

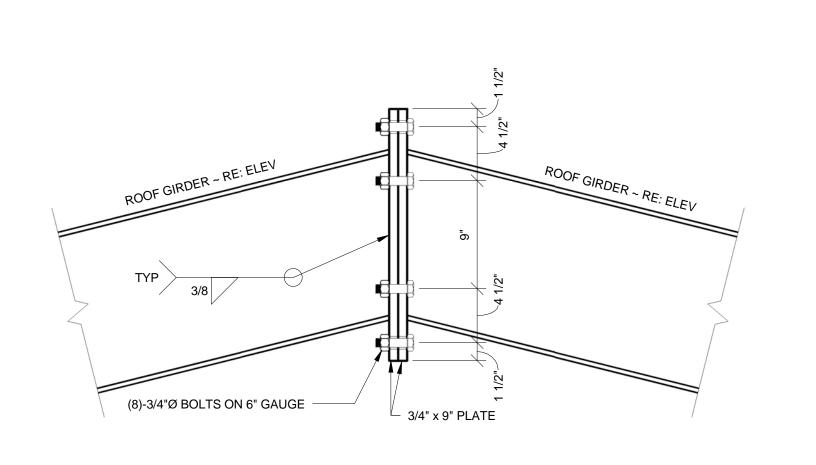
COL TO GIRDER MOMENT CONN

1 1/2" = 1'-0"

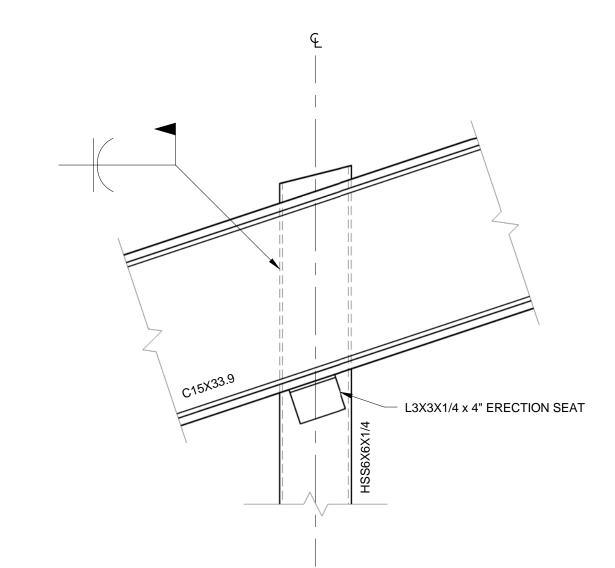
BEAM ~ RE: PLAN

3/8" THROUGH PL

- (2) - 3/4"Ø BOLTS

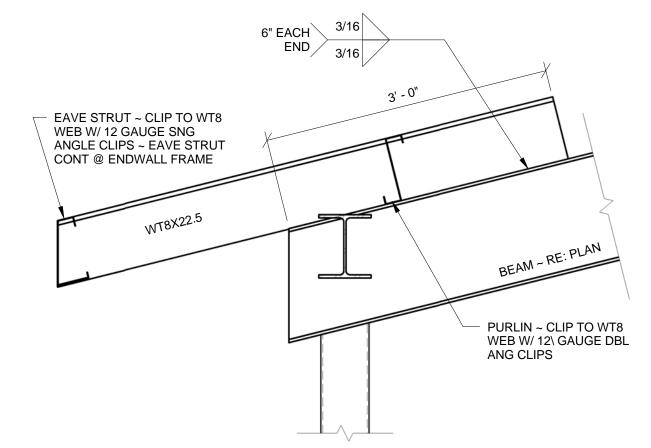


GIRDER RIDGE SPLICE





LOW ROOF CHANNEL CONN 1 1/2" = 1'-0"



RE: PLAN COL ~ RE: ELEV GIRT ~ RE: ELEV

1 1/2" = 1'-0"

1 1/2" = 1'-0"

OVERHANG FRAMING 8 S5.2 S6.2

Castillo Architects 981 Southpark Dr.

COORDINATION

[303] 698.1717 Project Manager JTD Drafter Date

Littleton, Colorado

21 Nov 2016 REVISION

BY/DATE

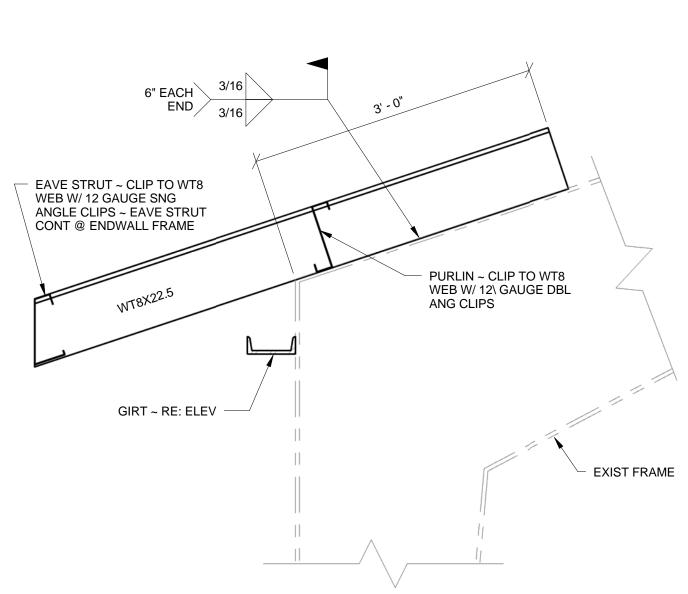
SHEET TITLE

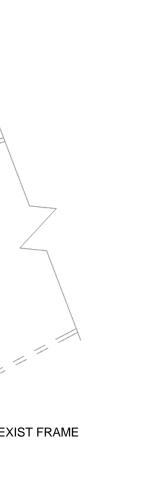
FRAMING **DETAILS**

S6.2

PROJECT TITLE **REPAIR MAINTENANCE SHOP BUILDING 8040**

PROJECT NUMBER DRAWING NUMBER | FACILITY NUMBER 12-0053-S62.dwg

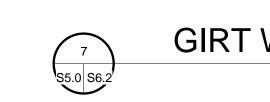




EXIST OVERHANG FRAMING 1" = 1'-0"



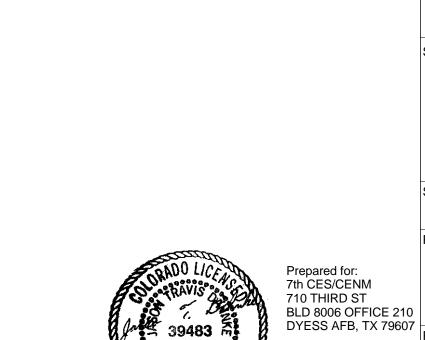
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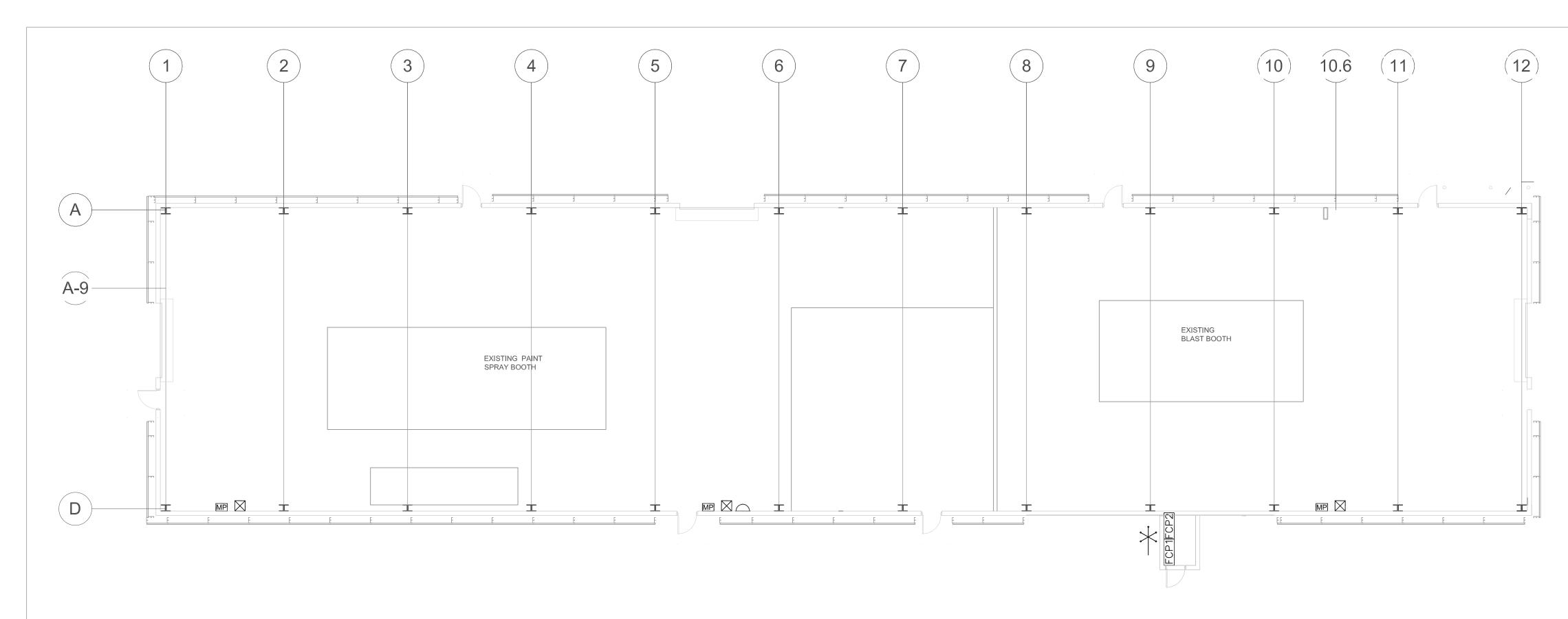
3 S5.2 S6.2







SEQUENCE NUMBER





FIRE ALARM DEMO LEGEND

FCP1 EXISTING MONACO VULCAN FIRE ALARM CONTROL PANEL

FCP2 EXISTING KING-FISHER FIRE ALARM CONTROL PANEL

EXISTING WIRELESS COMMUNICATIONS ANTENNA

EXISTING STROBE FOR FIRE ALARM SYSTEM.

EXISTING BELL FOR FIRE ALARM SYSTEM.

MP EXISTING MANUAL PULL STATION FOR FIRE ALARM SYSTEM.

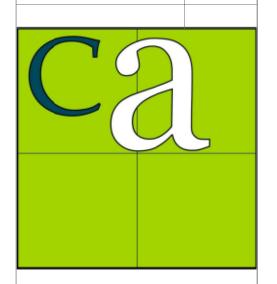
PLAN GENERAL NOTES:

- DEMOLISH EXISTING MONACO FIRE ALARM CONTROL PANEL, COMMUNICATOR AND ALL CONDUIT, WIRING, PIPING, FITTINGS AND ASSOCIATED EQUIPMENT. TURN OVER
 EXISTING COMMUNICATOR TO DYESS AIR
 FORCE BASE.
- 2. DEMOLISH ALL EXISTING NOTIFICATION
 APPLIANCES IN THIS BUILDING, DEMOLISH ALL
 CONDUIT, WIRING, PIPING, FITTINGS AND
 ASSOCIATED EQUIPMENT.



DYESS Air Force **Base TEXAS**

APPROVED SIGNATURE	OFFICE
COORDINATION	



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Projec	Project Manage MEH		
MEH	МЕН			
Drafter	Date			
MEH	21 NO	V 16		
REVI	SION	ВҮ		
SHEET TITLE				

Fire Alarm Demo Plan

FA101

PROJECT TITLE

8040 MX SHOP REMODEL AND **ADDITION**

8040

PROJECT NUMBER 539.02 DRAWING NUMBER FACILITY NUMBER

BLD 8006 OFFICE 210 DYESS AFB, TX 79607 SEQUENCE NUMBER

Prepared for: 7th CES/CENM

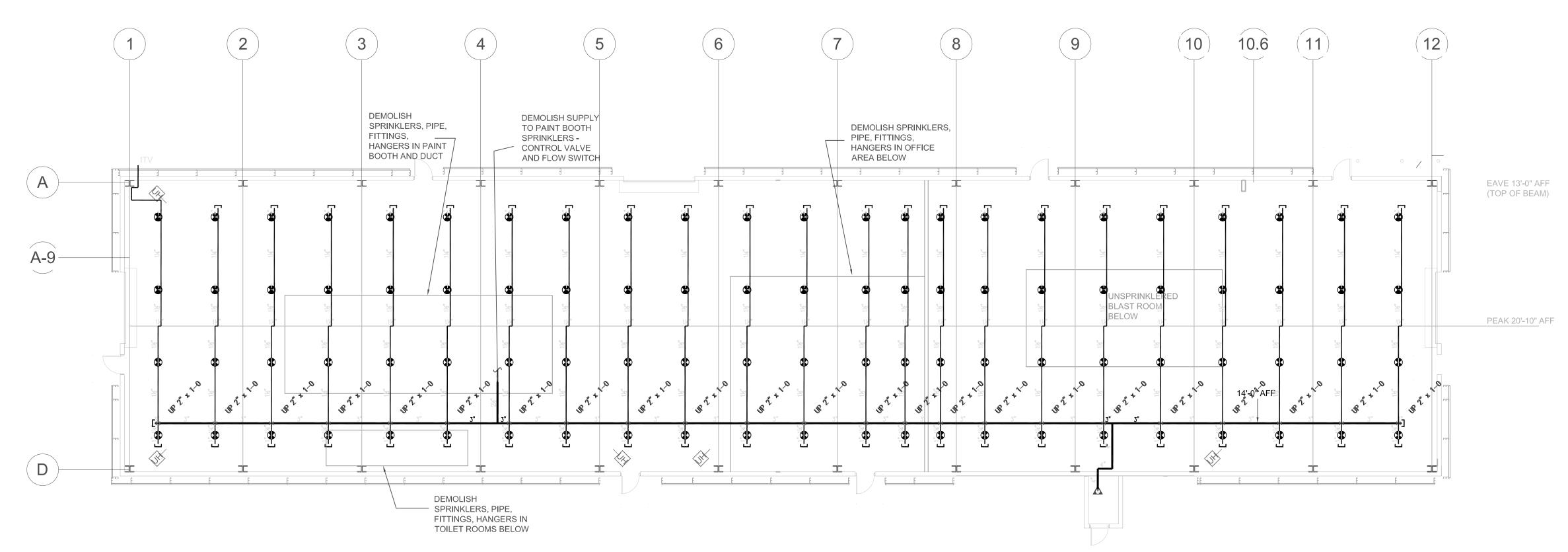
710 THIRD ST

MARK E. HASENMYER 9: 92490 : &

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MEH FIRE PROTECTION ENGINEERING

3367 Fireside Drive, Flower Mound, TX 75028 Phone 972-874-2662 Texas Engineering Firm #8718

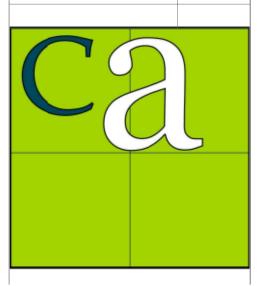






DYESS Air Force Base TEXAS

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APPROVED	
SIGNATURE	OFFICE
COORDINATIC	— N



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project Manager
МЕН	MEH
Drafter	Date
MEH	21 NOV 16

REVISION	BY/DATE
SHEET TITLE	

Fire Sprinkler Demo Plan

FS101

PROJECT TITLE
8040 MX SHOP Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607 **REMODEL AND ADDITION**

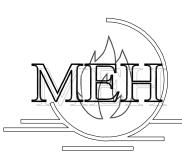
PROJECT NUMBER

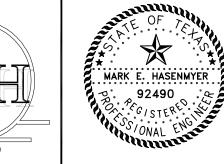
SEQUENCE NUMBER DRAWING NUMBER FACILITY NUMBER 8040

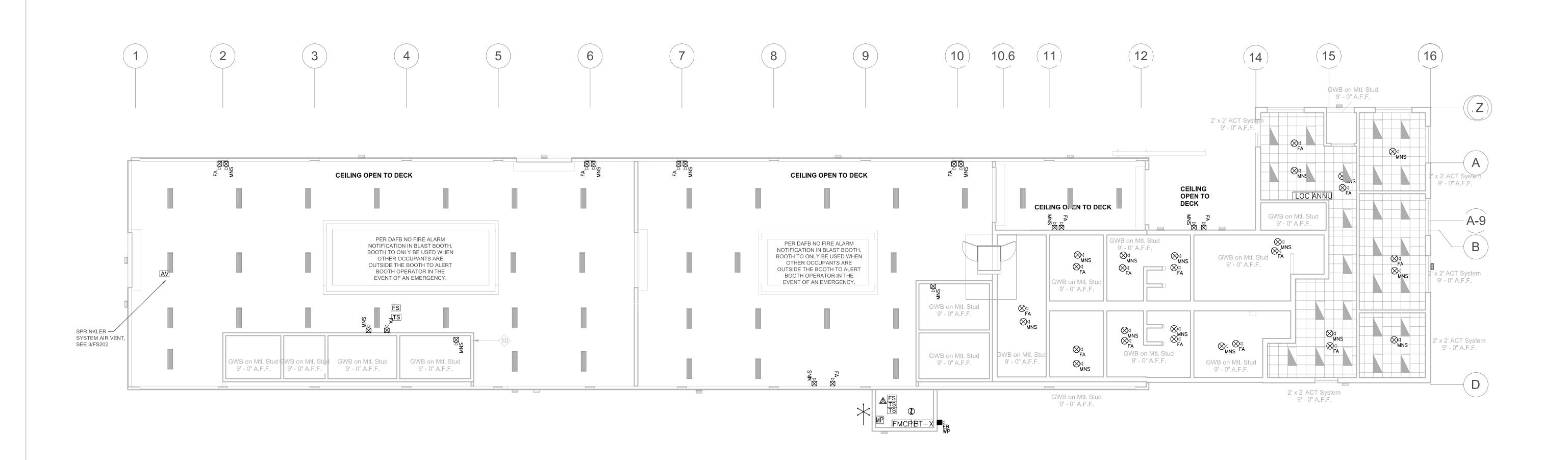
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FIRE ALARM AND MASS NOT. LEGEND

FMCP NEW FIRE ALARM / MASS NOTIFICATION CONTROL PANEL

 $\overline{\mathsf{BT-X}}$ NEW MONACO BT-X MASS NOTIFICATION COMMUNICATOR

HORN/STROBE FOR FIRE ALARM SYSTEM.

HORN/STROBE FOR FIRE ALARM SYSTEM.

SPEAKER/STROBE FOR MASS

SPEAKER/STROBE FOR MASS NOTIFICATION SYSTEM.

SPEAKER FOR MASS NOTIFICATION SYSTEM.

NEW MANUAL PULL STATION

VALVE TAMPER SWITCH

DRY SYSTEM PRESSURE SWITCH



REMOTE FIRE ALARM/MASS NOTIFICATION ANNUNCIATOR

LOC NEW LOCAL OPERATING CONSOLE

NEW WALL MOUNTED COMBINATION

NEW CEILING MOUNTED COMBINATION

NEW CEILING MOUNTED COMBINATION

NEW WALL MOUNTED COMBINATION

NEW WEATHERPROOF WALL MOUNTED

WATER FLOW SWITCH

DUCT SMOKE DETECTOR

NEW SMOKE DETECTOR

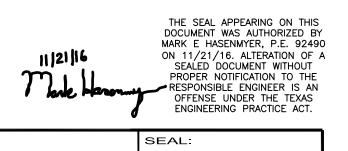
NEW MONACO WIRELESS COMMUNICATIONS ANTENNA

WATERFLOW ALARM ELECTRIC BELL

AIR RELEASE VALVE ON SPRINKLER

MEH FIRE PROTECTION ENGINEERING 3367 Fireside Drive, Flower Mound, TX 75028 Phone 972-874-2662

Texas Engineering Firm #8718





Prepared for:

7th CES/CENM 710 THIRD ST

SEQUENCE NUMBER

PROJECT TITLE 8040 MX SHOP REMODEL AND BLD 8006 OFFICE 210 DYESS AFB, TX 79607

ADDITION PROJECT NUMBER

SHEET TITLE

DRAWING NUMBER FACILITY NUMBER 8040

New Fire

Alarm Plan

FA201

DYESS

Air Force

Base

TEXAS

COORDINATION

Castillo Architects

981 Southpark Dr.

Littleton, Colorado

[303] 698.1717

REVISION

MEH

21 NOV 16

BY/DATE

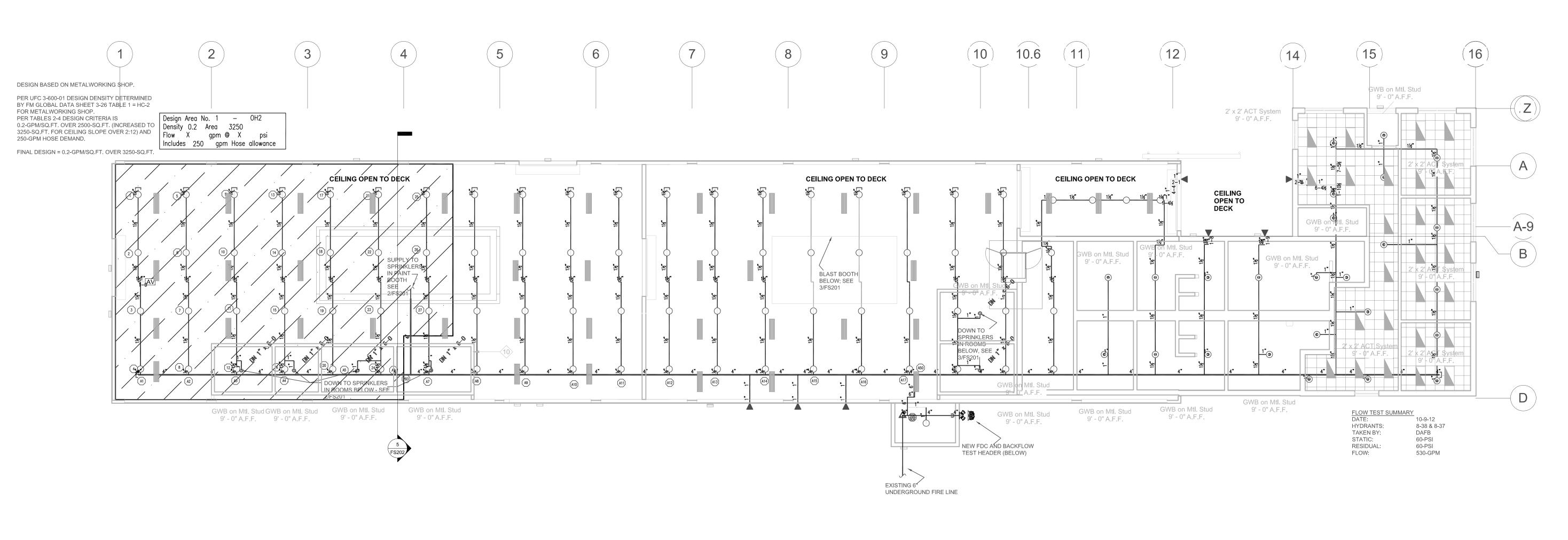
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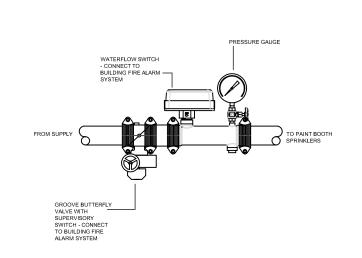
Drafter

Project Manager

OFFICE

SIGNATURE

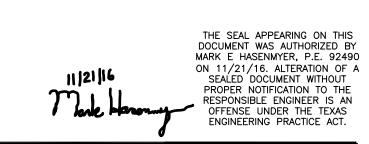




PAINT BOOTH CONTROL VALVE FS201 PAIN NO SCALE

SPRINKLER SYMBOL DESCRIPTION							
SYMBOL	SIZE	MODEL	MAKE	FINISH	STYLE	TEMP	K-FACTOF
•	1/2"	NEW	NEW	CHROME	RECESSED	155-DEG	5.6
0	3/4"	NEW	NEW	BRONZE	UPRIGHT	200-DEG	8.0
•	1/2"	NEW	NEW	BRONZE	DRY SIDEWALL	200-DEG	5.6

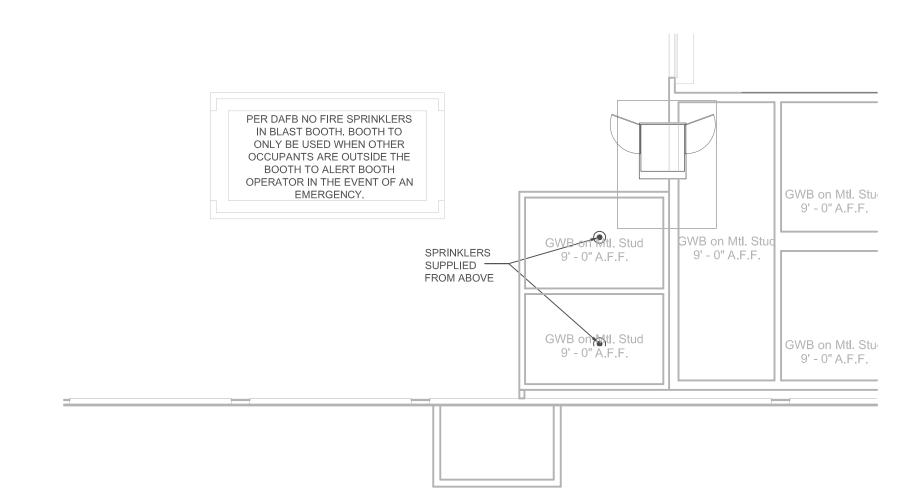
FIRE SPRINKLER LEGEND FS201 FIRE NO SCALE

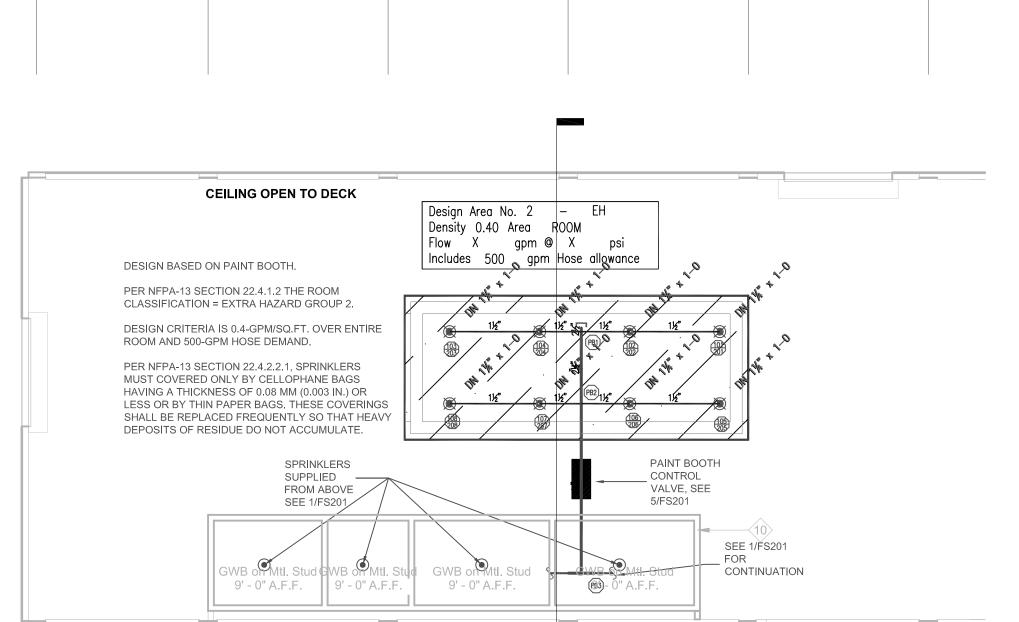


7th CES/CENM DYESS AFB, TX 79607 SEQUENCE NUMBER

710 THIRD ST BLD 8006 OFFICE 210 **ADDITION**

PROJECT NUMBER DRAWING NUMBER FACILITY NUMBER





NEW FIRE SPRINKLER PLAN

3/32" = 1' - 0'

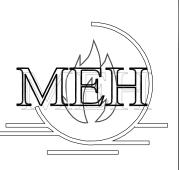
3

5

LOW CEILING ROOMS - CENTER

MEH FIRE PROTECTION ENGINEERING

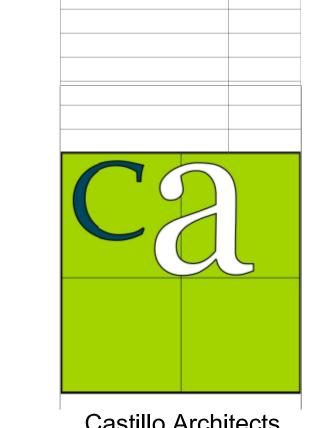
3367 Fireside Drive, Flower Mound, TX 75028 Phone 972-874-2662 Texas Engineering Firm #8718







2



DYESS

Air Force

Base

TEXAS

COORDINATION

OFFICE

SIGNATURE

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Project Manager

MEH		MEH	
Drafter		Date	
MEH		21 NOV	16
RE	EVISION		BY/DATE

SHEET TITLE New Fire Sprinkler Plan

FS201

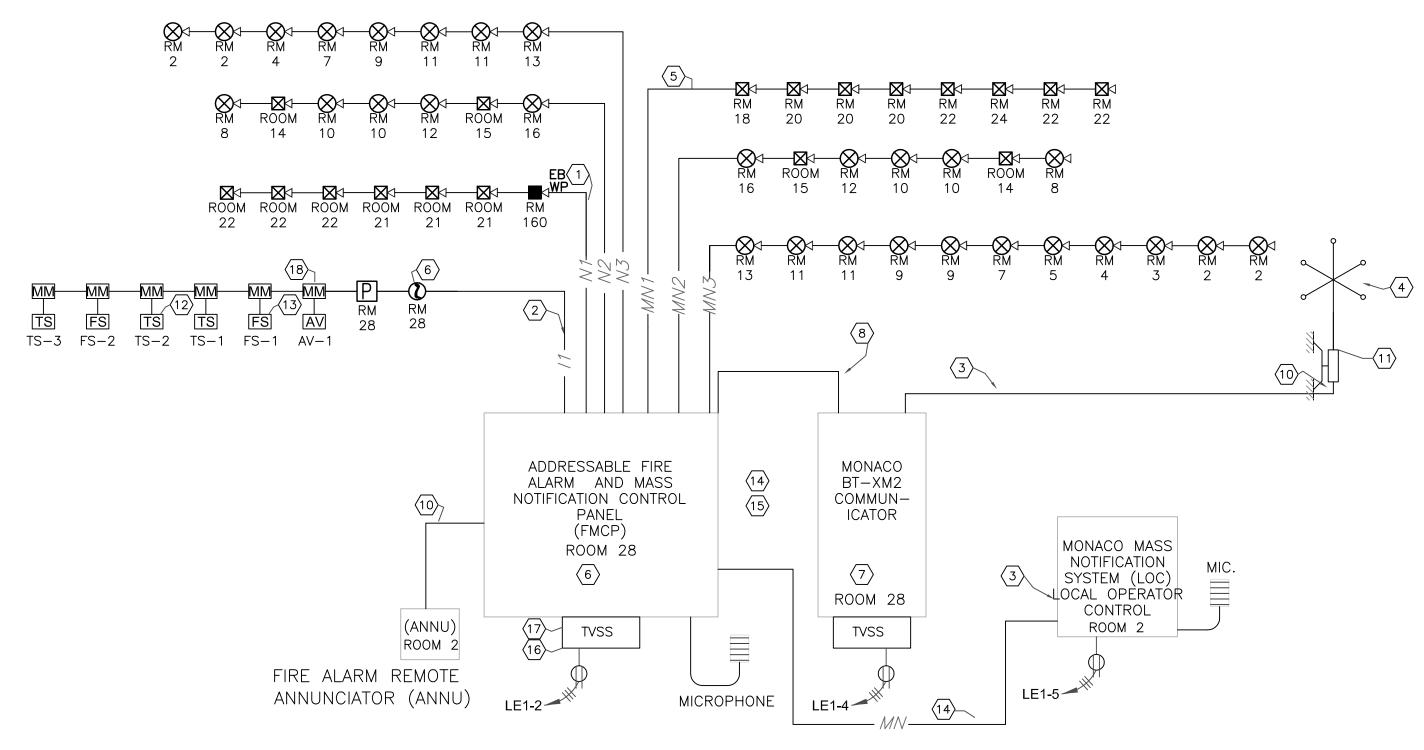
8040

PROJECT TITLE
8040 MX SHOP REMODEL AND

NOTES INDICATED BY NUMBER IN 🔾

- 1. TYPICAL FIRE NOTIFICATION APPLIANCE CIRCUIT FROM FIRE ALARM PANEL TO ALARM INDICATING DEVICE, TYPICAL. ADD BOOSTER POWER SUPPLIES AS REQUIRED TO POWER ALL NOTIFICATION APPLIANCE CIRCUITS. ALL BOOSTER POWER SUPPLIES MUST BE PROVIDED WITH SURGE PROTECTION DEVICES.
- 2. TYPICAL FIRE DETECTING (INITIATING) CIRCUIT FROM INITIATING DEVICE TO FACP,
- 3. COAXIAL CABLE (IN CONDUIT) TO ANTENNA AS RECOMMENDED BY THE SYSTEM MANUFACTURER.
- 4. WIRELESS COMMUNICATIONS ANTENNA TO BE INSTALLED FOR USE WITH MONACO D-21 SYSTEM LOCATED AT FIRE DEPARTMENT. ANTENNA TO BE AS RECOMMENDED AND FURNISHED BY THE SYSTEM MANUFACTURER. MOUNT AT ELEVATION RECOMMENDED BY MANUFACTURER.
- 5. MASS NOTIFICATION SPEAKER CIRCUIT. TYPICAL. ADD BOOSTER POWER SUPPLIES AS REQUIRED TO POWER ALL NOTIFICATION APPLIANCE CIRCUITS. ALL BOOSTER POWER SUPPLIES MUST BE PROVIDED WITH SURGE PROTECTION
- 6. COMBINED ADDRESSABLE FIRE ALARM AND MASS NOTIFICATION CONTROL PANEL. PANEL. CONTRACTOR TO PROGRAM THE PANEL TO SIGNAL MONACO M-2 AND D-21 NARROW BAND RECEIVING SYSTEM LOCATED AT THE FIRE DEPARTMENT WITH ZONES SHOWN ON THE DRAWING AND TO TRANSMIT AND RECEIVE THE DETECTED CONDITIONS. PROGRAMMING SOFTWARE TO BE PROVIDED TO THE GOVERNMENT FOR THE NEW SUPPRESSION SYSTEM PANEL.
- 7. PROVIDE MONACO BT-XM MASS NOTIFICATION COMMUNICATOR WITH BT-XM2 INTERFACE CONVERSION KIT.
- 8. PROVIDE INTERCONNECTING CABLE IN CONDUIT BETWEEN THE FMNP PANEL AND THE BT-XM2 COMMUNICATOR. VERIFY REQUIRED CABLE TYPE AND CONDUCTOR QUANTITY AND PROVIDE AS REQUIRED.
- 9. PROVIDE INTERCONNECTING CABLE IN CONDUIT BETWEEN THE FMCP PANEL AND THE REMOTE ANNUNCIATOR AND LOC. VERIFY REQUIRED CABLE TYPE AND CONDUCTOR QUANTITY AND PROVIDE AS REQUIRED.

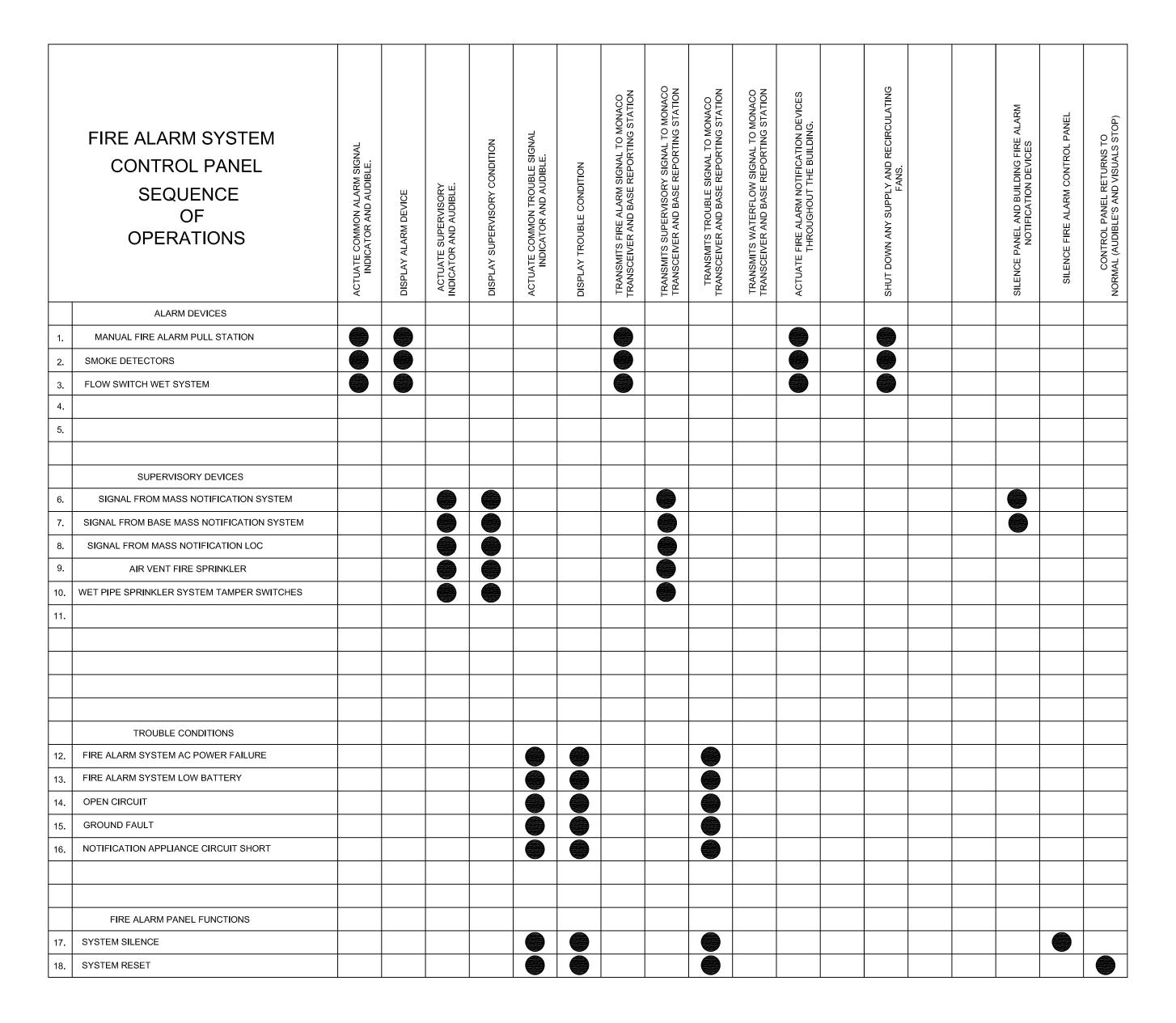
- 10. EXTEND CO-AXIAL CABLE (IN CONDUIT) UP EXTERIOR WALL AND PROVIDE CAULK FOR PENETRATION. PROVIDE SUPPORTS AS REQUIRED.
- 11. ANTENNA SUPPORT FURNISHED WITH ANTENNA. INSTALL AT REQUIRED ELEVATION. DO NOT ATTACH ANTENNA SUPPORT BRACKET TO BUILDING GUTTER
- 12. SPRINKLER CONTROL VALVE SUPERVISORY SWITCH TYPICAL.
- 13. SPRINKLER FLOW SWITCH TYPICAL.
- 14. AFTER EACH PHASE OF THE WORK IS COMPLETE, THE CONTRACTOR SHALL DEMONSTRATE FULL AND COMPLETE OPERATION OF THE WORK OF THAT PHASE TO THE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR). AFTER ALL PHASES OF THE WORK ARE COMPLETE, THE INSTALLATION AND OPERATION OF ALL PORTIONS OF THE FIRE ALARM SYSTEM AND MASS NOTIFICATION SYSTEM SHALL BE WITNESSED, APPROVED AND CERTIFIED IN WRITING BY A MONACO REPRESENTATIVE. THE MONACO REPRESENTATIVE SHALL BE A PERSON IN THE REGULAR EMPLOYMENT OF MONACO WHO IS AUTHORIZED TO INSPECT, OBSERVE AND CERTIFY INSTALLED MONACO SYSTEMS.
- 15. ACCEPTANCE TESTING WILL BE REQUIRED AT COMPLETION OF EACH STAGE
- 16. TYPICAL CONNECT POWER SUPPLY TO NEAREST ELECTRICAL DISTRIBUTION PANEL. USE NEXT AVAILABLE CIRCUIT BREAKER SLOT AND LABEL PER NFPA-72.
- 17. TYPICAL NEW TRANSIENT VOLTAGE SURGE SUPPRESSION DEVICE (SPD). PROVIDE SPD TO PROTECT ALL POWER SUPPLY CIRCUITS TO FMCP PANELS, INCLUDING ANY SUBPANELS. PROVIDE SPD TO PROTECT ALL FIRE ALARM CIRCUITS LEAVING OR ENTERING THE BUILDING. SPD'S MUST BE IN ACCORDANCE WITH UFC 3-520-01 AND WILL BE MOUNTED IN A SEPARATE ENCLOSURE, UNLESS LISTED AND INSTALLED BY THE FACTORY (E.G. INSTALLING THE SPD IN THE FMCP
- 18. TYPICAL MONITOR MODULE AS REQUIRE FOR DEVICE ADDRESSABILITY.



/ - INITIATING CIRCUIT

M/V - MASS NOTIFICATION NOTIFICATION CIRCUIT

NEW FIRE ALARM/MASS NOTIFICATION RISER DIAGRAM FA202 NO SCALE





MEH FIRE PROTECTION ENGINEERING

3367 Fireside Drive, Flower Mound, TX 75028

Phone 972-874-2662

Texas Engineering Firm #8718



TEXAS

APPROVED SIGNATURE	OFFICE
COORDINATION	

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project Manager
MEH	МЕН
Drafter	Date
MEH	21 NOV 16

MEH	21 NOV 16
REVISION	BY/DATE
SHEET TITLE	
Fire /	Marm

rife Alaimi Details Plan

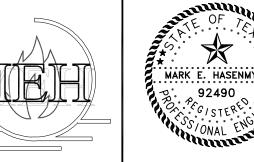
FA202

8040

PROJECT TITLE **8040 MX SHOP** Prepared for: **REMODEL AND** 7th CES/CENM 710 THIRD ST **ADDITION** 3LD 8006 OFFICE 210 DYESS AFB, TX 79607

EQUENCE NUMBER

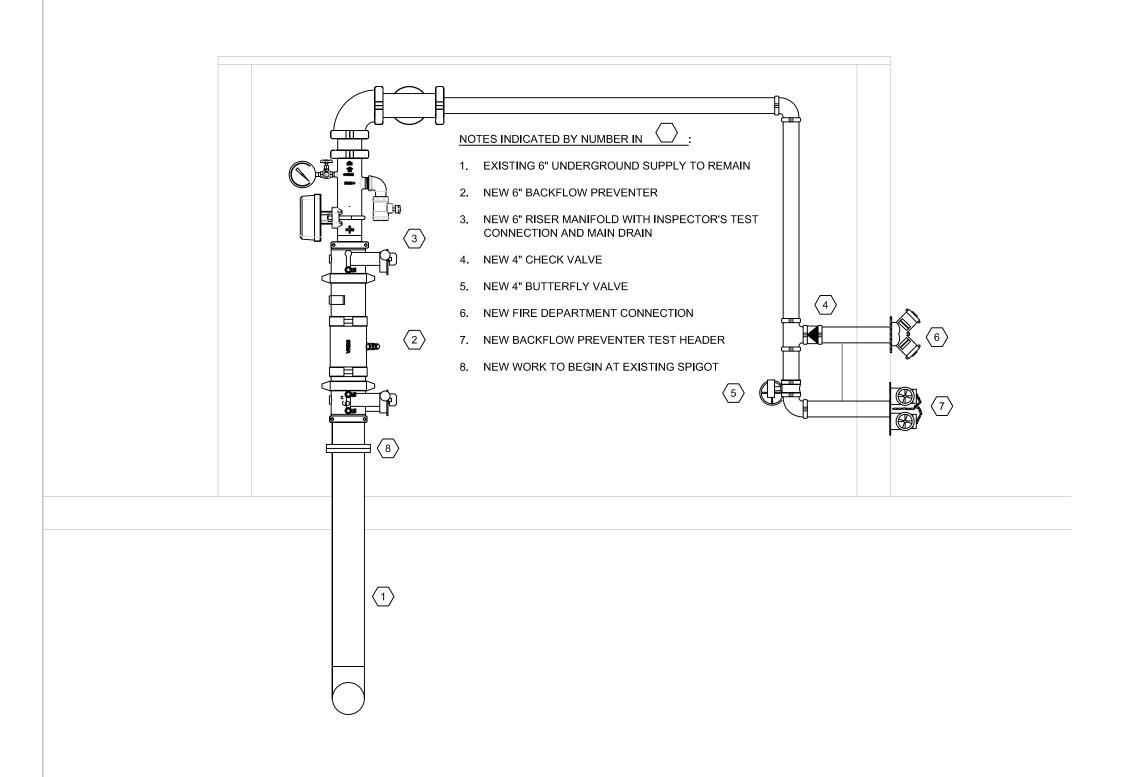
PROJECT NUMBER DRAWING NUMBER FACILITY NUMBER

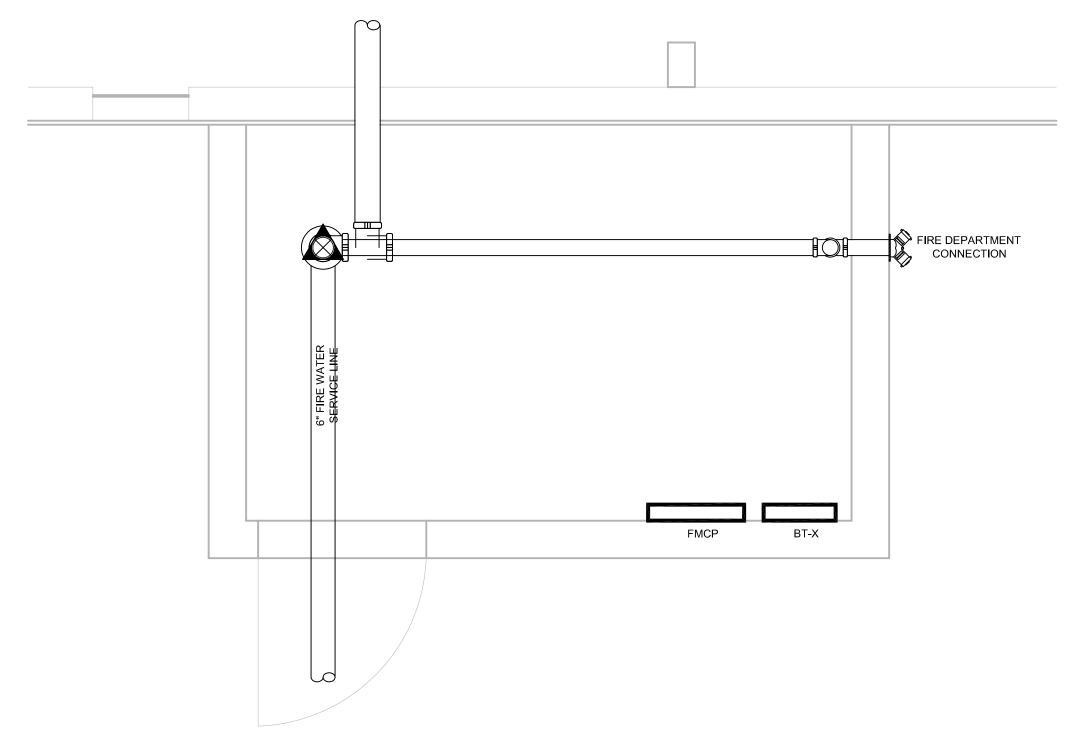


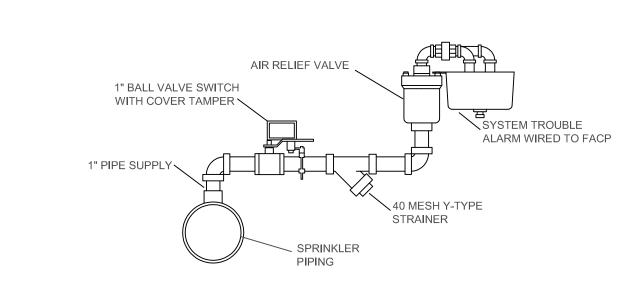
MARK E. HASENMYER

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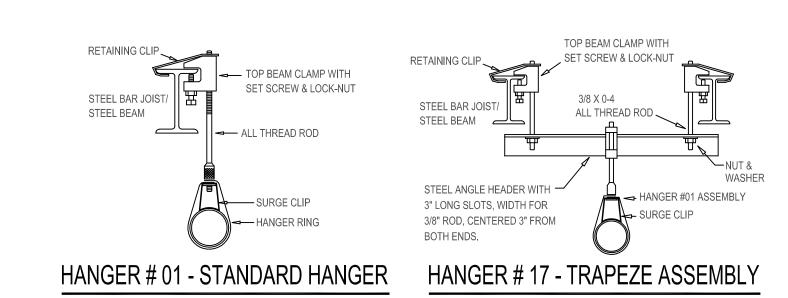
PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.











