MAINTENANCE.
  - CERTIFICATION - UL LISTED AND LABELED.
  - INSTALLATION - LIGHTWEIGHT AND EASY TO INSTALL IN ANY STANDARD T-BAR OR SCREW SLOT GRID. DRYWALL FRAME AVAILABLE.
  - LIFE - RATED FOR 50,000 HRS.
  - OPTIONS - EMERGENCY DRIVER

DIRECT/INDIRECT LED - 600mm X 1200mm **TYPE A, AE**

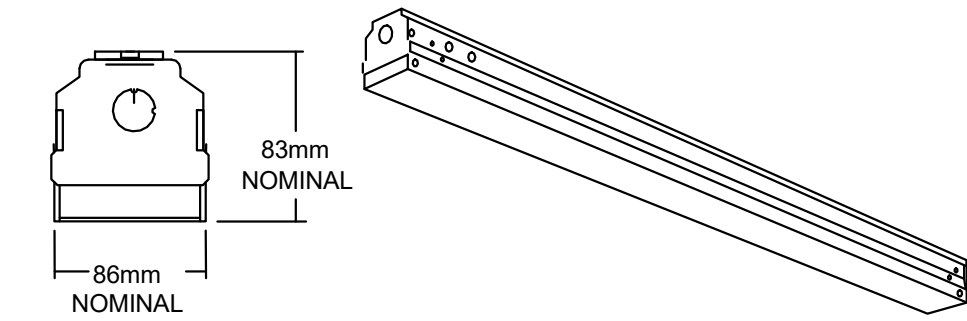
REVISED: 2016 LIGHTING PLATE:



- LUMINAIRE REQUIREMENTS:**
- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, OR SIMILAR; ENCLOSED LED CHAMBER WITH REMOVABLE LENS; HIGHLY REFLECTIVE WHITE FINISH ON PRETREATED METAL.
  - FINISH - HIGHLY REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
  - REFLECTORS - HIGH REFLECTANCE WHITE PAINT.
  - LIGHT BASKET - TEXTURED OPAL SURFACE DESIGNED FOR LIGHTING LENSES.
  - LAMPS - LED, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE; CONSISTENT FIXTURE TO FIXTURE COLOR TEMPERATURE; EASILY REPLACEABLE ARRAY BOARDS.
  - LED DRIVER - NEMA 410 COMPLIANT. ACCOMMODATES 120-277 V INPUT VOLTS. DIMMING STANDARD TO 10% WITH 0-10V DC CONTROL PROTOCOL. EASY ACCESS TO DRIVER FOR MAINTENANCE.
  - CERTIFICATION - UL LISTED AND LABELED.
  - INSTALLATION - LIGHTWEIGHT AND EASY TO INSTALL IN ANY STANDARD T-BAR OR SCREW SLOT GRID. DRYWALL FRAME AVAILABLE.
  - LIFE - RATED FOR 50,000 HRS.
  - OPTIONS - EMERGENCY DRIVER

DIRECT/INDIRECT LED - 600mm X 600mm **TYPE B, BE**

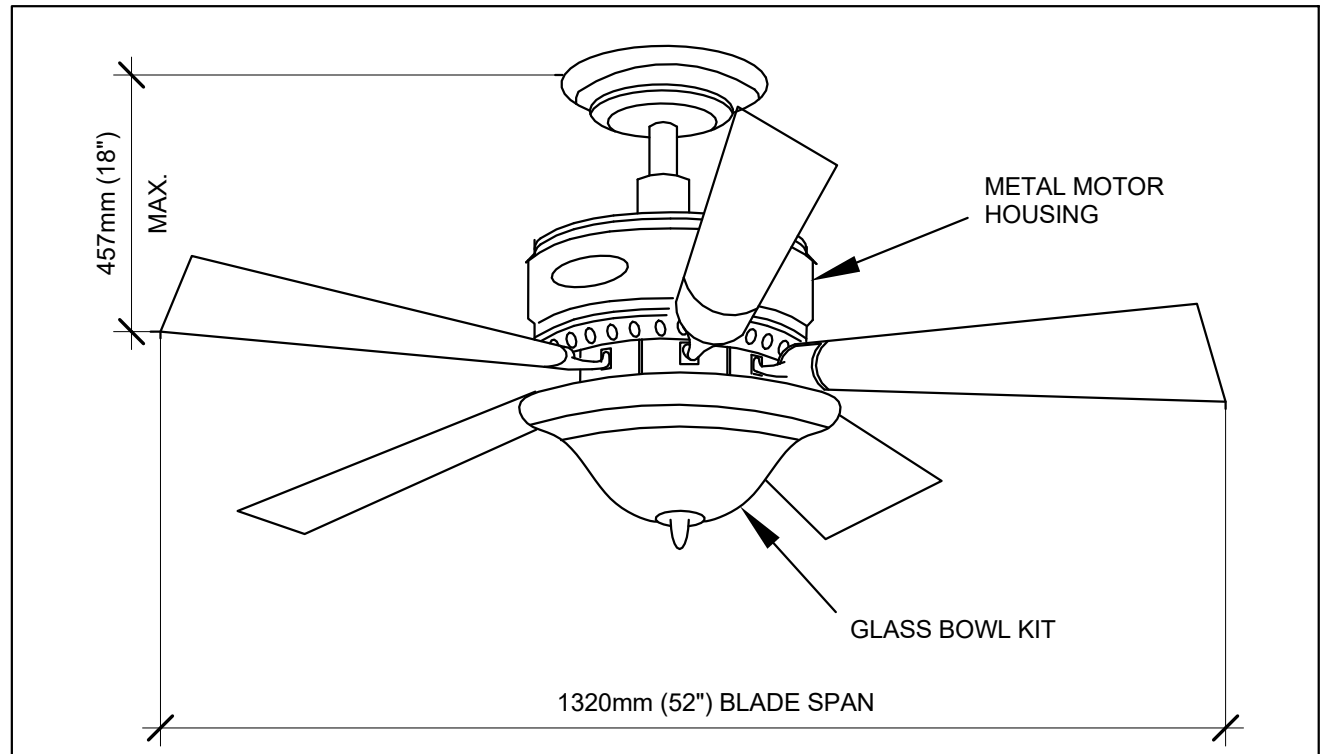
REVISED: 2016 LIGHTING PLATE:



- LUMINAIRE REQUIREMENTS:**
- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, OR SIMILAR; SNAP 'N' LOCK END PLATES; TOOL-LESS CHANNEL COVER; HIGHLY REFLECTIVE WHITE FINISH ON PRETREATED METAL.
  - FINISH - HIGH GLOSS, BAKED WHITE ENAMEL FINISH.
  - OPTICS - REPLACEABLE MEDIUM DIFFUSE LENS.
  - LAMPS - LED, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE; CONSISTENT FIXTURE TO FIXTURE COLOR TEMPERATURE; COOL-RUNNING OPERATION.
  - LED DRIVER - NEMA 410 COMPLIANT. ACCOMMODATES 120-277 V INPUT VOLTS. DIMMING STANDARD TO 10% WITH 0-10V DC CONTROL PROTOCOL. EASY ACCESS TO DRIVER FOR MAINTENANCE.
  - CERTIFICATION - UL LISTED AND LABELED.
  - INSTALLATION - SURFACE, PENDANT, OR STEM MOUNTED.
  - LIFE - RATED FOR 50,000 HRS.
  - OPTIONS - EMERGENCY DRIVER

INDUSTRIAL LED - 1200mm **TYPE C, CE**

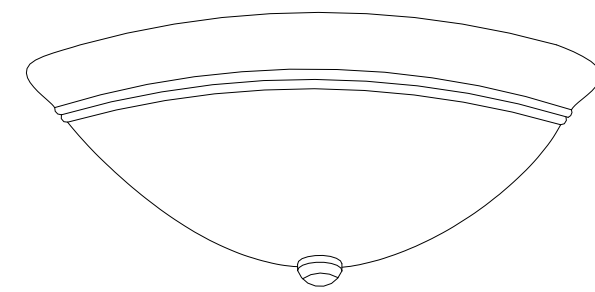
REVISED: 2016 LIGHTING PLATE:



- LUMINAIRE REQUIREMENTS:**
- HOUSING - DIE-CAST ALUMINUM WITH PREMIUM BRONZE FINISH.
  - MOTOR - 120V AC, 60HZ, 15A CIRCUIT (MIN), 3 SPEED (MIN), HIGH 146 RPM (MAX).
  - BLADES - FIVE (5) REVERSIBLE BLADES WITH 13 DEGREE BLADE PITCH, WALNUT/CHERRY.
  - MOUNTING - UNIVERSAL DOWNROD MOUNTING KIT FOR CEILING. 51mm (2") AND 76mm (3") DOWNRODS INCLUDED FOR PROPER MOUNTING HEIGHT.
  - ILLUMINATION - TRANSITIONAL GLASS BOWL LIGHT KIT WITH TWO (2) 9 WATT LED BULBS, 3000K, 700 LUMENS EACH.
  - CONTROLS - STANDARD WALL SWITCH AND PULL CHAINS FOR LIGHT ON/OFF AND SPEED ADJUSTMENTS.

CEILING FAN LIGHT FIXTURE **TYPE CF**

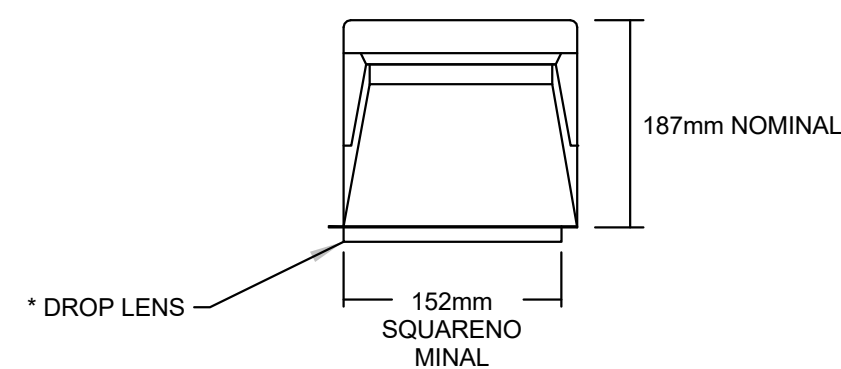
REVISED: 2017 LIGHTING PLATE:



- LUMINAIRE REQUIREMENTS:**
- HOUSING - DIE-FORMED 20 GAUGE COLD-ROLLED STEEL BACK PAN WITH REFLECTIVE FINISH.
  - NOMINAL DIMENSIONS - L: 15" (381mm), W: 15" (381mm), H: 5-1/2" (140mm), 14" (556mm) DIA BOWL.
  - FINISH - POLISHED BRUSHED NICKEL.
  - OPTICS - WHITE FROSTED GLASS.
  - LAMPS - LED (A-19), 1-LAMP TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE; CONSISTENT FIXTURE TO FIXTURE COLOR TEMPERATURE.
  - CERTIFICATION - UL LISTED AND LABELED.
  - INSTALLATION - SURFACE MOUNTED.

ROUND SURFACE LED **TYPE D**

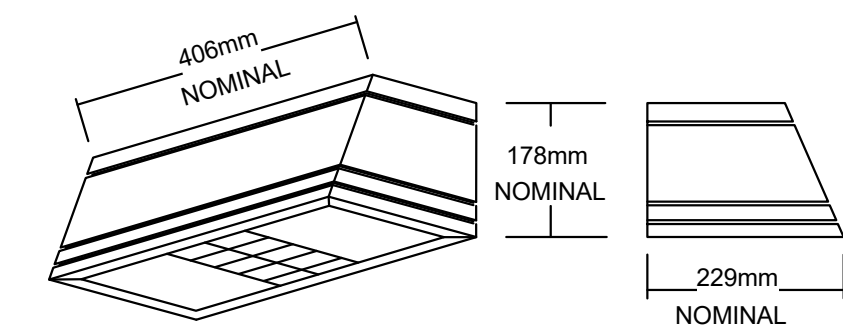
REVISED: 2016 LIGHTING PLATE:



- LUMINAIRE REQUIREMENTS:**
- HOUSING - HEAVY GAUGE COLD ROLLED STEEL. DESIGNED TO CONDUCT HEAT AWAY FROM THE LED KEEPING JUNCTION TEMPERATURES BELOW SPECIFIED MAXIMUMS.
  - REFLECTOR - ONE-PIECE, CLEAR, IRIDESCENCE-SUPPRESSED.
  - DRIVER - INTEGRAL, THERMALLY PROTECTED ELECTRONIC LED DRIVER, UNIVERSAL VOLTAGE
  - LAMPS - LED
  - LENS/TRIM - COMPATIBLE WITH LED HOUSING AND SUITABLE FOR DAMP/WET LOCATIONS.
  - CERTIFICATION - UL LISTED AND LABELED FOR DAMP LOCATIONS.

RECESSED DOWNLIGHT LED - 150mm X150mm **TYPE H, HE**

REVISED: 2016 LIGHTING PLATE:



- LUMINAIRE REQUIREMENTS:**
- HOUSING/BACKPLATE: ONE-PIECE, DIE-CAST ALUMINUM HOUSING INTEGRATES SECONDARY HEAT SINKS TO OPTIMIZE THERMAL TRANSFER FROM THE INTERNAL LIGHT ENGINE HEAT SINKS AND PROMOTE LONG LIFE.
  - FINISH: ZINC-INFUSED POWDER COAT FINISH THAT PROVIDES SUPERIOR RESISTANCE TO CORROSION AND WEATHERING. MINIMUM THREE MILS THICKNESS FOR A FINISH THAT CAN WITHSTAND EXTREME CLIMATE CHANGES WITHOUT CRACKING OR PEELING.
  - OPTICS: PRECISION MOLDED ACRYLIC LENSES ENGINEERED FOR SUPERIOR DISTRIBUTION, UNIFORMITY AND SPACING. LIGHT ENGINES ARE 4000K.
  - ELECTRICAL: HEIGHT ENGINE CONSISTS OF 10 HIGH EFFICIENCY LEDS MOUNTED TO A METAL CORE CIRCUIT BOARD AND INTEGRAL ALUMINUM HEAT SINKS TO MAXIMIZE HEAT DISSIPATION AND PROMOTE LONG LIFE (100,000 HRS) AT 25°C. ELECTRONIC DRIVER HAS A POWER FACTOR GREATER THAN OR EQUAL TO 90%. NEMA 410 COMPLIANT LED DRIVER.
  - INSTALLATION: A UNIVERSAL MOUNTING PLATE WITH INTEGRAL MOUNTING SUPPORT ARMS WHICH ALLOWS THE FIXTURE TO HINGE DOWN FOR EASY ACCESS WHILE MAKING WIRING CONNECTIONS.
  - LIGHT ENGINES: 2 (TWO) LIGHT ENGINES (20 LEDS). FIXTURE WATTS: 48 WATTS.
  - CERTIFICATION: CSA CERTIFIED TO US AND CANADIAN STANDARDS. LIGHT ENGINES ARE IP66 RATED; LUMINAIRE IS IP65 RATED AND SUITABLE FOR WET LOCATIONS WHEN MOUNTED WITH THE LENS DOWN.
  - OPTIONS: INTEGRAL PHOTO-CONDUCTIVE CONTROLLER.

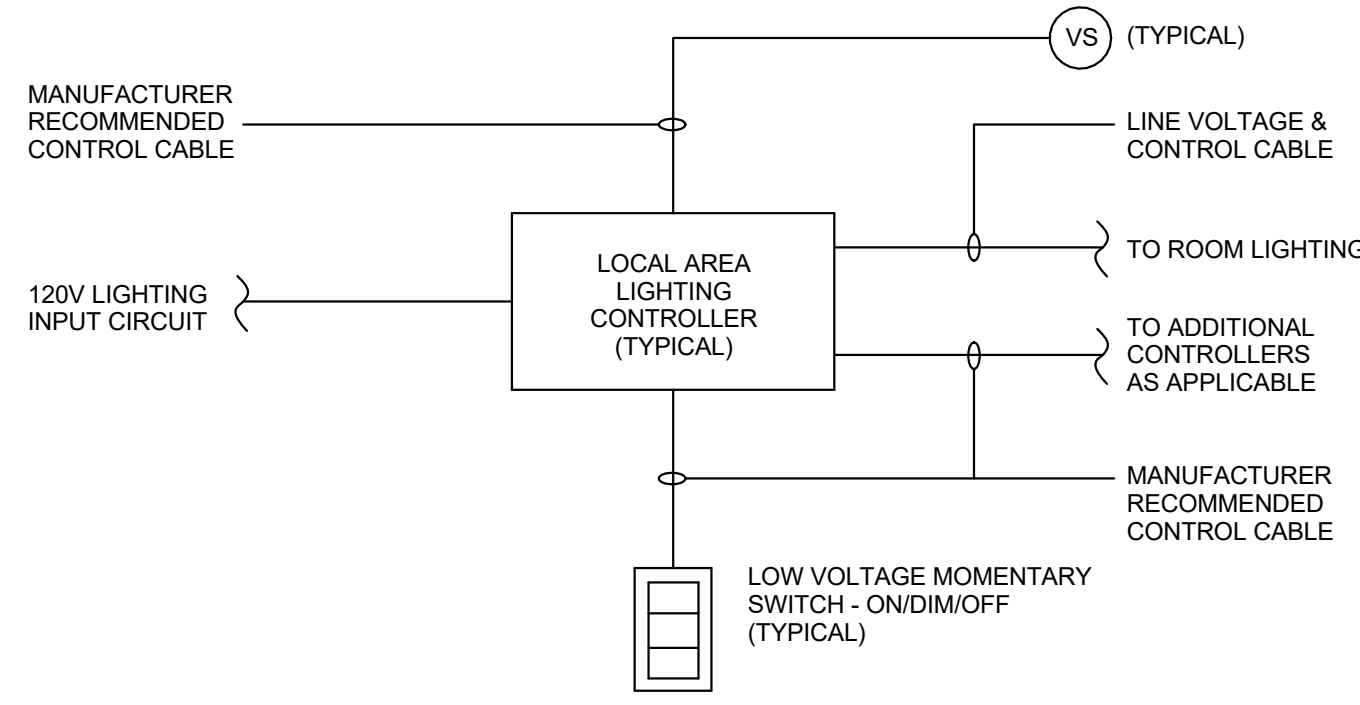
WALL-MOUNTED HALF-SHIELDED CUTOFF LED **TYPE K, KE**

REVISED: 2015 LIGHTING PLATE:



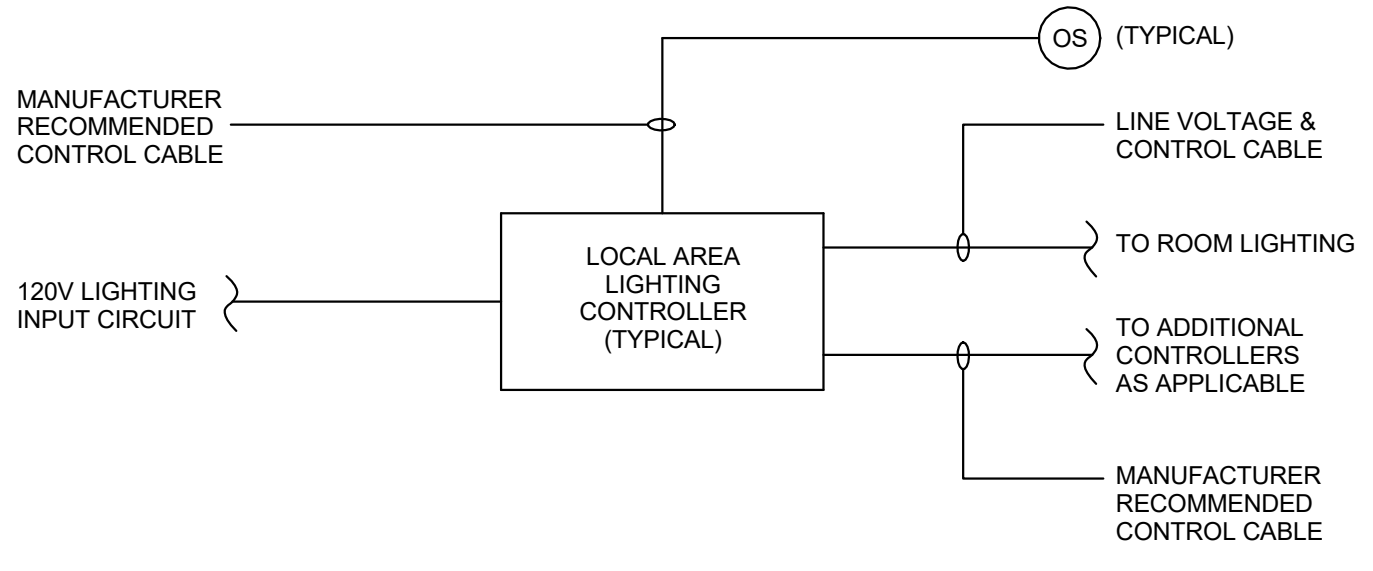


G  
F  
E  
D  
C  
B  
A



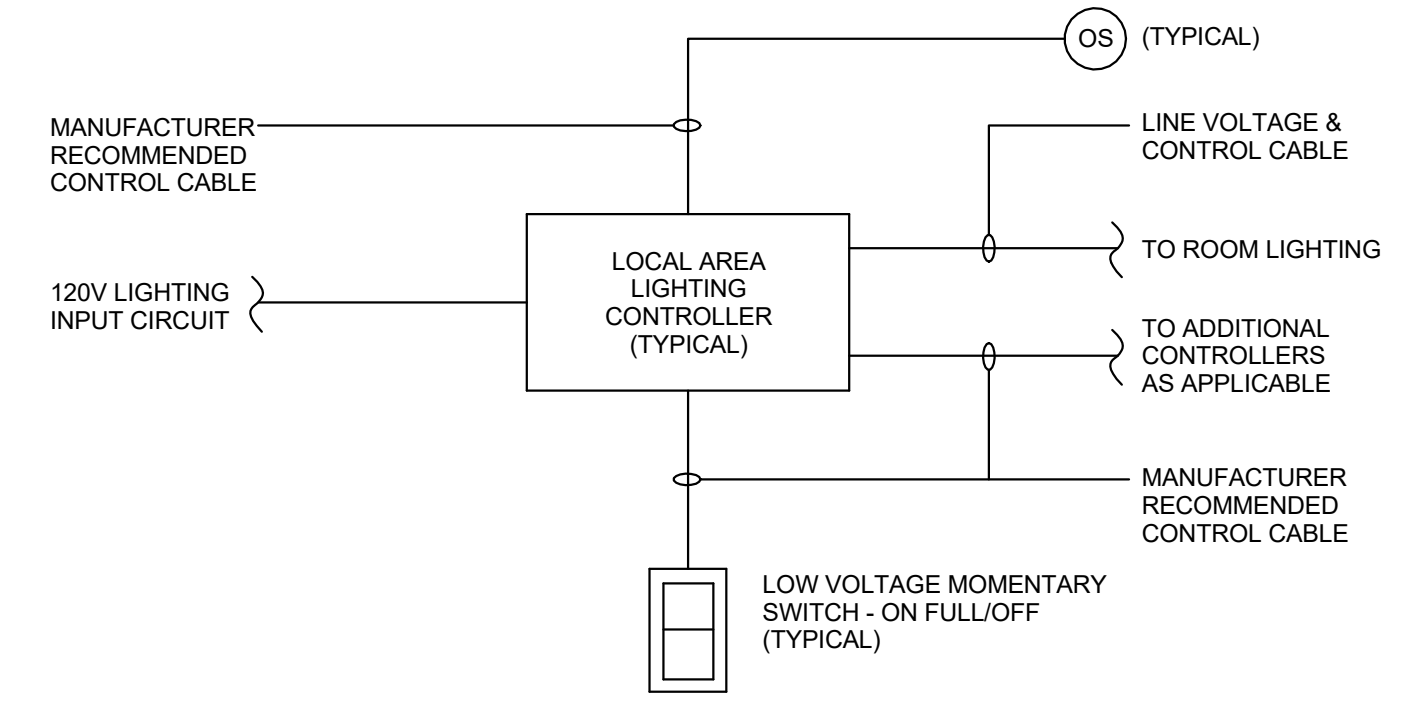
NOTES:  
1. PROVIDE QUANTITY OF LOCAL AREA CONTROLLERS AND SENSORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO SUPPORT THE LIGHTING LAYOUTS SHOWN ON SHEETS EL101 THRU EL106.

**1** MANUAL ON/MANUAL 50%/MANUAL OFF/VACANCY OFF  
N.T.S.



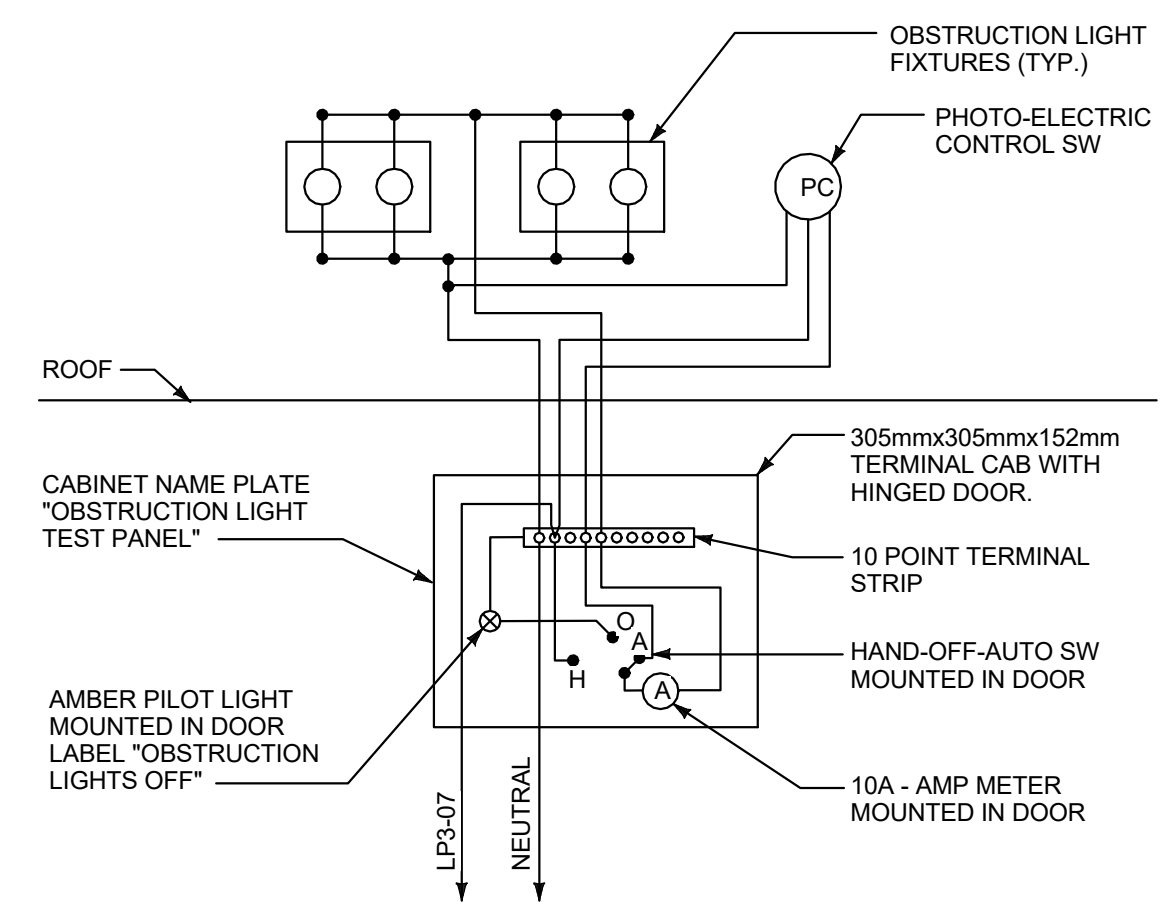
NOTES:  
1. PROVIDE QUANTITY OF LOCAL AREA CONTROLLERS AND SENSORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO SUPPORT THE LIGHTING LAYOUTS SHOWN ON SHEETS EL101 THRU EL106.

