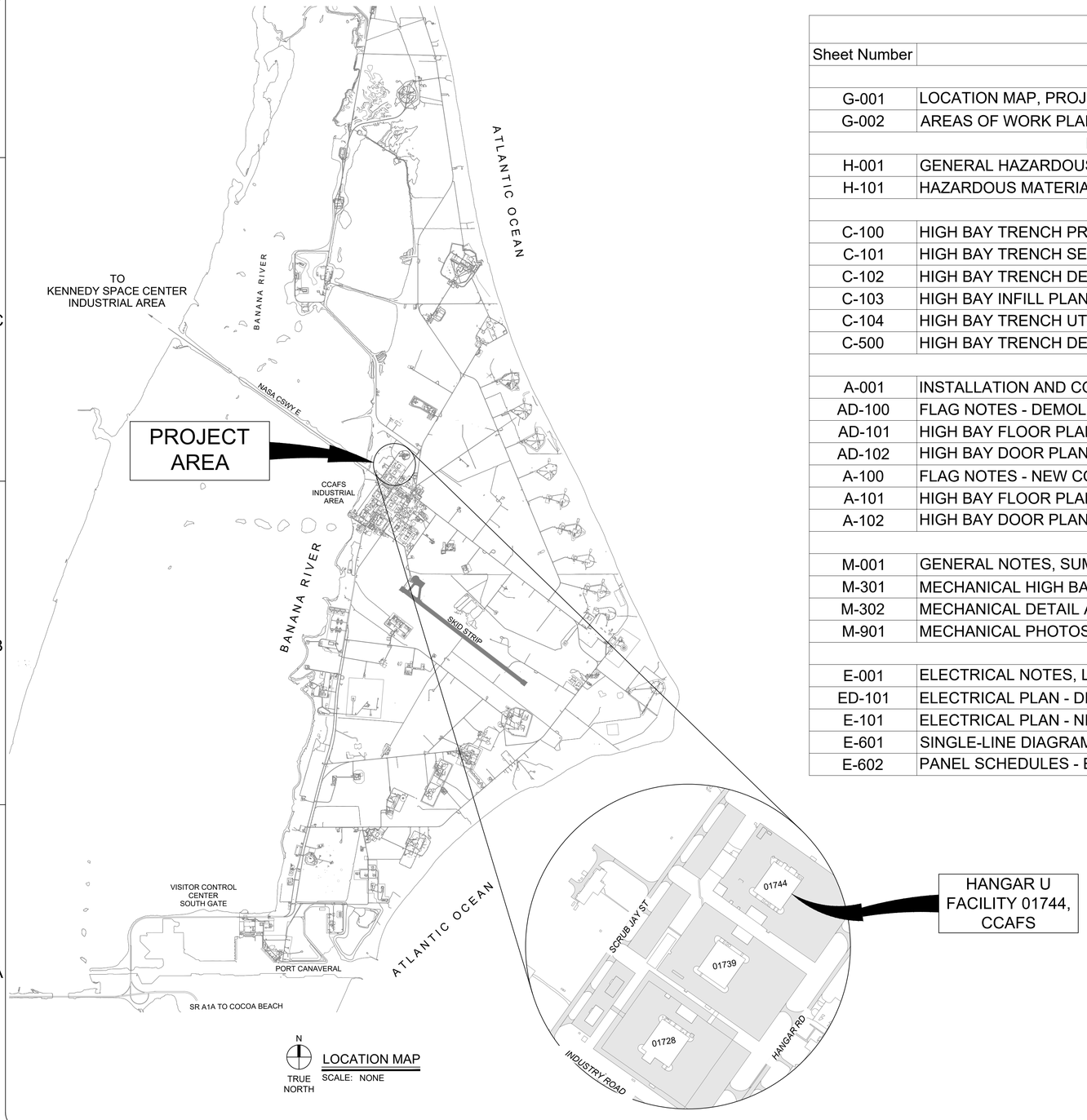
CAPE CANAVERAL AIR FORCE STATION
CAPE CANAVERAL, FLORIDA

DBEH 13-1523
REPAIR HANGAR U, FAC 1744



LOCATION MAP
SCALE: NONE

DRAWING INDEX

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	HAZARDOUS MATERIALS
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APPROVED

USER:
CHIEF, ENGINEERING FLIGHT:
PROJECT MANAGER:
ENVIRONMENTAL:
FIRE:
BASE OPERATIONS:
COMMUNICATIONS:
SAFETY:
SECURITY FORCES:
ATO:
OTHER:

PERMIT(S)/ENVIRONMENTAL ACTIONS
REQUIRED PRIOR TO CONSTRUCTION

ERP/STORMWATER		NOI/SWPPP	
ERP/WETLANDS/DREDGE & FILL		IRP	
FDEP/DRINKING WATER		SURVEY/WILDLIFE	
FDEP/DOM. WASTE WATER		ARCHEO./HISTORICAL	
FDEP/IND. WASTE WATER		OTHER	
FDEP/FUEL TANK		NONE	X

NOTE: IF IT IS SUSPECTED THAT ANY HAZARDOUS MATERIAL NOT IDENTIFIED ON THESE DRAWINGS IS REQUIRED TO BE DISTURBED IN ORDER TO PERFORM THE CONTRACT WORK, LEAVE MATERIAL UNDISTURBED AND IMMEDIATELY INFORM THE CONTRACTING OFFICER.

HAZARDOUS MATERIALS	YES	NO	NOT VERIFIED
ASBESTOS			X
HEAVY METALS	X		
LEAD	X		
PCB			X

DEPARTMENT OF THE AIR FORCE
UNITED STATES OF AMERICA
MCMXLVII

DESIGNED BY: R. CONSTANTINIDE
DATE: 5/3/2017
DRAWN BY: M. ALLEN
DBEH 13-1523
REVIEWED BY: C. HARTNETT
DELIVERY NO. FA2521-13-D-0005 0191
SUBMITTED BY: G. BEARD
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL
CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE
RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES
GP STRATEGIES
AMRC
ALLEN Engineering, Inc.

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
LOCATION MAP, PROJECT AREA AND DRAWING INDEX

SHEET IDENTIFICATION
G-001

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CLIN 1, 2, 3 AND 4 - AREAS OF WORK NOTES:

PROJECT DBEH 13-1523 'REPAIR HANGAR U, FAC 1744' CONSISTS OF 4 SEPARATE CLINS COMBINED INTO ONE DRAWING PACKAGE. THE PROJECTS' OVERALL SCOPE OF WORK PROVIDES THE MULTIDISCIPLINARY CONSTRUCTION DOCUMENTS AND COORDINATION BETWEEN IDENTIFIED ARCHITECTURAL, MECHANICAL, ELECTRICAL AND HAZARDOUS MATERIALS. EACH CLIN IS CLEARLY IDENTIFIED IN EACH RESPECTIVE DRAWING. THE INDICATED SCOPES ARE DESCRIBED INDIVIDUALLY AND IDENTIFIED IN DOCUMENT DRAWINGS, THE CONTRACTOR IS NOT LIMITED BY THE INDICATED DRAWINGS BUT IS REQUIRED TO VERIFY THE ENTIRE DOCUMENT PACKAGE IN ADDITION TO THOSE ITEMS STATED BELOW.

THE CONTRACTOR SHALL BID THE CONSTRUCTION WORK, INDICATED BY THE CURRENT DESIGN DOCUMENTS, INTO 4 SEPARATE COST ESTIMATES. THIS DRAWING DESCRIBES ALL CLINS:

CLIN 1 - TRENCH SYSTEM WORK CONSISTS OF THE FOLLOWING:

1. ELIMINATE (BY FILLING IN) EXISTING FLOOR UTILITY TRENCHES AND LUBE LIFT SYSTEM WITH METAL GRATING WHERE INDICATED IN DRAWINGS. INSTALL NEW CONDUIT CHASE SYSTEM AND BACKFILL FLUSH WITH EXISTING CONCRETE DECK AND WITH VEHICULAR STRUCTURAL STABLE INFILL AND SURFACE - REFER TO DRAWINGS C-100 - C-500. REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL, CLEANING AND INSTALLATION.
2. DISCONNECT AND REMOVE EXISTING COMPRESSED AIR DISTRIBUTION SYSTEM AND AIR STATIONS LOCATED IN THE FLOOR TRENCH SYSTEM AND REPLACE WITH NEW - REFER TO DRAWINGS C-100 - C-500.
3. COLLECT AND DISPOSE OF EXISTING HAZARDOUS MATERIALS - REFER TO DRAWINGS H-001 - H-101.

CLIN 2 - FLOOR REPAIR AND COATING SYSTEM WORK CONSISTS OF THE FOLLOWING:

4. REPAIR HIGH BAY CONCRETE FLOOR INCLUDING EXPANSION JOINTS AND PROVIDE NEW CONCRETE FLOOR FINISH LEVELING COAT - REFER TO DRAWINGS A-001 - AD-101 AND A-100 - A-101.
5. COLLECT AND DISPOSE OF EXISTING HAZARDOUS MATERIALS - REFER TO DRAWINGS H-001 - H-101.

CLIN 3 - HIGH BAY DOOR MECHANICAL DOOR OPERATION REPAIRS WORK CONSISTS OF THE FOLLOWING:

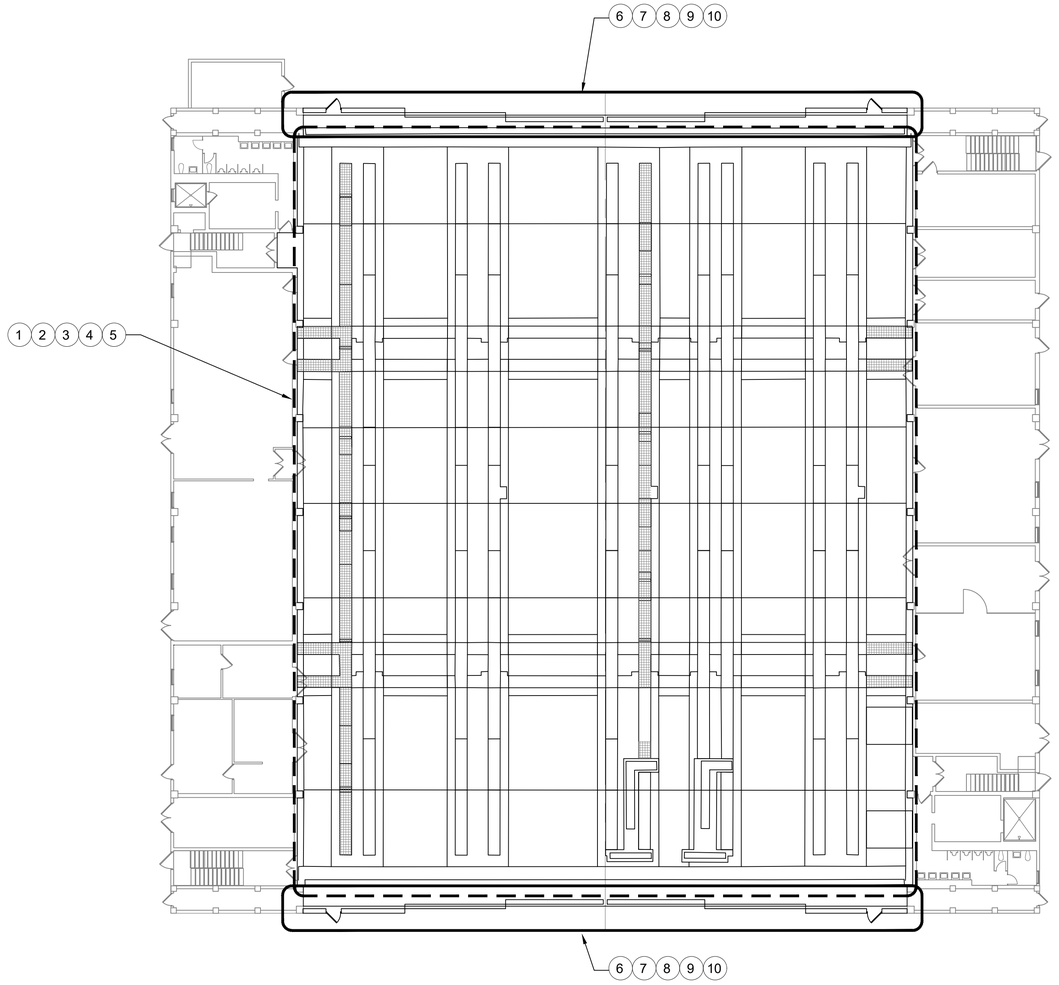
6. PROVIDE REPAIR FOR HIGH BAY DOORS TO RESTORE MANUAL OPERATION TO OPEN AND CLOSE DOORS BY REPLACEMENT OF DOOR ROLLERS, BEARINGS, BRAKES ASSEMBLY, SEALS AND GUIDES - REFER TO DRAWINGS M-101 - M-9010.
7. COLLECT AND DISPOSE OF EXISTING HAZARDOUS MATERIALS - REFER TO DRAWINGS H-001 - H-101.
8. THE CONTRACTOR SHALL POWER CLEAN BOTTOM TRACK TO REMOVE ANY CORROSION DEBRIS AFTER WIRE BRUSHING THE DOOR STRUCTURE AND WICKET DOOR FRAME. EQUIPMENT SHALL HAVE HEPA SHROUD. REFER TO CORROSION CLEANING, REPAIR AND COATING NOTES ON DRAWING A-001.

CLIN 4 - HIGH BAY DOOR CORROSION CONTROL WORK CONSISTS OF THE FOLLOWING:

9. PROVIDE CORROSION TREATMENT TO ALL HIGH BAY HANGAR DOORS, INCLUDING BUT NOT LIMITED TO EXTERIOR PANELS, STRUCTURAL SUPPORTS AND MECHANICAL EQUIPMENT HOUSING TO REMAIN AND REPLACE HIGH BAY DOOR GASKETS - REFER TO DRAWINGS A-001 - AD-100, AD-102 - A-100 AND A-102.
10. COLLECT AND DISPOSE OF EXISTING HAZARDOUS MATERIALS - REFER TO DRAWINGS H-001 - H-101.

LEGEND:

- AREAS OF WORK - HIGH BAY
- AREAS OF WORK - HIGH BAY HANGAR DOORS



TRUE NORTH
PLAN NORTH

CLIN 1, 2, 3 AND 4 - AREAS OF WORK PLAN

SCALE: NONE

DEPARTMENT OF THE AIR FORCE
MCMXLVII
UNITED STATES OF AMERICA

DESIGNED BY: F. LABOY
DRAWN BY: F. LABOY
REVIEWED BY: R. CONSTANTINIDE
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO.: FA2521-13-D-0005 0191
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USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL
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RAEIS OTIE — Owners Total Integrated Enterprises
RANGE ARCHITECT ENGINEER, INSPECTION SERVICES
AMRC — GP STRATEGIES
ALLEN ENGINEERING, INC.

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
AREAS OF WORK PLAN AND NOTES

SHEET IDENTIFICATION
G-002

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GENERAL HAZARDOUS MATERIAL NOTES:

REFER TO HAZMAT SPECIFICATIONS FOR ADDITIONAL INSTRUCTIONS.

1. ABATEMENT CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE PRIOR TO PROVIDING BIDS FOR CONDUCTING ABATEMENT WORK.

2. THERE SHALL BE NO HAZARDOUS AIR EMISSIONS FROM DEBRIS PER 29 CFR 1910. ANY SANDBLASTING OR NEEDLE-JET OPERATIONS MUST BE APPROVED BY THE CONTRACTING OFFICER AND SHOULD HAVE FULL CONTAINMENT.

3. THE CONTRACTOR SHALL COMPLY WITH, BUT NOT LIMITED TO: AFI 32-7086, HAZARDOUS MATERIALS MANAGEMENT, FEBRUARY 2015. NO HAZMAT IS ALLOWED TO BE BROUGHT ON TO ANY 45 SW INSTALLATION WITHOUT PRIOR APPROVAL. THE CONTRACTOR SHALL CONTACT THE 45 CES/CEIE HAZARDOUS MATERIALS PROGRAM MANAGER AT 321-494-9268 TO REVIEW HAZMAT AUTHORIZATION PROCEDURES PRIOR TO HAZMAT BEING BROUGHT ON TO 45 SW FACILITIES.

4. THE GC SHALL UTILIZE ASBESTOS AND HEAVY METALS SURVEY REPORTS INCLUDED AS AN ATTACHMENT TO THE SPECIFICATIONS IN ORDER TO COMPLETE THE SCOPE OF WORK PER THE DRAWINGS AND SPECIFICATIONS. THE GC SHALL CONTACT THE CONTRACTING OFFICER IF THE PRESENCE OF MATERIALS CONTAINING HEAVY METALS, INCLUDING LEAD, CADMIUM, OR CHROMIUM, OR ASBESTOS-CONTAINING MATERIALS (ACM) IS SUSPECTED OR DISTURBED, AND HAS NOT BEEN IDENTIFIED BY THIS CONTRACT, BUT IS REQUIRED TO BE DISTURBED IN ORDER TO:
   - PERFORM THE CONTRACT WORK;
   - SAFELY ACCESS THE AREA OF WORK WITHOUT EXPOSURE TO HAZMAT ABOVE THE PEL; OR
   - HAVE WORKERS PERFORM THE CONTRACT WORK WITHOUT EXPOSURE TO HAZMAT ABOVE PEL.

   UNDER NO CIRCUMSTANCES SHALL ANY MATERIALS CONTAINING HEAVY METALS OR ASBESTOS BE REMOVED WITHOUT THE CONTRACTING OFFICER APPROVAL. FOR REFERENCE, SEE HAZMAT LEGEND OR REFER TO HAZMAT DRAWINGS.

5. ACM MAY BE ENCOUNTERED IN EXISTING CONCRETE FLOOR , FLOOR JOINT SEALANT AND WALL CMU DURING REPAIR ACTIVITIES. CAUTION MUST BE UTILIZED DURING REPAIR ACTIVITIES TO ENSURE THAT DAMAGE/DISTURBANCE TO ACM DOES NOT OCCUR. REPAIR ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE TRAINING AND HANDLING REQUIREMENTS OF 29 CFR 1926.1101 FOR CLASS II ASBESTOS WORK AND 29 CFR 1926.85, 40 CFR 763, 45SW OPLAN 19-14, F.A.C. CHAPTER 62-257 AND FDEP FORM 62-257.900(1). FDEP FORM 62-257.900(1)(NOTICE OF DEMOLITION OR ASBESTOS RENOVATION) MUST BE FORWARDED TO FDEP AT LEAST 10 DAYS PRIOR TO ACM REMOVAL.

6. THE REQUIREMENTS ESTABLISHED IN THE OSHA STANDARD FOR LEAD, CADMIUM AND CHROMIUM IN CONSTRUCTION, 29 CFR 1926.62, 29 CFR 1926.1127 AND 29 CFR 1926.1126, RESPECTIVELY, MUST BE COMPLIED WITH FOR ANY CONSTRUCTION, REFURBISHMENT, OR DEMOLITION OPERATIONS WHICH INVOLVE THE DISTURBANCE OF LEAD CONTAINING-MATERIALS OR COATINGS WHICH CONTAIN HEAVY METALS. THE LEAD, CADMIUM AND CHROMIUM STANDARDS ESTABLISH SPECIFIC PERSONAL PROTECTIVE EQUIPMENT TO INCLUDE RESPIRATORY PROTECTION BASED ON THE TYPE OF WORK TO BE PERFORMED (SEE SPECIFICATIONS FOR ADDITIONAL DATA). FOR REFERENCE SEE LEGEND ON COVER DRAWING G-001.

7. IF HEAVY METALS, INCLUDING LEAD, AND/OR PCB EXIST IN PAINTED SURFACES, THERE WILL BE CONCERNS ABOUT PARTICULATE MATTER IN RINSATE AND ABOUT LEACHABILITY AND IMPACTS TO SURROUNDING ENVIRONMENTS. NON-LIQUID PCB MATERIAL SHOULD BE HANDLED AND TESTED IN ACCORDANCE WITH 40 CFR 761. GC SHALL PROVIDE A SUBMITTAL FOR AN ENVIRONMENTAL WORK PLAN TO ADDRESS THE IDENTIFIED BEST MEANS OF PRACTICE BY THE QUALIFIED CONTRACTOR IN COMPLIANCE WITH FDEP, EPA AND OSHA. ONLY THOSE PERSONNEL TRAINED IN ABATEMENT HANDLING AND DISPOSAL MAY PERFORM WORK AND SHALL DO SO IN A MANNER THAT MINIMIZES GENERATION OF AIR-BORNE DEBRIS. WATER AND DEBRIS SHALL BE COLLECTED, TESTED, MANAGED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND AIR FORCE REGULATIONS.

8. ABSORBENT MATERIAL AND SEDIMENT THAT MAY BE CONTAMINATED WITH WASTE/USED OIL, FUEL PETROLEUM COMPOUNDS AND CLEANING SOLVENTS WILL BE ENCOUNTERED DURING CLEANING AND PREPARATION OF THE FLOOR TRENCHES PRIOR TO FILLING WITH FLOWABLE FILL. WORKERS SHALL UTILIZE PERSONAL PROTECTION EQUIPMENT TO PROTECT AGAINST EXPOSURE TO CONTAMINATED ABSORBENT AS PER 29 CFR 1910.133, 1910.134, 1910.136, AND 1910.138. REMOVAL OF THE ABSORBENT MATERIAL AND SEDIMENT WILL BE DONE IN ACCORDANCE WITH F.A.C. 62-730 AND 45 SW OPLAN 19-14.

9. IF PRODUCTS ARE TO BE USED DURING THE PROJECT WHICH MAY CONTAIN HAZARDOUS CHEMICALS, THE SDS FOR THOSE PRODUCTS SHALL BE SUBMITTED TO THE 45 CES/CEIE HAZARDOUS MATERIALS PROGRAM MANAGER AT 321-494-9268 FOR REVIEW TO DETERMINE PERSONAL PROTECTIVE EQUIPMENT REQUIREMENT FOR PERSONNEL USING PRODUCTS ALONG WITH GC'S SAFETY PLAN, PRIOR TO START OF WORK.

10. PERSONNEL WHO UTILIZE RESPIRATORY EQUIPMENT SHALL COMPLY WITH OSHA STANDARD 29 CFR 1910.134. THE REQUIREMENTS FOR PROTECTION OF PERSONNEL DURING DISTURBANCE OF COATINGS CONTAINING HEAVY METALS APPLY WHEN THE CONTENT HAS BEEN IDENTIFIED AS "LOW". OSHA STANDARD 29 CFR 1926.62 DOES NOT INDICATE A LEVEL OF CONTENT LIMIT. IF LEAD IS PRESENT AT ANY LEVEL, THE STANDARD SHALL BE ADHERED. FOLLOW 45 SW GUIDANCE FOR THE REMOVAL OF MATERIALS AND COATINGS CONTAINING HEAVY METALS.

11. THE HAZMAT DRAWINGS ARE REPRESENTATIONS OF LOCATIONS CONTAINING HAZMAT AT LEVELS MEETING OR EXCEEDING REGULATORY LEVELS. THE GC IS REQUIRED TO SUBMIT A WORK PLAN FOR THE ABATEMENT OF ACM, HEAVY METALS AND PCB, WHERE APPLICABLE, FOR THIS PROJECT. THE GC SHALL COORDINATE THE EXTENT OF BUILDING DEMOLITION WITH THE EXTENT OF ABATEMENT DEMOLITION TO AVOID WORK DUPLICATION.

12. ALL HAZMAT SAMPLING REPORTS ARE COMPILED FROM THE ASBESTOS SURVEY REPORT AND HEAVY METALS REPORT, ALL OF WHICH ARE MADE AVAILABLE AS ADDENDA TO THE PROJECT SPECIFICATIONS. ALL SAMPLING REPORTS ARE PROVIDED FOR INFORMATION ONLY AND DO NOT REFLECT THE CONTRACT WORK.

13. THE GC SHALL PROVIDE CERTIFICATION OF MONITORED AIR AND TESTING RESULTS PRIOR TO START OF DEMOLITION WORK.

14. WHERE APPLICABLE, CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR DISPOSAL OF ACM, HEAVY METALS AND PCB.

15. QUALIFIED CONTRACTOR SHALL COORDINATE REMOVAL OF HAZMAT WITH ENVIRONMENTAL WORK PLAN AND CONTRACTING OFFICER PRIOR TO COMMENCEMENT OF WORK AND REPORT THE PRESENCE OF ANY OTHER SUSPICIOUS HAZMAT IN AREAS OF WORK PRIOR TO START OF REMOVAL/DEMOLITION.

16. WHEN DISTURBING CONCRETE AND CMU, ADHERE TO OSHA STANDARDS FOR RESPIRATORY PROTECTION AGAINST SILICA.

17. IN THE EVENT THAT HAZARDOUS/CONTROLLED WASTE IS GENERATED AT SITE, IMMEDIATELY CONTACT ENVIRONMENTAL SUPPORT CONTRACTOR AT 853-6985.

ABBREVIATIONS:

45 SW	-	45TH SPACE WING	MAX	-	MAXIMUM
			MFR	-	MANUFACTURER
ACM	-	ASBESTOS CONTAINING MATERIAL	MIN	-	MINIMUM
ACT	-	ACOUSTIC CEILING TILE	M.O.	-	MASONRY OPENING
AFF	-	ABOVE FINISHED FLOOR	MTL	-	METAL
ALUM	-	ALUMINUM	MRGWB	-	MOISTURE RESIST GYPSUM WALL BOARD
ANOD	-	ANODIZED	MTD	-	MOUNTED
BLDG	-	BUILDING	NOM	-	NOMINAL
CFR	-	CODE OF FEDERAL REGULATIONS	O.C.	-	ON CENTER
CONC	-	CONCRETE	O.D.	-	OUTSIDE DIAMETER
CONT	-	CONTINUOUS	OSHA	-	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CMDR	-	COMMANDER'S			
CMU	-	CONCRETE MASONRY UNIT			
CPT	-	CARPET	PEL	-	PERMISSIBLE EXPOSURE LIMITS
CT	-	CERAMIC TILE	P/PT	-	PAINT
			P.T.	-	PRESSURE TREATED
DEMO	-	DEMOLITION	PCB	-	POLYCHLORINATED BIPHENYLS
DN	-	DOWN	PEL	-	PERMISSIBLE EXPOSURE LEVEL
DWGS	-	DRAWINGS	PLYWD	-	PLYWOOD
			PL	-	PLASTIC LAMINATE
EPA	-	ENVIRONMENTAL PROTECTION AGENCY	PLST	-	PLASTER
EXIST	-	EXISTING	P.O.L.	-	PETROLEUM, OIL, & LUBRICANT
EXT	-	EXTERIOR	PPE	-	PERSONAL PROTECTIVE EQUIPMENT
			PSI	-	POUNDS PER SQUARE INCH
F.A.C.	-	FLORIDA ADMINISTRATIVE CODE	PTS	-	POINTS
F.G.	-	FIBERGLASS	PVC	-	POLYVINYL CHLORIDE
FDEP	-	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	REINF	-	REINFORCED
FIN FL	-	FINISH FLOOR	RO	-	ROUGH OPENING
F.V.	-	FIELD VERIFY	R.S.	-	RUBBER STRINGER
			RTNR	-	RUBBER TREAD/NOSE/RISER
GA	-	GAUGE			
GALV	-	GALVANIZED	S.C.	-	SOLID CORE
GC	-	GENERAL CONTRACTOR	SCHED/SCH	-	SCHEDULE
GRT	-	GROUT	SDS	-	SAFETY DATA SHEETS
GYP	-	GYPSUM	SMS	-	SHEET METAL SCREW
GYP BD/GWB	-	GYPSUM WALL BOARD	SOW	-	SCOPE OF WORK
			S.S.	-	SOLID SURFACE
H.M.	-	HOLLOW METAL	ST. STL.	-	STAINLESS STEEL
HAZMAT	-	HAZARDOUS MATERIALS			
HW/HDW	-	HARDWARE	TBB	-	TILE BACKER BOARD
			TYP	-	TYPICAL
INSUL	-	INSULATION			
INT	-	INTERIOR	U.O.N.	-	UNLESS OTHERWISE NOTED
			VWB	-	VINYL WALL BASE
			VAT	-	VINYL ASBESTOS TILE

APPLICABLE CODES

WORK SHALL BE IN COMPLIANCE WITH THE LATEST REVISION OF THE FOLLOWING CODES AND WITH PROJECT SPECIFICATIONS:	
2015	OSHA STANDARD FOR ASBESTOS, 29 CFR 1926.1101
2015	OSHA STANDARD FOR LEAD, 29 CFR 1926.62
2015	OSHA STANDARD FOR CADMIUM, 29 CFR 1926.1127
2015	OSHA STANDARD FOR CHROMIUM (VI), HEXAVALENT CHROMIUM, 29 CFR 1926.1126
2015	OSHA STANDARD FOR HAZARDOUS WASTE COMMUNICATION, 29 CFR 1910.1200
2015	INTERNATIONAL BUILDING CODE
2015	INTERNATIONAL MECHANICAL CODE
2015	OSHA STANDARD FOR RESPIRATORY PROTECTION, 29 CFR 1910.134
2015	OSHA STANDARD FOR GASES, VAPORS, FUMES, DUSTS AND MISTS, 29 CFR 1926.55
2014	ASBESTOS ABATEMENT, FLORIDA STATUTES CHAPTER 469
2016	GENERAL BUILDING REQUIREMENTS UFC 1-200-01
2012	WASTE PETROLEUM PRODUCTS AND HAZARDOUS WASTE MANAGEMENT PLAN, 45 SW OPLAN 19-14
2014	ASBESTOS PROGRAM, F.A.C. CHAPTER 62-257
2015	NATIONAL EMISSION STANDARD FOR ASBESTOS, 40 CFR 61 SUBPART M
2015	EPA STANDARD FOR PCB, 40 CFR 761
2004	SYNTHETIC ORGANIC CONTAMINANTS MONITORING REQUIREMENTS, F.A.C. 62-550.516

PROJECT SPECIFIC NOTES

1. CONTRACTOR SHALL COORDINATE DUST AND EQUIPMENT COVER INSTALLATION WITH CONTRACTING OFFICER AND WITH FACILITY USER.

HAZARDOUS MATERIAL LEGEND:

HEAVY METALS PRESENT

HATCHING PROVIDED FOR INFORMATION ONLY. ALL ABATEMENT ACTIVITIES ARE IDENTIFIED USING FLAG NOTES.