NOT TO SCALE

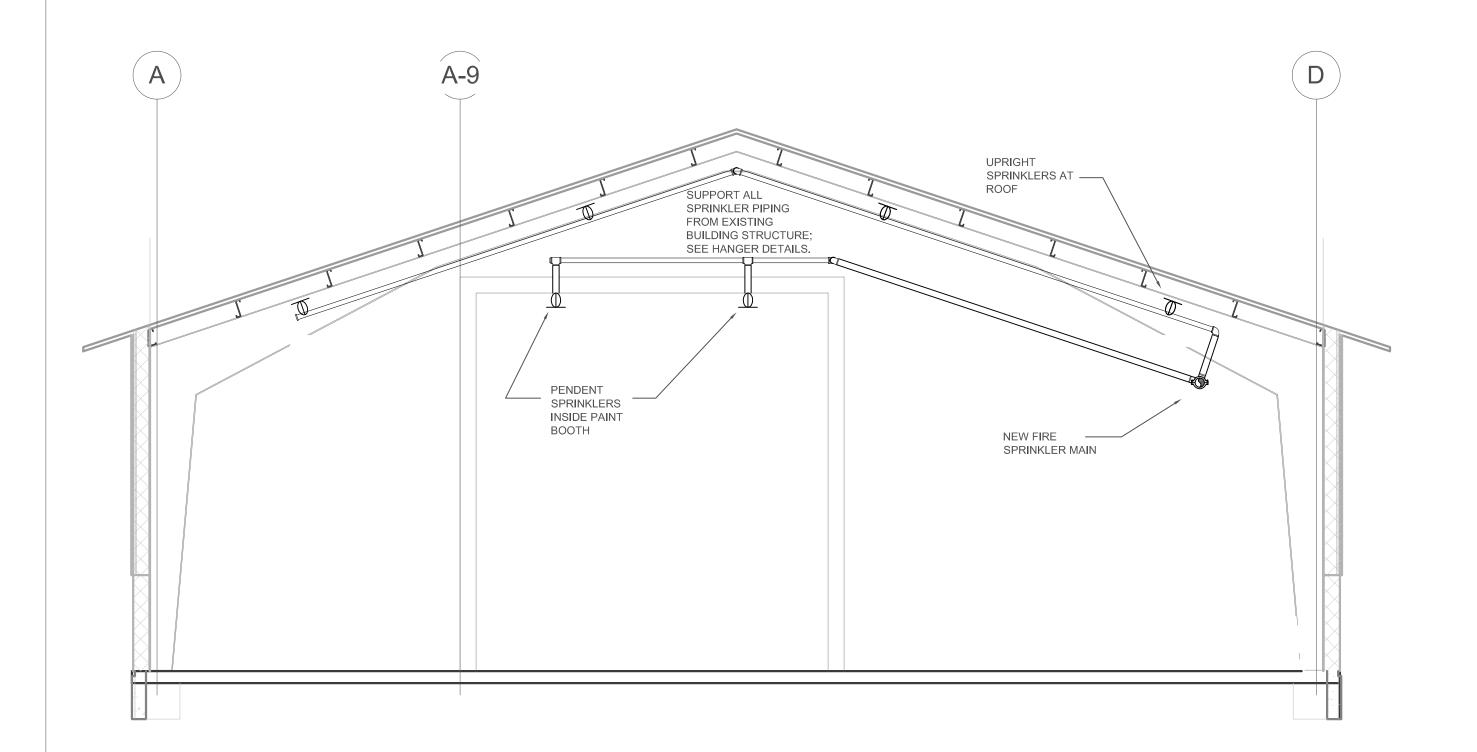
FIRE SPRINKLER HANGER DETAILS FS202 NO SCALE

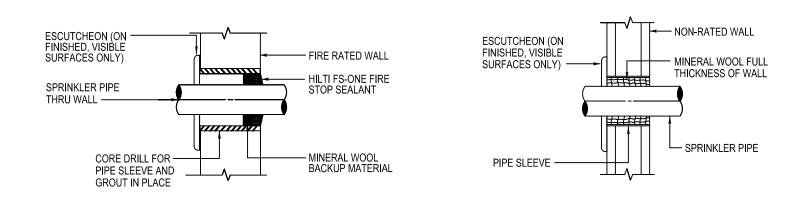
FIRE SPRINKLER RISER DETAIL FS202 1/2" = 1'-0"

SECTION A - A

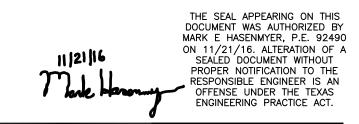
5 FS202 SEC 1/4" = 1'-0"



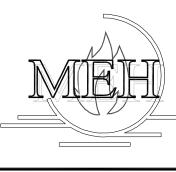


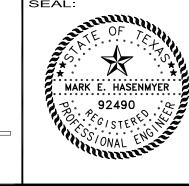






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Prepared for: 7th CES/CENM

SEQUENCE NUMBER

PROJECT TITLE
8040 MX SHOP REMODEL AND **ADDITION** PROJECT NUMBER

SHEET TITLE

DRAWING NUMBER FACILITY NUMBER

Fire Sprinkler

DYESS

Air Force

Base

TEXAS

COORDINATION

Castillo Architects

981 Southpark Dr. Littleton, Colorado

[303] 698 1717

REVISION

Project Manager

21 NOV 16

BY/DATE

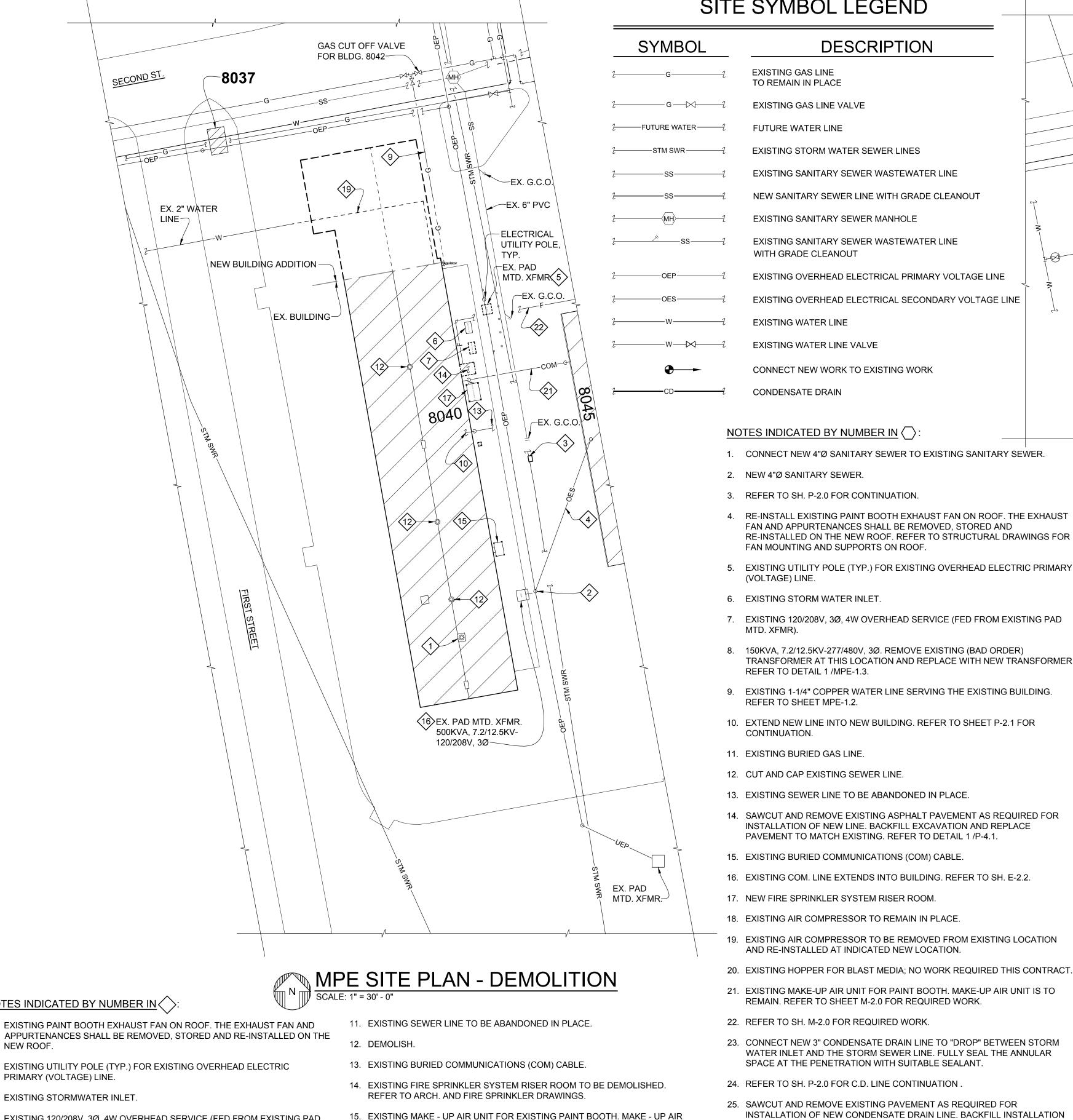
SIGNATURE

MEH FIRE PROTECTION ENGINEERING

NOT TO SCALE

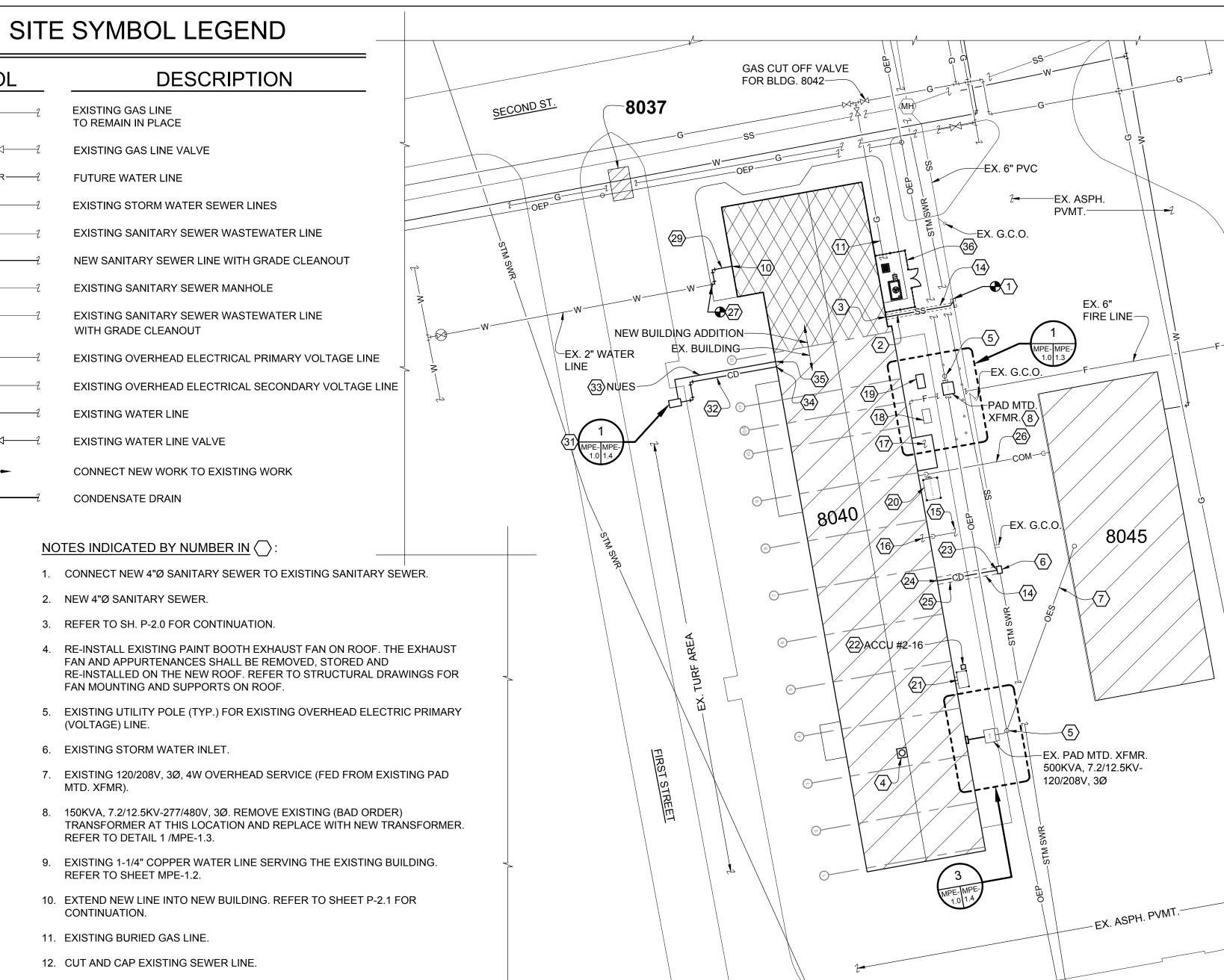
Details FS202 710 THIRD ST BLD 8006 OFFICE 210 DYESS AFB, TX 79607

8040



NOTES INDICATED BY NUMBER IN ()

- EXISTING PAINT BOOTH EXHAUST FAN ON ROOF. THE EXHAUST FAN AND APPURTENANCES SHALL BE REMOVED, STORED AND RE-INSTALLED ON THE NEW ROOF.
- 2. EXISTING UTILITY POLE (TYP.) FOR EXISTING OVERHEAD ELECTRIC
- 3. EXISTING STORMWATER INLET.
- 4. EXISTING 120/208V, 3Ø, 4W OVERHEAD SERVICE (FED FROM EXISTING PAD MTD. XFMR).
- 5. 150 KVA, 7.2/12.5KV-277/480V, 3Ø. THIS TRANSFORMER IS IN BAD ORDER. DEMOLISH THIS TRANSFORMER AND REPLACE WITH NEW TRANSFORMER. REFER TO DETAIL 1/MPE-1.3.
- 6. EX. AIR COMPRESSOR TO REMAIN IN PLACE.
- RELOCATE EXISTING AIR COMPRESSOR; REFER TO SHEET MPE-1.2 FOR RELATED DEMOLITION WORK.
- DEMOLISH EXISTING 1-1/4" COPPER WATER LINE SERVING THE EXISTING BUILDING. REFER TO SHEET MPE-1.2.
- 9. EXISTING BURIED GAS LINE TO REMAIN AND BE RE-USED.
- 10. EXISTING COM LINE EXTENDS INTO BLDG.;REFER TO SH. MPE-1.2 FOR CONTINUATION.
- UNIT TO REMAIN. REFER TO SH. MPE-1.2.
- 16. REFER TO SH. MPE-1.2 FOR DEMOLITION OF EXISTING MAIN PANELBOARD "M" AND RELATED WORK.
- 17. EXISTING BLAST MEDIA HOPPER.
- 18. EXISTING LINE SIZE CUT OFF VALVE IN CAST IRON VALVE BOX.
- 19. ABANDON EXISTING 2" WATER LINE IN PLACE.
- 20. NEW 2" SERVICE LINE TO BLDG. 8040 TO BE CONNECTED TO EXISTING LINE AT THIS POINT. REFER TO "NEW WORK" PLAN.
- 21. EXISTING BURIED 2" CONDUIT WITH FIBER OPTIC CABLE TO REMAIN.
- 22. EXISTING 6" FIRE LINE.





31. PUMPED CONDENSATE DISCHARGE STATION.

INSTALLATION OF NEW LINE. BACKFILL EXCAVATION AND REPLACE

PAVEMENT TO MATCH EXISTING. REFER TO DETAIL 1 /P-4.1.

AND RE-INSTALLED AT INDICATED NEW LOCATION.

REMAIN. REFER TO SHEET M-2.0 FOR REQUIRED WORK.

SPACE AT THE PENETRATION WITH SUITABLE SEALANT.

WATER INLET AND THE STORM SEWER LINE. FULLY SEAL THE ANNULAR

INSTALLATION OF NEW CONDENSATE DRAIN LINE. BACKFILL INSTALLATION

AND REPLACE CONCRETE TO MATCH EXISTING. INSTALLATIONS SHALL BE

SIMILAR TO DETAIL 2 /P-4.1 BUT WITH REPLACEMENT OF EXISTING

BLDG. 8045 PRESENTLY PROVIDED FROM ROUTER IN BLDG. 8040.

29. PROVIDE NEW 2" PVC WATER LINE. INSTALLATION SHALL BE SIMILAR TO

30. CONNECT NEW 2" WATER SERVICE TO EXISTING WATER LINE AT LOCATION

WHERE EXISTING 1-1/4" SERVICE IS PRESENTLY CONNECTED. REFER TO

DETAIL 1/P-4.1. COORDINATE INSTALLATION OF LINE WITH NEW CONCRETE

27. CONNECT NEW 2" WATER LINE TO EXISTING 2" WATER LINE.

"DEMOLTION PLAN", THIS SHEET.

28. NOT USED.

3/MPE-1.5.



DYESS Air Force Base **TEXAS**

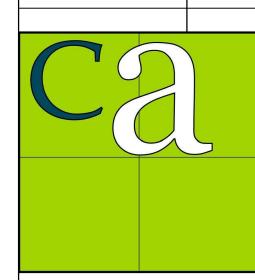
APPROVED

EX. POST

VALVE

INDICATOR

SIGNATURE COORDINATION



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project Manager			
LGT	LGT			
Drafter	Date			
Drafter BDW	Date 21 OCT 16			

REVISION BY/DATE

SHEET TITLE

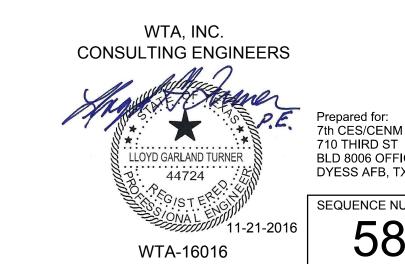
SITE PLAN

MPE-1.0

PROJECT TITLE REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

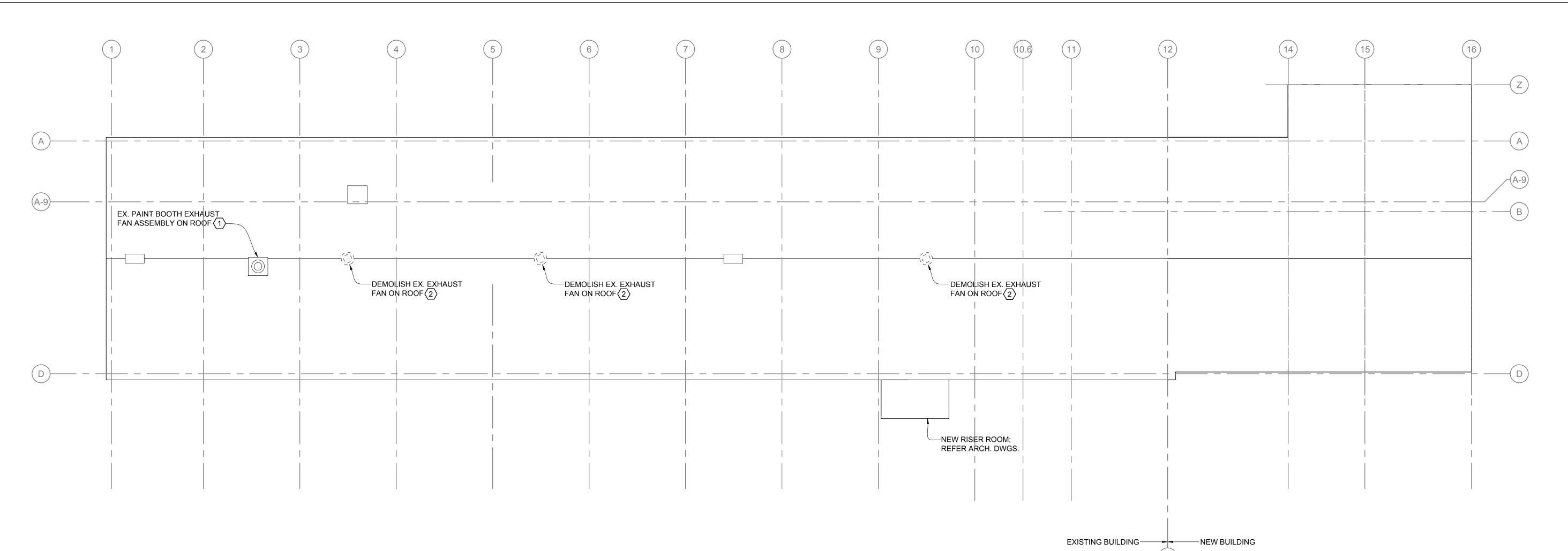
SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER FACILITY NUMBER

- 32. BURIED 2" PVC PUMPED CONDENSATE DISCHARGE LINE. REFER TO DETAIL
- 33. BURIED 1" PVC CONDUIT WITH 120V ELECTRICAL CIRCUIT (2-#10'S, 1-#12 GROUND) SERVING HEAT TRACE TAPE AT CONDENSATE DISCHARGE STATION. REFER TO DETAIL 4/MPE-1.5 FOR CONDUIT INSTALLATION.
- 34. REFER TO SH. P-2.1 FOR CONTINUATION OF CONDENSATE DISCHARGE LINE.
- 35. TURN CONDUIT FOR ELECTRICAL CIRCUIT UP IN BUILDING AND EXTEND TO
- 26. EXISTING BURIED 2" CONDUIT WITH FIBER CABLE TO REMAIN. IT SERVICE TO 36. REFER TO SHEETS M-2.1, P-2.1 AND E-2.3 FOR WORK IN FENCED ENCLOSURE.



■EX. PAD

MTD. XFMR.



ROOF PLAN (3)
SCALE: 3/32" = 1' - 0"

NOTES INDICATED BY NUMBER IN

1. THIS PAINT BOOTH EXHAUST FAN ASSEMBLY AND ALL APPURTENANCES SHALL BE SALVAGED AND RE-USED. REFER TO ARCHITECT'S DEMOLITION

- 2. DEMOLISH THIS FAN AND RELATED APPURTENANCES.
- 3. THE EXISTING ROOF IS TO BE REMOVED AND REPLACED WITH A NEW ROOF IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS. PROVIDE REMOVAL AND REPLACEMENT OF THE PAINT BOOTH EXHAUST FAN PER HEX NOTE 1.

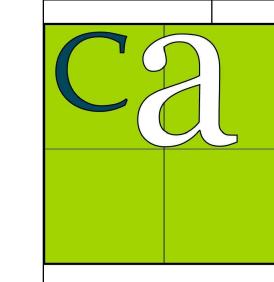
ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT	DIA	DIAMETER	GALV	GALVANIZED	N/A	NOT APPLICABLE	SCH	SCHEDULE
\FF	ABOVE FINISHED FLOOR	DIM	DIMENSION	GCO	GRADE CLEANOUT	NC	NORMALLY CLOSED (CONTACT)	SH, SHT	SHEET
HU	AIR-HANDLING UNIT	DISC	DISCONNECT	GFCI	GROUND FAULT CIRCUIT INTERRUPT	ER NEC	NATIONAL ELECTRICAL CODE	SIM	SIMILAR
L, ALUM	ALUMINUM	DPLX	DUPLEX	GND	GROUND	NFPA	NATIONAL FIRE PROTECTION	SPECS	SPECIFICATIONS
MP	AMPERE (AMP, AMPS)	DWG(S)	DRAWING(S)	GPM	GALLONS PER MINUTE		ASSOCIATION	SPST	SINGLE POLE SINGLE THROW
PPROX	APPROXIMATE	DX	DIRECT EXPANSION	GYP	GYPSUM	NO	NUMBER	SQ	SQUARE
RCH	ARCHITECTURAL	ECM	ELECTRONIC CONTROL MODULE	HB	HOSE BIBB	NTS	NOT TO SCALE	SQ FT	SQUARE FEET
SPH	ASPHALT	EF	EXHAUST FAN	HD	HUB DRAIN	NUES	NEW UNDERGROUND ELECTRICAL (SECONDARY) STL	STEEL
UX	AUXILIARY	EL	ELEVATION	HM	HOLLOW METAL	OC	ON CENTER	SUCT	SUCTION
С	BARE COPPER	ELEC	ELECTRICAL	HP	HORSEPOWER	OCEW	ON CENTER EACH WAY	SW	SWITCH
D	BOARD	EM SHWR	EMERGENCY SHOWER	HR	HOUR	OEP	OVERHEAD ELECTRIC PRIMARY	TEMP	TEMPERATURE
KR	BREAKER	ENT	ENTERING	HRODU	HEAT RECOVERY OUTDOOR UNIT	OA	OUTSIDE AIR	THRU	THROUGH
LDG	BUILDING	ETC	ET CETERA (AND OTHERS)	HTR	HEATER	OD	OUTSIDE DIAMETER	TK	THICK
TU	BRITISH THERMAL UNITS	EWC	ELECTRIC WATER COOLER	HVAC	HEATING VENTILATION AND	OH	OVERHEAD	TS	TUBULAR STEEL
	CONDUIT	EX, EXIST	EXISTING		AIR CONDITIONING	OSAMU	OUTSIDE AIR MAKE-UP	T'STAT	THERMOSTAT
AT	CATALOG	EXH	EXHAUST	IN	INCHES	OS & Y	OUTSIDE SCREW AND YOKE	TYP	TYPICAL
D	CONDENSATE DRAIN (PIPE)	F	FAHRENHEIT	J	JUNCTION	%	PERCENT	UEP	UNDERGROUND ELECTRICAL (PRIMARY
FM	CUBIC FEET PER MINUTE	FA	FIRE ALARM	J-BOX	JUNCTION BOX	Ø	PHASE, DIAMETER	UES	UNDERGROUND ELECTRICAL (SECOND
I	CAST IRON	FACP	FIRE ALARM CONTROL PANEL	KV	KILOVOLT	Р	POLE	UL	UNDERWRITERS LABORATORIES
KT	CIRCUIT	FCO	FLOOR CLEAN OUT	KW	KILOWATT	PIV	POST INDICATING VALVE	V	VOLT
LG	CEILING	FD	FIRE DAMPER (MECH)	LBS	POUNDS	PNL	PANEL	VFD	VARIABLE FREQUENCY DRIVE
MU	CONCRETE MASONRY UNIT	FD	FLOOR DRAIN (PLUMBING)	LF	LINEAR FEET	PNLBD	PANELBOARD	VRF	VARIABLE REFRIGERANT FLOW
OMP	COMPRESSOR	FF	FINISHED FLOOR	LVG	LEAVING	PRESS	PRESSURE	VRV	VARIABLE REFRIGERANT VOLUME
ONC	CONCRETE	FIN	FINISHED	MANUF	MANUFACTURER	PSI	POUNDS PER SQUARE INCH	VTR	VENT THROUGH ROOF
ONT	CONTINUOUS	FL	FLOW, FLOOR	MAX	MAXIMUM	PVC	POLYVINYL CHLORIDE	W	WATT
0	CLEAN OUT	FP	FREEZE PROOF	MH	MANHOLE	PVMT	PAVEMENT	WB	WET BULB
В	DRY BULB	FPM	FEET PER MINUTE	MIN	MINIMUM	RA	RETURN AIR	WCO	WALL CLEAN OUT
С	DIRECT CURRENT	FS	FIRE SPRINKLER	MLO	MAIN LUG ONLY	REF	REFER	WP	WEATHERPROOF
DCS	DIRECT DIGITAL CONTROL SYSTEM	FT	FOOT OR FEET	MNS	MASS NOTIFICATION SYSTEM	REINF	REINFORCE	WT	WEIGHT
EG OR °	DEGREE	FTG	FOOTING	MTD	MOUNTED	REQ'D	REQUIRED	W/	WITH
EMO	DEMOLITION	HZ	HERTZ	MTG	MOUNTING	RGS	RIDGID GALVANIZED STEEL	XFMR	TRANSFORMER
ET	DETAIL	G	NATURAL GAS	MTL	METAL	RH	RELATIVE HUMIDITY	YD	YARD
ı	DUCTILE IRON	GA	GAUGE	MVID	MULTI VOLUME INDOOR	RM	ROOM		
				NIC	NOT IN CONTRACT	RPM	REVOLUTIONS PER MINUTE		



DYESS Air Force Base

TEXAS APPROVED SIGNATURE COORDINATION



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project N	/lanager
LGT	LGT	
Drafter	Date	
BDW	21 OCT 16	
REVISION		BY/DATE
SHEET TITLE		
ROOF	PLAN	
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MPE-1.1 PROJECT TITLE REPAIR

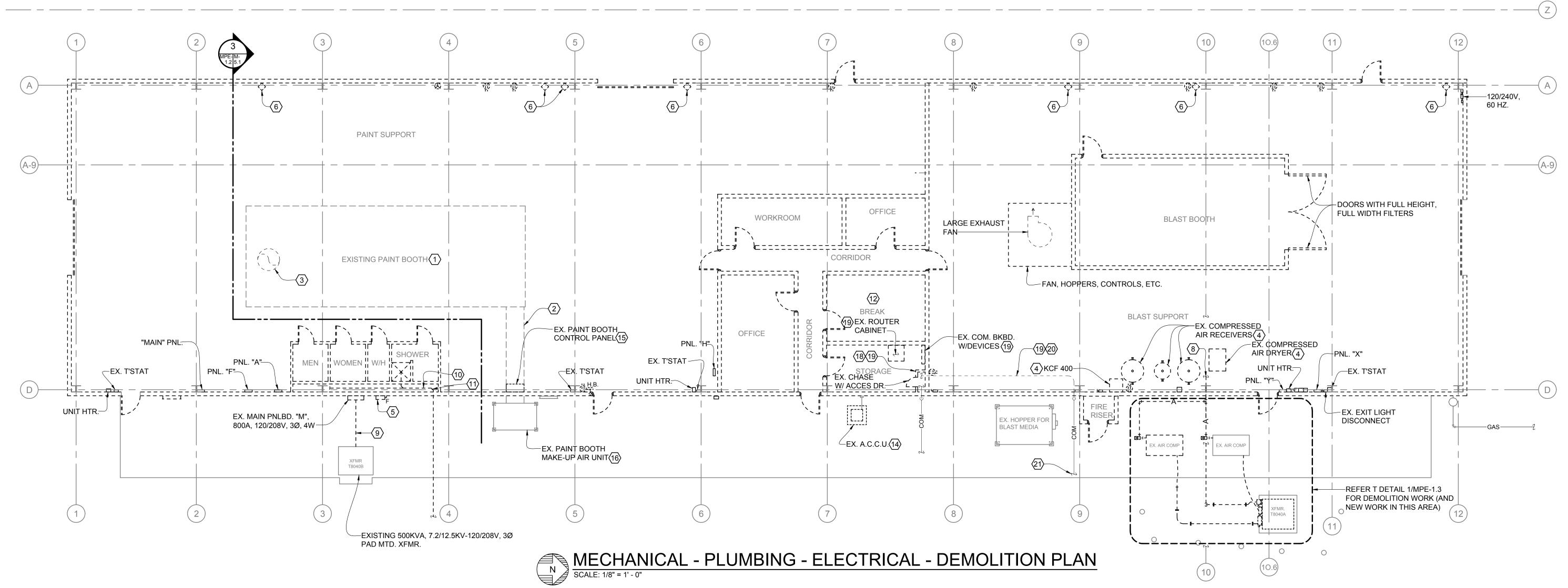
Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607

PROJECT NUMBER

The prepared for:
7th CES/CENM
710 THIRD ST
BLD 80040
PROJECT NUMBER

59

SEQUENCE NUMBER FNWZ 12-0053





THE METAL BUILDING FRAME, BRACING & CONCRETE FLOOR SHALL REMAIN. ANY ITEM INDICATED AS EXISTING TO REMAIN SHALL BE PROTECTED FROM DAMAGE THROUGHOUT CONSTRUCTION. ALL REMAINING WALLS, ROOFS, DOORS, ELECTRICAL PANELS, CONDUIT, PIPING, PLUMBING, WIRING AND LIGHTING SHALL BE REMOVED & REPLACED AS DESCRIBED IN THE SOW.

CONTRACTOR SHALL REMOVE ALL REMAINING ITEMS INSIDE THE LIMITS OF CONSTRUCTION AFTER NOTICE TO PROCEED INCLUDING FURNISHINGS AND INTERIOR LIGHTING (UNLESS NOTED OTHERWISE) DURING THE DEMOLITION PHASE OF CONSTRUCTION. ALL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR & BE DISPOSED OF OFF-BASE IN ACCORDANCE WITH ALL LOCAL

CONTRACTOR SHALL REMOVE COMPLETELY ALL ABANDONED PIPING, CONDUIT, DUCTING & WIRING. CHASE CAVITIES, STUD TRACKS & WALL CAVITIES SHALL BE CLEAN OF ALL DEBRIS BEFORE WALLS ARE COVERED WITH INSULATION & DRYWALL. SAWCUT & REMOVE EXISTING PRIMARY PUBLIC TOILET FLOORS ON EAST END OF BUILDING. REMOVE PLUMBING, DRAINS, DOORS, WALLS, TOILET PARTITIONS, ACCESSORIES, CEILINGS & LIGHTING. REFER TO PLANS FOR PROPOSED LAYOUT.

ALL COMPONENTS OF THE EXISTING HVAC SYSTEM EQUIPMENT SHALL BE COMPLETELY DEMOLISHED. PATCH ALL ROOF, FLOOR & WALL PENETRATIONS AND FINISH TO MATCH EXISTING CONSTRUCTION. THE ONLY EXCEPTION IS THE PAINT BOOTH SUPPLY & EXHAUST DUCTING; BOTH SHALL REMAIN.

CONTRACTOR SHALL DEMOLISH ALL EXISTING BUILDING INTERIOR PIPING TO FACILITATE NEW CONSTRUCTION.

ALL EXISTING MECHANICAL ROOM DOMESTIC HOT WATER, COLD WATER, SEWER & VENT PIPING & EQUIPMENT SHALL BE REPLACED WITH NEW EQUIPMENT.

ELECTRICAL CONTRACTOR SHALL DISCONNECT & REMOVE OF ALL DISTRIBUTION PANELS, CIRCUITS, CONDUIT, WIRING, SWITCHES & CONTROLS, LIGHTS & RECEPTACLES FROM BUILDING 8040. PROVIDE NEW EQUIPMENT THROUGHOUT.

NOTES INDICATED BY NUMBER IN ():

- 1. EXISTING PAINT BOOTH IS TO BE SALVAGED AND RE-LOCATED; REFER TO ARCH. DWGS. AND ALSO REFER TO SH. M-2.0.
- 2. DEMOLISH EXISTING 32' X 32" SUPPLY DUCT FROM MAKE-UP AIR UNIT TO PAINT BOOTH.
- 3. EXISTING EXHAUST DUCT UP FROM PAINT BOOTH TO EXHAUST FAN ON ROOF. REFER TO SH. ME-1.1 FOR EXHAUST FAN LOCATION. ALSO REFER TO SECTION 3/M-5.1.
- 4. THIS COMPRESSED AIR SYSTEM EQUIPMENT SHALL BE DISCONNECTED, DISMOUNTED AND RE-INSTALLED AT ITS NEW LOCATION IN THE NEW BLASTING WORKSHOP AREA; REFER TO "PLUMBING FLOOR PLAN", SHEET P-2.0. REFER TO "COMPRESSED AIR SYSTEM WORK". SHEET P-5.0.
- 5. EX. 208V, 3Ø FUSED DISCONNECT SERVING THE EXISTING PAINT BOOTH CONTROL PANEL. THE PAINT BOOTH CONTROL PANEL IS TO BE RE-FED AS PART OF THE NEW WORK OF THIS PROJECT.
- 6. SALVAGE AIR OUTLETS (VALVES, FITTINGS, COUPLINGS, FILTERS, ETC.) AND TURN OVER TO THE CONTRACTING OFFICER'S REPRESENTATIVE.
- NOT USED.
- 8. COMPRESSED AIR LINE EXTENDS TO COMPRESSED AIR DRYER.
- 9. EXISTING 120/208V SERVICE CONDUCTORS IN CONDUIT BELOW CONCRETE SLAB. CONDUIT AND CONDUCTORS TO BE DEMOLISHED. REFER TO SH. E-2.2
- 10. DEMOLISH ANY/ALL PORTIONS OF THE EXISTING SEWER LINE THAT ARE ABOVE GRADE.
- 11. LOCATE THE POINT WHERE THE EXISTING SEWER LINE LEAVES THE BUILDING AND PERMANENTLY CAP SAID LINE AT SAID POINT.
- 12. LOCATE EXISTING SEWER LINE LEAVING THE BREAK ROOM AND TERMINATE

SAME AS DESCRIBED IN NOTE 11.

- 13. NOT USED.
- 14. DEMOLISH EXISTING AIR COOLED CONDENSING UNIT AND RELATED REFRIGERANT PIPING, WIRING, CONDUIT, DISCONNECT, CONCRETE EQUIPMENT PAD, ETC. ALL REFRIGERANT IN THE A.C.C.U., IN THE REFRIGERANT PIPING AND IN THE ASSOCIATED INDOOR D-X AIR HANDLER SHALL BE CAPTURED, DISPOSED OF AND DOCUMENTED IN ACCORDANCE WITH ALL DAFB REGULATIONS AND ALL STATE AND FEDERAL REGULATIONS. NOTIFY THE CONTRACTING OFFICER'S REPRESENTATIVE BEFORE BEGINNING DEMOLITION OF THE A.C.C.U. D-X AIR HANDLER SYSTEM.
- 15. THE PAINT BOOTH CONTROL PANEL WILL BE RELOCATED. REFER TO ADDITIONAL GOVERNMENT REQUIREMENTS.
- 16. THIS PAINT BOOTH MAKE-UP AIR UNIT SHALL REMAIN. REFER TO ADDITIONAL GOVERNMENT REQUIREMENTS.
- 17. NOT USED.
- 18. CABLE SPLICES/SPLICE ENCLOSURE, PUNCH DOWN BLOCKS, ETC. ARE IN THIS CHASE.
- 19. ALL IT AND TELECOMMUNICATIONS EQUIPMENT IS PROPERTY OF THE GOVERNMENT. SAID EQUIPMENT SHALL REMAIN PROPERTY OF THE GOVERNMENT. SAID EQUIPMENT SHALL BE REMOVED OR RELOCATED ONL' BY GOVERNMENT PERSONNEL.

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- 20. EXISTING FIBER OPTIC CABLE IN CORRUGATED PLASTIC CONDUIT.
- 21. TO BLDG. 8045. REFER TO SH. MPE-1.0 FOR CONTINUATION.

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APPROVED

COORDINATION

J.			
	Designer	Project N	/lanager
	LGT		LGT
	Drafter	Date	
	BDW	21	OCT 16
	REVISION		BY/DAT
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	SHEET TITLE		

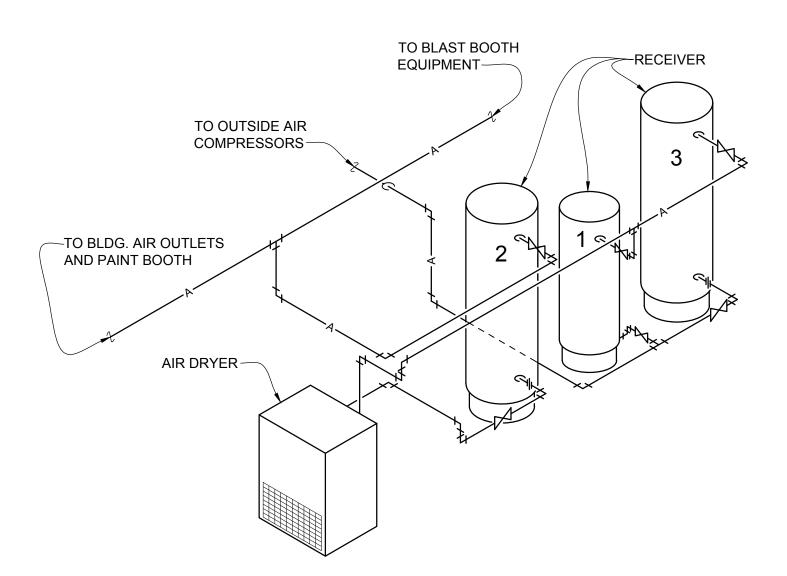
MPE-1.2 PROJECT TITLE

MECHANICAL - PLUMBING ELECTRICAL -**DEMOLITION PLAN**

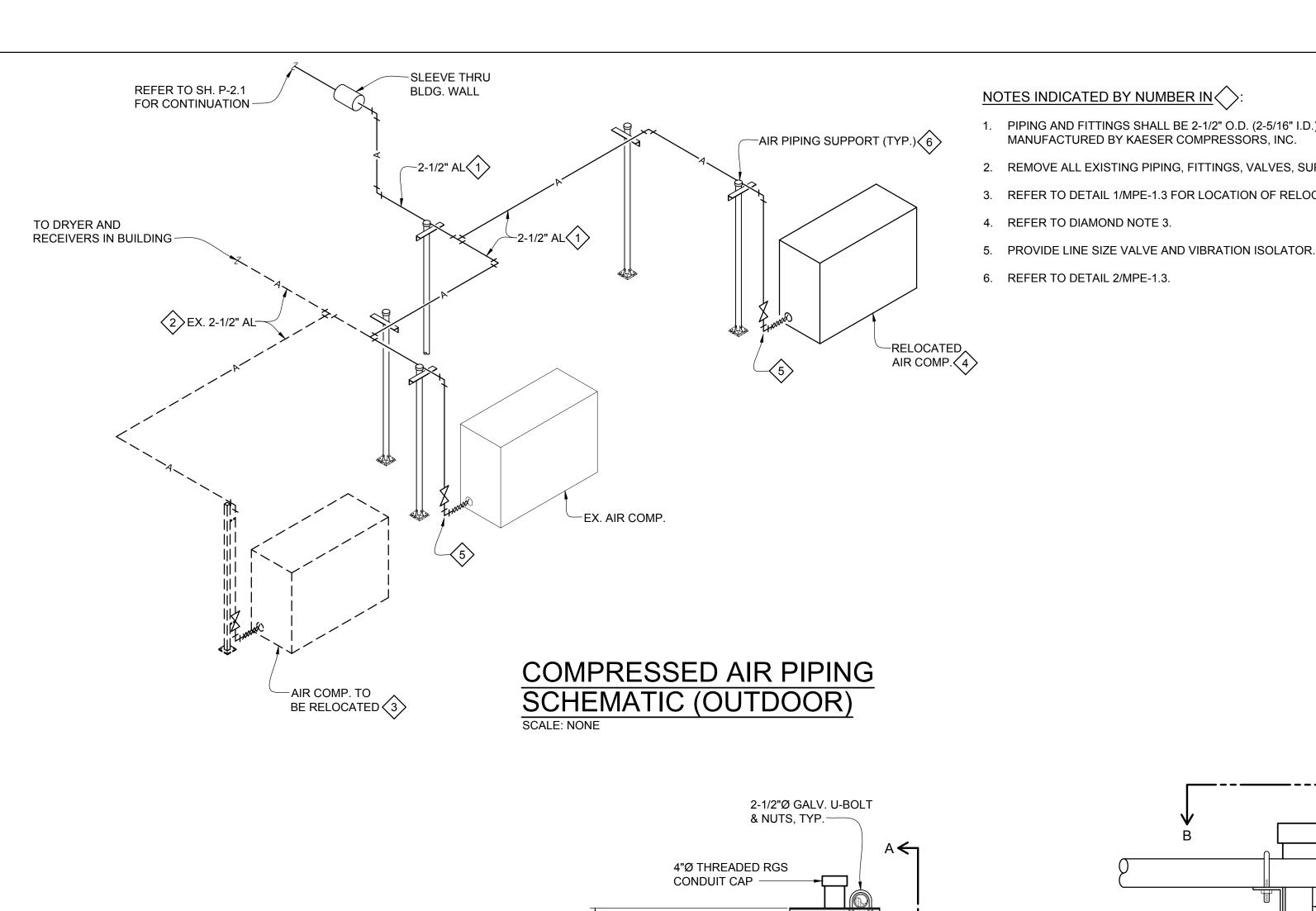
REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

SEQUENCE NUMBER FNWZ 12-0053

Prepared for: 7th CES/CENM 710 THIRD ST 60

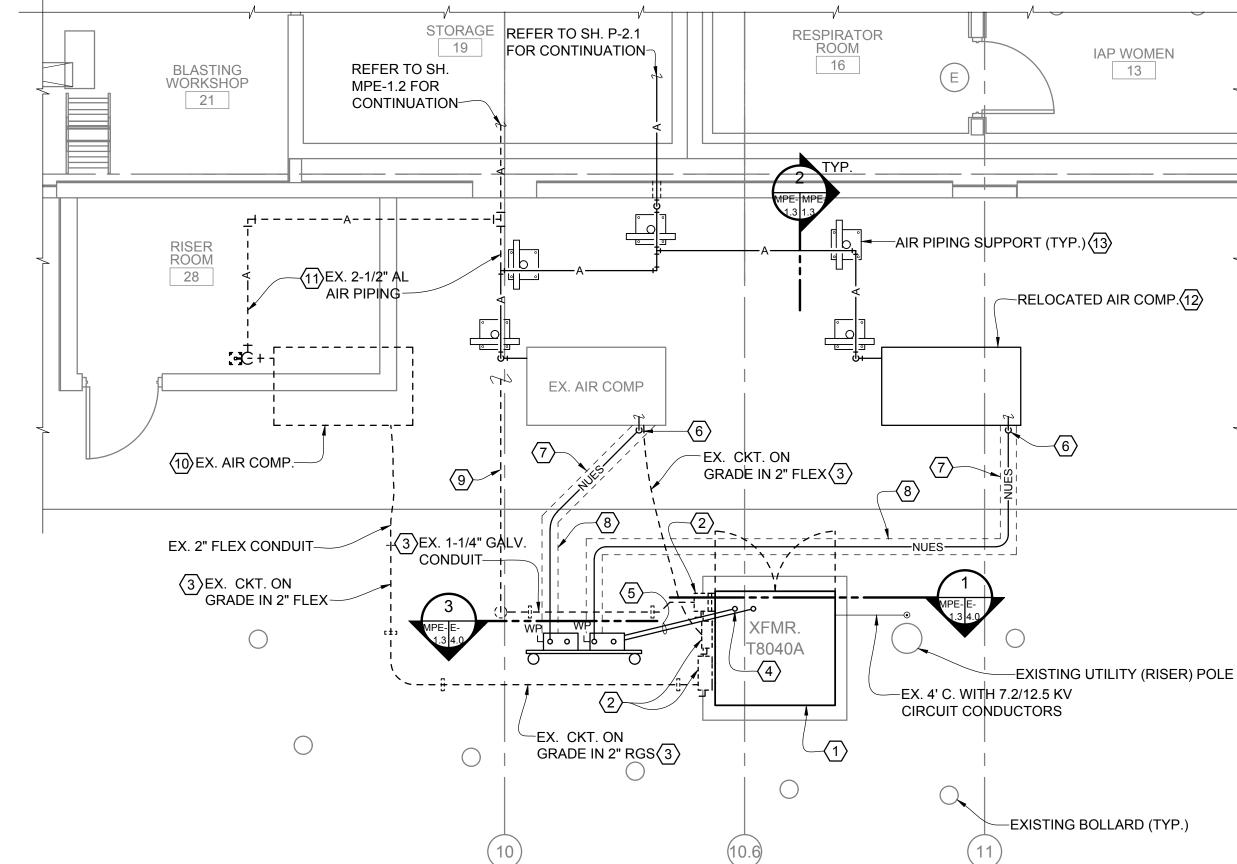


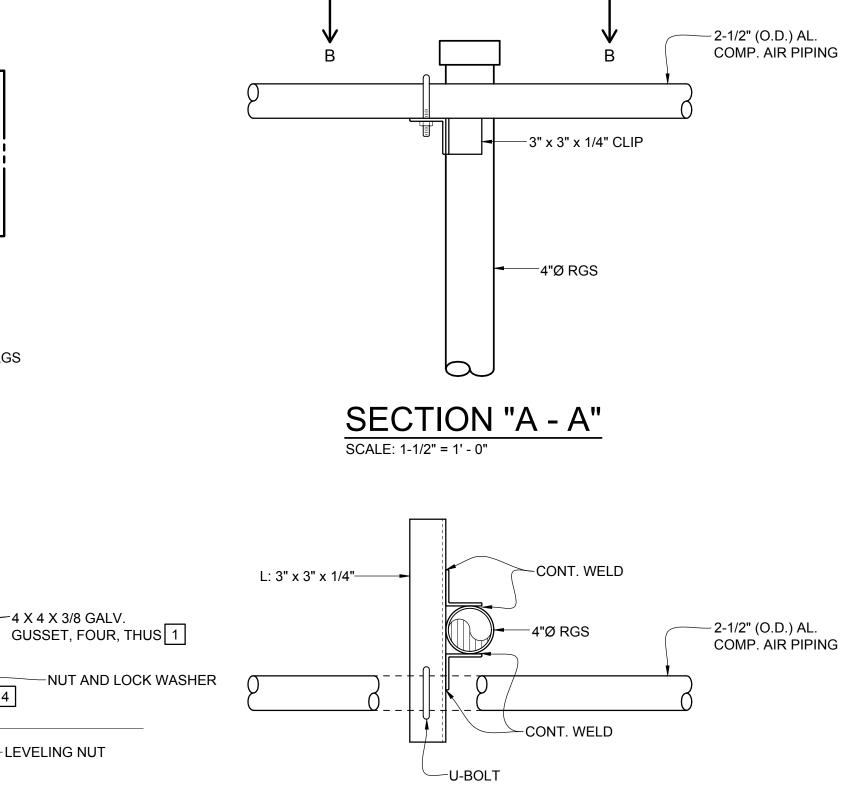




NOTES INDICATED BY NUMBER IN PIPING AND FITTINGS SHALL BE 2-1/2" O.D. (2-5/16" I.D.) SMART PIPE AS MANUFACTURED BY KAESER COMPRESSORS, INC. 2. REMOVE ALL EXISTING PIPING, FITTINGS, VALVES, SUPPORTS, ETC. 3. REFER TO DETAIL 1/MPE-1.3 FOR LOCATION OF RELOCATED COMPRESSOR.

4. REFER TO DIAMOND NOTE 3.





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

SECTION "B - B" SECTION COMPRESSED AIR PIPING SUPPORT

-LEVELING NUT

−4 X 4 X 3/8 GALV.

NOTES INDICATED BY NUMBER IN

− 4"Ø RGS

L: 3" x 3" x 1/4" —

2 15" X 15" X 3/8"

EX. CONC. SLAB-

GALV. BASE PLATE —

1-1/2"_

- 1. CONTINUOUS WELD GUSSETS TO 4"Ø RGS AND TO BASE PLATE. PROVIDE GALVANIZING REPAIR COATING ON WELDS.
- 2. CONTINUOUS WELD BASEPLATE TO 4"Ø RGS. PROVIDE GALVANIZING REPAIR COATING ON WELDS.
- 3. 5/8" X LENGTH REQ'D EPOXY SYSTEM ANCHOR BOLTS (4 THUS) IN 6" DEEP EMBEDMENT. EPOXY ANCHOR BOLT SYSTEM SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL.
- PROVIDE 1-1/2" CLEARANCE BETWEEN TOP OF SLAB AND BOTTOM OF BASE PLATE AFTER THE PIPING SUPPORT HAS BEEN LEVELED AND THE LEVELING NUTS FULLY TIGHTENED. PACK SPACE BETWEEN BASE PLATE AND SLAB WITH NON-SHRINK GROUT.



NOTES INDICATED BY NUMBER IN

- 1. DEMOLISH EXISTING 150 KVA (BAD ORDER) TRANSFORMER AND REPLACE WITH NEW 225 KVA TRANSFORMER.
- 2. DEMOLISH EXISTING FUSIBLE DISCONNECTS MOUNTED ON SIDE OF XFMR
- DEMOLISH.
- 4. WHEN THE EXISTING TRANSFORMER HAS BEEN REMOVED, REMOVE CONCRETE PAD MATERIAL AND EXCAVATE AS REQUIRED FOR PLACEMENT OF NEW CONDUITS. REPAIR PAD TO MATCH EXISTING ADJACENT SURFACES/WORK.
- 5. SAW CUT EXISTING ASPHALT PAVEMENT AND EXCAVATE FOR PLACEMENT OF CONDUITS. BACKFILL AND REPAIR ASPHALT TO MATCH EXISTING.
- 6. TURN NEW CIRCUIT UP AT AIR COMPRESSOR AND CONNECT TO AIR COMPRESSOR.
- 7. SAW CUT AND REMOVE EXISTING CONCRETE AS REQUIRED FOR PLACEMENT OF NUES. REFER TO DETAIL 1/MPE-1.5.
- 8. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT AS REQUIRED FOR PLACEMENT OF NUES. REFER TO DETAIL 2/MPE-1.5.
- 9. DEMOLISH EXISTING ELEVATED CIRCUIT (ON UNISTRUT SUPPORTS) SERVING THE AIR DRYER IN THE BUILDING.
- 10. DISCONNECT EXISTING AIR COMPRESSOR AND MOVE APPROXIMATELY 25' NORTH TO NEW LOCATION.
- 11. PIPING TO REMAIN PROPERTY OF GVMT. SALVAGE IN UNDAMAGED CONDITION. DEMOLISH SUPPORTS SUPPORTING EXISTING PIPING.
- 12. REFER TO HEX NOTE 10.
- 13. PROVIDE SUPPORTS FOR COMPRESSED AIR PIPING WHERE/AS INDICATED.

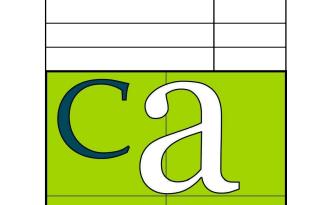
WTA, INC.