**2** OCCUPANCY FULL/VACANCY 50%  
N.T.S.



NOTES:  
1. PROVIDE QUANTITY OF LOCAL AREA CONTROLLERS AND SENSORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO SUPPORT THE LIGHTING LAYOUTS SHOWN ON SHEETS EL101 THRU EL106.

**3** OCCUPANCY 50%/MANUAL FULL/MANUAL OFF/VACANCY OFF  
N.T.S.



NOTE:  
1. HOA ENCLOSURE SHALL BE LOCKABLE AND NEMA 12 RATED. PHOTOCELL LOCATED ON THE ROOF. SEE EG101 FOR CIRCUIT LOCATIONS.

**4** OBSTRUCTION LIGHTING CONTROL DIAGRAM  
N.T.S.

**5** CEILING MOUNTED OCCUPANCY SENSOR  
N.T.S.

**FEATURES**

- PATTERN: 360 DEGREES
- COVERAGE: 45-180 SM
- TIME DELAY: ADJUSTABLE 15 SECONDS TO 15 MINUTES

**OPTIONS**

NOM. DIMENSIONS 114mm DIA. X 32mm D

**GENERAL DESCRIPTION**

HOUSING: IMPACT RESISTANT INJECTION MOLDED ABS

MOUNTING: CEILING BETWEEN 2.5-3.5M

ELECTRICAL: 24 VOLT DC (FROM POWER PACK), 120 OR 277 VOLT AC

DUAL TECHNOLOGY: PASSIVE INFARED AND ULTRASONIC

FINISH: WHITE

**6** WALL MOUNTED OCCUPANCY SENSOR  
N.T.S.

**FEATURES**

- PATTERN: 180 DEGREES
- COVERAGE: 15 - 35 SM
- TIME DELAY: ADJUSTABLE 15 SECONDS TO 15 MINUTES

**OPTIONS**

NOM. DIMENSIONS 70mm X 45mm X 47mm

**GENERAL DESCRIPTION**

CONTROLS: MANUAL ON/OFF AND AUTO ON/OFF SETTINGS

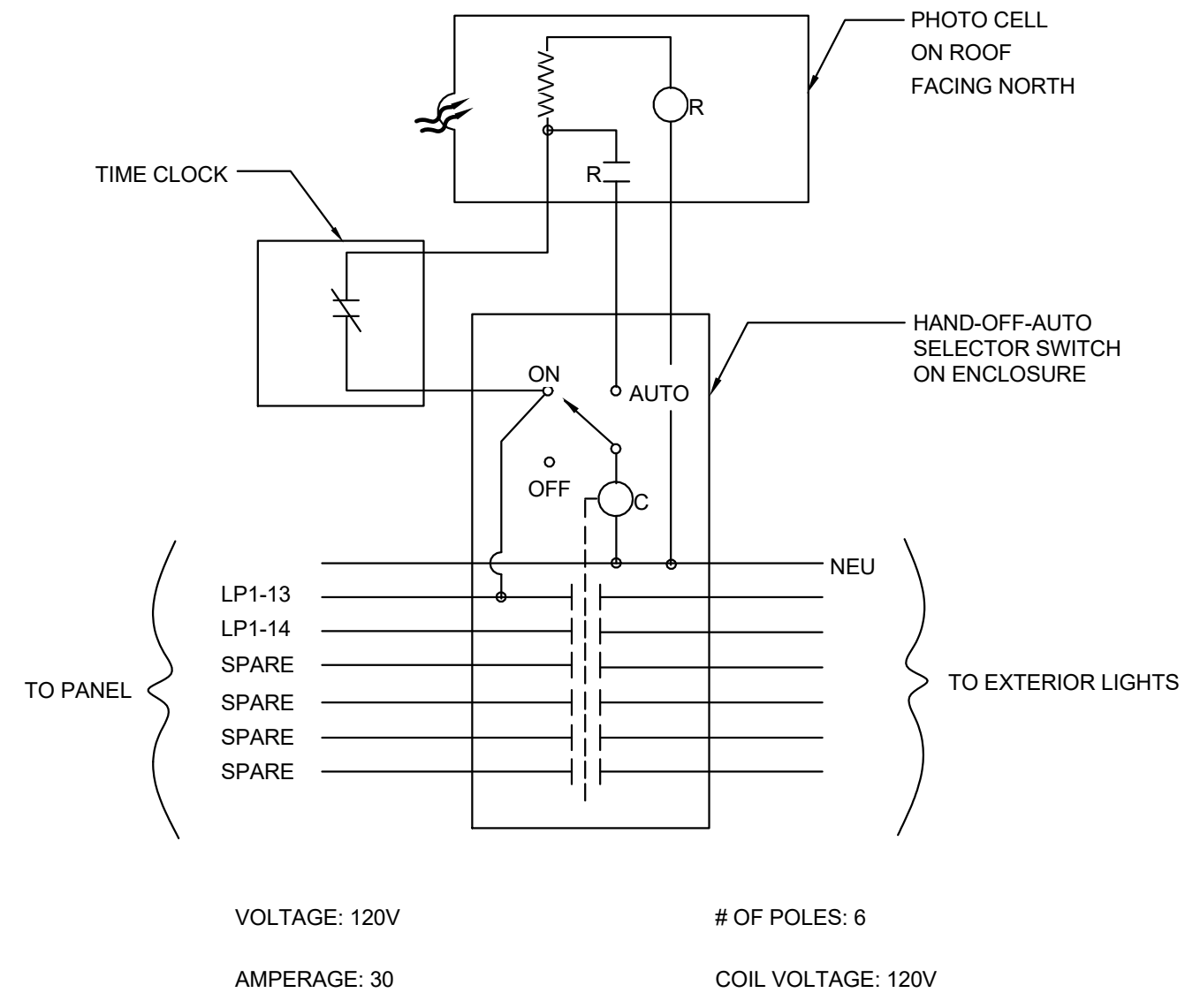
HOUSING: IMPACT RESISTANT INJECTION MOLDED ABS

MOUNTING: WALL BETWEEN 1060mm - 1220mm AFF

ELECTRICAL: 24 VOLT DC (FROM POWER PACK), 120 OR 277 VOLT AC

DUAL TECHNOLOGY: PASSIVE INFARED AND ULTRASONIC

FINISH: WHITE



**7** EXTERIOR LIGHTING CONTROLS  
N.T.S.

**US Army Corps of Engineers**

DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019	PROJECT NUMBER: M07ELJ44
DRAWN BY: ENJ	SCALE: AS SHOWN	FILE NAME: M07ELJ44
CHECKED BY: D.D.COLLIER	CONTRACT NO.:	SIZE: ANSI D
SUBMITTED BY:		











U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

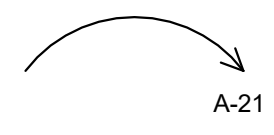

LIGHTING CONTROL DIAGRAMS & DETAILS

SHEET ID  
**EL503**

### POWER

	NEMA 5-20 QUAD RECEPTACLE MOUNTED 450mm AFF (## DENOTES ALTERNATE MOUNTING HEIGHT, AC DENOTES ABOVE COUNTER, TV DENOTES ADJACENT TO CATV OUTLET, AV DENOTES ADJACENT TO AUDIO VIDEO OUTLET, G DENOTES GFI, WP DENOTES WEATHERPROOF)
	NEMA 5-20 DUPLEX RECEPTACLE MOUNTED 450mm AFF (#### DENOTES ALTERNATE MOUNTING HEIGHT, AC DENOTES ABOVE COUNTER, TV DENOTES ADJACENT TO CATV OUTLET, AV DENOTES ADJACENT TO AUDIO VIDEO OUTLET, G DENOTES GFI, WP DENOTES WEATHERPROOF)
	250 VOLT, 60 Hz, 1ø, 15 AMP RECEPTACLE (NEMA 6-15) MOUNTED 450mm AFF
	125/250 VOLT, 60 Hz, 3ø, 30 AMP RECEPTACLE (NEMA L14-30R) MOUNTED 1200mm AFF
	JUNCTION BOX ("W" DENOTES WALL MOUNTED 1200mm AFF UNLESS NOTED OTHERWISE, ## DENOTES ALTERNATE MOUNTING HEIGHT, "C" INDICATES CEILING MOUNTED)
	MOTOR RATED, 20 AMP, 125 VOLT TOGGLE SWITCH
	FUSED DISCONNECT SWITCH. SIZE FUSES FOR EQUIPEMENT BASED ON MANUFACTURERS RECOMMENDATIONS.
	UNFUSED DISCONNECT SWITCH. (AMPERAGE#/POLES/NEMA)
	VARIABLE FREQUENCY DRIVE.
	PNL SURFACE MOUNTED PANELBOARD.

### WIRING

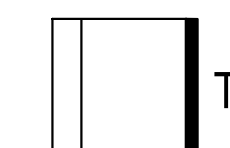
	1 #12 PHASE CONDUCTOR, 1#12 GROUNDED CONDUCTOR AND 1 #12 GREEN EQUIPMENT GROUND IN CONCEALED 16mm CONDUIT, UNLESS NOTED OTHERWISE. ARROW INDICATES HOMERUN TO PANEL "A", CIRCUIT 21.
	FLEXIBLE CONDUIT CONNECTION

NOTE: NOT ALL SYMBOLS USED ON PLANS

### ABBREVIATIONS

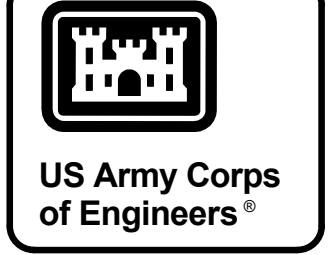
A	AMPERE
AC	ABOVE COUNTER
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
1/C	ONE CONDUCTOR
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
FACP	FIRE ALARM CONTROL PANEL
FAT	FIRE ALARM TRANSCIEVER
FM	FREQUENCY MODULATION
FMCP	FIRE ALARMMASS NOTIFICATION CONTROL PANEL
FOC	FIBER OPTIC CABLE
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HACR	HEATING AIR CONDITIONING REFRIGATION
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HT	HEIGHT
HZ	HERTZ
IDS	INTRUSION DETECTION SYSTEM
J	JUNCTION BOX
KWH	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
MCB	MOLDED CASE CIRCUIT BREAKER
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MM	MULTIMODE
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NF	NON FUSED
NO.	NUMBER
OS	OCCUPANCY SENSOR
PH	PHASE
PIR	PASSIVE INFRARED
RGS	RIGID GALVANIZED STEEL
SM	SINGLE MODE
SPD	SURGE PROTECTION DEVICE
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TX	TRANSFORMER
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VA	VOLTAMPERE
VVD	VARIABLE VOLUME DAMPER
W	WATTS
WP	WATER PROOF
XFMR	TRANSFORMER

### MISCELLANEOUS

	COMMUNICATIONS RACK
	TELECOMMUNICATIONS ENCLOSURE
	2440mm X1220mm TELECOMMUNICATIONS BACKBOARD

### GENERAL NOTES

- PLAN DRAWINGS ARE APPLICABLE TO BUILDINGS D, E, & F.
- ALL FLOOR PLANS SHOWN ARE BASED ON BUILDING D ORIENTATION.
- SEE MECHANICAL PLANS FOR EXHAUST FAN (EF-#) CONTROLS.
- GENERAL RECEPTACLES CIRCUITS IN THE DORM ROOMS SHALL BE ON ARC FAULT TYPE CIRCUIT BREAKERS. SEE PANEL SCHEDULES.



MARK	DESCRIPTION	DATE

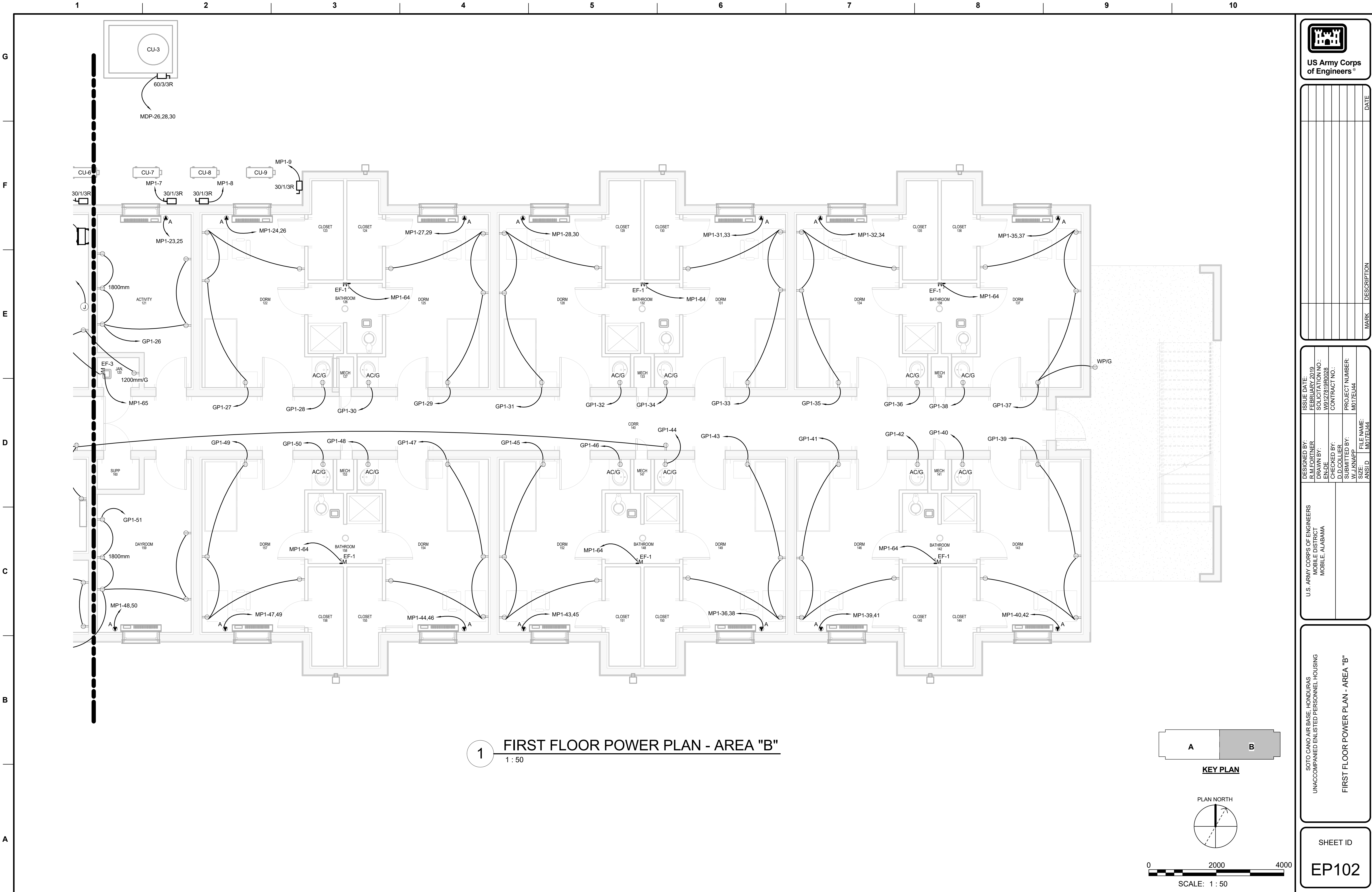
DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019
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DRAWN BY: D.D.COLLIER	PROJECT NUMBER: M07ELJ44
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U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

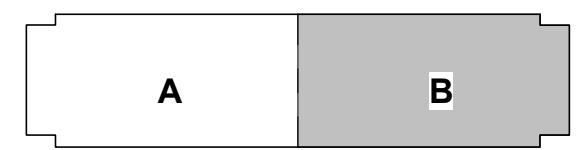
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**POWER LEGEND**



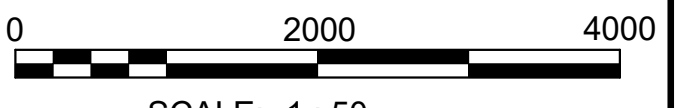
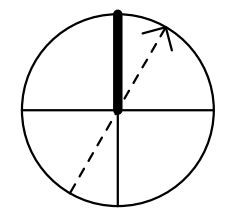


**1** FIRST FLOOR POWER PLAN - AREA "B"  
1 : 50

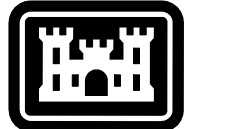


**KEY PLAN**

PLAN NORTH



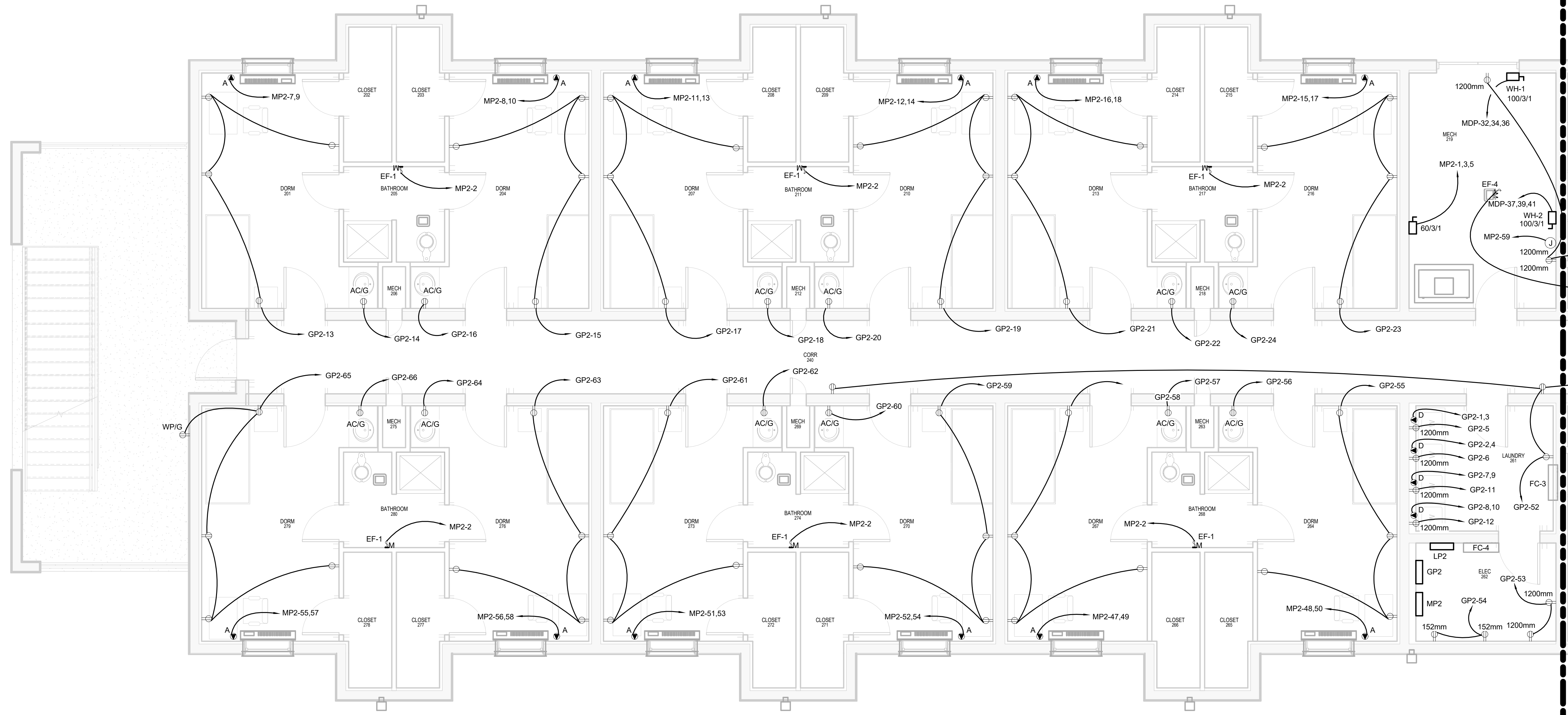
SCALE: 1 : 50

 <b>US Army Corps of Engineers</b>	
	DATE
	MARK
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DESIGNED BY: R.M. FORINIER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.D. COLLIER	SOLICITATION NO.: W30688
CHECKED BY: W.J. KNAPP	CONTRACT NO.: M017ELU44
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017ELU44
FILE NAME: M017ELU44	SIZE: ANSLD
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	
SOTO CANO AIR BASE, HONDURAS UNACCOMPANIED ENLISTED PERSONNEL HOUSING FIRST FLOOR POWER PLAN - AREA "B"	
SHEET ID <b>EP102</b>	

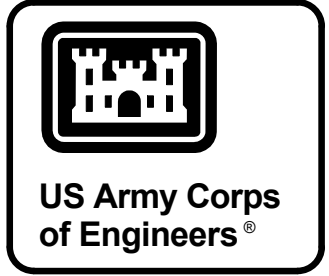
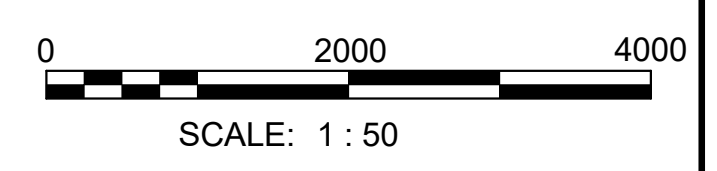
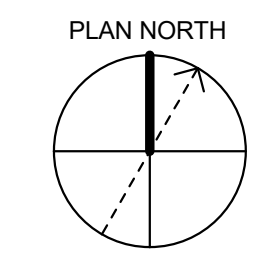
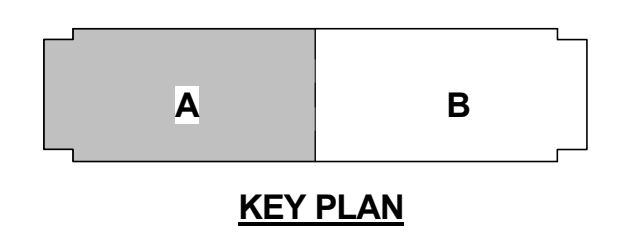


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**1 SECOND FLOOR POWER PLAN - AREA "A"**  
1 : 50



DATE	DESCRIPTION	MARK

DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. BROWN	SOLICITATION NO.: W1933008
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017EL44
FILE NAME: M017EL44	SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

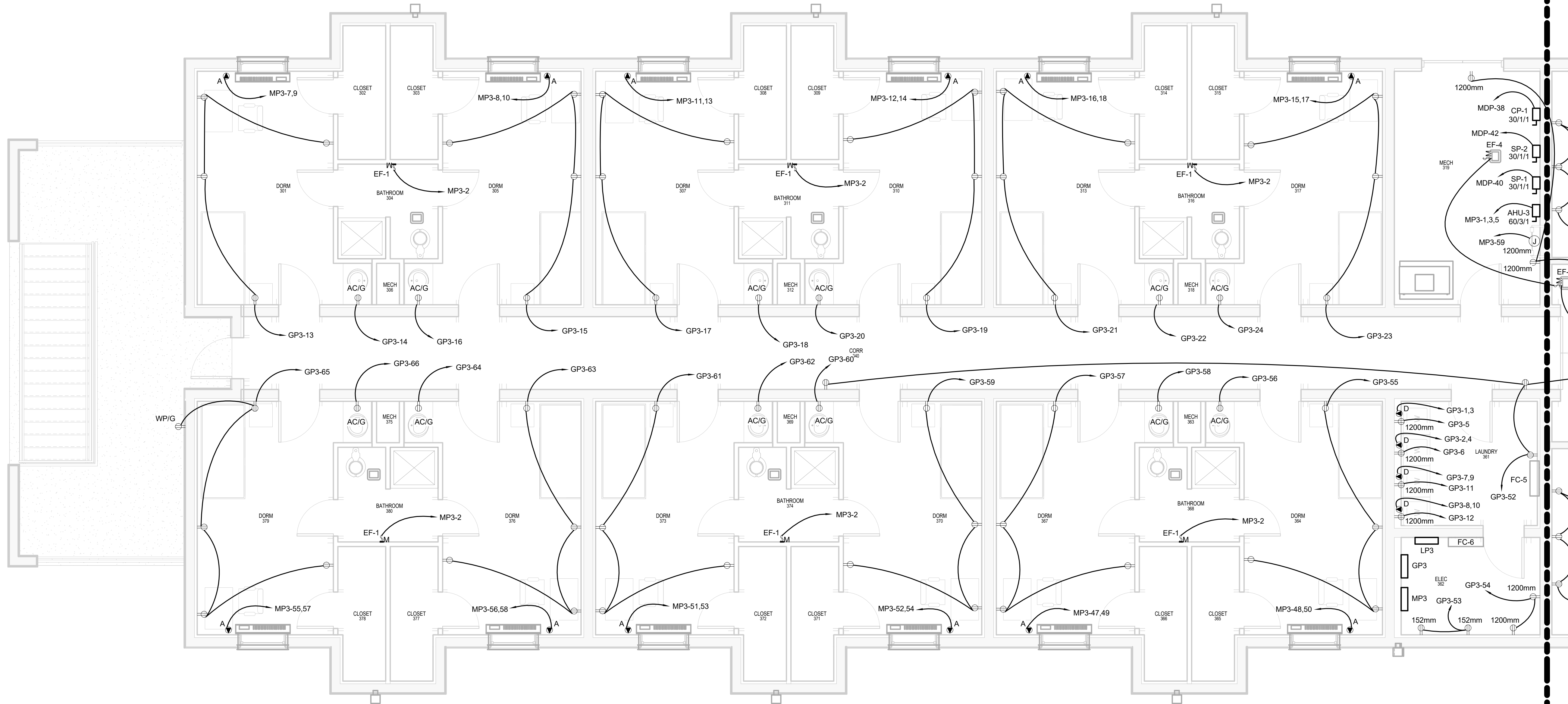
SECOND FLOOR POWER PLAN - AREA "A"

SHEET ID  
**EP103**

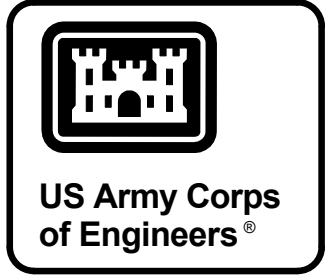
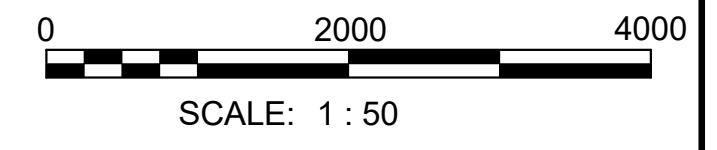
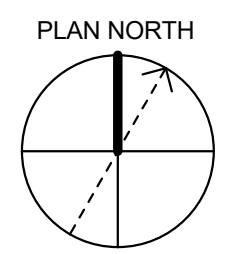
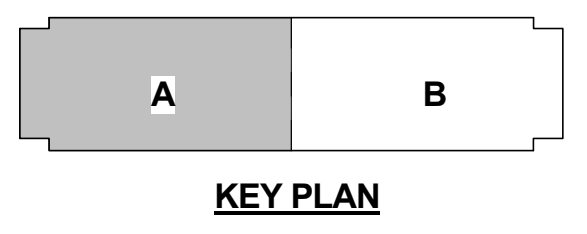


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**1** THIRD FLOOR POWER PLAN - AREA "A"  
1 : 50



DATE	DESCRIPTION	MARK

DESIGNED BY: R.M. FORNIER	ISSUE DATE: FEBRUARY 2019	PROJECT NUMBER: M017E144
DRAWN BY: L.M. BROWN	SOLICITATION NO.:	FILE NAME: M017E144
CHECKED BY: D.D. COLLIER	CONTRACT NO.:	ANSID: M017E144
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017E144	

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

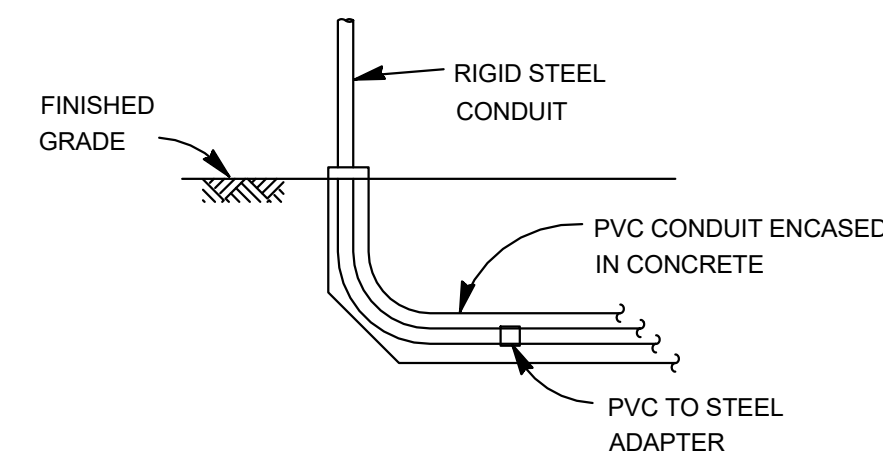
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

THIRD FLOOR POWER PLAN - AREA "A"

SHEET ID  
**EP105**







NOTE:  
THIS DETAIL IS TYPICAL FOR ALL CONDUIT TERMINATIONS AT THE PAD MOUNTED TRANSFORMER AND AT THE PANEL LOCATION.