PROJECT LEGEND:

METAL TRENCH COVER

MS2 An Oneida ESC Group Company

DEPARTMENT OF THE AIR FORCE · MCMXLVII · UNITED STATES OF AMERICA

DATE: 5/3/2017
DESIGNED BY: J. MCGANN
DRAWN BY: A. ROMAN
DBEH 13-1523
DELIVERY NO.: FA2521-13-D-0005 0191
REVIEWED BY: J. MCGANN
AS BUILT DATE: ####
SUBMITTED BY: G. BEARD

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE Oneida Total Integrated Enterprises — RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES AMRC ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

GENERAL HAZARDOUS MATERIAL NOTES AND ABBREVIATIONS

SHEET IDENTIFICATION

H-001

5/5/2017 10:20:50 AM, barvir

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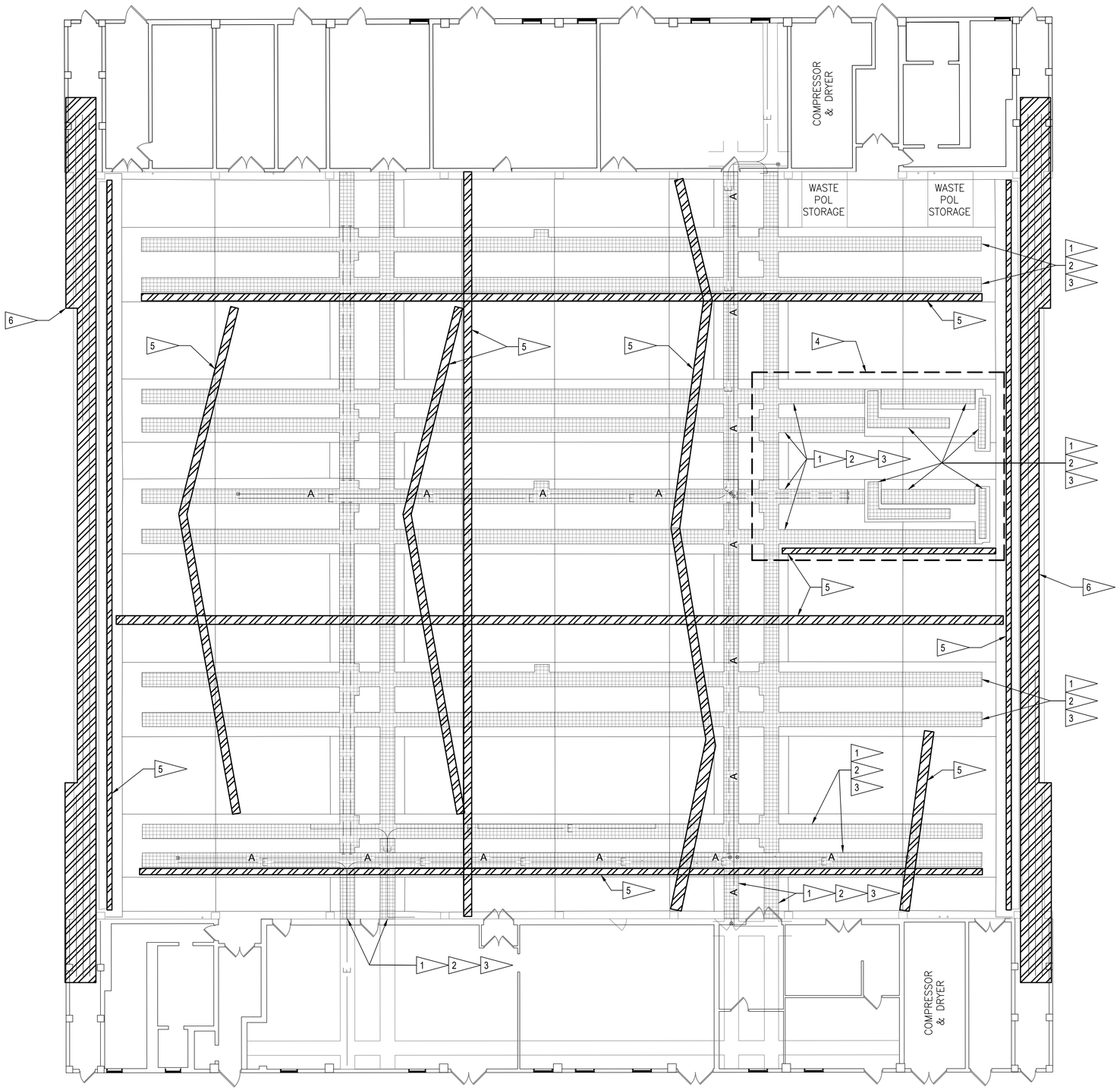


GENERAL NOTES:

1. FOR DEMOLITION OF END ITEMS, REFER TO SUBSEQUENT DISCIPLINE DRAWINGS AND ATTACHED HAZARDOUS MATERIAL SAMPLING REPORTS ATTACHED TO THE SPECIFICATIONS.

2. WORKERS SHALL UTILIZE RESPIRATORY PROTECTION PER 29 CFR 1910.134 AGAINST SILICA AND PARTICULATES WHEN DISTURBING CONCRETE DURING DEMOLITION AND REPAIR ACTIVITIES, AND WHILE REMOVING OR INSTALLING EQUIPMENT AND FIXTURES.

3. LEAD, CADMIUM AND CHROMIUM HAVE BEEN IDENTIFIED IN WALL, HANGAR DOOR AND FLOOR PAINTS IN HANGAR U. WHEN DISTURBING PAINTS AND COATINGS THAT MAY CONTAIN LEAD, CADMIUM AND CHROMIUM DURING DEMOLITION AND REPAIR ACTIVITIES, WORKERS SHALL UTILIZE PERSONAL PROTECTIVE EQUIPMENT FOR LEAD AS PER 29 CFR 1926.62, CADMIUM AS PER 29 CFR 1926.1127 AND CHROMIUM AS PER 29 CFR 1926.1126.

4. ABSORBENT MATERIAL AND SEDIMENT THAT MAY BE CONTAMINATED WITH WASTE/USED OIL, FUEL PETROLEUM COMPOUNDS AND CLEANING SOLVENTS WILL BE ENCOUNTERED DURING CLEANING AND PREPARATION OF THE FLOOR TRENCHES PRIOR TO FILLING WITH FLOWABLE FILL. WORKERS SHALL UTILIZE PERSONAL PROTECTION EQUIPMENT TO PROTECT AGAINST EXPOSURE TO CONTAMINATED ABSORBENT AS PER 29 CFR 1910.133, 1910.134, 1910.136, AND 1910.138.

5. COORDINATE WITH ARCHITECTURAL DRAWINGS ON THE EXTENT OF EQUIPMENT AND FIXTURE INSTALLATION AND REMOVAL.

FLAG NOTES:

1. TRENCHES CONTAIN WASTE ABSORBENT MATERIAL AND SEDIMENT GENERATED DURING SPILL CLEAN-UP OPERATIONS. CONTRACTOR SHALL SAMPLE AND ANALYZE WASTE ABSORBENT MATERIAL AND SEDIMENT PRIOR TO CLEANING THE TRENCHES. THREE SAMPLES SHALL BE COLLECTED FROM EACH TRENCH AND ANALYZED FOR CORROSIVITY, IGNITABILITY, REACTIVITY, TCLP METALS, TCLP VOLATILE ORGANIC COMPOUNDS AND TCLP SEMI-VOLATILE ORGANIC COMPOUNDS.

2. CONTRACTOR SHALL EXCAVATE, REMOVE AND STOCKPILE WASTE ABSORBENT MATERIAL FROM THE TRENCHES. CONTRACTOR SHALL COLLECT REPRESENTATIVE GRAB SAMPLES FROM THE STOCKPILE FOR WASTE CLASSIFICATION ANALYSIS. SAMPLES SHALL BE ANALYZED FOR CORROSIVITY, IGNITABILITY, REACTIVITY, TCLP METALS, TCLP VOLATILE ORGANIC COMPOUNDS AND TCLP SEMI-VOLATILE ORGANIC COMPOUNDS. BASED ON THE WASTE CLASSIFICATION RESULTS, THE MATERIAL SHALL DISPOSED OF IN ACCORDANCE WITH 40 CFR PARTS 239 THROUGH 279, F.A.C.62-730 AND 45 SW OPLAN 19-14.

3. AFTER REMOVAL OF ABSORBENT MATERIAL, TRENCHES SHALL BE CLEANED TO REMOVE RESIDUAL WASTE. WASTE WATER GENERATED DURING CLEANING SHALL BE COLLECTED FOR WASTE CLASSIFICATION TESTING PRIOR TO OFF-SITE TRANSPORT AND DISPOSAL. WASTE WATER SHALL BE TESTED FOR CORROSIVITY, IGNITABILITY, REACTIVITY, TCLP METALS, AND TCLP SEMI-VOLATILE ORGANIC COMPOUNDS. BASED ON THE ANALYTICAL RESULTS, WASTE SHALL BE CLASSIFIED AND DISPOSED OF IN ACCORDANCE WITH 40 CFR PARTS 239 THROUGH 279, F.A.C.62-730 AND 45 SW OPLAN 19-14.

4. THE ABOVE GRADE OIL LUBRICATION STATION AND TWO BELOW GRADE HYDRAULIC LIFTS WILL BE REMOVED AS PART OF THE HANGAR REPAIR EFFORT. LUBRICATION OIL AND HYDRAULIC FLUID WILL BE DRAINED AND REMOVED FROM THE LUBRICATION STATION, HYDRAULIC LIFTS, AND ASSOCIATED PIPING AND HOSES. THE OIL AND HYDRAULIC FLUID WILL BE ADDED TO THE EXISTING WASTE POL STORAGE UNITS AT HANGAR U.

5. LEAD, CADMIUM AND CHROMIUM ARE PRESENT IN RED AND YELLOW PAINT ON THE FLOOR. WASTES GENERATED DURING REMOVAL OF FLOOR PAINT SHALL BE COLLECTED AND STAGED FOR WASTE CLASSIFICATION TESTING PRIOR TO OFF-SITE TRANSPORT AND DISPOSAL. PAINT WASTE SHALL BE TESTED FOR TCLP METALS. BASED ON THE ANALYTICAL RESULTS, PAINT WASTE SHALL BE CLASSIFIED AND DISPOSED OF IN ACCORDANCE WITH 40 CFR PARTS 239 THROUGH 279, F.A.C.62-730 AND 45 SW OPLAN 19-14.

6. LEAD, CADMIUM AND CHROMIUM ARE PRESENT IN TAN PAINT ON THE HANGAR DOORS. WASTES GENERATED DURING REMOVAL OF THE HANGAR DOOR PAINT SHALL BE COLLECTED AND STAGED FOR WASTE CLASSIFICATION TESTING PRIOR TO OFF-SITE TRANSPORT AND DISPOSAL. PAINT WASTE SHALL BE TESTED FOR TCLP METALS. BASED ON THE ANALYTICAL RESULTS, PAINT WASTE SHALL BE CLASSIFIED AND DISPOSED OF IN ACCORDANCE WITH 40 CFR PARTS 239 THROUGH 279, F.A.C.62-730 AND 45 SW OPLAN 19-14.

PLAN NORTH / TRUE NORTH

HANGAR U HIGH BAY
FLOOR TRENCH INFILL

SCALE: 1" = 10'

MS2 An Oneida ESC Group Company

10' 0' 10' 20' 30'

GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: J. MCGANN
DRAWN BY: A. ROMAN
REVIEWED BY: J. MCGANN
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO.: FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Ocoee Total Integrated Enterprises
RANGE ARCHITECT ENGINEER, INSPECTION SERVICES

GP STRATEGIES

AMRC

ALLEN Engineering, Inc.

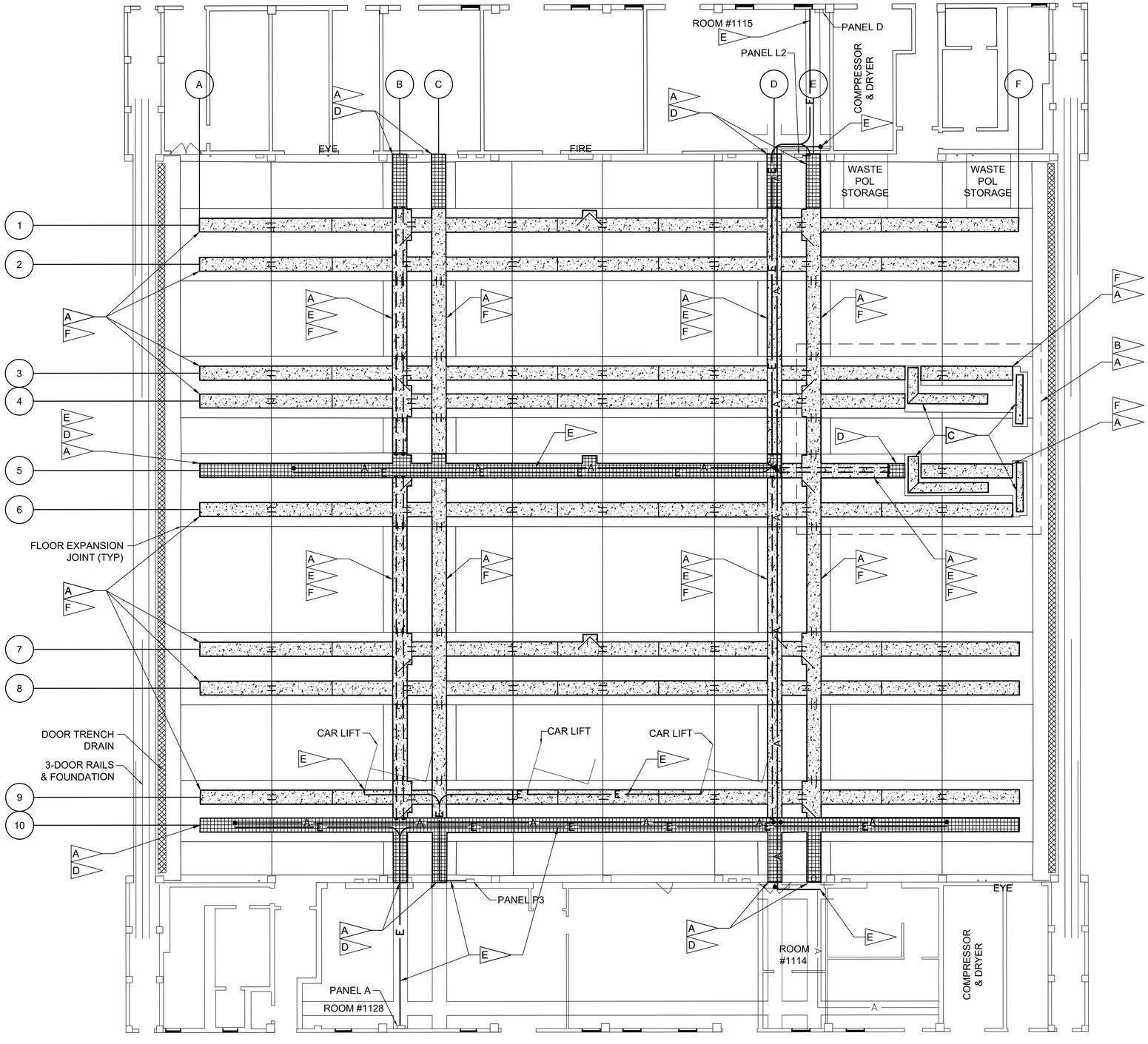
DBEH 13-1523

REPAIR HANGAR U, FAC 1744

HAZARDOUS MATERIAL IDENTIFICATION AND ABATEMENT

SHEET IDENTIFICATION

H-101



PROJECT SCOPE:

A. ALL FLOOR TRENCHES & HYDRAULIC LIFT FLOOR TRENCH ARE FILLED WITH OIL ABSORBENT MATERIAL. PROVIDE SAMPLES, TESTING, REMOVAL, & PROPER DISPOSAL W/ DOCUMENTATION OF WASTE OIL ABSORBENT MATERIAL AS A HAZARDOUS WASTE, WASH & CLEAN FLOOR TRENCHES, SEE SHEET H-101 FOR COORDINATION.

B. REMOVE ABOVE GRADE OIL LUBRICATION STATION.

C. REMOVE 2 BELOW GRADE LUBE STATION HYDRAULIC LIFTS, FILL ABANDON HYDRAULIC LIFT 7' DEEP TRENCH WITH FLOWABLE FILL AND CONCRETE CAP.

D. PROTECT IN PLACE EXISTING FLOOR TRENCH & SALVAGE FOR REUSE METAL TRENCH COVERS IN NOTED HIGH BAY TRENCHES, UTILITY TURN & INTERSECTION TRENCHES, FUTURE UTILITY STATION, AND UTILITY SERVICE TRENCH. REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL, CLEANING AND INSTALLATION OF TRENCH COVERS.

E. FLOOR TRENCHES ALL 10, B, & D, PORTION B, 5, & 9, AND ROOMS 1115 & 1128 - FROM SERVICE SOURCE CONNECTION TO USE POINT PROVIDE NEW ELECTRIC, COMPRESSED AIR, EMPTY UTILITY DISTRIBUTION CONDUIT, AND UTILITY PIPING SERVICE CONNECTION TO SERVICE STANDS AND 3 CAR LIFTS.

F. FLOOR TRENCH ALL 1 THRU 4 & 6 THRU 9, PORTION 5 & B THRU E - ENCLOSE FLOOR TRENCHES BY PROVIDING FLOWABLE FILL, REINFORCEMENT,& CONCRETE CAP, AND EXPANSION JOINTS. ACCOMMODATE NEW UTILITIES INTO THE TRENCH FILL OPERATION.

LEGEND:

D — METAL TRENCH COVER

CONCRETE FILLED TRENCH

E — ELECTRIC DISTRIBUTION

A — SHOP COMPRESSED 150 PSI AIR

EMPTY CONDUIT

TRUE NORTH
PLAN NORTH

HANGAR U HIGH BAY
FLOOR RESTORATION

SCALE: 1" = 10'

10' 0' 10' 20' 30'

GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE
UNITED STATES OF AMERICA
MCMXLVII

DESIGNED BY: S. HOUGHTALING
DATE: 5/3/2017
DRAWN BY: S. HOUGHTALING
DBEH 13-1523
REVIEWED BY: S. HOUGHTALING
DELIVERY NO. FA2521-13-D-0005 0191
SUBMITTED BY: G. BEARD
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE
RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES
Oneida Total Integrated Enterprises
GP STRATEGIES
AMRC
ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

HIGH BAY TRENCH PROJECT SCOPE

SHEET IDENTIFICATION

C-100

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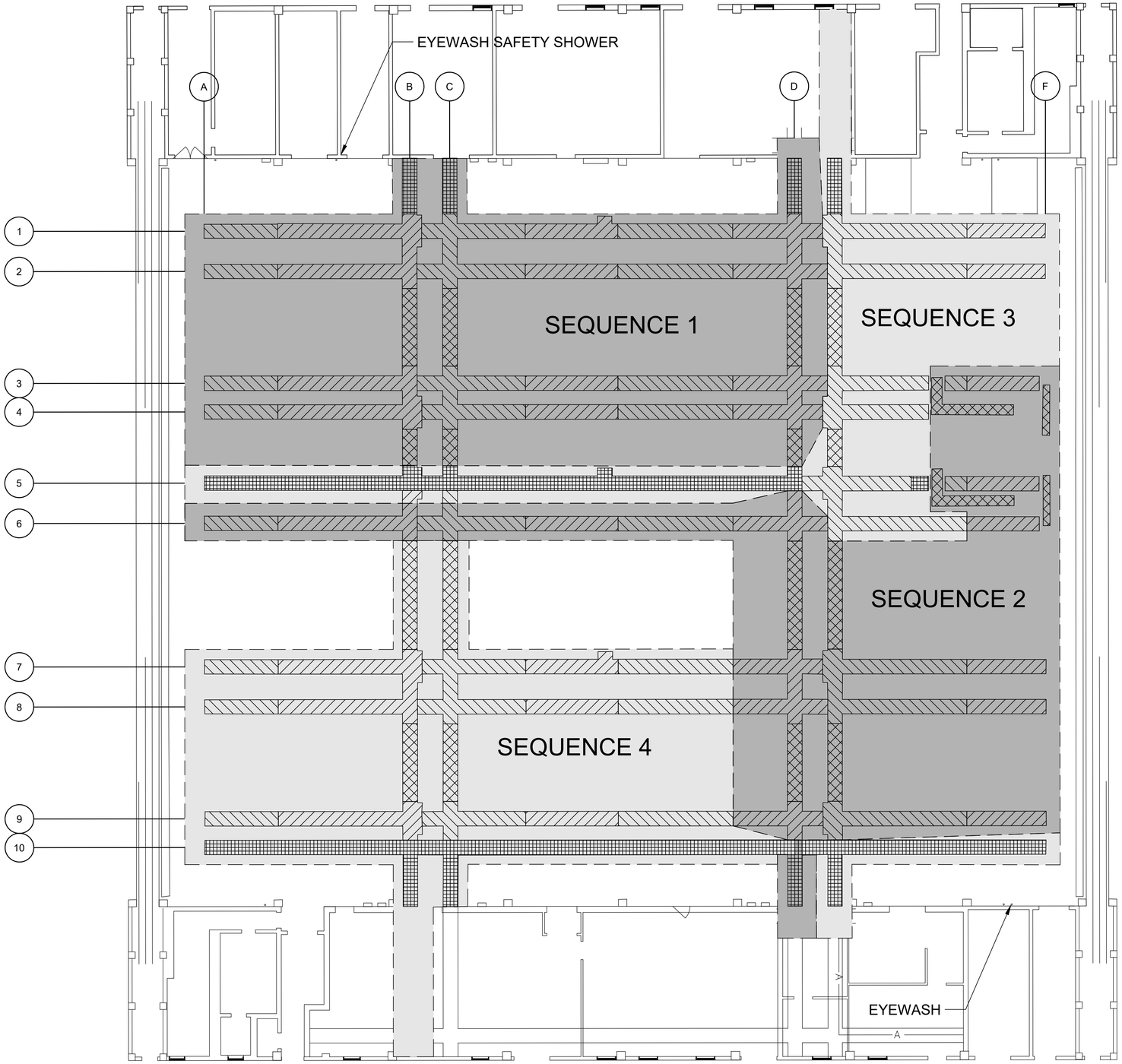


SPECIAL INSTRUCTIONS:

- THE PLANS DEPICT A CONSTRUCTION SEQUENCE IN 4 STEPS TO MAINTAIN AND LIMIT OUTAGES TO ELECTRICAL AND AIR UTILITIES WITH THE HANGAR HIGH BAY. THE DEPICTED CONSTRUCTION SEQUENCE IS INTENDED TO PLACE UTILITY DECOMMISSION, SAFING, REMOVAL, NEW DISTRIBUTION, AND PLACEMENT INTO SERVICE HIGH BAY UTILITIES IN CONSTRUCTION SEQUENCE 3 & 4. THE CONTRACTOR MAY REQUEST IN WRITING TO THE CONTRACTING OFFICE MODIFYING THE CONSTRUCTION SEQUENCE AND ENCROACHMENT INTO OTHER SEQUENCE AREA FOR CONSIDERATION. THE CONTRACTOR SHALL NOT MODIFY THE CONSTRUCTION SEQUENCE UNTIL CHANGES TO THE CONSTRUCTION SEQUENCE IS APPROVED BY THE CONTRACTING OFFICER.
- ABOVE GRADE REMOVAL AND EQUIPMENT SALVAGE WORK MAY BE CONDUCTED IN ANY SEQUENCE.
- THE GOVERNMENT RESERVES THE RIGHT TO REQUEST AND HAVE THE THE CONTRACTOR PERFORM SPECIFIC WORK TO EXPEDITE MAINTAINING AND RESTORING EXISTING AND NEW UTILITIES SERVICE WITHIN THE HANGAR HIGH BAY.
- IN ADDITION TO CONTRACT REQUIREMENTS SCHEDULES THE CONTRACTOR SHALL DEVELOP AND MAINTAIN A 6 WEEK TIME FORWARD GENERAL WORK SCHEDULE AND A DETAILED WEEKLY SCHEDULE NOTING WORK TASK & WORK AREAS.
- THE FACILITIES IN THE NORTHERN WING, SOUTHERN WING, & WASTE POL (PAINT, OIL, LUBRICANT) STORAGE IN HANGAR U ARE TO MAINTAIN PEDESTRIAN ACCESS TO MAINTAIN FACILITY OPERATIONS. THE AISLE ALONG THE NORTHERN & SOUTHERN WALLS SHALL REMAIN OPEN, UNOBSTRUCTED, & AS REQUIRED WARNING FENCED FOR PEDESTRIAN ACCESS WITH LIMITED OUTAGE PERIODS.
- OPEN TRENCHES WITH NO TRENCH COVERS ARE TO BE MINIMIZED.
- AS WORK PROGRESSES INACTIVE WORK AREAS FOR GREATER AND 7 DAY THE TRENCH COVERS ARE TO BE REINSTALLED.
- OPEN TRENCH AREA ARE TO BE BARRICADED AGAINST VEHICLE ENTRY.
- OPEN TRENCH AREA ARE TO BE ENCIRCLED BY VERTICAL SUPPORTED 4' TALL ORANGE WARNING FENCE TO PREVENT PEDESTRIAN ACCESS.
- WORK SHALL BE COMPLETED IN SEQUENCE 1 AREA PRIOR TO MOVING INTO SEQUENCE 2 AREA NOTED ON SHEET C-101, CONTRACTING OFFICER MAY GRANT CONTRACTOR WRITTEN REQUESTED FOR SEQUENCE OUTSIDE AREA OPERATION VARIANCE FOR SPECIFIED OPERATIONS.
- CAR AND PICK UP TRUCKS VEHICULAR TRAFFIC SHALL NOT BE ALLOWED ON COMPLETED FILL TRENCHES FOR 14 DAYS UPON PLACEMENT. ALL OTHER LARGE VEHICLES SHALL AWAIT 27 DAYS PRIOR TO DRIVING UPON COMPLETED FILLED TRENCHES. CONTRACTING OFFICER MAY GRANT CONTRACTOR WRITTEN REQUESTED FOR REDUCED ACCESS PERIODS BY USING STEEL TRAFFIC PLATES TO BRIDGE FILLED TRENCHES.
- MAINTAIN ACCESS TO SAFETY SHOWER & EYE WASH.
- EXPANSION JOINTS WITHIN THE 10" CONCRETE CAP WILL REQUIRE THIS INSTALLATION WORK TO BE PLACE IN A CHECKERBOARD PATTERN. EACH SEQUENCE DEPICTS 3 TRENCH FOR CONCRETE CAP PLACEMENT TO ACCOMMODATE THIS INSTALLATION METHOD.
- IN SEQUENCE 2 THE CONTRACTOR SHALL PRIORITIZE THE REMOVAL, INSTALLATION, AND PLACEMENT INTO SERVICES THE UTILITIES WITHIN TRENCH 5 AND THE TRENCH INFILL WORK BETWEEN TRENCHES 6 & 7 TO RESTORE THEM TO USE PRIOR TO COMPLETING THE SEQUENCE.