CONSULTING ENGINEERS

LLOYD GARLAND TURNER

44724

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COORDINATION

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project N	/lanager
LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE
SHEET TITLE		

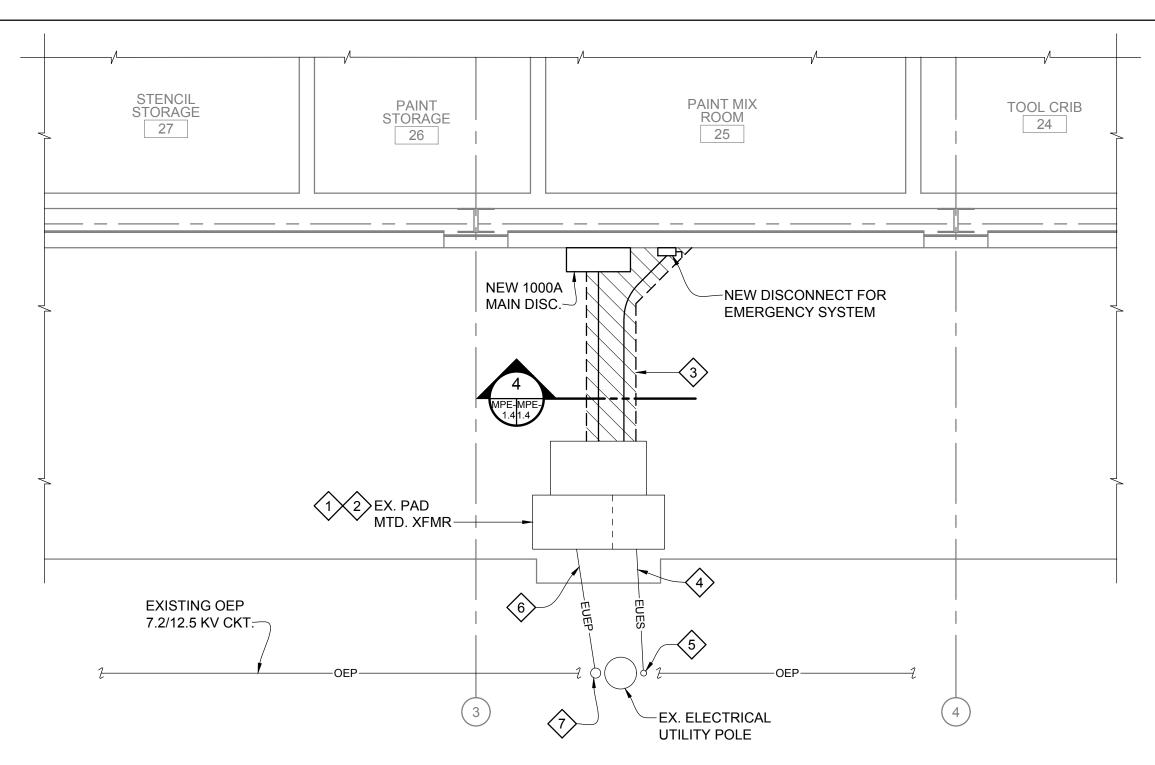
PARTIAL SITE PLAN, **SECTIONS & AIR PIPING** SCHEMATICS

MPE-1.3

PROJECT TITLE REPAIR **MAINTENANCE** BLD 8006 OFFICE 210 SHOP, BLDG. 8040

Prepared for: 7th CES/CENM 710 THIRD ST DYESS AFB, TX 79607 PROJECT NUMBER

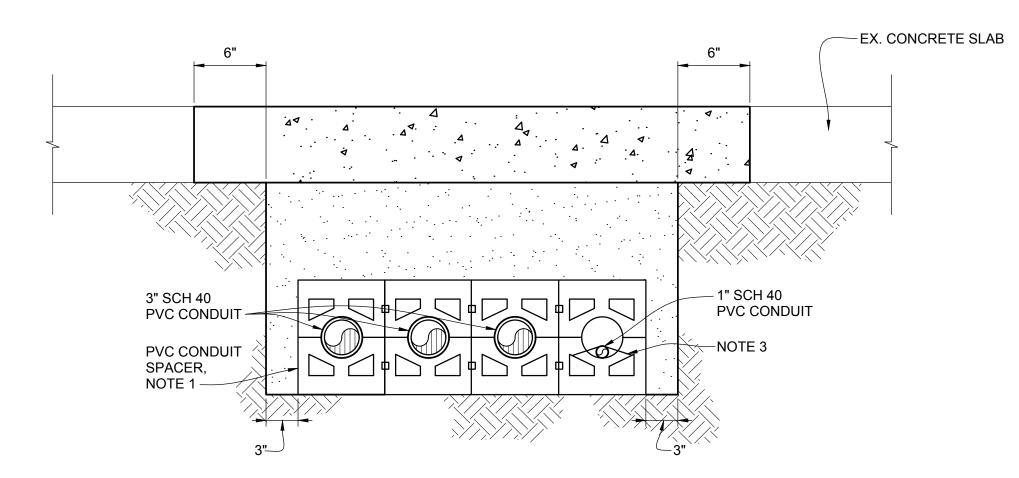
SEQUENCE NUMBER FNWZ 12-0053





NOTES INDICATED BY NUMBER IN

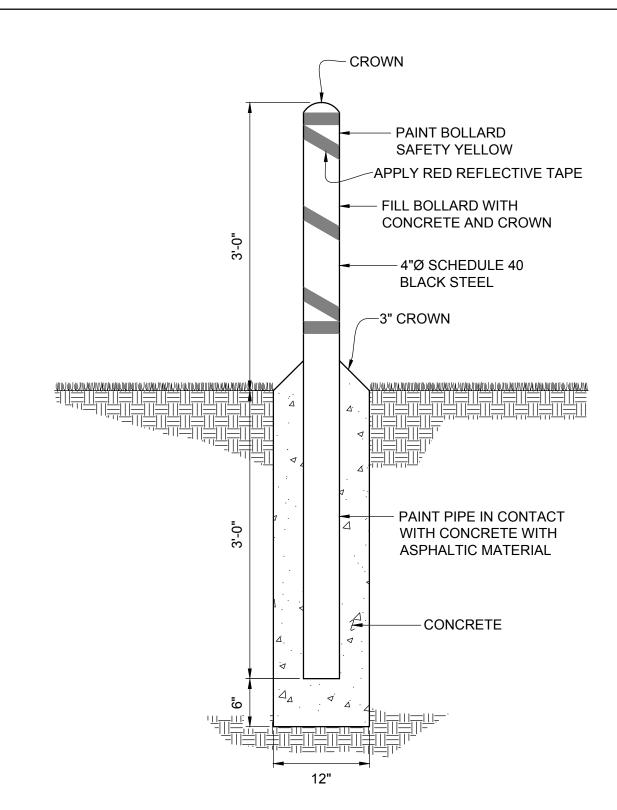
- 1. 500 KVA, 7.2/12.5 KV 120/208, 3Ø, 4W.
- 2. DISCONNECT AND REMOVE FROM EXISTING MOUNTING/LOCATION SO AS TO ALLOW FOR REMOVAL OF EXISTING CONDUCTORS AND CONDUIT AND REPLACEMENT WITH NEW CONDUITS AND CONDUCTORS. RE-INSTALL AND RE-CONNECT EXISTING XFMR AFTER INSTALLATION OF NEW CONDUITS AND CONDUCTORS.
- 3. SAW CUT AND REMOVE EXISTING CONCRETE AS REQUIRED TO ALLOW REMOVAL OF EXISTING CONDUIT (AND CONDUCTORS) AND INSTALLATION OF NEW CONDUIT AND CONDUCTORS. SAID REMOVAL AND REPLACEMENT SHALL EXTEND UNDER THE FOOTPRINT OF THE TRANSFORMER TO THE TRANSFORMER'S SECONDARY COMPARTMENT. REFER TO DETAIL 4/MPE-1.4. REPLACE CONCRETE WHICH HAS BEEN REMOVED TO MATCH EXISTING ADJACENT SURFACES.
- 4. EXISTING UNDERGROUND SERVICE FOR BLDG. 8045.
- 5. CONDUIT RISER AT POLE FOR SERVICE TO BLDG.. 8045.
- 6. EX. 7.2/12.5 KV UNDERGROUND CIRCUIT TO PAD MTD. XFMR.
- 7. CONDUIT RISER AT POLE FOR 7.2/12.5 KV CIRCUIT TO PAD MTD. XFMR.



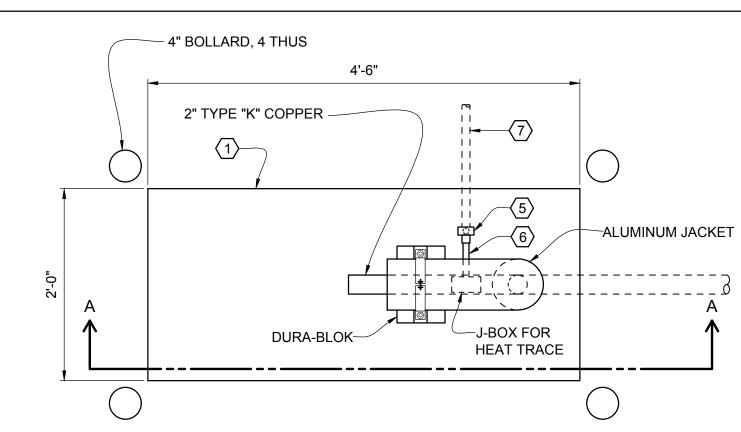


NOTES:

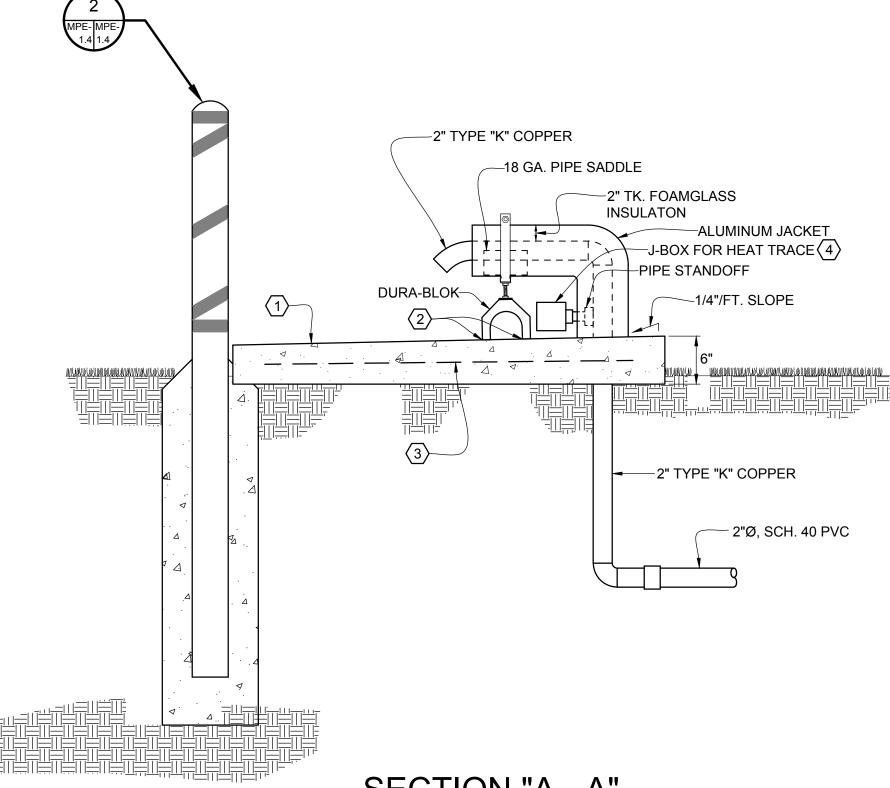
- 1. SPACERS TO BE MAXIMUM 4'-0" O.C.
- 2. CONTINUOUS 5 MIL PLASTIC MARKER TAPE; REFER TO
- 3. BEADED STRAP TIE-DOWN, TYPICAL.







DETAIL CONDENSATE DISCHARGE



SECTION "A - A"

NOTES INDICATED BY NUMBER IN

- CONCRETE PAD.
- 2. BOND DURA-BLOK TO CONCRETE WITH CHEMLINK STRUCTURAL ADHESIVE SEALANT OR APPROVED EQUAL.
- 3. REINFORCE WITH 6X6 WELDED WIRE FABRIC.
- 4. PROVIDE SELF REGULATING HEAT TRACE CABLE UNDER THE FOAM GLASS INSULATION FOR FREEZE PROTECTION. CABLE SHALL BE CHROMALOX COMMERCIAL GRADE OR APPROVED EQUAL. PROVIDE AND INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 5. 1/2" CAST, WP "LB" SUPPORTED ON 1" RGS CONDUIT RISER.
- 6. 1/2" SEALTITE BETWEEN "LB" AND J-BOX.
- 7. 1" BURIED CONDUIT WITH CIRCUIT CONDUCTORS BACK TO PANEL IN BUILDING. REFER TO SITE PLAN FOR CONTINUATION.



WTA-16016

Prepared for: 7th CES/CENM 710 THIRD ST

62

PROJECT TITLE

DRAWING NUMBER FACILITY NUMBER

DETAILS

MPE-1.4

REPAIR

DYESS Air Force

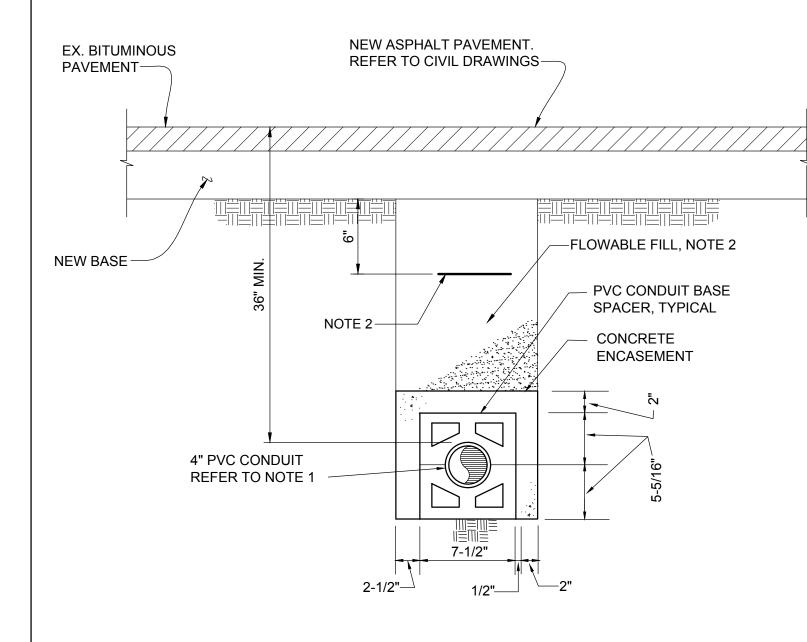
Base

TEXAS APPROVED SIGNATURE COORDINATION

> Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project N	Manager
LGT	LGT	
Drafter	Date	
BDW	21 OCT 16	
REVISION		BY/DATE

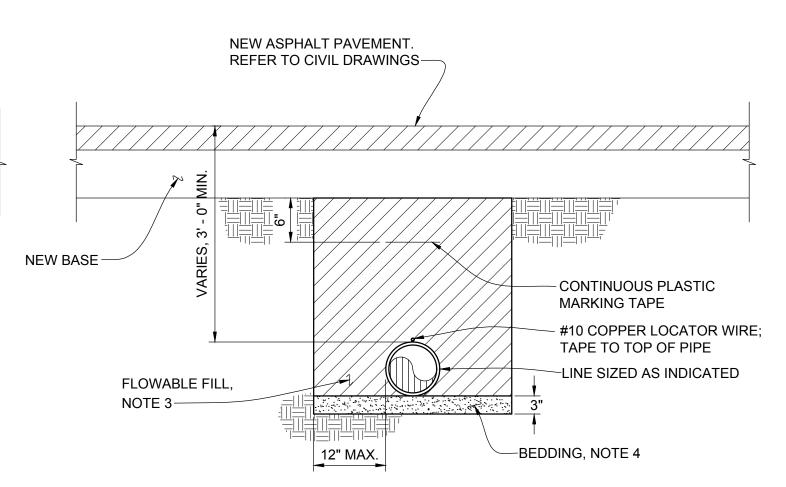
MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053





DUCT LINE NOTES:

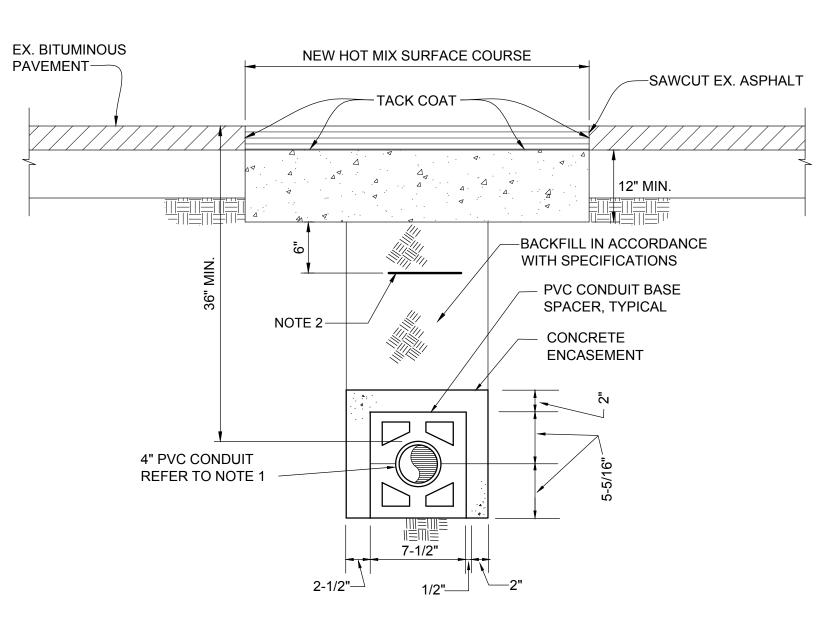
- 1. PROVIDE 4" CONDUIT EXCEPT WHERE OTHER SIZE IS SPECIFICALLY INDICATED. WHERE OTHER SIZE IS INDICATED, PROVIDE PVC CONDUIT SPACERS FOR CONDUIT OF THE SIZE INDICATED. ENCASEMENT DIMENSIONS OUTSIDE SPACERS TO REMAIN THE SAME REGARDLESS OF CONDUIT AND SPACER SIZES.
- 2. FLOWABLE FILL: HIGH SLUMP, THIN MIX CONCRETE (APPROX. 1200 PSI).





NOTES:

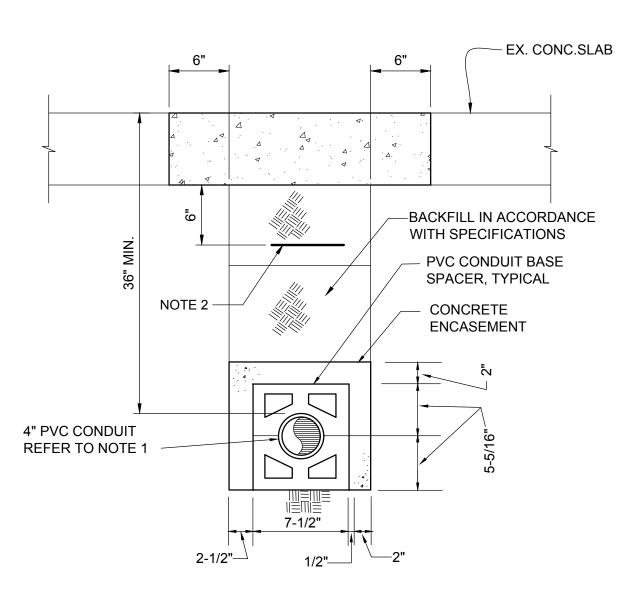
- 1. COORDINATE PLACEMENT OF LINE WITH NEW BASE AND PAVEMENT WORK.
- 2. THIS DETAIL IS "TYPICAL" AND SHALL APPLY TO ALL LOCATIONS WHERE THIS CONDITION IS INDICATED.
- 3. FLOWABLE FILL: HIGH SLUMP, THIN MIX CONCRETE (APPROX. 1200 PSI).
- 4. CLEAN, MEDIUM GRAINED SAND CLASSIFIED AS AGGREGATE FOR MASONRY PER ASTM C144. COMPACTION SHALL BE 95% OF THE MODIFIED PROCTOR.





DUCT LINE NOTES:

- PROVIDE 4" CONDUIT EXCEPT WHERE OTHER SIZE IS SPECIFICALLY INDICATED. WHERE OTHER SIZE IS INDICATED, PROVIDE PVC CONDUIT SPACERS FOR CONDUIT OF THE SIZE INDICATED. ENCASEMENT DIMENSIONS OUTSIDE SPACERS TO REMAIN THE SAME REGARDLESS OF CONDUIT AND SPACER SIZES.
- 2. CONTINUOUS 5 MIL PLASTIC MARKER TAPE; REFER TO SPECIFICATIONS.
- 3. CONDUIT SPACERS TO BE MAX. 5'-0" O.C.





DUCT LINE NOTES:

- 1. PROVIDE 4" CONDUIT EXCEPT WHERE OTHER SIZE IS SPECIFICALLY INDICATED. WHERE OTHER SIZE IS INDICATED, PROVIDE PVC CONDUIT SPACERS FOR CONDUIT OF THE SIZE INDICATED. ENCASEMENT DIMENSIONS OUTSIDE SPACERS TO REMAIN THE SAME REGARDLESS OF CONDUIT AND SPACER SIZES.
- 2. CONTINUOUS 5 MIL PLASTIC MARKER TAPE; REFER TO SPECIFICATIONS.
- 3. CONDUIT SPACERS TO BE MAX. 5'-0" O.C.



DYESS Air Force Base **TEXAS**

OFFICE
OFFICE



Designer	Project Manager	
LGT	LGT	
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE
SHEET TITLE		

MECHANICAL SYMBOL LEGEND & DETAILS



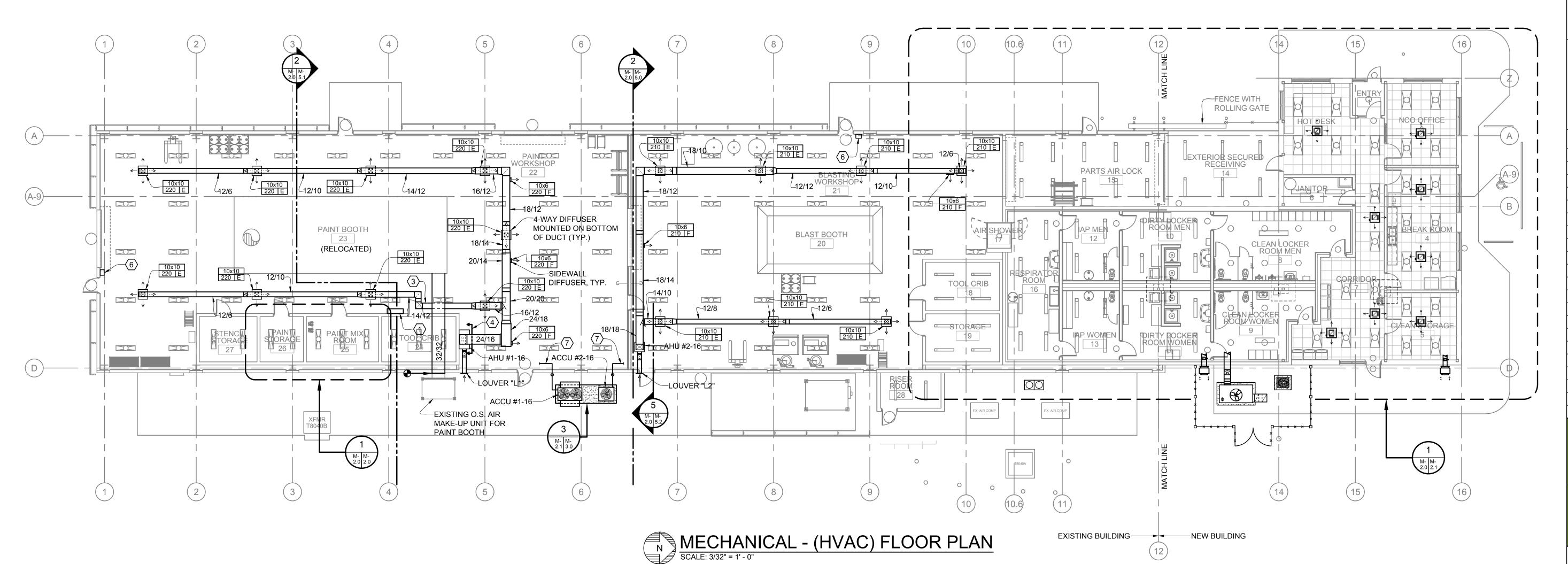
PROJECT TITLE
REPAIR Prepared for: 7th CES/CENM BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

63

SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER FACILITY NUMBER

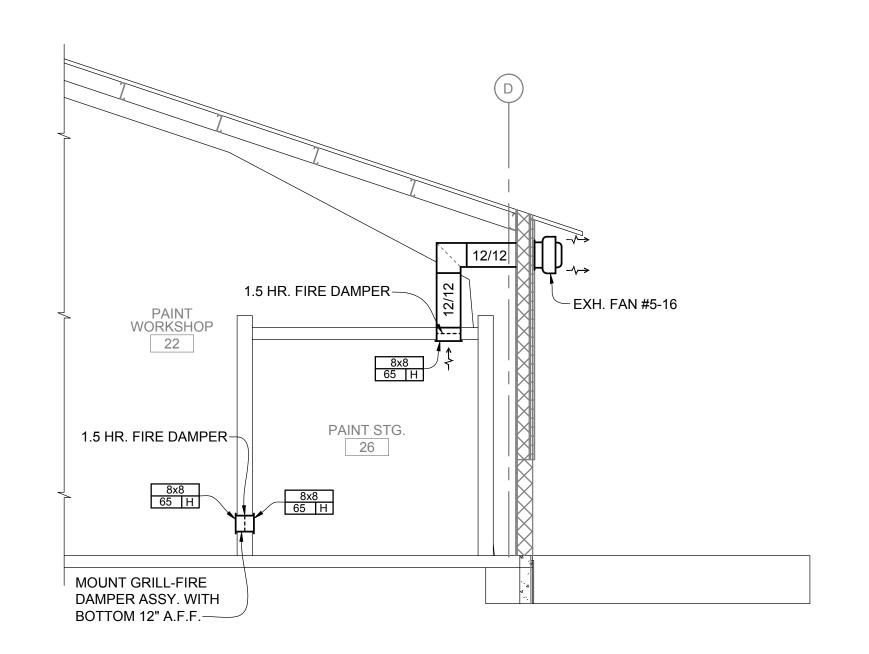
MPE-1.5

MAINTENANCE



MOUNT GRILL-FIRE - MOUNT GRILL-FIRE DAMPER ASSY. WITH DAMPER ASSY. WITH BOTTOM 12" A.F.F.— BOTTOM 12" A.F.F. 1.5 HR. FIRE —1.5 HR. FIRE TOOL CRIB DAMPER — DAMPER 24 PAINT MIX ROOM STENCIL STORAGE PAINT STORAGE (25 14/14-12/12— EXH. FAN #6-16 -EXH. FAN #5-16

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





NOTES INDICATED BY NUMBER IN

- 1. EXISTING PAINT BOOTH CONTROL PANEL TO BE RELOCATED TO THIS LOCATION BY THE ELECTRICAL SUB-CONTRACTOR. REFER TO SHEET E-2.2.
- NOT USED.
- 3. OFFSET NEW DUCT UNDER PAINT BOOTH MAKE-UP AIR DUCT.
- 4. REFER TO SECTION 1/M-5.1.
- 5. CONCRETE EQUIPMENT BASE FOR ACCU. REFER TO DETAIL 3/M-3.0.
- 6. PROVIDE BUILDING HVAC SYSTEM SHUTDOWN SWITCH. ACTIVATION OF THIS SWITCH (UNDER EMERGENCY CONDITIONS) SHALL CAUSE A COMPLETE SHUTDOWN OF THE BUILDING HVAC SYSTEM, INCLUDING ALL COMPONENTS OF VRF (MULTI V) HEAT RECOVERY SYSTEM, THE OUTSIDE AIR MAKE-UP SYSTEM, ALL EXHAUST FANS. AND ALL D-X SPLIT SYSTEM AIR HANDLERS. THIS HVAC SHUTDOWN SWITCH AND RELATED WORK SHALL BE PROVIDED BY THE BUILDING AUTOMATION SYSTEM SUB-CONTRACTOR. (THREE (3) SWITCHES
- 7. REFRIGERANT PIPING BETWEEN ACCU AND AHU. SIZE PIPING AND INSTALL PIPING IN ACCORDANCE WITH THE SPLIT SYSTEM MANUFACTURER'S RECOMMENDATIONS. ALL PIPING SHALL BE INSULATED AND COVERED WITH A HEAVY GAUGE ALUMINUM JACKET.



Prepared for: 7th CES/CENM 710 THIRD ST



DYESS Air Force Base

TEXAS			
APPROVED			
SIGNATURE	OFFICE		
COORDINATION			

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project N	/lana
LGT		LGT
Drafter	Date	
BDW	21 (ОСТ
REVISION		ВΥ
	,	

MECHANICAL - (HVAC) FLOOR PLAN

M-2.0

REPAIR

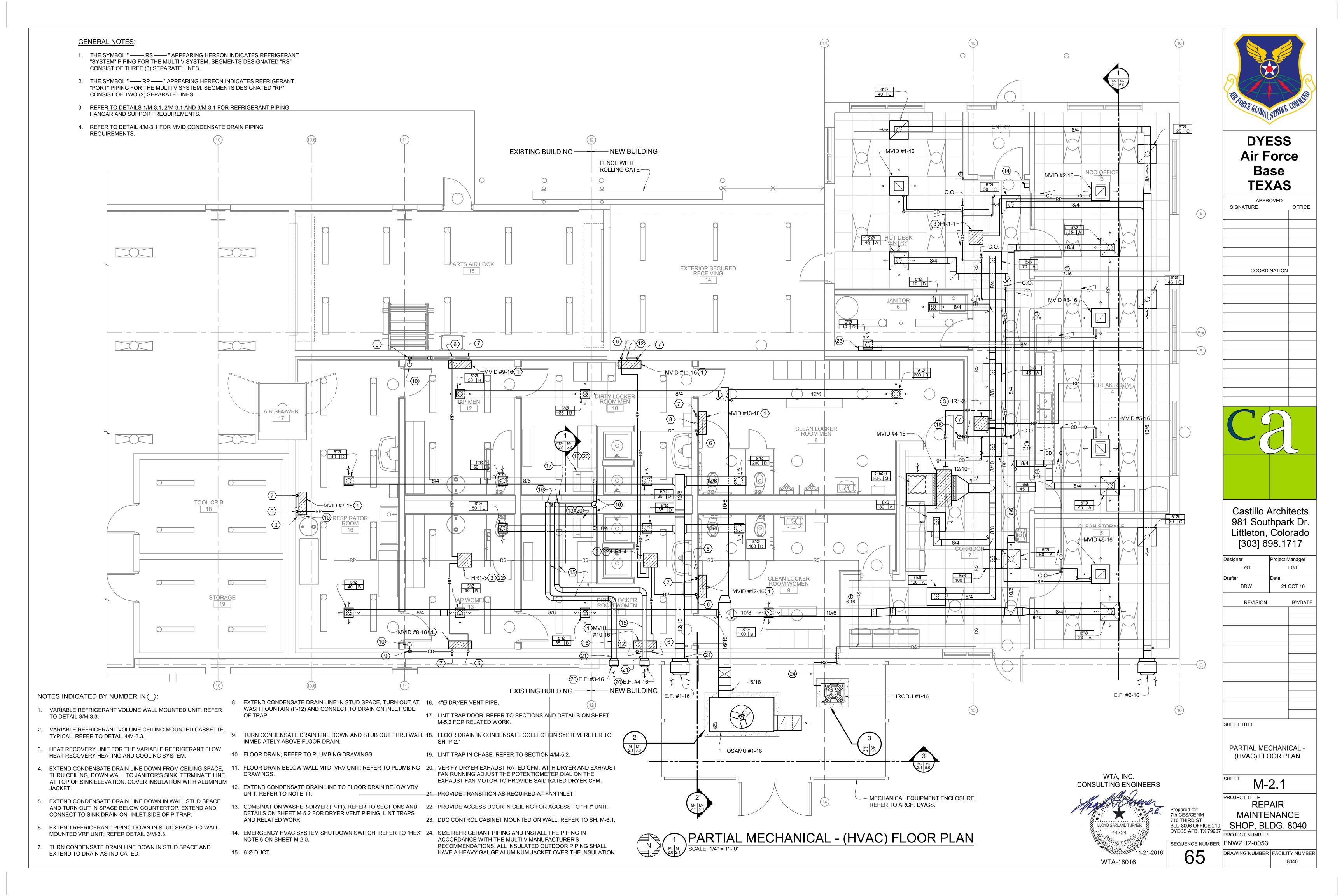
MAINTENANCE

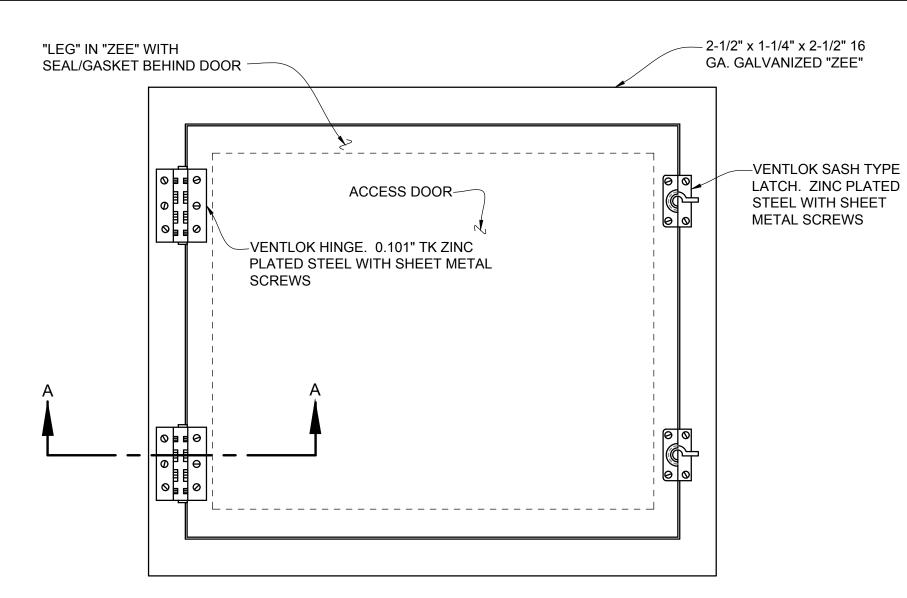
PROJECT TITLE

BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053

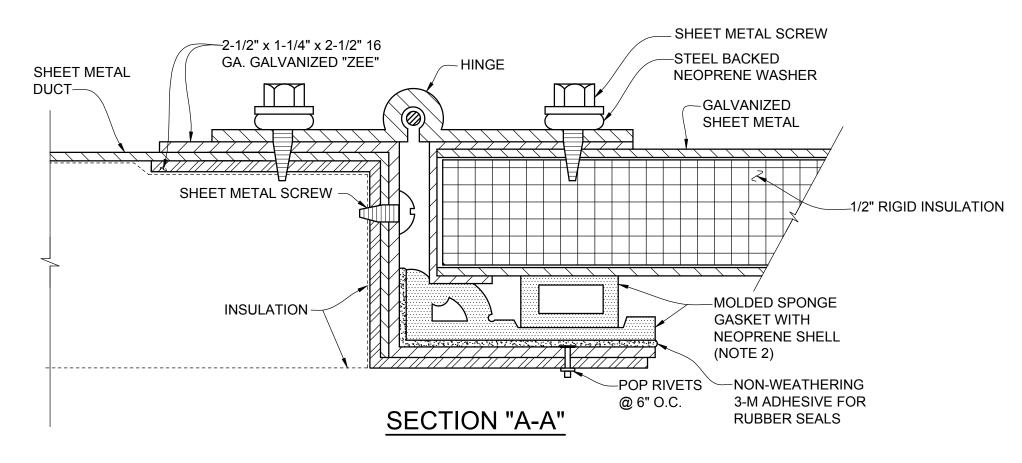
DRAWING NUMBER | FACILITY NUMBER

64





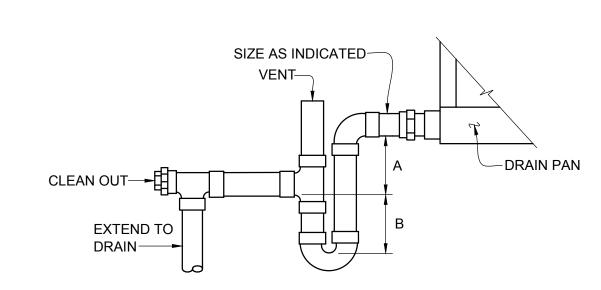
ELEVATION





NOTES:

- 1. ACCESS DOOR/FRAME ASSEMBLY SHALL BE WEATHERPROOF.
- 2. RECTANGULAR GASKET SHALL BE ATTACHED TO ACCESS DOOR; "QUARTER-ROUND" GASKET (W/FLANGE) SHALL BE ATTACHED TO "ZEE". BOTH GASKETS SHALL BE MITERED AND CHEMICALLY BONDED AT CORNERS TO COMPLETE A PERIMETER SEAL ON ALL FOUR SIDES OF THE ACCESS DOOR.
- 3. DETAIL IS "STANDARD" AND SHALL APPLY AT ALL LOCATIONS WHERE ACCESS DOORS ARE

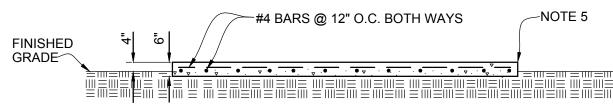


DESIGNER'S NOTE:

UNIT TYPE	Α	В	
DRAW THRU	2" PLUS X	X	
BLOW THRU	1" MINIMUM	2X	

WHERE X = STATIC PRESSURE (IN INCHES H20) AT PAN



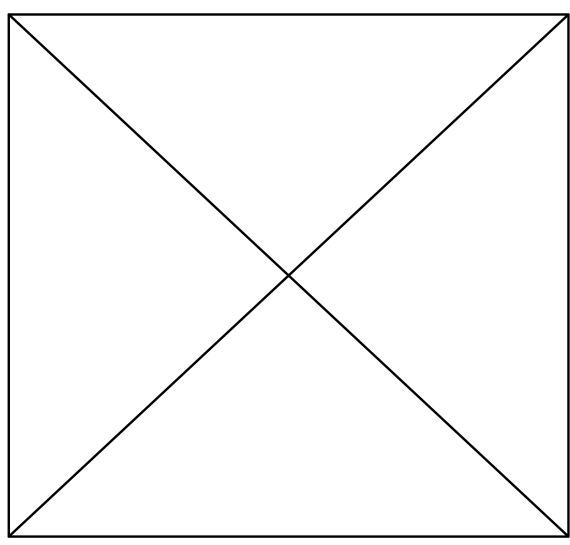


<u>SECTION</u>

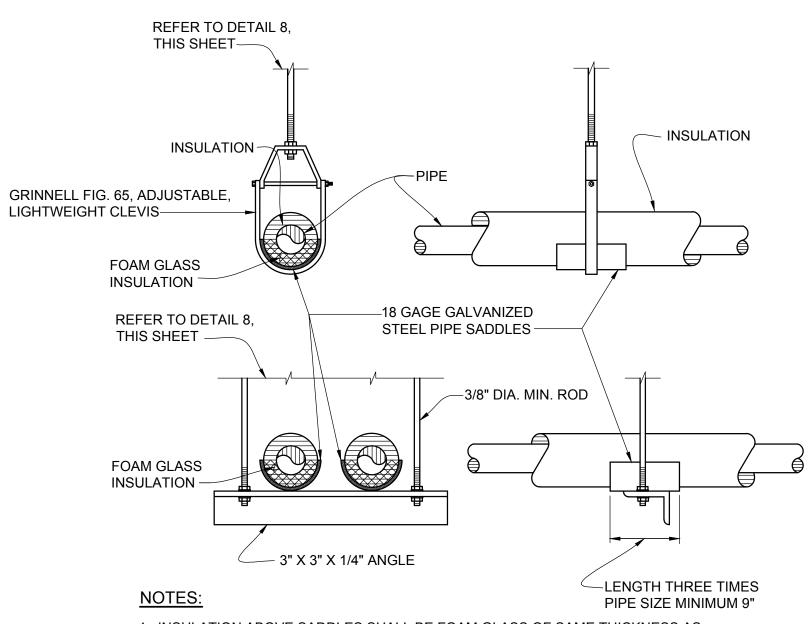
NOTES:

- 1. FOUNDATION SHALL BE 1'-0" LARGER THAN UNIT FURNISHED IN BOTH DIRECTIONS.
- 2. CONCRETE SHALL BE 2500 PSI @ 28 DAYS.
- 3. HORIZONTAL SURFACES SHALL BE TAMPED AND SCREEDED TO A TRUE SURFACE 3. (TAKING CARE TO FILL ALL LOW SPOTS) AND STEEL TROWELED TO A HARD SLATE- LIKE SURFACE. THE PAD SHALL NOT BE MARKED OFF IN AREAS OR SCORED BUT SHALL BE LEFT IN ONE PLAIN SURFACE.
- 4. ALL VERTICAL SURFACES SHALL HAVE A RUBBED FINISH.
- 5. ALL EXPOSED EDGES SHALL BE EDGED WITH A TOOL OF SMALL CORNER RADIUS.
- 6. WHERE ONE EDGE OF PAD IS LOCATED ADJACENT TO ANOTHER STRUCTURE PROVIDE 6. 1" THICK PREMOLDED EXPANSION JOINT FILLER BETWEEN THE PAD AND OTHER STRUCTURE.





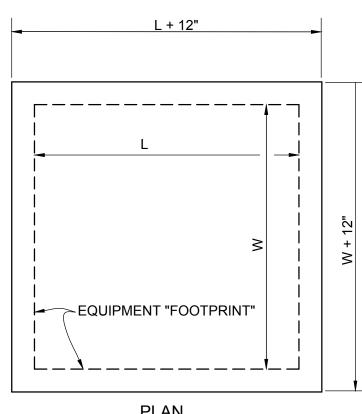


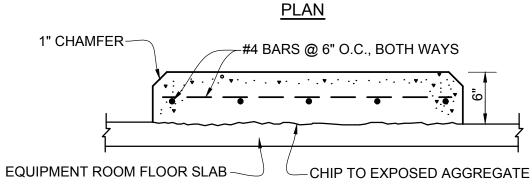


- 1. INSULATION ABOVE SADDLES SHALL BE FOAM GLASS OF SAME THICKNESS AS PIPE INSULATION AND COMPRESSIVE STRENGTH OF NOT LESS THAN 3.300 PSI.
- 2. HANGER RODS SHALL BE OF THE SAME SIZE REQUIRED, BUT NOT SMALLER THAN 3/8" DIAMETER.
- 3. HANGERS ARE ALSO TYPICAL FOR UNINSULATED PIPING (WITHOUT INSULATION AND SADDLES.)



*" IN DETAIL "CIRCLE" INDICATES THAT THE DETAIL IS "STANDARD" AND SHALL APPLY AT LOCATIONS WHERE THE INDICATED CONDITIONS OCCUR.







NOTES:

- 1. L IS THE OVERALL LENGTH OF THE EQUIPMENT.
- 2. W IS THE OVERALL WIDTH OF THE EQUIPMENT.
- 3. CONCRETE SHALL BE NOT LESS THAN 2,500 PSI @ 28 DAYS.
- 4. HORIZONTAL SURFACES SHALL BE TAMPED AND SCREEDED TO A TRUE SURFACE (TAKING CARE TO FILL ALL LOW SPOTS) AND STEEL TROWELED TO A HARD SLATE-LIKE SURFACE. THE PAD SHALL NOT BE MARKED OFF IN AREAS OF SCORED, BUT SHALL BE LEFT IN ONE PLAIN SURFACE.
- 5. ALL VERTICAL SURFACES SHALL HAVE A RUBBED FINISH.
- 6. ALL EXPOSED EDGES SHALL BE CHAMFERED 1".
- 7. WHERE ONE EDGE OF PAD IS LOCATED ADJACENT TO A WALL OR OTHER CONSTRUCTION PROVIDE 1" THICK PREMOLDED EXPANSION JOINT FILLER BETWEEN THE PAD AND THE ADJACENT CONSTRUCTION AND DO NOT CHAMFER THE EDGE ADJACENT TO THE EXPANSION JOINT FILLER.
- 8. All REINFORCING BARS SHALL BE COVERED WITH NOT LESS THAN 1-1/2" OF CONCRETE.
- 9. THIS DETAIL IS TYPICAL FOR MISCELLANEOUS FLOOR-SUPPORTED EQUIPMENT FOR WHICH NO SPECIFIC DETAIL IS PROVIDED





Prepared for: 7th CES/CENM 710 THIRD ST DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053

66

PROJECT TITLE REPAIR **MAINTENANCE** BLD 8006 OFFICE 210 SHOP, BLDG. 8040

DETAILS

M - 3.0

DYESS

Air Force

Base

TEXAS

APPROVED

COORDINATION

Castillo Architects

981 Southpark Dr.

Littleton, Colorado

[303] 698.1717

Designer

Drafter

LGT

BDW

SHEET TITLE

REVISION

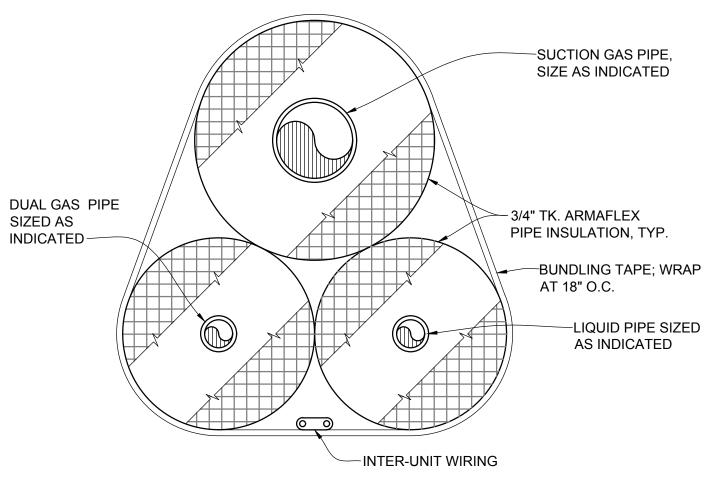
Project Manager

LGT

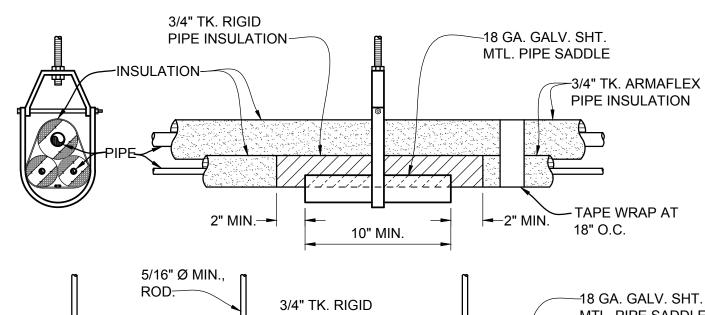
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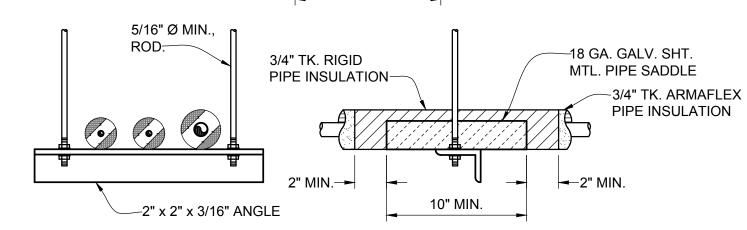
BY/DATE

SIGNATURE



DETAIL REFRIG. PIPING ASSY. (3 PIPE)

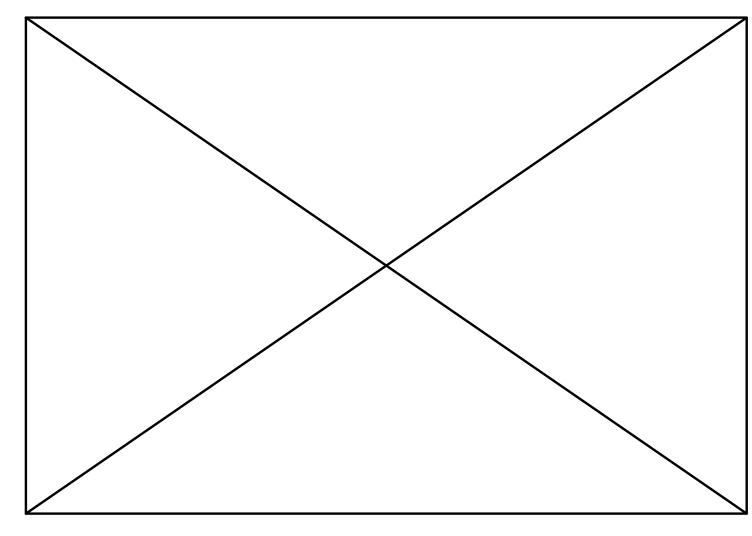




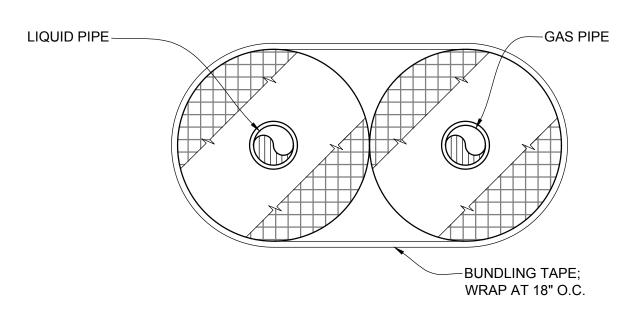


NOTES:

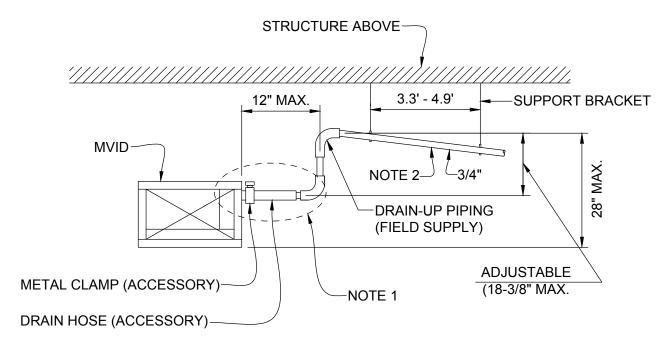
- 1. PROVIDE RIGID PIPE INSULATION AT PIPE SUPPORTS AS INDICATED..
- 2. HANGER SPACING SHALL BE NOT GREATER THAN 5'-0" O.C.
- 3. THIS DETAIL IS TYPICAL/STANDARD AND SHALL APPLY AT ALL LOCATIONS WHERE THIS CONDITION OCCURS.



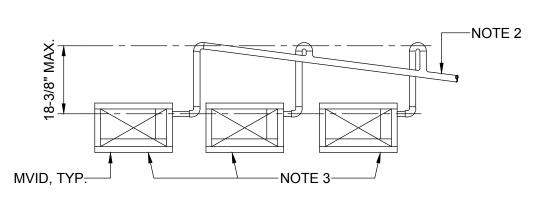








SINGLE MVID



MULTIPLE MVID'S



NOTES:

- 1. DRAIN HOSE ORIENTATION TO BE HORIZONTAL OR HAVING SLIGHT UPWARD GRADIENT.
- 2. CONDENSATE DRAIN LINE SHALL HAVE CONTINUOUS MINIMUM 1% DOWNWARD SLOPE (FALL). SIZE CONDENSATE DRAIN LINE AS INDICATED ON THE "FLOOR PLAN - HVAC NEW".
- 3. REFER TO "SINGLE VRVI" DETAIL ABOVE FOR DRAIN CONNECTION INFORMATION FOR INDIVIDUAL UNITS.
- 4. THIS DETAIL SHOWS THE CONDENSATE DRAIN ELEVATED ABOVE THE VRVI, REQUIRING A CONDENSATE PUMP AT THE VRVI. SAID CONDENSATE PUMP SHALL BE INTERNAL (INSIDE THE VRVI CASING) AND SHALL BE MANUFACTURED AND INSTALLED BY THE VRVI MANUFACTURER.