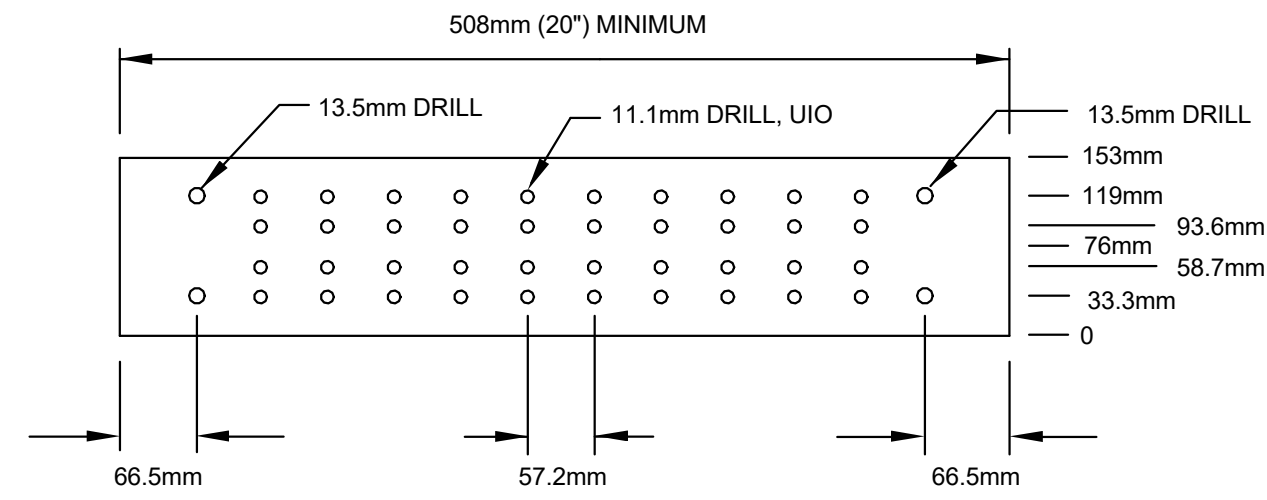
**1 PVC TO STEEL CONDUIT CONVERSION DETAIL**  
N.T.S.



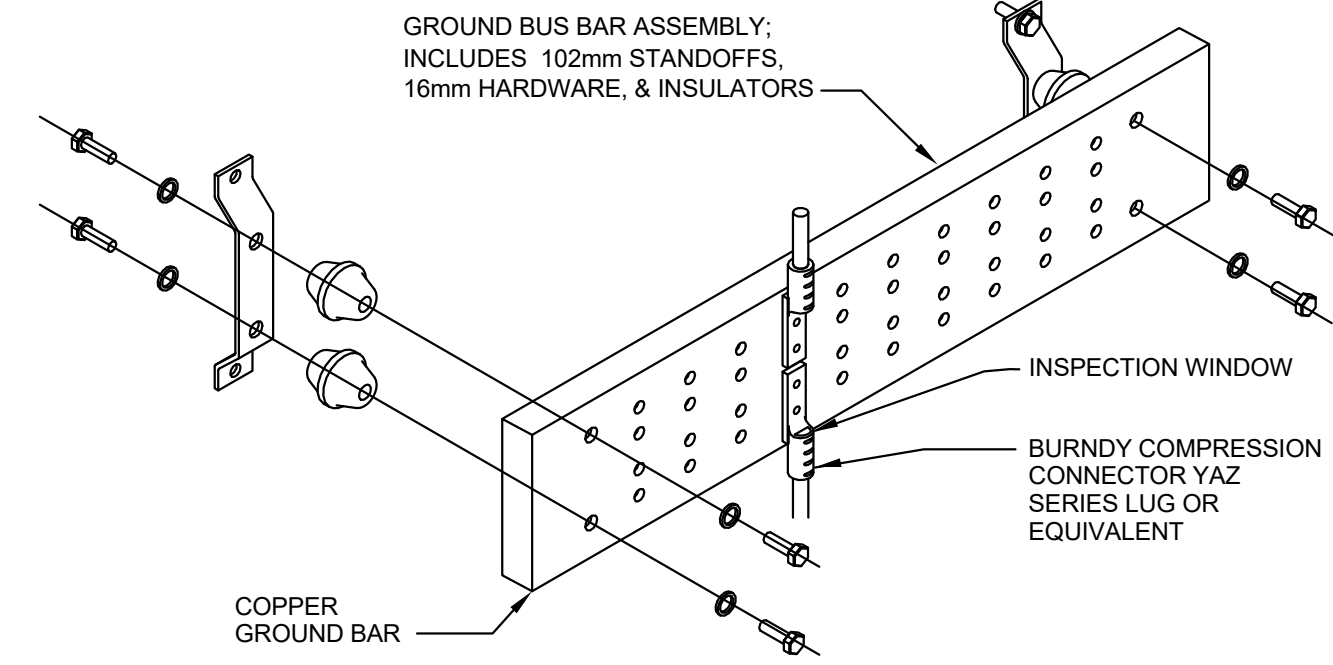
**Arc Flash and Shock Hazard  
Appropriate PPE Required**

*****	Flash Hazard Boundary cal/cm <sup>2</sup> Flash Hazard at 63 Inches PPE Level ERROR: No Valid Trip Device Found Upstream or in Bus Dialog.
230	kV Shock Hazard when cover is removed
13' - 0"	Limited Approach
5' - 3"	Restricted Approach - Class 00 Voltage Gloves
4' - 9"	Prohibited Approach - Class 00 Voltage Gloves
Equipment Name: AUX 230KV BUS	

**4 ARC FLASH LABEL**  
N.T.S.

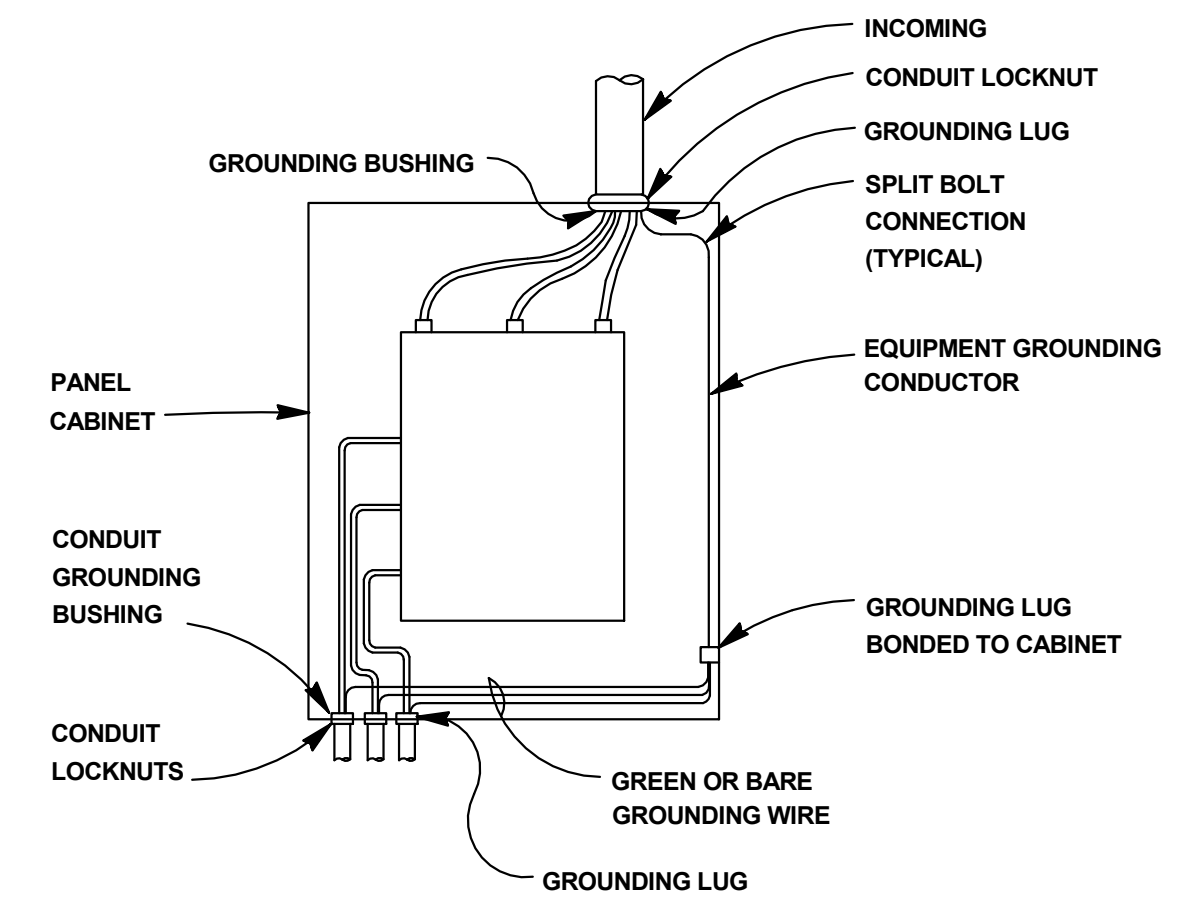


TYPICAL DRILLED HOLE DIMENSIONS FOR GROUND BAR



NOTES:  
1. GROUND BUS BAR MUST BE UL LISTED.

**2 MAIN SERVICE ENTRANCE GROUNDING BAR**  
N.T.S.



NOTES:  
1. ALL WIRES TO BE NEATLY LACED.  
2. AT THE POINT OF ATTACHMENT OF THE GROUNDING LUG TO THE CABINET, THE SURFACES SHALL BE SCRAPPED FREE OF PAINT AND THOROUGHLY CLEANED TO INSURE PROPER BONDING.  
3. NEUTRAL CONDUCTOR NOT SHOWN FOR CLARITY.

**3 TYPICAL PANEL GROUNDING DETAIL**  
N.T.S.



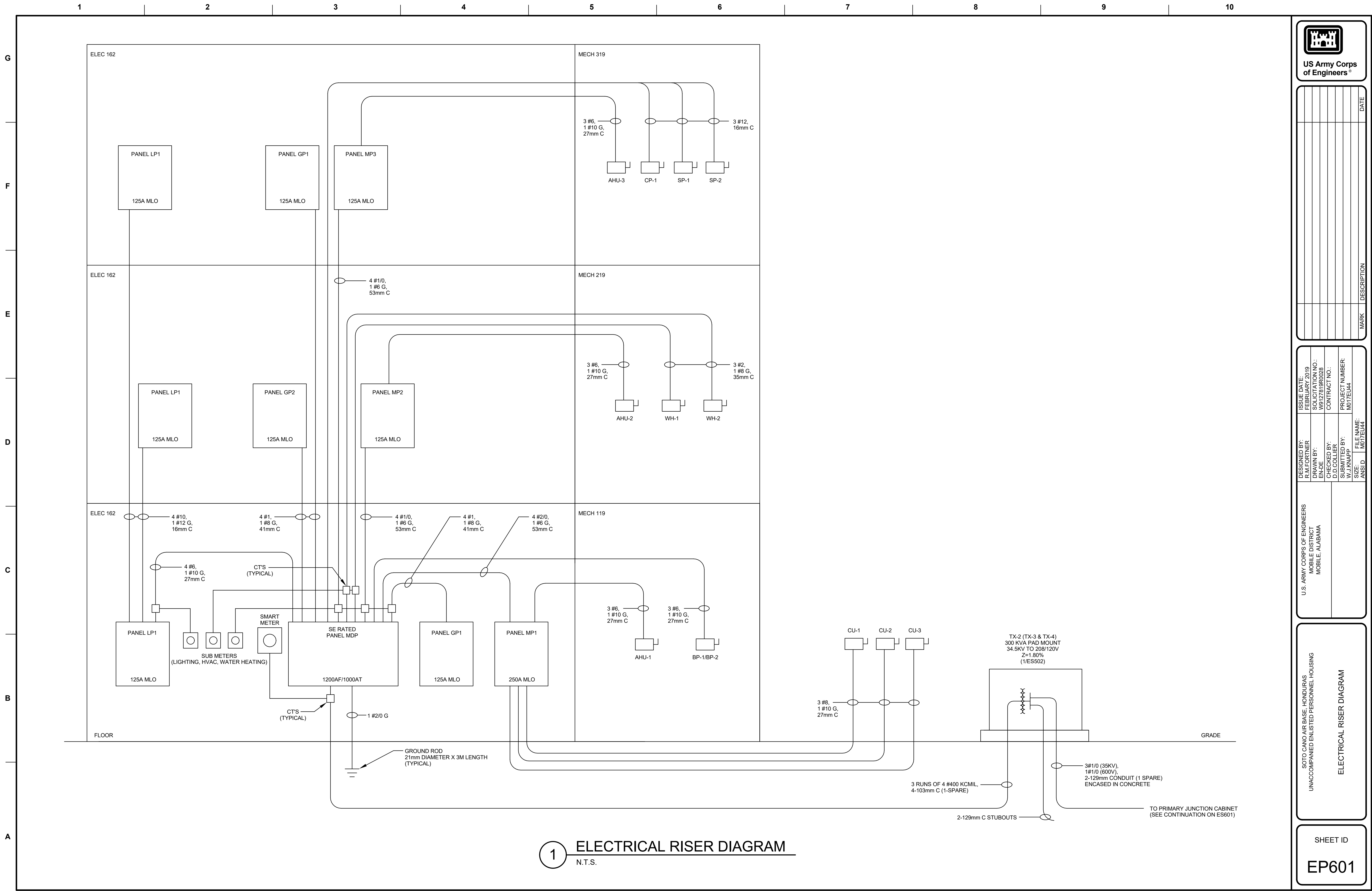
US Army Corps of Engineers

DATE	DESCRIPTION	MARK

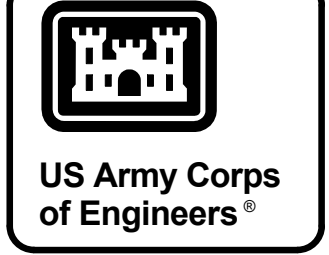
DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M.P.	SCALE: AS SHOWN
CHECKED BY: D.D.COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J.KNAPP	PROJECT NUMBER: M07ELJ44
SIZE: ANSI D	FILE NAME: M07ELJ44
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
**POWER DETAILS**

SHEET ID  
**EP501**



**1 ELECTRICAL RISER DIAGRAM**  
N.T.S.



MARK	DESCRIPTION	DATE

DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E.N.S.	SCALE: AS SHOWN
CHECKED BY: D.D.COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J.KNAPP	PROJECT NUMBER: M07ELJ44
SIZE: ANSI D	FILE NAME: M07ELJ44

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

**ELECTRICAL RISER DIAGRAM**



Branch Panel: MP1

Location: ELEC 162
Supply From: MDP
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 18,000
Mains Type: MLO
Mains Rating: 250 A

Notes:

Table with columns: CKT, Load Name, Trip, Poles, A, B, C, Poles, Trip, Load Name, CKT. Lists various electrical loads and their specifications for Branch Panel MP1.

Summary table for Branch Panel MP1 showing Load Classification (HVAC, Power), Connected Load, Estimated Demand, and Panel Totals (Total Conn. Load, Total Est. Demand, Total Conn. Current, Total Est. Demand Current).

Notes:

Branch Panel: MP2

Location: ELEC 262
Supply From: MDP
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 18,000
Mains Type: MCB
Mains Rating: 125 A

Notes:

Table with columns: CKT, Load Name, Trip, Poles, A, B, C, Poles, Trip, Load Name, CKT. Lists various electrical loads and their specifications for Branch Panel MP2.

Summary table for Branch Panel MP2 showing Load Classification (HVAC, Power), Connected Load, Estimated Demand, and Panel Totals (Total Conn. Load, Total Est. Demand, Total Conn. Current, Total Est. Demand Current).

Notes:

Branch Panel: MP3

Location: ELEC 362
Supply From: MDP
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: MCB
Mains Rating: 125 A

Notes:

Table with columns: CKT, Load Name, Trip, Poles, A, B, C, Poles, Trip, Load Name, CKT. Lists various electrical loads and their specifications for Branch Panel MP3.

Summary table for Branch Panel MP3 showing Load Classification (HVAC, Power), Connected Load, Estimated Demand, and Panel Totals (Total Conn. Load, Total Est. Demand, Total Conn. Current, Total Est. Demand Current).

Notes:



US Army Corps of Engineers

Table with columns: DATE, DESCRIPTION, MARK. A grid for tracking changes and descriptions.

Table with columns: DESIGNED BY, CHECKED BY, SUBMITTED BY, SIZE, FILE NAME, ISSUE DATE, PROJECT NUMBER. Metadata for the drawing.

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
MOBILE, ALABAMA
SOTO CANO AIR BASE, HONDURAS
UNACCOMPANIED ENLISTED PERSONNEL HOUSING
PANEL SCHEDULES

SHEET ID

EP603



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Branch Panel: GP1										
Location: ELEC 162			Volts: 120/208 Wye			A.I.C. Rating: 18,000				
Supply From: MDP			Phases: 3			Mains Type: MLO				
Mounting: Surface			Wires: 4			Mains Rating: 125 A				
Enclosure: Type 1			Notes:							
CKT	Load Name	Trip	Poles	A	B	C	Poles	Trip	Load Name	CKT
GP1-1	Clothes Dryer LAUNDRY 161,	20 A	2	900 VA	900 VA			2	Clothes Dryer LAUNDRY 161,	GP1-2
GP1-3	--	--	--		900 VA	900 VA		--	--	GP1-4
GP1-5	Washer LAUNDRY 161,	20 A	1			1200 VA	1200 VA	1	Washer LAUNDRY 161,	GP1-6
GP1-7	Clothes Dryer LAUNDRY 161,	20 A	2	900 VA	900 VA			2	Clothes Dryer LAUNDRY 161,	GP1-8
GP1-9	--	--	--		900 VA	900 VA		--	--	GP1-10
GP1-11	Washer LAUNDRY 161,	20 A	1			1200 VA	1200 VA	1	Washer LAUNDRY 161,	GP1-12
GP1-13	* Receptacles DORM 101,	20 A	1	720 VA	180 VA			1	Receptacles DORM 101,	GP1-14
GP1-15	* Receptacles DORM 104,	20 A	1		720 VA	180 VA		1	Receptacles DORM 104,	GP1-16
GP1-17	* Receptacles DORM 107,	20 A	1			720 VA	180 VA	1	Receptacles DORM 107,	GP1-18
GP1-19	* Receptacles DORM 110,	20 A	1	720 VA	180 VA			1	Receptacles DORM 110,	GP1-20
GP1-21	* Receptacles DORM 113,	20 A	1		720 VA	180 VA		1	Receptacles DORM 113,	GP1-22
GP1-23	* Receptacles DORM 117,	20 A	1			720 VA	180 VA	1	Receptacles DORM 117,	GP1-24
GP1-25	Receptacles Room 119, 120,	20 A	1	900 VA	900 VA			1	* Receptacles ACTIVITY 121,	GP1-26
GP1-27	* Receptacles DORM 122,	20 A	1		720 VA	180 VA		1	Receptacles DORM 122,	GP1-28
GP1-29	* Receptacles DORM 125,	20 A	1			720 VA	180 VA	1	Receptacles DORM 125,	GP1-30
GP1-31	* Receptacles DORM 128,	20 A	1	720 VA	180 VA			1	Receptacles DORM 128,	GP1-32
GP1-33	* Receptacles DORM 131,	20 A	1		720 VA	180 VA		1	Receptacles DORM 131,	GP1-34
GP1-35	* Receptacles DORM 134,	20 A	1			720 VA	180 VA	1	Receptacles DORM 134,	GP1-36
GP1-37	* Receptacles DORM 137,	20 A	1	900 VA	180 VA			1	Receptacles DORM 137,	GP1-38
GP1-39	* Receptacles DORM 143,	20 A	1		720 VA	180 VA		1	Receptacles DORM 143,	GP1-40
GP1-41	* Receptacles DORM 146,	20 A	1			720 VA	180 VA	1	Receptacles DORM 146,	GP1-42
GP1-43	* Receptacles DORM 149,	20 A	1	720 VA	180 VA			1	Receptacles DORM 149,	GP1-44
GP1-45	* Receptacles DORM 152,	20 A	1		720 VA	180 VA		1	Receptacles DORM 152,	GP1-46
GP1-47	* Receptacles DORM 154,	20 A	1			720 VA	180 VA	1	Receptacles DORM 154,	GP1-48
GP1-49	* Receptacles DORM 157,	20 A	1	720 VA	180 VA			1	Receptacles DORM 157,	GP1-50
GP1-51	* Receptacles DAYROOM 159,	20 A	1		1080 VA	1000 VA		1	Telecomm Backboard ELEC 162,	GP1-52
GP1-53	Receptacles Room 161, 140,	20 A	1			720 VA	1000 VA	1	Telecomm Cabinet ELEC 262,	GP1-54
GP1-55	* Receptacles DORM 164,	20 A	1	720 VA	180 VA			1	Receptacles DORM 164,	GP1-56
GP1-57	* Receptacles DORM 167,	20 A	1		720 VA	180 VA		1	Receptacles DORM 167,	GP1-58
GP1-59	* Receptacles DORM 170,	20 A	1			720 VA	180 VA	1	Receptacles DORM 170,	GP1-60
GP1-61	* Receptacles DORM 173,	20 A	1	720 VA	180 VA			1	Receptacles DORM 173,	GP1-62
GP1-63	* Receptacles DORM 176,	20 A	1		720 VA	180 VA		1	Receptacles DORM 176,	GP1-64
GP1-65	* Receptacles DORM 179,	20 A	1			900 VA	180 VA	1	Receptacles DORM 179,	GP1-66
GP1-67	--	20 A	1	0 VA	0 VA			1	--	GP1-68
GP1-69	--	20 A	1		0 VA	0 VA		1	--	GP1-70
GP1-71	--	20 A	1			0 VA	0 VA	1	--	GP1-72
<b>Total Load:</b>				12780 VA	12880 VA	13900 VA				
<b>Total Amps:</b>				107 A	107 A	116 A				
Load Classification		Connected Load		Estimated Demand		Panel Totals				
Receptacles		32360 VA		21180 VA						
Clothes Dryer		7200 VA		3600 VA						
						<b>Total Conn. Load:</b> 39560 VA				
						<b>Total Est. Demand:</b> 24780 VA				
						<b>Total Conn. Current:</b> 110 A				
						<b>Total Est. Demand Current:</b> 69 A				
Notes: * DENOTES ARC FAULT BREAKER										

Branch Panel: GP2										
Location: ELEC 262			Volts: 120/208 Wye			A.I.C. Rating: 18,000				
Supply From: MDP			Phases: 3			Mains Type: MLO				
Mounting: Surface			Wires: 4			Mains Rating: 125 A				
Enclosure: Type 1			Notes:							
CKT	Load Name	Trip	Poles	A	B	C	Poles	Trip	Load Name	CKT
GP2-1	Clothes Dryer LAUNDRY 261,	20 A	2	900 VA	900 VA			2	Clothes Dryer LAUNDRY 261,	GP2-2
GP2-3	--	--	--		900 VA	900 VA		--	--	GP2-4
GP2-5	Washer LAUNDRY 261,	20 A	1			180 VA	180 VA	1	Washer LAUNDRY 261,	GP2-6
GP2-7	Clothes Dryer LAUNDRY 261,	20 A	2	900 VA	900 VA			2	Clothes Dryer LAUNDRY 261,	GP2-8
GP2-9	--	--	--		900 VA	900 VA		--	--	GP2-10
GP2-11	Washer LAUNDRY 261,	20 A	1			180 VA	180 VA	1	Washer LAUNDRY 261,	GP2-12
GP2-13	* Receptacles DORM 201,	20 A	1	720 VA	180 VA			1	Receptacles DORM 201,	GP2-14
GP2-15	* Receptacles DORM 204,	20 A	1		720 VA	180 VA		1	Receptacles DORM 204,	GP2-16
GP2-17	* Receptacles DORM 207,	20 A	1			720 VA	180 VA	1	Receptacles DORM 207,	GP2-18
GP2-19	* Receptacles DORM 210,	20 A	1	720 VA	180 VA			1	Receptacles DORM 210,	GP2-20
GP2-21	* Receptacles DORM 213,	20 A	1		720 VA	180 VA		1	Receptacles DORM 213,	GP2-22
GP2-23	* Receptacles DORM 216,	20 A	1			720 VA	180 VA	1	Receptacles DORM 216,	GP2-24
GP2-25	Receptacles Room 219, 220,	20 A	1	540 VA	900 VA			1	* Receptacles ACTIVITY 221,	GP2-26
GP2-27	* Receptacles DORM 222,	20 A	1		720 VA	180 VA		1	Receptacles DORM 222,	GP2-28
GP2-29	* Receptacles DORM 225,	20 A	1			720 VA	180 VA	1	Receptacles DORM 225,	GP2-30
GP2-31	* Receptacles DORM 228,	20 A	1	720 VA	180 VA			1	Receptacles DORM 228,	GP2-32
GP2-33	* Receptacles DORM 231,	20 A	1		720 VA	180 VA		1	Receptacles DORM 231,	GP2-34
GP2-35	* Receptacles DORM 243,	20 A	1			720 VA	180 VA	1	Receptacles DORM 234,	GP2-36
GP2-37	* Receptacles DORM 234,	20 A	1	720 VA	180 VA			1	Receptacles DORM 237,	GP2-38
GP2-39	* Receptacles DORM 237,	20 A	1		900 VA	180 VA		1	Receptacles DORM 243,	GP2-40
GP2-41	* Receptacles DORM 246,	20 A	1			720 VA	180 VA	1	Receptacles DORM 246,	GP2-42
GP2-43	* Receptacles DORM 249,	20 A	1	720 VA	180 VA			1	Receptacles DORM 249,	GP2-44
GP2-45	* Receptacles DORM 252,	20 A	1		720 VA	180 VA		1	Receptacles DORM 252,	GP2-46
GP2-47	* Receptacles DORM 254,	20 A	1			720 VA	180 VA	1	Receptacles DORM 254,	GP2-48
GP2-49	* Receptacles DORM 257,	20 A	1	720 VA	180 VA			1	Receptacles DORM 257,	GP2-50
GP2-51	* Receptacles DAYROOM 259,	20 A	1		900 VA	720 VA		1	Receptacles Room 261, 240,	GP2-52
GP2-53	Telecomm Cabinet ELEC 262,	20 A	1			1180 VA	1000 VA	1	Telecomm Backboard ELEC 262,	GP2-54
GP2-55	* Receptacles DORM 264,	20 A	1	720 VA	180 VA			1	Receptacles DORM 264,	GP2-56
GP2-57	* Receptacles DORM 267,	20 A	1		720 VA	180 VA		1	Receptacles DORM 267,	GP2-58
GP2-59	* Receptacles DORM 270,	20 A	1			720 VA	180 VA	1	Receptacles DORM 270,	GP2-60
GP2-61	* Receptacles DORM 273,	20 A	1	720 VA	180 VA			1	Receptacles DORM 273,	GP2-62
GP2-63	* Receptacles DORM 276,	20 A	1		720 VA	180 VA		1	Receptacles DORM 276,	GP2-64
GP2-65	* Receptacles Room 279,	20 A	1			900 VA	180 VA	1	Receptacles DORM 279,	GP2-66
GP2-67	--	20 A	1	0 VA	0 VA			1	--	GP2-68
GP2-69	--	20 A	1		0 VA	0 VA		1	--	GP2-70
GP2-71	--	20 A	1			0 VA	0 VA	1	--	GP2-72
<b>Total Load:</b>				12240 VA	12600 VA	10280 VA				
<b>Total Amps:</b>				105 A	108 A	86 A				
Load Classification		Connected Load		Estimated Demand		Panel Totals				
Receptacles		27920 VA		18960 VA						
Clothes Dryer		7200 VA		3600 VA						
						<b>Total Conn. Load:</b> 35120 VA				
						<b>Total Est. Demand:</b> 22560 VA				
						<b>Total Conn. Current:</b> 97 A				
						<b>Total Est. Demand Current:</b> 63 A				
Notes: * DENOTES ARC FAULT BREAKER										