SEQUENCE:

(1) AND (2)

(3) AND (4)

INDIVIDUAL CONCRETE CAP PLACEMENT AREAS:

TRUE NORTH
PLAN NORTH

HANGAR U HIGH BAY
PROJECT SEQUENCE & HAZARDOUS MATERIALS

SCALE: 1" = 10'

10' 0' 10' 20' 30'
GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE
MCMXLVII
UNITED STATES OF AMERICA

DESIGNED BY: S. HOUGHTALING	DRAWN BY: S. HOUGHTALING	REVIEWED BY: S. HOUGHTALING	SUBMITTED BY: G. BEARD
DATE: 5/3/2017	DBEH 13-1523	DELIVERY NO. FA2521-13-D-0005 0191	AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS JOINT VENTURE — AMRC — ALLEN Engineering, Inc. — GP STRATEGIES
RANGE ARCHITECT ENGINEER, INSPECTION SERVICES
Ottawa Total Integrated Enterprises

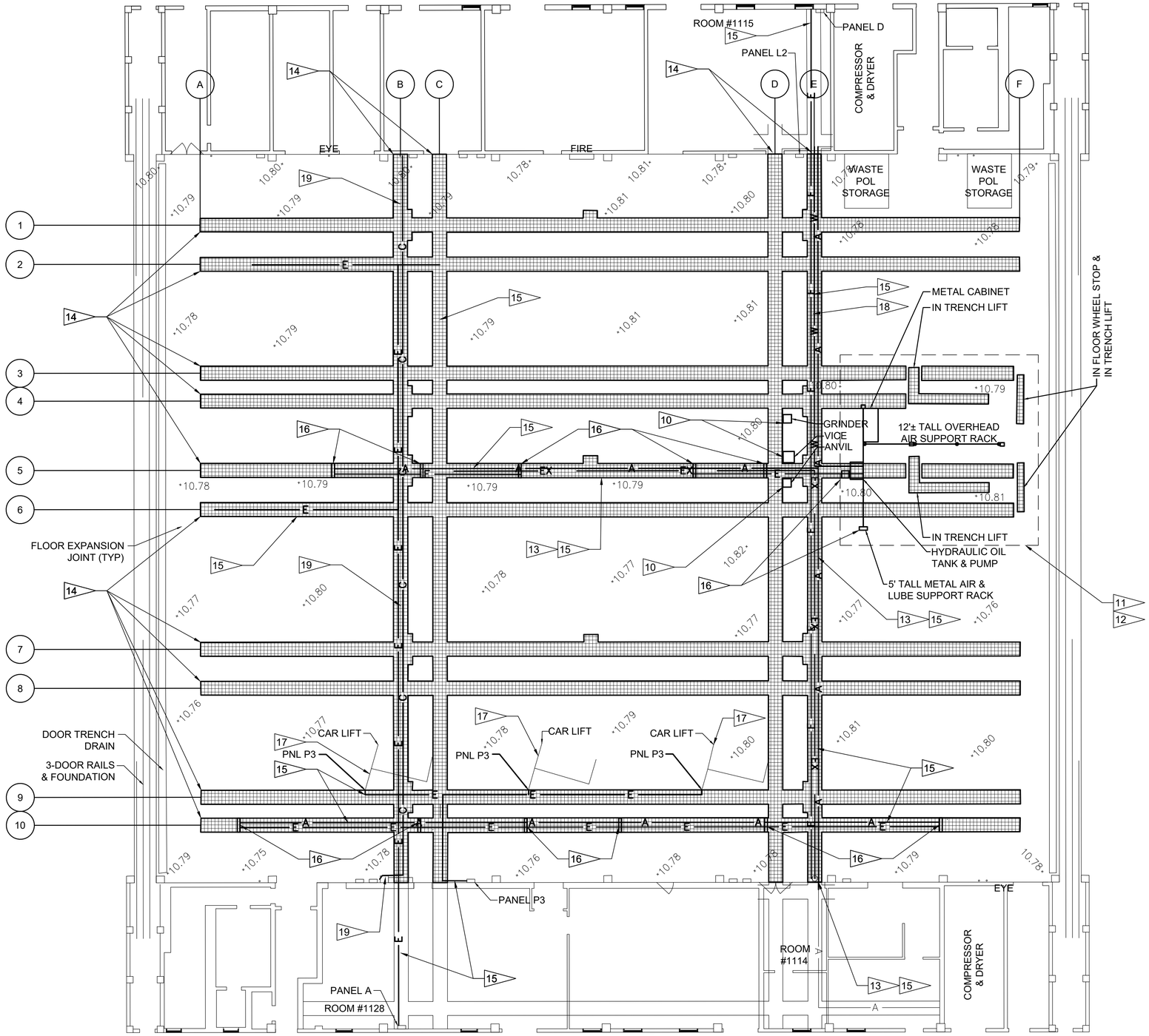
DBEH 13-1523

REPAIR HANGAR U, FAC 1744

HIGH BAY TRENCH SEQUENCE

SHEET IDENTIFICATION

C-101



DEMOLITION FLAG NOTES:

10. SALVAGE & PLACE INTO TEMPORARY STORAGE SHOP FIXED EQUIPMENT, AND COORDINATE LOCATION FOR REINSTALLATION - GRINDER, VICE, & ANVIL.
11. REMOVE ABOVE GRADE LUBRICATION STATION - ALL ABOVE GRADE SUPPORT RACKS, CABINET, HYDRAULIC OILS STORAGE TANK, PIPING & TUBING, ELECTRICAL & AIR SERVICE, AND EQUIPMENT.
12. REMOVE 2 LUBRICATION STATION IN GROUND HYDRAULIC LIFTS & WHEEL STOPS MECHANICAL EQUIPMENT , AND METAL LIDS. REMOVE & CUT ALL PROTRUDING ABOVE GRADE PORTIONS OF THE LUBRICATION STATION, LIFT, WHEEL STOPS, & COVER ATTACHMENTS FLUSH WITH GRADE W/ NO SHARP POINTS.
13. REMOVE IN TRENCH 8", 10", & 12" EXHAUST DUCT, IN TRENCH CONNECTION POINT ASSEMBLIES, EXPOSED & WALL MOUNTED IN HIGHBAY VEHICLE EXHAUST DUCT, EQUIPMENT, AND SUPPORT SYSTEM.
14. SEQUENCE THE REMOVAL OF ALL & SALVAGE FOR REUSE SELECTED HIGH BAY TRENCH COVERS. REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL, CLEANING AND INSTALLATION OF TRENCH COVERS.
15. SEQUENCE THE REMOVAL OF IN TRENCH UNIDENTIFIED DEACTIVATED NON-HAZARDOUS ABANDON IN PLACE UTILITIES, COMPRESSED AIR PIPE, AND ELECTRICAL DISTRIBUTION SYSTEM.
16. SEQUENCE THE REMOVAL OF ABOVE FLOOR UTILITY SERVICES STANDS.
17. 3 LOCATIONS - SAFE CAR LIFT ELECTRICAL SERVICE CONDUCTOR & CONDUIT ENCASED IN CONCERT FOR REUSE.
18. LOCATE, VERIFY ROUTE, SIZE, & MATERIAL, DISCONNECT, PROVIDE NECESSARY PARTS TO PRESSURE PLUG WATER SYSTEM TO REMAIN IN SERVICE, AND REMOVE WATER DISTRIBUTION & SERVICE PIPING WITHIN HIGH BAY.
19. COMM ORANGE INNER DUCT AND FIBER OPTIC TO BE REMOVED FROM FLOOR TRENCH AND REROUTED.

FLAG NOTE 20 NOT USED

PROJECT LEGEND:

14 METAL TRENCH COVER

TRUE NORTH PLAN NORTH

HANGAR U HIGH BAY DEMOLITION

SCALE: 1" = 10'

10' 0' 10' 20' 30'

GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE — UNITED STATES OF AMERICA — MCMXLVII

DESIGNED BY: S. HOUGHTALING
DRAWN BY: S. HOUGHTALING
REVIEWED BY: S. HOUGHTALING
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — GP STRATEGIES — AMRC — ALLEN Engineering, Inc.

RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

HIGH BAY TRENCH DEMOLITION PLAN

SHEET IDENTIFICATION

C-102

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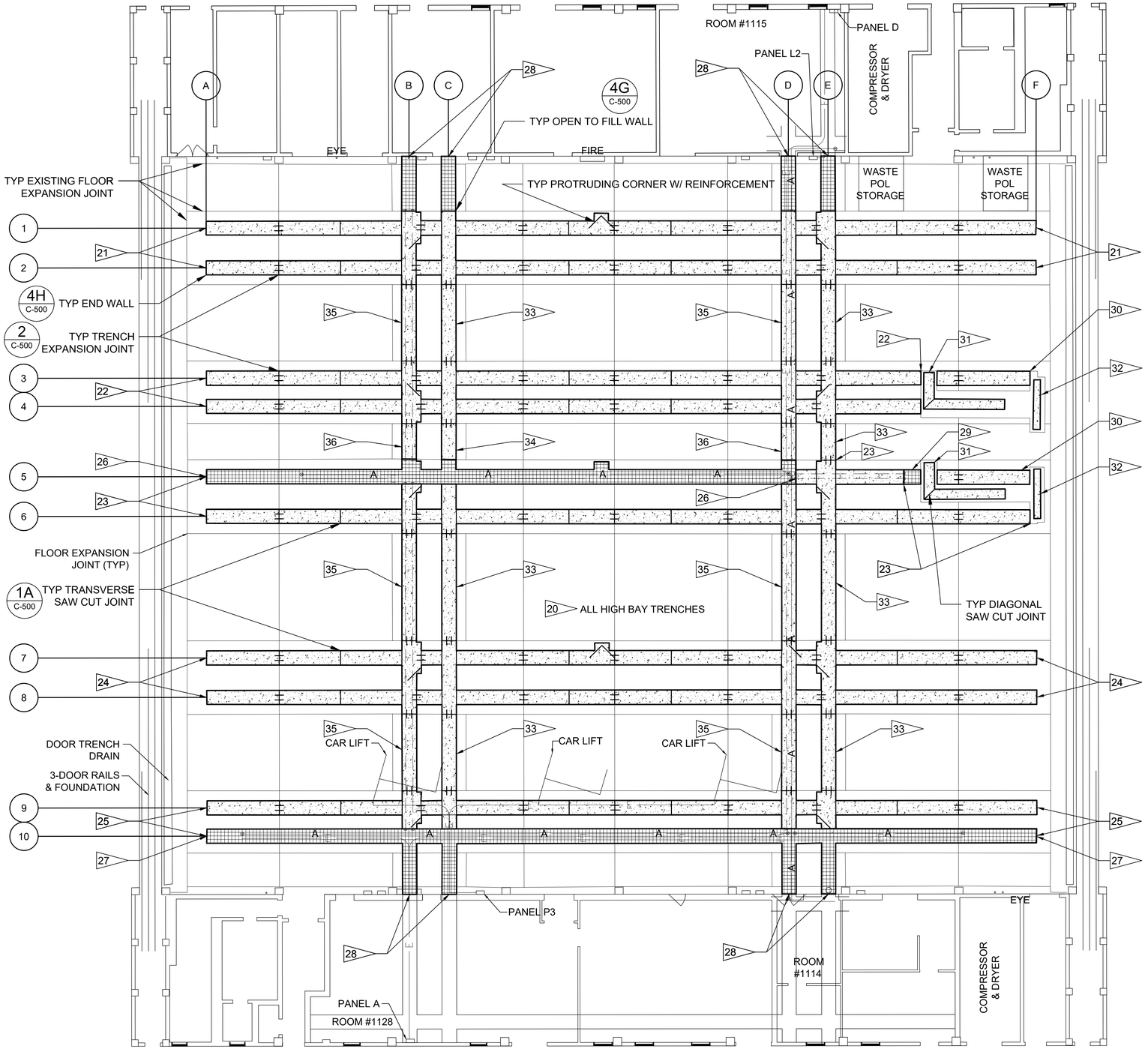


TRUE NORTH
PLAN NORTH

HANGAR U HIGH BAY FLOOR TRENCH INFILL

SCALE: 1" = 10'

PROJECT LEGEND:

METAL TRENCH COVER

CONCRETE FILLED TRENCH

TRENCH INFILL FLAG NOTES:

FLAG NOTES MAY BE CONSTRUCTED OUT OF ORDER TO MEET SHEET C-101 PROJECT SEQUENCE.

GENERAL NOTE ALL HIGH BAY TRENCHES - SEE SHEET H-101 FOR SOIL & DEBRIS REMOVAL, PRESSURE WASHING, WASH WATER COLLECTION & DISPOSAL. SEE SHEET C-102 FOR KNOWN & UNKNOWN UTILITIES WITHIN THE TRENCH AND IN TRENCH HOIST SYSTEM, SAFEING SYSTEMS, AND SEQUENCED REMOVAL.

21. TRENCH 1 & 2 AND B, C, D, & E CROSSING - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, 18 EXPANSION JOINTS, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 20 TRANSVERSE SAW CUTS, 4 PROTRUDING CORNER 3 FOOT DIAGONAL #3 BAR, 4 END WALL, 4 OPEN TO FILLED WALLS, IN TRENCH UTILITY CONDUITS TRENCH B & D, CAP OPEN TRENCH EMPTY CONDUITS, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

22. TRENCH 3 & 4 AND B, C, D, & E CROSSING - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, 20 EXPANSION JOINTS, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 18 TRANSVERSE SAW CUTS, 2 PROTRUDING CORNER 3 FOOT DIAGONAL #3 BAR, 4 END WALL, IN TRENCH UTILITY CONDUITS TRENCH B & D, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

23. TRENCH 6 & PORTION OF 5 AND B, C, D, & E CROSSING - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, 12 EXPANSION JOINTS, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 12 TRANSVERSE SAW CUTS, 2 PROTRUDING CORNER 3 FOOT DIAGONAL #3 BAR, 2 END WALL, 4 OPEN TO FILLED WALLS, IN TRENCH UTILITY CONDUITS TRENCH 5, B, & D, CAP OPEN TRENCH EMPTY CONDUITS, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

24. TRENCH 7 & 8 AND B, C, D, & E CROSSING - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, 22 EXPANSION JOINTS, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 16 TRANSVERSE SAW CUTS, 5 PROTRUDING CORNER 3 FOOT DIAGONAL #3 BAR, 4 END WALL, AND IN TRENCH UTILITY CONDUITS TRENCH B & D, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

25. TRENCH 9 AND B, C, D, & E CROSSING - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, 11 EXPANSION JOINTS, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 9 TRANSVERSE SAW CUTS, 2 PROTRUDING CORNER 3 FOOT DIAGONAL #3 BAR, 2 END WALL, 4 OPEN TO FILLED WALLS, IN TRENCH UTILITY CONDUITS TRENCH B, D, & 9 TO 3-CAR LIFT SERVICES, CAP OPEN TRENCH EMPTY CONDUITS, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

26. TRENCH 5 & D INTERSECTION - INSTALL SALVAGED METAL TRENCH GRATES AND PROVIDE UTILITY SERVICE STANDS. ALL FLAG NOTES - SALVAGED METAL TRENCH GRATES TO BE TIGHT, LEVEL, NO WOBBLE, NO TRIP EDGE INSTALLED FIT.

27. TRENCH 10 - INSTALL SALVAGED METAL TRENCH GRATES AND PROVIDE UTILITY SERVICE STANDS.

28. TRENCH B, C, D, & E - INSTALL SALVAGED METAL TRENCH GRATES

29. TRENCH 5 EASTERN END - INSTALL SALVAGED METAL TRENCH GRATE

30. TRENCH 3 & 5 ISOLATE EASTERN END - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, 2 EXPANSION JOINTS, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 4 END WALLS, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

31. TRENCH 2-L HOIST TRENCH - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, AND CORNER DIAGONAL SAW CUT, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

32. TRENCH 2- HOIST TRENCH - PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

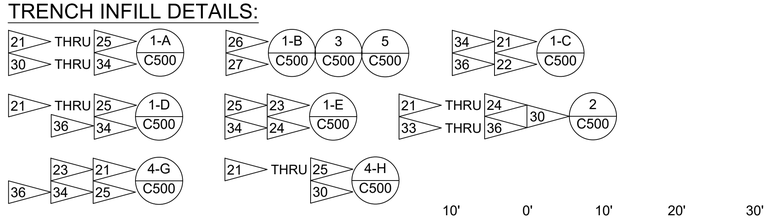
33. TRENCH C & E - INFILL BETWEEN NEW EXPANSION JOINTS BY OTHER FLAG NOTES, 7 LOCATIONS PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

34. TRENCH C - START AT NEW EXPANSION JOINT BY OTHER FLAG NOTES, PROVIDE FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, 1 OPEN TO FILLED WALLS, CAP OPEN TRENCH EMPTY CONDUITS, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

35. TRENCH B & D - INFILL BETWEEN NEW EXPANSION JOINTS BY OTHER FLAG NOTES, 6 LOCATIONS PROVIDE IN TRENCH UTILITY CONDUITS, FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

36. TRENCH B & D - INFILL BETWEEN NEW EXPANSION JOINTS BY OTHER FLAG NOTES, 2 LOCATIONS PROVIDE IN TRENCH UTILITY CONDUITS, FLOWABLE FILL & CONCRETE CAP W/ REINFORCEMENT, PERIMETER GRATING LIP LONGITUDINAL SAW CUT, OPEN TO FILLED WALLS, IN TRENCH UTILITY CONDUITS TRENCH B & D, CAP OPEN TRENCH EMPTY CONDUITS, AND ALLOW CONCRETE CURE & APPLY CONCRETE SURFACE SEALANT.

TRENCH INFILL DETAILS:



10' 0' 10' 20' 30'

GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE — MCMXLVII — UNITED STATES OF AMERICA

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Owned, Total Integrated Enterprises — RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES — AMRC — ALLEN Engineering, Inc.

DESIGNED BY: S. HOUGHTALING	DRAWN BY: S. HOUGHTALING	REVIEWED BY: S. HOUGHTALING	SUBMITTED BY: G. BEARD
DATE: 5/3/2017	DBEH 13-1523	DELIVERY NO.: FA2521-13-D-0005 0191	AS BUILT DATE: ####

DBEH 13-1523

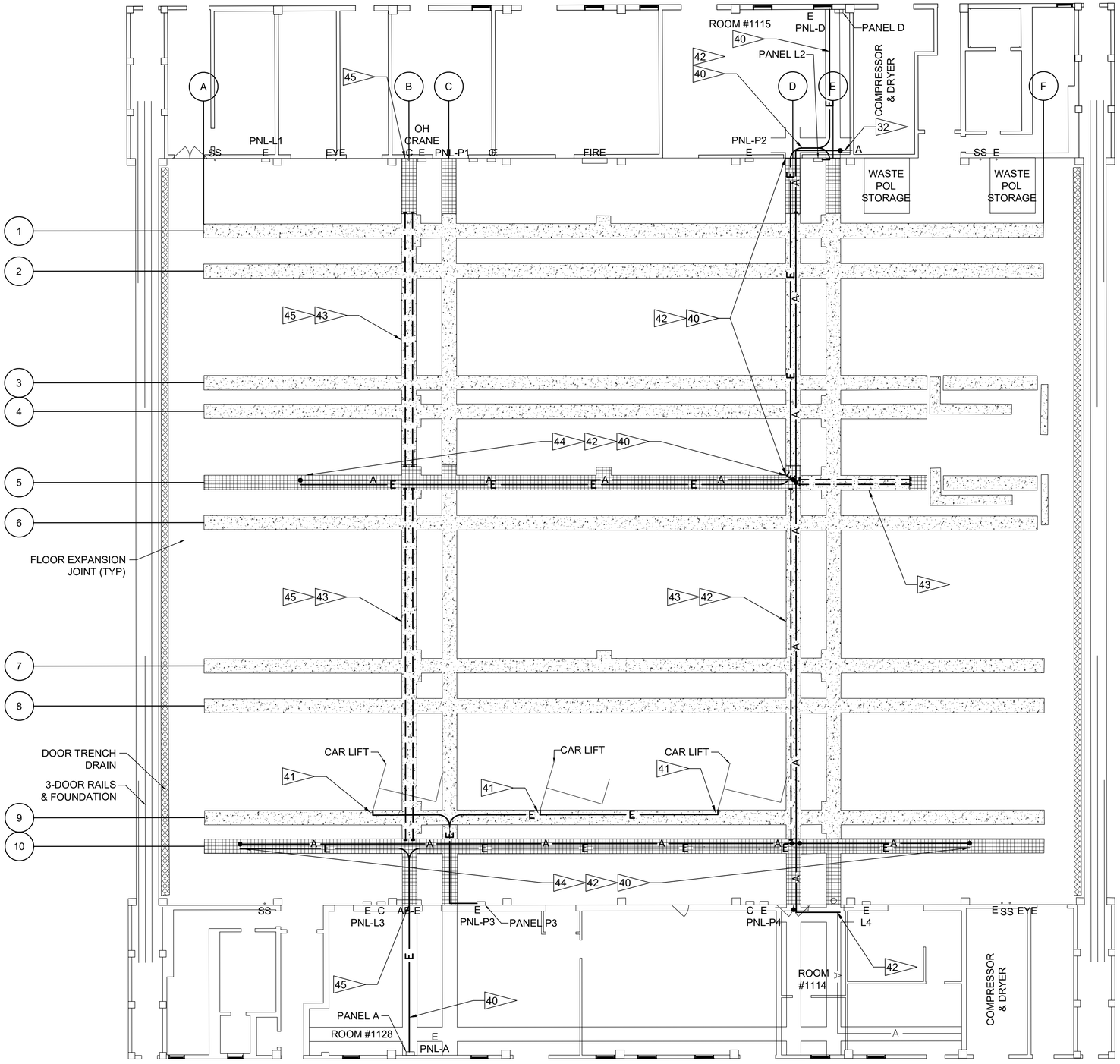
REPAIR HANGAR U, FAC 1744

HIGH BAY INFILL PLAN

SHEET IDENTIFICATION

C-103

5/5/2017 10:21:09 AM, barvir



UTILITY FLAG NOTES:

FLAG NOTES 37, 38, & 39 NOT USED

40. PROVIDE IN TRENCH D & E FROM PANELS D IN ROOM 1115 TO SERVICE TRENCH 5 - TRENCH C FROM PANELS A IN ROOM 1128 TO SERVICE TRENCH 10 - 8-2" ELECTRIC DUCTS AND IN TRENCH 5 & 10, SEE ELECTRICAL SHEETS FOR SERVICE STAND ELECTRICAL SERVICES.

41. PROVIDE IN TRENCH 9 & C, 3-1" ELECTRIC DUCT SERVICE EACH CAR LIFT, SEE ELECTRICAL SHEETS FOR ELECTRICAL SERVICE FOR CAR LIFTS.

42. AIR DISTRIBUTION & SERVICE - PROVIDE IN TRENCH D, SEQUENCED 1-2" HDPE AIR DISTRIBUTION PIPE, 10-2" METAL BODY SHUT OFF BALL VALVES, 3-2" HDPE TEE, 3-2" HDPE 90 BENDS, 4 TERMINAL END BLOW OFF W/ VALVE, DISTRIBUTION BRANCH AT TRENCH 5 & 10, INDIVIDUAL SERVICE BRANCHES - W/ SERVICE TEE, SHUT OFF VALVE, & GALV IRON PIPE & FITTINGS, CONVERT TO 2" SCH 40 GALV IRON PIPE & FITTINGS EACH END OPEN TRENCH AREA, SEQUENCE MAKE CONNECTION TO EXISTING GALV IRON PIPE AIR SUPPLY SYSTEM IN ROOM 1115 ABOVE GRADE & ROOM 1114 IN TRENCH.

43. EMPTY DUCTS - PROVIDE IN TRENCH B & 5 (EAST OF D) SEQUENCED 2-4" EMPTY DUCTS , PLACE CAPS ON END DO NOT SECURE TO DUCT, ACCOMMODATE NEW UTILITY CROSSING AT TRENCH 5 & 10.

44. TRENCH 5 & 10, 12 LOCATIONS PROVIDE UTILITY SERVICE STANDS W/ ELECTRIC & AIR UTILITY SERVICE.

45. COMMUNICATION - TRENCH 5 ORANGE INTER-DUCT & FIBER OPTIC TO RE REMOVED AND REROUTED SEE ELECTRICAL SHEETS.

UTILITY DETAILS:

42 41 3 C500 44 5 C500

PROJECT LEGEND:

METAL TRENCH COVER

CONCRETE FILLED TRENCH

TRUE NORTH PLAN NORTH

HANGAR U HIGH BAY
FLOOR TRENCH UTILITIES

SCALE: 1" = 10'

10' 0' 10' 20' 30'

GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE GP STRATEGIES AMRC ALLEN Engineering, Inc.

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REPAIR HANGAR U, FAC 1744

HIGH BAY TRENCH UTILITY PLAN

SHEET IDENTIFICATION

C-104

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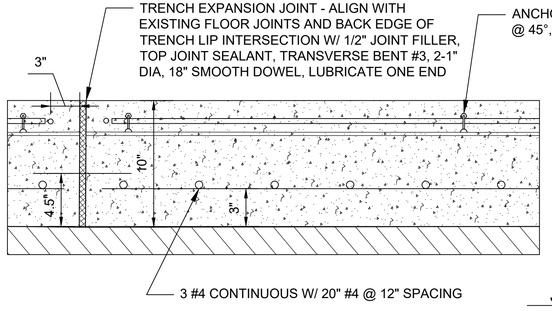
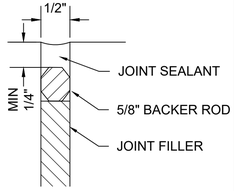
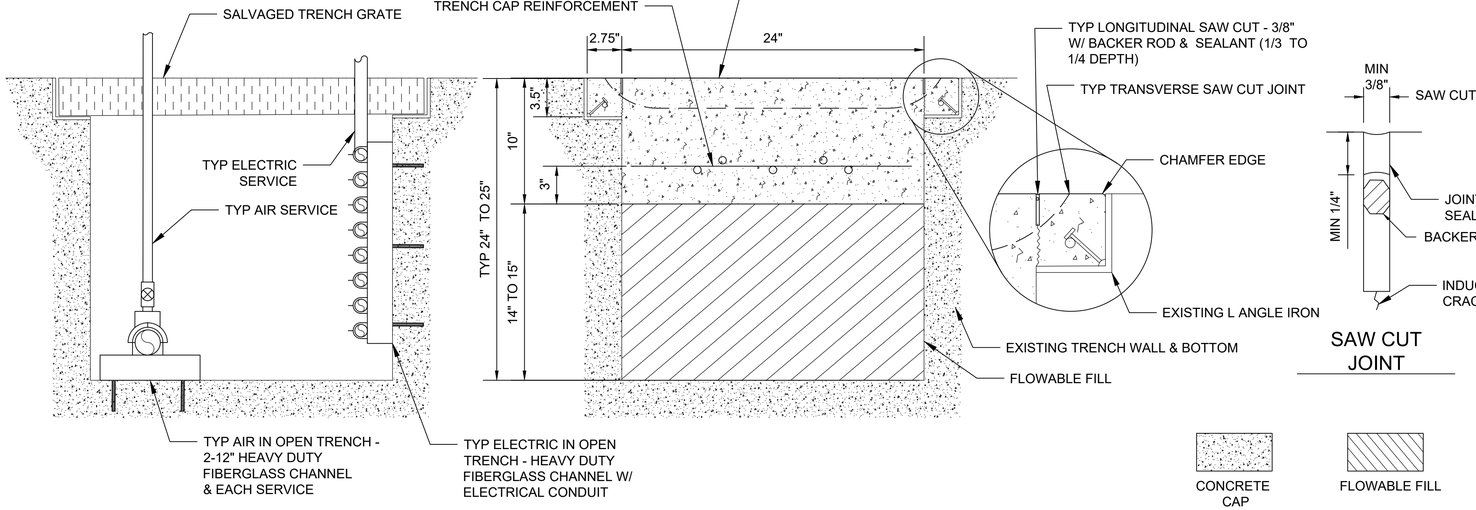