MECHANICAL SYMBOL LEGEND

<u>SYMBOL</u>	DESCRIPTION	
	SUPPLY AIR GRILLE OR DIFFUSER	
-√→ <u></u>	RETURN AIR GRILLE	
	SUPPLY DUCT SECTION (AIR TRAVELING DOWNWARD)	
	SUPPLY DUCT SECTION (AIR TRAVELING UPWARD)	
	EXHAUST OR RETURN DUCT SECTION (AIR TRAVELING DOWNWARD)	
	EXHAUST OR RETURN DUCT SECTION (AIR TRAVELING UPWARD)	
	EXISTING SUPPLY DIFFUSER TO BE REMOVED	
	EXISTING RETURN AIR GRILLE TO BE REMOVED	
(T) _#	THERMOSTAT, MOUNT AT 48" A.F.F. —INDICATES NUMBER OF EQUIPMENT CONTROLLED	
© _# -	MVID CONTROLLER, MOUNT AT 48" A.F.F. —INDICATES NUMBER OF MVID CONTROLLED	
<u> </u>	EXISTING RECTANGULAR DUCT TO BE REMOVED	
20/12	DUCT (SIZE IN INCHES, FIRST FIGURE SIDE SHOWN)	
Y III	MANUAL VOLUME DAMPER	
Y II X	FIRE DAMPER	
Y À	EXPANDED TAP WITH EXTERNAL OPERATOR	
TURNING VANE	ELBOW WITH TURNING VANES	
	CONNECT NEW WORK TO EXISTING WORK	
NECK SIZE 10X10 AIR QUANTITY 120 A	AIR DEVICE IDENTIFICATION	
TYPE OF DIFFUSER, REGISTER, OR GRILLE		
C+	PIPE ELBOW TURNED DOWN	
⊙ +	PIPE ELBOW TURNED UP	
	PIPE TEE TURNED DOWN PIPE TEE TURNED UP	
	UNION OR FLANGE	
——————————————————————————————————————	PIPE TEE TURNED UP AND ELBOW LINE SIZE ISOLATION VALVE	
── ─────────────	DASHED LINE(S) INDICATE EXISTING	
	WORK TO BE REMOVED/DEMOLISHED	
	"HEAVIER" LINE INDICATES NEW WORK "LIGHTER" LINE INDICATES EXISTING WORK	
cp	CONDENSATE DRAIN LINE WITH DIRECTION	
	OF DOWNWARD SLOPE INDICATED	



DYESS Air Force Base **TEXAS**

APPROVED

COORDINATION	

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project N	Manager
LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE
SHEET TITLE		

MECHANICAL SYMBOL LEGEND & DETAILS

M - 3.1PROJECT TITLE

REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

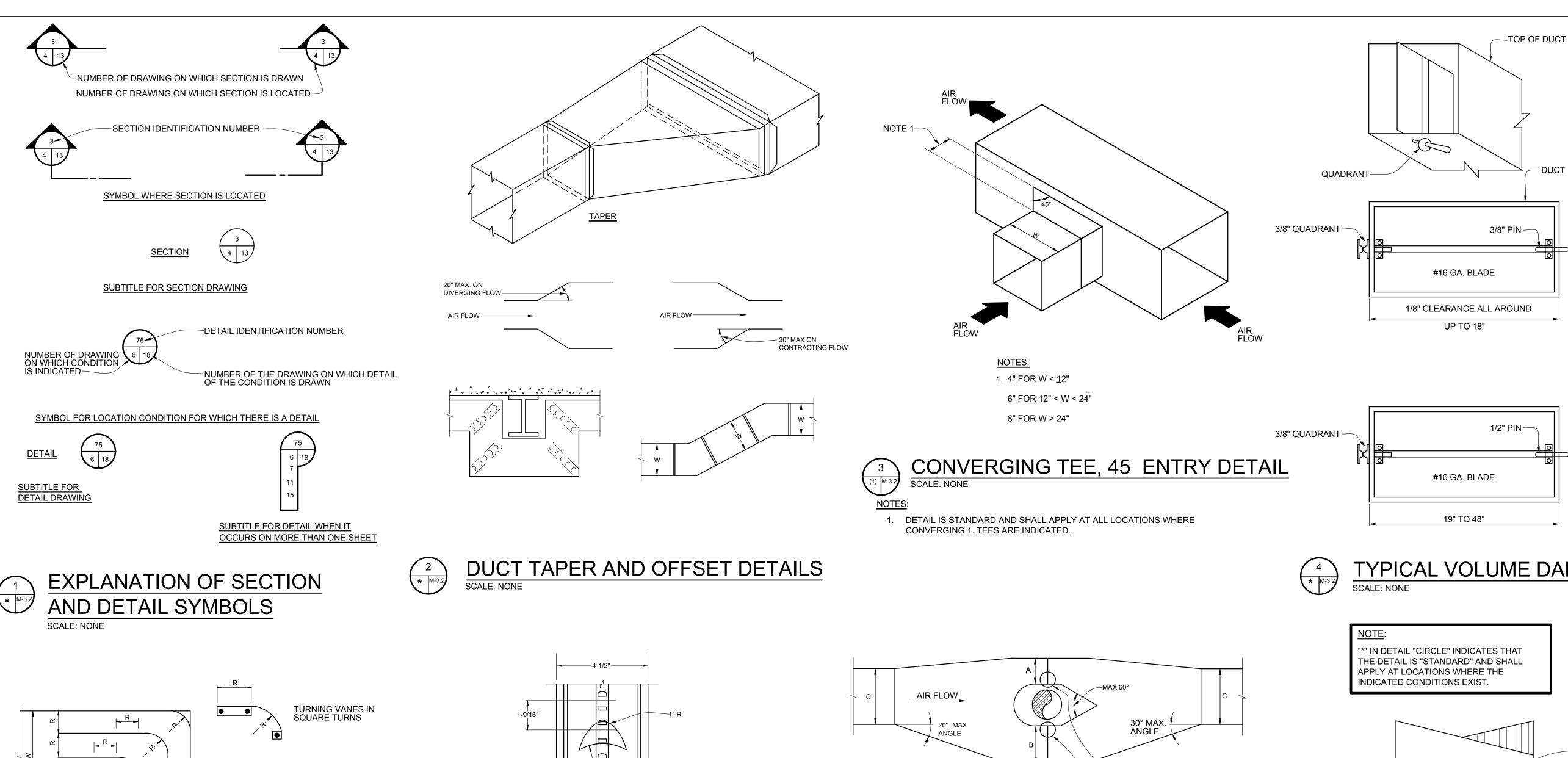
Prepared for: 7th CES/CENM

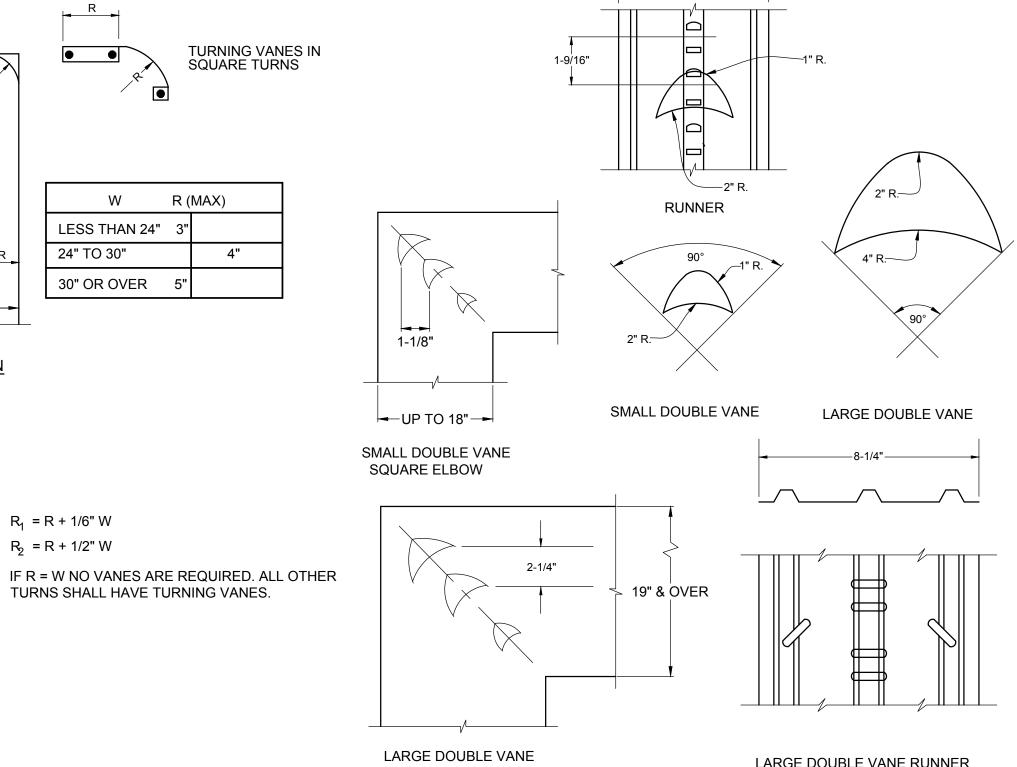
WTA, INC.

WTA-16016

67

SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER FACILITY NUMBER







RADIUS TURN

SQUARE TURN

R (MAX)

LESS THAN 24"

30" OR OVER

24" TO 30"

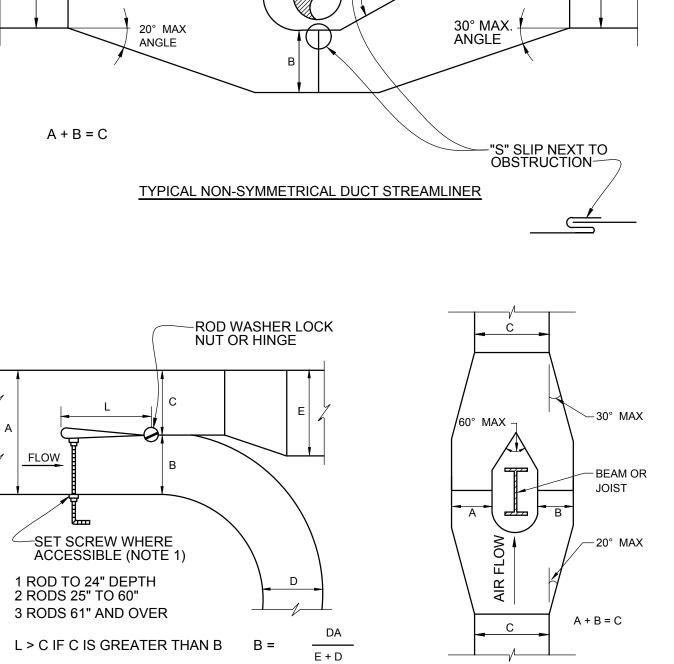
 $R_1 = R + 1/6" W$

 $R_2 = R + 1/2" W$



SQUARE ELBOW

LARGE DOUBLE VANE RUNNER

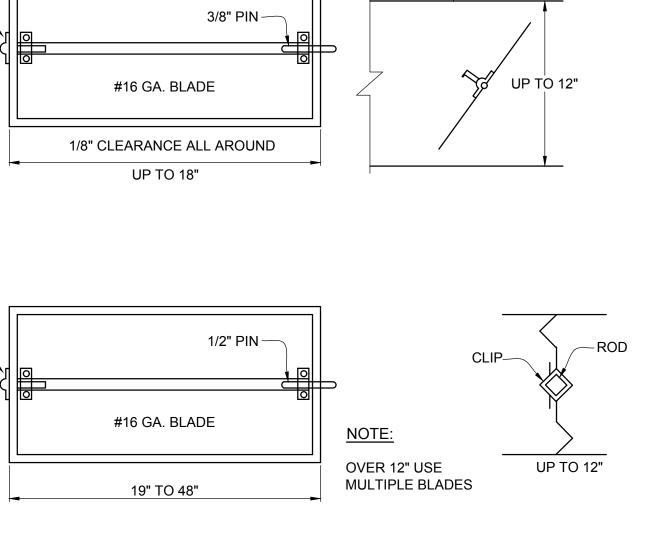


TYPICAL SYMMETRICAL

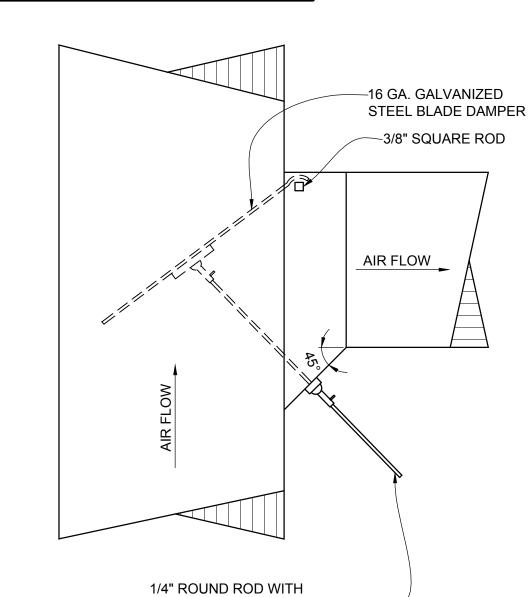


L < B IF B IS GREATER THAN C

1. PROVIDE QUADRANT CONTROL AS SPECIFIED WHERE SET SCREW IS NOT AVAILABLE



TYPICAL VOLUME DAMPER DETAILS



VENTLOCK BALL JOINT BRACKET—





68

DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053

PROJECT TITLE REPAIR

DRAWING NUMBER FACILITY NUMBER

DYESS

Air Force

Base

TEXAS

APPROVED

COORDINATION

SIGNATURE

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

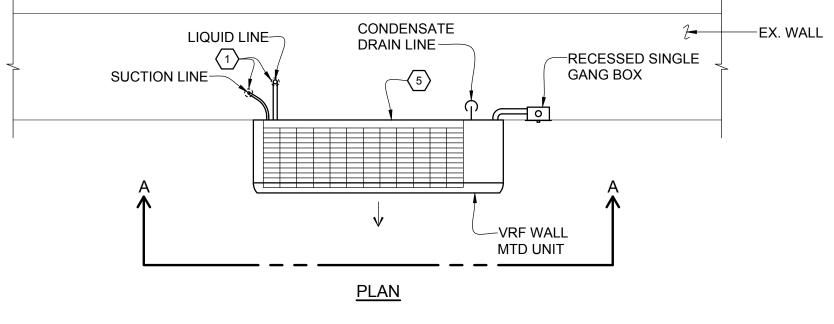
Designer	Project N	Manager
LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE

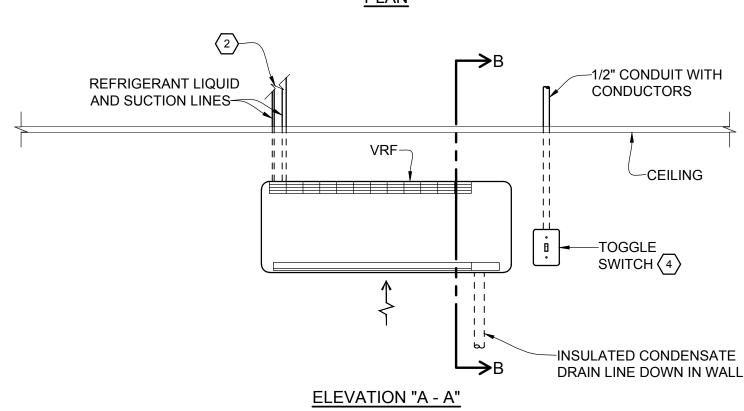
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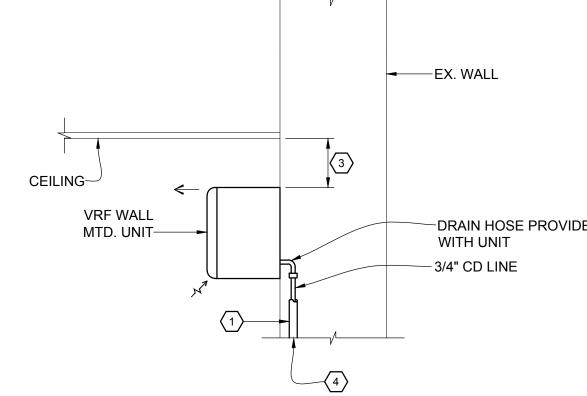
DETAILS

M-3.2

Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
SHOP, BLDG. 8040



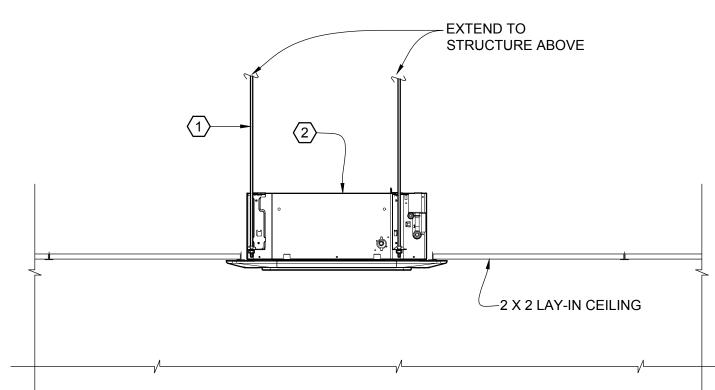


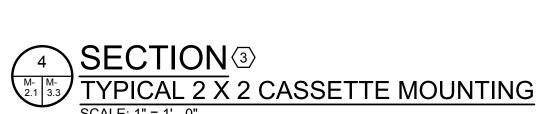




NOTES INDICATED BY NUMBER IN

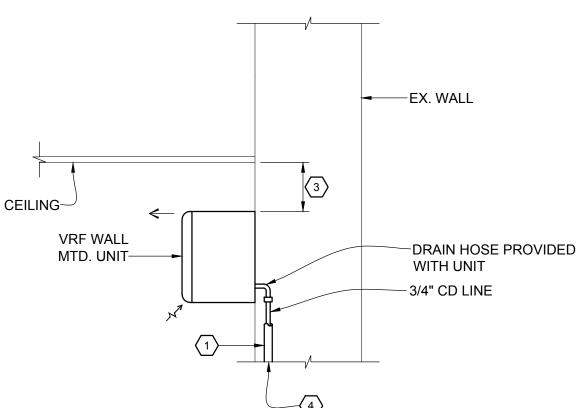
- 1. 1" TK. ARMAFLEX INSULATION.
- 2. REFER TO SHT. M-2.1 FOR CONTINUATION.
- 3. MOUNT AT DISTANCE BELOW CEILING RECOMMENDED BY VRF MANUFACTURER.
- 4. PROVIDE FRACTIONAL HORSEPOWER MOTOR STARTER IN RECESS MTD. LOW PROFILE (WIREMOLD) SWITCH BOX. REFER TO ELECTRICAL DRAWINGS.
- 5. MOUNT/FASTEN VRF UNIT TO WALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.



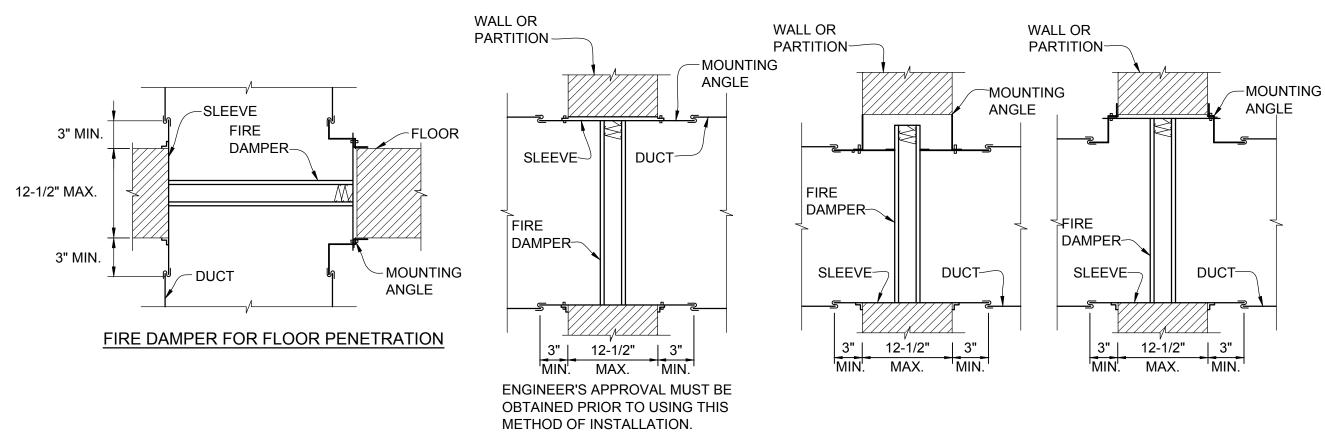


NOTES INDICATED BY NUMBER IN $\langle \rangle$:

- 1. 1/2" ALL THREAD MOUNTING ROD. BOLT MOUNTING ROD TO EACH CORNER OF THE LG CASSETTE AND ATTACH TO THE UNISTRUT.
- 2. 2 x 2 LG CASSETTE.
- 3. REFRIGERATION PIPING, CONDENSATE DRAIN PIPING AND ELECTRICAL WORK FOR THE CASSETTES IS NOT SHOWN ON THESE DETAILS. REFER TO SHEETS M-2.1 AND E-2.3.







TYPICAL FIRE DAMPER INSTALLATIONS

- DAMPER SHALL BE INSTALLED WITHIN FIRE WALL OR FLOOR SLAB. DAMPER SHALL BE MOUNTED IN A SLEEVE, FACTOR APPLIED OR FIELD FABRICATED WITH INSIDE DIMENSIONS EQUAL TO NOMINAL DUCT DIMENSIONS.
- SLEEVE SHALL NOT BE LESS THAN 16 GAUGE STEEL FOR SIZES 40 WIDTH OR 24 HEIGHT AND UNDER, AND MUST NOT BE LESS THAN 14 GAUGE STEEL OVER 40 WIDTH OR 24 HEIGHT.
- DAMPER SHALL BE INSTALLED IN SLEEVE WITH #10X1/2 S.M. SCREWS OF 1/4X1/2 BOLTS AND NUTS. FASTENERS SHALL BE NO MORE THAN 9 INCHES ON CENTER, AND 2-3/4 INCHES FROM CORNERS.
- MOUNTING AND EXPANSION CLEARANCE: WHEN SIZING MASONRY OPENING, TWO ADDITIONS HAVE TO BE MADE TO LISTED DIMENSIONS. ALLOW 3/4" OVER BOTH LISTED WIDTH AND LISTED HEIGHT FOR SLEEVE METAL THICKNESS AND DAMPER FASTENER CLEARANCE. PROVIDE AN ADDITIONAL 1/8 INCH FOR EACH 12 INCHES OF BOTH LISTED WIDTH FOR THERMAL EXPANSION. FOR VERTICAL INSTALLATION, ALL VERTICAL CLEARANCE SHOULD BE ABOVE TOP OF SLEEVE. ALL HORIZONTAL CLEARANCE SHOULD BE DIVIDED EQUALLY ON BOTH SIDES OF SLEEVE. FOR HORIZONTAL INSTALLATION, ALL CLEARANCES ARE DIVIDED EQUALLY ON ALL SIDES.
- SLEEVE SHALL NOT BE ATTACHED TO WALL (OR SLAB), BUT RETAINED ON EACH SIDE BY A 1-1/2"X1/8" MOUNTING ANGLE FRAME ATTACHED TO SLEEVE BY #10X1/2 S.M. SCREWS, OR 1/4X1/2 BOLTS - NOT OVER 8 INCHES ON CENTER. THIS ANGLE FRAME ALSO CLOSES ALL CLEARANCE BETWEEN SLEEVE AND WALL (OR SLAB) AND SHALL OVERLAP WALL A MINIMUM OF 1" ON ALL FOUR SIDES.
- 6. A SUITABLE TIGHTLY COVERED, ACCESS TO THE DAMPER MUST BE PROVIDED IN THE DUCTING TO ALLOW INSPECTION AND MAINTENANCE.
- SLEEVE SHALL BE INSTALLED SO DAMPER BLADE LOCKS ARE UPPERMOST IN HORIZONTAL INSTALLATIONS AND TOWARD ACCESS DOOR IN ALL CASES.

L. ANGLE REINFORCED STANDING SEAM

M. ANGLE REINFORCED POCKET LOCK

N. COMPANION ANGLES

- FOR INSTALLATION REQUIRING FLUSH MOUNTING, ANGLE FRAME MAY BE NOTCHED TO ALLOW IT TO BE MOUNTED FACING INTO THE WALL (OR SLAB).
- THE FOLLOWING DUCT-SLEEVE CONNECTIONS MAY BE USED ON ALL SYSTEMS:
 - A. INSIDE SLIP
 - CUP SLIP B. PLAN "S" SLIP J. DRIVE SLIP C. HEMMED "S" SLIP K. POCKET LOCK
 - D. BAR SLIP
 - ALTERNATE BAR SLIP (STANDING SLIP) REINFORCED BAR SLIP (CLEAT)
 - G. ANGLE SLIP
 - O. METAL FASTENERS SHALL BE SPACED A MINIMUM H. DOUBLE "S" SLIP OF APPROXIMATELY 16" ON CENTER
 - MAXIMUM SINGLE DAMPER OF MULTIPLE DAMPER ASSEMBLY SHALL BE 40"X40" IN VERTICAL MOUNTINGS, 42" HEIGHT X 40" WIDTH IN HORIZONTAL MOUNTINGS.
- 11. IN MULTIPLE DAMPER ASSEMBLIES, UNITS SHALL BE FASTENED TOGETHER USING MOUNTING HOLES AS PROVIDED.
- AS WITH ALL JOINTS, CONTRACTOR MUST SEAL SLEEVE, IN FIELD, AFTER INSULATION.
- UL LABEL SHALL BE RIVETED TO FIRE DAMPER. MANUFACTURER SHALL INSTALL ALL UL TAGS AT THE FACTORY.
- THE DETAILS INDICATED HEREON ARE "TYPICAL". THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE DAMPERS PROVIDED SHALL TAKE PRECEDENCE OVER THE DETAILS INDICATED HEREON.
- FIRE DAMPERS SHALL BE DELIVERED FROM THE FACTORY WITH A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), SUCH AS UL OR FM SEAL AFFIXED TO THE DAMPER AT THE FACTORY. DO NOT INSTALL DAMPERS WHICH DO NOT HAVE THIS SEAL ALREADY AFFIXED.





DYESS Air Force Base **TEXAS**

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Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Froject Mana	agei
LGT	LG1	-
Drafter	Date	
BDW	21 OC	Γ 16
REVISION	В	//DATE
SHEET TITLE	•	

DETAILS

M-3.3

REPAIR

MAINTENANCE

Prepared for: 7th CES/CENM BLD 8006 OFFICE 210 SHOP, BLDG. 8040

WTA, INC.

LLOYD GARLAND TURNER

WTA-16016

DYESS AFB, TX 79607 PROJECT NUMBER

SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER FACILITY NUMBER

PROJECT TITLE

SPLIT SYSTEM HEAT RECOVERY INDOOR UNIT SCHEDULE (MVID) (1)																			
UNIT	RAT	ING		DESIGN	V	MIN.						C	OOLING COIL			HEATING CAPACITY			UNIT
DESIGNATION	TOT AIR CFM	ESP IN WATER (2)	TOT AIR CFM	STAT IN WATER	VSA CFM	MOTOR H.P.	VOLTS	PHASE	AMPS	ENT. DB	AIR F WB	TOTAL CAPACITY	SENSIBLE CAPACITY	FREON	RESERVED	(BTU/H)	TYPE	REMARKS	DESIGNATION
MVID #1-16	307	(2)	307	N/A	N/A	(2)	208	1	0.20	80	67	12,300	8,900	R410A	-	13,600	4-WAY CASSETTE	LG ARNU123 TRC4 (3)	MVID #1-16
MVID #2-16	307	(2)	307	N/A	N/A	(2)	208	1	0.20	80	67	12,300	8,900	R410A	-	13,600	4-WAY CASSETTE	LG ARNU123TRC4 (3)	MVID #2-16
MVID #3-16	283	(2)	283	N/A	N/A	(2)	208	1	0.20	80	67	7,500	5,400	R410A	-	10,900	4-WAY CASSETTE	LG ARNU073 TRC4 (3)	MVID #3-16
MVID #4-16	441	0.23	441	N/A	N/A	(2)	208	1	2.20	80	67	7,500	5,900	R410A	-	6,100	DUCTED INDOOR U NIT	LG ARNU073BGA4 (2)	MVID #4-16
MVID #5-16	283	(2)	283	N/A	N/A	(2)	208	1	0.20	80	67	7,500	5,400	R410A	-	10,900	4-WAY CASSETTE	LG ARNU073TRC4 (3)	MVID #5-16
MVID #6-16	265	(2)	265	N/A	N/A	(2)	208	1	0.20	80	67	5,500	3,900	R410A	-	10,900	4-WAY CASSETTE	LG ARNU053TRC4 (3)	MVID #6-16
MVID #7-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #7-16
MVID #8-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #8-16
MVID #9-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #9-16
MVID #10-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #10-16
MVID #11-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #11-16
MVID #12-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #12-16
MVID #13-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU053SBL4 (4)	MVID #13-16
NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	NOT USED
NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	NOT USED

MULTI V HEAT RECOVERY UNIT SCHEDULE (VRF SYSTEM)							
BS BOX	CAPACITY	ELECTRICAL R	EQUIREMENTS	MFG. MODEL	COMMENTS		
NO.	BTUH	VOLTAGE	MCA	NO.	COMMINICIATO		
HR1-1	192,000	208, 1Ø	0.16	LG PRHRO 42A			
HR1-2	192,000	208, 1Ø	0.16	LG PRHRO 42A			
HR1-3	192,000	208, 1Ø	0.16	LG PRHRO 42A			
HR1-4	192,000	208, 1Ø	0.16	LG PRHRO 42A			

SPLIT SYSTEM HEAT RECOVERY OUTDOOR UNIT SCHEDULE (HRODU)

AIR TEMP °F

100

DEFLECTROL

NOT REQ'D

REQ'D

NOT REQ'D

NOT REQ'D

NOT REQ'D

NOT REQ'D

DRIVE

DIRECT

DIRECT

DIRECT

DIRECT

DIRECT

DIRECT

VOLTS PHASE

208

AIR OUTLET AND GRILLE SCHEDULE

TYPE CORE OR FACE

PERFORATED

VERT. FRONT VANES

LOUVERED

VOLTS

120

120

120

120

120

120

PHASE

FAN SCHEDULE

H.P.

1/8

1/20

1/20

1/20

1/100

1/20

REMARKS

MATERIALS

ALUMINUM

ALUMINUM

ALUMINUM

ALUMINUM

ALUMINUM

ALUMINUM

ALUMINUM

ALUMINUM

EQUAL TO

GREENHECK CW-095D-VG

GREENHECK CW-075D-VG

GREENHECK CW-075D-VG

GREENHECK CW-075D-VG

GREENHECK CW-060G-VG

GREENHECK CW-080D-VG

LG ARUB072BTE4

TOTAL UNIT

21

OUTDOOR UNIT FOR VARIABLE REFRIGERANT VOLUME HEAT RECOVERY SYSTEM; REFER TO SPECIFICATIONS.

CONTROL DAMPER

NOT REQ'D

O.B.D. REQ'D

NOT REQ'D

O.B.D. REQ'D

O.B.D. REQ'D

O.B.D. REQ'D

NOT REQ'D

RPM

1550

1550

1550

1550

1550

1550

TRANSFORMER FOR 24V POWER TO THE VARI-GREEN MOTOR AND CONTROLS, CONTROL WIRE INPUT TO ALLOW THE MOTOR TO

ACCEPT 0-10V DC SIGNAL FROM THE BUILDING AUTOMATION SYSTEM TO ADJUST MOTOR SPEED, CAPABILITY TO CONTROL THE MOTOR SPEED VIA STATIC (VARIABLE VOLUME) PRESSURE ON THE INLET SIDE OF THE FAN. FURNISH DUCT PROBE AND TRANSDUCER

FLA/Ø

FREON

R410A

TYPE OF

MTG. FRAME

SURFACE

SURFACE

SURFACE

SURFACE

SURFACE

STATIC

PRESSURE

(IN. WATER)

0.50

0.40

0.40

0.40

0.20

0.50

TO MONITOR THE STATIC PRESSURE ON THE INLET SIDE OF THE FAN AND REPORT TO THE DDC SYSTEM.

1. PROVIDE WITH VARI-GREEN MOTOR, MS-1P UNIVERSAL SINGLE PHASE STARTER, ELECTRICAL DISCONNECT AT MOTOR,

1. FIXED LOUVERED BLADES; 45° DEFLECTION. SIZED FOR 20 X 20 AIR FILTER.

225

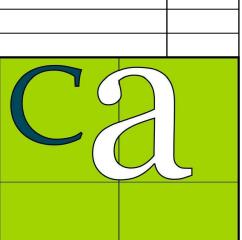
225

65

235



APPROVED	
SIGNATURE	OFFICE



Designer	Project N	/lanager	
LGT	LGT		
Drafter	Date		
BDW	21	OCT 16	
REVISION		BY/DATE	

SCHEDULES

pared for: CES/CENM

CONSULTING ENGINEERS	
San State	
1 P.E.	Prepa 7th C
LLOYD GARLAND TURNER	710 BLD
9: 44724 : Z	DYE
O'STER S	SEQ
11-21-2016	
	l

7ESS AFB, TX 79607 PROJECT NUMBER QUENCE NUMBER FNWZ 12-0053

WTA-16016

WTA, INC.

Silve	
DYESS	3
Air Ford	ce
Base	
TEXAS	3
APPROVED SIGNATURE	OFFICE
OTOTAL OTTE	0.1102

COORDINATION	

HEATING

BTU/h

80,900

REMARKS

AMB. TEMP.

15° F

MODEL NO.

NAILOR 6200

NAILOR 4260AA

NAILOR 4260AA

NAILOR 51CC

NAILOR 51DV

NAILOR 51FB55

NAILOR 5130H

REMARKS

NOTE 1

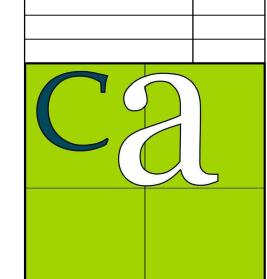
NOTE 1

NOTE 1

NOTE 1

NOTE 1

NOTE 1



Castillo Architects 981 Southpark Dr. Littleton, Colorado

[303] 698.1717					
Designer	Project Manager				
LGT	LGT				
Drafter	Date				
BDW	21 OCT 16				

SHEET TITLE

M-4.0

PROJECT TITLE REPAIR MAINTENANCE 8006 OFFICE 210 SHOP, BLDG. 8040

DRAWING NUMBER | FACILITY NUMBER

MVID #6-16	265	(2)	265	N/A	N/A	(2)	208	1	0.20	80	67	5,500	3,900	R410A	-	10,900	4-WAY CASSETTE	LG ARNU
MVID #7-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
MVID #8-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
MVID #9-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
MVID #10-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
MVID #11-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
MVID #12-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
MVID #13-16	230	(2)	230	N/A	N/A	(2)	208	1	0.16	80	67	5,500	4,100	R410A	-	5,200	WAL MOUNTED UNIT	LG ARNU
NOT USED	ı	ı	-	-	-	-	-	-	-	-	1	-	-	-	-	1		
NOT USED	1	ı	-	-	-	-	-	-	-	-	1	-	-	-	-	-		
NOTES: 1. INDOOR UNITS FOR VARIABLE REFRIGERANT VOLUME HEAT RECOVERY SYSTEM. 2. HIGH STATIC DUCTED, ABOVE CEILING UNIT.																		

- CEILING MOUNTED CASSETTE TYPE UNIT.
- WALL MOUNTED UNIT

LOUVER SCHEDULE														
LOUVER NO.	WIDTH	HEIGHT	MATERIAL	SCREEN	REMARKS									
L1	12"	12"	NOTE 4	NOTE 1	1, 2, 3									
L2	L2 12"		NOTE 4	NOTE 1	1, 2, 3									
NOT USED														
NOT USED														

NOTES:

- 1. PROVIDE 1/2" X 1/2" MESH, 19 GAUGE GALVANIZED.
- 2. LOUVER SHALL HAVE THE FOLLOWING FEATURES:
- A. 16 GAUGE ALUMINUM OR STEEL FRAME, 4" DEEP.
- B. BLADES: J STYLE, 20 GAUGE ALUMINUM OR STEEL, POSITIONED AT 45° ANGLES, APPROXIMATELY 4" ON CENTER.
- C. FLANGED FRAME.
- D. FINISH SHALL BE AS SPECIFIED IN SECTION 09 90 00 FOR EXTERIOR METAL SURFACES. COLOR SHALL BE AS SPECIFIED IN SECTION 09 06 90
- FOR LOUVERS. E. THE BEGINNING POINT OF WATER PENETRATION SHALL BE NOT LESS THAN 839 FPM FREE AREA VELOCITY AT 0.01" STATIC PRESSURE DROP

ACROSS THE LOUVER PER THE AMCA WATER PENETRATION TEST.

- 3. LOUVER SHALL BE MODEL FSJ-402 STATIONARY LOUVER (FABRICATED CONSTRUCTION) AS MANUFACTURED BY GREENHECK, OR APPROVED
- 4. MATERIAL SHALL BE PREFINISHED ALUMINUM OR STEEL.

EQUAL.

5. INDICATED WIDTH IS "NOMINAL"; LOUVER WIDTH IS TO BE AS REQUIRED TO

FIT IN THE EXISTING WINDOW OPENING; VERIFY WINDOW OPENING WIDTH.

OUTSIDE AIR MAKE-UP SYSTEM O.A. TEMP. ENT. AIR ENT. AIR COMPR. COND. TOTAL ELECTRICAL UNIT CHARAC MIN. TOTAL TOTAL SENSIBLE O.A. STATIC COOLING COOLING GAS HEATING MANUF./MODEL REMARKS NO. FLA FLA CHARAC. LBS. @ COND. EER CFM PRES. (MBTUH) (MBTUH) (°F DB) (°F WB) FLA INPUT OUTPUT BTUH 700 700 1.00" 45.85 16.1 2.8 25.5 OSAMU #1-16 208V, 3Ø 60 MBH 48.6 MBH 1,2,3,4,5,6,7,8,9 36.11 102 102 73

NOTES:

NOT USED

- 1. UNIT SHALL HAVE SINGLE CIRCUIT COOLING, 5 MINUTE REFRIGERANT CONTROL TIME DELAY, HOT GAS BYPASS, COMPRESSOR ISOLATION VALVES, SIGHT GLASS, AND FACTORY HAIL GUARDS. ALSO STANDARD CATALOGED SAFETY OPTIONS, STANDARD CATALOGED CONTROLS,
- 2. ONE POINT POWER CONNECTION WITH FACTORY DISCONNECT. PHASE LOSS/ PHASE REVERSAL PROTECTION; 115V., GFI RECEPTACLE.

SUCTION PRESSURE TRANSMITTER WITH CONDITIONER.

- 3. UNIT SHALL INCORPORATE MODULATING HOT GAS REHEAT AS MEANS OF CONTROLLING THE COMPRESSOR CAPACITY IN RESPONSE TO THE REQUIRED COOLING COIL OUTPUT.
- 4. THE UNIT'S OUTER CASING SHALL BE SUCCESSFULLY TESTED FOR 2500 HOURS IN A SALT SPRAY TEST.
- 5. UNIT SHALL HAVE SINGLE CIRCUIT COOLING WITH 6 ROW EVAPORATOR COIL, 2" PLATED FILTERS, CLOGGED FILTER SWITCH. ALSO STANDARD CATALOGED SAFETY OPTIONS, STANDARD CATALOGED CONTROLS, MAKE-UP AIR UNIT CONTROLLER, OUTSIDE AIR HUMIDITY SENSOR, VCM CONTROLLER WITH EPROM, OUTSIDE AIR TEMPERATURE SENSOR, SUPPLY AIR TEMPERATURE SENSOR, EXPANSION BOARDS: 4 ANALOG IN/1 ANALOG OUT, 4 BINARY IN. UNIT SHALL BE PROVIDED WITH A BACnet GATEWAY TO INTERFACE WITH THE BUILDING'S BMS.
- 6. THE UNIT SHALL MAINTAIN A LEAVING (SUPPLY) AIR TEMPERATURE OF 75° DB/61.7° WB FOR ALL OUTSIDE AIR TEMPERATURES BETWEEN 104° DB/71° WB AND 15° DB/10° WB.

c. LABELED COMPONENTS FOR QUICK AND EASY INSTALLATION.

- ADDITIONAL FEATURES:
- a. CORROSION RESISTANT STAINLESS STEEL DRAIN PAN.
- b. MODULATING HUMIDITY CONTROL.

- d. ELECTRONICALLY COMMUTATED MOTOR (ECM) CONTROLLED
- VARIABLE SPEED BACKWARD CURVED PLENUM FAN.
- e. SERVICE DOORS WITH REMOVABLE PIN HINGES AND QUA f. FACTORY RUN TEST REPORT, WIRING DIAGRAM AND INSTALLATION, OPERATION AND MAINTENANCE MANUAL WITH STARTUP FORM ARE PROVIDED IN THE CONTROL COMPARTMENT OF EVERY UNIT.
- g. CONSTANT VOLUME, MAKEUP AIR APPLICATION WITH 100% OUTSIDE
- h. SPLIT SYSTEM MODULATING HUMIDITY CONTROL TO PROVIDE PRECISE
- HUMIDITY CONTROL.
- i. FACTORY PROVIDED CONTROLLER. j. COILS WITH POLYMER E-COATINGS, COPPER FINS AND STAINLESS
- STEEL CASINGS TO MINIMIZE CORROSION AND IMPROVE AIR QUALITY. k. THE REFRIGERATION CIRCUIT INCLUDES AUTOMATIC LOW PRESSURE AND MANUAL RESET HIGH PRESSURE SAFETY CUTOUTS, AND SUCTION AND LIQUID LINE SCHRADER VALVES.
- I. COMPRESSOR AND CONTROLS ARE HOUSED IN A SERVICE COMPARTMENT. ACCESS DOORS WITH FULL LENGTH STAINLESS STEEL PIANO HINGES AND LOCKABLE HANDLES PROVIDE SUPERIOR ACCESS AND SERVICEABILITY FOR THE ISOLATED COMPRESSOR AND CONTROLS COMPARTMENT.
- m. ECM DRIVEN OR VFD CONTROLLED CONDENSER FANS FOR HEAD
- PRESSURE CONTROL AND COMPLETE CAPACITY MODULATION. n. FLOODED CONDENSER LOW AMBIENT CONTROL ALLOWS COOLING AT TEMPERATURES DOWN TO 0°F.
- START-UP AND TESTING BY FACTORY TRAINED PERSONNEL. START-UP AND TESTING REPORT TO BE PROVIDED IN THE CLOSE-OUT DOCUMENTS.
- 9. ONE (1) YEAR WRITTEN WARRANTY.

NOTE:

REFER TO SH. M-6.4 FOR "AIR COOLED CONDENSING UNIT SCHEDULE" AND "AIR HANDLING UNIT SCHEDULE".

COOL. CAPACITY

BTU/HR

78,300

DESIGNATION

HRODU #1-16

NOT USED

NOTES:

DESIGN.

NOTES:

DESIGNATION

EF #1-16

EF #2-16

EF #3-16

EF #4-16

EF #5-16

EF #6-16

NOTES:

OR DEVICE

SUPPLY

SUPPLY

RETURN

RETURN

SUPPLY

SUPPLY

RETURN

RETURN

TYPE OF FAN

CENT. IN-LINE

CENT. IN-LINE

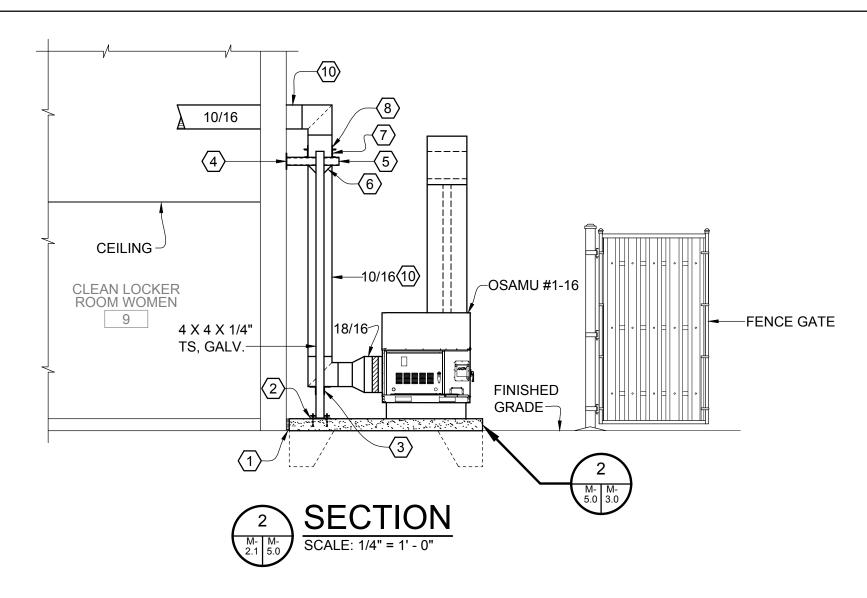
CENT. IN-LINE

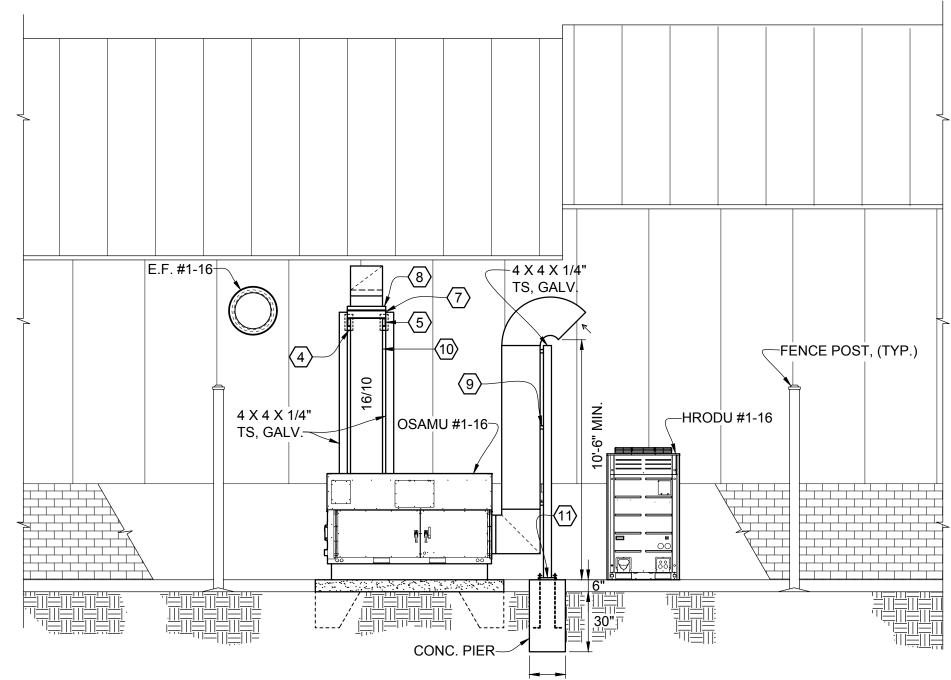
CENT. IN-LINE

CENT. IN-LINE

CENT. IN-LINE

2. HEAVY DUTY RETURN GRILLE.

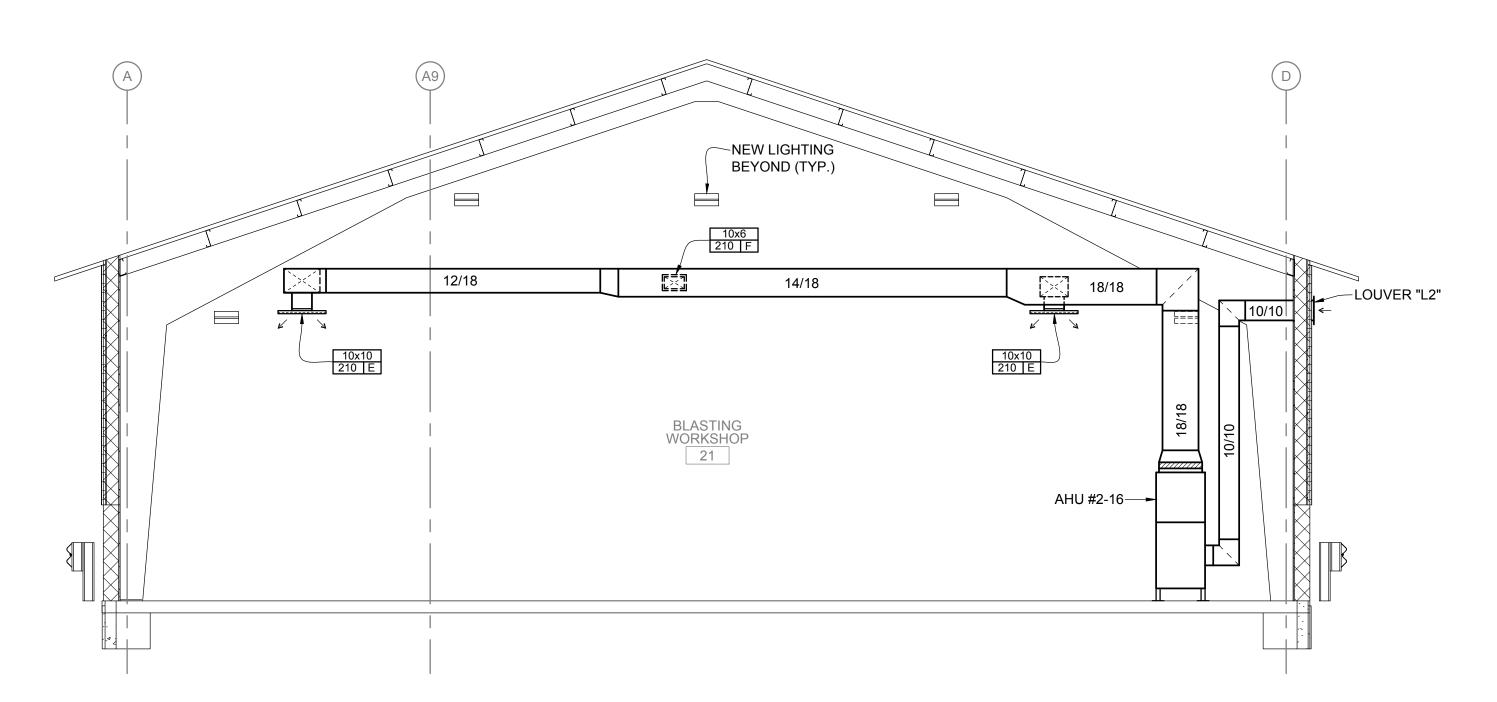




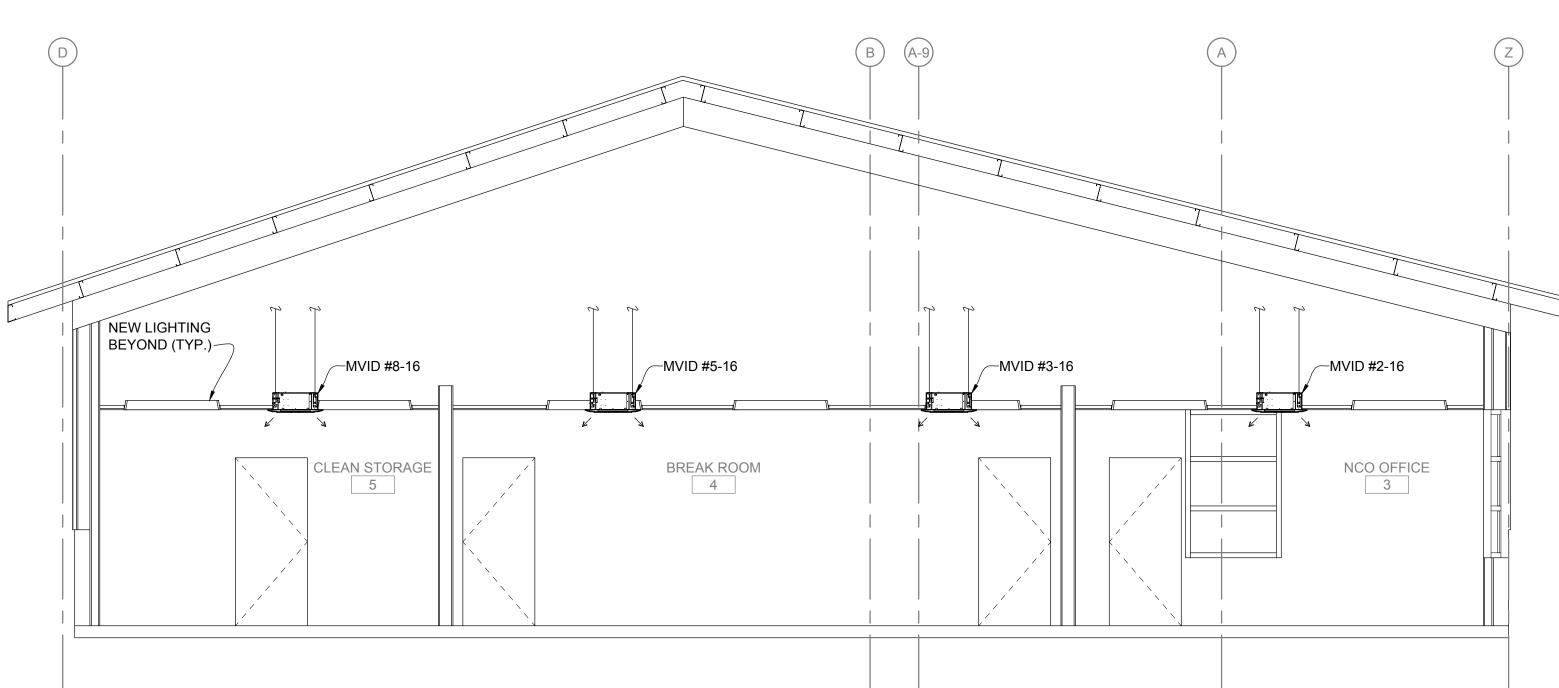


NOTES INDICATED BY NUMBER IN ():

- 1. CONTINUOUS 1" TK. EXPANSION JOINT BETWEEN EQUIPMENT PAD/FOUNDATION AND BUILDING FOUNDATION.
- 2. 10" X 10" X 3/8" PLATE, GALVANIZED. PROVIDE FOUR (4) 1/2"Ø, EPOXY EMBEDDED HILTI ANCHOR BOLTS TO FASTEN BASE TO SLAB. BOLTS SHALL BE OF LENGTH REQUIRED FOR 6" DEEP EMBED. PROVIDE 1" SPACE BETWEEN TOP OF SLAB AND BOTTOM OF PLATE. PACK SPACE WITH NON-SHRINK GROUT.
- 3. CONTINUOUS 4" X 3" X 1/4" L (GALVANIZED) BETWEEN THE TWO 4 X 4 TS VERTICAL SUPPORTS; TWO THUS.
- 4. PROVIDE 8" (H) X 4" (W) X 1/4" TK. PLATE WELDED TO END OF CHANNEL. FASTEN PLATE TO BUILDING.
- 5. GALVANIZED CHANNEL BRACE, 4" X 1-5/8" X LENGTH REQ'D.
- 6. SUPPORT FOR 4" CHANNEL. FABRICATE FROM 4" X 3" X 1/4" L, GALVANIZED. FASTEN TO 4 X 4 TS AND TO CHANNEL.
- 7. GALVANIZED CHANNEL, 4" X 1-5/8" X LENGTH REQ'D. PROVIDE TWO THUS, ONE EACH SIDE OF DUCTS. FASTEN TO THE DUCTS AND THE 4" SUPPORTING CHANNEL.
- 8. 2" X 2" L.
- 9. 1-5/8" GALVANIZED UNISTRUT. FASTEN UNISTRUT TO 4" TS; FASTEN DUCT TO
- 10. PROVIDE 1-1/2" TK. EXTERNAL RIGID INSULATION ON ALL OUTDOOR DUCT. (REFER SECTION 23 07 00). DUCT DESIGN SIZE IS 10/16. DUCT IS SHOWN 12/18 TO BE APPROXIMATE ACTUAL SIZE WITH 1-1/2" TK. EXTERNAL INSULATION, WEATHER BARRIER MASTIC WITH MESH AND ALUMINUM JACKET. PROVIDE SILICONE SEALANT AT ALL JACKET JOINTS/LAPS AND AT ALL SCREW PENETRATIONS OF THE JACKET.
- 11. 10" X 10" X 3/8" PLATE, GALVANIZED. PROVIDE FOUR (4) 5/8" X 24" GALVANIZED ANCHOR BOLTS CAST IN PIER. FASTEN BASE PLATE TO ANCHOR BOLTS. PROVIDE 1" (H) SPACE BETWEEN TOP OF PIER AND BOTTOM OF PLATE. PACK SPACE WITH NON-SHRINK GROUT.