**US Army Corps of Engineers**

DESIGNED BY: S.M.FORTNER CHECKED BY: D.D.COLLIER SUBMITTED BY: W.J.KNAPP SIZE: ANSI D	ISSUE DATE: FEBRUARY 2019 SALES NO.: W0171810028 CONTRACT NO.: PROJECT NUMBER: M017ELJ4 FILE NAME: M017ELJ4
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U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

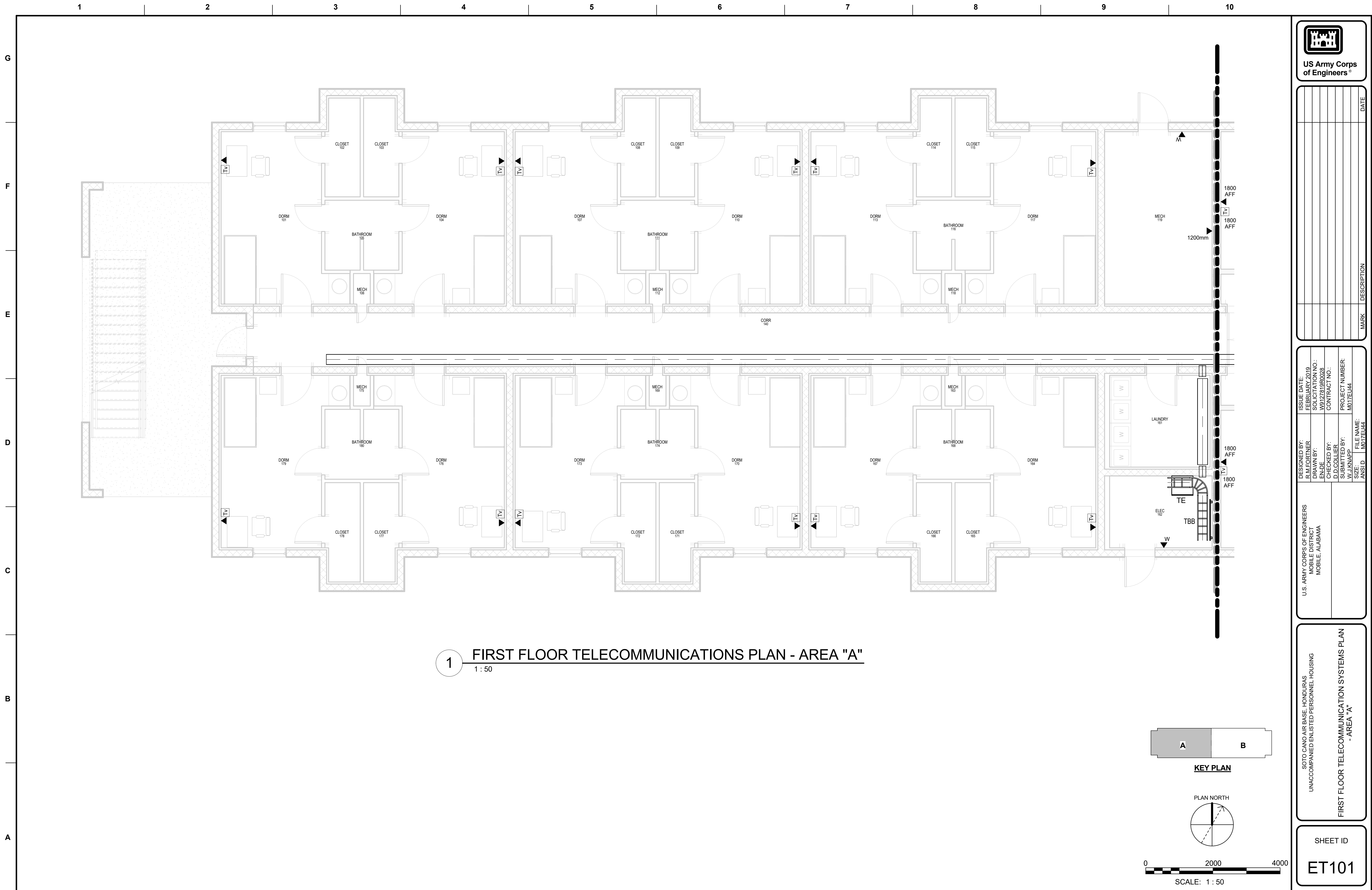
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

PANEL SCHEDULES

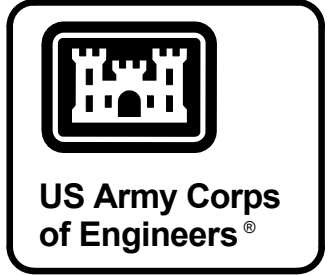
SHEET ID  
**EP604**







**1** FIRST FLOOR TELECOMMUNICATIONS PLAN - AREA "A"  
1 : 50



MARK	DESCRIPTION	DATE

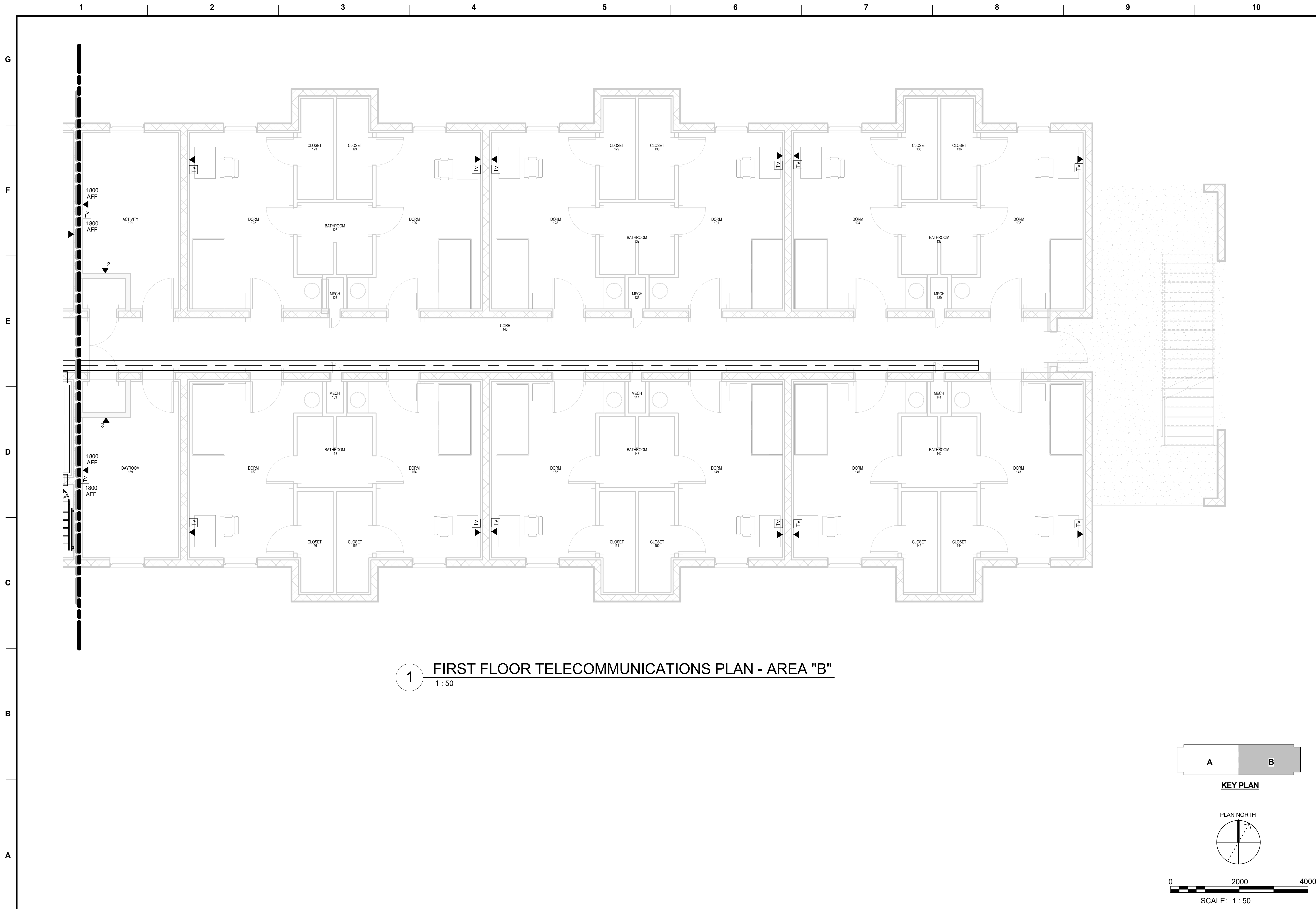
DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L. BROWN	SOLICITATION NO.: W19CENR08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017EL144
SIZE: ANSI D	FILE NAME: M017EL144

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

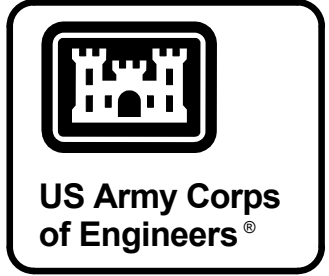
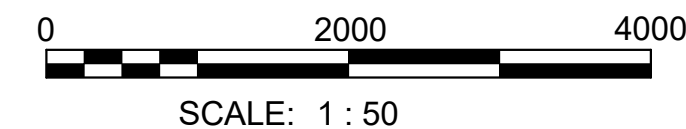
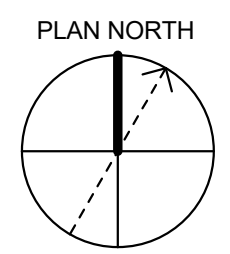
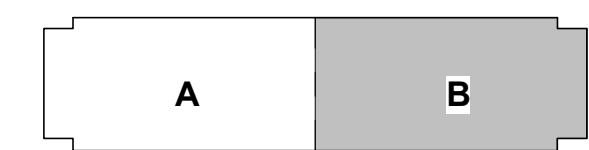
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
FIRST FLOOR TELECOMMUNICATION SYSTEMS PLAN  
- AREA "A"

SHEET ID  
**ET101**





**1** FIRST FLOOR TELECOMMUNICATIONS PLAN - AREA "B"  
1 : 50



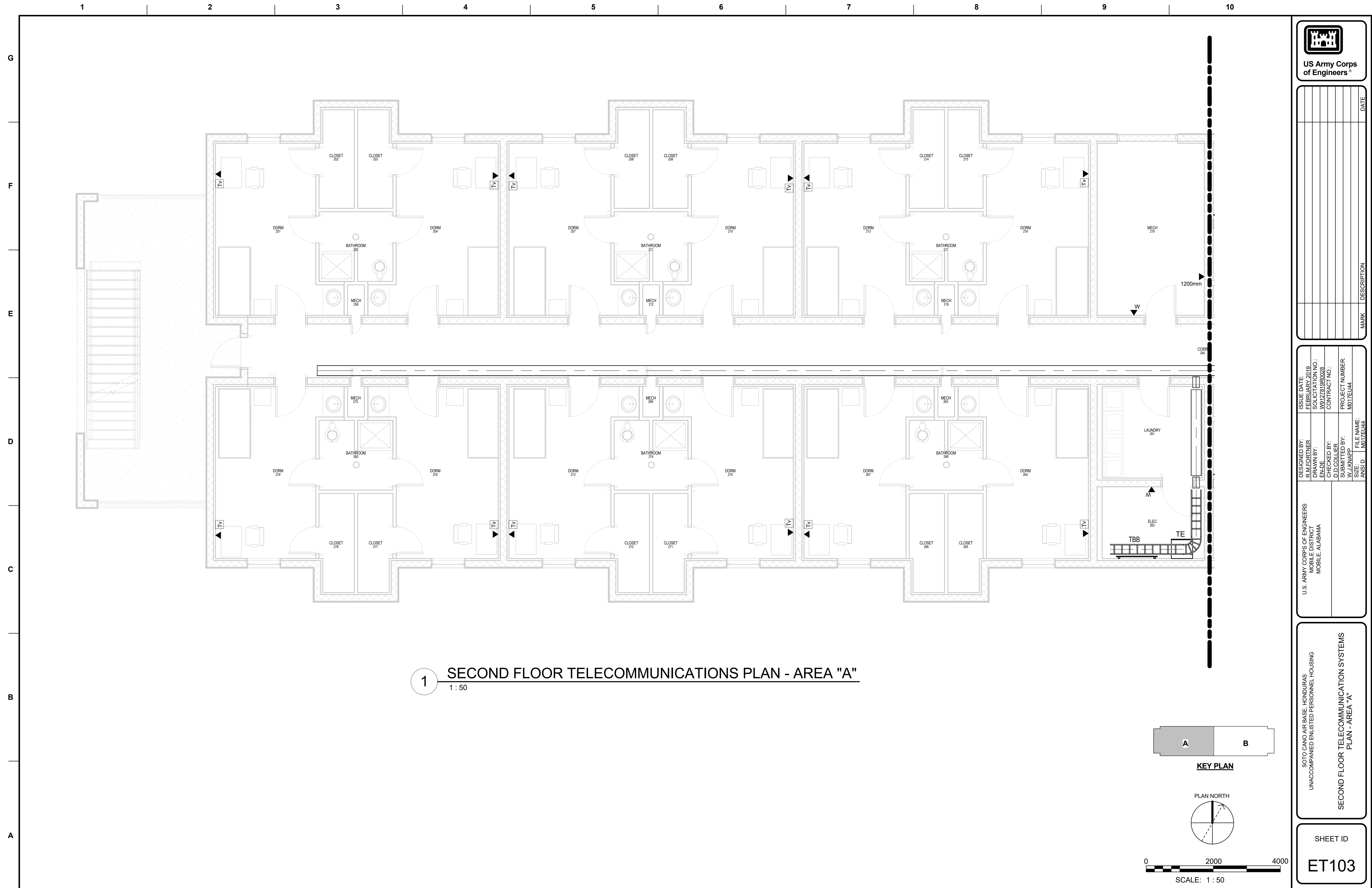
MARK	DESCRIPTION	DATE

DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. BROWN	SOLICITATION NO.: W33BEN08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M077EL44
FILE NAME: M077EL44	SIZE:
ANSI D:	

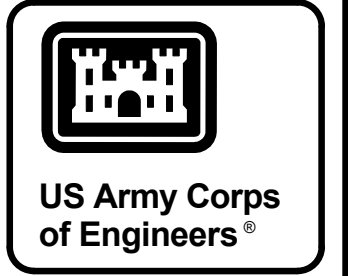
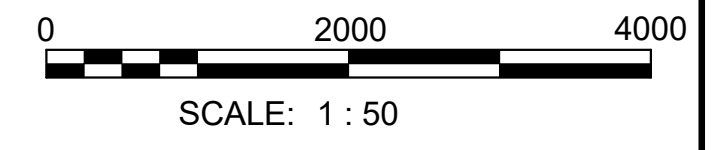
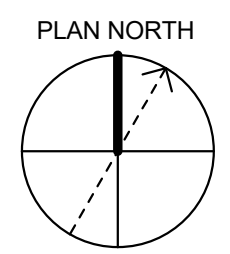
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
FIRST FLOOR TELECOMMUNICATION SYSTEMS PLAN  
- AREA "B"

SHEET ID  
**ET102**



**1 SECOND FLOOR TELECOMMUNICATIONS PLAN - AREA "A"**  
 1 : 50



MARK	DESCRIPTION	DATE

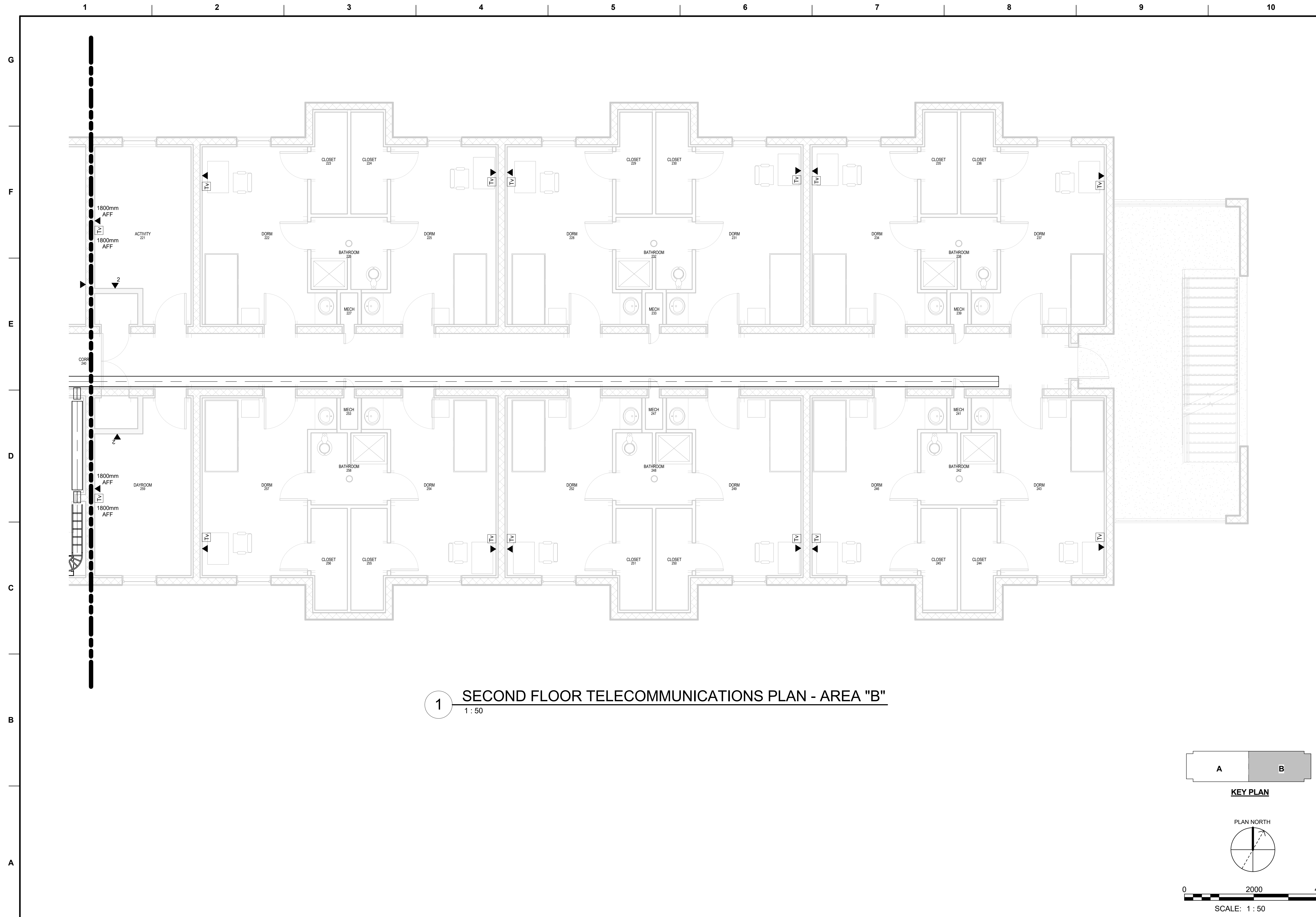
DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: E.L. BROWN	SOLICITATION NO.: W33BEN08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017ELU44
FILE NAME: M017ELU44	SIZE:
ANSI D:	

U.S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 MOBILE, ALABAMA

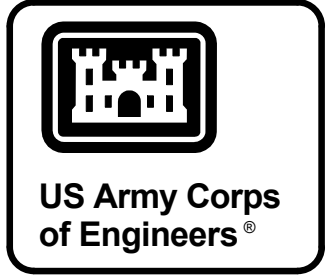
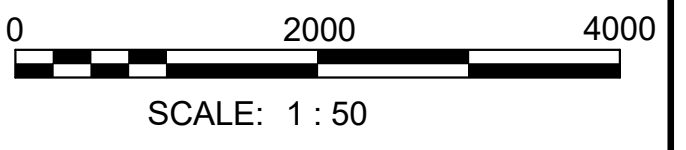
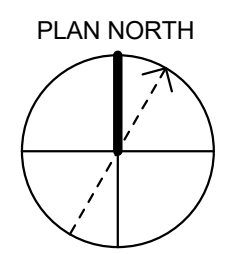
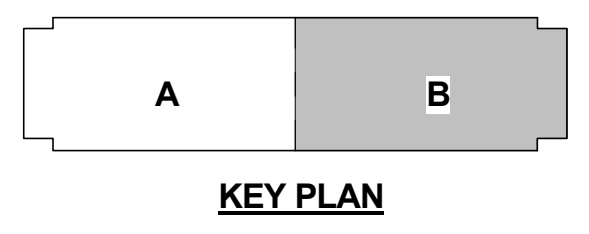
SOTO CANO AIR BASE, HONDURAS  
 UNACCOMPANIED ENLISTED PERSONNEL HOUSING

SECOND FLOOR TELECOMMUNICATION SYSTEMS  
 PLAN - AREA "A"

SHEET ID  
**ET103**



**1** SECOND FLOOR TELECOMMUNICATIONS PLAN - AREA "B"  
1 : 50



DATE	DESCRIPTION	MARK

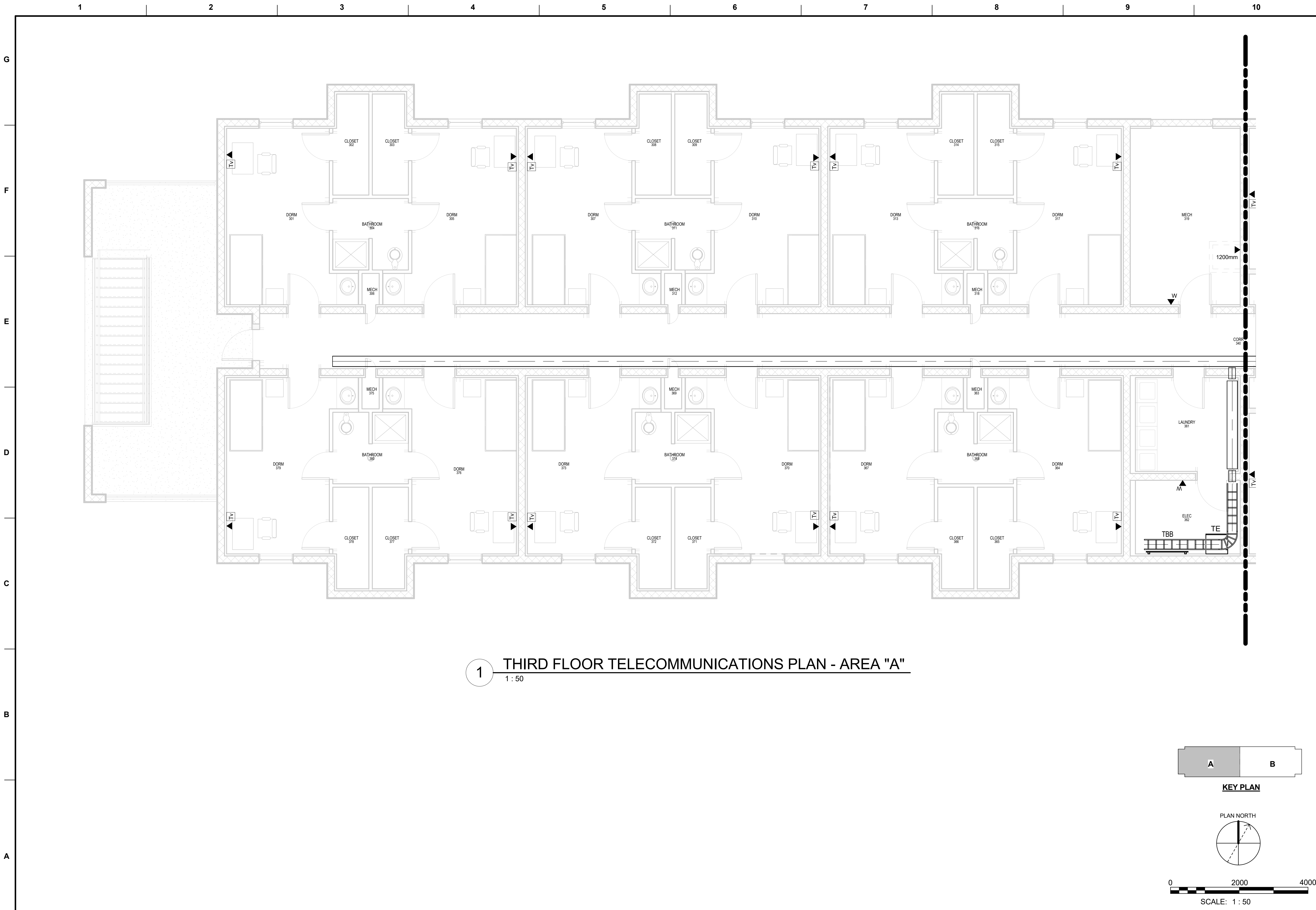
DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.H. HENNING	SOLICITATION NO.: W33432008
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017EL144
FILE NAME: M017EL144	SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

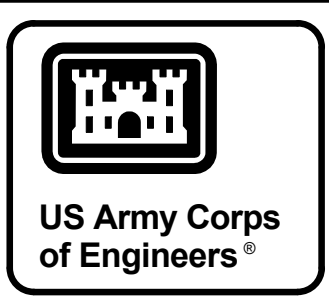
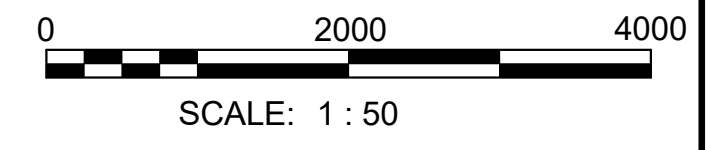
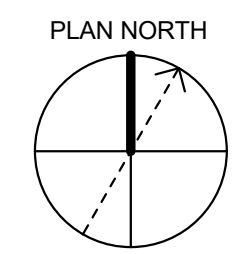
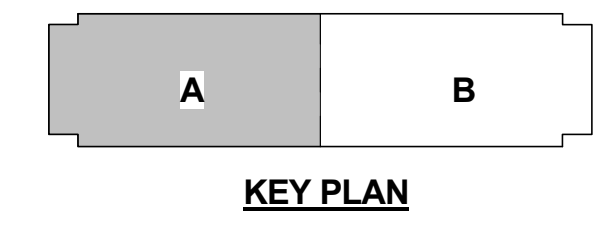
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

SECOND FLOOR TELECOMMUNICATION SYSTEMS  
PLAN - AREA "B"

SHEET ID  
**ET104**



1 THIRD FLOOR TELECOMMUNICATIONS PLAN - AREA "A"  
1:50



DESIGNED BY: R.M. FORINER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. HENNING	SOLICITATION NO.:
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M017EL044
FILE NAME: M017EL044	DATE:
ANSI D:	MARK:
	DESCRIPTION:

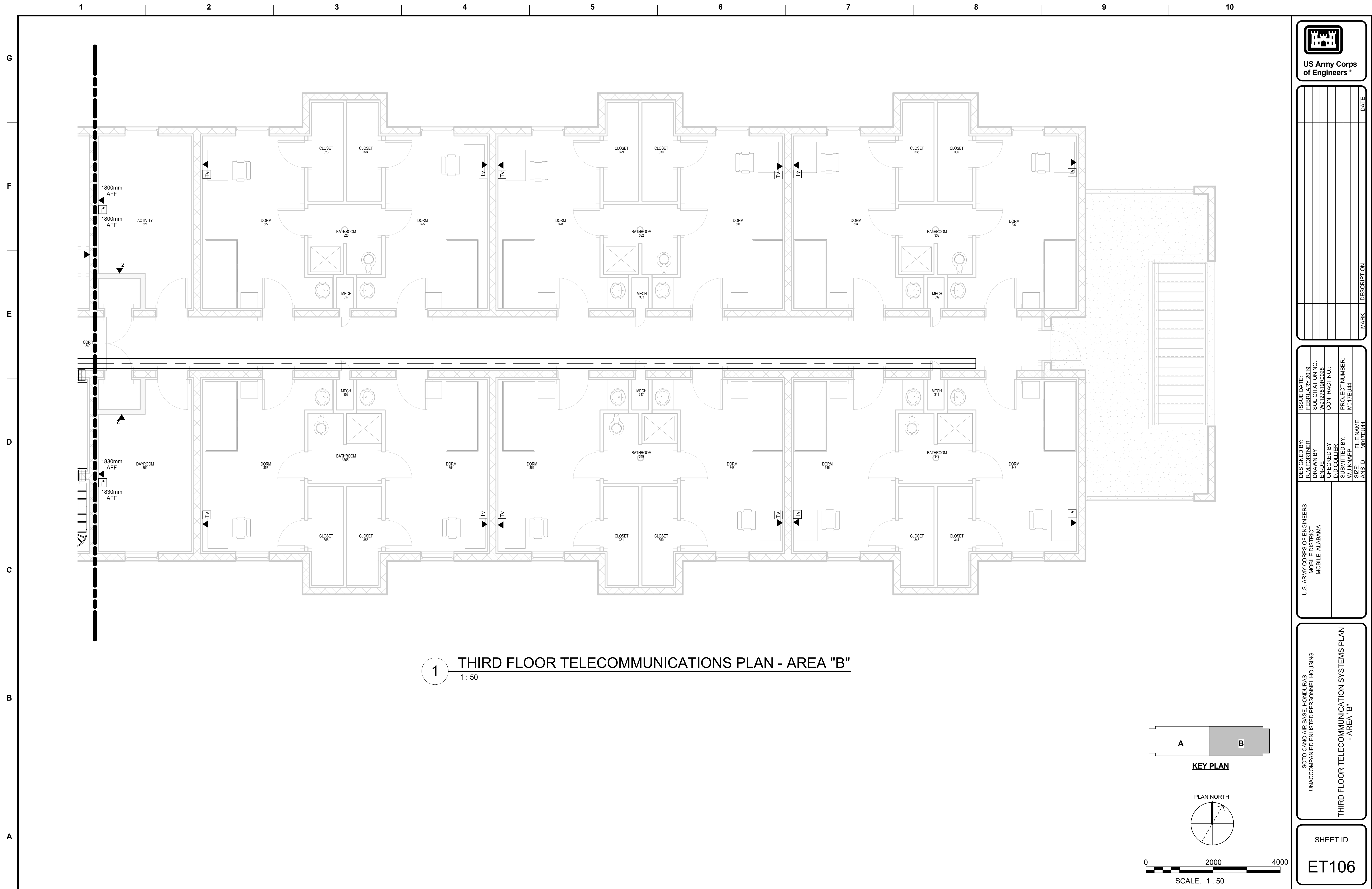
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

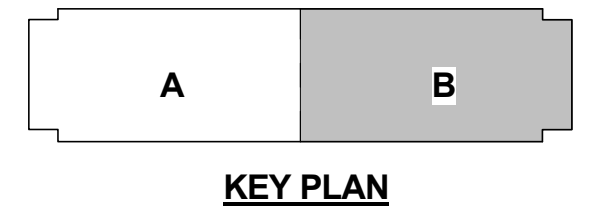
THIRD FLOOR TELECOMMUNICATION SYSTEMS PLAN  
- AREA "A"

SHEET ID  
**ET105**

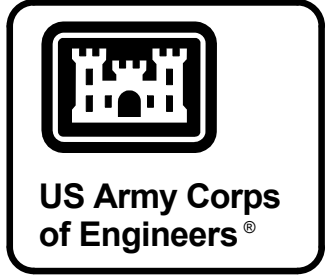
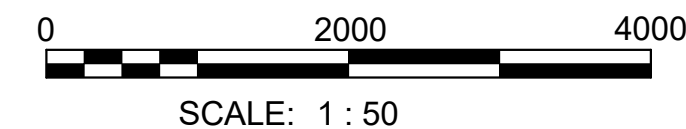
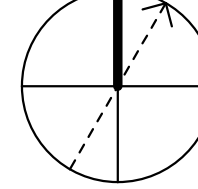




1 THIRD FLOOR TELECOMMUNICATIONS PLAN - AREA "B"  
1 : 50



PLAN NORTH



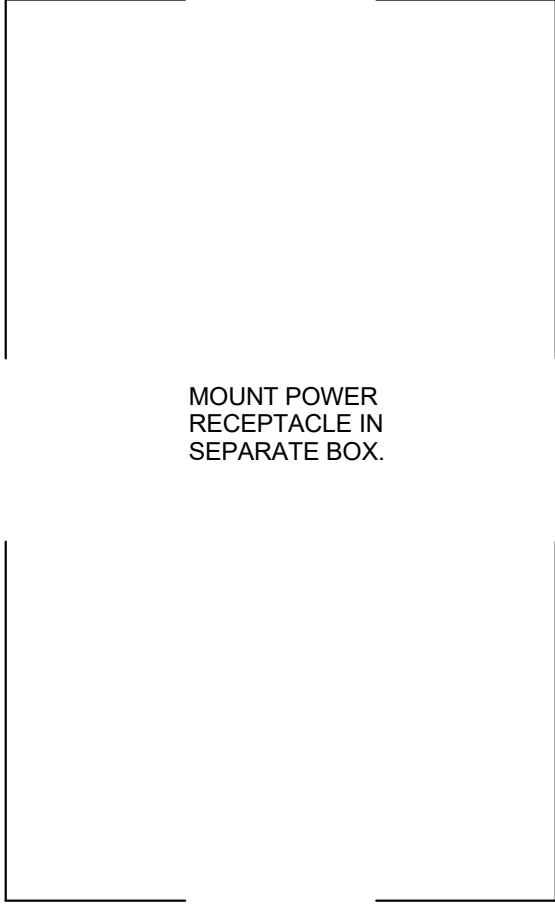
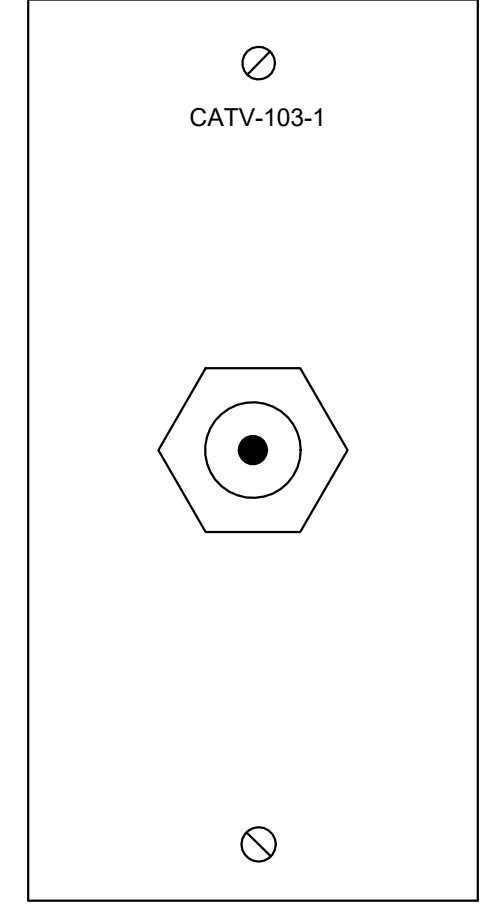
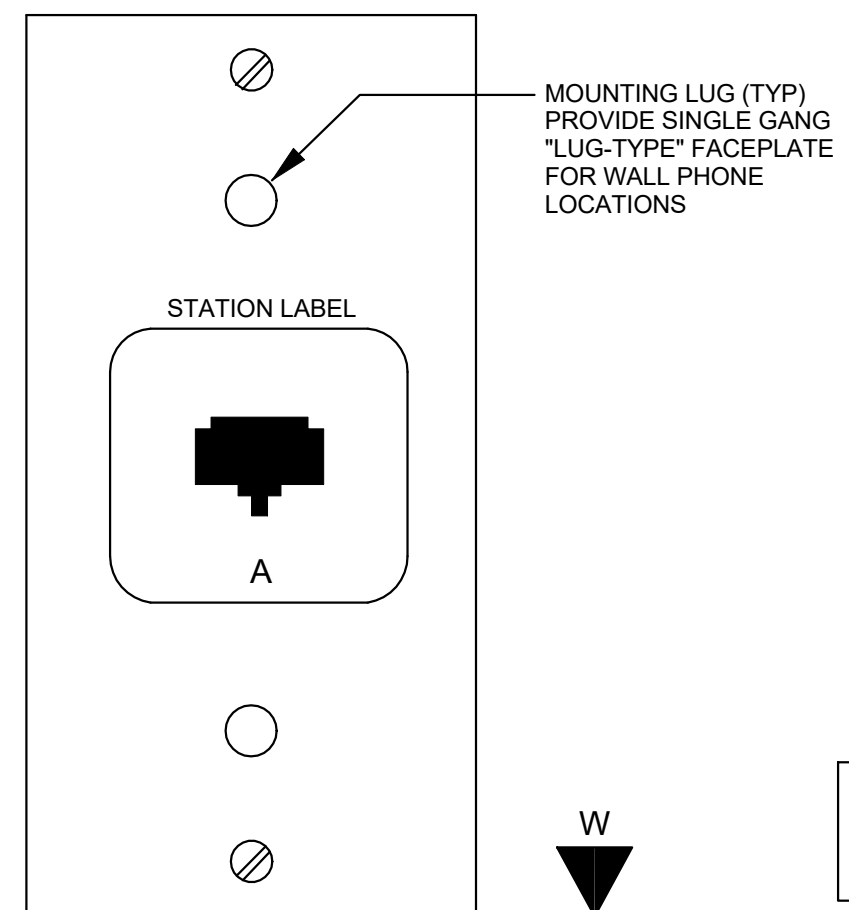
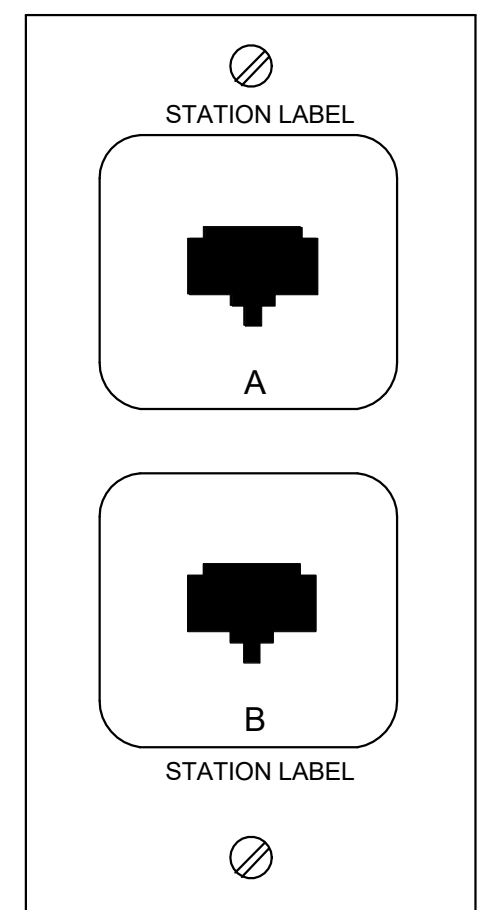
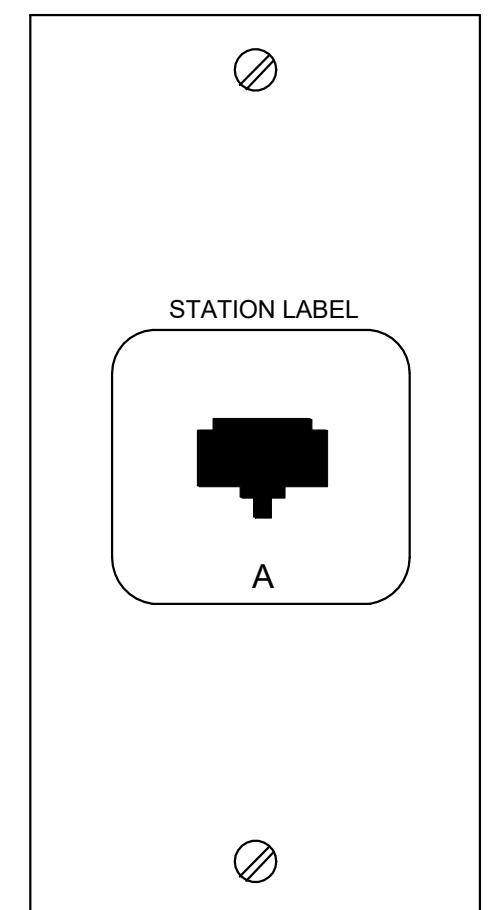
DATE	DESCRIPTION	MARK

DESIGNED BY: R.M. FORINIER	ISSUE DATE: FEBRUARY 2019
DRAWN BY: L.M. HENNING	SOLICITATION NO.: W33R08
CHECKED BY: D.D. COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J. KNAPP	PROJECT NUMBER: M07E144
FILE NAME: M07E144	SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

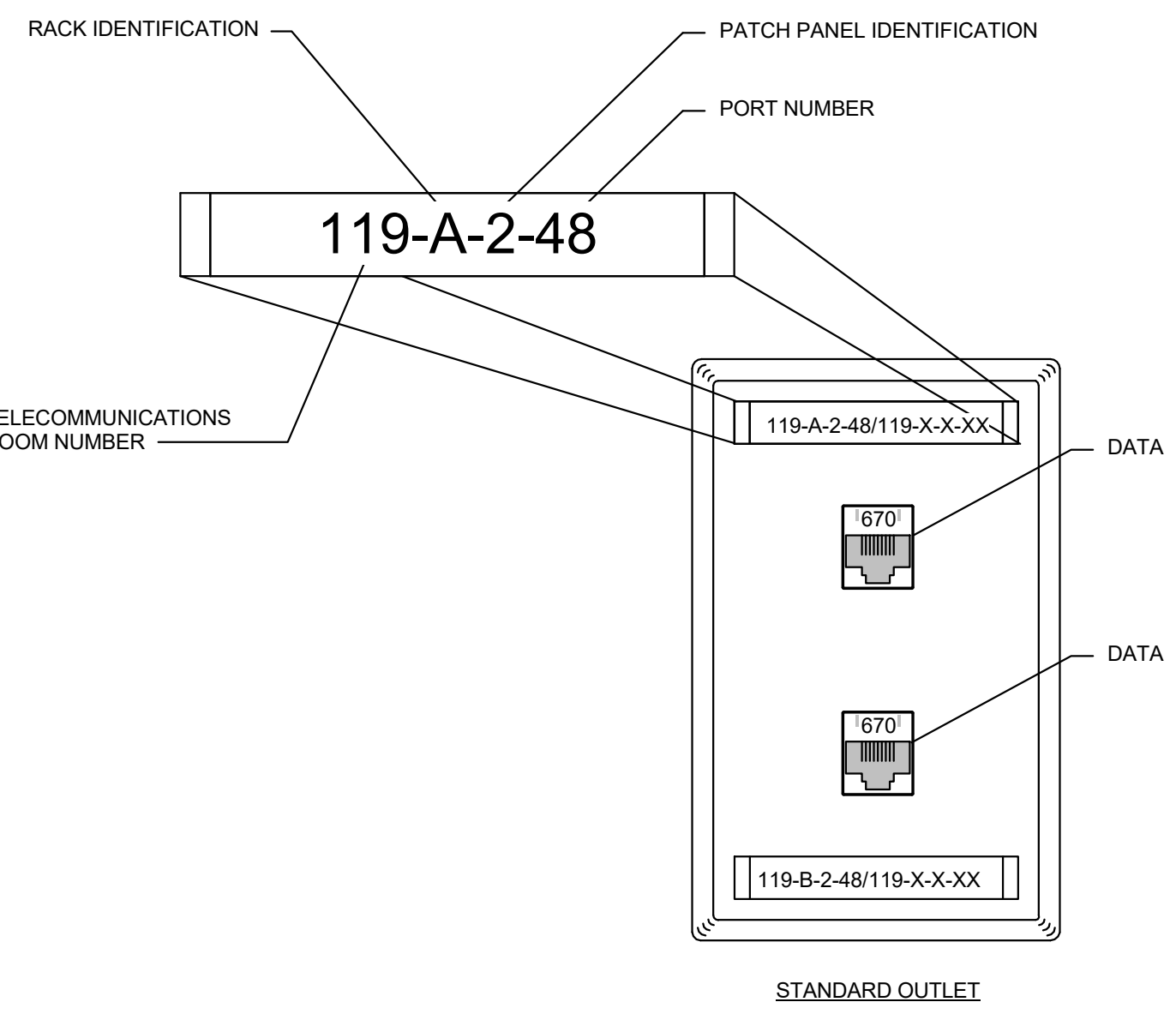
SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
THIRD FLOOR TELECOMMUNICATION SYSTEMS PLAN  
- AREA "B"

SHEET ID  
**ET106**



COMMUNICATIONS COLOR CODE DESIGNATION SCHEDULE			
TYPE	LETTER	JACK	CABLE
DATA (NIPRNET)	N/A	BLUE	BLUE
VOICE	W	GREY	GRET

ALL COMM OUTLETS SHALL BE 8-PIN RJ-45 U.O.N.



**NOTES: OUTLET/PATCH PANEL LABELS**

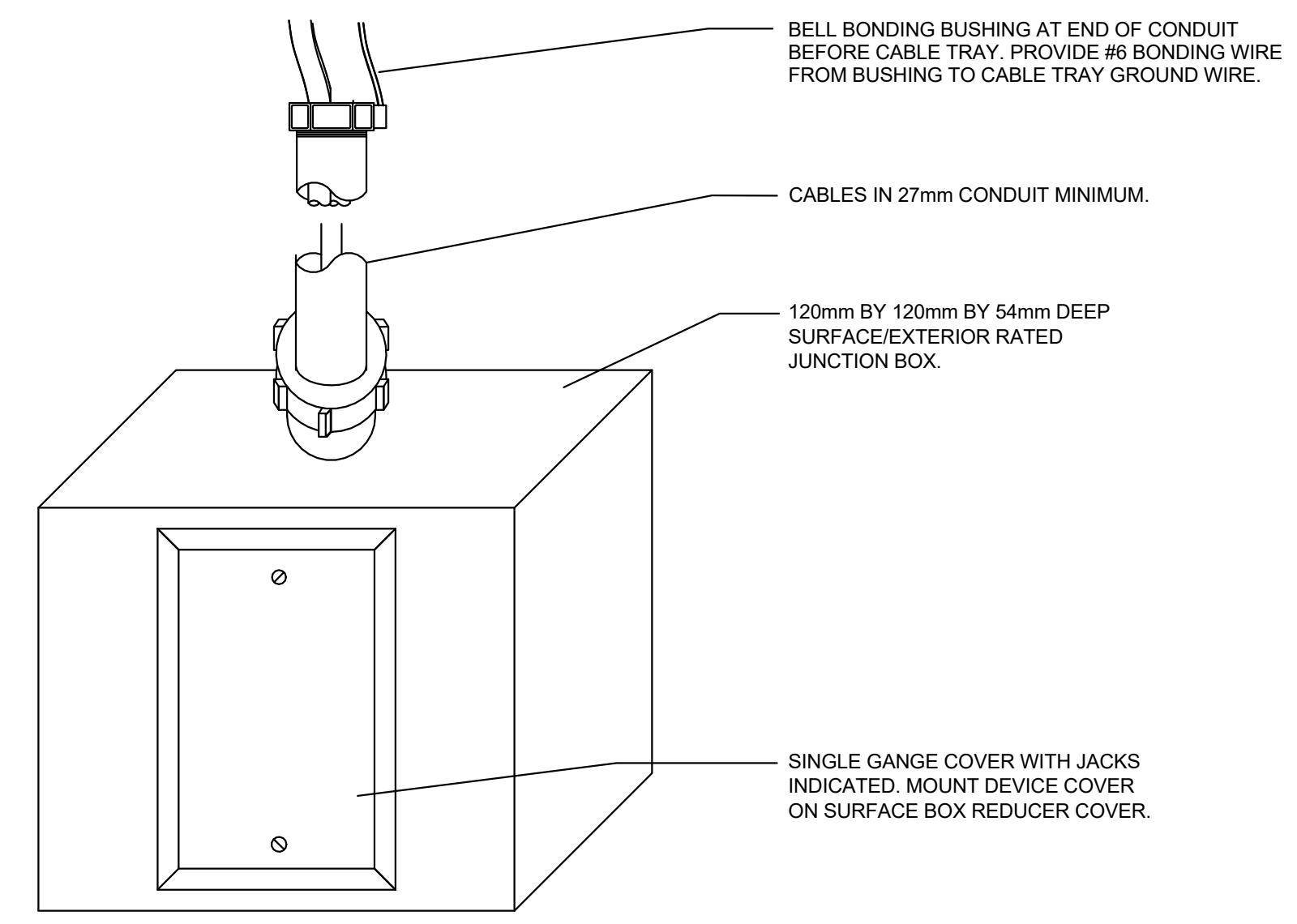
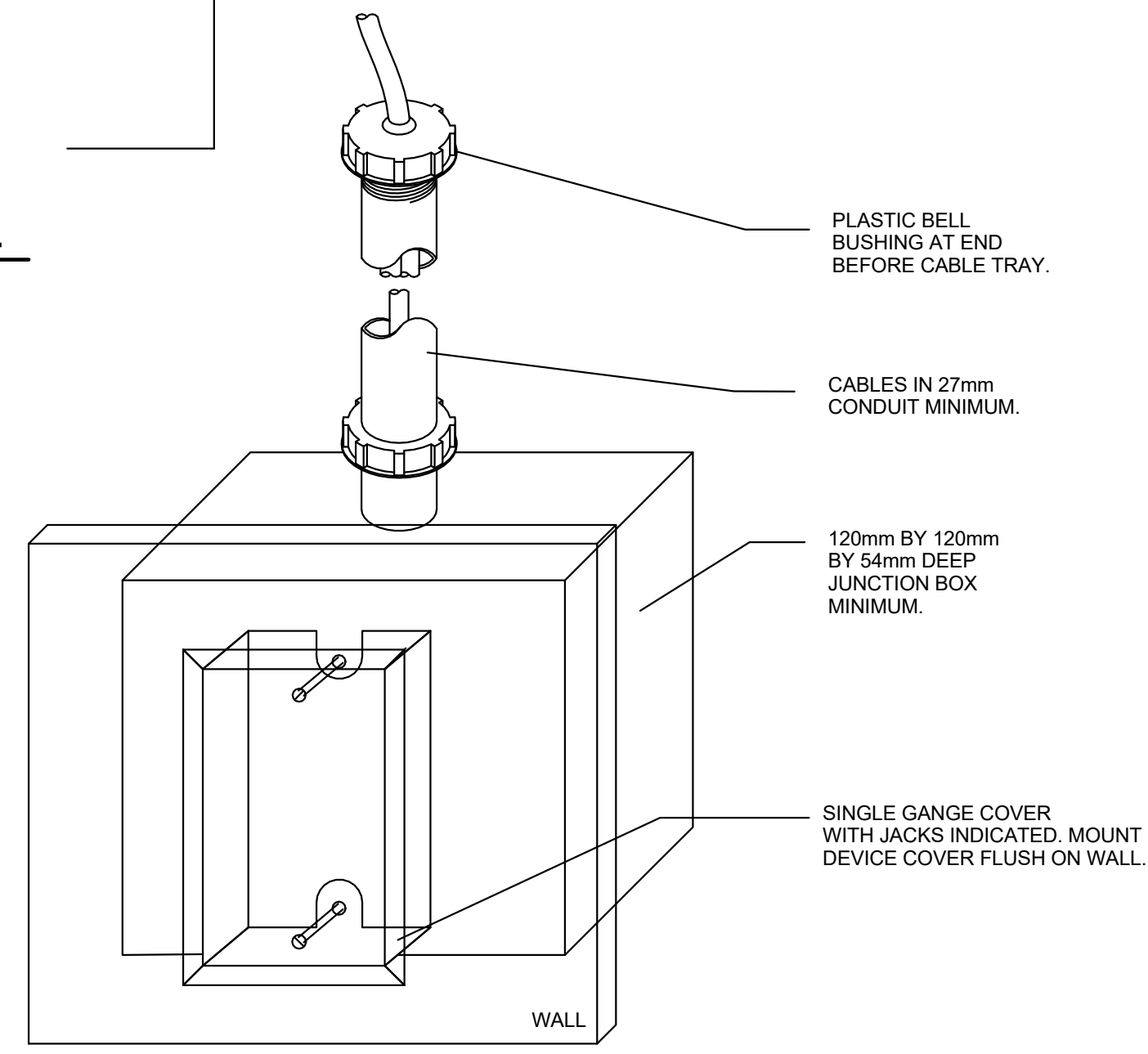
THE TELECOMMUNICATIONS SYSTEM LABELING MUST BE DONE IAW THE FOLLOWING GUIDELINES. ALL OUTLETS AND PATCH PANEL POSITIONS MUST BE LABELED AS TO THEIR FUNCTION (I.E., VOICE, NIPRNET, OR COMMERCIAL) AND WITH A UNIQUE IDENTIFIER CODE.

(1) VOICE AND DATA PORT: ON THE USER END, THE DATA PORT WILL BE LABELED IDENTIFYING THE TELECOM ROOM THE DROP IS BEING FED FROM, FOLLOWED BY THE RACK IDENTIFICATION IN THAT TELECOM ROOM. THE CABLE BEING TERMINATED ON A PATCH PANEL WILL BE IDENTIFIED WITH A NUMERICAL SEQUENCE OF THE AMOUNT OF PATCH PANELS, FOLLOWED BY THE PORT NUMBER ON THAT PATCH PANEL.