JOINT SEAL

TRENCH CAP REINFORCEMENT 2 C-500

SCALE: NONE



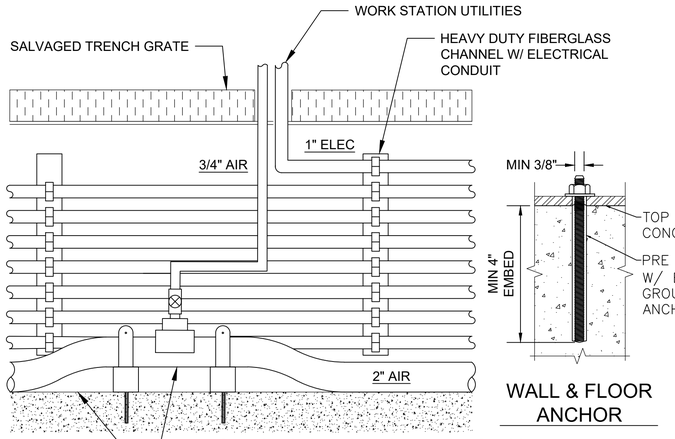
SAW CUT JOINT

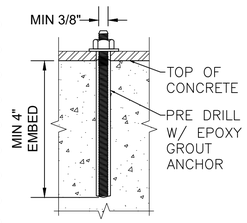
OPEN TRENCH W/ UTILITIES B

FILLED TRENCH NO UTILITIES A

TRENCH SECTIONS 1 C-500

SCALE: NONE





WALL & FLOOR ANCHOR

WORK STATION TRENCH UTILITY CONNECTIONS 3 C-500

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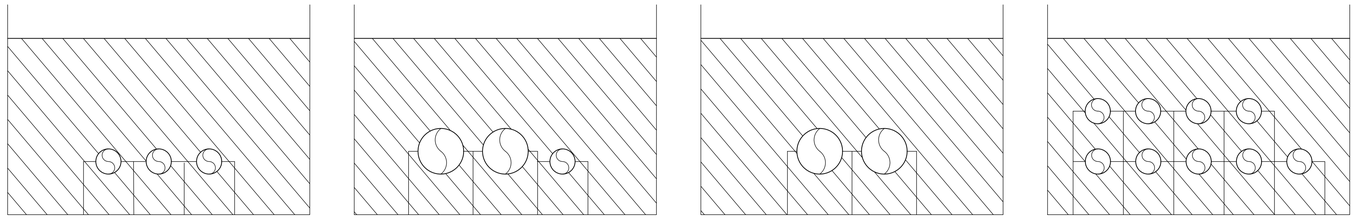
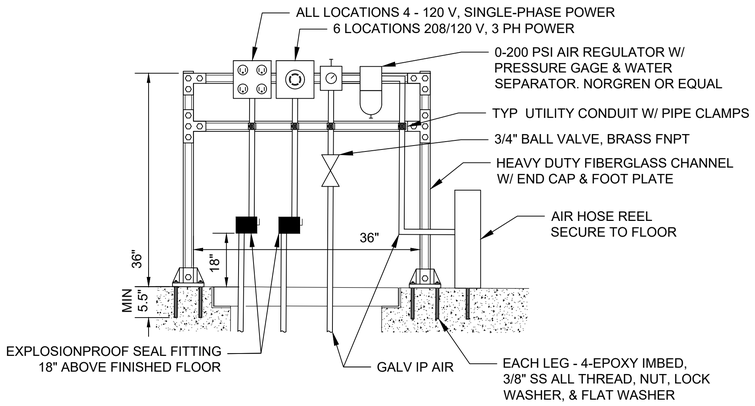


3-2" UTILITY CONDUITS D

2-4" & 1-2" UTILITY CONDUITS D

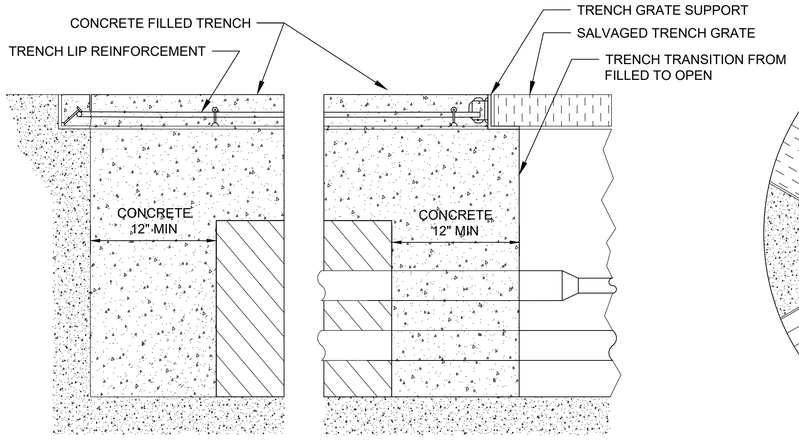
2-4" UTILITY CONDUITS D

9-2" UTILITY CONDUITS C



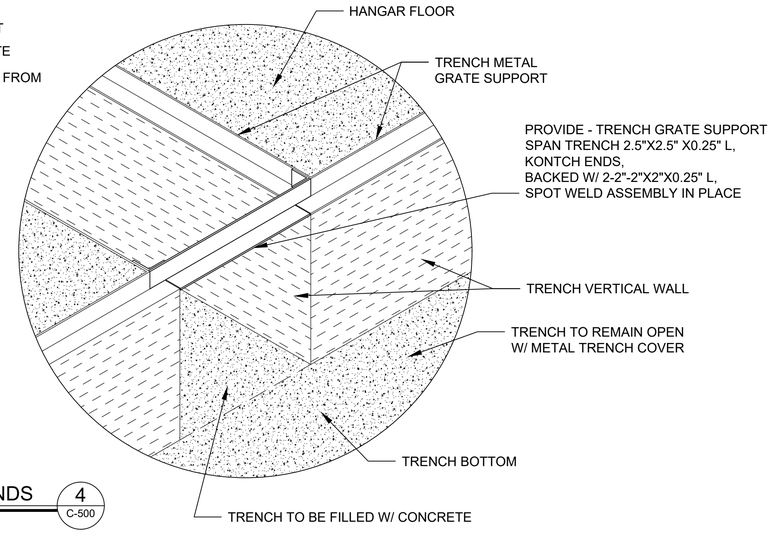
WORK STATION UTILITY SERVICE STAND 5 C-500

SCALE: NONE



END WALL H

OPEN TO FILLED WALL G



TRENCH ENDS 4 C-500

SCALE: NONE

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: S. HOUGHTALING | DRAWN BY: S. HOUGHTALING | REVIEWED BY: S. HOUGHTALING | SUBMITTED BY: G. BEARD

DATE: 5/5/2017 | DBEH 13-1523 | DELIVERY NO.: FA2521-13-D-0005 0191 | AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Oneida Total Integrated Enterprises — RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES — AMRC — ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

HIGH BAY TRENCH DETAILS

SHEET IDENTIFICATION

C-500

5/5/2017 10:21:19 AM, barvir

GENERAL REMOVAL AND INSTALLATION NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH PROJECT DRAWINGS AND SPECIFICATIONS; FOR PURPOSES OF CLARIFICATION THE WORD 'PROVIDE' MEANS PROVIDE AND INSTALL U.O.N.
2. INFORMATION ON EXISTING CONDITIONS IS BASED ON THE AVAILABLE OBSERVABLE IN PLACE ELEMENTS. CONTRACTOR TO FIELD MEASURE AND VERIFY REQUIREMENTS FOR EXACT DIMENSIONS. PRIOR TO START OF ALL WORK OPERATIONS, CONTRACTOR SHALL FIELD VERIFY CURRENT PROJECT CONDITIONS. ALL CONSTRUCTION REQUIREMENTS SHALL BE COORDINATED WITH THE CONTRACTING OFFICER.
3. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR PROPOSED WORK, PRIOR TO START OF WORK. PROJECT SPECIFICATIONS CONTAIN ADDITIONAL DEMOLITION AND REPAIR PROCEDURES AND REQUIREMENTS.
4. NOTATIONS FOR REMOVAL AND INSTALLATION REQUIREMENTS SHALL APPLY TO ALL SHEETS IN THIS DRAWING PACKAGE.
5. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
6. ALL REFERENCES TO MANUFACTURER NAMES ARE FOR IDENTIFICATION ONLY; THE REFERENCES ARE NOT INTENDED TO LIMIT SELECTION OF SIMILAR ITEMS FROM OTHER MANUFACTURERS WITH APPROVAL OF CONTRACTING OFFICER.
7. THE STRUCTURAL INTEGRITY OF THE COMPLETED STRUCTURE DEPENDS UPON THE INTERACTION OF VARIOUS CONNECTED COMPONENTS. PROVIDE ADEQUATE BRACING, SHORING, AND OTHER TEMPORARY SUPPORTS AS REQUIRED TO SAFELY COMPLETE THE WORK.
8. WHERE REQUIRED, ALL NEW STEEL STRUCTURAL MEMBERS SHALL BE ASTM A36 UNLESS OTHERWISE NOTED IN STRUCTURAL DRAWINGS.
9. WHERE REQUIRED AND NOT OTHERWISE SPECIFIED, ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS.
10. STRUCTURAL STEEL COATINGS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS, REFER TO SPECIFICATIONS AND ARCHITECTURAL DRAWINGS.
11. DISPOSAL OF ALL CONSTRUCTION DEBRIS SHALL BE AS DESCRIBED IN THE SPECIFICATIONS AND SHALL BE COORDINATED WITH HAZMAT DOCUMENTS. ANY UNFORESEEN CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
12. CONTRACTOR SHALL TAKE EXTREME CARE TO AVOID DAMAGE TO EXISTING ITEMS INTENDED TO BE REMOVED, RE-USED, OR RECYCLED.
13. THE CONTRACTOR SHALL REPAIR, AT NO COST TO THE GOVERNMENT, ANY DAMAGE DONE BY HIMSELF OR HIS EMPLOYEES. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED TO PROPERLY INSTALL ITS WORK.
14. USER CRITICAL EQUIPMENT SHALL BE REMOVED AND STORED BY THE USER, PRIOR TO START OF WORK. EQUIPMENT TO REMAIN IN-PLACE, SHALL BE PROTECTED; CONTRACTOR SHALL PROVIDE - FOR APPROVAL OF CONTRACTING OFFICER, A PLAN AND METHOD OF PROTECTING IN-PLACE EQUIPMENT, PRIOR TO START OF WORK.
15. FOR ALL CONSTRUCTION REQUIREMENTS REGARDING ENVIRONMENTAL ASBESTOS AND HEAVY METAL DEMOLITION, REFER TO HAZARDOUS MATERIAL DRAWINGS.
16. AFTER COMPLETION OF CONSTRUCTION WORK, ALL WORK AREAS SHALL BE LEFT CLEAN AND FREE OF ANY EXTRANEOUS SEALANT AND PAINT SMEARS OR SPLATTERS AND STAINS.
17. NO EXISTING (LOAD BEARING) STRUCTURAL MEMBER SHALL BE CUT, REMOVED, AND/OR MODIFIED (UNLESS SPECIFIED IN THE CONSTRUCTION DOCUMENTS) WITHOUT THE WRITTEN APPROVAL OF THE CONTRACTING OFFICER; ANY EXISTING DISTURBED AND/OR DAMAGED SURFACES (I.E. CONCRETE, MISCELLANEOUS STRUCTURAL MEMBERS, PAINT, ETC.) WITHIN THE AREA OF CONSTRUCTION SHALL BE REPAIRED AS NECESSARY, TO MATCH EXISTING CONSTRUCTION.
18. PROVIDE LEVELING COMPOUND AT FLOOR AREAS DAMAGED OR CHIPPED DURING DEMOLITION WHERE REQUIRED TO PROVIDE LEVEL, CONTINUOUS FLOOR SPACE.

PROJECT SPECIFIC NOTES:

1. THE CONTRACTOR SHALL ENCLOSE THE HANGAR FROM INCLEMENT WEATHER DURING THE CONSTRUCTION PROCESS INCLUDING PERIODS WHEN THE DOORS ARE EXPOSED DUE TO REFURBISHMENT AND REPAIRS. THE INTERIOR OF THE HANGAR SHALL BE PROTECTED FROM RAIN, HIGH WINDS AND CONDENSATION DUE TO EXCESSIVE HIGH HUMIDITY.
2. CONTRACTOR SHALL COORDINATE DUST AND EQUIPMENT COVER INSTALLATION WITH CONTRACTING OFFICER AND WITH FACILITY USER; EXISTING FACILITY FUNCTION SHALL NOT BE COMPROMISED.
3. CONTRACTOR SHALL SALVAGE DEMOLISHED HIGH BAY HANGAR DOOR COMPONENTS FOR MATERIAL INSTALLATION TEMPLATES. NEW DOOR COMPONENTS SHALL BE PREDRILLED TO MATCH EXISTING FRAMING MEMBER FASTENER SPACING.
4. EXISTING TOP AND BOTTOM STEEL TRACKS TO REMAIN IN PLACE (NO CHANGE).

CORROSION CLEANING, REPAIR AND COATING NOTES:

1. THE EXISTING STEEL DOOR AND FRAMES MAY NOT MEET EXISTING WIND CODES BUT ALL NEW COMPONENTS SHALL MEET CURRENT CODE REQUIREMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, SPACING, DIMENSIONS AND CONDITIONS AT THE INTERFACES AS REQUIRED. SUBMIT SIGNED AND SEALED CALCULATIONS AND DRAWINGS FOR ALL COMPONENTS TO BE REPLACED INCLUDING CONNECTIONS TO THE EXISTING FRAME. USE COMPONENT AND CLADDING WIND PRESSURES ALONG WITH APPLICABLE TRIBUTARY AREAS. MANUFACTURERS WIND PRESSURES SHALL NOT BE USED.
   - WIND VELOCITY: PER IBC 2015 AND ASCE 7-10 (SEE WIND PRESSURES BELOW)
     170 MPH WIND REGION
     USE FACTOR 1.0
     EXPOSURE 'C'
     CATEGORY II
     COMPONENTS AND CLADDING WIND PRESSURE +45.29 psf / -57.13 psf
2. A PARTIAL LIST OF RELATED ITEMS TO BE ADDRESSED ARE AS FOLLOWS, REFER TO DRAWINGS, NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS:
   - EXISTING HIGH BAY DOOR SUPPORT STRUCTURE TO REMAIN IN PLACE BUT TO BE REFURBISHED IN ACCORDANCE WITH ARCHITECTURAL NOTES AND DETAILS.
   - THE EXTERIOR DOOR PANELS/PLATES SHALL BE REMOVED, REFURBISHED AND REINSTALLED WHERE INDICATED IN DRAWINGS.
   - UPPER TRACK LATERAL SUPPORT / GUIDE ASSEMBLY BRACKETS AND STOP ANGLE BRACKETS SHALL REMAIN, NOT IN SCOPE.
   - THE WICKET/PILOT DOORS SHALL BE REMOVED AND REPLACED INCLUDING ALL FLASHING AND SAFETY FEATURES.
   - REMOVE AND REPLACE ALL EDGE AND BASE SEALS, END BUMPERS. INCLUDING TRIM AND FASTENERS HOLDING SEALS IN PLACE.
   - THE MAIN WHEELS, DRIVING GEARS, CHAINS ETC FOR BOTH ACTIVE AND PASSIVE DOORS SHALL BE INSPECTED FOR DAMAGE AND REPAIRED IN ACCORDANCE WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3. CONTRACTOR SHALL STORE STEEL MEMBERS IN DESIGNATED STORAGE AREA. ALL STEEL SHALL BE COVERED AND PROTECTED FROM ELEMENTS.
4. PRIOR TO WORK ON HIGH BAY HANGAR DOORS, QUALIFIED CONTRACTOR SHALL ABATE HEAVY METALS FROM LOCALIZED AREAS OF PROPOSED MODIFICATION AND REPLACEMENT. ABATEMENT SHALL REMOVE EXISTING PAINT TO BARE METAL, PER SSPC-SP 1 'SOLVENT CLEANING' AND SSPC-SP 11 'POWER TOOL CLEANING TO BARE METAL' WITH HEPA SHROUD. REFER TO HAZARDOUS MATERIAL DRAWINGS AND SPECIFICATIONS.
5. ALL WELDING OPERATIONS MUST BE PERFORMED AFTER COMPLETION OF SURFACE PREPARATION OF STEEL.
6. HANGAR DOOR SUPPORT STRUCTURE - POWER TOOL CLEAN STEEL TO SSPC SP-3; WHERE THE STEEL MEMBER HAS LOST 10% OF THE STRUCTURAL CROSS-SECTIONAL AREA (CROSS SECTIONAL SLICE AT AREA OF CORROSION DAMAGE, SHALL BE FIELD MEASURED WITH CALIPERS TO DETERMINE EXTENT OF DAMAGE). CUT AND PROVIDE NEW SECTION TO MATCH EXISTING, WELD WITH 3/16" CONTINUOUS WELD. PREPARE AND PAINT NEW AND EXISTING STEEL PER SPECIFICATIONS STEEL COATING SYSTEM. COLOR AND SHEEN SHALL BE SELECTED TO MATCH EXISTING COLORS. (FOR BIDDING PURPOSES ASSUME 20% OF INDIVIDUAL STEEL MEMBERS FROM BOTTOM OF WINDOW OPENINGS TO BOTTOM OF DOOR)
7. EXTERIOR FACE OF HIGH BAY DOORS - POWER TOOL CLEAN STEEL TO SSPC SP-3; PREPARE AND PAINT PER SPECIFICATIONS STEEL COATING SYSTEM. WHERE EXPOSED TO UV DEGRADATION PROVIDE ADDITIONAL COATING AS INDICATED IN SPECIFICATIONS. COLOR AND SHEEN SHALL BE SELECTED TO MATCH EXISTING DOOR COLOR. (FOR PURPOSES OF BIDDING ASSUME 10% OF INDIVIDUAL STEEL PANELS FROM BOTTOM OF WINDOW OPENINGS TO BOTTOM OF DOOR)
8. THE CONTRACTOR SHALL PROVIDE A NACE LEVEL III INSPECTOR FOR ALL SURFACE PREPARATION AND COATING WORK. EXCESSIVE FLAKING AND NON-ADHERED PAINT OR STEEL FILINGS EMBEDDED IN PAINT ARE CONSIDERED DEFICIENCIES IN WORK AND WILL NOT BE ACCEPTED.
9. HIGH BAY DOORS - REPLACE EXISTING GASKETS AND GASKET HOUSING WITH 3/16" EPDM RUBBER AND ALUMINUM HOUSING TO MATCH EXISTING IN PROFILE AND FASTENER SPACING (TYPICAL ALL DOORS). SEPARATE DISSIMILAR METALS WITH ASPHALTIC TAPE OR PAINT.
10. HIGH BAY DOOR FASTENERS - CONTRACTOR SHALL USE EXISTING FASTENER SIZE AND SPACING TO GREATEST EXTENT POSSIBLE (FIELD VERIFY); DRILL AND TAP HOLES FOR NEW FASTENERS BASED UPON EXISTING FASTENING PATTERN. REMOVE ALL STEEL SHAVINGS PRIOR TO PREPARATION FOR PRIME AND PAINT. REINSTALLED DOOR COMPONENTS SHALL USE 304SS FASTENERS.
11. STRUCTURAL REFURBISHMENT OF DOOR RAIL BOTTOM TRACK IS NOT IN CURRENT CONSTRUCTION CONTRACT. THE CONTRACTOR SHALL POWER CLEAN BOTTOM TRACK TO REMOVE ANY CORROSION DEBRIS AFTER WIRE BRUSHING THE DOOR STRUCTURE AND WICKET DOOR FRAME. EQUIPMENT SHALL HAVE HEPA SHROUD. REFER TO CLIN 3 ON DRAWING G-002.

DISSIMILAR METALS:

CONTRACTOR SHALL PROVIDE ADEQUATE SEPARATION OF DISSIMILAR METALS BY APPROPRIATE MEANS, SUCH AS ASPHALTIC TAPE, NEOPRENE TAPE, PEEL AND STICK TAPE, OR ASPHALTIC PAINT AS REQUIRED.

ALL CONNECTORS, FASTENERS, BOLTS, ETC., SHALL BE SELECTED IN ORDER TO PREVENT OR MINIMIZE ANY GALVANIC REACTION BETWEEN DISSIMILAR METALS. AND UNLESS OTHERWISE NOTED PROVIDE 304 STAINLESS STEEL.

SEQUENCING OF WORK:

CONTRACTOR SHALL SEQUENCE DEMO WORK TO FULLY COMPLETE ALL REQUIRED CONSTRUCTION WORK. PHASED CONSTRUCTION IS ACCEPTABLE WHERE APPROVED BY THE CONTRACTING OFFICER. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OF EXISTING ASSEMBLIES TO BE SALVAGED AGAINST INCLEMENT WEATHER AND CONSTRUCTION DAMAGE.

APPLICABLE CODES

WORK SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES AND THEIR LATEST REVISION AND WITH PROJECT SPECIFICATIONS:

2015	BUILDING CONSTRUCTION AND SAFETY NFPA 5000
2015	LIFE SAFETY CODE NFPA 101
2017	NATIONAL ELECTRIC CODE/INTERNATIONAL ELECTRICAL CODE SERIES, NEC - NFPA 70
2016	NATIONAL FIRE ALARM CODE NFPA 72
2016	STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEM IN OCCUPANCIES UP TO AND INCLUDING 4 STORIES IN HEIGHT, NFPA 13
2015	STANDARD ON TYPES OF BLDG. CONSTRUCTION NFPA 220
2015	INTERNATIONAL BUILDING CODE AND EXISTING BUILDING CODE
2015	INTERNATIONAL MECHANICAL CODE
2016	FIRE PROTECTION ENGINEERING FOR FACILITIES UFC 3-600-01
2016	FORCE PROTECTION UFC 4-010-01
2016	GENERAL BUILDING REQUIREMENTS UFC 1-200-01
2015	INTERIOR ELECTRICAL SYSTEMS UFC 3-520-01
2014	AIR FORCE SIGN STANDARD UFC 3-120-01

ABBREVIATIONS:

(ALL MAY NOT BE USED) FOR ADDITIONAL END ITEMS ABBREVIATIONS; REFER TO RESPECTIVE DISCIPLINE DRAWINGS

ABA/ABA - AMERICAN BARRIER ACT - FEDERAL/ AMERICAN DISABILITY ACT - COMMERCIAL
ACM - ASBESTOS CONTAINING MATERIAL
AFF - ABOVE FINISHED FLOOR
ALUM - ALUMINUM
ANOD - ANODIZED
A.T. - ANTI TERRORIST
ATFP - ANTI TERRORIST FORCE PROTECTION

BLDG - BUILDING
B/ - BOTTOM OF

CID - COMPREHENSIVE INTERIOR DESIGN
CONC - CONCRETE
CONT - CONTINUOUS
CMU - CONCRETE MASONRY UNIT
CONF - CONFERENCE

DN - DOWN
DET - DETAIL
DWGS - DRAWINGS

EXIST - EXISTING
EXT - EXTERIOR
EPDM - ETHYLENE PROPYLENE DIENE MONOMER

F.G. - FIBERGLASS
FIN FL - FINISH FLOOR
F.V. - FIELD VERIFY

GA - GAUGE
GALV - GALVANIZED
GYP BD - GYPSUM WALL BOARD
GWB - GYPSUM WALL BOARD

H.M. - HOLLOW METAL
HW - HARDWARE
HDW - HARDWARE
HAZMAT - HAZARDOUS MATERIAL

INSUL - INSULATION
INT - INTERIOR

LLV - LONG LEG VERTICAL
LLH - LONG LEG HORIZONTAL

MAX - MAXIMUM
MFR - MANUFACTURER
MIN - MINIMUM
M.M. - MASONRY OPENING
MTL - METAL
MRGWB - MOISTURE RESISTANT GYPSUM WALL BOARD
MTD - MOUNTED

N.I.C. - NOT INCLUDED IN CONTRACT
NOM - NOMINAL

O.C. - ON CENTER
O.D. - OUTSIDE DIAMETER

P/PT - PAINT
P.T. - PRESSURE TREATED
PLYWD - PLYWOOD
PWD - PLYWOOD
PLST - PLASTER
PSI - POUNDS PER SQUARE INCH
PTS - POINTS
PVC - POLYVINYL CHLORIDE

REINF - REINFORCED
R.O. - ROUGH OPENING

S.C. - SOLID CORE
SCHED/SCH - SCHEDULE
SMS - SHEET METAL SCREW
ST. STL. - STAINLESS STEEL
S.O.W. - SCOPE OF WORK

TYP - TYPICAL
T/ - TOP OF

U.O.N - UNLESS OTHERWISE NOTED

DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####
DESIGNED BY: F. LABOY
DRAWN BY: F. LABOY
REVIEWED BY: R. CONSTANTINIDE
SUBMITTED BY: G. BEARD

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL
CONTRACT NO.: FA2521-13-D-0005 - 0191
ALLEN Engineering, Inc.
AMRC
GP STRATEGIES
OTIE Oneida Total Integrated Enterprises
RAEIS RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
INSTALLATION AND CORROSION TREATMENT NOTES

SHEET IDENTIFICATION
A-001

GENERAL NOTES: (THESE NOTES APPLY TO DRAWINGS AD-101 - AD-102)

1. UNLESS INTENDED FOR MODIFICATION BY PROJECT CONSTRUCTION, CONTRACTOR SHALL PROTECT ADJACENT CONSTRUCTION FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. REPLACE ANY DAMAGED MATERIALS AND CONSTRUCTION, AT NO ADDITIONAL COST TO THE GOVERNMENT.
2. CONTRACTOR SHALL PROTECT EXTERIOR ADJACENT CONSTRUCTION AND GRASS/LANDSCAPED AREAS FROM DAMAGE DURING ALL PHASES OF DEMOLITION. REPLACE ANY DAMAGE AT NO ADDITIONAL COST TO THE GOVERNMENT.
3. IF THE CONTRACTOR SUSPECTS THE PRESENCE OF HAZARDOUS MATERIALS IN AREAS OF WORK NOT PREVIOUSLY IDENTIFIED, HE SHALL NOTIFY THE CONTRACTING OFFICER FOR DIRECTIONS; REFER TO HAZARDOUS MATERIALS DRAWINGS.
4. AREAS OF WORK - FOR REMOVAL OF EXISTING FLOOR MOUNTED ITEMS; CONTRACTOR SHALL COORDINATE DEMOLITION WITH SUBSEQUENT DISCIPLINE DRAWINGS; PATCH AND REPAIR EXISTING CONCRETE FLOORS AS REQUIRED TO RECEIVE NEW WORK.
5. COORDINATE W/ SUBSEQUENT DISCIPLINE DRAWINGS TEMPORARY DISCONNECTION AND/OR REMOVAL OF UTILITY SERVICES IN THE AREAS OF WORK AS REQUIRED BY THIS S.O.W. AND SPECIFICATIONS.
6. AT THE END OF EACH WORKING DAY THE CONTRACTOR SHALL PROVIDE TEMPORARY BUILDING PROTECTION PER PROJECT SPECIFIC NOTES, DRAWING A-001.

* ITEMS TO BE CONSIDERED FOR SALVAGE AND/OR RECYCLING, COORDINATE WITH FACILITY MANAGER AND CONTRACTING OFFICER.

[1]* COORDINATE SCOPE OF ABATEMENT WORK WITH HAZARDOUS MATERIALS DRAWINGS. ABATEMENT CONTRACTOR AND CONTRACTING OFFICER SHALL COORDINATE EXTENT OF WORK AND METHOD OF REMOVAL PRIOR TO START OF WORK; CONTRACTOR SHALL PROVIDE A WORK PLAN IDENTIFYING ALL FACETS OF THE PROPOSED WORK AND DISPOSAL OF DEBRIS.

CLIN 1 - ARCHITECTURAL FLAG NOTES - DEMOLITION:

INTERIOR HIGH BAY TRENCH COVERS:

1. REMOVE TRENCH COVERS IN COORDINATION WITH CLIN 1 SCOPE OF WORK AS INDICATED ON DRAWING C-102. WHERE INTENDED FOR RE-INSTALLATION IN COORDINATION WITH CIVIL DRAWINGS, NUMBER AND MARK EXACT LOCATION. COORDINATE WITH HAZARDOUS AND CIVIL DRAWINGS AND NOTES.

CLIN 2 - ARCHITECTURAL FLAG NOTES - DEMOLITION:

INTERIOR HIGH BAY FLOOR:

2. EXISTING CONSTRUCTION TO REMAIN - SHOWN FOR REFERENCE.
3. REMOVE AND DISPOSE OF EXPANSION JOINT MATERIAL. MAINTAIN JOINT SUBSTRATE MATERIAL IN CURRENT LOCATION. CLEAN AND REMOVE ` DEBRIS. DISPOSE OF MATERIAL AND DEBRIS PER HAZARDOUS S DRAWINGS. REMOVE AND DISPOSE OF ADJACENT CONCRETE RUBBLE PER HAZARDOUS MATERIALS DRAWINGS AND NOTES. PREPARE FOR NEW CONSTRUCTION WORK (BASIS OF DESIGN IS 2800 LF).
4. AT FRAGMENTED CONCRETE FLOOR AREAS, REMOVE SECTION OF DAMAGED CONCRETE BY SCARIFICATION PROCESS AND REPAIR SURFACE PER NEW CONSTRUCTION WORK (BASIS OF DESIGN IS 500 SF).
5. WHERE TWO OR MORE ADJACENT SLAB SURFACES HAVE A DIFFERENCE IN ELEVATION IN EXCESS OF 1/2", CONTRACTOR SHALL GRIND CONCRETE FLOOR SURFACE TO MEET LOWEST FLOOR ELEVATION. MATERIAL THICKNESS TO BE GROUND SHALL NOT EXCEED MORE THAN 3/4". CONTRACTOR SHALL PREPARE SURFACE PER NEW CONSTRUCTION WORK (BASIS OF DESIGN IS 500 SF).
6. CONTRACTOR SHALL PROTECT IN-PLACE PERIMETER FLOOR COVER (ASPHALTIC COVER) TO REMAIN .