SHEET TITLE

[303] 698.1717

LGT

BDW

REVISION

Project Manager

LGT

21 OCT 16

BY/DATE

DYESS

Air Force

Base

TEXAS

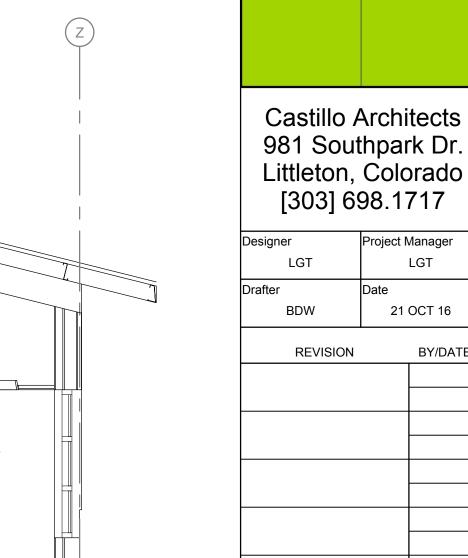
APPROVED

COORDINATION

M-5.0PROJECT TITLE

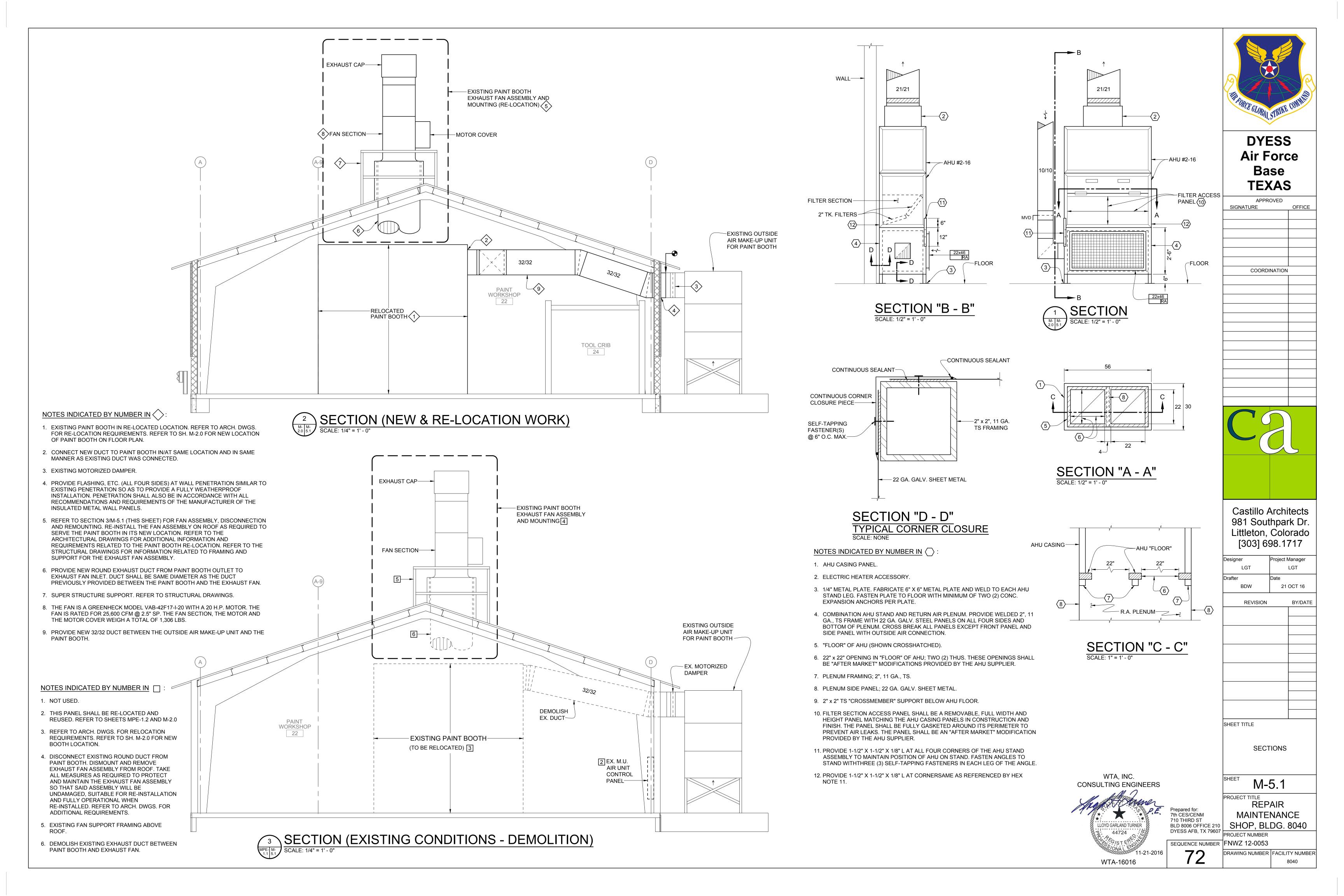
MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040

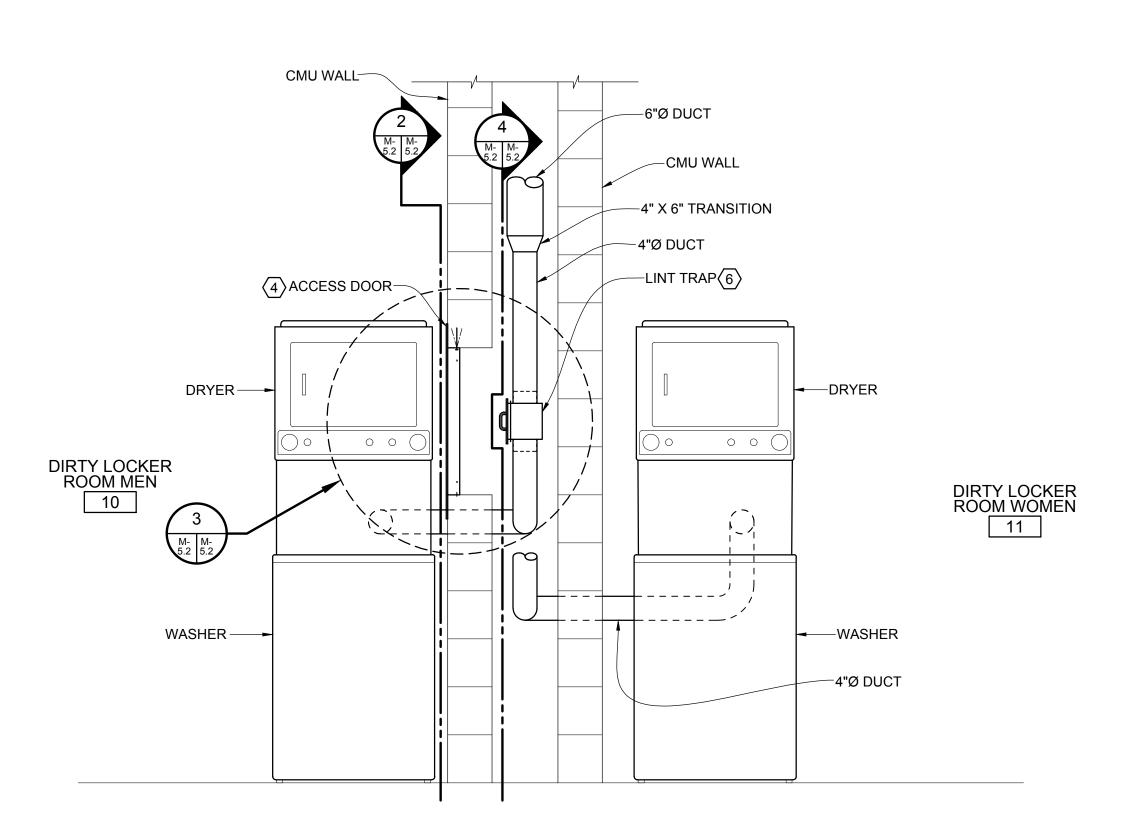
SEQUENCE NUMBER FNWZ 12-0053

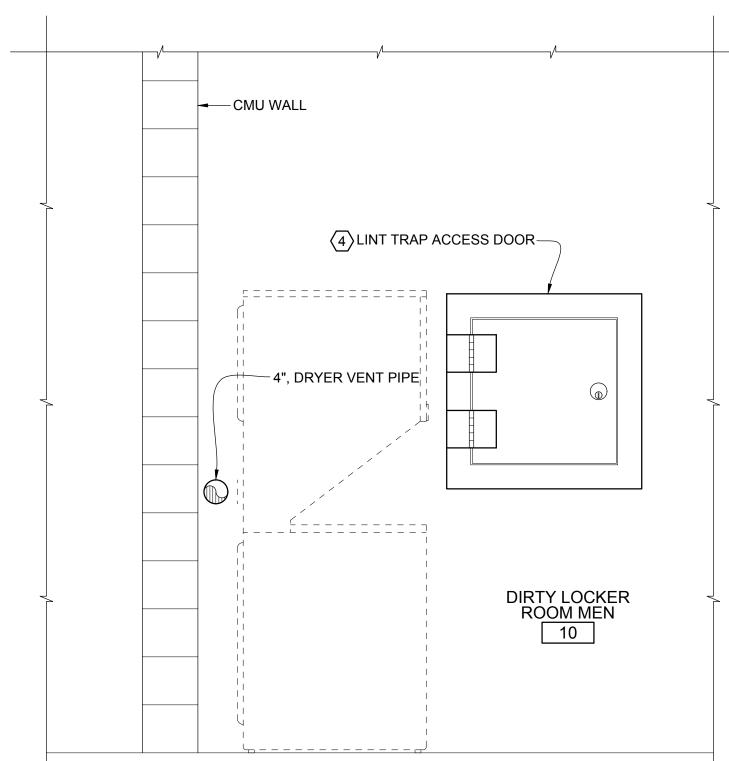


SECTIONS

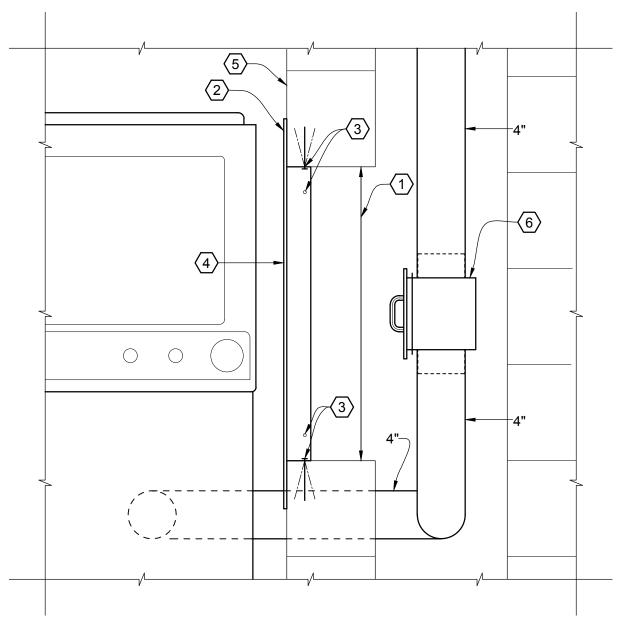
REPAIR Prepared for: 7th CES/CENM 710 THIRD ST DYESS AFB, TX 79607 PROJECT NUMBER











SECTION

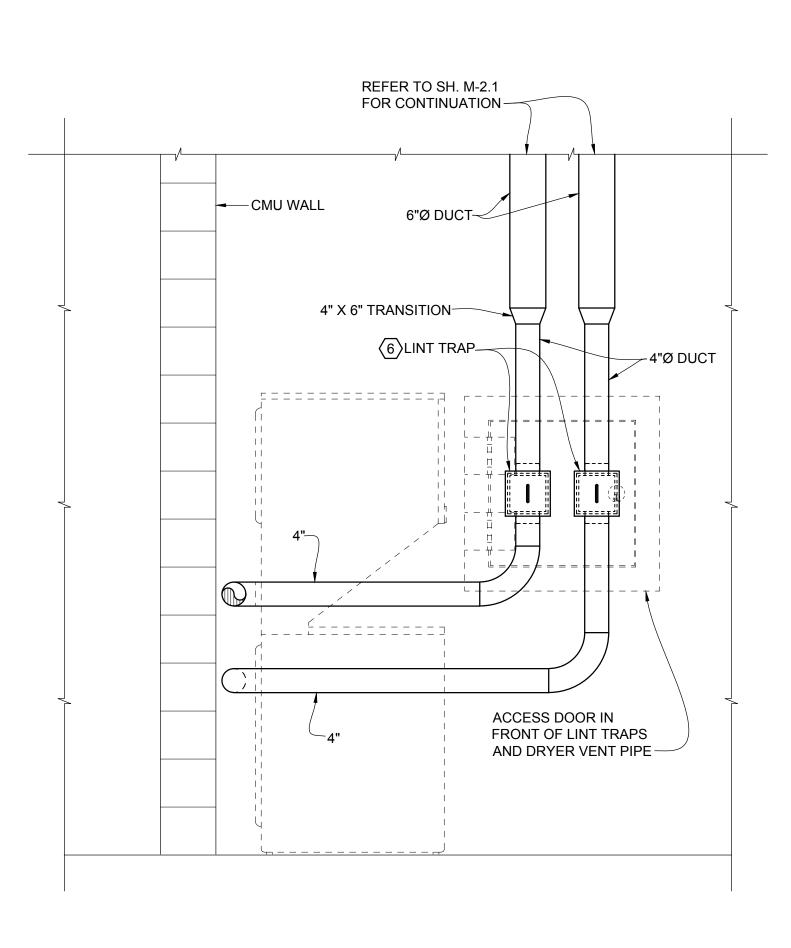
SCALE: 3/4" = 1' - 0"

LAUNDRY CENTERS

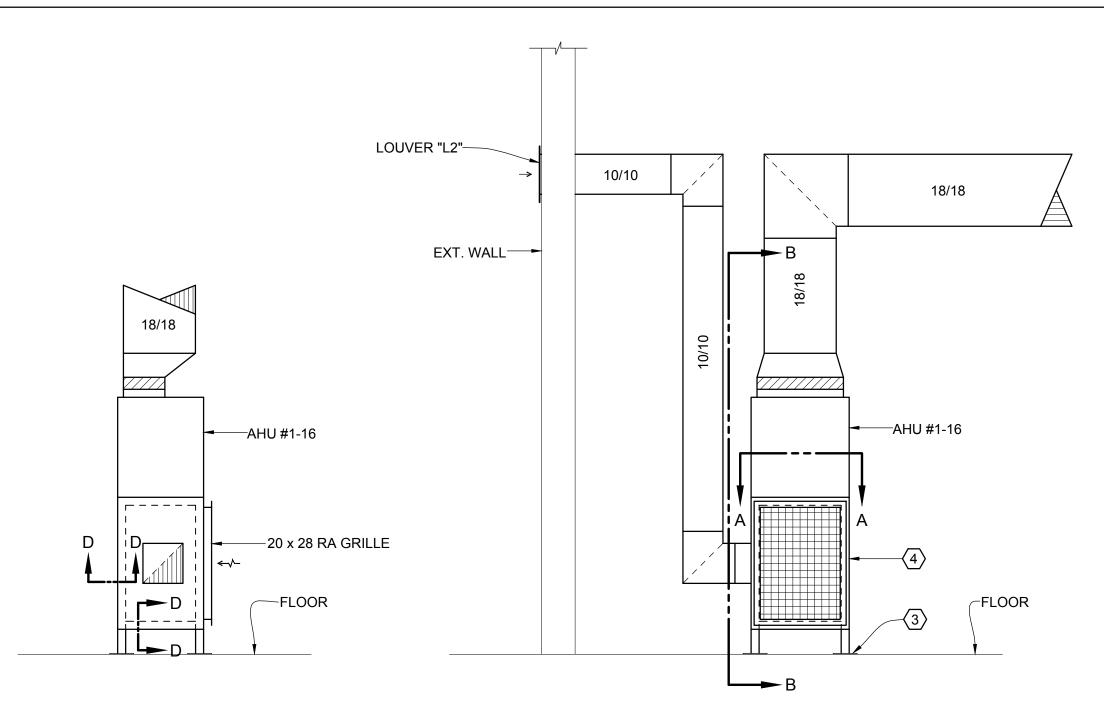


NOTES INDICATED BY NUMBER IN

- 1. ACCESS DOOR OPENING SHALL BE 24-1/2" X 24-1/2".
- 2. MOUNT ACCESS DOOR TO CMU WALL.
- 3. 6 1/4" PRE-PUNCHED MOUNTING HOLES. FASTEN DOOR FRAME TO CMU WITH SUITABLE MASONRY ANCHORS.
- 4. 24" X 24" HIGH SECURITY ACCESS DOOR, MIFAB SERIES MI-SADH OR APPROVED EQUAL.
- 5. CMU WALL.
- 6. LINT TRAP, FANTECH, MODEL # DBLT4W OR APPROVED EQUAL.
- 7. REFER TO SH. M-2.1 FOR CONTINUATION.

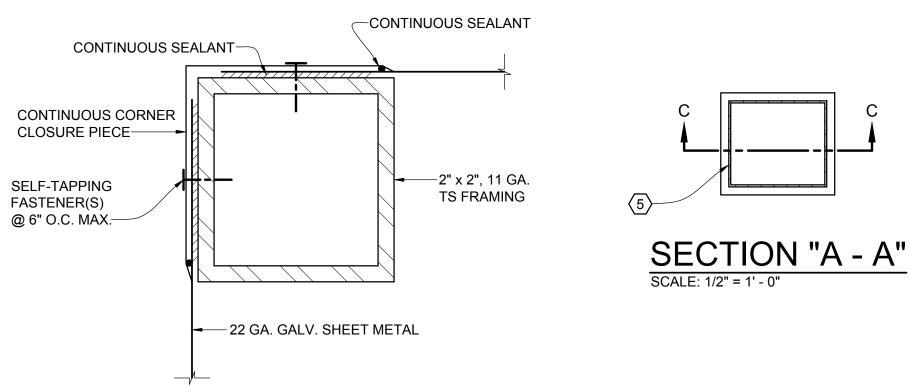








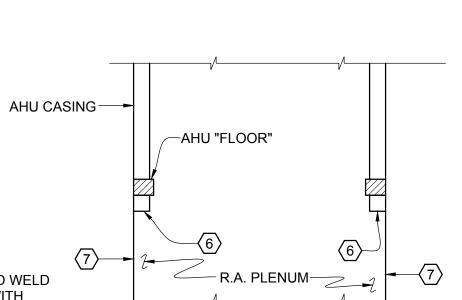




SECTION "D - D" TYPICAL CORNER CLOSURE

NOTES INDICATED BY NUMBER IN

- AHU CASING PANEL.
- 2. ELECTRIC HEATER ACCESSORY.
- 3. 1/4" METAL PLATE. FABRICATE 6" X 6" METAL PLATE AND WELD TO EACH AHU STAND LEG. FASTEN PLATE TO FLOOR WITH MINIMUM OF TWO (2) CONC. EXPANSION ANCHORS PER PLATE.
- 4. COMBINATION AHU STAND AND RETURN AIR PLENUM. PROVIDE WELDED 2", 11 GA., TS FRAME WITH 22 GA. GALV. STEEL PANELS ON ALL FOUR SIDES AND BOTTOM OF PLENUM. CROSS BREAK ALL PANELS EXCEPT FRONT PANEL AND SIDE PANEL WITH OUTSIDE AIR CONNECTION.
- 5. "FLOOR" OF AHU (SHOWN CROSSHATCHED).
- 6. PLENUM FRAMING; 2", 11 GA., TS.
- 7. PLENUM SIDE PANEL; 22 GA. GALV. SHEET METAL.

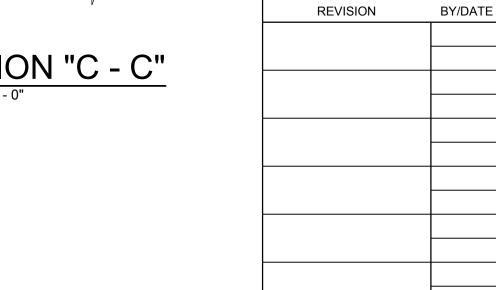


SECTION "C - C" SCALE: 1" = 1' - 0"

WTA, INC.

LLOYD GARLAND TURNER

WTA-16016



DETAILS & SECTIONS

DYESS

Air Force

Base

TEXAS

APPROVED

COORDINATION

Castillo Architects

981 Southpark Dr.

Littleton, Colorado

[303] 698.1717

LGT

BDW

Drafter

Project Manager

LGT

21 OCT 16

SIGNATURE

OFFICE

M-5.2PROJECT TITLE

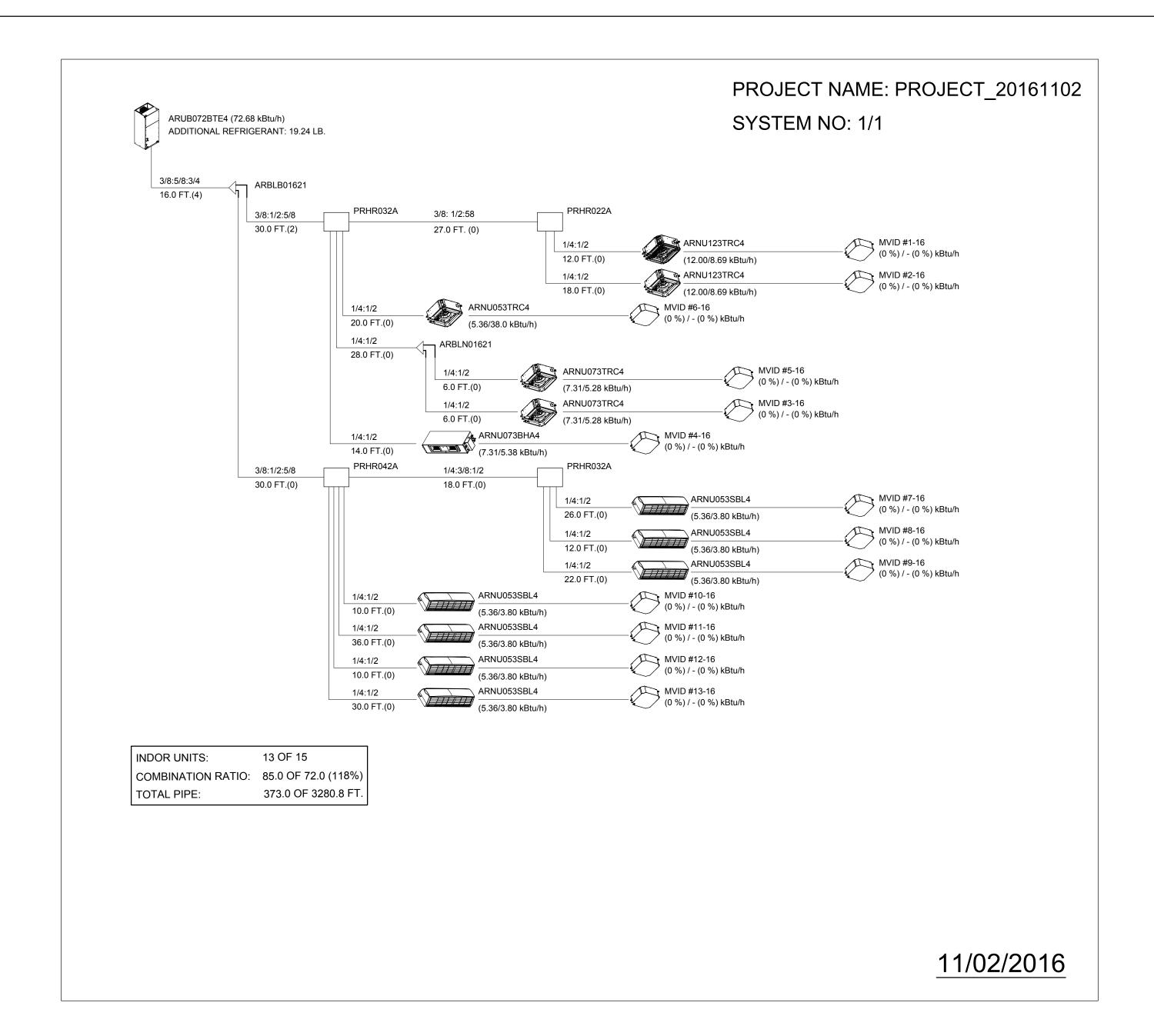
REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

SHEET TITLE

DRAWING NUMBER | FACILITY NUMBER

Prepared for: 7th CES/CENM 710 THIRD ST

SEQUENCE NUMBER FNWZ 12-0053



MODEL SELECTION - SYSTEM 1

PROJECT NAME: PROJECT_20161102 SYSTEM NO: 1/1

11/02/2016

ARUB072BTE4 COMBI.: ARUB072BTE4 ADDITIONAL REFRIGERANT: 19.24 LB. RLA: 0.20 PRHR022A ARNU123TRC4 COMMUNICATION LINE RLA: 0.08 PQRCVCL0QW RLA: 0.20 MCA: 25.3 ARNU123TRC4 MOP: 40 PQRCVCL0QW V,HZ: 3/208, 230V/60HZ RLA: 0.20 PRHR032A ARNU053TRC4 RLA: 0.12 PQRCVCL0QW RLA: 0.20 ARNU073TRC4 PQRCVCL0QW RLA: 0.20 ARNU073TRC4 RLA: 1.06 ARNU073BHA4 PQRCVCL0QW RLA: 0.16 PRHR032A ARNU053SBL4 RLA: 0.12 PQRCVCL0QW RLA: 0.16 ARNU053SBL4 PQRCVCL0QW RLA: 0.16 ARNU053SBL4 PQRCVCL0QW RLA: 0.16 PRHR042A ARNU053SBL4 PQRCVCL0QW RLA: 0.16 ARNU053SBL4 PQRCVCL0QW RLA: 0.16 ARNU053SBL4

POWER WIRING, BREAKER SIZE, AND DISCONNECTS SHALL FOLLOW CODE OR NEC MULTI-FRAME OUTDOOR UNIT MODELS REQUIRE A SEPARATE POWER CONNECTION FOR EACH FRAME. REFER TO THE MOST CURRENT SUBMITTAL SHEETS FOR APPLICABLE ELECTRICAL DATA.

THESE DIAGRAMS WERE PROVIDED BY THE MANUFACTURER'S REPRESENTATIVE FOR THE LG VRF SYSTEMS WHICH ARE THE BASIS OF DESIGN FOR THE SYSTEMS SHOWN AND SCHEDULED ON THESE DRAWINGS. THESE DRAWINGS ARE PROVIDED AS AN AID TO THE CONTRACTOR IN IDENTIFYING THE SCOPE OF THE PROJECT AND ARE <u>NOT FOR CONSTRUCTION</u>. THE CONTRACTOR SHALL OBTAIN UPDATED DIAGRAMS FROM THE MANUFACTURER'S REPRESENTATIVE TO BE INCLUDED IN HIS SUBMITTAL OF PROPOSED VRF SYSTEM MATERIALS.

PQRCVCL0QW

PQRCVCL0QW

RLA: 0.16

ARNU053SBL4



Air Force Base **TEXAS**

APPROVED	
SIGNATURE	OFFICE
COORDINATION	

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project I	Project Manager				
LGT		LGT				
Drafter	Date					
BDW	21	OCT 16				
REVISION		BY/DATE				
SHEET TITLE						
VAR REFRIGER	NABLE	OLLIME				
INCI INIOLIV	JA INI					

M-6.0

SYSTEM 1 MODEL SELECTION

PROJECT TITLE REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040

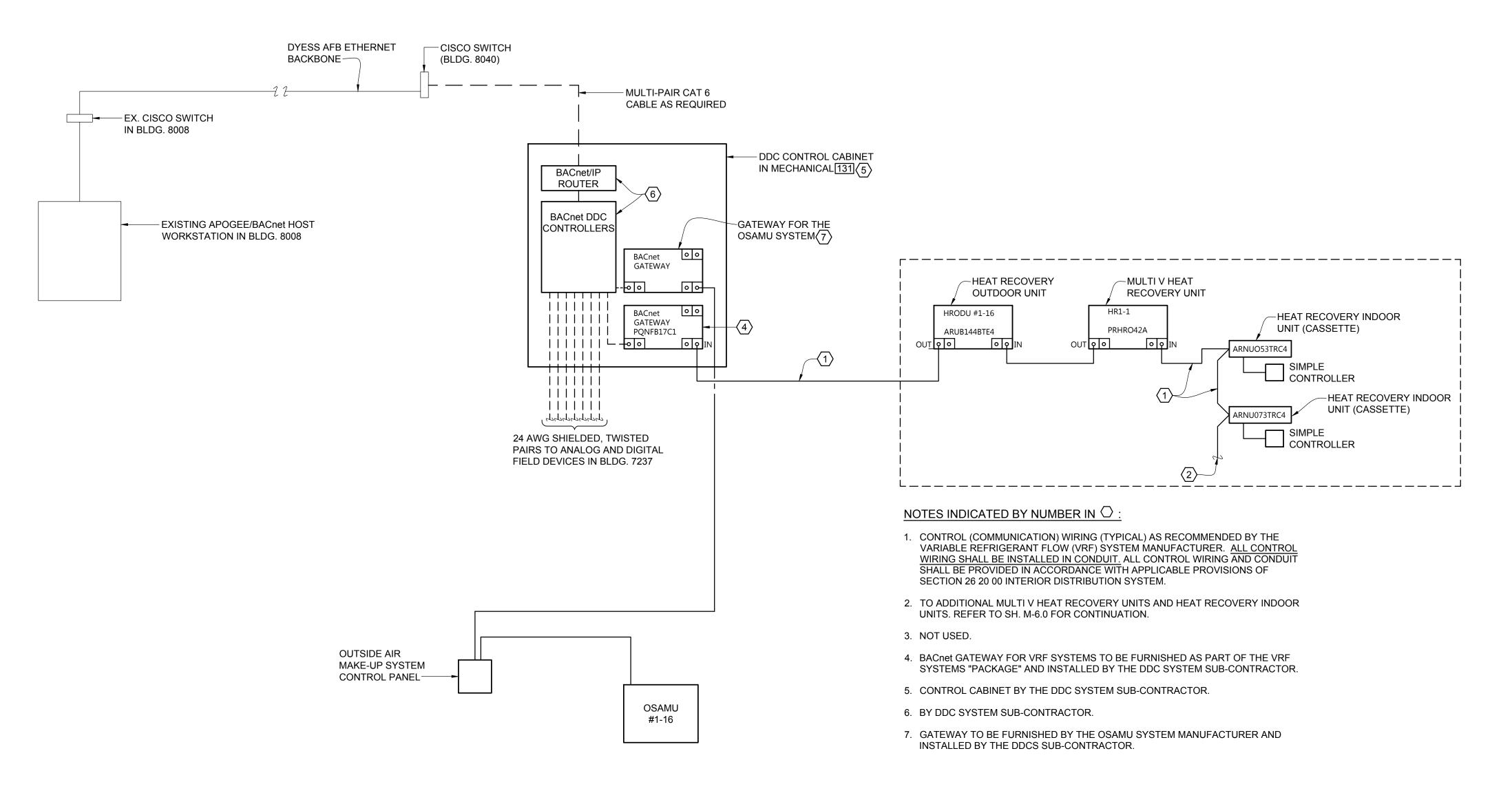
SEQUENCE NUMBER FNWZ 12-0053

Prepared for: 7th CES/CENM DYESS AFB, TX 79607 PROJECT NUMBER

DRAWING NUMBER FACILITY NUMBER

WTA-16016

WTA, INC.

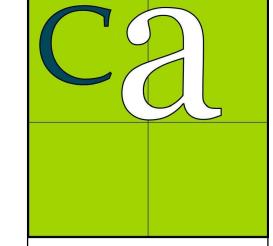


OSAMU SYSTEM AND VRF SYSTEM CONTROL ONE LINE WIRING DIAGRAM
SCALE: NONE



DYESS Air Force Base **TEXAS**

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SIGNATURE	OFFICE
COORDINATION	



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project Manager							
LGT	LGT							
Drafter	Date							
BDW	21 OCT 16							
REVISION	BY/DATE							
SHEET TITLE								
OSAMU SYSTEM AND VRV SYSTEM								
CONTROL ONI	E LINE WIRING							

M-6.1

PROJECT TITLE REPAIR MAINTENANCE SHOP, BLDG. 8040

PROJECT NUMBER

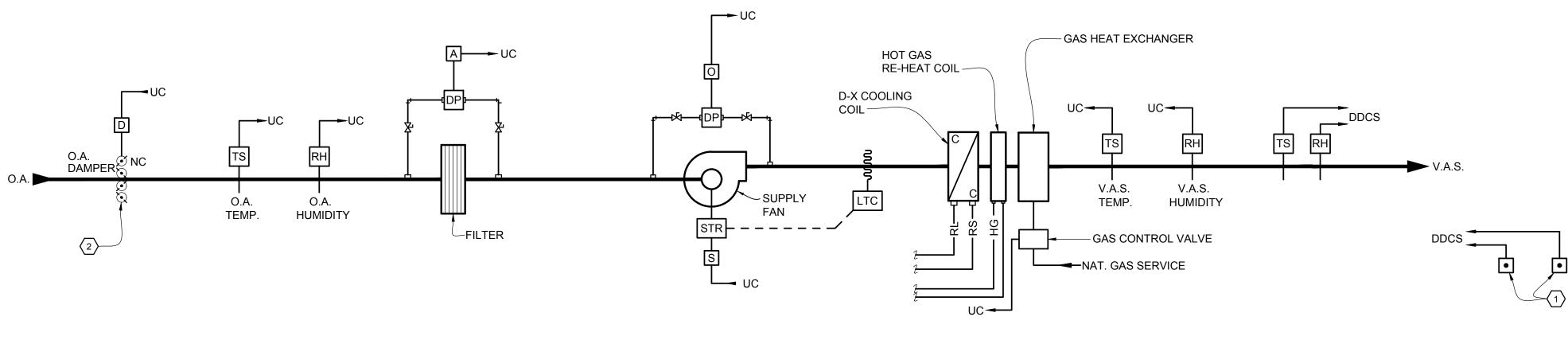
DIAGRAM

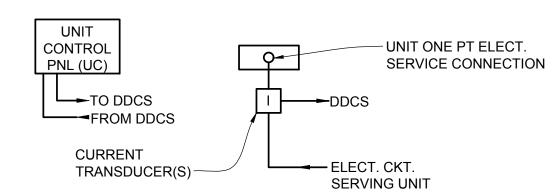
SEQUENCE NUMBER FNWZ 12-0053

Prepared for: 7th CES/CENM

WTA, INC.

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CONTROL DIAGRAM -OUTSIDE AIR MAKE-UP UNIT SCALE: NONE

C - LAST COMMAND O - ON (OPEN) DDCS INPUT/OUTPUT (I/O) SUMMARY F - OFF (CLOSED) H - HIGH VALUE L - LOW VALUE N - LOCAL LOOP HARDWARE SOFTWARE OUTPUT **INPUT** ALARMS APPLICATION PROGRAMS Analog Digital Analog Digital Analog SYSTEM OUTSIDE AIR MAKE-UP UNIT #1-16 GRAPHIC DISPLAY POINT DESCRIPTION OSAMU #1-16 - START/STOP STATUS - VENT AIR SUPPLY

NOTES INDICATED BY NUMBER IN 🔘 :

- ANTI TERRORISM EMERGENCY SHUTDOWN SWITCHES; TWO (2) THUS; ONE AT BLDG. FRONT ENTRY AND ONE AT BLDG. REAR ENTRY. REFER TO SHEET M-2 FOR LOCATION.
- 2. DAMPER TO BE PROVIDED IN OUTSIDE AIR DUCT' "UPSTREAM" FROM

. HOST WORKSTATION DISPLAY: UNIT CONTROLLER SHALL REPORT THE FOLLOWING TO DDCS FOR DISPLAY ON THE

APOGEE/BACnet HOST WORKSTATION IN BLDG. 8008.

SYSTEM OCCUPIED/UNOCCUPIED MODE.

(LEAVING) AIR TEMPERATURE SETPOINT.

(LEAVING) AIR RELATIVE HUMIDITY SETPOINT.

SYSTEM ON-OFF INDICATION.

OUTSIDE AIR TEMPERATURE. OUTSIDE AIR RELATIVE HUMIDITY. (LEAVING) AIR TEMPERATURE.

SUPPLY FAN STATUS.

SUPPLY FAN ON-OFF INDICATION.

(LEAVING) AIR RELATIVE HUMIDITY.

13. OUTSIDE AIR INTAKE DAMPER STATUS.

1. SYSTEM GRAPHIC.

12. FILTER LOADING.

Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

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COORDINATION

Designer	Project N	/lanager
LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DA

	REVISION	BY/D

SHEET TITLE

HVAC CONTROL DIAGRAMS

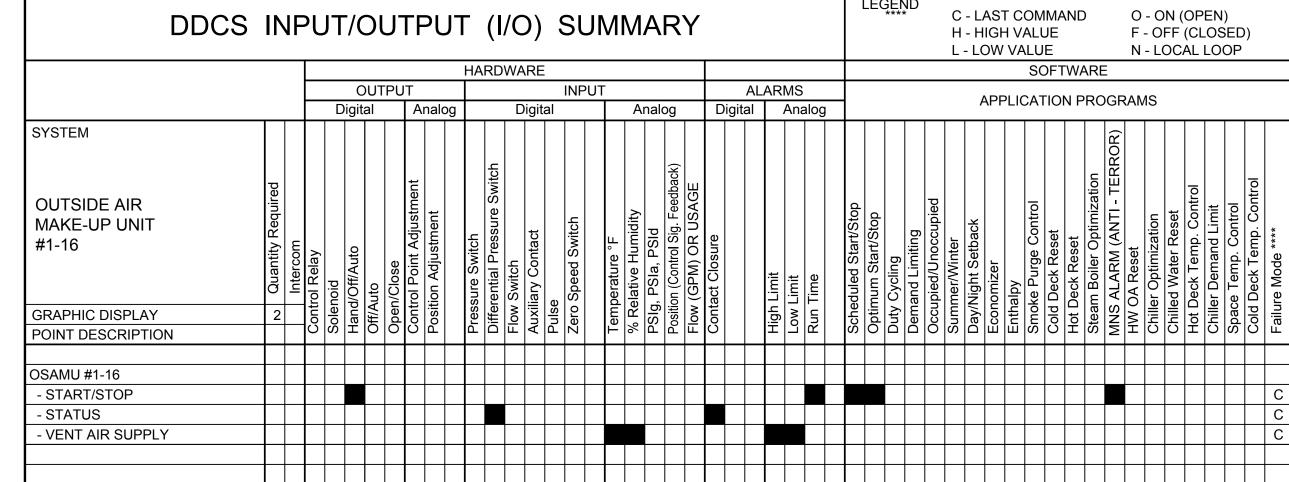
M-6.2PROJECT TITLE

REPAIR **MAINTENANCE** BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

Prepared for: 7th CES/CENM 710 THIRD ST

WTA, INC. LLOYD GARLAND TURNER 44724 WTA-16016

SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER | FACILITY NUMBER |



SEQUENCE OF OPERATION OUTSIDE AIR MAKE-UP UNIT #1-16

- A. THE OSAMU SYSTEM (AHU AND ACCU) SHALL BE ENABLED AND DISABLED BY THE DDCS THRU "ENABLE" AND "DISABLE" SIGNALS PROVIDED TO THE OSAMU'S CONTROL UNIT.
- B. THE OSAMU SYSTEM SHALL BE INTERLOCKED WITH THE VRF SYSTEM (REFER SH. M-5.4) SO THAT THE OSAMU SYSTEM RUNS WHEN THE VRF SYSTEM IS ENABLED.
- C. THE OSAMU SYSTEM MAY BE ENABLED INDEPENDENTLY OF THE VRF SYSTEM AT SUCH TIMES AS MAY BE SCHEDULED BY THE DDCS.
- D. WHEN ENABLED BY THE DDCS, THE CONTROL UNIT PROVIDED WITH THE OSAMU SYSTEM SHALL CONTROL THE OSAMU AS FOLLOWS:

1. FAN START/STOP:

SUPPLY FAN SHALL BE STARTED/STOPPED BY THE CONTROL UNIT.

2. OUTSIDE AIR DAMPERS:

OUTSIDE AIR DAMPER SHALL BE 2-POSITION, SPRING CLOSE. ANYTIME THE SUPPLY FAN IS ENERGIZED, THE DAMPER SHALL BE DRIVEN FULLY OPEN. ANYTIME, FAN STOPS, DAMPERS SHALL CLOSE.

3. COOLING CONTROLS:

A TEMPERATURE SENSOR (TS) SHALL BE PROVIDED IN THE SUPPLY AIR DUCT AT DISCHARGE OF UNIT. ANYTIME DISCHARGE AIR RISES ABOVE 75°F SETPOINT, REFRIGERANT FLOW TO THE D-X COOLING COIL SHALL BE MODULATED OPEN AS REQUIRED TO MAINTAIN THE SETPOINT.

4. HEATING CONTROLS:

WHEN DISCHARGE AIR TEMPERATURE DROPS BELOW 75°F, THE AUXILIARY GAS HEATER SHALL BE MODULATED TO MAINTAIN THE DISCHARGE AIR AS MONITORED BY TEMPERATURE SENSOR (TS) AT 75°F. WHEN DISCHARGE AIR TEMPERATURE RISES ABOVE 75°F, THE HEATER SHALL MODULATE TOWARD THE NO HEAT POSITION.

5. **HUMIDITY CONTROLS**:

A HUMIDITY SENSOR SHALL BE PROVIDED AT DISCHARGE OF THE OSAMU TO MONITOR HUMIDITY LEVEL. ANYTIME DISCHARGE AIR HUMIDITY LEVEL RISES ABOVE 60%, UNIT CONTROL SHALL ENERGIZE THE DEHUMIDIFICATION MODE TO MAINTAIN THE DISCHARGE AIR AT 50% RH.

6. FILTER LOADING:

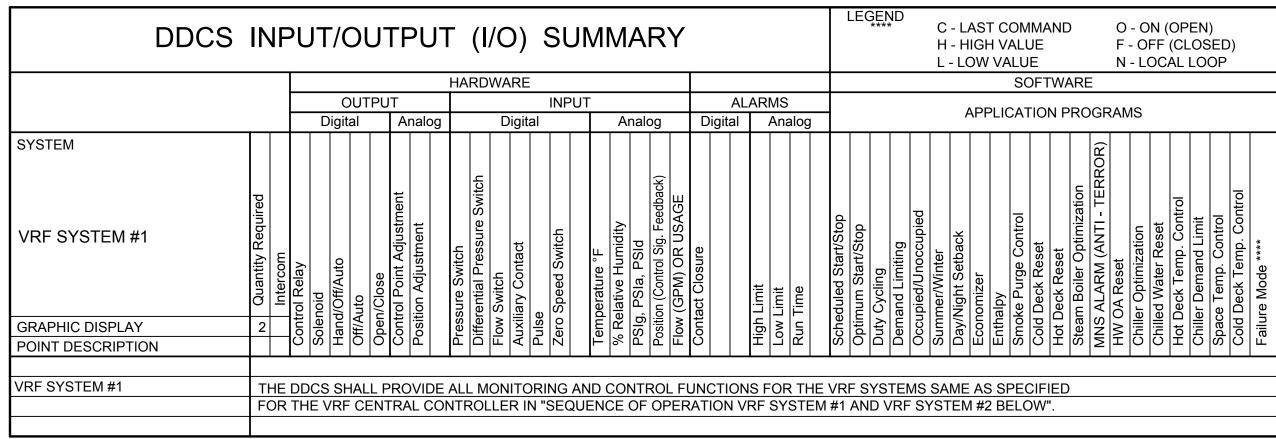
A DIFFERENTIAL PRESSURE TRANSDUCER SHALL BE PROVIDED TO MONITOR FILTER LOADING.

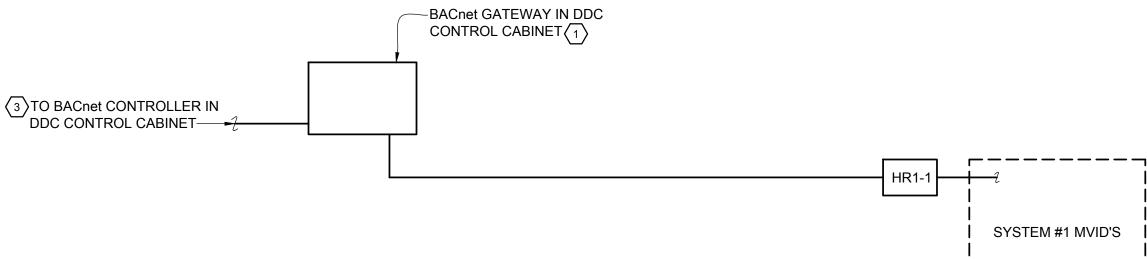
7 SAFETY SHUTDOWN:

WHEN BUILDING FIRE ALARM IS ACTIVATED, THE OSAMU SHALL BE SHUT DOWN BY AN INPUT TO THE UNIT CONTROL FROM THE DDCS.

8. ANTITERRORISM SHUTDOWN:

a. WHEN ACTIVATED BY SIGNAL FROM THE MNS (MASS NOTIFICATION SYSTEM) (SHALL ALSO SHUTDOWN VRF SYSTEM). b. WHEN ACTIVATED BY OPERATION OF MANUAL (ANTITERRORISM) HVAC SHUTDOWN SWITCH(ES) (SHALL ALSO SHUTDOWN VRF SYSTEM).







1. THIS ITEM TO BE FURNISHED AS PART OF THE VRF SYSTEM "PACKAGE" AND INSTALLED BY THE DDC SYSTEM SUB-CONTRACTOR

L____

SEQUENCE OF OPERATION VRF SYSTEM #1

VRF SYSTEM #1 AND VRF SYSTEM #2 SHALL BE ENABLED AND DISABLED BY THE DDCS OCCUPIED/UNOCCUPIED APPLICATION PROGRAM. SAID PROGRAM SHALL HAVE CAPABILITIES, FEATURES AND FUNCTIONS AS ARE TYPICALLY PROVIDED BY THE VRF SYSTEM MANUFACTURER'S CENTRAL CONTROLLER. SAID CAPABILITIES, FEATURES AND FUNCTIONS SHALL INCLUDE:

CAPABILITIES:

- REMOTE ADJUSTMENT OF EACH SPACE TEMPERATURE SETPOINT.
- REMOTE MONITORING OF ROOM/SPACE TEMPERATURE.
- REMOTE MONITORING OF STATUS OF ALL EQUIPMENT.
- MONITORING OF ALL ALARM CONDITIONS FOR THE VRF EQUIPMENT.

FEATURES:

- INDOOR UNIT CONTROL/MONITORING BY GROUPS/INDOOR UNITS
- OPERATION AND ERROR HISTORY LOG
- FORCED OFF DIGITAL INPUT

FUNCTIONS:

OPERATION - ON/OFF

LOUVER SWING

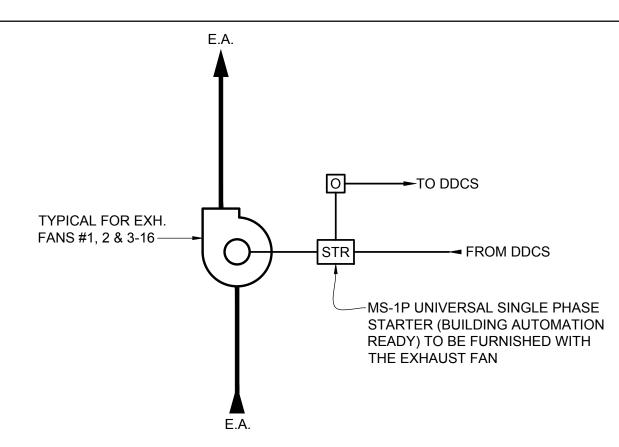
- MODE AUTO/COOL/DRY/HEAT/FAN ONLY SETPOINT
- FAN SPEED AUTO/LOW/MED/HIGH/POWER

ADVANCED FUNCTIONS:

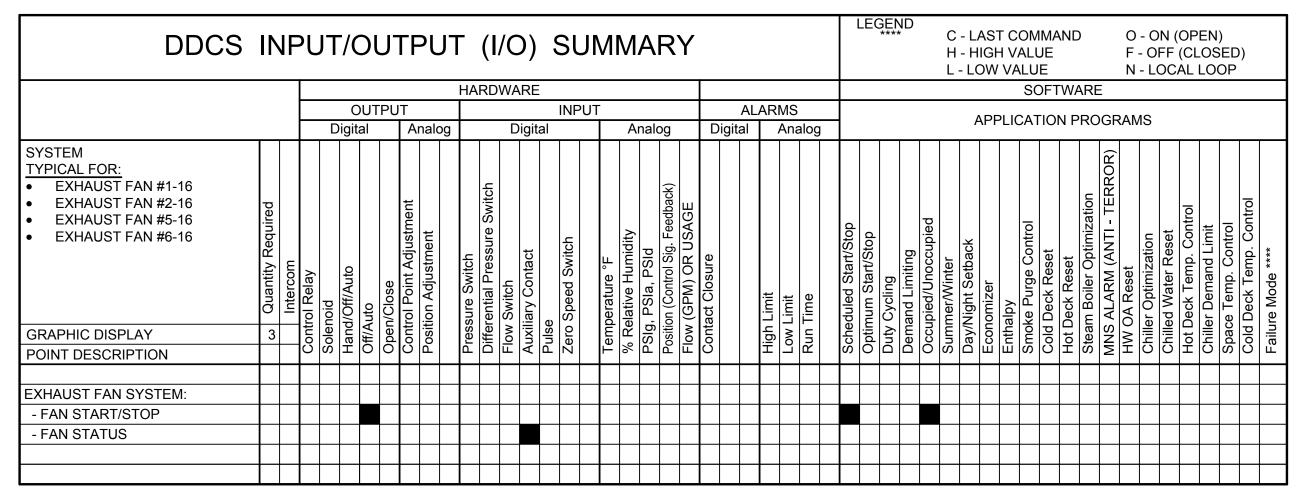
- TWO SETPOINT AUTO-CHANGEOVER
- TWO SETPOINT SETBACK
- 200 PROGRAMMABLE SCHEDULE EVENTS WITH CONTROL OF SETPOINT, ON/OFF, MODE, FAN SPEED, CONTROLLER LOCK, AND LOUVER SWING
- TEMPERATURE SETPOINT RANGE LIMIT
- REMOTE CONTROLLER LOCK (ALL, SETPOINT, MODE, FAN SPEED)
- RUN TIME LIMIT (UNOCCUPIED OVERRIDE)
- SOFTWARE DEVICE INTERLOCKING
- MANUAL CONTROL AND SCHEDULING OF DIGITAL OUTPUT KIT
- PEAK/DEMAND CONTROL
- VISUAL FLOOR PLAN NAVIGATION
- ERROR E-MAIL NOTIFICATION
- POWER DISTRIBUTION INDICATOR (PDI) (OPTIONAL)

THE SYSTEM SHALL ALSO HAVE ANTITERRORISM SHUTDOWN FEATURES AS FOLLOWS:

- THE SYSTEM SHALL BE SHUTDOWN BY THE MNS ANTI-TERRORISM APPLICATION PROGRAM (SHALL ALSO SHUT DOWN THE OSAMU SYSTEM)
- THE SYSTEM SHALL BE SHUTDOWN BY OPERATION OF MANUAL (ANTITERRORISM) EMERGENCY SHUTOFF SWITCH(ES). (SHALL ALSO SHUT DOWN THE OSAMU SYSTEM).