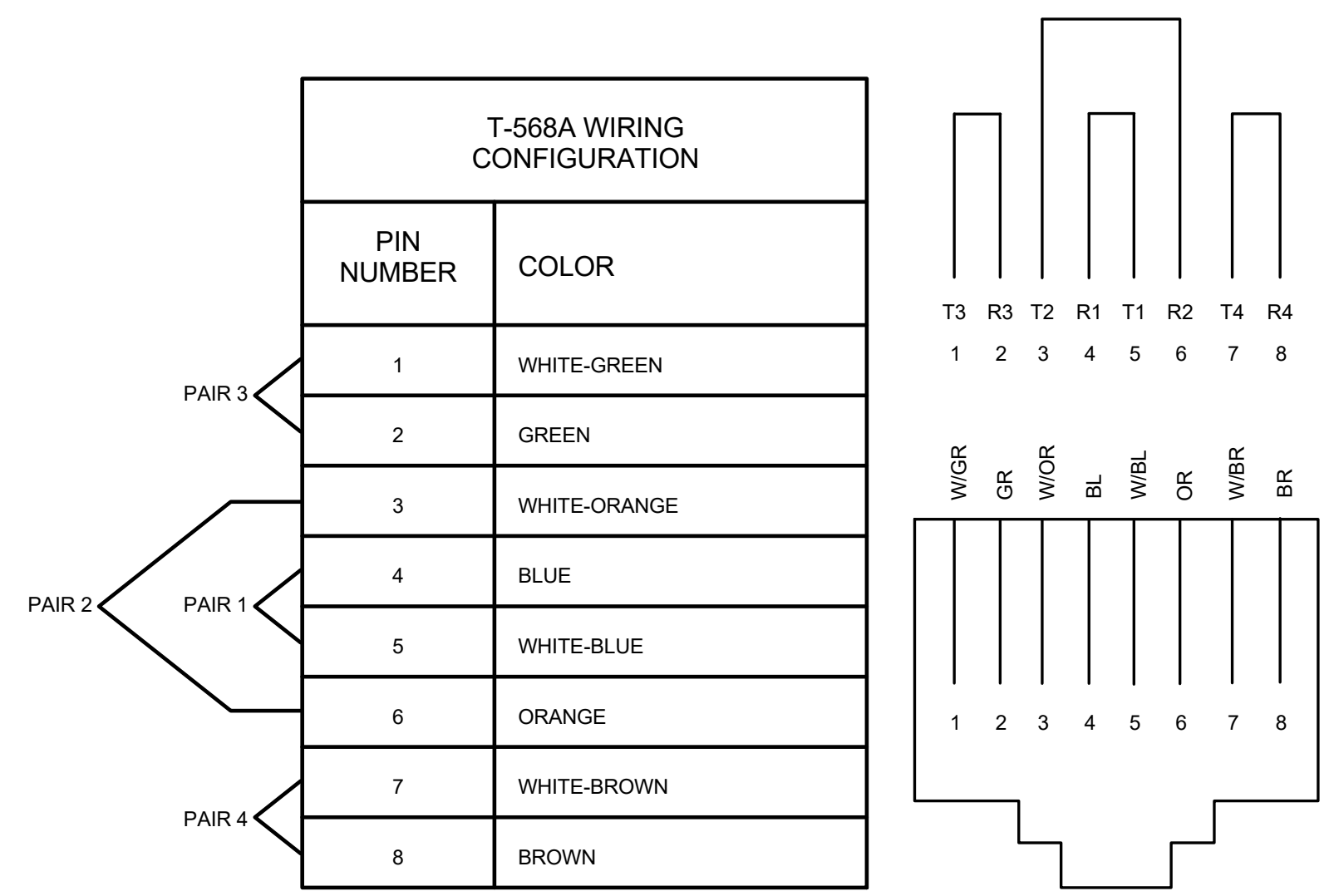
(2) EACH ROOM SHALL BE LABELED IN SEQUENCE BEGINNING WITH FIRST OUTLET FROM LEFT OF THE ROOM AND CLOCKWISE AROUND THE ROOM.

(3) PATCH PANELS SHALL BE IN ORDER OF ROOM NUMBER BEGINNING WITH LOWEST ROOM NUMBER.

THE REMOVAL OF THE DASHES BETWEEN THE FIRST THREE (3) DESIGNATORS ARE ALLOWED FOR MORE SPACE ON FACEPLATE AND PATCH PANEL "DESIGNATOR STRIPS". FOR EXAMPLE, "140A2-48" IN PLACE OF "140-A-2-48".



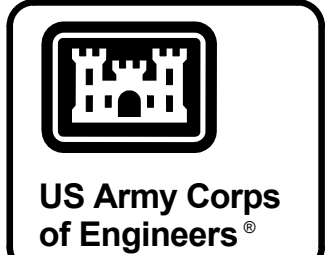
**5** OUTLET COLOR DESIGNATION SCHEDULE  
N.T.S.



**6** T-568A WIRING CONFIGURATION DETAIL  
N.T.S.

**7** OUTLET LABELING DETAIL  
N.T.S.

**9** TYPICAL OUTLET SURFACE MOUNTING DETAIL  
N.T.S.



MARK	DESCRIPTION	DATE

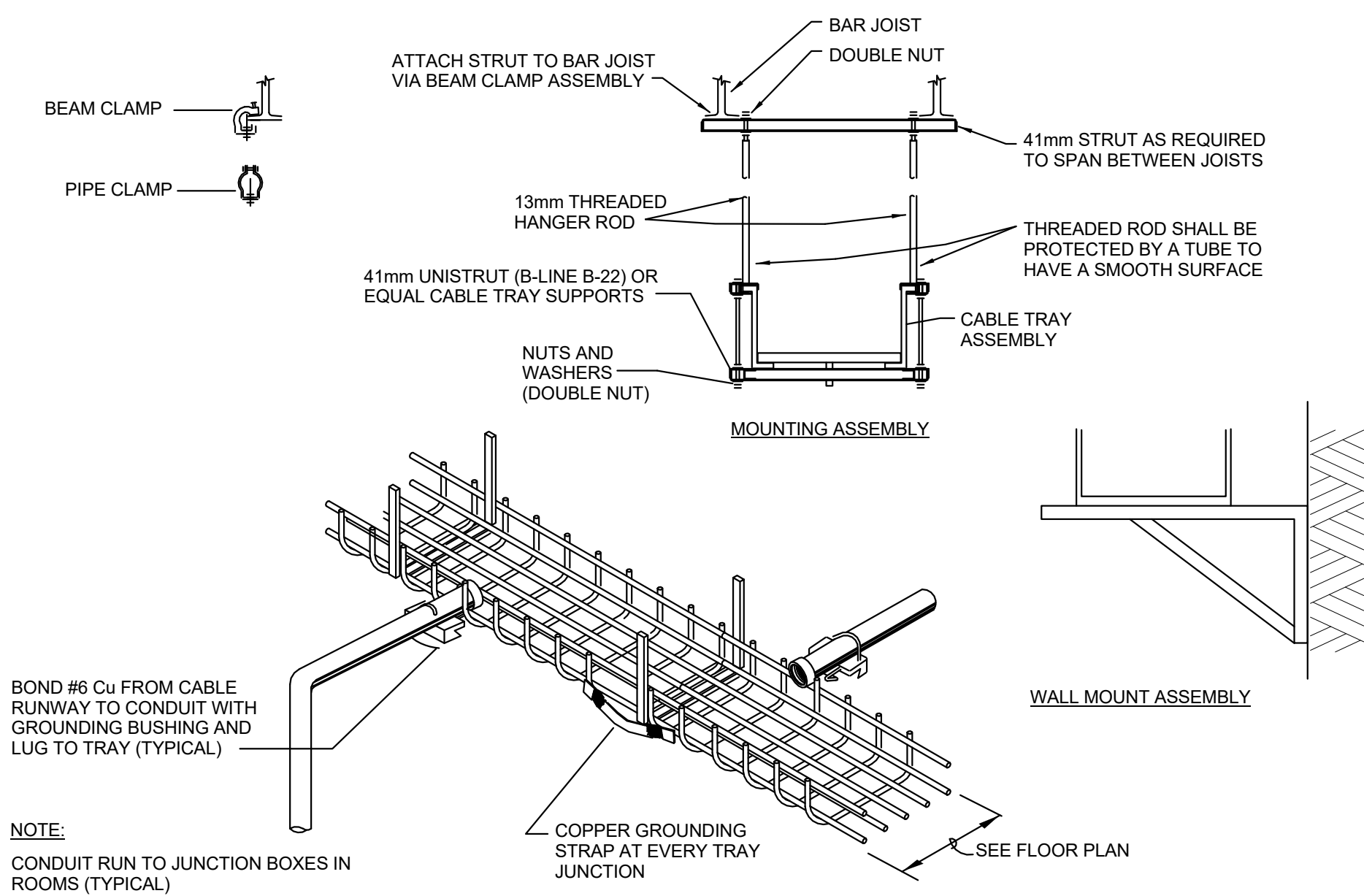
DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019	PROJECT NUMBER: M07ELJ44
ENGR BY: WJ17B1R028	SCALE: AS SHOWN	FILE NAME: M07ELJ44
CHECKED BY: D.D.COLLIER	CONTRACT NO.:	
SUBMITTED BY: W.J.KNAPP		
SIZE:		

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
TELECOMMUNICATION SYSTEMS DETAILS



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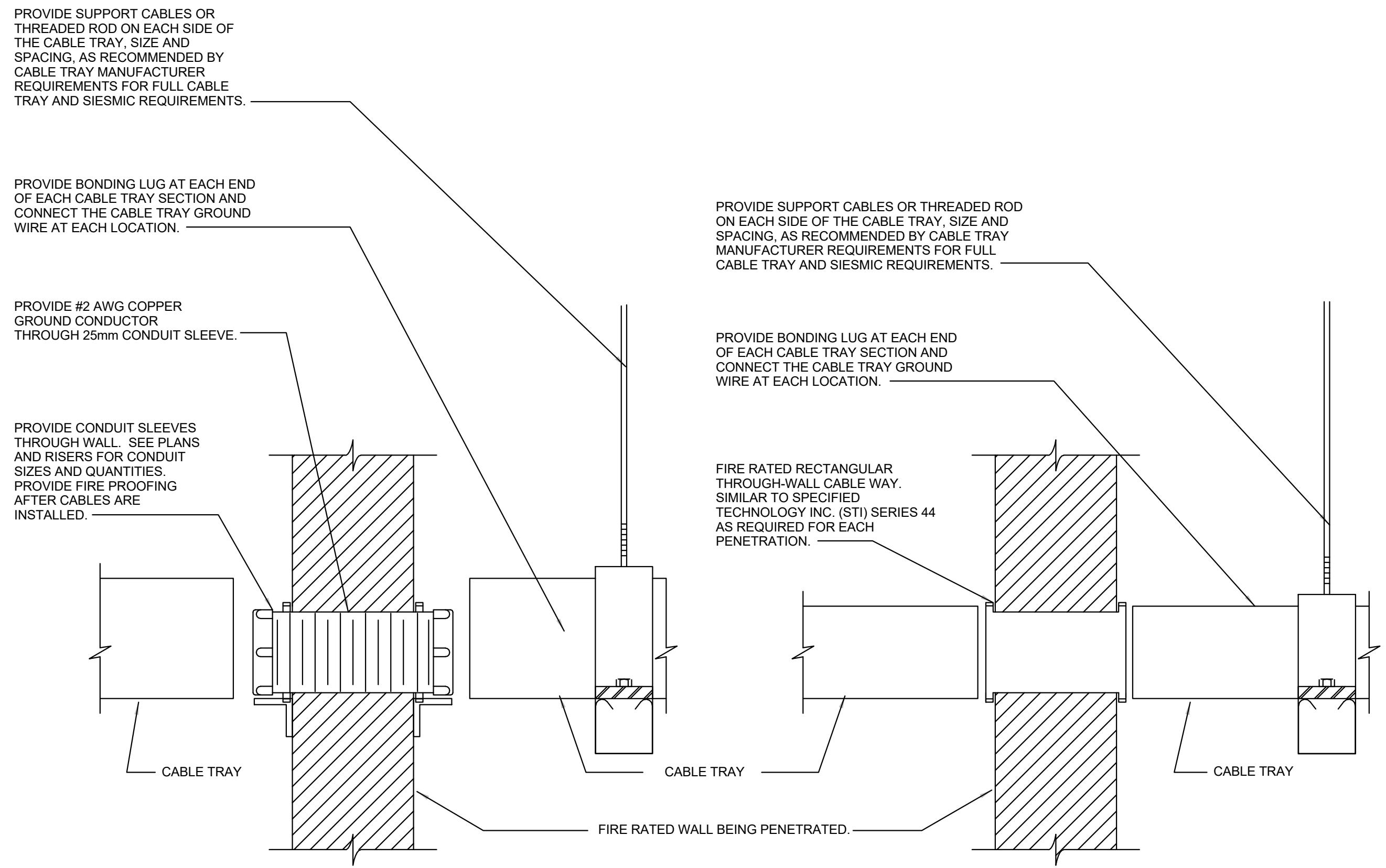


NOTE:  
CONDUIT RUN TO JUNCTION BOXES IN ROOMS (TYPICAL)

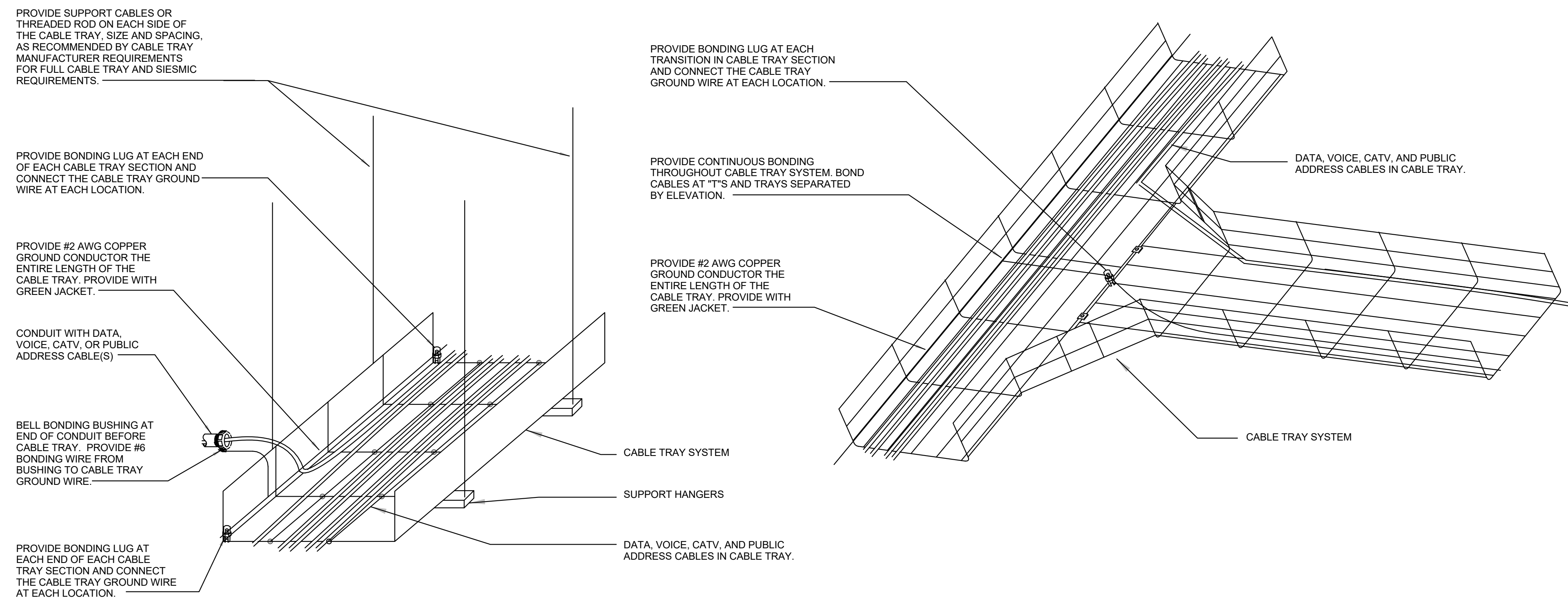
**CABLE TRAY NOTES:**

- CABLE RUNWAY SHALL BE SUPPORTED PER THE REQUIREMENTS OF NEMA VE-1, CONTRACT DOCUMENTS AND THE MANUFACTURER REQUIREMENTS. ALL NUTS, BOLTS, WASHERS, ETC. NECESSARY TO ASSEMBLE AND INSTALL THE RUNWAY ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- RUNWAY SHALL BE GROUNDED AT EACH DATA CLOSET TO NEAREST GROUND BAR. IF A GIVEN RUNWAY IS NOT RATED PER THE NEC TO BE AN EQUIPMENT GROUNDING CONDUCTOR, THEN A 4 AWG BARE GROUND CONDUCTOR SHALL BE RUN IN THE RUNWAY AND BE BONDED TO EACH SECTION. IF THE RUNWAY IS RATED PER THE NFPA70 TO BE AN EQUIPMENT GROUNDING CONDUCTOR, BUT CONTINUITY IS LOST AT A SECTION CONNECTION, THEN PROVIDE FLEXIBLE GROUND STRAPS ACROSS SECTION JOINT.
- AT SUPPORT POINTS, THREADED ROD MUST BE HUNG FROM CONCRETE INSERTS, CLAMPS OR DEVICES THAT ARE SECURELY FASTENED IN THE INTERMEDIATE GRID, WALL OR BEAM SUFFICIENTLY TO CARRY THE LOAD OF THE RUNWAY AND ITS CONTENTS WITH A SAFETY FACTOR OF 1.5. CONTRACTOR IS TO USE EXTRA HANGARS WHENEVER IN DOUBT OR FOR ANY UNUSUAL SITUATION WHEN HANGAR ROD IS MOUNTED AT OTHER THAN A SPLICE POINT ALONG A RUNWAY.
- INSTALL CABLES UNIFORMLY ACROSS THE BOTTOM OF THE RUNWAY.
- PROVIDE 305mm MINIMUM CLEARANCE FROM TOP OF CABLE TRAY TO STRUCTURE ABOVE AND 152mm MINIMUM CLEARANCE FROM TOP OF CABLE TRAY TO HVAC DUCTWORK.

**1** TYPICAL CABLE RUNWAY TO CONDUIT TRANSITION DETAIL  
N.T.S.



**3** TYPICAL CABLE TRAY WALL PENETRATION DETAIL  
N.T.S.



**2** TYPICAL CABLE TRAY MOUNTING AND BONDING DETAIL  
N.T.S.

**US Army Corps of Engineers**

ISSUE DATE:	FEBRUARY 2019
DESIGNED BY:	J.M.FORTNER
CHECKED BY:	D.D.COLLIER
SUBMITTED BY:	W.J.KNAPP
SIZE:	ANSI D
CONTRACT NO.:	W017818R0208
PROJECT NUMBER:	M017EL04
FILE NAME:	M017EL04

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

TELECOMMUNICATION SYSTEMS DETAILS

SHEET ID  
**ET503**

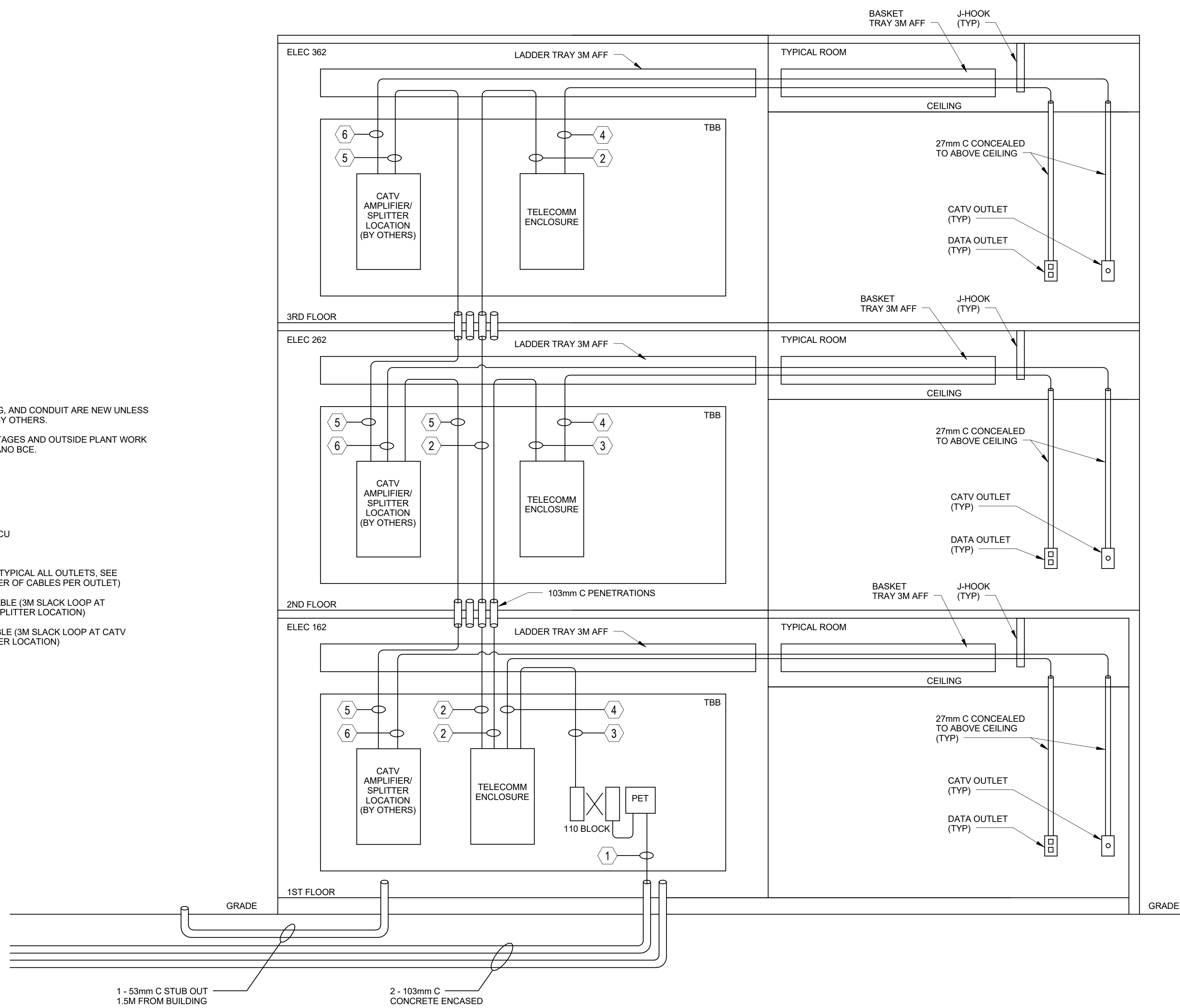


**NOTES:**

1. ALL DEVICES, CABLING, AND CONDUIT ARE NEW UNLESS LABELED EXISTING OR BY OTHERS.
2. COORDINATE ALL OUTAGES AND OUTSIDE PLANT WORK WITH COR AND SOTO CANO BCE.

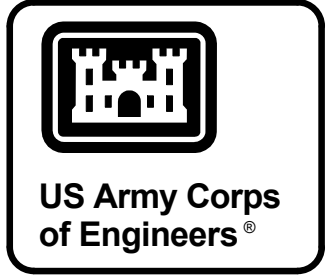
**CABLE SCHEDULE:**

- 1 25 PR OSP CU
- 2 50 PR BACKBONE CU
- 3 25 PR CU
- 4 CAT6 TO OUTLET (TYPICAL ALL OUTLETS, SEE PLANS FOR NUMBER OF CABLES PER OUTLET)
- 5 RG-11 COAXIAL CABLE (3M SLACK LOOP AT CATV AMPLIFIER/SPLITTER LOCATION)
- 6 RG-6 COAXIAL CABLE (3M SLACK LOOP AT CATV AMPLIFIER/SPLITTER LOCATION)



SEE ES102 AND ES601 FOR CONTINUATION

**1 TELECOMMUNICATION SYSTEMS RISER DIAGRAM**  
N.T.S.



MARK	DESCRIPTION	DATE

DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2016
ENGINER BY: S.M.FORTNER	SCALE: AS SHOWN
CHECKED BY: D.D.COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J.KNAPP	PROJECT NUMBER: M07ELJ44
SIZE: ANSI D	FILE NAME: M07ELJ44

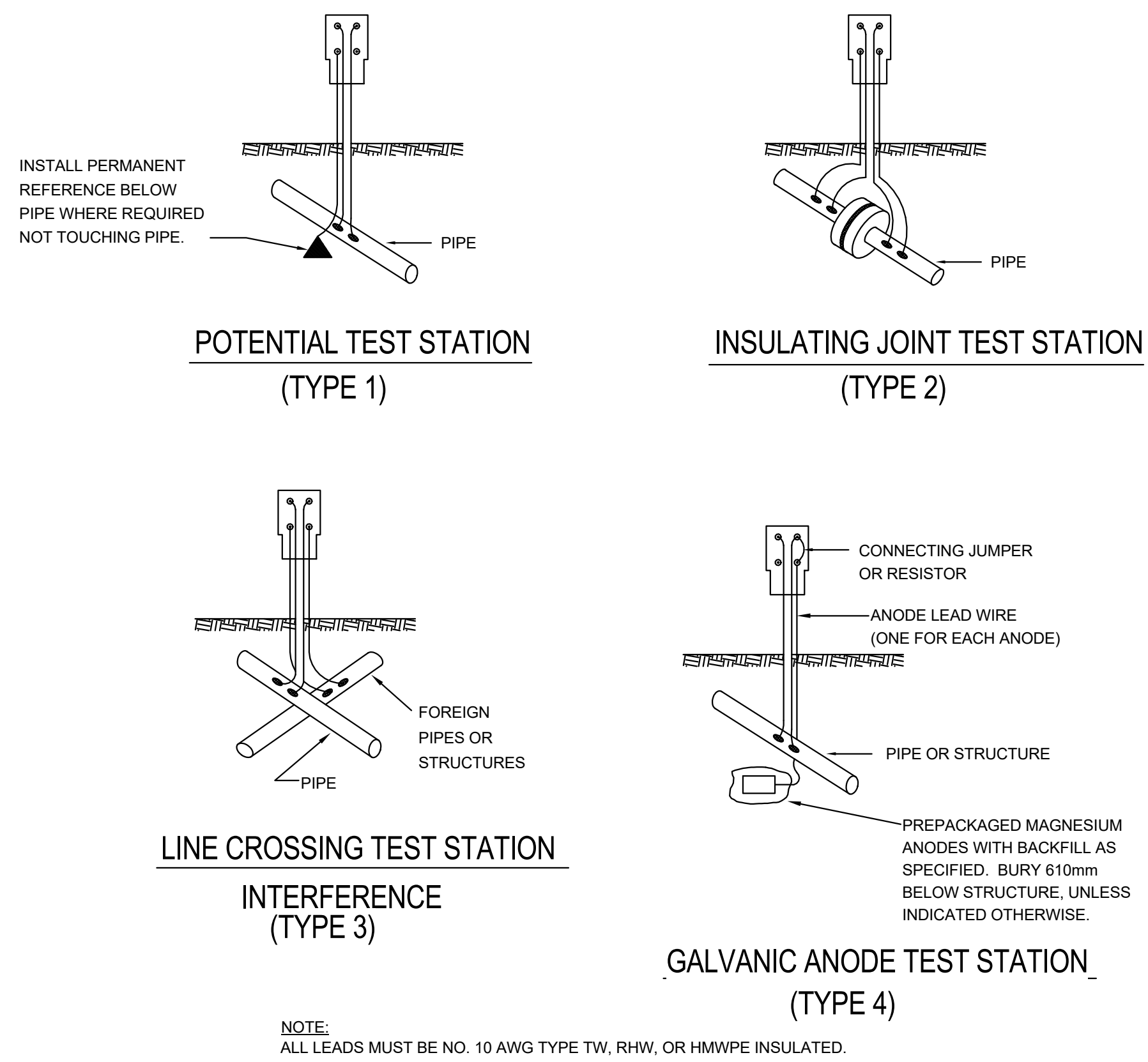
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