CLIN 4 - ARCHITECTURAL FLAG NOTES - DEMOLITION:

HIGH BAY HANGAR DOORS:

* 31. CONTRACTOR SHALL REMOVE HANGAR DOOR COMPONENTS, IN THE VICINITY OF THE WICKET DOORS AND OF THE DOOR OPERATING MECHANISMS, THAT HAVE LOST MORE THAN 10% OF THEIR CROSS SECTIONAL AREA. (BASIS OF DESIGN IS 500 SF) .
* 32. CONTRACTOR SHALL WIRE BRUSH DOOR STRUCTURE AFTER COMPLETION OF COMPONENT REMOVAL AND SHALL PREPARE TO REPLACE COMPONENT SECTIONS AS WELL AS PRIME AND PAINT PER SPECIFICATIONS AND CORROSION CLEANING, REPAIR AND COATING NOTES, DRAWING A-001.
* 33. REMOVE AND DISPOSE OF EXISTING HIGH BAY HANGAR WICKET DOOR, FRAME AND HARDWARE. CONTRACTOR SHALL NOTE LOCATION AND MANUFACTURER OF EXISTING HARDWARE FOR PURPOSE OF REPLACING WITH IN-KIND. SALVAGE EXISTING WICKET DOOR ASSEMBLY FOR SIZE, AND CONFIGURATION WITH NEW ASSEMBLY TO BE INSTALLED INTO EXISTING FRAMING.
* 34. HIGH BAY HANGAR WICKET DOOR STRUCTURAL STEEL FRAME TO REMAIN IN PLACE. CONTRACTOR SHALL INSPECT STEEL FRAME FOR DAMAGE DUE TO CORROSION AND DEMOLITION. WIRE BRUSH COMPONENTS AND PREPARE TO PRIME AND PAINT PER SPECIFICATIONS AND CLEANING, REPAIR AND COATING NOTES, DRAWING A-001. REPLACE DAMAGED OR CORRODED MEMBERS, ACCESSORIES AND/OR ATTACHMENTS WITH IN-KIND AS REQUIRED. PROVIDE ADDITIONAL TOP COAT FOR UV PROTECTION ON OUTSIDE FACE OF DOOR FRAME.
35. REMOVE AND DISPOSE OF TOP AND BOTTOM CHECKERED PLATES AT WICKET DOORS. SALVAGE TEMPLATE PER PROJECT SPECIFIC NOTES, DRAWING A-001.
36. REMOVE EXISTING HIGH BAY DOOR GASKETING, INCLUDING BUT NOT LIMITED TO HIGH BAY DOOR BOTTOM (HORIZONTAL) AND HIGH BAY DOOR EDGE (VERTICAL) SEALS, SEAL HOLDERS, FASTENERS AND ACCESSORIES. WIRE BRUSH STEEL MEMBER AFFECTED BY REMOVAL PER CORROSION CLEANING, REPAIR AND COATING NOTES, DRAWING A-001. (BASIS OF DESIGN IS 780LF) .
37. ALL EXISTING DOOR EDGE CLOSURES, SEALS AND TRIM STRIPS ETC. SHALL BE REMOVED AND SAVED AS TEMPLATE FOR NEW ASSEMBLIES.
38. EXISTING HANGAR DOOR TOP AND BOTTOM GUIDE RAILS AND EYEBROW TO REMAIN - N.I.C. CONTRACTOR SHALL CLEAN BOTTOM TRACK PER CLIN 3 FLAG NOTES.
39. FOR HANGAR DOOR OPERATORS AND MECHANICAL WORK, REFER TO FOLLOWING DISCIPLINE DRAWINGS.

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: F. LABOY | DATE: 5/3/2017
DRAWN BY: F. LABOY | DBEH 13-1523
REVIEWED BY: R. CONSTANTINIDE | DELIVERY NO.: FA2521-13-D-0005 0191
SUBMITTED BY: G. BEARD | AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Owners Total Integrated Enterprises — RANGE, AIRCRAFT, GROWER, INSPECTION SERVICES

AMRC GP STRATEGIES — ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

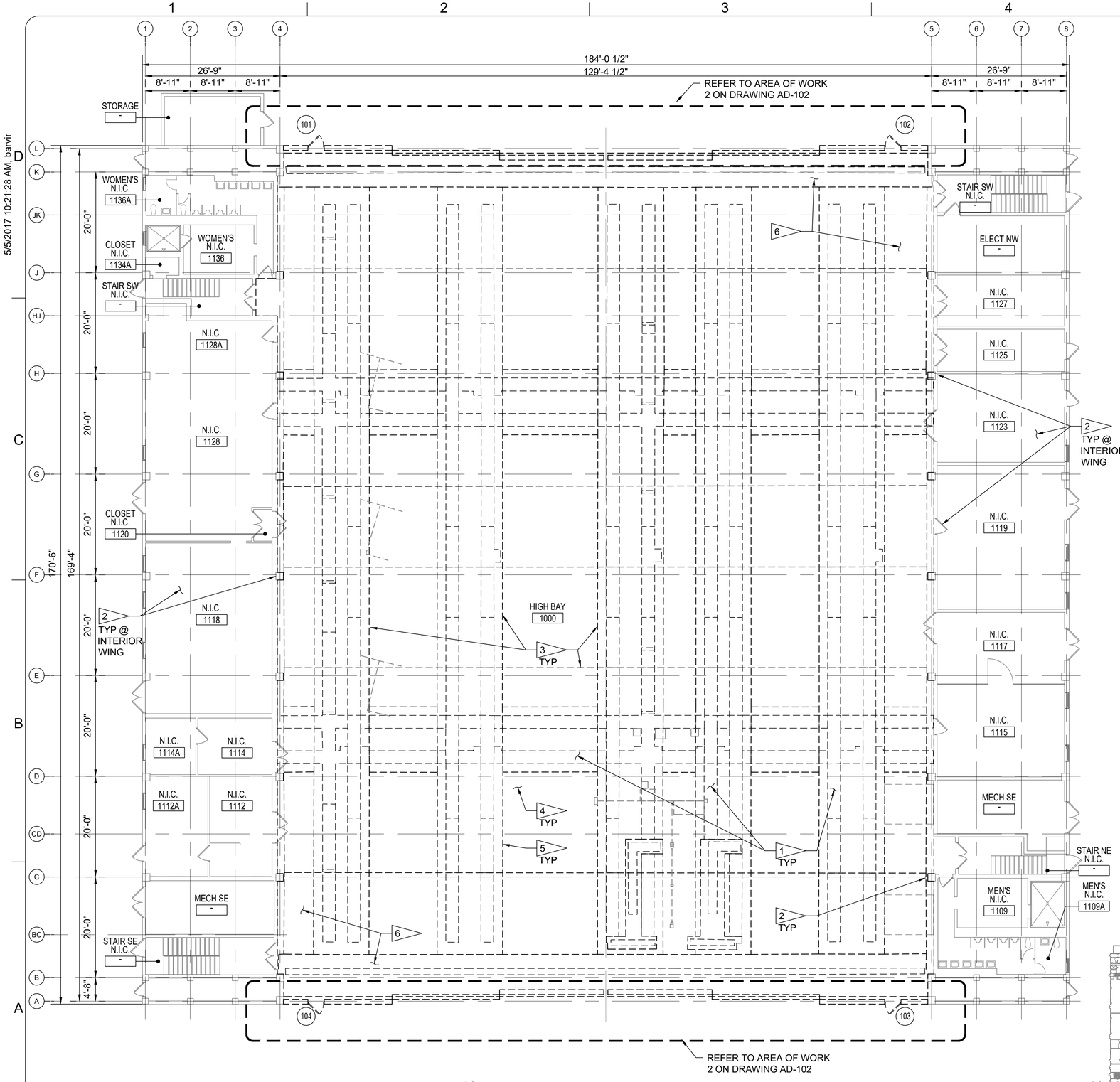
FLAG NOTES - DEMOLITION

SHEET IDENTIFICATION

AD-100

5/5/2017 10:21:22 AM, barvir

5/5/2017 10:21:28 AM, barvir



HIGH BAY FLOOR PLAN - DEMOLITION

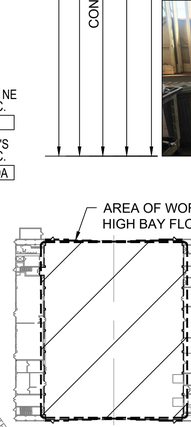
SCALE: 3/32" = 1'-0"

REMOVE SECTION OF DAMAGED CONCRETE AND PREPARE FOR NEW WORK PER DEMOLITION NOTES FOR FLOOR TRENCH DEMOLITION WORK, REFER TO CIVIL DRAWINGS

CONTRACTOR SHALL COORDINATE WITH HAZARDOUS MATERIAL CONTRACTOR PRIOR TO ANY FLOOR AND WALL BASE FINISH DEMOLITION IS PERFORM

CONTRACTOR SHALL REFER TO SUBSEQUENT DISCIPLINE DRAWINGS FOR ELECTRICAL, MECHANICAL AND PLUMBING END ITEMS, TYP.

COORDINATE REMOVAL OF EQUIPMENT AND FURNITURE W/ FACILITY MANAGER THROUGHOUT FACILITY, TYP.



KEY PLAN - HIGH BAY

SCALE: N.T.S.

HIGH BAY FLOOR PHOTOS - DEMOLITION:

PHOTO AD-101:
FLOOR TRENCHES - WEST VIEW

PHOTO AD-101:
FLOOR TRENCHES - WEST VIEW

PHOTO AD-101:
FLOOR TRENCHES - SOUTH VIEW

PHOTO AD-101:
FLOOR TRENCHES AND JOINTS

PHOTO AD-101:
CONSTRUCTION JOINTS - DIFFERENCE IN ELEVATION BETWEEN SLABS

PHOTO AD-101:
FLOOR CRACKS

PHOTO AD-101:
DAMAGED CONSTRUCTION JOINTS AND FLOOR DEFECTS

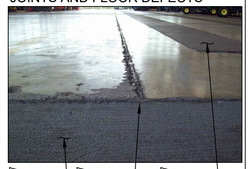


PHOTO AD-101:
DAMAGED CONSTRUCTION JOINTS AND FLOOR DEFECTS

PHOTO AD-101:
FLOOR DEFECTS

PHOTO AD-101:
DAMAGED CONSTRUCTION JOINTS AND FLOOR DEFECTS

PHOTO AD-101:
FLOOR FINISH PATHWAY

PHOTO AD-101:
FLOOR FINISH PATHWAY

PHOTO AD-101:
FLOOR TRENCHES AT EQUIPMENT LIFT AREA

GENERAL NOTE:

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR PROPOSED WORK, PRIOR START OF WORK.

FACILITY ALIGNMENT NOTE:

PHOTO TITLES ARE IN ACCORDANCE WITH DEMOLITION FLOOR PLAN 'TRUE NORTH' THIS DRAWING.

'FLAG NOTES':

FOR DEMOLITION FLAG NOTES REFER TO DRAWING AD-100.

10' 5' 0' 10' 20' 30'

GRAPHIC SCALE: 3/32" = 1'-0"

DEPARTMENT OF THE AIR FORCE · MCMXLVII · UNITED STATES OF AMERICA

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Owners Total Integrated Enterprises — RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES · AMRC · ALLEN Engineering, Inc.

DESIGNED BY: F. LABOY	DRAWN BY: F. LABOY	REVIEWED BY: R. CONSTANTINIDE	SUBMITTED BY: G. BEARD
DATE: 5/3/2017	DBEH 13-1523	DELIVERY NO.: FA2521-13-D-0005 0191	AS BUILT DATE: ####

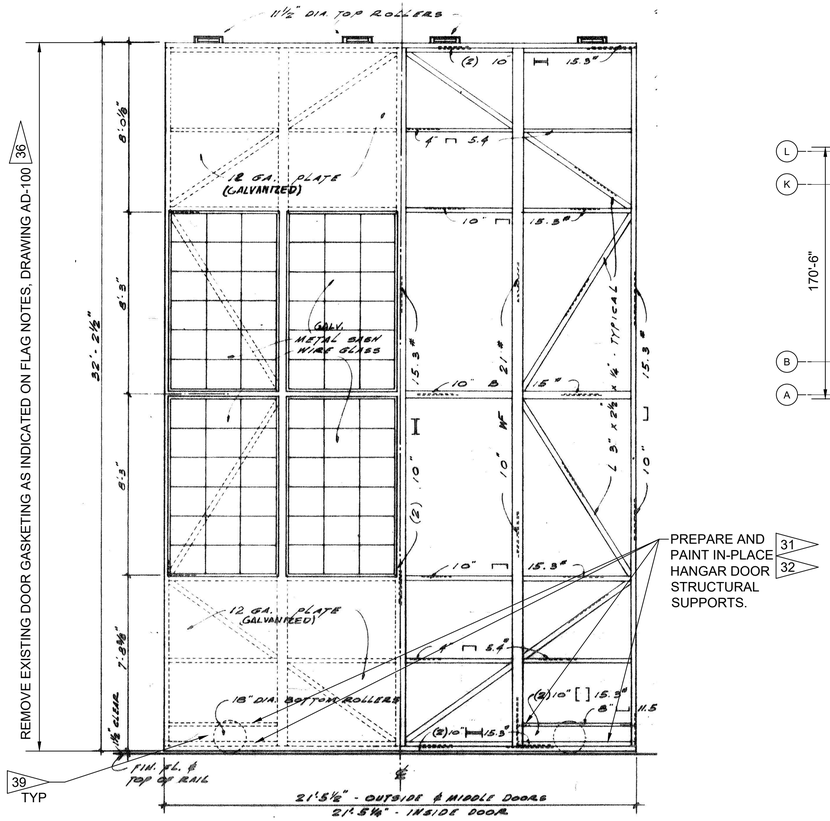
DBEH 13-1523

REPAIR HANGAR U, FAC 1744

HIGH BAY FLOOR PLAN AND PHOTOS - DEMOLITION

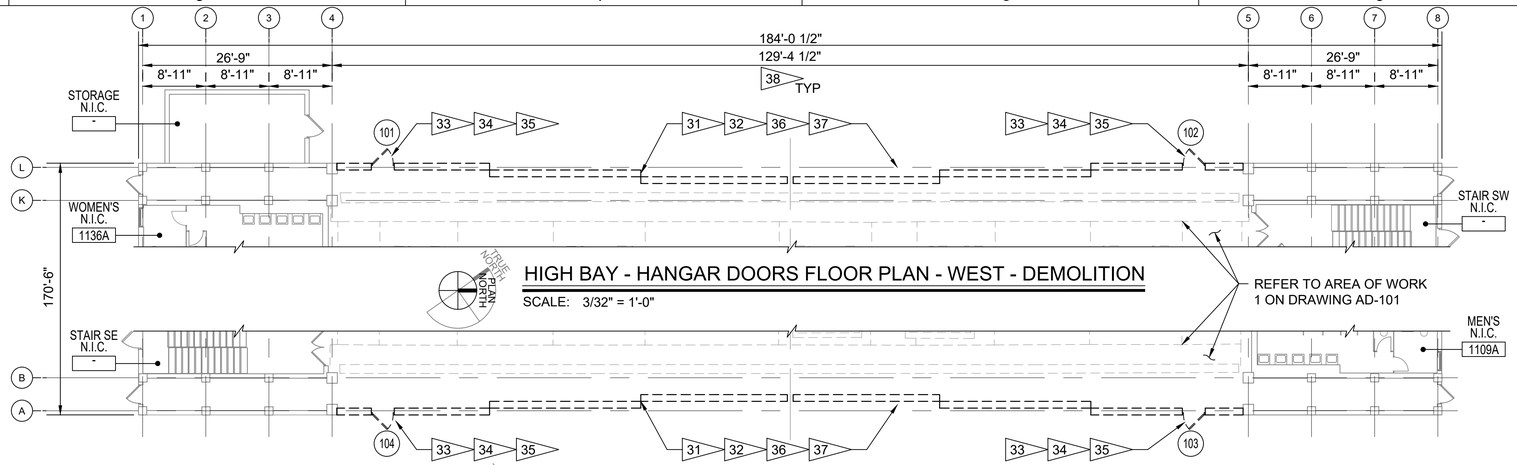
SHEET IDENTIFICATION

AD-101



TYP. SINGLE DOOR LEGACY ENLARGED ELEVATION - DEMOLITION

SCALE: N.T.S.

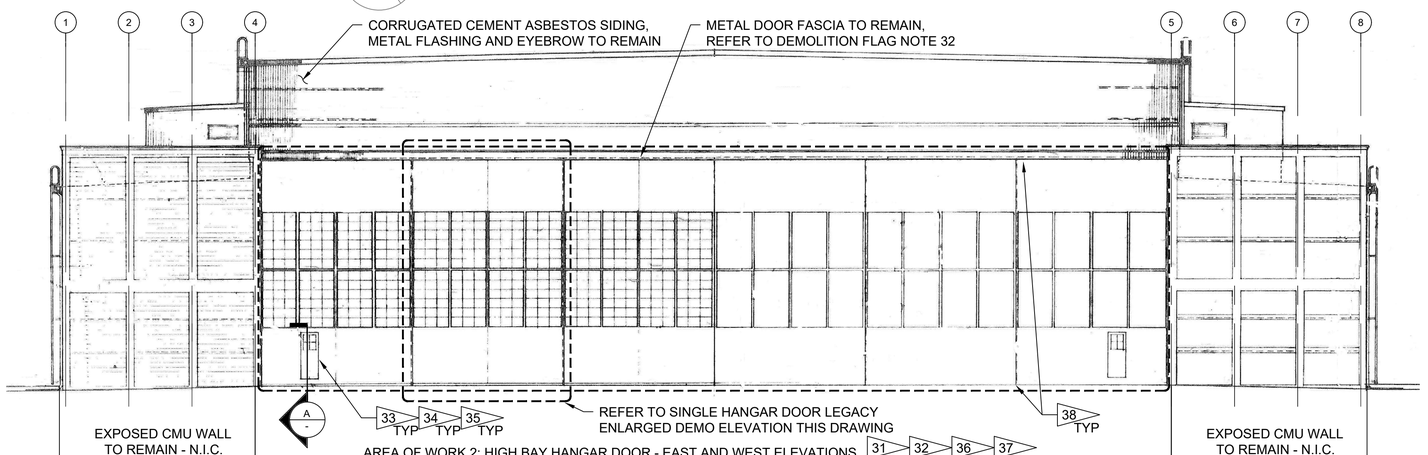


HIGH BAY - HANGAR DOORS FLOOR PLAN - WEST - DEMOLITION

SCALE: 3/32" = 1'-0"

HIGH BAY - HANGAR DOORS FLOOR PLAN - EAST - DEMOLITION

SCALE: 3/32" = 1'-0"



TYP. HANGAR DOORS LEGACY ELEVATION - DEMOLITION

SCALE: N.T.S.

WEST - HIGH BAY HANGAR DOOR - PHOTOS - DEMOLITION:

PHOTO AD-102:
HIGH BAY HANGAR DOOR ELEVATION

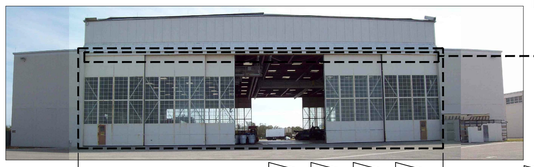


PHOTO AD-102:
OVERHEAD SOFFIT AND DOOR GASKETING

PHOTO AD-102:
TYP. SINGLE HANGAR DOOR W/ WICKET/PILOT DOOR

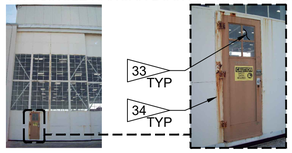


PHOTO AD-102:
TYP. DOOR MECHANISM

PHOTO AD-102:
TYP. HANGAR DOOR STRUCTURAL SUPPORTS - INT VIEW

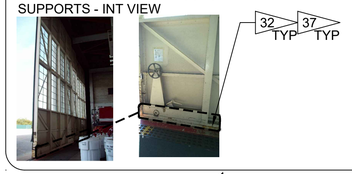
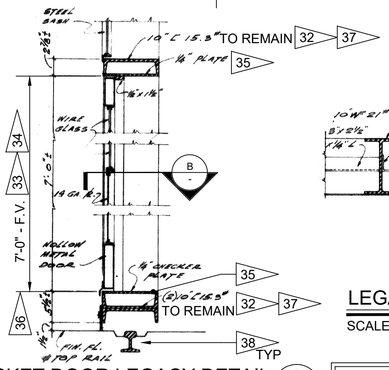
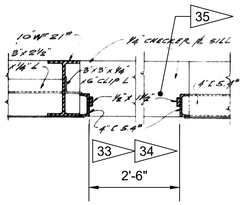


PHOTO AD-102:
TYP. DOOR GASKET/SEALS



WICKET DOOR LEGACY DETAIL A

SCALE: N.T.S.



LEGACY DETAIL B

SCALE: N.T.S.

GENERAL NOTE:
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR PROPOSED WORK, PRIOR START OF WORK.
FACILITY ALIGNMENT NOTE:
PHOTO TITLES ARE IN ACCORDANCE WITH DEMOLITION PLANS 'TRUE NORTH' THIS DRAWING.
'FLAG NOTES':
FOR DEMOLITION FLAG NOTES REFER TO DRAWING AD-100.

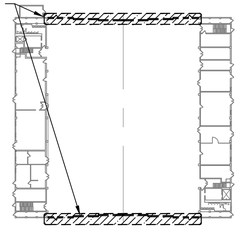
LEGACY NOTES:
1. LEGACY INFORMATION SHOWN ON SECTIONS AND DETAILS IS FOR REFERENCE ONLY. CONTRACTOR SHALL NOT MODIFY ANY ITEMS U.O.N. ON DRAWINGS.
2. DRAWING INFORMATION:
   STEWARD AND SKINNER AND MAURICE H. CONNELL AND ASSOCIATES, INC.
   - PROJECT NUMBER:86K02872
   - SHEET: A-7 AND A-13
   - DATE: APRIL 1953

EAST - HIGH BAY HANGAR DOOR - PHOTOS - DEMOLITION:

PHOTO AD-102:
HIGH BAY HANGAR DOORS ELEVATION

PHOTO AD-102:
OVERHEAD SOFFIT

AREA OF WORK 2: DOORS - WEST AND EAST



KEY PLAN - HANGAR DOORS

SCALE: N.T.S.

PHOTO AD-102:
TYP. HANGAR DOOR GASKET/SEALS

PHOTO AD-102:
TYP. WICKET DOOR AND FRAMING

GRAPHIC SCALE: 3/32" = 1'-0"

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: F. LABOY
DRAWN BY: F. LABOY
REVIEWED BY: R. CONSTANTINIDE
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO.: FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL
CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Owners Total Integrated Enterprises
RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES
GP STRATEGIES AMRC ALLEN Engineering, Inc.

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
HIGH BAY DOOR PLANS, ELEVATION & PHOTOS - DEMOLITION

SHEET IDENTIFICATION
AD-102

5/5/2017 10:21:37 AM, barvir

GENERAL NOTES: (THESE NOTES APPLY TO DRAWINGS A-101 - A-102)

1. UNLESS INTENDED FOR MODIFICATION BY PROJECT CONSTRUCTION, CONTRACTOR SHALL PROTECT ADJACENT CONSTRUCTION FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. REPLACE ANY DAMAGED MATERIALS AND CONSTRUCTION, AT NO ADDITIONAL COST TO THE GOVERNMENT.
2. CONTRACTOR SHALL PROTECT EXTERIOR ADJACENT CONSTRUCTION AND GRASS/LANDSCAPED AREAS FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. REPLACE ANY DAMAGE AT NO ADDITIONAL COST TO THE GOVERNMENT.
3. IF THE CONTRACTOR SUSPECTS THE PRESENCE OF HAZARDOUS MATERIALS IN AREAS OF WORK NOT PREVIOUSLY IDENTIFIED, HE SHALL NOTIFY THE CONTRACTING OFFICER FOR DIRECTIONS; REFER TO HAZARDOUS MATERIALS DRAWINGS.
4. AREAS OF WORK - FOR RE-INSTALLATION OF EXISTING FLOOR MOUNTED ITEMS, CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW EQUIPMENT WITH SUBSEQUENT DISCIPLINE DRAWINGS. PROVIDE CORRECTIVE REPAIRS TO IN-PLACE FLOOR COATING WHERE DAMAGED BY EQUIPMENT INSTALLATION.
5. COORDINATE W/ SUBSEQUENT DISCIPLINE DRAWINGS UTILITY OUTAGES FOR RE-CONNECTION OF EQUIPMENT.
6. CONTRACTOR SHALL MAKE REPAIRS TO EXISTING BUILDING COMPONENTS AFTER REMOVAL OF TEMPORARY WEATHER COVERS.

CLIN 1 - ARCHITECTURAL FLAG NOTES - NEW CONSTRUCTION:

INTERIOR HIGH BAY TRENCH COVERS:

1. RE-INSTALL FLOOR TRENCH COVERS IN THE ORIGINAL SEQUENCE OF INSTALLATION, WHERE FLOOR TRENCHES HAVE NOT BEEN IN-FILLED WITH CONCRETE. REFER TO CIVIL DRAWINGS FOR CLIN 1 TRENCH IN-FILL AND TO DEMOLITION NOTES.

CLIN 2 - ARCHITECTURAL FLAG NOTES - NEW CONSTRUCTION:

INTERIOR HIGH BAY FLOOR:

2. EXISTING CONSTRUCTION TO REMAIN - SHOWN FOR REFERENCE.
3. INFILL AND REPAIR DAMAGED CONCRETE SLAB WITH 3000 PSI FIBERMESH CONCRETE ('FIBERMESH - 1.5# /C.Y) U.O.N.; LEVEL FLOOR TO MATCH ADJACENT AREAS, TYP. PROVIDE BROOM OR FLOAT FINISH TO MATCH ADJACENT SURFACES.
4. PRESSURE WASH REPAIRED CONCRETE FLOOR PER NACE STD RP-01-72, FOR REMOVAL OF OIL, GREASE, LOOSE RUST AND MILL SCALE. WATER PRESSURE AT MIN 2000 PSI, AT FLOW OF 4-14 GALLONS/ MIN. MOISTURE TEST EXISTING CONCRETE DECK FOR WATER VAPOR TRANSMISSION AND/OR SURFACE DRYNESS IN ACCORDANCE WITH ASTM D4263; COORDINATE WITH PROPOSED COATING MANUFACTURER. PROVIDE 3-STEP COATING SYSTEM AS SHOWN ON MATERIAL FINISH LIST; REFER TO HAZARDOUS MATERIAL DRAWINGS.
5. PROVIDE AND INSTALL NEW EXPANSION JOINT MATERIAL AT LOCATION OF REPAIRED CONCRETE FLOOR JOINTS. REFER TO MATERIAL FINISH LIST AND TO DEMOLITION NOTES.
6. CONTRACTOR SHALL PROTECT PERIMETER FLOOR FINISH TO REMAIN.

CLIN 4 - ARCHITECTURAL FLAG NOTES - NEW CONSTRUCTION:

HIGH BAY HANGAR DOORS:

31. AT LOCATION OF MODIFIED STEEL MEMBERS-INSTALL NEW COMPONENTS AND ATTACH TO HANGAR DOOR FRAMING MEMBERS. AFTER COMPONENT IS ATTACHED TO FRAMING, CONTRACTOR SHALL PROVIDE TOUCH-UP PAINT PER SPECIFICATIONS AND CLEANING, REPAIR AND COATING NOTES, DRAWING A-001.
32. INSTALL NEW TOP AND BOTTOM WICKET DOOR CHECKERED PLATES. PRIME AND PAINT PER CLEANING, REPAIR AND COATING NOTE, DRAWING A-001. NEW DOORS SHALL MATCH EXISTING IN SIZE, HARDWARE, LOCATION AND CONFIGURATION.
33. PROVIDE NEW HANGAR WICKET DOORS TO MATCH EXISTING IN SIZE AND CONFIGURATION. AFTER COMPLETION OF MODIFICATIONS TO STRUCTURAL FRAMING. PROVIDE AND INSTALL NEW HARDWARE PER DOOR AND HARDWARE SCHEDULE. CONTRACTOR SHALL PROVIDE TOUCH-UP PAINT AS REQUIRED FOR SEAMLESS APPEARANCE PER SPECIFICATIONS AND CLEANING, REPAIR AND COATING NOTES, DRAWING A-001.
34. PROVIDE AND INSTALL NEW HIGH BAY DOOR GASKETING AND ASSOCIATED HARDWARE AND FASTENERS TO MATCH PREVIOUS GASKETING CONFIGURATION AND MATERIALS. FASTEN INTO EXISTING FASTENER HOLES. PROVIDE ST STL FASTENERS AND ADDITIONAL ACCESSORIES FOR A FULLY FUNCTIONAL SYSTEM OPEN AND CLOSE DOOR LEAFS IN PAIRS AND INDIVIDUALLY. FOR PURPOSE OF TESTING THE NEW GASKETING PERFORMANCE, VERTICAL GASKETING SHALL BE ENGAGED WITHOUT SCRAPING OR DAMAGE AND IT SHALL NOT PERMIT A CLEARANCE OF MORE THAN 1/16" FROM TOP TO BOTTOM OF DOOR; HORIZONTAL GASKETING SHALL CLEAR TOP OF CONCRETE DECK BY NOT MORE THAN 3/4" , SIMILAR TO EXISTING. REFER TO CLEANING, REPAIR AND COATING NOTES, DRAWING A-001.
35. FOR HANGAR DOOR OPERATOR AND ACCESSORIES, REFER TO SUBSEQUENT DISCIPLINE DRAWINGS.