CONTROL DIAGRAM, TYPICAL FOR EXHAUST FANS #1, 2, 5 & 6-16



SEQUENCE OF OPERATION EXHAUST FANS #1, 2, 5 & 6-16

EXHAUST FANS #1, 2 & 3-16 SHALL BE STARTED AND STOPPED PER THE DDCS OCCUPIED/UNOCCUPIED APPLICATION PROGRAM. OCCUPIED/UNOCCUPIED TIMES SHALL BE THE SAME AS THE SCHEDULED OCCUPIED/UNOCCUPIED TIMES FOR VRF SYSTEMS. THE FAN MAY BE STARTED AND AT OTHER TIMES AS MAY BE SCHEDULED IN THE SCHEDULED START/STOP PROGRAM.

DDCS NOTES:

- ALL CONTRACT REQUIREMENTS OF SECTION 23 09 23.13 20 BACnet DIRECT DIGITAL CONTROL SYSTEMS SHALL BE ACCOMPLISHED DIRECTLY BY A FIRST TIER SUBCONTRACTOR. NO WORK REQUIRED SHALL BE ACCOMPLISHED BY A SECOND TIER SUBCONTRACTOR. THE PRIME CONTRACTOR SHALL HIRE THE DDCS SUBCONTRACTOR DIRECTLY AS OPPOSED TO BEING HIRED BY THE MECHANICAL SUBCONTRACTOR.
- ALL HARDWARE AND SOFTWARE FOR THE HVAC DDCS SHALL BE INSTALLED, WIRED, PROGRAMMED, BE MADE OPERATIONAL, AND MAINTAIN SPACE TEMPERATURE CONTROL OF THE HEATING AND COOLING SYSTEM TO COINCIDE WITH COMPLETION OF INSTALLATION OF THE HVAC AIR HANDLING. REFRIGERATION, HEATING, AND PIPING EQUIPMENT; AND PRIOR TO BENEFICIAL OCCUPANCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF EFFORT BETWEEN THE USING ORGANIZATION, 7CES, AND 7COMM TO INSURE CONNECTIVITY IS AVAILABLE AT BOTH THE FACILITY AND AT THE 7CES HOST WORKSTATION SUCH THAT THERE IS NO DELAY IN MEETING THE ABOVE OPERATIONAL REQUIREMENT TIMELINE. SHOULD, FOR ANY REASON, CONNECTIVITY NOT BE AVAILABLE AT THE FACILITY OR AT 7CES TO MEET THE ABOVE OPERATIONAL REQUIREMENT TIMELINE, THE CONTRACTOR SHALL UPLOAD THE CONTROL SOFTWARE BY LAPTOP DIRECTLY TO THE DDCS CONTROL PANEL; AND ADJUST THE PROGRAMMING SUCH THAT THE HVAC CONTROL SYSTEM BE OPERATIONAL AT THE FACILITY TO MAINTAIN SPACE TEMPERATURE CONTROL. THE GRAPHICAL INTERFACE SOFTWARE SHALL SUBSEQUENTLY BE UPLOADED BY THE CONTRACTOR AT NO COST TO THE GOVERNMENT AT THE 7CES HOST WORKSTATION WHEN THE CONNECTIVITY BECOMES AVAILABLE.
- BACnet INTERFACE: A NEW BACnet DIRECT DIGITAL CONTROL SYSTEM INTERFACE SHALL BE PROVIDED. THE SYSTEM SHALL BE COMPATIBLE WITH THE EXISTING BACNET ENERGY MANAGEMENT CONTROL SYSTEM. DESIGN HVAC CONTROLS IN ACCORDANCE WITH UFGS SPECIFICATIONS; AND FOR CONNECTION TO THE EXISTING BACNET GRAPHICAL HOST WORKSTATION LOCATED IN HVAC SHOP, BLDG 8008 THROUGH AN IP/LON ROUTER OVER THE DYESS AFB ETHERNET BACKBONE. THE EXISTING BACnet HOST WORKSTATION SHALL BE PROGRAMMED TO MONITOR THE STATUS; DISPLAY A GRAPHICAL PICTURE OF EACH SYSTEM COMPONENT WITH REAL TIME ANALOG DATA; PROVIDE HISTORICAL DATA STORAGE OF ALL TROUBLE / ALARM CONDITIONS AND ANALOG VALUES MONITORED.
- THE EXISTING BACnet HOST WORKSTATION SHALL BE CAPABLE OF REMOTELY ADJUSTING EACH SPACE TEMPERATURE SETPOINT; AND TO REMOTELY MONITOR ROOM TEMPERATURES AND THE STATUS, ALARM CONDITIONS OF ALL EQUIPMENT TO INCLUDE THE DAIKIN SYSTEM EQUIPMENT IN EACH
- HEATING, VENTILATING, AND AIR CONDITIONING:
- a. A FREEZESTAT SHALL BE PROVIDED IN THE INTAKE OF THE EACH MAKE-UP AIR HANDLING UNIT (MAU) TO DIRECTLY SHUT DOWN THE UNIT FAN AND CLOSE THE OUTSIDE AIR DAMPERS WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 32 DEG F. A SUPPLY AIR TEMPERATURE SENSOR IN THE SUPPLY AIR DISCHARGE OF THE MAKE-UP AIR HANDLING UNIT (MAU) SHALL ALSO BE

- PROGRAMMED TO SHUT DOWN THE UNIT FAN; AND CLOSE THE OUTSIDE AIR DAMPERS WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 32 DEG F TO PREVENT THE COILS FROM FREEZING.
- HVAC SYSTEM SHALL BE EQUIPPED WITH AUTOMATIC RESET FOR THE EACH AIR HANDLING UNIT SUPPLY AIR TEMPERATURE IN RESPONSE TO REPRESENTATIVE BUILDING LOADS OR TO OUTSIDE AIR TEMPERATURE.
- SEQUENCE OF OPERATION: EACH NEW MVID UNIT IN BUILDING SHALL BE CONTROLLED BY A NEW WALL MOUNTED CONTROLLER WITH OCCUPANCY SENSOR. THE CONTROLLER SHALL INCORPORATE AN MVID MODE SWITCH. THE SMART ENERGY CONTROLLER SHALL CONTROL SPACE TEMPERATURE +/-1 F DEG AND INCORPORATE A +/-3 F DEG HEATING/COOLING DEADBAND IN WHICH NEITHER HEATING OR COOLING IS INITIATED. THE SMART ENERGY SYSTEM SHALL BE PROGRAMMED TO MINIMIZE ENERGY CONSUMPTION BY LEARNING THE DAY-TO-DAY OCCUPANCY PATTERNS OF THE ROOM; ADJUSTING THE SETBACK POINT FOR VARYING OCCUPANCY PERIODS; AND RECOVERING IN ADVANCE OF THE EXPECTED OCCUPANT ARRIVAL TO REDUCE TIME SPENT COOLING OR HEATING UNOCCUPIED
- 7. COMMISSIONING: USE UFGS 23 08 00.00 10 COMMISSIONING OF HVAC SYSTEMS TO PROVIDE GUIDELINES FOR COMMISSIONING. CONTROL SYSTEMS SHALL BE TESTED TO ENSURE THAT CONTROL ELEMENTS ARE CALIBRATED, ADJUSTED, AND IN PROPER WORKING CONDITION. DETAILED INSTRUCTIONS AND CHECKLISTS SHALL BE PROVIDED FOR EACH PIECE OF HVAC EQUIPMENT BY THE DESIGNER IN THE COMMISSIONING SPECIFICATIONS.
- 8. REFER TO SECTION 23 09 23.13 20 BACnet DIRECT DIGITAL CONTROL SYSTEMS FOR HVAC FOR ADDITIONAL INFORMATION AND REQUIREMENTS



WTA-16016

PROJECT TITLE Prepared for 7th CES/CENM 710 THIRD ST DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053

MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DRAWING NUMBER FACILITY NUMBER

HVAC CONTROL

DIAGRAMS

M-6.3

REPAIR

DYESS

Air Force

Base

TEXAS

APPROVED

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981 Southpark Dr.

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LGT

BDW

SHEET TITLE

REVISION

Drafter

Project Manager

LGT

21 OCT 16

BY/DATE

HARDWARE LEGEND

CONTROL RELAY	_ MOTOR STARTER CONTACTOR OR STARTER CONTROL RELAY
HAND/OFF/AUTO	— HAND/OFF/AUTO HEAVY DUTY, OIL TIGHT CONTROL SWITCH MOUNTED ON THE DDC PANEL ENCLOSURE DOOR
OFF/AUTO	$_$ OFF/AUTO HEAVY DUTY, OIL TIGHT CONTROL SWITCH MOUNTED ON THE DDC PANEL ENCLOSURE DOOR
FLOW (GPM) OR USAGE	$_$ FLUID FLOW IN GALLONS PER MINUTE, OR KILOWATT DEMAND OR GAS FLOW IN CUBIC FEET PER HOUR
POSITION	VALVE OR DAMPER POSITION
BOILER TRIP	BOILER TRIP AUXILIARY CONTACT
HIGH LIMIT	HIGH LIMIT DEVICE CONTACT
LOW LIMIT	_ LOW LIMIT DEVICE CONTACT
ANALOG INPUT	MEASURED PROPERTY SUCH AS TEMPERATURE, FLOW OR PRESSURE ACCEPTED BY THE DDC SYSTEM AND CONVERTED TO A DIGITAL QUANTITY
ANALOG OUTPUT	MEASURED PROPERTY SUCH AS TEMPERATURE, FLOW OR PRESSURE CONVERTED FROM A DIGITAL QUANTITY BY THE DDC SYSTEM TO AN ANALOG VALUE
DIGITAL INPUT	MOMENTARY OR MAINTAINED VOLTAGE LEVEL OR DEVICE CONTACT CHANGE OF STATE ACCEPTED BY THE DDC SYSTEM
DIGITAL OUTPUT	$_$ MOMENTARY OR MAINTAINED VOLTAGE LEVEL OR DDC CONTACT CHANGE OF STATE GENERATED BY THE DDC SYSTEM

APPLICATION SOFTWARE LEGEND

SCHEDULED START/STOP	STARTING AND STOPPING EQUIPMENT IN ACCORDANCE WITH PROGRAMMED SCHEDULE
OPTIMUM START/STOP	OPTIMUM START/STOP USES PREDICTION TECHNIQUES TO AUTOMATICALLY START THE SYSTEM AT THE LATEST POSSIBLE TIME AND STOP THE SYSTEM AT THE EARLIEST POSSIBLE TIME BY TAKING INTO ACCOUNT THE THERMAL INERTIA OF THE STRUCTURE
DUTY CYCLING	STOPPING EQUIPMENT FOR PREDETERMINED SHORT PERIODS OF TIME DURING NORMAL OPERATING HOURS TO SAVE ENERGY ASSUMING THE BUILDING HAS ENOUGH THERMAL STORAGE CAPACITY TO OVERCOME SLIGHT TEMPERATURE DRIFT DURING THE SHUTDOWN
DEMAND LIMITING	SHEDDING ELECTRICAL LOADS TO PREVENT ELECTRICAL DEMAND FROM EXCEEDING A PEAK VALUE DETERMINED BY CALCULATING THE RATE OF CHANGE OF THE MEASURED INSTANTANEOUS KW VALUE
SUMMER/WINTER	ACTIVATES AND DE-ACTIVATES HEATING EQUIPMENT ON SCHEDULED SEASONAL BASIS
DAY/NIGHT SETBACK	DAY/NIGHT SETBACK IS THE LOWERING OF THE HEATING OR RAISING OF THE COOLING SPACE TEMPERATURE SETPOINT DURING THE UNOCCUPIED HOURS TO SAVE ENERGY
HUMIDITY	CONTROLS HUMIDIFIER, COLD DECK AND BY-PASS DAMPERS, AND ZONE DUCT RE-HEAT COILS TO MAINTAIN SPACE HUMIDITY AT A SET POINT
SPACE TEMPERATURE CONTROL	CONTROLS THE OPERATION OF THE MULTIZONE AIR HANDLING UNITS' DISCHARGE DAMPERS (AND ZONE DUCT RE-HEAT COILS WHERE APPLICABLE) TO MAINTAIN SPACE TEMPERATURE AT A SET POINT
HEATING WATER SYSTEM CONTROL	CONTROLS BOILER AND HEATING WATER PUMP
COLD DECK TEMPERATURE CONTROL	CONTROLS COLD DECK BY ADJUSTMENT OF COIL CONTROL VALVE TO MAINTAIN PROGRAMMED LEAVING AIR TEMPERATURE
TOTAL ENERGY	CALCULATES AND STORES ENERGY USAGE (KWH OR MCF) BY EQUIPMENT
HW OA RESET	HEATING WATER - OUTSIDE AIR RESET RESETS HEATING WATER SUPPLY TEMPERATURE IN ACCORDANCE WITH THE "HOT WATER SUPPLY RESET SCHEDULE"
HOT/COLD DECK RESET	RESETS HOT AND/OR COLD DECK LEAVING AIR TEMPERATURES
REHEAT COIL TEMPERATURE CONTROL	CONTROLS REHEAT COIL CONTROL VALVE TO MAINTAIN SPACE SET POINT TEMPERATURE AND SPACE SET POINT HUMIDITY (IN CONJUNCTION WITH HUMIDIFIER CONTROL)
HOT DECK TEMPERATURE CONTROL	CONTROLS HOT DECK BY ADJUSTMENT OF COIL CONTROL VALVE TO MAINTAIN PROGRAMMED LEAVING AIR TEMPERATURE
GRAPHIC DISPLAY	VIEWS OF MECHANICAL AND ELECTRICAL SYSTEMS OR BUILDING SCHEMATICS WITH ANALOG AND DIGITAL INPUT OR CALCULATED VALUES DISPLAYED ON A HOST CRT
PRINTER LOG	DDC SYSTEM INPUT VARIABLES LOGGED OVER USER DEFINED TIME INTERVALS AND PRINTED AS ALARM OR HISTORICAL DATA REPORT
FAILURE MODE	FAILURE MODE, REFER TO "FAILURE MODE LEGEND" ON "DDCS INPUT/OUTPUT (I/O) SUMMARY"

AIR COOLED CONDENSING UNIT SCHEDULE																		
ACCU NO.	TOTAL CFM	MIN. O.A.				O.A. TEMP. @ COND.	ENT. AIR TEMP.	ENT. AIR TEMP.		COND. FLA	CIVII	ELECTRICAL		HEATING	MANUF./MODEL		WEIGHT	REMARKS
NO.	CFIVI	CFM	PRES.	(MBTUH)	(MBTUH)	@ COND.	(°F DB)	(°F WB)	RLA	FLA	FLA	CHARAC.	INPUT	OUTPUT BTUH		EER	LBS.	
ACCU #1-16	N/A	N/A	N/A	86.6	N/A	105	NA	N/A			30	208V, 3Ø	N/A	N/A	YORK YC090C00A2AAA4	-	390	1, 3
ACCU #2-16	N/A	N/A	N/A	53.5	N/A	105	NA	N/A			17	208V, 3Ø	N/A	N/A	YORK TCD60B315	13.75	205	2

- 1. SCROLL COMPRESSORS WITH CRANKCASE HEATER, SINGLE REFRIGERATION CIRCUIT, LIQUID LINE DRYERS, INHERENTLY PROTECTED FAN MOTORS, LOW AMBIENT TO 40°F, ANTI-SHORT CYCLE PROTECTION, LEAD-LAG, LOW VOLTAGE PROTECTION, ON BOARD DIAGNOSTIC AND FAULT CODE DISPLAY.
- 2. SCROLL COMPRESSOR, LIQUID LINE FILTER DRYER, INTERNALLY PROTECTED CONDENSER FAN MOTOR.
- 3. PROVIDE FAN GUARDS.

AIR HANDLING UNIT SCHEDULE																			
	AHU NO.	TOTAL CFM	MIN. O.A. CFM	EXTERNAL STATIC PRES.	TOTAL COOLING (MBTUH)	SENSIBLE COOLING (MBTUH)	O.A. TEMP. @ COND.	ENT. AIR TEMP. (°F DB)	ENT. AIR TEMP. (°F WB)	COMPR. FLA	COND. FLA	TOTAL UNIT FLA	ELECTRICAL CHARAC.	ELECTRIC INPUT	OUTPUT BTUH	MANUF./MODEL	SEER/ EER	WEIGHT LBS.	REMARKS
	AHU #1-16		250	0.30	86.6	61.0	N/A	80	67	N/A	N/A	44	208V, 3Ø	12.0 KW	40,900	YORK NC090C00B6AAA2	N/A	524	1
ſ	AHU #2-16	1890	250	0.54	53.5	41.3	N/A	80	67	N/A	N/A		208V, 3Ø	10.8 KW	36,900	YORK MX20DN21	N/A	77	2

NOTES:

- 1. SINGLE CIRCUIT REFRIGERATION, ADJUSTABLE BALANCED PORT TXV15, 1.5 HP MOTOR AND ADJUSTABLE SHEAVE BELT DRIVE, FILTER RACK TO ACCEPT 2" OR 4" THROW AWAY FILTERS, 60A, 208V, 3Ø DISCONNECT SWITCH.
- 2. DIRECT DRIVE BLOWER WITH STANDARD ECM MOTOR.

DIRECT DIGITAL CONTROL SYSTEM (DDCS) SYMBOL LEGEND

SYMBOL	DESCRIPTION
	LOCAL LOOP CONTROL INTERLOCK
DDCS	SIGNAL TRANSMITTED TO DDCS CONTROL PANEL
→ DDCS	SIGNAL RECEIVED FROM DDCS CONTROL PANEL
→ UC	SIGNAL TRANSMITTED TO (EQUIPMENT) CONTROLLER
UC □	SIGNAL RECEIVED FROM (EQUIPMENT) CONTROLLER
A	ALARM CONTACT SIGNAL
0	ON-OFF STATUS SIGNAL
DP	DIFFERENTIAL PRESSURE SWITCH/TRANSDUCER
R	RESET INTERFACE SIGNAL
S	START-STOP INTERFACE SIGNAL
Т	TEMPERATURE SENSOR
STR	MOTOR STARTER
E.A.	EXHAUST AIR
S.A.	SUPPLY AIR
R.A.	RETURN AIR
O.A.	OUTSIDE AIR
M.A.	MIXED AIR
CHW HW	CHILLED WATER HOT WATER
WB	WET BULB
DB	DRY BULB
OAD	OUTSIDE AIR DAMPER
RAD	RETURN AIR DAMPER
MZD	MULTI-ZONE DAMPER
RH	RELATIVE HUMIDITY
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
VAS	VENTILATION AIR (SUPPLY)
VAR	VENTILATION AIR (RETURN)
ØQØQ	AUTOMATIC DAMPER
D	DAMPER ACTUATOR
E==3FD	FIRE DAMPER
SD	SMOKE DETECTOR, DUCT MOUNTED
RH	HUMIDITY SENSOR
M X	CONTROL VALVE (3-WAY), MODULATING TYPE
	CONTROL VALVE (2-WAY), MODULATING TYPE
TS —	TEMPERATURE SENSOR (PIPE OR DUCT MOUNTED AS INDICATED)
FS —	FLOW SWITCH, PIPE MOUNTED
LTC —	LOW TEMPERATURE CUTOUT
CR—	CONTROL RELAY
НОА	HAND-OFF-AUTO OR OFF-AUTO
F	FLOW TRANSMITTER
М	METER/TRANSMITTER
I	SPLIT CORE 4-20mA OUTPUT LOOP POWERED CURRENT TRANSDUCER (WATTS AND WATT-HOURS CALCULATED BY DDCS)
\propto	FLOW LINE PRESSURE SENSOR (DUCT MOUNTED)
VFD	VARIABLE FREQUENCY DRIVE
STP	STATIC PRESSURE SENSOR



DYESS Air Force Base

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Project Manager

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M-6.4PROJECT TITLE

SEQUENCE OF OPERATION

REPAIR Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607

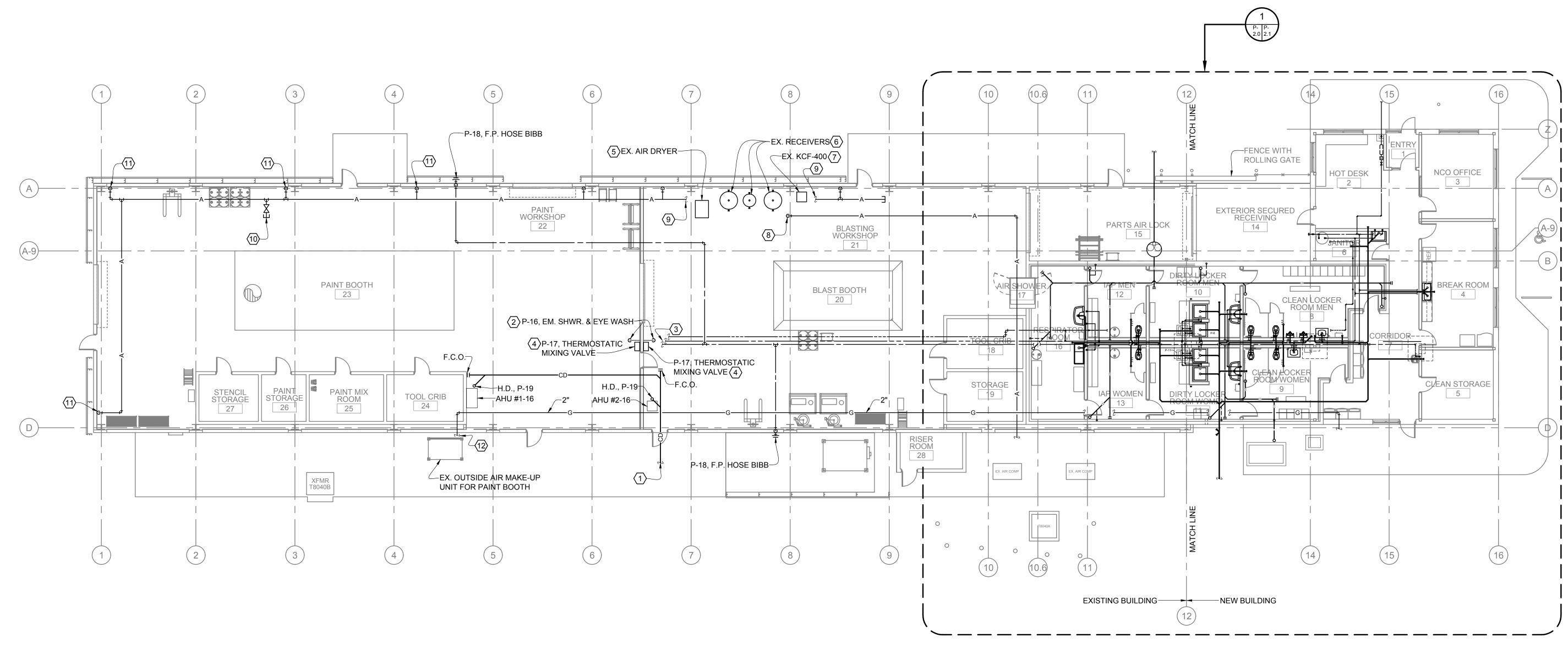
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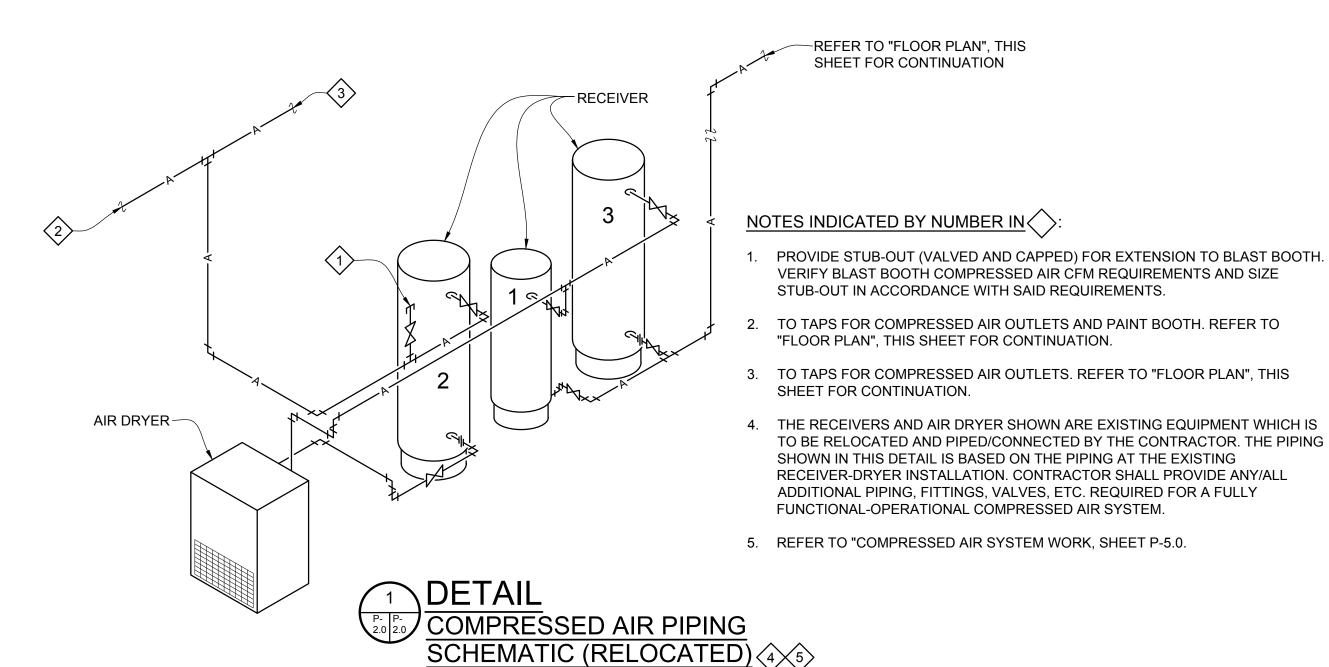
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WTA-16016

WTA, INC.

SEQUENCE NUMBER FNWZ 12-0053





PLUMBING FLOOR PLAN

NOTES INDICATED BY NUMBER IN ():

- 1. EXTEND TO STORM SEWER. REFER TO SH. MPE-1.0 FOR CONTINUATION.
- 2. REFER TO DETAIL 3/P-4.0.
- 3. EXTEND TO THERMOSTATIC MIXING VALVE IN CABINET. PROVIDE ALL PIPING, FITTINGS AND RELATED WORK AS REQUIRED FOR SERVICE TO MIXING VALVES AND CONNECTION TO EMERGENCY SHOWERS AND EYEWASHES.
- 4. MOUNT THERMOSTATIC MIXING VALVE CABINET ON WALL ADJACENT TO EMERGENCY SHOWER AND EYEWASH.
- 5. RELOCATE EXISTING AIR DRYER TO THIS LOCATION. REFER TO SH. MPE-1.2 FOR EXISTING LOCATION.
- 6. RELOCATE EXISTING RECEIVERS TO THIS LOCATION. REFER TO SH. MPE-1.2 FOR EXISTING LOCATION.
- 7. RELOCATE EXISTING KCF-400 TO THIS LOCATION. REFER TO SH. MPE-1.2 FOR EXISTING LOCATION.
- 8. TURN COMPRESSED AIR LINE (FROM COMPRESSORS) DOWN AND EXTEND TO RECEIVERS. REFER TO DETAIL 1/P-2.0 FOR CONTINUATION.
- 9. REFER TO DETAIL 1/P-2.0 FOR CONTINUATION.
- 10. PROVIDE STUB-OUT (VALVED AND CAPPED) FOR EXTENSION TO PAINT BOOTH. VERIFY PAINT BOOTH COMPRESSED AIR CFM REQUIREMENTS AND SIZE STUB-OUT IN ACCORDANCE WITH SAID REQUIREMENTS.
- 11. DROP FOR COMPRESSED AIR OUTLET. PROVIDE 7/8" (O.D.) ALUMINUM LINE FROM MAIN LINE DOWN WALL, TYPICAL. TERMINATE AND CAP 7/8" LINE 48" A.F.F. VALVE FITTINGS, FILTER, ETC. FOR OUTLET ARE N.I.C.
- 12. CONNECT NEW GAS LINE TO OUTSIDE AIR MAKE-UP UNIT IN SAME MANNER THAT THE PREVIOUS LINE (TO BE DEMOLISHED UNDER THIS PROJECT) WAS CONNECTED TO THE UNIT.

REFER TO SHEET P-5.0 FOR "COMPRESSED AIR SYSTEM WORK".

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COORDINATION

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Project Manager LGT LGT BDW 21 OCT 16 REVISION BY/DATE SHEET TITLE PLUMBING FLOOR PLAN

P-2.0

REPAIR

MAINTENANCE

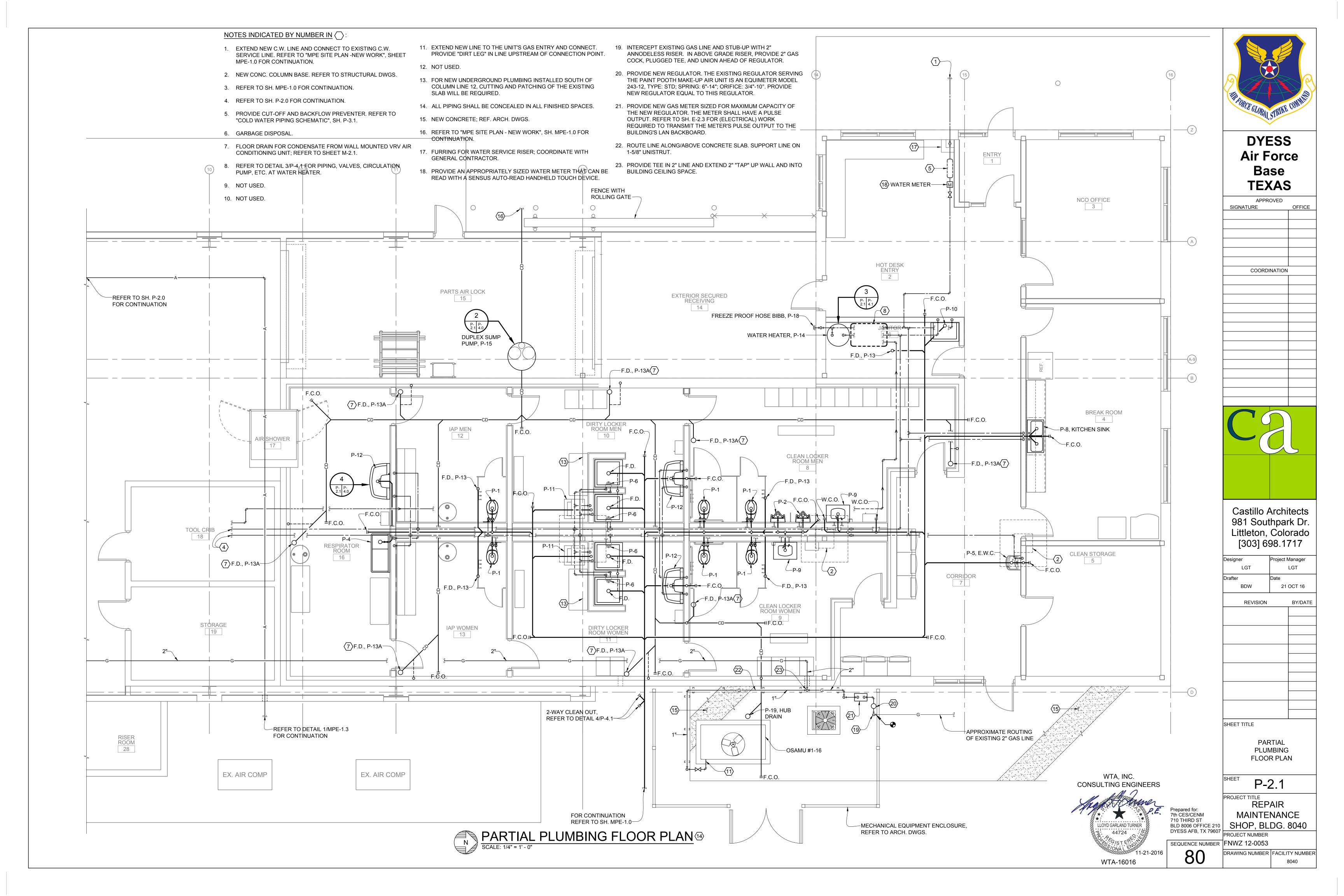


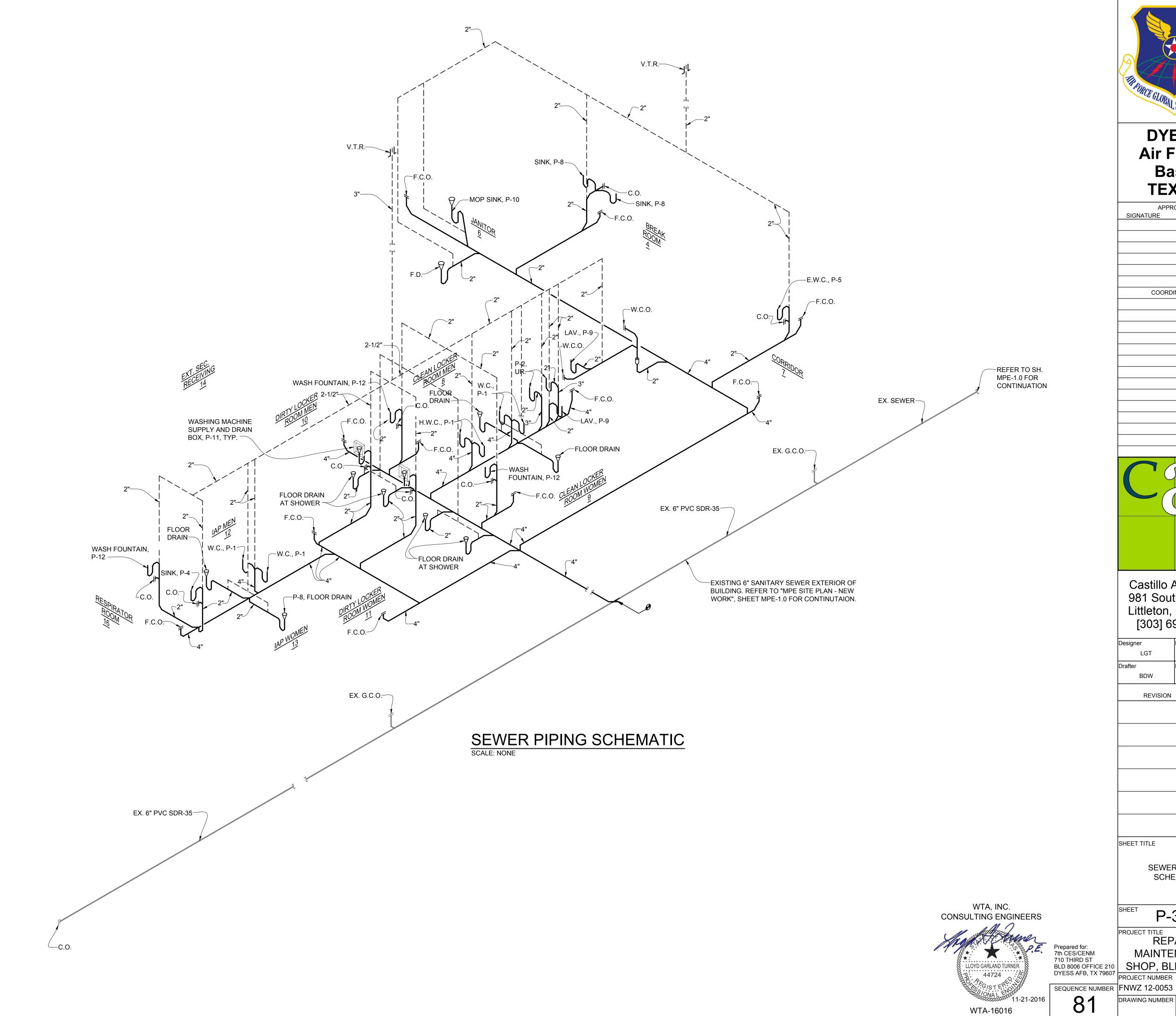
PROJECT TITLE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607

7th CES/CENM 710 THIRD ST

PROJECT NUMBER

SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER FACILITY NUMBER

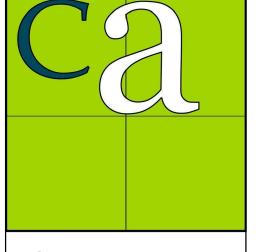






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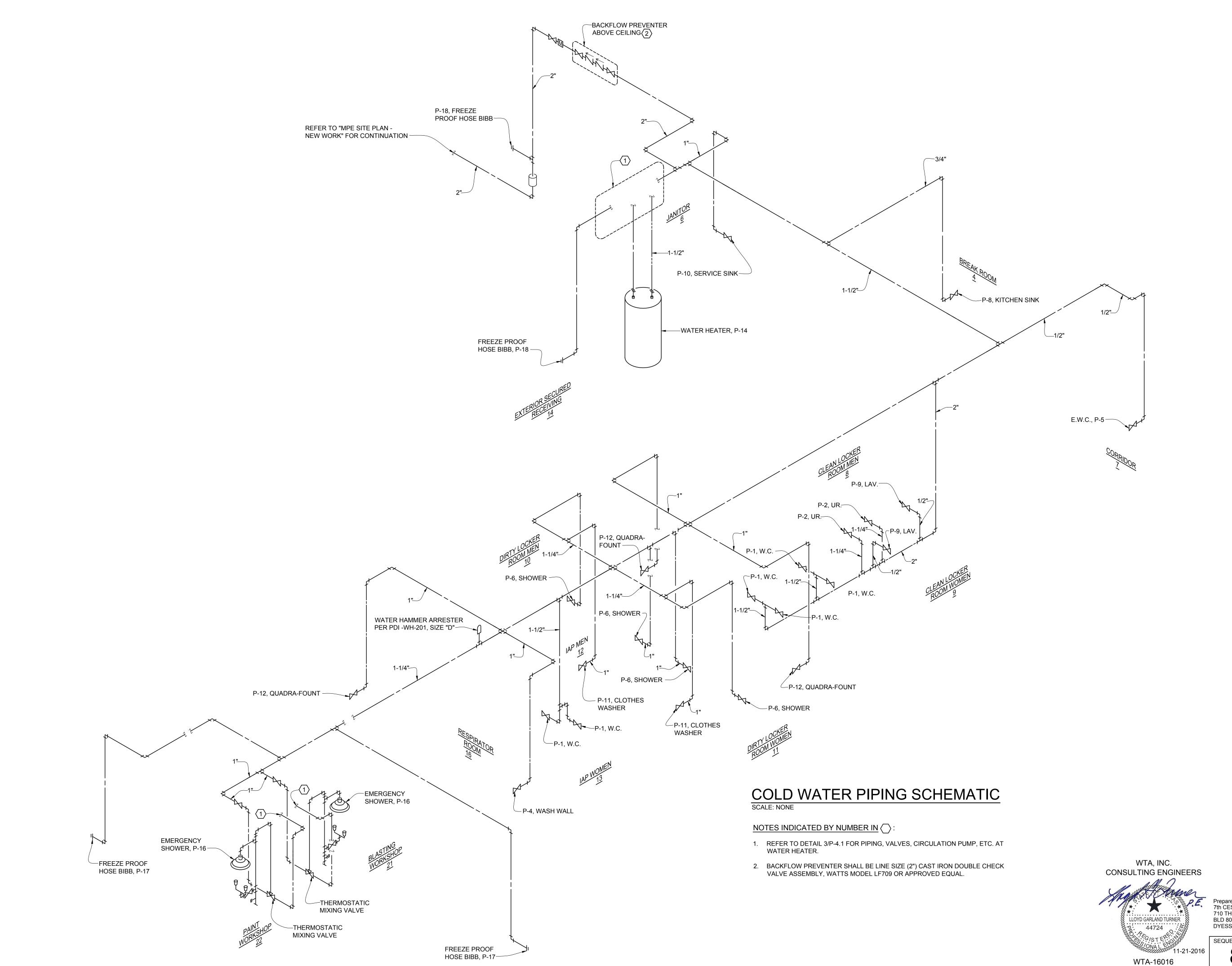
SEWER PIPING SCHEMATIC

P-3.0

PROJECT TITLE
REPAIR Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607

PROJECT NUMBER

12 0052





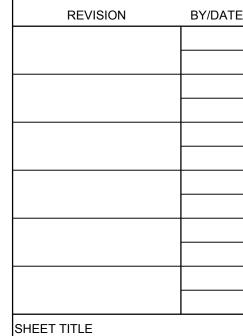
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REVISION		BY/DATE

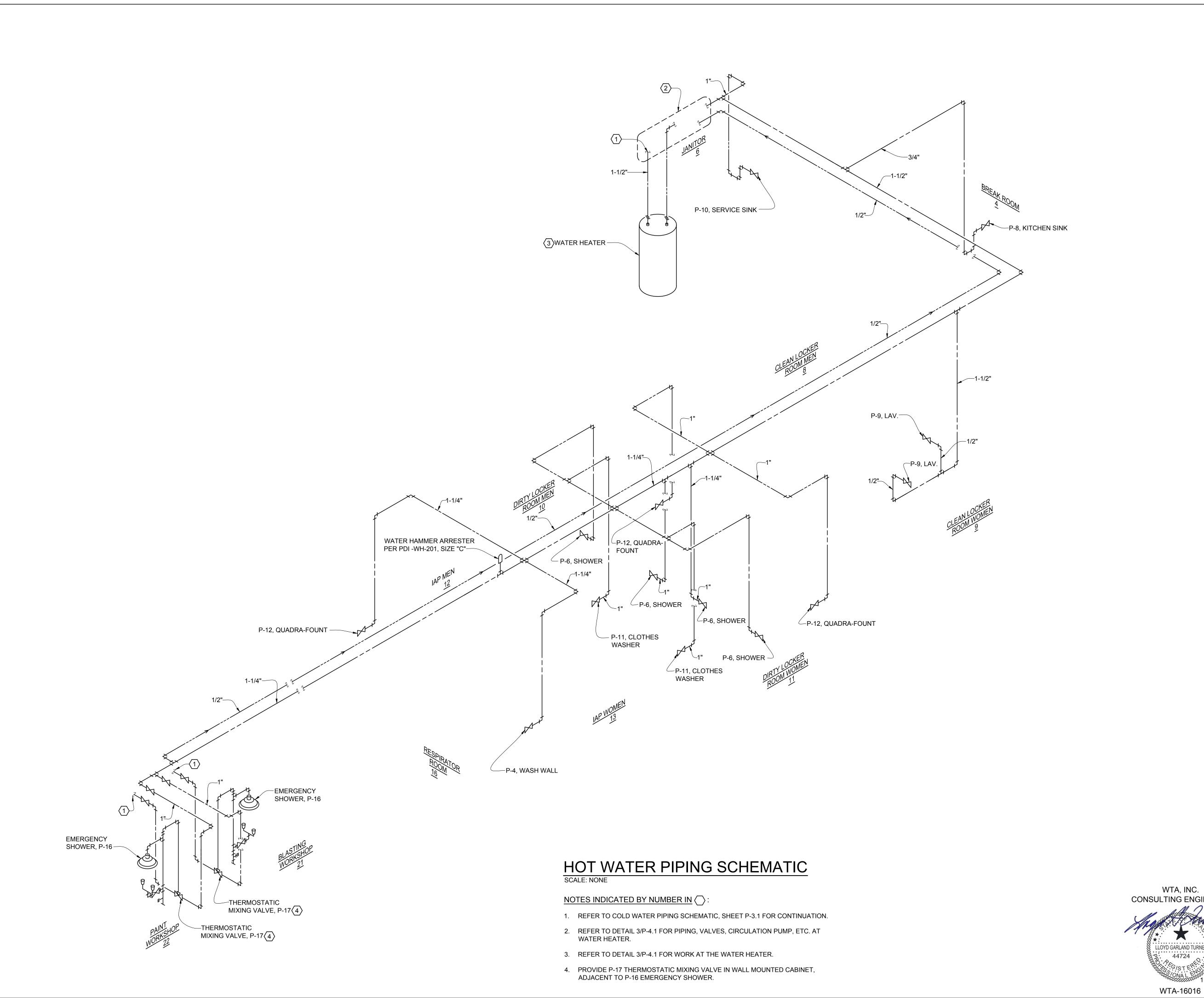


COLD WATER PIPING SCHEMATIC

P-3.1

PROJECT TITLE REPAIR Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607
PROJECT NUMBER

SEQUENCE NUMBER FNWZ 12-0053 82





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REVISION		BY/DATE

SHEET TITLE

HOT WATER PIPING SCHEMATIC

P-3.2

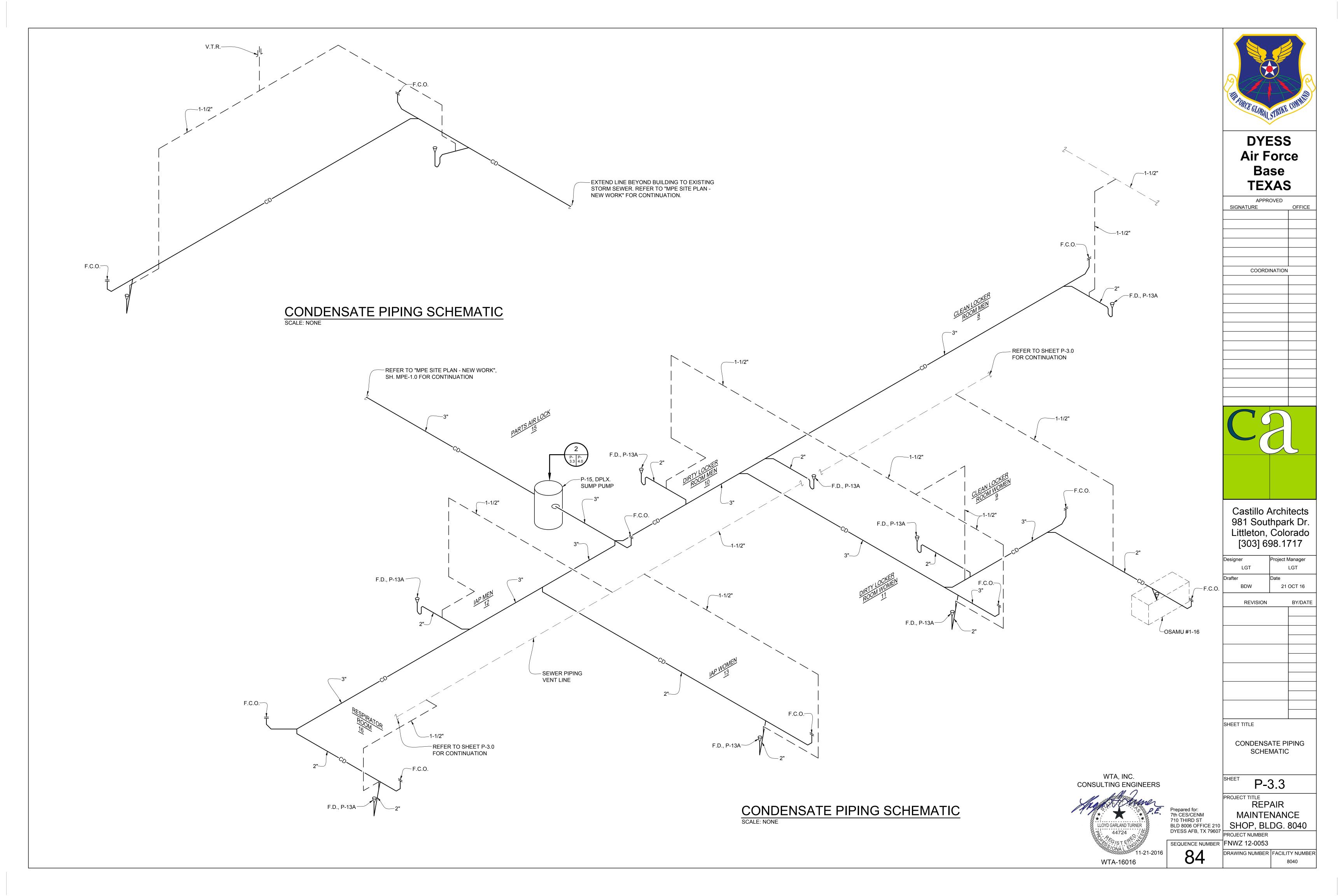
PROJECT TITLE REPAIR Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607