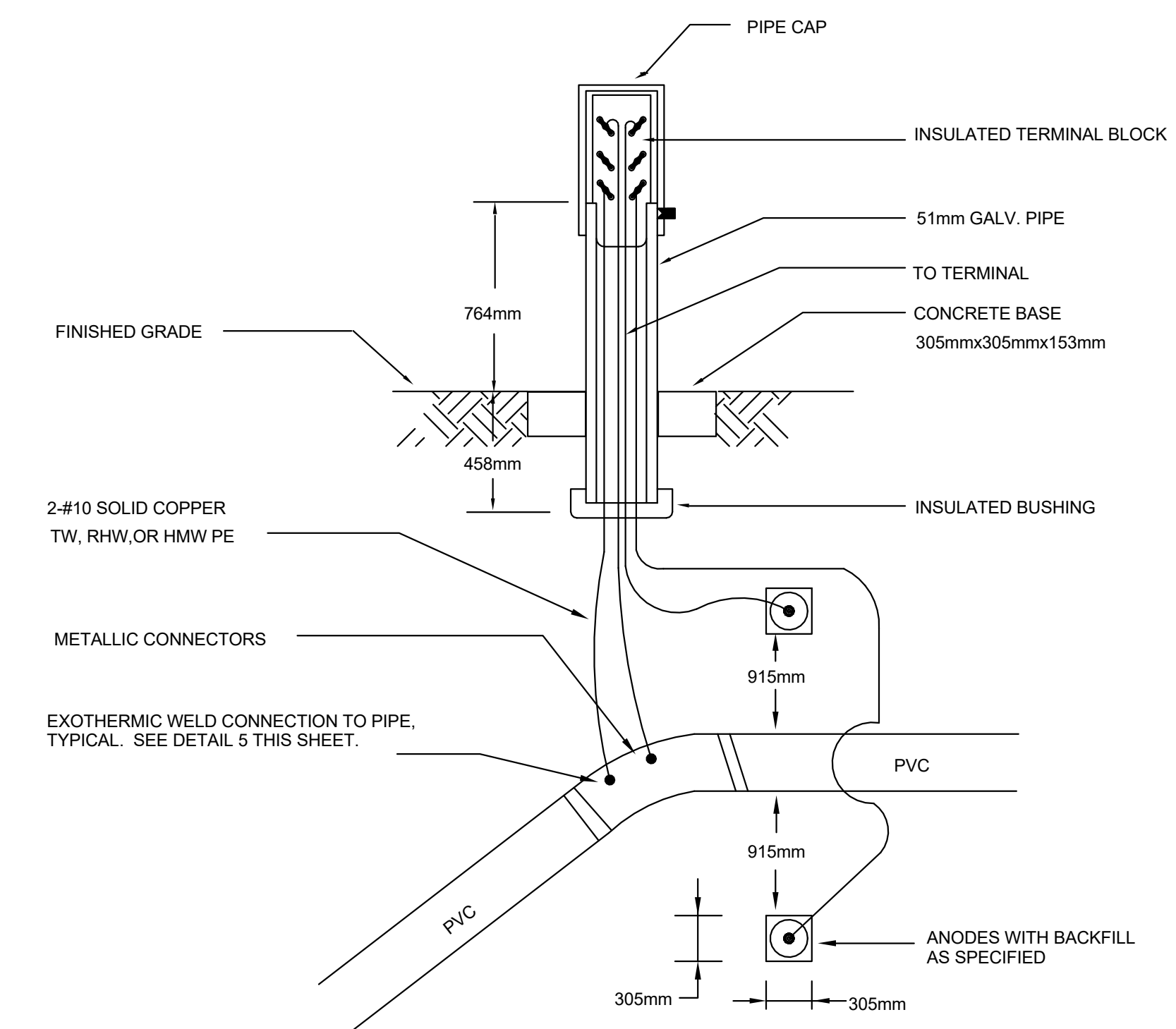
TELECOMMUNICATION SYSTEMS RISER DIAGRAM

SHEET ID  
**ET601**

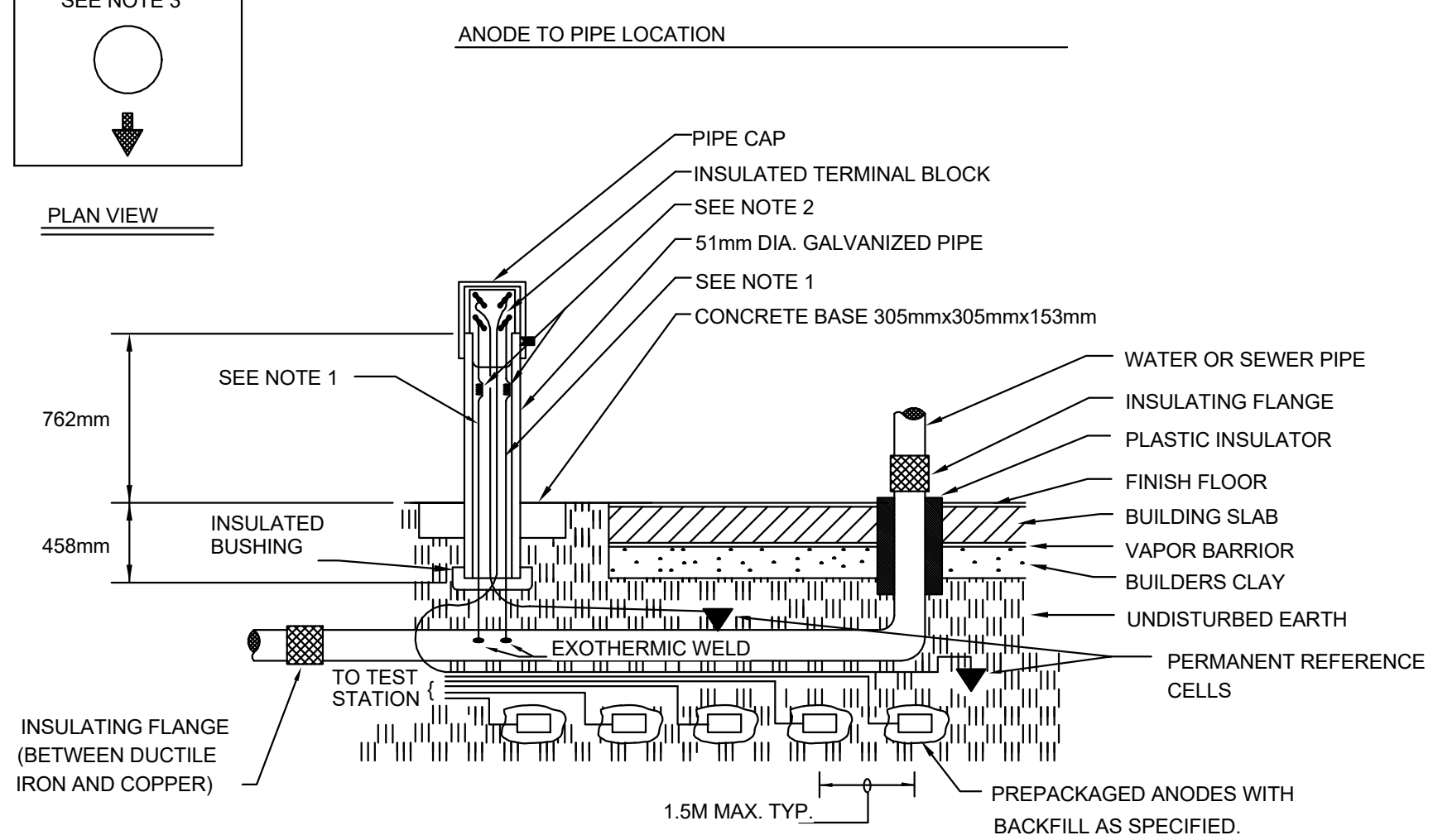
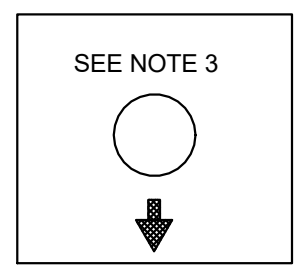
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**1 TEST STATION DETAILS**  
N.T.S.

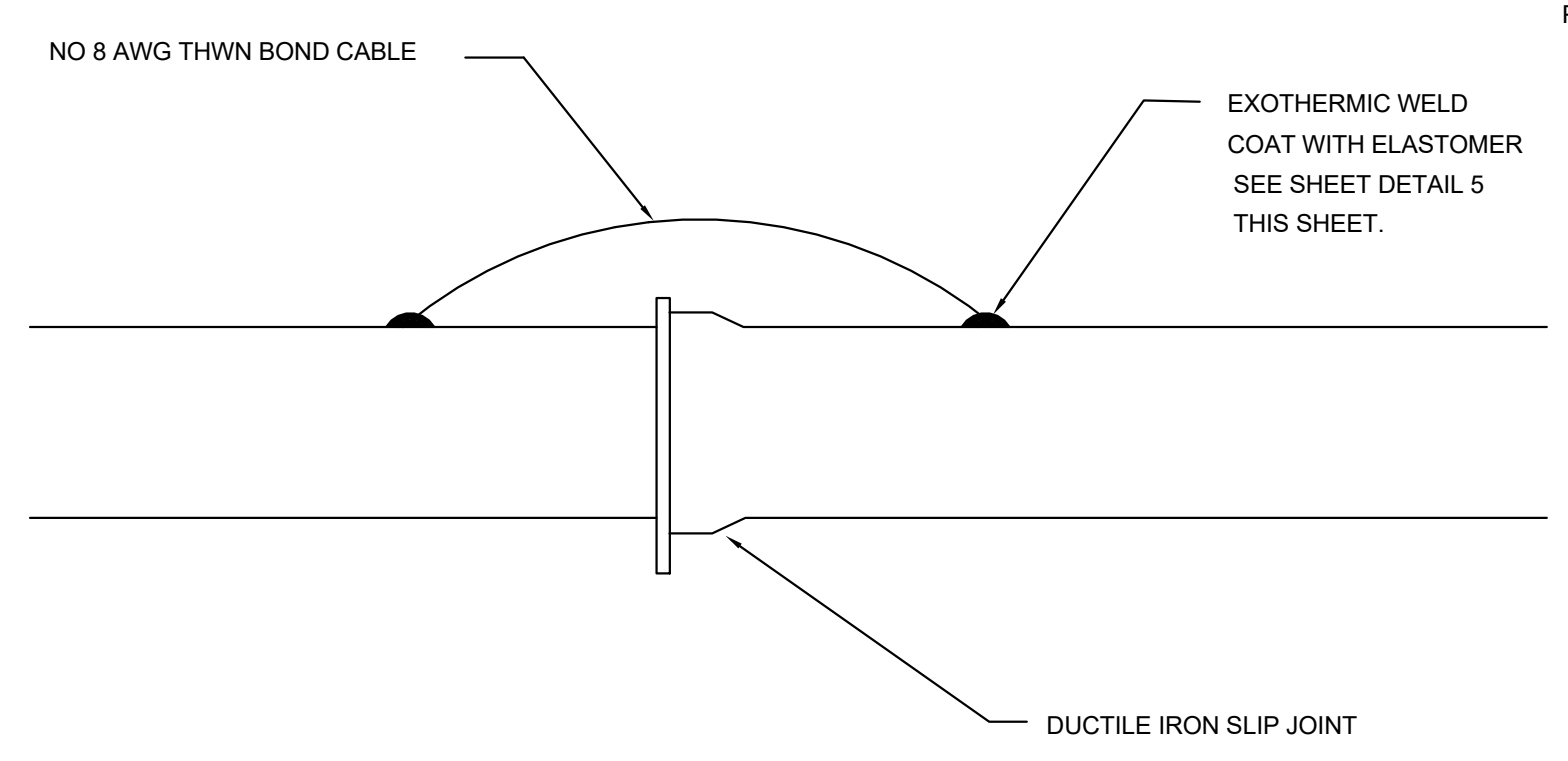


**3 CATHODIC PROTECTION FOR PVC PIPE WITH METALLIC CONNECTORS AND FITTINGS**  
N.T.S.



- NOTES:**
- PROVIDE TWO POTENTIAL TEST LEADS UNLESS OTHERWISE INDICATED ON THE CONTRACT DRAWINGS OR IN THE SPECIFICATIONS. THE POTENTIAL TEST LEADS SHALL BE COLOR CODED IN ACCORDANCE WITH COLOR CODE SCHEDULE. ANODE LEADS SHALL BE COLOR CODED BLACK AND SHALL BE STRAPPED TO PIPE AT TEST STATION TERMINAL BLOCK. REFERENCE CELL SHALL BE COLOR CODED RED.
  - LEAVE SUFFICIENT SLACK IN LEADS TO ALLOW REMOVAL OF THE TERMINAL BLOCK. REFER TO NOTE 3, DETAIL 3, SH. REF. EC802.
  - INSCRIBE AN ARROW IN CONCRETE BASE POINTING IN THE DIRECTION OF BURIED STRUCTURE.
  - OTHER COMMERCIALY AVAILABLE TEST STATIONS WILL BE ACCEPTABLE IF APPROVED BY THE CONTRACTING OFFICER. IN EACH TEST STATION, PROVIDE ONE TERMINAL FOR EACH ANODE LEAD CABLE, ONE TERMINAL FOR EACH REFERENCE CELL, AND ONE TERMINAL FOR EACH POTENTIAL TEST LEAD. BONDING STRAPS SHALL BE PROVIDED TO BOND ALL ANODES TO PIPE.

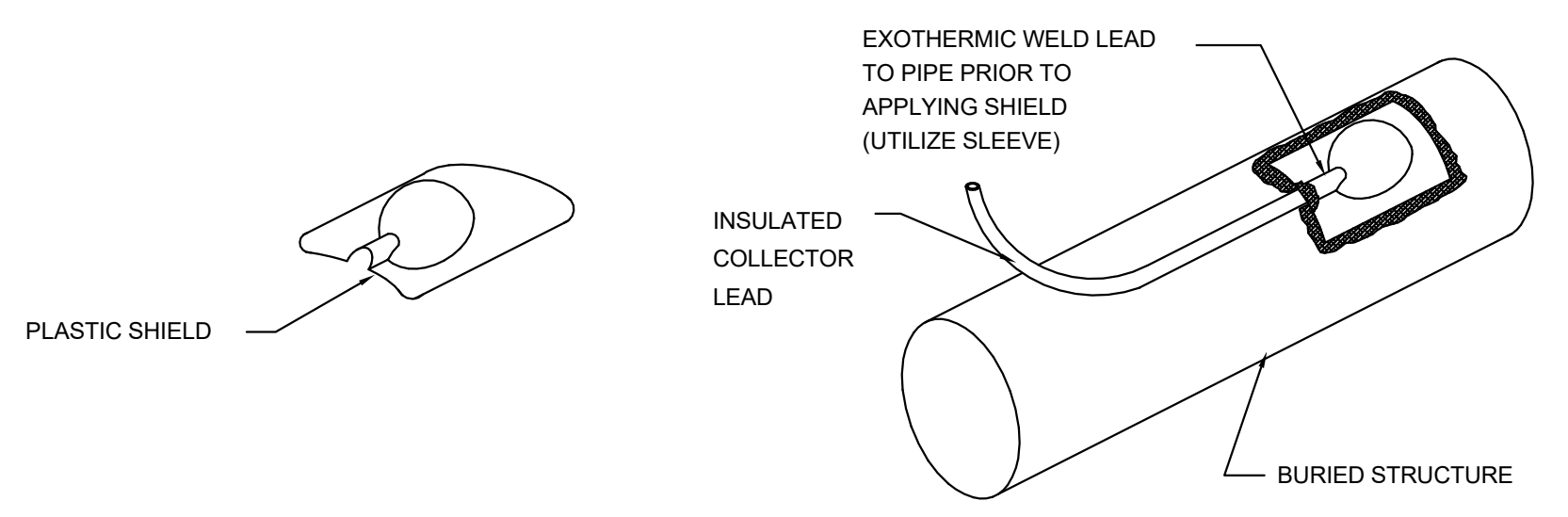
**2 METAL PIPE CATHODIC PROTECTION UNDER CONCRETE SLAB**  
N.T.S.



**4 PIPE BONDING DETAIL**  
N.T.S.

**CATHODIC PROTECTION NOTES :**

- FOR DETAILS ON THE INSTALLATION, ROUTING, AND EXTENT OF ALL NEW BURIED METALLIC WATER AND FIRE PROTECTION LINES THAT ARE REQUIRED TO BE PROTECTED IN ACCORDANCE WITH THE "EC800" SERIES DRAWINGS AND THE CATHODIC PROTECTION SPECIFICATIONS, SEE THE UTILITY (CU SERIES DRAWINGS), MECHANICAL DRAWINGS, AND THE APPLICABLE SPECIFICATION SECTIONS. IN THIS PROJECT, ALL NEW BURIED METALLIC WATER, GAS, AND FIRE PROTECTION LINES, AND METALLIC COMPONENTS OF THESE LINES, INCLUDING FIRE HYDRANTS, POST INDICATOR VALVES, POINTS OF CONNECTIONS, ETC., WHERE PLASTIC OR OTHER NON-METALLIC PIPING IS UTILIZED SHALL BE CATHODICALLY PROTECTED IN ACCORDANCE WITH THE APPLICABLE DETAILS SHOWN ON THESE SERIES DRAWINGS AND AS REQUIRED IN THE SPECIFICATIONS.
- THE CATHODIC PROTECTION SPECIFICATIONS AND THE "EC800" SERIES DRAWINGS INDICATE THE MINIMUM NUMBER OF MAGNESIUM ANODES AND TEST STATIONS REQUIRED FOR THE METALLIC PIPING AND FOR EACH METALLIC FITTING, VALVE, PIPE SECTION, ETC. INSTALLED IN A NON-METALLIC PIPELINE. GALVANIC ANODE TEST STATIONS SHALL BE CONNECTED AS SHOWN IN DETAIL 1, TYPE 4, THIS SHEET (TYPICAL).
- ALL BURIED METALLIC PIPING AND COMPONENTS OF THE FACILITIES LISTED IN NOTE 1 ABOVE AND IN THE CATHODIC PROTECTION SPECIFICATIONS SHALL BE CATHODICALLY PROTECTED. SEE THE UTILITY (CU SERIES DRAWINGS) AND MECHANICAL DRAWINGS FOR LOCATIONS AND DETAILS OF THESE FACILITIES.
- CONSTRUCT TEST STATIONS IN ACCORDANCE WITH DETAIL 3, SH. REF. EC802. MAKE LEAD CONNECTIONS IN ACCORDANCE WITH DETAIL 1, THIS SHEET. SEE DETAIL 3, THIS SHEET FOR ANODE CONNECTIONS TO METALLIC COMPONENTS OF NON-METALLIC PIPE LINES.
- BOND ALL MECHANICAL JOINTS IN ACCORDANCE WITH DETAIL 4, THIS SHEET, FOR METALLIC PIPING.
- POST INDICATOR VALVES (PIV'S), FIRE HYDRANTS, AND SIMILAR COMPONENTS SHALL BE CATHODICALLY PROTECTED IN ACCORDANCE WITH DETAIL 1, SH. REF. EC802.
- SEE DETAIL 2, SH. REF. EC802, FOR CATHODIC PROTECTION DETAIL PERTAINING TO CONNECTION OF NEW PIPE TO EXISTING PIPE. INSULATING TYPE VALVE SHALL BE PROVIDED (SEE INSULATING FLANGE DETAIL 3, SH. REF. EC803), WHEN NECESSARY, IN ORDER TO ISOLATE EXISTING NON-CATHODICALLY PROTECTED METALLIC PIPING FROM NEW CATHODICALLY PROTECTED METALLIC PIPING. ELECTRICAL ISOLATION OF NEW PIPE FROM THE EXISTING PIPE AT THE POINT OF CONNECTION IS A MANDATORY REQUIREMENT OF THIS CONTRACT WHEREVER CATHODIC PROTECTION IS ALSO REQUIRED ON THE NEW PIPE.
- ALL ADJACENT PIPING SHALL BE BONDED IN ACCORDANCE WITH BONDING DETAIL 4, SH. REF. EC803.
- SEE SHEET REFERENCE EC803, DETAILS 1, 2, AND 3 FOR DETAILS OF INSULATING FLANGES AND UNIONS AND SURGE PROTECTION OF INSULATORS.
- PRESSURIZED METALLIC PIPING (INCLUDING DUCTILE IRON) UNDER FLOOR SLABS SHALL BE CATHODICALLY PROTECTED IN ACCORDANCE WITH DETAIL "2", THIS SHEET, AND IN ACCORDANCE WITH THE SPECIFICATIONS. FOR THIS PROJECT, THIS REQUIREMENT PERTAINS TO THE NEW FIRE RISER PIPING, AS WELL AS ANY OTHER PRESSURIZED METALLIC PIPING UNDER FLOOR SLAB INCLUDED IN THIS PROJECT (SUCH AS ALL BURIED PIPING EXTENDING TO AND FROM THE NEW FIRE PUMP AND ALL BURIED DOMESTIC WATER LINES). POLYETHYLENE ENCASUREMENT OR UNBONDED COATINGS SHALL NOT BE USED ON ANY PIPING REQUIRING CATHODIC PROTECTION BY THESE CONTRACT DOCUMENTS.



**NOTES:**

- SHIELD SHALL BE COMPLETELY FILLED WITH MASTIC SEALANT AND PRESSED IN CONTACT WITH THE PIPE OVER THE CONNECTION, UNTIL MASTIC IS SQUEEZED OUT AT EDGES OF THE SHIELD.
- THIS IS AN EXOTHERMIC CONNECTION TO PIPE COVERED WITH PLASTIC SHIELD FILLED WITH ELASTOMER.
- ALL METALLIC AREA (EX. COPPER OR DUCTAL IRON) MUST BE COMPLETELY SEALED FROM SOIL OR WATER.
- FOR NO. 8 AND SMALLER CONDUCTOR, EXOTHERMIC WELD MUST BE ACCOMPLISHED USING AN APPROPRIATELY SIZED SLEEVE.

**5 EXOTHERMIC CONNECTION**  
N.T.S.

**US Army Corps of Engineers**

ISSUE DATE: FEBRUARY 2010  
DESIGNED BY: S.M.FORNIER  
CHECKED BY: D.D.COLLIER  
SUBMITTED BY: W.J.KNAPP  
SIZE: ANS/D

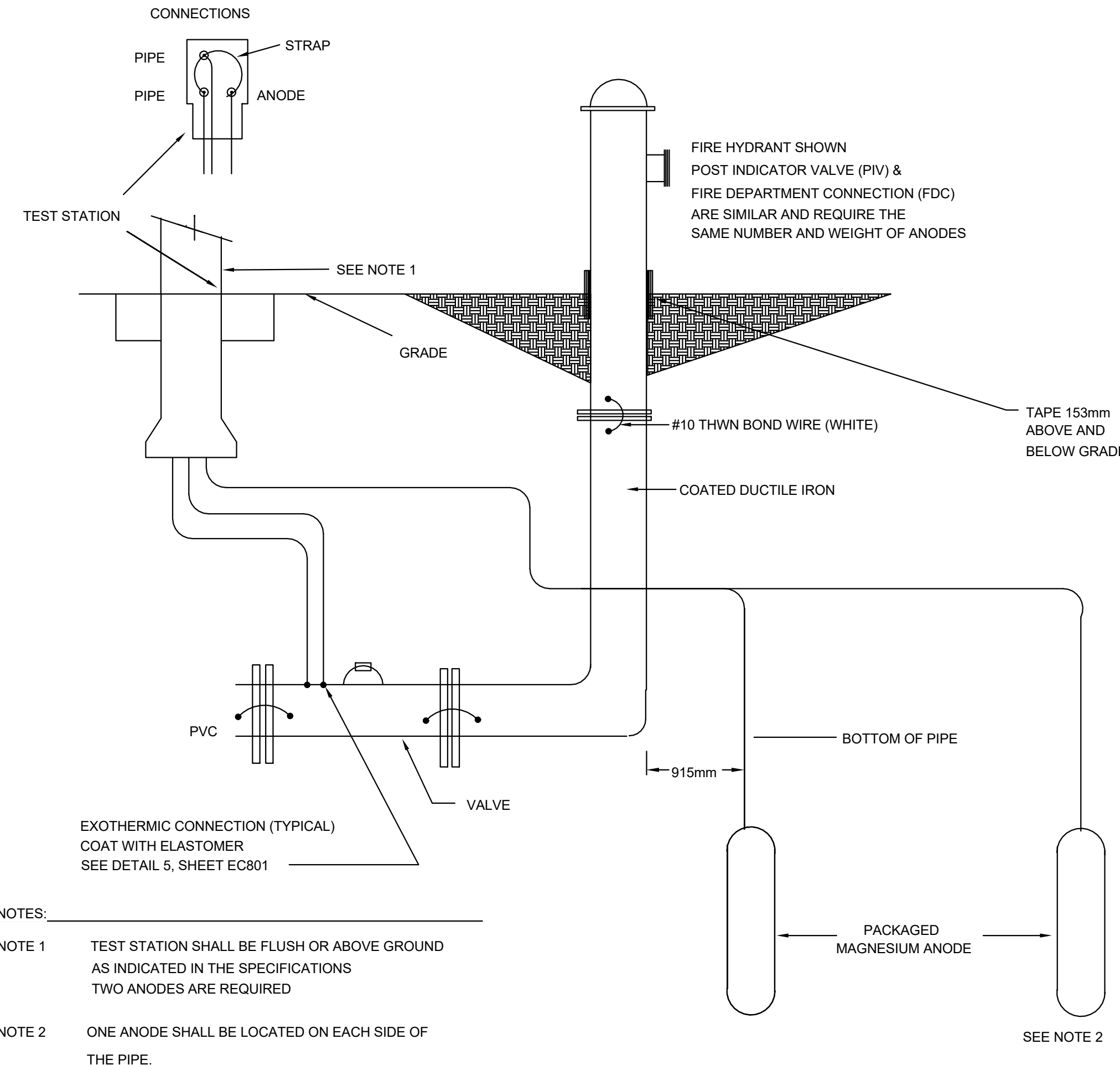
U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING

CATHODIC PROTECTION DETAILS

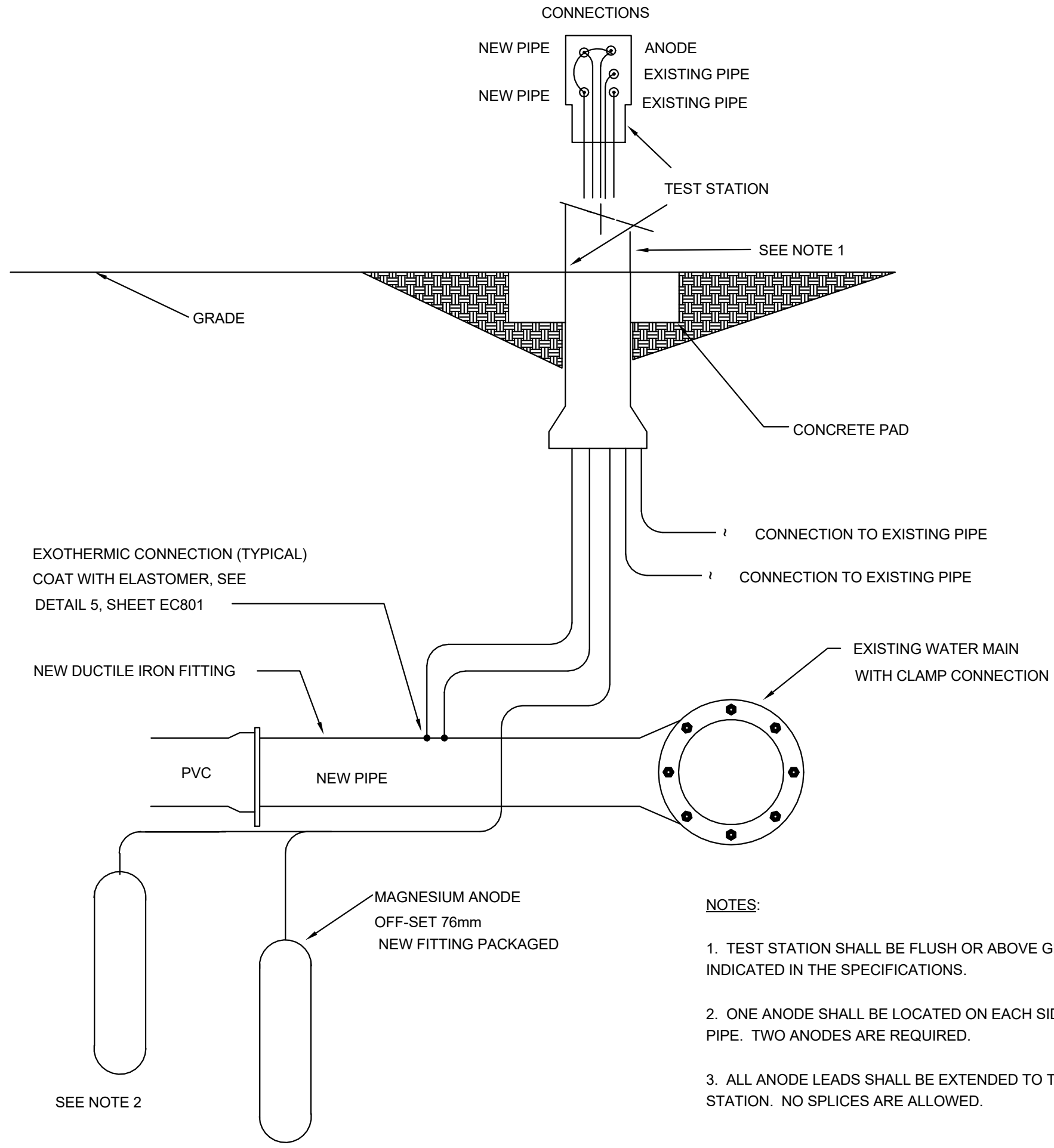
SHEET ID  
**EC501**

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DESCRIPTION  
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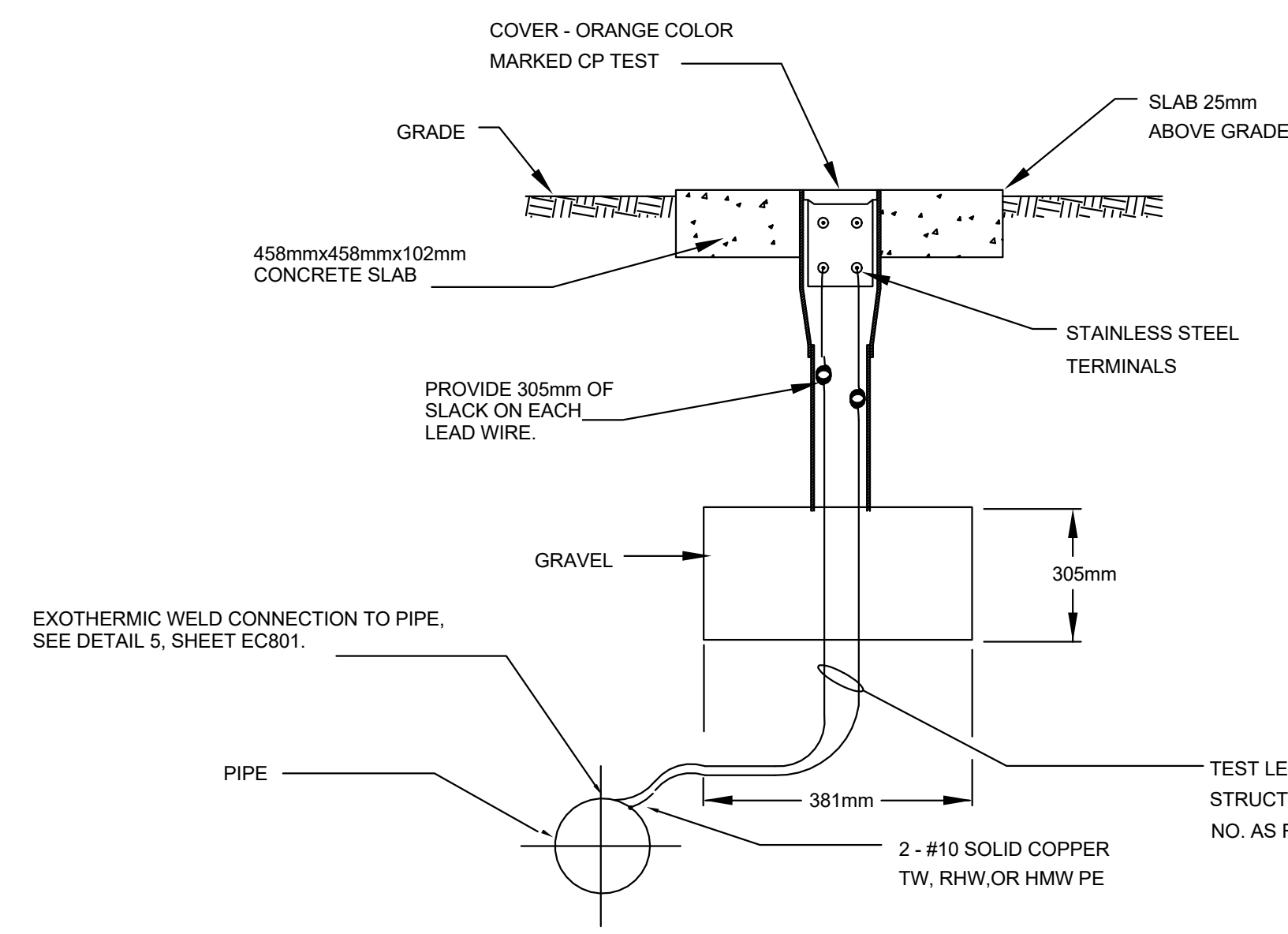
- NOTES:
- NOTE 1 TEST STATION SHALL BE FLUSH OR ABOVE GROUND AS INDICATED IN THE SPECIFICATIONS TWO ANODES ARE REQUIRED
- NOTE 2 ONE ANODE SHALL BE LOCATED ON EACH SIDE OF THE PIPE.

**1** FIRE SUPPRESSION FIRE HYDRANT, PIV, FDC  
N.T.S.



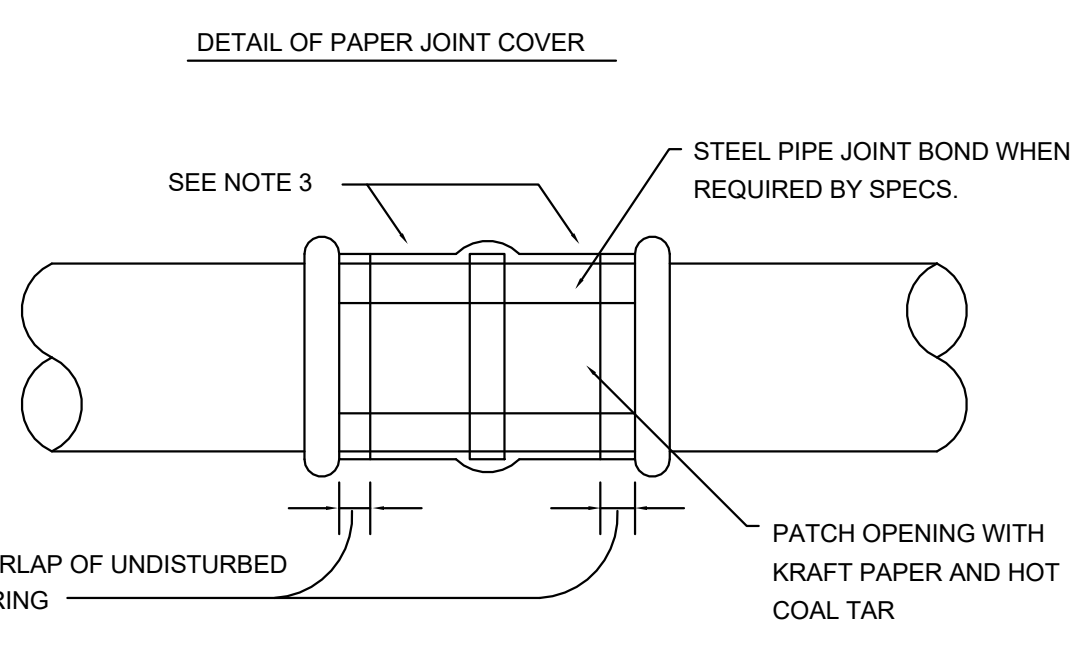
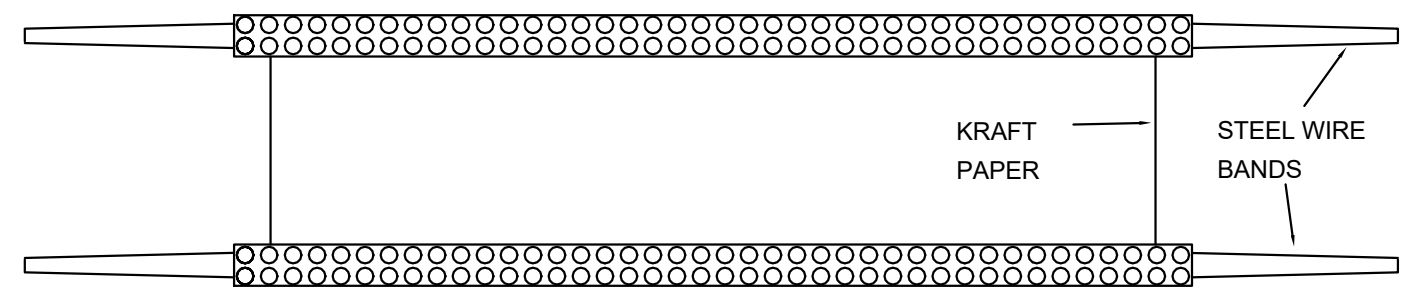
- NOTES:
1. TEST STATION SHALL BE FLUSH OR ABOVE GROUND AS INDICATED IN THE SPECIFICATIONS.
2. ONE ANODE SHALL BE LOCATED ON EACH SIDE OF THE PIPE. TWO ANODES ARE REQUIRED.
3. ALL ANODE LEADS SHALL BE EXTENDED TO THE TEST STATION. NO SPLICES ARE ALLOWED.

**2** BURIED CONNECTION TO EXISTING WATER MAIN  
N.T.S.



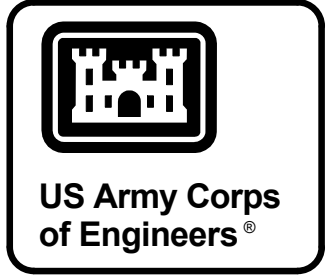
- NOTES:
- A FOUR TERMINAL POTENTIAL TEST STATION IS SHOWN. THE TYPE OF TEST STATION AND NUMBER OF TERMINALS REQUIRED WILL VARY DEPENDING ON THE TYPE AND NUMBER OF TESTING FUNCTIONS REQUIRED.
  - PROVIDE NUMBER LABEL SCHEME FOR EACH STATION (BRASS TAGS/PHENOLIC LABELS) FOR IDENTIFICATION IAW EGLIN STANDARDS.
  - LEAVE 305mm OF SLACK IN LEADS TO ALLOW REMOVAL OF THE TERMINAL BLOCK.
  - ALL LEADS MUST BE NO. 10 AWG TYPE TW, RHW, OR HMWPE INSULATED AND COLOR CODED AS INDICATED BELOW.  
ANODE ----- BLACK  
WATER OR GAS PIPE ----- BLUE  
REFERENCE CELL ----- RED  
INSULATOR (UNPROTECTED SIDE) ---- WHITE
  - SEE DETAIL 1, SHEET EC801 FOR TYPES OF TEST STATION CONNECTIONS.

**3** FLUSH MOUNTED TEST STATION  
N.T.S.



- NOTES:
- WIDTH AS REQUIRED TO PROVIDE OVERLAP OF 76mm EACH SIDE AS INDICATED.
  - FILL JOINT COVER WITH HOT COAL TAR ENAMEL FROM ONE SIDE ONLY UNTIL THE AIR IS EXHAUSTED AND COVER IS FILLED.
  - OUTER WRAP SHALL BE STRIPPED BACK SET LESS THAN 76mm EACH SIDE OF JOINT TO ALLOW MAXIMUM BOND OF THE NEW TAR TO EXISTING TAR COATING.

**4** PIPE COVER FOR BOND OR INSULATOR  
N.T.S.

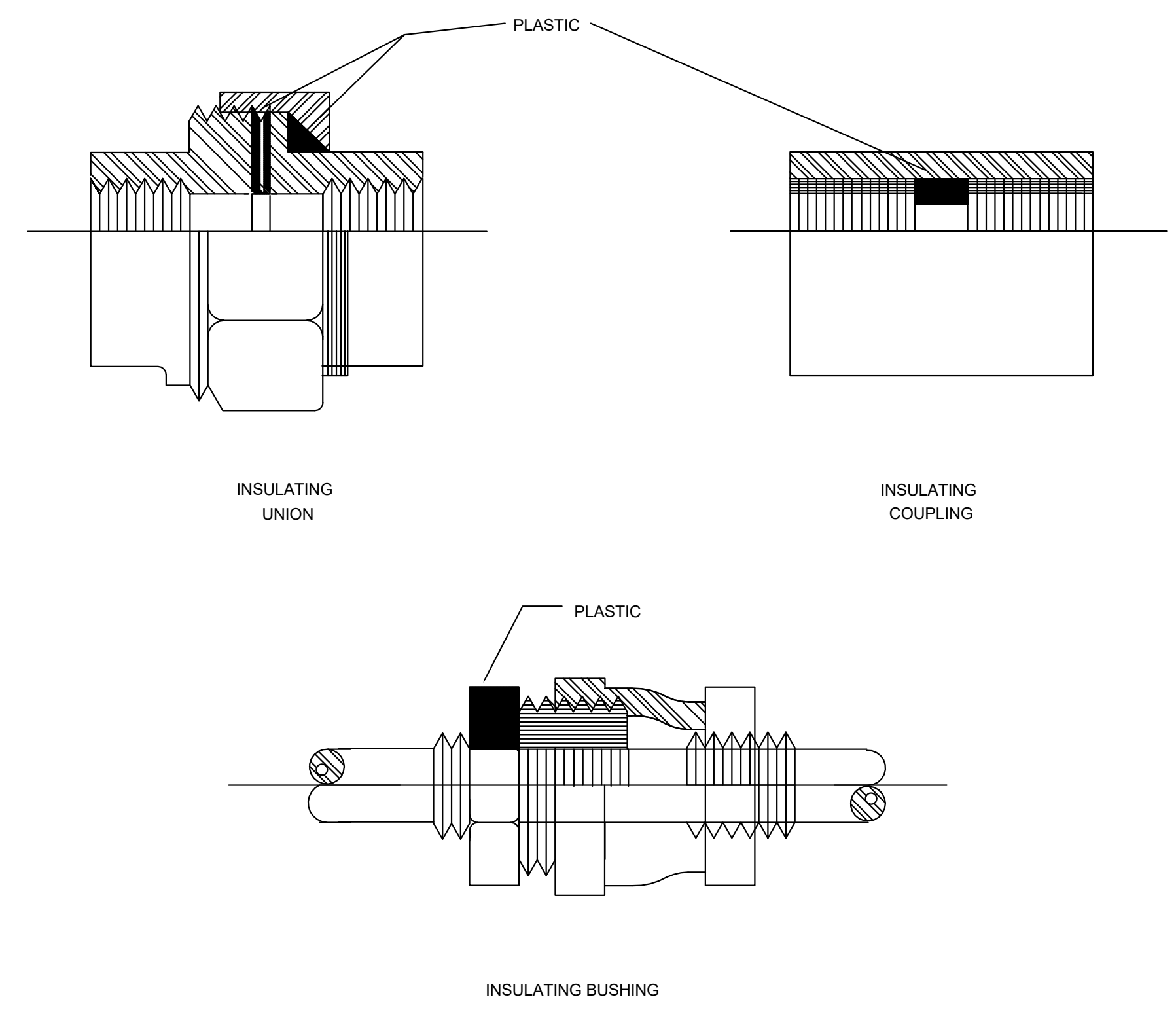


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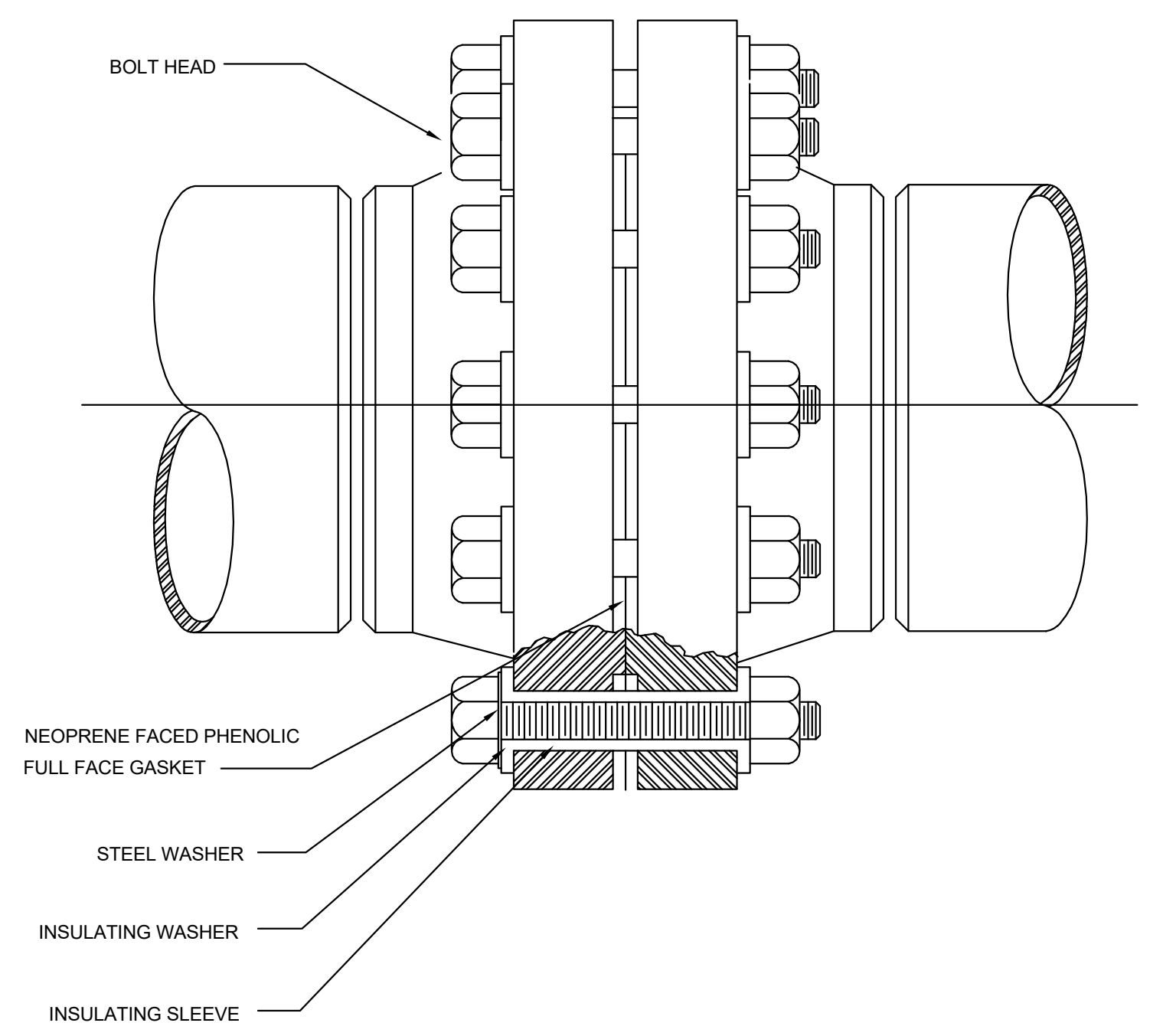
DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2019
CHECKED BY: ENJ	SCALE: AS SHOWN
SUBMITTED BY: D.D.COLLIER	CONTRACT NO.: W01Z7B1R0208
SIZE: W.J.KNAPP	PROJECT NUMBER: M07EL44
FILE NAME: M07EL44	ANSI D
U.S. ARMY CORPS OF ENGINEERS MOBILE DISTRICT MOBILE, ALABAMA	

SOTO CANO AIR BASE, HONDURAS  
UNACCOMPANIED ENLISTED PERSONNEL HOUSING  
CATHODIC PROTECTION DETAILS

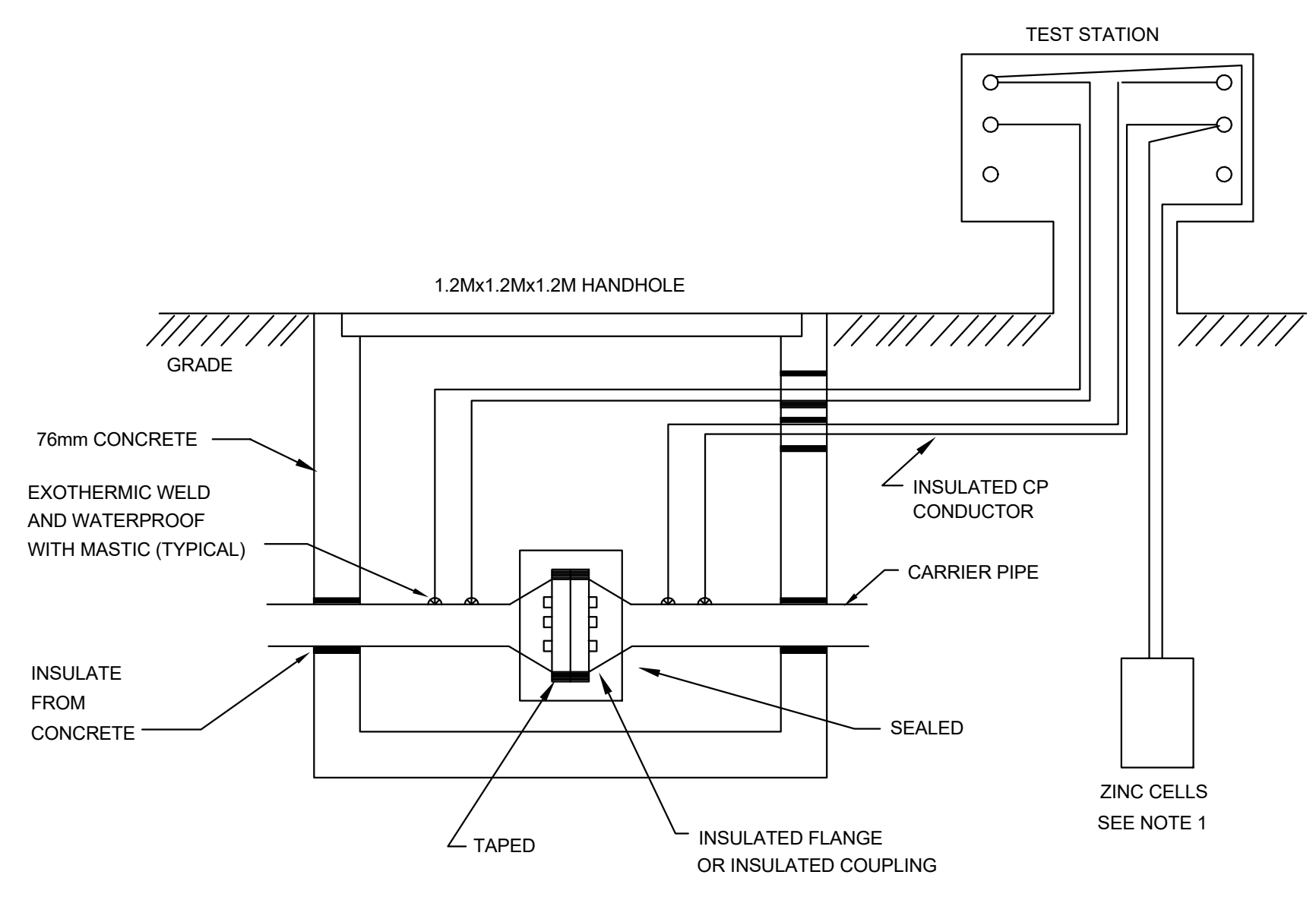
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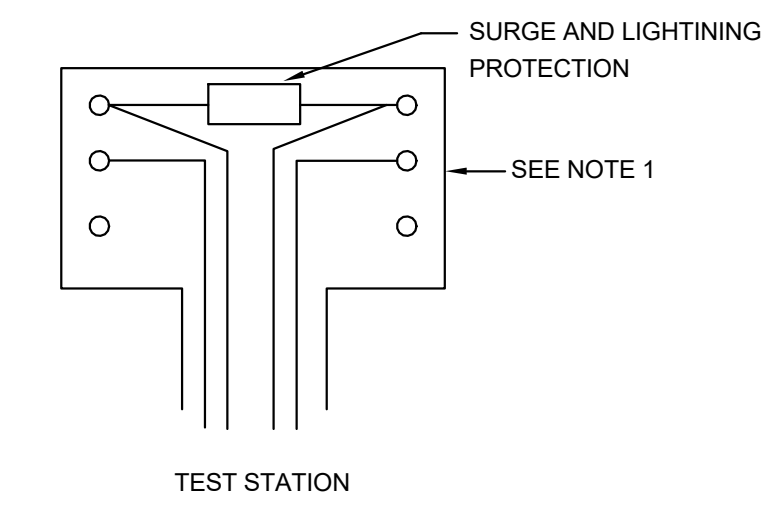
**1 INSULATED COUPLINGS**  
N.T.S.



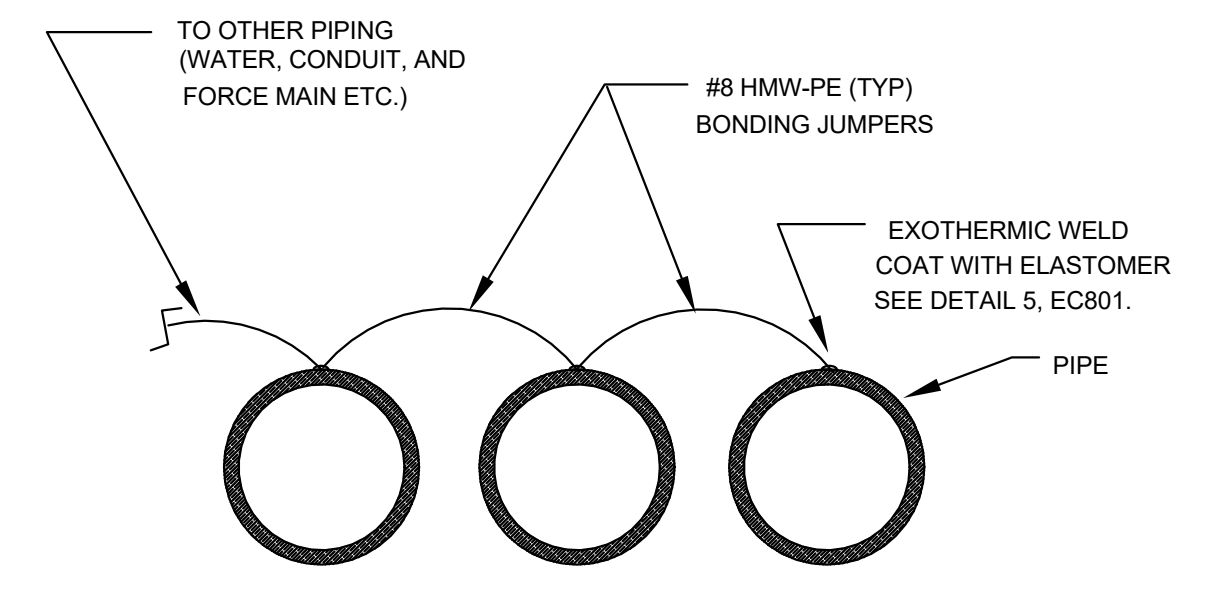
**3 INSULATING FLANGE ASSEMBLY**  
N.T.S.



NOTE 1  
SURGE AND LIGHTNING ARRESTOR MAY BE USED IN LIEU OF ZINC CELLS. REFER TO SPECIFICATIONS.

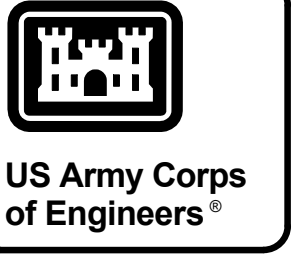


**2 SURGE PROTECTION UNDERGROUND INSULATOR IN HANDHOLE**  
N.T.S.



WHEN NECESSARY TO MITIGATE INTERFERENCE CURRENT, CATHODICALLY UNPROTECTED METALLIC PIPING SHALL BE BONDED TO CATHODICALLY PROTECTED PIPELINE THAT IT IS IN CLOSE PROXIMITY TO. WHEN NECESSARY AND APPROVED, OTHER INTERFERENCE MITIGATION METHODS, AS DESCRIBED IN THE SPECIFICATIONS, MAY BE UTILIZED.

**4 PIPE BONDING JUMPERS**  
N.T.S.



DATE	DESCRIPTION	MARK

DESIGNED BY: S.M.FORTNER	ISSUE DATE: FEBRUARY 2018
ENGIN BY: S.M.FORTNER	SCALE: AS SHOWN
CHECKED BY: D.D.COLLIER	CONTRACT NO.:
SUBMITTED BY: W.J.KNAPP	PROJECT NUMBER: M07EL44
SIZE: ANSI D	FILE NAME: M07EL44

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT  
MOBILE, ALABAMA

SOTO CANO AIR BASE, HONDURAS UNACCOMPANIED ENLISTED PERSONNEL HOUSING	CATHODIC PROTECTION DETAILS
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SHEET ID <b>EC503</b>
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