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: F. LABOY	DRAWN BY: F. LABOY	REVIEWED BY: R. CONSTANTINIDE	SUBMITTED BY: G. BEARD
DATE: 5/3/2017	DBEH 13-1523	DELIVERY NO.: FA2521-13-D-0005 0191	AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Owners Total Integrated Enterprises — RAMSE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES — AMRC — ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

FLAG NOTES - NEW CONSTRUCTION

SHEET IDENTIFICATION

A-100

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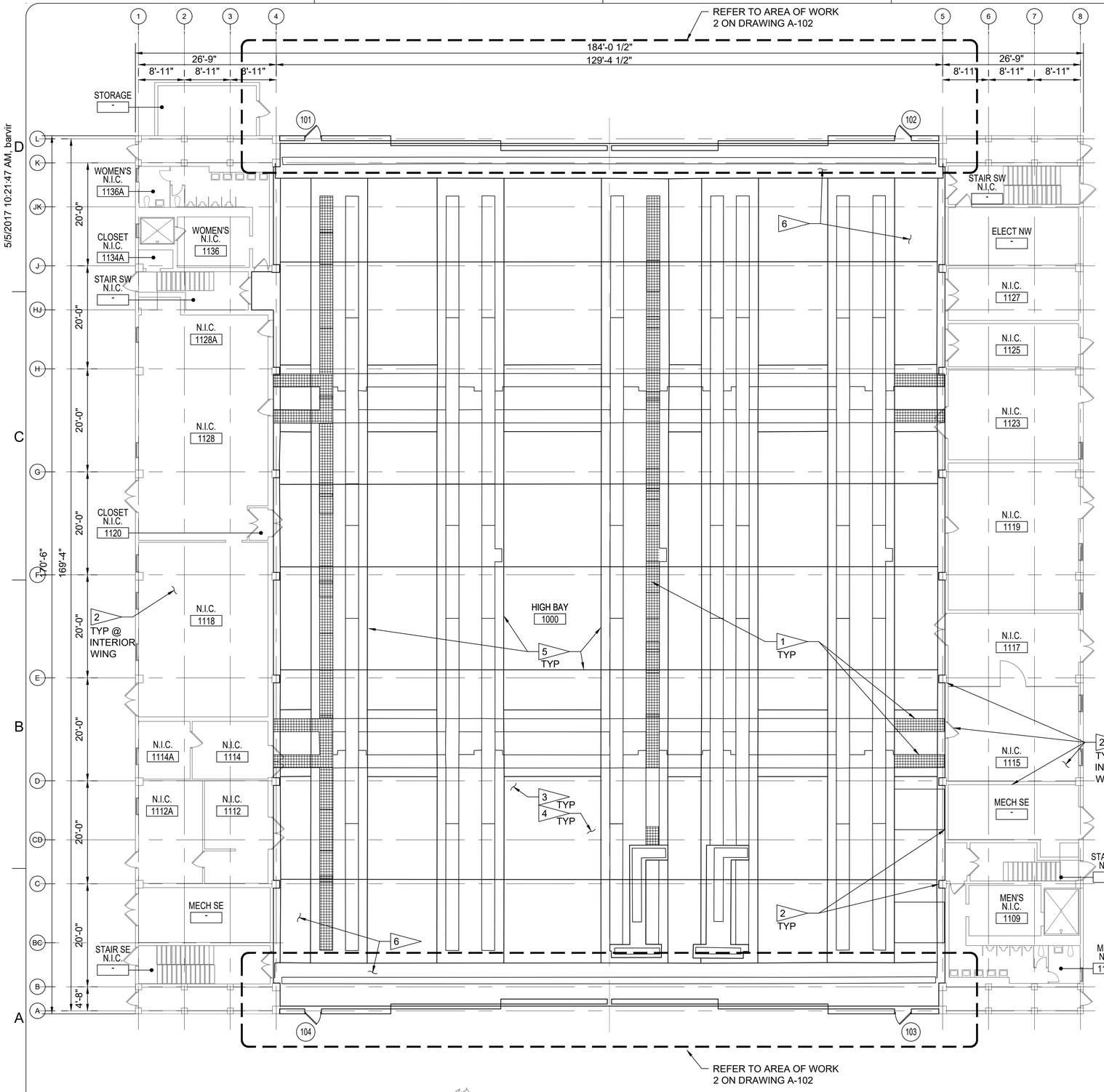


REFER TO AREA OF WORK 2 ON DRAWING A-102

HIGH BAY FLOOR PLAN - NEW CONSTRUCTION

SCALE: 3/32" = 1'-0"

MATERIAL FINISH LIST

MATERIAL LEGEND	DESCRIPTION	COLOR	MODEL NUMBER	REMARKS
P-1	BASIS OF DESIGN: DURA-FLEX URETHANE FLOOR FINISH SYSTEM	DURA-FLEX URETHANE FLOOR FINISH SYSTEM	DURA-FLEX URETHANE FLOOR FINISH SYSTEM	DURA-FLEX URETHANE FLOOR FINISH SYSTEM: 'SHOP FLOOR' SELF-LEVELING GROUT COAT; 'ARMOR TOP' TOP COAT; 'DURA GLAZE' BROADCAST COAT

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR FINISH	BASE TRIM	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING MATERIAL	CEILING HEIGHT	REMARKS
RM 1000	HIGH BAY	EXIST CONC/P-1	--	SEE REMARK-1	EAST HANGAR DOOR, SEE REMARK-2	SEE REMARK-1	WEST HANGAR DOOR, SEE REMARK-2	OPEN TO STRUCTURE, SEE REMARK-1	SEE REMARK-1	1. EXISTING TO REMAIN - N.I.C. 2. FOR HANGAR DOOR WORK, REFER TO A-102.
-	ALL ROOMS N.I.C.	SEE REMARKS	SEE REMARKS	SEE REMARKS	SEE REMARKS	SEE REMARKS	SEE REMARKS	SEE REMARKS	SEE REMARK-1	EXISTING TO REMAIN - N.I.C.

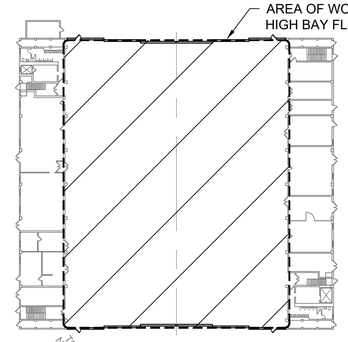
ROOM FINISH NOTES:

1. GC SHALL SUBMIT TO CONTRACTING OFFICER COLOR SAMPLES OF PAINT AT THE SAME TIME FOR CONFIRMATION OF COLOR SELECTION AND COORDINATION W/ BASE INTERIOR DESIGNER.
2. ALL MFR'S NAMES ARE FOR COLOR, PATTERN, AND TEXTURE ONLY. EQUAL MATERIALS BY OTHER MFR'S MAY BE SUBMITTED PENDING CONTRACTING OFFICER'S APPROVAL. IF SUBSTITUTIONS ARE MADE, ALL INTERIOR FINISH SAMPLES SHALL BE SUBMITTED ONE AT A TIME.
3. ALL FINISH SAMPLES SHALL BE PROVIDED TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO PURCHASE, AT ONE TIME.
4. FINISH SCHEDULE INDICATES FINISHES TO BE LOCATED IN ACCORDANCE WITH 'PLAN NORTH'.
5. COORDINATE INSTALLATION OF NEW FINISH MATERIALS WITH HAZMAT DRAWING AND HAZMAT REPORT.
6. PRIOR TO COMMENCEMENT OF WORK AND PURCHASE OF ANY EQUIPMENT AND/OR FINISH MATERIALS, CONTRACTOR SHALL COORDINATE INDICATED FINISHES PER MATERIAL FINISH LIST AND NOTES.

FINISH MATERIALS ABBREVIATIONS:

(ALL MAY NOT BE USED)

LS	=	LIQUID SEALANT MEMBRANE
MTL	=	CORRUGATED METAL PANEL
P OR PT	=	PAINT
WP/UL	=	WATERPROOFING / UNDERLAYMENT



KEY PLAN - HIGH BAY

SCALE: N.T.S.

GENERAL NOTE:

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR PROPOSED WORK, PRIOR START OF WORK.

FACILITY ALIGNMENT NOTE:

ROOM IDENTIFICATION SHOWN ON SCHEDULES ARE IN ACCORDANCE WITH NEW FLOOR PLAN 'TRUE NORTH' THIS DRAWING.

'FLAG NOTES':

REFER TO NEW CONSTRUCTION FLAG NOTES ON DRAWING A-100.

10' 5' 0' 10' 20' 30'

GRAPHIC SCALE: 3/32" = 1'-0"

DEPARTMENT OF THE AIR FORCE · MCMXLVII · UNITED STATES OF AMERICA

DESIGNED BY: F. LABOY
DRAWN BY: F. ALBOY
REVIEWED BY: R. CONSTANTINIDE
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RAEIS OTTE — Oneida Total Integrated Enterprises — RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES

AMRC

ALLEN Engineering, Inc.

DBEH 13-1523

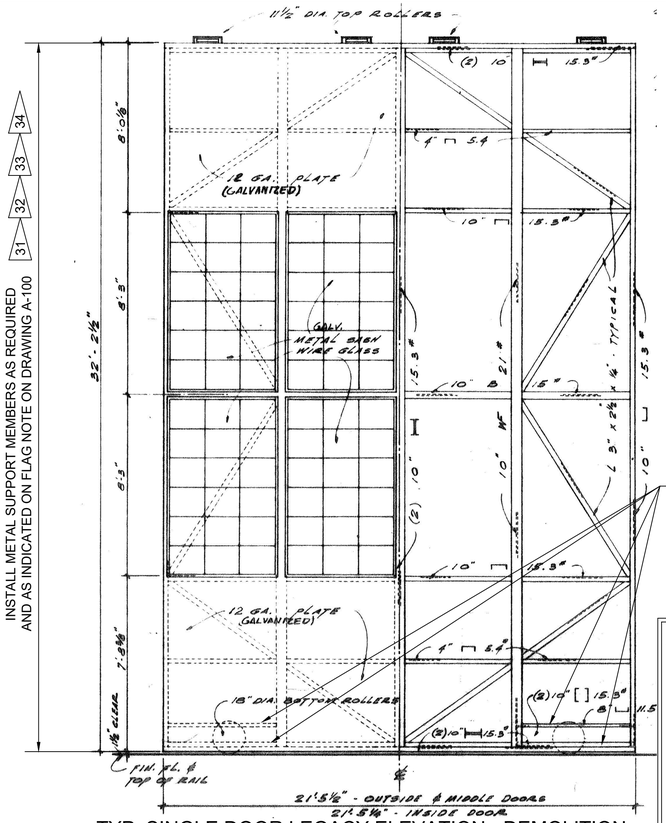
REPAIR HANGAR U, FAC 1744

HIGH BAY FLOOR PLAN AND SCHEDULES - NEW CONSTRUCTION

SHEET IDENTIFICATION

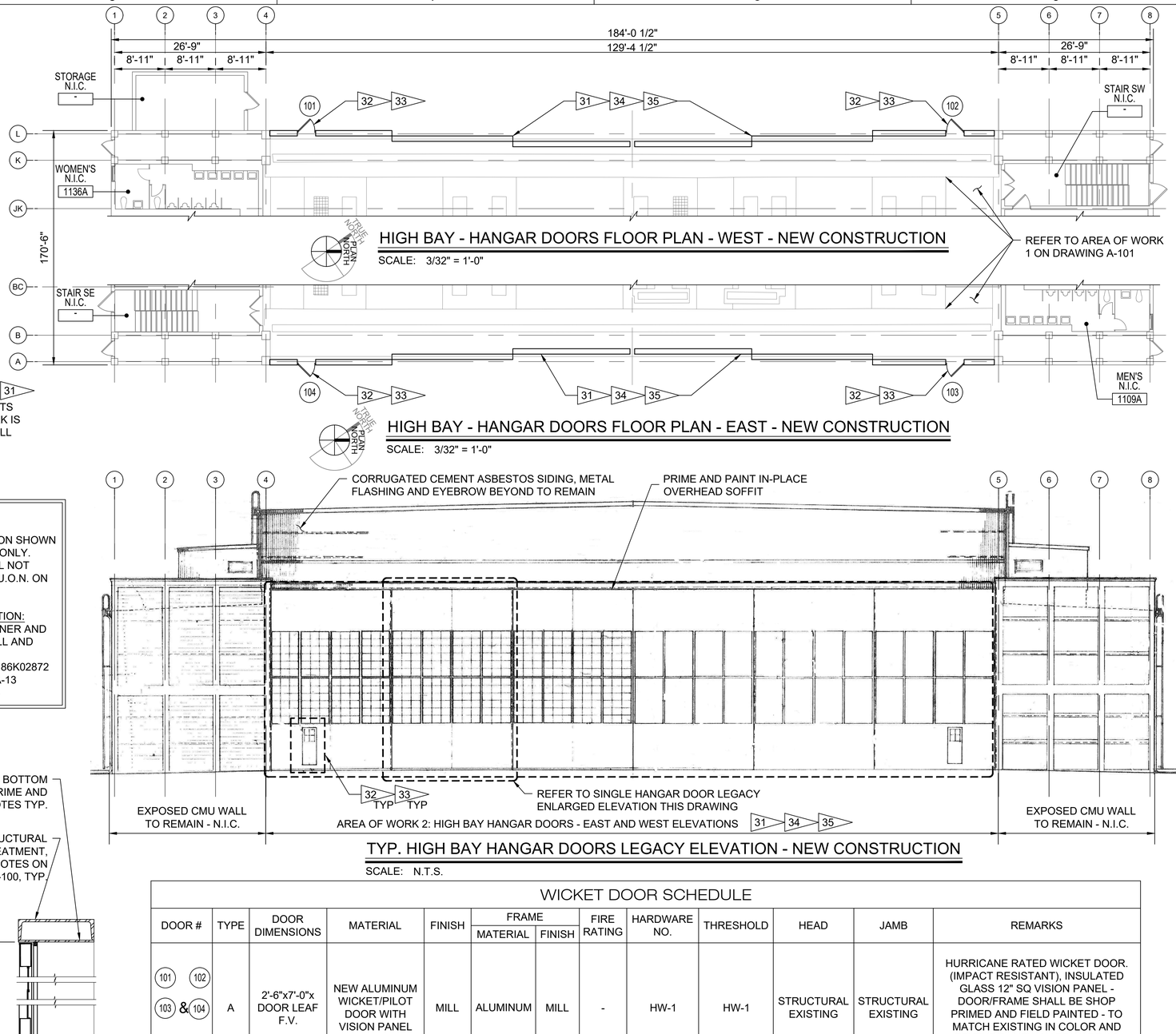
A-101

5/5/2017 10:21:47 AM, barvir



TYP. SINGLE DOOR LEGACY ELEVATION - DEMOLITION

SCALE: N.T.S.



HIGH BAY - HANGAR DOORS FLOOR PLAN - WEST - NEW CONSTRUCTION

SCALE: 3/32" = 1'-0"

HIGH BAY - HANGAR DOORS FLOOR PLAN - EAST - NEW CONSTRUCTION

SCALE: 3/32" = 1'-0"

TYP. HIGH BAY HANGAR DOORS LEGACY ELEVATION - NEW CONSTRUCTION

SCALE: N.T.S.

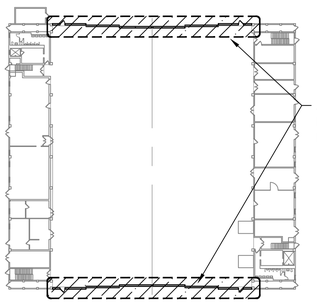
LEGACY NOTES:

1. LEGACY INFORMATION SHOWN IS FOR REFERENCE ONLY. CONTRACTOR SHALL NOT MODIFY ANY ITEMS U.O.N. ON DRAWINGS.
2. DRAWING INFORMATION: STEWARD AND SKINNER AND MAURICE H. CONNELL AND ASSOCIATES, INC.
   - PROJECT NUMBER:86K02872
   - SHEET: A-7 AND A-13
   - DATE: APRIL 1953

TYP. HIGH BAY HANGAR DOOR - PHOTO - NEW CONSTRUCTION:

PHOTO A-102:
TYP. HIGH BAY HANGAR DOOR ELEVATION

AREA OF WORK 2

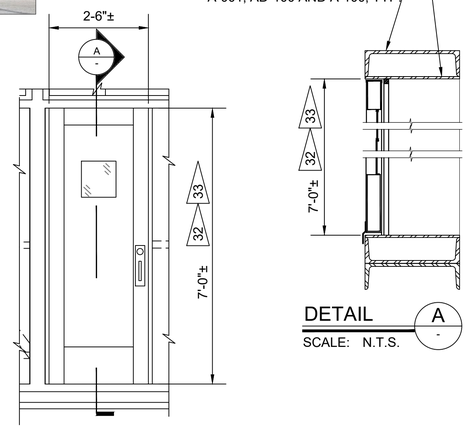


KEY PLAN - HANGAR DOORS

SCALE: N.T.S.

32 REPLACE DOOR TOP AND BOTTOM CHECKER PLATES, AND PRIME AND PAINT PER FLAG NOTES TYP.

31 WIRE BRUSH IN-PLACE STRUCTURAL FRAME FOR CORROSION TREATMENT, AND PRIME AND PAINT PER NOTES ON A-001, AD-100 AND A-100, TYP.



TYP. ENLARGED WICKET DOOR ELEVATION

SCALE: N.T.S.

WICKET DOOR SCHEDULE

DOOR #	TYPE	DOOR DIMENSIONS	MATERIAL	FINISH	FRAME MATERIAL	FRAME FINISH	FIRE RATING	HARDWARE NO.	THRESHOLD	HEAD	JAMB	REMARKS
101 102 103 & 104	A	2'-6"x7'-0"x DOOR LEAF F.V.	NEW ALUMINUM WICKET/PILOT DOOR WITH VISION PANEL	MILL	ALUMINUM	MILL	-	HW-1	HW-1	STRUCTURAL EXISTING	STRUCTURAL EXISTING	HURRICANE RATED WICKET DOOR. (IMPACT RESISTANT), INSULATED GLASS 12" SQ VISION PANEL - DOOR/FRAME SHALL BE SHOP PRIMED AND FIELD PAINTED - TO MATCH EXISTING IN COLOR AND TEXTURE - NEW HARDWARE AS SPECIFIED BELOW

DOOR HARDWARE 1: EXTERIOR SINGLE WICKET/PILOT DOOR

(3) 4 1/2" X 4 1/2" H.D. ST STL MORTISED HINGES - FIXED PIN
(1) ST. STL. PULL HANDLE WITH CYLINDER LOCK - MAX PROJECTION OF DOOR HANDLE @ 1 1/4" (ALL LOCKS SHALL HAVE 7-PIN INTERCHANGEABLE CORES. KEYING SYSTEM SHALL BE COMBINED CORES AND CUT KEYS; CORES SHALL BE PROVIDED TO CONTRACTING OFFICER.)
(1) SET WEATHER SEAL PERIMETER NEOPRENE COMPRESSIBLE GASKETS
(1) EXTERIOR BOTTOM SWEEP
(1) SET ST. STL. KICK PLATE AT EA. SIDE OF DOOR
(1) DOOR CLOSER
(1) ST. STL. EMERGENCY EGRESS RIM DEVICE

NOTE:
DOOR HARDWARE SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS TYP.

GENERAL NOTE:

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR PROPOSED WORK, PRIOR START OF WORK.

FACILITY ALIGNMENT NOTE:

PHOTO TITLES ARE IN ACCORDANCE WITH NEW CONSTRUCTION PLANS 'TRUE NORTH' THIS DRAWING.

'FLAG NOTES':

FOR NEW CONSTRUCTION FLAG NOTES REFER TO DRAWING A-100.

10' 5' 0' 10' 20' 30'

GRAPHIC SCALE: 3/32" = 1'-0"

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: F. LABOY
DRAWN BY: F. LABOY
REVIEWED BY: R. CONSTANTINIDE
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####
SUBMITTED BY: G. BEARD

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS GP STRATEGIES OTIE Ocoee Total Integrated Enterprises
RANGE ARCHITECT ENGINEER, INSPECTION SERVICES
AMRC ALLEN Engineering, Inc.

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
HIGH BAY DOOR PLANS, ELEVATIONS & SCHEDULE - NEW CONSTRUCTION

SHEET IDENTIFICATION
A-102

5/5/2017 10:21:51 AM, barvir

GENERAL NOTES:

1. IMAGES AND DIMENSIONS ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY PRIOR TO PROCEEDING.
2. THE CONTRACTOR IS TO REPLACE THE MANUAL DRIVE MECHANISM FOR EACH DOOR, TWELVE DOOR PANELS, INCLUDING THE NON-DRIVE WHEEL.
3. CONTRACTOR IS TO REPLACE ALL HARDWARE WITH "IN KIND" ITEMS.
4. STRUCTURAL FRAME:
   - THE OPENING MECHANISM STRUCTURAL COMPONENTS, ARE TO BE REFURBISHED OR REPLACED AS NECESSARY TO ENSURE A FULL FUNCTIONAL HAND WHEEL DRIVE MECHANISM.
   - REFURBISH IS INCLUSIVE OF SURFACE PREPARATION, CORROSION CONTROL, AND SURFACE COATINGS.
   - SURFACE PREPARATION, CORROSION CONTROL AND SURFACE COATINGS (PAINT) IS "AS NOTED" IN OTHER DRAWINGS WITHIN THIS SET.
5. INSTALLATION:
   - UPON INSTALLATION OF THE NEW DRIVE ASSEMBLY, THE CONTRACTOR IS TO FOLLOW ALL MANUFACTURER'S REQUIREMENTS FOR INSTALLATION AND OPERATIONS.
   - IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE REPLACEMENT DRIVE ASSEMBLIES ARE PROTECTED FROM THE ENVIRONMENT AND INTERIOR COMPONENTS (E.G., GEARS, BEARINGS, ETC.) ARE PROTECTED FROM PRE-MATURE WEAR/DEGRADATION THROUGHOUT THE CONSTRUCTION DURATION TO FIRST USE.
   - PRIOR TO FIRST USE, THE CONTRACTOR IS TO VERIFY, THROUGH VISUAL CONFIRMATION, SAMPLING, OR OTHER METHODS TO ENSURE THAT THE INTERNAL COMPONENTS OF THE REPLACEMENT DRIVE ASSEMBLIES ARE CLEAN, FREE OF DEBRIS AND CORROSION AND OPERATIONALLY PREPARED. (E.G., FREE OF CORROSION, WATER, EXCESSIVE MOISTURE).
6. - PRIOR TO FIRST USE, CONTRACTOR IS TO GREASE BEARINGS AND WHEELS.
   - PRIOR TO FIRST USE, CONTRACTOR TO CONFIRM CHAIN ALIGNMENT AS NOTED IN FLAG NOTES ON DRAWING M-302.

CLIN 3: HIGH BAY DOORS MECHANICAL OPERATIONS REPAIRS

SUMMARY OF WORK:

THE EXISTING BOTTOM WHEELS, BEARINGS, BRAKE ASSEMBLIES, BRAKE LEVERS, AND BRAKEPADS SHALL BE REMOVED AND REPLACED WITH NEW. THE EXISTING WEATHER SEALS, RETAINERS AND FASTENERS WILL BE REMOVED AND REPLACED WITH NEW ONES, SEE ARCHITECTURAL DWGS. EXISTING CANE BOLTS, WILL BE REMOVED AND REPLACED. POWER CLEAN BOTTOM TRACK.

BASIS OF DESIGN: AERO DOOR INTERNATIONAL.

REFER TO CLIN 3 ON DRAWING G-002.

SYMBOL LEGEND

NEW

EXISTING

DEPARTMENT OF THE AIR FORCE
UNITED STATES OF AMERICA
MCMXLVII

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE GP STRATEGIES AMRC ALLEN Engineering, Inc.

RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

Oneida Total Integrated Enterprises

DESIGNED BY: E. DILLON
DRAWN BY: G. MEDINA
REVIEWED BY: C. HARTNETT
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

GENERAL NOTES, SUMMARY OF WORK, AND LEGEND

SHEET IDENTIFICATION

M-001

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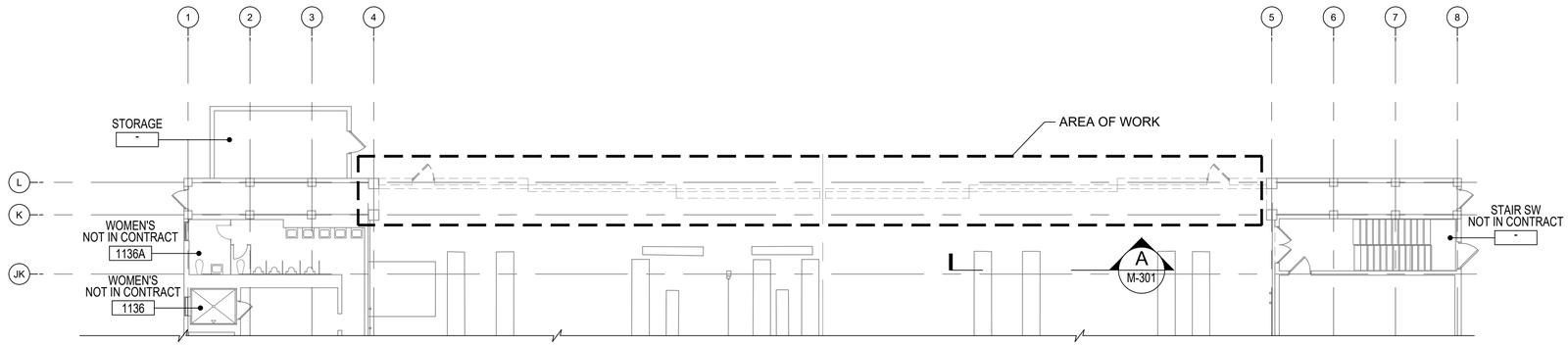
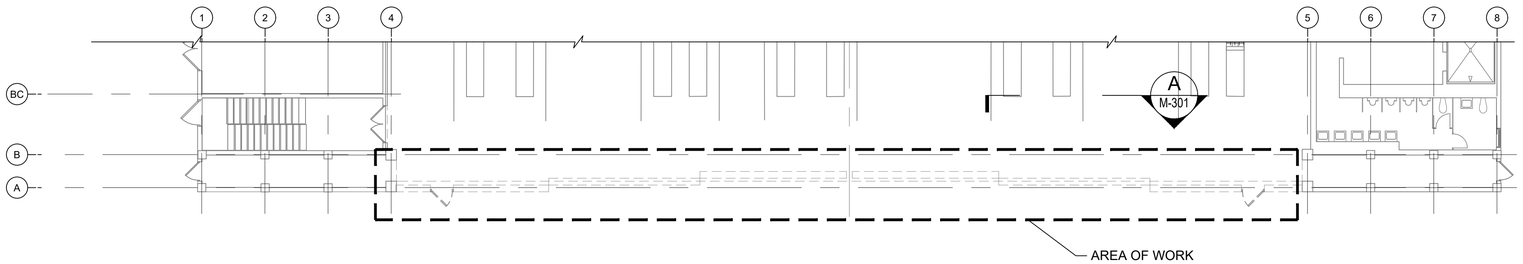


TRUE NORTH
GRID NORTH
MAGNETIC NORTH

HIGH BAY DOORS PLAN - WEST EXPOSURE

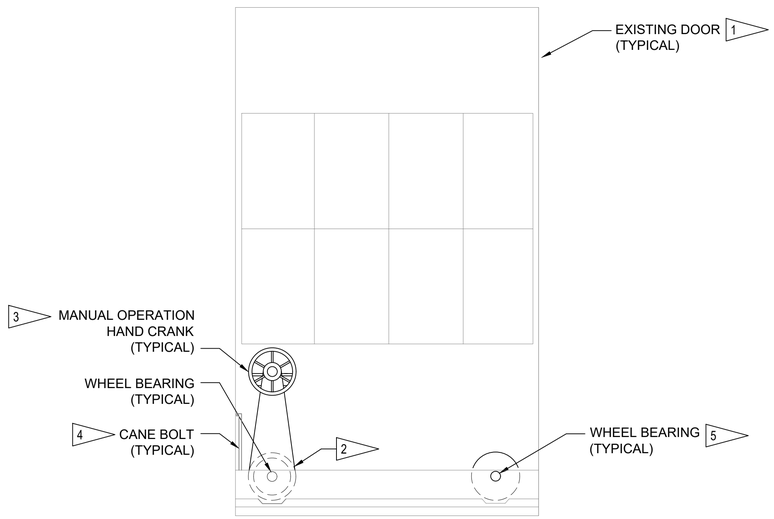
SCALE: 3/32" = 1'-0"



TRUE NORTH
GRID NORTH
MAGNETIC NORTH

HIGH BAY DOORS PLAN - EAST EXPOSURE

SCALE: 3/32" = 1'-0"



TYPICAL HIGH BAY DOOR ASSEMBLY ELEVATION

A M-301

SCALE: NONE

FLAG NOTES:

1. FOR HANGAR DOOR COMPONENTS SPECIFICATIONS, SEE DIVISION 8 - OPENINGS.
2. REPLACE WITH NEW IN-KIND BOTTOM HARDWARE INCLUDING 18" DIAMETER NON HARDENED, MACHINED BOTTOM ROLLERS WITH LUBRICATION ZERK FITTINGS. ECCENTRIC AXLE AND TIMKEN BEARINGS OR EQUIVALENT. NEW BRAKE ASSEMBLIES WITH NEW BRAKE LEVER AND NEW BRAKE PADS. NEW CHAIN SPROCKET.
3. REPLACE WITH NEW IN-KIND MANUAL OPERATION HAND CRANK: 16" DIAMETER HAND CRANK ASSEMBLY INCLUDING STEEL PROTECTIVE SHROUD, ROLLER CHAIN, AND UPPER SPROCKET AND BEARINGS.
4. REPLACE WITH NEW IN-KIND CANE BOLTS: STEEL ROD SPRING, AND STEEL HOUSING USED TO ENGAGE THE FLOOR.
5. REPLACE WITH NEW IN-KIND LOWER WHEEL BEARING.