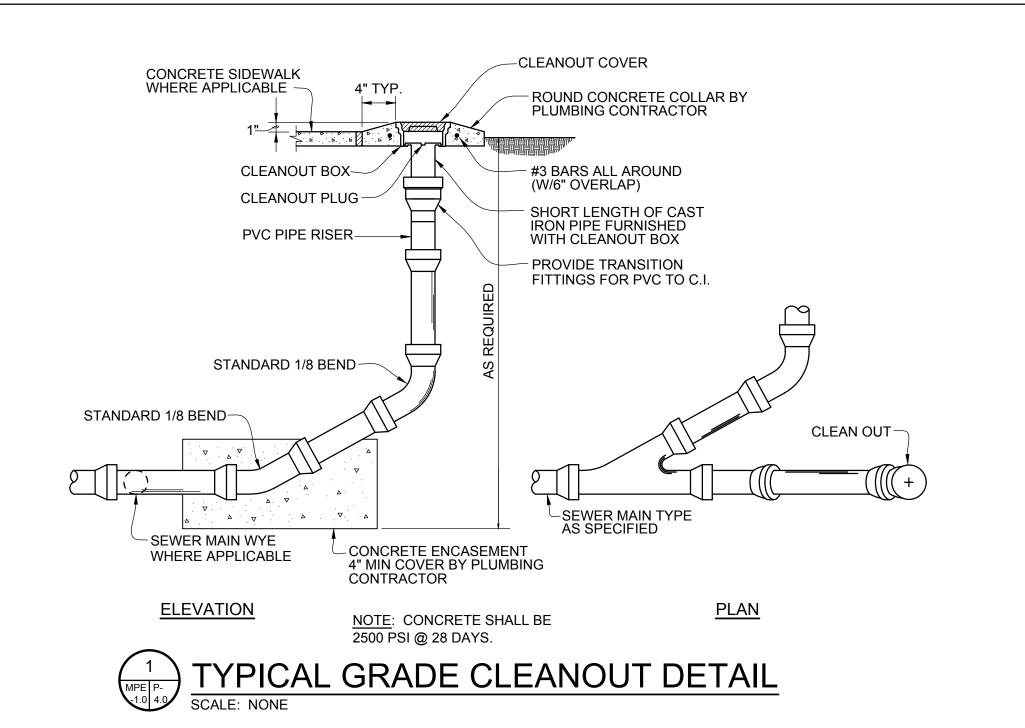
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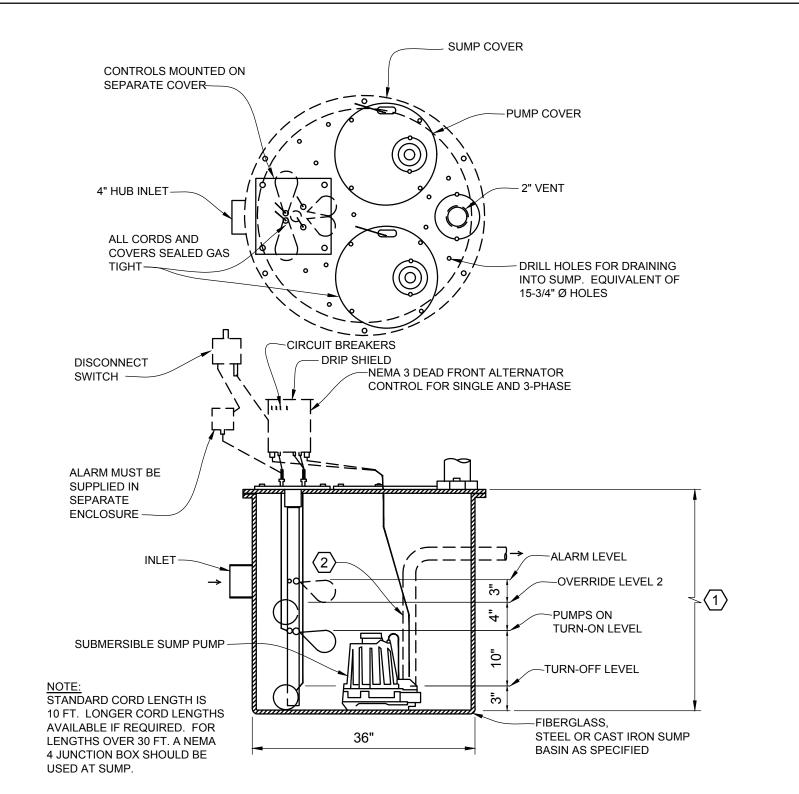
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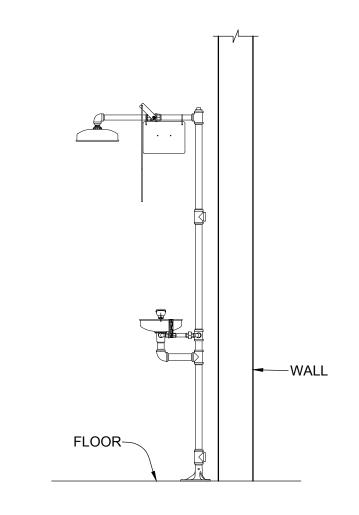
83

SEQUENCE NUMBER FNWZ 12-0053





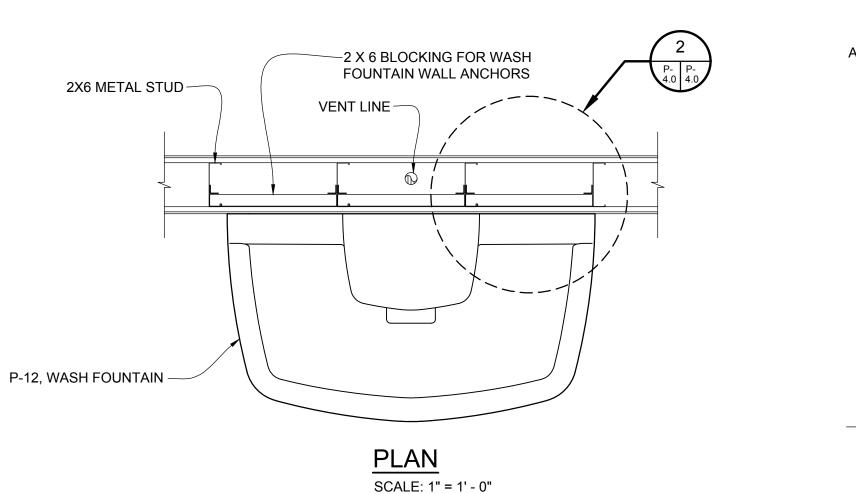


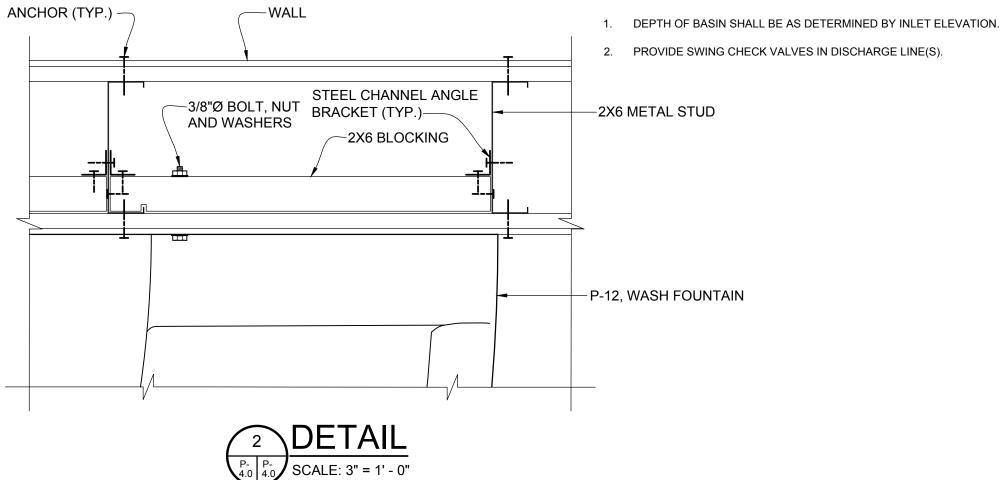


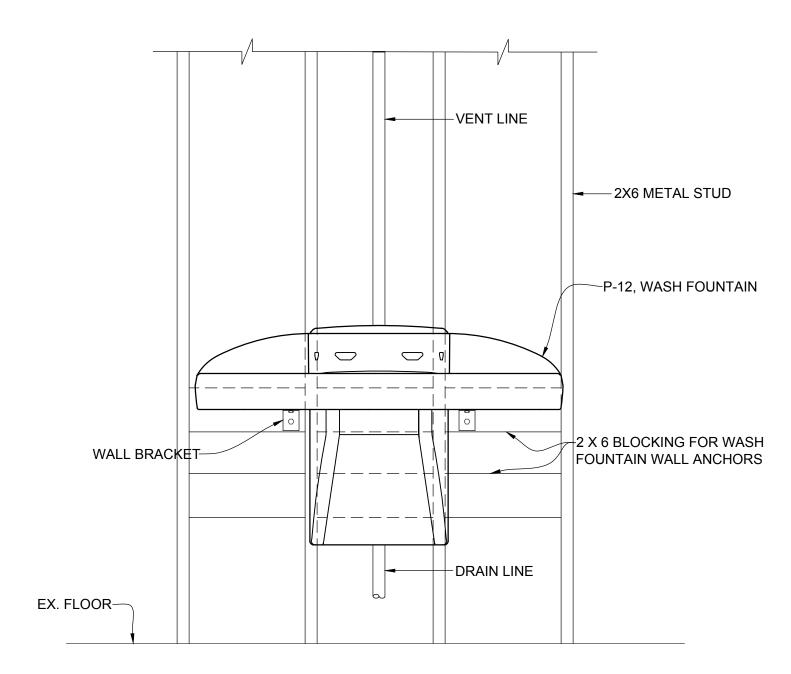
3 DETAIL **EMERGENCY SHOWER AND EYE/FACE WASH STATION** SCALE: 1/2" = 1' 0" NOTE: THIS P-FIXTURE "P-16"

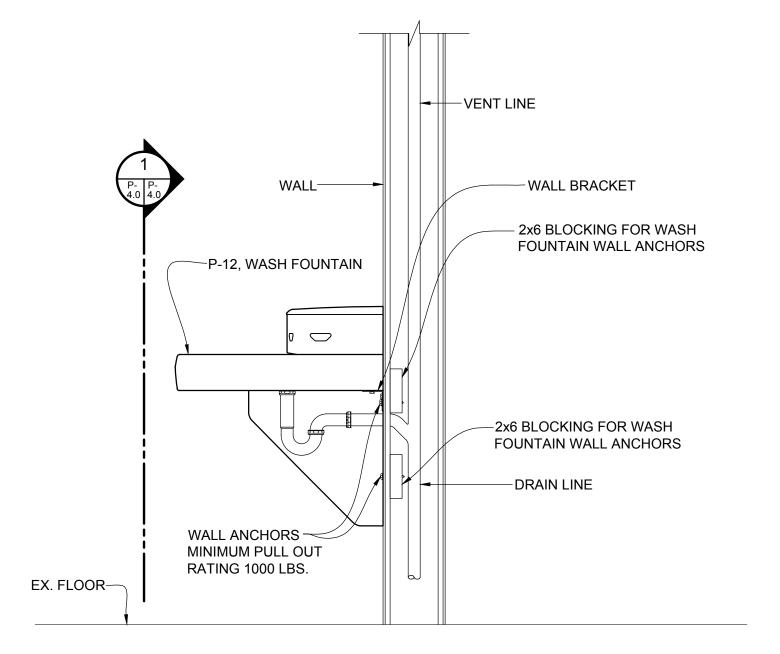
\DUPLEX SUMP PUMP DETAIL

NOTES INDICATED BY NUMBER IN







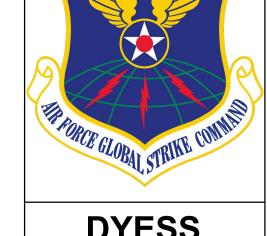




PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SOIL, WASTE, OR DRAIN PIPE
	VENT OR REVENT PIPE
	COLD WATER PIPE
	HOT WATER PIPE
CD	CONDENSATE DRAIN LINE WITH DOWNWARD DIRECTION OF SLOPE INDICATED
	FLOOR CLEAN OUT
———— G.C.O.	GRADE CLEAN OUT
———— W.C.O.	WALL CLEAN OUT
JIL _{V.T.R.}	VENT THROUGH ROOF
 	UNION
──	GATE VALVE
+ ⊙	ELBOW TURNED UP
+	ELBOW TURNED DOWN
+⊙+	TEE TURNED UP
+0+	TEE TURNED DOWN
—— Н.В.	HOSE BIBB





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Designer	Project Manager	
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P-4.0

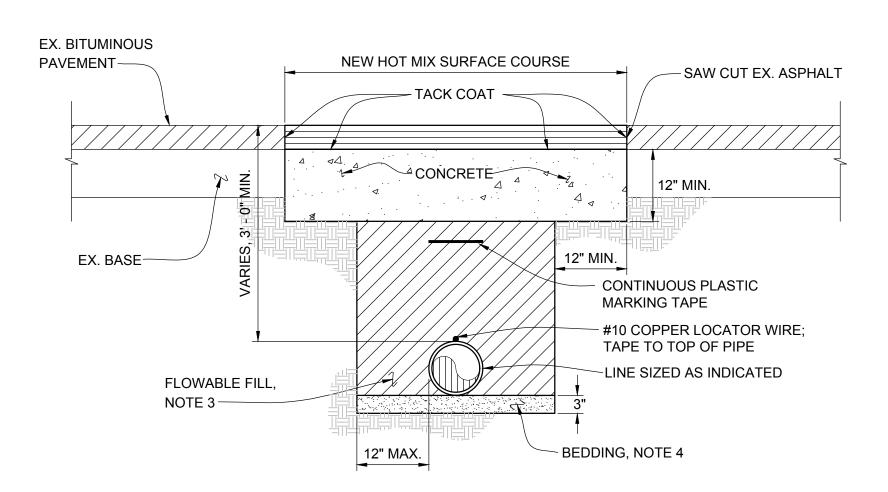
PROJECT TITLE Prepared for: 7th CES/CENM 710 THIRD ST

REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053

DRAWING NUMBER FACILITY NUMBER

WTA-16016

85



1 DETAIL **ASPHALT PAVEMENT REPLACEMENT**

NOTES:

- 1. THIS DETAIL IS TO BE USED ONLY WHERE IT IS NOT POSSIBLE TO JACK AND BORE UNDER THE EXISTING PAVEMENT, OR WHERE SPECIFICALLY INDICATED TO BE USED. CUTTING OF EXISTING PAVEMENT SHALL NOT BE DONE WITHOUT PRIOR APPROVAL OF THE CONTRACTING OFFICER.
- 2. THIS DETAIL IS "TYPICAL" AND SHALL APPLY TO ALL LOCATIONS WHERE THIS CONDITION IS INDICATED.
- 3. FLOWABLE FILL: HIGH SLUMP, THIN MIX CONCRETE (APPROX. 1200 PSI). REFER TO SPECIFICATIONS.

- HEAVY DUTY SCORIATED

COLLAR BY CONTRACTOR

PROVIDE TRANSITION TO HDPE PIPING WHERE APPLICABLE

─18"x18"x6" DEEP SQUARE CONCRETE

-#3 BARS ALL AROUND

(W/6" OVERLAP)

-PROVIDE TRANSITION

FITTINGS FOR PVC TO C.I.

-POUR 1/4 YD. CONCRETE

AROUND FITTINGS

PVC TO BUILDING

DUCTILE IRON CLEANOUT COVER

CONCRETE BY

CONTRACTOR-

PLUMBING

TYPICAL 2-WAY GRADE CLEANOUT

HDPE/PVC TO

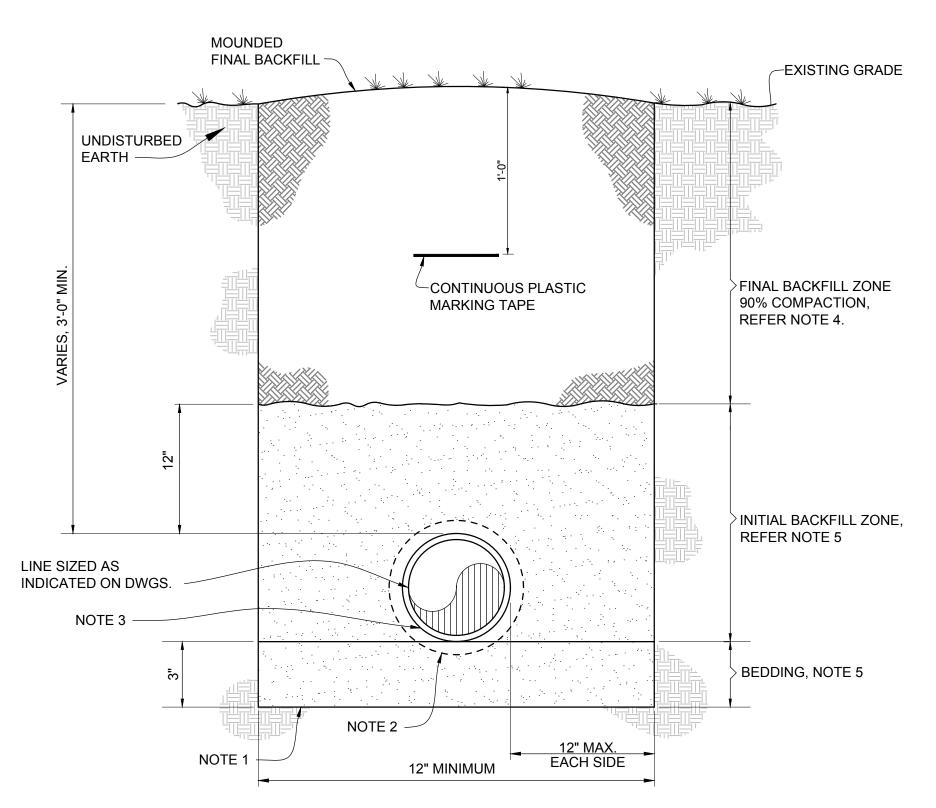
NOTE: CONCRETE SHALL BE 2500 PSI @ 28 DAYS.

DETAIL

SCALE: NONE

SEWER MAIN-

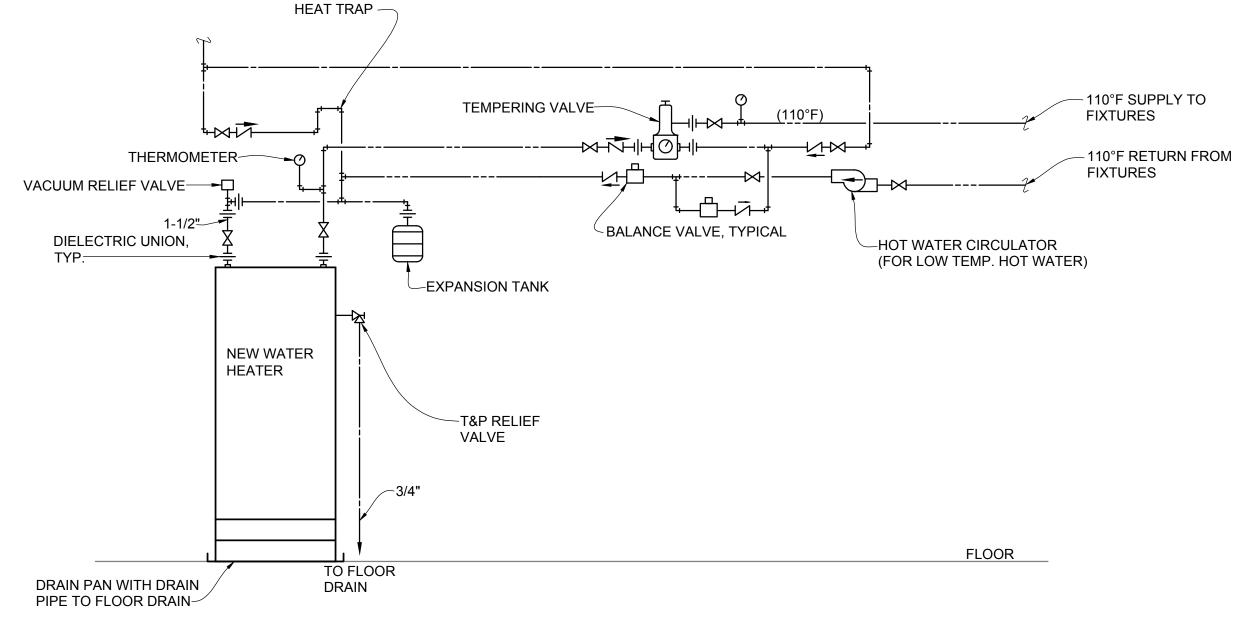
4. CLEAN, MEDIUM GRAINED SAND CLASSIFIED AS AGGREGATE FOR MASONRY PER ASTM C144. COMPACTION SHALL BE 95% OF THE MODIFIED PROCTOR.





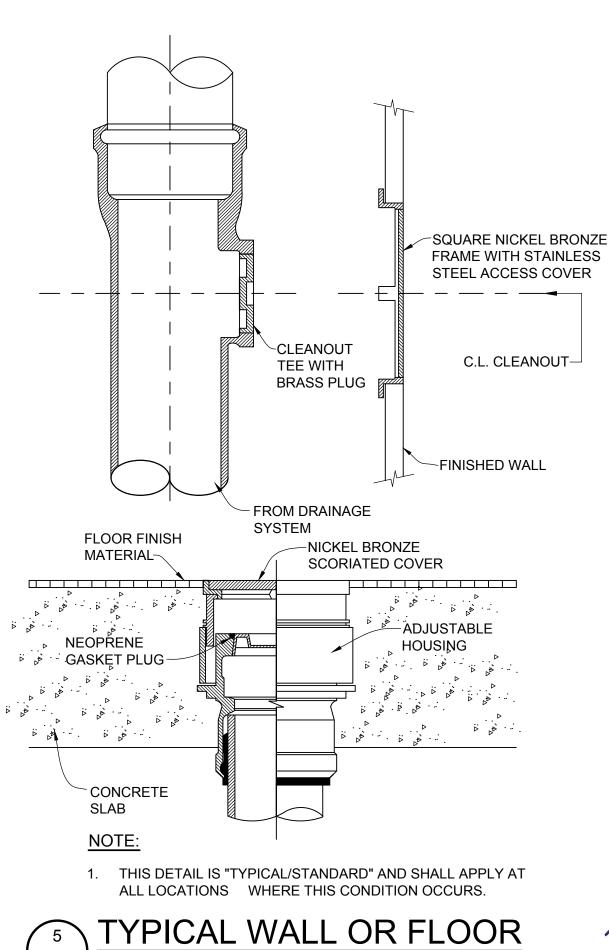
NOTES:

- 1. TRENCH SHALL BE ACCURATELY EXCAVATED AND GRADED TO PROVIDE SMOOTH, UNIFORM TRENCH BOTTOM AT REQUIRED DEPTH.
- 2. PROVIDE BELL HOLE AT EACH JOINT TO ELIMINATE POINT BEARING.
- 3. CARE SHALL BE TAKEN TO ENSURE THOROUGH COMPACTION OF BACKFILL UNDER HAUNCHES OF PIPE.
- 4. REFER TO SECTION 31 23 00.00 20, "EXCAVATION AND FILL" FOR INFORMATION AND REQUIREMENTS.
- 5. CLEAN, MEDIUM GRAINED SAND CLASSIFIED AS AGGREGATE FOR MASONRY PER ASTM C144. COMPACTION SHALL BE 95% OF THE MODIFIED PROCTOR.



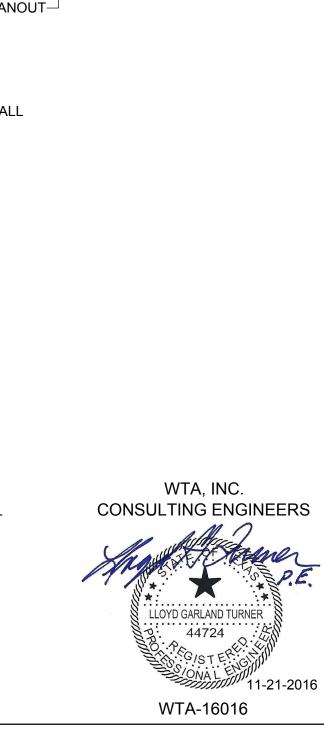
ENERGY CODE REQUIRED

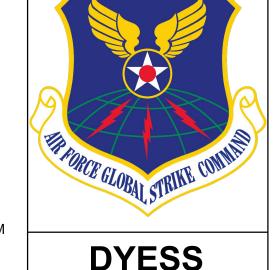




CLEANOUT AND COVER

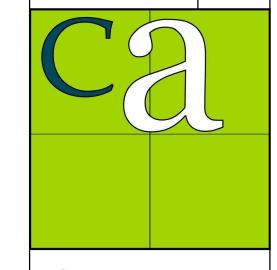
NO SCALE





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Drafter	Date	
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DET	AILS	

Prepared for: 7th CES/CENM 710 THIRD ST

PROJECT TITLE REPAIR **MAINTENANCE** BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053

DRAWING NUMBER | FACILITY NUMBER

86

COMPRESSED AIR SYSTEM WORK

THE CONTRACTOR SHALL PROVIDE FOR THE REMOVAL (AND/OR DEMOLITION) OF EXISTING COMPRESSED AIR SYSTEM EQUIPMENT, PIPING, FITTINGS, ETC. AS SHOWN IN THE PROJECT DRAWINGS. THE CONTRACTOR SHALL ALSO PROVIDE FOR THE RE-INSTALLATION OF EXISTING COMPRESSORS, RECEIVERS, ETC. AS SHOWN. THE CONTRACTOR SHALL ALSO PROVIDE FOR ALL NEW COMPRESSED AIR SYSTEM WORK SHOWN INCLUDING ALL NEW PIPING, FITTINGS, ETC. WHERE SIZE ARE NOT SHOWN FOR NEW PIPING, THE PIPING SHALL BE SIZED FOR THE COMPRESSED AIR LOADS TO BE SERVED.

THE CONTRACTOR SHALL RETAIN THE SERVICES OF A BONAFIED COMPRESSED AIR EQUIPMENT MANUFACTURER-SUPPLER WHO ALSO PROVIDES COMPRESSED AIR SYSTEM INSTALLATION, MAINTENANCE AND REPAIR SERVICES. SAID EQUIPMENT MANUFACTURER, ETC. SHALL BE HEREINAFTER REFERENCED AS THE "MSSO". THE MSSO SHALL BE KAESER COMPRESSORS OR APPROVED EQUAL MSSO.

THE MSSO"S WORK AND SERVICES SHALL INCLUDE:

- 1. REMOVAL OF ALL EXISTING PIPED AIR CONNECTION TO AND FROM EXISTING COMPRESSORS, DRYERS, RECEIVERS, EQUIPMENT.
- 2. REMOVAL OF ALL AIR DISTRIBUTION PIPING INSIDE AND OUTSIDE OF BUILDING.
- 3. THE MSSO SHALL MAKE EVERY EFFORT TO SALVAGE AND STORE ANY AND ALL PIPING, CONNECTIONS, AND ACCESSORIES THAT ARE NOT DAMAGED OR MODIFIED. ANY PIPING THAT HAS BEEN CUT TO LENGTH, ETC. FOR EXISTING AIR DISTRIBUTION SHALL BE SCRAPPED. ALL FULL LENGTH PIPING AND SALVAGEABLE CONNECTIONS SHALL BE STORED WITH THE COMPRESSED AIR EQUIPMENT AT THE AGREED UPON STORAGE FACILITY.
- 4. PREPARATION OF THE EQUIPMENT FOR STORAGE DURING THE BUILDING DEMOLITION WORK AND NEW CONSTRUCTION.
- 5. WHEN THE EQUIPMENT HAS BEEN PLACED IN ITS NEW LOCATION(S), THE MSSO SHALL PROVIDE ALL PIPING AND MAKE ALL REQUIRED PIPING CONNECTIONS.
- RE-COMMISSION THE COMPRESSED AIR EQUIPMENT.
- 7. PROVIDE ALL NEW COMPRESSED AIR PIPING, FITTINGS., AND APPURTENANCES AS REQUIRED FOR A FULLY OPERATIONAL COMPRESSED AIR SYSTEM AS INDICATED ON THESE PROJECT DRAWINGS. ALL COMPRESSED AIR PIPING SHALL SPECIFICALLY BE MANUFACTURED FOR USE AS COMPRESSED AIR PIPING AND SHALL BE MADE OF ALUMINUM.

PRIOR TO THE START OF THE BUILDING DEMOLITION, THE CONTRACTOR SHALL REMOVE, LOAD AND TRANSPORT ALL COMPRESSED AIR EQUIPMENT TO A GOVERNMENT APPROVED STORAGE LOCATION.

AT SUCH TIME THAT THE NEW BUILDING WORK ALLOWS, THE CONTRACTOR SHALL RE-LOAD SAID STORED EQUIPMENT AND TRANSPORT SAID EQUIPMENT TO THE JOB SITE. SAID EQUIPMENT SHALL BE PLACED IN THE LOCATIONS INDICATED IN THE PROJECT DRAWINGS. WHEN THE EQUIPMENT HAS BEEN PLACED. THE MSSO SHALL PROVIDE ALL REQUIRED PIPING WORK AND START-UP AND RE-COMMISSION SAID EQUIPMENT.

PLUMBING FIXTURE SCHEDULE

P-1, WATER CLOSET, FLOOR MOUNTED

AMERICAN STANDARD, MADERA FLOWISE 15" HIGH, 1.28 GPF. MODEL 2234.712. HIGH TOP SPUD BOWL AND SELECTRONIC EXPOSED AC FLUSH VALVE. VITREOUS CHINA, HIGH EFFICIENCY, OPERATES IN THE RANGE OF 1.1 GPF TO 1.6 GPF. 15" RIM HEIGHT, POWERFUL DIRECT-FED SIPHON JET ACTION, FULLY GLAZED 2-1/8" TRAPWAY, CONDENSATION CHANNEL.

P-1A, COMMERCIAL TOILET SEAT

AMERICAN STANDARD, MODEL 5901.110, COMMERCIAL TOILET SEAT. ELONGATED HEAVY DUTY BOWL OPEN FRONT SEAT LESS COVER, INJECTION MOLDED SOLID POLYPROPYLENE, LARGE MOLDED-IN BUMPERS, EXTERNAL CHECK HINGE WITH 304 SERIES STAINLESS STEEL HINGE POSTS STOPS SEAT 11° BEYOND VERTICAL.

P-1B, FLUSH VALVE

AMERICAN STANDARD MODEL 6067.121.002, ELECTRONIC FLUSH VALVE WITH SELECTRONIC PROXIMITY SYSTEM FOR "HANDS FREE" OPERATION, INCLUDES UL APPROVED HARD-WIRED AC TRANSFORMER, PISTON OPERATION DELIVERS SUPERIOR FLUSH ACCURACY AND REPEATABILITY, ADJUSTABLE TAILPIECE, FULLY MECHANICAL MANUAL OVERRIDE BUTTON CAN FLUSH TOILET DURING A POWER OUTAGE, RANGE CAN BE ADJUSTED MANUALLY OR BY REMOTE CONTROL.

P-2, URINAL, WALL MOUNTED

AMERICAN STANDARD, MODEL 6590.525, VITREOUS CHINA, ULTRA HIGH EFFICIENCY, OPERATES IN THE RANGE OF 0.125 GPF TO 1.0 GPF, ELONGATED 14" RIM FROM FINISHED WALL, WASHOUT FLUSH ACTION, 3/4" INLET SPUD, STRAINER INCLUDED, OPERATING PRESSURE: 20 PSI (FLOWING) - 80 PSI (STATIC), FLOW REQUIREMENT 10 GPM.

P-3, AIR SHOWER

P-4, SERVICE SINK

ELKAY, MODEL ESS4924RFC, 14 GAUGE, TYPE 304 STAINLESS STEEL SERVICE SINK WITH RIGHT HAND 30" DRAINBOARD, 1'4" RADIUS VERTICAL AND HORIZONTAL COVED CORNERS. 1-1/2" ROLLED RIM. FULL LENGTH 8" HIGH BACKSPLASH WITH 45° SLOPED TOP. EXPOSED SURFACES AND HAND BLENDED TO A UNIFORM LUSTROUS SATIN FINISH.

P-5, ELECTRIC WATER COOLER

SANITARY, TOUCHLESS ACTIVATION WITH AUTO 20-SECOND SHUT-OFF (BOTTLE FILLER), MODEL LZS8WSLP, EASY-TOUCH FRONT AND SIDE PUSHBAR CONTROLS (COOLER), QUICK FILL RATE: 1.1 GPM (REFRIGERATED MODELS); 1.5 GPM NON-REFRIGERATED MODELS), AUTOMATIC FILTER STATUS RESET WITH EACH FILTER CHANGE. STAINLESS STEEL BASIN WITH INTEGRAL DRAIN, GALVANIZED STRUCTURAL STEEL COOLER CHASSIS PROVIDES STRUCTURAL INTEGRITY. UNIT SHALL BE A LEAD-FREE DESIGN WHICH IS CERTIFIED TO NSF/ANSI 61 AND 372 AND MEETS FEDERAL AND STATE LOW-LEAD REQUIREMENTS. UNIT SHALL BE CERTIFIED TO UL399 AND CAN/CSA 22.2 NO. 120 & IS FCC COMPLIANT.

P-6, SHOWER

SHOWER PANEL IS TYPE 304 STAINLESS STEEL. ALL OTHER EXPOSED PARTS ARE STAINLESS STEEL OR CHROME-PLATED BRASS. MODEL WS-1WCA, VALVE BODIES ARE BRASS CASTING. SUPPLY INLETS ARE FLEXIBLE STAINLESS STEEL HOSES. A 1.5 GPM FLOW CONTROL IS STANDARD. ACTUAL FLOW MAY VARY, BUT WILL NOT EXCEED 2.0 GPM MAX. SHOWER PANEL IS CONSTRUCTED OF 18 GAUGE STAINLESS STEEL WITH STAINLESS STEEL SOAP TRAY MOUNTED TO PANEL. SHOWER PANEL TOP AND BOTTOM COVERS ARE SLOPED. AND CONSTRUCTED OF 16 GAUGE STAINLESS STEEL. STANDARD FIXED DIRECTION ADJUSTABLE SPRAY SHOWERHEAD. SUPPLY INLETS ARE FLEXIBLE, STAINLESS STEEL HOSES WITH 1/2 NPT CONNECTIONS. INLETS ARE ACCESSIBLE THROUGH THE BACK OF THE SHOWER OR THROUGH KNOCKOUTS IN THE TOP AND BOTTOM COVERS.

P-7, SHOWER PAN

FIAT SHOWER FLOOR. MODEL 36WL. ONE-PIECE WITH 1-1/2" WATER RETENTION TILING FLANGE, DURABLE MOLDED STONE CONSTRUCTION, SLIP RESISTANT SURFACE, INTEGRAL MOLDED DRAIN WITH PLASTIC STRAINER.

P-8, KITCHEN SINK

THE SINK IS TO BE "SOLID MATERIAL" INTEGRAL WITH THE SOLID MATERIAL COUNTERTOP; REFER TO SECTION 06 61 16 SPECIFICATIONS. PROVIDE KOHLER BELLERA PULL DOWN KITCHEN SINK FAUCET WITH THREE FUNCTION PULL-DOWN SPRAYHEAD WITH TOUCH CONTROL, SWEEP SPRAY, DOCKNETIK, MAGNETIC DOCKING SYSTEM LOCATED WITHIN THE SPOUT, GLIDES AND LOCKS SPRAYHEAD IN PLACE, CERAMIC DISC VALVES, QUIET BRAIDED HOSE AND SWIVELING BALL JOINT FOR SPRAYHEAD, HIGH-ARCH SPOUT, SINGLE HANDLE OPERATION, TEMPERATURE MEMORY ALLOWS FAUCET TO BE TURNED ON AND OFF AT THE TEMPERATURE SET DURING PRIOR USAGE, 1.8 GPM MAXIMUM FLOW RATE AT 60 PSI; LK-35 DUO STRAINER OR APPROVED EQUAL. PROVIDE 1/4" I.P.S. CHROME PLATED WHEEL HANDLE ANGLE SUPPLY STOPS, C.P. TUBULAR SUPPLY RISERS, C.P. 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT AND BRASS NUTS, CAST BRASS SET SCREW WALL FLANGES AT ALL PIPE THRU WALL PENETRATIONS. PROVIDE WITH LEONARD MODEL 210-TB THERMOSTATIC MIXING VALVE. OUTLET TEMPERATURE SHALL BE SET AT 110° F. FIXTURE SHALL BE PROVIDED IN COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS.

P-9, LAVATORY

BRADLEY, MODEL FL-1L LAVATORY. ADA AND TAS COMPLIANT (LOWER OR "CONCAVE" STATIONS ONLY), PATENTED MOLDED ONE-PIECE DESIGN WITH INTEGRAL BOWL, TRAP AND TRANSITION COVER ENCLOSURE. FREQUENCY LAVATORY SYSTEM-FL SERIES, INCLUDES HEAVY GAUGE STAINLESS STEEL MOUNTING BRACKETS.

P-10, MOP BASIN

FIAT TERRAZZO, MODEL TSBC-1610 CORNER STYLE, 24" X 24" X 12" MOP BASIN WITH ONE PIECE STAINLESS STEEL THRESHOLD. TERRAZZO SHALL BE MADE OF BLACK AND WHITE MARBLE CHIPS IN GRAY PORTLAND CEMENT TO PRODUCE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 P.S.I. SEVEN DAYS AFTER CASTINGS. TERRAZZO SURFACE SHALL BE GROUND AND POLISHED WITH ALL AIR HOLES AND/OR PITS REMOVED. SHOULDERS SHALL BE 2" OR WIDER WITH 1/2" PITCH TOWARD THE INSIDE. BASIN DRAIN BODY SHALL BE STAINLESS STEEL CAST INTEGRAL AND SHALL PROVIDE FOR A CAULKED LEAD CONNECTION NOT LESS THAN 1" DEEP TO A 3" PIPE. PROVIDE SERVICE SINK FAUCET, KOHLER K-8907 "KINLOCK", CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT. BODY INLETS 8" CENTER TO CENTER, LEVER HANDLES, AND SPOUT OUTLET 8" CENTER FROM BACK OF WALL FLANGE, 3' HOSE AND HOSE BRACKET FIAT #832-AA, FIAT #1453-BB FLAT TYPE 302, 16 GA. STAINLESS STEEL STRAINER. PROVIDE STAINLESS STEEL UTILITY SHELF AND MOP RACK NEAR SINK.

P-11. WASHER AND DRYER

KENMORE 27" WIDE HIGH-EFFICIENCY LAUNDRY CENTER. 3.8 CU. FT. CAPACITY WASHER, 8 WASH CYCLES, BLEACH DISPENSER. 5.5 CU. FT. DRYER, 8 DRYING CYCLES, 3 TEMPERATURES, AUTO DRY, WASH AND DRY AT THE SAME TIME.

P-12, WASH FOUNTAIN

TERREON WALL-HUNG QUADRA-FOUNT WASHFOUNTAIN, MODEL MF2949, ACCOMMODATES ONE TO FOUR USERS AT A TIME, USING LESS WATER, ENERGY AND SPACE THAN FOUR LAVS EQUIPPED WITH CONVENTIONAL FAUCETS. OPERATING WATER PRESSURE RANGE IS 20-80 PSI. A FLOW RESTRICTOR KEEPS THE FLOW RATE AT A CONSTANT .5 GPM UNDER ANY PRESSURE. NAVIGATOR THERMOSTATIC MIXING VALVE WITH STOP VALVES, FLEXIBLE STAINLESS STEEL SUPPLY HOSES, DRAIN SPUD AND LOCK NUT. STOP VALVES MOUNTED ONTO NOMINAL COPPER TUBING. EACH PUSH BUTTON ACTIVATES A FLOW OF TEMPERED WATER FROM THE NON-SECTIONAL SPRAYHEAD. PUSH BUTTON REQUIRES LESS THAN FIVE POUNDS OF PRESSURE.

P-13, FLOOR DRAIN

WADE W-1100 SERIES, OR APPROVED EQUAL, CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, INVERTABLE NON-PUNCTURING FLASHING COLLAR WITH WEEP HOLES, BOTTOM OUTLET AND ADJUSTABLE NICKEL BRONZE 6" ROUND STRAINER. PROVIDE WITH TRAPGUARD SEALS (WWW.TRAPGUARD.COM).

P-13A, FLOOR DRAIN (W/FUNNEL)

PROVIDE SAME DRAIN AS DESCRIBED IN P-13 ABOVE, BUT WITH 4" NICKEL BRONZE FUNNEL.

P-14, WATER HEATER

WATER HEATER SHALL BE ELECTRIC TYPE WITH 120 GALLON CAPACITY, WITH TWO (2) 15KW. 208V. 3Ø ELEMENTS. WATER HEATER SHALL BE A.O. SMITH DSE-120 DURA-POWER COMMERCIAL WATER HEATER OR APPROVED EQUAL.

P-15, SUMP PUMP

DUPLEX SUMP PUMPS, EACH EQUAL TO WEIL MODEL NO. 1421, 1-1/4" SUMP PUMP, BRONZE IMPELLER, CAST-IRON CASE, 1/2 H.P. MOTOR, OPERATED AT 120V, 1-PHASE, 60 HZ. PROVIDE COMPLETE WITH 36" Ø FIBERGLASS BASIN WITH DEPTH SUITABLE FOR INVERT AT JOB SITE (MIN. 4FT. DEPTH). PROVIDE WITH ROUND COVER WITH INSPECTION PORT, CONTROL, AND DOUBLE DISCHARGE AND VENT OPENINGS. SYSTEM SHALL BE COMPLETE WITH DUPLEX CONTROL PANEL, ALARM PANEL, AND LEVEL CONTROLS.

P-16, EMERGENCY EYEWASH AND SHOWER

BRADLEY MODEL \$19-310SBFW, OR APPROVED EQUAL, FLOOR MOUNTED COMBINATION DRENCH SHOWER AND EYE/FACE WASH. 10" DIAMETER YELLOW IMPACT-RESISTANT SHOWER HEAD, 1" CHROME PLATED BRASS STAY OPEN BALL VALVE WITH STAINLESS STEEL PULL ROD WITH TRIANGULAR HANDLE, 10" DIAMETER STAINLESS STEEL EYE/FACE WASH BOWL, CHROME PLATED BRASS SPRAY HEAD WITH TWIN EYE WASH HEADS AND PROTECTIVE COVERS, 1/2" C.P. HAND OPERATED STAY-OPEN BALL VALVE WITH PVC PUSH HANDLE, AND SUPPLEMENTAL FACE SPRAY.

P-17, THERMOSTATIC MIXING VALVE FOR EMERGENCY SHOWER AND EYE/FACE WASH

LAWLER MODEL 911 WATER MIXING VALVE FOR EMERGENCY SHOWERS. THERMOSTATIC TYPE WITH TWO INDEPENDENT LIQUID FILLED THERMAL MOTORS, BRONZE BODY CONSTRUCTION, INLET CHECK VALVES, LOCKABLE BALL VALVES, UNIONS, AND 0-200°F DIAL THERMOMETERS. VALVE SHALL BE TOP SUPPLY AND OUTLET CONNECTIONS. PROVIDE WITH 18 GA. TYPE304 STAINLESS STEEL RECESSED CABINET WITH #4 FINISH AND CLEAR VIEW PORT FOR THE THERMOMETERS. PROVIDE CABINET WITH CYLINDER LOCK WITH TWO KEYS.

P-18, EXTERIOR HOSE BIBB, FREEZE PROOF

ARROWHEAD BRASS PRODUCTS MODEL NO. 465-04 3/4" ANTI-SIPHON FROST FREE HYDRANT WITH # 59 SELF DRAINING ATMOSPHERIC VACUUM BREAKER.

P-19, HUB DRAIN

SIOUX CHIEF 832 SERIES FINISHLINE ADJUSTABLE HUB DRAIN FIXTURE. ACME-THREAD FIXTURE BASE: ABS, HUB RISER: PVC.



DYESS Air Force TEXAS

APPROVED	
SIGNATURE	OFFICE
COORDINATION	
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Castillo Architects 981 Southpark Dr Littleton, Colorado [303] 698.1717

Designer	Projectiv	viariagei
LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE
SHEET TITLE		

WTA, INC. LLOYD GARLAND TURNER 44724 1-21-2016 WTA-16016

Prepared for 7th CES/CENM 710 THIRD ST

BLD 8006 OFFICE 210 SHOP, BLDG. 8040

DYESS AFB, TX 79607 SEQUENCE NUMBER |FNWZ 12-0053

PROJECT NUMBER DRAWING NUMBER FACILITY NUMBER

PLUMBING FIXTURE

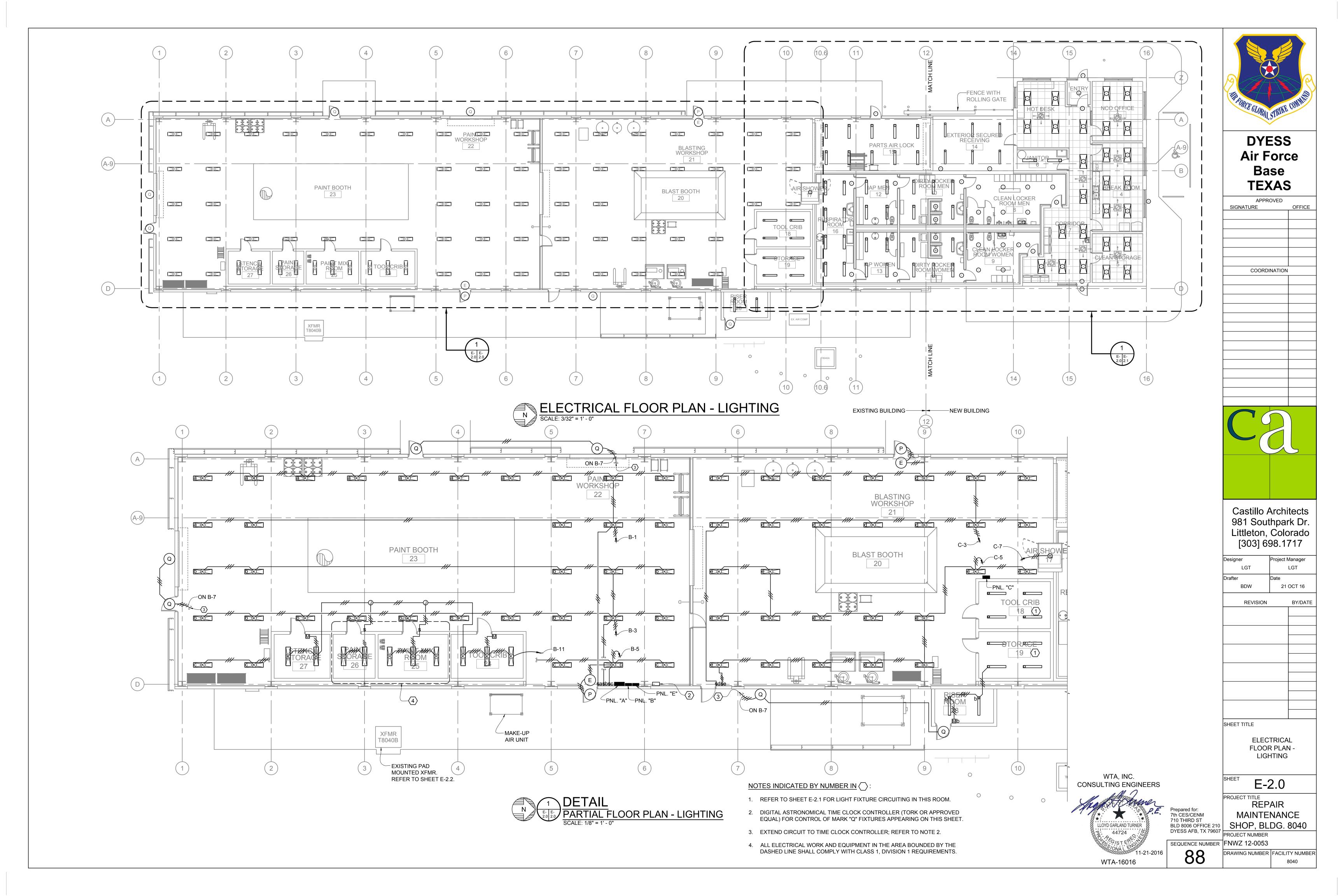
P-5.0

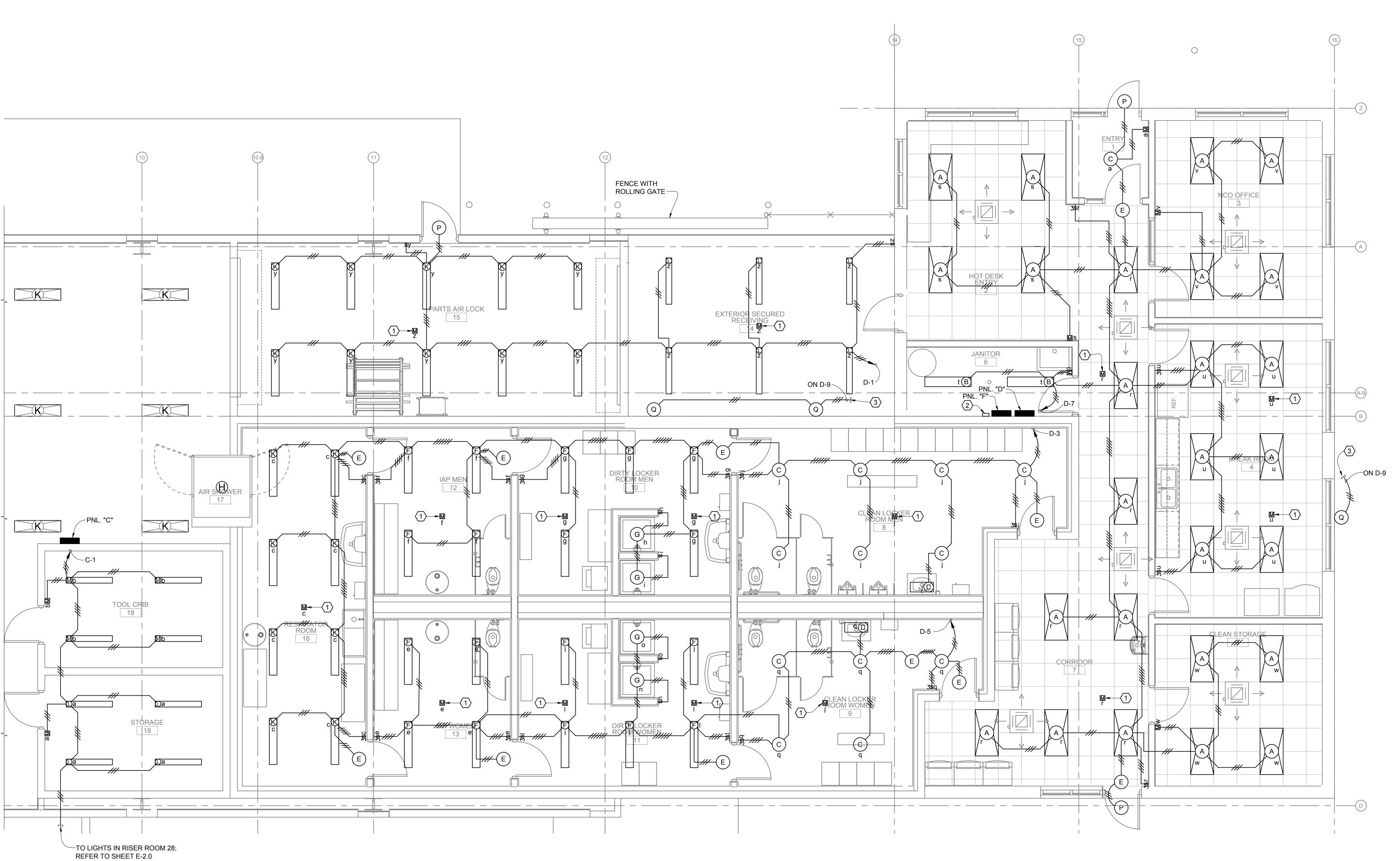
REPAIR

MAINTENANCE

SCHEDULE

PROJECT TITLE

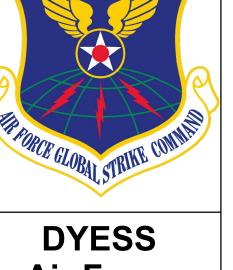






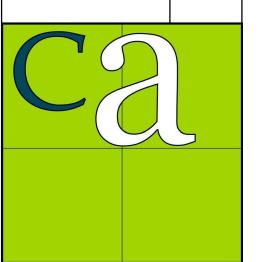
NOTES INDICATED BY NUMBER IN ():

- 1. CEILING MOUNTED OCCUPANCY SENSOR FOR OCCUPANCY CONTROL OF THE ROOM'S LIGHTING FIXTURE(S).
- DIGITAL ASTRONOMICAL TIME CLOCK CONTROLLER (TORK OR APPROVED EQUAL) FOR CONTROL OF MARK "Q" FIXTURES APPEARING ON THIS SHEET.
- 3. EXTEND CIRCUIT TO TIME CLOCK CONTROLLER IN JANITOR 6.