10' 5' 0' 10' 20' 30'

GRAPHIC SCALE: 3/32" = 1'-0"

DEPARTMENT OF THE AIR FORCE · MCMXLVII · UNITED STATES OF AMERICA

DESIGNED BY: E. DILLON
DATE: 5/3/2017
DRAWN BY: G. MEDINA
DBEH 13-1523
REVIEWED BY: C. HARNETT
DELIVERY NO.: FA2521-13-D-0005 0191
SUBMITTED BY: G. BEARD
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS JOINT VENTURE
Owned-Total Integrated Enterprises
RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES AMRC ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

MECHANICAL HIGH BAR DOOR PLANS AND ELEVATION

SHEET IDENTIFICATION

M-301

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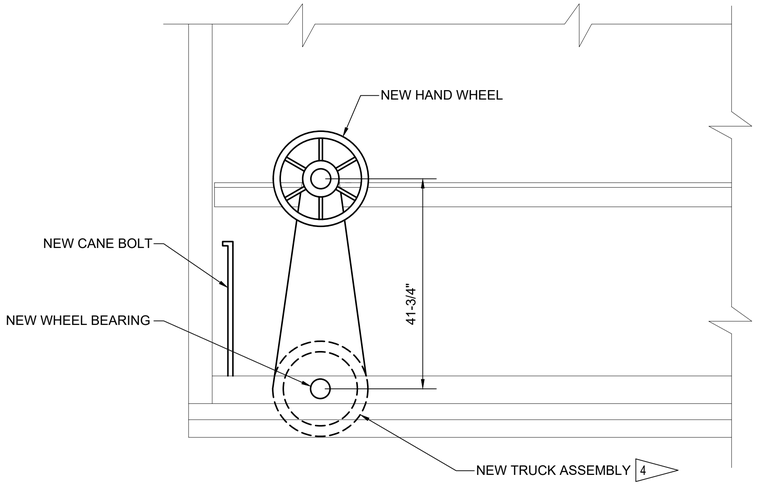


DRIVE ASSEMBLY DETAIL

SCALE: NONE

PHOTO #5:
DOOR TRACKS (EAST AND WEST SIDES OF HANGAR)

PHOTO #1:
BRAKE LOCK (12 PLACES)

PHOTO #2:
HAND WHEEL (12 PLACES)

PHOTO #3:
LOWER WHEEL BEARING (24 PLACES)

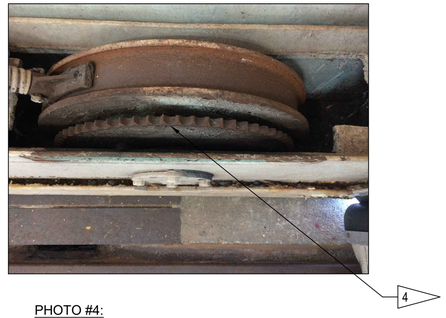
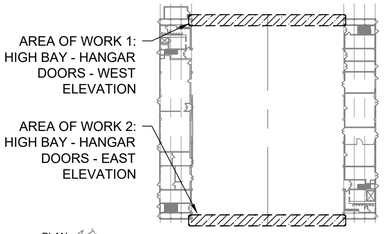


PHOTO #4:
LOWER DRIVE WHEEL AND SPROCKET (12 PLACES)

FLAG NOTES:

1. CONTRACTOR TO ENSURE THE NEW DRIVE CHAIN(S) ARE FREE FROM "WALKING", THE NEW SPROCKETS ARE PARALLEL AND FREE FROM TWIST, AND DROP ON THE NEW CHAIN(S) IS 1/64 INCH PER INCH OF LENGTH - MEASURED FROM THE CENTER LINE TO CENTER LINE OF SPROCKETS.
2. AFTER FINAL ASSEMBLY AND INSTALLATION OF THE NEW HANDWHEEL, BEARINGS, WHEELS, SPROCKETS, CANE BOLTS, BRAKE MECHANISM, AND CHAIN MAKING UP EACH MANUAL DRIVE ASSEMBLY, THE CONTRACTOR SHALL CONFIRM / ADJUST FOR PROPER CHAIN TENSION.
3. LUBRICATE NEW BEARINGS WITH NLGI GRADE 2 MULTI-PURPOSE GREASE.
4. CONTRACTOR TO REPLACE SPROCKET WITH NEW "IN KIND" DIAMETER AND TOOTH COUNT.
5. CONTRACTOR SHALL CLEAN DOOR CHANNELS AFTER COMPLETION OF WIRE BRUSHING OPERATIONS. REFER TO CLIN 3 ON DRAWING G-002.



KEY PLAN - HANGAR DOORS

SCALE: N.T.S.

DEPARTMENT OF THE AIR FORCE
UNITED STATES OF AMERICA
MCMXLVII

DESIGNED BY: E. DILLON
DRAWN BY: G. MEDINA
REVIEWED BY: C. HARTNETT
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE GP STRATEGIES AMRC ALLEN Engineering, Inc.

RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

MECHANICAL DETAIL AND PHOTOS

SHEET IDENTIFICATION

M-302

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PHOTO #1:
EXISTING VIEW - WEST SIDE

PHOTO #2:
EXISTING VIEW - EAST SIDE

NOTE:

PHOTOS INDICATE EXISTING CONDITIONS. FOR WORK TO BE PERFORMED AND ADDITIONAL INFORMATION, REFER TO DWGS. M-301 AND M-302.

FLAG NOTES:

1. FOR HANGAR DOOR COMPONENTS SPECIFICATIONS, SEE DIVISION 8 - OPENINGS.
2. BOTTOM HARDWARE: 18" DIAMETER NON HARDENED, MACHINED BOTTOM ROLLERS WITH LUBRICATION ZERK FITTINGS, BRAKE ASSEMBLY, AND DRIVE SPROCKET.
3. MANUAL OPERATION HAND CRANK: 16" DIAMETER HAND CRANK ASSEMBLY WITH STEEL PROTECTIVE SHROUD, ROLLER CHAIN, AND UPPER SPROCKET AND BEARING.
4. CANE BOLTS: STEEL ROD, SPRING, AND STEEL HOUSING USED TO ENGAGE THE FLOOR TO PREVENT DOOR DISENGAGEMENT FROM THE BOTTOM RAIL.
5. LOWER WHEEL BEARING.

PHOTO #3:
DOOR ASSEMBLY (12 PLACES)

PHOTO #4:
TYPICAL DOOR ASSEMBLY

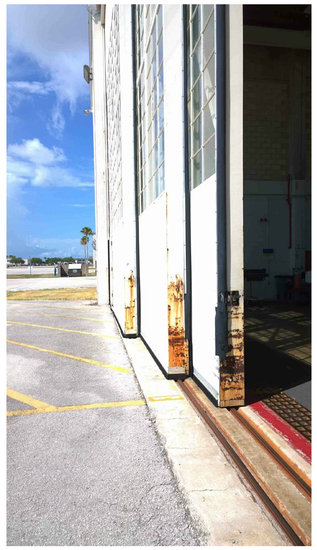


PHOTO #5:
TYPICAL EXTERIOR HANGAR DOORS

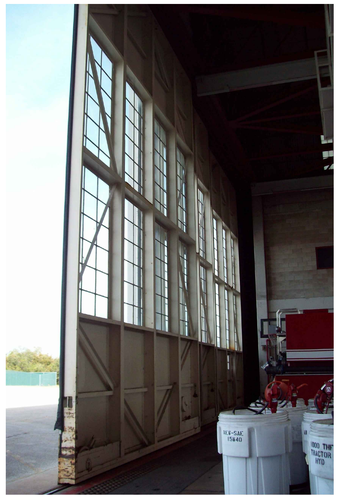


PHOTO #6:
TYPICAL INTERIOR HANGAR DOORS

PHOTO #7:
TYPICAL CANE BOLT

PHOTO #8:
BRAKE LOCK (12 PLACES)

PHOTO #9:
HAND WHEEL (12 PLACES)

PHOTO #10:
LOWER WHEEL BEARING (24 PLACES)

PHOTO #11:
UPPER HAND WHEEL BEARING (12 PLACES)

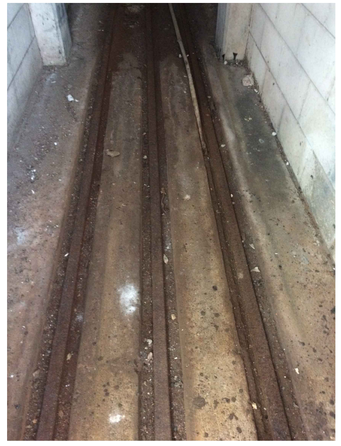
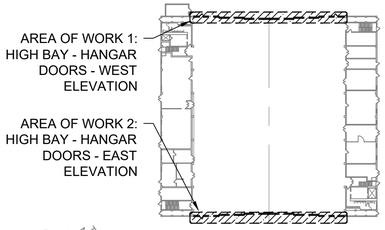


PHOTO #12:
DOOR TRACKS (EAST AND WEST SIDES OF HANGAR)



KEY PLAN - HANGAR DOORS
SCALE: N.T.S.

DEPARTMENT OF THE AIR FORCE

DESIGNED BY: E. DILLON
DRAWN BY: G. MEDINA
REVIEWED BY: C. HARNETT
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO.: FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL
CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE GP STRATEGIES AMRC ALLEN Engineering, Inc.
RANGE ARCHITECT ENGINEER, INSPECTION SERVICES
Ocmulgee Total Integrated Enterprises

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
MECHANICAL PHOTOS

SHEET IDENTIFICATION
M-901

5/5/2017 10:22:19 AM, barvir

ELECTRICAL NOTES:

1. IT IS THE INTENT OF THESE CONTRACT DRAWINGS TO PROVIDE A COMPLETE AND WORKABLE FACILITY.
2. DESIGN DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS, ELBOWS, OR OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION OF THE WORK. SUCH WORK SHALL BE VERIFIED AT THE SITE. ADDITIONAL BENDS, OFFSETS, AND CONDUIT AS REQUIRED BY VERTICAL AND HORIZONTAL EQUIPMENT LOCATIONS OR OTHER JOB CONDITIONS, SHALL BE PROVIDED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE GOVERNMENT.
3. EXCEPT WHERE SHOWN IN DIMENSIONAL DETAIL, THE LOCATIONS OF EQUIPMENT SHOWN ON PLANS ARE APPROXIMATE. SUCH ITEMS SHALL BE PLACED TO ELIMINATE INTERFERENCE WITH OTHER EQUIPMENT. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70).
5. MATERIALS SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. OR ANOTHER APPROVED/CERTIFIED TESTING LABORATORY. SHOULD PLANS AND CODES CONFLICT, CONTACT THE CONTRACTING OFFICER. MAKE NO CHANGES, EVEN IN CASE OF CONFLICT, WITHOUT FIRST OBTAINING THE APPROVAL OF THE CONTRACTING OFFICER.
6. A GREEN, COPPER GROUND WIRE SHALL BE INSTALLED IN ALL CONDUIT SYSTEMS AND SHALL BE BONDED TO ALL ENCLOSURES, BOXES, AND EQUIPMENT. RECEPTACLES WITH GREEN WIRE SHALL BE BONDED TO BOX THEN TO RECEPTACLE SUCH THAT REMOVAL OF RECEPTACLE DEVICE SHALL NOT INTERRUPT GREEN WIRE BOND TO METALLIC BOX OR ENCLOSURE.
7. BONDING JUMPERS SHALL BE USED TO BOND CONDUIT TO ENCLOSURES, BOXES, AND EQUIPMENT WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE USED.
8. EQUIPMENT SIZES INDICATED ARE MINIMUM, BEFORE INSTALLING ANY WIRE OR CONDUIT, THE CONTRACTOR SHALL OBTAIN THE EXACT EQUIPMENT REQUIREMENTS AND SHALL INSTALL WIRE, CONDUIT, CIRCUIT BREAKERS AND OTHER ITEMS OF THE CORRECT SIZE FOR THE EQUIPMENT ACTUALLY INSTALLED. HOWEVER, WIRE AND CONDUIT SIZES FOR THE EQUIPMENT SHALL BE TAKEN AS A MINIMUM AND SHALL NOT BE REDUCED WITHOUT WRITTEN APPROVAL.
9. THE INSTALLATION OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE WORK OF THE OTHER TRADES.
10. THE INSTALLATION SHALL BE ACCOMPLISHED BY WORKERS SKILLED IN THIS TYPE OF WORK. THE INSTALLATION SHALL BE MADE SO THAT THERE IS NO DEGRADATION OF THE DESIGNED FIRE RATINGS.
11. THE CONTRACTOR SHALL INSTALL HIS WORK IN SUCH A MANNER AND AT SUCH A TIME AS WILL REQUIRE A MINIMUM OF CUTTING AND PATCHING OF THE BUILDING STRUCTURE.
12. 'PROVIDE', AS USED HERE ON THE DRAWINGS, IS AN ALL-INCLUSIVE TERM REQUIRING CONTRACTOR TO FURNISH, INSTALL, WIRE, AND CONNECT ALL SPECIFIED EQUIPMENT AS WELL AS COMPONENTS, ACCESSORIES, WIRING, AND MOUNTING HARDWARE TO INSURE THAT SPECIFIED EQUIPMENT FUNCTIONS TO MEET SYSTEM(S) REQUIREMENTS.
13. WHERE NEW-TO-EXISTING CONNECTIONS ARE INDICATED, THE CONTRACTOR SHALL PROVIDE ALL MATERIALS (JUNCTION BOXES, CONDUIT, WIRE, AND CONNECTIONS) AND LABOR REQUIRED TO MAKE THE CONNECTIONS.
14. UNLESS OTHERWISE NOTED, ALL POWER CIRCUIT CONDUCTORS SHALL BE COPPER AND MINIMUM #12AWG. CONDUITS SHALL BE 3/4" MINIMUM.
15. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE FOR REPAIR OR REPLACEMENT OF THE UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE COMPLETION OF THIS WORK.
16. ALL BOLTS, NUTS, WASHERS, ETC. USED FOR GROUNDING AND BONDING CONNECTIONS SHALL BE COPPER. CONTRACTOR SHALL UTILIZE CONNECTORS TO PREVENT GALVANIC ACTION.
17. FINAL ACCEPTANCE WILL DEPEND UPON SATISFACTORY PERFORMANCE OF EQUIPMENT. NO CONDUCTOR SHALL BE ENERGIZED UNTIL THE INSTALLATION HAS BEEN APPROVED.
18. CONDUITS SHALL BE SUPPORTED BY SUITABLE CLAMPS, HANGERS OR STRAPS TO PROVIDE A RIGID INSTALLATION. CONDUIT SUPPORTS SHALL NOT BE FASTENED OR ATTACHED TO OTHER PIPES. PERFORATED STRAP HANGERS WILL NOT BE ALLOWED. EMPTY CONDUIT SHALL BE THOROUGHLY SWABBED OUT WITH DRY SWAB TO REMOVE MOISTURE AND DEBRIS BEFORE WIRE IS DRAWN IN. END OF CONDUIT SHALL BE TIGHTLY PLUGGED UNTIL WIRE IS PULLED. NO CONDUIT SHALL BE LOCATED TO IMPAIR THE STRENGTH OF STRUCTURAL MEMBERS. MAKE CHANGES IN DIRECTION OF RUNS WITH SYMMETRICAL BENDS. MAKE FIELD MADE BENDS AND OFFSETS WITH HICKEY OR CONDUIT BENDING MACHINE. DO NOT INSTALL CRUSHED OR DEFORMED CONDUITS. AVOID TRAPPED CONDUITS. PREVENT PLASTER, DIRT, OR TRASH FROM LODGING IN CONDUIT, BOXES, FITTINGS. FREE CLOGGED CONDUITS OF OBSTRUCTIONS.
19. IN ACCORDANCE WITH NFPA 70, GROUND EXPOSED, NON-CURRENT CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, METALLIC RACEWAY SYSTEMS, GROUNDING CONDUCTOR IN METALLIC RACEWAYS.
20. FASTEN CONDUITS TO SHEET METAL BOXES AND CABINETS WITH TWO LOCKNUTS WHERE REQUIRED BY NFPA 70, WHERE INSULATED BUSHINGS ARE USED, AND WHERE BUSHINGS CANNOT BE BROUGHT INTO FIRM CONTACT WITH THE BOX; OTHERWISE, USE MINIMUM SINGLE LOCKNUT AND BUSHING. LOCKNUTS SHALL HAVE SHARP EDGES FOR DIGGING INTO WALLS OF METAL ENCLOSURE. INSTALL BUSHINGS ON ENDS OF CONDUITS, AND PROVIDE INSULATING TYPE WHERE REQUIRED BY NFPA 70.
21. PROVIDE AND INSTALL AT WALL OR FLOOR PENETRATIONS A PERMANENT FIRE STOP SYSTEM. THE SYSTEM SHALL CONSIST OF A WATER BASED FIRE STOP COMPOUND AS THE FILL, VOID, OR CAVITY MATERIAL ALONG WITH APPROPRIATE DAMMING MATERIAL (AS PER MANUFACTURER'S INSTRUCTIONS). THE FIRE STOP COMPOUND SHALL NOT CONTAIN ANY SOLVENTS, INORGANIC FIBERS, OR SILICONE COMPOUNDS AND SHALL NOT REQUIRE HEAT TO ACTIVATE THE SEAL. THE FIRE STOP COMPOUND SHALL BE ONE-PART MATERIALS, REQUIRING NO CRITICAL MIXING. THE PENETRATION SEAL MATERIAL MUST BE UNAFFECTED BY MOISTURE AND MUST MAINTAIN THE INTEGRITY OF THE FLOOR OR WALL ASSEMBLY FOR ITS RATED TIME PERIOD WHEN TESTED IN ACCORDANCE WITH ASTM E84. THE SYSTEM SHALL BE UL CLASSIFIED AND INSTALLED TO PROVIDE A 2 HOUR FIRE RATING. THE PENETRATION FIRE STOP MATERIAL SHALL BE FLAME-SAFE FS1900 SERIES COMPOUND AS MANUFACTURED BY GRACE CONSTRUCTION PRODUCTS OR EQUAL.
22. DEVICE PLATES FOR SWITCHES AND RECEPTACLES SHALL BE SUITABLY MARKED, SHOWING THE PANEL AND CIRCUIT NUMBER OF THE SOURCE. REQUIRED MARKING SHALL CONSIST OF A SELF-ADHESIVE LABEL HAVING 1/4 INCH EMBOSSED LETTERS.
23. DAMAGE DONE TO ZINC COATING OF GALVANIZED CONDUIT, BOXES, AND FITTINGS, INCLUDING EXPOSED CONDUIT THREADS AND ZINC FINISHES SCRATCHING, SHALL BE REPAIRED BY CLEANING, PREPPING, AND COATING DAMAGED SURFACE WITH INORGANIC ZINC COMPOUND.
24. PROVIDE ELECTRICAL CONDUIT AS FOLLOWS:
    - RIGID GALVANIZED STEEL - ABOVE GRADE OUTSIDE OR IN HAZARDOUS LOCATIONS
    - EMT - ABOVE GRADE INSIDE WHERE NOT SUBJECT TO PHYSICAL CHANGE
    - PVC SCHEDULE 40 - BELOW GRADE
    - PVC SCHEDULE 80 - WHERE SUBJECT TO PHYSICAL DAMAGE

    A. ALL EXPOSED ELECTRICAL CONDUIT VULNERABLE TO MECHANICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL, UNLESS NOTED OTHERWISE. ALL OTHER CONDUIT INSIDE FACILITY SHALL BE ELECTRICAL METALLIC TUBING (EMT).

ELECTRICAL LEGEND

(APPLIES TO ALL ELECTRICAL SHEETS)

Symbol	Description
	BRANCH CIRCUIT CONDUIT RUN. ARROW INDICATES HOME RUN, MINIMUM CONDUIT SIZE SHALL BE 3/4". HOMERUNS LONGER THAN 100' SHALL USE MINIMUM #10 CONDUCTOR.
	EXISTING - TO REMAIN
	NEW - TO BE INSTALLED
	TO BE REMOVED
C	COMMUNICATION CONDUIT (CABLE TO BE INSTALLED BY BASE COMMUNICATIONS CONTRACTOR.
G	GROUNDING CONDUCTOR, BELOW GRADE
LP	2/0 BARE COPPER LIGHTNING PROTECTION CONDUCTOR
E	EXISTING - UNDERGROUND ELECTRIC
E	NEW - UNDERGROUND ELECTRIC
W	EXISTING - WATER LINE
	208/120V PANELBOARD, 3 PHASE, 4 WIRE WITH GROUND
	480/277V PANELBOARD, 3 PHASE, 4 WIRE WITH GROUND
	GROUND ROD - SHOWN WITH BONDED CONNECTION POINT
	NON-FUSED DISCONNECT SWITCH
F	FUSED DISCONNECT SWITCH
	COMBINATION MOTOR STARTER
	FUSED/MAGNETIC MOTOR STARTER
VFD	VARIABLE FREQUENCY DRIVE
	QUAD RECEPTACLE, 120V
	DUPLEX RECEPTACLE, 120V
	SINGLE RECEPTACLE, TWIST LOCK, 208/120V, 3 PHASE HUBBELL OR EQUAL
	SINGLE RECEPTACLE, TWIST LOCK, 30A, 125V, NEMA L5-30
	SINGLE RECEPTACLE, 20A, 125V, NEMA L5-30R
	SINGLE RECEPTACLE, 250V, NEMA 6-20R
	SINGLE FACE EXIT SIGN - CEILING OR WALL MOUNTED
	DOUBLE FACE EXIT SIGN - CEILING OR WALL MOUNTED; ARROW INDICATES DIRECTIONAL CHEVRON
	COMBINATION EXIT/EMERGENCY LIGHTING SIGN - CEILING OR WALL MOUNTED
S	NEW SPEAKER, PUBLIC ADDRESS, CEILING MOUNTED
S	TO BE REMOVED SPEAKER, PUBLIC ADDRESS, CEILING MOUNTED
SP	SPEAKER, PUBLIC ADDRESS, WALL MOUNTED
M	MOTION SENSOR
	SECURITY DEVICE / SENSOR
	NEW HEAT DETECTOR
	TO BE REMOVED HEAT DETECTOR
J	JUNCTION BOX
DC	DROP CORD POWER RECEPTACLE
WAP	WIRELESS ACCESS POINT - CEILING MOUNTED
SPD	SURGE PROTECTIVE DEVICE
	ELECTRIC MOTOR
GND	GROUND BAR
NEUT	NEUTRAL BAR
P	SCREEN PROJECTOR
WHM	WATT HOUR METER
MCC	MOTOR CONTROL CENTER

ABBREVIATIONS:

(APPLIES TO ALL ELECTRICAL SHEETS)

A	-	AMPERES, AMPS
AB	-	ABANDON
AFF	-	ABOVE FINISHED FLOOR
AFG	-	ABOVE FINISHED GRADE
AHU	-	AIR HANDLING UNIT
AIC	-	AMPS INTERRUPTING CAPACITY
BKR	-	BREAKER
C	-	CONDUIT
CB	-	CIRCUIT BREAKER
CHWP	-	CHILLED WATER PUMP
CKT	-	CIRCUIT
CLG	-	CEILING
CU	-	COPPER
CWP	-	WATER PUMP CONDENSER
DC	-	DROP CORD
DH	-	DEHUMIDIFIER
DIA (Ø)	-	DIAMETER
DIM	-	DIMENSION
DISC	-	DISCONNECT SWITCH
DWG	-	DRAWING
EF	-	EXHAUST FAN
ELEC	-	ELECTRIC
EMT	-	ELECTRICAL METALLIC TUBING
ETR	-	EXISTING TO REMAIN
EXTR	-	EXTERIOR
EXST	-	EXISTING
FLA	-	FULL LOAD AMPS
GEN	-	GENERATOR/GENSET
GFCI	-	GROUND FAULT CIRCUIT INTERRUPTER
GND	-	GROUND
HP	-	HORSEPOWER
KCMIL	-	THOUSAND CIRCULAR MILS
KW	-	KILOWATT
LAVs	-	LAVATORIES/RESTROOMS
LTG	-	LIGHTING
LV	-	LOW VOLTAGE
MECH	-	MECHANICAL
MCP	-	MOTOR CIRCUIT PROTECTION
MFG	-	MANUFACTURER
MTD	-	MOUNTED
N/A	-	NOT APPLICABLE
NC	-	NORMALLY CLOSED
NIC	-	NOT IN CONTRACT
NO	-	NORMALLY OPEN
NTS	-	NOT TO SCALE
Ø	-	PHASE
PNL	-	PANEL, PANELBOARD
PVC	-	POLYVINYL CHLORIDE
PWR	-	POWER
RECP	-	RECEPTACLE
RGS	-	RIGID GALVANIZED STEEL
RM	-	ROOM
SFS	-	SECURITY FORCES SQUADRON
SS	-	STAINLESS STEEL
ST	-	SHUNT TRIP
STRP	-	STRIP
SW	-	SWITCH
SYS	-	SYSTEM
TYP	-	TYPICAL
UG	-	UNDERGROUND
UON	-	UNLESS OTHERWISE NOTED
V	-	VOLTS
W	-	WATTAGE
WP	-	WEATHERPROOF
XFER	-	TRANSFER
XFMR	-	TRANSFORMER

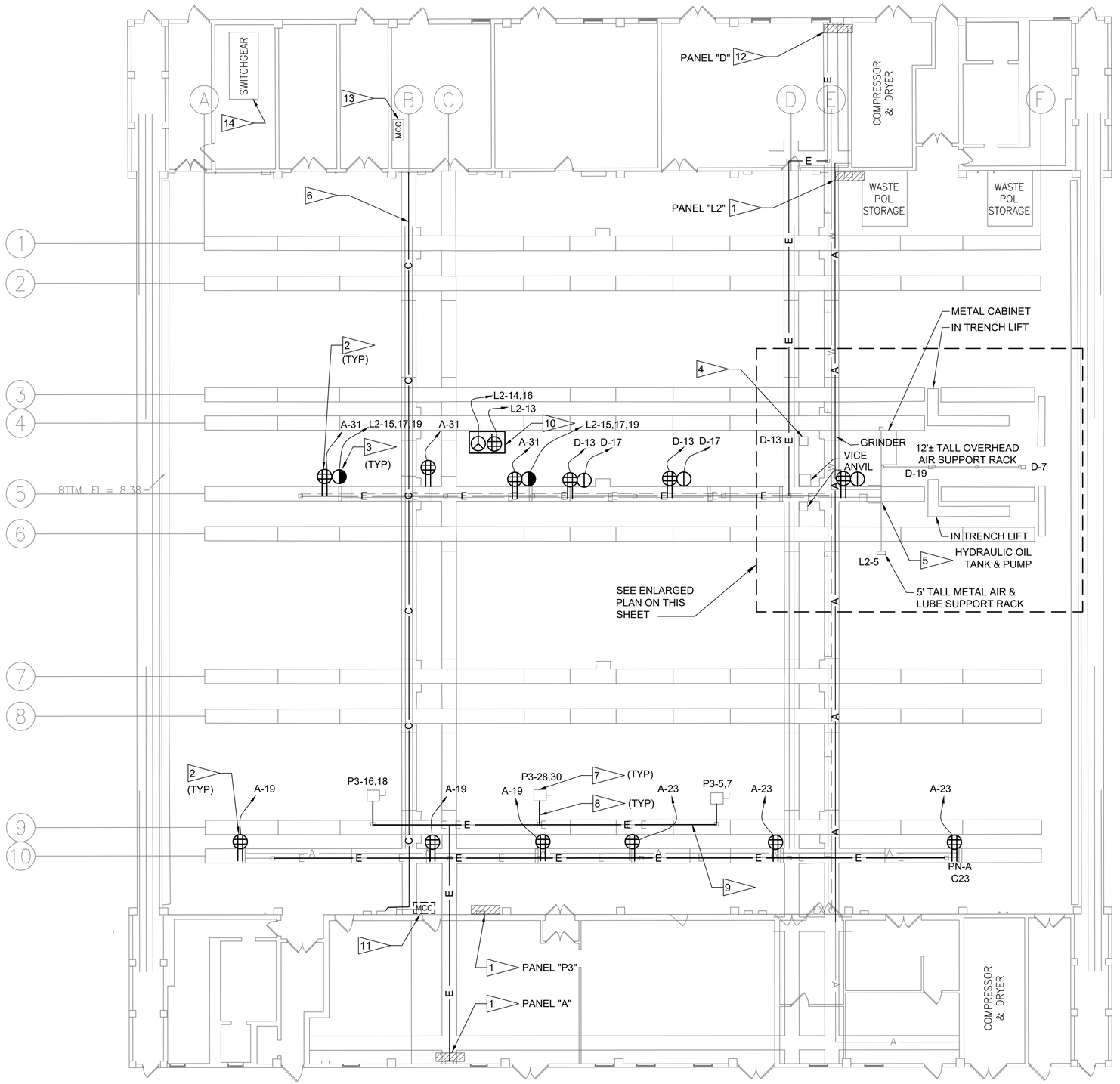
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####
DESIGNED BY: L. COLEMAN
DRAWN BY: J. MAYHEW
REVIEWED BY: C. HARTNETT
SUBMITTED BY: G. BEARD

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL
CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES
OTIE Oneida Total Integrated Enterprises
GP STRATEGIES
AMRC
ALLEN Engineering, Inc.

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
ELECTRICAL NOTES, LEGEND AND ABBREVIATIONS

SHEET IDENTIFICATION
E-001



PLAN NORTH

HANGAR U HIGH BAY DEMOLITION

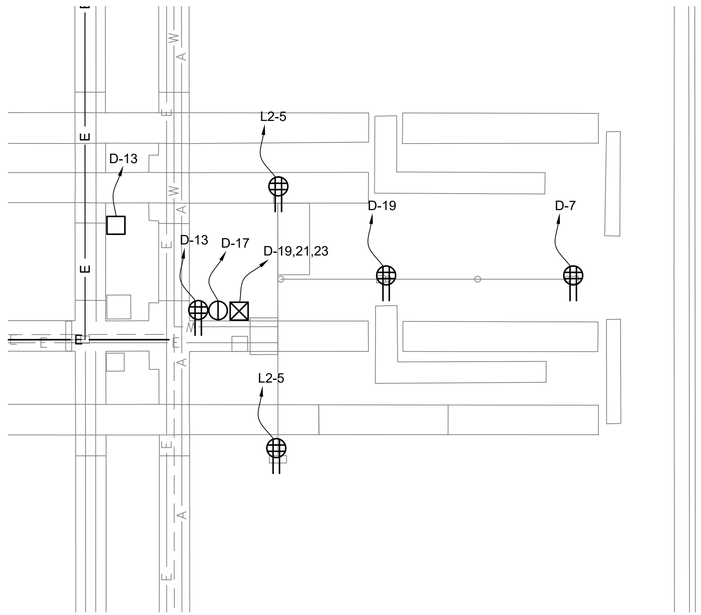
SCALE: 1" = 10'

GENERAL NOTE:

1. WHERE EQUIPMENT IS INDICATED FOR REMOVAL, REMOVE ASSOCIATED MOUNTED HARDWARE AND SUPPORTS.

FLAG NOTES:

1. EXISTING 208/120V PANEL SHALL REMAIN.
2. EXISTING 120V RECEPTACLE AND SUPPORT STAND SHALL BE REMOVED. REMOVE CONDUIT AND WIRE BACK TO THE INDICATED SOURCE PANEL. EXISTING CONDUIT IS ROUTED IN THE EXISTING FLOOR TRENCH.
3. EXISTING 208V RECEPTACLE AND SUPPORT STAND SHALL BE REMOVED. REMOVE CONDUIT AND WIRE BACK TO THE INDICATED SOURCE PANEL. EXISTING CONDUIT IS ROUTED IN THE EXISTING FLOOR TRENCH.
4. REMOVE CONDUIT AND WIRE TO EXISTING GRINDER.
5. REMOVE CONDUIT AND WIRE TO EXISTING OIL PUMP.
6. EXISTING COMM INNERDUCT SHALL BE REMOVED BY THE BASE COMMUNICATIONS CONTRACTOR.
7. EXISTING DISCONNECT SWITCH MOUNTED ON CAR LIFT SHALL REMAIN.
8. REMOVE EXISTING CONDUIT EMBEDDED IN CONCRETE FROM DISCONNECT SWITCH TO TRENCH.
9. REMOVE EXISTING CONDUIT AND WIRE IN TRENCH FOR EXISTING DISCONNECT CIRCUITS. CONDUIT AND WIRE IS CONNECTED TO PANEL P3. EMBEDDED SECTION OF CONDUIT FROM PANEL P3 TO EXISTING TRENCH SHALL REMAIN FOR REUSE.
10. EXISTING RECEPTACLES MOUNTED ON ADJACENT WORK BENCH SHALL REMAIN. REFEED EXISTING RECEPTACLES PER DRAWING E-101.
11. REMOVE ABANDONED MOTOR CONTROL CENTER. REMOVE ASSOCIATED CONDUIT AND WIRE IN TRENCH. FOR BIDDING PURPOSES ASSUME (4) 60A CIRCUITS IN RGS TO BE REMOVED. MOTOR CONTROL CENTER IS FED FROM EXISTING SWITCH GEAR IN NORTHEAST CORNER OF THE BUILDING.
12. REMOVE EXISTING 208/120V PANEL.
13. EXISTING MOTOR CONTROL CENTER SHALL REMAIN. REMOVE ASSOCIATED CONDUIT AND WIRE THAT IS ROUTED IN THE TRENCH. FOR BIDDING PURPOSES ASSUME (4) 60A CIRCUITS IN RGS TO BE REMOVED. MOTOR CONTROL CENTER IS FED FROM EXISTING SWITCH GEAR IN NORTHEAST CORNER OF THE BUILDING.
14. EXISTING SWITCHGEAR SHALL REMAIN.



ENLARGED PLAN

SCALE: NONE

10' 0' 10' 20' 30'

GRAPHIC SCALE 1" = 10'

DEPARTMENT OF THE AIR FORCE
UNITED STATES OF AMERICA
MCMXLVII

DESIGNED BY: L. COLEMAN
DRAWN BY: J. MAYHEW
REVIEWED BY: C. HARTNETT
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO. FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE
RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES
Oneida Total Integrated Enterprises
GP STRATEGIES
AMRC
ALLEN Engineering, Inc.

DBEH 13-1523
REPAIR HANGAR U, FAC 1744
ELECTRICAL PLAN - DEMOLITION

SHEET IDENTIFICATION
ED-101

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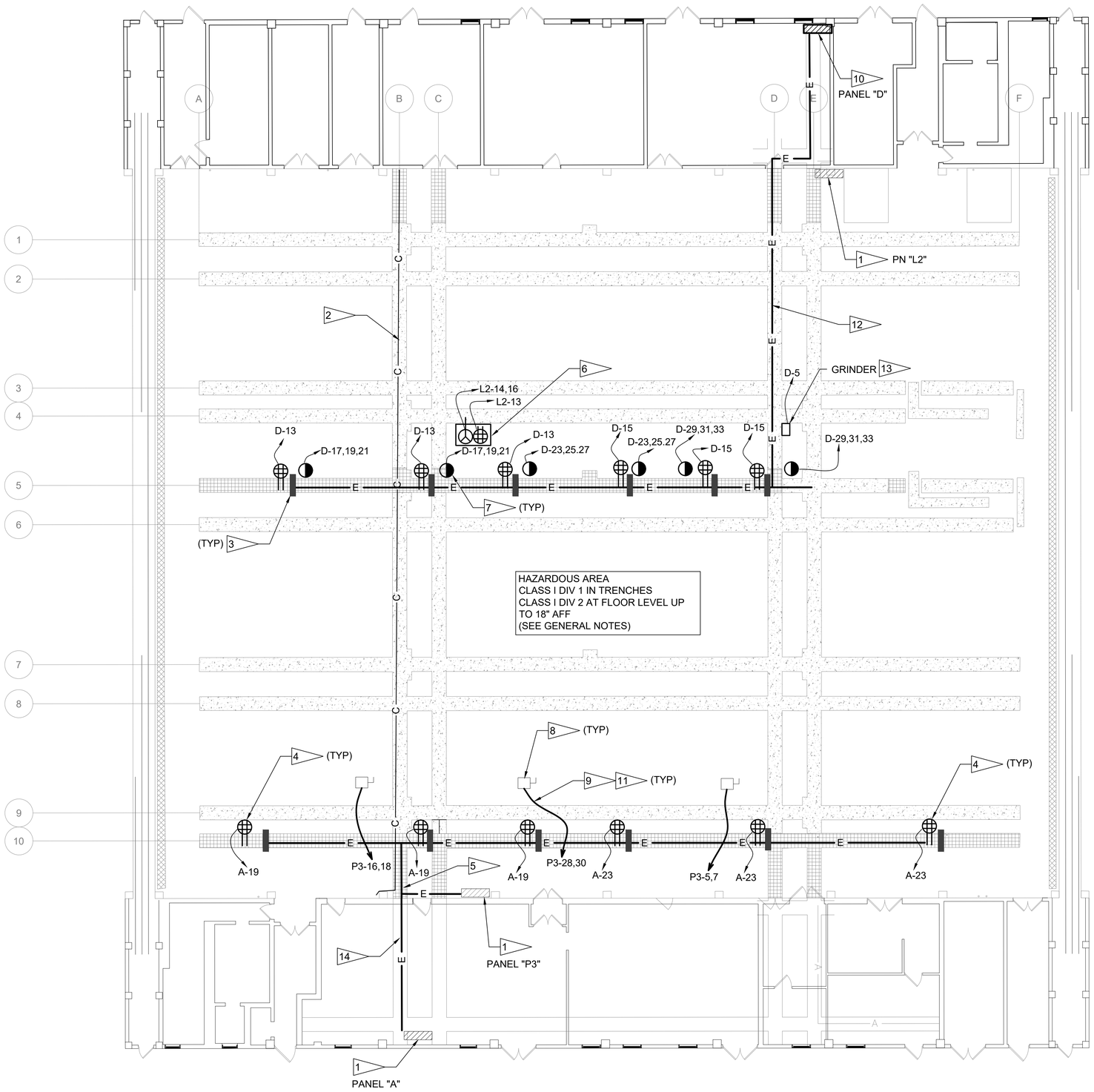


PLAN NORTH / TRUE NORTH

ELECTRICAL PLAN - NEW

SCALE: 1" = 10'

GRAPHIC SCALE 1" = 10'

GENERAL NOTES:

1. HANGAR U IS CONSIDERED A MAJOR REPAIR GARAGE PER NFPA 70 511.2. ELECTRICAL INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 70 ARTICLE 511.
2. HAZARDOUS LOCATIONS REQUIREMENTS ARE AS FOLLOWS:
   - CLASS I DIV 1: ENTIRE SPACE WITHIN ANY TRENCH
   - CLASS I DIV 2: UP TO 18 INCHES ABOVE THE FLOOR LEVEL
   - UNCLASSIFIED: AREAS GREATER THAN 18" ABOVE THE FLOOR LEVEL OF THE HANGAR
3. ELECTRICAL EQUIPMENT IN THE HANGAR TRENCHES (INCLUDING CONDUIT, FITTING AND BOXES) SHALL BE SUITABLE FOR CLASS I DIVISION 1 LOCATIONS.
4. ELECTRICAL EQUIPMENT AT GRADE UP TO 18" ABOVE FLOOR LEVEL SHALL BE SUITABLE FOR CLASS I DIVISION 2 LOCATIONS.
5. CONDUIT ENTERING OR LEAVING THE TRENCH SHALL HAVE AN EXPLOSIONPROOF SEAL FITTING INSTALLED APPROXIMATELY 18" ABOVE THE FINISHED FLOOR.
6. COORDINATE ALL WORK WITH THE CIVIL DRAWINGS.
7. PROVIDE TEMPORARY POWER DURING CONSTRUCTION TO ALLOW MAINTENANCE OPERATIONS TO CONTINUE IN AREAS NOT BEING WORKED BY THE CONTRACTOR. TEMPORARY POWER SHALL BE TAKEN FROM EXISTING POWER PANELS. CONTRACTOR SHALL PROVIDE CONDUIT AND WIRE AS REQUIRED TO KEEP POWER ON FOR RECEPTACLES/WORK STANDS THAT ARE OUTSIDE OF THE ACTIVE CONSTRUCTION ZONE.

FLAG NOTES:

1. EXISTING 208/120V PANEL.
2. PROVIDE (2) NEW 3" CONDUITS FOR COMMUNICATIONS CABLE. ROUTE CONDUIT OVERHEAD ACROSS THE HIGHBAY AT 35' TO 40' AFF. BOTTOM END OF CONDUITS SHALL BE AT 6' AFF. CONDUIT BEND SHALL BE 24" RADIUS MINIMUM. COMMUNICATION CABLE SHALL BE INSTALLED BY THE BASE COMMUNICATIONS CONTRACTOR.
3. NEW "WORK STATION UTILITY SERVICE STAND" AS DETAILED ON DRAWING C-500.
4. PROVIDE NEW QUAD 120V RECEPTACLE MOUNTED ON THE NEW "WORK STATION UTILITY SERVICE STAND". PROVIDE 2 #10 AND 1 #10 GND IN 3/4" CONDUIT FROM THE RECEPTACLE TO THE INDICATED PANEL. PROVIDE NEW EXPLOSIONPROOF SEAL FITTING 18" AFF AT THE RECEPTACLE AND WHERE THE CONDUIT CONNECTS TO THE PANEL.
5. (3) 3/4" RIGID GALVANIZED STEEL CONDUITS IN UTILITY TRENCH TO PANEL P3.
6. EXISTING RECEPTACLES MOUNTED ON WORKBENCH SHALL BE REFED FROM THE INDICATED CIRCUITS. PROVIDE 3 #10 & 1 #10 GND IN 3/4" CONDUIT TO PANEL L2. USE RIGID GALVANIZED STEEL CONDUIT. PROVIDE NEW EXPLOSIONPROOF SEAL FITTING 18" AFF AT THE WORKBENCH AND WHERE CONDUIT CONNECTS TO PANEL L2.
7. PROVIDE NEW SINGLE 208V RECEPTACLE MOUNTED ON THE NEW "WORK STATION UTILITY SERVICE STAND". PROVIDE 4 #10 AND 1 #10 GND IN 3/4" CONDUIT FROM THE RECEPTACLE TO THE INDICATED PANEL. PROVIDE NEW EXPLOSIONPROOF SEAL FITTING 18" AFF AT THE RECEPTACLE AND WHERE THE CONDUIT CONNECTS TO THE PANEL.
8. EXISTING 30A DISCONNECT SWITCH MOUNTED ON CAR LIFT.
9. PROVIDE NEW 3/4" RGS CONDUIT FROM EXISTING DISCONNECT SWITCH TO PANEL P3. ROUTE CONDUIT INTO EXISTING TRENCH PRIOR TO FILLING TRENCH WITH CONCRETE. USE CONDUIT BENDS FOR CHANGE IN DIRECTION WHERE CONDUIT IS EMBEDDED IN CONCRETE. DO NOT EMBED CONDUIT BODIES OR JUNCTION BOXES IN CONCRETE.
10. PROVIDE NEW 208/120V PANEL.
11. CAR LIFT DISCONNECT SWITCH CIRCUIT ROUTED TO PANEL P3. PROVIDE 2 #10 & 1 #10 GND IN 3/4" CONDUIT TO PANEL P3. USE RIGID GALVANIZED STEEL CONDUIT. PROVIDE NEW EXPLOSIONPROOF SEAL FITTING 18" AFF WHERE CONDUIT CONNECT TO PANEL P3.
12. (6) 1" RIGID GALVANIZED STEEL CONDUITS IN UTILITY TRENCH TO PANEL D. (1) 1" RIGID GALVANIZED STEEL CONDUITS IN UTILITY TRENCH TO PANEL L2.
13. PROVIDE 2 #10 AND 1 #10 GND IN 3/4" CONDUIT FROM THE GRINDER TO THE INDICATED PANEL. INSTALL AN EXPLOSIONPROOF SEAL FITTING 18" ABOVE FINISHED FLOOR AT THE GRINDER AND AT THE INDICATED PANEL.
14. (2) 3/4" RIGID GALVANIZED STEEL CONDUITS IN UTILITY TRENCH TO PANEL A.

DEPARTMENT OF THE AIR FORCE · MCMXLVII · UNITED STATES OF AMERICA

DESIGNED BY: L. COLEMAN
DRAWN BY: J. MAYHEW
REVIEWED BY: C. HARTNETT
SUBMITTED BY: G. BEARD
DATE: 5/3/2017
DBEH 13-1523
DELIVERY NO.: FA2521-13-D-0005 0191
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

GP STRATEGIES · AMRC · ALLEN Engineering, Inc. · RAEIS · OTIE

RANGE ARCHITECT-ENGINEER. INSPECTION SERVICES

Ohsaka Total Integrated Enterprises

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

ELECTRICAL PLAN - NEW

SHEET IDENTIFICATION

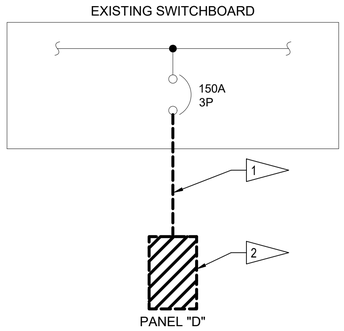
E-101

5/5/2017 10:22:28 AM, barvir

5/5/2017 10:22:31 AM, barvir

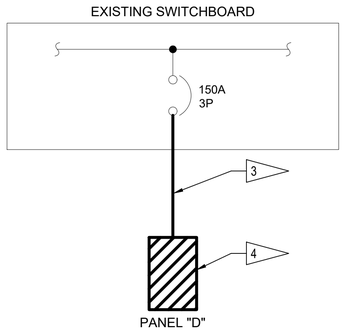
FLAG NOTES:

1. REMOVE EXISTING UNDERGROUND FEEDER AND ABANDON CONDUIT IN PLACE.
2. REMOVE EXISTING PANEL.
3. PROVIDE 4#3/0 AND 1#6 GROUND IN 2 1/2" CONDUIT.
4. PROVIDE NEW PANEL.



SINGLE-LINE DIAGRAM - DEMOLITION

SCALE: NONE



SINGLE-LINE DIAGRAM - NEW CONSTRUCTION

SCALE: NONE

DEPARTMENT OF THE AIR FORCE
UNITED STATES OF AMERICA
MCMXLVII

DESIGNED BY: L. COLEMAN
DATE: 5/3/2017
DRAWN BY: J. MAYHEW
DBEH 13-1523
REVIEWED BY: C. HARTNETT
DELIVERY NO. FA2521-13-D-0005 0191
SUBMITTED BY: G. BEARD
AS BUILT DATE: ####

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE GP STRATEGIES AMRC ALLEN Engineering, Inc.

RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

SINGLE-LINE DIAGRAM - DEMO AND NEW

SHEET IDENTIFICATION

E-601

5/5/2017 10:22:35 AM, barvir

Panel : PANEL D (EXST)

HANGAR U

Voltage: 208Y/120V		Amps: 225		kAIC Rating:						
		Main: MLO								
BKR A/P	Description	VA	Circuit #	A	B	C	Circuit #	VA	Description	BKR A/P
20/2	**ICE MACHINE		1				2		**OUTLET 208V	20/2
			3				4			
20/1	SPARE		5				6		SPACE	
20/1	PUMP LUBE OIL (HANGAR CENTER)		7				8		*ELECTRIC RANGE	70/2
20/1	**OUTLET RM 1115 (EXH FAN)		9				10			
20/1	SPARE		11				12		**CONTROL POWER	20/1
20/1	OUTLETS AND GRINDER (HANGAR CENTER)		13				14		**DEAD END J BOX 2ND FLOOR	20/1
20/1	SPARE		15				16		**DEAD END J BOX 2ND FLOOR	20/1
20/1	OUTLET TWISTLOCK (HANGAR CENTER)		17				18		**DEAD END J BOX 2ND FLOOR	20/1
30/1	OUTLET 208V (HANGAR CENTER)		19				20		**UNKNOWN	20/1
50/2	OUTLET 208V (HANGAR CENTER)		21				22		**UNKNOWN	20/1
			23				24		**UNKNOWN	20/1

Row	Code Factor Name	Aph(VA)	Bph(VA)	Cph(VA)			
						VA:	0
					Total Connected Load	Amps:	0.0
						VA:	0
					Total Demand Load	Amps:	0.0
						VA:	0
					Total CodeFactor Load	Amps:	0.0
						VA:	0
	Totals				Panel Summary Total Design Load	Amps:	0.0

Panel : PANEL D (NEW)

HANGAR U

Voltage: 208Y/120V		Amps: 225		kAIC Rating: 22						
		Main: MLO								
BKR A/P	Description	Amps	Circuit #	A	B	C	Circuit #	Amps	Description	BKR A/P
20/2	@@ICE MACHINE	8	1	16			2	8	@@OUTLET 208V	20/2
		8	3		16		4	8		
20/1	GRINDER	8	5			8	6		SPARE	20/1
20/1	SPARE		7	40			8	40	@@ELECTRIC RANGE	70/2
20/1	@@OUTLET RM 1115 (EXH FAN)	2	9		42		10	40		
20/1	SPARE		11			2	12	2	@@CONTROL POWER	20/1
20/1	RECEPTACLES - CENTER OF HIGHBAY	5	13	5			14		@@DEAD END J BOX 2ND FLOOR	20/1
20/1	RECEPTACLES - CENTER OF HIGHBAY	5	15		5		16		@@DEAD END J BOX 2ND FLOOR	20/1
20/3	RECEPTACLES - CENTER OF HIGHBAY	10	17			10	18		@@DEAD END J BOX 2ND FLOOR	20/1
		10	19	15			20	5	@@UNKNOWN	20/1
		10	21		15		22	5	@@UNKNOWN	20/1
30/3	RECEPTACLES - CENTER OF HIGHBAY	10	23			15	24	5	@@UNKNOWN	20/1
		10	25	10			26			
		10	27		10		28			
30/3	RECEPTACLES - CENTER OF HIGHBAY	10	29			10	30			
		10	31	10			32			
		10	33		10		34			
			35				36			
			37				38			
			39				40			
			41				42			

Row	Code Factor Name	Aph(VA)	Bph(VA)	Cph(VA)			
1	(None)	13209	13510	6755		VA:	26779
	Total	13209	13510	6755	Total Connected Load	Amps:	90.0
						VA:	26779
					Total Demand Load	Amps:	90.0
						VA:	33474
					Total CodeFactor Load	Amps:	112.5
						VA:	33474
	Totals				Panel Summary Total Design Load	Amps:	112.5

Panel : PANEL L2 (EXISTING)

HANGAR U

Voltage: 208Y/120V		Amps: 225		kAIC Rating:						
		Main: MLO								
BKR A/P	Description	VA	Circuit #	A	B	C	Circuit #	VA	Description	BKR A/P
20/1	OUTLETS 2ND FLOOR EAST END		1				2		LIGHTS/FANS/NE FLOODS	20/1
20/1	FLOODS EXT CENTER		3				4		LIGHTS/OUTLETS/FANS (MENS/MECH ROOM)	20/1
20/1	OUTLET (QUAD) LEFT OF PANEL		5				6		LIGHTS RM 1119	20/1
20/1	LIGHTS - NIGHT (EAST END)		7				8		UNKNOWN	20/1
20/1	LIGHTS - NIGHT (CENTER)		9				10		LIGHTS RM 2111	20/1
20/1	LIGHTS - RM 211 (CENTER)		11				12		LIGHTS/OUTLETS/EX FAN RESTROOMS AND STAIRS	20/1
20/1	%%OUTLETS (CENTER OF HANGAR)		13				14		%%RECEPT 220V	20/2
30/3	%%RECEPTACLE-3 PHASE (CNTR OF HGR)		15				16			
			17				18		WATER HEATER MEN RM	70/2
			19				20			
20/2	UNKNOWN		21				22		220V RECEPT CORRIDOR EAST OF PANEL2	20/2
			23				24			
	SPACE		25				26		SPACE	20/1
	SPACE		27				28		SPACE	

Row	Code Factor Name	Aph(VA)	Bph(VA)	Cph(VA)			
						VA:	0
					Total Connected Load	Amps:	0.0
						VA:	0
					Total Demand Load	Amps:	0.0
						VA:	0
					Total CodeFactor Load	Amps:	0.0
						VA:	0
	Totals				Panel Summary Total Design Load	Amps:	0.0

Panel : PANEL L2 (MODIFIED)

Hangar U

Voltage: 208Y/120V		Amps: 225		kAIC Rating:						
		Main: MLO								
BKR A/P	Description	VA	Circuit #	A	B	C	Circuit #	VA	Description	BKR A/P
20/1	OUTLETS 2ND FLOOR EAST END		1				2		LIGHTS/FANS/NE FLOODS	20/1
20/1	FLOODS EXT CENTER		3				4		LIGHTS/OUTLETS/FANS (MENS/MECH ROOM)	20/1
20/1	OUTLET (QUAD) LEFT OF PANEL		5				6		LIGHTS RM 1119	20/1
20/1	LIGHTS - NIGHT (EAST END)		7				8		UNKNOWN	20/1
20/1	LIGHTS - NIGHT (CENTER)		9				10		LIGHTS RM 2111	20/1
20/1	LIGHTS - RM 211 (CENTER)		11				12		LIGHTS/OUTLETS/EX FAN RESTROOMS AND STAIRS	20/1
20/1	##RECEPTACLES - CENTER OF HIGHBAY		13				14		##RECEPTACLES - CENTER OF HIGHBAY	20/2
30/3	SPARE		15				16			
			17				18		WATER HEATER MEN RM	70/2
			19				20			
20/2	UNKNOWN		21				22		220V RECEPT CORRIDOR EAST OF PANEL2	20/2
			23				24			
	SPACE		25				26		SPACE	20/1
	SPACE		27				28		SPACE	

Row	Code Factor Name	Aph(VA)	Bph(VA)	Cph(VA)			
						VA:	0
					Total Connected Load	Amps:	0.0
						VA:	0
					Total Demand Load	Amps:	0.0
						VA:	0
					Total CodeFactor Load	Amps:	0.0
						VA:	0
	Totals				Panel Summary Total Design Load	Amps:	0.0

PANEL SCHEDULE LEGEND:

- ** EXISTING LOAD TO REMAIN AND BE REFED FROM NEW PANEL
- ## EXISTING LOAD BEING REFED FROM EXISTING PANEL
- @@ EXISTING LOAD CONNECTED TO NEW PANEL
- %% EXISTING CIRCUIT BEING DEMOLISHED

PANEL SCHEDULES - EXISTING, NEW AND MODIFIED

SCALE: NONE

DEPARTMENT OF THE AIR FORCE

DATE: 5/3/2017 | DBEH 13-1523 | DELIVERY NO.: FA2521-13-D-0005 0191 | AS BUILT DATE: ####

DESIGNED BY: L. COLEMAN | DRAWN BY: J. MAYHEW | REVIEWED BY: C. HARTNETT | SUBMITTED BY: G. BEARD

USAF 45TH CIVIL ENGINEER SQUADRON CCAFS, FL

CONTRACT NO.: FA2521-13-D-0005 - 0191

RAEIS OTIE — Oriental Total Integrated Enterprises — RANGE ARCHITECT-ENGINEER, INSPECTION SERVICES

GP STRATEGIES — AMRC — ALLEN Engineering, Inc.

DBEH 13-1523

REPAIR HANGAR U, FAC 1744

PANEL SCHEDULES - EXISTING, NEW AND MODIFIED

SHEET IDENTIFICATION

E-602