Air Force Base

TEXAS APPROVED SIGNATURE COORDINATION



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project Manager	•
LGT	LGT	
Drafter	Date	
BDW	21 OCT 16	
REVISION	BY/DA	ΛTE

SHEET TITLE

PARTIAL ELECTRICAL FLOOR PLAN -LIGHTING

REPAIR

E-2.1

PROJECT TITLE

Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607

PROJECT NUMBER

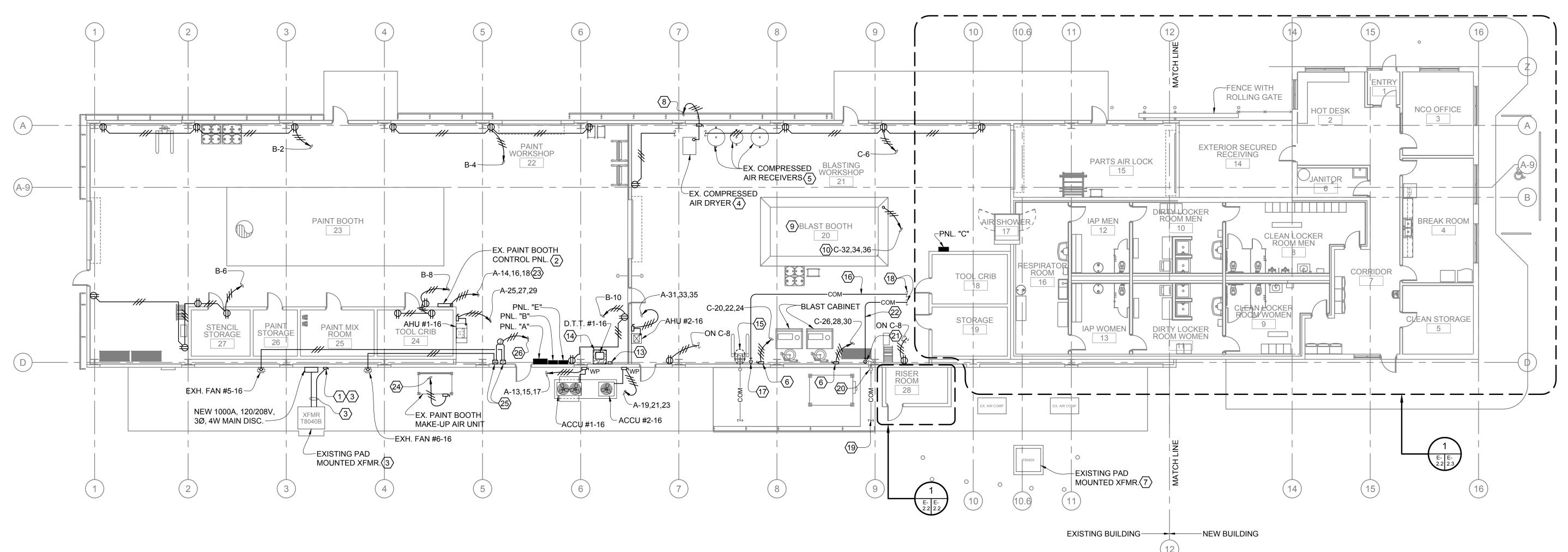
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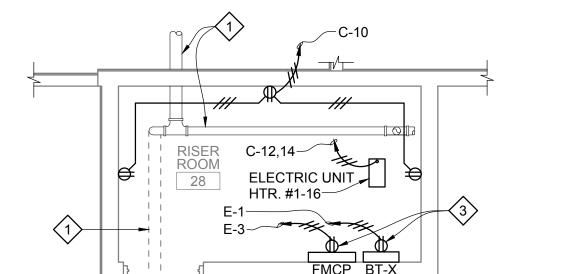
WTA, INC.

WTA-16016

89

SEQUENCE NUMBER FNWZ 12-0053







NOTES INDICATED BY NUMBER IN

- 1. FIRE SPRINKLER SYSTEM PIPING; REFER TO "FS" DRAWINGS.
- 2. FIRE ALARM SYSTEM PANELS; REFER TO "FA" DRAWINGS.
- 3. MOUNT RECEPTACLES WHERE/AS REQUIRED TO SERVE THE PANELS. COORDINATE LOCATIONS WITH FIRE ALARM SUB-CONTRACTOR.

ELECTRICAL FLOOR PLAN - POWER

NOTES INDICATED BY NUMBER IN ()

- 1. NEW EMERGENCY SYSTEM MAIN DISCONNECT.
- 2. THE EXISTING PAINT BOOTH CONTROL PANEL IS TO BE RELOCATED FROM ITS EXISTING LOCATION (REFER TO SH. MPE-1.2) TO THIS INDICATED LOCATION. SAID RELOCATION IS N.I.C. REFER TO ADDITIONAL GOVERNMENT REQUIREMENTS.
- 3. REFER TO DETAIL 3/MPE-1.4.
- 4. DRYER TO BE RE-LOCATED FROM PRESENT LOCATION; REFER TO "PLUMBING FLOOR PLAN",
- 5. TANKS TO BE RE-LOCATED FROM PRESENT LOCATION; REFER TO "PLUMBING
- 6. DISCONNECT FOR BLAST CABINET.
- 7. TRANSFORMER PROVIDES 480V, 3Ø SERVICE TO THE TWO EXISTING OUTDOOR AIR COMPRESSORS AND THE EXISTING INDOOR COMPRESSED AIR DRYER. THE EXISTING TRANSFORMER IS IN BAD ORDER AND IS TO BE REPLACED. REFER TO DETAIL 1/MPE-1.3.
- 8. EXTEND CIRCUIT TO ENCLOSED CKT. BKR. AT D.T.T. #1-16 IN PAINT WORKSHOP.
- 9. NEW BLAST BOOTH, N.I.C.; REFER TO NOTE 10.
- 10. THE POWER REQUIREMENTS FOR THE NEW BLAST BOOTH ARE PRESENTLY UNDETERMINED. THE SIZE OF THE INDICATED FEEDER IS BASED ON THE EXISTING FEEDER SERVING THE EXISTING (NON-OPERATIONAL) BLAST BOOTH. VERIFY THE POWER REQUIREMENTS OF THE NEW BLAST BOOTH BEFORE BEGINNING ANY WORK ASSOCIATED WITH THE NEW FEEDER.
- 11. EXISTING CONDUITS (WITH SERVICE CONDUCTORS) BELOW THE CONCRETE SLAB, BETWEEN THE TRANSFORMER AND THE EXISTING MAIN PANELBOARD ARE TO BE DEMOLISHED. REFER TO "DEMOLITION PLAN", SH. MPE-1.2. SAW CUT AND REMOVE EXISTING CONCRETE AS REQUIRED TO DEMOLISH THE EXISTING CONDUITS AND CONDUCTORS AND TO INSTALL THE NEW CONDUITS AND CONDUCTORS.
- NOT USED.
- 13. 20A, 480V, 3P CKT. BKR. SERVING THE COMPRESSED AIR DRYER IN BLASTING WORKSHOP 21.
- 14. CONCRETE TRANSFORMER PAD. REFER TO DETAIL 1/E-2.2.

- 15. THE EXISTING COMMUNICATIONS/IT SERVICE ENTERS THE EXISTING BUILDING AT THIS LOCATION. REFER TO SHEET MPE-1.2 FOR COMMUNICATIONS/IT REMOVAL AND REPLACEMENT WORK TO BE PERFORMED BY THE GOVERNMENT. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PRESERVE AND PROTECT THIS EXISTING SERVICE DURING THE COURSE OF THIS PROJECT.
- 16. PROVIDE 3" CONDUIT WITH PULL LINE FOR NEW COM/IT CABLE. CABLE TO BE PROVIDED BY THE GOVERNMENT.
- 17. TURN 3" CONDUIT DOWN AND TERMINATE AT LOCATION DESIGNATED BY THE CONTRACTING OFFICERS REPRESENTATIVE.
- 18. EXTEND CONDUIT TO THE GOVERNMENT'S NEW ROUTER LOCATION IN (ROOM)____.
- 19. EXISTING BURIED 2" CONDUIT WITH FIBER OPTIC CABLE TO REMAIN. REFER TO "MPE SITE PLAN - NEW WORK" FOR CONTINUATION TO BLDG. 8045.
- 20. EXISTING 2" CONDUIT WITH FIBER OPTIC CABLE EXTENDS THRU WALL OF EXISTING BUILDING AND CONTINUES TO BLDG. 8045. TAKE ALL MEASURES AS REQUIRED TO PRESERVE AND PROTECT THIS CABLE EXIT DURING THE COURSE OF THIS PROJECT.
- 21. TURN 2" CONDUIT DOWN AND TERMINATE AT LOCATION DESIGNATED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
- 22. PROVIDE 2" CONDUIT WITH PULL LINE FOR NEW COM/IT CABLE. CABLE TO BE PROVIDED BY THE GOVERNMENT.
- 23. PROVIDE NEW FEEDER TO SERVE RE-LOCATED PAINT BOOTH CONTROL PANEL.
- 24. TO PAINT BOOTH CONTROL PANEL.
- 25. STARTERS FOR EXHAUST FANS TO BE PROVIDED WITH EXHAUST FANS; REFER TO "FAN SCHEDULE". MOUNT STARTERS ON WALL WHERE INDICATED.
- 26. EXTEND EXHAUST FAN CIRCUIT TO "B-12" LOCATED IN PANEL "B".



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Project Manager
LGT
Date
21 OCT 16
N BY/DATE
CTRICAL

E-2.2

PROJECT TITLE

FLOOR PLAN -

REPAIR

MAINTENANCE

POWER

7th CES/CENM 710 THIRD ST

WTA, INC.

LLOYD GARLAND TURNER

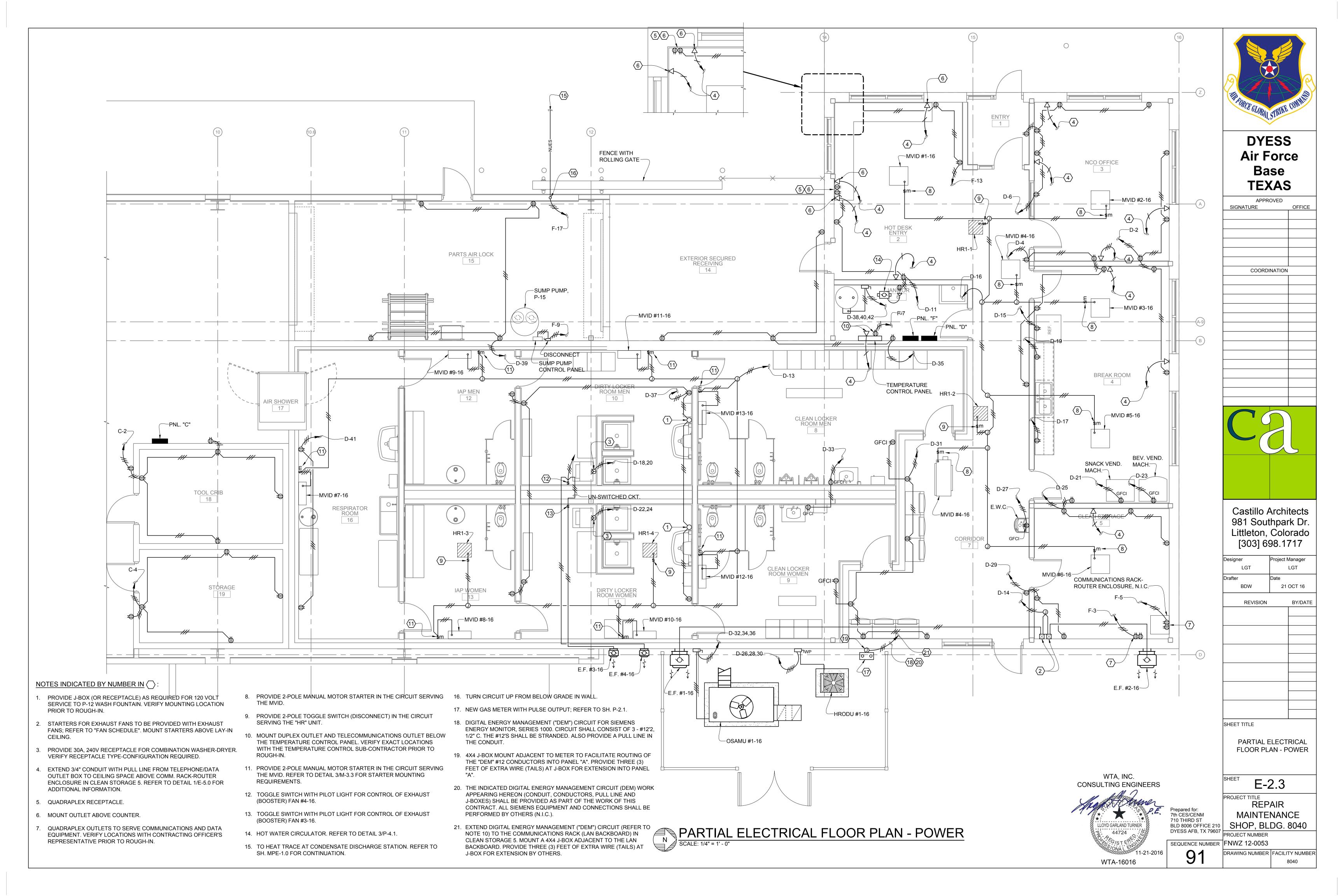
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WTA-16016

BLD 8006 OFFICE 210 SHOP, BLDG. 8040 DYESS AFB, TX 79607 PROJECT NUMBER

DRAWING NUMBER | FACILITY NUMBER |

SEQUENCE NUMBER FNWZ 12-0053



LIGHTING FIXTURE SCHEDULE										
			LAMPS			5514516				
MARK	MANUFACTURER & CAT. NO.	FIXTURE TYPE	MOUNTING	TYPE	NOMINAL LUMENS	WATTS	COLOR TEMP.	CRI	REMARKS	VOLTAGE
Α	LITHONIA 2BLT4 40L ADP LP840	LED	LAY-IN	LED	4032	34	4000K	82	(1)	120
В	LITHONIA ZL1F	LED	SURFACE	LED	6000	70	4000K	80	(2)	120-277
С	LITHONIA HILDON	LED	SURFACE	LED	2040	30	4000K	>80	(3)	120
D	LITHONIA LBL2	LED	SURFACE	LED	2267	23	4000K	80	(4)	120-277
E1	LITHONIA LES1R	LED	SURFACE	LED					(5)	120
E2	LITHONIA LES2R	LED	SURFACE	LED					(6)	120
F	LITHONIA FEM 4L	LED	SURFACE	LED	4000	61	4100K	65	(7)	120
G	LITHONIA L7XLED T24	LED	RECESSED	LED	950	16.4	4000K	92	(8)	120
Н	FURNISHED WITH AIRLOCK	-	-	-	-	-	-	-	(9)	-
I	NOT USED	-	-	-	-	-	-	-	-	-
J	NOT USED	-	-	-	-	-	-	-	-	-
K	LITHONIA FEM	LED	SURFACE	LED	4728	61	4100K	65	(11)	120
L	LITHONIA ZL1F	LED	SURFACE	LED	3900	38	4000K	80	(12)	120-277
М	LITHONIA ZL1F	LED	SURFACE	LED	5566	70	4000K	77	(13)	120-277
N	NOT USED	-	-	-	-	-	-	-	-	-
0	NOT USED	-	-	-	-	-	-	-	-	-
Р	LITHONIA TWH LED	LED	SURFACE	LED	8375	104	4000K	70	(15)	120-277
Q	LITHONIA TWH LED	LED	SURFACE	LED	8375	104	4000K	70	(16)	120-277
R	LARSON EPL-48-2L	FLUORESCENT	SURFACE	FLUOR		64			(17)	120

- 1. 2 x 4 LED, CSA CERTIFIED, COLOR TEMPERATURE 4000K, 82CRI.
- 2. COMPACT DESIGN, LOW PROFILE Z STRIP CHANNEL, REPLACEABLE DIFFUSE LENS, MULTI-VOLT INPUT AND 0-10V DIMMING STANDARD, MAY BE SURFACE MOUNTED, CSA CERTIFIED.
- 3. FOR USE IN HALLWAYS, CORRIDORS, AND OFFICES. PRODUCES 2040 LUMENS AT 50,000 HOURS LIFE. UL CERTIFIED, ENERGY STAR CERTIFIED.
- 4. LOW PROFILE CURVED BASKET LED WRAPAROUND.
- 5. SINGLE FACE EXIT FIXTURE. DIE CAST ALUMINUM HOUSING, BRUSHED ALUMINUM FACE, RED STENCIL LETTERS, NICKEL-CADMIUM BATTERY WITH SELF-DIAGNOSTICS.
- 6. SAME AS "E1" EXCEPT FIXTURE SHALL BE "DOUBLE FACE".
- 7. LOW-PROFILE ENCLOSED AND GASKETED FIXTURE. LISTED FOR WET LOCATIONS, 3418 LUMEN RATED.
- 8. RECESSED HOUSING RATED FOR IC OR NON-IC. AIR-TIGHT STANDARD, TESTED TO MEET CURRENT ENERGY CODES. GALVANIZED STEEL JUNCTION BOX, WET LOCATION LISTED, 6" OPEN LED MODULE, CLEAR SPECULAR, MATTE WHITE FLANGE.
- 9. THIS FIXTURE IS TO BE FURNISHED WITH THE AIR SHOWER; REFER TO ARCH. DRAWINGS.
- 10. NOT USED.
- 11. SAME AS 7 ABOVE, EXCEPT HAVING 4728 LUMEN RATING.
- 12. SAME AS 2 ABOVE EXCEPT HAVING 38W, 3900 LUMEN RATING.
- 13. SAME AS 2 ABOVE EXCEPT HAVING 70W, 5566 LUMEN RATING.
- 14. NOT USED.

DESIGNATION

T8040A

NOT USED NOT USED

NOTES:

- 15. TWH LED, COLOR TEMPERATURE 4000K, DARK BRONZE FINISH, 10 LED'S, UL LISTED FOR WET LOCATIONS. PROVIDE WITH ELSW EMERGENCY BATTERY BACKUP AND "PE" PHOTOCELL
- 16. SAME FIXTURE AS MARK "P" FIXTURE, EXCEPT MARK "Q" SHALL NOT HAVE BATTERY BACKUP AND PHOTOCELL FEATURES.
- 17. EXPLOSION PROOF FIXTURE APPROVED FOR CLASS 1, DIVISION 1 AND CLASS 1, DIVISION 2 HAZARDOUS LOCATIONS.

PHASE

300

FREQ.

60

(HZ)

ELECTRICAL UNIT HEATER SCHEDULE											
HEATER					N	OTOR	OTOR AIRFLOW		RFLOW		
DESIGNATION	KW	BTU/HR	VOLTS/PH	AMPS	STEPS	VOLTS/PH	HP	AMPS	CFM	TEMP RISE (°F)	MANUFACTURER & MODEL
1-16	3	10,239	208/1	21	1	208/1	-	-	310	31	REZNOR MODEL EGEB (1)
NOT USED											

PAD MOUNTED, LIQUID FILLED TRANSFORMER SCHEDULE

65°

HIGH VOLTAGE

TERMINATIONS

DEAD FRONT RADIAL FEED

SECTIONALIZING SWITCH

INTERNAL LOAD BREAK

% IMPEDANCE TEMP.

MAX.

4.0

MIN.

2.87

2± 2.5% NOR.

1. DRAW-THROUGH DESIGN, INDIVIDUALLY ADJUSTABLE LOUVERS, HIGH LIMIT TEMP. CONTROL WITH AUTOMATIC RESET, TEC MOTOR THERMALLY PROTECTED, MOTOR MOUNTED IN AMBIENT AIR STREAM, FAN DELAY "OFF" FOR RESIDUAL HEAT PURGE, HEATING ELEMENT WITH STAINLESS STEEL SHEATH AND ALUMINUM FINS, WALL MOUNTING BRACKET, UNIT MOUNTED FAN SWITCH, INTEGRAL THERMOSTAT (40° F - 80° F).

DRY TYPE TRANSFORMER SCHEDULE											
TRANSFORMER KVA					PRIMARY			ECONDAF	RY	SERVES	TYPE
DESIGNATION RATING	ION RATING	VOLTS	AMPS	PHASE	TAPS BELOW NORMAL	TAPS ABOVE NORMAL	VOLTS	AMPS	PHASE	SERVES	MOUNTING
D.T.T. #1-10	15	480	18	3	2 @ 2-1/2%	2 @ 2-1/2%	120/208	42	3	COMP. AIR DRYER	FLOOR
NOT USED											

ELECTRICAL SYMBOL LEGEND									
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION						
\$ a	SPST WALL SWITCH (SWITCHING FIXTURES WHERE "a" IS	0	JUNCTION BOX WITH COVER						
	INDICATED)	G.F.I.	GROUND FAULT INTERRUPTER						
3\$	3-WAY SWITCH	W.P.	"W.P." BY ANY ELECTRICAL DEVICE SYMBOL INDICATES						
\$ m	MANUAL MOTOR STARTER		THAT THE DEVICE IS TO BE WEATHERPROOF						
\(\phi\)	DUPLEX RECEPTACLE		CONDUIT "HOME RUN" TO PANEL (HASH MARKS INDICATE THE NUMBER OF CONDUCTORS						
⊕GFCI	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER FEATURE	В	SURFACE MOUNTED FLUORESCENT LIGHTING FIXTURE						
	DUPLEX RECEPTACLE IN FLOOR BOX	A	FLUORESCENT LIGHTING FIXTURE (TYPE "A")						
#	QUAD RECEPTACLE	© _H	FIXTURE/WALL MOUNTED						
=	SPECIAL PURPOSE RECEPTACLE		SURFACE MOUNTED PANELBOARD						
∇	BOX FOR COMBINATION TELEPHONE/DATA OUTLET		RECESS MOUNTED PANELBOARD						
\Diamond	ELECTRIC MOTOR								
	HP RATED DISCONNECT SWITCH	M	MOTION DETECTOR						

XFMR PRIMARY FUSING

12.47 KV (1)

SIZE VOLTAGE

TYPE

GENERAL PURPOSE CURRENT LIMITING

REMARKS

(2),(3),(4)

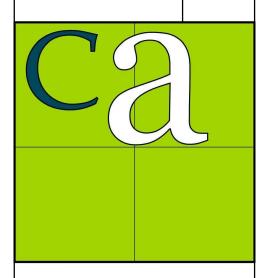
MOUNTING

DRYWELL DRAWOUT



DYESS Air Force Base **TEXAS**

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Project Manager

LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE

SHEET TITLE

LEGEND AND SCHEDULES

E-3.0

PROJECT TITLE REPAIR MAINTENANCE BLD 8006 OFFICE 210 SHOP, BLDG. 8040

Prepared for: 7th CES/CENM

LLOYD GARLAND TURNER

DYESS AFB, TX 79607

PROJECT NUMBER SEQUENCE NUMBER FNWZ 12-0053 DRAWING NUMBER FACILITY NUMBER

WTA-16016

WTA, INC.

44724

2. EXTERIOR FINISH COLOR SHALL BE "SCOTCH LITE BROWN" (FSC 10091). PAINT SHALL BE HIGH TEMPERATURE TYPE. 3. THE TRANSFORMER LIQUID DIELECTRIC SHALL BE OF THE "LESS FLAMMABLE" TYPE, SHALL BE HIGH MOLECULAR WEIGHT (HMWH) OR SILICONE AND SHALL BE UL AND FM LISTED. THE TRANSFORMER FEATURES AND CONSTRUCTION SHALL COMPLY WITH ALL UL AND FM REQUIREMENTS WITH "LESS FLAMMABLE" LIQUID. PROVIDE DOCUMENTATION OF UL AND FM COMPLIANCE IN THE TRANSFORMER SUBMITTAL.

PRIMARY VOLTAGE

12.47 KV DELTA

CONNECTION

SEC. VOLTAGE

480 GND Y/277

95

CONNECTION

4. REFER TO SECTION 26 12 19.10 THREE PHASE PAD-MOUNTED TRANSFORMERS FOR ADDITIONAL REQUIREMENTS.

1. FUSES SHALL BE SIZED IN ACCORDANCE WITH THE TRANSFORMER MANUFACTURER'S RECOMMENDATIONS.

	PANEL "A" SCHEDULE														
SERV	SERVICE: 120/208V., 3Ø, 4W. CONDUCTOR COLOR CODE LOAD								M. L. O. BUS RATING 1000A						
PANE	LUM CIRCUIT BREAKER RRUPTING CAPACITY: O A L MAY BE TOP OR OM FEED AT TRACTORS OPTION	LEG 1 - BLACK 720 LEG 2 - RED 687 LEG 3 - BLUE 709 GROUND - GREEN GROUNDED NEUTRAL - WHITE MAIN LUGS ONLY AS INDICATED						SEPARATE GROUNDING BAR: 35% MAIN BREAKER RATING: <u>NA</u> <u>NA</u> SYM. INTER. CAP.							
POLE NO.	SERVES	1	LOAD LEG 2	3	FUSE AMPS POLES	POLE NO.	12	3 v	POLE NO.	SERVES	1	LOAD LEG	3	FUSE AMPS POLES	POLE NO.
1)		241		J		(1	Ш		2	SPACE	- -			20/1	2
3 >	PANEL "D"		227		350	₹ 3		T	4	SPACE		-		20/1	4
5)				243	3	(5	H	T	6	SPACE			-	20/1	6
7)		154				7	Ш	1	8	SPACE	-			20/1	8
9 >	PANEL "C"		137		300	₹ 9		T	10	SPACE		-		20/1	10
11				145	3	(11	Ħ	T	12	SPACE			-	20/1	12
13)		30			45	(13	Ш	1	14 🤇	EX. PAINT BOOTH	147			200	(14
15 >	ACCU #1-16		30		45 3	₹15		T	16 >	CONTROL PANEL		147		200	₹16
17 🕽				30	3	(17	\prod	T	18 🕽				147	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(18
19 🤇		17			35	(19	П		20)		20			100	(20
21 >	ACCU #2-16		17		35/3	₹21	П		22 >	PANEL "B"		18		3	₹22
23)				17		(23	ΠĬ		24)	SPACE			16	/ °	(24
25)		44			50	25	\prod		26	SPACE	-			20/1	26
27 >	AHU #1-16		44		30/3	27	\coprod		28	SPACE		-		20/1	28
29 🕽				44	/	29			30	SPACE			-	20/1	30
31)		45			50	31			32	SPACE	-			20/1	32
33 >	AHU #2-16		45							-		20/1	34		
35 🕽		35 36 SPACE								-	20/1	36			
37)		22 50 37 38 SPACE - 20/1							20/1	38					
39 >	D.T.T. #1-16		22 39 40 SPACE						-		20/1	40			
41)				22		41			42	SPACE			-	20/1	42

PANEL "C" SCHEDULE																
SERV	ICE: 120/208V., 3Ø, 4W.				CONDUCTO	R COLO	OR (100	DE L	OAD	M. L. O. BUS RATING 300A					
	IUM CIRCUIT BREAKER RRUPTING CAPACITY:) A		LEG 1 - BLACK 154 LEG 2 - RED 137 LEG 3 - BLUE 145 GROUND - GREEN GROUNDED						SEPARATE GROUNDING BAR: 35%							
вотт	L MAY BE TOP OR OM FEED AT RACTORS OPTION				NEUTRAL - \	VHITE			-MAIN LU AS IND	UGS ONLY ICATED	MAIN I <u>NA</u> SY			ating: <u>na</u> ap.		
POLE NO.	SERVES	1	LOAD LEG 2	3	FUSE AMPS POLES	POLE NO.	12 	: 3 -	POLE NO.	SERVES		LOAD LEG	3	FUSE AMPS POLES	POLE NO.	
1	LIGHTS, TOOL CRIB & STG.	4		l	20/1	1	1	ı l	2	D.O., TOOL CRIB	10			20/1	2	
3	LIGHTS, BLASTING WK. SHOP		7		20/1	3	╅	十	4	D.O., STORAGE		8		20/1	4	
5	LIGHTS, BLASTING WK. SHOP			7	20/1	5	H	一	6	D.O., W. WALL BLAST. W.S.			7	20/1	6	
7	LIGHTS (&PWR) AIR SHOWER	5			20/1 7 8 D.O., E. WALL BLAST. W.S.		4			20/1	8					
9	SPARE		-		20/1	9	m	十	10	D.O., RISER ROOM		5		20/1	10	
11	SPARE			-	20/1	11	Π	Π	12 ?	UNIT HTR #1-16			14	30	∫12	
13	SPARE	-			20/1	13	П	\sqcap	14 5		14			2	² 14	
15	SPARE		-		20/1	15	П	П	16			7		20/1	16	
17	SPARE			-	20/1	17	\prod	П	18				7	20/1	18	
19	SPARE	-			20/1	19	\prod	П	20)		21			30	(20	
21	SPACE		-		20/1	21	\prod	П	22 >	BLAST CABINET		21		30/3	₹22	
23	SPACE			-	20/1	23		\prod	24)				21	/ °	(24	
25	SPACE	-			20/1	25	П		26 🤇		21			30	(26	
27	SPACE		-		20/1	27	\prod	\prod	28 >	BLAST CABINET		21		30/3	₹28	
29	SPACE			-	20/1	29		\prod	30)				21		(30	
31	SPACE	-								75			100	(32		
33	SPACE		- 20/1 33 34 CONTROLLER							75		3	⊰ 34			
35	SPACE									75	<u> </u>	(36				
37	SPACE	-			20/1	37	Ш	$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$	38		-			20/1	38	
39	SPACE		- 20/1 39 1 40						-		20/1	40				
41	SPACE				20/1	41			42				-	20/1	42	

			P	ANEL	"E'	' S	SCH	IEDULE					
SER	VICE: 120/208V., 1Ø, 3W.			CONDUCTO		OR C	<u>ODE</u>	LOAD 5	M. L.	O. BU	S RATI	NG <u>60A.</u>	
INTE	MUM CIRCUIT BREAKER ERRUPTING CAPACITY: 000 A.			LEG 2 - RED LEG 3 - GRE GROUNDED NEUTRAL - V	EN			5	BAR:	<u>35%</u>		JNDING RATING: NA	
вот	EL MAY BE TOP OR TOM FEED AT TRACTORS OPTION						MAIN	BREAKER OR LUGS ONLY DICATED			TER. C		•
POLE NO.	SERVES	LO LE 1	AD G 2	BREAKER AMPS POLES	POLE NO.] 1 2 	POLE NO.	SERVES		LO. LE 1	AD G 2	BREAKER AMPS POLES	POLE NO.
1	BT-X PNL.	5		20/1	1		2	SPARE		-		20/1	2
3	FMCP		5	20/1	3		4	SPARE			-	20/1	4
5	SPACE	-		20/1	5		6	SPACE		-		20/1	6
7	SPACE		-	20/1	7		8	SPACE			-	20/1	8
9	SPACE	-		20/1	9		10	SPACE		-		20/1	10
11	SPACE		ı	20/1	11		12	SPACE			-	20/1	12

				P	ANEL	. "B	" S	CH	EDULE					
SERV	ICE: 120/208V., 3Ø, 4W.				CONDUCTO	R COLC	OR CC	DE	LOAD	M. L. (O. BUS	RATIN	IG <u>100A</u>	
	IUM CIRCUIT BREAKER RUPTING CAPACITY:) A	LEG 1 - BLACK 20 LEG 2 - RED 18 LEG 3 - BLUE 16 GROUND - GREEN GROUNDED						SEPARATE GROUNDING BAR: 35%						
BOTT	L MAY BE TOP OR OM FEED AT RACTORS OPTION				NEUTRAL - V				LUGS ONLY DICATED		BREAK 'M. INT		ating: <u>na</u> ap.	
			LOAD		FUSE	POLE	123	V DOLE			LOAD		FUSE	POLE
POLE NO.	SERVES	1	LEG	_	FUSE POLE 123 POLE NO.				SERVES		LEG		AMPS POLES	NO.
1	LIGHTS, PAINT WK. SHOP	10	2	3	20/1	1	!	2	D.O., PAINT WK. SHOP	5	2	3	20/1	2
3	LIGHTS, PAINT WK. SHOP	10	9		20/1	3	╂┿┼┤	4	D.O., PAINT WK. SHOP		5		20/1	4
5	LIGHTS, PAINT WK. SHOP		9	3	20/1	5	╂┼┿┤	6	D.O., PAINT WK. SHOP		+ -	7	20/1	6
7	SPACE			<u> </u>	20/1	7	╫┼	8	D.O., PAINT WK. SHOP	5			20/1	8
9	SPACE		-		20/1	9	╂┿┼┤	10	D.O., PAINT WK. SHOP		4		20/1	10
11	LIGHTS, RMS 24-27			-	20/1	11	╂┼┿┤	12	EXH. FANS 5,6-16		 '	1	20/1	12
13	SPARE	-			20/1	13	H	14	SPACE	-			20/1	14
15	SPARE		-		20/1	15	╅	16	SPACE		-		20/1	16
17	SPARE			-	20/1	17	╂┼┼	18	SPACE			-	20/1	18
19	SPACE	-			20/1	19	$\Box\Box$	20	SPACE	-			20/1	20
21	SPACE		-		20/1	21		22	SPACE		-		20/1	22
23	SPACE			-	20/1	23		24	SPACE			-	20/1	24
25	SPACE	-			20/1	25		26	SPACE	-			20/1	26
27	SPACE		-		20/1	27		28	SPACE		-		20/1	28
29	SPACE				20/1	29		30	SPACE			-	20/1	30

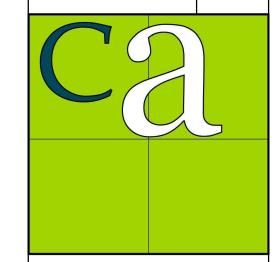
PANEL "D" SCHEDULE															
SERVICE: 120/208V., 3Ø, 4W. CONDUCTOR COLOR CODE LOAD						M. L. O. BUS RATING <u>350A</u>									
	IUM CIRCUIT BREAKER RRUPTING CAPACITY: 0 A		LEG 2 - RED 2			241 227 243	SEPARATE GROUNDING BAR: 35% MAIN BREAKER RATING: NA								
BOTT	EL MAY BE TOP OR OM FEED AT FRACTORS OPTION				NEUTRAL - \	WHITE		ſ	-MAIN L AS IND	UGS ONLY ICATED	NA SY				
POLE	SERVES		LOAD LEG		FUSE AMPS	POLE	12	3	POLE	SERVES		LOAD LEG		FUSE AMPS	POLE
NO.	SLIVES	1	2	3	POLES	NO.	Н	十	NO.	SLIVES	1	2	3	POLES	NO.
1	LIGHTS, EXT. REC. & AIR LOCK	7			20/1	1			2	D.O., N.C.O, OFF., BRK. RM.	8	_	Ĭ	20/1	2
3	LIGHTS, RESP. & MENS AREA		10		20/1	3		Ť	4	D.O., CORR. & BRK. RM		10		20/1	4
5	LIGHTS, WOMENS AREA			7	20/1	5	H	Ť	6	D.O., N.C.O, OFF.			8	20/1	6
7	LIGHTS, ADMIN. AREA	10			20/1	7	П	1	8 7		12			100	8
9	LIGHTS, EXTERIOR		3		20/1	9		Ť	10 >	PANEL "F"		15		100	10
11	D.O., HOT DESK, ENTRY			10	20/1	11	\sqcap^{\dagger}	Ť	12				6	3	12
13	MVID'S, TILTS., LOCK. RMS	4			20/1	13	П	1	14	EXH. FANS	9			20/1	14
15	D.O., REFRIGERATOR		5		20/1	15		T	16	MVID'S, ADMIN. AREA		4		20/1	16
17	D.O., BREAK RM.			10	20/1	17	Ħ	T	18 7	COMBINATION WASHER-			23	30	ς 18
19	D.O., BREAK RM.	10			20/1	19	П	1	20 5	DRYER, MEN LOCK. RM.	23			2	20
21	D.O., VEND. MACH.		5		20/1	21		T	22 }	COMBINATION WASHER-		23		30	§ 22
23	D.O., VEND. MACH.			5	20/1	23	\sqcap^{\dagger}	T	24 5	DRYER, WOMEN LOCK. RM.			23	2	ک 24
25	D.O., CLEAN STORAGE	8			20/1	25	П	T	26)	HEAT RECOVERY	21			40	(26
27	D.O., E.W.C.		5		20/1	27	П	I	28 >	OUTDOOR UNIT		21		3	₹28
29	D.O., CLEAN STORAGE			8	20/1	29	\prod	T	30)	(HRODU) #1-16			21	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(30
31	D.O., CORRIDOR	10			20/1	31	П	I	32)		26			40	(32
33	D.O., MEN, WOM. CLEAN LOCK.		10		20/1	33		floor	34 >	OSAMU #1-16		26		3	₹ 34
35	D.O., EXT. SEC. REC.			7	20/1	35		T	36 🕽				26		(36
37	D.O., DIRTY LOCKER RMS.	10			20/1	37		I	38)		83			110	(38
39	D.O., PARTS AIR LOCK		7		20/1	39		\int	40 >	WATER HEATER		83		3	₹40
41	D.O., RESP. RM.			4	20/1	41			42)				83	1/	42

				Р	ANEL	. "F	" S	CH	HEDUL	.E					
SERVICE: 120/208V., 3Ø, 4W. CONDUCTOR COLOR CODE LOAD										M. L. O. BUS RATING 100A					
INTER	MINIMUM CIRCUIT BREAKER INTERRUPTING CAPACITY: LEG 1 - BLACK LEG 2 - RED 15 LEG 3 - BLUE GROUND - GREEN GROUNDED							SEPARATE GROUNDING BAR: 35%							
вотт	EL MAY BE TOP OR TOM FEED AT TRACTORS OPTION				NEUTRAL - V	WHITE			I LUGS ONLY NDICATED		MAIN I <u>NA</u> SY			ating: <u>Na</u> ap.	
			LOAD		FUSE	POLE	123		_			LOAD	ı	FUSE	POLE
POLE NO.	SERVES		LEG		AMPS	NO.		POL NO		SERVES	1	LEG		AMPS	NO.
1	D.O. (GFCI) MECH. ENC.	1 -	2	3	POLES 20/1	1	$\ \cdot\ $	2	SPARE		1	2	3	POLES 20/1	2
3	QUAD. OUTLET, CLEAN STG.		5		20/1	3	┠┿┼┤	4	SPARE					20/1	4
5	QUAD. OUTLET, CLEAN STG.		 	5	20/1	5	┞┼┿┤	6	SPARE					20/1	6
7	D.O. JAN. 6	5		_ <u> </u>	20/1	7	╎	1 8	SPACE					20/1	8
9	SUMP PUMP		10		30/1	9	┞┿┼┤	10						20/1	10
11	EXH. FANS 3 & 4-16			1	20/1	11	Ĭ	12	SPACE				-	20/1	12
13	D.O. HOT DESK ENTRY	7			20/1	13	∐	14	SPACE		-			20/1	14
15	SPACE		-		20/1	15		16	SPACE			-		20/1	16
17	HEAT TRACE CKT			2	20/1	17		18	SPACE				-	20/1	18
19	SPACE	-			20/1	19		20	SPACE		-			20/1	20
21	SPACE		-		20/1	21		22	SPACE			-		20/1	22
23	SPACE			-	20/1	23		24	SPACE				-	20/1	24
25	SPACE	-			20/1	25		26	SPACE		-			20/1	26
27	SPACE		-		20/1	27		28	SPACE			-		20/1	28
29	SPACE			-	20/1	29		30	SPACE				-	20/1	30



DYESS Air Force Base **TEXAS**

APPROVED	
SIGNATURE	OFFICE
COORDINATION	
	_



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer		Project Manager				
LGT			LGT			
Drafter		Date				
BDW		21	OCT 16			
REVIS	ION		BY/DATE			
SHEET TITLE						
SC		NEL DULES	6			

E-3.1

PROJECT TITLE
REPAIR Prepared for:
7th CES/CENM
710 THIRD ST
BLD 8006 OFFICE 210
DYESS AFB, TX 79607

PROJECT NUMBER

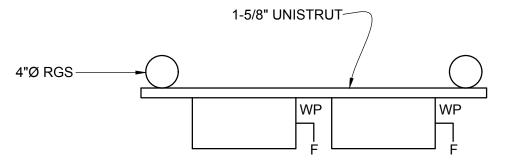
12. 2052

WTA, INC. CONSULTING ENGINEERS

WTA-16016

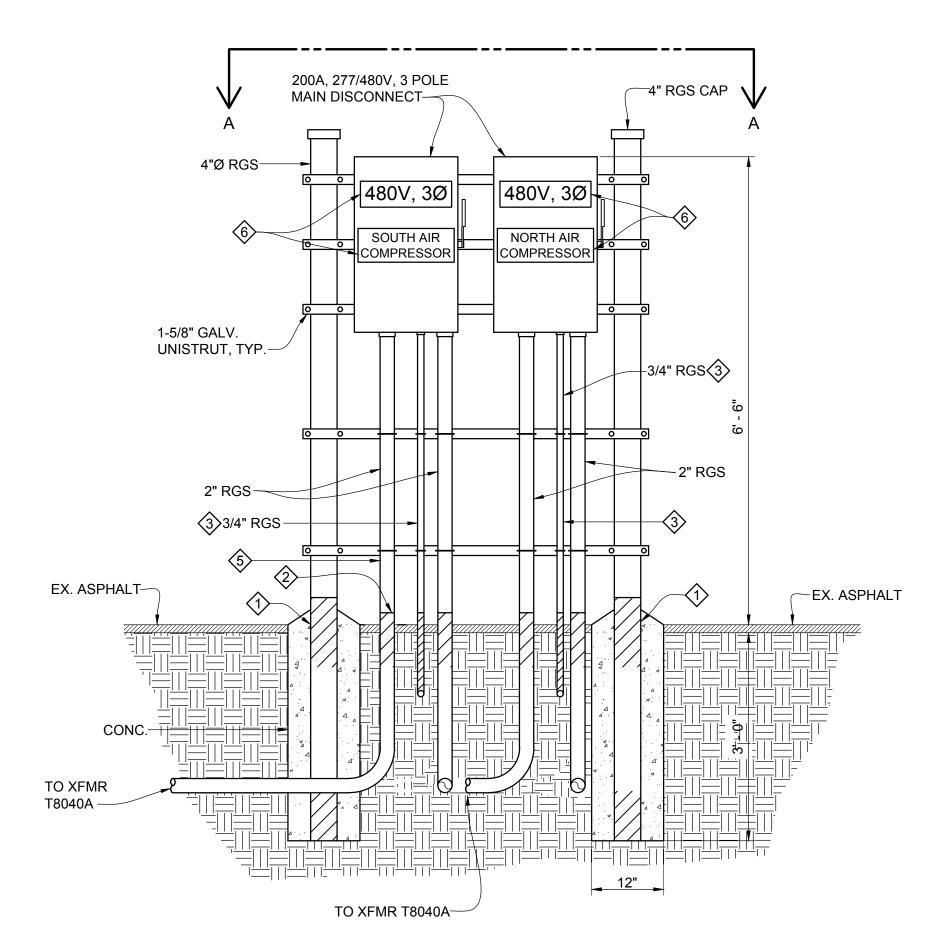
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SEQUENCE NUMBER FNWZ 12-0053



SECTION "A - A" (PLAN) **DISCONNECT MOUNTING**

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

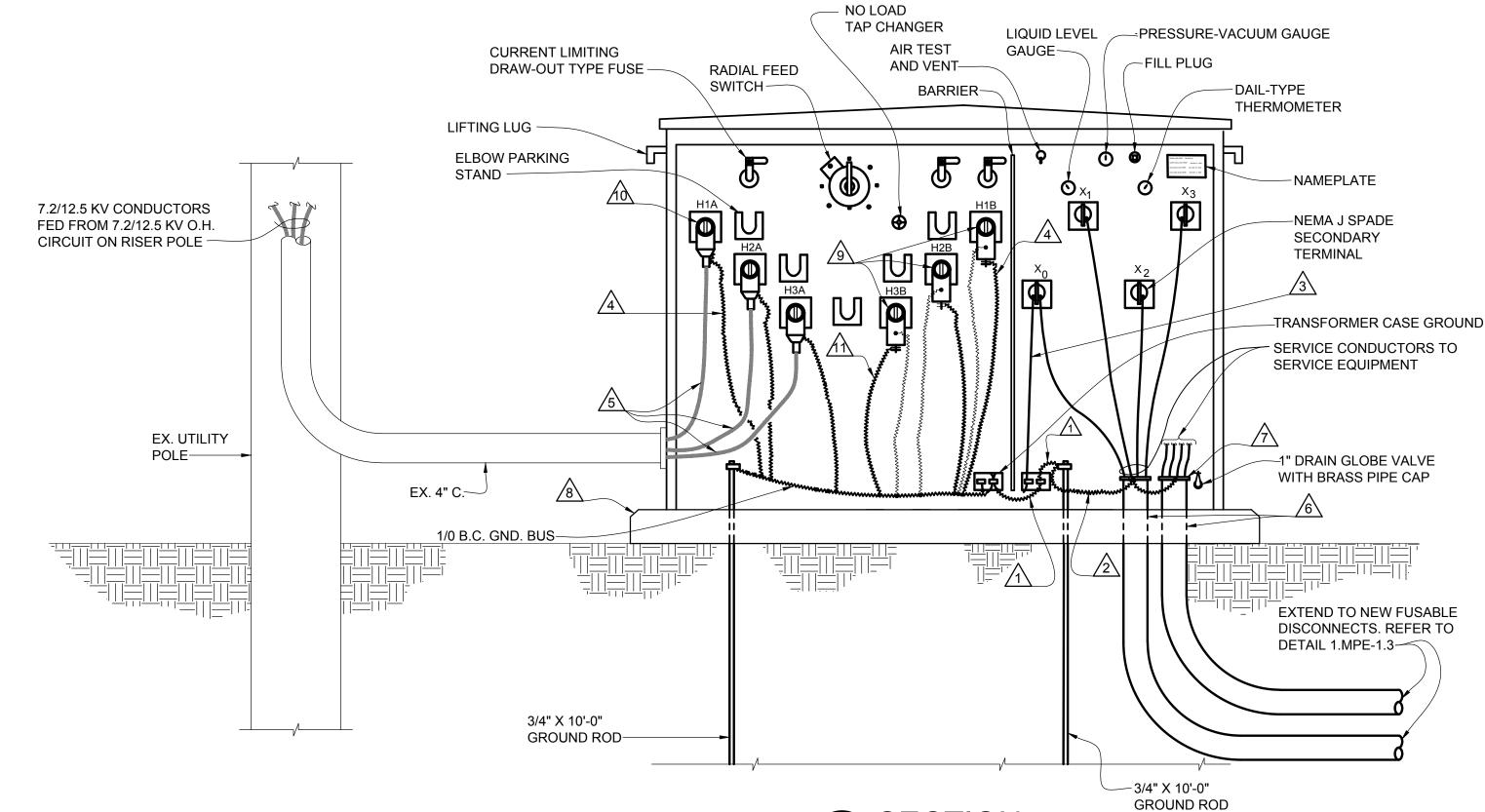




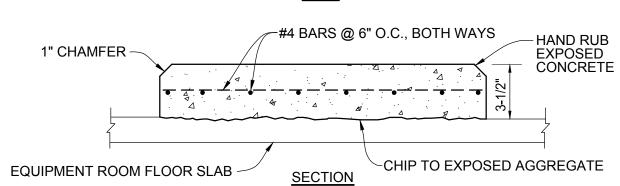
SCALE: 3/4" = 1' - 0"

NOTES INDICATED BY NUMBER IN \diamondsuit :

- 1. PROVIDE HALF-LAPPED WRAP OF 2" ELECTRICAL TAPE OR PLASTIC PIPE WRAPPING TAPE FOR THE BURIED PORTION OF RGS STANCHIONS.
- 2. PROVIDE HALF-LAPPED WRAP OF 2" ELECTRICAL TAPE OR PLASTIC PIPE WRAPPING TAPE FOR ENTIRE LENGTH OF BURIED RGS CONDUIT PLUS 2" ABOVE GRADE, TYPICAL.
- 3. 3/4" RGS WITH GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD. REFER TO "ELECTRICAL RISER DIAGRAM", SH. E-6.0.
- 4. ALL UNISTRUT, CONDUIT AND PANELS SHALL BE PAINTED AS SPECIFIED IN SECTION 09 90 00 PAINTS AND COATINGS.
- 5. ALL EXPOSED GALVANIZED MATERIALS SHOWN ON THIS DETAIL SHALL BE ETCHED AND PAINTED. PAINT COLOR SHALL BE DAFB'S STANDARD EXTERIOR FINISH COLOR.
- 6. IDENTIFICATION SIGNS FOR DISCONNECTS. SIGNS SHALL BE DESIGNED AND PRINTED BY A PROFESSIONAL SIGN COMPANY. SIGN MATERIAL SHALL BE SELF-ADHEARING, NON FADE VINYL, SUITABLE FOR OUTDOOR INSTALLATION. SIGNS SHALL HAVE BLACK LETTERS ON YELLOW BACKGROUND.



W+12 W -EQUIPMENT "FOOTPRINT"-<u>PLAN</u>



- 1. L IS THE OVERALL LENGTH OF THE EQUIPMENT
- 2. W IS THE OVERALL WIDTH OF THE EQUIPMENT.
- 3. CONCRETE SHALL BE NOT LESS THAN 2,500 PSI @ 28 DAYS.
- 4. HORIZONTAL SURFACES SHALL BE TAMPED AND SCREEDED TO A TRUE SURFACE (TAKING CARE TO FILL ALL LOW SPOTS) AND STEEL TROWELED TO A HARD SLATE-LIKE SURFACE. THE PAD SHALL NOT BE MARKED OFF IN AREAS OF SCORED, BUT SHALL BE LEFT IN ONE PLAIN SURFACE.
- 5. ALL VERTICAL SURFACES SHALL HAVE A RUBBED FINISH.
- 6. ALL EXPOSED EDGES SHALL BE CHAMFERED 1".
- 7. WHERE ONE EDGE OF PAD IS LOCATED ADJACENT TO A WALL OR OTHER CONSTRUCTION PROVIDE 1" THICK PREMOLDED EXPANSION JOINT FILLER BETWEEN THE PAD AND THE ADJACENT CONSTRUCTION AND DO NOT CHAMFER THE EDGE ADJACENT TO THE EXPANSION JOINT FILLER.
- 8. All REINFORCING BARS SHALL BE COVERED WITH NOT LESS THAN 1-1/2" OF CONCRETE.
- 9. THIS DETAIL IS TYPICAL FOR MISCELLANEOUS FLOOR-SUPPORTED EQUIPMENT FOR WHICH NO SPECIFIC DETAIL IS PROVIDED

1 SECTION RADIAL FEED TYPE PAD **MOUNTED TRANSFORMER** SCALE: NONE

NOTES INDICATED BY NUMBER IN

- 1. #2 GROUNDING CONDUCTOR.
- 2. #6 B.C. GROUNDING CONDUCTOR.
- 3. CONNECT CABLE CONCENTRIC NEUTRAL TO GROUND BUS.
- 4. CONNECT 1-#14 SOLID CONDUCTOR TO THE "TYE-OFF" EYE IN THE ELBOW. EXTEND THE #14 CONDUCTOR TO THE 1/0 GND. BUS GROUNDING CONDUCTOR AND BOND TO SAID 1/0 BUS. TYPICAL FOR ALL ELBOW CONNECTORS.
- 5. EXISTING 15 KV CABLE(S) WHICH SERVED THE EXISTING TRANSFORMER. MAINTAIN AND RE-TRAIN EXISTING CABLE AS REQUIRED TO SERVE NEW TRANSFORMER.
- 6. MODIFY EXISTING PAD AS REQUIRED FOR INSTALLATION OF NEW CONDUITS.
- 7. INSULATED GROUNDING BUSHING, TYPICAL. SEAL ALL CONDUIT OPENINGS WITH REMOVABLE, NON-HARDENING COMPOUND ("AIR-SEAL" OR EQUAL). ALL BUSHINGS SHALL BE MALLEABLE IRON WITH MECHANICALLY GALVANIZED FINISH AND MOLDED-ON PHENOLIC INSULATION.
- 8. RE-USE EXISTING CONC. TRANSFORMER PAD.
- 9. ELBOW TYPE LIGHTNING ARRESTER ON HIGH VOLTAGE UNIVERSAL BUSHING. ARRESTER SHALL BE RATED FOR 7.65 KV MAXIMUM CONTINUOUS OPERATING VOLTAGE MCOV; HUBBELL CAT. NO. 215ELA09 OR APPROVED EQUAL.

WTA, INC.

CONSULTING ENGINEERS

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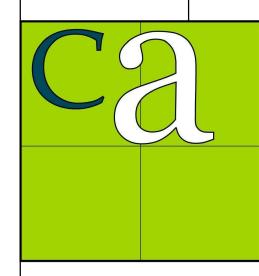
WTA-16016

- 10. PROVIDE 200A, 15KV ELBOW TERMINATOR ON HIGH VOLTAGE UNIVERSAL BUSHING(S).
- 11. CONNECT #4 STRANDED BARE COPPER JUMPER TO THE ARRESTER'S #4 STRANDED LEAD. EXTEND JUMPER TO GROUND BUS AND CONNECT.



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COORDINATION	



Castillo Architects 981 Southpark Dr. Littleton, Colorado [303] 698.1717

Designer	Project N	/lanager
LGT		LGT
Drafter	Date	
BDW	21	OCT 16
REVISION		BY/DATE

SHEET TITLE

DETAILS

E-4.0

PROJECT TITLE REPAIR **MAINTENANCE** BLD 8006 OFFICE 210 SHOP, BLDG. 8040 PROJECT NUMBER

SEQUENCE NUMBER FNWZ 12-0053

Prepared for: 7th CES/CENM 710 THIRD ST LLOYD GARLAND TURNER DYESS AFB, TX 79607



